

12 Eranskinak
Egiturak

Markina - Berriatuan, BI-633 errepidearen hobekuntza proiektua, 52+200 P.K-tik 54+000 P.K-ra.

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Anejo nº 12
Estructuras

Proyecto de mejora de la carretera BI-633 del P.K. 52+200 al P.K. 54+000, en Markina - Berriatua.

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dair IP ingeplan

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1. INTRODUCCIÓN

El objeto del presente Anejo es la descripción de los cálculos que han dado lugar a la completa definición de todos los elementos integrantes de las diferentes obras de fábrica que se incluyen en el “Proyecto de Mejora de la carretera BI-633 del P.K. 52+200 al P.K.54+000, en Markina - Berriatua.”.

Las estructuras proyectadas son las siguientes:

- Ampliación del puente de Plazakola sobre el río Artibai

- Estructuras de losa en voladizo

- Muros

- Sostenimientos de los desmontes proyectados.

2. AMPLIACIÓN DEL PUENTE DE PLAZAKOLA SOBRE EL RÍO ARTIBAI

Está prevista la ampliación del puente sobre el río Artibai, mediante la cual se mejora el trazado actual de la carretera, ya que se rectifica la curva existente a la salida del mismo, que es de radio reducido, y se dota de un mayor ancho de calzada, mejorando así las condiciones del tramo en la medida de lo posible.

Actualmente la estructura se encuentra entre el P.K. 1+824 y el P.K. 1+850 de la carretera BI-633 y la calzada es de 6 metros de ancho, no dispone de arcenes, ni de sistemas de contención adecuados.

El puente es de fábrica en el que se mezcla la piedra original con otros añadidos posteriores de hormigón en masa. El puente existente tiene una forma irregular en planta y en alzado, presentando dos arcos mayores y uno menor en uno de sus laterales.

La estructura correspondiente a la ampliación consta de un tablero mixto, de losa de hormigón de 25 cm y vigas armadas metálicas. Está compuesta por dos vanos, el primero conformado por dos vigas de 11 m de luz aproximadamente y un segundo vano, de unos 21 m de luz aproximadamente, conformado por tres vigas, que se van abriendo en planta para conseguir el ancho de tablero necesario.

La tipología de las vigas metálicas es de viga metálica armada, con un espesor de alma de 25 mm y de alas de 30 mm. El ancho de estas es de 0,50 m y el canto, variable entre 0,80 m y 1,00 m. Sobre estas vigas se apoyarán las sucesivas prelosas, sobre las que se hormigonará la losa definitiva. Las vigas que conforman el tablero, se empotran tanto en los estribos como en la pila, mediante unas chapas y barras de anclaje.

El apoyo de la nueva estructura se realiza mediante zapatas sobre roca en la pila y en el estribo 2, el estribo 1 se cimenta mediante micropilotes.

La pila consta de un fuste de espesor variable entre 1,5 m y 1,85 m.

En el *Apéndice nº 12.1 Cálculos estructurales de la ampliación del puente,* se incluye la memoria descriptiva de la nota de cálculo, así como el anejo numérico y gráfico.

3. ESTRUCTURAS DE LOSAS EN VOLADIZO

En el P.K. 1+800 aproximadamente, un canal de agua de sección variable con arco de medio punto y estructura en piedra, cruza bajo la calzada existente, atravesándola para conducir el agua desde la presa situada en la margen derecha de la BI-633 hasta la minicentral hidroeléctrica situada en la margen izquierda. Tiene aproximadamente un recubrimiento de 2m, medido desde rasante de calzada existente a cota superior de clave.

Para salvar este cruce sin afectar la estructura del canal, combinado con el aumento de sección transversal que se produce en ambas márgenes en esta zona, se proyectan dos estructuras formada por losas en voladizo con contrapeso de hormigón armado in situ micropilotadas, entre el P.K. 1+775 y el P.K. 1+815 de la carretera BI-633.

Ambos voladizos se han diseñado independientes para que sea posible su ejecución en dos fases manteniendo abierto al tráfico uno de los carriles. Así mismo el diseño se ha realizado de forma que se asegura que no es necesario que los micropilotes entren en tracción para asegurar la estabilidad de la estructura.

Con el objetivo de evitar la aparición de grietas en la calzada se ha previsto que junto a las dos estructuras el firme disponga de una losa de hormigón armado apoyada en el terreno bajo las mezclas bituminosas. Dichas losas se unirán con pasadores en sus juntas y también en las juntas con las estructuras. Estos pasadores únicamente tienen el objetivo de ayudar a que no se produzcan movimientos relativos que reflejen las juntas en la superficie del firme. Es decir no tienen una función estructural.

4. MUROS

REFUERZO DE MURO EXISTENTE

En el P.K. 1+280, en la margen derecha de la BI-633, se proyecta el refuerzo de un muro de mampostería existente, sobre el que actualmente se apoya la carretera existente. Su estado de conservación no es bueno, por lo que se procederá a reforzarlo mediante gunita, anclajes y carriles perforados.

MURO MENSULA

A continuación de la estructura en voladizo en la margen izquierda, se proyecta un muro ménsula de hormigón armado, de unos 20 m de longitud, para salvar el desnivel entre la rasante futura y el terreno.

Este muro va desde el P.K. 1+000 del eje B de la Intersección BI-2405 al P.K. 1+020 del mismo eje. En esta zona la plataforma de la calzada se amplía considerablemente respecto de la actual, debido al carril central dispuesto en la intersección, así como por la creación de un sobreancho para crear la acera-resguardo como itinerario peatonal entre las paradas de autobús.

5. SOSTENIMIENTOS DE LOS DESMONTES PROYECTADOS

El estudio geológico realizado de los taludes a ejecutar, e incluido en el Anejo nº6: Geología y Geotecnia, determina los taludes estables de los desmontes a ejecutar.

En dicho anejo, a pesar de considerarse estables, para algunos taludes se recomiendan medidas de protección pasivas. Estas medidas consisten en mallas de triple torsión cuya finalidad es frenar la hipotética caída de pequeños bloques a la carretera. Así mismo, se describen las medidas de sostenimiento a aplicar en los taludes que no son estables por sí mismos.

5.1. DISEÑO DE SOSTENIMIENTOS

Para el diseño de los sostenimientos se han tenido en cuenta las pautas establecidas en el anejo geotécnico. Además también se ha tenido en cuenta la conveniencia de adoptar medidas de cara a proteger los taludes ante la erosión por escorrentía superficial, evitar la salida de finos y facilitar la revegetación. De esta forma se han diseñado los sostenimientos tipo resumidos en la siguiente tabla:

SOSTENIMIENTO	DESCRIPCIÓN	TENSIÓN APLICADA DE SOSTENIMIENTO
Tipo 1	Malla de triple torsión del tipo 6x8-2,20 mm unida a una geomalla antierosión en fase de fabricación	0 Ton/m^2
Tipo 2	Malla de triple torsión del tipo 5x7-13 (2 mm)	0 Ton/m^2
Tipo 3	Malla de triple torsión del tipo 5x7-13 (2 mm) y anclajes monobarra Φ=32mm en cuadrícula de 4,0 m: Fuerza de tesado=22,5 Ton; Longitud libre=5 m; Longitud bulbo= 3m; Inclinación=18°	1,40 Ton/m^2
Tipo 4	Malla de triple torsión del tipo 5x7-13 (2 mm) y anclajes monobarra Φ=32mm en cuadrícula de 4,0 m: Fuerza de tesado=22,5 Ton; Longitud libre=5 m; Longitud bulbo= 3m; Inclinación=27°	1,40 Ton/m^2
Tipo 5	Malla de triple torsión del tipo 5x7-13 (2 mm) y anclajes monobarra Φ=32mm en cuadrícula de 3,5 m: Fuerza de tesado=22,5 Ton; Longitud libre=5 m; Longitud bulbo= 3m; Inclinación=20°	1,83 Ton/m^2
Tipo 6	Red de cables sobre malla de triple torsión del tipo 5x7-13 (2 mm y anclajes monobarra Φ=32 mm en cuadrícula de 3,0 m: Fuerza de tesado=22,5 Ton; Longitud libre=5 m; Longitud bulbo= 3m; Inclinación=15°	2,5 Ton/m^2

En la siguiente tabla se resumen los taludes proyectados y los sostenimientos tipo asignados a cada tramo. Para los tipos de sostenimiento que incluyen anclajes activos se ha realizado una estimación del área de talud en el que será necesario aplicarlos.

DESMONTE	PPKK. TRAMO	TIPO DE MATERIAL	INCLINACIÓN DE TALUD	SOSTENIMIENTO
D1.I	De 1+000 a 1+110	Suelos	3H:2V	Tipo 1
D2.I	De 1+110 a 1+140	Suelos	3H:2V	Tipo 1
	De 1+140 a 1+210	Suelos	1H:1V	Tipo 1
	De 1+210 a 1+370	Roca	1H:1V	Tipo 2
	De 1+370 a 1+560	Suelos	3H:2V	Tipo 1
D3.I	De 1+620 a 1+735	Suelos en 1,5m superior	1,5 m superior: 1H:1V A partir de 1,5 m: 1H:2V	Tipo 4 (se estima con anclajes el 50%del área de los 6,0 metros superiores) (2)
	1+055 a 1+040 eje A	Suelos en 1,5m superior	1,5 m superior: 1H:1V A partir de 1,5 m: 1H:2V	Tipo 6 (se estima con anclajes el 100% del área del talud)
	1+040 a 1+025 eje A	Roca	Morro de roca existente	Tipo 6 (se estima con anclajes el 100% del área del talud)
D4.D	De 2+040 a 2+160(1)	Suelos en 1,0m superior	1 m superior: 1H:1V A partir de 1m: 1H:2V	Tipo 5 (se estima con anclajes el 25% del área del talud) (2)
	De 2+160 a 2+280(1)	Suelos en 1,0m superior	1 m superior: 1H:1V A partir de 1m: 1H:2V	Tipo 5 (se estima con anclajes el 50% del área del talud) (2)
	De 2+280 a 2+340	Suelos en 1,0m superior	1 m superior: 3H:2V A partir de 1m: 1H:2V	Tipo 5 (se estima con anclajes el 50% del área del talud) (2)
	De 2+340 a 2+360	Suelos en 1,0m superior	1 m superior: 3H:2V A partir de 1m: 1H:1V	Tipo 2
D5.D	De 2+360 a 2+380	Suelos en 1,0m superior	1 m superior: 3H:2V A partir de 1m: 1H:1V	Tipo 2
	De 2+380 a 2+470	Suelos en 1,0m superior	1 m superior: 3H:2V A partir de 1m: 2H:3V	Tipo 3 (se estima con anclajes el 50% del área del talud) (2)
D6.I	De 2+340 a 2+380	Suelos en 1,0m superior	1 m superior: 3H:2V A partir de 1m: 1H:1V	Tipo 2
D7.I	De 2+450 a 2+510	Suelos en 1,0m superior	1 m superior: 3H:2V A partir de 1m: 2H:3V	Tipo 3 (se estima con anclajes el 50% del área del talud) (2)

(1) Entre el P.K. 2+120 y el P.K:2+200 se realizará una transición del metro superior hasta alcanzar la cabeza, ampliando en 2,0 m adicionales la colocación de la malla de triple torsión.

(2) Según el estudio geotécnico los taludes recomendados no requieren de ejecución de anclajes de forma sistemática. Pero se deberá contemplar un porcentaje de superficie con anclajes para sostenimiento de posibles cuñas o roturas planas puntuales que se puedan producir por variaciones en la estructura.

5.2. DISEÑO DE MALLAS DE TRIPLE TORSIÓN

En los taludes en suelos con inclinación 1H:1V y en los taludes con inclinación 3H:2V, aunque el informe geotécnico en éste último no recomienda disponer malla, se propone disponer en los taludes con estas dos inclinaciones de 45º y 33º, una malla de triple torsión convencional unida a una geomalla antierosión en fase de fabricación del tipo 6x8-2,20 mm,, con el fin de evitar la erosión por escorrentía superficial, y los posibles pequeños desprendimientos. De esta forma se tiene por un lado la protección que da la propia malla metálica y por otro lado la geomalla evita la salida de finos y facilita la revegetación. Las razones por las que se propone que la geomalla debe disponerse en fase de fabricación son que se favorece la puesta en obra de los dos productos en una única instalación y se evita el desgarro que suele producirse en geomallas colocadas. Las características de este tipo de malla son las siguientes:

Tipo de malla	Diámetro del alambre (mm)	Masa por unidad de área del polímero (gr/m^2)	Resistencia a la tracción nominal de la malla (kN/m)
6x8	2,20	500	37 (±3)

En el resto de taludes excavados en roca, con inclinación 2H:3V y 1H:2V, con el fin de evitar la posible caída de pequeños bloques a la carretera y para controlar los posibles chineos provocados por la excesiva fracturación que pueda tener la roca, tal y como se ha observado que se está produciendo en los taludes recientemente ejecutados en el tramo anterior de mejora de la carretera BI-633, se propone una malla de triple torsión convencional del tipo 5x7-13 (2 mm), que es la malla de menor abertura que se recoge en la Norma EN 10223-3:2013 para sostenimiento de taludes. Las características de este tipo de malla son las siguientes:

Tipo de malla	Diámetro del alambre (mm)	Espesor mínimo de recubrimiento (gr/m^2)	Resistencia a la tracción nominal de la malla (kN/m)
5x7-13	2,00	215	40 (±3)

En el Apéndice nº12.4, se incluyen los cálculos justificativos del dimensionamiento de estas mallas de triple torsión. En función de la inclinación del talud y del tipo de terreno, se comprueba que, para el tipo de malla elegido, con el diámetro y la cuadrícula óptimos de disposición de las piquetas, se cumple la resistencia de la malla a través del Estado Límite Último (ELU) y la aptitud para el servicio de la misma a través del Estado Límite de Servicio (ELS), de manera que la deformación calculada sea menor que la deformación máxima.

A continuación se incluye un cuadro resumen de los resultados obtenidos en los cálculos realizados:

Ángulo talud	Diámetro piquetas	Cuadrícula piquetas	Tipo de malla	ELU	ELS (FS=1)	
				calculado	Deform. cálculo	Deform.máx
63º (1H:2V)	20 mm	4x4 m	5x7-13 (2mm)	1,12	0,34 m	0,42 m
	16 mm	3x2 m	5x7-13 (2mm)	3,04	0,15 m	0,27 m
56º (2H:3V)	20 mm	4x4 m	5x7-13 (2mm)	1,07	0,30 m	0,43 m
	16 mm	3x2 m	5x7-13 (2mm)	3,16	0,14 m	0,27 m

Para la malla 5x7-13 (2mm), que es la que se considera más adecuada para el tipo de material de los desmontes proyectados, y para cada inclinación de talud en el tramo en estudio, se han calculado dos tipos de cuadrículas para diferentes diámetros de las piquetas, resultando la cuadrícula de 4x4 m con piqueta de 20 mm de diámetro, ser la disposición óptima en cuando al estado límite último, por el contrario, el utilizar cuadrícula de 3x2 m con piquetas de 16 mm de diámetro para el estado límite de servicio presenta deformaciones menores, por lo que decide adoptarse esta última disposición.

5.3. COMPROBACIÓN DE ANCLAJES

5.3.1. COMPROBACIÓN DE LA TENSIÓN ADMISIBLE DEL ACERO

En anclajes permanentes se deberá comprobar que:

$$P_{Nd} / A_T \leq f_{pk} / 1{,}30$$
$$P_{Nd} / A_T \leq f_{yk} / 1{,}15$$

Siendo: P_{Nd} = carga nominal mayorada de cada anclaje.
A_T = sección del tirante.
f_{pk} = límite de rotura del acero del tirante.
f_{yk} = límite elástico del acero del tirante.

Las características del acero que compone las barras de los anclajes son:

- Límite elástico $f_{yk} = 500\ MPa$
- Límite de rotura $f_{pk} = 550\ MPa$

Para un anclaje monobarra de 32 mm de diámetro y una carga nominal mayorada de 1,5 x 22,5 Ton = 33,75 Ton se obtiene:

$$\frac{A_T . f_{pk}}{P_{Nd}} = 1{,}36 \geq 1{,}30$$

$$\frac{A_T . f_{yk}}{P_{Nd}} = 1{,}23 \geq 1{,}15$$

5.3.2. COMPROBACIÓN DEL DESLIZAMIENTO DE LA LECHADA (BULBO)

Se deberá garantizar que:

$$P_{Nd} / (L_b \cdot p_T) \leq \tau_{lim} / 1,2$$

Con: $\tau_{lim} = 6,9 \, (f_{ck}/22,5)^{2/3}$

Siendo:
- P_{Nd} = carga nominal mayorada de cada anclaje.
- p_T = perímetro nominal del tirante = $2\sqrt{\pi \cdot A_T}$
- A_T = sección del tirante.
- L_b = longitud de cálculo del bulbo.
- τ_{lim} = adherencia límite entre el tirante y la lechada expresada en MPa.
- f_{ck} = resistencia característica (rotura a compresión a 28 días) de la lechada expresada en MPa.

En este caso, para una lechada de fck = 20 MPa se obtiene una adherencia límite de 6,37 MPa. Teniendo en cuenta que la longitud de bulbo es de 3,00 m en todos los casos, para un anclaje monobarra de 32 mm de diámetro y una carga nominal mayorada de 1,5 x 22,5 Ton = 33,75 Ton se obtiene:

$$\frac{L_b \cdot p_T \cdot \tau_{lim}}{P_{Nd}} = 5,7 \geq 1,2$$

Por lo tanto se cumple la comprobación.

5.3.3. COMPROBACIÓN FRENTE A ARRANCAMIENTO DE BULBO

Se deberá garantizar que:

$$P_{Nd} / (\pi \cdot D_N \cdot L_b) \leq a_{adm}$$

Siendo:
- P_{Nd} = carga nominal mayorada de cada anclaje.
- D_N = diámetro nominal del bulbo.
- L_b = longitud de cálculo del bulbo.
- a_{adm} = adherencia admisible frente al deslizamiento o arrancamiento del terreno que rodea el bulbo.

Se ha tomado una adherencia admisible de 0,4 MPa, tal y como se indica en el anejo geotécnico. Teniendo en cuenta que la longitud de bulbo es de 3,00 m en todos los casos, para una carga nominal mayorada de 1,5 x 22,5 Ton = 33,75 Ton y un diámetro nominal del bulbo de 105 mm se obtiene:

$$\frac{P_{Nd}}{\pi \cdot D_N \cdot L_b} = 0,34 \leq 0,40$$

Por lo tanto se cumple la comprobación.

APÉNDICE Nº 12.1

CÁLCULOS ESTRUCTURALES DE LA AMPLIACIÓN DEL PUENTE

AMPLIACIÓN PUENTE PLAZAKOLA

(NOTA DE CÁLCULO)

Marzo 2017

Información del Documento

Proyecto:	Ampliación Puente Plazakola	**Nº de Proyecto:**	16505
Jefe de Proyecto:	Domingo Lorenzo		
Fase:	Proyecto de Construcción	**Revisión:**	01
Preparado por:	Jose Ramón González Calvo	**Fecha de preparación:**	15-03-2017
Revisado por:	Domingo Lorenzo	**Fecha de revisión:**	15-03-2017
Verificado por:	Domingo Lorenzo	**Fecha de verificación:**	15-03-2017

Historial de Revisiones

Rev.	Fecha	Destinatario	Descripción	Nombre del fichero
01	15-03-2017	Dair	Inicial	Plazakola.pdf
02				
03				

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5. PROGRAMAS DE COMPUTADOR
6. RESULTADOS GRÁFICOS Y NUMÉRICOS

1. OBJETO

La presente Nota Técnica corresponde al dimensionamiento y análisis del tablero, estribos y pila, correspondientes a la ampliación del Puente de Plazakola.

2. DESCRIPCIÓN DE LA ESTRUCTURA

La estructura correspondiente a esta ampliación consta de un tablero mixto, de losa de hormigón de 25 cm y vigas armadas metálicas. Está compuesta por dos vanos, el primero conformado por dos vigas de 11 m de luz aproximadamente y un segundo vano, de unos 21 m de luz aproximadamente, conformado por tres vigas, que se van abriendo en planta para conseguir el ancho de tablero necesario.

La tipología de las vigas metálicas es de viga metálica armada, con un espesor de alma de 25 mm y de alas de 30 mm. El ancho de éstas es de 0.50 m y el canto, variable entre 0.80 m y 1.0 m. Sobre estas vigas se apoyarán las sucesivas prelosas, de 6 cm de espesor, sobre las que se hormigonará la losa definitiva. Los conectadores entre prelosas y losa tienen un diámetro de vástago del perno de 19 mm y una altura de 150 mm.

Por otro lado, estas vigas que conforman el tablero, se empotran tanto en los estribos como en la pila, mediante unas chapas y barras de anclaje, cuyas características se detallan en los planos correspondientes.

El estribo 1 consta de un muro principal, de 1.90 m de altura y 1 m de espesor constante, con un encepado de 0.80 m de canto, sobre micropilotes de 220 mm de diámetro, con camisa metálica de 168.3 x 12.5 mm.

La pila consta de un fuste de espesor variable entre 1.5 m y 1.85 m, cimentada sobre zapata de 5.00 x 3.80 x 1.20 m.

El estribo 2 consiste en un muro, de 0.80 m de espesor, que se recrece hasta 1.20 m en los 2.30 últimos metros en su entronque con el tablero, y que descansa sobre una zapata esviada, de 7.70 x 7.00 m y canto de 2.0 m. La altura del “fuste” es de 6.10 m aproximadamente.

3. ANÁLISIS

Para el análisis del tablero ampliado se ha realizado un modelo completo, del puente actual y de la ampliación propia, mediante el programa Sofistik, en el que se han considerado las fases a las que se somete la estructura, es decir, la fase inicial con la estructura actual, la construcción de la subestructura, es decir, estribos y pila, la parte metálica (vigas), el hormigonado de la losa, el fraguado de ésta y las posteriores sobrecargas actuantes, permanentes y variables.

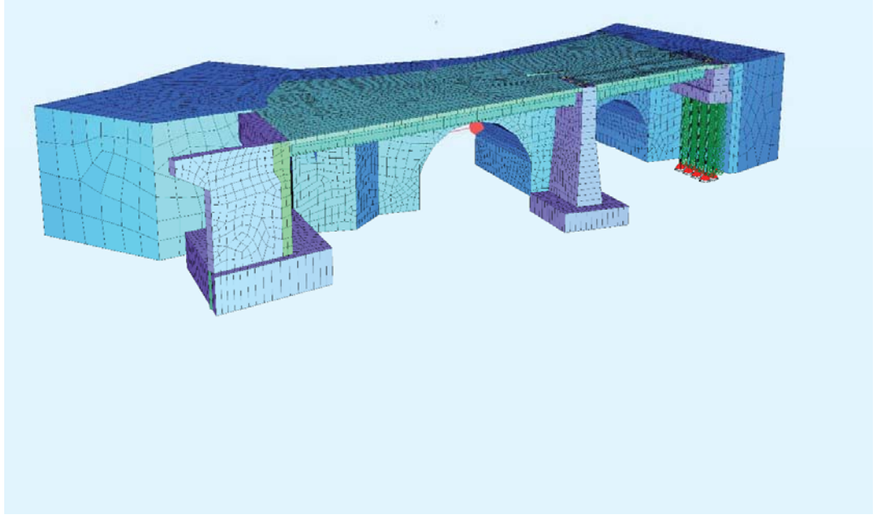
El puente actual se modeliza con elementos 3-D volumétricos. Las vigas metálicas se modelizan con elementos 1-D y la losa que gravita sobre ellas, mediante elementos 2-D.

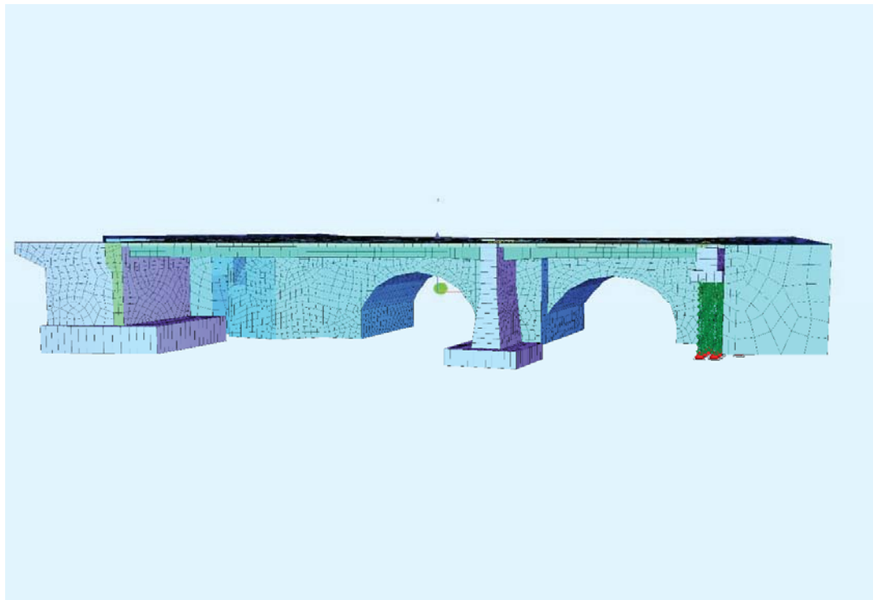
Respecto a la pila y estribos, también se modelizan mediante elementos 2-D y los micropilotes del estribo 1 mediante elementos 1-D.

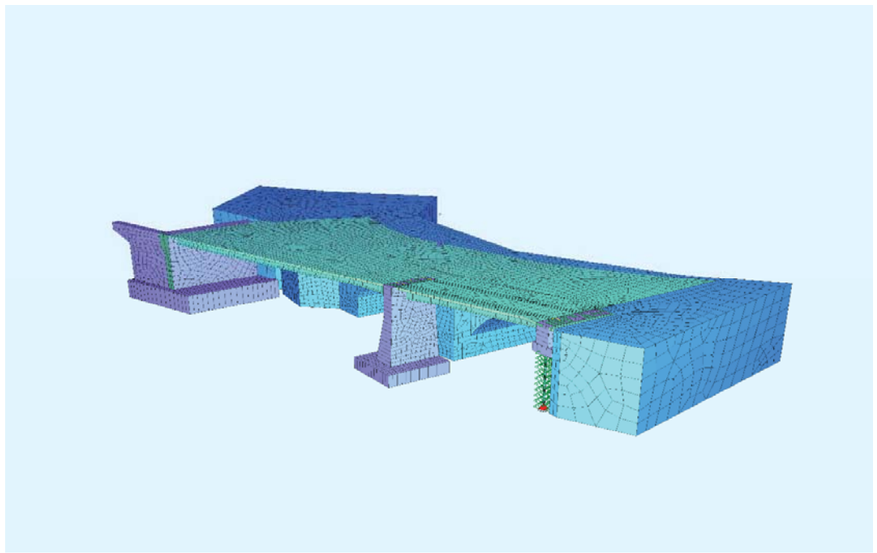
De este análisis se obtienen los esfuerzos, tensiones de Von Mises y coeficientes de utilización en E.L.U de las vigas metálicas, así como las armaduras de la losa, de los estribos y pila y las tensiones en el terreno.

El dimensionamiento de los anclajes de las vigas en el hormigón se realiza a partir de los resultados de esfuerzos en ELU en éstas, mediante el programa - hoja de cálculo Mathcad, así como los conectadores y las prelosas.

MODELO







4. CARACTERÍSTICAS DE LOS MATERIALES

Se han considerado los materiales indicadas en los planos de la estructura del proyecto original, a saber:

Hormigón

Hormigón de limpieza: HL-150/B/25

Hormigón de estribos y pila: HA-30/B/20/IIIa

Hormigón de losa: HA-35/B/20/IIIa

Acero

Acero pasivo: B 500 S

Acero estructural: S 355 J2

Acero en camisa de micropilotes: N 80 (ISO 11960) fyk > 560 N/mm2

Nivel de Control de Ejecución: INTENSO

Coeficientes de mayoración de acciones:

De acuerdo con IAP 11

Permanentes 1.35 ó 1.0

Permanentes de valor no constante: 1.50 ó 1.0

Variables:

Sobrecarga de uso 1.35 ó 0

Acciones climáticas 1.50 ó 0

5. PROGRAMAS DE COMPUTADOR

En el análisis y dimensionamiento se han utilizado los siguientes programas de computador:

- SOFISTIK
- MATHCAD 6.0

El programa SOFISTIK es un programa de cálculo general de estructuras mediante elementos finitos, que permite el análisis lineal o no lineal, estático o dinámico, de cualquier tipo de estructura constituida por elementos 1-D, 2-D ó 3-D. Admite la aplicación de todo tipo de cargas, calcula envolventes y permite las pertinentes combinaciones de acciones, de acuerdo con los estados límites, últimos o de servicio, establecidos en la normativa. Proporciona los resultados usuales de un programa de cálculo general de estructuras, es decir, esfuerzos, tensiones y desplazamientos, no sólo para cada caso de carga considerado, sino también para las combinaciones pésimas, tanto en ELU como en ELS. Así mismo permite el dimensionamiento y comprobación de los diferentes elementos constitutivos de la estructura, metálicos o de hormigón, según diferentes normas, entre ellas la Instrucción española EHE y el Eurocódigo.

El proceso general de cálculo de esfuerzos y tensiones que sigue este programa, proceso típico de cualquier programa de cálculo matricial de estructuras, consta de las siguientes etapas fundamentales:

PREPROCESO, en el que se especifican, por parte del usuario, los datos siguientes:

- - Tipos de elementos de que consta el modelo, de acuerdo con la discretización que se adopta.
- - Características mecánicas de cada elemento (áreas, inercias, espesores y constantes de deslizamiento, según el tipo de elemento).
- - Propiedades de los materiales (módulos de deformación, coeficientes de Poisson, densidades y coeficientes de dilatación térmica).
- - Geometría del modelo (nudos, elementos, acoplamientos de grados de libertad y condiciones de contorno).
- - Acciones (fuerzas, presiones, aceleraciones y variaciones de temperatura).

SOLUCIÓN: Fase en la que el programa sigue los pasos usuales, a saber:

- - Obtención de la matriz de rigidez de cada elemento.
- - Asignación de cargas en nudos, equivalentes a las acciones sobre elemento.
- - Ensamblaje de la matriz de rigidez global y vectores de carga para cada hipótesis considerada.
- - Modificación de las matrices por introducción de las condiciones de contorno.
- - Resolución, para cada hipótesis de carga, del sistema de ecuaciones mediante el método frontal, y obtención de los desplazamientos en los nudos.
- - Obtención de esfuerzos y tensiones a nivel de elemento.

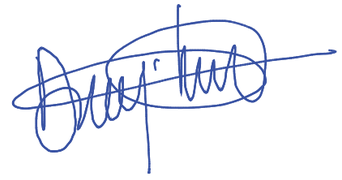
POSTPROCESO: Visualización de resultados en forma numérica o gráfica.

Por otra parte, tal como ya se ha indicado y descrito con detalle en el apartado anterior, el programa permite asimismo la obtención de envolventes de esfuerzos pésimos y las pertinentes combinaciones de acciones, según diferentes códigos y normativas, tanto en ELU como en ELS. A partir de estas combinaciones y de las correspondientes situaciones pésimas de cálculo, el programa permite comprobar, para la normativa elegida, el correcto dimensionamiento de los diferentes elementos estructurales. En el caso concreto que nos ocupa, comprueba el dimensionamiento de las secciones de hormigón, proporcionando las cuantías de las distintas armaduras que resultan necesarias

En cuanto al programa MATHCAD se trata, en realidad, de una combinación de programa-hoja de cálculo-procesador de textos, donde los análisis efectuados quedan totalmente explícitos, sin operaciones ocultas, por lo que equivalen a una presentación mecanografiada de un cálculo manual correctamente explicado.

Por SILGA:

Los Ingenieros de Caminos, Canales y Puertos



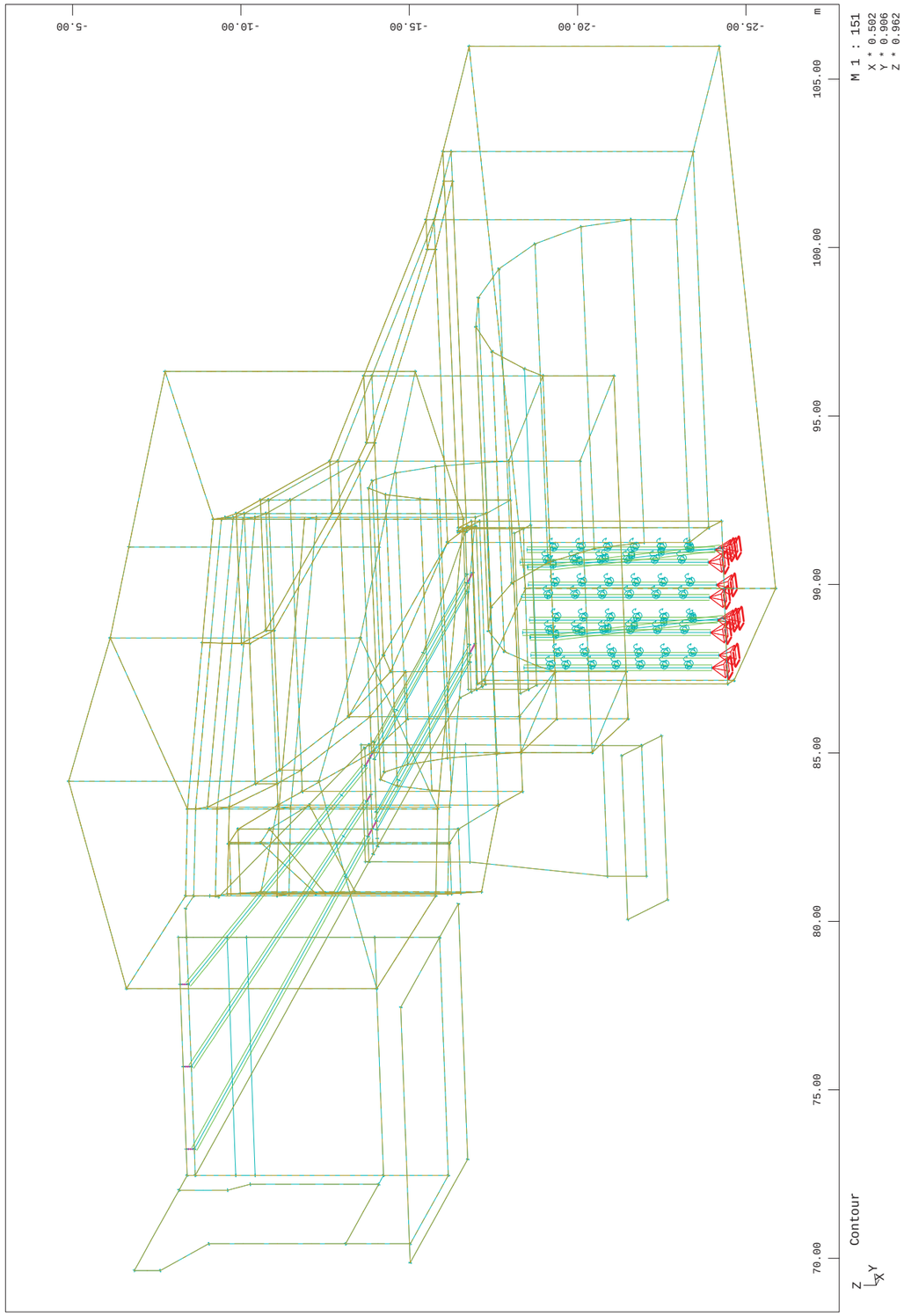
Fdo. Domingo Lorenzo Esperante

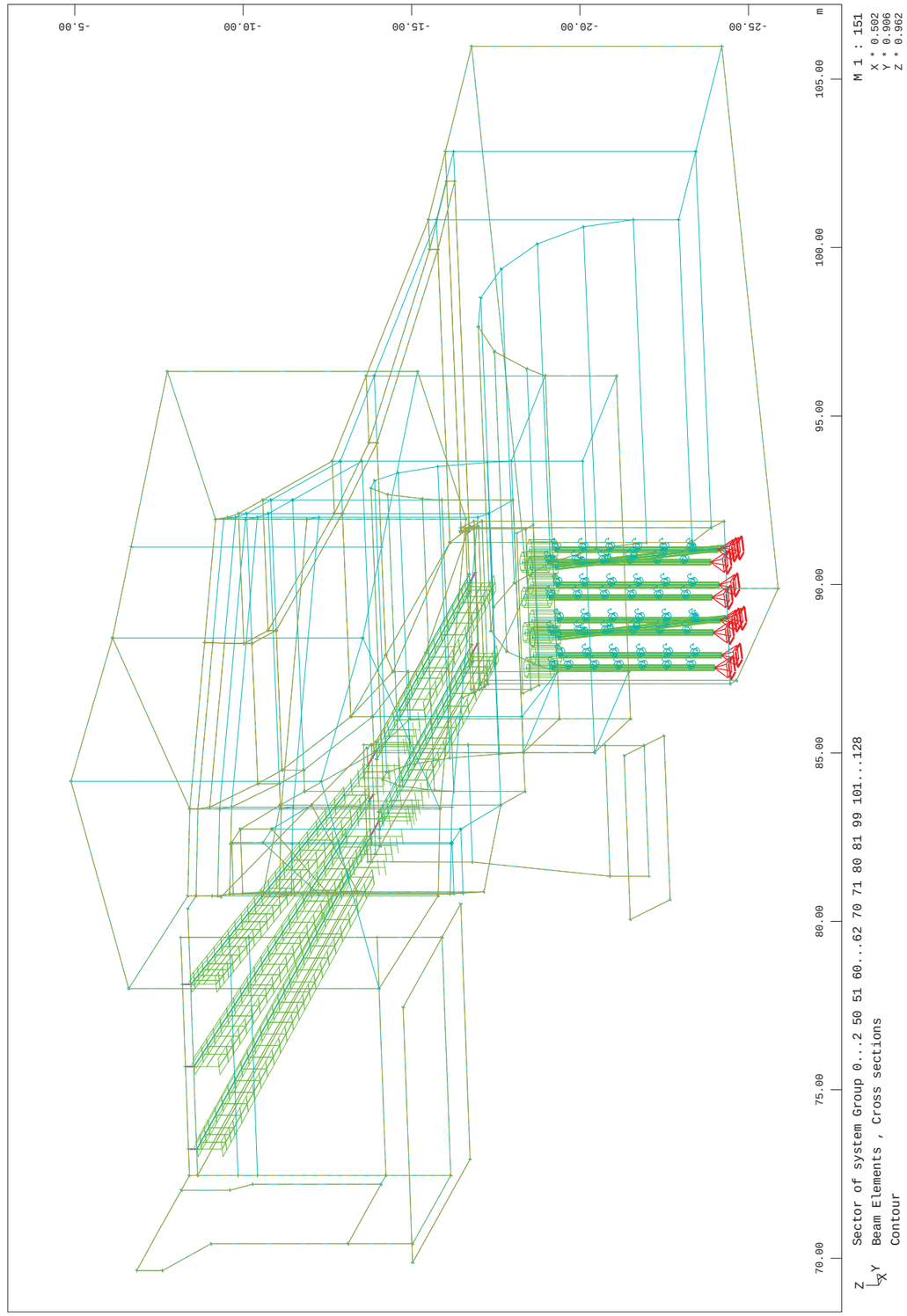


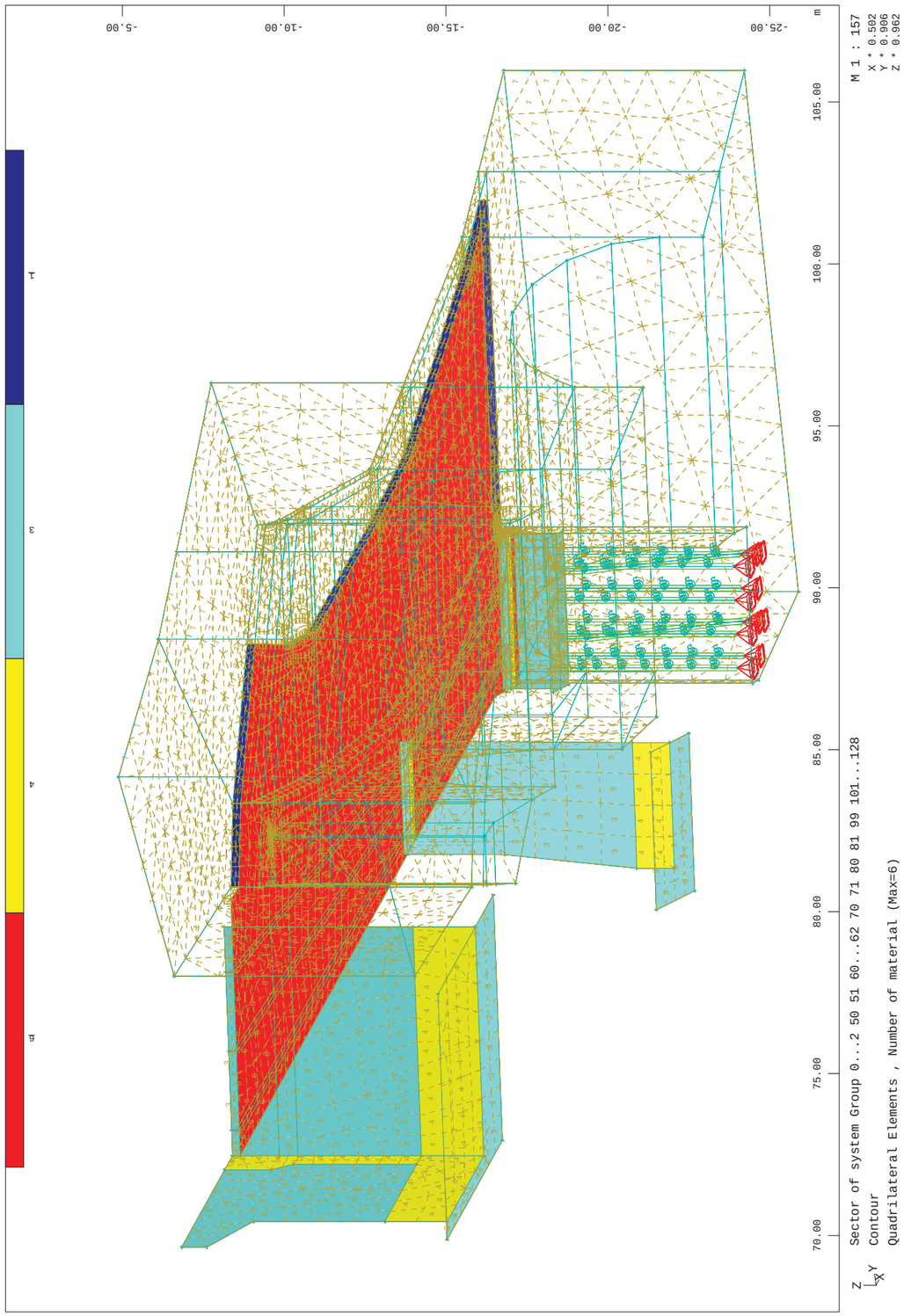
Fdo.: Jose Ramón González Calvo

6. RESULTADOS GRÁFICOS Y NUMÉRICOS

MODELO


-5.00
-10.00
-15.00
-20.00
-25.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
M 1 : 151
X * 0.502
Y * 0.906
Z * 0.962
Contour
Z
Y
X


-5.00
-10.00
-15.00
-20.00
-25.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
M 1 : 151
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99 101...128
Beam Elements , Cross sections
Contour
Z
Y
X


-5.00
-10.00
-15.00
-20.00
-25.00
m
M 1 : 157
X * 0.502
Y * 0.906
Z * 0.962
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99 101...128
Contour
Quadrilateral Elements , Number of material (Max=6)
Z
Y
X

MATERIALES Y SECCIONES

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Modelo 3D
Materials

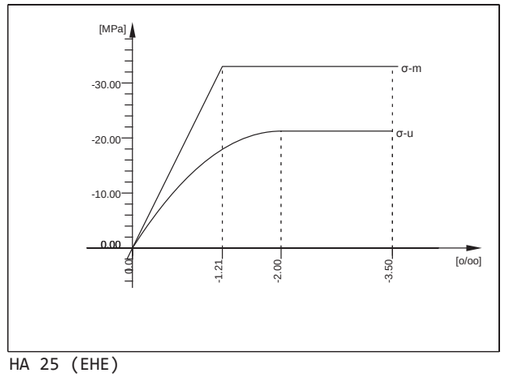
Default design code is EHE Instrucción de hormigòn estructural 2008 (Espagna) V 2016

Mat 1 HA 25 (EHE)

Young's modulus	E	27264	[MPa]	Safetyfactor		1.50	[-]
Poisson's ratio	μ	0.20	[-]	Strength	fc	21.25	[MPa]
Shear modulus	G	11360	[MPa]	Nominal strength	fck	25.00	[MPa]
Compression modulus	K	15147	[MPa]	Tensile strength	fctm	2.56	[MPa]
Weight	γ	25.0	[kN/m3]	Tensile strength	fctk,05	1.80	[MPa]
Density	ρ	2400.00	[kg/m3]	Tensile strength	fctk,95	3.33	[MPa]
Elongation coefficient	α	1.00E-05	[1/K]	Bond strength	fbd	2.69	[MPa]
				Service strength	fcm	33.00	[MPa]
				Fatigue strength	fcd,fat	12.75	[MPa]
				Tensile strength	fctd	1.20	[MPa]
				Tensile failure energy	Gf	0.14	[N/mm]

Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
Is also extended beyond the	0.000	0.00	27264
defined stress range	-1.210	-33.00	0
	-3.500	-33.00	0
	Safetyfactor		1.50

Stress-Strain for ultimate load	ε[o/oo]	σ-u[MPa]	E-t[MPa]
Is only valid within the defined	0.000	0.00	21250
stress range	-2.000	-21.25	0
	-3.500	-21.25	0
	Safetyfactor		1.50



HA 25 (EHE)

Mat 2 B 500 (EHE)

Young's modulus	E	200000	[MPa]	Safetyfactor		1.15	[-]
Poisson's ratio	μ	0.30	[-]	Yield stress	fy	500.00	[MPa]
Shear modulus	G	76923	[MPa]	Compressive yield	fyc	500.00	[MPa]
Compression modulus	K	166667	[MPa]	Tensile strength	ft	550.00	[MPa]
Weight	γ	78.5	[kN/m3]	Compressive strength	fc	550.00	[MPa]
Density	ρ	7850.00	[kg/m3]	Ultimate strain		50.00	[o/oo]
Elongation coefficient	α	1.20E-05	[1/K]	relative bond coeff.		1.00	[-]
max. thickness	t-max	32.00	[mm]	EN 1992 bond coeff.	k1	0.80	[-]
				Hardening modulus	Eh	0.00	[MPa]
				Proportional limit	fp	500.00	[MPa]
				Dynamic allowance	σ-dyn	150.00	[MPa]

Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
Is also extended beyond the	1000.000	550.00	0
defined stress range	50.000	550.00	0
	2.500	500.00	1053

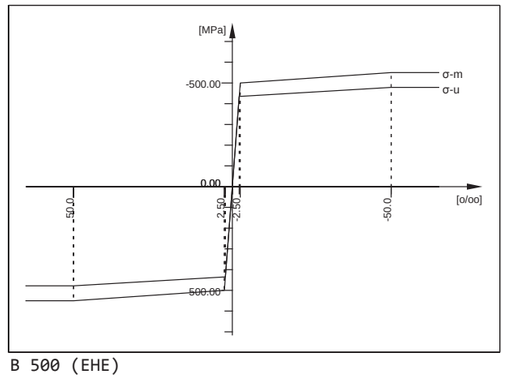
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Modelo 3D
Materials

Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
	0.000	0.00	200000
	-2.500	-500.00	1053
	-50.000	-550.00	0
	-1000.000	-550.00	0
	Safetyfactor		1.15

Stress-Strain for ultimate load	ε[o/oo]	σ-u[MPa]	E-t[MPa]
Is also extended beyond the	1000.000	478.26	0
defined stress range	50.000	478.26	0
	2.174	434.78	909
	0.000	0.00	200000
	-2.174	-434.78	909
	-50.000	-478.26	0
	-1000.000	-478.26	0
	Safetyfactor		(1.15)



B 500 (EHE)

Mat 3 HA 30 (EHE)

Young's modulus	E	28580	[MPa]	Safetyfactor		1.50	[-]
Poisson's ratio	μ	0.20	[-]	Strength	fc	25.50	[MPa]
Shear modulus	G	11910	[MPa]	Nominal strength	fck	30.00	[MPa]
Compression modulus	K	15880	[MPa]	Tensile strength	fctm	2.90	[MPa]
Weight	γ	25.0	[kN/m3]	Tensile strength	fctk,05	2.03	[MPa]
Density	ρ	2400.00	[kg/m3]	Tensile strength	fctk,95	3.77	[MPa]
Elongation coefficient	α	1.00E-05	[1/K]	Bond strength	fbd	3.04	[MPa]
				Service strength	fcm	38.00	[MPa]
				Fatigue strength	fcd,fat	14.96	[MPa]
				Tensile strength	fctd	1.35	[MPa]
				Tensile failure energy	Gf	0.14	[N/mm]

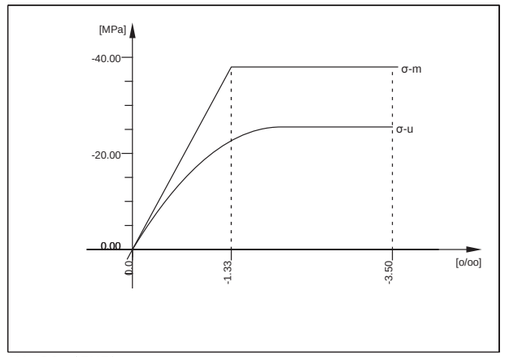
Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
Is also extended beyond the	0.000	0.00	28577
defined stress range	-1.330	-38.00	0
	-3.500	-38.00	0
	Safetyfactor		1.50

Stress-Strain for ultimate load	ε[o/oo]	σ-u[MPa]	E-t[MPa]
Is only valid within the defined	0.000	0.00	25500
stress range	-2.000	-25.50	0
	-3.500	-25.50	0
	Safetyfactor		1.50

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Modelo 3D
Materials



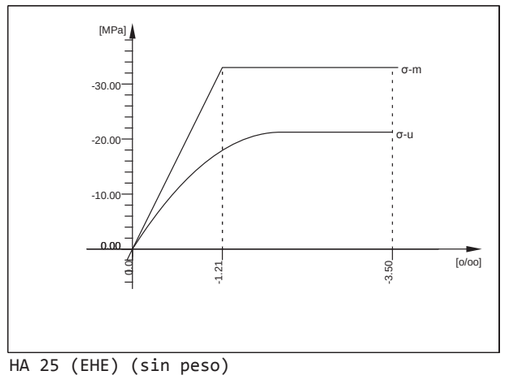
HA 30 (EHE)

Mat 4 HA 25 (EHE) (sin peso)

Young's modulus	E	27260	[MPa]	Safetyfactor		1.50	[-]
Poisson's ratio	μ	0.20	[-]	Strength	fc	21.25	[MPa]
Shear modulus	G	11360	[MPa]	Nominal strength	fck	25.00	[MPa]
Compression modulus	K	15140	[MPa]	Tensile strength	fctm	2.56	[MPa]
Weight	γ	0.0	[kN/m3]	Tensile strength	fctk,05	1.80	[MPa]
Density	ρ	0.00	[kg/m3]	Tensile strength	fctk,95	3.33	[MPa]
Elongation coefficient	α	1.00E-05	[1/K]	Bond strength	fbd	2.69	[MPa]
				Service strength	fcm	33.00	[MPa]
				Fatigue strength	fcd,fat	12.75	[MPa]
				Tensile strength	fctd	1.20	[MPa]
				Tensile failure energy	Gf	0.14	[N/mm]

Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
Is also extended beyond the	0.000	0.00	27260
defined stress range	-1.211	-33.00	0
	-3.500	-33.00	0
	Safetyfactor		1.50

Stress-Strain for ultimate load	ε[o/oo]	σ-u[MPa]	E-t[MPa]
Is only valid within the defined	0.000	0.00	21250
stress range	-2.000	-21.25	0
	-3.500	-21.25	0
	Safetyfactor		1.50



HA 25 (EHE) (sin peso)

Mat 5 A 52 (EA-95)

Young's modulus	E	210000	[MPa]	Safetyfactor		1.10	[-]
Poisson's ratio	μ	0.30	[-]	Yield stress	fy	355.00	[MPa]

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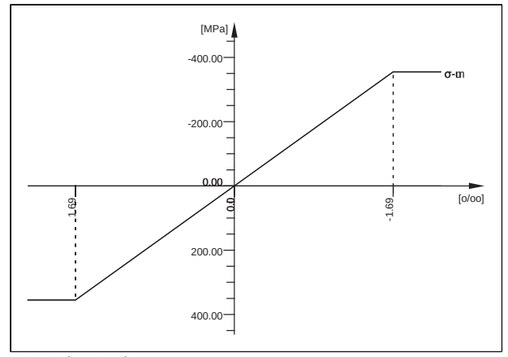
Modelo 3D
Materials

Mat 5 A 52 (EA-95)

Shear modulus	G	80770	[MPa]	Compressive yield	fyc	355.00	[MPa]
Compression modulus	K	175000	[MPa]	Tensile strength	ft	510.00	[MPa]
Weight	γ	78.5	[kN/m3]	Compressive strength	fc	510.00	[MPa]
Density	ρ	7850.00	[kg/m3]	Ultimate strain		0.00	[o/oo]
Elongation coefficient	α	1.20E-05	[1/K]	relative bond coeff.		0.00	[-]
max. thickness	t-max	100.00	[mm]	EN 1992 bond coeff.	k1	0.00	[-]
				Hardening modulus	Eh	0.00	[MPa]
				Proportional limit	fp	355.00	[MPa]
				Dynamic allowance	σ-dyn	0.00	[MPa]

Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
Is also extended beyond the	1000.000	355.00	0
defined stress range	1.690	355.00	0
	0.000	0.00	210000
	-1.690	-355.00	0
	-1000.000	-355.00	0
	Safetyfactor		1.10

Stress-Strain for ultimate load	ε[o/oo]	σ-u[MPa]	E-t[MPa]
Is also extended beyond the	1000.000	355.00	0
defined stress range	1.690	355.00	0
	0.000	0.00	210000
	-1.690	-355.00	0
	-1000.000	-355.00	0
	Safetyfactor		1.10



A 52 (EA-95)

Mat 6 HA 35 (EHE)

Young's modulus	E	29780	[MPa]	Safetyfactor		1.50	[-]
Poisson's ratio	μ	0.20	[-]	Strength	fc	29.75	[MPa]
Shear modulus	G	12410	[MPa]	Nominal strength	fck	35.00	[MPa]
Compression modulus	K	16540	[MPa]	Tensile strength	fctm	3.21	[MPa]
Weight	γ	25.0	[kN/m3]	Tensile strength	fctk,05	2.25	[MPa]
Density	ρ	2400.00	[kg/m3]	Tensile strength	fctk,95	4.17	[MPa]
Elongation coefficient	α	1.00E-05	[1/K]	Bond strength	fbd	3.37	[MPa]
				Service strength	fcm	43.00	[MPa]
				Fatigue strength	fcd,fat	17.06	[MPa]
				Tensile strength	fctd	1.50	[MPa]
				Tensile failure energy	Gf	0.14	[N/mm]

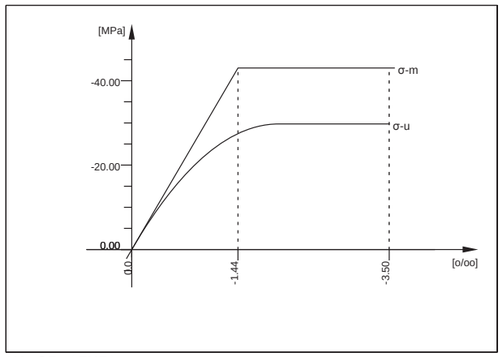
Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
Is also extended beyond the	0.000	0.00	29779
defined stress range	-1.444	-43.00	0
	-3.500	-43.00	0

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SOFiSTiK 2016-6 AQUA - GENERAL CROSS SECTIONS (V 17.06)

Modelo 3D
Materials

Stress-Strain for serviceability	ε[o/oo]	σ-m[MPa]	E-t[MPa]
	Safetyfactor		1.50

Stress-Strain for ultimate load	ε[o/oo]	σ-u[MPa]	E-t[MPa]
Is only valid within the defined	0.000	0.00	29750
stress range	-2.000	-29.75	0
	-3.500	-29.75	0
	Safetyfactor		1.50



HA 35 (EHE)

Mat 7 sediment rock

Young's modulus	E	40000000	[kN/m2]	Safetyfactor	1.00	[-]
Poisson's ratio	μ	0.30	[-]	calc strength fy	140.00	[MPa]
Shear modulus	G	15384616	[kN/m2]	ult. strength ft	140.00	[MPa]
Compression modulus	K	33333336	[kN/m2]			
Weight	γ	26.0	[kN/m3]			
Weight buoyancy	γa	16.0	[kN/m3]			
Elongation coefficient	α	1.00E-05	[1/K]			

Thermal material constants

Mat	T[°C]	S[kJ/K/m3]	Kxx[W/K/m]	Kyy[W/K/m]	Kzz[W/K/m]	
1	AUTO	2.16E+03	1.951E+00			HA 25 (EHE)
2	AUTO	3.45E+03	5.333E+01			B 500 (EHE)
3	AUTO	2.16E+03	1.951E+00			HA 30 (EHE)
4	AUTO	2.16E+03	1.951E+00			HA 25 (EHE) (sin peso)
5	AUTO	3.45E+03	5.333E+01			A 52 (EA-95)
6	AUTO	2.16E+03	1.951E+00			HA 35 (EHE)
7	AUTO	2.60E+03	2.300E+00			sediment rock

Mat material number S[kJ/K/m3] Heat capacity
T[°C] Temperature Kxx[W/K/m],Kyy[W/K/m],Kzz[W/K/m] Heat conductivity

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SOFiSTiK 2016-6 AQUA - GENERAL CROSS SECTIONS (V 17.06)

Modelo 3D
Sections

Default design code is EHE Instrucción de hormigòn estructural 2008 (Espagna) V 2016

Materials

Mat	Classification	γ-M
1	HA 25 (EHE)	1.50
2	B 500 (EHE)	1.15
3	HA 30 (EHE)	1.50
4	HA 25 (EHE) (sin peso)	1.50
5	A 52 (EA-95)	1.10
6	HA 35 (EHE)	1.50
7	sediment rock	1.00

Cross-sections static properties

SNo	Mat	A[m2]	Ay[m2]	Iy[m4]	yc[m]	ysc[m]	E[MPa]	g[kN/m]
	MRf	It[m4]	Az[m2]	Iz[m4]	zc[m]	zsc[m]	G[MPa]	
			Ayz[m2]	Iyz[m4]				
1	1	3.1416E-02	2.827E-02	7.854E-05	0.000	0.000	27264	0.79
	2	1.571E-04	2.827E-02	7.854E-05	0.000	0.000	11360	(CENTR)
	= D 20 cm							
	= (R-As 80 mm)							
2	1	2.8274E-01	2.545E-01	6.362E-03	0.000	0.000	27264	7.07
	2	1.272E-02	2.545E-01	6.362E-03	0.000	0.000	11360	(CENTR)
	= D 60 cm							
	= (R-As 240 mm)							
3	5	4.9250E-02	2.500E-02	5.398E-03	0.000	0.000	210000	3.87
		1.301E-05	1.803E-02	6.250E-04	0.400	0.400	80770	(BEAM)
	= Viga 1							
4	5	5.4250E-02	2.500E-02	8.958E-03	0.000	0.000	210000	4.26
		1.405E-05	2.302E-02	6.250E-04	0.500	0.500	80770	(BEAM)
	= Viga 2							
101	5	4.9875E-02	2.500E-02	5.787E-03	0.000	0.000	210000	3.92
		1.314E-05	1.866E-02	6.250E-04	0.413	0.413	80770	(BEAM)
	= Viga 1 (3)							
102	5	5.0500E-02	2.500E-02	6.192E-03	0.000	0.000	210000	3.96
		1.327E-05	1.928E-02	6.250E-04	0.425	0.425	80770	(BEAM)
	= Viga 1 (3)							
103	5	5.1008E-02	2.500E-02	6.532E-03	0.000	0.000	210000	4.00
		1.338E-05	1.979E-02	6.250E-04	0.435	0.435	80770	(BEAM)
	= Viga 1 (3)							
104	5	5.1750E-02	2.500E-02	7.049E-03	0.000	0.000	210000	4.06
		1.353E-05	2.053E-02	6.250E-04	0.450	0.450	80770	(BEAM)
	= Viga 1 (3)							
105	5	5.2375E-02	2.500E-02	7.501E-03	0.000	0.000	210000	4.11
		1.366E-05	2.115E-02	6.250E-04	0.463	0.463	80770	(BEAM)
	= Viga 1 (3)							
106	5	5.3000E-02	2.500E-02	7.970E-03	0.000	0.000	210000	4.16
		1.379E-05	2.178E-02	6.250E-04	0.475	0.475	80770	(BEAM)
	= Viga 1 (3)							
107	5	5.3625E-02	2.500E-02	8.456E-03	0.000	0.000	210000	4.21
		1.392E-05	2.240E-02	6.250E-04	0.487	0.487	80770	(BEAM)
	= Viga 1 (3)							
108	5	6.1183E-03	3.248E-03	1.868E-05	0.000	0.000	210000	0.48
		3.737E-05	3.248E-03	1.868E-05	0.000	0.000	80770	
	= D 168.3 / 12.5 mm							
109	5	5.1125E-02	2.500E-02	6.612E-03	0.000	0.000	210000	4.01
		1.340E-05	1.991E-02	6.250E-04	0.438	0.438	80770	(BEAM)
	= Viga 1 (3)							
110	5	5.0031E-02	2.500E-02	5.887E-03	0.000	0.000	210000	3.93
		1.317E-05	1.882E-02	6.250E-04	0.416	0.416	80770	(BEAM)
	= Viga 1 (3)							

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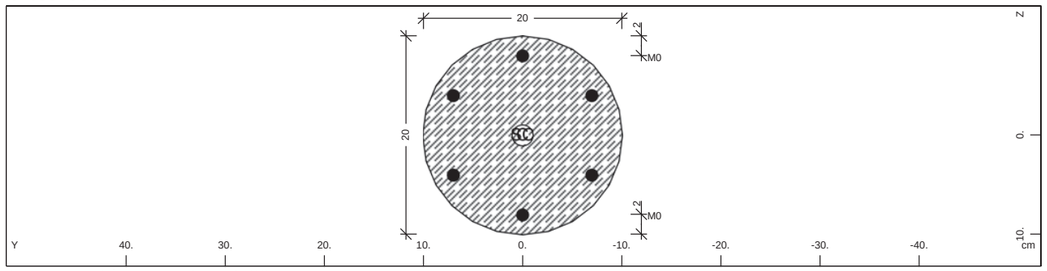
Modelo 3D
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Cross-sections static properties

SNo	Mat	A[m2]	Ay[m2]	Iy[m4]	yc[m]	ysc[m]	E[MPa]	g[kN/m]
	MRf	It[m4]	Az[m2]	Iz[m4]	zc[m]	zsc[m]	G[MPa]	
			Ayz[m2]	Iyz[m4]				
111	5	5.0812E-02	2.500E-02	6.400E-03	0.000	0.000	210000	3.99
		1.334E-05	1.960E-02	6.250E-04	0.431	0.431	80770	(BEAM)
	= Viga 1 (3)							
112	5	5.1723E-02	2.500E-02	7.029E-03	0.000	0.000	210000	4.06
		1.353E-05	2.050E-02	6.250E-04	0.449	0.449	80770	(BEAM)
	= Viga 1 (3)							
113	5	5.2633E-02	2.500E-02	7.693E-03	0.000	0.000	210000	4.13
		1.372E-05	2.141E-02	6.250E-04	0.468	0.468	80770	(BEAM)
	= Viga 1 (3)							
114	5	5.3442E-02	2.500E-02	8.312E-03	0.000	0.000	210000	4.20
		1.388E-05	2.222E-02	6.250E-04	0.484	0.484	80770	(BEAM)
	= Viga 1 (3)							
115	5	5.3265E-02	2.500E-02	8.174E-03	0.000	0.000	210000	4.18
		1.385E-05	2.204E-02	6.250E-04	0.480	0.480	80770	(BEAM)
	= Viga 2 (4)							
116	5	5.2280E-02	2.500E-02	7.431E-03	0.000	0.000	210000	4.10
		1.364E-05	2.106E-02	6.250E-04	0.461	0.461	80770	(BEAM)
	= Viga 2 (4)							
117	5	5.1400E-02	2.500E-02	6.802E-03	0.000	0.000	210000	4.03
		1.346E-05	2.018E-02	6.250E-04	0.443	0.443	80770	(BEAM)
	= Viga 2 (4)							
118	5	5.0519E-02	2.500E-02	6.205E-03	0.000	0.000	210000	3.97
		1.327E-05	1.930E-02	6.250E-04	0.425	0.425	80770	(BEAM)
	= Viga 2 (4)							
119	5	4.9885E-02	2.500E-02	5.793E-03	0.000	0.000	210000	3.92
		1.314E-05	1.867E-02	6.250E-04	0.413	0.413	80770	(BEAM)
	= Viga 2 (4)							

SNo	section number	ysc[m],zsc[m]	ordinate of shear centre
Mat	material number	E[MPa]	Young's modulus
A[m2]	sectional area	g[kN/m]	weight per length
Ay[m2],Az[m2],Ayz[m2]	transverse shear deformation area	MRf	reinforcement material number
Iy[m4],Iz[m4],Iyz[m4]	bending moment of inertia	It[m4]	torsional moment of inertia
yc[m],zc[m]	ordinate of elastic centroid	G[MPa]	Shear modulus

Cross section No. 1 - D 20 cm



Cross section No. 1 - D 20 cm

Static properties of cross section

Mat	A[m2]	Ay[m2]	Iy[m4]	yc[cm]	ysc[cm]	E[MPa]	g[kN/m]
MRf	It[m4]	Az[m2]	Iz[m4]	zc[cm]	zsc[cm]	G[MPa]	
		Ayz[m2]	Iyz[m4]				
1	3.1416E-02	2.827E-02	7.854E-05	0.00	0.00	27264	0.79
2	1.571E-04	2.827E-02	7.854E-05	0.00	0.00	11360	(CENTR)

Mat	material number	E[MPa]	Young's modulus
A[m2]	sectional area	g[kN/m]	weight per length
Ay[m2],Az[m2],Ayz[m2]	transverse shear deformation area	MRf	reinforcement material number
Iy[m4],Iz[m4],Iyz[m4]	bending moment of inertia	It[m4]	torsional moment of inertia
yc[cm],zc[cm]	ordinate of elastic centroid	G[MPa]	Shear modulus
ysc[cm],zsc[cm]	ordinate of shear centre		

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Additional static properties of cross section

α-T[1/K]	ymin[cm]	zmin[cm]	hymin[cm]	AK[m2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[cm]	zmax[cm]	hzmin[cm]	AB[m2]		1/WT2[1/m3]	1/WVz[1/m2]
1.0E-05	-10.00	-10.00			2	6.366E+02	4.244E+01
	10.00	10.00		3.142E-02			4.244E+01

α-T[1/K]	Elongation coefficient
ymin[cm],zmin[cm],ymax[cm],zmax[cm]	extreme coordinates relative to centroid
hymin[cm],hzmin[cm]	minimum value for internal lever
AK[m2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[m2]	gross concrete area

Circular/annular cross section

Ra[cm]	Ri[cm]	Rsa[cm]	Rsi[cm]	Asa[cm2]	Asi[cm2]	D[mm]	a[cm]	Ass[cm2/m]
10.00		8.00		6.79		12		

Ra[cm],Ri[cm]	radius	D[mm]	bar diameter
Rsa[cm],Rsi[cm]	radius of reinforcement	a[cm]	distance of bars
Asa[cm2],Asi[cm2]	reinforcement area	Ass[cm2/m]	area of shear links

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[cm]	[cm]	[cm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	0.628			10.00	10.00	0.0	0.000	0.000	0.000	

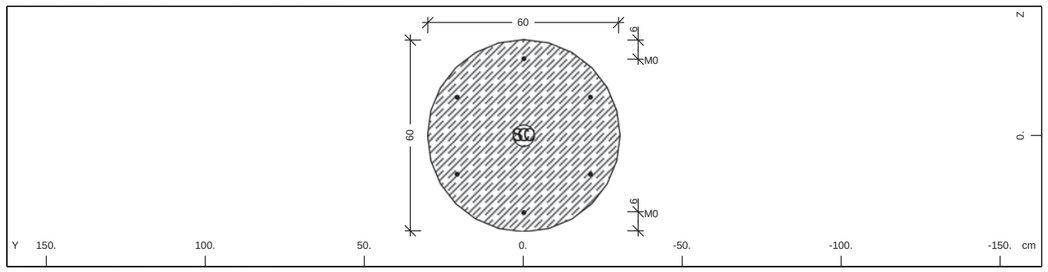
Mat	material number		t-min,t-max	thickness	
periphery-O/-I	peripheral area per length		SMP	small parts percentage	
deff	effective depth		thet-p,thet-y,thet-z,thet-yz	rotational mass	

Reinforcement global values

Layer	Mref	Mat	As	As-min	As-max	yr	zr	L-tors	N-p	My-p	Mz-p
			[cm2]	[cm2]	[cm2]	[cm]	[cm]	[cm]	[kN]	[kNm]	[kNm]
M0	1	2	6.79	6.79		0.00	0.00	50.27			

Layer	layer of reinforcement	As-max	maximum reinforcement area
Mref	embedding reference material	yr,zr	ordinate of elastic centroid
Mat	material number	L-tors	torsional effective length
As	reinforcement area	N-p	prestress normal force
As-min	minimum reinforcement area	My-p,Mz-p	prestress bending moment

Cross section No. 2 - D 60 cm



Cross section No. 2 - D 60 cm

Static properties of cross section

Mat	A[m2]	Ay[m2]	Iy[m4]	yc[cm]	ysc[cm]	E[MPa]	g[kN/m]
MRf	It[m4]	Az[m2]	Iz[m4]	zc[cm]	zsc[cm]	G[MPa]	
		Ayz[m2]	Iyz[m4]				
1	2.8274E-01	2.545E-01	6.362E-03	0.00	0.00	27264	7.07
2	1.272E-02	2.545E-01	6.362E-03	0.00	0.00	11360	(CENTR)

Mat	material number	E[MPa]	Young's modulus
A[m2]	sectional area	g[kN/m]	weight per length
Ay[m2],Az[m2],Ayz[m2]	transverse shear deformation area	MRf	reinforcement material number
Iy[m4],Iz[m4],Iyz[m4]	bending moment of inertia	It[m4]	torsional moment of inertia
yc[cm],zc[cm]	ordinate of elastic centroid	G[MPa]	Shear modulus
ysc[cm],zsc[cm]	ordinate of shear centre		

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Additional static properties of cross section

α-T[1/K]	ymin[cm]	zmin[cm]	hymin[cm]	AK[m2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[cm]	zmax[cm]	hzmin[cm]	AB[m2]		1/WT2[1/m3]	1/WVz[1/m2]
1.0E-05	-30.00	-30.00			2	2.358E+01	4.716E+00
	30.00	30.00		2.827E-01			4.716E+00

α-T[1/K]	Elongation coefficient
ymin[cm],zmin[cm],ymax[cm],zmax[cm]	extreme coordinates relative to centroid
hymin[cm],hzmin[cm]	minimum value for internal lever
AK[m2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[m2]	gross concrete area

Circular/annular cross section

Ra[cm]	Ri[cm]	Rsa[cm]	Rsi[cm]	Asa[cm2]	Asi[cm2]	D[mm]	a[cm]	Ass[cm2/m]
30.00		24.00		6.79		12		

Ra[cm],Ri[cm]	radius	D[mm]	bar diameter
Rsa[cm],Rsi[cm]	radius of reinforcement	a[cm]	distance of bars
Asa[cm2],Asi[cm2]	reinforcement area	Ass[cm2/m]	area of shear links

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[cm]	[cm]	[cm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	1.885			30.00	30.00	0.0	0.001	0.001	0.001	

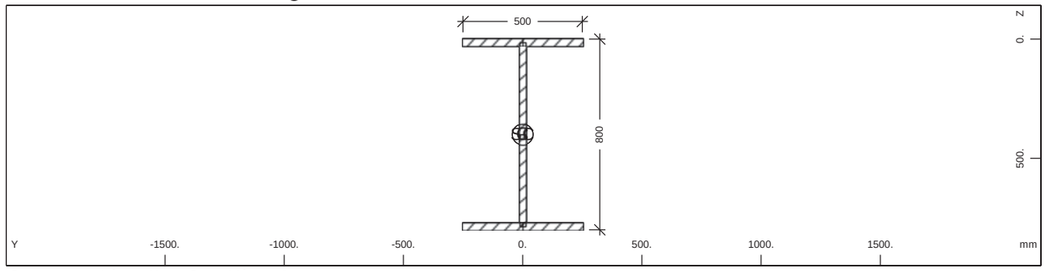
Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Reinforcement global values

Layer	Mref	Mat	As [cm2]	As-min [cm2]	As-max [cm2]	yr [cm]	zr [cm]	L-tors [cm]	N-p [kN]	My-p [kNm]	Mz-p [kNm]
M0	1	2	6.79	6.79		0.00	0.00	150.80			

Layer	layer of reinforcement	As-max	maximum reinforcement area
Mref	embedding reference material	yr,zr	ordinate of elastic centroid
Mat	material number	L-tors	torsional effective length
As	reinforcement area	N-p	prestress normal force
As-min	minimum reinforcement area	My-p,Mz-p	prestress bending moment

Cross section No. 3 - Viga 1



Cross section No. 3 - Viga 1

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	492.50	250.00	539786.1	0.0	0.0	210000	3.87
	1301.0	180.34	62500.0	400.0	400.0	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia

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G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-400.0		2.891E+02		2.306E+03	5.000E+01
	250.0	400.0				1.299E+02	5.652E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-962.50	962.50	92640635.9	370562.5	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	492.50	250.00	539786.1	0.0	190909	3.87
	1301.0	180.34	62500.0	400.0	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	17483.8	6148.78	3945.47	141.55	2367.28	512.53	5415.75	1373.96	0.0	400.0	b c
E	17483.8	4099.19	3626.01	88.89	1578.19	341.69	4977.25	887.50	0.0	400.0	
D	15894.3	5589.80	3586.79	128.68	2152.07	465.94	4923.41	1249.06	0.0	400.0	
F	15894.3	3726.53	3296.38	80.81	1434.72	310.63	4524.77	806.82	0.0	400.0	

N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.540		27.8	25.0	30.0	0.0	0.047	0.042	0.005	

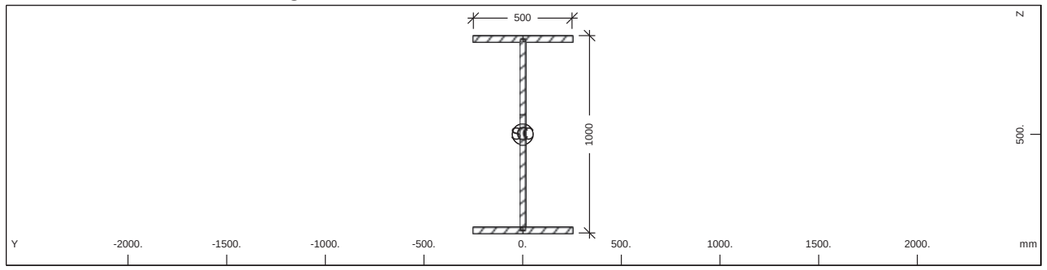
Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

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Sections

Cross section No. 4 - Viga 2



Cross section No. 4 - Viga 2

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	542.50	250.00	895815.3	0.0	0.0	210000	4.26
	1405.2	230.20	62500.0	500.0	500.0	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-500.0		3.123E+02		2.135E+03	5.000E+01
	250.0	500.0				1.031E+02	4.561E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1212.50	1212.50	147015628.	588062.9	4.66	66.74	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	542.50	250.00	895815.3	0.0	190909	4.26
	1405.2	230.20	62500.0	500.0	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Modelo 3D
Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	19258.8	6148.78	4970.26	154.36	2982.16	645.66	7252.87	1385.05	0.0	500.0	b c
E	19258.8	4099.19	4493.39	96.00	1988.11	430.44	6557.00	887.50	0.0	500.0	
D	17508.0	5589.80	4518.42	140.33	2711.05	586.96	6593.52	1259.14	0.0	500.0	
F	17508.0	3726.53	4084.90	87.28	1807.37	391.31	5960.91	806.82	0.0	500.0	

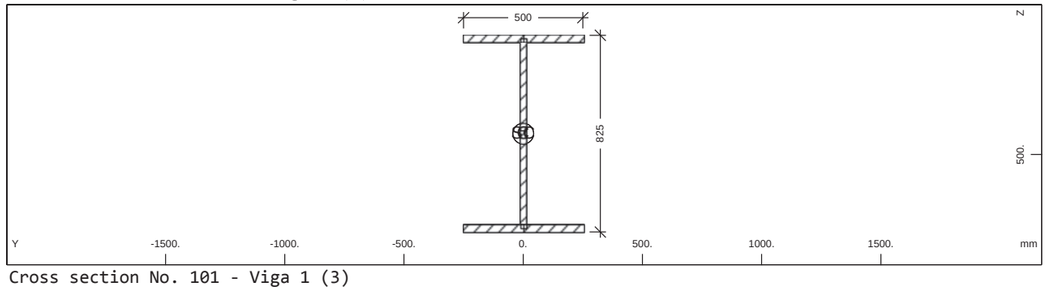
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.940		27.5	25.0	30.0	0.0	0.075	0.070	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 101 - Viga 1 (3)



Cross section No. 101 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	498.75	250.00	578698.0	0.0	0.0	210000	3.92
	1314.1	186.59	62500.0	412.5	412.5	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-412.5		2.920E+02		2.283E+03	5.000E+01
	250.0	412.5				1.258E+02	5.487E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Modelo 3D
Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-993.75	993.75	98753924.6	395015.7	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	498.75	250.00	578698.0	0.0	190909	3.92
	1314.1	186.59	62500.0	412.5	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	17705.6	6148.78	4073.57	143.15	2444.14	529.17	5635.68	1375.35	0.0	412.5	b c
E	17705.6	4099.19	3735.70	89.78	1629.43	352.78	5168.25	887.50	0.0	412.5	
D	16096.0	5589.80	3703.24	130.14	2221.95	481.07	5123.35	1250.32	0.0	412.5	
F	16096.0	3726.53	3396.09	81.61	1481.30	320.71	4698.41	806.82	0.0	412.5	

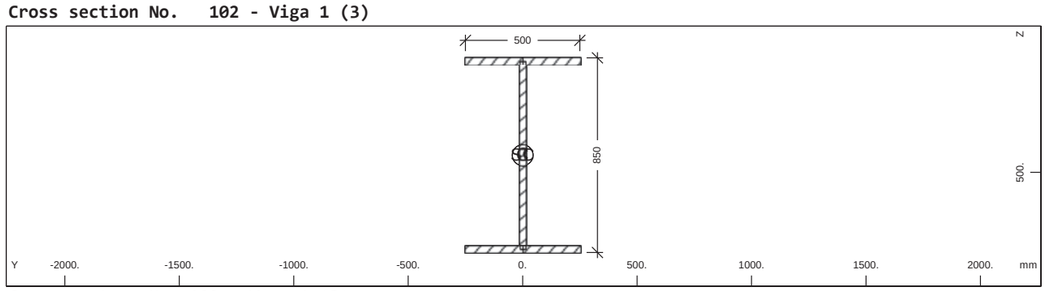
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I	deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m] [m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.590	27.8	25.0	30.0	0.0	0.050	0.045	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 102 - Viga 1 (3)



Cross section No. 102 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	505.00	250.00	619168.4	0.0	0.0	210000	3.96
	1327.1	192.84	62500.0	425.0	425.0	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area

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Sections

Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-425.0		2.949E+02		2.261E+03	5.000E+01
	250.0	425.0				1.220E+02	5.331E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1025.00	1025.00	105062515.	420250.3	4.66	46.13	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	505.00	250.00	619168.4	0.0	190909	3.96
	1327.1	192.84	62500.0	425.0	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	17927.5	6148.78	4201.67	144.75	2521.00	545.81	5858.39	1376.73	0.0	425.0	b c
E	17927.5	4099.19	3845.00	90.67	1680.67	363.88	5361.09	887.50	0.0	425.0	
D	16297.7	5589.80	3819.70	131.59	2291.82	496.19	5325.81	1251.58	0.0	425.0	
F	16297.7	3726.53	3495.46	82.42	1527.88	330.80	4873.72	806.82	0.0	425.0	

N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I	deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m] [m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.640	27.7	25.0	30.0	0.0	0.054	0.049	0.005	

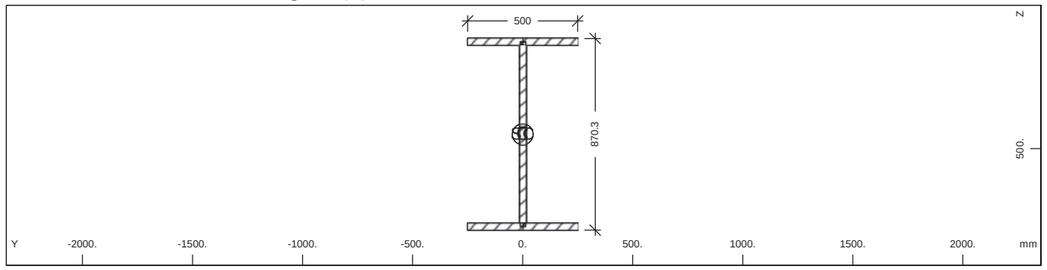
Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

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Modelo 3D
Sections

Cross section No. 103 - Viga 1 (3)



Cross section No. 103 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	510.08	250.00	653194.7	0.0	0.0	210000	4.00
	1337.7	197.91	62500.0	435.2	435.2	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-435.2		2.973E+02		2.243E+03	5.000E+01
	250.0	435.2				1.190E+02	5.211E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1050.38	1050.38	110329428.	441318.0	4.66	48.67	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	510.08	250.00	653194.7	0.0	190909	4.00
	1337.7	197.91	62500.0	435.2	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18107.7	6148.78	4305.70	146.05	2583.42	559.33	6041.29	1377.86	0.0	435.2	b c
E	18107.7	4099.19	3933.50	91.39	1722.28	372.88	5519.06	887.50	0.0	435.2	
D	16461.5	5589.80	3914.27	132.78	2348.56	508.48	5492.08	1252.60	0.0	435.2	
F	16461.5	3726.53	3575.91	83.08	1565.71	338.99	5017.33	806.82	0.0	435.2	

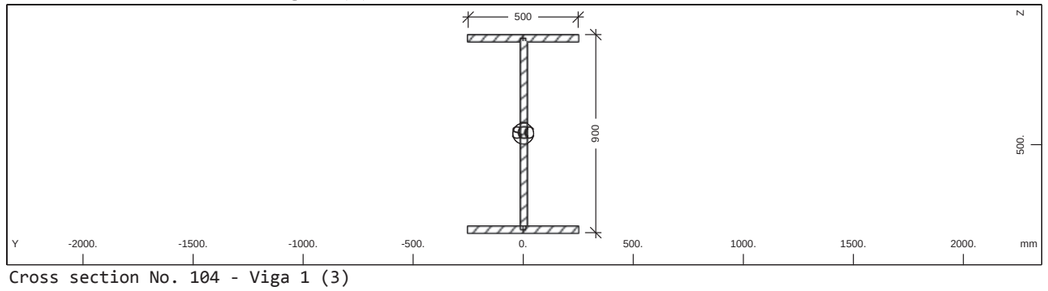
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.681		27.7	25.0	30.0	0.0	0.056	0.051	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 104 - Viga 1 (3)



Cross section No. 104 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	517.50	250.00	704863.1	0.0	0.0	210000	4.06
	1353.1	205.31	62500.0	450.0	450.0	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-450.0		3.007E+02		2.217E+03	5.000E+01
	250.0	450.0				1.149E+02	5.045E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Modelo 3D
Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1087.50	1087.50	118265627.	473062.5	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping		ASwyy[cm6],ASwzz[cm6]	warping sectional value	
CM[cm6]	warping resistance		ry[mm],rz[mm]	sectional distance	
CMS[cm4]	warping shear resistance				

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	517.50	250.00	704863.1	0.0	190909	4.06
	1353.1	205.31	62500.0	450.0	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18371.2	6148.78	4457.87	147.96	2674.72	579.09	6312.12	1379.51	0.0	450.0	b c
E	18371.2	4099.19	4062.52	92.45	1783.15	386.06	5752.33	887.50	0.0	450.0	
D	16701.1	5589.80	4052.61	134.50	2431.56	526.45	5738.29	1254.10	0.0	450.0	
F	16701.1	3726.53	3693.20	84.04	1621.04	350.97	5229.39	806.82	0.0	450.0	

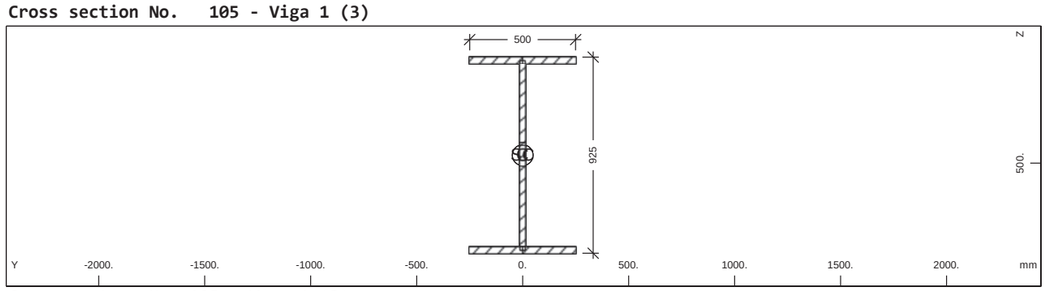
N[kN]	normal force		Mb[kNm2]	warping moment	
Vy[kN],Vz[kN]	shear force		My[kNm],Mz[kNm]	bending moment	
Mt[kNm]	primary torsional moment		y[mm],z[mm]	ordinate of elastic centroid	
Mt2[kNm]	secondary torsional moment		BUCK	buckling curve	

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.740		27.7	25.0	30.0	0.0	0.060	0.055	0.005	

Mat	material number		t-min,t-max	thickness	
periphery-O/-I	peripheral area per length		SMP	small parts percentage	
deff	effective depth		thet-p,thet-y,thet-z,thet-yz	rotational mass	

Cross section No. 105 - Viga 1 (3)



Cross section No. 105 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	523.75	250.00	750126.6	0.0	0.0	210000	4.11
	1366.1	211.54	62500.0	462.5	462.5	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area

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Modelo 3D
Sections

Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-462.5		3.036E+02		2.196E+03	5.000E+01
	250.0	462.5				1.117E+02	4.914E+01

α-T[1/K]	Elongation coefficient		
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid		
hymin[mm],hzmin[mm]	minimum value for internal lever		
AK[cm2]	torsional equivalent area (Bredt)		
MRs	shear link material number		
1/WT[1/m3],1/WT2[1/m3]	torsional resistance		
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance		
AB[cm2]	gross concrete area		

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1118.75	1118.75	125160150.	500640.3	-4.66	-55.89	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping		ASwyy[cm6],ASwzz[cm6]	warping sectional value	
CM[cm6]	warping resistance		ry[mm],rz[mm]	sectional distance	
CMS[cm4]	warping shear resistance				

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	523.75	250.00	750126.6	0.0	190909	4.11
	1366.1	211.54	62500.0	462.5	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18593.1	6148.78	4585.97	149.56	2751.58	595.73	6543.15	1380.89	0.0	462.5	b c
E	18593.1	4099.19	4170.75	93.33	1834.38	397.16	5950.72	887.50	0.0	462.5	
D	16902.8	5589.80	4169.06	135.96	2501.44	541.58	5948.32	1255.36	0.0	462.5	
F	16902.8	3726.53	3791.59	84.85	1667.62	361.05	5409.75	806.82	0.0	462.5	

N[kN]	normal force		Mb[kNm2]	warping moment	
Vy[kN],Vz[kN]	shear force		My[kNm],Mz[kNm]	bending moment	
Mt[kNm]	primary torsional moment		y[mm],z[mm]	ordinate of elastic centroid	
Mt2[kNm]	secondary torsional moment		BUCK	buckling curve	

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.790		27.6	25.0	30.0	0.0	0.064	0.059	0.005	

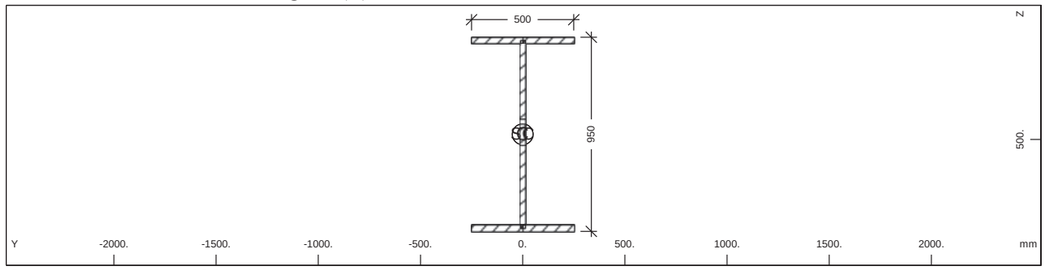
Mat	material number		t-min,t-max	thickness	
periphery-O/-I	peripheral area per length		SMP	small parts percentage	
deff	effective depth		thet-p,thet-y,thet-z,thet-yz	rotational mass	

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Modelo 3D
Sections

Cross section No. 106 - Viga 1 (3)



Cross section No. 106 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	530.00	250.00	797026.7	0.0	0.0	210000	4.16
	1379.2	217.77	62500.0	475.0	475.0	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-475.0		3.065E+02		2.175E+03	5.000E+01
	250.0	475.0				1.087E+02	4.790E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1150.00	1150.00	132250003.	529000.0	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	530.00	250.00	797026.7	0.0	190909	4.16
	1379.2	217.77	62500.0	475.0	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Modelo 3D
Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18815.0	6148.78	4714.07	151.16	2828.44	612.38	6776.95	1382.28	0.0	475.0	b c
E	18815.0	4099.19	4278.63	94.22	1885.63	408.25	6150.97	887.50	0.0	475.0	
D	17104.5	5589.80	4285.51	137.42	2571.31	556.70	6160.86	1256.62	0.0	475.0	
F	17104.5	3726.53	3889.66	85.66	1714.21	371.14	5591.79	806.82	0.0	475.0	

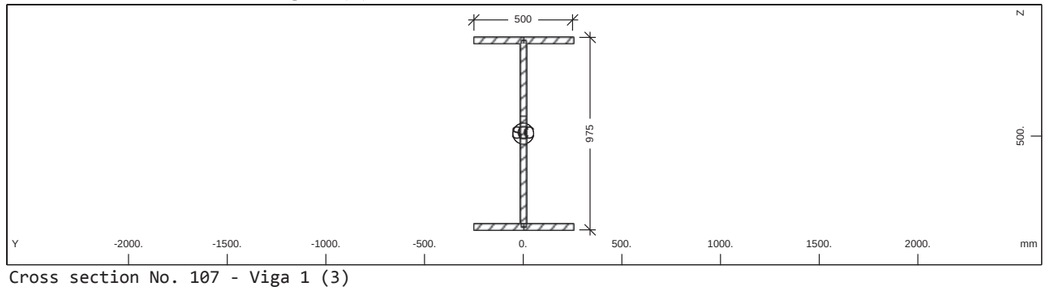
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.840		27.6	25.0	30.0	0.0	0.067	0.063	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 107 - Viga 1 (3)



Cross section No. 107 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	536.25	250.00	845583.0	0.0	0.0	210000	4.21
	1392.2	223.99	62500.0	487.5	487.5	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-487.5		3.094E+02		2.155E+03	5.000E+01
	250.0	487.5				1.058E+02	4.673E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Modelo 3D
Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1181.25	1181.25	139535158.	558140.0	-9.31	-126.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping		ASwyy[cm6],ASwzz[cm6]	warping sectional value	
CM[cm6]	warping resistance		ry[mm],rz[mm]	sectional distance	
CMS[cm4]	warping shear resistance				

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	536.25	250.00	845583.0	0.0	190909	4.21
	1392.2	223.99	62500.0	487.5	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	19036.9	6148.78	4842.16	152.76	2905.30	629.02	7013.52	1383.67	0.0	487.5	b c
E	19036.9	4099.19	4386.18	95.11	1936.86	419.34	6353.06	887.50	0.0	487.5	
D	17306.2	5589.80	4401.97	138.87	2641.18	571.83	6375.93	1257.88	0.0	487.5	
F	17306.2	3726.53	3987.43	86.47	1760.78	381.22	5775.51	806.82	0.0	487.5	

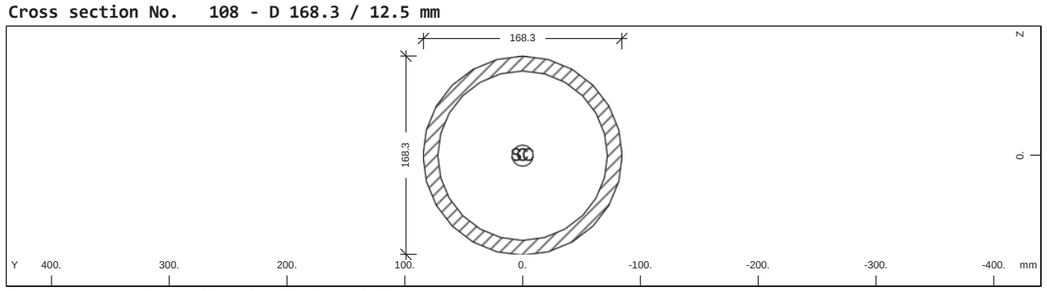
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.890		27.6	25.0	30.0	0.0	0.071	0.066	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 108 - D 168.3 / 12.5 mm



Cross section No. 108 - D 168.3 / 12.5 mm

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	61.18	32.48	1868.4	0.0	0.0	210000	0.48
	3736.7	32.48	1868.4	0.0	0.0	80770	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area

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Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-84.2	-84.2				2.252E+03	3.255E+02
	84.2	84.2					3.255E+02

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Tube

D[mm]	t[mm]
168.3	12.5

D[mm]	diameter
t[mm]	thickness

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	0.529	0.450		12.5	12.5	0.0	0.000	0.000	0.000	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	2172.0	833.52	833.52	97.90			107.95	107.95	0.0	0.0	a a
E	2172.0	629.68	629.68	91.01			78.82	78.82	0.0	0.0	
D	1974.5	757.75	757.75	89.00			98.13	98.13	0.0	0.0	
F	1974.5	572.44	572.44	82.74			71.65	71.65	0.0	0.0	

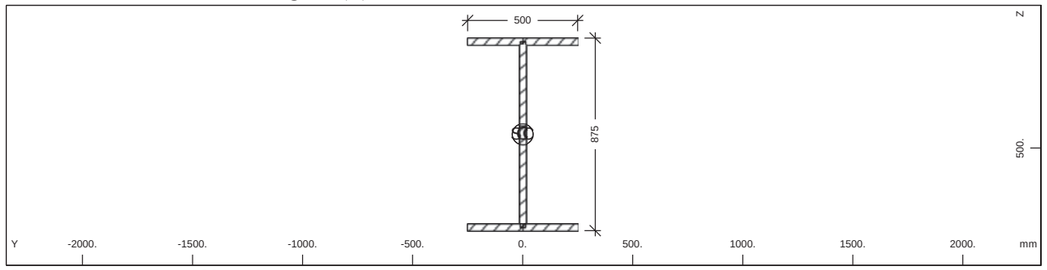
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

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Modelo 3D
Sections

Cross section No. 109 - Viga 1 (3)



Cross section No. 109 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	511.25	250.00	661217.1	0.0	0.0	210000	4.01
	1340.1	199.08	62500.0	437.5	437.5	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-437.5		2.978E+02		2.239E+03	5.000E+01
	250.0	437.5				1.183E+02	5.184E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1056.25	1056.25	111566442.	446265.8	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	511.25	250.00	661217.1	0.0	190909	4.01
	1340.1	199.08	62500.0	437.5	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Modelo 3D
Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18149.4	6148.78	4329.77	146.35	2597.86	562.45	6083.87	1378.12	0.0	437.5	b c
E	18149.4	4099.19	3953.94	91.56	1731.91	374.97	5555.79	887.50	0.0	437.5	
D	16499.4	5589.80	3936.15	133.05	2361.69	511.32	5530.79	1252.84	0.0	437.5	
F	16499.4	3726.53	3594.49	83.23	1574.46	340.88	5050.72	806.82	0.0	437.5	

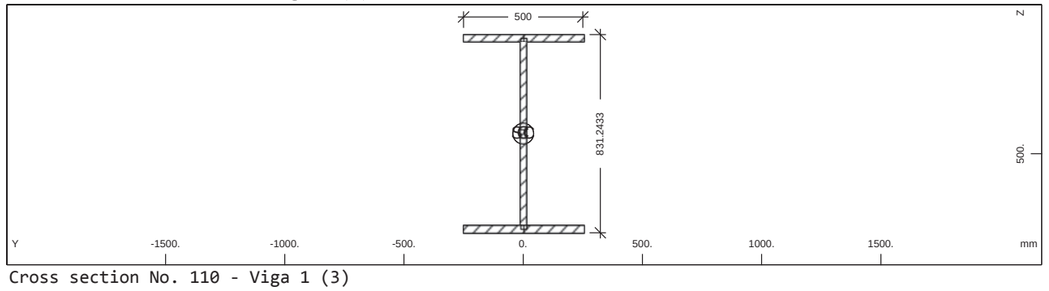
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.690		27.7	25.0	30.0	0.0	0.057	0.052	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 110 - Viga 1 (3)



Cross section No. 110 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	500.31	250.00	588657.9	0.0	0.0	210000	3.93
	1317.3	188.15	62500.0	415.6	415.6	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-415.6		2.927E+02		2.277E+03	5.000E+01
	250.0	415.6				1.248E+02	5.447E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1001.55	1001.55	100311081.	401244.4	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping		ASwyy[cm6],ASwzz[cm6]	warping sectional value	
CM[cm6]	warping resistance		ry[mm],rz[mm]	sectional distance	
CMS[cm4]	warping shear resistance				

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	500.31	250.00	588657.9	0.0	190909	3.93
	1317.3	188.15	62500.0	415.6	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	17761.0	6148.78	4105.56	143.55	2463.33	533.33	5691.04	1375.69	0.0	415.6	b c
E	17761.0	4099.19	3763.03	90.00	1642.22	355.55	5216.23	887.50	0.0	415.6	
D	16146.4	5589.80	3732.33	130.50	2239.40	484.84	5173.67	1250.63	0.0	415.6	
F	16146.4	3726.53	3420.94	81.82	1492.93	323.23	4742.03	806.82	0.0	415.6	

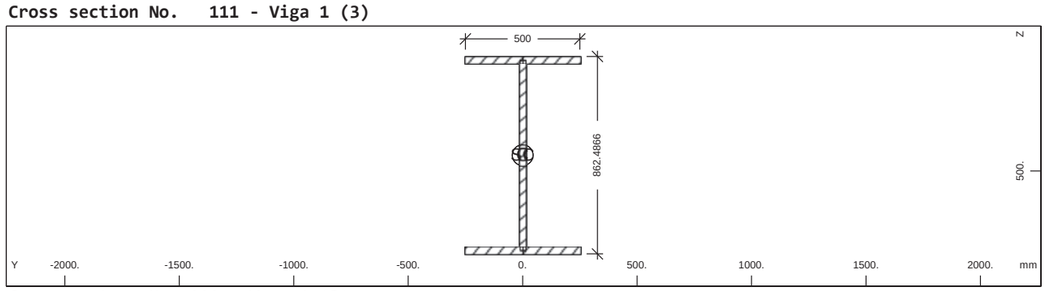
N[kN]	normal force		Mb[kNm2]	warping moment	
Vy[kN],Vz[kN]	shear force		My[kNm],Mz[kNm]	bending moment	
Mt[kNm]	primary torsional moment		y[mm],z[mm]	ordinate of elastic centroid	
Mt2[kNm]	secondary torsional moment		BUCK	buckling curve	

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.602		27.8	25.0	30.0	0.0	0.051	0.046	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 111 - Viga 1 (3)



Cross section No. 111 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	508.12	250.00	639971.6	0.0	0.0	210000	3.99
	1333.6	195.96	62500.0	431.2	431.2	80770	(BEAM)

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		

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Sections

Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-431.2		2.964E+02		2.250E+03	5.000E+01
	250.0	431.2				1.201E+02	5.256E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1040.61	1040.61	108286550.	433145.9	-4.66	-47.68	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping		ASwyy[cm6],ASwzz[cm6]	warping sectional value	
CM[cm6]	warping resistance		ry[mm],rz[mm]	sectional distance	
CMS[cm4]	warping shear resistance				

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	508.12	250.00	639971.6	0.0	190909	3.99
	1333.6	195.96	62500.0	431.2	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18038.3	6148.78	4265.65	145.55	2559.39	554.12	5970.66	1377.43	0.0	431.2	b c
E	18038.3	4099.19	3899.46	91.11	1706.26	369.42	5458.10	887.50	0.0	431.2	
D	16398.5	5589.80	3877.86	132.32	2326.72	503.75	5427.87	1252.21	0.0	431.2	
F	16398.5	3726.53	3544.96	82.83	1551.14	335.83	4961.91	806.82	0.0	431.2	

N[kN]	normal force		Mb[kNm2]	warping moment	
Vy[kN],Vz[kN]	shear force		My[kNm],Mz[kNm]	bending moment	
Mt[kNm]	primary torsional moment		y[mm],z[mm]	ordinate of elastic centroid	
Mt2[kNm]	secondary torsional moment		BUCK	buckling curve	

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.665		27.7	25.0	30.0	0.0	0.055	0.050	0.005	

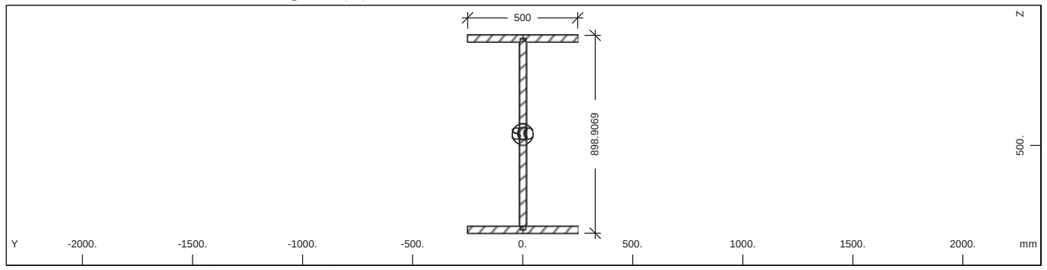
Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

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Modelo 3D
Sections

Cross section No. 112 - Viga 1 (3)



Cross section No. 112 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	517.23	250.00	702921.2	0.0	0.0	210000	4.06
	1352.6	205.04	62500.0	449.5	449.5	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-449.5		3.006E+02		2.218E+03	5.000E+01
	250.0	449.5				1.151E+02	5.051E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1086.13	1086.13	117968645.	471874.3	-4.66	-52.37	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	517.23	250.00	702921.2	0.0	190909	4.06
	1352.6	205.04	62500.0	449.5	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Modelo 3D
Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18361.6	6148.78	4452.27	147.89	2671.36	578.37	6302.08	1379.45	0.0	449.5	b c
E	18361.5	4099.19	4057.78	92.41	1780.90	385.58	5743.70	887.50	0.0	449.5	
D	16692.3	5589.80	4047.51	134.44	2428.51	525.79	5729.17	1254.04	0.0	449.5	
F	16692.3	3726.53	3688.89	84.01	1619.00	350.52	5221.54	806.82	0.0	449.5	

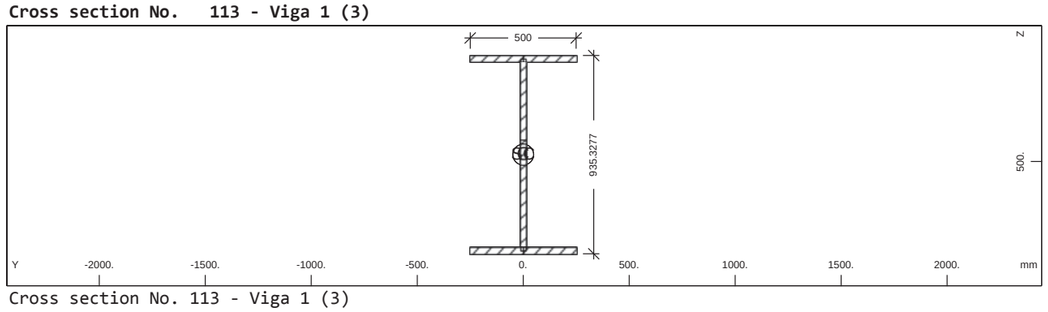
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.738		27.7	25.0	30.0	0.0	0.060	0.055	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 113 - Viga 1 (3)



Cross section No. 113 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	526.33	250.00	769302.0	0.0	0.0	210000	4.13
	1371.5	214.12	62500.0	467.7	467.7	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-467.7		3.048E+02		2.187E+03	5.000E+01
	250.0	467.7				1.105E+02	4.862E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1131.66	1131.66	128065382.	512261.5	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	526.33	250.00	769302.0	0.0	190909	4.13
	1371.5	214.12	62500.0	467.7	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18684.8	6148.78	4638.89	150.22	2783.33	602.61	6639.40	1381.47	0.0	467.7	b c
E	18684.8	4099.19	4215.36	93.70	1855.55	401.74	6033.22	887.50	0.0	467.7	
D	16986.2	5589.80	4217.17	136.56	2530.30	547.83	6035.82	1255.88	0.0	467.7	
F	16986.2	3726.53	3832.14	85.18	1686.87	365.22	5484.75	806.82	0.0	467.7	

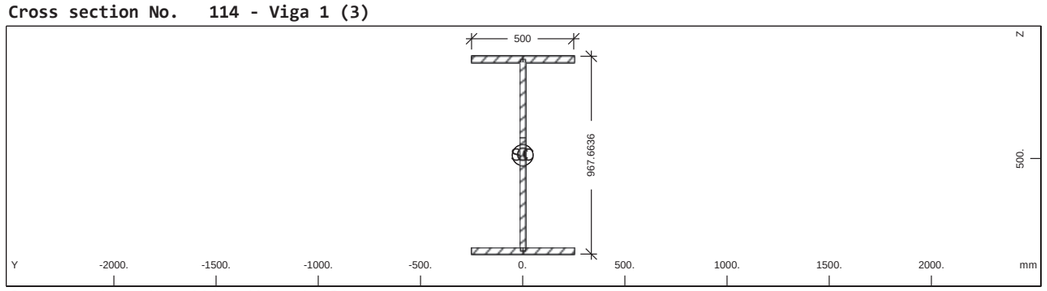
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.811		27.6	25.0	30.0	0.0	0.065	0.060	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 114 - Viga 1 (3)



Cross section No. 114 - Viga 1 (3)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	534.42	250.00	831161.2	0.0	0.0	210000	4.20
	1388.4	222.16	62500.0	483.8	483.8	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area

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Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-483.8		3.085E+02		2.161E+03	5.000E+01
	250.0	483.8				1.066E+02	4.707E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1172.08	1172.08	137377051.	549508.3	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	534.42	250.00	831161.2	0.0	190909	4.20
	1388.4	222.16	62500.0	483.8	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18971.8	6148.78	4804.57	152.29	2882.74	624.13	6943.81	1383.26	0.0	483.8	b c
E	18971.8	4099.19	4354.65	94.85	1921.83	416.09	6293.56	887.50	0.0	483.8	
D	17247.1	5589.80	4367.79	138.44	2620.68	567.39	6312.56	1257.51	0.0	483.8	
F	17247.1	3726.53	3958.77	86.23	1747.12	378.26	5721.42	806.82	0.0	483.8	

N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.875		27.6	25.0	30.0	0.0	0.070	0.065	0.005	

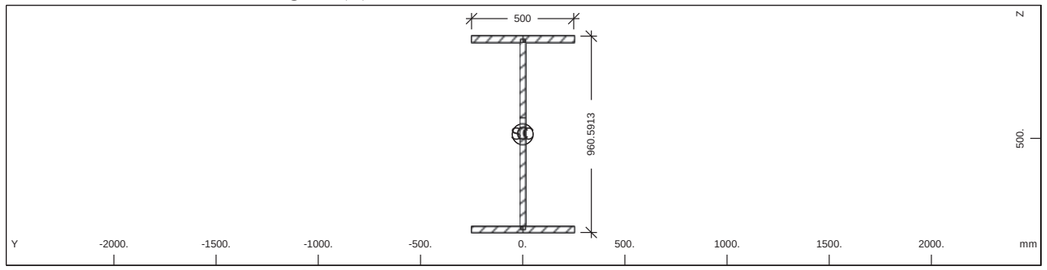
Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

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Sections

Cross section No. 115 - Viga 2 (4)



Cross section No. 115 - Viga 2 (4)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	532.65	250.00	817394.4	0.0	0.0	210000	4.18
	1384.7	220.40	62500.0	480.3	480.3	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-480.3		3.077E+02		2.167E+03	5.000E+01
	250.0	480.3				1.075E+02	4.740E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1163.24	1163.24	135312527.	541250.1	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	532.65	250.00	817394.4	0.0	190909	4.18
	1384.7	220.40	62500.0	480.3	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Modelo 3D
Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18909.0	6148.78	4768.33	151.84	2861.00	619.42	6876.84	1382.87	0.0	480.3	b c
E	18909.0	4099.19	4324.23	94.60	1907.33	412.95	6236.36	887.50	0.0	480.3	
D	17190.0	5589.80	4334.85	138.03	2600.91	563.11	6251.67	1257.15	0.0	480.3	
F	17190.0	3726.53	3931.12	86.00	1733.94	375.41	5669.42	806.82	0.0	480.3	

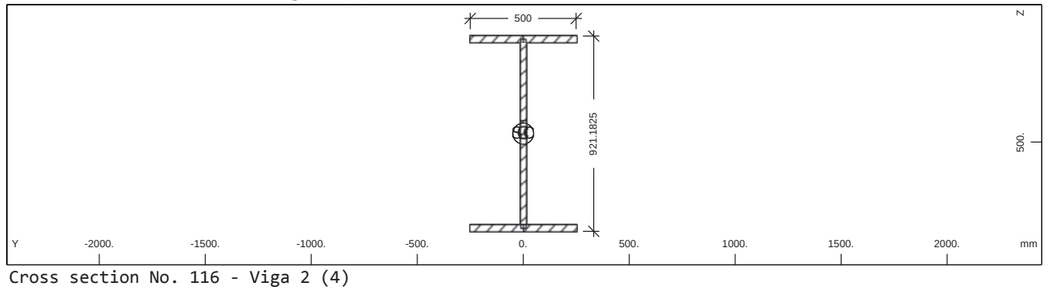
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.861		27.6	25.0	30.0	0.0	0.069	0.064	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 116 - Viga 2 (4)



Cross section No. 116 - Viga 2 (4)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	522.80	250.00	743109.5	0.0	0.0	210000	4.10
	1364.2	210.59	62500.0	460.6	460.6	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-460.6		3.031E+02		2.199E+03	5.000E+01
	250.0	460.6				1.122E+02	4.934E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1113.98	1113.98	124094732.	496378.9	0.00	0.00	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	522.80	250.00	743109.5	0.0	190909	4.10
	1364.2	210.59	62500.0	460.6	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18559.2	6148.78	4566.40	149.31	2739.84	593.19	6507.69	1380.68	0.0	460.6	b c
E	18559.2	4099.19	4154.24	93.20	1826.56	395.46	5920.31	887.50	0.0	460.6	
D	16872.0	5589.80	4151.28	135.74	2490.77	539.27	5916.08	1255.17	0.0	460.6	
F	16872.0	3726.53	3776.58	84.73	1660.51	359.51	5382.10	806.82	0.0	460.6	

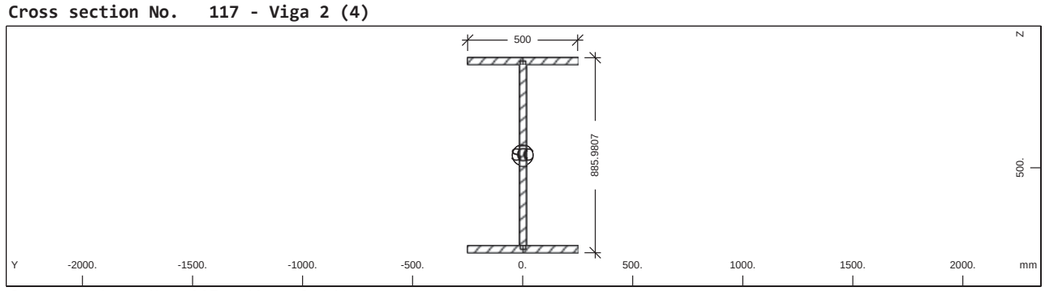
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.782		27.6	25.0	30.0	0.0	0.063	0.058	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 117 - Viga 2 (4)



Cross section No. 117 - Viga 2 (4)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	514.00	250.00	680189.8	0.0	0.0	210000	4.03
	1345.8	201.82	62500.0	443.0	443.0	80770	(BEAM)

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		

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Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-443.0		2.991E+02		2.229E+03	5.000E+01
	250.0	443.0				1.168E+02	5.122E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1069.98	1069.98	114484865.	457939.7	4.66	50.68	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	514.00	250.00	680189.8	0.0	190909	4.03
	1345.8	201.82	62500.0	443.0	73427	

Mat	material number		
A[cm2]	sectional area		
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area		
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia		
yc[mm],zc[mm]	ordinate of elastic centroid		
E[N/mm2]	Young's modulus		
g[kN/m]	weight per length		
MRf	reinforcement material number		
It[cm4]	torsional moment of inertia		
G[N/mm2]	Shear modulus		

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	18246.8	6148.78	4386.03	147.06	2631.62	569.76	6183.78	1378.73	0.0	443.0	b c
E	18246.8	4099.19	4001.68	91.95	1754.41	379.84	5641.89	887.50	0.0	443.0	
D	16588.0	5589.80	3987.30	133.69	2392.38	517.97	5621.62	1253.39	0.0	443.0	
F	16588.0	3726.53	3637.89	83.59	1594.92	345.31	5128.99	806.82	0.0	443.0	

N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.712		27.7	25.0	30.0	0.0	0.058	0.053	0.005	

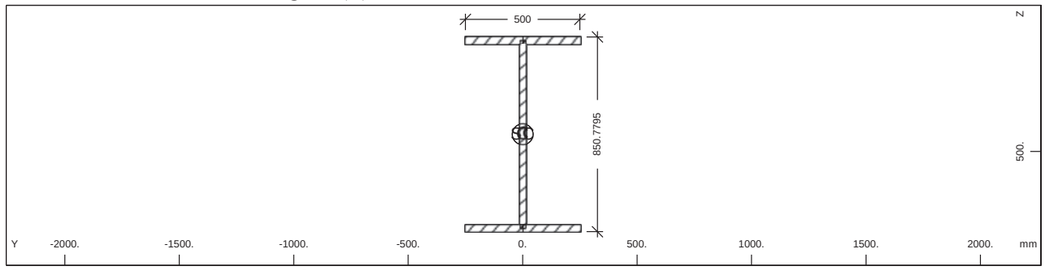
Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

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Cross section No. 118 - Viga 2 (4)



Cross section No. 118 - Viga 2 (4)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	505.19	250.00	620455.5	0.0	0.0	210000	3.97
	1327.5	193.03	62500.0	425.4	425.4	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-425.4		2.950E+02		2.260E+03	5.000E+01
	250.0	425.4				1.218E+02	5.326E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-1025.97	1025.97	105262356.	421049.2	-4.66	-46.23	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	505.19	250.00	620455.5	0.0	190909	3.97
	1327.5	193.03	62500.0	425.4	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

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Modelo 3D
Sections

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	17934.4	6148.78	4205.66	144.80	2523.40	546.33	5865.38	1376.78	0.0	425.4	b c
E	17934.4	4099.19	3848.41	90.69	1682.26	364.22	5367.14	887.50	0.0	425.4	
D	16304.0	5589.80	3823.33	131.64	2294.00	496.66	5332.16	1251.62	0.0	425.4	
F	16304.0	3726.53	3498.55	82.45	1529.33	331.11	4879.21	806.82	0.0	425.4	

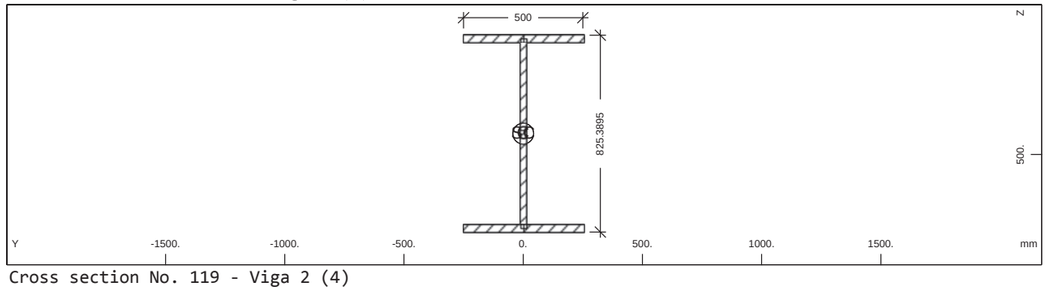
N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

Additional Design Data

Mat	periphery-O/-I		deff	t-min	t-max	SMP	thet-p	thet-y	thet-z	thet-yz
	[m2/m]	[m2/m]	[mm]	[mm]	[mm]	[o/o]	[tm2/m]	[tm2/m]	[tm2/m]	[tm2/m]
	3.642		27.7	25.0	30.0	0.0	0.054	0.049	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

Cross section No. 119 - Viga 2 (4)



Cross section No. 119 - Viga 2 (4)

Static properties of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	ysc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	zsc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]				
5	498.85	250.00	579316.5	0.0	0.0	210000	3.92
	1314.3	186.69	62500.0	412.7	412.7	80770	(BEAM)

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
ysc[mm],zsc[mm]	ordinate of shear centre
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Additional static properties of cross section

α-T[1/K]	ymin[mm]	zmin[mm]	hymin[mm]	AK[cm2]	MRs	1/WT[1/m3]	1/WVy[1/m2]
	ymax[mm]	zmax[mm]	hzmin[mm]	AB[cm2]		1/WT2[1/m3]	1/WVz[1/m2]
1.2E-05	-250.0	-412.7		2.921E+02		2.283E+03	5.000E+01
	250.0	412.7				1.257E+02	5.484E+01

α-T[1/K]	Elongation coefficient
ymin[mm],zmin[mm],ymax[mm],zmax[mm]	extreme coordinates relative to centroid
hymin[mm],hzmin[mm]	minimum value for internal lever
AK[cm2]	torsional equivalent area (Bredt)
MRs	shear link material number
1/WT[1/m3],1/WT2[1/m3]	torsional resistance
1/WVy[1/m2],1/WVz[1/m2]	shear force resistance
AB[cm2]	gross concrete area

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Modelo 3D
Sections

Section values for warping

Wmin[cm2]	Wmax[cm2]	CM[cm6]	CMS[cm4]	ASwyy[cm6]	ASwzz[cm6]	ry[mm]	rz[mm]
-994.24	994.24	98850716.7	395403.2	4.66	43.16	0.0	0.0

Wmin[cm2],Wmax[cm2]	unit warping	ASwyy[cm6],ASwzz[cm6]	warping sectional value
CM[cm6]	warping resistance	ry[mm],rz[mm]	sectional distance
CMS[cm4]	warping shear resistance		

Design values of cross section

Mat	A[cm2]	Ay[cm2]	Iy[cm4]	yc[mm]	E[N/mm2]	g[kN/m]
MRf	It[cm4]	Az[cm2]	Iz[cm4]	zc[mm]	G[N/mm2]	
		Ayz[cm2]	Iyz[cm4]			
5	498.85	250.00	579316.5	0.0	190909	3.92
	1314.3	186.69	62500.0	412.7	73427	

Mat	material number
A[cm2]	sectional area
Ay[cm2],Az[cm2],Ayz[cm2]	transverse shear deformation area
Iy[cm4],Iz[cm4],Iyz[cm4]	bending moment of inertia
yc[mm],zc[mm]	ordinate of elastic centroid
E[N/mm2]	Young's modulus
g[kN/m]	weight per length
MRf	reinforcement material number
It[cm4]	torsional moment of inertia
G[N/mm2]	Shear modulus

Design forces and moments

	N[kN]	Vy[kN]	Vz[kN]	Mt[kNm]	Mt2[kNm]	Mb[kNm2]	My[kNm]	Mz[kNm]	y[mm]	z[mm]	BUCK
=	(C/E = characteristic plastic/elastic, D=plast.Design, F=elast. Design)										
C	17709.1	6148.78	4075.56	143.18	2445.34	529.43	5639.13	1375.37	0.0	412.7	b c
E	17709.1	4099.19	3737.40	89.79	1630.23	352.95	5171.24	887.50	0.0	412.7	
D	16099.2	5589.80	3705.06	130.16	2223.03	481.30	5126.48	1250.34	0.0	412.7	
F	16099.2	3726.53	3397.64	81.63	1482.02	320.87	4701.12	806.82	0.0	412.7	

N[kN]	normal force	Mb[kNm2]	warping moment
Vy[kN],Vz[kN]	shear force	My[kNm],Mz[kNm]	bending moment
Mt[kNm]	primary torsional moment	y[mm],z[mm]	ordinate of elastic centroid
Mt2[kNm]	secondary torsional moment	BUCK	buckling curve

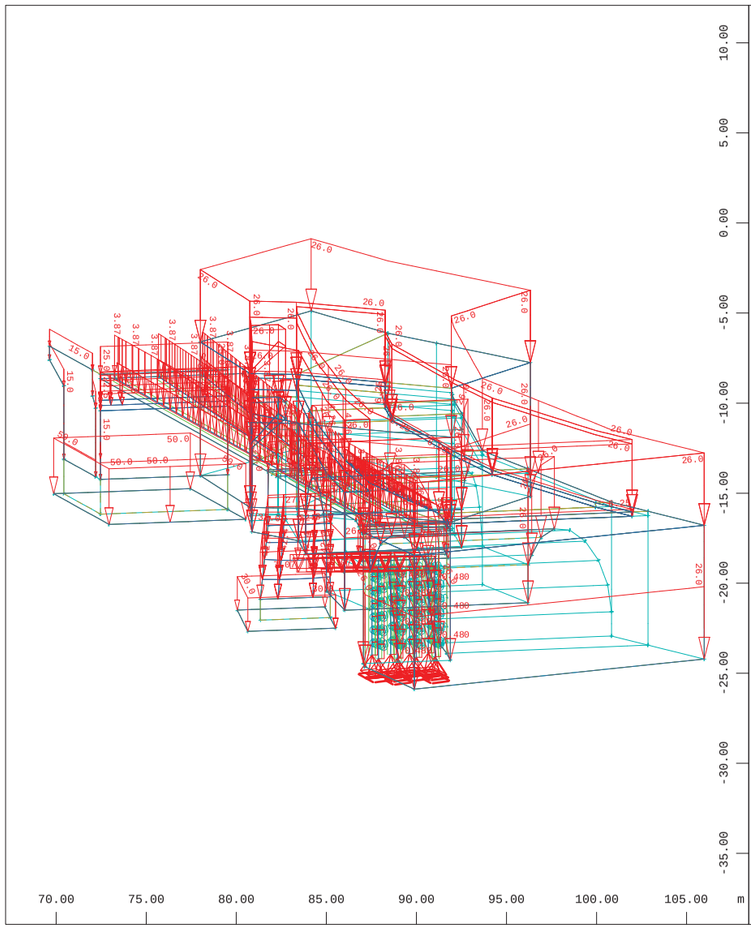
Additional Design Data

Mat	periphery-O/-I [m2/m]	[m2/m]	deff [mm]	t-min [mm]	t-max [mm]	SMP [o/o]	thet-p [tm2/m]	thet-y [tm2/m]	thet-z [tm2/m]	thet-yz [tm2/m]
	3.591		27.8	25.0	30.0	0.0	0.050	0.045	0.005	

Mat	material number	t-min,t-max	thickness
periphery-O/-I	peripheral area per length	SMP	small parts percentage
deff	effective depth	thet-p,thet-y,thet-z,thet-yz	rotational mass

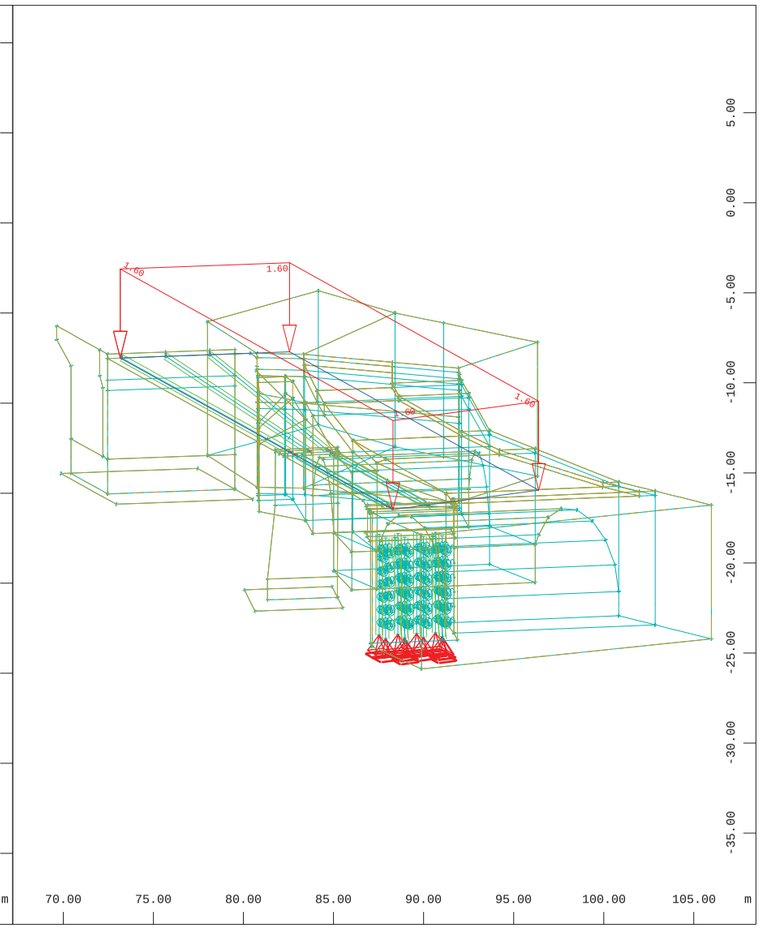
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CARGAS



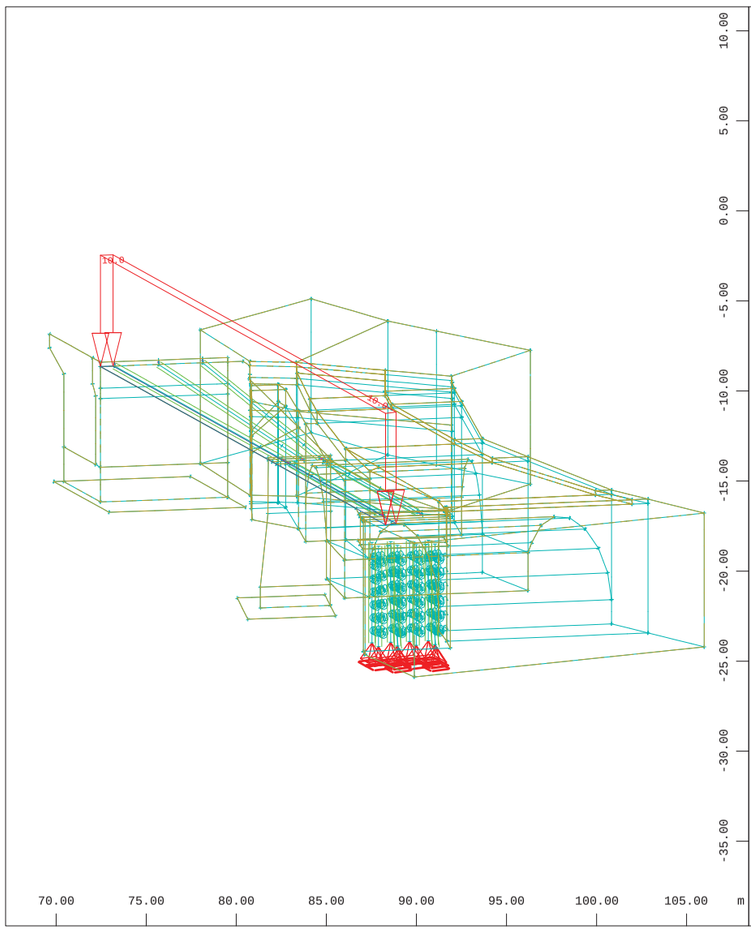
Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 1 PesoPropio , (1 cm 3D = unit)
QUAD-Area dead load in global Z in Element (Unit=50.0
kN/m2,Min=-50.0 Max=-6.25), Beam dead load in global Z

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



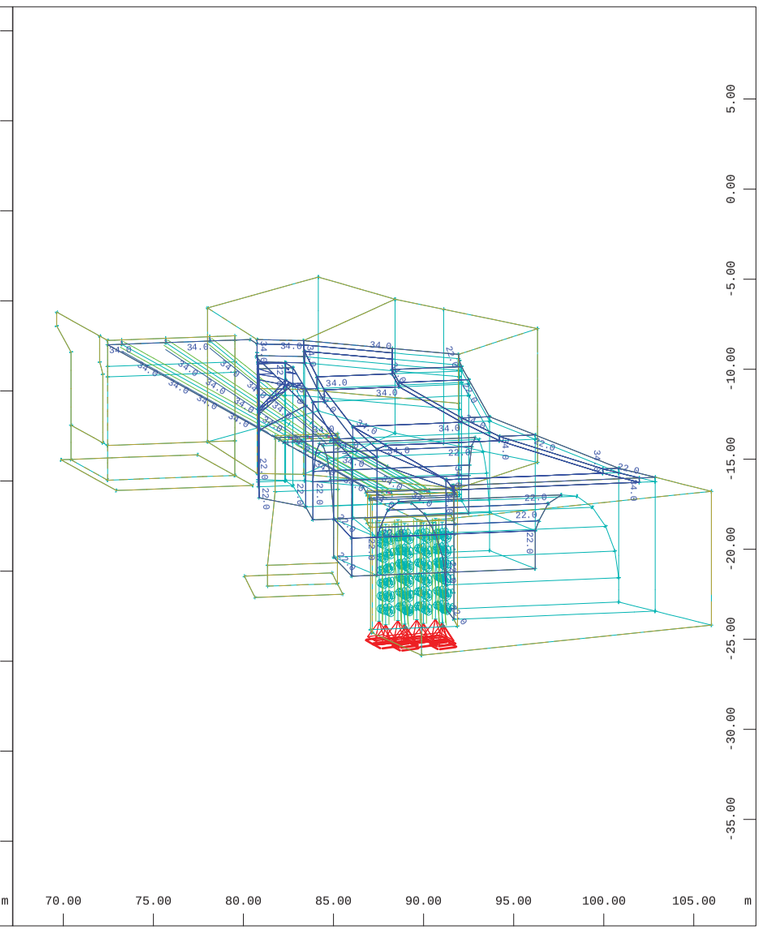
Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 2 Aglomerado , (1 cm 3D = unit) Free
area load (force) in global Z (Unit=1.00 kN/m2)
(Min=-1.60) (Max=-1.60)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



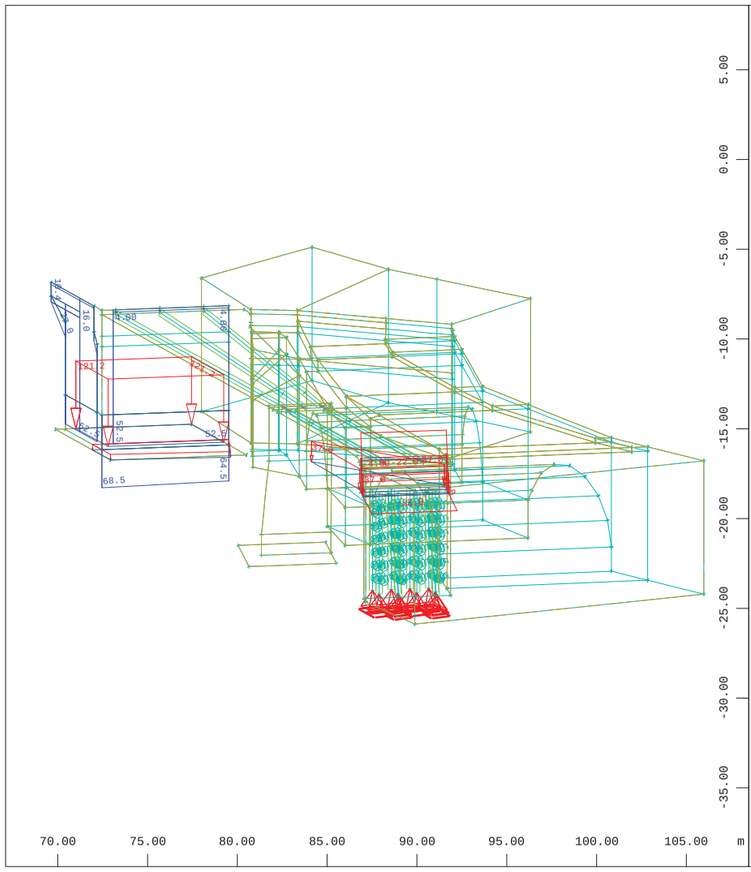
Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 3 Barreras , (1 cm 3D = unit) Free area
load (force) in global Z (Unit=5.00 kN/m2) (Min=-10.0)
(Max=-10.0)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 4 Temp unif (+) , (1 cm 3D = unit) Area
element load (uniform temperature change) (Unit=-1.00
°C,Max=34.0), Beam line load (uniform temperature

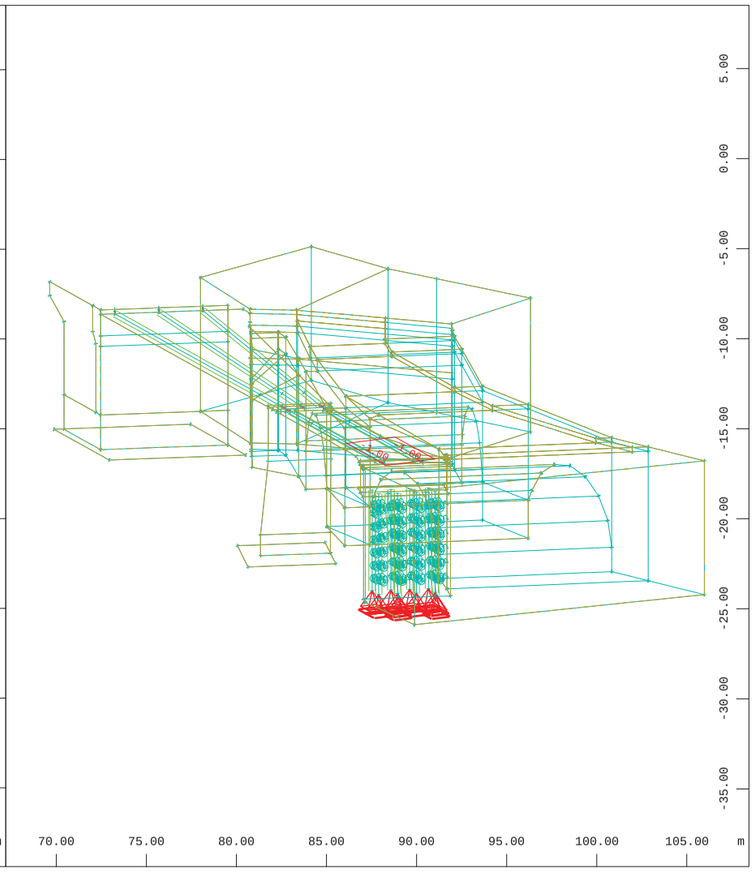
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 5 Empuje de tierras , (1 cm 3D = unit)
Free line load (force) in local y (Unit=20.0 kN/m,Min=-22.0
Max=-22.0), Free line load (moment) about local x (Unit=20.0
kNm/m,Min=-22.0 Max=-22.0), Free area load (force) in local z
(Unit=100.0 kN/m2,Min=-18.8 Max=68.5), Free area load (force)

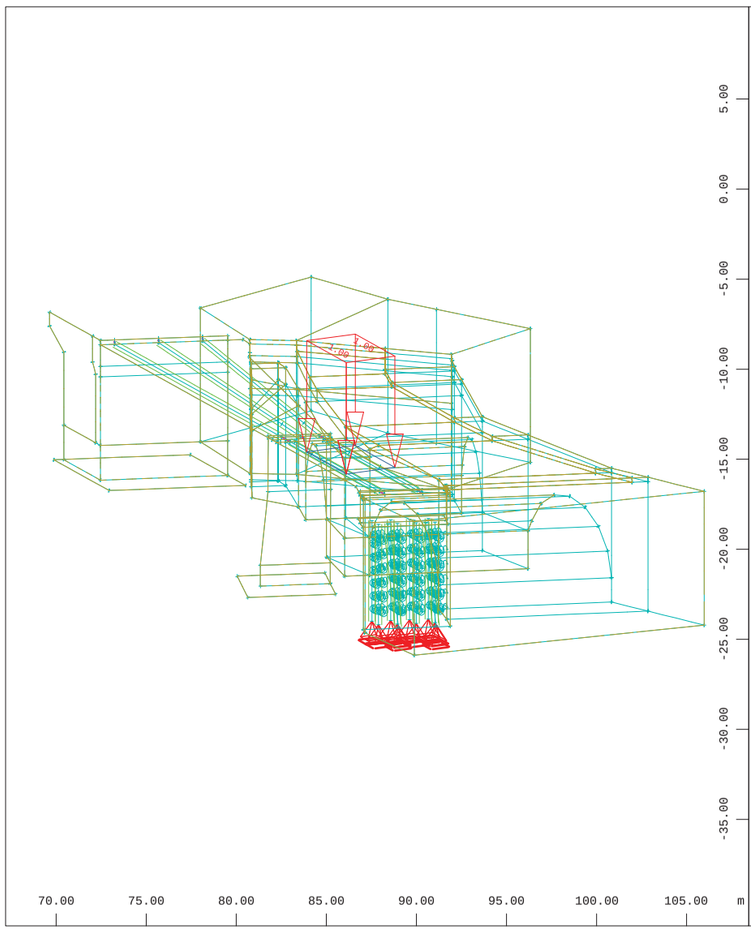
M 1 : 322
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 11 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=-1.00 kN/m2)
(Min=-1.00) (Max=-1.00)

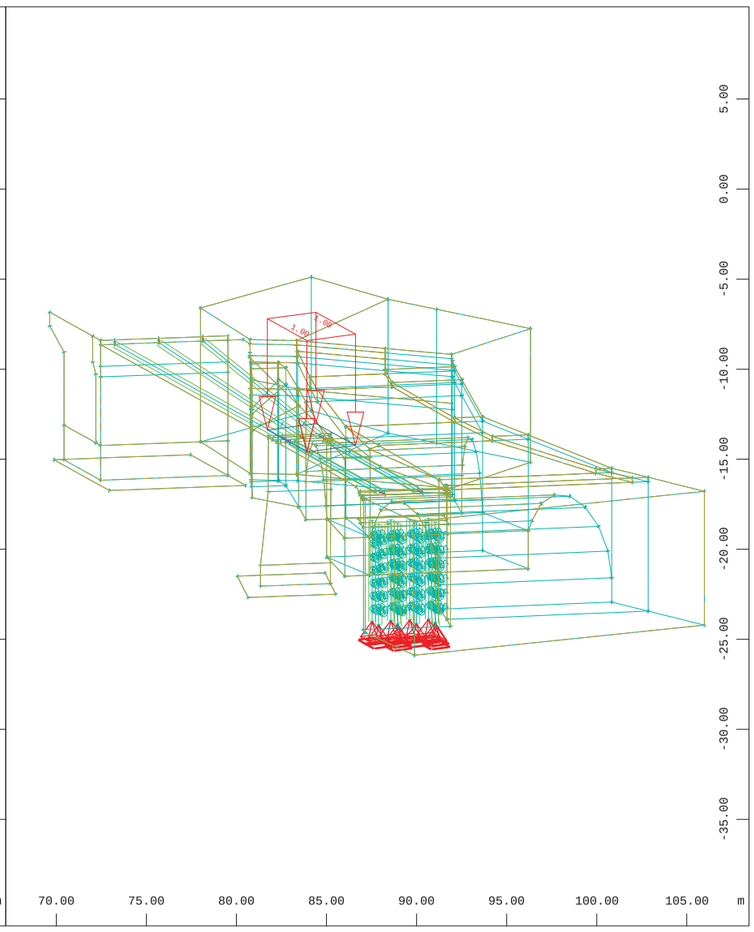
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 12 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

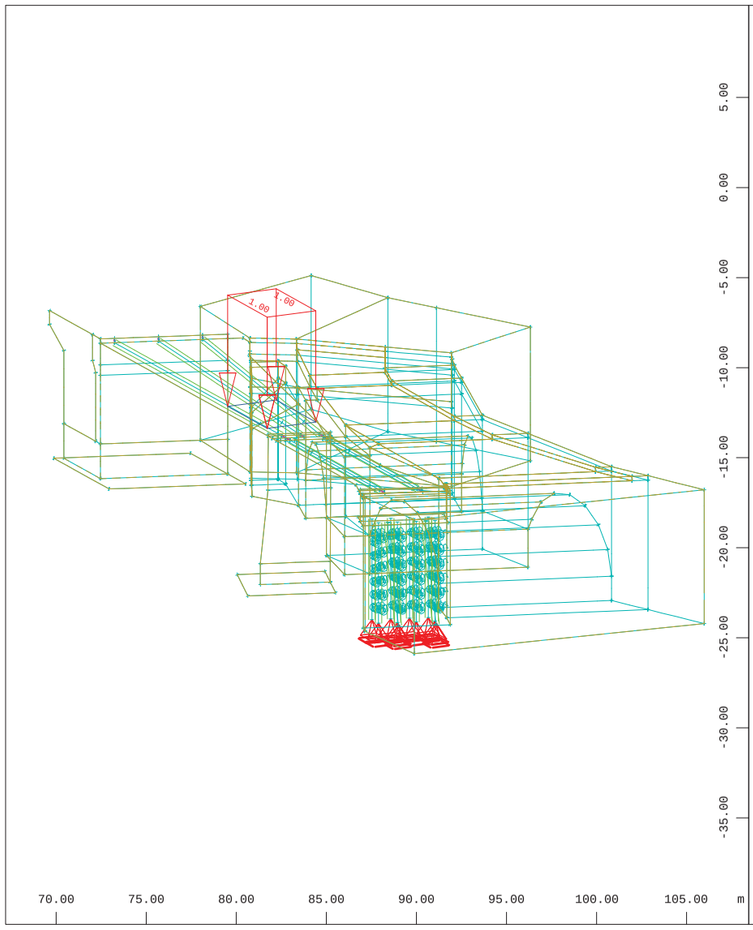
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

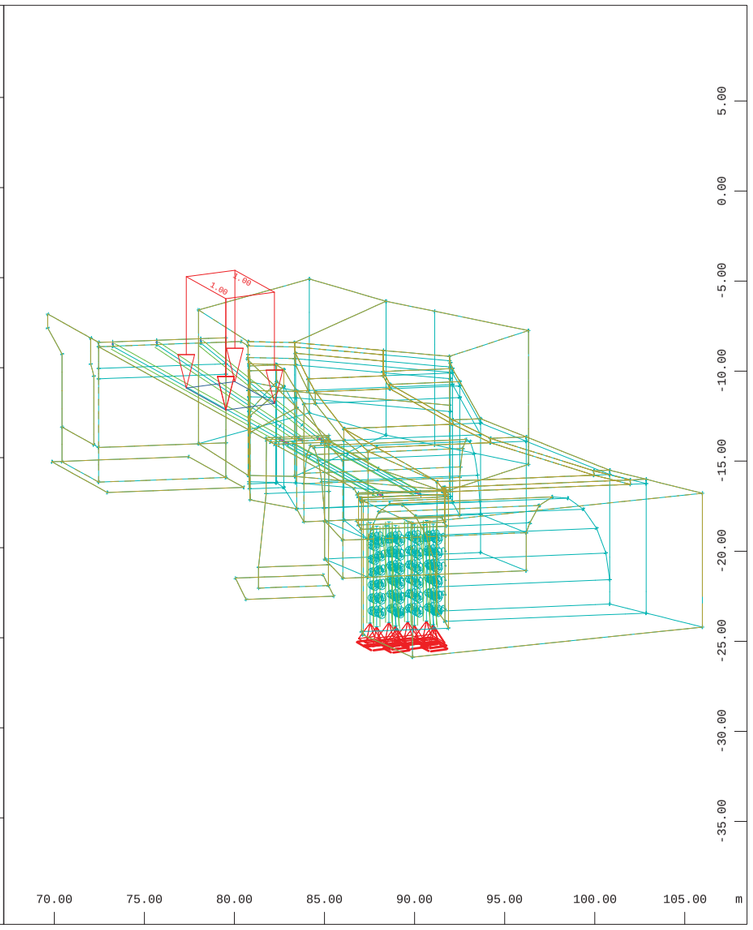
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 13 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



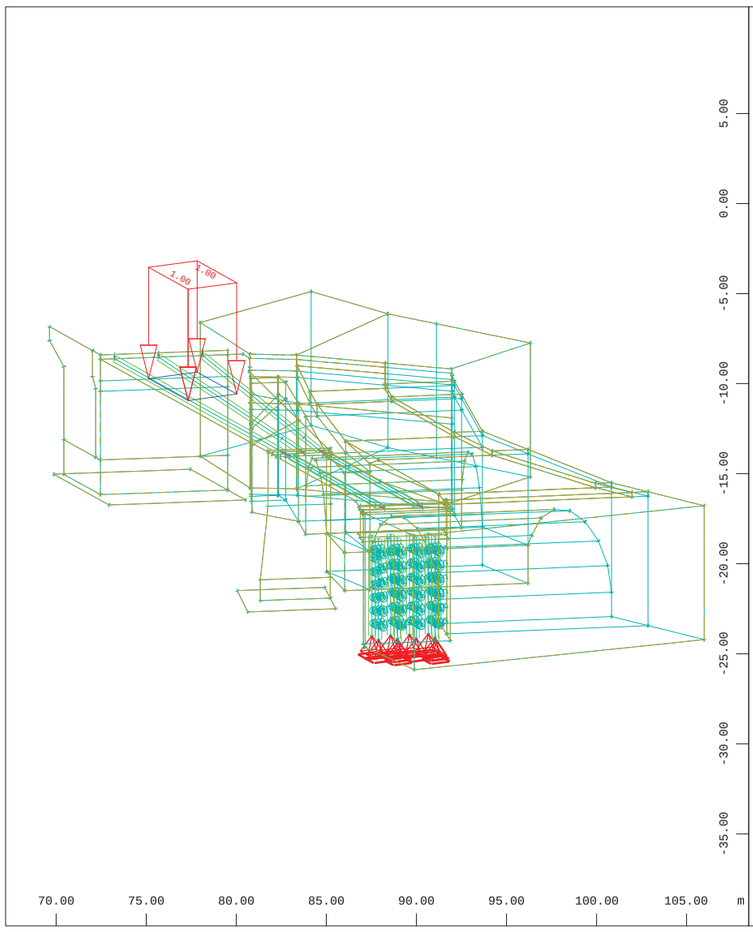
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 14 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



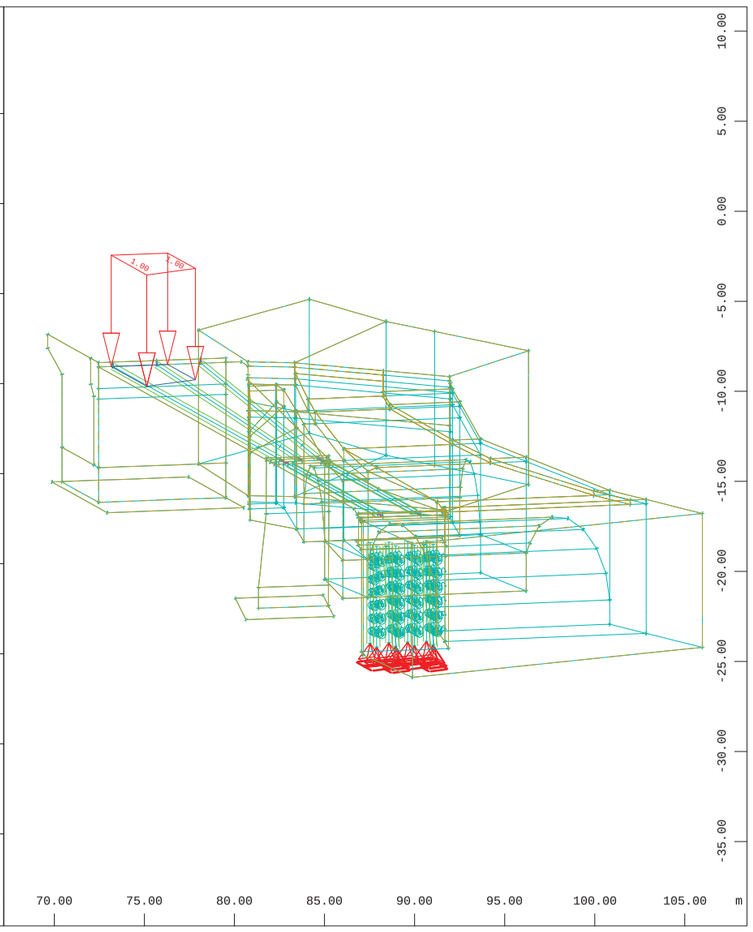
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 15 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



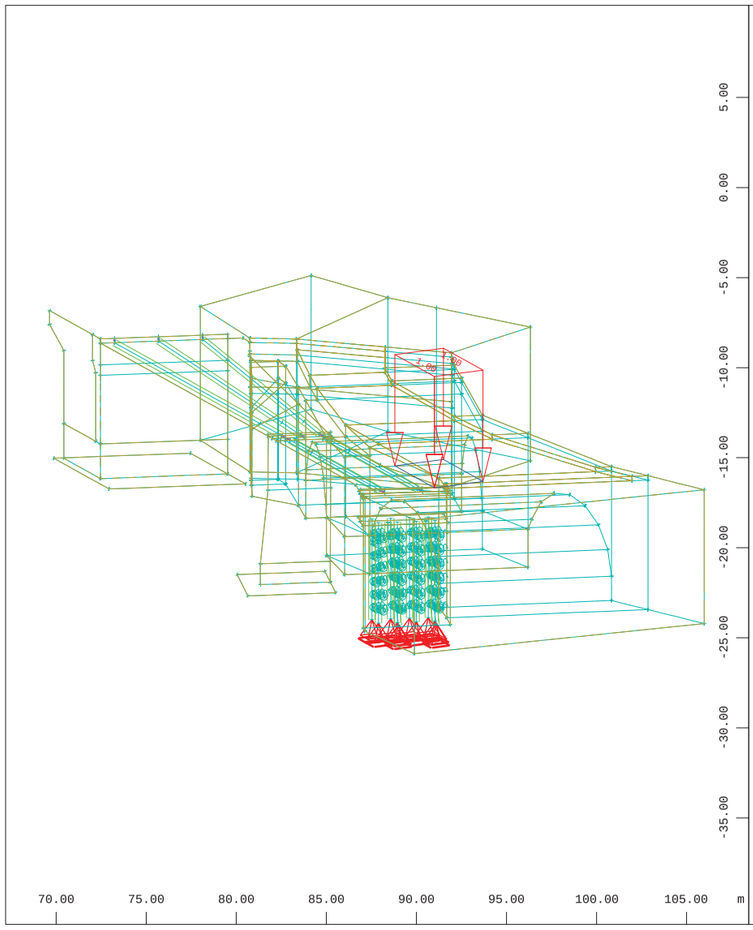
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 16 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



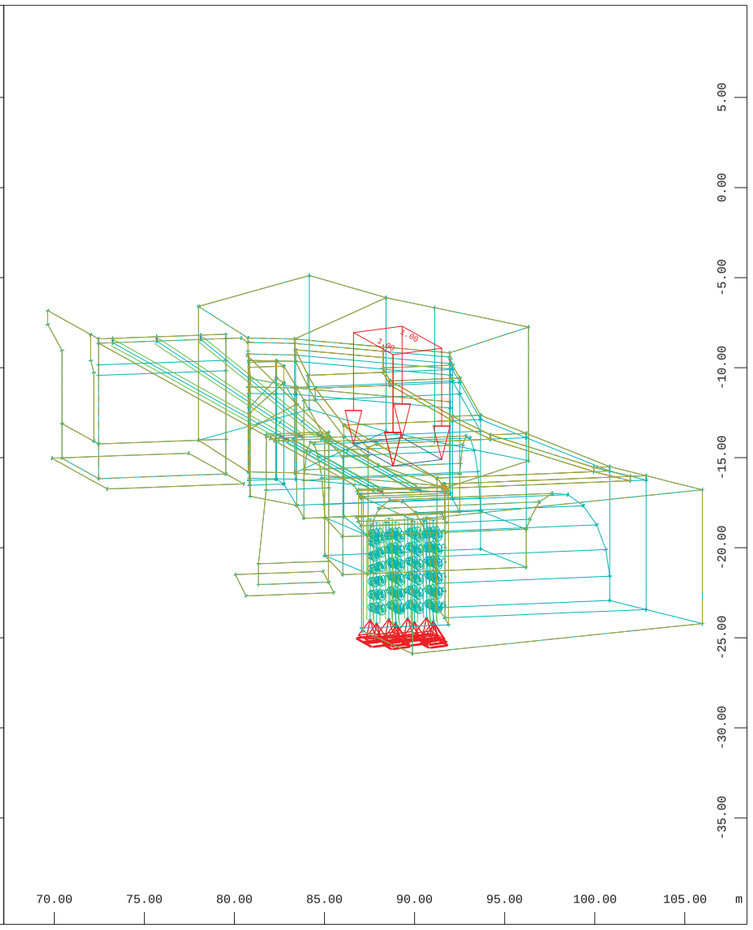
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 17 Sob unif calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



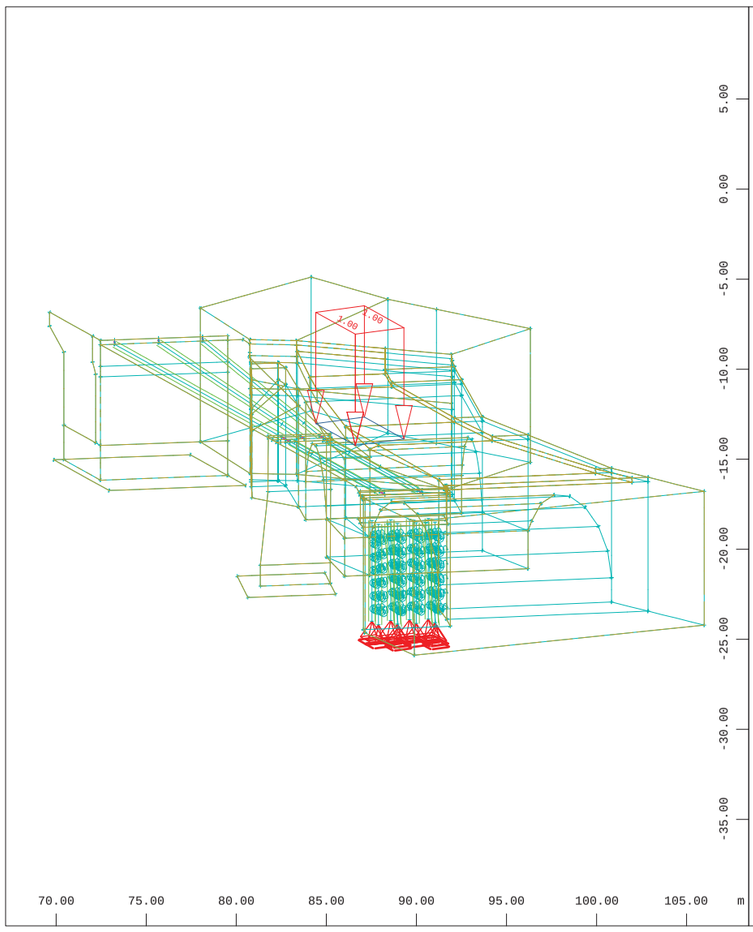
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 21 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



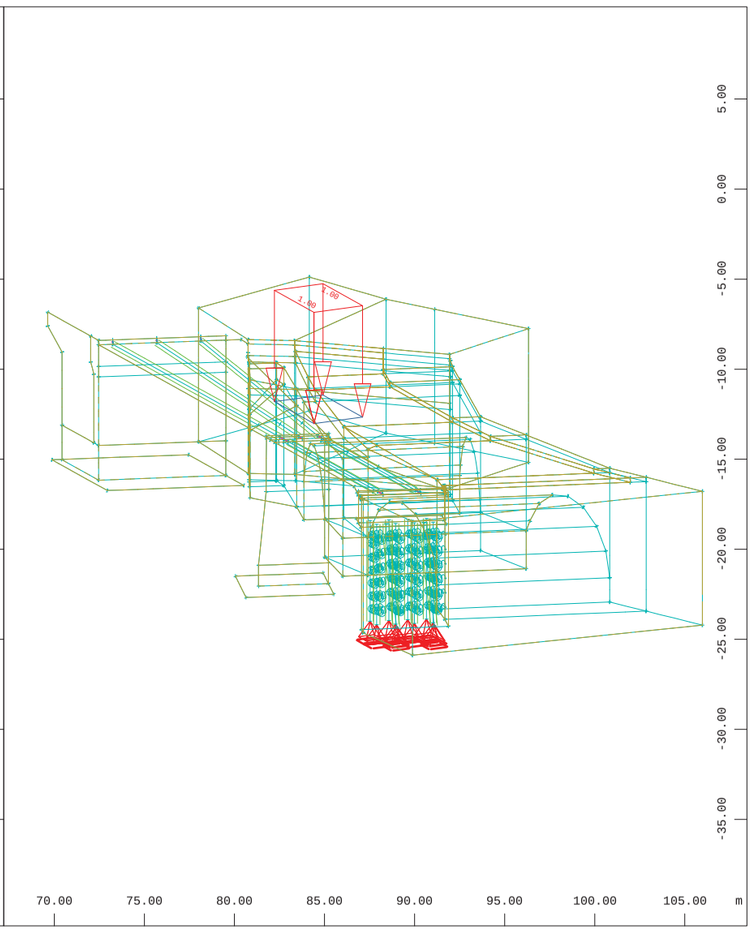
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 22 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



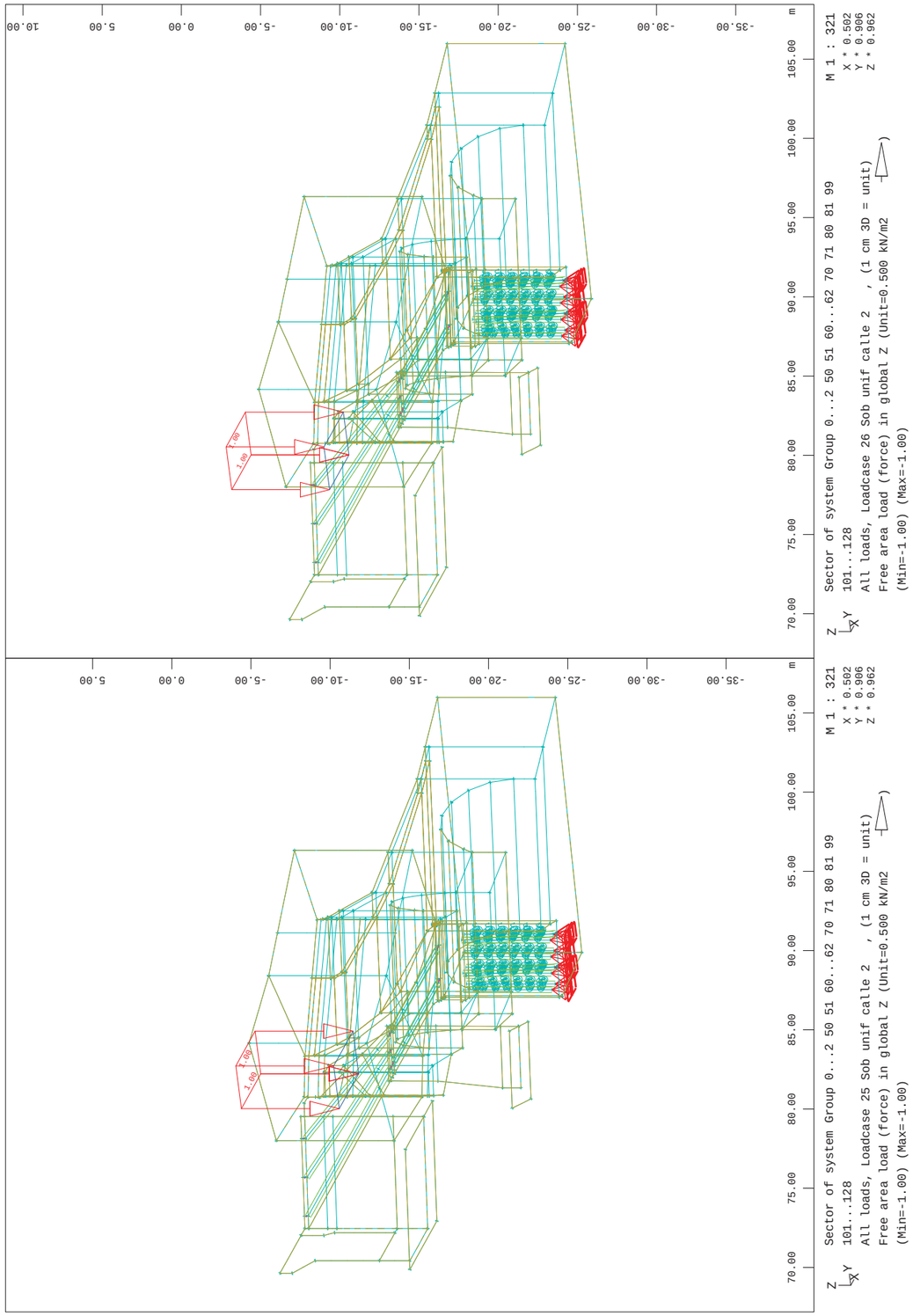
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 23 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

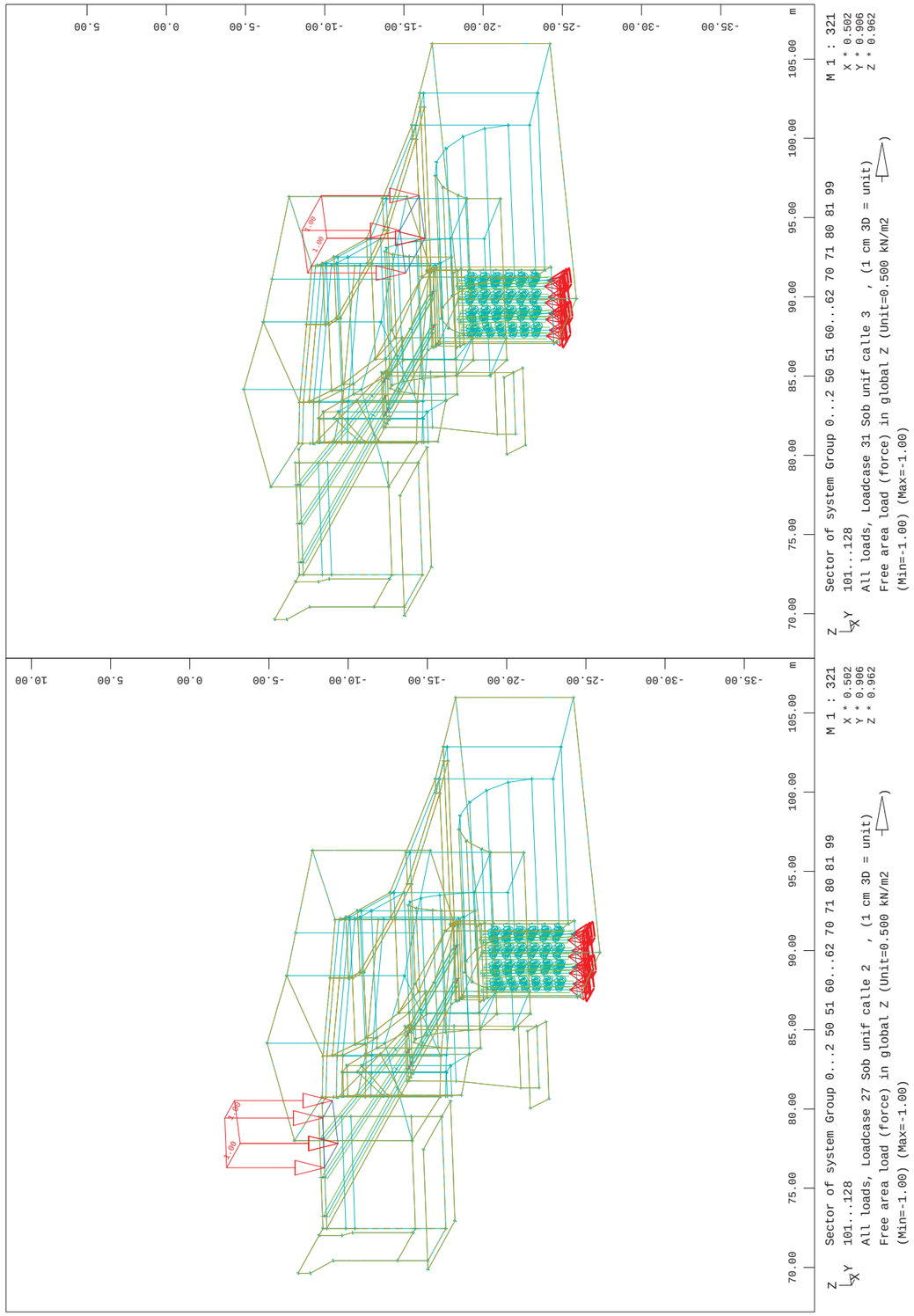
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 24 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

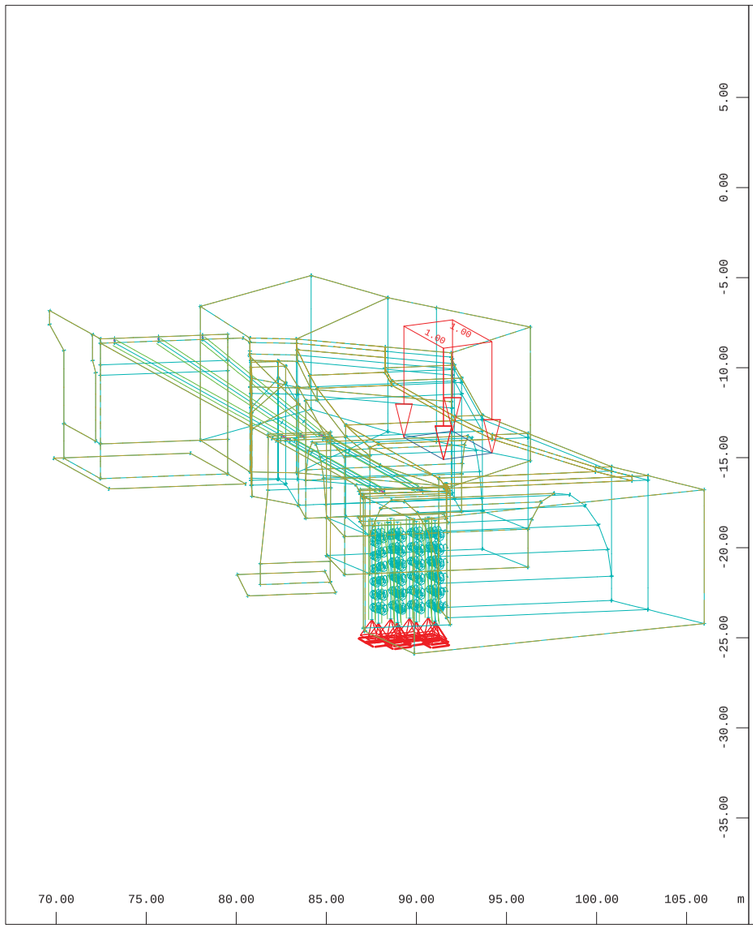
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 26 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2
(Min=-1.00) (Max=-1.00)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
1.00
1.00
m


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 31 Sob unif calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2
(Min=-1.00) (Max=-1.00)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
1.00
1.00
m

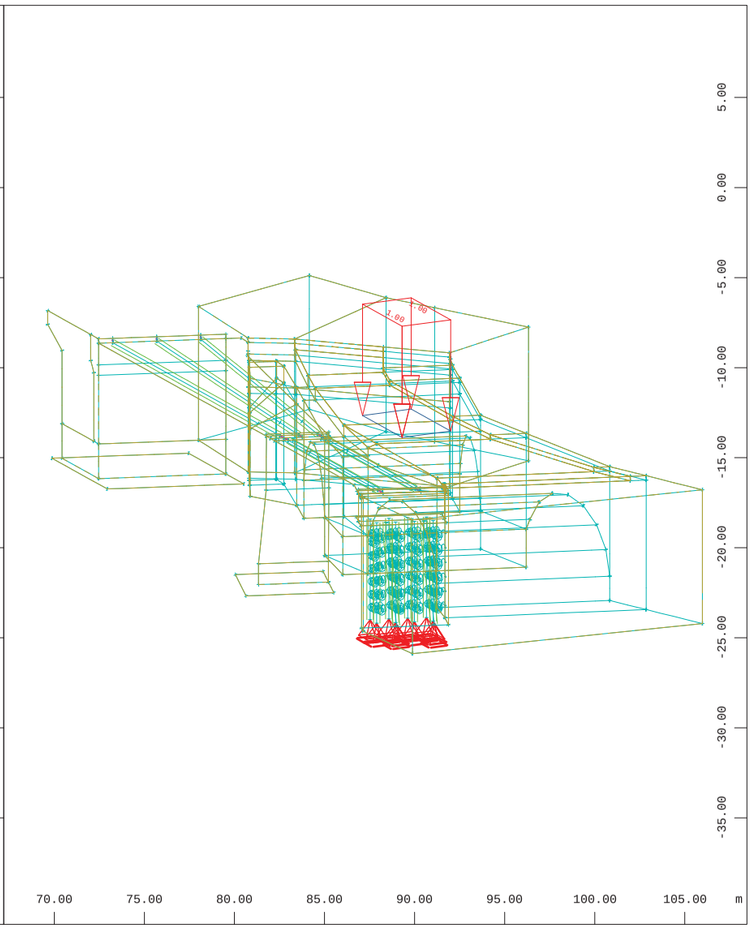
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 25 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2
(Min=-1.00) (Max=-1.00)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
1.00
1.00
m

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 27 Sob unif calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2
(Min=-1.00) (Max=-1.00)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
1.00
1.00
m



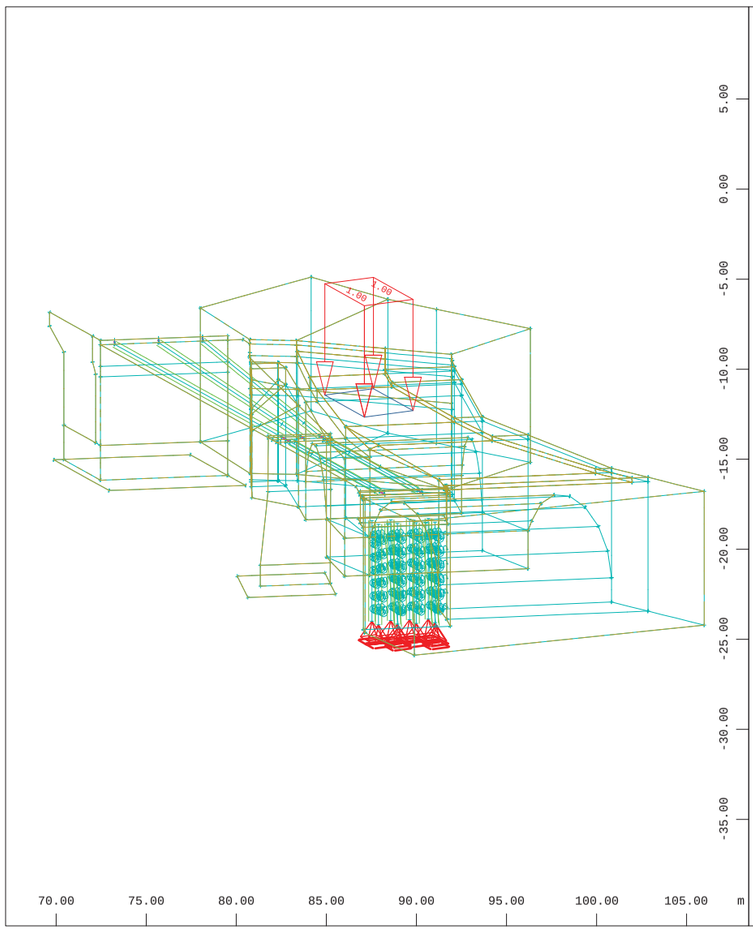
Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 32 Sob unif calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



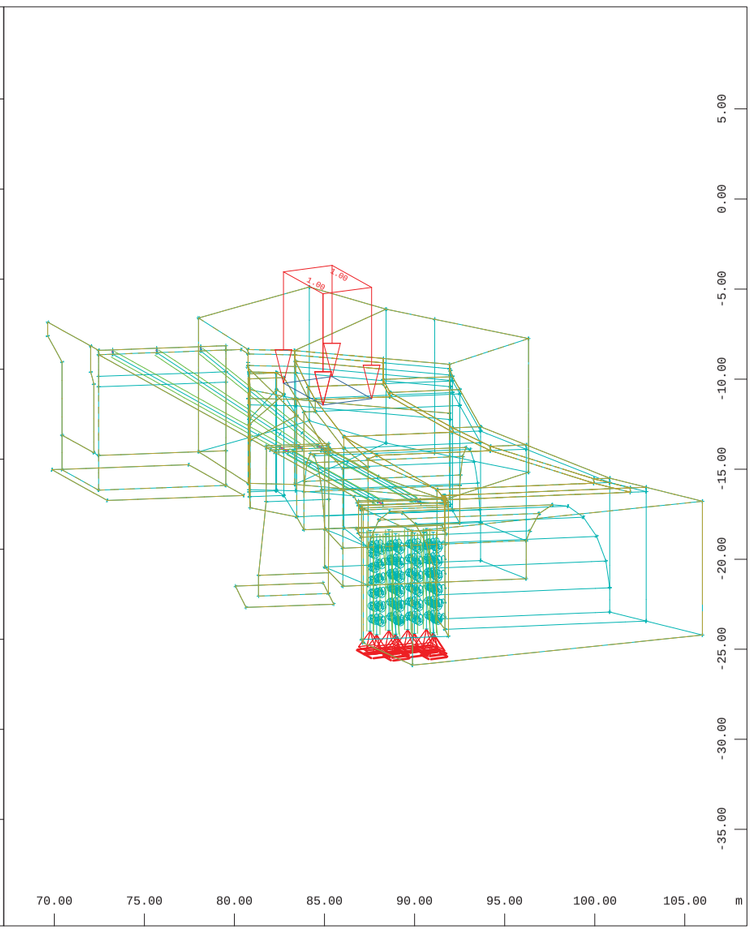
Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 33 Sob unif calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



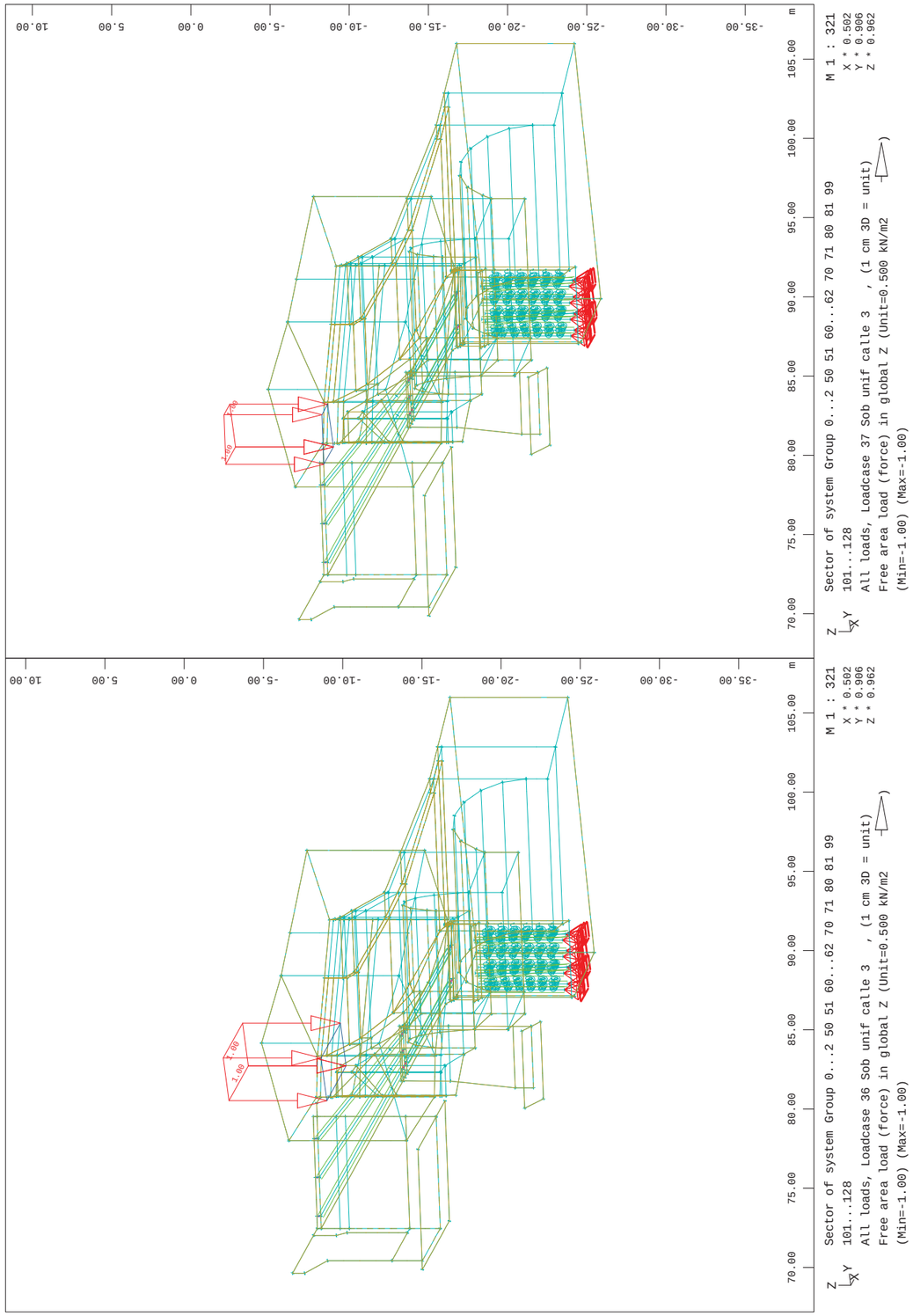
Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 34 Sob unif calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

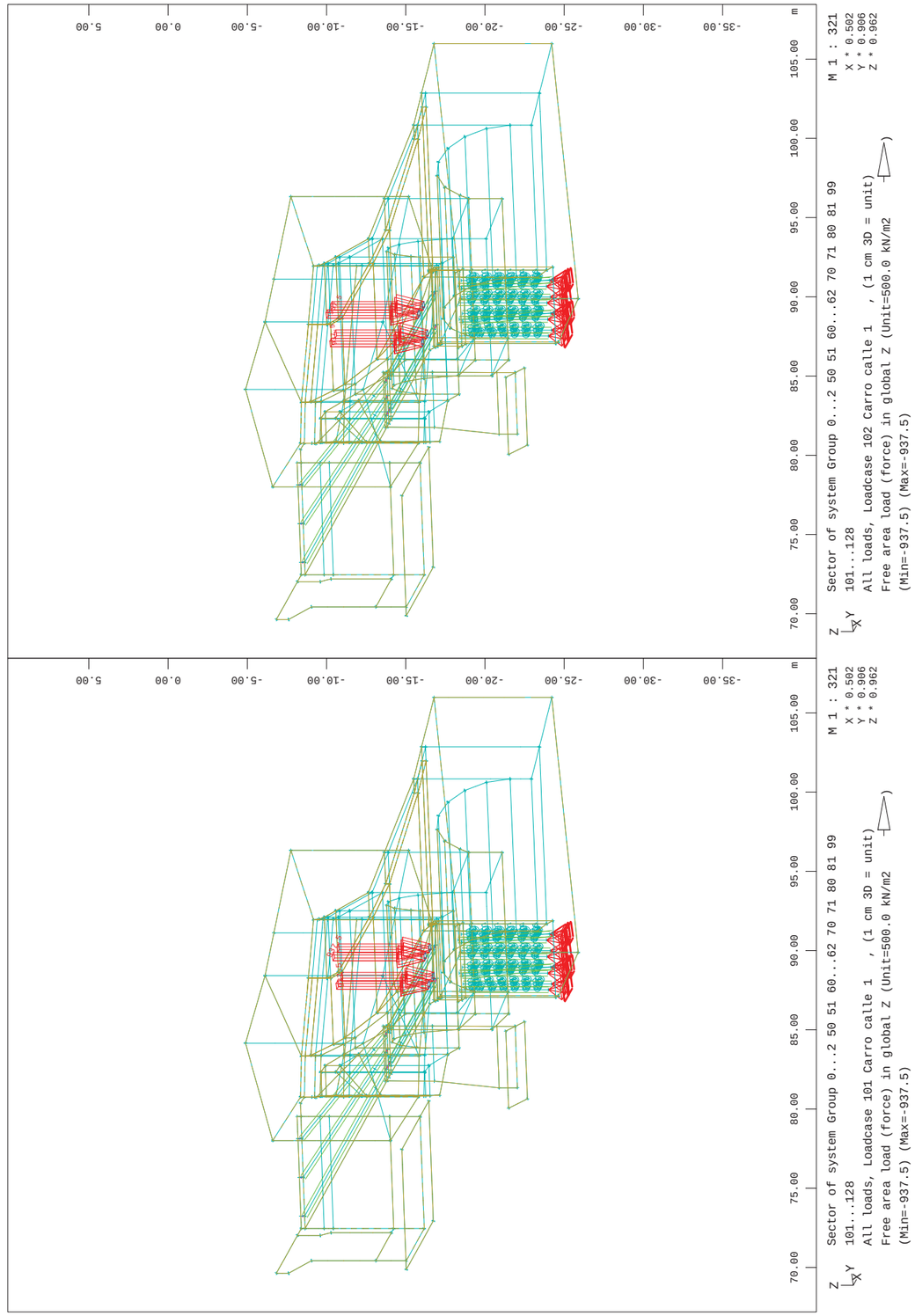
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

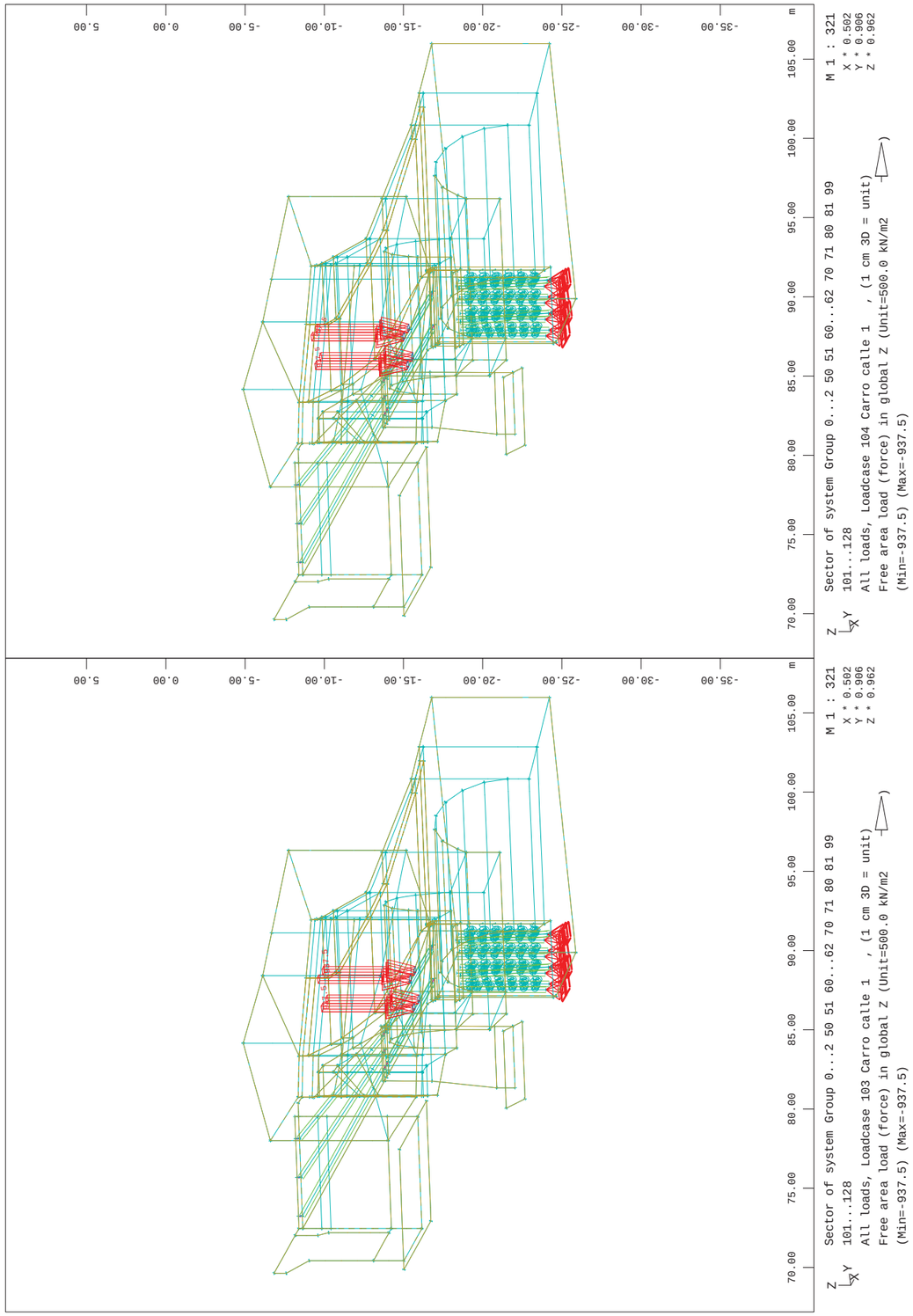


Z
Y X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 35 Sob unif calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2)
(Min=-1.00) (Max=-1.00)

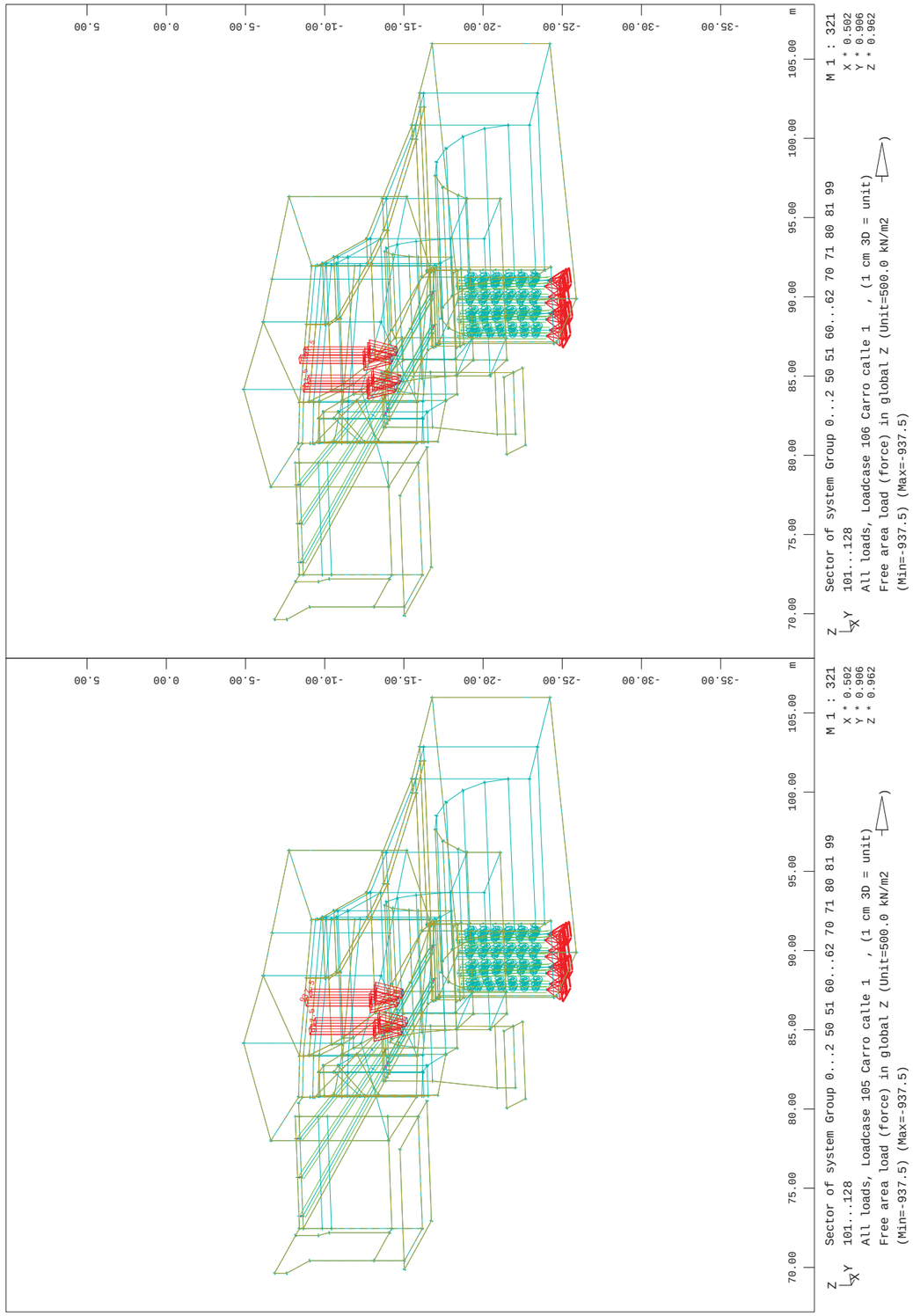
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 36 Sob unif calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=0.500 kN/m2
(Min=-1.00) (Max=-1.00)
1.00
1.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

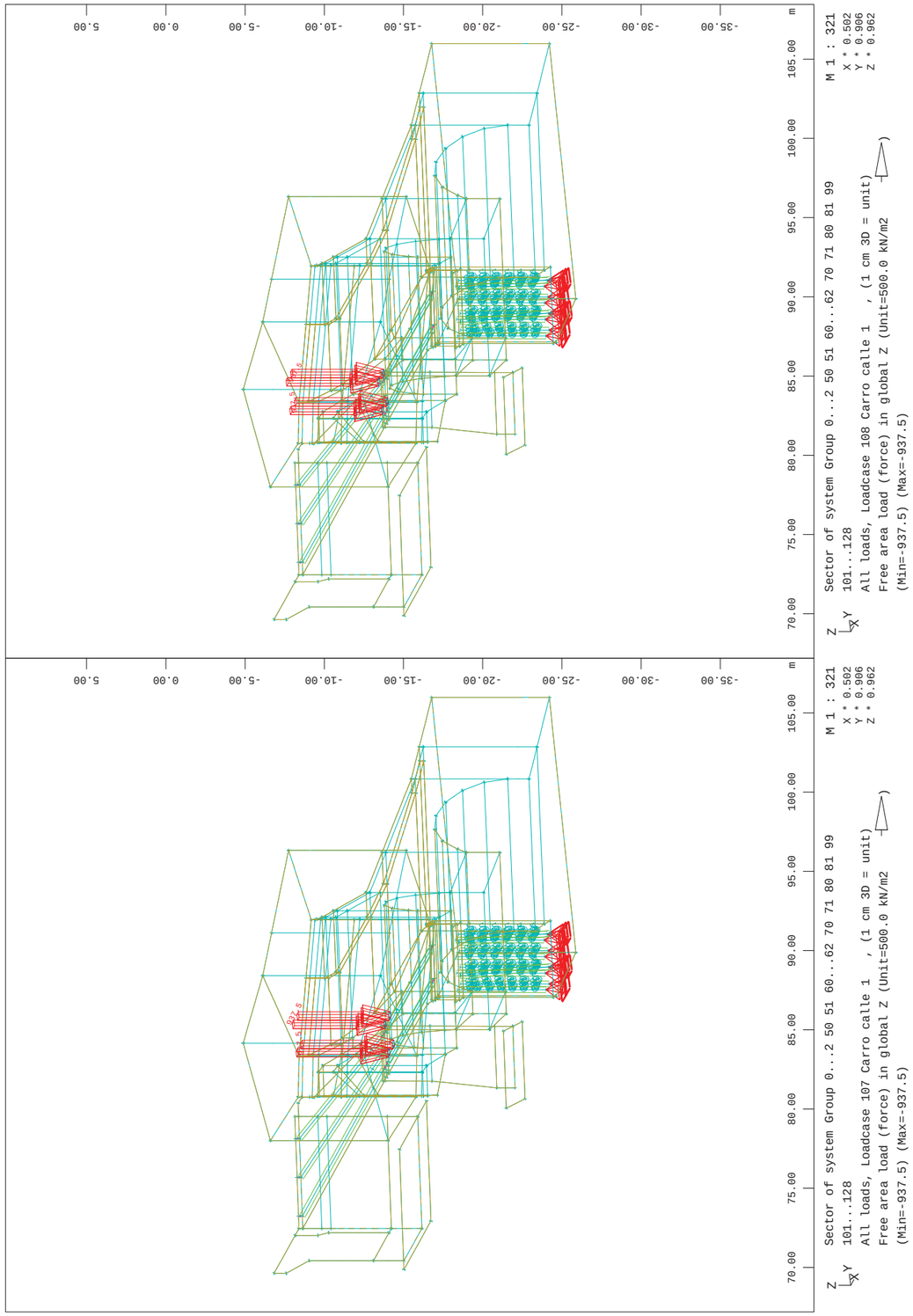

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 102 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

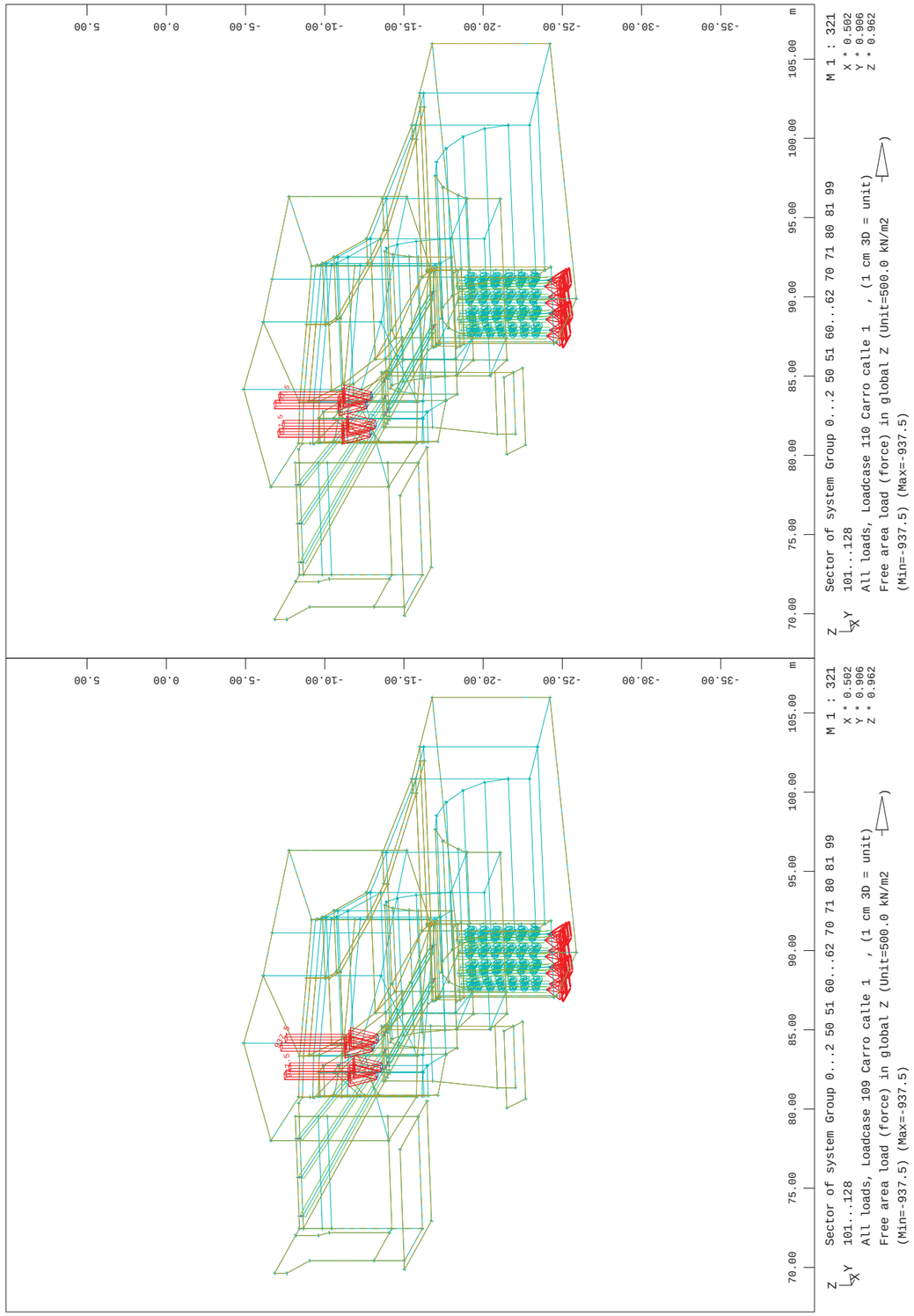

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 104 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

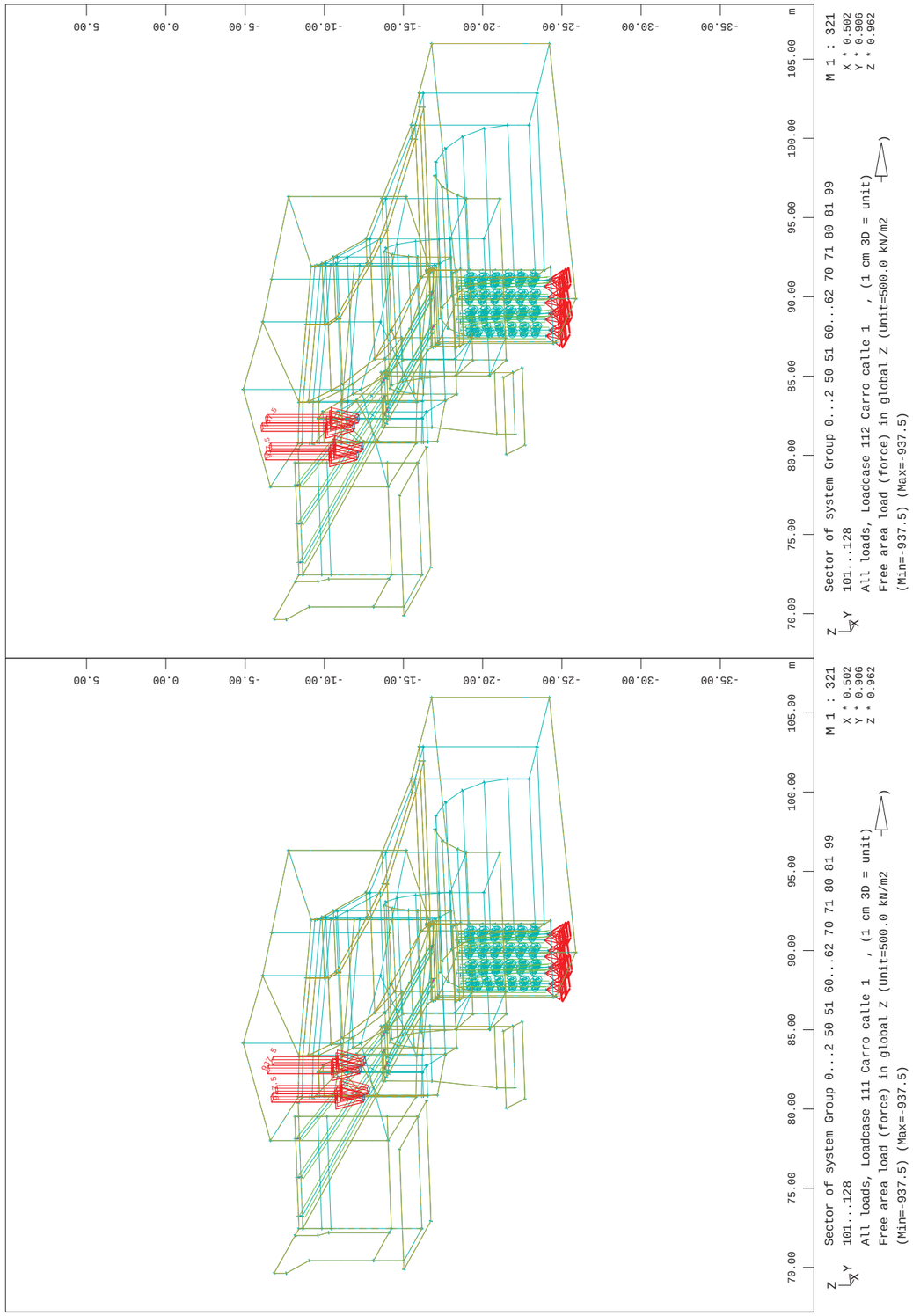
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 103 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 106 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

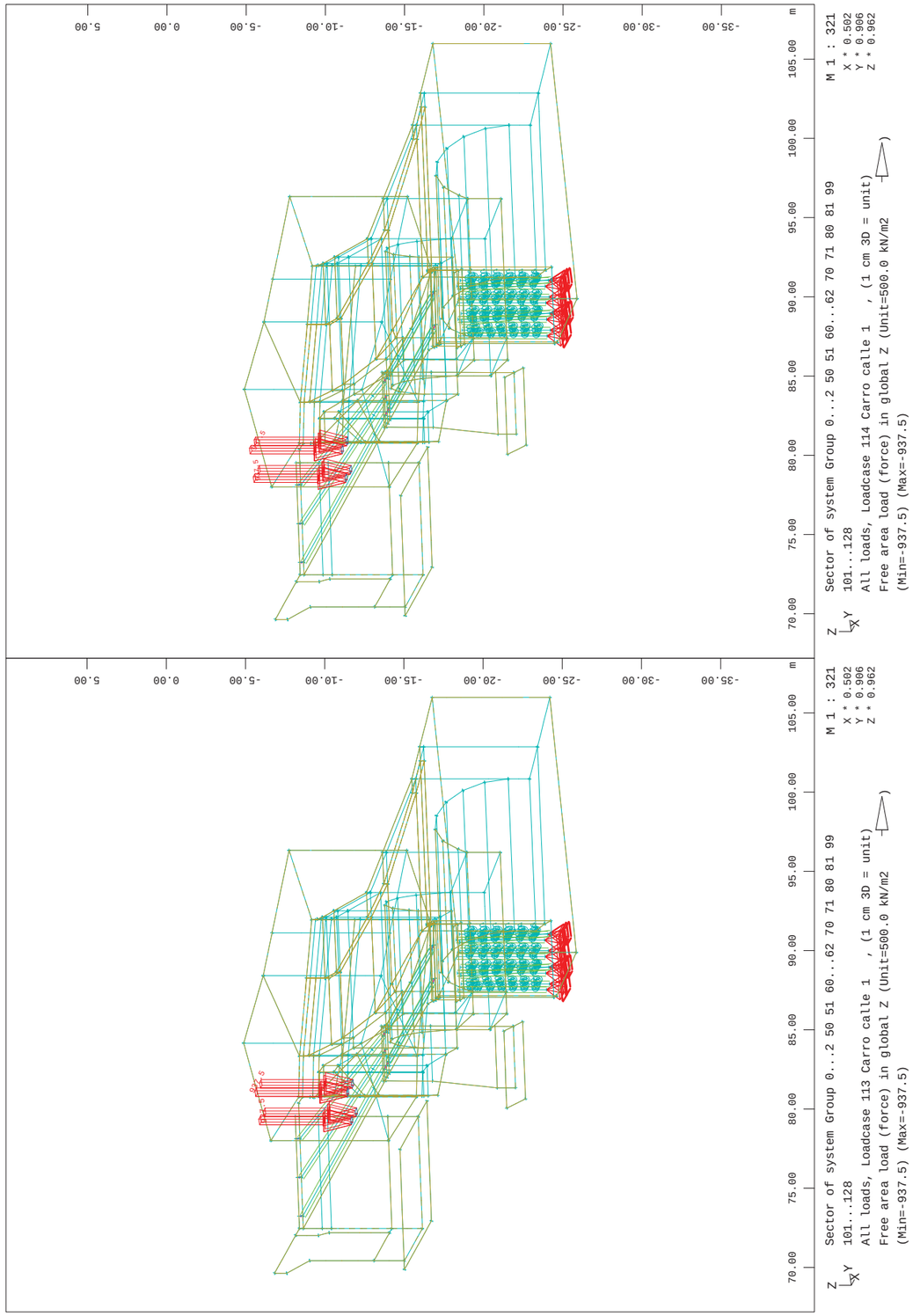
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 105 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


5.00 0.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00 m
105.00 100.00 95.00 90.00 85.00 80.00 75.00 70.00
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 108 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X

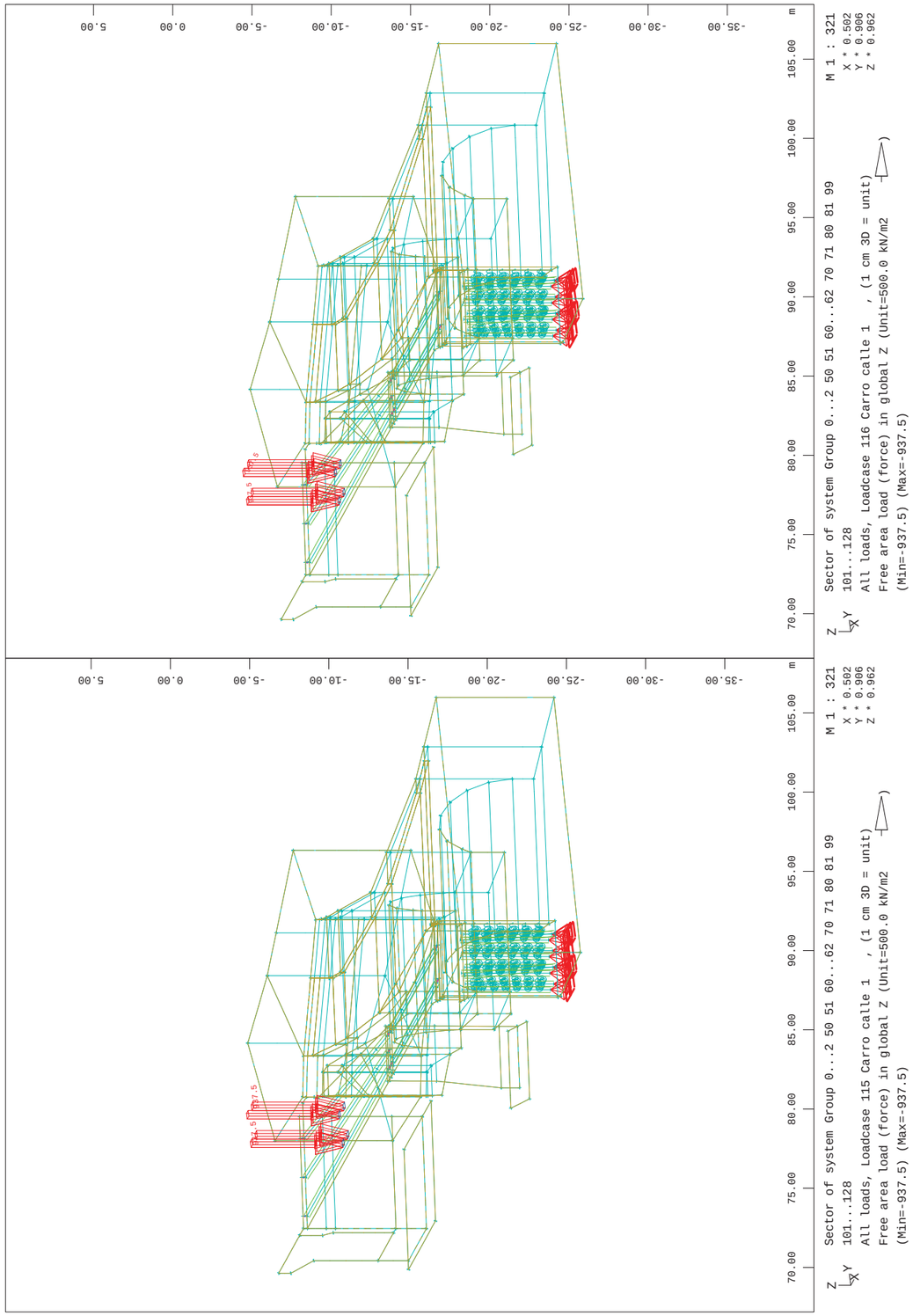

5.00 0.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00 m
105.00 100.00 95.00 90.00 85.00 80.00 75.00 70.00
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 110 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X

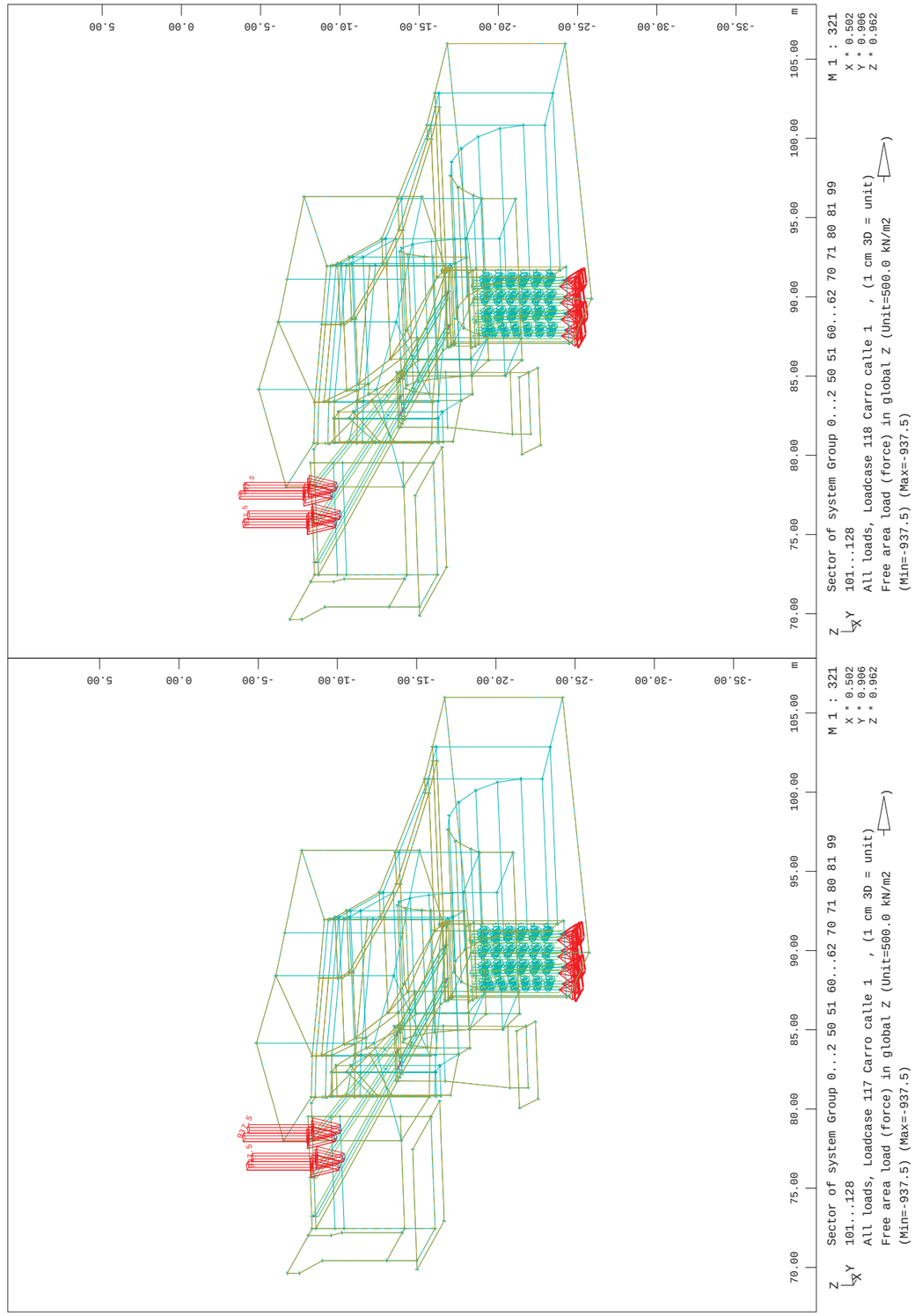

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 112 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 111 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 114 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

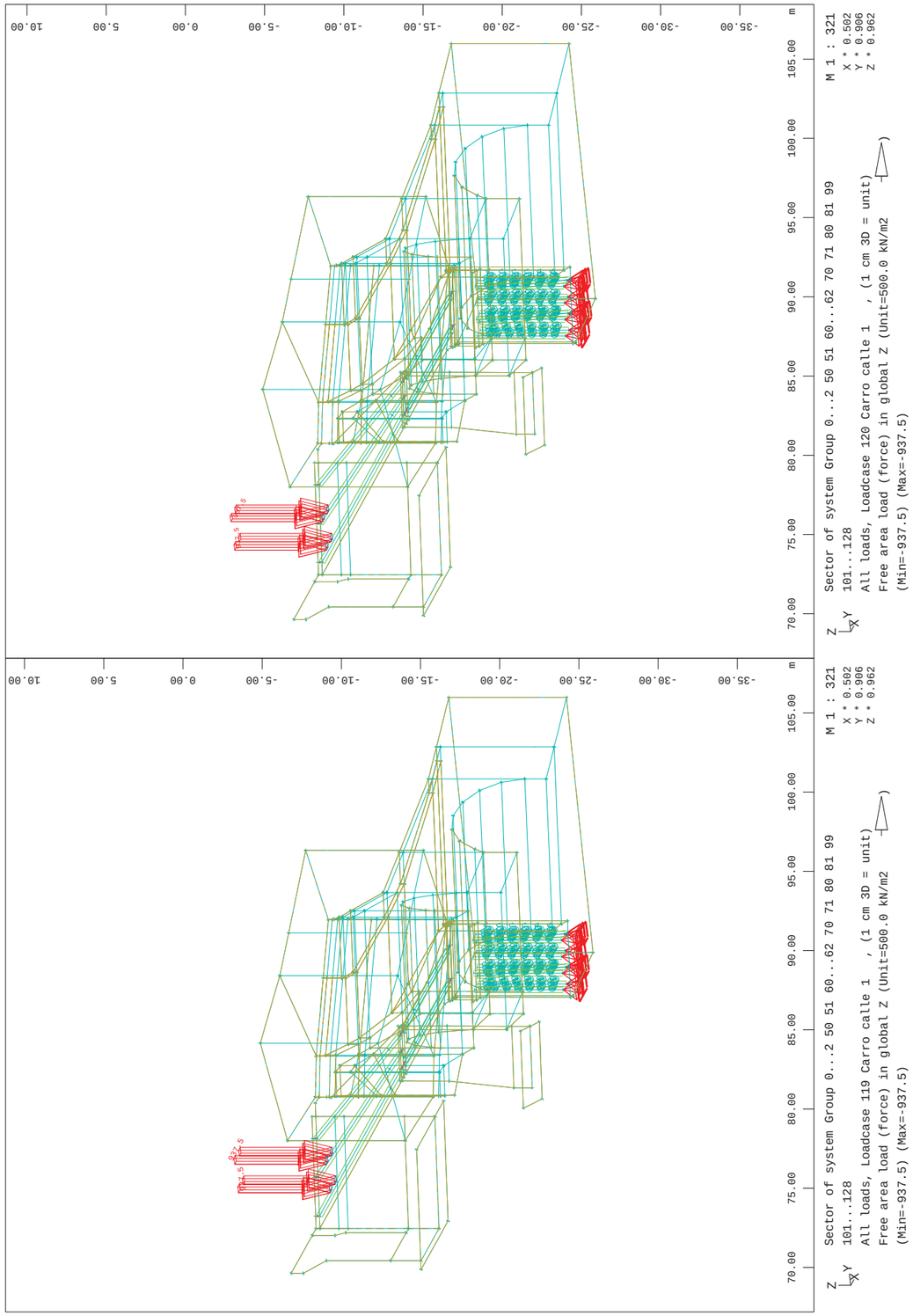
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 113 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

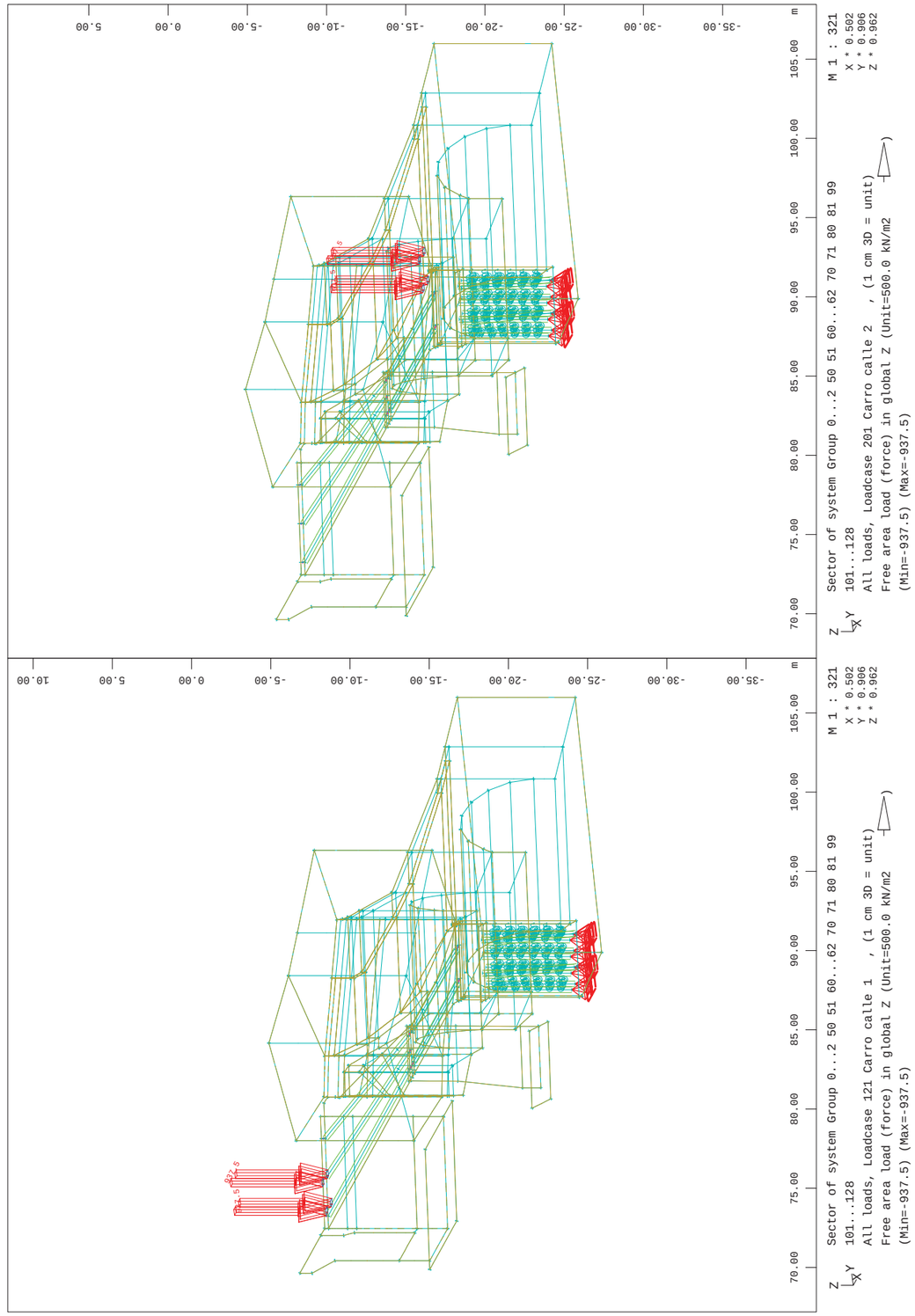

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 116 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 118 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 115 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

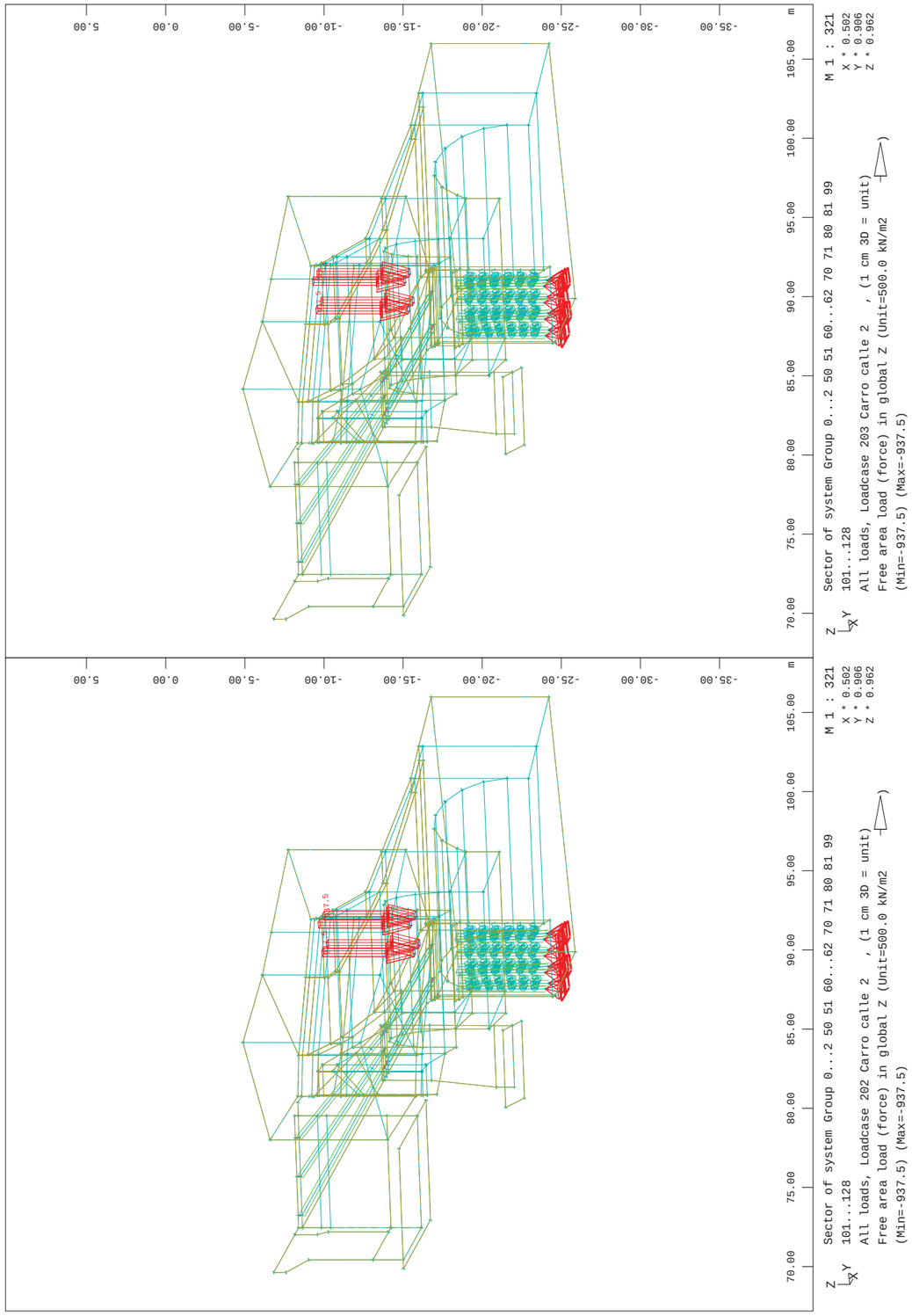
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 117 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

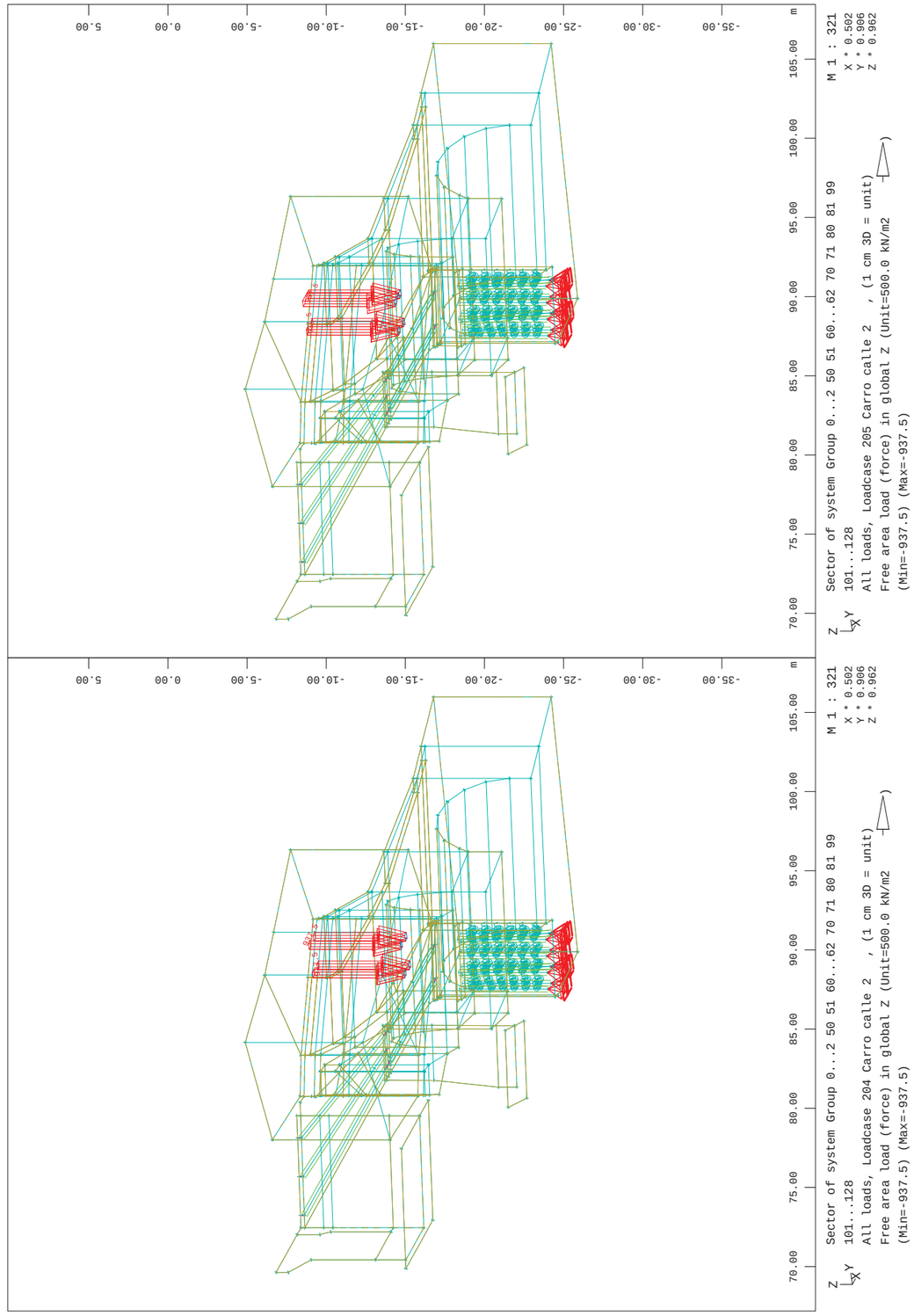

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 120 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

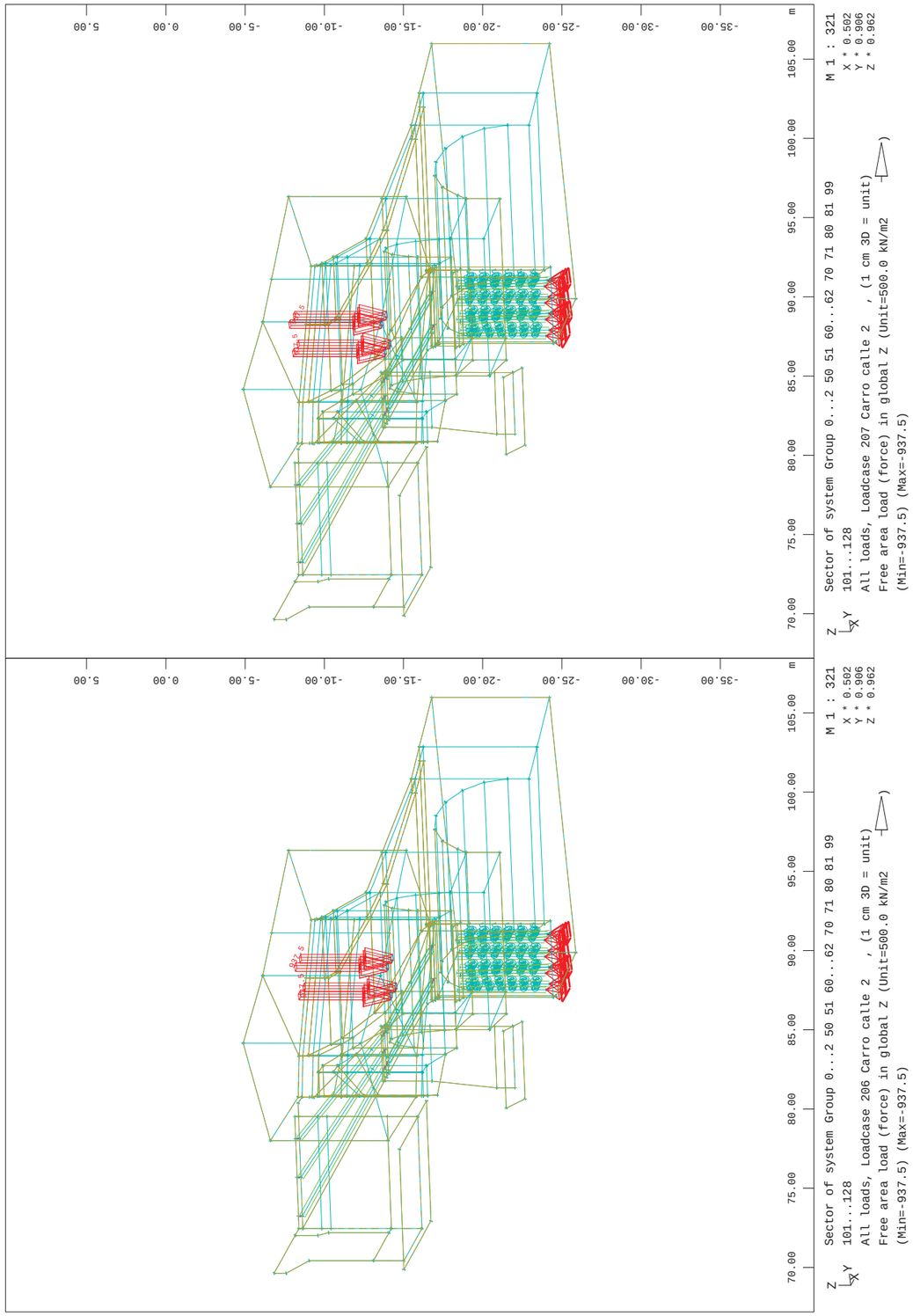

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 201 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 119 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

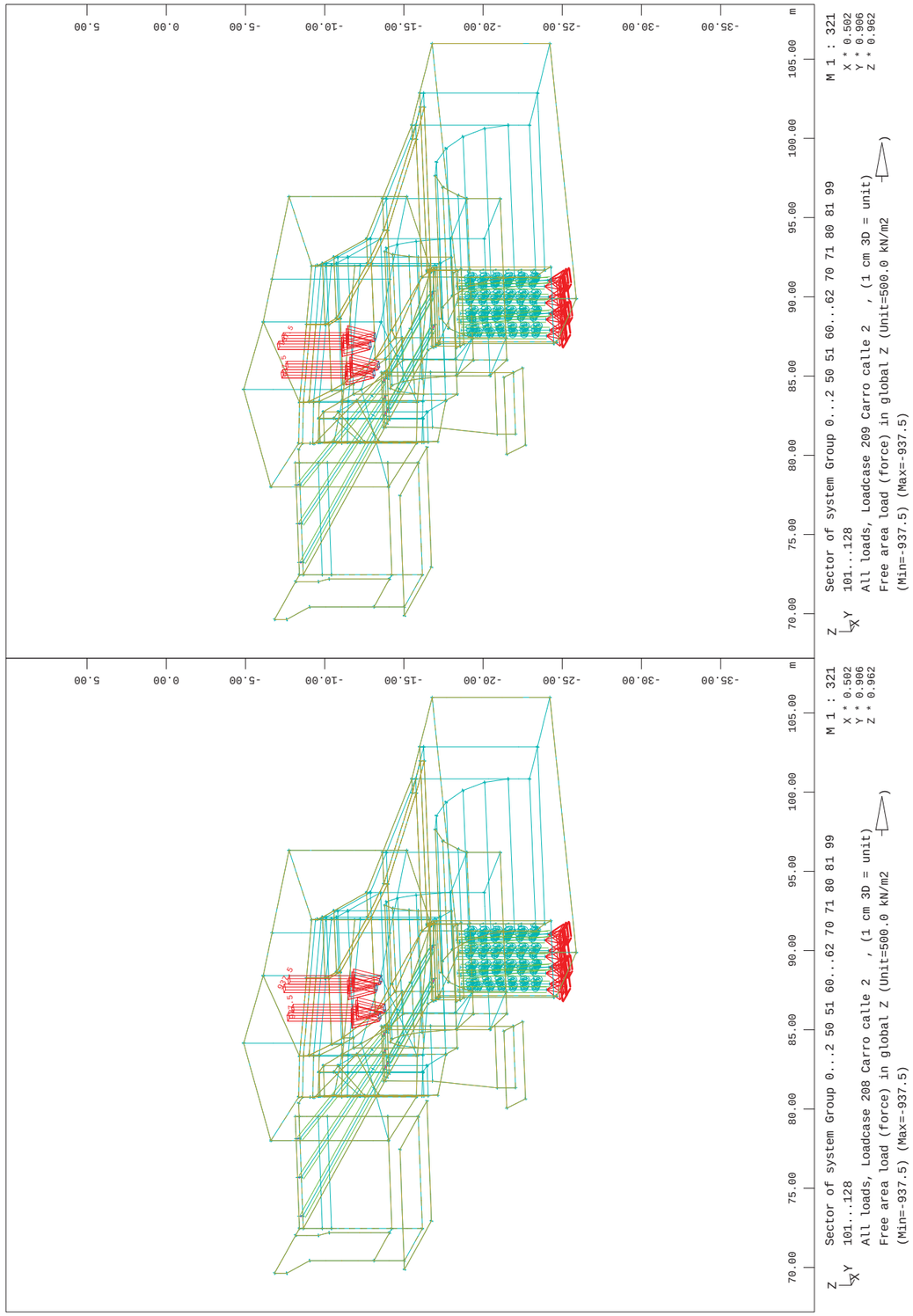
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 121 Carro calle 1 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 203 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

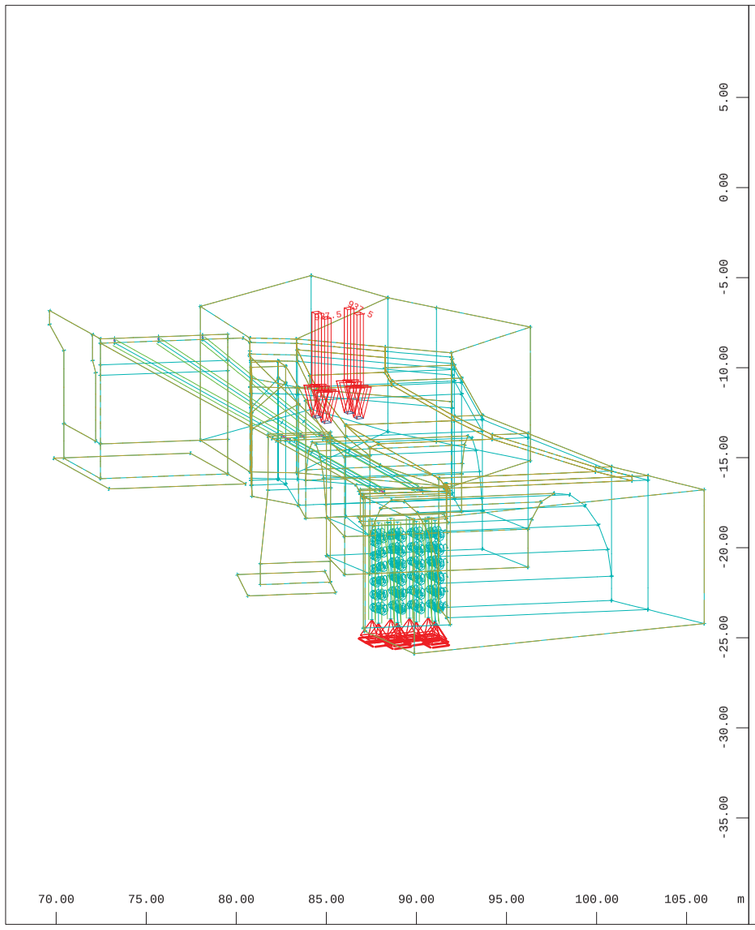

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 205 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 207 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 206 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

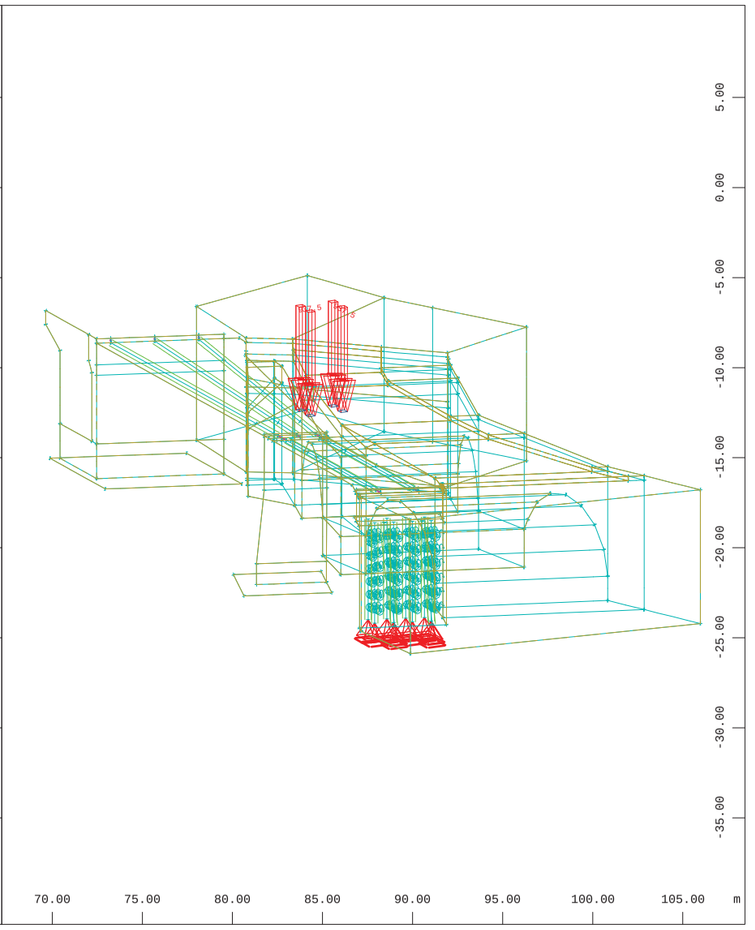

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 209 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 208 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00



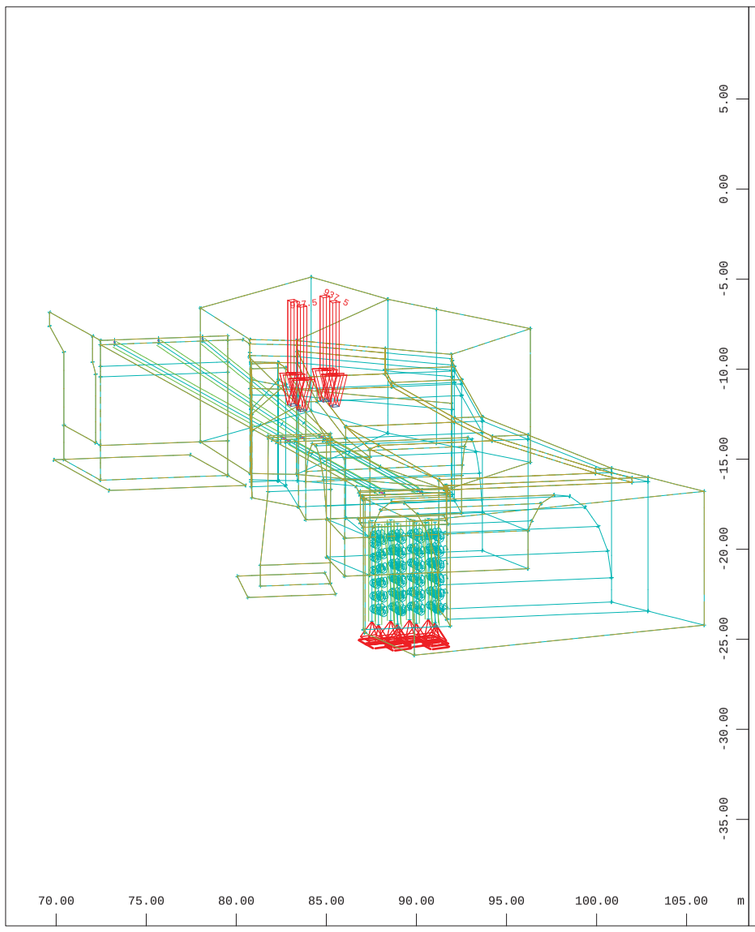
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 210 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



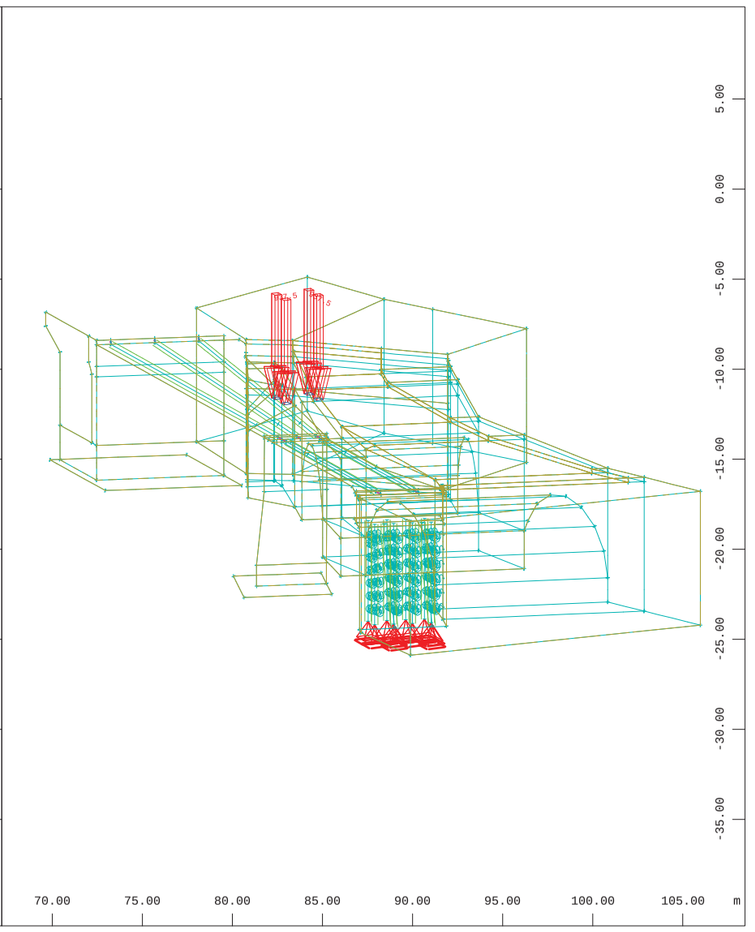
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 211 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



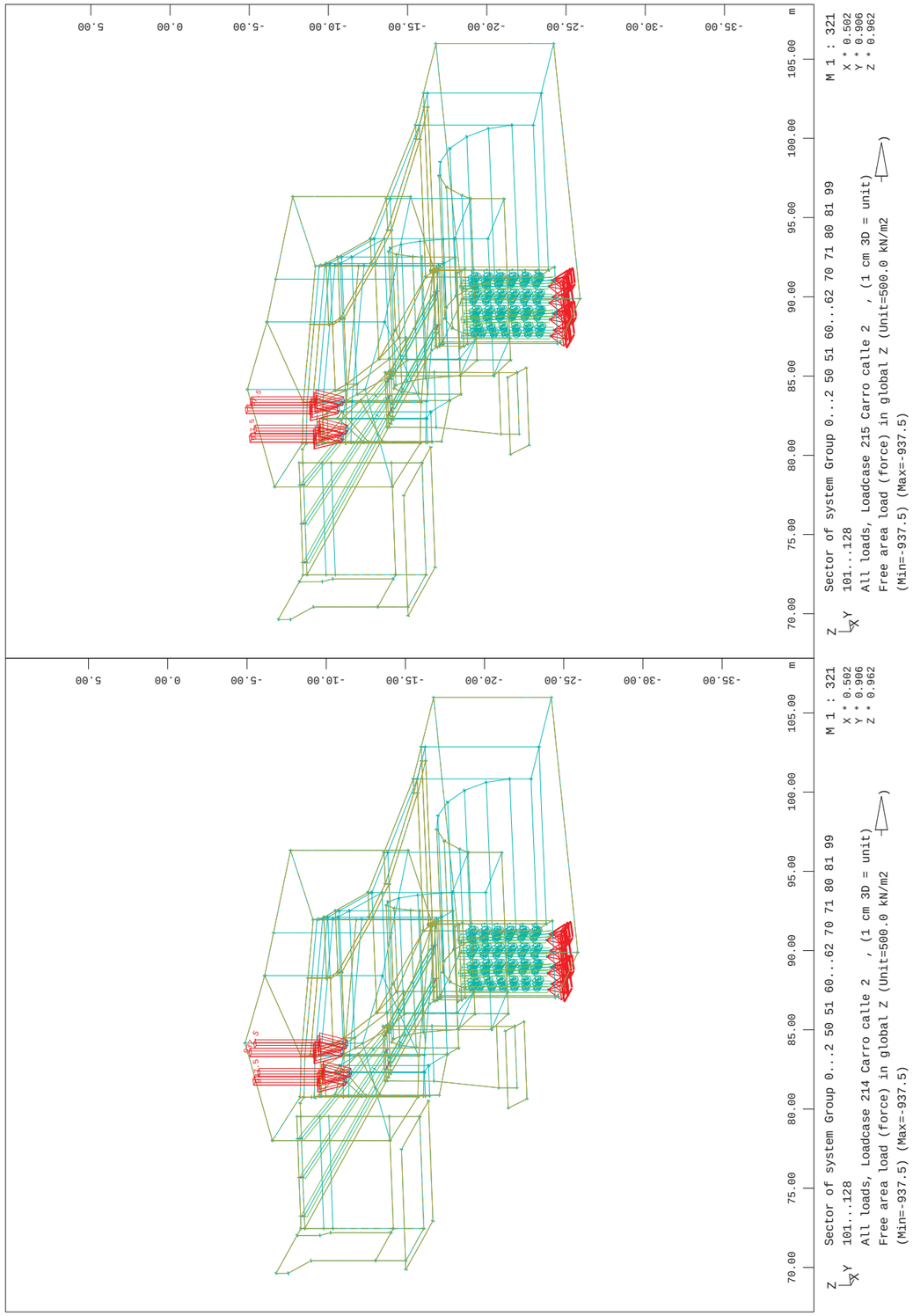
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 212 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

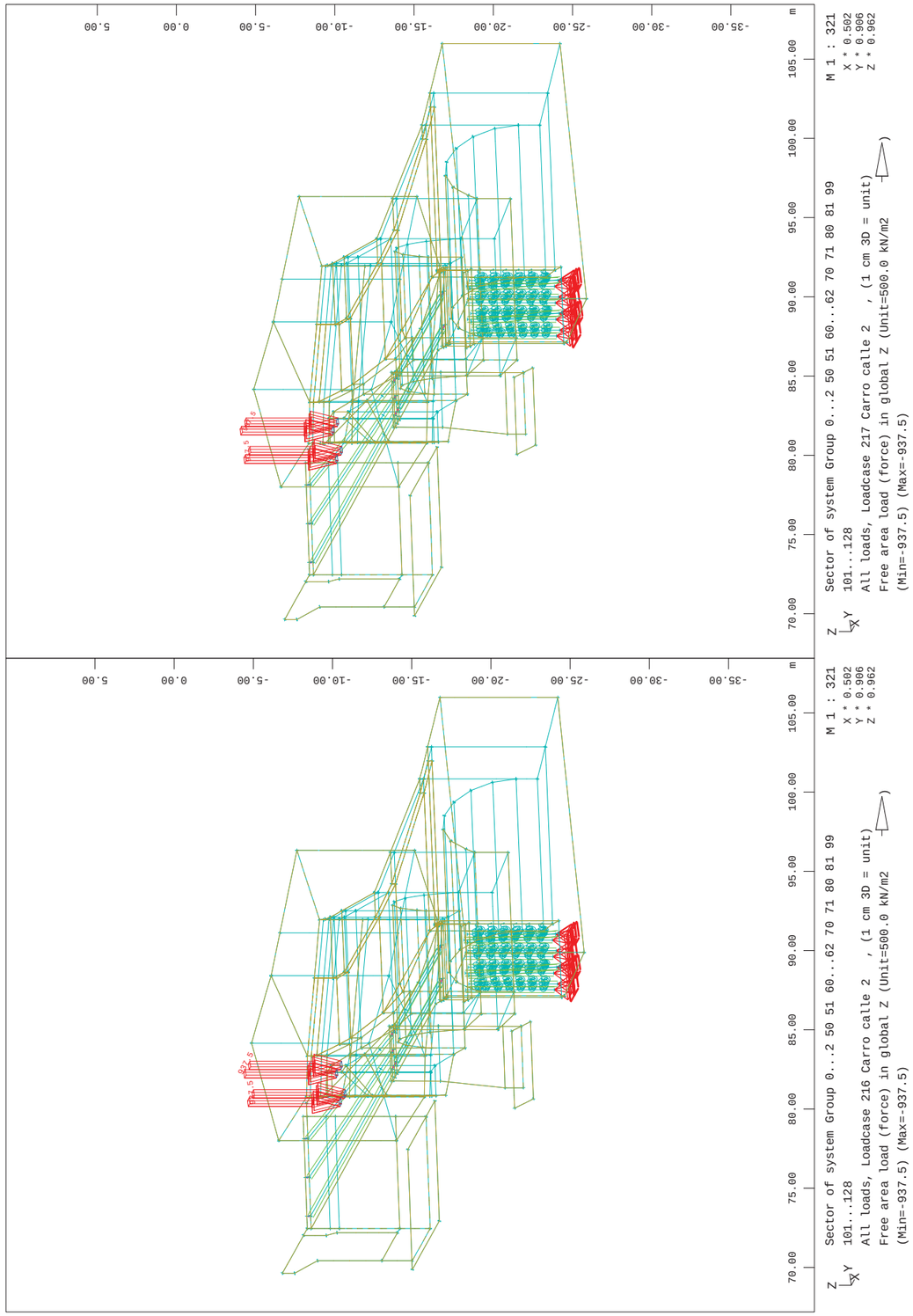


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 213 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

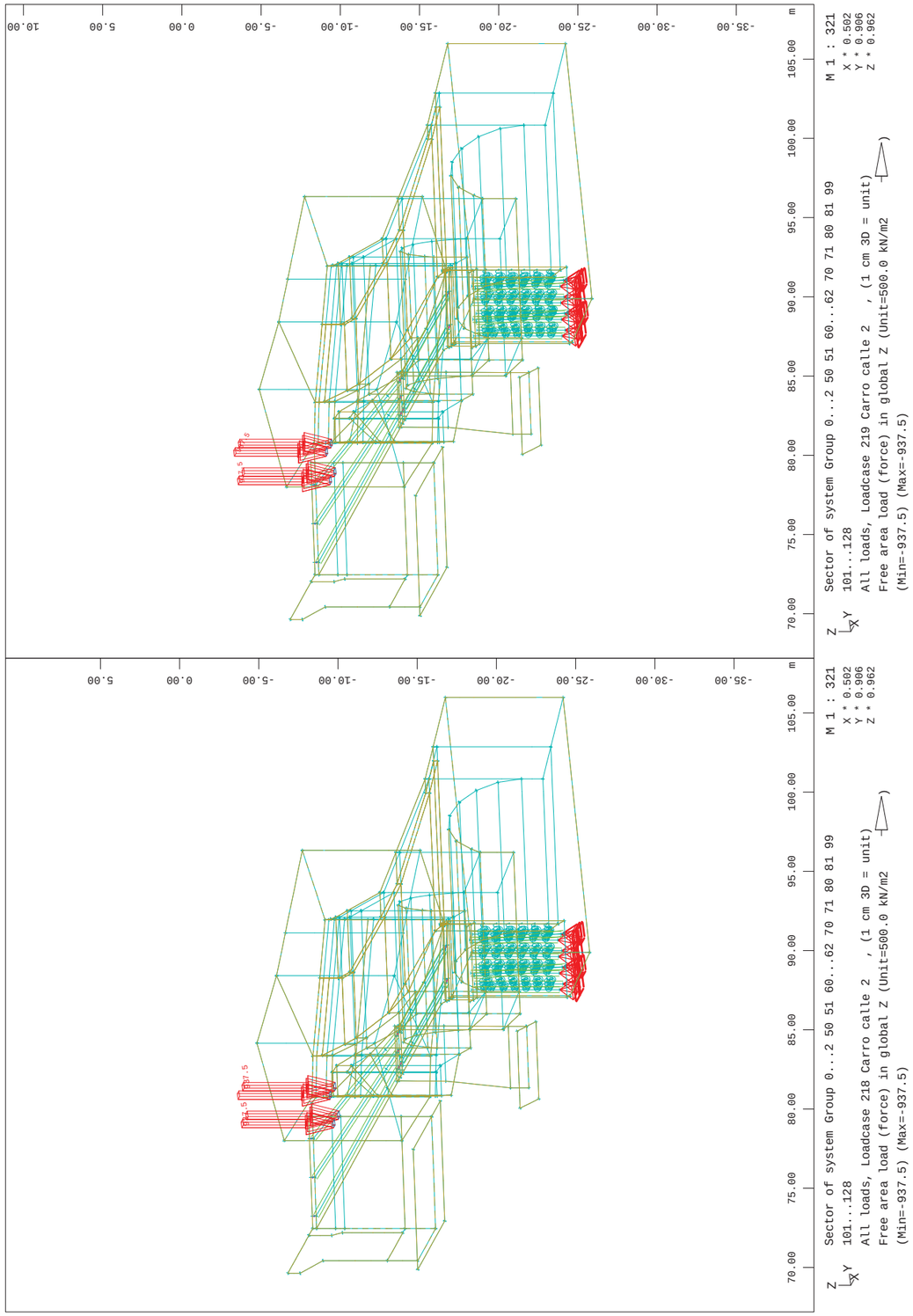
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

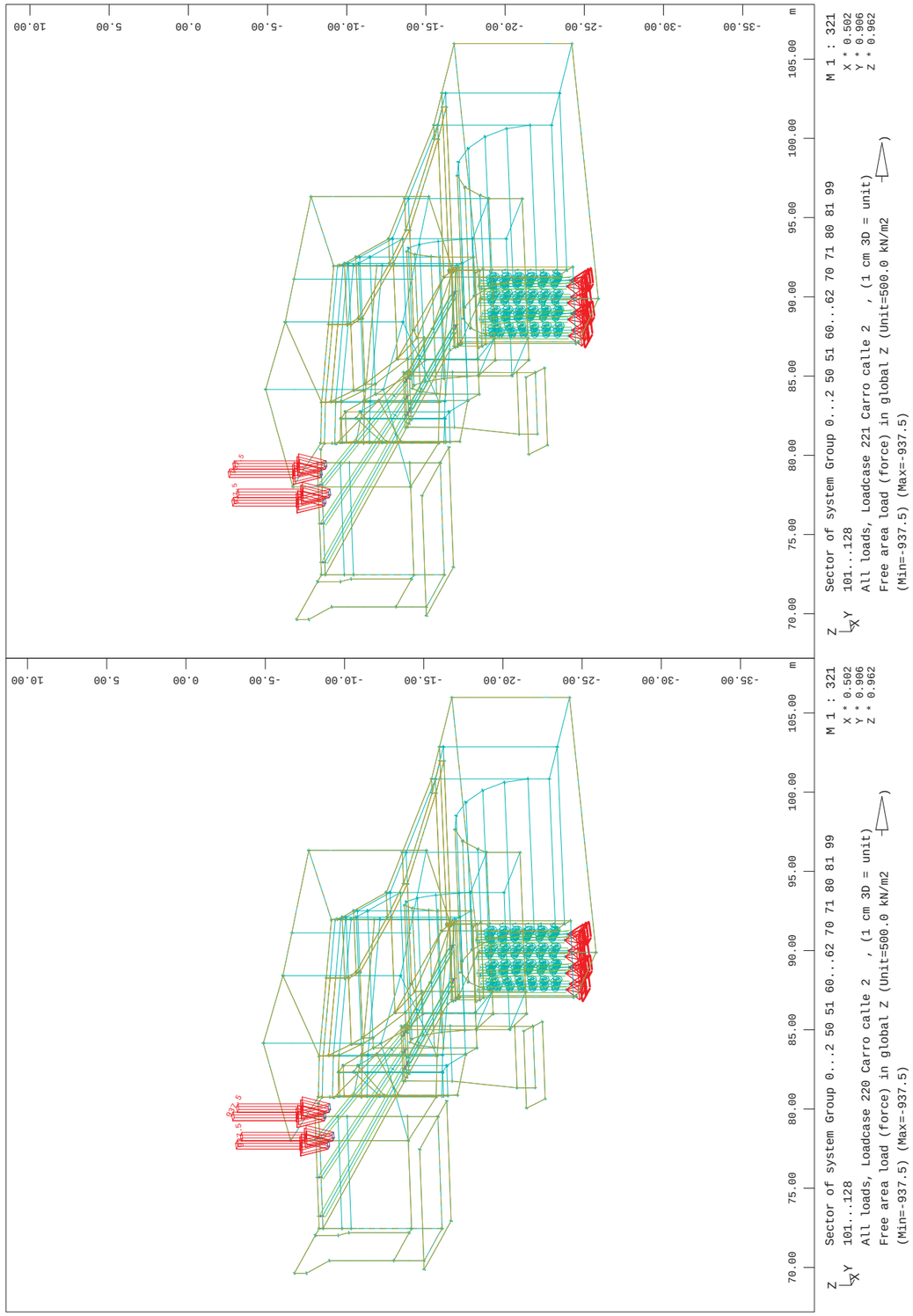

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 215 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 214 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 217 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

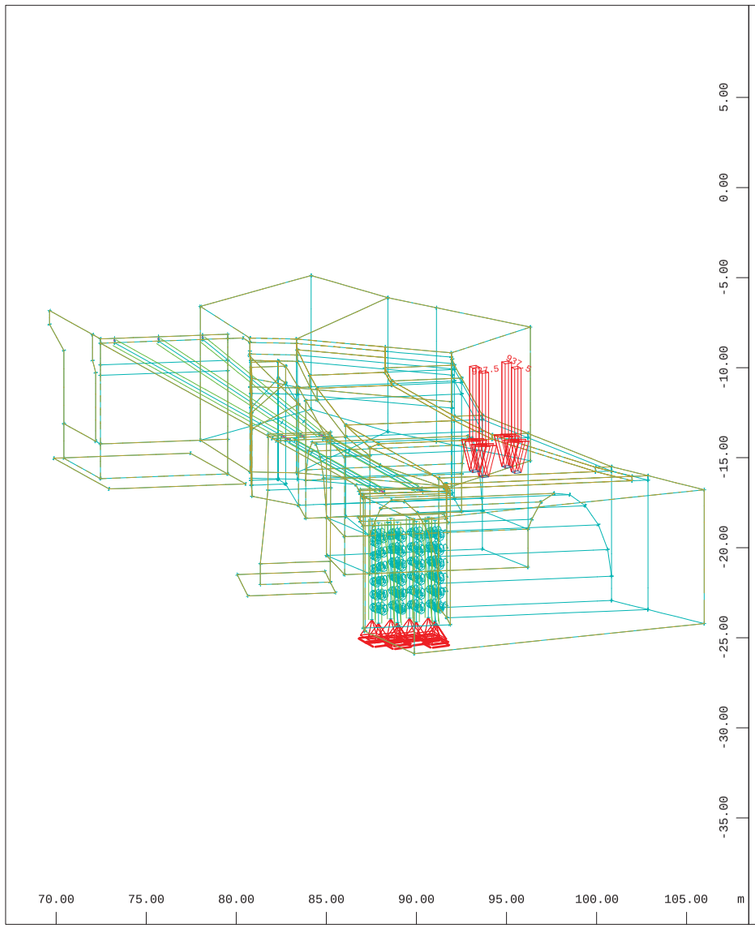
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 216 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00

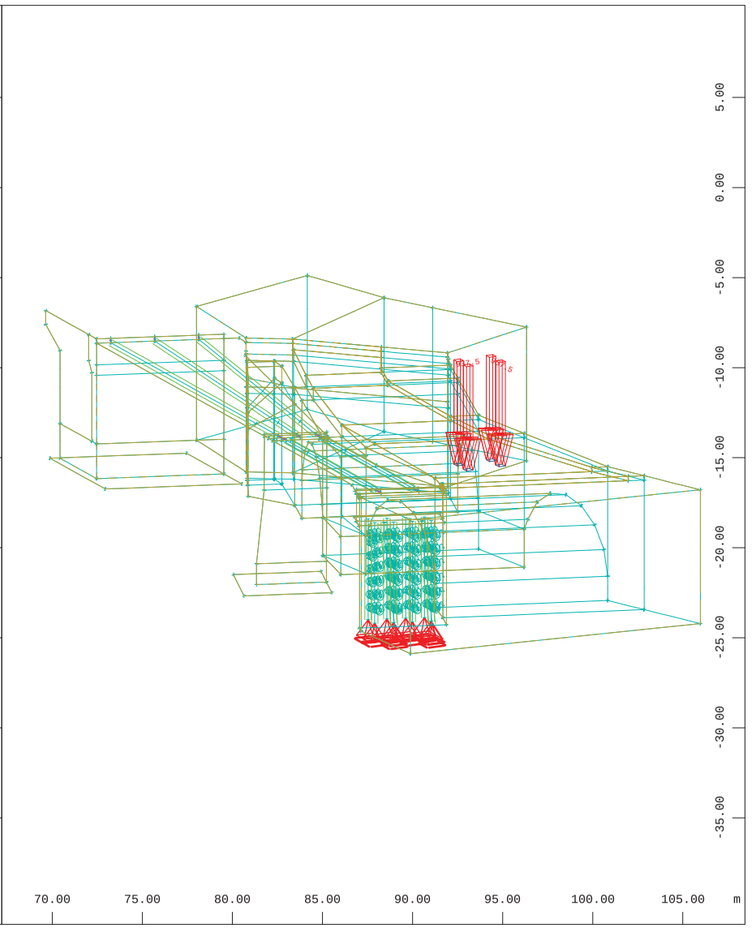

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 219 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

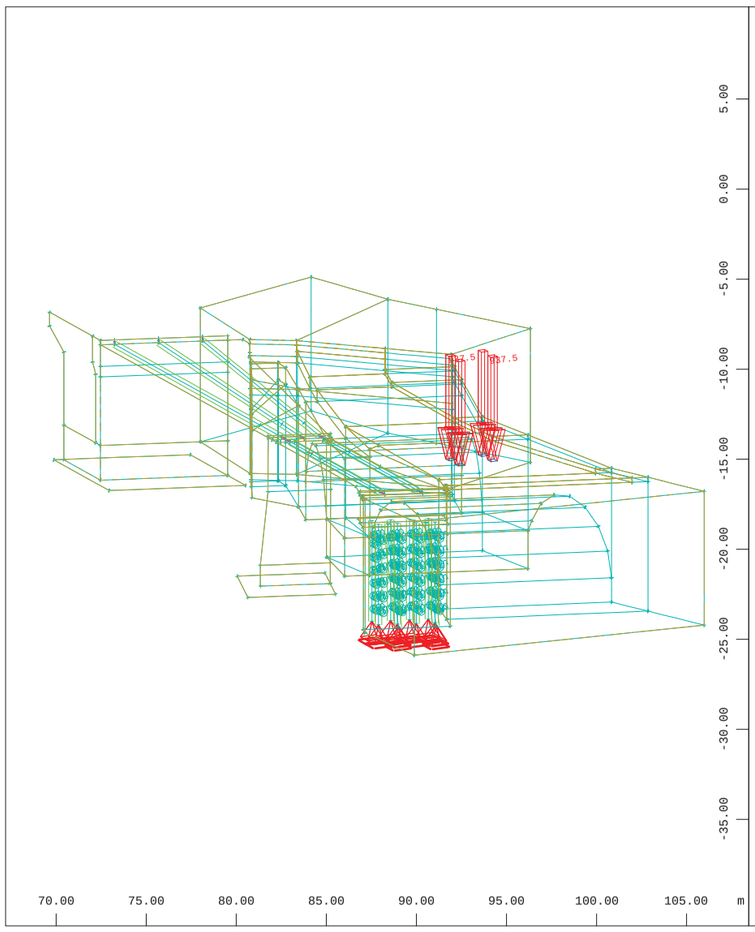

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 221 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

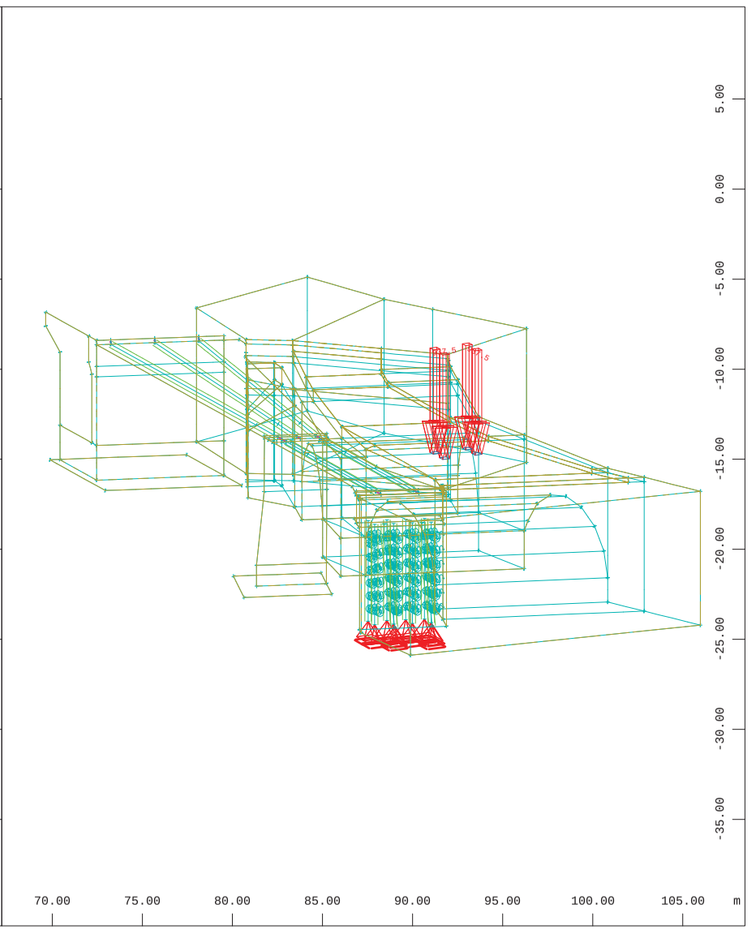
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 218 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

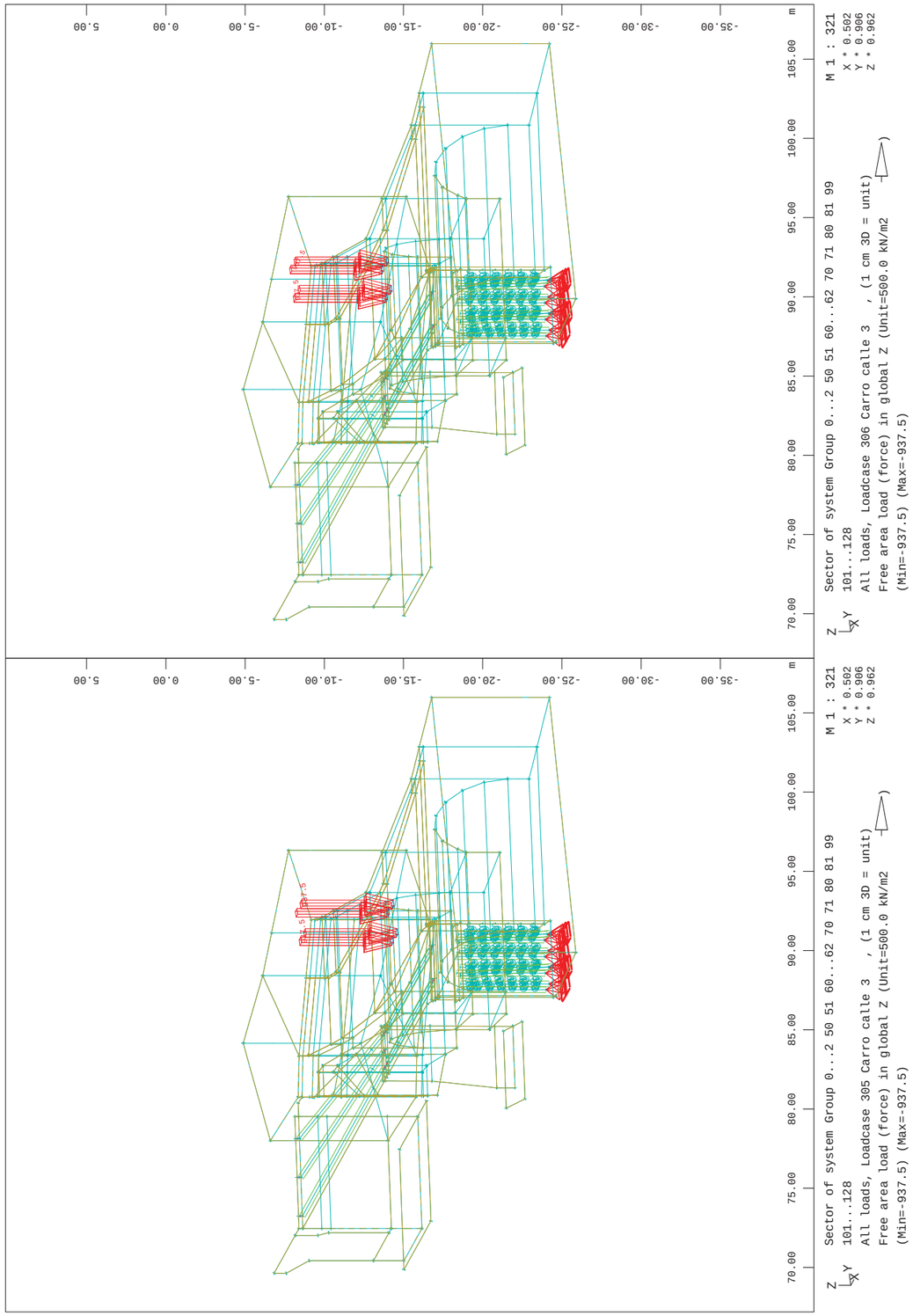
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 220 Carro calle 2 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

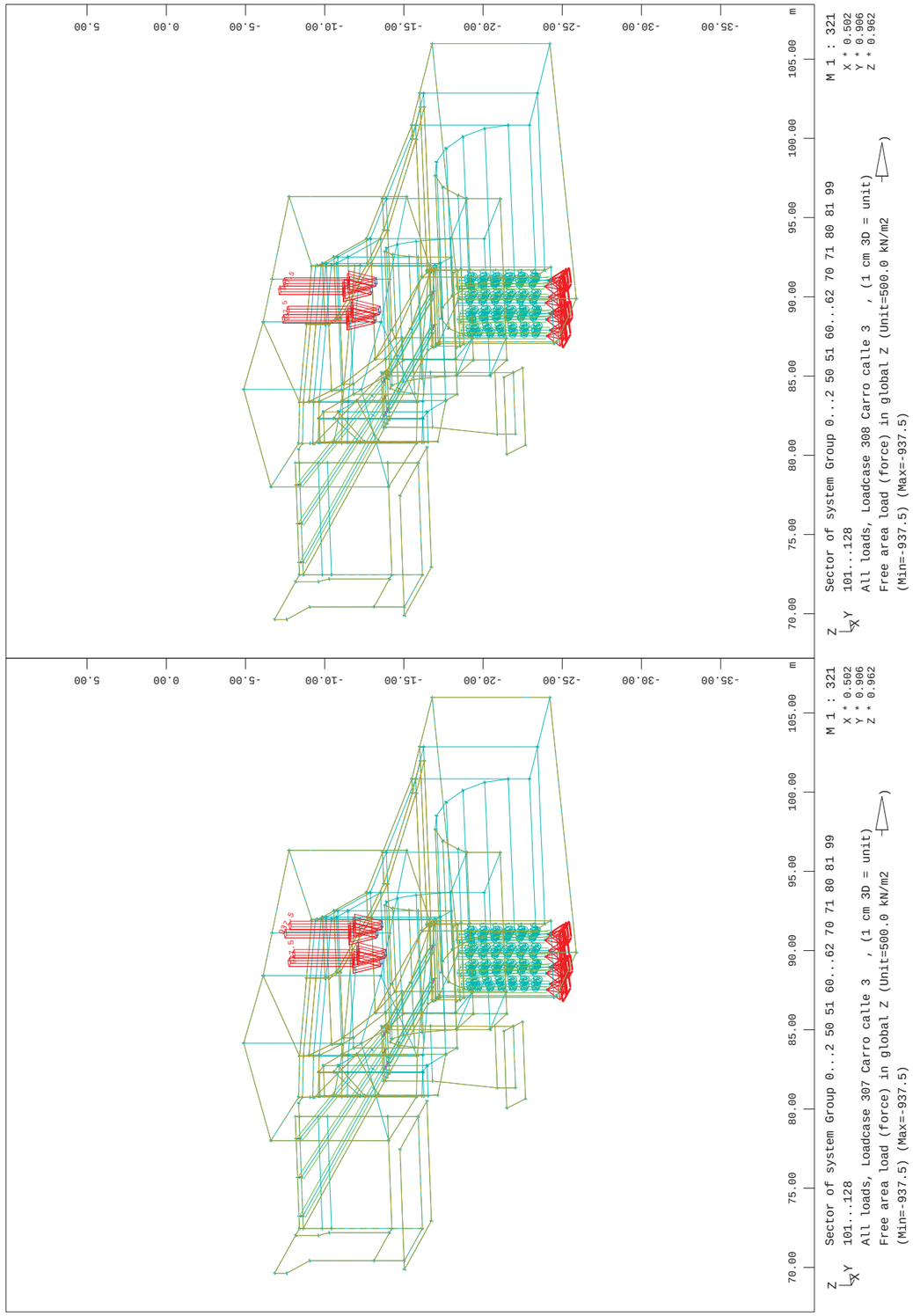

5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
70.00
75.00
80.00
85.00
90.00
95.00
100.00
105.00
m
Z
Y
X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 301 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

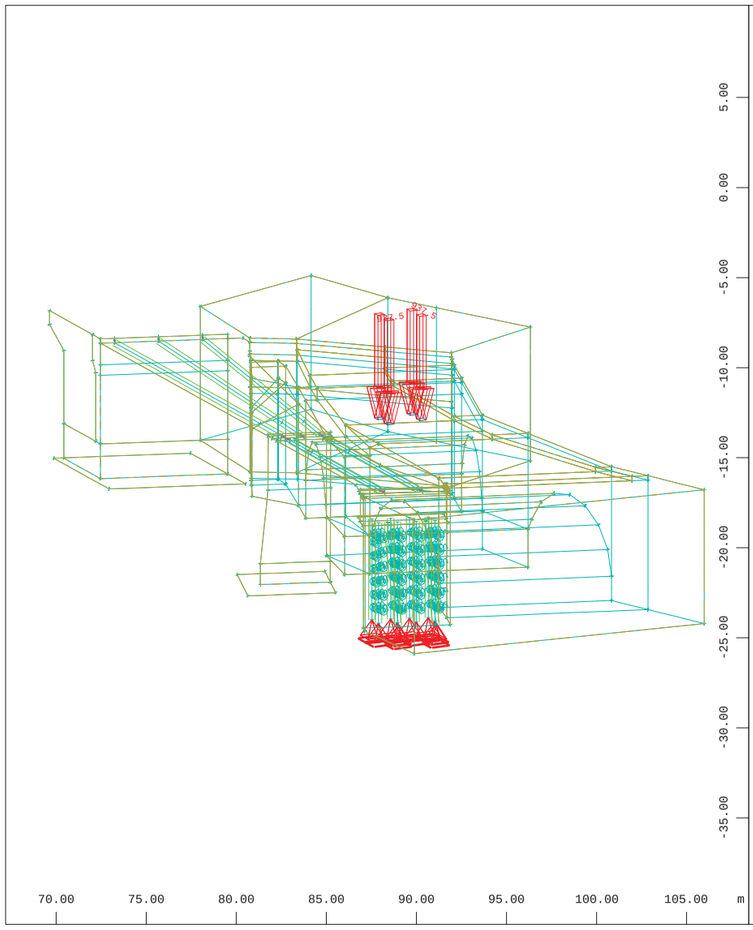

5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
70.00
75.00
80.00
85.00
90.00
95.00
100.00
105.00
m
Z
Y
X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 302 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962


5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
70.00
75.00
80.00
85.00
90.00
95.00
100.00
105.00
m
Z
Y
X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 303 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962


5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
70.00
75.00
80.00
85.00
90.00
95.00
100.00
105.00
m
Z
Y
X
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 304 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

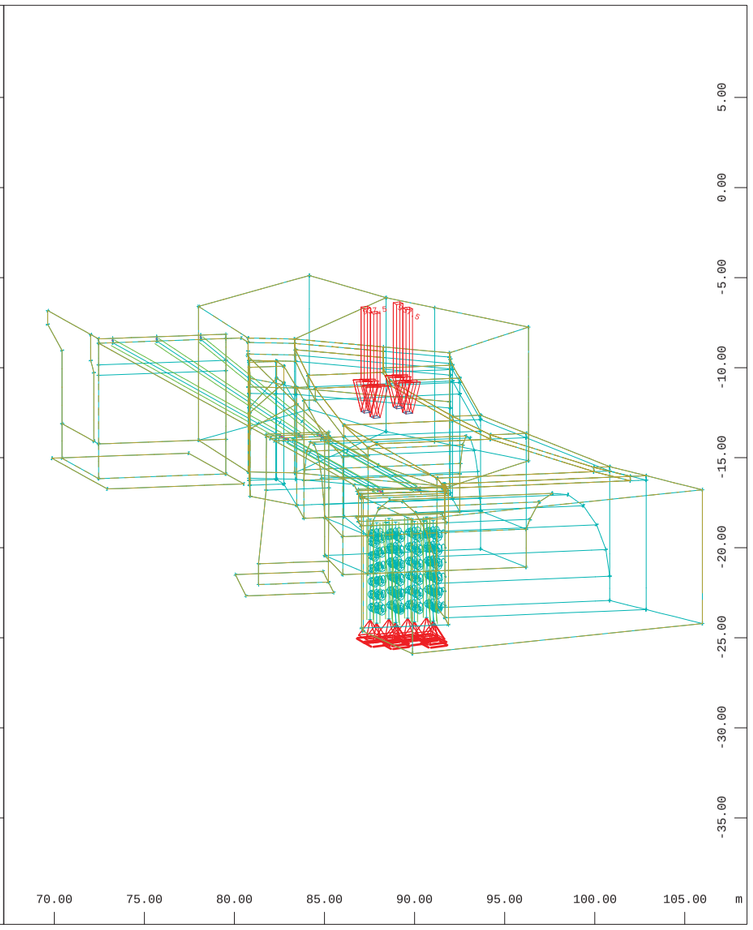

5.00 0.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00 m
105.00 100.00 95.00 90.00 85.00 80.00 75.00 70.00
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 306 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X


5.00 0.00 -5.00 -10.00 -15.00 -20.00 -25.00 -30.00 -35.00 m
105.00 100.00 95.00 90.00 85.00 80.00 75.00 70.00
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 308 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X



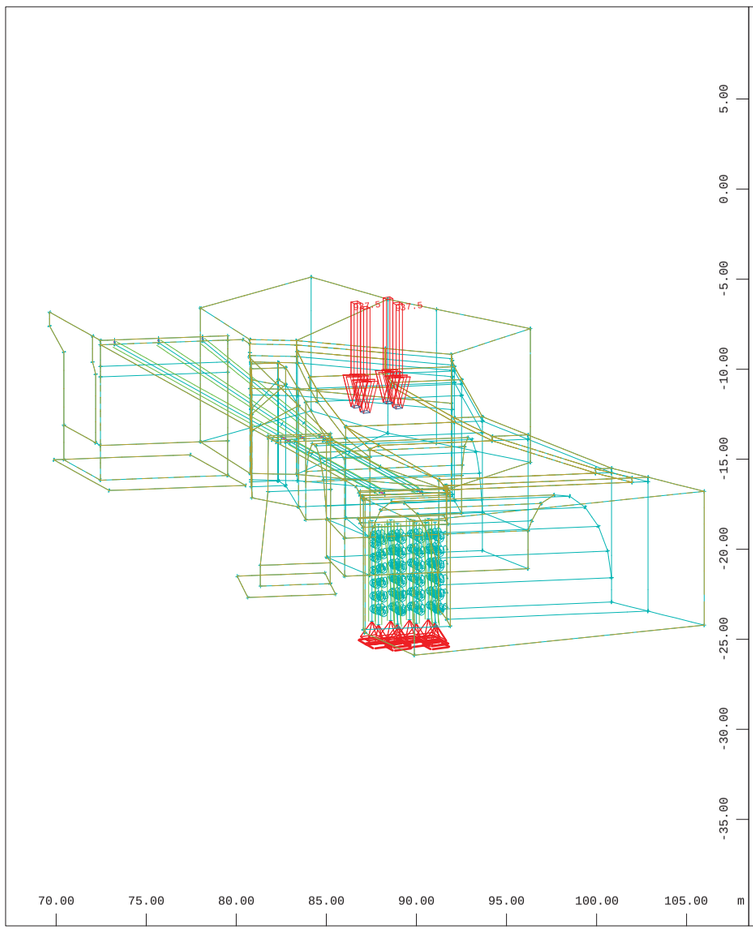
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 309 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



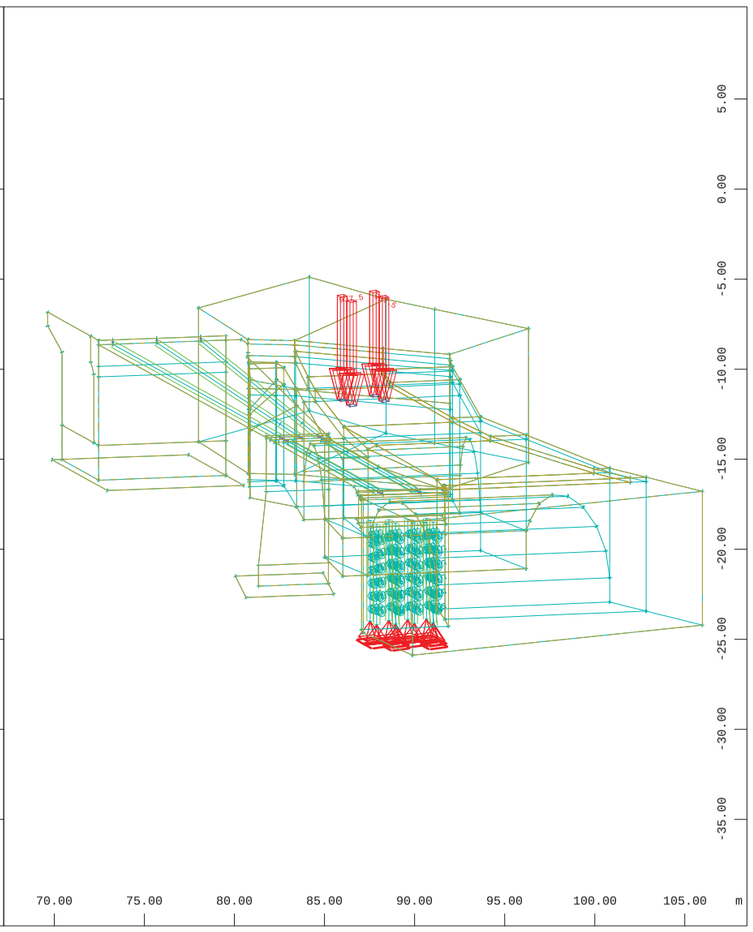
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 310 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962



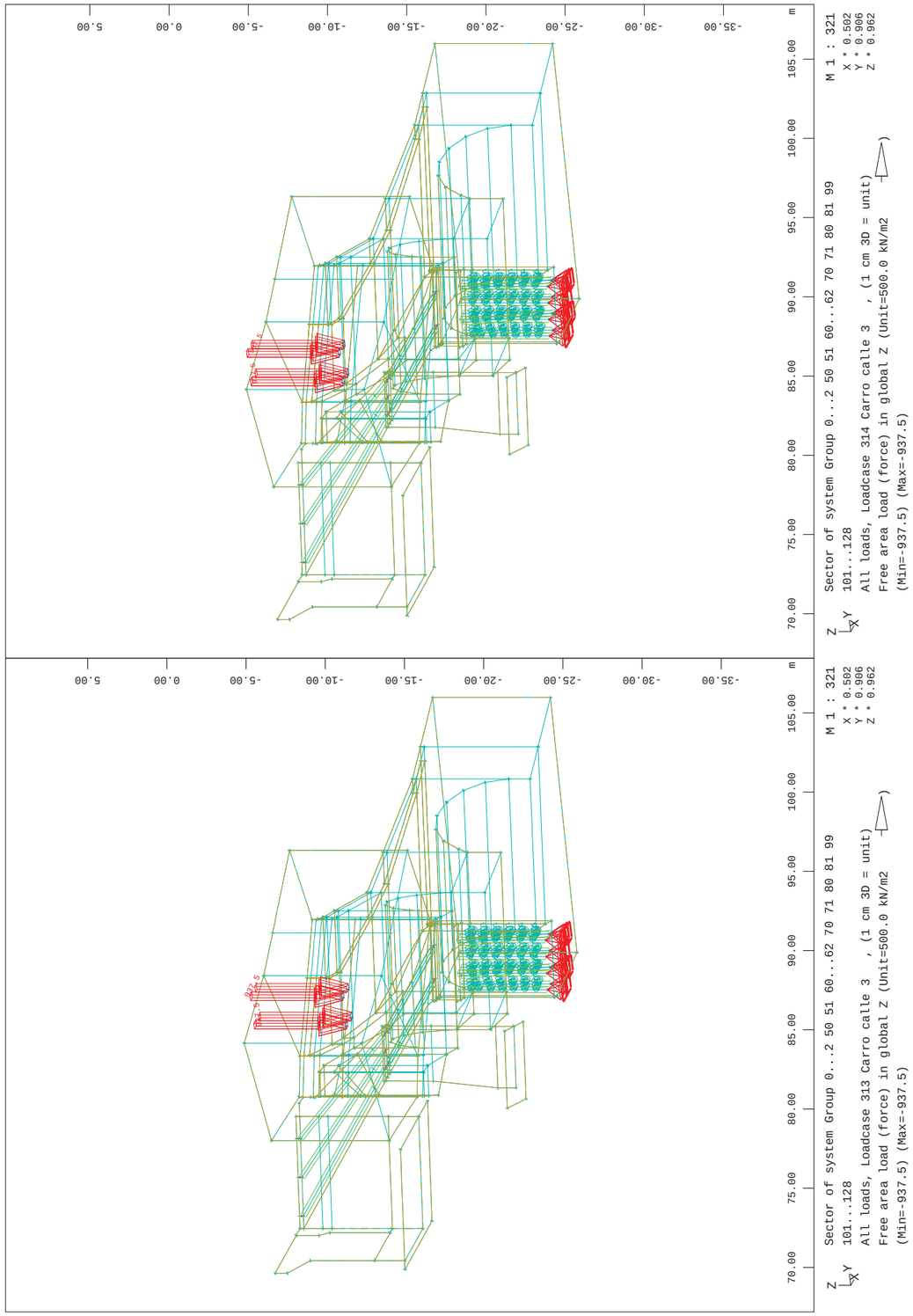
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 311 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

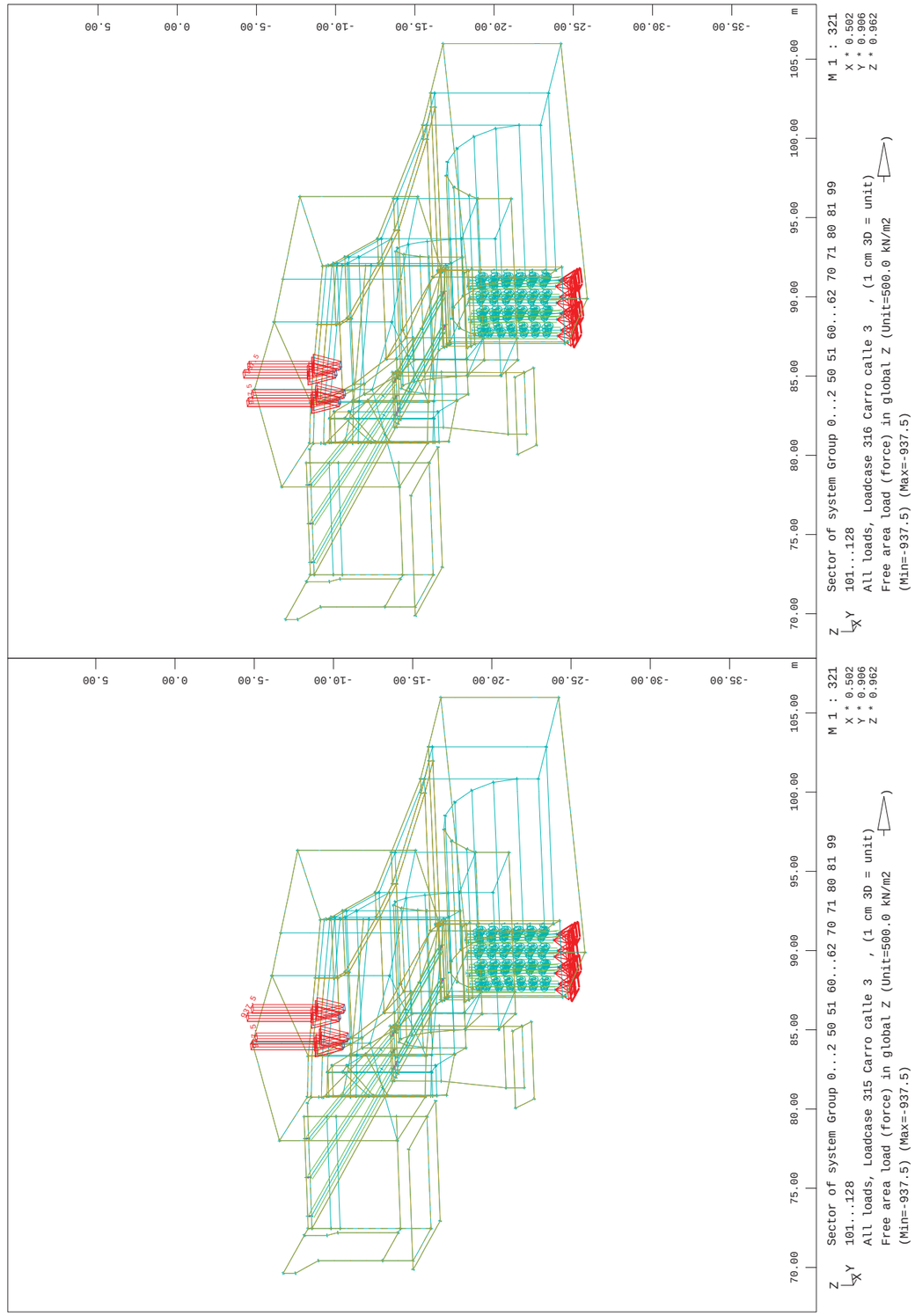
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

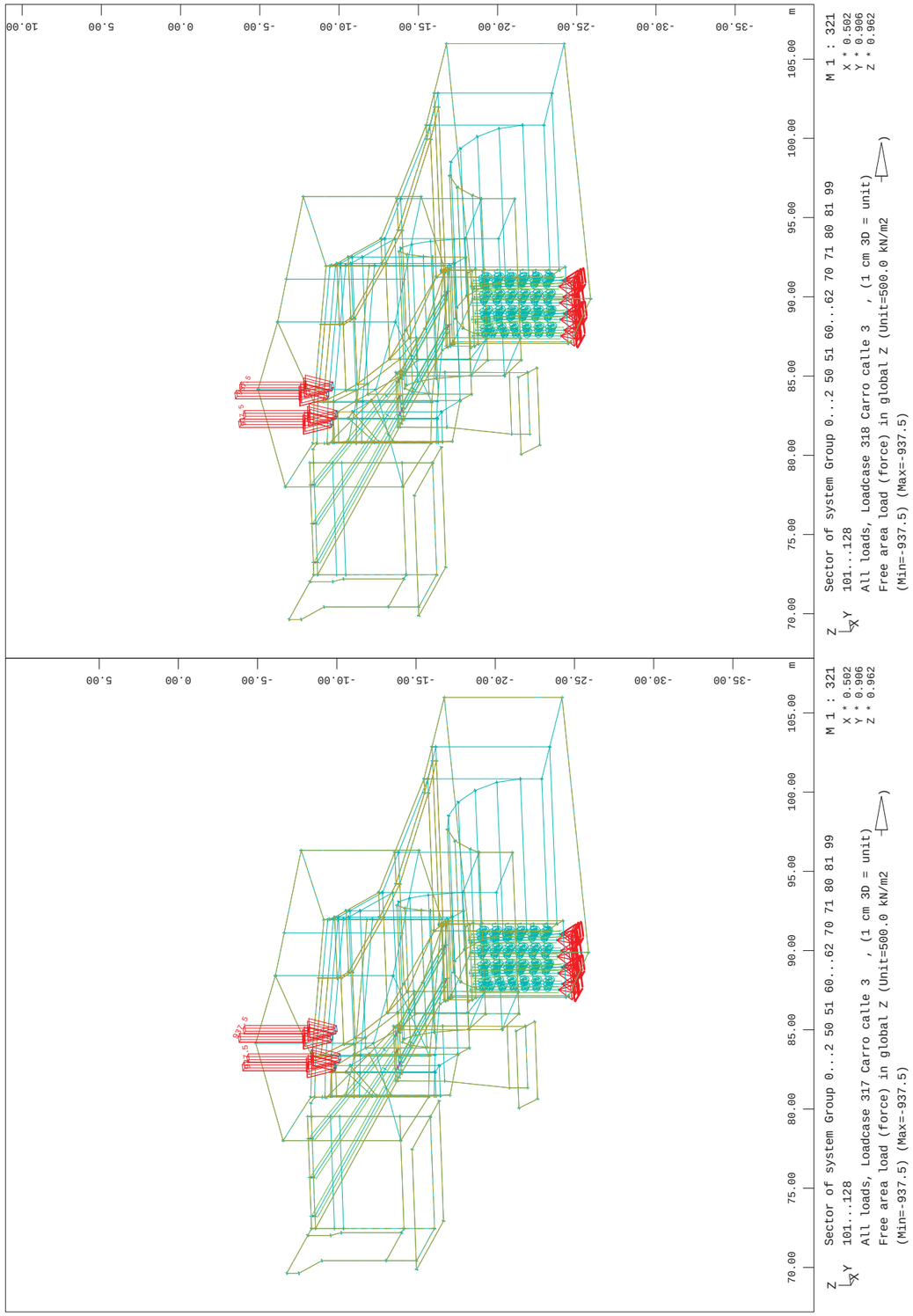


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 312 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2)
(Min=-937.5) (Max=-937.5)

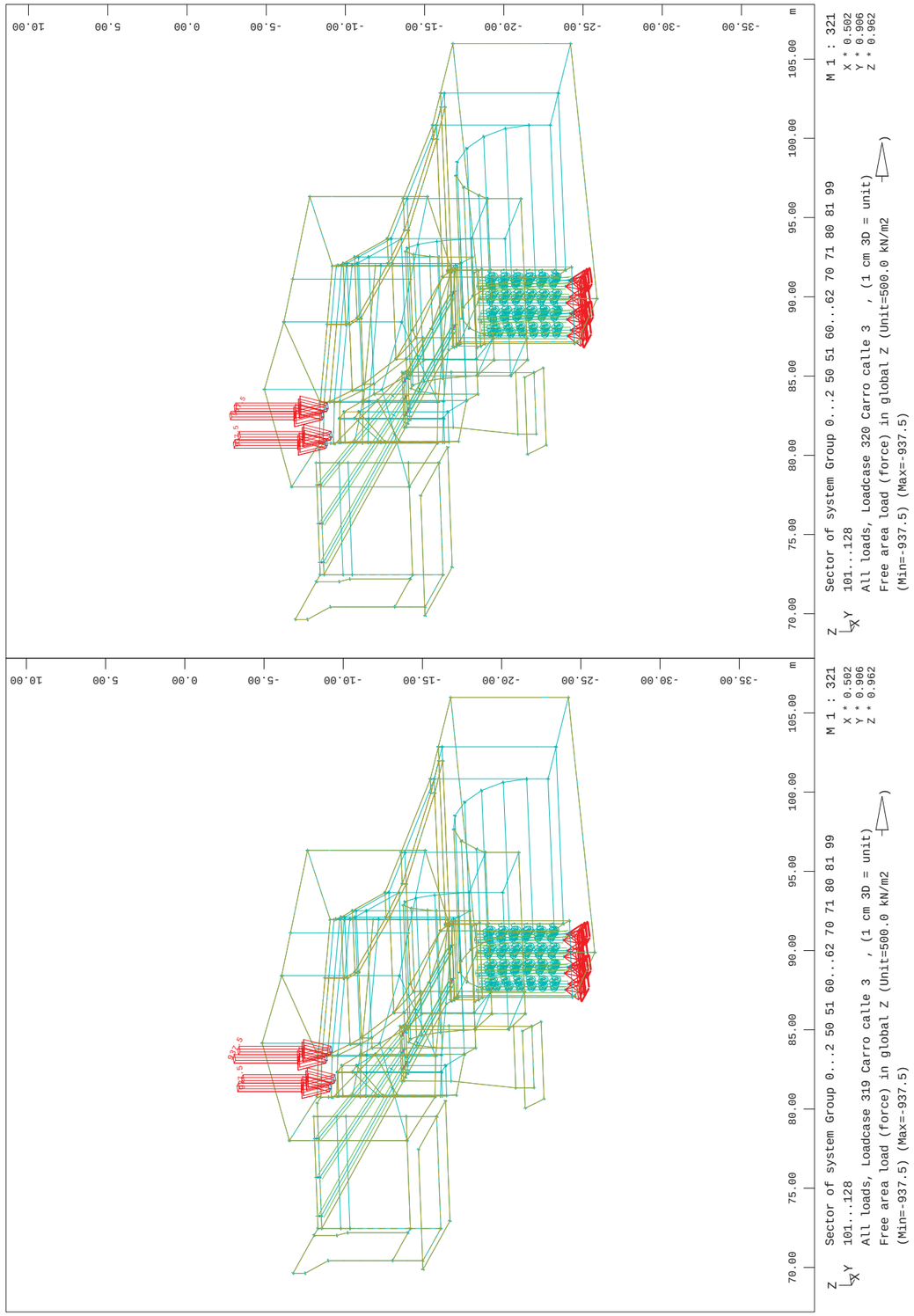
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 314 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

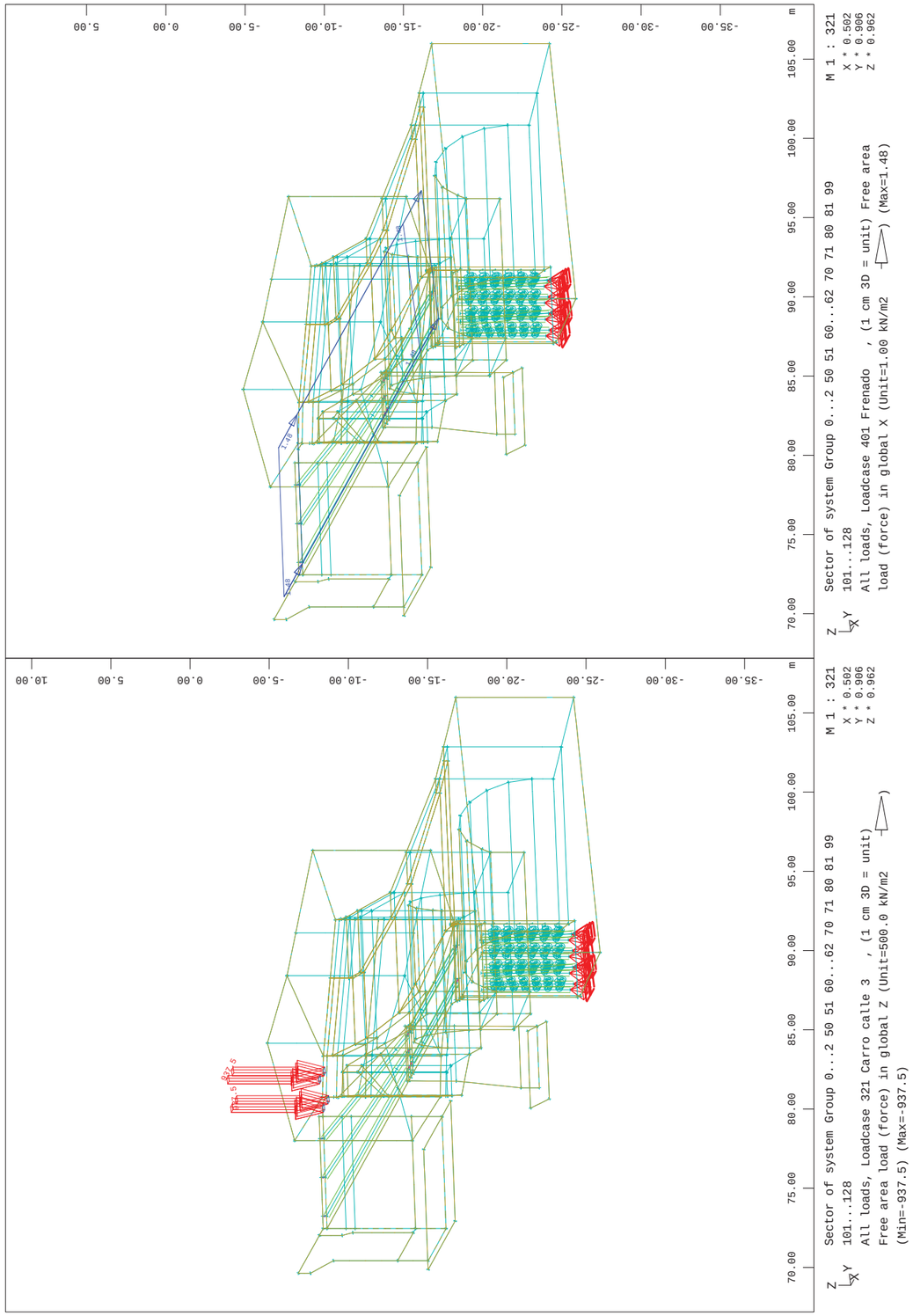

Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 316 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

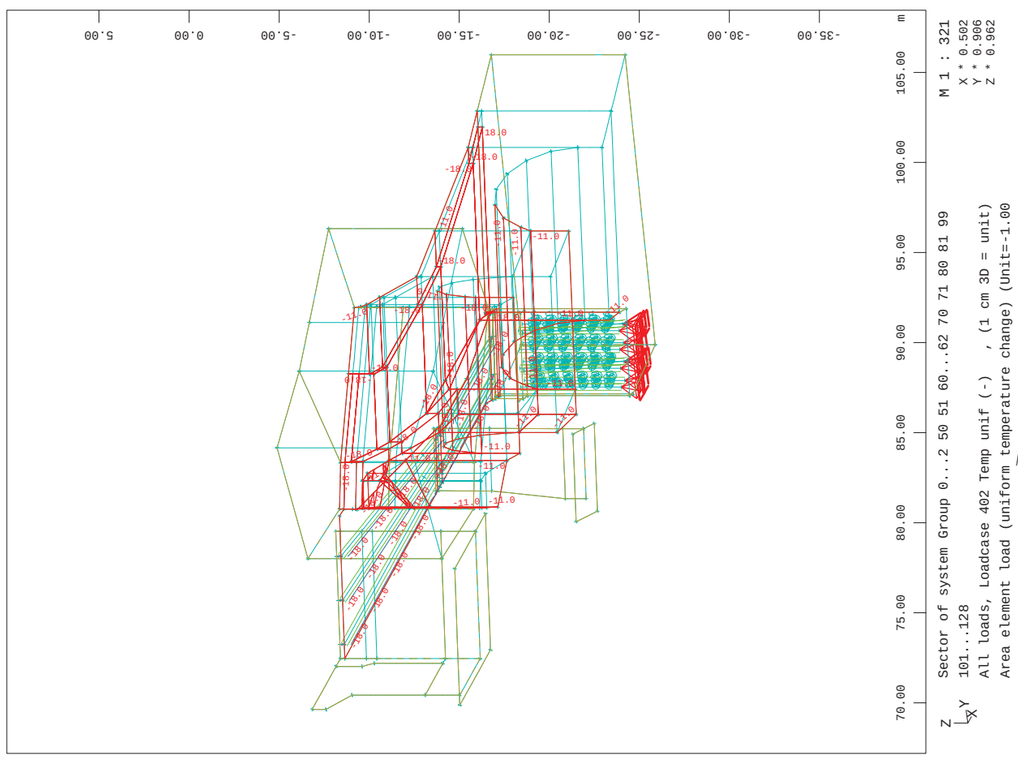

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 318 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 317 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00


M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 320 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00

M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 319 Carro calle 3 , (1 cm 3D = unit)
Free area load (force) in global Z (Unit=500.0 kN/m2
(Min=-937.5) (Max=-937.5)
Z
Y
X
m
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 401 Frenado , (1 cm 3D = unit) Free area load (force) in global X (Unit=1.00 kN/m2) (Max=1.48)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 321 Carro calle 3 , (1 cm 3D = unit) Free area load (force) in global Z (Unit=500.0 kN/m2) (Min=-937.5) (Max=-937.5)
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962


Sector of system Group 0...2 50 51 60...62 70 71 80 81 99
101...128
All loads, Loadcase 402 Temp unif (-) , (1 cm 3D = unit) Area element load (uniform temperature change) (Unit=-1.00 °C,Min=-18.0 Max=-18.0), Beam line load (uniform
M 1 : 321
X * 0.502
Y * 0.906
Z * 0.962

ACCIONES TÉRMICAS (IAP11)

Datos generales

Periodo de retorno $T := 100$ años (Situación persistente) $p := \frac{1}{T} = 0.01$

Valores característicos de la temperaturas del aire a la sombra para T=50 años

$T_{max50} := 44$ ºC (IAP 11, Figura 4.3-a)

$T_{min50} := -7$ ºC (IAP 11, Figura 4.3-b y Tabla 4.3-a)

Valores extremos de la temperatura del aire para el periodo de retorno "T"

$T_{max} := T_{max50} \cdot (0.781 - 0.056 \cdot \ln(-\ln(1 - p))) = 45.7$ ºC

$T_{min} := T_{min50} \cdot (0.393 - 0.156 \cdot \ln(-\ln(1 - p))) = -7.8$ ºC

Datos de la sección transversal

Longitud del voladizo $L_V := 3.00$ m

Proyección vertical del paramento lateral $h_a := 2.00$ m

Componente uniforme de temperatura (Tablero mixto)

$\Delta T_{emin} := 4$ ºC

$\Delta T_{emax} := 4$ ºC (Para tableros mixtos)

$T_{emin} := T_{min} + \Delta T_{emin} = -3.77$ ºC

$T_{emax} := T_{max} + \Delta T_{emax} = 49.70$ ºC

Rango de la componente uniforme de temperatura $\Delta T_N := T_{emax} - T_{emin} = 53.47$ ºC

Temperatura media del tablero en el momento en que se coacciona su movimiento $T_0 := 15$ ºC

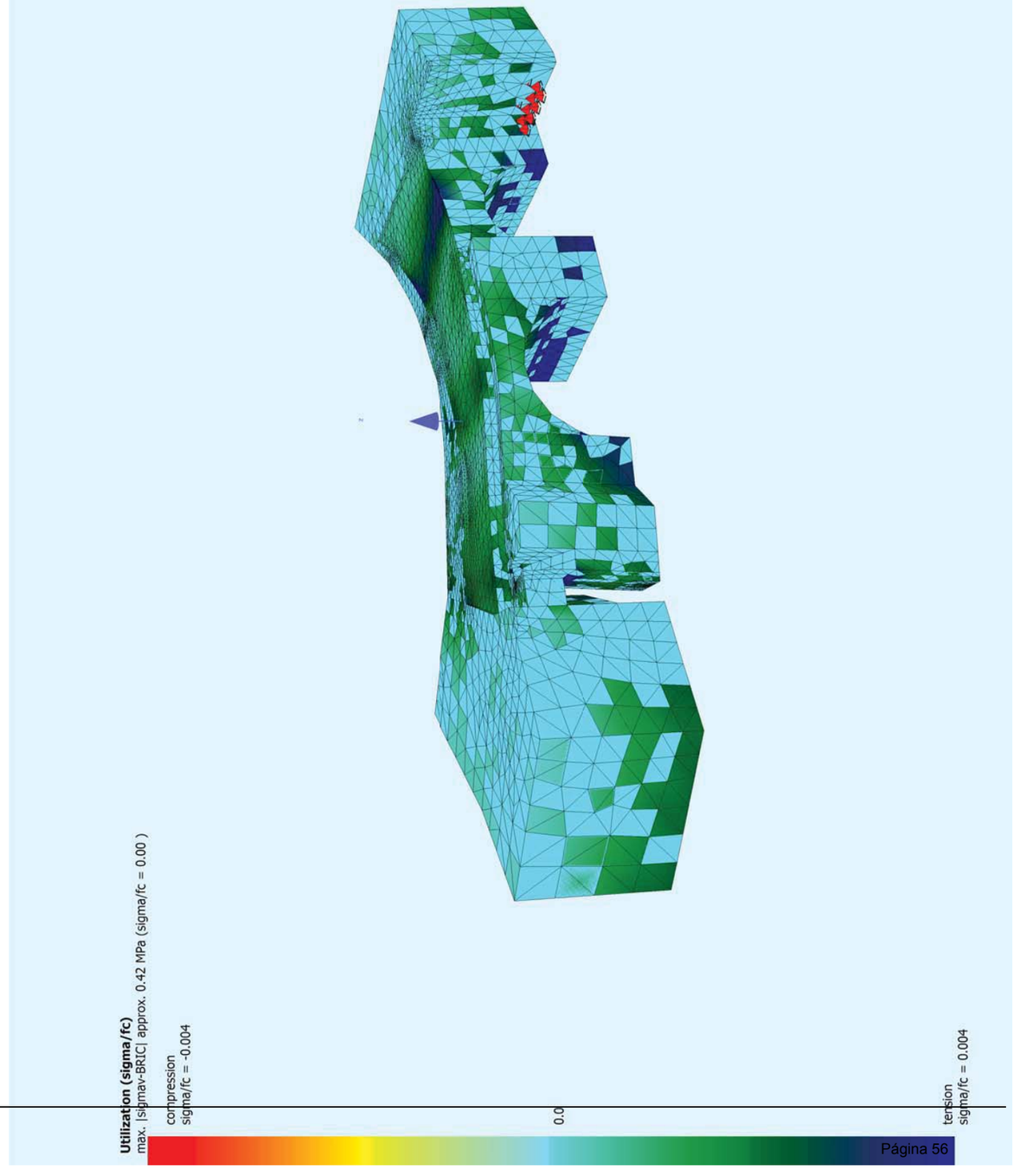
Rangos de variación térmica para determinar la contracción y dilatación máxima del tablero

$\Delta T_{Ncon} := T_{emin} - T_0 = -18.77$ ºC

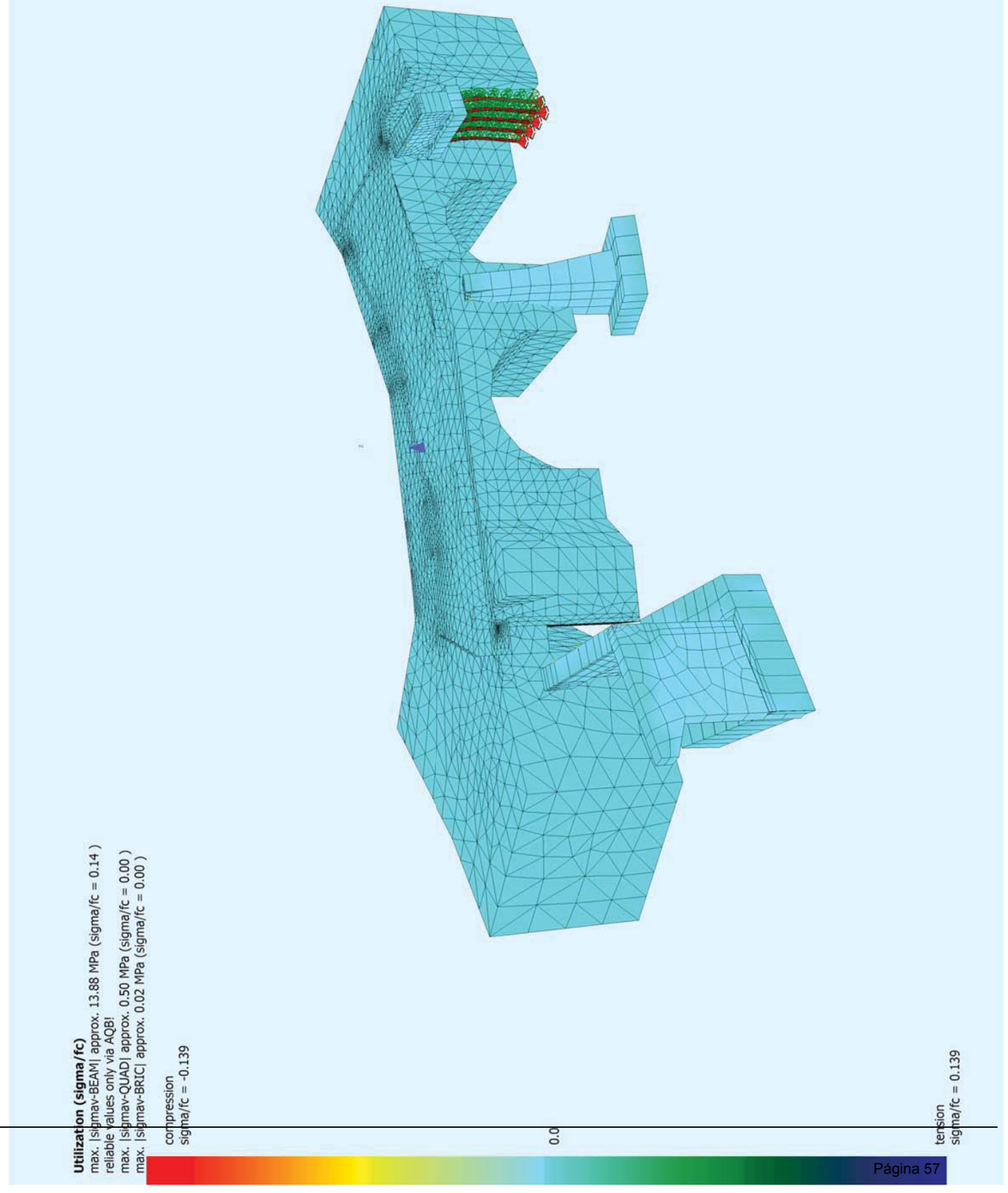
$\Delta T_{Nexp} := T_{emax} - T_0 = 34.70$ ºC

FASES

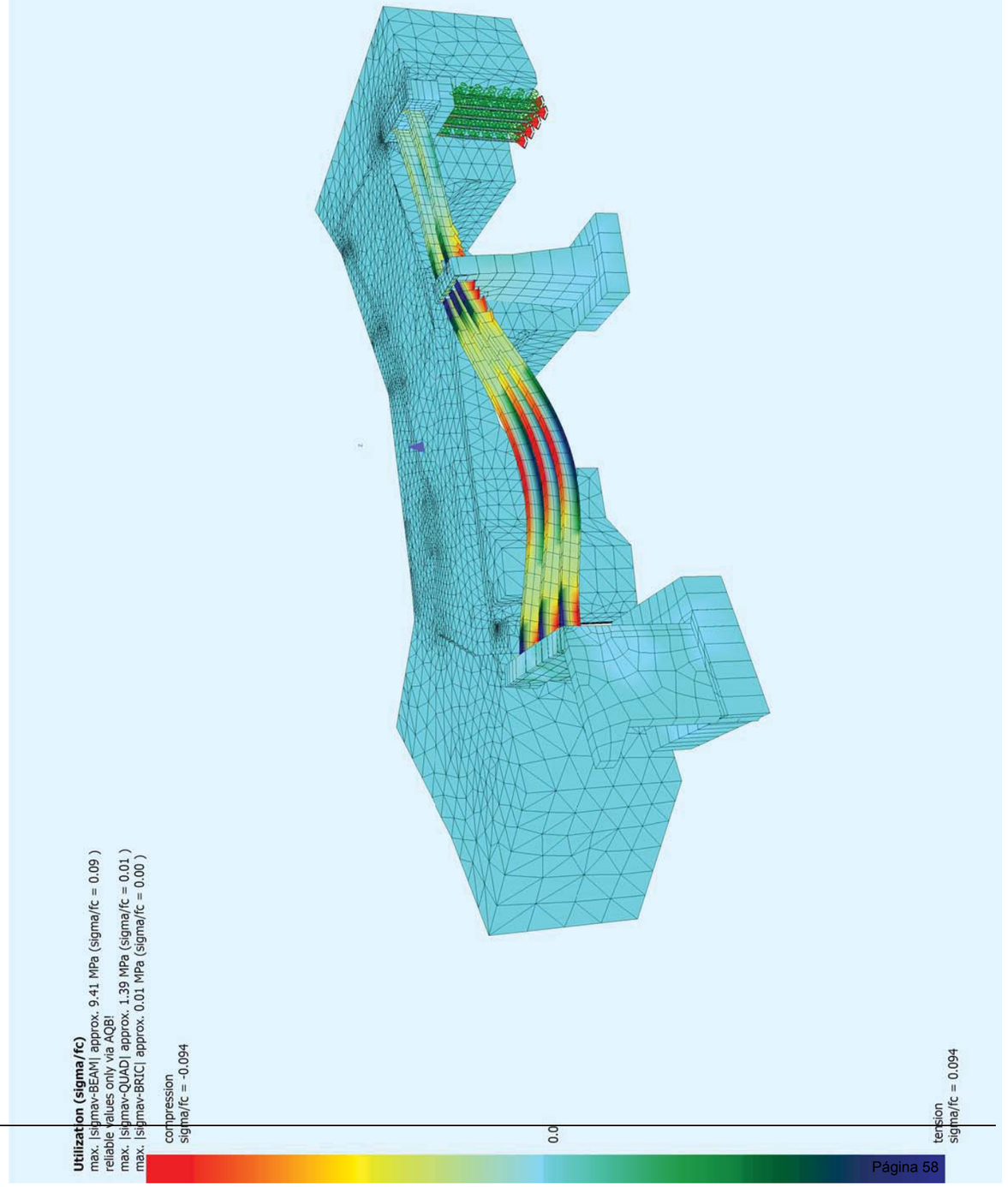
FASE 1. PUENTE EXISTENTE



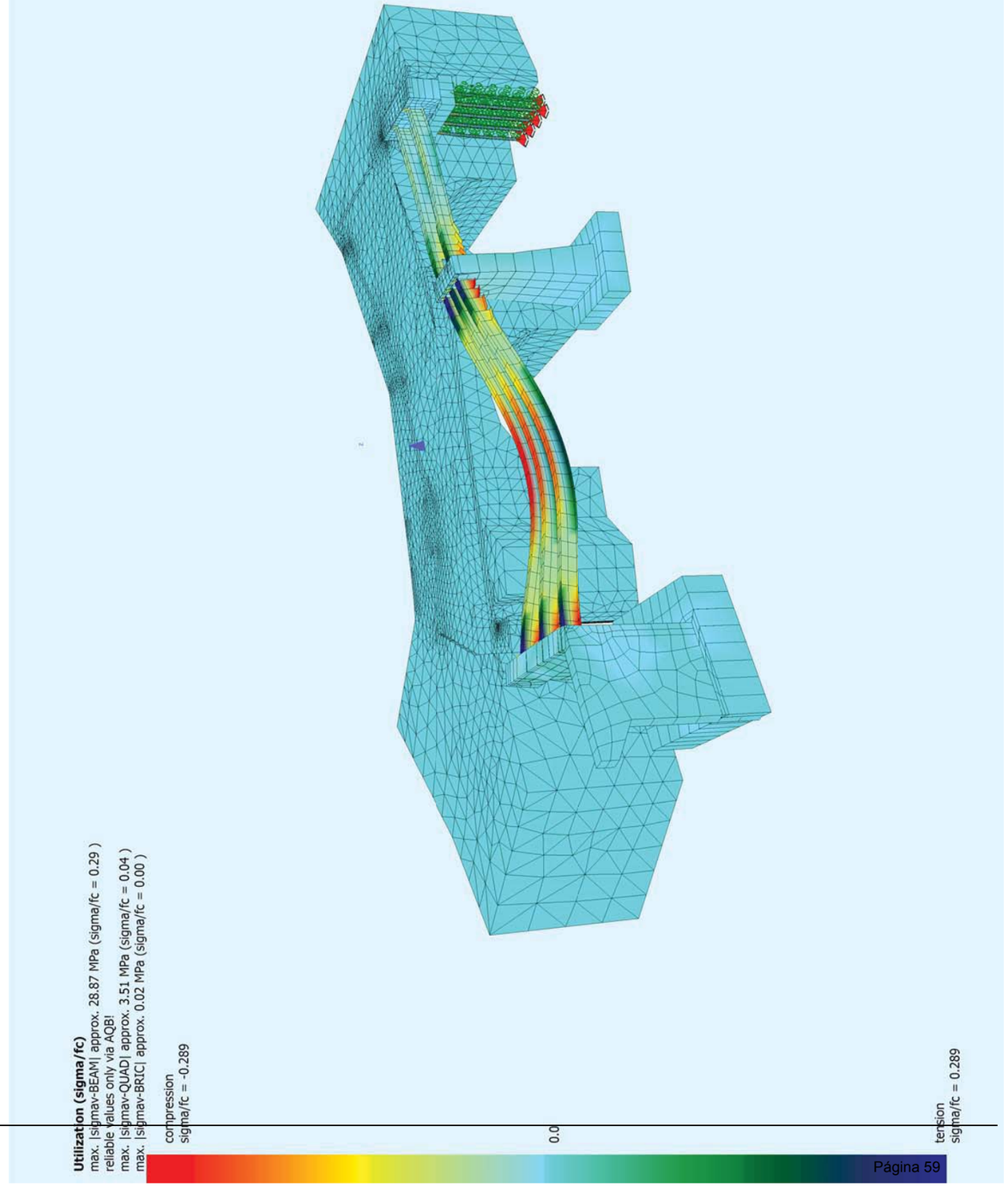
FASE 2. ESTRIBOS Y PILA



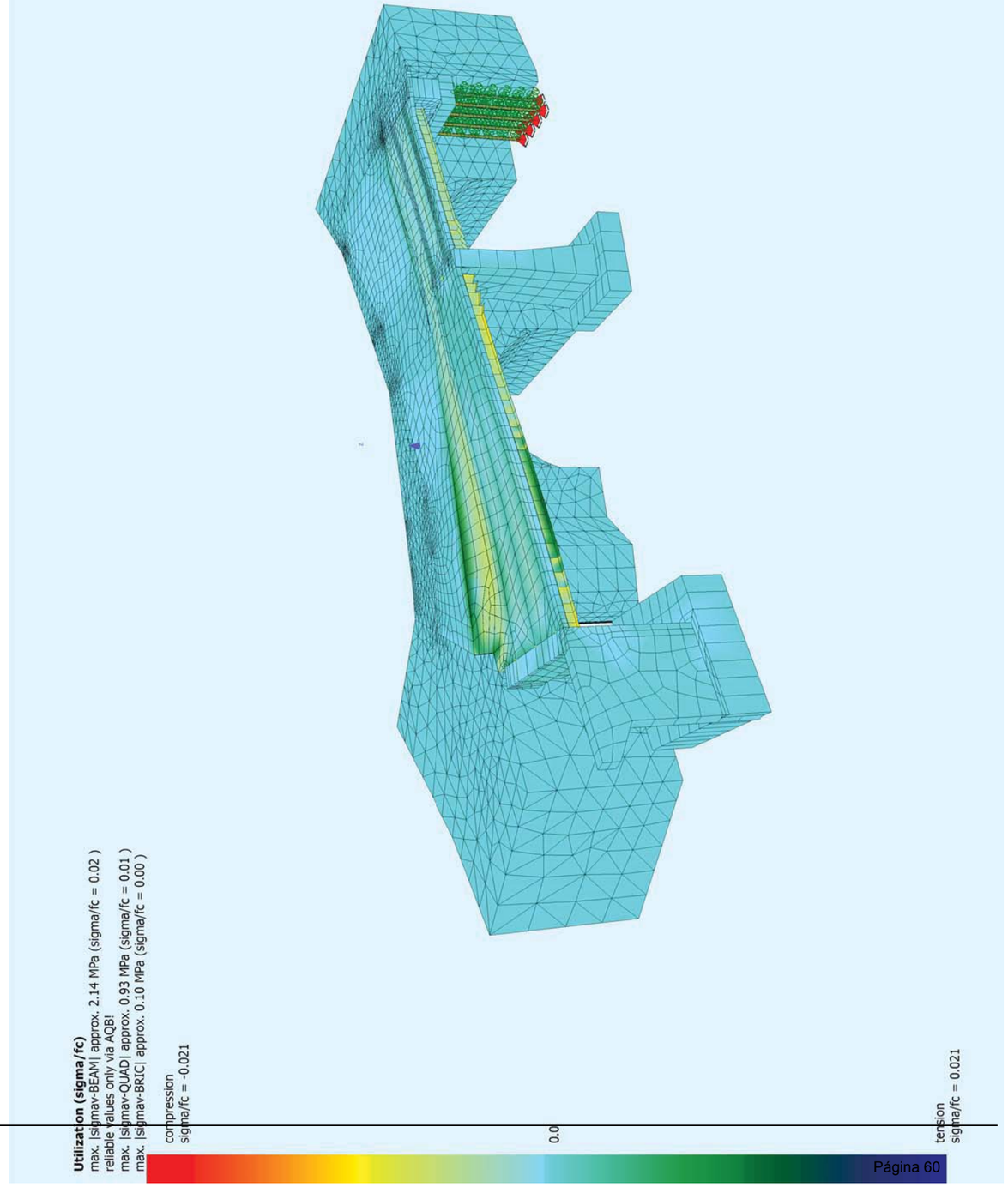
FASE 3. VIGAS METÁLICAS



FASE 4. HORMIGÓN FRESCO DE LA LOSA



FASE 4. FRAGUADO LOSA – ESTRUCTURA COMPLETA



SILGA S.L. * C/ Amos de Escalante, 10 2 D * 39002 Santander
SOFiSTiK 2016-6 CSM - Construction Stage Manager (V 16.06)

Modelo 3D
Calculation of Construction Stages

Global Settings

Dead load of elements is automatically activated.

Construction Stages

CS	Type	t [d]	RH [%]	T [°C]	laun_1 [m]	laun_2 [m]	Designation
10	G_1						Puente existente
15	G_1						Estribos y pila
20	G_1						Vigas
25	B						Hormigon fresco
30	G_1						Losa

CS number of the construction stage
Type type of the action
t effective duration of creep interval
RH relative humidity
T temperature in creep interval
laun_1 launching distance of this construction stage for launching from side 1
laun_2 launching distance of this construction stage for launching from side 2

Group Properties

Grp	active from CS	active until CS	deadload from CS	Hfix from	Bedd from	Deck from	ASTI until	t0 [d]	ts [d]	FAC1	PHIF	QUEA	QEMX
0	30	9999	1010000	10				7	3		1.00		
1	15	9999	1010000	10				7	3		1.00		
2	15	9999	1010000	10				7	3		1.00		
10	10	9999	1010000	10				7	3		1.00		
20	10	9999	1010000	10				7	3		1.00		
30	10	9999	1010000	10				7	3		1.00		
40	10	9999	1010000	10				7	3		1.00		
50	15	9999	1010000	10				7	3		1.00		
51	15	9999	1010000	10				7	3		1.00		
60	15	9999	1010000	10				7	3		1.00		
61	15	9999	1010000	10				7	3		1.00		
62	15	9999	1010000	10				7	3		1.00		
70	15	9999	1010000	10				7	3		1.00		
71	15	9999	1010000	10				7	3		1.00		
80	30	9999	1010000	10				7	3		1.00		
81	20	9999	1010000	10				7	3		1.00		
99	15	9999	1010000	10				7	3		1.00		
101	10	9999	1010000	10				7	3		1.00		
102	10	9999	1010000	10				7	3		1.00		
103	10	9999	1010000	10				7	3		1.00		
104	10	9999	1010000	10				7	3		1.00		
105	10	9999	1010000	10				7	3		1.00		
106	10	9999	1010000	10				7	3		1.00		
107	10	9999	1010000	10				7	3		1.00		
108	10	9999	1010000	10				7	3		1.00		
109	10	9999	1010000	10				7	3		1.00		
110	10	9999	1010000	10				7	3		1.00		
111	10	9999	1010000	10				7	3		1.00		
112	10	9999	1010000	10				7	3		1.00		
113	10	9999	1010000	10				7	3		1.00		
114	10	9999	1010000	10				7	3		1.00		
115	10	9999	1010000	10				7	3		1.00		
116	10	9999	1010000	10				7	3		1.00		
117	10	9999	1010000	10				7	3		1.00		
118	10	9999	1010000	10				7	3		1.00		
119	10	9999	1010000	10				7	3		1.00		
120	10	9999	1010000	10				7	3		1.00		
121	10	9999	1010000	10				7	3		1.00		
122	10	9999	1010000	10				7	3		1.00		
123	10	9999	1010000	10				7	3		1.00		
124	10	9999	1010000	10				7	3		1.00		
125	10	9999	1010000	10				7	3		1.00		

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SILGA S.L. * C/ Amos de Escalante, 10 2 D * 39002 Santander
SOFiSTiK 2016-6 CSM - Construction Stage Manager (V 16.06)

Modelo 3D
Calculation of Construction Stages

Group Properties

Grp	active from CS	active until CS	deadload from CS	Hfix from	Bedd from	Deck from	ASTI until	t0 [d]	ts [d]	FAC1	PHIF	QUEA	QEMX
126	10	9999	1010000	10				7	3		1.00		
127	10	9999	1010000	10				7	3		1.00		
128	10	9999	1010000	10				7	3		1.00		

Grp group number
active active from / until construction stage number
deadload construction stage number from which the dead load of a group is activated
Hfix construction stage number at which hinges are fixed
Bedd construction stage number from which QUAD bedding is activated
Deck construction stage number from which the in situ concrete load of a AQUA CS is activated
ASTI stiffness active till construction stage number
t0 age of concrete at time of loading
ts start time of drying (from t0-ts shrinkage without effect)
FAC1 stiffness factor for first activation (e.g. cable prestress)
PHIF factor for creep of springs and beddings
QUEA component of the normal force stiffness of QUAD elements
QEMX factor of Young's modulus of QUAD elements in local x direction

Additional Loads

LC	Type	active from CS	active until CS	factor	
601	SL	25	25	1.000000	

LC load case
Type type of the action
active active from / until construction stage number

Overview loadcases. (see also CSM manual chapter 2 loadcases)

Total CS displacements and forces starting at loadcase number. 4000
Difference displacements and forces starting at loadcase number. 5000
AQB inner stresses from creep and shrinkage at loadcase number. 6000
Stress results of the AQB-LCST-evaluation at loadcase number. 7000
[to check prestress normal force after creep and shrinkage :
-> WINGRAF beam normal force LC 7000ff see. CTRL STOR 1]

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COMBINACIONES

SILGA S.L. * C/ Amos de Escalante, 10 2 D * 39002 Santander
SOFiSTiK 2016-6 MAXIMA - SUPERPOSITION OF LOAD CASES (V 18.06)

Modelo 3D

Superposition according to EHE Instrucción de hormigòn estructural 2008

Combination rule Number 1

ELS_Permanente
Superposition according to explicitly defined formula
1.00*G+1.00*G1+1.00*G2+(1.00/0.00)*Q1+(1.00/0.00)*Q1+(1.00/0.00)*Q1+(1.00/0.00)*Q2
Resulting Load Cases type Service: Permanent combination

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
G	G	1.00	1.00									dead load
	4030									1.00	PERM	Losa
G1	G	1.00	1.00									dead load g1
	2									1.00	PERC	Aglomerado
	3									1.00	PERC	Barreras
G2	G	1.00	1.00									dead load g2
	5									1.00	PERM	Empuje de tierras
Q1	Q	1.00	0.00									variable load
	11									9.00	A21	Sob unif calle 1
	12									9.00	A21	Sob unif calle 1
	13									9.00	A21	Sob unif calle 1
	14									9.00	A21	Sob unif calle 1
	15									9.00	A21	Sob unif calle 1
	16									9.00	A21	Sob unif calle 1
	21									2.50	A22	Sob unif calle 2
	22									2.50	A22	Sob unif calle 2
	23									2.50	A22	Sob unif calle 2
	24									2.50	A22	Sob unif calle 2
	25									2.50	A22	Sob unif calle 2
	26									2.50	A22	Sob unif calle 2
	31									2.50	A23	Sob unif calle 3
	32									2.50	A23	Sob unif calle 3
	33									2.50	A23	Sob unif calle 3
	34									2.50	A23	Sob unif calle 3
	35									2.50	A23	Sob unif calle 3
	36									2.50	A23	Sob unif calle 3
Q1	Q	1.00	0.00									variable load
	401									1.00	UNSI	Frenado
Q1	Q	1.00	0.00									variable load
	101									1.00	A11	Carro calle 1
	102									1.00	A11	Carro calle 1
	103									1.00	A11	Carro calle 1
	104									1.00	A11	Carro calle 1
	105									1.00	A11	Carro calle 1
	106									1.00	A11	Carro calle 1
	107									1.00	A11	Carro calle 1
	108									1.00	A11	Carro calle 1
	109									1.00	A11	Carro calle 1
	110									1.00	A11	Carro calle 1
	111									1.00	A11	Carro calle 1
	112									1.00	A11	Carro calle 1
	113									1.00	A11	Carro calle 1
	114									1.00	A11	Carro calle 1
	115									1.00	A11	Carro calle 1
	116									1.00	A11	Carro calle 1
	117									1.00	A11	Carro calle 1
	118									1.00	A11	Carro calle 1
	119									1.00	A11	Carro calle 1

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SOFiSTiK 2016-6 MAXIMA - SUPERPOSITION OF LOAD CASES (V 18.06)

Modelo 3D

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
	120									1.00	A11	Carro calle 1
	121									1.00	A11	Carro calle 1
	201									0.67	A12	Carro calle 2
	202									0.67	A12	Carro calle 2
	203									0.67	A12	Carro calle 2
	204									0.67	A12	Carro calle 2
	205									0.67	A12	Carro calle 2
	206									0.67	A12	Carro calle 2
	207									0.67	A12	Carro calle 2
	208									0.67	A12	Carro calle 2
	209									0.67	A12	Carro calle 2
	210									0.67	A12	Carro calle 2
	211									0.67	A12	Carro calle 2
	212									0.67	A12	Carro calle 2
	213									0.67	A12	Carro calle 2
	214									0.67	A12	Carro calle 2
	215									0.67	A12	Carro calle 2
	216									0.67	A12	Carro calle 2
	217									0.67	A12	Carro calle 2
	218									0.67	A12	Carro calle 2
	219									0.67	A12	Carro calle 2
	220									0.67	A12	Carro calle 2
	221									0.67	A12	Carro calle 2
	301									0.33	A13	Carro calle 3
	302									0.33	A13	Carro calle 3
	303									0.33	A13	Carro calle 3
	304									0.33	A13	Carro calle 3
	305									0.33	A13	Carro calle 3
	306									0.33	A13	Carro calle 3
	307									0.33	A13	Carro calle 3
	308									0.33	A13	Carro calle 3
	309									0.33	A13	Carro calle 3
	310									0.33	A13	Carro calle 3
	311									0.33	A13	Carro calle 3
	312									0.33	A13	Carro calle 3
	313									0.33	A13	Carro calle 3
	314									0.33	A13	Carro calle 3
	315									0.33	A13	Carro calle 3
	316									0.33	A13	Carro calle 3
	317									0.33	A13	Carro calle 3
	318									0.33	A13	Carro calle 3
	319									0.33	A13	Carro calle 3
	320									0.33	A13	Carro calle 3
	321									0.33	A13	Carro calle 3
Q2	Q	1.00	0.00									variable load
	4									1.00	A31	Temp unif (+)
	402									1.00	A32	Temp unif (-)

Act	action
Part	partition of the action
fac-u,fac-f	factor unfavourable/favourable
facu1,facf1,facu2,facf2,facu3,facf3	factors unfavourable/favourable 1st,2nd,3rd dominant action
LC	number of the load case
Fact	factor for load case
Type	type of the load case
PERM	permanent load grouped in actions
PERC	permanent load grouped in load cases
UNSI	unsigned conditional load
A	exclusive load

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Modelo 3D

Combination rule Number 2

ELS_Frecuente
Superposition according to explicitly defined formula
1.00*G+1.00*G1+1.00*G2+(1.00/0.00)*Q1+(1.00/0.00)*Q1+(1.00/0.00)*Q1+(1.00/0.00)*Q2

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
G	G	1.00	1.00									dead load
	4030									1.00	PERM	Losa
G1	G	1.00	1.00									dead load g1
	2									1.00	PERC	Aglomerado
	3									1.00	PERC	Barreras
G2	G	1.00	1.00									dead load g2
	5									1.00	PERM	Empuje de tierras
Q1	Q	1.00	0.00									variable load
	11									9.00	A21	Sob unif calle 1
	12									9.00	A21	Sob unif calle 1
	13									9.00	A21	Sob unif calle 1
	14									9.00	A21	Sob unif calle 1
	15									9.00	A21	Sob unif calle 1
	16									9.00	A21	Sob unif calle 1
	21									2.50	A22	Sob unif calle 2
	22									2.50	A22	Sob unif calle 2
	23									2.50	A22	Sob unif calle 2
	24									2.50	A22	Sob unif calle 2
	25									2.50	A22	Sob unif calle 2
	26									2.50	A22	Sob unif calle 2
	31									2.50	A23	Sob unif calle 3
	32									2.50	A23	Sob unif calle 3
	33									2.50	A23	Sob unif calle 3
	34									2.50	A23	Sob unif calle 3
	35									2.50	A23	Sob unif calle 3
	36									2.50	A23	Sob unif calle 3
Q1	Q	1.00	0.00									variable load
	401									1.00	UNSI	Frenado
Q1	Q	1.00	0.00									variable load
	101									1.00	A11	Carro calle 1
	102									1.00	A11	Carro calle 1
	103									1.00	A11	Carro calle 1
	104									1.00	A11	Carro calle 1
	105									1.00	A11	Carro calle 1
	106									1.00	A11	Carro calle 1
	107									1.00	A11	Carro calle 1
	108									1.00	A11	Carro calle 1
	109									1.00	A11	Carro calle 1
	110									1.00	A11	Carro calle 1
	111									1.00	A11	Carro calle 1
	112									1.00	A11	Carro calle 1
	113									1.00	A11	Carro calle 1
	114									1.00	A11	Carro calle 1
	115									1.00	A11	Carro calle 1
	116									1.00	A11	Carro calle 1
	117									1.00	A11	Carro calle 1
	118									1.00	A11	Carro calle 1
	119									1.00	A11	Carro calle 1
	120									1.00	A11	Carro calle 1
	121									1.00	A11	Carro calle 1
	201									0.67	A12	Carro calle 2
	202									0.67	A12	Carro calle 2

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SOFiSTiK 2016-6 MAXIMA - SUPERPOSITION OF LOAD CASES (V 18.06)

Modelo 3D

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
	203									0.67	A12	Carro calle 2
	204									0.67	A12	Carro calle 2
	205									0.67	A12	Carro calle 2
	206									0.67	A12	Carro calle 2
	207									0.67	A12	Carro calle 2
	208									0.67	A12	Carro calle 2
	209									0.67	A12	Carro calle 2
	210									0.67	A12	Carro calle 2
	211									0.67	A12	Carro calle 2
	212									0.67	A12	Carro calle 2
	213									0.67	A12	Carro calle 2
	214									0.67	A12	Carro calle 2
	215									0.67	A12	Carro calle 2
	216									0.67	A12	Carro calle 2
	217									0.67	A12	Carro calle 2
	218									0.67	A12	Carro calle 2
	219									0.67	A12	Carro calle 2
	220									0.67	A12	Carro calle 2
	221									0.67	A12	Carro calle 2
	301									0.33	A13	Carro calle 3
	302									0.33	A13	Carro calle 3
	303									0.33	A13	Carro calle 3
	304									0.33	A13	Carro calle 3
	305									0.33	A13	Carro calle 3
	306									0.33	A13	Carro calle 3
	307									0.33	A13	Carro calle 3
	308									0.33	A13	Carro calle 3
	309									0.33	A13	Carro calle 3
	310									0.33	A13	Carro calle 3
	311									0.33	A13	Carro calle 3
	312									0.33	A13	Carro calle 3
	313									0.33	A13	Carro calle 3
	314									0.33	A13	Carro calle 3
	315									0.33	A13	Carro calle 3
	316									0.33	A13	Carro calle 3
	317									0.33	A13	Carro calle 3
	318									0.33	A13	Carro calle 3
	319									0.33	A13	Carro calle 3
	320									0.33	A13	Carro calle 3
	321									0.33	A13	Carro calle 3
Q2	Q	1.00	0.00									variable load
	4									1.00	A31	Temp unif (+)
	402									1.00	A32	Temp unif (-)

Act	action
Part	partition of the action
fac-u,fac-f	factor unfavourable/favourable
facu1,facf1,facu2,facf2,facu3,facf3	factors unfavourable/favourable 1st,2nd,3rd dominant action
LC	number of the load case
Fact	factor for load case
Type	type of the load case
PERM	permanent load grouped in actions
PERC	permanent load grouped in load cases
UNSI	unsigned conditional load
A	exclusive load

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Combination rule Number 3

ELS_Característica
Superposition according to explicitly defined formula

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Modelo 3D

Combination rule Number 3

1.00*G+1.00*G1+1.00*G2+(1.00/0.00)*Q1+(1.00/0.00)*Q1+(1.00/0.00)*Q1+(1.00/0.00)*Q2

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
G	G	1.00	1.00									dead load
	4030									1.00	PERM	Losa
G1	G	1.00	1.00									dead load g1
	2									1.00	PERC	Aglomerado
	3									1.00	PERC	Barreras
G2	G	1.00	1.00									dead load g2
	5									1.00	PERM	Empuje de tierras
Q1	Q	1.00	0.00									variable load
	11									9.00	A21	Sob unif calle 1
	12									9.00	A21	Sob unif calle 1
	13									9.00	A21	Sob unif calle 1
	14									9.00	A21	Sob unif calle 1
	15									9.00	A21	Sob unif calle 1
	16									9.00	A21	Sob unif calle 1
	21									2.50	A22	Sob unif calle 2
	22									2.50	A22	Sob unif calle 2
	23									2.50	A22	Sob unif calle 2
	24									2.50	A22	Sob unif calle 2
	25									2.50	A22	Sob unif calle 2
	26									2.50	A22	Sob unif calle 2
	31									2.50	A23	Sob unif calle 3
	32									2.50	A23	Sob unif calle 3
	33									2.50	A23	Sob unif calle 3
	34									2.50	A23	Sob unif calle 3
	35									2.50	A23	Sob unif calle 3
	36									2.50	A23	Sob unif calle 3
Q1	Q	1.00	0.00									variable load
	401									1.00	UNSI	Frenado
Q1	Q	1.00	0.00									variable load
	101									1.00	A11	Carro calle 1
	102									1.00	A11	Carro calle 1
	103									1.00	A11	Carro calle 1
	104									1.00	A11	Carro calle 1
	105									1.00	A11	Carro calle 1
	106									1.00	A11	Carro calle 1
	107									1.00	A11	Carro calle 1
	108									1.00	A11	Carro calle 1
	109									1.00	A11	Carro calle 1
	110									1.00	A11	Carro calle 1
	111									1.00	A11	Carro calle 1
	112									1.00	A11	Carro calle 1
	113									1.00	A11	Carro calle 1
	114									1.00	A11	Carro calle 1
	115									1.00	A11	Carro calle 1
	116									1.00	A11	Carro calle 1
	117									1.00	A11	Carro calle 1
	118									1.00	A11	Carro calle 1
	119									1.00	A11	Carro calle 1
	120									1.00	A11	Carro calle 1
	121									1.00	A11	Carro calle 1
	201									0.67	A12	Carro calle 2
	202									0.67	A12	Carro calle 2
	203									0.67	A12	Carro calle 2
	204									0.67	A12	Carro calle 2

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Modelo 3D

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
	205									0.67	A12	Carro calle 2
	206									0.67	A12	Carro calle 2
	207									0.67	A12	Carro calle 2
	208									0.67	A12	Carro calle 2
	209									0.67	A12	Carro calle 2
	210									0.67	A12	Carro calle 2
	211									0.67	A12	Carro calle 2
	212									0.67	A12	Carro calle 2
	213									0.67	A12	Carro calle 2
	214									0.67	A12	Carro calle 2
	215									0.67	A12	Carro calle 2
	216									0.67	A12	Carro calle 2
	217									0.67	A12	Carro calle 2
	218									0.67	A12	Carro calle 2
	219									0.67	A12	Carro calle 2
	220									0.67	A12	Carro calle 2
	221									0.67	A12	Carro calle 2
	301									0.33	A13	Carro calle 3
	302									0.33	A13	Carro calle 3
	303									0.33	A13	Carro calle 3
	304									0.33	A13	Carro calle 3
	305									0.33	A13	Carro calle 3
	306									0.33	A13	Carro calle 3
	307									0.33	A13	Carro calle 3
	308									0.33	A13	Carro calle 3
	309									0.33	A13	Carro calle 3
	310									0.33	A13	Carro calle 3
	311									0.33	A13	Carro calle 3
	312									0.33	A13	Carro calle 3
	313									0.33	A13	Carro calle 3
	314									0.33	A13	Carro calle 3
	315									0.33	A13	Carro calle 3
	316									0.33	A13	Carro calle 3
	317									0.33	A13	Carro calle 3
	318									0.33	A13	Carro calle 3
	319									0.33	A13	Carro calle 3
	320									0.33	A13	Carro calle 3
	321									0.33	A13	Carro calle 3
Q2	Q	1.00	0.00									variable load
	4									1.00	A31	Temp unif (+)
	402									1.00	A32	Temp unif (-)

Act	action
Part	partition of the action
fac-u,fac-f	factor unfavourable/favourable
facu1,facf1,facu2,facf2,facu3,facf3	factors unfavourable/favourable 1st,2nd,3rd dominant action
LC	number of the load case
Fact	factor for load case
Type	type of the load case
PERM	permanent load grouped in actions
PERC	permanent load grouped in load cases
UNSI	unsigned conditional load
A	exclusive load

Combination rule Number 5

ELU_Persistente
Superposition according to explicitly defined formula
(1.35/1.00)*G+(1.50/1.00)*G1+(1.50/1.00)*G2+(1.50/0.00)*Q1+(1.50/0.00)*Q1+(1.50/0.00)*Q1+(1.50/0.00)*Q2
Resulting Load Cases type Ultimate Design combination

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Modelo 3D

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
G	G	1.35	1.00									dead load
	4030									1.00	PERM	Losa
G1	G	1.50	1.00									dead load g1
	2									1.00	PERC	Aglomerado
	3									1.00	PERC	Barreras
G2	G	1.50	1.00									dead load g2
	5									1.00	PERM	Empuje de tierras
Q1	Q	1.50	0.00									variable load
	11									9.00	A21	Sob unif calle 1
	12									9.00	A21	Sob unif calle 1
	13									9.00	A21	Sob unif calle 1
	14									9.00	A21	Sob unif calle 1
	15									9.00	A21	Sob unif calle 1
	16									9.00	A21	Sob unif calle 1
	21									2.50	A22	Sob unif calle 2
	22									2.50	A22	Sob unif calle 2
	23									2.50	A22	Sob unif calle 2
	24									2.50	A22	Sob unif calle 2
	25									2.50	A22	Sob unif calle 2
	26									2.50	A22	Sob unif calle 2
	31									2.50	A23	Sob unif calle 3
	32									2.50	A23	Sob unif calle 3
	33									2.50	A23	Sob unif calle 3
	34									2.50	A23	Sob unif calle 3
	35									2.50	A23	Sob unif calle 3
	36									2.50	A23	Sob unif calle 3
Q1	Q	1.50	0.00									variable load
	401									1.00	UNSI	Frenado
Q1	Q	1.50	0.00									variable load
	101									1.00	A11	Carro calle 1
	102									1.00	A11	Carro calle 1
	103									1.00	A11	Carro calle 1
	104									1.00	A11	Carro calle 1
	105									1.00	A11	Carro calle 1
	106									1.00	A11	Carro calle 1
	107									1.00	A11	Carro calle 1
	108									1.00	A11	Carro calle 1
	109									1.00	A11	Carro calle 1
	110									1.00	A11	Carro calle 1
	111									1.00	A11	Carro calle 1
	112									1.00	A11	Carro calle 1
	113									1.00	A11	Carro calle 1
	114									1.00	A11	Carro calle 1
	115									1.00	A11	Carro calle 1
	116									1.00	A11	Carro calle 1
	117									1.00	A11	Carro calle 1
	118									1.00	A11	Carro calle 1
	119									1.00	A11	Carro calle 1
	120									1.00	A11	Carro calle 1
	121									1.00	A11	Carro calle 1
	201									0.67	A12	Carro calle 2
	202									0.67	A12	Carro calle 2
	203									0.67	A12	Carro calle 2
	204									0.67	A12	Carro calle 2
	205									0.67	A12	Carro calle 2
	206									0.67	A12	Carro calle 2
	207									0.67	A12	Carro calle 2

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Modelo 3D

Load Case selection and Actions

Act	Part	Superposition Factors fac-u	fac-f	facu1	facf1	facu2	facf2	facu3	facf3	Fact	Type	Designation
	LC											
	208									0.67	A12	Carro calle 2
	209									0.67	A12	Carro calle 2
	210									0.67	A12	Carro calle 2
	211									0.67	A12	Carro calle 2
	212									0.67	A12	Carro calle 2
	213									0.67	A12	Carro calle 2
	214									0.67	A12	Carro calle 2
	215									0.67	A12	Carro calle 2
	216									0.67	A12	Carro calle 2
	217									0.67	A12	Carro calle 2
	218									0.67	A12	Carro calle 2
	219									0.67	A12	Carro calle 2
	220									0.67	A12	Carro calle 2
	221									0.67	A12	Carro calle 2
	301									0.33	A13	Carro calle 3
	302									0.33	A13	Carro calle 3
	303									0.33	A13	Carro calle 3
	304									0.33	A13	Carro calle 3
	305									0.33	A13	Carro calle 3
	306									0.33	A13	Carro calle 3
	307									0.33	A13	Carro calle 3
	308									0.33	A13	Carro calle 3
	309									0.33	A13	Carro calle 3
	310									0.33	A13	Carro calle 3
	311									0.33	A13	Carro calle 3
	312									0.33	A13	Carro calle 3
	313									0.33	A13	Carro calle 3
	314									0.33	A13	Carro calle 3
	315									0.33	A13	Carro calle 3
	316									0.33	A13	Carro calle 3
	317									0.33	A13	Carro calle 3
	318									0.33	A13	Carro calle 3
	319									0.33	A13	Carro calle 3
	320									0.33	A13	Carro calle 3
	321									0.33	A13	Carro calle 3
Q2	Q	1.50	0.00									variable load
	4									1.00	A31	Temp unif (+)
	402									1.00	A32	Temp unif (-)

Act	action
Part	partition of the action
fac-u,fac-f	factor unfavourable/favourable
facu1,facf1,facu2,facf2,facu3,facf3	factors unfavourable/favourable 1st,2nd,3rd dominant action
LC	number of the load case
Fact	factor for load case
Type	type of the load case
PERM	permanent load grouped in actions
PERC	permanent load grouped in load cases
UNSI	unsigned conditional load
A	exclusive load

Generated Load Cases

Number	Combination	Designation
1171	1	MAXP-UX NODE Nodal Displacements
1172	1	MINP-UX NODE Nodal Displacements
1173	1	MAXP-UY NODE Nodal Displacements
1174	1	MINP-UY NODE Nodal Displacements
1175	1	MAXP-UZ NODE Nodal Displacements
1176	1	MINP-UZ NODE Nodal Displacements
1177	1	MAXP-URX NODE Nodal Displacements
1178	1	MINP-URX NODE Nodal Displacements

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Generated Load Cases

Number	Combination	Designation
1179	1	MAXP-URY NODE Nodal Displacements
1180	1	MINP-URY NODE Nodal Displacements
1181	1	MAXP-URZ NODE Nodal Displacements
1182	1	MINP-URZ NODE Nodal Displacements
1121	1	MAXP-N BEAM Forces in Beam Elements
1122	1	MINP-N BEAM Forces in Beam Elements
1123	1	MAXP-VY BEAM Forces in Beam Elements
1124	1	MINP-VY BEAM Forces in Beam Elements
1125	1	MAXP-VZ BEAM Forces in Beam Elements
1126	1	MINP-VZ BEAM Forces in Beam Elements
1127	1	MAXP-MT BEAM Forces in Beam Elements
1128	1	MINP-MT BEAM Forces in Beam Elements
1129	1	MAXP-MY BEAM Forces in Beam Elements
1130	1	MINP-MY BEAM Forces in Beam Elements
1131	1	MAXP-MZ BEAM Forces in Beam Elements
1132	1	MINP-MZ BEAM Forces in Beam Elements
1111	1	MAXP-NXX QUAD Forces in Quad Elements
1112	1	MINP-NXX QUAD Forces in Quad Elements
1113	1	MAXP-NYY QUAD Forces in Quad Elements
1114	1	MINP-NYY QUAD Forces in Quad Elements
1115	1	MAXP-NXY QUAD Forces in Quad Elements
1116	1	MINP-NXY QUAD Forces in Quad Elements
1101	1	MAXP-MXX QUAD Forces in Quad Elements
1102	1	MINP-MXX QUAD Forces in Quad Elements
1103	1	MAXP-MYY QUAD Forces in Quad Elements
1104	1	MINP-MYY QUAD Forces in Quad Elements
1105	1	MAXP-MXY QUAD Forces in Quad Elements
1106	1	MINP-MXY QUAD Forces in Quad Elements
1107	1	MAXP-VX QUAD Forces in Quad Elements
1108	1	MINP-VX QUAD Forces in Quad Elements
1109	1	MAXP-VY QUAD Forces in Quad Elements
1110	1	MINP-VY QUAD Forces in Quad Elements
1111	1	MAXP-NXX QUAK Forces in Quad Elements
1112	1	MINP-NXX QUAK Forces in Quad Elements
1113	1	MAXP-NYY QUAK Forces in Quad Elements
1114	1	MINP-NYY QUAK Forces in Quad Elements
1115	1	MAXP-NXY QUAK Forces in Quad Elements
1116	1	MINP-NXY QUAK Forces in Quad Elements
1101	1	MAXP-MXX QUAK Forces in Quad Elements
1102	1	MINP-MXX QUAK Forces in Quad Elements
1103	1	MAXP-MYY QUAK Forces in Quad Elements
1104	1	MINP-MYY QUAK Forces in Quad Elements
1105	1	MAXP-MXY QUAK Forces in Quad Elements
1106	1	MINP-MXY QUAK Forces in Quad Elements
1107	1	MAXP-VX QUAK Forces in Quad Elements
1108	1	MINP-VX QUAK Forces in Quad Elements
1109	1	MAXP-VY QUAK Forces in Quad Elements
1110	1	MINP-VY QUAK Forces in Quad Elements
1151	1	MAXP-PX NODE Supporting Forces in Nodes
1152	1	MINP-PX NODE Supporting Forces in Nodes
1153	1	MAXP-PY NODE Supporting Forces in Nodes
1154	1	MINP-PY NODE Supporting Forces in Nodes
1155	1	MAXP-PZ NODE Supporting Forces in Nodes
1156	1	MINP-PZ NODE Supporting Forces in Nodes
1107	1	MAXP-SX BRIC Tensiones en elementos volumétricos
1108	1	MINP-SX BRIC Tensiones en elementos volumétricos
1109	1	MAXP-SY BRIC Tensiones en elementos volumétricos
1110	1	MINP-SY BRIC Tensiones en elementos volumétricos
1111	1	MAXP-SZ BRIC Tensiones en elementos volumétricos

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Generated Load Cases

Number	Combination	Designation
1112	1	MINP-SZ BRIC Tensiones en elementos volumétricos
1113	1	MAXP-SXY BRIC Tensiones en elementos volumétricos
1114	1	MINP-SXY BRIC Tensiones en elementos volumétricos
1115	1	MAXP-SYZ BRIC Tensiones en elementos volumétricos
1116	1	MINP-SYZ BRIC Tensiones en elementos volumétricos
1117	1	MAXP-SXZ BRIC Tensiones en elementos volumétricos
1118	1	MINP-SXZ BRIC Tensiones en elementos volumétricos
1371	2	MAX-UX NODE Nodal Displacements
1372	2	MIN-UX NODE Nodal Displacements
1373	2	MAX-UY NODE Nodal Displacements
1374	2	MIN-UY NODE Nodal Displacements
1375	2	MAX-UZ NODE Nodal Displacements
1376	2	MIN-UZ NODE Nodal Displacements
1377	2	MAX-URX NODE Nodal Displacements
1378	2	MIN-URX NODE Nodal Displacements
1379	2	MAX-URY NODE Nodal Displacements
1380	2	MIN-URY NODE Nodal Displacements
1381	2	MAX-URZ NODE Nodal Displacements
1382	2	MIN-URZ NODE Nodal Displacements
1321	2	MAX-N BEAM Forces in Beam Elements
1322	2	MIN-N BEAM Forces in Beam Elements
1323	2	MAX-VY BEAM Forces in Beam Elements
1324	2	MIN-VY BEAM Forces in Beam Elements
1325	2	MAX-VZ BEAM Forces in Beam Elements
1326	2	MIN-VZ BEAM Forces in Beam Elements
1327	2	MAX-MT BEAM Forces in Beam Elements
1328	2	MIN-MT BEAM Forces in Beam Elements
1329	2	MAX-MY BEAM Forces in Beam Elements
1330	2	MIN-MY BEAM Forces in Beam Elements
1331	2	MAX-MZ BEAM Forces in Beam Elements
1332	2	MIN-MZ BEAM Forces in Beam Elements
1311	2	MAX-NXX QUAD Forces in Quad Elements
1312	2	MIN-NXX QUAD Forces in Quad Elements
1313	2	MAX-NYY QUAD Forces in Quad Elements
1314	2	MIN-NYY QUAD Forces in Quad Elements
1315	2	MAX-NXY QUAD Forces in Quad Elements
1316	2	MIN-NXY QUAD Forces in Quad Elements
1301	2	MAX-MXX QUAD Forces in Quad Elements
1302	2	MIN-MXX QUAD Forces in Quad Elements
1303	2	MAX-MYY QUAD Forces in Quad Elements
1304	2	MIN-MYY QUAD Forces in Quad Elements
1305	2	MAX-MXY QUAD Forces in Quad Elements
1306	2	MIN-MXY QUAD Forces in Quad Elements
1307	2	MAX-VX QUAD Forces in Quad Elements
1308	2	MIN-VX QUAD Forces in Quad Elements
1309	2	MAX-VY QUAD Forces in Quad Elements
1310	2	MIN-VY QUAD Forces in Quad Elements
1311	2	MAX-NXX QUAK Forces in Nodes of Quad Elements
1312	2	MIN-NXX QUAK Forces in Nodes of Quad Elements
1313	2	MAX-NYY QUAK Forces in Nodes of Quad Elements
1314	2	MIN-NYY QUAK Forces in Nodes of Quad Elements
1315	2	MAX-NXY QUAK Forces in Nodes of Quad Elements
1316	2	MIN-NXY QUAK Forces in Nodes of Quad Elements
1301	2	MAX-MXX QUAK Forces in Nodes of Quad Elements
1302	2	MIN-MXX QUAK Forces in Nodes of Quad Elements
1303	2	MAX-MYY QUAK Forces in Nodes of Quad Elements
1304	2	MIN-MYY QUAK Forces in Nodes of Quad Elements
1305	2	MAX-MXY QUAK Forces in Nodes of Quad Elements
1306	2	MIN-MXY QUAK Forces in Nodes of Quad Elements

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Generated Load Cases

Number	Combination	Designation
1307	2	MAX-VX QUAK Forces in Nodes of Quad Elements
1308	2	MIN-VX QUAK Forces in Nodes of Quad Elements
1309	2	MAX-VY QUAK Forces in Nodes of Quad Elements
1310	2	MIN-VY QUAK Forces in Nodes of Quad Elements
1351	2	MAX-PX NODE Supporting Forces in Nodes
1352	2	MIN-PX NODE Supporting Forces in Nodes
1353	2	MAX-PY NODE Supporting Forces in Nodes
1354	2	MIN-PY NODE Supporting Forces in Nodes
1355	2	MAX-PZ NODE Supporting Forces in Nodes
1356	2	MIN-PZ NODE Supporting Forces in Nodes
1307	2	MAX-SX BRIC Tensiones en elementos volumétricos
1308	2	MIN-SX BRIC Tensiones en elementos volumétricos
1309	2	MAX-SY BRIC Tensiones en elementos volumétricos
1310	2	MIN-SY BRIC Tensiones en elementos volumétricos
1311	2	MAX-SZ BRIC Tensiones en elementos volumétricos
1312	2	MIN-SZ BRIC Tensiones en elementos volumétricos
1313	2	MAX-SXY BRIC Tensiones en elementos volumétricos
1314	2	MIN-SXY BRIC Tensiones en elementos volumétricos
1315	2	MAX-SYZ BRIC Tensiones en elementos volumétricos
1316	2	MIN-SYZ BRIC Tensiones en elementos volumétricos
1317	2	MAX-SXZ BRIC Tensiones en elementos volumétricos
1318	2	MIN-SXZ BRIC Tensiones en elementos volumétricos
1571	3	MAX-UX NODE Nodal Displacements
1572	3	MIN-UX NODE Nodal Displacements
1573	3	MAX-UY NODE Nodal Displacements
1574	3	MIN-UY NODE Nodal Displacements
1575	3	MAX-UZ NODE Nodal Displacements
1576	3	MIN-UZ NODE Nodal Displacements
1577	3	MAX-URX NODE Nodal Displacements
1578	3	MIN-URX NODE Nodal Displacements
1579	3	MAX-URY NODE Nodal Displacements
1580	3	MIN-URY NODE Nodal Displacements
1581	3	MAX-URZ NODE Nodal Displacements
1582	3	MIN-URZ NODE Nodal Displacements
1521	3	MAX-N BEAM Forces in Beam Elements
1522	3	MIN-N BEAM Forces in Beam Elements
1523	3	MAX-VY BEAM Forces in Beam Elements
1524	3	MIN-VY BEAM Forces in Beam Elements
1525	3	MAX-VZ BEAM Forces in Beam Elements
1526	3	MIN-VZ BEAM Forces in Beam Elements
1527	3	MAX-MT BEAM Forces in Beam Elements
1528	3	MIN-MT BEAM Forces in Beam Elements
1529	3	MAX-MY BEAM Forces in Beam Elements
1530	3	MIN-MY BEAM Forces in Beam Elements
1531	3	MAX-MZ BEAM Forces in Beam Elements
1532	3	MIN-MZ BEAM Forces in Beam Elements
1511	3	MAX-NXX QUAD Forces in Quad Elements
1512	3	MIN-NXX QUAD Forces in Quad Elements
1513	3	MAX-NYY QUAD Forces in Quad Elements
1514	3	MIN-NYY QUAD Forces in Quad Elements
1515	3	MAX-NXY QUAD Forces in Quad Elements
1516	3	MIN-NXY QUAD Forces in Quad Elements
1501	3	MAX-MXX QUAD Forces in Quad Elements
1502	3	MIN-MXX QUAD Forces in Quad Elements
1503	3	MAX-MYY QUAD Forces in Quad Elements
1504	3	MIN-MYY QUAD Forces in Quad Elements
1505	3	MAX-MXY QUAD Forces in Quad Elements
1506	3	MIN-MXY QUAD Forces in Quad Elements
1507	3	MAX-VX QUAD Forces in Quad Elements

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Generated Load Cases

Number	Combination	Designation
1508	3	MIN-VX QUAD Forces in Quad Elements
1509	3	MAX-VY QUAD Forces in Quad Elements
1510	3	MIN-VY QUAD Forces in Quad Elements
1511	3	MAX-NXX QUAK Forces in Nodes of Quad Elements
1512	3	MIN-NXX QUAK Forces in Nodes of Quad Elements
1513	3	MAX-NYY QUAK Forces in Nodes of Quad Elements
1514	3	MIN-NYY QUAK Forces in Nodes of Quad Elements
1515	3	MAX-NXY QUAK Forces in Nodes of Quad Elements
1516	3	MIN-NXY QUAK Forces in Nodes of Quad Elements
1501	3	MAX-MXX QUAK Forces in Nodes of Quad Elements
1502	3	MIN-MXX QUAK Forces in Nodes of Quad Elements
1503	3	MAX-MYY QUAK Forces in Nodes of Quad Elements
1504	3	MIN-MYY QUAK Forces in Nodes of Quad Elements
1505	3	MAX-MXY QUAK Forces in Nodes of Quad Elements
1506	3	MIN-MXY QUAK Forces in Nodes of Quad Elements
1507	3	MAX-VX QUAK Forces in Nodes of Quad Elements
1508	3	MIN-VX QUAK Forces in Nodes of Quad Elements
1509	3	MAX-VY QUAK Forces in Nodes of Quad Elements
1510	3	MIN-VY QUAK Forces in Nodes of Quad Elements
1517	3	MAX-P QUAD Bedding stresses
1518	3	MIN-P QUAD Bedding stresses
1591	3	MAX-PT QUAD Bedding stresses
1592	3	MIN-PT QUAD Bedding stresses
1593	3	MAX-PTX QUAD Bedding stresses
1594	3	MIN-PTX QUAD Bedding stresses
1595	3	MAX-PTY QUAD Bedding stresses
1596	3	MIN-PTY QUAD Bedding stresses
1597	3	MAX-PTZ QUAD Bedding stresses
1598	3	MIN-PTZ QUAD Bedding stresses
1551	3	MAX-PX NODE Supporting Forces in Nodes
1552	3	MIN-PX NODE Supporting Forces in Nodes
1553	3	MAX-PY NODE Supporting Forces in Nodes
1554	3	MIN-PY NODE Supporting Forces in Nodes
1555	3	MAX-PZ NODE Supporting Forces in Nodes
1556	3	MIN-PZ NODE Supporting Forces in Nodes
1507	3	MAX-SX BRIC Tensiones en elementos volumétricos
1508	3	MIN-SX BRIC Tensiones en elementos volumétricos
1509	3	MAX-SY BRIC Tensiones en elementos volumétricos
1510	3	MIN-SY BRIC Tensiones en elementos volumétricos
1511	3	MAX-SZ BRIC Tensiones en elementos volumétricos
1512	3	MIN-SZ BRIC Tensiones en elementos volumétricos
1513	3	MAX-SXY BRIC Tensiones en elementos volumétricos
1514	3	MIN-SXY BRIC Tensiones en elementos volumétricos
1515	3	MAX-SYZ BRIC Tensiones en elementos volumétricos
1516	3	MIN-SYZ BRIC Tensiones en elementos volumétricos
1517	3	MAX-SXZ BRIC Tensiones en elementos volumétricos
1518	3	MIN-SXZ BRIC Tensiones en elementos volumétricos
3171	5	MAX-UX NODE Nodal Displacements
3172	5	MIN-UX NODE Nodal Displacements
3173	5	MAX-UY NODE Nodal Displacements
3174	5	MIN-UY NODE Nodal Displacements
3175	5	MAX-UZ NODE Nodal Displacements
3176	5	MIN-UZ NODE Nodal Displacements
3177	5	MAX-URX NODE Nodal Displacements
3178	5	MIN-URX NODE Nodal Displacements
3179	5	MAX-URY NODE Nodal Displacements
3180	5	MIN-URY NODE Nodal Displacements
3181	5	MAX-URZ NODE Nodal Displacements
3182	5	MIN-URZ NODE Nodal Displacements

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Generated Load Cases

Number	Combination	Designation
3121	5	MAX-N BEAM Forces in Beam Elements
3122	5	MIN-N BEAM Forces in Beam Elements
3123	5	MAX-VY BEAM Forces in Beam Elements
3124	5	MIN-VY BEAM Forces in Beam Elements
3125	5	MAX-VZ BEAM Forces in Beam Elements
3126	5	MIN-VZ BEAM Forces in Beam Elements
3127	5	MAX-MT BEAM Forces in Beam Elements
3128	5	MIN-MT BEAM Forces in Beam Elements
3129	5	MAX-MY BEAM Forces in Beam Elements
3130	5	MIN-MY BEAM Forces in Beam Elements
3131	5	MAX-MZ BEAM Forces in Beam Elements
3132	5	MIN-MZ BEAM Forces in Beam Elements
3111	5	MAX-NXX QUAD Forces in Quad Elements
3112	5	MIN-NXX QUAD Forces in Quad Elements
3113	5	MAX-NYY QUAD Forces in Quad Elements
3114	5	MIN-NYY QUAD Forces in Quad Elements
3115	5	MAX-NXY QUAD Forces in Quad Elements
3116	5	MIN-NXY QUAD Forces in Quad Elements
3101	5	MAX-MXX QUAD Forces in Quad Elements
3102	5	MIN-MXX QUAD Forces in Quad Elements
3103	5	MAX-MYY QUAD Forces in Quad Elements
3104	5	MIN-MYY QUAD Forces in Quad Elements
3105	5	MAX-MXY QUAD Forces in Quad Elements
3106	5	MIN-MXY QUAD Forces in Quad Elements
3107	5	MAX-VX QUAD Forces in Quad Elements
3108	5	MIN-VX QUAD Forces in Quad Elements
3109	5	MAX-VY QUAD Forces in Quad Elements
3110	5	MIN-VY QUAD Forces in Quad Elements
3111	5	MAX-NXX QUAK Forces in Nodes of Quad Elements
3112	5	MIN-NXX QUAK Forces in Nodes of Quad Elements
3113	5	MAX-NYY QUAK Forces in Nodes of Quad Elements
3114	5	MIN-NYY QUAK Forces in Nodes of Quad Elements
3115	5	MAX-NXY QUAK Forces in Nodes of Quad Elements
3116	5	MIN-NXY QUAK Forces in Nodes of Quad Elements
3101	5	MAX-MXX QUAK Forces in Nodes of Quad Elements
3102	5	MIN-MXX QUAK Forces in Nodes of Quad Elements
3103	5	MAX-MYY QUAK Forces in Nodes of Quad Elements
3104	5	MIN-MYY QUAK Forces in Nodes of Quad Elements
3105	5	MAX-MXY QUAK Forces in Nodes of Quad Elements
3106	5	MIN-MXY QUAK Forces in Nodes of Quad Elements
3107	5	MAX-VX QUAK Forces in Nodes of Quad Elements
3108	5	MIN-VX QUAK Forces in Nodes of Quad Elements
3109	5	MAX-VY QUAK Forces in Nodes of Quad Elements
3110	5	MIN-VY QUAK Forces in Nodes of Quad Elements
3151	5	MAX-PX NODE Supporting Forces in Nodes
3152	5	MIN-PX NODE Supporting Forces in Nodes
3153	5	MAX-PY NODE Supporting Forces in Nodes
3154	5	MIN-PY NODE Supporting Forces in Nodes
3155	5	MAX-PZ NODE Supporting Forces in Nodes
3156	5	MIN-PZ NODE Supporting Forces in Nodes
3107	5	MAX-SX BRIC Tensiones en elementos volumétricos
3108	5	MIN-SX BRIC Tensiones en elementos volumétricos
3109	5	MAX-SY BRIC Tensiones en elementos volumétricos
3110	5	MIN-SY BRIC Tensiones en elementos volumétricos
3111	5	MAX-SZ BRIC Tensiones en elementos volumétricos
3112	5	MIN-SZ BRIC Tensiones en elementos volumétricos
3113	5	MAX-SXY BRIC Tensiones en elementos volumétricos
3114	5	MIN-SXY BRIC Tensiones en elementos volumétricos
3115	5	MAX-SYZ BRIC Tensiones en elementos volumétricos

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Generated Load Cases

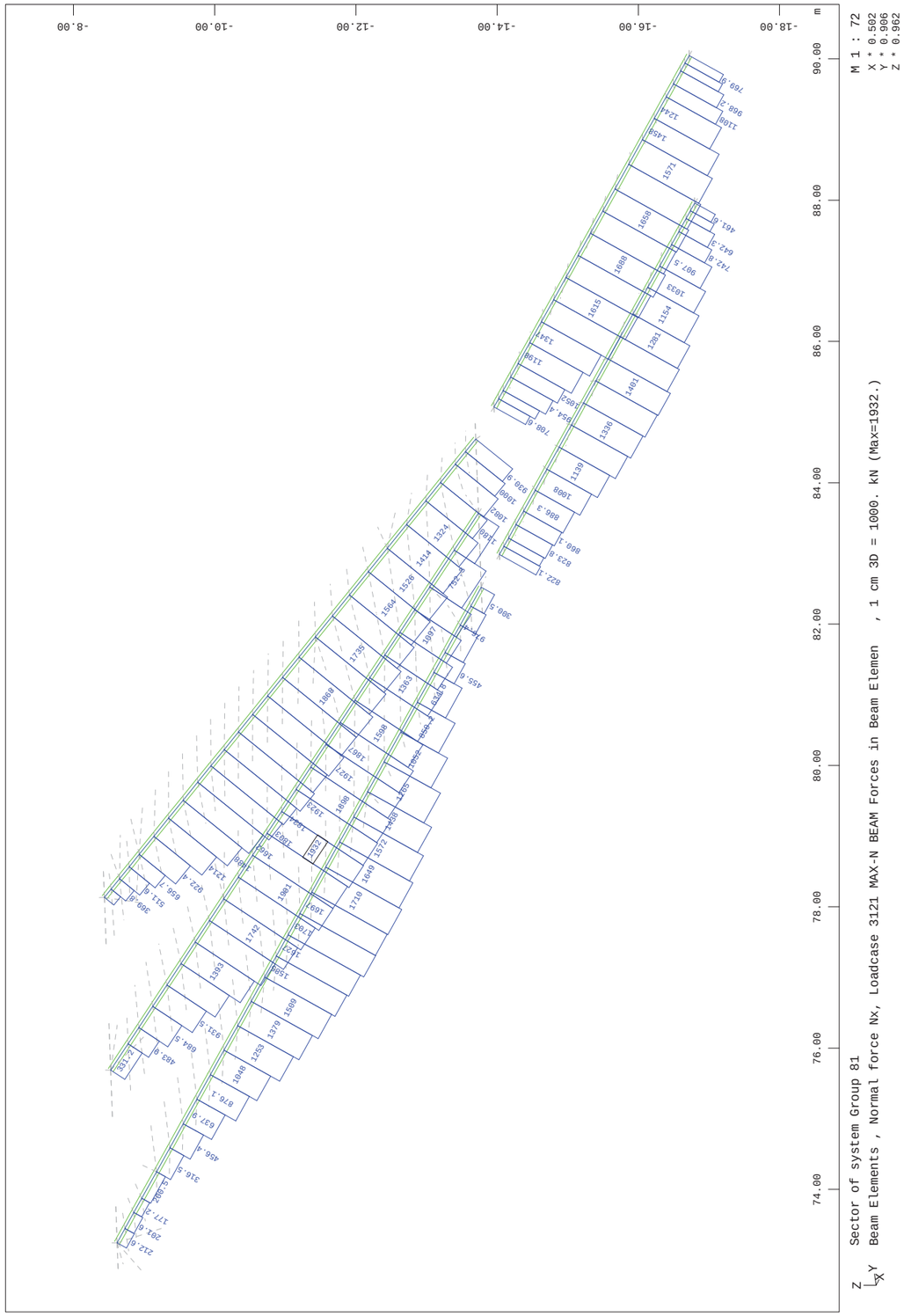
Number	Combination	Designation
3116	5	MIN-SYZ BRIC Tensiones en elementos volumétricos
3117	5	MAX-SXZ BRIC Tensiones en elementos volumétricos
3118	5	MIN-SXZ BRIC Tensiones en elementos volumétricos

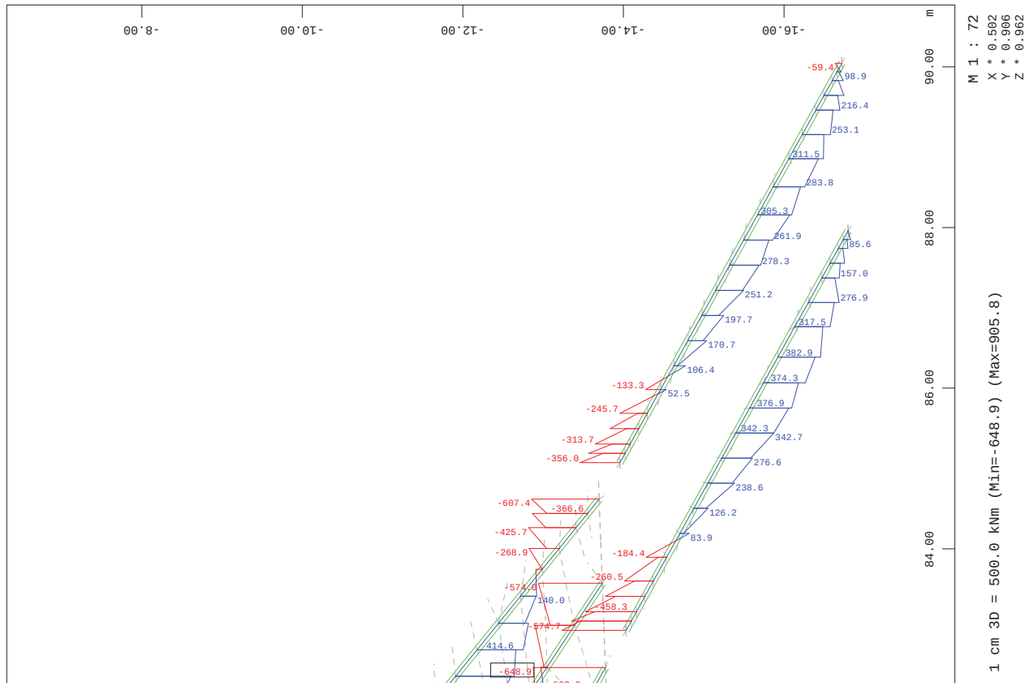
SOFiSTiK AG - www.sofistik.de

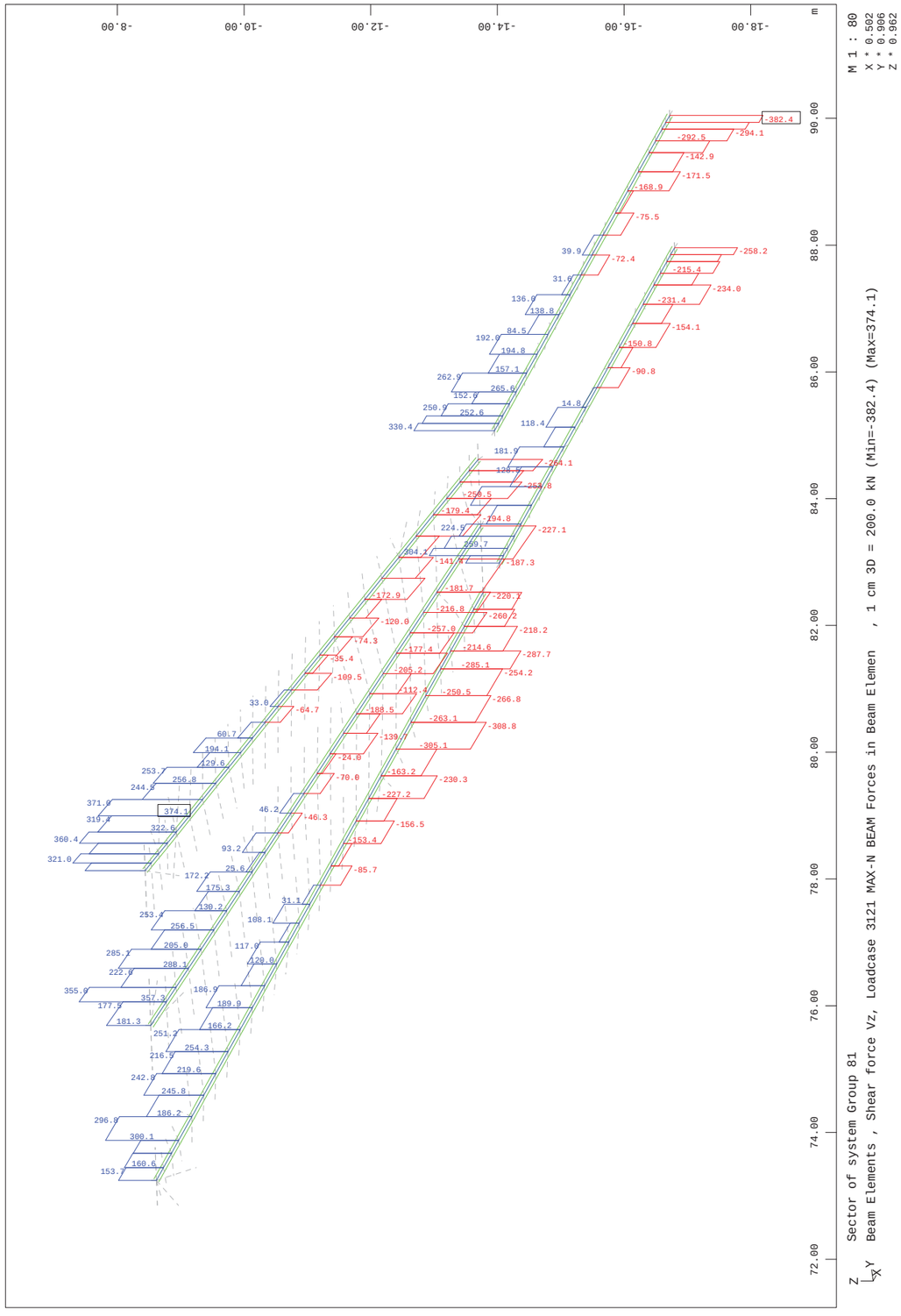
ANÁLISIS DEL TABLERO

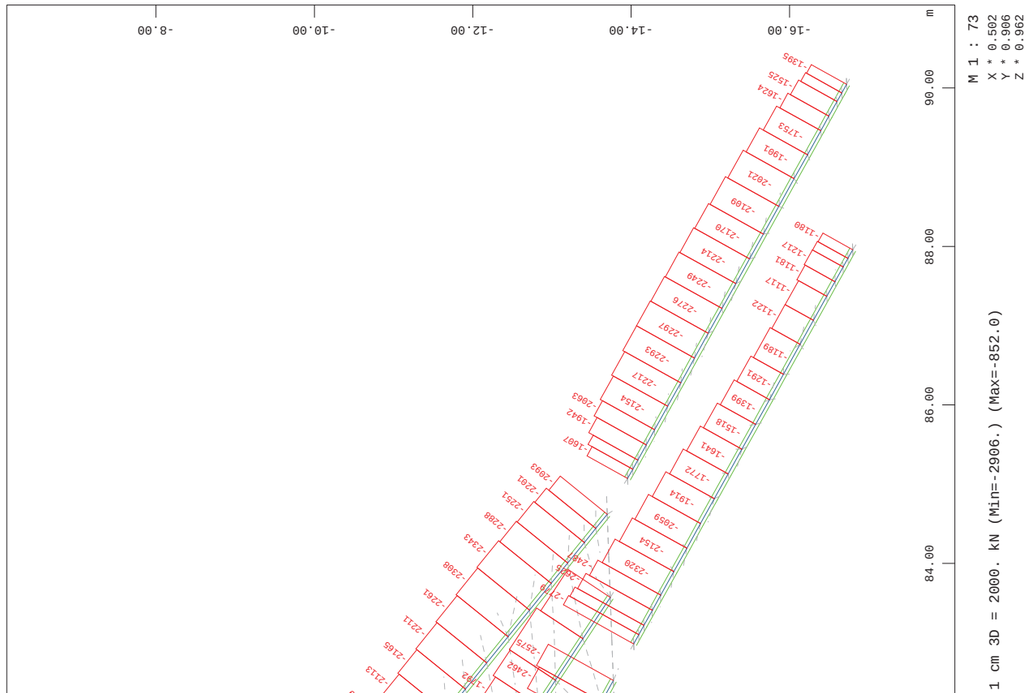
ESFUERZOS DE VIGAS

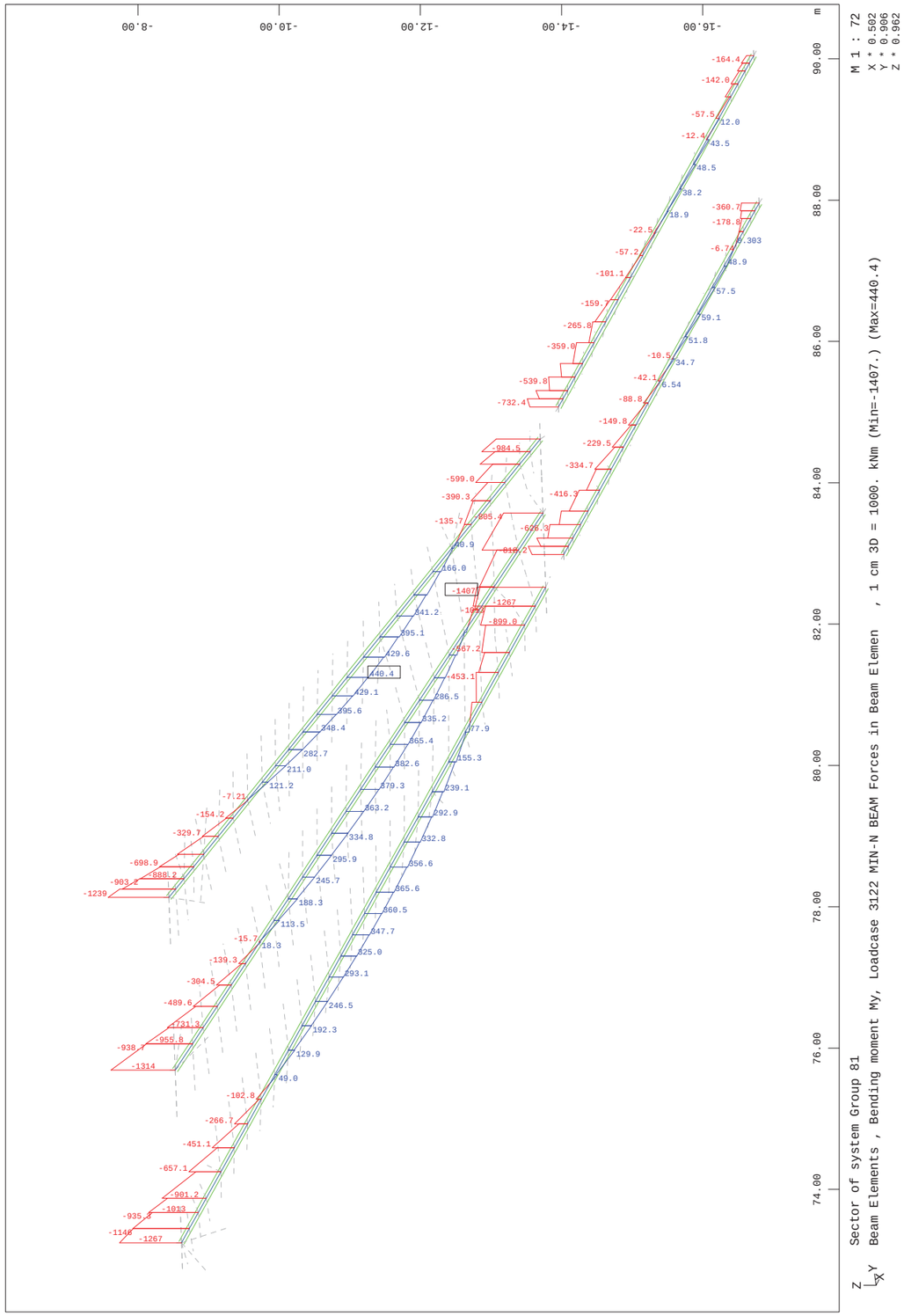
E.L.U.

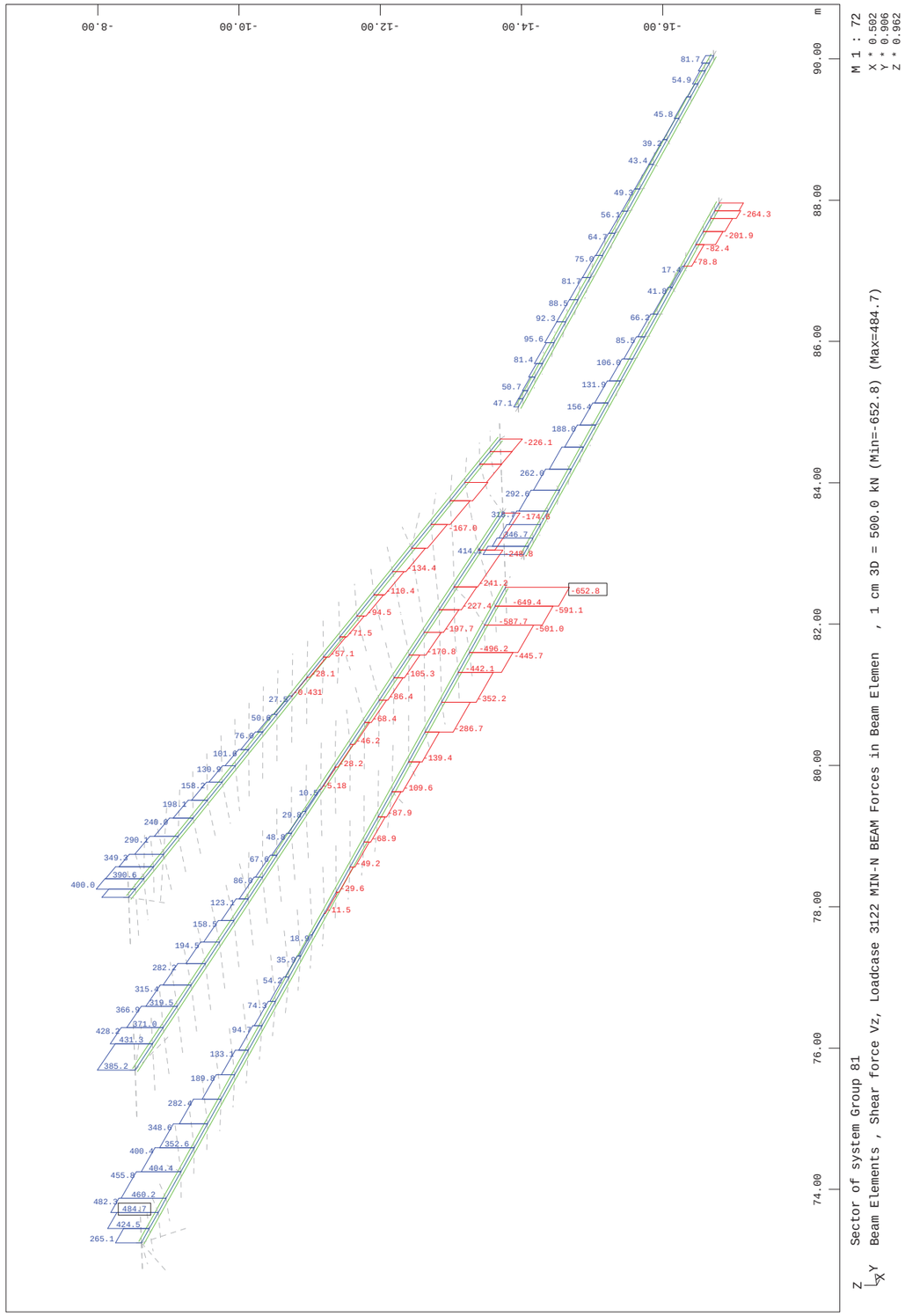

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
, 1 cm 3D = 1000. kN (Max=1932.)
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 3121 MAX-N BEAM Forces in Beam Elemen
Z
Y
X

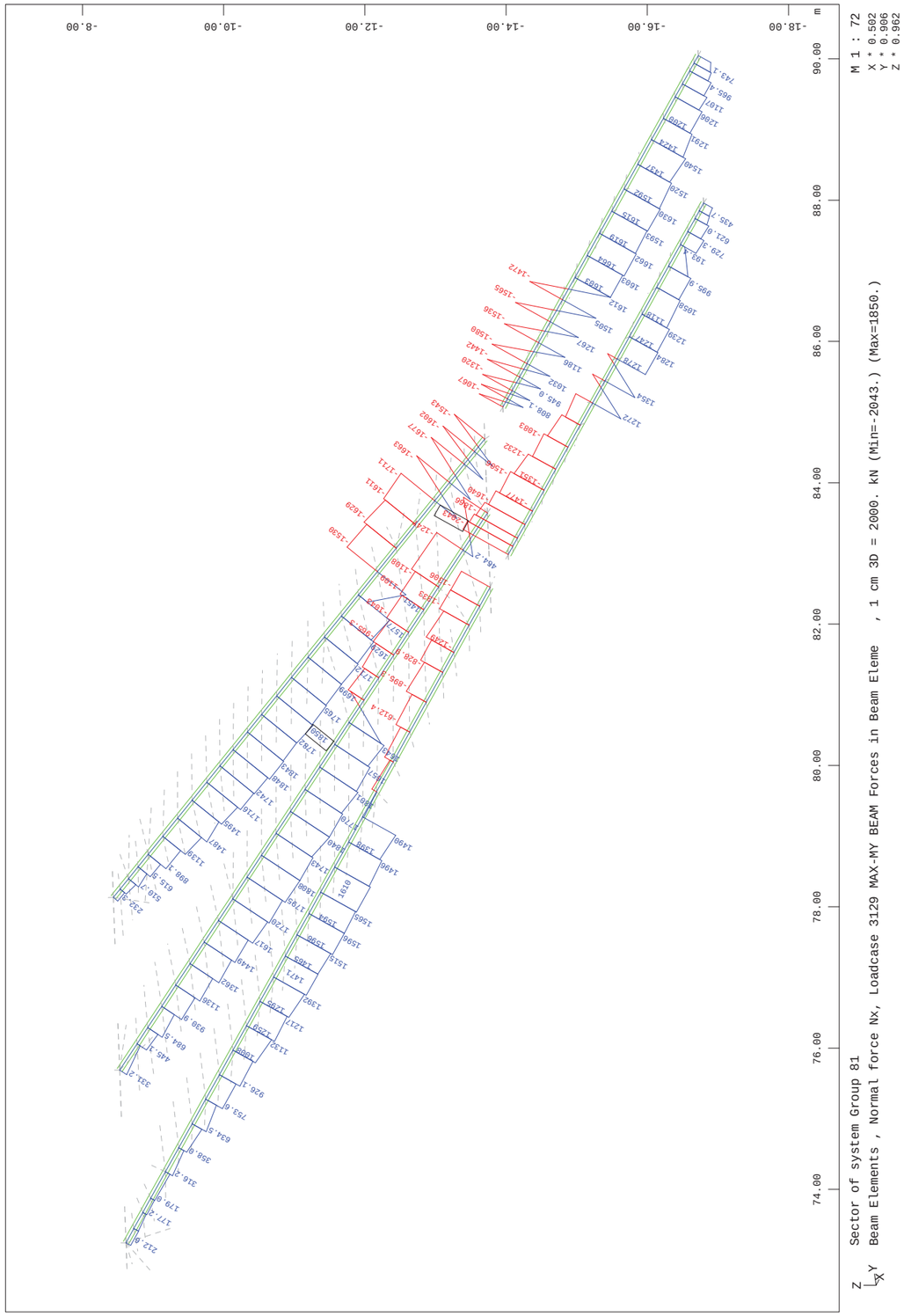

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
, 1 cm 3D = 500.0 kNm (Min=-648.9) (Max=905.8)
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 3121 MAX-N BEAM Forces in Beam Elemen
Z
Y
X

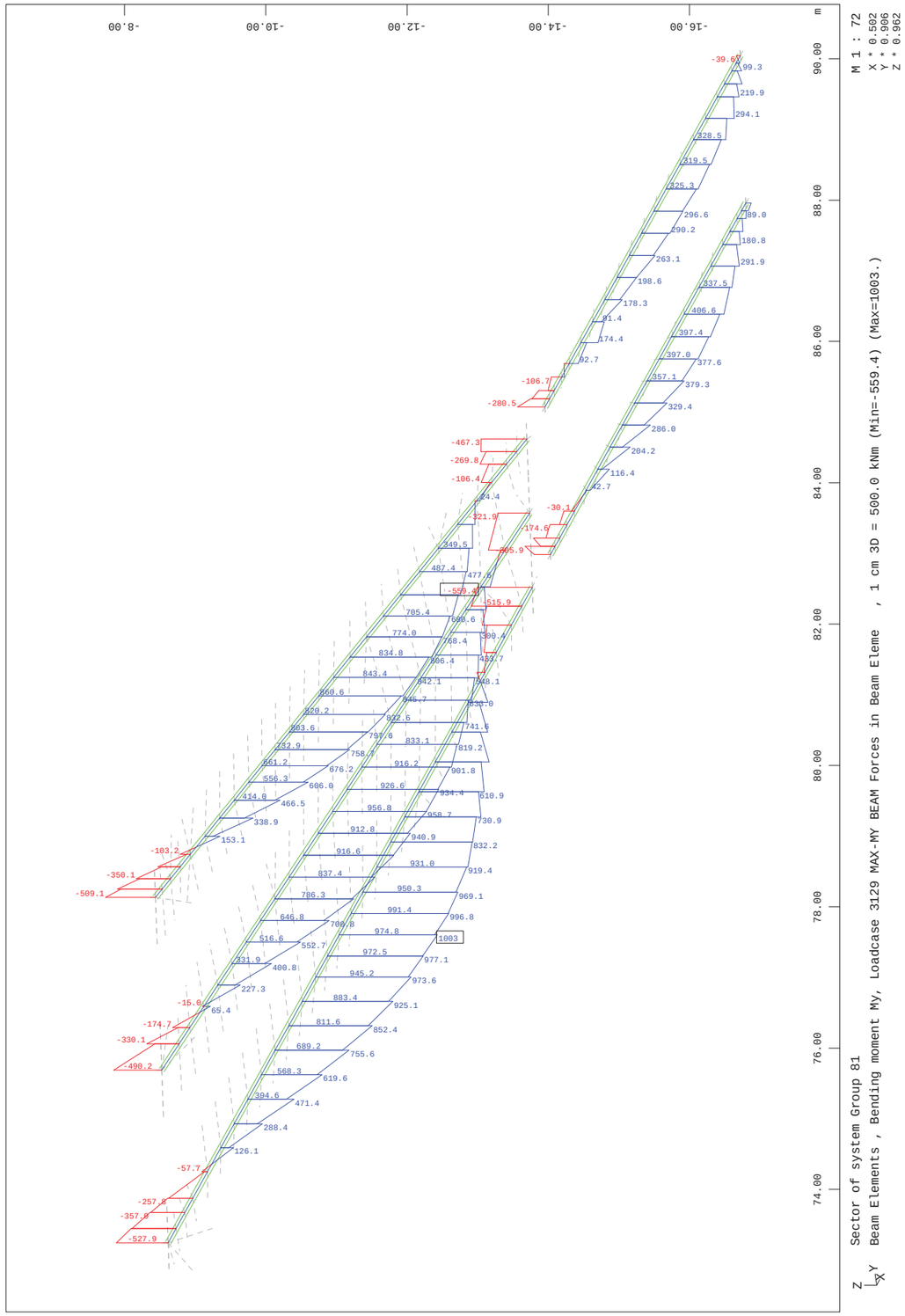

M 1 : 80
X * 0.502
Y * 0.906
Z * 0.962
m
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
72.00
, 1 cm 3D = 200.0 kN (Min=-382.4) (Max=374.1)
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 3121 MAX-N BEAM Forces in Beam Elemen
Z
Y
X

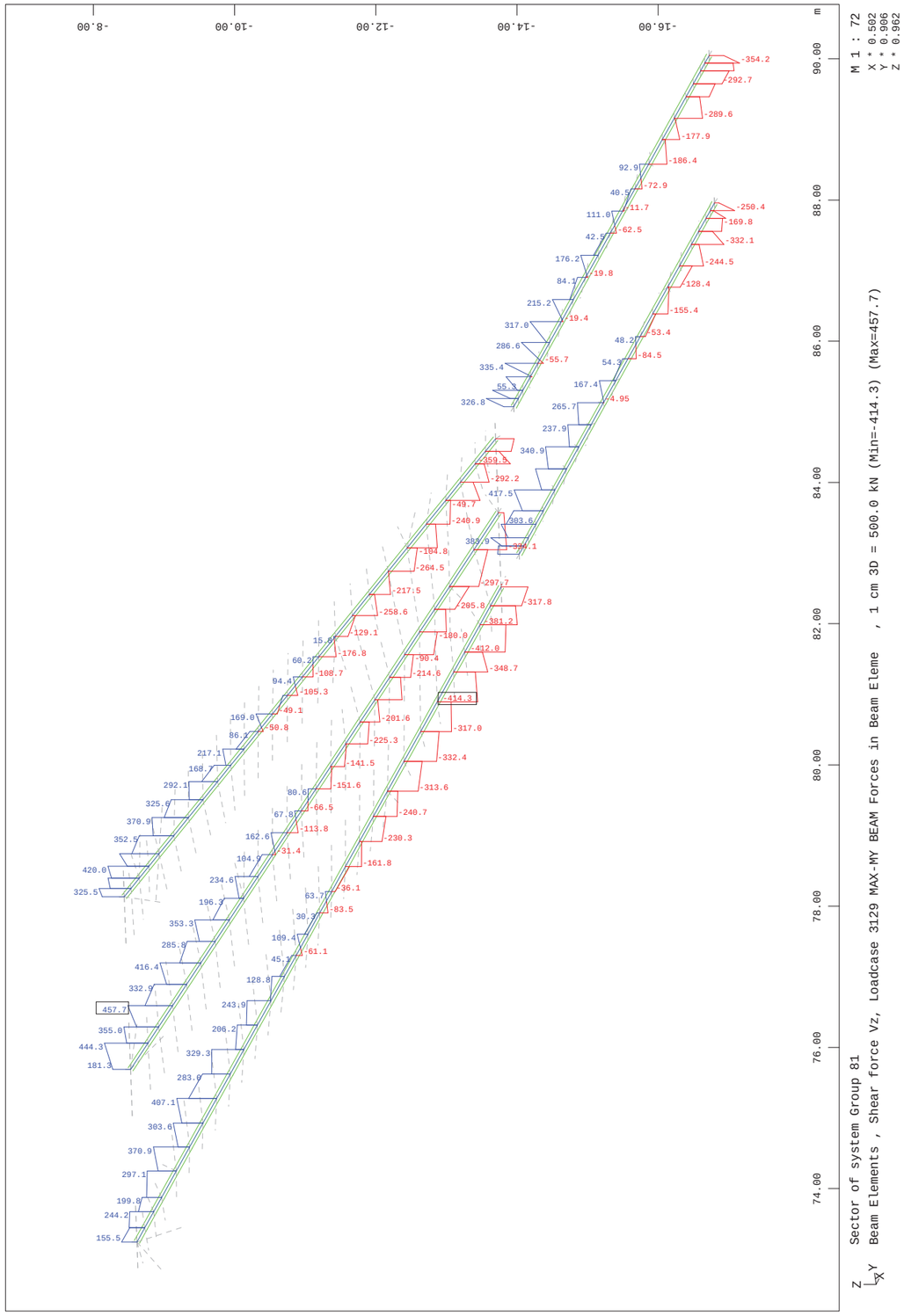

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
-8.00
-10.00
-12.00
-14.00
-16.00
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
, 1 cm 3D = 2000. kN (Min=-2906.) (Max=-852.0)
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 3122 MIN-N BEAM Forces in Beam Elemen
Z
Y
X

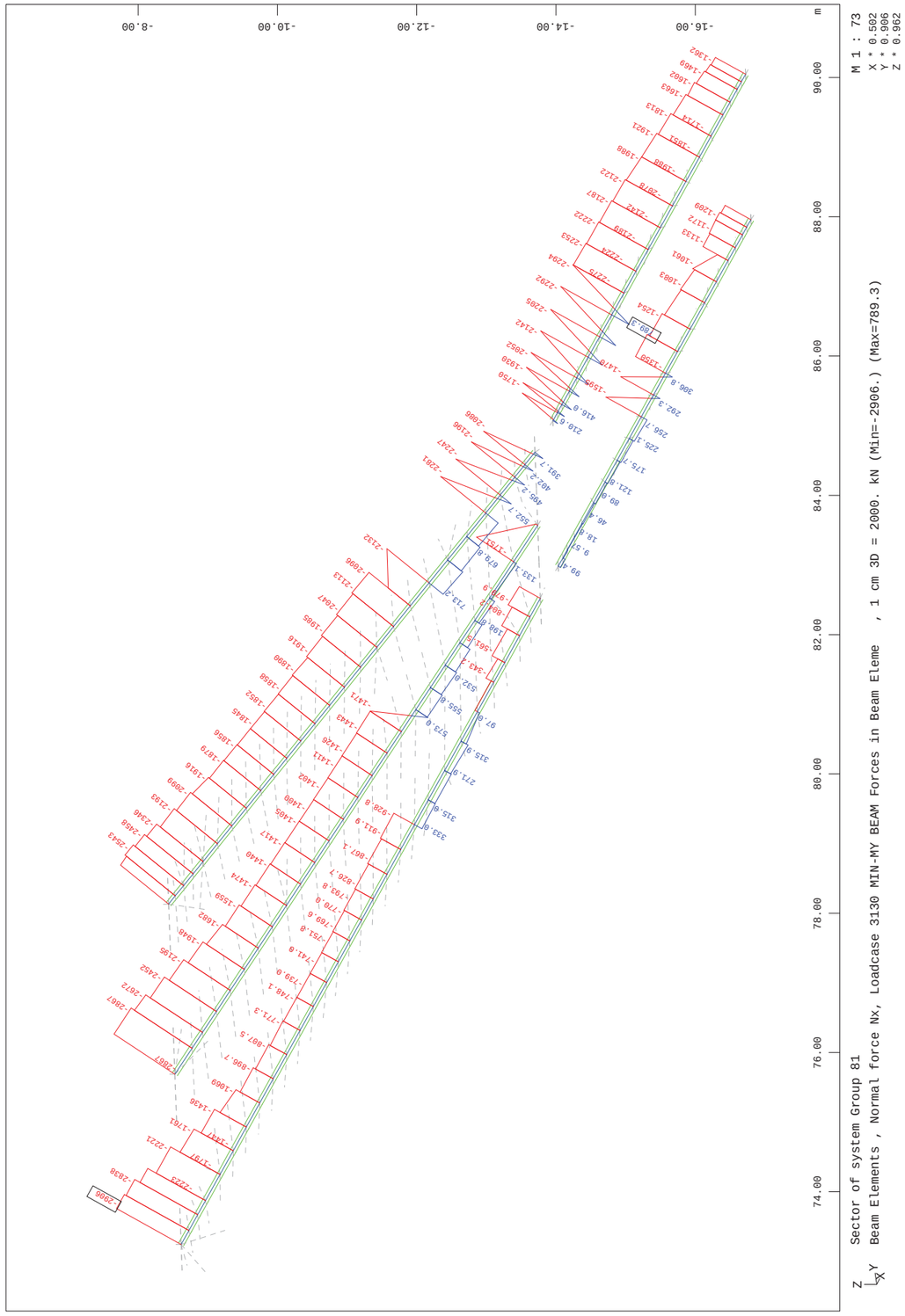

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 3122 MIN-N BEAM Forces in Beam Elemen , 1 cm 3D = 1000. kNm (Min=-1407.) (Max=440.4)
Z
Y
X

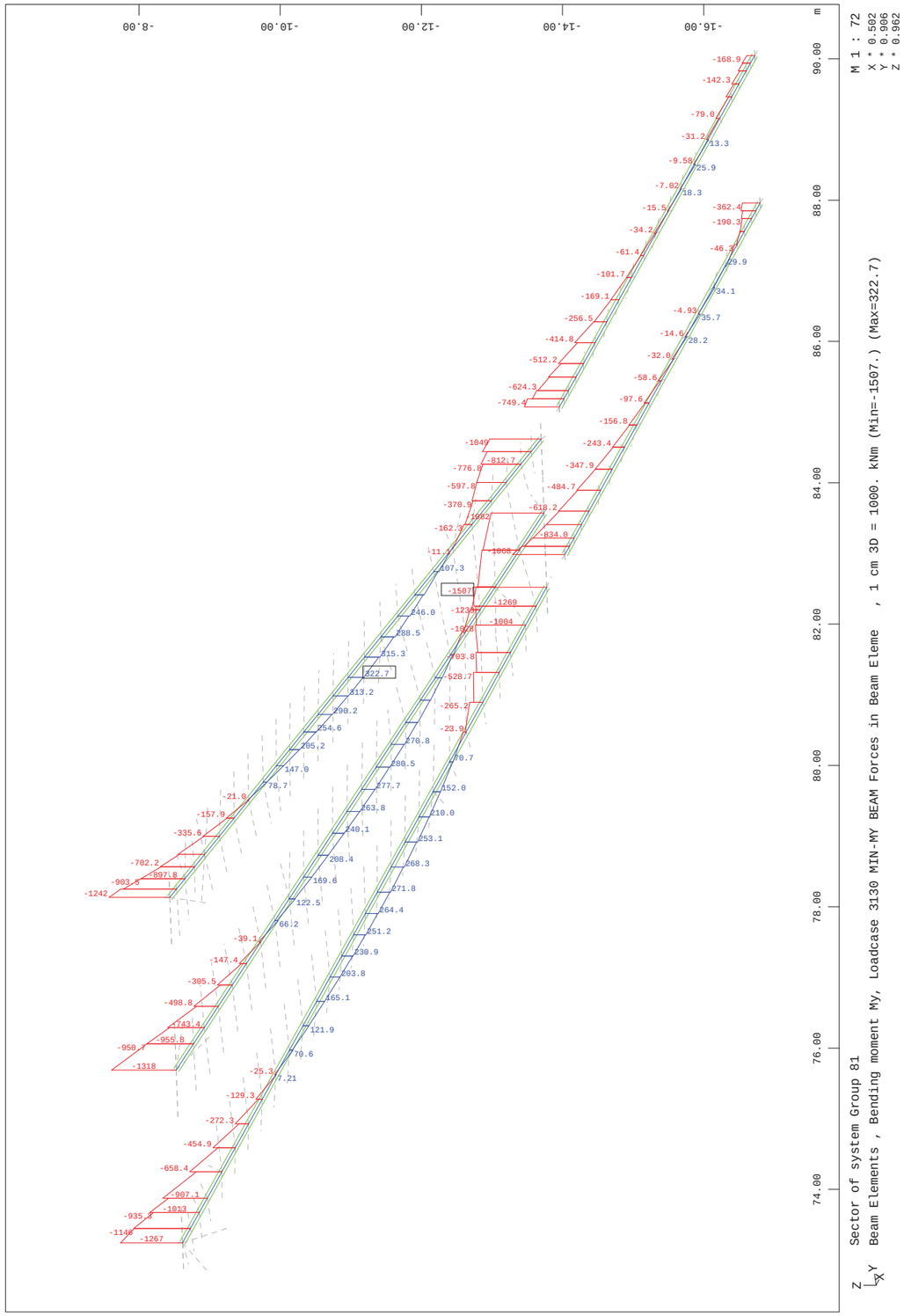

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 3122 MIN-N BEAM Forces in Beam Elemen , 1 cm 3D = 500.0 kN (Min=-652.8) (Max=484.7)
Z
Y
X

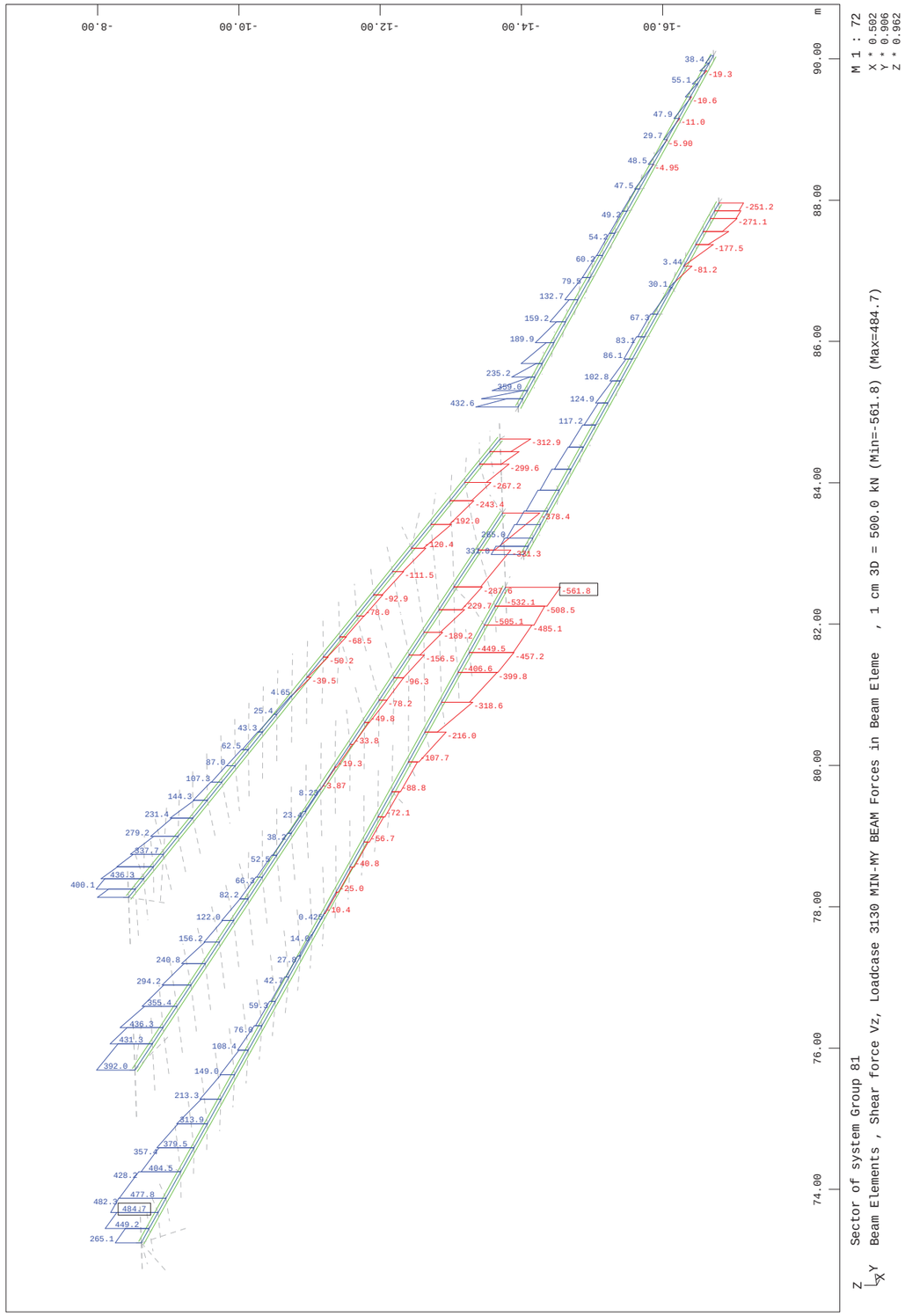

-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 3129 MAX-MY BEAM Forces in Beam Eleme , 1 cm 3D = 2000. kN (Min=-2043.) (Max=1850.)
Z
Y
X

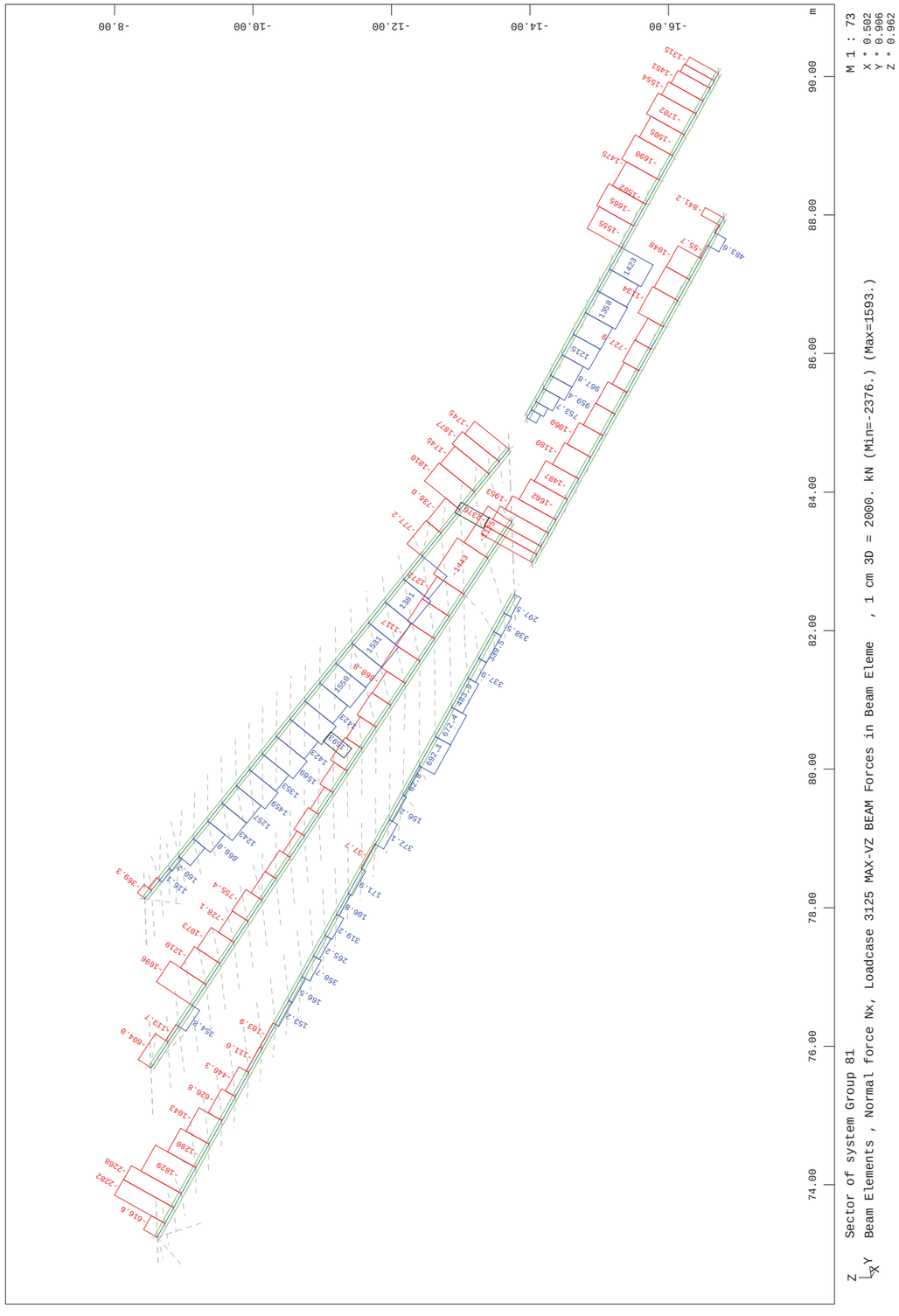

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 3129 MAX-MY BEAM Forces in Beam E , 1 cm 3D = 500.0 kNm (Min=-559.4) (Max=1003.)
Z
Y
X

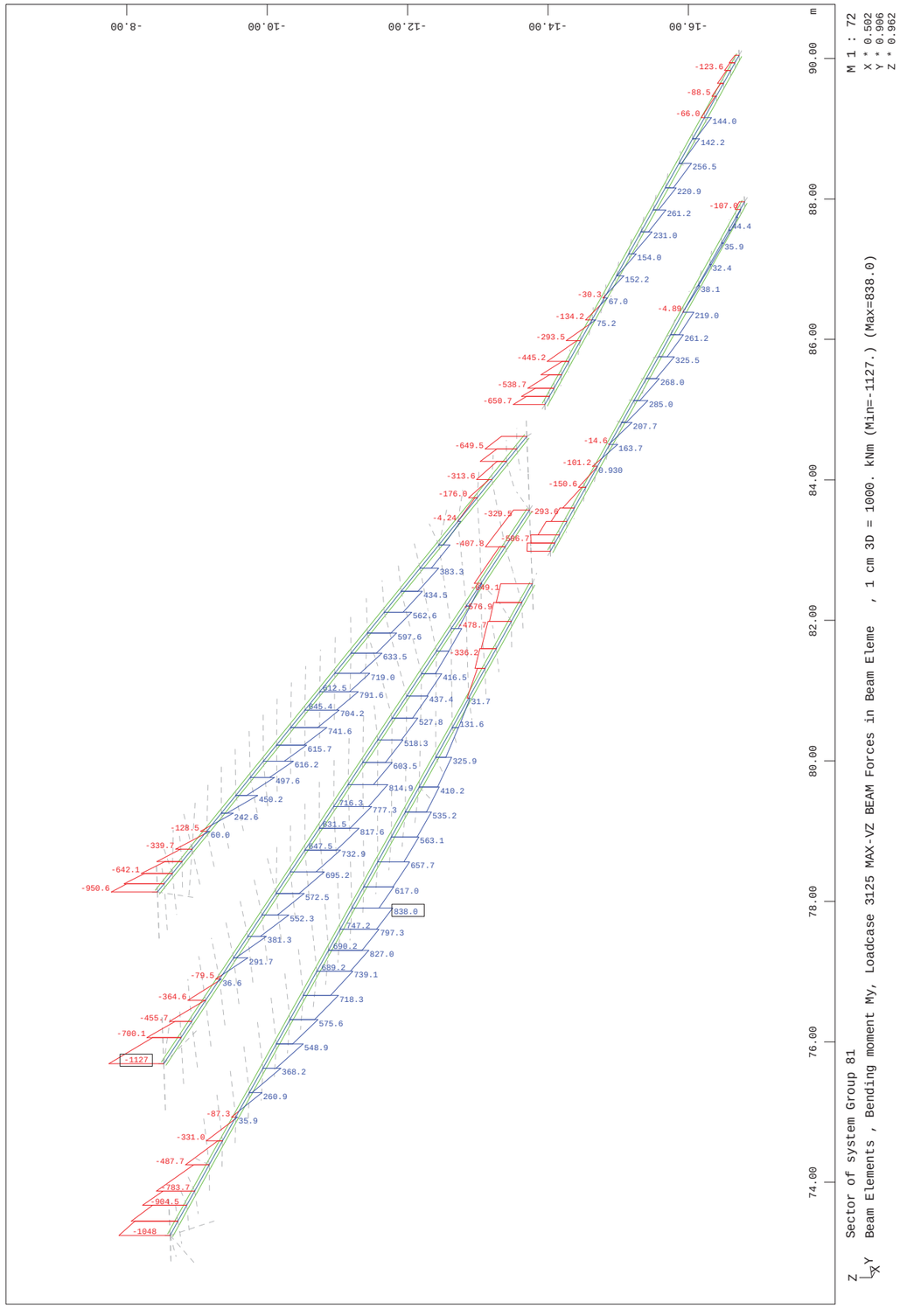

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 3129 MAX-MY BEAM Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-414.3) (Max=457.7)

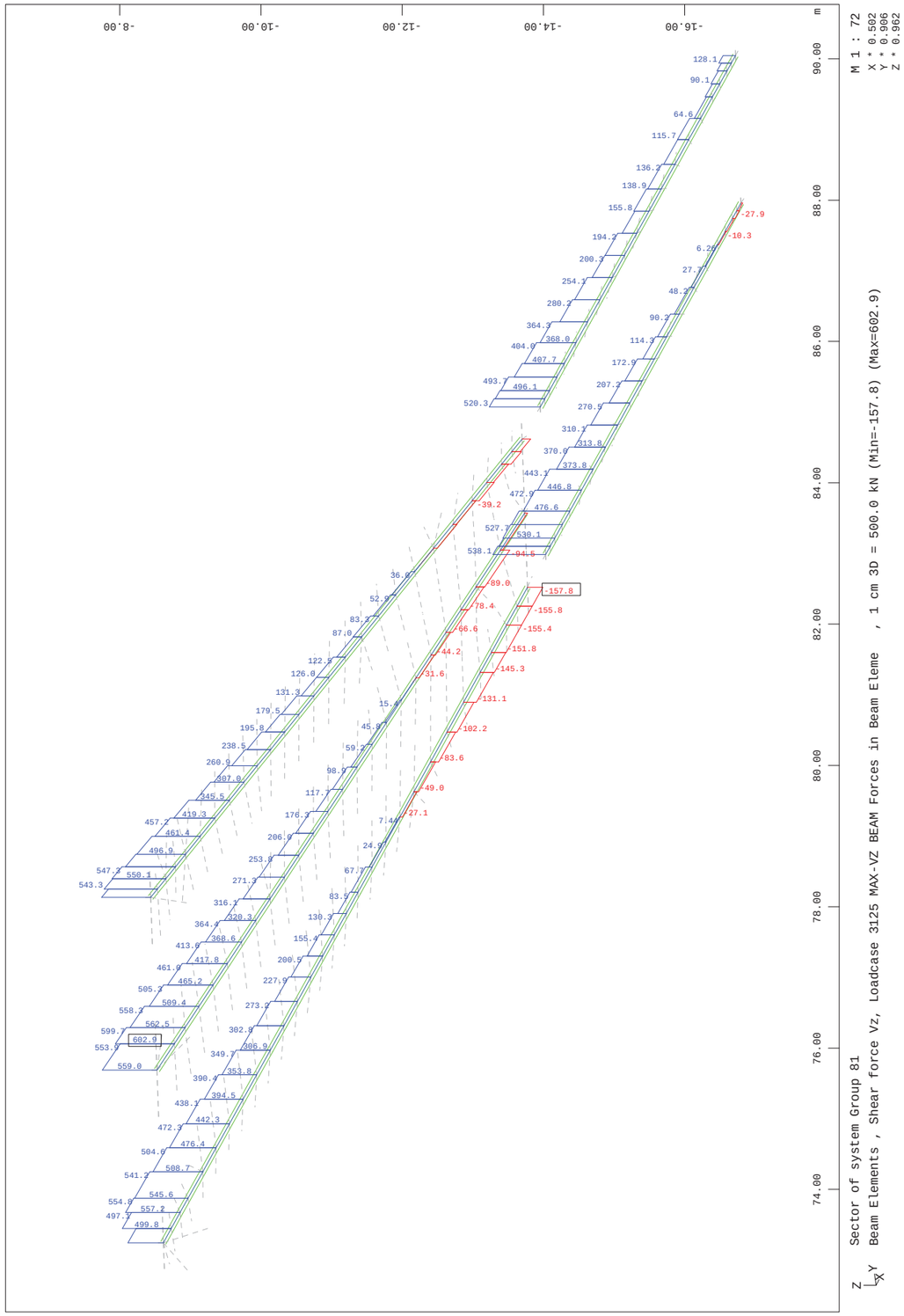

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 3130 MIN-MY BEAM Forces in Beam Eleme , 1 cm 3D = 2000. kN (Min=-2906.) (Max=789.3)

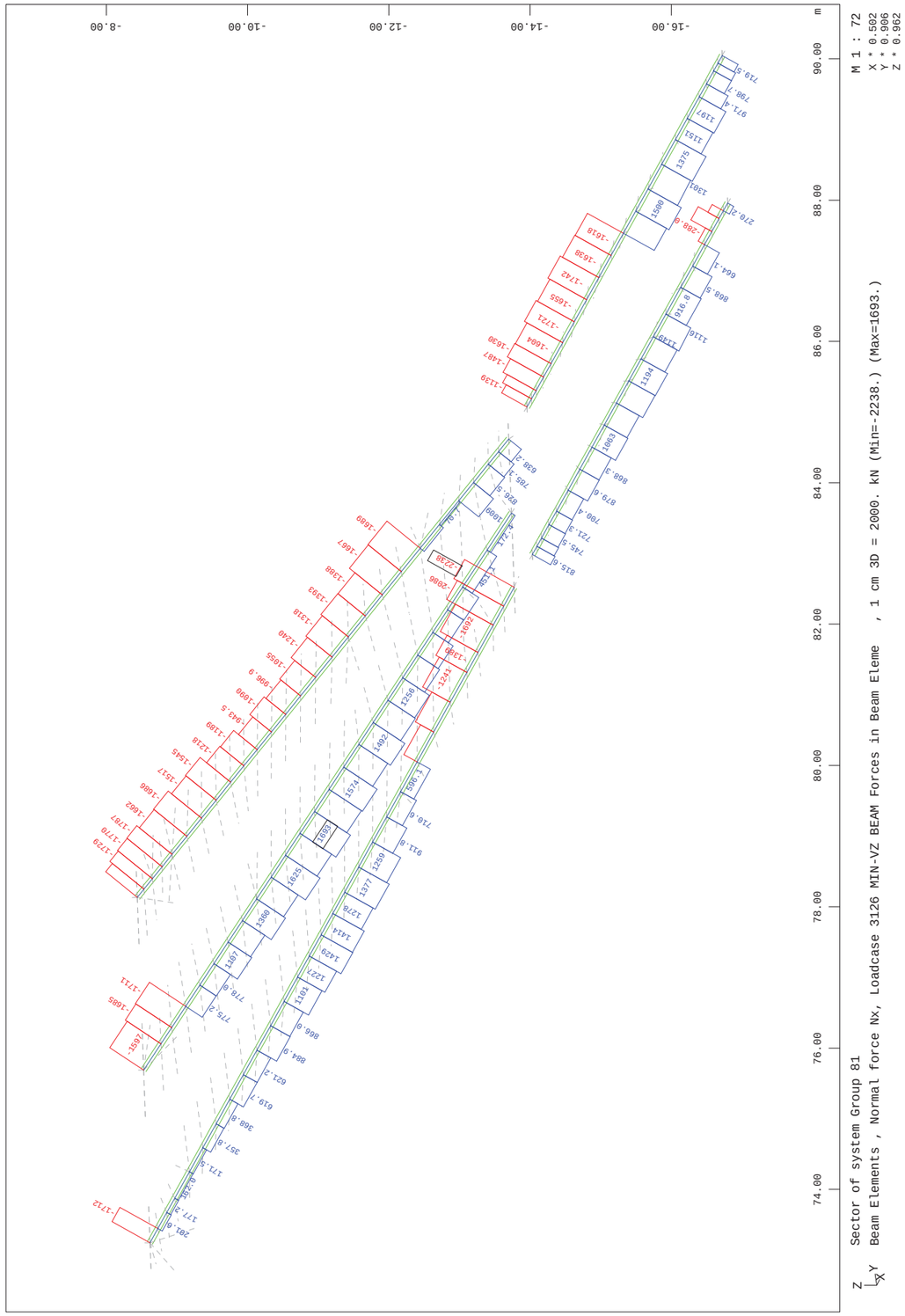

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 3130 MIN-MY BEAM Forces in Beam Eleme , 1 cm 3D = 1000. kNm (Min=-1507.) (Max=322.7)
Z
Y
X

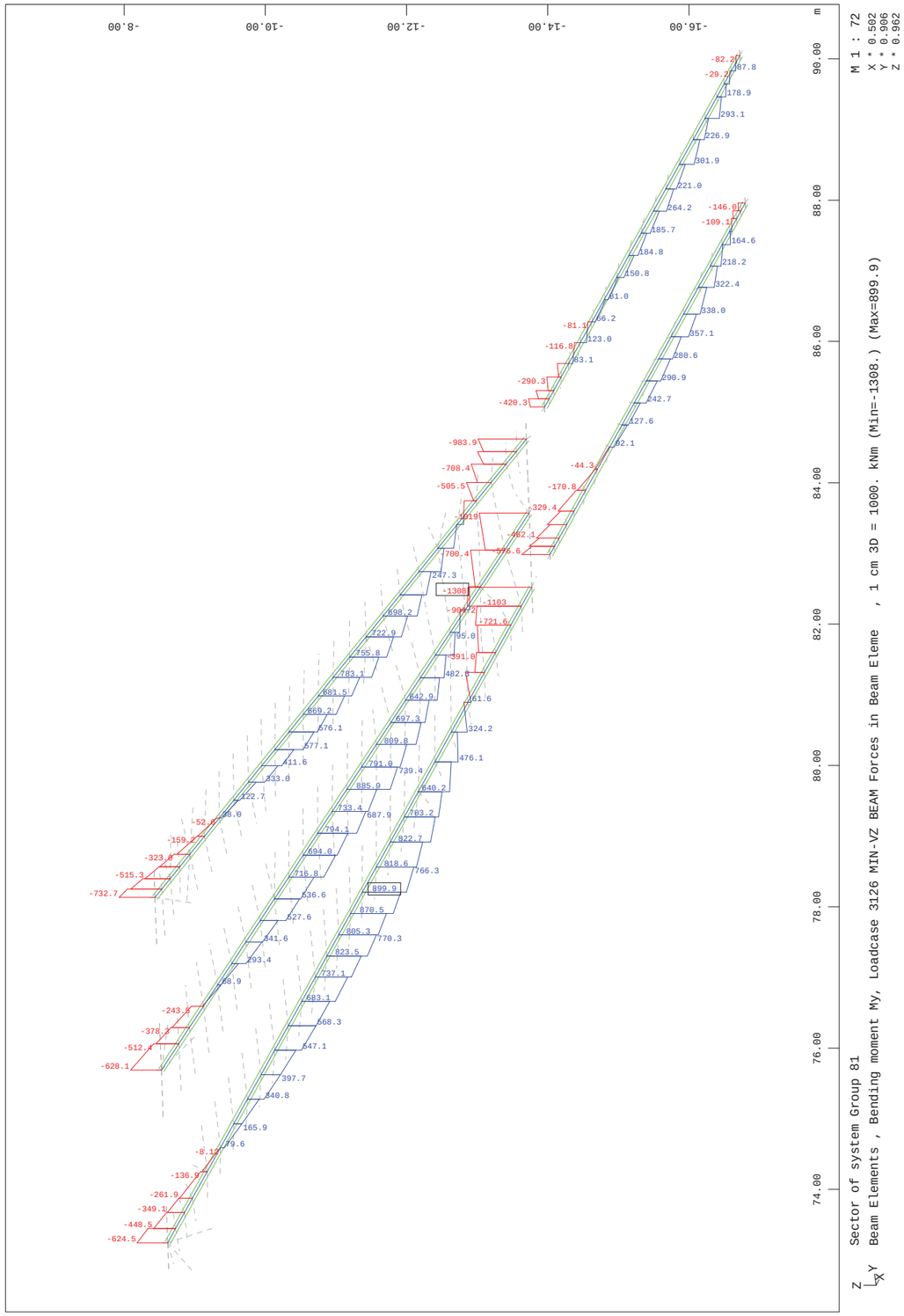

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 3130 MIN-MY BEAM Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-561.8) (Max=484.7)
Z
Y
X

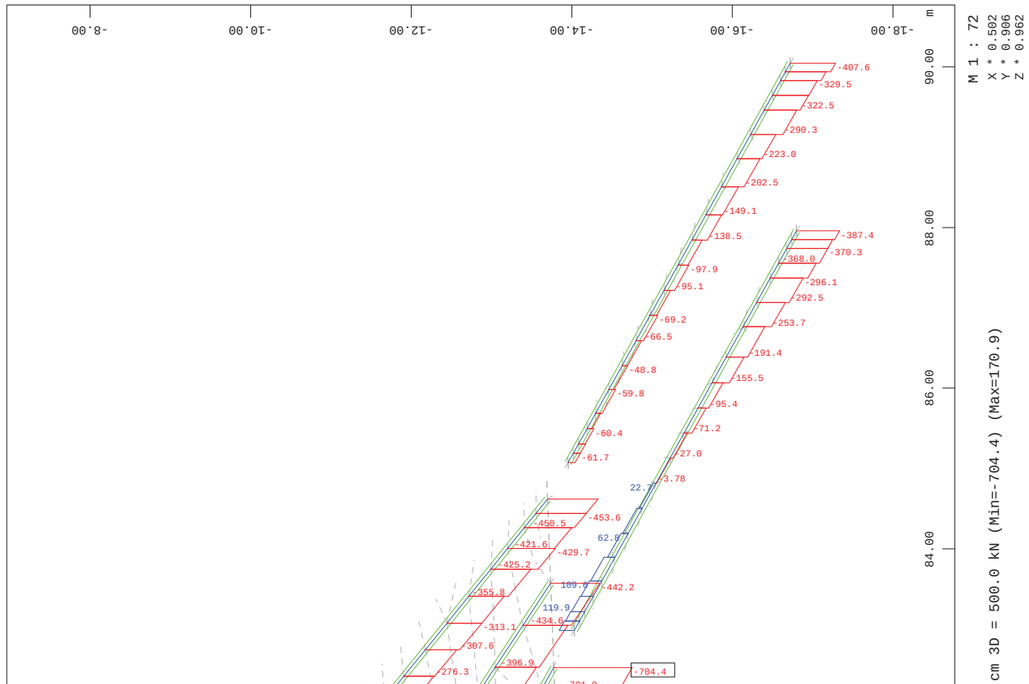

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 3125 MAX-VZ BEAM Forces in Beam Eleme , 1 cm 3D = 2000. kN (Min=-2376.) (Max=1593.)
Z
Y
X


M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 3125 MAX-VZ BEAM Forces in Beam Eleme , 1 cm 3D = 1000. kNm (Min=-1127.) (Max=838.0)
Z
Y
X

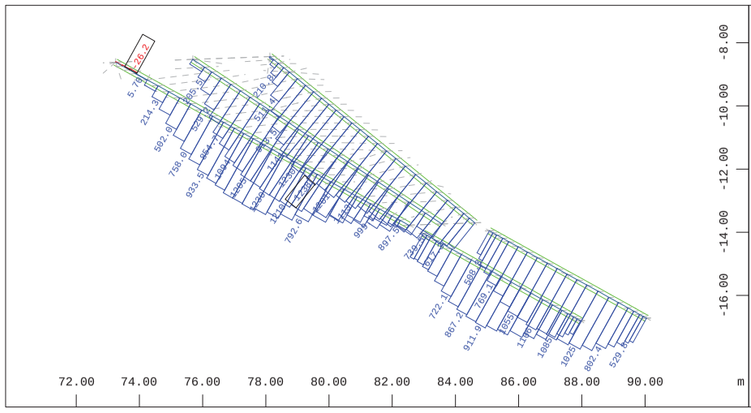

M 1 : 72
X * * 0.502
Y * * 0.906
Z * * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 3125 MAX-VZ BEAM Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-157.8) (Max=602.9)
Z
Y
X


M 1 : 72
X * * 0.502
Y * * 0.906
Z * * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 3126 MIN-VZ BEAM Forces in Beam Eleme , 1 cm 3D = 2000. kN (Min=-2238.) (Max=1693.)
Z
Y
X


M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
, 1 cm 3D = 1000. kNm (Min=-1308.) (Max=899.9)
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 3126 MIN-VZ BEAM Forces in Beam Eleme
Z
Y
X

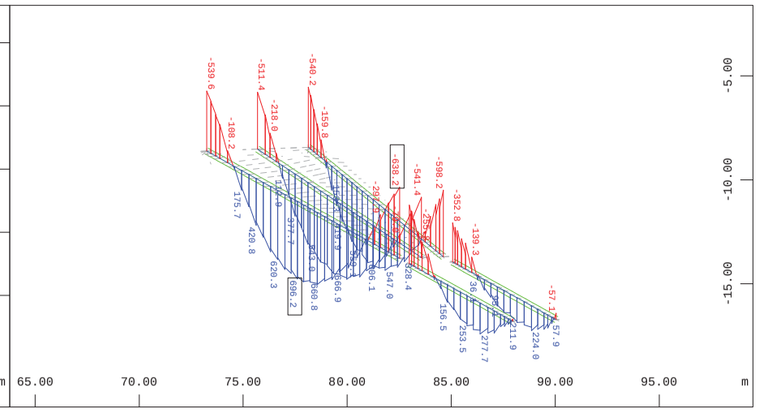

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
1 cm 3D = 500.0 kN (Min=-704.4) (Max=170.9)
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 3126 MIN-VZ BEAM Forces in Beam Eleme
Z
Y
X

E.L.S.



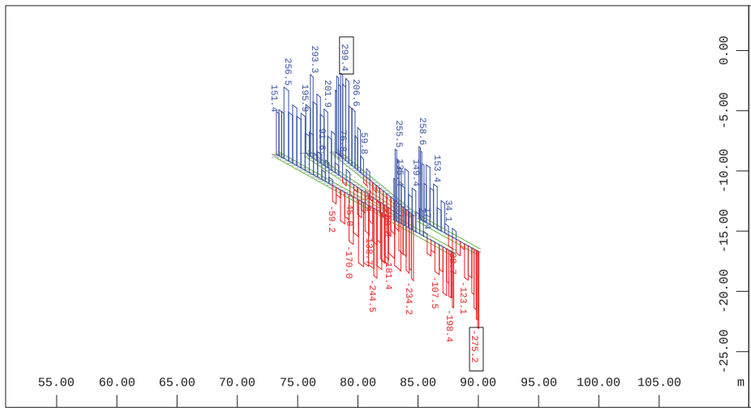
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1121 MAXP-N BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-26.2)
(Max=1238.)

M 1 : 183
X * 0.502
Y * 0.906
Z * 0.962



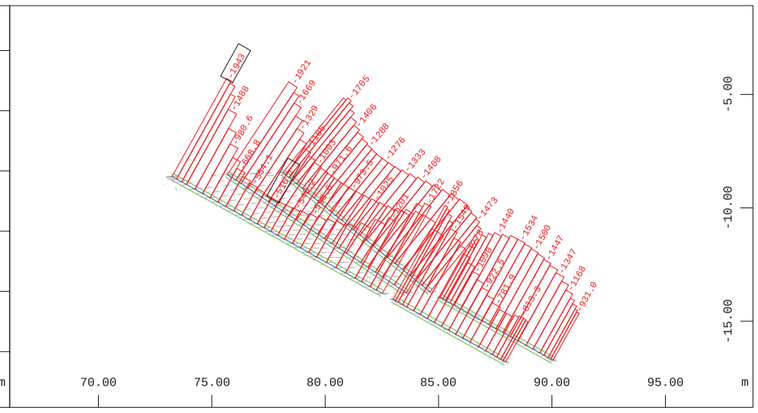
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1121 MAXP-N BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-638.2)
(Max=696.2)

M 1 : 278
X * 0.502
Y * 0.906
Z * 0.962



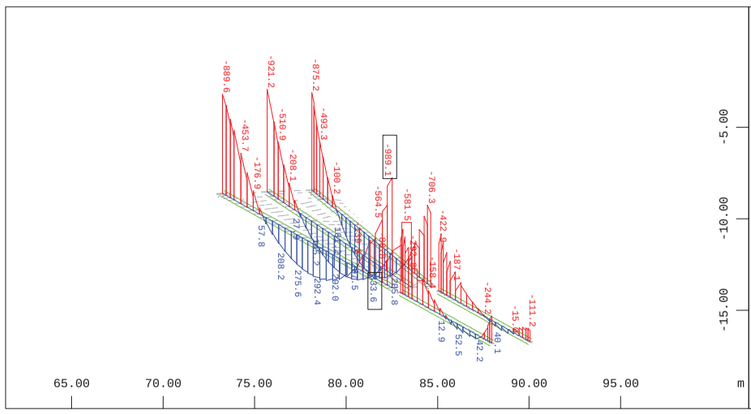
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1121 MAXP-N BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-275.2)
(Max=299.4)

M 1 : 480
X * 0.502
Y * 0.906
Z * 0.962



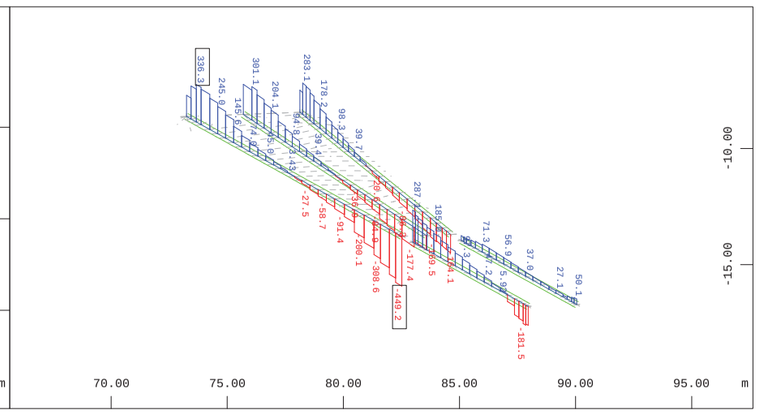
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1122 MINP-N BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1943.)
(Max=-516.1)

M 1 : 255
X * 0.502
Y * 0.906
Z * 0.962



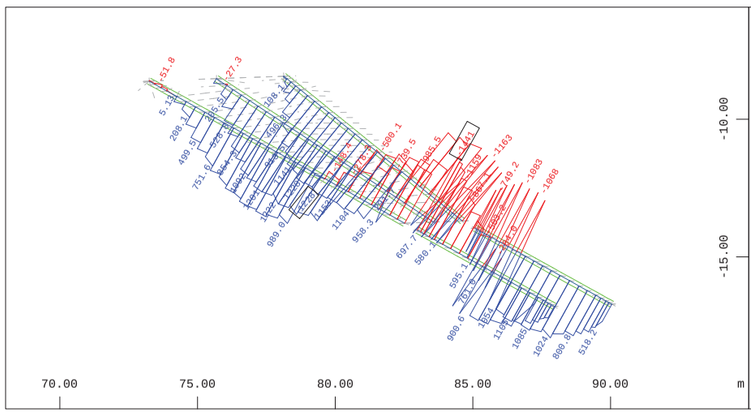
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1122 MINP-N BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-989.1)
(Max=333.6)

M 1 : 316
X * 0.502
Y * 0.906
Z * 0.962



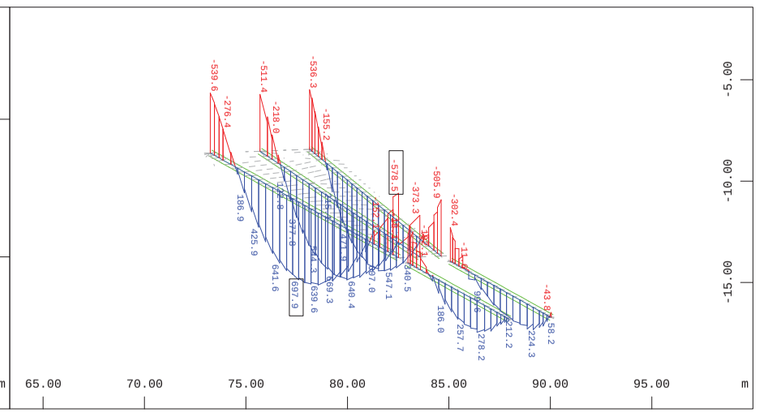
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1122 MINP-N BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-449.2)
(Max=336.3)

M 1 : 249
X * 0.502
Y * 0.906
Z * 0.962



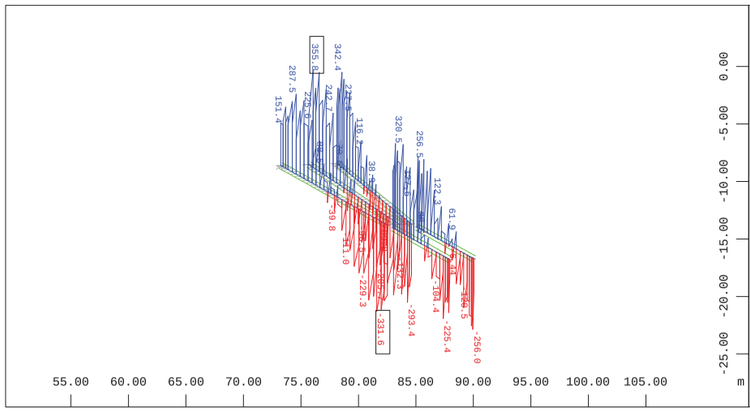
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1129 MAXP-MY BEAM
Forces in Beam Elem , 1 cm 3D = 1000. kN (Min=-1441.)
(Max=1228.)

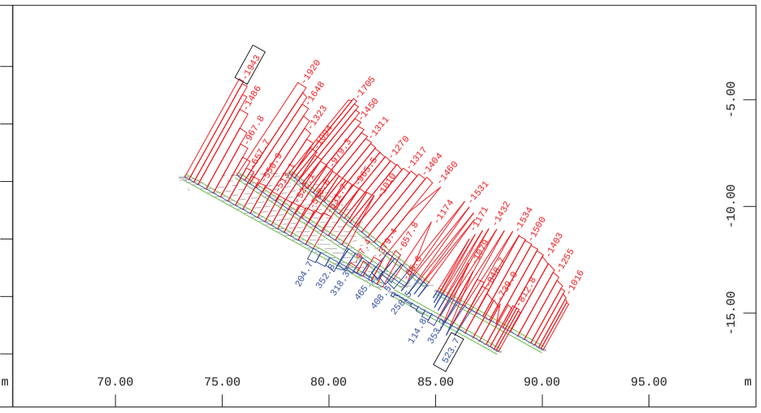
M 1 : 210
X * 0.502
Y * 0.906
Z * 0.962

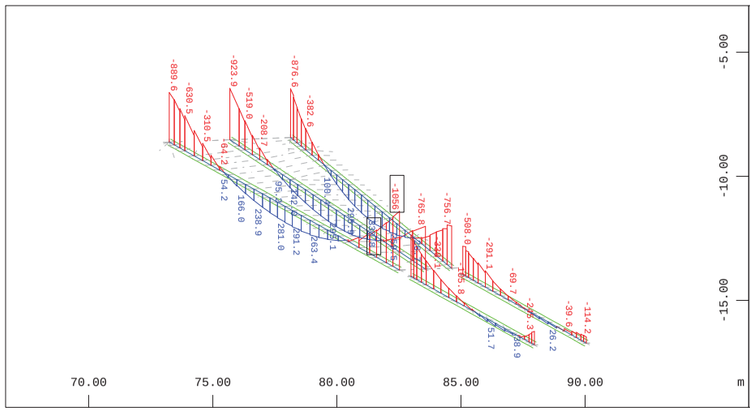


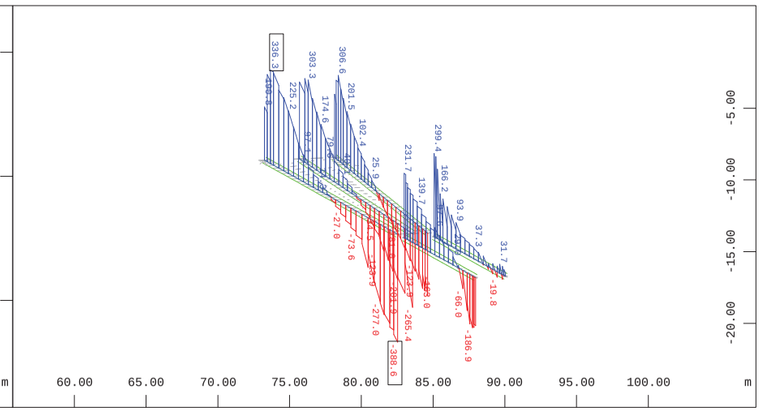
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1129 MAXP-MY BEAM
Forces in Beam Elem , 1 cm 3D = 500.0 kNm (Min=-578.5)
(Max=697.9)

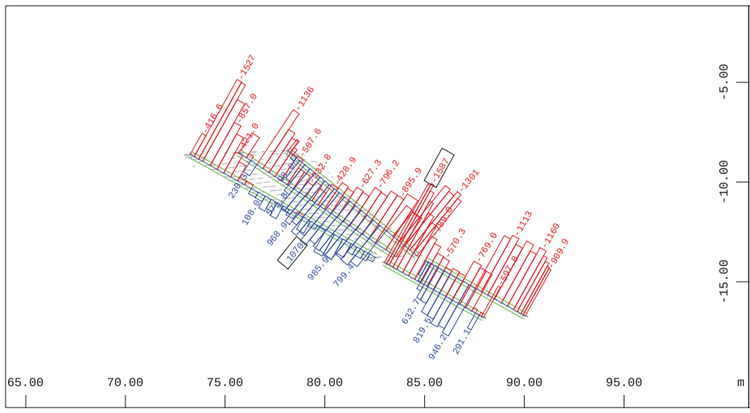
M 1 : 285
X * 0.502
Y * 0.906
Z * 0.962

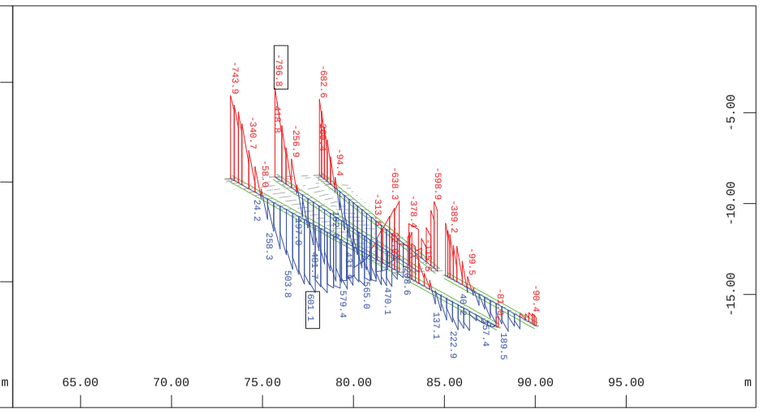

Z
Y
X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1129 MAXP-MY BEAM
Forces in Beam Elem , 1 cm 3D = 200.0 kN (Min=-331.6)
(Max=355.8)
M 1 : 503
X * 0.502
Y * 0.906
Z * 0.962

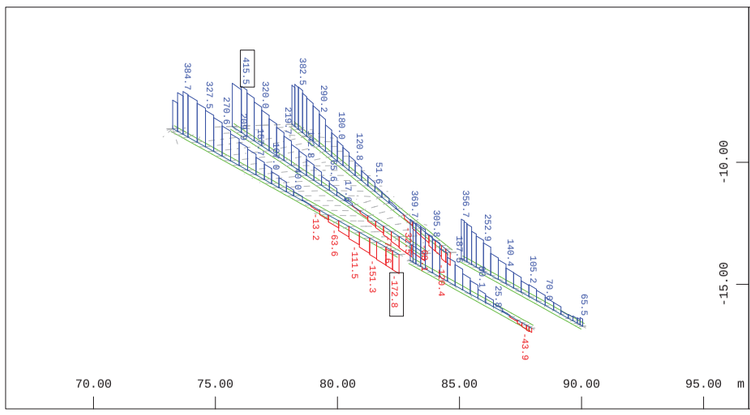

Z
Y
X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1130 MINP-MY BEAM
Forces in Beam Elem , 1 cm 3D = 1000. kN (Min=-1943.)
(Max=523.7)
M 1 : 271
X * 0.502
Y * 0.906
Z * 0.962

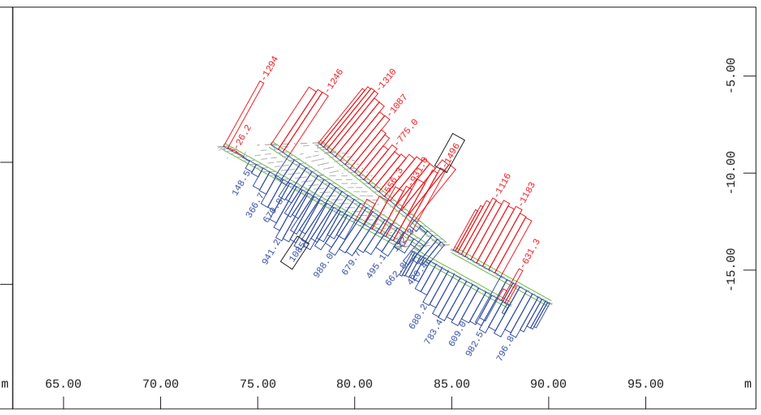

Z
Y
X
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1130 MINP-MY BEAM
Forces in Beam Elem , 1 cm 3D = 1000. kNm (Min=-1056.)
(Max=330.8)
M 1 : 233
X * 0.502
Y * 0.906
Z * 0.962

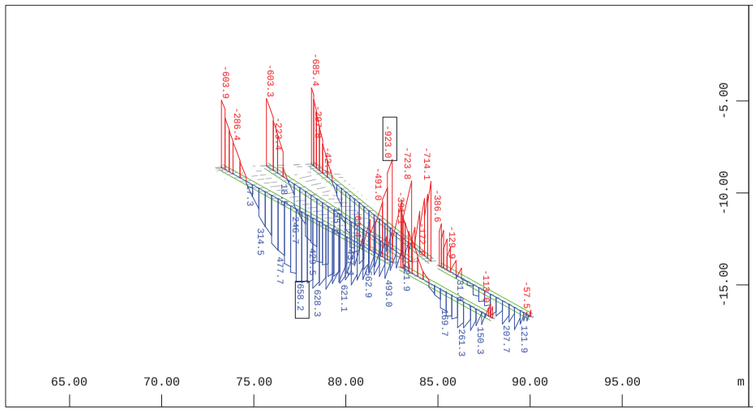

Z
Y
X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1130 MINP-MY BEAM
Forces in Beam Elem , 1 cm 3D = 200.0 kN (Min=-388.6)
(Max=336.3)
M 1 : 403
X * 0.502
Y * 0.906
Z * 0.962


Z
Y
X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1125 MAXP-VZ BEAM
Forces in Beam Elem , 1 cm 3D = 1000. kN (Min=-1587.)
(Max=1070.)
M 1 : 290
X * 0.502
Y * 0.906
Z * 0.962


Z
Y
X
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1125 MAXP-VZ BEAM
Forces in Beam Elem , 1 cm 3D = 500.0 kNm (Min=-796.8)
(Max=601.1)
M 1 : 318
X * 0.502
Y * 0.906
Z * 0.962

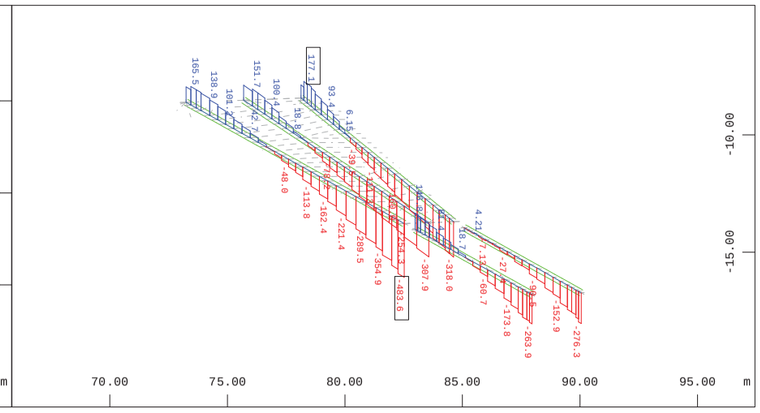

Z
Y
X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1125 MAXP-VZ BEAM
Forces in Beam Elem , 1 cm 3D = 500.0 kN (Min=-172.8)
(Max=415.5)
M 1 : 237
X * 0.502
Y * 0.906
Z * 0.962


Z
Y
X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1126 MINP-VZ BEAM
Forces in Beam Elem , 1 cm 3D = 1000. kN (Min=-1496.)
(Max=1085.)
M 1 : 298
X * 0.502
Y * 0.906
Z * 0.962



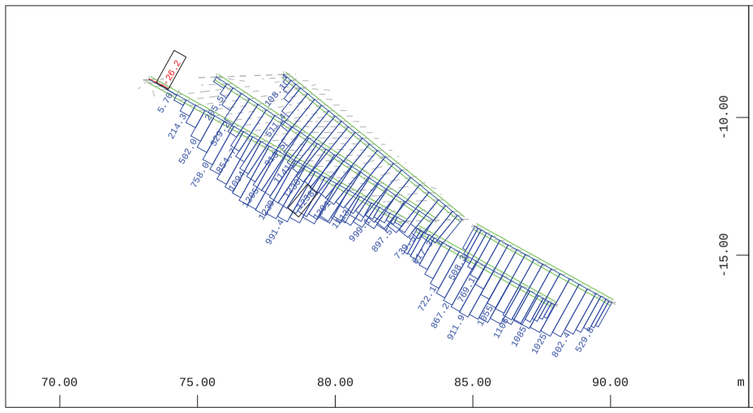
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1126 MINP-VZ BEAM
Forces in Beam Elem , 1 cm 3D = 500.0 kNm (Min=-923.0)
(Max=658.2)

M 1 : 314
X * 0.502
Y * 0.906
Z * 0.962



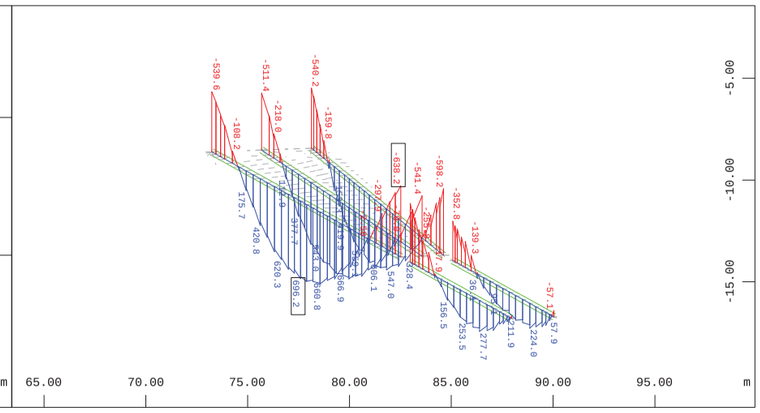
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1126 MINP-VZ BEAM
Forces in Beam Elem , 1 cm 3D = 500.0 kN (Min=-483.6)
(Max=177.1)

M 1 : 246
X * 0.502
Y * 0.906
Z * 0.962



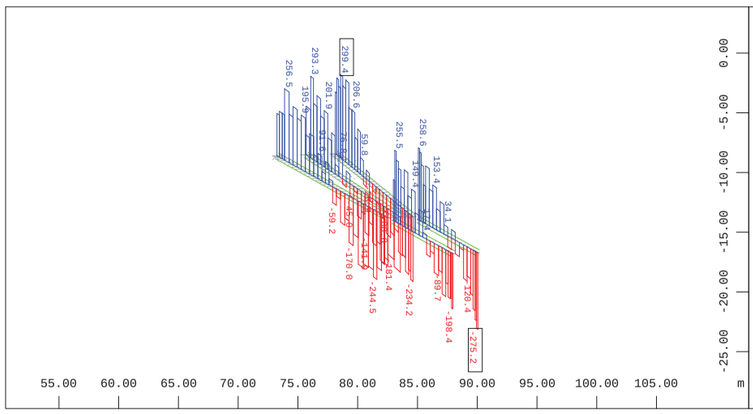
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1321 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 1000. kN (Min=-26.2)
(Max=1238.)

M 1 : 210
X * 0.502
Y * 0.906
Z * 0.962



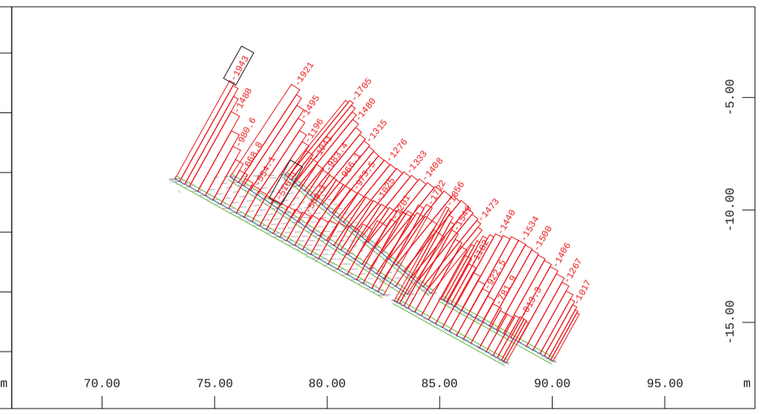
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1321 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 500.0 kNm (Min=-638.2)
(Max=696.2)

M 1 : 284
X * 0.502
Y * 0.906
Z * 0.962



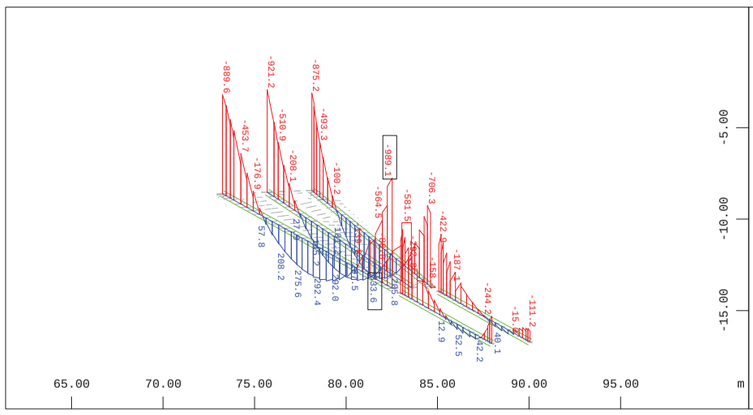
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1321 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 200.0 kN (Min=-275.2)
(Max=299.4)

M 1 : 484
X * 0.502
Y * 0.906
Z * 0.962



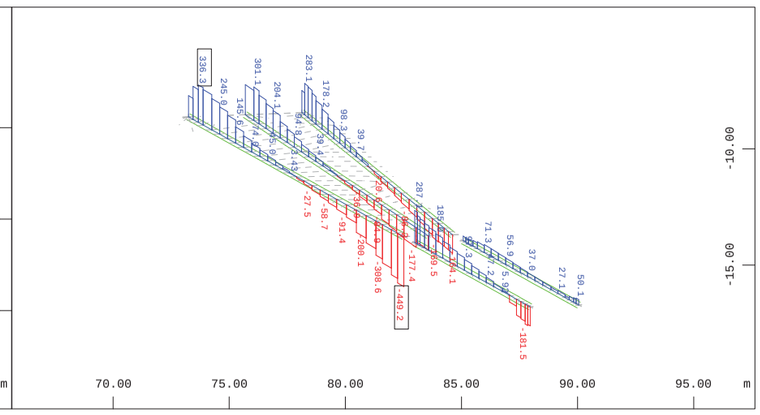
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1322 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 1000. kN (Min=-1943.)
(Max=-516.1)

M 1 : 257
X * 0.502
Y * 0.906
Z * 0.962



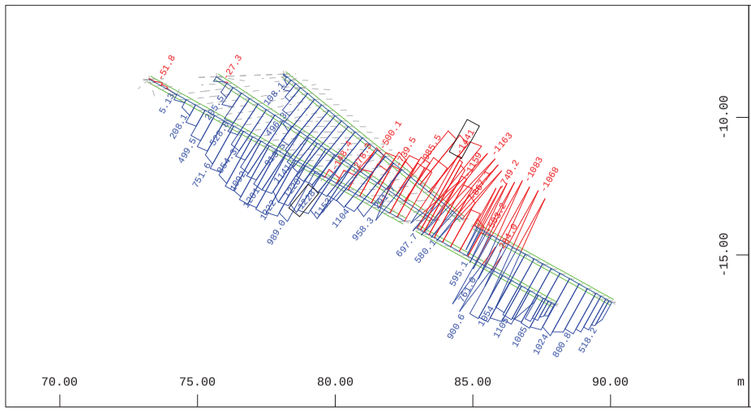
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1322 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 500.0 kNm (Min=-989.1)
(Max=333.6)

M 1 : 316
X * 0.502
Y * 0.906
Z * 0.962



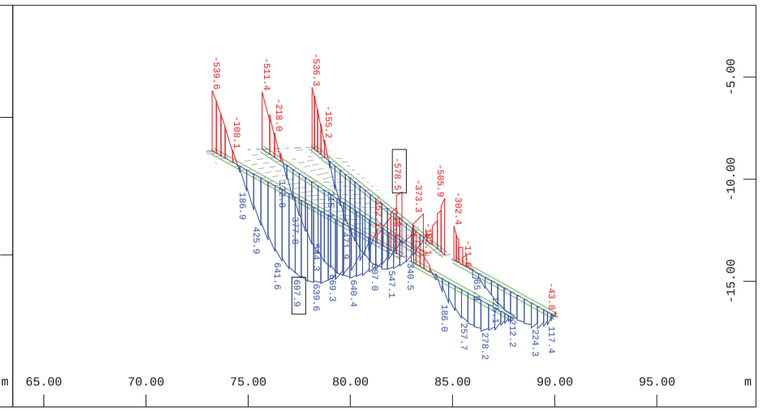
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1322 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 500.0 kN (Min=-449.2)
(Max=336.3)

M 1 : 249
X * 0.502
Y * 0.906
Z * 0.962



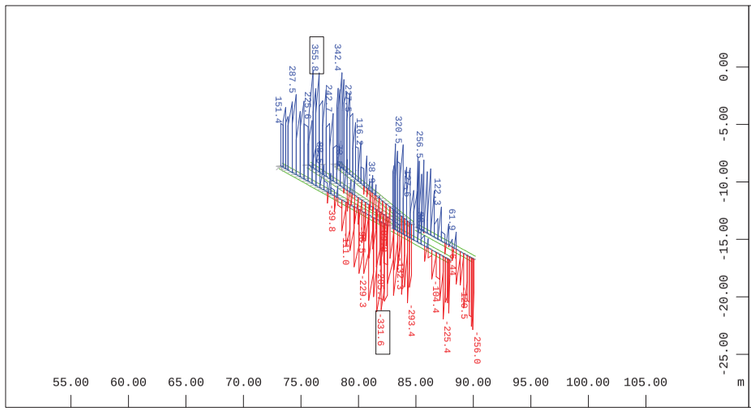
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1329 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1441.)
(Max=1228.)

M 1 : 210
X * 0.502
Y * 0.906
Z * 0.962



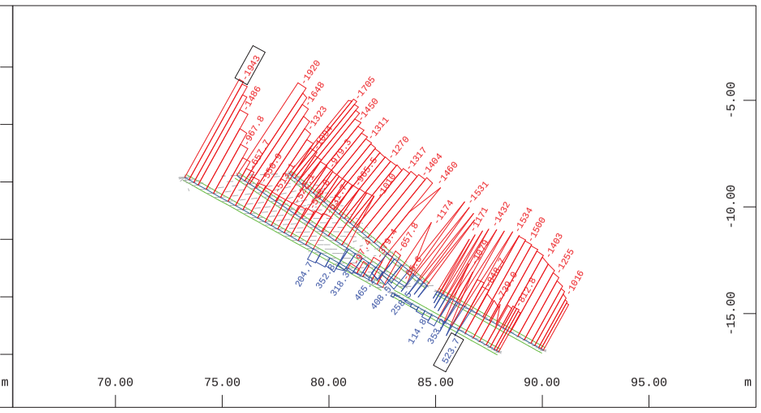
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1329 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-578.5)
(Max=697.9)

M 1 : 283
X * 0.502
Y * 0.906
Z * 0.962



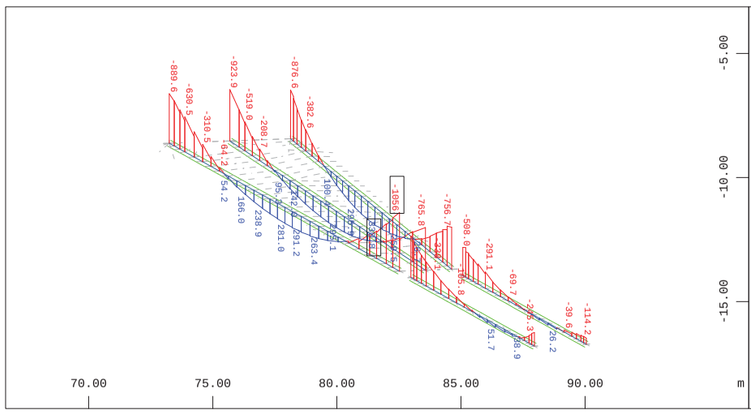
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1329 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-331.6)
(Max=355.8)

M 1 : 503
X * 0.502
Y * 0.906
Z * 0.962



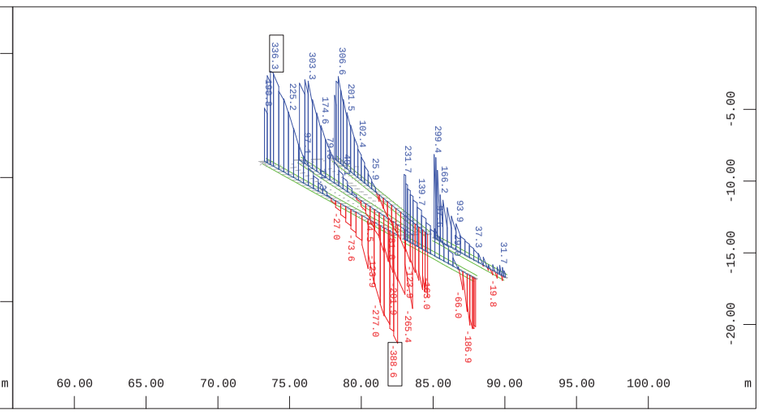
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1330 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1943.)
(Max=523.7)

M 1 : 271
X * 0.502
Y * 0.906
Z * 0.962



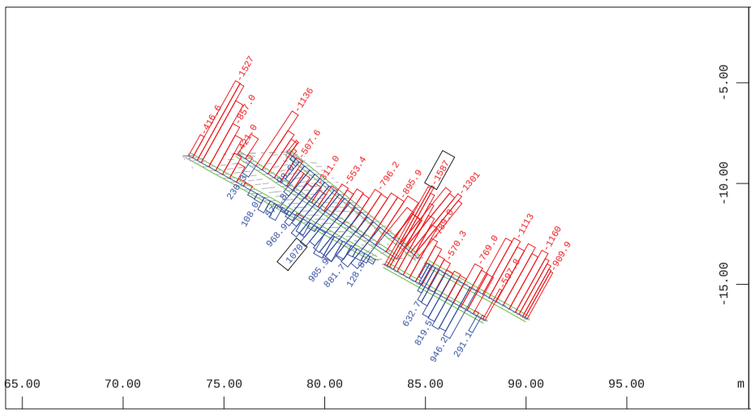
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1330 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kNm (Min=-1056.)
(Max=330.8)

M 1 : 233
X * 0.502
Y * 0.906
Z * 0.962



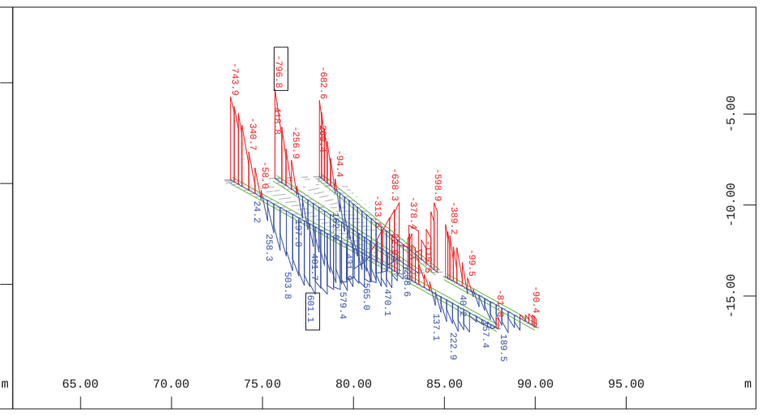
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1330 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-388.6)
(Max=336.3)

M 1 : 403
X * 0.502
Y * 0.906
Z * 0.962



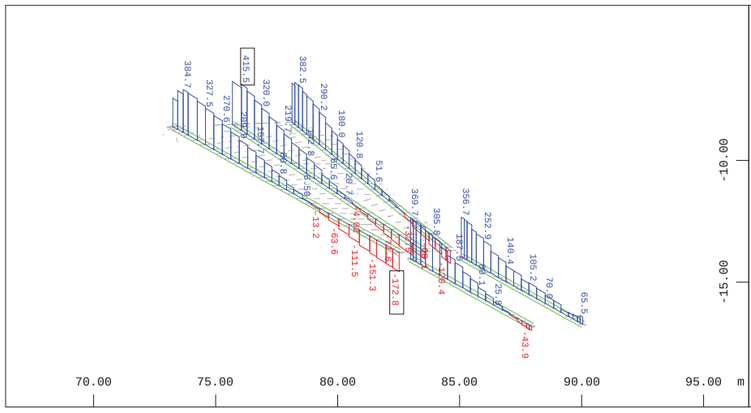
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1325 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1587.)
(Max=1070.)

M 1 : 287
X * 0.502
Y * 0.906
Z * 0.962



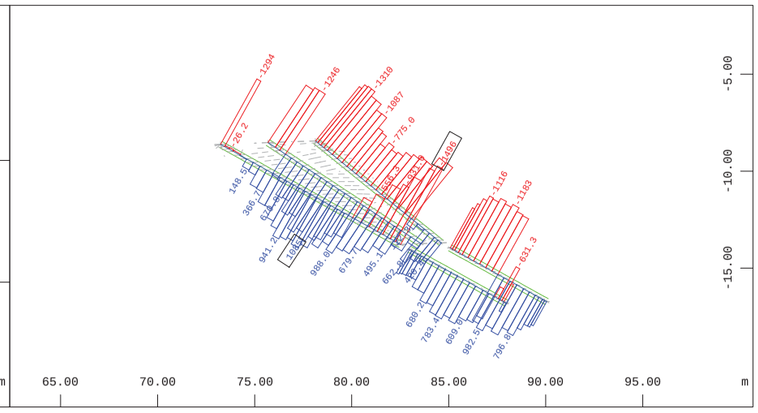
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1325 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-796.8)
(Max=601.1)

M 1 : 318
X * 0.502
Y * 0.906
Z * 0.962



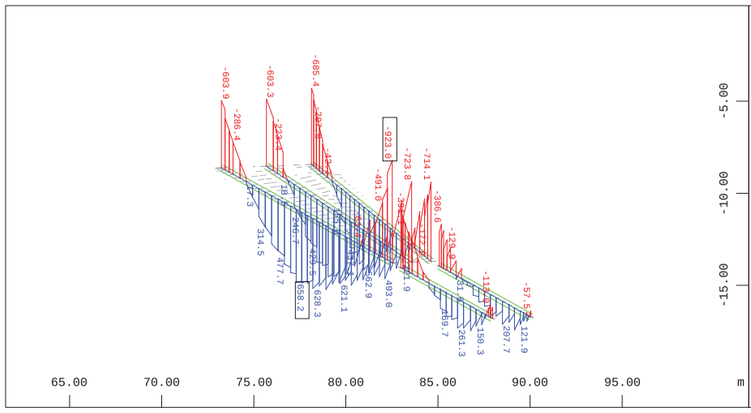
Z
Y X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1325 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-172.8)
(Max=415.5)

M 1 : 237
X * 0.502
Y * 0.906
Z * 0.962



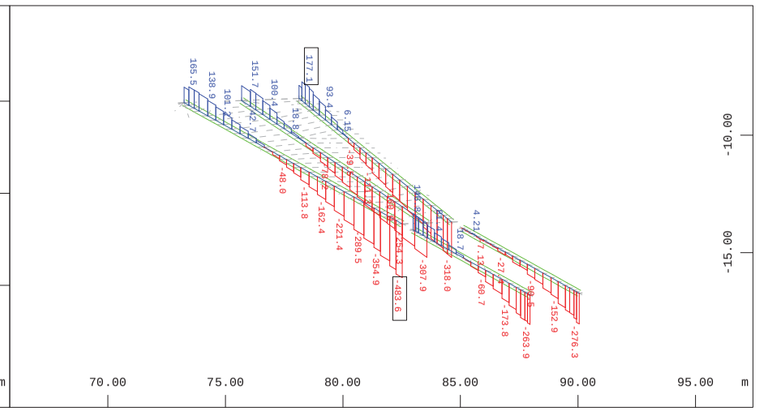
Z
Y X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1326 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1496.)
(Max=1085.)

M 1 : 298
X * 0.502
Y * 0.906
Z * 0.962



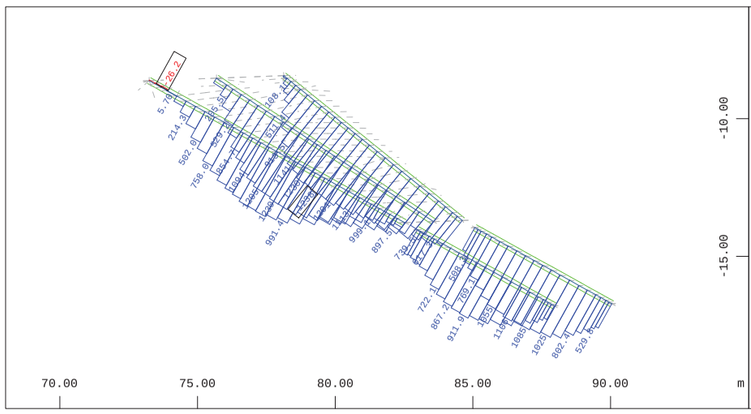
Z
Y X
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1326 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-923.0)
(Max=658.2)

M 1 : 314
X * 0.502
Y * 0.906
Z * 0.962



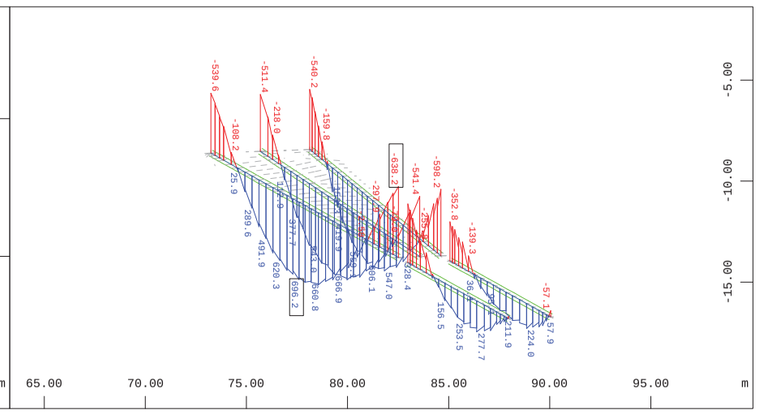
Z
Y X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1326 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-483.6)
(Max=177.1)

M 1 : 246
X * 0.502
Y * 0.906
Z * 0.962



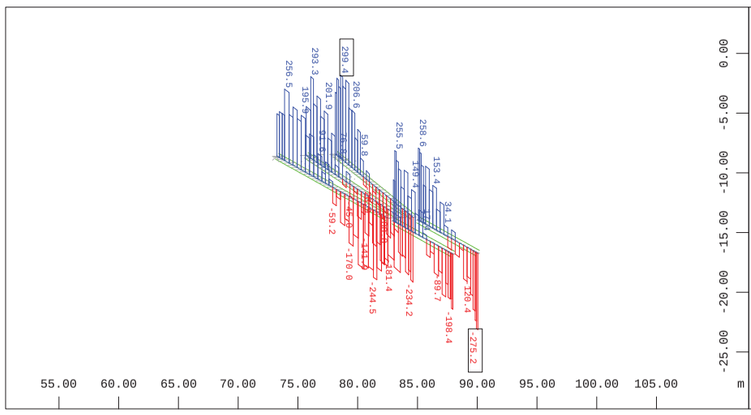
Z
Y X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1521 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 1000. kN (Min=-26.2)
(Max=1238.)

M 1 : 210
X * 0.502
Y * 0.906
Z * 0.962



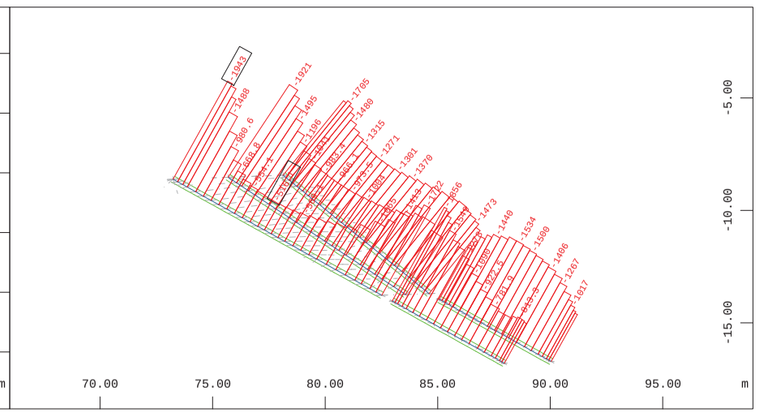
Z
Y X
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1521 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 500.0 kNm (Min=-638.2)
(Max=696.2)

M 1 : 286
X * 0.502
Y * 0.906
Z * 0.962



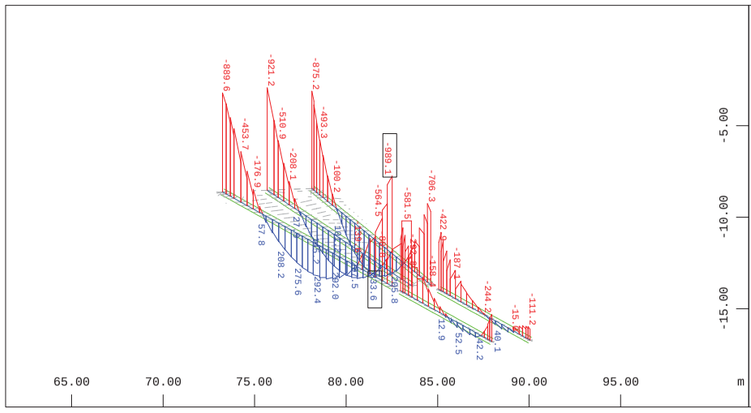
Z
Y X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1521 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 200.0 kN (Min=-275.2)
(Max=299.4)

M 1 : 484
X * 0.502
Y * 0.906
Z * 0.962



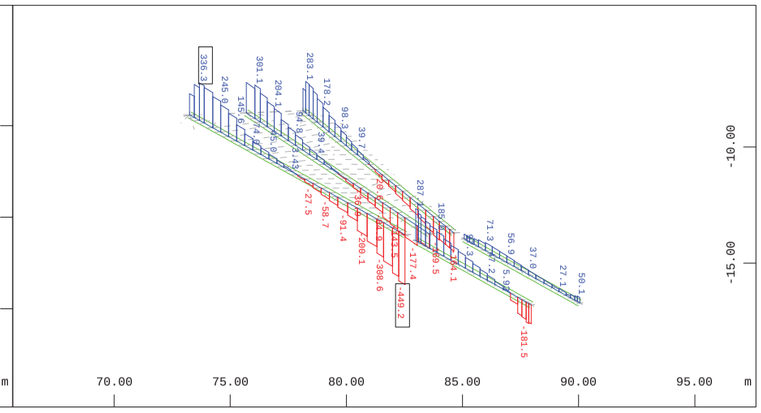
Z
Y X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1522 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 1000. kN (Min=-1943.)
(Max=-516.1)

M 1 : 257
X * 0.502
Y * 0.906
Z * 0.962



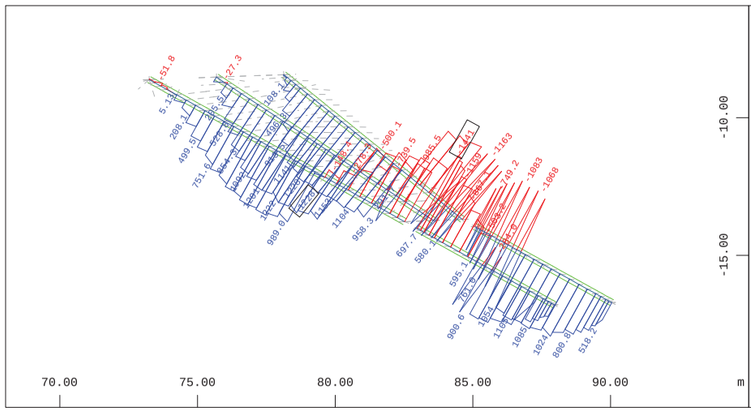
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1522 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 500.0 kNm (Min=-989.1)
(Max=333.6)

M 1 : 316
X * 0.502
Y * 0.906
Z * 0.962



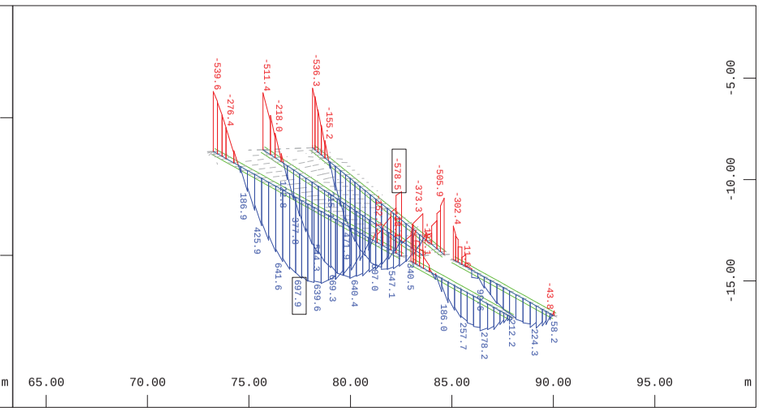
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1522 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 500.0 kN (Min=-449.2)
(Max=336.3)

M 1 : 249
X * 0.502
Y * 0.906
Z * 0.962



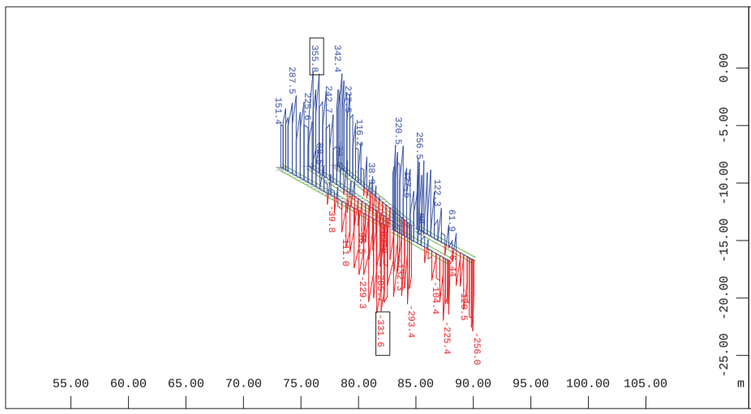
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1529 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1441.)
(Max=1228.)

M 1 : 210
X * 0.502
Y * 0.906
Z * 0.962



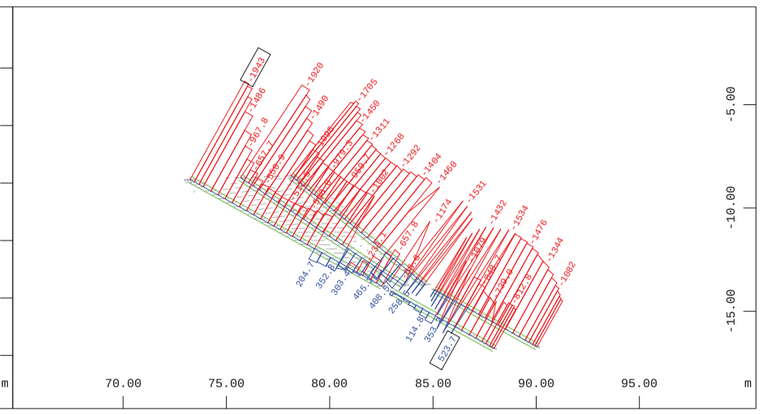
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1529 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-578.5)
(Max=697.9)

M 1 : 285
X * 0.502
Y * 0.906
Z * 0.962



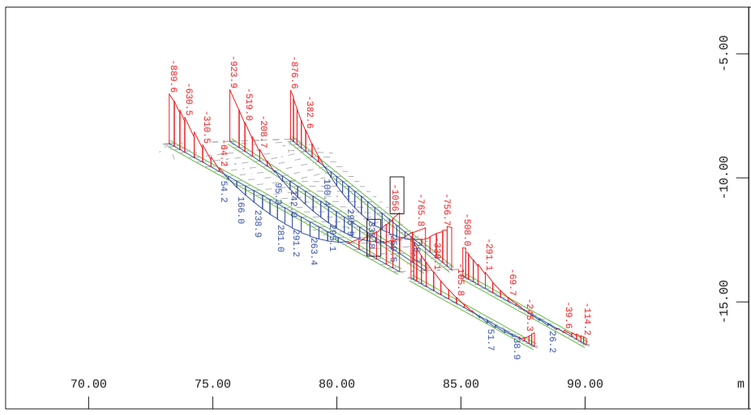
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1529 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-331.6)
(Max=355.8)

M 1 : 503
X * 0.502
Y * 0.906
Z * 0.962



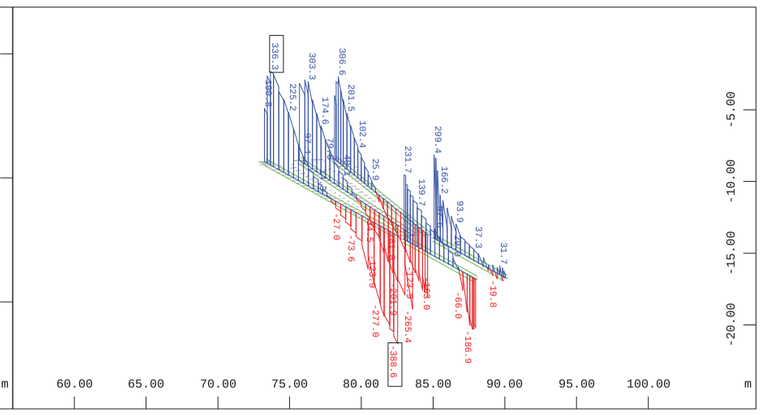
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1530 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1943.)
(Max=523.7)

M 1 : 280
X * 0.502
Y * 0.906
Z * 0.962



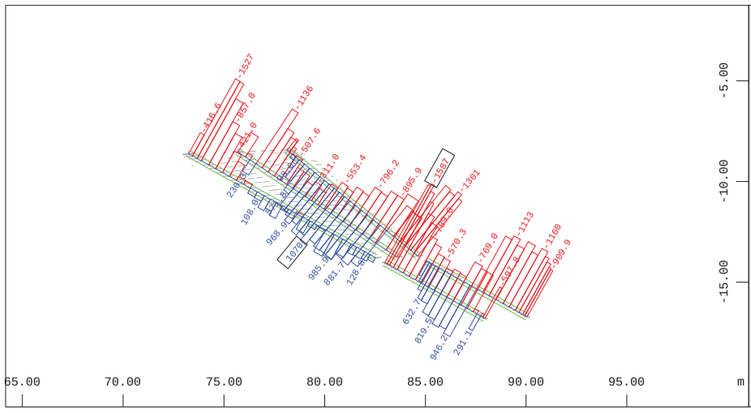
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1530 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kNm (Min=-1056.)
(Max=330.8)

M 1 : 233
X * 0.502
Y * 0.906
Z * 0.962



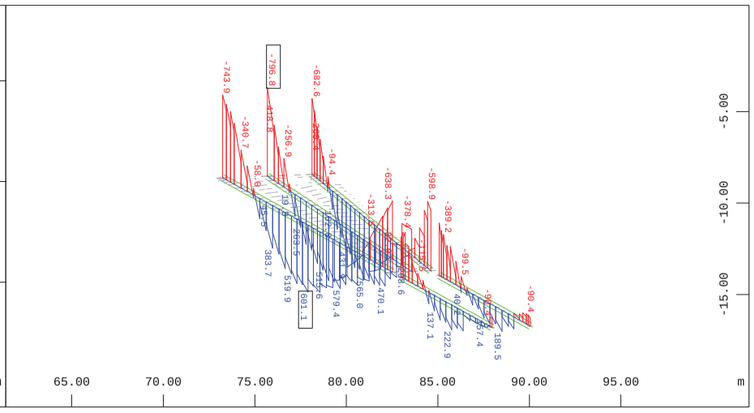
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1530 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-388.6)
(Max=336.3)

M 1 : 403
X * 0.502
Y * 0.906
Z * 0.962



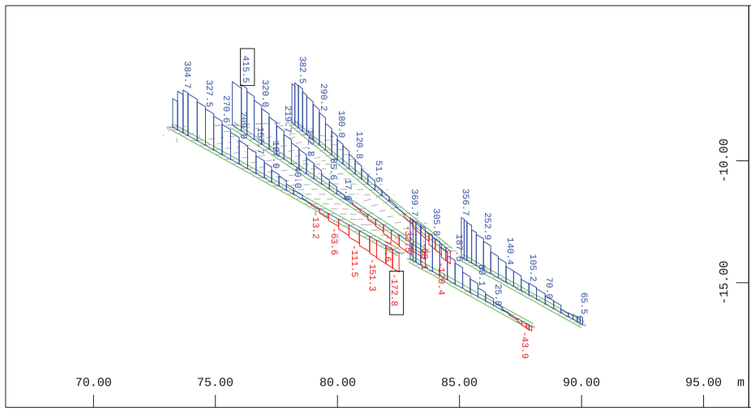
Z
Y X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1525 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1587.)
(Max=1070.)

M 1 : 287
X * 0.502
Y * 0.906
Z * 0.962



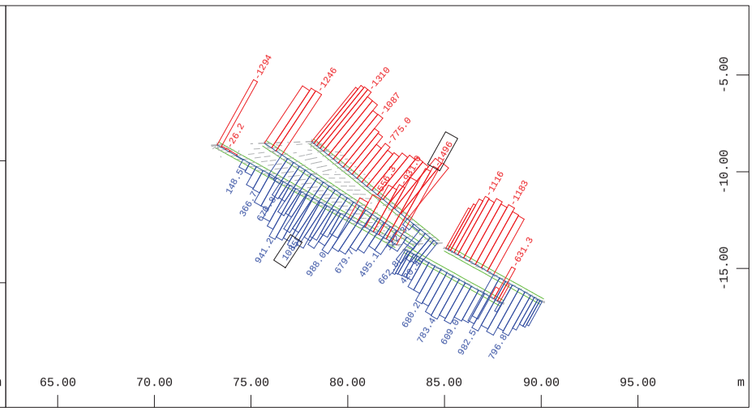
Z
Y X
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1525 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-796.8)
(Max=601.1)

M 1 : 316
X * 0.502
Y * 0.906
Z * 0.962



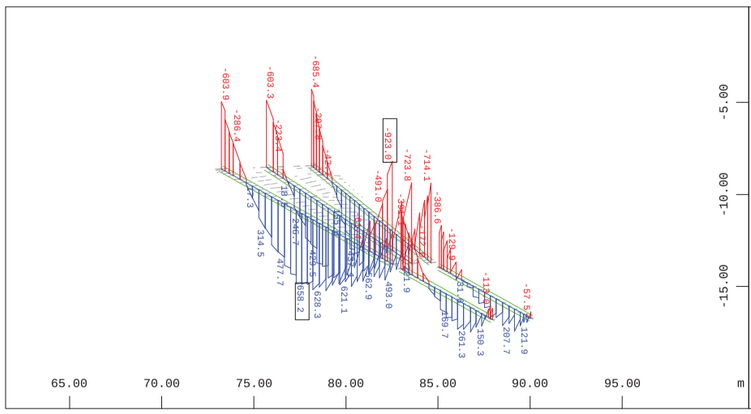
Z
Y X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1525 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-172.8)
(Max=415.5)

M 1 : 237
X * 0.502
Y * 0.906
Z * 0.962



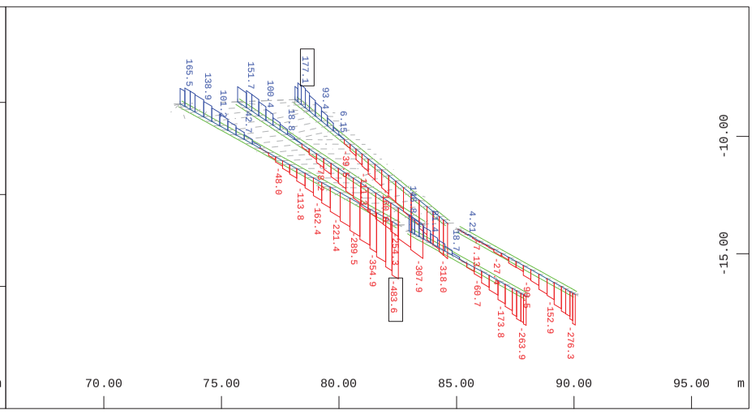
Z
Y X
Sector of system Group 81
Beam Elements , Normal force Nx, Loadcase 1526 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 1000. kN (Min=-1496.)
(Max=1085.)

M 1 : 299
X * 0.502
Y * 0.906
Z * 0.962



Z
Y X
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1526 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-923.0)
(Max=658.2)

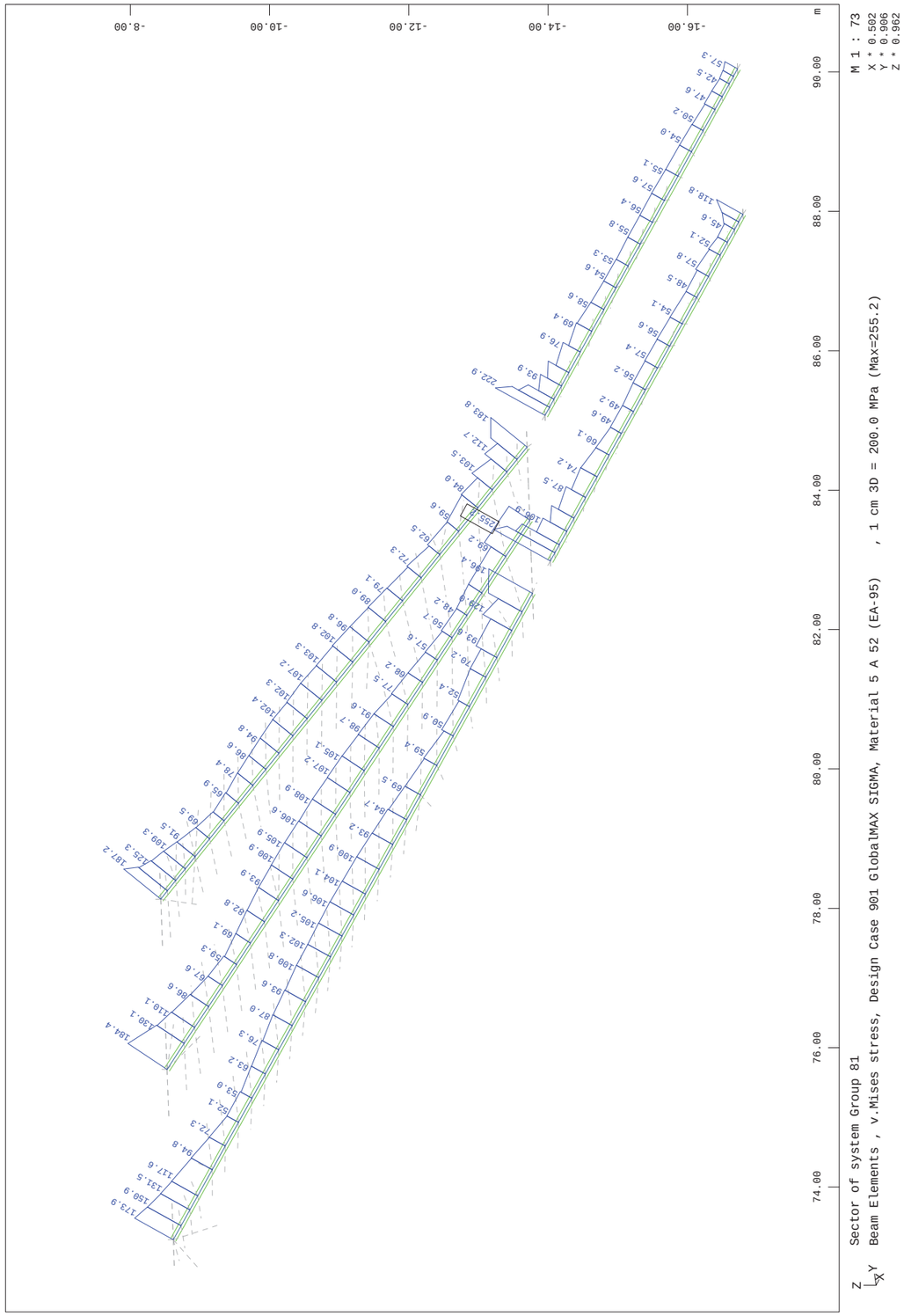
M 1 : 314
X * 0.502
Y * 0.906
Z * 0.962

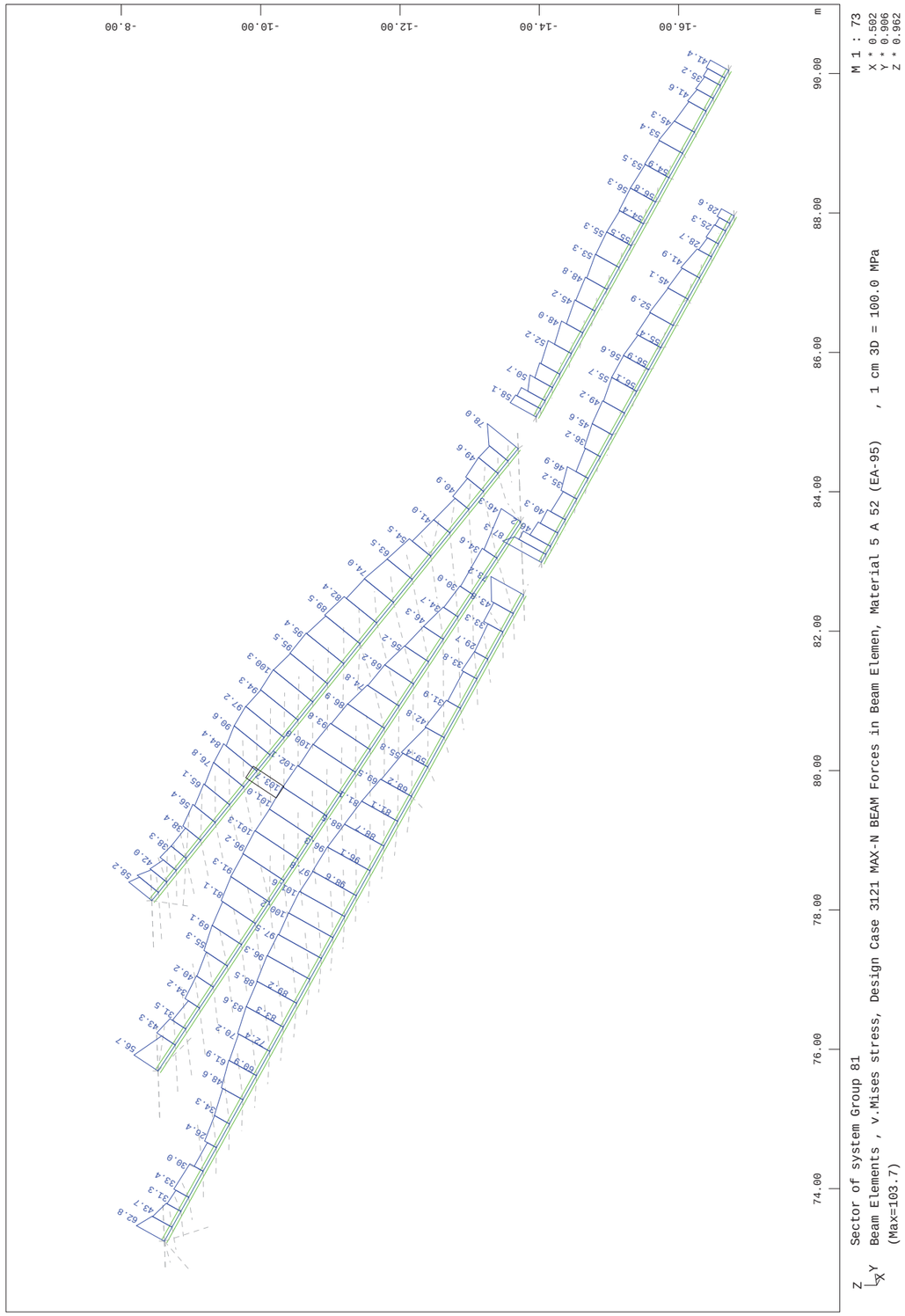


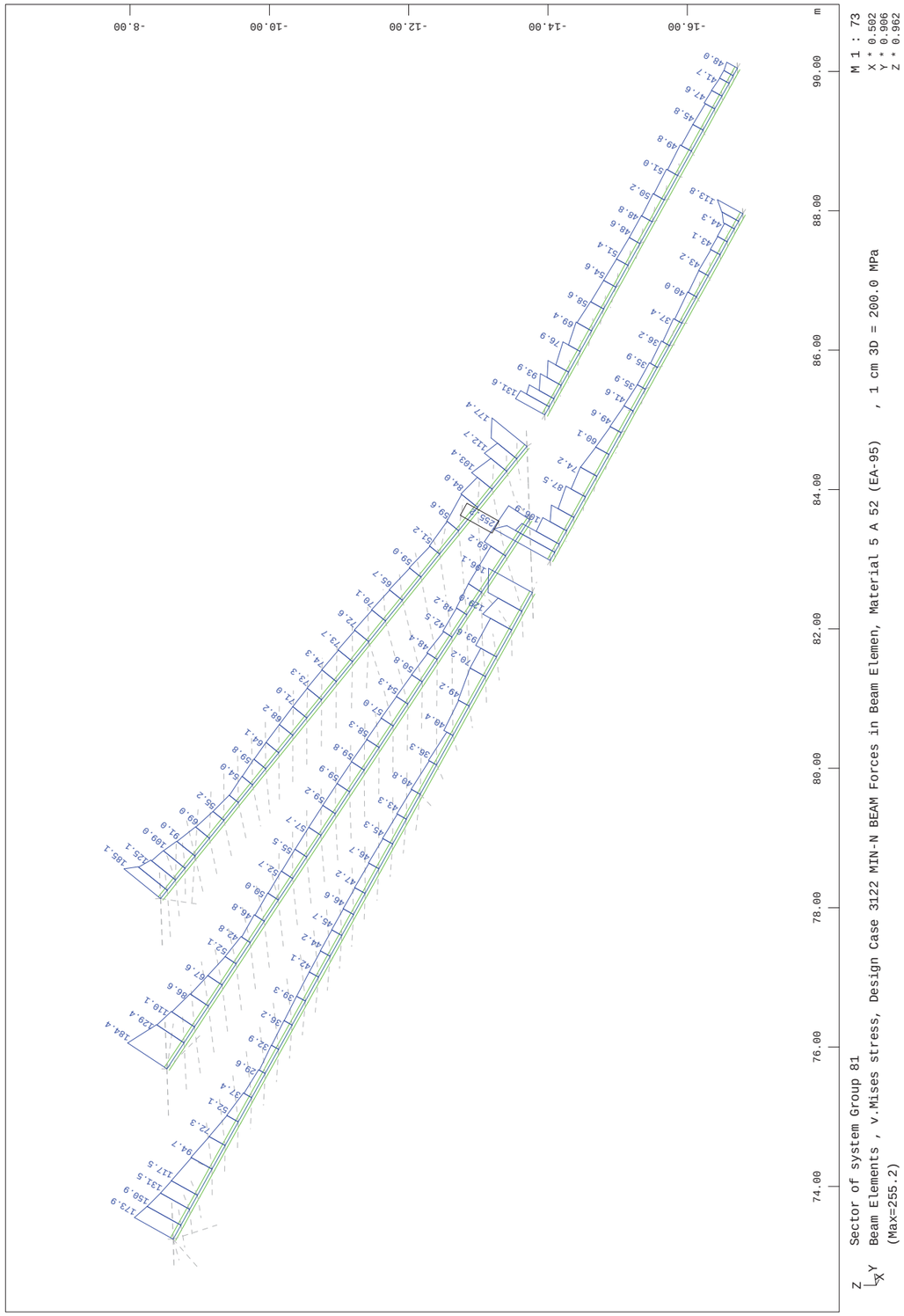
Z
Y X
Sector of system Group 81
Beam Elements , Shear force Vz, Loadcase 1526 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 500.0 kN (Min=-483.6)
(Max=177.1)

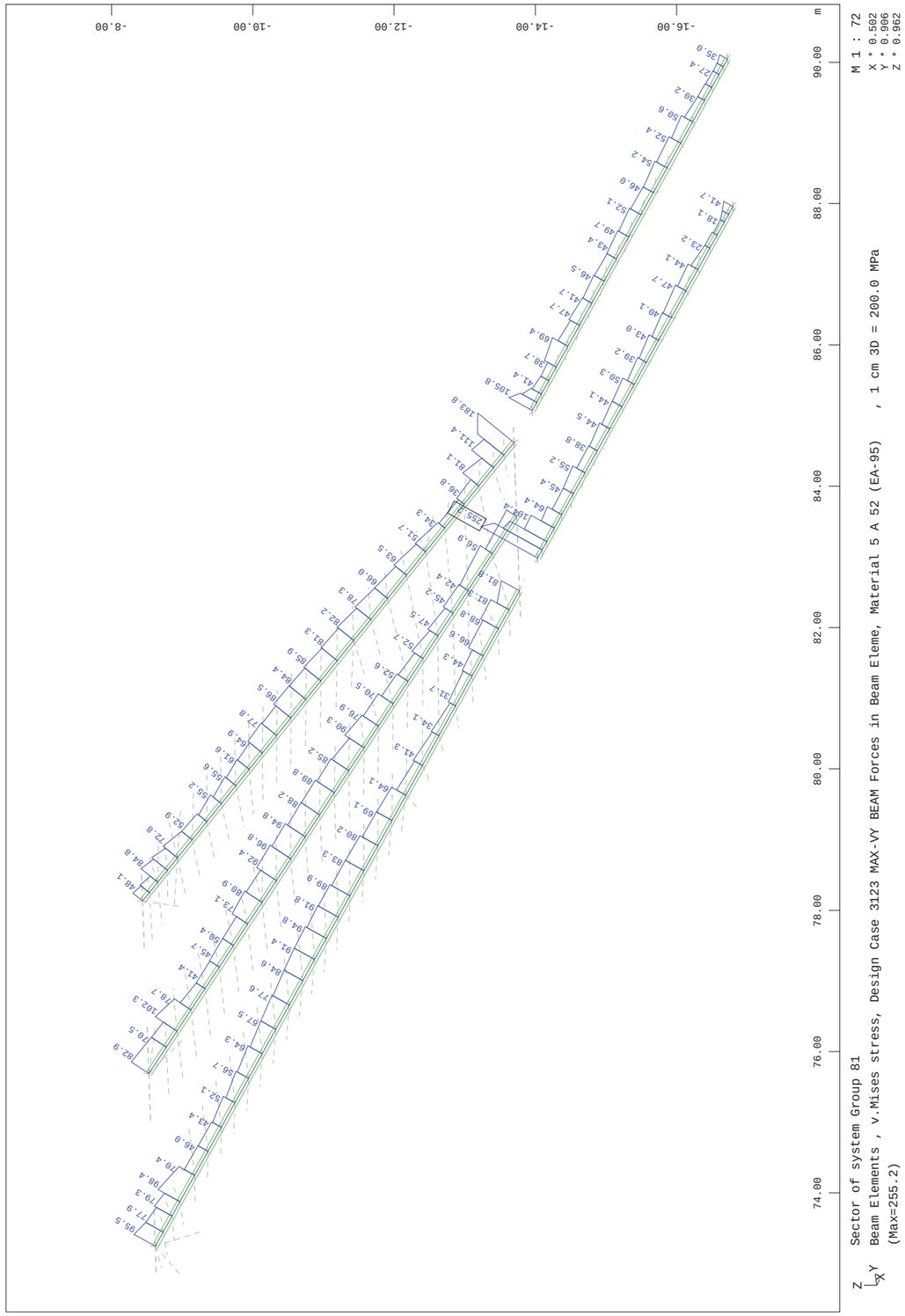
M 1 : 246
X * 0.502
Y * 0.906
Z * 0.962

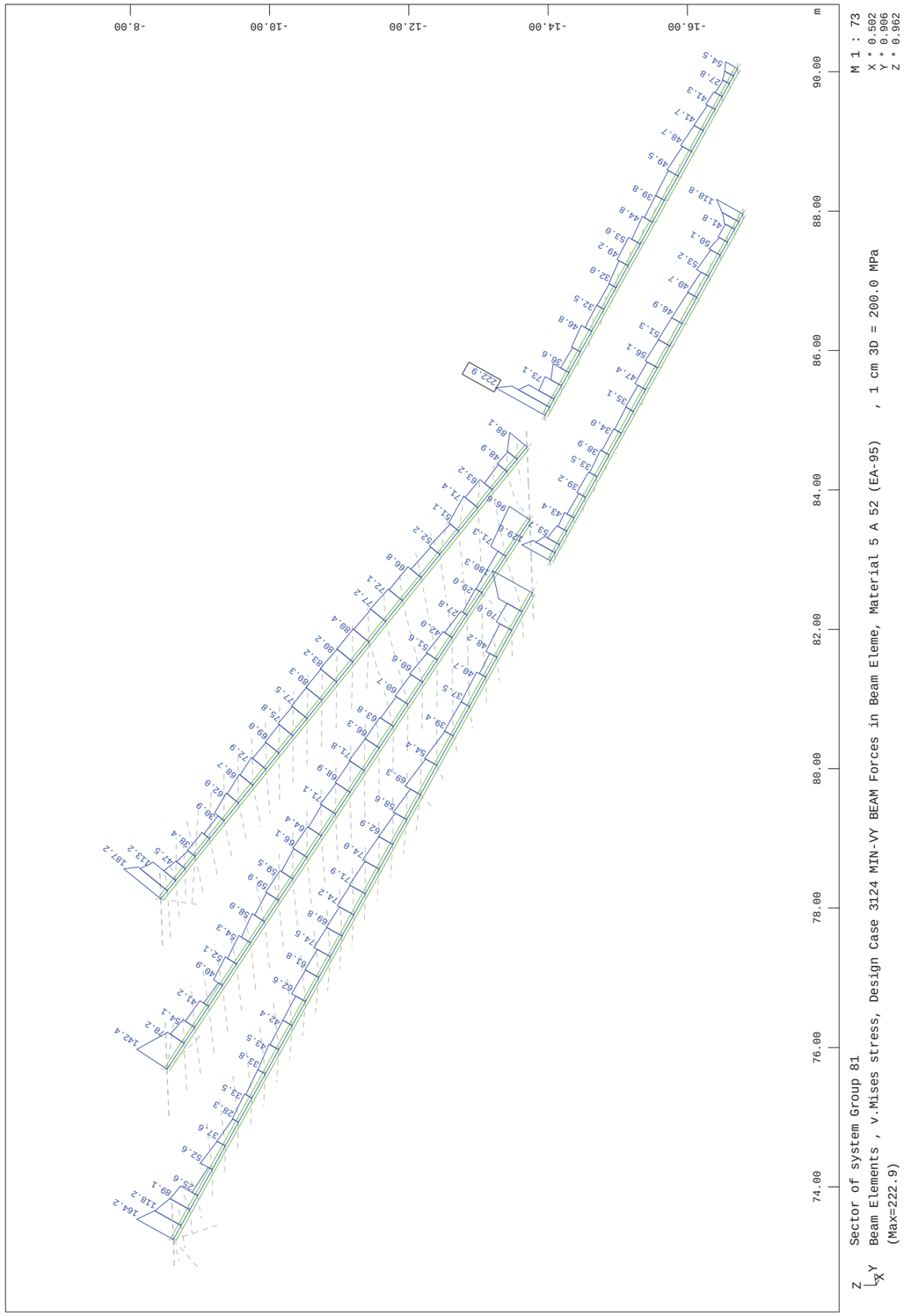
TENSIONES DE VON MISES

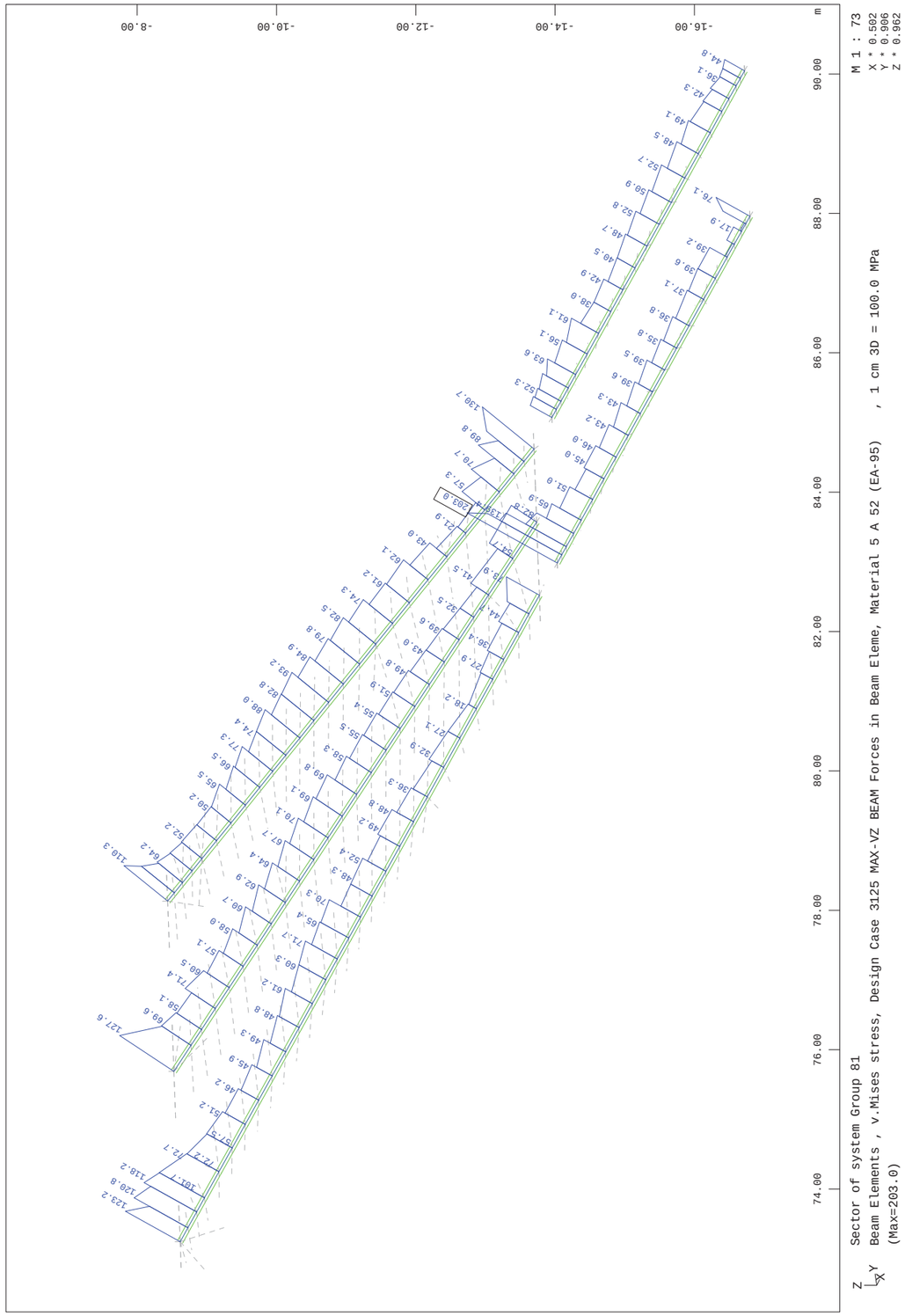

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 901 GlobalMAX SIGMA, Material 5 A 52 (EA-95) , 1 cm 3D = 200.0 MPa (Max=255.2)
Z
Y
X

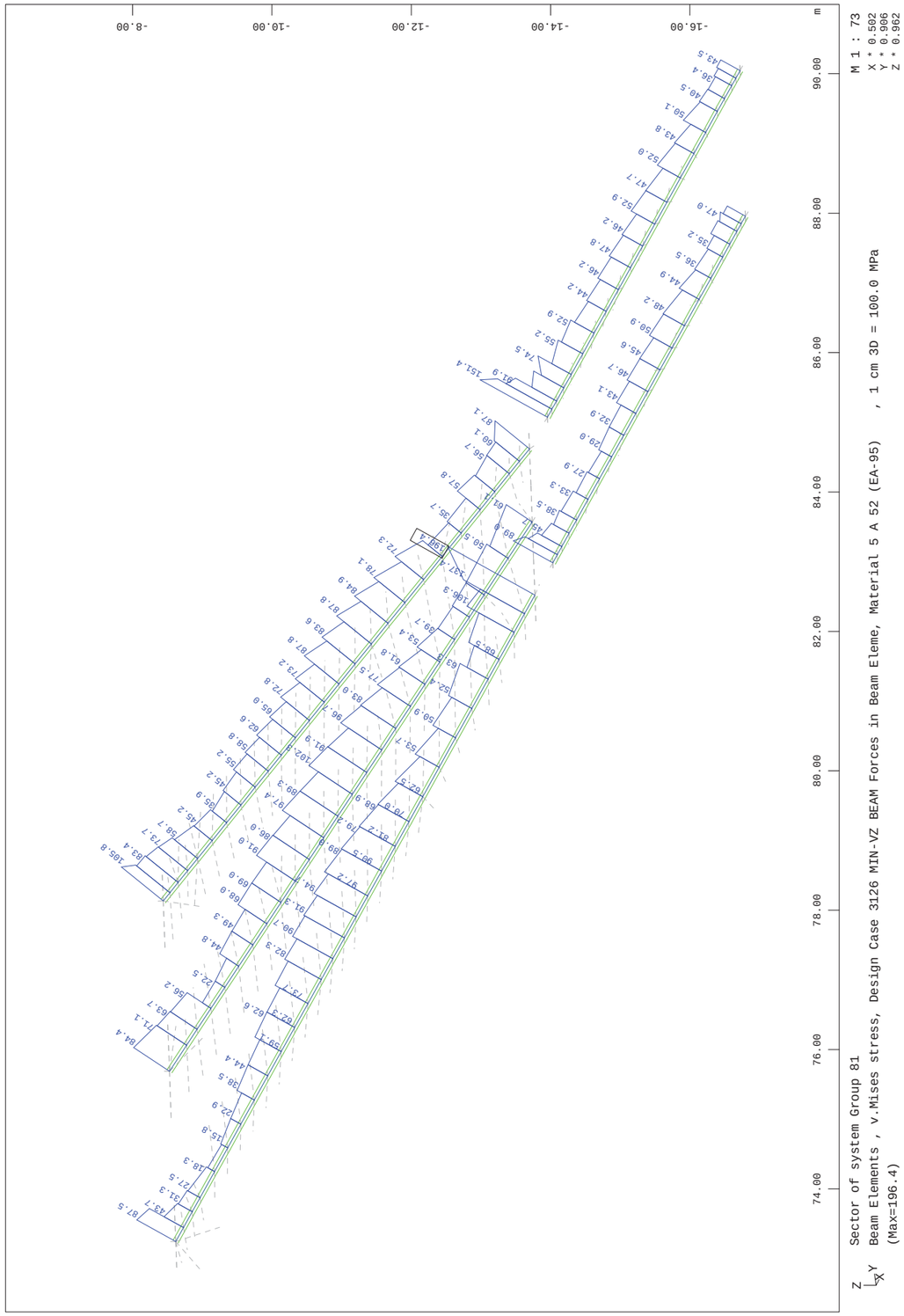

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3121 MAX-N BEAM Forces in Beam Elemen, Material 5 A 52 (EA-95) , 1 cm 3D = 100.0 MPa
(Max=103.7)
Z
Y
X

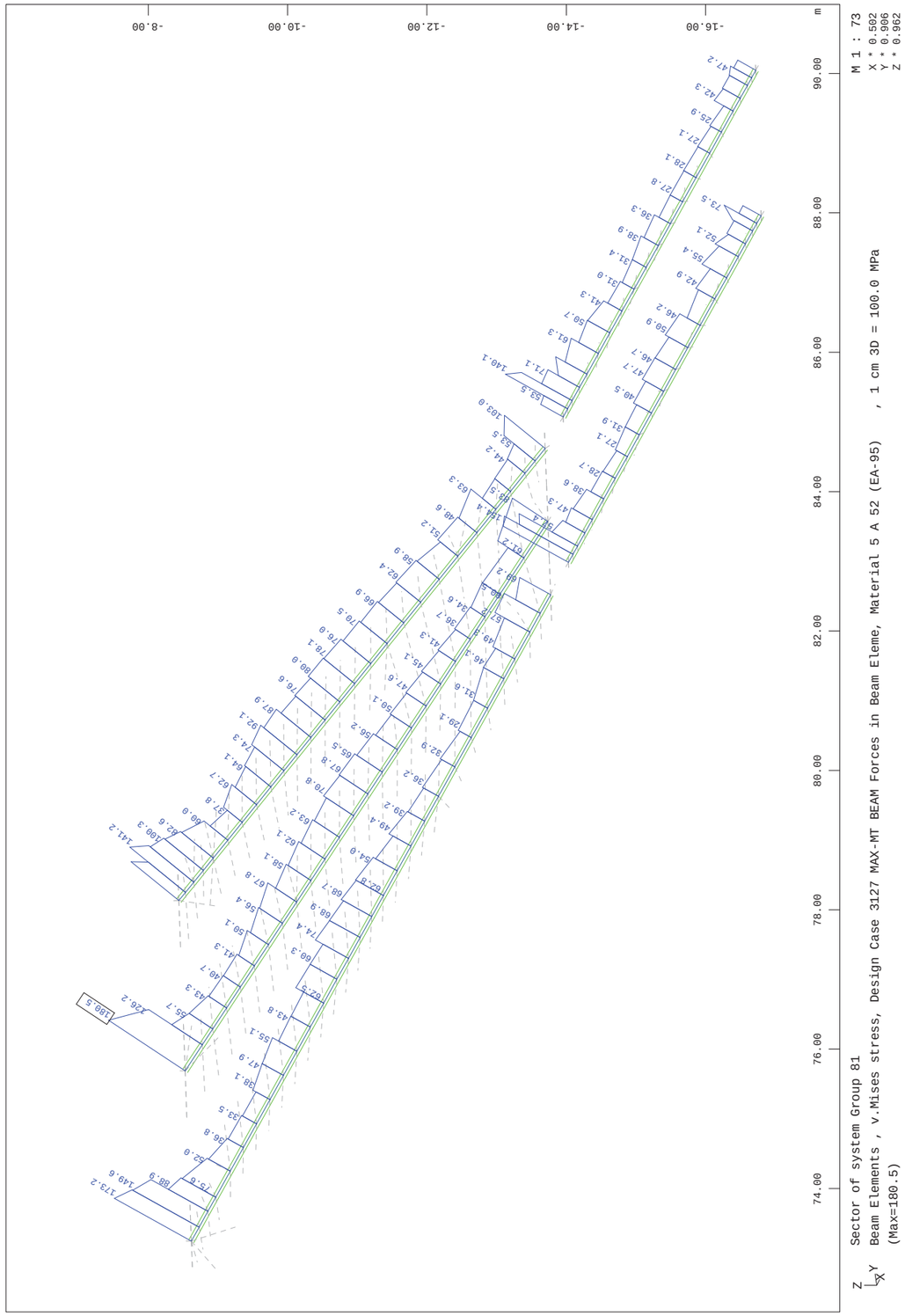

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3122 MIN-N BEAM Forces in Beam Elemen, Material 5 A 52 (EA-95) , 1 cm 3D = 200.0 MPa
(Max=255.2)
Z
Y
X

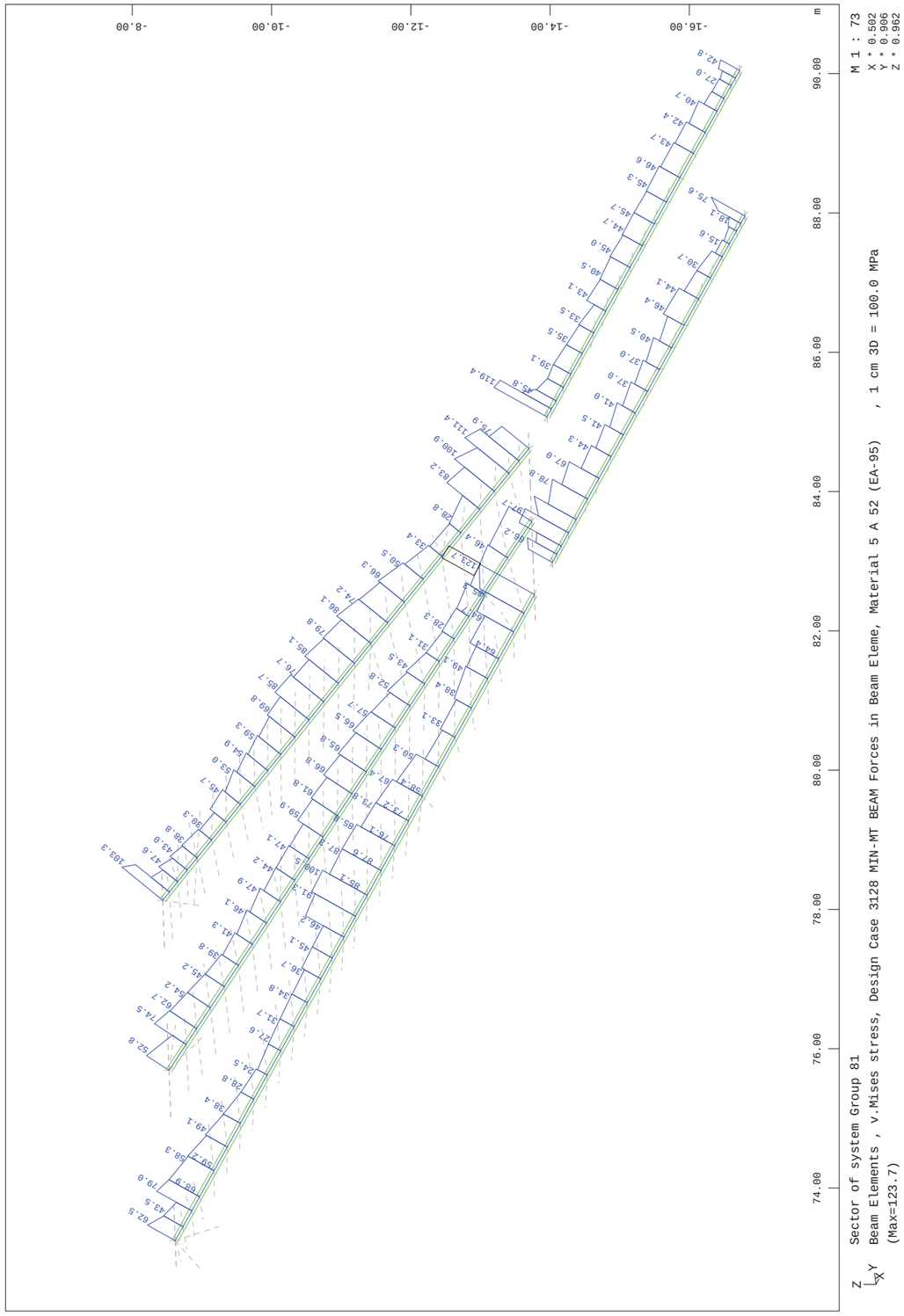

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3123 MAX-VY BEAM Forces in Beam Eleme, Material 5 A 52 (EA-95) , 1 cm 3D = 200.0 MPa
(Max=255.2)
Z
Y
X

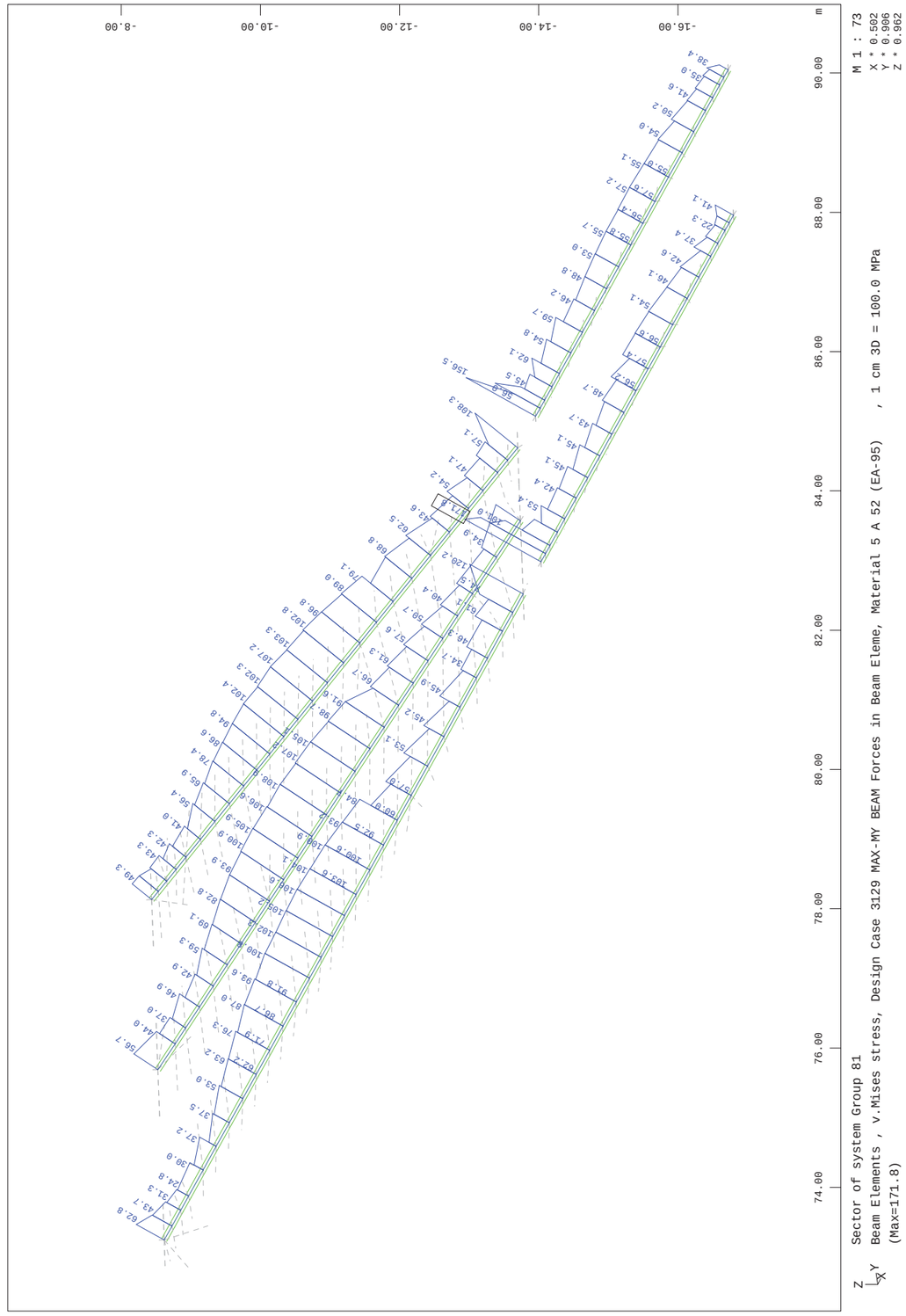

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Material 5 A 52 (EA-95) , 1 cm 3D = 200.0 MPa
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3124 MIN-VY BEAM Forces in Beam Eleme, Materia
(Max=222.9)
Z
Y
X

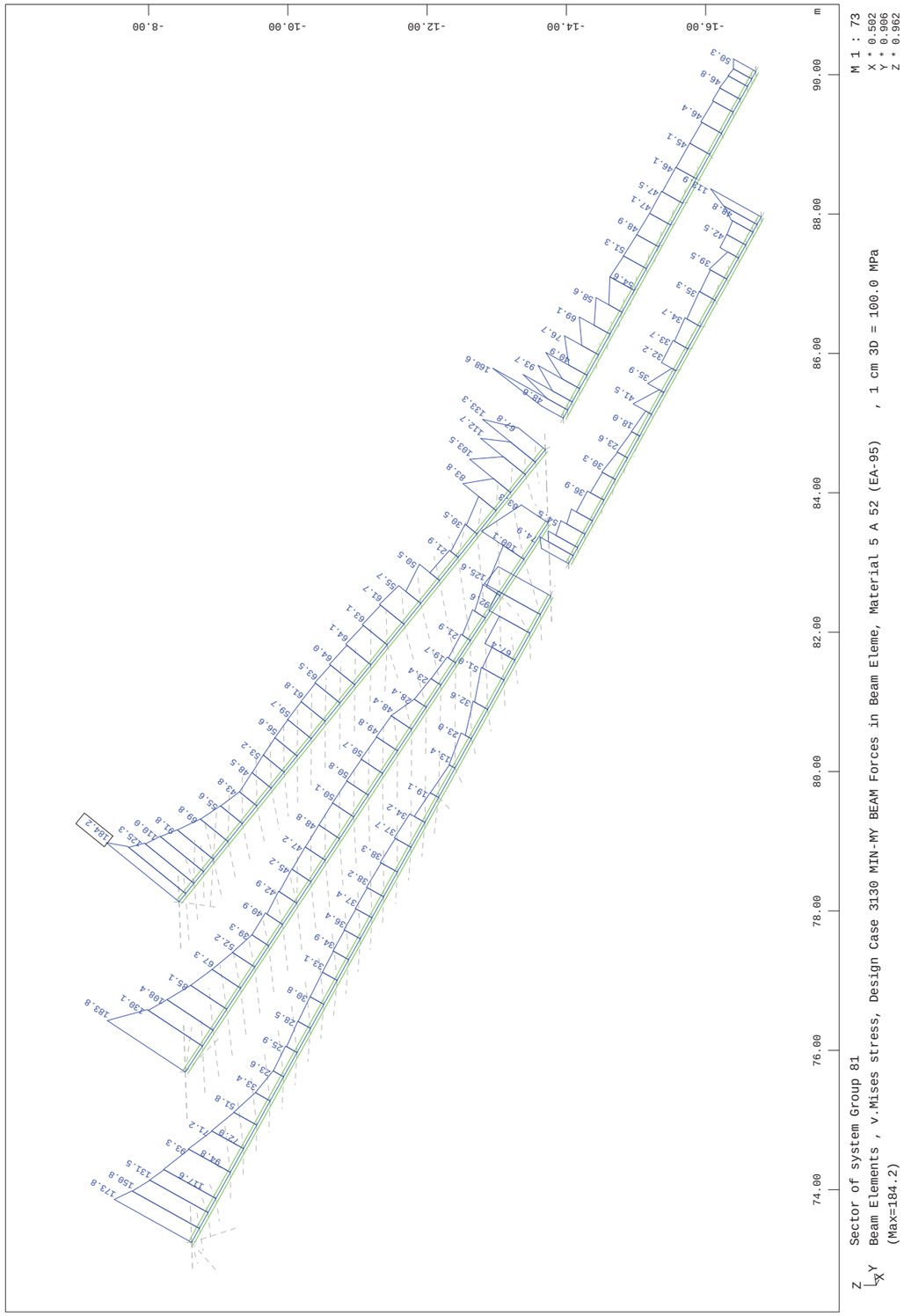

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Material 5 A 52 (EA-95) , 1 cm 3D = 100.0 MPa
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3125 MAX-VZ BEAM Forces in Beam Eleme, Materia
(Max=203.0)
Z
Y
X

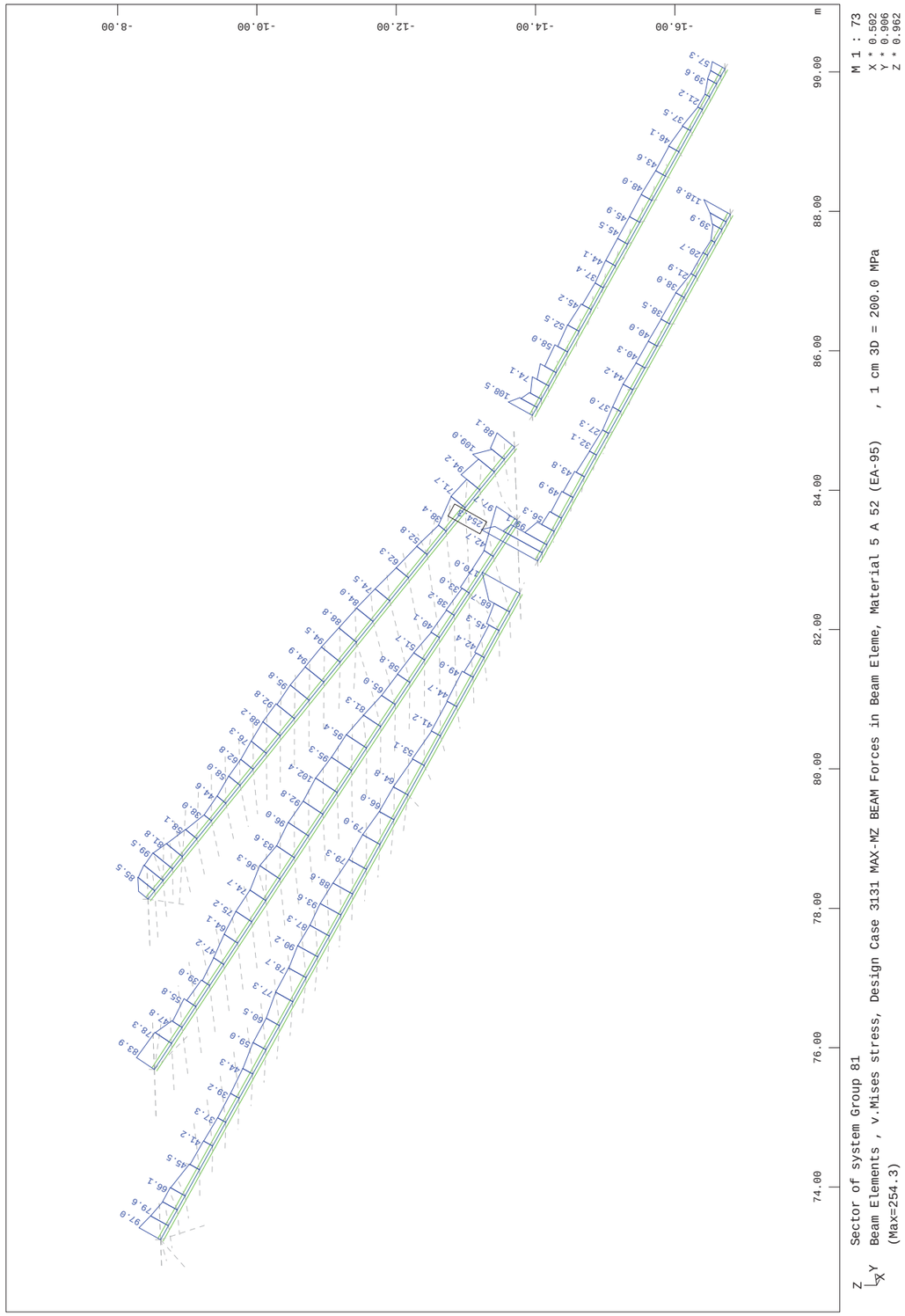

-16.00
-14.00
-12.00
-10.00
-8.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3126 MIN-VZ BEAM Forces in Beam Eleme, Material 5 A 52 (EA-95) , 1 cm 3D = 100.0 MPa
(Max=196.4)
Z
Y
X

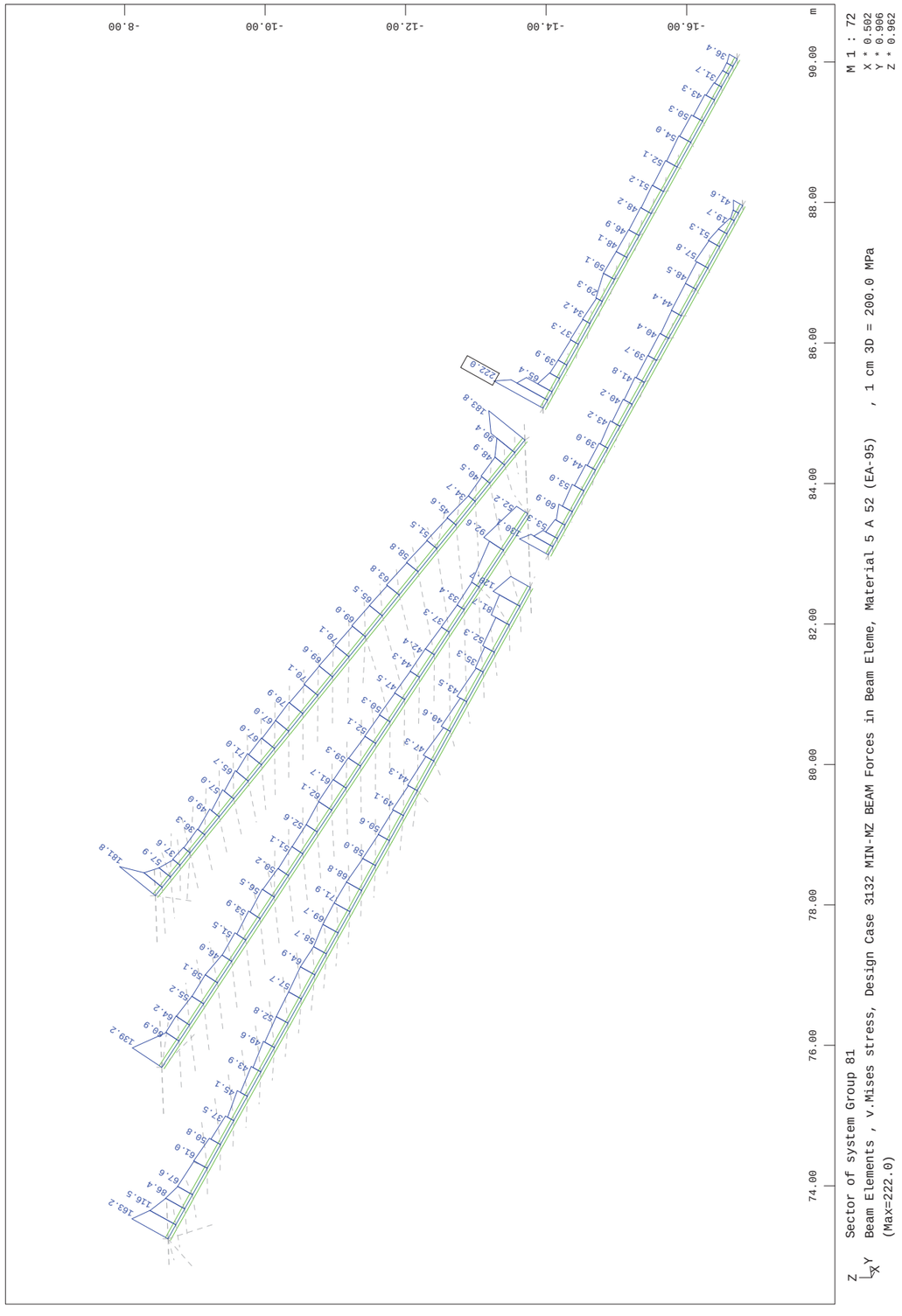

-16.00
-14.00
-12.00
-10.00
-8.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3127 MAX-MT BEAM Forces in Beam Eleme, Material 5 A 52 (EA-95) , 1 cm 3D = 100.0 MPa
(Max=180.5)
Z
Y
X


-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3128 MIN-MT BEAM Forces in Beam Eleme, Material 5 A 52 (EA-95) , 1 cm 3D = 100.0 MPa
(Max=123.7)
Z
Y
X

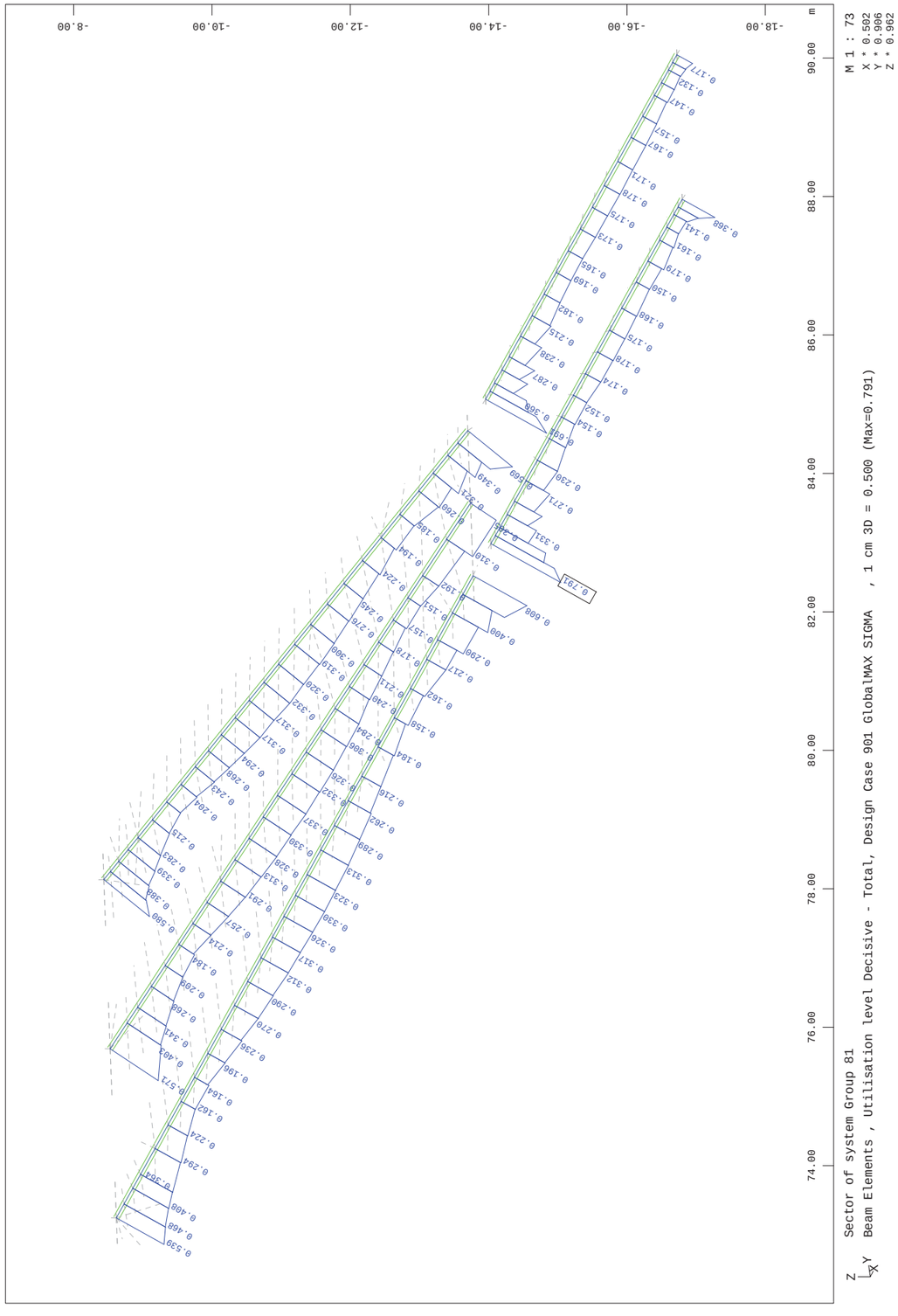

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3129 MAX-MY BEAM Forces in Beam Eleme, Material 5 A 52 (EA-95) , 1 cm 3D = 100.0 MPa
(Max=171.8)
Z
Y
X

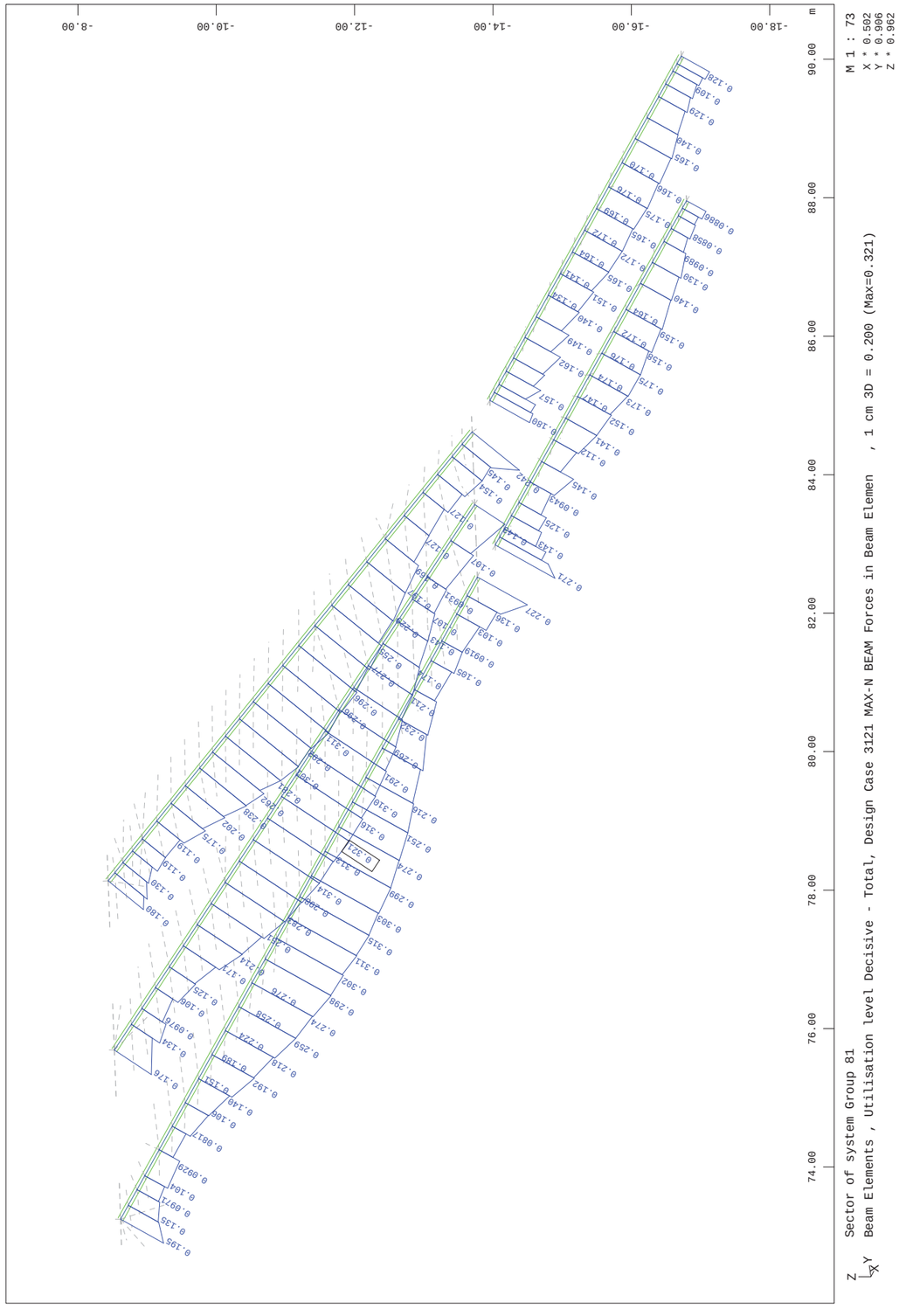

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
, 1 cm 3D = 100.0 MPa
s in Beam Eleme, Material 5 A 52 (EA-95)
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3130 MIN-MY BEAM Forces in Bea
(Max=184.2)
Z
Y
X

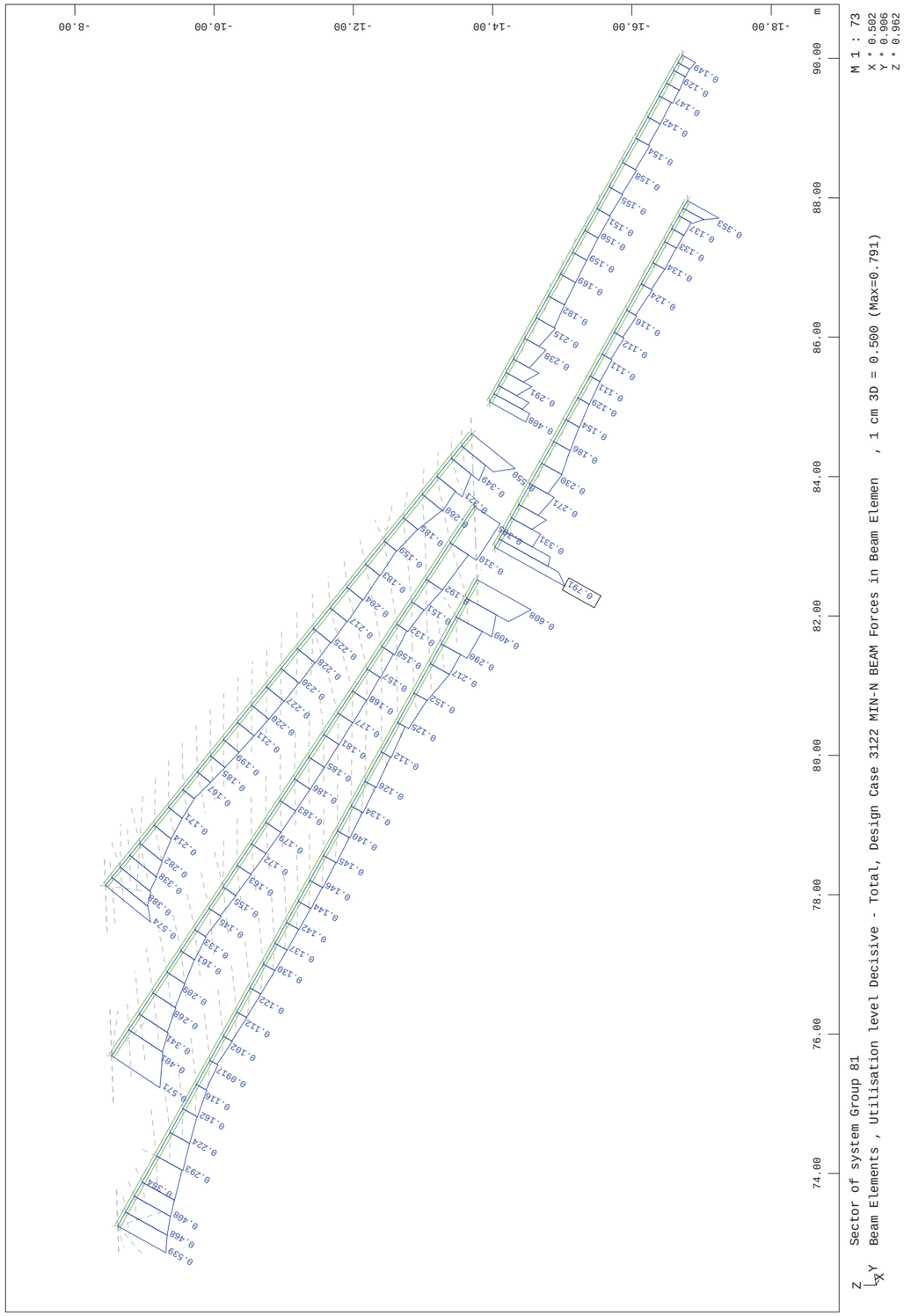

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
, 1 cm 3D = 200.0 MPa
s in Beam Eleme, Material 5 A 52 (EA-95)
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3131 MAX-MZ BEAM Forces in Bea
(Max=254.3)
Z
Y
X

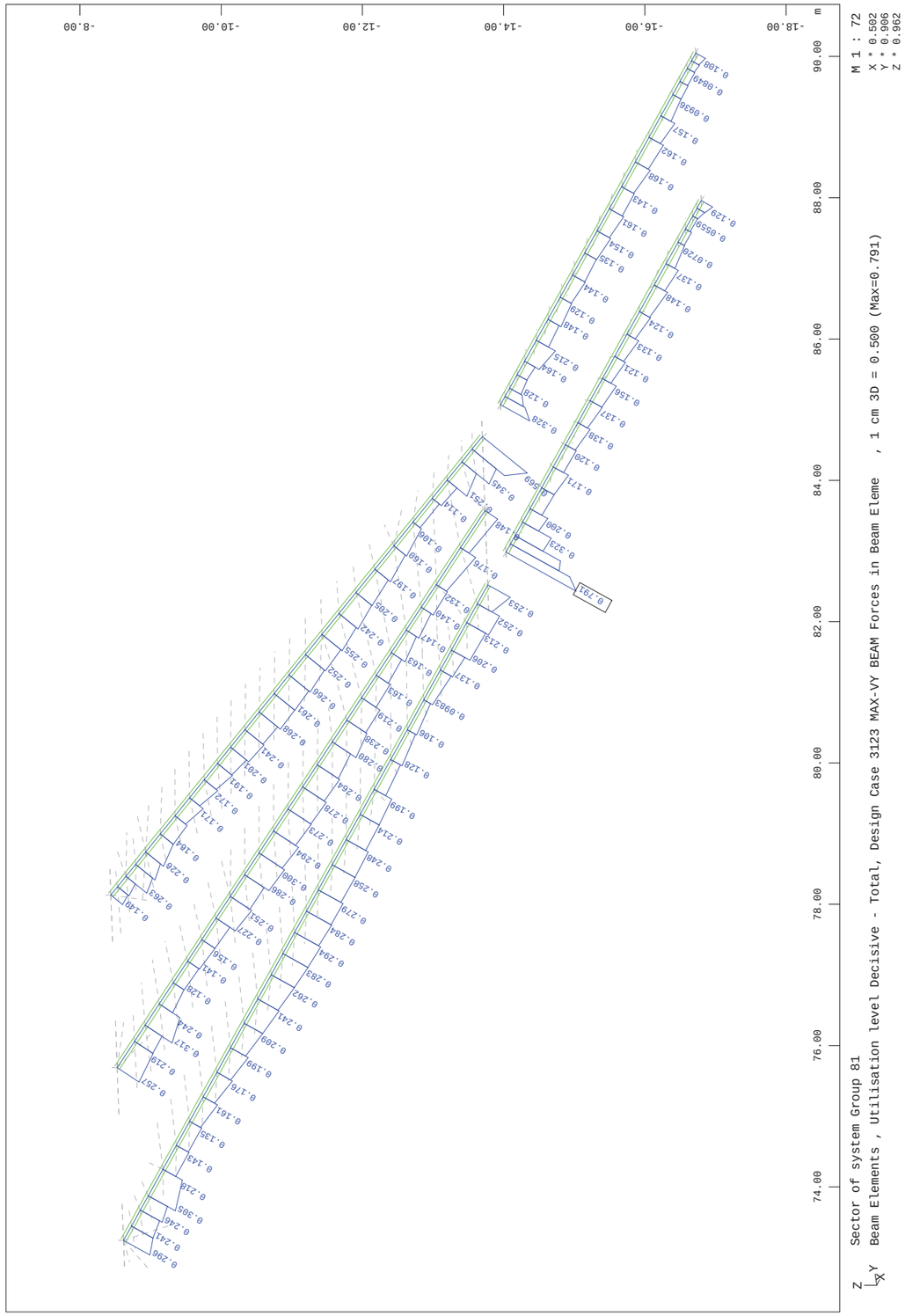

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
-16.00
-14.00
-12.00
-10.00
-8.00
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
222.0
Sector of system Group 81
Beam Elements , v.Mises stress, Design Case 3132 MIN-MZ BEAM Forces in Beam Eleme, Material 5 A 52 (EA-95) , 1 cm 3D = 200.0 MPa
(Max=222.0)
Z
Y
X

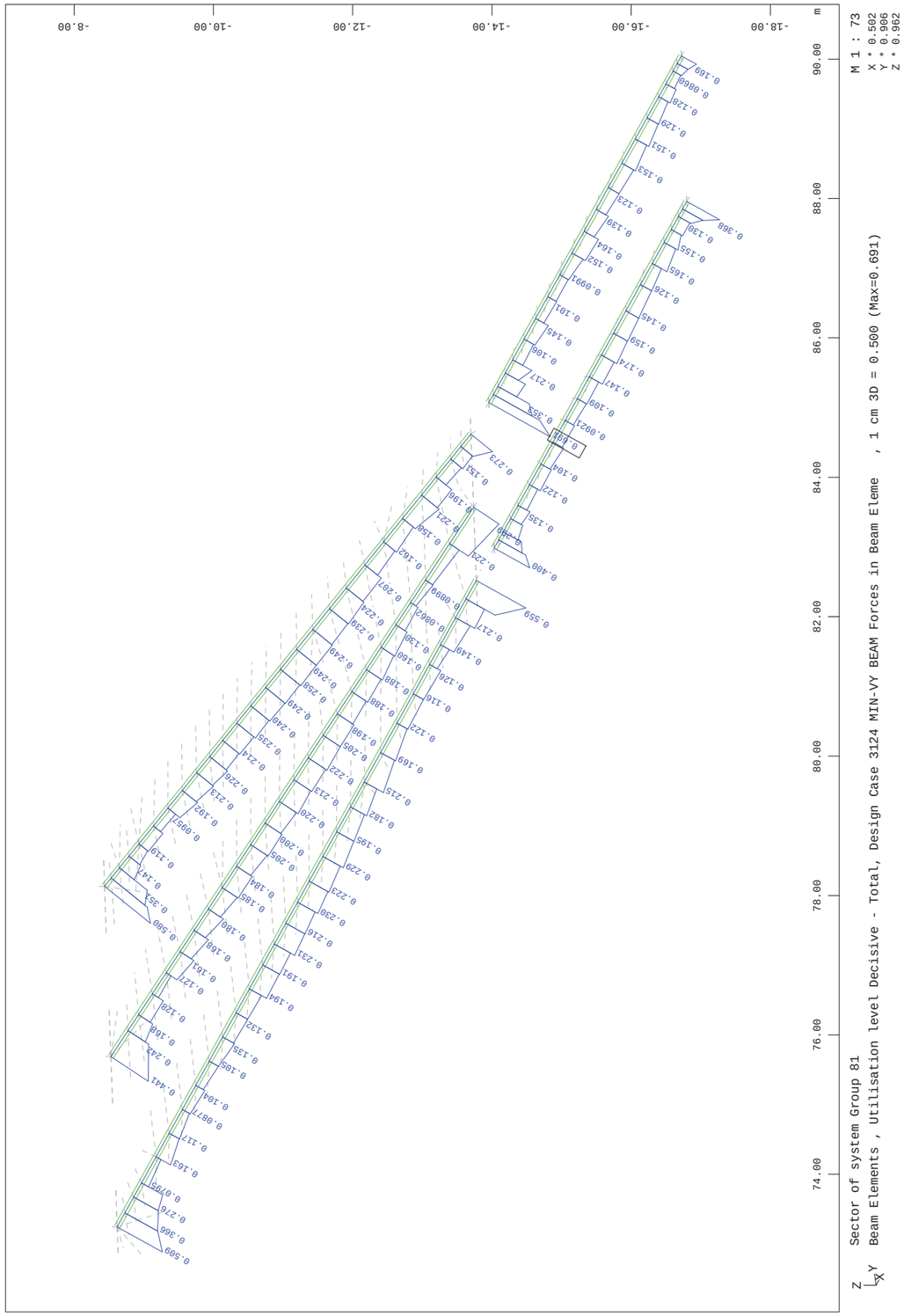
COEFICIENTES DE UTILIZACIÓN

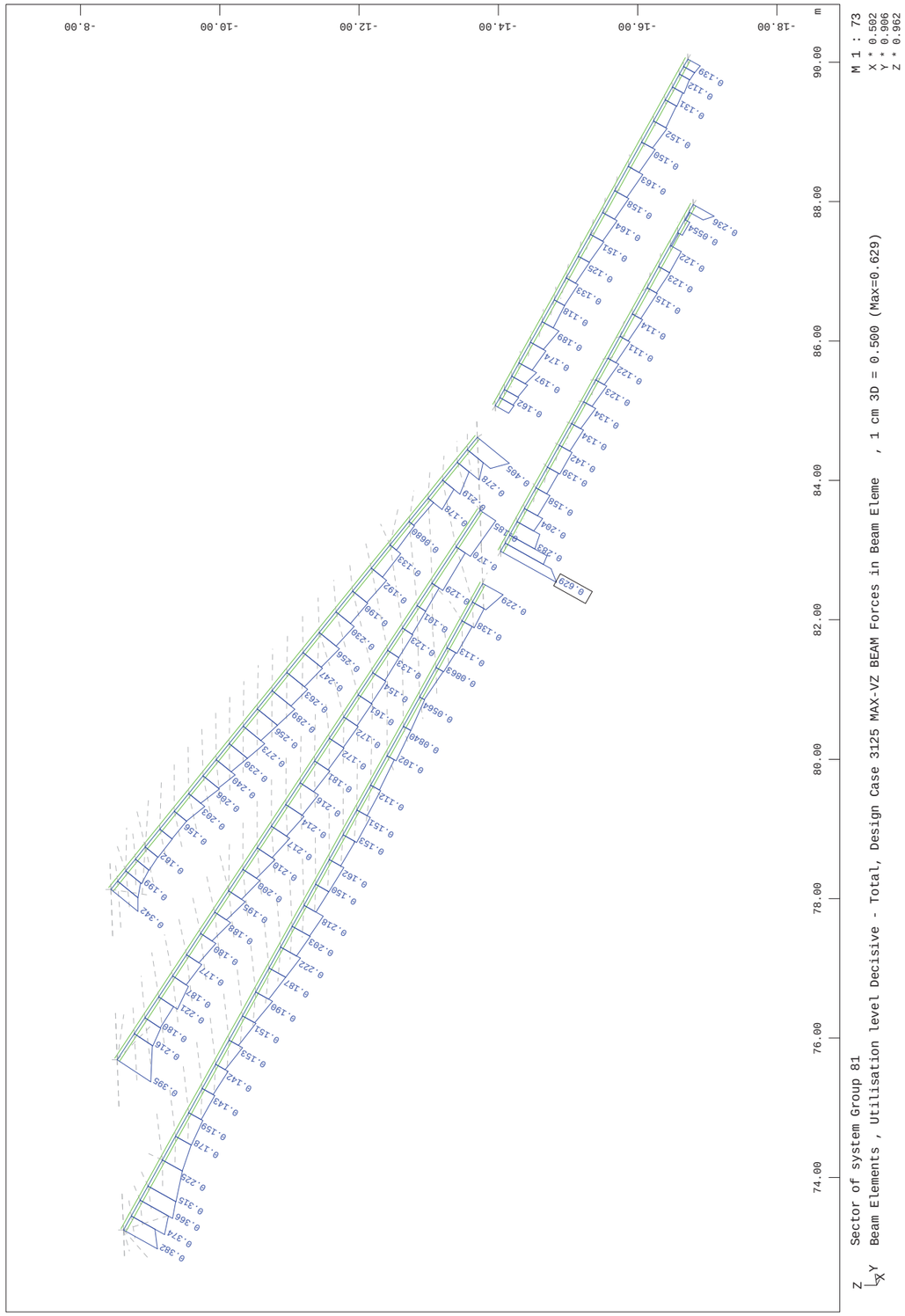

-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 901 GlobalMAX SIGMA , 1 cm 3D = 0.500 (Max=0.791)
Z
Y
X

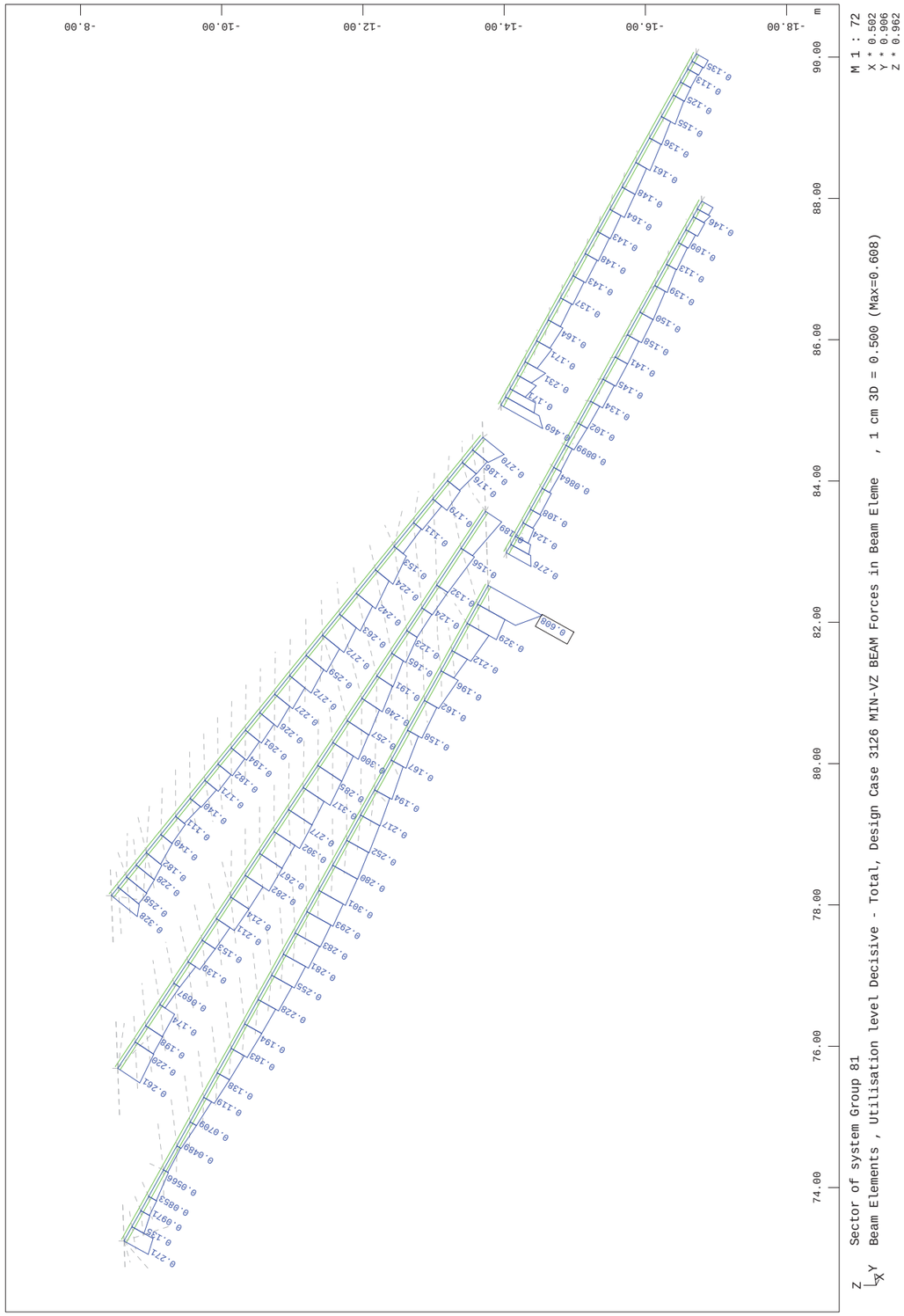

-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3121 MAX-N BEAM Forces in Beam Elemen , 1 cm 3D = 0.200 (Max=0.321)
Z
Y
X

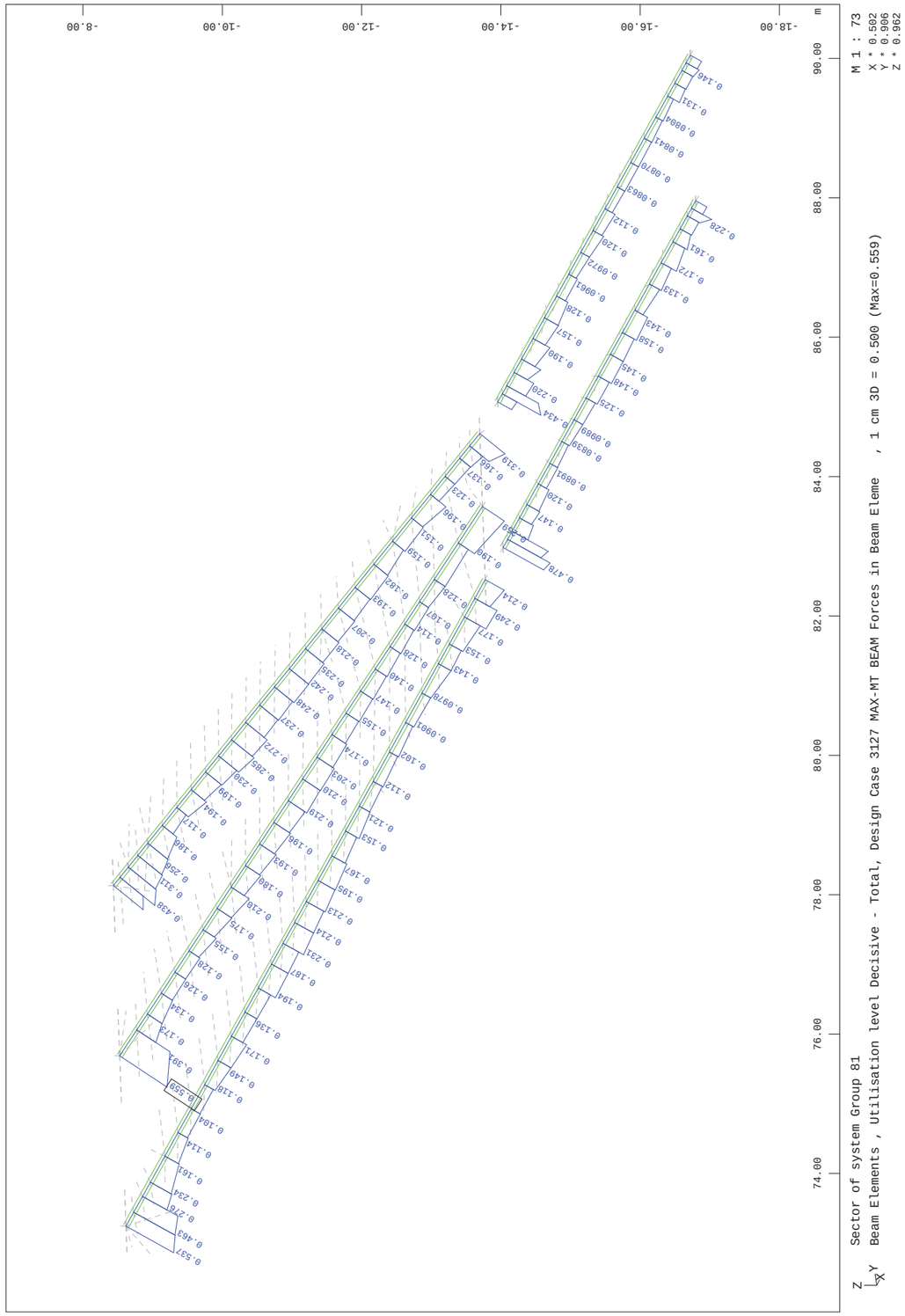

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3122 MIN-N BEAM Forces in Beam Elemen , 1 cm 3D = 0.500 (Max=0.791)
Z
Y
X

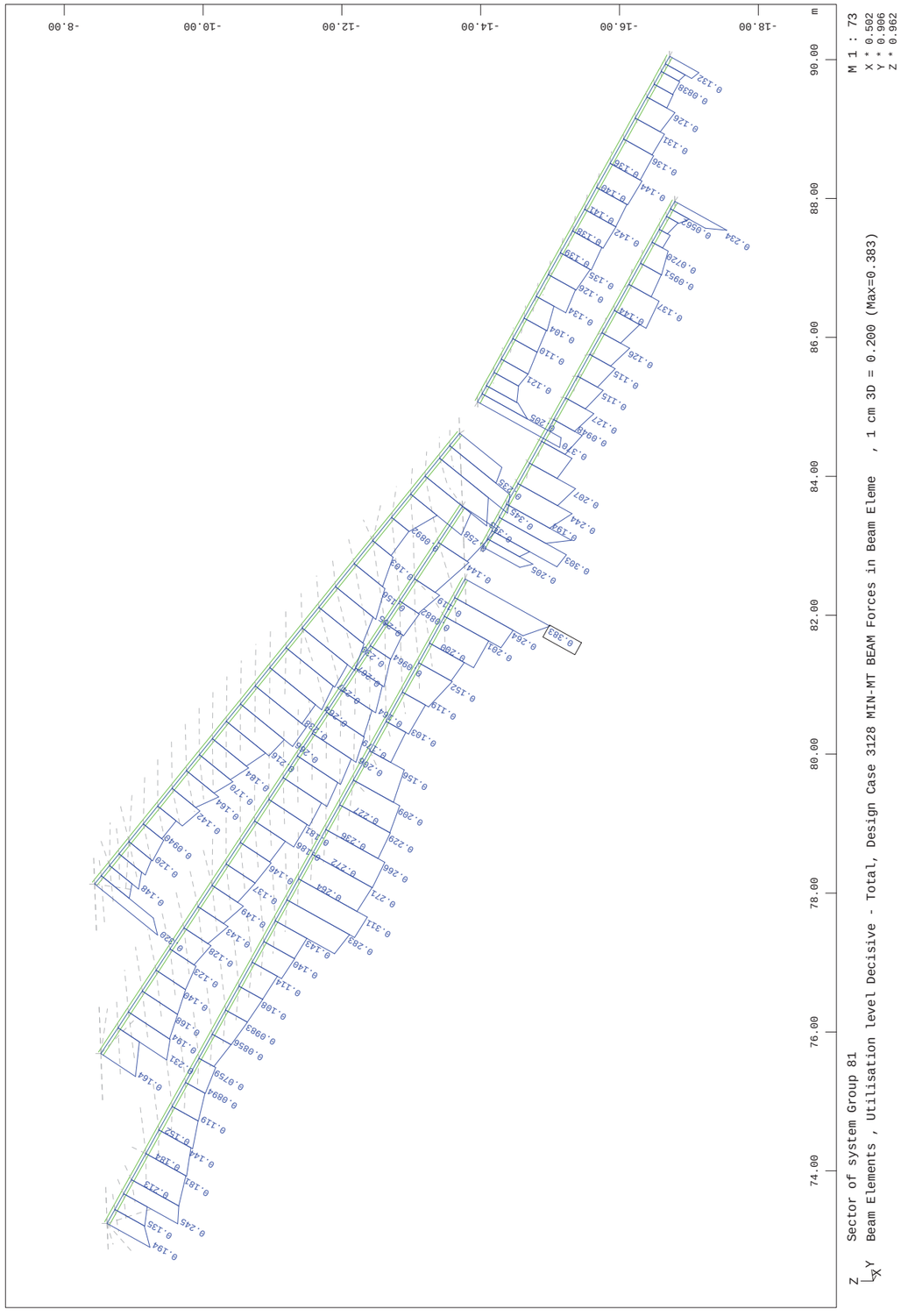

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3123 MAX-VY BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.791)
Z
Y
X

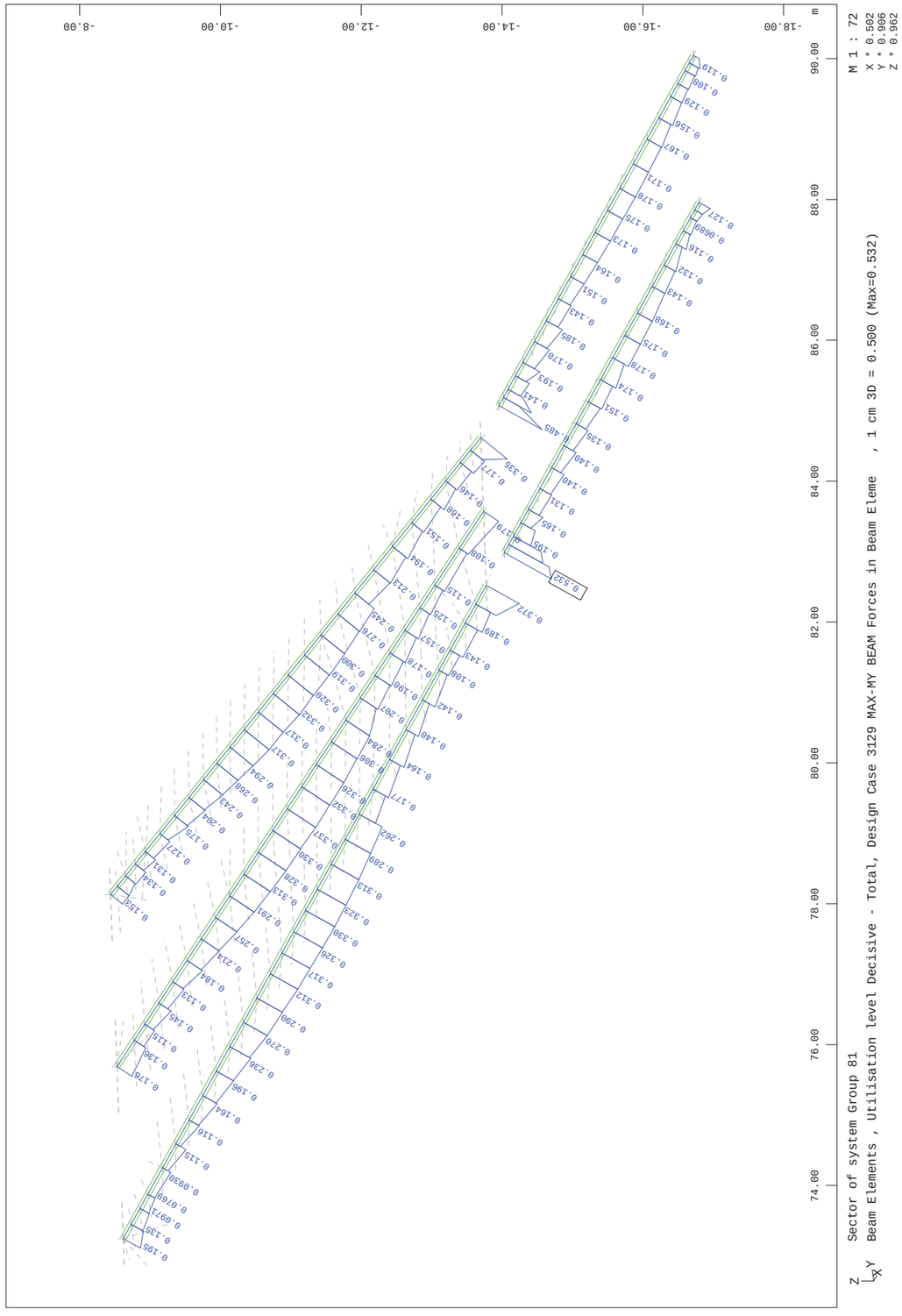

-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3124 MIN-VY BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.691)
Z
Y
X

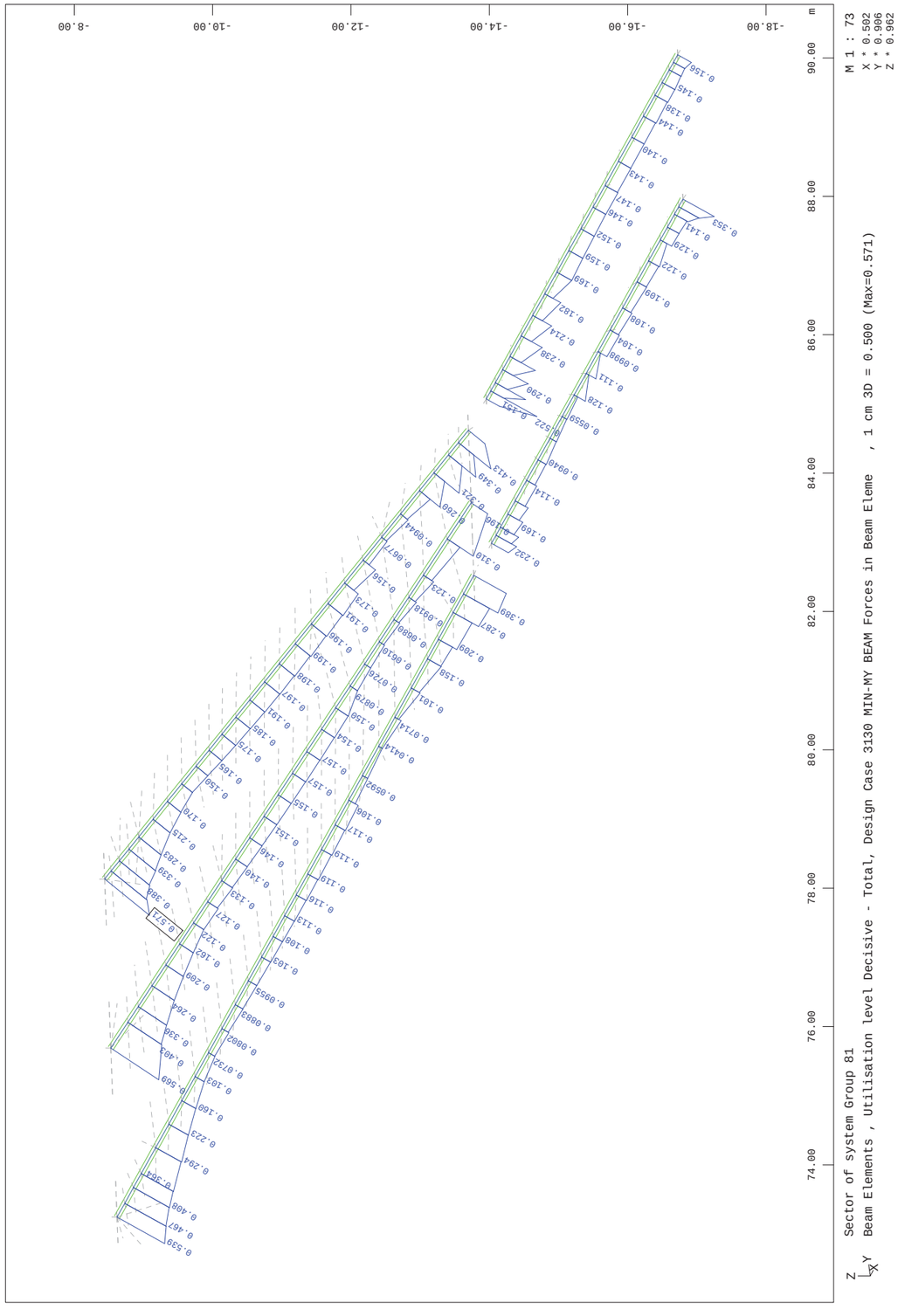

-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3125 MAX-VZ BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.629)
Z
Y
X

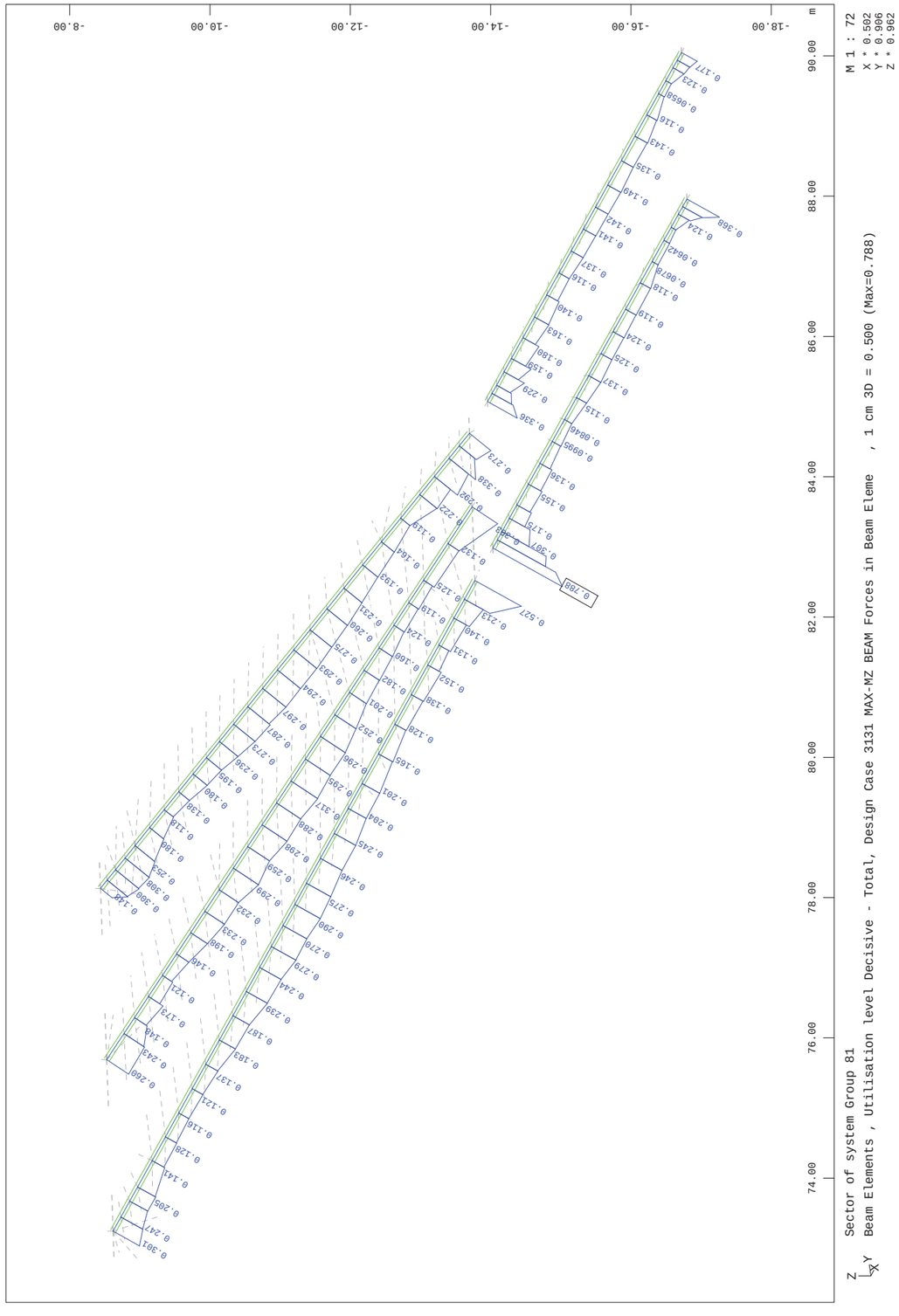

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3126 MIN-VZ BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.608)

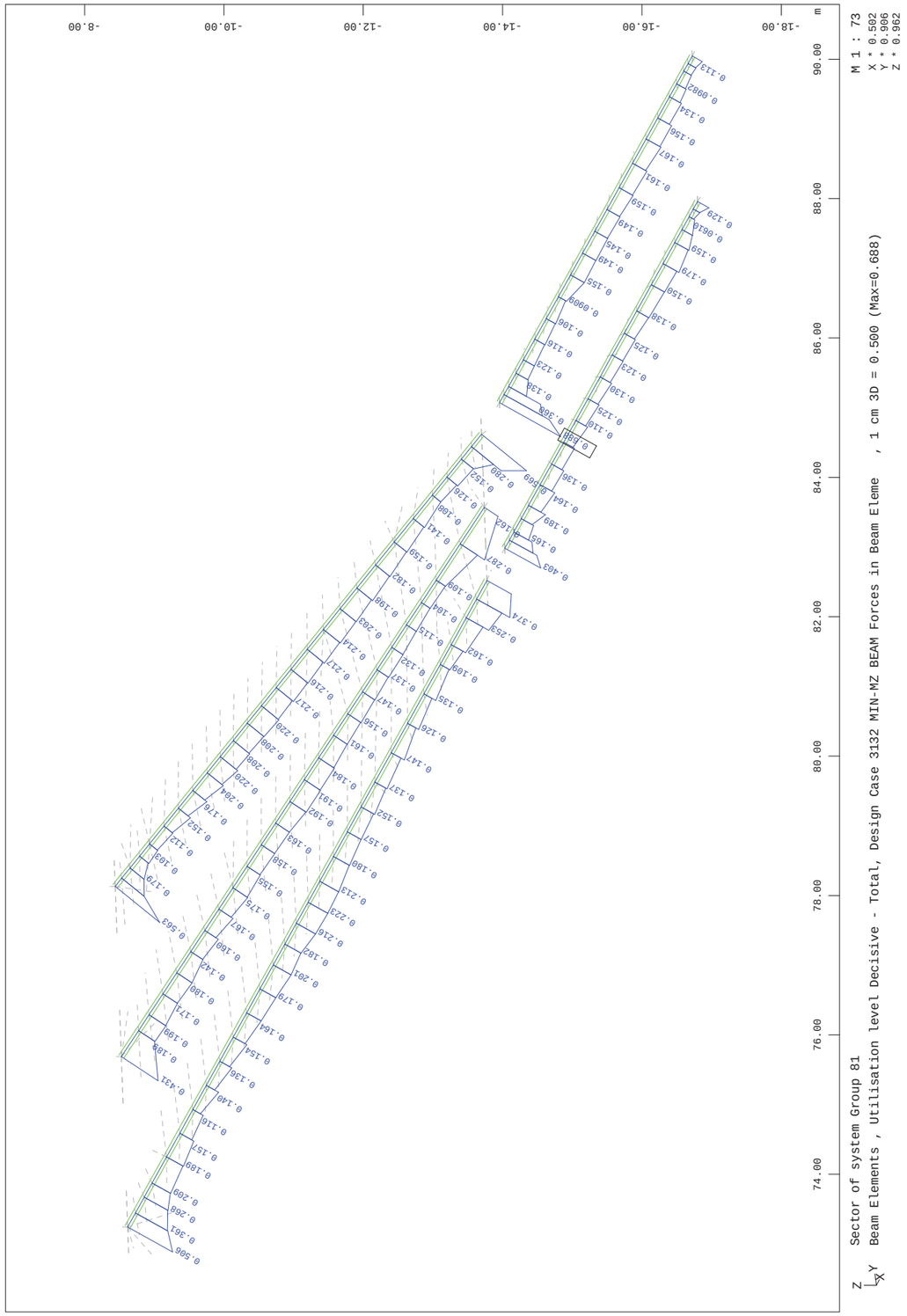

M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3127 MAX-MT BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.559)


-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
Forces in Beam Eleme , 1 cm 3D = 0.200 (Max=0.383)
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3128 MIN-MT BEAM Forces
Z
Y
X


-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.532)
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3129 MAX-MY BEAM Forces
Z
Y
X


M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3130 MIN-MY BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.571)
Z
Y
X


M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3131 MAX-MZ BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.788)
Z
Y
X


M 1 : 73
X * 0.502
Y * 0.906
Z * 0.962
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
MIN-MZ BEAM Forces in Beam Eleme , 1 cm 3D = 0.500 (Max=0.688)
Sector of system Group 81
Beam Elements , Utilisation level Decisive - Total, Design Case 3132
Z
Y
X

CHAPAS DE ANCLAJE

VIGA CANTO 0.80 m

DIMENSIONAMIENTO DE PERNOS Y PLACAS DE ANCLAJE

Características generales del bloque de hormigón

Largo de la zapata: $A := 1600$ $A = 1600$ mm

Ancho de la zapata: $B := 1100$ $B = 1100$ mm

Canto de la zapata: $h := 1000$ $h = 1000$ mm

Resistencia característica del hormigón: $f_{ck} := 30$ $f_{ck} = 30$ N/mm²

Coeficiente de minoración de la resistencia del hormigón: $\gamma_c := 1.5$ $\gamma_c := 1.5$

Resistencia de cálculo del hormigón de la zapata: $f_{cd} := \frac{f_{ck}}{\gamma_c}$ $f_{cd} = 20$ N/mm²

Características generales de la placa de anclaje

Dimensiones de la placa de anclaje: $a := 1000$ $b := 700$

Espesor de la placa de anclaje: $t_p := 70$ $t_p = 70$ mm

Tensión de rotura del acero de la placa: $f_{ub} := 510$ $f_{ub} = 510$ N/mm²

Límite elástico del acero de la placa: $f_{yb} := 355$ $f_{yb} = 355$ N/mm²

Diámetro de los pernos: $\phi_p := 25$ $\phi_p = 25$ mm

Resistencia a la rotura por tracción del perno: $f_{up} := 510$ $f_{up} = 510$ N/mm²

Límite elástico del acero del perno: $f_{yp} := 355$ $f_{yp} = 355$ N/mm²

Distancia del perno al borde de la placa: $g := 75$ $g = 75$ mm

Resistencia portante del hormigón en la unión placa-zapata

$a := 1000$ $a = 1000$ mm

$b := 700$ $b = 700$ mm

$a_r := \frac{A - a}{2}$ $a_r = 300$ mm $b_r := \frac{B - b}{2}$ $b_r = 200$ mm

$a_1 := \text{if}(a + h < a + 2\,a_r, a + h, a + 2\,a_r)$ $a_1 = 1600$

$a_1 := \text{if}(a_1 < 5\,a\ \ a_1, 5\,a)$ $a_1 = 1600$ mm

$b_1 := \text{if}(b + h < b + 2\,b_r, b + h, b + 2\,b_r)$ $b_1 = 1100$

$b_1 := \text{if}(b_1 < 5\,b\ \ b_1, 5\,b)$ $b_1 = 1100$ mm

$K_j := \sqrt{\frac{a_1 \cdot b_1}{a\ b}}$ $K_j = 1.586$

$\beta_j := \frac{2}{3}$

$f_{jd} := \beta_j \cdot K_j \cdot f_{cd}$ $f_{jd} = 21.14$

$f_{jd} := \text{if}(f_{jd} > 3.3\,f_{cd}, 3.3\,f_{cd}, f_{jd})$ $f_{jd} = 21.14$ N/mm²

Hipótesis de carga en E.L.U

Número de casos de carga: $N := 4$

(Dimensiones kN, m)

$i := 1 .. N$

i	$Vx_i :=$	$Vy_i :=$	$Nd_i :=$	$Mx_i :=$	$My_i :=$
1	559	0	-331.2	527.9	0
2	559	0	2906	1267	0
3	0	0	0	0	0
4	0	0	0	0	0

$i := 1 .. N$

$Md_i := \sqrt{(Mx_i)^2 + (My_i)^2}$ $Vd_i := \sqrt{(Vx_i)^2 + (Vy_i)^2}$ $e_i := \frac{Md_i}{Nd_i} \cdot 1000$

$\frac{a}{6} = 166.67$ mm $0.375\ a = 375$ mm

$k1_i := \frac{e_i}{\left(\frac{a}{6}\right)}$ $k2_i := \frac{e_i}{0.375\ a}$

i	Vd_i	Md_i	Nd_i	e_i	$k1_i$	$k2_i$
1	559	527.9	-331.2	-1593.9	-9.56	-4.25
2	559	1267	2906	435.99	2.62	1.16
3	0	0	0	0	0	0
4	0	0	0	0	0	0

kN kN.m kN mm

1.- PRIMER GRUPO: |e| < 0.375.a (|k2| < 1)

1-1) e < 0.375a (|k2| < 1 y k2 > 0): Axiles de compresión

$i := 1 .. N$ $Nd_i := Nd_i \cdot 10^3$ $Md_i := Md_i \cdot 10^6$

$x11_i := 3 \cdot \left(\frac{a}{2} - e_i\right)$

$\sigma bd11_i := \frac{2\ Nd_i}{b\ x11_i}$

$Z11d_i := 0$

1-2) |e| < 0.375a (|k2| < 1 y k2 < 0): Axiles de tracción

1.2.1) x > a/4

$i := 1 .. N$

$x121_i := \frac{3\ (a - g) - \sqrt{9\ (a - g)^2 - \frac{24\ Md_i}{b\ f_{jd}}}}{2}$

$\sigma bd121_i := f_{cd}$

$Z121d_i := -\frac{Nd_i}{3} + \frac{Md_i}{\left(a - g - \frac{x121_i}{3}\right)}$

$Vc121_i := \frac{1}{2} \cdot \sigma bd121_i \cdot b\ x121_i$

$Vc121_i := if\left(Vc121_i < -\frac{Nd_i}{3}, 0\ \ Vc121_i\right)$

$\sigma bd121_i := if\left(Vc121_i > 0, \sigma bd121_i, 0\right)$

$Z121aux_i := -\frac{Nd_i}{3} + \frac{Md_i}{(a - 2\ g)}$

$Z121d_i := if\left(Vc121_i > 0\ \ Z121d_i, Z121aux_i\right)$

1.2.2) x < a/4

$$x122_i := \text{if}\left(x121_i < \frac{a}{4}, \frac{a}{4}, x121_i\right)$$

$$\sigma\,bdaux_i := \frac{4\,Md_i}{a\,b\,(0.875\,a - g)}$$

$$\sigma\,bd122_i := \text{if}\left(x122_i < \frac{a}{4}, \sigma\,bdaux_i, \sigma\,bd121_i\right)$$

$$Vc122_i := \frac{a}{4}\cdot b\cdot \sigma\,bd122_i$$

$$Vc122_i := \text{if}\left(x122_i < \frac{a}{4}, Vc122_i, Vc121_i\right)$$

$$Vc122_i := \text{if}\left(Vc122_i < -\frac{Nd_i}{3}, 0\ \ Vc122_i\right)$$

$$\sigma\,bd122_i := \text{if}\left(Vc122_i > 0, \sigma\,bd122_i, 0\right)$$

$$Z122d_i := -\frac{Nd_i}{3} + \frac{Md_i}{0.875\,a - g}$$

$$Z122aux_i := -\frac{Nd_i}{3} + \frac{Md_i}{(a - 2\,g)}$$

$$Z122d_i := \text{if}\left(Vc122_i > 0\ \ Z122d_i, Z122aux_i\right)$$

Definición en función de x > a/4 ó x < a/4

$$x12_i := \text{if}\left(x122_i > \frac{a}{4}, x121_i, x122_i\right)$$

$$\sigma\,bd12_i := \text{if}\left(x12_i > \frac{a}{4}, \sigma\,bd121_i, \sigma\,bd122_i\right)$$

$$Z12d_i := \text{if}\left(x12_i > \frac{a}{4}, Z121d_i, Z122d_i\right)$$

Definición en función de k2 > 0 ó k2 < 0

$$x1_i := \text{if}\left(k2_i > 0\ \ x11_i, x12_i\right)$$

$$\sigma\,bd1_i := \text{if}\left(k2_i > 0, \sigma\,bd11_i, \sigma\,bd12_i\right)$$

$$Z1d_i := \text{if}\left(k2_i > 0\ \ Z11d_i, Z12d_i\right)$$

$$x1_i := \text{if}\left(\sigma\,bd1_i > 0\ \ x1_i, 0\right)$$

2.- SEGUNDO GRUPO: Iel > 0.375.a (Ik2I > 1)

2-1) e > 0.375a (Ik2I > 1 y k2 > 0): Axiles de compresión

$i := 1 .. N$

$x21_i := \frac{a}{4}$

$\sigma_{bd21_i} := \frac{4 \cdot \left[Md_i + Nd_i \cdot \left(\frac{a}{2} - g \right) \right]}{a\ b\ (0.875\ a - g)}$

$Z21d_i := -Nd_i + \frac{Md_i + Nd_i \cdot \left(\frac{a}{2} - g \right)}{0.875\ a - g}$

2-2) Iel > 0.375a (Ik2I < 1 y k2 < 0): Axiles de tracción

$x22_i := \frac{a}{4}$

$\sigma_{bd22_i} := \frac{4\ Md_i}{a\ b\ (0.875\ a - g)}$

$Z22d_i := -\frac{Nd_i}{3} + \frac{Md_i}{0.875\ a - g}$

$Vc22_i := \frac{a}{4} \cdot b \cdot \sigma_{bd22_i}$

$Vc22_i := if\left(Vc122_i < -\frac{Nd_i}{3}, 0\ \ Vc22_i \right)$

$\sigma_{bd22_i} := if\left(Vc22_i > 0, \sigma_{bd122_i}, 0 \right)$

$Z22aux_i := -\frac{Nd_i}{3} + \frac{Md_i}{(a - 2\ g)}$

$Z22d_i := if\left(Vc22_i > 0\ \ Z22d_i, Z22aux_i \right)$

Definición en función de k2 > 0 ó k2 < 0

$x2_i := if\left(k2_i > 0\ \ x21_i, x22_i \right)$

$\sigma_{bd2_i} := if\left(k2_i > 0, \sigma_{bd21_i}, \sigma_{bd22_i} \right)$

$Z2d_i := if\left(k2_i > 0\ \ Z21d_i, Z22d_i \right)$

$x2_i := if\left(\sigma_{bd2_i} > 0\ \ x2_i, 0 \right)$

ELECCIÓN ENTRE PRIMER GRUPO (Ik2I < 1) O SEGUNDO GRUPO (Ik2I > 1)

$i := 1 .. N$

$x_i := if\left(\left|k2_i\right| < 1 \;\; x1_i , x2_i\right)$

$\sigma_{bd_i} := if\left(\left|k2_i\right| < 1 , \sigma_{bd1_i} , \sigma_{bd2_i}\right)$

$Zd_i := if\left(\left|k2_i\right| < 1 \;\; Z1d_i , Z2d_i\right)$

Tensión de cálculo del hormigón

$i := 1 .. N$

i	x_i	$\frac{x_i}{a}$	σ_{bd_i}	$\frac{\sigma_{bd_i}}{f_{jd}}$
1	250	0.25	20	0.95
2	250	0.25	17.87	0.85
3	0	0	0	0
4	0	0	0	0

mm | N/mm²

< 1 (CUMPLE)

Tracción en los pernos de anclaje y número necesario de pernos

$i := 1 .. N$ $\quad Zd_i := Zd_i \cdot 10^{-3}$ kN

Capacidad en tracción de un perno:

Área resistente de la rosca: $A_s := 491$ $\quad A_s = 491$ mm2

Resistencia a la rotura por tracción del perno: $\quad f_{up} = 510$ N/mm²

Coeficiente de minoración: $\gamma_{M2} := 1.25$ $\quad \gamma_{M2} = 1.25$

Esfuerzo de rotura de un perno: $T_{pd} := \frac{0.9 \, f_{up} \cdot A_s}{\gamma_{M2}} \cdot 10^{-3}$ $\quad T_{pd} = 180.3$ kN

Número de pernos necesarios en la zona de tracción: $n_i := \frac{Zd_i}{T_{pd}}$

i	Zd_i	n_i
1	770.27	4.27
2	221.56	1.23
3	0	0
4	0	0

kN

Se necesitan n = 5 pernos en la zona de tracción

$n_P := 9$ $\quad n_P = 9$ pernos

Comprobación de los pernos a cortante

$i := 1..N$ $Nd_i := Nd_i \cdot 10^{-3}$ kN

Resistencia a cortante de un perno: $F_{vb,Rd}$

a) Resistencia del perno a simple cortadura:

$$F_{vb1} := \frac{0.5\, f_{up} \cdot A_s}{\gamma_{M2}} \cdot 10^{-3} \qquad F_{vb1} = 100.16 \text{ kN}$$

b) $\alpha_b := 0.44 - 0.0003\, f_{yp}$ $\alpha_b = 0.33$

$$F_{vb2} := \frac{\alpha_b \cdot f_{up} \cdot A_s}{\gamma_{M2}} \cdot 10^{-3} \qquad F_{vb2} = 66.81 \text{ kN}$$

$F_{vbd} := \text{if}\left(F_{vb1} > F_{vb2}, F_{vb2}, F_{vb1}\right)$ $F_{vbd} = 66.81$ kN

Rozamiento placa-hormigón

$i := 1..N$

$C_{fd} := 0.0$ $C_{fd} = 0$

$F_{fd_i} := C_{fd} \cdot Nd_i$

Número total de pernos necesario:

$i := 1..N$

$$NP_i := \frac{Vd_i - F_{fd_i}}{F_{vbd}}$$

$NP_i := \text{if}\left(NP_i < 0 \;\; 0 \;\; NP_i\right)$

i	Nd_i	Vd_i	NP_i
1	-331.2	559	8.37
2	2906	559	8.37
3	0	0	0
4	0	0	0

kN kN

Se necesitan NP = 9 pernos por cortante

Número de pernos por cortante: $N_{Pc} := 11$

Número total de pernos dispuestos : $NT_P := 13$

Longitud de anclaje necesaria

Número de pernos necesarios por tracción : $n_P = 9$ pernos

Tracción máxima :

$Z_{max} := 0$

$i := 1..N$

$Z_{max} := \max(Zd^T)$ $Z_{max} = 770.27$ kN

Tracción máxima por perno :

$T_{max} := \frac{Z_{max}}{n_P}$ $T_{max} = 85.59$ kN

n1 := 1 Adherencia buena

n2 := 1 Barras de diámetro menor o igual que 32 mm

$\alpha := 1$

$\gamma := 1.5$

$fctk := 0.21 \cdot \sqrt[3]{f_{ck}^2}$ fctk = 2.03 N/mm2

$fctd := \alpha \cdot \frac{fctk}{\gamma}$ fctd = 1.35 N/mm2

$\tau := 2.25\ n1\ n2\ fctd$ $\tau = 3.04$ N/mm2

Longitud básica de anclaje :

$L_b := \frac{f_{yp} \cdot A_s}{\pi \phi_p \cdot \tau}$ $L_b = 729.73$ mm

Se necesita una longitud mínima de anclaje recta de $L_a = 730$ mm

COMPROBACIÓN DE LA PLACA DE ANCLAJE

$i := 1..N$

Distancia media máx. entre chapas de cajón de pila : $d_c := 247$ $d_c = 247$ mm

Número de cartelas en la zona de compresión:

$N_{c1} := \frac{b}{d_c} - 2$ $N_{c1} = 0.83$ $N_c := 4$

Espesor de las cartelas: $t_c := 20$ $t_c = 20$ mm

1) Espesor de la placa base en función de la presión en el hormigón en toda la zona comprimida

Tensión de compresión máxima en el hormigón:

$\sigma_{bdmax} := \max(\sigma_{bd}^T)$ $\sigma_{bdmax} = 20$ N/mm²

Carga de diseño para una franja de placa de 1 mm de ancho:

$q_p := \sigma_{bdmax} \cdot 1$ $q_p = 20$ N/mm

Momento de diseño:

$M_{pd1} := 0.125\ q_p \cdot d_c^2$ $M_{pd1} = 1.53 \cdot 10^5$ N.mm

Coeficiente parcial de seguridad: $\gamma_{M0} := 1.05$

Espesor de placa necesario:

$t_1 := \sqrt{\frac{6\ M_{pd1} \cdot \gamma_{M0}}{1\ f_{yb}}}$ $t_1 = 52.03$ mm

3) Espesor de la placa base en función de la tracción en el anclaje

Distancia del perno al paramento del pilar: $a_p := 75$ → $a_p = 75$ mm

Distancia del perno al borde de la placa: $g = 75$ mm

Longitud libre de placa: $L_p := a_p + g$ → $L_p = 150$ mm

Ángulo de apertura de las tensiones:

$$\alpha := \frac{\pi}{3}\cdot\left(1 - \frac{a_p}{4\,L_p}\right)$$ → $\alpha = 0.916$ rad

Ancho eficaz:

$b_{ef} := 2\,a_p\cdot\tan(\alpha)$ → $b_{ef} = 195.48$

$b_{ef} := if\left(b_{ef} > d_c, d_c, b_{ef}\right)$ → $b_{ef} = 195.48$ mm

Momento de diseño:

$$M_{pd2} := T_{max}\cdot 10^3\cdot\frac{a_p}{b_{ef}}$$ → $M_{pd2} = 32836.27$ N.mm/mm

Espesor de placa necesario:

$$t_3 := \sqrt{\frac{6\,M_{pd2}\cdot\gamma_{M0}}{1\,f_{yb}}}$$

Espesor de placa necesario por tracción en el anclaje: $t_3 = 24.14$ mm

Espesor mínimo de placa necesario

$t_{pnec} := if\left(t_{cpnec} > t_3, t_{cpnec}, t_3\right)$ → $t_{pnec} = 52.03$ mm

Espesor de placa adoptado :

Se adopta un espesor de placa $t_p = 70$ mm > $t_{pnec} = 52.03$ mm

COMPROBACIÓN DE LAS CARTELAS

Longitud de la cartela : $L_c := 300$ → $L_c = 300$ mm

Altura de la cartela : $h_c := 225$ → $h_c = 225$ mm

Ángulo de la cartela con la horizontal :

$\beta := \frac{\pi}{2}$ → $\beta = 1.57$ rad

Brazo de la cartela: $b_c := L_c \cdot \sin(\beta)$ → $b_c = 300$ mm

1) Comprobación de la plastificación de la cartela

Resultante de las tensiones de compresión que recibe la cartela:

$R_{cd} := \sigma_{bdmax} \cdot \frac{b}{2} \cdot x_c \cdot \frac{1}{N_c} \cdot 10^{-3}$ → $R_{cd} = 582.75$ kN

Excentricidad de la resultante de compresiones:

$ex_c := L_c - \frac{x_c}{2}$ → $ex_c = 133.5$ mm

Límite elástico del acero de la cartela: $f_{yc} := 355$ N/mm²

Momento de agotamiento de la sección:

$M_c := t_c \cdot b_c^2 \cdot f_{yc} \cdot 10^{-3}$ → $M_c = 6.39 \cdot 10^5$ kN mm

Módulo de elasticidad del acero : $E := 210000$ N/mm²

Parámetro λ :

$\lambda := 2.53 \cdot \frac{b_c}{\pi \cdot t_c} \cdot \sqrt{\frac{f_{yc}}{E}}$ → $\lambda = 0.5$

Coeficiente de escuadra :

$C_E := 0.14 \cdot \lambda^2 - 1.07 \cdot \lambda + 2.3$ → $C_E = 1.8$

Comprobación :

$R_{cd} \cdot ex_c = 77797.13$ kN.mm

$C_E \cdot M_c = 1.15 \cdot 10^6$ kN.mm

Coeficiente de seguridad por plastificación :

$Seg := \frac{C_E \cdot M_c}{R_{cd} \cdot ex_c}$ → $Seg = 14.81 > 1$ CUMPLE

1) Comprobación de la abolladura de la cartela

Esbeltez de la cartela: $\lambda_c := \frac{L_c}{t_c}$ → $\lambda_c = 15$

Factor de forma de la cartela: $F_{fc} := \frac{L_c}{h_c}$ → $F_{fc} = 1.33$

Coeficiente 1: $C_{c1} := \frac{474}{\sqrt{f_{yc}}}$ → $C_{c1} = 25.16$

Coeficiente 2: $C_{c2} := \frac{158 + 316 \, F_{fc}}{\sqrt{f_{yc}}}$ → $C_{c2} = 30.75$

Coeficiente de seguridad :

$C_c := \text{if}(F_{fc} < 1 \; C_{c1}, C_{c2})$ → $C_c = 30.75$

Se cuple la condición de estabilidad: $C_c = 30.75 > \lambda_c = 15$

VIGA CANTO 1.0 m

DIMENSIONAMIENTO DE PERNOS Y PLACAS DE ANCLAJE

Características generales del bloque de hormigón

Largo del bloque de horm.: $A := 1600$ $A = 1600$ mm

Ancho del bloque de horm.: $B := 1200$ $B = 1200$ mm

Canto del bloque de horm: $h := 1500$ $h = 1500$ mm

Resistencia característica del hormigón: $f_{ck} := 30$ $f_{ck} = 30$ N/mm²

Coeficiente de minoración de la resistencia del hormigón: $\gamma_c := 1.5$ $\gamma_c := 1.5$

Resistencia de cálculo del hormigón de la zapata: $f_{cd} := \frac{f_{ck}}{\gamma_c}$ $f_{cd} = 20$ N/mm²

Características generales de la placa de anclaje

Dimensiones de la placa de anclaje: $a := 1200$ $b := 700$

Espesor de la placa de anclaje: $t_p := 70$ $t_p = 70$ mm

Tensión de rotura del acero de la placa: $f_{ub} := 510$ $f_{ub} = 510$ N/mm²

Límite elástico del acero de la placa: $f_{yb} := 355$ $f_{yb} = 355$ N/mm²

Diámetro de los pernos: $\phi_p := 25$ $\phi_p = 25$ mm

Resistencia a la rotura por tracción del perno: $f_{up} := 510$ $f_{up} = 510$ N/mm²

Límite elástico del acero del perno: $f_{yp} := 355$ $f_{yp} = 355$ N/mm²

Distancia del perno al borde de la placa: $g := 75$ $g = 75$ mm

Resistencia portante del hormigón en la unión placa-zapata

$a := 1200$ $a = 1200$ mm

$b := 700$ $b = 700$ mm

$a_r := \frac{A - a}{2}$ $a_r = 200$ mm $b_r := \frac{B - b}{2}$ $b_r = 250$ mm

$a_1 := if(a + h < a + 2\,a_r, a + h, a + 2\,a_r)$ $a_1 = 1600$

$a_1 := if(a_1 < 5\,a\ \ a_1, 5\,a)$ $a_1 = 1600$ mm

$b_1 := if(b + h < b + 2\,b_r, b + h, b + 2\,b_r)$ $b_1 = 1200$

$b_1 := if(b_1 < 5\,b\ \ b_1, 5\,b)$ $b_1 = 1200$ mm

$K_j := \sqrt{\frac{a_1 \cdot b_1}{a\ b}}$ $K_j = 1.512$

$\beta_j := \frac{2}{3}$

$f_{jd} := \beta_j \cdot K_j \cdot f_{cd}$ $f_{jd} = 20.16$

$f_{jd} := if(f_{jd} > 3.3\,f_{cd}, 3.3\,f_{cd}, f_{jd})$ $f_{jd} = 20.16$ N/mm²

Hipótesis de carga en E.L.U

Número de casos de carga: $N := 4$

(Dimensiones kN, m)

$i := 1 .. N$

i	$Vx_i :=$	$Vy_i :=$	$Nd_i :=$	$Mx_i :=$	$My_i :=$
1	705	0	-930.9	607.4	0
2	705	0	946.7	1507	0
3	0	0	0	0	0
4	0	0	0	0	0

$i := 1 .. N$

$Md_i := \sqrt{(Mx_i)^2 + (My_i)^2}$ $Vd_i := \sqrt{(Vx_i)^2 + (Vy_i)^2}$ $e_i := \frac{Md_i}{Nd_i} \cdot 1000$

$\frac{a}{6} = 200$ mm $0.375\ a = 450$ mm

$k1_i := \frac{e_i}{\left(\frac{a}{6}\right)}$ $k2_i := \frac{e_i}{0.375\ a}$

i	Vd_i	Md_i	Nd_i	e_i	$k1_i$	$k2_i$
1	705	607.4	-930.9	-652.49	-3.26	-1.45
2	705	1507	946.7	1591.85	7.96	3.54
3	0	0	0	0	0	0
4	0	0	0	0	0	0

kN kN.m kN mm

1.- PRIMER GRUPO: |e| < 0.375.a (|k2| < 1)

1-1) e < 0.375a (|k2| < 1 y k2 > 0): Axiles de compresión

$i := 1 .. N$ $Nd_i := Nd_i \cdot 10^3$ $Md_i := Md_i \cdot 10^6$

$x11_i := 3 \cdot \left(\frac{a}{2} - e_i\right)$

$\sigma bd11_i := \frac{2\ Nd_i}{b\ x11_i}$

$Z11d_i := 0$

1-2) |e| < 0.375a (|k2| < 1 y k2 < 0): Axiles de tracción

1.2.1) x > a/4

$i := 1 .. N$

$x121_i := \frac{3\ (a - g) - \sqrt{9\ (a - g)^2 - \frac{24\ Md_i}{b\ f_{jd}}}}{2}$

$\sigma bd121_i := f_{cd}$

$Z121d_i := -\frac{Nd_i}{3} + \frac{Md_i}{\left(a - g - \frac{x121_i}{3}\right)}$

$Vc121_i := \frac{1}{2} \cdot \sigma bd121_i \cdot b\ x121_i$

$Vc121_i := if\left(Vc121_i < -\frac{Nd_i}{3}, 0\ \ Vc121_i\right)$

$\sigma bd121_i := if\left(Vc121_i > 0, \sigma bd121_i, 0\right)$

$Z121aux_i := -\frac{Nd_i}{3} + \frac{Md_i}{(a - 2\ g)}$

$Z121d_i := if\left(Vc121_i > 0\ \ Z121d_i, Z121aux_i\right)$

1.2.2) x < a/4

$$x122_i := \text{if}\left(x121_i < \frac{a}{4}, \frac{a}{4}, x121_i\right)$$

$$\sigma\,bdaux_i := \frac{4\,Md_i}{a\,b\,(0.875\,a - g)}$$

$$\sigma\,bd122_i := \text{if}\left(x122_i < \frac{a}{4}, \sigma\,bdaux_i, \sigma\,bd121_i\right)$$

$$Vc122_i := \frac{a}{4}\cdot b\cdot \sigma\,bd122_i$$

$$Vc122_i := \text{if}\left(x122_i < \frac{a}{4}, Vc122_i, Vc121_i\right)$$

$$Vc122_i := \text{if}\left(Vc122_i < -\frac{Nd_i}{3}, 0\ \ Vc122_i\right)$$

$$\sigma\,bd122_i := \text{if}\left(Vc122_i > 0, \sigma\,bd122_i, 0\right)$$

$$Z122d_i := -\frac{Nd_i}{3} + \frac{Md_i}{0.875\,a - g}$$

$$Z122aux_i := -\frac{Nd_i}{3} + \frac{Md_i}{(a - 2\,g)}$$

$$Z122d_i := \text{if}\left(Vc122_i > 0\ \ Z122d_i, Z122aux_i\right)$$

Definición en función de x > a/4 ó x < a/4

$$x12_i := \text{if}\left(x122_i > \frac{a}{4}, x121_i, x122_i\right)$$

$$\sigma\,bd12_i := \text{if}\left(x12_i > \frac{a}{4}, \sigma\,bd121_i, \sigma\,bd122_i\right)$$

$$Z12d_i := \text{if}\left(x12_i > \frac{a}{4}, Z121d_i, Z122d_i\right)$$

Definición en función de k2 > 0 ó k2 < 0

$$x1_i := \text{if}\left(k2_i > 0\ \ x11_i, x12_i\right)$$

$$\sigma\,bd1_i := \text{if}\left(k2_i > 0, \sigma\,bd11_i, \sigma\,bd12_i\right)$$

$$Z1d_i := \text{if}\left(k2_i > 0\ \ Z11d_i, Z12d_i\right)$$

$$x1_i := \text{if}\left(\sigma\,bd1_i > 0\ \ x1_i, 0\right)$$

2.- SEGUNDO GRUPO: Iel > 0.375.a (Ik2l > 1)

2-1) e > 0.375a (Ik2l > 1 y k2 > 0): Axiles de compresión

$i := 1 .. N$

$x21_i := \frac{a}{4}$

$\sigma_{bd21_i} := \frac{4 \cdot \left[Md_i + Nd_i \cdot \left(\frac{a}{2} - g \right) \right]}{a\ b\ (0.875\ a - g)}$

$Z21d_i := -Nd_i + \frac{Md_i + Nd_i \cdot \left(\frac{a}{2} - g \right)}{0.875\ a - g}$

2-2) Iel > 0.375a (Ik2l < 1 y k2 < 0): Axiles de tracción

$x22_i := \frac{a}{4}$

$\sigma_{bd22_i} := \frac{4\ Md_i}{a\ b\ (0.875\ a - g)}$

$Z22d_i := -\frac{Nd_i}{3} + \frac{Md_i}{0.875\ a - g}$

$Vc22_i := \frac{a}{4} \cdot b \cdot \sigma_{bd22_i}$

$Vc22_i := if\left(Vc122_i < -\frac{Nd_i}{3}, 0\ \ Vc22_i \right)$

$\sigma_{bd22_i} := if\left(Vc22_i > 0, \sigma_{bd122_i}, 0 \right)$

$Z22aux_i := -\frac{Nd_i}{3} + \frac{Md_i}{(a - 2\ g)}$

$Z22d_i := if\left(Vc22_i > 0\ \ Z22d_i, Z22aux_i \right)$

Definición en función de k2 > 0 ó k2 < 0

$x2_i := if\left(k2_i > 0\ \ x21_i, x22_i \right)$

$\sigma_{bd2_i} := if\left(k2_i > 0, \sigma_{bd21_i}, \sigma_{bd22_i} \right)$

$Z2d_i := if\left(k2_i > 0\ \ Z21d_i, Z22d_i \right)$

$x2_i := if\left(\sigma_{bd2_i} > 0\ \ x2_i, 0 \right)$

ELECCIÓN ENTRE PRIMER GRUPO (Ik2I < 1) O SEGUNDO GRUPO (Ik2I > 1)

$i := 1..N$

$x_i := if(|k2_i| < 1 \;\; x1_i, x2_i)$

$\sigma_{bd_i} := if(|k2_i| < 1, \sigma_{bd1_i}, \sigma_{bd2_i})$

$Zd_i := if(|k2_i| < 1 \;\; Z1d_i, Z2d_i)$

Tensión de cálculo del hormigón

$i := 1..N$

i	x_i	$\frac{x_i}{a}$	σ_{bd_i}	$\frac{\sigma_{bd_i}}{f_{jd}}$	
1	300	0.25	20	0.99	
2	300	0.25	9.79	0.49	
3	0	0	0	0	
4	0	0	0	0	
	mm		N/mm²		< 1 (CUMPLE)

Tracción en los pernos de anclaje y número necesario de pernos

$i := 1..N$ $\quad Zd_i := Zd_i \cdot 10^{-3}$ kN

Capacidad en tracción de un perno:

Área resistente de la rosca: $A_s := 491$ $\quad A_s = 491$ mm2

Resistencia a la rotura por tracción del perno: $\quad f_{up} = 510$ N/mm²

Coeficiente de minoración: $\gamma_{M2} := 1.25$ $\quad \gamma_{M2} = 1.25$

Esfuerzo de rotura de un perno: $T_{pd} := \frac{0.9 \, f_{up} \cdot A_s}{\gamma_{M2}} \cdot 10^{-3}$ $\quad T_{pd} = 180.3$ kN

Número de pernos necesarios en la zona de tracción: $n_i := \frac{Zd_i}{T_{pd}}$

i	Zd_i	n_i
1	933.27	5.18
2	1108.7	6.15
3	0	0
4	0	0
	kN	

Se necesitan n = 7 pernos en la zona de tracción

$n_P := 9$ $\quad n_P = 9$ pernos

Comprobación de los pernos a cortante

$i := 1 .. N$ $Nd_i := Nd_i \cdot 10^{-3}$ kN

Resistencia a cortante de un perno: $F_{vb,Rd}$

a) Resistencia del perno a simple cortadura:

$$F_{vb1} := \frac{0.5\, f_{up} \cdot A_s}{\gamma_{M2}} \cdot 10^{-3} \qquad F_{vb1} = 100.16 \text{ kN}$$

b) $\alpha_b := 0.44 - 0.0003\, f_{yp}$ $\alpha_b = 0.33$

$$F_{vb2} := \frac{\alpha_b \cdot f_{up} \cdot A_s}{\gamma_{M2}} \cdot 10^{-3} \qquad F_{vb2} = 66.81 \text{ kN}$$

$F_{vbd} := \text{if}\left(F_{vb1} > F_{vb2}, F_{vb2}, F_{vb1}\right)$ $F_{vbd} = 66.81$ kN

Rozamiento placa-hormigón

$i := 1 .. N$

$C_{fd} := 0.0$ $C_{fd} = 0$

$F_{fd_i} := C_{fd} \cdot Nd_i$

Número total de pernos necesario:

$i := 1 .. N$

$$NP_i := \frac{Vd_i - F_{fd_i}}{F_{vbd}}$$

$NP_i := \text{if}\left(NP_i < 0 \;\; 0 \;\; NP_i\right)$

i	Nd_i	Vd_i	NP_i
1	-930.9	705	10.55
2	946.7	705	10.55
3	0	0	0
4	0	0	0

kN kN

Se necesitan NP = 11 pernos por cortante

Número de pernos por cortante: $N_{Pc} := 11$

Número total de pernos dispuestos : $NT_P := 13$

Longitud de anclaje necesaria

Número de pernos necesarios por tracción : $n_P = 9$ pernos

Tracción máxima :

$Z_{max} := 0$

$i := 1..N$

$Z_{max} := \max(Zd^T)$ $Z_{max} = 1108.7$ kN

Tracción máxima por perno :

$T_{max} := \frac{Z_{max}}{n_P}$ $T_{max} = 123.19$ kN

n1 := 1 Adherencia buena

n2 := 1 Barras de diámetro menor o igual que 32 mm

$\alpha := 1$

$\gamma := 1.5$

$fctk := 0.21 \cdot \sqrt[3]{f_{ck}^2}$ fctk = 2.03 N/mm2

$fctd := \alpha \cdot \frac{fctk}{\gamma}$ fctd = 1.35 N/mm2

$\tau := 2.25\ n1\ n2\ fctd$ $\tau = 3.04$ N/mm2

Longitud básica de anclaje :

$L_b := \frac{f_{yp} \cdot A_s}{\pi\ \phi_p \cdot \tau}$ $L_b = 729.73$ mm

Se necesita una longitud mínima de anclaje recta de $L_a = 730$ mm

COMPROBACIÓN DE LA PLACA DE ANCLAJE

$i := 1..N$

Distancia media máx. entre chapas de cajón de pila : $d_c := 313$ $d_c = 313$ mm

Número de cartelas en la zona de compresión:

$N_{c1} := \frac{b}{d_c} - 2$ $N_{c1} = 0.24$ $N_c := 4$

Espesor de las cartelas: $t_c := 20$ $t_c = 20$ mm

1) Espesor de la placa base en función de la presión en el hormigón en toda la zona comprimida

Tensión de compresión máxima en el hormigón:

$\sigma_{bdmax} := \max(\sigma_{bd}^T)$ $\sigma_{bdmax} = 20$ N/mm²

Carga de diseño para una franja de placa de 1 mm de ancho:

$q_p := \sigma_{bdmax} \cdot 1$ $q_p = 20$ N/mm

Momento de diseño:

$M_{pd1} := 0.125\ q_p \cdot d_c^2$ $M_{pd1} = 2.45 \cdot 10^5$ N.mm

Coeficiente parcial de seguridad: $\gamma_{M0} := 1.05$

Espesor de placa necesario:

$t_1 := \sqrt{\frac{6\ M_{pd1} \cdot \gamma_{M0}}{1\ f_{yb}}}$ $t_1 = 65.93$ mm

3) Espesor de la placa base en función de la tracción en el anclaje

Distancia del perno al paramento del pilar: $a_p := 75$ $a_p = 75$ mm

Distancia del perno al borde de la placa: $g = 75$ mm

Longitud libre de placa: $L_p := a_p + g$ $L_p = 150$ mm

Ángulo de apertura de las tensiones:

$$\alpha := \frac{\pi}{3}\cdot\left(1 - \frac{a_p}{4\,L_p}\right) \qquad \alpha = 0.916 \text{ rad}$$

Ancho eficaz:

$$b_{ef} := 2\,a_p\cdot\tan(\alpha) \qquad b_{ef} = 195.48$$

$$b_{ef} := \text{if}\left(b_{ef} > d_c, d_c, b_{ef}\right) \qquad b_{ef} = 195.48 \text{ mm}$$

Momento de diseño:

$$M_{pd2} := T_{max}\cdot 10^3\cdot\frac{a_p}{b_{ef}} \qquad M_{pd2} = 47263.19 \text{ N.mm/mm}$$

Espesor de placa necesario:

$$t_3 := \sqrt{\frac{6\,M_{pd2}\cdot\gamma_{M0}}{1\,f_{yb}}}$$

Espesor de placa necesario por tracción en el anclaje: $t_3 = 28.96$ mm

Espesor mínimo de placa necesario

$$t_{pnec} := \text{if}\left(t_{cpnec} > t_3, t_{cpnec}, t_3\right) \qquad t_{pnec} = 65.93 \text{ mm}$$

Espesor de placa adoptado :

Se adopta un espesor de placa $t_p = 70$ mm > $t_{pnec} = 65.93$ mm

COMPROBACIÓN DE LAS CARTELAS

Longitud de la cartela : $L_c := 300$ → $L_c = 300$ mm

Altura de la cartela : $h_c := 250$ → $h_c = 250$ mm

Ángulo de la cartela con la horizontal :

$\beta := \frac{\pi}{2}$ → $\beta = 1.57$ rad

Brazo de la cartela: $b_c := L_c \cdot \sin(\beta)$ → $b_c = 300$ mm

1) Comprobación de la plastificación de la cartela

Resultante de las tensiones de compresión que recibe la cartela:

$R_{cd} := \sigma_{bdmax} \cdot \frac{b}{2} \cdot x_c \cdot \frac{1}{N_c} \cdot 10^{-3}$ → $R_{cd} = 700$ kN

Excentricidad de la resultante de compresiones:

$ex_c := L_c - \frac{x_c}{2}$ → $ex_c = 100$ mm

Límite elástico del acero de la cartela: $f_{yc} := 355$ N/mm²

Momento de agotamiento de la sección:

$M_c := t_c \cdot b_c^2 \cdot f_{yc} \cdot 10^{-3}$ → $M_c = 6.39 \cdot 10^5$ kN mm

Módulo de elasticidad del acero : $E := 210000$ N/mm²

Parámetro λ :

$\lambda := 2.53 \cdot \frac{b_c}{\pi \cdot t_c} \cdot \sqrt{\frac{f_{yc}}{E}}$ → $\lambda = 0.5$

Coeficiente de escuadra :

$C_E := 0.14 \cdot \lambda^2 - 1.07 \cdot \lambda + 2.3$ → $C_E = 1.8$

Comprobación :

$R_{cd} \cdot ex_c = 70000$ kN.mm

$C_E \cdot M_c = 1.15 \cdot 10^6$ kN.mm

Coeficiente de seguridad por plastificación :

$Seg := \frac{C_E \cdot M_c}{R_{cd} \cdot ex_c}$ → $Seg = 16.46 > 1$ CUMPLE

1) Comprobación de la abolladura de la cartela

Esbeltez de la cartela: $\lambda_c := \frac{L_c}{t_c}$ → $\lambda_c = 15$

Factor de forma de la cartela: $F_{fc} := \frac{L_c}{h_c}$ → $F_{fc} = 1.2$

Coeficiente 1: $C_{c1} := \frac{474}{\sqrt{f_{yc}}}$ → $C_{c1} = 25.16$

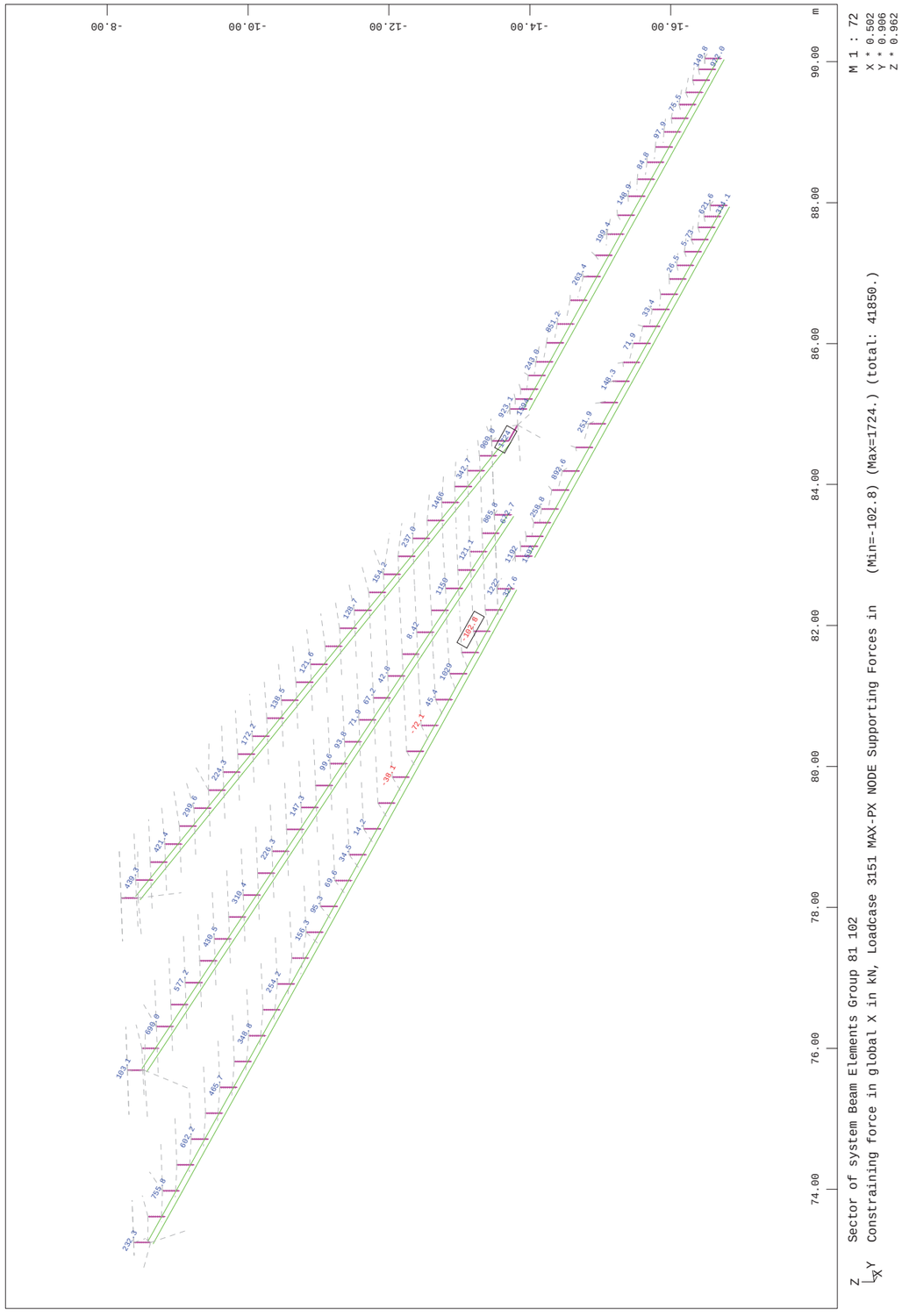
Coeficiente 2: $C_{c2} := \frac{158 + 316 \, F_{fc}}{\sqrt{f_{yc}}}$ → $C_{c2} = 28.51$

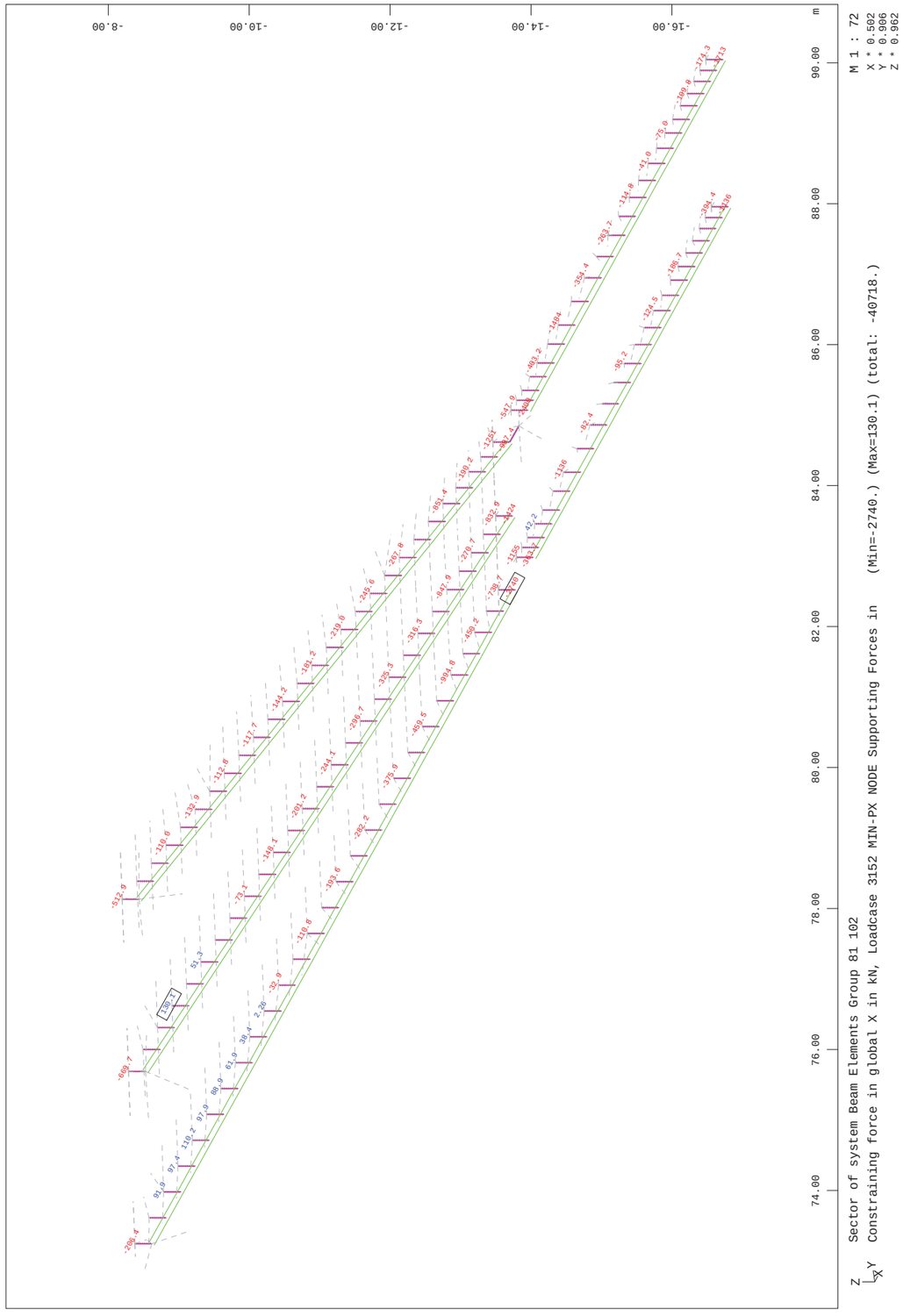
Coeficiente de seguridad :

$C_c := \text{if}\left(F_{fc} < 1 \; C_{c1}, C_{c2}\right)$ → $C_c = 28.51$

Se cuple la condición de estabilidad: $C_c = 28.51 > \lambda_c = 15$

RASANTES Y CONECTADORES


-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
g Forces in (Min=-102.8) (Max=1724.) (total: 41850.)
Sector of system Beam Elements Group 81 102
Constraining force in global X in kN, Loadcase 3151 MAX-PX NODE Supporting Forces
Z
Y
X


-8.00
-10.00
-12.00
-14.00
-16.00
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88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
g Forces in (Min=-2740.) (Max=130.1) (total: -40718.)
Sector of system Beam Elements Group 81 102
Constraining force in global X in kN, Loadcase 3152 MIN-PX NODE Supporting Forces
Z
Y
X

DIMENSIONAMIENTO DE LA ARMADURA TRANSVERSAL DE LA LOSA Y CONECTADORES

Módulo de elasticidad del hormigón: $Ec := Matriz1_{1+N+5}$ $Ec = 2.98 \cdot 10^6$ Mp/m2

Módulo de elasticidad del acero: $Es := Matriz1_{1+N+6}$ $Es = 2.09 \cdot 10^7$ Mp/m2

Coeficiente de equivalencia a corto plazo: $\alpha c := Matriz1_{1+N+7}$ $\alpha c = 7.02$

Coeficiente de equivalencia a largo plazo: $\alpha l := Matriz1_{1+N+8}$ $\alpha l = 14.04$

Espesor de losa: $eL := Matriz1_{1+N+9}$

ARMADURA TRANSVERSAL DE LA LOSA

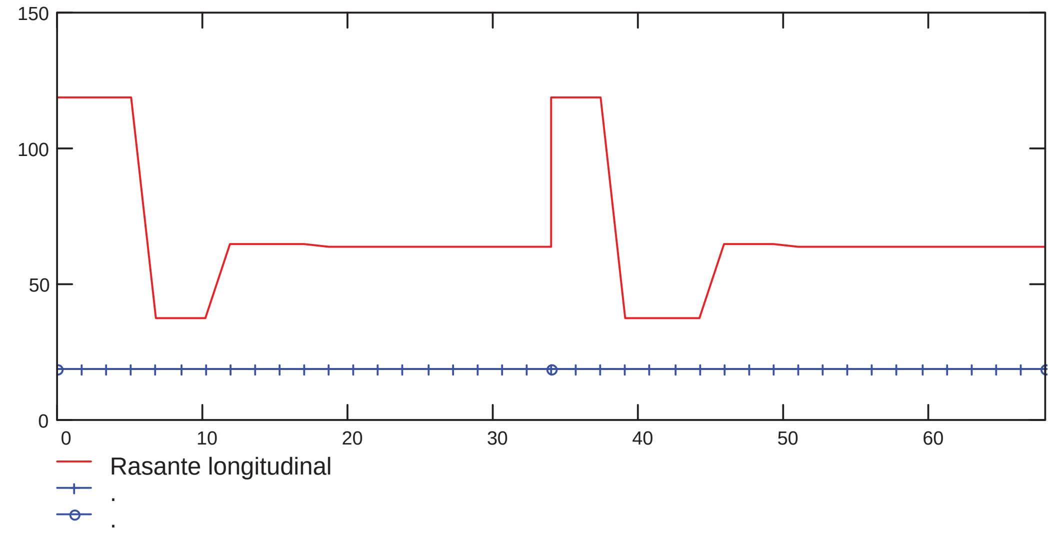
$q_{s,v} :=$

118.8
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Rasantes longitudinales en ELU

$v1 := 1$ hasta $v2 := N$

$j := 1 .. 21 \cdot (v2 - v1 + 1)$ $i := 1 .. ((v2 - v1) + 2)$



$k_1 := 0.90$

(Hormigón de densidad normal) $fck := 3500$ Mp/m2

$k_2 := 0.15$

$fcu := \frac{fck}{0.8} \cdot \frac{1}{100}$ $fcu = 43.75$ N/mm2

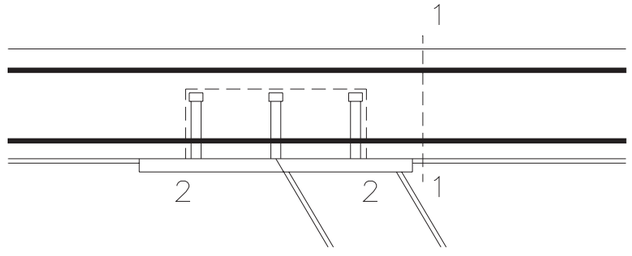
$fcu := \frac{fcu}{9.81} \cdot 1000$ $fcu = 4459.73$ Mp/m2

$fry := 51000$ Mp/m2 > $460 \cdot \frac{1000}{9.81} = 46890.93$ -----> $fry := 460 \cdot \frac{1000}{9.81}$

$f_{ctm} := 0.30 \cdot \left(\frac{fck}{100}\right)^{\frac{2}{3}}$ $f_{ctk} := 0.70 \cdot f_{ctm} \cdot 100$ $f_{ctk} = 224.7$ Mp/m2

$fry := 51000$ Mp/m2 $\gamma_s := 1.15$

Plano 1-1



Rasante longitudinal: $q\,p_{s,v} := (q_{s,v})$

$k_2 := 0.15$

Longitud del plano: $L_s := eL$ m

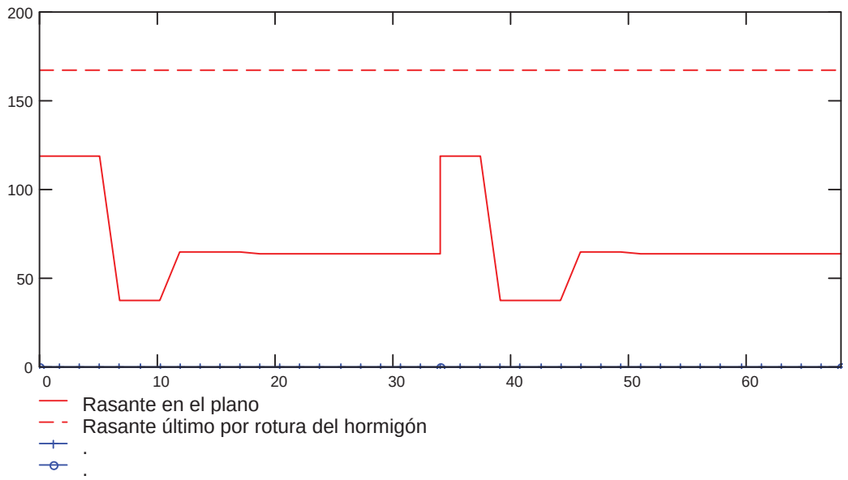
$L_s := 0.25$

Comprobación de resistencia del hormigón

$Rh_{s,v} := k_2 \cdot L_s \cdot fcu$

v1 := 1 hasta v2 := N

j := 1..21·(v2 − v1 + 1) i := 1..((v2 − v1) + 2)



Dimensionamiento de armadura transversal

$A\,e_{s,v} := \left(q\,p_{s,v} - k_1 \cdot \frac{1000}{9.81} \cdot L_s\right) \cdot \frac{1}{0.7 \cdot fry} \cdot 10^4$ cm²/m (Total superior e inferior)

Armadura mínima

$A\,min_{s,v} := 0.8 \cdot \frac{1000}{9.81} \cdot \frac{eL}{fry} \cdot 10^4$ cm²/m (Total superior e inferior)

$A\,nec_{s,v} := if\left(A\,e_{s,v} > A\,min_{s,v}, A\,e_{s,v}, A\,min_{s,v}\right)$

Armadura a disponer

s := 1..21 v := 1..N $n_{s,v} := 5$ $\phi_{s,v} := 16$ por metro superior e inferior

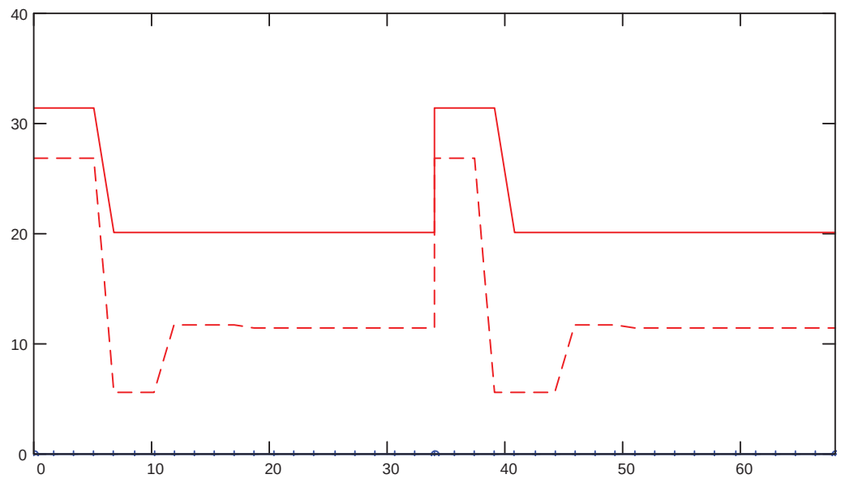
v := 1..N s := 1..4 $n_{s,v} := 5$ $\phi_{s,v} := 20$ por metro superior e inferior

s := 19..21 $n_{s,v} := 5$ $\phi_{s,v} := 16$ por metro superior e inferior

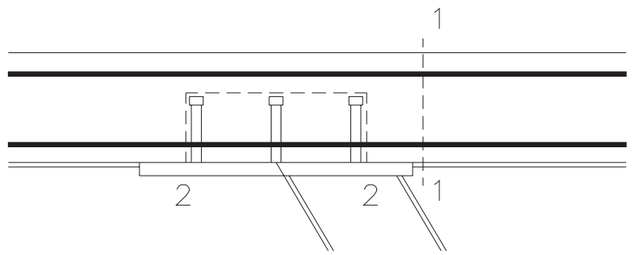
s := 1..21 v := 1..N $A\,dis_{s,v} := 2 \cdot n_{s,v} \cdot \pi \cdot \left[\left(\frac{\phi_{s,v}}{20}\right)^2\right]$

v1 := 1 hasta v2 := N

j := 1 .. 21·(v2 − v1 + 1) i := 1 .. ((v2 − v1) + 2)



Plano 2-2



Rasante longitudinal: $q_{p_{s,v}} := q_{s,v}$

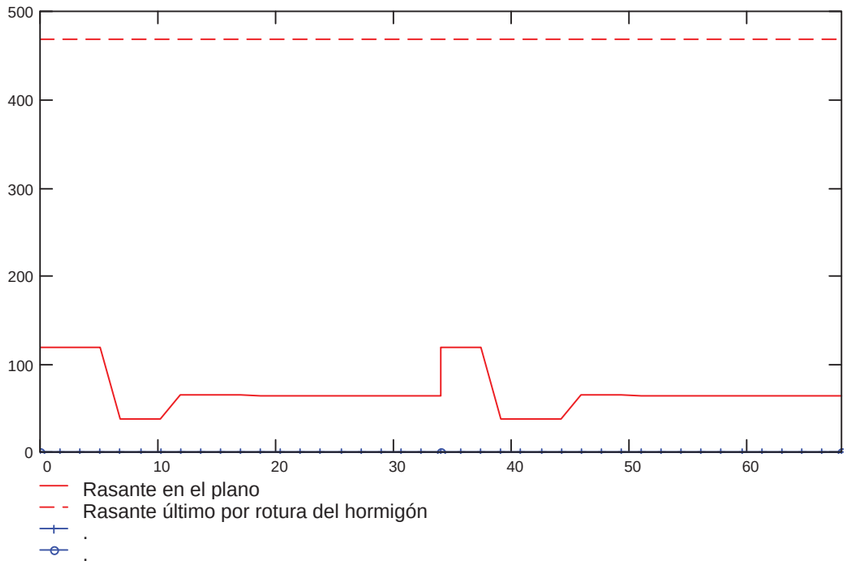
Longitud del plano: $L_s := 0.700$ $L_s = 0.7$ m

Comprobación de resistencia del hormigón

$Rh_{s,v} := k_2 \cdot L_s \cdot fcu$

v1 := 1 hasta v2 := N

j := 1 .. 21·(v2 − v1 + 1) i := 1 .. ((v2 − v1) + 2)



Dimensionamiento de armadura transversal

$\eta := 1$

$s := 1..21$ $v := 1..N$ $\tau_{Rd} := 0.25 \cdot f_{ctk} \cdot \frac{1}{\gamma_s}$

$v := 1$ $s := 15..21$

$v := 2$ $s := 1..7$

$s := 1..21$ $v := 1..N$

$A_{e_{s,v}} := \left(q_{p_{s,v}} - k_1 \cdot \frac{1000}{9.81} \cdot L_s\right) \cdot \frac{1}{0.7 \cdot fry} \cdot 10^4$ cm²/m (Total superior e inferior)

Armadura mínima

$A_{min_{s,v}} := 0.8 \cdot \frac{1000}{9.81} \cdot \frac{eL}{fry} \cdot 10^4$ cm²/m (Total superior e inferior)

$A_{nec_{s,v}} := if\left(A_{e_{s,v}} > A_{min_{s,v}}, A_{e_{s,v}}, A_{min_{s,v}}\right)$

Armadura a disponer

$s := 1..21$ $v := 1..N$ $n_{s,v} := 5$ $\phi_{s,v} := 16$ por metro inferior

$v := 1..N$

$v := 1$ $s := 1..7$ $n_{s,v} := 5$ $\phi_{s,v} := 20$ por metro inferior

$s := 8..14$ $n_{s,v} := 5$ $\phi_{s,v} := 16$ por metro inferior

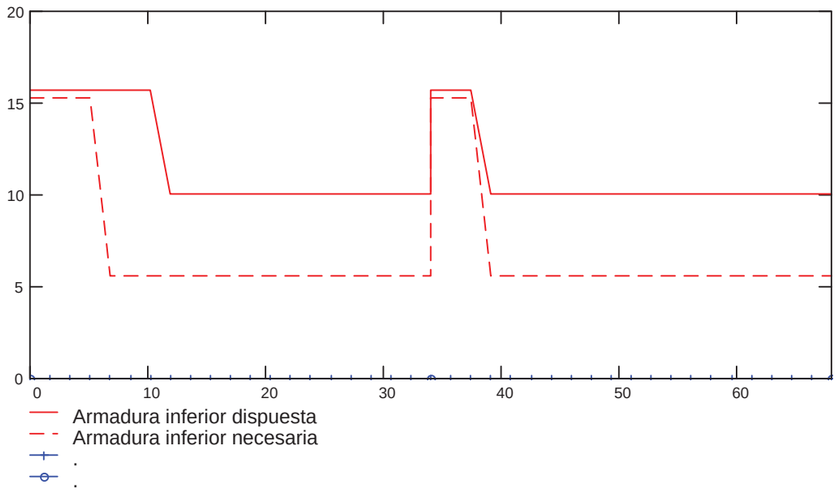
$v := 2$ $s := 1..21$ $n_{s,v} := 5$ $\phi_{s,v} := 16$ por metro inferior

$s := 1..3$ $n_{s,v} := 5$ $\phi_{s,v} := 20$ por metro inferior

$s := 1..21$ $v := 1..N$ $A_{dis_{s,v}} := n_{s,v} \cdot \pi \cdot \left[\left(\frac{\phi_{s,v}}{20}\right)^2\right]$

v1 := 1 hasta v2 := N

j := 1 .. 21·(v2 − v1 + 1) i := 1 .. ((v2 − v1) + 2)



DIMENSIONAMIENTO DE CONECTADORES (Estado límite último)

Resistencia de cada conector

Características de los materiales: fck := 35 N/mm2

Módulo secante hormigón (C35/45): $E_{cm} := Ec \cdot 10^{-2}$ $E_{cm} = 29779$ N/mm2

Diámetro del vástago del perno: d := 19 mm

Altura del perno: $h_c := 150$ mm

Coeficiente parcial de seguridad: $\gamma_v := 1.25$

$$\alpha := \text{if}\left[\frac{h_c}{d} > 4, 1, 0.2 \cdot \left(\frac{h_c}{d} + 1\right)\right] \qquad \alpha = 1$$

$$P_{Rd1} := 0.8 \cdot fu \cdot \left(\pi \cdot \frac{d^2}{4}\right) \cdot \frac{1}{\gamma_v} \qquad P_{Rd2} := 0.29 \cdot \alpha \cdot d^2 \cdot \sqrt{fck \cdot E_{cm}} \cdot \frac{1}{\gamma_v}$$

$$P_{Rd} := \text{if}\left(P_{Rd1} < P_{Rd2}, P_{Rd1}, P_{Rd2}\right)$$

$$Pu := P_{Rd} \cdot 10^{-4} \qquad Pu = 8.55 \text{ Mp}$$

Número de conectores necesario en estado límite último

$$Ncu_{s,v} := \frac{q_{s,v}}{Pu}$$

DIMENSIONAMIENTO DE CONECTADORES (Estado límite de servicio)

Estado límite de servicio

	γ_{des}	γ_{fav}
Peso Propio Acero	$\gamma 1_{pp} := 1.00$	$\gamma 0_{pp} := 1.0$
Peso propio de primera fase de losa	$\gamma 1_{h1} := 1.00$	$\gamma 0_{h1} := 1.0$
Peso propio de segunda fase de losa	$\gamma 1_{h2} := 1.00$	$\gamma 0_{h2} := 1.0$
Peso propio de tercera fase de losa	$\gamma 1_{h3} := 1.00$	$\gamma 0_{h3} := 1.0$
Superestructura	$\gamma 1_{se} := 1.00 \cdot \Delta p_{se}$	$\gamma 0_{se} := 1.0 \cdot \Delta n_{se}$
Hiperestáticos de retracción Isostáticos de retracción	$\gamma 1_{r} := 1.00$	$\gamma 0_{r} := 1.0$
Hiperestáticos de temp. pos. Isostáticos de temp. pos. Hiperestáticos de temp. inv. Isostáticos de temp. inv.	$\gamma 1_{t} := 1.00 \cdot 0.60$	$\gamma 0_{t} := 0.0$
Sobrecarga repartida	$\gamma 1_{SCR} := 1.00$	$\gamma 0_{SCR} := 0.0$
Carro	$\gamma 1_{C} := 1.00$	$\gamma 0_{C} := 0.0$

Esfuerzos mayorados Include:C:\MathCads\Mixtos\Esf-may.mcd

Rasante longitudinal (De los resultados de Sofistik)

Se estudia la sección pésima aplicada a toda la estructura

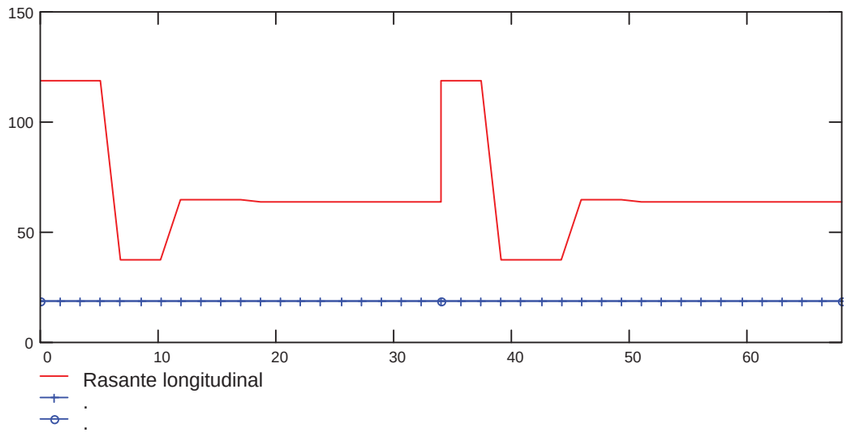
$q_{s,v} :=$

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Rasantes longitudinales en ELS

v1 := 1 hasta v2 := N

$j := 1..21\cdot(v2 - v1 + 1)$ $i := 1..((v2 - v1) + 2)$



Resistencia de cada conectador

$P_{Rk} := 0.6\cdot P_{Rd}$

$Pu := P_{Rk}\cdot 10^{-4}$ Pu = 5.13 Mp

Número de conectadores necesario en estado límite de servicio

$Ncs_{s,v} := \frac{q_{s,v}}{Pu}$ conectadores por metro

DISTRIBUCIÓN DE CONECTADORES

El número de conectadores necesario es el mayor de los resultantes de los análisis en servicio y estado límite último

$$Nc_{s,v} := if\left(Ncu_{s,v} > Ncs_{s,v}, Ncu_{s,v}, Ncs_{s,v}\right)$$

Conectadores que se disponen

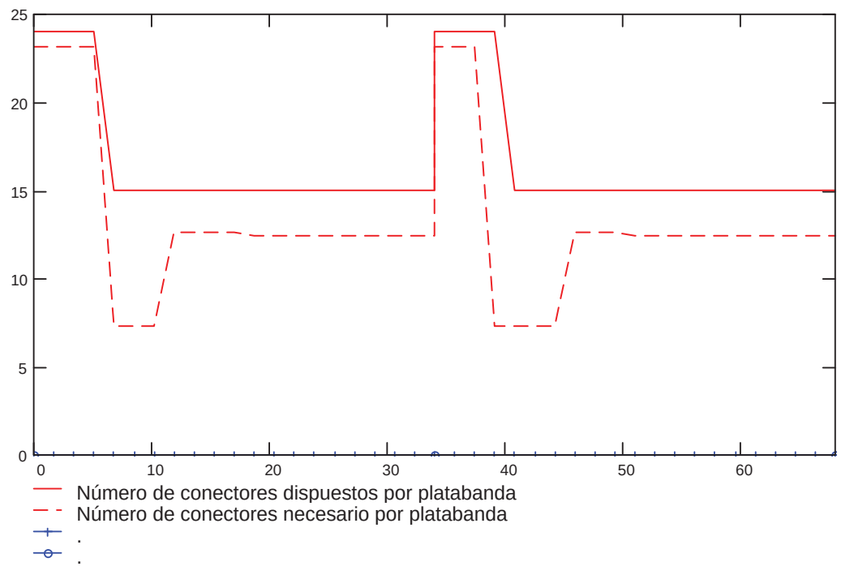
s := 1 .. 21	v := 1 .. N	$n_{s,v}$:= 15	por metro	(5x3 cada 1.00)
v := 1	s := 1 .. 4	$n_{s,v}$:= 24	por metro	(8x3 cada 1.00)
v := 1	s := 19 .. 21	$n_{s,v}$:= 15	por metro	(5x3 cada 1.00)
v := N	s := 1 .. 4	$n_{s,v}$:= 24	por metro	(8x3 cada 1.00)
v := N	s := 19 .. 21	$n_{s,v}$:= 15	por metro	(5x3 cada 1.00)

s := 1 .. 21 v := 1 .. N

Número de conectores en cada platabanda

v1 := 1 hasta v2 := N

j := 1 .. 21·(v2 − v1 + 1) i := 1 .. ((v2 − v1) + 2)



PRELOSAS

DIMENSIONAMIENTO DE LA PRELOSA PREFABRICADA

Flexión en centro luz

Luz de cálculo $L := 3.35$ m

Luz del voladizo $Lv := 0.0$ m

Canto de la prelosa: $h_p := 0.06$ m

Canto de la losa: $h_L := 0.25$ m

$\gamma := 2.5$ Mp/m3

$f_{yd} := 4.35$ Mp/cm2

$f_{ck} := 0.35$ Mp/cm2

Módulos de elasticidad:

Acero: $E_y := 21000000$ Mp/m2

Hormigón: $E_c := 850000 \cdot \sqrt[3]{100 \cdot f_{ck} + 8} = 2.98 \times 10^{6}$ Mp/m2

Peso propio de losa prefabricada	$q_1 := h_p \cdot \gamma$	$q_1 = 0.15$	Mp/m2
Peso propio de hormigón "in situ"	$q_2 := (h_L - h_p)\gamma$	$q_2 = 0.48$	Mp/m2
Sobrecarga de construcción		$q_3 := 0.350$	Mp/m2
Total	$q_T := q_1 + q_2 + q_3$	$q_T = 0.98$	Mp/m2

Armadura superior $ns := \frac{5}{1.60}$ $\phi s := 16$ mm por metro (5 cada 1.60 m)

Armadura inferior $ni := \frac{10}{1.60}$ $\phi i := 16$ mm por metro (2x5 cada 1.60 m)

$nip := \frac{5}{1.20}$ $\phi ip := 0$ mm por metro (5 cada 1.20 m)

Diagonales: $n_c := \frac{10}{1.60}$ $\phi c := 10$ mm por metro (2x5 cada 1.60 m)

Características de la celosía:

Paso de la celosía en longitudinal: $L_{cel} := 0.20$ m

Canto de la celosía $d := 0.195$ m

Apertura de planta de la celosía: $b_{cel} := 0.15$ m

Longitud de las diagonales: $dia_{cel} := \sqrt{\left(\frac{L_{cel}}{2}\right)^2 + \left(\frac{b_{cel}}{2}\right)^2 + d^2} = 0.232$ m

Plazakola *Prelosa 1*

Considerando la situación de hormigonado del tramo central únicamente, obtendremos:

$Md := 1.35 \cdot (q_1 + q_2 + q_3) \cdot \frac{L^2}{8} - 1.35 \cdot (q_1) \cdot \frac{Lv^2}{2} \cdot 0.5$ $Md = 1.85$ Mp.m/m

Area necesaria $As := \frac{Md}{d} \cdot \frac{1}{f_{yd}}$ $As = 2.18$ cm2/m

Armadura inferior $ni \cdot \pi \cdot \left(\frac{\phi i}{20}\right)^2 + nip \cdot \pi \cdot \left(\frac{\phi ip}{20}\right)^2 = 12.57$ > $As = 2.18$ cm2/m

Comprobación a pandeo del cordón superior

$N := \frac{Md}{d}$ $N = 9.47$ Mp/m

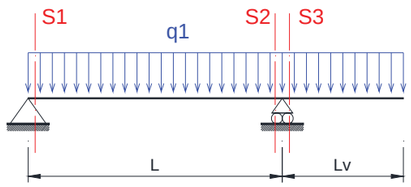
Longitud de pandeo: $L_p := L_{cel} \cdot 1000 = 200$ mm (Se supone arriostramiento por la celosía)

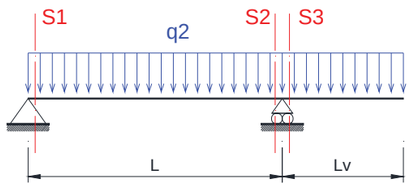
Radio de giro del redondo superior: $r := \frac{\phi s}{4}$

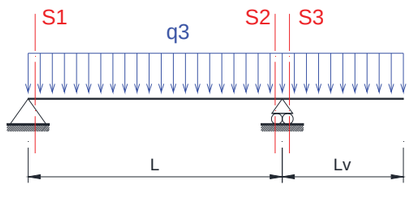
Esbeltez mecánica: $\lambda := \frac{L_p}{r}$ $\lambda = 50$ -----> $\omega := 1.20$

$\sigma := \frac{N \cdot \omega}{\frac{\pi}{4} \cdot \left(\frac{\phi s}{10}\right)^2 \cdot ns}$ $\sigma = 1.81$ Mp/cm^2 < $f_{yd} = 4.35$ Mp/cm^2

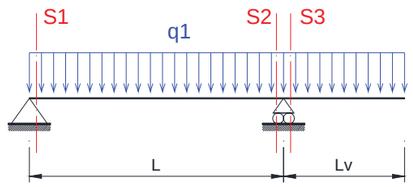
Situación 1

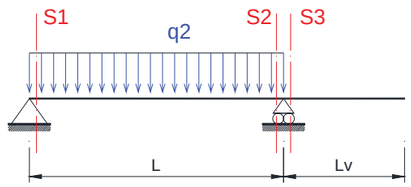


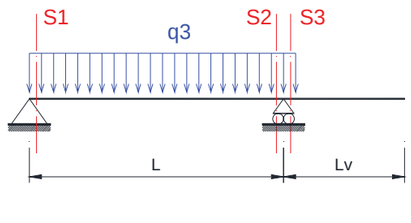




Situación 2







Plazakola *Prelosa 1*

Comprobación de las diagonales de la celosía

Esfuerzo cortante:

$Q1(q_L, q_{LV}, L, Lv) := -q_L \cdot \frac{L}{2} + q_{LV} \cdot \frac{Lv^2}{2L}$ $Q2(q_L, q_{LV}, L, Lv) := q_L \cdot \frac{L}{2} + q_{LV} \cdot \frac{Lv^2}{2L}$

$Q3(q_L, q_{LV}, L, Lv) := -q_{LV} \cdot Lv$

Situación 1_1: $q_{L\_s1\_1} := 1.35 \cdot (q_1 + q_2 + q_3)$ $q_{Lv\_s1\_1} := 1.35 \cdot (q_1)$

Situación 1_1: $q_{L\_s1\_2} := q_1 + 1.35 \cdot (q_2 + q_3)$ $q_{Lv\_s1\_2} := q_1$

Situación 2_1: $q_{L\_s2\_1} := 1.35 \cdot (q_1 + q_2 + q_3)$ $q_{Lv\_s2\_1} := 1.35 \cdot (q_1 + q_2 + q_3)$

Situación 2_2: $q_{L\_s2\_2} := q_1 + 1.35 \cdot (q_2 + q_3)$ $q_{Lv\_s2\_2} := q_1 + 1.35 \cdot (q_2 + q_3)$

$Qd1_{1\_1} := Q1(q_{L\_s1\_1}, q_{Lv\_s1\_1}, L, Lv) = -2.2$ Mp/m Cortante en sección 1 y situación 1_1

$Qd1_{1\_2} := Q1(q_{L\_s1\_2}, q_{Lv\_s1\_2}, L, Lv) = -2.12$ Mp/m Cortante en sección 1 y situación 1_2

$Qd1_{2\_1} := Q1(q_{L\_s2\_1}, q_{Lv\_s2\_1}, L, Lv) = -2.2$ Mp/m Cortante en sección 1 y situación 2_1

$Qd1_{2\_2} := Q1(q_{L\_s2\_2}, q_{Lv\_s2\_2}, L, Lv) = -2.12$ Mp/m Cortante en sección 1 y situación 2_2

$Qd1 := \max(|Qd1_{1\_1}|, |Qd1_{1\_2}|, |Qd1_{2\_1}|, |Qd1_{2\_2}|) = 2.2$ Mp/m

$Qd2_{1\_1} := Q2(q_{L\_s1\_1}, q_{Lv\_s1\_1}, L, Lv) = 2.2$ Mp/m Cortante en sección 2 y situación 1_1

$Qd2_{1\_2} := Q2(q_{L\_s1\_2}, q_{Lv\_s1\_2}, L, Lv) = 2.12$ Mp/m Cortante en sección 2 y situación 1_2

$Qd2_{2\_1} := Q2(q_{L\_s2\_1}, q_{Lv\_s2\_1}, L, Lv) = 2.2$ Mp/m Cortante en sección 2 y situación 2_1

$Qd2_{2\_2} := Q2(q_{L\_s2\_2}, q_{Lv\_s2\_2}, L, Lv) = 2.12$ Mp/m Cortante en sección 2 y situación 2_2

$Qd2 := \max(|Qd2_{1\_1}|, |Qd2_{1\_2}|, |Qd2_{2\_1}|, |Qd2_{2\_2}|) = 2.2$ Mp/m

$Qd3_{1\_1} := Q3(q_{L\_s1\_1}, q_{Lv\_s1\_1}, L, Lv) = 0$ Mp/m Cortante en sección 2 y situación 1_1

$Qd3_{1\_2} := Q3(q_{L\_s1\_2}, q_{Lv\_s1\_2}, L, Lv) = 0$ Mp/m Cortante en sección 2 y situación 1_2

$Qd3_{2\_1} := Q3(q_{L\_s2\_1}, q_{Lv\_s2\_1}, L, Lv) = 0$ Mp/m Cortante en sección 2 y situación 2_1

$Qd3_{2\_2} := Q3(q_{L\_s2\_2}, q_{Lv\_s2\_2}, L, Lv) = 0$ Mp/m Cortante en sección 2 y situación 2_2

$Qd3 := \max(|Qd3_{1\_1}|, |Qd3_{1\_2}|, |Qd3_{2\_1}|, |Qd3_{2\_2}|) = 0$ Mp/m

$Qd := \max(|Qd1|, |Qd2|, |Qd3|) = 2.2$ Mp/m

Plazakola *Prelosa 1*

Esfuerzo axil en la diagonal: $Nc := \frac{Qd}{n_c} \cdot \frac{dia_{cel}}{d}$ $Nc = 0.42$ Mp

Diámetro del redondo: $\phi c = 10$ mm

Longitud de la rama de celosía $Lc := dia_{cel} \cdot 1000$ $Lc = 231.62$ mm

Longitud de pandeo: $L_e := 0.7 \cdot Lc$ $L_e = 162.14$ mm

Radio de giro: $r_c := \frac{\phi c}{4}$ $r_c = 2.5$ mm

Esbeltez mecánica: $\lambda := \frac{L_e}{r_c}$ $\lambda = 65$ ------> $\omega := 1.39$

$$\sigma := \frac{Nc \cdot \omega}{\frac{\pi}{4} \cdot \left(\frac{\phi c}{10}\right)^2} \quad \sigma = 0.74 \text{ Mp/cm}^2 \quad < \quad f_{yd} = 4.35 \text{ Mp/cm}^2$$

Plazakola *Prelosa 1*

Flexión en voladizo

$$Md := 1.35(q_1 + q_2 + q_3) \cdot \frac{Lv^2}{2} \quad Md = 0 \text{ Mp.m/m}$$

Canto útil de la celosía $d = 0.2$ m

Area necesaria $As := \frac{Md}{d} \cdot \frac{1}{f_{yd}}$ $As = 0$ cm2/m

Armadura superior $ns = 3.13$ $\phi s = 16$ por metro (ver cálculo en centro luz)

$ns \cdot \pi \cdot \left(\frac{\phi s}{20}\right)^2 = 6.28$ > $As = 0$ cm2/m

Comprobación a pandeo del cordón inferior

$$N := \frac{Md}{d} \quad N = 0 \text{ Mp}$$

Longitud de pandeo: $L_p := L_{cel} \cdot 1000 = 200$ mm (Se supone arriostramiento por la celosía)

Radio de giro del redondo superior: $r := \frac{\phi i}{4}$

Esbeltez mecánica: $\lambda := \frac{L_p}{r}$ $\lambda = 50$ -----> $\omega := 1.095$

$$\sigma := \frac{N \cdot \omega}{\frac{\pi}{4} \cdot \left(\frac{\phi i}{10}\right)^2 \cdot ni} \quad \sigma = 0 \text{ Mp/cm}^2 \quad < \quad f_{yd} = 4.35 \text{ Mp/cm}^2$$

Contraflecha en centro luz

Coeficiente de homogeneización $\alpha c := \frac{E_y}{E_c} = 7.05$

Distancia desde el borde inferior de la prelosa al cordón inferior de la celosía: $d_{cor\_i} := 0.03$ m

$$A_{sup} := ns \cdot \pi \cdot \left(\frac{\phi s}{2000}\right)^2 \cdot \alpha c$$

$$A_{inf} := ni \cdot \pi \cdot \left(\frac{\phi i}{2000}\right)^2 \cdot \alpha c$$

$A_c := 1 \cdot h_p = 0.06$ m2

Inercia fisurada $Yf := \frac{A_{sup} \cdot (d_{cor\_i} + d) + A_{inf} \cdot d_{cor\_i}}{A_{sup} + A_{inf}} = 0.095$

$$If := A_{sup} \cdot (d_{cor\_i} + d - Yf)^2 + A_{inf} \cdot (d_{cor\_i} - Yf)^2$$

Inercia bruta $Yb := \left[(A_{sup} + A_{inf}) \cdot Yf + A_c \cdot \frac{h_p}{2}\right] \cdot \frac{1}{A_{sup} + A_{inf} + A_c}$

$$Ib := If + (A_{sup} + A_{inf}) \cdot (Yf - Yb)^2 + \frac{1.00 \cdot h_p^3}{12} + A_c \cdot \left(\frac{h_p}{2} - Yb\right)^2$$

$f_{cf} := \frac{1}{100} \cdot \left[0.3 \cdot (f_{ck} \cdot 100)^{\frac{2}{3}}\right]$ $f_{cf} = 0.032$ Mp/cm2

Momento de fisuración $Mf := \frac{10^4 \cdot f_{cf} \cdot Ib}{Yb}$ $Mf = 1.35$ Mp.m/m

$q := q_1 + q_2$ $q = 0.63$ Mp/m2 (no se incluyen sobrepesos a efectos de flechas)

Momento que actúa $Ma := \frac{q \cdot L^2}{8} - 0.5 \cdot q_1 \cdot \frac{Lv^2}{2}$ $Ma = 0.88$ Mp.m/m

Inercia equivalente $I_e := \left(\frac{Mf}{Ma}\right)^3 \cdot Ib + \left[1 - \left(\frac{Mf}{Ma}\right)^3\right] \cdot If$

$I_e := if(I_e > Ib, Ib, I_e)$

Flecha $\delta := \left[\left[\frac{5}{384} \cdot q \cdot L^4 - \left(q_1 \cdot \frac{Lv^2}{2}\right) \cdot \frac{1}{16} \cdot L^2\right] \cdot \frac{1}{E_c \cdot I_e}\right] \cdot 100$ $\delta = 0.2$ cm

Disponer contraflecha de $\delta := 0.20$ cm

Plazakola *Prelosa 1*

Contraflecha en voladizo

Giro en apoyos $\theta := \left[\frac{q \cdot L^3}{24} - \left(\frac{q_1 \cdot Lv^2}{2}\right) \cdot L \cdot \left(\frac{1}{3}\right)\right] \cdot \frac{1}{E_c \cdot I_e}$ $\theta = 1.86 \times 10^{-3}$

Flecha propia del voladizo $\delta := \left(q \cdot \frac{Lv^4}{8}\right) \cdot \frac{1}{E_c \cdot Ib}$ $\delta \cdot 100 = 0$ cm

Flecha total $\delta := (\delta - \theta \cdot Lv) \cdot 100$ $\delta = 0$ cm

Disponer contraflecha de $\delta := 0.0$ cm

Plazakola *Prelosa Lateral*

DIMENSIONAMIENTO DE LA PRELOSA PREFABRICADA

Flexión en centro luz

Luz de cálculo $L := 2.0$ m

Luz del voladizo $Lv := 0.55$ m

Canto de la prelosa: $h_p := 0.06$ m

Canto de la losa: $h_L := 0.25$ m

$\gamma := 2.5$ Mp/m3

$f_{yd} := 4.35$ Mp/cm2

$f_{ck} := 0.35$ Mp/cm2

Módulos de elasticidad:

Acero: $E_y := 21000000$ Mp/m2

Hormigón: $E_c := 850000 \cdot \sqrt[3]{100 \cdot f_{ck} + 8} = 2.98 \times 10^6$ Mp/m2

Peso propio de losa prefabricada	$q_1 := h_p \cdot \gamma$	$q_1 = 0.15$	Mp/m2
Peso propio de hormigón "in situ"	$q_2 := (h_L - h_p)\gamma$	$q_2 = 0.48$	Mp/m2
Sobrecarga de construcción		$q_3 := 0.350$	Mp/m2
Total	$q_T := q_1 + q_2 + q_3$	$q_T = 0.98$	Mp/m2

Armadura superior $ns := \frac{5}{1.60}$ $\phi s := 16$ mm por metro (5 cada 1.60 m)

Armadura inferior $ni := \frac{10}{1.60}$ $\phi i := 16$ mm por metro (2x5 cada 1.60 m)

$nip := \frac{5}{1.20}$ $\phi ip := 0$ mm por metro (5 cada 1.20 m)

Diagonales: $n_c := \frac{10}{1.60}$ $\phi c := 10$ mm por metro (2x5 cada 1.60 m)

Características de la celosía:

Paso de la celosía en longitudinal: $L_{cel} := 0.20$ m

Canto de la celosía $d := 0.195$ m

Apertura de planta de la celosía: $b_{cel} := 0.1$ m

Longitud de las diagonales: $dia_{cel} := \sqrt{\left(\frac{L_{cel}}{2}\right)^2 + \left(\frac{b_{cel}}{2}\right)^2 + d^2} = 0.225$ m

Considerando la situación de hormigonado del tramo central únicamente, obtendremos:

$$Md := 1.35\cdot(q_1 + q_2 + q_3)\cdot\frac{L^2}{8} - 1.35\cdot(q_1)\cdot\frac{Lv^2}{2}\cdot 0.5 \qquad Md = 0.64 \quad Mp.m/m$$

Area necesaria $$As := \frac{Md}{d}\cdot\frac{1}{f_{yd}} \qquad As = 0.76 \quad cm2/m$$

Armadura inferior $$ni\cdot\pi\cdot\left(\frac{\phi i}{20}\right)^2 + nip\cdot\pi\cdot\left(\frac{\phi ip}{20}\right)^2 = 12.57 \quad > \quad As = 0.76 \quad cm2/m$$

Comprobación a pandeo del cordón superior

$$N := \frac{Md}{d} \qquad N = 3.3 \quad Mp/m$$

Longitud de pandeo: $L_p := L_{cel}\cdot 1000 = 200$ mm (Se supone arriostramiento por la celosía)

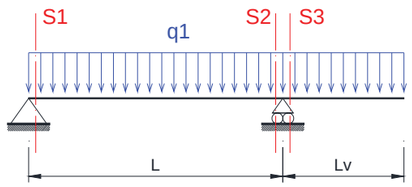
Radio de giro del redondo superior: $r := \frac{\phi s}{4}$

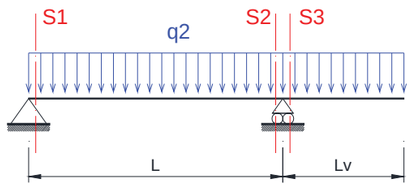
Esbeltez mecánica: $\lambda := \frac{L_p}{r}$ $\lambda = 50$ -----> $\omega := 1.20$

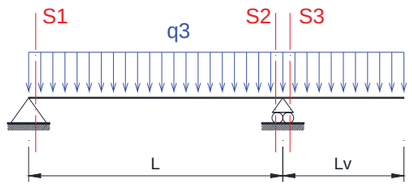
$$\sigma := \frac{N\cdot\omega}{\frac{\pi}{4}\cdot\left(\frac{\phi s}{10}\right)^2\cdot ns} \qquad \sigma = 0.63 \quad Mp/cm^2 \quad < \quad f_{yd} = 4.35 \quad Mp/cm^2$$

Plazakola *Prelosa Lateral*

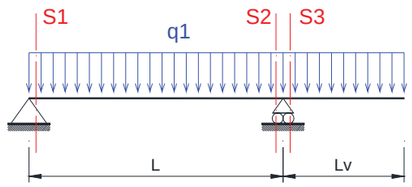
Situación 1

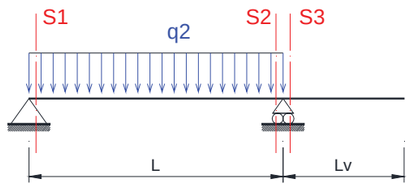


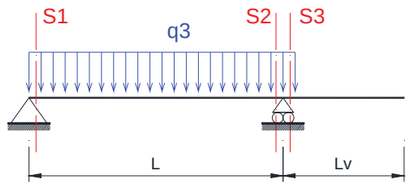




Situación 2







Comprobación de las diagonales de la celosía

Esfuerzo cortante:

$Q1(q_L, q_{LV}, L, Lv) := -q_L \cdot \frac{L}{2} + q_{LV} \cdot \frac{Lv^2}{2L}$ $Q2(q_L, q_{LV}, L, Lv) := q_L \cdot \frac{L}{2} + q_{LV} \cdot \frac{Lv^2}{2L}$

$Q3(q_L, q_{LV}, L, Lv) := -q_{LV} \cdot Lv$

Situación 1_1: $q_{L\_s1\_1} := 1.35 \cdot (q_1 + q_2 + q_3)$ $q_{Lv\_s1\_1} := 1.35 \cdot (q_1)$

Situación 1_1: $q_{L\_s1\_2} := q_1 + 1.35 \cdot (q_2 + q_3)$ $q_{Lv\_s1\_2} := q_1$

Situación 2_1: $q_{L\_s2\_1} := 1.35 \cdot (q_1 + q_2 + q_3)$ $q_{Lv\_s2\_1} := 1.35 \cdot (q_1 + q_2 + q_3)$

Situación 2_2: $q_{L\_s2\_2} := q_1 + 1.35 \cdot (q_2 + q_3)$ $q_{Lv\_s2\_2} := q_1 + 1.35 \cdot (q_2 + q_3)$

$Qd1_{1\_1} := Q1(q_{L\_s1\_1}, q_{Lv\_s1\_1}, L, Lv) = -1.3$ Mp/m Cortante en sección 1 y situación 1_1

$Qd1_{1\_2} := Q1(q_{L\_s1\_2}, q_{Lv\_s1\_2}, L, Lv) = -1.25$ Mp/m Cortante en sección 1 y situación 1_2

$Qd1_{2\_1} := Q1(q_{L\_s2\_1}, q_{Lv\_s2\_1}, L, Lv) = -1.22$ Mp/m Cortante en sección 1 y situación 2_1

$Qd1_{2\_2} := Q1(q_{L\_s2\_2}, q_{Lv\_s2\_2}, L, Lv) = -1.17$ Mp/m Cortante en sección 1 y situación 2_2

$Qd1 := \max(|Qd1_{1\_1}|, |Qd1_{1\_2}|, |Qd1_{2\_1}|, |Qd1_{2\_2}|) = 1.3$ Mp/m

$Qd2_{1\_1} := Q2(q_{L\_s1\_1}, q_{Lv\_s1\_1}, L, Lv) = 1.33$ Mp/m Cortante en sección 2 y situación 1_1

$Qd2_{1\_2} := Q2(q_{L\_s1\_2}, q_{Lv\_s1\_2}, L, Lv) = 1.28$ Mp/m Cortante en sección 2 y situación 1_2

$Qd2_{2\_1} := Q2(q_{L\_s2\_1}, q_{Lv\_s2\_1}, L, Lv) = 1.42$ Mp/m Cortante en sección 2 y situación 2_1

$Qd2_{2\_2} := Q2(q_{L\_s2\_2}, q_{Lv\_s2\_2}, L, Lv) = 1.36$ Mp/m Cortante en sección 2 y situación 2_2

$Qd2 := \max(|Qd2_{1\_1}|, |Qd2_{1\_2}|, |Qd2_{2\_1}|, |Qd2_{2\_2}|) = 1.42$ Mp/m

$Qd3_{1\_1} := Q3(q_{L\_s1\_1}, q_{Lv\_s1\_1}, L, Lv) = -0.11$ Mp/m Cortante en sección 2 y situación 1_1

$Qd3_{1\_2} := Q3(q_{L\_s1\_2}, q_{Lv\_s1\_2}, L, Lv) = -0.08$ Mp/m Cortante en sección 2 y situación 1_2

$Qd3_{2\_1} := Q3(q_{L\_s2\_1}, q_{Lv\_s2\_1}, L, Lv) = -0.72$ Mp/m Cortante en sección 2 y situación 2_1

$Qd3_{2\_2} := Q3(q_{L\_s2\_2}, q_{Lv\_s2\_2}, L, Lv) = -0.7$ Mp/m Cortante en sección 2 y situación 2_2

$Qd3 := \max(|Qd3_{1\_1}|, |Qd3_{1\_2}|, |Qd3_{2\_1}|, |Qd3_{2\_2}|) = 0.72$ Mp/m

$Qd := \max(|Qd1|, |Qd2|, |Qd3|) = 1.42$ Mp/m

Esfuerzo axil en la diagonal: $Nc := \frac{Qd}{n_c} \cdot \frac{dia_{cel}}{d}$ $Nc = 0.26$ Mp

Diámetro del redondo: $\phi c = 10$ mm

Longitud de la rama de celosía $Lc := dia_{cel} \cdot 1000$ $Lc = 224.78$ mm

Longitud de pandeo: $L_e := 0.7 \cdot Lc$ $L_e = 157.34$ mm

Radio de giro: $r_c := \frac{\phi c}{4}$ $r_c = 2.5$ mm

Esbeltez mecánica: $\lambda := \frac{L_e}{r_c}$ $\lambda = 63$ ------> $\omega := 1.39$

$\sigma := \frac{Nc \cdot \omega}{\frac{\pi}{4} \cdot \left(\frac{\phi c}{10}\right)^2}$ $\sigma = 0.46$ Mp/cm² < $f_{yd} = 4.35$ Mp/cm²

Flexión en voladizo

$$Md := 1.35\left(q_1 + q_2 + q_3\right)\cdot\frac{Lv^2}{2} \qquad Md = 0.2 \quad Mp.m/m$$

Canto útil de la celosía $d = 0.2$ m

Area necesaria $As := \frac{Md}{d}\cdot\frac{1}{f_{yd}}$ $As = 0.23$ cm2/m

Armadura superior $ns = 3.13$ $\phi s = 16$ por metro (ver cálculo en centro luz)

$$ns\cdot\pi\cdot\left(\frac{\phi s}{20}\right)^2 = 6.28 \quad > \quad As = 0.23 \quad cm2/m$$

Comprobación a pandeo del cordón inferior

$$N := \frac{Md}{d} \qquad N = 1.02 \quad Mp$$

Longitud de pandeo: $L_p := L_{cel}\cdot 1000 = 200$ mm (Se supone arriostramiento por la celosía)

Radio de giro del redondo superior: $r := \frac{\phi i}{4}$

Esbeltez mecánica: $\lambda := \frac{L_p}{r}$ $\lambda = 50$ -----> $\omega := 1.095$

$$\sigma := \frac{N\cdot\omega}{\frac{\pi}{4}\cdot\left(\frac{\phi i}{10}\right)^2\cdot ni} \qquad \sigma = 0.09 \quad Mp/cm^2 \quad < \quad f_{yd} = 4.35 \quad Mp/cm^2$$

Plazakola *Prelosa Lateral*

Contraflecha en centro luz

Coeficiente de homogeneización $\alpha c := \frac{E_y}{E_c} = 7.05$

Distancia desde el borde inferior de la prelosa al cordón inferior de la celosía: $d_{cor\_i} := 0.03$ m

$$A_{sup} := ns\cdot\pi\cdot\left(\frac{\phi s}{2000}\right)^2\cdot\alpha c$$

$$A_{inf} := ni\cdot\pi\cdot\left(\frac{\phi i}{2000}\right)^2\cdot\alpha c$$

$A_c := 1\cdot h_p = 0.06$ m2

Inercia fisurada $Yf := \frac{A_{sup}\cdot\left(d_{cor\_i} + d\right) + A_{inf}\cdot d_{cor\_i}}{A_{sup} + A_{inf}} = 0.095$

$$If := A_{sup}\cdot\left(d_{cor\_i} + d - Yf\right)^2 + A_{inf}\cdot\left(d_{cor\_i} - Yf\right)^2$$

Inercia bruta $Yb := \left[\left(A_{sup} + A_{inf}\right)\cdot Yf + A_c\cdot\frac{h_p}{2}\right]\cdot\frac{1}{A_{sup} + A_{inf} + A_c}$

$$Ib := If + \left(A_{sup} + A_{inf}\right)\cdot(Yf - Yb)^2 + \frac{1.00\cdot h_p^3}{12} + A_c\cdot\left(\frac{h_p}{2} - Yb\right)^2$$

Plazakola *Prelosa Lateral*

$$f_{cf} := \frac{1}{100}\cdot\left[0.3\cdot\left(f_{ck}\cdot 100\right)^{\frac{2}{3}}\right] \qquad f_{cf} = 0.032 \quad \text{Mp/cm2}$$

Momento de fisuración $$Mf := \frac{10^4\cdot f_{cf}\cdot Ib}{Yb} \qquad Mf = 1.35 \quad \text{Mp.m/m}$$

$q := q_1 + q_2$ $q = 0.63$ Mp/m2 (no se incluyen sobrepesos a efectos de flechas)

Momento que actúa $$Ma := \frac{q\cdot L^2}{8} - 0.5\cdot q_1\cdot\frac{Lv^2}{2} \qquad Ma = 0.3 \quad \text{Mp.m/m}$$

Inercia equivalente $$I_e := \left(\frac{Mf}{Ma}\right)^3\cdot Ib + \left[1-\left(\frac{Mf}{Ma}\right)^3\right]\cdot If$$

$$I_e := \text{if}\left(I_e > Ib, Ib, I_e\right)$$

Flecha $$\delta := \left[\left[\frac{5}{384}\cdot q\cdot L^4 - \left(q_1\cdot\frac{Lv^2}{2}\right)\cdot\frac{1}{16}\cdot L^2\right]\cdot\frac{1}{E_c\cdot I_e}\right]\cdot 100 \qquad \delta = 0.02 \quad \text{cm}$$

Disponer contraflecha de $\delta := 0.02$ cm

Plazakola *Prelosa Lateral*

Contraflecha en voladizo

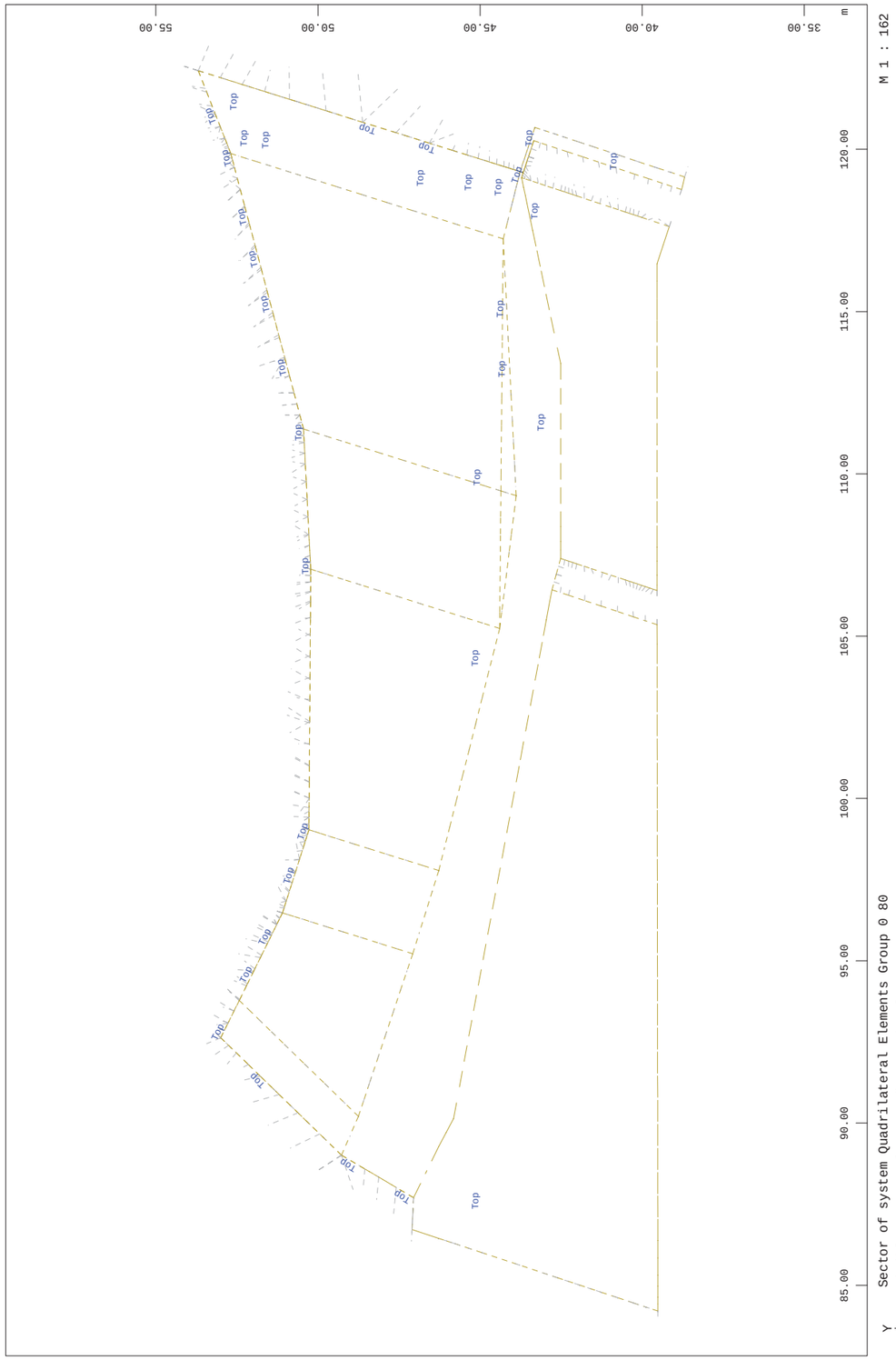
Giro en apoyos $$\theta := \left[\frac{q\cdot L^3}{24} - \left(\frac{q_1\cdot Lv^2}{2}\right)\cdot L\cdot\left(\frac{1}{3}\right)\right]\cdot\frac{1}{E_c\cdot I_e} \qquad \theta = 3.68\times 10^{-4}$$

Flecha propia del voladizo $$\delta := \left(q\cdot\frac{Lv^4}{8}\right)\cdot\frac{1}{E_c\cdot Ib} \qquad \delta\cdot 100 = 0 \quad \text{cm}$$

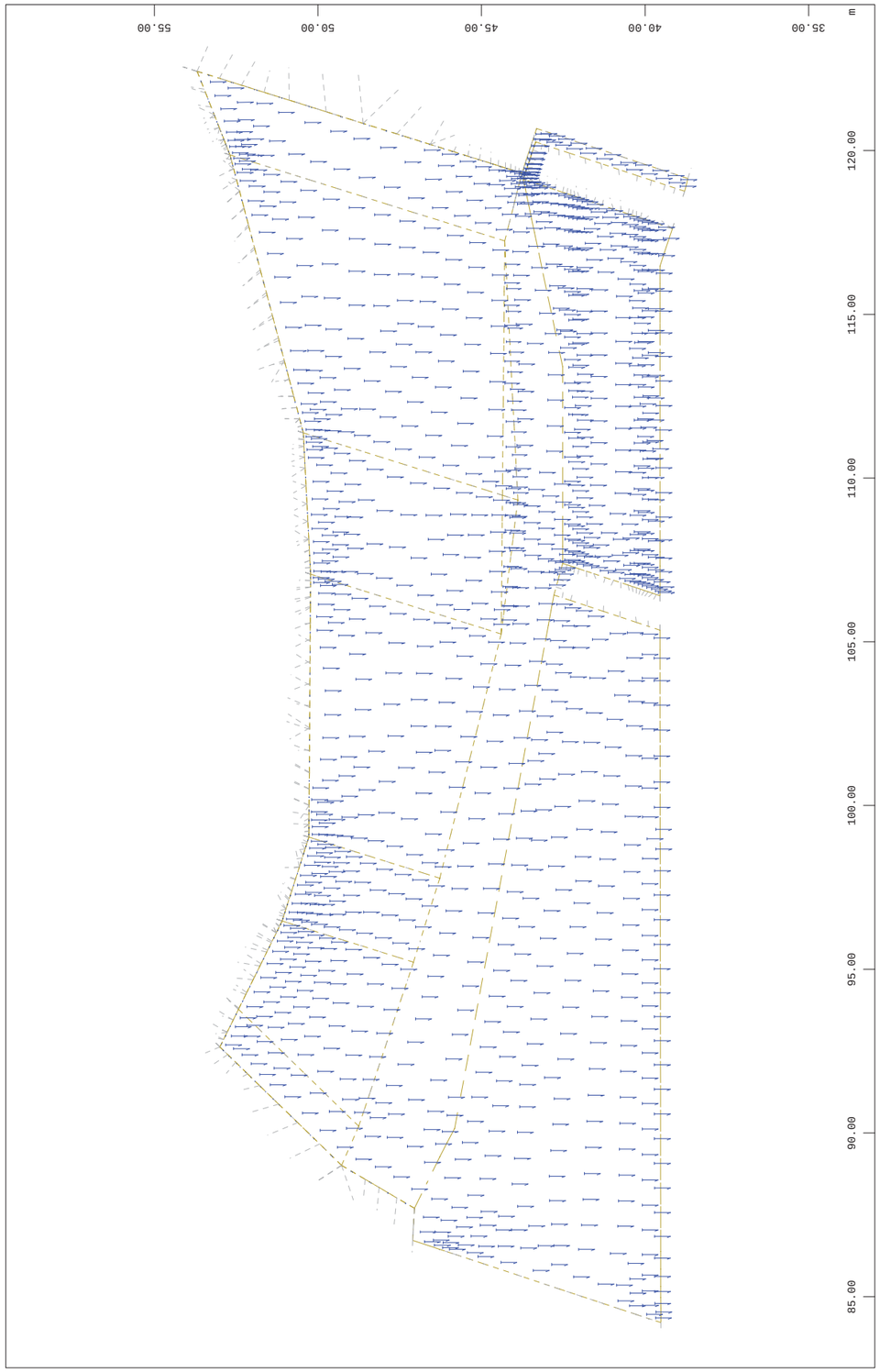
Flecha total $\delta := (\delta - \theta\cdot Lv)\cdot 100$ $\delta = -0.02$ cm

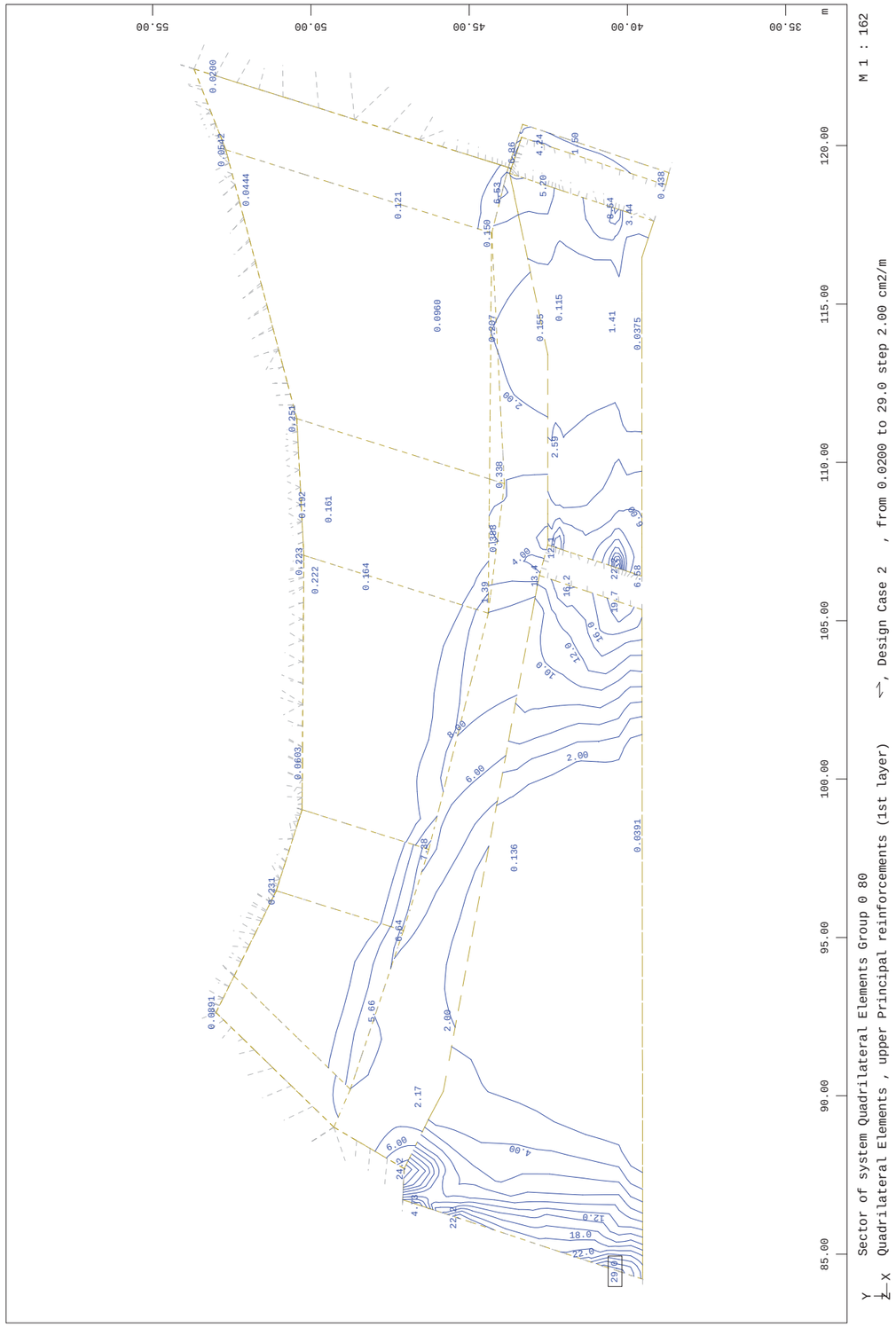
Disponer contraflecha de $\delta := 0.0$ cm

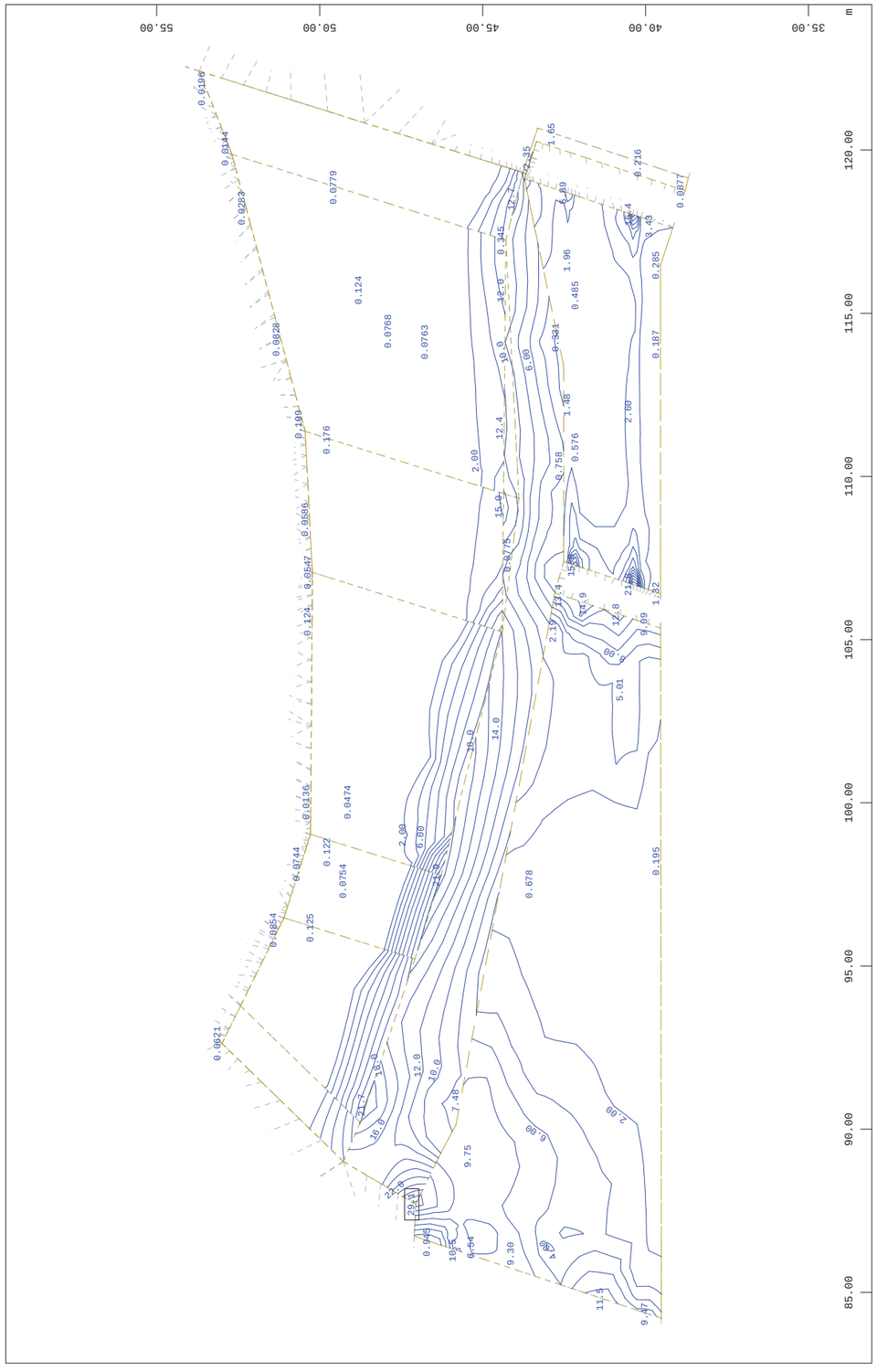
ARMADURA DE LOSA

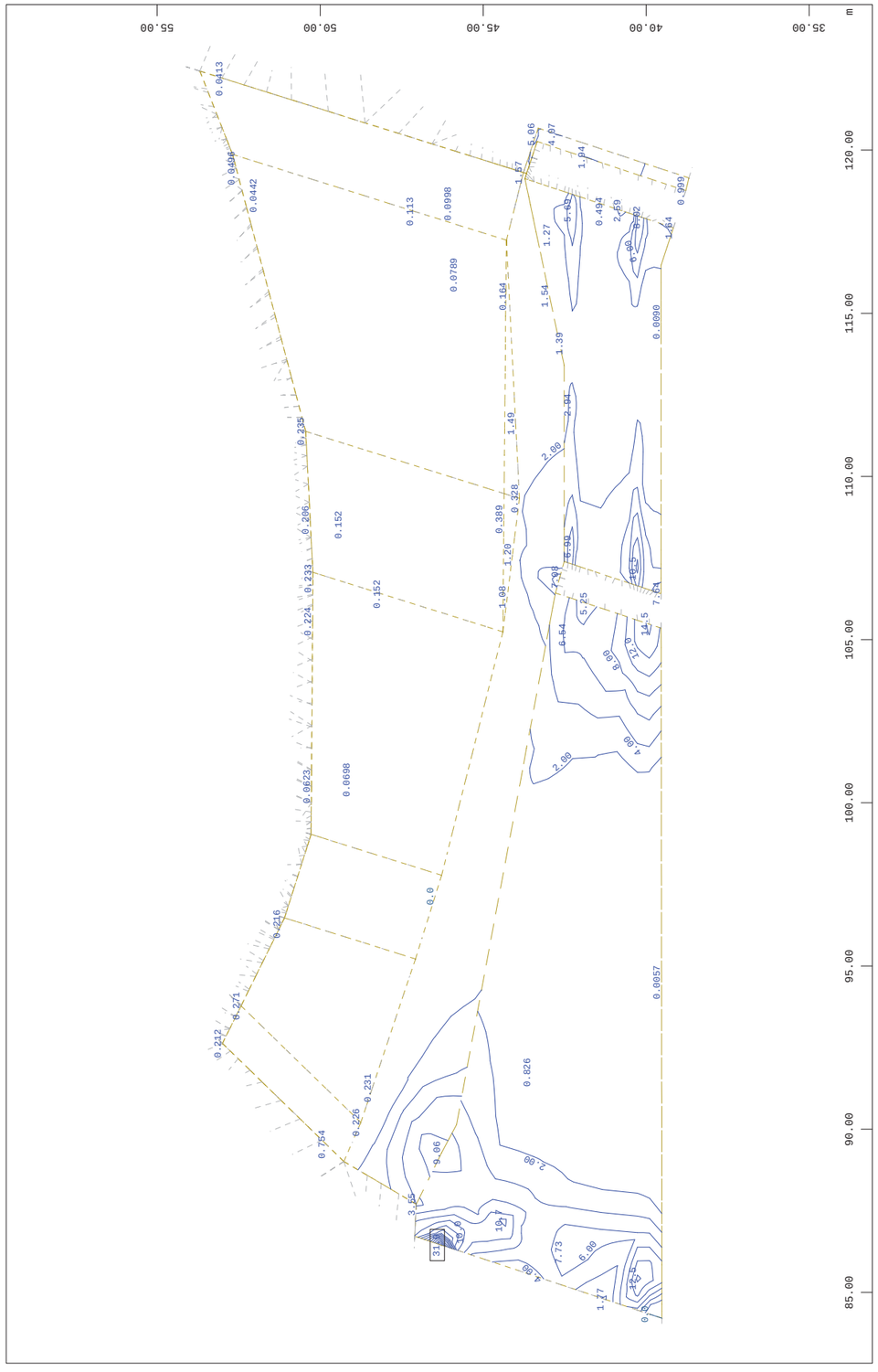

55.00
50.00
45.00
40.00
35.00
m
M 1 : 162
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
Top
Sector of system Quadrilateral Elements Group 0 80
Visible QUAD surface top/bottom in Element
Y
Z
X

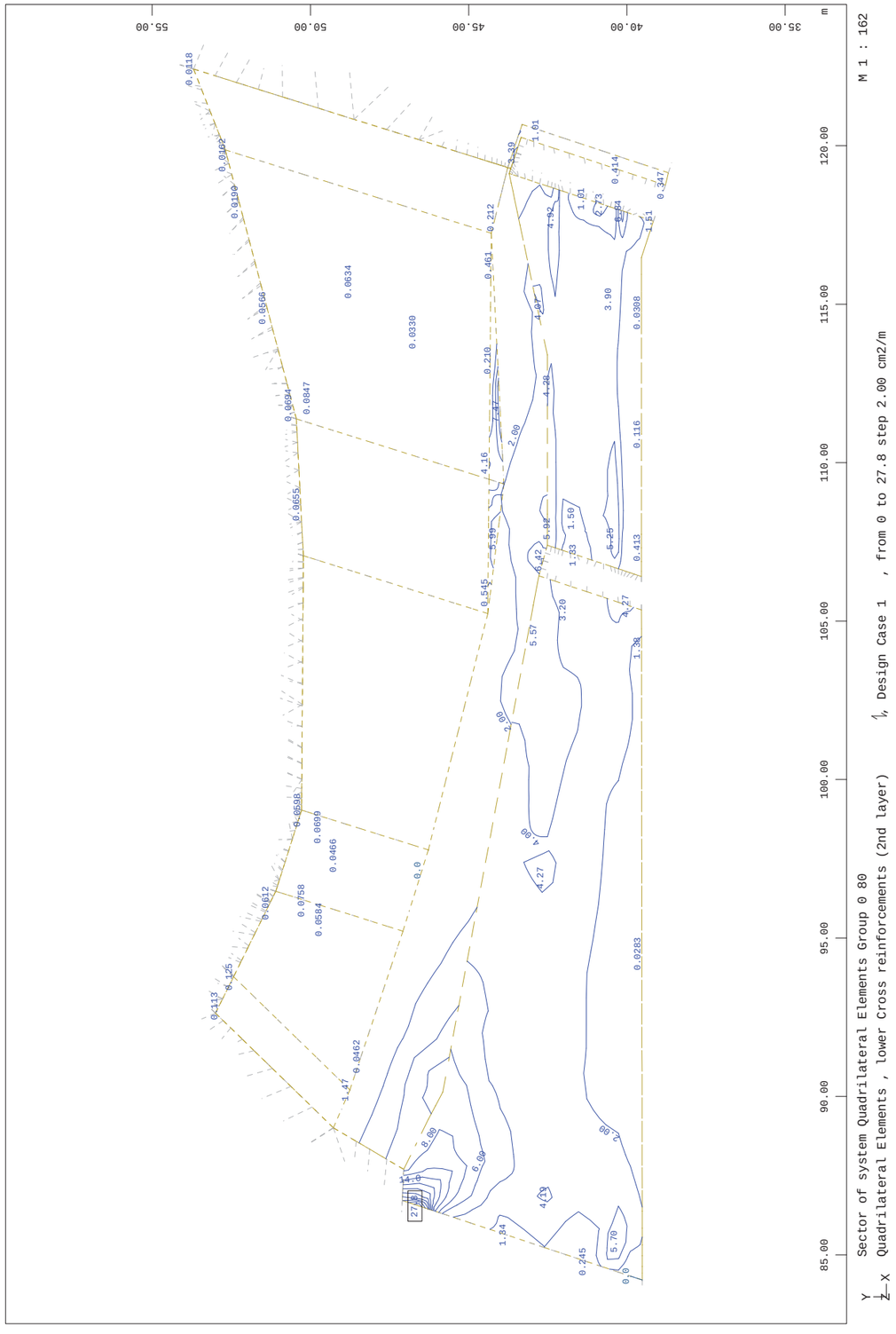

55.00
50.00
45.00
40.00
35.00
m
M 1 : 162
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
Sector of system Quadrilateral Elements Group 0 80
Quadrilateral Elements , Local direction X (
Y
Z
X


M 1 : 162
m
55.00
50.00
45.00
40.00
35.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
Y
Z
X
Sector of system Quadrilateral Elements Group 0 80
Quadrilateral Elements , Local direction Y ( )


M 1 : 162
m
55.00
50.00
45.00
40.00
35.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
Y
Z
X
Sector of system Quadrilateral Elements Group 0 80
Quadrilateral Elements , upper Principal reinforcements (1st layer)
, Design Case 2 , from 0.0200 to 29.0 step 2.00 cm2/m


Sector of system Quadrilateral Elements Group 0 80
Quadrilateral Elements , upper Cross reinforcements (2nd layer)
Design Case 2 , from 0.0104 to 29.1 step 2.00 cm2/m
M 1 : 162
m
35.00
40.00
45.00
50.00
55.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00

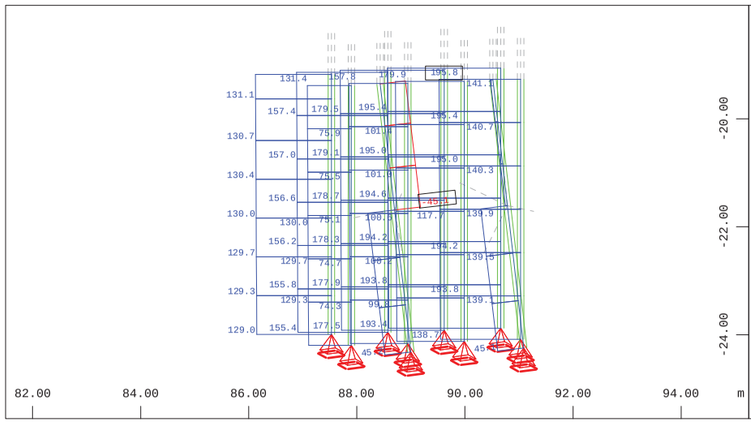

Sector of system Quadrilateral Elements Group 0 80
Quadrilateral Elements , lower Principal reinforcements (1st layer)
Design Case 2 , from 0 to 31.9 step 2.00 cm2/m
M 1 : 162
m
35.00
40.00
45.00
50.00
55.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00


M 1 : 162
Sector of system Quadrilateral Elements Group 0 80
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
Design Case 1 , from 0 to 27.8 step 2.00 cm2/m
Y
Z X
m
55.00
50.00
45.00
40.00
35.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00

ESTRIBO 1

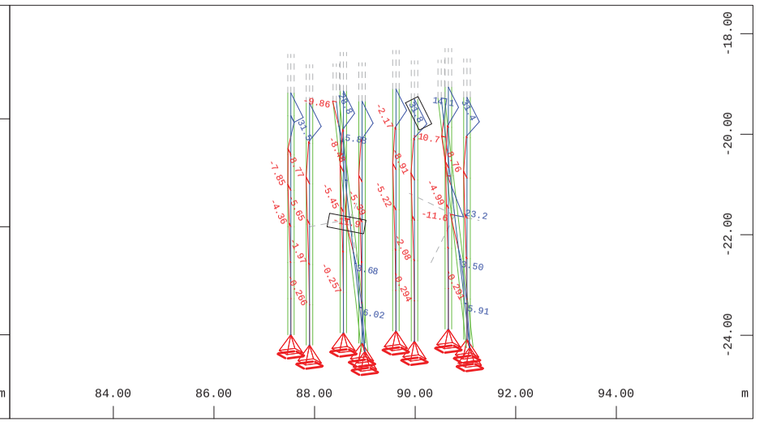
MICROPILOTES

ESFUERZOS



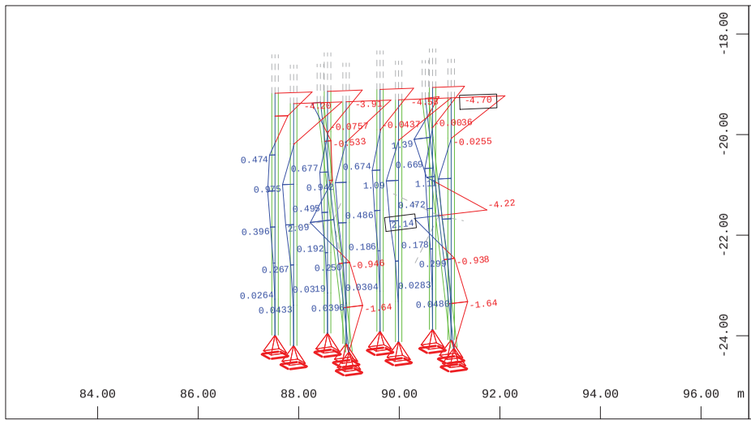
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3121 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 100.0 kN (Min=-45.1)
(Max=195.8)

M 1 : 107
X * 0.502
Y * 0.906
Z * 0.962



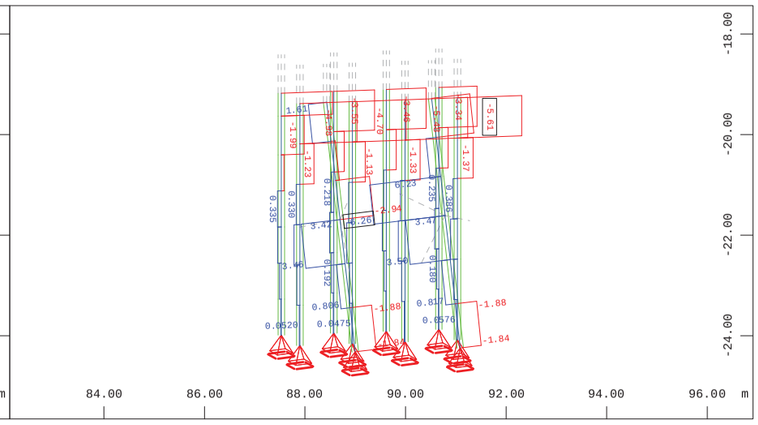
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3121 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 20.0 kNm (Min=-11.9)
(Max=31.8)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



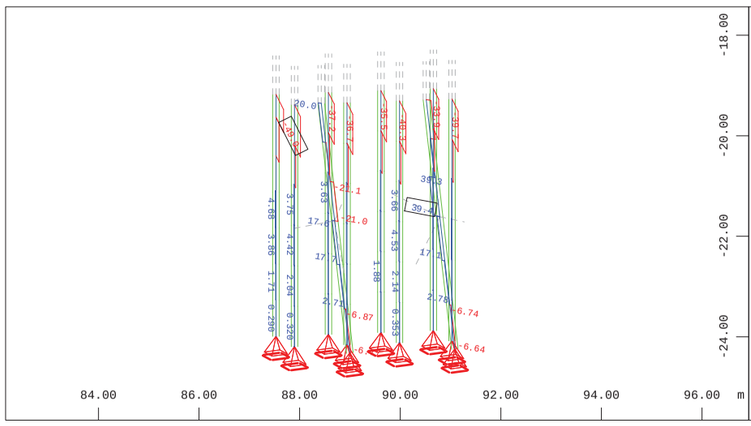
Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3121 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 5.00 kNm (Min=-4.70)
(Max=2.14)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



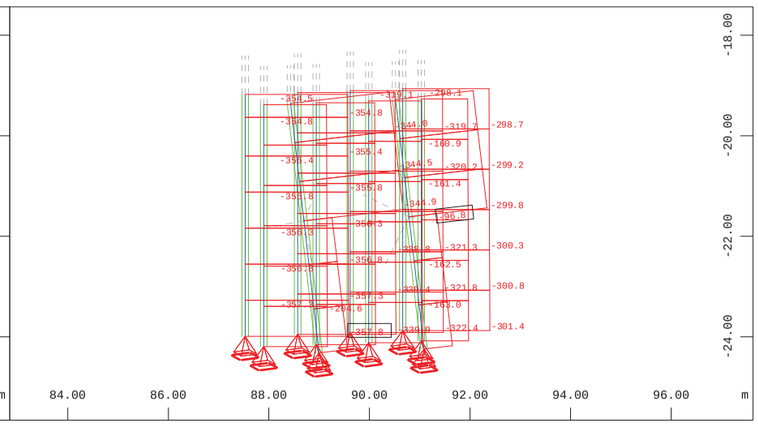
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3121 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 5.00 kN (Min=-5.61)
(Max=6.26)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



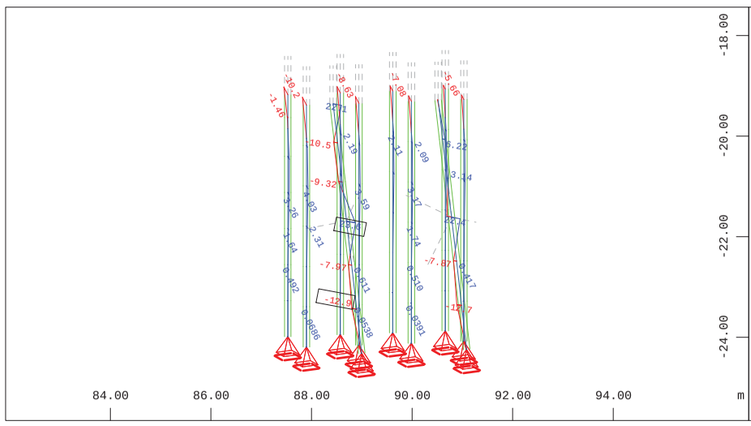
Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3121 MAX-N BEAM
Forces in Beam Elemen , 1 cm 3D = 50.0 kN (Min=-49.0)
(Max=39.4)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



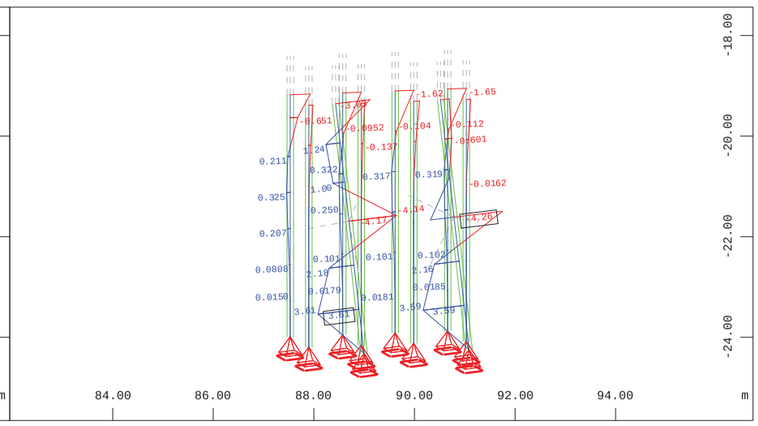
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3122 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 200.0 kN (Min=-357.8)
(Max=-96.8)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



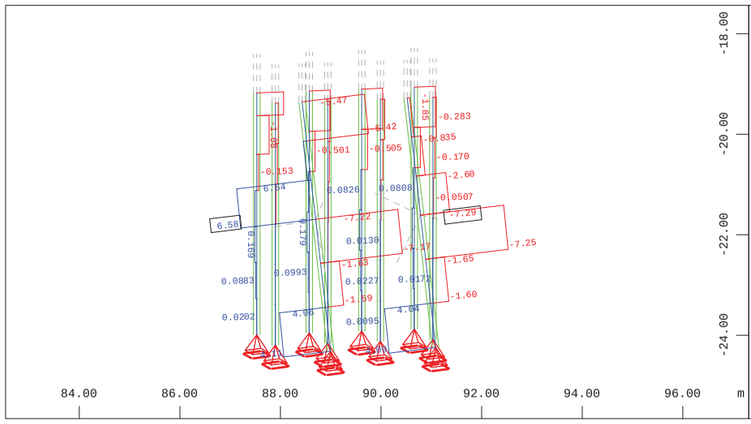
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3122 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 20.0 kNm (Min=-12.9)
(Max=23.6)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3122 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 5.00 kNm (Min=-4.26)
(Max=3.61)

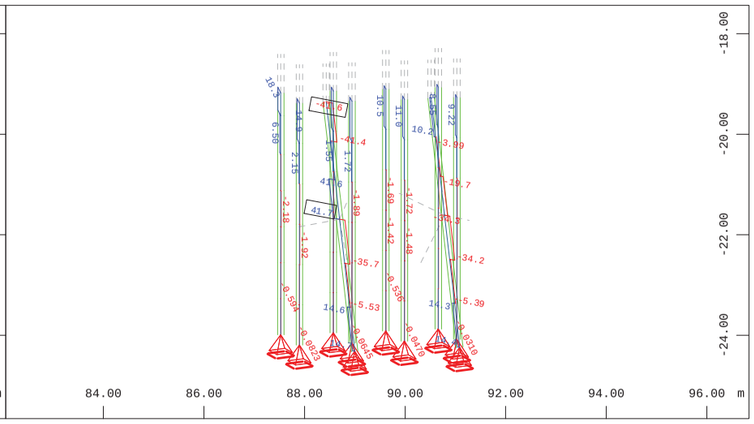
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3122 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 5.00 kN (Min=-7.29)
(Max=6.58)

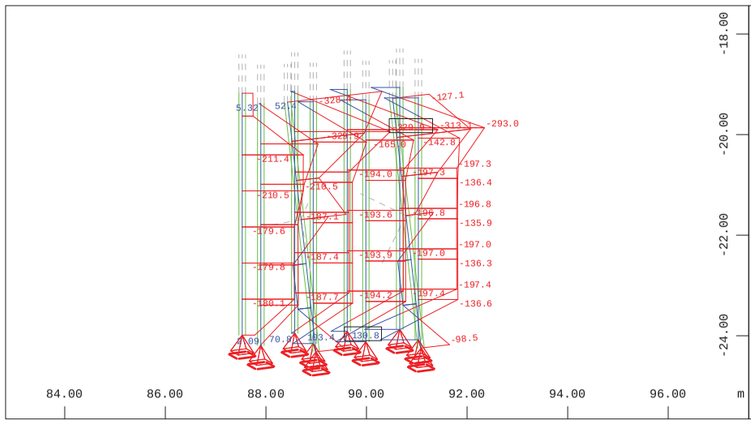
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3122 MIN-N BEAM
Forces in Beam Elemen , 1 cm 3D = 50.0 kN (Min=-41.6)
(Max=41.7)

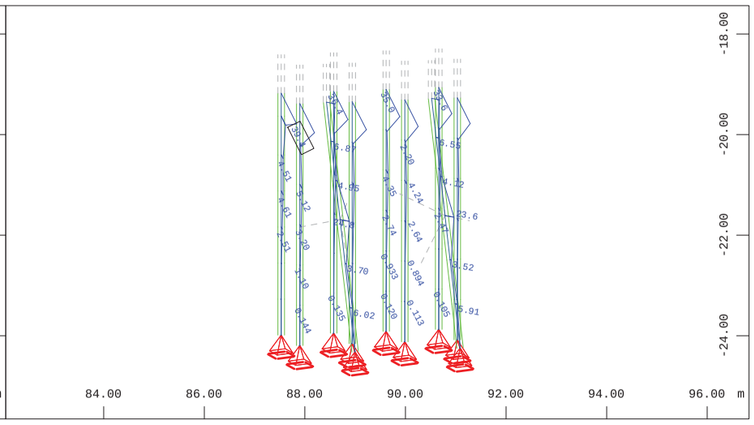
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3129 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-329.9)
(Max=130.8)

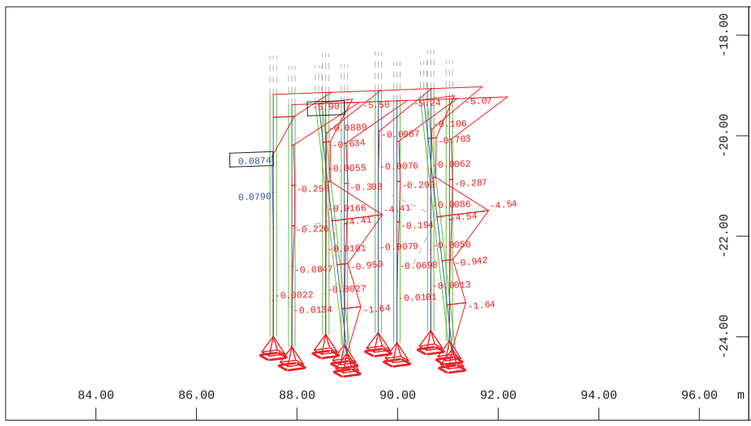
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3129 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 20.0 kNm (Min=-1.3200e-15)
(Max=39.4)

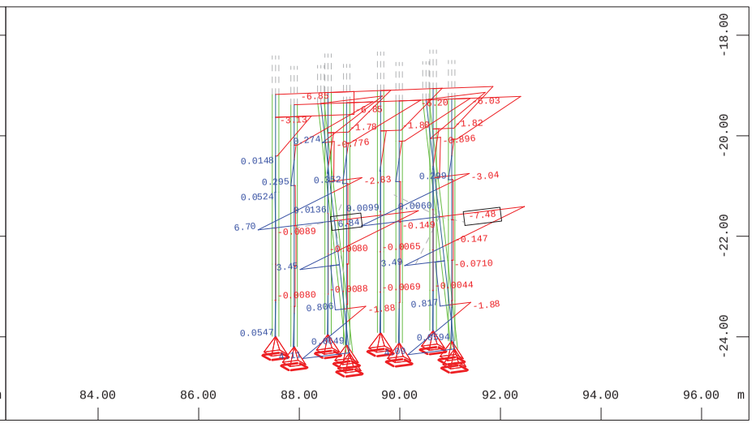
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3129 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kNm (Min=-5.90)
(Max=0.0874)

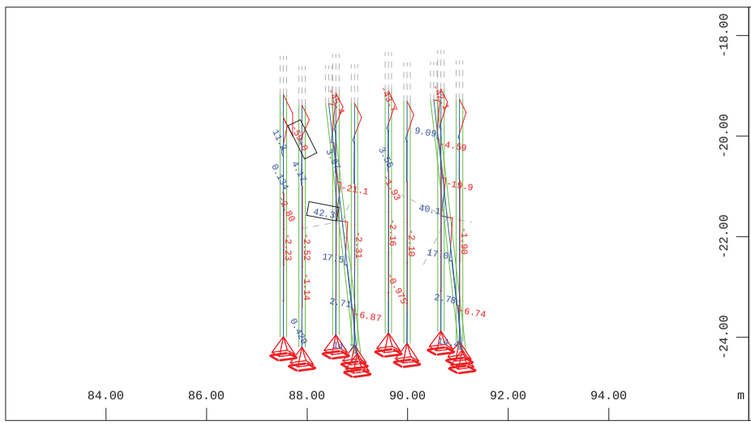
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3129 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Min=-7.48)
(Max=6.84)

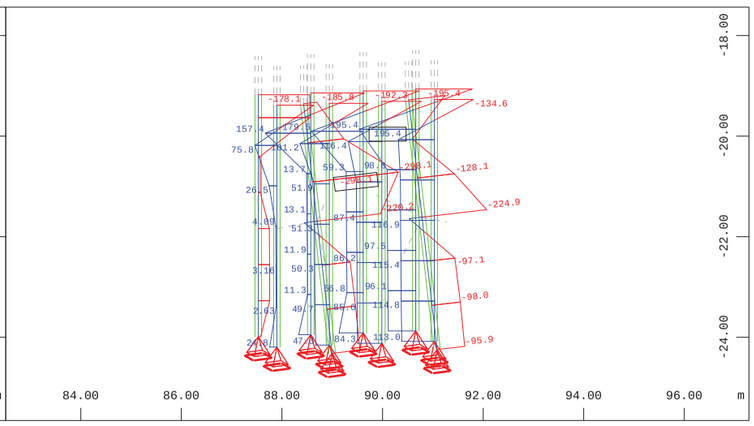
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3129 MAX-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Min=-59.0)
(Max=42.3)

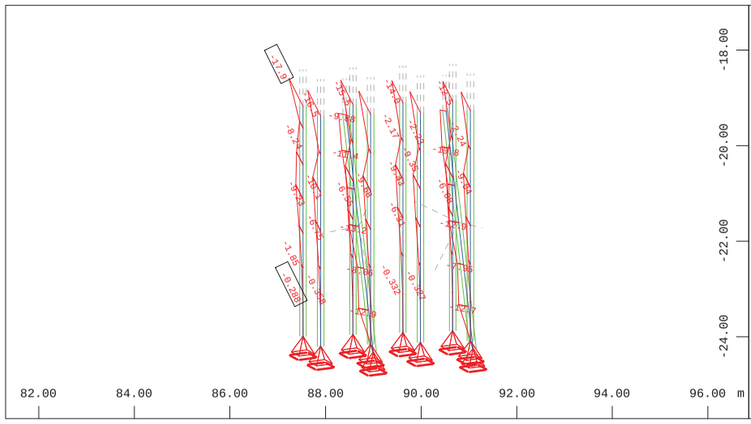
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
└Y
X

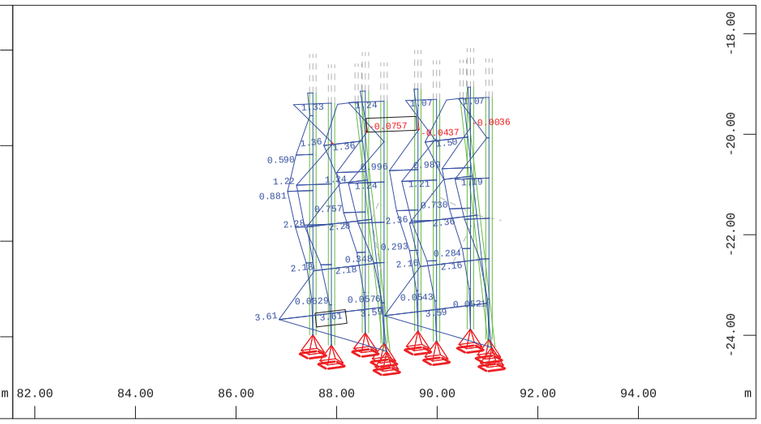
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3130 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-298.1)
(Max=195.4)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



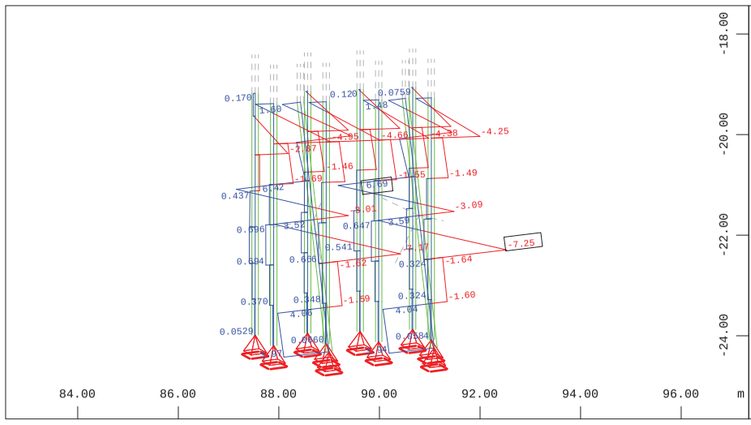
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3130 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 10.0 kNm (Min=-17.9) (Max= 2.2294e-14)

M 1 : 121
X * 0.502
Y * 0.906
Z * 0.962



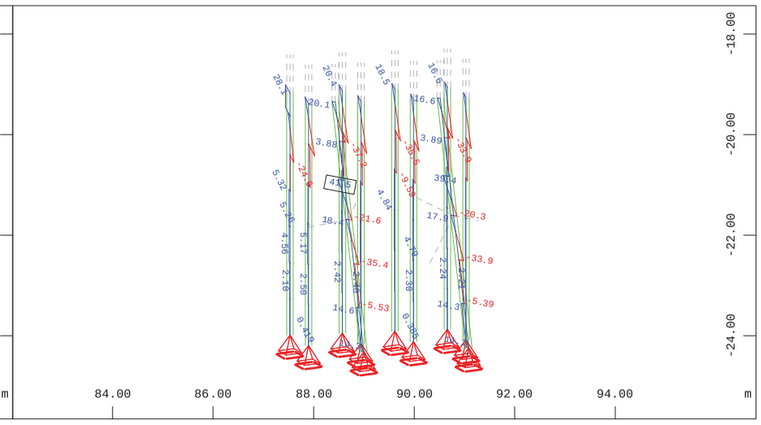
Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3130 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 2.00 kNm (Min=-0.0757) (Max=3.61)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



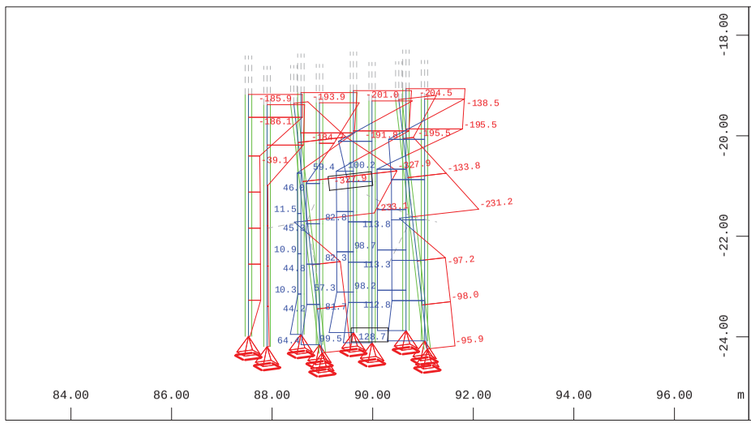
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3130 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Min=-7.25) (Max=6.69)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



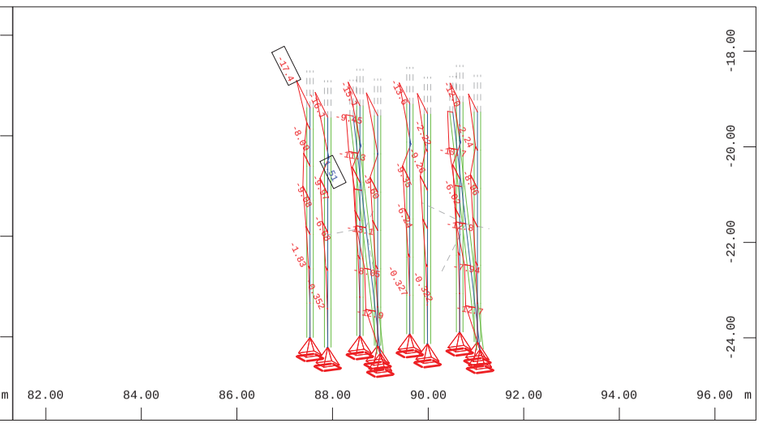
Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3130 MIN-MY BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Min=-38.4) (Max=41.5)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



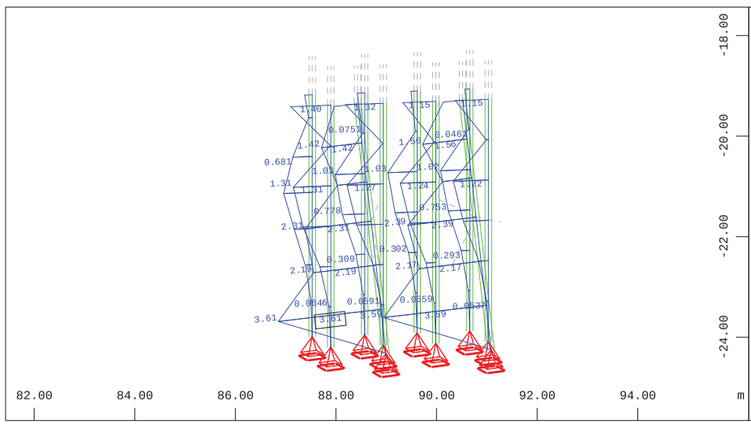
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3131 MAX-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-327.9) (Max=128.7)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



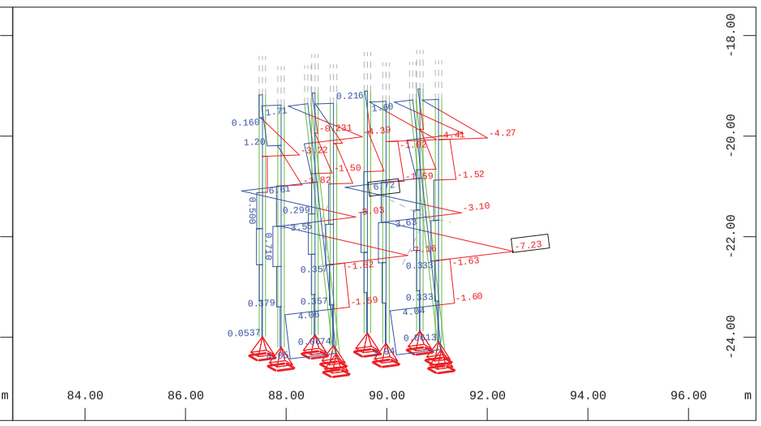
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3131 MAX-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 10.0 kNm (Min=-17.4) (Max=1.51)

M 1 : 121
X * 0.502
Y * 0.906
Z * 0.962



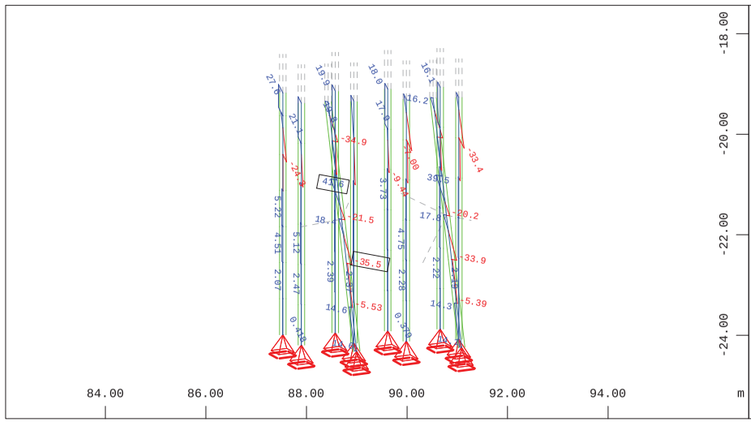
Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3131 MAX-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 2.00 kNm (Min=-4.1943e-15) (Max=3.61)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



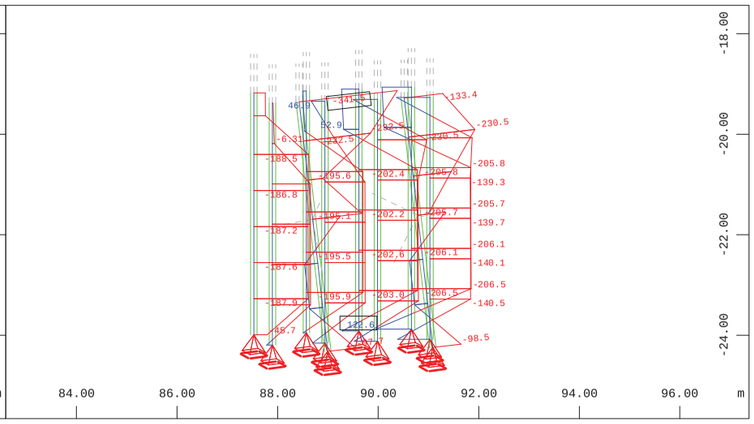
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3131 MAX-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Min=-7.23) (Max=6.72)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



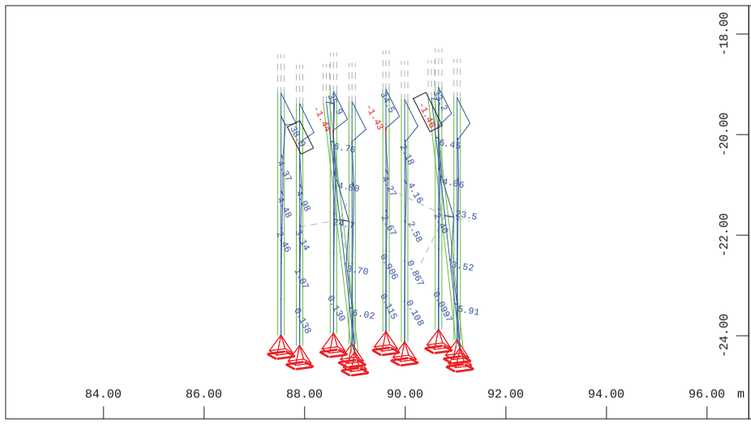
Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3131 MAX-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Min=-35.5)
(Max=41.6)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



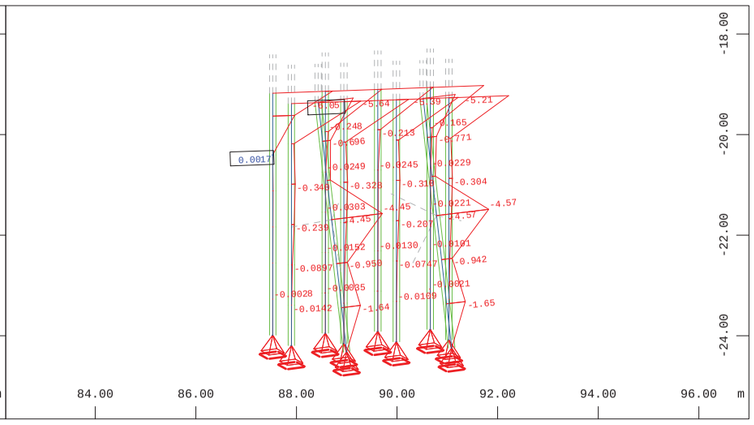
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3132 MIN-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-341.5)
(Max=122.6)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



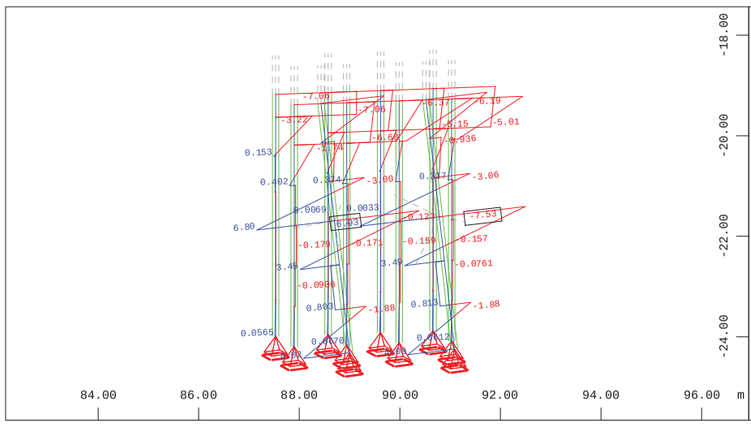
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3132 MIN-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 20.0 kNm (Min=-1.46)
(Max=38.9)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



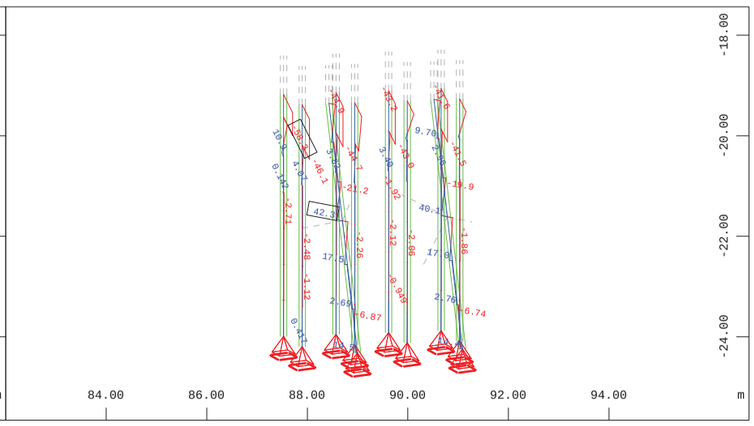
Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3132 MIN-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kNm (Min=-6.05)
(Max=0.0017)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



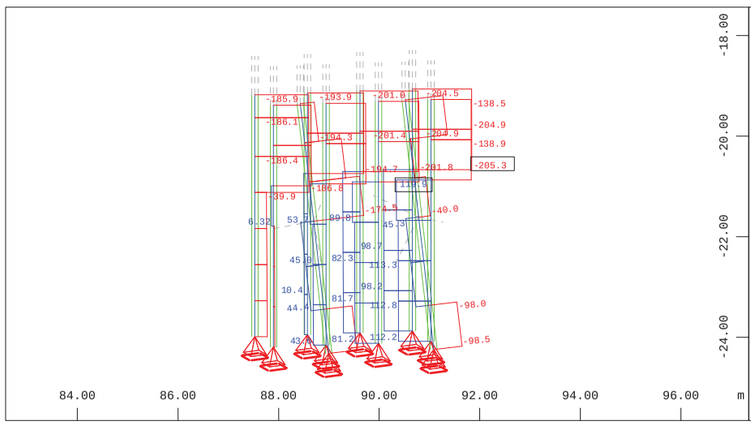
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3132 MIN-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Min=-7.53)
(Max=6.93)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



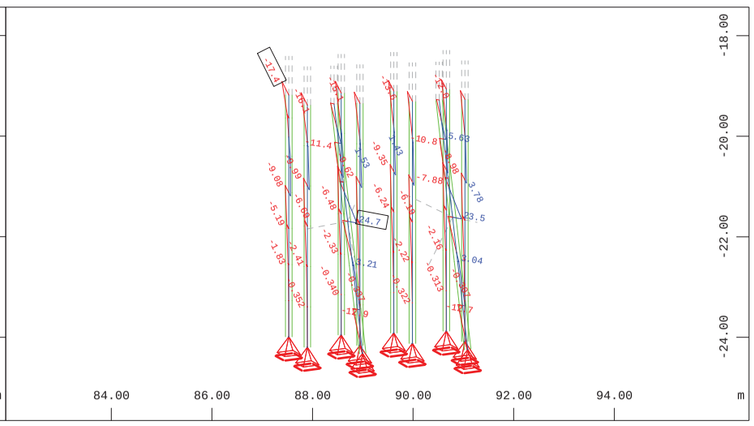
Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3132 MIN-MZ BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Min=-58.3)
(Max=42.3)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



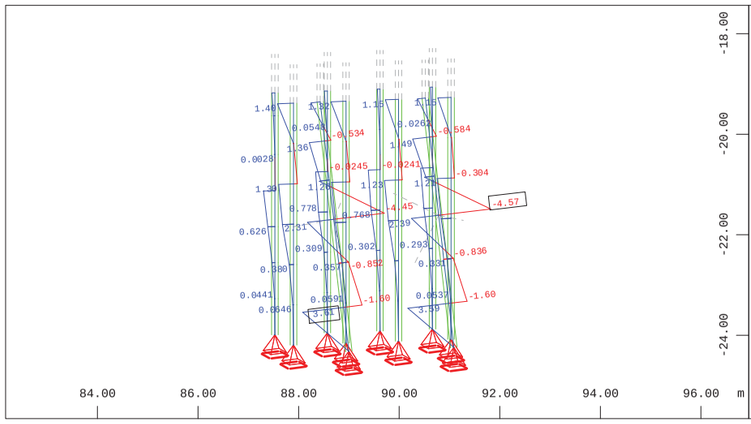
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3123 MAX-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-205.3)
(Max=119.9)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



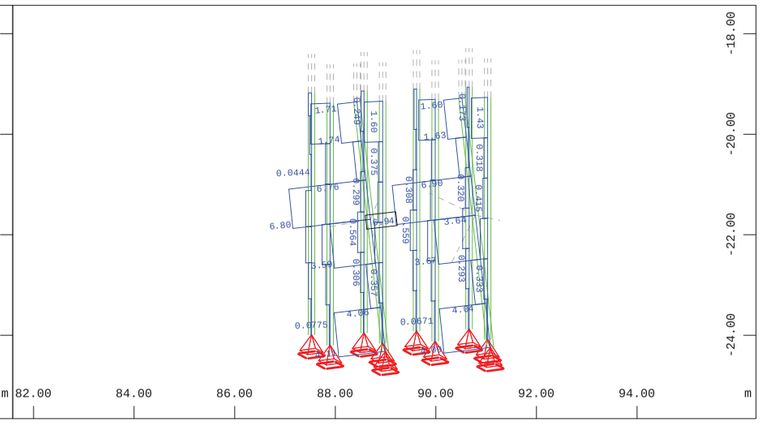
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3123 MAX-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 20.0 kNm (Min=-17.4)
(Max=24.7)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



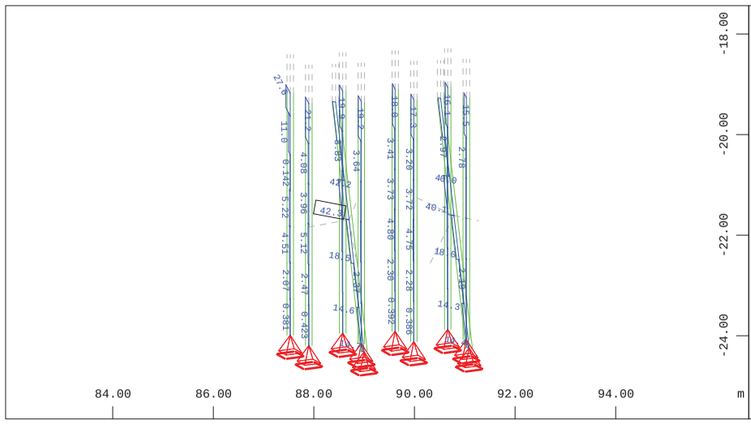
Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3123 MAX-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kNm (Min=-4.57)
(Max=3.61)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



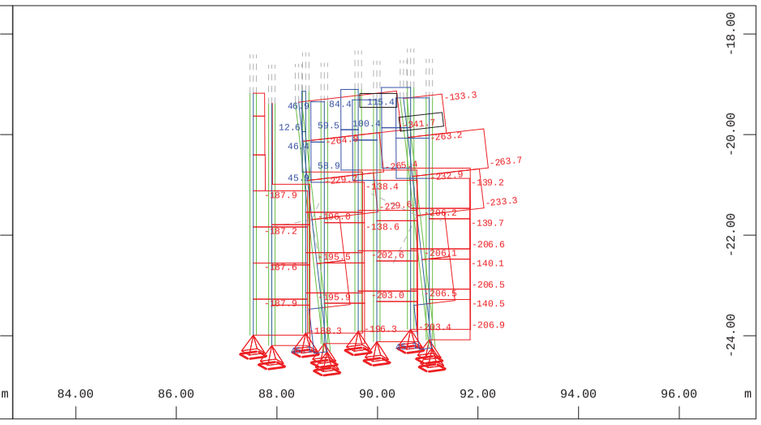
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3123 MAX-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Max=6.94)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



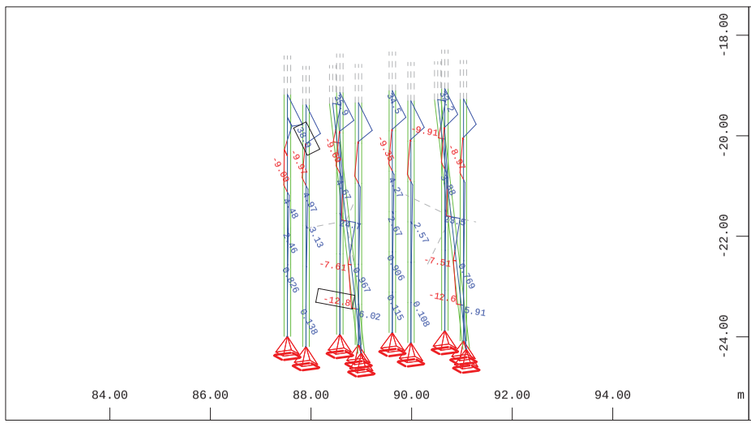
Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3123 MAX-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Max=42.3)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



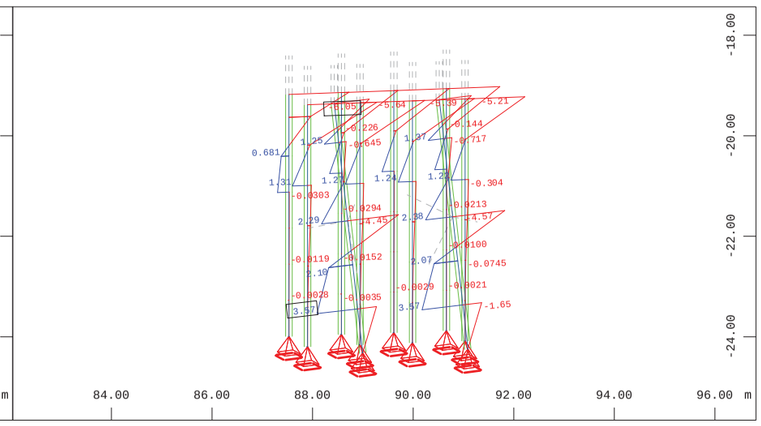
Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3124 MIN-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-341.7)
(Max=115.4)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



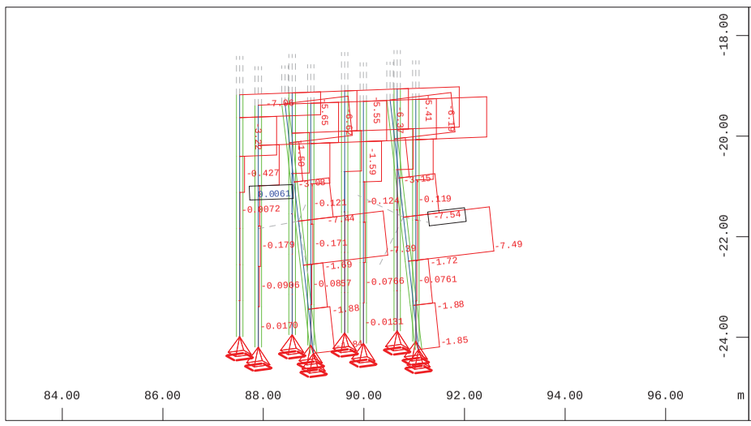
Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3124 MIN-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 20.0 kNm (Min=-12.8)
(Max=38.9)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



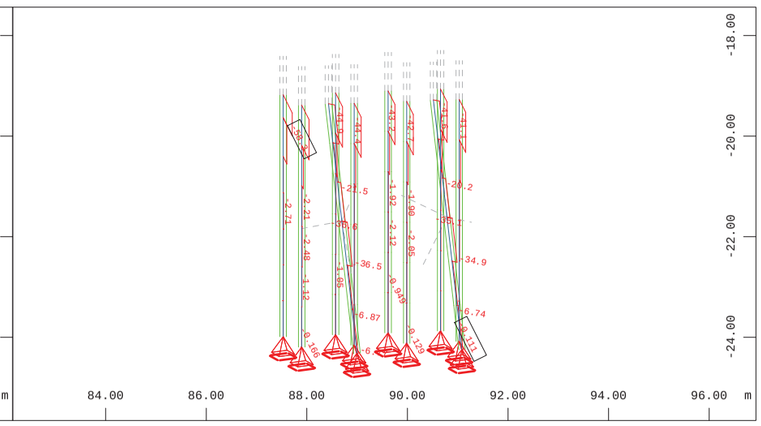
Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3124 MIN-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kNm (Min=-6.05)
(Max=3.57)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



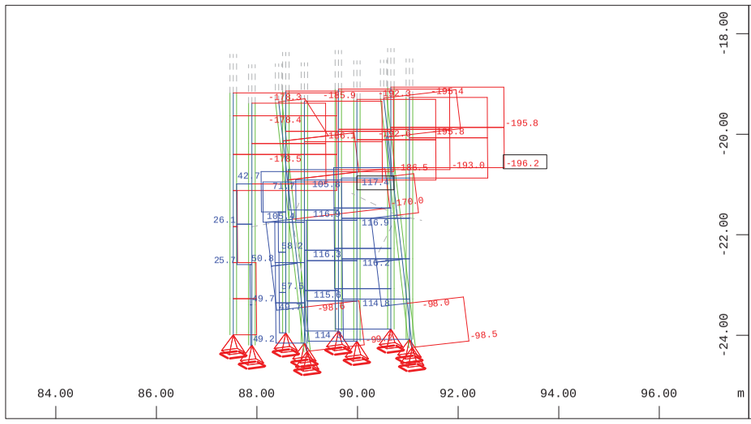
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3124 MIN-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Min=-7.54)
(Max=0.0061)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3124 MIN-VY BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Min=-58.3)
(Max=-0.111)

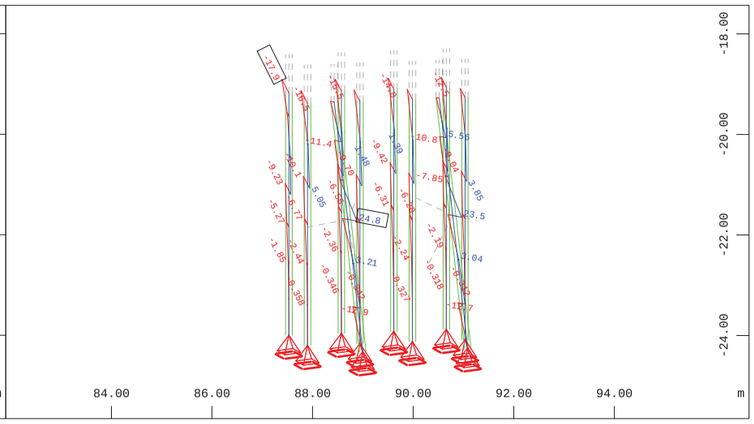
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3125 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 100.0 kN (Min=-196.2)
(Max=117.4)

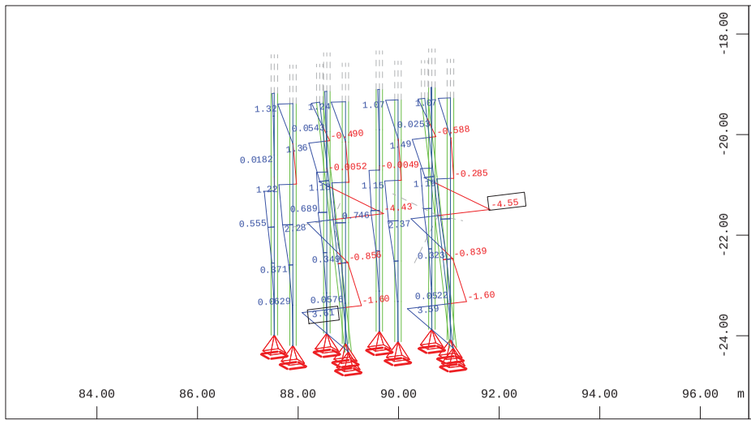
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3125 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 20.0 kNm (Min=-17.9)
(Max=24.8)

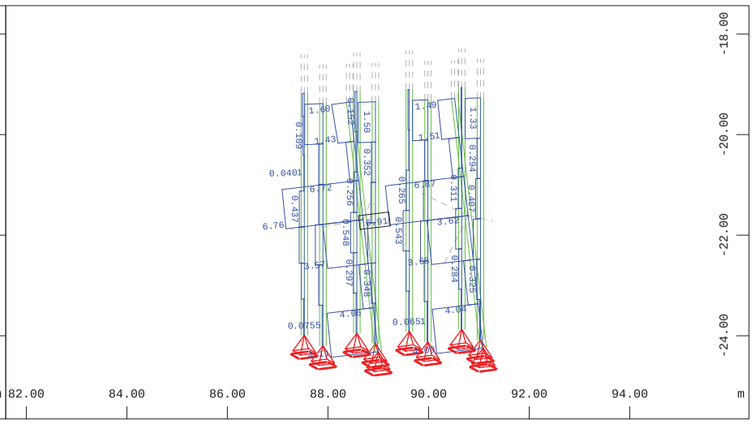
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3125 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kNm (Min=-4.55)
(Max=3.61)

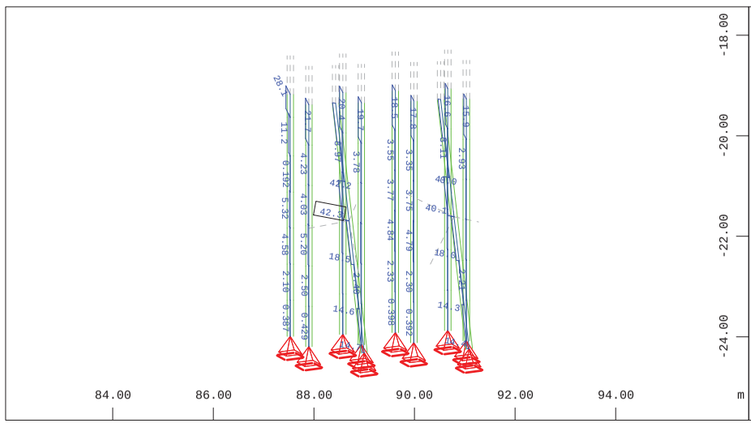
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3125 MAX-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Max=6.91)

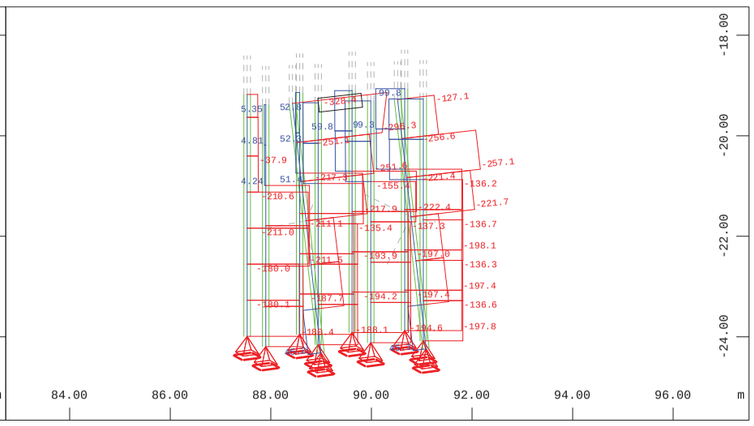
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3126 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Max=42.3)

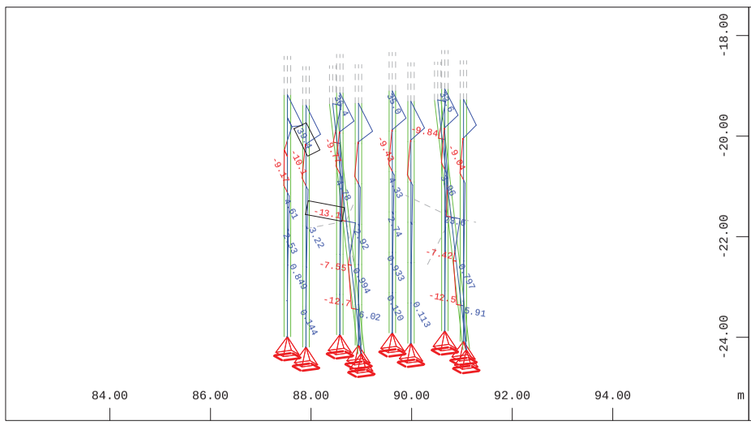
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Normal force Nx, Loadcase 3126 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 200.0 kN (Min=-328.4)
(Max=118.5)

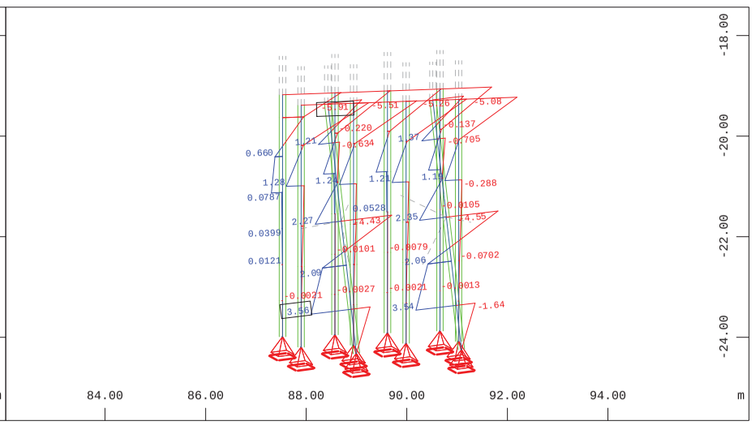
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Bending moment My, Loadcase 3126 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 20.0 kNm (Min=-13.1)
(Max=39.4)

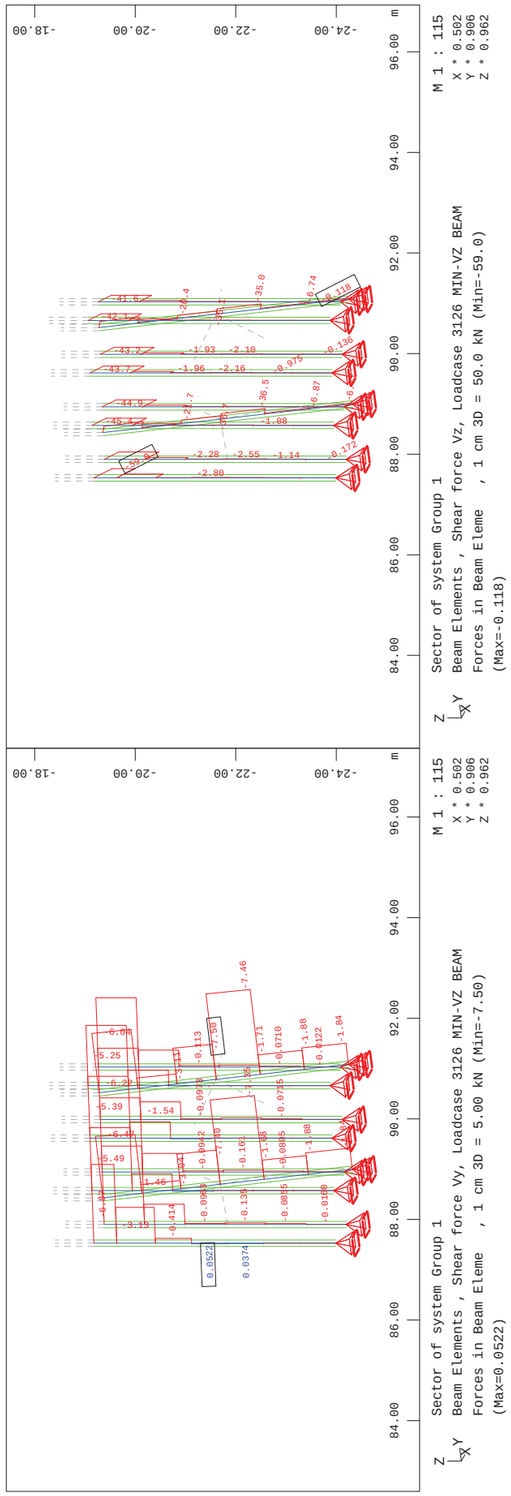
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962



Z
Y
X

Sector of system Group 1
Beam Elements , Bending moment Mz, Loadcase 3126 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kNm (Min=-5.91)
(Max=3.56)

M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962


M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 1
Beam Elements , Shear force Vz, Loadcase 3126 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 50.0 kN (Min=-59.0)
(Max=-0.118)
M 1 : 115
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 1
Beam Elements , Shear force Vy, Loadcase 3126 MIN-VZ BEAM
Forces in Beam Eleme , 1 cm 3D = 5.00 kN (Min=-7.50)
(Max=0.0522)

ANÁLISIS

Plazakola *Micropilotes Encepado*

DIMENSIONAMIENTO DE MICROPILOTES PÉRGOLA - HERAS-PARBAYÓN.

Definición de las características del micropilote

Diámetro de la perforación: $D_p := 22.50$ cm

Diámetro del micropilote: $D_m := 21.91$ cm

Diámetro exterior de la armadura tubular: $d_e := 16.83$ cm

Espesor de la armadura tubular: $e_e := 1.25$ cm

Diámetro de la armadura pasiva: $\phi_P := 0.0$ cm

Resistencia de diseño del hormigón del micropilote: $fck := 250$ Kp/cm^2 $fcd := \frac{fck}{1.50}$

Resistencia de diseño del acero tubular: $fyk := 5600$ Kp/cm^2 $fyd := \frac{fyk}{1.15}$

Resistencia de diseño del acero pasivo: $fsk := 5000$ Kp/cm^2 $fsd := \frac{fsk}{1.15}$

Separación entre micropilotes: $sep := 1.00$ m

Plazakola *Micropilotes Encepado*

COMPROBACIÓN DE LA CARGA DE HUNDIMIENTO DEL MICROPILOTE

Esfuerzo axil máximo proporcionado por el SOFISTIK : $N := 35.8$ Mp/m

Coeficiente de mayoración de acciones: $\gamma f := 1.0$

Esfuerzo axil de cálculo: $Nd := N_{sep} \cdot \gamma f$ $Nd = 35.8$ Mp

Resistencia unitaria de cálculo por punta: $q_{pd} := 0$ Kp/cm^2

Resistencia unitaria de cálculo por fuste: $f_{ed} := 3.0$ Kp/cm^2

Longitud de empotramiento en roca del micropilote: $L_{er} := 2.0$ m

Resistencia del empotramiento en roca:

$$R_{ed} := \left(\pi \cdot \frac{D_m^2}{4} \cdot q_{pd} + \pi \cdot D_m \cdot L_{er} \cdot 100\, f_{ed}\right) \cdot 10^{-3}$$ $R_{ed} = 41.3$ Mp

$R_{ed} = 41.3$ Mp > $Nd = 35.8$ Mp (Cumple)

Comprobación frente al arranque

$$R_{td} := \left(\pi \cdot D_m \cdot L_{er} \cdot 100\, f_{ed} \cdot 0.60\right) \cdot 10^{-3}$$ $R_{td} = 24.78$ Mp

Esfuerzo axil (tracción) de cálculo máximo proporcionado por el SOFISTIK : $T := 20.1$ Mp

DIMENSIONAMIENTO ESTRUCTURAL DE MICROPILOTES

Número de secciones y/o combinaciones que se comprueban $N := 5$ $i := 1 .. N$

Sección	Descripción
1	Micropilote. Sección superior. N max
2	Micropilote. Sección superior. M max
3	Micropilote. Sección de unión con manguito
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	

MATERIALES

Acero de armadura tubular: $f_y := 560$ N/mm² $f_{yd} := \frac{f_y}{1.10}$ $f_{yd} = 509$ N/mm²

Acero de armadura en barras: $f_s := 500$ N/mm² $f_{sd} := \frac{f_s}{1.15}$ $f_{sd} = 435$ N/mm²

Mortero o lechada de cemento $f_{ck} := 25$ N/mm² $f_{cd} := \frac{f_{ck}}{1.50}$

Límites resistentes de acuerdo con Art. 3.6.1

$f_{yd} := if(f_{yd} > 400, 400, f_{yd})$ $f_{yd} = 400$ N/mm²

$f_{sd} := if(f_{sd} > 400, 400, f_{sd})$ $f_{sd} = 400$ N/mm²

CARACTERÍSTICAS GEOMÉTRICAS

$red(x) := submatrix(x, 1, N, 1, 1)$

$sec := red(sec)$

dp = Diámetro nominal a considerar en el cálculo (mm)

de = Diámetro exterior de la armadura tubular (mm)

e = Espesor del tubo (mm)

nb = Numéro de barras de armadura

ϕ = Diámetro de cada barra

Sec	Descripción	dp (mm)	de (mm)	e (mm)	nb (ud)	ϕ (mm)
1	Micropilote delantero. Sección superior. N max	225.0	168.3	12.5	0	32
2	Micropilote delantero. Sección superior. M max	225.0	168.3	12.5	0	32
3	Micropilote delantero. Sección de unión con manguito	225.0	168.3	12.5	0	32
4	0					
5	0					
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

ESFUERZOS

M_{Ed} : Momento flector mayorado (kN.m)

V_{Ed} : Cortante mayorado (kN)

N_{Ed} : Axil mayorado (kN) (compresión = positivo)

Descripción	M_{ED} (kN.m)	V_{ED} (kN)	N_{ED} (kN)
Micropilote. Sección superior. N max	22.50	41.20	323.00
Micropilote. Sección superior. M max	22.50	41.20	323.00
Micropilote. Sección de unión con manguito	19.40	29.10	323.00
0			
0			

FACTORES PARA EL CÁLCULO DE RESISTENCIAS

Reducción por corrosión

TABLA 2.4. REDUCCIÓN DE ESPESOR DE ARMADURA POR EFECTO DE LA CORROSIÓN (mm)

Tipo de Terreno	Vida útil requerida (años)				
	5	25	50	75	100
1 Suelos naturales sin alterar	0.00	0.30	0.60	0.90	1.20
2 Suelos naturales contaminados o suelos industriales	0.15	0.75	1.50	2.25	3.00
3 Suelos naturales agresivos (turbas, ciénagas, etc.)	0.20	1.00	1.75	2.50	3.25
4 Rellenos no agresivos sin compactar	0.18	0.70	1.20	1.70	2.20
5 Rellenos agresivos sin compactar (cenizas, escorias, etc)	0.50	2.00	3.25	4.50	5.75

(*) Para rellenos compactados los valores pueden reducirse a la mitad

Tipo de terreno $Tipo := 4$ $Terreno_{Tipo} =$ "Rellenos no agresivos sin compactar"

Vida útil requerida $Vida := 100$ años

Factor que tiene en cuenta si el terreno son rellenos compactados $Factor := 1.0$

0.5 = Rellenos compactados
1.0 = Resto de casos

$vy := \left(M^{T}\right)^{\langle Tipo \rangle}$ $r_e := Factor \cdot linterp\left(vx^{T}, vy, Vida\right)$ $r_e = 2.20$ mm

Factor del tipo de unión (flexión)

Coeficiente de minoración del módulo resistente $F_{uf} := 0.50$

1.0 = Uniones ensayadas
0.5 = Resto de casos

Factor del tipo de unión (compresión)

TABLA 3.4. COEFICIENTE Fuc

Tipo de unión	Fuc
Manguitos exteriores doblemente roscados, sin disminución de sección	1.00
De rosca machihembrada con sección ensanchada	
De rosca machihembrada sin sección ensanchada y con contacto a tope en ambos extremos	
Otras uniones diseñadas específicamente para no sufrir pérdidas de resistencia	
Resto de casos	0.50

Factor del tipo de unión (tracción)

TABLA 3.7. COEFICIENTE Fut

Tipo de unión	Fut
Manguitos exteriores doblemente roscados, sin disminución de sección	1.00
De rosca machihembrada con sección ensanchada	
Otras uniones diseñadas específicamente para no sufrir pérdidas de resistencia	
Resto de casos	0.50

Coeficiente adimensional para pandeo

TABLA 3.6. COEFICIENTE CR

Tipo de coacción lateral	CR
Fangos y turgas con 15 < su < 25 kPa	18 a 12
Arcillas y limos blandos con 15 < su < 25 kPa	12 a 8
Suelos no cohesivos de compacidad media (0.35<ID<0.65) que cumplan alguno de los siguientes requisitos: - Encontrarse permanentemente por encima del nivel freático - Presentar un coeficiente de uniformidad (D60 / D10 > 2)	8 a 7
Suelos cohesivos de consistencia media (25 < su < 50 kPa)	
Libre (sin terreno o rodeado de terreno inestable)	H/DR

Sec	*Descripción*	*Fuc*	*Fut*	*CR*
1	Micropilote. Sección superior. N max	1.00	1.00	12.00
2	Micropilote. Sección superior. M max	1.00	1.00	12.00
3	Micropilote. Sección de unión con manguito	0.50	0.50	12.00
4	0	1.00	1.00	12.00
5	0	1.00	1.00	12.00
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				

Coeficiente de influencia del tipo de ejecución

TABLA 3.5. COEFICIENTE Fe

	Tipo de Terreno y de perforación	Fe
1	Terreno con NF por encima de punta de micropilote y perforación sin revestir, sin empleo de lodos	1.50
2	Terreno con NF por debajo de punta de micropilote y perforación sin revestir, sin empleo de lodos	1.30
3	Cualquier tipo de terreno perforado con lodos	1.15
4	Cualquier tipo de terreno perforado al amparo de revestimiento recuperable	1.05
5	Micropilote con tubería de revestimiento dejada de forma permanente (camisa perdida)	1.00

Tipo de ejecución $Tipo := 1$

$Ejec_{Tipo}$ = "Terreno con NF por encima de punta de micropilote y perforación sin revestir, sin empleo de lodos"

$F_e := M_{Tipo}$ $F_e = 1.50$

CAPACIDAD ESTRUCTURAL

Funciones generales

Sección de acero en barras: $A_{s_i} := nb_i \cdot \pi \cdot \left(\frac{\phi a_i}{2}\right)^2$ mm²

Sección de la armadura tubular $A_{t_i} := \frac{\pi}{4} \cdot \left[\left(d_{e_i} - 2 \cdot r_e\right)^2 - \left(di_i\right)^2\right]$ mm²

Sección neta de hormigón $A_{c_i} := \frac{\pi}{4} \cdot \left(d_{p_i}\right)^2 - A_{t_i} - A_{s_i}$ mm²

Capacidad frente a esfuerzos axiles de compresión

Factor empírico de pandeo $R_i := 1.07 - 0.027 \cdot C_{R_i}$

Sección de cálculo de la armadura tubular $A_{a_i} := \frac{\pi}{4} \cdot \left[\left(d_{e_i} - 2 \cdot r_e\right)^2 - \left(di_i\right)^2\right] \cdot F_{uc_i}$ mm²

Capacidad a compresión $N_{cRd_i} := \left(0.85 \cdot f_{cd} \cdot A_{c_i} + A_{s_i} \cdot f_{sd} + A_{a_i} \cdot f_{yd}\right) \cdot \frac{R_i}{F_e \cdot 1.2} \cdot 10^{-3}$ kN

Capacidad frente a esfuerzos axiles de tracción

Sección de cálculo de la armadura tubular $A_{a_i} := \frac{\pi}{4} \cdot \left[\left(d_{e_i} - 2 \cdot r_e\right)^2 - \left(di_i\right)^2\right] \cdot F_{ut_i}$ mm²

Capacidad a tracción $N_{tRd_i} := (-1) \cdot \left(A_{s_i} \cdot f_{sd} + A_{a_i} \cdot f_{yd}\right) \cdot \frac{1}{1.10} \cdot 10^{-3}$ kN

Plazakola *Micropilotes Encepado*

Capacidad a flexión

Espesor de la armadura tubular $t_i := 0.50 \cdot \left(d_{e_i} - di_i\right)$ mm

Módulo plástico de la sección $W_{pl_i} := \frac{\left(d_{e_i} - 2 \cdot r_e\right)^3 - \left(di_i\right)^3}{6}$ mm³

Módulo elástico de la sección $W_{el_i} := \frac{\pi \cdot \left[\left(d_{e_i} - 2 \cdot r_e\right)^4 - \left(di_i\right)^4\right]}{32 \cdot \left(d_{e_i} - 2 \cdot r_e\right)}$ mm³

Módulo resistente $W_i := \text{if}\left(\frac{d_{e_i} - 2 \cdot r_e}{t_i - r_e} < \frac{16450}{f_y}, W_{pl_i}, W_{el_i}\right)$ mm³

Capacidad a flexión $M_{cRd_i} := W_i \cdot f_{yd} \cdot F_{uf} \cdot \frac{1}{10^6}$ kN.m

Capacidad a cortante

Resistencia plástica a cortante $V_{plRd_i} := 2 \cdot \frac{A_{t_i}}{\pi} \cdot \frac{1}{\sqrt{3}} \cdot f_{yd} \cdot 10^{-3}$ kN

Plazakola *Micropilotes Encepado*

COMPROBACIONES RESISTENTES

Axil

$$CN_i := \frac{N_{Ed_i}}{if\left(N_{Ed_i} > 0 , N_{cRd_i} , N_{tRd_i}\right)}$$

Cortante

$$CV_i := \frac{V_{Ed_i}}{V_{plRd_i}}$$

Combinación Axil-Cortante-Flector

$$\rho_i := \left(\frac{2 \cdot V_{Ed_i}}{V_{plRd_i}} - 1\right)^2$$

$$M_{vRd_i} := \begin{cases} M_{cRd_i} & \text{if } V_{Ed_i} \le 0.5 \cdot V_{plRd_i} \\ \left(1 - \rho_i\right) \cdot M_{cRd_i} & \text{otherwise} \end{cases}$$

$$CNVM_i := \frac{N_{Ed_i}}{if\left(N_{Ed_i} > 0 , N_{cRd_i} , N_{tRd_i}\right)} + \frac{M_{Ed_i}}{M_{vRd_i}}$$

$$CM_i := \frac{M_{Ed_i}}{M_{vRd_i}}$$

CAPACIDAD frente a esfuerzos AXILES

Sec	*Descripción*	*Axil* (kN)	*Capacidad* (Compr.)	(Trac.)	*Factor de utilización*
1	Micropilote. Sección superior. N max	323.0	1028.2	-1807.4	0.31
2	Micropilote. Sección superior. M max	323.0	1028.2	-1807.4	0.31
3	Micropilote. Sección de unión con manguito	323.0	616.2	-903.7	0.52
4	0	0.0	2.4	-5.5	0.00
5	0	0.0	2.4	-5.5	0.00
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

CAPACIDAD a FLEXIÓN combinada con CORTANTE

Sec	*Descripción*	*Flector* (kN.m)	*Capacidad* (kN.m)	*Factor de utilización*
1	Micropilote. Sección superior. N max	22.5	48.7	0.46
2	Micropilote. Sección superior. M max	22.5	48.7	0.46
3	Micropilote. Sección de unión con manguito	19.4	48.7	0.40
4	0	0.0	0.0	0.00
5	0	0.0	0.0	0.00
6				
7				
8				
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19				
20				
21				

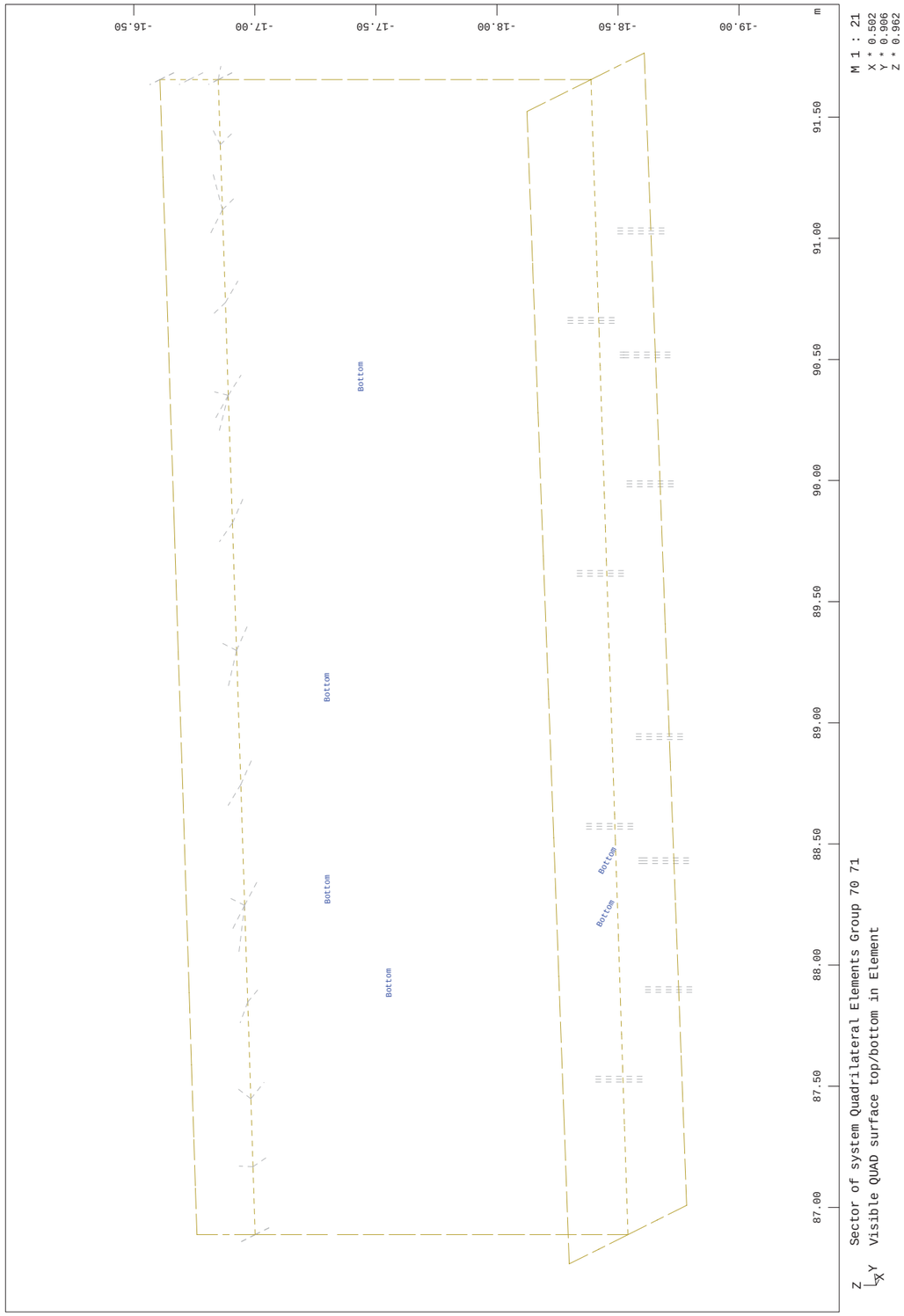
CAPACIDAD a CORTANTE

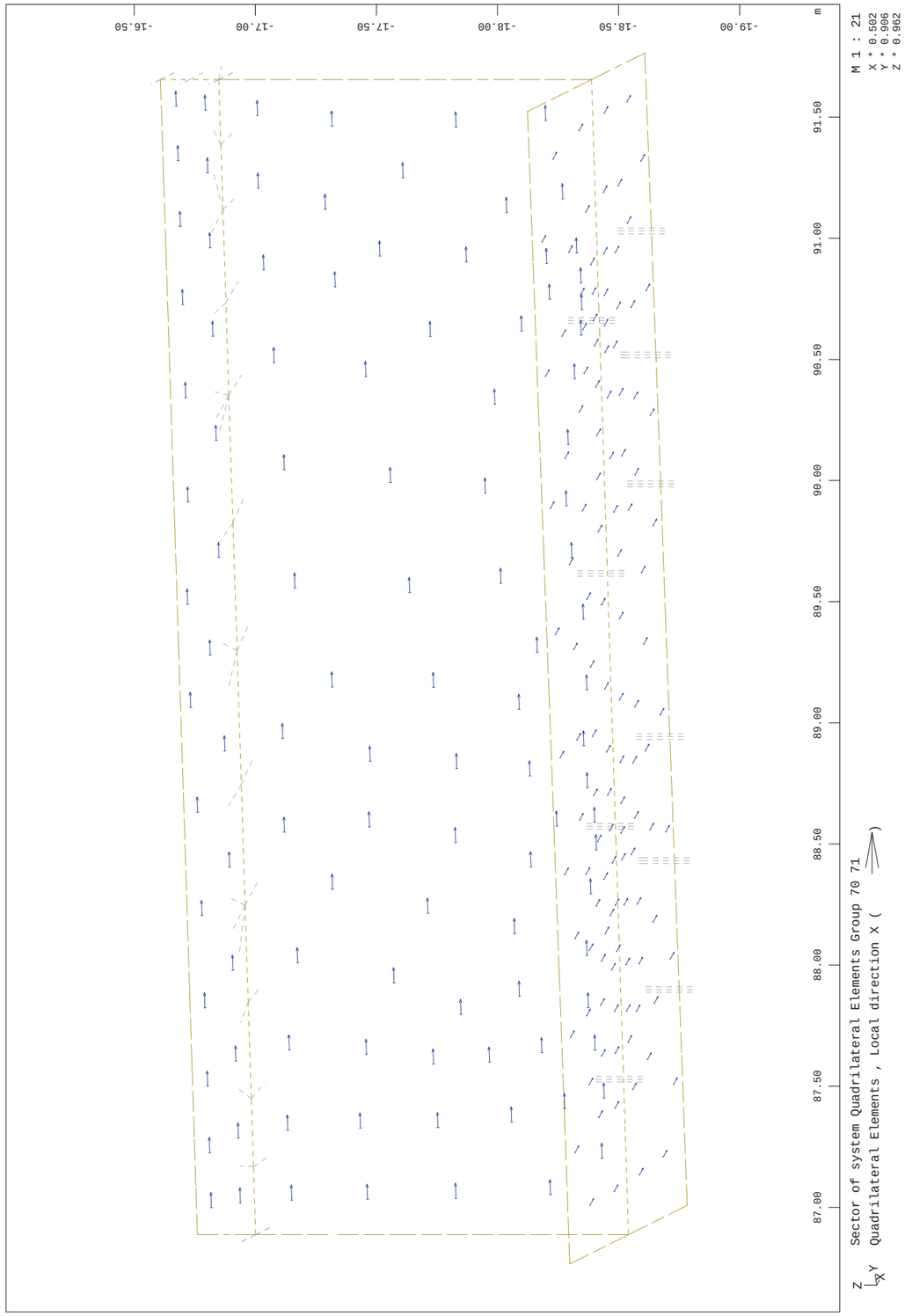
Sec	*Descripción*	*Cortante* (kN)	*Capacidad* (kN)	*Factor de utilización*
1	Micropilote. Sección superior. N max	41.2	730.7	0.06
2	Micropilote. Sección superior. M max	41.2	730.7	0.06
3	Micropilote. Sección de unión con manguito	29.1	730.7	0.04
4	0	0.0	2.2	0.00
5	0	0.0	2.2	0.00
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				

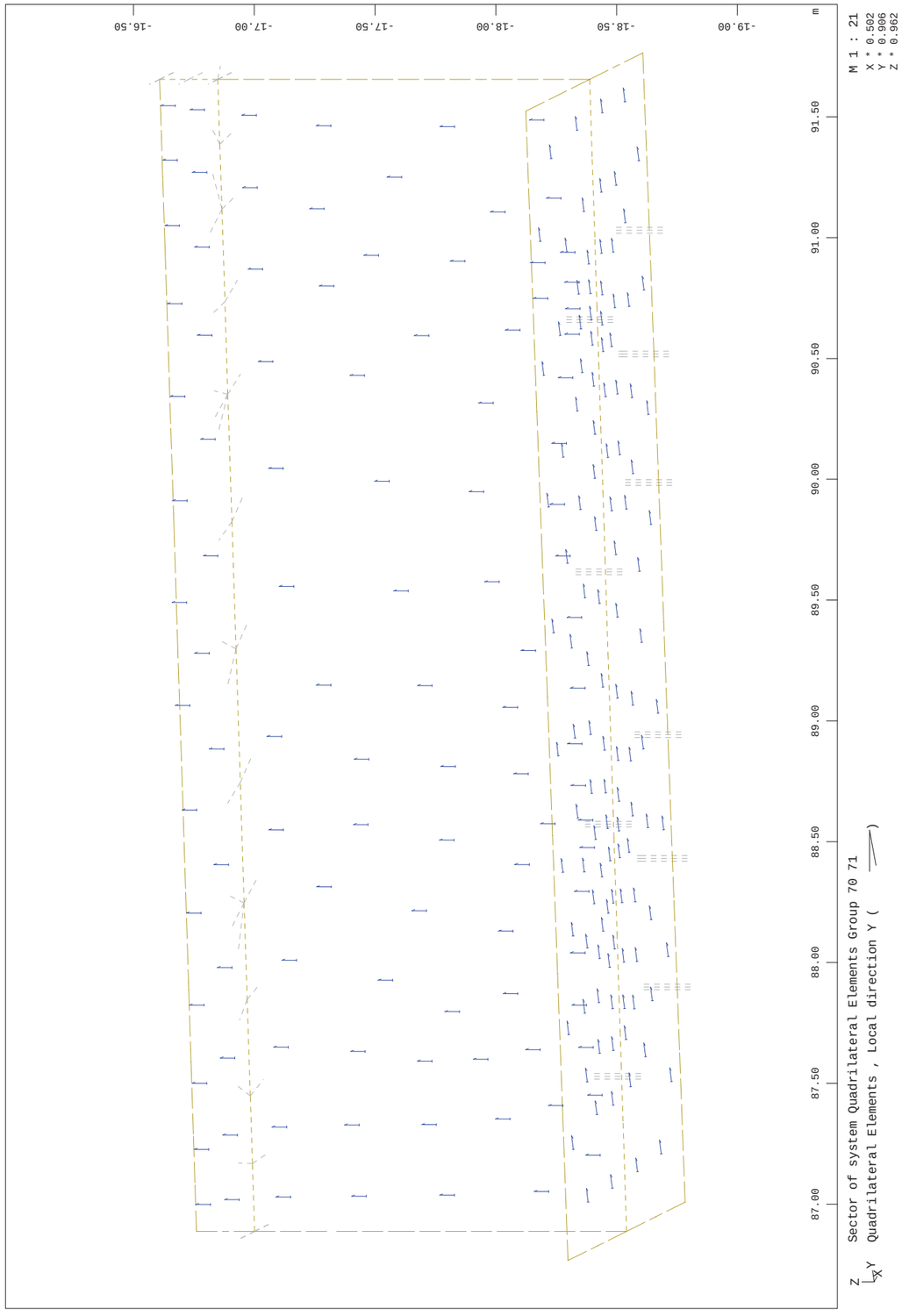
CAPACIDAD frente a AXIL, CORTANTE y FLECTOR COMBINADOS

Sec	*Descripción*	*Axil* (kN)	*Cortante* (kN)	*Flector* (kN.m)	*Factor de utilización*
1	Micropilote. Sección superior. N max	323.0	41.2	22.5	0.78
2	Micropilote. Sección superior. M max	323.0	41.2	22.5	0.78
3	Micropilote. Sección de unión con manguito	323.0	29.1	19.4	0.92
4	0	0.0	0.0	0.0	0.00
5	0	0.0	0.0	0.0	0.00
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

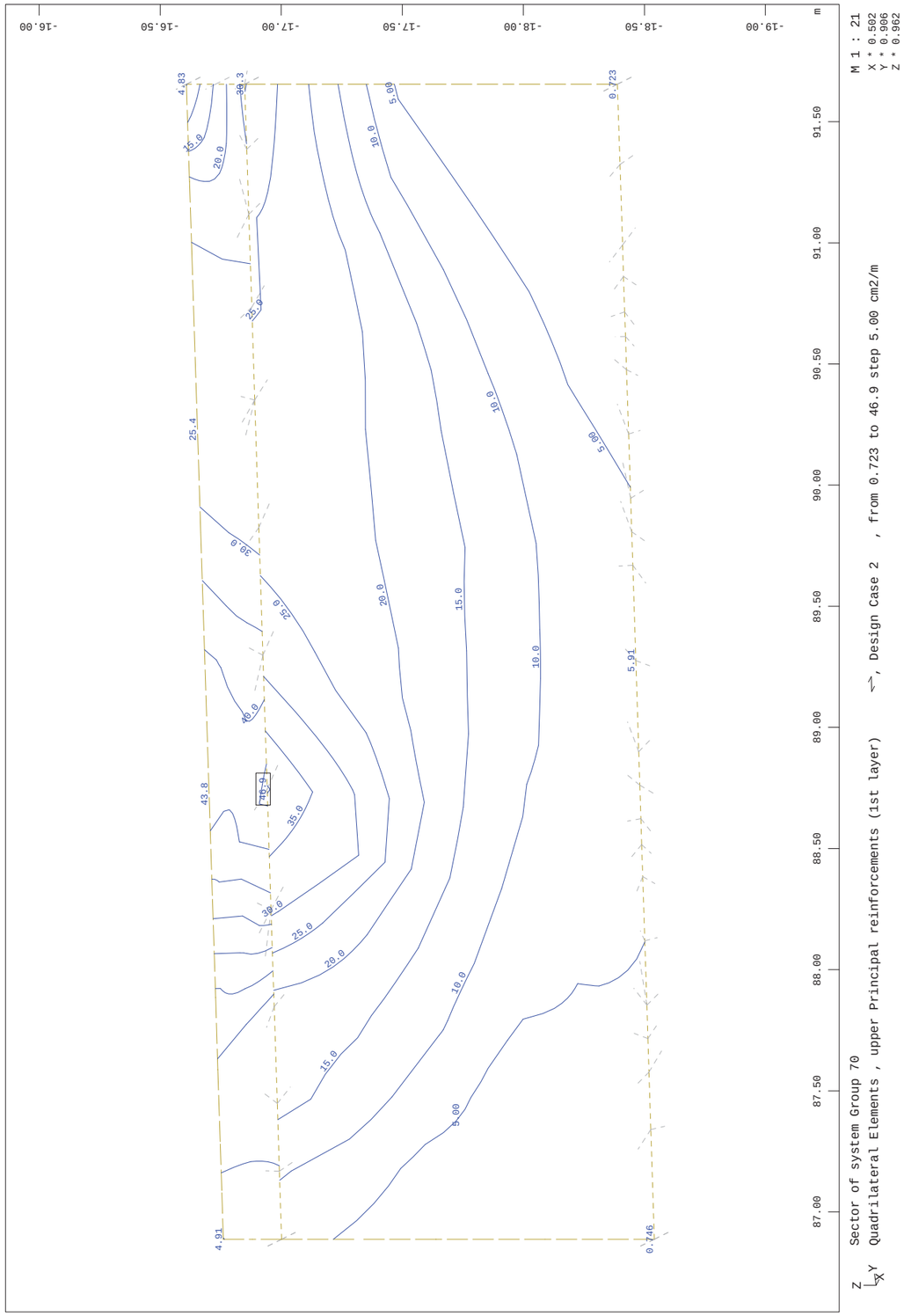
ARMADURAS

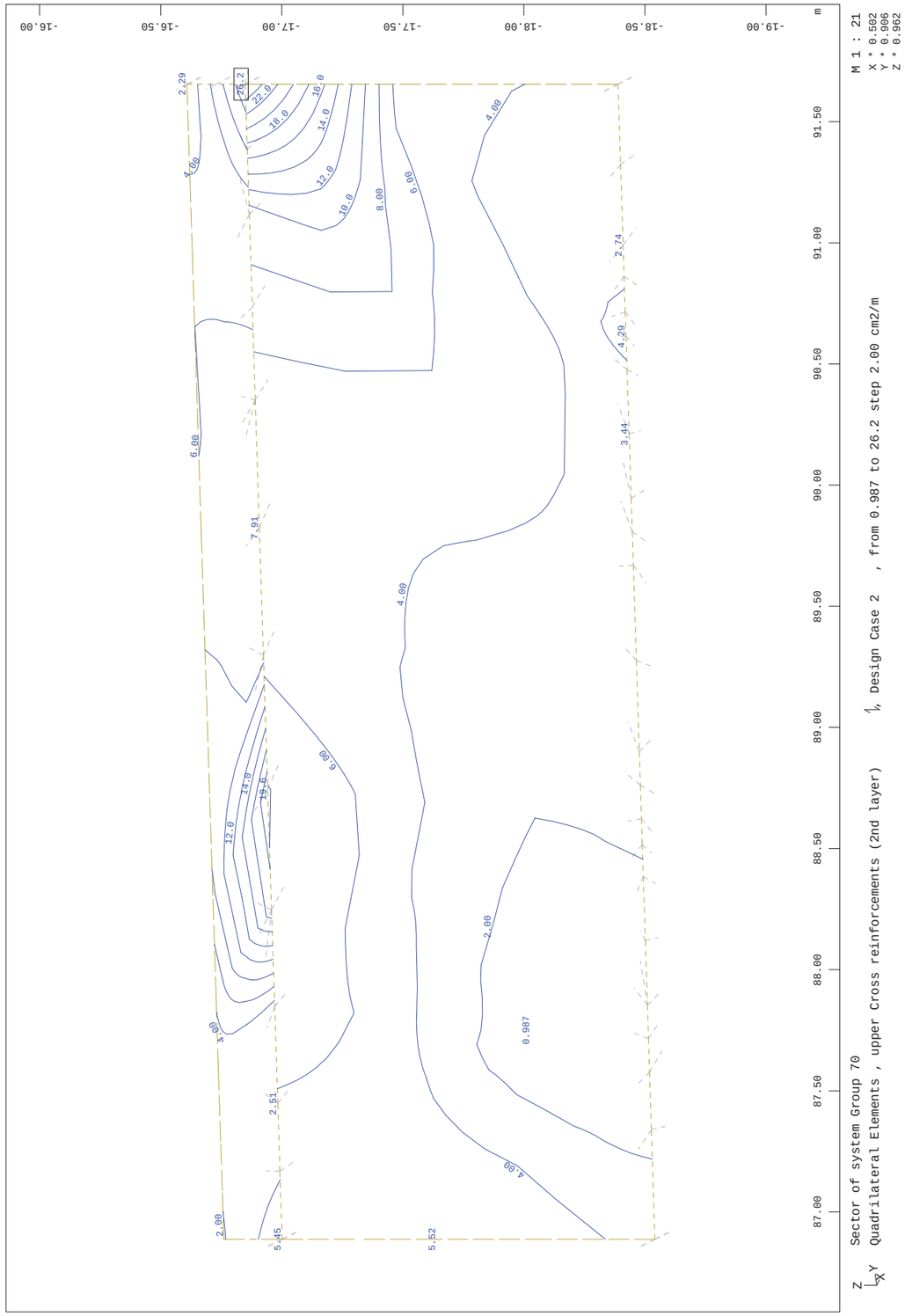

-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
m
M 1 : 21
X * * 0.502
Y * * 0.906
Z * * 0.962
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00
Bottom
Bottom
Bottom
Bottom
Bottom
Bottom
Sector of system Quadrilateral Elements Group 70 71
Visible QUAD surface top/bottom in Element
Z
Y
X

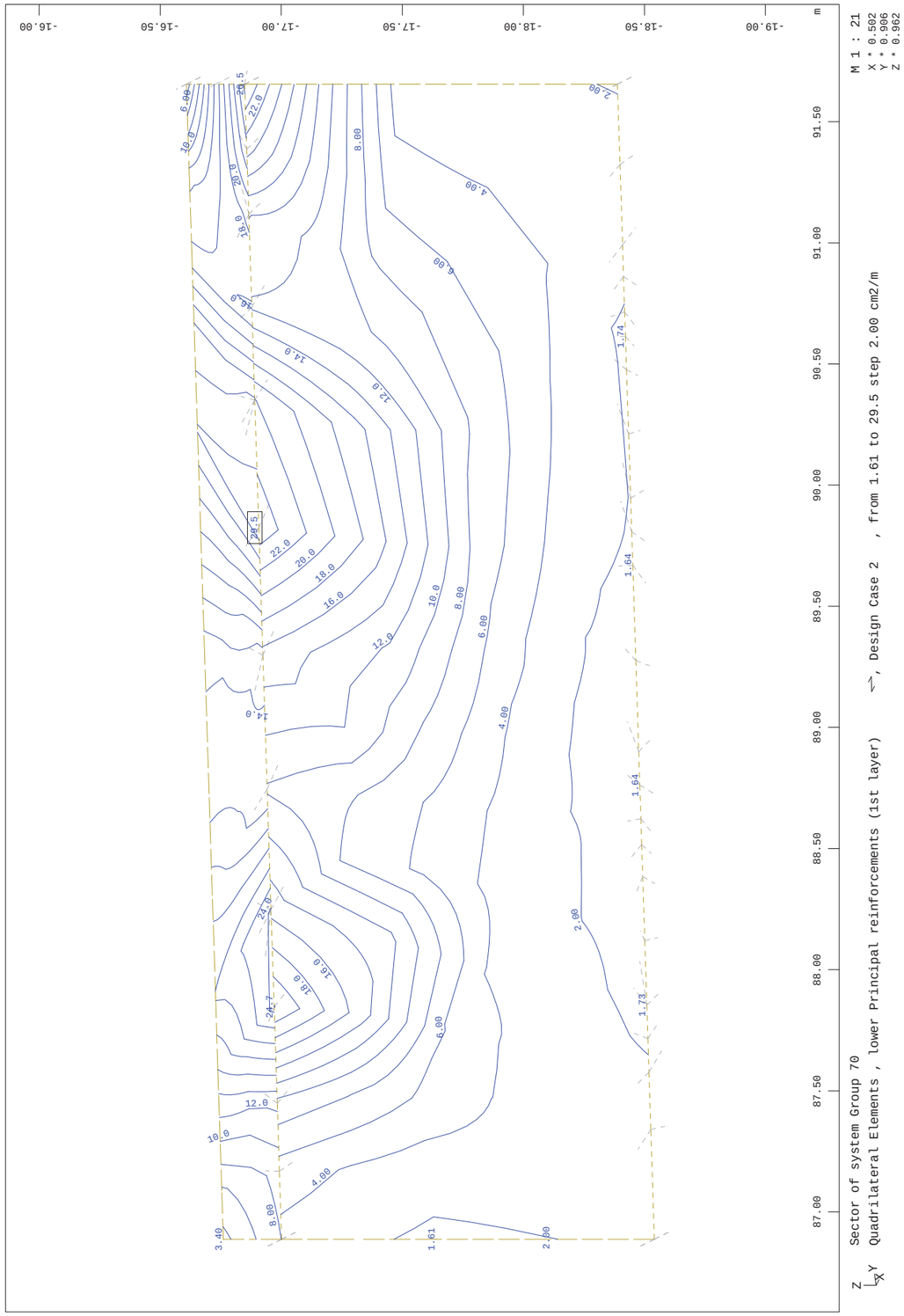

-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
m
M 1 : 21
X * * 0.502
Y * * 0.906
Z * * 0.962
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00
Sector of system Quadrilateral Elements Group 70 71
Quadrilateral Elements , Local direction X (
Z
Y
X

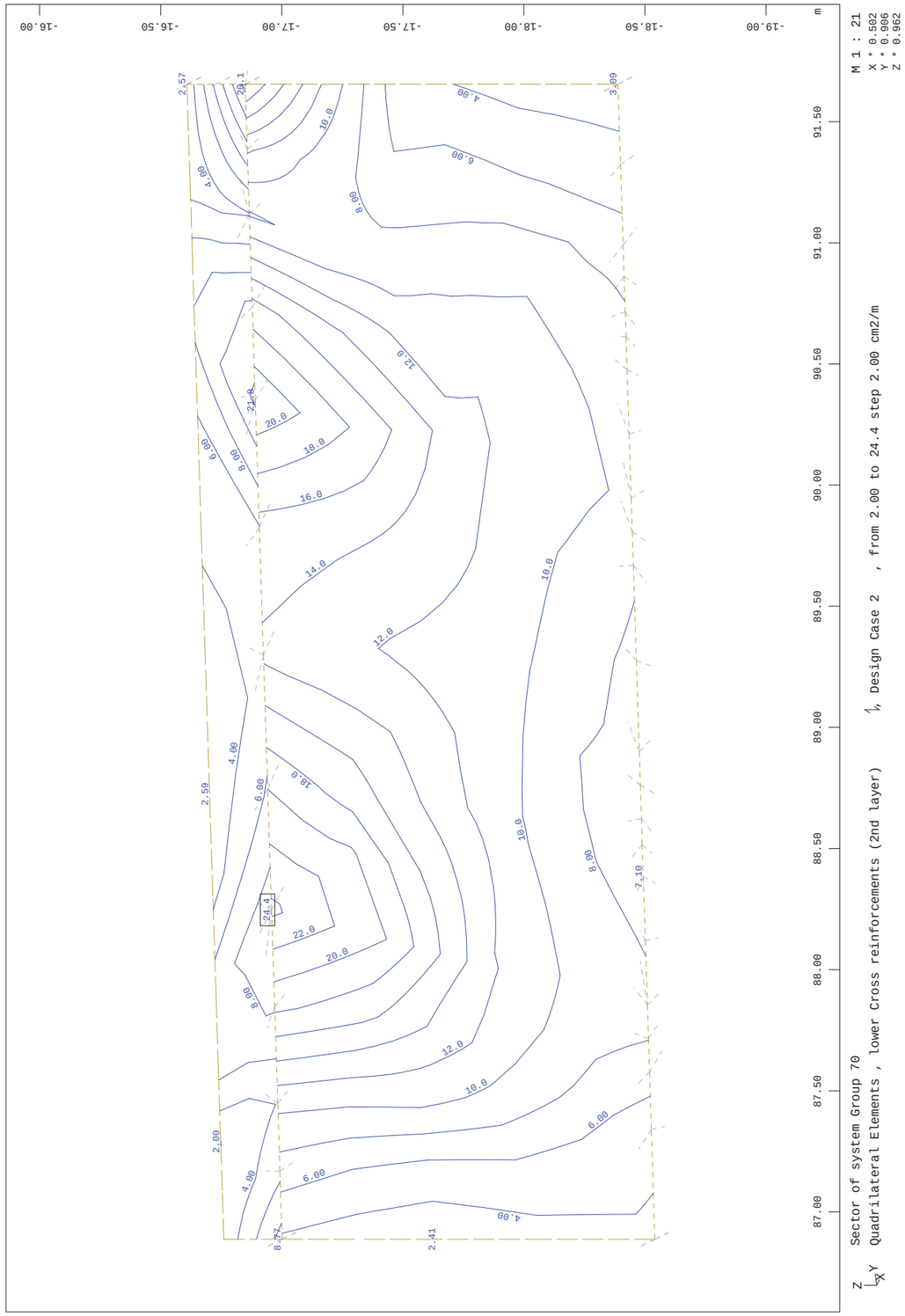

-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
m
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00
M 1 : 21
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Quadrilateral Elements Group 70 71
Quadrilateral Elements , Local direction Y (
Z
Y
X

MURO

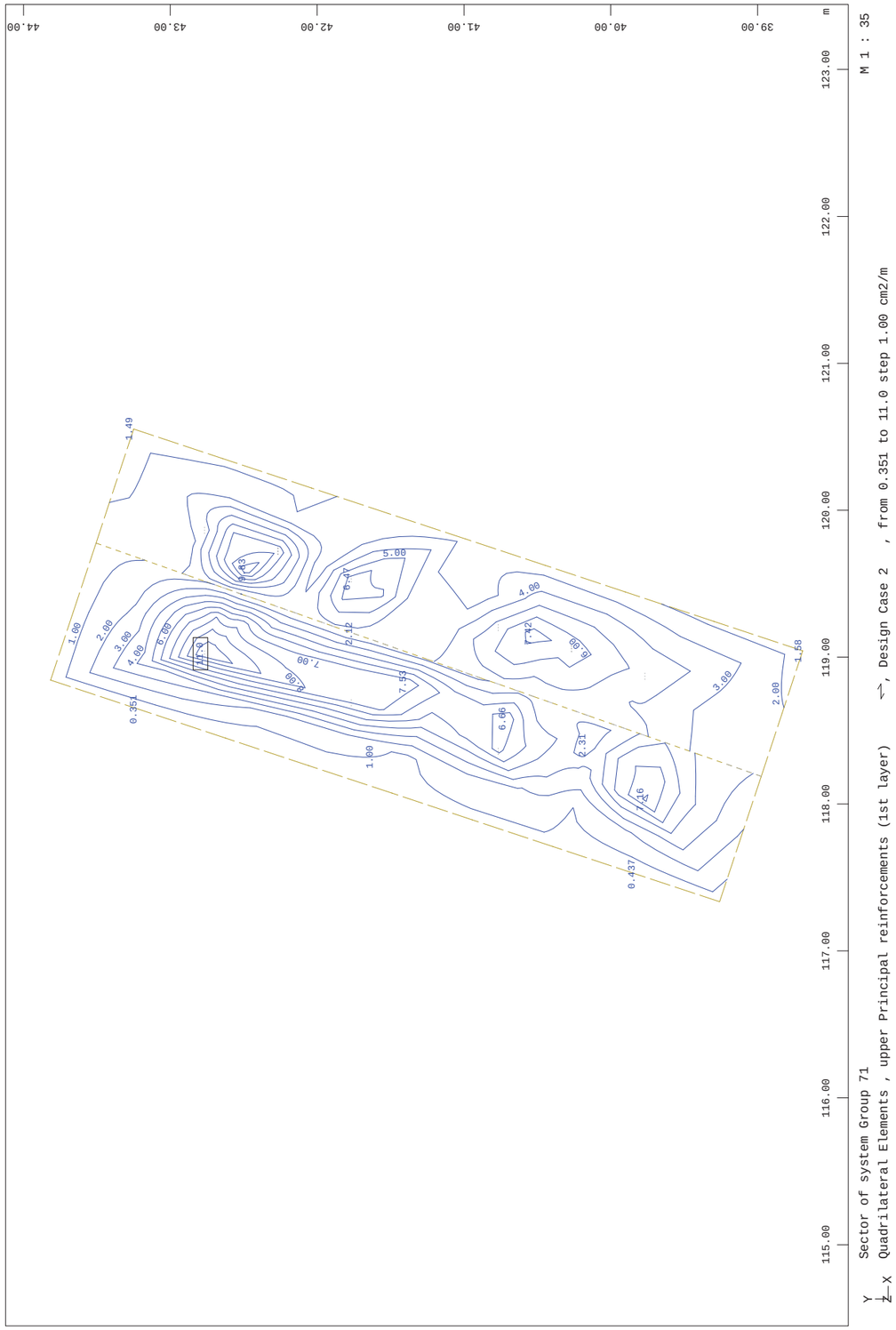

-16.00
-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
m
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00
M 1 : 21
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 70
Quadrilateral Elements , upper Principal reinforcements (1st layer)
, Design Case 2 , from 0.723 to 46.9 step 5.00 cm2/m
Z
Y
X

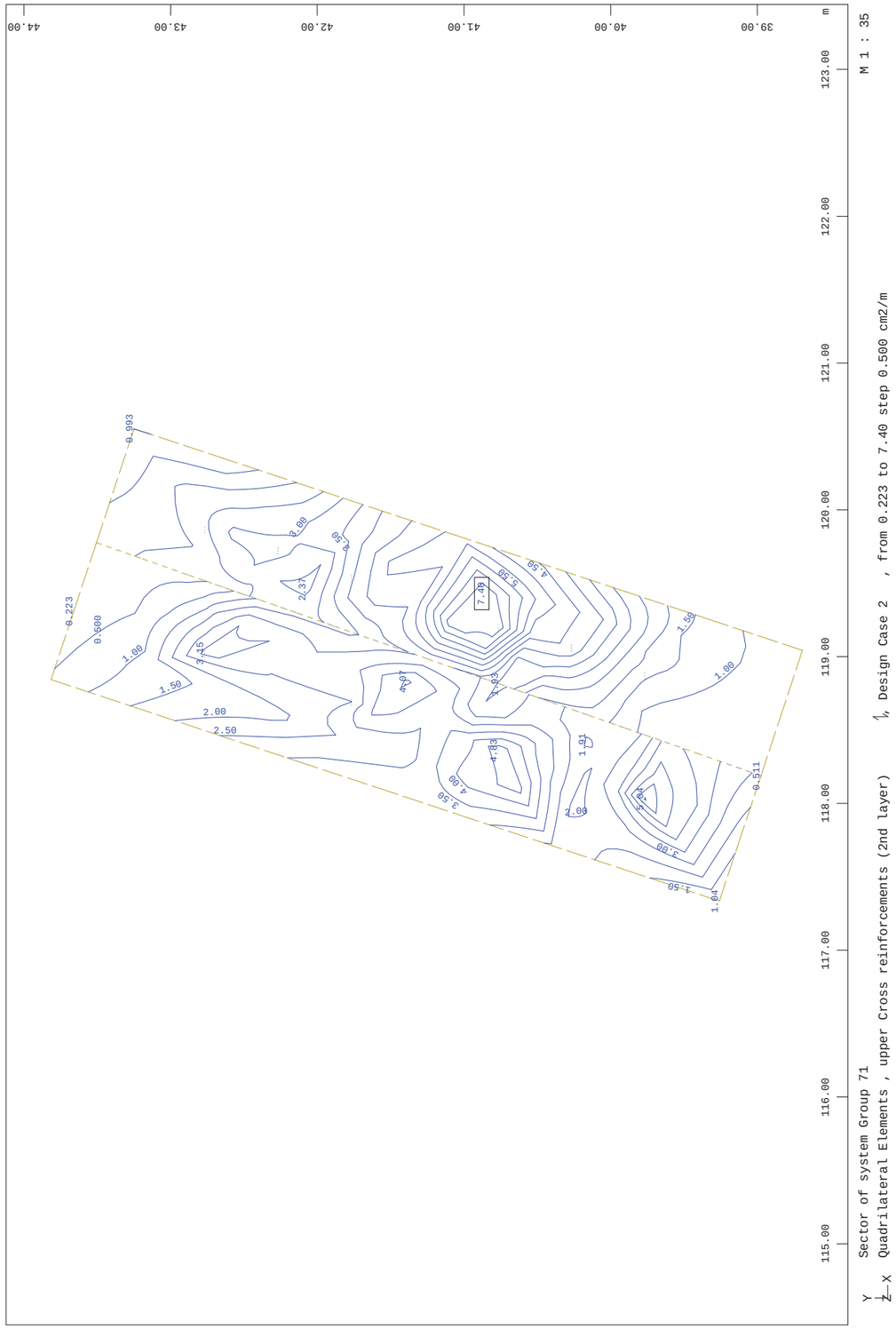

-16.00
-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
m
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00
M 1 : 21
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 70
Quadrilateral Elements , upper Cross reinforcements (2nd layer)
, Design Case 2 , from 0.987 to 26.2 step 2.00 cm2/m
Z
Y
X

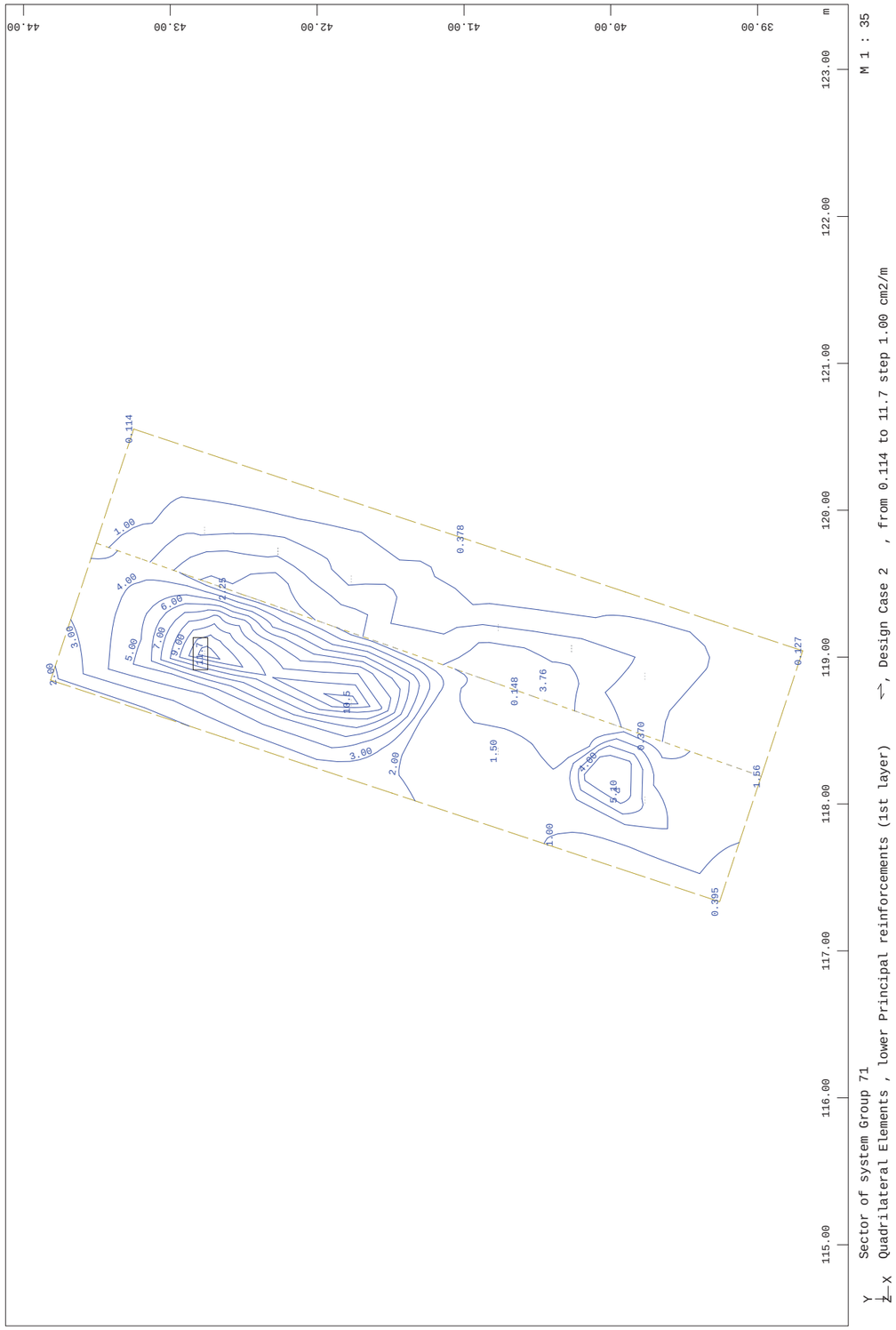

M 1 : 21
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 70
Quadrilateral Elements , lower Principal reinforcements (1st layer)
, Design Case 2 , from 1.61 to 29.5 step 2.00 cm2/m
m
-16.00
-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00

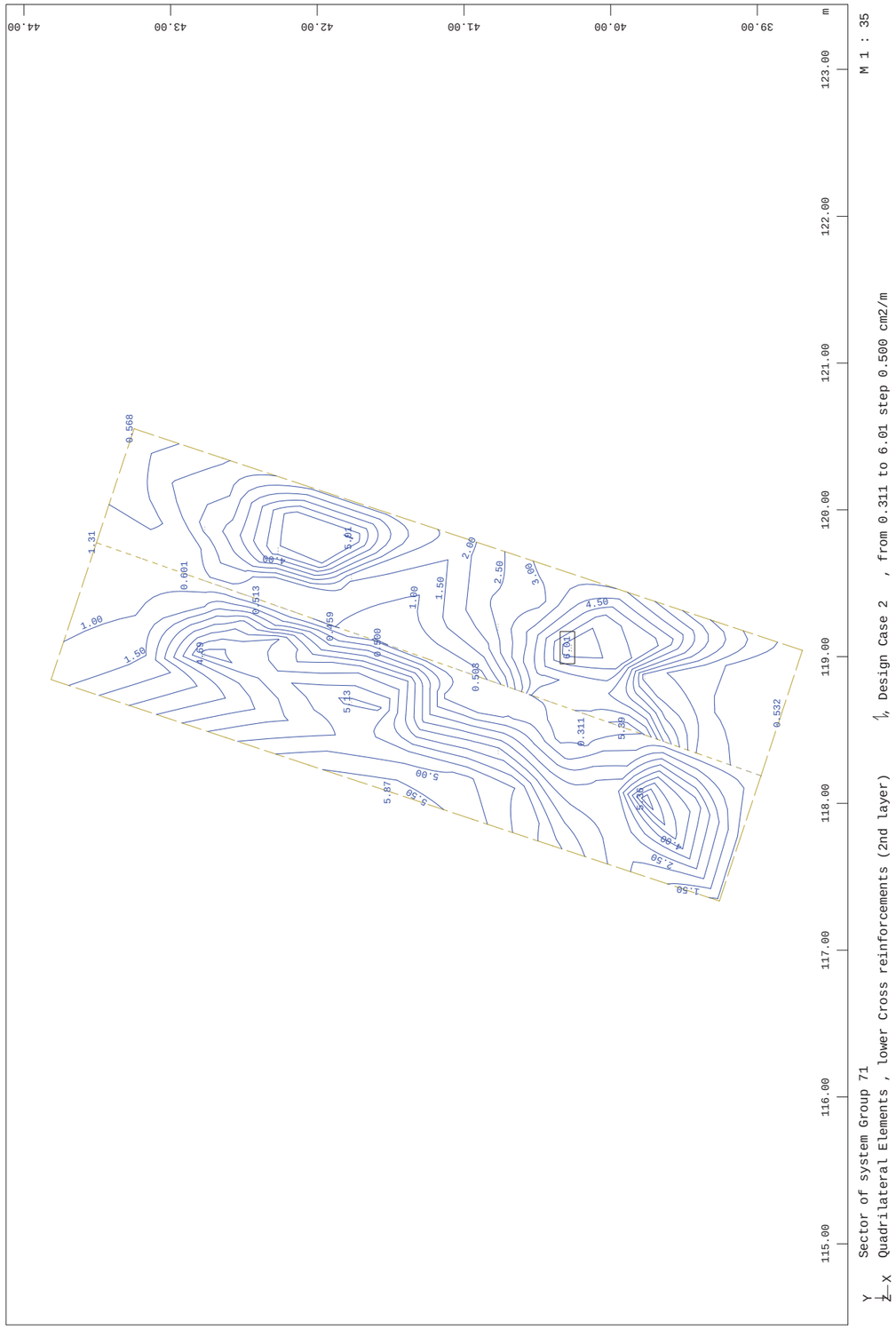

M 1 : 21
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Group 70
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
, Design Case 2 , from 2.00 to 24.4 step 2.00 cm2/m
m
-16.00
-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
91.50
91.00
90.50
90.00
89.50
89.00
88.50
88.00
87.50
87.00

ENCEPADO


m
M 1 : 35
123.00
122.00
121.00
120.00
119.00
118.00
117.00
116.00
115.00
39.00
40.00
41.00
42.00
43.00
44.00
Y
Z
X
Sector of system Group 71
Quadrilateral Elements , upper Principal reinforcements (1st layer)
, Design Case 2 , from 0.351 to 11.0 step 1.00 cm2/m
1.49
1.00
2.00
3.00
4.00
5.00
6.00
7.00
7.53
8.47
9.43
10.4
11.0
0.351
1.00
2.12
7.42
8.00
3.00
2.00
1.58
6.06
2.31
1.16
0.437


m
M 1 : 35
123.00
122.00
121.00
120.00
119.00
118.00
117.00
116.00
115.00
39.00
40.00
41.00
42.00
43.00
44.00
Y
Z
X
Sector of system Group 71
Quadrilateral Elements , upper Cross reinforcements (2nd layer)
, Design Case 2 , from 0.223 to 7.40 step 0.500 cm2/m
0.993
0.223
0.500
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
4.93
5.50
6.00
6.50
7.00
7.40
2.37
3.45
1.50
1.00
2.00
4.93
1.01
4.00
5.50
3.00
2.00
4.50
1.04
0.511

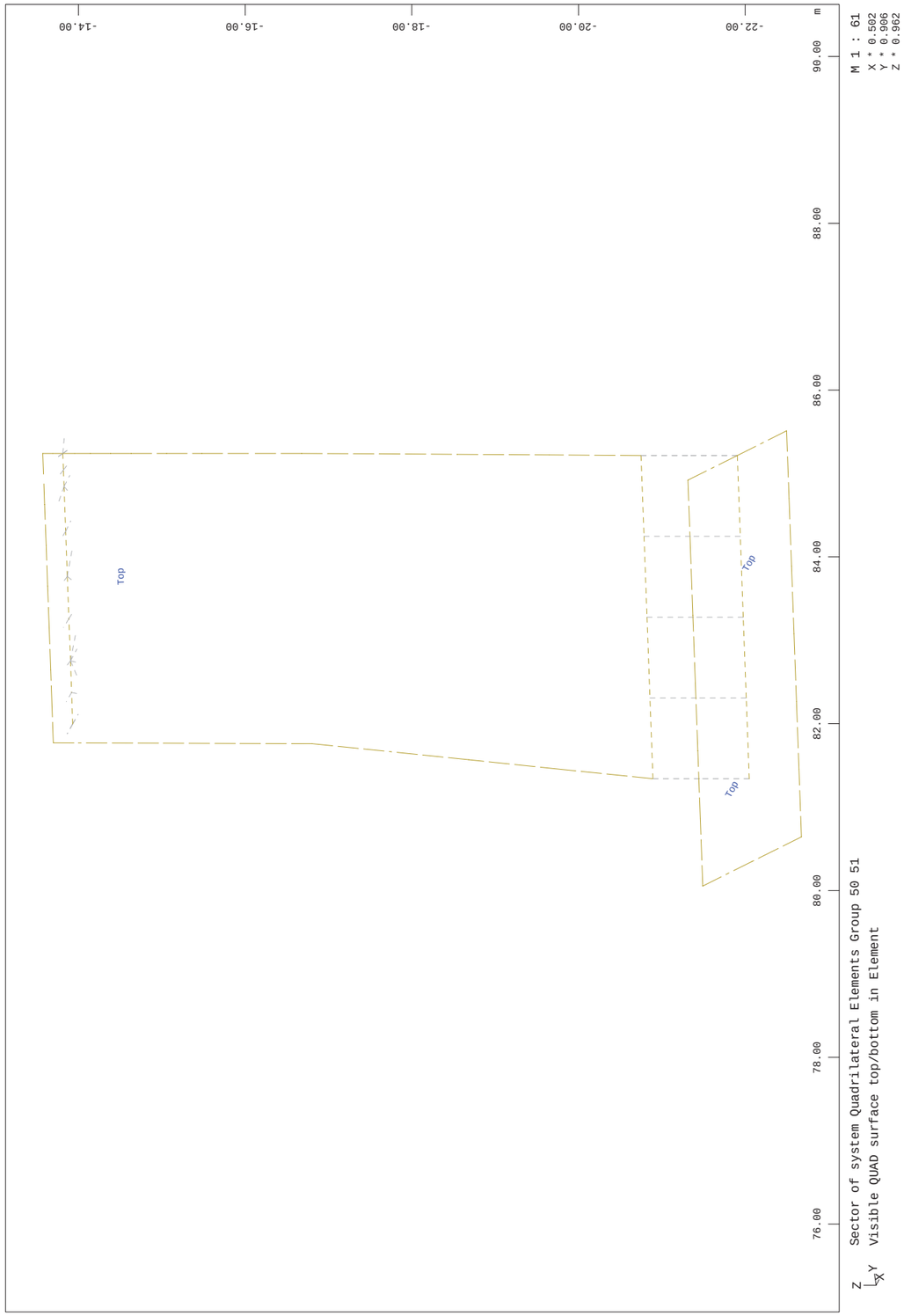

M 1 : 35
m
39.00
40.00
41.00
42.00
43.00
44.00
115.00
116.00
117.00
118.00
119.00
120.00
121.00
122.00
123.00
Design Case 2 , from 0.114 to 11.7 step 1.00 cm2/m
Sector of system Group 71
Quadrilateral Elements , lower Principal reinforcements (1st layer)
Y
X

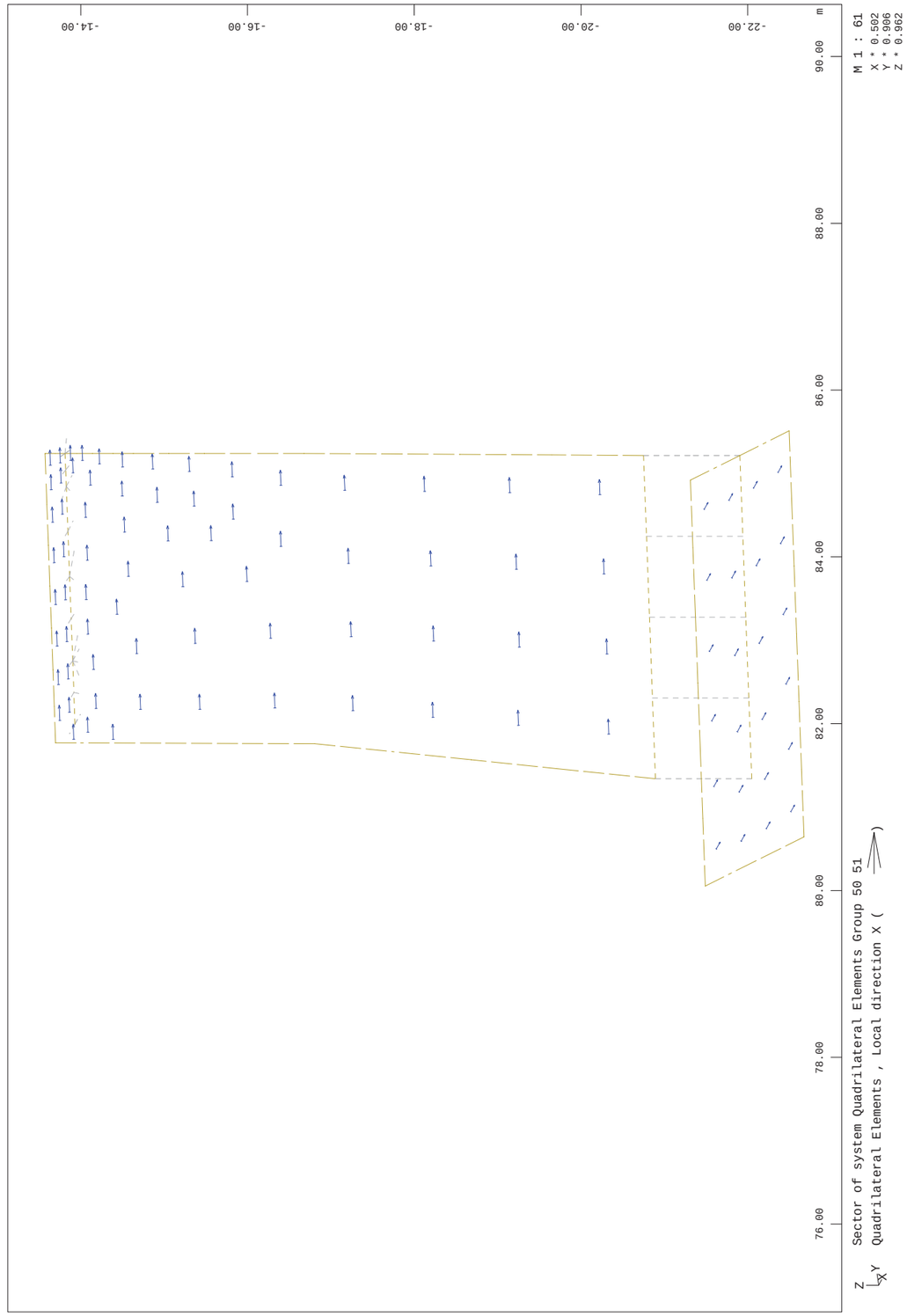

M 1 : 35
m
39.00
40.00
41.00
42.00
43.00
44.00
115.00
116.00
117.00
118.00
119.00
120.00
121.00
122.00
123.00
Design Case 2 , from 0.311 to 6.01 step 0.500 cm2/m
Sector of system Group 71
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
Y
X

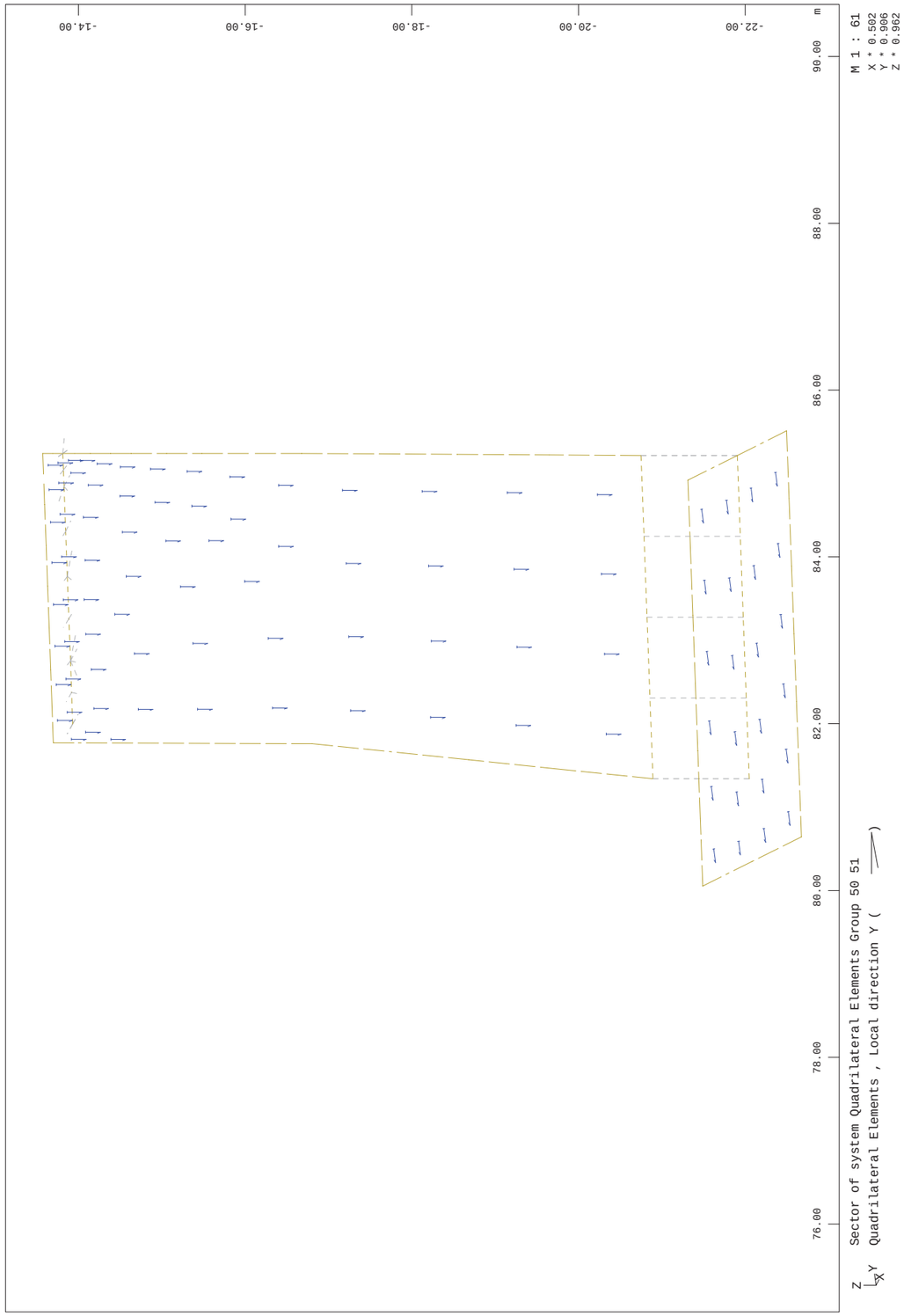
PILA

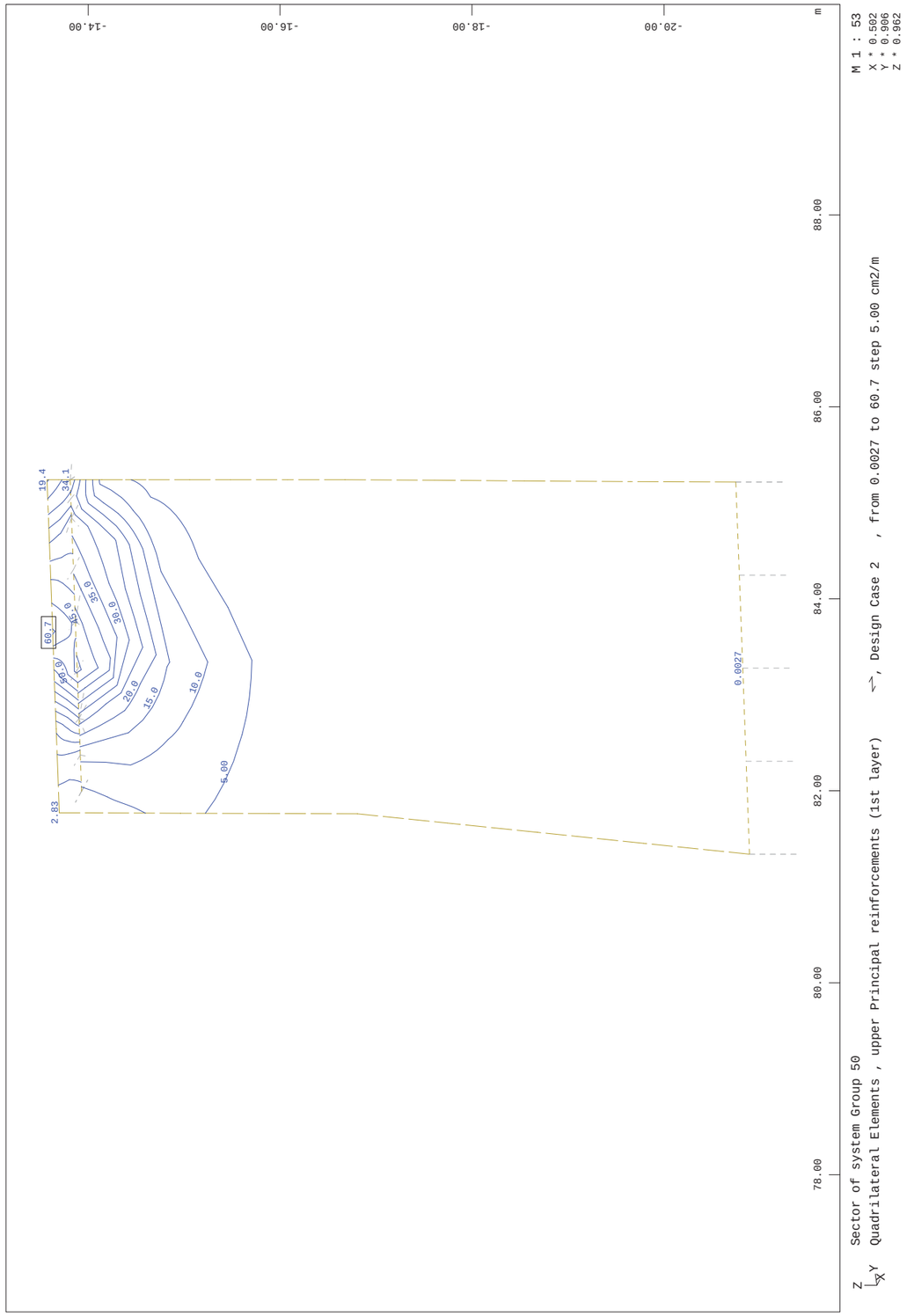
ARMADURAS

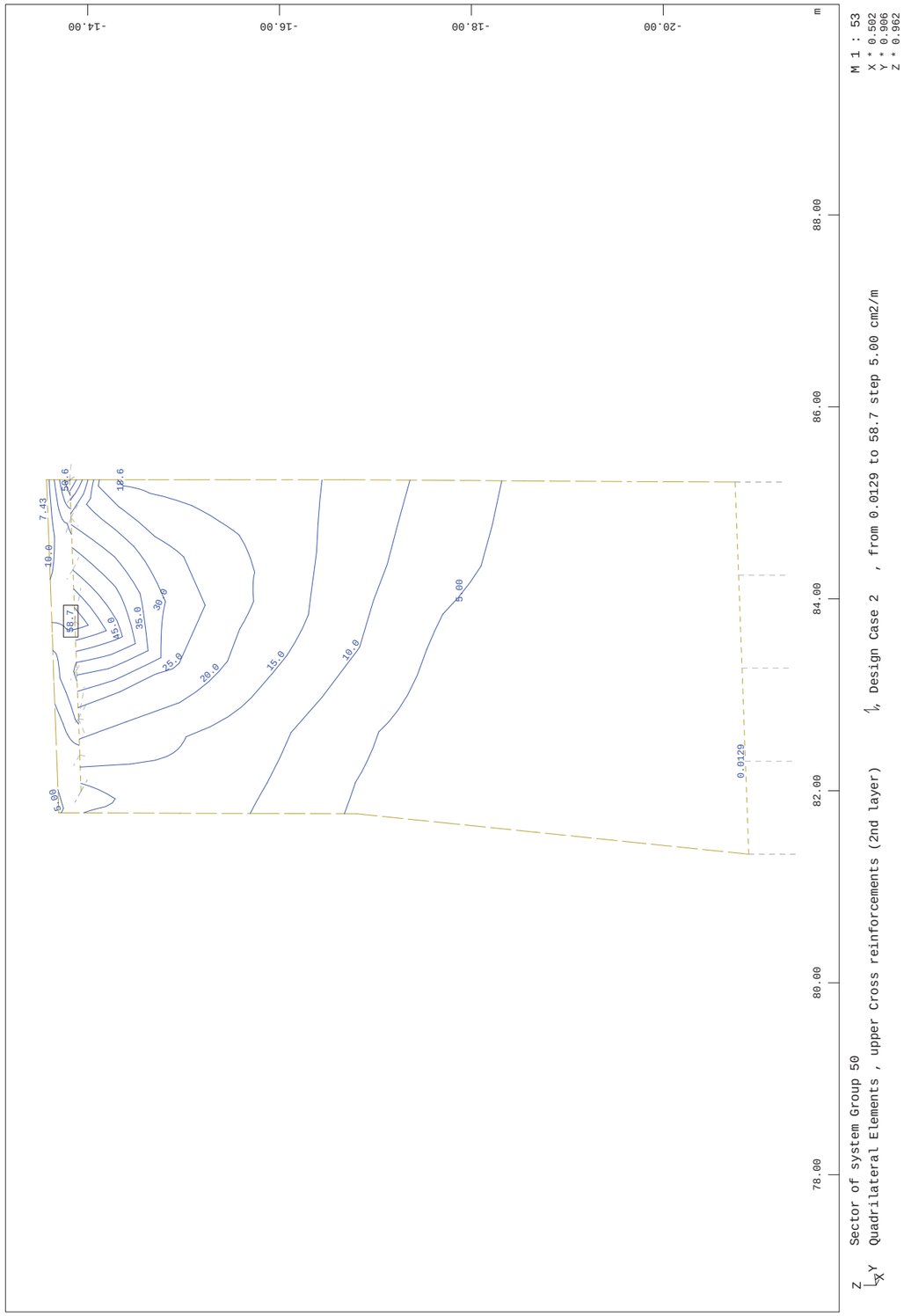
FUSTE

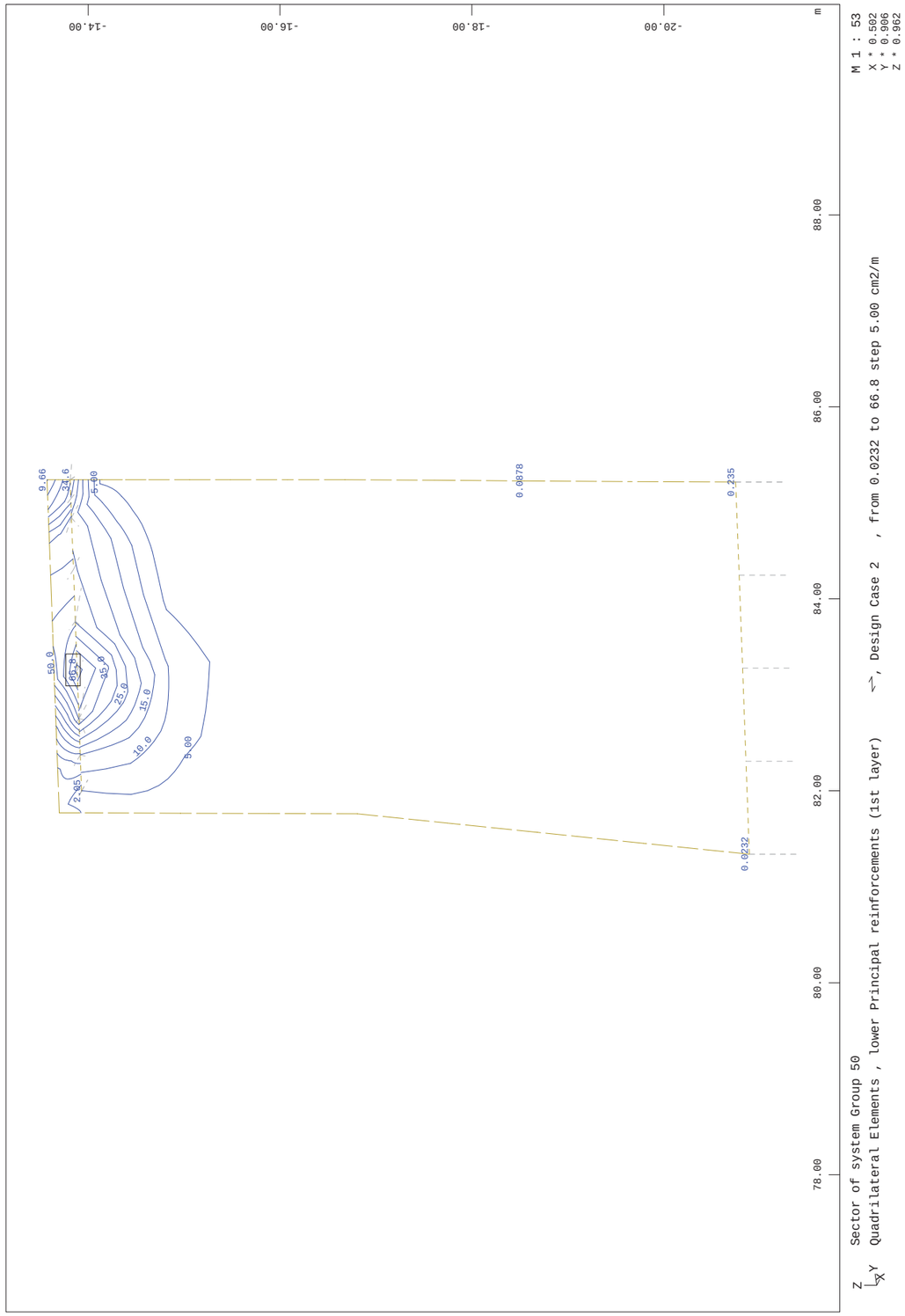

M 1 : 61
X * * 0.502
Y * * 0.906
Z * * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
-14.00
-16.00
-18.00
-20.00
-22.00
Top
Top
Top
Sector of system Quadrilateral Elements Group 50 51
Visible QUAD surface top/bottom in Element
Z
Y
X

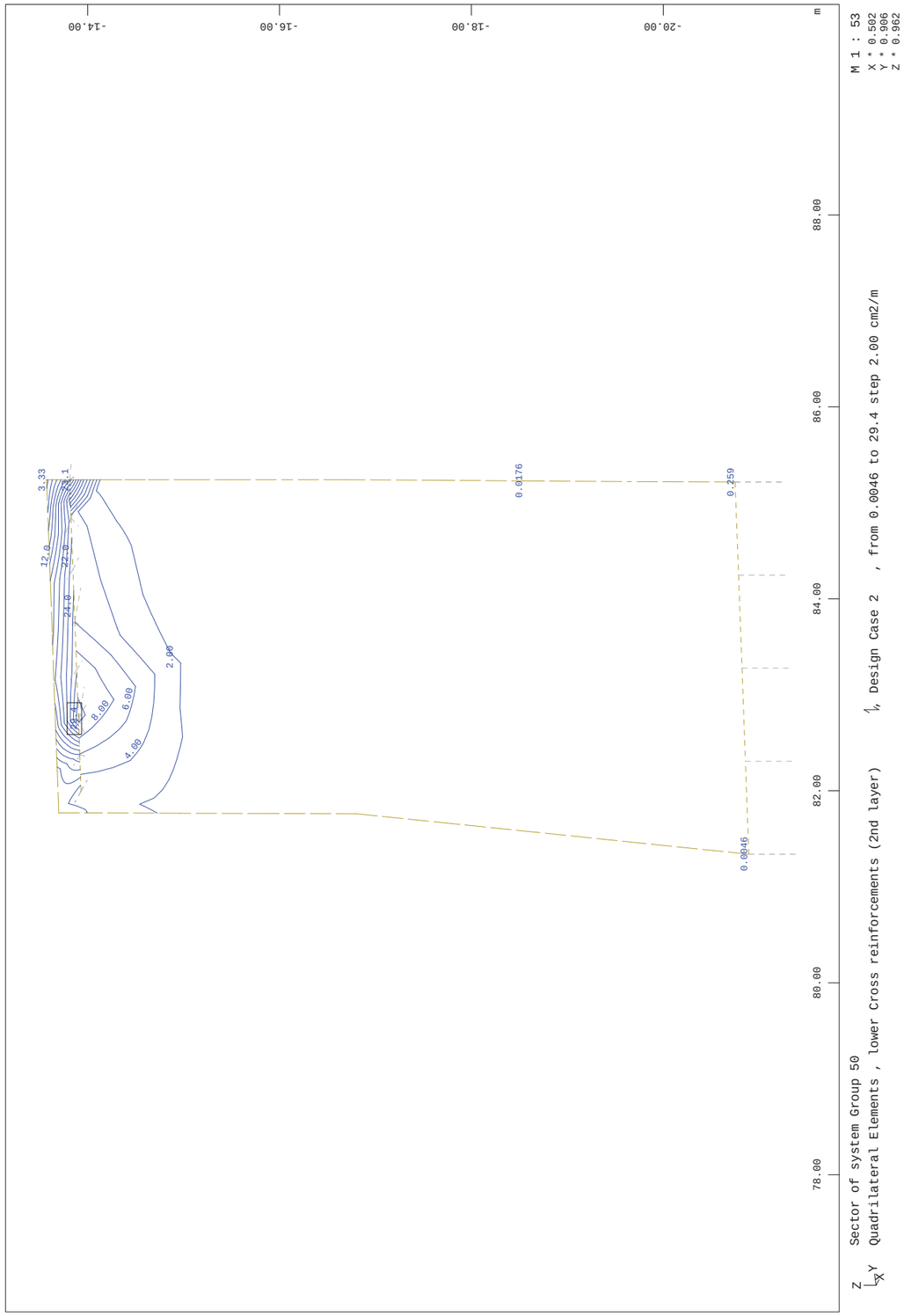

M 1 : 61
X * * 0.502
Y * * 0.906
Z * * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
-14.00
-16.00
-18.00
-20.00
-22.00
Sector of system Quadrilateral Elements Group 50 51
Quadrilateral Elements , Local direction X (
Z
Y
X

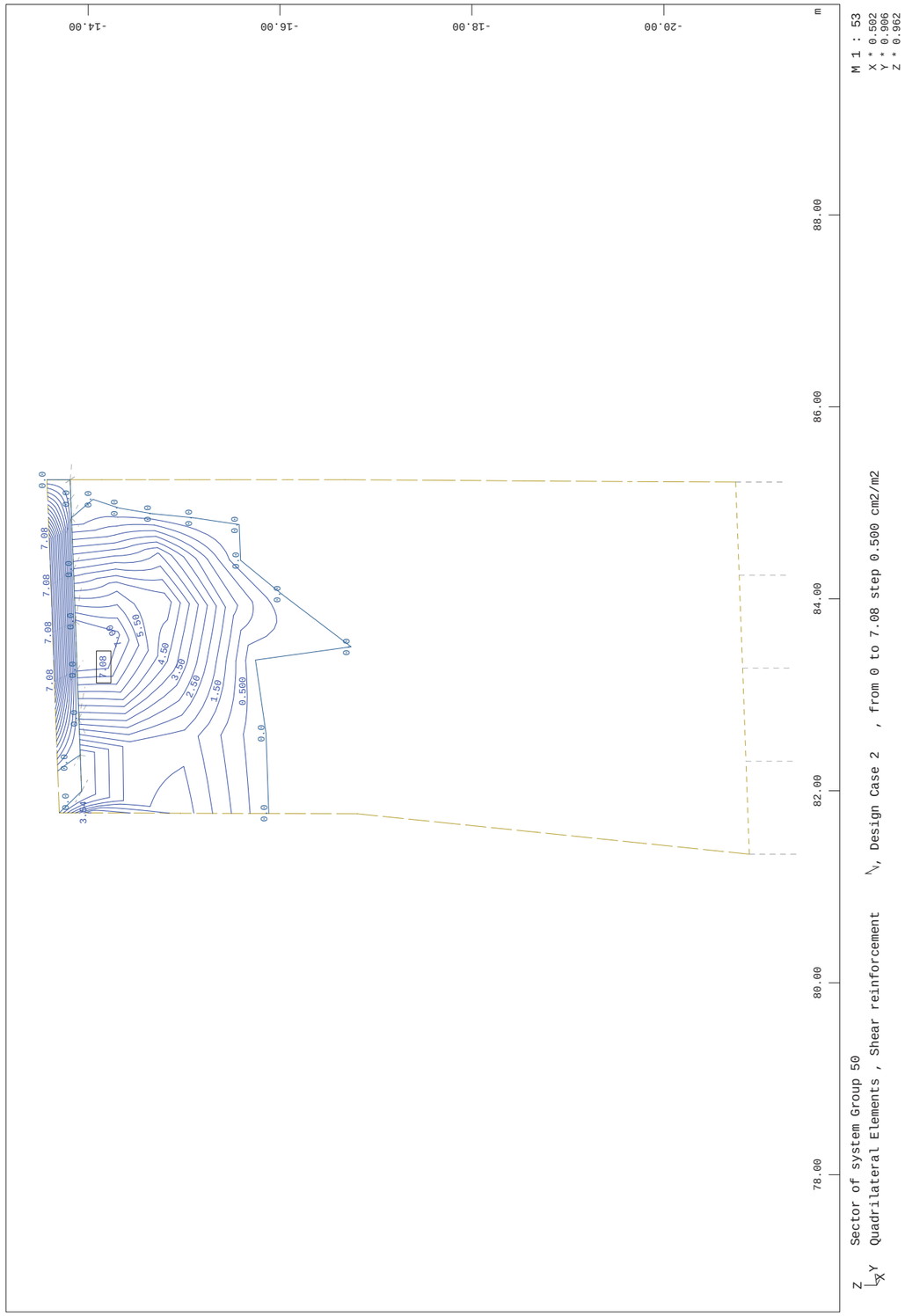

M 1 : 61
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
-14.00
-16.00
-18.00
-20.00
-22.00
Sector of system Quadrilateral Elements Group 50 51
Quadrilateral Elements , Local direction Y (
Z
Y
X


M 1 : 53
X * 0.502
Y * 0.906
Z * 0.962
m
88.00
86.00
84.00
82.00
80.00
78.00
-14.00
-16.00
-18.00
-20.00
19.4
34.1
60.7
45.0
30.0
20.0
15.0
10.0
5.00
2.83
0.0027
, Design Case 2 , from 0.0027 to 60.7 step 5.00 cm2/m
Sector of system Group 50
Quadrilateral Elements , upper Principal reinforcements (1st layer)
Z
Y
X

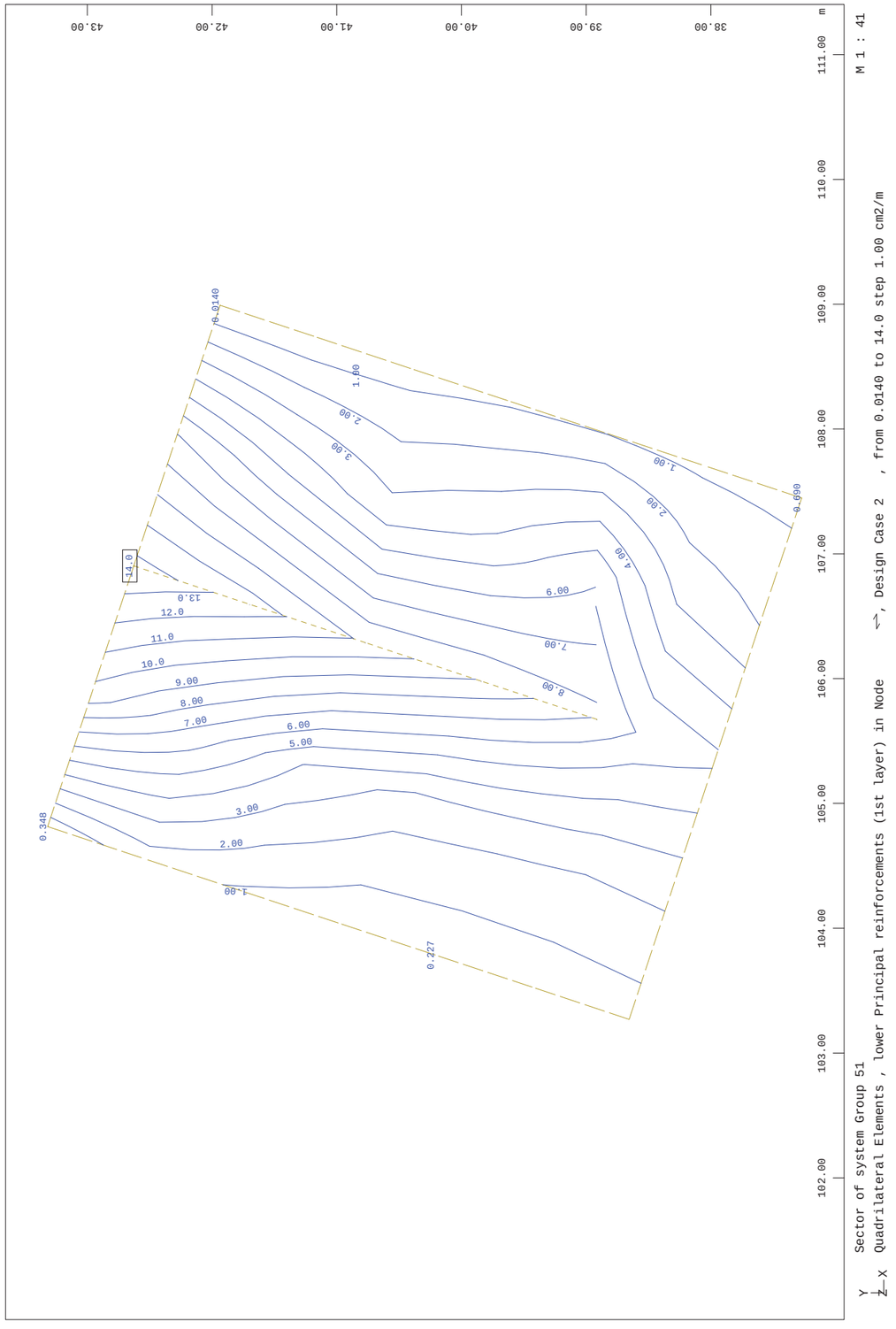

M 1 : 53
X * 0.502
Y * 0.906
Z * 0.962
m
-14.00
-16.00
-18.00
-20.00
88.00
86.00
84.00
82.00
80.00
78.00
1, Design Case 2 , from 0.0129 to 58.7 step 5.00 cm2/m
Sector of system Group 50
Quadrilateral Elements , upper Cross reinforcements (2nd layer)
Z
Y
X

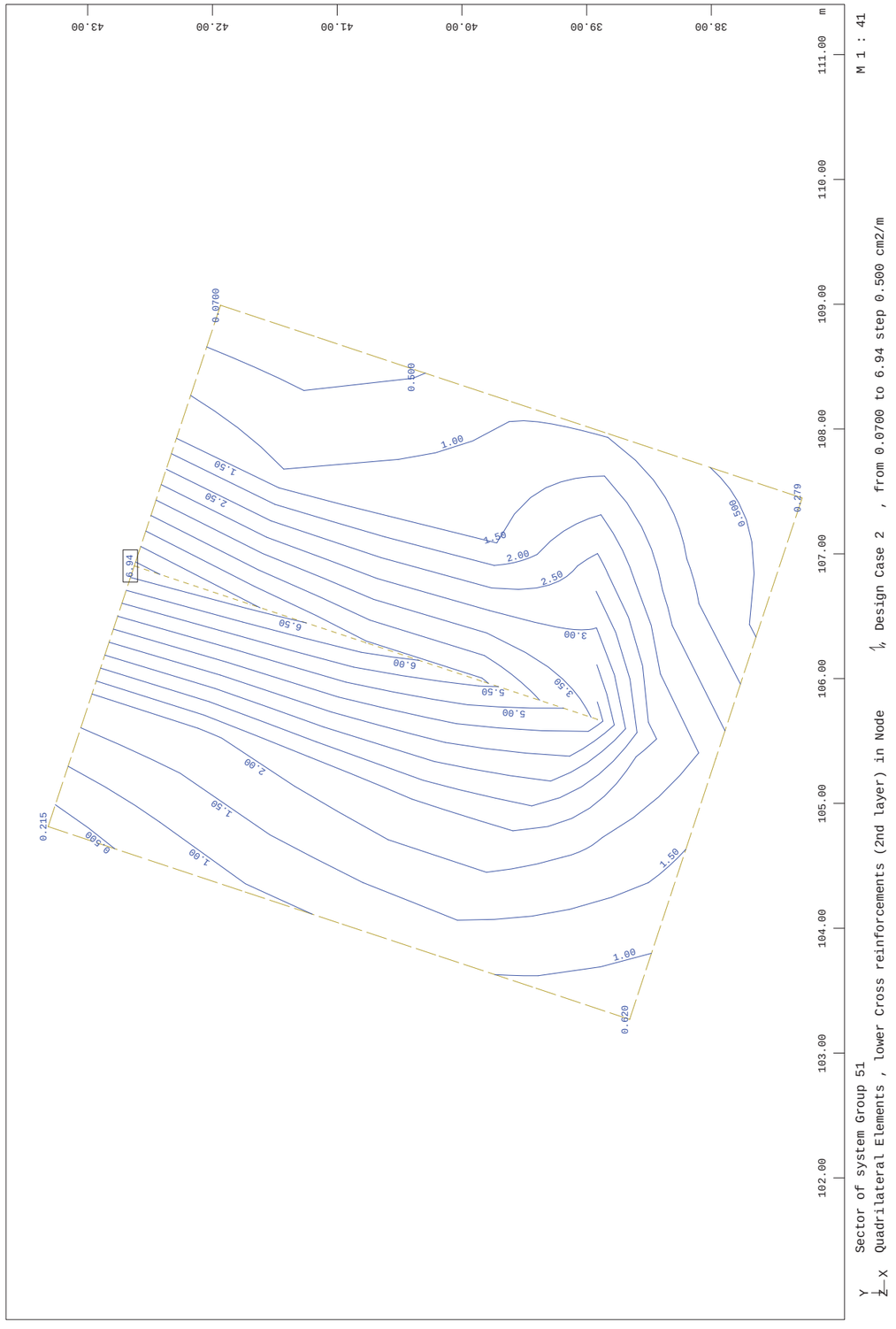

M 1 : 53
X * 0.502
Y * 0.906
Z * 0.962
m
-14.00
-16.00
-18.00
-20.00
88.00
86.00
84.00
82.00
80.00
78.00
1, Design Case 2 , from 0.0232 to 66.8 step 5.00 cm2/m
Sector of system Group 50
Quadrilateral Elements , lower Principal reinforcements (1st layer)
Z
Y
X

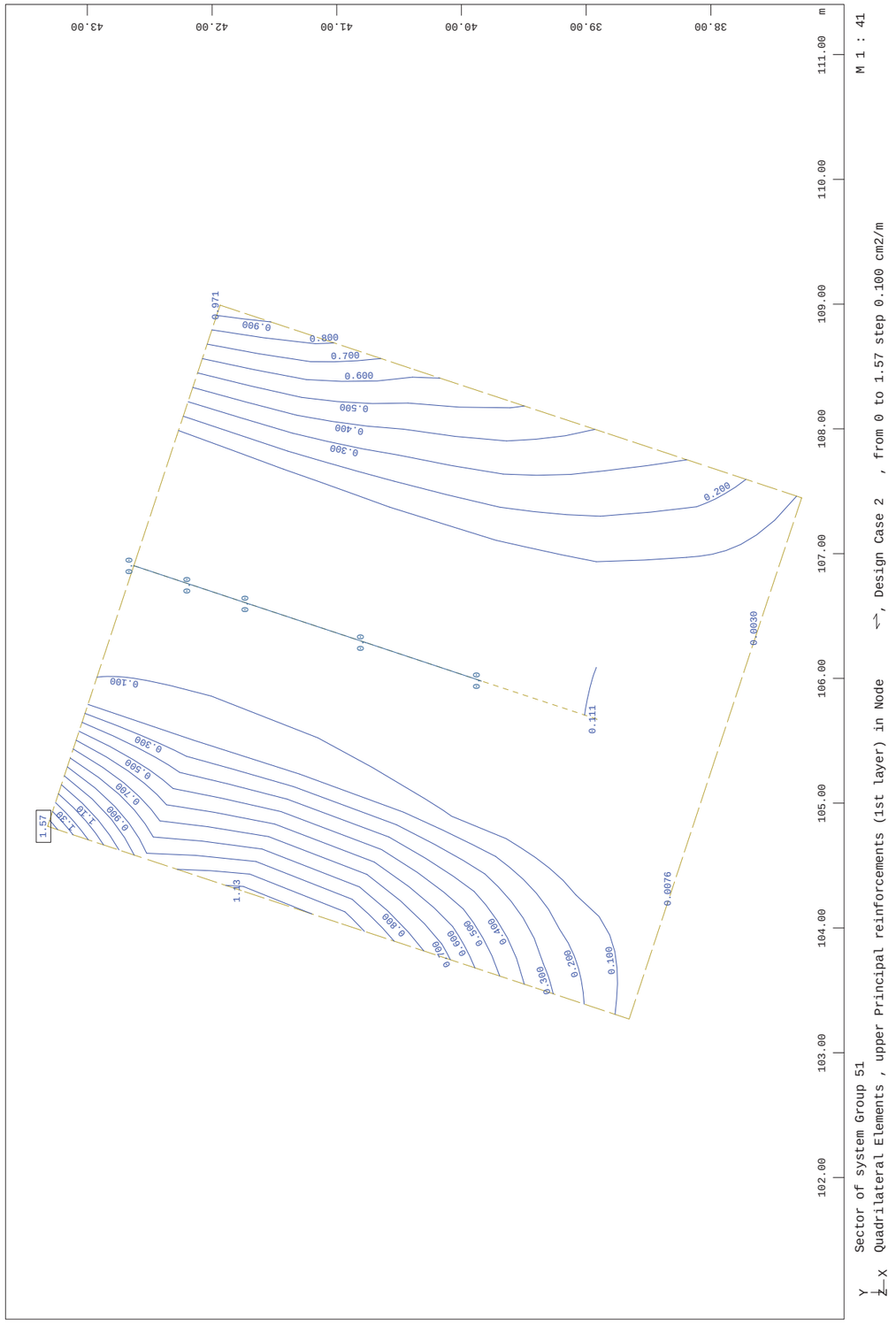

M 1 : 53
X * 0.502
Y * 0.906
Z * 0.962
m
-14.00
-16.00
-18.00
-20.00
88.00
86.00
84.00
82.00
80.00
78.00
0.0176
0.259
0.0046
3.33
12.0
22.1
24.0
22.0
2.00
4.00
6.00
8.00
Sector of system Group 50
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
1, Design Case 2 , from 0.0046 to 29.4 step 2.00 cm2/m
Z
Y
X

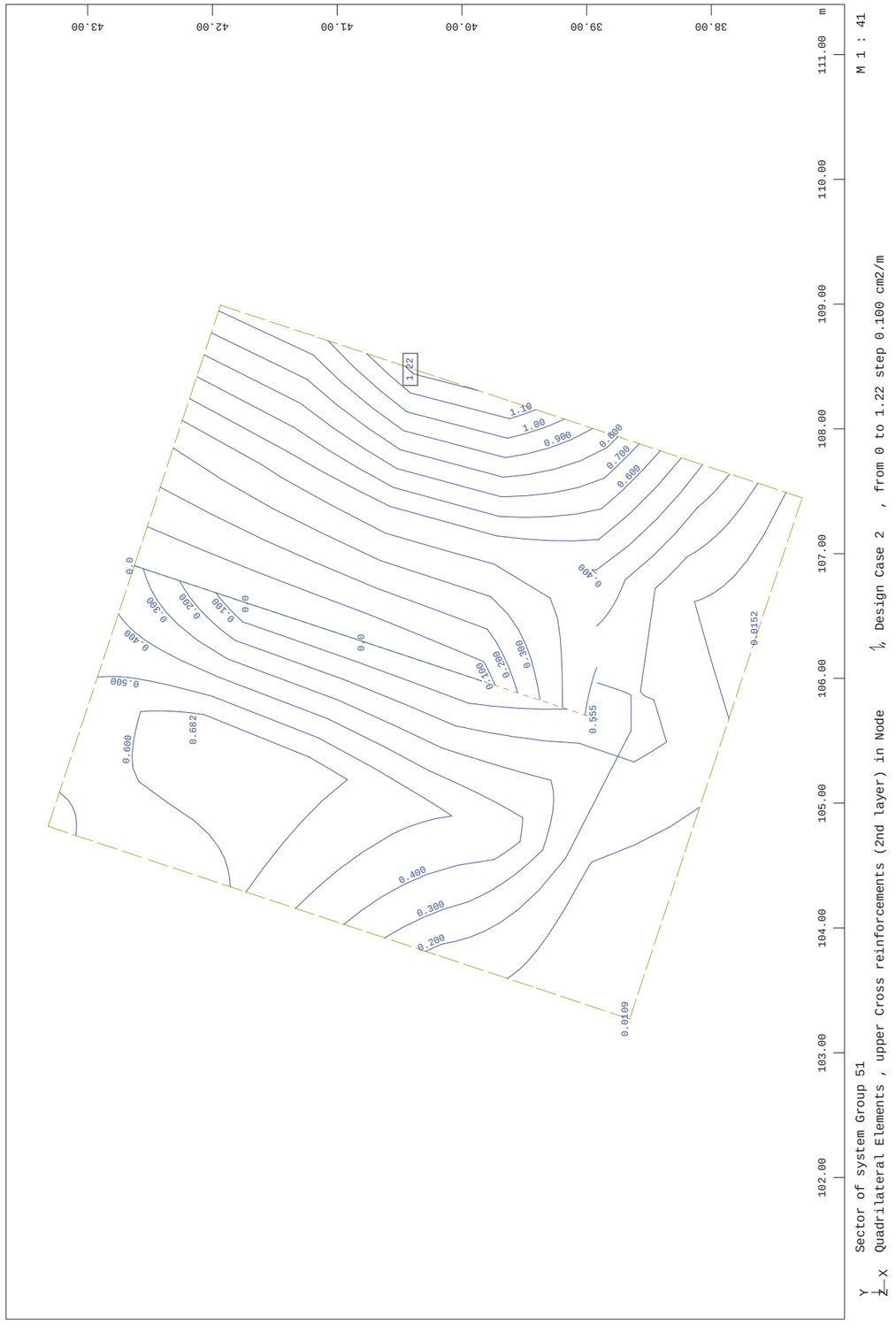

M 1 : 53
X * 0.502
Y * 0.906
Z * 0.962
m
-14.00
-16.00
-18.00
-20.00
88.00
86.00
84.00
82.00
80.00
78.00
0.0
7.08
5.50
4.50
3.50
2.50
1.50
0.500
3.50
Sector of system Group 50
Quadrilateral Elements , Shear reinforcement
1, Design Case 2 , from 0 to 7.08 step 0.500 cm2/m2
Z
Y
X

ZAPATA


M 1 : 41
m
111.00
110.00
109.00
108.00
107.00
106.00
105.00
104.00
103.00
102.00
38.00
39.00
40.00
41.00
42.00
43.00
0.0140
1.00
2.00
3.00
4.00
6.00
7.00
8.00
14.0
13.0
12.0
11.0
10.0
9.00
8.00
7.00
6.00
5.00
3.00
2.00
1.00
0.348
0.227
0.600
Y
Z
X
Sector of system Group 51
Quadrilateral Elements , lower Principal reinforcements (1st layer) in Node
, Design Case 2 , from 0.0140 to 14.0 step 1.00 cm2/m

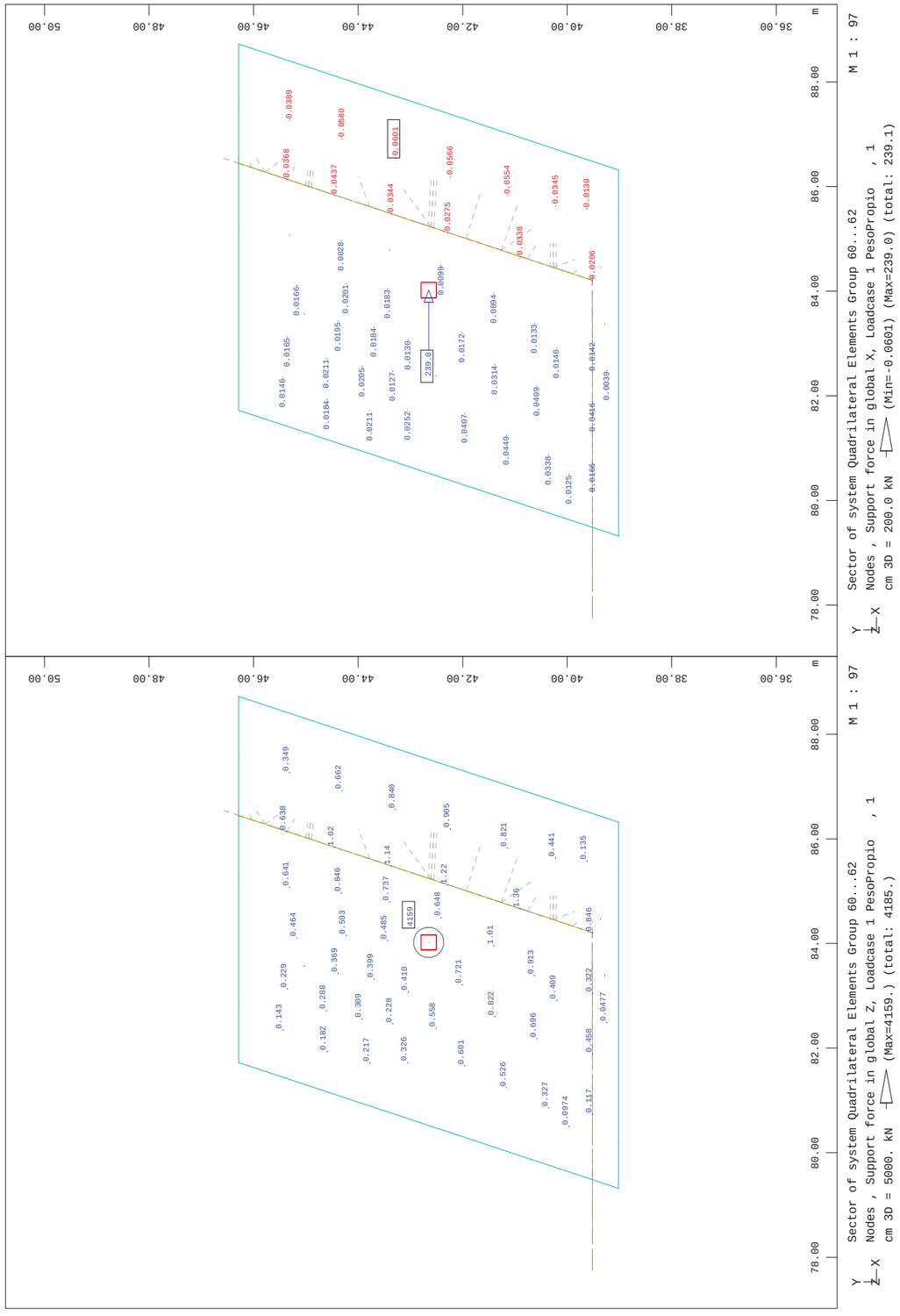

M 1 : 41
m
111.00
110.00
109.00
108.00
107.00
106.00
105.00
104.00
103.00
102.00
38.00
39.00
40.00
41.00
42.00
43.00
0.0700
0.500
1.00
1.50
2.00
2.50
3.00
3.50
5.00
5.50
6.00
6.50
6.94
0.279
0.215
0.620
Y
Z
X
Sector of system Group 51
Quadrilateral Elements , lower Cross reinforcements (2nd layer) in Node
, Design Case 2 , from 0.0700 to 6.94 step 0.500 cm2/m

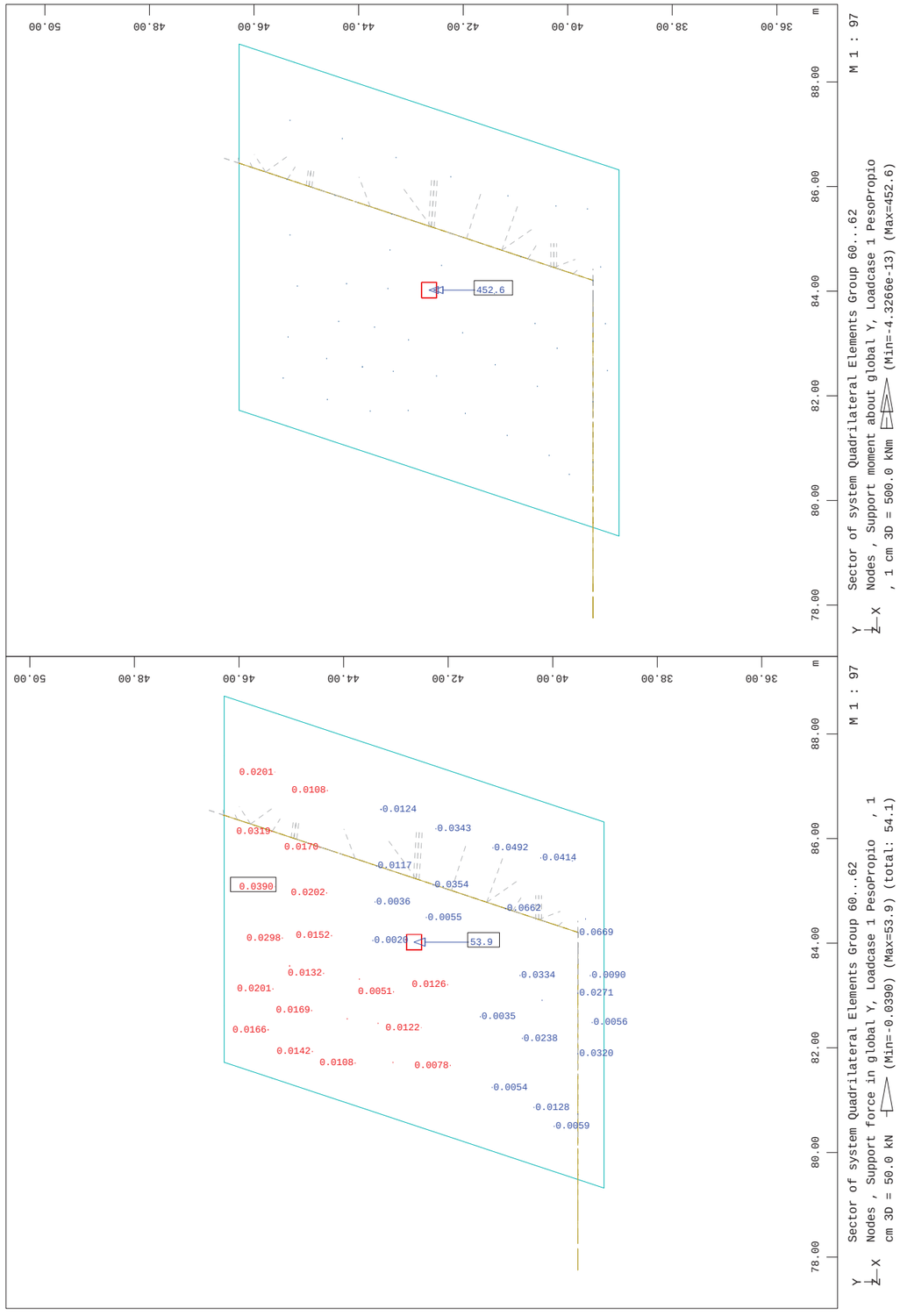

Sector of system Group 51
Quadrilateral Elements , upper Principal reinforcements (1st layer) in Node , Design Case 2 , from 0 to 1.57 step 0.100 cm2/m
M 1 : 41
m
111.00
110.00
109.00
108.00
107.00
106.00
105.00
104.00
103.00
102.00
38.00
39.00
40.00
41.00
42.00
43.00
1.57
1.43
0.971
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.0
0.0030
0.0076
0.111


Sector of system Group 51
Quadrilateral Elements , upper Cross reinforcements (2nd layer) in Node , Design Case 2 , from 0 to 1.22 step 0.100 cm2/m
M 1 : 41
m
111.00
110.00
109.00
108.00
107.00
106.00
105.00
104.00
103.00
102.00
38.00
39.00
40.00
41.00
42.00
43.00
1.22
1.10
1.00
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0
0.682
0.555
0.0152
0.0109

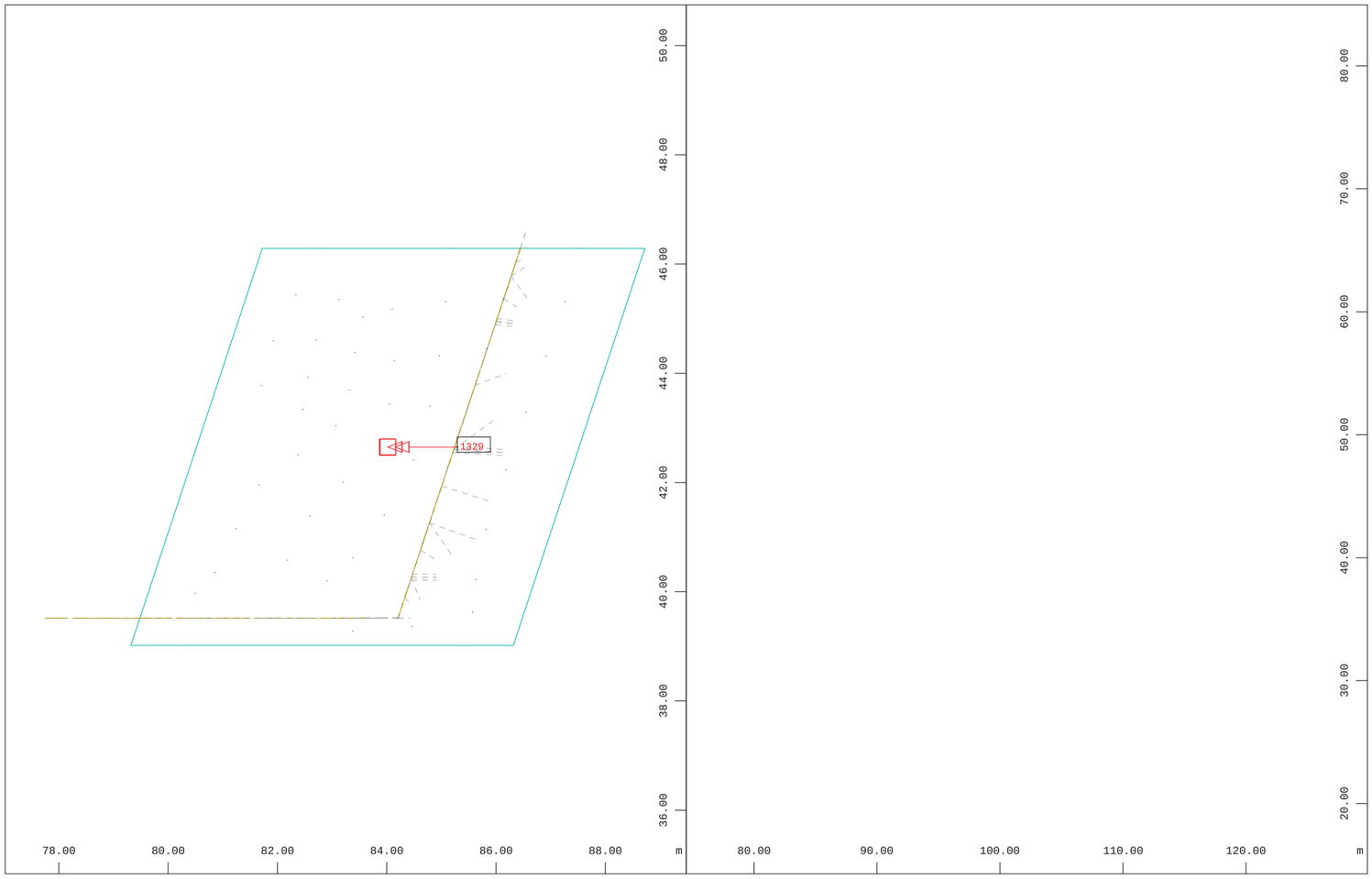
ESTRIBO 2

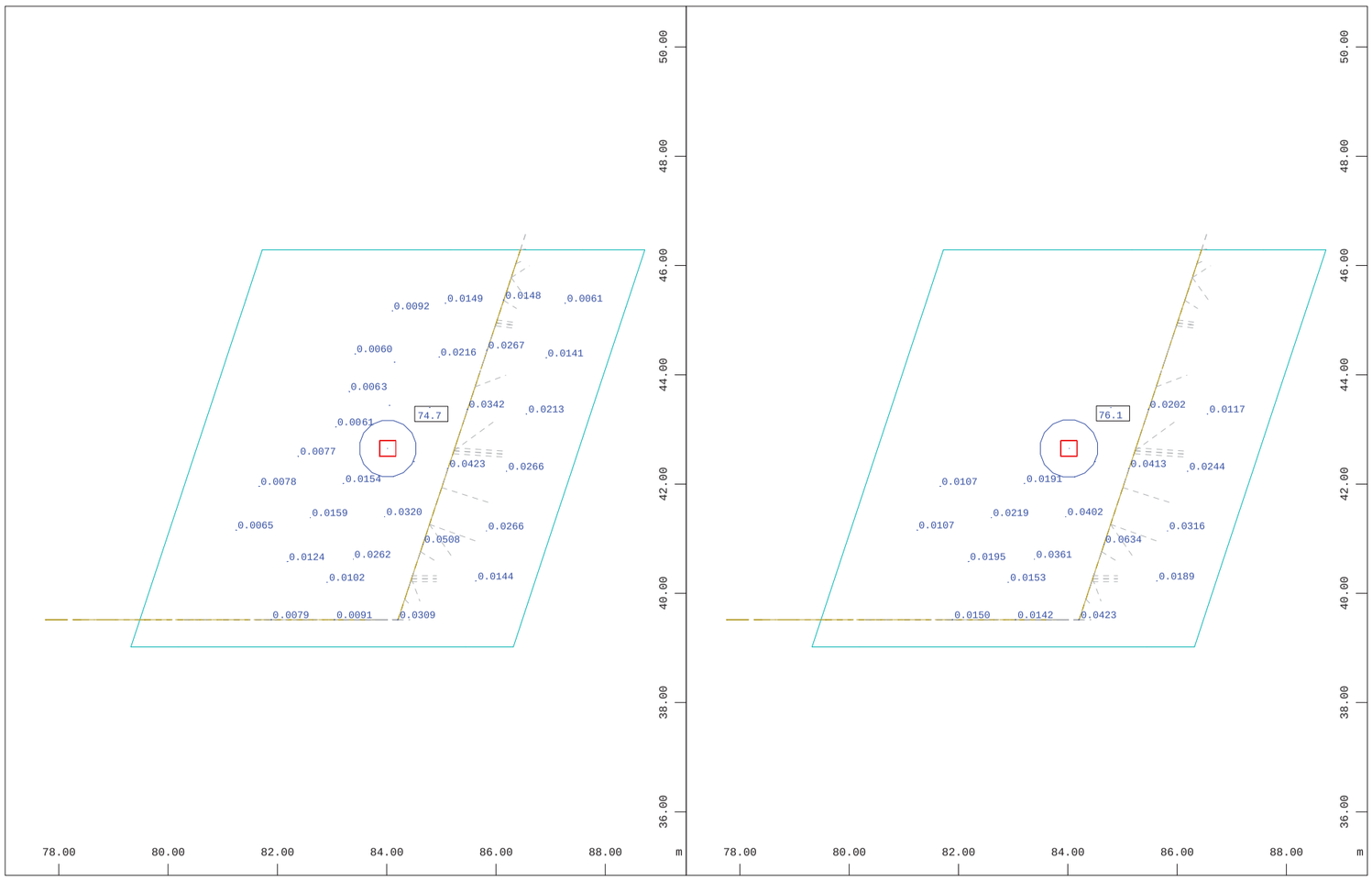
ESTUDIO DE LA ESTABILIDAD

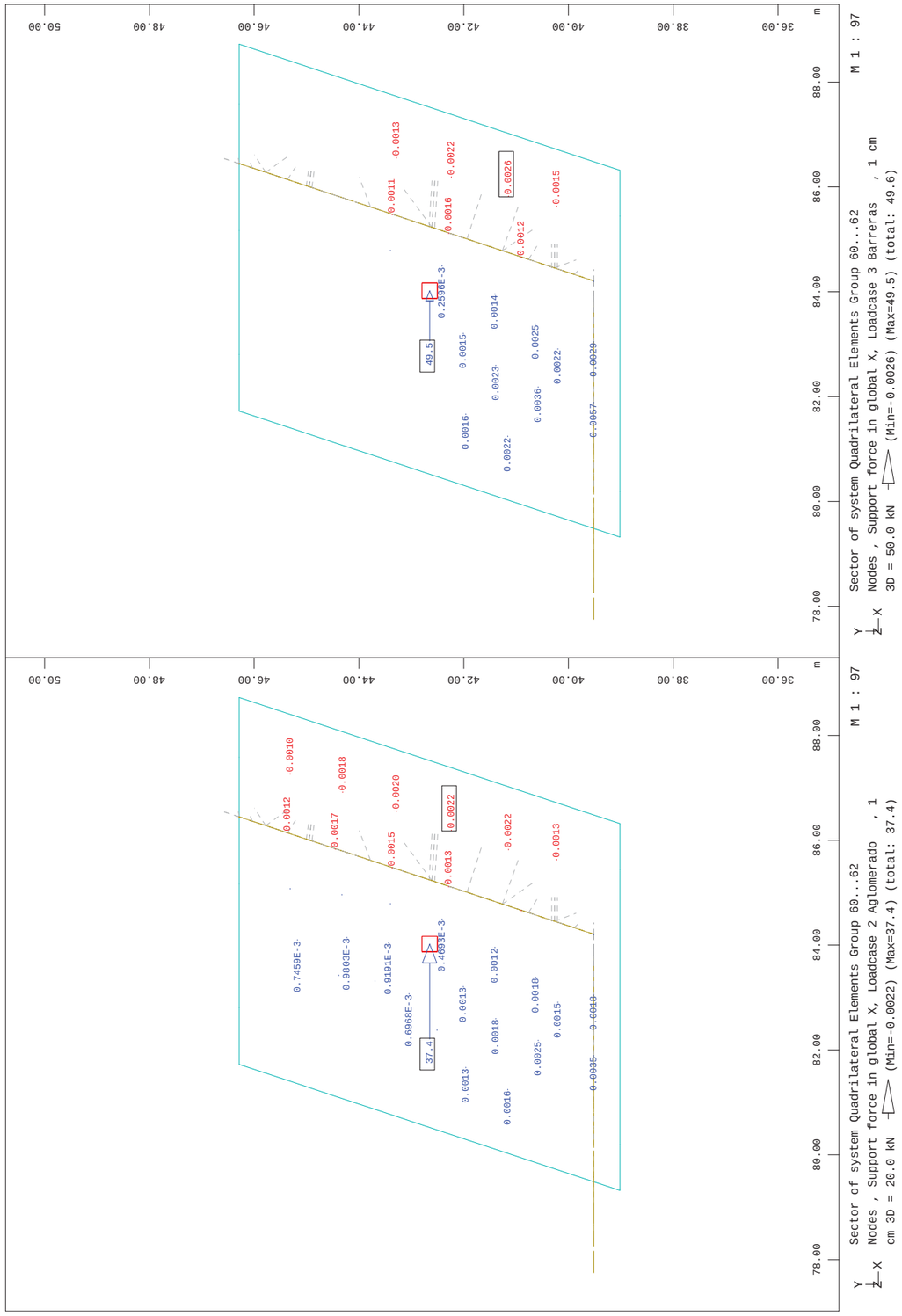

Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 1 PesoPropio , 1
cm 3D = 5000. kN (Max=4159.) (total: 4185.)
M 1 : 97
239.0
4159
0.0389
0.0368
0.0437
0.0560
0.0601
0.0344
0.0275
0.0566
0.0554
0.0338
0.0345
0.0138
0.0286
0.0099
0.0028
0.0166
0.0201
0.0183
0.0094
0.0195
0.0184
0.0130
0.0172
0.0133
0.0148
0.0342
0.0039
0.0146
0.0165
0.0211
0.0205
0.0127
0.0211
0.0252
0.0467
0.0314
0.0409
0.0449
0.0338
0.0125
0.0166
0.0416
0.0416
0.349
0.662
0.638
0.840
1.02
0.905
1.14
0.821
0.441
0.135
0.641
0.846
0.464
0.593
0.737
0.485
1.22
1.36
0.648
1.01
0.846
0.229
0.369
0.399
0.721
0.913
0.322
0.288
0.309
0.410
0.822
0.409
0.0477
0.143
0.228
0.558
0.696
0.458
0.182
0.326
0.601
0.526
0.327
0.0974
0.117
0.217


Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global Y, Loadcase 1 PesoPropio
, 1 cm 3D = 500.0 kNm (Min=-4.3266e-13) (Max=452.6)
M 1 : 97
452.6

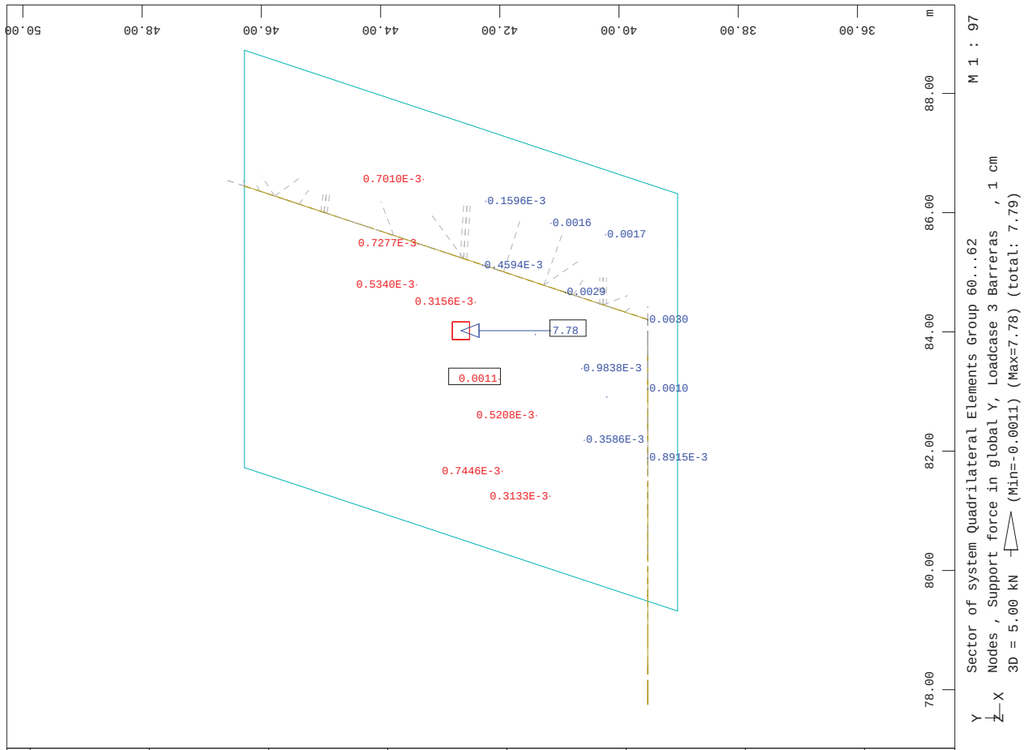
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 1 PesoPropio , 1
cm 3D = 50.0 kN (Min=-0.0390) (Max=53.9) (total: 54.1)
M 1 : 97
53.9
0.0201
0.0108
0.0124
0.0343
0.0319
0.0178
0.0492
0.0414
0.0117
0.0390
0.0202
0.0354
0.0036
0.0662
0.0055
0.0298
0.0152
0.0026
0.0669
0.0132
0.0334
0.0090
0.0201
0.0051
0.0126
0.0271
0.0169
0.0035
0.0056
0.0166
0.0122
0.0238
0.0142
0.0320
0.0108
0.0078
0.0054
0.0128
0.0059

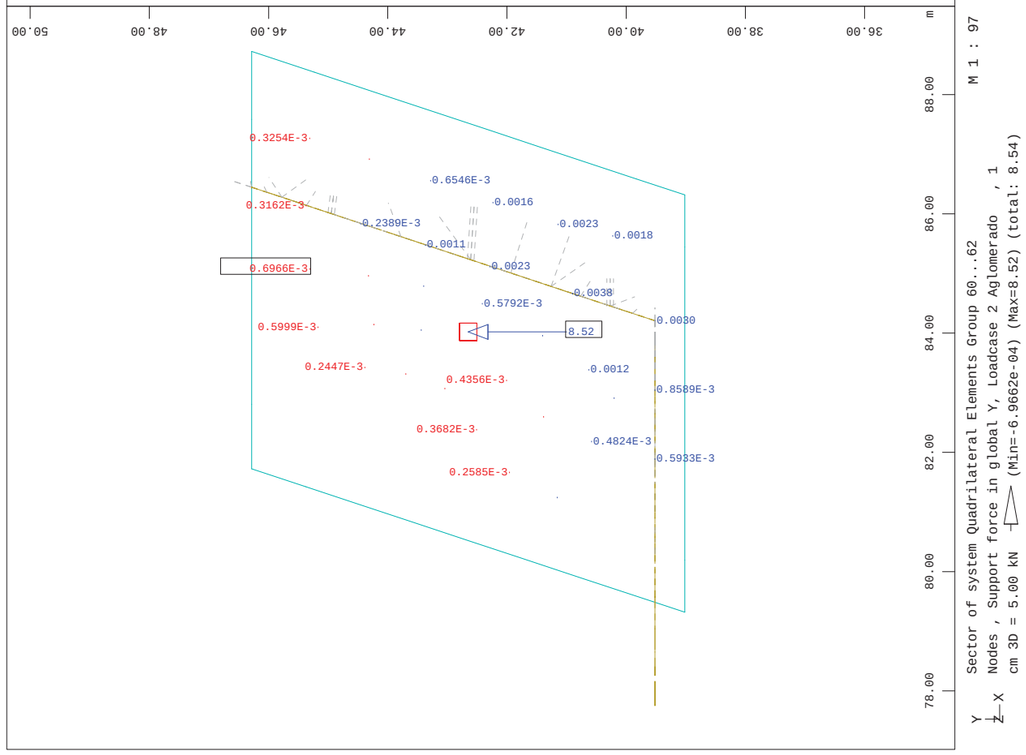

1329
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global X, Loadcase 1 PesoPropio
, 1 cm 3D = 1000. kNm
(Min=-1329.) (Max= 3.8614e-13)
M 1 : 97
80.00
90.00
100.00
110.00
120.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
M 1 : 431

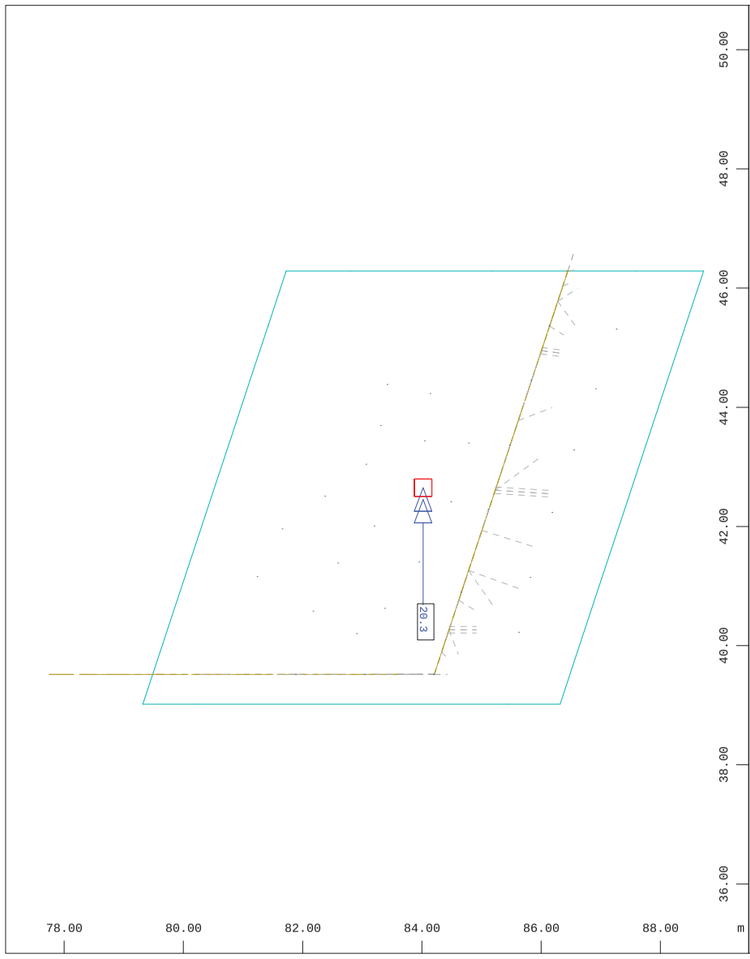

74.7
0.0092
0.0149
0.0148
0.0061
0.0060
0.0216
0.0267
0.0141
0.0063
0.0342
0.0213
0.0061
0.0077
0.0423
0.0266
0.0078
0.0154
0.0159
0.0320
0.0065
0.0266
0.0508
0.0124
0.0262
0.0102
0.0144
0.0079
0.0091
0.0309
76.1
0.0202
0.0117
0.0413
0.0244
0.0107
0.0191
0.0219
0.0402
0.0107
0.0316
0.0634
0.0195
0.0361
0.0153
0.0189
0.0150
0.0142
0.0423
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 2 Aglomerado , 1
cm 3D = 50.0 kN
(Max=74.7) (total: 75.3)
M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 3 Barreras , 1 cm
3D = 50.0 kN
(Max=76.1) (total: 76.6)
M 1 : 97


Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global X, Loadcase 3 Barreras , 1 cm
3D = 50.0 kN (Min=-0.0026) (Max=49.5) (total: 49.6)
M 1 : 97
49.5
0.0026
0.0013
0.0011
0.0022
0.0016
0.0012
0.0015
0.2596E-3
0.0014
0.0025
0.0022
0.0029
0.0015
0.0023
0.0036
0.0067
0.0016
0.0022

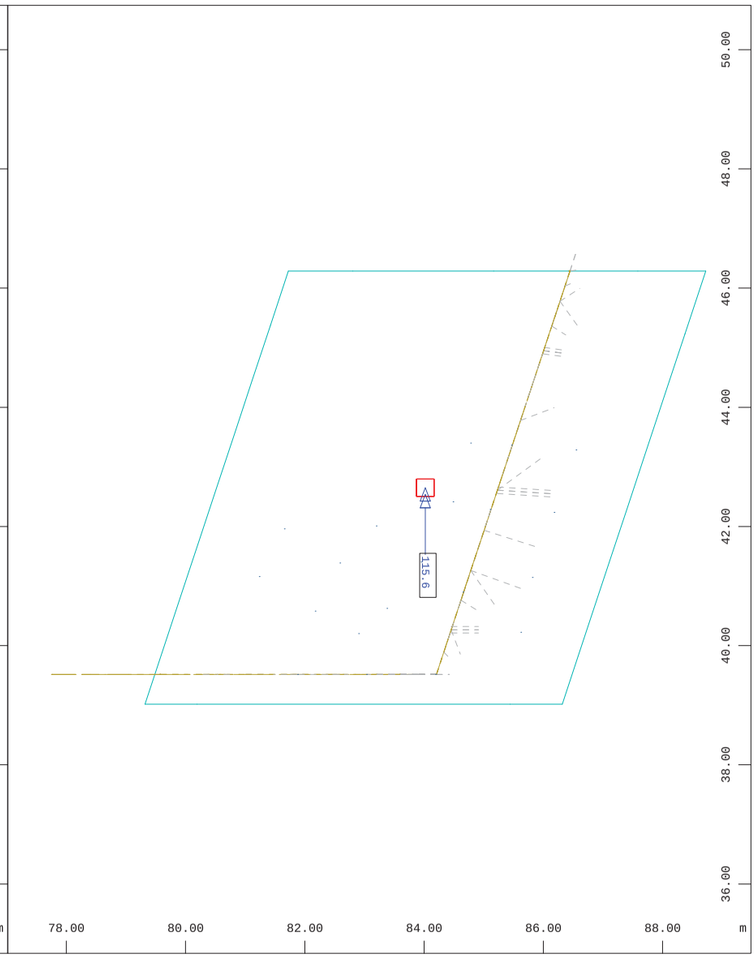
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global X, Loadcase 2 Aglomerado , 1
cm 3D = 20.0 kN (Min=-0.0022) (Max=37.4) (total: 37.4)
M 1 : 97
37.4
0.0022
0.0010
0.0018
0.0020
0.0012
0.0017
0.0015
0.0013
0.0022
0.0013
0.7459E-3
0.9803E-3
0.9191E-3
0.6968E-3
0.4693E-3
0.0012
0.0013
0.0018
0.0018
0.0015
0.0025
0.0018
0.0035
0.0013
0.0016


Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 3 Barreras , 1 cm
3D = 5.00 kN (Min=-0.0011) (Max=7.78) (total: 7.79)
M 1 : 97
7.78
0.0011
0.7010E-3
0.1596E-3
0.0016
0.0017
0.7277E-3
0.4594E-3
0.0029
0.5340E-3
0.3156E-3
0.0030
0.9838E-3
0.0010
0.5208E-3
0.3586E-3
0.8915E-3
0.7446E-3
0.3133E-3

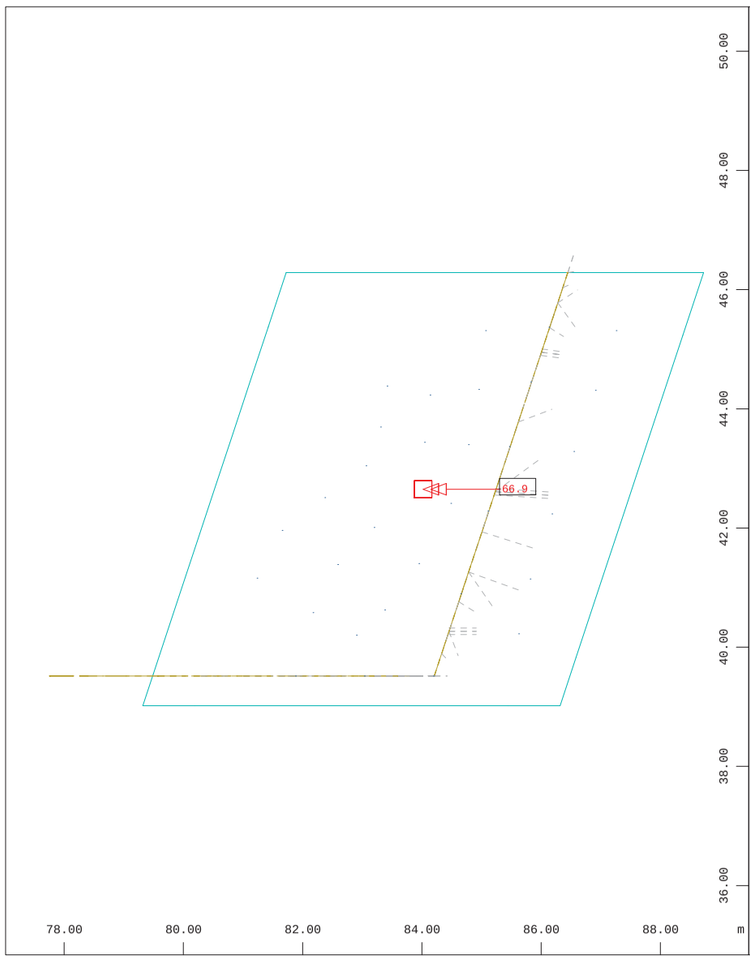

Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 2 Aglomerado , 1
cm 3D = 5.00 kN (Min=-6.9662e-04) (Max=8.52) (total: 8.54)
M 1 : 97
8.52
0.3254E-3
0.6546E-3
0.3162E-3
0.0016
0.2389E-3
0.0023
0.0018
0.0011
0.6966E-3
0.0023
0.0038
0.5792E-3
0.0030
0.5999E-3
0.2447E-3
0.0012
0.4356E-3
0.8589E-3
0.3682E-3
0.4824E-3
0.5933E-3
0.2585E-3



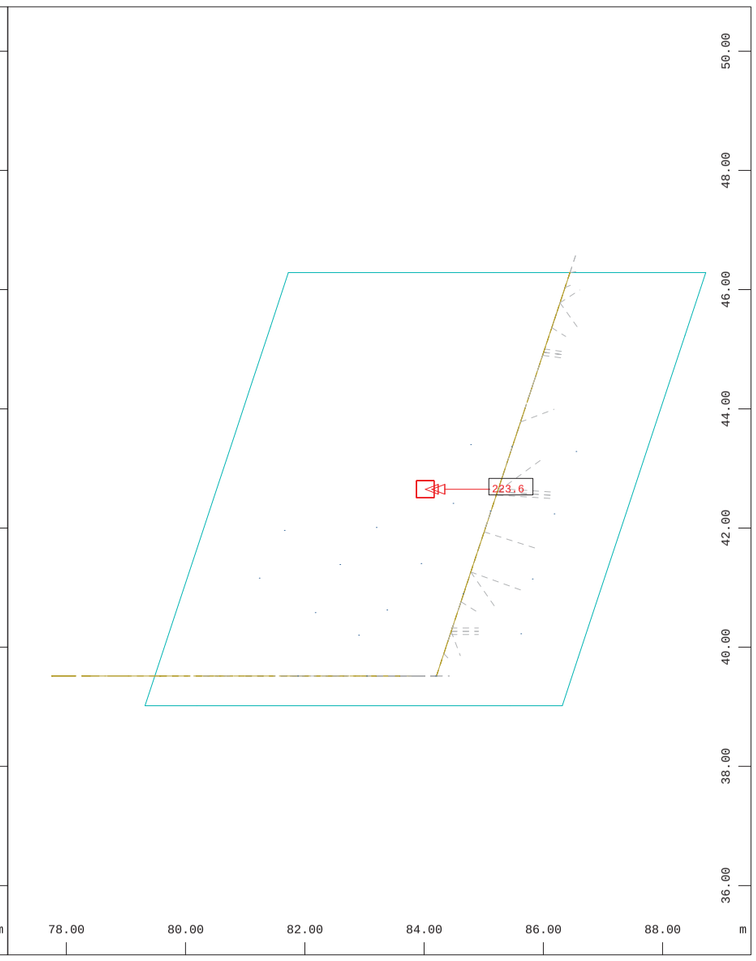
Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support moment about global Y, Loadcase 2 Aglomerado
, 1 cm 3D = 10.0 kNm (Min=-2.2204e-14) (Max=20.3) (total:



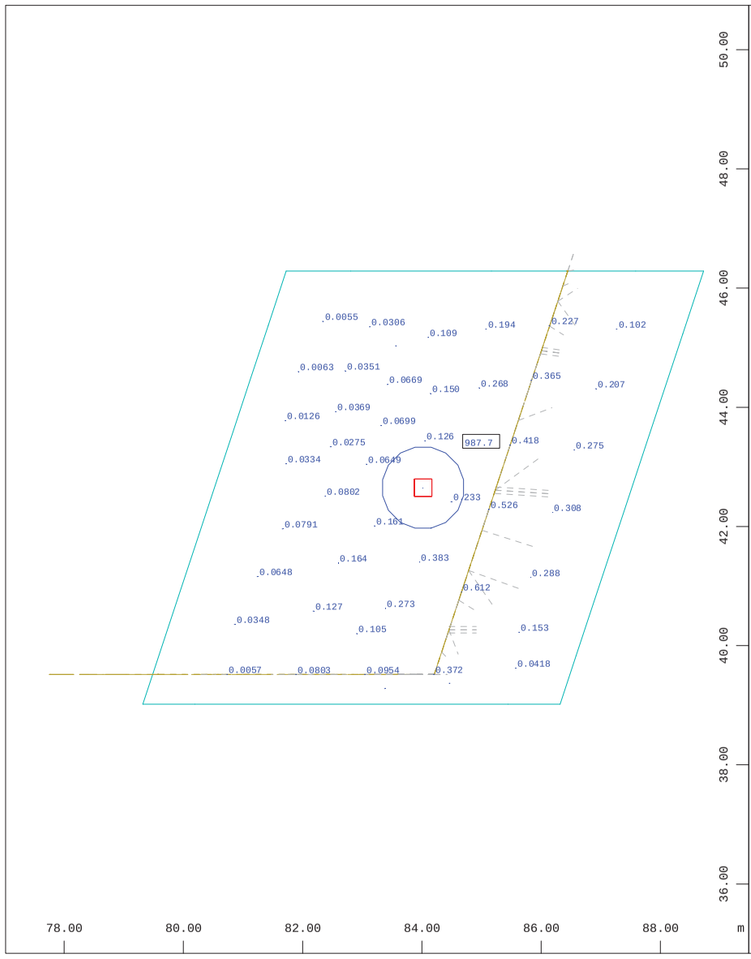
Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support moment about global Y, Loadcase 3 Barreras ,
1 cm 3D = 100.0 kNm (Min=-2.9310e-14) (Max=115.6) (total:



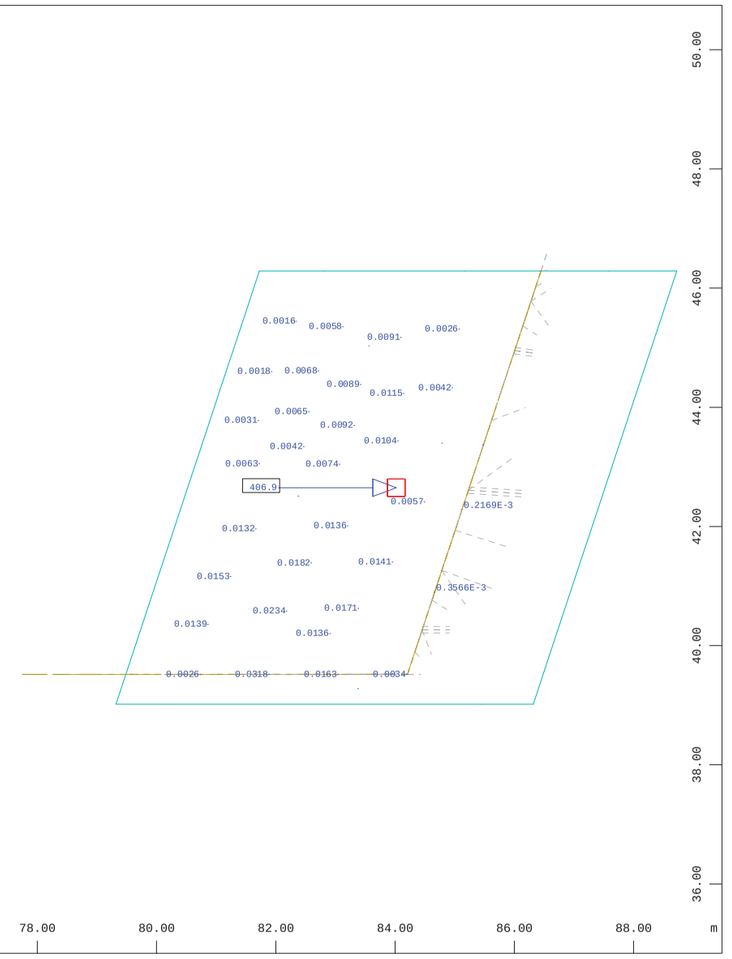
Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support moment about global X, Loadcase 2 Aglomerado
, 1 cm 3D = 50.0 kNm (Min=-66.9) (Max= 2.3426e-14)



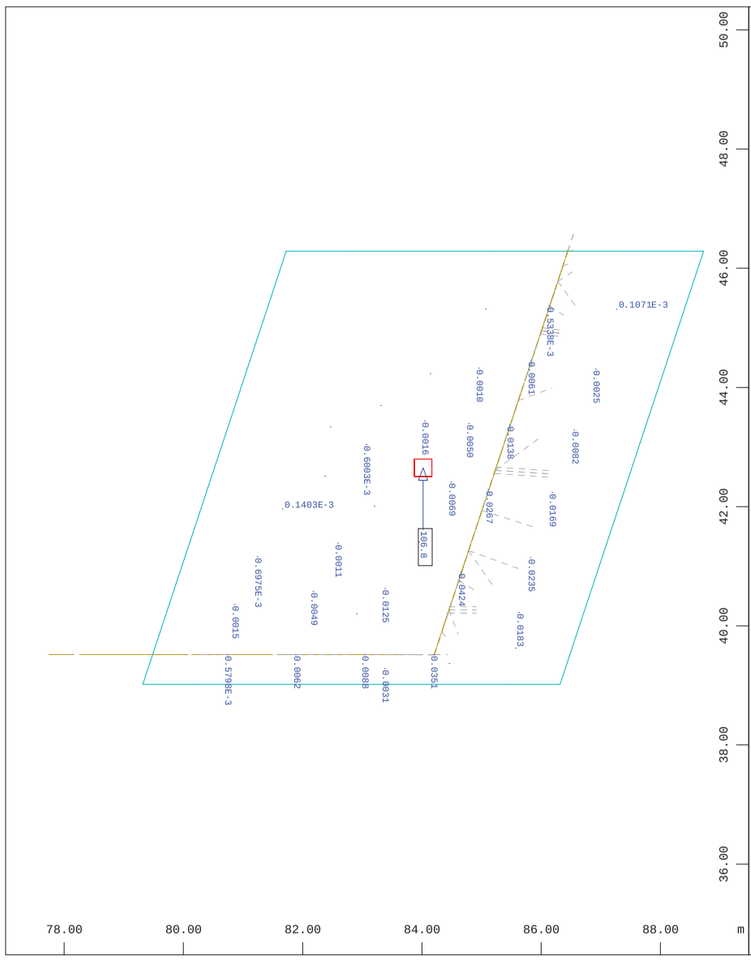
Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support moment about global X, Loadcase 3 Barreras ,
1 cm 3D = 200.0 kNm (Min=-223.6) (Max= 1.3989e-14)



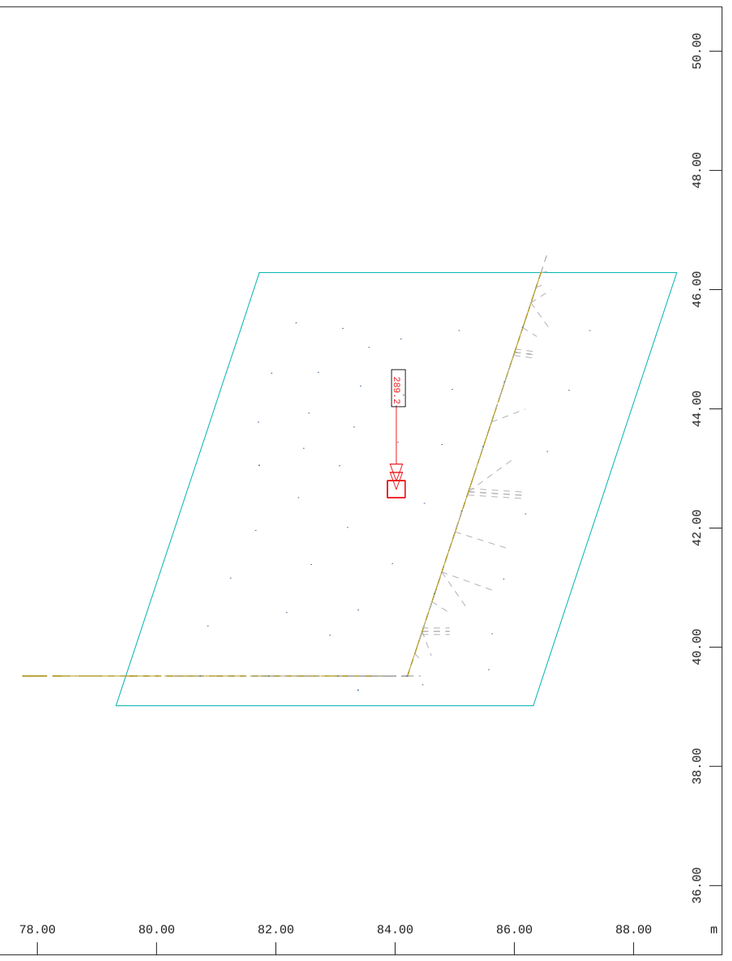
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 1555 MAX-PZ NODE
Supporting Forces in , 1 cm 3D = 500.0 kN (Max=987.7)
M 1 : 97



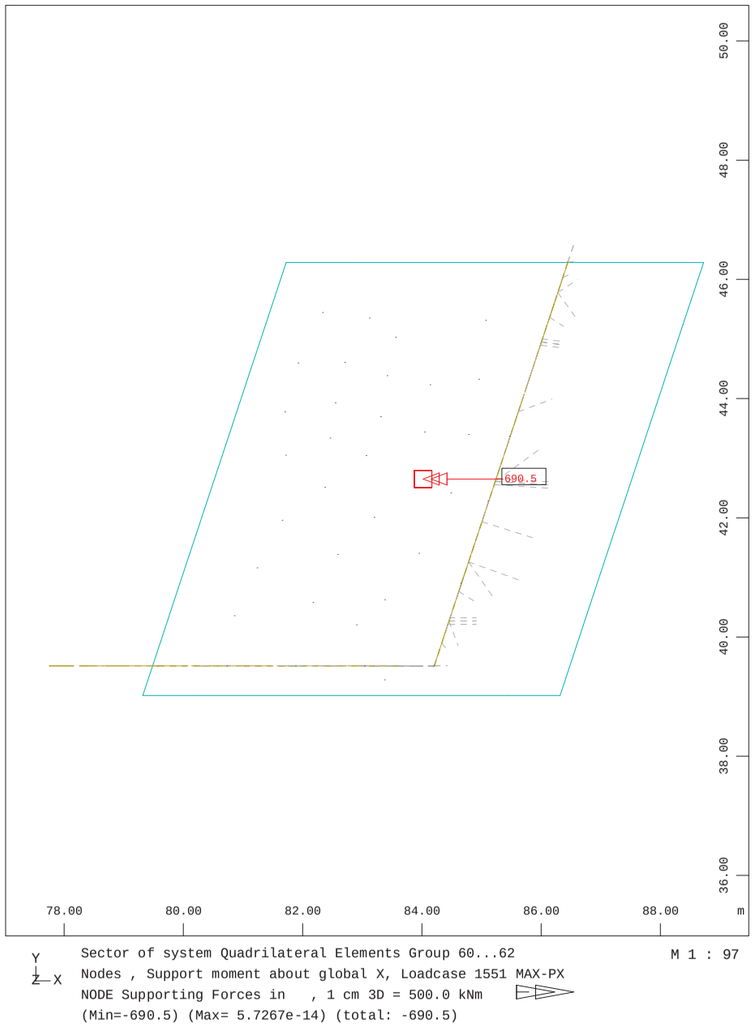
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global X, Loadcase 1551 MAX-PX NODE
Supporting Forces in , 1 cm 3D = 200.0 kN (Max=406.9)
M 1 : 97

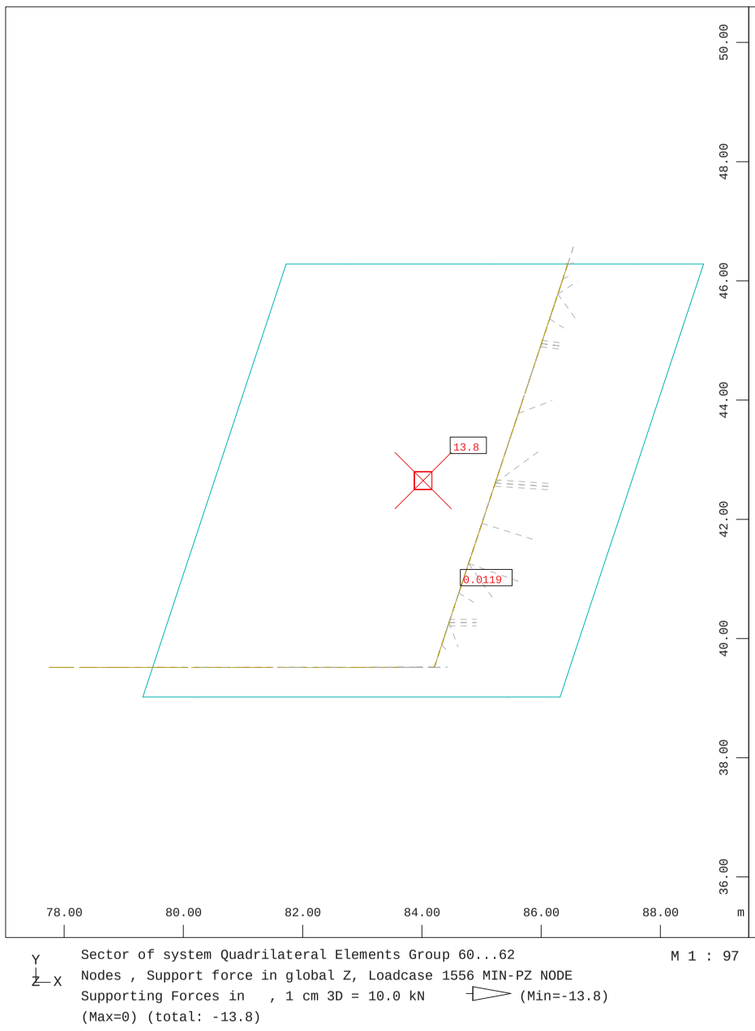


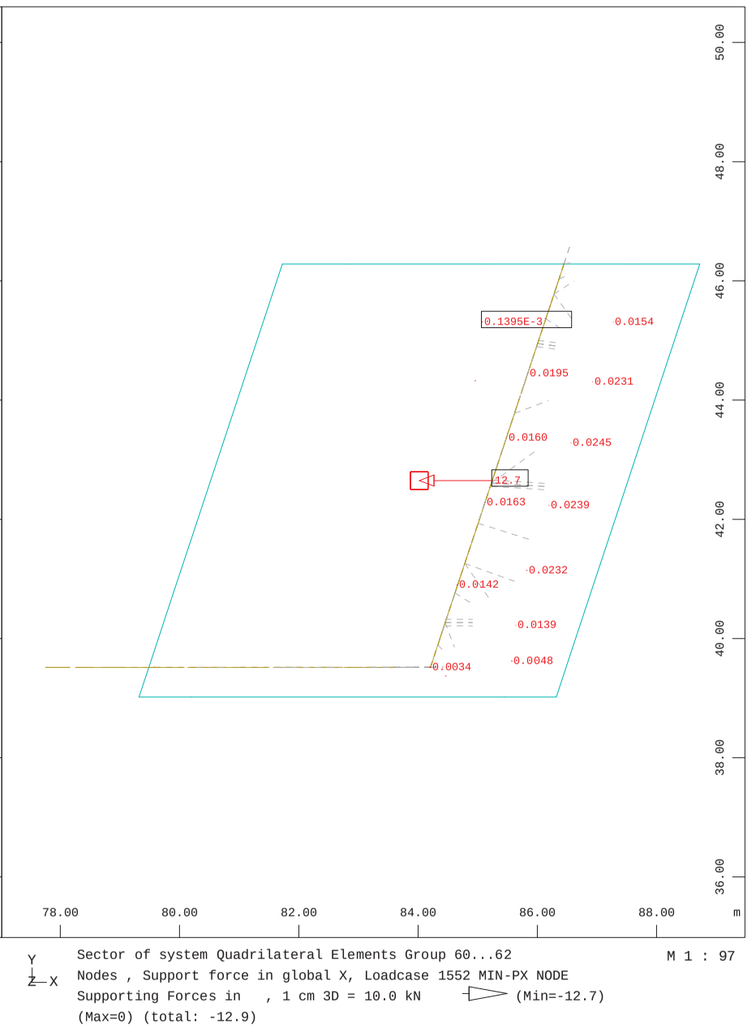
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 1553 MAX-PY NODE
Supporting Forces in , 1 cm 3D = 100.0 kN (Max=106.8)
M 1 : 97

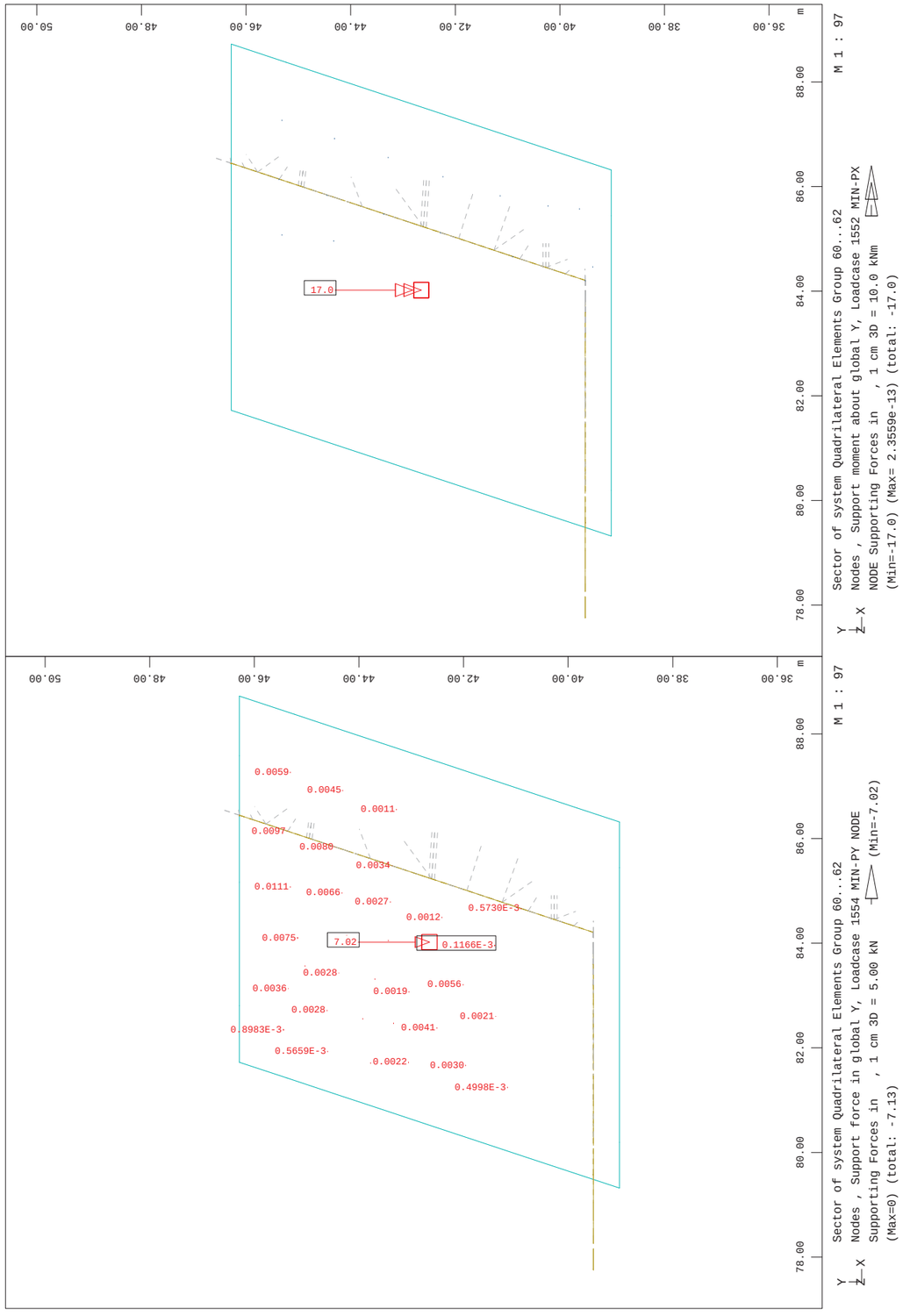


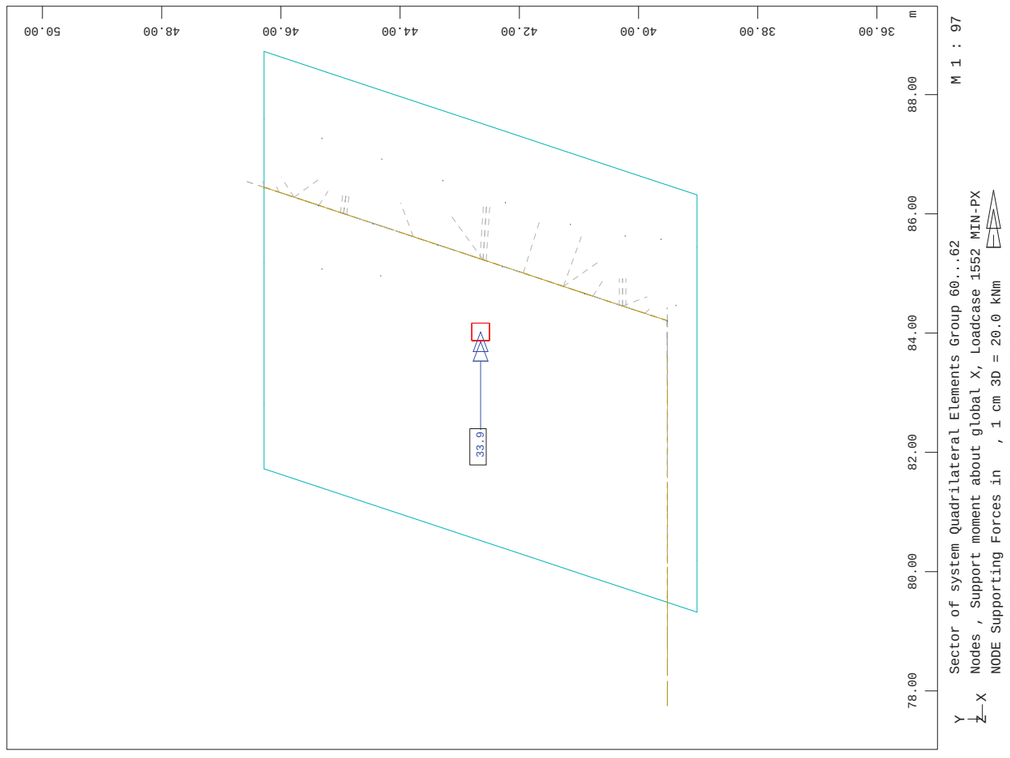
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global Y, Loadcase 1555 MAX-PZ
NODE Supporting Forces in , 1 cm 3D = 200.0 kNm
M 1 : 97

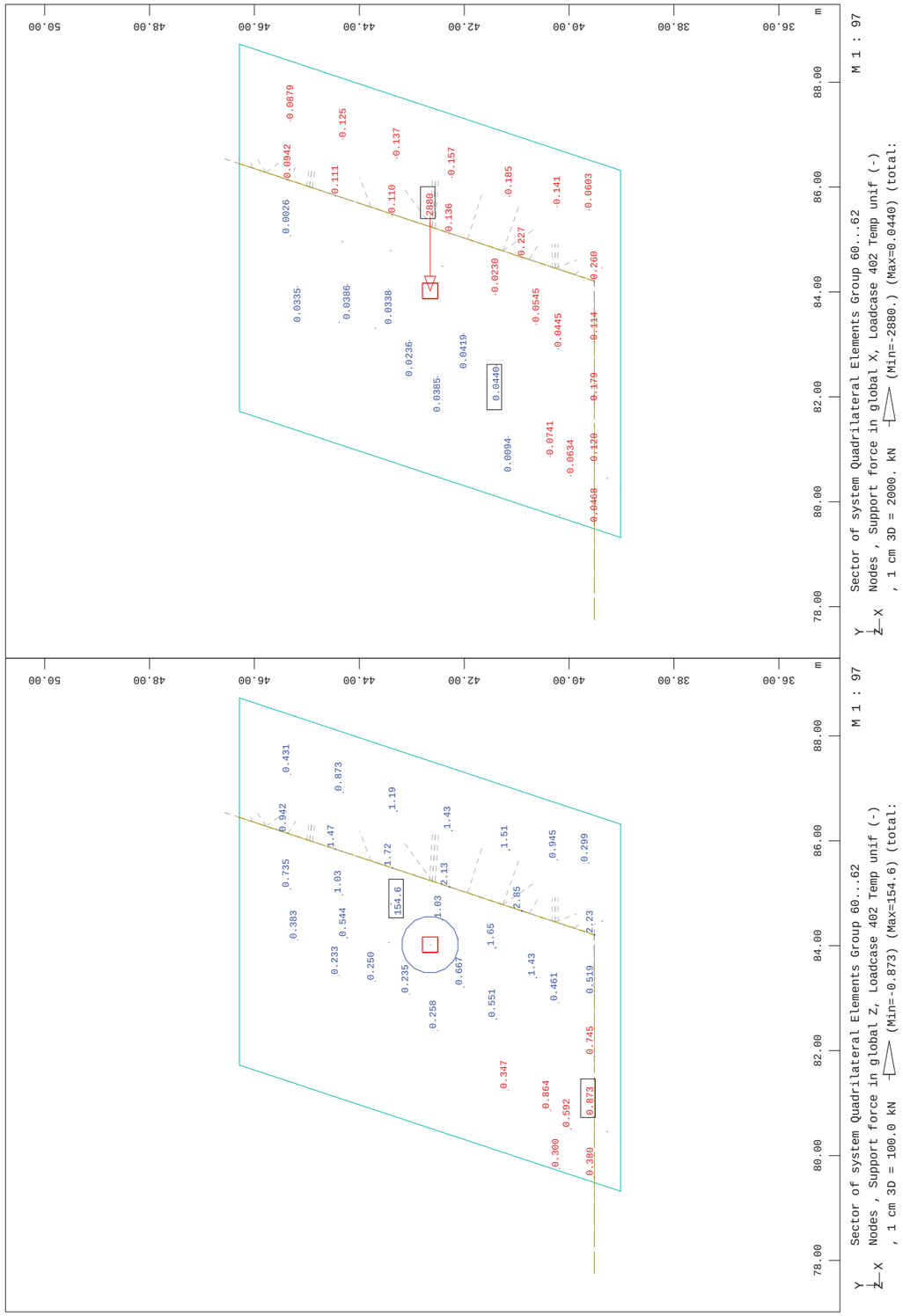

690.5
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global X, Loadcase 1551 MAX-PX
NODE Supporting Forces in , 1 cm 3D = 500.0 kNm
(Min=-690.5) (Max= 5.7267e-14) (total: -690.5)
M 1 : 97

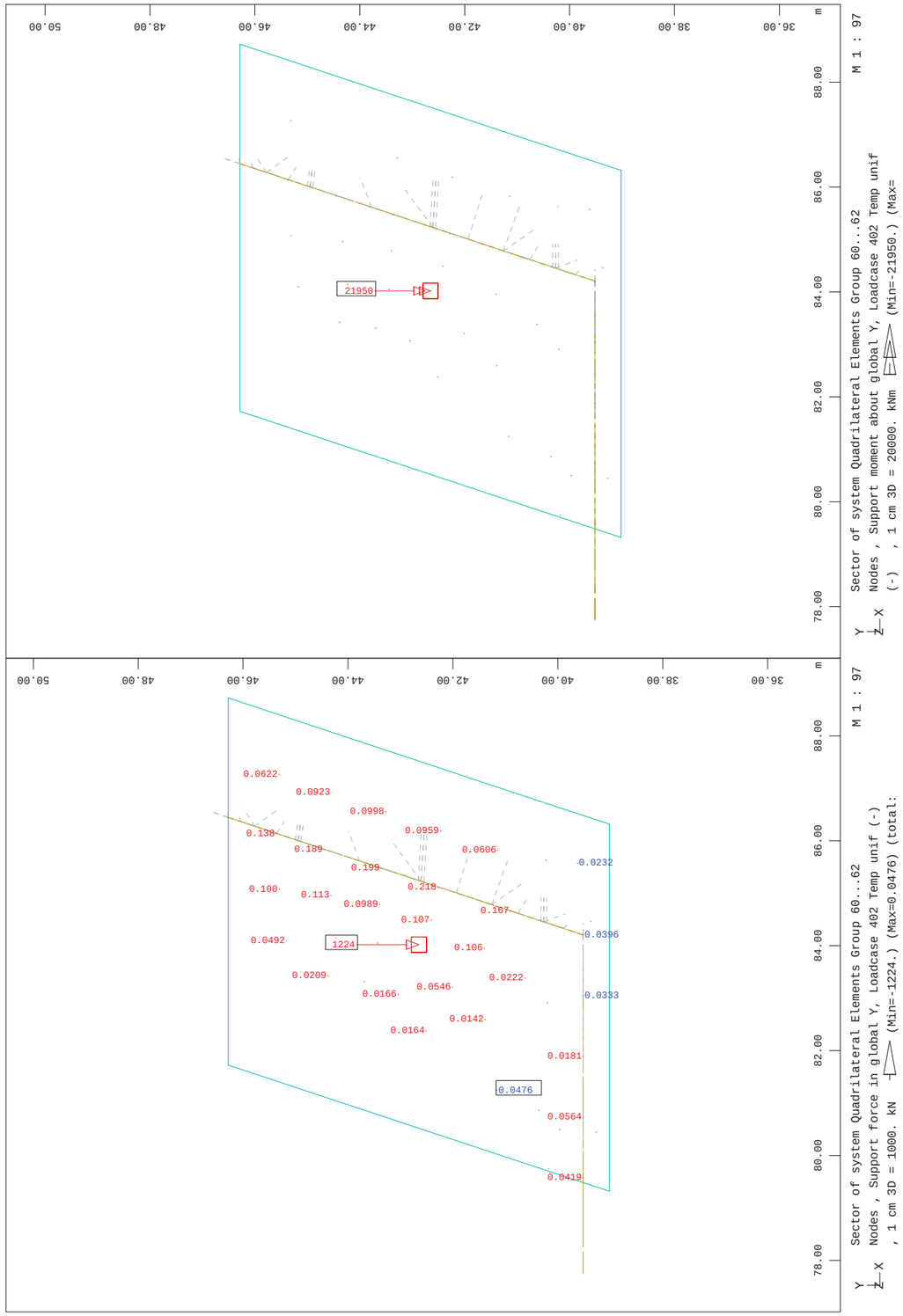

13.8
0.0119
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 1556 MIN-PZ NODE
Supporting Forces in , 1 cm 3D = 10.0 kN
(Min=-13.8)
(Max=0) (total: -13.8)
M 1 : 97

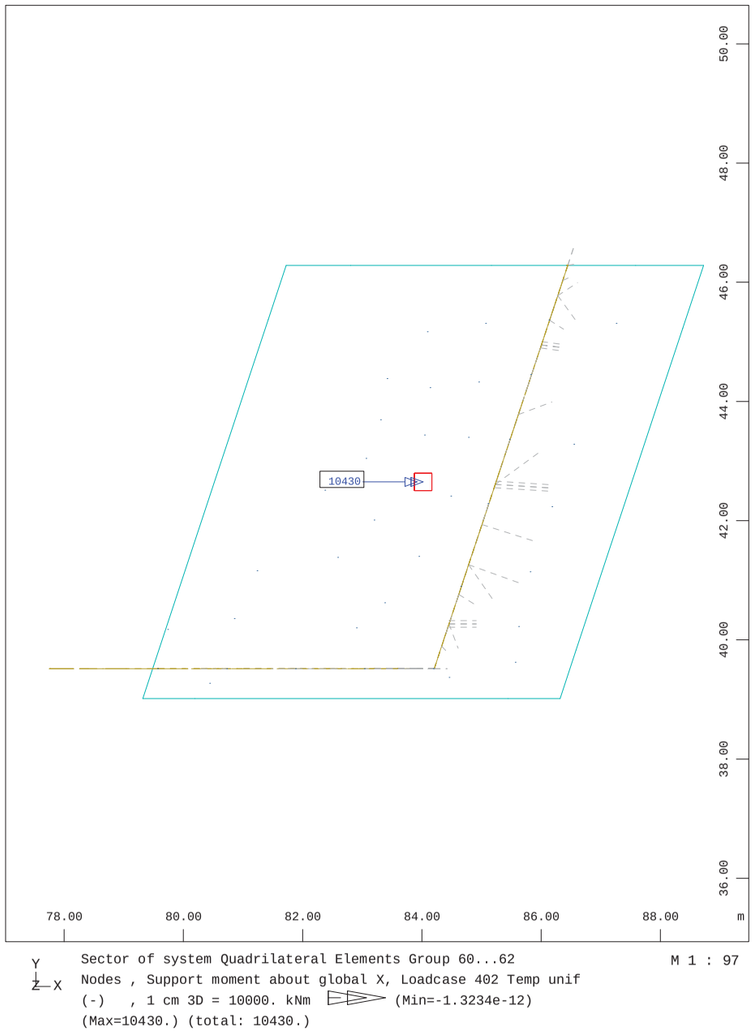

0.1395E-3
0.0154
0.0195
0.0231
0.0160
0.0245
12.7
0.0163
0.0239
0.0232
0.0142
0.0139
0.0034
0.0048
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global X, Loadcase 1552 MIN-PX NODE
Supporting Forces in , 1 cm 3D = 10.0 kN
(Min=-12.7)
(Max=0) (total: -12.9)
M 1 : 97

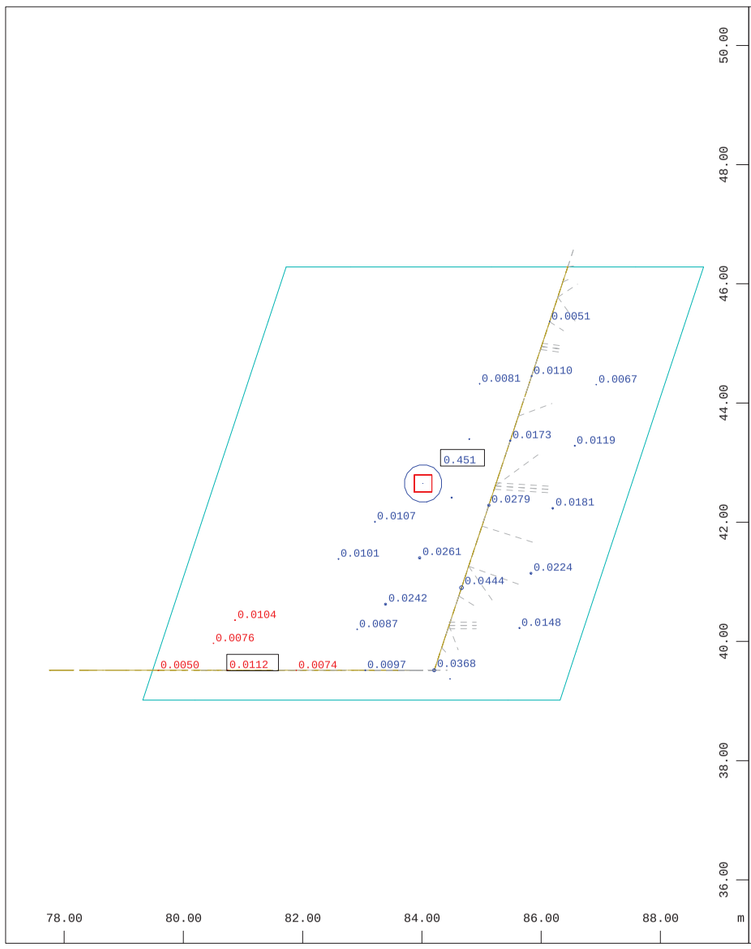

M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global Y, Loadcase 1552 MIN-PX
NODE Supporting Forces in , 1 cm 3D = 10.0 kNm
(Min=-17.0) (Max= 2.3559e-13) (total: -17.0)
17.0
M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 1554 MIN-PY NODE
Supporting Forces in , 1 cm 3D = 5.00 kN (Min=-7.02)
(Max=0) (total: -7.13)
0.0059
0.0045
0.0011
0.0097
0.0080
0.0034
0.0111
0.0066
0.0027
0.0012
0.5730E-3
0.0075
7.02
0.1166E-3
0.0028
0.0036
0.0019
0.0056
0.0028
0.0021
0.8983E-3
0.0041
0.5659E-3
0.0022
0.0030
0.4998E-3

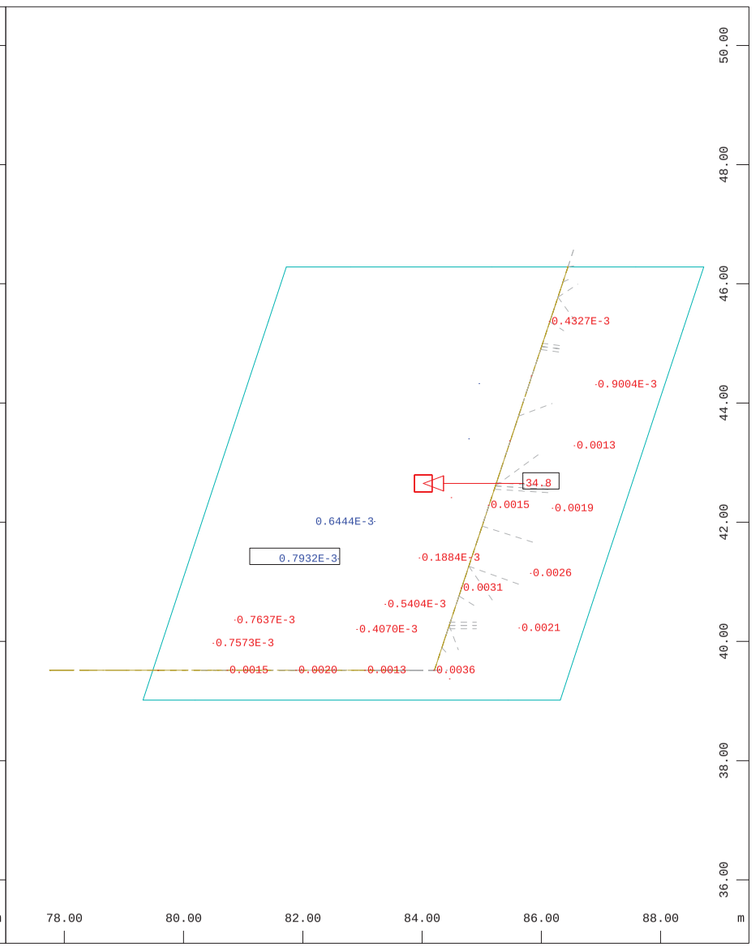

M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global X, Loadcase 1552 MIN-PX
NODE Supporting Forces in , 1 cm 3D = 20.0 kNm
(Min=-6.3061e-14) (Max=33.9) (total: 33.9)
33.9

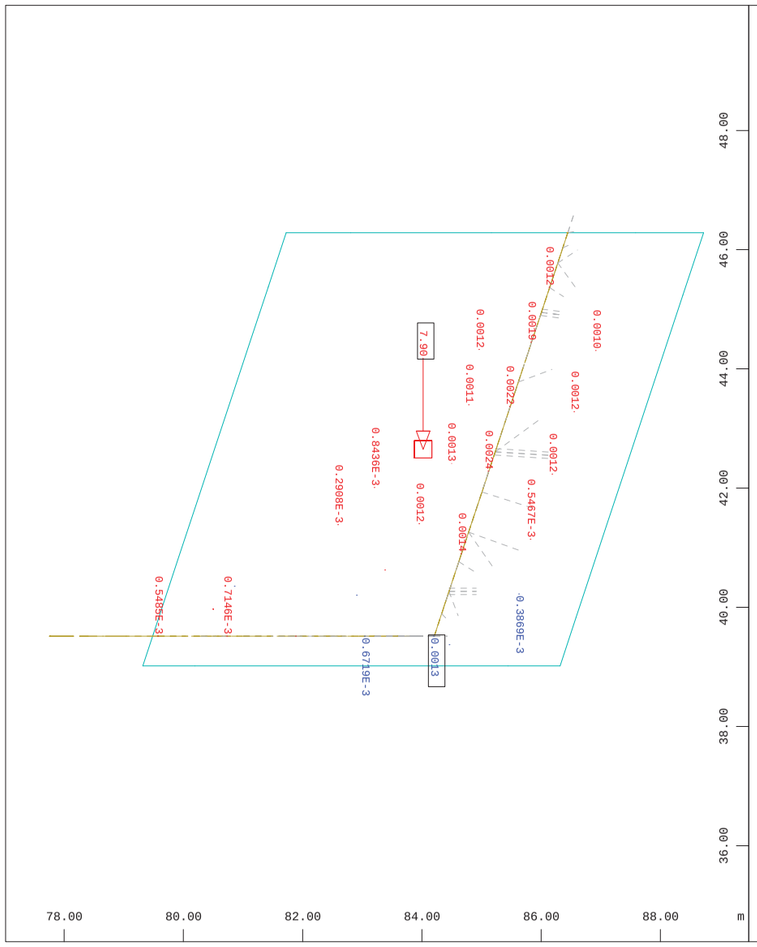

M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global X, Loadcase 402 Temp unif (-)
, 1 cm 3D = 2000. kN (Min=-2880.) (Max=0.0440) (total:
Y
X
2880
0.0440
M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 402 Temp unif (-)
, 1 cm 3D = 100.0 kN (Min=-0.873) (Max=154.6) (total:
154.6
0.873


M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global Y, Loadcase 402 Temp unif
(-) , 1 cm 3D = 20000. kNm (Min=-21950.) (Max=
21950
M 1 : 97
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 402 Temp unif (-)
, 1 cm 3D = 1000. kN (Min=-1224.) (Max=0.0476) (total:
1224
0.0476

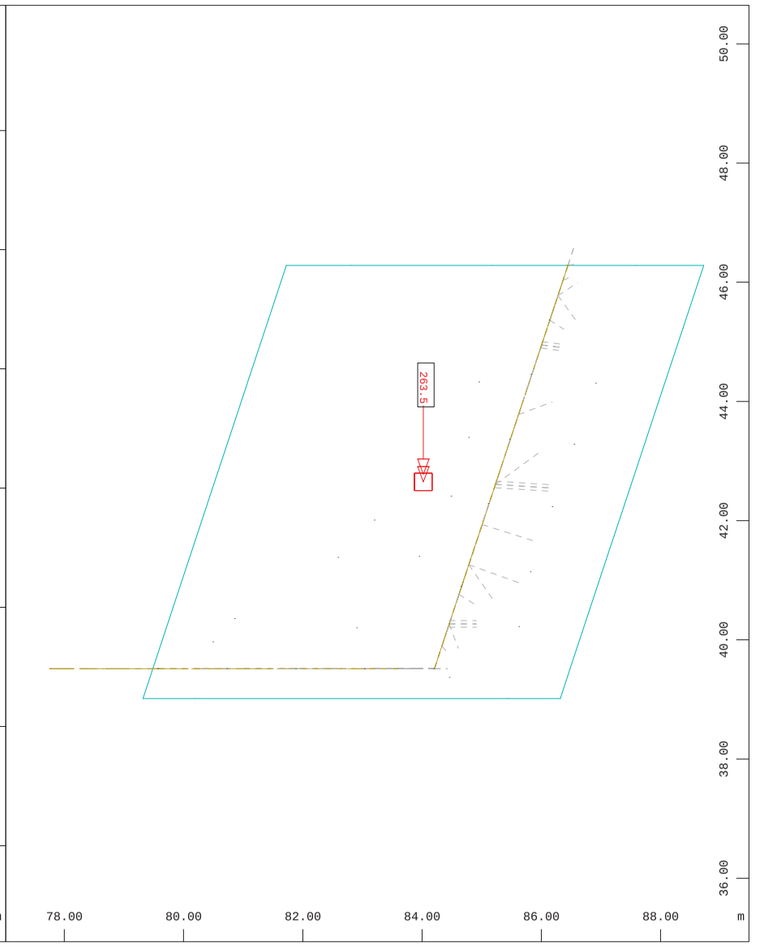

10430
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global X, Loadcase 402 Temp unif
(-) , 1 cm 3D = 10000. kNm
(Min=-1.3234e-12)
(Max=10430.) (total: 10430.)
M 1 : 97


0.0051
0.0081
0.0110
0.0067
0.0173
0.0119
0.451
0.0279
0.0181
0.0107
0.0101
0.0261
0.0224
0.0444
0.0242
0.0104
0.0076
0.0087
0.0148
0.0050
0.0112
0.0074
0.0097
0.0368
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 401 Frenado , 1
cm 3D = 0.500 kN
(Min=-0.0112) (Max=0.451) (total: 0.753)
M 1 : 97

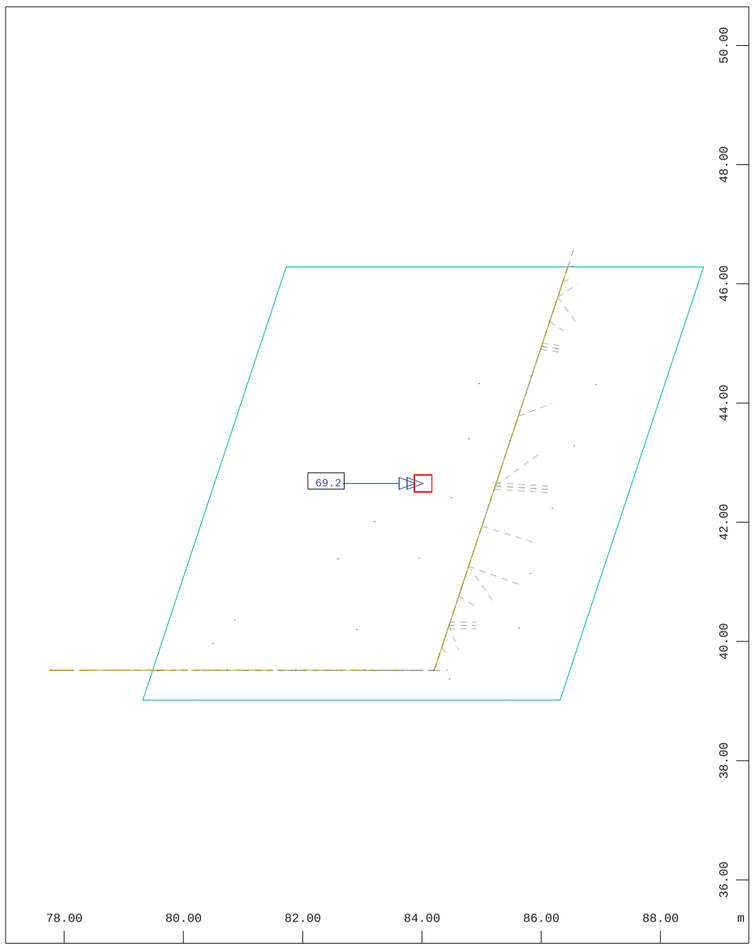

0.4327E-3
0.9004E-3
0.0013
34.8
0.0015
0.0019
0.6444E-3
0.7932E-3
0.1884E-3
0.0026
0.0031
0.5404E-3
0.7637E-3
0.4070E-3
0.0021
0.7573E-3
0.0015
0.0020
0.0013
0.0036
50.00
48.00
46.00
44.00
42.00
40.00
38.00
36.00
78.00
80.00
82.00
84.00
86.00
88.00
m
Y
Z X
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global X, Loadcase 401 Frenado , 1
cm 3D = 20.0 kN
(Min=-34.8) (Max= 7.9320e-04) (total:
-34.8)
M 1 : 97



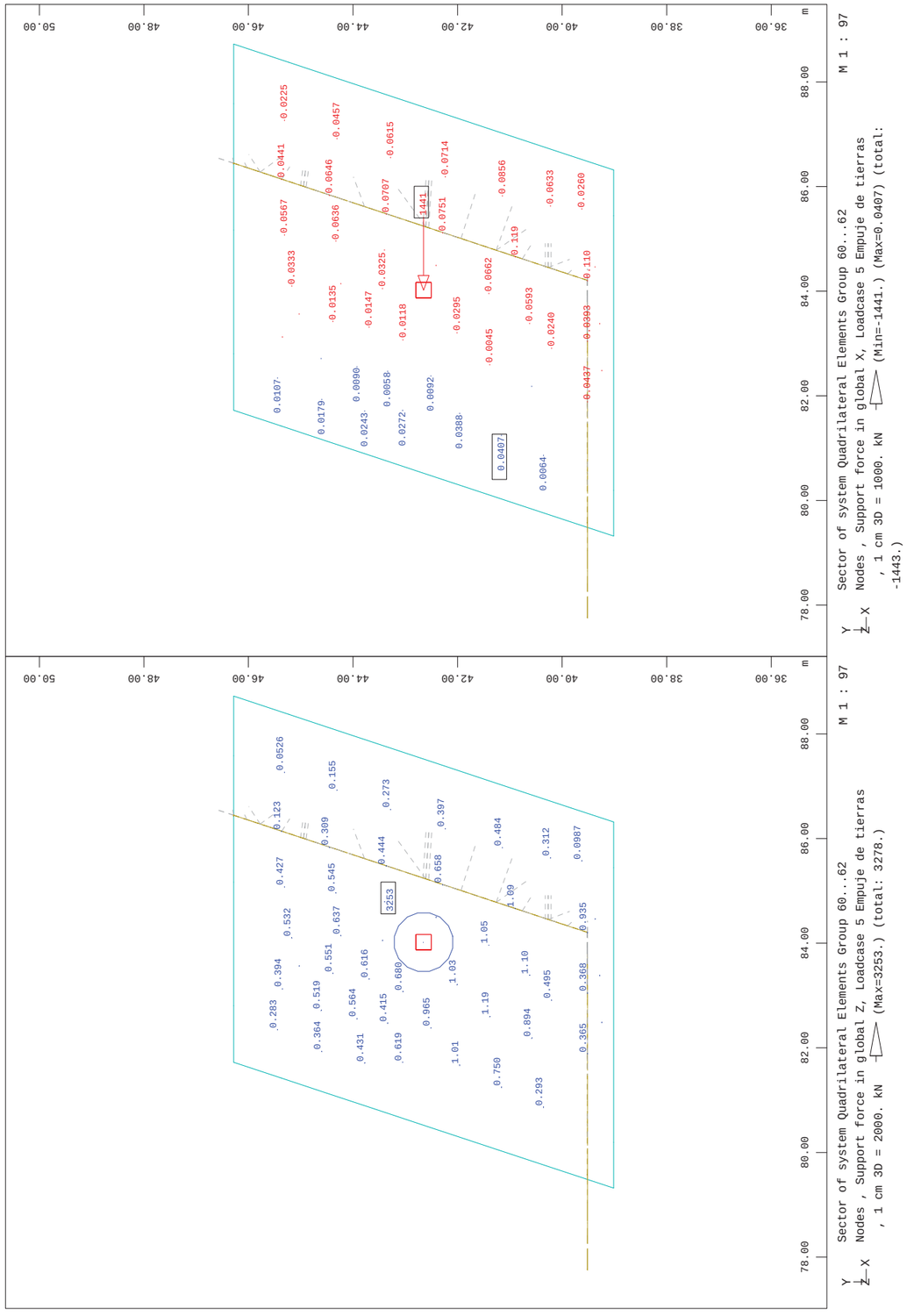
Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support force in global Y, Loadcase 401 Frenado , 1
cm 3D = 5.00 kN (Min=-7.90) (Max=0.0013) (total: -7.91)

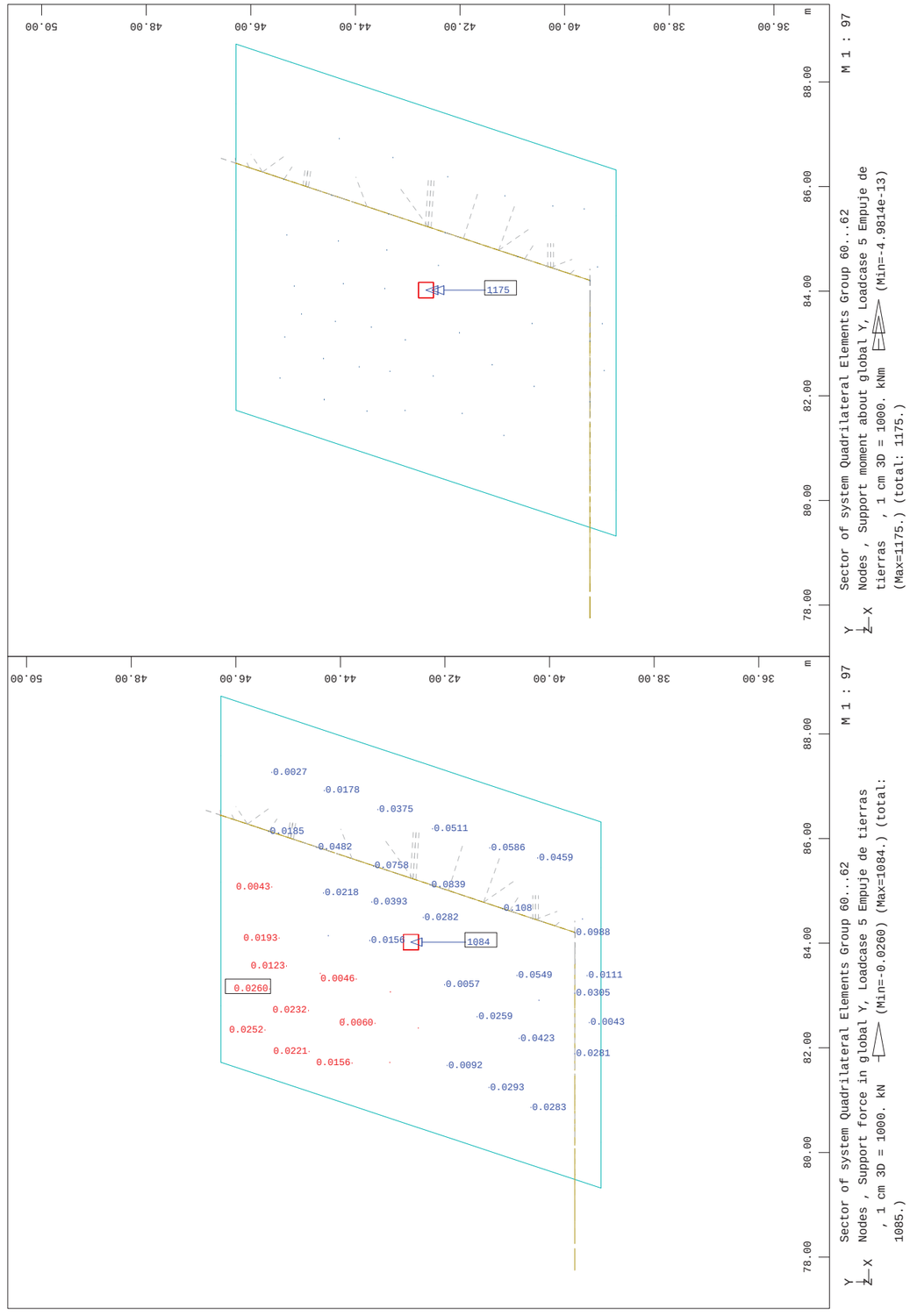


Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support moment about global Y, Loadcase 401 Frenado ,
1 cm 3D = 200.0 kNm (Min=-263.5) (Max= 1.9617e-14)
(total: -263.5)



Sector of system Quadrilateral Elements Group 60...62 M 1 : 97
Nodes , Support moment about global X, Loadcase 401 Frenado ,
1 cm 3D = 50.0 kNm (Min=-1.4211e-14) (Max=69.2) (total:
69.2)


Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global X, Loadcase 5 Empuje de tierras
, 1 cm 3D = 1000. kN (Min=-1441.) (Max=0.0407) (total:
-1443.)
M 1 : 97
1441
0.0407
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Z, Loadcase 5 Empuje de tierras
, 1 cm 3D = 2000. kN (Max=3253.) (total: 3278.)
M 1 : 97
3253


Sector of system Quadrilateral Elements Group 60...62
Nodes , Support moment about global Y, Loadcase 5 Empuje de
tierras , 1 cm 3D = 1000. kNm (Min=-4.9814e-13)
(Max=1175.) (total: 1175.)
M 1 : 97
1175
Sector of system Quadrilateral Elements Group 60...62
Nodes , Support force in global Y, Loadcase 5 Empuje de tierras
, 1 cm 3D = 1000. kN (Min=-0.0260) (Max=1084.) (total:
1085.)
M 1 : 97
1084
0.0260

DIMENSIONES DEL ENCEPADO

Longitud : $A := 7.00$ m Canto : $Hz := 2.0$ m

Ancho : $B := 7.65$ m

CARACTERÍSTICAS GEOTÉCNICAS

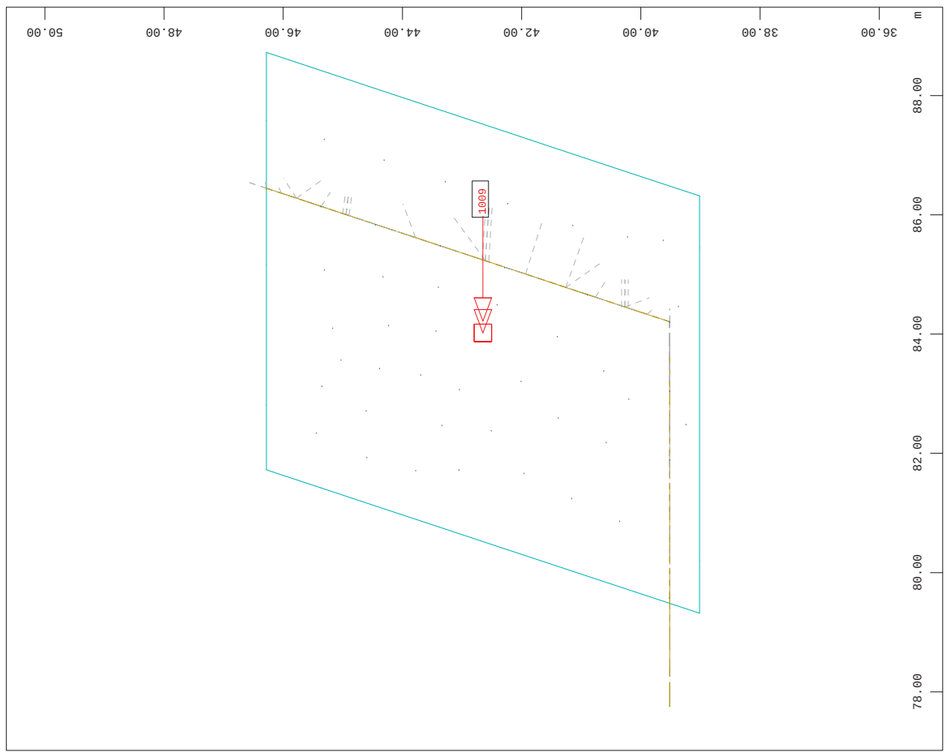
Ángulo de rozamiento interno del terreno: $\phi := 30deg$

Cohesión: $c_c := 0 \frac{kN}{m^2}$

Ángulo de rozamiento terreno-zapata: $\phi_c := \phi$

Presión máxima admisible: Quasi permanente: $p_{max\_qp} := 400 \frac{kN}{m^2}$

Característica: $p_{max\_car} := 400 \frac{kN}{m^2}$



Plazakola Estabilidad y Tensiones_Estribo Pág. 3

LECTURA DE REACCIONES DE LOS CASOS DE CARGA

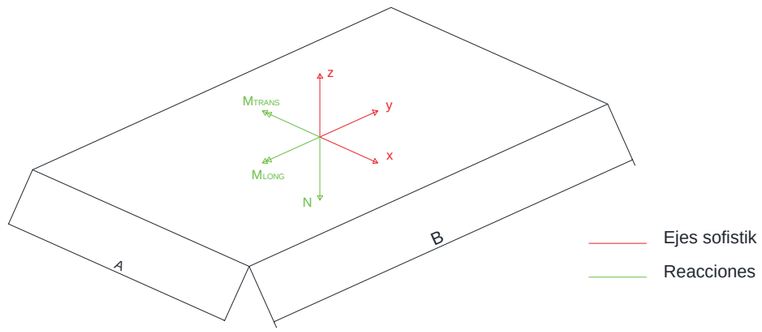
Se obtienen las reacciones globales gracias al software SOFISTIK:

matriz1 := READPRN("Casos de carga.prn") rows(matriz1) = 24.00

i := 1 .. rows(matriz1)

$Caso_i := matriz1_{i,1}$ $H_{long_i} := matriz1_{i,3}$ $M_{long_i} := matriz1_{i,7}$

$N_i := matriz1_{i,5}$ $H_{trans_i} := matriz1_{i,4}$ $M_{trans_i} := matriz1_{i,6}$



LC	N [kN]	Hlong [kN]	Htrans [kN]	Mlong [kN.m]	Mtrans [kN.m]
101	4159	-239	-53.9	452.6	-1329
102	0	0	0	0	0
103	0	0	0	0	0
201	151.2	-86.8	-16.3	-135.9	-291
202	0	0	0	0	0
203	0	0	0	0	0
204	0	0	0	0	0
205	0	0	0	0	0
206	0	0	0	0	0
301	987.7	-406.9	-106.8	289.2	-690.5
302	-13.8	12.7	7	17	33.9
303	0	0	0	0	0
401	0	34.9	7.92	264.4	69.3
402	0	0	0	0	0
501	154.6	2880	1224	21950	10430
601	0	0	55	0	-641
701	3253	1441	-1084	-1175	-1009
702	0	0	0	0	0
703	0	0	0	0	0
704	0	0	0	0	0
801	0	0	0	0	0
802	0	0	0	0	0
803	0	0	0	0	0

MATRIZ DE COMBINACIONES

		101	102	103	201	202	203	204	205	206	301	302	303	401	402	501	601	701	702	703	704
		Peso propio 1	Peso propio 2	Peso propio 3	Empuje tierras 1	Empuje tierras 2	Empuje max sobrecarga 3	Empuje max sobrecarga 4	Empuje sobrecarga 5	Frenado 6	Viento sobre tablero 1	Viento sobre tablero 2	Viento sobre tablero 3	Viento sobre pilas 1	Viento sobre pilas 2	Variación térmica 1	Asientos no prev 1	Peso propio equipo 1	Peso propio equipo 2	Peso propio equipo 3	Peso propio equipo 4
Cargas Gtot	1501	100	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	100	100	0.00	100
	1502	100	0.00	100	0.00	0.00	0.00	0.00	100	100	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1503	100	100	100	100	0.00	100	0.00	100	100	100	0.00		100	100	0.60	0.60	100	100	100	0.00
	1504	100	100	100	100	0.00	100	0.00	100	0.00	100	0.00		-100	100	-0.60	0.00	100	0.00	0.00	0.00
	1505	100	100	100	0.00	100	0.00	100	100	100	0.00	100		100	100	0.60	0.60	100	100	100	0.00
	1506	100	100	100	0.00	100	0.00	100	100	0.00	0.00	100		-100	100	-0.60	0.00	100	0.00	0.00	0.00
	1507	100	100	100	0.00	100	0.00	100	100	100	0.00	0.00	100	100	100	0.60	0.60	100	100	100	0.00
	1508	100	100	100	0.00	100	0.00	100	100	0.00	0.00	0.00	100	-100	100	-0.60	0.00	100	0.00	0.00	0.00
Cargas Qtot	1603	100	100	100	100	0.00	100	0.00	100	100	0.00	0.00		0.00	0.00	0.20	0.20	100	100	0.00	0.00
	1604	100	100	100	100	0.00	100	0.00	100	0.00	0.00	0.00		0.00	0.00	-0.20	0.00	100	0.00	0.00	0.00
	1605	100	100	100	0.00	100	0.00	100	100	100	0.00	0.00		0.00	0.00	0.20	0.20	100	100	0.00	0.00
	1606	100	100	100	0.00	100	0.00	100	100	0.00	0.00	0.00		0.00	0.00	-0.20	0.00	100	0.00	0.00	0.00

Combinaciones $j := 1 .. 12$

COMBINACIONES DE ACCIONES

Resultante de fuerzas verticales

$$N_{tot_j} := \sum_{i=1}^{23} \left(Comb_{j,i} \cdot N_i \right)$$

Resultante de fuerzas horizontales longitudinales

$$H_{long\_tot_j} := \sum_{i=1}^{23} \left(Comb_{j,i} \cdot H_{long_i} \right)$$

Resultante de fuerzas transversales longitudinales

$$H_{trans\_tot_j} := \sum_{i=1}^{23} \left(Comb_{j,i} \cdot H_{trans_i} \right)$$

Resultante de momentos horizontales longitudinales

$$M_{long\_tot_j} := \sum_{i=1}^{23} \left(Comb_{j,i} \cdot M_{long_i} \right)$$

Resultante de momentos transversales longitudinales

$$M_{trans\_tot_j} := \sum_{i=1}^{23} \left(Comb_{j,i} \cdot M_{trans_i} \right)$$

COMPROBACIÓN A DESLIZAMIENTO

Mínimo coeficiente de seguridad al deslizamiento:

Quasi permanente: $F_{d\_min\_qp} := 1.50$

Característica: $F_{d\_min\_car} := 1.30$

Cálculo de las dimensiones equivalentes de la cimentación:

Excentricidad longitudinal: $e_{long_j} := \frac{M_{long\_tot_j}}{N_{tot_j}} \cdot m$

Excentricidad transversal: $e_{trans_j} := \frac{M_{trans\_tot_j}}{N_{tot_j}} \cdot m$

Longitud equivalente: $A_{red_j} := A \cdot m - 2 \cdot e_{long_j}$

Ancho equivalente: $B_{red_j} := B \cdot m - 2 \cdot e_{trans_j}$

Coeficiente de seguridad a deslizamiento: $F_{d_j} := \frac{N_{tot_j} \cdot \tan(\phi_c) \cdot kN + A_{red_j} \cdot B_{red_j} \cdot c_c}{kN \cdot \max\left[0.001, \sqrt{\left(H_{long\_tot_j}\right)^2 + \left(H_{trans\_tot_j}\right)^2}\right]}$

$j_{min} := 1$

Combinación característica:

$j_{max} := 8$

$F_{d\_car} := \min(\text{submatrix}(F_d, j_{min}, j_{max}, 1, 1)) = 1.44$

$j_{min} := 9$

Combinación quasi permanente:

$j_{max} := 12$

$F_{d\_qp} := \min(\text{submatrix}(F_d, j_{min}, j_{max}, 1, 1)) = 2.17$

COMPROBACIÓN A VUELCO

Mínimo coeficiente de seguridad al vuelco:

Quasi permanente: $F_{v\_min\_qp} := 2.00$

Característica: $F_{v\_min\_car} := 1.80$

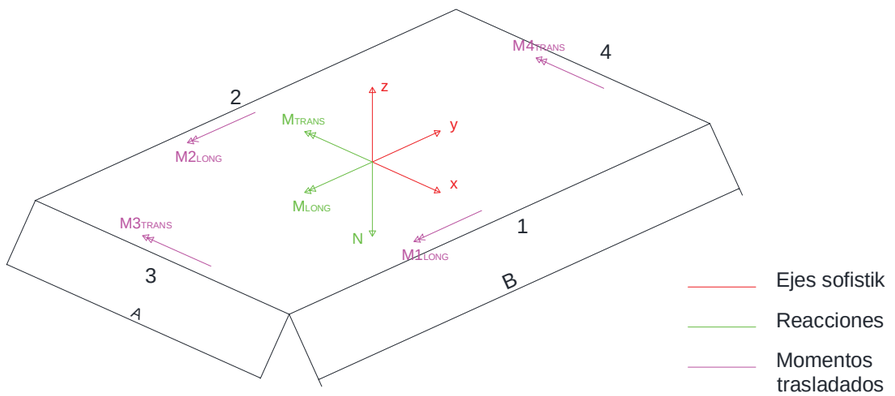
Se realiza la comprobación respecto de las 4 aristas de la zapata. El nudo de cálculo de reacciones se sitúa en el centro de la base de la zapata. Por lo tanto, hay que trasladar los momentos a la arista en cuestión, teniendo en cuenta la reacción vertical.

Momentos respecto de la arista 1: $M1_{long_i} := M_{long_i} + N_i \cdot \frac{A}{2}$

Momentos respecto de la arista 2: $M2_{long_i} := M_{long_i} - N_i \cdot \frac{A}{2}$

Momentos respecto de la arista 3: $M3_{trans_i} := M_{trans_i} + N_i \cdot \frac{B}{2}$

Momentos respecto de la arista 4: $M4_{trans_i} := M_{trans_i} - N_i \cdot \frac{B}{2}$



Suma de momentos favorables y desfavorables

-Arista 1 : Los momentos favorables son positivos

Resultante de momentos longitudinales favorables

$$M1_{fav_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M1_{long_i} \geq 0, Comb_{j,i} \cdot M1_{long_i}, 0\right)$$

Resultante de momentos longitudinales desfavorables

$$M1_{des_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M1_{long_i} < 0, Comb_{j,i} \cdot M1_{long_i}, 0\right)$$

-Arista 2 : Los momentos favorables son negativos

Resultante de momentos longitudinales favorables

$$M2_{fav_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M2_{long_i} \leq 0, Comb_{j,i} \cdot M2_{long_i}, 0\right)$$

Resultante de momentos longitudinales desfavorables

$$M2_{des_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M2_{long_i} > 0, Comb_{j,i} \cdot M2_{long_i}, 0\right)$$

-Arista 3 : Los momentos favorables son positivos

Resultante de momentos transversales favorables

$$M3_{fav_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M3_{trans_i} \geq 0, Comb_{j,i} \cdot M3_{trans_i}, 0\right)$$

Resultante de momentos transversales desfavorables

$$M3_{des_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M3_{trans_i} < 0, Comb_{j,i} \cdot M3_{trans_i}, 0\right)$$

-Arista 4 : Los momentos favorables son negativos

Resultante de momentos transversales favorables

$$M4_{fav_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M4_{trans_i} \leq 0, Comb_{j,i} \cdot M4_{trans_i}, 0\right)$$

Resultante de momentos transversales desfavorables

$$M4_{des_j} := \sum_{i=1}^{23} if\left(Comb_{j,i} \cdot M4_{trans_i} > 0, Comb_{j,i} \cdot M4_{trans_i}, 0\right)$$

Coeficiente de seguridad a vuelco:

$$F_{v_j} := \min\left(\left|\frac{M1_{fav_j}}{\max\left(0.1, \left|M1_{des_j}\right|\right)}\right|, \left|\frac{M2_{fav_j}}{\max\left(0.1, \left|M2_{des_j}\right|\right)}\right|, \left|\frac{M3_{fav_j}}{\max\left(0.1, \left|M3_{des_j}\right|\right)}\right|, \left|\frac{M4_{fav_j}}{\max\left(0.1, \left|M4_{des_j}\right|\right)}\right|\right)$$

Combinación característica:

$j_{min} := 1 \qquad j_{max} := 8$

$$F_{v\_car} := \min\left(submatrix\left(F_v, j_{min}, j_{max}, 1, 1\right)\right) = 1.83$$

Combinación quasi permanente:

$j_{min} := 9 \qquad j_{max} := 12$

$$F_{v\_qp} := \min\left(submatrix\left(F_v, j_{min}, j_{max}, 1, 1\right)\right) = 5.61$$

CÁLCULO DE TENSIONES

Presión de cada combinación: $p_j := \frac{N_{tot_j}\ kN}{A_{red_j} \cdot B_{red_j}}$

Combinación característica:

$j_{min} := 1 \qquad j_{max} := 8$

$$p_{car} := \max\left(\text{submatrix}\left(p, j_{min}, j_{max}, 1, 1\right)\right) = 311.44 \cdot \frac{kN}{m^2}$$

Combinación quasi permanente:

$j_{min} := 9 \qquad j_{max} := 12$

$$p_{qp} := \max\left(\text{submatrix}\left(p, j_{min}, j_{max}, 1, 1\right)\right) = 159.85 \cdot \frac{kN}{m^2}$$

RESUMEN DE COMPROBACIONES

Combinaciones quasi permanentes:

Deslizamiento $F_{d\_qp} = 2.17 > F_{d\_min\_qp} = 1.50$

CUMPLE

Vuelco $F_{v\_qp} = 5.61 > F_{v\_min\_qp} = 2.00$

CUMPLE

Tensiones $p_{qp} = 159.85 \cdot \frac{kN}{m^2} < p_{max\_qp} = 400.00 \cdot \frac{kN}{m^2}$

CUMPLE

Combinaciones características:

Deslizamiento $F_{d\_car} = 1.44 > F_{d\_min\_car} = 1.30$

CUMPLE

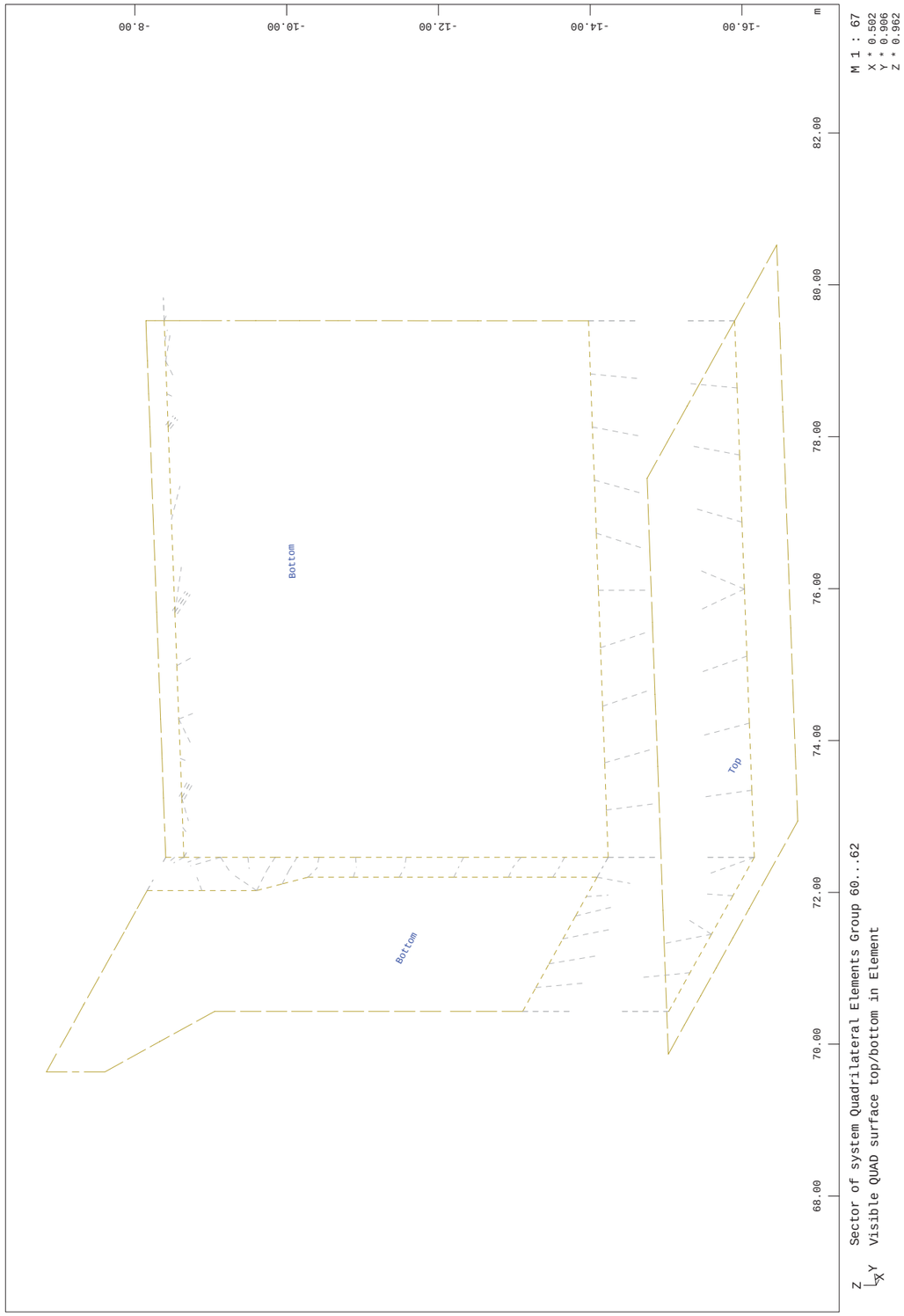
Vuelco $F_{v\_car} = 1.83 > F_{v\_min\_car} = 1.80$

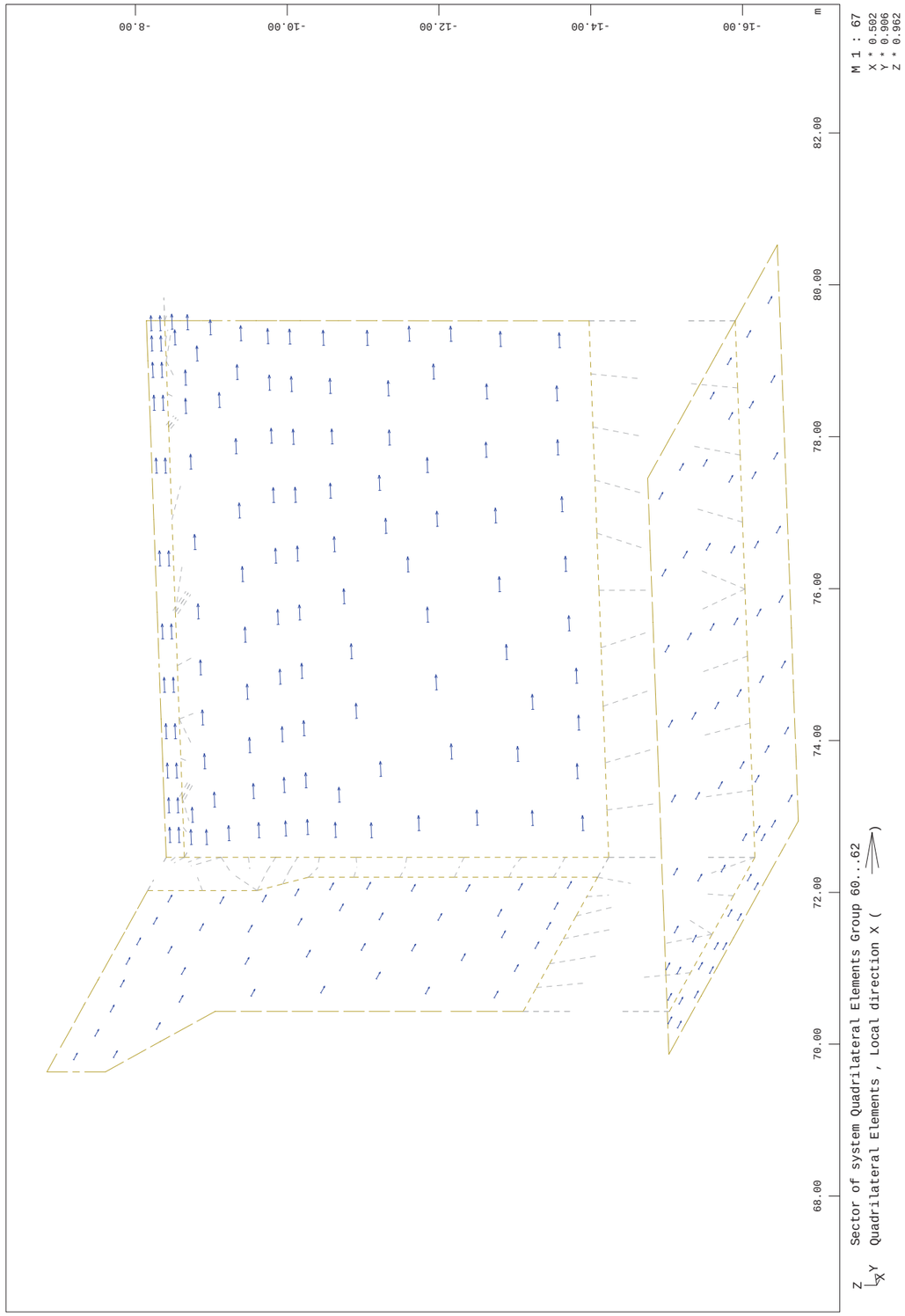
CUMPLE

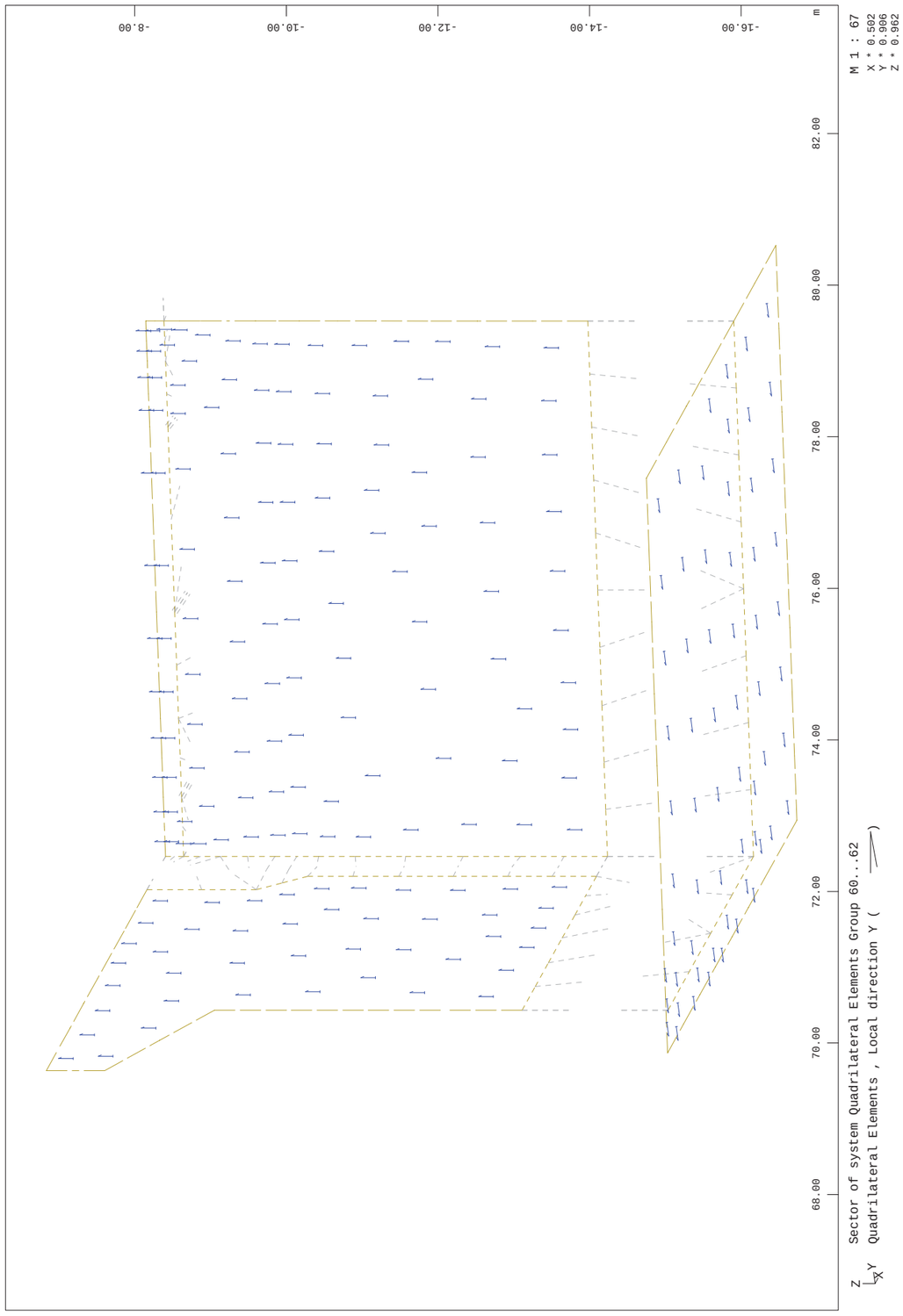
Tensiones $p_{car} = 311.44 \cdot \frac{kN}{m^2} < p_{max\_car} = 400.00 \cdot \frac{kN}{m^2}$

CUMPLE

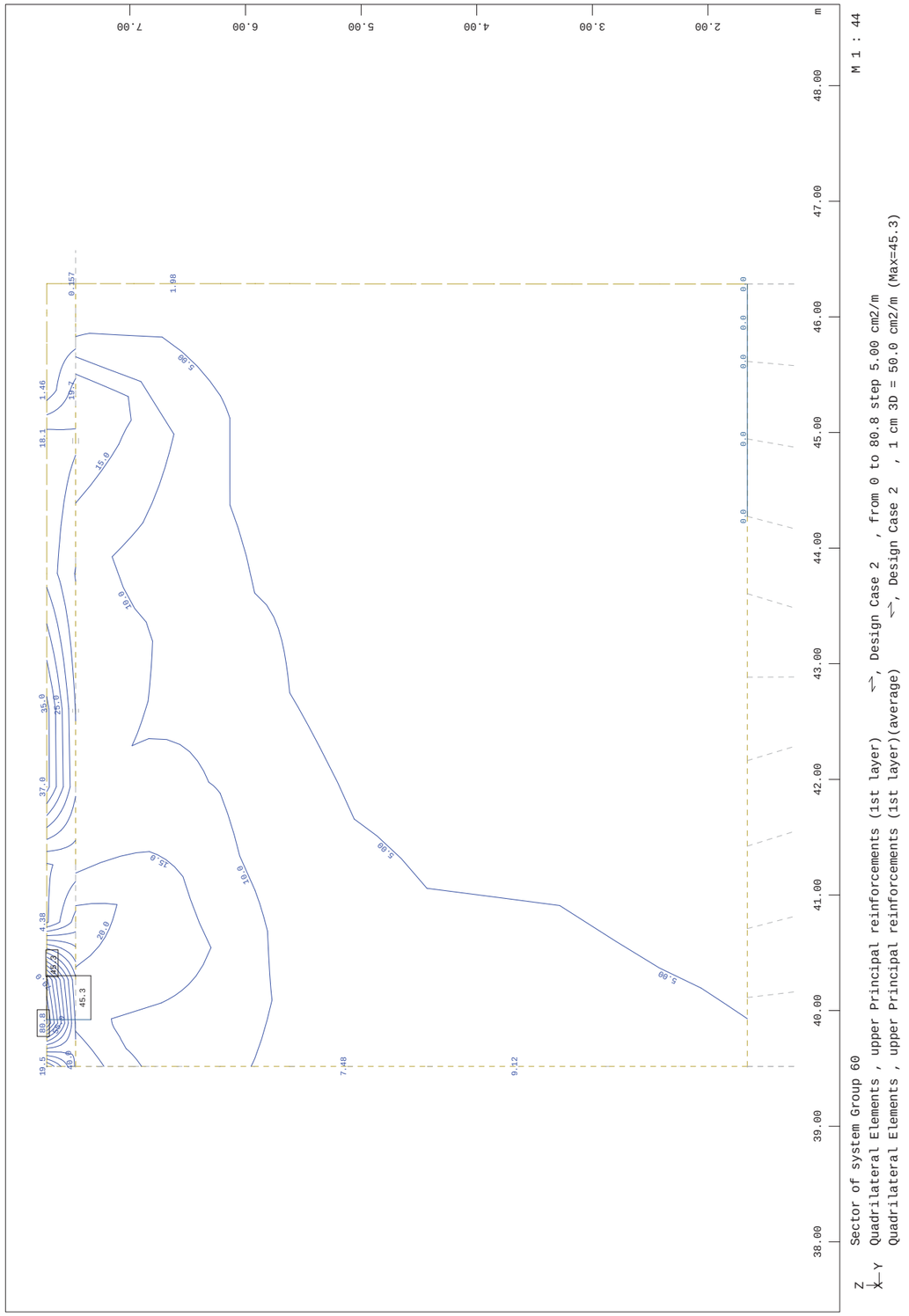
ARMADURAS

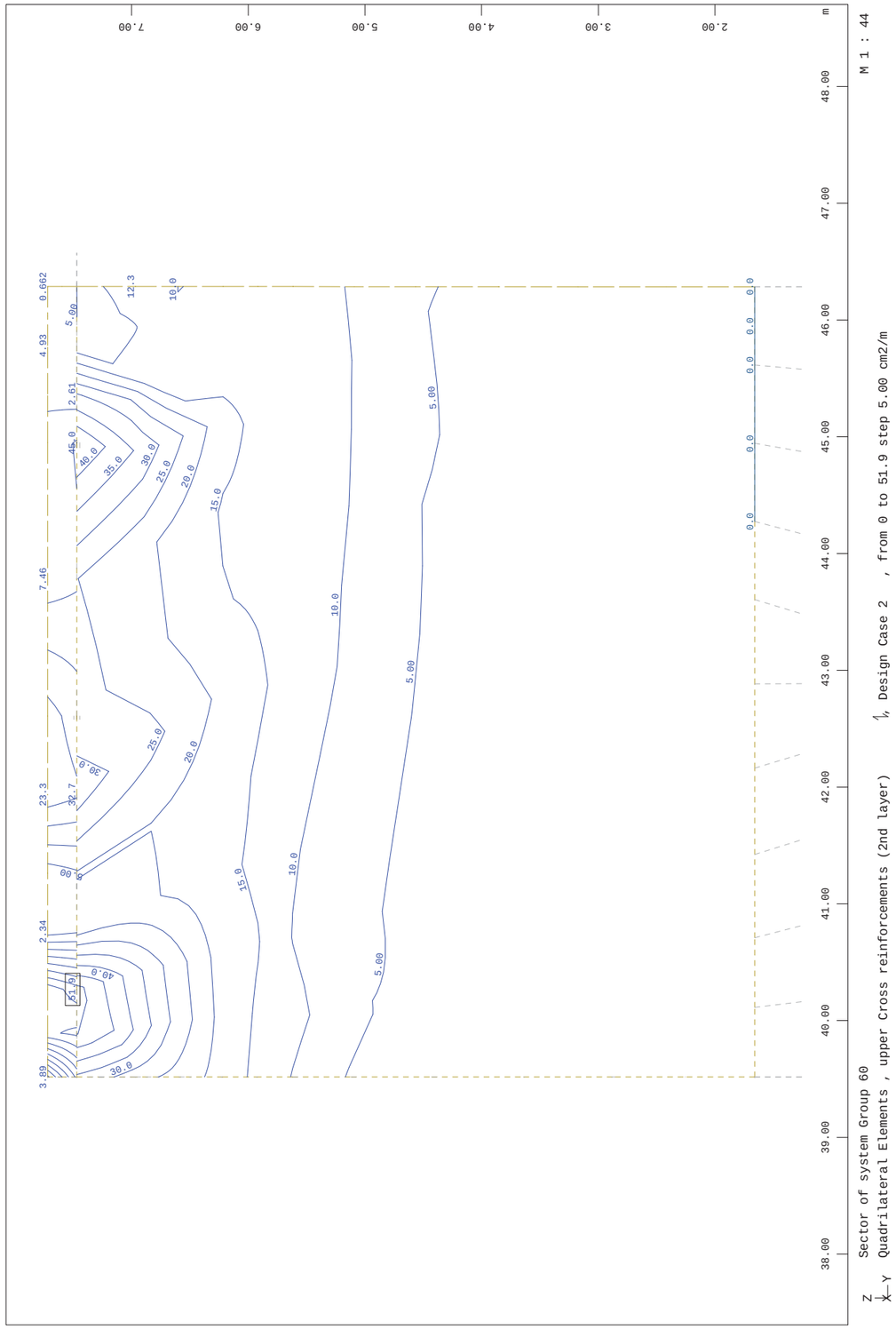

-8.00
-10.00
-12.00
-14.00
-16.00
m
M 1 : 67
X * * 0.502
Y * * 0.906
Z * * 0.962
82.00
80.00
78.00
76.00
74.00
72.00
70.00
68.00
Bottom
Top
Bottom
Sector of system Quadrilateral Elements Group 60...62
Visible QUAD surface top/bottom in Element
Z
Y
X

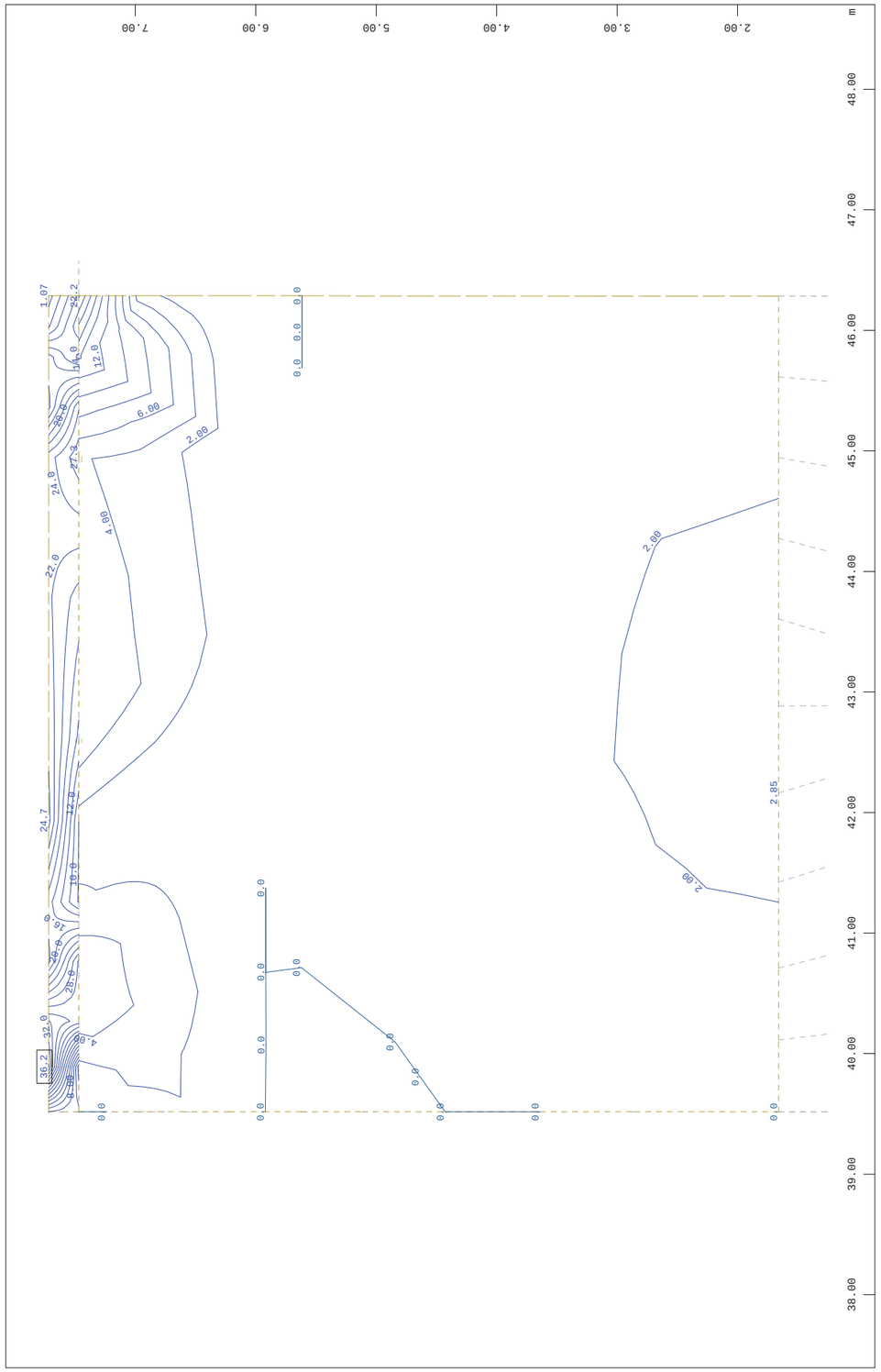

-8.00
-10.00
-12.00
-14.00
-16.00
m
M 1 : 67
X * * 0.502
Y * * 0.906
Z * * 0.962
82.00
80.00
78.00
76.00
74.00
72.00
70.00
68.00
Sector of system Quadrilateral Elements Group 60...62
Quadrilateral Elements , Local direction X (
Z
Y
X

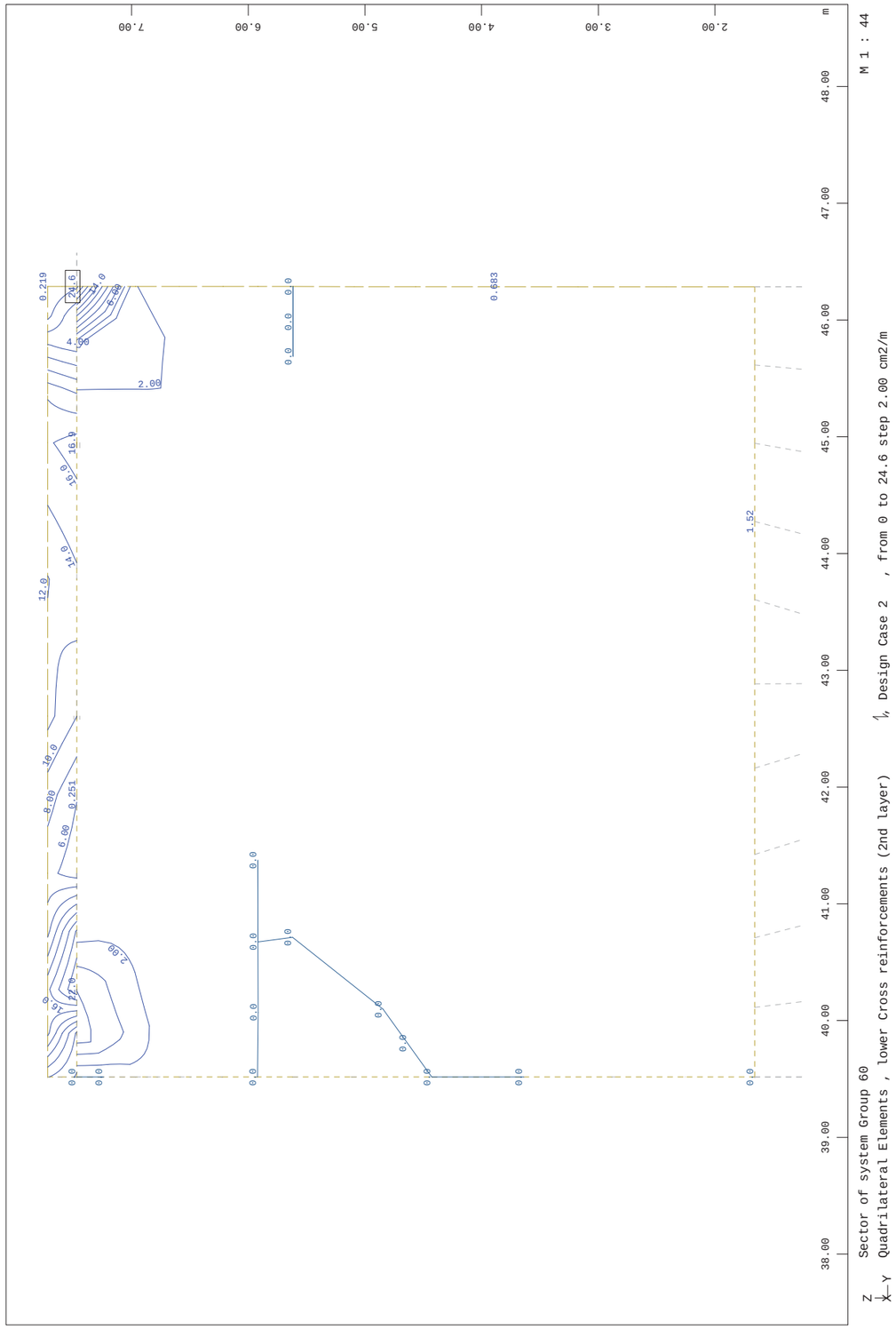

m
-8.00
-10.00
-12.00
-14.00
-16.00
82.00
80.00
78.00
76.00
74.00
72.00
70.00
68.00
M 1 : 67
X * 0.502
Y * 0.906
Z * 0.962
Sector of system Quadrilateral Elements Group 60...62
Quadrilateral Elements , Local direction Y (
Z
Y
X

FUSTE

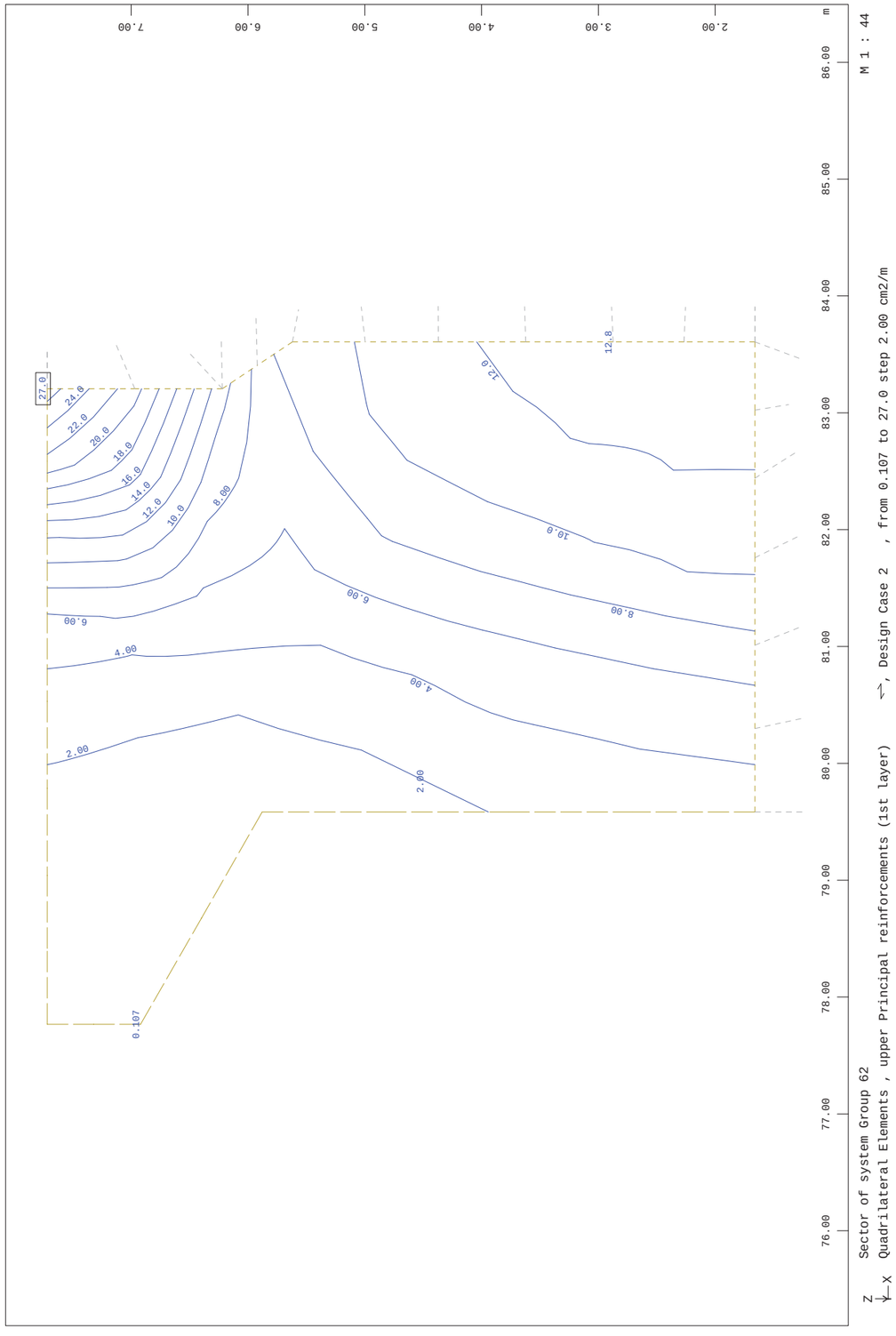

M 1 : 44
m
Sector of system Group 60
Quadrilateral Elements , upper Principal reinforcements (1st layer) ⇄, Design Case 2 , from 0 to 80.8 step 5.00 cm2/m
Quadrilateral Elements , upper Principal reinforcements (1st layer)(average) ⇄, Design Case 2 , 1 cm 3D = 50.0 cm2/m (Max=45.3)
Z
Y

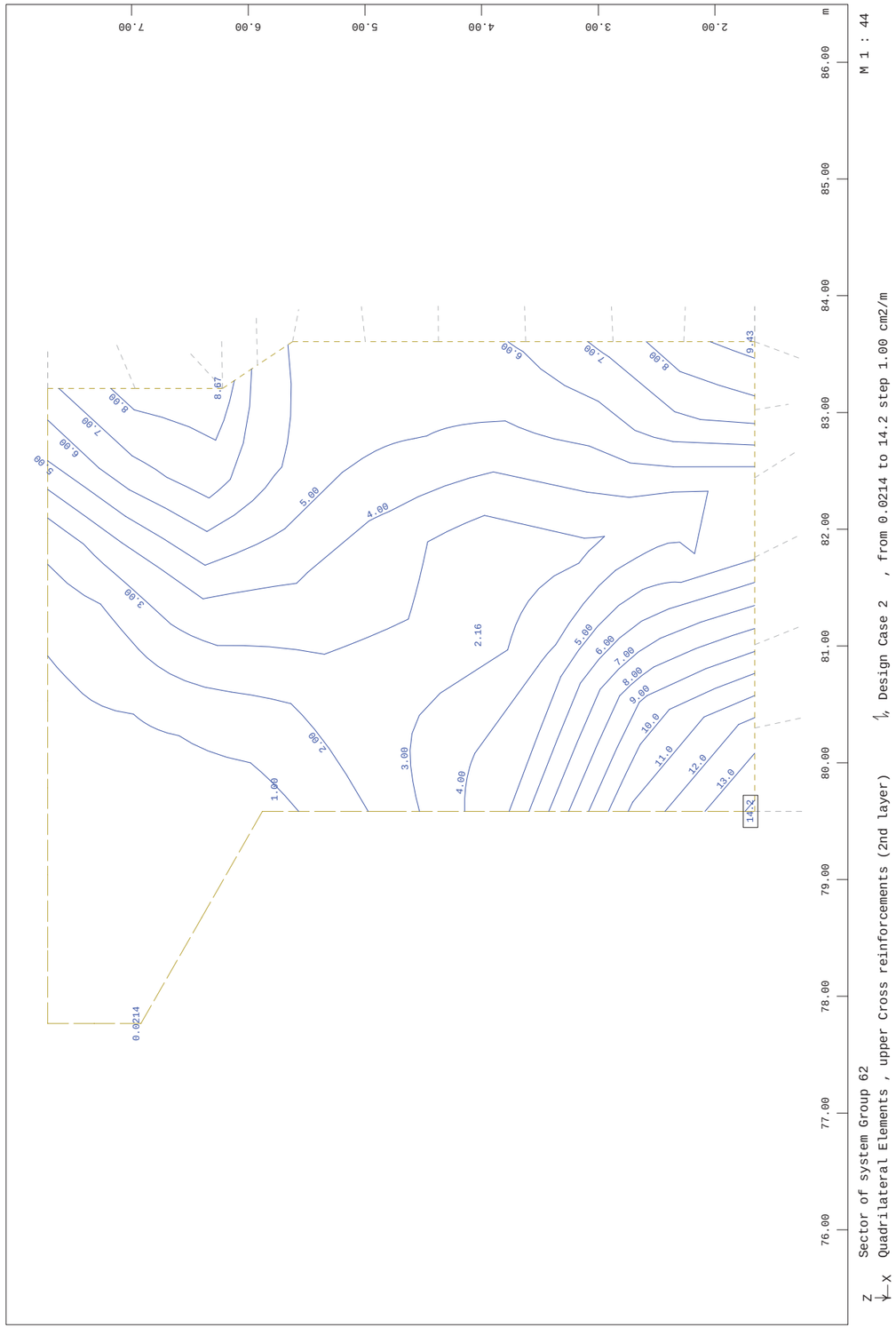

M 1 : 44
m
Sector of system Group 60
Quadrilateral Elements , upper Cross reinforcements (2nd layer) ⇄, Design Case 2 , from 0 to 51.9 step 5.00 cm2/m
Z
Y

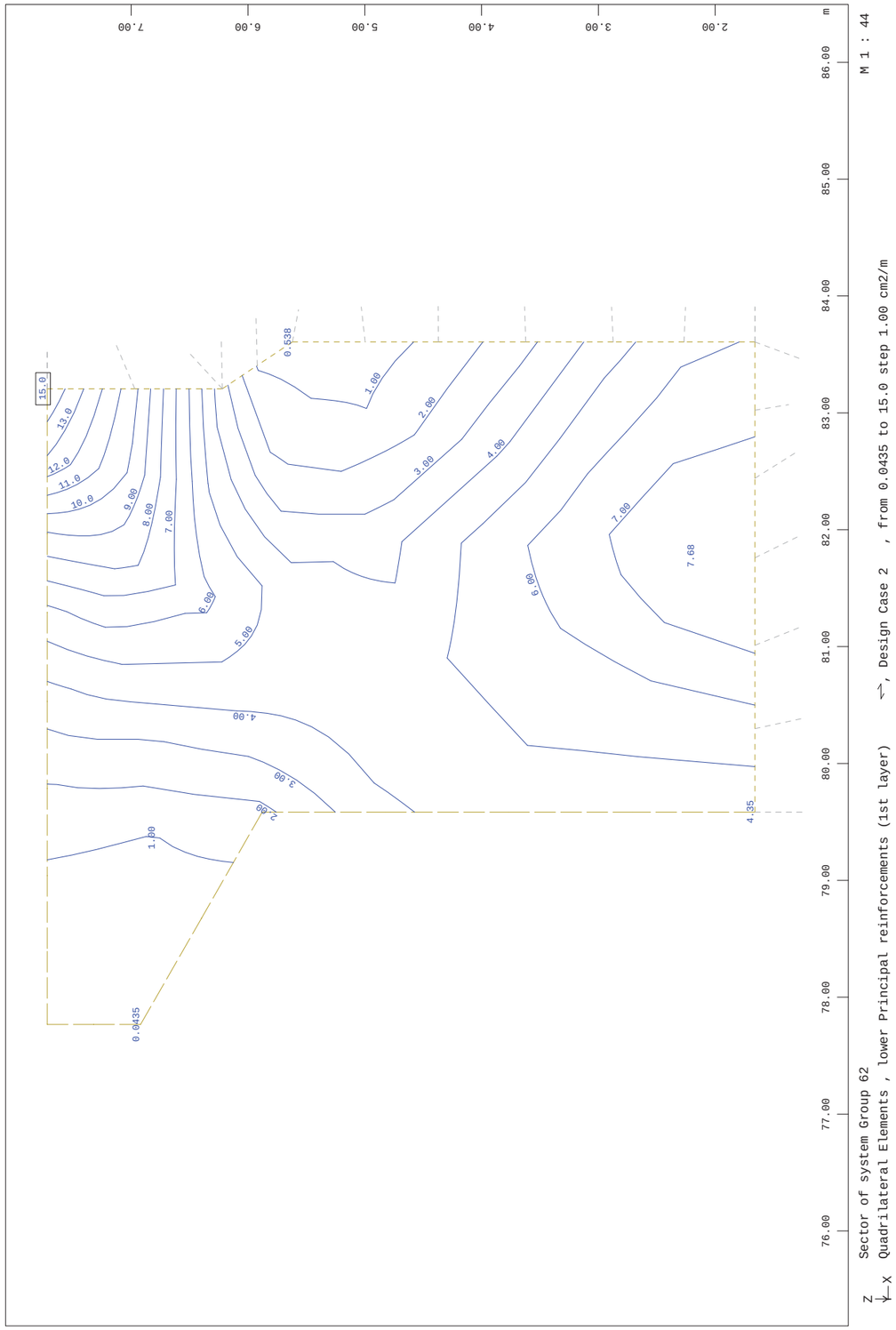

M 1 : 44
Sector of system Group 60
Quadrilateral Elements , lower Principal reinforcements (1st layer)
, Design Case 2 , from 0 to 36.2 step 2.00 cm2/m

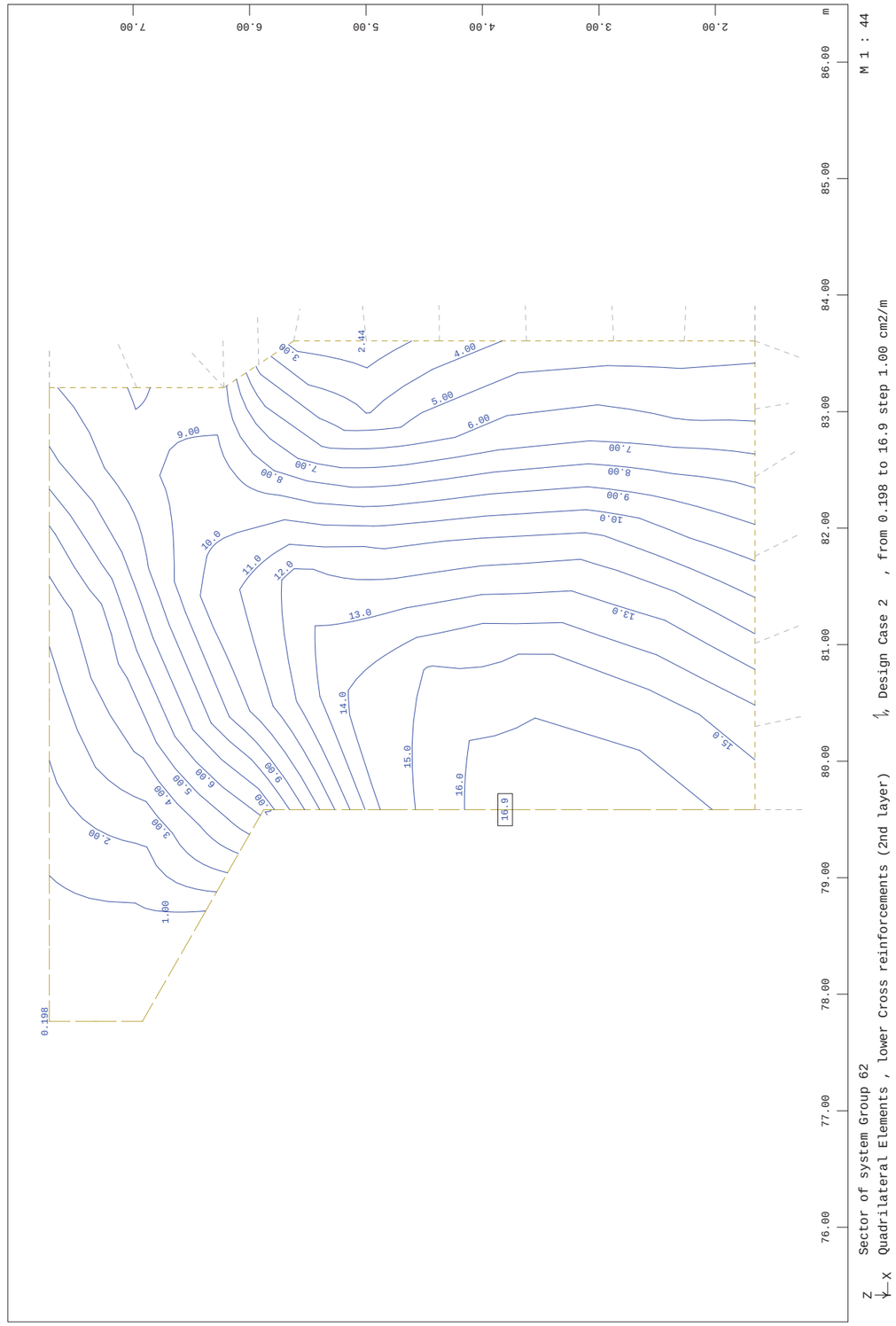

M 1 : 44
Sector of system Group 60
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
, Design Case 2 , from 0 to 24.6 step 2.00 cm2/m

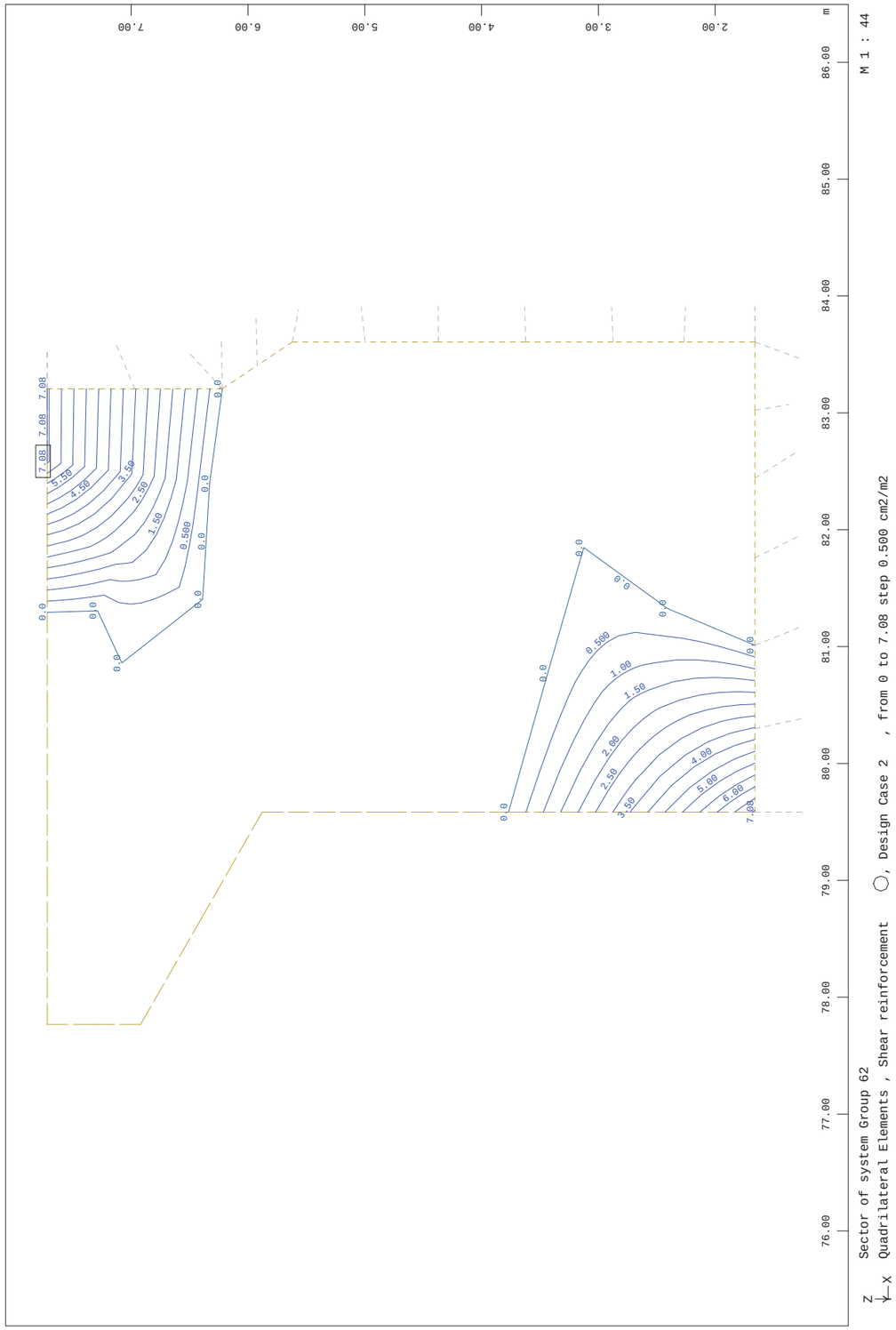
MURO EN VUELTA-ALETA


M 1 : 44
m
Sector of system Group 62
Quadrilateral Elements , upper Principal reinforcements (1st layer)
, Design Case 2 , from 0.107 to 27.0 step 2.00 cm2/m
Z
X

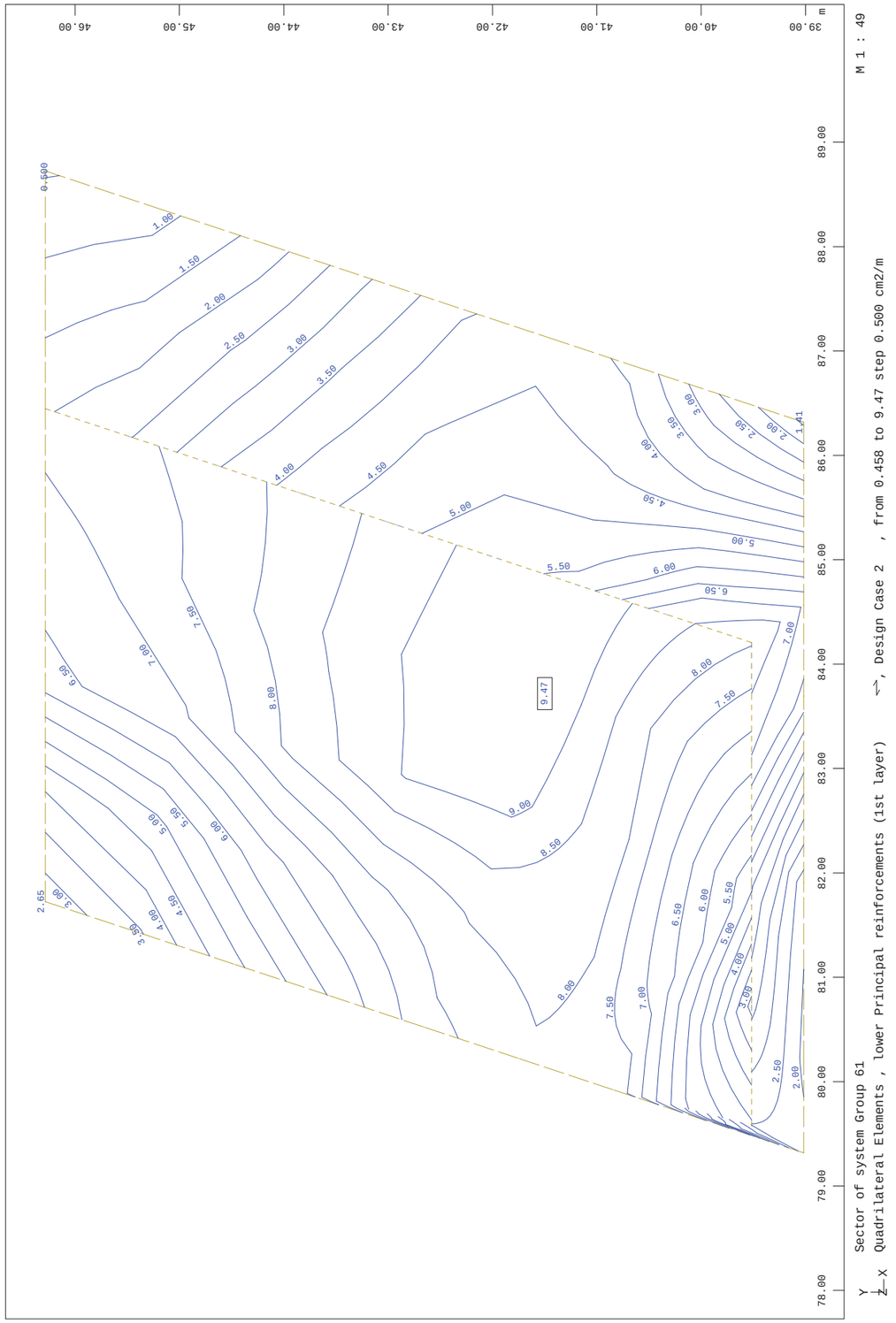

M 1 : 44
m
Sector of system Group 62
Quadrilateral Elements , upper Cross reinforcements (2nd layer)
, Design Case 2 , from 0.0214 to 14.2 step 1.00 cm2/m
Z
X

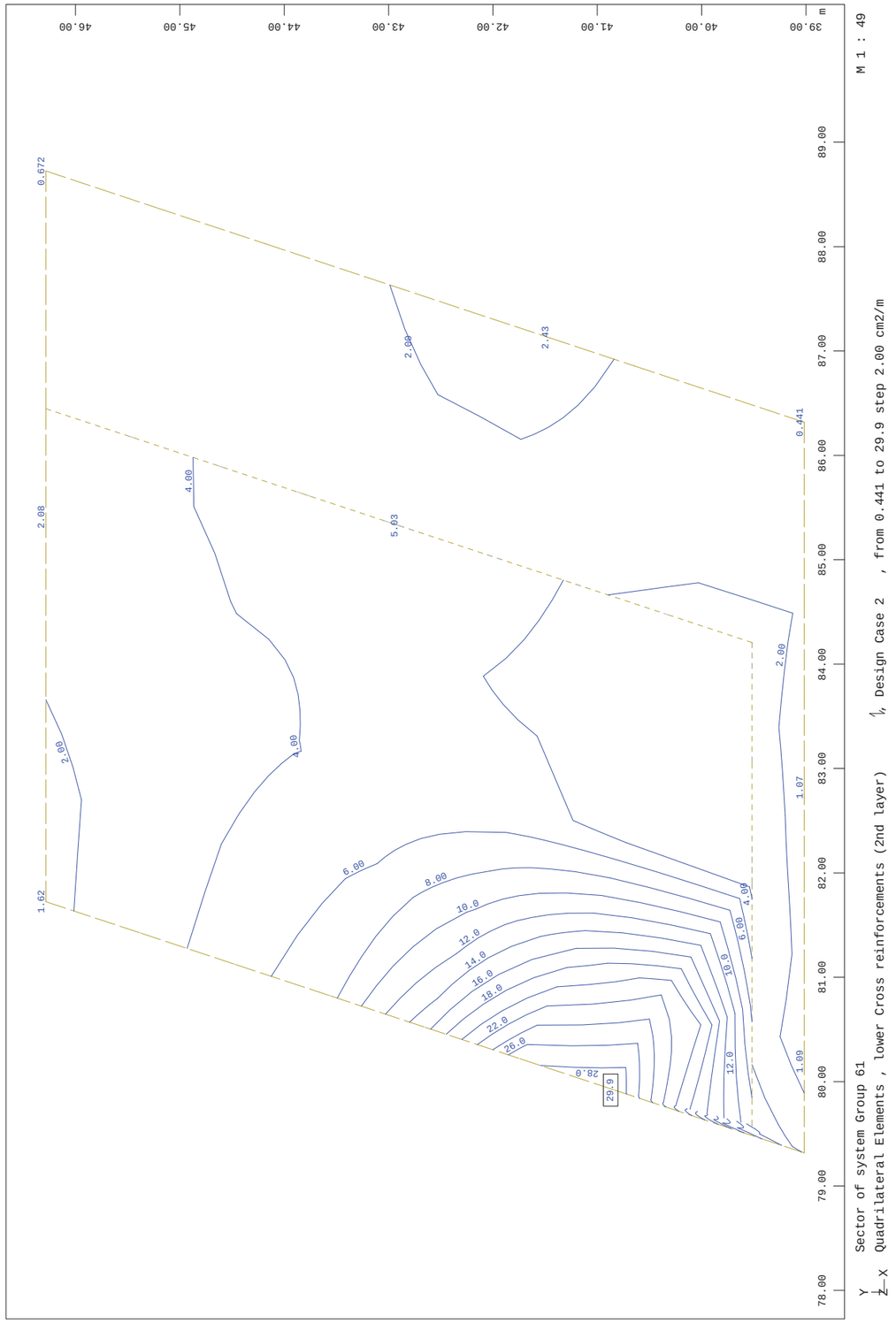

M 1 : 44
m
Sector of system Group 62
Quadrilateral Elements , lower Principal reinforcements (1st layer)
, Design Case 2 , from 0.0435 to 15.0 step 1.00 cm2/m
Z
X

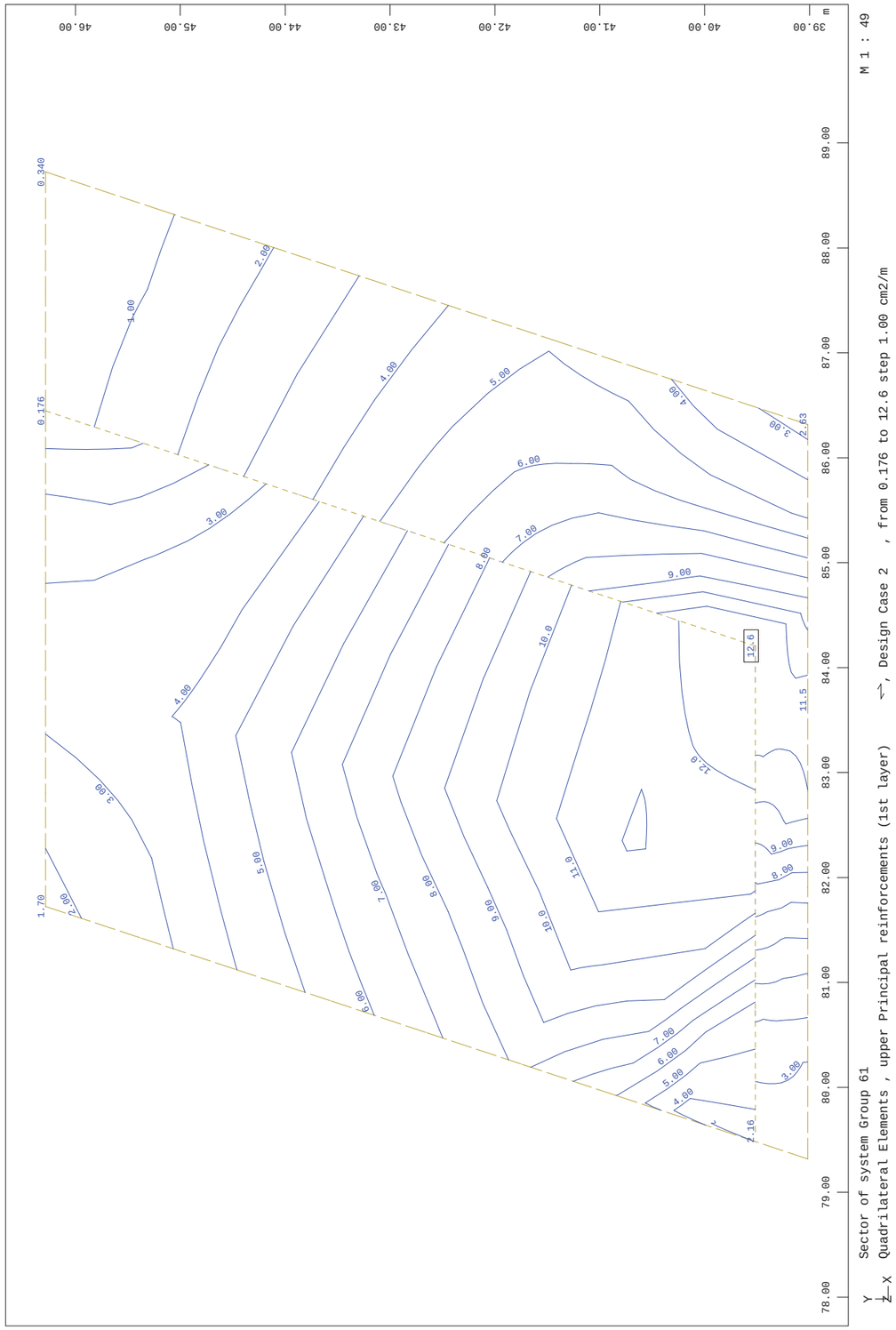

M 1 : 44
m
Sector of system Group 62
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
, Design Case 2 , from 0.198 to 16.9 step 1.00 cm2/m
Z
X

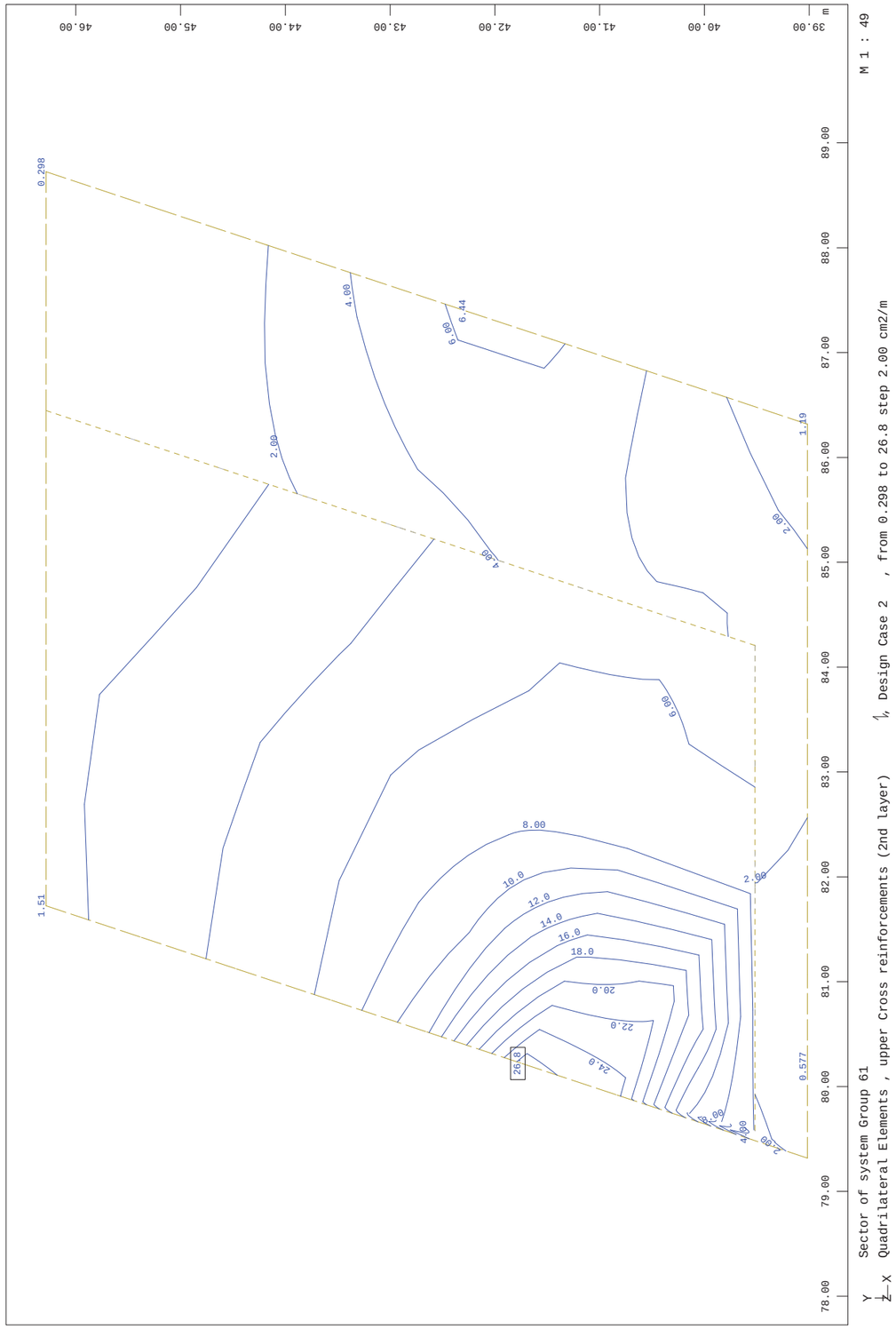

M 1 : 44
m
2.00
3.00
4.00
5.00
6.00
7.00
86.00
85.00
84.00
83.00
82.00
81.00
80.00
79.00
78.00
77.00
76.00
7.08
5.50
4.50
3.50
2.50
1.50
0.500
1.00
2.00
4.00
5.00
6.00
0.0
Sector of system Group 62
Quadrilateral Elements , Shear reinforcement
, Design Case 2 , from 0 to 7.08 step 0.500 cm2/m2
Z
X

ZAPATA

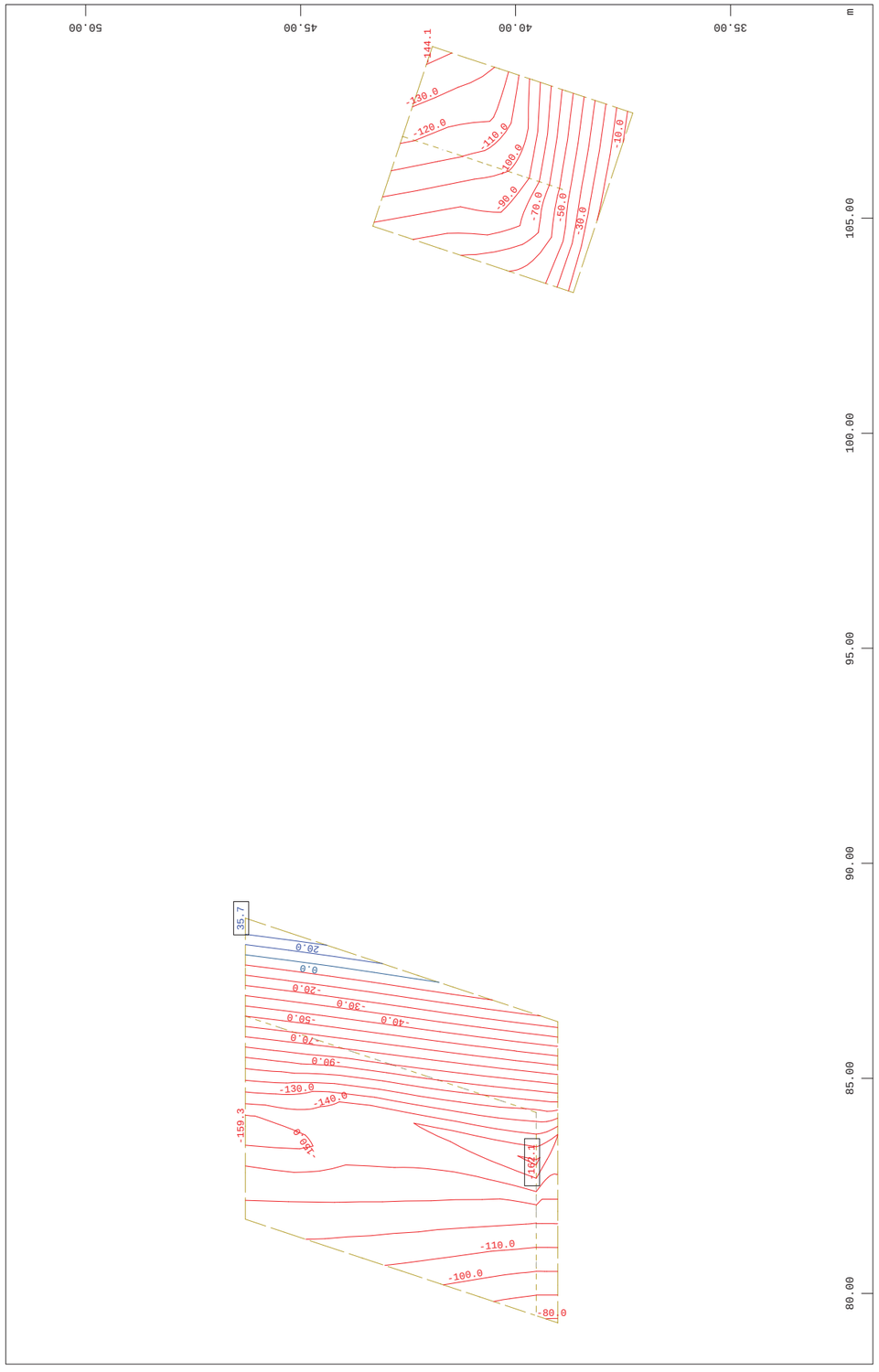

M 1 : 49
m
39.00
40.00
41.00
42.00
43.00
44.00
45.00
46.00
89.00
88.00
87.00
86.00
85.00
84.00
83.00
82.00
81.00
80.00
79.00
78.00
0.500
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00
6.50
7.00
7.50
8.00
8.50
9.00
9.47
2.65
1.41
Y
Z
X
Sector of system Group 61
Quadrilateral Elements , lower Principal reinforcements (1st layer)
, Design Case 2 , from 0.458 to 9.47 step 0.500 cm2/m

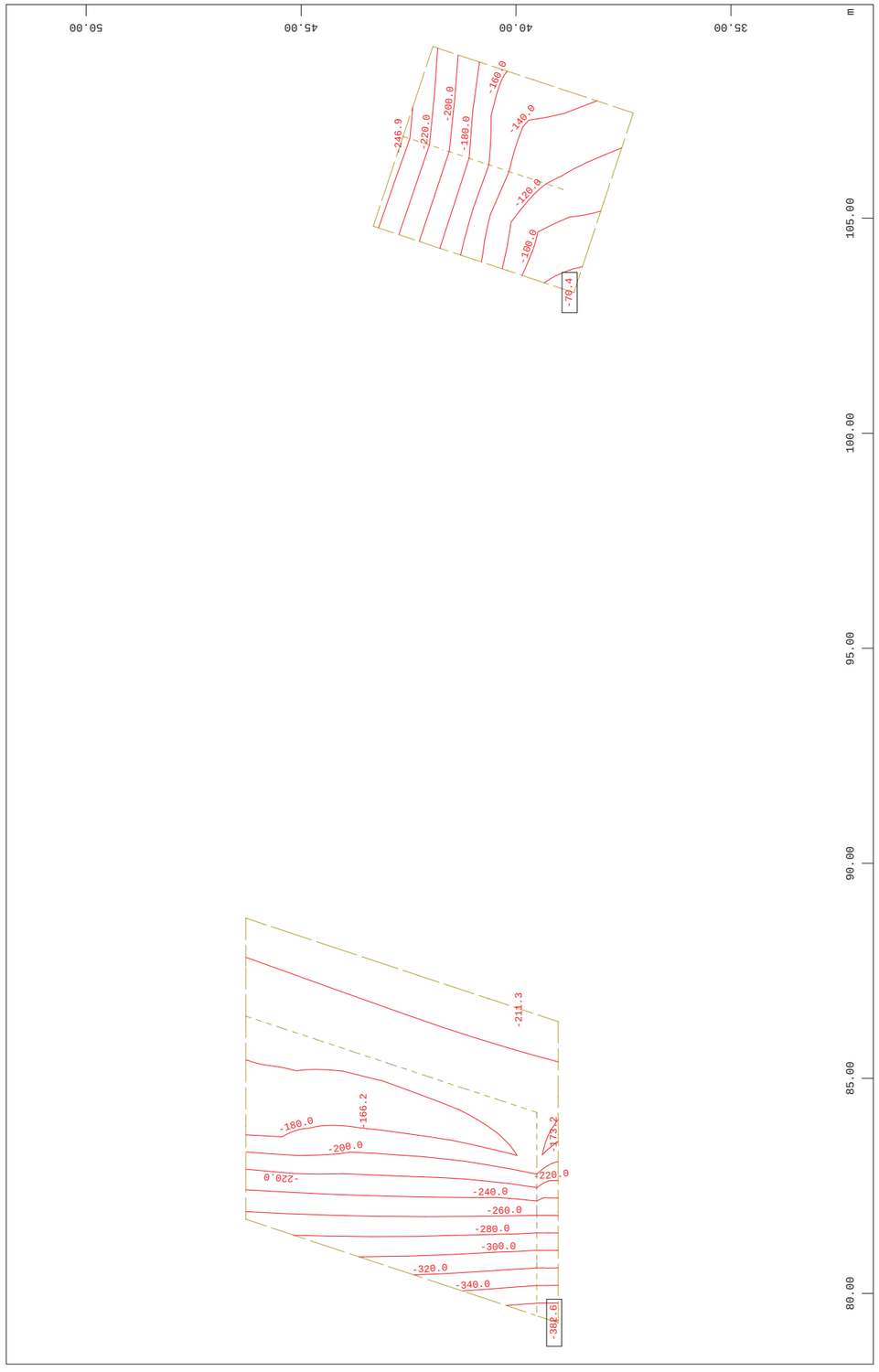

M 1 : 49
m
39.00
40.00
41.00
42.00
43.00
44.00
45.00
46.00
89.00
88.00
87.00
86.00
85.00
84.00
83.00
82.00
81.00
80.00
79.00
78.00
0.672
2.08
1.62
2.00
4.00
6.00
8.00
10.0
12.0
14.0
16.0
18.0
22.0
26.0
28.0
29.9
2.08
5.03
0.441
1.07
1.09
Y
Z
X
Sector of system Group 61
Quadrilateral Elements , lower Cross reinforcements (2nd layer)
, Design Case 2 , from 0.441 to 29.9 step 2.00 cm2/m


M 1 : 49
m
39.00
40.00
41.00
42.00
43.00
44.00
45.00
46.00
89.00
88.00
87.00
86.00
85.00
84.00
83.00
82.00
81.00
80.00
79.00
78.00
0.340
0.176
1.70
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0
11.0
12.0
12.6
11.5
2.63
2.16
Y
Z
X
Sector of system Group 61
Quadrilateral Elements , upper Principal reinforcements (1st layer)
, Design Case 2 , from 0.176 to 12.6 step 1.00 cm2/m


M 1 : 49
m
39.00
40.00
41.00
42.00
43.00
44.00
45.00
46.00
89.00
88.00
87.00
86.00
85.00
84.00
83.00
82.00
81.00
80.00
79.00
78.00
0.298
1.51
0.577
1.19
2.00
4.00
6.00
6.44
8.00
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.8
Y
Z
X
Sector of system Group 61
Quadrilateral Elements , upper Cross reinforcements (2nd layer)
, Design Case 2 , from 0.298 to 26.8 step 2.00 cm2/m

TENSIONES ZAPATAS


m
50.00
45.00
40.00
35.00
105.00
100.00
95.00
90.00
85.00
80.00
M 1 : 123
-144.1
-130.0
-120.0
-110.0
-100.0
-90.0
-70.0
-50.0
-30.0
-10.0
35.7
20.0
0.0
-20.0
-30.0
-40.0
-50.0
-70.0
-90.0
-130.0
-140.0
-159.3
-162.1
-110.0
-100.0
-80.0
Y
Z
X
Sector of system Quadrilateral Elements Group 51 61
Bedding stress in Node , Loadcase 1517 MAX-P QUAD Bedding stresses , from -162.1 to 35.7 step 10.0 kN/m2


m
50.00
45.00
40.00
35.00
105.00
100.00
95.00
90.00
85.00
80.00
M 1 : 123
-246.9
-220.0
-200.0
-180.0
-160.0
-140.0
-120.0
-100.0
-70.4
-211.3
-180.0
-166.2
-200.0
-220.0
-173.2
-220.0
-240.0
-260.0
-280.0
-300.0
-320.0
-340.0
-382.6
Y
Z
X
Sector of system Quadrilateral Elements Group 51 61
Bedding stress in Node , Loadcase 1518 MIN-P QUAD Bedding stresses , from -382.6 to -70.4 step 20.0 kN/m2

PRUEBA DE CARGA

PRUEBA de CARGA

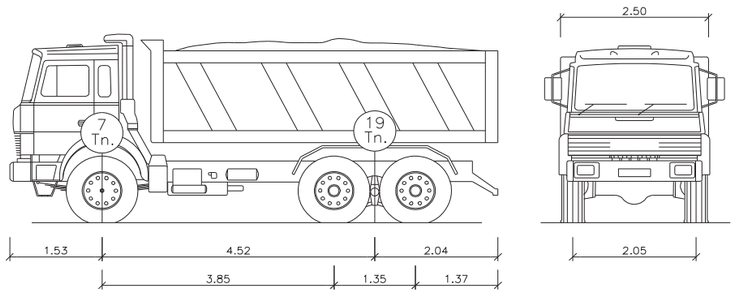
1.- INTRODUCCIÓN

El presente documento constituye el anejo de prueba de carga de las estructura correspondiente a la ampliación del Puente de Plazakola.

2.- PLANTEAMIENTO de la PRUEBA de CARGA

El objeto de la prueba de carga es el de verificar el correcto comportamiento resistente de la estructura. Para ello se trata de reproducir unas solicitaciones sobre la estructura del orden del 50-60 por ciento de las consideradas en el proyecto, aproximadamente, y no más del 70 por ciento, comprobando las deformaciones producidas, tanto en valores máximos como en su evolución en el tiempo (estabilización y recuperación).

En esta prueba de carga se utilizarán camiones con una carga total de 26 Tn, con las dimensiones y distribución de pesos que se indican en la figura siguiente:



CAMIÓN TIPO

El número de camiones necesario es de **cuatro (4)**. Este número de camiones se utilizará en la prueba de carga de ambos vanos. Los camiones se situarán de tal forma que, longitudinalmente, los ejes traseros queden enfrentados dos a dos y centrados respecto a la sección en la que se realizan las medidas (centro de luz de vano). Los camiones se situarán en dos escalones de carga. El primero corresponde, para cada vano, a los camiones paralelos y aun lado del centro de luz del vano. El segundo escalón se completará con el resto de los camiones, al otro lado del centro de luz del vano.

Plazakola *Prueba de carga* *Pág.*

Para cada escalón de carga el procedimiento de ejecución será el siguiente:

a) Carga: Se procede a disponer los camiones, que habrán sido previamente pesados para asegurar que las cargas por eje son las especificadas.

b) Estabilización: Se deberá esperar un mínimo de 20 minutos hasta que las flechas se hayan estabilizado. Se entiende que se ha alcanzado la estabilización cuando el incremento de flecha observado durante un periodo de 10 minutos no es superior al 5 por ciento del valor de la flecha medido en los 10 minutos anteriores.

c) Medición: Una vez obtenida la estabilización se procederá a la lectura de las flechas. Las mediciones de éstas se realizarán de modo que pueda ser aproximado a la décima de milímetro (0.1 mm).

d) Descarga: Se retiran los camiones, y una vez alcanzada la estabilización en descarga, se procede a la lectura de las flechas remanentes.

3.- CRITERIO de ACEPTACIÓN o RECHAZO

Los valores medidos no deberán exceder de los calculados en más de un 15 por ciento.

Las deformaciones remanentes tras el proceso de carga no excederán del 10 por ciento.

Asimismo, las mediciones de las flechas se complementarán con observaciones visuales sobre ausencia de fisuración excesiva, roturas locales, etc.

4.- ANÁLISIS de ESFUERZOS

Flexión

VANO 2

Máximo momento flector (positivo) debido a la sobrecarga

Msc := 331.4 kNxm

Máximo momento (positivo) primer escalón de carga

M1 := 99.7 kNxm

Máximo momento (positivo) segundo escalón de carga

M2 := 155.1 kNxm

Porcentaje alcanzado

$\% := \frac{M2}{Msc} \cdot 100$ % = 46.8

Máximo momento flector (negativo) debido a la sobrecarga

Msc := 415.6 kNxm

Máximo momento (negativo) primer escalón de carga

M1 := 104.6 kNxm

Máximo momento (negativo) segundo escalón de carga

M2 := 242.6 kNxm

Porcentaje alcanzado

$\% := \frac{M2}{Msc} \cdot 100$ % = 58.37

Flechas

Primer escalón

Flecha punto A

δ := 2.72 mm

Segundo escalón

Flecha punto A

δ := 5.06 mm

Flexión

VANO 1

Máximo momento flector (positivo) debido a la sobrecarga

Msc := 192.6 kNxm

Máximo momento (positivo) primer escalón de carga

M1 := 40.2 kNxm

Máximo momento (positivo) segundo escalón de carga

M2 := 65.3 kNxm

Porcentaje alcanzado

$$\% := \frac{M2}{Msc} \cdot 100 \qquad \% = 33.9$$

Máximo momento flector (negativo) debido a la sobrecarga

Msc := 238.7 kNxm

Máximo momento (negativo) primer escalón de carga

M1 := 44.7 kNxm

Máximo momento (negativo) segundo escalón de carga

M2 := 80.3 kNxm

Porcentaje alcanzado

$$\% := \frac{M2}{Msc} \cdot 100 \qquad \% = 33.64$$

Flechas

Primer escalón

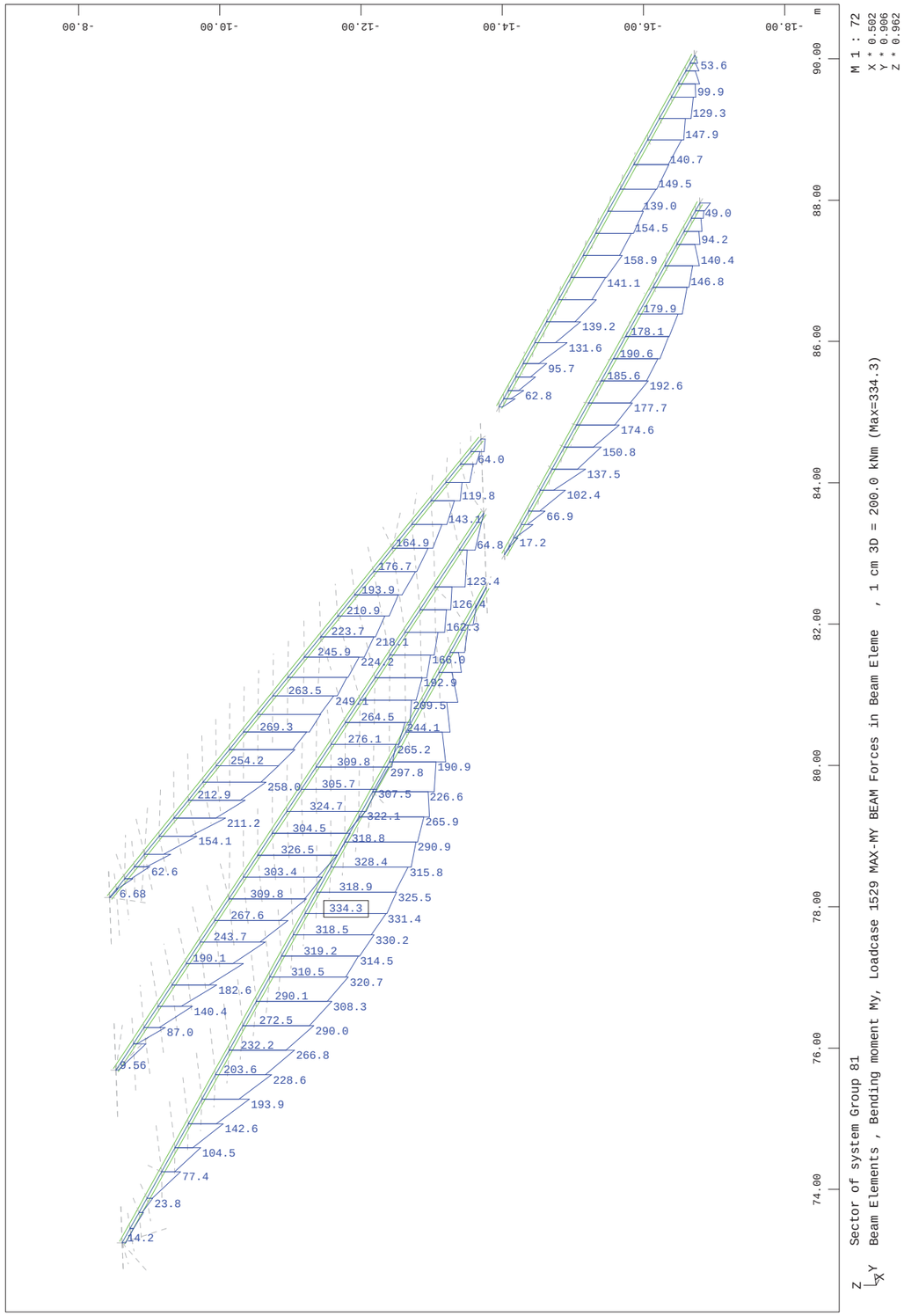
Flecha punto B

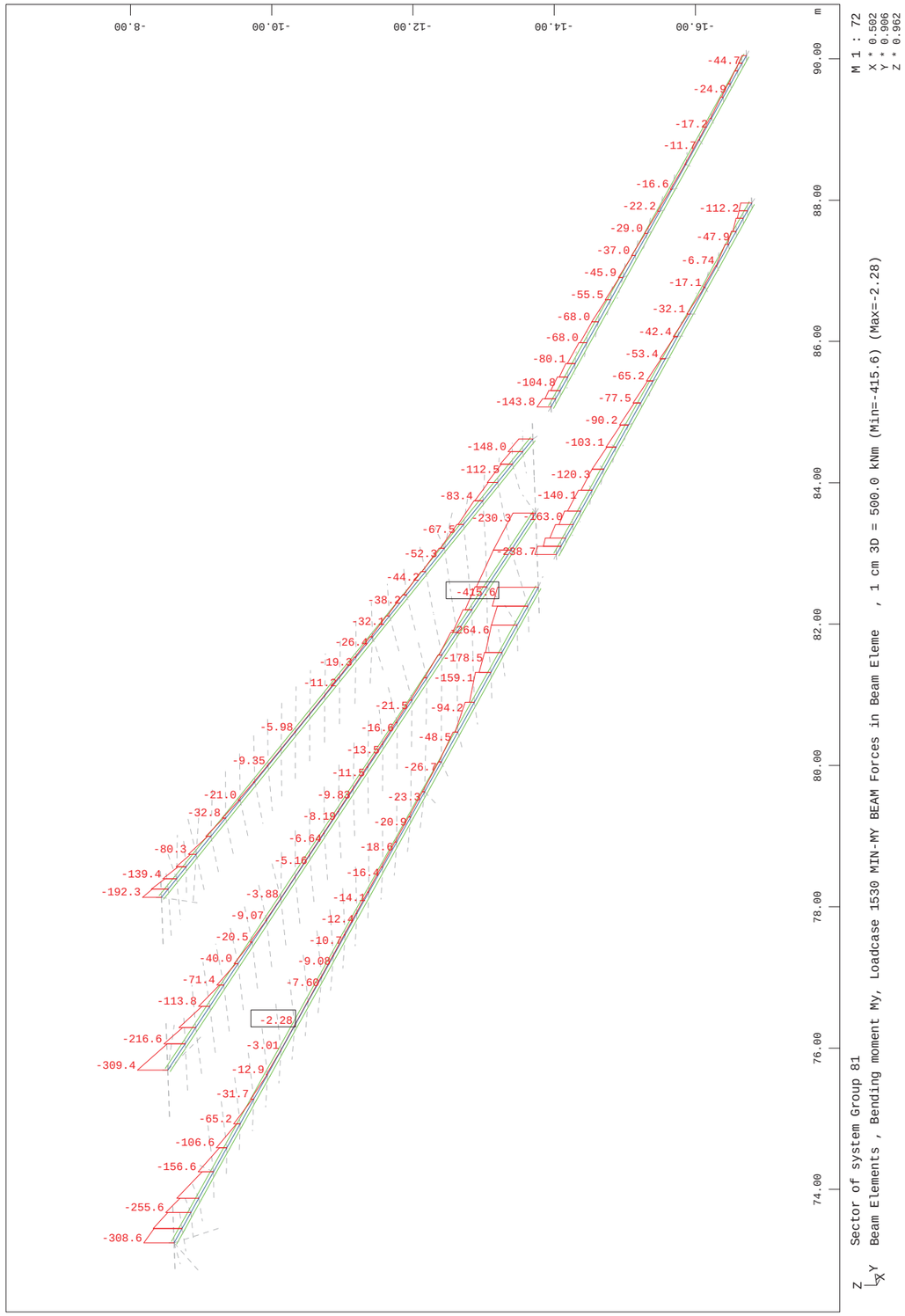
δ := 0.47 mm

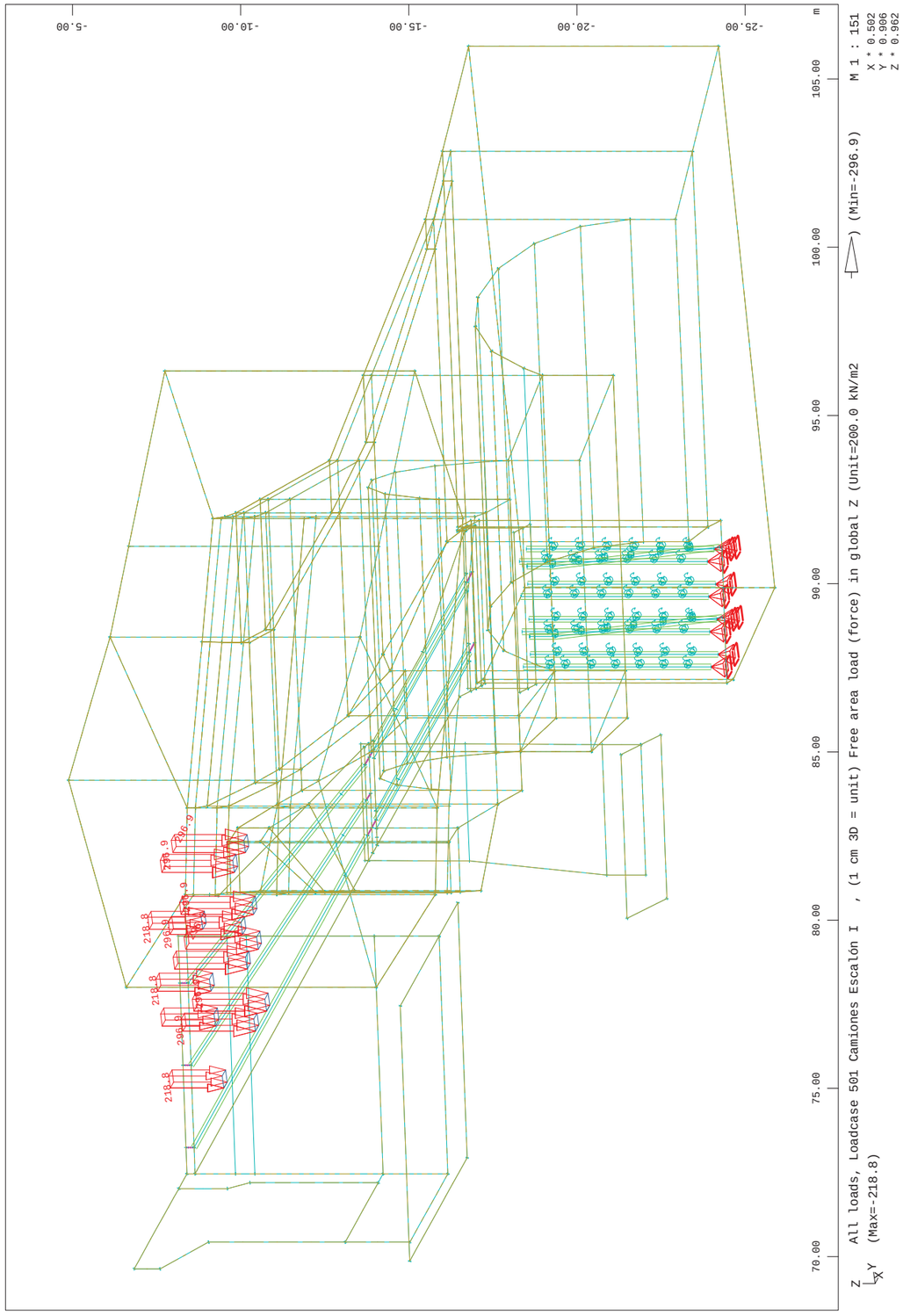
Segundo escalón

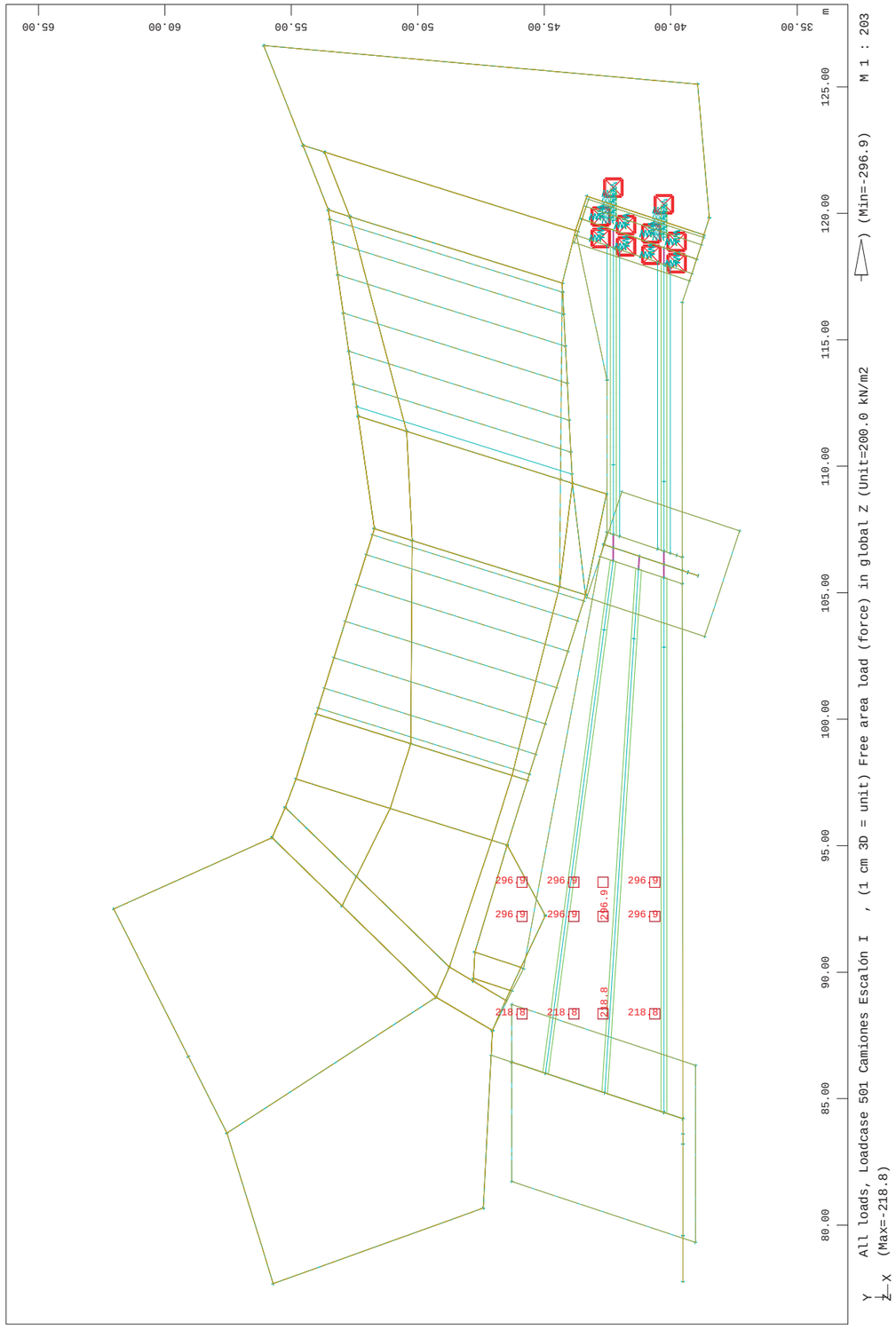
Flecha punto B

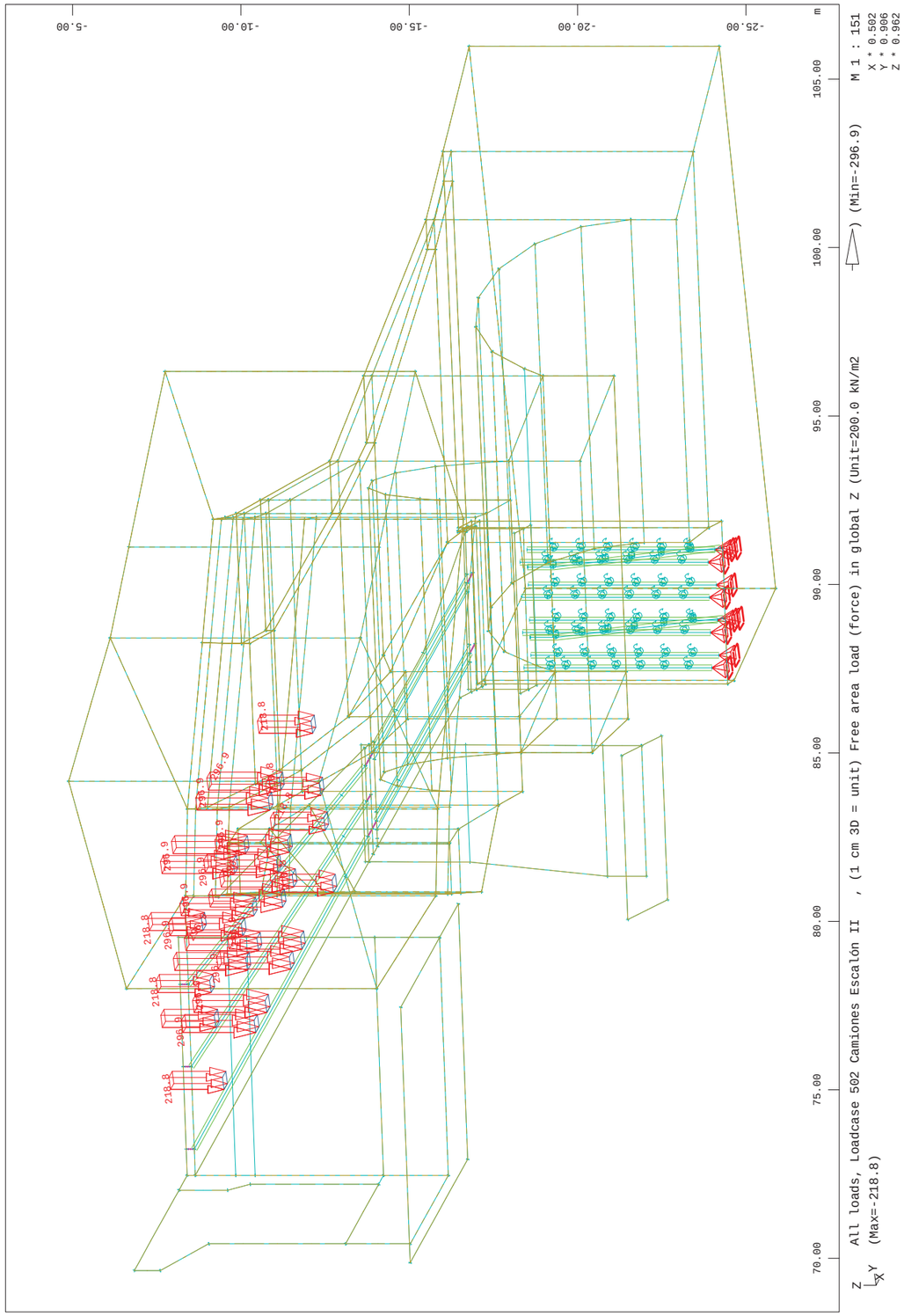
δ := 0.93 mm

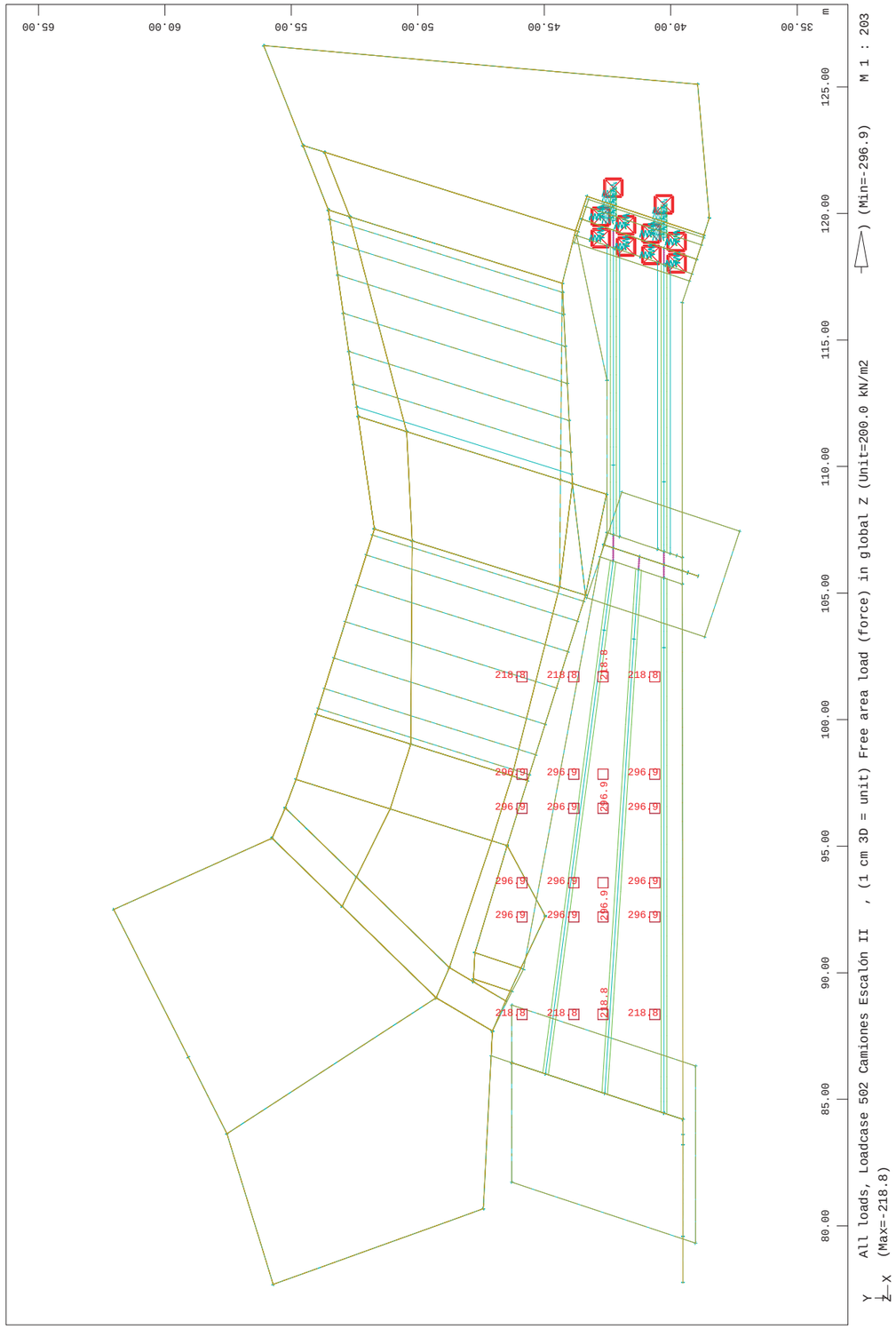

-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * * 0.502
Y * * 0.906
Z * * 0.962
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1529 MAX-MY BEAM Forces in Beam Eleme , 1 cm 3D = 200.0 kNm (Max=334.3)
Z
Y
X
53.6
99.9
129.3
147.9
140.7
149.5
139.0
154.5
158.9
141.1
139.2
131.6
95.7
62.8
49.0
94.2
140.4
146.8
179.9
178.1
190.6
185.6
192.6
177.7
174.6
150.8
137.5
102.4
66.9
17.2
64.0
119.8
143.4
164.9
176.7
193.9
210.9
223.7
218.1
245.9
224.2
263.5
249.1
264.5
269.3
276.1
254.2
309.8
258.0
305.7
212.9
307.5
324.7
211.2
322.1
304.5
154.1
318.8
326.5
62.6
328.4
303.4
6.68
318.9
309.8
334.3
267.6
318.5
243.7
319.2
190.1
310.5
182.6
290.1
140.4
272.5
87.0
232.2
9.56
203.6
193.9
142.6
104.5
77.4
23.8
14.2
64.8
123.4
126.4
162.3
166.0
192.9
209.5
244.1
265.2
297.8
190.9
226.6
265.9
290.9
315.8
325.5
331.4
330.2
314.5
320.7
308.3
290.0
266.8
228.6

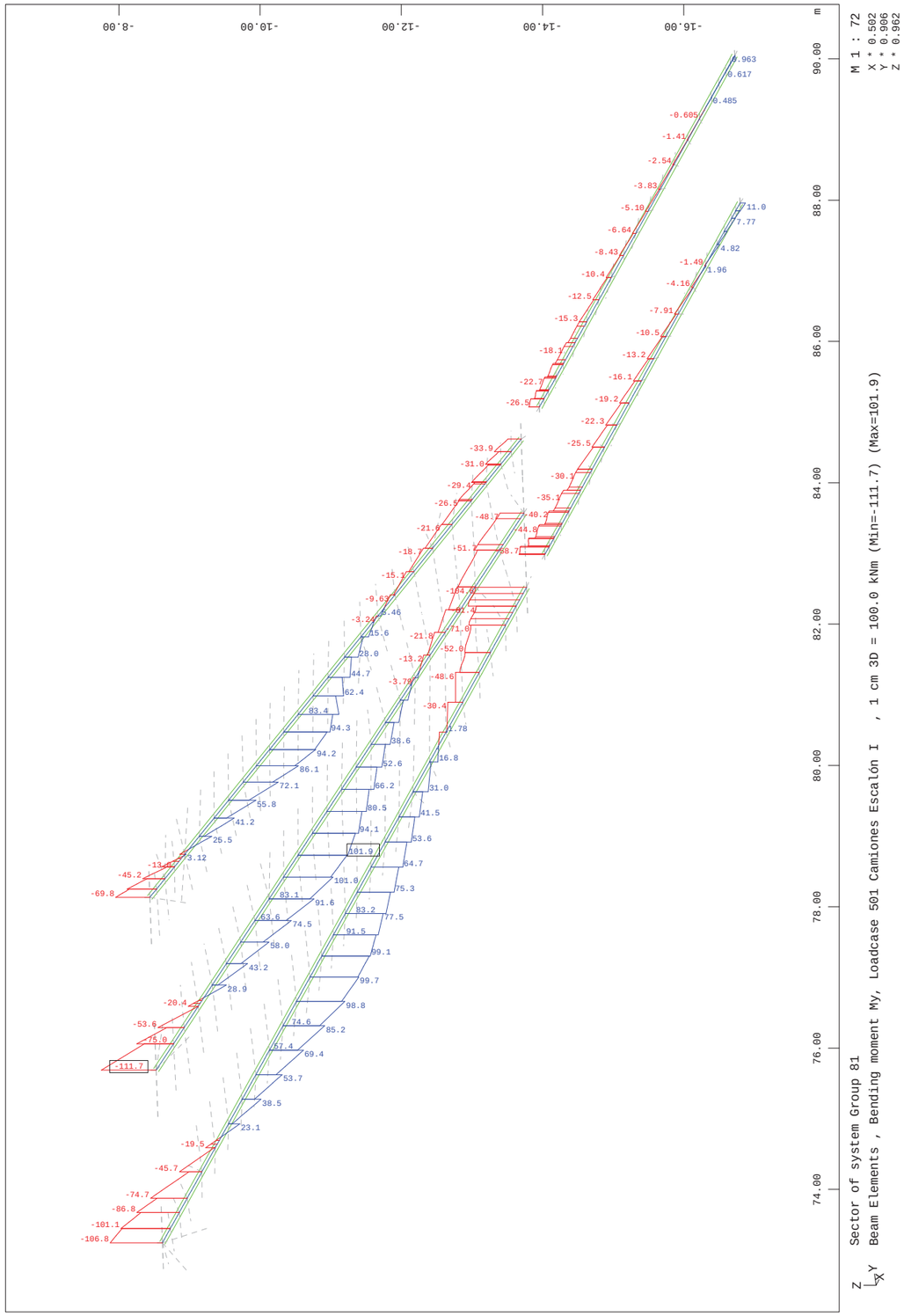

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * * 0.502
Y * * 0.906
Z * * 0.962
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 1530 MIN-MY BEAM Forces in Beam Eleme , 1 cm 3D = 500.0 kNm (Min=-415.6) (Max=-2.28)
Z
Y
X
-44.7
-24.9
-17.2
-11.7
-16.6
-22.2
-29.0
-37.0
-45.9
-55.5
-68.0
-68.0
-80.1
-104.8
-143.8
-112.2
-47.9
-6.74
-17.1
-32.1
-42.4
-53.4
-65.2
-77.5
-90.2
-103.1
-120.3
-140.1
-148.0
-112.5
-83.4
-67.5
-52.3
-44.2
-38.2
-32.1
-26.4
-19.3
-11.2
-230.3
-263.0
-238.7
-415.6
-264.6
-178.5
-159.1
-94.2
-48.5
-26.7
-23.3
-20.9
-18.6
-16.4
-14.1
-12.4
-10.7
-9.00
-7.60
-5.98
-9.35
-21.0
-32.8
-80.3
-139.4
-192.3
-21.5
-16.8
-13.5
-11.5
-9.83
-8.19
-6.64
-5.16
-3.88
-9.07
-20.5
-40.0
-71.4
-113.8
-216.6
-309.4
-2.28
-3.01
-12.9
-31.7
-65.2
-106.6
-156.6
-255.6
-308.6

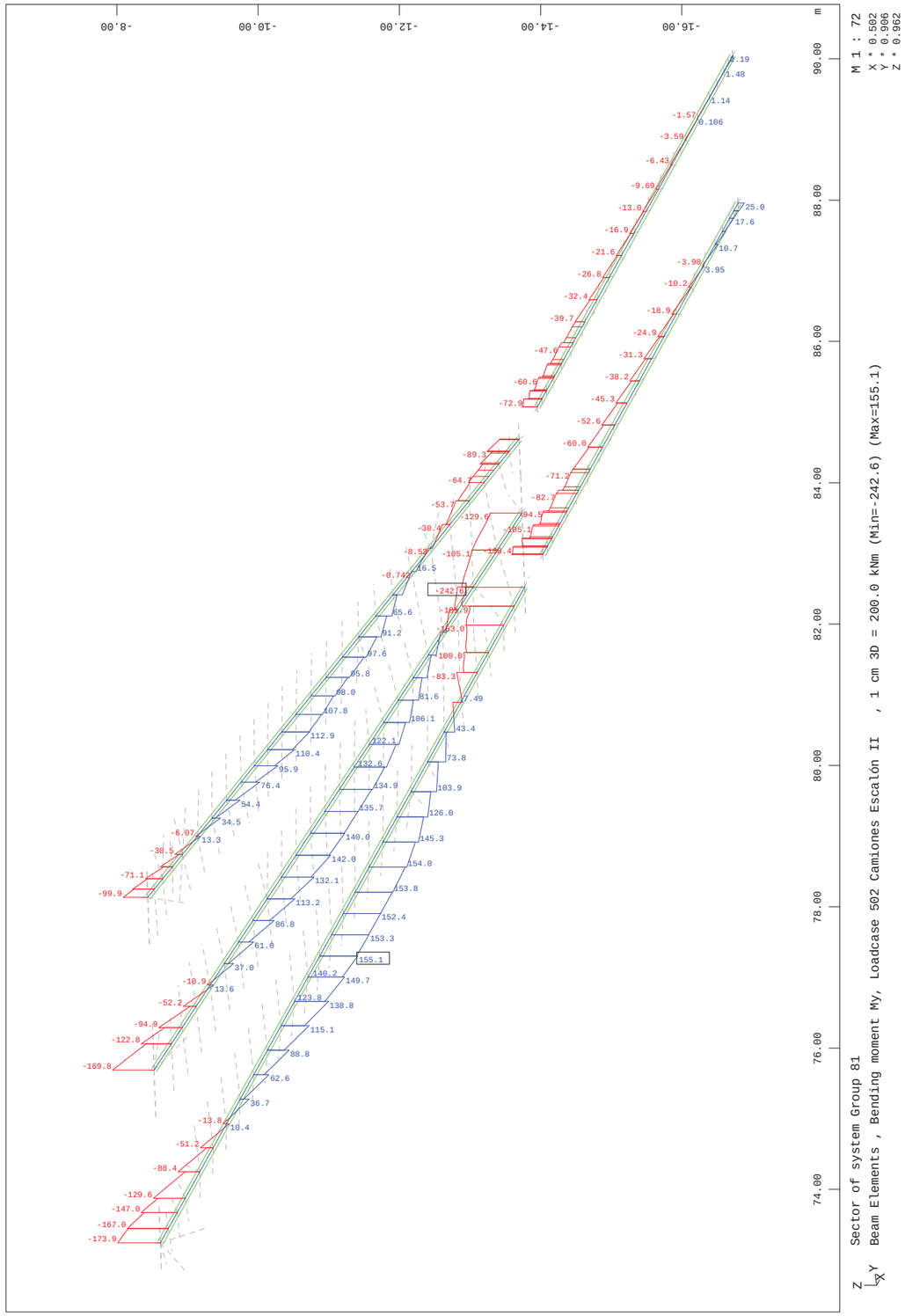

-5.00
-10.00
-15.00
-20.00
-25.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
M 1 : 151
X * 0.502
Y * 0.906
Z * 0.962
) (Min=-296.9)
All loads, Loadcase 501 Camiones Escalón I , (1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
(Max=-218.8)
Z
Y
X
296.9
218.8

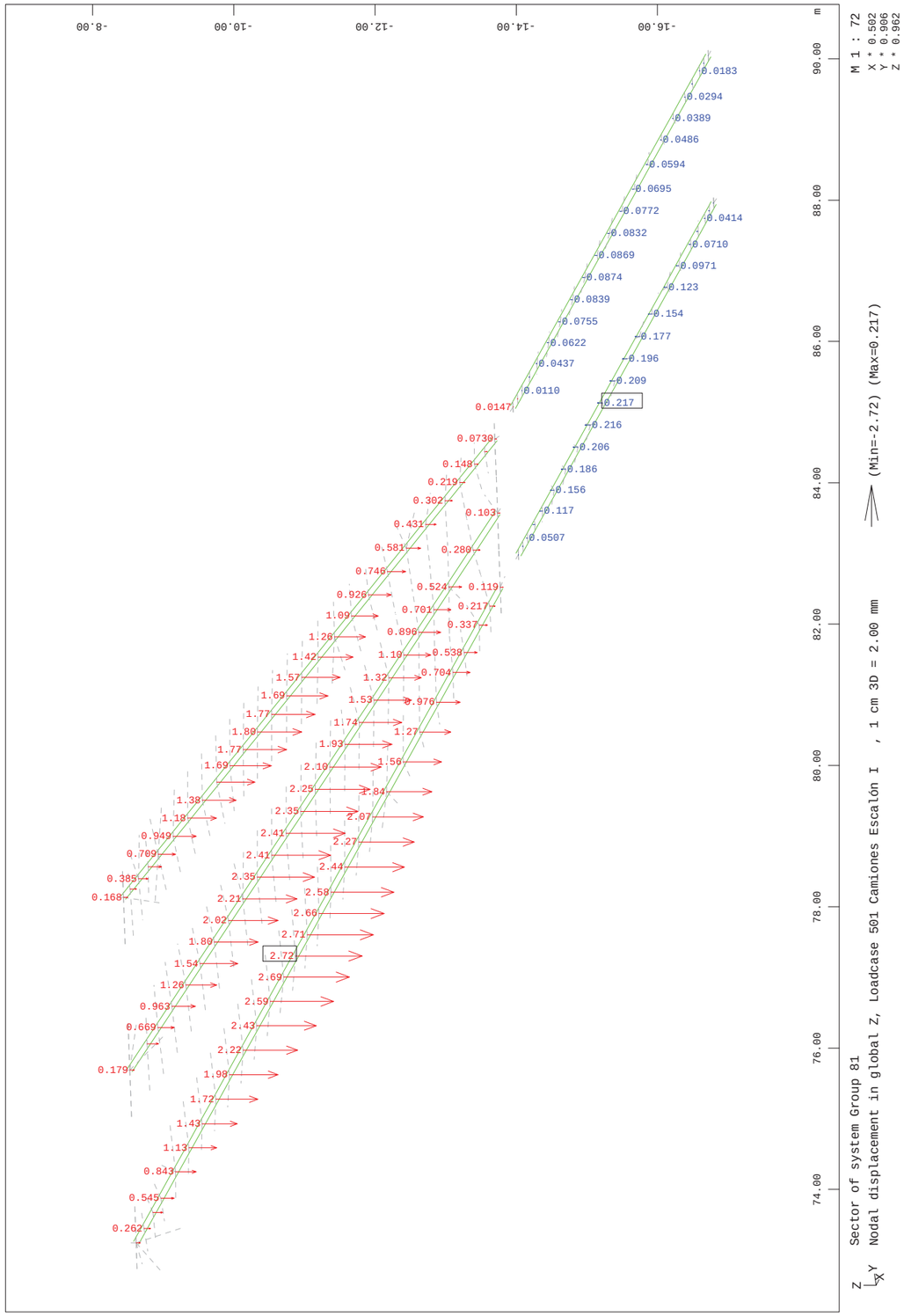

65.00
60.00
55.00
50.00
45.00
40.00
35.00
m
125.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
M 1 : 203
) (Min=-296.9)
All loads, Loadcase 501 Camiones Escalón I , (1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
(Max=-218.8)
Y
Z
X
296.9
218.8


-5.00
-10.00
-15.00
-20.00
-25.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
M 1 : 151
X * 0.502
Y * 0.906
Z * 0.962
) (Min=-296.9)
218.8
296.9
All loads, Loadcase 502 Camiones Escalón II , (1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
(Max=-218.8)
Z
Y
X

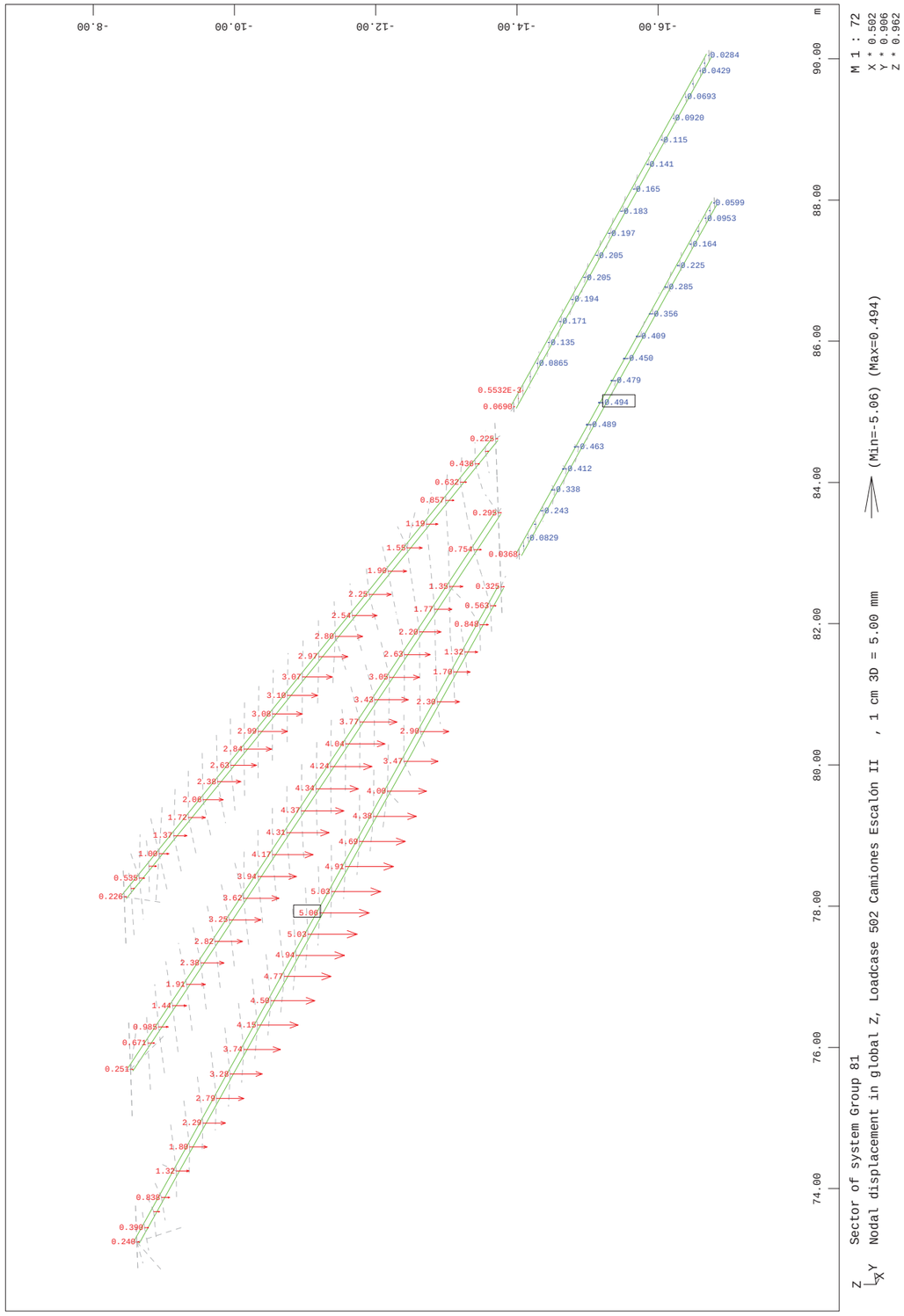

65.00
60.00
55.00
50.00
45.00
40.00
35.00
m
125.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
80.00
M 1 : 203
) (Min=-296.9)
218.8
296.9
All loads, Loadcase 502 Camiones Escalón II , (1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
(Max=-218.8)
Y
Z
X

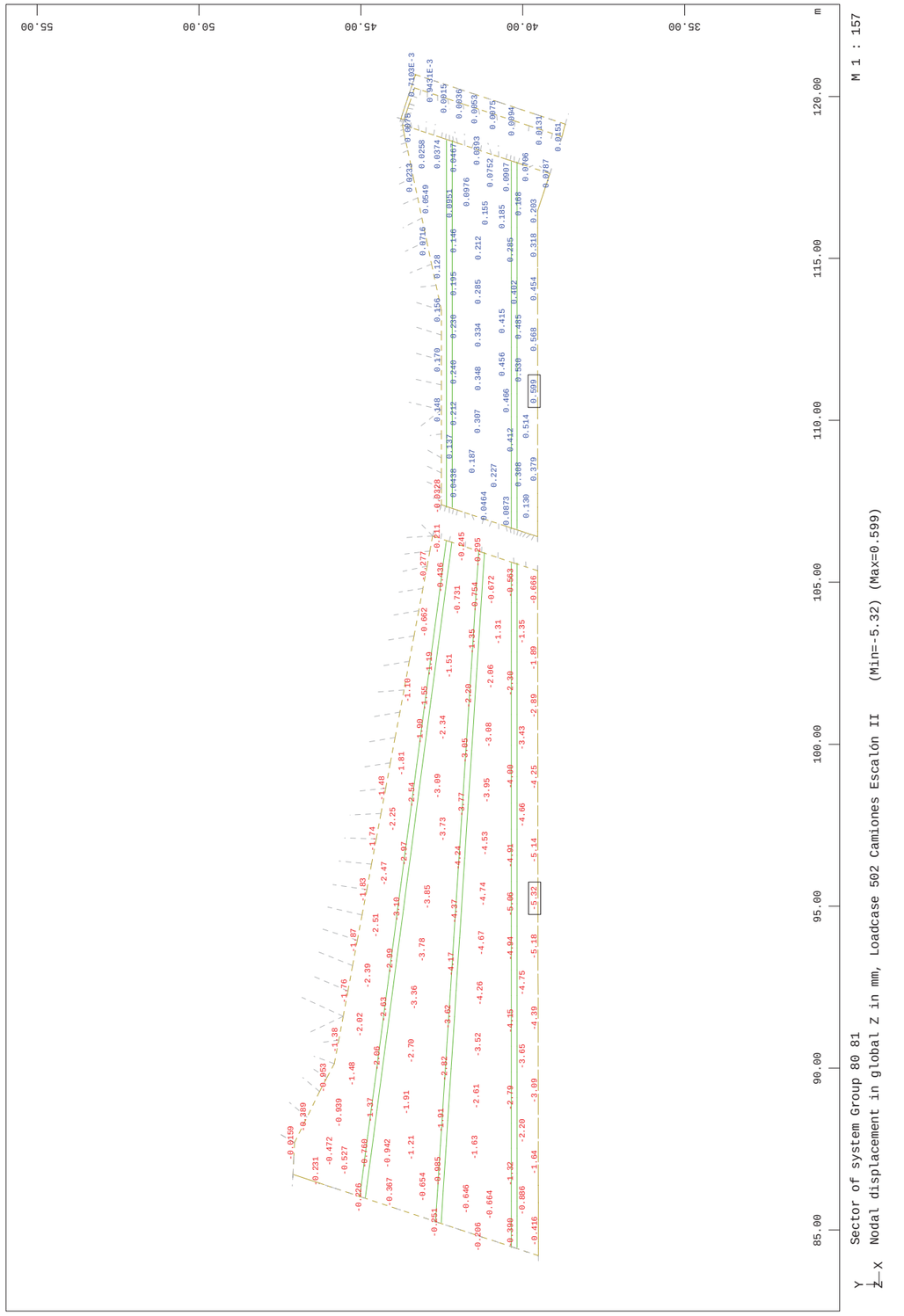

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * * 0.502
Y * * 0.906
Z * * 0.962
, 1 cm 3D = 100.0 kNm (Min=-111.7) (Max=101.9)
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 501 Camiones Escalón I , 1
Z
Y
X

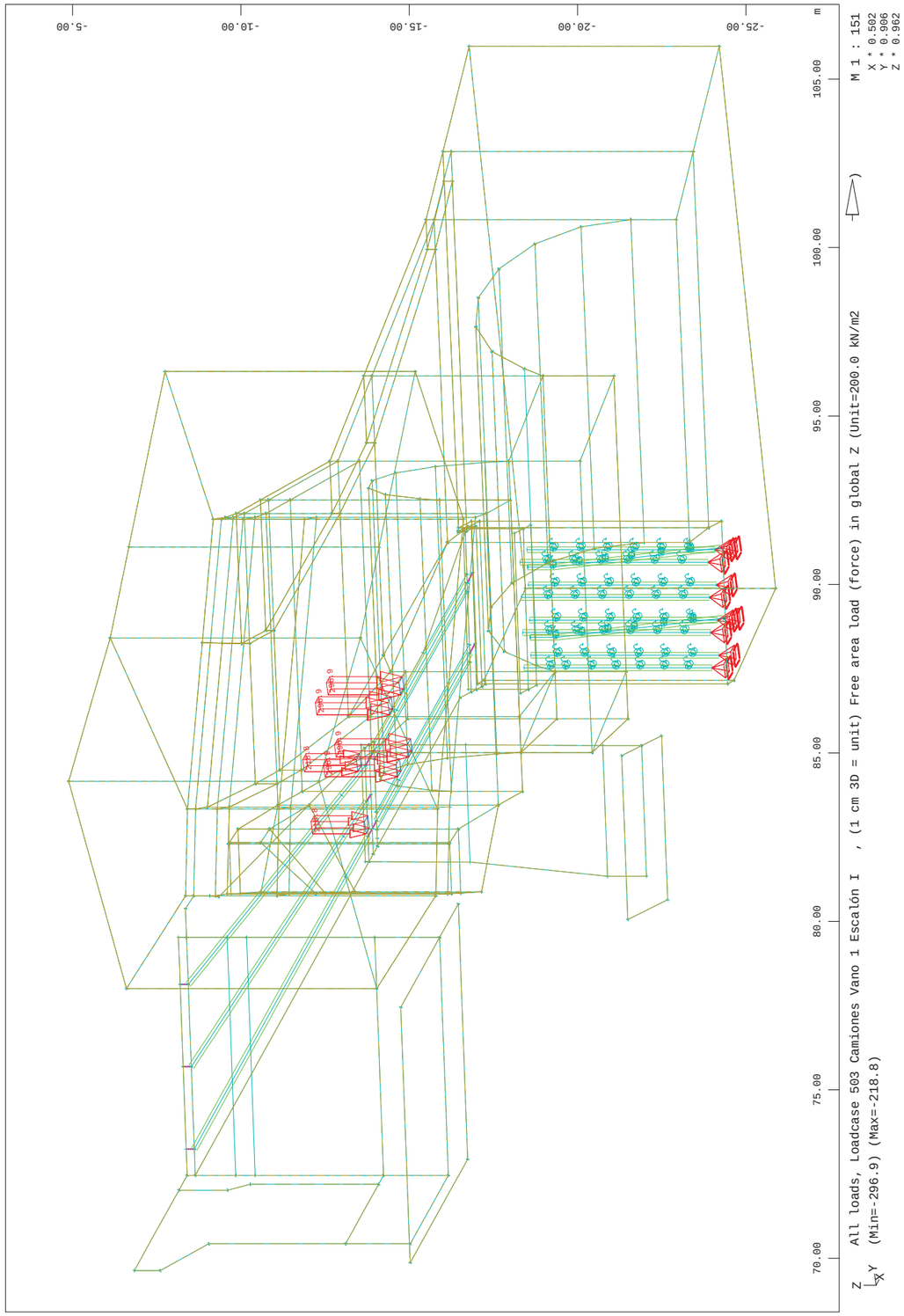

-8.00
-10.00
-12.00
-14.00
-16.00
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
M 1 : 72
X * * 0.502
Y * * 0.906
Z * * 0.962
, 1 cm 3D = 200.0 kNm (Min=-242.6) (Max=155.1)
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 502 Camiones Escalón II , 1
Z
Y
X

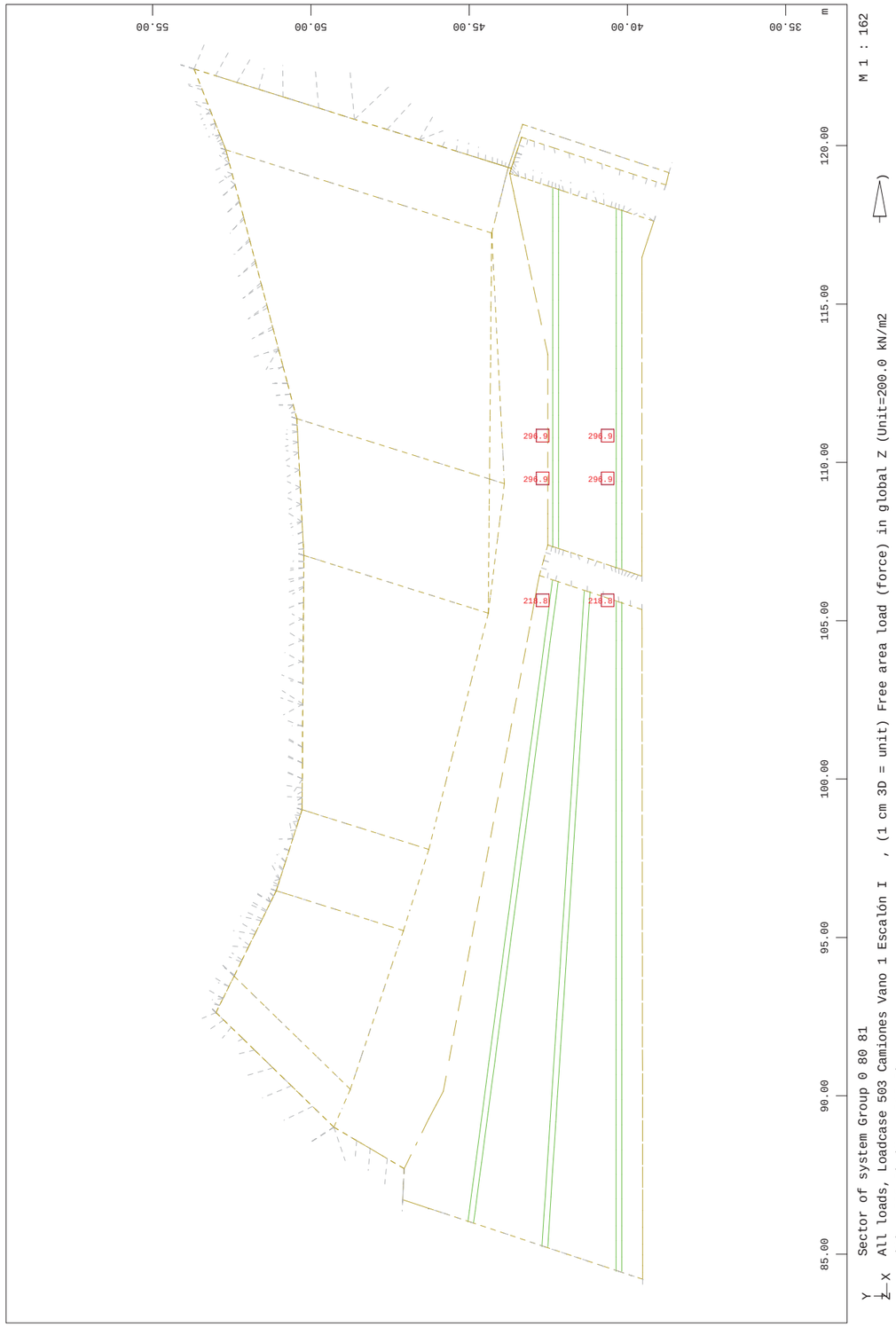

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
(Min=-2.72) (Max=0.217)
Sector of system Group 81
Nodal displacement in global Z, Loadcase 501 Camiones Escalón I , 1 cm 3D = 2.00 mm
Z
Y
X

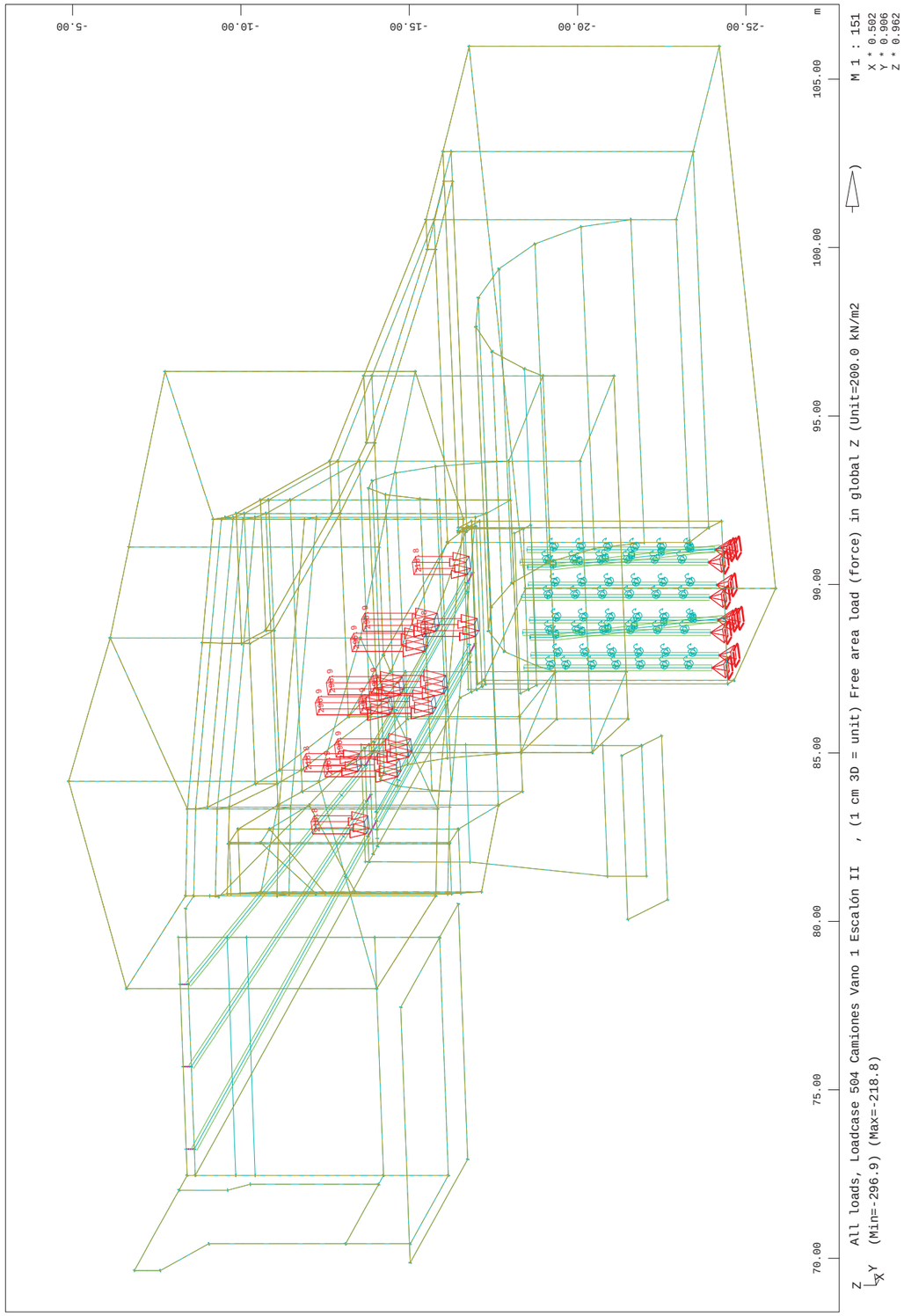

M 1 : 159
m
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
55.00
50.00
45.00
40.00
35.00
(Min=-2.82) (Max=0.265)
Sector of system Group 80 81
Nodal displacement in global Z in mm, Loadcase 501 Camiones Escalón I
Y
Z
X

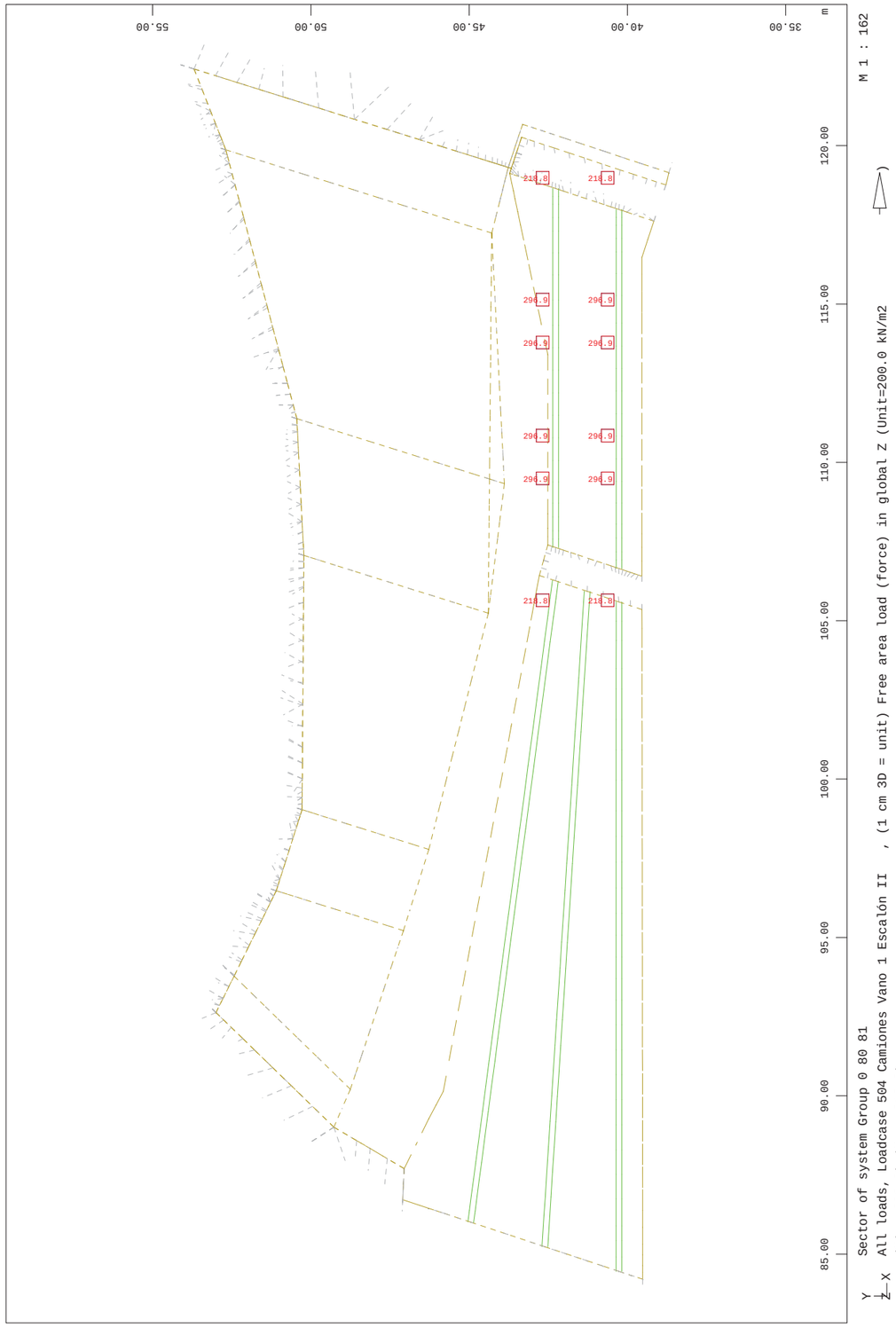

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
(Min=-5.06) (Max=0.494)
1 cm 3D = 5.00 mm
Sector of system Group 81
Nodal displacement in global Z, Loadcase 502 Camiones Escalón II
Z
Y
X

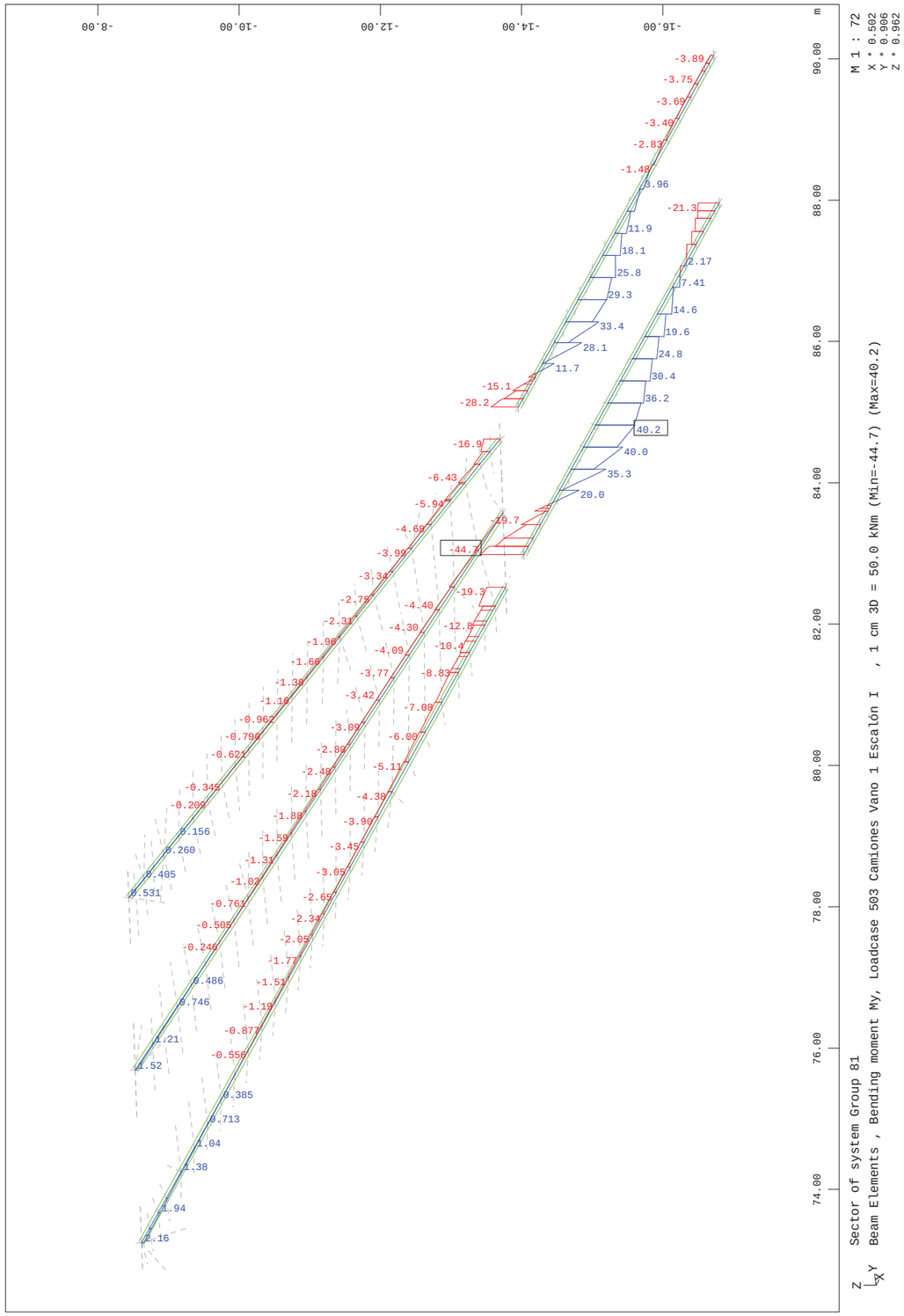

M 1 : 157
m
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
55.00
50.00
45.00
40.00
35.00
(Min=-5.32) (Max=0.599)
Sector of system Group 80 81
Nodal displacement in global Z in mm, Loadcase 502 Camiones Escalón II
Y
Z
X

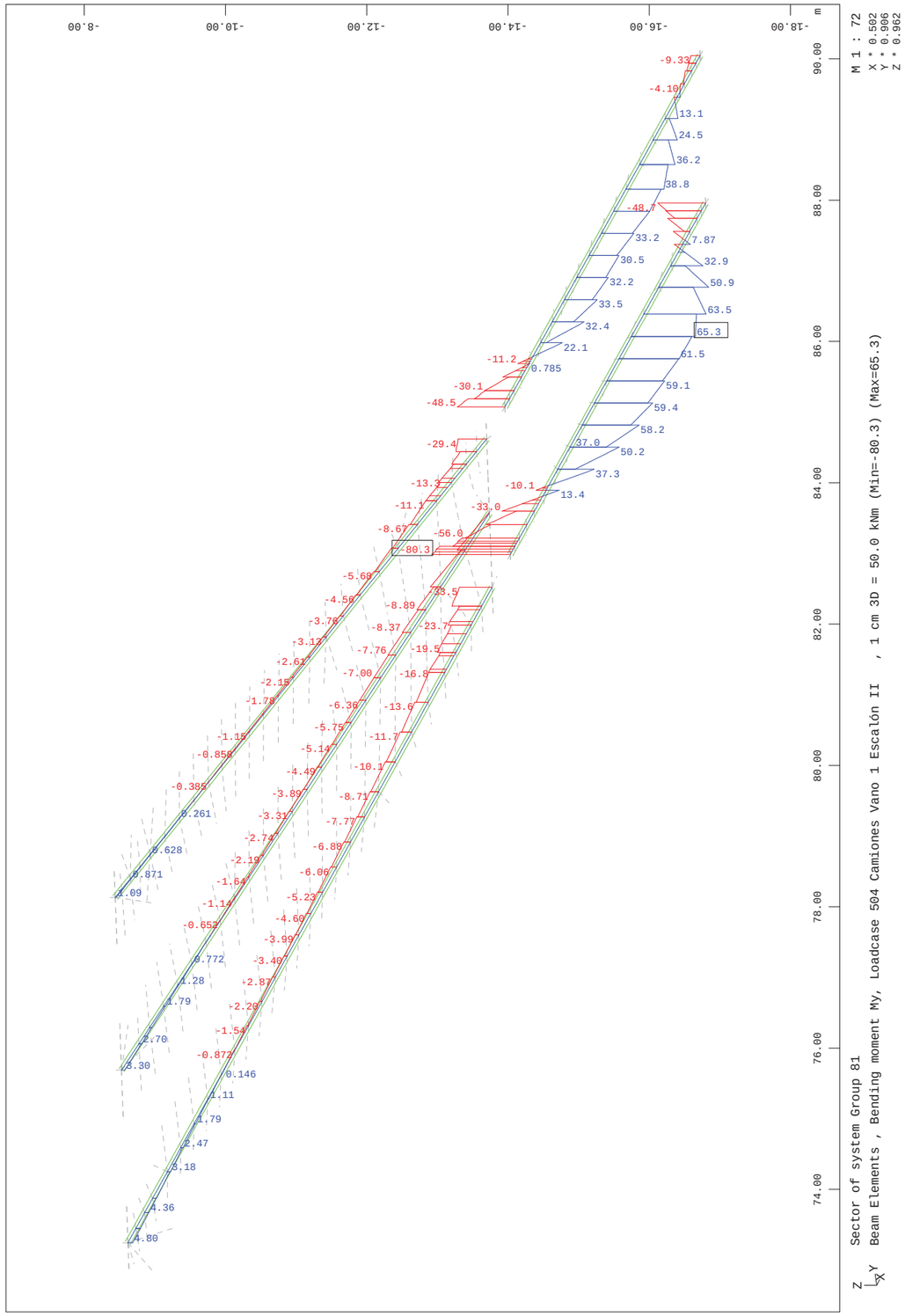

-5.00
-10.00
-15.00
-20.00
-25.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
M 1 : 151
X * 0.502
Y * 0.906
Z * 0.962
All loads, Loadcase 503 Camiones Vano 1 Escalón I , (1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
(Min=-296.9) (Max=-218.8)
Z
Y
X

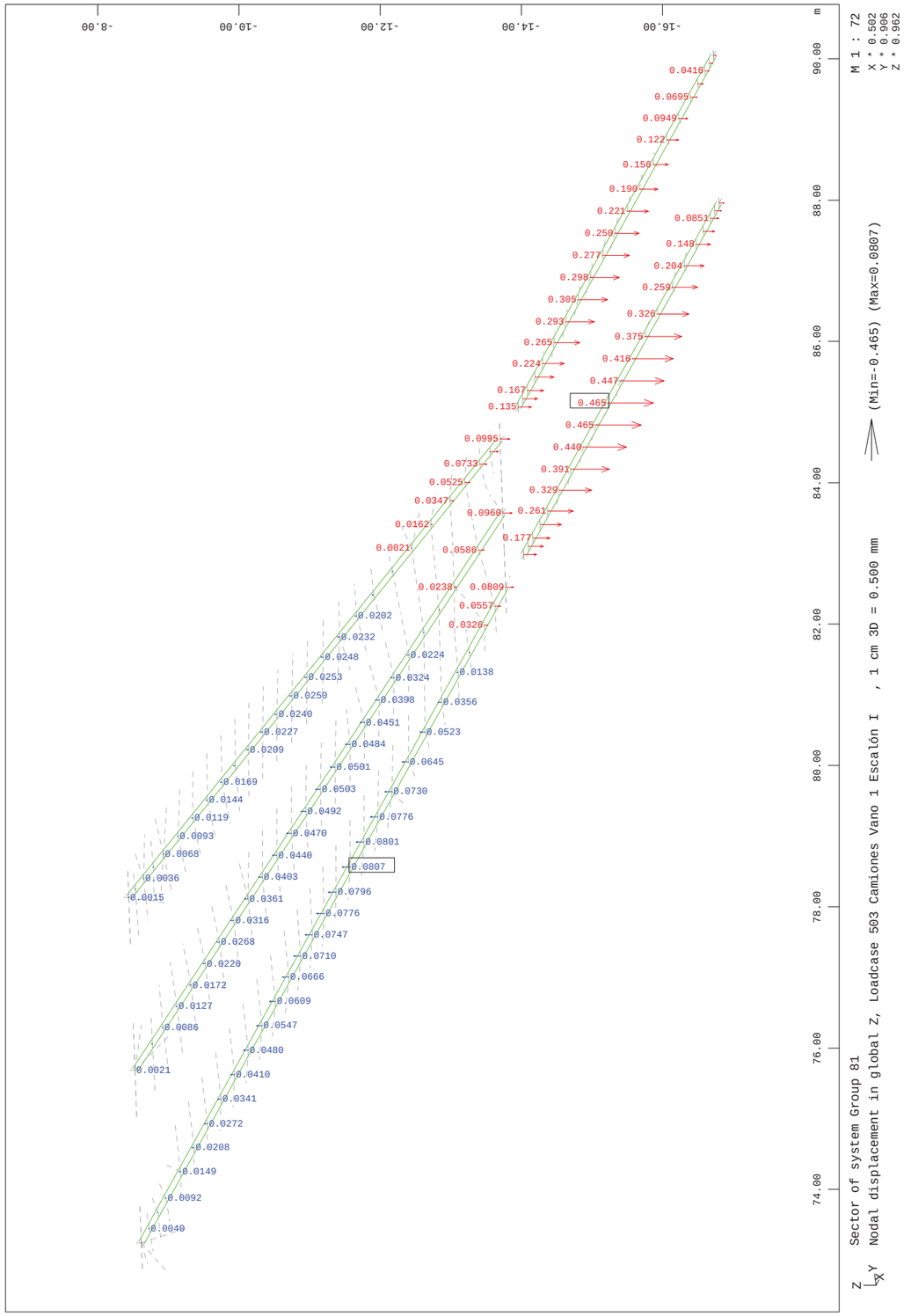

55.00
50.00
45.00
40.00
35.00
m
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
M 1 : 162
-296.9
-218.8
Sector of system Group 0 80 81
All loads, Loadcase 503 Camiones Vano 1 Escalón I , (1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
(Min=-296.9) (Max=-218.8)
Y
Z
X

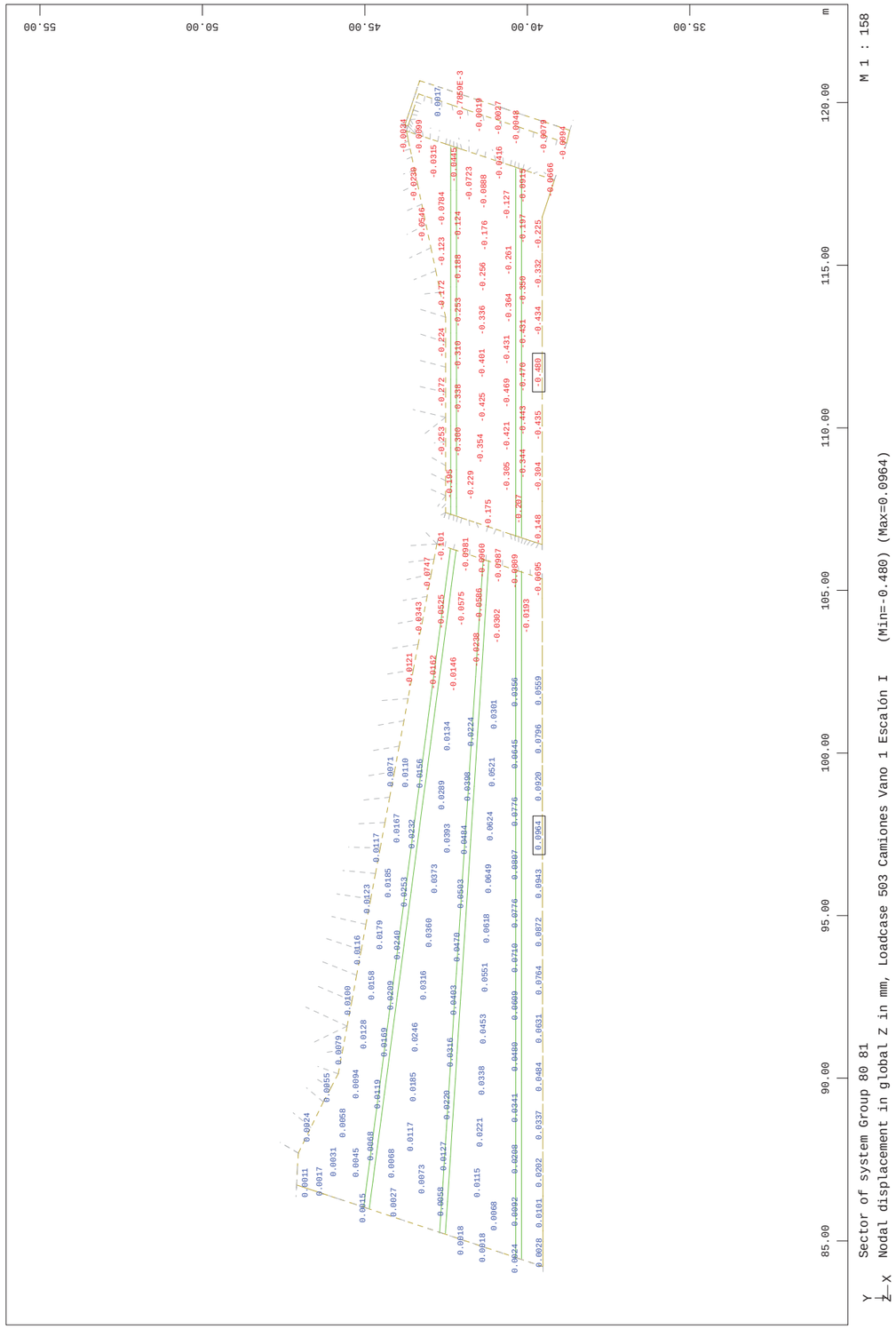

-5.00
-10.00
-15.00
-20.00
-25.00
m
105.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
M 1 : 151
X * 0.502
Y * 0.906
Z * 0.962
(1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
All loads, Loadcase 504 Camiones Vano 1 Escalón II
(Min=-296.9) (Max=-218.8)
Z
Y
X

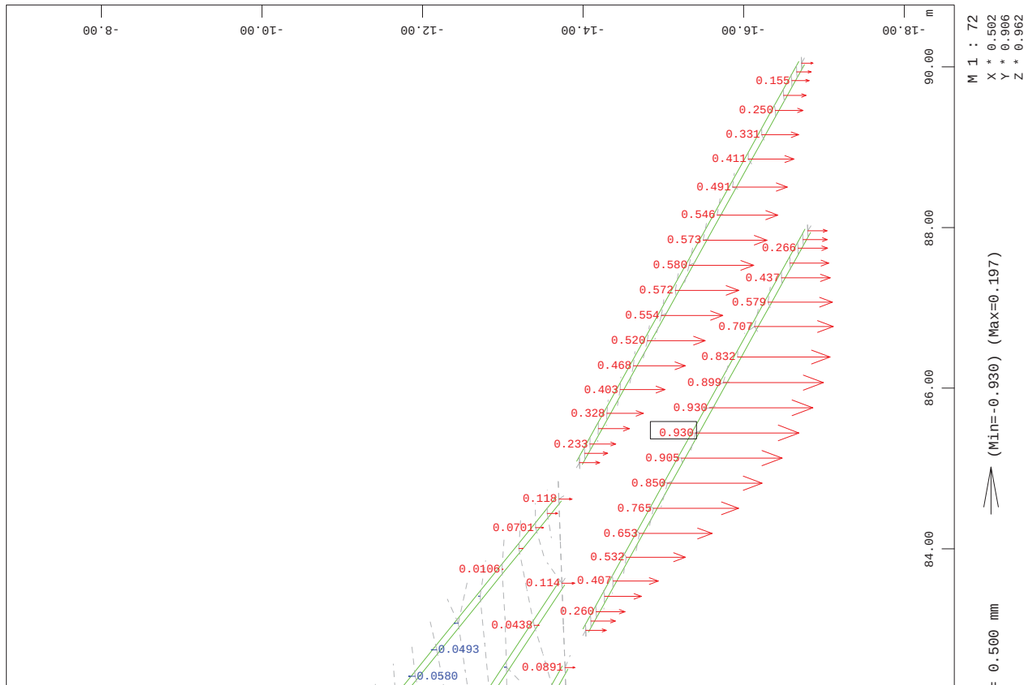

55.00
50.00
45.00
40.00
35.00
m
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
M 1 : 162
-218.8
-296.9
(1 cm 3D = unit) Free area load (force) in global Z (Unit=200.0 kN/m2
Sector of system Group 0 80 81
All loads, Loadcase 504 Camiones Vano 1 Escalón II
(Min=-296.9) (Max=-218.8)
Y
Z
X

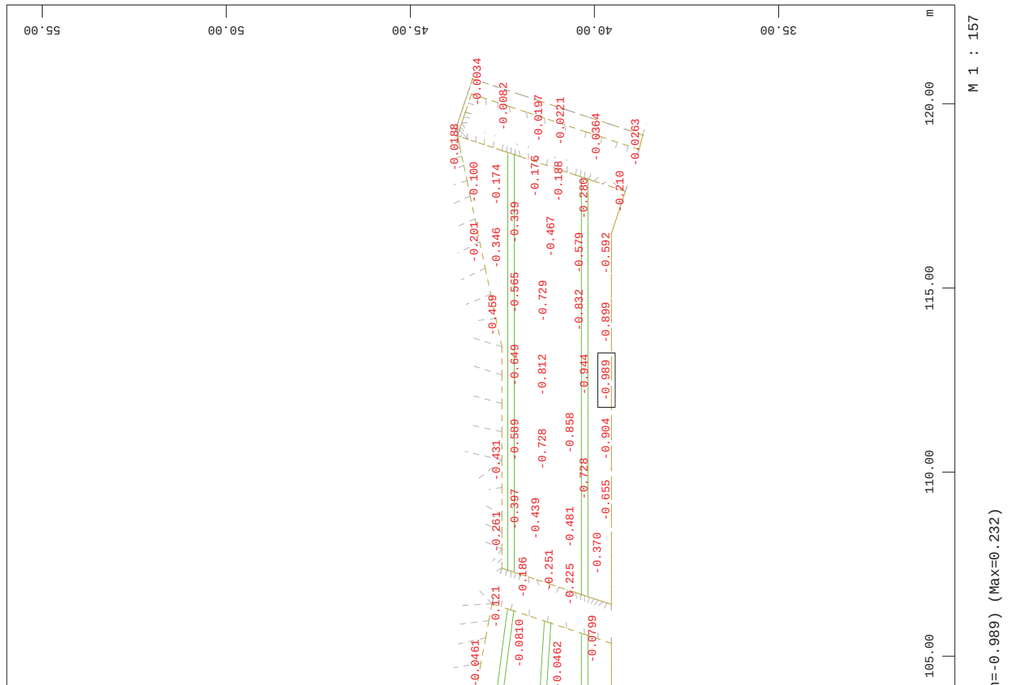

M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 503 Camiones Vano 1 Escalón I , 1 cm 3D = 50.0 kNm (Min=-44.7) (Max=40.2)
Z
Y
X


M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
-8.00
-10.00
-12.00
-14.00
-16.00
-18.00
Sector of system Group 81
Beam Elements , Bending moment My, Loadcase 504 Camiones Vano 1 Escalón II , 1 cm 3D = 50.0 kNm (Min=-80.3) (Max=65.3)
Z
Y
X


M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
(Min=-0.465) (Max=0.0807)
Sector of system Group 81
Nodal displacement in global Z, Loadcase 503 Camiones Vano 1 Escalón I , 1 cm 3D = 0.500 mm
m
-16.00
-14.00
-12.00
-10.00
-8.00
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00


M 1 : 158
(Min=-0.480) (Max=0.0964)
Sector of system Group 80 81
Nodal displacement in global Z in mm, Loadcase 503 Camiones Vano 1 Escalón I (Mi
m
55.00
50.00
45.00
40.00
35.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00


M 1 : 72
X * 0.502
Y * 0.906
Z * 0.962
m
-18.00
-16.00
-14.00
-12.00
-10.00
-8.00
90.00
88.00
86.00
84.00
82.00
80.00
78.00
76.00
74.00
(Min=-0.930) (Max=0.197)
1 cm 3D = 0.500 mm
Sector of system Group 81
Nodal displacement in global Z, Loadcase 504 Camiones Vano 1 Escalón II
Z
Y
X


M 1 : 157
m
55.00
50.00
45.00
40.00
35.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
(Min=-0.989) (Max=0.232)
Sector of system Group 80 81
Nodal displacement in global Z in mm, Loadcase 504 Camiones Vano 1 Escalón II
Y
Z
X

APÉNDICE Nº 12.2

CÁLCULOS ESTRUCTURALES DE LAS LOSAS EN VOLADIZO

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1. DESCRIPCIÓN DE LA ESTRUCTURAS

Las dos estructuras objeto del presente apéndice son de idénticas características si bien su geometría en planta varía para adaptarse a las necesidades del trazado. En ambos casos la sección transversal de las estructuras consiste en una losa de 1,00 m de canto y 2,65 m de ancho que apoya sobre dos filas de micropilotes cuya separación es de 1,85 m. A un lado de dicha losa aparece un voladizo de longitud variable de 0,40 m de canto. La longitud máxima que alcanza el voladizo es de 1,55 m. En el sentido longitudinal la luz entre cada par de micropilotes es del orden de 2,20 m, excepto en el tramo que discurre sobre la galería del canal de agua que cruza bajo la calzada actual. Para salvar dicha galería es necesario librar una luz de 6,65 para el "voladizo 1" y de 6,20 m para el "voladizo 2".

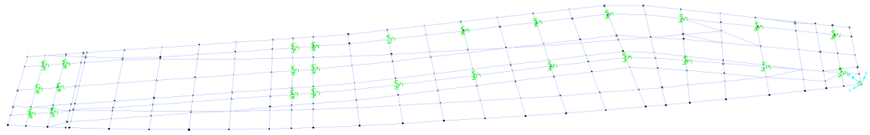
La cimentación de la estructura se realiza mediante micropilotes de 220 mm de diámetro con armadura tubular de 168,3 mm de diámetro exterior y 12 mm de espesor. Los micropilotes se empotran en roca sana.

Ambos voladizos se han diseñado independientes para que sea posible su ejecución en dos fases manteniendo abierto al tráfico uno de los carriles. Así mismo el diseño se ha realizado de forma que se asegura que no es necesario que los micropilotes entren en tracción para asegurar la estabilidad de la estructura.

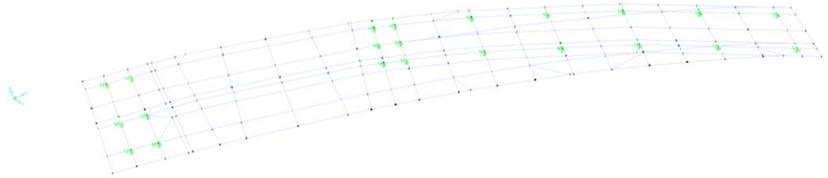
Con el objetivo de evitar la aparición de grietas en la calzada se ha previsto que junto a las dos estructuras el firme disponga de una losa de hormigón armado apoyada en el terreno bajo las mezclas bituminosas. Dichas losas se unirán con pasadores en sus juntas y también en las juntas con las estructuras. Estos pasadores únicamente tienen el objetivo de ayudar a que no se produzcan movimientos relativos que reflejen las juntas en la superficie del firme. Es decir no tienen una función estructural y no se han tenido en cuenta en los cálculos estructurales ya que tampoco suponen un efecto desfavorable para las estructuras.

2. MODELO DE CÁLCULO

Para el cálculo de esfuerzos de la estructura se ha utilizado el programa comercial de ordenador SAP 2000, el cual es un programa general de cálculo de estructuras por elementos finitos. Para modelizar cada una de la estructuras se ha utilizado el elemento tipo "shell" que incluye tanto los esfuerzos de membrana como los de flexión. Los micropilotes se han introducido en el modelo de cálculo introduciendo a los nudos donde se conectan a la losa las rigideces correspondientes a la matriz de rigidez de los micropilotes. Para ello se ha seguido el método propuesto en el capítulo 13, punto 13.4.3. "Rigideces estáticas de cimentaciones por pilotes", del libro "Puentes. Apuntes para su diseño, cálculo y construcción" de Javier Manterola.



Modelo de cálculo del voladizo 1



Modelo de cálculo del voladizo 2

Para un terreno granular medianamente compacto con Nspt entre 10 y 30 seco o húmedo y teniendo en cuenta las características mecánicas del micropilote se obtiene una longitud elástica:

$$L_e = \sqrt[5]{\frac{E_p I_p}{n_h}} = \sqrt[5]{\frac{654{,}13}{500}} 1{,}055\ m$$

Teniendo en cuenta que los micropilotes estarán empotrados en cabeza se tienen las siguientes longitudes de empotramiento equivalentes a efectos de esfuerzos ($L_{M)}$ y a efectos de desplazamientos (L_D):

$$L_M = 2{,}0\ L_e = 2{,}11\ m$$

$$L_D = 2{,}5\ L_e = 2{,}64\ m$$

El desplazamiento máximo vendrá dado por:

$$y = \frac{H\ L_D^3}{12 E_p I_p}$$

El momento máximo en el micropilote vendrá dado por:

$$M_{max} = \frac{H L_M}{2} = 1{,}055\ H$$

Siendo H la carga horizontal que actúa en la cabeza del micropilote.

La matriz de rigidez **K** del micopilote es la siguiente:

$$\boldsymbol{P} = \boldsymbol{K}.\boldsymbol{d} \qquad \boldsymbol{P} = \begin{Bmatrix} F_1 \\ F_2 \\ F_3 \\ M_1 \\ M_2 \\ M_3 \end{Bmatrix} \qquad \boldsymbol{d} = \begin{Bmatrix} u_1 \\ u_2 \\ u_3 \\ \theta_1 \\ \theta_2 \\ \theta_3 \end{Bmatrix}$$

$$\boldsymbol{K} = \begin{Bmatrix} \frac{1{,}07 E_p I_{p2}}{L_2^3} & 0 & 0 & 0 & \frac{0{,}98 E_p I_{p2}}{L_2^2} & 0 \\ 0 & \frac{1{,}07 E_p I_{p1}}{L_1^3} & 0 & -\frac{0{,}98 E_p I_{p2}}{L_2^2} & 0 & 0 \\ 0 & 0 & \frac{E_p A_p}{L} & 0 & 0 & 0 \\ 0 & -\frac{0{,}98 E_p I_{p2}}{L_2^2} & 0 & \frac{1{,}48 E_p I_{p1}}{L_1} & 0 & 0 \\ \frac{0{,}98 E_p I_{p2}}{L_2^2} & 0 & 0 & 0 & \frac{1{,}48 E_p I_{p1}}{L_2} & 0 \\ 0 & 0 & 0 & 0 & 0 & \frac{G_p I_{p3}}{L} \end{Bmatrix}$$

Sustituyendo los valores correspondientes se obtiene la matriz de rigidez (unidades en KN y m):

$$\boldsymbol{K} = \begin{Bmatrix} 5847 & 0 & 0 & 0 & 5650 & 0 \\ 0 & 5847 & 0 & -5650 & 0 & 0 \\ 0 & 0 & 350000 & 0 & 0 & 0 \\ 0 & -5650 & 0 & 9002 & 0 & 0 \\ 5650 & 0 & 0 & 0 & 9002 & 0 \\ 0 & 0 & 0 & 0 & 0 & 852 \end{Bmatrix}$$

Introduciendo esta matriz de rigidez en los nudos donde llegan las cabezas de los micropilotes se modeliza su efecto en la estructura y se obtienen las cargas que actúan en cabeza de los mismos.

3. BASES DE CÁLCULO

3.1. NORMATIVAS EMPLEADAS

Las normativas empleadas para el diseño estructural de los voladizos son:

- "IAP-11, Instrucción sobre las acciones a considerar en el proyecto de puentes de carretera" Orden FOM/2842/2011, de 29 de septiembre.
- "NCSE-02. Norma de construcción sismorresistente: Parte general y edificación" aprobada por Real Decreto 997/2002, de 27 de Septiembre.
- "NCSP-07. Norma de construcción sismorresistente: puentes" aprobada por Real Decreto 637/2007 de 18 de Mayo
- "EHE-08, Instrucción de Hormigón estructural", aprobada por Real Decreto 1247/2008 de 18 de Julio.

Otras referencias:

- "Guía de Cimentaciones en obras de carretera" del Ministerio de Fomento, 2ª ed, 2004.
- "Guía para el proyecto y la ejecución de micropilotes en obras de carretera" del Ministerio de Fomento, 2005

3.2. AMBIENTE

El ambientes que se ha considerado, según la EHE-08 es el IIa.

3.3. MATERIALES

HORMIGÓN:

- En limpieza: HM-20
- En losas: HA-25/B/20/IIa
- Coeficiente de minoración resistencia hormigón: Combinación persistente o transitoria: 1,50
- Apertura de fisura característica máxima según Art. 5.1.1.2 de la EHE-08.
- En hormigón armado: 0,30 mm para la combinación cuasi-permanente.
- Recubrimiento a la barra exterior con vida útil de proyecto 100 años (según IAP-11):
- Losas: Hormigón in situ con fck<40 N/mm², el recubrimiento mínimo según artículo 37.2.4 de la EHE-08 es 30 mm para ambiente IIa, y el margen de recubrimiento es de 5 mm para construcción in situ con control intenso, por lo que el recubrimiento nominal r = 30 + 5 = 35 mm.
- Control del hormigón: Estadístico

ACERO:

- Acero armadura pasiva: B 500 S. Coeficiente de minoración de resistencia: 1,15
- Acero armadura tubular en micropilotes: S 460. Coeficiente de minoración de resistencia: 1,10
- Control del acero: Normal

3.4. NIVEL DE CONTROL DE LA EJECUCIÓN

Se ha considerado un nivel de control intenso.

3.5. COEFICIENTES PARCIALES PARA LAS ACCIONES

Los coeficientes parciales para las acciones según la IAP-11 para las comprobaciones resistentes son:

TABLA 6.2-b COEFICIENTES PARCIALES PARA LAS ACCIONES γ_F (PARA LAS COMPROBACIONES RESISTENTES)

ACCIÓN		EFECTO	
		FAVORABLE	DESFAVORABLE
Permanente de valor constante (G)	Peso propio	1,0	1,35
	Carga muerta	1,0	1,35
Permanente de valor no constante (G^*)	Pretensado P_1	1,0	1,0 / 1,2[1] / 1,3[2]
	Pretensado P_2	1,0	1,35
	Otras presolicitaciones	1,0	1,0
	Reológicas	1,0	1,35
	Empuje del terreno	1,0	1,5
	Asientos	0	1,2 / 1,35[3]
	Rozamiento de apoyos deslizantes	1,0	1,35
Variable (Q)	Sobrecarga de uso	0	1,35
	Sobrecarga de uso en terraplenes	0	1,5
	Acciones climáticas	0	1,5
	Empuje hidrostático	0	1,5
	Empuje hidrodinámico	0	1,5
	Sobrecargas de construcción	0	1,35

(1) El coeficiente $\gamma_{G^*} = 1,2$ será de aplicación al pretensado P_1 en el caso de verificaciones locales tales como la transmisión de la fuerza de pretensado al hormigón en zonas de anclajes, cuando se toma como valor de la acción el que corresponde a la carga máxima (tensión de rotura) del elemento a tesar.
(2) El coeficiente $\gamma_{G^*} = 1,3$ se aplicará al pretensado P_1 en casos de inestabilidad (pandeo) cuando ésta pueda ser inducida por el axil debido a un pretensado exterior.
(3) El coeficiente $\gamma_{G^*} = 1,35$ corresponde a una evaluación de los efectos de los asientos mediante un cálculo elasto-plástico, mientras que el valor $\gamma_{G^*} = 1,2$ corresponde a un cálculo elástico de esfuerzos.

Los coeficientes parciales para las acciones según la IAP-11 para la comprobación del estado límite último de equilibrio son:

TABLA 6.2-a **COEFICIENTES PARCIALES PARA LAS ACCIONES γ_F (PARA LA COMPROBACIÓN DEL ELU DE EQUILIBRIO)**

ACCIÓN		EFECTO	
		ESTABILIZADOR	DESESTABILIZADOR
Permanente (*G* y G*)	Peso propio	0,9(1)	1,1(1)
	Carga muerta	0,9(1)	1,1(1)
	Empuje del terreno	1,0	1,5
Variable (*Q*)	Sobrecarga de uso	0	1,35
	Sobrecarga de uso en terraplenes	0	1,5
	Acciones climáticas(2)	0	1,5
	Empuje hidrostático	0	1,5
	Empuje hidrodinámico	0	1,5
	Sobrecargas de construcción	0	1,35

(1) Los valores de 0,9 y 1,1 podrán sustituirse por 0,95 y 1,05 respectivamente, si se prevé la colocación de sistemas de control que permitan conocer, durante la ejecución de la obra, el valor de las fuerzas de desequilibrio y si se pueden adoptar las medidas correctoras necesarias para mantener este valor dentro de los límites que garanticen la seguridad de todos los elementos de la estructura afectados por esta acción. Los equipos y sistemas de control deberán ser definidos y valorados en los diferentes documentos del proyecto, de forma que sea preceptiva su instalación en la obra, incluyéndose una descripción detallada de las medidas correctoras que deberán adoptarse caso de ser necesarias.

(2) Por acciones climáticas se entiende la acción térmica, el viento y la nieve.

3.6. COMBINACIÓN DE ACCIONES

Las hipótesis de carga a considerar se formarán combinando los valores de cálculo de las acciones cuya actuación pueda ser simultánea, según los criterios generales que se indican a continuación.

Estados límite últimos

- Situaciones persistentes y transitorias

Las combinaciones de las distintas acciones consideradas en estas situaciones, se realizará de acuerdo con el siguiente criterio:

$$\sum_{j\geq 1}\gamma_{G,j}\,G_{k,j}+\sum_{i\geq 1}\gamma_{G^*,i}\,G^{*}_{k,i}+\gamma_{Q,1}\,Q_{k,1}+\sum_{i>1}\gamma_{Q,i}\,\Psi_{0,i}\,Q_{k,i}$$

donde:

Gk.j valor representativo de cada acción permanente

G*k,i valor representativo de cada acción permanente de valor no constante

Qk,1 valor representativo (valor característico) de la acción variable dominante

ψ0,i Qk,i valores representativos (valores de combinación) de las acciones variables concomitantes con la acción variable dominante.

-Situaciones accidentales

Las combinaciones de las distintas acciones consideradas en estas situaciones, se realizarán de acuerdo con el siguiente criterio:

$$\sum_{j\geq 1}G_{k,j}+\sum_{i\geq 1}G^{*}_{k,i}+\Psi_{1,1}\,Q_{k,1}+\sum_{i\geq 1}\Psi_{2,i}\,Q_{k,i}+A_k$$

donde:

Gk.j valor representativo de cada acción permanente

G*k,i valor representativo de cada acción permanente de valor no constante

ψ1,1 Qk,1 valor representativo (valor frecuente) de la acción variable dominante

$\psi_{2,1}$ $Q_{k,j}$ valores representativos (valores casi-permanentes) de las acciones variables concomitantes con la acción variable dominante y la acción accidental

A_k valor representativo (valor característico) de la acción accidental

Estados límite de servicio

Para estos estados se consideran únicamente las situaciones persistentes y transitorias, excluyéndose las accidentales.

Las combinaciones de las distintas acciones consideradas en estas situaciones, se realizará de acuerdo con los siguientes criterios:

- Combinación característica (poco probable o rara):

$$\sum_{j\geq 1}\gamma_{G,j}G_{k,j} + \sum_{i\geq 1}\gamma_{G,i}G^{*}_{k,i} + \gamma_{Q,1}Q_{k,1} + \sum_{i\geq 1}\gamma_{Q,i}\Psi_{0,i}Q_{k,i}$$

- Combinación frecuente:

$$\sum_{j\geq 1}\gamma_{G,j}G_{k,j} + \sum_{i\geq 1}\gamma_{G,i}G^{*}_{k,i} + \gamma_{Q,1}\Psi_{1,1}Q_{k,1} + \sum_{i\geq 1}\gamma_{Q,i}\Psi_{2,i}Q_{k,i}$$

- Combinación cuasi-permanente:

$$\sum_{j\geq 1}\gamma_{G,j}G_{k,j} + \sum_{i\geq 1}\gamma_{G,i}G^{*}_{k,i} + \sum_{i\geq 1}\gamma_{Q,i}\Psi_{2,i}Q_{k,i}$$

Valores de los coeficientes ψ

Los coeficientes de simultaneidad a aplicar según la IAP-11 son los siguientes:

TABLA 6.1-a **FACTORES DE SIMULTANEIDAD ψ**

ACCIÓN			ψ_0	ψ_1	ψ_2
Sobrecarga de uso	gr 1, Cargas verticales	Vehículos pesados	0,75	0,75	0
		Sobrecarga uniforme	0,4	0,4	0 / 0,2(1)
		Carga en aceras	0,4	0,4	0
	gr 2, Fuerzas horizontales		0	0	0
	gr 3, Peatones		0	0	0
	gr 4, Aglomeraciones		0	0	0
	Sobrecarga de uso en pasarelas		0,4	0,4	0
Viento	F_{wk}	En situación persistente	0,6	0,2	0
		En construcción	0,8	0	0
		En pasarelas	0,3	0,2	0
Acción térmica	T_k		0,6	0,6	0,5
Nieve	$Q_{Sn,k}$	En construcción	0,8	0	0
Acción del agua	W_k	Empuje hidrostático	1,0	1,0	1,0
		Empuje hidrodinámico	1,0	1,0	1,0
Sobrecargas de construcción	Q_c		1,0	0	1,0

(1) El factor de simultaneidad ψ_2 correspondiente a la sobrecarga uniforme se tomará igual a 0, salvo en el caso de la combinación de acciones en situación sísmica (*apartado 6.3.1.3*), para la cual se tomará igual a 0,2.

3.7. ACCIONES CONSIDERADAS

3.7.1. ACCIONES PERMANENTES DE VALOR CONSTANTE (G)

Se consideran:

- Peso propio de la estructura con una densidad de 25 KN/m3 para el hormigón.
- Peso de pavimentos, 24 KN/m^3 para el firme. Se consideran tanto 11 como 16,5 cm de espesor de firme.
- Peso de pretiles: 4,91 KN/m lineal. Donde 3,41 KN/ml corresponden a la base de hormigón y 1,5 KN/ml a la parte metálica.

3.7.2. ACCIONES PERMANENTES DE VALOR NO CONSTANTE (G*)

Se considera el efecto de la retracción. Según los datos de la Agencia Estatal de Meteorología la humedad media en la oscila entre el 68 y 73%, por lo que se toma el 70%

Valores climatológicos normales. Bilbao Aeropuerto

Periodo: 1981-2010 - **Altitud (m):** 42
Latitud: 43º 17' 53'' N - **Longitud:** 2º 54' 21'' O - **Posición:** Ver localización

Mes	T	TM	Tm	R	H	DR	DN	DT	DF	DH	DD	I
Enero	9.3	13.4	5.1	120	72	12.6	0.7	1.3	1.2	3.2	2.6	85
Febrero	9.7	14.3	5.1	86	69	10.6	0.7	1.2	1.9	2.1	2.7	97
Marzo	11.5	16.5	6.4	90	68	10.5	0.3	1.0	1.6	1.0	2.6	132
Abril	12.6	17.6	7.6	107	69	12.5	0.0	2.5	2.0	0.1	1.8	138
Mayo	15.7	20.8	10.6	78	69	10.5	0.0	3.1	1.6	0.0	2.1	169
Junio	18.4	23.4	13.4	60	70	7.2	0.0	2.6	1.2	0.0	3.0	180
Julio	20.4	25.4	15.4	50	71	7.0	0.0	2.8	1.1	0.0	3.9	186
Agosto	20.9	26.0	15.7	76	72	7.9	0.0	3.1	1.8	0.0	3.4	179
Septiembre	19.2	24.6	13.8	73	71	8.3	0.0	2.1	3.0	0.0	3.8	160
Octubre	16.4	21.4	11.4	111	71	10.8	0.0	1.4	2.5	0.0	2.7	126
Noviembre	12.4	16.6	8.1	147	73	12.7	0.1	1.6	1.8	0.8	2.6	88
Diciembre	9.9	13.9	5.9	122	72	12.3	0.3	0.9	1.7	2.9	2.8	78
Año	14.7	19.5	9.9	1134	70	124.0	2.2	23.7	21.5	9.6	33.6	1610

Leyenda
T Temperatura media mensual/anual (°C)
TM Media mensual/anual de las temperaturas máximas diarias (°C)
Tm Media mensual/anual de las temperaturas mínimas diarias (°C)
R Precipitación mensual/anual media (mm)
H Humedad relativa media (%)
DR Número medio mensual/anual de días de precipitación superior o igual a 1 mm
DN Número medio mensual/anual de días de nieve
DT Número medio mensual/anual de días de tormenta
DF Número medio mensual/anual de días de niebla
DH Número medio mensual/anual de días de helada
DD Número medio mensual/anual de días despejados
I Número medio mensual/anual de horas de sol

En aplicación del artículo 39.7 de la EHE08 se obtiene una retracción de 0,300 mm/m.

3.7.3. ACCIONES VARIABLES

3.7.3.1. Sobrecarga de uso

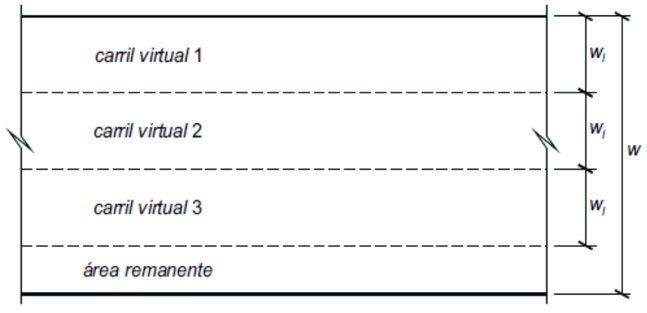
3.7.3.1.1. Cargas verticales

La determinación de las sobrecargas se inicia con la división de la plataforma en carriles virtuales.

Se define la plataforma como el espacio entre bordillos cuando estos tengan más de 15 cm de altura o entre caras interiores de pretiles en caso contrario. Esta plataforma se divide en carriles virtuales según los siguientes criterios:

Tabla 4.1-a Definición de los carriles virtuales

Anchura de la plataforma (w)	Número de carriles virtuales (n_l)	Anchura del carril virtual (w_l)	Anchura del área remanente
$w < 5{,}4$ m	$n_l = 1$	3 m	$w - 3$ m
$5{,}4\ \text{m} \le w < 6$ m	$n_l = 2$	$\frac{w}{2}$	0
$w \ge 6$ m	$n_l = ent\left(\frac{w}{3}\right)$	3 m	$w - 3n_l$



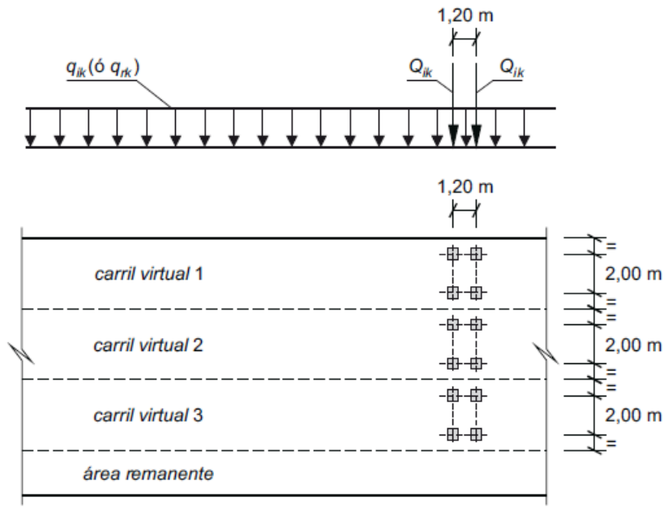
Si existe mediana materializada por una mediana fija e infranqueable se considerará cada lado de la mediana una plataforma distinta, en caso contrario se considerará una única plataforma que incluirá la mediana.

En cada carril virtual se colocarán las siguientes cargas:

Carro de 1,2 (largo) x2 (ancho) con dos ejes (4 ruedas) e igual carga por rueda. La carga de cada carro es 2Qi. Este carro irá centrado en el carril.

Sobrecarga uniforme repartida que puede actuar en todo o parte del carril, incluyendo bajo el carro.

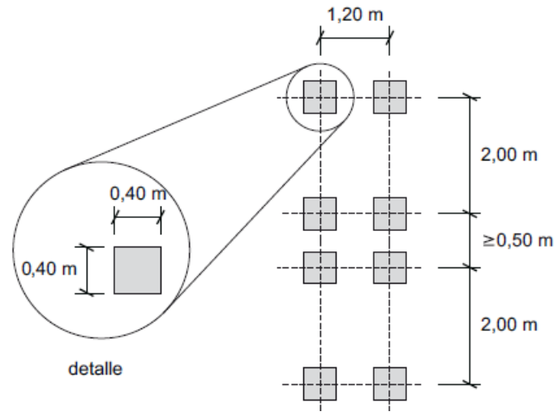
Situación	Vehículo pesado $2Q_{ik}$ [kN]	Sobrecarga uniforme q_{ik} (ó q_{rk}) [kN/m^2]
Carril virtual 1	2 · 300	9,0
Carril virtual 2	2 · 200	2,5
Carril virtual 3	2 · 100	2,5
Otros carriles virtuales	0	2,5
Área remanente (q_{rk})	0	2,5



Para comprobación de efectos locales se tendrá en cuenta que:

Transversalmente habrá al menos 0.5 m entre dos carros adyacentes.

Cada una de las ruedas tiene un área de contacto de 40x40 cm que puede considerarse que se abre dentro de la losa con talud 1/1.



En este caso y debido a la estreches de cada uno de las estructuras solamente se ha considerado un único carril virtual. No obstante se han definido tres trayectorias diferentes para el vehículo pesado para obtener los esfuerzos pésimos para los diferentes elementos en estudio. Además se ha considerado la sobrecarga concomitante de 9 KN/m^2 extendida transversal y longitudinalmente a todas las zonas donde su efecto resulte más desfavorable.

3.7.3.1.2. Fuerzas horizontales

Teniendo en cuenda la longitud de las estructuras y el radio en planta del trazado se consideran las siguientes cargas para cada voladizo:

- Voladizo 1:
  - Fuerza longitudinal (arranque o frenado): 424,8 KN
  - Fuerza transversal(centrifuga y derrape): 226,2 KN

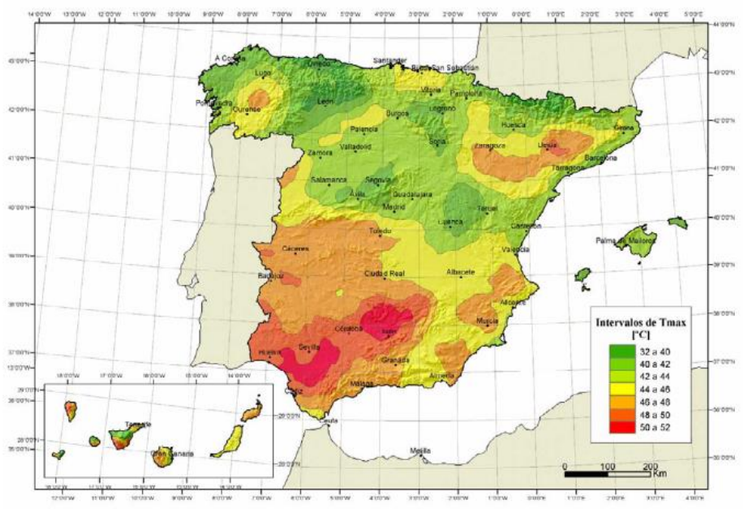
- Voladizo 2:

  - Fuerza longitudinal (arranque o frenado): 410,5 KN

  - Fuerza transversal(centrifuga y derrape): 222,7 KN

3.7.3.2. Acción térmica

La temperatura máxima del aire vendrá dada por la figura para el periodo de retorno de 50 años:



La temperatura de 50 años son 46ºC.

La temperatura mínima del aire viene dada por la zona y la altitud:



Figura 4.3-b Zonas climáticas de invierno

(Coincide con el mapa correspondiente del Código Técnico de la Edificación)

En este caso se corresponde con la zona 1.

Tabla 4.3-a Temperatura mínima anual del aire, T_{min} [ºC]

(Coincide con la tabla correspondiente del Código Técnico de la Edificación)

Altitud [m]	**Zona de clima invernal** (según *figura 4.3-b*)						
	1	**2**	**3**	**4**	**5**	**6**	**7**
0	-7	-11	-11	-6	-5	-6	6
200	-10	-13	-12	-8	-8	-8	5
400	-12	-15	-14	-10	-11	-9	3
600	-15	-16	-15	-12	-14	-11	2
800	-18	-18	-17	-14	-17	-13	0
1000	-20	-20	-19	-16	-20	-14	-2
1200	-23	-21	-20	-18	-23	-16	-3
1400	-26	-23	-22	-20	-26	-17	-5
1600	-28	-25	-23	-22	-29	-19	-7
1800	-31	-26	-25	-24	-32	-21	-8
2000	-33	-28	-27	-26	-35	-22	-10

A 38 m de altitud le corresponden -7,6ºC de temperatura mínima con periodo de retorno 50 años.

A partir de los valores anteriores se obtienen una temperatura máxima de 47,8ºC y una temperatura mínima de -8,5ºC para un periodo de retorno de 100 años.

Estos valores de temperatura del aire se modifican en la estructura por su tipología (losa armada) que supone un incremento de temperatura máxima en 2º y de la mínima en 8º, quedando:

$T_{e,min}$= -0,5ºC

$T_{e,max}$= -49,8ºC

Al no conocer la temperatura de colocación se toma un valor de 15ºC. De forma que se obtienen los siguientes valores característicos para la variación de la componente uniforme de temperatura:

$\Delta T_{N,con}$= 15,5ºC

$\Delta T_{N,exp}$= 34,8ºC

El gradiente térmico se determina según la siguiente tabla:

Tabla 4.3-d Componente lineal de la diferencia vertical de temperatura para tableros Tipo 1 y Tipo 3

Tipo de tablero	Fibra superior más caliente	Fibra superior más fría
	$\Delta T_{M,heat}$ [ºC]	$\Delta T_{M,cool}$ [ºC]
Tipo 1: Tablero de acero	18	13
Tipo 3: Tablero de hormigón		
- Sección cajón	10	5
- Sección de vigas	15	8
- Sección losa	15	8

Al tratarse de una sección losa se toma 15ºC de gradiente para la situación con la fibra superior más caliente y 8ºC para la situación con la fibra superior más fría. Este gradiente se corrige por el tipo y espesor de pavimento:

Tabla 4.3-e Coeficiente k_{sur} de influencia del tipo y espesor de pavimento

Espesor del pavimento	Tablero Tipo 1		Tablero Tipo 3	
	Fibra superior más caliente	Fibra superior más fría	Fibra superior más caliente	Fibra superior más fría
	k_{sur}	k_{sur}	k_{sur}	k_{sur}
Sin impermeabilización ni pavimento	0,7	0,9	0,8	1,1
Con impermeabilización y sin pavimento(1)	1,6	0,6	1,5	1,0
50 mm	1,0	1,0	1,0	1,0
100 mm	0,7	1,2	0,7	1,0
150 mm	0,7	1,2	0,5	1,0

(1) Estos valores representan valores límite superiores para superficies de color oscuro

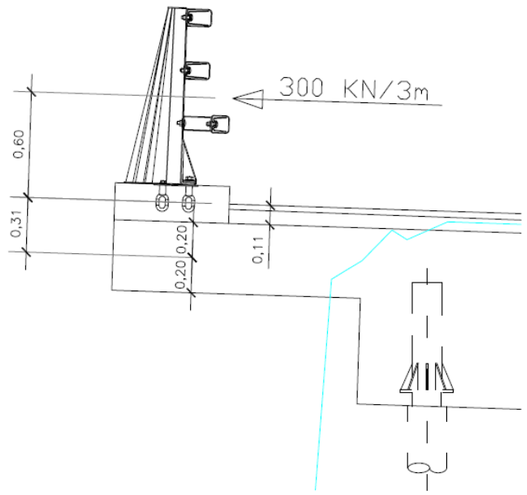
Al tener un pavimento de 11 cm el coeficiente corrector es 0,7 para la situación de fibra superior más caliente y de 1,0 para la situación de fibra superior más fría. De forma que y el valor final del gradiente es de 10,5ºC para la situación de fibra superior más caliente y de 8ºC para la situación de fibra superior más fría.

En el "Anexo 1: Datos de entrada de los modelos de cálculo" se recogen capturas gráficas de muchas de las cargas introducidas a los modelos.

3.7.4. ACCIONES ACCIDENTALES

3.7.4.1. Impacto contra sistemas de contención de vehículos

Siguiendo los criterios expuestos en la anterior versión de la norma IAP se considera una fuerza de 300 KN actuando perpendicularmente al sistema de contención a una altura de 0,60 m sobre el pavimento. Esta carga se reparte uniformemente en la base del pretil en un ancho de 3 metros. Conforme al apartado 5.1." de la IAP11 se considera concomitante con esta carga una carga vertical de 0.75 Q1k (75% del vehículo pesado del primer carril virtual).



La carga se ha introducido al modelo de cálculo en diferentes posiciones aplicándola dividida en tres nudos separados algo menos de un metro. Para ello la carga se ha dividido por tres y se ha descompuesto en una carga horizontal y un momento aplicado en el centro de la losa en voladizo:

$$H = \frac{300\ KN}{3} = 100\ KN$$

$$M = \left(\frac{300\ KN}{3}\right).\ (0{,}60\ m + 0{,}31\ m) = 91\ KN.m$$

3.7.4.2. Acción sísmica

Por tratarse de un emplazamiento con una aceleración sísmica de cálculo inferior a 0.04g, no se ha considerado su efecto, de acuerdo con lo establecido al respecto en la Norma de Construcción Sismorresistente NCSE-02.

4. COMPROBACIONES REALIZADAS

En el “Anexo 2: Resultados obtenidos de los modelos de cálculo” se adjuntan los resultados obtenidos de los cálculos.

4.1. ARMADURAS DE LOSAS

Para la obtención de los esfuerzos de dimensionamiento de la armadura de flexión se ha aplicado el método de Wood y Armer, obteniendo los esfuerzos de flexión equivalentes que tienen en cuenta el efecto producido por los momentos flectores y los momentos torsores existentes en cada punto de la losa.

4.1.1. LOSA DE 1,00 M DE CANTO

La cuantía geométrica mínima a disponer por cara y dirección según la EHE es de 0,9 ‰: 9 cm^2/m.

La cuantía mínima mecánica a disponer según la EHE es de: 12,29 cm^2/m

Teniendo en cuenta lo anterior y para cubrir también los esfuerzos que se dan en la mayor parte de la losa se disponen las siguientes armaduras:

- Armadura longitudinal inferior: Φ 16 a 10 (20,10 cm^2/m)
- Armadura longitudinal superior: Φ 16 a 15 (13,41 cm^2/m)
- Armadura transversal inferior: Φ 16 a 15 (13,41 cm^2/m)
- Armadura transversal superior: Φ 16 a 15 (13,41 cm^2/m)

Con estas armaduras se cubren los siguientes esfuerzos, cuya comprobación se adjunta en el “Anexo 3: Comprobación de secciones de hormigón”:

- Momentos longitudinales positivos (Φ 16 a 10):
    - Momento último: 798 KN.m
    - Momento de fisuración: 454 KN.m
- Momentos longitudinales negativos (Φ 16 a 15):
    - Momento último: 536 KN.m
    - Momento de fisuración: 450 KN.m
- Momentos transversales positivos y negativos (Φ 16 a 15):
    - Momento último: 536 KN.m
    - Momento de fisuración: 447 KN.m
- Esfuerzo cortante último sin armadura de cortante: 418 KN

A excepción de las zonas que es necesario reforzar y cuya comprobación se realizará después los esfuerzos de dimensionamiento para ambos voladizos en las zonas en las que el armado se corresponde con el descrito anteriormente son:

- Momentos longitudinales positivos:
    - ELU: 685 KN.m
    - ELS Combinación cuasipermanente: 230 KN.m
- Momentos longitudinales negativos:
    - ELU: 510 KN.m
    - ELS Combinación cuasipermanente: 210 KN.m
- Momentos transversales positivos:
    - ELU: 385 KN.m
    - ELS Combinación cuasipermanente: 155 KN.m
- Momentos transversales negativos:
    - ELU: 385 KN.m
    - ELS Combinación cuasipermanente: 155 KN.m
- ELU Esfuerzo cortante: 370 KN

De forma que en las zonas analizadas se cumple que los esfuerzos de dimensionamiento para estado límite último son menores que las resistencias a rotura. Al mismo tiempo también se cumple el estado límite de fisuración, ya que no se alcanza el momento de fisuración.

Como ya se ha dicho anteriormente es necesario reforzar el armado en algunas zonas. Concretamente se ha reforzado en las zonas siguientes:

- Armadura longitudinal inferior en los vanos de mayor longitud, al pasar sobre la galería del canal de la central hidroeléctrica. Para el estado límite último obtiene un esfuerzo flector de dimensionamiento de 890 KN.m, mientras que para el de fisuración se obtiene un flector de 265 KN.m. De forma que solo es necesario reforzar la armadura para el cumplimiento del estado límite último. Se ha dispuesto armadura Φ 20 a 20 (15,71 cm^2/m) con armadura intercalada de Φ 16 a 20 (5,65 cm^2/m). Se obtiene un total de 25,75 cm^2/m. Con este armado se cubre el siguiente esfuerzo:
    - Momento último: 1017 KN.m
- Armadura longitudinal superior en los apoyos interiores de los vanos de mayor longitud, al pasar sobre la galería del canal de la central hidroeléctrica. Para el estado límite último obtiene un esfuerzo flector de dimensionamiento de 680 KN.m, mientras que para el de fisuración se obtiene un flector de 260 KN.m. De forma que solo es

necesario reforzar la armadura para el cumplimiento del estado límite último. Se ha sustituido la armadura Φ 16 a 15 (13,41 cm^2/m) por Φ 20 a 15 (20,94 cm^2/m). Con este armado se cubre el siguiente esfuerzo:

  - Momento último: 831 KN.m

- Armadura de cortante junto a los apoyos en el interior del citado vano. Para el estado límite último obtiene un esfuerzo cortante de dimensionamiento de 650 KN. Para soportar dicho esfuerzo es necesario disponer de armadura de cortante. Se han dispuesto armadura de cortante de Φ 10 cada 22,5 x 25 cm (13,95 cm^2/m).

Las comprobaciones relativas a todas las armaduras citadas se adjuntan en "Anexo 3: Comprobación de secciones de hormigón".

4.1.2. LOSA DE 0,40 M DE CANTO

La cuantía geométrica mínima a disponer por cara y dirección según la EHE es de 0,9 ‰: 3,6 cm^2/m

La cuantía mínima mecánica a disponer según la EHE es de: 5,90 cm^2/m

Teniendo en cuenta lo anterior y para cubrir también los esfuerzos que se dan en la mayor parte de la losa se disponen las siguientes armaduras:

- Armadura longitudinal inferior: Φ 16 a 20 (10,05 cm^2/m)
- Armadura longitudinal superior: Φ 16 a 15 (13,41 cm^2/m)
- Armadura transversal inferior: Φ 12 a 15 (7,54 cm^2/m)
- Armadura transversal superior: Φ 16 a 15 (13,41 cm^2/m)

Con estas armaduras se cubren los siguientes esfuerzos, cuya comprobación se adjunta en el "Anexo 3: Comprobación de secciones de hormigón":

- Momentos longitudinales positivos (Φ 16 a 20):
  - Momento último: 146 KN.m
  - Momento de fisuración: 72 KN.m
- Momentos transversales positivos (Φ 12 a 15):
  - Momento último: 111 KN.m
  - Momento de fisuración: 71 KN.m
- Momentos longitudinales negativos (Φ 16 a 15):
  - Momento último: 191 KN.m
  - Momento de fisuración: 73 KN.m
- Momentos transversales negativos (Φ 16 a 15):
  - Momento último: 191 KN.m
  - Momento de fisuración: 72 KN.m
- Esfuerzo cortante último sin armadura de cortante: 203 KN

A excepción de las zonas que es necesario reforzar y cuya comprobación se realizará después los esfuerzos de dimensionamiento para ambos voladizos en las zonas en las que el armado se corresponde con el descrito anteriormente son:

- Momentos longitudinales positivos:
  - ELU: 135 KN.m
  - ELS Combinación cuasipermanente: 30 KN.m

- Momentos longitudinales negativos:
    - ELU: 85 KN.m
    - ELS Combinación cuasipermanente: 20 KN.m
- Momentos transversales positivos:
    - ELU: 85 KN.m
    - ELS Combinación cuasipermanente: 20 KN.m
- Momentos transversales negativos:
    - ELU: 160 KN.m
    - ELS Combinación cuasipermanente: 35 KN.m
- ELU Esfuerzo cortante: 180 KN

De forma que en las zonas analizadas se cumple que los esfuerzos de dimensionamiento para estado límite último son menores que las resistencias a rotura. Al mismo tiempo también se cumple el estado límite de fisuración, ya que no se alcanza el momento de fisuración.

Como ya se ha dicho anteriormente es necesario reforzar el armado en algunas zonas. Concretamente se ha reforzado la armadura disponiendo de armadura de cortante en los 0,6 m de arranque del voladizo de 0,40 m de canto. Para el estado límite último obtiene un esfuerzo cortante de dimensionamiento de 320 KN. Se han dispuesto armadura de cortante de Φ 10 cada 30 x 15 cm (17,44 cm2/m).

Las comprobaciones relativas a todas las armaduras citadas se adjuntan en “Anexo 3: Comprobación de secciones de hormigón”.

4.2. ARMADURAS DE ENCEPADOS

A parte de las armaduras calculadas en el apartado anterior se disponen armaduras adicionales para resistir los esfuerzos que se originan en la transmisión de las cargas a los micropilotes. Estas armaduras se calculan como para encepados de dos pilotes al ser las cargas mayores las originadas por cargas móviles.

A partir de los resultados del cálculo se han obtenido las siguientes cargas de diseño:

- Micropilotes 1, 16, 35 y 48: 712 KN
- Micropilotes 27 y 28: 550 KN
- Resto de micropilotes: 455 KN

Se han calculado las armaduras principales necesaria para los tres casos.

Armadura principal encepados que incluyen a los micropilotes 1, 16, 35 y 45:

$$T_d = \frac{N_d}{0{,}85 \cdot d} \cdot (v + 0{,}25 \cdot a) = A_s \cdot f_{yd}$$

Introduciendo los siguientes valores:

N_d = 712 KN

d = 0,80 m

v_{Trans} = 0,725 m

v_{Long} = 0,930 m

a = 0,4 m

f_{yd} = 400 MPa

Se obtiene:

A_{sTrans} = 21,60 cm^2

A_{sLong} = 26,96 cm^2

Se disponen 2x5 barras Φ 20 mm (31,41 cm^2) en el sentido longitudinal y 2x4 barras Φ 20 mm (25,13 cm^2) en el sentido transversal.

Armadura principal encepados que incluyen a los micropilotes 27 y 28:

$$T_d = \frac{N_d}{0{,}85 \cdot d} \cdot (v + 0{,}25 \cdot a) = A_s \cdot f_{yd}$$

Introduciendo los siguientes valores:

N_d = 550 KN

d = 0,85 m

v_{Trans} = 0,725 m

v_{Long} = 0,30 m

a = 0,4 m

f_{yd} = 400 MPa

Se obtiene:

A_{sTrans} = 15,70 cm^2

A_{sLong} = 5,71 cm^2

Se disponen 2x3 barras Φ 20 mm (18,85 cm^2) en ambos sentidos.

Armadura principal en el resto de encepados:

$$T_d = \frac{N_d}{0{,}85 \cdot d} \cdot (v + 0{,}25 \cdot a) = A_s \cdot f_{yd}$$

Introduciendo los siguientes valores:

N_d = 455 KN

d = 0,85 m

v_{Trans} = 0,725 m

v_{Long} = 0,930 m

a = 0,4 m

f_{yd} = 400 MPa

Se obtiene:

A_{sTrans} = 12,99 cm^2

A_{sLong} = 16,22 cm^2

Se disponen 2x3 barras Φ 20 mm (18,85 cm^2) en ambos sentidos.

Armadura secundaria horizontal:

Se colocará en una franja de 0,60 m de ancho centrada en las líneas rectas que unen los ejes de los micropilotes una cuantía superior al 4 por mil de la sección de referencia de hormigón perpendicular a su dirección. En este caso al ser la anchura mayor que la mitad del canto para la sección de referencia se considera una anchura igual a la mitad del canto. Por lo tanto la sección de referencia es de 50 cm x 100 cm , por lo que se obtiene un total de 20 cm^2 a disponer. Se colocarán 2x4 barras Φ 20 mm, es decir 25,13 cm^2.

Armadura secundaria vertical:

Se colocará en una franja de 0,60 m centrada en las líneas rectas que unen los ejes de los micropilotes una cuantía superior al 4 por mil de la sección de hormigón perpendicular a su dirección. En este caso al ser la anchura mayor que la mitad del canto para la sección de referencia se considera una anchura igual a la mitad del canto. Por lo tanto la sección de referencia es de 50 cm x 100 cm, por lo que se obtiene un total de 20 cm^2 a disponer. Se colocarán cercos Φ 16 mm cada 0,20 m, es decir 20,10 cm^2.

4.3. MICROPILOTES

4.3.1. COMPROBACIÓN FRENTE AL HUNDIMIENTO

A partir de los resultados del cálculo se han obtenido las siguientes cargas de diseño:

- Micropilotes 1, 16, 35 y 48: 712 KN. Se empotran en roca 5,50 m. A continuación se adjunta la comprobación realizada.

CÁLCULO DE LA CARGA DE HUNDIMIENTO Y DE ARRANQUE DE UN MICROPILOTE EMPOTRADO EN ROCA

(Según la guía para el proyecto y ejecución de micropilotes en obras de carretera)

DATOS A INTRODUCIR

Diámetro nominal del micropilote	D=	219.10 mm
Longitud de empotramiento en roca	Lemp=	5.50 m
Resistencia unitaria por fuste en roca	fe,d=	0.20 Mpa
Resistencia unitaria por punta en roca	qpe,d=	0.00 Mpa

RESULTADOS

Área lateral del micropilote en el emp.	Ale=	3785773.03 mm^2
Área de la punta del micropilote	Ape=	37702.86 mm^2
Resistencia por fuste	Rfc,d=	77.18 ton
Resistencia por punta	Rpc,d=	0.00 ton
RESISTENCIA AL HUNDIMIENTO	**Rh,d=**	**77.18 ton**
RESISTENCIA AL ARRANQUE	**Rt,d=**	**46.31 ton**

- Resto de micropilotes: 550 KN. Se empotran en roca 4,00 m. A continuación se adjunta la comprobación realizada.

CÁLCULO DE LA CARGA DE HUNDIMIENTO Y DE ARRANQUE DE UN MICROPILOTE EMPOTRADO EN ROCA

(Según la guía para el proyecto y ejecución de micropilotes en obras de carretera)

DATOS A INTRODUCIR

Diámetro nominal del micropilote	D=	219.10 mm
Longitud de empotramiento en roca	Lemp=	4.00 m
Resistencia unitaria por fuste en roca	fe,d=	0.20 Mpa
Resistencia unitaria por punta en roca	qpe,d=	0.00 Mpa

RESULTADOS

Área lateral del micropilote en el emp.	Ale=	2753289.48 mm^2
Área de la punta del micropilote	Ape=	37702.86 mm^2
Resistencia por fuste	Rfc,d=	56.13 ton
Resistencia por punta	Rpc,d=	0.00 ton
RESISTENCIA AL HUNDIMIENTO	**Rh,d=**	**56.13 ton**
RESISTENCIA AL ARRANQUE	**Rt,d=**	**33.68 ton**

La resistencia por fuste adoptada es la recomendada en el anejo geotécnico del presente proyecto. La resistencia por punta ha sido despreciada.

4.3.2. COMPROBACIÓN DE LA RESISTENCIA A COMPRESIÓN DEL MICROPILOTE

Se ha comprobado que la resistencia a compresión del micropilotes es mayor que la carga de diseño:

CÁLCULO DE LA RESISTENCIA A COMPRESIÓN Y A TRACCIÓN DE UN MICROPILOTE

(Según la guía para el proyecto y ejecución de micropilotes en obras de carretera)

DATOS A INTRODUCIR

Resistencia caracteristica del mortero o lechada	fck=	25 Mpa
Limite elastico del acero de barras corrugadas	fsk=	500 Mpa
Limite elastico del acero de la armadura tubular	fy=	460 Mpa
Reduccion del espesor de la armadura por corrosion	re=	1.2 mm
Coeficiente de reduccion por pandeo	R=	0.85
Coeficiente funcion del tipo de union compresion	Fu,c=	1
Coeficiente funcion del tipo de union traccion	Fu,t=	1
Coeficiente de influencia del tipo de ejecucion	Fe=	1.5
Diametro nominal del micropilote	D=	219.1 mm
Espesor de la armadura tubular	e=	12 mm
Seccion total de barras corrugadas de acero	As=	0 mm^2

RESULTADOS

de mm	di mm	Aac mm^2	Aat mm^2	Ac mm^2	Nc,Rd Ton	Nt,Rd Ton
60.3	36.3	1598.06	1598.06	36104.79	55.39	61.93
73	49	2028.96	2028.96	35673.89	63.39	78.63
88.9	64.9	2568.44	2568.44	35134.42	73.41	99.53
101.6	77.6	2999.34	2999.34	34703.52	81.42	116.23
114.3	90.3	3430.24	3430.24	34272.62	89.42	132.93
127	103	3861.14	3861.14	33841.72	97.42	149.63
139.7	115.7	4292.04	4292.04	33410.82	105.43	166.33
168.3	**144.3**	**5262.41**	**5262.41**	**32440.44**	**123.45**	**203.93**

de = Diametro exterior de la armadura tubular
di = Diametro interior de la armadura tubular
Aac = Sección de cálculo de la armadura tubular de acero a compresión
Aat = Sección de cálculo de la armadura tubular de acero a tracción
Ac = Sección neta de la lechada de mortero
Nc,Rd = Resistencia estructural del micropilote a compresión
Nt,Rd = Resistencia estructural del micropilote a tracción

Para la adopción de la reducción del espesor de la armadura por corrosión se ha aplicado la “Guía para el proyecto y la ejecución de micropilotes en obras de carretera”. Los micropilotes se situarán en suelos naturales sin alterar y en rellenos no agresivos compactados. Para una vida útil requerida de 100 años se obtienen los siguientes valores en función del tipo de terreno:

- Suelos naturales sin alterar: 1,20 mm
- Rellenos no agresivos compactados. 1,10 mm

Se ha adoptado el valor más desfavorable. Es decir 1,20 mm.

4.3.3. COMPROBACIÓN DE LA RESISTENCIA ESTRUCTURAL DEL MICROPILOTE FRENTE A ESFUERZOS DE AXIL, CORTANTE, TORSOR Y FLEXIÓN

Los esfuerzos máximos de diseño obtenidos del cálculo son:

- Axil: 712 KN
- Cortante: 85 KN
- Torsor: 0,72 KN.m
- Flector: 90 KN.m

A continuación se muestran las comprobaciones correspondientes.

RESISTENCIA DE SECCIONES TUBULARES: CLASES 1 Y 2

PROYECTO: Mejora de la carretera BI-633 del P.K. 52+200 al P.K.54+000, en Urberuaga - Markina.
ESTRUCTURA: Voladizos
ELEMENTO: MICROPILOTE 168.3 e=12mm ACERO S-460

ACERO:	fy =	460	Mpa	ym =	1.1
SECCION:	DIAMETRO EXTERIOR:	D =	168.3	mm	
	ESPESOR DE LA PARED:	t =	12	mm	
	REDUCCION DE ESPESOR POR CORROSION:		1.2	mm	
	ESPESOR DE CALCULO:	td =	10.8	mm	
	DIAMETRO EXTERIOR DE CALCULO:	Dd =	165.9	mm	
	DIAMETRO INTERIOR:	d =	144.3	mm	
		ε =	0.715		

CARAC. MECANICAS:

A =	52.62 cm2	Am =	188.94 cm2
Av =	33.50 cm2	It =	3180.17 cm4
I =	1590.1 cm4	Wt =	408.10 cm3
Wel =	191.7 cm3		
Wpl =	260.2 cm3		

RESISTENCIA DE LA SECCION:

Npl,rd =	2200.65 KN	T,rd =	98.53 m*KN
Vrd =	808.85 KN	Mrd =	108.82 m*KN
ρ =	0.624	Vt,rd =	802.94 KN
		Mv,rd =	108.82 m*KN

ESFUERZOS EN LA SECCION :

N,sd =	712 KN	T,sd =	0.72 m*KN
Vy,sd =	0 KN	My,sd =	0 m*KN
Vz,sd =	85 KN	Mz,sd =	90 m*KN
Vsd =	85.00 KN	Msd =	90.00 m*KN

CORTANTE	Vsd / Vrd =	**0.105**	**< 1**
TORSION	Tsd / Trd =	**0.007**	**< 1**
AXIL	Ns,d /Npl,rd =	**0.324**	**< 1**
FLEXION	Msd / Mrd =	**0.827**	**< 1**
AXIL Y FLEXION EUROCODIGO	(Ns,d /Npl,rd)^2 + Msd / Mrd =	**0.932**	**< 1**
CORTANTE Y FLEXION	Msd / Mv,rd =	**0.827**	**< 1**
CORTANTE Y TORSION	Vsd / Vt,rd =	**0.106**	**< 1**
FLEXION, AXIL, CORT Y TORS EUROCODIGO	(Ns,d /Npl,rd)^2 + Msd / Mvrd =	**0.932**	**< 1**

4.3.4. COMPROBACIÓN DE LA UNIÓN MICROPILOTE-ENCEPADO

La chapa de reparto debe ser tal que transmita al hormigón una tensión menor que $f_{2cd}= 0,7f_{cd}$ (según el artículo 40.4.3 de la EHE-08):

f_{cd} = 25/1,5=16,67 N/mm^2

f_{2cd}= 11,67 N/mm^2

La carga máxima de cálculo mayorada es de 712 KN

El área de reparto de la unión dispuesta en el presente proyecto es de = 65000 mm^2

Resultando una tensión = 10,95 N/mm^2 < f2cd

De forma que con la chapa dispuesta en la unión entre micropilote y encepado se cumple la condición exigida.

4.4. CONTRAPESOS

Tal y como se ha explicado anteriormente el diseño de la estructura se ha realizado de forma que no es necesario que los micropilotes entren en tracción para asegurar la estabilidad de la estructura. Para cumplir dicha condición ha sido necesario lastrar la estructura con un contrapeso centrado en un micropilote en cada uno de los voladizos. Se trata de los micropilotes situados en los extremos de los vanos de menor luz longitudinal y en el lado opuesto a la zona en voladizo. El resto de los micropilotes no necesitan medidas adicionales ya que el peso propio de la estructura y las cargas permanentes aseguran que permanezcan comprimidos en todos los casos de carga.

Mediante el modelo de cálculo de la estructura se ha tanteado el peso que deben tener los contrapesos para que dichos micropilotes no entren en tracción. Se ha obtenido que deben pesar 200 KN. Para obtener este peso se ha diseñado un contrapeso de 2,00 m x 2,00 m x 2,25 m. Teniendo en cuenta una densidad del hormigón ciclópeo de 23 KN/m^3 se obtiene un peso de 207 KN.

Los contrapesos se anclarán a la estructura mediante barras corrugadas de acero B-500-S. Se han dispuesto 4 barras Φ 20 mm. Para una tensión de trabajo de 400 N/mm^2 se obtiene que dichas barras aguantan una carga de 502,64 KN > 207 KN x 1,50 = 310,50 KN.

4.5. ESTADO LÍMITE DE DEFORMACIONES

Las deformaciones obtenidas son muy pequeñas y en todo caso menores que las admisibles según la IAP-11.

ANEXO 1 AL APÉNDICE Nº 12.2

DATOS DE ENTRADA DE LOS MODELOS DE CÁLCULO

VOLADIZO Nº1

Table: Area Section Properties, Part 1 of 4

Table: Area Section Properties, Part 1 of 4

Section	Material	MatAngle	AreaType	Type	DrillDOF	Thickness	BendThick	Arc
		Degrees				m	m	Degrees
L-100	HA-25	0.000	Shell	Shell-Thick	Yes	1.000000	1.000000	
L-40	HA-25	0.000	Shell	Shell-Thick	Yes	0.400000	0.400000	

Table: Area Section Properties, Part 2 of 4

Table: Area Section Properties, Part 2 of 4

Section	InComp	CoordSys	Color	TotalWt	TotalMass	F11Mod	F22Mod
				KN	KN-s2/m		
L-100			Green	1570.373	160.13	1.000000	1.000000
L-40			Green	195.102	19.89	1.000000	1.000000

Table: Area Section Properties, Part 3 of 4

Table: Area Section Properties, Part 3 of 4

Section	F12Mod	M11Mod	M22Mod	M12Mod	V13Mod	V23Mod	MMod	WMod
L-100	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
L-40	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Table: Area Section Properties, Part 4 of 4

Table: Area Section Properties, Part 4 of 4

Section	GUID	Notes
L-100		Added 20/09/2016 12:20:11
L-40		Added 20/09/2016 12:16:10

Table: Combination Definitions, Part 1 of 3

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-CARROS	Envelope	No	Linear Static	CARRO-A1	1.000000	No
ENV-CARROS			Linear Static	CARRO-A10	1.000000	
ENV-CARROS			Linear Static	CARRO-A11	1.000000	
ENV-CARROS			Linear Static	CARRO-A12	1.000000	
ENV-CARROS			Linear Static	CARRO-A13	1.000000	
ENV-CARROS			Linear Static	CARRO-A14	1.000000	
ENV-CARROS			Linear Static	CARRO-A15	1.000000	
ENV-CARROS			Linear Static	CARRO-A16	1.000000	
ENV-CARROS			Linear Static	CARRO-A17	1.000000	
ENV-CARROS			Linear Static	CARRO-A18	1.000000	
ENV-CARROS			Linear Static	CARRO-A19	1.000000	
ENV-CARROS			Linear Static	CARRO-A2	1.000000	
ENV-CARROS			Linear Static	CARRO-A20	1.000000	
ENV-CARROS			Linear Static	CARRO-A21	1.000000	
ENV-CARROS			Linear Static	CARRO-A22	1.000000	
ENV-CARROS			Linear Static	CARRO-A3	1.000000	
ENV-CARROS			Linear Static	CARRO-A4	1.000000	
ENV-CARROS			Linear Static	CARRO-A5	1.000000	
ENV-CARROS			Linear Static	CARRO-A6	1.000000	
ENV-CARROS			Linear Static	CARRO-A7	1.000000	
ENV-CARROS			Linear Static	CARRO-A8	1.000000	
ENV-CARROS			Linear Static	CARRO-A9	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-CARROS			Linear Static	CARRO-B1	1.000000	
ENV-CARROS			Linear Static	CARRO-B10	1.000000	
ENV-CARROS			Linear Static	CARRO-B11	1.000000	
ENV-CARROS			Linear Static	CARRO-B12	1.000000	
ENV-CARROS			Linear Static	CARRO-B13	1.000000	
ENV-CARROS			Linear Static	CARRO-B14	1.000000	
ENV-CARROS			Linear Static	CARRO-B15	1.000000	
ENV-CARROS			Linear Static	CARRO-B16	1.000000	
ENV-CARROS			Linear Static	CARRO-B17	1.000000	
ENV-CARROS			Linear Static	CARRO-B18	1.000000	
ENV-CARROS			Linear Static	CARRO-B19	1.000000	
ENV-CARROS			Linear Static	CARRO-B2	1.000000	
ENV-CARROS			Linear Static	CARRO-B20	1.000000	
ENV-CARROS			Linear Static	CARRO-B21	1.000000	
ENV-CARROS			Linear Static	CARRO-B22	1.000000	
ENV-CARROS			Linear Static	CARRO-B3	1.000000	
ENV-CARROS			Linear Static	CARRO-B4	1.000000	
ENV-CARROS			Linear Static	CARRO-B5	1.000000	
ENV-CARROS			Linear Static	CARRO-B6	1.000000	
ENV-CARROS			Linear Static	CARRO-B7	1.000000	
ENV-CARROS			Linear Static	CARRO-B8	1.000000	
ENV-CARROS			Linear Static	CARRO-B9	1.000000	
ENV-CARROS			Linear Static	CARRO-C1	1.000000	
ENV-CARROS			Linear Static	CARRO-C10	1.000000	
ENV-CARROS			Linear Static	CARRO-C11	1.000000	
ENV-CARROS			Linear Static	CARRO-C12	1.000000	
ENV-CARROS			Linear Static	CARRO-C13	1.000000	
ENV-CARROS			Linear Static	CARRO-C14	1.000000	
ENV-CARROS			Linear Static	CARRO-C15	1.000000	
ENV-CARROS			Linear Static	CARRO-C16	1.000000	
ENV-CARROS			Linear Static	CARRO-C17	1.000000	
ENV-CARROS			Linear Static	CARRO-C18	1.000000	
ENV-CARROS			Linear Static	CARRO-C19	1.000000	
ENV-CARROS			Linear Static	CARRO-C2	1.000000	
ENV-CARROS			Linear Static	CARRO-C20	1.000000	
ENV-CARROS			Linear Static	CARRO-C21	1.000000	
ENV-CARROS			Linear Static	CARRO-C22	1.000000	
ENV-CARROS			Linear Static	CARRO-C3	1.000000	
ENV-CARROS			Linear Static	CARRO-C4	1.000000	
ENV-CARROS			Linear Static	CARRO-C5	1.000000	
ENV-CARROS			Linear Static	CARRO-C6	1.000000	
ENV-CARROS			Linear Static	CARRO-C7	1.000000	
ENV-CARROS			Linear Static	CARRO-C8	1.000000	
ENV-CARROS			Linear Static	CARRO-C9	1.000000	
ENV-CARROS			Linear Static	CARRO-A23	1.000000	
ENV-CARROS			Linear Static	CARRO-A24	1.000000	
ENV-CARROS			Linear Static	CARRO-A25	1.000000	
ENV-CARROS			Linear Static	CARRO-B23	1.000000	
ENV-CARROS			Linear Static	CARRO-B24	1.000000	
ENV-CARROS			Linear Static	CARRO-B25	1.000000	
ENV-CARROS			Linear Static	CARRO-C23	1.000000	
ENV-CARROS			Linear Static	CARRO-C24	1.000000	
ENV-CARROS			Linear Static	CARRO-C25	1.000000	
ENV-CARROS			Linear Static	CARRO-B26	1.000000	
ENV-CARROS			Linear Static	CARRO-C26	1.000000	
ENV-SCU	Envelope	No	Linear Static	SCU-1	1.000000	No
ENV-SCU			Linear Static	SCU-2	1.000000	
ENV-SCU			Linear Static	SCU-3	1.000000	
ENV-SCU			Linear Static	SCU-4	1.000000	
ENV-SCU			Linear Static	SCU-5	1.000000	
ENV-SCU			Linear Static	SCU-6	1.000000	
ENV-SCU			Linear Static	SCU-7	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-SCU			Linear Static	SCU-8	1.000000	
ENV-SCU			Linear Static	SCU-9	1.000000	
CP-1	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-1			Linear Static	PRETIL	1.000000	
CP-1			Linear Static	PAVMIN1	1.000000	
CP-1			Linear Static	PAVMIN2	1.000000	
CP-1			Linear Static	RETRAC	1.000000	
CP-2	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-2			Linear Static	PRETIL	1.000000	
CP-2			Linear Static	PAVMIN1	1.000000	
CP-2			Linear Static	PAVMIN2	1.000000	
CP-3	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-3			Linear Static	PRETIL	1.000000	
CP-3			Linear Static	PAVMAX1	1.000000	
CP-3			Linear Static	PAVMAX2	1.000000	
CP-3			Linear Static	RETRAC	1.000000	
CP-4	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-4			Linear Static	PRETIL	1.000000	
CP-4			Linear Static	PAVMAX1	1.000000	
CP-4			Linear Static	PAVMAX2	1.000000	
ENV-CP	Envelope	No	Response Combo	CP-1	1.000000	No
ENV-CP			Response Combo	CP-2	1.000000	
ENV-CP			Response Combo	CP-3	1.000000	
ENV-CP			Response Combo	CP-4	1.000000	
TSIM-1	Linear Add	No	Linear Static	TCON	1.000000	No
TSIM-1			Linear Static	TGRAD1	0.750000	
TSIM-2	Linear Add	No	Linear Static	TCON	1.000000	No
TSIM-2			Linear Static	TGRAD2	0.750000	
TSIM-3	Linear Add	No	Linear Static	TDIL	1.000000	No
TSIM-3			Linear Static	TGRAD1	0.750000	
TSIM-4	Linear Add	No	Linear Static	TDIL	1.000000	No
TSIM-4			Linear Static	TGRAD2	0.750000	
TSIM-5	Linear Add	No	Linear Static	TCON	0.350000	No
TSIM-5			Linear Static	TGRAD1	1.000000	
TSIM-6	Linear Add	No	Linear Static	TCON	0.350000	No
TSIM-6			Linear Static	TGRAD2	1.000000	
TSIM-7	Linear Add	No	Linear Static	TDIL	0.350000	No
TSIM-7			Linear Static	TGRAD1	1.000000	
TSIM-8	Linear Add	No	Linear Static	TDIL	0.350000	No
TSIM-8			Linear Static	TGRAD2	1.000000	
ENV-T	Envelope	No	Linear Static	TCON	1.000000	No
ENV-T			Linear Static	TDIL	1.000000	
ENV-T			Linear Static	TGRAD1	1.000000	
ENV-T			Linear Static	TGRAD2	1.000000	
ENV-T			Response Combo	TSIM-1	1.000000	
ENV-T			Response Combo	TSIM-2	1.000000	
ENV-T			Response Combo	TSIM-3	1.000000	
ENV-T			Response Combo	TSIM-4	1.000000	
ENV-T			Response Combo	TSIM-5	1.000000	
ENV-T			Response Combo	TSIM-6	1.000000	
ENV-T			Response Combo	TSIM-7	1.000000	
ENV-T			Response Combo	TSIM-8	1.000000	
FH-1	Linear Add	No	Linear Static	QLA1	1.000000	No
FH-1			Linear Static	QTA1	1.000000	
FH-2	Linear Add	No	Linear Static	QLA1	1.000000	No
FH-2			Linear Static	QTB1	1.000000	
FH-3	Linear Add	No	Linear Static	QLB1	1.000000	No
FH-3			Linear Static	QTA1	1.000000	
FH-4	Linear Add	No	Linear Static	QLB1	1.000000	No
FH-4			Linear Static	QTB1	1.000000	
FH-5	Linear Add	No	Linear Static	QLA2	1.000000	No
FH-5			Linear Static	QTA2	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
FH-6	Linear Add	No	Linear Static	QLA2	1.000000	No
FH-6			Linear Static	QTB2	1.000000	
FH-7	Linear Add	No	Linear Static	QLB2	1.000000	No
FH-7			Linear Static	QTA2	1.000000	
FH-8	Linear Add	No	Linear Static	QLB2	1.000000	No
FH-8			Linear Static	QTB2	1.000000	
FH-9	Linear Add	No	Linear Static	QLA3	1.000000	No
FH-9			Linear Static	QTA3	1.000000	
FH-10	Linear Add	No	Linear Static	QLA3	1.000000	No
FH-10			Linear Static	QTB3	1.000000	
FH-11	Linear Add	No	Linear Static	QLB3	1.000000	No
FH-11			Linear Static	QTA3	1.000000	
FH-12	Linear Add	No	Linear Static	QLB3	1.000000	No
FH-12			Linear Static	QTB3	1.000000	
FH-13	Linear Add	No	Linear Static	QLA4	1.000000	No
FH-13			Linear Static	QTA4	1.000000	
FH-14	Linear Add	No	Linear Static	QLA4	1.000000	No
FH-14			Linear Static	QTB4	1.000000	
FH-15	Linear Add	No	Linear Static	QLB4	1.000000	No
FH-15			Linear Static	QTA4	1.000000	
FH-16	Linear Add	No	Linear Static	QLB4	1.000000	No
FH-16			Linear Static	QTB4	1.000000	
ENV-FH	Envelope	No	Linear Static	QLA1	1.000000	No
ENV-FH			Linear Static	QLA2	1.000000	
ENV-FH			Linear Static	QLA3	1.000000	
ENV-FH			Linear Static	QLA4	1.000000	
ENV-FH			Linear Static	QLB1	1.000000	
ENV-FH			Linear Static	QLB2	1.000000	
ENV-FH			Linear Static	QLB3	1.000000	
ENV-FH			Linear Static	QLB4	1.000000	
ENV-FH			Linear Static	QTA1	1.000000	
ENV-FH			Linear Static	QTA2	1.000000	
ENV-FH			Linear Static	QTA3	1.000000	
ENV-FH			Linear Static	QTA4	1.000000	
ENV-FH			Linear Static	QTB1	1.000000	
ENV-FH			Linear Static	QTB2	1.000000	
ENV-FH			Linear Static	QTB3	1.000000	
ENV-FH			Linear Static	QTB4	1.000000	
ENV-FH			Response Combo	FH-1	1.000000	
ENV-FH			Response Combo	FH-10	1.000000	
ENV-FH			Response Combo	FH-11	1.000000	
ENV-FH			Response Combo	FH-12	1.000000	
ENV-FH			Response Combo	FH-13	1.000000	
ENV-FH			Response Combo	FH-14	1.000000	
ENV-FH			Response Combo	FH-15	1.000000	
ENV-FH			Response Combo	FH-16	1.000000	
ENV-FH			Response Combo	FH-2	1.000000	
ENV-FH			Response Combo	FH-3	1.000000	
ENV-FH			Response Combo	FH-4	1.000000	
ENV-FH			Response Combo	FH-5	1.000000	
ENV-FH			Response Combo	FH-6	1.000000	
ENV-FH			Response Combo	FH-7	1.000000	
ENV-FH			Response Combo	FH-8	1.000000	
ENV-FH			Response Combo	FH-9	1.000000	
ENV-AC	Envelope	No	Linear Static	AC1	1.000000	No
ENV-AC			Linear Static	AC10	1.000000	
ENV-AC			Linear Static	AC11	1.000000	
ENV-AC			Linear Static	AC12	1.000000	
ENV-AC			Linear Static	AC2	1.000000	
ENV-AC			Linear Static	AC3	1.000000	
ENV-AC			Linear Static	AC4	1.000000	
ENV-AC			Linear Static	AC5	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-AC			Linear Static	AC6	1.000000	
ENV-AC			Linear Static	AC7	1.000000	
ENV-AC			Linear Static	AC8	1.000000	
ENV-AC			Linear Static	AC9	1.000000	
ELS-CA1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA2			Response Combo	ENV-SCU	1.000000	
ELS-CA3	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA3			Response Combo	ENV-CARROS	1.000000	
ELS-CA4	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA4			Response Combo	ENV-SCU	1.000000	
ELS-CA4			Response Combo	ENV-CARROS	1.000000	
ELS-CA5	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA5			Response Combo	ENV-CARROS	0.750000	
ELS-CA5			Response Combo	ENV-FH	1.000000	
ELS-CA6	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA6			Response Combo	ENV-SCU	0.400000	
ELS-CA6			Response Combo	ENV-FH	1.000000	
ELS-CA7	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA7			Response Combo	ENV-SCU	0.400000	
ELS-CA7			Response Combo	ENV-CARROS	0.750000	
ELS-CA7			Response Combo	ENV-FH	1.000000	
ELS-CA8	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA8			Response Combo	ENV-SCU	1.000000	
ELS-CA8			Response Combo	ENV-T	0.600000	
ELS-CA9	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA9			Response Combo	ENV-CARROS	1.000000	
ELS-CA9			Response Combo	ENV-T	0.600000	
ELS-CA10	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA10			Response Combo	ENV-SCU	1.000000	
ELS-CA10			Response Combo	ENV-CARROS	1.000000	
ELS-CA10			Response Combo	ENV-T	0.600000	
ELS-CA11	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA11			Response Combo	ENV-CARROS	0.750000	
ELS-CA11			Response Combo	ENV-FH	1.000000	
ELS-CA11			Response Combo	ENV-T	0.600000	
ELS-CA12	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA12			Response Combo	ENV-SCU	0.400000	
ELS-CA12			Response Combo	ENV-FH	1.000000	
ELS-CA12			Response Combo	ENV-T	0.600000	
ELS-CA13	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA13			Response Combo	ENV-SCU	0.400000	
ELS-CA13			Response Combo	ENV-CARROS	0.750000	
ELS-CA13			Response Combo	ENV-FH	1.000000	
ELS-CA13			Response Combo	ENV-T	0.600000	
ELS-CA14	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA14			Response Combo	ENV-T	1.000000	
ELS-CA15	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA15			Response Combo	ENV-T	1.000000	
ELS-CA15			Response Combo	ENV-SCU	0.400000	
ELS-CA16	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA16			Response Combo	ENV-T	1.000000	
ELS-CA16			Response Combo	ENV-CARROS	0.750000	
ELS-CA17	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA17			Response Combo	ENV-T	1.000000	
ELS-CA17			Response Combo	ENV-CARROS	0.750000	
ELS-CA17			Response Combo	ENV-SCU	0.400000	
ENV-ELS-CA	Envelope	No	Response Combo	ELS-CA1	1.000000	No
ENV-ELS-CA			Response Combo	ELS-CA10	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA11	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA12	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA13	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-ELS-CA			Response Combo	ELS-CA14	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA15	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA16	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA17	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA2	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA3	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA4	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA5	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA6	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA7	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA8	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA9	1.000000	
ELS-CP1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CP2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CP2			Response Combo	ENV-T	0.500000	
ENV-ELS-CP	Envelope	No	Response Combo	ELS-CP1	1.000000	No
ENV-ELS-CP			Response Combo	ELS-CP2	1.000000	
ELU-PT1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT2			Response Combo	ENV-SCU	1.350000	
ELU-PT3	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT3			Response Combo	ENV-CARROS	1.350000	
ELU-PT4	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT4			Response Combo	ENV-SCU	1.350000	
ELU-PT4			Response Combo	ENV-CARROS	1.350000	
ELU-PT5	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT5			Response Combo	ENV-CARROS	1.012500	
ELU-PT5			Response Combo	ENV-FH	1.350000	
ELU-PT6	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT6			Response Combo	ENV-SCU	0.540000	
ELU-PT6			Response Combo	ENV-FH	1.350000	
ELU-PT7	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT7			Response Combo	ENV-SCU	0.540000	
ELU-PT7			Response Combo	ENV-CARROS	1.012500	
ELU-PT7			Response Combo	ENV-FH	1.350000	
ELU-PT8	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT8			Response Combo	ENV-SCU	1.350000	
ELU-PT8			Response Combo	ENV-T	0.900000	
ELU-PT9	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT9			Response Combo	ENV-CARROS	1.350000	
ELU-PT9			Response Combo	ENV-T	0.900000	
ELU-PT10	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT10			Response Combo	ENV-SCU	1.350000	
ELU-PT10			Response Combo	ENV-CARROS	1.350000	
ELU-PT10			Response Combo	ENV-T	0.900000	
ELU-PT11	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT11			Response Combo	ENV-CARROS	1.012500	
ELU-PT11			Response Combo	ENV-FH	1.350000	
ELU-PT11			Response Combo	ENV-T	0.900000	
ELU-PT12	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT12			Response Combo	ENV-SCU	0.540000	
ELU-PT12			Response Combo	ENV-FH	1.350000	
ELU-PT12			Response Combo	ENV-T	0.900000	
ELU-PT13	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT13			Response Combo	ENV-SCU	0.540000	
ELU-PT13			Response Combo	ENV-CARROS	1.012500	
ELU-PT13			Response Combo	ENV-FH	1.350000	
ELU-PT13			Response Combo	ENV-T	0.900000	
ELU-PT14	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT14			Response Combo	ENV-T	1.500000	
ELU-PT15	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT15			Response Combo	ENV-T	1.500000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELU-PT15			Response Combo	ENV-SCU	0.540000	
ELU-PT16	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT16			Response Combo	ENV-T	1.500000	
ELU-PT16			Response Combo	ENV-CARROS	1.012500	
ELU-PT17	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT17			Response Combo	ENV-T	1.500000	
ELU-PT17			Response Combo	ENV-CARROS	1.012500	
ELU-PT17			Response Combo	ENV-SCU	0.540000	
ELU-PT18	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT19	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT19			Response Combo	ENV-SCU	1.350000	
ELU-PT20	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT20			Response Combo	ENV-CARROS	1.350000	
ELU-PT21	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT21			Response Combo	ENV-SCU	1.350000	
ELU-PT21			Response Combo	ENV-CARROS	1.350000	
ELU-PT22	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT22			Response Combo	ENV-CARROS	1.012500	
ELU-PT22			Response Combo	ENV-FH	1.350000	
ELU-PT23	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT23			Response Combo	ENV-SCU	0.540000	
ELU-PT23			Response Combo	ENV-FH	1.350000	
ELU-PT24	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT24			Response Combo	ENV-SCU	0.540000	
ELU-PT24			Response Combo	ENV-CARROS	1.012500	
ELU-PT24			Response Combo	ENV-FH	1.350000	
ELU-PT25	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT25			Response Combo	ENV-SCU	1.350000	
ELU-PT25			Response Combo	ENV-T	0.900000	
ELU-PT26	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT26			Response Combo	ENV-CARROS	1.350000	
ELU-PT26			Response Combo	ENV-T	0.900000	
ELU-PT27	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT27			Response Combo	ENV-SCU	1.350000	
ELU-PT27			Response Combo	ENV-CARROS	1.350000	
ELU-PT27			Response Combo	ENV-T	0.900000	
ELU-PT28	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT28			Response Combo	ENV-CARROS	1.012500	
ELU-PT28			Response Combo	ENV-FH	1.350000	
ELU-PT28			Response Combo	ENV-T	0.900000	
ELU-PT29	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT29			Response Combo	ENV-SCU	0.540000	
ELU-PT29			Response Combo	ENV-FH	1.350000	
ELU-PT29			Response Combo	ENV-T	0.900000	
ELU-PT30	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT30			Response Combo	ENV-SCU	0.540000	
ELU-PT30			Response Combo	ENV-CARROS	1.012500	
ELU-PT30			Response Combo	ENV-FH	1.350000	
ELU-PT30			Response Combo	ENV-T	0.900000	
ELU-PT31	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT31			Response Combo	ENV-T	1.500000	
ELU-PT32	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT32			Response Combo	ENV-T	1.500000	
ELU-PT32			Response Combo	ENV-SCU	0.540000	
ELU-PT33	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT33			Response Combo	ENV-T	1.500000	
ELU-PT33			Response Combo	ENV-CARROS	1.012500	
ELU-PT34	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT34			Response Combo	ENV-T	1.500000	
ELU-PT34			Response Combo	ENV-CARROS	1.012500	
ELU-PT34			Response Combo	ENV-SCU	0.540000	
ENV-ELU-PT	Envelope	No	Response Combo	ELU-PT1	1.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-ELU-PT			Response Combo	ELU-PT10	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT11	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT12	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT13	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT14	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT15	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT16	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT17	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT18	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT19	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT2	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT20	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT21	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT22	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT23	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT24	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT25	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT26	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT27	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT28	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT29	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT3	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT30	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT31	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT32	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT33	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT34	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT4	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT5	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT6	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT7	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT8	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT9	1.000000	
ELU-AC1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC1			Response Combo	ENV-AC	1.000000	
ELU-AC2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC2			Response Combo	ENV-AC	1.000000	
ELU-AC2			Response Combo	ENV-SCU	0.400000	
ELU-AC3	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC3			Response Combo	ENV-AC	1.000000	
ELU-AC3			Response Combo	ENV-CARROS	0.750000	
ELU-AC4	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC4			Response Combo	ENV-AC	1.000000	
ELU-AC4			Response Combo	ENV-CARROS	0.750000	
ELU-AC4			Response Combo	ENV-SCU	0.400000	
ELU-AC5	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC5			Response Combo	ENV-AC	1.000000	
ELU-AC5			Response Combo	ENV-SCU	0.400000	
ELU-AC5			Response Combo	ENV-T	0.500000	
ELU-AC6	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC6			Response Combo	ENV-AC	1.000000	
ELU-AC6			Response Combo	ENV-CARROS	0.750000	
ELU-AC6			Response Combo	ENV-T	0.500000	
ELU-AC7	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC7			Response Combo	ENV-AC	1.000000	
ELU-AC7			Response Combo	ENV-CARROS	0.750000	
ELU-AC7			Response Combo	ENV-SCU	0.400000	
ELU-AC7			Response Combo	ENV-T	0.500000	
ELU-AC8	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC8			Response Combo	ENV-AC	1.000000	
ELU-AC8			Response Combo	ENV-T	0.600000	
ENV-ELU-AC	Envelope	No	Response Combo	ELU-AC1	1.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-ELU-AC			Response Combo	ELU-AC2	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC3	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC4	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC5	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC6	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC7	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC8	1.000000	
ELU-EQ1	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ1			Linear Static	PAVMIN1	1.100000	
ELU-EQ1			Linear Static	PRETIL	1.100000	
ELU-EQ1			Linear Static	PAVMIN2	0.900000	
ELU-EQ1			Response Combo	ENV-SCU	1.350000	
ELU-EQ2	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ2			Linear Static	PAVMIN1	1.100000	
ELU-EQ2			Linear Static	PRETIL	1.100000	
ELU-EQ2			Linear Static	PAVMIN2	0.900000	
ELU-EQ2			Response Combo	ENV-CARROS	1.350000	
ELU-EQ3	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ3			Linear Static	PAVMIN1	1.100000	
ELU-EQ3			Linear Static	PRETIL	1.100000	
ELU-EQ3			Linear Static	PAVMIN2	0.900000	
ELU-EQ3			Response Combo	ENV-CARROS	1.350000	
ELU-EQ3			Response Combo	ENV-SCU	1.350000	
ELU-EQ4	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ4			Linear Static	PAVMAX1	1.100000	
ELU-EQ4			Linear Static	PRETIL	1.100000	
ELU-EQ4			Linear Static	PAVMAX2	0.900000	
ELU-EQ4			Response Combo	ENV-SCU	1.350000	
ELU-EQ5	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ5			Linear Static	PAVMAX1	1.100000	
ELU-EQ5			Linear Static	PRETIL	1.100000	
ELU-EQ5			Linear Static	PAVMAX2	0.900000	
ELU-EQ5			Response Combo	ENV-CARROS	1.350000	
ELU-EQ6	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ6			Linear Static	PAVMAX1	1.100000	
ELU-EQ6			Linear Static	PRETIL	1.100000	
ELU-EQ6			Linear Static	PAVMAX2	0.900000	
ELU-EQ6			Response Combo	ENV-CARROS	1.350000	
ELU-EQ6			Response Combo	ENV-SCU	1.350000	
ENV-ELU-EQ	Envelope	No	Response Combo	ELU-EQ1	1.000000	No
ENV-ELU-EQ			Response Combo	ELU-EQ2	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ3	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ4	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ5	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ6	1.000000	
RH-1	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-2	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-2			Linear Static	TCON	1.500000	
RH-3	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-3			Linear Static	TDIL	1.500000	
RH-4	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-4			Linear Static	TCON	0.900000	
RH-4			Response Combo	FH-1	1.350000	
RH-5	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-5			Linear Static	TCON	0.900000	
RH-5			Response Combo	FH-2	1.350000	
RH-6	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-6			Linear Static	TCON	0.900000	
RH-6			Response Combo	FH-3	1.350000	
RH-7	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-7			Linear Static	TCON	0.900000	
RH-7			Response Combo	FH-4	1.350000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-8	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-8			Linear Static	TCON	0.900000	
RH-8			Response Combo	FH-5	1.350000	
RH-9	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-9			Linear Static	TCON	0.900000	
RH-9			Response Combo	FH-6	1.350000	
RH-10	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-10			Linear Static	TCON	0.900000	
RH-10			Response Combo	FH-7	1.350000	
RH-11	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-11			Linear Static	TCON	0.900000	
RH-11			Response Combo	FH-8	1.350000	
RH-12	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-12			Linear Static	TCON	0.900000	
RH-12			Response Combo	FH-9	1.350000	
RH-13	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-13			Linear Static	TCON	0.900000	
RH-13			Response Combo	FH-10	1.350000	
RH-14	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-14			Linear Static	TCON	0.900000	
RH-14			Response Combo	FH-11	1.350000	
RH-15	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-15			Linear Static	TCON	0.900000	
RH-15			Response Combo	FH-12	1.350000	
RH-16	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-16			Linear Static	TCON	0.900000	
RH-16			Response Combo	FH-13	1.350000	
RH-17	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-17			Linear Static	TCON	0.900000	
RH-17			Response Combo	FH-14	1.350000	
RH-18	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-18			Linear Static	TCON	0.900000	
RH-18			Response Combo	FH-15	1.350000	
RH-19	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-19			Linear Static	TCON	0.900000	
RH-19			Response Combo	FH-16	1.350000	
RH-20	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-20			Linear Static	TDIL	0.900000	
RH-20			Response Combo	FH-1	1.350000	
RH-21	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-21			Linear Static	TDIL	0.900000	
RH-21			Response Combo	FH-2	1.350000	
RH-22	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-22			Linear Static	TDIL	0.900000	
RH-22			Response Combo	FH-3	1.350000	
RH-23	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-23			Linear Static	TDIL	0.900000	
RH-23			Response Combo	FH-4	1.350000	
RH-24	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-24			Linear Static	TDIL	0.900000	
RH-24			Response Combo	FH-5	1.350000	
RH-25	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-25			Linear Static	TDIL	0.900000	
RH-25			Response Combo	FH-6	1.350000	
RH-26	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-26			Linear Static	TDIL	0.900000	
RH-26			Response Combo	FH-7	1.350000	
RH-27	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-27			Linear Static	TDIL	0.900000	
RH-27			Response Combo	FH-8	1.350000	
RH-28	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-28			Linear Static	TDIL	0.900000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-28			Response Combo	FH-9	1.350000	
RH-29	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-29			Linear Static	TDIL	0.900000	
RH-29			Response Combo	FH-10	1.350000	
RH-30	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-30			Linear Static	TDIL	0.900000	
RH-30			Response Combo	FH-11	1.350000	
RH-31	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-31			Linear Static	TDIL	0.900000	
RH-31			Response Combo	FH-12	1.350000	
RH-32	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-32			Linear Static	TDIL	0.900000	
RH-32			Response Combo	FH-13	1.350000	
RH-33	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-33			Linear Static	TDIL	0.900000	
RH-33			Response Combo	FH-14	1.350000	
RH-34	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-34			Linear Static	TDIL	0.900000	
RH-34			Response Combo	FH-15	1.350000	
RH-35	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-35			Linear Static	TDIL	0.900000	
RH-35			Response Combo	FH-16	1.350000	
RH-36	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-37	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-37			Linear Static	TCON	1.500000	
RH-38	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-38			Linear Static	TDIL	1.500000	
RH-39	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-39			Linear Static	TCON	0.900000	
RH-39			Response Combo	FH-1	1.350000	
RH-40	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-40			Linear Static	TCON	0.900000	
RH-40			Response Combo	FH-2	1.350000	
RH-41	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-41			Linear Static	TCON	0.900000	
RH-41			Response Combo	FH-3	1.350000	
RH-42	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-42			Linear Static	TCON	0.900000	
RH-42			Response Combo	FH-4	1.350000	
RH-43	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-43			Linear Static	TCON	0.900000	
RH-43			Response Combo	FH-5	1.350000	
RH-44	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-44			Linear Static	TCON	0.900000	
RH-44			Response Combo	FH-6	1.350000	
RH-45	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-45			Linear Static	TCON	0.900000	
RH-45			Response Combo	FH-7	1.350000	
RH-46	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-46			Linear Static	TCON	0.900000	
RH-46			Response Combo	FH-8	1.350000	
RH-47	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-47			Linear Static	TCON	0.900000	
RH-47			Response Combo	FH-9	1.350000	
RH-48	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-48			Linear Static	TCON	0.900000	
RH-48			Response Combo	FH-10	1.350000	
RH-49	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-49			Linear Static	TCON	0.900000	
RH-49			Response Combo	FH-11	1.350000	
RH-50	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-50			Linear Static	TCON	0.900000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-50			Response Combo	FH-12	1.350000	
RH-51	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-51			Linear Static	TCON	0.900000	
RH-51			Response Combo	FH-13	1.350000	
RH-52	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-52			Linear Static	TCON	0.900000	
RH-52			Response Combo	FH-14	1.350000	
RH-53	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-53			Linear Static	TCON	0.900000	
RH-53			Response Combo	FH-15	1.350000	
RH-54	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-54			Linear Static	TCON	0.900000	
RH-54			Response Combo	FH-16	1.350000	
RH-55	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-55			Linear Static	TDIL	0.900000	
RH-55			Response Combo	FH-1	1.350000	
RH-56	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-56			Linear Static	TDIL	0.900000	
RH-56			Response Combo	FH-2	1.350000	
RH-57	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-57			Linear Static	TDIL	0.900000	
RH-57			Response Combo	FH-3	1.350000	
RH-58	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-58			Linear Static	TDIL	0.900000	
RH-58			Response Combo	FH-4	1.350000	
RH-59	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-59			Linear Static	TDIL	0.900000	
RH-59			Response Combo	FH-5	1.350000	
RH-60	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-60			Linear Static	TDIL	0.900000	
RH-60			Response Combo	FH-6	1.350000	
RH-61	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-61			Linear Static	TDIL	0.900000	
RH-61			Response Combo	FH-7	1.350000	
RH-62	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-62			Linear Static	TDIL	0.900000	
RH-62			Response Combo	FH-8	1.350000	
RH-63	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-63			Linear Static	TDIL	0.900000	
RH-63			Response Combo	FH-9	1.350000	
RH-64	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-64			Linear Static	TDIL	0.900000	
RH-64			Response Combo	FH-10	1.350000	
RH-65	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-65			Linear Static	TDIL	0.900000	
RH-65			Response Combo	FH-11	1.350000	
RH-66	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-66			Linear Static	TDIL	0.900000	
RH-66			Response Combo	FH-12	1.350000	
RH-67	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-67			Linear Static	TDIL	0.900000	
RH-67			Response Combo	FH-13	1.350000	
RH-68	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-68			Linear Static	TDIL	0.900000	
RH-68			Response Combo	FH-14	1.350000	
RH-69	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-69			Linear Static	TDIL	0.900000	
RH-69			Response Combo	FH-15	1.350000	
RH-70	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-70			Linear Static	TDIL	0.900000	
RH-70			Response Combo	FH-16	1.350000	
RH-71	Linear Add	No	Linear Static	RETRAC	0.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-72	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-72			Linear Static	TCON	1.500000	
RH-73	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-73			Linear Static	TDIL	1.500000	
RH-74	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-74			Linear Static	TCON	0.900000	
RH-74			Response Combo	FH-1	1.350000	
RH-75	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-75			Linear Static	TCON	0.900000	
RH-75			Response Combo	FH-2	1.350000	
RH-76	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-76			Linear Static	TCON	0.900000	
RH-76			Response Combo	FH-3	1.350000	
RH-77	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-77			Linear Static	TCON	0.900000	
RH-77			Response Combo	FH-4	1.350000	
RH-78	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-78			Linear Static	TCON	0.900000	
RH-78			Response Combo	FH-5	1.350000	
RH-79	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-79			Linear Static	TCON	0.900000	
RH-79			Response Combo	FH-6	1.350000	
RH-80	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-80			Linear Static	TCON	0.900000	
RH-80			Response Combo	FH-7	1.350000	
RH-81	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-81			Linear Static	TCON	0.900000	
RH-81			Response Combo	FH-8	1.350000	
RH-82	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-82			Linear Static	TCON	0.900000	
RH-82			Response Combo	FH-9	1.350000	
RH-83	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-83			Linear Static	TCON	0.900000	
RH-83			Response Combo	FH-10	1.350000	
RH-84	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-84			Linear Static	TCON	0.900000	
RH-84			Response Combo	FH-11	1.350000	
RH-85	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-85			Linear Static	TCON	0.900000	
RH-85			Response Combo	FH-12	1.350000	
RH-86	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-86			Linear Static	TCON	0.900000	
RH-86			Response Combo	FH-13	1.350000	
RH-87	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-87			Linear Static	TCON	0.900000	
RH-87			Response Combo	FH-14	1.350000	
RH-88	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-88			Linear Static	TCON	0.900000	
RH-88			Response Combo	FH-15	1.350000	
RH-89	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-89			Linear Static	TCON	0.900000	
RH-89			Response Combo	FH-16	1.350000	
RH-90	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-90			Linear Static	TDIL	0.900000	
RH-90			Response Combo	FH-1	1.350000	
RH-91	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-91			Linear Static	TDIL	0.900000	
RH-91			Response Combo	FH-2	1.350000	
RH-92	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-92			Linear Static	TDIL	0.900000	
RH-92			Response Combo	FH-3	1.350000	
RH-93	Linear Add	No	Linear Static	RETRAC	0.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-93			Linear Static	TDIL	0.900000	
RH-93			Response Combo	FH-4	1.350000	
RH-94	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-94			Linear Static	TDIL	0.900000	
RH-94			Response Combo	FH-5	1.350000	
RH-95	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-95			Linear Static	TDIL	0.900000	
RH-95			Response Combo	FH-6	1.350000	
RH-96	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-96			Linear Static	TDIL	0.900000	
RH-96			Response Combo	FH-7	1.350000	
RH-97	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-97			Linear Static	TDIL	0.900000	
RH-97			Response Combo	FH-8	1.350000	
RH-98	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-98			Linear Static	TDIL	0.900000	
RH-98			Response Combo	FH-9	1.350000	
RH-99	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-99			Linear Static	TDIL	0.900000	
RH-99			Response Combo	FH-10	1.350000	
RH-100	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-100			Linear Static	TDIL	0.900000	
RH-100			Response Combo	FH-11	1.350000	
RH-101	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-101			Linear Static	TDIL	0.900000	
RH-101			Response Combo	FH-12	1.350000	
RH-102	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-102			Linear Static	TDIL	0.900000	
RH-102			Response Combo	FH-13	1.350000	
RH-103	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-103			Linear Static	TDIL	0.900000	
RH-103			Response Combo	FH-14	1.350000	
RH-104	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-104			Linear Static	TDIL	0.900000	
RH-104			Response Combo	FH-15	1.350000	
RH-105	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-105			Linear Static	TDIL	0.900000	
RH-105			Response Combo	FH-16	1.350000	
RH-106	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-106			Linear Static	AC1	1.000000	
RH-107	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-107			Linear Static	AC2	1.000000	
RH-108	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-108			Linear Static	AC3	1.000000	
RH-109	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-109			Linear Static	AC4	1.000000	
RH-110	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-110			Linear Static	AC5	1.000000	
RH-111	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-111			Linear Static	AC6	1.000000	
RH-112	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-112			Linear Static	AC7	1.000000	
RH-113	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-113			Linear Static	AC8	1.000000	
RH-114	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-114			Linear Static	AC9	1.000000	
RH-115	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-115			Linear Static	AC10	1.000000	
RH-116	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-116			Linear Static	AC1	1.000000	
RH-116			Linear Static	TCON	0.600000	
RH-117	Linear Add	No	Linear Static	RETRAC	1.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-117			Linear Static	AC2	1.000000	
RH-117			Linear Static	TCON	0.600000	
RH-118	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-118			Linear Static	AC3	1.000000	
RH-118			Linear Static	TCON	0.600000	
RH-119	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-119			Linear Static	AC4	1.000000	
RH-119			Linear Static	TCON	0.600000	
RH-120	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-120			Linear Static	AC5	1.000000	
RH-120			Linear Static	TCON	0.600000	
RH-121	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-121			Linear Static	AC6	1.000000	
RH-121			Linear Static	TCON	0.600000	
RH-122	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-122			Linear Static	AC7	1.000000	
RH-122			Linear Static	TCON	0.600000	
RH-123	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-123			Linear Static	AC8	1.000000	
RH-123			Linear Static	TCON	0.600000	
RH-124	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-124			Linear Static	AC9	1.000000	
RH-124			Linear Static	TCON	0.600000	
RH-125	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-125			Linear Static	AC10	1.000000	
RH-125			Linear Static	TCON	0.600000	
RH-126	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-126			Linear Static	AC1	1.000000	
RH-126			Linear Static	TDIL	0.600000	
RH-127	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-127			Linear Static	AC2	1.000000	
RH-127			Linear Static	TDIL	0.600000	
RH-128	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-128			Linear Static	AC3	1.000000	
RH-128			Linear Static	TDIL	0.600000	
RH-129	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-129			Linear Static	AC4	1.000000	
RH-129			Linear Static	TDIL	0.600000	
RH-130	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-130			Linear Static	AC5	1.000000	
RH-130			Linear Static	TDIL	0.600000	
RH-131	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-131			Linear Static	AC6	1.000000	
RH-131			Linear Static	TDIL	0.600000	
RH-132	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-132			Linear Static	AC7	1.000000	
RH-132			Linear Static	TDIL	0.600000	
RH-133	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-133			Linear Static	AC8	1.000000	
RH-133			Linear Static	TDIL	0.600000	
RH-134	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-134			Linear Static	AC9	1.000000	
RH-134			Linear Static	TDIL	0.600000	
RH-135	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-135			Linear Static	AC10	1.000000	
RH-135			Linear Static	TDIL	0.600000	
RH-136	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-136			Linear Static	AC1	1.000000	
RH-137	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-137			Linear Static	AC2	1.000000	
RH-138	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-138			Linear Static	AC3	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-139	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-139			Linear Static	AC4	1.000000	
RH-140	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-140			Linear Static	AC5	1.000000	
RH-141	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-141			Linear Static	AC6	1.000000	
RH-142	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-142			Linear Static	AC7	1.000000	
RH-143	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-143			Linear Static	AC8	1.000000	
RH-144	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-144			Linear Static	AC9	1.000000	
RH-145	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-145			Linear Static	AC10	1.000000	
RH-146	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-146			Linear Static	AC1	1.000000	
RH-146			Linear Static	TCON	0.600000	
RH-147	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-147			Linear Static	AC2	1.000000	
RH-147			Linear Static	TCON	0.600000	
RH-148	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-148			Linear Static	AC3	1.000000	
RH-148			Linear Static	TCON	0.600000	
RH-149	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-149			Linear Static	AC4	1.000000	
RH-149			Linear Static	TCON	0.600000	
RH-150	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-150			Linear Static	AC5	1.000000	
RH-150			Linear Static	TCON	0.600000	
RH-151	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-151			Linear Static	AC6	1.000000	
RH-151			Linear Static	TCON	0.600000	
RH-152	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-152			Linear Static	AC7	1.000000	
RH-152			Linear Static	TCON	0.600000	
RH-153	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-153			Linear Static	AC8	1.000000	
RH-153			Linear Static	TCON	0.600000	
RH-154	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-154			Linear Static	AC9	1.000000	
RH-154			Linear Static	TCON	0.600000	
RH-155	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-155			Linear Static	AC10	1.000000	
RH-155			Linear Static	TCON	0.600000	
RH-156	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-156			Linear Static	AC1	1.000000	
RH-156			Linear Static	TDIL	0.600000	
RH-157	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-157			Linear Static	AC2	1.000000	
RH-157			Linear Static	TDIL	0.600000	
RH-158	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-158			Linear Static	AC3	1.000000	
RH-158			Linear Static	TDIL	0.600000	
RH-159	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-159			Linear Static	AC4	1.000000	
RH-159			Linear Static	TDIL	0.600000	
RH-160	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-160			Linear Static	AC5	1.000000	
RH-160			Linear Static	TDIL	0.600000	
RH-161	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-161			Linear Static	AC6	1.000000	
RH-161			Linear Static	TDIL	0.600000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-162	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-162			Linear Static	AC7	1.000000	
RH-162			Linear Static	TDIL	0.600000	
RH-163	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-163			Linear Static	AC8	1.000000	
RH-163			Linear Static	TDIL	0.600000	
RH-164	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-164			Linear Static	AC9	1.000000	
RH-164			Linear Static	TDIL	0.600000	
RH-165	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-165			Linear Static	AC10	1.000000	
RH-165			Linear Static	TDIL	0.600000	

Table: Combination Definitions, Part 2 of 3

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-CARROS	CARRO-A1	No	No	No	
ENV-CARROS	CARRO-A10				
ENV-CARROS	CARRO-A11				
ENV-CARROS	CARRO-A12				
ENV-CARROS	CARRO-A13				
ENV-CARROS	CARRO-A14				
ENV-CARROS	CARRO-A15				
ENV-CARROS	CARRO-A16				
ENV-CARROS	CARRO-A17				
ENV-CARROS	CARRO-A18				
ENV-CARROS	CARRO-A19				
ENV-CARROS	CARRO-A2				
ENV-CARROS	CARRO-A20				
ENV-CARROS	CARRO-A21				
ENV-CARROS	CARRO-A22				
ENV-CARROS	CARRO-A3				
ENV-CARROS	CARRO-A4				
ENV-CARROS	CARRO-A5				
ENV-CARROS	CARRO-A6				
ENV-CARROS	CARRO-A7				
ENV-CARROS	CARRO-A8				
ENV-CARROS	CARRO-A9				
ENV-CARROS	CARRO-B1				
ENV-CARROS	CARRO-B10				
ENV-CARROS	CARRO-B11				
ENV-CARROS	CARRO-B12				
ENV-CARROS	CARRO-B13				
ENV-CARROS	CARRO-B14				
ENV-CARROS	CARRO-B15				
ENV-CARROS	CARRO-B16				
ENV-CARROS	CARRO-B17				
ENV-CARROS	CARRO-B18				
ENV-CARROS	CARRO-B19				
ENV-CARROS	CARRO-B2				
ENV-CARROS	CARRO-B20				
ENV-CARROS	CARRO-B21				
ENV-CARROS	CARRO-B22				
ENV-CARROS	CARRO-B3				
ENV-CARROS	CARRO-B4				
ENV-CARROS	CARRO-B5				
ENV-CARROS	CARRO-B6				
ENV-CARROS	CARRO-B7				
ENV-CARROS	CARRO-B8				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-CARROS	CARRO-B9				
ENV-CARROS	CARRO-C1				
ENV-CARROS	CARRO-C10				
ENV-CARROS	CARRO-C11				
ENV-CARROS	CARRO-C12				
ENV-CARROS	CARRO-C13				
ENV-CARROS	CARRO-C14				
ENV-CARROS	CARRO-C15				
ENV-CARROS	CARRO-C16				
ENV-CARROS	CARRO-C17				
ENV-CARROS	CARRO-C18				
ENV-CARROS	CARRO-C19				
ENV-CARROS	CARRO-C2				
ENV-CARROS	CARRO-C20				
ENV-CARROS	CARRO-C21				
ENV-CARROS	CARRO-C22				
ENV-CARROS	CARRO-C3				
ENV-CARROS	CARRO-C4				
ENV-CARROS	CARRO-C5				
ENV-CARROS	CARRO-C6				
ENV-CARROS	CARRO-C7				
ENV-CARROS	CARRO-C8				
ENV-CARROS	CARRO-C9				
ENV-CARROS	CARRO-A23				
ENV-CARROS	CARRO-A24				
ENV-CARROS	CARRO-A25				
ENV-CARROS	CARRO-B23				
ENV-CARROS	CARRO-B24				
ENV-CARROS	CARRO-B25				
ENV-CARROS	CARRO-C23				
ENV-CARROS	CARRO-C24				
ENV-CARROS	CARRO-C25				
ENV-CARROS	CARRO-B26				
ENV-CARROS	CARRO-C26				
ENV-SCU	SCU-1	No	No	No	
ENV-SCU	SCU-2				
ENV-SCU	SCU-3				
ENV-SCU	SCU-4				
ENV-SCU	SCU-5				
ENV-SCU	SCU-6				
ENV-SCU	SCU-7				
ENV-SCU	SCU-8				
ENV-SCU	SCU-9				
CP-1	DEAD	No	No	No	
CP-1	PRETIL				
CP-1	PAVMIN1				
CP-1	PAVMIN2				
CP-1	RETRAC				
CP-2	DEAD	No	No	No	
CP-2	PRETIL				
CP-2	PAVMIN1				
CP-2	PAVMIN2				
CP-3	DEAD	No	No	No	
CP-3	PRETIL				
CP-3	PAVMAX1				
CP-3	PAVMAX2				
CP-3	RETRAC				
CP-4	DEAD	No	No	No	
CP-4	PRETIL				
CP-4	PAVMAX1				
CP-4	PAVMAX2				
ENV-CP	CP-1	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-CP	CP-2				
ENV-CP	CP-3				
ENV-CP	CP-4				
TSIM-1	TCON	No	No	No	
TSIM-1	TGRAD1				
TSIM-2	TCON	No	No	No	
TSIM-2	TGRAD2				
TSIM-3	TDIL	No	No	No	
TSIM-3	TGRAD1				
TSIM-4	TDIL	No	No	No	
TSIM-4	TGRAD2				
TSIM-5	TCON	No	No	No	
TSIM-5	TGRAD1				
TSIM-6	TCON	No	No	No	
TSIM-6	TGRAD2				
TSIM-7	TDIL	No	No	No	
TSIM-7	TGRAD1				
TSIM-8	TDIL	No	No	No	
TSIM-8	TGRAD2				
ENV-T	TCON	No	No	No	
ENV-T	TDIL				
ENV-T	TGRAD1				
ENV-T	TGRAD2				
ENV-T	TSIM-1				
ENV-T	TSIM-2				
ENV-T	TSIM-3				
ENV-T	TSIM-4				
ENV-T	TSIM-5				
ENV-T	TSIM-6				
ENV-T	TSIM-7				
ENV-T	TSIM-8				
FH-1	QLA1	No	No	No	
FH-1	QTA1				
FH-2	QLA1	No	No	No	
FH-2	QTB1				
FH-3	QLB1	No	No	No	
FH-3	QTA1				
FH-4	QLB1	No	No	No	
FH-4	QTB1				
FH-5	QLA2	No	No	No	
FH-5	QTA2				
FH-6	QLA2	No	No	No	
FH-6	QTB2				
FH-7	QLB2	No	No	No	
FH-7	QTA2				
FH-8	QLB2	No	No	No	
FH-8	QTB2				
FH-9	QLA3	No	No	No	
FH-9	QTA3				
FH-10	QLA3	No	No	No	
FH-10	QTB3				
FH-11	QLB3	No	No	No	
FH-11	QTA3				
FH-12	QLB3	No	No	No	
FH-12	QTB3				
FH-13	QLA4	No	No	No	
FH-13	QTA4				
FH-14	QLA4	No	No	No	
FH-14	QTB4				
FH-15	QLB4	No	No	No	
FH-15	QTA4				
FH-16	QLB4	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
FH-16	QTB4				
ENV-FH	QLA1	No	No	No	
ENV-FH	QLA2				
ENV-FH	QLA3				
ENV-FH	QLA4				
ENV-FH	QLB1				
ENV-FH	QLB2				
ENV-FH	QLB3				
ENV-FH	QLB4				
ENV-FH	QTA1				
ENV-FH	QTA2				
ENV-FH	QTA3				
ENV-FH	QTA4				
ENV-FH	QTB1				
ENV-FH	QTB2				
ENV-FH	QTB3				
ENV-FH	QTB4				
ENV-FH	FH-1				
ENV-FH	FH-10				
ENV-FH	FH-11				
ENV-FH	FH-12				
ENV-FH	FH-13				
ENV-FH	FH-14				
ENV-FH	FH-15				
ENV-FH	FH-16				
ENV-FH	FH-2				
ENV-FH	FH-3				
ENV-FH	FH-4				
ENV-FH	FH-5				
ENV-FH	FH-6				
ENV-FH	FH-7				
ENV-FH	FH-8				
ENV-FH	FH-9				
ENV-AC	AC1	No	No	No	
ENV-AC	AC10				
ENV-AC	AC11				
ENV-AC	AC12				
ENV-AC	AC2				
ENV-AC	AC3				
ENV-AC	AC4				
ENV-AC	AC5				
ENV-AC	AC6				
ENV-AC	AC7				
ENV-AC	AC8				
ENV-AC	AC9				
ELS-CA1	ENV-CP	No	No	No	
ELS-CA2	ENV-CP	No	No	No	
ELS-CA2	ENV-SCU				
ELS-CA3	ENV-CP	No	No	No	
ELS-CA3	ENV-CARROS				
ELS-CA4	ENV-CP	No	No	No	
ELS-CA4	ENV-SCU				
ELS-CA4	ENV-CARROS				
ELS-CA5	ENV-CP	No	No	No	
ELS-CA5	ENV-CARROS				
ELS-CA5	ENV-FH				
ELS-CA6	ENV-CP	No	No	No	
ELS-CA6	ENV-SCU				
ELS-CA6	ENV-FH				
ELS-CA7	ENV-CP	No	No	No	
ELS-CA7	ENV-SCU				
ELS-CA7	ENV-CARROS				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELS-CA7	ENV-FH				
ELS-CA8	ENV-CP	No	No	No	
ELS-CA8	ENV-SCU				
ELS-CA8	ENV-T				
ELS-CA9	ENV-CP	No	No	No	
ELS-CA9	ENV-CARROS				
ELS-CA9	ENV-T				
ELS-CA10	ENV-CP	No	No	No	
ELS-CA10	ENV-SCU				
ELS-CA10	ENV-CARROS				
ELS-CA10	ENV-T				
ELS-CA11	ENV-CP	No	No	No	
ELS-CA11	ENV-CARROS				
ELS-CA11	ENV-FH				
ELS-CA11	ENV-T				
ELS-CA12	ENV-CP	No	No	No	
ELS-CA12	ENV-SCU				
ELS-CA12	ENV-FH				
ELS-CA12	ENV-T				
ELS-CA13	ENV-CP	No	No	No	
ELS-CA13	ENV-SCU				
ELS-CA13	ENV-CARROS				
ELS-CA13	ENV-FH				
ELS-CA13	ENV-T				
ELS-CA14	ENV-CP	No	No	No	
ELS-CA14	ENV-T				
ELS-CA15	ENV-CP	No	No	No	
ELS-CA15	ENV-T				
ELS-CA15	ENV-SCU				
ELS-CA16	ENV-CP	No	No	No	
ELS-CA16	ENV-T				
ELS-CA16	ENV-CARROS				
ELS-CA17	ENV-CP	No	No	No	
ELS-CA17	ENV-T				
ELS-CA17	ENV-CARROS				
ELS-CA17	ENV-SCU				
ENV-ELS-CA	ELS-CA1	No	No	No	
ENV-ELS-CA	ELS-CA10				
ENV-ELS-CA	ELS-CA11				
ENV-ELS-CA	ELS-CA12				
ENV-ELS-CA	ELS-CA13				
ENV-ELS-CA	ELS-CA14				
ENV-ELS-CA	ELS-CA15				
ENV-ELS-CA	ELS-CA16				
ENV-ELS-CA	ELS-CA17				
ENV-ELS-CA	ELS-CA2				
ENV-ELS-CA	ELS-CA3				
ENV-ELS-CA	ELS-CA4				
ENV-ELS-CA	ELS-CA5				
ENV-ELS-CA	ELS-CA6				
ENV-ELS-CA	ELS-CA7				
ENV-ELS-CA	ELS-CA8				
ENV-ELS-CA	ELS-CA9				
ELS-CP1	ENV-CP	No	No	No	
ELS-CP2	ENV-CP	No	No	No	
ELS-CP2	ENV-T				
ENV-ELS-CP	ELS-CP1	No	No	No	
ENV-ELS-CP	ELS-CP2				
ELU-PT1	ENV-CP	No	No	No	
ELU-PT2	ENV-CP	No	No	No	
ELU-PT2	ENV-SCU				
ELU-PT3	ENV-CP	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELU-PT3	ENV-CARROS				
ELU-PT4	ENV-CP	No	No	No	
ELU-PT4	ENV-SCU				
ELU-PT4	ENV-CARROS				
ELU-PT5	ENV-CP	No	No	No	
ELU-PT5	ENV-CARROS				
ELU-PT5	ENV-FH				
ELU-PT6	ENV-CP	No	No	No	
ELU-PT6	ENV-SCU				
ELU-PT6	ENV-FH				
ELU-PT7	ENV-CP	No	No	No	
ELU-PT7	ENV-SCU				
ELU-PT7	ENV-CARROS				
ELU-PT7	ENV-FH				
ELU-PT8	ENV-CP	No	No	No	
ELU-PT8	ENV-SCU				
ELU-PT8	ENV-T				
ELU-PT9	ENV-CP	No	No	No	
ELU-PT9	ENV-CARROS				
ELU-PT9	ENV-T				
ELU-PT10	ENV-CP	No	No	No	
ELU-PT10	ENV-SCU				
ELU-PT10	ENV-CARROS				
ELU-PT10	ENV-T				
ELU-PT11	ENV-CP	No	No	No	
ELU-PT11	ENV-CARROS				
ELU-PT11	ENV-FH				
ELU-PT11	ENV-T				
ELU-PT12	ENV-CP	No	No	No	
ELU-PT12	ENV-SCU				
ELU-PT12	ENV-FH				
ELU-PT12	ENV-T				
ELU-PT13	ENV-CP	No	No	No	
ELU-PT13	ENV-SCU				
ELU-PT13	ENV-CARROS				
ELU-PT13	ENV-FH				
ELU-PT13	ENV-T				
ELU-PT14	ENV-CP	No	No	No	
ELU-PT14	ENV-T				
ELU-PT15	ENV-CP	No	No	No	
ELU-PT15	ENV-T				
ELU-PT15	ENV-SCU				
ELU-PT16	ENV-CP	No	No	No	
ELU-PT16	ENV-T				
ELU-PT16	ENV-CARROS				
ELU-PT17	ENV-CP	No	No	No	
ELU-PT17	ENV-T				
ELU-PT17	ENV-CARROS				
ELU-PT17	ENV-SCU				
ELU-PT18	ENV-CP	No	No	No	
ELU-PT19	ENV-CP	No	No	No	
ELU-PT19	ENV-SCU				
ELU-PT20	ENV-CP	No	No	No	
ELU-PT20	ENV-CARROS				
ELU-PT21	ENV-CP	No	No	No	
ELU-PT21	ENV-SCU				
ELU-PT21	ENV-CARROS				
ELU-PT22	ENV-CP	No	No	No	
ELU-PT22	ENV-CARROS				
ELU-PT22	ENV-FH				
ELU-PT23	ENV-CP	No	No	No	
ELU-PT23	ENV-SCU				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELU-PT23	ENV-FH				
ELU-PT24	ENV-CP	No	No	No	
ELU-PT24	ENV-SCU				
ELU-PT24	ENV-CARROS				
ELU-PT24	ENV-FH				
ELU-PT25	ENV-CP	No	No	No	
ELU-PT25	ENV-SCU				
ELU-PT25	ENV-T				
ELU-PT26	ENV-CP	No	No	No	
ELU-PT26	ENV-CARROS				
ELU-PT26	ENV-T				
ELU-PT27	ENV-CP	No	No	No	
ELU-PT27	ENV-SCU				
ELU-PT27	ENV-CARROS				
ELU-PT27	ENV-T				
ELU-PT28	ENV-CP	No	No	No	
ELU-PT28	ENV-CARROS				
ELU-PT28	ENV-FH				
ELU-PT28	ENV-T				
ELU-PT29	ENV-CP	No	No	No	
ELU-PT29	ENV-SCU				
ELU-PT29	ENV-FH				
ELU-PT29	ENV-T				
ELU-PT30	ENV-CP	No	No	No	
ELU-PT30	ENV-SCU				
ELU-PT30	ENV-CARROS				
ELU-PT30	ENV-FH				
ELU-PT30	ENV-T				
ELU-PT31	ENV-CP	No	No	No	
ELU-PT31	ENV-T				
ELU-PT32	ENV-CP	No	No	No	
ELU-PT32	ENV-T				
ELU-PT32	ENV-SCU				
ELU-PT33	ENV-CP	No	No	No	
ELU-PT33	ENV-T				
ELU-PT33	ENV-CARROS				
ELU-PT34	ENV-CP	No	No	No	
ELU-PT34	ENV-T				
ELU-PT34	ENV-CARROS				
ELU-PT34	ENV-SCU				
ENV-ELU-PT	ELU-PT1	No	No	No	
ENV-ELU-PT	ELU-PT10				
ENV-ELU-PT	ELU-PT11				
ENV-ELU-PT	ELU-PT12				
ENV-ELU-PT	ELU-PT13				
ENV-ELU-PT	ELU-PT14				
ENV-ELU-PT	ELU-PT15				
ENV-ELU-PT	ELU-PT16				
ENV-ELU-PT	ELU-PT17				
ENV-ELU-PT	ELU-PT18				
ENV-ELU-PT	ELU-PT19				
ENV-ELU-PT	ELU-PT2				
ENV-ELU-PT	ELU-PT20				
ENV-ELU-PT	ELU-PT21				
ENV-ELU-PT	ELU-PT22				
ENV-ELU-PT	ELU-PT23				
ENV-ELU-PT	ELU-PT24				
ENV-ELU-PT	ELU-PT25				
ENV-ELU-PT	ELU-PT26				
ENV-ELU-PT	ELU-PT27				
ENV-ELU-PT	ELU-PT28				
ENV-ELU-PT	ELU-PT29				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-ELU-PT	ELU-PT3				
ENV-ELU-PT	ELU-PT30				
ENV-ELU-PT	ELU-PT31				
ENV-ELU-PT	ELU-PT32				
ENV-ELU-PT	ELU-PT33				
ENV-ELU-PT	ELU-PT34				
ENV-ELU-PT	ELU-PT4				
ENV-ELU-PT	ELU-PT5				
ENV-ELU-PT	ELU-PT6				
ENV-ELU-PT	ELU-PT7				
ENV-ELU-PT	ELU-PT8				
ENV-ELU-PT	ELU-PT9				
ELU-AC1	ENV-CP	No	No	No	
ELU-AC1	ENV-AC				
ELU-AC2	ENV-CP	No	No	No	
ELU-AC2	ENV-AC				
ELU-AC2	ENV-SCU				
ELU-AC3	ENV-CP	No	No	No	
ELU-AC3	ENV-AC				
ELU-AC3	ENV-CARROS				
ELU-AC4	ENV-CP	No	No	No	
ELU-AC4	ENV-AC				
ELU-AC4	ENV-CARROS				
ELU-AC4	ENV-SCU				
ELU-AC5	ENV-CP	No	No	No	
ELU-AC5	ENV-AC				
ELU-AC5	ENV-SCU				
ELU-AC5	ENV-T				
ELU-AC6	ENV-CP	No	No	No	
ELU-AC6	ENV-AC				
ELU-AC6	ENV-CARROS				
ELU-AC6	ENV-T				
ELU-AC7	ENV-CP	No	No	No	
ELU-AC7	ENV-AC				
ELU-AC7	ENV-CARROS				
ELU-AC7	ENV-SCU				
ELU-AC7	ENV-T				
ELU-AC8	ENV-CP	No	No	No	
ELU-AC8	ENV-AC				
ELU-AC8	ENV-T				
ENV-ELU-AC	ELU-AC1	No	No	No	
ENV-ELU-AC	ELU-AC2				
ENV-ELU-AC	ELU-AC3				
ENV-ELU-AC	ELU-AC4				
ENV-ELU-AC	ELU-AC5				
ENV-ELU-AC	ELU-AC6				
ENV-ELU-AC	ELU-AC7				
ENV-ELU-AC	ELU-AC8				
ELU-EQ1	DEAD	No	No	No	
ELU-EQ1	PAVMIN1				
ELU-EQ1	PRETIL				
ELU-EQ1	PAVMIN2				
ELU-EQ1	ENV-SCU				
ELU-EQ2	DEAD	No	No	No	
ELU-EQ2	PAVMIN1				
ELU-EQ2	PRETIL				
ELU-EQ2	PAVMIN2				
ELU-EQ2	ENV-CARROS				
ELU-EQ3	DEAD	No	No	No	
ELU-EQ3	PAVMIN1				
ELU-EQ3	PRETIL				
ELU-EQ3	PAVMIN2				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELU-EQ3	ENV-CARROS				
ELU-EQ3	ENV-SCU				
ELU-EQ4	DEAD	No	No	No	
ELU-EQ4	PAVMAX1				
ELU-EQ4	PRETIL				
ELU-EQ4	PAVMAX2				
ELU-EQ4	ENV-SCU				
ELU-EQ5	DEAD	No	No	No	
ELU-EQ5	PAVMAX1				
ELU-EQ5	PRETIL				
ELU-EQ5	PAVMAX2				
ELU-EQ5	ENV-CARROS				
ELU-EQ6	DEAD	No	No	No	
ELU-EQ6	PAVMAX1				
ELU-EQ6	PRETIL				
ELU-EQ6	PAVMAX2				
ELU-EQ6	ENV-CARROS				
ELU-EQ6	ENV-SCU				
ENV-ELU-EQ	ELU-EQ1	No	No	No	
ENV-ELU-EQ	ELU-EQ2				
ENV-ELU-EQ	ELU-EQ3				
ENV-ELU-EQ	ELU-EQ4				
ENV-ELU-EQ	ELU-EQ5				
ENV-ELU-EQ	ELU-EQ6				
RH-1	RETRAC	No	No	No	
RH-2	RETRAC	No	No	No	
RH-2	TCON				
RH-3	RETRAC	No	No	No	
RH-3	TDIL				
RH-4	RETRAC	No	No	No	
RH-4	TCON				
RH-4	FH-1				
RH-5	RETRAC	No	No	No	
RH-5	TCON				
RH-5	FH-2				
RH-6	RETRAC	No	No	No	
RH-6	TCON				
RH-6	FH-3				
RH-7	RETRAC	No	No	No	
RH-7	TCON				
RH-7	FH-4				
RH-8	RETRAC	No	No	No	
RH-8	TCON				
RH-8	FH-5				
RH-9	RETRAC	No	No	No	
RH-9	TCON				
RH-9	FH-6				
RH-10	RETRAC	No	No	No	
RH-10	TCON				
RH-10	FH-7				
RH-11	RETRAC	No	No	No	
RH-11	TCON				
RH-11	FH-8				
RH-12	RETRAC	No	No	No	
RH-12	TCON				
RH-12	FH-9				
RH-13	RETRAC	No	No	No	
RH-13	TCON				
RH-13	FH-10				
RH-14	RETRAC	No	No	No	
RH-14	TCON				
RH-14	FH-11				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-15	RETRAC	No	No	No	
RH-15	TCON				
RH-15	FH-12				
RH-16	RETRAC	No	No	No	
RH-16	TCON				
RH-16	FH-13				
RH-17	RETRAC	No	No	No	
RH-17	TCON				
RH-17	FH-14				
RH-18	RETRAC	No	No	No	
RH-18	TCON				
RH-18	FH-15				
RH-19	RETRAC	No	No	No	
RH-19	TCON				
RH-19	FH-16				
RH-20	RETRAC	No	No	No	
RH-20	TDIL				
RH-20	FH-1				
RH-21	RETRAC	No	No	No	
RH-21	TDIL				
RH-21	FH-2				
RH-22	RETRAC	No	No	No	
RH-22	TDIL				
RH-22	FH-3				
RH-23	RETRAC	No	No	No	
RH-23	TDIL				
RH-23	FH-4				
RH-24	RETRAC	No	No	No	
RH-24	TDIL				
RH-24	FH-5				
RH-25	RETRAC	No	No	No	
RH-25	TDIL				
RH-25	FH-6				
RH-26	RETRAC	No	No	No	
RH-26	TDIL				
RH-26	FH-7				
RH-27	RETRAC	No	No	No	
RH-27	TDIL				
RH-27	FH-8				
RH-28	RETRAC	No	No	No	
RH-28	TDIL				
RH-28	FH-9				
RH-29	RETRAC	No	No	No	
RH-29	TDIL				
RH-29	FH-10				
RH-30	RETRAC	No	No	No	
RH-30	TDIL				
RH-30	FH-11				
RH-31	RETRAC	No	No	No	
RH-31	TDIL				
RH-31	FH-12				
RH-32	RETRAC	No	No	No	
RH-32	TDIL				
RH-32	FH-13				
RH-33	RETRAC	No	No	No	
RH-33	TDIL				
RH-33	FH-14				
RH-34	RETRAC	No	No	No	
RH-34	TDIL				
RH-34	FH-15				
RH-35	RETRAC	No	No	No	
RH-35	TDIL				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-35	FH-16				
RH-36	RETRAC	No	No	No	
RH-37	RETRAC	No	No	No	
RH-37	TCON				
RH-38	RETRAC	No	No	No	
RH-38	TDIL				
RH-39	RETRAC	No	No	No	
RH-39	TCON				
RH-39	FH-1				
RH-40	RETRAC	No	No	No	
RH-40	TCON				
RH-40	FH-2				
RH-41	RETRAC	No	No	No	
RH-41	TCON				
RH-41	FH-3				
RH-42	RETRAC	No	No	No	
RH-42	TCON				
RH-42	FH-4				
RH-43	RETRAC	No	No	No	
RH-43	TCON				
RH-43	FH-5				
RH-44	RETRAC	No	No	No	
RH-44	TCON				
RH-44	FH-6				
RH-45	RETRAC	No	No	No	
RH-45	TCON				
RH-45	FH-7				
RH-46	RETRAC	No	No	No	
RH-46	TCON				
RH-46	FH-8				
RH-47	RETRAC	No	No	No	
RH-47	TCON				
RH-47	FH-9				
RH-48	RETRAC	No	No	No	
RH-48	TCON				
RH-48	FH-10				
RH-49	RETRAC	No	No	No	
RH-49	TCON				
RH-49	FH-11				
RH-50	RETRAC	No	No	No	
RH-50	TCON				
RH-50	FH-12				
RH-51	RETRAC	No	No	No	
RH-51	TCON				
RH-51	FH-13				
RH-52	RETRAC	No	No	No	
RH-52	TCON				
RH-52	FH-14				
RH-53	RETRAC	No	No	No	
RH-53	TCON				
RH-53	FH-15				
RH-54	RETRAC	No	No	No	
RH-54	TCON				
RH-54	FH-16				
RH-55	RETRAC	No	No	No	
RH-55	TDIL				
RH-55	FH-1				
RH-56	RETRAC	No	No	No	
RH-56	TDIL				
RH-56	FH-2				
RH-57	RETRAC	No	No	No	
RH-57	TDIL				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-57	FH-3				
RH-58	RETRAC	No	No	No	
RH-58	TDIL				
RH-58	FH-4				
RH-59	RETRAC	No	No	No	
RH-59	TDIL				
RH-59	FH-5				
RH-60	RETRAC	No	No	No	
RH-60	TDIL				
RH-60	FH-6				
RH-61	RETRAC	No	No	No	
RH-61	TDIL				
RH-61	FH-7				
RH-62	RETRAC	No	No	No	
RH-62	TDIL				
RH-62	FH-8				
RH-63	RETRAC	No	No	No	
RH-63	TDIL				
RH-63	FH-9				
RH-64	RETRAC	No	No	No	
RH-64	TDIL				
RH-64	FH-10				
RH-65	RETRAC	No	No	No	
RH-65	TDIL				
RH-65	FH-11				
RH-66	RETRAC	No	No	No	
RH-66	TDIL				
RH-66	FH-12				
RH-67	RETRAC	No	No	No	
RH-67	TDIL				
RH-67	FH-13				
RH-68	RETRAC	No	No	No	
RH-68	TDIL				
RH-68	FH-14				
RH-69	RETRAC	No	No	No	
RH-69	TDIL				
RH-69	FH-15				
RH-70	RETRAC	No	No	No	
RH-70	TDIL				
RH-70	FH-16				
RH-71	RETRAC	No	No	No	
RH-72	RETRAC	No	No	No	
RH-72	TCON				
RH-73	RETRAC	No	No	No	
RH-73	TDIL				
RH-74	RETRAC	No	No	No	
RH-74	TCON				
RH-74	FH-1				
RH-75	RETRAC	No	No	No	
RH-75	TCON				
RH-75	FH-2				
RH-76	RETRAC	No	No	No	
RH-76	TCON				
RH-76	FH-3				
RH-77	RETRAC	No	No	No	
RH-77	TCON				
RH-77	FH-4				
RH-78	RETRAC	No	No	No	
RH-78	TCON				
RH-78	FH-5				
RH-79	RETRAC	No	No	No	
RH-79	TCON				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-79	FH-6				
RH-80	RETRAC	No	No	No	
RH-80	TCON				
RH-80	FH-7				
RH-81	RETRAC	No	No	No	
RH-81	TCON				
RH-81	FH-8				
RH-82	RETRAC	No	No	No	
RH-82	TCON				
RH-82	FH-9				
RH-83	RETRAC	No	No	No	
RH-83	TCON				
RH-83	FH-10				
RH-84	RETRAC	No	No	No	
RH-84	TCON				
RH-84	FH-11				
RH-85	RETRAC	No	No	No	
RH-85	TCON				
RH-85	FH-12				
RH-86	RETRAC	No	No	No	
RH-86	TCON				
RH-86	FH-13				
RH-87	RETRAC	No	No	No	
RH-87	TCON				
RH-87	FH-14				
RH-88	RETRAC	No	No	No	
RH-88	TCON				
RH-88	FH-15				
RH-89	RETRAC	No	No	No	
RH-89	TCON				
RH-89	FH-16				
RH-90	RETRAC	No	No	No	
RH-90	TDIL				
RH-90	FH-1				
RH-91	RETRAC	No	No	No	
RH-91	TDIL				
RH-91	FH-2				
RH-92	RETRAC	No	No	No	
RH-92	TDIL				
RH-92	FH-3				
RH-93	RETRAC	No	No	No	
RH-93	TDIL				
RH-93	FH-4				
RH-94	RETRAC	No	No	No	
RH-94	TDIL				
RH-94	FH-5				
RH-95	RETRAC	No	No	No	
RH-95	TDIL				
RH-95	FH-6				
RH-96	RETRAC	No	No	No	
RH-96	TDIL				
RH-96	FH-7				
RH-97	RETRAC	No	No	No	
RH-97	TDIL				
RH-97	FH-8				
RH-98	RETRAC	No	No	No	
RH-98	TDIL				
RH-98	FH-9				
RH-99	RETRAC	No	No	No	
RH-99	TDIL				
RH-99	FH-10				
RH-100	RETRAC	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-100	TDIL				
RH-100	FH-11				
RH-101	RETRAC	No	No	No	
RH-101	TDIL				
RH-101	FH-12				
RH-102	RETRAC	No	No	No	
RH-102	TDIL				
RH-102	FH-13				
RH-103	RETRAC	No	No	No	
RH-103	TDIL				
RH-103	FH-14				
RH-104	RETRAC	No	No	No	
RH-104	TDIL				
RH-104	FH-15				
RH-105	RETRAC	No	No	No	
RH-105	TDIL				
RH-105	FH-16				
RH-106	RETRAC	No	No	No	
RH-106	AC1				
RH-107	RETRAC	No	No	No	
RH-107	AC2				
RH-108	RETRAC	No	No	No	
RH-108	AC3				
RH-109	RETRAC	No	No	No	
RH-109	AC4				
RH-110	RETRAC	No	No	No	
RH-110	AC5				
RH-111	RETRAC	No	No	No	
RH-111	AC6				
RH-112	RETRAC	No	No	No	
RH-112	AC7				
RH-113	RETRAC	No	No	No	
RH-113	AC8				
RH-114	RETRAC	No	No	No	
RH-114	AC9				
RH-115	RETRAC	No	No	No	
RH-115	AC10				
RH-116	RETRAC	No	No	No	
RH-116	AC1				
RH-116	TCON				
RH-117	RETRAC	No	No	No	
RH-117	AC2				
RH-117	TCON				
RH-118	RETRAC	No	No	No	
RH-118	AC3				
RH-118	TCON				
RH-119	RETRAC	No	No	No	
RH-119	AC4				
RH-119	TCON				
RH-120	RETRAC	No	No	No	
RH-120	AC5				
RH-120	TCON				
RH-121	RETRAC	No	No	No	
RH-121	AC6				
RH-121	TCON				
RH-122	RETRAC	No	No	No	
RH-122	AC7				
RH-122	TCON				
RH-123	RETRAC	No	No	No	
RH-123	AC8				
RH-123	TCON				
RH-124	RETRAC	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-124	AC9				
RH-124	TCON				
RH-125	RETRAC	No	No	No	
RH-125	AC10				
RH-125	TCON				
RH-126	RETRAC	No	No	No	
RH-126	AC1				
RH-126	TDIL				
RH-127	RETRAC	No	No	No	
RH-127	AC2				
RH-127	TDIL				
RH-128	RETRAC	No	No	No	
RH-128	AC3				
RH-128	TDIL				
RH-129	RETRAC	No	No	No	
RH-129	AC4				
RH-129	TDIL				
RH-130	RETRAC	No	No	No	
RH-130	AC5				
RH-130	TDIL				
RH-131	RETRAC	No	No	No	
RH-131	AC6				
RH-131	TDIL				
RH-132	RETRAC	No	No	No	
RH-132	AC7				
RH-132	TDIL				
RH-133	RETRAC	No	No	No	
RH-133	AC8				
RH-133	TDIL				
RH-134	RETRAC	No	No	No	
RH-134	AC9				
RH-134	TDIL				
RH-135	RETRAC	No	No	No	
RH-135	AC10				
RH-135	TDIL				
RH-136	RETRAC	No	No	No	
RH-136	AC1				
RH-137	RETRAC	No	No	No	
RH-137	AC2				
RH-138	RETRAC	No	No	No	
RH-138	AC3				
RH-139	RETRAC	No	No	No	
RH-139	AC4				
RH-140	RETRAC	No	No	No	
RH-140	AC5				
RH-141	RETRAC	No	No	No	
RH-141	AC6				
RH-142	RETRAC	No	No	No	
RH-142	AC7				
RH-143	RETRAC	No	No	No	
RH-143	AC8				
RH-144	RETRAC	No	No	No	
RH-144	AC9				
RH-145	RETRAC	No	No	No	
RH-145	AC10				
RH-146	RETRAC	No	No	No	
RH-146	AC1				
RH-146	TCON				
RH-147	RETRAC	No	No	No	
RH-147	AC2				
RH-147	TCON				
RH-148	RETRAC	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-148	AC3				
RH-148	TCON				
RH-149	RETRAC	No	No	No	
RH-149	AC4				
RH-149	TCON				
RH-150	RETRAC	No	No	No	
RH-150	AC5				
RH-150	TCON				
RH-151	RETRAC	No	No	No	
RH-151	AC6				
RH-151	TCON				
RH-152	RETRAC	No	No	No	
RH-152	AC7				
RH-152	TCON				
RH-153	RETRAC	No	No	No	
RH-153	AC8				
RH-153	TCON				
RH-154	RETRAC	No	No	No	
RH-154	AC9				
RH-154	TCON				
RH-155	RETRAC	No	No	No	
RH-155	AC10				
RH-155	TCON				
RH-156	RETRAC	No	No	No	
RH-156	AC1				
RH-156	TDIL				
RH-157	RETRAC	No	No	No	
RH-157	AC2				
RH-157	TDIL				
RH-158	RETRAC	No	No	No	
RH-158	AC3				
RH-158	TDIL				
RH-159	RETRAC	No	No	No	
RH-159	AC4				
RH-159	TDIL				
RH-160	RETRAC	No	No	No	
RH-160	AC5				
RH-160	TDIL				
RH-161	RETRAC	No	No	No	
RH-161	AC6				
RH-161	TDIL				
RH-162	RETRAC	No	No	No	
RH-162	AC7				
RH-162	TDIL				
RH-163	RETRAC	No	No	No	
RH-163	AC8				
RH-163	TDIL				
RH-164	RETRAC	No	No	No	
RH-164	AC9				
RH-164	TDIL				
RH-165	RETRAC	No	No	No	
RH-165	AC10				
RH-165	TDIL				

Table: Combination Definitions, Part 3 of 3

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-CARROS	CARRO-A1	
ENV-CARROS	CARRO-A10	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-CARROS	CARRO-A11	
ENV-CARROS	CARRO-A12	
ENV-CARROS	CARRO-A13	
ENV-CARROS	CARRO-A14	
ENV-CARROS	CARRO-A15	
ENV-CARROS	CARRO-A16	
ENV-CARROS	CARRO-A17	
ENV-CARROS	CARRO-A18	
ENV-CARROS	CARRO-A19	
ENV-CARROS	CARRO-A2	
ENV-CARROS	CARRO-A20	
ENV-CARROS	CARRO-A21	
ENV-CARROS	CARRO-A22	
ENV-CARROS	CARRO-A3	
ENV-CARROS	CARRO-A4	
ENV-CARROS	CARRO-A5	
ENV-CARROS	CARRO-A6	
ENV-CARROS	CARRO-A7	
ENV-CARROS	CARRO-A8	
ENV-CARROS	CARRO-A9	
ENV-CARROS	CARRO-B1	
ENV-CARROS	CARRO-B10	
ENV-CARROS	CARRO-B11	
ENV-CARROS	CARRO-B12	
ENV-CARROS	CARRO-B13	
ENV-CARROS	CARRO-B14	
ENV-CARROS	CARRO-B15	
ENV-CARROS	CARRO-B16	
ENV-CARROS	CARRO-B17	
ENV-CARROS	CARRO-B18	
ENV-CARROS	CARRO-B19	
ENV-CARROS	CARRO-B2	
ENV-CARROS	CARRO-B20	
ENV-CARROS	CARRO-B21	
ENV-CARROS	CARRO-B22	
ENV-CARROS	CARRO-B3	
ENV-CARROS	CARRO-B4	
ENV-CARROS	CARRO-B5	
ENV-CARROS	CARRO-B6	
ENV-CARROS	CARRO-B7	
ENV-CARROS	CARRO-B8	
ENV-CARROS	CARRO-B9	
ENV-CARROS	CARRO-C1	
ENV-CARROS	CARRO-C10	
ENV-CARROS	CARRO-C11	
ENV-CARROS	CARRO-C12	
ENV-CARROS	CARRO-C13	
ENV-CARROS	CARRO-C14	
ENV-CARROS	CARRO-C15	
ENV-CARROS	CARRO-C16	
ENV-CARROS	CARRO-C17	
ENV-CARROS	CARRO-C18	
ENV-CARROS	CARRO-C19	
ENV-CARROS	CARRO-C2	
ENV-CARROS	CARRO-C20	
ENV-CARROS	CARRO-C21	
ENV-CARROS	CARRO-C22	
ENV-CARROS	CARRO-C3	
ENV-CARROS	CARRO-C4	
ENV-CARROS	CARRO-C5	
ENV-CARROS	CARRO-C6	
ENV-CARROS	CARRO-C7	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-CARROS	CARRO-C8	
ENV-CARROS	CARRO-C9	
ENV-CARROS	CARRO-A23	
ENV-CARROS	CARRO-A24	
ENV-CARROS	CARRO-A25	
ENV-CARROS	CARRO-B23	
ENV-CARROS	CARRO-B24	
ENV-CARROS	CARRO-B25	
ENV-CARROS	CARRO-C23	
ENV-CARROS	CARRO-C24	
ENV-CARROS	CARRO-C25	
ENV-CARROS	CARRO-B26	
ENV-CARROS	CARRO-C26	
ENV-SCU	SCU-1	
ENV-SCU	SCU-2	
ENV-SCU	SCU-3	
ENV-SCU	SCU-4	
ENV-SCU	SCU-5	
ENV-SCU	SCU-6	
ENV-SCU	SCU-7	
ENV-SCU	SCU-8	
ENV-SCU	SCU-9	
CP-1	DEAD	
CP-1	PRETIL	
CP-1	PAVMIN1	
CP-1	PAVMIN2	
CP-1	RETRAC	
CP-2	DEAD	
CP-2	PRETIL	
CP-2	PAVMIN1	
CP-2	PAVMIN2	
CP-3	DEAD	
CP-3	PRETIL	
CP-3	PAVMAX1	
CP-3	PAVMAX2	
CP-3	RETRAC	
CP-4	DEAD	
CP-4	PRETIL	
CP-4	PAVMAX1	
CP-4	PAVMAX2	
ENV-CP	CP-1	
ENV-CP	CP-2	
ENV-CP	CP-3	
ENV-CP	CP-4	
TSIM-1	TCON	
TSIM-1	TGRAD1	
TSIM-2	TCON	
TSIM-2	TGRAD2	
TSIM-3	TDIL	
TSIM-3	TGRAD1	
TSIM-4	TDIL	
TSIM-4	TGRAD2	
TSIM-5	TCON	
TSIM-5	TGRAD1	
TSIM-6	TCON	
TSIM-6	TGRAD2	
TSIM-7	TDIL	
TSIM-7	TGRAD1	
TSIM-8	TDIL	
TSIM-8	TGRAD2	
ENV-T	TCON	
ENV-T	TDIL	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-T	TGRAD1	
ENV-T	TGRAD2	
ENV-T	TSIM-1	
ENV-T	TSIM-2	
ENV-T	TSIM-3	
ENV-T	TSIM-4	
ENV-T	TSIM-5	
ENV-T	TSIM-6	
ENV-T	TSIM-7	
ENV-T	TSIM-8	
FH-1	QLA1	
FH-1	QTA1	
FH-2	QLA1	
FH-2	QTB1	
FH-3	QLB1	
FH-3	QTA1	
FH-4	QLB1	
FH-4	QTB1	
FH-5	QLA2	
FH-5	QTA2	
FH-6	QLA2	
FH-6	QTB2	
FH-7	QLB2	
FH-7	QTA2	
FH-8	QLB2	
FH-8	QTB2	
FH-9	QLA3	
FH-9	QTA3	
FH-10	QLA3	
FH-10	QTB3	
FH-11	QLB3	
FH-11	QTA3	
FH-12	QLB3	
FH-12	QTB3	
FH-13	QLA4	
FH-13	QTA4	
FH-14	QLA4	
FH-14	QTB4	
FH-15	QLB4	
FH-15	QTA4	
FH-16	QLB4	
FH-16	QTB4	
ENV-FH	QLA1	
ENV-FH	QLA2	
ENV-FH	QLA3	
ENV-FH	QLA4	
ENV-FH	QLB1	
ENV-FH	QLB2	
ENV-FH	QLB3	
ENV-FH	QLB4	
ENV-FH	QTA1	
ENV-FH	QTA2	
ENV-FH	QTA3	
ENV-FH	QTA4	
ENV-FH	QTB1	
ENV-FH	QTB2	
ENV-FH	QTB3	
ENV-FH	QTB4	
ENV-FH	FH-1	
ENV-FH	FH-10	
ENV-FH	FH-11	
ENV-FH	FH-12	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-FH	FH-13	
ENV-FH	FH-14	
ENV-FH	FH-15	
ENV-FH	FH-16	
ENV-FH	FH-2	
ENV-FH	FH-3	
ENV-FH	FH-4	
ENV-FH	FH-5	
ENV-FH	FH-6	
ENV-FH	FH-7	
ENV-FH	FH-8	
ENV-FH	FH-9	
ENV-AC	AC1	
ENV-AC	AC10	
ENV-AC	AC11	
ENV-AC	AC12	
ENV-AC	AC2	
ENV-AC	AC3	
ENV-AC	AC4	
ENV-AC	AC5	
ENV-AC	AC6	
ENV-AC	AC7	
ENV-AC	AC8	
ENV-AC	AC9	
ELS-CA1	ENV-CP	
ELS-CA2	ENV-CP	
ELS-CA2	ENV-SCU	
ELS-CA3	ENV-CP	
ELS-CA3	ENV-CARROS	
ELS-CA4	ENV-CP	
ELS-CA4	ENV-SCU	
ELS-CA4	ENV-CARROS	
ELS-CA5	ENV-CP	
ELS-CA5	ENV-CARROS	
ELS-CA5	ENV-FH	
ELS-CA6	ENV-CP	
ELS-CA6	ENV-SCU	
ELS-CA6	ENV-FH	
ELS-CA7	ENV-CP	
ELS-CA7	ENV-SCU	
ELS-CA7	ENV-CARROS	
ELS-CA7	ENV-FH	
ELS-CA8	ENV-CP	
ELS-CA8	ENV-SCU	
ELS-CA8	ENV-T	
ELS-CA9	ENV-CP	
ELS-CA9	ENV-CARROS	
ELS-CA9	ENV-T	
ELS-CA10	ENV-CP	
ELS-CA10	ENV-SCU	
ELS-CA10	ENV-CARROS	
ELS-CA10	ENV-T	
ELS-CA11	ENV-CP	
ELS-CA11	ENV-CARROS	
ELS-CA11	ENV-FH	
ELS-CA11	ENV-T	
ELS-CA12	ENV-CP	
ELS-CA12	ENV-SCU	
ELS-CA12	ENV-FH	
ELS-CA12	ENV-T	
ELS-CA13	ENV-CP	
ELS-CA13	ENV-SCU	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELS-CA13	ENV-CARROS	
ELS-CA13	ENV-FH	
ELS-CA13	ENV-T	
ELS-CA14	ENV-CP	
ELS-CA14	ENV-T	
ELS-CA15	ENV-CP	
ELS-CA15	ENV-T	
ELS-CA15	ENV-SCU	
ELS-CA16	ENV-CP	
ELS-CA16	ENV-T	
ELS-CA16	ENV-CARROS	
ELS-CA17	ENV-CP	
ELS-CA17	ENV-T	
ELS-CA17	ENV-CARROS	
ELS-CA17	ENV-SCU	
ENV-ELS-CA	ELS-CA1	
ENV-ELS-CA	ELS-CA10	
ENV-ELS-CA	ELS-CA11	
ENV-ELS-CA	ELS-CA12	
ENV-ELS-CA	ELS-CA13	
ENV-ELS-CA	ELS-CA14	
ENV-ELS-CA	ELS-CA15	
ENV-ELS-CA	ELS-CA16	
ENV-ELS-CA	ELS-CA17	
ENV-ELS-CA	ELS-CA2	
ENV-ELS-CA	ELS-CA3	
ENV-ELS-CA	ELS-CA4	
ENV-ELS-CA	ELS-CA5	
ENV-ELS-CA	ELS-CA6	
ENV-ELS-CA	ELS-CA7	
ENV-ELS-CA	ELS-CA8	
ENV-ELS-CA	ELS-CA9	
ELS-CP1	ENV-CP	
ELS-CP2	ENV-CP	
ELS-CP2	ENV-T	
ENV-ELS-CP	ELS-CP1	
ENV-ELS-CP	ELS-CP2	
ELU-PT1	ENV-CP	
ELU-PT2	ENV-CP	
ELU-PT2	ENV-SCU	
ELU-PT3	ENV-CP	
ELU-PT3	ENV-CARROS	
ELU-PT4	ENV-CP	
ELU-PT4	ENV-SCU	
ELU-PT4	ENV-CARROS	
ELU-PT5	ENV-CP	
ELU-PT5	ENV-CARROS	
ELU-PT5	ENV-FH	
ELU-PT6	ENV-CP	
ELU-PT6	ENV-SCU	
ELU-PT6	ENV-FH	
ELU-PT7	ENV-CP	
ELU-PT7	ENV-SCU	
ELU-PT7	ENV-CARROS	
ELU-PT7	ENV-FH	
ELU-PT8	ENV-CP	
ELU-PT8	ENV-SCU	
ELU-PT8	ENV-T	
ELU-PT9	ENV-CP	
ELU-PT9	ENV-CARROS	
ELU-PT9	ENV-T	
ELU-PT10	ENV-CP	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELU-PT10	ENV-SCU	
ELU-PT10	ENV-CARROS	
ELU-PT10	ENV-T	
ELU-PT11	ENV-CP	
ELU-PT11	ENV-CARROS	
ELU-PT11	ENV-FH	
ELU-PT11	ENV-T	
ELU-PT12	ENV-CP	
ELU-PT12	ENV-SCU	
ELU-PT12	ENV-FH	
ELU-PT12	ENV-T	
ELU-PT13	ENV-CP	
ELU-PT13	ENV-SCU	
ELU-PT13	ENV-CARROS	
ELU-PT13	ENV-FH	
ELU-PT13	ENV-T	
ELU-PT14	ENV-CP	
ELU-PT14	ENV-T	
ELU-PT15	ENV-CP	
ELU-PT15	ENV-T	
ELU-PT15	ENV-SCU	
ELU-PT16	ENV-CP	
ELU-PT16	ENV-T	
ELU-PT16	ENV-CARROS	
ELU-PT17	ENV-CP	
ELU-PT17	ENV-T	
ELU-PT17	ENV-CARROS	
ELU-PT17	ENV-SCU	
ELU-PT18	ENV-CP	
ELU-PT19	ENV-CP	
ELU-PT19	ENV-SCU	
ELU-PT20	ENV-CP	
ELU-PT20	ENV-CARROS	
ELU-PT21	ENV-CP	
ELU-PT21	ENV-SCU	
ELU-PT21	ENV-CARROS	
ELU-PT22	ENV-CP	
ELU-PT22	ENV-CARROS	
ELU-PT22	ENV-FH	
ELU-PT23	ENV-CP	
ELU-PT23	ENV-SCU	
ELU-PT23	ENV-FH	
ELU-PT24	ENV-CP	
ELU-PT24	ENV-SCU	
ELU-PT24	ENV-CARROS	
ELU-PT24	ENV-FH	
ELU-PT25	ENV-CP	
ELU-PT25	ENV-SCU	
ELU-PT25	ENV-T	
ELU-PT26	ENV-CP	
ELU-PT26	ENV-CARROS	
ELU-PT26	ENV-T	
ELU-PT27	ENV-CP	
ELU-PT27	ENV-SCU	
ELU-PT27	ENV-CARROS	
ELU-PT27	ENV-T	
ELU-PT28	ENV-CP	
ELU-PT28	ENV-CARROS	
ELU-PT28	ENV-FH	
ELU-PT28	ENV-T	
ELU-PT29	ENV-CP	
ELU-PT29	ENV-SCU	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELU-PT29	ENV-FH	
ELU-PT29	ENV-T	
ELU-PT30	ENV-CP	
ELU-PT30	ENV-SCU	
ELU-PT30	ENV-CARROS	
ELU-PT30	ENV-FH	
ELU-PT30	ENV-T	
ELU-PT31	ENV-CP	
ELU-PT31	ENV-T	
ELU-PT32	ENV-CP	
ELU-PT32	ENV-T	
ELU-PT32	ENV-SCU	
ELU-PT33	ENV-CP	
ELU-PT33	ENV-T	
ELU-PT33	ENV-CARROS	
ELU-PT34	ENV-CP	
ELU-PT34	ENV-T	
ELU-PT34	ENV-CARROS	
ELU-PT34	ENV-SCU	
ENV-ELU-PT	ELU-PT1	
ENV-ELU-PT	ELU-PT10	
ENV-ELU-PT	ELU-PT11	
ENV-ELU-PT	ELU-PT12	
ENV-ELU-PT	ELU-PT13	
ENV-ELU-PT	ELU-PT14	
ENV-ELU-PT	ELU-PT15	
ENV-ELU-PT	ELU-PT16	
ENV-ELU-PT	ELU-PT17	
ENV-ELU-PT	ELU-PT18	
ENV-ELU-PT	ELU-PT19	
ENV-ELU-PT	ELU-PT2	
ENV-ELU-PT	ELU-PT20	
ENV-ELU-PT	ELU-PT21	
ENV-ELU-PT	ELU-PT22	
ENV-ELU-PT	ELU-PT23	
ENV-ELU-PT	ELU-PT24	
ENV-ELU-PT	ELU-PT25	
ENV-ELU-PT	ELU-PT26	
ENV-ELU-PT	ELU-PT27	
ENV-ELU-PT	ELU-PT28	
ENV-ELU-PT	ELU-PT29	
ENV-ELU-PT	ELU-PT3	
ENV-ELU-PT	ELU-PT30	
ENV-ELU-PT	ELU-PT31	
ENV-ELU-PT	ELU-PT32	
ENV-ELU-PT	ELU-PT33	
ENV-ELU-PT	ELU-PT34	
ENV-ELU-PT	ELU-PT4	
ENV-ELU-PT	ELU-PT5	
ENV-ELU-PT	ELU-PT6	
ENV-ELU-PT	ELU-PT7	
ENV-ELU-PT	ELU-PT8	
ENV-ELU-PT	ELU-PT9	
ELU-AC1	ENV-CP	
ELU-AC1	ENV-AC	
ELU-AC2	ENV-CP	
ELU-AC2	ENV-AC	
ELU-AC2	ENV-SCU	
ELU-AC3	ENV-CP	
ELU-AC3	ENV-AC	
ELU-AC3	ENV-CARROS	
ELU-AC4	ENV-CP	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELU-AC4	ENV-AC	
ELU-AC4	ENV-CARROS	
ELU-AC4	ENV-SCU	
ELU-AC5	ENV-CP	
ELU-AC5	ENV-AC	
ELU-AC5	ENV-SCU	
ELU-AC5	ENV-T	
ELU-AC6	ENV-CP	
ELU-AC6	ENV-AC	
ELU-AC6	ENV-CARROS	
ELU-AC6	ENV-T	
ELU-AC7	ENV-CP	
ELU-AC7	ENV-AC	
ELU-AC7	ENV-CARROS	
ELU-AC7	ENV-SCU	
ELU-AC7	ENV-T	
ELU-AC8	ENV-CP	
ELU-AC8	ENV-AC	
ELU-AC8	ENV-T	
ENV-ELU-AC	ELU-AC1	
ENV-ELU-AC	ELU-AC2	
ENV-ELU-AC	ELU-AC3	
ENV-ELU-AC	ELU-AC4	
ENV-ELU-AC	ELU-AC5	
ENV-ELU-AC	ELU-AC6	
ENV-ELU-AC	ELU-AC7	
ENV-ELU-AC	ELU-AC8	
ELU-EQ1	DEAD	
ELU-EQ1	PAVMIN1	
ELU-EQ1	PRETIL	
ELU-EQ1	PAVMIN2	
ELU-EQ1	ENV-SCU	
ELU-EQ2	DEAD	
ELU-EQ2	PAVMIN1	
ELU-EQ2	PRETIL	
ELU-EQ2	PAVMIN2	
ELU-EQ2	ENV-CARROS	
ELU-EQ3	DEAD	
ELU-EQ3	PAVMIN1	
ELU-EQ3	PRETIL	
ELU-EQ3	PAVMIN2	
ELU-EQ3	ENV-CARROS	
ELU-EQ3	ENV-SCU	
ELU-EQ4	DEAD	
ELU-EQ4	PAVMAX1	
ELU-EQ4	PRETIL	
ELU-EQ4	PAVMAX2	
ELU-EQ4	ENV-SCU	
ELU-EQ5	DEAD	
ELU-EQ5	PAVMAX1	
ELU-EQ5	PRETIL	
ELU-EQ5	PAVMAX2	
ELU-EQ5	ENV-CARROS	
ELU-EQ6	DEAD	
ELU-EQ6	PAVMAX1	
ELU-EQ6	PRETIL	
ELU-EQ6	PAVMAX2	
ELU-EQ6	ENV-CARROS	
ELU-EQ6	ENV-SCU	
ENV-ELU-EQ	ELU-EQ1	
ENV-ELU-EQ	ELU-EQ2	
ENV-ELU-EQ	ELU-EQ3	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-ELU-EQ	ELU-EQ4	
ENV-ELU-EQ	ELU-EQ5	
ENV-ELU-EQ	ELU-EQ6	
RH-1	RETRAC	
RH-2	RETRAC	
RH-2	TCON	
RH-3	RETRAC	
RH-3	TDIL	
RH-4	RETRAC	
RH-4	TCON	
RH-4	FH-1	
RH-5	RETRAC	
RH-5	TCON	
RH-5	FH-2	
RH-6	RETRAC	
RH-6	TCON	
RH-6	FH-3	
RH-7	RETRAC	
RH-7	TCON	
RH-7	FH-4	
RH-8	RETRAC	
RH-8	TCON	
RH-8	FH-5	
RH-9	RETRAC	
RH-9	TCON	
RH-9	FH-6	
RH-10	RETRAC	
RH-10	TCON	
RH-10	FH-7	
RH-11	RETRAC	
RH-11	TCON	
RH-11	FH-8	
RH-12	RETRAC	
RH-12	TCON	
RH-12	FH-9	
RH-13	RETRAC	
RH-13	TCON	
RH-13	FH-10	
RH-14	RETRAC	
RH-14	TCON	
RH-14	FH-11	
RH-15	RETRAC	
RH-15	TCON	
RH-15	FH-12	
RH-16	RETRAC	
RH-16	TCON	
RH-16	FH-13	
RH-17	RETRAC	
RH-17	TCON	
RH-17	FH-14	
RH-18	RETRAC	
RH-18	TCON	
RH-18	FH-15	
RH-19	RETRAC	
RH-19	TCON	
RH-19	FH-16	
RH-20	RETRAC	
RH-20	TDIL	
RH-20	FH-1	
RH-21	RETRAC	
RH-21	TDIL	
RH-21	FH-2	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-22	RETRAC	
RH-22	TDIL	
RH-22	FH-3	
RH-23	RETRAC	
RH-23	TDIL	
RH-23	FH-4	
RH-24	RETRAC	
RH-24	TDIL	
RH-24	FH-5	
RH-25	RETRAC	
RH-25	TDIL	
RH-25	FH-6	
RH-26	RETRAC	
RH-26	TDIL	
RH-26	FH-7	
RH-27	RETRAC	
RH-27	TDIL	
RH-27	FH-8	
RH-28	RETRAC	
RH-28	TDIL	
RH-28	FH-9	
RH-29	RETRAC	
RH-29	TDIL	
RH-29	FH-10	
RH-30	RETRAC	
RH-30	TDIL	
RH-30	FH-11	
RH-31	RETRAC	
RH-31	TDIL	
RH-31	FH-12	
RH-32	RETRAC	
RH-32	TDIL	
RH-32	FH-13	
RH-33	RETRAC	
RH-33	TDIL	
RH-33	FH-14	
RH-34	RETRAC	
RH-34	TDIL	
RH-34	FH-15	
RH-35	RETRAC	
RH-35	TDIL	
RH-35	FH-16	
RH-36	RETRAC	
RH-37	RETRAC	
RH-37	TCON	
RH-38	RETRAC	
RH-38	TDIL	
RH-39	RETRAC	
RH-39	TCON	
RH-39	FH-1	
RH-40	RETRAC	
RH-40	TCON	
RH-40	FH-2	
RH-41	RETRAC	
RH-41	TCON	
RH-41	FH-3	
RH-42	RETRAC	
RH-42	TCON	
RH-42	FH-4	
RH-43	RETRAC	
RH-43	TCON	
RH-43	FH-5	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-44	RETRAC	
RH-44	TCON	
RH-44	FH-6	
RH-45	RETRAC	
RH-45	TCON	
RH-45	FH-7	
RH-46	RETRAC	
RH-46	TCON	
RH-46	FH-8	
RH-47	RETRAC	
RH-47	TCON	
RH-47	FH-9	
RH-48	RETRAC	
RH-48	TCON	
RH-48	FH-10	
RH-49	RETRAC	
RH-49	TCON	
RH-49	FH-11	
RH-50	RETRAC	
RH-50	TCON	
RH-50	FH-12	
RH-51	RETRAC	
RH-51	TCON	
RH-51	FH-13	
RH-52	RETRAC	
RH-52	TCON	
RH-52	FH-14	
RH-53	RETRAC	
RH-53	TCON	
RH-53	FH-15	
RH-54	RETRAC	
RH-54	TCON	
RH-54	FH-16	
RH-55	RETRAC	
RH-55	TDIL	
RH-55	FH-1	
RH-56	RETRAC	
RH-56	TDIL	
RH-56	FH-2	
RH-57	RETRAC	
RH-57	TDIL	
RH-57	FH-3	
RH-58	RETRAC	
RH-58	TDIL	
RH-58	FH-4	
RH-59	RETRAC	
RH-59	TDIL	
RH-59	FH-5	
RH-60	RETRAC	
RH-60	TDIL	
RH-60	FH-6	
RH-61	RETRAC	
RH-61	TDIL	
RH-61	FH-7	
RH-62	RETRAC	
RH-62	TDIL	
RH-62	FH-8	
RH-63	RETRAC	
RH-63	TDIL	
RH-63	FH-9	
RH-64	RETRAC	
RH-64	TDIL	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-64	FH-10	
RH-65	RETRAC	
RH-65	TDIL	
RH-65	FH-11	
RH-66	RETRAC	
RH-66	TDIL	
RH-66	FH-12	
RH-67	RETRAC	
RH-67	TDIL	
RH-67	FH-13	
RH-68	RETRAC	
RH-68	TDIL	
RH-68	FH-14	
RH-69	RETRAC	
RH-69	TDIL	
RH-69	FH-15	
RH-70	RETRAC	
RH-70	TDIL	
RH-70	FH-16	
RH-71	RETRAC	
RH-72	RETRAC	
RH-72	TCON	
RH-73	RETRAC	
RH-73	TDIL	
RH-74	RETRAC	
RH-74	TCON	
RH-74	FH-1	
RH-75	RETRAC	
RH-75	TCON	
RH-75	FH-2	
RH-76	RETRAC	
RH-76	TCON	
RH-76	FH-3	
RH-77	RETRAC	
RH-77	TCON	
RH-77	FH-4	
RH-78	RETRAC	
RH-78	TCON	
RH-78	FH-5	
RH-79	RETRAC	
RH-79	TCON	
RH-79	FH-6	
RH-80	RETRAC	
RH-80	TCON	
RH-80	FH-7	
RH-81	RETRAC	
RH-81	TCON	
RH-81	FH-8	
RH-82	RETRAC	
RH-82	TCON	
RH-82	FH-9	
RH-83	RETRAC	
RH-83	TCON	
RH-83	FH-10	
RH-84	RETRAC	
RH-84	TCON	
RH-84	FH-11	
RH-85	RETRAC	
RH-85	TCON	
RH-85	FH-12	
RH-86	RETRAC	
RH-86	TCON	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-86	FH-13	
RH-87	RETRAC	
RH-87	TCON	
RH-87	FH-14	
RH-88	RETRAC	
RH-88	TCON	
RH-88	FH-15	
RH-89	RETRAC	
RH-89	TCON	
RH-89	FH-16	
RH-90	RETRAC	
RH-90	TDIL	
RH-90	FH-1	
RH-91	RETRAC	
RH-91	TDIL	
RH-91	FH-2	
RH-92	RETRAC	
RH-92	TDIL	
RH-92	FH-3	
RH-93	RETRAC	
RH-93	TDIL	
RH-93	FH-4	
RH-94	RETRAC	
RH-94	TDIL	
RH-94	FH-5	
RH-95	RETRAC	
RH-95	TDIL	
RH-95	FH-6	
RH-96	RETRAC	
RH-96	TDIL	
RH-96	FH-7	
RH-97	RETRAC	
RH-97	TDIL	
RH-97	FH-8	
RH-98	RETRAC	
RH-98	TDIL	
RH-98	FH-9	
RH-99	RETRAC	
RH-99	TDIL	
RH-99	FH-10	
RH-100	RETRAC	
RH-100	TDIL	
RH-100	FH-11	
RH-101	RETRAC	
RH-101	TDIL	
RH-101	FH-12	
RH-102	RETRAC	
RH-102	TDIL	
RH-102	FH-13	
RH-103	RETRAC	
RH-103	TDIL	
RH-103	FH-14	
RH-104	RETRAC	
RH-104	TDIL	
RH-104	FH-15	
RH-105	RETRAC	
RH-105	TDIL	
RH-105	FH-16	
RH-106	RETRAC	
RH-106	AC1	
RH-107	RETRAC	
RH-107	AC2	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-108	RETRAC	
RH-108	AC3	
RH-109	RETRAC	
RH-109	AC4	
RH-110	RETRAC	
RH-110	AC5	
RH-111	RETRAC	
RH-111	AC6	
RH-112	RETRAC	
RH-112	AC7	
RH-113	RETRAC	
RH-113	AC8	
RH-114	RETRAC	
RH-114	AC9	
RH-115	RETRAC	
RH-115	AC10	
RH-116	RETRAC	
RH-116	AC1	
RH-116	TCON	
RH-117	RETRAC	
RH-117	AC2	
RH-117	TCON	
RH-118	RETRAC	
RH-118	AC3	
RH-118	TCON	
RH-119	RETRAC	
RH-119	AC4	
RH-119	TCON	
RH-120	RETRAC	
RH-120	AC5	
RH-120	TCON	
RH-121	RETRAC	
RH-121	AC6	
RH-121	TCON	
RH-122	RETRAC	
RH-122	AC7	
RH-122	TCON	
RH-123	RETRAC	
RH-123	AC8	
RH-123	TCON	
RH-124	RETRAC	
RH-124	AC9	
RH-124	TCON	
RH-125	RETRAC	
RH-125	AC10	
RH-125	TCON	
RH-126	RETRAC	
RH-126	AC1	
RH-126	TDIL	
RH-127	RETRAC	
RH-127	AC2	
RH-127	TDIL	
RH-128	RETRAC	
RH-128	AC3	
RH-128	TDIL	
RH-129	RETRAC	
RH-129	AC4	
RH-129	TDIL	
RH-130	RETRAC	
RH-130	AC5	
RH-130	TDIL	
RH-131	RETRAC	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-131	AC6	
RH-131	TDIL	
RH-132	RETRAC	
RH-132	AC7	
RH-132	TDIL	
RH-133	RETRAC	
RH-133	AC8	
RH-133	TDIL	
RH-134	RETRAC	
RH-134	AC9	
RH-134	TDIL	
RH-135	RETRAC	
RH-135	AC10	
RH-135	TDIL	
RH-136	RETRAC	
RH-136	AC1	
RH-137	RETRAC	
RH-137	AC2	
RH-138	RETRAC	
RH-138	AC3	
RH-139	RETRAC	
RH-139	AC4	
RH-140	RETRAC	
RH-140	AC5	
RH-141	RETRAC	
RH-141	AC6	
RH-142	RETRAC	
RH-142	AC7	
RH-143	RETRAC	
RH-143	AC8	
RH-144	RETRAC	
RH-144	AC9	
RH-145	RETRAC	
RH-145	AC10	
RH-146	RETRAC	
RH-146	AC1	
RH-146	TCON	
RH-147	RETRAC	
RH-147	AC2	
RH-147	TCON	
RH-148	RETRAC	
RH-148	AC3	
RH-148	TCON	
RH-149	RETRAC	
RH-149	AC4	
RH-149	TCON	
RH-150	RETRAC	
RH-150	AC5	
RH-150	TCON	
RH-151	RETRAC	
RH-151	AC6	
RH-151	TCON	
RH-152	RETRAC	
RH-152	AC7	
RH-152	TCON	
RH-153	RETRAC	
RH-153	AC8	
RH-153	TCON	
RH-154	RETRAC	
RH-154	AC9	
RH-154	TCON	
RH-155	RETRAC	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-155	AC10	
RH-155	TCON	
RH-156	RETRAC	
RH-156	AC1	
RH-156	TDIL	
RH-157	RETRAC	
RH-157	AC2	
RH-157	TDIL	
RH-158	RETRAC	
RH-158	AC3	
RH-158	TDIL	
RH-159	RETRAC	
RH-159	AC4	
RH-159	TDIL	
RH-160	RETRAC	
RH-160	AC5	
RH-160	TDIL	
RH-161	RETRAC	
RH-161	AC6	
RH-161	TDIL	
RH-162	RETRAC	
RH-162	AC7	
RH-162	TDIL	
RH-163	RETRAC	
RH-163	AC8	
RH-163	TDIL	
RH-164	RETRAC	
RH-164	AC9	
RH-164	TDIL	
RH-165	RETRAC	
RH-165	AC10	
RH-165	TDIL	

Table: Joint Spring Assignments 2 - Coupled, Part 1 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 1 of 4

Joint	CoordSys	U1	U1U2	U2	U1U3	U2U3	U3
		KN/m	KN/m	KN/m	KN/m	KN/m	KN/m
8	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
11	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
24	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
27	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
41	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
45	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
58	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
62	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
76	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
80	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
93	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
97	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
110	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
115	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
129	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
131	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
133	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
138	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
140	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
142	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
198	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
201	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
202	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00

Table: Joint Spring Assignments 2 - Coupled, Part 1 of 4

Joint	CoordSys	U1	U1U2	U2	U1U3	U2U3	U3
		KN/m	KN/m	KN/m	KN/m	KN/m	KN/m
206	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
208	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
209	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00

Table: Joint Spring Assignments 2 - Coupled, Part 2 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 2 of 4

Joint	CoordSys	U1R1	U2R1	U3R1	R1	U1R2	U2R2
		KN/rad	KN/rad	KN/rad	KN-m/rad	KN/rad	KN/rad
8	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
11	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
24	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
27	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
41	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
45	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
58	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
62	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
76	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
80	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
93	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
97	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
110	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
115	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
129	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
131	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
133	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
138	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
140	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
142	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
198	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
201	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
202	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
206	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
208	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
209	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000

Table: Joint Spring Assignments 2 - Coupled, Part 3 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 3 of 4

Joint	CoordSys	U3R2	R1R2	R2	U1R3	U2R3	U3R3
		KN/rad	KN-m/rad	KN-m/rad	KN/rad	KN/rad	KN/rad
8	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
11	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
24	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
27	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
41	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
45	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
58	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
62	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
76	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
80	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
93	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
97	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
110	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
115	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
129	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
131	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
133	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
138	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
140	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
142	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
198	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
201	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
202	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
206	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
208	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
209	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000

Table: Joint Spring Assignments 2 - Coupled, Part 4 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 4 of 4

Joint	CoordSys	R1R3	R2R3	R3
		KN-m/rad	KN-m/rad	KN-m/rad
8	Local	0.0000	0.0000	852.0000
11	Local	0.0000	0.0000	852.0000
24	Local	0.0000	0.0000	852.0000
27	Local	0.0000	0.0000	852.0000
41	Local	0.0000	0.0000	852.0000
45	Local	0.0000	0.0000	852.0000
58	Local	0.0000	0.0000	852.0000
62	Local	0.0000	0.0000	852.0000
76	Local	0.0000	0.0000	852.0000
80	Local	0.0000	0.0000	852.0000
93	Local	0.0000	0.0000	852.0000
97	Local	0.0000	0.0000	852.0000
110	Local	0.0000	0.0000	852.0000
115	Local	0.0000	0.0000	852.0000
129	Local	0.0000	0.0000	852.0000
131	Local	0.0000	0.0000	852.0000
133	Local	0.0000	0.0000	852.0000
138	Local	0.0000	0.0000	852.0000
140	Local	0.0000	0.0000	852.0000
142	Local	0.0000	0.0000	852.0000
198	Local	0.0000	0.0000	852.0000
201	Local	0.0000	0.0000	852.0000
202	Local	0.0000	0.0000	852.0000
206	Local	0.0000	0.0000	852.0000
208	Local	0.0000	0.0000	852.0000
209	Local	0.0000	0.0000	852.0000

Table: Load Pattern Definitions

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
DEAD	DEAD	1.000000			
CARRO-A1	LIVE	0.000000			
CARRO-A2	LIVE	0.000000			
CARRO-A3	LIVE	0.000000			
CARRO-A4	LIVE	0.000000			
CARRO-A5	LIVE	0.000000			
CARRO-A6	LIVE	0.000000			
CARRO-A7	LIVE	0.000000			
CARRO-A8	LIVE	0.000000			
CARRO-A9	LIVE	0.000000			
CARRO-A10	LIVE	0.000000			
CARRO-A11	LIVE	0.000000			
CARRO-A12	LIVE	0.000000			
CARRO-A13	LIVE	0.000000			
CARRO-A14	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
CARRO-A15	LIVE	0.000000			
CARRO-A16	LIVE	0.000000			
CARRO-A17	LIVE	0.000000			
CARRO-A18	LIVE	0.000000			
CARRO-A19	LIVE	0.000000			
CARRO-A20	LIVE	0.000000			
CARRO-B1	LIVE	0.000000			
CARRO-B2	LIVE	0.000000			
CARRO-B3	LIVE	0.000000			
CARRO-B4	LIVE	0.000000			
CARRO-B5	LIVE	0.000000			
CARRO-B6	LIVE	0.000000			
CARRO-B7	LIVE	0.000000			
CARRO-B8	LIVE	0.000000			
CARRO-B9	LIVE	0.000000			
CARRO-B10	LIVE	0.000000			
CARRO-B11	LIVE	0.000000			
CARRO-B12	LIVE	0.000000			
CARRO-B13	LIVE	0.000000			
CARRO-B14	LIVE	0.000000			
CARRO-B15	LIVE	0.000000			
CARRO-B16	LIVE	0.000000			
CARRO-B17	LIVE	0.000000			
CARRO-B18	LIVE	0.000000			
CARRO-B19	LIVE	0.000000			
CARRO-B20	LIVE	0.000000			
CARRO-C1	LIVE	0.000000			
CARRO-C2	LIVE	0.000000			
CARRO-C3	LIVE	0.000000			
CARRO-C4	LIVE	0.000000			
CARRO-C5	LIVE	0.000000			
CARRO-C6	LIVE	0.000000			
CARRO-C7	LIVE	0.000000			
CARRO-C8	LIVE	0.000000			
CARRO-C9	LIVE	0.000000			
CARRO-C10	LIVE	0.000000			
CARRO-C11	LIVE	0.000000			
CARRO-C12	LIVE	0.000000			
CARRO-C13	LIVE	0.000000			
CARRO-C14	LIVE	0.000000			
CARRO-C15	LIVE	0.000000			
CARRO-C16	LIVE	0.000000			
CARRO-C17	LIVE	0.000000			
CARRO-C18	LIVE	0.000000			
CARRO-C19	LIVE	0.000000			
CARRO-C20	LIVE	0.000000			
SCU-1	LIVE	0.000000			
SCU-2	LIVE	0.000000			
SCU-3	LIVE	0.000000			
SCU-4	LIVE	0.000000			
SCU-5	LIVE	0.000000			
SCU-6	LIVE	0.000000			
SCU-7	LIVE	0.000000			
SCU-8	LIVE	0.000000			
SCU-9	LIVE	0.000000			
PRETIL	DEAD	0.000000			
PAVMIN1	DEAD	0.000000			
PAVMAX1	DEAD	0.000000			
PAVMIN2	DEAD	0.000000			
PAVMAX2	DEAD	0.000000			
RETRAC	OTHER	0.000000			
QLA1	OTHER	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
QLA2	OTHER	0.000000			
QLA3	OTHER	0.000000			
QLA4	OTHER	0.000000			
QLB1	OTHER	0.000000			
QLB2	OTHER	0.000000			
QLB3	OTHER	0.000000			
QLB4	OTHER	0.000000			
QTA1	OTHER	0.000000			
QTA2	OTHER	0.000000			
QTA3	OTHER	0.000000			
QTA4	OTHER	0.000000			
QTB1	OTHER	0.000000			
QTB2	OTHER	0.000000			
QTB3	OTHER	0.000000			
QTB4	OTHER	0.000000			
TCON	OTHER	0.000000			
TDIL	OTHER	0.000000			
TGRAD1	OTHER	0.000000			
TGRAD2	OTHER	0.000000			
FAT-A1	LIVE	0.000000			
FAT-A2	LIVE	0.000000			
FAT-A3	LIVE	0.000000			
FAT-A4	LIVE	0.000000			
FAT-A5	LIVE	0.000000			
FAT-A6	LIVE	0.000000			
FAT-A7	LIVE	0.000000			
FAT-A8	LIVE	0.000000			
FAT-A9	LIVE	0.000000			
FAT-A10	LIVE	0.000000			
FAT-A11	LIVE	0.000000			
FAT-A12	LIVE	0.000000			
FAT-A13	LIVE	0.000000			
FAT-A14	LIVE	0.000000			
FAT-A15	LIVE	0.000000			
FAT-A16	LIVE	0.000000			
FAT-A17	LIVE	0.000000			
FAT-A18	LIVE	0.000000			
FAT-A19	LIVE	0.000000			
FAT-A20	LIVE	0.000000			
FAT-B1	LIVE	0.000000			
FAT-B2	LIVE	0.000000			
FAT-B3	LIVE	0.000000			
FAT-B4	LIVE	0.000000			
FAT-B5	LIVE	0.000000			
FAT-B6	LIVE	0.000000			
FAT-B7	LIVE	0.000000			
FAT-B8	LIVE	0.000000			
FAT-B9	LIVE	0.000000			
FAT-B10	LIVE	0.000000			
FAT-B11	LIVE	0.000000			
FAT-B12	LIVE	0.000000			
FAT-B13	LIVE	0.000000			
FAT-B14	LIVE	0.000000			
FAT-B15	LIVE	0.000000			
FAT-B16	LIVE	0.000000			
FAT-B17	LIVE	0.000000			
FAT-B18	LIVE	0.000000			
FAT-B19	LIVE	0.000000			
FAT-B20	LIVE	0.000000			
FAT-C1	LIVE	0.000000			
FAT-C2	LIVE	0.000000			
FAT-C3	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
FAT-C4	LIVE	0.000000			
FAT-C5	LIVE	0.000000			
FAT-C6	LIVE	0.000000			
FAT-C7	LIVE	0.000000			
FAT-C8	LIVE	0.000000			
FAT-C9	LIVE	0.000000			
FAT-C10	LIVE	0.000000			
FAT-C11	LIVE	0.000000			
FAT-C12	LIVE	0.000000			
FAT-C13	LIVE	0.000000			
FAT-C14	LIVE	0.000000			
FAT-C15	LIVE	0.000000			
FAT-C16	LIVE	0.000000			
FAT-C17	LIVE	0.000000			
FAT-C18	LIVE	0.000000			
FAT-C19	LIVE	0.000000			
FAT-C20	LIVE	0.000000			
FAT-A21	LIVE	0.000000			
FAT-A22	LIVE	0.000000			
FAT-A23	LIVE	0.000000			
FAT-A24	LIVE	0.000000			
FAT-A25	LIVE	0.000000			
FAT-A26	LIVE	0.000000			
FAT-A27	LIVE	0.000000			
FAT-B21	LIVE	0.000000			
FAT-B22	LIVE	0.000000			
FAT-B23	LIVE	0.000000			
FAT-B24	LIVE	0.000000			
FAT-B25	LIVE	0.000000			
FAT-B26	LIVE	0.000000			
FAT-B27	LIVE	0.000000			
FAT-C21	LIVE	0.000000			
FAT-C22	LIVE	0.000000			
FAT-C23	LIVE	0.000000			
FAT-C24	LIVE	0.000000			
FAT-C25	LIVE	0.000000			
FAT-C26	LIVE	0.000000			
FAT-C27	LIVE	0.000000			
AC1	OTHER	0.000000			
AC2	OTHER	0.000000			
AC3	OTHER	0.000000			
AC4	OTHER	0.000000			
AC5	OTHER	0.000000			
AC6	OTHER	0.000000			
AC7	OTHER	0.000000			
AC8	OTHER	0.000000			
AC9	OTHER	0.000000			
AC10	OTHER	0.000000			
CARRO-A21	LIVE	0.000000			
CARRO-A22	LIVE	0.000000			
CARRO-B21	LIVE	0.000000			
CARRO-B22	LIVE	0.000000			
CARRO-C21	LIVE	0.000000			
CARRO-C22	LIVE	0.000000			
FAT-A28	LIVE	0.000000			
FAT-A29	LIVE	0.000000			
FAT-A30	LIVE	0.000000			
AC11	OTHER	0.000000			
AC12	OTHER	0.000000			
CARRO-A23	LIVE	0.000000			
CARRO-A24	LIVE	0.000000			
CARRO-A25	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
CARRO-B23	LIVE	0.000000			
CARRO-B24	LIVE	0.000000			
CARRO-B25	LIVE	0.000000			
CARRO-C23	LIVE	0.000000			
CARRO-C24	LIVE	0.000000			
CARRO-C25	LIVE	0.000000			
CARRO-B26	LIVE	0.000000			
CARRO-C26	LIVE	0.000000			

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Material	Fc KN/m2	LtWtConc	SSCurveOpt	SSHysType	SFc	SCap	FinalSlope	FAngle Degrees
4000Psi	27579.03	No	Mander	Takeda	0.002219	0.005000	-0.100000	0.000
HA-25	25000.00	No	Mander	Takeda	0.002000	0.005000	-0.100000	0.000

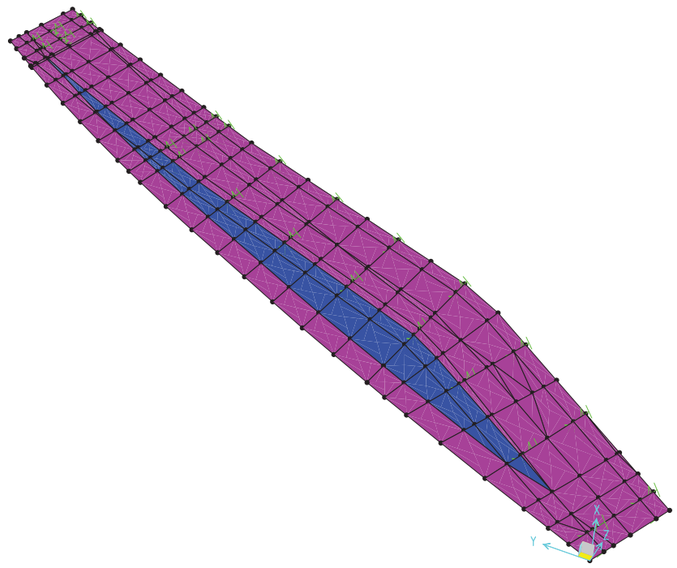
Table: Material Properties 03b - Concrete Data, Part 2 of 2

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Material	DAngle Degrees
4000Psi	0.000
HA-25	0.000

SAP2000

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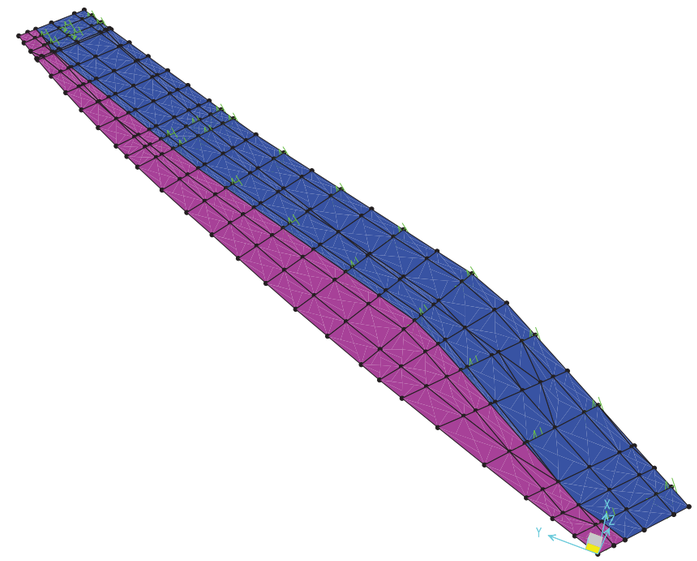


0.00 0.30 0.61 0.91 1.22 1.52 1.83 2.13 2.44 2.74 3.05 3.35 3.66 3.96

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Uniform (PAVMAX1) (GLOBAL - Gravity) - KN, m, C Units

SAP2000

10/11/16 13:28:56

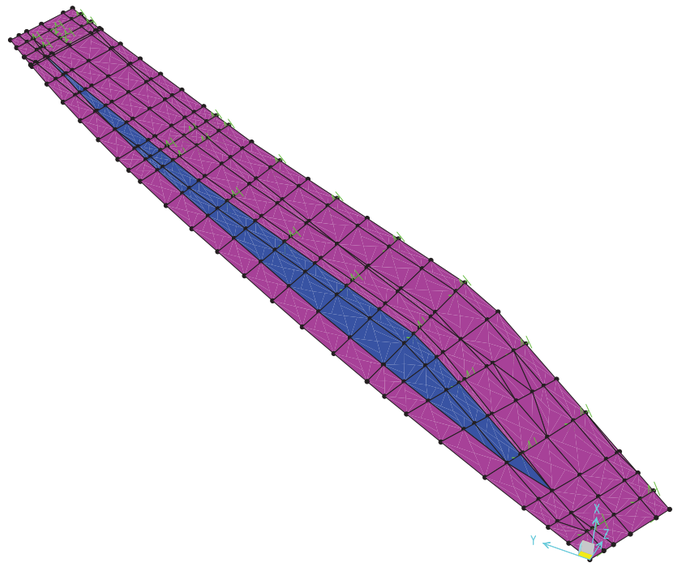


0.00 0.30 0.61 0.91 1.22 1.52 1.83 2.13 2.44 2.74 3.05 3.35 3.66 3.96

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Uniform (PAVMAX2) (GLOBAL - Gravity) - KN, m, C Units

SAP2000

10/11/16 13:20:58

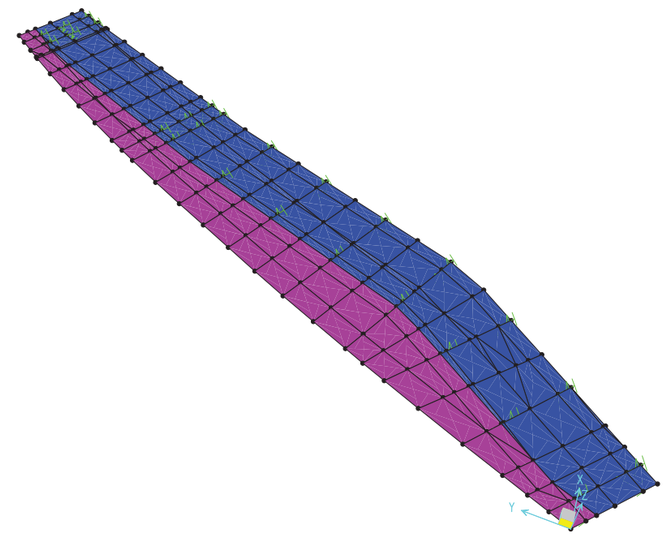


0.00 0.20 0.41 0.61 0.81 1.02 1.22 1.42 1.62 1.83 2.03 2.23 2.44 2.64

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Uniform (PAVMIN1) (GLOBAL - Gravity) - KN, m, C Units

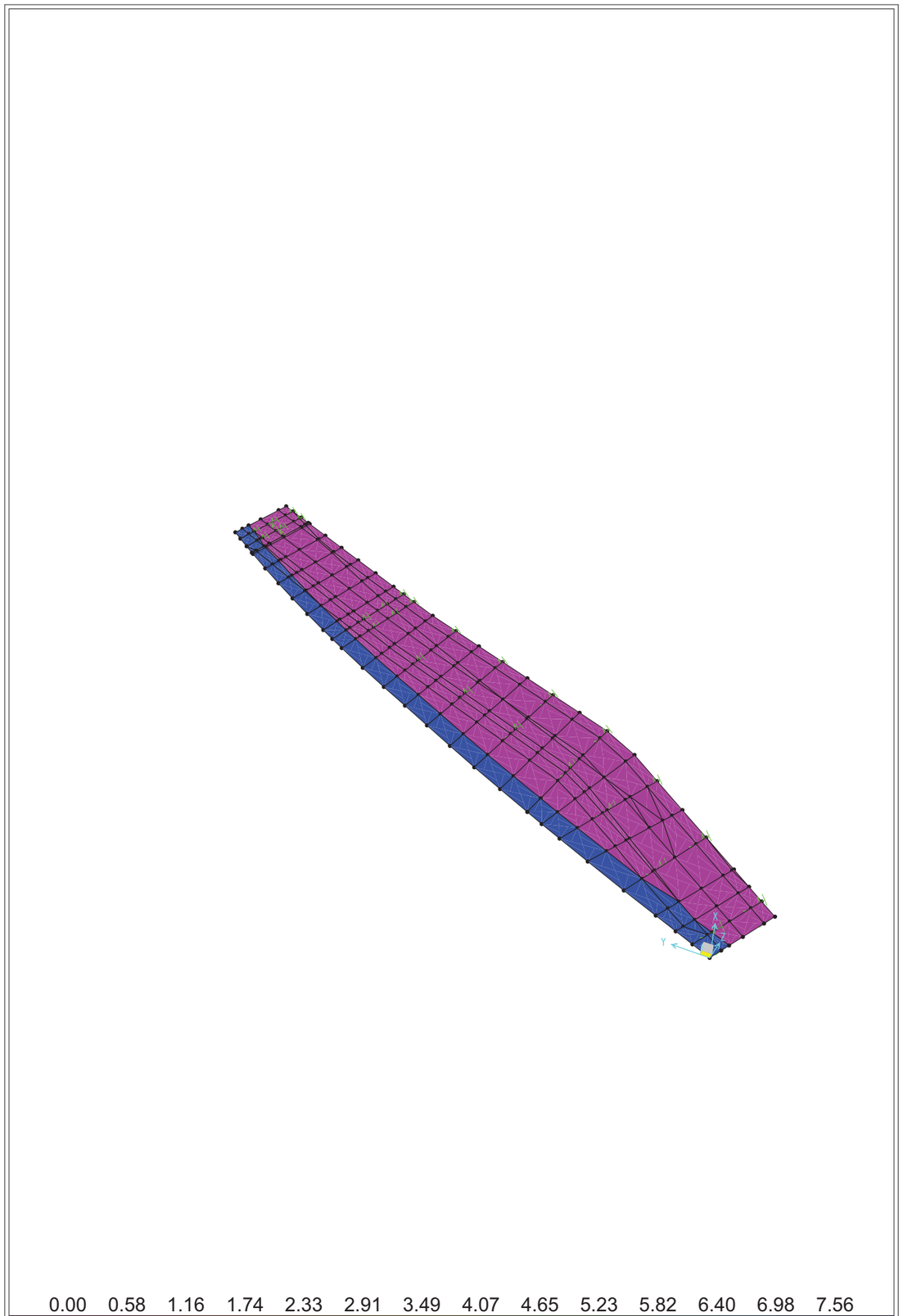
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10/11/16 13:28:25

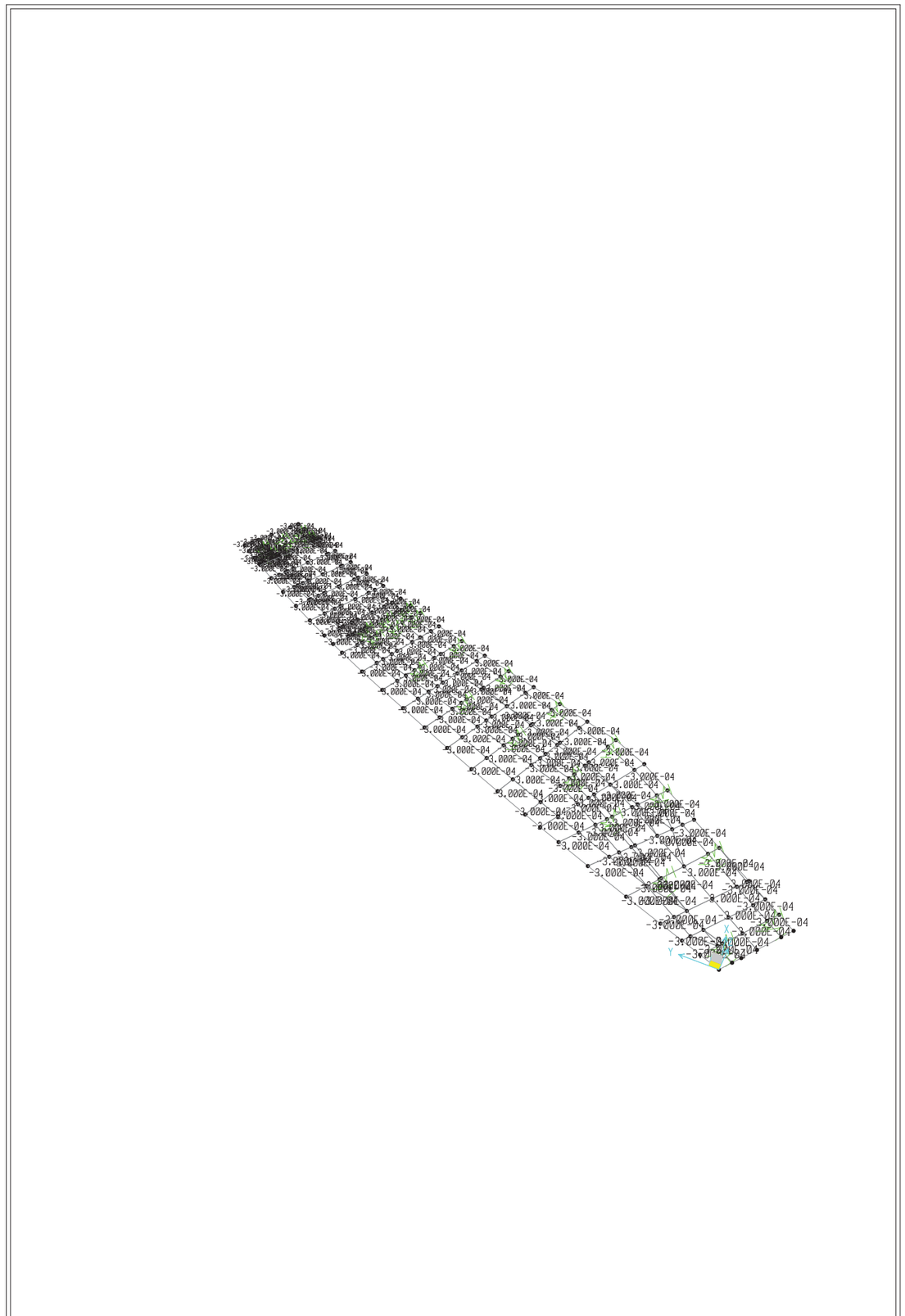


0.00 0.20 0.41 0.61 0.81 1.02 1.22 1.42 1.62 1.83 2.03 2.23 2.44 2.64

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Uniform (PAVMIN2) (GLOBAL - Gravity) - KN, m, C Units



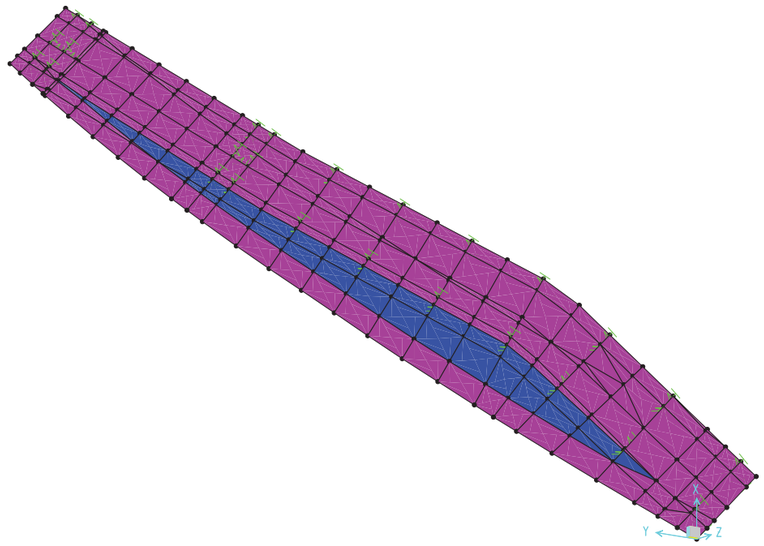
SAP2000 v14.1.0 - File:voladizo1_V01 - Area Uniform (PRETIL) (GLOBAL - Gravity) - KN, m, C Units



SAP2000 v14.1.0 - File:voladizo1_V01 - Area Strain Loads (RETRAC) (Strain11) - KN, m, C Units

SAP2000

10/11/16 13:16:06

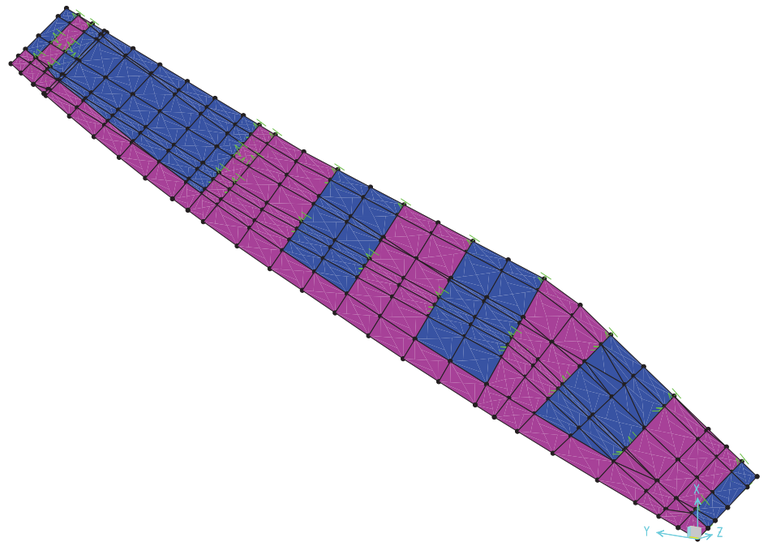


0.00 0.69 1.38 2.08 2.77 3.46 4.15 4.85 5.54 6.23 6.92 7.62 8.31 9.00

SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-1) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:16:40

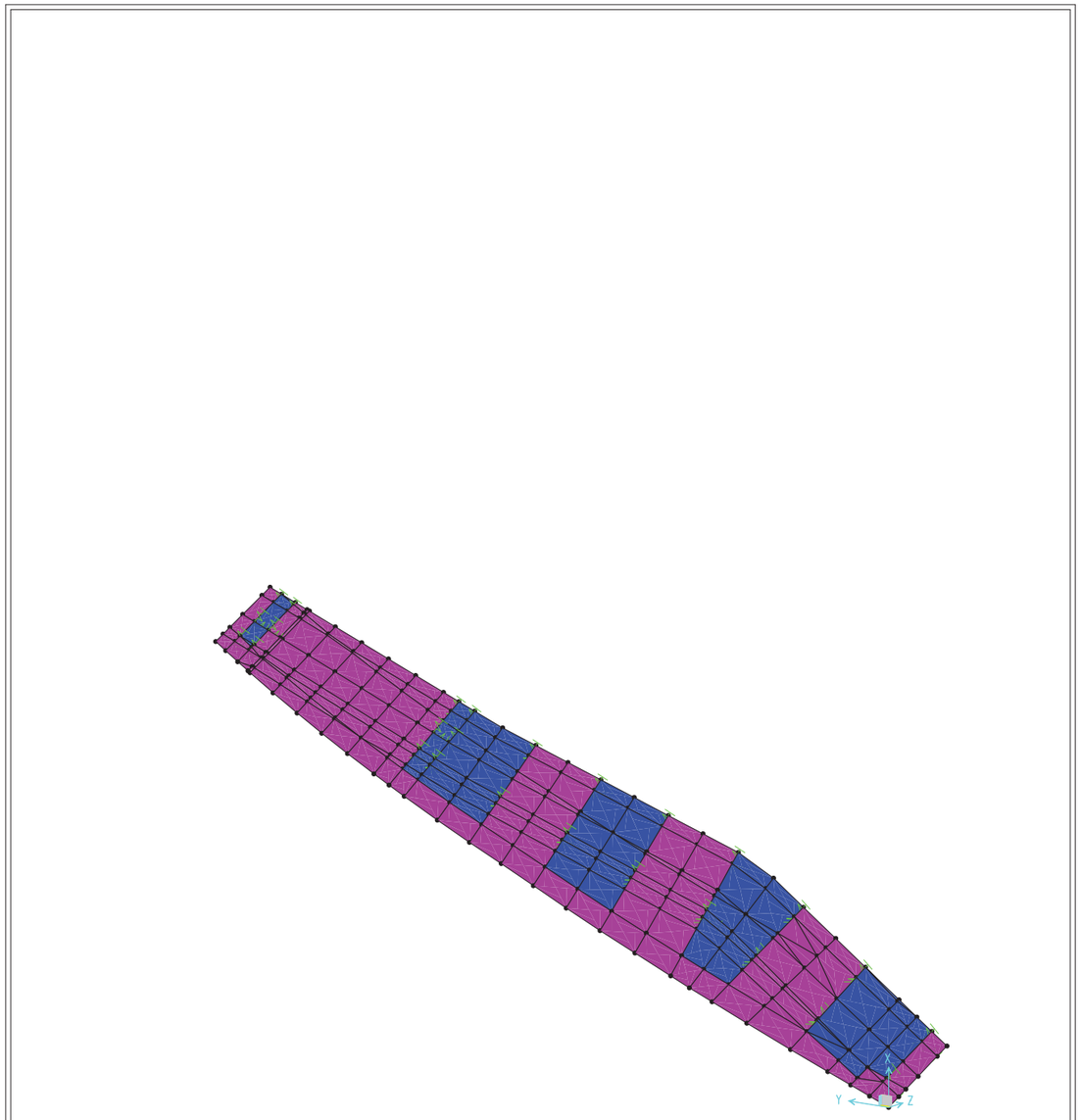


0.00 0.69 1.38 2.08 2.77 3.46 4.15 4.85 5.54 6.23 6.92 7.62 8.31 9.00

SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-2) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:17:09

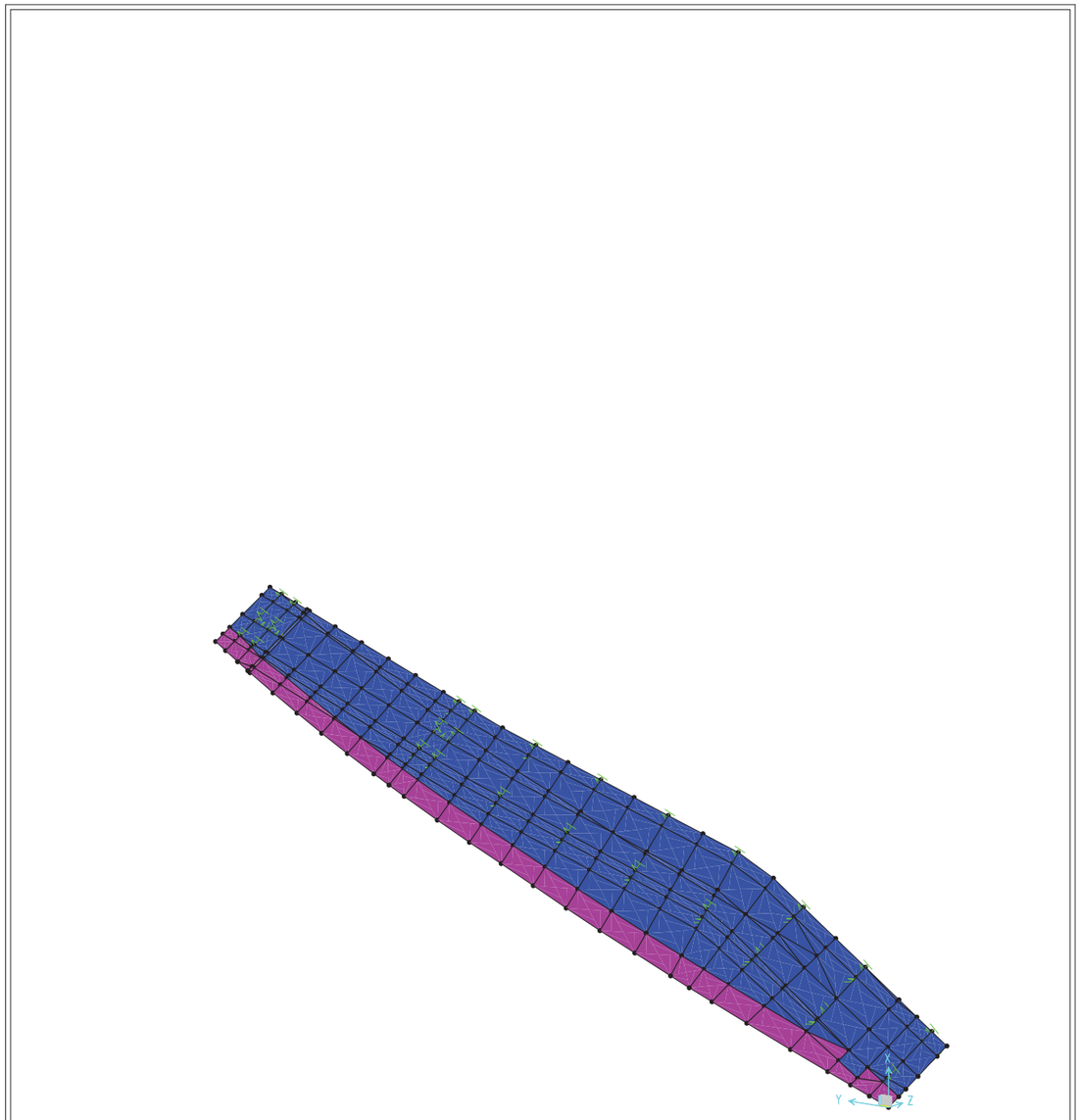


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SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-3) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:17:35

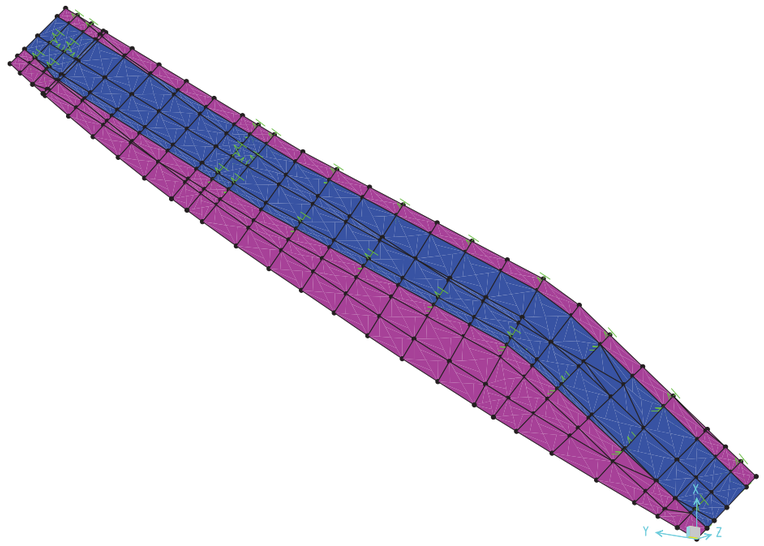


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SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-4) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:18:02

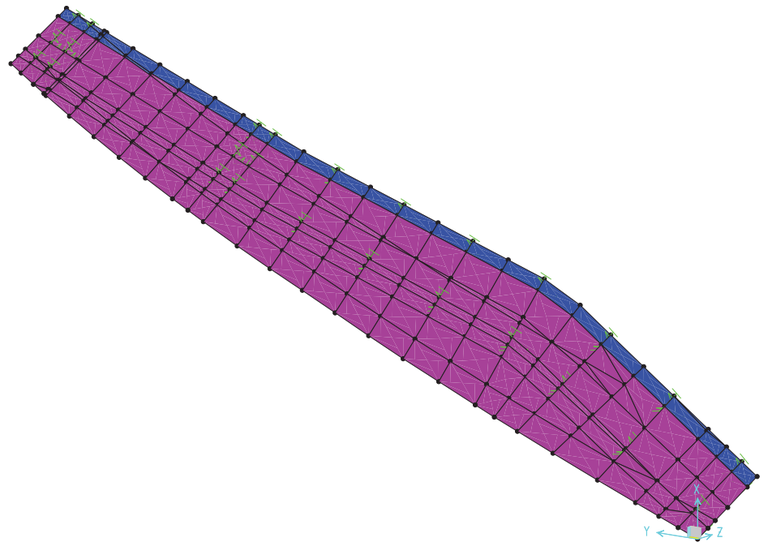


0.00 0.69 1.38 2.08 2.77 3.46 4.15 4.85 5.54 6.23 6.92 7.62 8.31 9.00

SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-5) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:18:30

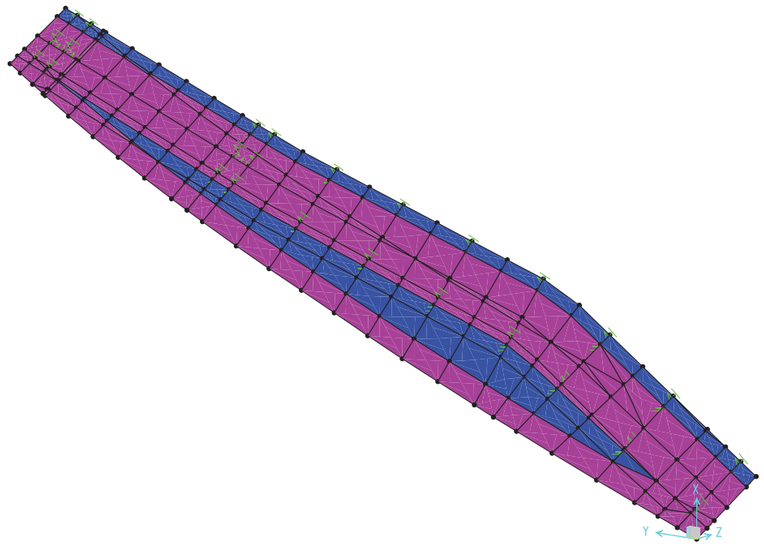


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SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-6) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:18:53

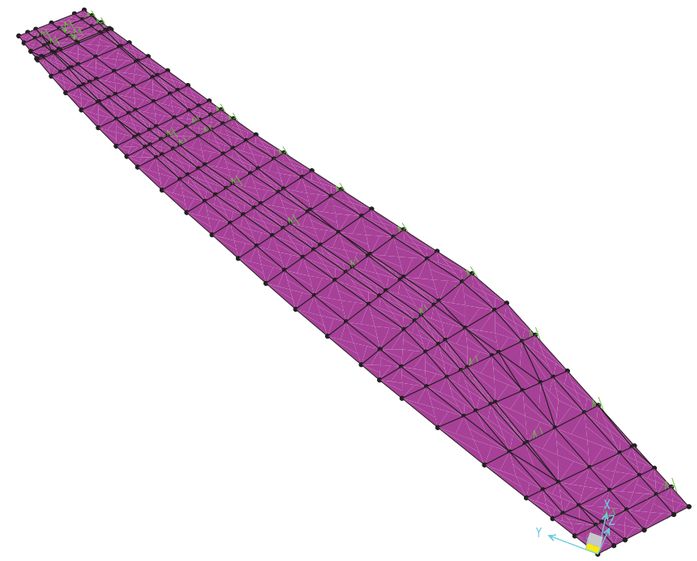


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SAP2000 v14.1.0 - File:voladizo1_V01 - Analysis Model - Area Uniform (SCU-7) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:30:21

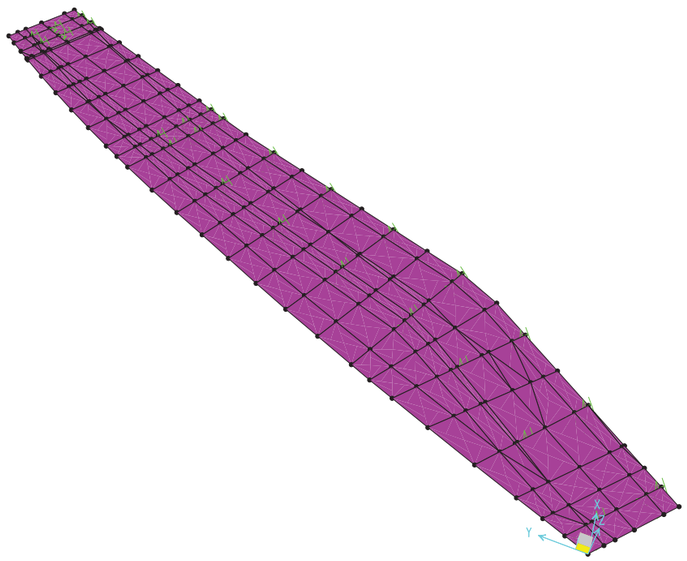


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SAP2000 v14.1.0 - File:voladizo1_V01 - Area Temperatures (TCON) - KN, m, C Units

SAP2000

10/11/16 13:31:03

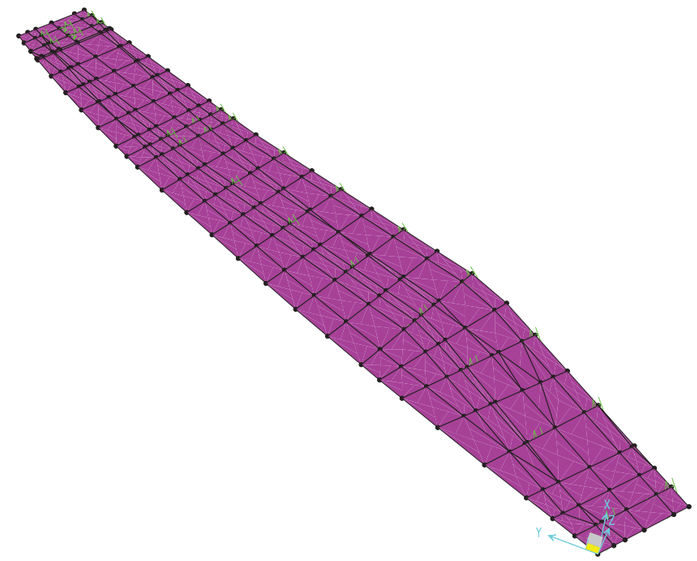


34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8 34.8

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Temperatures (TDIL) - KN, m, C Units

SAP2000

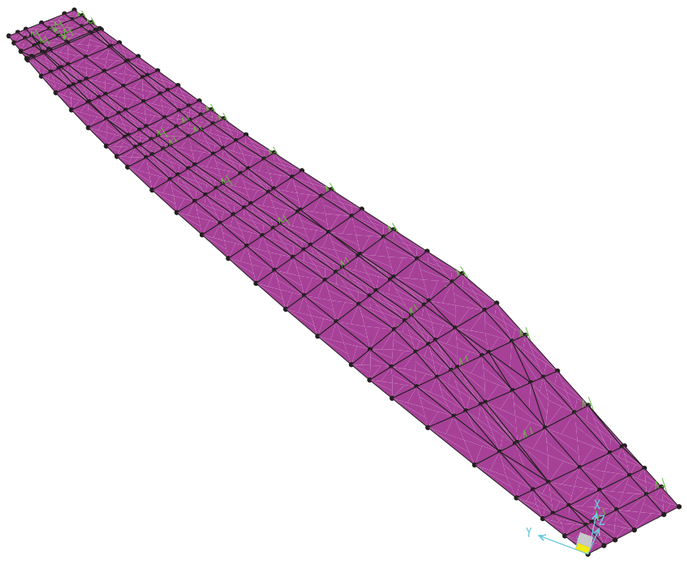
10/11/16 13:31:35



10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Temp Gradients 3-3 (TGRAD1) - KN, m, C Units

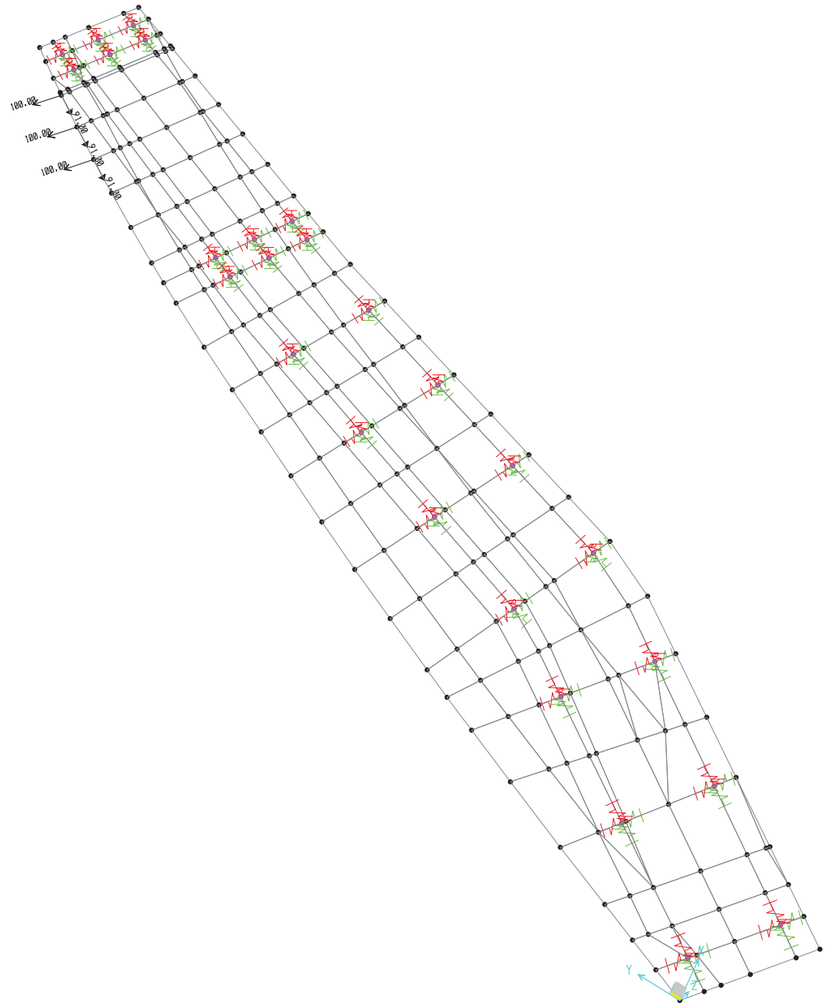
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-8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00 -8.00

SAP2000 v14.1.0 - File:voladizo1_V01 - Area Temp Gradients 3-3 (TGRAD2) - KN, m, C Units

SAP2000 12/20/16 11:18:12

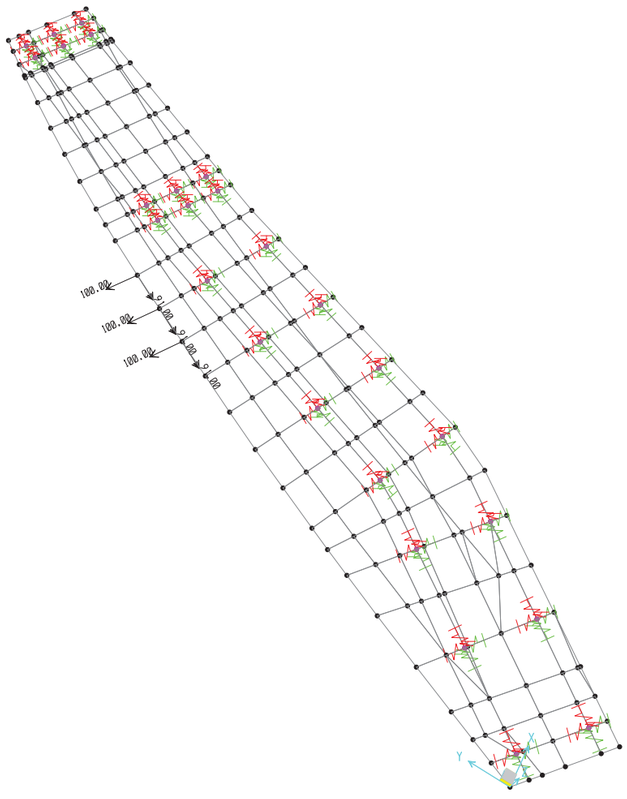


-442. -416. -390. -364. -338. -312. -286. -260. -234. -208. -182. -156. -130. -104. E-6

SAP2000 v14.1.0 - File:voladizo1_V04 - Analysis Model - Joint Loads (AC9) (As Defined) - KN, m, C Units

SAP2000

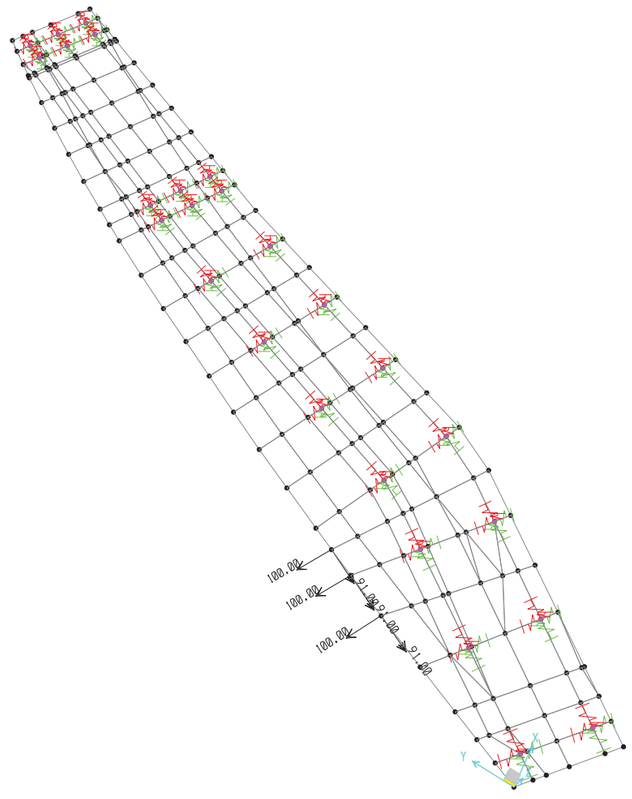
12/20/16 11:16:14



SAP2000 v14.1.0 - File:voladizo1_V04 - Analysis Model - Joint Loads (AC6) (As Defined) - KN, m, C Units

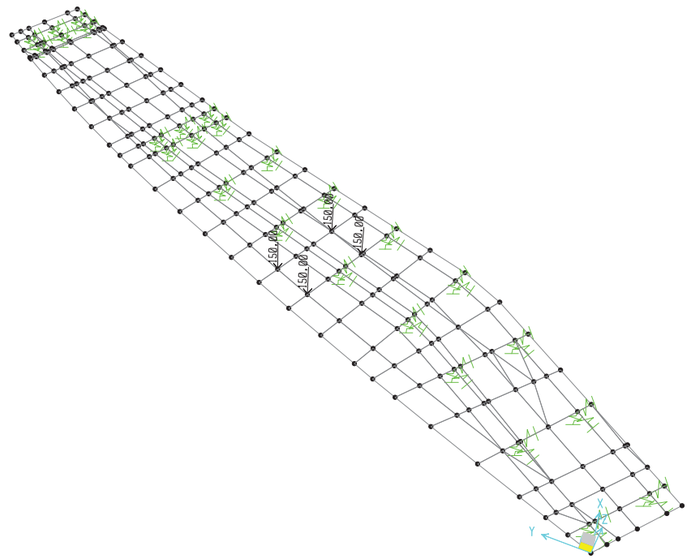
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12/20/16 11:15:02



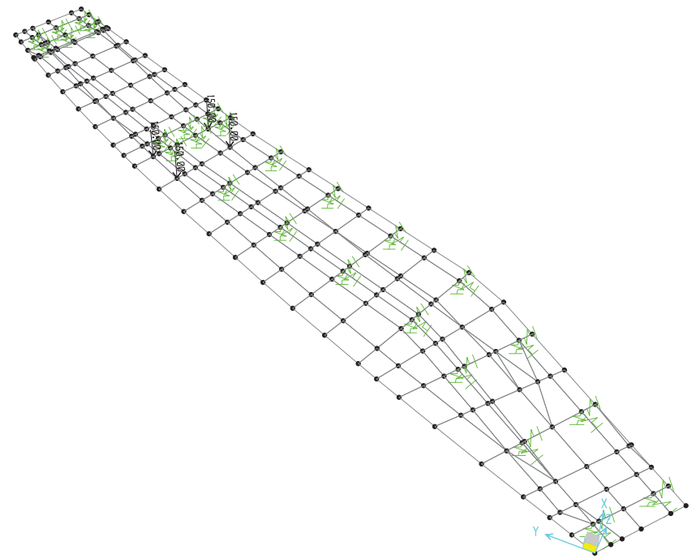
SAP2000 v14.1.0 - File:voladizo1_V04 - Analysis Model - Joint Loads (AC3) (As Defined) - KN, m, C Units

SAP2000 10/11/16 13:34:23



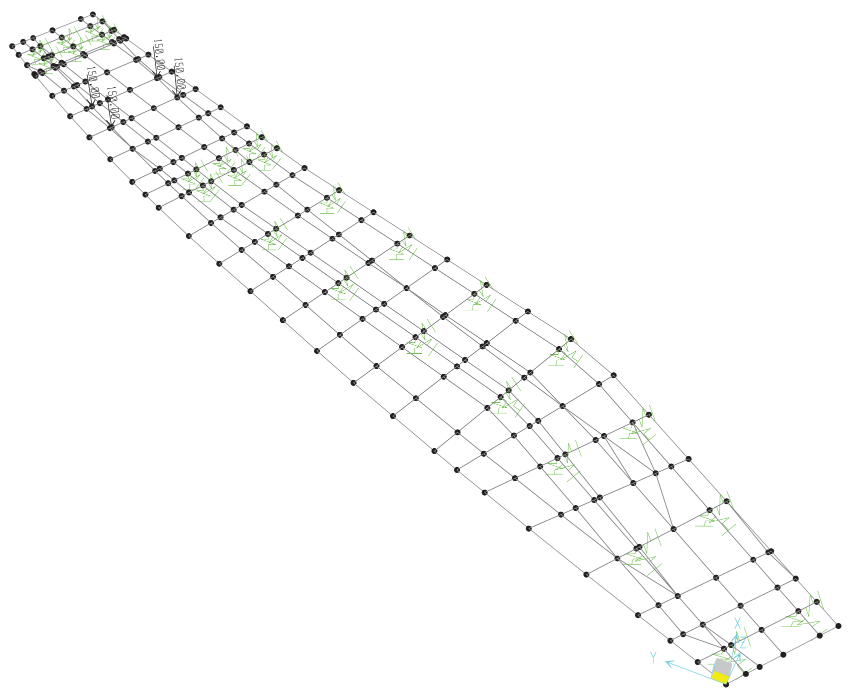
SAP2000 v14.1.0 - File:voladizo1_V01 - Joint Loads (CARRO-A10) (As Defined) - KN, m, C Units

SAP2000 10/11/16 13:34:50



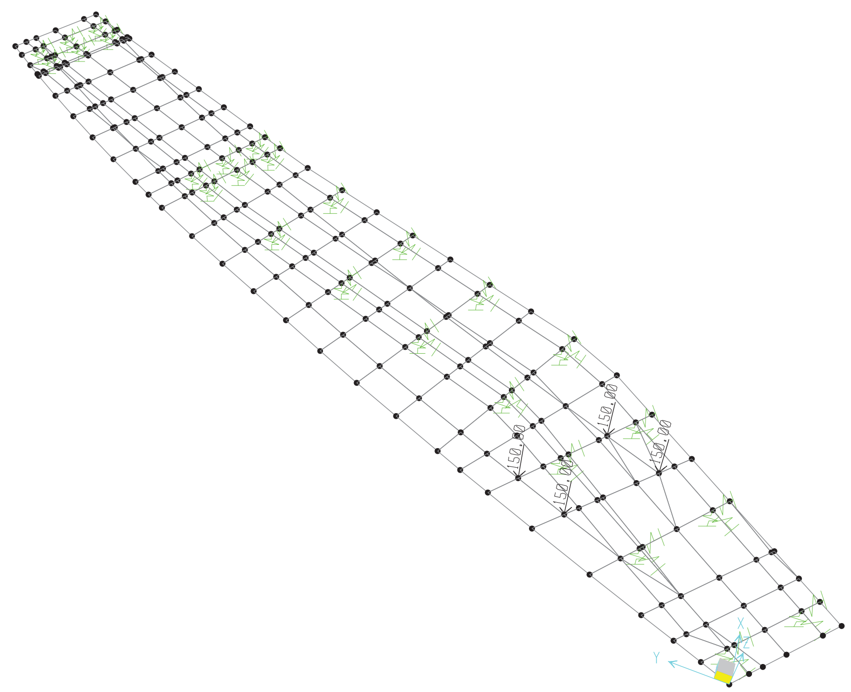
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SAP2000 10/11/16 13:35:21

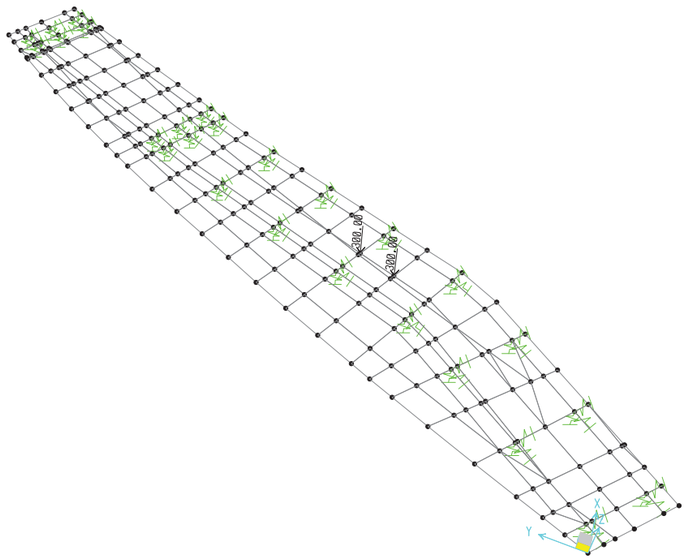


SAP2000 v14.1.0 - File:voladizo1_V01 - Joint Loads (CARRO-A20) (As Defined) - KN, m, C Units

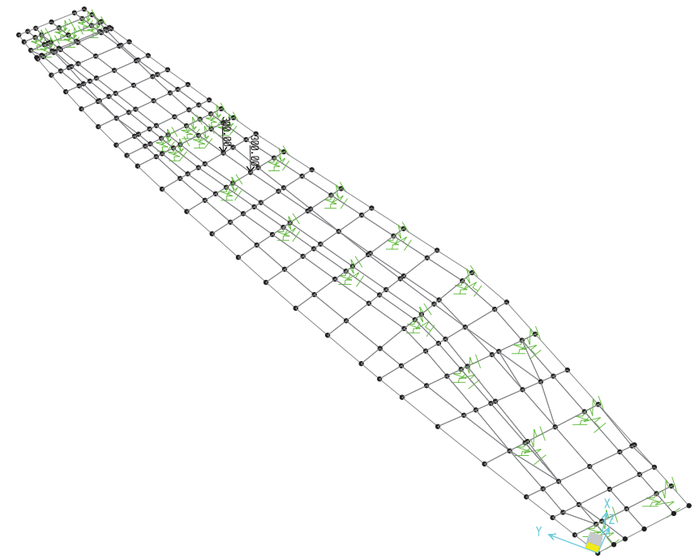
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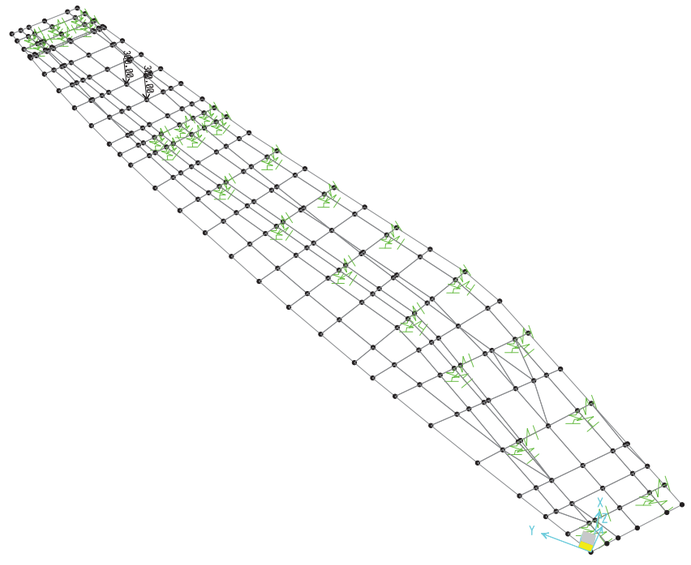
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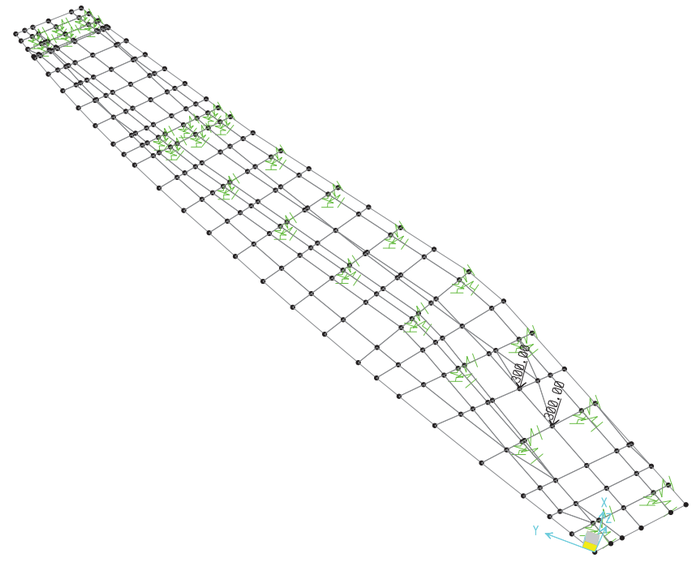


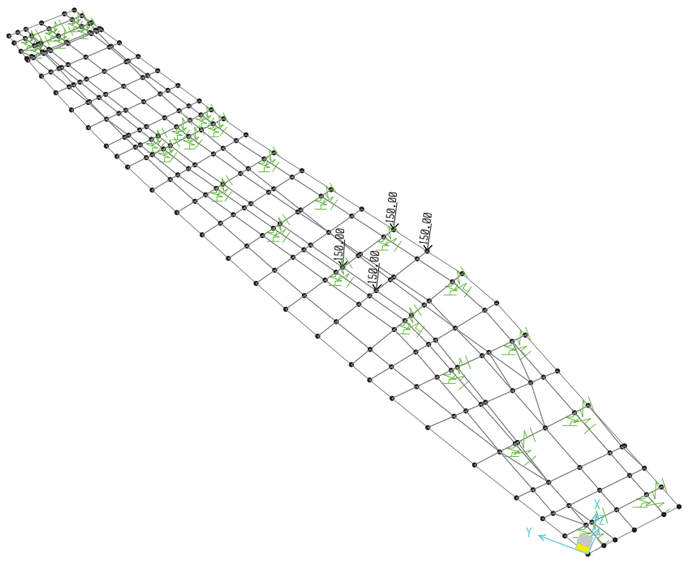
SAP2000 v14.1.0 - File:voladizo1_V01 - Joint Loads (CARRO-B10) (As Defined) - KN, m, C Units



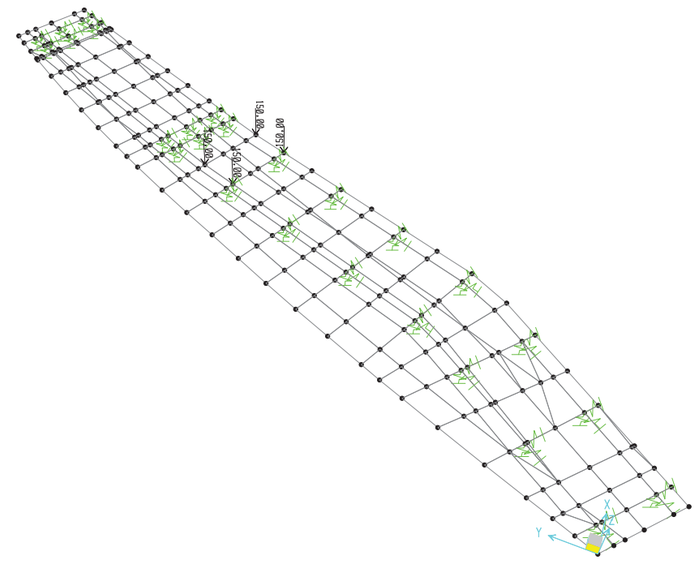
SAP2000 v14.1.0 - File:voladizo1_V01 - Joint Loads (CARRO-B15) (As Defined) - KN, m, C Units


300.00
200.00
X
Y

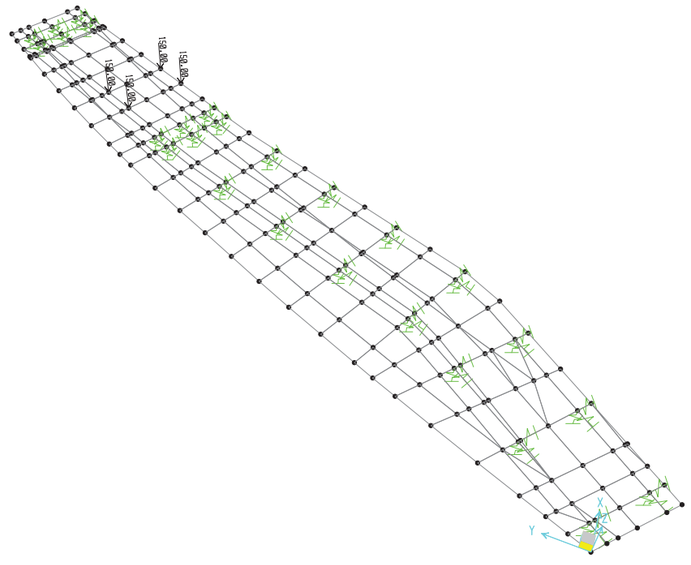

300.00
200.00
X
Y

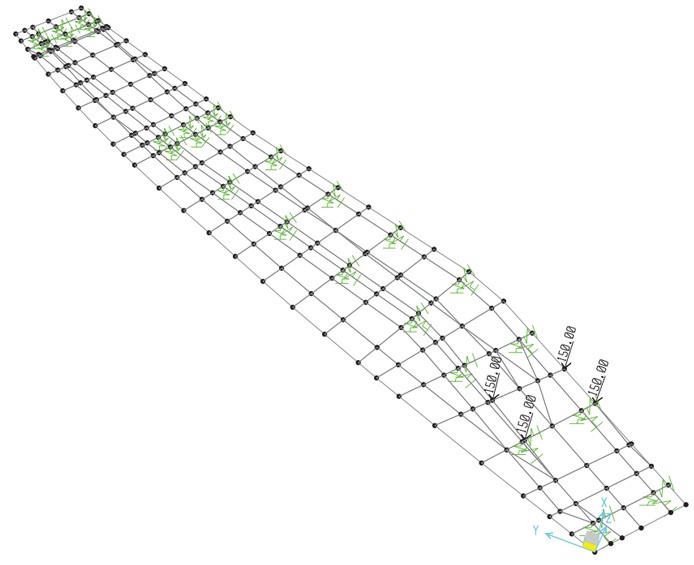


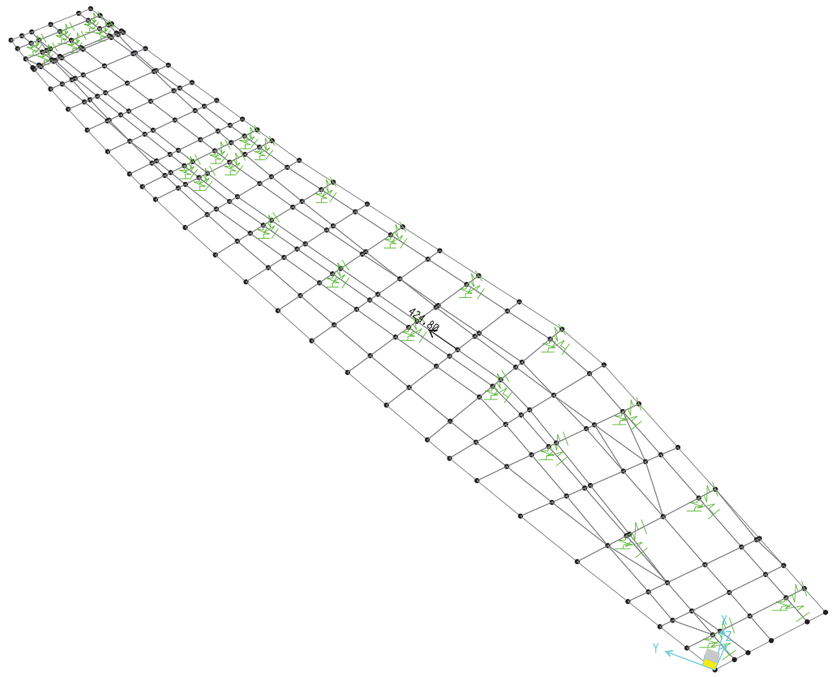
SAP2000 v14.1.0 - File:voladizo1_V01 - Joint Loads (CARRO-C10) (As Defined) - KN, m, C Units

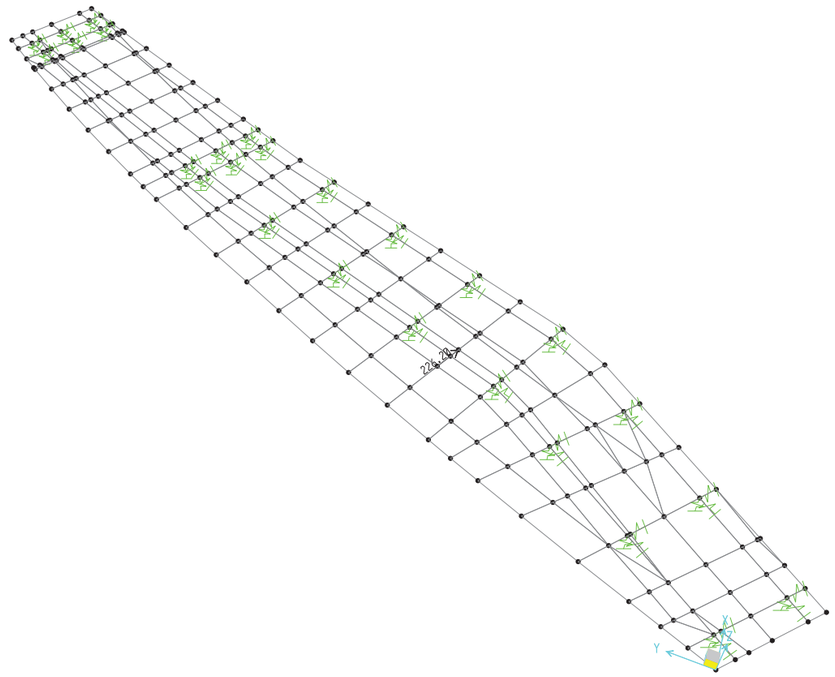


SAP2000 v14.1.0 - File:voladizo1_V01 - Joint Loads (CARRO-C15) (As Defined) - KN, m, C Units


150.00
150.00
150.00
150.00
Y
X


150.00
150.00
150.00
150.00
Y
X


43.39
Y


224.267
Y

VOLADIZO Nº2

Table: Area Section Properties, Part 1 of 4

Table: Area Section Properties, Part 1 of 4

Section	Material	MatAngle	AreaType	Type	DrillDOF	Thickness	BendThick	Arc
		Degrees				m	m	Degrees
L-100	HA-25	0.000	Shell	Shell-Thick	Yes	1.000000	1.000000	
L-40	HA-25	0.000	Shell	Shell-Thick	Yes	0.400000	0.400000	

Table: Area Section Properties, Part 2 of 4

Table: Area Section Properties, Part 2 of 4

Section	InComp	CoordSys	Color	TotalWt	TotalMass	F11Mod	F22Mod
				KN	KN-s2/m		
L-100			Green	1309.150	133.50	1.000000	1.000000
L-40			Green	159.120	16.23	1.000000	1.000000

Table: Area Section Properties, Part 3 of 4

Table: Area Section Properties, Part 3 of 4

Section	F12Mod	M11Mod	M22Mod	M12Mod	V13Mod	V23Mod	MMod	WMod
L-100	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
L-40	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Table: Area Section Properties, Part 4 of 4

Table: Area Section Properties, Part 4 of 4

Section	GUID	Notes
L-100		Added 20/09/2016 12:20:11
L-40		Added 20/09/2016 12:16:10

Table: Combination Definitions, Part 1 of 3

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-CARROS	Envelope	No	Linear Static	CARRO-A1	1.000000	No
ENV-CARROS			Linear Static	CARRO-A10	1.000000	
ENV-CARROS			Linear Static	CARRO-A11	1.000000	
ENV-CARROS			Linear Static	CARRO-A12	1.000000	
ENV-CARROS			Linear Static	CARRO-A13	1.000000	
ENV-CARROS			Linear Static	CARRO-A14	1.000000	
ENV-CARROS			Linear Static	CARRO-A15	1.000000	
ENV-CARROS			Linear Static	CARRO-A16	1.000000	
ENV-CARROS			Linear Static	CARRO-A17	1.000000	
ENV-CARROS			Linear Static	CARRO-A18	1.000000	
ENV-CARROS			Linear Static	CARRO-A19	1.000000	
ENV-CARROS			Linear Static	CARRO-A2	1.000000	
ENV-CARROS			Linear Static	CARRO-A20	1.000000	
ENV-CARROS			Linear Static	CARRO-A21	1.000000	
ENV-CARROS			Linear Static	CARRO-A22	1.000000	
ENV-CARROS			Linear Static	CARRO-A3	1.000000	
ENV-CARROS			Linear Static	CARRO-A4	1.000000	
ENV-CARROS			Linear Static	CARRO-A5	1.000000	
ENV-CARROS			Linear Static	CARRO-A6	1.000000	
ENV-CARROS			Linear Static	CARRO-A7	1.000000	
ENV-CARROS			Linear Static	CARRO-A8	1.000000	
ENV-CARROS			Linear Static	CARRO-A9	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-CARROS			Linear Static	CARRO-B1	1.000000	
ENV-CARROS			Linear Static	CARRO-B10	1.000000	
ENV-CARROS			Linear Static	CARRO-B11	1.000000	
ENV-CARROS			Linear Static	CARRO-B12	1.000000	
ENV-CARROS			Linear Static	CARRO-B13	1.000000	
ENV-CARROS			Linear Static	CARRO-B14	1.000000	
ENV-CARROS			Linear Static	CARRO-B15	1.000000	
ENV-CARROS			Linear Static	CARRO-B16	1.000000	
ENV-CARROS			Linear Static	CARRO-B17	1.000000	
ENV-CARROS			Linear Static	CARRO-B18	1.000000	
ENV-CARROS			Linear Static	CARRO-B19	1.000000	
ENV-CARROS			Linear Static	CARRO-B2	1.000000	
ENV-CARROS			Linear Static	CARRO-B20	1.000000	
ENV-CARROS			Linear Static	CARRO-B21	1.000000	
ENV-CARROS			Linear Static	CARRO-B22	1.000000	
ENV-CARROS			Linear Static	CARRO-B3	1.000000	
ENV-CARROS			Linear Static	CARRO-B4	1.000000	
ENV-CARROS			Linear Static	CARRO-B5	1.000000	
ENV-CARROS			Linear Static	CARRO-B6	1.000000	
ENV-CARROS			Linear Static	CARRO-B7	1.000000	
ENV-CARROS			Linear Static	CARRO-B8	1.000000	
ENV-CARROS			Linear Static	CARRO-B9	1.000000	
ENV-CARROS			Linear Static	CARRO-C1	1.000000	
ENV-CARROS			Linear Static	CARRO-C10	1.000000	
ENV-CARROS			Linear Static	CARRO-C11	1.000000	
ENV-CARROS			Linear Static	CARRO-C12	1.000000	
ENV-CARROS			Linear Static	CARRO-C13	1.000000	
ENV-CARROS			Linear Static	CARRO-C14	1.000000	
ENV-CARROS			Linear Static	CARRO-C15	1.000000	
ENV-CARROS			Linear Static	CARRO-C16	1.000000	
ENV-CARROS			Linear Static	CARRO-C17	1.000000	
ENV-CARROS			Linear Static	CARRO-C18	1.000000	
ENV-CARROS			Linear Static	CARRO-C19	1.000000	
ENV-CARROS			Linear Static	CARRO-C2	1.000000	
ENV-CARROS			Linear Static	CARRO-C20	1.000000	
ENV-CARROS			Linear Static	CARRO-C21	1.000000	
ENV-CARROS			Linear Static	CARRO-C22	1.000000	
ENV-CARROS			Linear Static	CARRO-C3	1.000000	
ENV-CARROS			Linear Static	CARRO-C4	1.000000	
ENV-CARROS			Linear Static	CARRO-C5	1.000000	
ENV-CARROS			Linear Static	CARRO-C6	1.000000	
ENV-CARROS			Linear Static	CARRO-C7	1.000000	
ENV-CARROS			Linear Static	CARRO-C8	1.000000	
ENV-CARROS			Linear Static	CARRO-C9	1.000000	
ENV-SCU	Envelope	No	Linear Static	SCU-1	1.000000	No
ENV-SCU			Linear Static	SCU-2	1.000000	
ENV-SCU			Linear Static	SCU-3	1.000000	
ENV-SCU			Linear Static	SCU-4	1.000000	
ENV-SCU			Linear Static	SCU-5	1.000000	
ENV-SCU			Linear Static	SCU-6	1.000000	
ENV-SCU			Linear Static	SCU-7	1.000000	
ENV-SCU			Linear Static	SCU-8	1.000000	
ENV-SCU			Linear Static	SCU-9	1.000000	
CP-1	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-1			Linear Static	PRETIL	1.000000	
CP-1			Linear Static	PAVMIN1	1.000000	
CP-1			Linear Static	PAVMIN2	1.000000	
CP-1			Linear Static	RETRAC	1.000000	
CP-2	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-2			Linear Static	PRETIL	1.000000	
CP-2			Linear Static	PAVMIN1	1.000000	
CP-2			Linear Static	PAVMIN2	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
CP-3	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-3			Linear Static	PRETIL	1.000000	
CP-3			Linear Static	PAVMAX1	1.000000	
CP-3			Linear Static	PAVMAX2	1.000000	
CP-3			Linear Static	RETRAC	1.000000	
CP-4	Linear Add	No	Linear Static	DEAD	1.000000	No
CP-4			Linear Static	PRETIL	1.000000	
CP-4			Linear Static	PAVMAX1	1.000000	
CP-4			Linear Static	PAVMAX2	1.000000	
ENV-CP	Envelope	No	Response Combo	CP-1	1.000000	No
ENV-CP			Response Combo	CP-2	1.000000	
ENV-CP			Response Combo	CP-3	1.000000	
ENV-CP			Response Combo	CP-4	1.000000	
TSIM-1	Linear Add	No	Linear Static	TCON	1.000000	No
TSIM-1			Linear Static	TGRAD1	0.750000	
TSIM-2	Linear Add	No	Linear Static	TCON	1.000000	No
TSIM-2			Linear Static	TGRAD2	0.750000	
TSIM-3	Linear Add	No	Linear Static	TDIL	1.000000	No
TSIM-3			Linear Static	TGRAD1	0.750000	
TSIM-4	Linear Add	No	Linear Static	TDIL	1.000000	No
TSIM-4			Linear Static	TGRAD2	0.750000	
TSIM-5	Linear Add	No	Linear Static	TCON	0.350000	No
TSIM-5			Linear Static	TGRAD1	1.000000	
TSIM-6	Linear Add	No	Linear Static	TCON	0.350000	No
TSIM-6			Linear Static	TGRAD2	1.000000	
TSIM-7	Linear Add	No	Linear Static	TDIL	0.350000	No
TSIM-7			Linear Static	TGRAD1	1.000000	
TSIM-8	Linear Add	No	Linear Static	TDIL	0.350000	No
TSIM-8			Linear Static	TGRAD2	1.000000	
ENV-T	Envelope	No	Linear Static	TCON	1.000000	No
ENV-T			Linear Static	TDIL	1.000000	
ENV-T			Linear Static	TGRAD1	1.000000	
ENV-T			Linear Static	TGRAD2	1.000000	
ENV-T			Response Combo	TSIM-1	1.000000	
ENV-T			Response Combo	TSIM-2	1.000000	
ENV-T			Response Combo	TSIM-3	1.000000	
ENV-T			Response Combo	TSIM-4	1.000000	
ENV-T			Response Combo	TSIM-5	1.000000	
ENV-T			Response Combo	TSIM-6	1.000000	
ENV-T			Response Combo	TSIM-7	1.000000	
ENV-T			Response Combo	TSIM-8	1.000000	
FH-1	Linear Add	No	Linear Static	QLA1	1.000000	No
FH-1			Linear Static	QTA1	1.000000	
FH-2	Linear Add	No	Linear Static	QLA1	1.000000	No
FH-2			Linear Static	QTB1	1.000000	
FH-3	Linear Add	No	Linear Static	QLB1	1.000000	No
FH-3			Linear Static	QTA1	1.000000	
FH-4	Linear Add	No	Linear Static	QLB1	1.000000	No
FH-4			Linear Static	QTB1	1.000000	
FH-5	Linear Add	No	Linear Static	QLA2	1.000000	No
FH-5			Linear Static	QTA2	1.000000	
FH-6	Linear Add	No	Linear Static	QLA2	1.000000	No
FH-6			Linear Static	QTB2	1.000000	
FH-7	Linear Add	No	Linear Static	QLB2	1.000000	No
FH-7			Linear Static	QTA2	1.000000	
FH-8	Linear Add	No	Linear Static	QLB2	1.000000	No
FH-8			Linear Static	QTB2	1.000000	
FH-9	Linear Add	No	Linear Static	QLA3	1.000000	No
FH-9			Linear Static	QTA3	1.000000	
FH-10	Linear Add	No	Linear Static	QLA3	1.000000	No
FH-10			Linear Static	QTB3	1.000000	
FH-11	Linear Add	No	Linear Static	QLB3	1.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
FH-11			Linear Static	QTA3	1.000000	
FH-12	Linear Add	No	Linear Static	QLB3	1.000000	No
FH-12			Linear Static	QTB3	1.000000	
FH-13	Linear Add	No	Linear Static	QLA4	1.000000	No
FH-13			Linear Static	QTA4	1.000000	
FH-14	Linear Add	No	Linear Static	QLA4	1.000000	No
FH-14			Linear Static	QTB4	1.000000	
FH-15	Linear Add	No	Linear Static	QLB4	1.000000	No
FH-15			Linear Static	QTA4	1.000000	
FH-16	Linear Add	No	Linear Static	QLB4	1.000000	No
FH-16			Linear Static	QTB4	1.000000	
ENV-FH	Envelope	No	Linear Static	QLA1	1.000000	No
ENV-FH			Linear Static	QLA2	1.000000	
ENV-FH			Linear Static	QLA3	1.000000	
ENV-FH			Linear Static	QLA4	1.000000	
ENV-FH			Linear Static	QLB1	1.000000	
ENV-FH			Linear Static	QLB2	1.000000	
ENV-FH			Linear Static	QLB3	1.000000	
ENV-FH			Linear Static	QLB4	1.000000	
ENV-FH			Linear Static	QTA1	1.000000	
ENV-FH			Linear Static	QTA2	1.000000	
ENV-FH			Linear Static	QTA3	1.000000	
ENV-FH			Linear Static	QTA4	1.000000	
ENV-FH			Linear Static	QTB1	1.000000	
ENV-FH			Linear Static	QTB2	1.000000	
ENV-FH			Linear Static	QTB3	1.000000	
ENV-FH			Linear Static	QTB4	1.000000	
ENV-FH			Response Combo	FH-1	1.000000	
ENV-FH			Response Combo	FH-10	1.000000	
ENV-FH			Response Combo	FH-11	1.000000	
ENV-FH			Response Combo	FH-12	1.000000	
ENV-FH			Response Combo	FH-13	1.000000	
ENV-FH			Response Combo	FH-14	1.000000	
ENV-FH			Response Combo	FH-15	1.000000	
ENV-FH			Response Combo	FH-16	1.000000	
ENV-FH			Response Combo	FH-2	1.000000	
ENV-FH			Response Combo	FH-3	1.000000	
ENV-FH			Response Combo	FH-4	1.000000	
ENV-FH			Response Combo	FH-5	1.000000	
ENV-FH			Response Combo	FH-6	1.000000	
ENV-FH			Response Combo	FH-7	1.000000	
ENV-FH			Response Combo	FH-8	1.000000	
ENV-FH			Response Combo	FH-9	1.000000	
ENV-AC	Envelope	No	Linear Static	AC1	1.000000	No
ENV-AC			Linear Static	AC10	1.000000	
ENV-AC			Linear Static	AC11	1.000000	
ENV-AC			Linear Static	AC12	1.000000	
ENV-AC			Linear Static	AC2	1.000000	
ENV-AC			Linear Static	AC3	1.000000	
ENV-AC			Linear Static	AC4	1.000000	
ENV-AC			Linear Static	AC5	1.000000	
ENV-AC			Linear Static	AC6	1.000000	
ENV-AC			Linear Static	AC7	1.000000	
ENV-AC			Linear Static	AC8	1.000000	
ENV-AC			Linear Static	AC9	1.000000	
ELS-CA1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA2			Response Combo	ENV-SCU	1.000000	
ELS-CA3	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA3			Response Combo	ENV-CARROS	1.000000	
ELS-CA4	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA4			Response Combo	ENV-SCU	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELS-CA4			Response Combo	ENV-CARROS	1.000000	
ELS-CA5	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA5			Response Combo	ENV-CARROS	0.750000	
ELS-CA5			Response Combo	ENV-FH	1.000000	
ELS-CA6	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA6			Response Combo	ENV-SCU	0.400000	
ELS-CA6			Response Combo	ENV-FH	1.000000	
ELS-CA7	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA7			Response Combo	ENV-SCU	0.400000	
ELS-CA7			Response Combo	ENV-CARROS	0.750000	
ELS-CA7			Response Combo	ENV-FH	1.000000	
ELS-CA8	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA8			Response Combo	ENV-SCU	1.000000	
ELS-CA8			Response Combo	ENV-T	0.600000	
ELS-CA9	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA9			Response Combo	ENV-CARROS	1.000000	
ELS-CA9			Response Combo	ENV-T	0.600000	
ELS-CA10	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA10			Response Combo	ENV-SCU	1.000000	
ELS-CA10			Response Combo	ENV-CARROS	1.000000	
ELS-CA10			Response Combo	ENV-T	0.600000	
ELS-CA11	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA11			Response Combo	ENV-CARROS	0.750000	
ELS-CA11			Response Combo	ENV-FH	1.000000	
ELS-CA11			Response Combo	ENV-T	0.600000	
ELS-CA12	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA12			Response Combo	ENV-SCU	0.400000	
ELS-CA12			Response Combo	ENV-FH	1.000000	
ELS-CA12			Response Combo	ENV-T	0.600000	
ELS-CA13	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA13			Response Combo	ENV-SCU	0.400000	
ELS-CA13			Response Combo	ENV-CARROS	0.750000	
ELS-CA13			Response Combo	ENV-FH	1.000000	
ELS-CA13			Response Combo	ENV-T	0.600000	
ELS-CA14	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA14			Response Combo	ENV-T	1.000000	
ELS-CA15	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA15			Response Combo	ENV-T	1.000000	
ELS-CA15			Response Combo	ENV-SCU	0.400000	
ELS-CA16	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA16			Response Combo	ENV-T	1.000000	
ELS-CA16			Response Combo	ENV-CARROS	0.750000	
ELS-CA17	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CA17			Response Combo	ENV-T	1.000000	
ELS-CA17			Response Combo	ENV-CARROS	0.750000	
ELS-CA17			Response Combo	ENV-SCU	0.400000	
ENV-ELS-CA	Envelope	No	Response Combo	ELS-CA1	1.000000	No
ENV-ELS-CA			Response Combo	ELS-CA10	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA11	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA12	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA13	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA14	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA15	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA16	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA17	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA2	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA3	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA4	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA5	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA6	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA7	1.000000	
ENV-ELS-CA			Response Combo	ELS-CA8	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-ELS-CA			Response Combo	ELS-CA9	1.000000	
ELS-CP1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CP2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELS-CP2			Response Combo	ENV-T	0.500000	
ENV-ELS-CP	Envelope	No	Response Combo	ELS-CP1	1.000000	No
ENV-ELS-CP			Response Combo	ELS-CP2	1.000000	
ELU-PT1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT2			Response Combo	ENV-SCU	1.350000	
ELU-PT3	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT3			Response Combo	ENV-CARROS	1.350000	
ELU-PT4	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT4			Response Combo	ENV-SCU	1.350000	
ELU-PT4			Response Combo	ENV-CARROS	1.350000	
ELU-PT5	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT5			Response Combo	ENV-CARROS	1.012500	
ELU-PT5			Response Combo	ENV-FH	1.350000	
ELU-PT6	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT6			Response Combo	ENV-SCU	0.540000	
ELU-PT6			Response Combo	ENV-FH	1.350000	
ELU-PT7	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT7			Response Combo	ENV-SCU	0.540000	
ELU-PT7			Response Combo	ENV-CARROS	1.012500	
ELU-PT7			Response Combo	ENV-FH	1.350000	
ELU-PT8	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT8			Response Combo	ENV-SCU	1.350000	
ELU-PT8			Response Combo	ENV-T	0.900000	
ELU-PT9	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT9			Response Combo	ENV-CARROS	1.350000	
ELU-PT9			Response Combo	ENV-T	0.900000	
ELU-PT10	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT10			Response Combo	ENV-SCU	1.350000	
ELU-PT10			Response Combo	ENV-CARROS	1.350000	
ELU-PT10			Response Combo	ENV-T	0.900000	
ELU-PT11	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT11			Response Combo	ENV-CARROS	1.012500	
ELU-PT11			Response Combo	ENV-FH	1.350000	
ELU-PT11			Response Combo	ENV-T	0.900000	
ELU-PT12	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT12			Response Combo	ENV-SCU	0.540000	
ELU-PT12			Response Combo	ENV-FH	1.350000	
ELU-PT12			Response Combo	ENV-T	0.900000	
ELU-PT13	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT13			Response Combo	ENV-SCU	0.540000	
ELU-PT13			Response Combo	ENV-CARROS	1.012500	
ELU-PT13			Response Combo	ENV-FH	1.350000	
ELU-PT13			Response Combo	ENV-T	0.900000	
ELU-PT14	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT14			Response Combo	ENV-T	1.500000	
ELU-PT15	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT15			Response Combo	ENV-T	1.500000	
ELU-PT15			Response Combo	ENV-SCU	0.540000	
ELU-PT16	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT16			Response Combo	ENV-T	1.500000	
ELU-PT16			Response Combo	ENV-CARROS	1.012500	
ELU-PT17	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-PT17			Response Combo	ENV-T	1.500000	
ELU-PT17			Response Combo	ENV-CARROS	1.012500	
ELU-PT17			Response Combo	ENV-SCU	0.540000	
ELU-PT18	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT19	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT19			Response Combo	ENV-SCU	1.350000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELU-PT20	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT20			Response Combo	ENV-CARROS	1.350000	
ELU-PT21	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT21			Response Combo	ENV-SCU	1.350000	
ELU-PT21			Response Combo	ENV-CARROS	1.350000	
ELU-PT22	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT22			Response Combo	ENV-CARROS	1.012500	
ELU-PT22			Response Combo	ENV-FH	1.350000	
ELU-PT23	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT23			Response Combo	ENV-SCU	0.540000	
ELU-PT23			Response Combo	ENV-FH	1.350000	
ELU-PT24	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT24			Response Combo	ENV-SCU	0.540000	
ELU-PT24			Response Combo	ENV-CARROS	1.012500	
ELU-PT24			Response Combo	ENV-FH	1.350000	
ELU-PT25	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT25			Response Combo	ENV-SCU	1.350000	
ELU-PT25			Response Combo	ENV-T	0.900000	
ELU-PT26	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT26			Response Combo	ENV-CARROS	1.350000	
ELU-PT26			Response Combo	ENV-T	0.900000	
ELU-PT27	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT27			Response Combo	ENV-SCU	1.350000	
ELU-PT27			Response Combo	ENV-CARROS	1.350000	
ELU-PT27			Response Combo	ENV-T	0.900000	
ELU-PT28	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT28			Response Combo	ENV-CARROS	1.012500	
ELU-PT28			Response Combo	ENV-FH	1.350000	
ELU-PT28			Response Combo	ENV-T	0.900000	
ELU-PT29	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT29			Response Combo	ENV-SCU	0.540000	
ELU-PT29			Response Combo	ENV-FH	1.350000	
ELU-PT29			Response Combo	ENV-T	0.900000	
ELU-PT30	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT30			Response Combo	ENV-SCU	0.540000	
ELU-PT30			Response Combo	ENV-CARROS	1.012500	
ELU-PT30			Response Combo	ENV-FH	1.350000	
ELU-PT30			Response Combo	ENV-T	0.900000	
ELU-PT31	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT31			Response Combo	ENV-T	1.500000	
ELU-PT32	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT32			Response Combo	ENV-T	1.500000	
ELU-PT32			Response Combo	ENV-SCU	0.540000	
ELU-PT33	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT33			Response Combo	ENV-T	1.500000	
ELU-PT33			Response Combo	ENV-CARROS	1.012500	
ELU-PT34	Linear Add	No	Response Combo	ENV-CP	1.350000	No
ELU-PT34			Response Combo	ENV-T	1.500000	
ELU-PT34			Response Combo	ENV-CARROS	1.012500	
ELU-PT34			Response Combo	ENV-SCU	0.540000	
ENV-ELU-PT	Envelope	No	Response Combo	ELU-PT1	1.000000	No
ENV-ELU-PT			Response Combo	ELU-PT10	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT11	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT12	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT13	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT14	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT15	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT16	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT17	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT18	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT19	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT2	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ENV-ELU-PT			Response Combo	ELU-PT20	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT21	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT22	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT23	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT24	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT25	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT26	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT27	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT28	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT29	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT3	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT30	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT31	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT32	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT33	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT34	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT4	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT5	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT6	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT7	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT8	1.000000	
ENV-ELU-PT			Response Combo	ELU-PT9	1.000000	
ELU-AC1	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC1			Response Combo	ENV-AC	1.000000	
ELU-AC2	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC2			Response Combo	ENV-AC	1.000000	
ELU-AC2			Response Combo	ENV-SCU	0.400000	
ELU-AC3	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC3			Response Combo	ENV-AC	1.000000	
ELU-AC3			Response Combo	ENV-CARROS	0.750000	
ELU-AC4	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC4			Response Combo	ENV-AC	1.000000	
ELU-AC4			Response Combo	ENV-CARROS	0.750000	
ELU-AC4			Response Combo	ENV-SCU	0.400000	
ELU-AC5	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC5			Response Combo	ENV-AC	1.000000	
ELU-AC5			Response Combo	ENV-SCU	0.400000	
ELU-AC5			Response Combo	ENV-T	0.500000	
ELU-AC6	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC6			Response Combo	ENV-AC	1.000000	
ELU-AC6			Response Combo	ENV-CARROS	0.750000	
ELU-AC6			Response Combo	ENV-T	0.500000	
ELU-AC7	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC7			Response Combo	ENV-AC	1.000000	
ELU-AC7			Response Combo	ENV-CARROS	0.750000	
ELU-AC7			Response Combo	ENV-SCU	0.400000	
ELU-AC7			Response Combo	ENV-T	0.500000	
ELU-AC8	Linear Add	No	Response Combo	ENV-CP	1.000000	No
ELU-AC8			Response Combo	ENV-AC	1.000000	
ELU-AC8			Response Combo	ENV-T	0.600000	
ENV-ELU-AC	Envelope	No	Response Combo	ELU-AC1	1.000000	No
ENV-ELU-AC			Response Combo	ELU-AC2	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC3	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC4	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC5	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC6	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC7	1.000000	
ENV-ELU-AC			Response Combo	ELU-AC8	1.000000	
ELU-EQ1	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ1			Linear Static	PAVMIN1	1.100000	
ELU-EQ1			Linear Static	PRETIL	1.100000	
ELU-EQ1			Linear Static	PAVMIN2	0.900000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
ELU-EQ1			Response Combo	ENV-SCU	1.350000	
ELU-EQ2	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ2			Linear Static	PAVMIN1	1.100000	
ELU-EQ2			Linear Static	PRETIL	1.100000	
ELU-EQ2			Linear Static	PAVMIN2	0.900000	
ELU-EQ2			Response Combo	ENV-CARROS	1.350000	
ELU-EQ3	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ3			Linear Static	PAVMIN1	1.100000	
ELU-EQ3			Linear Static	PRETIL	1.100000	
ELU-EQ3			Linear Static	PAVMIN2	0.900000	
ELU-EQ3			Response Combo	ENV-CARROS	1.350000	
ELU-EQ3			Response Combo	ENV-SCU	1.350000	
ELU-EQ4	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ4			Linear Static	PAVMAX1	1.100000	
ELU-EQ4			Linear Static	PRETIL	1.100000	
ELU-EQ4			Linear Static	PAVMAX2	0.900000	
ELU-EQ4			Response Combo	ENV-SCU	1.350000	
ELU-EQ5	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ5			Linear Static	PAVMAX1	1.100000	
ELU-EQ5			Linear Static	PRETIL	1.100000	
ELU-EQ5			Linear Static	PAVMAX2	0.900000	
ELU-EQ5			Response Combo	ENV-CARROS	1.350000	
ELU-EQ6	Linear Add	No	Linear Static	DEAD	1.000000	No
ELU-EQ6			Linear Static	PAVMAX1	1.100000	
ELU-EQ6			Linear Static	PRETIL	1.100000	
ELU-EQ6			Linear Static	PAVMAX2	0.900000	
ELU-EQ6			Response Combo	ENV-CARROS	1.350000	
ELU-EQ6			Response Combo	ENV-SCU	1.350000	
ENV-ELU-EQ	Envelope	No	Response Combo	ELU-EQ1	1.000000	No
ENV-ELU-EQ			Response Combo	ELU-EQ2	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ3	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ4	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ5	1.000000	
ENV-ELU-EQ			Response Combo	ELU-EQ6	1.000000	
RH-1	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-2	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-2			Linear Static	TCON	1.500000	
RH-3	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-3			Linear Static	TDIL	1.500000	
RH-4	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-4			Linear Static	TCON	0.900000	
RH-4			Response Combo	FH-1	1.350000	
RH-5	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-5			Linear Static	TCON	0.900000	
RH-5			Response Combo	FH-2	1.350000	
RH-6	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-6			Linear Static	TCON	0.900000	
RH-6			Response Combo	FH-3	1.350000	
RH-7	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-7			Linear Static	TCON	0.900000	
RH-7			Response Combo	FH-4	1.350000	
RH-8	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-8			Linear Static	TCON	0.900000	
RH-8			Response Combo	FH-5	1.350000	
RH-9	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-9			Linear Static	TCON	0.900000	
RH-9			Response Combo	FH-6	1.350000	
RH-10	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-10			Linear Static	TCON	0.900000	
RH-10			Response Combo	FH-7	1.350000	
RH-11	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-11			Linear Static	TCON	0.900000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-11			Response Combo	FH-8	1.350000	
RH-12	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-12			Linear Static	TCON	0.900000	
RH-12			Response Combo	FH-9	1.350000	
RH-13	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-13			Linear Static	TCON	0.900000	
RH-13			Response Combo	FH-10	1.350000	
RH-14	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-14			Linear Static	TCON	0.900000	
RH-14			Response Combo	FH-11	1.350000	
RH-15	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-15			Linear Static	TCON	0.900000	
RH-15			Response Combo	FH-12	1.350000	
RH-16	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-16			Linear Static	TCON	0.900000	
RH-16			Response Combo	FH-13	1.350000	
RH-17	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-17			Linear Static	TCON	0.900000	
RH-17			Response Combo	FH-14	1.350000	
RH-18	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-18			Linear Static	TCON	0.900000	
RH-18			Response Combo	FH-15	1.350000	
RH-19	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-19			Linear Static	TCON	0.900000	
RH-19			Response Combo	FH-16	1.350000	
RH-20	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-20			Linear Static	TDIL	0.900000	
RH-20			Response Combo	FH-1	1.350000	
RH-21	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-21			Linear Static	TDIL	0.900000	
RH-21			Response Combo	FH-2	1.350000	
RH-22	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-22			Linear Static	TDIL	0.900000	
RH-22			Response Combo	FH-3	1.350000	
RH-23	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-23			Linear Static	TDIL	0.900000	
RH-23			Response Combo	FH-4	1.350000	
RH-24	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-24			Linear Static	TDIL	0.900000	
RH-24			Response Combo	FH-5	1.350000	
RH-25	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-25			Linear Static	TDIL	0.900000	
RH-25			Response Combo	FH-6	1.350000	
RH-26	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-26			Linear Static	TDIL	0.900000	
RH-26			Response Combo	FH-7	1.350000	
RH-27	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-27			Linear Static	TDIL	0.900000	
RH-27			Response Combo	FH-8	1.350000	
RH-28	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-28			Linear Static	TDIL	0.900000	
RH-28			Response Combo	FH-9	1.350000	
RH-29	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-29			Linear Static	TDIL	0.900000	
RH-29			Response Combo	FH-10	1.350000	
RH-30	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-30			Linear Static	TDIL	0.900000	
RH-30			Response Combo	FH-11	1.350000	
RH-31	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-31			Linear Static	TDIL	0.900000	
RH-31			Response Combo	FH-12	1.350000	
RH-32	Linear Add	No	Linear Static	RETRAC	1.350000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-32			Linear Static	TDIL	0.900000	
RH-32			Response Combo	FH-13	1.350000	
RH-33	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-33			Linear Static	TDIL	0.900000	
RH-33			Response Combo	FH-14	1.350000	
RH-34	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-34			Linear Static	TDIL	0.900000	
RH-34			Response Combo	FH-15	1.350000	
RH-35	Linear Add	No	Linear Static	RETRAC	1.350000	No
RH-35			Linear Static	TDIL	0.900000	
RH-35			Response Combo	FH-16	1.350000	
RH-36	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-37	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-37			Linear Static	TCON	1.500000	
RH-38	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-38			Linear Static	TDIL	1.500000	
RH-39	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-39			Linear Static	TCON	0.900000	
RH-39			Response Combo	FH-1	1.350000	
RH-40	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-40			Linear Static	TCON	0.900000	
RH-40			Response Combo	FH-2	1.350000	
RH-41	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-41			Linear Static	TCON	0.900000	
RH-41			Response Combo	FH-3	1.350000	
RH-42	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-42			Linear Static	TCON	0.900000	
RH-42			Response Combo	FH-4	1.350000	
RH-43	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-43			Linear Static	TCON	0.900000	
RH-43			Response Combo	FH-5	1.350000	
RH-44	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-44			Linear Static	TCON	0.900000	
RH-44			Response Combo	FH-6	1.350000	
RH-45	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-45			Linear Static	TCON	0.900000	
RH-45			Response Combo	FH-7	1.350000	
RH-46	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-46			Linear Static	TCON	0.900000	
RH-46			Response Combo	FH-8	1.350000	
RH-47	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-47			Linear Static	TCON	0.900000	
RH-47			Response Combo	FH-9	1.350000	
RH-48	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-48			Linear Static	TCON	0.900000	
RH-48			Response Combo	FH-10	1.350000	
RH-49	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-49			Linear Static	TCON	0.900000	
RH-49			Response Combo	FH-11	1.350000	
RH-50	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-50			Linear Static	TCON	0.900000	
RH-50			Response Combo	FH-12	1.350000	
RH-51	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-51			Linear Static	TCON	0.900000	
RH-51			Response Combo	FH-13	1.350000	
RH-52	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-52			Linear Static	TCON	0.900000	
RH-52			Response Combo	FH-14	1.350000	
RH-53	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-53			Linear Static	TCON	0.900000	
RH-53			Response Combo	FH-15	1.350000	
RH-54	Linear Add	No	Linear Static	RETRAC	1.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-54			Linear Static	TCON	0.900000	
RH-54			Response Combo	FH-16	1.350000	
RH-55	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-55			Linear Static	TDIL	0.900000	
RH-55			Response Combo	FH-1	1.350000	
RH-56	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-56			Linear Static	TDIL	0.900000	
RH-56			Response Combo	FH-2	1.350000	
RH-57	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-57			Linear Static	TDIL	0.900000	
RH-57			Response Combo	FH-3	1.350000	
RH-58	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-58			Linear Static	TDIL	0.900000	
RH-58			Response Combo	FH-4	1.350000	
RH-59	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-59			Linear Static	TDIL	0.900000	
RH-59			Response Combo	FH-5	1.350000	
RH-60	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-60			Linear Static	TDIL	0.900000	
RH-60			Response Combo	FH-6	1.350000	
RH-61	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-61			Linear Static	TDIL	0.900000	
RH-61			Response Combo	FH-7	1.350000	
RH-62	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-62			Linear Static	TDIL	0.900000	
RH-62			Response Combo	FH-8	1.350000	
RH-63	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-63			Linear Static	TDIL	0.900000	
RH-63			Response Combo	FH-9	1.350000	
RH-64	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-64			Linear Static	TDIL	0.900000	
RH-64			Response Combo	FH-10	1.350000	
RH-65	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-65			Linear Static	TDIL	0.900000	
RH-65			Response Combo	FH-11	1.350000	
RH-66	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-66			Linear Static	TDIL	0.900000	
RH-66			Response Combo	FH-12	1.350000	
RH-67	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-67			Linear Static	TDIL	0.900000	
RH-67			Response Combo	FH-13	1.350000	
RH-68	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-68			Linear Static	TDIL	0.900000	
RH-68			Response Combo	FH-14	1.350000	
RH-69	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-69			Linear Static	TDIL	0.900000	
RH-69			Response Combo	FH-15	1.350000	
RH-70	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-70			Linear Static	TDIL	0.900000	
RH-70			Response Combo	FH-16	1.350000	
RH-71	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-72	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-72			Linear Static	TCON	1.500000	
RH-73	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-73			Linear Static	TDIL	1.500000	
RH-74	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-74			Linear Static	TCON	0.900000	
RH-74			Response Combo	FH-1	1.350000	
RH-75	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-75			Linear Static	TCON	0.900000	
RH-75			Response Combo	FH-2	1.350000	
RH-76	Linear Add	No	Linear Static	RETRAC	0.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-76			Linear Static	TCON	0.900000	
RH-76			Response Combo	FH-3	1.350000	
RH-77	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-77			Linear Static	TCON	0.900000	
RH-77			Response Combo	FH-4	1.350000	
RH-78	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-78			Linear Static	TCON	0.900000	
RH-78			Response Combo	FH-5	1.350000	
RH-79	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-79			Linear Static	TCON	0.900000	
RH-79			Response Combo	FH-6	1.350000	
RH-80	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-80			Linear Static	TCON	0.900000	
RH-80			Response Combo	FH-7	1.350000	
RH-81	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-81			Linear Static	TCON	0.900000	
RH-81			Response Combo	FH-8	1.350000	
RH-82	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-82			Linear Static	TCON	0.900000	
RH-82			Response Combo	FH-9	1.350000	
RH-83	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-83			Linear Static	TCON	0.900000	
RH-83			Response Combo	FH-10	1.350000	
RH-84	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-84			Linear Static	TCON	0.900000	
RH-84			Response Combo	FH-11	1.350000	
RH-85	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-85			Linear Static	TCON	0.900000	
RH-85			Response Combo	FH-12	1.350000	
RH-86	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-86			Linear Static	TCON	0.900000	
RH-86			Response Combo	FH-13	1.350000	
RH-87	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-87			Linear Static	TCON	0.900000	
RH-87			Response Combo	FH-14	1.350000	
RH-88	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-88			Linear Static	TCON	0.900000	
RH-88			Response Combo	FH-15	1.350000	
RH-89	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-89			Linear Static	TCON	0.900000	
RH-89			Response Combo	FH-16	1.350000	
RH-90	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-90			Linear Static	TDIL	0.900000	
RH-90			Response Combo	FH-1	1.350000	
RH-91	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-91			Linear Static	TDIL	0.900000	
RH-91			Response Combo	FH-2	1.350000	
RH-92	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-92			Linear Static	TDIL	0.900000	
RH-92			Response Combo	FH-3	1.350000	
RH-93	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-93			Linear Static	TDIL	0.900000	
RH-93			Response Combo	FH-4	1.350000	
RH-94	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-94			Linear Static	TDIL	0.900000	
RH-94			Response Combo	FH-5	1.350000	
RH-95	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-95			Linear Static	TDIL	0.900000	
RH-95			Response Combo	FH-6	1.350000	
RH-96	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-96			Linear Static	TDIL	0.900000	
RH-96			Response Combo	FH-7	1.350000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-97	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-97			Linear Static	TDIL	0.900000	
RH-97			Response Combo	FH-8	1.350000	
RH-98	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-98			Linear Static	TDIL	0.900000	
RH-98			Response Combo	FH-9	1.350000	
RH-99	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-99			Linear Static	TDIL	0.900000	
RH-99			Response Combo	FH-10	1.350000	
RH-100	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-100			Linear Static	TDIL	0.900000	
RH-100			Response Combo	FH-11	1.350000	
RH-101	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-101			Linear Static	TDIL	0.900000	
RH-101			Response Combo	FH-12	1.350000	
RH-102	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-102			Linear Static	TDIL	0.900000	
RH-102			Response Combo	FH-13	1.350000	
RH-103	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-103			Linear Static	TDIL	0.900000	
RH-103			Response Combo	FH-14	1.350000	
RH-104	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-104			Linear Static	TDIL	0.900000	
RH-104			Response Combo	FH-15	1.350000	
RH-105	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-105			Linear Static	TDIL	0.900000	
RH-105			Response Combo	FH-16	1.350000	
RH-106	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-106			Linear Static	AC1	1.000000	
RH-107	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-107			Linear Static	AC2	1.000000	
RH-108	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-108			Linear Static	AC3	1.000000	
RH-109	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-109			Linear Static	AC4	1.000000	
RH-110	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-110			Linear Static	AC5	1.000000	
RH-111	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-111			Linear Static	AC6	1.000000	
RH-112	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-112			Linear Static	AC7	1.000000	
RH-113	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-113			Linear Static	AC8	1.000000	
RH-114	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-114			Linear Static	AC9	1.000000	
RH-115	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-115			Linear Static	AC10	1.000000	
RH-116	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-116			Linear Static	AC1	1.000000	
RH-116			Linear Static	TCON	0.600000	
RH-117	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-117			Linear Static	AC2	1.000000	
RH-117			Linear Static	TCON	0.600000	
RH-118	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-118			Linear Static	AC3	1.000000	
RH-118			Linear Static	TCON	0.600000	
RH-119	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-119			Linear Static	AC4	1.000000	
RH-119			Linear Static	TCON	0.600000	
RH-120	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-120			Linear Static	AC5	1.000000	
RH-120			Linear Static	TCON	0.600000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-121	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-121			Linear Static	AC6	1.000000	
RH-121			Linear Static	TCON	0.600000	
RH-122	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-122			Linear Static	AC7	1.000000	
RH-122			Linear Static	TCON	0.600000	
RH-123	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-123			Linear Static	AC8	1.000000	
RH-123			Linear Static	TCON	0.600000	
RH-124	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-124			Linear Static	AC9	1.000000	
RH-124			Linear Static	TCON	0.600000	
RH-125	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-125			Linear Static	AC10	1.000000	
RH-125			Linear Static	TCON	0.600000	
RH-126	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-126			Linear Static	AC1	1.000000	
RH-126			Linear Static	TDIL	0.600000	
RH-127	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-127			Linear Static	AC2	1.000000	
RH-127			Linear Static	TDIL	0.600000	
RH-128	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-128			Linear Static	AC3	1.000000	
RH-128			Linear Static	TDIL	0.600000	
RH-129	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-129			Linear Static	AC4	1.000000	
RH-129			Linear Static	TDIL	0.600000	
RH-130	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-130			Linear Static	AC5	1.000000	
RH-130			Linear Static	TDIL	0.600000	
RH-131	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-131			Linear Static	AC6	1.000000	
RH-131			Linear Static	TDIL	0.600000	
RH-132	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-132			Linear Static	AC7	1.000000	
RH-132			Linear Static	TDIL	0.600000	
RH-133	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-133			Linear Static	AC8	1.000000	
RH-133			Linear Static	TDIL	0.600000	
RH-134	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-134			Linear Static	AC9	1.000000	
RH-134			Linear Static	TDIL	0.600000	
RH-135	Linear Add	No	Linear Static	RETRAC	1.000000	No
RH-135			Linear Static	AC10	1.000000	
RH-135			Linear Static	TDIL	0.600000	
RH-136	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-136			Linear Static	AC1	1.000000	
RH-137	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-137			Linear Static	AC2	1.000000	
RH-138	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-138			Linear Static	AC3	1.000000	
RH-139	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-139			Linear Static	AC4	1.000000	
RH-140	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-140			Linear Static	AC5	1.000000	
RH-141	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-141			Linear Static	AC6	1.000000	
RH-142	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-142			Linear Static	AC7	1.000000	
RH-143	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-143			Linear Static	AC8	1.000000	
RH-144	Linear Add	No	Linear Static	RETRAC	0.000000	No

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-144			Linear Static	AC9	1.000000	
RH-145	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-145			Linear Static	AC10	1.000000	
RH-146	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-146			Linear Static	AC1	1.000000	
RH-146			Linear Static	TCON	0.600000	
RH-147	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-147			Linear Static	AC2	1.000000	
RH-147			Linear Static	TCON	0.600000	
RH-148	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-148			Linear Static	AC3	1.000000	
RH-148			Linear Static	TCON	0.600000	
RH-149	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-149			Linear Static	AC4	1.000000	
RH-149			Linear Static	TCON	0.600000	
RH-150	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-150			Linear Static	AC5	1.000000	
RH-150			Linear Static	TCON	0.600000	
RH-151	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-151			Linear Static	AC6	1.000000	
RH-151			Linear Static	TCON	0.600000	
RH-152	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-152			Linear Static	AC7	1.000000	
RH-152			Linear Static	TCON	0.600000	
RH-153	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-153			Linear Static	AC8	1.000000	
RH-153			Linear Static	TCON	0.600000	
RH-154	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-154			Linear Static	AC9	1.000000	
RH-154			Linear Static	TCON	0.600000	
RH-155	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-155			Linear Static	AC10	1.000000	
RH-155			Linear Static	TCON	0.600000	
RH-156	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-156			Linear Static	AC1	1.000000	
RH-156			Linear Static	TDIL	0.600000	
RH-157	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-157			Linear Static	AC2	1.000000	
RH-157			Linear Static	TDIL	0.600000	
RH-158	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-158			Linear Static	AC3	1.000000	
RH-158			Linear Static	TDIL	0.600000	
RH-159	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-159			Linear Static	AC4	1.000000	
RH-159			Linear Static	TDIL	0.600000	
RH-160	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-160			Linear Static	AC5	1.000000	
RH-160			Linear Static	TDIL	0.600000	
RH-161	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-161			Linear Static	AC6	1.000000	
RH-161			Linear Static	TDIL	0.600000	
RH-162	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-162			Linear Static	AC7	1.000000	
RH-162			Linear Static	TDIL	0.600000	
RH-163	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-163			Linear Static	AC8	1.000000	
RH-163			Linear Static	TDIL	0.600000	
RH-164	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-164			Linear Static	AC9	1.000000	
RH-164			Linear Static	TDIL	0.600000	
RH-165	Linear Add	No	Linear Static	RETRAC	0.000000	No
RH-165			Linear Static	AC10	1.000000	

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
RH-165			Linear Static	TDIL	0.600000	

Table: Combination Definitions, Part 2 of 3

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-CARROS	CARRO-A1	No	No	No	
ENV-CARROS	CARRO-A10				
ENV-CARROS	CARRO-A11				
ENV-CARROS	CARRO-A12				
ENV-CARROS	CARRO-A13				
ENV-CARROS	CARRO-A14				
ENV-CARROS	CARRO-A15				
ENV-CARROS	CARRO-A16				
ENV-CARROS	CARRO-A17				
ENV-CARROS	CARRO-A18				
ENV-CARROS	CARRO-A19				
ENV-CARROS	CARRO-A2				
ENV-CARROS	CARRO-A20				
ENV-CARROS	CARRO-A21				
ENV-CARROS	CARRO-A22				
ENV-CARROS	CARRO-A3				
ENV-CARROS	CARRO-A4				
ENV-CARROS	CARRO-A5				
ENV-CARROS	CARRO-A6				
ENV-CARROS	CARRO-A7				
ENV-CARROS	CARRO-A8				
ENV-CARROS	CARRO-A9				
ENV-CARROS	CARRO-B1				
ENV-CARROS	CARRO-B10				
ENV-CARROS	CARRO-B11				
ENV-CARROS	CARRO-B12				
ENV-CARROS	CARRO-B13				
ENV-CARROS	CARRO-B14				
ENV-CARROS	CARRO-B15				
ENV-CARROS	CARRO-B16				
ENV-CARROS	CARRO-B17				
ENV-CARROS	CARRO-B18				
ENV-CARROS	CARRO-B19				
ENV-CARROS	CARRO-B2				
ENV-CARROS	CARRO-B20				
ENV-CARROS	CARRO-B21				
ENV-CARROS	CARRO-B22				
ENV-CARROS	CARRO-B3				
ENV-CARROS	CARRO-B4				
ENV-CARROS	CARRO-B5				
ENV-CARROS	CARRO-B6				
ENV-CARROS	CARRO-B7				
ENV-CARROS	CARRO-B8				
ENV-CARROS	CARRO-B9				
ENV-CARROS	CARRO-C1				
ENV-CARROS	CARRO-C10				
ENV-CARROS	CARRO-C11				
ENV-CARROS	CARRO-C12				
ENV-CARROS	CARRO-C13				
ENV-CARROS	CARRO-C14				
ENV-CARROS	CARRO-C15				
ENV-CARROS	CARRO-C16				
ENV-CARROS	CARRO-C17				
ENV-CARROS	CARRO-C18				
ENV-CARROS	CARRO-C19				
ENV-CARROS	CARRO-C2				
ENV-CARROS	CARRO-C20				
ENV-CARROS	CARRO-C21				
ENV-CARROS	CARRO-C22				
ENV-CARROS	CARRO-C3				
ENV-CARROS	CARRO-C4				
ENV-CARROS	CARRO-C5				
ENV-CARROS	CARRO-C6				
ENV-CARROS	CARRO-C7				
ENV-CARROS	CARRO-C8				
ENV-CARROS	CARRO-C9				
ENV-SCU	SCU-1	No	No	No	
ENV-SCU	SCU-2				
ENV-SCU	SCU-3				
ENV-SCU	SCU-4				
ENV-SCU	SCU-5				
ENV-SCU	SCU-6				
ENV-SCU	SCU-7				
ENV-SCU	SCU-8				
ENV-SCU	SCU-9				
CP-1	DEAD	No	No	No	
CP-1	PRETIL				
CP-1	PAVMIN1				
CP-1	PAVMIN2				
CP-1	RETRAC				
CP-2	DEAD	No	No	No	
CP-2	PRETIL				
CP-2	PAVMIN1				
CP-2	PAVMIN2				
CP-3	DEAD	No	No	No	
CP-3	PRETIL				
CP-3	PAVMAX1				
CP-3	PAVMAX2				
CP-3	RETRAC				
CP-4	DEAD	No	No	No	
CP-4	PRETIL				
CP-4	PAVMAX1				
CP-4	PAVMAX2				
ENV-CP	CP-1	No	No	No	
ENV-CP	CP-2				
ENV-CP	CP-3				
ENV-CP	CP-4				
TSIM-1	TCON	No	No	No	
TSIM-1	TGRAD1				
TSIM-2	TCON	No	No	No	
TSIM-2	TGRAD2				
TSIM-3	TDIL	No	No	No	
TSIM-3	TGRAD1				
TSIM-4	TDIL	No	No	No	
TSIM-4	TGRAD2				
TSIM-5	TCON	No	No	No	
TSIM-5	TGRAD1				
TSIM-6	TCON	No	No	No	
TSIM-6	TGRAD2				
TSIM-7	TDIL	No	No	No	
TSIM-7	TGRAD1				
TSIM-8	TDIL	No	No	No	
TSIM-8	TGRAD2				
ENV-T	TCON	No	No	No	
ENV-T	TDIL				
ENV-T	TGRAD1				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-T	TGRAD2				
ENV-T	TSIM-1				
ENV-T	TSIM-2				
ENV-T	TSIM-3				
ENV-T	TSIM-4				
ENV-T	TSIM-5				
ENV-T	TSIM-6				
ENV-T	TSIM-7				
ENV-T	TSIM-8				
FH-1	QLA1	No	No	No	
FH-1	QTA1				
FH-2	QLA1	No	No	No	
FH-2	QTB1				
FH-3	QLB1	No	No	No	
FH-3	QTA1				
FH-4	QLB1	No	No	No	
FH-4	QTB1				
FH-5	QLA2	No	No	No	
FH-5	QTA2				
FH-6	QLA2	No	No	No	
FH-6	QTB2				
FH-7	QLB2	No	No	No	
FH-7	QTA2				
FH-8	QLB2	No	No	No	
FH-8	QTB2				
FH-9	QLA3	No	No	No	
FH-9	QTA3				
FH-10	QLA3	No	No	No	
FH-10	QTB3				
FH-11	QLB3	No	No	No	
FH-11	QTA3				
FH-12	QLB3	No	No	No	
FH-12	QTB3				
FH-13	QLA4	No	No	No	
FH-13	QTA4				
FH-14	QLA4	No	No	No	
FH-14	QTB4				
FH-15	QLB4	No	No	No	
FH-15	QTA4				
FH-16	QLB4	No	No	No	
FH-16	QTB4				
ENV-FH	QLA1	No	No	No	
ENV-FH	QLA2				
ENV-FH	QLA3				
ENV-FH	QLA4				
ENV-FH	QLB1				
ENV-FH	QLB2				
ENV-FH	QLB3				
ENV-FH	QLB4				
ENV-FH	QTA1				
ENV-FH	QTA2				
ENV-FH	QTA3				
ENV-FH	QTA4				
ENV-FH	QTB1				
ENV-FH	QTB2				
ENV-FH	QTB3				
ENV-FH	QTB4				
ENV-FH	FH-1				
ENV-FH	FH-10				
ENV-FH	FH-11				
ENV-FH	FH-12				
ENV-FH	FH-13				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-FH	FH-14				
ENV-FH	FH-15				
ENV-FH	FH-16				
ENV-FH	FH-2				
ENV-FH	FH-3				
ENV-FH	FH-4				
ENV-FH	FH-5				
ENV-FH	FH-6				
ENV-FH	FH-7				
ENV-FH	FH-8				
ENV-FH	FH-9				
ENV-AC	AC1	No	No	No	
ENV-AC	AC10				
ENV-AC	AC11				
ENV-AC	AC12				
ENV-AC	AC2				
ENV-AC	AC3				
ENV-AC	AC4				
ENV-AC	AC5				
ENV-AC	AC6				
ENV-AC	AC7				
ENV-AC	AC8				
ENV-AC	AC9				
ELS-CA1	ENV-CP	No	No	No	
ELS-CA2	ENV-CP	No	No	No	
ELS-CA2	ENV-SCU				
ELS-CA3	ENV-CP	No	No	No	
ELS-CA3	ENV-CARROS				
ELS-CA4	ENV-CP	No	No	No	
ELS-CA4	ENV-SCU				
ELS-CA4	ENV-CARROS				
ELS-CA5	ENV-CP	No	No	No	
ELS-CA5	ENV-CARROS				
ELS-CA5	ENV-FH				
ELS-CA6	ENV-CP	No	No	No	
ELS-CA6	ENV-SCU				
ELS-CA6	ENV-FH				
ELS-CA7	ENV-CP	No	No	No	
ELS-CA7	ENV-SCU				
ELS-CA7	ENV-CARROS				
ELS-CA7	ENV-FH				
ELS-CA8	ENV-CP	No	No	No	
ELS-CA8	ENV-SCU				
ELS-CA8	ENV-T				
ELS-CA9	ENV-CP	No	No	No	
ELS-CA9	ENV-CARROS				
ELS-CA9	ENV-T				
ELS-CA10	ENV-CP	No	No	No	
ELS-CA10	ENV-SCU				
ELS-CA10	ENV-CARROS				
ELS-CA10	ENV-T				
ELS-CA11	ENV-CP	No	No	No	
ELS-CA11	ENV-CARROS				
ELS-CA11	ENV-FH				
ELS-CA11	ENV-T				
ELS-CA12	ENV-CP	No	No	No	
ELS-CA12	ENV-SCU				
ELS-CA12	ENV-FH				
ELS-CA12	ENV-T				
ELS-CA13	ENV-CP	No	No	No	
ELS-CA13	ENV-SCU				
ELS-CA13	ENV-CARROS				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELS-CA13	ENV-FH				
ELS-CA13	ENV-T				
ELS-CA14	ENV-CP	No	No	No	
ELS-CA14	ENV-T				
ELS-CA15	ENV-CP	No	No	No	
ELS-CA15	ENV-T				
ELS-CA15	ENV-SCU				
ELS-CA16	ENV-CP	No	No	No	
ELS-CA16	ENV-T				
ELS-CA16	ENV-CARROS				
ELS-CA17	ENV-CP	No	No	No	
ELS-CA17	ENV-T				
ELS-CA17	ENV-CARROS				
ELS-CA17	ENV-SCU				
ENV-ELS-CA	ELS-CA1	No	No	No	
ENV-ELS-CA	ELS-CA10				
ENV-ELS-CA	ELS-CA11				
ENV-ELS-CA	ELS-CA12				
ENV-ELS-CA	ELS-CA13				
ENV-ELS-CA	ELS-CA14				
ENV-ELS-CA	ELS-CA15				
ENV-ELS-CA	ELS-CA16				
ENV-ELS-CA	ELS-CA17				
ENV-ELS-CA	ELS-CA2				
ENV-ELS-CA	ELS-CA3				
ENV-ELS-CA	ELS-CA4				
ENV-ELS-CA	ELS-CA5				
ENV-ELS-CA	ELS-CA6				
ENV-ELS-CA	ELS-CA7				
ENV-ELS-CA	ELS-CA8				
ENV-ELS-CA	ELS-CA9				
ELS-CP1	ENV-CP	No	No	No	
ELS-CP2	ENV-CP	No	No	No	
ELS-CP2	ENV-T				
ENV-ELS-CP	ELS-CP1	No	No	No	
ENV-ELS-CP	ELS-CP2				
ELU-PT1	ENV-CP	No	No	No	
ELU-PT2	ENV-CP	No	No	No	
ELU-PT2	ENV-SCU				
ELU-PT3	ENV-CP	No	No	No	
ELU-PT3	ENV-CARROS				
ELU-PT4	ENV-CP	No	No	No	
ELU-PT4	ENV-SCU				
ELU-PT4	ENV-CARROS				
ELU-PT5	ENV-CP	No	No	No	
ELU-PT5	ENV-CARROS				
ELU-PT5	ENV-FH				
ELU-PT6	ENV-CP	No	No	No	
ELU-PT6	ENV-SCU				
ELU-PT6	ENV-FH				
ELU-PT7	ENV-CP	No	No	No	
ELU-PT7	ENV-SCU				
ELU-PT7	ENV-CARROS				
ELU-PT7	ENV-FH				
ELU-PT8	ENV-CP	No	No	No	
ELU-PT8	ENV-SCU				
ELU-PT8	ENV-T				
ELU-PT9	ENV-CP	No	No	No	
ELU-PT9	ENV-CARROS				
ELU-PT9	ENV-T				
ELU-PT10	ENV-CP	No	No	No	
ELU-PT10	ENV-SCU				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELU-PT10	ENV-CARROS				
ELU-PT10	ENV-T				
ELU-PT11	ENV-CP	No	No	No	
ELU-PT11	ENV-CARROS				
ELU-PT11	ENV-FH				
ELU-PT11	ENV-T				
ELU-PT12	ENV-CP	No	No	No	
ELU-PT12	ENV-SCU				
ELU-PT12	ENV-FH				
ELU-PT12	ENV-T				
ELU-PT13	ENV-CP	No	No	No	
ELU-PT13	ENV-SCU				
ELU-PT13	ENV-CARROS				
ELU-PT13	ENV-FH				
ELU-PT13	ENV-T				
ELU-PT14	ENV-CP	No	No	No	
ELU-PT14	ENV-T				
ELU-PT15	ENV-CP	No	No	No	
ELU-PT15	ENV-T				
ELU-PT15	ENV-SCU				
ELU-PT16	ENV-CP	No	No	No	
ELU-PT16	ENV-T				
ELU-PT16	ENV-CARROS				
ELU-PT17	ENV-CP	No	No	No	
ELU-PT17	ENV-T				
ELU-PT17	ENV-CARROS				
ELU-PT17	ENV-SCU				
ELU-PT18	ENV-CP	No	No	No	
ELU-PT19	ENV-CP	No	No	No	
ELU-PT19	ENV-SCU				
ELU-PT20	ENV-CP	No	No	No	
ELU-PT20	ENV-CARROS				
ELU-PT21	ENV-CP	No	No	No	
ELU-PT21	ENV-SCU				
ELU-PT21	ENV-CARROS				
ELU-PT22	ENV-CP	No	No	No	
ELU-PT22	ENV-CARROS				
ELU-PT22	ENV-FH				
ELU-PT23	ENV-CP	No	No	No	
ELU-PT23	ENV-SCU				
ELU-PT23	ENV-FH				
ELU-PT24	ENV-CP	No	No	No	
ELU-PT24	ENV-SCU				
ELU-PT24	ENV-CARROS				
ELU-PT24	ENV-FH				
ELU-PT25	ENV-CP	No	No	No	
ELU-PT25	ENV-SCU				
ELU-PT25	ENV-T				
ELU-PT26	ENV-CP	No	No	No	
ELU-PT26	ENV-CARROS				
ELU-PT26	ENV-T				
ELU-PT27	ENV-CP	No	No	No	
ELU-PT27	ENV-SCU				
ELU-PT27	ENV-CARROS				
ELU-PT27	ENV-T				
ELU-PT28	ENV-CP	No	No	No	
ELU-PT28	ENV-CARROS				
ELU-PT28	ENV-FH				
ELU-PT28	ENV-T				
ELU-PT29	ENV-CP	No	No	No	
ELU-PT29	ENV-SCU				
ELU-PT29	ENV-FH				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELU-PT29	ENV-T				
ELU-PT30	ENV-CP	No	No	No	
ELU-PT30	ENV-SCU				
ELU-PT30	ENV-CARROS				
ELU-PT30	ENV-FH				
ELU-PT30	ENV-T				
ELU-PT31	ENV-CP	No	No	No	
ELU-PT31	ENV-T				
ELU-PT32	ENV-CP	No	No	No	
ELU-PT32	ENV-T				
ELU-PT32	ENV-SCU				
ELU-PT33	ENV-CP	No	No	No	
ELU-PT33	ENV-T				
ELU-PT33	ENV-CARROS				
ELU-PT34	ENV-CP	No	No	No	
ELU-PT34	ENV-T				
ELU-PT34	ENV-CARROS				
ELU-PT34	ENV-SCU				
ENV-ELU-PT	ELU-PT1	No	No	No	
ENV-ELU-PT	ELU-PT10				
ENV-ELU-PT	ELU-PT11				
ENV-ELU-PT	ELU-PT12				
ENV-ELU-PT	ELU-PT13				
ENV-ELU-PT	ELU-PT14				
ENV-ELU-PT	ELU-PT15				
ENV-ELU-PT	ELU-PT16				
ENV-ELU-PT	ELU-PT17				
ENV-ELU-PT	ELU-PT18				
ENV-ELU-PT	ELU-PT19				
ENV-ELU-PT	ELU-PT2				
ENV-ELU-PT	ELU-PT20				
ENV-ELU-PT	ELU-PT21				
ENV-ELU-PT	ELU-PT22				
ENV-ELU-PT	ELU-PT23				
ENV-ELU-PT	ELU-PT24				
ENV-ELU-PT	ELU-PT25				
ENV-ELU-PT	ELU-PT26				
ENV-ELU-PT	ELU-PT27				
ENV-ELU-PT	ELU-PT28				
ENV-ELU-PT	ELU-PT29				
ENV-ELU-PT	ELU-PT3				
ENV-ELU-PT	ELU-PT30				
ENV-ELU-PT	ELU-PT31				
ENV-ELU-PT	ELU-PT32				
ENV-ELU-PT	ELU-PT33				
ENV-ELU-PT	ELU-PT34				
ENV-ELU-PT	ELU-PT4				
ENV-ELU-PT	ELU-PT5				
ENV-ELU-PT	ELU-PT6				
ENV-ELU-PT	ELU-PT7				
ENV-ELU-PT	ELU-PT8				
ENV-ELU-PT	ELU-PT9				
ELU-AC1	ENV-CP	No	No	No	
ELU-AC1	ENV-AC				
ELU-AC2	ENV-CP	No	No	No	
ELU-AC2	ENV-AC				
ELU-AC2	ENV-SCU				
ELU-AC3	ENV-CP	No	No	No	
ELU-AC3	ENV-AC				
ELU-AC3	ENV-CARROS				
ELU-AC4	ENV-CP	No	No	No	
ELU-AC4	ENV-AC				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ELU-AC4	ENV-CARROS				
ELU-AC4	ENV-SCU				
ELU-AC5	ENV-CP	No	No	No	
ELU-AC5	ENV-AC				
ELU-AC5	ENV-SCU				
ELU-AC5	ENV-T				
ELU-AC6	ENV-CP	No	No	No	
ELU-AC6	ENV-AC				
ELU-AC6	ENV-CARROS				
ELU-AC6	ENV-T				
ELU-AC7	ENV-CP	No	No	No	
ELU-AC7	ENV-AC				
ELU-AC7	ENV-CARROS				
ELU-AC7	ENV-SCU				
ELU-AC7	ENV-T				
ELU-AC8	ENV-CP	No	No	No	
ELU-AC8	ENV-AC				
ELU-AC8	ENV-T				
ENV-ELU-AC	ELU-AC1	No	No	No	
ENV-ELU-AC	ELU-AC2				
ENV-ELU-AC	ELU-AC3				
ENV-ELU-AC	ELU-AC4				
ENV-ELU-AC	ELU-AC5				
ENV-ELU-AC	ELU-AC6				
ENV-ELU-AC	ELU-AC7				
ENV-ELU-AC	ELU-AC8				
ELU-EQ1	DEAD	No	No	No	
ELU-EQ1	PAVMIN1				
ELU-EQ1	PRETIL				
ELU-EQ1	PAVMIN2				
ELU-EQ1	ENV-SCU				
ELU-EQ2	DEAD	No	No	No	
ELU-EQ2	PAVMIN1				
ELU-EQ2	PRETIL				
ELU-EQ2	PAVMIN2				
ELU-EQ2	ENV-CARROS				
ELU-EQ3	DEAD	No	No	No	
ELU-EQ3	PAVMIN1				
ELU-EQ3	PRETIL				
ELU-EQ3	PAVMIN2				
ELU-EQ3	ENV-CARROS				
ELU-EQ3	ENV-SCU				
ELU-EQ4	DEAD	No	No	No	
ELU-EQ4	PAVMAX1				
ELU-EQ4	PRETIL				
ELU-EQ4	PAVMAX2				
ELU-EQ4	ENV-SCU				
ELU-EQ5	DEAD	No	No	No	
ELU-EQ5	PAVMAX1				
ELU-EQ5	PRETIL				
ELU-EQ5	PAVMAX2				
ELU-EQ5	ENV-CARROS				
ELU-EQ6	DEAD	No	No	No	
ELU-EQ6	PAVMAX1				
ELU-EQ6	PRETIL				
ELU-EQ6	PAVMAX2				
ELU-EQ6	ENV-CARROS				
ELU-EQ6	ENV-SCU				
ENV-ELU-EQ	ELU-EQ1	No	No	No	
ENV-ELU-EQ	ELU-EQ2				
ENV-ELU-EQ	ELU-EQ3				
ENV-ELU-EQ	ELU-EQ4				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
ENV-ELU-EQ	ELU-EQ5				
ENV-ELU-EQ	ELU-EQ6				
RH-1	RETRAC	No	No	No	
RH-2	RETRAC	No	No	No	
RH-2	TCON				
RH-3	RETRAC	No	No	No	
RH-3	TDIL				
RH-4	RETRAC	No	No	No	
RH-4	TCON				
RH-4	FH-1				
RH-5	RETRAC	No	No	No	
RH-5	TCON				
RH-5	FH-2				
RH-6	RETRAC	No	No	No	
RH-6	TCON				
RH-6	FH-3				
RH-7	RETRAC	No	No	No	
RH-7	TCON				
RH-7	FH-4				
RH-8	RETRAC	No	No	No	
RH-8	TCON				
RH-8	FH-5				
RH-9	RETRAC	No	No	No	
RH-9	TCON				
RH-9	FH-6				
RH-10	RETRAC	No	No	No	
RH-10	TCON				
RH-10	FH-7				
RH-11	RETRAC	No	No	No	
RH-11	TCON				
RH-11	FH-8				
RH-12	RETRAC	No	No	No	
RH-12	TCON				
RH-12	FH-9				
RH-13	RETRAC	No	No	No	
RH-13	TCON				
RH-13	FH-10				
RH-14	RETRAC	No	No	No	
RH-14	TCON				
RH-14	FH-11				
RH-15	RETRAC	No	No	No	
RH-15	TCON				
RH-15	FH-12				
RH-16	RETRAC	No	No	No	
RH-16	TCON				
RH-16	FH-13				
RH-17	RETRAC	No	No	No	
RH-17	TCON				
RH-17	FH-14				
RH-18	RETRAC	No	No	No	
RH-18	TCON				
RH-18	FH-15				
RH-19	RETRAC	No	No	No	
RH-19	TCON				
RH-19	FH-16				
RH-20	RETRAC	No	No	No	
RH-20	TDIL				
RH-20	FH-1				
RH-21	RETRAC	No	No	No	
RH-21	TDIL				
RH-21	FH-2				
RH-22	RETRAC	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-22	TDIL				
RH-22	FH-3				
RH-23	RETRAC	No	No	No	
RH-23	TDIL				
RH-23	FH-4				
RH-24	RETRAC	No	No	No	
RH-24	TDIL				
RH-24	FH-5				
RH-25	RETRAC	No	No	No	
RH-25	TDIL				
RH-25	FH-6				
RH-26	RETRAC	No	No	No	
RH-26	TDIL				
RH-26	FH-7				
RH-27	RETRAC	No	No	No	
RH-27	TDIL				
RH-27	FH-8				
RH-28	RETRAC	No	No	No	
RH-28	TDIL				
RH-28	FH-9				
RH-29	RETRAC	No	No	No	
RH-29	TDIL				
RH-29	FH-10				
RH-30	RETRAC	No	No	No	
RH-30	TDIL				
RH-30	FH-11				
RH-31	RETRAC	No	No	No	
RH-31	TDIL				
RH-31	FH-12				
RH-32	RETRAC	No	No	No	
RH-32	TDIL				
RH-32	FH-13				
RH-33	RETRAC	No	No	No	
RH-33	TDIL				
RH-33	FH-14				
RH-34	RETRAC	No	No	No	
RH-34	TDIL				
RH-34	FH-15				
RH-35	RETRAC	No	No	No	
RH-35	TDIL				
RH-35	FH-16				
RH-36	RETRAC	No	No	No	
RH-37	RETRAC	No	No	No	
RH-37	TCON				
RH-38	RETRAC	No	No	No	
RH-38	TDIL				
RH-39	RETRAC	No	No	No	
RH-39	TCON				
RH-39	FH-1				
RH-40	RETRAC	No	No	No	
RH-40	TCON				
RH-40	FH-2				
RH-41	RETRAC	No	No	No	
RH-41	TCON				
RH-41	FH-3				
RH-42	RETRAC	No	No	No	
RH-42	TCON				
RH-42	FH-4				
RH-43	RETRAC	No	No	No	
RH-43	TCON				
RH-43	FH-5				
RH-44	RETRAC	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-44	TCON				
RH-44	FH-6				
RH-45	RETRAC	No	No	No	
RH-45	TCON				
RH-45	FH-7				
RH-46	RETRAC	No	No	No	
RH-46	TCON				
RH-46	FH-8				
RH-47	RETRAC	No	No	No	
RH-47	TCON				
RH-47	FH-9				
RH-48	RETRAC	No	No	No	
RH-48	TCON				
RH-48	FH-10				
RH-49	RETRAC	No	No	No	
RH-49	TCON				
RH-49	FH-11				
RH-50	RETRAC	No	No	No	
RH-50	TCON				
RH-50	FH-12				
RH-51	RETRAC	No	No	No	
RH-51	TCON				
RH-51	FH-13				
RH-52	RETRAC	No	No	No	
RH-52	TCON				
RH-52	FH-14				
RH-53	RETRAC	No	No	No	
RH-53	TCON				
RH-53	FH-15				
RH-54	RETRAC	No	No	No	
RH-54	TCON				
RH-54	FH-16				
RH-55	RETRAC	No	No	No	
RH-55	TDIL				
RH-55	FH-1				
RH-56	RETRAC	No	No	No	
RH-56	TDIL				
RH-56	FH-2				
RH-57	RETRAC	No	No	No	
RH-57	TDIL				
RH-57	FH-3				
RH-58	RETRAC	No	No	No	
RH-58	TDIL				
RH-58	FH-4				
RH-59	RETRAC	No	No	No	
RH-59	TDIL				
RH-59	FH-5				
RH-60	RETRAC	No	No	No	
RH-60	TDIL				
RH-60	FH-6				
RH-61	RETRAC	No	No	No	
RH-61	TDIL				
RH-61	FH-7				
RH-62	RETRAC	No	No	No	
RH-62	TDIL				
RH-62	FH-8				
RH-63	RETRAC	No	No	No	
RH-63	TDIL				
RH-63	FH-9				
RH-64	RETRAC	No	No	No	
RH-64	TDIL				
RH-64	FH-10				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-65	RETRAC	No	No	No	
RH-65	TDIL				
RH-65	FH-11				
RH-66	RETRAC	No	No	No	
RH-66	TDIL				
RH-66	FH-12				
RH-67	RETRAC	No	No	No	
RH-67	TDIL				
RH-67	FH-13				
RH-68	RETRAC	No	No	No	
RH-68	TDIL				
RH-68	FH-14				
RH-69	RETRAC	No	No	No	
RH-69	TDIL				
RH-69	FH-15				
RH-70	RETRAC	No	No	No	
RH-70	TDIL				
RH-70	FH-16				
RH-71	RETRAC	No	No	No	
RH-72	RETRAC	No	No	No	
RH-72	TCON				
RH-73	RETRAC	No	No	No	
RH-73	TDIL				
RH-74	RETRAC	No	No	No	
RH-74	TCON				
RH-74	FH-1				
RH-75	RETRAC	No	No	No	
RH-75	TCON				
RH-75	FH-2				
RH-76	RETRAC	No	No	No	
RH-76	TCON				
RH-76	FH-3				
RH-77	RETRAC	No	No	No	
RH-77	TCON				
RH-77	FH-4				
RH-78	RETRAC	No	No	No	
RH-78	TCON				
RH-78	FH-5				
RH-79	RETRAC	No	No	No	
RH-79	TCON				
RH-79	FH-6				
RH-80	RETRAC	No	No	No	
RH-80	TCON				
RH-80	FH-7				
RH-81	RETRAC	No	No	No	
RH-81	TCON				
RH-81	FH-8				
RH-82	RETRAC	No	No	No	
RH-82	TCON				
RH-82	FH-9				
RH-83	RETRAC	No	No	No	
RH-83	TCON				
RH-83	FH-10				
RH-84	RETRAC	No	No	No	
RH-84	TCON				
RH-84	FH-11				
RH-85	RETRAC	No	No	No	
RH-85	TCON				
RH-85	FH-12				
RH-86	RETRAC	No	No	No	
RH-86	TCON				
RH-86	FH-13				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-87	RETRAC	No	No	No	
RH-87	TCON				
RH-87	FH-14				
RH-88	RETRAC	No	No	No	
RH-88	TCON				
RH-88	FH-15				
RH-89	RETRAC	No	No	No	
RH-89	TCON				
RH-89	FH-16				
RH-90	RETRAC	No	No	No	
RH-90	TDIL				
RH-90	FH-1				
RH-91	RETRAC	No	No	No	
RH-91	TDIL				
RH-91	FH-2				
RH-92	RETRAC	No	No	No	
RH-92	TDIL				
RH-92	FH-3				
RH-93	RETRAC	No	No	No	
RH-93	TDIL				
RH-93	FH-4				
RH-94	RETRAC	No	No	No	
RH-94	TDIL				
RH-94	FH-5				
RH-95	RETRAC	No	No	No	
RH-95	TDIL				
RH-95	FH-6				
RH-96	RETRAC	No	No	No	
RH-96	TDIL				
RH-96	FH-7				
RH-97	RETRAC	No	No	No	
RH-97	TDIL				
RH-97	FH-8				
RH-98	RETRAC	No	No	No	
RH-98	TDIL				
RH-98	FH-9				
RH-99	RETRAC	No	No	No	
RH-99	TDIL				
RH-99	FH-10				
RH-100	RETRAC	No	No	No	
RH-100	TDIL				
RH-100	FH-11				
RH-101	RETRAC	No	No	No	
RH-101	TDIL				
RH-101	FH-12				
RH-102	RETRAC	No	No	No	
RH-102	TDIL				
RH-102	FH-13				
RH-103	RETRAC	No	No	No	
RH-103	TDIL				
RH-103	FH-14				
RH-104	RETRAC	No	No	No	
RH-104	TDIL				
RH-104	FH-15				
RH-105	RETRAC	No	No	No	
RH-105	TDIL				
RH-105	FH-16				
RH-106	RETRAC	No	No	No	
RH-106	AC1				
RH-107	RETRAC	No	No	No	
RH-107	AC2				
RH-108	RETRAC	No	No	No	

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-108	AC3				
RH-109	RETRAC	No	No	No	
RH-109	AC4				
RH-110	RETRAC	No	No	No	
RH-110	AC5				
RH-111	RETRAC	No	No	No	
RH-111	AC6				
RH-112	RETRAC	No	No	No	
RH-112	AC7				
RH-113	RETRAC	No	No	No	
RH-113	AC8				
RH-114	RETRAC	No	No	No	
RH-114	AC9				
RH-115	RETRAC	No	No	No	
RH-115	AC10				
RH-116	RETRAC	No	No	No	
RH-116	AC1				
RH-116	TCON				
RH-117	RETRAC	No	No	No	
RH-117	AC2				
RH-117	TCON				
RH-118	RETRAC	No	No	No	
RH-118	AC3				
RH-118	TCON				
RH-119	RETRAC	No	No	No	
RH-119	AC4				
RH-119	TCON				
RH-120	RETRAC	No	No	No	
RH-120	AC5				
RH-120	TCON				
RH-121	RETRAC	No	No	No	
RH-121	AC6				
RH-121	TCON				
RH-122	RETRAC	No	No	No	
RH-122	AC7				
RH-122	TCON				
RH-123	RETRAC	No	No	No	
RH-123	AC8				
RH-123	TCON				
RH-124	RETRAC	No	No	No	
RH-124	AC9				
RH-124	TCON				
RH-125	RETRAC	No	No	No	
RH-125	AC10				
RH-125	TCON				
RH-126	RETRAC	No	No	No	
RH-126	AC1				
RH-126	TDIL				
RH-127	RETRAC	No	No	No	
RH-127	AC2				
RH-127	TDIL				
RH-128	RETRAC	No	No	No	
RH-128	AC3				
RH-128	TDIL				
RH-129	RETRAC	No	No	No	
RH-129	AC4				
RH-129	TDIL				
RH-130	RETRAC	No	No	No	
RH-130	AC5				
RH-130	TDIL				
RH-131	RETRAC	No	No	No	
RH-131	AC6				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-131	TDIL				
RH-132	RETRAC	No	No	No	
RH-132	AC7				
RH-132	TDIL				
RH-133	RETRAC	No	No	No	
RH-133	AC8				
RH-133	TDIL				
RH-134	RETRAC	No	No	No	
RH-134	AC9				
RH-134	TDIL				
RH-135	RETRAC	No	No	No	
RH-135	AC10				
RH-135	TDIL				
RH-136	RETRAC	No	No	No	
RH-136	AC1				
RH-137	RETRAC	No	No	No	
RH-137	AC2				
RH-138	RETRAC	No	No	No	
RH-138	AC3				
RH-139	RETRAC	No	No	No	
RH-139	AC4				
RH-140	RETRAC	No	No	No	
RH-140	AC5				
RH-141	RETRAC	No	No	No	
RH-141	AC6				
RH-142	RETRAC	No	No	No	
RH-142	AC7				
RH-143	RETRAC	No	No	No	
RH-143	AC8				
RH-144	RETRAC	No	No	No	
RH-144	AC9				
RH-145	RETRAC	No	No	No	
RH-145	AC10				
RH-146	RETRAC	No	No	No	
RH-146	AC1				
RH-146	TCON				
RH-147	RETRAC	No	No	No	
RH-147	AC2				
RH-147	TCON				
RH-148	RETRAC	No	No	No	
RH-148	AC3				
RH-148	TCON				
RH-149	RETRAC	No	No	No	
RH-149	AC4				
RH-149	TCON				
RH-150	RETRAC	No	No	No	
RH-150	AC5				
RH-150	TCON				
RH-151	RETRAC	No	No	No	
RH-151	AC6				
RH-151	TCON				
RH-152	RETRAC	No	No	No	
RH-152	AC7				
RH-152	TCON				
RH-153	RETRAC	No	No	No	
RH-153	AC8				
RH-153	TCON				
RH-154	RETRAC	No	No	No	
RH-154	AC9				
RH-154	TCON				
RH-155	RETRAC	No	No	No	
RH-155	AC10				

Table: Combination Definitions, Part 2 of 3

ComboName	CaseName	ConcDesign	AlumDesign	ColdDesign	GUID
RH-155	TCON				
RH-156	RETRAC	No	No	No	
RH-156	AC1				
RH-156	TDIL				
RH-157	RETRAC	No	No	No	
RH-157	AC2				
RH-157	TDIL				
RH-158	RETRAC	No	No	No	
RH-158	AC3				
RH-158	TDIL				
RH-159	RETRAC	No	No	No	
RH-159	AC4				
RH-159	TDIL				
RH-160	RETRAC	No	No	No	
RH-160	AC5				
RH-160	TDIL				
RH-161	RETRAC	No	No	No	
RH-161	AC6				
RH-161	TDIL				
RH-162	RETRAC	No	No	No	
RH-162	AC7				
RH-162	TDIL				
RH-163	RETRAC	No	No	No	
RH-163	AC8				
RH-163	TDIL				
RH-164	RETRAC	No	No	No	
RH-164	AC9				
RH-164	TDIL				
RH-165	RETRAC	No	No	No	
RH-165	AC10				
RH-165	TDIL				

Table: Combination Definitions, Part 3 of 3

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-CARROS	CARRO-A1	
ENV-CARROS	CARRO-A10	
ENV-CARROS	CARRO-A11	
ENV-CARROS	CARRO-A12	
ENV-CARROS	CARRO-A13	
ENV-CARROS	CARRO-A14	
ENV-CARROS	CARRO-A15	
ENV-CARROS	CARRO-A16	
ENV-CARROS	CARRO-A17	
ENV-CARROS	CARRO-A18	
ENV-CARROS	CARRO-A19	
ENV-CARROS	CARRO-A2	
ENV-CARROS	CARRO-A20	
ENV-CARROS	CARRO-A21	
ENV-CARROS	CARRO-A22	
ENV-CARROS	CARRO-A3	
ENV-CARROS	CARRO-A4	
ENV-CARROS	CARRO-A5	
ENV-CARROS	CARRO-A6	
ENV-CARROS	CARRO-A7	
ENV-CARROS	CARRO-A8	
ENV-CARROS	CARRO-A9	
ENV-CARROS	CARRO-B1	
ENV-CARROS	CARRO-B10	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-CARROS	CARRO-B11	
ENV-CARROS	CARRO-B12	
ENV-CARROS	CARRO-B13	
ENV-CARROS	CARRO-B14	
ENV-CARROS	CARRO-B15	
ENV-CARROS	CARRO-B16	
ENV-CARROS	CARRO-B17	
ENV-CARROS	CARRO-B18	
ENV-CARROS	CARRO-B19	
ENV-CARROS	CARRO-B2	
ENV-CARROS	CARRO-B20	
ENV-CARROS	CARRO-B21	
ENV-CARROS	CARRO-B22	
ENV-CARROS	CARRO-B3	
ENV-CARROS	CARRO-B4	
ENV-CARROS	CARRO-B5	
ENV-CARROS	CARRO-B6	
ENV-CARROS	CARRO-B7	
ENV-CARROS	CARRO-B8	
ENV-CARROS	CARRO-B9	
ENV-CARROS	CARRO-C1	
ENV-CARROS	CARRO-C10	
ENV-CARROS	CARRO-C11	
ENV-CARROS	CARRO-C12	
ENV-CARROS	CARRO-C13	
ENV-CARROS	CARRO-C14	
ENV-CARROS	CARRO-C15	
ENV-CARROS	CARRO-C16	
ENV-CARROS	CARRO-C17	
ENV-CARROS	CARRO-C18	
ENV-CARROS	CARRO-C19	
ENV-CARROS	CARRO-C2	
ENV-CARROS	CARRO-C20	
ENV-CARROS	CARRO-C21	
ENV-CARROS	CARRO-C22	
ENV-CARROS	CARRO-C3	
ENV-CARROS	CARRO-C4	
ENV-CARROS	CARRO-C5	
ENV-CARROS	CARRO-C6	
ENV-CARROS	CARRO-C7	
ENV-CARROS	CARRO-C8	
ENV-CARROS	CARRO-C9	
ENV-SCU	SCU-1	
ENV-SCU	SCU-2	
ENV-SCU	SCU-3	
ENV-SCU	SCU-4	
ENV-SCU	SCU-5	
ENV-SCU	SCU-6	
ENV-SCU	SCU-7	
ENV-SCU	SCU-8	
ENV-SCU	SCU-9	
CP-1	DEAD	
CP-1	PRETIL	
CP-1	PAVMIN1	
CP-1	PAVMIN2	
CP-1	RETRAC	
CP-2	DEAD	
CP-2	PRETIL	
CP-2	PAVMIN1	
CP-2	PAVMIN2	
CP-3	DEAD	
CP-3	PRETIL	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
CP-3	PAVMAX1	
CP-3	PAVMAX2	
CP-3	RETRAC	
CP-4	DEAD	
CP-4	PRETIL	
CP-4	PAVMAX1	
CP-4	PAVMAX2	
ENV-CP	CP-1	
ENV-CP	CP-2	
ENV-CP	CP-3	
ENV-CP	CP-4	
TSIM-1	TCON	
TSIM-1	TGRAD1	
TSIM-2	TCON	
TSIM-2	TGRAD2	
TSIM-3	TDIL	
TSIM-3	TGRAD1	
TSIM-4	TDIL	
TSIM-4	TGRAD2	
TSIM-5	TCON	
TSIM-5	TGRAD1	
TSIM-6	TCON	
TSIM-6	TGRAD2	
TSIM-7	TDIL	
TSIM-7	TGRAD1	
TSIM-8	TDIL	
TSIM-8	TGRAD2	
ENV-T	TCON	
ENV-T	TDIL	
ENV-T	TGRAD1	
ENV-T	TGRAD2	
ENV-T	TSIM-1	
ENV-T	TSIM-2	
ENV-T	TSIM-3	
ENV-T	TSIM-4	
ENV-T	TSIM-5	
ENV-T	TSIM-6	
ENV-T	TSIM-7	
ENV-T	TSIM-8	
FH-1	QLA1	
FH-1	QTA1	
FH-2	QLA1	
FH-2	QTB1	
FH-3	QLB1	
FH-3	QTA1	
FH-4	QLB1	
FH-4	QTB1	
FH-5	QLA2	
FH-5	QTA2	
FH-6	QLA2	
FH-6	QTB2	
FH-7	QLB2	
FH-7	QTA2	
FH-8	QLB2	
FH-8	QTB2	
FH-9	QLA3	
FH-9	QTA3	
FH-10	QLA3	
FH-10	QTB3	
FH-11	QLB3	
FH-11	QTA3	
FH-12	QLB3	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
FH-12	QTB3	
FH-13	QLA4	
FH-13	QTA4	
FH-14	QLA4	
FH-14	QTB4	
FH-15	QLB4	
FH-15	QTA4	
FH-16	QLB4	
FH-16	QTB4	
ENV-FH	QLA1	
ENV-FH	QLA2	
ENV-FH	QLA3	
ENV-FH	QLA4	
ENV-FH	QLB1	
ENV-FH	QLB2	
ENV-FH	QLB3	
ENV-FH	QLB4	
ENV-FH	QTA1	
ENV-FH	QTA2	
ENV-FH	QTA3	
ENV-FH	QTA4	
ENV-FH	QTB1	
ENV-FH	QTB2	
ENV-FH	QTB3	
ENV-FH	QTB4	
ENV-FH	FH-1	
ENV-FH	FH-10	
ENV-FH	FH-11	
ENV-FH	FH-12	
ENV-FH	FH-13	
ENV-FH	FH-14	
ENV-FH	FH-15	
ENV-FH	FH-16	
ENV-FH	FH-2	
ENV-FH	FH-3	
ENV-FH	FH-4	
ENV-FH	FH-5	
ENV-FH	FH-6	
ENV-FH	FH-7	
ENV-FH	FH-8	
ENV-FH	FH-9	
ENV-AC	AC1	
ENV-AC	AC10	
ENV-AC	AC11	
ENV-AC	AC12	
ENV-AC	AC2	
ENV-AC	AC3	
ENV-AC	AC4	
ENV-AC	AC5	
ENV-AC	AC6	
ENV-AC	AC7	
ENV-AC	AC8	
ENV-AC	AC9	
ELS-CA1	ENV-CP	
ELS-CA2	ENV-CP	
ELS-CA2	ENV-SCU	
ELS-CA3	ENV-CP	
ELS-CA3	ENV-CARROS	
ELS-CA4	ENV-CP	
ELS-CA4	ENV-SCU	
ELS-CA4	ENV-CARROS	
ELS-CA5	ENV-CP	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELS-CA5	ENV-CARROS	
ELS-CA5	ENV-FH	
ELS-CA6	ENV-CP	
ELS-CA6	ENV-SCU	
ELS-CA6	ENV-FH	
ELS-CA7	ENV-CP	
ELS-CA7	ENV-SCU	
ELS-CA7	ENV-CARROS	
ELS-CA7	ENV-FH	
ELS-CA8	ENV-CP	
ELS-CA8	ENV-SCU	
ELS-CA8	ENV-T	
ELS-CA9	ENV-CP	
ELS-CA9	ENV-CARROS	
ELS-CA9	ENV-T	
ELS-CA10	ENV-CP	
ELS-CA10	ENV-SCU	
ELS-CA10	ENV-CARROS	
ELS-CA10	ENV-T	
ELS-CA11	ENV-CP	
ELS-CA11	ENV-CARROS	
ELS-CA11	ENV-FH	
ELS-CA11	ENV-T	
ELS-CA12	ENV-CP	
ELS-CA12	ENV-SCU	
ELS-CA12	ENV-FH	
ELS-CA12	ENV-T	
ELS-CA13	ENV-CP	
ELS-CA13	ENV-SCU	
ELS-CA13	ENV-CARROS	
ELS-CA13	ENV-FH	
ELS-CA13	ENV-T	
ELS-CA14	ENV-CP	
ELS-CA14	ENV-T	
ELS-CA15	ENV-CP	
ELS-CA15	ENV-T	
ELS-CA15	ENV-SCU	
ELS-CA16	ENV-CP	
ELS-CA16	ENV-T	
ELS-CA16	ENV-CARROS	
ELS-CA17	ENV-CP	
ELS-CA17	ENV-T	
ELS-CA17	ENV-CARROS	
ELS-CA17	ENV-SCU	
ENV-ELS-CA	ELS-CA1	
ENV-ELS-CA	ELS-CA10	
ENV-ELS-CA	ELS-CA11	
ENV-ELS-CA	ELS-CA12	
ENV-ELS-CA	ELS-CA13	
ENV-ELS-CA	ELS-CA14	
ENV-ELS-CA	ELS-CA15	
ENV-ELS-CA	ELS-CA16	
ENV-ELS-CA	ELS-CA17	
ENV-ELS-CA	ELS-CA2	
ENV-ELS-CA	ELS-CA3	
ENV-ELS-CA	ELS-CA4	
ENV-ELS-CA	ELS-CA5	
ENV-ELS-CA	ELS-CA6	
ENV-ELS-CA	ELS-CA7	
ENV-ELS-CA	ELS-CA8	
ENV-ELS-CA	ELS-CA9	
ELS-CP1	ENV-CP	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELS-CP2	ENV-CP	
ELS-CP2	ENV-T	
ENV-ELS-CP	ELS-CP1	
ENV-ELS-CP	ELS-CP2	
ELU-PT1	ENV-CP	
ELU-PT2	ENV-CP	
ELU-PT2	ENV-SCU	
ELU-PT3	ENV-CP	
ELU-PT3	ENV-CARROS	
ELU-PT4	ENV-CP	
ELU-PT4	ENV-SCU	
ELU-PT4	ENV-CARROS	
ELU-PT5	ENV-CP	
ELU-PT5	ENV-CARROS	
ELU-PT5	ENV-FH	
ELU-PT6	ENV-CP	
ELU-PT6	ENV-SCU	
ELU-PT6	ENV-FH	
ELU-PT7	ENV-CP	
ELU-PT7	ENV-SCU	
ELU-PT7	ENV-CARROS	
ELU-PT7	ENV-FH	
ELU-PT8	ENV-CP	
ELU-PT8	ENV-SCU	
ELU-PT8	ENV-T	
ELU-PT9	ENV-CP	
ELU-PT9	ENV-CARROS	
ELU-PT9	ENV-T	
ELU-PT10	ENV-CP	
ELU-PT10	ENV-SCU	
ELU-PT10	ENV-CARROS	
ELU-PT10	ENV-T	
ELU-PT11	ENV-CP	
ELU-PT11	ENV-CARROS	
ELU-PT11	ENV-FH	
ELU-PT11	ENV-T	
ELU-PT12	ENV-CP	
ELU-PT12	ENV-SCU	
ELU-PT12	ENV-FH	
ELU-PT12	ENV-T	
ELU-PT13	ENV-CP	
ELU-PT13	ENV-SCU	
ELU-PT13	ENV-CARROS	
ELU-PT13	ENV-FH	
ELU-PT13	ENV-T	
ELU-PT14	ENV-CP	
ELU-PT14	ENV-T	
ELU-PT15	ENV-CP	
ELU-PT15	ENV-T	
ELU-PT15	ENV-SCU	
ELU-PT16	ENV-CP	
ELU-PT16	ENV-T	
ELU-PT16	ENV-CARROS	
ELU-PT17	ENV-CP	
ELU-PT17	ENV-T	
ELU-PT17	ENV-CARROS	
ELU-PT17	ENV-SCU	
ELU-PT18	ENV-CP	
ELU-PT19	ENV-CP	
ELU-PT19	ENV-SCU	
ELU-PT20	ENV-CP	
ELU-PT20	ENV-CARROS	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELU-PT21	ENV-CP	
ELU-PT21	ENV-SCU	
ELU-PT21	ENV-CARROS	
ELU-PT22	ENV-CP	
ELU-PT22	ENV-CARROS	
ELU-PT22	ENV-FH	
ELU-PT23	ENV-CP	
ELU-PT23	ENV-SCU	
ELU-PT23	ENV-FH	
ELU-PT24	ENV-CP	
ELU-PT24	ENV-SCU	
ELU-PT24	ENV-CARROS	
ELU-PT24	ENV-FH	
ELU-PT25	ENV-CP	
ELU-PT25	ENV-SCU	
ELU-PT25	ENV-T	
ELU-PT26	ENV-CP	
ELU-PT26	ENV-CARROS	
ELU-PT26	ENV-T	
ELU-PT27	ENV-CP	
ELU-PT27	ENV-SCU	
ELU-PT27	ENV-CARROS	
ELU-PT27	ENV-T	
ELU-PT28	ENV-CP	
ELU-PT28	ENV-CARROS	
ELU-PT28	ENV-FH	
ELU-PT28	ENV-T	
ELU-PT29	ENV-CP	
ELU-PT29	ENV-SCU	
ELU-PT29	ENV-FH	
ELU-PT29	ENV-T	
ELU-PT30	ENV-CP	
ELU-PT30	ENV-SCU	
ELU-PT30	ENV-CARROS	
ELU-PT30	ENV-FH	
ELU-PT30	ENV-T	
ELU-PT31	ENV-CP	
ELU-PT31	ENV-T	
ELU-PT32	ENV-CP	
ELU-PT32	ENV-T	
ELU-PT32	ENV-SCU	
ELU-PT33	ENV-CP	
ELU-PT33	ENV-T	
ELU-PT33	ENV-CARROS	
ELU-PT34	ENV-CP	
ELU-PT34	ENV-T	
ELU-PT34	ENV-CARROS	
ELU-PT34	ENV-SCU	
ENV-ELU-PT	ELU-PT1	
ENV-ELU-PT	ELU-PT10	
ENV-ELU-PT	ELU-PT11	
ENV-ELU-PT	ELU-PT12	
ENV-ELU-PT	ELU-PT13	
ENV-ELU-PT	ELU-PT14	
ENV-ELU-PT	ELU-PT15	
ENV-ELU-PT	ELU-PT16	
ENV-ELU-PT	ELU-PT17	
ENV-ELU-PT	ELU-PT18	
ENV-ELU-PT	ELU-PT19	
ENV-ELU-PT	ELU-PT2	
ENV-ELU-PT	ELU-PT20	
ENV-ELU-PT	ELU-PT21	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ENV-ELU-PT	ELU-PT22	
ENV-ELU-PT	ELU-PT23	
ENV-ELU-PT	ELU-PT24	
ENV-ELU-PT	ELU-PT25	
ENV-ELU-PT	ELU-PT26	
ENV-ELU-PT	ELU-PT27	
ENV-ELU-PT	ELU-PT28	
ENV-ELU-PT	ELU-PT29	
ENV-ELU-PT	ELU-PT3	
ENV-ELU-PT	ELU-PT30	
ENV-ELU-PT	ELU-PT31	
ENV-ELU-PT	ELU-PT32	
ENV-ELU-PT	ELU-PT33	
ENV-ELU-PT	ELU-PT34	
ENV-ELU-PT	ELU-PT4	
ENV-ELU-PT	ELU-PT5	
ENV-ELU-PT	ELU-PT6	
ENV-ELU-PT	ELU-PT7	
ENV-ELU-PT	ELU-PT8	
ENV-ELU-PT	ELU-PT9	
ELU-AC1	ENV-CP	
ELU-AC1	ENV-AC	
ELU-AC2	ENV-CP	
ELU-AC2	ENV-AC	
ELU-AC2	ENV-SCU	
ELU-AC3	ENV-CP	
ELU-AC3	ENV-AC	
ELU-AC3	ENV-CARROS	
ELU-AC4	ENV-CP	
ELU-AC4	ENV-AC	
ELU-AC4	ENV-CARROS	
ELU-AC4	ENV-SCU	
ELU-AC5	ENV-CP	
ELU-AC5	ENV-AC	
ELU-AC5	ENV-SCU	
ELU-AC5	ENV-T	
ELU-AC6	ENV-CP	
ELU-AC6	ENV-AC	
ELU-AC6	ENV-CARROS	
ELU-AC6	ENV-T	
ELU-AC7	ENV-CP	
ELU-AC7	ENV-AC	
ELU-AC7	ENV-CARROS	
ELU-AC7	ENV-SCU	
ELU-AC7	ENV-T	
ELU-AC8	ENV-CP	
ELU-AC8	ENV-AC	
ELU-AC8	ENV-T	
ENV-ELU-AC	ELU-AC1	
ENV-ELU-AC	ELU-AC2	
ENV-ELU-AC	ELU-AC3	
ENV-ELU-AC	ELU-AC4	
ENV-ELU-AC	ELU-AC5	
ENV-ELU-AC	ELU-AC6	
ENV-ELU-AC	ELU-AC7	
ENV-ELU-AC	ELU-AC8	
ELU-EQ1	DEAD	
ELU-EQ1	PAVMIN1	
ELU-EQ1	PRETIL	
ELU-EQ1	PAVMIN2	
ELU-EQ1	ENV-SCU	
ELU-EQ2	DEAD	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
ELU-EQ2	PAVMIN1	
ELU-EQ2	PRETIL	
ELU-EQ2	PAVMIN2	
ELU-EQ2	ENV-CARROS	
ELU-EQ3	DEAD	
ELU-EQ3	PAVMIN1	
ELU-EQ3	PRETIL	
ELU-EQ3	PAVMIN2	
ELU-EQ3	ENV-CARROS	
ELU-EQ3	ENV-SCU	
ELU-EQ4	DEAD	
ELU-EQ4	PAVMAX1	
ELU-EQ4	PRETIL	
ELU-EQ4	PAVMAX2	
ELU-EQ4	ENV-SCU	
ELU-EQ5	DEAD	
ELU-EQ5	PAVMAX1	
ELU-EQ5	PRETIL	
ELU-EQ5	PAVMAX2	
ELU-EQ5	ENV-CARROS	
ELU-EQ6	DEAD	
ELU-EQ6	PAVMAX1	
ELU-EQ6	PRETIL	
ELU-EQ6	PAVMAX2	
ELU-EQ6	ENV-CARROS	
ELU-EQ6	ENV-SCU	
ENV-ELU-EQ	ELU-EQ1	
ENV-ELU-EQ	ELU-EQ2	
ENV-ELU-EQ	ELU-EQ3	
ENV-ELU-EQ	ELU-EQ4	
ENV-ELU-EQ	ELU-EQ5	
ENV-ELU-EQ	ELU-EQ6	
RH-1	RETRAC	
RH-2	RETRAC	
RH-2	TCON	
RH-3	RETRAC	
RH-3	TDIL	
RH-4	RETRAC	
RH-4	TCON	
RH-4	FH-1	
RH-5	RETRAC	
RH-5	TCON	
RH-5	FH-2	
RH-6	RETRAC	
RH-6	TCON	
RH-6	FH-3	
RH-7	RETRAC	
RH-7	TCON	
RH-7	FH-4	
RH-8	RETRAC	
RH-8	TCON	
RH-8	FH-5	
RH-9	RETRAC	
RH-9	TCON	
RH-9	FH-6	
RH-10	RETRAC	
RH-10	TCON	
RH-10	FH-7	
RH-11	RETRAC	
RH-11	TCON	
RH-11	FH-8	
RH-12	RETRAC	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-12	TCON	
RH-12	FH-9	
RH-13	RETRAC	
RH-13	TCON	
RH-13	FH-10	
RH-14	RETRAC	
RH-14	TCON	
RH-14	FH-11	
RH-15	RETRAC	
RH-15	TCON	
RH-15	FH-12	
RH-16	RETRAC	
RH-16	TCON	
RH-16	FH-13	
RH-17	RETRAC	
RH-17	TCON	
RH-17	FH-14	
RH-18	RETRAC	
RH-18	TCON	
RH-18	FH-15	
RH-19	RETRAC	
RH-19	TCON	
RH-19	FH-16	
RH-20	RETRAC	
RH-20	TDIL	
RH-20	FH-1	
RH-21	RETRAC	
RH-21	TDIL	
RH-21	FH-2	
RH-22	RETRAC	
RH-22	TDIL	
RH-22	FH-3	
RH-23	RETRAC	
RH-23	TDIL	
RH-23	FH-4	
RH-24	RETRAC	
RH-24	TDIL	
RH-24	FH-5	
RH-25	RETRAC	
RH-25	TDIL	
RH-25	FH-6	
RH-26	RETRAC	
RH-26	TDIL	
RH-26	FH-7	
RH-27	RETRAC	
RH-27	TDIL	
RH-27	FH-8	
RH-28	RETRAC	
RH-28	TDIL	
RH-28	FH-9	
RH-29	RETRAC	
RH-29	TDIL	
RH-29	FH-10	
RH-30	RETRAC	
RH-30	TDIL	
RH-30	FH-11	
RH-31	RETRAC	
RH-31	TDIL	
RH-31	FH-12	
RH-32	RETRAC	
RH-32	TDIL	
RH-32	FH-13	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-33	RETRAC	
RH-33	TDIL	
RH-33	FH-14	
RH-34	RETRAC	
RH-34	TDIL	
RH-34	FH-15	
RH-35	RETRAC	
RH-35	TDIL	
RH-35	FH-16	
RH-36	RETRAC	
RH-37	RETRAC	
RH-37	TCON	
RH-38	RETRAC	
RH-38	TDIL	
RH-39	RETRAC	
RH-39	TCON	
RH-39	FH-1	
RH-40	RETRAC	
RH-40	TCON	
RH-40	FH-2	
RH-41	RETRAC	
RH-41	TCON	
RH-41	FH-3	
RH-42	RETRAC	
RH-42	TCON	
RH-42	FH-4	
RH-43	RETRAC	
RH-43	TCON	
RH-43	FH-5	
RH-44	RETRAC	
RH-44	TCON	
RH-44	FH-6	
RH-45	RETRAC	
RH-45	TCON	
RH-45	FH-7	
RH-46	RETRAC	
RH-46	TCON	
RH-46	FH-8	
RH-47	RETRAC	
RH-47	TCON	
RH-47	FH-9	
RH-48	RETRAC	
RH-48	TCON	
RH-48	FH-10	
RH-49	RETRAC	
RH-49	TCON	
RH-49	FH-11	
RH-50	RETRAC	
RH-50	TCON	
RH-50	FH-12	
RH-51	RETRAC	
RH-51	TCON	
RH-51	FH-13	
RH-52	RETRAC	
RH-52	TCON	
RH-52	FH-14	
RH-53	RETRAC	
RH-53	TCON	
RH-53	FH-15	
RH-54	RETRAC	
RH-54	TCON	
RH-54	FH-16	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-55	RETRAC	
RH-55	TDIL	
RH-55	FH-1	
RH-56	RETRAC	
RH-56	TDIL	
RH-56	FH-2	
RH-57	RETRAC	
RH-57	TDIL	
RH-57	FH-3	
RH-58	RETRAC	
RH-58	TDIL	
RH-58	FH-4	
RH-59	RETRAC	
RH-59	TDIL	
RH-59	FH-5	
RH-60	RETRAC	
RH-60	TDIL	
RH-60	FH-6	
RH-61	RETRAC	
RH-61	TDIL	
RH-61	FH-7	
RH-62	RETRAC	
RH-62	TDIL	
RH-62	FH-8	
RH-63	RETRAC	
RH-63	TDIL	
RH-63	FH-9	
RH-64	RETRAC	
RH-64	TDIL	
RH-64	FH-10	
RH-65	RETRAC	
RH-65	TDIL	
RH-65	FH-11	
RH-66	RETRAC	
RH-66	TDIL	
RH-66	FH-12	
RH-67	RETRAC	
RH-67	TDIL	
RH-67	FH-13	
RH-68	RETRAC	
RH-68	TDIL	
RH-68	FH-14	
RH-69	RETRAC	
RH-69	TDIL	
RH-69	FH-15	
RH-70	RETRAC	
RH-70	TDIL	
RH-70	FH-16	
RH-71	RETRAC	
RH-72	RETRAC	
RH-72	TCON	
RH-73	RETRAC	
RH-73	TDIL	
RH-74	RETRAC	
RH-74	TCON	
RH-74	FH-1	
RH-75	RETRAC	
RH-75	TCON	
RH-75	FH-2	
RH-76	RETRAC	
RH-76	TCON	
RH-76	FH-3	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-77	RETRAC	
RH-77	TCON	
RH-77	FH-4	
RH-78	RETRAC	
RH-78	TCON	
RH-78	FH-5	
RH-79	RETRAC	
RH-79	TCON	
RH-79	FH-6	
RH-80	RETRAC	
RH-80	TCON	
RH-80	FH-7	
RH-81	RETRAC	
RH-81	TCON	
RH-81	FH-8	
RH-82	RETRAC	
RH-82	TCON	
RH-82	FH-9	
RH-83	RETRAC	
RH-83	TCON	
RH-83	FH-10	
RH-84	RETRAC	
RH-84	TCON	
RH-84	FH-11	
RH-85	RETRAC	
RH-85	TCON	
RH-85	FH-12	
RH-86	RETRAC	
RH-86	TCON	
RH-86	FH-13	
RH-87	RETRAC	
RH-87	TCON	
RH-87	FH-14	
RH-88	RETRAC	
RH-88	TCON	
RH-88	FH-15	
RH-89	RETRAC	
RH-89	TCON	
RH-89	FH-16	
RH-90	RETRAC	
RH-90	TDIL	
RH-90	FH-1	
RH-91	RETRAC	
RH-91	TDIL	
RH-91	FH-2	
RH-92	RETRAC	
RH-92	TDIL	
RH-92	FH-3	
RH-93	RETRAC	
RH-93	TDIL	
RH-93	FH-4	
RH-94	RETRAC	
RH-94	TDIL	
RH-94	FH-5	
RH-95	RETRAC	
RH-95	TDIL	
RH-95	FH-6	
RH-96	RETRAC	
RH-96	TDIL	
RH-96	FH-7	
RH-97	RETRAC	
RH-97	TDIL	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-97	FH-8	
RH-98	RETRAC	
RH-98	TDIL	
RH-98	FH-9	
RH-99	RETRAC	
RH-99	TDIL	
RH-99	FH-10	
RH-100	RETRAC	
RH-100	TDIL	
RH-100	FH-11	
RH-101	RETRAC	
RH-101	TDIL	
RH-101	FH-12	
RH-102	RETRAC	
RH-102	TDIL	
RH-102	FH-13	
RH-103	RETRAC	
RH-103	TDIL	
RH-103	FH-14	
RH-104	RETRAC	
RH-104	TDIL	
RH-104	FH-15	
RH-105	RETRAC	
RH-105	TDIL	
RH-105	FH-16	
RH-106	RETRAC	
RH-106	AC1	
RH-107	RETRAC	
RH-107	AC2	
RH-108	RETRAC	
RH-108	AC3	
RH-109	RETRAC	
RH-109	AC4	
RH-110	RETRAC	
RH-110	AC5	
RH-111	RETRAC	
RH-111	AC6	
RH-112	RETRAC	
RH-112	AC7	
RH-113	RETRAC	
RH-113	AC8	
RH-114	RETRAC	
RH-114	AC9	
RH-115	RETRAC	
RH-115	AC10	
RH-116	RETRAC	
RH-116	AC1	
RH-116	TCON	
RH-117	RETRAC	
RH-117	AC2	
RH-117	TCON	
RH-118	RETRAC	
RH-118	AC3	
RH-118	TCON	
RH-119	RETRAC	
RH-119	AC4	
RH-119	TCON	
RH-120	RETRAC	
RH-120	AC5	
RH-120	TCON	
RH-121	RETRAC	
RH-121	AC6	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-121	TCON	
RH-122	RETRAC	
RH-122	AC7	
RH-122	TCON	
RH-123	RETRAC	
RH-123	AC8	
RH-123	TCON	
RH-124	RETRAC	
RH-124	AC9	
RH-124	TCON	
RH-125	RETRAC	
RH-125	AC10	
RH-125	TCON	
RH-126	RETRAC	
RH-126	AC1	
RH-126	TDIL	
RH-127	RETRAC	
RH-127	AC2	
RH-127	TDIL	
RH-128	RETRAC	
RH-128	AC3	
RH-128	TDIL	
RH-129	RETRAC	
RH-129	AC4	
RH-129	TDIL	
RH-130	RETRAC	
RH-130	AC5	
RH-130	TDIL	
RH-131	RETRAC	
RH-131	AC6	
RH-131	TDIL	
RH-132	RETRAC	
RH-132	AC7	
RH-132	TDIL	
RH-133	RETRAC	
RH-133	AC8	
RH-133	TDIL	
RH-134	RETRAC	
RH-134	AC9	
RH-134	TDIL	
RH-135	RETRAC	
RH-135	AC10	
RH-135	TDIL	
RH-136	RETRAC	
RH-136	AC1	
RH-137	RETRAC	
RH-137	AC2	
RH-138	RETRAC	
RH-138	AC3	
RH-139	RETRAC	
RH-139	AC4	
RH-140	RETRAC	
RH-140	AC5	
RH-141	RETRAC	
RH-141	AC6	
RH-142	RETRAC	
RH-142	AC7	
RH-143	RETRAC	
RH-143	AC8	
RH-144	RETRAC	
RH-144	AC9	
RH-145	RETRAC	

Table: Combination Definitions, Part 3 of 3

ComboName	CaseName	Notes
RH-145	AC10	
RH-146	RETRAC	
RH-146	AC1	
RH-146	TCON	
RH-147	RETRAC	
RH-147	AC2	
RH-147	TCON	
RH-148	RETRAC	
RH-148	AC3	
RH-148	TCON	
RH-149	RETRAC	
RH-149	AC4	
RH-149	TCON	
RH-150	RETRAC	
RH-150	AC5	
RH-150	TCON	
RH-151	RETRAC	
RH-151	AC6	
RH-151	TCON	
RH-152	RETRAC	
RH-152	AC7	
RH-152	TCON	
RH-153	RETRAC	
RH-153	AC8	
RH-153	TCON	
RH-154	RETRAC	
RH-154	AC9	
RH-154	TCON	
RH-155	RETRAC	
RH-155	AC10	
RH-155	TCON	
RH-156	RETRAC	
RH-156	AC1	
RH-156	TDIL	
RH-157	RETRAC	
RH-157	AC2	
RH-157	TDIL	
RH-158	RETRAC	
RH-158	AC3	
RH-158	TDIL	
RH-159	RETRAC	
RH-159	AC4	
RH-159	TDIL	
RH-160	RETRAC	
RH-160	AC5	
RH-160	TDIL	
RH-161	RETRAC	
RH-161	AC6	
RH-161	TDIL	
RH-162	RETRAC	
RH-162	AC7	
RH-162	TDIL	
RH-163	RETRAC	
RH-163	AC8	
RH-163	TDIL	
RH-164	RETRAC	
RH-164	AC9	
RH-164	TDIL	
RH-165	RETRAC	
RH-165	AC10	
RH-165	TDIL	

Table: Joint Spring Assignments 2 - Coupled, Part 1 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 1 of 4

Joint	CoordSys	U1	U1U2	U2	U1U3	U2U3	U3
		KN/m	KN/m	KN/m	KN/m	KN/m	KN/m
122	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
123	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
125	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
128	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
129	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
131	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
141	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
145	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
155	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
159	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
169	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
173	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
185	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
188	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
197	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
200	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
59	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
61	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
62	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
65	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
68	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00
72	Local	5847.00	0.00	5847.00	0.00	0.00	350000.00

Table: Joint Spring Assignments 2 - Coupled, Part 2 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 2 of 4

Joint	CoordSys	U1R1	U2R1	U3R1	R1	U1R2	U2R2
		KN/rad	KN/rad	KN/rad	KN-m/rad	KN/rad	KN/rad
122	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
123	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
125	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
128	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
129	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
131	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
141	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
145	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
155	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
159	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
169	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
173	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
185	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
188	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
197	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
200	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
59	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
61	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
62	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
65	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
68	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000
72	Local	0.0000	-5650.0000	0.0000	9002.0000	5650.0000	0.0000

Table: Joint Spring Assignments 2 - Coupled, Part 3 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 3 of 4

Joint	CoordSys	U3R2	R1R2	R2	U1R3	U2R3	U3R3
		KN/rad	KN-m/rad	KN-m/rad	KN/rad	KN/rad	KN/rad
122	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
123	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000

Table: Joint Spring Assignments 2 - Coupled, Part 3 of 4

Joint	CoordSys	U3R2	R1R2	R2	U1R3	U2R3	U3R3
		KN/rad	KN-m/rad	KN-m/rad	KN/rad	KN/rad	KN/rad
125	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
128	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
129	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
131	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
141	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
145	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
155	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
159	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
169	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
173	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
185	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
188	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
197	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
200	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
59	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
61	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
62	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
65	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
68	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000
72	Local	0.0000	0.0000	9002.0000	0.0000	0.0000	0.0000

Table: Joint Spring Assignments 2 - Coupled, Part 4 of 4

Table: Joint Spring Assignments 2 - Coupled, Part 4 of 4

Joint	CoordSys	R1R3	R2R3	R3
		KN-m/rad	KN-m/rad	KN-m/rad
122	Local	0.0000	0.0000	852.0000
123	Local	0.0000	0.0000	852.0000
125	Local	0.0000	0.0000	852.0000
128	Local	0.0000	0.0000	852.0000
129	Local	0.0000	0.0000	852.0000
131	Local	0.0000	0.0000	852.0000
141	Local	0.0000	0.0000	852.0000
145	Local	0.0000	0.0000	852.0000
155	Local	0.0000	0.0000	852.0000
159	Local	0.0000	0.0000	852.0000
169	Local	0.0000	0.0000	852.0000
173	Local	0.0000	0.0000	852.0000
185	Local	0.0000	0.0000	852.0000
188	Local	0.0000	0.0000	852.0000
197	Local	0.0000	0.0000	852.0000
200	Local	0.0000	0.0000	852.0000
59	Local	0.0000	0.0000	852.0000
61	Local	0.0000	0.0000	852.0000
62	Local	0.0000	0.0000	852.0000
65	Local	0.0000	0.0000	852.0000
68	Local	0.0000	0.0000	852.0000
72	Local	0.0000	0.0000	852.0000

Table: Load Pattern Definitions

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
DEAD	DEAD	1.000000			
CARRO-A1	LIVE	0.000000			
CARRO-A2	LIVE	0.000000			
CARRO-A3	LIVE	0.000000			
CARRO-A4	LIVE	0.000000			
CARRO-A5	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
CARRO-A6	LIVE	0.000000			
CARRO-A7	LIVE	0.000000			
CARRO-A8	LIVE	0.000000			
CARRO-A9	LIVE	0.000000			
CARRO-A10	LIVE	0.000000			
CARRO-A11	LIVE	0.000000			
CARRO-A12	LIVE	0.000000			
CARRO-A13	LIVE	0.000000			
CARRO-A14	LIVE	0.000000			
CARRO-A15	LIVE	0.000000			
CARRO-A16	LIVE	0.000000			
CARRO-A17	LIVE	0.000000			
CARRO-A18	LIVE	0.000000			
CARRO-A19	LIVE	0.000000			
CARRO-A20	LIVE	0.000000			
CARRO-B1	LIVE	0.000000			
CARRO-B2	LIVE	0.000000			
CARRO-B3	LIVE	0.000000			
CARRO-B4	LIVE	0.000000			
CARRO-B5	LIVE	0.000000			
CARRO-B6	LIVE	0.000000			
CARRO-B7	LIVE	0.000000			
CARRO-B8	LIVE	0.000000			
CARRO-B9	LIVE	0.000000			
CARRO-B10	LIVE	0.000000			
CARRO-B11	LIVE	0.000000			
CARRO-B12	LIVE	0.000000			
CARRO-B13	LIVE	0.000000			
CARRO-B14	LIVE	0.000000			
CARRO-B15	LIVE	0.000000			
CARRO-B16	LIVE	0.000000			
CARRO-B17	LIVE	0.000000			
CARRO-B18	LIVE	0.000000			
CARRO-B19	LIVE	0.000000			
CARRO-B20	LIVE	0.000000			
CARRO-C1	LIVE	0.000000			
CARRO-C2	LIVE	0.000000			
CARRO-C3	LIVE	0.000000			
CARRO-C4	LIVE	0.000000			
CARRO-C5	LIVE	0.000000			
CARRO-C6	LIVE	0.000000			
CARRO-C7	LIVE	0.000000			
CARRO-C8	LIVE	0.000000			
CARRO-C9	LIVE	0.000000			
CARRO-C10	LIVE	0.000000			
CARRO-C11	LIVE	0.000000			
CARRO-C12	LIVE	0.000000			
CARRO-C13	LIVE	0.000000			
CARRO-C14	LIVE	0.000000			
CARRO-C15	LIVE	0.000000			
CARRO-C16	LIVE	0.000000			
CARRO-C17	LIVE	0.000000			
CARRO-C18	LIVE	0.000000			
CARRO-C19	LIVE	0.000000			
CARRO-C20	LIVE	0.000000			
SCU-1	LIVE	0.000000			
SCU-2	LIVE	0.000000			
SCU-3	LIVE	0.000000			
SCU-4	LIVE	0.000000			
SCU-5	LIVE	0.000000			
SCU-6	LIVE	0.000000			
SCU-7	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
SCU-8	LIVE	0.000000			
SCU-9	LIVE	0.000000			
PRETIL	DEAD	0.000000			
PAVMIN1	DEAD	0.000000			
PAVMAX1	DEAD	0.000000			
PAVMIN2	DEAD	0.000000			
PAVMAX2	DEAD	0.000000			
RETRAC	OTHER	0.000000			
QLA1	OTHER	0.000000			
QLA2	OTHER	0.000000			
QLA3	OTHER	0.000000			
QLA4	OTHER	0.000000			
QLB1	OTHER	0.000000			
QLB2	OTHER	0.000000			
QLB3	OTHER	0.000000			
QLB4	OTHER	0.000000			
QTA1	OTHER	0.000000			
QTA2	OTHER	0.000000			
QTA3	OTHER	0.000000			
QTA4	OTHER	0.000000			
QTB1	OTHER	0.000000			
QTB2	OTHER	0.000000			
QTB3	OTHER	0.000000			
QTB4	OTHER	0.000000			
TCON	OTHER	0.000000			
TDIL	OTHER	0.000000			
TGRAD1	OTHER	0.000000			
TGRAD2	OTHER	0.000000			
FAT-A1	LIVE	0.000000			
FAT-A2	LIVE	0.000000			
FAT-A3	LIVE	0.000000			
FAT-A4	LIVE	0.000000			
FAT-A5	LIVE	0.000000			
FAT-A6	LIVE	0.000000			
FAT-A7	LIVE	0.000000			
FAT-A8	LIVE	0.000000			
FAT-A9	LIVE	0.000000			
FAT-A10	LIVE	0.000000			
FAT-A11	LIVE	0.000000			
FAT-A12	LIVE	0.000000			
FAT-A13	LIVE	0.000000			
FAT-A14	LIVE	0.000000			
FAT-A15	LIVE	0.000000			
FAT-A16	LIVE	0.000000			
FAT-A17	LIVE	0.000000			
FAT-A18	LIVE	0.000000			
FAT-A19	LIVE	0.000000			
FAT-A20	LIVE	0.000000			
FAT-B1	LIVE	0.000000			
FAT-B2	LIVE	0.000000			
FAT-B3	LIVE	0.000000			
FAT-B4	LIVE	0.000000			
FAT-B5	LIVE	0.000000			
FAT-B6	LIVE	0.000000			
FAT-B7	LIVE	0.000000			
FAT-B8	LIVE	0.000000			
FAT-B9	LIVE	0.000000			
FAT-B10	LIVE	0.000000			
FAT-B11	LIVE	0.000000			
FAT-B12	LIVE	0.000000			
FAT-B13	LIVE	0.000000			
FAT-B14	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
FAT-B15	LIVE	0.000000			
FAT-B16	LIVE	0.000000			
FAT-B17	LIVE	0.000000			
FAT-B18	LIVE	0.000000			
FAT-B19	LIVE	0.000000			
FAT-B20	LIVE	0.000000			
FAT-C1	LIVE	0.000000			
FAT-C2	LIVE	0.000000			
FAT-C3	LIVE	0.000000			
FAT-C4	LIVE	0.000000			
FAT-C5	LIVE	0.000000			
FAT-C6	LIVE	0.000000			
FAT-C7	LIVE	0.000000			
FAT-C8	LIVE	0.000000			
FAT-C9	LIVE	0.000000			
FAT-C10	LIVE	0.000000			
FAT-C11	LIVE	0.000000			
FAT-C12	LIVE	0.000000			
FAT-C13	LIVE	0.000000			
FAT-C14	LIVE	0.000000			
FAT-C15	LIVE	0.000000			
FAT-C16	LIVE	0.000000			
FAT-C17	LIVE	0.000000			
FAT-C18	LIVE	0.000000			
FAT-C19	LIVE	0.000000			
FAT-C20	LIVE	0.000000			
FAT-A21	LIVE	0.000000			
FAT-A22	LIVE	0.000000			
FAT-A23	LIVE	0.000000			
FAT-A24	LIVE	0.000000			
FAT-A25	LIVE	0.000000			
FAT-A26	LIVE	0.000000			
FAT-A27	LIVE	0.000000			
FAT-B21	LIVE	0.000000			
FAT-B22	LIVE	0.000000			
FAT-B23	LIVE	0.000000			
FAT-B24	LIVE	0.000000			
FAT-B25	LIVE	0.000000			
FAT-B26	LIVE	0.000000			
FAT-B27	LIVE	0.000000			
FAT-C21	LIVE	0.000000			
FAT-C22	LIVE	0.000000			
FAT-C23	LIVE	0.000000			
FAT-C24	LIVE	0.000000			
FAT-C25	LIVE	0.000000			
FAT-C26	LIVE	0.000000			
FAT-C27	LIVE	0.000000			
AC1	OTHER	0.000000			
AC2	OTHER	0.000000			
AC3	OTHER	0.000000			
AC4	OTHER	0.000000			
AC5	OTHER	0.000000			
AC6	OTHER	0.000000			
AC7	OTHER	0.000000			
AC8	OTHER	0.000000			
AC9	OTHER	0.000000			
AC10	OTHER	0.000000			
CARRO-A21	LIVE	0.000000			
CARRO-A22	LIVE	0.000000			
CARRO-B21	LIVE	0.000000			
CARRO-B22	LIVE	0.000000			
CARRO-C21	LIVE	0.000000			

Table: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
CARRO-C22	LIVE	0.000000			
FAT-A28	LIVE	0.000000			
FAT-A29	LIVE	0.000000			
FAT-A30	LIVE	0.000000			
AC11	OTHER	0.000000			
AC12	OTHER	0.000000			

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Table: Material Properties 03b - Concrete Data, Part 1 of 2

Material	Fc KN/m2	LtWtConc	SSCurveOpt	SSHysType	SFc	SCap	FinalSlope	FAngle Degrees
4000Psi	27579.03	No	Mander	Takeda	0.002219	0.005000	-0.100000	0.000
HA-25	25000.00	No	Mander	Takeda	0.002000	0.005000	-0.100000	0.000

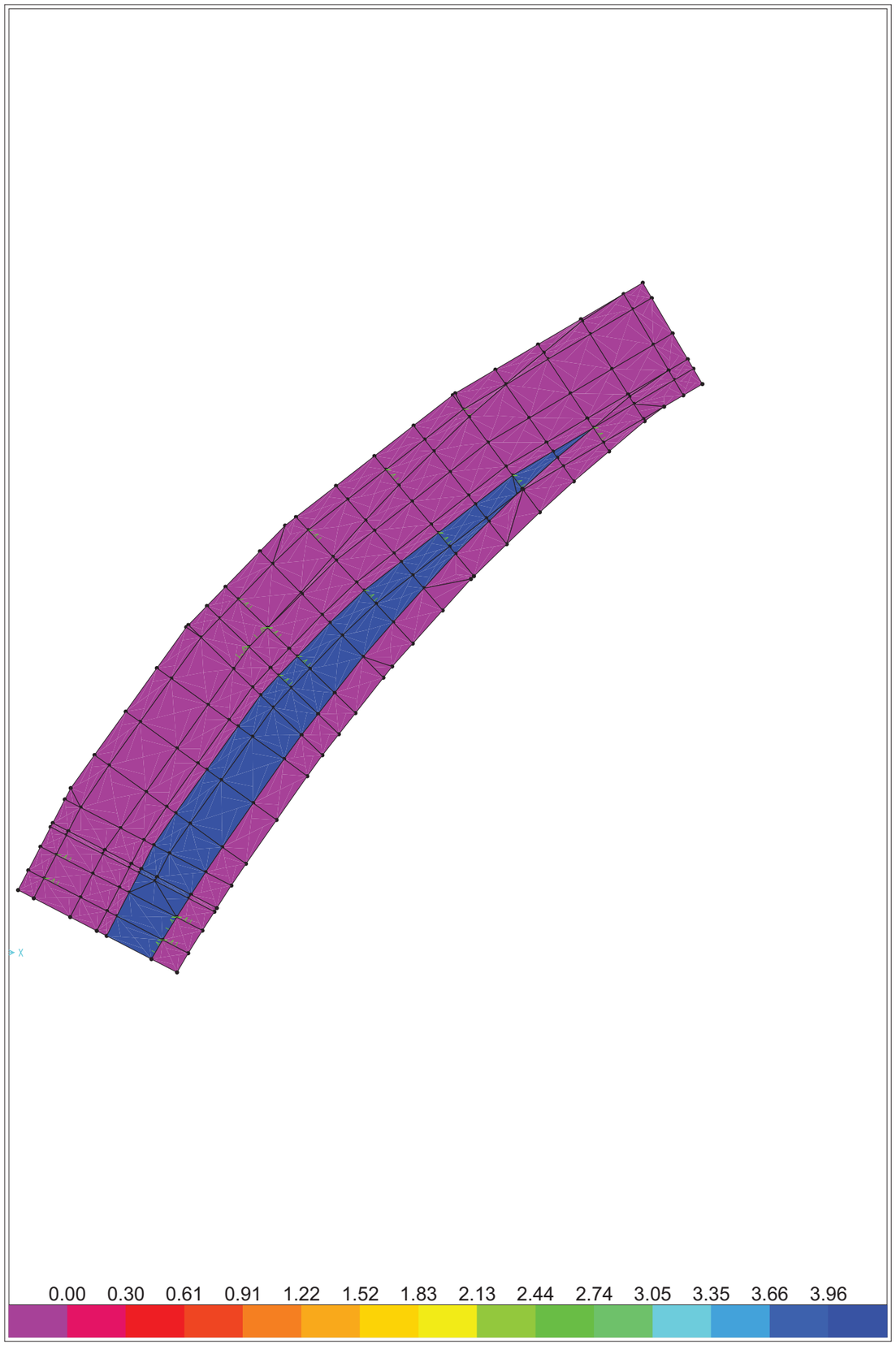
Table: Material Properties 03b - Concrete Data, Part 2 of 2

Table: Material Properties 03b - Concrete Data, Part 2 of 2

Material	DAngle Degrees
4000Psi	0.000
HA-25	0.000

SAP2000

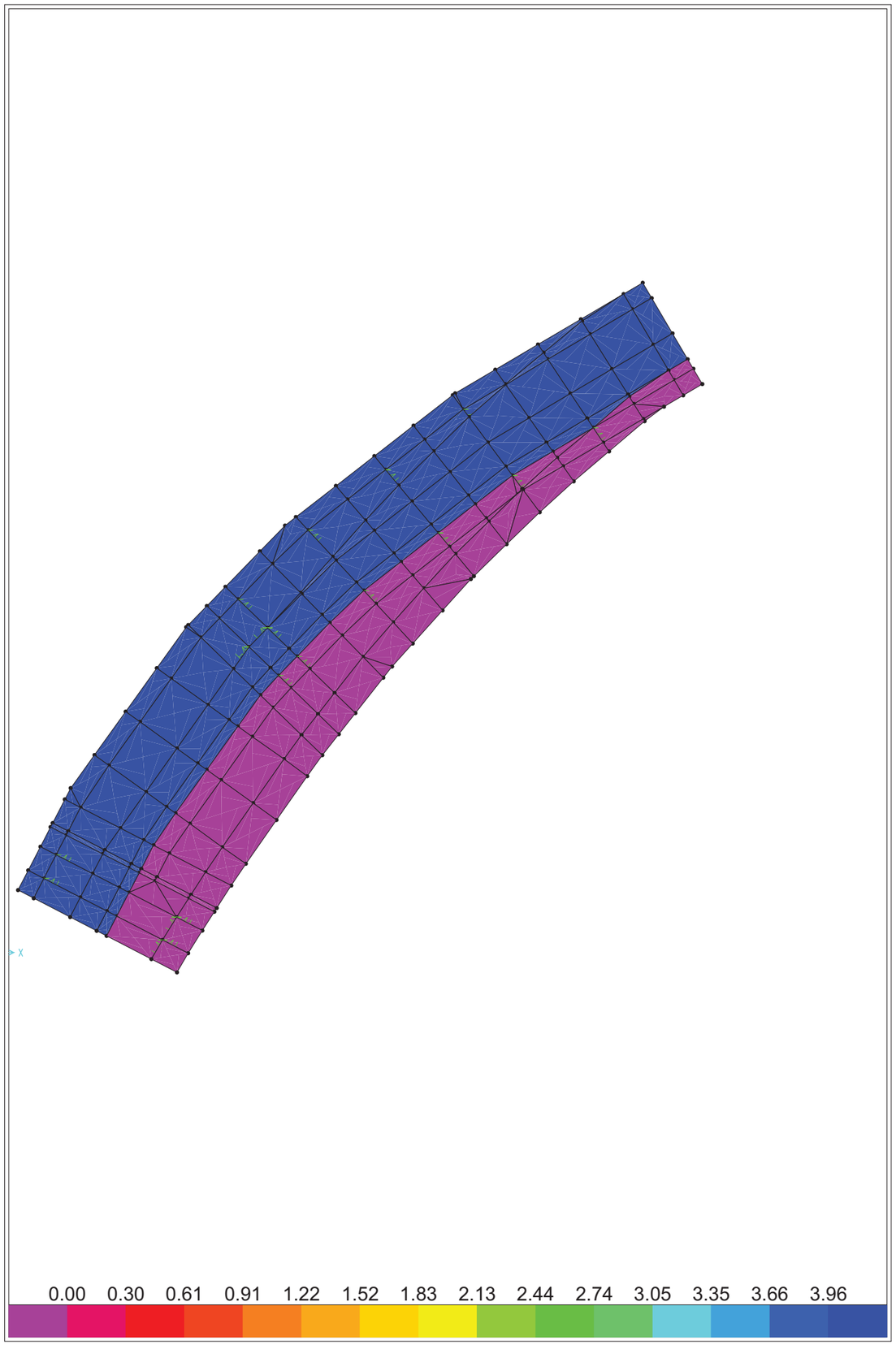
10/11/16 13:47:49



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (PAVMAX1) (GLOBAL - Gravity) - KN, r

SAP2000

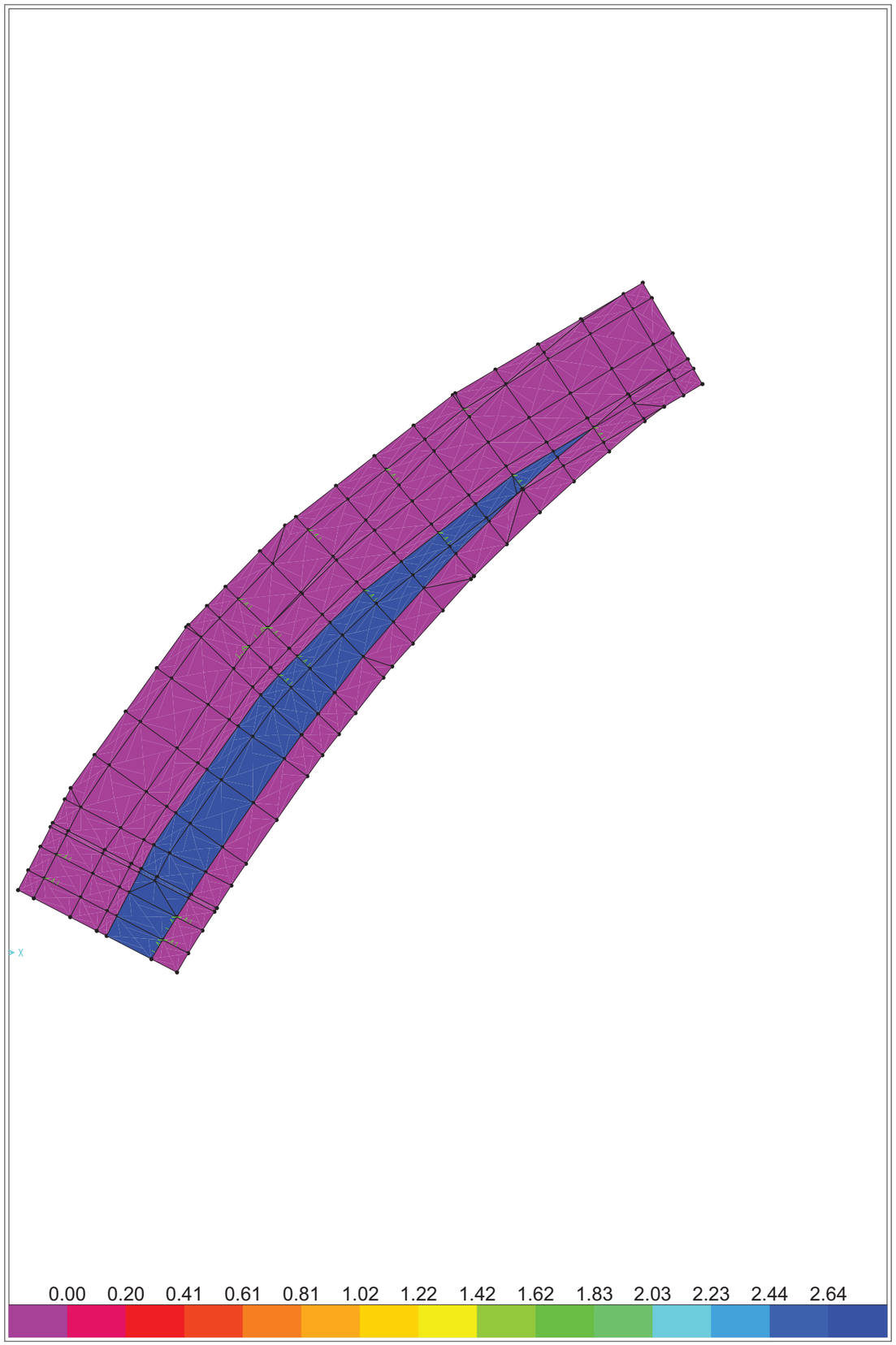
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SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (PAVMAX2) (GLOBAL - Gravity) - KN, r

SAP2000

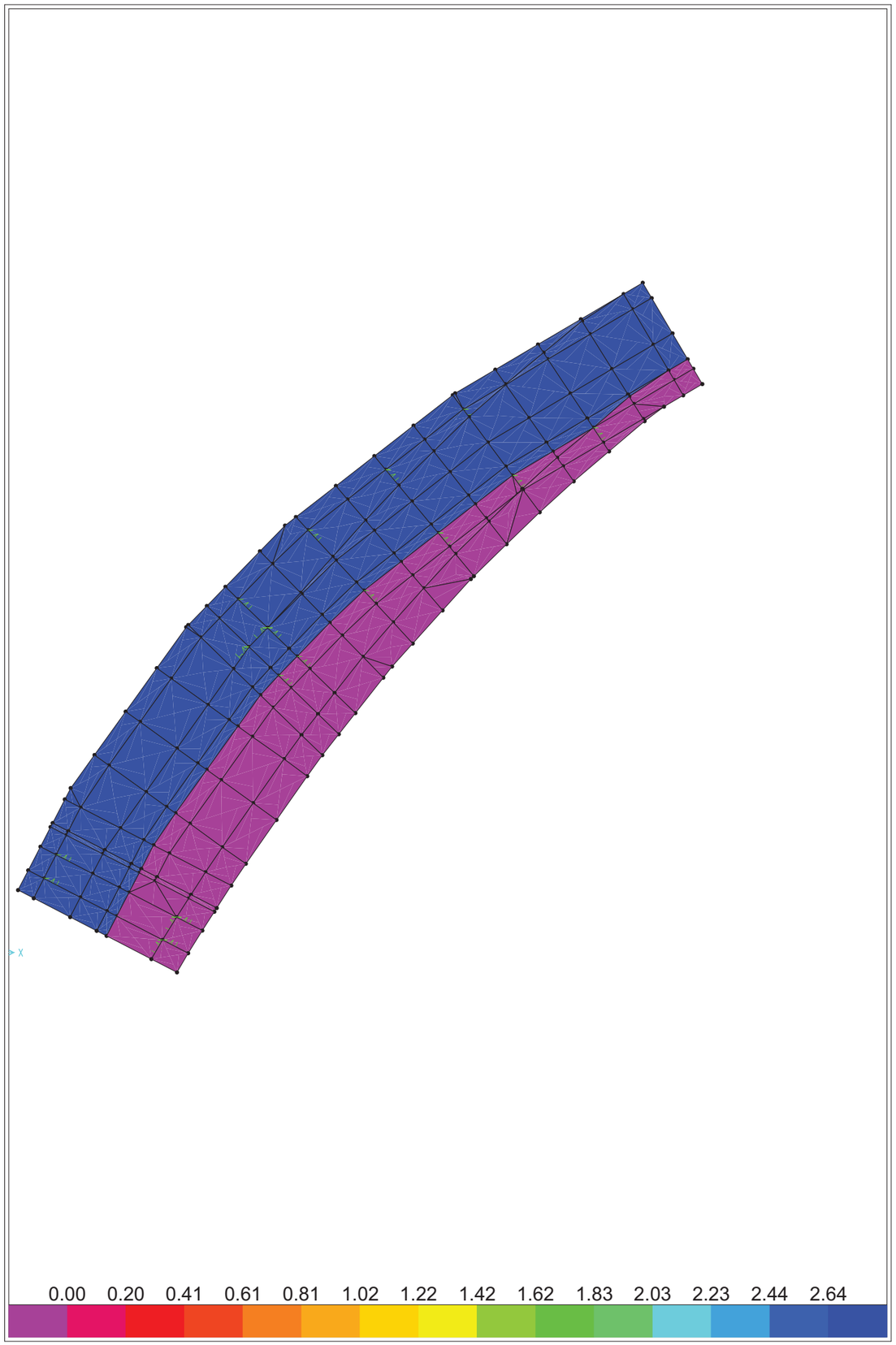
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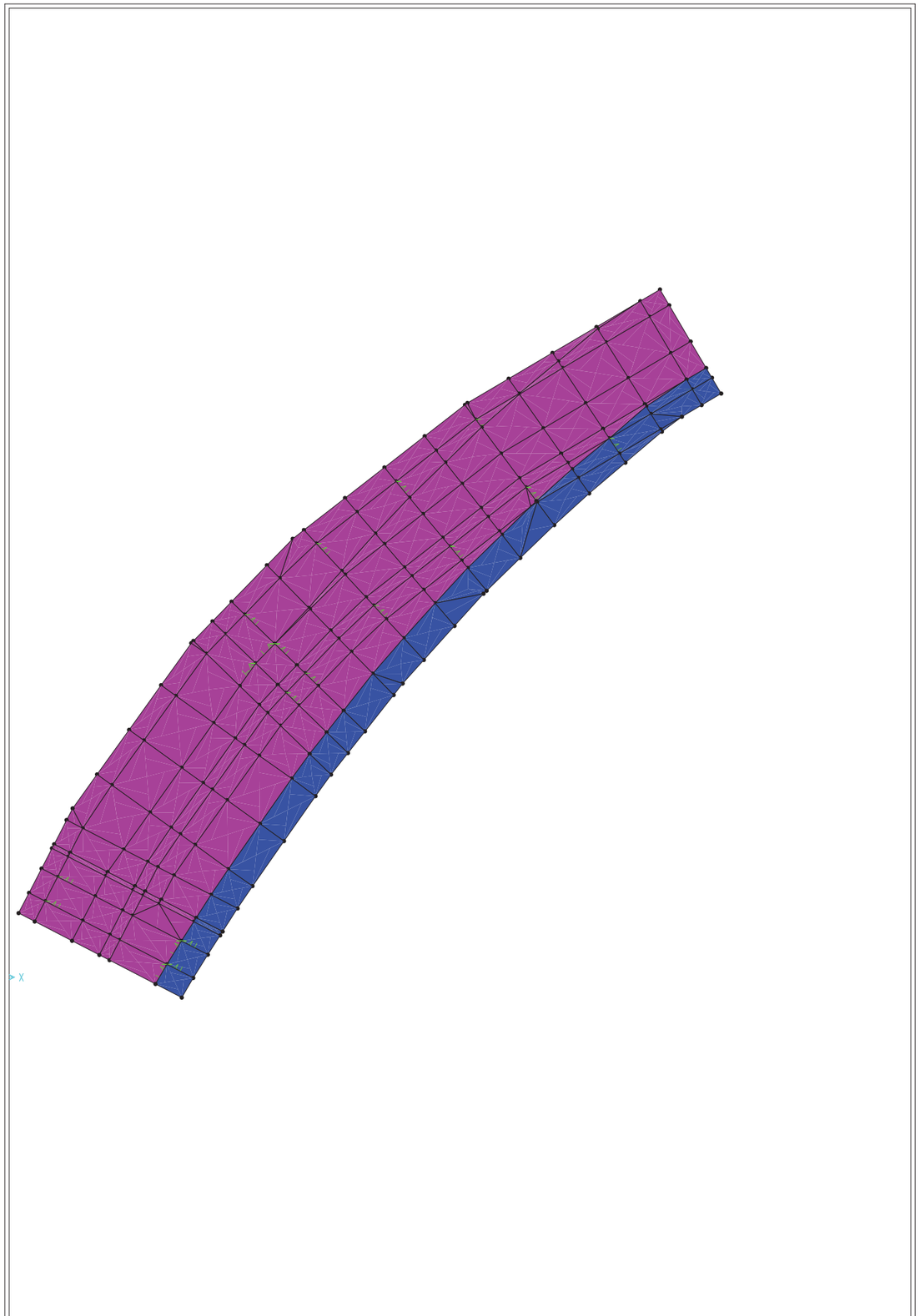
SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (PAVMIN1) (GLOBAL - Gravity) - KN, m

SAP2000

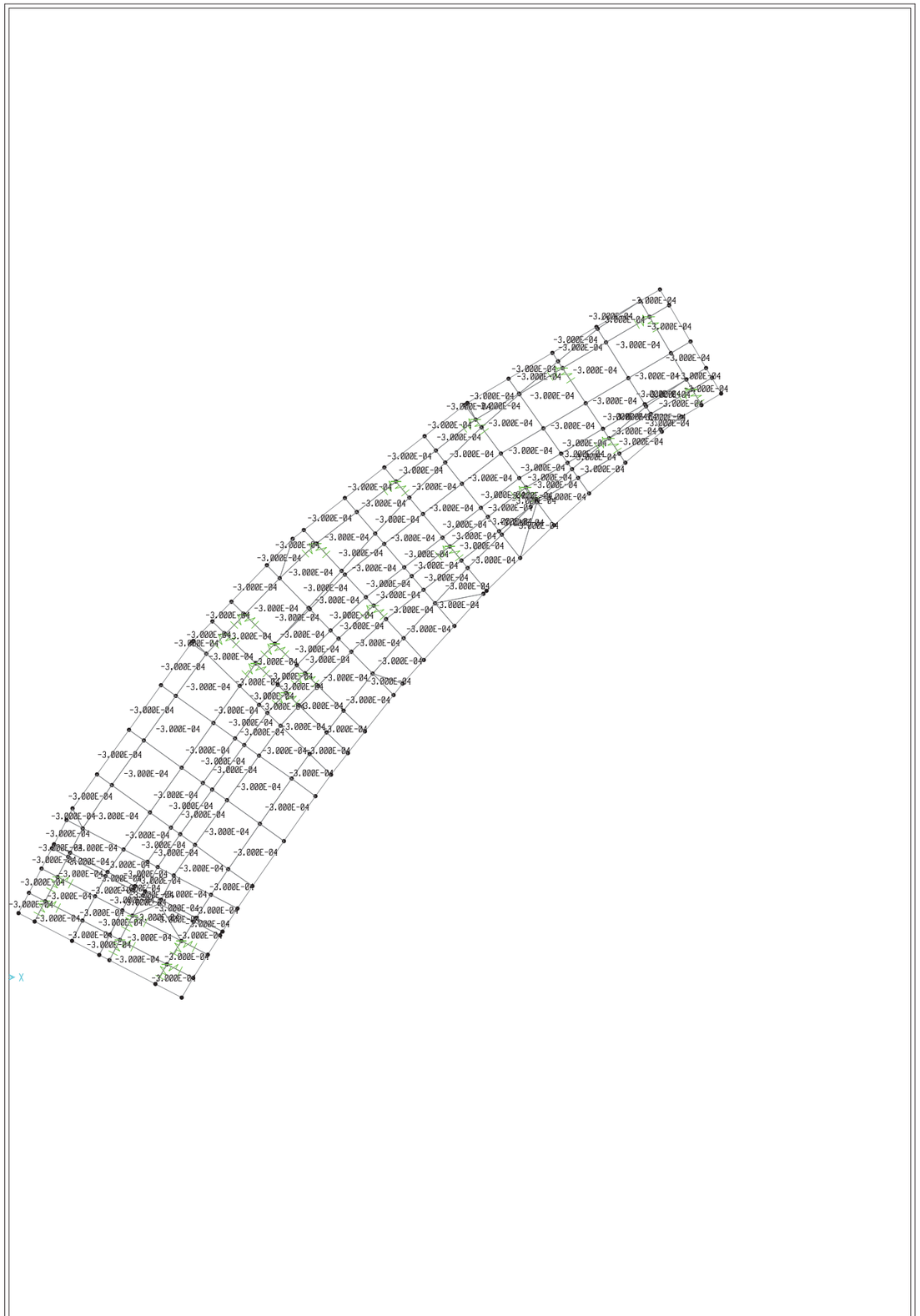
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SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (PAVMIN2) (GLOBAL - Gravity) - KN, m



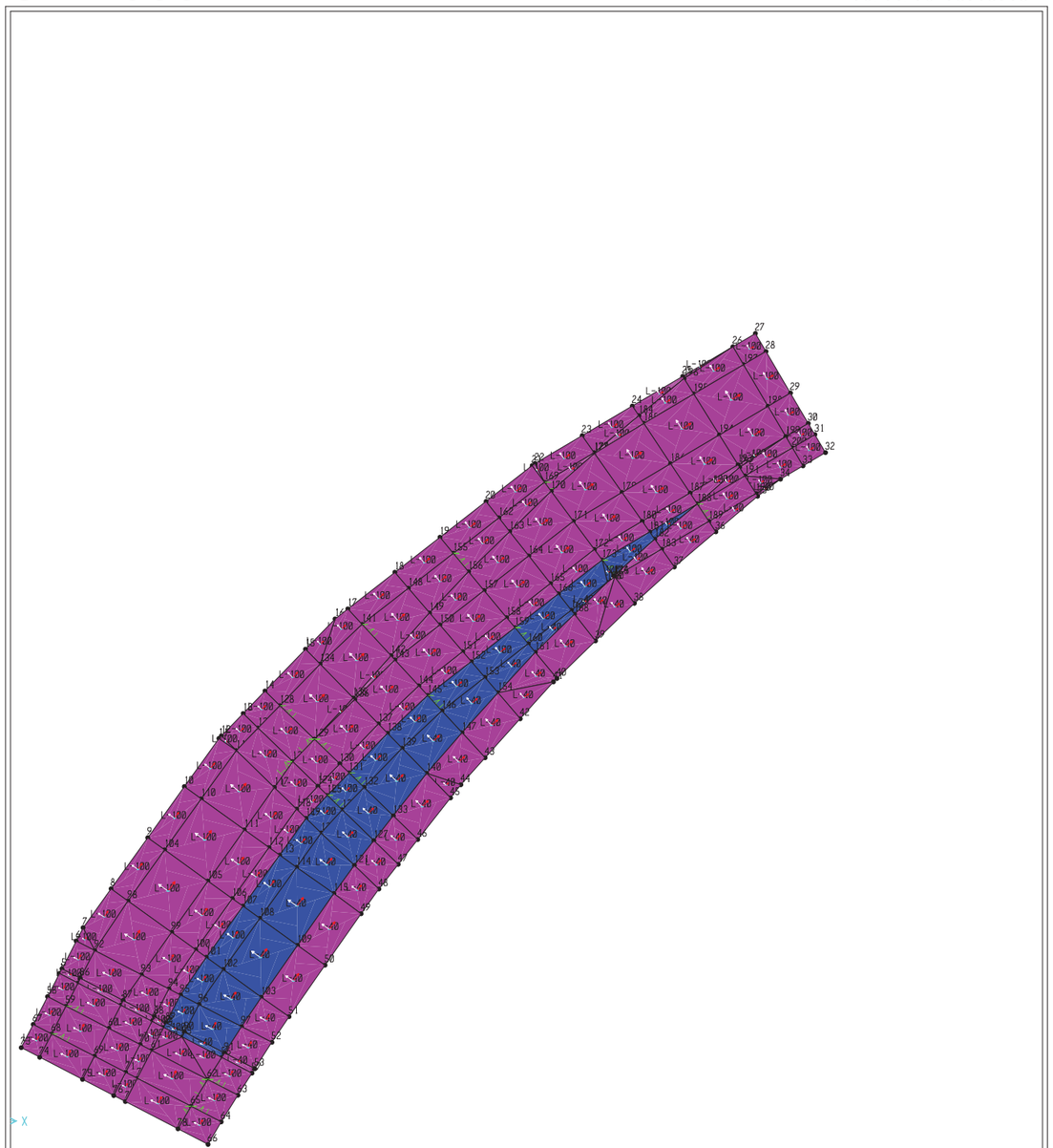
SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (PRETIL) (GLOBAL - Gravity) - KN, m,



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Strain Loads (RETRAC) (Strain11) - KN, m, C

SAP2000

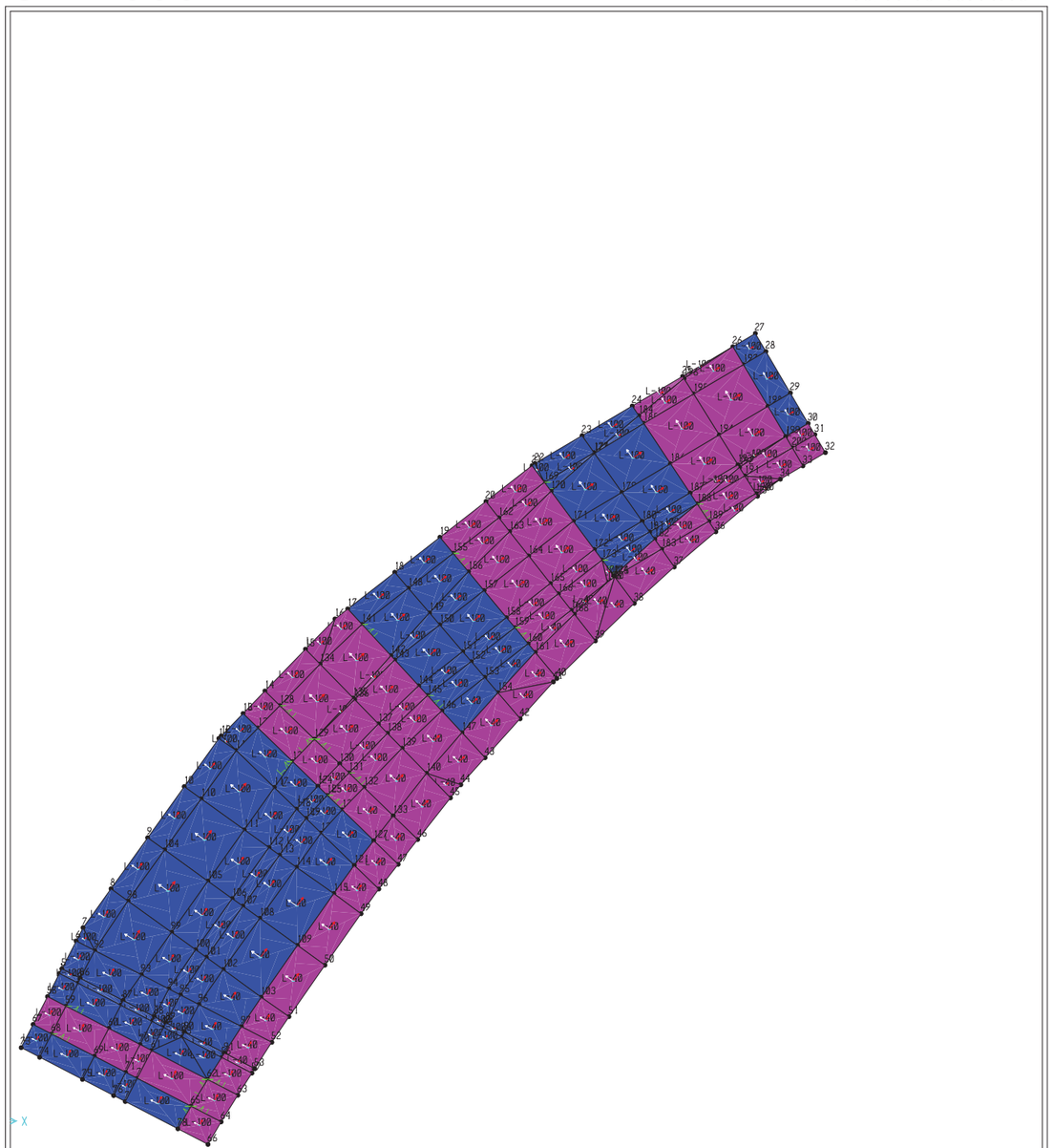
10/11/16 13:43:48



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-1) (GLOBAL - Gravity) - KN, m, C

SAP2000

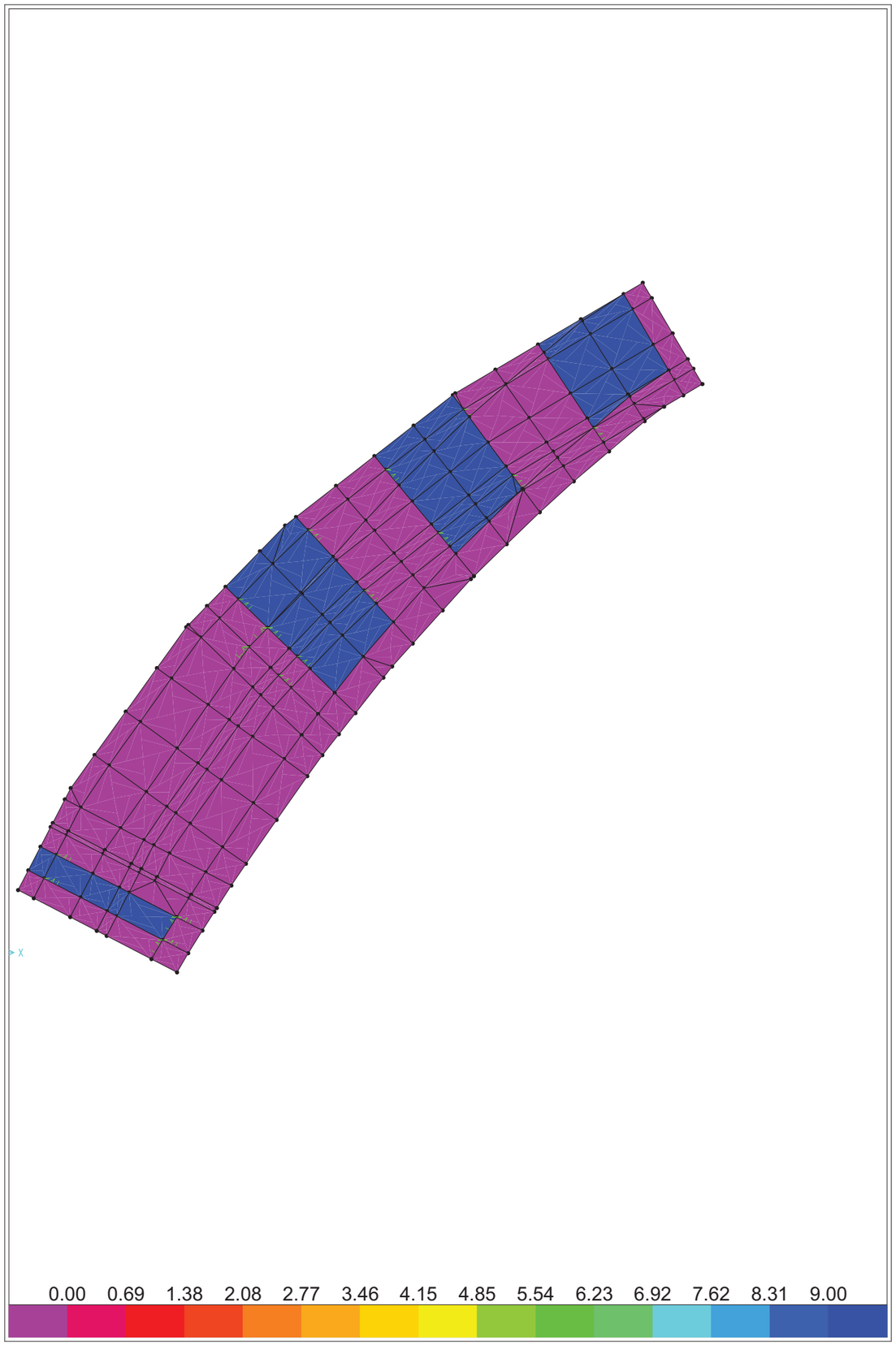
10/11/16 13:44:15



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-2) (GLOBAL - Gravity) - KN, m, C

SAP2000

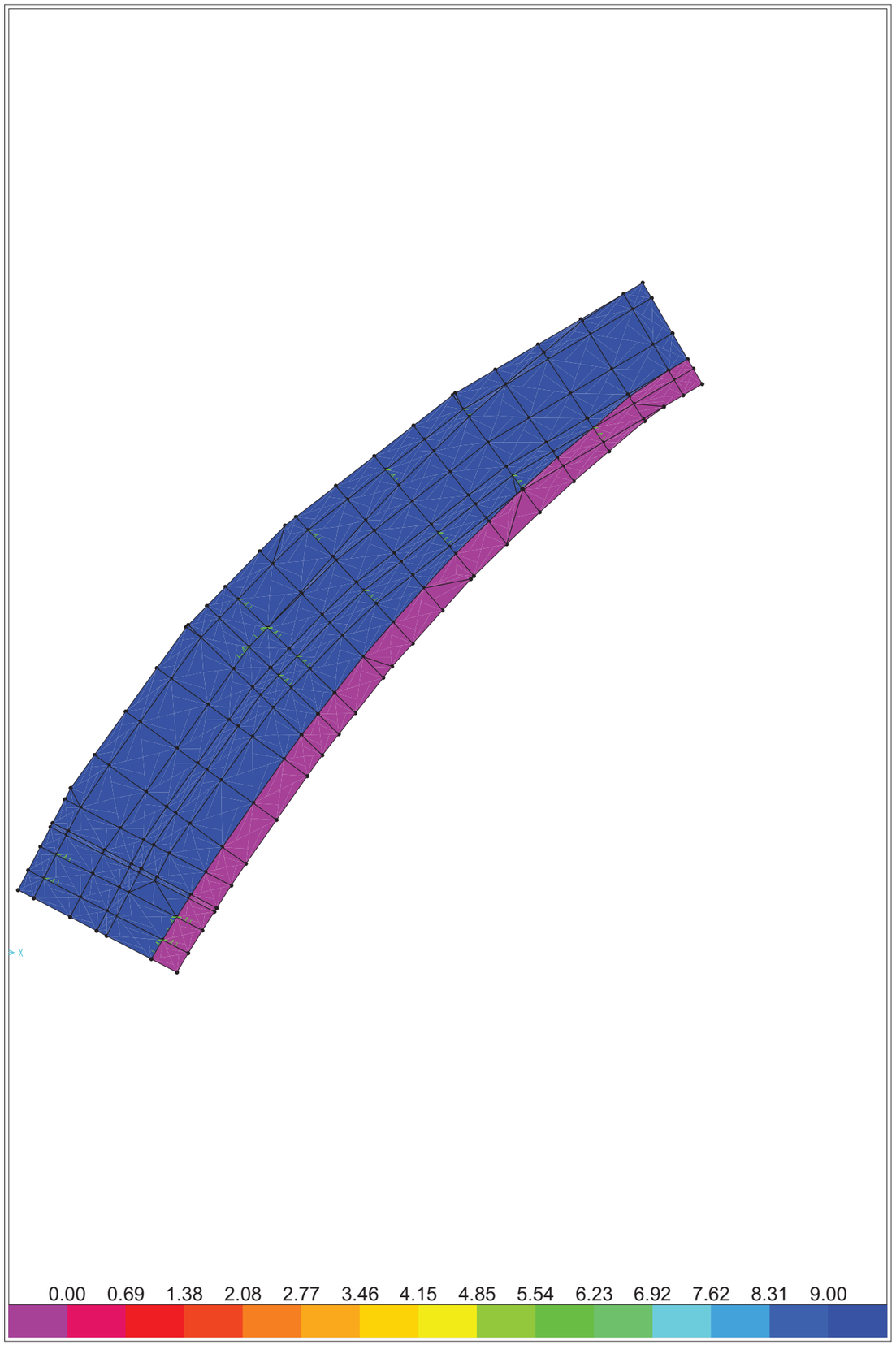
10/11/16 13:45:08



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-3) (GLOBAL - Gravity) - KN, m, C

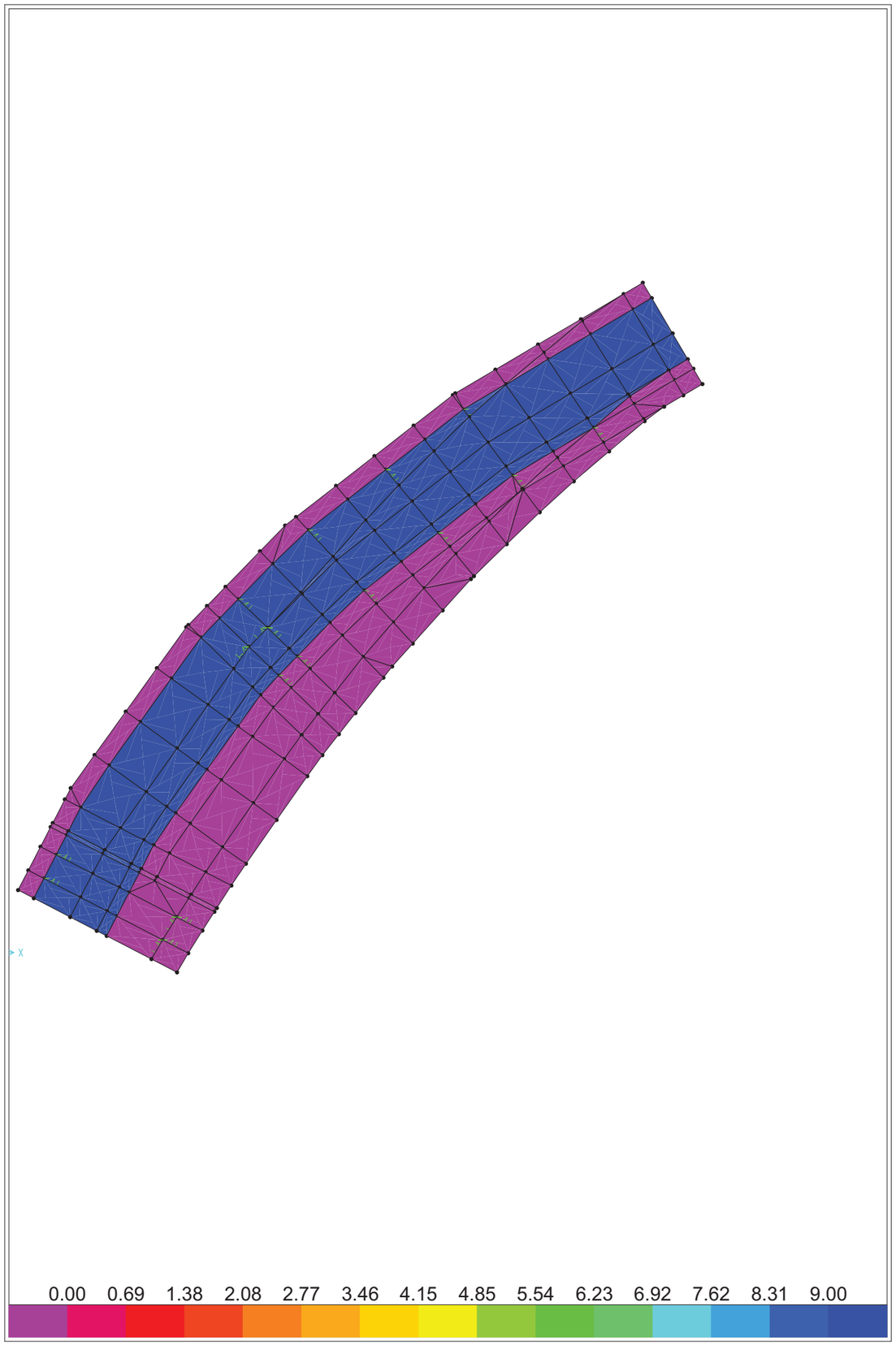
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10/11/16 13:45:30



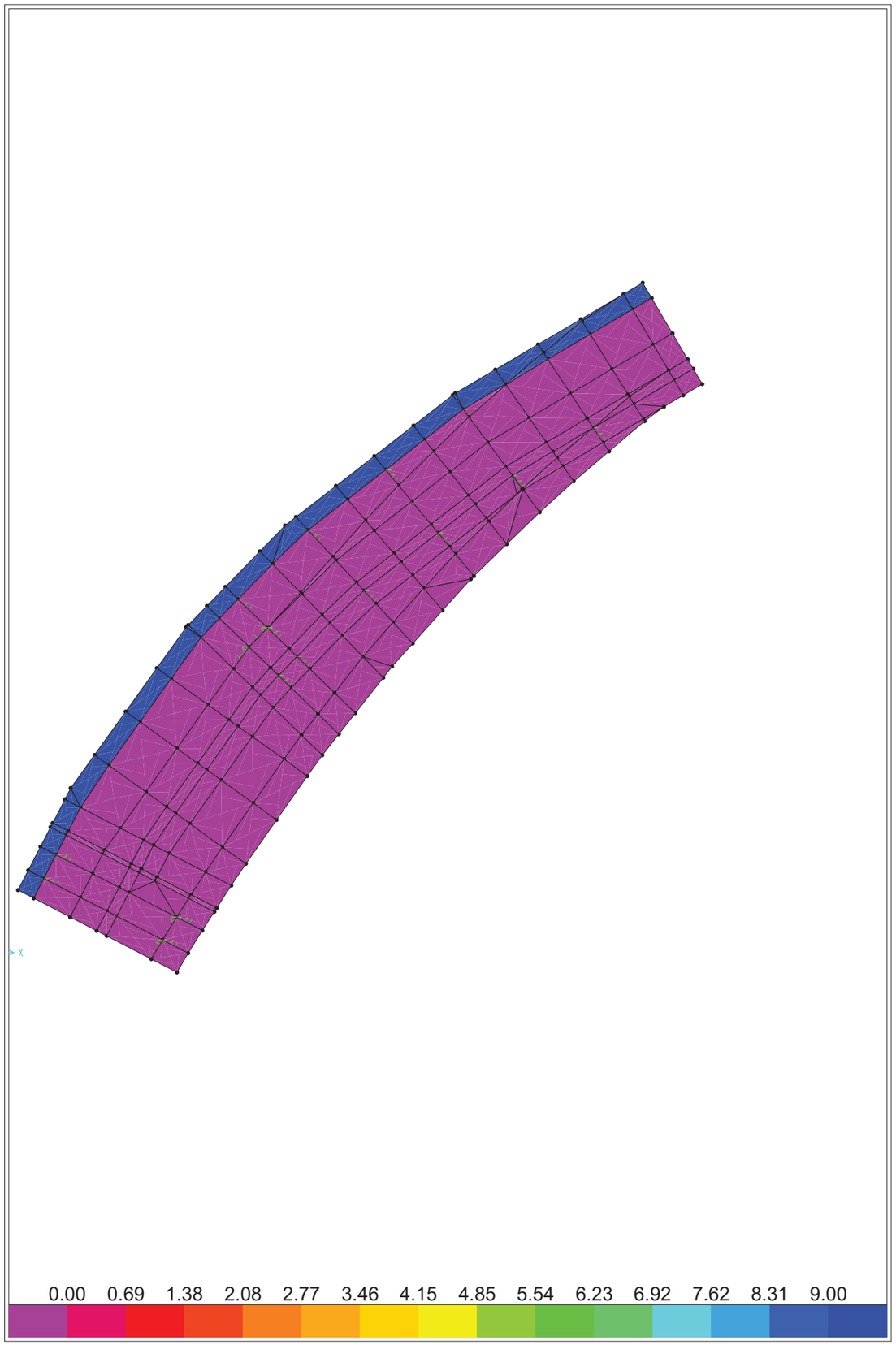
SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-4) (GLOBAL - Gravity) - KN, m, C

SAP2000 10/11/16 13:45:55



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-5) (GLOBAL - Gravity) - KN, m, C

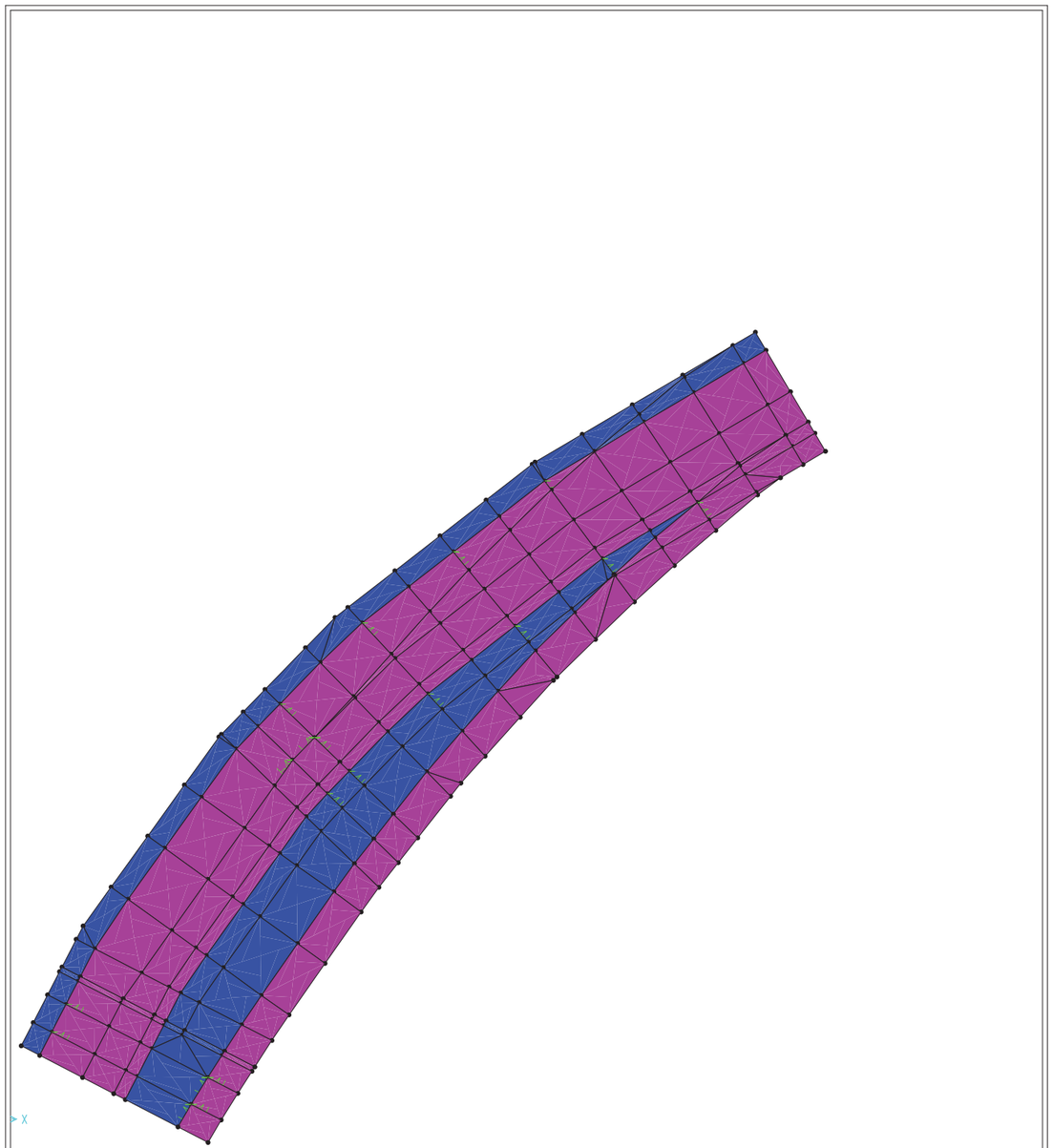
SAP2000 10/11/16 13:46:13

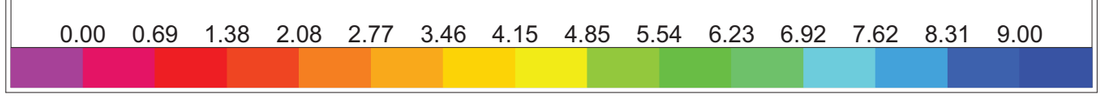


SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-6) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:46:31

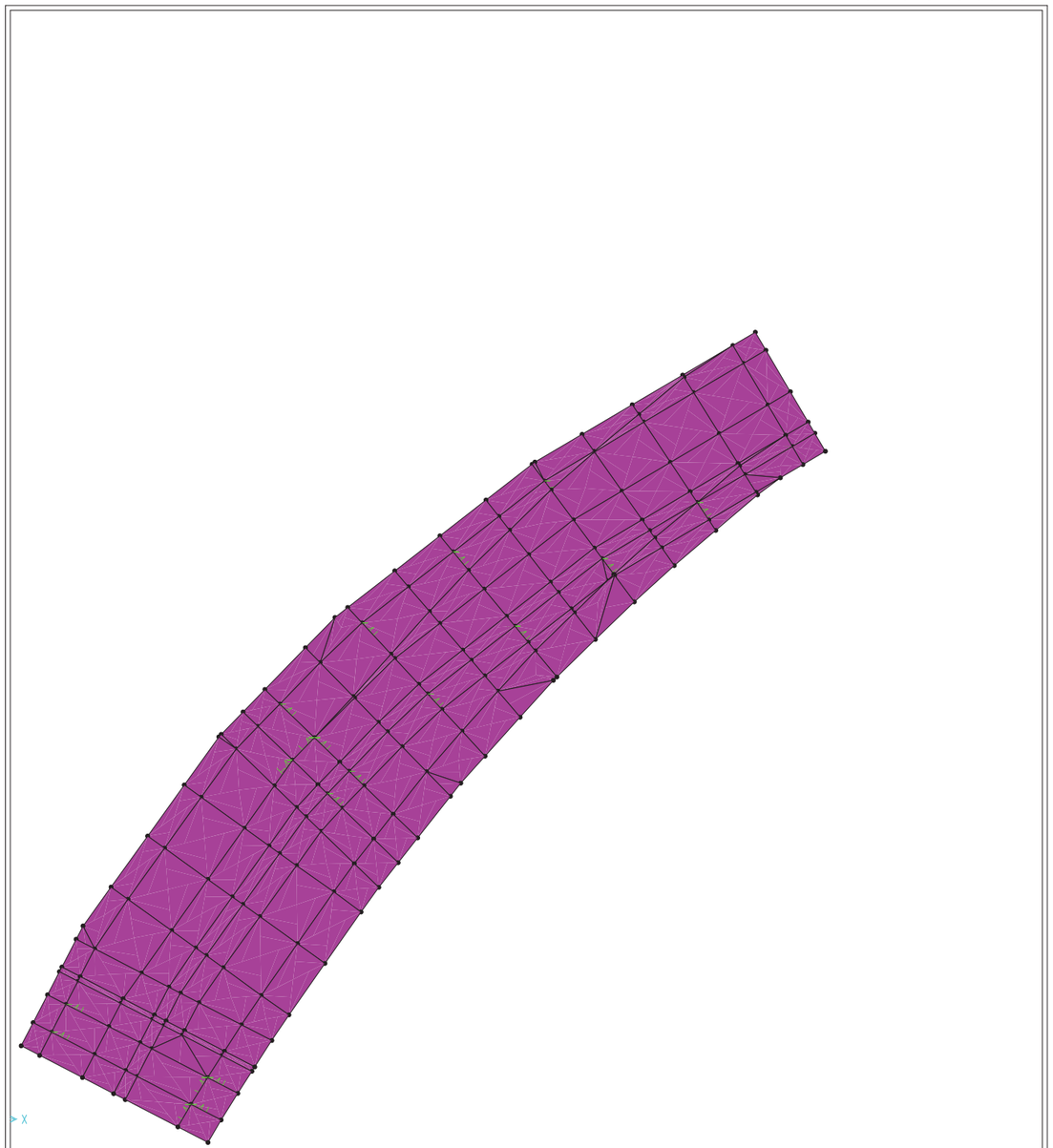


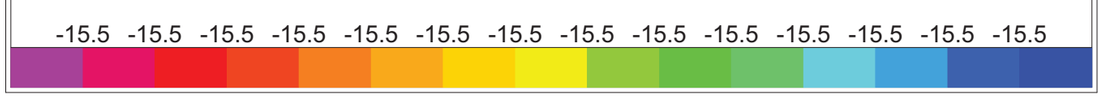


SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Uniform (SCU-7) (GLOBAL - Gravity) - KN, m, C

SAP2000

10/11/16 13:50:09

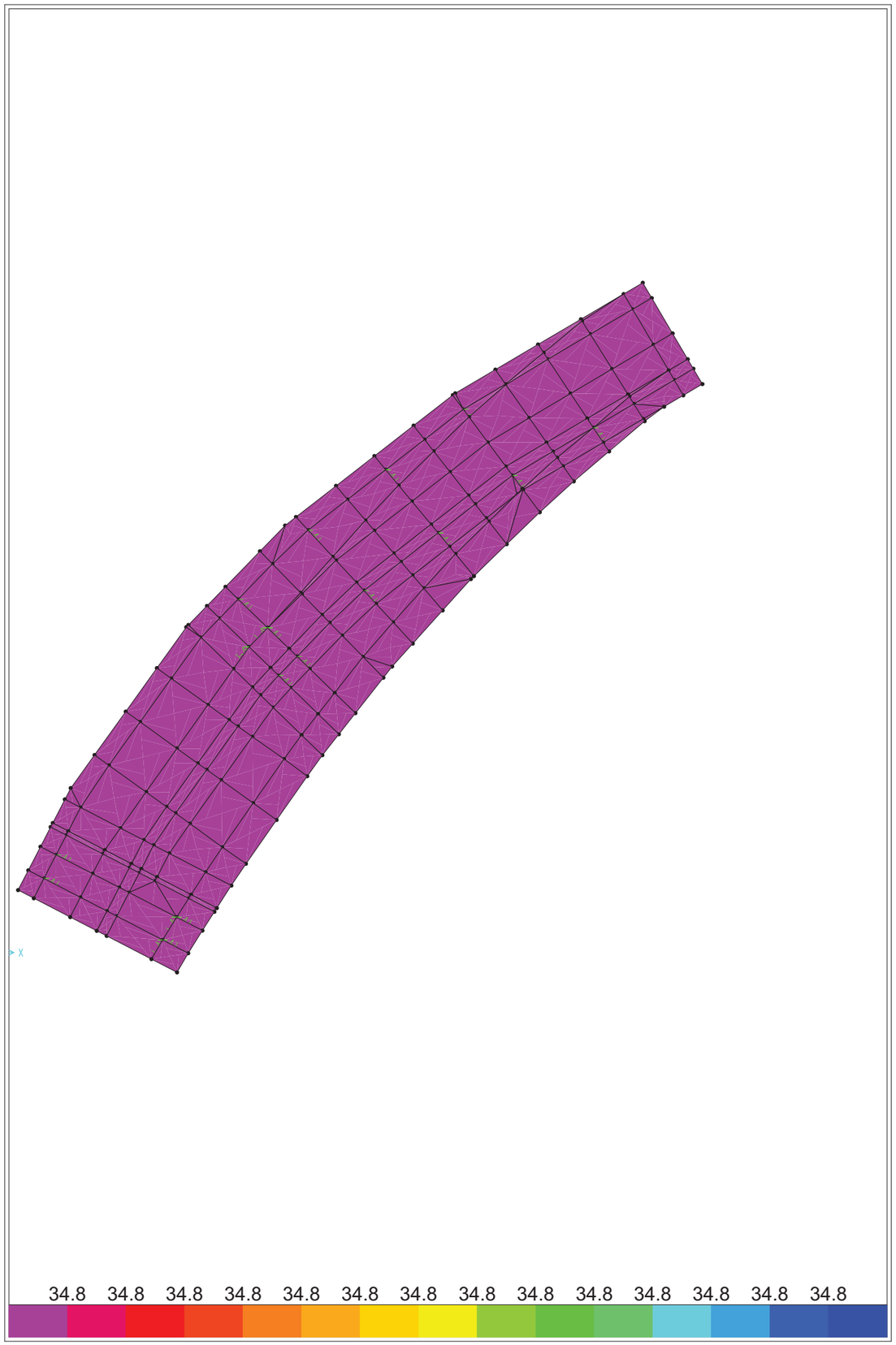




SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Temperatures (TCON) - KN, m, C Units

SAP2000

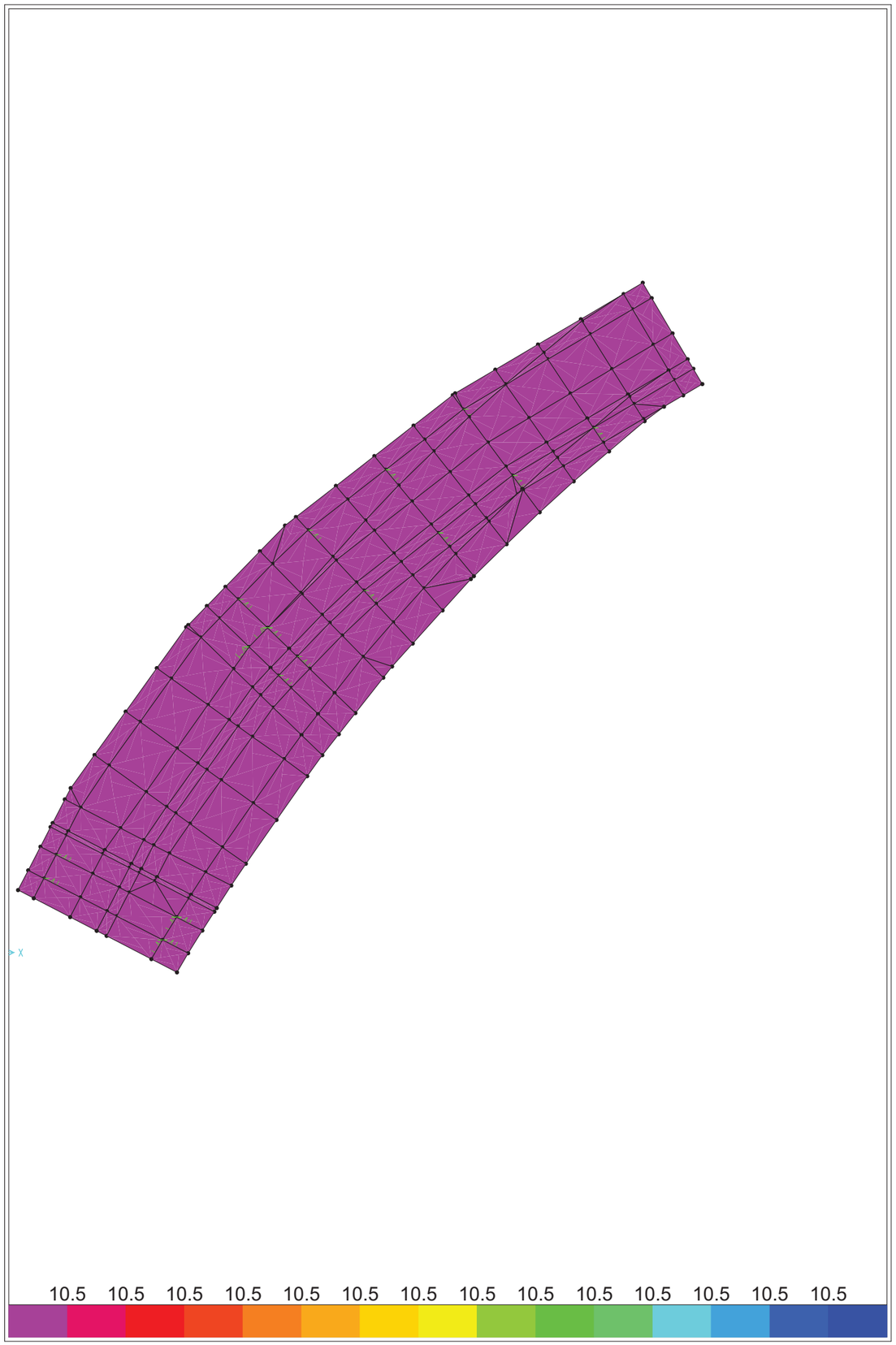
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SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Temperatures (TDIL) - KN, m, C Units

SAP2000

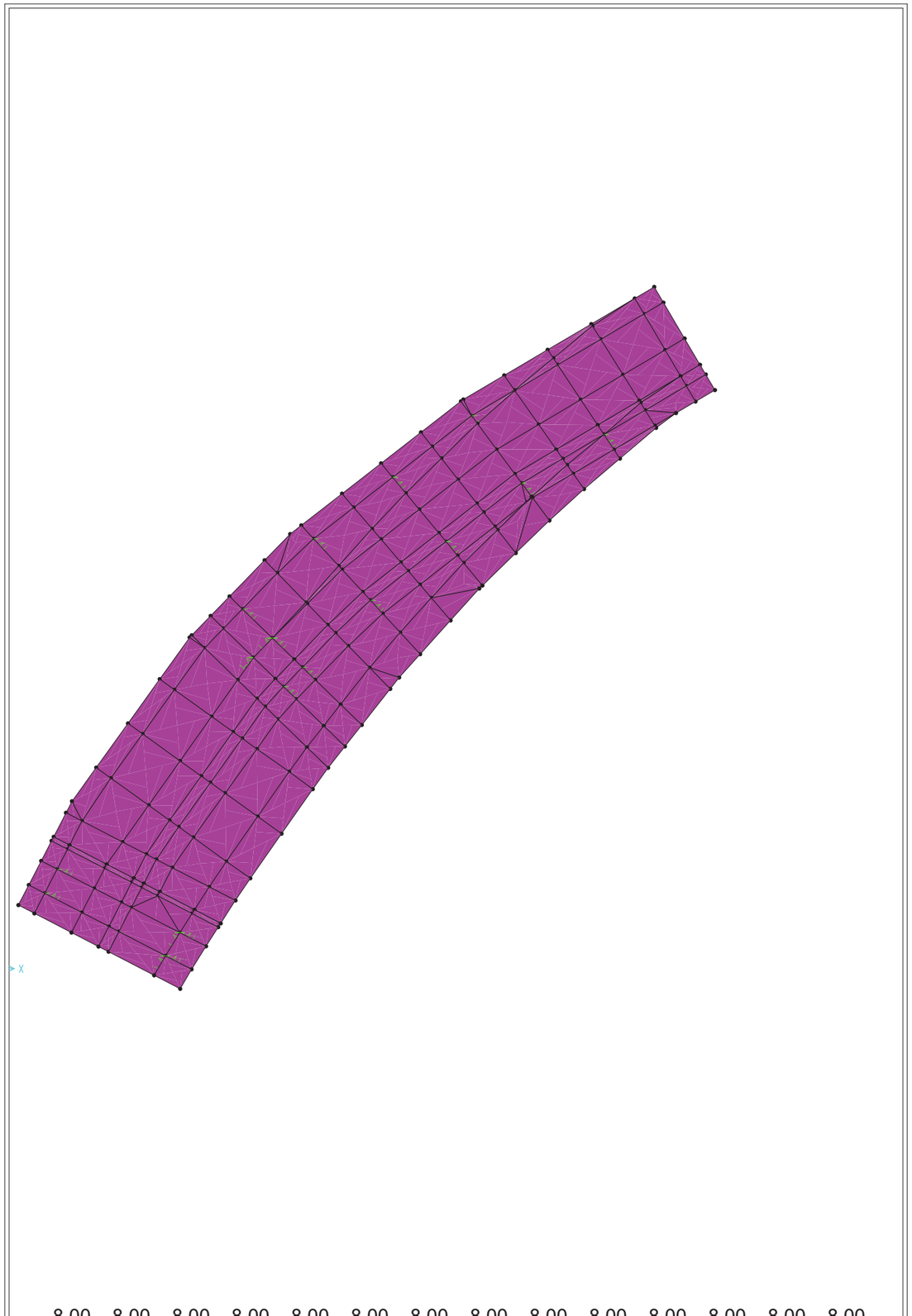
10/11/16 13:50:55



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Temp Gradients 3-3 (TGRAD1) - KN, m, C Units

SAP2000

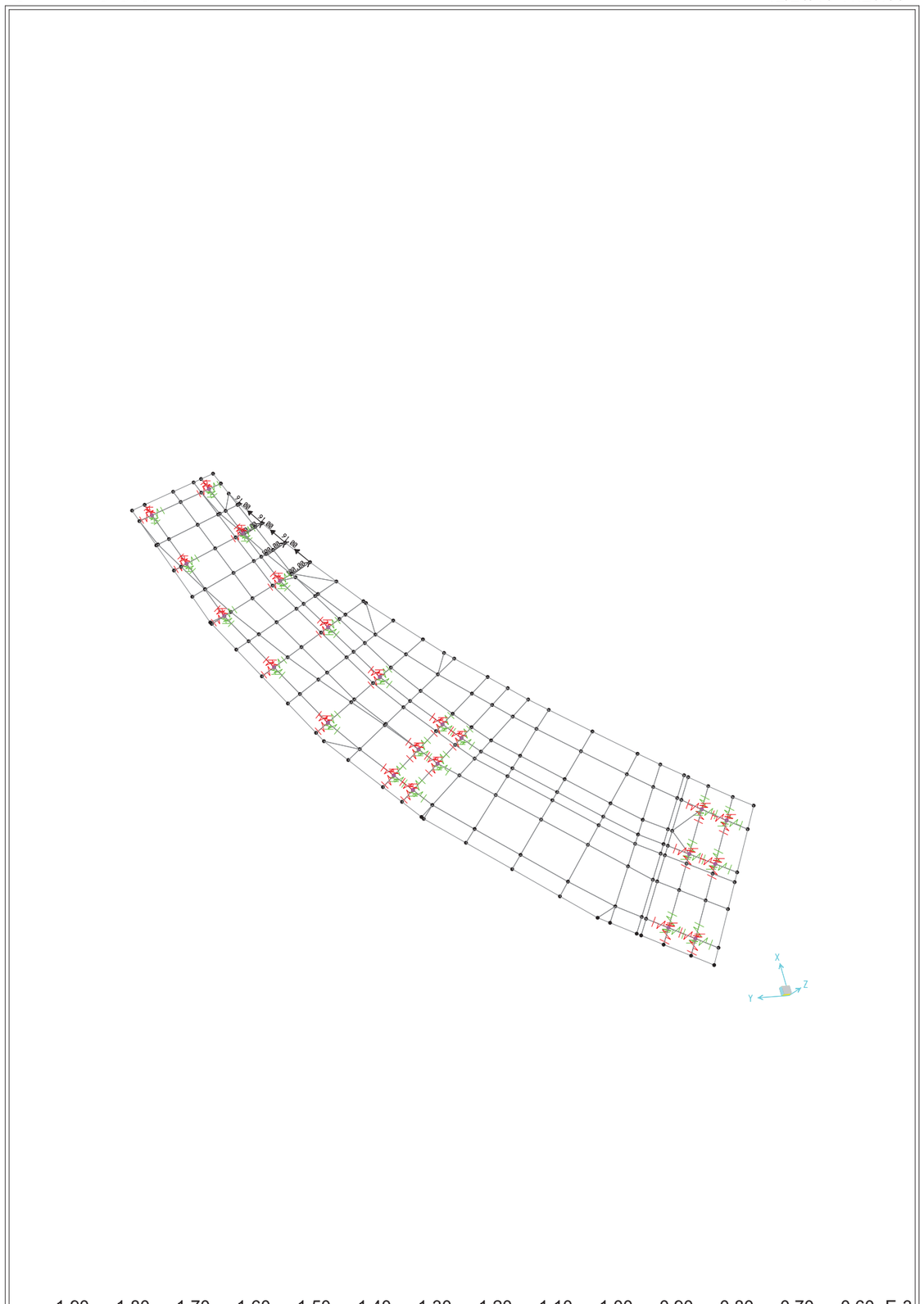
10/11/16 13:51:18



SAP2000 v14.1.0 - File:voladizo2_V08 - Analysis Model - Area Temp Gradients 3-3 (TGRAD2) - KN, m, C Units

SAP2000

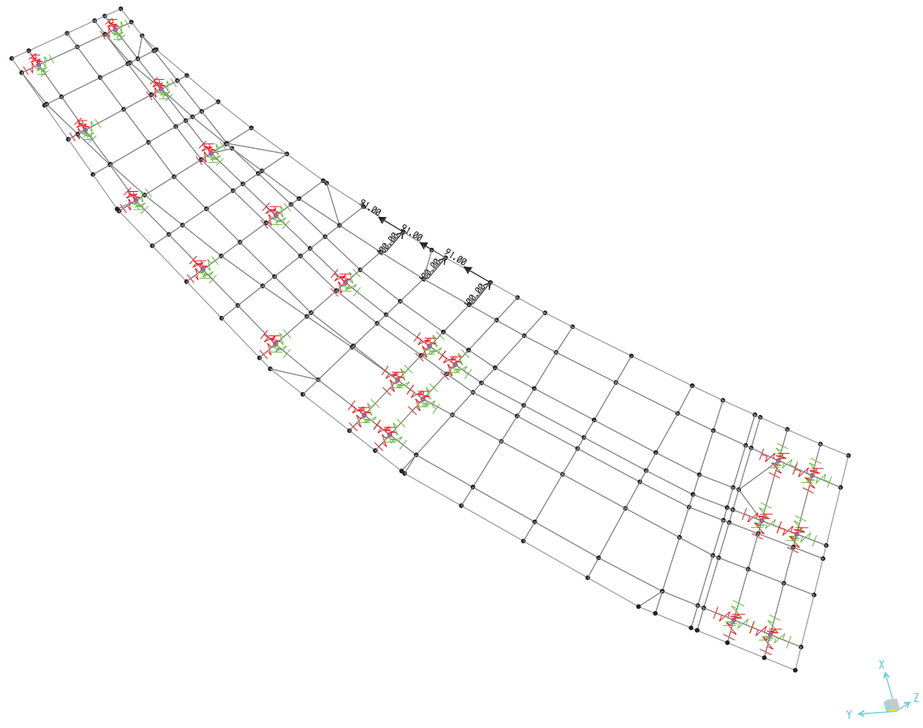
12/20/16 11:29:53



SAP2000 v14.1.0 - File:voladizo2_V09 - Analysis Model - Joint Loads (AC9) - KN, m, C Units

SAP2000

12/20/16 11:30:42

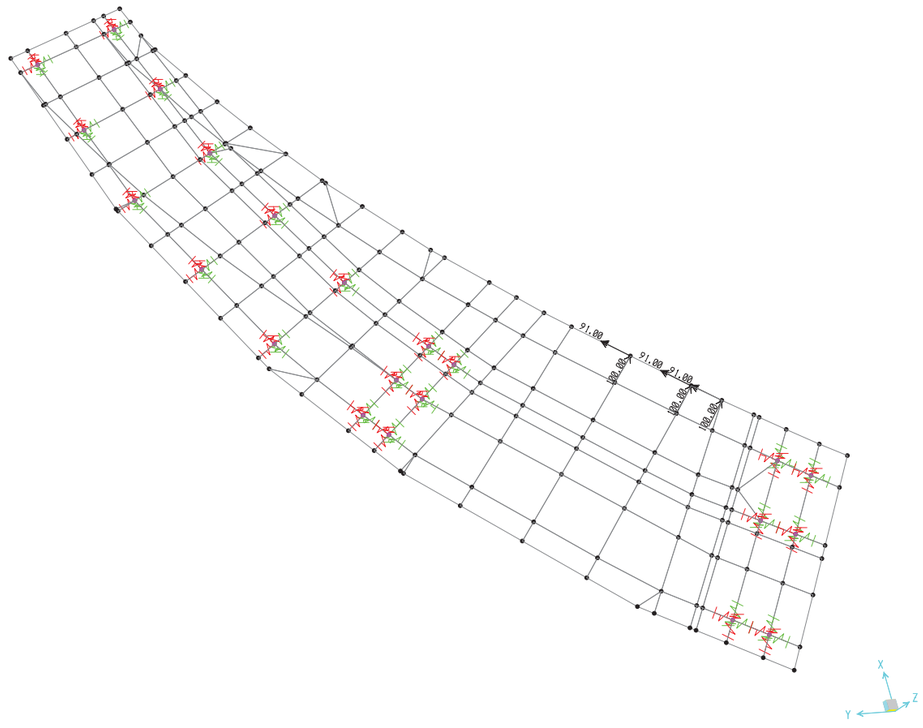


-1.90 -1.80 -1.70 -1.60 -1.50 -1.40 -1.30 -1.20 -1.10 -1.00 -0.90 -0.80 -0.70 -0.60 E-3

SAP2000 v14.1.0 - File:voladizo2_V09 - Analysis Model - Joint Loads (AC6) (As Defined) - KN, m, C Units

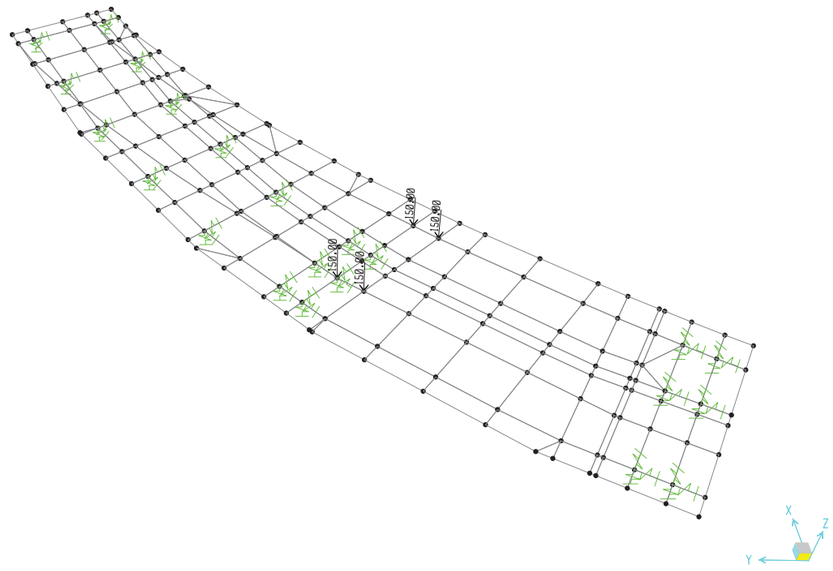
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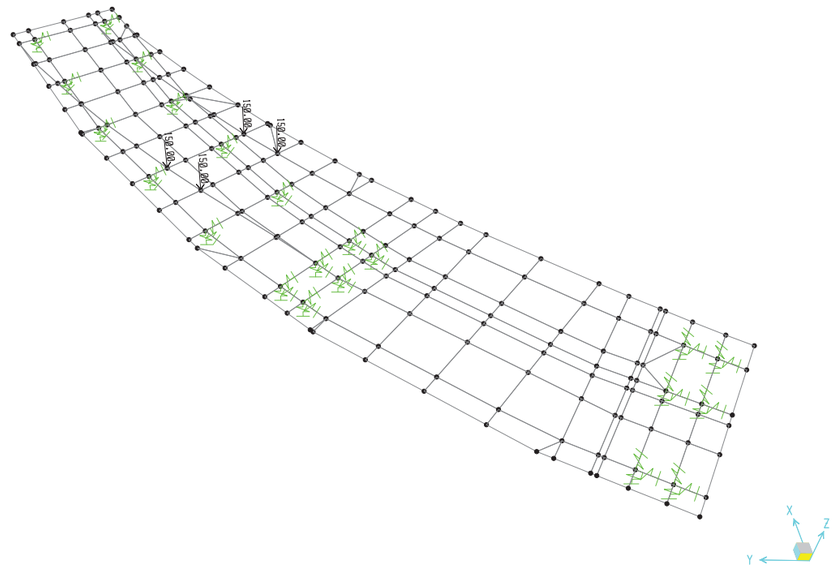
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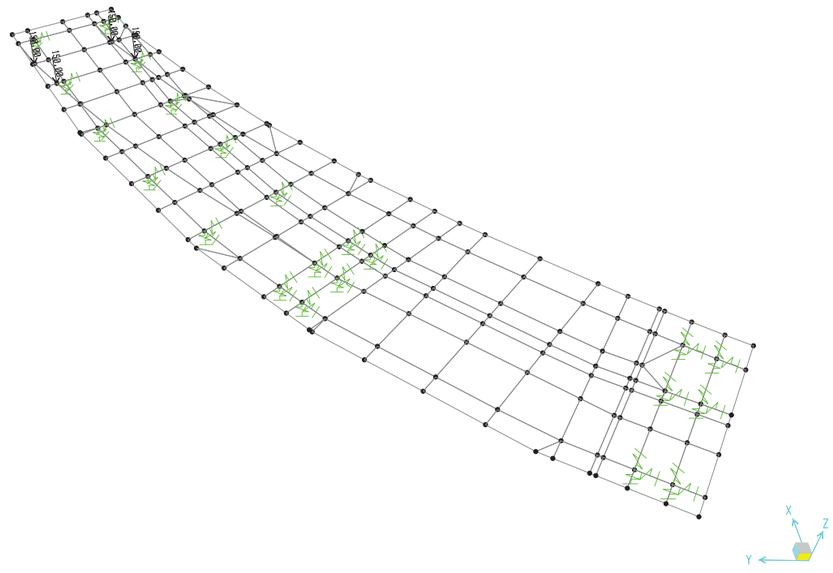


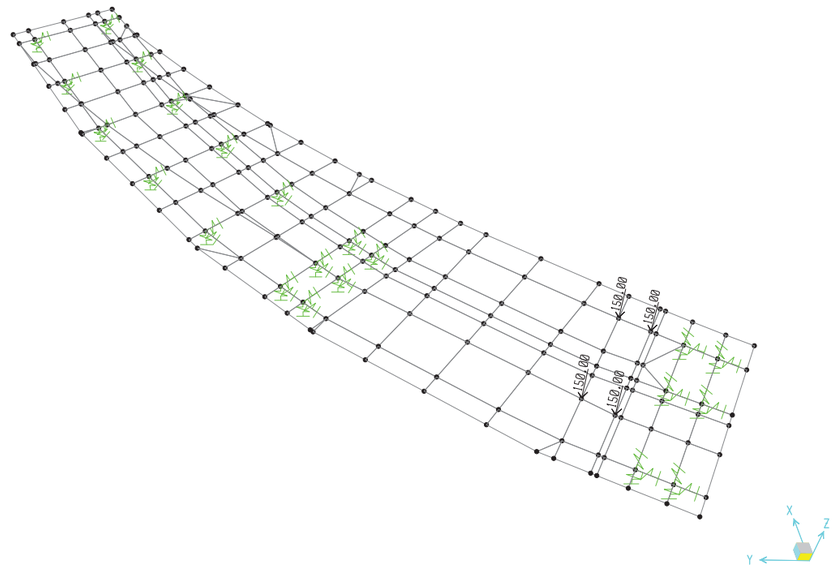
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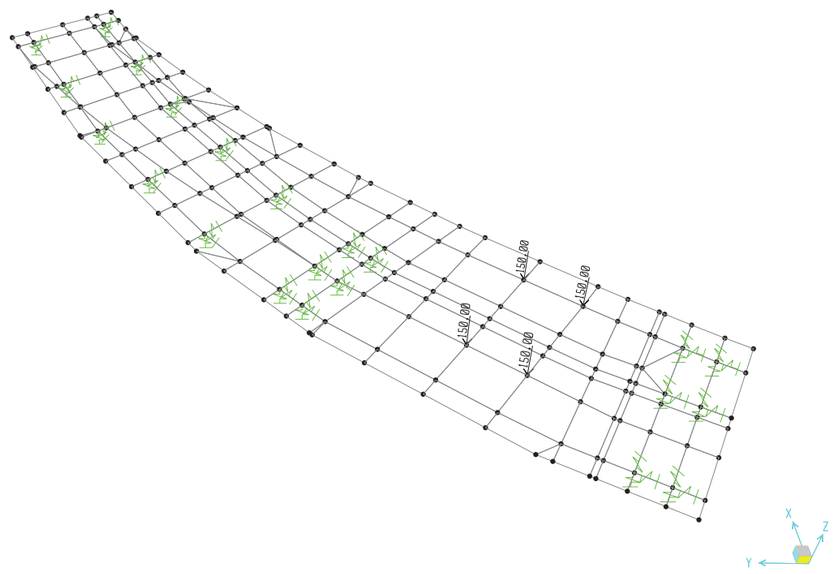
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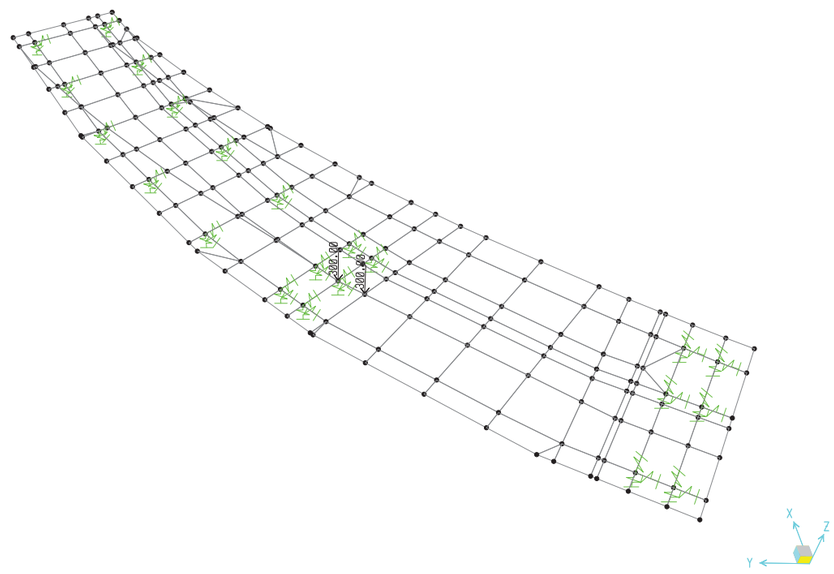

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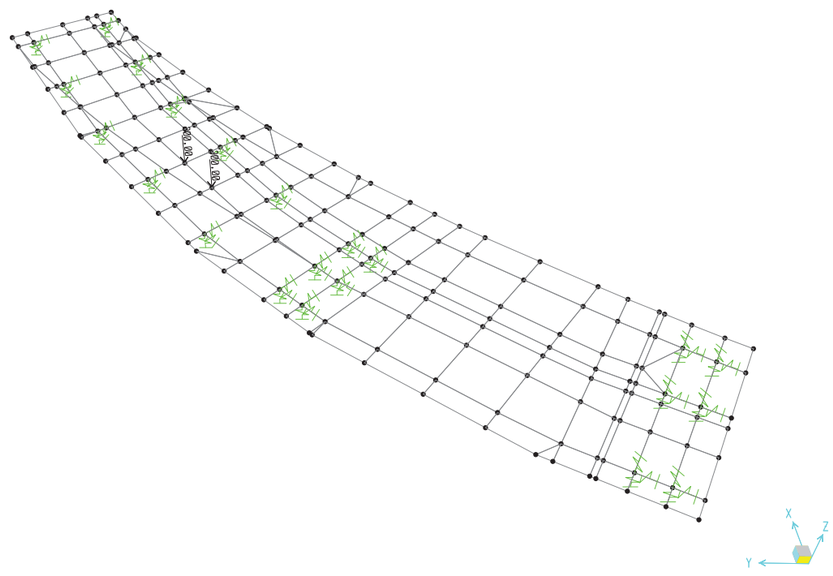

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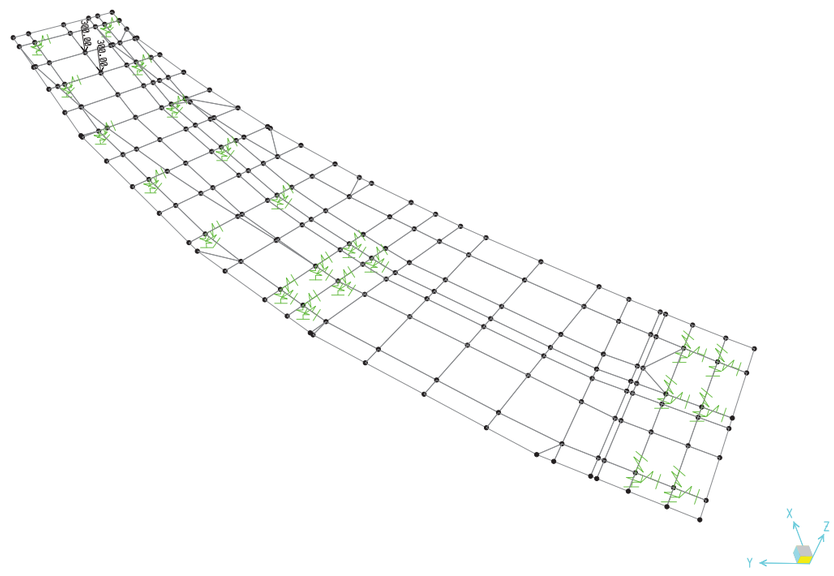

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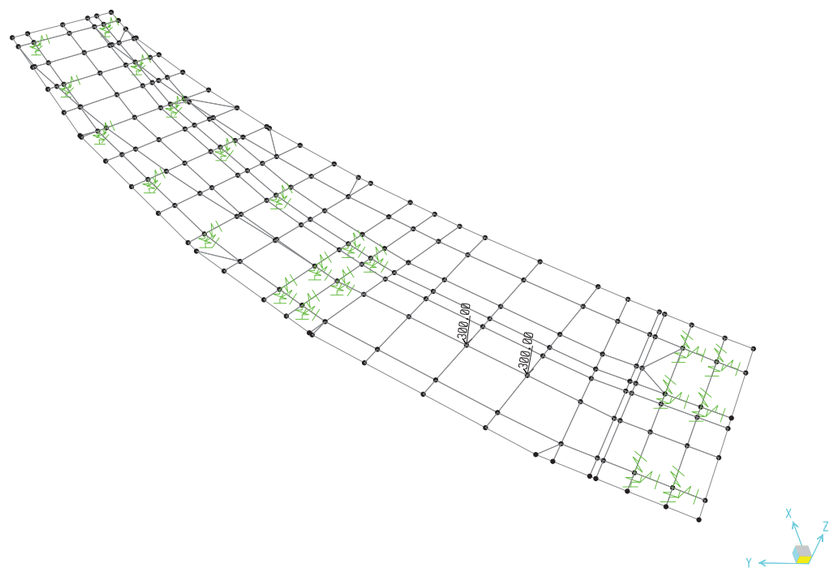

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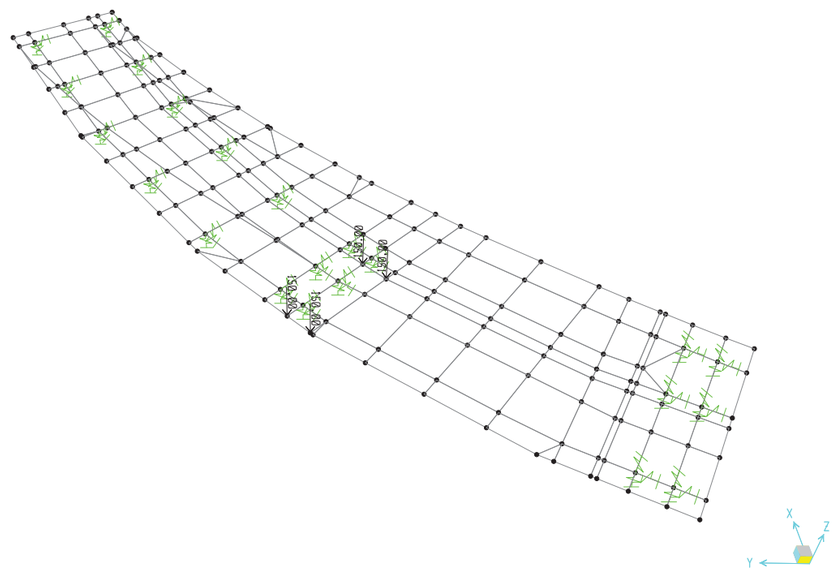

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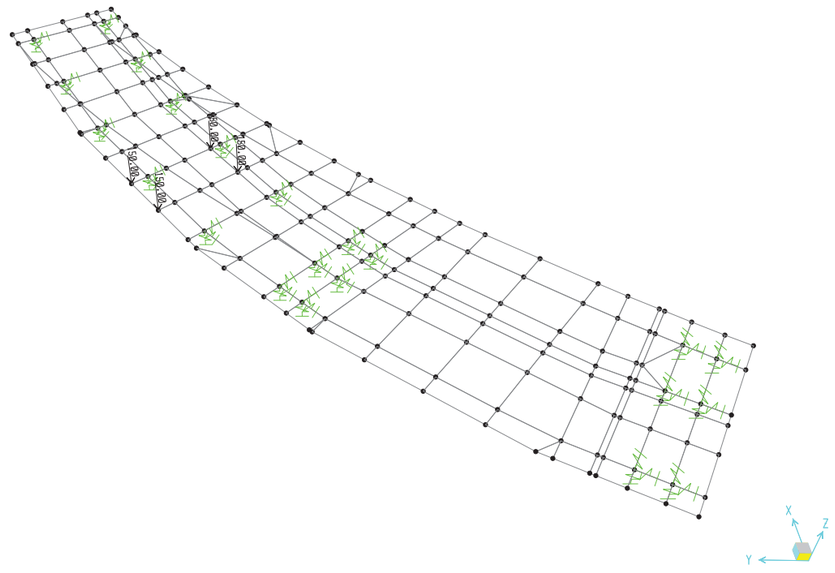

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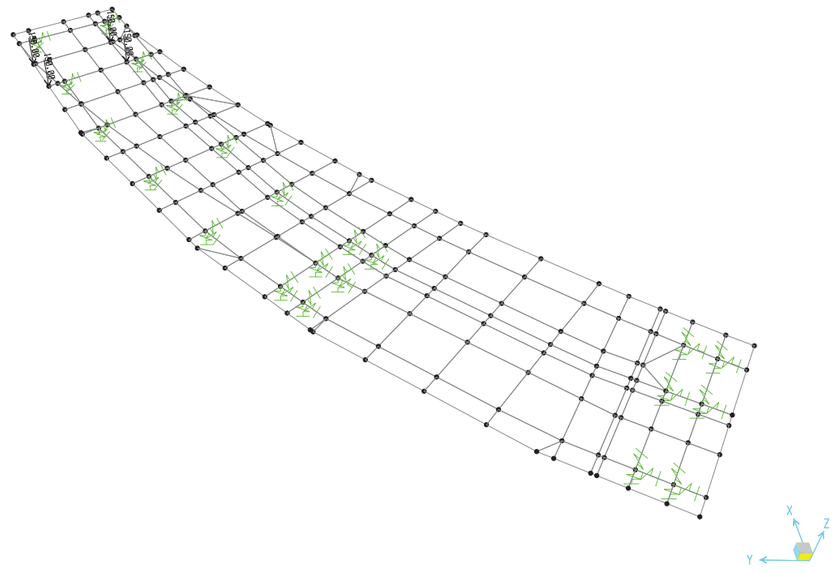

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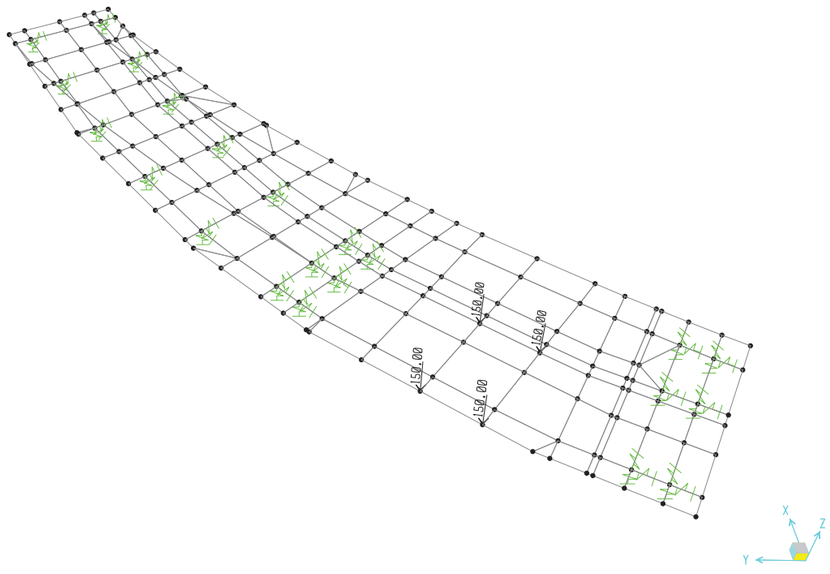

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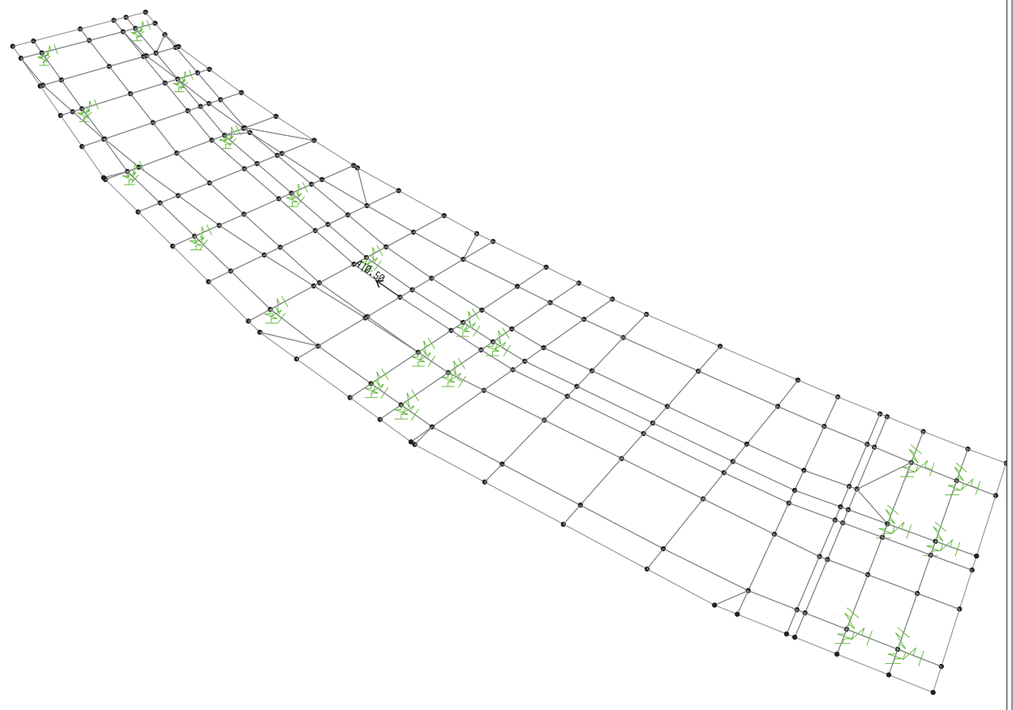

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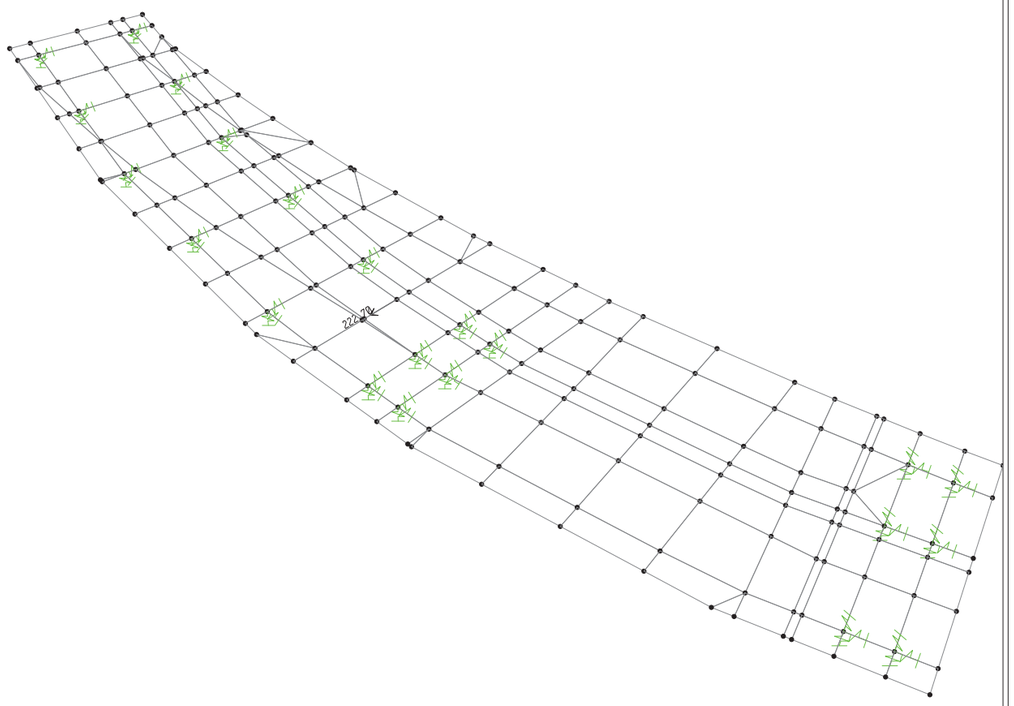

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ANEXO 2 AL APÉNDICE Nº 12.2

RESULTADOS OBTENIDOS DE LOS MODELOS DE CÁLCULO

VOLADIZO Nº1

Table: Joint Reactions, Part 1 of 2

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
8	ENV-ELS-CA	Combination	Max	36.242	40.904	458.614	40.2899	36.0651
8	ENV-ELS-CA	Combination	Min	-47.085	-41.826	49.808	-39.3191	-45.7704
8	ENV-ELS-CP	Combination	Max	12.835	1.961	180.064	3.0783	12.7709
8	ENV-ELS-CP	Combination	Min	-25.540	-3.157	113.199	-1.9228	-24.7355
8	ENV-ELU-PT	Combination	Max	51.243	55.513	624.952	54.5456	50.9698
8	ENV-ELU-PT	Combination	Min	-64.625	-56.614	14.105	-53.3691	-62.8528
8	ENV-ELU-AC	Combination	Max	20.527	15.654	383.456	46.2898	20.2268
8	ENV-ELU-AC	Combination	Min	-27.034	-47.453	85.860	-15.1370	-26.2112
8	ENV-ELU-EQ	Combination	Max	1.703	0.782	509.962	0.3324	3.0075
8	ENV-ELU-EQ	Combination	Min	-0.972	0.114	103.376	-1.0002	-1.3188
8	RH-1	Combination		-26.490	-3.593	8.586	3.4305	-25.5182
8	RH-2	Combination		-42.945	-5.606	13.522	5.3498	-41.3717
8	RH-3	Combination		10.454	0.925	-2.498	-0.8787	10.0757
8	RH-4	Combination		-56.695	-35.004	0.356	33.4946	-54.6369
8	RH-5	Combination		-63.206	47.016	63.358	-44.9752	-60.8648
8	RH-6	Combination		-9.520	-56.618	-40.262	54.1393	-9.1958
8	RH-7	Combination		-16.030	25.402	22.740	-24.3305	-15.4237
8	RH-8	Combination		-51.730	-36.589	-7.086	34.9595	-49.8523
8	RH-9	Combination		-62.327	8.289	37.016	-7.8931	-60.0406
8	RH-10	Combination		-10.398	-17.891	-13.921	17.0572	-10.0201
8	RH-11	Combination		-20.996	26.988	30.182	-25.7954	-20.2084
8	RH-12	Combination		-53.046	-24.657	0.701	23.5239	-51.1129
8	RH-13	Combination		-60.787	-3.249	29.266	3.1634	-58.5636
8	RH-14	Combination		-11.938	-6.353	-6.171	6.0007	-11.4970
8	RH-15	Combination		-19.680	15.055	22.394	-14.3598	-18.9478
8	RH-16	Combination		-56.480	-5.769	15.008	5.4400	-54.4112
8	RH-17	Combination		-58.580	-14.972	21.352	14.4000	-56.4440
8	RH-18	Combination		-14.146	5.370	1.743	-5.2359	-13.6166
8	RH-19	Combination		-16.246	-3.833	8.087	3.7241	-15.6495
8	RH-20	Combination		-24.656	-31.085	-9.257	29.7575	-23.7685
8	RH-21	Combination		-31.166	50.935	53.745	-48.7123	-29.9963
8	RH-22	Combination		22.519	-52.699	-49.875	50.4022	21.6726
8	RH-23	Combination		16.009	29.320	13.127	-28.0676	15.4448
8	RH-24	Combination		-19.691	-32.671	-16.699	31.2224	-18.9838
8	RH-25	Combination		-30.288	12.208	27.404	-11.6302	-29.1721
8	RH-26	Combination		21.641	-13.972	-23.533	13.3201	20.8484
8	RH-27	Combination		11.044	30.906	20.569	-29.5325	10.6601
8	RH-28	Combination		-21.006	-20.739	-8.911	19.7868	-20.2444
8	RH-29	Combination		-28.748	0.670	19.654	-0.5737	-27.6952
8	RH-30	Combination		20.101	-2.434	-15.783	2.2636	19.3715
8	RH-31	Combination		12.359	18.974	12.782	-18.0969	11.9207
8	RH-32	Combination		-24.440	-1.851	5.396	1.7029	-23.5427
8	RH-33	Combination		-26.541	-11.053	11.740	10.6629	-25.5755
8	RH-34	Combination		17.894	9.288	-7.870	-8.9730	17.2519
8	RH-35	Combination		15.794	0.086	-1.525	-0.0130	15.2190
8	RH-36	Combination		-19.622	-2.662	6.360	2.5411	-18.9023
8	RH-37	Combination		-36.077	-4.674	11.297	4.4604	-34.7559
8	RH-38	Combination		17.322	1.857	-4.724	-1.7681	16.6915
8	RH-39	Combination		-49.828	-34.072	-1.870	32.6053	-48.0211
8	RH-40	Combination		-56.338	47.948	61.132	-45.8646	-54.2490
8	RH-41	Combination		-2.652	-55.686	-42.488	53.2499	-2.5800

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
8	RH-42	Combination		-9.163	26.333	20.514	-25.2199	-8.8079
8	RH-43	Combination		-44.862	-35.658	-9.312	34.0701	-43.2364
8	RH-44	Combination		-55.460	9.221	34.790	-8.7825	-53.4247
8	RH-45	Combination		-3.531	-16.959	-16.147	16.1678	-3.4042
8	RH-46	Combination		-14.128	27.919	27.956	-26.6848	-13.5926
8	RH-47	Combination		-46.178	-23.726	-1.525	22.6345	-44.4970
8	RH-48	Combination		-53.920	-2.317	27.040	2.2740	-51.9478
8	RH-49	Combination		-5.071	-5.421	-8.397	5.1113	-4.8812
8	RH-50	Combination		-12.812	15.987	20.168	-15.2492	-12.3320
8	RH-51	Combination		-49.612	-4.838	12.782	4.5507	-47.7953
8	RH-52	Combination		-51.713	-14.040	19.127	13.5106	-49.8282
8	RH-53	Combination		-7.278	6.301	-0.483	-6.1253	-7.0008
8	RH-54	Combination		-9.378	-2.901	5.861	2.8347	-9.0336
8	RH-55	Combination		-17.788	-30.153	-11.483	28.8681	-17.1526
8	RH-56	Combination		-24.298	51.866	51.519	-49.6017	-23.3805
8	RH-57	Combination		29.387	-51.768	-52.101	49.5128	28.2884
8	RH-58	Combination		22.877	30.252	10.901	-28.9570	22.0606
8	RH-59	Combination		-12.823	-31.739	-18.925	30.3330	-12.3680
8	RH-60	Combination		-23.420	13.139	25.178	-12.5196	-22.5563
8	RH-61	Combination		28.509	-13.041	-25.759	12.4307	27.4642
8	RH-62	Combination		17.911	31.838	18.343	-30.4219	17.2759
8	RH-63	Combination		-14.138	-19.807	-11.137	18.8974	-13.6286
8	RH-64	Combination		-21.880	1.601	17.428	-1.4631	-21.0794
8	RH-65	Combination		26.969	-1.503	-18.009	1.3742	25.9873
8	RH-66	Combination		19.227	19.906	10.556	-18.9863	18.5365
8	RH-67	Combination		-17.573	-0.919	3.170	0.8135	-16.9269
8	RH-68	Combination		-19.673	-10.121	9.514	9.7735	-18.9597
8	RH-69	Combination		24.762	10.220	-10.095	-9.8624	23.8677
8	RH-70	Combination		22.661	1.018	-3.751	-0.9024	21.8348
8	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
8	RH-72	Combination		-16.455	-2.013	4.937	1.9193	-15.8536
8	RH-73	Combination		36.944	4.518	-11.084	-4.3092	35.5939
8	RH-74	Combination		-30.206	-31.410	-8.230	30.0642	-29.1188
8	RH-75	Combination		-36.716	50.609	54.772	-48.4057	-35.3466
8	RH-76	Combination		16.970	-53.025	-48.848	50.7088	16.3223
8	RH-77	Combination		10.460	28.995	14.154	-27.7610	10.0945
8	RH-78	Combination		-25.240	-32.996	-15.672	31.5290	-24.3341
8	RH-79	Combination		-35.837	11.882	28.431	-11.3236	-34.5224
8	RH-80	Combination		16.091	-14.297	-22.506	13.6268	15.4981
8	RH-81	Combination		5.494	30.581	21.596	-29.2258	5.3098
8	RH-82	Combination		-26.556	-21.064	-7.884	20.0935	-25.5947
8	RH-83	Combination		-34.298	0.344	20.681	-0.2670	-33.0455
8	RH-84	Combination		14.552	-2.759	-14.756	2.5702	14.0212
8	RH-85	Combination		6.810	18.649	13.809	-17.7903	6.5704
8	RH-86	Combination		-29.990	-2.176	6.423	2.0096	-28.8930
8	RH-87	Combination		-32.090	-11.378	12.767	10.9695	-30.9258
8	RH-88	Combination		12.344	8.963	-6.843	-8.6663	11.9015
8	RH-89	Combination		10.244	-0.239	-0.498	0.2936	9.8687
8	RH-90	Combination		1.834	-27.492	-17.842	26.3271	1.7497
8	RH-91	Combination		-4.676	54.528	45.160	-52.1428	-4.4782
8	RH-92	Combination		49.009	-49.106	-58.460	46.9717	47.1908
8	RH-93	Combination		42.499	32.914	4.542	-31.4981	40.9629
8	RH-94	Combination		6.799	-29.077	-25.284	27.7919	6.5344
8	RH-95	Combination		-3.798	15.801	18.818	-15.0607	-3.6539
8	RH-96	Combination		48.131	-10.379	-32.119	9.8897	46.3666
8	RH-97	Combination		37.534	34.500	11.984	-32.9629	36.1783
8	RH-98	Combination		5.484	-17.145	-17.497	16.3564	5.2738
8	RH-99	Combination		-2.258	4.263	11.068	-4.0041	-2.1770
8	RH-100	Combination		46.591	1.159	-24.369	-1.1669	44.8896
8	RH-101	Combination		38.849	22.567	4.196	-21.5274	37.4389
8	RH-102	Combination		2.049	1.743	-3.190	-1.7275	1.9755
8	RH-103	Combination		-0.051	-7.460	3.154	7.2324	-0.0574

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
8	RH-104	Combination		44.384	12.882	-16.455	-12.4035	42.7700
8	RH-105	Combination		42.284	3.679	-10.111	-3.4435	40.7372
8	RH-106	Combination		-16.262	-46.792	12.588	45.4215	-15.6722
8	RH-107	Combination		-16.585	-39.798	4.400	38.4628	-16.0167
8	RH-108	Combination		-16.452	-33.405	-0.164	32.1968	-15.8678
8	RH-109	Combination		-14.500	-24.674	-0.592	23.7458	-13.9819
8	RH-110	Combination		-15.530	-15.903	-1.067	15.2560	-14.9660
8	RH-111	Combination		-16.239	-10.423	0.181	9.9744	-15.6460
8	RH-112	Combination		-17.798	-4.072	2.832	3.8647	-17.1448
8	RH-113	Combination		-18.630	1.789	6.213	-1.7578	-17.9433
8	RH-114	Combination		-19.278	6.207	8.928	-5.9937	-18.5649
8	RH-115	Combination		-19.938	10.706	11.840	-10.3063	-19.1973
8	RH-116	Combination		-22.844	-47.597	14.563	46.1892	-22.0136
8	RH-117	Combination		-23.167	-40.603	6.375	39.2306	-22.3581
8	RH-118	Combination		-23.034	-34.210	1.811	32.9645	-22.2093
8	RH-119	Combination		-21.082	-25.479	1.383	24.5135	-20.3234
8	RH-120	Combination		-22.112	-16.708	0.908	16.0238	-21.3074
8	RH-121	Combination		-22.821	-11.228	2.155	10.7421	-21.9874
8	RH-122	Combination		-24.380	-4.877	4.807	4.6325	-23.4862
8	RH-123	Combination		-25.212	0.984	8.188	-0.9900	-24.2847
8	RH-124	Combination		-25.860	5.402	10.903	-5.2260	-24.9063
8	RH-125	Combination		-26.520	9.901	13.814	-9.5386	-25.5388
8	RH-126	Combination		-1.484	-44.985	8.155	43.6978	-1.4347
8	RH-127	Combination		-1.808	-37.990	-0.034	36.7391	-1.7791
8	RH-128	Combination		-1.674	-31.598	-4.597	30.4731	-1.6303
8	RH-129	Combination		0.278	-22.866	-5.026	22.0221	0.2556
8	RH-130	Combination		-0.753	-14.095	-5.501	13.5324	-0.7284
8	RH-131	Combination		-1.461	-8.616	-4.253	8.2507	-1.4084
8	RH-132	Combination		-3.020	-2.264	-1.601	2.1411	-2.9072
8	RH-133	Combination		-3.853	3.597	1.780	-3.4814	-3.7057
8	RH-134	Combination		-4.501	8.014	4.495	-7.7174	-4.3273
8	RH-135	Combination		-5.160	12.513	7.406	-12.0300	-4.9598
8	RH-136	Combination		3.360	-44.130	6.228	42.8804	3.2301
8	RH-137	Combination		3.037	-37.136	-1.960	35.9217	2.8857
8	RH-138	Combination		3.170	-30.744	-6.524	29.6557	3.0345
8	RH-139	Combination		5.122	-22.012	-6.952	21.2047	4.9204
8	RH-140	Combination		4.092	-13.241	-7.427	12.7150	3.9364
8	RH-141	Combination		3.383	-7.762	-6.179	7.4333	3.2564
8	RH-142	Combination		1.824	-1.410	-3.527	1.3237	1.7575
8	RH-143	Combination		0.992	4.451	-0.147	-4.2988	0.9591
8	RH-144	Combination		0.344	8.868	2.569	-8.5348	0.3375
8	RH-145	Combination		-0.315	13.367	5.480	-12.8474	-0.2950
8	RH-146	Combination		-3.222	-44.935	8.203	43.6481	-3.1113
8	RH-147	Combination		-3.545	-37.941	0.015	36.6895	-3.4557
8	RH-148	Combination		-3.412	-31.549	-4.549	30.4234	-3.3069
8	RH-149	Combination		-1.460	-22.817	-4.977	21.9724	-1.4210
8	RH-150	Combination		-2.490	-14.046	-5.452	13.4827	-2.4051
8	RH-151	Combination		-3.199	-8.567	-4.204	8.2011	-3.0851
8	RH-152	Combination		-4.758	-2.215	-1.553	2.0914	-4.5839
8	RH-153	Combination		-5.590	3.646	1.828	-3.5311	-5.3824
8	RH-154	Combination		-6.238	8.063	4.543	-7.7671	-6.0040
8	RH-155	Combination		-6.897	12.562	7.455	-12.0796	-6.6364
8	RH-156	Combination		18.138	-42.323	1.795	41.1567	17.4677
8	RH-157	Combination		17.814	-35.329	-6.393	34.1981	17.1232
8	RH-158	Combination		17.948	-28.936	-10.957	27.9320	17.2721
8	RH-159	Combination		19.900	-20.205	-11.386	19.4810	19.1580
8	RH-160	Combination		18.870	-11.433	-11.860	10.9913	18.1739
8	RH-161	Combination		18.161	-5.954	-10.613	5.7097	17.4939
8	RH-162	Combination		16.602	0.397	-7.961	-0.4000	15.9951
8	RH-163	Combination		15.769	6.258	-4.580	-6.0225	15.1966
8	RH-164	Combination		15.121	10.676	-1.865	-10.2585	14.5750
8	RH-165	Combination		14.462	15.175	1.046	-14.5711	13.9426

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
11	ENV-ELS-CA	Combination	Max	40.495	42.917	491.575	41.1236	40.2298
11	ENV-ELS-CA	Combination	Min	-52.888	-42.636	43.715	-41.4772	-51.3137
11	ENV-ELS-CP	Combination	Max	12.902	3.633	199.215	3.7892	12.8836
11	ENV-ELS-CP	Combination	Min	-27.176	-3.833	111.546	-3.6474	-26.2587
11	ENV-ELU-PT	Combination	Max	56.980	58.532	671.160	55.8035	56.5909
11	ENV-ELU-PT	Combination	Min	-72.459	-57.834	-1.709	-56.5928	-70.3354
11	ENV-ELU-AC	Combination	Max	23.473	17.660	411.284	46.5099	23.0906
11	ENV-ELU-AC	Combination	Min	-31.572	-47.954	62.692	-17.1602	-30.5429
11	ENV-ELU-EQ	Combination	Max	1.829	0.820	528.668	0.3072	3.1834
11	ENV-ELU-EQ	Combination	Min	-0.925	0.101	77.840	-1.1845	-1.1934
11	RH-1	Combination		-28.795	-3.555	14.299	3.3978	-27.7439
11	RH-2	Combination		-45.248	-7.693	22.798	7.3710	-43.5949
11	RH-3	Combination		8.145	5.734	-4.782	-5.5227	7.8441
11	RH-4	Combination		-56.324	-36.262	46.909	34.7207	-54.2707
11	RH-5	Combination		-71.119	45.762	-2.842	-43.7597	-68.5191
11	RH-6	Combination		-6.213	-57.837	41.638	55.3231	-5.9900
11	RH-7	Combination		-21.009	24.187	-8.113	-23.1573	-20.2384
11	RH-8	Combination		-52.516	-37.832	49.512	36.1698	-50.6058
11	RH-9	Combination		-65.560	7.047	19.401	-6.6868	-63.1637
11	RH-10	Combination		-11.773	-19.123	19.396	18.2502	-11.3454
11	RH-11	Combination		-24.816	25.757	-10.716	-24.6064	-23.9033
11	RH-12	Combination		-55.426	-25.900	43.849	24.7335	-53.4092
11	RH-13	Combination		-62.529	-4.491	24.849	4.3704	-60.2436
11	RH-14	Combination		-14.803	-7.585	13.948	7.1930	-14.2654
11	RH-15	Combination		-21.907	13.825	-5.053	-13.1701	-21.0999
11	RH-16	Combination		-60.850	-7.012	34.167	6.6485	-58.6339
11	RH-17	Combination		-58.811	-16.213	29.899	15.6073	-56.6606
11	RH-18	Combination		-18.522	4.138	8.898	-4.0439	-17.8485
11	RH-19	Combination		-16.483	-5.063	4.629	4.9149	-15.8752
11	RH-20	Combination		-24.289	-28.207	30.362	26.9845	-23.4072
11	RH-21	Combination		-39.084	53.818	-19.390	-51.4959	-37.6557
11	RH-22	Combination		25.822	-49.781	25.090	47.5869	24.8734
11	RH-23	Combination		11.027	32.243	-24.661	-30.8935	10.6250
11	RH-24	Combination		-20.481	-29.776	32.965	28.4336	-19.7423
11	RH-25	Combination		-33.525	15.103	2.853	-14.4230	-32.3002
11	RH-26	Combination		20.262	-11.067	2.848	10.5140	19.5180
11	RH-27	Combination		7.219	33.813	-27.264	-32.3426	6.9601
11	RH-28	Combination		-23.390	-17.844	27.301	16.9973	-22.5457
11	RH-29	Combination		-30.494	3.565	8.301	-3.3658	-29.3802
11	RH-30	Combination		17.232	0.471	-2.600	-0.5432	16.5980
11	RH-31	Combination		10.128	21.880	-21.601	-20.9063	9.7635
11	RH-32	Combination		-28.814	1.044	17.620	-1.0877	-27.7705
11	RH-33	Combination		-26.775	-8.157	13.351	7.8711	-25.7972
11	RH-34	Combination		13.513	12.193	-7.650	-11.7801	13.0149
11	RH-35	Combination		15.552	2.992	-11.919	-2.8213	14.9882
11	RH-36	Combination		-21.329	-2.634	10.592	2.5169	-20.5511
11	RH-37	Combination		-37.782	-6.771	19.091	6.4901	-36.4021
11	RH-38	Combination		15.610	6.655	-8.489	-6.4036	15.0370
11	RH-39	Combination		-48.859	-35.341	43.202	33.8398	-47.0778
11	RH-40	Combination		-63.654	46.684	-6.549	-44.6406	-61.3262
11	RH-41	Combination		1.252	-56.915	37.931	54.4421	1.2029
11	RH-42	Combination		-13.543	25.109	-11.820	-24.0382	-13.0456
11	RH-43	Combination		-45.051	-36.910	45.805	35.2889	-43.4129
11	RH-44	Combination		-58.095	7.969	15.693	-7.5678	-55.9708
11	RH-45	Combination		-4.308	-18.201	15.689	17.3693	-4.1525
11	RH-46	Combination		-17.351	26.678	-14.423	-25.4873	-16.7105

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
11	RH-47	Combination		-47.961	-24.978	40.142	23.8526	-46.2163
11	RH-48	Combination		-55.064	-3.569	21.142	3.4894	-53.0508
11	RH-49	Combination		-7.338	-6.663	10.240	6.3121	-7.0726
11	RH-50	Combination		-14.442	14.746	-8.760	-14.0510	-13.9071
11	RH-51	Combination		-53.384	-6.090	30.460	5.7676	-51.4410
11	RH-52	Combination		-51.345	-15.291	26.192	14.7264	-49.4677
11	RH-53	Combination		-11.057	5.059	5.191	-4.9248	-10.6556
11	RH-54	Combination		-9.018	-4.142	0.922	4.0340	-8.6823
11	RH-55	Combination		-16.824	-27.285	26.654	26.1036	-16.2143
11	RH-56	Combination		-31.619	54.739	-23.097	-52.3768	-30.4628
11	RH-57	Combination		33.287	-48.860	21.383	46.7059	32.0663
11	RH-58	Combination		18.492	33.165	-28.368	-31.7744	17.8179
11	RH-59	Combination		-13.016	-28.855	29.257	27.5527	-12.5495
11	RH-60	Combination		-26.059	16.025	-0.854	-15.3040	-25.1074
11	RH-61	Combination		27.728	-10.145	-0.859	9.6331	26.7109
11	RH-62	Combination		14.684	34.734	-30.971	-33.2235	14.1530
11	RH-63	Combination		-15.925	-16.922	23.594	16.1164	-15.3528
11	RH-64	Combination		-23.029	4.487	4.594	-4.2468	-22.1873
11	RH-65	Combination		24.697	1.393	-6.307	-1.4241	23.7909
11	RH-66	Combination		17.594	22.802	-25.308	-21.7872	16.9564
11	RH-67	Combination		-21.349	1.965	13.912	-1.9686	-20.5776
11	RH-68	Combination		-19.310	-7.235	9.644	6.9902	-18.6043
11	RH-69	Combination		20.978	13.115	-11.357	-12.6610	20.2078
11	RH-70	Combination		23.017	3.914	-15.626	-3.7022	22.1811
11	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
11	RH-72	Combination		-16.453	-4.137	8.499	3.9732	-15.8510
11	RH-73	Combination		36.939	9.289	-19.081	-8.9205	35.5881
11	RH-74	Combination		-27.529	-32.707	32.610	31.3229	-26.5267
11	RH-75	Combination		-42.325	49.317	-17.141	-47.1574	-40.7751
11	RH-76	Combination		22.581	-54.282	27.339	51.9253	21.7539
11	RH-77	Combination		7.786	27.742	-22.412	-26.5550	7.5055
11	RH-78	Combination		-23.722	-34.277	35.213	32.7720	-22.8618
11	RH-79	Combination		-36.765	10.603	5.102	-10.0846	-35.4197
11	RH-80	Combination		17.022	-15.567	5.097	14.8525	16.3985
11	RH-81	Combination		3.978	29.312	-25.015	-28.0042	3.8406
11	RH-82	Combination		-26.631	-22.345	29.550	21.3357	-25.6652
11	RH-83	Combination		-33.735	-0.935	10.550	0.9726	-32.4997
11	RH-84	Combination		13.991	-4.030	-0.351	3.7953	13.4785
11	RH-85	Combination		6.888	17.380	-19.352	-16.5679	6.6440
11	RH-86	Combination		-32.055	-3.457	19.868	3.2507	-30.8900
11	RH-87	Combination		-30.016	-12.658	15.600	12.2095	-28.9167
11	RH-88	Combination		10.273	7.693	-5.401	-7.4417	9.8955
11	RH-89	Combination		12.311	-1.508	-9.670	1.5171	11.8687
11	RH-90	Combination		4.506	-24.651	16.063	23.5867	4.3367
11	RH-91	Combination		-10.289	57.373	-33.689	-54.8936	-9.9117
11	RH-92	Combination		54.617	-46.226	10.791	44.1891	52.6174
11	RH-93	Combination		39.821	35.798	-38.960	-34.2912	38.3689
11	RH-94	Combination		8.314	-26.221	18.666	25.0358	8.0016
11	RH-95	Combination		-4.730	18.658	-11.446	-17.8208	-4.5563
11	RH-96	Combination		49.057	-7.512	-11.451	7.1163	47.2620
11	RH-97	Combination		36.014	37.368	-41.563	-35.7404	34.7041
11	RH-98	Combination		5.404	-14.289	13.002	13.5995	5.1982
11	RH-99	Combination		-1.699	7.121	-5.998	-6.7636	-1.6363
11	RH-100	Combination		46.027	4.026	-16.899	-3.9409	44.3419
11	RH-101	Combination		38.923	25.436	-35.900	-24.3041	37.5074
11	RH-102	Combination		-0.020	4.599	3.320	-4.4855	-0.0265
11	RH-103	Combination		2.019	-4.602	-0.948	4.4733	1.9468
11	RH-104	Combination		42.308	15.749	-21.949	-15.1779	40.7589
11	RH-105	Combination		44.347	6.548	-26.218	-6.2191	42.7322
11	RH-106	Combination		-13.327	-46.448	-3.790	44.9190	-12.8782
11	RH-107	Combination		-14.822	-39.714	3.673	38.3526	-14.2911
11	RH-108	Combination		-15.730	-33.371	10.451	32.1647	-15.1524

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
11	RH-109	Combination		-14.994	-24.644	12.302	23.7199	-14.4471
11	RH-110	Combination		-17.187	-15.874	14.371	15.2319	-16.5603
11	RH-111	Combination		-18.564	-10.395	13.980	9.9503	-17.8887
11	RH-112	Combination		-20.871	-4.044	12.785	3.8408	-20.1127
11	RH-113	Combination		-22.332	1.817	10.387	-1.7819	-21.5207
11	RH-114	Combination		-23.435	6.234	8.476	-6.0181	-22.5834
11	RH-115	Combination		-24.548	10.734	6.415	-10.3309	-23.6555
11	RH-116	Combination		-19.908	-48.103	-0.391	46.5083	-19.2186
11	RH-117	Combination		-21.403	-41.369	7.073	39.9419	-20.6315
11	RH-118	Combination		-22.311	-35.026	13.851	33.7540	-21.4928
11	RH-119	Combination		-21.575	-26.299	15.701	25.3092	-20.7875
11	RH-120	Combination		-23.768	-17.529	17.771	16.8212	-22.9007
11	RH-121	Combination		-25.145	-12.050	17.379	11.5396	-24.2291
11	RH-122	Combination		-27.452	-5.699	16.184	5.4301	-26.4531
11	RH-123	Combination		-28.913	0.162	13.787	-0.1926	-27.8611
11	RH-124	Combination		-30.016	4.579	11.875	-4.4288	-28.9238
11	RH-125	Combination		-31.129	9.079	9.814	-8.7416	-29.9959
11	RH-126	Combination		1.449	-42.733	-11.423	41.3508	1.3570
11	RH-127	Combination		-0.046	-35.999	-3.959	34.7844	-0.0558
11	RH-128	Combination		-0.954	-29.656	2.819	28.5965	-0.9172
11	RH-129	Combination		-0.218	-20.928	4.670	20.1517	-0.2119
11	RH-130	Combination		-2.411	-12.158	6.739	11.6637	-2.3251
11	RH-131	Combination		-3.788	-6.680	6.347	6.3822	-3.6535
11	RH-132	Combination		-6.095	-0.328	5.152	0.2727	-5.8775
11	RH-133	Combination		-7.556	5.533	2.755	-5.3501	-7.2854
11	RH-134	Combination		-8.659	9.950	0.843	-9.5863	-8.3482
11	RH-135	Combination		-9.772	14.449	-1.218	-13.8991	-9.4202
11	RH-136	Combination		8.003	-43.815	-14.382	42.4021	7.6729
11	RH-137	Combination		6.508	-37.081	-6.919	35.8358	6.2600
11	RH-138	Combination		5.599	-30.738	-0.141	29.6479	5.3986
11	RH-139	Combination		6.336	-22.010	1.710	21.2031	6.1039
11	RH-140	Combination		4.143	-13.241	3.780	12.7151	3.9908
11	RH-141	Combination		2.765	-7.762	3.388	7.4335	2.6623
11	RH-142	Combination		0.459	-1.410	2.193	1.3240	0.4384
11	RH-143	Combination		-1.003	4.451	-0.204	-4.2988	-0.9696
11	RH-144	Combination		-2.106	8.868	-2.116	-8.5350	-2.0323
11	RH-145	Combination		-3.219	13.367	-4.177	-12.8478	-3.1044
11	RH-146	Combination		1.421	-45.470	-10.983	43.9914	1.3325
11	RH-147	Combination		-0.073	-38.736	-3.519	37.4250	-0.0804
11	RH-148	Combination		-0.982	-32.393	3.259	31.2371	-0.9418
11	RH-149	Combination		-0.245	-23.665	5.110	22.7923	-0.2365
11	RH-150	Combination		-2.438	-14.895	7.179	14.3043	-2.3496
11	RH-151	Combination		-3.816	-9.417	6.787	9.0227	-3.6781
11	RH-152	Combination		-6.122	-3.065	5.592	2.9133	-5.9020
11	RH-153	Combination		-7.584	2.796	3.195	-2.7095	-7.3100
11	RH-154	Combination		-8.687	7.213	1.283	-6.9457	-8.3727
11	RH-155	Combination		-9.800	11.712	-0.778	-11.2585	-9.4448
11	RH-156	Combination		22.778	-40.099	-22.014	38.8339	21.9081
11	RH-157	Combination		21.283	-33.365	-14.551	32.2676	20.4952
11	RH-158	Combination		20.375	-27.022	-7.773	26.0797	19.6339
11	RH-159	Combination		21.112	-18.295	-5.922	17.6349	20.3392
11	RH-160	Combination		18.918	-9.525	-3.853	9.1469	18.2260
11	RH-161	Combination		17.541	-4.046	-4.244	3.8653	16.8976
11	RH-162	Combination		15.234	2.305	-5.440	-2.2442	14.6736
11	RH-163	Combination		13.773	8.166	-7.837	-7.8669	13.2656
11	RH-164	Combination		12.670	12.584	-9.749	-12.1031	12.2029
11	RH-165	Combination		11.557	17.083	-11.810	-16.4160	11.1308
24	ENV-ELS-CA	Combination	Max	31.683	35.042	303.889	36.0156	31.1537
24	ENV-ELS-CA	Combination	Min	-42.069	-37.064	64.731	-33.5965	-40.8407
24	ENV-ELS-CP	Combination	Max	10.303	1.190	137.253	3.3505	10.0780

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
24	ENV-ELS-CP	Combination	Min	-21.915	-3.298	103.902	-1.0882	-21.1444
24	ENV-ELU-PT	Combination	Max	44.660	47.494	412.435	48.7371	43.8726
24	ENV-ELU-PT	Combination	Min	-57.635	-50.142	42.729	-45.5454	-55.9574
24	ENV-ELU-AC	Combination	Max	16.398	10.755	255.116	39.9124	15.9479
24	ENV-ELU-AC	Combination	Min	-22.850	-40.709	92.668	-10.3258	-22.0582
24	ENV-ELU-EQ	Combination	Max	0.894	0.362	348.310	0.9294	1.7043
24	ENV-ELU-EQ	Combination	Min	-0.949	-0.071	110.485	-0.4971	-1.3199
24	RH-1	Combination		-23.168	-3.857	-2.064	3.6885	-22.3468
24	RH-2	Combination		-36.783	-5.062	-3.337	4.8307	-35.4797
24	RH-3	Combination		7.400	-1.152	0.793	1.1240	7.1388
24	RH-4	Combination		-53.146	-30.042	-19.880	28.7320	-51.2815
24	RH-5	Combination		-55.599	40.684	37.156	-38.8912	-53.6146
24	RH-6	Combination		-7.075	-49.844	-42.812	47.6389	-6.8384
24	RH-7	Combination		-9.528	20.881	14.224	-19.9843	-9.1716
24	RH-8	Combination		-48.310	-33.519	-26.313	32.0197	-46.6124
24	RH-9	Combination		-56.680	8.492	13.372	-8.0895	-54.6754
24	RH-10	Combination		-5.994	-17.653	-19.028	16.8372	-5.7777
24	RH-11	Combination		-14.364	24.358	20.658	-23.2720	-13.8407
24	RH-12	Combination		-49.032	-23.730	-19.867	22.6434	-47.3027
24	RH-13	Combination		-55.714	-1.056	6.999	1.0562	-53.7492
24	RH-14	Combination		-6.960	-8.104	-12.655	7.6915	-6.7039
24	RH-15	Combination		-13.642	14.569	14.211	-13.8957	-13.1504
24	RH-16	Combination		-51.528	-7.428	-7.880	7.0412	-49.7020
24	RH-17	Combination		-54.089	-10.795	0.774	10.3873	-52.1879
24	RH-18	Combination		-8.585	1.634	-6.430	-1.6396	-8.2652
24	RH-19	Combination		-11.146	-1.733	2.224	1.7065	-10.7511
24	RH-20	Combination		-26.636	-27.695	-17.402	26.5080	-25.7104
24	RH-21	Combination		-29.089	43.030	39.634	-41.1152	-28.0435
24	RH-22	Combination		19.435	-47.498	-40.334	45.4149	18.7327
24	RH-23	Combination		16.982	23.228	16.702	-22.2084	16.3995
24	RH-24	Combination		-21.800	-31.172	-23.835	29.7956	-21.0413
24	RH-25	Combination		-30.170	10.839	15.850	-10.3135	-29.1042
24	RH-26	Combination		20.516	-15.306	-16.550	14.6131	19.7934
24	RH-27	Combination		12.145	26.705	23.135	-25.4960	11.7304
24	RH-28	Combination		-22.522	-21.383	-17.389	20.4194	-21.7316
24	RH-29	Combination		-29.204	1.290	9.477	-1.1678	-28.1781
24	RH-30	Combination		19.549	-5.758	-10.177	5.4674	18.8672
24	RH-31	Combination		12.868	16.916	16.689	-16.1198	12.4208
24	RH-32	Combination		-25.018	-5.081	-5.402	4.8172	-24.1309
24	RH-33	Combination		-27.579	-8.448	3.252	8.1632	-26.6167
24	RH-34	Combination		17.924	3.981	-3.952	-3.8636	17.3059
24	RH-35	Combination		15.363	0.614	4.702	-0.5176	14.8200
24	RH-36	Combination		-17.162	-2.857	-1.529	2.7322	-16.5532
24	RH-37	Combination		-30.777	-4.062	-2.802	3.8745	-29.6861
24	RH-38	Combination		13.406	-0.152	1.328	0.1677	12.9324
24	RH-39	Combination		-47.140	-29.042	-19.344	27.7757	-45.4879
24	RH-40	Combination		-49.593	41.684	37.692	-39.8475	-47.8210
24	RH-41	Combination		-1.068	-48.844	-42.277	46.6826	-1.0448
24	RH-42	Combination		-3.521	21.881	14.759	-20.9406	-3.3780
24	RH-43	Combination		-42.303	-32.519	-25.778	31.0634	-40.8188
24	RH-44	Combination		-50.673	9.492	13.907	-9.0457	-48.8818
24	RH-45	Combination		0.012	-16.653	-18.493	15.8809	0.0159
24	RH-46	Combination		-8.358	25.358	21.193	-24.2282	-8.0471
24	RH-47	Combination		-43.025	-22.730	-19.331	21.6871	-41.5091
24	RH-48	Combination		-49.707	-0.056	7.534	0.0999	-47.9556
24	RH-49	Combination		-0.954	-7.104	-12.119	6.7352	-0.9103
24	RH-50	Combination		-7.636	15.569	14.746	-14.8520	-7.3567
24	RH-51	Combination		-45.521	-6.428	-7.345	6.0849	-43.9084

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
24	RH-52	Combination		-48.082	-9.795	1.309	9.4310	-46.3943
24	RH-53	Combination		-2.579	2.634	-5.895	-2.5958	-2.4716
24	RH-54	Combination		-5.140	-0.733	2.759	0.7502	-4.9575
24	RH-55	Combination		-20.630	-26.695	-16.866	25.5517	-19.9168
24	RH-56	Combination		-23.083	44.030	40.170	-42.0715	-22.2499
24	RH-57	Combination		25.441	-46.498	-39.799	44.4586	24.5263
24	RH-58	Combination		22.988	24.228	17.237	-23.1646	22.1931
24	RH-59	Combination		-15.793	-30.172	-23.300	28.8393	-15.2477
24	RH-60	Combination		-24.164	11.839	16.385	-11.2698	-23.3106
24	RH-61	Combination		26.522	-14.306	-16.015	13.6568	25.5870
24	RH-62	Combination		18.152	27.705	23.671	-26.4523	17.5240
24	RH-63	Combination		-16.515	-20.383	-16.853	19.4631	-15.9380
24	RH-64	Combination		-23.197	2.290	10.012	-2.1241	-22.3845
24	RH-65	Combination		25.556	-4.758	-9.641	4.5112	24.6609
24	RH-66	Combination		18.874	17.916	17.224	-17.0760	18.2144
24	RH-67	Combination		-19.011	-4.081	-4.867	3.8609	-18.3373
24	RH-68	Combination		-21.572	-7.448	3.787	7.2069	-20.8231
24	RH-69	Combination		23.931	4.981	-3.417	-4.8199	23.0995
24	RH-70	Combination		21.370	1.614	5.237	-1.4738	20.6136
24	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
24	RH-72	Combination		-13.615	-1.205	-1.273	1.1422	-13.1329
24	RH-73	Combination		30.568	2.706	2.857	-2.5645	29.4856
24	RH-74	Combination		-29.978	-26.184	-17.815	25.0435	-28.9347
24	RH-75	Combination		-32.431	44.541	39.221	-42.5797	-31.2679
24	RH-76	Combination		16.093	-45.987	-40.748	43.9504	15.5083
24	RH-77	Combination		13.640	24.738	16.288	-23.6728	13.1752
24	RH-78	Combination		-25.142	-29.661	-24.249	28.3312	-24.2656
24	RH-79	Combination		-33.512	12.350	15.436	-11.7780	-32.3286
24	RH-80	Combination		17.174	-13.796	-16.963	13.1487	16.5691
24	RH-81	Combination		8.804	28.215	22.722	-26.9605	8.5061
24	RH-82	Combination		-25.864	-19.873	-17.802	18.9549	-24.9560
24	RH-83	Combination		-32.546	2.801	9.063	-2.6323	-31.4024
24	RH-84	Combination		16.208	-4.247	-10.590	4.0030	15.6429
24	RH-85	Combination		9.526	18.427	16.275	-17.5842	9.1964
24	RH-86	Combination		-28.360	-3.571	-5.816	3.3527	-27.3552
24	RH-87	Combination		-30.921	-6.937	2.838	6.6988	-29.8411
24	RH-88	Combination		14.583	5.491	-4.366	-5.3281	14.0815
24	RH-89	Combination		12.022	2.124	4.289	-1.9820	11.5957
24	RH-90	Combination		-3.468	-23.838	-15.337	22.8195	-3.3636
24	RH-91	Combination		-5.921	46.888	41.699	-44.8037	-5.6968
24	RH-92	Combination		42.603	-43.641	-38.270	41.7263	41.0795
24	RH-93	Combination		40.150	27.085	18.766	-25.8969	38.7463
24	RH-94	Combination		1.368	-27.315	-21.771	26.1071	1.3055
24	RH-95	Combination		-7.002	14.696	17.914	-14.0020	-6.7575
24	RH-96	Combination		43.684	-11.449	-14.485	10.9246	42.1402
24	RH-97	Combination		35.314	30.562	25.200	-29.1845	34.0772
24	RH-98	Combination		0.646	-17.526	-15.324	16.7309	0.6152
24	RH-99	Combination		-6.036	5.147	11.541	-4.8563	-5.8313
24	RH-100	Combination		42.717	-1.901	-8.112	1.7789	41.2140
24	RH-101	Combination		36.036	20.773	18.753	-19.8083	34.7675
24	RH-102	Combination		-1.850	-1.224	-3.338	1.1287	-1.7841
24	RH-103	Combination		-4.411	-4.591	5.316	4.4747	-4.2700
24	RH-104	Combination		41.093	7.838	-1.888	-7.5521	39.6527
24	RH-105	Combination		38.532	4.471	6.767	-4.2061	37.1668
24	RH-106	Combination		-15.816	-40.148	1.883	38.8062	-15.2175
24	RH-107	Combination		-15.896	-35.396	3.140	34.2656	-15.3458
24	RH-108	Combination		-15.526	-30.498	-1.669	29.4628	-15.0057
24	RH-109	Combination		-13.141	-23.499	-2.832	22.6515	-12.6993
24	RH-110	Combination		-13.729	-16.259	-6.339	15.6197	-13.2498
24	RH-111	Combination		-14.164	-11.661	-6.137	11.1805	-13.6643
24	RH-112	Combination		-15.407	-6.261	-4.716	5.9811	-14.8598
24	RH-113	Combination		-15.948	-1.227	-2.151	1.1510	-15.3779

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
24	RH-114	Combination		-16.376	2.594	-0.050	-2.5133	-15.7884
24	RH-115	Combination		-16.811	6.499	2.270	-6.2564	-16.2058
24	RH-116	Combination		-21.262	-40.630	1.374	39.2631	-20.4707
24	RH-117	Combination		-21.342	-35.878	2.631	34.7225	-20.5990
24	RH-118	Combination		-20.972	-30.980	-2.179	29.9197	-20.2589
24	RH-119	Combination		-18.587	-23.981	-3.341	23.1084	-17.9524
24	RH-120	Combination		-19.175	-16.741	-6.848	16.0766	-18.5030
24	RH-121	Combination		-19.610	-12.143	-6.646	11.6374	-18.9175
24	RH-122	Combination		-20.853	-6.743	-5.225	6.4380	-20.1130
24	RH-123	Combination		-21.394	-1.709	-2.660	1.6079	-20.6311
24	RH-124	Combination		-21.822	2.112	-0.559	-2.0565	-21.0416
24	RH-125	Combination		-22.257	6.017	1.761	-5.7995	-21.4590
24	RH-126	Combination		-3.589	-39.066	3.026	37.7804	-3.4233
24	RH-127	Combination		-3.668	-34.314	4.283	33.2398	-3.5516
24	RH-128	Combination		-3.299	-29.416	-0.527	28.4370	-3.2114
24	RH-129	Combination		-0.914	-22.417	-1.689	21.6257	-0.9050
24	RH-130	Combination		-1.501	-15.177	-5.196	14.5939	-1.4556
24	RH-131	Combination		-1.936	-10.579	-4.994	10.1547	-1.8701
24	RH-132	Combination		-3.180	-5.179	-3.573	4.9553	-3.0656
24	RH-133	Combination		-3.721	-0.145	-1.008	0.1253	-3.5837
24	RH-134	Combination		-4.149	3.676	1.093	-3.5391	-3.9942
24	RH-135	Combination		-4.584	7.581	3.413	-7.2822	-4.4116
24	RH-136	Combination		1.345	-37.291	3.412	36.0740	1.3357
24	RH-137	Combination		1.266	-32.539	4.670	31.5334	1.2074
24	RH-138	Combination		1.635	-27.641	-0.140	26.7306	1.5475
24	RH-139	Combination		4.021	-20.642	-1.303	19.9192	3.8539
24	RH-140	Combination		3.433	-13.402	-4.810	12.8875	3.3033
24	RH-141	Combination		2.998	-8.804	-4.608	8.4482	2.8888
24	RH-142	Combination		1.754	-3.404	-3.187	3.2489	1.6934
24	RH-143	Combination		1.214	1.630	-0.622	-1.5812	1.1752
24	RH-144	Combination		0.786	5.451	1.479	-5.2456	0.7648
24	RH-145	Combination		0.350	9.356	3.799	-8.9887	0.3473
24	RH-146	Combination		-4.101	-37.773	2.903	36.5309	-3.9175
24	RH-147	Combination		-4.180	-33.021	4.160	31.9903	-4.0458
24	RH-148	Combination		-3.811	-28.123	-0.649	27.1875	-3.7057
24	RH-149	Combination		-1.425	-21.124	-1.812	20.3761	-1.3993
24	RH-150	Combination		-2.013	-13.884	-5.319	13.3444	-1.9499
24	RH-151	Combination		-2.448	-9.286	-5.117	8.9051	-2.3643
24	RH-152	Combination		-3.692	-3.886	-3.696	3.7058	-3.5598
24	RH-153	Combination		-4.232	1.148	-1.131	-1.1243	-4.0779
24	RH-154	Combination		-4.660	4.969	0.970	-4.7887	-4.4884
24	RH-155	Combination		-5.096	8.874	3.290	-8.5318	-4.9059
24	RH-156	Combination		13.573	-36.209	4.555	35.0482	13.1299
24	RH-157	Combination		13.493	-31.457	5.812	30.5076	13.0016
24	RH-158	Combination		13.862	-26.559	1.003	25.7048	13.3417
24	RH-159	Combination		16.248	-19.559	-0.160	18.8934	15.6481
24	RH-160	Combination		15.660	-12.319	-3.667	11.8617	15.0976
24	RH-161	Combination		15.225	-7.722	-3.465	7.4224	14.6831
24	RH-162	Combination		13.982	-2.321	-2.044	2.2231	13.4876
24	RH-163	Combination		13.441	2.713	0.521	-2.6070	12.9695
24	RH-164	Combination		13.013	6.534	2.622	-6.2714	12.5590
24	RH-165	Combination		12.577	10.439	4.942	-10.0145	12.1416
27	ENV-ELS-CA	Combination	Max	35.500	37.239	269.273	36.8433	34.9347
27	ENV-ELS-CA	Combination	Min	-46.181	-37.896	48.451	-35.9398	-44.6963
27	ENV-ELS-CP	Combination	Max	10.405	2.977	114.017	4.0710	10.2477
27	ENV-ELS-CP	Combination	Min	-22.381	-3.990	96.948	-2.9231	-21.5129
27	ENV-ELU-PT	Combination	Max	49.790	50.783	364.393	49.9929	48.9748
27	ENV-ELU-PT	Combination	Min	-63.185	-51.400	27.980	-49.0398	-61.1616

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
27	ENV-ELU-AC	Combination	Max	18.623	12.897	227.389	40.5104	18.1537
27	ENV-ELU-AC	Combination	Min	-26.098	-41.514	71.137	-12.4871	-25.1187
27	ENV-ELU-EQ	Combination	Max	1.076	0.421	313.210	0.8090	1.9795
27	ENV-ELU-EQ	Combination	Min	-0.787	-0.022	61.515	-0.7180	-0.9999
27	RH-1	Combination		-23.943	-3.779	3.533	3.6190	-23.0946
27	RH-2	Combination		-37.554	-7.259	5.604	6.9611	-36.2221
27	RH-3	Combination		6.616	4.033	-1.115	-3.8845	6.3786
27	RH-4	Combination		-51.026	-31.311	25.788	29.9704	-49.2128
27	RH-5	Combination		-62.413	39.425	-29.904	-37.6649	-60.2249
27	RH-6	Combination		-1.806	-51.159	39.455	48.9134	-1.7174
27	RH-7	Combination		-13.193	19.577	-16.237	-18.7218	-12.7294
27	RH-8	Combination		-47.412	-34.810	30.796	33.2795	-45.7282
27	RH-9	Combination		-58.468	7.195	-5.941	-6.8258	-56.4051
27	RH-10	Combination		-5.751	-18.930	15.492	18.0744	-5.5371
27	RH-11	Combination		-16.807	23.076	-21.245	-22.0309	-16.2141
27	RH-12	Combination		-49.861	-25.024	24.330	23.9053	-48.0959
27	RH-13	Combination		-55.886	-2.351	0.397	2.3175	-53.9093
27	RH-14	Combination		-8.333	-9.383	9.154	8.9311	-8.0330
27	RH-15	Combination		-14.358	13.289	-14.779	-12.6567	-13.8464
27	RH-16	Combination		-54.519	-8.725	12.708	8.3066	-52.5964
27	RH-17	Combination		-52.622	-12.087	6.555	11.6457	-50.7554
27	RH-18	Combination		-11.597	0.352	2.996	-0.3971	-11.1869
27	RH-19	Combination		-9.701	-3.010	-3.157	2.9420	-9.3458
27	RH-20	Combination		-24.525	-24.536	21.757	23.4630	-23.6524
27	RH-21	Combination		-35.911	46.201	-33.936	-44.1723	-34.6644
27	RH-22	Combination		24.695	-44.384	35.424	42.4060	23.8431
27	RH-23	Combination		13.309	26.353	-20.269	-25.2292	12.8310
27	RH-24	Combination		-20.910	-28.035	26.765	26.7721	-20.1677
27	RH-25	Combination		-31.967	13.971	-9.972	-13.3332	-30.8447
27	RH-26	Combination		20.751	-12.154	11.460	11.5670	20.0233
27	RH-27	Combination		9.694	29.851	-25.277	-28.5383	9.3463
27	RH-28	Combination		-23.359	-18.248	20.298	17.3979	-22.5354
27	RH-29	Combination		-29.384	4.425	-3.634	-4.1899	-28.3488
27	RH-30	Combination		18.168	-2.608	5.122	2.4237	17.5275
27	RH-31	Combination		12.143	20.065	-18.810	-19.1641	11.7141
27	RH-32	Combination		-28.017	-1.949	8.677	1.7992	-27.0360
27	RH-33	Combination		-26.120	-5.311	2.523	5.1383	-25.1949
27	RH-34	Combination		14.904	7.128	-1.035	-6.9045	14.3736
27	RH-35	Combination		16.801	3.766	-7.189	-3.5654	16.2146
27	RH-36	Combination		-17.736	-2.799	2.617	2.6808	-17.1071
27	RH-37	Combination		-31.347	-6.279	4.688	6.0229	-30.2346
27	RH-38	Combination		12.823	5.013	-2.031	-4.8228	12.3661
27	RH-39	Combination		-44.819	-30.332	24.872	29.0321	-43.2253
27	RH-40	Combination		-56.206	40.405	-30.820	-38.6031	-54.2374
27	RH-41	Combination		4.401	-50.180	38.539	47.9752	4.2701
27	RH-42	Combination		-6.986	20.557	-17.153	-19.6601	-6.7419
27	RH-43	Combination		-41.205	-33.830	29.880	32.3412	-39.7407
27	RH-44	Combination		-52.261	8.175	-6.857	-7.7641	-50.4176
27	RH-45	Combination		0.456	-17.950	14.576	17.1361	0.4504
27	RH-46	Combination		-10.600	24.056	-22.161	-22.9691	-10.2266
27	RH-47	Combination		-43.654	-24.044	23.414	22.9671	-42.1084
27	RH-48	Combination		-49.679	-1.371	-0.519	1.3792	-47.9218
27	RH-49	Combination		-2.126	-8.404	8.238	7.9928	-2.0455
27	RH-50	Combination		-8.151	14.269	-15.695	-13.5950	-7.8589
27	RH-51	Combination		-48.312	-7.745	11.792	7.3683	-46.6089
27	RH-52	Combination		-46.415	-11.107	5.639	10.7074	-44.7679
27	RH-53	Combination		-5.390	1.332	2.080	-1.3354	-5.1994
27	RH-54	Combination		-3.493	-2.030	-4.073	2.0037	-3.3583
27	RH-55	Combination		-18.317	-23.556	20.841	22.5247	-17.6649

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
27	RH-56	Combination		-29.704	47.180	-34.852	-45.1105	-28.6769
27	RH-57	Combination		30.903	-43.404	34.508	41.4678	29.8306
27	RH-58	Combination		19.516	27.332	-21.185	-26.1675	18.8185
27	RH-59	Combination		-14.703	-27.055	25.849	25.8338	-14.1802
27	RH-60	Combination		-25.759	14.951	-10.888	-14.2715	-24.8572
27	RH-61	Combination		26.958	-11.174	10.544	10.6287	26.0108
27	RH-62	Combination		15.902	30.831	-26.193	-29.4765	15.3338
27	RH-63	Combination		-17.152	-17.268	19.382	16.4597	-16.5479
27	RH-64	Combination		-23.177	5.404	-4.550	-5.1282	-22.3613
27	RH-65	Combination		24.376	-1.628	4.206	1.4855	23.5150
27	RH-66	Combination		18.351	21.045	-19.726	-20.1024	17.7016
27	RH-67	Combination		-21.810	-0.969	7.761	0.8610	-21.0485
27	RH-68	Combination		-19.913	-4.331	1.607	4.2000	-19.2074
27	RH-69	Combination		21.112	8.108	-1.951	-7.8427	20.3611
27	RH-70	Combination		23.009	4.746	-8.105	-4.5037	22.2021
27	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
27	RH-72	Combination		-13.611	-3.480	2.070	3.3421	-13.1275
27	RH-73	Combination		30.559	7.813	-4.649	-7.5036	29.4733
27	RH-74	Combination		-27.083	-27.532	22.255	26.3514	-26.1182
27	RH-75	Combination		-38.470	43.204	-33.437	-41.2839	-37.1302
27	RH-76	Combination		22.137	-47.380	35.922	45.2944	21.3773
27	RH-77	Combination		10.750	23.356	-19.770	-22.3409	10.3652
27	RH-78	Combination		-23.469	-31.031	27.263	29.6604	-22.6335
27	RH-79	Combination		-34.525	10.975	-9.474	-10.4448	-33.3105
27	RH-80	Combination		18.192	-15.151	11.959	14.4554	17.5575
27	RH-81	Combination		7.136	26.855	-24.778	-25.6499	6.8805
27	RH-82	Combination		-25.918	-21.244	20.796	20.2863	-25.0012
27	RH-83	Combination		-31.943	1.428	-3.136	-1.3016	-30.8146
27	RH-84	Combination		15.610	-5.604	5.621	5.3121	15.0617
27	RH-85	Combination		9.585	17.068	-18.312	-16.2758	9.2483
27	RH-86	Combination		-30.576	-4.945	9.175	4.6876	-29.5018
27	RH-87	Combination		-28.679	-8.308	3.022	8.0266	-27.6607
27	RH-88	Combination		12.346	4.132	-0.537	-4.0161	11.9078
27	RH-89	Combination		14.243	0.770	-6.690	-0.6771	13.7488
27	RH-90	Combination		-0.581	-20.756	18.224	19.8440	-0.5577
27	RH-91	Combination		-11.968	49.980	-37.469	-47.7913	-11.5698
27	RH-92	Combination		48.639	-40.605	31.891	38.7870	46.9377
27	RH-93	Combination		37.252	30.132	-23.802	-28.8482	35.9257
27	RH-94	Combination		3.033	-24.255	23.232	23.1530	2.9269
27	RH-95	Combination		-8.023	17.750	-13.505	-16.9522	-7.7500
27	RH-96	Combination		44.694	-8.375	7.927	7.9480	43.1180
27	RH-97	Combination		33.638	33.631	-28.810	-32.1573	32.4410
27	RH-98	Combination		0.584	-14.469	16.765	13.7789	0.5592
27	RH-99	Combination		-5.441	8.204	-7.167	-7.8090	-5.2542
27	RH-100	Combination		42.112	1.172	1.589	-1.1953	40.6221
27	RH-101	Combination		36.087	23.844	-22.343	-22.7832	34.8087
27	RH-102	Combination		-4.074	1.830	5.143	-1.8198	-3.9413
27	RH-103	Combination		-2.177	-1.532	-1.010	1.5192	-2.1003
27	RH-104	Combination		38.848	10.907	-4.568	-10.5235	37.4682
27	RH-105	Combination		40.745	7.545	-10.722	-7.1845	39.3093
27	RH-106	Combination		-11.590	-40.057	-0.055	38.6967	-11.2155
27	RH-107	Combination		-12.780	-35.200	-0.487	34.0042	-12.3381
27	RH-108	Combination		-13.437	-30.371	2.406	29.3033	-12.9496
27	RH-109	Combination		-12.361	-23.423	5.646	22.5732	-11.9124
27	RH-110	Combination		-14.219	-16.197	7.490	15.5625	-13.7082
27	RH-111	Combination		-15.383	-11.601	7.199	11.1260	-14.8342
27	RH-112	Combination		-17.441	-6.203	5.723	5.9296	-16.8240
27	RH-113	Combination		-18.666	-1.170	2.953	1.1011	-18.0087
27	RH-114	Combination		-19.590	2.650	0.710	-2.5622	-18.9017
27	RH-115	Combination		-20.519	6.554	-1.705	-6.3043	-19.8000
27	RH-116	Combination		-17.034	-41.449	0.773	40.0336	-16.4665
27	RH-117	Combination		-18.225	-36.592	0.342	35.3411	-17.5891

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
27	RH-118	Combination		-18.881	-31.763	3.234	30.6402	-18.2006
27	RH-119	Combination		-17.805	-24.815	6.474	23.9100	-17.1634
27	RH-120	Combination		-19.664	-17.589	8.319	16.8994	-18.9592
27	RH-121	Combination		-20.827	-12.993	8.027	12.4629	-20.0852
27	RH-122	Combination		-22.885	-7.595	6.551	7.2664	-22.0750
27	RH-123	Combination		-24.110	-2.562	3.782	2.4379	-23.2597
27	RH-124	Combination		-25.034	1.258	1.538	-1.2254	-24.1527
27	RH-125	Combination		-25.963	5.162	-0.877	-4.9674	-25.0510
27	RH-126	Combination		0.634	-36.932	-1.915	35.6953	0.5738
27	RH-127	Combination		-0.557	-32.075	-2.346	31.0028	-0.5488
27	RH-128	Combination		-1.213	-27.246	0.546	26.3019	-1.1603
27	RH-129	Combination		-0.137	-20.298	3.787	19.5718	-0.1231
27	RH-130	Combination		-1.996	-13.072	5.631	12.5611	-1.9189
27	RH-131	Combination		-3.159	-8.476	5.340	8.1246	-3.0449
27	RH-132	Combination		-5.217	-3.078	3.864	2.9282	-5.0347
27	RH-133	Combination		-6.442	1.955	1.094	-1.9003	-6.2194
27	RH-134	Combination		-7.366	5.775	-1.149	-5.5636	-7.1124
27	RH-135	Combination		-8.295	9.679	-3.564	-9.3057	-8.0107
27	RH-136	Combination		6.146	-37.257	-2.672	36.0160	5.8916
27	RH-137	Combination		4.956	-32.401	-3.104	31.3235	4.7691
27	RH-138	Combination		4.299	-27.571	-0.212	26.6226	4.1575
27	RH-139	Combination		5.375	-20.624	3.029	19.8924	5.1947
27	RH-140	Combination		3.517	-13.397	4.873	12.8817	3.3989
27	RH-141	Combination		2.353	-8.801	4.582	8.4452	2.2730
27	RH-142	Combination		0.295	-3.403	3.106	3.2488	0.2832
27	RH-143	Combination		-0.930	1.629	0.336	-1.5797	-0.9016
27	RH-144	Combination		-1.854	5.449	-1.907	-5.2430	-1.7946
27	RH-145	Combination		-2.783	9.353	-4.322	-8.9850	-2.6929
27	RH-146	Combination		0.701	-38.649	-1.844	37.3528	0.6406
27	RH-147	Combination		-0.489	-33.793	-2.275	32.6603	-0.4819
27	RH-148	Combination		-1.146	-28.963	0.617	27.9594	-1.0935
27	RH-149	Combination		-0.069	-22.016	3.857	21.2293	-0.0563
27	RH-150	Combination		-1.928	-14.789	5.702	14.2186	-1.8520
27	RH-151	Combination		-3.091	-10.193	5.410	9.7821	-2.9780
27	RH-152	Combination		-5.149	-4.795	3.934	4.5857	-4.9678
27	RH-153	Combination		-6.374	0.237	1.164	-0.2428	-6.1525
27	RH-154	Combination		-7.298	4.057	-1.079	-3.9061	-7.0455
27	RH-155	Combination		-8.228	7.961	-3.494	-7.6482	-7.9438
27	RH-156	Combination		18.369	-34.132	-4.532	33.0146	17.6809
27	RH-157	Combination		17.179	-29.276	-4.963	28.3220	16.5584
27	RH-158	Combination		16.522	-24.446	-2.071	23.6212	15.9468
27	RH-159	Combination		17.599	-17.498	1.169	16.8910	16.9840
27	RH-160	Combination		15.740	-10.272	3.014	9.8803	15.1882
27	RH-161	Combination		14.577	-5.676	2.723	5.4438	14.0623
27	RH-162	Combination		12.519	-0.278	1.247	0.2474	12.0725
27	RH-163	Combination		11.293	4.754	-1.523	-4.5811	10.8878
27	RH-164	Combination		10.370	8.574	-3.767	-8.2444	9.9948
27	RH-165	Combination		9.440	12.478	-6.181	-11.9865	9.0965
41	ENV-ELS-CA	Combination	Max	28.500	28.879	327.493	31.8077	27.7267
41	ENV-ELS-CA	Combination	Min	-36.779	-32.401	55.270	-27.6633	-35.6606
41	ENV-ELS-CP	Combination	Max	7.834	1.011	135.838	4.5618	7.5779
41	ENV-ELS-CP	Combination	Min	-16.916	-4.445	87.487	-0.8224	-16.3108
41	ENV-ELU-PT	Combination	Max	39.952	39.185	445.231	43.0553	38.8487
41	ENV-ELU-PT	Combination	Min	-50.293	-43.845	32.328	-37.6171	-48.7593
41	ENV-ELU-AC	Combination	Max	13.454	6.402	269.280	34.8000	12.9911
41	ENV-ELU-AC	Combination	Min	-17.628	-35.245	79.174	-6.0762	-16.9968

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
41	ENV-ELU-EQ	Combination	Max	0.387	0.080	374.165	1.7250	0.7588
41	ENV-ELU-EQ	Combination	Min	-0.837	-0.480	105.171	-0.2722	-1.1238
41	RH-1	Combination		-17.849	-5.175	-5.385	4.9663	-17.2353
41	RH-2	Combination		-28.432	-6.385	-8.502	6.1183	-27.4553
41	RH-3	Combination		5.913	-2.456	1.614	2.3800	5.7104
41	RH-4	Combination		-45.933	-27.530	-23.070	26.3490	-44.3780
41	RH-5	Combination		-48.416	31.357	23.070	-29.9243	-46.7107
41	RH-6	Combination		0.019	-43.159	-37.581	41.2393	-0.0238
41	RH-7	Combination		-2.464	15.727	8.559	-15.0340	-2.3566
41	RH-8	Combination		-41.256	-32.659	-29.084	31.2265	-39.8634
41	RH-9	Combination		-49.563	5.811	4.408	-5.4966	-47.8482
41	RH-10	Combination		1.166	-17.613	-18.919	16.8116	1.1137
41	RH-11	Combination		-7.141	20.857	14.573	-19.9115	-6.8711
41	RH-12	Combination		-41.962	-25.162	-24.467	24.0477	-40.5363
41	RH-13	Combination		-48.607	-1.595	-0.156	1.5952	-46.9342
41	RH-14	Combination		0.210	-10.207	-14.355	9.7197	0.1996
41	RH-15	Combination		-6.435	13.360	9.956	-12.7327	-6.1983
41	RH-16	Combination		-44.436	-11.721	-15.435	11.1858	-42.9105
41	RH-17	Combination		-46.993	-9.162	-4.413	8.8455	-45.3850
41	RH-18	Combination		-1.404	-2.640	-10.098	2.4695	-1.3495
41	RH-19	Combination		-3.961	-0.082	0.924	0.1292	-3.8241
41	RH-20	Combination		-25.327	-25.172	-17.000	24.1061	-24.4786
41	RH-21	Combination		-27.809	33.714	29.141	-32.1672	-26.8113
41	RH-22	Combination		20.626	-40.802	-31.511	38.9963	19.8756
41	RH-23	Combination		18.143	18.085	14.629	-17.2770	17.5428
41	RH-24	Combination		-20.649	-30.302	-23.014	28.9835	-19.9640
41	RH-25	Combination		-28.956	8.169	10.478	-7.7396	-27.9488
41	RH-26	Combination		21.773	-15.256	-12.849	14.5687	21.0131
41	RH-27	Combination		13.465	23.214	20.643	-22.1544	13.0283
41	RH-28	Combination		-21.355	-22.805	-18.397	21.8048	-20.6369
41	RH-29	Combination		-28.000	0.762	5.914	-0.6477	-27.0348
41	RH-30	Combination		20.817	-7.849	-8.285	7.4768	20.0990
41	RH-31	Combination		14.172	15.717	16.027	-14.9757	13.7011
41	RH-32	Combination		-23.829	-9.363	-9.365	8.9428	-23.0110
41	RH-33	Combination		-26.386	-6.805	1.657	6.6025	-25.4856
41	RH-34	Combination		19.203	-0.282	-4.028	0.2266	18.5499
41	RH-35	Combination		16.646	2.276	6.995	-2.1137	16.0753
41	RH-36	Combination		-13.221	-3.833	-3.989	3.6788	-12.7669
41	RH-37	Combination		-23.805	-5.044	-7.106	4.8307	-22.9869
41	RH-38	Combination		10.540	-1.115	3.010	1.0925	10.1788
41	RH-39	Combination		-41.306	-26.188	-21.674	25.0615	-39.9096
41	RH-40	Combination		-43.789	32.698	24.467	-31.2118	-42.2423
41	RH-41	Combination		4.646	-41.818	-36.185	39.9517	4.4446
41	RH-42	Combination		2.164	17.069	9.955	-16.3216	2.1118
41	RH-43	Combination		-36.628	-31.317	-27.688	29.9389	-35.3950
41	RH-44	Combination		-44.936	7.153	5.804	-6.7842	-43.3798
41	RH-45	Combination		5.793	-16.272	-17.523	15.5241	5.5821
41	RH-46	Combination		-2.514	22.198	15.969	-21.1991	-2.4027
41	RH-47	Combination		-37.335	-23.821	-23.071	22.7602	-36.0679
41	RH-48	Combination		-43.980	-0.254	1.240	0.3077	-42.4658
41	RH-49	Combination		4.837	-8.865	-12.959	8.4322	4.6680
41	RH-50	Combination		-1.808	14.701	11.353	-14.0203	-1.7299
41	RH-51	Combination		-39.809	-10.379	-14.039	9.8982	-38.4421
41	RH-52	Combination		-42.366	-7.821	-3.017	7.5579	-40.9166
41	RH-53	Combination		3.224	-1.298	-8.702	1.1819	3.1189
41	RH-54	Combination		0.667	1.260	2.321	-1.1583	0.6443
41	RH-55	Combination		-20.699	-23.831	-15.604	22.8185	-20.0102
41	RH-56	Combination		-23.182	35.056	30.537	-33.4548	-22.3429
41	RH-57	Combination		25.253	-39.460	-30.115	37.7087	24.3440
41	RH-58	Combination		22.771	19.427	16.025	-18.5645	22.0112

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
41	RH-59	Combination		-16.021	-28.960	-21.618	27.6960	-15.4956
41	RH-60	Combination		-24.329	9.510	11.874	-9.0272	-23.4804
41	RH-61	Combination		26.400	-13.914	-11.453	13.2811	25.4815
41	RH-62	Combination		18.093	24.556	22.039	-23.4420	17.4967
41	RH-63	Combination		-16.728	-21.463	-17.001	20.5172	-16.1685
41	RH-64	Combination		-23.373	2.104	7.310	-1.9353	-22.5664
41	RH-65	Combination		25.444	-6.508	-6.889	6.1892	24.5674
41	RH-66	Combination		18.799	17.059	17.423	-16.2633	18.1695
41	RH-67	Combination		-19.202	-8.021	-7.969	7.6552	-18.5426
41	RH-68	Combination		-21.759	-5.463	3.053	5.3150	-21.0172
41	RH-69	Combination		23.830	1.059	-2.632	-1.0610	23.0183
41	RH-70	Combination		21.273	3.618	8.391	-3.4013	20.5437
41	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
41	RH-72	Combination		-10.583	-1.211	-3.118	1.1519	-10.2200
41	RH-73	Combination		23.761	2.718	6.999	-2.5863	22.9456
41	RH-74	Combination		-28.085	-22.355	-17.685	21.3827	-27.1427
41	RH-75	Combination		-30.567	36.532	28.455	-34.8906	-29.4755
41	RH-76	Combination		17.867	-37.984	-32.196	36.2729	17.2114
41	RH-77	Combination		15.385	20.902	13.944	-20.0004	14.8787
41	RH-78	Combination		-23.407	-27.484	-23.699	26.2602	-22.6282
41	RH-79	Combination		-31.715	10.986	9.793	-10.4630	-30.6130
41	RH-80	Combination		19.015	-12.439	-13.534	11.8453	18.3489
41	RH-81	Combination		10.707	26.031	19.958	-24.8778	10.3641
41	RH-82	Combination		-24.113	-19.987	-19.082	19.0814	-23.3010
41	RH-83	Combination		-30.759	3.579	5.229	-3.3711	-29.6989
41	RH-84	Combination		18.059	-5.032	-8.970	4.7534	17.4349
41	RH-85	Combination		11.413	18.535	15.341	-17.6991	11.0370
41	RH-86	Combination		-26.588	-6.546	-10.050	6.2194	-25.6752
41	RH-87	Combination		-29.145	-3.988	0.972	3.8792	-28.1498
41	RH-88	Combination		16.445	2.535	-4.713	-2.4968	15.8857
41	RH-89	Combination		13.888	5.093	6.309	-4.8371	13.4111
41	RH-90	Combination		-7.478	-19.997	-11.615	19.1397	-7.2433
41	RH-91	Combination		-9.961	38.889	34.526	-37.1336	-9.5761
41	RH-92	Combination		38.474	-35.627	-26.126	34.0300	37.1108
41	RH-93	Combination		35.992	23.260	20.014	-22.2433	34.7781
41	RH-94	Combination		-2.800	-25.127	-17.629	24.0172	-2.7288
41	RH-95	Combination		-11.108	13.343	15.863	-12.7059	-10.7136
41	RH-96	Combination		39.621	-10.081	-7.464	9.6023	38.2483
41	RH-97	Combination		31.314	28.389	26.028	-27.1208	30.2635
41	RH-98	Combination		-3.507	-17.630	-13.012	16.8385	-3.4016
41	RH-99	Combination		-10.152	5.937	11.299	-5.6140	-9.7995
41	RH-100	Combination		38.665	-2.675	-2.900	2.5105	37.3343
41	RH-101	Combination		32.020	20.892	21.412	-19.9420	30.9364
41	RH-102	Combination		-5.981	-4.188	-3.980	3.9765	-5.7758
41	RH-103	Combination		-8.538	-1.630	7.042	1.6362	-8.2504
41	RH-104	Combination		37.052	4.892	1.357	-4.7398	35.7851
41	RH-105	Combination		34.495	7.451	12.379	-7.0800	33.3106
41	RH-106	Combination		-11.839	-34.391	-6.369	33.1555	-11.4181
41	RH-107	Combination		-11.896	-31.234	-0.863	30.1884	-11.4708
41	RH-108	Combination		-11.559	-28.017	0.464	27.1178	-11.1665
41	RH-109	Combination		-9.193	-22.819	0.257	22.0654	-8.8895
41	RH-110	Combination		-9.801	-17.202	-5.719	16.5662	-9.4783
41	RH-111	Combination		-10.230	-13.548	-6.952	13.0223	-9.8859
41	RH-112	Combination		-11.470	-9.210	-6.803	8.8346	-11.0780
41	RH-113	Combination		-12.005	-5.075	-5.234	4.8628	-11.5904
41	RH-114	Combination		-12.429	-1.905	-3.900	1.8203	-11.9961
41	RH-115	Combination		-12.860	1.350	-2.342	-1.3021	-12.4083
41	RH-116	Combination		-16.072	-34.876	-7.616	33.6163	-15.5062
41	RH-117	Combination		-16.129	-31.718	-2.110	30.6492	-15.5588
41	RH-118	Combination		-15.792	-28.501	-0.783	27.5786	-15.2545
41	RH-119	Combination		-13.427	-23.303	-0.990	22.5262	-12.9776
41	RH-120	Combination		-14.035	-17.687	-6.966	17.0270	-13.5663

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
41	RH-121	Combination		-14.464	-14.032	-8.199	13.4831	-13.9740
41	RH-122	Combination		-15.703	-9.694	-8.050	9.2954	-15.1660
41	RH-123	Combination		-16.238	-5.559	-6.481	5.3236	-15.6784
41	RH-124	Combination		-16.662	-2.389	-5.147	2.2811	-16.0841
41	RH-125	Combination		-17.093	0.866	-3.589	-0.8413	-16.4963
41	RH-126	Combination		-2.334	-33.304	-3.570	32.1210	-2.2399
41	RH-127	Combination		-2.391	-30.146	1.937	29.1539	-2.2925
41	RH-128	Combination		-2.054	-26.930	3.263	26.0833	-1.9883
41	RH-129	Combination		0.311	-21.731	3.056	21.0309	0.2887
41	RH-130	Combination		-0.297	-16.115	-2.919	15.5317	-0.3000
41	RH-131	Combination		-0.726	-12.460	-4.152	11.9878	-0.7077
41	RH-132	Combination		-1.965	-8.123	-4.003	7.8001	-1.8998
41	RH-133	Combination		-2.501	-3.988	-2.434	3.8283	-2.4122
41	RH-134	Combination		-2.924	-0.818	-1.101	0.7858	-2.8179
41	RH-135	Combination		-3.355	2.438	0.457	-2.3366	-3.2300
41	RH-136	Combination		1.383	-30.558	-2.380	29.4767	1.3487
41	RH-137	Combination		1.325	-27.401	3.126	26.5097	1.2961
41	RH-138	Combination		1.662	-24.184	4.452	23.4391	1.6003
41	RH-139	Combination		4.028	-18.985	4.246	18.3866	3.8773
41	RH-140	Combination		3.420	-13.369	-1.730	12.8875	3.2886
41	RH-141	Combination		2.991	-9.715	-2.963	9.3436	2.8809
41	RH-142	Combination		1.751	-5.377	-2.814	5.1559	1.6888
41	RH-143	Combination		1.216	-1.242	-1.245	1.1841	1.1764
41	RH-144	Combination		0.792	1.928	0.088	-1.8585	0.7707
41	RH-145	Combination		0.362	5.183	1.647	-4.9809	0.3586
41	RH-146	Combination		-2.851	-31.043	-3.627	29.9375	-2.7393
41	RH-147	Combination		-2.908	-27.885	1.879	26.9705	-2.7919
41	RH-148	Combination		-2.571	-24.668	3.205	23.8998	-2.4877
41	RH-149	Combination		-0.205	-19.470	2.999	18.8474	-0.2107
41	RH-150	Combination		-0.814	-13.854	-2.977	13.3482	-0.7995
41	RH-151	Combination		-1.243	-10.199	-4.210	9.8043	-1.2071
41	RH-152	Combination		-2.482	-5.861	-4.061	5.6166	-2.3992
41	RH-153	Combination		-3.017	-1.726	-2.492	1.6448	-2.9116
41	RH-154	Combination		-3.441	1.444	-1.159	-1.3977	-3.3173
41	RH-155	Combination		-3.872	4.699	0.400	-4.5201	-3.7294
41	RH-156	Combination		10.887	-29.471	0.419	28.4422	10.5270
41	RH-157	Combination		10.830	-26.313	5.926	25.4752	10.4744
41	RH-158	Combination		11.167	-23.097	7.252	22.4045	10.7786
41	RH-159	Combination		13.532	-17.898	7.045	17.3521	13.0556
41	RH-160	Combination		12.924	-12.282	1.070	11.8529	12.4668
41	RH-161	Combination		12.495	-8.627	-0.163	8.3090	12.0592
41	RH-162	Combination		11.256	-4.290	-0.014	4.1213	10.8671
41	RH-163	Combination		10.721	-0.155	1.554	0.1495	10.3547
41	RH-164	Combination		10.297	3.015	2.888	-2.8930	9.9490
41	RH-165	Combination		9.866	6.271	4.446	-6.0154	9.5368
45	ENV-ELS-CA	Combination	Max	32.445	31.346	253.986	32.7269	31.5718
45	ENV-ELS-CA	Combination	Min	-41.159	-33.330	22.578	-30.2985	-39.8283
45	ENV-ELS-CP	Combination	Max	7.878	2.986	88.909	5.4493	7.6581
45	ENV-ELS-CP	Combination	Min	-17.488	-5.295	71.563	-2.8800	-16.8050
45	ENV-ELU-PT	Combination	Max	45.255	42.864	343.949	44.4570	44.0001
45	ENV-ELU-PT	Combination	Min	-56.204	-45.252	1.314	-41.5354	-54.3830
45	ENV-ELU-AC	Combination	Max	15.853	8.768	208.649	35.5189	15.3344
45	ENV-ELU-AC	Combination	Min	-21.217	-36.140	50.818	-8.4768	-20.4134
45	ENV-ELU-EQ	Combination	Max	0.533	0.241	302.280	1.3902	0.9295
45	ENV-ELU-EQ	Combination	Min	-0.693	-0.269	44.479	-0.5651	-0.9103
45	RH-1	Combination		-18.711	-5.192	0.071	4.9847	-18.0642

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
45	RH-2	Combination		-29.285	-8.824	9.229E-03	8.4748	-28.2728
45	RH-3	Combination		5.031	2.961	0.210	-2.8512	4.8558
45	RH-4	Combination		-43.779	-28.994	18.857	27.7670	-42.2627
45	RH-5	Combination		-55.624	29.909	-40.077	-28.5290	-53.7087
45	RH-6	Combination		5.513	-44.652	40.145	42.6865	5.3300
45	RH-7	Combination		-6.332	14.252	-18.789	-13.6095	-6.1161
45	RH-8	Combination		-40.239	-34.133	26.051	32.6543	-38.8514
45	RH-9	Combination		-51.545	4.336	-15.764	-4.0730	-49.7615
45	RH-10	Combination		1.434	-19.079	15.832	18.2306	1.3828
45	RH-11	Combination		-9.872	19.390	-25.983	-18.4968	-9.5273
45	RH-12	Combination		-42.827	-26.635	19.703	25.4751	-41.3545
45	RH-13	Combination		-48.834	-3.067	-9.468	3.0158	-47.1395
45	RH-14	Combination		-1.277	-11.676	9.536	11.1417	-1.2392
45	RH-15	Combination		-7.285	11.893	-19.635	-11.3175	-7.0242
45	RH-16	Combination		-47.665	-13.197	7.588	12.6149	-46.0307
45	RH-17	Combination		-45.436	-10.631	-3.396	10.2642	-43.8537
45	RH-18	Combination		-4.675	-4.111	3.464	3.8933	-4.5251
45	RH-19	Combination		-2.447	-1.546	-7.520	1.5427	-2.3481
45	RH-20	Combination		-23.189	-21.924	18.977	20.9714	-22.3855
45	RH-21	Combination		-35.034	36.980	-39.956	-35.3246	-33.8316
45	RH-22	Combination		26.103	-37.581	40.266	35.8909	25.2072
45	RH-23	Combination		14.258	21.323	-18.668	-20.4051	13.7611
45	RH-24	Combination		-19.649	-27.062	26.172	25.8587	-18.9743
45	RH-25	Combination		-30.955	11.407	-15.643	-10.8686	-29.8843
45	RH-26	Combination		22.024	-12.008	15.952	11.4350	21.2599
45	RH-27	Combination		10.717	26.461	-25.862	-25.2924	10.3499
45	RH-28	Combination		-22.237	-19.565	19.824	18.6794	-21.4773
45	RH-29	Combination		-28.244	4.004	-9.347	-3.7798	-27.2624
45	RH-30	Combination		19.312	-4.605	9.656	4.3461	18.6380
45	RH-31	Combination		13.305	18.964	-19.515	-18.1131	12.8529
45	RH-32	Combination		-27.075	-6.126	7.708	5.8193	-26.1535
45	RH-33	Combination		-24.846	-3.561	-3.275	3.4686	-23.9765
45	RH-34	Combination		15.914	2.960	3.584	-2.9023	15.3521
45	RH-35	Combination		18.143	5.525	-7.399	-5.2530	17.5291
45	RH-36	Combination		-13.860	-3.846	0.053	3.6924	-13.3809
45	RH-37	Combination		-24.434	-7.478	-9.234E-03	7.1825	-23.5895
45	RH-38	Combination		9.882	4.307	0.192	-4.1435	9.5391
45	RH-39	Combination		-38.928	-27.648	18.838	26.4747	-37.5793
45	RH-40	Combination		-50.773	31.255	-40.095	-29.8213	-49.0254
45	RH-41	Combination		10.364	-43.305	40.126	41.3942	10.0133
45	RH-42	Combination		-1.481	15.598	-18.807	-14.9018	-1.4328
45	RH-43	Combination		-35.388	-32.786	26.033	31.3620	-34.1681
45	RH-44	Combination		-46.694	5.683	-15.782	-5.3653	-45.0782
45	RH-45	Combination		6.285	-17.733	15.813	16.9382	6.0661
45	RH-46	Combination		-5.021	20.736	-26.001	-19.7891	-4.8440
45	RH-47	Combination		-37.976	-25.289	19.685	24.1827	-36.6712
45	RH-48	Combination		-43.983	-1.720	-9.486	1.7235	-42.4562
45	RH-49	Combination		3.574	-10.330	9.517	9.8494	3.4441
45	RH-50	Combination		-2.434	13.239	-19.654	-12.6098	-2.3409
45	RH-51	Combination		-42.814	-11.850	7.569	11.3226	-41.3474
45	RH-52	Combination		-40.585	-9.285	-3.414	8.9719	-39.1703
45	RH-53	Combination		0.176	-2.765	3.445	2.6010	0.1582
45	RH-54	Combination		2.404	-0.200	-7.538	0.2503	2.3353
45	RH-55	Combination		-18.338	-20.577	18.959	19.6791	-17.7022
45	RH-56	Combination		-30.183	38.326	-39.975	-36.6169	-29.1483
45	RH-57	Combination		30.954	-36.235	40.247	34.5986	29.8905
45	RH-58	Combination		19.109	22.669	-18.687	-21.6974	18.4444
45	RH-59	Combination		-14.798	-25.716	26.153	24.5664	-14.2910
45	RH-60	Combination		-26.104	12.753	-15.661	-12.1609	-25.2010
45	RH-61	Combination		26.874	-10.662	15.934	10.1426	25.9432
45	RH-62	Combination		15.568	27.807	-25.881	-26.5847	15.0332
45	RH-63	Combination		-17.386	-18.218	19.806	17.3871	-16.7940

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
45	RH-64	Combination		-23.393	5.350	-9.365	-5.0721	-22.5791
45	RH-65	Combination		24.163	-3.259	9.638	3.0538	23.3213
45	RH-66	Combination		18.156	20.310	-19.533	-19.4054	17.5362
45	RH-67	Combination		-22.224	-4.780	7.690	4.5270	-21.4702
45	RH-68	Combination		-19.995	-2.214	-3.293	2.1763	-19.2932
45	RH-69	Combination		20.765	4.306	3.566	-4.1946	20.0354
45	RH-70	Combination		22.994	6.871	-7.417	-6.5453	22.2124
45	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
45	RH-72	Combination		-10.575	-3.631	-0.062	3.4901	-10.2086
45	RH-73	Combination		23.742	8.153	0.139	-7.8359	22.9200
45	RH-74	Combination		-25.068	-23.802	18.786	22.7823	-24.1985
45	RH-75	Combination		-36.913	35.101	-40.148	-33.5137	-35.6445
45	RH-76	Combination		24.224	-39.459	40.074	37.7018	23.3942
45	RH-77	Combination		12.379	19.444	-18.860	-18.5942	11.9481
45	RH-78	Combination		-21.528	-28.940	25.980	27.6696	-20.7872
45	RH-79	Combination		-32.834	9.529	-15.835	-9.0577	-31.6973
45	RH-80	Combination		20.145	-13.887	15.760	13.2459	19.4470
45	RH-81	Combination		8.839	24.582	-26.054	-23.4815	8.5369
45	RH-82	Combination		-24.116	-21.443	19.632	20.4904	-23.2903
45	RH-83	Combination		-30.123	2.126	-9.539	-1.9689	-29.0753
45	RH-84	Combination		17.433	-6.484	9.464	6.1570	16.8250
45	RH-85	Combination		11.426	17.085	-19.706	-16.3022	11.0400
45	RH-86	Combination		-28.954	-8.004	7.517	7.6302	-27.9665
45	RH-87	Combination		-26.725	-5.439	-3.467	5.2795	-25.7894
45	RH-88	Combination		14.036	1.081	3.392	-1.0914	13.5391
45	RH-89	Combination		16.264	3.646	-7.591	-3.4420	15.7161
45	RH-90	Combination		-4.478	-16.731	18.906	15.9867	-4.3213
45	RH-91	Combination		-16.324	42.172	-40.027	-40.3093	-15.7674
45	RH-92	Combination		44.814	-32.388	40.194	30.9062	43.2714
45	RH-93	Combination		32.968	26.515	-18.739	-25.3898	31.8253
45	RH-94	Combination		-0.938	-21.869	26.101	20.8740	-0.9101
45	RH-95	Combination		-12.244	16.600	-15.714	-15.8533	-11.8201
45	RH-96	Combination		40.734	-6.816	15.881	6.4503	39.3241
45	RH-97	Combination		29.428	31.653	-25.934	-30.2771	28.4141
45	RH-98	Combination		-3.526	-14.372	19.753	13.6947	-3.4131
45	RH-99	Combination		-9.533	9.197	-9.418	-8.7645	-9.1982
45	RH-100	Combination		38.023	0.587	9.585	-0.6386	36.7022
45	RH-101	Combination		32.016	24.156	-19.586	-23.0978	30.9171
45	RH-102	Combination		-8.364	-0.933	7.637	0.8346	-8.0893
45	RH-103	Combination		-6.135	1.632	-3.346	-1.5161	-5.9123
45	RH-104	Combination		34.625	8.152	3.513	-7.8870	33.4163
45	RH-105	Combination		36.854	10.717	-7.470	-10.2377	35.5933
45	RH-106	Combination		-7.474	-34.405	5.380	33.1668	-7.2359
45	RH-107	Combination		-8.657	-31.183	0.645	30.1002	-8.3709
45	RH-108	Combination		-9.344	-27.915	-1.457	26.9585	-9.0168
45	RH-109	Combination		-8.332	-22.768	0.528	21.9808	-8.0244
45	RH-110	Combination		-10.298	-17.207	3.594	16.5684	-9.9295
45	RH-111	Combination		-11.525	-13.557	4.354	13.0316	-11.1197
45	RH-112	Combination		-13.656	-9.222	3.880	8.8472	-13.1850
45	RH-113	Combination		-14.941	-5.089	1.445	4.8773	-14.4296
45	RH-114	Combination		-15.907	-1.920	-0.647	1.8360	-15.3656
45	RH-115	Combination		-16.879	1.334	-2.972	-1.2854	-16.3062
45	RH-116	Combination		-11.704	-35.858	5.355	34.5628	-11.3193
45	RH-117	Combination		-12.886	-32.635	0.621	31.4963	-12.4543
45	RH-118	Combination		-13.573	-29.368	-1.481	28.3546	-13.1003
45	RH-119	Combination		-12.562	-24.220	0.503	23.3769	-12.1078
45	RH-120	Combination		-14.528	-18.660	3.570	17.9645	-14.0130
45	RH-121	Combination		-15.755	-15.010	4.330	14.4276	-15.2032
45	RH-122	Combination		-17.886	-10.675	3.855	10.2432	-17.2685
45	RH-123	Combination		-19.171	-6.541	1.420	6.2733	-18.5130
45	RH-124	Combination		-20.137	-3.373	-0.672	3.2320	-19.4490
45	RH-125	Combination		-21.109	-0.118	-2.997	0.1107	-20.3897

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
45	RH-126	Combination		2.023	-31.144	5.436	30.0324	1.9321
45	RH-127	Combination		0.840	-27.921	0.701	26.9659	0.7971
45	RH-128	Combination		0.153	-24.654	-1.401	23.8241	0.1512
45	RH-129	Combination		1.165	-19.507	0.583	18.8465	1.1436
45	RH-130	Combination		-0.802	-13.946	3.650	13.4340	-0.7616
45	RH-131	Combination		-2.028	-10.296	4.410	9.8972	-1.9517
45	RH-132	Combination		-4.159	-5.961	3.936	5.7128	-4.0170
45	RH-133	Combination		-5.444	-1.828	1.501	1.7429	-5.2616
45	RH-134	Combination		-6.411	1.341	-0.591	-1.2984	-6.1976
45	RH-135	Combination		-7.383	4.596	-2.917	-4.4197	-7.1382
45	RH-136	Combination		6.386	-30.559	5.327	29.4744	6.1450
45	RH-137	Combination		5.203	-27.336	0.593	26.4079	5.0100
45	RH-138	Combination		4.516	-24.069	-1.509	23.2661	4.3641
45	RH-139	Combination		5.528	-18.922	0.475	18.2885	5.3565
45	RH-140	Combination		3.561	-13.361	3.542	12.8760	3.4513
45	RH-141	Combination		2.335	-9.711	4.302	9.3392	2.2612
45	RH-142	Combination		0.204	-5.376	3.827	5.1548	0.1959
45	RH-143	Combination		-1.081	-1.243	1.392	1.1849	-1.0487
45	RH-144	Combination		-2.048	1.926	-0.699	-1.8564	-1.9847
45	RH-145	Combination		-3.019	5.180	-3.025	-4.9778	-2.9253
45	RH-146	Combination		2.156	-32.012	5.302	30.8704	2.0616
45	RH-147	Combination		0.973	-28.789	0.568	27.8039	0.9266
45	RH-148	Combination		0.286	-25.521	-1.534	24.6622	0.2806
45	RH-149	Combination		1.298	-20.374	0.450	19.6845	1.2731
45	RH-150	Combination		-0.668	-14.813	3.517	14.2721	-0.6321
45	RH-151	Combination		-1.895	-11.164	4.277	10.7353	-1.8223
45	RH-152	Combination		-4.026	-6.829	3.802	6.5509	-3.8876
45	RH-153	Combination		-5.311	-2.695	1.368	2.5810	-5.1321
45	RH-154	Combination		-6.277	0.474	-0.724	-0.4603	-6.0681
45	RH-155	Combination		-7.249	3.728	-3.050	-3.5817	-7.0088
45	RH-156	Combination		15.882	-27.298	5.383	26.3400	15.3130
45	RH-157	Combination		14.700	-24.075	0.648	23.2735	14.1780
45	RH-158	Combination		14.013	-20.808	-1.454	20.1318	13.5321
45	RH-159	Combination		15.025	-15.660	0.531	15.1541	14.5245
45	RH-160	Combination		13.058	-10.099	3.597	9.7417	12.6193
45	RH-161	Combination		11.832	-6.450	4.357	6.2049	11.4292
45	RH-162	Combination		9.701	-2.115	3.883	2.0204	9.3639
45	RH-163	Combination		8.416	2.019	1.448	-1.9494	8.1193
45	RH-164	Combination		7.449	5.187	-0.644	-4.9908	7.1833
45	RH-165	Combination		6.477	8.442	-2.969	-8.1121	6.2427
58	ENV-ELS-CA	Combination	Max	26.791	27.557	321.326	29.0218	26.0122
58	ENV-ELS-CA	Combination	Min	-33.911	-29.422	55.198	-26.3867	-33.0949
58	ENV-ELS-CP	Combination	Max	6.013	0.391	131.918	2.2209	5.7846
58	ENV-ELS-CP	Combination	Min	-13.758	-1.966	90.777	-0.1807	-13.3708
58	ENV-ELU-PT	Combination	Max	37.333	37.321	436.316	39.3624	36.2632
58	ENV-ELU-PT	Combination	Min	-46.276	-39.895	33.353	-35.8359	-45.1631
58	ENV-ELU-AC	Combination	Max	8.222	2.209	263.229	27.1238	7.9286
58	ENV-ELU-AC	Combination	Min	-19.881	-27.269	72.427	-2.1403	-19.3572
58	ENV-ELU-EQ	Combination	Max	0.406	0.063	371.249	1.9130	0.6401
58	ENV-ELU-EQ	Combination	Min	-0.866	-0.616	87.718	-0.2161	-1.3747
58	RH-1	Combination		-14.632	-1.215	-5.365	1.1467	-14.1308
58	RH-2	Combination		-22.864	-0.130	-8.444	0.0845	-22.0813
58	RH-3	Combination		3.850	-3.651	1.549	3.5317	3.7193
58	RH-4	Combination		-45.532	-12.935	-19.956	12.2901	-43.9633
58	RH-5	Combination		-34.442	35.865	16.389	-34.3188	-33.3028
58	RH-6	Combination		-4.699	-36.993	-30.814	35.3376	-4.4994

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
58	RH-7	Combination		6.390	11.806	5.531	-11.2714	6.1612
58	RH-8	Combination		-42.767	-20.124	-25.473	19.1526	-41.2787
58	RH-9	Combination		-41.206	16.375	2.182	-15.6996	-39.8189
58	RH-10	Combination		2.064	-17.503	-16.607	16.7184	2.0168
58	RH-11	Combination		3.625	18.996	11.048	-18.1339	3.4765
58	RH-12	Combination		-41.859	-14.475	-22.251	13.7439	-40.4037
58	RH-13	Combination		-41.851	10.618	-1.000	-10.1866	-40.4398
58	RH-14	Combination		2.709	-11.747	-13.425	11.2054	2.6377
58	RH-15	Combination		2.717	13.347	7.826	-12.7252	2.6015
58	RH-16	Combination		-41.192	-3.064	-15.558	2.8211	-39.7676
58	RH-17	Combination		-41.910	4.560	-3.831	-4.3785	-40.4957
58	RH-18	Combination		2.768	-5.689	-10.594	5.3973	2.6936
58	RH-19	Combination		2.051	1.936	1.133	-1.8023	1.9655
58	RH-20	Combination		-29.504	-15.047	-13.960	14.3585	-28.4829
58	RH-21	Combination		-18.414	33.752	22.385	-32.2505	-17.8224
58	RH-22	Combination		11.329	-39.105	-24.818	37.4060	10.9810
58	RH-23	Combination		22.419	9.694	11.527	-9.2030	21.6415
58	RH-24	Combination		-26.738	-22.237	-19.477	21.2210	-25.7983
58	RH-25	Combination		-25.177	14.263	8.178	-13.6313	-24.3385
58	RH-26	Combination		18.093	-19.616	-10.611	18.7867	17.4971
58	RH-27	Combination		19.653	16.883	17.044	-16.0655	18.9569
58	RH-28	Combination		-25.830	-16.588	-16.255	15.8123	-24.9233
58	RH-29	Combination		-25.822	8.506	4.996	-8.1183	-24.9594
58	RH-30	Combination		18.738	-13.859	-7.429	13.2737	18.1180
58	RH-31	Combination		18.745	11.234	13.822	-10.6568	18.0819
58	RH-32	Combination		-25.164	-5.177	-9.562	4.8894	-24.2873
58	RH-33	Combination		-25.881	2.448	2.165	-2.3102	-25.0154
58	RH-34	Combination		18.797	-7.801	-4.598	7.4656	18.1739
58	RH-35	Combination		18.079	-0.177	7.129	0.2660	17.4458
58	RH-36	Combination		-10.838	-0.900	-3.974	0.8494	-10.4672
58	RH-37	Combination		-19.070	0.185	-7.053	-0.2128	-18.4177
58	RH-38	Combination		7.644	-3.336	2.940	3.2344	7.3829
58	RH-39	Combination		-41.739	-12.620	-18.565	11.9928	-40.2998
58	RH-40	Combination		-30.649	36.180	17.780	-34.6162	-29.6392
58	RH-41	Combination		-0.906	-36.678	-29.423	35.0403	-0.8358
58	RH-42	Combination		10.184	12.121	6.922	-11.5687	9.8247
58	RH-43	Combination		-38.973	-19.809	-24.082	18.8553	-37.6151
58	RH-44	Combination		-37.412	16.690	3.573	-15.9969	-36.1554
58	RH-45	Combination		5.857	-17.188	-15.217	16.4211	5.6803
58	RH-46	Combination		7.418	19.311	12.439	-18.4312	7.1401
58	RH-47	Combination		-38.065	-14.160	-20.860	13.4466	-36.7401
58	RH-48	Combination		-38.057	10.933	0.391	-10.4839	-36.7763
58	RH-49	Combination		6.503	-11.432	-12.034	10.9081	6.3012
58	RH-50	Combination		6.510	13.662	9.217	-13.0225	6.2651
58	RH-51	Combination		-37.399	-2.749	-14.167	2.5238	-36.1041
58	RH-52	Combination		-38.117	4.876	-2.440	-4.6758	-36.8322
58	RH-53	Combination		6.562	-5.374	-9.203	5.1000	6.3571
58	RH-54	Combination		5.844	2.251	2.524	-2.0996	5.6290
58	RH-55	Combination		-25.710	-14.732	-12.569	14.0612	-24.8194
58	RH-56	Combination		-14.621	34.067	23.776	-32.5478	-14.1589
58	RH-57	Combination		15.123	-38.790	-23.427	37.1086	14.6445
58	RH-58	Combination		26.212	10.009	12.918	-9.5003	25.3050
58	RH-59	Combination		-22.945	-21.922	-18.086	20.9237	-22.1348
58	RH-60	Combination		-21.384	14.578	9.569	-13.9286	-20.6750
58	RH-61	Combination		21.886	-19.301	-9.221	18.4894	21.1606
58	RH-62	Combination		23.447	17.199	18.435	-16.3628	22.6204
58	RH-63	Combination		-22.037	-16.273	-14.864	15.5150	-21.2598
58	RH-64	Combination		-22.029	8.821	6.387	-8.4156	-21.2959
58	RH-65	Combination		22.531	-13.544	-6.038	12.9764	21.7815
58	RH-66	Combination		22.539	11.550	15.213	-10.9541	21.7454
58	RH-67	Combination		-21.371	-4.861	-8.171	4.5921	-20.6237
58	RH-68	Combination		-22.088	2.763	3.556	-2.6075	-21.3518

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
58	RH-69	Combination		22.590	-7.486	-3.207	7.1683	21.8375
58	RH-70	Combination		21.873	0.138	8.520	-0.0313	21.1093
58	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
58	RH-72	Combination		-8.232	1.085	-3.079	-1.0623	-7.9505
58	RH-73	Combination		18.482	-2.436	6.914	2.3850	17.8501
58	RH-74	Combination		-30.900	-11.720	-14.591	11.1434	-29.8325
58	RH-75	Combination		-19.811	37.080	21.754	-35.4656	-19.1720
58	RH-76	Combination		9.932	-35.778	-25.449	34.1909	9.6314
58	RH-77	Combination		21.022	13.022	10.896	-12.4181	20.2919
58	RH-78	Combination		-28.135	-18.909	-20.108	18.0059	-27.1479
58	RH-79	Combination		-26.574	17.590	7.547	-16.8463	-25.6881
58	RH-80	Combination		16.696	-16.288	-11.243	15.5716	16.1475
58	RH-81	Combination		18.257	20.211	16.413	-19.2806	17.6073
58	RH-82	Combination		-27.227	-13.260	-16.886	12.5972	-26.2729
58	RH-83	Combination		-27.219	11.833	4.365	-11.3334	-26.3090
58	RH-84	Combination		17.341	-10.531	-8.060	10.0587	16.7684
58	RH-85	Combination		17.349	14.562	13.191	-13.8719	16.7323
58	RH-86	Combination		-26.561	-1.849	-10.193	1.6743	-25.6368
58	RH-87	Combination		-27.278	5.776	1.534	-5.5253	-26.3649
58	RH-88	Combination		17.400	-4.474	-5.229	4.2506	16.8244
58	RH-89	Combination		16.682	3.151	6.498	-2.9491	16.0962
58	RH-90	Combination		-14.872	-13.832	-8.595	13.2118	-14.3522
58	RH-91	Combination		-3.782	34.967	27.750	-33.3972	-3.6916
58	RH-92	Combination		25.961	-37.890	-19.453	36.2592	25.1118
58	RH-93	Combination		37.051	10.909	16.892	-10.3498	35.7723
58	RH-94	Combination		-12.107	-21.021	-14.112	20.0742	-11.6675
58	RH-95	Combination		-10.546	15.478	13.543	-14.7780	-10.2078
58	RH-96	Combination		32.724	-18.401	-5.247	17.6400	31.6279
58	RH-97	Combination		34.285	18.099	22.409	-17.2123	33.0877
58	RH-98	Combination		-11.198	-15.372	-10.891	14.6655	-10.7925
58	RH-99	Combination		-11.191	9.721	10.361	-9.2650	-10.8287
58	RH-100	Combination		33.369	-12.644	-2.064	12.1270	32.2488
58	RH-101	Combination		33.377	12.450	19.187	-11.8036	32.2127
58	RH-102	Combination		-10.532	-3.961	-4.197	3.7427	-10.1565
58	RH-103	Combination		-11.250	3.663	7.530	-3.4569	-10.8846
58	RH-104	Combination		33.428	-6.586	0.767	6.3189	32.3047
58	RH-105	Combination		32.711	1.039	12.494	-0.8807	31.5766
58	RH-106	Combination		-16.410	-25.925	-7.772	24.9533	-15.8331
58	RH-107	Combination		-15.873	-23.826	-3.643	22.9881	-15.3134
58	RH-108	Combination		-14.943	-21.863	0.303	21.1596	-14.4382
58	RH-109	Combination		-11.628	-18.927	0.356	18.3374	-11.2372
58	RH-110	Combination		-11.077	-14.664	-3.085	14.1562	-10.7159
58	RH-111	Combination		-10.690	-11.740	-5.615	11.3002	-10.3270
58	RH-112	Combination		-10.926	-8.040	-6.393	7.7126	-10.5476
58	RH-113	Combination		-10.508	-4.601	-5.493	4.4026	-10.1429
58	RH-114	Combination		-10.194	-1.932	-4.694	1.8370	-9.8394
58	RH-115	Combination		-9.863	0.821	-3.693	-0.8074	-9.5199
58	RH-116	Combination		-19.703	-25.492	-9.004	24.5284	-19.0133
58	RH-117	Combination		-19.166	-23.392	-4.875	22.5632	-18.4936
58	RH-118	Combination		-18.236	-21.429	-0.929	20.7347	-17.6183
58	RH-119	Combination		-14.920	-18.493	-0.875	17.9125	-14.4174
58	RH-120	Combination		-14.370	-14.230	-4.317	13.7313	-13.8961
58	RH-121	Combination		-13.982	-11.307	-6.847	10.8753	-13.5072
58	RH-122	Combination		-14.219	-7.606	-7.624	7.2877	-13.7278
58	RH-123	Combination		-13.801	-4.167	-6.725	3.9777	-13.3231
58	RH-124	Combination		-13.487	-1.498	-5.926	1.4121	-13.0196
58	RH-125	Combination		-13.156	1.255	-4.924	-1.2323	-12.7001
58	RH-126	Combination		-9.017	-26.900	-5.006	25.9073	-8.6930
58	RH-127	Combination		-8.480	-24.800	-0.877	23.9421	-8.1733
58	RH-128	Combination		-7.551	-22.838	3.068	22.1136	-7.2981
58	RH-129	Combination		-4.235	-19.901	3.122	19.2914	-4.0971
58	RH-130	Combination		-3.684	-15.638	-0.319	15.1102	-3.5758

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
58	RH-131	Combination		-3.297	-12.715	-2.850	12.2542	-3.1870
58	RH-132	Combination		-3.533	-9.014	-3.627	8.6666	-3.4076
58	RH-133	Combination		-3.116	-5.575	-2.727	5.3566	-3.0029
58	RH-134	Combination		-2.801	-2.907	-1.928	2.7910	-2.6993
58	RH-135	Combination		-2.471	-0.153	-0.927	0.1466	-2.3799
58	RH-136	Combination		-5.572	-25.025	-3.798	24.1039	-5.3658
58	RH-137	Combination		-5.035	-22.926	0.331	22.1387	-4.8461
58	RH-138	Combination		-4.105	-20.963	4.277	20.3101	-3.9709
58	RH-139	Combination		-0.789	-18.027	4.330	17.4879	-0.7699
58	RH-140	Combination		-0.239	-13.764	0.889	13.3068	-0.2486
58	RH-141	Combination		0.149	-10.840	-1.641	10.4508	0.1402
58	RH-142	Combination		-0.088	-7.140	-2.419	6.8632	-0.0804
58	RH-143	Combination		0.330	-3.701	-1.519	3.5531	0.3243
58	RH-144	Combination		0.644	-1.032	-0.720	0.9876	0.6279
58	RH-145	Combination		0.975	1.721	0.281	-1.6568	0.9473
58	RH-146	Combination		-8.865	-24.591	-5.030	23.6790	-8.5460
58	RH-147	Combination		-8.327	-22.492	-0.901	21.7138	-8.0263
58	RH-148	Combination		-7.398	-20.529	3.045	19.8852	-7.1511
58	RH-149	Combination		-4.082	-17.593	3.098	17.0630	-3.9501
58	RH-150	Combination		-3.532	-13.330	-0.343	12.8819	-3.4288
58	RH-151	Combination		-3.144	-10.406	-2.873	10.0259	-3.0400
58	RH-152	Combination		-3.381	-6.706	-3.650	6.4383	-3.2606
58	RH-153	Combination		-2.963	-3.267	-2.751	3.1282	-2.8559
58	RH-154	Combination		-2.649	-0.598	-1.952	0.5627	-2.5523
58	RH-155	Combination		-2.318	2.155	-0.951	-2.0817	-2.2329
58	RH-156	Combination		1.821	-26.000	-1.032	25.0579	1.7742
58	RH-157	Combination		2.358	-23.900	3.097	23.0927	2.2939
58	RH-158	Combination		3.288	-21.937	7.042	21.2641	3.1691
58	RH-159	Combination		6.604	-19.001	7.096	18.4419	6.3701
58	RH-160	Combination		7.154	-14.738	3.655	14.2608	6.8914
58	RH-161	Combination		7.542	-11.815	1.124	11.4048	7.2802
58	RH-162	Combination		7.305	-8.114	0.347	7.8172	7.0597
58	RH-163	Combination		7.723	-4.675	1.247	4.5071	7.4643
58	RH-164	Combination		8.037	-2.006	2.046	1.9416	7.7679
58	RH-165	Combination		8.368	0.747	3.047	-0.7028	8.0874
62	ENV-ELS-CA	Combination	Max	25.547	28.771	242.051	28.7169	24.8927
62	ENV-ELS-CA	Combination	Min	-32.264	-29.045	19.696	-27.8306	-31.3631
62	ENV-ELS-CP	Combination	Max	6.090	1.310	74.109	2.0741	5.8735
62	ENV-ELS-CP	Combination	Min	-13.534	-1.723	65.753	-1.2402	-13.0818
62	ENV-ELU-PT	Combination	Max	35.646	39.119	327.192	38.9243	34.7271
62	ENV-ELU-PT	Combination	Min	-44.058	-39.341	2.649	-37.9672	-42.8240
62	ENV-ELU-AC	Combination	Max	8.176	3.314	200.544	26.8035	7.8990
62	ENV-ELU-AC	Combination	Min	-16.683	-26.913	45.923	-3.3468	-16.1393
62	ENV-ELU-EQ	Combination	Max	0.535	0.224	295.654	1.5779	0.9179
62	ENV-ELU-EQ	Combination	Min	-0.727	-0.395	35.463	-0.4832	-1.0698
62	RH-1	Combination		-14.352	-1.238	-0.667	1.1711	-13.8562
62	RH-2	Combination		-22.573	-2.669	-1.203	2.5397	-21.7931
62	RH-3	Combination		4.105	1.975	0.537	-1.9017	3.9635
62	RH-4	Combination		-42.232	-14.479	15.616	13.7947	-40.7406
62	RH-5	Combination		-40.599	34.371	-40.887	-32.8881	-39.2836
62	RH-6	Combination		2.030	-38.564	38.909	36.8725	2.0470
62	RH-7	Combination		3.663	10.285	-17.593	-9.8102	3.5040
62	RH-8	Combination		-40.395	-21.680	24.876	20.6681	-38.9597
62	RH-9	Combination		-42.137	14.828	-19.013	-14.2048	-40.7151
62	RH-10	Combination		3.569	-19.021	17.035	18.1892	3.4784
62	RH-11	Combination		1.826	17.486	-26.853	-16.6836	1.7231

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
62	RH-12	Combination		-41.516	-16.016	19.819	15.2410	-40.0590
62	RH-13	Combination		-40.930	9.076	-13.915	-8.6932	-39.5323
62	RH-14	Combination		2.361	-13.270	11.937	12.6777	2.2957
62	RH-15	Combination		2.947	11.823	-21.796	-11.2566	2.8224
62	RH-16	Combination		-43.388	-4.601	9.090	4.3075	-41.8957
62	RH-17	Combination		-39.085	3.016	-9.285	-2.8778	-37.7327
62	RH-18	Combination		0.516	-7.209	7.307	6.8623	0.4960
62	RH-19	Combination		4.819	0.407	-11.067	-0.3231	4.6590
62	RH-20	Combination		-26.225	-11.692	16.660	11.1299	-25.2866
62	RH-21	Combination		-24.592	37.157	-39.842	-35.5529	-23.8296
62	RH-22	Combination		18.037	-35.778	39.953	34.2077	17.5009
62	RH-23	Combination		19.670	13.072	-16.549	-12.4750	18.9579
62	RH-24	Combination		-24.388	-18.893	25.920	18.0033	-23.5058
62	RH-25	Combination		-26.131	17.614	-17.969	-16.8696	-25.2611
62	RH-26	Combination		19.575	-16.235	18.079	15.5244	18.9324
62	RH-27	Combination		17.833	20.273	-25.809	-19.3484	17.1771
62	RH-28	Combination		-25.509	-13.230	20.863	12.5762	-24.6050
62	RH-29	Combination		-24.923	11.863	-12.871	-11.3580	-24.0783
62	RH-30	Combination		18.368	-10.483	12.982	10.0129	17.7496
62	RH-31	Combination		18.953	14.609	-20.752	-13.9214	18.2763
62	RH-32	Combination		-27.381	-1.814	10.134	1.6427	-26.4417
62	RH-33	Combination		-23.078	5.802	-8.241	-5.5426	-22.2787
62	RH-34	Combination		16.523	-4.423	8.351	4.1975	15.9500
62	RH-35	Combination		20.825	3.194	-10.023	-2.9879	20.1130
62	RH-36	Combination		-10.631	-0.917	-0.494	0.8674	-10.2638
62	RH-37	Combination		-18.852	-2.348	-1.030	2.2360	-18.2008
62	RH-38	Combination		7.826	2.296	0.710	-2.2053	7.5559
62	RH-39	Combination		-38.511	-14.158	15.788	13.4910	-37.1483
62	RH-40	Combination		-36.878	34.692	-40.714	-33.1917	-35.6913
62	RH-41	Combination		5.751	-38.243	39.082	36.5689	5.6393
62	RH-42	Combination		7.384	10.606	-17.420	-10.1138	7.0963
62	RH-43	Combination		-36.674	-21.359	25.049	20.3645	-35.3674
62	RH-44	Combination		-38.417	15.149	-18.840	-14.5084	-37.1227
62	RH-45	Combination		7.289	-18.700	17.208	17.8856	7.0708
62	RH-46	Combination		5.547	17.807	-26.680	-16.9872	5.3154
62	RH-47	Combination		-37.795	-15.695	19.992	14.9374	-36.4667
62	RH-48	Combination		-37.209	9.397	-13.742	-8.9968	-35.9400
62	RH-49	Combination		6.082	-12.949	12.110	12.3741	5.8880
62	RH-50	Combination		6.668	12.144	-21.623	-11.5602	6.4147
62	RH-51	Combination		-39.667	-4.280	9.262	4.0039	-38.3034
62	RH-52	Combination		-35.364	3.337	-9.112	-3.1814	-34.1404
62	RH-53	Combination		4.237	-6.888	7.480	6.5587	4.0884
62	RH-54	Combination		8.540	0.728	-10.894	-0.6267	8.2514
62	RH-55	Combination		-22.504	-11.371	16.833	10.8262	-21.6943
62	RH-56	Combination		-20.871	37.478	-39.670	-35.8565	-20.2373
62	RH-57	Combination		21.758	-35.457	40.126	33.9041	21.0933
62	RH-58	Combination		23.391	13.393	-16.376	-12.7786	22.5503
62	RH-59	Combination		-20.667	-18.572	26.093	17.6997	-19.9134
62	RH-60	Combination		-22.410	17.935	-17.796	-17.1732	-21.6688
62	RH-61	Combination		23.296	-15.914	18.252	15.2208	22.5247
62	RH-62	Combination		21.554	20.594	-25.636	-19.6520	20.7694
62	RH-63	Combination		-21.788	-12.909	21.036	12.2726	-21.0127
62	RH-64	Combination		-21.202	12.184	-12.698	-11.6616	-20.4860
62	RH-65	Combination		22.089	-10.162	13.155	9.7093	21.3420
62	RH-66	Combination		22.674	14.930	-20.579	-14.2250	21.8687
62	RH-67	Combination		-23.660	-1.493	10.307	1.3391	-22.8494
62	RH-68	Combination		-19.357	6.123	-8.068	-5.8462	-18.6864
62	RH-69	Combination		20.243	-4.102	8.524	3.8939	19.5424
62	RH-70	Combination		24.546	3.515	-9.850	-3.2915	23.7054
62	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
62	RH-72	Combination		-8.221	-1.431	-0.536	1.3686	-7.9369
62	RH-73	Combination		18.457	3.213	1.204	-3.0727	17.8197

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
62	RH-74	Combination		-27.880	-13.241	16.282	12.6236	-26.8844
62	RH-75	Combination		-26.247	35.609	-40.220	-34.0591	-25.4274
62	RH-76	Combination		16.382	-37.326	39.576	35.7014	15.9031
62	RH-77	Combination		18.015	11.523	-16.926	-10.9813	17.3601
62	RH-78	Combination		-26.043	-20.442	25.543	19.4970	-25.1036
62	RH-79	Combination		-27.786	16.066	-18.346	-15.3758	-26.8589
62	RH-80	Combination		17.921	-17.783	17.702	17.0182	17.3346
62	RH-81	Combination		16.178	18.725	-26.186	-17.8547	15.5792
62	RH-82	Combination		-27.164	-14.778	20.486	14.0700	-26.2029
62	RH-83	Combination		-26.578	10.315	-13.248	-9.8643	-25.6762
62	RH-84	Combination		16.713	-12.032	12.604	11.5066	16.1518
62	RH-85	Combination		17.299	13.061	-21.129	-12.4276	16.6785
62	RH-86	Combination		-29.036	-3.363	9.757	3.1364	-28.0395
62	RH-87	Combination		-24.733	4.254	-8.618	-4.0489	-23.8765
62	RH-88	Combination		14.868	-5.971	7.974	5.6912	14.3522
62	RH-89	Combination		19.171	1.645	-10.400	-1.4941	18.5152
62	RH-90	Combination		-11.873	-10.454	17.327	9.9588	-11.4305
62	RH-91	Combination		-10.240	38.395	-39.175	-36.7239	-9.9735
62	RH-92	Combination		32.389	-34.540	40.620	33.0366	31.3571
62	RH-93	Combination		34.022	14.310	-15.882	-13.6461	32.8141
62	RH-94	Combination		-10.036	-17.655	26.587	16.8322	-9.6496
62	RH-95	Combination		-11.779	18.852	-17.302	-18.0406	-11.4049
62	RH-96	Combination		33.927	-14.997	18.746	14.3534	32.7886
62	RH-97	Combination		32.185	21.511	-25.142	-20.5195	31.0332
62	RH-98	Combination		-11.157	-11.992	21.530	11.4052	-10.7489
62	RH-99	Combination		-10.571	13.101	-12.204	-12.5291	-10.2222
62	RH-100	Combination		32.720	-9.245	13.649	8.8418	31.6058
62	RH-101	Combination		33.305	15.847	-20.085	-15.0924	32.1325
62	RH-102	Combination		-13.029	-0.576	10.801	0.4716	-12.5856
62	RH-103	Combination		-8.726	7.040	-7.574	-6.7137	-8.4225
62	RH-104	Combination		30.874	-3.184	9.018	3.0264	29.8062
62	RH-105	Combination		35.177	4.432	-9.356	-4.1589	33.9692
62	RH-106	Combination		-11.163	-25.942	9.214	24.9650	-10.7744
62	RH-107	Combination		-11.681	-23.810	3.906	22.9524	-11.2860
62	RH-108	Combination		-11.735	-21.793	-1.186	21.0462	-11.3421
62	RH-109	Combination		-9.786	-18.862	-4.171	18.2346	-9.4375
62	RH-110	Combination		-10.641	-14.673	-0.948	14.1640	-10.2514
62	RH-111	Combination		-11.114	-11.760	1.503	11.3243	-10.7114
62	RH-112	Combination		-12.311	-8.057	3.224	7.7314	-11.8770
62	RH-113	Combination		-12.700	-4.616	2.071	4.4170	-12.2631
62	RH-114	Combination		-12.972	-1.946	0.800	1.8483	-12.5324
62	RH-115	Combination		-13.224	0.809	-0.817	-0.7992	-12.7837
62	RH-116	Combination		-14.452	-26.515	9.000	25.5125	-13.9491
62	RH-117	Combination		-14.969	-24.382	3.692	23.4998	-14.4608
62	RH-118	Combination		-15.024	-22.366	-1.400	21.5936	-14.5168
62	RH-119	Combination		-13.074	-19.434	-4.385	18.7820	-12.6123
62	RH-120	Combination		-13.929	-15.245	-1.162	14.7114	-13.4261
62	RH-121	Combination		-14.402	-12.333	1.289	11.8717	-13.8861
62	RH-122	Combination		-15.600	-8.630	3.010	8.2788	-15.0518
62	RH-123	Combination		-15.989	-5.188	1.856	4.9644	-15.4378
62	RH-124	Combination		-16.260	-2.518	0.586	2.3957	-15.7072
62	RH-125	Combination		-16.512	0.236	-1.032	-0.2517	-15.9585
62	RH-126	Combination		-3.780	-24.657	9.696	23.7359	-3.6465
62	RH-127	Combination		-4.298	-22.525	4.388	21.7233	-4.1581
62	RH-128	Combination		-4.353	-20.508	-0.704	19.8171	-4.2142
62	RH-129	Combination		-2.403	-17.577	-3.689	17.0055	-2.3096
62	RH-130	Combination		-3.258	-13.388	-0.466	12.9349	-3.1235
62	RH-131	Combination		-3.731	-10.475	1.985	10.0952	-3.5835
62	RH-132	Combination		-4.928	-6.772	3.706	6.5023	-4.7491
62	RH-133	Combination		-5.318	-3.331	2.553	3.1879	-5.1352
62	RH-134	Combination		-5.589	-0.661	1.282	0.6192	-5.4045
62	RH-135	Combination		-5.841	2.094	-0.335	-2.0283	-5.6559

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
62	RH-136	Combination		-0.532	-25.025	9.708	24.0976	-0.5105
62	RH-137	Combination		-1.049	-22.893	4.400	22.0849	-1.0222
62	RH-138	Combination		-1.104	-20.876	-0.692	20.1787	-1.0782
62	RH-139	Combination		0.845	-17.945	-3.677	17.3671	0.8263
62	RH-140	Combination		-0.010	-13.756	-0.454	13.2965	0.0125
62	RH-141	Combination		-0.483	-10.843	1.997	10.4568	-0.4475
62	RH-142	Combination		-1.680	-7.140	3.718	6.8639	-1.6132
62	RH-143	Combination		-2.069	-3.699	2.565	3.5495	-1.9992
62	RH-144	Combination		-2.340	-1.029	1.294	0.9809	-2.2686
62	RH-145	Combination		-2.593	1.726	-0.323	-1.6666	-2.5199
62	RH-146	Combination		-3.820	-25.598	9.494	24.6450	-3.6853
62	RH-147	Combination		-4.338	-23.465	4.186	22.6324	-4.1969
62	RH-148	Combination		-4.393	-21.449	-0.906	20.7262	-4.2530
62	RH-149	Combination		-2.443	-18.517	-3.891	17.9146	-2.3484
62	RH-150	Combination		-3.298	-14.328	-0.668	13.8440	-3.1623
62	RH-151	Combination		-3.771	-11.415	1.783	11.0043	-3.6223
62	RH-152	Combination		-4.969	-7.713	3.504	7.4114	-4.7879
62	RH-153	Combination		-5.358	-4.271	2.350	4.0969	-5.1740
62	RH-154	Combination		-5.629	-1.601	1.080	1.5283	-5.4433
62	RH-155	Combination		-5.881	1.154	-0.538	-1.1192	-5.6947
62	RH-156	Combination		6.851	-23.740	10.190	22.8685	6.6173
62	RH-157	Combination		6.333	-21.607	4.882	20.8558	6.1057
62	RH-158	Combination		6.278	-19.591	-0.210	18.9496	6.0496
62	RH-159	Combination		8.228	-16.659	-3.195	16.1380	7.9542
62	RH-160	Combination		7.373	-12.471	0.028	12.0674	7.1404
62	RH-161	Combination		6.900	-9.558	2.479	9.2277	6.6803
62	RH-162	Combination		5.703	-5.855	4.200	5.6348	5.5147
62	RH-163	Combination		5.313	-2.413	3.047	2.3204	5.1286
62	RH-164	Combination		5.042	0.257	1.776	-0.2482	4.8593
62	RH-165	Combination		4.790	3.011	0.159	-2.8957	4.6080
76	ENV-ELS-CA	Combination	Max	24.159	21.853	334.584	23.7014	23.5731
76	ENV-ELS-CA	Combination	Min	-28.590	-23.758	73.348	-20.8611	-27.8887
76	ENV-ELS-CP	Combination	Max	3.796	0.343	132.255	2.2171	3.6859
76	ENV-ELS-CP	Combination	Min	-8.723	-1.880	107.628	-0.1187	-8.4615
76	ENV-ELU-PT	Combination	Max	33.343	29.659	452.937	32.1955	32.5334
76	ENV-ELU-PT	Combination	Min	-38.909	-32.258	56.840	-28.4326	-37.9559
76	ENV-ELU-AC	Combination	Max	5.583	0.447	275.186	21.3251	5.4278
76	ENV-ELU-AC	Combination	Min	-14.587	-21.170	88.915	-0.3666	-14.3389
76	ENV-ELU-EQ	Combination	Max	0.655	-0.041	398.493	2.2167	1.0043
76	ENV-ELU-EQ	Combination	Min	-0.712	-0.840	98.469	0.0115	-1.0979
76	RH-1	Combination		-9.321	-0.899	-4.714	0.8484	-9.0080
76	RH-2	Combination		-14.505	0.194	-7.370	-0.2174	-14.0180
76	RH-3	Combination		2.318	-3.353	1.249	3.2413	2.2402
76	RH-4	Combination		-38.323	-9.148	-18.599	8.6824	-37.0346
76	RH-5	Combination		-27.245	28.549	20.917	-27.2999	-26.3213
76	RH-6	Combination		2.383	-29.035	-33.532	27.7178	2.2932
76	RH-7	Combination		13.460	8.661	5.984	-8.2646	13.0065
76	RH-8	Combination		-35.717	-17.290	-26.500	16.4557	-34.5097
76	RH-9	Combination		-33.986	15.097	6.596	-14.4599	-32.8438
76	RH-10	Combination		9.124	-15.584	-19.211	14.8778	8.8158
76	RH-11	Combination		10.855	16.803	13.885	-16.0378	10.4817
76	RH-12	Combination		-34.824	-14.085	-23.814	13.3869	-33.6409
76	RH-13	Combination		-34.718	11.669	3.925	-11.1759	-33.5566
76	RH-14	Combination		9.855	-12.156	-16.541	11.5937	9.5286
76	RH-15	Combination		9.962	13.598	11.199	-12.9691	9.6129
76	RH-16	Combination		-34.089	-5.713	-17.295	5.3696	-32.9238

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
76	RH-17	Combination		-34.815	7.890	1.841	-7.5457	-33.6575
76	RH-18	Combination		9.952	-8.377	-14.456	7.9635	9.6294
76	RH-19	Combination		9.227	5.227	4.680	-4.9518	8.8958
76	RH-20	Combination		-28.229	-11.276	-13.428	10.7576	-27.2796
76	RH-21	Combination		-17.152	26.421	26.088	-25.2247	-16.5663
76	RH-22	Combination		12.476	-31.163	-28.361	29.7930	12.0482
76	RH-23	Combination		23.554	6.534	11.155	-6.1893	22.7615
76	RH-24	Combination		-25.624	-19.418	-21.329	18.5309	-24.7547
76	RH-25	Combination		-23.893	12.970	11.767	-12.3847	-23.0888
76	RH-26	Combination		19.217	-17.712	-14.040	16.9530	18.5707
76	RH-27	Combination		20.948	14.675	19.056	-13.9626	20.2366
76	RH-28	Combination		-24.731	-16.213	-18.643	15.4621	-23.8860
76	RH-29	Combination		-24.625	9.541	9.097	-9.1006	-23.8017
76	RH-30	Combination		19.949	-14.283	-11.369	13.6689	19.2835
76	RH-31	Combination		20.055	11.470	16.370	-10.8939	19.3679
76	RH-32	Combination		-23.996	-7.841	-12.124	7.4448	-23.1689
76	RH-33	Combination		-24.722	5.762	7.013	-5.4705	-23.9025
76	RH-34	Combination		20.046	-10.504	-9.285	10.0388	19.3844
76	RH-35	Combination		19.320	3.099	9.851	-2.8765	18.6508
76	RH-36	Combination		-6.904	-0.666	-3.492	0.6284	-6.6726
76	RH-37	Combination		-12.088	0.427	-6.148	-0.4374	-11.6826
76	RH-38	Combination		4.734	-3.119	2.471	3.0214	4.5757
76	RH-39	Combination		-35.906	-8.915	-17.377	8.4624	-34.6991
76	RH-40	Combination		-24.829	28.782	22.139	-27.5199	-23.9859
76	RH-41	Combination		4.799	-28.802	-32.310	27.4978	4.6287
76	RH-42	Combination		15.877	8.895	7.206	-8.4845	15.3419
76	RH-43	Combination		-33.301	-17.057	-25.278	16.2357	-32.1743
76	RH-44	Combination		-31.570	15.330	7.818	-14.6799	-30.5084
76	RH-45	Combination		11.540	-15.351	-17.989	14.6578	11.1512
76	RH-46	Combination		13.271	17.036	15.107	-16.2578	12.8171
76	RH-47	Combination		-32.408	-13.852	-22.592	13.1670	-31.3055
76	RH-48	Combination		-32.302	11.902	5.148	-11.3958	-31.2212
76	RH-49	Combination		12.272	-11.923	-15.318	11.3737	11.8640
76	RH-50	Combination		12.378	13.831	12.421	-13.1890	11.9483
76	RH-51	Combination		-31.673	-5.480	-16.073	5.1496	-30.5884
76	RH-52	Combination		-32.399	8.123	3.064	-7.7657	-31.3220
76	RH-53	Combination		12.369	-8.144	-13.234	7.7436	11.9648
76	RH-54	Combination		11.643	5.460	5.902	-5.1717	11.2312
76	RH-55	Combination		-25.813	-11.043	-12.206	10.5377	-24.9442
76	RH-56	Combination		-14.735	26.654	27.310	-25.4447	-14.2309
76	RH-57	Combination		14.893	-30.930	-27.139	29.5730	14.3836
76	RH-58	Combination		25.970	6.767	12.377	-6.4093	25.0969
76	RH-59	Combination		-23.207	-19.185	-20.107	18.3109	-22.4193
76	RH-60	Combination		-21.476	13.203	12.989	-12.6047	-20.7534
76	RH-61	Combination		21.634	-17.479	-12.818	16.7330	20.9061
76	RH-62	Combination		23.365	14.908	20.278	-14.1826	22.5720
76	RH-63	Combination		-22.314	-15.980	-17.421	15.2422	-21.5506
76	RH-64	Combination		-22.208	9.774	10.319	-9.3206	-21.4663
76	RH-65	Combination		22.366	-14.050	-10.147	13.4490	21.6190
76	RH-66	Combination		22.472	11.704	17.592	-11.1138	21.7033
76	RH-67	Combination		-21.579	-7.608	-10.901	7.2249	-20.8335
76	RH-68	Combination		-22.305	5.995	8.235	-5.6904	-21.5671
76	RH-69	Combination		22.463	-10.271	-8.063	9.8188	21.7198
76	RH-70	Combination		21.737	3.332	11.073	-3.0965	20.9862
76	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
76	RH-72	Combination		-5.184	1.093	-2.656	-1.0658	-5.0100
76	RH-73	Combination		11.639	-2.454	5.963	2.3929	11.2483
76	RH-74	Combination		-29.002	-8.249	-13.885	7.8340	-28.0265
76	RH-75	Combination		-17.924	29.448	25.631	-28.1483	-17.3133
76	RH-76	Combination		11.704	-28.136	-28.818	26.8694	11.3013
76	RH-77	Combination		22.781	9.560	10.698	-9.1130	22.0145
76	RH-78	Combination		-26.396	-16.391	-21.786	15.6073	-25.5017

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
76	RH-79	Combination		-24.665	15.996	11.310	-15.3083	-23.8358
76	RH-80	Combination		18.444	-14.685	-14.497	14.0294	17.8238
76	RH-81	Combination		20.176	17.702	18.599	-16.8862	19.4897
76	RH-82	Combination		-25.503	-13.186	-19.100	12.5385	-24.6329
76	RH-83	Combination		-25.397	12.568	8.640	-12.0243	-24.5486
76	RH-84	Combination		19.176	-11.257	-11.827	10.7453	18.5366
76	RH-85	Combination		19.283	14.497	15.913	-13.8175	18.6209
76	RH-86	Combination		-24.768	-4.815	-12.581	4.5212	-23.9158
76	RH-87	Combination		-25.494	8.789	6.555	-8.3941	-24.6494
76	RH-88	Combination		19.273	-7.478	-9.742	7.1151	18.6374
76	RH-89	Combination		18.548	6.126	9.394	-5.8002	17.9038
76	RH-90	Combination		-18.908	-10.377	-8.714	9.9092	-18.2716
76	RH-91	Combination		-7.831	27.320	30.802	-26.0731	-7.5583
76	RH-92	Combination		21.797	-30.264	-23.647	28.9446	21.0562
76	RH-93	Combination		32.875	7.433	15.869	-7.0377	31.7695
76	RH-94	Combination		-16.303	-18.519	-16.615	17.6825	-15.7467
76	RH-95	Combination		-14.572	13.868	16.481	-13.2331	-14.0808
76	RH-96	Combination		28.538	-16.813	-9.326	16.1046	27.5787
76	RH-97	Combination		30.269	15.574	23.770	-14.8110	29.2446
76	RH-98	Combination		-15.410	-15.314	-13.929	14.6137	-14.8780
76	RH-99	Combination		-15.304	10.440	13.811	-9.9490	-14.7936
76	RH-100	Combination		29.270	-13.384	-6.655	12.8205	28.2916
76	RH-101	Combination		29.376	12.369	21.084	-11.7422	28.3759
76	RH-102	Combination		-14.675	-6.942	-7.410	6.5964	-14.1609
76	RH-103	Combination		-15.401	6.661	11.727	-6.3189	-14.8945
76	RH-104	Combination		29.367	-9.605	-4.571	9.1904	28.3924
76	RH-105	Combination		28.641	3.998	14.565	-3.7249	27.6588
76	RH-106	Combination		-12.422	-19.611	-9.792	18.8497	-11.9967
76	RH-107	Combination		-11.909	-18.653	-6.647	17.9608	-11.4948
76	RH-108	Combination		-10.966	-17.837	-1.458	17.2351	-10.5750
76	RH-109	Combination		-7.705	-16.682	1.497	16.1846	-7.4412
76	RH-110	Combination		-7.187	-14.332	2.345	13.9157	-6.9674
76	RH-111	Combination		-6.807	-12.380	-2.475	11.9660	-6.6001
76	RH-112	Combination		-7.010	-9.779	-6.289	9.4084	-6.7764
76	RH-113	Combination		-6.570	-7.287	-6.156	6.9971	-6.3455
76	RH-114	Combination		-6.241	-5.307	-5.800	5.0846	-6.0237
76	RH-115	Combination		-5.894	-3.242	-5.175	3.0942	-5.6853
76	RH-116	Combination		-14.495	-19.174	-10.855	18.4234	-14.0007
76	RH-117	Combination		-13.982	-18.216	-7.709	17.5345	-13.4988
76	RH-118	Combination		-13.039	-17.400	-2.520	16.8088	-12.5790
76	RH-119	Combination		-9.778	-16.245	0.434	15.7583	-9.4452
76	RH-120	Combination		-9.260	-13.895	1.283	13.4894	-8.9714
76	RH-121	Combination		-8.881	-11.943	-3.537	11.5396	-8.6041
76	RH-122	Combination		-9.084	-9.342	-7.352	8.9820	-8.7804
76	RH-123	Combination		-8.644	-6.850	-7.218	6.5707	-8.3495
76	RH-124	Combination		-8.314	-4.870	-6.863	4.6583	-8.0277
76	RH-125	Combination		-7.967	-2.805	-6.237	2.6679	-7.6893
76	RH-126	Combination		-7.766	-20.593	-7.407	19.8069	-7.4974
76	RH-127	Combination		-7.253	-19.635	-4.262	18.9180	-6.9955
76	RH-128	Combination		-6.310	-18.819	0.927	18.1923	-6.0757
76	RH-129	Combination		-3.049	-17.663	3.882	17.1418	-2.9419
76	RH-130	Combination		-2.531	-15.313	4.730	14.8729	-2.4680
76	RH-131	Combination		-2.152	-13.362	-0.090	12.9231	-2.1008
76	RH-132	Combination		-2.355	-10.761	-3.904	10.3655	-2.2771
76	RH-133	Combination		-1.915	-8.269	-3.771	7.9542	-1.8462
76	RH-134	Combination		-1.585	-6.288	-3.415	6.0418	-1.5244
76	RH-135	Combination		-1.238	-4.223	-2.790	4.0514	-1.1860
76	RH-136	Combination		-5.517	-18.946	-6.300	18.2212	-5.3241
76	RH-137	Combination		-5.004	-17.987	-3.155	17.3324	-4.8222
76	RH-138	Combination		-4.061	-17.171	2.034	16.6067	-3.9024
76	RH-139	Combination		-0.800	-16.016	4.989	15.5562	-0.7686
76	RH-140	Combination		-0.282	-13.666	5.837	13.2873	-0.2947

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
76	RH-141	Combination		0.097	-11.714	1.017	11.3375	0.0725
76	RH-142	Combination		-0.106	-9.113	-2.798	8.7799	-0.1038
76	RH-143	Combination		0.334	-6.621	-2.664	6.3686	0.3271
76	RH-144	Combination		0.664	-4.641	-2.309	4.4562	0.6489
76	RH-145	Combination		1.011	-2.576	-1.683	2.4658	0.9873
76	RH-146	Combination		-7.591	-18.508	-7.363	17.7949	-7.3281
76	RH-147	Combination		-7.078	-17.550	-4.217	16.9060	-6.8262
76	RH-148	Combination		-6.135	-16.734	0.972	16.1804	-5.9064
76	RH-149	Combination		-2.874	-15.579	3.926	15.1299	-2.7726
76	RH-150	Combination		-2.356	-13.229	4.774	12.8609	-2.2987
76	RH-151	Combination		-1.976	-11.277	-0.045	10.9112	-1.9315
76	RH-152	Combination		-2.179	-8.676	-3.860	8.3536	-2.1078
76	RH-153	Combination		-1.740	-6.184	-3.726	5.9423	-1.6769
76	RH-154	Combination		-1.410	-4.204	-3.371	4.0298	-1.3551
76	RH-155	Combination		-1.063	-2.139	-2.745	2.0394	-1.0167
76	RH-156	Combination		-0.862	-19.927	-3.915	19.1784	-0.8248
76	RH-157	Combination		-0.349	-18.969	-0.770	18.2895	-0.3229
76	RH-158	Combination		0.594	-18.153	4.419	17.5638	0.5969
76	RH-159	Combination		3.855	-16.997	7.374	16.5134	3.7307
76	RH-160	Combination		4.373	-14.647	8.222	14.2444	4.2046
76	RH-161	Combination		4.753	-12.696	3.402	12.2947	4.5718
76	RH-162	Combination		4.550	-10.095	-0.412	9.7371	4.3956
76	RH-163	Combination		4.989	-7.603	-0.279	7.3258	4.8264
76	RH-164	Combination		5.319	-5.623	0.077	5.4133	5.1482
76	RH-165	Combination		5.666	-3.558	0.702	3.4229	5.4866
80	ENV-ELS-CA	Combination	Max	22.827	22.973	234.233	23.1157	22.2637
80	ENV-ELS-CA	Combination	Min	-27.109	-23.205	33.371	-22.1559	-26.3645
80	ENV-ELS-CP	Combination	Max	3.814	1.204	77.156	1.8740	3.6834
80	ENV-ELS-CP	Combination	Min	-8.533	-1.507	65.336	-1.0892	-8.2265
80	ENV-ELU-PT	Combination	Max	31.549	31.306	316.942	31.3535	30.7593
80	ENV-ELU-PT	Combination	Min	-36.911	-31.451	20.587	-30.3233	-35.8948
80	ENV-ELU-AC	Combination	Max	5.508	1.473	193.482	20.7813	5.3126
80	ENV-ELU-AC	Combination	Min	-11.529	-20.674	49.471	-1.4614	-11.3034
80	ENV-ELU-EQ	Combination	Max	0.525	0.139	282.235	1.7677	0.8927
80	ENV-ELU-EQ	Combination	Min	-0.695	-0.562	47.000	-0.2773	-1.0058
80	RH-1	Combination		-9.039	-0.903	-1.165	0.8531	-8.7306
80	RH-2	Combination		-14.208	-2.325	-1.950	2.2160	-13.7234
80	RH-3	Combination		2.566	2.289	0.598	-2.2069	2.4790
80	RH-4	Combination		-35.166	-10.660	8.790	10.1469	-33.9490
80	RH-5	Combination		-33.228	27.055	-28.598	-25.8621	-32.1411
80	RH-6	Combination		8.948	-30.568	25.325	29.2039	8.6885
80	RH-7	Combination		10.886	7.147	-12.063	-6.8052	10.4964
80	RH-8	Combination		-33.160	-18.785	17.286	17.9040	-32.0098
80	RH-9	Combination		-35.064	13.602	-15.596	-13.0167	-33.8830
80	RH-10	Combination		10.783	-17.115	12.324	16.3585	10.4304
80	RH-11	Combination		8.879	15.272	-20.558	-14.5622	8.5572
80	RH-12	Combination		-34.342	-15.604	15.167	14.8570	-33.1634
80	RH-13	Combination		-33.848	10.147	-13.368	-9.7059	-32.6980
80	RH-14	Combination		9.568	-13.660	10.095	13.0476	9.2455
80	RH-15	Combination		10.062	12.091	-18.440	-11.5153	9.7108
80	RH-16	Combination		-36.299	-7.234	9.339	6.8391	-35.0714
80	RH-17	Combination		-31.950	6.371	-11.843	-6.0771	-30.8518
80	RH-18	Combination		7.670	-9.884	8.570	9.4188	7.3992
80	RH-19	Combination		12.018	3.720	-12.612	-3.4974	11.6189
80	RH-20	Combination		-25.102	-7.891	10.320	7.4931	-24.2275
80	RH-21	Combination		-23.164	29.824	-27.068	-28.5159	-22.4196

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
80	RH-22	Combination		19.012	-27.799	26.854	26.5501	18.4100
80	RH-23	Combination		20.950	9.916	-10.534	-9.4589	20.2179
80	RH-24	Combination		-23.095	-16.016	18.815	15.2502	-22.2884
80	RH-25	Combination		-24.999	16.371	-14.067	-15.6705	-24.1615
80	RH-26	Combination		20.847	-14.346	13.853	13.7047	20.1518
80	RH-27	Combination		18.944	18.041	-19.029	-17.2160	18.2787
80	RH-28	Combination		-24.278	-12.835	16.696	12.2033	-23.4419
80	RH-29	Combination		-23.784	12.916	-11.839	-12.3596	-22.9766
80	RH-30	Combination		19.632	-10.892	11.625	10.3938	18.9669
80	RH-31	Combination		20.126	14.859	-16.910	-14.1691	19.4322
80	RH-32	Combination		-26.234	-4.465	10.869	4.1853	-25.3500
80	RH-33	Combination		-21.886	9.140	-10.314	-8.7308	-21.1303
80	RH-34	Combination		17.734	-7.115	10.100	6.7650	17.1207
80	RH-35	Combination		22.082	6.489	-11.083	-6.1511	21.3403
80	RH-36	Combination		-6.695	-0.669	-0.863	0.6319	-6.4671
80	RH-37	Combination		-11.864	-2.091	-1.648	1.9949	-11.4599
80	RH-38	Combination		4.909	2.524	0.900	-2.4281	4.7425
80	RH-39	Combination		-32.823	-10.426	9.092	9.9257	-31.6855
80	RH-40	Combination		-30.885	27.289	-28.296	-26.0833	-29.8776
80	RH-41	Combination		11.291	-30.334	25.627	28.9827	10.9520
80	RH-42	Combination		13.229	7.381	-11.761	-7.0263	12.7599
80	RH-43	Combination		-30.816	-18.551	17.588	17.6828	-29.7463
80	RH-44	Combination		-32.720	13.836	-15.294	-13.2379	-31.6195
80	RH-45	Combination		13.127	-16.881	12.626	16.1373	12.6939
80	RH-46	Combination		11.223	15.506	-20.256	-14.7834	10.8207
80	RH-47	Combination		-31.999	-15.369	15.469	14.6359	-30.8999
80	RH-48	Combination		-31.505	10.381	-13.066	-9.9270	-30.4346
80	RH-49	Combination		11.911	-13.426	10.398	12.8264	11.5090
80	RH-50	Combination		12.405	12.325	-18.138	-11.7365	11.9743
80	RH-51	Combination		-33.955	-6.999	9.641	6.6179	-32.8079
80	RH-52	Combination		-29.606	6.605	-11.541	-6.2983	-28.5883
80	RH-53	Combination		10.013	-9.650	8.872	9.1976	9.6627
80	RH-54	Combination		14.362	3.955	-12.310	-3.7185	13.8823
80	RH-55	Combination		-22.759	-7.657	10.622	7.2720	-21.9641
80	RH-56	Combination		-20.821	30.058	-26.766	-28.7371	-20.1561
80	RH-57	Combination		21.355	-27.565	27.156	26.3289	20.6735
80	RH-58	Combination		23.294	10.150	-10.232	-9.6801	22.4814
80	RH-59	Combination		-20.752	-15.782	19.117	15.0290	-20.0249
80	RH-60	Combination		-22.656	16.605	-13.765	-15.8917	-21.8980
80	RH-61	Combination		23.191	-14.112	14.155	13.4835	22.4153
80	RH-62	Combination		21.287	18.275	-18.727	-17.4372	20.5422
80	RH-63	Combination		-21.935	-12.601	16.998	11.9821	-21.1784
80	RH-64	Combination		-21.441	13.150	-11.537	-12.5808	-20.7131
80	RH-65	Combination		21.976	-10.657	11.927	10.1727	21.2304
80	RH-66	Combination		22.470	15.094	-16.608	-14.3902	21.6957
80	RH-67	Combination		-23.891	-4.231	11.171	3.9641	-23.0865
80	RH-68	Combination		-19.542	9.374	-10.012	-8.9520	-18.8668
80	RH-69	Combination		20.077	-6.881	10.402	6.5439	19.3842
80	RH-70	Combination		24.426	6.724	-10.781	-6.3723	23.6038
80	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
80	RH-72	Combination		-5.169	-1.422	-0.785	1.3629	-4.9928
80	RH-73	Combination		11.605	3.193	1.763	-3.0600	11.2096
80	RH-74	Combination		-26.128	-9.757	9.955	9.2938	-25.2184
80	RH-75	Combination		-24.189	27.959	-27.433	-26.7152	-23.4105
80	RH-76	Combination		17.987	-29.665	26.490	28.3507	17.4191
80	RH-77	Combination		19.925	8.051	-10.898	-7.6583	19.2270
80	RH-78	Combination		-24.121	-17.881	18.451	17.0509	-23.2792
80	RH-79	Combination		-26.025	14.505	-14.431	-13.8698	-25.1524
80	RH-80	Combination		19.822	-16.212	13.489	15.5053	19.1610
80	RH-81	Combination		17.918	16.175	-19.393	-15.4153	17.2879
80	RH-82	Combination		-25.303	-14.700	16.332	14.0039	-24.4327
80	RH-83	Combination		-24.809	11.051	-12.203	-10.5590	-23.9674

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
80	RH-84	Combination		18.607	-12.757	11.261	12.1945	17.9761
80	RH-85	Combination		19.101	12.994	-17.275	-12.3684	18.4414
80	RH-86	Combination		-27.260	-6.330	10.504	5.9860	-26.3408
80	RH-87	Combination		-22.911	7.274	-10.678	-6.9302	-22.1212
80	RH-88	Combination		16.708	-8.981	9.735	8.5657	16.1298
80	RH-89	Combination		21.057	4.624	-11.447	-4.3505	20.3495
80	RH-90	Combination		-16.063	-6.988	11.485	6.6400	-15.4969
80	RH-91	Combination		-14.125	30.727	-25.903	-29.3690	-13.6890
80	RH-92	Combination		28.051	-26.896	28.019	25.6970	27.1406
80	RH-93	Combination		29.989	10.819	-9.369	-10.3120	28.9485
80	RH-94	Combination		-14.057	-15.113	19.980	14.3971	-13.5577
80	RH-95	Combination		-15.960	17.274	-12.902	-16.5236	-15.4309
80	RH-96	Combination		29.886	-13.443	15.018	12.8516	28.8825
80	RH-97	Combination		27.982	18.944	-17.864	-18.0691	27.0093
80	RH-98	Combination		-15.239	-11.931	17.861	11.3502	-14.7113
80	RH-99	Combination		-14.745	13.819	-10.674	-13.2127	-14.2460
80	RH-100	Combination		28.671	-9.988	12.790	9.5407	27.6975
80	RH-101	Combination		29.165	15.763	-15.745	-15.0222	28.1629
80	RH-102	Combination		-17.195	-3.561	12.034	3.3322	-16.6194
80	RH-103	Combination		-12.847	10.043	-9.149	-9.5839	-12.3997
80	RH-104	Combination		26.773	-6.212	11.265	5.9119	25.8513
80	RH-105	Combination		31.121	7.393	-9.918	-7.0042	30.0709
80	RH-106	Combination		-7.365	-19.618	7.511	18.8561	-7.1048
80	RH-107	Combination		-7.797	-18.652	4.397	17.9567	-7.5308
80	RH-108	Combination		-7.778	-17.804	0.461	17.1817	-7.5206
80	RH-109	Combination		-5.781	-16.589	-4.985	16.0442	-5.5899
80	RH-110	Combination		-6.635	-14.261	-5.337	13.8058	-6.3941
80	RH-111	Combination		-7.131	-12.369	-2.639	11.9484	-6.8719
80	RH-112	Combination		-8.357	-9.782	0.698	9.4116	-8.0617
80	RH-113	Combination		-8.775	-7.290	1.571	7.0000	-8.4738
80	RH-114	Combination		-9.068	-5.311	1.813	5.0878	-8.7637
80	RH-115	Combination		-9.342	-3.246	1.637	3.0977	-9.0350
80	RH-116	Combination		-9.432	-20.187	7.197	19.4013	-9.1019
80	RH-117	Combination		-9.864	-19.221	4.082	18.5019	-9.5279
80	RH-118	Combination		-9.846	-18.373	0.147	17.7269	-9.5177
80	RH-119	Combination		-7.849	-17.158	-5.300	16.5894	-7.5870
80	RH-120	Combination		-8.703	-14.830	-5.652	14.3509	-8.3912
80	RH-121	Combination		-9.198	-12.938	-2.954	12.4936	-8.8690
80	RH-122	Combination		-10.425	-10.351	0.384	9.9568	-10.0588
80	RH-123	Combination		-10.842	-7.859	1.257	7.5451	-10.4710
80	RH-124	Combination		-11.135	-5.880	1.499	5.6330	-10.7609
80	RH-125	Combination		-11.409	-3.815	1.322	3.6428	-11.0321
80	RH-126	Combination		-2.723	-18.341	8.216	17.6321	-2.6209
80	RH-127	Combination		-3.155	-17.375	5.102	16.7327	-3.0469
80	RH-128	Combination		-3.136	-16.527	1.166	15.9577	-3.0368
80	RH-129	Combination		-1.139	-15.312	-4.280	14.8202	-1.1060
80	RH-130	Combination		-1.993	-12.984	-4.632	12.5818	-1.9103
80	RH-131	Combination		-2.489	-11.092	-1.934	10.7244	-2.3880
80	RH-132	Combination		-3.715	-8.505	1.404	8.1876	-3.5778
80	RH-133	Combination		-4.133	-6.013	2.276	5.7759	-3.9900
80	RH-134	Combination		-4.426	-4.034	2.518	3.8638	-4.2799
80	RH-135	Combination		-4.700	-1.969	2.342	1.8737	-4.5511
80	RH-136	Combination		-0.669	-18.949	8.374	18.2242	-0.6377
80	RH-137	Combination		-1.101	-17.983	5.260	17.3248	-1.0636
80	RH-138	Combination		-1.083	-17.135	1.324	16.5498	-1.0535
80	RH-139	Combination		0.914	-15.920	-4.122	15.4123	0.8772
80	RH-140	Combination		0.060	-13.592	-4.474	13.1738	0.0730
80	RH-141	Combination		-0.435	-11.700	-1.776	11.3165	-0.4048
80	RH-142	Combination		-1.661	-9.113	1.561	8.7797	-1.5945
80	RH-143	Combination		-2.079	-6.621	2.434	6.3680	-2.0067
80	RH-144	Combination		-2.372	-4.642	2.676	4.4559	-2.2966
80	RH-145	Combination		-2.646	-2.577	2.500	2.4657	-2.5679

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
80	RH-146	Combination		-2.737	-19.518	8.060	18.7694	-2.6348
80	RH-147	Combination		-3.169	-18.552	4.945	17.8700	-3.0608
80	RH-148	Combination		-3.150	-17.704	1.010	17.0950	-3.0506
80	RH-149	Combination		-1.153	-16.488	-4.437	15.9574	-1.1199
80	RH-150	Combination		-2.007	-14.161	-4.789	13.7190	-1.9241
80	RH-151	Combination		-2.503	-12.269	-2.091	11.8617	-2.4019
80	RH-152	Combination		-3.729	-9.682	1.247	9.3248	-3.5917
80	RH-153	Combination		-4.147	-7.190	2.120	6.9132	-4.0038
80	RH-154	Combination		-4.440	-5.210	2.362	5.0011	-4.2937
80	RH-155	Combination		-4.714	-3.146	2.185	3.0109	-4.5650
80	RH-156	Combination		3.973	-17.672	9.079	17.0002	3.8462
80	RH-157	Combination		3.541	-16.706	5.965	16.1008	3.4202
80	RH-158	Combination		3.559	-15.858	2.029	15.3258	3.4303
80	RH-159	Combination		5.556	-14.643	-3.417	14.1883	5.3611
80	RH-160	Combination		4.702	-12.315	-3.769	11.9498	4.5569
80	RH-161	Combination		4.207	-10.423	-1.071	10.0925	4.0791
80	RH-162	Combination		2.980	-7.836	2.267	7.5557	2.8893
80	RH-163	Combination		2.563	-5.344	3.139	5.1440	2.4771
80	RH-164	Combination		2.270	-3.364	3.381	3.2319	2.1872
80	RH-165	Combination		1.996	-1.300	3.205	1.2417	1.9160
93	ENV-ELS-CA	Combination	Max	21.477	16.413	315.326	18.2662	21.0328
93	ENV-ELS-CA	Combination	Min	-23.230	-18.122	71.921	-15.6420	-22.5787
93	ENV-ELS-CP	Combination	Max	1.613	0.349	121.104	2.0573	1.6078
93	ENV-ELS-CP	Combination	Min	-3.678	-1.695	109.521	-0.1459	-3.5007
93	ENV-ELU-PT	Combination	Max	29.283	22.326	426.086	24.8681	28.6724
93	ENV-ELU-PT	Combination	Min	-31.490	-24.657	57.908	-21.3990	-30.6058
93	ENV-ELU-AC	Combination	Max	3.103	0.459	262.609	16.1551	3.2834
93	ENV-ELU-AC	Combination	Min	-9.426	-15.739	84.241	-0.3623	-9.2360
93	ENV-ELU-EQ	Combination	Max	0.813	-0.061	382.472	2.1075	1.2536
93	ENV-ELU-EQ	Combination	Min	-0.537	-0.845	80.281	0.0812	-0.7856
93	RH-1	Combination		-3.998	-0.574	-3.511	0.5408	-3.8664
93	RH-2	Combination		-6.128	0.530	-5.482	-0.5326	-5.9259
93	RH-3	Combination		0.783	-3.053	0.913	2.9506	0.7575
93	RH-4	Combination		-31.073	-5.533	-13.044	5.2350	-30.0400
93	RH-5	Combination		-20.093	21.520	19.924	-20.5611	-19.3951
93	RH-6	Combination		9.541	-21.344	-29.312	20.3545	9.1909
93	RH-7	Combination		20.521	5.710	3.657	-5.4415	19.8358
93	RH-8	Combination		-28.551	-14.186	-22.352	13.4929	-27.5981
93	RH-9	Combination		-26.714	13.631	9.628	-13.0425	-25.8124
93	RH-10	Combination		16.162	-13.455	-19.015	12.8360	15.6081
93	RH-11	Combination		17.999	14.362	12.964	-13.6994	17.3938
93	RH-12	Combination		-27.800	-13.468	-21.401	12.8056	-26.8635
93	RH-13	Combination		-27.562	12.642	8.661	-12.0936	-26.6410
93	RH-14	Combination		17.010	-12.466	-18.048	11.8871	16.4367
93	RH-15	Combination		17.248	13.645	12.014	-13.0121	16.6592
93	RH-16	Combination		-26.963	-8.364	-17.340	7.9107	-26.0408
93	RH-17	Combination		-27.701	11.267	8.614	-10.7607	-26.7864
93	RH-18	Combination		17.149	-11.091	-18.002	10.5542	16.5822
93	RH-19	Combination		16.411	8.540	7.953	-8.1172	15.8366
93	RH-20	Combination		-26.927	-7.683	-9.208	7.3249	-26.0300
93	RH-21	Combination		-15.947	19.371	23.761	-18.4711	-15.3851
93	RH-22	Combination		13.688	-23.493	-25.475	22.4445	13.2009
93	RH-23	Combination		24.668	3.560	7.494	-3.3516	23.8458
93	RH-24	Combination		-24.404	-16.335	-18.515	15.5829	-23.5880
93	RH-25	Combination		-22.567	11.482	13.465	-10.9526	-21.8023
93	RH-26	Combination		20.309	-15.604	-15.178	14.9259	19.6182

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
93	RH-27	Combination		22.146	12.213	16.801	-11.6095	21.4039
93	RH-28	Combination		-23.653	-15.618	-17.564	14.8955	-22.8534
93	RH-29	Combination		-23.416	10.493	12.498	-10.0037	-22.6309
93	RH-30	Combination		21.157	-14.615	-14.211	13.9770	20.4468
93	RH-31	Combination		21.395	11.495	15.851	-10.9222	20.6693
93	RH-32	Combination		-22.816	-10.513	-13.503	10.0006	-22.0307
93	RH-33	Combination		-23.555	9.118	12.451	-8.6707	-22.7764
93	RH-34	Combination		21.296	-13.240	-14.165	12.6441	20.5922
93	RH-35	Combination		20.558	6.391	11.790	-6.0273	19.8466
93	RH-36	Combination		-2.962	-0.425	-2.601	0.4006	-2.8640
93	RH-37	Combination		-5.091	0.679	-4.572	-0.6728	-4.9235
93	RH-38	Combination		1.820	-2.904	1.823	2.8104	1.7599
93	RH-39	Combination		-30.037	-5.384	-12.134	5.0948	-29.0376
93	RH-40	Combination		-19.057	21.669	20.835	-20.7013	-18.3927
93	RH-41	Combination		10.578	-21.195	-28.401	20.2143	10.1933
93	RH-42	Combination		21.558	5.858	4.568	-5.5817	20.8382
93	RH-43	Combination		-27.514	-14.037	-21.441	13.3527	-26.5957
93	RH-44	Combination		-25.677	13.780	10.538	-13.1827	-24.8100
93	RH-45	Combination		17.199	-13.306	-18.105	12.6958	16.6105
93	RH-46	Combination		19.036	14.511	13.875	-13.8396	18.3962
93	RH-47	Combination		-26.763	-13.320	-20.491	12.6654	-25.8611
93	RH-48	Combination		-26.526	12.791	9.571	-12.2338	-25.6386
93	RH-49	Combination		18.047	-12.317	-17.138	11.7469	17.4391
93	RH-50	Combination		18.285	13.794	12.924	-13.1523	17.6616
93	RH-51	Combination		-25.926	-8.215	-16.430	7.7705	-25.0384
93	RH-52	Combination		-26.665	11.416	9.525	-10.9009	-25.7840
93	RH-53	Combination		18.186	-10.942	-17.091	10.4140	17.5846
93	RH-54	Combination		17.448	8.689	8.863	-8.2574	16.8390
93	RH-55	Combination		-25.890	-7.534	-8.297	7.1847	-25.0276
93	RH-56	Combination		-14.910	19.519	24.672	-18.6113	-14.3827
93	RH-57	Combination		14.725	-23.344	-24.564	22.3043	14.2034
93	RH-58	Combination		25.705	3.709	8.404	-3.4918	24.8482
93	RH-59	Combination		-23.368	-16.186	-17.604	15.4427	-22.5856
93	RH-60	Combination		-21.531	11.631	14.375	-11.0928	-20.7999
93	RH-61	Combination		21.345	-15.455	-14.268	14.7857	20.6206
93	RH-62	Combination		23.182	12.362	17.712	-11.7497	22.4063
93	RH-63	Combination		-22.617	-15.469	-16.654	14.7553	-21.8510
93	RH-64	Combination		-22.379	10.642	13.408	-10.1439	-21.6285
93	RH-65	Combination		22.194	-14.466	-13.301	13.8368	21.4492
93	RH-66	Combination		22.431	11.644	16.761	-11.0624	21.6717
93	RH-67	Combination		-21.780	-10.364	-12.593	9.8604	-21.0283
93	RH-68	Combination		-22.518	9.267	13.362	-8.8109	-21.7740
93	RH-69	Combination		22.333	-13.092	-13.254	12.5039	21.5947
93	RH-70	Combination		21.594	6.539	12.700	-6.1675	20.8490
93	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
93	RH-72	Combination		-2.130	1.104	-1.971	-1.0734	-2.0595
93	RH-73	Combination		4.781	-2.478	4.424	2.4099	4.6239
93	RH-74	Combination		-27.075	-4.959	-9.533	4.6942	-26.1736
93	RH-75	Combination		-16.095	22.094	23.436	-21.1018	-15.5287
93	RH-76	Combination		13.540	-20.770	-25.800	19.8138	13.0573
93	RH-77	Combination		24.520	6.284	7.168	-5.9823	23.7022
93	RH-78	Combination		-24.553	-13.612	-18.840	12.9521	-23.7317
93	RH-79	Combination		-22.716	14.205	13.139	-13.5833	-21.9460
93	RH-80	Combination		20.160	-12.881	-15.504	12.2952	19.4746
93	RH-81	Combination		21.997	14.936	16.476	-14.2402	21.2603
93	RH-82	Combination		-23.802	-12.894	-17.890	12.2648	-22.9971
93	RH-83	Combination		-23.564	13.216	12.172	-12.6344	-22.7746
93	RH-84	Combination		21.009	-11.892	-14.537	11.3463	20.3032
93	RH-85	Combination		21.246	14.219	15.525	-13.5529	20.5256
93	RH-86	Combination		-22.965	-7.789	-13.829	7.3699	-22.1744
93	RH-87	Combination		-23.703	11.842	12.126	-11.3014	-22.9200
93	RH-88	Combination		21.148	-10.517	-14.490	10.0134	20.4486

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
93	RH-89	Combination		20.409	9.114	11.464	-8.6580	19.7030
93	RH-90	Combination		-22.929	-7.109	-5.696	6.7842	-22.1635
93	RH-91	Combination		-11.949	19.945	27.272	-19.0119	-11.5186
93	RH-92	Combination		17.686	-22.919	-21.963	21.9037	17.0674
93	RH-93	Combination		28.666	4.134	11.005	-3.8923	27.7123
93	RH-94	Combination		-20.406	-15.761	-15.003	15.0421	-19.7216
93	RH-95	Combination		-18.569	12.056	16.976	-11.4933	-17.9359
93	RH-96	Combination		24.307	-15.030	-11.667	14.3852	23.4846
93	RH-97	Combination		26.144	12.787	20.313	-12.1502	25.2703
93	RH-98	Combination		-19.655	-15.044	-14.053	14.3548	-18.9870
93	RH-99	Combination		-19.417	11.067	16.009	-10.5444	-18.7645
93	RH-100	Combination		25.155	-14.041	-10.700	13.4363	24.3132
93	RH-101	Combination		25.393	12.070	19.362	-11.4629	24.5357
93	RH-102	Combination		-18.818	-9.939	-9.992	9.4599	-18.1643
93	RH-103	Combination		-19.556	9.692	15.963	-9.2115	-18.9099
93	RH-104	Combination		25.294	-12.666	-10.654	12.1033	24.4587
93	RH-105	Combination		24.556	6.965	15.301	-6.5680	23.7130
93	RH-106	Combination		-8.411	-13.617	-8.838	13.0736	-8.1323
93	RH-107	Combination		-7.932	-13.676	-7.150	13.1491	-7.6631
93	RH-108	Combination		-7.022	-13.832	-4.272	13.3315	-6.7740
93	RH-109	Combination		-3.772	-14.131	-0.807	13.6752	-3.6258
93	RH-110	Combination		-3.263	-13.739	5.940	13.3854	-3.1543
93	RH-111	Combination		-2.915	-12.941	3.798	12.5803	-2.8425
93	RH-112	Combination		-3.101	-11.489	-4.149	11.0860	-3.0096
93	RH-113	Combination		-2.628	-10.007	-5.829	9.6294	-2.5414
93	RH-114	Combination		-2.275	-8.763	-6.481	8.4136	-2.1948
93	RH-115	Combination		-1.905	-7.435	-6.806	7.1230	-1.8318
93	RH-116	Combination		-9.262	-13.175	-9.627	12.6442	-8.9561
93	RH-117	Combination		-8.783	-13.235	-7.939	12.7198	-8.4869
93	RH-118	Combination		-7.873	-13.391	-5.061	12.9022	-7.5978
93	RH-119	Combination		-4.624	-13.689	-1.595	13.2458	-4.4496
93	RH-120	Combination		-4.115	-13.298	5.152	12.9560	-3.9781
93	RH-121	Combination		-3.767	-12.499	3.010	12.1510	-3.6663
93	RH-122	Combination		-3.953	-11.048	-4.938	10.6566	-3.8334
93	RH-123	Combination		-3.480	-9.565	-6.617	9.2000	-3.3652
93	RH-124	Combination		-3.127	-8.321	-7.269	7.9843	-3.0187
93	RH-125	Combination		-2.757	-6.994	-7.594	6.6936	-2.6556
93	RH-126	Combination		-6.498	-14.608	-7.069	14.0375	-6.2827
93	RH-127	Combination		-6.019	-14.668	-5.381	14.1131	-5.8135
93	RH-128	Combination		-5.109	-14.824	-2.503	14.2955	-4.9244
93	RH-129	Combination		-1.860	-15.122	0.963	14.6391	-1.7762
93	RH-130	Combination		-1.351	-14.731	7.710	14.3493	-1.3047
93	RH-131	Combination		-1.003	-13.932	5.568	13.5443	-0.9929
93	RH-132	Combination		-1.189	-12.481	-2.380	12.0499	-1.1600
93	RH-133	Combination		-0.715	-10.998	-4.059	10.5933	-0.6918
93	RH-134	Combination		-0.363	-9.754	-4.711	9.3776	-0.3453
93	RH-135	Combination		7.416E-03	-8.427	-5.036	8.0869	0.0178
93	RH-136	Combination		-5.449	-13.191	-6.237	12.6730	-5.2683
93	RH-137	Combination		-4.970	-13.251	-4.549	12.7486	-4.7990
93	RH-138	Combination		-4.060	-13.407	-1.671	12.9310	-3.9100
93	RH-139	Combination		-0.811	-13.705	1.794	13.2746	-0.7618
93	RH-140	Combination		-0.302	-13.314	8.541	12.9848	-0.2902
93	RH-141	Combination		0.046	-12.515	6.399	12.1797	0.0215
93	RH-142	Combination		-0.139	-11.064	-1.548	10.6854	-0.1456
93	RH-143	Combination		0.334	-9.582	-3.228	9.2288	0.3227
93	RH-144	Combination		0.686	-8.337	-3.880	8.0131	0.6692
93	RH-145	Combination		1.056	-7.010	-4.205	6.7224	1.0323
93	RH-146	Combination		-6.301	-12.750	-7.026	12.2437	-6.0921
93	RH-147	Combination		-5.822	-12.809	-5.338	12.3192	-5.6229
93	RH-148	Combination		-4.912	-12.965	-2.460	12.5016	-4.7338
93	RH-149	Combination		-1.663	-13.264	1.006	12.8452	-1.5856
93	RH-150	Combination		-1.154	-12.872	7.753	12.5555	-1.1140

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
93	RH-151	Combination		-0.805	-12.074	5.611	11.7504	-0.8023
93	RH-152	Combination		-0.991	-10.622	-2.337	10.2560	-0.9694
93	RH-153	Combination		-0.518	-9.140	-4.016	8.7995	-0.5012
93	RH-154	Combination		-0.166	-7.896	-4.668	7.5837	-0.1546
93	RH-155	Combination		0.205	-6.568	-4.993	6.2931	0.2085
93	RH-156	Combination		-3.536	-14.183	-4.468	13.6370	-3.4187
93	RH-157	Combination		-3.057	-14.242	-2.780	13.7125	-2.9495
93	RH-158	Combination		-2.147	-14.398	0.098	13.8949	-2.0604
93	RH-159	Combination		1.102	-14.697	3.564	14.2385	1.0878
93	RH-160	Combination		1.611	-14.305	10.311	13.9487	1.5593
93	RH-161	Combination		1.959	-13.507	8.169	13.1437	1.8711
93	RH-162	Combination		1.773	-12.055	0.221	11.6493	1.7040
93	RH-163	Combination		2.246	-10.573	-1.458	10.1928	2.1722
93	RH-164	Combination		2.599	-9.329	-2.110	8.9770	2.5187
93	RH-165	Combination		2.969	-8.001	-2.435	7.6864	2.8818
97	ENV-ELS-CA	Combination	Max	20.164	17.449	224.497	17.5992	19.7226
97	ENV-ELS-CA	Combination	Min	-21.917	-17.516	27.467	-16.8135	-21.3041
97	ENV-ELS-CP	Combination	Max	1.585	1.141	73.079	1.6374	1.5695
97	ENV-ELS-CP	Combination	Min	-3.538	-1.272	58.396	-1.0091	-3.3769
97	ENV-ELU-PT	Combination	Max	27.528	23.853	304.140	23.8997	26.9077
97	ENV-ELU-PT	Combination	Min	-29.721	-23.766	14.269	-23.1123	-28.8883
97	ENV-ELU-AC	Combination	Max	2.894	1.403	183.776	15.4941	3.0084
97	ENV-ELU-AC	Combination	Min	-6.564	-15.164	36.679	-1.3590	-6.4710
97	ENV-ELU-EQ	Combination	Max	0.544	0.115	268.189	1.7178	0.9212
97	ENV-ELU-EQ	Combination	Min	-0.576	-0.604	33.257	-0.2082	-0.8085
97	RH-1	Combination		-3.725	-0.578	-0.978	0.5443	-3.5984
97	RH-2	Combination		-5.841	-1.989	-1.599	1.8986	-5.6428
97	RH-3	Combination		1.026	2.588	0.417	-2.4963	0.9916
97	RH-4	Combination		-28.081	-7.042	6.687	6.6923	-27.1169
97	RH-5	Combination		-25.855	20.021	-20.556	-19.1160	-25.0042
97	RH-6	Combination		15.866	-22.870	17.855	21.8297	15.3540
97	RH-7	Combination		18.092	4.193	-9.388	-3.9786	17.4668
97	RH-8	Combination		-25.908	-15.686	15.395	14.9422	-25.0200
97	RH-9	Combination		-27.951	12.125	-12.682	-11.5888	-27.0085
97	RH-10	Combination		17.962	-14.974	9.981	14.3025	17.3584
97	RH-11	Combination		15.919	12.837	-18.096	-12.2285	15.3699
97	RH-12	Combination		-27.089	-14.991	15.351	14.2763	-26.1688
97	RH-13	Combination		-26.812	11.110	-12.508	-10.6144	-25.8994
97	RH-14	Combination		16.822	-13.959	9.807	13.3281	16.2493
97	RH-15	Combination		17.099	12.142	-18.052	-11.5626	16.5186
97	RH-16	Combination		-29.209	-9.883	12.919	9.3773	-28.2313
97	RH-17	Combination		-24.823	9.748	-13.440	-9.2939	-23.9676
97	RH-18	Combination		14.834	-12.597	10.739	12.0077	14.3174
97	RH-19	Combination		19.220	7.034	-15.621	-6.6636	18.5812
97	RH-20	Combination		-23.961	-4.296	7.897	4.0554	-23.1362
97	RH-21	Combination		-21.735	22.767	-19.346	-21.7529	-21.0235
97	RH-22	Combination		19.986	-20.124	19.064	19.1928	19.3347
97	RH-23	Combination		22.212	6.939	-8.179	-6.6156	21.4474
97	RH-24	Combination		-21.788	-12.940	16.605	12.3053	-21.0394
97	RH-25	Combination		-23.831	14.871	-11.472	-14.2257	-23.0278
97	RH-26	Combination		22.082	-12.228	11.190	11.6656	21.3391
97	RH-27	Combination		20.039	15.583	-16.886	-14.8654	19.3506
97	RH-28	Combination		-22.968	-12.245	16.560	11.6394	-22.1881
97	RH-29	Combination		-22.692	13.856	-11.299	-13.2514	-21.9188
97	RH-30	Combination		20.943	-11.213	11.017	10.6912	20.2300
97	RH-31	Combination		21.219	14.889	-16.842	-14.1996	20.4993

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
97	RH-32	Combination		-25.089	-7.137	14.129	6.7404	-24.2506
97	RH-33	Combination		-20.703	12.494	-12.230	-11.9309	-19.9869
97	RH-34	Combination		18.954	-9.851	11.949	9.3707	18.2981
97	RH-35	Combination		23.340	9.780	-14.411	-9.3005	22.5619
97	RH-36	Combination		-2.759	-0.428	-0.724	0.4032	-2.6655
97	RH-37	Combination		-4.875	-1.839	-1.346	1.7575	-4.7099
97	RH-38	Combination		1.992	2.738	0.671	-2.6374	1.9246
97	RH-39	Combination		-27.116	-6.892	6.941	6.5512	-26.1840
97	RH-40	Combination		-24.890	20.171	-20.302	-19.2571	-24.0712
97	RH-41	Combination		16.832	-22.720	18.108	21.6886	16.2870
97	RH-42	Combination		19.058	4.343	-9.135	-4.1197	18.3997
97	RH-43	Combination		-24.943	-15.536	15.648	14.8011	-24.0871
97	RH-44	Combination		-26.985	12.275	-12.428	-11.7299	-26.0756
97	RH-45	Combination		18.927	-14.824	10.234	14.1614	18.2913
97	RH-46	Combination		16.885	12.987	-17.842	-12.3696	16.3028
97	RH-47	Combination		-26.123	-14.842	15.604	14.1352	-25.2358
97	RH-48	Combination		-25.846	11.260	-12.255	-10.7555	-24.9665
97	RH-49	Combination		17.788	-13.809	10.061	13.1870	17.1823
97	RH-50	Combination		18.065	12.292	-17.798	-11.7037	17.4516
97	RH-51	Combination		-28.243	-9.733	13.173	9.2362	-27.2984
97	RH-52	Combination		-23.857	9.898	-13.187	-9.4351	-23.0346
97	RH-53	Combination		15.799	-12.447	10.993	11.8665	15.2504
97	RH-54	Combination		20.186	7.184	-15.367	-6.8047	19.5141
97	RH-55	Combination		-22.995	-4.146	8.150	3.9143	-22.2033
97	RH-56	Combination		-20.769	22.917	-19.093	-21.8940	-20.0906
97	RH-57	Combination		20.952	-19.974	19.318	19.0516	20.2676
97	RH-58	Combination		23.178	7.089	-7.925	-6.7567	22.3804
97	RH-59	Combination		-20.822	-12.790	16.858	12.1641	-20.1064
97	RH-60	Combination		-22.865	15.021	-11.219	-14.3668	-22.0949
97	RH-61	Combination		23.048	-12.078	11.444	11.5245	22.2720
97	RH-62	Combination		21.005	15.733	-16.633	-15.0065	20.2835
97	RH-63	Combination		-22.003	-12.095	16.814	11.4983	-21.2552
97	RH-64	Combination		-21.726	14.006	-11.045	-13.3925	-20.9858
97	RH-65	Combination		21.908	-11.063	11.271	10.5501	21.1629
97	RH-66	Combination		22.185	15.038	-16.589	-14.3407	21.4322
97	RH-67	Combination		-24.123	-6.987	14.383	6.5993	-23.3177
97	RH-68	Combination		-19.737	12.644	-11.977	-12.0720	-19.0540
97	RH-69	Combination		19.919	-9.701	12.202	9.2296	19.2310
97	RH-70	Combination		24.306	9.930	-14.157	-9.4416	23.4948
97	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
97	RH-72	Combination		-2.116	-1.410	-0.621	1.3543	-2.0444
97	RH-73	Combination		4.751	3.166	1.395	-3.0406	4.5900
97	RH-74	Combination		-24.356	-6.464	7.665	6.1481	-23.5185
97	RH-75	Combination		-22.130	20.600	-19.578	-19.6603	-21.4057
97	RH-76	Combination		19.591	-22.292	18.832	21.2854	18.9524
97	RH-77	Combination		21.817	4.771	-8.410	-4.5229	21.0652
97	RH-78	Combination		-22.183	-15.108	16.373	14.3979	-21.4216
97	RH-79	Combination		-24.226	12.703	-11.704	-12.1331	-23.4101
97	RH-80	Combination		21.687	-14.395	10.958	13.7582	20.9568
97	RH-81	Combination		19.644	13.416	-17.118	-12.7728	18.9683
97	RH-82	Combination		-23.364	-14.413	16.328	13.7321	-22.5703
97	RH-83	Combination		-23.087	11.688	-11.531	-11.1587	-22.3010
97	RH-84	Combination		20.547	-13.380	10.785	12.7839	19.8477
97	RH-85	Combination		20.824	12.721	-17.074	-12.1069	20.1170
97	RH-86	Combination		-25.484	-9.305	13.897	8.8330	-24.6329
97	RH-87	Combination		-21.098	10.326	-12.462	-9.8382	-20.3692
97	RH-88	Combination		18.559	-12.019	11.717	11.4634	17.9159
97	RH-89	Combination		22.945	7.612	-14.643	-7.2079	22.1796
97	RH-90	Combination		-20.236	-3.718	8.875	3.5111	-19.5378
97	RH-91	Combination		-18.010	23.346	-18.368	-22.2972	-17.4251
97	RH-92	Combination		23.711	-19.546	20.042	18.6485	22.9331
97	RH-93	Combination		25.937	7.518	-7.201	-7.1598	25.0458

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
97	RH-94	Combination		-18.063	-12.362	17.582	11.7610	-17.4410
97	RH-95	Combination		-20.106	15.449	-10.494	-14.7700	-19.4294
97	RH-96	Combination		25.807	-11.649	12.168	11.1213	24.9375
97	RH-97	Combination		23.764	16.162	-15.908	-15.4097	22.9490
97	RH-98	Combination		-19.243	-11.667	17.538	11.0951	-18.5897
97	RH-99	Combination		-18.967	14.434	-10.321	-13.7956	-18.3204
97	RH-100	Combination		24.668	-10.634	11.995	10.1469	23.8284
97	RH-101	Combination		24.944	15.467	-15.864	-14.7438	24.0977
97	RH-102	Combination		-21.364	-6.559	15.107	6.1961	-20.6522
97	RH-103	Combination		-16.978	13.072	-11.253	-12.4752	-16.3885
97	RH-104	Combination		22.679	-9.273	12.927	8.8264	21.8965
97	RH-105	Combination		27.065	10.358	-13.433	-9.8448	26.1603
97	RH-106	Combination		-3.583	-13.625	5.708	13.0809	-3.4509
97	RH-107	Combination		-3.939	-13.680	4.235	13.1526	-3.8019
97	RH-108	Combination		-3.849	-13.830	1.758	13.3265	-3.7218
97	RH-109	Combination		-1.775	-14.096	-2.596	13.6196	-1.7282
97	RH-110	Combination		-2.596	-13.618	-6.633	13.2032	-2.5095
97	RH-111	Combination		-3.109	-12.869	-5.386	12.4681	-2.9934
97	RH-112	Combination		-4.382	-11.490	-1.625	11.0862	-4.2210
97	RH-113	Combination		-4.846	-10.010	1.048	9.6318	-4.6771
97	RH-114	Combination		-5.177	-8.767	2.807	8.4174	-5.0040
97	RH-115	Combination		-5.490	-7.441	3.994	7.1279	-5.3124
97	RH-116	Combination		-4.429	-14.189	5.460	13.6226	-4.2686
97	RH-117	Combination		-4.785	-14.245	3.986	13.6943	-4.6197
97	RH-118	Combination		-4.696	-14.394	1.509	13.8682	-4.5396
97	RH-119	Combination		-2.622	-14.660	-2.844	14.1613	-2.5460
97	RH-120	Combination		-3.442	-14.182	-6.882	13.7449	-3.3273
97	RH-121	Combination		-3.956	-13.433	-5.635	13.0098	-3.8112
97	RH-122	Combination		-5.228	-12.054	-1.873	11.6280	-5.0387
97	RH-123	Combination		-5.693	-10.574	0.799	10.1735	-5.4949
97	RH-124	Combination		-6.024	-9.331	2.559	8.9591	-5.8218
97	RH-125	Combination		-6.336	-8.005	3.746	7.6696	-6.1302
97	RH-126	Combination		-1.682	-12.358	6.266	11.8647	-1.6148
97	RH-127	Combination		-2.039	-12.414	4.793	11.9363	-1.9659
97	RH-128	Combination		-1.949	-12.564	2.316	12.1103	-1.8858
97	RH-129	Combination		0.125	-12.829	-2.038	12.4033	0.1078
97	RH-130	Combination		-0.696	-12.352	-6.075	11.9870	-0.6735
97	RH-131	Combination		-1.209	-11.602	-4.828	11.2518	-1.1574
97	RH-132	Combination		-2.481	-10.224	-1.067	9.8700	-2.3850
97	RH-133	Combination		-2.946	-8.743	1.606	8.4155	-2.8411
97	RH-134	Combination		-3.277	-7.500	3.365	7.2011	-3.1680
97	RH-135	Combination		-3.590	-6.175	4.552	5.9117	-3.4764
97	RH-136	Combination		-0.823	-13.196	6.433	12.6778	-0.7854
97	RH-137	Combination		-1.180	-13.252	4.959	12.7494	-1.1364
97	RH-138	Combination		-1.090	-13.402	2.482	12.9234	-1.0563
97	RH-139	Combination		0.984	-13.667	-1.871	13.2164	0.9373
97	RH-140	Combination		0.163	-13.190	-5.909	12.8000	0.1560
97	RH-141	Combination		-0.350	-12.440	-4.662	12.0649	-0.3279
97	RH-142	Combination		-1.622	-11.062	-0.901	10.6831	-1.5555
97	RH-143	Combination		-2.087	-9.581	1.772	9.2286	-2.0116
97	RH-144	Combination		-2.418	-8.339	3.532	8.0142	-2.3385
97	RH-145	Combination		-2.731	-7.013	4.719	6.7248	-2.6469
97	RH-146	Combination		-1.670	-13.760	6.184	13.2195	-1.6031
97	RH-147	Combination		-2.026	-13.816	4.711	13.2911	-1.9542
97	RH-148	Combination		-1.936	-13.966	2.234	13.4651	-1.8741
97	RH-149	Combination		0.138	-14.232	-2.120	13.7581	0.1195
97	RH-150	Combination		-0.683	-13.754	-6.157	13.3418	-0.6618
97	RH-151	Combination		-1.196	-13.005	-4.910	12.6066	-1.1457
97	RH-152	Combination		-2.469	-11.626	-1.149	11.2248	-2.3733
97	RH-153	Combination		-2.933	-10.146	1.523	9.7703	-2.8294
97	RH-154	Combination		-3.264	-8.903	3.283	8.5559	-3.1563
97	RH-155	Combination		-3.577	-7.577	4.470	7.2665	-3.4647

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
97	RH-156	Combination		1.077	-11.930	6.991	11.4615	1.0506
97	RH-157	Combination		0.721	-11.986	5.517	11.5332	0.6996
97	RH-158	Combination		0.810	-12.135	3.040	11.7071	0.7797
97	RH-159	Combination		2.884	-12.401	-1.313	12.0002	2.7733
97	RH-160	Combination		2.064	-11.923	-5.351	11.5838	1.9920
97	RH-161	Combination		1.550	-11.174	-4.104	10.8487	1.5081
97	RH-162	Combination		0.278	-9.795	-0.343	9.4668	0.2805
97	RH-163	Combination		-0.187	-8.315	2.330	8.0124	-0.1756
97	RH-164	Combination		-0.518	-7.072	4.090	6.7980	-0.5025
97	RH-165	Combination		-0.830	-5.746	5.277	5.5085	-0.8109
110	ENV-ELS-CA	Combination	Max	20.854	11.237	276.542	12.9047	20.4431
110	ENV-ELS-CA	Combination	Min	-20.169	-12.622	65.853	-10.7304	-19.6089
110	ENV-ELS-CP	Combination	Max	1.338	0.400	106.932	1.8096	1.3439
110	ENV-ELS-CP	Combination	Min	-0.735	-1.459	96.612	-0.2457	-0.6663
110	ENV-ELU-PT	Combination	Max	28.217	15.331	373.769	17.6382	27.6602
110	ENV-ELU-PT	Combination	Min	-27.360	-17.237	54.315	-14.7507	-26.6132
110	ENV-ELU-AC	Combination	Max	2.873	0.514	232.470	15.2313	3.0735
110	ENV-ELU-AC	Combination	Min	-6.362	-14.787	74.276	-0.4403	-6.2702
110	ENV-ELU-EQ	Combination	Max	0.777	-0.054	334.678	1.7902	1.2364
110	ENV-ELU-EQ	Combination	Min	-0.477	-0.708	72.246	0.0513	-0.6979
110	RH-1	Combination		1.332	-0.260	-2.893	0.2420	1.2865
110	RH-2	Combination		2.261	0.854	-4.546	-0.8379	2.1843
110	RH-3	Combination		-0.754	-2.759	0.819	2.6665	-0.7291
110	RH-4	Combination		-23.800	-2.110	-7.904	1.9668	-23.0042
110	RH-5	Combination		-12.969	14.797	15.957	-14.1188	-12.5014
110	RH-6	Combination		16.747	-13.981	-23.727	13.3069	16.1517
110	RH-7	Combination		27.578	2.926	0.134	-2.7787	26.6546
110	RH-8	Combination		-21.355	-10.985	-18.352	10.4305	-20.6368
110	RH-9	Combination		-19.466	12.033	10.798	-11.5008	-18.7999
110	RH-10	Combination		23.244	-11.217	-18.568	10.6889	22.4502
110	RH-11	Combination		25.133	11.801	10.582	-11.2424	24.2872
110	RH-12	Combination		-20.725	-12.502	-19.566	11.8799	-20.0177
110	RH-13	Combination		-20.307	13.317	11.971	-12.7255	-19.6227
110	RH-14	Combination		24.085	-12.500	-19.741	11.9136	23.2731
110	RH-15	Combination		24.503	13.318	11.796	-12.6918	23.6681
110	RH-16	Combination		-19.820	-11.043	-18.921	10.4715	-19.1261
110	RH-17	Combination		-20.575	14.654	14.618	-13.9844	-19.8960
110	RH-18	Combination		24.353	-13.837	-22.388	13.1724	23.5463
110	RH-19	Combination		23.598	11.860	11.151	-11.2834	22.7765
110	RH-20	Combination		-25.609	-4.277	-4.685	4.0694	-24.7522
110	RH-21	Combination		-14.778	12.630	19.177	-12.0162	-14.2494
110	RH-22	Combination		14.938	-16.148	-20.508	15.4096	14.4037
110	RH-23	Combination		25.769	0.759	3.354	-0.6760	24.9066
110	RH-24	Combination		-23.164	-13.152	-15.133	12.5331	-22.3849
110	RH-25	Combination		-21.275	9.866	14.017	-9.3982	-20.5479
110	RH-26	Combination		21.435	-13.384	-15.349	12.7915	20.7022
110	RH-27	Combination		23.324	9.634	13.802	-9.1397	22.5392
110	RH-28	Combination		-22.534	-14.669	-16.346	13.9825	-21.7658
110	RH-29	Combination		-22.116	11.149	15.191	-10.6229	-21.3707
110	RH-30	Combination		22.276	-14.668	-16.522	14.0162	21.5251
110	RH-31	Combination		22.694	11.151	15.015	-10.5892	21.9201
110	RH-32	Combination		-21.629	-13.210	-15.702	12.5741	-20.8741
110	RH-33	Combination		-22.384	12.486	17.838	-11.8817	-21.6440
110	RH-34	Combination		22.544	-16.005	-19.169	15.2751	21.7983
110	RH-35	Combination		21.789	9.692	14.370	-9.1808	21.0285
110	RH-36	Combination		0.986	-0.192	-2.143	0.1792	0.9530

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
110	RH-37	Combination		1.915	0.921	-3.796	-0.9006	1.8507
110	RH-38	Combination		-1.099	-2.692	1.569	2.6038	-1.0626
110	RH-39	Combination		-24.146	-2.042	-7.154	1.9040	-23.3378
110	RH-40	Combination		-13.314	14.865	16.707	-14.1816	-12.8349
110	RH-41	Combination		16.402	-13.913	-22.977	13.2442	15.8182
110	RH-42	Combination		27.233	2.994	0.884	-2.8414	26.3211
110	RH-43	Combination		-21.701	-10.917	-17.602	10.3677	-20.9704
110	RH-44	Combination		-19.811	12.101	11.548	-11.5635	-19.1334
110	RH-45	Combination		22.898	-11.149	-17.818	10.6262	22.1167
110	RH-46	Combination		24.788	11.869	11.332	-11.3051	23.9537
110	RH-47	Combination		-21.071	-12.434	-18.816	11.8172	-20.3513
110	RH-48	Combination		-20.652	13.384	12.721	-12.7882	-19.9563
110	RH-49	Combination		23.739	-12.433	-18.991	11.8508	22.9396
110	RH-50	Combination		24.158	13.386	12.546	-12.7546	23.3346
110	RH-51	Combination		-20.165	-10.976	-18.171	10.4088	-19.4596
110	RH-52	Combination		-20.920	14.721	15.368	-14.0471	-20.2295
110	RH-53	Combination		24.008	-13.770	-21.638	13.1097	23.2128
110	RH-54	Combination		23.253	11.927	11.901	-11.3461	22.4429
110	RH-55	Combination		-25.955	-4.210	-3.935	4.0067	-25.0858
110	RH-56	Combination		-15.123	12.697	19.927	-12.0789	-14.5829
110	RH-57	Combination		14.593	-16.081	-19.758	15.3468	14.0702
110	RH-58	Combination		25.424	0.826	4.104	-0.7388	24.5731
110	RH-59	Combination		-23.509	-13.085	-14.383	12.4704	-22.7184
110	RH-60	Combination		-21.620	9.933	14.767	-9.4609	-20.8814
110	RH-61	Combination		21.090	-13.317	-14.599	12.7288	20.3687
110	RH-62	Combination		22.979	9.701	14.552	-9.2025	22.2057
110	RH-63	Combination		-22.879	-14.602	-15.596	13.9198	-22.0993
110	RH-64	Combination		-22.461	11.217	15.941	-10.6856	-21.7043
110	RH-65	Combination		21.931	-14.600	-15.772	13.9535	21.1916
110	RH-66	Combination		22.349	11.218	15.765	-10.6519	21.5866
110	RH-67	Combination		-21.974	-13.143	-14.952	12.5114	-21.2076
110	RH-68	Combination		-22.729	12.554	18.588	-11.9444	-21.9775
110	RH-69	Combination		22.199	-15.937	-18.419	15.2123	21.4648
110	RH-70	Combination		21.444	9.759	15.120	-9.2435	20.6949
110	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
110	RH-72	Combination		0.929	1.113	-1.653	-1.0799	0.8978
110	RH-73	Combination		-2.086	-2.499	3.712	2.4245	-2.0156
110	RH-74	Combination		-25.132	-1.850	-5.011	1.7248	-24.2908
110	RH-75	Combination		-14.301	15.057	18.850	-14.3608	-13.7879
110	RH-76	Combination		15.416	-13.721	-20.834	13.0650	14.8652
110	RH-77	Combination		26.247	3.186	3.027	-3.0207	25.3681
110	RH-78	Combination		-22.687	-10.725	-15.459	10.1885	-21.9234
110	RH-79	Combination		-20.797	12.293	13.691	-11.7428	-20.0864
110	RH-80	Combination		21.912	-10.957	-15.675	10.4469	21.1637
110	RH-81	Combination		23.802	12.061	13.475	-11.4844	23.0007
110	RH-82	Combination		-22.057	-12.242	-16.673	11.6379	-21.3043
110	RH-83	Combination		-21.638	13.577	14.864	-12.9675	-20.9093
110	RH-84	Combination		22.753	-12.241	-16.848	11.6716	21.9866
110	RH-85	Combination		23.172	13.578	14.689	-12.9338	22.3816
110	RH-86	Combination		-21.152	-10.783	-16.028	10.2295	-20.4126
110	RH-87	Combination		-21.907	14.913	17.511	-14.2263	-21.1825
110	RH-88	Combination		23.022	-13.577	-19.495	12.9305	22.2598
110	RH-89	Combination		22.266	12.119	14.044	-11.5254	21.4899
110	RH-90	Combination		-26.941	-4.018	-1.792	3.8274	-26.0388
110	RH-91	Combination		-16.110	12.889	22.070	-12.2582	-15.5359
110	RH-92	Combination		13.607	-15.889	-17.615	15.1676	13.1172
110	RH-93	Combination		24.438	1.018	6.246	-0.9180	23.6201
110	RH-94	Combination		-24.496	-12.893	-12.240	12.2911	-23.6714
110	RH-95	Combination		-22.606	10.125	16.910	-9.6401	-21.8344
110	RH-96	Combination		20.103	-13.125	-12.456	12.5496	19.4157
110	RH-97	Combination		21.993	9.893	16.695	-9.3817	21.2527
110	RH-98	Combination		-23.866	-14.410	-13.454	13.7406	-23.0523

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
110	RH-99	Combination		-23.447	11.409	18.084	-10.8648	-22.6573
110	RH-100	Combination		20.944	-14.408	-13.629	13.7742	20.2386
110	RH-101	Combination		21.363	11.410	17.908	-10.8312	20.6336
110	RH-102	Combination		-22.960	-12.951	-12.809	12.3322	-22.1606
110	RH-103	Combination		-23.716	12.746	20.731	-12.1237	-22.9305
110	RH-104	Combination		21.213	-15.745	-16.276	15.0331	20.5118
110	RH-105	Combination		20.458	9.952	17.263	-9.4227	19.7419
110	RH-106	Combination		-4.381	-7.955	-6.624	7.6297	-4.2418
110	RH-107	Combination		-3.935	-8.915	-6.318	8.5598	-3.8048
110	RH-108	Combination		-3.062	-9.939	-5.349	9.5612	-2.9538
110	RH-109	Combination		0.137	-11.477	-4.238	11.0663	0.1467
110	RH-110	Combination		0.660	-12.702	3.111	12.3421	0.6650
110	RH-111	Combination		1.009	-13.234	6.825	12.9043	0.9811
110	RH-112	Combination		0.776	-13.166	0.563	12.7593	0.7202
110	RH-113	Combination		1.306	-12.777	-4.564	12.3206	1.2529
110	RH-114	Combination		1.698	-12.347	-6.894	11.8734	1.6416
110	RH-115	Combination		2.106	-11.839	-8.709	11.3587	2.0445
110	RH-116	Combination		-4.010	-7.510	-7.285	7.1978	-3.8827
110	RH-117	Combination		-3.563	-8.470	-6.980	8.1279	-3.4457
110	RH-118	Combination		-2.690	-9.494	-6.010	9.1292	-2.5947
110	RH-119	Combination		0.509	-11.032	-4.899	10.6343	0.5058
110	RH-120	Combination		1.032	-12.257	2.449	11.9102	1.0241
110	RH-121	Combination		1.381	-12.789	6.164	12.4723	1.3402
110	RH-122	Combination		1.148	-12.721	-0.098	12.3273	1.0793
110	RH-123	Combination		1.678	-12.331	-5.226	11.8886	1.6120
110	RH-124	Combination		2.070	-11.901	-7.556	11.4415	2.0007
110	RH-125	Combination		2.477	-11.394	-9.371	10.9267	2.4036
110	RH-126	Combination		-5.215	-8.955	-5.139	8.5996	-5.0480
110	RH-127	Combination		-4.769	-9.915	-4.834	9.5296	-4.6110
110	RH-128	Combination		-3.896	-10.939	-3.864	10.5310	-3.7601
110	RH-129	Combination		-0.697	-12.477	-2.753	12.0361	-0.6595
110	RH-130	Combination		-0.174	-13.702	4.596	13.3119	-0.1412
110	RH-131	Combination		0.175	-14.234	8.310	13.8741	0.1748
110	RH-132	Combination		-0.058	-14.166	2.048	13.7291	-0.0860
110	RH-133	Combination		0.472	-13.776	-3.080	13.2904	0.4467
110	RH-134	Combination		0.864	-13.346	-5.409	12.8432	0.8353
110	RH-135	Combination		1.271	-12.839	-7.224	12.3285	1.2382
110	RH-136	Combination		-5.367	-7.763	-4.481	7.4505	-5.1948
110	RH-137	Combination		-4.921	-8.723	-4.176	8.3806	-4.7578
110	RH-138	Combination		-4.048	-9.747	-3.206	9.3820	-3.9068
110	RH-139	Combination		-0.849	-11.285	-2.095	10.8871	-0.8063
110	RH-140	Combination		-0.326	-12.510	5.254	12.1629	-0.2880
110	RH-141	Combination		0.023	-13.042	8.968	12.7251	0.0281
110	RH-142	Combination		-0.210	-12.974	2.706	12.5801	-0.2328
110	RH-143	Combination		0.320	-12.584	-2.421	12.1413	0.2999
110	RH-144	Combination		0.712	-12.154	-4.751	11.6942	0.6886
110	RH-145	Combination		1.119	-11.647	-6.566	11.1794	1.0915
110	RH-146	Combination		-4.996	-7.318	-5.142	7.0186	-4.8357
110	RH-147	Combination		-4.550	-8.277	-4.837	7.9486	-4.3987
110	RH-148	Combination		-3.677	-9.302	-3.867	8.9500	-3.5477
110	RH-149	Combination		-0.478	-10.840	-2.756	10.4551	-0.4472
110	RH-150	Combination		0.045	-12.064	4.592	11.7309	0.0711
110	RH-151	Combination		0.395	-12.596	8.307	12.2931	0.3872
110	RH-152	Combination		0.162	-12.528	2.045	12.1481	0.1263
110	RH-153	Combination		0.692	-12.139	-3.083	11.7094	0.6590
110	RH-154	Combination		1.083	-11.709	-5.413	11.2622	1.0477
110	RH-155	Combination		1.491	-11.202	-7.228	10.7475	1.4506
110	RH-156	Combination		-6.202	-8.763	-2.996	8.4203	-6.0010
110	RH-157	Combination		-5.756	-9.722	-2.691	9.3504	-5.5640
110	RH-158	Combination		-4.882	-10.747	-1.721	10.3518	-4.7131
110	RH-159	Combination		-1.683	-12.285	-0.610	11.8569	-1.6125
110	RH-160	Combination		-1.160	-13.509	6.738	13.1327	-1.0942

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
110	RH-161	Combination		-0.811	-14.041	10.453	13.6949	-0.7782
110	RH-162	Combination		-1.044	-13.973	4.191	13.5499	-1.0390
110	RH-163	Combination		-0.514	-13.584	-0.937	13.1112	-0.5063
110	RH-164	Combination		-0.123	-13.154	-3.267	12.6640	-0.1177
110	RH-165	Combination		0.285	-12.647	-5.081	12.1492	0.2852
115	ENV-ELS-CA	Combination	Max	19.846	12.190	198.329	12.2036	19.4222
115	ENV-ELS-CA	Combination	Min	-19.248	-11.993	21.848	-11.7736	-18.7244
115	ENV-ELS-CP	Combination	Max	1.479	1.118	62.972	1.3583	1.4607
115	ENV-ELS-CP	Combination	Min	-0.841	-1.015	50.767	-0.9931	-0.8125
115	ENV-ELU-PT	Combination	Max	26.861	16.747	268.601	16.6105	26.2897
115	ENV-ELU-PT	Combination	Min	-26.121	-16.308	9.836	-16.2924	-25.4118
115	ENV-ELU-AC	Combination	Max	2.833	1.375	163.019	14.4133	2.9637
115	ENV-ELU-AC	Combination	Min	-3.969	-14.137	30.724	-1.3254	-3.9587
115	ENV-ELU-EQ	Combination	Max	0.505	0.098	237.922	1.4757	0.8776
115	ENV-ELU-EQ	Combination	Min	-0.607	-0.516	25.762	-0.2025	-0.7893
115	RH-1	Combination		1.592	-0.263	-1.208	0.2435	1.5412
115	RH-2	Combination		2.529	-1.663	-1.902	1.5899	2.4489
115	RH-3	Combination		-0.514	2.881	0.350	-2.7794	-0.4967
115	RH-4	Combination		-20.970	-3.615	5.004	3.4190	-20.2406
115	RH-5	Combination		-18.489	13.298	-15.088	-12.6740	-17.8766
115	RH-6	Combination		22.797	-15.503	11.839	14.7766	22.0482
115	RH-7	Combination		25.278	1.410	-8.252	-1.3164	24.4123
115	RH-8	Combination		-18.662	-12.485	14.225	11.8771	-18.0140
115	RH-9	Combination		-20.796	10.528	-11.060	-10.0490	-20.0879
115	RH-10	Combination		25.105	-12.733	7.812	12.1516	24.2595
115	RH-11	Combination		22.971	10.280	-17.474	-9.7745	22.1856
115	RH-12	Combination		-19.747	-13.988	15.921	13.3122	-19.0691
115	RH-13	Combination		-19.801	11.818	-12.649	-11.2795	-19.1189
115	RH-14	Combination		24.110	-14.023	9.401	13.3821	23.2906
115	RH-15	Combination		24.055	11.783	-19.170	-11.2096	23.2407
115	RH-16	Combination		-22.107	-12.558	16.450	11.9311	-21.3621
115	RH-17	Combination		-17.712	13.134	-15.859	-12.5172	-17.0901
115	RH-18	Combination		22.020	-15.339	12.610	14.6198	21.2617
115	RH-19	Combination		26.415	10.353	-19.699	-9.8285	25.5337
115	RH-20	Combination		-22.796	-0.889	6.355	0.7975	-22.0080
115	RH-21	Combination		-20.315	16.024	-13.736	-15.2955	-19.6439
115	RH-22	Combination		20.971	-12.777	13.191	12.1551	20.2809
115	RH-23	Combination		23.453	4.136	-6.901	-3.9379	22.6449
115	RH-24	Combination		-20.488	-9.759	15.576	9.2556	-19.7814
115	RH-25	Combination		-22.622	13.254	-9.709	-12.6705	-21.8552
115	RH-26	Combination		23.279	-10.007	9.163	9.5301	22.4921
115	RH-27	Combination		21.145	13.006	-16.122	-12.3960	20.4183
115	RH-28	Combination		-21.572	-11.262	17.273	10.6907	-20.8365
115	RH-29	Combination		-21.627	14.544	-11.298	-13.9010	-20.8863
115	RH-30	Combination		22.284	-11.297	10.752	10.7606	21.5232
115	RH-31	Combination		22.229	14.509	-17.818	-13.8311	21.4734
115	RH-32	Combination		-23.932	-9.832	17.802	9.3096	-23.1294
115	RH-33	Combination		-19.537	15.860	-14.507	-15.1387	-18.8574
115	RH-34	Combination		20.194	-12.613	13.961	11.9983	19.4944
115	RH-35	Combination		24.589	13.079	-18.347	-12.4500	23.7664
115	RH-36	Combination		1.179	-0.194	-0.895	0.1804	1.1416
115	RH-37	Combination		2.117	-1.595	-1.589	1.5267	2.0493
115	RH-38	Combination		-0.926	2.949	0.664	-2.8425	-0.8963
115	RH-39	Combination		-21.383	-3.547	5.317	3.3559	-20.6402
115	RH-40	Combination		-18.902	13.366	-14.775	-12.7371	-18.2762
115	RH-41	Combination		22.385	-15.435	12.152	14.7135	21.6487

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
115	RH-42	Combination		24.866	1.478	-7.939	-1.3795	24.0127
115	RH-43	Combination		-19.075	-12.417	14.538	11.8140	-18.4136
115	RH-44	Combination		-21.209	10.596	-10.747	-10.1121	-20.4874
115	RH-45	Combination		24.692	-12.665	8.125	12.0885	23.8599
115	RH-46	Combination		22.558	10.348	-17.161	-9.8376	21.7861
115	RH-47	Combination		-20.159	-13.920	16.234	13.2491	-19.4687
115	RH-48	Combination		-20.214	11.886	-12.336	-11.3426	-19.5185
115	RH-49	Combination		23.697	-13.955	9.714	13.3190	22.8910
115	RH-50	Combination		23.642	11.851	-18.857	-11.2727	22.8412
115	RH-51	Combination		-22.519	-12.490	16.763	11.8680	-21.7617
115	RH-52	Combination		-18.124	13.202	-15.545	-12.5803	-17.4896
115	RH-53	Combination		21.607	-15.271	12.923	14.5567	20.8621
115	RH-54	Combination		26.002	10.421	-19.386	-9.8916	25.1341
115	RH-55	Combination		-23.208	-0.821	6.668	0.7344	-22.4076
115	RH-56	Combination		-20.727	16.093	-13.423	-15.3586	-20.0435
115	RH-57	Combination		20.559	-12.709	13.504	12.0919	19.8813
115	RH-58	Combination		23.040	4.204	-6.588	-4.0011	22.2454
115	RH-59	Combination		-20.901	-9.691	15.890	9.1924	-20.1809
115	RH-60	Combination		-23.035	13.322	-9.396	-12.7337	-22.2548
115	RH-61	Combination		22.866	-9.939	9.476	9.4670	22.0926
115	RH-62	Combination		20.732	13.074	-15.809	-12.4591	20.0187
115	RH-63	Combination		-21.985	-11.193	17.586	10.6276	-21.2360
115	RH-64	Combination		-22.040	14.612	-10.985	-13.9641	-21.2858
115	RH-65	Combination		21.871	-11.229	11.065	10.6975	21.1236
115	RH-66	Combination		21.817	14.577	-17.505	-13.8943	21.0738
115	RH-67	Combination		-24.345	-9.764	18.115	9.2465	-23.5290
115	RH-68	Combination		-19.950	15.928	-14.194	-15.2018	-19.2570
115	RH-69	Combination		19.781	-12.544	14.275	11.9352	19.0948
115	RH-70	Combination		24.177	13.147	-18.034	-12.5132	23.3668
115	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
115	RH-72	Combination		0.938	-1.400	-0.694	1.3464	0.9077
115	RH-73	Combination		-2.105	3.144	1.558	-3.0228	-2.0379
115	RH-74	Combination		-22.562	-3.353	6.211	3.1755	-21.7819
115	RH-75	Combination		-20.080	13.561	-13.880	-12.9175	-19.4178
115	RH-76	Combination		21.206	-15.241	13.047	14.5331	20.5070
115	RH-77	Combination		23.687	1.673	-7.044	-1.5599	22.8711
115	RH-78	Combination		-20.254	-12.223	15.433	11.6336	-19.5552
115	RH-79	Combination		-22.388	10.790	-9.853	-10.2925	-21.6291
115	RH-80	Combination		23.513	-12.471	9.020	11.9081	22.7183
115	RH-81	Combination		21.379	10.542	-16.266	-10.0180	20.6444
115	RH-82	Combination		-21.338	-13.725	17.129	13.0687	-20.6103
115	RH-83	Combination		-21.393	12.080	-11.442	-11.5230	-20.6601
115	RH-84	Combination		22.518	-13.761	10.609	13.1386	21.7493
115	RH-85	Combination		22.463	12.045	-17.962	-11.4531	21.6995
115	RH-86	Combination		-23.698	-12.296	17.658	11.6876	-22.9033
115	RH-87	Combination		-19.303	13.396	-14.651	-12.7607	-18.6313
115	RH-88	Combination		20.428	-15.076	13.818	14.3763	19.7205
115	RH-89	Combination		24.823	10.615	-18.491	-10.0720	23.9925
115	RH-90	Combination		-24.387	-0.626	7.563	0.5540	-23.5492
115	RH-91	Combination		-21.906	16.287	-12.529	-15.5390	-21.1851
115	RH-92	Combination		19.380	-12.515	14.398	11.9116	18.7397
115	RH-93	Combination		21.861	4.399	-5.693	-4.1814	21.1037
115	RH-94	Combination		-22.080	-9.496	16.784	9.0121	-21.3226
115	RH-95	Combination		-24.214	13.517	-8.501	-12.9140	-23.3964
115	RH-96	Combination		21.687	-9.744	10.371	9.2866	20.9509
115	RH-97	Combination		19.553	13.269	-14.914	-12.6395	18.8771
115	RH-98	Combination		-23.164	-10.999	18.480	10.4472	-22.3777
115	RH-99	Combination		-23.219	14.807	-10.090	-14.1445	-22.4275
115	RH-100	Combination		20.692	-11.034	11.960	10.5171	19.9820
115	RH-101	Combination		20.638	14.772	-16.611	-14.0746	19.9322
115	RH-102	Combination		-25.524	-9.569	19.009	9.0661	-24.6706
115	RH-103	Combination		-21.129	16.123	-13.299	-15.3822	-20.3986

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
115	RH-104	Combination		18.603	-12.350	15.169	11.7548	17.9532
115	RH-105	Combination		22.998	13.342	-17.139	-12.6935	22.2252
115	RH-106	Combination		0.207	-7.961	3.329	7.6351	0.2136
115	RH-107	Combination		-0.087	-8.919	3.162	8.5624	-0.0758
115	RH-108	Combination		0.061	-9.941	2.116	9.5611	0.0614
115	RH-109	Combination		2.213	-11.473	-0.015	11.0585	2.1294
115	RH-110	Combination		1.457	-12.629	-4.633	12.2286	1.3931
115	RH-111	Combination		0.946	-13.101	-6.121	12.7023	0.9115
115	RH-112	Combination		-0.377	-13.135	-4.308	12.7075	-0.3514
115	RH-113	Combination		-0.910	-12.778	-0.390	12.3207	-0.8698
115	RH-114	Combination		-1.295	-12.350	2.876	11.8756	-1.2479
115	RH-115	Combination		-1.664	-11.843	5.450	11.3609	-1.6103
115	RH-116	Combination		0.582	-8.521	3.052	8.1737	0.5767
115	RH-117	Combination		0.288	-9.479	2.885	9.1010	0.2873
115	RH-118	Combination		0.436	-10.501	1.838	10.0996	0.4245
115	RH-119	Combination		2.589	-12.033	-0.293	11.5971	2.4924
115	RH-120	Combination		1.832	-13.189	-4.911	12.7672	1.7562
115	RH-121	Combination		1.321	-13.661	-6.398	13.2408	1.2746
115	RH-122	Combination		-1.734E-03	-13.695	-4.586	13.2461	0.0117
115	RH-123	Combination		-0.535	-13.338	-0.668	12.8592	-0.5068
115	RH-124	Combination		-0.920	-12.910	2.598	12.4142	-0.8848
115	RH-125	Combination		-1.289	-12.403	5.172	11.8995	-1.2472
115	RH-126	Combination		-0.636	-6.704	3.952	6.4260	-0.6015
115	RH-127	Combination		-0.930	-7.661	3.786	7.3533	-0.8910
115	RH-128	Combination		-0.781	-8.683	2.739	8.3519	-0.7538
115	RH-129	Combination		1.371	-10.216	0.608	9.8494	1.3142
115	RH-130	Combination		0.614	-11.372	-4.010	11.0195	0.5780
115	RH-131	Combination		0.104	-11.843	-5.497	11.4931	0.0963
115	RH-132	Combination		-1.219	-11.877	-3.685	11.4984	-1.1665
115	RH-133	Combination		-1.752	-11.521	0.233	11.1115	-1.6850
115	RH-134	Combination		-2.137	-11.092	3.499	10.6665	-2.0631
115	RH-135	Combination		-2.506	-10.586	6.073	10.1518	-2.4254
115	RH-136	Combination		-0.972	-7.767	4.224	7.4548	-0.9280
115	RH-137	Combination		-1.266	-8.724	4.057	8.3821	-1.2174
115	RH-138	Combination		-1.118	-9.746	3.010	9.3807	-1.0802
115	RH-139	Combination		1.035	-11.279	0.879	10.8781	0.9877
115	RH-140	Combination		0.278	-12.435	-3.739	12.0483	0.2515
115	RH-141	Combination		-0.233	-12.906	-5.226	12.5219	-0.2302
115	RH-142	Combination		-1.556	-12.940	-3.414	12.5272	-1.4930
115	RH-143	Combination		-2.089	-12.584	0.504	12.1403	-2.0115
115	RH-144	Combination		-2.474	-12.155	3.771	11.6952	-2.3895
115	RH-145	Combination		-2.843	-11.649	6.345	11.1805	-2.7519
115	RH-146	Combination		-0.597	-8.327	3.946	7.9933	-0.5649
115	RH-147	Combination		-0.891	-9.284	3.780	8.9206	-0.8544
115	RH-148	Combination		-0.742	-10.306	2.733	9.9193	-0.7172
115	RH-149	Combination		1.410	-11.839	0.602	11.4167	1.3508
115	RH-150	Combination		0.653	-12.995	-4.016	12.5868	0.6146
115	RH-151	Combination		0.142	-13.467	-5.504	13.0605	0.1329
115	RH-152	Combination		-1.181	-13.500	-3.691	13.0657	-1.1299
115	RH-153	Combination		-1.713	-13.144	0.227	12.6788	-1.6484
115	RH-154	Combination		-2.099	-12.716	3.493	12.2338	-2.0265
115	RH-155	Combination		-2.468	-12.209	6.067	11.7191	-2.3888
115	RH-156	Combination		-1.814	-6.509	4.847	6.2456	-1.7432
115	RH-157	Combination		-2.108	-7.467	4.680	7.1729	-2.0326
115	RH-158	Combination		-1.960	-8.489	3.634	8.1716	-1.8954
115	RH-159	Combination		0.192	-10.021	1.503	9.6690	0.1726
115	RH-160	Combination		-0.565	-11.177	-3.115	10.8391	-0.5636
115	RH-161	Combination		-1.075	-11.649	-4.603	11.3128	-1.0453
115	RH-162	Combination		-2.398	-11.683	-2.790	11.3180	-2.3081
115	RH-163	Combination		-2.931	-11.326	1.128	10.9312	-2.8266
115	RH-164	Combination		-3.316	-10.898	4.394	10.4861	-3.2047
115	RH-165	Combination		-3.685	-10.391	6.968	9.9714	-3.5671

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
129	ENV-ELS-CA	Combination	Max	25.869	12.816	251.696	13.7890	25.1837
129	ENV-ELS-CA	Combination	Min	-23.633	-13.691	63.405	-12.2916	-23.3847
129	ENV-ELS-CP	Combination	Max	6.334	0.725	111.632	1.6662	6.0575
129	ENV-ELS-CP	Combination	Min	-3.443	-1.352	93.723	-0.6192	-3.4988
129	ENV-ELU-PT	Combination	Max	35.190	17.414	340.681	18.8556	34.2661
129	ENV-ELU-PT	Combination	Min	-32.470	-18.703	49.685	-16.7604	-32.1245
129	ENV-ELU-AC	Combination	Max	8.789	0.851	214.128	18.2717	8.6721
129	ENV-ELU-AC	Combination	Min	-9.119	-18.315	72.864	-0.8287	-9.3709
129	ENV-ELU-EQ	Combination	Max	0.413	7.604E-03	295.990	1.3859	0.7415
129	ENV-ELU-EQ	Combination	Min	-1.611	-0.506	79.176	-0.0689	-2.3972
129	RH-1	Combination		6.934	0.304	-4.040	-0.2984	6.7094
129	RH-2	Combination		11.008	1.586	-6.389	-1.5396	10.6514
129	RH-3	Combination		-2.213	-2.575	1.234	2.4883	-2.1409
129	RH-4	Combination		-16.089	0.086	-7.324	-0.1204	-15.5217
129	RH-5	Combination		-6.132	7.492	6.861	-7.1178	-5.8636
129	RH-6	Combination		24.889	-5.346	-17.761	5.0315	24.0128
129	RH-7	Combination		34.846	2.060	-3.575	-1.9658	33.6709
129	RH-8	Combination		-13.177	-8.620	-18.294	8.1707	-12.7118
129	RH-9	Combination		-12.491	9.311	6.779	-8.8768	-12.0242
129	RH-10	Combination		31.248	-7.165	-17.679	6.7905	30.1734
129	RH-11	Combination		31.934	10.766	7.395	-10.2569	30.8610
129	RH-12	Combination		-12.442	-12.094	-21.755	11.4880	-11.9933
129	RH-13	Combination		-13.406	12.662	10.194	-12.0764	-12.9163
129	RH-14	Combination		32.163	-10.516	-21.093	9.9901	31.0656
129	RH-15	Combination		31.199	14.240	10.856	-13.5743	30.1426
129	RH-16	Combination		-11.507	-14.840	-25.081	14.1025	-11.0743
129	RH-17	Combination		-14.032	17.124	15.897	-16.3227	-13.5332
129	RH-18	Combination		32.789	-14.978	-26.796	14.2365	31.6825
129	RH-19	Combination		30.264	16.986	14.181	-16.1887	29.2235
129	RH-20	Combination		-24.021	-2.410	-2.750	2.2963	-23.1971
129	RH-21	Combination		-14.064	4.995	11.435	-4.7010	-13.5390
129	RH-22	Combination		16.956	-7.843	-13.187	7.4483	16.3374
129	RH-23	Combination		26.913	-0.437	0.999	0.4509	25.9956
129	RH-24	Combination		-21.109	-11.117	-13.720	10.5874	-20.3872
129	RH-25	Combination		-20.423	6.814	11.353	-6.4600	-19.6996
129	RH-26	Combination		23.315	-9.662	-13.105	9.2073	22.4980
129	RH-27	Combination		24.001	8.269	11.969	-7.8402	23.1857
129	RH-28	Combination		-20.374	-14.590	-17.181	13.9048	-19.6687
129	RH-29	Combination		-21.338	10.166	14.768	-9.6596	-20.5917
129	RH-30	Combination		24.230	-13.013	-16.519	12.4069	23.3902
129	RH-31	Combination		23.266	11.743	15.430	-11.1575	22.4672
129	RH-32	Combination		-19.440	-17.336	-20.507	16.5192	-18.7497
129	RH-33	Combination		-21.965	14.627	20.471	-13.9060	-21.2086
129	RH-34	Combination		24.857	-17.474	-22.222	16.6532	24.0071
129	RH-35	Combination		22.332	14.489	18.755	-13.7720	21.5481
129	RH-36	Combination		5.136	0.225	-2.993	-0.2210	4.9700
129	RH-37	Combination		9.210	1.507	-5.342	-1.4623	8.9119
129	RH-38	Combination		-4.011	-2.654	2.282	2.5657	-3.8804
129	RH-39	Combination		-17.886	7.687E-03	-6.277	-0.0431	-17.2612
129	RH-40	Combination		-7.930	7.413	7.909	-7.0404	-7.6031
129	RH-41	Combination		23.091	-5.425	-16.713	5.1089	22.2733
129	RH-42	Combination		33.048	1.981	-2.528	-1.8885	31.9315
129	RH-43	Combination		-14.975	-8.699	-17.247	8.2480	-14.4513
129	RH-44	Combination		-14.288	9.232	7.827	-8.7994	-13.7637
129	RH-45	Combination		29.450	-7.244	-16.631	6.8679	28.4339
129	RH-46	Combination		30.136	10.687	8.442	-10.1796	29.1216

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
129	RH-47	Combination		-14.239	-12.172	-20.708	11.5654	-13.7328
129	RH-48	Combination		-15.203	12.584	11.241	-11.9990	-14.6558
129	RH-49	Combination		30.365	-10.595	-20.045	10.0675	29.3261
129	RH-50	Combination		29.401	14.161	11.903	-13.4969	28.4031
129	RH-51	Combination		-13.305	-14.918	-24.033	14.1798	-12.8138
129	RH-52	Combination		-15.830	17.045	16.944	-16.2454	-15.2727
129	RH-53	Combination		30.991	-15.056	-25.749	14.3138	29.9430
129	RH-54	Combination		28.466	16.907	15.229	-16.1114	27.4840
129	RH-55	Combination		-25.819	-2.489	-1.703	2.3737	-24.9366
129	RH-56	Combination		-15.862	4.917	12.483	-4.6237	-15.2785
129	RH-57	Combination		15.159	-7.921	-12.139	7.5257	14.5980
129	RH-58	Combination		25.115	-0.516	2.047	0.5283	24.2561
129	RH-59	Combination		-22.907	-11.195	-12.672	10.6648	-22.1267
129	RH-60	Combination		-22.221	6.736	12.401	-6.3826	-21.4391
129	RH-61	Combination		21.517	-9.740	-12.057	9.2846	20.7585
129	RH-62	Combination		22.204	8.191	13.016	-7.7628	21.4462
129	RH-63	Combination		-22.172	-14.669	-16.133	13.9821	-21.4082
129	RH-64	Combination		-23.136	10.087	15.815	-9.5823	-22.3312
129	RH-65	Combination		22.432	-13.092	-15.471	12.4843	21.6507
129	RH-66	Combination		21.468	11.664	16.477	-11.0801	20.7277
129	RH-67	Combination		-21.237	-17.415	-19.459	16.5966	-20.4891
129	RH-68	Combination		-23.762	14.548	21.519	-13.8286	-22.9481
129	RH-69	Combination		23.059	-17.553	-21.175	16.7306	22.2676
129	RH-70	Combination		20.534	14.410	19.803	-13.6946	19.8086
129	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
129	RH-72	Combination		4.074	1.282	-2.349	-1.2412	3.9420
129	RH-73	Combination		-9.147	-2.879	5.274	2.7867	-8.8503
129	RH-74	Combination		-23.023	-0.217	-3.284	0.1780	-22.2311
129	RH-75	Combination		-13.066	7.188	10.901	-6.8194	-12.5730
129	RH-76	Combination		17.955	-5.650	-13.720	5.3299	17.3034
129	RH-77	Combination		27.912	1.756	0.465	-1.6674	26.9615
129	RH-78	Combination		-20.111	-8.924	-14.254	8.4691	-19.4213
129	RH-79	Combination		-19.425	9.007	10.819	-8.5784	-18.7336
129	RH-80	Combination		24.314	-7.469	-13.638	7.0889	23.4640
129	RH-81	Combination		25.000	10.462	11.435	-9.9585	24.1516
129	RH-82	Combination		-19.376	-12.397	-17.715	11.7864	-18.7028
129	RH-83	Combination		-20.340	12.359	14.234	-11.7780	-19.6258
129	RH-84	Combination		25.229	-10.820	-17.053	10.2885	24.3561
129	RH-85	Combination		24.265	13.936	14.896	-13.2759	23.4331
129	RH-86	Combination		-18.441	-15.143	-21.041	14.4009	-17.7837
129	RH-87	Combination		-20.966	16.820	19.937	-16.0243	-20.2427
129	RH-88	Combination		25.855	-15.281	-22.756	14.5349	24.9730
129	RH-89	Combination		23.330	16.682	18.221	-15.8903	22.5141
129	RH-90	Combination		-30.955	-2.714	1.290	2.5947	-29.9065
129	RH-91	Combination		-20.998	4.692	15.476	-4.4026	-20.2484
129	RH-92	Combination		10.022	-8.146	-9.146	7.7467	9.6280
129	RH-93	Combination		19.979	-0.741	5.039	0.7493	19.2861
129	RH-94	Combination		-28.044	-11.420	-9.680	10.8858	-27.0966
129	RH-95	Combination		-27.357	6.511	15.394	-6.1616	-26.4090
129	RH-96	Combination		16.381	-9.965	-9.064	9.5057	15.7886
129	RH-97	Combination		17.067	7.966	16.009	-7.5418	16.4762
129	RH-98	Combination		-27.308	-14.894	-13.141	14.2032	-26.3782
129	RH-99	Combination		-28.272	9.862	18.808	-9.3612	-27.3012
129	RH-100	Combination		17.296	-13.317	-12.479	12.7053	16.6807
129	RH-101	Combination		16.332	11.439	19.470	-10.8591	15.7578
129	RH-102	Combination		-26.374	-17.640	-16.466	16.8177	-25.4591
129	RH-103	Combination		-28.899	14.323	24.511	-13.6076	-27.9181
129	RH-104	Combination		17.922	-17.778	-18.182	16.9516	17.2977
129	RH-105	Combination		15.398	14.185	22.796	-13.4736	14.8387
129	RH-106	Combination		0.156	-2.478	-4.730	2.3711	0.1476
129	RH-107	Combination		0.658	-4.247	-5.727	4.0694	0.6363
129	RH-108	Combination		1.585	-6.028	-6.251	5.7847	1.5377

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
129	RH-109	Combination		4.858	-8.538	-7.005	8.2051	4.7049
129	RH-110	Combination		5.460	-11.133	-4.260	10.7470	5.3059
129	RH-111	Combination		5.912	-12.802	0.104	12.4221	5.7554
129	RH-112	Combination		5.740	-14.607	5.002	14.2308	5.5485
129	RH-113	Combination		6.280	-15.517	-0.887	15.0152	6.0404
129	RH-114	Combination		6.745	-16.034	-6.254	15.4507	6.5059
129	RH-115	Combination		7.218	-16.493	-10.518	15.8469	6.9758
129	RH-116	Combination		1.786	-1.965	-5.670	1.8747	1.7243
129	RH-117	Combination		2.287	-3.734	-6.667	3.5729	2.2131
129	RH-118	Combination		3.215	-5.515	-7.191	5.2882	3.1144
129	RH-119	Combination		6.488	-8.025	-7.945	7.7086	6.2817
129	RH-120	Combination		7.089	-10.620	-5.200	10.2505	6.8827
129	RH-121	Combination		7.542	-12.289	-0.835	11.9256	7.3322
129	RH-122	Combination		7.369	-14.094	4.062	13.7343	7.1253
129	RH-123	Combination		7.910	-15.004	-1.827	14.5187	7.6172
129	RH-124	Combination		8.374	-15.521	-7.194	14.9542	8.0826
129	RH-125	Combination		8.847	-15.980	-11.458	15.3504	8.5526
129	RH-126	Combination		-3.502	-3.630	-2.620	3.4858	-3.3926
129	RH-127	Combination		-3.001	-5.399	-3.618	5.1841	-2.9039
129	RH-128	Combination		-2.073	-7.179	-4.141	6.8994	-2.0025
129	RH-129	Combination		1.200	-9.690	-4.896	9.3198	1.1648
129	RH-130	Combination		1.801	-12.284	-2.150	11.8617	1.7657
129	RH-131	Combination		2.253	-13.953	2.214	13.5368	2.2153
129	RH-132	Combination		2.081	-15.759	7.112	15.3454	2.0083
129	RH-133	Combination		2.622	-16.669	1.223	16.1298	2.5003
129	RH-134	Combination		3.086	-17.186	-4.145	16.5654	2.9657
129	RH-135	Combination		3.559	-17.644	-8.409	16.9616	3.4357
129	RH-136	Combination		-4.980	-2.703	-1.737	2.5922	-4.8224
129	RH-137	Combination		-4.479	-4.472	-2.735	4.2904	-4.3337
129	RH-138	Combination		-3.551	-6.253	-3.258	6.0057	-3.4323
129	RH-139	Combination		-0.278	-8.763	-4.013	8.4261	-0.2650
129	RH-140	Combination		0.323	-11.358	-1.267	10.9681	0.3359
129	RH-141	Combination		0.776	-13.027	3.097	12.6432	0.7854
129	RH-142	Combination		0.603	-14.832	7.995	14.4518	0.5785
129	RH-143	Combination		1.144	-15.742	2.106	15.2362	1.0705
129	RH-144	Combination		1.608	-16.259	-3.262	15.6717	1.5359
129	RH-145	Combination		2.081	-16.718	-7.526	16.0679	2.0059
129	RH-146	Combination		-3.350	-2.190	-2.677	2.0957	-3.2456
129	RH-147	Combination		-2.849	-3.959	-3.674	3.7939	-2.7569
129	RH-148	Combination		-1.921	-5.740	-4.198	5.5092	-1.8555
129	RH-149	Combination		1.352	-8.250	-4.952	7.9296	1.3118
129	RH-150	Combination		1.953	-10.845	-2.207	10.4716	1.9127
129	RH-151	Combination		2.405	-12.514	2.157	12.1467	2.3622
129	RH-152	Combination		2.233	-14.319	7.055	13.9553	2.1553
129	RH-153	Combination		2.774	-15.229	1.166	14.7397	2.6472
129	RH-154	Combination		3.238	-15.746	-4.201	15.1752	3.1127
129	RH-155	Combination		3.711	-16.205	-8.465	15.5714	3.5826
129	RH-156	Combination		-8.639	-3.855	0.373	3.7069	-8.3625
129	RH-157	Combination		-8.138	-5.624	-0.625	5.4051	-7.8738
129	RH-158	Combination		-7.210	-7.404	-1.148	7.1204	-6.9724
129	RH-159	Combination		-3.937	-9.915	-1.903	9.5408	-3.8052
129	RH-160	Combination		-3.335	-12.509	0.843	12.0827	-3.2042
129	RH-161	Combination		-2.883	-14.178	5.207	13.7579	-2.7547
129	RH-162	Combination		-3.056	-15.984	10.105	15.5665	-2.9616
129	RH-163	Combination		-2.515	-16.894	4.215	16.3509	-2.4697
129	RH-164	Combination		-2.050	-17.411	-1.152	16.7864	-2.0042
129	RH-165	Combination		-1.577	-17.869	-5.416	17.1826	-1.5343
131	ENV-ELS-CA	Combination	Max	24.854	12.089	210.606	12.0932	24.1369
131	ENV-ELS-CA	Combination	Min	-22.764	-12.178	47.996	-11.4801	-22.5508
131	ENV-ELS-CP	Combination	Max	6.278	0.123	99.649	0.3552	5.9813

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
131	ENV-ELS-CP	Combination	Min	-3.496	-0.159	67.239	0.0765	-3.5730
131	ENV-ELU-PT	Combination	Max	33.821	16.324	286.389	16.3318	32.8531
131	ENV-ELU-PT	Combination	Min	-31.298	-16.447	31.754	-15.5346	-30.9989
131	ENV-ELU-AC	Combination	Max	7.313	0.195	172.591	16.8354	7.1978
131	ENV-ELU-AC	Combination	Min	-7.063	-16.999	61.892	-0.1554	-7.3852
131	ENV-ELU-EQ	Combination	Max	0.252	7.774E-03	234.667	1.1429	0.4935
131	ENV-ELU-EQ	Combination	Min	-1.626	-0.348	76.233	-0.1204	-2.4179
131	RH-1	Combination		6.923	0.302	-3.535	-0.2982	6.6997
131	RH-2	Combination		10.998	0.329	-5.598	-0.3281	10.6430
131	RH-3	Combination		-2.226	0.242	1.097	-0.2311	-2.1537
131	RH-4	Combination		-14.886	-0.664	-3.986	0.6032	-14.3489
131	RH-5	Combination		-8.904	6.735	-3.737	-6.3880	-8.5641
131	RH-6	Combination		27.640	-6.099	-5.809	5.7557	26.6954
131	RH-7	Combination		33.621	1.301	-5.560	-1.2355	32.4802
131	RH-8	Combination		-11.960	-9.375	-4.364	8.8996	-11.5283
131	RH-9	Combination		-13.319	8.560	-3.636	-8.1534	-12.8287
131	RH-10	Combination		32.055	-7.923	-5.910	7.5211	30.9600
131	RH-11	Combination		30.696	10.011	-5.182	-9.5319	29.6596
131	RH-12	Combination		-12.002	-12.850	-4.426	12.2193	-11.5690
131	RH-13	Combination		-13.413	11.916	-3.567	-11.3591	-12.9195
131	RH-14	Combination		32.149	-11.280	-5.979	10.7268	31.0508
131	RH-15	Combination		30.738	13.486	-5.120	-12.8516	29.7003
131	RH-16	Combination		-12.788	-15.606	-4.398	14.8454	-12.3268
131	RH-17	Combination		-12.773	16.370	-3.457	-15.5995	-12.3015
131	RH-18	Combination		31.509	-15.733	-6.089	14.9672	30.4328
131	RH-19	Combination		31.524	16.243	-5.148	-15.4777	30.4581
131	RH-20	Combination		-22.820	-0.716	0.031	0.6614	-22.0269
131	RH-21	Combination		-16.839	6.683	0.280	-6.3298	-16.2421
131	RH-22	Combination		19.706	-6.151	-1.792	5.8139	19.0174
131	RH-23	Combination		25.687	1.249	-1.543	-1.1772	24.8022
131	RH-24	Combination		-19.894	-9.427	-0.347	8.9578	-19.2063
131	RH-25	Combination		-21.253	8.508	0.381	-8.0952	-20.5067
131	RH-26	Combination		24.121	-7.975	-1.893	7.5793	23.2820
131	RH-27	Combination		22.762	9.959	-1.165	-9.4737	21.9816
131	RH-28	Combination		-19.937	-12.902	-0.410	12.2775	-19.2470
131	RH-29	Combination		-21.347	11.864	0.450	-11.3008	-20.5975
131	RH-30	Combination		24.215	-11.332	-1.962	10.7850	23.3728
131	RH-31	Combination		22.804	13.434	-1.103	-12.7934	22.0223
131	RH-32	Combination		-20.722	-15.658	-0.381	14.9036	-20.0048
131	RH-33	Combination		-20.707	16.318	0.560	-15.5412	-19.9795
131	RH-34	Combination		23.575	-15.785	-2.072	15.0254	22.7548
131	RH-35	Combination		23.590	16.191	-1.131	-15.4195	22.7801
131	RH-36	Combination		5.128	0.224	-2.619	-0.2209	4.9627
131	RH-37	Combination		9.203	0.251	-4.682	-0.2508	8.9060
131	RH-38	Combination		-4.021	0.164	2.013	-0.1538	-3.8906
131	RH-39	Combination		-16.681	-0.743	-3.069	0.6805	-16.0858
131	RH-40	Combination		-10.699	6.657	-2.821	-6.3107	-10.3011
131	RH-41	Combination		25.845	-6.177	-4.892	5.8330	24.9585
131	RH-42	Combination		31.827	1.223	-4.644	-1.1581	30.7432
131	RH-43	Combination		-13.755	-9.453	-3.448	8.9769	-13.2652
131	RH-44	Combination		-15.114	8.481	-2.720	-8.0761	-14.5656
131	RH-45	Combination		30.260	-8.001	-4.993	7.5984	29.2230
131	RH-46	Combination		28.901	9.933	-4.265	-9.4546	27.9226
131	RH-47	Combination		-13.797	-12.928	-3.510	12.2966	-13.3059
131	RH-48	Combination		-15.208	11.838	-2.650	-11.2817	-14.6564
131	RH-49	Combination		30.354	-11.358	-5.062	10.8041	29.3138
131	RH-50	Combination		28.943	13.408	-4.203	-12.7743	27.9633
131	RH-51	Combination		-14.583	-15.685	-3.481	14.9227	-14.0637

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
131	RH-52	Combination		-14.568	16.291	-2.540	-15.5221	-14.0384
131	RH-53	Combination		29.714	-15.812	-5.173	15.0445	28.6958
131	RH-54	Combination		29.729	16.164	-4.232	-15.4004	28.7211
131	RH-55	Combination		-24.615	-0.795	0.948	0.7387	-23.7638
131	RH-56	Combination		-18.633	6.605	1.196	-6.2525	-17.9791
131	RH-57	Combination		17.911	-6.229	-0.875	5.8912	17.2805
131	RH-58	Combination		23.893	1.170	-0.627	-1.0999	23.0652
131	RH-59	Combination		-21.689	-9.505	0.569	9.0351	-20.9432
131	RH-60	Combination		-23.048	8.429	1.297	-8.0179	-22.2436
131	RH-61	Combination		22.326	-8.054	-0.976	7.6567	21.5451
131	RH-62	Combination		20.967	9.881	-0.248	-9.3964	20.2446
131	RH-63	Combination		-21.731	-12.980	0.507	12.3548	-20.9839
131	RH-64	Combination		-23.142	11.786	1.366	-11.2235	-22.3344
131	RH-65	Combination		22.420	-11.410	-1.046	10.8623	21.6358
131	RH-66	Combination		21.009	13.356	-0.186	-12.7161	20.2854
131	RH-67	Combination		-22.517	-15.737	0.536	14.9809	-21.7417
131	RH-68	Combination		-22.502	16.239	1.477	-15.4639	-21.7164
131	RH-69	Combination		21.780	-15.864	-1.156	15.1027	21.0178
131	RH-70	Combination		21.795	16.112	-0.215	-15.3422	21.0431
131	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
131	RH-72	Combination		4.075	0.027	-2.063	-0.0299	3.9433
131	RH-73	Combination		-9.149	-0.060	4.632	0.0671	-8.8533
131	RH-74	Combination		-21.809	-0.967	-0.450	0.9014	-21.0485
131	RH-75	Combination		-15.827	6.433	-0.202	-6.0898	-15.2638
131	RH-76	Combination		20.717	-6.401	-2.274	6.0539	19.9958
131	RH-77	Combination		26.699	0.999	-2.025	-0.9372	25.7805
131	RH-78	Combination		-18.883	-9.677	-0.829	9.1978	-18.2280
131	RH-79	Combination		-20.242	8.257	-0.101	-7.8552	-19.5284
131	RH-80	Combination		25.132	-8.225	-2.375	7.8193	24.2603
131	RH-81	Combination		23.773	9.709	-1.647	-9.2337	22.9599
131	RH-82	Combination		-18.925	-13.152	-0.891	12.5175	-18.2687
131	RH-83	Combination		-20.336	11.614	-0.032	-11.0609	-19.6191
131	RH-84	Combination		25.226	-11.582	-2.444	11.0250	24.3511
131	RH-85	Combination		23.815	13.184	-1.584	-12.5534	23.0006
131	RH-86	Combination		-19.711	-15.909	-0.863	15.1436	-19.0264
131	RH-87	Combination		-19.696	16.068	0.078	-15.3013	-19.0011
131	RH-88	Combination		24.586	-16.035	-2.554	15.2654	23.7331
131	RH-89	Combination		24.601	15.941	-1.613	-15.1795	23.7584
131	RH-90	Combination		-29.743	-1.019	3.566	0.9596	-28.7265
131	RH-91	Combination		-23.762	6.381	3.815	-6.0316	-22.9418
131	RH-92	Combination		12.783	-6.453	1.743	6.1121	12.3178
131	RH-93	Combination		18.764	0.947	1.992	-0.8790	18.1025
131	RH-94	Combination		-26.817	-9.729	3.188	9.2560	-25.9059
131	RH-95	Combination		-28.176	8.205	3.916	-7.7970	-27.2064
131	RH-96	Combination		17.198	-8.277	1.642	7.8776	16.5823
131	RH-97	Combination		15.839	9.657	2.370	-9.1755	15.2819
131	RH-98	Combination		-26.859	-13.204	3.126	12.5757	-25.9466
131	RH-99	Combination		-28.270	11.562	3.985	-11.0026	-27.2971
131	RH-100	Combination		17.292	-11.634	1.573	11.0832	16.6731
131	RH-101	Combination		15.881	13.132	2.433	-12.4952	15.3226
131	RH-102	Combination		-27.645	-15.961	3.154	15.2018	-26.7044
131	RH-103	Combination		-27.630	16.015	4.095	-15.2430	-26.6791
131	RH-104	Combination		16.652	-16.087	1.463	15.3236	16.0551
131	RH-105	Combination		16.667	15.889	2.404	-15.1213	16.0804
131	RH-106	Combination		2.234	-2.475	-2.616	2.3671	2.1672
131	RH-107	Combination		2.405	-4.246	-2.657	4.0672	2.3330
131	RH-108	Combination		3.012	-6.028	-2.774	5.7845	2.9184
131	RH-109	Combination		5.819	-8.540	-3.088	8.2066	5.6277
131	RH-110	Combination		5.835	-11.134	-3.350	10.7462	5.6484
131	RH-111	Combination		5.849	-12.764	-3.319	12.3608	5.6658
131	RH-112	Combination		5.134	-14.505	-2.801	14.0743	4.9708
131	RH-113	Combination		5.112	-15.506	-2.428	14.9950	4.9381

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
131	RH-114	Combination		5.113	-16.035	-2.588	15.4510	4.9420
131	RH-115	Combination		5.127	-16.493	-2.787	15.8489	4.9589
131	RH-116	Combination		3.864	-2.465	-3.442	2.3551	3.7445
131	RH-117	Combination		4.035	-4.235	-3.482	4.0552	3.9103
131	RH-118	Combination		4.642	-6.017	-3.600	5.7725	4.4957
131	RH-119	Combination		7.449	-8.529	-3.914	8.1947	7.2050
131	RH-120	Combination		7.465	-11.123	-4.175	10.7342	7.2258
131	RH-121	Combination		7.479	-12.753	-4.145	12.3488	7.2431
131	RH-122	Combination		6.764	-14.495	-3.626	14.0623	6.5482
131	RH-123	Combination		6.742	-15.495	-3.253	14.9830	6.5154
131	RH-124	Combination		6.743	-16.024	-3.413	15.4390	6.5193
131	RH-125	Combination		6.757	-16.483	-3.612	15.8370	6.5362
131	RH-126	Combination		-1.426	-2.499	-0.764	2.3940	-1.3742
131	RH-127	Combination		-1.254	-4.270	-0.804	4.0941	-1.2084
131	RH-128	Combination		-0.648	-6.052	-0.922	5.8114	-0.6229
131	RH-129	Combination		2.160	-8.564	-1.236	8.2335	2.0864
131	RH-130	Combination		2.176	-11.158	-1.497	10.7730	2.1071
131	RH-131	Combination		2.190	-12.788	-1.467	12.3876	2.1245
131	RH-132	Combination		1.475	-14.529	-0.948	14.1011	1.4295
131	RH-133	Combination		1.452	-15.530	-0.575	15.0218	1.3967
131	RH-134	Combination		1.454	-16.059	-0.735	15.4778	1.4006
131	RH-135	Combination		1.468	-16.517	-0.935	15.8758	1.4175
131	RH-136	Combination		-2.894	-2.699	2.274E-03	2.5880	-2.7955
131	RH-137	Combination		-2.723	-4.470	-0.038	4.2881	-2.6297
131	RH-138	Combination		-2.116	-6.252	-0.156	6.0054	-2.0443
131	RH-139	Combination		0.691	-8.764	-0.470	8.4275	0.6650
131	RH-140	Combination		0.707	-11.357	-0.731	10.9671	0.6857
131	RH-141	Combination		0.721	-12.988	-0.701	12.5816	0.7031
131	RH-142	Combination		6.053E-03	-14.729	-0.182	14.2952	0.0081
131	RH-143	Combination		-0.016	-15.730	0.191	15.2159	-0.0247
131	RH-144	Combination		-0.015	-16.259	0.031	15.6719	-0.0208
131	RH-145	Combination		-7.742E-04	-16.717	-0.169	16.0698	-0.0038
131	RH-146	Combination		-1.264	-2.689	-0.823	2.5760	-1.2182
131	RH-147	Combination		-1.093	-4.459	-0.864	4.2761	-1.0524
131	RH-148	Combination		-0.486	-6.241	-0.981	5.9934	-0.4670
131	RH-149	Combination		2.321	-8.753	-1.295	8.4156	2.2423
131	RH-150	Combination		2.337	-11.347	-1.556	10.9551	2.2631
131	RH-151	Combination		2.351	-12.977	-1.526	12.5697	2.2804
131	RH-152	Combination		1.636	-14.719	-1.007	14.2832	1.5854
131	RH-153	Combination		1.614	-15.719	-0.634	15.2039	1.5527
131	RH-154	Combination		1.615	-16.248	-0.794	15.6599	1.5566
131	RH-155	Combination		1.629	-16.707	-0.994	16.0579	1.5735
131	RH-156	Combination		-6.554	-2.723	1.855	2.6149	-6.3369
131	RH-157	Combination		-6.382	-4.494	1.814	4.3150	-6.1711
131	RH-158	Combination		-5.776	-6.276	1.697	6.0323	-5.5856
131	RH-159	Combination		-2.968	-8.788	1.383	8.4544	-2.8764
131	RH-160	Combination		-2.952	-11.381	1.122	10.9939	-2.8556
131	RH-161	Combination		-2.938	-13.012	1.152	12.6085	-2.8383
131	RH-162	Combination		-3.653	-14.753	1.671	14.3220	-3.5332
131	RH-163	Combination		-3.676	-15.754	2.044	15.2427	-3.5660
131	RH-164	Combination		-3.674	-16.283	1.883	15.6987	-3.5621
131	RH-165	Combination		-3.660	-16.741	1.684	16.0967	-3.5452
133	ENV-ELS-CA	Combination	Max	24.244	13.496	194.382	12.8649	23.5266
133	ENV-ELS-CA	Combination	Min	-22.314	-12.831	25.806	-13.0673	-22.1623
133	ENV-ELS-CP	Combination	Max	6.223	1.242	73.553	1.0286	5.9062
133	ENV-ELS-CP	Combination	Min	-3.552	-0.723	59.571	-1.1569	-3.6523
133	ENV-ELU-PT	Combination	Max	32.998	18.427	263.114	17.4914	32.0301
133	ENV-ELU-PT	Combination	Min	-30.691	-17.428	11.483	-17.9092	-30.4752

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
133	ENV-ELU-AC	Combination	Max	8.198	1.473	163.155	17.4870	8.0210
133	ENV-ELU-AC	Combination	Min	-6.357	-17.558	37.044	-1.5053	-6.7530
133	ENV-ELU-EQ	Combination	Max	0.198	0.126	229.901	1.1261	0.4238
133	ENV-ELU-EQ	Combination	Min	-1.775	-0.344	30.869	-0.3141	-2.6319
133	RH-1	Combination		6.912	0.300	-2.934	-0.2972	6.6902
133	RH-2	Combination		10.987	-0.929	-4.557	0.8845	10.6343
133	RH-3	Combination		-2.238	3.059	0.711	-2.9502	-2.1650
133	RH-4	Combination		-13.680	-1.419	-0.456	1.3297	-13.1701
133	RH-5	Combination		-11.672	5.985	-14.265	-5.6623	-11.2579
133	RH-6	Combination		30.387	-6.860	6.450	6.4860	29.3712
133	RH-7	Combination		32.394	0.544	-7.359	-0.5060	31.2833
133	RH-8	Combination		-10.738	-10.122	9.757	9.6165	-10.3369
133	RH-9	Combination		-14.145	7.802	-13.922	-7.4214	-13.6284
133	RH-10	Combination		32.860	-8.677	6.107	8.2451	31.7416
133	RH-11	Combination		29.453	9.247	-17.572	-8.7928	28.4501
133	RH-12	Combination		-11.556	-13.592	13.067	12.9307	-11.1348
133	RH-13	Combination		-13.420	11.153	-17.171	-10.6206	-12.9199
133	RH-14	Combination		32.135	-12.028	9.356	11.4443	31.0332
133	RH-15	Combination		30.270	12.717	-20.881	-12.1070	29.2481
133	RH-16	Combination		-14.067	-16.358	16.399	15.5657	-13.5744
133	RH-17	Combination		-11.508	15.600	-22.616	-14.8538	-11.0621
133	RH-18	Combination		30.223	-16.475	14.801	15.6776	29.1754
133	RH-19	Combination		32.782	15.483	-24.214	-14.7420	31.6877
133	RH-20	Combination		-21.615	0.974	2.705	-0.9712	-20.8496
133	RH-21	Combination		-19.607	8.378	-11.105	-7.9632	-18.9375
133	RH-22	Combination		22.451	-4.466	9.611	4.1852	21.6916
133	RH-23	Combination		24.459	2.937	-4.199	-2.8068	23.6038
133	RH-24	Combination		-18.673	-7.728	12.918	7.3157	-18.0165
133	RH-25	Combination		-22.080	10.195	-10.761	-9.7223	-21.3080
133	RH-26	Combination		24.924	-6.284	9.267	5.9442	24.0621
133	RH-27	Combination		21.517	11.640	-14.412	-11.0937	20.7706
133	RH-28	Combination		-19.491	-11.199	16.227	10.6298	-18.8144
133	RH-29	Combination		-21.355	13.546	-14.010	-12.9214	-20.5995
133	RH-30	Combination		24.199	-9.635	12.516	9.1434	23.3536
133	RH-31	Combination		22.335	15.110	-17.721	-14.4079	21.5685
133	RH-32	Combination		-22.003	-13.965	19.559	13.2648	-21.2540
133	RH-33	Combination		-19.444	17.993	-19.455	-17.1547	-18.7417
133	RH-34	Combination		22.288	-14.082	17.961	13.3767	21.4958
133	RH-35	Combination		24.847	17.876	-21.053	-17.0428	24.0081
133	RH-36	Combination		5.120	0.222	-2.173	-0.2201	4.9557
133	RH-37	Combination		9.195	-1.007	-3.796	0.9616	8.8998
133	RH-38	Combination		-4.030	2.982	1.471	-2.8732	-3.8995
133	RH-39	Combination		-15.472	-1.497	0.305	1.4067	-14.9046
133	RH-40	Combination		-13.464	5.907	-13.505	-5.5853	-12.9924
133	RH-41	Combination		28.595	-6.937	7.211	6.5631	27.6367
133	RH-42	Combination		30.602	0.466	-6.599	-0.4289	29.5488
133	RH-43	Combination		-12.530	-10.199	10.518	9.6936	-12.0714
133	RH-44	Combination		-15.937	7.725	-13.161	-7.3444	-15.3629
133	RH-45	Combination		31.068	-8.755	6.867	8.3221	30.0072
133	RH-46	Combination		27.661	9.169	-16.812	-8.7158	26.7157
133	RH-47	Combination		-13.348	-13.669	13.827	13.0077	-12.8693
133	RH-48	Combination		-15.212	11.075	-16.410	-10.5435	-14.6544
133	RH-49	Combination		30.343	-12.105	10.116	11.5213	29.2987
133	RH-50	Combination		28.478	12.639	-20.121	-12.0300	27.5136
133	RH-51	Combination		-15.859	-16.436	17.159	15.6427	-15.3089
133	RH-52	Combination		-13.300	15.522	-21.855	-14.7768	-12.7966
133	RH-53	Combination		28.431	-16.553	15.561	15.7546	27.4409
133	RH-54	Combination		30.990	15.405	-23.453	-14.6649	29.9532
133	RH-55	Combination		-23.407	0.896	3.465	-0.8942	-22.5841

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
133	RH-56	Combination		-21.399	8.300	-10.344	-7.8862	-20.6720
133	RH-57	Combination		20.659	-4.544	10.371	4.2622	19.9571
133	RH-58	Combination		22.667	2.859	-3.438	-2.7298	21.8693
133	RH-59	Combination		-20.465	-7.806	13.678	7.3927	-19.7509
133	RH-60	Combination		-23.872	10.118	-10.001	-9.6452	-23.0424
133	RH-61	Combination		23.132	-6.362	10.028	6.0213	22.3276
133	RH-62	Combination		19.725	11.562	-13.651	-11.0166	19.0361
133	RH-63	Combination		-21.283	-11.276	16.988	10.7069	-20.5489
133	RH-64	Combination		-23.147	13.468	-13.250	-12.8444	-22.3340
133	RH-65	Combination		22.407	-9.712	13.277	9.2205	21.6191
133	RH-66	Combination		20.543	15.032	-16.960	-14.3308	19.8340
133	RH-67	Combination		-23.795	-14.043	20.320	13.3419	-22.9884
133	RH-68	Combination		-21.236	17.915	-18.695	-17.0777	-20.4762
133	RH-69	Combination		20.496	-14.160	18.722	13.4537	19.7613
133	RH-70	Combination		23.055	17.798	-20.293	-16.9658	22.2736
133	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
133	RH-72	Combination		4.075	-1.229	-1.623	1.1817	3.9441
133	RH-73	Combination		-9.150	2.759	3.644	-2.6531	-8.8552
133	RH-74	Combination		-20.592	-1.719	2.478	1.6268	-19.8602
133	RH-75	Combination		-18.584	5.685	-11.332	-5.3652	-17.9481
133	RH-76	Combination		23.475	-7.160	9.384	6.7832	22.6810
133	RH-77	Combination		25.482	0.244	-4.426	-0.2088	24.5932
133	RH-78	Combination		-17.650	-10.422	12.691	9.9137	-17.0270
133	RH-79	Combination		-21.057	7.502	-10.988	-7.1242	-20.3185
133	RH-80	Combination		25.948	-8.977	9.040	8.5423	25.0515
133	RH-81	Combination		22.541	8.947	-14.639	-8.4957	21.7600
133	RH-82	Combination		-18.468	-13.892	16.000	13.2279	-17.8250
133	RH-83	Combination		-20.332	10.853	-14.237	-10.3234	-19.6101
133	RH-84	Combination		25.223	-12.328	12.289	11.7414	24.3430
133	RH-85	Combination		23.358	12.417	-17.948	-11.8098	22.5579
133	RH-86	Combination		-20.980	-16.658	19.332	15.8628	-20.2645
133	RH-87	Combination		-18.421	15.300	-19.682	-14.5567	-17.7523
133	RH-88	Combination		23.311	-16.775	17.734	15.9747	22.4852
133	RH-89	Combination		25.870	15.183	-21.280	-14.4448	24.9975
133	RH-90	Combination		-28.527	0.674	5.638	-0.6740	-27.5398
133	RH-91	Combination		-26.519	8.078	-8.171	-7.6660	-25.6277
133	RH-92	Combination		15.539	-4.766	12.544	4.4823	15.0015
133	RH-93	Combination		17.547	2.637	-1.265	-2.5097	16.9136
133	RH-94	Combination		-25.585	-8.028	15.851	7.6128	-24.7066
133	RH-95	Combination		-28.992	9.895	-7.828	-9.4251	-27.9981
133	RH-96	Combination		18.012	-6.584	12.201	6.2414	17.3719
133	RH-97	Combination		14.605	11.340	-11.478	-10.7965	14.0804
133	RH-98	Combination		-26.403	-11.499	19.161	10.9270	-25.5046
133	RH-99	Combination		-28.267	13.246	-11.077	-12.6243	-27.2896
133	RH-100	Combination		17.287	-9.935	15.450	9.4406	16.6634
133	RH-101	Combination		15.423	14.810	-14.787	-14.1107	14.8783
133	RH-102	Combination		-28.915	-14.265	22.493	13.5620	-27.9441
133	RH-103	Combination		-26.356	17.693	-16.522	-16.8576	-25.4319
133	RH-104	Combination		15.376	-14.382	20.895	13.6739	14.8057
133	RH-105	Combination		17.935	17.576	-18.120	-16.7457	17.3179
133	RH-106	Combination		4.310	-2.482	-0.399	2.3719	4.1861
133	RH-107	Combination		4.153	-4.250	0.502	4.0695	4.0300
133	RH-108	Combination		4.439	-6.030	0.773	5.7845	4.3001
133	RH-109	Combination		6.782	-8.539	0.891	8.2039	6.5527
133	RH-110	Combination		6.218	-11.126	-2.207	10.7345	6.0013
133	RH-111	Combination		5.806	-12.739	-5.128	12.3230	5.6052
133	RH-112	Combination		4.522	-14.460	-6.922	14.0074	4.3828
133	RH-113	Combination		3.930	-15.492	-3.162	14.9725	3.8159
133	RH-114	Combination		3.480	-16.033	1.206	15.4458	3.3768
133	RH-115	Combination		3.038	-16.496	5.012	15.8475	2.9434
133	RH-116	Combination		5.940	-2.973	-1.048	2.8445	5.7638
133	RH-117	Combination		5.783	-4.742	-0.147	4.5421	5.6076

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
133	RH-118	Combination		6.069	-6.521	0.123	6.2572	5.8778
133	RH-119	Combination		8.412	-9.031	0.242	8.6766	8.1304
133	RH-120	Combination		7.848	-11.617	-2.856	11.2072	7.5789
133	RH-121	Combination		7.436	-13.230	-5.777	12.7957	7.1828
133	RH-122	Combination		6.152	-14.952	-7.571	14.4801	5.9604
133	RH-123	Combination		5.560	-15.984	-3.811	15.4452	5.3935
133	RH-124	Combination		5.111	-16.525	0.557	15.9185	4.9544
133	RH-125	Combination		4.668	-16.987	4.363	16.3202	4.5211
133	RH-126	Combination		0.650	-1.378	1.059	1.3106	0.6440
133	RH-127	Combination		0.493	-3.146	1.960	3.0082	0.4879
133	RH-128	Combination		0.779	-4.926	2.230	4.7233	0.7581
133	RH-129	Combination		3.122	-7.435	2.348	7.1427	3.0107
133	RH-130	Combination		2.558	-10.022	-0.749	9.6733	2.4592
133	RH-131	Combination		2.146	-11.635	-3.670	11.2618	2.0631
133	RH-132	Combination		0.862	-13.356	-5.464	12.9462	0.8407
133	RH-133	Combination		0.270	-14.388	-1.704	13.9113	0.2738
133	RH-134	Combination		-0.180	-14.929	2.664	14.3846	-0.1653
133	RH-135	Combination		-0.622	-15.392	6.470	14.7863	-0.5986
133	RH-136	Combination		-0.810	-2.704	1.774	2.5920	-0.7696
133	RH-137	Combination		-0.967	-4.472	2.675	4.2896	-0.9257
133	RH-138	Combination		-0.681	-6.252	2.945	6.0046	-0.6555
133	RH-139	Combination		1.662	-8.761	3.064	8.4240	1.5971
133	RH-140	Combination		1.098	-11.348	-0.034	10.9546	1.0456
133	RH-141	Combination		0.686	-12.961	-2.955	12.5431	0.6495
133	RH-142	Combination		-0.598	-14.682	-4.749	14.2275	-0.5729
133	RH-143	Combination		-1.190	-15.714	-0.989	15.1927	-1.1398
133	RH-144	Combination		-1.640	-16.255	3.379	15.6659	-1.5789
133	RH-145	Combination		-2.082	-16.718	7.185	16.0676	-2.0122
133	RH-146	Combination		0.820	-3.196	1.125	3.0647	0.8081
133	RH-147	Combination		0.663	-4.964	2.026	4.7622	0.6519
133	RH-148	Combination		0.949	-6.743	2.296	6.4773	0.9221
133	RH-149	Combination		3.292	-9.253	2.415	8.8967	3.1747
133	RH-150	Combination		2.728	-11.840	-0.683	11.4273	2.6232
133	RH-151	Combination		2.316	-13.453	-3.604	13.0158	2.2272
133	RH-152	Combination		1.032	-15.174	-5.398	14.7002	1.0047
133	RH-153	Combination		0.440	-16.206	-1.638	15.6653	0.4378
133	RH-154	Combination		-9.411E-03	-16.747	2.730	16.1386	-0.0012
133	RH-155	Combination		-0.452	-17.210	6.536	16.5403	-0.4346
133	RH-156	Combination		-4.470	-1.600	3.232	1.5308	-4.3116
133	RH-157	Combination		-4.627	-3.368	4.133	3.2283	-4.4678
133	RH-158	Combination		-4.341	-5.148	4.403	4.9434	-4.1976
133	RH-159	Combination		-1.998	-7.657	4.521	7.3628	-1.9450
133	RH-160	Combination		-2.562	-10.244	1.424	9.8934	-2.4965
133	RH-161	Combination		-2.974	-11.857	-1.497	11.4819	-2.8926
133	RH-162	Combination		-4.258	-13.578	-3.291	13.1663	-4.1150
133	RH-163	Combination		-4.850	-14.611	0.469	14.1314	-4.6819
133	RH-164	Combination		-5.300	-15.152	4.837	14.6047	-5.1209
133	RH-165	Combination		-5.742	-15.614	8.643	15.0064	-5.5543
138	ENV-ELS-CA	Combination	Max	27.060	13.410	282.485	14.3282	26.2294
138	ENV-ELS-CA	Combination	Min	-24.666	-14.276	65.480	-12.8827	-24.5837
138	ENV-ELS-CP	Combination	Max	7.545	0.726	125.876	1.6406	7.1608
138	ENV-ELS-CP	Combination	Min	-4.220	-1.339	98.453	-0.6308	-4.3557
138	ENV-ELU-PT	Combination	Max	36.851	18.216	382.910	19.5827	35.7321
138	ENV-ELU-PT	Combination	Min	-33.979	-19.492	48.268	-17.5528	-33.8553
138	ENV-ELU-AC	Combination	Max	9.997	0.851	239.585	19.5697	9.6708
138	ENV-ELU-AC	Combination	Min	-10.016	-19.671	76.291	-0.8514	-10.4331

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
138	ENV-ELU-EQ	Combination	Max	0.143	0.013	327.773	1.3547	0.3096
138	ENV-ELU-EQ	Combination	Min	-2.033	-0.498	86.401	-0.1106	-3.0691
138	RH-1	Combination		8.360	0.295	-4.889	-0.2900	8.0952
138	RH-2	Combination		13.253	1.577	-7.732	-1.5302	12.8330
138	RH-3	Combination		-2.625	-2.582	1.493	2.4946	-2.5419
138	RH-4	Combination		-14.158	0.837	-8.827	-0.8398	-13.6503
138	RH-5	Combination		-4.243	5.757	3.204	-5.4547	-4.0347
138	RH-6	Combination		26.835	-3.629	-16.394	3.3865	25.9104
138	RH-7	Combination		36.750	1.291	-4.362	-1.2284	35.5260
138	RH-8	Combination		-11.258	-7.839	-19.623	7.4204	-10.8517
138	RH-9	Combination		-10.572	8.778	4.085	-8.3645	-10.1664
138	RH-10	Combination		33.165	-6.650	-17.274	6.2963	32.0422
138	RH-11	Combination		33.851	9.968	6.434	-9.4886	32.7275
138	RH-12	Combination		-10.536	-11.786	-23.526	11.1900	-10.1465
138	RH-13	Combination		-11.469	12.632	7.941	-12.0445	-11.0406
138	RH-14	Combination		34.062	-10.504	-21.131	9.9763	32.9163
138	RH-15	Combination		33.129	13.915	10.337	-13.2583	32.0222
138	RH-16	Combination		-9.619	-15.649	-27.758	14.8742	-9.2448
138	RH-17	Combination		-12.129	17.920	14.303	-17.0819	-11.6894
138	RH-18	Combination		34.721	-15.791	-27.493	15.0136	33.5651
138	RH-19	Combination		32.211	17.778	14.568	-16.9424	31.1205
138	RH-20	Combination		-23.685	-1.658	-3.293	1.5751	-22.8752
138	RH-21	Combination		-13.770	3.262	8.739	-3.0399	-13.2596
138	RH-22	Combination		17.308	-6.124	-10.859	5.8014	16.6855
138	RH-23	Combination		27.223	-1.204	1.172	1.1864	26.3011
138	RH-24	Combination		-20.786	-10.334	-14.089	9.8352	-20.0766
138	RH-25	Combination		-20.100	6.283	9.619	-5.9497	-19.3913
138	RH-26	Combination		23.637	-9.145	-11.740	8.7112	22.8173
138	RH-27	Combination		24.324	7.473	11.968	-7.0737	23.5026
138	RH-28	Combination		-20.063	-14.281	-17.991	13.6049	-19.3714
138	RH-29	Combination		-20.996	10.137	13.476	-9.6297	-20.2655
138	RH-30	Combination		24.534	-12.999	-15.596	12.3911	23.6914
138	RH-31	Combination		23.601	11.420	15.871	-10.8434	22.7973
138	RH-32	Combination		-19.146	-18.144	-22.223	17.2890	-18.4697
138	RH-33	Combination		-21.656	15.425	19.838	-14.6670	-20.9143
138	RH-34	Combination		25.194	-18.286	-21.958	17.4285	24.3402
138	RH-35	Combination		22.684	15.283	20.103	-14.5275	21.8956
138	RH-36	Combination		6.193	0.219	-3.622	-0.2148	5.9964
138	RH-37	Combination		11.086	1.500	-6.464	-1.4550	10.7342
138	RH-38	Combination		-4.793	-2.658	2.760	2.5697	-4.6406
138	RH-39	Combination		-16.325	0.761	-7.560	-0.7646	-15.7491
138	RH-40	Combination		-6.410	5.681	4.472	-5.3796	-6.1335
138	RH-41	Combination		24.668	-3.705	-15.126	3.4617	23.8117
138	RH-42	Combination		34.583	1.215	-3.095	-1.1532	33.4273
138	RH-43	Combination		-13.426	-7.916	-18.356	7.4956	-12.9505
138	RH-44	Combination		-12.740	8.702	5.352	-8.2893	-12.2652
138	RH-45	Combination		30.997	-6.726	-16.007	6.3715	29.9434
138	RH-46	Combination		31.683	9.891	7.701	-9.4134	30.6287
138	RH-47	Combination		-12.704	-11.863	-22.258	11.2652	-12.2452
138	RH-48	Combination		-13.637	12.556	9.209	-11.9693	-13.1393
138	RH-49	Combination		31.894	-10.580	-19.863	10.0515	30.8175
138	RH-50	Combination		30.961	13.838	11.604	-13.1831	29.9234
138	RH-51	Combination		-11.787	-15.726	-26.490	14.9493	-11.3436
138	RH-52	Combination		-14.297	17.843	15.571	-17.0067	-13.7882
138	RH-53	Combination		32.554	-15.868	-26.225	15.0888	31.4664
138	RH-54	Combination		30.044	17.701	15.836	-16.8672	29.0218
138	RH-55	Combination		-25.852	-1.734	-2.025	1.6502	-24.9740
138	RH-56	Combination		-15.937	3.186	10.007	-2.9647	-15.3584
138	RH-57	Combination		15.140	-6.200	-9.592	5.8766	14.5868
138	RH-58	Combination		25.055	-1.280	2.440	1.2616	24.2024

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
138	RH-59	Combination		-22.953	-10.411	-12.821	9.9104	-22.1754
138	RH-60	Combination		-22.267	6.207	10.887	-5.8745	-21.4901
138	RH-61	Combination		21.470	-9.221	-10.472	8.7863	20.7185
138	RH-62	Combination		22.156	7.396	13.236	-6.9986	21.4038
138	RH-63	Combination		-22.231	-14.358	-16.724	13.6801	-21.4701
138	RH-64	Combination		-23.164	10.061	14.744	-9.5545	-22.3642
138	RH-65	Combination		22.367	-13.075	-14.329	12.4663	21.5926
138	RH-66	Combination		21.434	11.343	17.139	-10.7682	20.6985
138	RH-67	Combination		-21.314	-18.221	-20.956	17.3642	-20.5685
138	RH-68	Combination		-23.824	15.348	21.105	-14.5918	-23.0131
138	RH-69	Combination		23.027	-18.363	-20.691	17.5037	22.2415
138	RH-70	Combination		20.517	15.206	21.371	-14.4524	19.7969
138	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
138	RH-72	Combination		4.893	1.281	-2.842	-1.2402	4.7378
138	RH-73	Combination		-10.986	-2.877	6.382	2.7845	-10.6371
138	RH-74	Combination		-22.518	0.542	-3.938	-0.5498	-21.7455
138	RH-75	Combination		-12.603	5.462	8.094	-5.1648	-12.1299
138	RH-76	Combination		18.475	-3.924	-11.505	3.6765	17.8152
138	RH-77	Combination		28.390	0.996	0.527	-0.9385	27.4308
138	RH-78	Combination		-19.619	-8.135	-14.734	7.7103	-18.9469
138	RH-79	Combination		-18.933	8.483	8.974	-8.0745	-18.2616
138	RH-80	Combination		24.804	-6.945	-12.385	6.5863	23.9470
138	RH-81	Combination		25.491	9.672	11.323	-9.1986	24.6323
138	RH-82	Combination		-18.897	-12.082	-18.637	11.4800	-18.2417
138	RH-83	Combination		-19.830	12.337	12.831	-11.7545	-19.1358
138	RH-84	Combination		25.701	-10.799	-16.242	10.2663	24.8211
138	RH-85	Combination		24.768	13.620	15.226	-12.9683	23.9270
138	RH-86	Combination		-17.979	-15.945	-22.869	15.1641	-17.3400
138	RH-87	Combination		-20.489	17.624	19.192	-16.7919	-19.7846
138	RH-88	Combination		26.361	-16.087	-22.603	15.3036	25.4699
138	RH-89	Combination		23.851	17.482	19.458	-16.6524	23.0253
138	RH-90	Combination		-32.045	-1.953	1.597	1.8650	-30.9704
138	RH-91	Combination		-22.130	2.967	13.628	-2.7499	-21.3548
138	RH-92	Combination		8.948	-6.419	-5.970	6.0914	8.5903
138	RH-93	Combination		18.863	-1.499	6.061	1.4764	18.2059
138	RH-94	Combination		-29.146	-10.630	-9.199	10.1252	-28.1718
138	RH-95	Combination		-28.460	5.988	14.509	-5.6597	-27.4865
138	RH-96	Combination		15.277	-9.440	-6.851	9.0011	14.7221
138	RH-97	Combination		15.963	7.177	16.858	-6.7838	15.4074
138	RH-98	Combination		-28.424	-14.577	-13.102	13.8949	-27.4666
138	RH-99	Combination		-29.357	9.842	18.365	-9.3397	-28.3607
138	RH-100	Combination		16.174	-13.294	-10.707	12.6811	15.5962
138	RH-101	Combination		15.241	11.125	20.760	-10.5534	14.7021
138	RH-102	Combination		-27.507	-18.440	-17.334	17.5790	-26.5649
138	RH-103	Combination		-30.017	15.129	24.727	-14.3770	-29.0095
138	RH-104	Combination		16.834	-18.582	-17.069	17.7185	16.2450
138	RH-105	Combination		14.324	14.987	24.992	-14.2376	13.8004
138	RH-106	Combination		1.233	-1.173	-4.688	1.1174	1.1922
138	RH-107	Combination		1.726	-3.140	-5.934	3.0041	1.6729
138	RH-108	Combination		2.647	-5.112	-6.718	4.9017	2.5661
138	RH-109	Combination		5.908	-7.900	-7.730	7.5852	5.7207
138	RH-110	Combination		6.492	-10.833	-6.016	10.4445	6.3015
138	RH-111	Combination		6.942	-12.748	-2.515	12.3453	6.7522
138	RH-112	Combination		6.780	-15.013	4.584	14.6284	6.5614
138	RH-113	Combination		7.315	-16.350	0.774	15.8434	7.0366
138	RH-114	Combination		7.796	-17.132	-5.548	16.5213	7.5182
138	RH-115	Combination		8.289	-17.869	-10.627	17.1802	8.0095
138	RH-116	Combination		3.190	-0.660	-5.825	0.6213	3.0873
138	RH-117	Combination		3.684	-2.627	-7.071	2.5080	3.5680
138	RH-118	Combination		4.604	-4.599	-7.855	4.4056	4.4612
138	RH-119	Combination		7.865	-7.387	-8.867	7.0891	7.6158
138	RH-120	Combination		8.449	-10.320	-7.153	9.9484	8.1966

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
138	RH-121	Combination		8.899	-12.235	-3.652	11.8493	8.6473
138	RH-122	Combination		8.737	-14.501	3.447	14.1324	8.4565
138	RH-123	Combination		9.272	-15.838	-0.363	15.3473	8.9317
138	RH-124	Combination		9.753	-16.620	-6.685	16.0252	9.4133
138	RH-125	Combination		10.246	-17.357	-11.764	16.6841	9.9046
138	RH-126	Combination		-3.161	-2.323	-2.135	2.2312	-3.0626
138	RH-127	Combination		-2.668	-4.290	-3.381	4.1179	-2.5819
138	RH-128	Combination		-1.748	-6.263	-4.165	6.0155	-1.6887
138	RH-129	Combination		1.513	-9.050	-5.177	8.6990	1.4659
138	RH-130	Combination		2.098	-11.983	-3.463	11.5583	2.0467
138	RH-131	Combination		2.548	-13.899	0.038	13.4592	2.4974
138	RH-132	Combination		2.385	-16.164	7.137	15.7423	2.3066
138	RH-133	Combination		2.921	-17.501	3.326	16.9572	2.7817
138	RH-134	Combination		3.402	-18.283	-2.995	17.6351	3.2633
138	RH-135	Combination		3.895	-19.020	-8.074	18.2940	3.7546
138	RH-136	Combination		-4.960	-1.391	-1.067	1.3322	-4.8042
138	RH-137	Combination		-4.466	-3.358	-2.312	3.2189	-4.3235
138	RH-138	Combination		-3.546	-5.331	-3.096	5.1164	-3.4303
138	RH-139	Combination		-0.285	-8.118	-4.108	7.8000	-0.2757
138	RH-140	Combination		0.299	-11.051	-2.394	10.6592	0.3051
138	RH-141	Combination		0.749	-12.967	1.107	12.5601	0.7558
138	RH-142	Combination		0.587	-15.232	8.206	14.8432	0.5649
138	RH-143	Combination		1.122	-16.569	4.395	16.0582	1.0401
138	RH-144	Combination		1.603	-17.351	-1.926	16.7361	1.5217
138	RH-145	Combination		2.096	-18.088	-7.005	17.3950	2.0130
138	RH-146	Combination		-3.003	-0.879	-2.204	0.8361	-2.9091
138	RH-147	Combination		-2.509	-2.846	-3.449	2.7228	-2.4284
138	RH-148	Combination		-1.589	-4.818	-4.233	4.6204	-1.5352
138	RH-149	Combination		1.672	-7.606	-5.245	7.3039	1.6194
138	RH-150	Combination		2.256	-10.539	-3.531	10.1632	2.2002
138	RH-151	Combination		2.706	-12.454	-0.030	12.0640	2.6509
138	RH-152	Combination		2.544	-14.720	7.069	14.3471	2.4600
138	RH-153	Combination		3.079	-16.057	3.258	15.5621	2.9352
138	RH-154	Combination		3.560	-16.838	-3.063	16.2400	3.4168
138	RH-155	Combination		4.053	-17.575	-8.142	16.8989	3.9081
138	RH-156	Combination		-9.354	-2.542	1.486	2.4460	-9.0591
138	RH-157	Combination		-8.861	-4.509	0.241	4.3327	-8.5784
138	RH-158	Combination		-7.941	-6.481	-0.543	6.2303	-7.6851
138	RH-159	Combination		-4.680	-9.269	-1.555	8.9138	-4.5306
138	RH-160	Combination		-4.095	-12.202	0.159	11.7731	-3.9498
138	RH-161	Combination		-3.645	-14.118	3.660	13.6739	-3.4990
138	RH-162	Combination		-3.808	-16.383	10.759	15.9570	-3.6899
138	RH-163	Combination		-3.272	-17.720	6.948	17.1720	-3.2147
138	RH-164	Combination		-2.791	-18.502	0.627	17.8499	-2.7331
138	RH-165	Combination		-2.298	-19.239	-4.452	18.5088	-2.2418
140	ENV-ELS-CA	Combination	Max	26.080	12.690	246.190	12.6157	25.2329
140	ENV-ELS-CA	Combination	Min	-23.792	-12.750	48.062	-12.0856	-23.7351
140	ENV-ELS-CP	Combination	Max	7.494	0.128	115.259	0.3248	7.0938
140	ENV-ELS-CP	Combination	Min	-4.266	-0.143	73.236	0.0578	-4.4183
140	ENV-ELU-PT	Combination	Max	35.529	17.135	335.100	17.0367	34.3871
140	ENV-ELU-PT	Combination	Min	-32.800	-17.219	26.627	-16.3446	-32.7097
140	ENV-ELU-AC	Combination	Max	8.578	0.200	202.166	18.1191	8.2370
140	ENV-ELU-AC	Combination	Min	-7.970	-18.347	66.389	-0.1927	-8.4467
140	ENV-ELU-EQ	Combination	Max	0.024	0.022	272.387	1.0849	0.1313
140	ENV-ELU-EQ	Combination	Min	-2.026	-0.321	85.599	-0.1819	-3.0547
140	RH-1	Combination		8.347	0.294	-4.438	-0.2899	8.0829

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
140	RH-2	Combination		13.239	0.320	-7.015	-0.3187	12.8201
140	RH-3	Combination		-2.637	0.236	1.347	-0.2252	-2.5528
140	RH-4	Combination		-12.971	0.084	-6.115	-0.1117	-12.4935
140	RH-5	Combination		-6.984	5.002	-6.183	-4.7267	-6.7042
140	RH-6	Combination		29.549	-4.382	-5.786	4.1124	28.5547
140	RH-7	Combination		35.536	0.536	-5.854	-0.5026	34.3440
140	RH-8	Combination		-10.041	-8.598	-6.183	8.1552	-9.6667
140	RH-9	Combination		-11.405	8.027	-6.107	-7.6407	-10.9747
140	RH-10	Combination		33.970	-7.407	-5.862	7.0264	32.8252
140	RH-11	Combination		32.606	9.217	-5.787	-8.7695	31.5172
140	RH-12	Combination		-10.078	-12.548	-6.253	11.9294	-9.7022
140	RH-13	Combination		-11.502	11.883	-6.038	-11.3246	-11.0684
140	RH-14	Combination		34.067	-11.264	-5.931	10.7103	32.9189
140	RH-15	Combination		32.643	13.168	-5.716	-12.5436	31.5527
140	RH-16	Combination		-10.892	-16.421	-6.306	15.6239	-10.4876
140	RH-17	Combination		-10.886	17.166	-5.907	-16.3581	-10.4744
140	RH-18	Combination		33.451	-16.546	-6.062	15.7438	32.3249
140	RH-19	Combination		33.457	17.040	-5.663	-16.2382	32.3381
140	RH-20	Combination		-22.497	0.033	-1.097	-0.0556	-21.7173
140	RH-21	Combination		-16.510	4.951	-1.165	-4.6706	-15.9280
140	RH-22	Combination		20.023	-4.432	-0.769	4.1685	19.3310
140	RH-23	Combination		26.011	0.486	-0.836	-0.4466	25.1202
140	RH-24	Combination		-19.567	-8.648	-1.165	8.2112	-18.8905
140	RH-25	Combination		-20.931	7.976	-1.089	-7.5846	-20.1984
140	RH-26	Combination		24.444	-7.457	-0.845	7.0824	23.6014
140	RH-27	Combination		23.080	9.167	-0.769	-8.7134	22.2934
140	RH-28	Combination		-19.604	-12.599	-1.235	11.9854	-18.9259
140	RH-29	Combination		-21.028	11.833	-1.020	-11.2685	-20.2922
140	RH-30	Combination		24.541	-11.314	-0.914	10.7663	23.6952
140	RH-31	Combination		23.117	13.118	-0.699	-12.4876	22.3289
140	RH-32	Combination		-20.418	-16.471	-1.288	15.6800	-19.7114
140	RH-33	Combination		-20.412	17.115	-0.889	-16.3021	-19.6982
140	RH-34	Combination		23.925	-16.596	-1.045	15.7999	23.1011
140	RH-35	Combination		23.931	16.990	-0.646	-16.1821	23.1143
140	RH-36	Combination		6.183	0.218	-3.288	-0.2147	5.9874
140	RH-37	Combination		11.075	0.244	-5.865	-0.2435	10.7246
140	RH-38	Combination		-4.801	0.160	2.498	-0.1501	-4.6484
140	RH-39	Combination		-15.135	7.193E-03	-4.964	-0.0365	-14.5891
140	RH-40	Combination		-9.148	4.925	-5.032	-4.6515	-8.7998
140	RH-41	Combination		27.385	-4.458	-4.636	4.1876	26.4592
140	RH-42	Combination		33.372	0.460	-4.703	-0.4275	32.2484
140	RH-43	Combination		-12.205	-8.674	-5.032	8.2303	-11.7623
140	RH-44	Combination		-13.569	7.950	-4.956	-7.5655	-13.0702
140	RH-45	Combination		31.806	-7.483	-4.712	7.1015	30.7296
140	RH-46	Combination		30.442	9.141	-4.636	-8.6943	29.4216
140	RH-47	Combination		-12.242	-12.625	-5.102	12.0045	-11.7977
140	RH-48	Combination		-13.666	11.807	-4.887	-11.2494	-13.1640
140	RH-49	Combination		31.903	-11.340	-4.781	10.7854	30.8234
140	RH-50	Combination		30.479	13.092	-4.566	-12.4685	29.4571
140	RH-51	Combination		-13.056	-16.497	-5.155	15.6991	-12.5832
140	RH-52	Combination		-13.050	17.089	-4.756	-16.2830	-12.5700
140	RH-53	Combination		31.287	-16.622	-4.911	15.8190	30.2293
140	RH-54	Combination		31.293	16.964	-4.512	-16.1630	30.2425
140	RH-55	Combination		-24.661	-0.043	0.053	0.0196	-23.8129
140	RH-56	Combination		-18.674	4.875	-0.015	-4.5955	-18.0236
140	RH-57	Combination		17.859	-4.509	0.382	4.2436	17.2354
140	RH-58	Combination		23.846	0.410	0.314	-0.3714	23.0247
140	RH-59	Combination		-21.731	-8.724	-0.014	8.2864	-20.9861
140	RH-60	Combination		-23.095	7.900	0.062	-7.5095	-22.2940
140	RH-61	Combination		22.280	-7.534	0.306	7.1576	21.5058
140	RH-62	Combination		20.916	9.091	0.382	-8.6383	20.1979
140	RH-63	Combination		-21.768	-12.675	-0.085	12.0606	-21.0215

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
140	RH-64	Combination		-23.192	11.757	0.131	-11.1934	-22.3878
140	RH-65	Combination		22.377	-11.390	0.237	10.8415	21.5996
140	RH-66	Combination		20.953	13.041	0.452	-12.4124	20.2333
140	RH-67	Combination		-22.582	-16.547	-0.138	15.7551	-21.8070
140	RH-68	Combination		-22.576	17.039	0.261	-16.2269	-21.7937
140	RH-69	Combination		21.761	-16.673	0.106	15.8750	21.0055
140	RH-70	Combination		21.767	16.914	0.505	-16.1070	21.0188
140	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
140	RH-72	Combination		4.892	0.026	-2.577	-0.0288	4.7372
140	RH-73	Combination		-10.984	-0.058	5.786	0.0646	-10.6358
140	RH-74	Combination		-21.319	-0.211	-1.677	0.1782	-20.5764
140	RH-75	Combination		-15.331	4.707	-1.744	-4.4368	-14.7872
140	RH-76	Combination		21.202	-4.676	-1.348	4.4023	20.4718
140	RH-77	Combination		27.189	0.242	-1.416	-0.2128	26.2611
140	RH-78	Combination		-18.388	-8.892	-1.744	8.4450	-17.7496
140	RH-79	Combination		-19.752	7.732	-1.668	-7.3508	-19.0576
140	RH-80	Combination		25.623	-7.701	-1.424	7.3162	24.7422
140	RH-81	Combination		24.259	8.923	-1.348	-8.4796	23.4343
140	RH-82	Combination		-18.425	-12.843	-1.815	12.2192	-17.7851
140	RH-83	Combination		-19.849	11.589	-1.599	-11.0347	-19.1514
140	RH-84	Combination		25.720	-11.558	-1.493	11.0002	24.8360
140	RH-85	Combination		24.296	12.874	-1.278	-12.2538	23.4697
140	RH-86	Combination		-19.239	-16.715	-1.868	15.9138	-18.5705
140	RH-87	Combination		-19.233	16.871	-1.469	-16.0682	-18.5573
140	RH-88	Combination		25.104	-16.840	-1.624	16.0337	24.2420
140	RH-89	Combination		25.110	16.746	-1.225	-15.9483	24.2552
140	RH-90	Combination		-30.844	-0.261	3.341	0.2343	-29.8002
140	RH-91	Combination		-24.857	4.657	3.273	-4.3808	-24.0109
140	RH-92	Combination		11.676	-4.727	3.670	4.4583	11.2480
140	RH-93	Combination		17.663	0.191	3.602	-0.1567	17.0373
140	RH-94	Combination		-27.914	-8.942	3.273	8.5011	-26.9734
140	RH-95	Combination		-29.278	7.682	3.349	-7.2947	-28.2814
140	RH-96	Combination		16.097	-7.752	3.594	7.3723	15.5184
140	RH-97	Combination		14.733	8.873	3.669	-8.4235	14.2105
140	RH-98	Combination		-27.951	-12.893	3.203	12.2753	-27.0089
140	RH-99	Combination		-29.375	11.539	3.418	-10.9787	-28.3751
140	RH-100	Combination		16.194	-11.608	3.525	11.0562	15.6122
140	RH-101	Combination		14.770	12.823	3.740	-12.1977	14.2460
140	RH-102	Combination		-28.765	-16.765	3.150	15.9698	-27.7943
140	RH-103	Combination		-28.759	16.821	3.549	-16.0122	-27.7811
140	RH-104	Combination		15.578	-16.891	3.394	16.0897	15.0182
140	RH-105	Combination		15.584	16.696	3.793	-15.8923	15.0314
140	RH-106	Combination		3.284	-1.171	-3.316	1.1161	3.1869
140	RH-107	Combination		3.457	-3.140	-3.358	3.0046	3.3546
140	RH-108	Combination		4.066	-5.113	-3.455	4.9036	3.9419
140	RH-109	Combination		6.875	-7.903	-3.612	7.5898	6.6540
140	RH-110	Combination		6.893	-10.837	-4.140	10.4490	6.6759
140	RH-111	Combination		6.911	-12.730	-4.382	12.3149	6.6972
140	RH-112	Combination		6.197	-14.906	-3.557	14.4645	6.0024
140	RH-113	Combination		6.169	-16.328	-2.578	15.8059	5.9651
140	RH-114	Combination		6.166	-17.135	-2.871	16.5249	5.9635
140	RH-115	Combination		6.177	-17.871	-3.295	17.1844	5.9795
140	RH-116	Combination		5.241	-1.161	-4.347	1.1046	5.0818
140	RH-117	Combination		5.414	-3.130	-4.389	2.9931	5.2495
140	RH-118	Combination		6.023	-5.103	-4.486	4.8921	5.8368
140	RH-119	Combination		8.832	-7.893	-4.643	7.5783	8.5489
140	RH-120	Combination		8.850	-10.826	-5.171	10.4374	8.5707
140	RH-121	Combination		8.867	-12.720	-5.413	12.3034	8.5921
140	RH-122	Combination		8.154	-14.896	-4.587	14.4530	7.8973
140	RH-123	Combination		8.126	-16.318	-3.608	15.7944	7.8600
140	RH-124	Combination		8.123	-17.124	-3.902	16.5134	7.8584
140	RH-125	Combination		8.134	-17.861	-4.326	17.1729	7.8744

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
140	RH-126	Combination		-1.110	-1.195	-1.001	1.1419	-1.0674
140	RH-127	Combination		-0.936	-3.163	-1.044	3.0304	-0.8997
140	RH-128	Combination		-0.328	-5.137	-1.141	4.9295	-0.3124
140	RH-129	Combination		2.482	-7.926	-1.298	7.6157	2.3997
140	RH-130	Combination		2.500	-10.860	-1.825	10.4748	2.4216
140	RH-131	Combination		2.517	-12.754	-2.068	12.3408	2.4429
140	RH-132	Combination		1.803	-14.929	-1.242	14.4904	1.7481
140	RH-133	Combination		1.775	-16.351	-0.263	15.8318	1.7108
140	RH-134	Combination		1.772	-17.158	-0.557	16.5508	1.7092
140	RH-135	Combination		1.784	-17.895	-0.981	17.2102	1.7252
140	RH-136	Combination		-2.899	-1.389	-0.028	1.3308	-2.8004
140	RH-137	Combination		-2.726	-3.358	-0.070	3.2193	-2.6328
140	RH-138	Combination		-2.117	-5.331	-0.168	5.1183	-2.0454
140	RH-139	Combination		0.692	-8.121	-0.324	7.8045	0.6667
140	RH-140	Combination		0.710	-11.055	-0.852	10.6637	0.6885
140	RH-141	Combination		0.727	-12.948	-1.094	12.5296	0.7098
140	RH-142	Combination		0.014	-15.124	-0.269	14.6792	0.0150
140	RH-143	Combination		-0.014	-16.546	0.710	16.0206	-0.0222
140	RH-144	Combination		-0.017	-17.353	0.417	16.7396	-0.0239
140	RH-145	Combination		-5.594E-03	-18.089	-7.301E-03	17.3991	-0.0079
140	RH-146	Combination		-0.942	-1.379	-1.059	1.3193	-0.9056
140	RH-147	Combination		-0.769	-3.348	-1.101	3.2078	-0.7379
140	RH-148	Combination		-0.160	-5.321	-1.199	5.1068	-0.1505
140	RH-149	Combination		2.649	-8.111	-1.355	7.7930	2.5616
140	RH-150	Combination		2.667	-11.044	-1.883	10.6522	2.5834
140	RH-151	Combination		2.684	-12.938	-2.125	12.5181	2.6047
140	RH-152	Combination		1.971	-15.114	-1.300	14.6677	1.9099
140	RH-153	Combination		1.943	-16.536	-0.321	16.0091	1.8726
140	RH-154	Combination		1.939	-17.342	-0.614	16.7281	1.8710
140	RH-155	Combination		1.951	-18.079	-1.038	17.3876	1.8870
140	RH-156	Combination		-7.293	-1.413	2.286	1.3567	-7.0548
140	RH-157	Combination		-7.119	-3.381	2.244	3.2452	-6.8871
140	RH-158	Combination		-6.511	-5.355	2.147	5.1442	-6.2997
140	RH-159	Combination		-3.701	-8.144	1.990	7.8304	-3.5876
140	RH-160	Combination		-3.684	-11.078	1.462	10.6895	-3.5658
140	RH-161	Combination		-3.666	-12.972	1.220	12.5555	-3.5445
140	RH-162	Combination		-4.380	-15.147	2.045	14.7051	-4.2393
140	RH-163	Combination		-4.408	-16.570	3.024	16.0465	-4.2766
140	RH-164	Combination		-4.411	-17.376	2.731	16.7655	-4.2782
140	RH-165	Combination		-4.399	-18.113	2.307	17.4250	-4.2622
142	ENV-ELS-CA	Combination	Max	25.461	14.111	236.531	13.3697	24.6098
142	ENV-ELS-CA	Combination	Min	-23.363	-13.394	29.613	-13.6835	-23.3801
142	ENV-ELS-CP	Combination	Max	7.434	1.256	90.656	0.9916	7.0118
142	ENV-ELS-CP	Combination	Min	-4.325	-0.704	66.858	-1.1868	-4.5033
142	ENV-ELU-PT	Combination	Max	34.694	19.257	320.699	18.1729	33.5467
142	ENV-ELU-PT	Combination	Min	-32.221	-18.188	11.500	-18.7304	-32.2312
142	ENV-ELU-AC	Combination	Max	9.461	1.487	197.180	18.7575	9.0482
142	ENV-ELU-AC	Combination	Min	-7.306	-18.910	41.933	-1.5601	-7.8595
142	ENV-ELU-EQ	Combination	Max	-0.043	0.163	275.904	1.0515	0.0396
142	ENV-ELU-EQ	Combination	Min	-2.206	-0.306	39.799	-0.3959	-3.3176
142	RH-1	Combination		8.334	0.294	-3.890	-0.2904	8.0716
142	RH-2	Combination		13.227	-0.936	-6.050	0.8919	12.8093
142	RH-3	Combination		-2.650	3.054	0.960	-2.9448	-2.5655
142	RH-4	Combination		-11.785	-0.674	-3.312	0.6192	-11.3353
142	RH-5	Combination		-9.721	4.249	-15.556	-3.9974	-9.3684
142	RH-6	Combination		32.261	-5.137	5.183	4.8354	31.1968

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
142	RH-7	Combination		34.325	-0.214	-7.061	0.2187	33.1638
142	RH-8	Combination		-8.821	-9.346	7.368	8.8745	-8.4788
142	RH-9	Combination		-12.236	7.266	-16.256	-6.9034	-11.7803
142	RH-10	Combination		34.776	-8.154	5.884	7.7414	33.6087
142	RH-11	Combination		31.361	8.458	-17.740	-8.0366	30.3073
142	RH-12	Combination		-9.615	-13.291	11.111	12.6420	-9.2532
142	RH-13	Combination		-11.535	11.117	-19.957	-10.5807	-11.0958
142	RH-14	Combination		34.075	-12.005	9.584	11.4186	32.9242
142	RH-15	Combination		32.155	12.403	-21.483	-11.8041	31.0816
142	RH-16	Combination		-12.169	-17.172	15.195	16.3443	-11.7341
142	RH-17	Combination		-9.637	16.390	-26.028	-15.6046	-9.2515
142	RH-18	Combination		32.177	-17.279	15.655	16.4426	31.0800
142	RH-19	Combination		34.709	16.284	-25.568	-15.5063	33.5626
142	RH-20	Combination		-21.311	1.720	0.894	-1.6828	-20.5602
142	RH-21	Combination		-19.247	6.643	-11.350	-6.2995	-18.5933
142	RH-22	Combination		22.735	-2.743	9.389	2.5334	21.9719
142	RH-23	Combination		24.799	2.179	-2.854	-2.0833	23.9389
142	RH-24	Combination		-18.347	-6.952	11.574	6.5725	-17.7037
142	RH-25	Combination		-21.762	9.660	-12.050	-9.2054	-21.0052
142	RH-26	Combination		25.250	-5.760	10.090	5.4393	24.3838
142	RH-27	Combination		21.835	10.852	-13.534	-10.3386	21.0824
142	RH-28	Combination		-19.141	-10.897	15.317	10.3400	-18.4781
142	RH-29	Combination		-21.061	13.511	-15.750	-12.8827	-20.3207
142	RH-30	Combination		24.549	-9.611	13.790	9.1166	23.6993
142	RH-31	Combination		22.629	14.797	-17.277	-14.1061	21.8568
142	RH-32	Combination		-21.695	-14.778	19.402	14.0422	-20.9590
142	RH-33	Combination		-19.163	18.784	-21.822	-17.9066	-18.4764
142	RH-34	Combination		22.651	-14.885	19.861	14.1405	21.8551
142	RH-35	Combination		25.183	18.678	-21.362	-17.8083	24.3377
142	RH-36	Combination		6.174	0.217	-2.882	-0.2151	5.9789
142	RH-37	Combination		11.066	-1.012	-5.042	0.9672	10.7167
142	RH-38	Combination		-4.811	2.978	1.968	-2.8695	-4.6581
142	RH-39	Combination		-13.946	-0.750	-2.304	0.6945	-13.4279
142	RH-40	Combination		-11.882	4.173	-14.547	-3.9222	-11.4610
142	RH-41	Combination		30.100	-5.213	6.192	4.9107	29.1042
142	RH-42	Combination		32.164	-0.291	-6.052	0.2940	31.0711
142	RH-43	Combination		-10.982	-9.422	8.376	8.9498	-10.5714
142	RH-44	Combination		-14.397	7.190	-15.248	-6.8281	-13.8729
142	RH-45	Combination		32.615	-8.230	6.892	7.8167	31.5161
142	RH-46	Combination		29.200	8.382	-16.732	-7.9613	28.2146
142	RH-47	Combination		-11.776	-13.367	12.119	12.7173	-11.3458
142	RH-48	Combination		-13.696	11.041	-18.948	-10.5054	-13.1884
142	RH-49	Combination		31.914	-12.081	10.592	11.4939	30.8316
142	RH-50	Combination		29.994	12.327	-20.475	-11.7288	28.9890
142	RH-51	Combination		-14.330	-17.248	16.204	16.4195	-13.8267
142	RH-52	Combination		-11.798	16.314	-25.019	-15.5293	-11.3441
142	RH-53	Combination		30.016	-17.355	16.664	16.5178	28.9873
142	RH-54	Combination		32.548	16.208	-24.560	-15.4310	31.4699
142	RH-55	Combination		-23.472	1.644	1.903	-1.6075	-22.6528
142	RH-56	Combination		-21.408	6.566	-10.341	-6.2242	-20.6859
142	RH-57	Combination		20.574	-2.819	10.398	2.6087	19.8793
142	RH-58	Combination		22.638	2.103	-1.846	-2.0080	21.8462
142	RH-59	Combination		-20.508	-7.028	12.582	6.6478	-19.7963
142	RH-60	Combination		-23.923	9.584	-11.042	-9.1302	-23.0978
142	RH-61	Combination		23.089	-5.836	11.098	5.5146	22.2912
142	RH-62	Combination		19.674	10.776	-12.526	-10.2633	18.9897
142	RH-63	Combination		-21.302	-10.973	16.325	10.4153	-20.5707
142	RH-64	Combination		-23.222	13.435	-14.742	-12.8074	-22.4133
142	RH-65	Combination		22.388	-9.687	14.799	9.1919	21.6067
142	RH-66	Combination		20.468	14.720	-16.269	-14.0308	19.7641
142	RH-67	Combination		-23.856	-14.854	20.410	14.1175	-23.0516
142	RH-68	Combination		-21.324	18.708	-20.813	-17.8313	-20.5690

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
142	RH-69	Combination		20.490	-14.961	20.870	14.2158	19.7624
142	RH-70	Combination		23.022	18.601	-20.354	-17.7330	22.2450
142	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
142	RH-72	Combination		4.892	-1.229	-2.160	1.1823	4.7378
142	RH-73	Combination		-10.984	2.760	4.850	-2.6544	-10.6371
142	RH-74	Combination		-20.120	-0.967	0.578	0.9096	-19.4069
142	RH-75	Combination		-18.056	3.955	-11.666	-3.7071	-17.4399
142	RH-76	Combination		23.927	-5.430	9.073	5.1258	23.1253
142	RH-77	Combination		25.990	-0.508	-3.170	0.5091	25.0922
142	RH-78	Combination		-17.156	-9.640	11.258	9.1649	-16.5504
142	RH-79	Combination		-20.570	6.972	-12.366	-6.6130	-19.8518
142	RH-80	Combination		26.441	-8.448	9.774	8.0318	25.5372
142	RH-81	Combination		23.026	8.164	-13.850	-7.7462	22.2357
142	RH-82	Combination		-17.950	-13.585	15.001	12.9324	-17.3248
142	RH-83	Combination		-19.870	10.823	-16.066	-10.2903	-19.1673
142	RH-84	Combination		25.740	-12.299	13.474	11.7090	24.8526
142	RH-85	Combination		23.820	12.109	-17.593	-11.5137	23.0101
142	RH-86	Combination		-20.504	-17.465	19.086	16.6346	-19.8057
142	RH-87	Combination		-17.972	16.097	-22.137	-15.3142	-17.3231
142	RH-88	Combination		23.843	-17.572	19.545	16.7329	23.0084
142	RH-89	Combination		26.375	15.990	-21.678	-15.2159	25.4910
142	RH-90	Combination		-29.645	1.426	4.784	-1.3924	-28.6318
142	RH-91	Combination		-27.582	6.349	-7.459	-6.0091	-26.6648
142	RH-92	Combination		14.401	-3.037	13.279	2.8238	13.9004
142	RH-93	Combination		16.464	1.886	1.036	-1.7929	15.8673
142	RH-94	Combination		-26.682	-7.246	15.464	6.8629	-25.7753
142	RH-95	Combination		-30.096	9.366	-8.160	-8.9150	-29.0767
142	RH-96	Combination		16.915	-6.054	13.980	5.7297	16.3123
142	RH-97	Combination		13.500	10.558	-9.644	-10.0482	13.0108
142	RH-98	Combination		-27.476	-11.191	19.207	10.6304	-26.5497
142	RH-99	Combination		-29.396	13.217	-11.860	-12.5923	-28.3922
142	RH-100	Combination		16.214	-9.905	17.680	9.4070	15.6277
142	RH-101	Combination		14.294	14.503	-13.387	-13.8157	13.7852
142	RH-102	Combination		-30.030	-15.072	23.292	14.3326	-29.0306
142	RH-103	Combination		-27.498	18.491	-17.931	-17.6162	-26.5480
142	RH-104	Combination		14.317	-15.178	23.751	14.4309	13.7835
142	RH-105	Combination		16.849	18.384	-17.472	-17.5179	16.2661
142	RH-106	Combination		5.332	-1.177	-1.856	1.1196	5.1796
142	RH-107	Combination		5.187	-3.142	-0.705	3.0051	5.0350
142	RH-108	Combination		5.484	-5.113	-0.125	4.9014	5.3171
142	RH-109	Combination		7.843	-7.899	0.576	7.5830	7.5875
142	RH-110	Combination		7.298	-10.828	-2.129	10.4368	7.0550
142	RH-111	Combination		6.897	-12.709	-5.186	12.2830	6.6683
142	RH-112	Combination		5.614	-14.856	-7.916	14.3922	5.4441
142	RH-113	Combination		5.004	-16.306	-4.617	15.7714	4.8646
142	RH-114	Combination		4.531	-17.130	-0.035	16.5154	4.4045
142	RH-115	Combination		4.063	-17.871	4.114	17.1795	3.9464
142	RH-116	Combination		7.289	-1.668	-2.720	1.5925	7.0747
142	RH-117	Combination		7.144	-3.634	-1.569	3.4781	6.9301
142	RH-118	Combination		7.441	-5.605	-0.989	5.3743	7.2122
142	RH-119	Combination		9.800	-8.391	-0.288	8.0560	9.4826
142	RH-120	Combination		9.255	-11.320	-2.993	10.9097	8.9501
142	RH-121	Combination		8.854	-13.200	-6.051	12.7559	8.5634
142	RH-122	Combination		7.571	-15.348	-8.780	14.8651	7.3392
142	RH-123	Combination		6.961	-16.798	-5.481	16.2443	6.7597
142	RH-124	Combination		6.488	-17.622	-0.899	16.9883	6.2996
142	RH-125	Combination		6.020	-18.363	3.250	17.6524	5.8415
142	RH-126	Combination		0.939	-0.072	0.084	0.0578	0.9248
142	RH-127	Combination		0.793	-2.038	1.235	1.9434	0.7801
142	RH-128	Combination		1.090	-4.009	1.815	3.8396	1.0622
142	RH-129	Combination		3.450	-6.795	2.516	6.5213	3.3327
142	RH-130	Combination		2.905	-9.724	-0.189	9.3750	2.8002

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
142	RH-131	Combination		2.503	-11.604	-3.246	11.2212	2.4135
142	RH-132	Combination		1.221	-13.752	-5.976	13.3304	1.1893
142	RH-133	Combination		0.610	-15.202	-2.677	14.7096	0.6098
142	RH-134	Combination		0.138	-16.026	1.905	15.4536	0.1497
142	RH-135	Combination		-0.330	-16.767	6.054	16.1177	-0.3084
142	RH-136	Combination		-0.841	-1.394	1.026	1.3347	-0.7993
142	RH-137	Combination		-0.987	-3.360	2.177	3.2202	-0.9440
142	RH-138	Combination		-0.690	-5.331	2.756	5.1165	-0.6619
142	RH-139	Combination		1.670	-8.117	3.458	7.7981	1.6085
142	RH-140	Combination		1.125	-11.046	0.753	10.6519	1.0761
142	RH-141	Combination		0.723	-12.926	-2.305	12.4981	0.6894
142	RH-142	Combination		-0.559	-15.074	-5.035	14.6073	-0.5348
142	RH-143	Combination		-1.170	-16.523	-1.735	15.9865	-1.1144
142	RH-144	Combination		-1.642	-17.347	2.847	16.7305	-1.5744
142	RH-145	Combination		-2.110	-18.089	6.996	17.3946	-2.0326
142	RH-146	Combination		1.116	-1.886	0.161	1.8076	1.0958
142	RH-147	Combination		0.970	-3.852	1.312	3.6932	0.9511
142	RH-148	Combination		1.267	-5.822	1.892	5.5894	1.2332
142	RH-149	Combination		3.627	-8.609	2.594	8.2711	3.5036
142	RH-150	Combination		3.082	-11.537	-0.111	11.1248	2.9712
142	RH-151	Combination		2.680	-13.418	-3.169	12.9710	2.5845
142	RH-152	Combination		1.398	-15.565	-5.899	15.0802	1.3603
142	RH-153	Combination		0.787	-17.015	-2.599	16.4594	0.7808
142	RH-154	Combination		0.315	-17.839	1.982	17.2034	0.3207
142	RH-155	Combination		-0.153	-18.580	6.132	17.8675	-0.1374
142	RH-156	Combination		-5.235	-0.290	2.966	0.2729	-5.0542
142	RH-157	Combination		-5.380	-2.256	4.117	2.1585	-5.1988
142	RH-158	Combination		-5.083	-4.227	4.696	4.0547	-4.9167
142	RH-159	Combination		-2.724	-7.013	5.398	6.7364	-2.6463
142	RH-160	Combination		-3.269	-9.941	2.693	9.5902	-3.1788
142	RH-161	Combination		-3.671	-11.822	-0.365	11.4363	-3.5654
142	RH-162	Combination		-4.953	-13.969	-3.095	13.5455	-4.7897
142	RH-163	Combination		-5.563	-15.419	0.205	14.9247	-5.3692
142	RH-164	Combination		-6.036	-16.243	4.787	15.6688	-5.8293
142	RH-165	Combination		-6.504	-16.984	8.936	16.3328	-6.2874
198	ENV-ELS-CA	Combination	Max	43.660	19.320	205.421	18.9315	43.3138
198	ENV-ELS-CA	Combination	Min	-31.307	-19.578	59.402	-18.7905	-30.3752
198	ENV-ELS-CP	Combination	Max	23.086	0.811	94.274	1.0858	22.8048
198	ENV-ELS-CP	Combination	Min	-10.092	-1.021	90.495	-0.9281	-9.5367
198	ENV-ELU-PT	Combination	Max	59.816	26.187	277.401	25.8370	59.3503
198	ENV-ELU-PT	Combination	Min	-44.382	-26.681	48.281	-25.4862	-43.2328
198	ENV-ELU-AC	Combination	Max	26.370	13.164	178.940	35.0403	26.6467
198	ENV-ELU-AC	Combination	Min	-17.002	-36.017	73.839	-12.9702	-16.2479
198	ENV-ELU-EQ	Combination	Max	2.486	0.350	244.871	0.1971	4.1350
198	ENV-ELU-EQ	Combination	Min	-0.260	0.037	74.569	-0.7354	-0.5219
198	RH-1	Combination		23.792	0.141	-0.423	-0.1439	22.8478
198	RH-2	Combination		37.545	1.392	-0.725	-1.3570	36.0553
198	RH-3	Combination		-7.086	-2.668	0.256	2.5797	-6.8050
198	RH-4	Combination		6.904	8.552	2.090	-8.2213	6.5894
198	RH-5	Combination		16.474	-12.524	-5.125	12.0547	15.8243
198	RH-6	Combination		47.613	14.308	3.916	-13.7982	45.7203
198	RH-7	Combination		57.183	-6.769	-3.299	6.4778	54.9552
198	RH-8	Combination		9.694	0.668	-8.986	-0.7349	9.2726
198	RH-9	Combination		10.379	2.768	5.391	-2.5947	9.9472
198	RH-10	Combination		53.708	-0.984	-6.600	0.8511	51.5974
198	RH-11	Combination		54.393	1.116	7.777	-1.0087	52.2720

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
198	RH-12	Combination		10.311	-7.969	-16.925	7.5179	9.8725
198	RH-13	Combination		9.590	11.590	13.421	-11.0260	9.1808
198	RH-14	Combination		54.497	-9.807	-14.629	9.2824	52.3638
198	RH-15	Combination		53.776	9.752	15.717	-9.2615	51.6721
198	RH-16	Combination		11.024	-23.783	-29.916	22.6471	10.5740
198	RH-17	Combination		8.916	25.494	26.256	-24.3112	8.5216
198	RH-18	Combination		55.171	-23.710	-27.465	22.5676	53.0230
198	RH-19	Combination		53.063	25.566	28.707	-24.3907	50.9706
198	RH-20	Combination		-19.874	6.116	2.679	-5.8593	-19.1267
198	RH-21	Combination		-10.304	-14.961	-4.536	14.4167	-9.8919
198	RH-22	Combination		20.835	11.871	4.505	-11.4362	20.0042
198	RH-23	Combination		30.405	-9.205	-2.710	8.8398	29.2390
198	RH-24	Combination		-17.084	-1.769	-8.397	1.6272	-16.4436
198	RH-25	Combination		-16.399	0.331	5.980	-0.2326	-15.7690
198	RH-26	Combination		26.930	-3.421	-6.011	3.2132	25.8812
198	RH-27	Combination		27.615	-1.321	8.366	1.3534	26.5559
198	RH-28	Combination		-16.468	-10.405	-16.336	9.8800	-15.8436
198	RH-29	Combination		-17.189	9.154	14.010	-8.6639	-16.5353
198	RH-30	Combination		27.719	-12.243	-14.040	11.6445	26.6476
198	RH-31	Combination		26.998	7.316	16.305	-6.8994	25.9559
198	RH-32	Combination		-15.755	-26.219	-29.327	25.0092	-15.1422
198	RH-33	Combination		-17.862	23.057	26.845	-21.9491	-17.1946
198	RH-34	Combination		28.393	-26.147	-26.876	24.9296	27.3068
198	RH-35	Combination		26.285	23.130	29.296	-22.0286	25.2545
198	RH-36	Combination		17.623	0.104	-0.313	-0.1066	16.9243
198	RH-37	Combination		31.376	1.356	-0.616	-1.3197	30.1318
198	RH-38	Combination		-13.254	-2.705	0.366	2.6170	-12.7285
198	RH-39	Combination		0.736	8.515	2.199	-8.1840	0.6659
198	RH-40	Combination		10.306	-12.561	-5.016	12.0920	9.9008
198	RH-41	Combination		41.445	14.271	4.026	-13.7609	39.7968
198	RH-42	Combination		51.015	-6.805	-3.189	6.5151	49.0316
198	RH-43	Combination		3.526	0.631	-8.876	-0.6976	3.3491
198	RH-44	Combination		4.211	2.731	5.500	-2.5574	4.0237
198	RH-45	Combination		47.540	-1.021	-6.490	0.8884	45.6739
198	RH-46	Combination		48.225	1.079	7.887	-0.9713	46.3485
198	RH-47	Combination		4.143	-8.006	-16.816	7.5552	3.9490
198	RH-48	Combination		3.421	11.554	13.530	-10.9887	3.2573
198	RH-49	Combination		48.329	-9.843	-14.520	9.3197	46.4403
198	RH-50	Combination		47.608	9.716	15.826	-9.2242	45.7486
198	RH-51	Combination		4.855	-23.819	-29.806	22.6844	4.6505
198	RH-52	Combination		2.748	25.457	26.366	-24.2738	2.5981
198	RH-53	Combination		49.003	-23.747	-27.355	22.6049	47.0995
198	RH-54	Combination		46.895	25.530	28.817	-24.3534	45.0471
198	RH-55	Combination		-26.042	6.079	2.788	-5.8220	-25.0502
198	RH-56	Combination		-16.472	-14.997	-4.427	14.4541	-15.8154
198	RH-57	Combination		14.666	11.835	4.615	-11.3989	14.0806
198	RH-58	Combination		24.236	-9.242	-2.600	8.8771	23.3155
198	RH-59	Combination		-23.253	-1.805	-8.288	1.6645	-22.3671
198	RH-60	Combination		-22.567	0.295	6.089	-0.1953	-21.6925
198	RH-61	Combination		20.761	-3.457	-5.901	3.2505	19.9577
198	RH-62	Combination		21.447	-1.357	8.476	1.3907	20.6323
198	RH-63	Combination		-22.636	-10.442	-16.227	9.9173	-21.7672
198	RH-64	Combination		-23.357	9.117	14.119	-8.6266	-22.4589
198	RH-65	Combination		21.551	-12.280	-13.931	11.6818	20.7241
198	RH-66	Combination		20.830	7.279	16.415	-6.8621	20.0324
198	RH-67	Combination		-21.923	-26.256	-29.218	25.0465	-21.0657
198	RH-68	Combination		-24.030	23.021	26.955	-21.9118	-23.1181
198	RH-69	Combination		22.224	-26.183	-26.766	24.9670	21.3833
198	RH-70	Combination		20.117	23.093	29.406	-21.9913	19.3309
198	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
198	RH-72	Combination		13.753	1.251	-0.302	-1.2131	13.2074
198	RH-73	Combination		-30.877	-2.809	0.679	2.7236	-29.6528

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
198	RH-74	Combination		-16.888	8.411	2.513	-8.0774	-16.2584
198	RH-75	Combination		-7.318	-12.665	-4.702	12.1986	-7.0236
198	RH-76	Combination		23.821	14.167	4.339	-13.6543	22.8725
198	RH-77	Combination		33.391	-6.909	-2.876	6.6217	32.1073
198	RH-78	Combination		-14.098	0.527	-8.563	-0.5910	-13.5753
198	RH-79	Combination		-13.413	2.627	5.814	-2.4508	-12.9007
198	RH-80	Combination		29.916	-1.125	-6.177	0.9950	28.7496
198	RH-81	Combination		30.601	0.975	8.200	-0.8647	29.4242
198	RH-82	Combination		-13.481	-8.110	-16.502	7.6618	-12.9753
198	RH-83	Combination		-14.202	11.449	13.844	-10.8821	-13.6670
198	RH-84	Combination		30.706	-9.948	-14.206	9.4263	29.5159
198	RH-85	Combination		29.984	9.612	16.139	-9.1176	28.8242
198	RH-86	Combination		-12.768	-23.924	-29.493	22.7910	-12.2739
198	RH-87	Combination		-14.876	25.353	26.679	-24.1672	-14.3263
198	RH-88	Combination		31.379	-23.851	-27.042	22.7115	30.1752
198	RH-89	Combination		29.272	25.425	29.130	-24.2468	28.1228
198	RH-90	Combination		-43.666	5.975	3.102	-5.7154	-41.9746
198	RH-91	Combination		-34.096	-15.101	-4.113	14.5607	-32.7397
198	RH-92	Combination		-2.957	11.730	4.928	-11.2923	-2.8437
198	RH-93	Combination		6.613	-9.346	-2.287	8.9837	6.3912
198	RH-94	Combination		-40.876	-1.910	-7.974	1.7711	-39.2914
198	RH-95	Combination		-40.191	0.190	6.403	-0.0887	-38.6168
198	RH-96	Combination		3.138	-3.562	-5.588	3.3571	3.0334
198	RH-97	Combination		3.823	-1.462	8.789	1.4973	3.7080
198	RH-98	Combination		-40.259	-10.546	-15.913	10.0239	-38.6915
198	RH-99	Combination		-40.980	9.013	14.432	-8.5200	-39.3832
198	RH-100	Combination		3.927	-12.384	-13.618	11.7884	3.7998
198	RH-101	Combination		3.206	7.175	16.728	-6.7555	3.1081
198	RH-102	Combination		-39.546	-26.360	-28.904	25.1531	-37.9900
198	RH-103	Combination		-41.654	22.917	27.268	-21.8052	-40.0424
198	RH-104	Combination		4.601	-26.288	-26.453	25.0736	4.4590
198	RH-105	Combination		2.493	22.989	29.719	-21.8847	2.4066
198	RH-106	Combination		12.845	12.341	7.161	-11.8398	12.3128
198	RH-107	Combination		13.289	8.431	3.873	-8.1008	12.7424
198	RH-108	Combination		14.155	4.578	0.932	-4.4127	13.5788
198	RH-109	Combination		17.324	-0.938	-3.085	0.8682	16.6307
198	RH-110	Combination		17.814	-7.269	-6.278	6.9499	17.1060
198	RH-111	Combination		18.186	-11.743	-7.679	11.2589	17.4668
198	RH-112	Combination		18.047	-17.821	-6.562	17.1449	17.3470
198	RH-113	Combination		18.714	-24.125	-1.832	23.2836	18.0208
198	RH-114	Combination		19.310	-29.298	2.910	28.3625	18.6061
198	RH-115	Combination		19.928	-34.662	4.096	33.5990	19.1445
198	RH-116	Combination		18.346	12.841	7.040	-12.3251	17.5957
198	RH-117	Combination		18.790	8.932	3.752	-8.5861	18.0254
198	RH-118	Combination		19.656	5.079	0.811	-4.8980	18.8618
198	RH-119	Combination		22.825	-0.438	-3.206	0.3829	21.9137
198	RH-120	Combination		23.315	-6.769	-6.399	6.4646	22.3890
198	RH-121	Combination		23.687	-11.242	-7.800	10.7736	22.7498
198	RH-122	Combination		23.548	-17.321	-6.683	16.6597	22.6299
198	RH-123	Combination		24.215	-23.624	-1.953	22.7983	23.3037
198	RH-124	Combination		24.811	-28.797	2.789	27.8772	23.8890
198	RH-125	Combination		25.430	-34.161	3.975	33.1137	24.4275
198	RH-126	Combination		0.494	11.217	7.433	-10.7504	0.4516
198	RH-127	Combination		0.938	7.307	4.144	-7.0114	0.8813
198	RH-128	Combination		1.804	3.454	1.204	-3.3233	1.7177
198	RH-129	Combination		4.973	-2.062	-2.814	1.9576	4.7696
198	RH-130	Combination		5.463	-8.393	-6.006	8.0393	5.2449
198	RH-131	Combination		5.835	-12.867	-7.407	12.3483	5.6057
198	RH-132	Combination		5.696	-18.945	-6.290	18.2344	5.4858
198	RH-133	Combination		6.363	-25.248	-1.560	24.3730	6.1596
198	RH-134	Combination		6.959	-30.422	3.181	29.4519	6.7449
198	RH-135	Combination		7.577	-35.786	4.367	34.6884	7.2834

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
198	RH-136	Combination		-4.778	12.236	7.474	-11.7332	-4.6115
198	RH-137	Combination		-4.335	8.327	4.186	-7.9942	-4.1819
198	RH-138	Combination		-3.468	4.474	1.245	-4.3061	-3.3455
198	RH-139	Combination		-0.299	-1.043	-2.772	0.9748	-0.2936
198	RH-140	Combination		0.190	-7.374	-5.965	7.0565	0.1817
198	RH-141	Combination		0.563	-11.847	-7.366	11.3655	0.5425
198	RH-142	Combination		0.423	-17.926	-6.249	17.2515	0.4227
198	RH-143	Combination		1.091	-24.229	-1.519	23.3902	1.0964
198	RH-144	Combination		1.687	-29.402	3.223	28.4691	1.6817
198	RH-145	Combination		2.305	-34.766	4.409	33.7056	2.2202
198	RH-146	Combination		0.723	12.737	7.353	-12.2185	0.6714
198	RH-147	Combination		1.166	8.827	4.065	-8.4795	1.1011
198	RH-148	Combination		2.033	4.974	1.124	-4.7914	1.9375
198	RH-149	Combination		5.202	-0.542	-2.893	0.4895	4.9894
198	RH-150	Combination		5.691	-6.873	-6.086	6.5712	5.4647
198	RH-151	Combination		6.064	-11.347	-7.487	10.8802	5.8255
198	RH-152	Combination		5.924	-17.425	-6.370	16.7663	5.7056
198	RH-153	Combination		6.592	-23.728	-1.640	22.9049	6.3794
198	RH-154	Combination		7.188	-28.902	3.102	27.9838	6.9647
198	RH-155	Combination		7.806	-34.266	4.288	33.2203	7.5032
198	RH-156	Combination		-17.129	11.112	7.746	-10.6438	-16.4727
198	RH-157	Combination		-16.686	7.203	4.458	-6.9048	-16.0431
198	RH-158	Combination		-15.819	3.350	1.517	-3.2167	-15.2066
198	RH-159	Combination		-12.650	-2.167	-2.500	2.0642	-12.1547
198	RH-160	Combination		-12.161	-8.498	-5.693	8.1459	-11.6794
198	RH-161	Combination		-11.788	-12.971	-7.094	12.4549	-11.3186
198	RH-162	Combination		-11.928	-19.050	-5.977	18.3410	-11.4385
198	RH-163	Combination		-11.260	-25.353	-1.247	24.4796	-10.7647
198	RH-164	Combination		-10.664	-30.526	3.495	29.5585	-10.1794
198	RH-165	Combination		-10.046	-35.890	4.681	34.7950	-9.6409
201	ENV-ELS-CA	Combination	Max	42.737	18.670	225.458	17.3591	42.3690
201	ENV-ELS-CA	Combination	Min	-30.600	-18.171	76.007	-18.0583	-29.7492
201	ENV-ELS-CP	Combination	Max	22.984	0.270	105.430	-0.2163	22.6671
201	ENV-ELS-CP	Combination	Min	-10.166	0.161	88.107	-0.3210	-9.6497
201	ENV-ELU-PT	Combination	Max	58.570	25.207	305.516	23.5124	58.0744
201	ENV-ELU-PT	Combination	Min	-43.399	-24.589	66.339	-24.3801	-42.3455
201	ENV-ELU-AC	Combination	Max	24.680	12.631	188.414	33.3881	24.9607
201	ENV-ELU-AC	Combination	Min	-15.196	-34.493	82.788	-12.3744	-14.5362
201	ENV-ELU-EQ	Combination	Max	2.384	0.394	259.072	0.0815	3.9766
201	ENV-ELU-EQ	Combination	Min	-0.403	0.077	89.674	-0.7971	-0.7357
201	RH-1	Combination		23.770	0.126	-0.020	-0.1222	22.8266
201	RH-2	Combination		37.516	0.115	-0.066	-0.1129	36.0277
201	RH-3	Combination		-7.092	0.150	0.083	-0.1430	-6.8119
201	RH-4	Combination		7.974	7.796	-1.509	-7.4908	7.6292
201	RH-5	Combination		13.938	-13.294	-1.445	12.8061	13.3614
201	RH-6	Combination		50.097	13.533	1.349	-13.0393	48.1331
201	RH-7	Combination		56.061	-7.557	1.414	7.2576	53.8653
201	RH-8	Combination		10.901	-0.096	-1.249	0.0069	10.4445
201	RH-9	Combination		9.528	2.009	-1.617	-1.8604	9.1215
201	RH-10	Combination		54.507	-1.770	1.522	1.6272	52.3729
201	RH-11	Combination		53.135	0.334	1.154	-0.2401	51.0499
201	RH-12	Combination		10.883	-8.738	-1.271	8.2681	10.4281
201	RH-13	Combination		9.412	10.837	-1.605	-10.3003	9.0090
201	RH-14	Combination		54.624	-10.599	1.510	10.0671	52.4855
201	RH-15	Combination		53.152	8.976	1.175	-8.5013	51.0663
201	RH-16	Combination		9.969	-24.561	-1.371	23.4117	9.5496

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
201	RH-17	Combination		9.894	24.749	-1.546	-23.5983	9.4722
201	RH-18	Combination		54.141	-24.510	1.450	23.3651	52.0223
201	RH-19	Combination		54.067	24.800	1.275	-23.6449	51.9448
201	RH-20	Combination		-18.791	7.817	-1.420	-7.5089	-18.0746
201	RH-21	Combination		-12.827	-13.273	-1.356	12.7880	-12.3424
201	RH-22	Combination		23.332	13.554	1.439	-13.0574	22.4293
201	RH-23	Combination		29.296	-7.536	1.503	7.2395	28.1615
201	RH-24	Combination		-15.864	-0.074	-1.160	-0.0112	-15.2592
201	RH-25	Combination		-17.237	2.030	-1.528	-1.8785	-16.5822
201	RH-26	Combination		27.742	-1.749	1.611	1.6091	26.6692
201	RH-27	Combination		26.370	0.356	1.243	-0.2582	25.3462
201	RH-28	Combination		-15.882	-8.717	-1.182	8.2500	-15.2756
201	RH-29	Combination		-17.353	10.858	-1.516	-10.3184	-16.6948
201	RH-30	Combination		27.859	-10.577	1.599	10.0490	26.7817
201	RH-31	Combination		26.387	8.998	1.265	-8.5194	25.3626
201	RH-32	Combination		-16.796	-24.540	-1.282	23.3936	-16.1541
201	RH-33	Combination		-16.871	24.770	-1.457	-23.6164	-16.2316
201	RH-34	Combination		27.376	-24.489	1.540	23.3470	26.3185
201	RH-35	Combination		27.302	24.821	1.365	-23.6630	26.2411
201	RH-36	Combination		17.607	0.093	-0.015	-0.0905	16.9086
201	RH-37	Combination		31.353	0.082	-0.061	-0.0812	30.1096
201	RH-38	Combination		-13.255	0.118	0.088	-0.1114	-12.7299
201	RH-39	Combination		1.811	7.763	-1.504	-7.4591	1.7112
201	RH-40	Combination		7.775	-13.327	-1.439	12.8378	7.4434
201	RH-41	Combination		43.935	13.500	1.355	-13.0076	42.2151
201	RH-42	Combination		49.899	-7.590	1.419	7.2893	47.9472
201	RH-43	Combination		4.738	-0.128	-1.244	0.0386	4.5265
201	RH-44	Combination		3.366	1.976	-1.612	-1.8287	3.2035
201	RH-45	Combination		48.345	-1.803	1.527	1.6588	46.4549
201	RH-46	Combination		46.972	0.302	1.159	-0.2084	45.1319
201	RH-47	Combination		4.721	-8.771	-1.266	8.2998	4.5101
201	RH-48	Combination		3.249	10.804	-1.600	-10.2686	3.0910
201	RH-49	Combination		48.461	-10.631	1.515	10.0988	46.5675
201	RH-50	Combination		46.989	8.944	1.181	-8.4696	45.1483
201	RH-51	Combination		3.806	-24.594	-1.366	23.4434	3.6316
201	RH-52	Combination		3.731	24.716	-1.541	-23.5666	3.5542
201	RH-53	Combination		47.979	-24.543	1.456	23.3967	46.1043
201	RH-54	Combination		47.904	24.767	1.281	-23.6132	46.0268
201	RH-55	Combination		-24.954	7.784	-1.415	-7.4772	-23.9926
201	RH-56	Combination		-18.990	-13.305	-1.350	12.8197	-18.2604
201	RH-57	Combination		17.170	13.521	1.444	-13.0257	16.5113
201	RH-58	Combination		23.134	-7.569	1.508	7.2712	22.2435
201	RH-59	Combination		-22.027	-0.107	-1.155	0.0205	-21.1772
201	RH-60	Combination		-23.399	1.997	-1.523	-1.8468	-22.5003
201	RH-61	Combination		21.579	-1.782	1.616	1.6407	20.7512
201	RH-62	Combination		20.207	0.323	1.249	-0.2265	19.4282
201	RH-63	Combination		-22.044	-8.749	-1.176	8.2817	-21.1936
201	RH-64	Combination		-23.516	10.826	-1.511	-10.2867	-22.6128
201	RH-65	Combination		21.696	-10.610	1.604	10.0807	20.8637
201	RH-66	Combination		20.224	8.965	1.270	-8.4877	19.4446
201	RH-67	Combination		-22.959	-24.572	-1.276	23.4253	-22.0721
201	RH-68	Combination		-23.034	24.737	-1.451	-23.5847	-22.1496
201	RH-69	Combination		21.214	-24.522	1.545	23.3786	20.4005
201	RH-70	Combination		21.139	24.788	1.370	-23.6313	20.3231
201	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
201	RH-72	Combination		13.746	-0.011	-0.046	0.0093	13.2011
201	RH-73	Combination		-30.862	0.025	0.103	-0.0209	-29.6385
201	RH-74	Combination		-15.796	7.670	-1.489	-7.3686	-15.1974
201	RH-75	Combination		-9.832	-13.420	-1.425	12.9283	-9.4652
201	RH-76	Combination		26.327	13.407	1.370	-12.9171	25.3065
201	RH-77	Combination		32.291	-7.683	1.434	7.3798	31.0387
201	RH-78	Combination		-12.869	-0.222	-1.229	0.1291	-12.3821

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
201	RH-79	Combination		-14.242	1.883	-1.597	-1.7382	-13.7051
201	RH-80	Combination		30.737	-1.896	1.542	1.7493	29.5464
201	RH-81	Combination		29.365	0.208	1.174	-0.1179	28.2234
201	RH-82	Combination		-12.887	-8.864	-1.251	8.3903	-12.3984
201	RH-83	Combination		-14.358	10.711	-1.585	-10.1781	-13.8176
201	RH-84	Combination		30.854	-10.724	1.530	10.1893	29.6589
201	RH-85	Combination		29.382	8.851	1.196	-8.3791	28.2397
201	RH-86	Combination		-13.801	-24.687	-1.351	23.5339	-13.2770
201	RH-87	Combination		-13.876	24.623	-1.526	-23.4761	-13.3544
201	RH-88	Combination		30.371	-24.636	1.471	23.4872	29.1957
201	RH-89	Combination		30.297	24.674	1.296	-23.5227	29.1183
201	RH-90	Combination		-42.561	7.691	-1.400	-7.3867	-40.9011
201	RH-91	Combination		-36.597	-13.399	-1.335	12.9102	-35.1690
201	RH-92	Combination		-0.438	13.428	1.459	-12.9352	-0.3973
201	RH-93	Combination		5.526	-7.662	1.523	7.3617	5.3349
201	RH-94	Combination		-39.634	-0.200	-1.140	0.1110	-38.0858
201	RH-95	Combination		-41.007	1.904	-1.508	-1.7563	-39.4088
201	RH-96	Combination		3.972	-1.875	1.631	1.7312	3.8426
201	RH-97	Combination		2.600	0.230	1.264	-0.1360	2.5196
201	RH-98	Combination		-39.652	-8.842	-1.161	8.3722	-38.1022
201	RH-99	Combination		-41.123	10.733	-1.496	-10.1962	-39.5213
201	RH-100	Combination		4.089	-10.703	1.619	10.1712	3.9551
201	RH-101	Combination		2.617	8.872	1.285	-8.3972	2.5360
201	RH-102	Combination		-40.566	-24.666	-1.261	23.5158	-38.9807
201	RH-103	Combination		-40.641	24.644	-1.436	-23.4942	-39.0582
201	RH-104	Combination		3.606	-24.615	1.560	23.4691	3.4919
201	RH-105	Combination		3.532	24.695	1.385	-23.5408	3.4145
201	RH-106	Combination		14.708	12.338	-0.139	-11.8365	14.1208
201	RH-107	Combination		14.889	8.426	-0.142	-8.0936	14.2944
201	RH-108	Combination		15.500	4.570	-0.121	-4.4015	14.8817
201	RH-109	Combination		18.297	-0.951	0.049	0.8866	17.5713
201	RH-110	Combination		18.317	-7.285	-0.156	6.9736	17.5887
201	RH-111	Combination		18.331	-11.761	-0.463	11.2861	17.5983
201	RH-112	Combination		17.655	-17.842	-0.576	17.1750	16.9519
201	RH-113	Combination		17.666	-24.142	-0.063	23.3085	16.9793
201	RH-114	Combination		17.646	-29.244	-0.335	28.2768	16.9681
201	RH-115	Combination		17.609	-34.512	-1.591	33.3676	16.9370
201	RH-116	Combination		20.207	12.333	-0.158	-11.8328	19.4012
201	RH-117	Combination		20.387	8.421	-0.160	-8.0899	19.5748
201	RH-118	Combination		20.998	4.566	-0.139	-4.3978	20.1621
201	RH-119	Combination		23.795	-0.955	0.031	0.8903	22.8517
201	RH-120	Combination		23.816	-7.290	-0.174	6.9773	22.8691
201	RH-121	Combination		23.829	-11.766	-0.481	11.2898	22.8787
201	RH-122	Combination		23.153	-17.846	-0.594	17.1787	22.2323
201	RH-123	Combination		23.164	-24.146	-0.081	23.3123	22.2598
201	RH-124	Combination		23.145	-29.248	-0.353	28.2806	22.2485
201	RH-125	Combination		23.107	-34.516	-1.610	33.3713	22.2175
201	RH-126	Combination		2.363	12.348	-0.098	-11.8449	2.2654
201	RH-127	Combination		2.544	8.436	-0.101	-8.1020	2.4390
201	RH-128	Combination		3.155	4.580	-0.080	-4.4099	3.0263
201	RH-129	Combination		5.952	-0.941	0.090	0.8782	5.7159
201	RH-130	Combination		5.972	-7.276	-0.114	6.9652	5.7333
201	RH-131	Combination		5.986	-11.751	-0.422	11.2777	5.7429
201	RH-132	Combination		5.310	-17.832	-0.534	17.1666	5.0965
201	RH-133	Combination		5.321	-24.132	-0.022	23.3002	5.1239
201	RH-134	Combination		5.302	-29.234	-0.294	28.2685	5.1127
201	RH-135	Combination		5.264	-34.502	-1.550	33.3592	5.0816
201	RH-136	Combination		-2.899	12.245	-0.124	-11.7460	-2.7878
201	RH-137	Combination		-2.719	8.333	-0.127	-8.0031	-2.6142
201	RH-138	Combination		-2.108	4.477	-0.106	-4.3110	-2.0269
201	RH-139	Combination		0.689	-1.044	0.064	0.9771	0.6627
201	RH-140	Combination		0.710	-7.379	-0.141	7.0641	0.6801

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
201	RH-141	Combination		0.724	-11.854	-0.448	11.3766	0.6897
201	RH-142	Combination		0.047	-17.935	-0.561	17.2655	0.0433
201	RH-143	Combination		0.058	-24.235	-0.048	23.3990	0.0708
201	RH-144	Combination		0.039	-29.337	-0.320	28.3673	0.0595
201	RH-145	Combination		1.591E-03	-34.605	-1.576	33.4581	0.0285
201	RH-146	Combination		2.599	12.240	-0.143	-11.7423	2.4927
201	RH-147	Combination		2.780	8.328	-0.145	-7.9994	2.6662
201	RH-148	Combination		3.391	4.473	-0.124	-4.3073	3.2535
201	RH-149	Combination		6.188	-1.049	0.045	0.9808	5.9431
201	RH-150	Combination		6.208	-7.383	-0.159	7.0678	5.9605
201	RH-151	Combination		6.222	-11.859	-0.466	11.3803	5.9701
201	RH-152	Combination		5.546	-17.939	-0.579	17.2692	5.3237
201	RH-153	Combination		5.557	-24.239	-0.066	23.4028	5.3512
201	RH-154	Combination		5.538	-29.341	-0.338	28.3711	5.3399
201	RH-155	Combination		5.500	-34.609	-1.595	33.4618	5.3089
201	RH-156	Combination		-15.244	12.254	-0.083	-11.7544	-14.6432
201	RH-157	Combination		-15.064	8.342	-0.086	-8.0115	-14.4696
201	RH-158	Combination		-14.453	4.487	-0.065	-4.3194	-13.8823
201	RH-159	Combination		-11.656	-1.034	0.105	0.9687	-11.1927
201	RH-160	Combination		-11.635	-7.369	-0.100	7.0557	-11.1753
201	RH-161	Combination		-11.621	-11.845	-0.407	11.3682	-11.1657
201	RH-162	Combination		-12.298	-17.925	-0.519	17.2571	-11.8121
201	RH-163	Combination		-12.286	-24.225	-7.031E-03	23.3907	-11.7846
201	RH-164	Combination		-12.306	-29.327	-0.279	28.3590	-11.7959
201	RH-165	Combination		-12.343	-34.595	-1.535	33.4497	-11.8269
202	ENV-ELS-CA	Combination	Max	42.098	20.092	251.057	18.0740	41.7325
202	ENV-ELS-CA	Combination	Min	-30.167	-18.848	64.608	-19.7086	-29.3881
202	ENV-ELS-CP	Combination	Max	22.871	1.450	106.982	0.3968	22.5113
202	ENV-ELS-CP	Combination	Min	-10.242	-0.389	103.541	-1.6126	-9.7647
202	ENV-ELU-PT	Combination	Max	57.707	27.334	338.978	24.6149	57.2138
202	ENV-ELU-PT	Combination	Min	-42.782	-25.619	50.786	-26.8332	-41.8110
202	ENV-ELU-AC	Combination	Max	25.535	13.923	215.270	33.8695	25.7674
202	ENV-ELU-AC	Combination	Min	-14.723	-35.028	78.741	-13.7940	-14.1130
202	ENV-ELU-EQ	Combination	Max	2.322	0.480	299.413	0.0228	3.9043
202	ENV-ELU-EQ	Combination	Min	-0.553	0.058	69.354	-1.0959	-0.9387
202	RH-1	Combination		23.743	0.115	-0.226	-0.1058	22.8006
202	RH-2	Combination		37.482	-1.157	-0.243	1.1241	35.9937
202	RH-3	Combination		-7.102	2.971	-0.189	-2.8672	-6.8202
202	RH-4	Combination		9.040	7.035	-5.346	-6.7520	8.6655
202	RH-5	Combination		11.394	-14.048	2.031	13.5348	10.8881
202	RH-6	Combination		52.579	12.751	-2.503	-12.2705	50.5448
202	RH-7	Combination		54.933	-8.332	4.874	8.0164	52.7674
202	RH-8	Combination		12.102	-0.853	6.194	0.7398	11.6106
202	RH-9	Combination		8.672	1.249	-8.821	-1.1228	8.2904
202	RH-10	Combination		55.301	-2.546	8.348	2.3871	53.1425
202	RH-11	Combination		51.871	-0.444	-6.667	0.5245	49.8223
202	RH-12	Combination		11.449	-9.490	14.133	8.9939	10.9752
202	RH-13	Combination		9.230	10.072	-16.867	-9.5555	8.8345
202	RH-14	Combination		54.743	-11.369	16.394	10.8198	52.5984
202	RH-15	Combination		52.525	8.193	-14.606	-7.7296	50.4577
202	RH-16	Combination		8.903	-25.305	27.032	24.1244	8.5109
202	RH-17	Combination		10.870	23.976	-29.662	-22.8416	10.4242
202	RH-18	Combination		53.103	-25.273	29.189	24.1059	51.0087
202	RH-19	Combination		55.070	24.008	-27.505	-22.8601	52.9220
202	RH-20	Combination		-17.711	9.512	-5.314	-9.1469	-17.0228
202	RH-21	Combination		-15.357	-11.571	2.063	11.1400	-14.8002

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
202	RH-22	Combination		25.829	15.228	-2.471	-14.6654	24.8564
202	RH-23	Combination		28.183	-5.855	4.906	5.6215	27.0790
202	RH-24	Combination		-14.649	1.624	6.227	-1.6550	-14.0777
202	RH-25	Combination		-18.079	3.726	-8.788	-3.5176	-17.3980
202	RH-26	Combination		28.551	-0.069	8.380	-0.0077	27.4542
202	RH-27	Combination		25.121	2.033	-6.634	-1.8703	24.1339
202	RH-28	Combination		-15.302	-7.013	14.166	6.5990	-14.7132
202	RH-29	Combination		-17.521	12.549	-16.834	-11.9504	-16.8538
202	RH-30	Combination		27.993	-8.892	16.427	8.4250	26.9100
202	RH-31	Combination		25.774	10.670	-14.573	-10.1244	24.7694
202	RH-32	Combination		-17.847	-22.827	27.064	21.7296	-17.1775
202	RH-33	Combination		-15.880	26.453	-29.630	-25.2364	-15.2642
202	RH-34	Combination		26.353	-22.796	29.222	21.7111	25.3204
202	RH-35	Combination		28.320	26.485	-27.472	-25.2549	27.2337
202	RH-36	Combination		17.588	0.085	-0.168	-0.0784	16.8893
202	RH-37	Combination		31.326	-1.187	-0.184	1.1516	30.0825
202	RH-38	Combination		-13.258	2.942	-0.130	-2.8398	-12.7315
202	RH-39	Combination		2.884	7.005	-5.288	-6.7246	2.7543
202	RH-40	Combination		5.238	-14.078	2.089	13.5623	4.9769
202	RH-41	Combination		46.424	12.721	-2.445	-12.2431	44.6335
202	RH-42	Combination		48.778	-8.362	4.932	8.0438	46.8561
202	RH-43	Combination		5.946	-0.883	6.253	0.7673	5.6994
202	RH-44	Combination		2.516	1.219	-8.762	-1.0954	2.3791
202	RH-45	Combination		49.146	-2.576	8.406	2.4145	47.2313
202	RH-46	Combination		45.716	-0.474	-6.608	0.5519	43.9110
202	RH-47	Combination		5.293	-9.520	14.192	9.0213	5.0639
202	RH-48	Combination		3.074	10.042	-16.808	-9.5281	2.9233
202	RH-49	Combination		48.588	-11.399	16.453	10.8473	46.6871
202	RH-50	Combination		46.369	8.163	-14.547	-7.7021	44.5465
202	RH-51	Combination		2.747	-25.334	27.091	24.1518	2.5996
202	RH-52	Combination		4.714	23.946	-29.603	-22.8142	4.5129
202	RH-53	Combination		46.947	-25.303	29.248	24.1334	45.0975
202	RH-54	Combination		48.914	23.978	-27.446	-22.8327	47.0108
202	RH-55	Combination		-23.866	9.482	-5.255	-9.1194	-22.9341
202	RH-56	Combination		-21.512	-11.601	2.122	11.1674	-20.7115
202	RH-57	Combination		19.673	15.199	-2.412	-14.6379	18.9452
202	RH-58	Combination		22.027	-5.884	4.965	5.6490	21.1678
202	RH-59	Combination		-20.804	1.595	6.286	-1.6276	-19.9890
202	RH-60	Combination		-24.234	3.696	-8.729	-3.4902	-23.3092
202	RH-61	Combination		22.395	-0.098	8.439	0.0197	21.5429
202	RH-62	Combination		18.965	2.003	-6.576	-1.8429	18.2227
202	RH-63	Combination		-21.458	-7.043	14.224	6.6265	-20.6244
202	RH-64	Combination		-23.676	12.520	-16.776	-11.9229	-22.7651
202	RH-65	Combination		21.837	-8.922	16.485	8.4525	20.9988
202	RH-66	Combination		19.619	10.641	-14.514	-10.0969	18.8581
202	RH-67	Combination		-24.003	-22.857	27.123	21.7570	-23.0887
202	RH-68	Combination		-22.036	26.423	-29.571	-25.2090	-21.1754
202	RH-69	Combination		20.197	-22.825	29.281	21.7385	19.4091
202	RH-70	Combination		22.164	26.455	-27.413	-25.2275	21.3224
202	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
202	RH-72	Combination		13.739	-1.272	-0.017	1.2299	13.1932
202	RH-73	Combination		-30.845	2.856	0.038	-2.7614	-29.6208
202	RH-74	Combination		-14.704	6.920	-5.120	-6.6462	-14.1350
202	RH-75	Combination		-12.350	-14.163	2.257	13.6407	-11.9124
202	RH-76	Combination		28.836	12.636	-2.277	-12.1647	27.7442
202	RH-77	Combination		31.190	-8.447	5.100	8.1222	29.9668
202	RH-78	Combination		-11.642	-0.968	6.421	0.8456	-11.1899
202	RH-79	Combination		-15.072	1.134	-8.594	-1.0170	-14.5102
202	RH-80	Combination		31.558	-2.661	8.574	2.4929	30.3420
202	RH-81	Combination		28.128	-0.559	-6.441	0.6303	27.0217
202	RH-82	Combination		-12.295	-9.605	14.359	9.0997	-11.8254
202	RH-83	Combination		-14.514	9.957	-16.641	-9.4497	-13.9660

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
202	RH-84	Combination		31.000	-11.484	16.621	10.9257	29.7978
202	RH-85	Combination		28.781	8.078	-14.379	-7.6237	27.6572
202	RH-86	Combination		-14.840	-25.419	27.258	24.2302	-14.2897
202	RH-87	Combination		-12.873	23.861	-29.436	-22.7358	-12.3764
202	RH-88	Combination		29.360	-25.388	29.416	24.2117	28.2082
202	RH-89	Combination		31.327	23.893	-27.278	-22.7543	30.1215
202	RH-90	Combination		-41.454	9.397	-5.088	-9.0411	-39.8234
202	RH-91	Combination		-39.100	-11.686	2.289	11.2458	-37.6008
202	RH-92	Combination		2.086	15.113	-2.244	-14.5595	2.0559
202	RH-93	Combination		4.440	-5.969	5.133	5.7273	4.2785
202	RH-94	Combination		-38.392	1.510	6.453	-1.5492	-36.8783
202	RH-95	Combination		-41.822	3.611	-8.562	-3.4118	-40.1985
202	RH-96	Combination		4.808	-0.183	8.607	0.0981	4.6536
202	RH-97	Combination		1.378	1.918	-6.408	-1.7645	1.3334
202	RH-98	Combination		-39.045	-7.128	14.392	6.7049	-37.5137
202	RH-99	Combination		-41.264	12.435	-16.608	-11.8445	-39.6544
202	RH-100	Combination		4.250	-9.007	16.653	8.5308	4.1095
202	RH-101	Combination		2.031	10.556	-14.347	-10.0186	1.9688
202	RH-102	Combination		-41.591	-22.942	27.291	21.8354	-39.9780
202	RH-103	Combination		-39.624	26.338	-29.403	-25.1306	-38.0647
202	RH-104	Combination		2.609	-22.910	29.448	21.8169	2.5198
202	RH-105	Combination		4.576	26.370	-27.246	-25.1491	4.4331
202	RH-106	Combination		16.570	12.325	-7.905	-11.8172	15.9293
202	RH-107	Combination		16.487	8.415	-4.605	-8.0774	15.8455
202	RH-108	Combination		16.841	4.561	-1.615	-4.3879	16.1825
202	RH-109	Combination		19.266	-0.958	2.708	0.8977	18.5081
202	RH-110	Combination		18.816	-7.290	5.536	6.9804	18.0656
202	RH-111	Combination		18.470	-11.764	6.355	11.2903	17.7225
202	RH-112	Combination		17.256	-17.842	5.106	17.1754	16.5479
202	RH-113	Combination		16.614	-24.134	1.814	23.2974	15.9338
202	RH-114	Combination		15.988	-29.207	-1.035	28.2208	15.3409
202	RH-115	Combination		15.235	-34.437	-1.261	33.2523	14.6371
202	RH-116	Combination		22.066	11.816	-7.912	-11.3252	21.2066
202	RH-117	Combination		21.982	7.906	-4.612	-7.5854	21.1228
202	RH-118	Combination		22.337	4.052	-1.622	-3.8959	21.4598
202	RH-119	Combination		24.761	-1.467	2.702	1.3897	23.7853
202	RH-120	Combination		24.312	-7.799	5.529	7.4724	23.3428
202	RH-121	Combination		23.966	-12.273	6.348	11.7823	22.9998
202	RH-122	Combination		22.752	-18.351	5.100	17.6674	21.8252
202	RH-123	Combination		22.109	-24.643	1.807	23.7894	21.2110
202	RH-124	Combination		21.483	-29.716	-1.041	28.7128	20.6182
202	RH-125	Combination		20.731	-34.946	-1.268	33.7443	19.9144
202	RH-126	Combination		4.232	13.467	-7.890	-12.9218	4.0810
202	RH-127	Combination		4.149	9.557	-4.590	-9.1819	3.9972
202	RH-128	Combination		4.503	5.704	-1.600	-5.4925	4.3342
202	RH-129	Combination		6.927	0.184	2.723	-0.2069	6.6598
202	RH-130	Combination		6.478	-6.147	5.551	5.8758	6.2173
202	RH-131	Combination		6.132	-10.621	6.370	10.1857	5.8742
202	RH-132	Combination		4.918	-16.699	5.121	16.0709	4.6996
202	RH-133	Combination		4.276	-22.992	1.829	22.1928	4.0855
202	RH-134	Combination		3.650	-28.065	-1.020	27.1162	3.4926
202	RH-135	Combination		2.897	-33.295	-1.246	32.1478	2.7888
202	RH-136	Combination		-1.017	12.240	-7.738	-11.7388	-0.9600
202	RH-137	Combination		-1.101	8.330	-4.437	-7.9990	-1.0438
202	RH-138	Combination		-0.746	4.476	-1.448	-4.3095	-0.7068
202	RH-139	Combination		1.678	-1.044	2.876	0.9761	1.6188
202	RH-140	Combination		1.229	-7.375	5.703	7.0588	1.1763
202	RH-141	Combination		0.882	-11.849	6.522	11.3687	0.8332
202	RH-142	Combination		-0.331	-17.927	5.274	17.2538	-0.3414
202	RH-143	Combination		-0.974	-24.219	1.982	23.3758	-0.9555
202	RH-144	Combination		-1.600	-29.292	-0.867	28.2992	-1.5484
202	RH-145	Combination		-2.352	-34.522	-1.094	33.3307	-2.2522

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
202	RH-146	Combination		4.478	11.731	-7.744	-11.2468	4.3173
202	RH-147	Combination		4.395	7.821	-4.444	-7.5070	4.2335
202	RH-148	Combination		4.749	3.967	-1.454	-3.8175	4.5705
202	RH-149	Combination		7.173	-1.552	2.869	1.4681	6.8960
202	RH-150	Combination		6.724	-7.884	5.697	7.5508	6.4535
202	RH-151	Combination		6.378	-12.358	6.516	11.8607	6.1105
202	RH-152	Combination		5.164	-18.436	5.267	17.7458	4.9359
202	RH-153	Combination		4.522	-24.728	1.975	23.8677	4.3217
202	RH-154	Combination		3.895	-29.801	-0.874	28.7911	3.7289
202	RH-155	Combination		3.143	-35.031	-1.100	33.8227	3.0251
202	RH-156	Combination		-13.356	13.382	-7.723	-12.8434	-12.8083
202	RH-157	Combination		-13.439	9.472	-4.422	-9.1036	-12.8921
202	RH-158	Combination		-13.085	5.619	-1.433	-5.4141	-12.5551
202	RH-159	Combination		-10.660	0.099	2.891	-0.1285	-10.2295
202	RH-160	Combination		-11.110	-6.232	5.718	5.9542	-10.6720
202	RH-161	Combination		-11.456	-10.706	6.537	10.2641	-11.0151
202	RH-162	Combination		-12.670	-16.784	5.289	16.1492	-12.1897
202	RH-163	Combination		-13.312	-23.077	1.997	22.2712	-12.8038
202	RH-164	Combination		-13.938	-28.150	-0.852	27.1946	-13.3967
202	RH-165	Combination		-14.690	-33.380	-1.079	32.2262	-14.1005
206	ENV-ELS-CA	Combination	Max	45.065	19.809	231.714	19.3722	44.6894
206	ENV-ELS-CA	Combination	Min	-32.252	-20.047	6.913	-19.2878	-31.4248
206	ENV-ELS-CP	Combination	Max	24.447	0.814	97.241	1.0403	24.1449
206	ENV-ELS-CP	Combination	Min	-10.834	-0.995	48.319	-0.9506	-10.3378
206	ENV-ELU-PT	Combination	Max	61.778	26.846	316.957	26.4443	61.2800
206	ENV-ELU-PT	Combination	Min	-45.779	-27.320	-17.311	-26.1567	-44.7742
206	ENV-ELU-AC	Combination	Max	27.829	14.373	198.364	36.6166	28.0350
206	ENV-ELU-AC	Combination	Min	-17.877	-37.619	30.198	-14.1614	-17.1852
206	ENV-ELU-EQ	Combination	Max	2.466	0.388	244.559	0.2062	4.0999
206	ENV-ELU-EQ	Combination	Min	-0.447	0.022	46.171	-0.8019	-0.8172
206	RH-1	Combination		25.176	0.123	8.362	-0.1275	24.1634
206	RH-2	Combination		39.722	1.369	13.125	-1.3363	38.1250
206	RH-3	Combination		-7.483	-2.675	-2.330	2.5863	-7.1826
206	RH-4	Combination		8.806	9.227	7.001	-8.8705	8.4206
206	RH-5	Combination		18.352	-14.143	0.903	13.6118	17.6197
206	RH-6	Combination		49.456	15.884	21.536	-15.3174	47.4610
206	RH-7	Combination		59.002	-7.485	15.438	7.1649	56.6601
206	RH-8	Combination		11.591	1.435	-3.234	-1.4741	11.0969
206	RH-9	Combination		12.271	2.217	10.449	-2.0647	11.7637
206	RH-10	Combination		55.537	-0.475	11.991	0.3591	53.3171
206	RH-11	Combination		56.217	0.306	25.673	-0.2315	53.9839
206	RH-12	Combination		12.205	-7.602	-11.319	7.1635	11.6926
206	RH-13	Combination		11.485	11.465	18.592	-10.9046	11.0020
206	RH-14	Combination		56.323	-9.723	3.847	9.1990	54.0788
206	RH-15	Combination		55.603	9.343	33.759	-8.8691	53.3881
206	RH-16	Combination		12.912	-24.449	-24.906	23.2867	12.3869
206	RH-17	Combination		10.816	26.100	31.797	-24.8936	10.3486
206	RH-18	Combination		56.992	-24.358	-9.357	23.1880	54.7322
206	RH-19	Combination		54.895	26.190	47.345	-24.9923	52.6939
206	RH-20	Combination		-19.517	6.800	-2.272	-6.5170	-18.7639
206	RH-21	Combination		-9.971	-16.570	-8.370	15.9653	-9.5648
206	RH-22	Combination		21.133	13.458	12.263	-12.9638	20.2765
206	RH-23	Combination		30.679	-9.912	6.165	9.5185	29.4756
206	RH-24	Combination		-16.732	-0.992	-12.507	0.8795	-16.0877
206	RH-25	Combination		-16.052	-0.210	1.176	0.2889	-15.4209
206	RH-26	Combination		27.213	-2.902	2.718	2.7127	26.1325

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
206	RH-27	Combination		27.894	-2.121	16.400	2.1221	26.7993
206	RH-28	Combination		-16.119	-10.029	-20.592	9.5171	-15.4919
206	RH-29	Combination		-16.838	9.038	9.319	-8.5511	-16.1826
206	RH-30	Combination		28.000	-12.150	-5.426	11.5526	26.8942
206	RH-31	Combination		27.280	6.916	24.486	-6.5155	26.2036
206	RH-32	Combination		-15.411	-26.875	-34.179	25.6402	-14.7977
206	RH-33	Combination		-17.507	23.673	22.524	-22.5400	-16.8360
206	RH-34	Combination		28.669	-26.785	-18.630	25.5416	27.5476
206	RH-35	Combination		26.572	23.763	38.072	-22.6387	25.5094
206	RH-36	Combination		18.649	0.091	6.194	-0.0945	17.8988
206	RH-37	Combination		33.195	1.337	10.957	-1.3032	31.8604
206	RH-38	Combination		-14.010	-2.707	-4.498	2.6194	-13.4472
206	RH-39	Combination		2.279	9.195	4.834	-8.8374	2.1560
206	RH-40	Combination		11.825	-14.175	-1.265	13.6449	11.3551
206	RH-41	Combination		42.929	15.853	19.368	-15.2843	41.1964
206	RH-42	Combination		52.475	-7.517	13.270	7.1980	50.3955
206	RH-43	Combination		5.064	1.403	-5.402	-1.4410	4.8323
206	RH-44	Combination		5.744	2.185	8.281	-2.0316	5.4991
206	RH-45	Combination		49.009	-0.507	9.823	0.3922	47.0525
206	RH-46	Combination		49.690	0.274	23.505	-0.1984	47.7193
206	RH-47	Combination		5.678	-7.634	-13.487	7.1966	5.4280
206	RH-48	Combination		4.958	11.433	16.424	-10.8715	4.7374
206	RH-49	Combination		49.796	-9.755	1.679	9.2321	47.8142
206	RH-50	Combination		49.076	9.311	31.591	-8.8360	47.1235
206	RH-51	Combination		6.385	-24.480	-27.074	23.3198	6.1223
206	RH-52	Combination		4.289	26.068	29.629	-24.8605	4.0840
206	RH-53	Combination		50.465	-24.390	-11.525	23.2211	48.4676
206	RH-54	Combination		48.368	26.158	45.177	-24.9592	46.4293
206	RH-55	Combination		-26.045	6.768	-4.440	-6.4839	-25.0285
206	RH-56	Combination		-16.498	-16.602	-10.538	15.9984	-15.8294
206	RH-57	Combination		14.605	13.426	10.095	-12.9308	14.0119
206	RH-58	Combination		24.152	-9.944	3.997	9.5515	23.2110
206	RH-59	Combination		-23.260	-1.023	-14.675	0.9125	-22.3523
206	RH-60	Combination		-22.579	-0.242	-0.992	0.3219	-21.6855
206	RH-61	Combination		20.686	-2.934	0.550	2.7457	19.8679
206	RH-62	Combination		21.367	-2.152	14.232	2.1551	20.5347
206	RH-63	Combination		-22.646	-10.060	-22.760	9.5501	-21.7565
206	RH-64	Combination		-23.365	9.006	7.151	-8.5180	-22.4471
206	RH-65	Combination		21.472	-12.182	-7.594	11.5856	20.6296
206	RH-66	Combination		20.753	6.885	22.318	-6.4825	19.9390
206	RH-67	Combination		-21.938	-26.907	-36.347	25.6733	-21.0623
206	RH-68	Combination		-24.035	23.641	20.356	-22.5070	-23.1006
206	RH-69	Combination		22.142	-26.817	-20.798	25.5746	21.2830
206	RH-70	Combination		20.045	23.731	35.904	-22.6056	19.2448
206	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
206	RH-72	Combination		14.546	1.246	4.763	-1.2087	13.9616
206	RH-73	Combination		-32.659	-2.798	-10.693	2.7138	-31.3460
206	RH-74	Combination		-16.370	9.104	-1.361	-8.7430	-15.7428
206	RH-75	Combination		-6.824	-14.266	-7.459	13.7393	-6.5437
206	RH-76	Combination		24.280	15.761	13.174	-15.1898	23.2976
206	RH-77	Combination		33.826	-7.608	7.076	7.2925	32.4967
206	RH-78	Combination		-13.585	1.312	-11.596	-1.3465	-13.0665
206	RH-79	Combination		-12.905	2.094	2.086	-1.9372	-12.3998
206	RH-80	Combination		30.360	-0.598	3.629	0.4867	29.1537
206	RH-81	Combination		31.041	0.183	17.311	-0.1040	29.8204
206	RH-82	Combination		-12.971	-7.725	-19.682	7.2911	-12.4708
206	RH-83	Combination		-13.691	11.342	10.230	-10.7771	-13.1614
206	RH-84	Combination		31.147	-9.846	-4.515	9.3266	29.9153
206	RH-85	Combination		30.427	9.220	25.397	-8.7416	29.2247
206	RH-86	Combination		-12.264	-24.572	-33.268	23.4142	-11.7766
206	RH-87	Combination		-14.360	25.977	23.434	-24.7660	-13.8149
206	RH-88	Combination		31.816	-24.481	-17.719	23.3155	30.5688

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
206	RH-89	Combination		29.719	26.067	38.983	-24.8647	28.5305
206	RH-90	Combination		-44.693	6.677	-10.634	-6.3894	-42.9273
206	RH-91	Combination		-35.147	-16.693	-16.732	16.0929	-33.7283
206	RH-92	Combination		-4.043	13.335	3.901	-12.8363	-3.8870
206	RH-93	Combination		5.503	-10.035	-2.197	9.6460	5.3121
206	RH-94	Combination		-41.908	-1.114	-20.869	1.0070	-40.2511
206	RH-95	Combination		-41.228	-0.333	-7.187	0.4164	-39.5843
206	RH-96	Combination		2.037	-3.025	-5.644	2.8402	1.9691
206	RH-97	Combination		2.718	-2.244	8.038	2.2496	2.6359
206	RH-98	Combination		-41.295	-10.152	-28.955	9.6446	-39.6553
206	RH-99	Combination		-42.014	8.915	0.957	-8.4235	-40.3460
206	RH-100	Combination		2.823	-12.273	-13.788	11.6801	2.7308
206	RH-101	Combination		2.104	6.794	16.124	-6.3880	2.0401
206	RH-102	Combination		-40.587	-26.998	-42.541	25.7678	-38.9611
206	RH-103	Combination		-42.684	23.550	14.161	-22.4125	-40.9994
206	RH-104	Combination		3.493	-26.908	-26.992	25.6691	3.3842
206	RH-105	Combination		1.396	23.640	29.710	-22.5112	1.3459
206	RH-106	Combination		13.882	13.525	13.139	-12.9805	13.3038
206	RH-107	Combination		14.323	9.450	9.831	-9.0829	13.7309
206	RH-108	Combination		15.187	5.437	6.992	-5.2413	14.5636
206	RH-109	Combination		18.350	-0.312	3.674	0.2628	17.6055
206	RH-110	Combination		18.836	-6.935	0.429	6.6239	18.0754
206	RH-111	Combination		19.205	-11.631	-0.953	11.1459	18.4315
206	RH-112	Combination		19.061	-18.040	-0.644	17.3469	18.3046
206	RH-113	Combination		19.721	-24.743	2.525	23.8665	18.9675
206	RH-114	Combination		20.328	-30.284	6.441	29.2861	19.5707
206	RH-115	Combination		20.986	-36.305	10.525	35.2342	20.1656
206	RH-116	Combination		19.700	14.023	15.044	-13.4640	18.8885
206	RH-117	Combination		20.142	9.949	11.736	-9.5664	19.3155
206	RH-118	Combination		21.006	5.936	8.897	-5.7248	20.1482
206	RH-119	Combination		24.168	0.187	5.579	-0.2207	23.1902
206	RH-120	Combination		24.654	-6.436	2.334	6.1404	23.6601
206	RH-121	Combination		25.024	-11.133	0.952	10.6624	24.0161
206	RH-122	Combination		24.879	-17.541	1.261	16.8635	23.8892
206	RH-123	Combination		25.540	-24.245	4.430	23.3830	24.5521
206	RH-124	Combination		26.146	-29.786	8.346	28.8026	25.1554
206	RH-125	Combination		26.805	-35.807	12.430	34.7507	25.7502
206	RH-126	Combination		0.818	12.406	8.862	-11.8950	0.7654
206	RH-127	Combination		1.260	8.331	5.554	-7.9974	1.1925
206	RH-128	Combination		2.124	4.318	2.715	-4.1557	2.0252
206	RH-129	Combination		5.286	-1.431	-0.603	1.3483	5.0671
206	RH-130	Combination		5.772	-8.054	-3.848	7.7095	5.5370
206	RH-131	Combination		6.141	-12.750	-5.230	12.2315	5.8931
206	RH-132	Combination		5.997	-19.159	-4.921	18.4325	5.7662
206	RH-133	Combination		6.658	-25.863	-1.752	24.9521	6.4291
206	RH-134	Combination		7.264	-31.403	2.164	30.3716	7.0323
206	RH-135	Combination		7.923	-37.425	6.248	36.3198	7.6272
206	RH-136	Combination		-4.767	13.434	6.945	-12.8860	-4.5950
206	RH-137	Combination		-4.325	9.359	3.636	-8.9884	-4.1679
206	RH-138	Combination		-3.462	5.346	0.798	-5.1468	-3.3352
206	RH-139	Combination		-0.299	-0.403	-2.520	0.3572	-0.2933
206	RH-140	Combination		0.187	-7.026	-5.765	6.7184	0.1766
206	RH-141	Combination		0.556	-11.722	-7.147	11.2404	0.5327
206	RH-142	Combination		0.412	-18.131	-6.838	17.4414	0.4058
206	RH-143	Combination		1.072	-24.835	-3.669	23.9610	1.0686
206	RH-144	Combination		1.679	-30.375	0.247	29.3805	1.6719
206	RH-145	Combination		2.337	-36.396	4.331	35.3287	2.2667
206	RH-146	Combination		1.051	13.932	8.850	-13.3695	0.9896
206	RH-147	Combination		1.493	9.858	5.541	-9.4719	1.4167
206	RH-148	Combination		2.357	5.845	2.703	-5.6303	2.2494
206	RH-149	Combination		5.519	0.095	-0.615	-0.1263	5.2913
206	RH-150	Combination		6.005	-6.527	-3.860	6.2349	5.7612

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
206	RH-151	Combination		6.375	-11.224	-5.242	10.7569	6.1173
206	RH-152	Combination		6.230	-17.632	-4.933	16.9579	5.9904
206	RH-153	Combination		6.891	-24.336	-1.764	23.4775	6.6533
206	RH-154	Combination		7.497	-29.877	2.152	28.8970	7.2565
206	RH-155	Combination		8.156	-35.898	6.236	34.8452	7.8514
206	RH-156	Combination		-17.831	12.314	2.668	-11.8005	-17.1334
206	RH-157	Combination		-17.389	8.240	-0.641	-7.9029	-16.7063
206	RH-158	Combination		-16.525	4.227	-3.479	-4.0613	-15.8736
206	RH-159	Combination		-13.363	-1.522	-6.797	1.4428	-12.8317
206	RH-160	Combination		-12.877	-8.145	-10.043	7.8039	-12.3618
206	RH-161	Combination		-12.507	-12.842	-11.424	12.3259	-12.0057
206	RH-162	Combination		-12.652	-19.250	-11.115	18.5270	-12.1326
206	RH-163	Combination		-11.991	-25.954	-7.946	25.0465	-11.4698
206	RH-164	Combination		-11.385	-31.495	-4.030	30.4661	-10.8665
206	RH-165	Combination		-10.726	-37.516	0.054	36.4143	-10.2717
208	ENV-ELS-CA	Combination	Max	44.161	19.189	242.193	17.7902	43.7767
208	ENV-ELS-CA	Combination	Min	-31.540	-18.628	46.951	-18.5831	-30.7897
208	ENV-ELS-CP	Combination	Max	24.355	0.297	97.105	-0.2755	24.0240
208	ENV-ELS-CP	Combination	Min	-10.893	0.193	61.430	-0.3755	-10.4251
208	ENV-ELU-PT	Combination	Max	60.556	25.907	329.706	24.1157	60.0469
208	ENV-ELU-PT	Combination	Min	-44.793	-25.219	33.763	-25.0889	-43.8815
208	ENV-ELU-AC	Combination	Max	26.121	13.867	200.607	34.8486	26.3282
208	ENV-ELU-AC	Combination	Min	-16.060	-36.013	55.610	-13.5897	-15.4548
208	ENV-ELU-EQ	Combination	Max	2.392	0.449	266.876	0.0698	3.9887
208	ENV-ELU-EQ	Combination	Min	-0.589	0.092	70.304	-0.8719	-1.0332
208	RH-1	Combination		25.150	0.113	8.842	-0.1111	24.1377
208	RH-2	Combination		39.689	0.098	13.896	-0.0996	38.0915
208	RH-3	Combination		-7.492	0.145	-2.507	-0.1369	-7.1909
208	RH-4	Combination		9.868	8.474	3.165	-8.1431	9.4508
208	RH-5	Combination		15.821	-14.908	5.200	14.3578	15.1657
208	RH-6	Combination		51.926	15.116	18.549	-14.5662	49.8542
208	RH-7	Combination		57.878	-8.265	20.585	7.9347	55.5691
208	RH-8	Combination		12.789	0.675	4.238	-0.7359	12.2578
208	RH-9	Combination		11.419	1.462	3.656	-1.3343	10.9387
208	RH-10	Combination		56.327	-1.254	20.093	1.1259	54.0812
208	RH-11	Combination		54.957	-0.467	19.511	0.5275	52.7621
208	RH-12	Combination		12.771	-8.367	4.210	7.9097	12.2401
208	RH-13	Combination		11.304	10.715	3.636	-10.1825	10.8278
208	RH-14	Combination		56.443	-10.507	20.114	9.9740	54.1921
208	RH-15	Combination		54.975	8.575	19.539	-8.1181	52.7798
208	RH-16	Combination		11.857	-25.223	3.829	24.0466	11.3612
208	RH-17	Combination		11.786	25.358	3.844	-24.1840	11.2919
208	RH-18	Combination		55.960	-25.150	19.905	23.9756	53.7280
208	RH-19	Combination		55.890	25.431	19.920	-24.2550	53.6587
208	RH-20	Combination		-18.440	8.501	-6.677	-8.1655	-17.7186
208	RH-21	Combination		-12.487	-14.880	-4.642	14.3355	-12.0038
208	RH-22	Combination		23.617	15.144	8.707	-14.5886	22.6848
208	RH-23	Combination		29.570	-8.238	10.743	7.9123	28.3996
208	RH-24	Combination		-15.519	0.703	-5.604	-0.7583	-14.9117
208	RH-25	Combination		-16.889	1.490	-6.186	-1.3567	-16.2308
208	RH-26	Combination		28.019	-1.226	10.251	1.1035	26.9118
208	RH-27	Combination		26.649	-0.439	9.669	0.5052	25.5927
208	RH-28	Combination		-15.537	-8.339	-5.632	7.8873	-14.9293
208	RH-29	Combination		-17.005	10.743	-6.206	-10.2048	-16.3416
208	RH-30	Combination		28.135	-10.479	10.272	9.9517	27.0226
208	RH-31	Combination		26.667	8.603	9.697	-8.1404	25.6103

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
208	RH-32	Combination		-16.452	-25.195	-6.013	24.0242	-15.8082
208	RH-33	Combination		-16.522	25.386	-5.998	-24.2064	-15.8775
208	RH-34	Combination		27.652	-25.122	10.063	23.9532	26.5586
208	RH-35	Combination		27.582	25.459	10.078	-24.2774	26.4892
208	RH-36	Combination		18.630	0.083	6.549	-0.0823	17.8797
208	RH-37	Combination		33.168	0.069	11.604	-0.0708	31.8336
208	RH-38	Combination		-14.012	0.115	-4.799	-0.1081	-13.4488
208	RH-39	Combination		3.348	8.444	0.872	-8.1143	3.1929
208	RH-40	Combination		9.301	-14.937	2.908	14.3866	8.9078
208	RH-41	Combination		45.405	15.087	16.257	-14.5374	43.5963
208	RH-42	Combination		51.358	-8.295	18.292	7.9635	49.3112
208	RH-43	Combination		6.269	0.646	1.946	-0.7071	5.9999
208	RH-44	Combination		4.899	1.433	1.364	-1.3055	4.6808
208	RH-45	Combination		49.807	-1.283	17.801	1.1547	47.8233
208	RH-46	Combination		48.437	-0.496	17.219	0.5563	46.5042
208	RH-47	Combination		6.251	-8.396	1.918	7.9385	5.9822
208	RH-48	Combination		4.783	10.686	1.343	-10.1537	4.5699
208	RH-49	Combination		49.922	-10.536	17.821	10.0029	47.9342
208	RH-50	Combination		48.455	8.546	17.246	-8.0893	46.5219
208	RH-51	Combination		5.336	-25.252	1.537	24.0754	5.1033
208	RH-52	Combination		5.266	25.329	1.552	-24.1552	5.0340
208	RH-53	Combination		49.440	-25.179	17.613	24.0044	47.4701
208	RH-54	Combination		49.369	25.402	17.628	-24.2262	47.4008
208	RH-55	Combination		-24.961	8.472	-8.970	-8.1367	-23.9765
208	RH-56	Combination		-19.008	-14.910	-6.934	14.3643	-18.2617
208	RH-57	Combination		17.097	15.115	6.415	-14.5598	16.4269
208	RH-58	Combination		23.050	-8.267	8.450	7.9411	22.1417
208	RH-59	Combination		-22.039	0.674	-7.896	-0.7295	-21.1696
208	RH-60	Combination		-23.409	1.460	-8.478	-1.3279	-22.4887
208	RH-61	Combination		21.499	-1.255	7.959	1.1323	20.6539
208	RH-62	Combination		20.129	-0.469	7.377	0.5340	19.3348
208	RH-63	Combination		-22.058	-8.368	-7.924	7.9161	-21.1872
208	RH-64	Combination		-23.525	10.713	-8.499	-10.1760	-22.5995
208	RH-65	Combination		21.614	-10.508	7.979	9.9805	20.7647
208	RH-66	Combination		20.147	8.574	7.404	-8.1116	19.3524
208	RH-67	Combination		-22.972	-25.224	-8.305	24.0530	-22.0661
208	RH-68	Combination		-23.042	25.357	-8.290	-24.1776	-22.1354
208	RH-69	Combination		21.131	-25.151	7.771	23.9820	20.3006
208	RH-70	Combination		21.061	25.429	7.786	-24.2486	20.2313
208	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
208	RH-72	Combination		14.539	-0.014	5.055	0.0115	13.9538
208	RH-73	Combination		-32.642	0.032	-11.349	-0.0258	-31.3286
208	RH-74	Combination		-15.282	8.361	-5.677	-8.0320	-14.6868
208	RH-75	Combination		-9.329	-15.021	-3.642	14.4689	-8.9720
208	RH-76	Combination		26.776	15.004	9.708	-14.4551	25.7166
208	RH-77	Combination		32.728	-8.378	11.743	8.0458	31.4314
208	RH-78	Combination		-12.361	0.563	-4.604	-0.6248	-11.8799
208	RH-79	Combination		-13.731	1.349	-5.186	-1.2232	-13.1990
208	RH-80	Combination		31.177	-1.366	11.251	1.2370	29.9436
208	RH-81	Combination		29.807	-0.580	10.669	0.6386	28.6245
208	RH-82	Combination		-12.379	-8.480	-4.631	8.0208	-11.8975
208	RH-83	Combination		-13.846	10.602	-5.206	-10.0714	-13.3098
208	RH-84	Combination		31.293	-10.619	11.272	10.0851	30.0544
208	RH-85	Combination		29.825	8.463	10.697	-8.0070	28.6421
208	RH-86	Combination		-13.293	-25.335	-5.013	24.1577	-12.7764
208	RH-87	Combination		-13.364	25.246	-4.997	-24.0729	-12.8457
208	RH-88	Combination		30.810	-25.263	11.063	24.0867	29.5903
208	RH-89	Combination		30.740	25.318	11.078	-24.1439	29.5210
208	RH-90	Combination		-43.590	8.389	-15.519	-8.0544	-41.8563
208	RH-91	Combination		-37.637	-14.993	-13.484	14.4466	-36.1414
208	RH-92	Combination		-1.533	15.031	-0.134	-14.4775	-1.4529
208	RH-93	Combination		4.420	-8.350	1.901	8.0234	4.2620

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
208	RH-94	Combination		-40.669	0.590	-14.446	-0.6472	-39.0493
208	RH-95	Combination		-42.039	1.377	-15.028	-1.2456	-40.3684
208	RH-96	Combination		2.869	-1.339	1.409	1.2146	2.7741
208	RH-97	Combination		1.499	-0.552	0.827	0.6163	1.4550
208	RH-98	Combination		-40.687	-8.452	-14.473	7.9984	-39.0670
208	RH-99	Combination		-42.155	10.630	-15.048	-10.0937	-40.4793
208	RH-100	Combination		2.985	-10.592	1.430	10.0628	2.8850
208	RH-101	Combination		1.517	8.490	0.855	-8.0293	1.4727
208	RH-102	Combination		-41.602	-25.308	-14.855	24.1353	-39.9459
208	RH-103	Combination		-41.672	25.273	-14.839	-24.0953	-40.0152
208	RH-104	Combination		2.502	-25.235	1.221	24.0643	2.4209
208	RH-105	Combination		2.432	25.346	1.236	-24.1663	2.3516
208	RH-106	Combination		15.736	13.525	5.546	-12.9804	15.1007
208	RH-107	Combination		15.916	9.448	5.601	-9.0792	15.2733
208	RH-108	Combination		16.525	5.433	5.814	-5.2340	15.8585
208	RH-109	Combination		19.318	-0.321	6.823	0.2764	18.5406
208	RH-110	Combination		19.338	-6.946	6.793	6.6420	18.5570
208	RH-111	Combination		19.351	-11.644	6.710	11.1667	18.5659
208	RH-112	Combination		18.675	-18.054	6.183	17.3692	17.9202
208	RH-113	Combination		18.687	-24.755	5.706	23.8838	17.9490
208	RH-114	Combination		18.675	-30.255	4.872	29.2391	17.9486
208	RH-115	Combination		18.642	-36.063	3.229	34.8665	17.9250
208	RH-116	Combination		21.552	13.519	7.568	-12.9758	20.6823
208	RH-117	Combination		21.731	9.442	7.623	-9.0746	20.8548
208	RH-118	Combination		22.341	5.427	7.836	-5.2294	21.4400
208	RH-119	Combination		25.133	-0.326	8.845	0.2810	24.1221
208	RH-120	Combination		25.153	-6.952	8.815	6.6466	24.1385
208	RH-121	Combination		25.167	-11.650	8.731	11.1713	24.1474
208	RH-122	Combination		24.491	-18.060	8.204	17.3738	23.5017
208	RH-123	Combination		24.503	-24.760	7.728	23.8884	23.5306
208	RH-124	Combination		24.491	-30.261	6.894	29.2437	23.5301
208	RH-125	Combination		24.458	-36.069	5.251	34.8711	23.5065
208	RH-126	Combination		2.679	13.538	1.007	-12.9907	2.5693
208	RH-127	Combination		2.859	9.461	1.062	-9.0895	2.7418
208	RH-128	Combination		3.469	5.446	1.275	-5.2443	3.3271
208	RH-129	Combination		6.261	-0.308	2.284	0.2661	6.0091
208	RH-130	Combination		6.281	-6.934	2.253	6.6317	6.0256
208	RH-131	Combination		6.294	-11.632	2.170	11.1564	6.0344
208	RH-132	Combination		5.619	-18.041	1.643	17.3589	5.3887
208	RH-133	Combination		5.631	-24.742	1.166	23.8735	5.4176
208	RH-134	Combination		5.618	-30.243	0.333	29.2288	5.4172
208	RH-135	Combination		5.586	-36.050	-1.311	34.8562	5.3936
208	RH-136	Combination		-2.893	13.442	-1.003	-12.8981	-2.7790
208	RH-137	Combination		-2.714	9.365	-0.948	-8.9969	-2.6065
208	RH-138	Combination		-2.104	5.349	-0.735	-5.1517	-2.0212
208	RH-139	Combination		0.688	-0.404	0.274	0.3587	0.6608
208	RH-140	Combination		0.708	-7.030	0.243	6.7243	0.6772
208	RH-141	Combination		0.722	-11.728	0.160	11.2490	0.6861
208	RH-142	Combination		0.046	-18.137	-0.367	17.4515	0.0404
208	RH-143	Combination		0.058	-24.838	-0.844	23.9661	0.0693
208	RH-144	Combination		0.045	-30.339	-1.677	29.3214	0.0689
208	RH-145	Combination		0.013	-36.146	-3.321	34.9488	0.0452
208	RH-146	Combination		2.922	13.436	1.019	-12.8935	2.8025
208	RH-147	Combination		3.102	9.359	1.074	-8.9923	2.9750
208	RH-148	Combination		3.711	5.344	1.287	-5.1471	3.5603
208	RH-149	Combination		6.503	-0.410	2.296	0.3633	6.2423
208	RH-150	Combination		6.524	-7.035	2.265	6.7289	6.2588
208	RH-151	Combination		6.537	-11.733	2.182	11.2536	6.2677
208	RH-152	Combination		5.861	-18.143	1.655	17.4561	5.6220
208	RH-153	Combination		5.873	-24.844	1.178	23.9707	5.6508
208	RH-154	Combination		5.861	-30.344	0.345	29.3260	5.6504
208	RH-155	Combination		5.828	-36.152	-1.299	34.9534	5.6268

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
208	RH-156	Combination		-15.950	13.454	-5.543	-12.9084	-15.3104
208	RH-157	Combination		-15.770	9.377	-5.488	-9.0072	-15.1379
208	RH-158	Combination		-15.161	5.362	-5.275	-5.1620	-14.5527
208	RH-159	Combination		-12.369	-0.391	-4.266	0.3484	-11.8706
208	RH-160	Combination		-12.348	-7.017	-4.296	6.7140	-11.8542
208	RH-161	Combination		-12.335	-11.715	-4.379	11.2387	-11.8453
208	RH-162	Combination		-13.011	-18.125	-4.906	17.4412	-12.4910
208	RH-163	Combination		-12.999	-24.825	-5.383	23.9558	-12.4621
208	RH-164	Combination		-13.011	-30.326	-6.216	29.3111	-12.4626
208	RH-165	Combination		-13.044	-36.134	-7.860	34.9385	-12.4862
209	ENV-ELS-CA	Combination	Max	43.531	20.587	289.885	18.5463	43.1551
209	ENV-ELS-CA	Combination	Min	-31.076	-19.340	21.655	-20.2235	-30.3786
209	ENV-ELS-CP	Combination	Max	24.263	1.464	118.258	0.3537	23.9014
209	ENV-ELS-CP	Combination	Min	-10.951	-0.367	68.810	-1.6458	-10.5123
209	ENV-ELU-PT	Combination	Max	59.706	28.002	395.504	25.2680	59.2067
209	ENV-ELU-PT	Combination	Min	-44.141	-26.292	-4.649	-27.5287	-43.2908
209	ENV-ELU-AC	Combination	Max	26.981	15.135	247.615	35.3533	27.1491
209	ENV-ELU-AC	Combination	Min	-15.557	-36.531	43.178	-15.0035	-14.9822
209	ENV-ELU-EQ	Combination	Max	2.328	0.506	312.652	0.0802	3.9132
209	ENV-ELU-EQ	Combination	Min	-0.694	0.016	53.015	-1.1803	-1.1627
209	RH-1	Combination		25.125	0.099	8.653	-0.0892	24.1126
209	RH-2	Combination		39.656	-1.177	13.758	1.1447	38.0592
209	RH-3	Combination		-7.501	2.964	-2.809	-2.8597	-7.1996
209	RH-4	Combination		10.929	7.712	-0.934	-7.4025	10.4787
209	RH-5	Combination		13.292	-15.665	9.290	15.0905	12.7145
209	RH-6	Combination		54.396	14.331	14.143	-13.7882	52.2466
209	RH-7	Combination		56.759	-9.046	24.367	8.7048	54.4824
209	RH-8	Combination		13.987	-0.083	11.396	-8.813E-04	13.4183
209	RH-9	Combination		10.567	0.700	-3.346	-0.5940	10.1129
209	RH-10	Combination		57.120	-2.034	26.779	1.8963	54.8482
209	RH-11	Combination		53.700	-1.251	12.037	1.3032	51.5428
209	RH-12	Combination		13.338	-9.121	19.481	8.6376	12.7891
209	RH-13	Combination		11.121	9.948	-11.584	-9.4351	10.6509
209	RH-14	Combination		56.567	-11.282	35.017	10.7373	54.3102
209	RH-15	Combination		54.349	7.787	3.952	-7.3354	52.1720
209	RH-16	Combination		10.804	-25.968	32.439	24.7614	10.3403
209	RH-17	Combination		12.753	24.584	-24.470	-23.4247	12.2294
209	RH-18	Combination		54.934	-25.918	47.903	24.7270	52.7317
209	RH-19	Combination		56.884	24.634	-9.006	-23.4591	54.6208
209	RH-20	Combination		-17.366	10.196	-10.875	-9.8052	-16.6766
209	RH-21	Combination		-15.003	-13.180	-0.650	12.6878	-14.4408
209	RH-22	Combination		26.101	16.815	4.202	-16.1909	25.0913
209	RH-23	Combination		28.464	-6.561	14.426	6.3022	27.3271
209	RH-24	Combination		-14.307	2.402	1.456	-2.4035	-13.7370
209	RH-25	Combination		-17.727	3.185	-13.287	-2.9967	-17.0424
209	RH-26	Combination		28.826	0.451	16.839	-0.5063	27.6929
209	RH-27	Combination		25.406	1.234	2.096	-1.0995	24.3876
209	RH-28	Combination		-14.956	-6.636	9.540	6.2350	-14.3662
209	RH-29	Combination		-17.174	12.433	-21.524	-11.8377	-16.5044
209	RH-30	Combination		28.272	-8.798	25.076	8.3347	27.1550
209	RH-31	Combination		26.055	10.271	-5.988	-9.7380	25.0167
209	RH-32	Combination		-17.491	-23.483	22.498	22.3587	-16.8150
209	RH-33	Combination		-15.541	27.069	-34.411	-25.8274	-14.9259
209	RH-34	Combination		26.640	-23.433	37.963	22.3244	25.5764
209	RH-35	Combination		28.589	27.119	-18.946	-25.8618	27.4655
209	RH-36	Combination		18.611	0.073	6.410	-0.0661	17.8612

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
209	RH-37	Combination		33.143	-1.203	11.515	1.1679	31.8078
209	RH-38	Combination		-14.015	2.938	-5.052	-2.8366	-13.4510
209	RH-39	Combination		4.415	7.686	-3.178	-7.3794	4.2273
209	RH-40	Combination		6.778	-15.690	7.047	15.1136	6.4631
209	RH-41	Combination		47.882	14.305	11.899	-13.7651	45.9952
209	RH-42	Combination		50.245	-9.071	22.123	8.7280	48.2310
209	RH-43	Combination		7.473	-0.109	9.153	0.0223	7.1669
209	RH-44	Combination		4.053	0.674	-5.590	-0.5709	3.8615
209	RH-45	Combination		50.607	-2.060	24.536	1.9194	48.5968
209	RH-46	Combination		47.186	-1.276	9.793	1.3263	45.2914
209	RH-47	Combination		6.825	-9.146	17.237	8.6608	6.5377
209	RH-48	Combination		4.607	9.923	-13.827	-9.4119	4.3995
209	RH-49	Combination		50.053	-11.308	32.773	10.7605	48.0588
209	RH-50	Combination		47.835	7.761	1.709	-7.3122	45.9206
209	RH-51	Combination		4.290	-25.993	30.195	24.7845	4.0889
209	RH-52	Combination		6.239	24.558	-26.714	-23.4016	5.9780
209	RH-53	Combination		48.420	-25.944	45.660	24.7501	46.4803
209	RH-54	Combination		50.370	24.608	-11.249	-23.4360	48.3694
209	RH-55	Combination		-23.880	10.171	-13.118	-9.7821	-22.9280
209	RH-56	Combination		-21.516	-13.206	-2.894	12.7110	-20.6922
209	RH-57	Combination		19.587	16.790	1.959	-16.1677	18.8399
209	RH-58	Combination		21.951	-6.586	12.183	6.3253	21.0757
209	RH-59	Combination		-20.821	2.376	-0.788	-2.3804	-19.9884
209	RH-60	Combination		-24.241	3.159	-15.530	-2.9735	-23.2938
209	RH-61	Combination		22.312	0.425	14.595	-0.4832	21.4415
209	RH-62	Combination		18.892	1.208	-0.147	-1.0764	18.1361
209	RH-63	Combination		-21.470	-6.662	7.297	6.2581	-20.6176
209	RH-64	Combination		-23.688	12.408	-23.768	-11.8146	-22.7558
209	RH-65	Combination		21.759	-8.823	22.833	8.3578	20.9035
209	RH-66	Combination		19.541	10.246	-8.232	-9.7149	18.7653
209	RH-67	Combination		-24.005	-23.509	20.255	22.3819	-23.0664
209	RH-68	Combination		-22.055	27.043	-36.654	-25.8042	-21.1773
209	RH-69	Combination		20.126	-23.459	35.719	22.3475	19.3250
209	RH-70	Combination		22.075	27.093	-21.190	-25.8386	21.2141
209	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
209	RH-72	Combination		14.532	-1.276	5.105	1.2340	13.9466
209	RH-73	Combination		-32.626	2.865	-11.462	-2.7705	-31.3123
209	RH-74	Combination		-14.196	7.613	-9.587	-7.3133	-13.6339
209	RH-75	Combination		-11.833	-15.763	0.637	15.1797	-11.3981
209	RH-76	Combination		29.271	14.232	5.489	-13.6990	28.1340
209	RH-77	Combination		31.634	-9.144	15.714	8.7941	30.3698
209	RH-78	Combination		-11.137	-0.182	2.743	0.0884	-10.6944
209	RH-79	Combination		-14.558	0.601	-12.000	-0.5048	-13.9997
209	RH-80	Combination		31.996	-2.133	18.126	1.9855	30.7356
209	RH-81	Combination		28.575	-1.350	3.384	1.3924	27.4302
209	RH-82	Combination		-11.786	-9.219	10.827	8.7269	-11.3235
209	RH-83	Combination		-14.004	9.850	-20.237	-9.3458	-13.4617
209	RH-84	Combination		31.442	-11.381	26.363	10.8266	30.1976
209	RH-85	Combination		29.224	7.688	-4.701	-7.2461	28.0594
209	RH-86	Combination		-14.321	-26.067	23.785	24.8506	-13.7723
209	RH-87	Combination		-12.371	24.485	-33.124	-23.3355	-11.8832
209	RH-88	Combination		29.809	-26.017	39.250	24.8162	28.6191
209	RH-89	Combination		31.759	24.535	-17.659	-23.3699	30.5082
209	RH-90	Combination		-42.491	10.098	-19.528	-9.7159	-40.7892
209	RH-91	Combination		-40.127	-13.279	-9.304	12.7771	-38.5534
209	RH-92	Combination		0.976	16.717	-4.451	-16.1016	0.9787
209	RH-93	Combination		3.340	-6.659	5.773	6.3914	3.2145
209	RH-94	Combination		-39.432	2.303	-7.198	-2.3143	-37.8496
209	RH-95	Combination		-42.852	3.086	-21.940	-2.9074	-41.1550
209	RH-96	Combination		3.701	0.352	8.186	-0.4171	3.5803
209	RH-97	Combination		0.281	1.135	-6.557	-1.0103	0.2749
209	RH-98	Combination		-40.081	-6.735	0.887	6.3242	-38.4788

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
209	RH-99	Combination		-42.299	12.335	-30.177	-11.7485	-40.6170
209	RH-100	Combination		3.148	-8.896	16.423	8.4239	3.0423
209	RH-101	Combination		0.930	10.173	-14.641	-9.6488	0.9041
209	RH-102	Combination		-42.615	-23.582	13.845	22.4480	-40.9276
209	RH-103	Combination		-40.666	26.970	-43.064	-25.7381	-39.0385
209	RH-104	Combination		1.515	-23.532	29.310	22.4136	1.4638
209	RH-105	Combination		3.465	27.020	-27.599	-25.7725	3.3529
209	RH-106	Combination		17.589	13.510	-2.570	-12.9577	16.8953
209	RH-107	Combination		17.508	9.435	0.870	-9.0594	16.8141
209	RH-108	Combination		17.863	5.422	4.147	-5.2165	17.1529
209	RH-109	Combination		20.286	-0.331	9.450	0.2921	19.4764
209	RH-110	Combination		19.842	-6.954	12.686	6.6539	19.0409
209	RH-111	Combination		19.500	-11.650	13.941	11.1765	18.7036
209	RH-112	Combination		18.293	-18.058	12.678	17.3763	17.5407
209	RH-113	Combination		17.659	-24.754	8.876	23.8840	16.9394
209	RH-114	Combination		17.036	-30.229	5.292	29.1978	16.3502
209	RH-115	Combination		16.277	-35.974	3.718	34.7340	15.6399
209	RH-116	Combination		23.402	13.000	-0.528	-12.4641	22.4739
209	RH-117	Combination		23.320	8.925	2.912	-8.5658	22.3927
209	RH-118	Combination		23.676	4.911	6.189	-4.7229	22.7315
209	RH-119	Combination		26.099	-0.841	11.492	0.7857	25.0551
209	RH-120	Combination		25.655	-7.464	14.729	7.1475	24.6195
209	RH-121	Combination		25.312	-12.161	15.983	11.6700	24.2822
209	RH-122	Combination		24.106	-18.569	14.720	17.8699	23.1193
209	RH-123	Combination		23.472	-25.265	10.918	24.3776	22.5180
209	RH-124	Combination		22.848	-30.739	7.334	29.6914	21.9288
209	RH-125	Combination		22.089	-36.485	5.760	35.2276	21.2185
209	RH-126	Combination		4.539	14.656	-7.155	-14.0659	4.3704
209	RH-127	Combination		4.457	10.581	-3.715	-10.1676	4.2892
209	RH-128	Combination		4.813	6.568	-0.438	-6.3247	4.6280
209	RH-129	Combination		7.236	0.815	4.865	-0.8161	6.9515
209	RH-130	Combination		6.792	-5.808	8.102	5.5457	6.5160
209	RH-131	Combination		6.449	-10.504	9.356	10.0683	6.1787
209	RH-132	Combination		5.243	-16.912	8.094	16.2681	5.0158
209	RH-133	Combination		4.609	-23.608	4.291	22.7758	4.4145
209	RH-134	Combination		3.985	-29.083	0.707	28.0897	3.8253
209	RH-135	Combination		3.226	-34.828	-0.867	33.6258	3.1150
209	RH-136	Combination		-1.022	13.437	-8.980	-12.8916	-0.9659
209	RH-137	Combination		-1.103	9.362	-5.540	-8.9933	-1.0471
209	RH-138	Combination		-0.748	5.348	-2.263	-5.1504	-0.7083
209	RH-139	Combination		1.675	-0.404	3.040	0.3582	1.6152
209	RH-140	Combination		1.231	-7.027	6.277	6.7200	1.1797
209	RH-141	Combination		0.889	-11.723	7.531	11.2426	0.8424
209	RH-142	Combination		-0.318	-18.131	6.269	17.4424	-0.3205
209	RH-143	Combination		-0.951	-24.827	2.466	23.9501	-0.9218
209	RH-144	Combination		-1.575	-30.302	-1.118	29.2639	-1.5110
209	RH-145	Combination		-2.334	-36.047	-2.692	34.8001	-2.2213
209	RH-146	Combination		4.791	12.927	-6.938	-12.3980	4.6127
209	RH-147	Combination		4.709	8.852	-3.498	-8.4997	4.5315
209	RH-148	Combination		5.065	4.838	-0.221	-4.6568	4.8703
209	RH-149	Combination		7.488	-0.914	5.082	0.8518	7.1939
209	RH-150	Combination		7.044	-7.537	8.319	7.2136	6.7583
209	RH-151	Combination		6.701	-12.234	9.573	11.7361	6.4210
209	RH-152	Combination		5.495	-18.642	8.311	17.9360	5.2581
209	RH-153	Combination		4.861	-25.338	4.508	24.4437	4.6568
209	RH-154	Combination		4.237	-30.812	0.924	29.7575	4.0676
209	RH-155	Combination		3.478	-36.558	-0.649	35.2937	3.3573
209	RH-156	Combination		-14.072	14.583	-13.565	-13.9998	-13.4908
209	RH-157	Combination		-14.154	10.508	-10.124	-10.1015	-13.5720
209	RH-158	Combination		-13.798	6.494	-6.848	-6.2586	-13.2332
209	RH-159	Combination		-11.375	0.742	-1.545	-0.7500	-10.9097
209	RH-160	Combination		-11.819	-5.881	1.692	5.6118	-11.3452

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
209	RH-161	Combination		-12.162	-10.577	2.946	10.1344	-11.6825
209	RH-162	Combination		-13.368	-16.985	1.684	16.3342	-12.8454
209	RH-163	Combination		-14.002	-23.681	-2.119	22.8419	-13.4467
209	RH-164	Combination		-14.626	-29.156	-5.703	28.1558	-14.0359
209	RH-165	Combination		-15.385	-34.901	-7.276	33.6919	-14.7462

Table: Joint Reactions, Part 2 of 2

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
8	ENV-ELS-CA	Max	0.3909
8	ENV-ELS-CA	Min	-0.3917
8	ENV-ELS-CP	Max	0.0025
8	ENV-ELS-CP	Min	-0.0018
8	ENV-ELU-PT	Max	0.5278
8	ENV-ELU-PT	Min	-0.5289
8	ENV-ELU-AC	Max	0.4491
8	ENV-ELU-AC	Min	-0.2750
8	ENV-ELU-EQ	Max	0.0026
8	ENV-ELU-EQ	Min	-0.0086
8	RH-1		0.0045
8	RH-2		0.0043
8	RH-3		0.0049
8	RH-4		0.2492
8	RH-5		-0.5167
8	RH-6		0.5255
8	RH-7		-0.2404
8	RH-8		0.1442
8	RH-9		-0.0820
8	RH-10		0.0908
8	RH-11		-0.1354
8	RH-12		-0.0035
8	RH-13		0.0561
8	RH-14		-0.0474
8	RH-15		0.0123
8	RH-16		-0.1878
8	RH-17		0.1962
8	RH-18		-0.1874
8	RH-19		0.1966
8	RH-20		0.2496
8	RH-21		-0.5164
8	RH-22		0.5258
8	RH-23		-0.2401
8	RH-24		0.1445
8	RH-25		-0.0817
8	RH-26		0.0911
8	RH-27		-0.1351
8	RH-28		-0.0032
8	RH-29		0.0565
8	RH-30		-0.0470
8	RH-31		0.0127
8	RH-32		-0.1875
8	RH-33		0.1965
8	RH-34		-0.1871

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
8	RH-35		0.1970
8	RH-36		0.0033
8	RH-37		0.0032
8	RH-38		0.0037
8	RH-39		0.2481
8	RH-40		-0.5179
8	RH-41		0.5243
8	RH-42		-0.2416
8	RH-43		0.1430
8	RH-44		-0.0832
8	RH-45		0.0896
8	RH-46		-0.1366
8	RH-47		-0.0047
8	RH-48		0.0550
8	RH-49		-0.0485
8	RH-50		0.0112
8	RH-51		-0.1890
8	RH-52		0.1950
8	RH-53		-0.1886
8	RH-54		0.1955
8	RH-55		0.2484
8	RH-56		-0.5175
8	RH-57		0.5247
8	RH-58		-0.2413
8	RH-59		0.1433
8	RH-60		-0.0829
8	RH-61		0.0900
8	RH-62		-0.1362
8	RH-63		-0.0044
8	RH-64		0.0553
8	RH-65		-0.0482
8	RH-66		0.0115
8	RH-67		-0.1887
8	RH-68		0.1954
8	RH-69		-0.1883
8	RH-70		0.1958
8	RH-71		0.0000
8	RH-72		-1.730E-04
8	RH-73		3.884E-04
8	RH-74		0.2447
8	RH-75		-0.5212
8	RH-76		0.5210
8	RH-77		-0.2449
8	RH-78		0.1397
8	RH-79		-0.0865
8	RH-80		0.0863
8	RH-81		-0.1399
8	RH-82		-0.0080
8	RH-83		0.0516
8	RH-84		-0.0518
8	RH-85		0.0078
8	RH-86		-0.1923
8	RH-87		0.1917
8	RH-88		-0.1919
8	RH-89		0.1921
8	RH-90		0.2451
8	RH-91		-0.5209
8	RH-92		0.5213
8	RH-93		-0.2446
8	RH-94		0.1400
8	RH-95		-0.0862
8	RH-96		0.0867

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
8	RH-97		-0.1396
8	RH-98		-0.0077
8	RH-99		0.0520
8	RH-100		-0.0515
8	RH-101		0.0082
8	RH-102		-0.1920
8	RH-103		0.1920
8	RH-104		-0.1916
8	RH-105		0.1925
8	RH-106		0.4477
8	RH-107		0.3222
8	RH-108		0.2265
8	RH-109		0.1143
8	RH-110		0.0071
8	RH-111		-0.0546
8	RH-112		-0.1237
8	RH-113		-0.1819
8	RH-114		-0.2241
8	RH-115		-0.2660
8	RH-116		0.4476
8	RH-117		0.3222
8	RH-118		0.2264
8	RH-119		0.1143
8	RH-120		0.0070
8	RH-121		-0.0547
8	RH-122		-0.1238
8	RH-123		-0.1820
8	RH-124		-0.2241
8	RH-125		-0.2661
8	RH-126		0.4478
8	RH-127		0.3224
8	RH-128		0.2266
8	RH-129		0.1145
8	RH-130		0.0073
8	RH-131		-0.0544
8	RH-132		-0.1236
8	RH-133		-0.1818
8	RH-134		-0.2239
8	RH-135		-0.2659
8	RH-136		0.4443
8	RH-137		0.3189
8	RH-138		0.2232
8	RH-139		0.1110
8	RH-140		0.0038
8	RH-141		-0.0579
8	RH-142		-0.1271
8	RH-143		-0.1853
8	RH-144		-0.2274
8	RH-145		-0.2694
8	RH-146		0.4443
8	RH-147		0.3188
8	RH-148		0.2231
8	RH-149		0.1109
8	RH-150		0.0037
8	RH-151		-0.0580
8	RH-152		-0.1271
8	RH-153		-0.1853
8	RH-154		-0.2275
8	RH-155		-0.2694
8	RH-156		0.4445
8	RH-157		0.3191
8	RH-158		0.2233

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
8	RH-159		0.1112
8	RH-160		0.0039
8	RH-161		-0.0578
8	RH-162		-0.1269
8	RH-163		-0.1851
8	RH-164		-0.2272
8	RH-165		-0.2692
11	ENV-ELS-CA	Max	0.3774
11	ENV-ELS-CA	Min	-0.5309
11	ENV-ELS-CP	Max	-8.122E-04
11	ENV-ELS-CP	Min	-0.1511
11	ENV-ELU-PT	Max	0.5101
11	ENV-ELU-PT	Min	-0.7168
11	ENV-ELU-AC	Max	0.4377
11	ENV-ELU-AC	Min	-0.4235
11	ENV-ELU-EQ	Max	0.0026
11	ENV-ELU-EQ	Min	-0.0086
11	RH-1		-0.2016
11	RH-2		-0.2017
11	RH-3		-0.2014
11	RH-4		0.0438
11	RH-5		-0.7091
11	RH-6		0.3058
11	RH-7		-0.4471
11	RH-8		-0.0629
11	RH-9		-0.2873
11	RH-10		-0.1160
11	RH-11		-0.3404
11	RH-12		-0.2100
11	RH-13		-0.1497
11	RH-14		-0.2537
11	RH-15		-0.1933
11	RH-16		-0.3934
11	RH-17		-0.0102
11	RH-18		-0.3931
11	RH-19		-0.0099
11	RH-20		0.0440
11	RH-21		-0.7090
11	RH-22		0.3060
11	RH-23		-0.4470
11	RH-24		-0.0627
11	RH-25		-0.2871
11	RH-26		-0.1159
11	RH-27		-0.3402
11	RH-28		-0.2099
11	RH-29		-0.1495
11	RH-30		-0.2535
11	RH-31		-0.1931
11	RH-32		-0.3933
11	RH-33		-0.0100
11	RH-34		-0.3930
11	RH-35		-0.0097
11	RH-36		-0.1493
11	RH-37		-0.1494
11	RH-38		-0.1491
11	RH-39		0.0961

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
11	RH-40		-0.6569
11	RH-41		0.3581
11	RH-42		-0.3949
11	RH-43		-0.0106
11	RH-44		-0.2350
11	RH-45		-0.0638
11	RH-46		-0.2881
11	RH-47		-0.1578
11	RH-48		-0.0974
11	RH-49		-0.2014
11	RH-50		-0.1410
11	RH-51		-0.3412
11	RH-52		0.0421
11	RH-53		-0.3409
11	RH-54		0.0424
11	RH-55		0.0962
11	RH-56		-0.6567
11	RH-57		0.3582
11	RH-58		-0.3947
11	RH-59		-0.0105
11	RH-60		-0.2348
11	RH-61		-0.0636
11	RH-62		-0.2880
11	RH-63		-0.1576
11	RH-64		-0.0972
11	RH-65		-0.2012
11	RH-66		-0.1408
11	RH-67		-0.3410
11	RH-68		0.0423
11	RH-69		-0.3407
11	RH-70		0.0426
11	RH-71		0.0000
11	RH-72		-8.383E-05
11	RH-73		1.882E-04
11	RH-74		0.2454
11	RH-75		-0.5075
11	RH-76		0.5074
11	RH-77		-0.2455
11	RH-78		0.1387
11	RH-79		-0.0857
11	RH-80		0.0856
11	RH-81		-0.1388
11	RH-82		-0.0084
11	RH-83		0.0519
11	RH-84		-0.0520
11	RH-85		0.0083
11	RH-86		-0.1918
11	RH-87		0.1914
11	RH-88		-0.1915
11	RH-89		0.1917
11	RH-90		0.2456
11	RH-91		-0.5074
11	RH-92		0.5076
11	RH-93		-0.2454
11	RH-94		0.1389
11	RH-95		-0.0855
11	RH-96		0.0857
11	RH-97		-0.1386
11	RH-98		-0.0083
11	RH-99		0.0521
11	RH-100		-0.0519
11	RH-101		0.0085

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
11	RH-102		-0.1917
11	RH-103		0.1916
11	RH-104		-0.1914
11	RH-105		0.1919
11	RH-106		0.2870
11	RH-107		0.1684
11	RH-108		0.0724
11	RH-109		-0.0392
11	RH-110		-0.1460
11	RH-111		-0.2075
11	RH-112		-0.2763
11	RH-113		-0.3342
11	RH-114		-0.3761
11	RH-115		-0.4179
11	RH-116		0.2869
11	RH-117		0.1684
11	RH-118		0.0724
11	RH-119		-0.0393
11	RH-120		-0.1461
11	RH-121		-0.2075
11	RH-122		-0.2763
11	RH-123		-0.3343
11	RH-124		-0.3762
11	RH-125		-0.4180
11	RH-126		0.2870
11	RH-127		0.1685
11	RH-128		0.0725
11	RH-129		-0.0392
11	RH-130		-0.1459
11	RH-131		-0.2074
11	RH-132		-0.2762
11	RH-133		-0.3341
11	RH-134		-0.3761
11	RH-135		-0.4179
11	RH-136		0.4363
11	RH-137		0.3178
11	RH-138		0.2218
11	RH-139		0.1101
11	RH-140		0.0033
11	RH-141		-0.0581
11	RH-142		-0.1270
11	RH-143		-0.1849
11	RH-144		-0.2268
11	RH-145		-0.2686
11	RH-146		0.4363
11	RH-147		0.3177
11	RH-148		0.2217
11	RH-149		0.1101
11	RH-150		0.0033
11	RH-151		-0.0582
11	RH-152		-0.1270
11	RH-153		-0.1849
11	RH-154		-0.2268
11	RH-155		-0.2686
11	RH-156		0.4364
11	RH-157		0.3178
11	RH-158		0.2218
11	RH-159		0.1102
11	RH-160		0.0034
11	RH-161		-0.0581
11	RH-162		-0.1269
11	RH-163		-0.1848

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
11	RH-164		-0.2267
11	RH-165		-0.2685
24	ENV-ELS-CA	Max	0.3908
24	ENV-ELS-CA	Min	-0.4547
24	ENV-ELS-CP	Max	-8.615E-04
24	ENV-ELS-CP	Min	-0.0614
24	ENV-ELU-PT	Max	0.5282
24	ENV-ELU-PT	Min	-0.6139
24	ENV-ELU-AC	Max	0.4353
24	ENV-ELU-AC	Min	-0.3359
24	ENV-ELU-EQ	Max	0.0026
24	ENV-ELU-EQ	Min	-0.0086
24	RH-1		-0.0805
24	RH-2		-0.0805
24	RH-3		-0.0805
24	RH-4		0.1704
24	RH-5		-0.6061
24	RH-6		0.4451
24	RH-7		-0.3313
24	RH-8		0.0612
24	RH-9		-0.1676
24	RH-10		0.0066
24	RH-11		-0.2221
24	RH-12		-0.0875
24	RH-13		-0.0286
24	RH-14		-0.1323
24	RH-15		-0.0734
24	RH-16		-0.2731
24	RH-17		0.1123
24	RH-18		-0.2733
24	RH-19		0.1122
24	RH-20		0.1703
24	RH-21		-0.6061
24	RH-22		0.4451
24	RH-23		-0.3313
24	RH-24		0.0612
24	RH-25		-0.1676
24	RH-26		0.0066
24	RH-27		-0.2222
24	RH-28		-0.0875
24	RH-29		-0.0286
24	RH-30		-0.1324
24	RH-31		-0.0735
24	RH-32		-0.2732
24	RH-33		0.1123
24	RH-34		-0.2733
24	RH-35		0.1122
24	RH-36		-0.0596
24	RH-37		-0.0596
24	RH-38		-0.0596
24	RH-39		0.1912
24	RH-40		-0.5852
24	RH-41		0.4660
24	RH-42		-0.3105
24	RH-43		0.0820
24	RH-44		-0.1467

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
24	RH-45		0.0275
24	RH-46		-0.2013
24	RH-47		-0.0667
24	RH-48		-0.0077
24	RH-49		-0.1115
24	RH-50		-0.0526
24	RH-51		-0.2523
24	RH-52		0.1332
24	RH-53		-0.2524
24	RH-54		0.1331
24	RH-55		0.1912
24	RH-56		-0.5853
24	RH-57		0.4660
24	RH-58		-0.3105
24	RH-59		0.0820
24	RH-60		-0.1467
24	RH-61		0.0275
24	RH-62		-0.2013
24	RH-63		-0.0667
24	RH-64		-0.0078
24	RH-65		-0.1115
24	RH-66		-0.0526
24	RH-67		-0.2523
24	RH-68		0.1332
24	RH-69		-0.2525
24	RH-70		0.1330
24	RH-71		0.0000
24	RH-72		1.110E-05
24	RH-73		-2.491E-05
24	RH-74		0.2509
24	RH-75		-0.5256
24	RH-76		0.5256
24	RH-77		-0.2508
24	RH-78		0.1417
24	RH-79		-0.0871
24	RH-80		0.0871
24	RH-81		-0.1416
24	RH-82		-0.0070
24	RH-83		0.0519
24	RH-84		-0.0519
24	RH-85		0.0070
24	RH-86		-0.1927
24	RH-87		0.1928
24	RH-88		-0.1928
24	RH-89		0.1927
24	RH-90		0.2508
24	RH-91		-0.5256
24	RH-92		0.5256
24	RH-93		-0.2509
24	RH-94		0.1416
24	RH-95		-0.0871
24	RH-96		0.0871
24	RH-97		-0.1417
24	RH-98		-0.0071
24	RH-99		0.0519
24	RH-100		-0.0519
24	RH-101		0.0070
24	RH-102		-0.1927
24	RH-103		0.1928
24	RH-104		-0.1928
24	RH-105		0.1927
24	RH-106		0.3743

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
24	RH-107		0.2638
24	RH-108		0.1653
24	RH-109		0.0527
24	RH-110		-0.0552
24	RH-111		-0.1174
24	RH-112		-0.1870
24	RH-113		-0.2456
24	RH-114		-0.2880
24	RH-115		-0.3303
24	RH-116		0.3743
24	RH-117		0.2638
24	RH-118		0.1653
24	RH-119		0.0527
24	RH-120		-0.0552
24	RH-121		-0.1174
24	RH-122		-0.1870
24	RH-123		-0.2456
24	RH-124		-0.2880
24	RH-125		-0.3303
24	RH-126		0.3743
24	RH-127		0.2638
24	RH-128		0.1653
24	RH-129		0.0527
24	RH-130		-0.0552
24	RH-131		-0.1174
24	RH-132		-0.1870
24	RH-133		-0.2456
24	RH-134		-0.2880
24	RH-135		-0.3303
24	RH-136		0.4339
24	RH-137		0.3234
24	RH-138		0.2249
24	RH-139		0.1123
24	RH-140		0.0044
24	RH-141		-0.0577
24	RH-142		-0.1273
24	RH-143		-0.1860
24	RH-144		-0.2284
24	RH-145		-0.2707
24	RH-146		0.4339
24	RH-147		0.3234
24	RH-148		0.2249
24	RH-149		0.1123
24	RH-150		0.0044
24	RH-151		-0.0577
24	RH-152		-0.1273
24	RH-153		-0.1860
24	RH-154		-0.2284
24	RH-155		-0.2707
24	RH-156		0.4339
24	RH-157		0.3234
24	RH-158		0.2249
24	RH-159		0.1123
24	RH-160		0.0044
24	RH-161		-0.0578
24	RH-162		-0.1274
24	RH-163		-0.1860
24	RH-164		-0.2284
24	RH-165		-0.2707
27	ENV-ELS-CA	Max	0.3932

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
27	ENV-ELS-CA	Min	-0.4574
27	ENV-ELS-CP	Max	-8.322E-04
27	ENV-ELS-CP	Min	-0.0618
27	ENV-ELU-PT	Max	0.5314
27	ENV-ELU-PT	Min	-0.6176
27	ENV-ELU-AC	Max	0.4345
27	ENV-ELU-AC	Min	-0.3363
27	ENV-ELU-EQ	Max	0.0026
27	ENV-ELU-EQ	Min	-0.0086
27	RH-1		-0.0808
27	RH-2		-0.0804
27	RH-3		-0.0815
27	RH-4		0.1670
27	RH-5		-0.6093
27	RH-6		0.4482
27	RH-7		-0.3282
27	RH-8		0.0617
27	RH-9		-0.1673
27	RH-10		0.0062
27	RH-11		-0.2229
27	RH-12		-0.0870
27	RH-13		-0.0283
27	RH-14		-0.1329
27	RH-15		-0.0742
27	RH-16		-0.2727
27	RH-17		0.1127
27	RH-18		-0.2739
27	RH-19		0.1115
27	RH-20		0.1664
27	RH-21		-0.6100
27	RH-22		0.4475
27	RH-23		-0.3288
27	RH-24		0.0611
27	RH-25		-0.1680
27	RH-26		0.0055
27	RH-27		-0.2235
27	RH-28		-0.0876
27	RH-29		-0.0289
27	RH-30		-0.1335
27	RH-31		-0.0748
27	RH-32		-0.2733
27	RH-33		0.1121
27	RH-34		-0.2745
27	RH-35		0.1109
27	RH-36		-0.0598
27	RH-37		-0.0595
27	RH-38		-0.0606
27	RH-39		0.1880
27	RH-40		-0.5884
27	RH-41		0.4691
27	RH-42		-0.3072
27	RH-43		0.0827
27	RH-44		-0.1464
27	RH-45		0.0271
27	RH-46		-0.2019
27	RH-47		-0.0660

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
27	RH-48		-0.0073
27	RH-49		-0.1119
27	RH-50		-0.0532
27	RH-51		-0.2518
27	RH-52		0.1337
27	RH-53		-0.2529
27	RH-54		0.1325
27	RH-55		0.1873
27	RH-56		-0.5890
27	RH-57		0.4685
27	RH-58		-0.3079
27	RH-59		0.0820
27	RH-60		-0.1470
27	RH-61		0.0265
27	RH-62		-0.2026
27	RH-63		-0.0667
27	RH-64		-0.0080
27	RH-65		-0.1126
27	RH-66		-0.0539
27	RH-67		-0.2524
27	RH-68		0.1330
27	RH-69		-0.2536
27	RH-70		0.1319
27	RH-71		0.0000
27	RH-72		3.258E-04
27	RH-73		-7.316E-04
27	RH-74		0.2478
27	RH-75		-0.5285
27	RH-76		0.5289
27	RH-77		-0.2474
27	RH-78		0.1425
27	RH-79		-0.0866
27	RH-80		0.0870
27	RH-81		-0.1421
27	RH-82		-0.0062
27	RH-83		0.0525
27	RH-84		-0.0521
27	RH-85		0.0066
27	RH-86		-0.1919
27	RH-87		0.1935
27	RH-88		-0.1931
27	RH-89		0.1923
27	RH-90		0.2472
27	RH-91		-0.5292
27	RH-92		0.5283
27	RH-93		-0.2480
27	RH-94		0.1419
27	RH-95		-0.0872
27	RH-96		0.0863
27	RH-97		-0.1427
27	RH-98		-0.0069
27	RH-99		0.0519
27	RH-100		-0.0528
27	RH-101		0.0060
27	RH-102		-0.1926
27	RH-103		0.1929
27	RH-104		-0.1937
27	RH-105		0.1917
27	RH-106		0.3733
27	RH-107		0.2633
27	RH-108		0.1660
27	RH-109		0.0525

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
27	RH-110		-0.0553
27	RH-111		-0.1175
27	RH-112		-0.1871
27	RH-113		-0.2458
27	RH-114		-0.2882
27	RH-115		-0.3305
27	RH-116		0.3734
27	RH-117		0.2634
27	RH-118		0.1661
27	RH-119		0.0527
27	RH-120		-0.0552
27	RH-121		-0.1174
27	RH-122		-0.1870
27	RH-123		-0.2456
27	RH-124		-0.2881
27	RH-125		-0.3304
27	RH-126		0.3730
27	RH-127		0.2630
27	RH-128		0.1657
27	RH-129		0.0522
27	RH-130		-0.0556
27	RH-131		-0.1178
27	RH-132		-0.1874
27	RH-133		-0.2460
27	RH-134		-0.2885
27	RH-135		-0.3308
27	RH-136		0.4331
27	RH-137		0.3231
27	RH-138		0.2258
27	RH-139		0.1124
27	RH-140		0.0045
27	RH-141		-0.0577
27	RH-142		-0.1273
27	RH-143		-0.1859
27	RH-144		-0.2284
27	RH-145		-0.2707
27	RH-146		0.4332
27	RH-147		0.3232
27	RH-148		0.2260
27	RH-149		0.1125
27	RH-150		0.0046
27	RH-151		-0.0575
27	RH-152		-0.1272
27	RH-153		-0.1858
27	RH-154		-0.2282
27	RH-155		-0.2706
27	RH-156		0.4328
27	RH-157		0.3228
27	RH-158		0.2255
27	RH-159		0.1121
27	RH-160		0.0042
27	RH-161		-0.0580
27	RH-162		-0.1276
27	RH-163		-0.1862
27	RH-164		-0.2287
27	RH-165		-0.2710
41	ENV-ELS-CA	Max	0.3824
41	ENV-ELS-CA	Min	-0.4387
41	ENV-ELS-CP	Max	-9.275E-04

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
41	ENV-ELS-CP	Min	-0.0538
41	ENV-ELU-PT	Max	0.5168
41	ENV-ELU-PT	Min	-0.5923
41	ENV-ELU-AC	Max	0.4145
41	ENV-ELU-AC	Min	-0.3304
41	ENV-ELU-EQ	Max	0.0026
41	ENV-ELU-EQ	Min	-0.0088
41	RH-1		-0.0701
41	RH-2		-0.0701
41	RH-3		-0.0701
41	RH-4		0.1707
41	RH-5		-0.5844
41	RH-6		0.4442
41	RH-7		-0.3110
41	RH-8		0.0819
41	RH-9		-0.1558
41	RH-10		0.0156
41	RH-11		-0.2221
41	RH-12		-0.0733
41	RH-13		-0.0186
41	RH-14		-0.1217
41	RH-15		-0.0669
41	RH-16		-0.2636
41	RH-17		0.1229
41	RH-18		-0.2631
41	RH-19		0.1234
41	RH-20		0.1707
41	RH-21		-0.5844
41	RH-22		0.4442
41	RH-23		-0.3110
41	RH-24		0.0819
41	RH-25		-0.1558
41	RH-26		0.0156
41	RH-27		-0.2221
41	RH-28		-0.0733
41	RH-29		-0.0186
41	RH-30		-0.1217
41	RH-31		-0.0669
41	RH-32		-0.2636
41	RH-33		0.1229
41	RH-34		-0.2631
41	RH-35		0.1234
41	RH-36		-0.0519
41	RH-37		-0.0519
41	RH-38		-0.0519
41	RH-39		0.1889
41	RH-40		-0.5662
41	RH-41		0.4624
41	RH-42		-0.2928
41	RH-43		0.1001
41	RH-44		-0.1376
41	RH-45		0.0338
41	RH-46		-0.2040
41	RH-47		-0.0551
41	RH-48		-3.816E-04
41	RH-49		-0.1035
41	RH-50		-0.0487
41	RH-51		-0.2454

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
41	RH-52		0.1410
41	RH-53		-0.2449
41	RH-54		0.1416
41	RH-55		0.1889
41	RH-56		-0.5662
41	RH-57		0.4624
41	RH-58		-0.2928
41	RH-59		0.1001
41	RH-60		-0.1376
41	RH-61		0.0338
41	RH-62		-0.2040
41	RH-63		-0.0551
41	RH-64		-3.827E-04
41	RH-65		-0.1035
41	RH-66		-0.0487
41	RH-67		-0.2454
41	RH-68		0.1410
41	RH-69		-0.2449
41	RH-70		0.1416
41	RH-71		0.0000
41	RH-72		5.457E-07
41	RH-73		-1.225E-06
41	RH-74		0.2409
41	RH-75		-0.5143
41	RH-76		0.5143
41	RH-77		-0.2409
41	RH-78		0.1520
41	RH-79		-0.0857
41	RH-80		0.0857
41	RH-81		-0.1520
41	RH-82		-0.0032
41	RH-83		0.0515
41	RH-84		-0.0515
41	RH-85		0.0032
41	RH-86		-0.1935
41	RH-87		0.1930
41	RH-88		-0.1930
41	RH-89		0.1935
41	RH-90		0.2409
41	RH-91		-0.5143
41	RH-92		0.5143
41	RH-93		-0.2409
41	RH-94		0.1520
41	RH-95		-0.0857
41	RH-96		0.0857
41	RH-97		-0.1520
41	RH-98		-0.0032
41	RH-99		0.0515
41	RH-100		-0.0515
41	RH-101		0.0032
41	RH-102		-0.1935
41	RH-103		0.1930
41	RH-104		-0.1930
41	RH-105		0.1935
41	RH-106		0.3613
41	RH-107		0.2695
41	RH-108		0.1803
41	RH-109		0.0642
41	RH-110		-0.0448
41	RH-111		-0.1078
41	RH-112		-0.1788
41	RH-113		-0.2384

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
41	RH-114		-0.2816
41	RH-115		-0.3247
41	RH-116		0.3613
41	RH-117		0.2695
41	RH-118		0.1803
41	RH-119		0.0642
41	RH-120		-0.0448
41	RH-121		-0.1078
41	RH-122		-0.1788
41	RH-123		-0.2384
41	RH-124		-0.2816
41	RH-125		-0.3247
41	RH-126		0.3613
41	RH-127		0.2695
41	RH-128		0.1803
41	RH-129		0.0642
41	RH-130		-0.0448
41	RH-131		-0.1078
41	RH-132		-0.1788
41	RH-133		-0.2384
41	RH-134		-0.2816
41	RH-135		-0.3247
41	RH-136		0.4132
41	RH-137		0.3214
41	RH-138		0.2322
41	RH-139		0.1161
41	RH-140		0.0072
41	RH-141		-0.0559
41	RH-142		-0.1269
41	RH-143		-0.1864
41	RH-144		-0.2296
41	RH-145		-0.2727
41	RH-146		0.4132
41	RH-147		0.3214
41	RH-148		0.2322
41	RH-149		0.1161
41	RH-150		0.0072
41	RH-151		-0.0559
41	RH-152		-0.1269
41	RH-153		-0.1864
41	RH-154		-0.2296
41	RH-155		-0.2727
41	RH-156		0.4132
41	RH-157		0.3214
41	RH-158		0.2322
41	RH-159		0.1161
41	RH-160		0.0072
41	RH-161		-0.0559
41	RH-162		-0.1269
41	RH-163		-0.1864
41	RH-164		-0.2296
41	RH-165		-0.2727
45	ENV-ELS-CA	Max	0.3829
45	ENV-ELS-CA	Min	-0.4381
45	ENV-ELS-CP	Max	-8.815E-04
45	ENV-ELS-CP	Min	-0.0527
45	ENV-ELU-PT	Max	0.5175
45	ENV-ELU-PT	Min	-0.5915

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
45	ENV-ELU-AC	Max	0.4162
45	ENV-ELU-AC	Min	-0.3302
45	ENV-ELU-EQ	Max	0.0026
45	ENV-ELU-EQ	Min	-0.0088
45	RH-1		-0.0685
45	RH-2		-0.0682
45	RH-3		-0.0691
45	RH-4		0.1766
45	RH-5		-0.5832
45	RH-6		0.4466
45	RH-7		-0.3132
45	RH-8		0.0801
45	RH-9		-0.1585
45	RH-10		0.0219
45	RH-11		-0.2167
45	RH-12		-0.0715
45	RH-13		-0.0173
45	RH-14		-0.1193
45	RH-15		-0.0651
45	RH-16		-0.2612
45	RH-17		0.1263
45	RH-18		-0.2629
45	RH-19		0.1246
45	RH-20		0.1760
45	RH-21		-0.5838
45	RH-22		0.4460
45	RH-23		-0.3138
45	RH-24		0.0795
45	RH-25		-0.1591
45	RH-26		0.0213
45	RH-27		-0.2173
45	RH-28		-0.0720
45	RH-29		-0.0179
45	RH-30		-0.1199
45	RH-31		-0.0657
45	RH-32		-0.2618
45	RH-33		0.1258
45	RH-34		-0.2635
45	RH-35		0.1240
45	RH-36		-0.0507
45	RH-37		-0.0504
45	RH-38		-0.0514
45	RH-39		0.1943
45	RH-40		-0.5654
45	RH-41		0.4644
45	RH-42		-0.2954
45	RH-43		0.0979
45	RH-44		-0.1407
45	RH-45		0.0397
45	RH-46		-0.1990
45	RH-47		-0.0537
45	RH-48		4.596E-04
45	RH-49		-0.1015
45	RH-50		-0.0474
45	RH-51		-0.2435
45	RH-52		0.1441
45	RH-53		-0.2452
45	RH-54		0.1424
45	RH-55		0.1937

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
45	RH-56		-0.5660
45	RH-57		0.4638
45	RH-58		-0.2960
45	RH-59		0.0973
45	RH-60		-0.1413
45	RH-61		0.0391
45	RH-62		-0.1995
45	RH-63		-0.0543
45	RH-64		-1.221E-04
45	RH-65		-0.1021
45	RH-66		-0.0480
45	RH-67		-0.2440
45	RH-68		0.1435
45	RH-69		-0.2458
45	RH-70		0.1418
45	RH-71		0.0000
45	RH-72		2.987E-04
45	RH-73		-6.707E-04
45	RH-74		0.2451
45	RH-75		-0.5147
45	RH-76		0.5151
45	RH-77		-0.2447
45	RH-78		0.1486
45	RH-79		-0.0900
45	RH-80		0.0904
45	RH-81		-0.1482
45	RH-82		-0.0030
45	RH-83		0.0512
45	RH-84		-0.0508
45	RH-85		0.0033
45	RH-86		-0.1927
45	RH-87		0.1948
45	RH-88		-0.1945
45	RH-89		0.1931
45	RH-90		0.2445
45	RH-91		-0.5153
45	RH-92		0.5145
45	RH-93		-0.2453
45	RH-94		0.1480
45	RH-95		-0.0906
45	RH-96		0.0898
45	RH-97		-0.1488
45	RH-98		-0.0036
45	RH-99		0.0506
45	RH-100		-0.0514
45	RH-101		0.0028
45	RH-102		-0.1933
45	RH-103		0.1942
45	RH-104		-0.1950
45	RH-105		0.1925
45	RH-106		0.3641
45	RH-107		0.2723
45	RH-108		0.1823
45	RH-109		0.0667
45	RH-110		-0.0434
45	RH-111		-0.1068
45	RH-112		-0.1778
45	RH-113		-0.2377
45	RH-114		-0.2811
45	RH-115		-0.3244
45	RH-116		0.3642
45	RH-117		0.2724

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
45	RH-118		0.1824
45	RH-119		0.0668
45	RH-120		-0.0433
45	RH-121		-0.1066
45	RH-122		-0.1776
45	RH-123		-0.2376
45	RH-124		-0.2810
45	RH-125		-0.3243
45	RH-126		0.3638
45	RH-127		0.2720
45	RH-128		0.1820
45	RH-129		0.0665
45	RH-130		-0.0437
45	RH-131		-0.1070
45	RH-132		-0.1780
45	RH-133		-0.2379
45	RH-134		-0.2813
45	RH-135		-0.3246
45	RH-136		0.4148
45	RH-137		0.3230
45	RH-138		0.2330
45	RH-139		0.1174
45	RH-140		0.0073
45	RH-141		-0.0560
45	RH-142		-0.1270
45	RH-143		-0.1869
45	RH-144		-0.2304
45	RH-145		-0.2736
45	RH-146		0.4149
45	RH-147		0.3231
45	RH-148		0.2331
45	RH-149		0.1176
45	RH-150		0.0074
45	RH-151		-0.0559
45	RH-152		-0.1269
45	RH-153		-0.1868
45	RH-154		-0.2302
45	RH-155		-0.2735
45	RH-156		0.4145
45	RH-157		0.3228
45	RH-158		0.2327
45	RH-159		0.1172
45	RH-160		0.0070
45	RH-161		-0.0563
45	RH-162		-0.1273
45	RH-163		-0.1872
45	RH-164		-0.2306
45	RH-165		-0.2739
58	ENV-ELS-CA	Max	0.3803
58	ENV-ELS-CA	Min	-0.3794
58	ENV-ELS-CP	Max	0.0045
58	ENV-ELS-CP	Min	-0.0020
58	ENV-ELU-PT	Max	0.5135
58	ENV-ELU-PT	Min	-0.5123
58	ENV-ELU-AC	Max	0.4054
58	ENV-ELU-AC	Min	-0.2818

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
58	ENV-ELU-EQ	Max	0.0025
58	ENV-ELU-EQ	Min	-0.0089
58	RH-1		0.0074
58	RH-2		0.0076
58	RH-3		0.0069
58	RH-4		0.2391
58	RH-5		-0.4966
58	RH-6		0.5116
58	RH-7		-0.2241
58	RH-8		0.1864
58	RH-9		-0.0607
58	RH-10		0.0757
58	RH-11		-0.1714
58	RH-12		0.0108
58	RH-13		0.0599
58	RH-14		-0.0449
58	RH-15		0.0042
58	RH-16		-0.1868
58	RH-17		0.2014
58	RH-18		-0.1864
58	RH-19		0.2018
58	RH-20		0.2387
58	RH-21		-0.4970
58	RH-22		0.5112
58	RH-23		-0.2246
58	RH-24		0.1860
58	RH-25		-0.0611
58	RH-26		0.0753
58	RH-27		-0.1718
58	RH-28		0.0104
58	RH-29		0.0595
58	RH-30		-0.0453
58	RH-31		0.0038
58	RH-32		-0.1872
58	RH-33		0.2010
58	RH-34		-0.1869
58	RH-35		0.2014
58	RH-36		0.0055
58	RH-37		0.0057
58	RH-38		0.0050
58	RH-39		0.2372
58	RH-40		-0.4985
58	RH-41		0.5097
58	RH-42		-0.2261
58	RH-43		0.1845
58	RH-44		-0.0626
58	RH-45		0.0738
58	RH-46		-0.1733
58	RH-47		0.0089
58	RH-48		0.0580
58	RH-49		-0.0468
58	RH-50		0.0023
58	RH-51		-0.1887
58	RH-52		0.1995
58	RH-53		-0.1884
58	RH-54		0.1999
58	RH-55		0.2368
58	RH-56		-0.4990
58	RH-57		0.5093
58	RH-58		-0.2265

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
58	RH-59		0.1841
58	RH-60		-0.0630
58	RH-61		0.0734
58	RH-62		-0.1737
58	RH-63		0.0085
58	RH-64		0.0576
58	RH-65		-0.0472
58	RH-66		0.0019
58	RH-67		-0.1891
58	RH-68		0.1991
58	RH-69		-0.1888
58	RH-70		0.1995
58	RH-71		0.0000
58	RH-72		2.105E-04
58	RH-73		-4.726E-04
58	RH-74		0.2318
58	RH-75		-0.5040
58	RH-76		0.5043
58	RH-77		-0.2315
58	RH-78		0.1790
58	RH-79		-0.0681
58	RH-80		0.0683
58	RH-81		-0.1788
58	RH-82		0.0035
58	RH-83		0.0525
58	RH-84		-0.0523
58	RH-85		-0.0032
58	RH-86		-0.1942
58	RH-87		0.1941
58	RH-88		-0.1938
58	RH-89		0.1944
58	RH-90		0.2314
58	RH-91		-0.5044
58	RH-92		0.5038
58	RH-93		-0.2319
58	RH-94		0.1786
58	RH-95		-0.0685
58	RH-96		0.0679
58	RH-97		-0.1792
58	RH-98		0.0030
58	RH-99		0.0521
58	RH-100		-0.0527
58	RH-101		-0.0036
58	RH-102		-0.1946
58	RH-103		0.1937
58	RH-104		-0.1942
58	RH-105		0.1940
58	RH-106		0.4041
58	RH-107		0.3217
58	RH-108		0.2419
58	RH-109		0.1288
58	RH-110		0.0164
58	RH-111		-0.0479
58	RH-112		-0.1210
58	RH-113		-0.1818
58	RH-114		-0.2262
58	RH-115		-0.2704
58	RH-116		0.4042
58	RH-117		0.3218
58	RH-118		0.2420
58	RH-119		0.1289
58	RH-120		0.0164

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
58	RH-121		-0.0478
58	RH-122		-0.1209
58	RH-123		-0.1817
58	RH-124		-0.2261
58	RH-125		-0.2703
58	RH-126		0.4039
58	RH-127		0.3215
58	RH-128		0.2417
58	RH-129		0.1286
58	RH-130		0.0162
58	RH-131		-0.0481
58	RH-132		-0.1212
58	RH-133		-0.1820
58	RH-134		-0.2264
58	RH-135		-0.2706
58	RH-136		0.3986
58	RH-137		0.3162
58	RH-138		0.2365
58	RH-139		0.1233
58	RH-140		0.0109
58	RH-141		-0.0534
58	RH-142		-0.1264
58	RH-143		-0.1873
58	RH-144		-0.2316
58	RH-145		-0.2759
58	RH-146		0.3987
58	RH-147		0.3163
58	RH-148		0.2365
58	RH-149		0.1234
58	RH-150		0.0110
58	RH-151		-0.0533
58	RH-152		-0.1263
58	RH-153		-0.1872
58	RH-154		-0.2315
58	RH-155		-0.2758
58	RH-156		0.3984
58	RH-157		0.3161
58	RH-158		0.2363
58	RH-159		0.1232
58	RH-160		0.0107
58	RH-161		-0.0536
58	RH-162		-0.1266
58	RH-163		-0.1874
58	RH-164		-0.2318
58	RH-165		-0.2761
62	ENV-ELS-CA	Max	0.3833
62	ENV-ELS-CA	Min	-0.3791
62	ENV-ELS-CP	Max	0.0084
62	ENV-ELS-CP	Min	-0.0025
62	ENV-ELU-PT	Max	0.5176
62	ENV-ELU-PT	Min	-0.5120
62	ENV-ELU-AC	Max	0.4087
62	ENV-ELU-AC	Min	-0.2840
62	ENV-ELU-EQ	Max	0.0025
62	ENV-ELU-EQ	Min	-0.0089
62	RH-1		0.0125

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
62	RH-2		0.0134
62	RH-3		0.0106
62	RH-4		0.2462
62	RH-5		-0.4899
62	RH-6		0.5160
62	RH-7		-0.2201
62	RH-8		0.1777
62	RH-9		-0.0788
62	RH-10		0.1049
62	RH-11		-0.1516
62	RH-12		0.0157
62	RH-13		0.0625
62	RH-14		-0.0364
62	RH-15		0.0104
62	RH-16		-0.1796
62	RH-17		0.2102
62	RH-18		-0.1841
62	RH-19		0.2057
62	RH-20		0.2446
62	RH-21		-0.4915
62	RH-22		0.5143
62	RH-23		-0.2218
62	RH-24		0.1761
62	RH-25		-0.0805
62	RH-26		0.1033
62	RH-27		-0.1533
62	RH-28		0.0140
62	RH-29		0.0608
62	RH-30		-0.0380
62	RH-31		0.0087
62	RH-32		-0.1813
62	RH-33		0.2085
62	RH-34		-0.1857
62	RH-35		0.2041
62	RH-36		0.0093
62	RH-37		0.0101
62	RH-38		0.0074
62	RH-39		0.2430
62	RH-40		-0.4931
62	RH-41		0.5127
62	RH-42		-0.2234
62	RH-43		0.1745
62	RH-44		-0.0821
62	RH-45		0.1017
62	RH-46		-0.1549
62	RH-47		0.0124
62	RH-48		0.0592
62	RH-49		-0.0396
62	RH-50		0.0072
62	RH-51		-0.1829
62	RH-52		0.2069
62	RH-53		-0.1873
62	RH-54		0.2025
62	RH-55		0.2413
62	RH-56		-0.4948
62	RH-57		0.5110
62	RH-58		-0.2250
62	RH-59		0.1728
62	RH-60		-0.0837
62	RH-61		0.1000
62	RH-62		-0.1565
62	RH-63		0.0108

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
62	RH-64		0.0576
62	RH-65		-0.0413
62	RH-66		0.0055
62	RH-67		-0.1845
62	RH-68		0.2052
62	RH-69		-0.1890
62	RH-70		0.2008
62	RH-71		0.0000
62	RH-72		8.523E-04
62	RH-73		-0.0019
62	RH-74		0.2337
62	RH-75		-0.5024
62	RH-76		0.5034
62	RH-77		-0.2327
62	RH-78		0.1652
62	RH-79		-0.0914
62	RH-80		0.0924
62	RH-81		-0.1642
62	RH-82		0.0032
62	RH-83		0.0499
62	RH-84		-0.0489
62	RH-85		-0.0021
62	RH-86		-0.1922
62	RH-87		0.1976
62	RH-88		-0.1966
62	RH-89		0.1932
62	RH-90		0.2320
62	RH-91		-0.5041
62	RH-92		0.5018
62	RH-93		-0.2343
62	RH-94		0.1635
62	RH-95		-0.0930
62	RH-96		0.0907
62	RH-97		-0.1658
62	RH-98		0.0015
62	RH-99		0.0483
62	RH-100		-0.0506
62	RH-101		-0.0038
62	RH-102		-0.1938
62	RH-103		0.1960
62	RH-104		-0.1983
62	RH-105		0.1915
62	RH-106		0.4073
62	RH-107		0.3270
62	RH-108		0.2476
62	RH-109		0.1354
62	RH-110		0.0211
62	RH-111		-0.0440
62	RH-112		-0.1169
62	RH-113		-0.1788
62	RH-114		-0.2236
62	RH-115		-0.2683
62	RH-116		0.4076
62	RH-117		0.3273
62	RH-118		0.2480
62	RH-119		0.1357
62	RH-120		0.0214
62	RH-121		-0.0437
62	RH-122		-0.1166
62	RH-123		-0.1784
62	RH-124		-0.2232
62	RH-125		-0.2680

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
62	RH-126		0.4065
62	RH-127		0.3262
62	RH-128		0.2469
62	RH-129		0.1346
62	RH-130		0.0203
62	RH-131		-0.0448
62	RH-132		-0.1177
62	RH-133		-0.1795
62	RH-134		-0.2243
62	RH-135		-0.2691
62	RH-136		0.3980
62	RH-137		0.3177
62	RH-138		0.2384
62	RH-139		0.1261
62	RH-140		0.0118
62	RH-141		-0.0533
62	RH-142		-0.1262
62	RH-143		-0.1880
62	RH-144		-0.2329
62	RH-145		-0.2776
62	RH-146		0.3983
62	RH-147		0.3180
62	RH-148		0.2387
62	RH-149		0.1265
62	RH-150		0.0121
62	RH-151		-0.0529
62	RH-152		-0.1259
62	RH-153		-0.1877
62	RH-154		-0.2325
62	RH-155		-0.2772
62	RH-156		0.3972
62	RH-157		0.3169
62	RH-158		0.2376
62	RH-159		0.1253
62	RH-160		0.0110
62	RH-161		-0.0540
62	RH-162		-0.1270
62	RH-163		-0.1888
62	RH-164		-0.2336
62	RH-165		-0.2783
76	ENV-ELS-CA	Max	0.3783
76	ENV-ELS-CA	Min	-0.3685
76	ENV-ELS-CP	Max	0.0140
76	ENV-ELS-CP	Min	-0.0024
76	ENV-ELU-PT	Max	0.5109
76	ENV-ELU-PT	Min	-0.4976
76	ENV-ELU-AC	Max	0.3961
76	ENV-ELU-AC	Min	-0.2891
76	ENV-ELU-EQ	Max	0.0024
76	ENV-ELU-EQ	Min	-0.0090
76	RH-1		0.0202
76	RH-2		0.0208
76	RH-3		0.0190
76	RH-4		0.2392
76	RH-5		-0.4682
76	RH-6		0.5093

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
76	RH-7		-0.1980
76	RH-8		0.2222
76	RH-9		-0.0683
76	RH-10		0.1095
76	RH-11		-0.1811
76	RH-12		0.0382
76	RH-13		0.0733
76	RH-14		-0.0321
76	RH-15		0.0029
76	RH-16		-0.1748
76	RH-17		0.2168
76	RH-18		-0.1757
76	RH-19		0.2160
76	RH-20		0.2381
76	RH-21		-0.4693
76	RH-22		0.5082
76	RH-23		-0.1991
76	RH-24		0.2211
76	RH-25		-0.0694
76	RH-26		0.1084
76	RH-27		-0.1822
76	RH-28		0.0371
76	RH-29		0.0721
76	RH-30		-0.0332
76	RH-31		0.0018
76	RH-32		-0.1759
76	RH-33		0.2157
76	RH-34		-0.1768
76	RH-35		0.2149
76	RH-36		0.0150
76	RH-37		0.0156
76	RH-38		0.0137
76	RH-39		0.2339
76	RH-40		-0.4734
76	RH-41		0.5041
76	RH-42		-0.2033
76	RH-43		0.2170
76	RH-44		-0.0736
76	RH-45		0.1042
76	RH-46		-0.1863
76	RH-47		0.0330
76	RH-48		0.0680
76	RH-49		-0.0373
76	RH-50		-0.0023
76	RH-51		-0.1801
76	RH-52		0.2116
76	RH-53		-0.1809
76	RH-54		0.2107
76	RH-55		0.2328
76	RH-56		-0.4745
76	RH-57		0.5030
76	RH-58		-0.2044
76	RH-59		0.2159
76	RH-60		-0.0747
76	RH-61		0.1031
76	RH-62		-0.1874
76	RH-63		0.0319
76	RH-64		0.0669
76	RH-65		-0.0385
76	RH-66		-0.0034
76	RH-67		-0.1812
76	RH-68		0.2105

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
76	RH-69		-0.1820
76	RH-70		0.2096
76	RH-71		0.0000
76	RH-72		5.688E-04
76	RH-73		-0.0013
76	RH-74		0.2189
76	RH-75		-0.4884
76	RH-76		0.4891
76	RH-77		-0.2183
76	RH-78		0.2020
76	RH-79		-0.0886
76	RH-80		0.0893
76	RH-81		-0.2013
76	RH-82		0.0180
76	RH-83		0.0530
76	RH-84		-0.0523
76	RH-85		-0.0173
76	RH-86		-0.1951
76	RH-87		0.1966
76	RH-88		-0.1959
76	RH-89		0.1958
76	RH-90		0.2178
76	RH-91		-0.4895
76	RH-92		0.4880
76	RH-93		-0.2194
76	RH-94		0.2009
76	RH-95		-0.0897
76	RH-96		0.0881
76	RH-97		-0.2024
76	RH-98		0.0169
76	RH-99		0.0519
76	RH-100		-0.0534
76	RH-101		-0.0184
76	RH-102		-0.1962
76	RH-103		0.1955
76	RH-104		-0.1970
76	RH-105		0.1946
76	RH-106		0.3949
76	RH-107		0.3223
76	RH-108		0.2520
76	RH-109		0.1514
76	RH-110		0.0349
76	RH-111		-0.0327
76	RH-112		-0.1099
76	RH-113		-0.1739
76	RH-114		-0.2209
76	RH-115		-0.2678
76	RH-116		0.3951
76	RH-117		0.3225
76	RH-118		0.2523
76	RH-119		0.1517
76	RH-120		0.0351
76	RH-121		-0.0325
76	RH-122		-0.1097
76	RH-123		-0.1737
76	RH-124		-0.2207
76	RH-125		-0.2676
76	RH-126		0.3944
76	RH-127		0.3218
76	RH-128		0.2515
76	RH-129		0.1509
76	RH-130		0.0344

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
76	RH-131		-0.0332
76	RH-132		-0.1104
76	RH-133		-0.1744
76	RH-134		-0.2214
76	RH-135		-0.2683
76	RH-136		0.3799
76	RH-137		0.3073
76	RH-138		0.2370
76	RH-139		0.1365
76	RH-140		0.0199
76	RH-141		-0.0477
76	RH-142		-0.1249
76	RH-143		-0.1889
76	RH-144		-0.2359
76	RH-145		-0.2828
76	RH-146		0.3802
76	RH-147		0.3075
76	RH-148		0.2373
76	RH-149		0.1367
76	RH-150		0.0201
76	RH-151		-0.0475
76	RH-152		-0.1246
76	RH-153		-0.1887
76	RH-154		-0.2357
76	RH-155		-0.2826
76	RH-156		0.3794
76	RH-157		0.3068
76	RH-158		0.2365
76	RH-159		0.1359
76	RH-160		0.0194
76	RH-161		-0.0482
76	RH-162		-0.1254
76	RH-163		-0.1894
76	RH-164		-0.2364
76	RH-165		-0.2833
80	ENV-ELS-CA	Max	0.3800
80	ENV-ELS-CA	Min	-0.3688
80	ENV-ELS-CP	Max	0.0157
80	ENV-ELS-CP	Min	-0.0028
80	ENV-ELU-PT	Max	0.5131
80	ENV-ELU-PT	Min	-0.4981
80	ENV-ELU-AC	Max	0.3991
80	ENV-ELU-AC	Min	-0.2906
80	ENV-ELU-EQ	Max	0.0024
80	ENV-ELU-EQ	Min	-0.0091
80	RH-1		0.0224
80	RH-2		0.0235
80	RH-3		0.0200
80	RH-4		0.2449
80	RH-5		-0.4655
80	RH-6		0.5116
80	RH-7		-0.1988
80	RH-8		0.2026
80	RH-9		-0.0803
80	RH-10		0.1264
80	RH-11		-0.1565

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
80	RH-12		0.0349
80	RH-13		0.0684
80	RH-14		-0.0223
80	RH-15		0.0112
80	RH-16		-0.1703
80	RH-17		0.2225
80	RH-18		-0.1763
80	RH-19		0.2165
80	RH-20		0.2428
80	RH-21		-0.4676
80	RH-22		0.5095
80	RH-23		-0.2009
80	RH-24		0.2005
80	RH-25		-0.0824
80	RH-26		0.1243
80	RH-27		-0.1586
80	RH-28		0.0328
80	RH-29		0.0663
80	RH-30		-0.0244
80	RH-31		0.0091
80	RH-32		-0.1725
80	RH-33		0.2203
80	RH-34		-0.1785
80	RH-35		0.2143
80	RH-36		0.0166
80	RH-37		0.0177
80	RH-38		0.0141
80	RH-39		0.2391
80	RH-40		-0.4713
80	RH-41		0.5058
80	RH-42		-0.2046
80	RH-43		0.1968
80	RH-44		-0.0861
80	RH-45		0.1206
80	RH-46		-0.1623
80	RH-47		0.0291
80	RH-48		0.0626
80	RH-49		-0.0281
80	RH-50		0.0054
80	RH-51		-0.1762
80	RH-52		0.2166
80	RH-53		-0.1821
80	RH-54		0.2107
80	RH-55		0.2370
80	RH-56		-0.4734
80	RH-57		0.5037
80	RH-58		-0.2067
80	RH-59		0.1946
80	RH-60		-0.0882
80	RH-61		0.1185
80	RH-62		-0.1644
80	RH-63		0.0270
80	RH-64		0.0605
80	RH-65		-0.0302
80	RH-66		0.0032
80	RH-67		-0.1783
80	RH-68		0.2145
80	RH-69		-0.1843
80	RH-70		0.2085
80	RH-71		0.0000
80	RH-72		0.0011
80	RH-73		-0.0025

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
80	RH-74		0.2225
80	RH-75		-0.4879
80	RH-76		0.4892
80	RH-77		-0.2212
80	RH-78		0.1802
80	RH-79		-0.1027
80	RH-80		0.1040
80	RH-81		-0.1789
80	RH-82		0.0125
80	RH-83		0.0460
80	RH-84		-0.0447
80	RH-85		-0.0112
80	RH-86		-0.1928
80	RH-87		0.2000
80	RH-88		-0.1987
80	RH-89		0.1941
80	RH-90		0.2204
80	RH-91		-0.4900
80	RH-92		0.4871
80	RH-93		-0.2233
80	RH-94		0.1780
80	RH-95		-0.1048
80	RH-96		0.1019
80	RH-97		-0.1810
80	RH-98		0.0104
80	RH-99		0.0439
80	RH-100		-0.0468
80	RH-101		-0.0134
80	RH-102		-0.1949
80	RH-103		0.1979
80	RH-104		-0.2009
80	RH-105		0.1919
80	RH-106		0.3978
80	RH-107		0.3261
80	RH-108		0.2559
80	RH-109		0.1538
80	RH-110		0.0371
80	RH-111		-0.0315
80	RH-112		-0.1079
80	RH-113		-0.1729
80	RH-114		-0.2201
80	RH-115		-0.2673
80	RH-116		0.3982
80	RH-117		0.3265
80	RH-118		0.2564
80	RH-119		0.1543
80	RH-120		0.0375
80	RH-121		-0.0311
80	RH-122		-0.1075
80	RH-123		-0.1725
80	RH-124		-0.2197
80	RH-125		-0.2669
80	RH-126		0.3968
80	RH-127		0.3251
80	RH-128		0.2549
80	RH-129		0.1528
80	RH-130		0.0361
80	RH-131		-0.0325
80	RH-132		-0.1089
80	RH-133		-0.1739
80	RH-134		-0.2211
80	RH-135		-0.2683

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
80	RH-136		0.3812
80	RH-137		0.3095
80	RH-138		0.2393
80	RH-139		0.1372
80	RH-140		0.0205
80	RH-141		-0.0481
80	RH-142		-0.1245
80	RH-143		-0.1895
80	RH-144		-0.2367
80	RH-145		-0.2839
80	RH-146		0.3816
80	RH-147		0.3099
80	RH-148		0.2398
80	RH-149		0.1377
80	RH-150		0.0209
80	RH-151		-0.0477
80	RH-152		-0.1241
80	RH-153		-0.1891
80	RH-154		-0.2363
80	RH-155		-0.2835
80	RH-156		0.3802
80	RH-157		0.3085
80	RH-158		0.2383
80	RH-159		0.1362
80	RH-160		0.0195
80	RH-161		-0.0491
80	RH-162		-0.1255
80	RH-163		-0.1905
80	RH-164		-0.2377
80	RH-165		-0.2849
93	ENV-ELS-CA	Max	0.3646
93	ENV-ELS-CA	Min	-0.3550
93	ENV-ELS-CP	Max	0.0140
93	ENV-ELS-CP	Min	-0.0027
93	ENV-ELU-PT	Max	0.4924
93	ENV-ELU-PT	Min	-0.4794
93	ENV-ELU-AC	Max	0.3770
93	ENV-ELU-AC	Min	-0.2997
93	ENV-ELU-EQ	Max	0.0022
93	ENV-ELU-EQ	Min	-0.0093
93	RH-1		0.0204
93	RH-2		0.0211
93	RH-3		0.0189
93	RH-4		0.2274
93	RH-5		-0.4494
93	RH-6		0.4910
93	RH-7		-0.1857
93	RH-8		0.2109
93	RH-9		-0.0924
93	RH-10		0.1341
93	RH-11		-0.1693
93	RH-12		0.0691
93	RH-13		0.0844
93	RH-14		-0.0427
93	RH-15		-0.0275
93	RH-16		-0.1762

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
93	RH-17		0.2189
93	RH-18		-0.1773
93	RH-19		0.2178
93	RH-20		0.2261
93	RH-21		-0.4507
93	RH-22		0.4897
93	RH-23		-0.1870
93	RH-24		0.2096
93	RH-25		-0.0937
93	RH-26		0.1328
93	RH-27		-0.1706
93	RH-28		0.0678
93	RH-29		0.0831
93	RH-30		-0.0440
93	RH-31		-0.0288
93	RH-32		-0.1775
93	RH-33		0.2176
93	RH-34		-0.1786
93	RH-35		0.2165
93	RH-36		0.0151
93	RH-37		0.0158
93	RH-38		0.0136
93	RH-39		0.2221
93	RH-40		-0.4547
93	RH-41		0.4857
93	RH-42		-0.1910
93	RH-43		0.2056
93	RH-44		-0.0977
93	RH-45		0.1288
93	RH-46		-0.1746
93	RH-47		0.0638
93	RH-48		0.0791
93	RH-49		-0.0480
93	RH-50		-0.0328
93	RH-51		-0.1815
93	RH-52		0.2136
93	RH-53		-0.1826
93	RH-54		0.2125
93	RH-55		0.2208
93	RH-56		-0.4560
93	RH-57		0.4844
93	RH-58		-0.1923
93	RH-59		0.2043
93	RH-60		-0.0990
93	RH-61		0.1275
93	RH-62		-0.1759
93	RH-63		0.0625
93	RH-64		0.0778
93	RH-65		-0.0493
93	RH-66		-0.0341
93	RH-67		-0.1828
93	RH-68		0.2123
93	RH-69		-0.1839
93	RH-70		0.2112
93	RH-71		0.0000
93	RH-72		6.773E-04
93	RH-73		-0.0015
93	RH-74		0.2069
93	RH-75		-0.4698
93	RH-76		0.4706
93	RH-77		-0.2061
93	RH-78		0.1905

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
93	RH-79		-0.1128
93	RH-80		0.1137
93	RH-81		-0.1897
93	RH-82		0.0487
93	RH-83		0.0640
93	RH-84		-0.0632
93	RH-85		-0.0479
93	RH-86		-0.1966
93	RH-87		0.1985
93	RH-88		-0.1977
93	RH-89		0.1974
93	RH-90		0.2056
93	RH-91		-0.4711
93	RH-92		0.4693
93	RH-93		-0.2075
93	RH-94		0.1892
93	RH-95		-0.1142
93	RH-96		0.1123
93	RH-97		-0.1910
93	RH-98		0.0474
93	RH-99		0.0626
93	RH-100		-0.0645
93	RH-101		-0.0492
93	RH-102		-0.1979
93	RH-103		0.1972
93	RH-104		-0.1990
93	RH-105		0.1961
93	RH-106		0.3759
93	RH-107		0.3119
93	RH-108		0.2496
93	RH-109		0.1609
93	RH-110		0.0514
93	RH-111		-0.0225
93	RH-112		-0.1062
93	RH-113		-0.1755
93	RH-114		-0.2267
93	RH-115		-0.2779
93	RH-116		0.3762
93	RH-117		0.3121
93	RH-118		0.2499
93	RH-119		0.1612
93	RH-120		0.0517
93	RH-121		-0.0222
93	RH-122		-0.1059
93	RH-123		-0.1752
93	RH-124		-0.2265
93	RH-125		-0.2777
93	RH-126		0.3753
93	RH-127		0.3113
93	RH-128		0.2490
93	RH-129		0.1603
93	RH-130		0.0508
93	RH-131		-0.0231
93	RH-132		-0.1068
93	RH-133		-0.1761
93	RH-134		-0.2273
93	RH-135		-0.2785
93	RH-136		0.3608
93	RH-137		0.2967
93	RH-138		0.2345
93	RH-139		0.1458
93	RH-140		0.0363

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
93	RH-141		-0.0376
93	RH-142		-0.1213
93	RH-143		-0.1906
93	RH-144		-0.2419
93	RH-145		-0.2931
93	RH-146		0.3611
93	RH-147		0.2970
93	RH-148		0.2348
93	RH-149		0.1461
93	RH-150		0.0366
93	RH-151		-0.0374
93	RH-152		-0.1210
93	RH-153		-0.1903
93	RH-154		-0.2416
93	RH-155		-0.2928
93	RH-156		0.3602
93	RH-157		0.2961
93	RH-158		0.2339
93	RH-159		0.1452
93	RH-160		0.0357
93	RH-161		-0.0383
93	RH-162		-0.1219
93	RH-163		-0.1912
93	RH-164		-0.2425
93	RH-165		-0.2937
97	ENV-ELS-CA	Max	0.3642
97	ENV-ELS-CA	Min	-0.3541
97	ENV-ELS-CP	Max	0.0148
97	ENV-ELS-CP	Min	-0.0029
97	ENV-ELU-PT	Max	0.4918
97	ENV-ELU-PT	Min	-0.4782
97	ENV-ELU-AC	Max	0.3781
97	ENV-ELU-AC	Min	-0.3015
97	ENV-ELU-EQ	Max	0.0022
97	ENV-ELU-EQ	Min	-0.0093
97	RH-1		0.0214
97	RH-2		0.0224
97	RH-3		0.0192
97	RH-4		0.2316
97	RH-5		-0.4464
97	RH-6		0.4905
97	RH-7		-0.1875
97	RH-8		0.2082
97	RH-9		-0.0973
97	RH-10		0.1414
97	RH-11		-0.1641
97	RH-12		0.0560
97	RH-13		0.0591
97	RH-14		-0.0150
97	RH-15		-0.0119
97	RH-16		-0.1725
97	RH-17		0.2234
97	RH-18		-0.1793
97	RH-19		0.2166
97	RH-20		0.2297
97	RH-21		-0.4484

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
97	RH-22		0.4885
97	RH-23		-0.1895
97	RH-24		0.2062
97	RH-25		-0.0992
97	RH-26		0.1394
97	RH-27		-0.1661
97	RH-28		0.0540
97	RH-29		0.0571
97	RH-30		-0.0170
97	RH-31		-0.0139
97	RH-32		-0.1745
97	RH-33		0.2214
97	RH-34		-0.1813
97	RH-35		0.2146
97	RH-36		0.0159
97	RH-37		0.0169
97	RH-38		0.0136
97	RH-39		0.2261
97	RH-40		-0.4519
97	RH-41		0.4849
97	RH-42		-0.1931
97	RH-43		0.2026
97	RH-44		-0.1028
97	RH-45		0.1358
97	RH-46		-0.1697
97	RH-47		0.0504
97	RH-48		0.0535
97	RH-49		-0.0206
97	RH-50		-0.0175
97	RH-51		-0.1780
97	RH-52		0.2178
97	RH-53		-0.1849
97	RH-54		0.2110
97	RH-55		0.2241
97	RH-56		-0.4539
97	RH-57		0.4829
97	RH-58		-0.1951
97	RH-59		0.2007
97	RH-60		-0.1048
97	RH-61		0.1338
97	RH-62		-0.1716
97	RH-63		0.0485
97	RH-64		0.0516
97	RH-65		-0.0225
97	RH-66		-0.0194
97	RH-67		-0.1800
97	RH-68		0.2159
97	RH-69		-0.1868
97	RH-70		0.2090
97	RH-71		0.0000
97	RH-72		0.0010
97	RH-73		-0.0023
97	RH-74		0.2102
97	RH-75		-0.4678
97	RH-76		0.4690
97	RH-77		-0.2090
97	RH-78		0.1868
97	RH-79		-0.1187
97	RH-80		0.1199
97	RH-81		-0.1855
97	RH-82		0.0346
97	RH-83		0.0377

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
97	RH-84		-0.0364
97	RH-85		-0.0333
97	RH-86		-0.1939
97	RH-87		0.2020
97	RH-88		-0.2008
97	RH-89		0.1951
97	RH-90		0.2082
97	RH-91		-0.4698
97	RH-92		0.4671
97	RH-93		-0.2110
97	RH-94		0.1848
97	RH-95		-0.1207
97	RH-96		0.1180
97	RH-97		-0.1875
97	RH-98		0.0326
97	RH-99		0.0357
97	RH-100		-0.0384
97	RH-101		-0.0353
97	RH-102		-0.1959
97	RH-103		0.2000
97	RH-104		-0.2027
97	RH-105		0.1932
97	RH-106		0.3769
97	RH-107		0.3139
97	RH-108		0.2524
97	RH-109		0.1636
97	RH-110		0.0534
97	RH-111		-0.0206
97	RH-112		-0.1042
97	RH-113		-0.1752
97	RH-114		-0.2269
97	RH-115		-0.2788
97	RH-116		0.3773
97	RH-117		0.3143
97	RH-118		0.2528
97	RH-119		0.1640
97	RH-120		0.0538
97	RH-121		-0.0201
97	RH-122		-0.1038
97	RH-123		-0.1748
97	RH-124		-0.2265
97	RH-125		-0.2784
97	RH-126		0.3760
97	RH-127		0.3130
97	RH-128		0.2515
97	RH-129		0.1627
97	RH-130		0.0525
97	RH-131		-0.0215
97	RH-132		-0.1051
97	RH-133		-0.1761
97	RH-134		-0.2279
97	RH-135		-0.2797
97	RH-136		0.3610
97	RH-137		0.2980
97	RH-138		0.2366
97	RH-139		0.1477
97	RH-140		0.0376
97	RH-141		-0.0364
97	RH-142		-0.1201
97	RH-143		-0.1911
97	RH-144		-0.2428
97	RH-145		-0.2947

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
97	RH-146		0.3614
97	RH-147		0.2984
97	RH-148		0.2370
97	RH-149		0.1481
97	RH-150		0.0380
97	RH-151		-0.0360
97	RH-152		-0.1197
97	RH-153		-0.1907
97	RH-154		-0.2424
97	RH-155		-0.2943
97	RH-156		0.3601
97	RH-157		0.2971
97	RH-158		0.2356
97	RH-159		0.1468
97	RH-160		0.0366
97	RH-161		-0.0373
97	RH-162		-0.1210
97	RH-163		-0.1920
97	RH-164		-0.2437
97	RH-165		-0.2956
110	ENV-ELS-CA	Max	0.3488
110	ENV-ELS-CA	Min	-0.3394
110	ENV-ELS-CP	Max	0.0140
110	ENV-ELS-CP	Min	-0.0028
110	ENV-ELU-PT	Max	0.4710
110	ENV-ELU-PT	Min	-0.4583
110	ENV-ELU-AC	Max	0.3571
110	ENV-ELU-AC	Min	-0.3146
110	ENV-ELU-EQ	Max	0.0019
110	ENV-ELU-EQ	Min	-0.0095
110	RH-1		0.0207
110	RH-2		0.0213
110	RH-3		0.0194
110	RH-4		0.2160
110	RH-5		-0.4278
110	RH-6		0.4699
110	RH-7		-0.1739
110	RH-8		0.2116
110	RH-9		-0.1026
110	RH-10		0.1447
110	RH-11		-0.1695
110	RH-12		0.1005
110	RH-13		0.0576
110	RH-14		-0.0155
110	RH-15		-0.0584
110	RH-16		-0.1766
110	RH-17		0.2196
110	RH-18		-0.1774
110	RH-19		0.2187
110	RH-20		0.2149
110	RH-21		-0.4290
110	RH-22		0.4688
110	RH-23		-0.1751
110	RH-24		0.2105
110	RH-25		-0.1038
110	RH-26		0.1436

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
110	RH-27		-0.1707
110	RH-28		0.0994
110	RH-29		0.0565
110	RH-30		-0.0166
110	RH-31		-0.0596
110	RH-32		-0.1777
110	RH-33		0.2184
110	RH-34		-0.1786
110	RH-35		0.2176
110	RH-36		0.0153
110	RH-37		0.0159
110	RH-38		0.0140
110	RH-39		0.2107
110	RH-40		-0.4332
110	RH-41		0.4646
110	RH-42		-0.1793
110	RH-43		0.2063
110	RH-44		-0.1080
110	RH-45		0.1394
110	RH-46		-0.1749
110	RH-47		0.0952
110	RH-48		0.0522
110	RH-49		-0.0209
110	RH-50		-0.0638
110	RH-51		-0.1820
110	RH-52		0.2142
110	RH-53		-0.1828
110	RH-54		0.2134
110	RH-55		0.2095
110	RH-56		-0.4343
110	RH-57		0.4634
110	RH-58		-0.1804
110	RH-59		0.2051
110	RH-60		-0.1091
110	RH-61		0.1382
110	RH-62		-0.1760
110	RH-63		0.0940
110	RH-64		0.0511
110	RH-65		-0.0220
110	RH-66		-0.0649
110	RH-67		-0.1831
110	RH-68		0.2130
110	RH-69		-0.1840
110	RH-70		0.2122
110	RH-71		0.0000
110	RH-72		5.863E-04
110	RH-73		-0.0013
110	RH-74		0.1953
110	RH-75		-0.4485
110	RH-76		0.4492
110	RH-77		-0.1946
110	RH-78		0.1909
110	RH-79		-0.1233
110	RH-80		0.1240
110	RH-81		-0.1902
110	RH-82		0.0798
110	RH-83		0.0369
110	RH-84		-0.0362
110	RH-85		-0.0791
110	RH-86		-0.1973
110	RH-87		0.1989
110	RH-88		-0.1982

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
110	RH-89		0.1980
110	RH-90		0.1942
110	RH-91		-0.4497
110	RH-92		0.4481
110	RH-93		-0.1958
110	RH-94		0.1898
110	RH-95		-0.1245
110	RH-96		0.1229
110	RH-97		-0.1914
110	RH-98		0.0787
110	RH-99		0.0358
110	RH-100		-0.0373
110	RH-101		-0.0803
110	RH-102		-0.1985
110	RH-103		0.1977
110	RH-104		-0.1993
110	RH-105		0.1969
110	RH-106		0.3563
110	RH-107		0.3000
110	RH-108		0.2452
110	RH-109		0.1669
110	RH-110		0.0708
110	RH-111		-0.0028
110	RH-112		-0.0983
110	RH-113		-0.1760
110	RH-114		-0.2342
110	RH-115		-0.2925
110	RH-116		0.3565
110	RH-117		0.3002
110	RH-118		0.2455
110	RH-119		0.1672
110	RH-120		0.0711
110	RH-121		-0.0026
110	RH-122		-0.0981
110	RH-123		-0.1758
110	RH-124		-0.2340
110	RH-125		-0.2923
110	RH-126		0.3558
110	RH-127		0.2994
110	RH-128		0.2447
110	RH-129		0.1664
110	RH-130		0.0703
110	RH-131		-0.0034
110	RH-132		-0.0989
110	RH-133		-0.1765
110	RH-134		-0.2347
110	RH-135		-0.2931
110	RH-136		0.3409
110	RH-137		0.2846
110	RH-138		0.2299
110	RH-139		0.1516
110	RH-140		0.0555
110	RH-141		-0.0182
110	RH-142		-0.1137
110	RH-143		-0.1914
110	RH-144		-0.2495
110	RH-145		-0.3079
110	RH-146		0.3412
110	RH-147		0.2849
110	RH-148		0.2301
110	RH-149		0.1518
110	RH-150		0.0557

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
110	RH-151		-0.0179
110	RH-152		-0.1134
110	RH-153		-0.1911
110	RH-154		-0.2493
110	RH-155		-0.3076
110	RH-156		0.3404
110	RH-157		0.2841
110	RH-158		0.2294
110	RH-159		0.1511
110	RH-160		0.0550
110	RH-161		-0.0187
110	RH-162		-0.1142
110	RH-163		-0.1919
110	RH-164		-0.2501
110	RH-165		-0.3084
115	ENV-ELS-CA	Max	0.3472
115	ENV-ELS-CA	Min	-0.3380
115	ENV-ELS-CP	Max	0.0138
115	ENV-ELS-CP	Min	-0.0028
115	ENV-ELU-PT	Max	0.4688
115	ENV-ELU-PT	Min	-0.4565
115	ENV-ELU-AC	Max	0.3577
115	ENV-ELU-AC	Min	-0.3150
115	ENV-ELU-EQ	Max	0.0020
115	ENV-ELU-EQ	Min	-0.0095
115	RH-1		0.0204
115	RH-2		0.0211
115	RH-3		0.0190
115	RH-4		0.2197
115	RH-5		-0.4262
115	RH-6		0.4678
115	RH-7		-0.1781
115	RH-8		0.2126
115	RH-9		-0.1037
115	RH-10		0.1453
115	RH-11		-0.1710
115	RH-12		0.0755
115	RH-13		0.0349
115	RH-14		0.0067
115	RH-15		-0.0339
115	RH-16		-0.1735
115	RH-17		0.2224
115	RH-18		-0.1808
115	RH-19		0.2151
115	RH-20		0.2185
115	RH-21		-0.4274
115	RH-22		0.4665
115	RH-23		-0.1794
115	RH-24		0.2114
115	RH-25		-0.1050
115	RH-26		0.1441
115	RH-27		-0.1723
115	RH-28		0.0743
115	RH-29		0.0336
115	RH-30		0.0055
115	RH-31		-0.0352

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
115	RH-32		-0.1747
115	RH-33		0.2212
115	RH-34		-0.1820
115	RH-35		0.2138
115	RH-36		0.0151
115	RH-37		0.0158
115	RH-38		0.0137
115	RH-39		0.2144
115	RH-40		-0.4315
115	RH-41		0.4625
115	RH-42		-0.1834
115	RH-43		0.2073
115	RH-44		-0.1090
115	RH-45		0.1400
115	RH-46		-0.1763
115	RH-47		0.0702
115	RH-48		0.0296
115	RH-49		0.0015
115	RH-50		-0.0392
115	RH-51		-0.1788
115	RH-52		0.2171
115	RH-53		-0.1861
115	RH-54		0.2098
115	RH-55		0.2132
115	RH-56		-0.4327
115	RH-57		0.4612
115	RH-58		-0.1847
115	RH-59		0.2061
115	RH-60		-0.1103
115	RH-61		0.1388
115	RH-62		-0.1776
115	RH-63		0.0690
115	RH-64		0.0283
115	RH-65		2.114E-04
115	RH-66		-0.0405
115	RH-67		-0.1800
115	RH-68		0.2159
115	RH-69		-0.1873
115	RH-70		0.2085
115	RH-71		0.0000
115	RH-72		6.367E-04
115	RH-73		-0.0014
115	RH-74		0.1993
115	RH-75		-0.4466
115	RH-76		0.4474
115	RH-77		-0.1985
115	RH-78		0.1922
115	RH-79		-0.1242
115	RH-80		0.1249
115	RH-81		-0.1914
115	RH-82		0.0551
115	RH-83		0.0144
115	RH-84		-0.0137
115	RH-85		-0.0544
115	RH-86		-0.1939
115	RH-87		0.2020
115	RH-88		-0.2012
115	RH-89		0.1947
115	RH-90		0.1981
115	RH-91		-0.4478
115	RH-92		0.4461
115	RH-93		-0.1998

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
115	RH-94		0.1910
115	RH-95		-0.1254
115	RH-96		0.1237
115	RH-97		-0.1927
115	RH-98		0.0539
115	RH-99		0.0132
115	RH-100		-0.0149
115	RH-101		-0.0556
115	RH-102		-0.1951
115	RH-103		0.2007
115	RH-104		-0.2024
115	RH-105		0.1934
115	RH-106		0.3568
115	RH-107		0.3010
115	RH-108		0.2467
115	RH-109		0.1681
115	RH-110		0.0705
115	RH-111		-0.0028
115	RH-112		-0.0968
115	RH-113		-0.1763
115	RH-114		-0.2346
115	RH-115		-0.2931
115	RH-116		0.3571
115	RH-117		0.3013
115	RH-118		0.2469
115	RH-119		0.1684
115	RH-120		0.0708
115	RH-121		-0.0026
115	RH-122		-0.0966
115	RH-123		-0.1761
115	RH-124		-0.2343
115	RH-125		-0.2929
115	RH-126		0.3563
115	RH-127		0.3005
115	RH-128		0.2461
115	RH-129		0.1676
115	RH-130		0.0699
115	RH-131		-0.0034
115	RH-132		-0.0974
115	RH-133		-0.1769
115	RH-134		-0.2351
115	RH-135		-0.2937
115	RH-136		0.3417
115	RH-137		0.2859
115	RH-138		0.2315
115	RH-139		0.1530
115	RH-140		0.0554
115	RH-141		-0.0180
115	RH-142		-0.1120
115	RH-143		-0.1915
115	RH-144		-0.2497
115	RH-145		-0.3082
115	RH-146		0.3420
115	RH-147		0.2862
115	RH-148		0.2318
115	RH-149		0.1533
115	RH-150		0.0556
115	RH-151		-0.0177
115	RH-152		-0.1117
115	RH-153		-0.1912
115	RH-154		-0.2494
115	RH-155		-0.3080

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
115	RH-156		0.3411
115	RH-157		0.2853
115	RH-158		0.2310
115	RH-159		0.1524
115	RH-160		0.0548
115	RH-161		-0.0185
115	RH-162		-0.1125
115	RH-163		-0.1920
115	RH-164		-0.2503
115	RH-165		-0.3088
129	ENV-ELS-CA	Max	0.3214
129	ENV-ELS-CA	Min	-0.3233
129	ENV-ELS-CP	Max	0.0025
129	ENV-ELS-CP	Min	-0.0027
129	ENV-ELU-PT	Max	0.4340
129	ENV-ELU-PT	Min	-0.4366
129	ENV-ELU-AC	Max	0.3278
129	ENV-ELU-AC	Min	-0.3339
129	ENV-ELU-EQ	Max	0.0017
129	ENV-ELU-EQ	Min	-0.0097
129	RH-1		0.0056
129	RH-2		0.0056
129	RH-3		0.0056
129	RH-4		0.1920
129	RH-5		-0.4218
129	RH-6		0.4331
129	RH-7		-0.1807
129	RH-8		0.1980
129	RH-9		-0.1218
129	RH-10		0.1331
129	RH-11		-0.1867
129	RH-12		0.0837
129	RH-13		0.0097
129	RH-14		0.0016
129	RH-15		-0.0724
129	RH-16		-0.1897
129	RH-17		0.2029
129	RH-18		-0.1916
129	RH-19		0.2010
129	RH-20		0.1920
129	RH-21		-0.4218
129	RH-22		0.4331
129	RH-23		-0.1807
129	RH-24		0.1980
129	RH-25		-0.1218
129	RH-26		0.1331
129	RH-27		-0.1867
129	RH-28		0.0837
129	RH-29		0.0097
129	RH-30		0.0016
129	RH-31		-0.0724
129	RH-32		-0.1897
129	RH-33		0.2029
129	RH-34		-0.1916
129	RH-35		0.2010
129	RH-36		0.0042

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
129	RH-37		0.0042
129	RH-38		0.0042
129	RH-39		0.1905
129	RH-40		-0.4232
129	RH-41		0.4316
129	RH-42		-0.1821
129	RH-43		0.1965
129	RH-44		-0.1233
129	RH-45		0.1317
129	RH-46		-0.1882
129	RH-47		0.0822
129	RH-48		0.0082
129	RH-49		1.640E-04
129	RH-50		-0.0738
129	RH-51		-0.1911
129	RH-52		0.2014
129	RH-53		-0.1930
129	RH-54		0.1995
129	RH-55		0.1905
129	RH-56		-0.4232
129	RH-57		0.4316
129	RH-58		-0.1821
129	RH-59		0.1965
129	RH-60		-0.1233
129	RH-61		0.1317
129	RH-62		-0.1882
129	RH-63		0.0822
129	RH-64		0.0082
129	RH-65		1.600E-04
129	RH-66		-0.0738
129	RH-67		-0.1911
129	RH-68		0.2014
129	RH-69		-0.1931
129	RH-70		0.1995
129	RH-71		0.0000
129	RH-72		2.065E-06
129	RH-73		-4.636E-06
129	RH-74		0.1863
129	RH-75		-0.4274
129	RH-76		0.4274
129	RH-77		-0.1863
129	RH-78		0.1923
129	RH-79		-0.1275
129	RH-80		0.1275
129	RH-81		-0.1923
129	RH-82		0.0780
129	RH-83		0.0040
129	RH-84		-0.0040
129	RH-85		-0.0780
129	RH-86		-0.1953
129	RH-87		0.1972
129	RH-88		-0.1972
129	RH-89		0.1953
129	RH-90		0.1863
129	RH-91		-0.4274
129	RH-92		0.4274
129	RH-93		-0.1863
129	RH-94		0.1923
129	RH-95		-0.1275
129	RH-96		0.1275
129	RH-97		-0.1923
129	RH-98		0.0780

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
129	RH-99		0.0040
129	RH-100		-0.0040
129	RH-101		-0.0780
129	RH-102		-0.1953
129	RH-103		0.1972
129	RH-104		-0.1972
129	RH-105		0.1953
129	RH-106		0.3273
129	RH-107		0.2773
129	RH-108		0.2287
129	RH-109		0.1587
129	RH-110		0.0717
129	RH-111		0.0075
129	RH-112		-0.0953
129	RH-113		-0.1859
129	RH-114		-0.2542
129	RH-115		-0.3231
129	RH-116		0.3273
129	RH-117		0.2773
129	RH-118		0.2287
129	RH-119		0.1587
129	RH-120		0.0717
129	RH-121		0.0075
129	RH-122		-0.0953
129	RH-123		-0.1859
129	RH-124		-0.2542
129	RH-125		-0.3231
129	RH-126		0.3273
129	RH-127		0.2773
129	RH-128		0.2287
129	RH-129		0.1586
129	RH-130		0.0717
129	RH-131		0.0075
129	RH-132		-0.0953
129	RH-133		-0.1859
129	RH-134		-0.2542
129	RH-135		-0.3231
129	RH-136		0.3231
129	RH-137		0.2731
129	RH-138		0.2245
129	RH-139		0.1545
129	RH-140		0.0675
129	RH-141		0.0033
129	RH-142		-0.0995
129	RH-143		-0.1901
129	RH-144		-0.2584
129	RH-145		-0.3273
129	RH-146		0.3231
129	RH-147		0.2731
129	RH-148		0.2245
129	RH-149		0.1545
129	RH-150		0.0675
129	RH-151		0.0033
129	RH-152		-0.0995
129	RH-153		-0.1901
129	RH-154		-0.2584
129	RH-155		-0.3273
129	RH-156		0.3231
129	RH-157		0.2731
129	RH-158		0.2245
129	RH-159		0.1545
129	RH-160		0.0675

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
129	RH-161		0.0033
129	RH-162		-0.0995
129	RH-163		-0.1901
129	RH-164		-0.2584
129	RH-165		-0.3273
131	ENV-ELS-CA	Max	0.3218
131	ENV-ELS-CA	Min	-0.3234
131	ENV-ELS-CP	Max	0.0028
131	ENV-ELS-CP	Min	-0.0027
131	ENV-ELU-PT	Max	0.4345
131	ENV-ELU-PT	Min	-0.4367
131	ENV-ELU-AC	Max	0.3290
131	ENV-ELU-AC	Min	-0.3344
131	ENV-ELU-EQ	Max	0.0017
131	ENV-ELU-EQ	Min	-0.0098
131	RH-1		0.0061
131	RH-2		0.0061
131	RH-3		0.0059
131	RH-4		0.1940
131	RH-5		-0.4214
131	RH-6		0.4336
131	RH-7		-0.1818
131	RH-8		0.1989
131	RH-9		-0.1214
131	RH-10		0.1336
131	RH-11		-0.1867
131	RH-12		0.0776
131	RH-13		0.0046
131	RH-14		0.0076
131	RH-15		-0.0654
131	RH-16		-0.1876
131	RH-17		0.2030
131	RH-18		-0.1908
131	RH-19		0.1998
131	RH-20		0.1939
131	RH-21		-0.4215
131	RH-22		0.4335
131	RH-23		-0.1819
131	RH-24		0.1988
131	RH-25		-0.1215
131	RH-26		0.1335
131	RH-27		-0.1868
131	RH-28		0.0774
131	RH-29		0.0045
131	RH-30		0.0074
131	RH-31		-0.0655
131	RH-32		-0.1878
131	RH-33		0.2029
131	RH-34		-0.1909
131	RH-35		0.1997
131	RH-36		0.0045
131	RH-37		0.0046
131	RH-38		0.0043
131	RH-39		0.1924
131	RH-40		-0.4230
131	RH-41		0.4320

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
131	RH-42		-0.1834
131	RH-43		0.1973
131	RH-44		-0.1230
131	RH-45		0.1320
131	RH-46		-0.1883
131	RH-47		0.0760
131	RH-48		0.0031
131	RH-49		0.0060
131	RH-50		-0.0670
131	RH-51		-0.1892
131	RH-52		0.2014
131	RH-53		-0.1924
131	RH-54		0.1983
131	RH-55		0.1923
131	RH-56		-0.4231
131	RH-57		0.4319
131	RH-58		-0.1835
131	RH-59		0.1972
131	RH-60		-0.1231
131	RH-61		0.1319
131	RH-62		-0.1884
131	RH-63		0.0759
131	RH-64		0.0029
131	RH-65		0.0059
131	RH-66		-0.0671
131	RH-67		-0.1893
131	RH-68		0.2013
131	RH-69		-0.1925
131	RH-70		0.1981
131	RH-71		0.0000
131	RH-72		6.469E-05
131	RH-73		-1.452E-04
131	RH-74		0.1879
131	RH-75		-0.4274
131	RH-76		0.4275
131	RH-77		-0.1879
131	RH-78		0.1928
131	RH-79		-0.1275
131	RH-80		0.1275
131	RH-81		-0.1927
131	RH-82		0.0715
131	RH-83		-0.0014
131	RH-84		0.0015
131	RH-85		-0.0714
131	RH-86		-0.1937
131	RH-87		0.1969
131	RH-88		-0.1969
131	RH-89		0.1938
131	RH-90		0.1878
131	RH-91		-0.4276
131	RH-92		0.4274
131	RH-93		-0.1880
131	RH-94		0.1927
131	RH-95		-0.1276
131	RH-96		0.1274
131	RH-97		-0.1929
131	RH-98		0.0714
131	RH-99		-0.0015
131	RH-100		0.0014
131	RH-101		-0.0716
131	RH-102		-0.1938
131	RH-103		0.1968

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
131	RH-104		-0.1970
131	RH-105		0.1936
131	RH-106		0.3285
131	RH-107		0.2783
131	RH-108		0.2296
131	RH-109		0.1592
131	RH-110		0.0719
131	RH-111		0.0056
131	RH-112		-0.0919
131	RH-113		-0.1853
131	RH-114		-0.2539
131	RH-115		-0.3232
131	RH-116		0.3285
131	RH-117		0.2784
131	RH-118		0.2297
131	RH-119		0.1592
131	RH-120		0.0719
131	RH-121		0.0057
131	RH-122		-0.0919
131	RH-123		-0.1852
131	RH-124		-0.2539
131	RH-125		-0.3232
131	RH-126		0.3284
131	RH-127		0.2783
131	RH-128		0.2296
131	RH-129		0.1592
131	RH-130		0.0718
131	RH-131		0.0056
131	RH-132		-0.0920
131	RH-133		-0.1853
131	RH-134		-0.2540
131	RH-135		-0.3233
131	RH-136		0.3240
131	RH-137		0.2739
131	RH-138		0.2251
131	RH-139		0.1547
131	RH-140		0.0674
131	RH-141		0.0012
131	RH-142		-0.0964
131	RH-143		-0.1897
131	RH-144		-0.2584
131	RH-145		-0.3277
131	RH-146		0.3240
131	RH-147		0.2739
131	RH-148		0.2252
131	RH-149		0.1548
131	RH-150		0.0674
131	RH-151		0.0012
131	RH-152		-0.0964
131	RH-153		-0.1897
131	RH-154		-0.2584
131	RH-155		-0.3277
131	RH-156		0.3239
131	RH-157		0.2738
131	RH-158		0.2251
131	RH-159		0.1547
131	RH-160		0.0674
131	RH-161		0.0011
131	RH-162		-0.0965
131	RH-163		-0.1898
131	RH-164		-0.2584
131	RH-165		-0.3278

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
133	ENV-ELS-CA	Max	0.3200
133	ENV-ELS-CA	Min	-0.3220
133	ENV-ELS-CP	Max	0.0024
133	ENV-ELS-CP	Min	-0.0027
133	ENV-ELU-PT	Max	0.4320
133	ENV-ELU-PT	Min	-0.4348
133	ENV-ELU-AC	Max	0.3276
133	ENV-ELU-AC	Min	-0.3341
133	ENV-ELU-EQ	Max	0.0017
133	ENV-ELU-EQ	Min	-0.0098
133	RH-1		0.0055
133	RH-2		0.0055
133	RH-3		0.0054
133	RH-4		0.1939
133	RH-5		-0.4202
133	RH-6		0.4311
133	RH-7		-0.1829
133	RH-8		0.1995
133	RH-9		-0.1216
133	RH-10		0.1325
133	RH-11		-0.1886
133	RH-12		0.0777
133	RH-13		0.0013
133	RH-14		0.0096
133	RH-15		-0.0668
133	RH-16		-0.1888
133	RH-17		0.2025
133	RH-18		-0.1916
133	RH-19		0.1997
133	RH-20		0.1938
133	RH-21		-0.4202
133	RH-22		0.4311
133	RH-23		-0.1830
133	RH-24		0.1994
133	RH-25		-0.1216
133	RH-26		0.1325
133	RH-27		-0.1886
133	RH-28		0.0776
133	RH-29		0.0012
133	RH-30		0.0096
133	RH-31		-0.0668
133	RH-32		-0.1889
133	RH-33		0.2025
133	RH-34		-0.1916
133	RH-35		0.1997
133	RH-36		0.0040
133	RH-37		0.0041
133	RH-38		0.0040
133	RH-39		0.1925
133	RH-40		-0.4216
133	RH-41		0.4297
133	RH-42		-0.1844
133	RH-43		0.1981
133	RH-44		-0.1230
133	RH-45		0.1311
133	RH-46		-0.1900

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
133	RH-47		0.0763
133	RH-48		-1.361E-04
133	RH-49		0.0082
133	RH-50		-0.0682
133	RH-51		-0.1902
133	RH-52		0.2011
133	RH-53		-0.1930
133	RH-54		0.1983
133	RH-55		0.1924
133	RH-56		-0.4217
133	RH-57		0.4297
133	RH-58		-0.1844
133	RH-59		0.1980
133	RH-60		-0.1230
133	RH-61		0.1310
133	RH-62		-0.1900
133	RH-63		0.0762
133	RH-64		-1.741E-04
133	RH-65		0.0082
133	RH-66		-0.0682
133	RH-67		-0.1903
133	RH-68		0.2011
133	RH-69		-0.1930
133	RH-70		0.1983
133	RH-71		0.0000
133	RH-72		1.950E-05
133	RH-73		-4.378E-05
133	RH-74		0.1884
133	RH-75		-0.4257
133	RH-76		0.4257
133	RH-77		-0.1884
133	RH-78		0.1940
133	RH-79		-0.1270
133	RH-80		0.1270
133	RH-81		-0.1940
133	RH-82		0.0722
133	RH-83		-0.0042
133	RH-84		0.0042
133	RH-85		-0.0722
133	RH-86		-0.1943
133	RH-87		0.1971
133	RH-88		-0.1970
133	RH-89		0.1943
133	RH-90		0.1884
133	RH-91		-0.4257
133	RH-92		0.4256
133	RH-93		-0.1884
133	RH-94		0.1940
133	RH-95		-0.1271
133	RH-96		0.1270
133	RH-97		-0.1941
133	RH-98		0.0722
133	RH-99		-0.0042
133	RH-100		0.0042
133	RH-101		-0.0722
133	RH-102		-0.1943
133	RH-103		0.1970
133	RH-104		-0.1971
133	RH-105		0.1943
133	RH-106		0.3271
133	RH-107		0.2775
133	RH-108		0.2292

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
133	RH-109		0.1592
133	RH-110		0.0724
133	RH-111		0.0063
133	RH-112		-0.0917
133	RH-113		-0.1859
133	RH-114		-0.2544
133	RH-115		-0.3234
133	RH-116		0.3271
133	RH-117		0.2775
133	RH-118		0.2292
133	RH-119		0.1592
133	RH-120		0.0724
133	RH-121		0.0063
133	RH-122		-0.0917
133	RH-123		-0.1859
133	RH-124		-0.2544
133	RH-125		-0.3234
133	RH-126		0.3271
133	RH-127		0.2775
133	RH-128		0.2292
133	RH-129		0.1592
133	RH-130		0.0724
133	RH-131		0.0063
133	RH-132		-0.0918
133	RH-133		-0.1860
133	RH-134		-0.2544
133	RH-135		-0.3234
133	RH-136		0.3231
133	RH-137		0.2734
133	RH-138		0.2251
133	RH-139		0.1552
133	RH-140		0.0684
133	RH-141		0.0023
133	RH-142		-0.0958
133	RH-143		-0.1900
133	RH-144		-0.2584
133	RH-145		-0.3275
133	RH-146		0.3231
133	RH-147		0.2735
133	RH-148		0.2252
133	RH-149		0.1552
133	RH-150		0.0684
133	RH-151		0.0023
133	RH-152		-0.0958
133	RH-153		-0.1900
133	RH-154		-0.2584
133	RH-155		-0.3274
133	RH-156		0.3231
133	RH-157		0.2734
133	RH-158		0.2251
133	RH-159		0.1552
133	RH-160		0.0684
133	RH-161		0.0023
133	RH-162		-0.0958
133	RH-163		-0.1900
133	RH-164		-0.2584
133	RH-165		-0.3275
138	ENV-ELS-CA	Max	0.3135
138	ENV-ELS-CA	Min	-0.3227
138	ENV-ELS-CP	Max	-0.0017

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
138	ENV-ELS-CP	Min	-0.0059
138	ENV-ELU-PT	Max	0.4241
138	ENV-ELU-PT	Min	-0.4358
138	ENV-ELU-AC	Max	0.3204
138	ENV-ELU-AC	Min	-0.3439
138	ENV-ELU-EQ	Max	0.0016
138	ENV-ELU-EQ	Min	-0.0098
138	RH-1		-0.0041
138	RH-2		-0.0043
138	RH-3		-0.0038
138	RH-4		0.1818
138	RH-5		-0.4266
138	RH-6		0.4181
138	RH-7		-0.1902
138	RH-8		0.1876
138	RH-9		-0.1326
138	RH-10		0.1242
138	RH-11		-0.1960
138	RH-12		0.0693
138	RH-13		-0.0123
138	RH-14		0.0039
138	RH-15		-0.0778
138	RH-16		-0.2056
138	RH-17		0.1911
138	RH-18		-0.1996
138	RH-19		0.1971
138	RH-20		0.1821
138	RH-21		-0.4263
138	RH-22		0.4184
138	RH-23		-0.1899
138	RH-24		0.1879
138	RH-25		-0.1323
138	RH-26		0.1245
138	RH-27		-0.1957
138	RH-28		0.0696
138	RH-29		-0.0120
138	RH-30		0.0042
138	RH-31		-0.0774
138	RH-32		-0.2053
138	RH-33		0.1915
138	RH-34		-0.1993
138	RH-35		0.1975
138	RH-36		-0.0031
138	RH-37		-0.0032
138	RH-38		-0.0027
138	RH-39		0.1828
138	RH-40		-0.4255
138	RH-41		0.4192
138	RH-42		-0.1892
138	RH-43		0.1886
138	RH-44		-0.1316
138	RH-45		0.1253
138	RH-46		-0.1949
138	RH-47		0.0704
138	RH-48		-0.0113
138	RH-49		0.0050
138	RH-50		-0.0767
138	RH-51		-0.2045

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
138	RH-52		0.1922
138	RH-53		-0.1985
138	RH-54		0.1982
138	RH-55		0.1832
138	RH-56		-0.4252
138	RH-57		0.4195
138	RH-58		-0.1888
138	RH-59		0.1889
138	RH-60		-0.1313
138	RH-61		0.1256
138	RH-62		-0.1946
138	RH-63		0.0707
138	RH-64		-0.0110
138	RH-65		0.0053
138	RH-66		-0.0764
138	RH-67		-0.2042
138	RH-68		0.1925
138	RH-69		-0.1982
138	RH-70		0.1985
138	RH-71		0.0000
138	RH-72		-1.621E-04
138	RH-73		3.640E-04
138	RH-74		0.1859
138	RH-75		-0.4224
138	RH-76		0.4222
138	RH-77		-0.1861
138	RH-78		0.1917
138	RH-79		-0.1285
138	RH-80		0.1283
138	RH-81		-0.1919
138	RH-82		0.0734
138	RH-83		-0.0082
138	RH-84		0.0080
138	RH-85		-0.0736
138	RH-86		-0.2015
138	RH-87		0.1953
138	RH-88		-0.1955
138	RH-89		0.2013
138	RH-90		0.1862
138	RH-91		-0.4221
138	RH-92		0.4226
138	RH-93		-0.1858
138	RH-94		0.1920
138	RH-95		-0.1282
138	RH-96		0.1286
138	RH-97		-0.1916
138	RH-98		0.0738
138	RH-99		-0.0079
138	RH-100		0.0083
138	RH-101		-0.0733
138	RH-102		-0.2011
138	RH-103		0.1956
138	RH-104		-0.1951
138	RH-105		0.2016
138	RH-106		0.3169
138	RH-107		0.2680
138	RH-108		0.2205
138	RH-109		0.1516
138	RH-110		0.0660
138	RH-111		8.285E-04
138	RH-112		-0.0935
138	RH-113		-0.1941

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
138	RH-114		-0.2652
138	RH-115		-0.3371
138	RH-116		0.3168
138	RH-117		0.2679
138	RH-118		0.2204
138	RH-119		0.1516
138	RH-120		0.0659
138	RH-121		7.636E-04
138	RH-122		-0.0935
138	RH-123		-0.1941
138	RH-124		-0.2653
138	RH-125		-0.3372
138	RH-126		0.3170
138	RH-127		0.2682
138	RH-128		0.2207
138	RH-129		0.1518
138	RH-130		0.0661
138	RH-131		9.741E-04
138	RH-132		-0.0933
138	RH-133		-0.1939
138	RH-134		-0.2651
138	RH-135		-0.3370
138	RH-136		0.3199
138	RH-137		0.2711
138	RH-138		0.2236
138	RH-139		0.1547
138	RH-140		0.0690
138	RH-141		0.0039
138	RH-142		-0.0904
138	RH-143		-0.1910
138	RH-144		-0.2622
138	RH-145		-0.3341
138	RH-146		0.3198
138	RH-147		0.2710
138	RH-148		0.2235
138	RH-149		0.1546
138	RH-150		0.0690
138	RH-151		0.0038
138	RH-152		-0.0905
138	RH-153		-0.1911
138	RH-154		-0.2622
138	RH-155		-0.3341
138	RH-156		0.3201
138	RH-157		0.2712
138	RH-158		0.2237
138	RH-159		0.1548
138	RH-160		0.0692
138	RH-161		0.0040
138	RH-162		-0.0903
138	RH-163		-0.1909
138	RH-164		-0.2620
138	RH-165		-0.3339
140	ENV-ELS-CA	Max	0.3143
140	ENV-ELS-CA	Min	-0.3240
140	ENV-ELS-CP	Max	-0.0016
140	ENV-ELS-CP	Min	-0.0063
140	ENV-ELU-PT	Max	0.4253
140	ENV-ELU-PT	Min	-0.4375

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
140	ENV-ELU-AC	Max	0.3209
140	ENV-ELU-AC	Min	-0.3445
140	ENV-ELU-EQ	Max	0.0016
140	ENV-ELU-EQ	Min	-0.0098
140	RH-1		-0.0047
140	RH-2		-0.0048
140	RH-3		-0.0042
140	RH-4		0.1809
140	RH-5		-0.4283
140	RH-6		0.4187
140	RH-7		-0.1904
140	RH-8		0.1867
140	RH-9		-0.1334
140	RH-10		0.1238
140	RH-11		-0.1962
140	RH-12		0.0709
140	RH-13		-0.0103
140	RH-14		7.629E-04
140	RH-15		-0.0804
140	RH-16		-0.2072
140	RH-17		0.1921
140	RH-18		-0.2017
140	RH-19		0.1977
140	RH-20		0.1812
140	RH-21		-0.4279
140	RH-22		0.4191
140	RH-23		-0.1900
140	RH-24		0.1871
140	RH-25		-0.1330
140	RH-26		0.1242
140	RH-27		-0.1959
140	RH-28		0.0712
140	RH-29		-0.0099
140	RH-30		0.0011
140	RH-31		-0.0800
140	RH-32		-0.2069
140	RH-33		0.1925
140	RH-34		-0.2013
140	RH-35		0.1980
140	RH-36		-0.0034
140	RH-37		-0.0036
140	RH-38		-0.0030
140	RH-39		0.1821
140	RH-40		-0.4271
140	RH-41		0.4199
140	RH-42		-0.1892
140	RH-43		0.1879
140	RH-44		-0.1321
140	RH-45		0.1250
140	RH-46		-0.1950
140	RH-47		0.0721
140	RH-48		-0.0091
140	RH-49		0.0020
140	RH-50		-0.0792
140	RH-51		-0.2060
140	RH-52		0.1933
140	RH-53		-0.2005
140	RH-54		0.1989
140	RH-55		0.1824

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
140	RH-56		-0.4267
140	RH-57		0.4203
140	RH-58		-0.1888
140	RH-59		0.1883
140	RH-60		-0.1318
140	RH-61		0.1254
140	RH-62		-0.1947
140	RH-63		0.0725
140	RH-64		-0.0087
140	RH-65		0.0023
140	RH-66		-0.0788
140	RH-67		-0.2056
140	RH-68		0.1937
140	RH-69		-0.2001
140	RH-70		0.1993
140	RH-71		0.0000
140	RH-72		-1.868E-04
140	RH-73		4.194E-04
140	RH-74		0.1855
140	RH-75		-0.4236
140	RH-76		0.4234
140	RH-77		-0.1857
140	RH-78		0.1914
140	RH-79		-0.1287
140	RH-80		0.1285
140	RH-81		-0.1916
140	RH-82		0.0755
140	RH-83		-0.0056
140	RH-84		0.0054
140	RH-85		-0.0758
140	RH-86		-0.2026
140	RH-87		0.1968
140	RH-88		-0.1970
140	RH-89		0.2023
140	RH-90		0.1859
140	RH-91		-0.4232
140	RH-92		0.4237
140	RH-93		-0.1854
140	RH-94		0.1917
140	RH-95		-0.1283
140	RH-96		0.1288
140	RH-97		-0.1912
140	RH-98		0.0759
140	RH-99		-0.0053
140	RH-100		0.0058
140	RH-101		-0.0754
140	RH-102		-0.2022
140	RH-103		0.1972
140	RH-104		-0.1967
140	RH-105		0.2027
140	RH-106		0.3170
140	RH-107		0.2679
140	RH-108		0.2202
140	RH-109		0.1512
140	RH-110		0.0653
140	RH-111		2.924E-04
140	RH-112		-0.0951
140	RH-113		-0.1937
140	RH-114		-0.2657
140	RH-115		-0.3377
140	RH-116		0.3169
140	RH-117		0.2678

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
140	RH-118		0.2201
140	RH-119		0.1511
140	RH-120		0.0652
140	RH-121		2.177E-04
140	RH-122		-0.0952
140	RH-123		-0.1938
140	RH-124		-0.2657
140	RH-125		-0.3378
140	RH-126		0.3171
140	RH-127		0.2681
140	RH-128		0.2204
140	RH-129		0.1513
140	RH-130		0.0655
140	RH-131		4.602E-04
140	RH-132		-0.0950
140	RH-133		-0.1935
140	RH-134		-0.2655
140	RH-135		-0.3376
140	RH-136		0.3204
140	RH-137		0.2713
140	RH-138		0.2236
140	RH-139		0.1546
140	RH-140		0.0688
140	RH-141		0.0037
140	RH-142		-0.0917
140	RH-143		-0.1902
140	RH-144		-0.2622
140	RH-145		-0.3343
140	RH-146		0.3203
140	RH-147		0.2713
140	RH-148		0.2236
140	RH-149		0.1545
140	RH-150		0.0687
140	RH-151		0.0037
140	RH-152		-0.0918
140	RH-153		-0.1903
140	RH-154		-0.2623
140	RH-155		-0.3343
140	RH-156		0.3206
140	RH-157		0.2715
140	RH-158		0.2238
140	RH-159		0.1548
140	RH-160		0.0689
140	RH-161		0.0039
140	RH-162		-0.0915
140	RH-163		-0.1901
140	RH-164		-0.2620
140	RH-165		-0.3341
142	ENV-ELS-CA	Max	0.3138
142	ENV-ELS-CA	Min	-0.3228
142	ENV-ELS-CP	Max	-0.0016
142	ENV-ELS-CP	Min	-0.0056
142	ENV-ELU-PT	Max	0.4246
142	ENV-ELU-PT	Min	-0.4359
142	ENV-ELU-AC	Max	0.3201
142	ENV-ELU-AC	Min	-0.3443

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
142	ENV-ELU-EQ	Max	0.0016
142	ENV-ELU-EQ	Min	-0.0098
142	RH-1		-0.0038
142	RH-2		-0.0040
142	RH-3		-0.0032
142	RH-4		0.1809
142	RH-5		-0.4267
142	RH-6		0.4189
142	RH-7		-0.1888
142	RH-8		0.1873
142	RH-9		-0.1327
142	RH-10		0.1249
142	RH-11		-0.1951
142	RH-12		0.0728
142	RH-13		-0.0090
142	RH-14		0.0011
142	RH-15		-0.0807
142	RH-16		-0.2046
142	RH-17		0.1952
142	RH-18		-0.2031
142	RH-19		0.1968
142	RH-20		0.1814
142	RH-21		-0.4262
142	RH-22		0.4194
142	RH-23		-0.1883
142	RH-24		0.1878
142	RH-25		-0.1322
142	RH-26		0.1254
142	RH-27		-0.1946
142	RH-28		0.0734
142	RH-29		-0.0085
142	RH-30		0.0016
142	RH-31		-0.0802
142	RH-32		-0.2041
142	RH-33		0.1957
142	RH-34		-0.2025
142	RH-35		0.1973
142	RH-36		-0.0028
142	RH-37		-0.0031
142	RH-38		-0.0022
142	RH-39		0.1819
142	RH-40		-0.4257
142	RH-41		0.4198
142	RH-42		-0.1878
142	RH-43		0.1882
142	RH-44		-0.1318
142	RH-45		0.1258
142	RH-46		-0.1941
142	RH-47		0.0738
142	RH-48		-0.0080
142	RH-49		0.0021
142	RH-50		-0.0797
142	RH-51		-0.2037
142	RH-52		0.1962
142	RH-53		-0.2021
142	RH-54		0.1977
142	RH-55		0.1824
142	RH-56		-0.4252
142	RH-57		0.4203
142	RH-58		-0.1873

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
142	RH-59		0.1887
142	RH-60		-0.1312
142	RH-61		0.1264
142	RH-62		-0.1936
142	RH-63		0.0743
142	RH-64		-0.0075
142	RH-65		0.0026
142	RH-66		-0.0792
142	RH-67		-0.2031
142	RH-68		0.1967
142	RH-69		-0.2016
142	RH-70		0.1983
142	RH-71		0.0000
142	RH-72		-2.649E-04
142	RH-73		5.948E-04
142	RH-74		0.1847
142	RH-75		-0.4229
142	RH-76		0.4226
142	RH-77		-0.1850
142	RH-78		0.1910
142	RH-79		-0.1290
142	RH-80		0.1286
142	RH-81		-0.1913
142	RH-82		0.0766
142	RH-83		-0.0052
142	RH-84		0.0049
142	RH-85		-0.0769
142	RH-86		-0.2009
142	RH-87		0.1990
142	RH-88		-0.1993
142	RH-89		0.2005
142	RH-90		0.1852
142	RH-91		-0.4224
142	RH-92		0.4231
142	RH-93		-0.1845
142	RH-94		0.1915
142	RH-95		-0.1284
142	RH-96		0.1292
142	RH-97		-0.1908
142	RH-98		0.0771
142	RH-99		-0.0047
142	RH-100		0.0054
142	RH-101		-0.0764
142	RH-102		-0.2003
142	RH-103		0.1995
142	RH-104		-0.1988
142	RH-105		0.2010
142	RH-106		0.3168
142	RH-107		0.2679
142	RH-108		0.2204
142	RH-109		0.1517
142	RH-110		0.0664
142	RH-111		0.0017
142	RH-112		-0.0948
142	RH-113		-0.1938
142	RH-114		-0.2657
142	RH-115		-0.3375
142	RH-116		0.3167
142	RH-117		0.2678
142	RH-118		0.2203
142	RH-119		0.1516
142	RH-120		0.0663

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
142	RH-121		0.0015
142	RH-122		-0.0949
142	RH-123		-0.1939
142	RH-124		-0.2658
142	RH-125		-0.3376
142	RH-126		0.3170
142	RH-127		0.2681
142	RH-128		0.2207
142	RH-129		0.1520
142	RH-130		0.0666
142	RH-131		0.0019
142	RH-132		-0.0946
142	RH-133		-0.1936
142	RH-134		-0.2655
142	RH-135		-0.3373
142	RH-136		0.3196
142	RH-137		0.2707
142	RH-138		0.2232
142	RH-139		0.1545
142	RH-140		0.0692
142	RH-141		0.0045
142	RH-142		-0.0920
142	RH-143		-0.1910
142	RH-144		-0.2629
142	RH-145		-0.3347
142	RH-146		0.3195
142	RH-147		0.2706
142	RH-148		0.2231
142	RH-149		0.1544
142	RH-150		0.0691
142	RH-151		0.0043
142	RH-152		-0.0921
142	RH-153		-0.1911
142	RH-154		-0.2630
142	RH-155		-0.3348
142	RH-156		0.3198
142	RH-157		0.2709
142	RH-158		0.2235
142	RH-159		0.1548
142	RH-160		0.0694
142	RH-161		0.0047
142	RH-162		-0.0918
142	RH-163		-0.1908
142	RH-164		-0.2627
142	RH-165		-0.3345
198	ENV-ELS-CA	Max	0.2903
198	ENV-ELS-CA	Min	-0.2992
198	ENV-ELS-CP	Max	-0.0011
198	ENV-ELS-CP	Min	-0.0061
198	ENV-ELU-PT	Max	0.3931
198	ENV-ELU-PT	Min	-0.4040
198	ENV-ELU-AC	Max	0.2936
198	ENV-ELU-AC	Min	-0.3841
198	ENV-ELU-EQ	Max	0.0011
198	ENV-ELU-EQ	Min	-0.0102
198	RH-1		-0.0034

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
198	RH-2		-0.0049
198	RH-3		-1.078E-04
198	RH-4		0.1663
198	RH-5		-0.3944
198	RH-6		0.3858
198	RH-7		-0.1750
198	RH-8		0.1886
198	RH-9		-0.1330
198	RH-10		0.1244
198	RH-11		-0.1972
198	RH-12		0.0905
198	RH-13		-0.0289
198	RH-14		0.0203
198	RH-15		-0.0991
198	RH-16		-0.1620
198	RH-17		0.1502
198	RH-18		-0.1588
198	RH-19		0.1533
198	RH-20		0.1692
198	RH-21		-0.3916
198	RH-22		0.3887
198	RH-23		-0.1721
198	RH-24		0.1914
198	RH-25		-0.1301
198	RH-26		0.1273
198	RH-27		-0.1943
198	RH-28		0.0934
198	RH-29		-0.0260
198	RH-30		0.0232
198	RH-31		-0.0963
198	RH-32		-0.1591
198	RH-33		0.1530
198	RH-34		-0.1559
198	RH-35		0.1562
198	RH-36		-0.0025
198	RH-37		-0.0040
198	RH-38		7.805E-04
198	RH-39		0.1672
198	RH-40		-0.3936
198	RH-41		0.3867
198	RH-42		-0.1741
198	RH-43		0.1895
198	RH-44		-0.1321
198	RH-45		0.1253
198	RH-46		-0.1963
198	RH-47		0.0914
198	RH-48		-0.0280
198	RH-49		0.0212
198	RH-50		-0.0983
198	RH-51		-0.1611
198	RH-52		0.1510
198	RH-53		-0.1579
198	RH-54		0.1542
198	RH-55		0.1701
198	RH-56		-0.3907
198	RH-57		0.3896
198	RH-58		-0.1712
198	RH-59		0.1923
198	RH-60		-0.1292
198	RH-61		0.1281
198	RH-62		-0.1934
198	RH-63		0.0943

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
198	RH-64		-0.0252
198	RH-65		0.0241
198	RH-66		-0.0954
198	RH-67		-0.1582
198	RH-68		0.1539
198	RH-69		-0.1550
198	RH-70		0.1571
198	RH-71		0.0000
198	RH-72		-0.0015
198	RH-73		0.0033
198	RH-74		0.1698
198	RH-75		-0.3910
198	RH-76		0.3892
198	RH-77		-0.1715
198	RH-78		0.1920
198	RH-79		-0.1296
198	RH-80		0.1278
198	RH-81		-0.1938
198	RH-82		0.0939
198	RH-83		-0.0255
198	RH-84		0.0237
198	RH-85		-0.0957
198	RH-86		-0.1585
198	RH-87		0.1536
198	RH-88		-0.1554
198	RH-89		0.1568
198	RH-90		0.1726
198	RH-91		-0.3881
198	RH-92		0.3921
198	RH-93		-0.1686
198	RH-94		0.1949
198	RH-95		-0.1267
198	RH-96		0.1307
198	RH-97		-0.1909
198	RH-98		0.0968
198	RH-99		-0.0226
198	RH-100		0.0266
198	RH-101		-0.0928
198	RH-102		-0.1557
198	RH-103		0.1565
198	RH-104		-0.1525
198	RH-105		0.1596
198	RH-106		0.2900
198	RH-107		0.2495
198	RH-108		0.2101
198	RH-109		0.1529
198	RH-110		0.0810
198	RH-111		0.0260
198	RH-112		-0.0557
198	RH-113		-0.1555
198	RH-114		-0.2498
198	RH-115		-0.3767
198	RH-116		0.2894
198	RH-117		0.2489
198	RH-118		0.2095
198	RH-119		0.1523
198	RH-120		0.0804
198	RH-121		0.0254
198	RH-122		-0.0563
198	RH-123		-0.1561
198	RH-124		-0.2504
198	RH-125		-0.3772

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
198	RH-126		0.2913
198	RH-127		0.2508
198	RH-128		0.2114
198	RH-129		0.1542
198	RH-130		0.0823
198	RH-131		0.0273
198	RH-132		-0.0544
198	RH-133		-0.1542
198	RH-134		-0.2485
198	RH-135		-0.3753
198	RH-136		0.2925
198	RH-137		0.2520
198	RH-138		0.2127
198	RH-139		0.1554
198	RH-140		0.0835
198	RH-141		0.0285
198	RH-142		-0.0532
198	RH-143		-0.1530
198	RH-144		-0.2473
198	RH-145		-0.3741
198	RH-146		0.2920
198	RH-147		0.2514
198	RH-148		0.2121
198	RH-149		0.1548
198	RH-150		0.0829
198	RH-151		0.0280
198	RH-152		-0.0538
198	RH-153		-0.1536
198	RH-154		-0.2478
198	RH-155		-0.3747
198	RH-156		0.2939
198	RH-157		0.2533
198	RH-158		0.2140
198	RH-159		0.1567
198	RH-160		0.0848
198	RH-161		0.0299
198	RH-162		-0.0519
198	RH-163		-0.1517
198	RH-164		-0.2459
198	RH-165		-0.3728
201	ENV-ELS-CA	Max	0.2910
201	ENV-ELS-CA	Min	-0.3008
201	ENV-ELS-CP	Max	-0.0013
201	ENV-ELS-CP	Min	-0.0069
201	ENV-ELU-PT	Max	0.3940
201	ENV-ELU-PT	Min	-0.4063
201	ENV-ELU-AC	Max	0.2941
201	ENV-ELU-AC	Min	-0.3817
201	ENV-ELU-EQ	Max	0.0011
201	ENV-ELU-EQ	Min	-0.0102
201	RH-1		-0.0046
201	RH-2		-0.0058
201	RH-3		-0.0018
201	RH-4		0.1655
201	RH-5		-0.3967
201	RH-6		0.3860

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
201	RH-7		-0.1761
201	RH-8		0.1875
201	RH-9		-0.1344
201	RH-10		0.1238
201	RH-11		-0.1981
201	RH-12		0.0890
201	RH-13		-0.0299
201	RH-14		0.0192
201	RH-15		-0.0996
201	RH-16		-0.1648
201	RH-17		0.1494
201	RH-18		-0.1601
201	RH-19		0.1542
201	RH-20		0.1678
201	RH-21		-0.3943
201	RH-22		0.3884
201	RH-23		-0.1737
201	RH-24		0.1898
201	RH-25		-0.1320
201	RH-26		0.1261
201	RH-27		-0.1957
201	RH-28		0.0914
201	RH-29		-0.0275
201	RH-30		0.0216
201	RH-31		-0.0973
201	RH-32		-0.1624
201	RH-33		0.1518
201	RH-34		-0.1577
201	RH-35		0.1565
201	RH-36		-0.0034
201	RH-37		-0.0046
201	RH-38		-6.563E-04
201	RH-39		0.1667
201	RH-40		-0.3955
201	RH-41		0.3872
201	RH-42		-0.1749
201	RH-43		0.1887
201	RH-44		-0.1332
201	RH-45		0.1250
201	RH-46		-0.1969
201	RH-47		0.0902
201	RH-48		-0.0287
201	RH-49		0.0204
201	RH-50		-0.0984
201	RH-51		-0.1636
201	RH-52		0.1506
201	RH-53		-0.1589
201	RH-54		0.1553
201	RH-55		0.1690
201	RH-56		-0.3931
201	RH-57		0.3896
201	RH-58		-0.1725
201	RH-59		0.1910
201	RH-60		-0.1308
201	RH-61		0.1273
201	RH-62		-0.1945
201	RH-63		0.0926
201	RH-64		-0.0263
201	RH-65		0.0228
201	RH-66		-0.0961
201	RH-67		-0.1612
201	RH-68		0.1530

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
201	RH-69		-0.1565
201	RH-70		0.1577
201	RH-71		0.0000
201	RH-72		-0.0012
201	RH-73		0.0027
201	RH-74		0.1701
201	RH-75		-0.3921
201	RH-76		0.3906
201	RH-77		-0.1715
201	RH-78		0.1921
201	RH-79		-0.1298
201	RH-80		0.1284
201	RH-81		-0.1935
201	RH-82		0.0936
201	RH-83		-0.0253
201	RH-84		0.0238
201	RH-85		-0.0950
201	RH-86		-0.1602
201	RH-87		0.1540
201	RH-88		-0.1555
201	RH-89		0.1587
201	RH-90		0.1724
201	RH-91		-0.3897
201	RH-92		0.3930
201	RH-93		-0.1691
201	RH-94		0.1944
201	RH-95		-0.1274
201	RH-96		0.1307
201	RH-97		-0.1911
201	RH-98		0.0960
201	RH-99		-0.0229
201	RH-100		0.0262
201	RH-101		-0.0927
201	RH-102		-0.1578
201	RH-103		0.1564
201	RH-104		-0.1531
201	RH-105		0.1611
201	RH-106		0.2899
201	RH-107		0.2492
201	RH-108		0.2096
201	RH-109		0.1522
201	RH-110		0.0799
201	RH-111		0.0247
201	RH-112		-0.0574
201	RH-113		-0.1574
201	RH-114		-0.2539
201	RH-115		-0.3743
201	RH-116		0.2894
201	RH-117		0.2487
201	RH-118		0.2092
201	RH-119		0.1517
201	RH-120		0.0794
201	RH-121		0.0242
201	RH-122		-0.0578
201	RH-123		-0.1579
201	RH-124		-0.2544
201	RH-125		-0.3748
201	RH-126		0.2910
201	RH-127		0.2503
201	RH-128		0.2107
201	RH-129		0.1533
201	RH-130		0.0810

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
201	RH-131		0.0258
201	RH-132		-0.0563
201	RH-133		-0.1563
201	RH-134		-0.2528
201	RH-135		-0.3732
201	RH-136		0.2933
201	RH-137		0.2526
201	RH-138		0.2130
201	RH-139		0.1556
201	RH-140		0.0833
201	RH-141		0.0281
201	RH-142		-0.0540
201	RH-143		-0.1540
201	RH-144		-0.2505
201	RH-145		-0.3709
201	RH-146		0.2928
201	RH-147		0.2521
201	RH-148		0.2126
201	RH-149		0.1551
201	RH-150		0.0828
201	RH-151		0.0276
201	RH-152		-0.0544
201	RH-153		-0.1545
201	RH-154		-0.2510
201	RH-155		-0.3714
201	RH-156		0.2944
201	RH-157		0.2537
201	RH-158		0.2141
201	RH-159		0.1567
201	RH-160		0.0844
201	RH-161		0.0292
201	RH-162		-0.0529
201	RH-163		-0.1529
201	RH-164		-0.2494
201	RH-165		-0.3698
202	ENV-ELS-CA	Max	0.2902
202	ENV-ELS-CA	Min	-0.2993
202	ENV-ELS-CP	Max	-0.0016
202	ENV-ELS-CP	Min	-0.0057
202	ENV-ELU-PT	Max	0.3929
202	ENV-ELU-PT	Min	-0.4041
202	ENV-ELU-AC	Max	0.2929
202	ENV-ELU-AC	Min	-0.3796
202	ENV-ELU-EQ	Max	0.0011
202	ENV-ELU-EQ	Min	-0.0102
202	RH-1		-0.0033
202	RH-2		-0.0041
202	RH-3		-0.0015
202	RH-4		0.1659
202	RH-5		-0.3946
202	RH-6		0.3871
202	RH-7		-0.1733
202	RH-8		0.1882
202	RH-9		-0.1334
202	RH-10		0.1259
202	RH-11		-0.1957

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
202	RH-12		0.0902
202	RH-13		-0.0293
202	RH-14		0.0218
202	RH-15		-0.0976
202	RH-16		-0.1622
202	RH-17		0.1503
202	RH-18		-0.1578
202	RH-19		0.1547
202	RH-20		0.1674
202	RH-21		-0.3931
202	RH-22		0.3886
202	RH-23		-0.1718
202	RH-24		0.1897
202	RH-25		-0.1318
202	RH-26		0.1274
202	RH-27		-0.1942
202	RH-28		0.0917
202	RH-29		-0.0277
202	RH-30		0.0233
202	RH-31		-0.0961
202	RH-32		-0.1606
202	RH-33		0.1518
202	RH-34		-0.1562
202	RH-35		0.1562
202	RH-36		-0.0024
202	RH-37		-0.0032
202	RH-38		-6.517E-04
202	RH-39		0.1667
202	RH-40		-0.3938
202	RH-41		0.3880
202	RH-42		-0.1725
202	RH-43		0.1891
202	RH-44		-0.1325
202	RH-45		0.1267
202	RH-46		-0.1949
202	RH-47		0.0910
202	RH-48		-0.0284
202	RH-49		0.0226
202	RH-50		-0.0968
202	RH-51		-0.1613
202	RH-52		0.1511
202	RH-53		-0.1569
202	RH-54		0.1555
202	RH-55		0.1682
202	RH-56		-0.3922
202	RH-57		0.3895
202	RH-58		-0.1710
202	RH-59		0.1906
202	RH-60		-0.1310
202	RH-61		0.1283
202	RH-62		-0.1933
202	RH-63		0.0925
202	RH-64		-0.0269
202	RH-65		0.0242
202	RH-66		-0.0953
202	RH-67		-0.1598
202	RH-68		0.1527
202	RH-69		-0.1554
202	RH-70		0.1571
202	RH-71		0.0000
202	RH-72		-7.884E-04
202	RH-73		0.0018

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
202	RH-74		0.1691
202	RH-75		-0.3913
202	RH-76		0.3904
202	RH-77		-0.1701
202	RH-78		0.1915
202	RH-79		-0.1301
202	RH-80		0.1291
202	RH-81		-0.1924
202	RH-82		0.0934
202	RH-83		-0.0260
202	RH-84		0.0251
202	RH-85		-0.0944
202	RH-86		-0.1589
202	RH-87		0.1536
202	RH-88		-0.1545
202	RH-89		0.1580
202	RH-90		0.1707
202	RH-91		-0.3898
202	RH-92		0.3919
202	RH-93		-0.1685
202	RH-94		0.1930
202	RH-95		-0.1286
202	RH-96		0.1307
202	RH-97		-0.1909
202	RH-98		0.0950
202	RH-99		-0.0245
202	RH-100		0.0266
202	RH-101		-0.0928
202	RH-102		-0.1574
202	RH-103		0.1551
202	RH-104		-0.1530
202	RH-105		0.1595
202	RH-106		0.2900
202	RH-107		0.2494
202	RH-108		0.2101
202	RH-109		0.1530
202	RH-110		0.0811
202	RH-111		0.0261
202	RH-112		-0.0557
202	RH-113		-0.1553
202	RH-114		-0.2519
202	RH-115		-0.3724
202	RH-116		0.2897
202	RH-117		0.2491
202	RH-118		0.2098
202	RH-119		0.1527
202	RH-120		0.0808
202	RH-121		0.0258
202	RH-122		-0.0560
202	RH-123		-0.1556
202	RH-124		-0.2522
202	RH-125		-0.3728
202	RH-126		0.2907
202	RH-127		0.2501
202	RH-128		0.2108
202	RH-129		0.1537
202	RH-130		0.0818
202	RH-131		0.0268
202	RH-132		-0.0550
202	RH-133		-0.1546
202	RH-134		-0.2512
202	RH-135		-0.3717

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
202	RH-136		0.2924
202	RH-137		0.2519
202	RH-138		0.2125
202	RH-139		0.1554
202	RH-140		0.0835
202	RH-141		0.0286
202	RH-142		-0.0532
202	RH-143		-0.1529
202	RH-144		-0.2495
202	RH-145		-0.3700
202	RH-146		0.2921
202	RH-147		0.2515
202	RH-148		0.2122
202	RH-149		0.1551
202	RH-150		0.0832
202	RH-151		0.0282
202	RH-152		-0.0536
202	RH-153		-0.1532
202	RH-154		-0.2498
202	RH-155		-0.3703
202	RH-156		0.2931
202	RH-157		0.2526
202	RH-158		0.2132
202	RH-159		0.1561
202	RH-160		0.0842
202	RH-161		0.0293
202	RH-162		-0.0525
202	RH-163		-0.1522
202	RH-164		-0.2488
202	RH-165		-0.3693
206	ENV-ELS-CA	Max	0.2899
206	ENV-ELS-CA	Min	-0.3000
206	ENV-ELS-CP	Max	-0.0015
206	ENV-ELS-CP	Min	-0.0070
206	ENV-ELU-PT	Max	0.3924
206	ENV-ELU-PT	Min	-0.4051
206	ENV-ELU-AC	Max	0.2928
206	ENV-ELU-AC	Min	-0.3921
206	ENV-ELU-EQ	Max	0.0011
206	ENV-ELU-EQ	Min	-0.0101
206	RH-1		-0.0049
206	RH-2		-0.0059
206	RH-3		-0.0026
206	RH-4		0.1644
206	RH-5		-0.3956
206	RH-6		0.3847
206	RH-7		-0.1753
206	RH-8		0.1864
206	RH-9		-0.1344
206	RH-10		0.1235
206	RH-11		-0.1974
206	RH-12		0.0884
206	RH-13		-0.0303
206	RH-14		0.0194
206	RH-15		-0.0993
206	RH-16		-0.1641

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
206	RH-17		0.1489
206	RH-18		-0.1598
206	RH-19		0.1532
206	RH-20		0.1663
206	RH-21		-0.3937
206	RH-22		0.3866
206	RH-23		-0.1734
206	RH-24		0.1884
206	RH-25		-0.1325
206	RH-26		0.1254
206	RH-27		-0.1954
206	RH-28		0.0903
206	RH-29		-0.0284
206	RH-30		0.0213
206	RH-31		-0.0973
206	RH-32		-0.1621
206	RH-33		0.1508
206	RH-34		-0.1579
206	RH-35		0.1551
206	RH-36		-0.0036
206	RH-37		-0.0046
206	RH-38		-0.0014
206	RH-39		0.1657
206	RH-40		-0.3943
206	RH-41		0.3859
206	RH-42		-0.1741
206	RH-43		0.1877
206	RH-44		-0.1331
206	RH-45		0.1247
206	RH-46		-0.1961
206	RH-47		0.0896
206	RH-48		-0.0290
206	RH-49		0.0206
206	RH-50		-0.0980
206	RH-51		-0.1628
206	RH-52		0.1501
206	RH-53		-0.1585
206	RH-54		0.1544
206	RH-55		0.1676
206	RH-56		-0.3924
206	RH-57		0.3879
206	RH-58		-0.1721
206	RH-59		0.1896
206	RH-60		-0.1312
206	RH-61		0.1267
206	RH-62		-0.1942
206	RH-63		0.0915
206	RH-64		-0.0271
206	RH-65		0.0226
206	RH-66		-0.0961
206	RH-67		-0.1609
206	RH-68		0.1521
206	RH-69		-0.1566
206	RH-70		0.1563
206	RH-71		0.0000
206	RH-72		-9.883E-04
206	RH-73		0.0022
206	RH-74		0.1693
206	RH-75		-0.3907
206	RH-76		0.3895
206	RH-77		-0.1705
206	RH-78		0.1913

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
206	RH-79		-0.1295
206	RH-80		0.1283
206	RH-81		-0.1925
206	RH-82		0.0932
206	RH-83		-0.0254
206	RH-84		0.0242
206	RH-85		-0.0944
206	RH-86		-0.1592
206	RH-87		0.1537
206	RH-88		-0.1549
206	RH-89		0.1580
206	RH-90		0.1712
206	RH-91		-0.3888
206	RH-92		0.3915
206	RH-93		-0.1685
206	RH-94		0.1932
206	RH-95		-0.1276
206	RH-96		0.1303
206	RH-97		-0.1906
206	RH-98		0.0951
206	RH-99		-0.0235
206	RH-100		0.0262
206	RH-101		-0.0925
206	RH-102		-0.1573
206	RH-103		0.1557
206	RH-104		-0.1530
206	RH-105		0.1599
206	RH-106		0.2886
206	RH-107		0.2480
206	RH-108		0.2087
206	RH-109		0.1514
206	RH-110		0.0795
206	RH-111		0.0246
206	RH-112		-0.0572
206	RH-113		-0.1569
206	RH-114		-0.2521
206	RH-115		-0.3848
206	RH-116		0.2882
206	RH-117		0.2476
206	RH-118		0.2083
206	RH-119		0.1511
206	RH-120		0.0791
206	RH-121		0.0242
206	RH-122		-0.0576
206	RH-123		-0.1573
206	RH-124		-0.2525
206	RH-125		-0.3852
206	RH-126		0.2895
206	RH-127		0.2489
206	RH-128		0.2095
206	RH-129		0.1523
206	RH-130		0.0804
206	RH-131		0.0254
206	RH-132		-0.0563
206	RH-133		-0.1560
206	RH-134		-0.2512
206	RH-135		-0.3839
206	RH-136		0.2922
206	RH-137		0.2516
206	RH-138		0.2123
206	RH-139		0.1551
206	RH-140		0.0831

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
206	RH-141		0.0282
206	RH-142		-0.0536
206	RH-143		-0.1533
206	RH-144		-0.2485
206	RH-145		-0.3812
206	RH-146		0.2918
206	RH-147		0.2512
206	RH-148		0.2119
206	RH-149		0.1547
206	RH-150		0.0827
206	RH-151		0.0278
206	RH-152		-0.0540
206	RH-153		-0.1537
206	RH-154		-0.2489
206	RH-155		-0.3816
206	RH-156		0.2931
206	RH-157		0.2525
206	RH-158		0.2131
206	RH-159		0.1559
206	RH-160		0.0840
206	RH-161		0.0290
206	RH-162		-0.0527
206	RH-163		-0.1524
206	RH-164		-0.2476
206	RH-165		-0.3803
208	ENV-ELS-CA	Max	0.2906
208	ENV-ELS-CA	Min	-0.2995
208	ENV-ELS-CP	Max	-0.0012
208	ENV-ELS-CP	Min	-0.0061
208	ENV-ELU-PT	Max	0.3934
208	ENV-ELU-PT	Min	-0.4045
208	ENV-ELU-AC	Max	0.2938
208	ENV-ELU-AC	Min	-0.3827
208	ENV-ELU-EQ	Max	0.0011
208	ENV-ELU-EQ	Min	-0.0102
208	RH-1		-0.0035
208	RH-2		-0.0048
208	RH-3		-5.740E-04
208	RH-4		0.1664
208	RH-5		-0.3950
208	RH-6		0.3864
208	RH-7		-0.1749
208	RH-8		0.1883
208	RH-9		-0.1330
208	RH-10		0.1245
208	RH-11		-0.1969
208	RH-12		0.0900
208	RH-13		-0.0286
208	RH-14		0.0201
208	RH-15		-0.0985
208	RH-16		-0.1629
208	RH-17		0.1513
208	RH-18		-0.1598
208	RH-19		0.1543
208	RH-20		0.1689
208	RH-21		-0.3924

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
208	RH-22		0.3889
208	RH-23		-0.1724
208	RH-24		0.1909
208	RH-25		-0.1305
208	RH-26		0.1270
208	RH-27		-0.1944
208	RH-28		0.0925
208	RH-29		-0.0261
208	RH-30		0.0226
208	RH-31		-0.0960
208	RH-32		-0.1603
208	RH-33		0.1538
208	RH-34		-0.1573
208	RH-35		0.1569
208	RH-36		-0.0026
208	RH-37		-0.0039
208	RH-38		3.302E-04
208	RH-39		0.1673
208	RH-40		-0.3940
208	RH-41		0.3873
208	RH-42		-0.1740
208	RH-43		0.1893
208	RH-44		-0.1321
208	RH-45		0.1254
208	RH-46		-0.1960
208	RH-47		0.0909
208	RH-48		-0.0277
208	RH-49		0.0210
208	RH-50		-0.0976
208	RH-51		-0.1620
208	RH-52		0.1522
208	RH-53		-0.1589
208	RH-54		0.1552
208	RH-55		0.1698
208	RH-56		-0.3915
208	RH-57		0.3899
208	RH-58		-0.1715
208	RH-59		0.1918
208	RH-60		-0.1296
208	RH-61		0.1279
208	RH-62		-0.1935
208	RH-63		0.0934
208	RH-64		-0.0252
208	RH-65		0.0235
208	RH-66		-0.0951
208	RH-67		-0.1594
208	RH-68		0.1547
208	RH-69		-0.1564
208	RH-70		0.1578
208	RH-71		0.0000
208	RH-72		-0.0013
208	RH-73		0.0029
208	RH-74		0.1699
208	RH-75		-0.3915
208	RH-76		0.3899
208	RH-77		-0.1714
208	RH-78		0.1918
208	RH-79		-0.1296
208	RH-80		0.1280
208	RH-81		-0.1934
208	RH-82		0.0935
208	RH-83		-0.0252

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
208	RH-84		0.0236
208	RH-85		-0.0950
208	RH-86		-0.1594
208	RH-87		0.1548
208	RH-88		-0.1563
208	RH-89		0.1578
208	RH-90		0.1724
208	RH-91		-0.3889
208	RH-92		0.3924
208	RH-93		-0.1689
208	RH-94		0.1944
208	RH-95		-0.1270
208	RH-96		0.1305
208	RH-97		-0.1909
208	RH-98		0.0960
208	RH-99		-0.0226
208	RH-100		0.0261
208	RH-101		-0.0925
208	RH-102		-0.1568
208	RH-103		0.1573
208	RH-104		-0.1538
208	RH-105		0.1603
208	RH-106		0.2903
208	RH-107		0.2496
208	RH-108		0.2102
208	RH-109		0.1527
208	RH-110		0.0806
208	RH-111		0.0255
208	RH-112		-0.0565
208	RH-113		-0.1564
208	RH-114		-0.2526
208	RH-115		-0.3753
208	RH-116		0.2898
208	RH-117		0.2491
208	RH-118		0.2096
208	RH-119		0.1522
208	RH-120		0.0801
208	RH-121		0.0250
208	RH-122		-0.0570
208	RH-123		-0.1569
208	RH-124		-0.2531
208	RH-125		-0.3758
208	RH-126		0.2915
208	RH-127		0.2508
208	RH-128		0.2113
208	RH-129		0.1539
208	RH-130		0.0818
208	RH-131		0.0267
208	RH-132		-0.0553
208	RH-133		-0.1552
208	RH-134		-0.2514
208	RH-135		-0.3741
208	RH-136		0.2929
208	RH-137		0.2522
208	RH-138		0.2127
208	RH-139		0.1553
208	RH-140		0.0832
208	RH-141		0.0281
208	RH-142		-0.0539
208	RH-143		-0.1538
208	RH-144		-0.2500
208	RH-145		-0.3727

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
208	RH-146		0.2924
208	RH-147		0.2517
208	RH-148		0.2122
208	RH-149		0.1548
208	RH-150		0.0827
208	RH-151		0.0276
208	RH-152		-0.0544
208	RH-153		-0.1543
208	RH-154		-0.2505
208	RH-155		-0.3732
208	RH-156		0.2941
208	RH-157		0.2534
208	RH-158		0.2139
208	RH-159		0.1565
208	RH-160		0.0844
208	RH-161		0.0292
208	RH-162		-0.0527
208	RH-163		-0.1527
208	RH-164		-0.2488
208	RH-165		-0.3715
209	ENV-ELS-CA	Max	0.2912
209	ENV-ELS-CA	Min	-0.3007
209	ENV-ELS-CP	Max	-0.0016
209	ENV-ELS-CP	Min	-0.0062
209	ENV-ELU-PT	Max	0.3943
209	ENV-ELU-PT	Min	-0.4061
209	ENV-ELU-AC	Max	0.2940
209	ENV-ELU-AC	Min	-0.3804
209	ENV-ELU-EQ	Max	0.0011
209	ENV-ELU-EQ	Min	-0.0101
209	RH-1		-0.0039
209	RH-2		-0.0047
209	RH-3		-0.0022
209	RH-4		0.1658
209	RH-5		-0.3966
209	RH-6		0.3879
209	RH-7		-0.1745
209	RH-8		0.1876
209	RH-9		-0.1341
209	RH-10		0.1254
209	RH-11		-0.1964
209	RH-12		0.0889
209	RH-13		-0.0293
209	RH-14		0.0206
209	RH-15		-0.0976
209	RH-16		-0.1652
209	RH-17		0.1504
209	RH-18		-0.1591
209	RH-19		0.1565
209	RH-20		0.1673
209	RH-21		-0.3951
209	RH-22		0.3893
209	RH-23		-0.1730
209	RH-24		0.1891
209	RH-25		-0.1326
209	RH-26		0.1269

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
209	RH-27		-0.1949
209	RH-28		0.0904
209	RH-29		-0.0279
209	RH-30		0.0221
209	RH-31		-0.0962
209	RH-32		-0.1637
209	RH-33		0.1519
209	RH-34		-0.1576
209	RH-35		0.1580
209	RH-36		-0.0029
209	RH-37		-0.0037
209	RH-38		-0.0012
209	RH-39		0.1668
209	RH-40		-0.3956
209	RH-41		0.3889
209	RH-42		-0.1735
209	RH-43		0.1886
209	RH-44		-0.1331
209	RH-45		0.1264
209	RH-46		-0.1953
209	RH-47		0.0899
209	RH-48		-0.0283
209	RH-49		0.0216
209	RH-50		-0.0966
209	RH-51		-0.1642
209	RH-52		0.1514
209	RH-53		-0.1581
209	RH-54		0.1575
209	RH-55		0.1683
209	RH-56		-0.3941
209	RH-57		0.3904
209	RH-58		-0.1720
209	RH-59		0.1901
209	RH-60		-0.1316
209	RH-61		0.1279
209	RH-62		-0.1939
209	RH-63		0.0914
209	RH-64		-0.0269
209	RH-65		0.0231
209	RH-66		-0.0951
209	RH-67		-0.1627
209	RH-68		0.1529
209	RH-69		-0.1566
209	RH-70		0.1590
209	RH-71		0.0000
209	RH-72		-7.611E-04
209	RH-73		0.0017
209	RH-74		0.1697
209	RH-75		-0.3927
209	RH-76		0.3918
209	RH-77		-0.1706
209	RH-78		0.1915
209	RH-79		-0.1302
209	RH-80		0.1293
209	RH-81		-0.1924
209	RH-82		0.0928
209	RH-83		-0.0254
209	RH-84		0.0245
209	RH-85		-0.0937
209	RH-86		-0.1613
209	RH-87		0.1543
209	RH-88		-0.1552

Table: Joint Reactions, Part 2 of 2

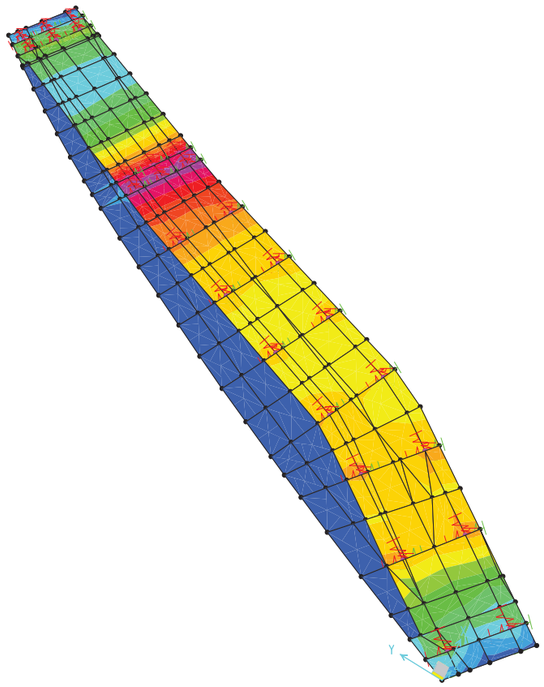
Joint	OutputCase	StepType	M3
			KN-m
209	RH-89		0.1604
209	RH-90		0.1712
209	RH-91		-0.3912
209	RH-92		0.3932
209	RH-93		-0.1691
209	RH-94		0.1930
209	RH-95		-0.1287
209	RH-96		0.1308
209	RH-97		-0.1910
209	RH-98		0.0943
209	RH-99		-0.0240
209	RH-100		0.0260
209	RH-101		-0.0923
209	RH-102		-0.1598
209	RH-103		0.1558
209	RH-104		-0.1537
209	RH-105		0.1619
209	RH-106		0.2906
209	RH-107		0.2497
209	RH-108		0.2101
209	RH-109		0.1526
209	RH-110		0.0802
209	RH-111		0.0249
209	RH-112		-0.0574
209	RH-113		-0.1575
209	RH-114		-0.2544
209	RH-115		-0.3732
209	RH-116		0.2903
209	RH-117		0.2494
209	RH-118		0.2098
209	RH-119		0.1523
209	RH-120		0.0799
209	RH-121		0.0246
209	RH-122		-0.0577
209	RH-123		-0.1579
209	RH-124		-0.2547
209	RH-125		-0.3735
209	RH-126		0.2913
209	RH-127		0.2504
209	RH-128		0.2108
209	RH-129		0.1533
209	RH-130		0.0809
209	RH-131		0.0256
209	RH-132		-0.0567
209	RH-133		-0.1569
209	RH-134		-0.2537
209	RH-135		-0.3725
209	RH-136		0.2935
209	RH-137		0.2526
209	RH-138		0.2130
209	RH-139		0.1555
209	RH-140		0.0831
209	RH-141		0.0278
209	RH-142		-0.0545
209	RH-143		-0.1547
209	RH-144		-0.2515
209	RH-145		-0.3703
209	RH-146		0.2932
209	RH-147		0.2523
209	RH-148		0.2127
209	RH-149		0.1552
209	RH-150		0.0828

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
209	RH-151		0.0275
209	RH-152		-0.0548
209	RH-153		-0.1550
209	RH-154		-0.2518
209	RH-155		-0.3706
209	RH-156		0.2942
209	RH-157		0.2533
209	RH-158		0.2137
209	RH-159		0.1562
209	RH-160		0.0838
209	RH-161		0.0285
209	RH-162		-0.0538
209	RH-163		-0.1540
209	RH-164		-0.2508
209	RH-165		-0.3696

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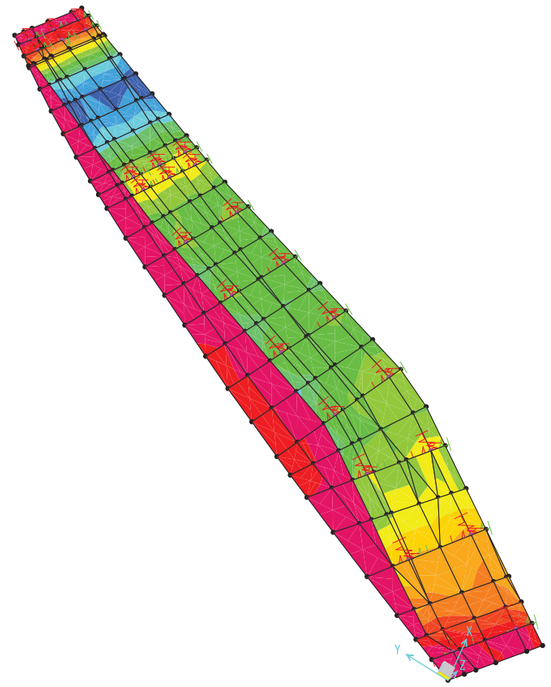


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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M11 Diagram (ENV-ELU-PT - Min) - KN, m, C Units

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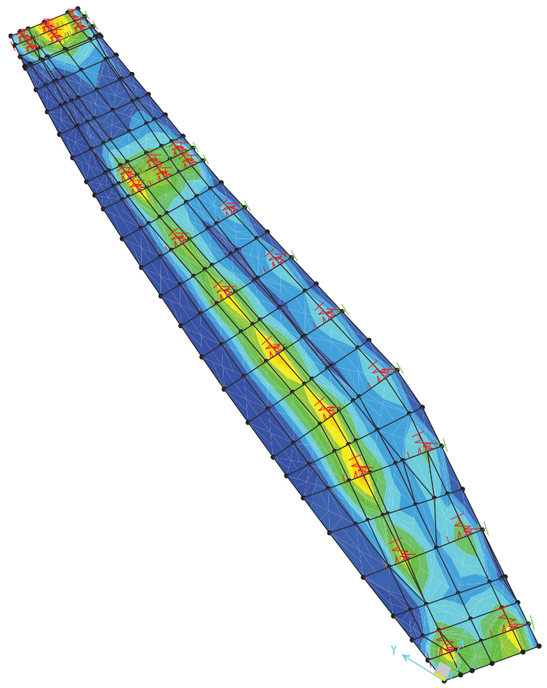


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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M11 Diagram (ENV-ELU-PT - Max) - KN, m, C Units

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10/13/16 7:14:55

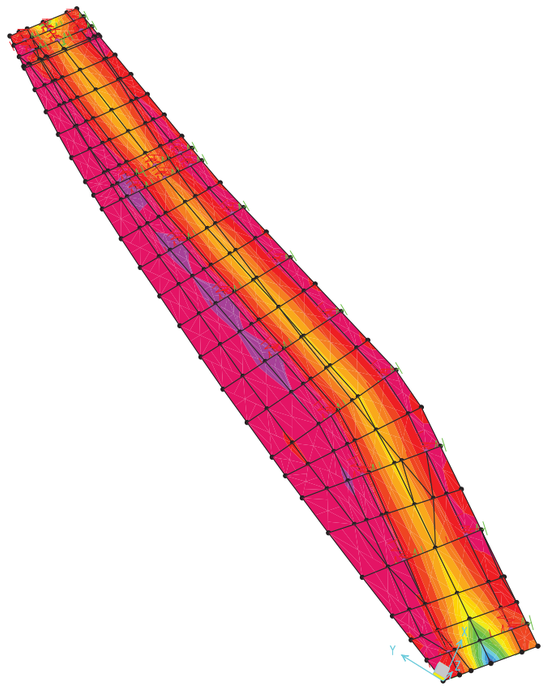


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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M22 Diagram (ENV-ELU-PT - Min) - KN, m, C Units

SAP2000

10/13/16 7:14:30

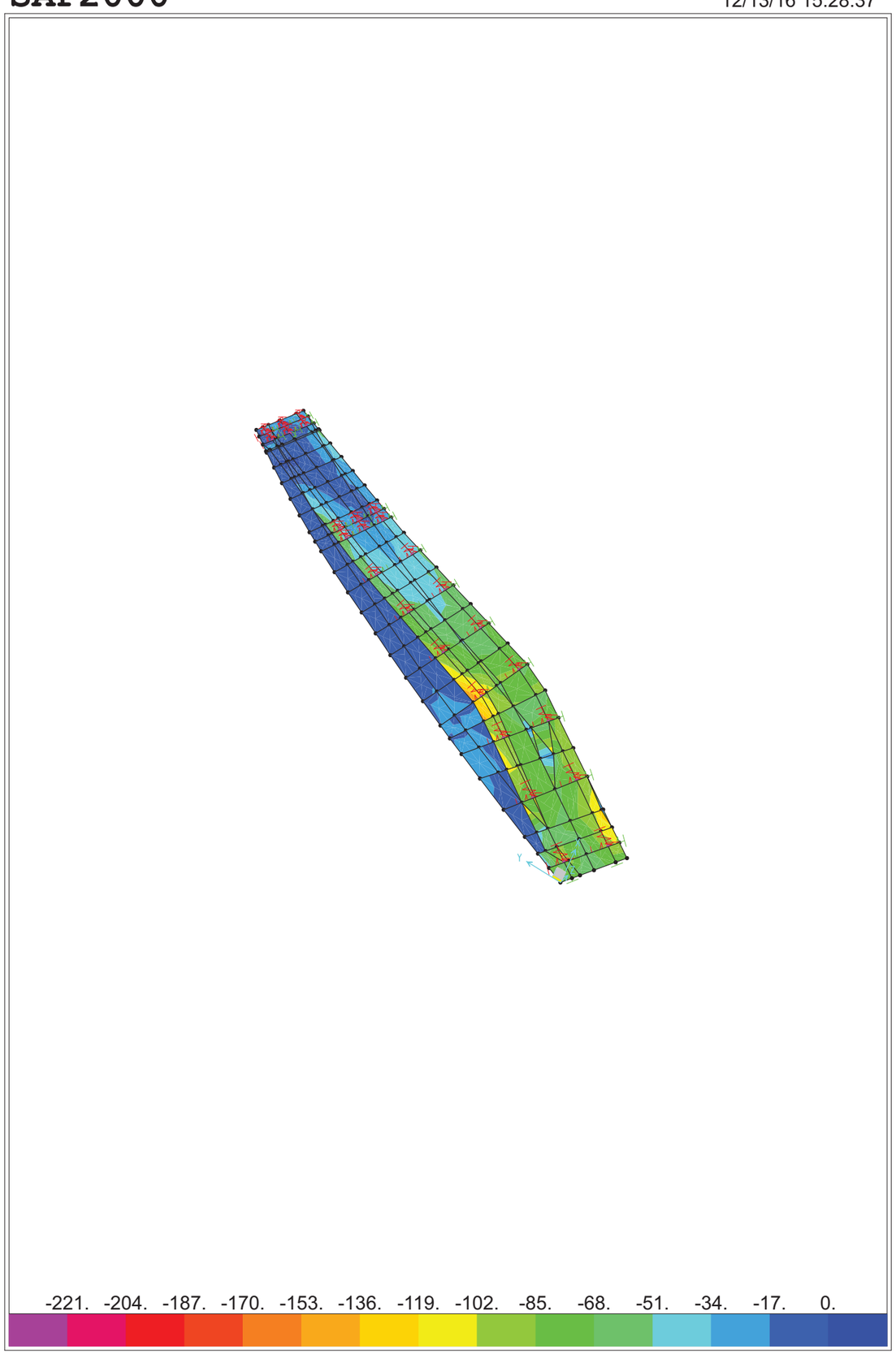


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SAP2000

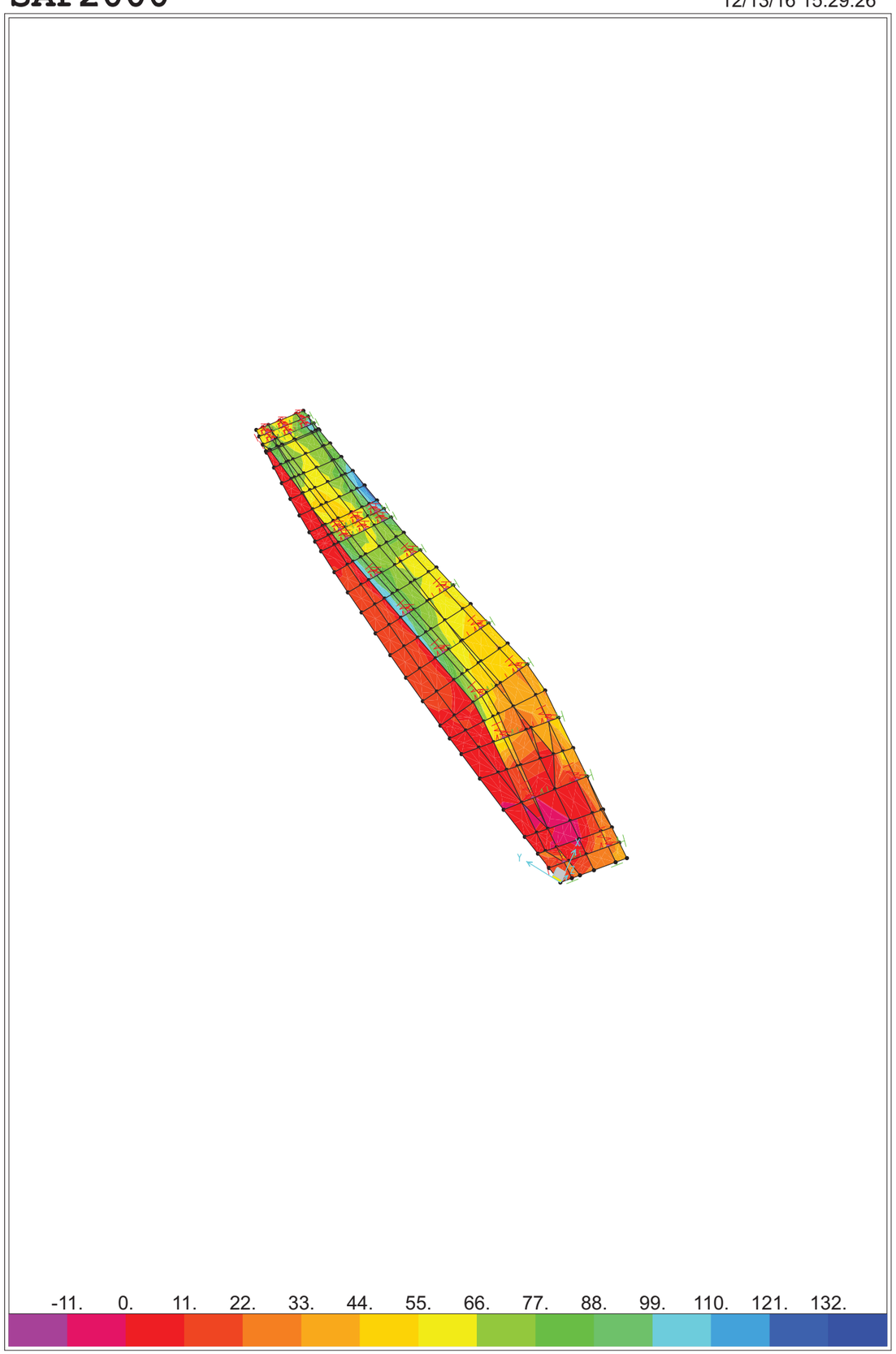
12/13/16 15:28:37



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SAP2000

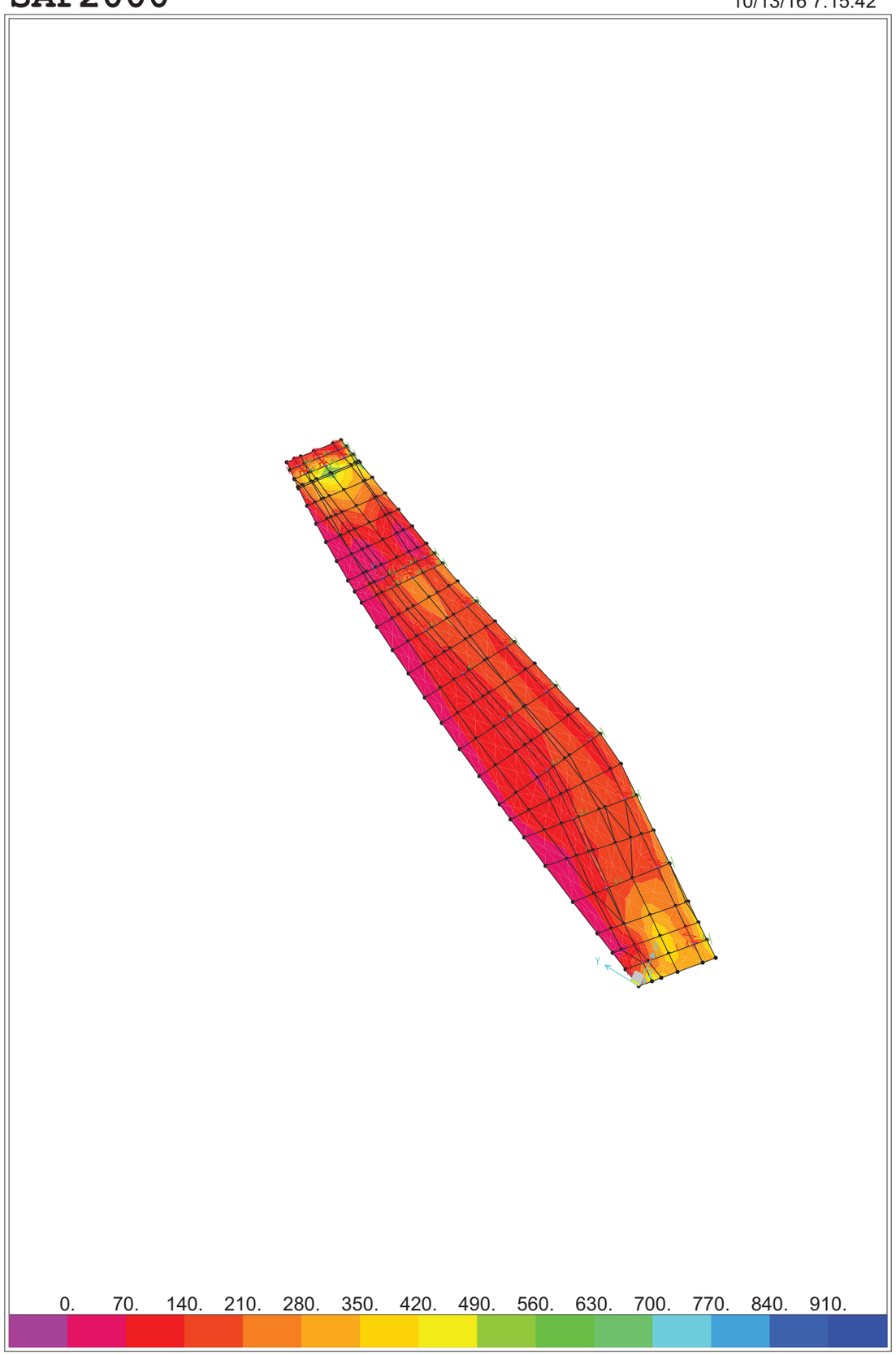
12/13/16 15:29:26



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SAP2000

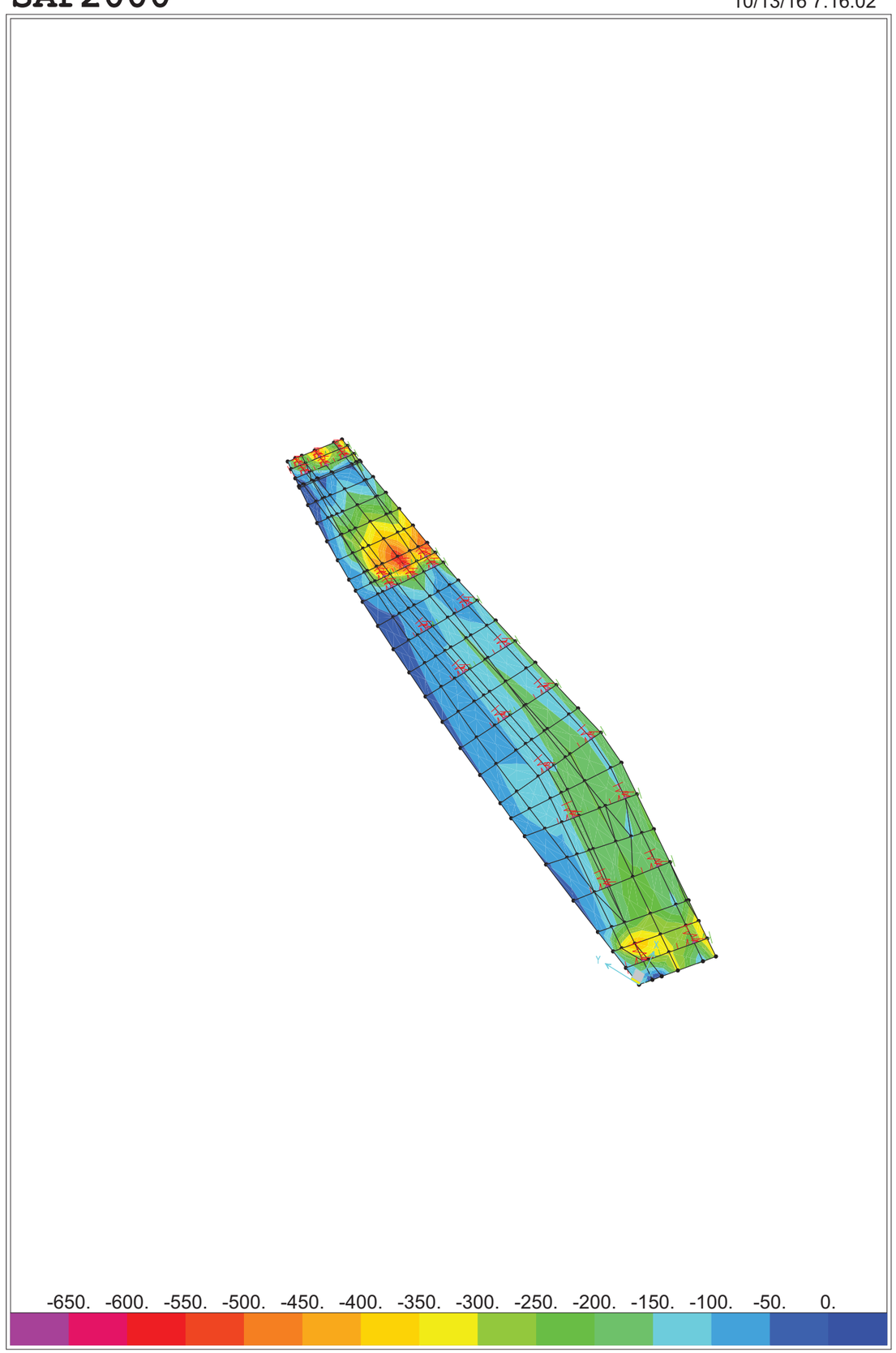
10/13/16 7:15:42



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SAP2000

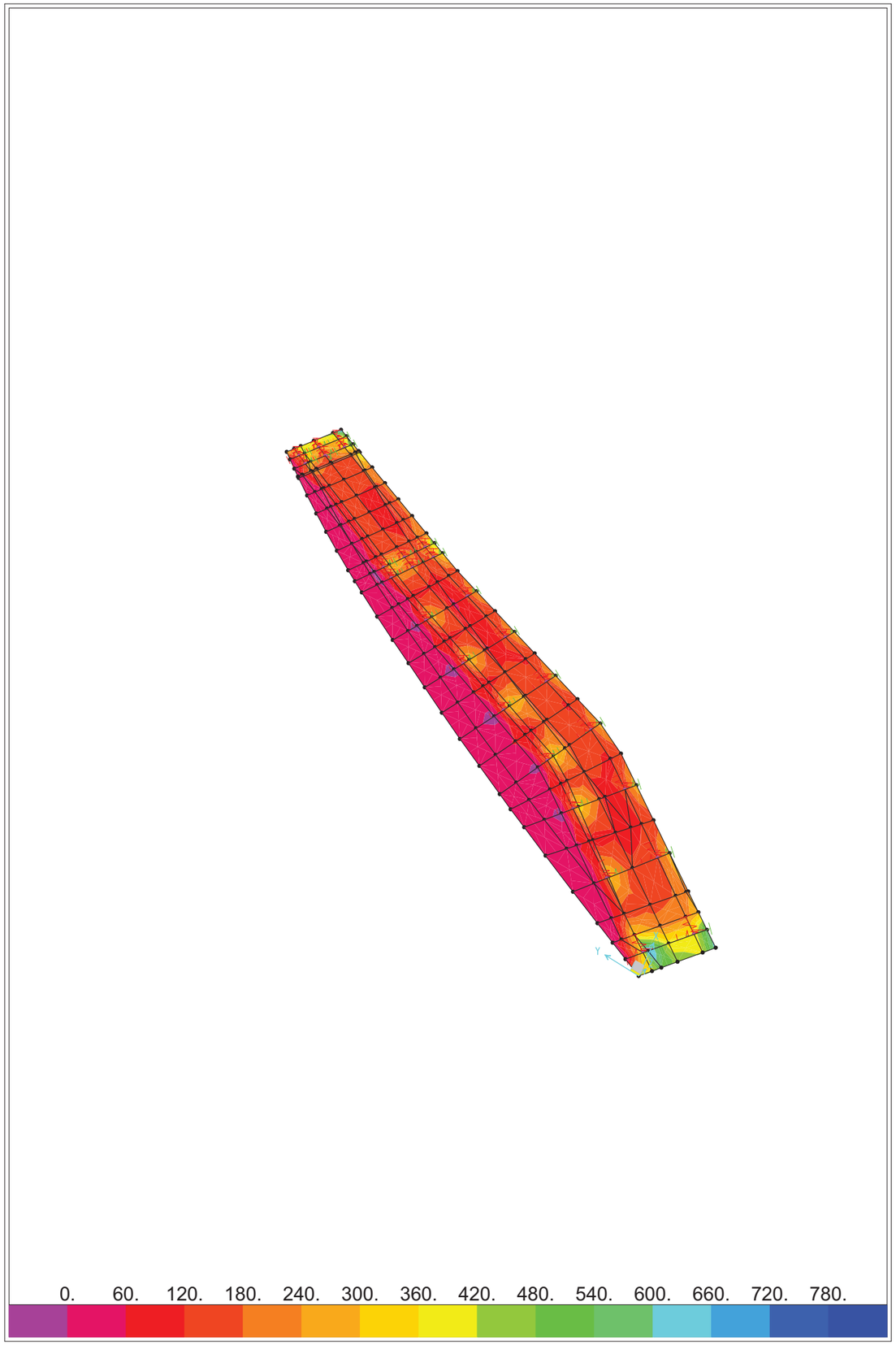
10/13/16 7:16:02



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SAP2000

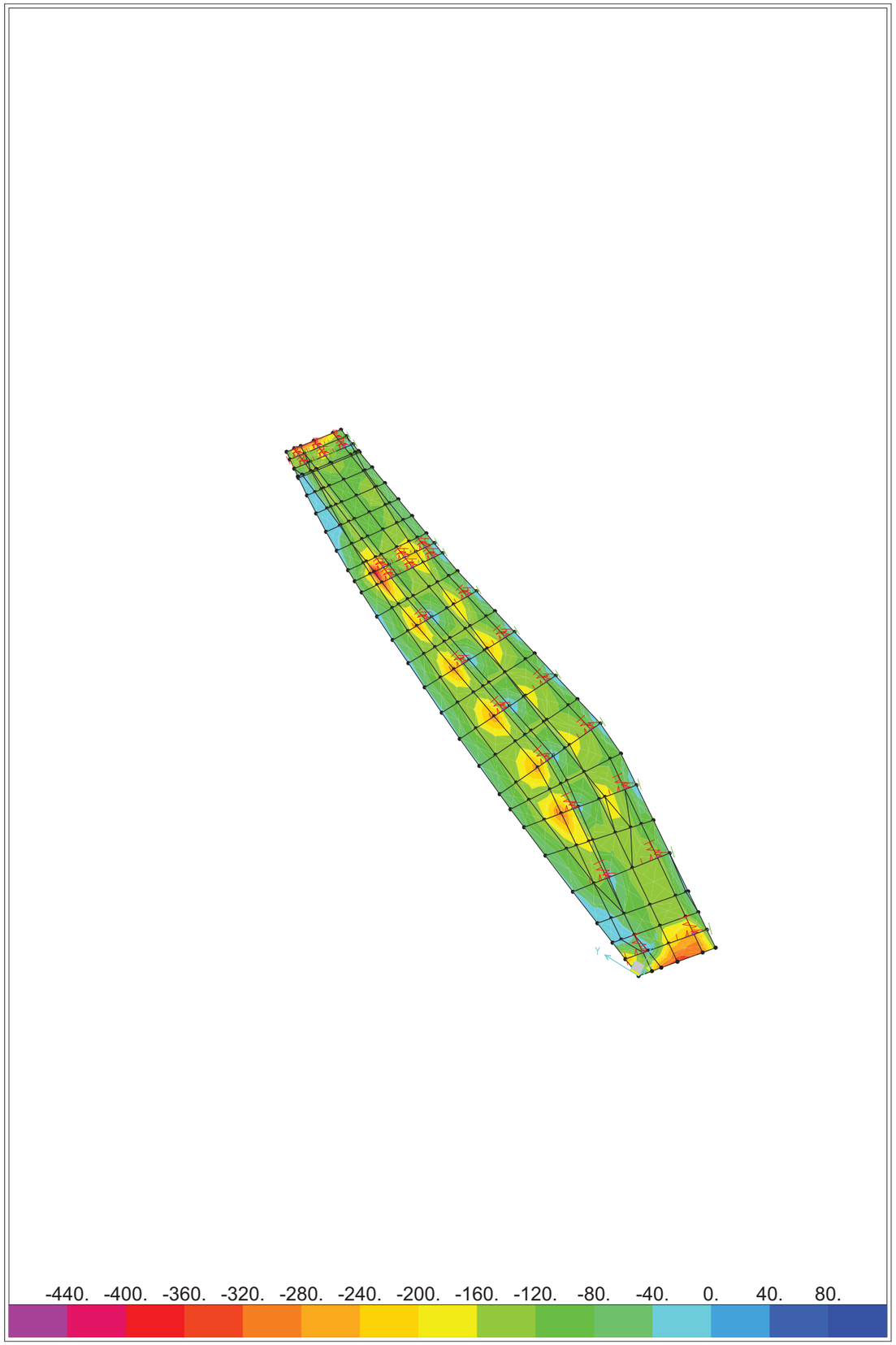
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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant V23 Diagram (ENV-ELU-PT - Max) - KN, m, C Units

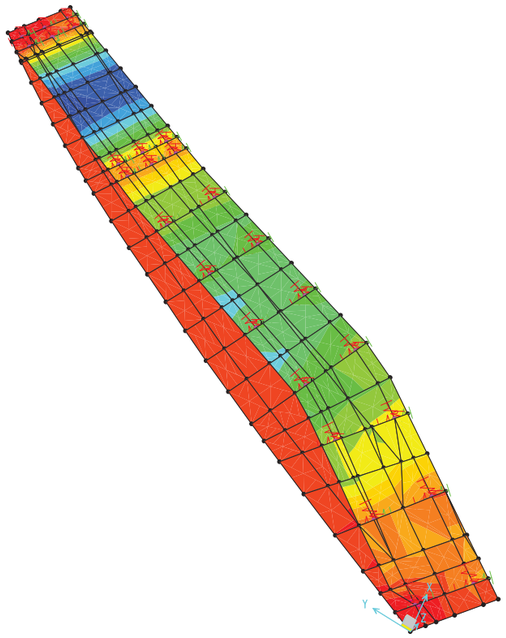
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10/13/16 7:16:58



SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant V23 Diagram (ENV-ELU-PT - Min) - KN, m, C Units

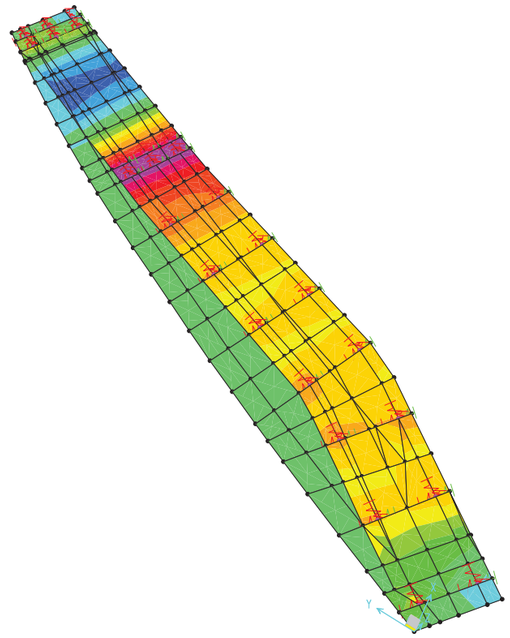
SAP2000 12/13/16 15:42:12



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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M11 Diagram (ENV-ELS-CP - Max) - KN, m, C Units

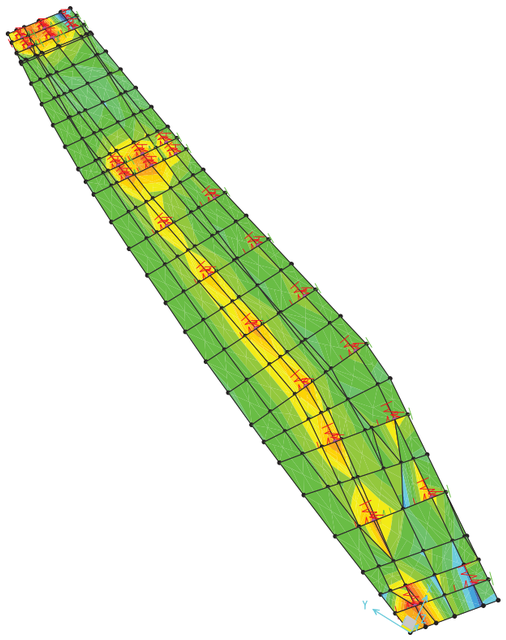
SAP2000 12/13/16 15:41:34



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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M11 Diagram (ENV-ELS-CP - Min) - KN, m, C Units

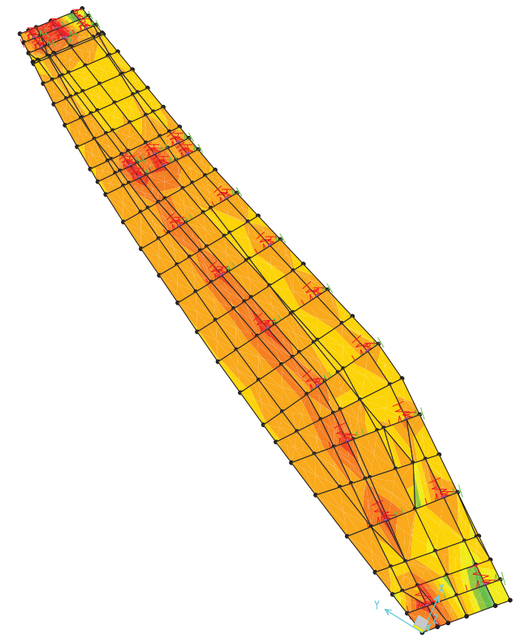
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-54.0 -48.0 -42.0 -36.0 -30.0 -24.0 -18.0 -12.0 -6.0 0.0 6.0 12.0 18.0 24.0

SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M22 Diagram (ENV-ELS-CP - Min) - KN, m, C Units

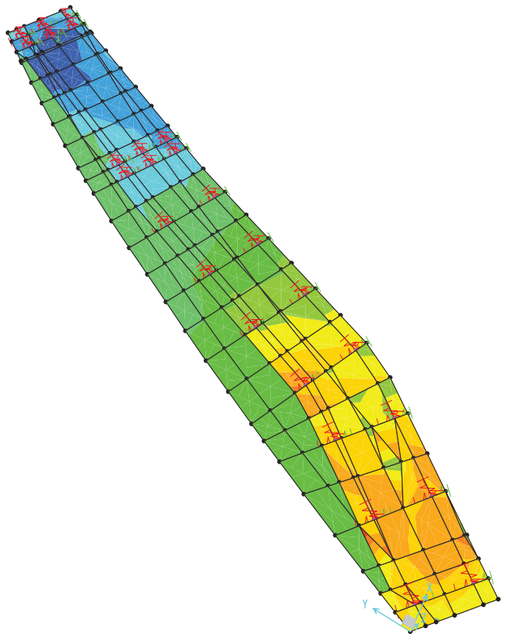
SAP2000 12/13/16 15:43:35



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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M22 Diagram (ENV-ELS-CP - Max) - KN, m, C Units

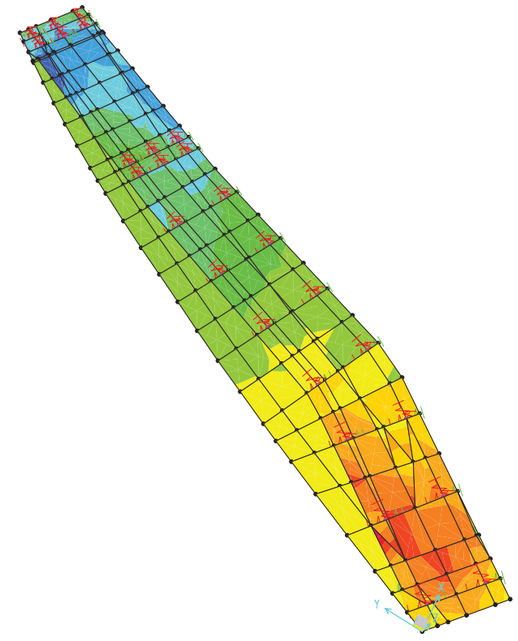
SAP2000 12/13/16 15:44:20



-63.0 -56.0 -49.0 -42.0 -35.0 -28.0 -21.0 -14.0 -7.0 0.0 7.0 14.0 21.0 28.0

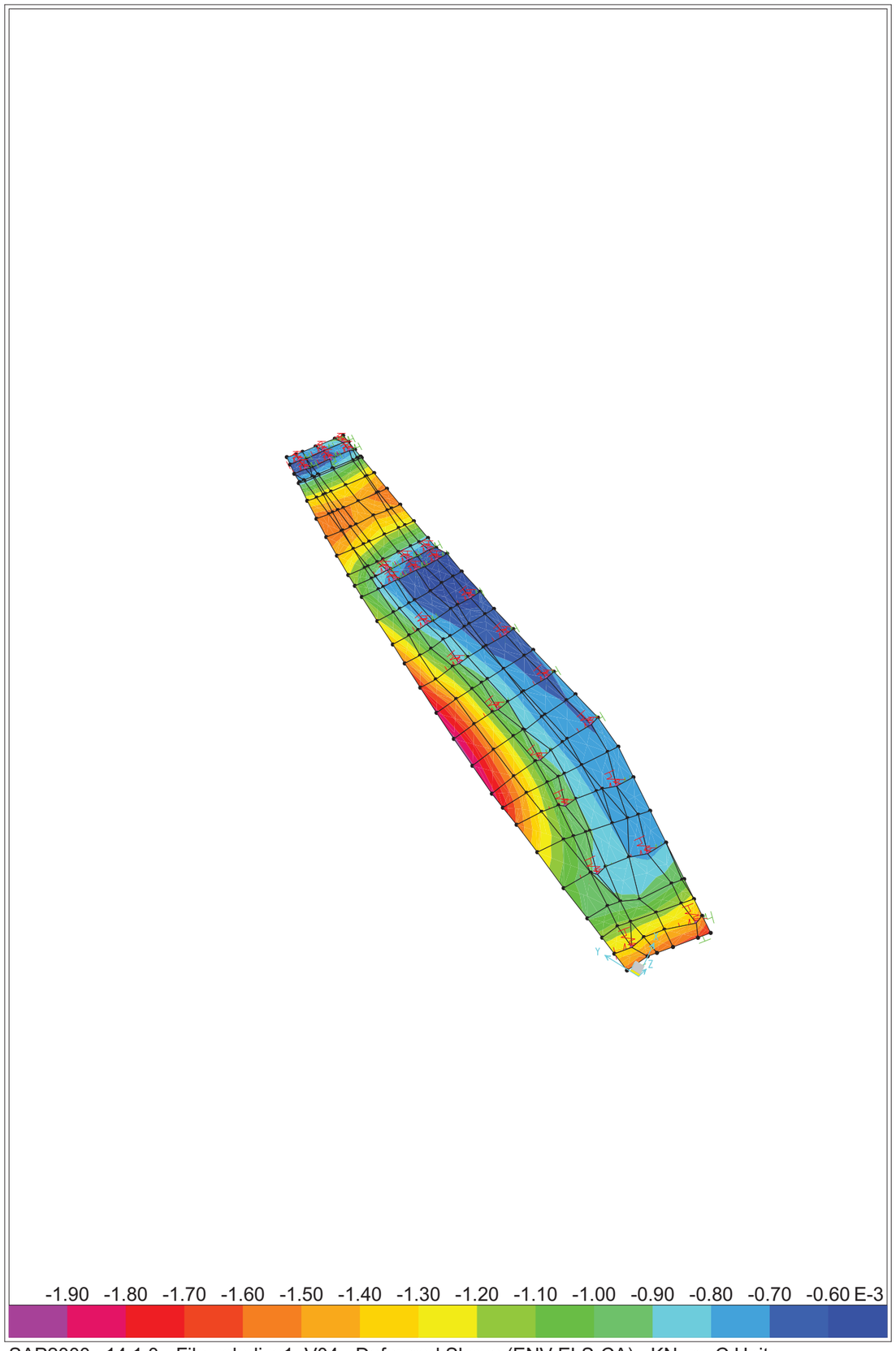
SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M12 Diagram (ENV-ELS-CP - Min) - KN, m, C Units

SAP2000 12/13/16 15:44:46



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SAP2000 v14.1.0 - File:voladizo1_V04 - Resultant M12 Diagram (ENV-ELS-CP - Max) - KN, m, C Units



SAP2000 v14.1.0 - File:voladizo1_V04 - Deformed Shape (ENV-ELS-CA) - KN, m, C Units

VOLADIZO Nº2

Table: Joint Reactions, Part 1 of 2

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
59	ENV-ELS-CA	Combination	Max	33.836	23.598	365.540	23.9515	32.9799
59	ENV-ELS-CA	Combination	Min	-43.059	-23.979	93.573	-22.8469	-42.5692
59	ENV-ELS-CP	Combination	Max	7.537	3.529	163.562	3.8415	7.1997
59	ENV-ELS-CP	Combination	Min	-17.411	-3.516	134.944	-3.3679	-17.2099
59	ENV-ELU-PT	Combination	Max	47.185	32.147	495.689	32.9609	46.1089
59	ENV-ELU-PT	Combination	Min	-58.776	-32.976	73.928	-31.1558	-58.1212
59	ENV-ELU-AC	Combination	Max	18.168	40.001	306.810	17.9123	17.4648
59	ENV-ELU-AC	Combination	Min	-21.361	-18.072	108.591	-38.5737	-21.6813
59	ENV-ELU-EQ	Combination	Max	0.834	-3.047E-03	416.080	1.3402	1.2959
59	ENV-ELU-EQ	Combination	Min	-1.909	-0.391	106.211	-0.1362	-3.3800
59	RH-1	Combination		-18.240	2.804	3.636	-2.6904	-17.5315
59	RH-2	Combination		-28.242	6.819	5.892	-6.5548	-27.1425
59	RH-3	Combination		4.218	-6.210	-1.430	5.9857	4.0468
59	RH-4	Combination		-56.799	-18.824	-17.383	18.0294	-54.6317
59	RH-5	Combination		-43.466	31.761	31.585	-30.4974	-41.7908
59	RH-6	Combination		-5.017	-21.335	-21.606	20.4793	-4.8053
59	RH-7	Combination		8.317	29.249	27.362	-28.0475	8.0356
59	RH-8	Combination		-52.502	-0.207	-2.236	0.1459	-50.4841
59	RH-9	Combination		-44.418	24.519	28.875	-23.5151	-42.7215
59	RH-10	Combination		-4.064	-14.093	-18.897	13.4970	-3.8747
59	RH-11	Combination		4.019	10.632	12.215	-10.1640	3.8879
59	RH-12	Combination		-49.758	10.493	6.707	-10.1296	-47.8381
59	RH-13	Combination		-48.230	10.935	20.701	-10.4441	-46.4060
59	RH-14	Combination		-0.253	-0.509	-10.722	0.4260	-0.1901
59	RH-15	Combination		1.276	-0.067	3.272	0.1115	1.2419
59	RH-16	Combination		-47.074	19.548	14.186	-18.8266	-45.2504
59	RH-17	Combination		-50.342	2.239	15.442	-2.0771	-48.4491
59	RH-18	Combination		1.860	8.186	-5.463	-7.9410	1.8529
59	RH-19	Combination		-1.408	-9.122	-4.207	8.8084	-1.3457
59	RH-20	Combination		-37.323	-26.641	-21.776	25.5537	-35.9182
59	RH-21	Combination		-23.990	23.943	27.192	-22.9731	-23.0773
59	RH-22	Combination		14.459	-29.152	-25.999	28.0036	13.9082
59	RH-23	Combination		27.793	21.432	22.969	-20.5232	26.7491
59	RH-24	Combination		-33.026	-8.024	-6.629	7.6702	-31.7705
59	RH-25	Combination		-24.942	16.702	24.482	-15.9908	-24.0079
59	RH-26	Combination		15.411	-21.911	-23.289	21.0213	14.8389
59	RH-27	Combination		23.495	2.815	7.822	-2.6397	22.6015
59	RH-28	Combination		-30.282	2.675	2.314	-2.6053	-29.1245
59	RH-29	Combination		-28.754	3.117	16.308	-2.9198	-27.6925
59	RH-30	Combination		19.223	-8.326	-15.115	7.9503	18.5234
59	RH-31	Combination		20.751	-7.884	-1.121	7.6358	19.9554
59	RH-32	Combination		-27.598	11.731	9.793	-11.3023	-26.5369
59	RH-33	Combination		-30.866	-5.578	11.049	5.4472	-29.7355
59	RH-34	Combination		21.335	0.369	-9.856	-0.4167	20.5665
59	RH-35	Combination		18.068	-16.940	-8.600	16.3327	17.3678
59	RH-36	Combination		-13.511	2.077	2.693	-1.9929	-12.9863
59	RH-37	Combination		-23.513	6.092	4.949	-5.8573	-22.5973
59	RH-38	Combination		8.946	-6.937	-2.372	6.6832	8.5920
59	RH-39	Combination		-52.070	-19.551	-18.326	18.7269	-50.0865
59	RH-40	Combination		-38.737	31.034	30.642	-29.7999	-37.2456
59	RH-41	Combination		-0.288	-22.062	-22.549	21.1768	-0.2601

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
59	RH-42	Combination		13.046	28.522	26.420	-27.3499	12.5808
59	RH-43	Combination		-47.773	-0.934	-3.179	0.8434	-45.9389
59	RH-44	Combination		-39.689	23.792	27.933	-22.8176	-38.1763
59	RH-45	Combination		0.664	-14.820	-19.839	14.1945	0.6705
59	RH-46	Combination		8.748	9.905	11.272	-9.4665	8.4331
59	RH-47	Combination		-45.029	9.766	5.764	-9.4321	-43.2929
59	RH-48	Combination		-43.501	10.208	19.758	-9.7466	-41.8608
59	RH-49	Combination		4.476	-1.236	-11.664	1.1236	4.3551
59	RH-50	Combination		6.004	-0.794	2.330	0.8090	5.7871
59	RH-51	Combination		-42.345	18.821	13.243	-18.1290	-40.7052
59	RH-52	Combination		-45.613	1.512	14.499	-1.3796	-43.9039
59	RH-53	Combination		6.588	7.459	-6.406	-7.2435	6.3981
59	RH-54	Combination		3.321	-9.849	-5.149	9.5060	3.1995
59	RH-55	Combination		-32.595	-27.368	-22.719	26.2512	-31.3730
59	RH-56	Combination		-19.261	23.216	26.250	-22.2756	-18.5321
59	RH-57	Combination		19.188	-29.879	-26.942	28.7011	18.4534
59	RH-58	Combination		32.522	20.705	22.027	-19.8256	31.2943
59	RH-59	Combination		-28.297	-8.751	-7.571	8.3677	-27.2253
59	RH-60	Combination		-20.213	15.975	23.540	-15.2933	-19.4628
59	RH-61	Combination		20.140	-22.637	-24.232	21.7188	19.3841
59	RH-62	Combination		28.224	2.088	6.879	-1.9422	27.1467
59	RH-63	Combination		-25.553	1.948	1.371	-1.9078	-24.5793
59	RH-64	Combination		-24.025	2.390	15.365	-2.2223	-23.1473
59	RH-65	Combination		23.952	-9.053	-16.057	8.6479	23.0686
59	RH-66	Combination		25.480	-8.611	-2.063	8.3333	24.5006
59	RH-67	Combination		-22.870	11.004	8.850	-10.6047	-21.9917
59	RH-68	Combination		-26.137	-6.305	10.106	6.1447	-25.1903
59	RH-69	Combination		26.064	-0.358	-10.798	0.2808	25.1117
59	RH-70	Combination		22.797	-17.667	-9.542	17.0303	21.9130
59	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
59	RH-72	Combination		-10.003	4.015	2.256	-3.8644	-9.6110
59	RH-73	Combination		22.457	-9.014	-5.065	8.6761	21.5782
59	RH-74	Combination		-38.560	-21.628	-21.019	20.7198	-37.1002
59	RH-75	Combination		-25.226	28.957	27.949	-27.8070	-24.2594
59	RH-76	Combination		13.223	-24.139	-25.242	23.1698	12.7262
59	RH-77	Combination		26.557	26.445	23.726	-25.3570	25.5670
59	RH-78	Combination		-34.262	-3.011	-5.872	2.8363	-32.9526
59	RH-79	Combination		-26.178	21.715	25.240	-20.8247	-25.1900
59	RH-80	Combination		14.175	-16.897	-22.532	16.1875	13.6568
59	RH-81	Combination		22.259	7.828	8.579	-7.4736	21.4194
59	RH-82	Combination		-31.518	7.689	3.071	-7.4392	-30.3066
59	RH-83	Combination		-29.990	8.131	17.065	-7.7537	-28.8746
59	RH-84	Combination		17.987	-3.313	-14.358	3.1165	17.3414
59	RH-85	Combination		19.515	-2.871	-0.364	2.8019	18.7734
59	RH-86	Combination		-28.835	16.744	10.550	-16.1361	-27.7190
59	RH-87	Combination		-32.102	-0.565	11.806	0.6133	-30.9176
59	RH-88	Combination		20.099	5.382	-9.099	-5.2506	19.3844
59	RH-89	Combination		16.832	-11.926	-7.843	11.4989	16.1858
59	RH-90	Combination		-19.084	-29.445	-25.412	28.2441	-18.3867
59	RH-91	Combination		-5.750	21.139	23.556	-20.2827	-5.5458
59	RH-92	Combination		32.699	-31.956	-29.635	30.6941	31.4397
59	RH-93	Combination		46.032	18.628	19.334	-17.8327	44.2806
59	RH-94	Combination		-14.786	-10.828	-10.264	10.3607	-14.2390
59	RH-95	Combination		-6.702	13.898	20.847	-13.3004	-6.4765
59	RH-96	Combination		33.651	-24.714	-26.925	23.7118	32.3704
59	RH-97	Combination		41.735	0.011	4.186	0.0507	40.1329
59	RH-98	Combination		-12.042	-0.129	-1.322	0.0851	-11.5930
59	RH-99	Combination		-10.514	0.313	12.672	-0.2294	-10.1610
59	RH-100	Combination		37.463	-11.130	-18.750	10.6408	36.0549
59	RH-101	Combination		38.991	-10.688	-4.756	10.3262	37.4869
59	RH-102	Combination		-9.359	8.927	6.157	-8.6118	-9.0054
59	RH-103	Combination		-12.626	-8.382	7.413	8.1376	-12.2041

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
59	RH-104	Combination		39.575	-2.435	-13.491	2.2737	38.0980
59	RH-105	Combination		36.307	-19.744	-12.235	19.0232	34.8993
59	RH-106	Combination		-4.444	38.228	2.199	-36.8515	-4.2705
59	RH-107	Combination		-5.845	34.867	0.627	-33.6221	-5.6193
59	RH-108	Combination		-6.320	30.386	1.113	-29.3137	-6.0654
59	RH-109	Combination		-7.502	23.991	3.547	-23.1516	-7.1907
59	RH-110	Combination		-7.998	19.178	4.750	-18.5031	-7.6741
59	RH-111	Combination		-9.510	14.382	5.610	-13.8611	-9.1312
59	RH-112	Combination		-11.108	8.272	5.446	-7.9573	-10.6779
59	RH-113	Combination		-12.770	2.307	3.967	-2.2032	-12.2875
59	RH-114	Combination		-14.361	-3.583	1.196	3.4697	-13.8257
59	RH-115	Combination		-15.944	-9.426	-2.368	9.0911	-15.3547
59	RH-116	Combination		-8.445	39.834	3.102	-38.3972	-8.1149
59	RH-117	Combination		-9.846	36.473	1.529	-35.1679	-9.4637
59	RH-118	Combination		-10.321	31.992	2.016	-30.8595	-9.9098
59	RH-119	Combination		-11.503	25.597	4.449	-24.6974	-11.0351
59	RH-120	Combination		-11.999	20.784	5.653	-20.0488	-11.5185
59	RH-121	Combination		-13.511	15.988	6.512	-15.4068	-12.9756
59	RH-122	Combination		-15.109	9.878	6.348	-9.5031	-14.5223
59	RH-123	Combination		-16.771	3.913	4.869	-3.7490	-16.1319
59	RH-124	Combination		-18.362	-1.977	2.098	1.9240	-17.6701
59	RH-125	Combination		-19.945	-7.820	-1.465	7.5454	-19.1991
59	RH-126	Combination		4.539	34.623	0.173	-33.3810	4.3608
59	RH-127	Combination		3.138	31.261	-1.399	-30.1517	3.0120
59	RH-128	Combination		2.663	26.780	-0.913	-25.8433	2.5659
59	RH-129	Combination		1.481	20.385	1.521	-19.6812	1.4406
59	RH-130	Combination		0.985	15.573	2.724	-15.0326	0.9572
59	RH-131	Combination		-0.527	10.776	3.583	-10.3906	-0.4999
59	RH-132	Combination		-2.125	4.666	3.420	-4.4869	-2.0466
59	RH-133	Combination		-3.787	-1.299	1.940	1.2672	-3.6562
59	RH-134	Combination		-5.378	-7.189	-0.830	6.9402	-5.1944
59	RH-135	Combination		-6.961	-13.031	-4.394	12.5616	-6.7234
59	RH-136	Combination		9.067	36.151	-0.494	-34.8586	8.7158
59	RH-137	Combination		7.666	32.790	-2.066	-31.6292	7.3669
59	RH-138	Combination		7.191	28.309	-1.580	-27.3208	6.9208
59	RH-139	Combination		6.009	21.914	0.854	-21.1587	5.7956
59	RH-140	Combination		5.513	17.101	2.057	-16.5102	5.3121
59	RH-141	Combination		4.001	12.305	2.916	-11.8682	3.8551
59	RH-142	Combination		2.403	6.195	2.753	-5.9644	2.3084
59	RH-143	Combination		0.741	0.230	1.273	-0.2103	0.6988
59	RH-144	Combination		-0.850	-5.660	-1.497	5.4627	-0.8394
59	RH-145	Combination		-2.433	-11.503	-5.061	11.0840	-2.3684
59	RH-146	Combination		5.066	37.757	0.409	-36.4043	4.8714
59	RH-147	Combination		3.665	34.396	-1.164	-33.1749	3.5225
59	RH-148	Combination		3.190	29.915	-0.677	-28.8666	3.0764
59	RH-149	Combination		2.008	23.520	1.756	-22.7045	1.9512
59	RH-150	Combination		1.512	18.707	2.959	-18.0559	1.4677
59	RH-151	Combination		3.684E-04	13.911	3.819	-13.4139	0.0107
59	RH-152	Combination		-1.598	7.801	3.655	-7.5102	-1.5360
59	RH-153	Combination		-3.260	1.836	2.176	-1.7561	-3.1456
59	RH-154	Combination		-4.851	-4.054	-0.595	3.9169	-4.6838
59	RH-155	Combination		-6.434	-9.897	-4.158	9.5383	-6.2128
59	RH-156	Combination		18.050	32.546	-2.520	-31.3881	17.3471
59	RH-157	Combination		16.649	29.184	-4.092	-28.1587	15.9982
59	RH-158	Combination		16.173	24.703	-3.606	-23.8503	15.5521
59	RH-159	Combination		14.992	18.308	-1.172	-17.6883	14.4269
59	RH-160	Combination		14.496	13.496	0.031	-13.0397	13.9434
59	RH-161	Combination		12.984	8.699	0.890	-8.3977	12.4864
59	RH-162	Combination		11.386	2.589	0.727	-2.4939	10.9397
59	RH-163	Combination		9.724	-3.376	-0.753	3.2601	9.3301
59	RH-164	Combination		8.133	-9.266	-3.523	8.9331	7.7919
59	RH-165	Combination		6.550	-15.108	-7.087	14.5545	6.2629

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
61	ENV-ELS-CA	Combination	Max	31.007	22.304	244.497	21.1095	30.0893
61	ENV-ELS-CA	Combination	Min	-39.846	-21.354	69.580	-21.3931	-39.5435
61	ENV-ELS-CP	Combination	Max	7.349	2.457	120.277	1.4848	6.9301
61	ENV-ELS-CP	Combination	Min	-16.547	-1.322	89.214	-2.1457	-16.4681
61	ENV-ELU-PT	Combination	Max	43.429	30.211	332.190	28.6990	42.3007
61	ENV-ELU-PT	Combination	Min	-54.439	-29.036	52.719	-28.9780	-54.0380
61	ENV-ELU-AC	Combination	Max	13.559	38.886	203.957	15.3965	12.9233
61	ENV-ELU-AC	Combination	Min	-17.488	-15.431	79.630	-37.5464	-18.0011
61	ENV-ELU-EQ	Combination	Max	0.352	5.153E-03	273.409	1.3749	0.6097
61	ENV-ELU-EQ	Combination	Min	-2.343	-0.442	97.583	-0.1955	-3.8779
61	RH-1	Combination		-16.816	2.783	-0.335	-2.6580	-16.1485
61	RH-2	Combination		-26.784	4.279	-0.687	-4.0860	-25.7223
61	RH-3	Combination		5.565	-0.577	0.456	0.5482	5.3461
61	RH-4	Combination		-52.010	-20.398	5.723	19.5868	-49.9937
61	RH-5	Combination		-44.251	30.204	-1.228	-28.9641	-42.5338
61	RH-6	Combination		-1.342	-22.842	0.136	21.9345	-1.2517
61	RH-7	Combination		6.416	27.759	-6.815	-26.6164	6.2082
61	RH-8	Combination		-51.119	-1.778	4.153	1.7011	-49.1415
61	RH-9	Combination		-42.316	22.969	-1.680	-21.9919	-40.6675
61	RH-10	Combination		-3.277	-15.607	0.588	14.9623	-3.1181
61	RH-11	Combination		5.526	9.139	-5.245	-8.7307	5.3559
61	RH-12	Combination		-50.152	8.923	3.134	-8.5762	-48.2140
61	RH-13	Combination		-42.367	9.387	-1.342	-8.9253	-40.7093
61	RH-14	Combination		-3.227	-2.025	0.250	1.8957	-3.0763
61	RH-15	Combination		4.559	-1.562	-4.226	1.5466	4.4284
61	RH-16	Combination		-48.990	17.980	2.255	-17.2753	-47.0984
61	RH-17	Combination		-42.130	0.693	-1.159	-0.5616	-40.4771
61	RH-18	Combination		-3.464	6.668	0.067	-6.4680	-3.3085
61	RH-19	Combination		3.397	-10.619	-3.347	10.2457	3.3128
61	RH-20	Combination		-32.600	-23.311	6.409	22.3673	-31.3527
61	RH-21	Combination		-24.842	27.290	-0.542	-26.1835	-23.8928
61	RH-22	Combination		18.067	-25.756	0.822	24.7150	17.3893
61	RH-23	Combination		25.826	24.845	-6.129	-23.8358	24.8492
61	RH-24	Combination		-31.710	-4.692	4.839	4.4816	-30.5005
61	RH-25	Combination		-22.907	20.055	-0.995	-19.2114	-22.0264
61	RH-26	Combination		16.132	-18.521	1.274	17.7429	15.5230
61	RH-27	Combination		24.935	6.226	-4.560	-5.9501	23.9970
61	RH-28	Combination		-30.743	6.009	3.819	-5.7957	-29.5729
61	RH-29	Combination		-22.957	6.473	-0.657	-6.1447	-22.0682
61	RH-30	Combination		16.183	-4.939	0.936	4.6763	15.5648
61	RH-31	Combination		23.968	-4.475	-3.540	4.3272	23.0695
61	RH-32	Combination		-29.581	15.067	2.940	-14.4948	-28.4574
61	RH-33	Combination		-22.720	-2.221	-0.473	2.2190	-21.8360
61	RH-34	Combination		15.946	3.755	0.752	-3.6874	15.3325
61	RH-35	Combination		22.807	-13.532	-2.661	13.0263	21.9539
61	RH-36	Combination		-12.456	2.061	-0.248	-1.9689	-11.9619
61	RH-37	Combination		-22.424	3.558	-0.600	-3.3969	-21.5356
61	RH-38	Combination		9.924	-1.298	0.543	1.2373	9.5328
61	RH-39	Combination		-47.650	-21.119	5.810	20.2759	-45.8071
61	RH-40	Combination		-39.892	29.482	-1.141	-28.2750	-38.3472
61	RH-41	Combination		3.018	-23.564	0.223	22.6236	2.9349
61	RH-42	Combination		10.776	27.037	-6.728	-25.9273	10.3948
61	RH-43	Combination		-46.759	-2.500	4.240	2.3902	-44.9549
61	RH-44	Combination		-37.957	22.247	-1.593	-21.3028	-36.4808
61	RH-45	Combination		1.083	-16.329	0.675	15.6514	1.0686
61	RH-46	Combination		9.885	8.418	-5.159	-8.0416	9.5426

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
61	RH-47	Combination		-45.793	8.201	3.220	-7.8871	-44.0273
61	RH-48	Combination		-38.007	8.665	-1.255	-8.2362	-36.5226
61	RH-49	Combination		1.133	-2.747	0.337	2.5848	1.1104
61	RH-50	Combination		8.919	-2.283	-4.139	2.2357	8.6151
61	RH-51	Combination		-44.631	17.259	2.342	-16.5862	-42.9118
61	RH-52	Combination		-37.770	-0.029	-1.072	0.1275	-36.2904
61	RH-53	Combination		0.896	5.947	0.153	-5.7789	0.8781
61	RH-54	Combination		7.757	-11.340	-3.260	10.9348	7.4995
61	RH-55	Combination		-28.241	-24.033	6.495	23.0564	-27.1660
61	RH-56	Combination		-20.483	26.569	-0.456	-25.4944	-19.7061
61	RH-57	Combination		22.427	-26.477	0.909	25.4041	21.5760
61	RH-58	Combination		30.185	24.124	-6.043	-23.1467	29.0359
61	RH-59	Combination		-27.350	-5.413	4.926	5.1708	-26.3138
61	RH-60	Combination		-18.548	19.334	-0.908	-18.5223	-17.8398
61	RH-61	Combination		20.492	-19.242	1.361	18.4320	19.7096
61	RH-62	Combination		29.295	5.504	-4.473	-5.2610	28.1836
61	RH-63	Combination		-26.384	5.288	3.906	-5.1066	-25.3863
61	RH-64	Combination		-18.598	5.752	-0.570	-5.4556	-17.8816
61	RH-65	Combination		20.542	-5.660	1.023	5.3654	19.7514
61	RH-66	Combination		28.328	-5.197	-3.453	5.0163	27.2561
61	RH-67	Combination		-25.222	14.345	3.027	-13.8057	-24.2707
61	RH-68	Combination		-18.361	-2.942	-0.386	2.9081	-17.6494
61	RH-69	Combination		20.305	3.033	0.839	-2.9983	19.5192
61	RH-70	Combination		27.166	-14.254	-2.574	13.7154	26.1405
61	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
61	RH-72	Combination		-9.968	1.496	-0.352	-1.4281	-9.5738
61	RH-73	Combination		22.380	-3.359	0.791	3.2062	21.4946
61	RH-74	Combination		-35.194	-23.181	6.058	22.2447	-33.8452
61	RH-75	Combination		-27.436	27.421	-0.893	-26.3061	-26.3853
61	RH-76	Combination		15.474	-25.625	0.471	24.5924	14.8968
61	RH-77	Combination		23.232	24.976	-6.480	-23.9584	22.3567
61	RH-78	Combination		-34.303	-4.561	4.488	4.3591	-32.9930
61	RH-79	Combination		-25.501	20.186	-1.346	-19.3340	-24.5190
61	RH-80	Combination		13.539	-18.390	0.923	17.6203	13.0304
61	RH-81	Combination		22.341	6.356	-4.911	-6.0727	21.5045
61	RH-82	Combination		-33.337	6.140	3.468	-5.9183	-32.0655
61	RH-83	Combination		-25.551	6.604	-1.007	-6.2673	-24.5608
61	RH-84	Combination		13.589	-4.808	0.585	4.5537	13.0722
61	RH-85	Combination		21.375	-4.345	-3.891	4.2046	20.5770
61	RH-86	Combination		-32.175	15.197	2.589	-14.6174	-30.9499
61	RH-87	Combination		-25.314	-2.090	-0.824	2.0964	-24.3285
61	RH-88	Combination		13.352	3.885	0.401	-3.8100	12.8400
61	RH-89	Combination		20.213	-13.402	-3.012	12.9037	19.4614
61	RH-90	Combination		-15.785	-26.094	6.743	25.0253	-15.2042
61	RH-91	Combination		-8.027	24.507	-0.208	-23.5255	-7.7443
61	RH-92	Combination		34.883	-28.539	1.156	27.3730	33.5378
61	RH-93	Combination		42.641	22.063	-5.795	-21.1778	40.9977
61	RH-94	Combination		-14.894	-7.474	5.174	7.1396	-14.3519
61	RH-95	Combination		-6.092	17.272	-0.660	-16.5534	-5.8779
61	RH-96	Combination		32.948	-21.304	1.609	20.4009	31.6715
61	RH-97	Combination		41.751	3.443	-4.225	-3.2922	40.1455
61	RH-98	Combination		-13.927	3.227	4.154	-3.1377	-13.4244
61	RH-99	Combination		-6.142	3.690	-0.322	-3.4868	-5.9197
61	RH-100	Combination		32.998	-7.722	1.271	7.3342	31.7133
61	RH-101	Combination		40.784	-7.258	-3.205	6.9852	39.2180
61	RH-102	Combination		-12.766	12.284	3.275	-11.8368	-12.3088
61	RH-103	Combination		-5.905	-5.003	-0.138	4.8769	-5.6875
61	RH-104	Combination		32.761	0.972	1.087	-1.0295	31.4811
61	RH-105	Combination		39.622	-16.315	-2.326	15.6843	38.1024
61	RH-106	Combination		-9.196	38.380	-5.566	-37.0816	-8.8521
61	RH-107	Combination		-9.656	34.997	-4.639	-33.8216	-9.2977
61	RH-108	Combination		-8.920	30.472	-1.755	-29.4484	-8.5922

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
61	RH-109	Combination		-8.470	24.001	0.517	-23.1670	-8.1581
61	RH-110	Combination		-7.809	19.168	0.807	-18.4860	-7.5181
61	RH-111	Combination		-8.161	14.368	-0.036	-13.8394	-7.8430
61	RH-112	Combination		-8.344	8.260	-0.600	-7.9387	-8.0105
61	RH-113	Combination		-8.658	2.297	-0.733	-2.1882	-8.3095
61	RH-114	Combination		-8.955	-3.592	-0.751	3.4824	-8.5925
61	RH-115	Combination		-9.277	-9.434	-0.628	9.1025	-8.8986
61	RH-116	Combination		-13.183	38.979	-5.707	-37.6528	-12.6817
61	RH-117	Combination		-13.643	35.596	-4.780	-34.3929	-13.1272
61	RH-118	Combination		-12.907	31.071	-1.896	-30.0196	-12.4217
61	RH-119	Combination		-12.458	24.599	0.376	-23.7382	-11.9876
61	RH-120	Combination		-11.797	19.766	0.666	-19.0572	-11.3476
61	RH-121	Combination		-12.148	14.967	-0.177	-14.4106	-11.6725
61	RH-122	Combination		-12.331	8.858	-0.741	-8.5099	-11.8400
61	RH-123	Combination		-12.645	2.895	-0.874	-2.7595	-12.1391
61	RH-124	Combination		-12.943	-2.994	-0.892	2.9112	-12.4220
61	RH-125	Combination		-13.264	-8.835	-0.769	8.5312	-12.7281
61	RH-126	Combination		-0.244	37.036	-5.250	-35.7991	-0.2543
61	RH-127	Combination		-0.703	33.653	-4.323	-32.5392	-0.6998
61	RH-128	Combination		0.033	29.128	-1.438	-28.1659	0.0057
61	RH-129	Combination		0.482	22.657	0.833	-21.8845	0.4397
61	RH-130	Combination		1.143	17.824	1.123	-17.2035	1.0798
61	RH-131	Combination		0.792	13.024	0.280	-12.5569	0.7549
61	RH-132	Combination		0.608	6.916	-0.284	-6.6562	0.5873
61	RH-133	Combination		0.294	0.953	-0.417	-0.9058	0.2883
61	RH-134	Combination		-3.225E-03	-4.936	-0.435	4.7649	0.0054
61	RH-135	Combination		-0.325	-10.778	-0.311	10.3850	-0.3007
61	RH-136	Combination		3.260	36.319	-5.318	-35.1127	3.1097
61	RH-137	Combination		2.800	32.936	-4.391	-31.8528	2.6642
61	RH-138	Combination		3.536	28.411	-1.507	-27.4795	3.3697
61	RH-139	Combination		3.986	21.939	0.765	-21.1981	3.8037
61	RH-140	Combination		4.647	17.107	1.055	-16.5171	4.4438
61	RH-141	Combination		4.295	12.307	0.212	-11.8705	4.1189
61	RH-142	Combination		4.112	6.199	-0.352	-5.9698	3.9514
61	RH-143	Combination		3.798	0.235	-0.485	-0.2194	3.6523
61	RH-144	Combination		3.501	-5.653	-0.503	5.4513	3.3694
61	RH-145	Combination		3.179	-11.495	-0.380	11.0713	3.0633
61	RH-146	Combination		-0.727	36.917	-5.459	-35.6839	-0.7198
61	RH-147	Combination		-1.187	33.534	-4.532	-32.4240	-1.1653
61	RH-148	Combination		-0.451	29.009	-1.648	-28.0507	-0.4598
61	RH-149	Combination		-1.657E-03	22.538	0.624	-21.7693	-0.0258
61	RH-150	Combination		0.659	17.705	0.914	-17.0883	0.6143
61	RH-151	Combination		0.308	12.905	0.071	-12.4417	0.2894
61	RH-152	Combination		0.125	6.797	-0.493	-6.5411	0.1219
61	RH-153	Combination		-0.189	0.834	-0.626	-0.7906	-0.1772
61	RH-154	Combination		-0.487	-5.055	-0.644	4.8800	-0.4601
61	RH-155	Combination		-0.808	-10.897	-0.521	10.5001	-0.7662
61	RH-156	Combination		12.212	34.975	-5.002	-33.8302	11.7076
61	RH-157	Combination		11.753	31.592	-4.075	-30.5703	11.2621
61	RH-158	Combination		12.489	27.067	-1.191	-26.1970	11.9675
61	RH-159	Combination		12.938	20.595	1.081	-19.9156	12.4016
61	RH-160	Combination		13.599	15.763	1.371	-15.2346	13.0417
61	RH-161	Combination		13.248	10.963	0.528	-10.5880	12.7167
61	RH-162	Combination		13.065	4.855	-0.036	-4.6874	12.5492
61	RH-163	Combination		12.750	-1.108	-0.169	1.0631	12.2502
61	RH-164	Combination		12.453	-6.997	-0.187	6.7337	11.9673
61	RH-165	Combination		12.131	-12.839	-0.064	12.3538	11.6611
62	ENV-ELS-CA	Combination	Max	30.412	22.199	232.884	20.3831	29.5237
62	ENV-ELS-CA	Combination	Min	-38.835	-20.369	49.451	-21.5694	-38.6682
62	ENV-ELS-CP	Combination	Max	7.218	2.369	84.813	0.8553	6.7407

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
62	ENV-ELS-CP	Combination	Min	-15.935	-0.487	74.741	-2.3000	-15.9067
62	ENV-ELU-PT	Combination	Max	42.656	30.052	314.807	27.6085	41.5806
62	ENV-ELU-PT	Combination	Min	-53.071	-27.559	39.764	-29.2417	-52.8522
62	ENV-ELU-AC	Combination	Max	15.759	39.125	196.190	14.8006	15.0217
62	ENV-ELU-AC	Combination	Min	-17.499	-14.538	65.531	-38.2300	-18.1250
62	ENV-ELU-EQ	Combination	Max	0.351	0.088	283.693	1.5039	0.6989
62	ENV-ELU-EQ	Combination	Min	-2.676	-0.529	67.851	-0.2963	-4.3977
62	RH-1	Combination		-15.868	2.773	-3.871	-2.6448	-15.2172
62	RH-2	Combination		-25.801	2.629	-6.080	-2.4882	-24.7465
62	RH-3	Combination		6.433	3.098	1.089	-2.9964	6.1776
62	RH-4	Combination		-48.819	-21.370	19.870	20.5151	-46.8715
62	RH-5	Combination		-44.708	29.160	-26.722	-27.9259	-42.9295
62	RH-6	Combination		1.051	-23.787	16.329	22.8243	1.0600
62	RH-7	Combination		5.163	26.743	-30.263	-25.6167	5.0020
62	RH-8	Combination		-50.153	-2.779	5.880	2.6751	-48.1669
62	RH-9	Combination		-40.898	21.944	-24.722	-20.9812	-39.2516
62	RH-10	Combination		-2.758	-16.571	14.329	15.8796	-2.6179
62	RH-11	Combination		6.497	8.152	-16.273	-7.7767	6.2974
62	RH-12	Combination		-50.346	7.905	-2.463	-7.5759	-48.3591
62	RH-13	Combination		-38.498	8.387	-17.455	-7.9547	-36.9253
62	RH-14	Combination		-5.159	-3.014	7.062	2.8531	-4.9442
62	RH-15	Combination		6.689	-2.532	-7.930	2.4743	6.4896
62	RH-16	Combination		-50.177	16.947	-9.480	-16.2528	-48.2031
62	RH-17	Combination		-36.731	-0.290	-12.827	0.3831	-35.2145
62	RH-18	Combination		-6.926	5.663	2.434	-5.4848	-6.6550
62	RH-19	Combination		6.521	-11.575	-0.914	11.1512	6.3336
62	RH-20	Combination		-29.479	-21.089	24.171	20.2102	-28.3170
62	RH-21	Combination		-25.367	29.442	-22.421	-28.2308	-24.3750
62	RH-22	Combination		20.392	-23.506	20.631	22.5194	19.6144
62	RH-23	Combination		24.503	27.025	-25.961	-25.9216	23.5564
62	RH-24	Combination		-30.813	-2.498	10.181	2.3702	-29.6125
62	RH-25	Combination		-21.558	22.225	-20.421	-21.2862	-20.6972
62	RH-26	Combination		16.582	-16.289	18.630	15.5747	15.9366
62	RH-27	Combination		25.837	8.434	-11.971	-8.0816	24.8519
62	RH-28	Combination		-31.005	8.186	1.838	-7.8809	-29.8047
62	RH-29	Combination		-19.157	8.669	-13.153	-8.2597	-18.3708
62	RH-30	Combination		14.182	-2.733	11.363	2.5482	13.6102
62	RH-31	Combination		26.030	-2.250	-3.628	2.1694	25.0441
62	RH-32	Combination		-30.837	17.229	-5.178	-16.5578	-29.6487
62	RH-33	Combination		-17.390	-8.395E-03	-8.525	0.0782	-16.6600
62	RH-34	Combination		12.415	5.944	6.735	-5.7897	11.8994
62	RH-35	Combination		25.861	-11.293	3.388	10.8463	24.8881
62	RH-36	Combination		-11.754	2.054	-2.867	-1.9591	-11.2720
62	RH-37	Combination		-21.687	1.910	-5.077	-1.8025	-20.8013
62	RH-38	Combination		10.547	2.379	2.093	-2.3107	10.1228
62	RH-39	Combination		-44.705	-22.089	20.873	21.2008	-42.9263
62	RH-40	Combination		-40.594	28.441	-25.719	-27.2402	-38.9843
62	RH-41	Combination		5.165	-24.506	17.333	23.5100	5.0052
62	RH-42	Combination		9.277	26.024	-29.259	-24.9310	8.9472
62	RH-43	Combination		-46.039	-3.498	6.883	3.3608	-44.2217
62	RH-44	Combination		-36.784	21.225	-23.719	-20.2956	-35.3064
62	RH-45	Combination		1.356	-17.290	15.333	16.5653	1.3273
62	RH-46	Combination		10.611	7.433	-15.269	-7.0910	10.2426
62	RH-47	Combination		-46.232	7.186	-1.460	-6.8903	-44.4139
62	RH-48	Combination		-34.384	7.668	-16.451	-7.2690	-32.9801
62	RH-49	Combination		-1.045	-3.733	8.065	3.5388	-0.9990
62	RH-50	Combination		10.803	-3.251	-6.926	3.1600	10.4348
62	RH-51	Combination		-46.063	16.229	-8.476	-15.5672	-44.2579

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
62	RH-52	Combination		-32.617	-1.009	-11.823	1.0688	-31.2693
62	RH-53	Combination		-2.812	4.944	3.437	-4.7991	-2.7098
62	RH-54	Combination		10.635	-12.293	0.090	11.8369	10.2788
62	RH-55	Combination		-25.365	-21.808	25.175	20.8959	-24.3719
62	RH-56	Combination		-21.253	28.723	-21.417	-27.5452	-20.4298
62	RH-57	Combination		24.506	-24.225	21.634	23.2051	23.5596
62	RH-58	Combination		28.618	26.306	-24.958	-25.2360	27.5016
62	RH-59	Combination		-26.699	-3.217	11.185	3.0559	-25.6673
62	RH-60	Combination		-17.443	21.506	-19.417	-20.6005	-16.7520
62	RH-61	Combination		20.696	-17.008	19.634	16.2604	19.8818
62	RH-62	Combination		29.951	7.715	-10.968	-7.3960	28.7971
62	RH-63	Combination		-26.891	7.467	2.842	-7.1952	-25.8595
62	RH-64	Combination		-15.043	7.950	-12.150	-7.5740	-14.4256
62	RH-65	Combination		18.296	-3.452	12.367	3.2339	17.5554
62	RH-66	Combination		30.144	-2.969	-2.625	2.8551	28.9892
62	RH-67	Combination		-26.723	16.510	-4.174	-15.8721	-25.7035
62	RH-68	Combination		-13.276	-0.727	-7.522	0.7639	-12.7149
62	RH-69	Combination		16.529	5.225	7.739	-5.1040	15.8446
62	RH-70	Combination		29.975	-12.012	4.392	11.5320	28.8333
62	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
62	RH-72	Combination		-9.933	-0.145	-2.209	0.1566	-9.5293
62	RH-73	Combination		22.301	0.324	4.960	-0.3516	21.3948
62	RH-74	Combination		-32.951	-24.144	23.741	23.1599	-31.6543
62	RH-75	Combination		-28.839	26.387	-22.851	-25.2811	-27.7123
62	RH-76	Combination		16.920	-26.560	20.200	25.4691	16.2772
62	RH-77	Combination		21.031	23.970	-26.392	-22.9719	20.2192
62	RH-78	Combination		-34.285	-5.553	9.751	5.3199	-32.9498
62	RH-79	Combination		-25.029	19.170	-20.851	-18.3365	-24.0345
62	RH-80	Combination		13.110	-19.344	18.200	18.5244	12.5993
62	RH-81	Combination		22.365	5.379	-12.402	-5.1319	21.5146
62	RH-82	Combination		-34.477	5.131	1.408	-4.9312	-33.1419
62	RH-83	Combination		-22.629	5.614	-13.584	-5.3100	-21.7081
62	RH-84	Combination		10.710	-5.788	10.933	5.4979	10.2730
62	RH-85	Combination		22.558	-5.305	-4.059	5.1191	21.7068
62	RH-86	Combination		-34.309	14.174	-5.608	-13.6081	-32.9860
62	RH-87	Combination		-20.862	-3.063	-8.956	3.0279	-19.9973
62	RH-88	Combination		8.943	2.890	6.305	-2.8400	8.5622
62	RH-89	Combination		22.389	-14.348	2.957	13.7960	21.5508
62	RH-90	Combination		-13.611	-23.862	28.042	22.8549	-13.0999
62	RH-91	Combination		-9.499	26.668	-18.550	-25.5861	-9.1579
62	RH-92	Combination		36.260	-26.279	24.502	25.1641	34.8316
62	RH-93	Combination		40.372	24.252	-22.090	-23.2769	38.7736
62	RH-94	Combination		-14.944	-5.271	14.052	5.0149	-14.3953
62	RH-95	Combination		-5.689	19.452	-16.549	-18.6414	-5.4800
62	RH-96	Combination		32.450	-19.062	22.502	18.2195	31.1538
62	RH-97	Combination		41.705	5.661	-8.100	-5.4369	40.0691
62	RH-98	Combination		-15.137	5.413	5.709	-5.2361	-14.5875
62	RH-99	Combination		-3.289	5.896	-9.282	-5.6149	-3.1537
62	RH-100	Combination		30.050	-5.506	15.234	5.1930	28.8274
62	RH-101	Combination		41.898	-5.023	0.243	4.8142	40.2612
62	RH-102	Combination		-14.968	14.456	-1.307	-13.9130	-14.4315
62	RH-103	Combination		-1.522	-2.782	-4.654	2.7230	-1.4429
62	RH-104	Combination		28.283	3.171	10.606	-3.1449	27.1166
62	RH-105	Combination		41.730	-14.066	7.259	13.4911	40.1053
62	RH-106	Combination		-12.259	38.682	4.139	-37.5527	-11.7656
62	RH-107	Combination		-12.120	35.295	5.757	-34.2815	-11.6689
62	RH-108	Combination		-10.661	30.619	4.327	-29.6840	-10.3175
62	RH-109	Combination		-9.103	23.987	-2.016	-23.1477	-8.7886
62	RH-110	Combination		-7.673	19.132	-3.825	-18.4313	-7.3921
62	RH-111	Combination		-7.266	14.338	-5.557	-13.7932	-6.9779
62	RH-112	Combination		-6.529	8.243	-5.670	-7.9130	-6.2516
62	RH-113	Combination		-5.967	2.292	-4.211	-2.1828	-5.7011

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
62	RH-114	Combination		-5.422	-3.584	-1.795	3.4694	-5.1692
62	RH-115	Combination		-4.922	-9.415	1.307	9.0724	-4.6805
62	RH-116	Combination		-16.232	38.625	3.255	-37.4901	-15.5773
62	RH-117	Combination		-16.094	35.238	4.874	-34.2189	-15.4806
62	RH-118	Combination		-14.635	30.562	3.443	-29.6213	-14.1292
62	RH-119	Combination		-13.076	23.929	-2.900	-23.0851	-12.6003
62	RH-120	Combination		-11.646	19.074	-4.708	-18.3686	-11.2038
62	RH-121	Combination		-11.239	14.280	-6.441	-13.7306	-10.7896
62	RH-122	Combination		-10.502	8.185	-6.553	-7.8503	-10.0633
62	RH-123	Combination		-9.940	2.235	-5.095	-2.1202	-9.5128
62	RH-124	Combination		-9.396	-3.642	-2.679	3.5320	-8.9809
62	RH-125	Combination		-8.895	-9.473	0.423	9.1351	-8.4922
62	RH-126	Combination		-3.339	38.812	6.123	-37.6934	-3.2077
62	RH-127	Combination		-3.200	35.425	7.742	-34.4221	-3.1110
62	RH-128	Combination		-1.741	30.749	6.311	-29.8246	-1.7596
62	RH-129	Combination		-0.183	24.116	-0.032	-23.2884	-0.2307
62	RH-130	Combination		1.248	19.262	-1.841	-18.5719	1.1659
62	RH-131	Combination		1.654	14.468	-3.573	-13.9339	1.5800
62	RH-132	Combination		2.391	8.373	-3.686	-8.0536	2.3064
62	RH-133	Combination		2.954	2.422	-2.227	-2.3235	2.8568
62	RH-134	Combination		3.498	-3.455	0.189	3.3287	3.3887
62	RH-135	Combination		3.998	-9.286	3.291	8.9318	3.8774
62	RH-136	Combination		-0.505	36.628	7.006	-35.5936	-0.4936
62	RH-137	Combination		-0.366	33.241	8.625	-32.3224	-0.3969
62	RH-138	Combination		1.093	28.565	7.194	-27.7249	0.9545
62	RH-139	Combination		2.651	21.932	0.852	-21.1886	2.4834
62	RH-140	Combination		4.082	17.078	-0.957	-16.4722	3.8799
62	RH-141	Combination		4.488	12.284	-2.690	-11.8341	4.2941
62	RH-142	Combination		5.225	6.189	-2.802	-5.9539	5.0204
62	RH-143	Combination		5.788	0.238	-1.343	-0.2237	5.5709
62	RH-144	Combination		6.332	-5.639	1.072	5.4285	6.1028
62	RH-145	Combination		6.832	-11.470	4.174	11.0315	6.5915
62	RH-146	Combination		-4.478	36.570	6.122	-35.5310	-4.3053
62	RH-147	Combination		-4.339	33.183	7.741	-32.2598	-4.2086
62	RH-148	Combination		-2.880	28.507	6.311	-27.6622	-2.8572
62	RH-149	Combination		-1.322	21.875	-0.032	-21.1260	-1.3283
62	RH-150	Combination		0.108	17.020	-1.841	-16.4095	0.0682
62	RH-151	Combination		0.515	12.226	-3.573	-11.7715	0.4824
62	RH-152	Combination		1.252	6.131	-3.686	-5.8913	1.2087
62	RH-153	Combination		1.815	0.180	-2.227	-0.1611	1.7592
62	RH-154	Combination		2.359	-5.696	0.189	5.4911	2.2911
62	RH-155	Combination		2.859	-11.527	3.291	11.0942	2.7798
62	RH-156	Combination		8.416	36.758	8.990	-35.7343	8.0643
62	RH-157	Combination		8.554	33.371	10.609	-32.4630	8.1610
62	RH-158	Combination		10.013	28.695	9.178	-27.8655	9.5124
62	RH-159	Combination		11.572	22.062	2.836	-21.3293	11.0413
62	RH-160	Combination		13.002	17.208	1.027	-16.6128	12.4379
62	RH-161	Combination		13.409	12.413	-0.706	-11.9748	12.8520
62	RH-162	Combination		14.146	6.318	-0.818	-6.0945	13.5784
62	RH-163	Combination		14.708	0.368	0.641	-0.3644	14.1288
62	RH-164	Combination		15.252	-5.509	3.056	5.2878	14.6607
62	RH-165	Combination		15.753	-11.340	6.158	10.8909	15.1494
65	ENV-ELS-CA	Combination	Max	31.326	22.338	245.114	20.9043	30.5438
65	ENV-ELS-CA	Combination	Min	-40.227	-20.893	-2.976	-21.6087	-40.0298
65	ENV-ELS-CP	Combination	Max	7.991	1.991	79.605	0.8467	7.5895
65	ENV-ELS-CP	Combination	Min	-17.345	-0.473	40.741	-1.9124	-17.3075
65	ENV-ELU-PT	Combination	Max	44.012	30.233	334.409	28.3067	43.0831
65	ENV-ELU-PT	Combination	Min	-55.017	-28.263	-26.318	-29.2863	-54.7665

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
65	ENV-ELU-AC	Combination	Max	16.522	40.672	201.283	16.7153	15.8739
65	ENV-ELU-AC	Combination	Min	-18.765	-16.506	19.401	-39.6414	-19.3855
65	ENV-ELU-EQ	Combination	Max	0.458	0.047	277.644	1.5363	0.8695
65	ENV-ELU-EQ	Combination	Min	-2.556	-0.540	26.067	-0.0996	-4.2072
65	RH-1	Combination		-17.315	2.323	3.138	-2.2137	-16.6108
65	RH-2	Combination		-28.060	2.237	5.052	-2.1156	-26.9217
65	RH-3	Combination		6.807	2.517	-1.160	-2.4341	6.5387
65	RH-4	Combination		-50.820	-22.859	37.168	21.9460	-48.7886
65	RH-5	Combination		-46.575	29.479	-9.711	-28.2459	-44.7226
65	RH-6	Combination		-0.949	-24.936	18.283	23.9362	-0.8720
65	RH-7	Combination		3.296	27.402	-28.596	-26.2556	3.1940
65	RH-8	Combination		-52.067	-3.167	23.278	3.0399	-50.0008
65	RH-9	Combination		-42.840	21.330	-8.045	-20.3994	-41.1194
65	RH-10	Combination		-4.684	-16.787	16.617	16.0898	-4.4753
65	RH-11	Combination		4.543	7.709	-14.706	-7.3495	4.4062
65	RH-12	Combination		-52.216	8.092	14.887	-7.7673	-50.1504
65	RH-13	Combination		-40.537	6.559	-0.658	-6.1986	-38.8876
65	RH-14	Combination		-6.987	-2.016	9.230	1.8890	-6.7071
65	RH-15	Combination		4.692	-3.549	-6.314	3.4577	4.5557
65	RH-16	Combination		-52.009	17.627	7.712	-16.9202	-49.9581
65	RH-17	Combination		-38.830	-2.877	3.970	2.8728	-37.2361
65	RH-18	Combination		-8.694	7.419	4.603	-7.1825	-8.3586
65	RH-19	Combination		4.485	-13.084	0.861	12.6105	4.3635
65	RH-20	Combination		-29.900	-22.691	33.441	21.7549	-28.7124
65	RH-21	Combination		-25.654	29.647	-13.438	-28.4370	-24.6464
65	RH-22	Combination		19.971	-24.768	14.556	23.7451	19.2042
65	RH-23	Combination		24.216	27.570	-32.323	-26.4468	23.2702
65	RH-24	Combination		-31.147	-2.998	19.551	2.8488	-29.9246
65	RH-25	Combination		-21.920	21.498	-11.772	-20.5906	-21.0431
65	RH-26	Combination		16.236	-16.619	12.890	15.8987	15.6010
65	RH-27	Combination		25.463	7.878	-18.433	-7.5407	24.4824
65	RH-28	Combination		-31.295	8.261	11.160	-7.9584	-30.0742
65	RH-29	Combination		-19.616	6.728	-4.385	-6.3898	-18.8113
65	RH-30	Combination		13.933	-1.848	5.503	1.6978	13.3691
65	RH-31	Combination		25.612	-3.381	-10.041	3.2665	24.6320
65	RH-32	Combination		-31.089	17.795	3.984	-17.1113	-29.8819
65	RH-33	Combination		-17.910	-2.708	0.243	2.6817	-17.1598
65	RH-34	Combination		12.226	7.588	0.875	-7.3736	11.7177
65	RH-35	Combination		25.405	-12.916	-2.866	12.4194	24.4397
65	RH-36	Combination		-12.826	1.721	2.324	-1.6398	-12.3043
65	RH-37	Combination		-23.571	1.634	4.239	-1.5416	-22.6152
65	RH-38	Combination		11.296	1.915	-1.974	-1.8602	10.8452
65	RH-39	Combination		-46.331	-23.462	36.355	22.5199	-44.4821
65	RH-40	Combination		-42.085	28.877	-10.524	-27.6720	-40.4161
65	RH-41	Combination		3.540	-25.539	17.470	24.5102	3.4345
65	RH-42	Combination		7.785	26.800	-29.409	-25.6817	7.5005
65	RH-43	Combination		-47.578	-3.769	22.465	3.6138	-45.6943
65	RH-44	Combination		-38.351	20.727	-8.858	-19.8255	-36.8129
65	RH-45	Combination		-0.195	-17.389	15.804	16.6637	-0.1688
65	RH-46	Combination		9.032	7.107	-15.519	-6.7756	8.7127
65	RH-47	Combination		-47.726	7.490	14.073	-7.1934	-45.8439
65	RH-48	Combination		-36.047	5.957	-1.471	-5.6247	-34.5810
65	RH-49	Combination		-2.498	-2.619	8.417	2.4629	-2.4006
65	RH-50	Combination		9.181	-4.152	-7.128	4.0316	8.8622
65	RH-51	Combination		-47.520	17.025	6.898	-16.3463	-45.6516
65	RH-52	Combination		-34.341	-3.479	3.156	3.4467	-32.9296
65	RH-53	Combination		-4.205	6.817	3.789	-6.6085	-4.0521
65	RH-54	Combination		8.974	-13.687	0.047	13.1845	8.6700
65	RH-55	Combination		-25.411	-23.293	32.628	22.3288	-24.4059

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
65	RH-56	Combination		-21.165	29.045	-14.251	-27.8631	-20.3399
65	RH-57	Combination		24.460	-25.370	13.742	24.3190	23.5107
65	RH-58	Combination		28.705	26.968	-33.136	-25.8728	27.5767
65	RH-59	Combination		-26.658	-3.601	18.738	3.4227	-25.6181
65	RH-60	Combination		-17.431	20.896	-12.585	-20.0166	-16.7366
65	RH-61	Combination		20.725	-17.221	12.076	16.4726	19.9075
65	RH-62	Combination		29.953	7.275	-19.247	-6.9667	28.7889
65	RH-63	Combination		-26.806	7.658	10.346	-7.3845	-25.7677
65	RH-64	Combination		-15.127	6.125	-5.198	-5.8158	-14.5048
65	RH-65	Combination		18.422	-2.450	4.689	2.2718	17.6756
65	RH-66	Combination		30.101	-3.983	-10.855	3.8405	28.9385
65	RH-67	Combination		-26.600	17.193	3.171	-16.5374	-25.5754
65	RH-68	Combination		-13.421	-3.310	-0.571	3.2556	-12.8533
65	RH-69	Combination		16.715	6.985	0.062	-6.7997	16.0242
65	RH-70	Combination		29.895	-13.518	-3.680	12.9933	28.7462
65	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
65	RH-72	Combination		-10.744	-0.087	1.914	0.0982	-10.3109
65	RH-73	Combination		24.123	0.194	-4.298	-0.2204	23.1495
65	RH-74	Combination		-33.505	-25.182	34.031	24.1597	-32.1778
65	RH-75	Combination		-29.259	27.156	-12.848	-26.0322	-28.1118
65	RH-76	Combination		16.366	-27.260	15.146	26.1500	15.7388
65	RH-77	Combination		20.611	25.079	-31.733	-24.0419	19.8048
65	RH-78	Combination		-34.752	-5.490	20.141	5.2536	-33.3900
65	RH-79	Combination		-25.525	19.007	-11.182	-18.1857	-24.5086
65	RH-80	Combination		12.632	-19.110	13.480	18.3035	12.1355
65	RH-81	Combination		21.859	5.386	-17.843	-5.1358	21.0170
65	RH-82	Combination		-34.900	5.769	11.749	-5.5536	-33.5396
65	RH-83	Combination		-23.221	4.236	-3.795	-3.9849	-22.2767
65	RH-84	Combination		10.328	-4.340	6.093	4.1027	9.9037
65	RH-85	Combination		22.007	-5.873	-9.452	5.6714	21.1665
65	RH-86	Combination		-34.694	15.304	4.574	-14.7065	-33.3473
65	RH-87	Combination		-21.515	-5.200	0.832	5.0865	-20.6253
65	RH-88	Combination		8.621	5.096	1.465	-4.9687	8.2522
65	RH-89	Combination		21.801	-15.407	-2.277	14.8242	20.9743
65	RH-90	Combination		-12.584	-25.014	30.303	23.9686	-12.1016
65	RH-91	Combination		-8.339	27.324	-16.576	-26.2233	-8.0356
65	RH-92	Combination		37.286	-27.091	11.418	25.9588	35.8150
65	RH-93	Combination		41.532	25.247	-35.461	-24.2330	39.8810
65	RH-94	Combination		-13.832	-5.321	16.413	5.0625	-13.3138
65	RH-95	Combination		-4.604	19.175	-14.910	-18.3768	-4.4323
65	RH-96	Combination		33.552	-18.942	9.752	18.1124	32.2118
65	RH-97	Combination		42.779	5.555	-21.571	-5.3269	41.0932
65	RH-98	Combination		-13.980	5.937	8.022	-5.7447	-13.4633
65	RH-99	Combination		-2.301	4.404	-7.523	-4.1760	-2.2005
65	RH-100	Combination		31.248	-4.171	2.365	3.9116	29.9799
65	RH-101	Combination		42.927	-5.704	-13.179	5.4803	41.2428
65	RH-102	Combination		-13.774	15.472	0.847	-14.8976	-13.2711
65	RH-103	Combination		-0.594	-5.031	-2.895	4.8954	-0.5490
65	RH-104	Combination		29.542	5.264	-2.262	-5.1599	28.3285
65	RH-105	Combination		42.721	-15.239	-6.004	14.6331	41.0505
65	RH-106	Combination		-13.231	40.293	7.308	-39.1266	-12.7283
65	RH-107	Combination		-13.104	36.482	6.943	-35.4114	-12.6364
65	RH-108	Combination		-11.634	31.384	3.206	-30.3865	-11.2499
65	RH-109	Combination		-10.113	24.266	-1.231	-23.4085	-9.7539
65	RH-110	Combination		-8.717	19.053	-2.188	-18.3528	-8.3937
65	RH-111	Combination		-8.343	13.892	-2.690	-13.3635	-8.0134
65	RH-112	Combination		-7.644	7.347	-2.052	-7.0488	-7.3262
65	RH-113	Combination		-7.118	0.965	-0.269	-0.9019	-6.8114
65	RH-114	Combination		-6.607	-5.327	2.385	5.1519	-6.3128
65	RH-115	Combination		-6.139	-11.565	5.675	11.1479	-5.8559
65	RH-116	Combination		-17.529	40.259	8.074	-39.0873	-16.8527
65	RH-117	Combination		-17.402	36.447	7.709	-35.3722	-16.7607

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
65	RH-118	Combination		-15.932	31.349	3.972	-30.3472	-15.3742
65	RH-119	Combination		-14.411	24.232	-0.465	-23.3693	-13.8783
65	RH-120	Combination		-13.015	19.018	-1.422	-18.3135	-12.5180
65	RH-121	Combination		-12.641	13.858	-1.924	-13.3242	-12.1377
65	RH-122	Combination		-11.942	7.312	-1.286	-7.0095	-11.4505
65	RH-123	Combination		-11.415	0.931	0.497	-0.8626	-10.9358
65	RH-124	Combination		-10.905	-5.362	3.151	5.1911	-10.4372
65	RH-125	Combination		-10.437	-11.599	6.441	11.1872	-9.9803
65	RH-126	Combination		-3.582	40.371	5.589	-39.2147	-3.4685
65	RH-127	Combination		-3.455	36.560	5.224	-35.4996	-3.3766
65	RH-128	Combination		-1.985	31.462	1.487	-30.4746	-1.9901
65	RH-129	Combination		-0.464	24.344	-2.950	-23.4967	-0.4941
65	RH-130	Combination		0.932	19.130	-3.907	-18.4409	0.8662
65	RH-131	Combination		1.306	13.970	-4.409	-13.4517	1.2464
65	RH-132	Combination		2.005	7.425	-3.771	-7.1369	1.9336
65	RH-133	Combination		2.531	1.043	-1.988	-0.9901	2.4484
65	RH-134	Combination		3.042	-5.250	0.666	5.0637	2.9470
65	RH-135	Combination		3.510	-11.487	3.956	11.0597	3.4039
65	RH-136	Combination		-0.405	38.572	4.984	-37.4868	-0.4240
65	RH-137	Combination		-0.278	34.761	4.619	-33.7716	-0.3321
65	RH-138	Combination		1.192	29.663	0.882	-28.7467	1.0544
65	RH-139	Combination		2.713	22.545	-3.555	-21.7687	2.5504
65	RH-140	Combination		4.109	17.332	-4.512	-16.7130	3.9107
65	RH-141	Combination		4.483	12.172	-5.014	-11.7237	4.2909
65	RH-142	Combination		5.182	5.626	-4.376	-5.4090	4.9781
65	RH-143	Combination		5.709	-0.756	-2.593	0.7379	5.4929
65	RH-144	Combination		6.219	-7.048	0.061	6.7917	5.9915
65	RH-145	Combination		6.687	-13.285	3.351	12.7877	6.4484
65	RH-146	Combination		-4.703	38.538	5.750	-37.4475	-4.5484
65	RH-147	Combination		-4.576	34.726	5.385	-33.7324	-4.4564
65	RH-148	Combination		-3.106	29.628	1.648	-28.7074	-3.0699
65	RH-149	Combination		-1.585	22.511	-2.789	-21.7295	-1.5740
65	RH-150	Combination		-0.189	17.297	-3.747	-16.6737	-0.2137
65	RH-151	Combination		0.185	12.137	-4.248	-11.6845	0.1666
65	RH-152	Combination		0.884	5.591	-3.610	-5.3697	0.8538
65	RH-153	Combination		1.411	-0.790	-1.828	0.7772	1.3685
65	RH-154	Combination		1.921	-7.083	0.826	6.8309	1.8671
65	RH-155	Combination		2.389	-13.320	4.116	12.8270	2.3240
65	RH-156	Combination		9.244	38.650	3.265	-37.5749	8.8358
65	RH-157	Combination		9.371	34.839	2.900	-33.8598	8.9277
65	RH-158	Combination		10.841	29.741	-0.837	-28.8348	10.3142
65	RH-159	Combination		12.362	22.623	-5.274	-21.8569	11.8102
65	RH-160	Combination		13.758	17.409	-6.231	-16.8011	13.1705
65	RH-161	Combination		14.132	12.249	-6.733	-11.8119	13.5508
65	RH-162	Combination		14.831	5.704	-6.095	-5.4971	14.2379
65	RH-163	Combination		15.358	-0.678	-4.313	0.6497	14.7527
65	RH-164	Combination		15.868	-6.970	-1.659	6.7035	15.2513
65	RH-165	Combination		16.336	-13.208	1.631	12.6995	15.7082
68	ENV-ELS-CA	Combination	Max	34.755	23.772	406.421	24.5083	33.9875
68	ENV-ELS-CA	Combination	Min	-44.552	-24.544	51.659	-22.9793	-44.0197
68	ENV-ELS-CP	Combination	Max	8.256	3.161	174.224	3.8648	7.9638
68	ENV-ELS-CP	Combination	Min	-18.823	-3.524	104.461	-2.9885	-18.6301
68	ENV-ELU-PT	Combination	Max	48.561	32.381	554.717	33.7098	47.6158
68	ENV-ELU-PT	Combination	Min	-60.858	-33.737	18.908	-31.3329	-60.1537
68	ENV-ELU-AC	Combination	Max	19.015	41.515	339.201	19.8353	18.3555
68	ENV-ELU-AC	Combination	Min	-22.803	-20.051	72.993	-40.0070	-23.0828

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
68	ENV-ELU-EQ	Combination	Max	0.967	6.288E-03	436.216	1.4304	1.5087
68	ENV-ELU-EQ	Combination	Min	-1.987	-0.471	83.021	-0.1009	-3.3838
68	RH-1	Combination		-19.636	2.342	9.434	-2.2427	-18.8664
68	RH-2	Combination		-30.441	6.345	15.049	-6.0946	-29.2449
68	RH-3	Combination		4.623	-6.646	-3.171	6.4056	4.4351
68	RH-4	Combination		-58.640	-20.376	-1.540	19.5346	-56.3710
68	RH-5	Combination		-45.320	32.004	44.509	-30.7271	-43.5487
68	RH-6	Combination		-6.918	-22.516	-18.903	21.6195	-6.6383
68	RH-7	Combination		6.402	29.864	27.146	-28.6422	6.1841
68	RH-8	Combination		-54.348	-0.663	13.154	0.5941	-52.2311
68	RH-9	Combination		-46.269	23.837	41.239	-22.8528	-44.4750
68	RH-10	Combination		-5.969	-14.349	-15.633	13.7452	-5.7120
68	RH-11	Combination		2.110	10.151	12.452	-9.7018	2.0441
68	RH-12	Combination		-51.608	10.607	21.711	-10.2323	-49.5900
68	RH-13	Combination		-50.074	9.045	33.120	-8.6177	-48.1503
68	RH-14	Combination		-2.163	0.443	-7.514	-0.4900	-2.0367
68	RH-15	Combination		-0.630	-1.119	3.895	1.1247	-0.5970
68	RH-16	Combination		-48.927	20.151	28.777	-19.4011	-47.0073
68	RH-17	Combination		-52.183	-0.404	27.828	0.4761	-50.1880
68	RH-18	Combination		-0.055	9.892	-2.222	-9.5838	0.0010
68	RH-19	Combination		-3.310	-10.663	-3.171	10.2935	-3.1797
68	RH-20	Combination		-37.602	-28.171	-12.472	27.0346	-36.1630
68	RH-21	Combination		-24.282	24.209	33.577	-23.2270	-23.3406
68	RH-22	Combination		14.121	-30.311	-29.835	29.1196	13.5697
68	RH-23	Combination		27.440	22.069	16.214	-21.1421	26.3921
68	RH-24	Combination		-33.309	-8.458	2.222	8.0942	-32.0231
68	RH-25	Combination		-25.231	16.042	30.307	-15.3527	-24.2670
68	RH-26	Combination		15.070	-22.144	-26.565	21.2453	14.4960
68	RH-27	Combination		23.148	2.357	1.520	-2.2017	22.2522
68	RH-28	Combination		-30.569	2.812	10.779	-2.7322	-29.3820
68	RH-29	Combination		-29.036	1.250	22.188	-1.1176	-27.9423
68	RH-30	Combination		18.875	-7.352	-18.446	7.0101	18.1713
68	RH-31	Combination		20.408	-8.914	-7.037	8.6248	19.6110
68	RH-32	Combination		-27.889	12.357	17.845	-11.9011	-26.7992
68	RH-33	Combination		-31.145	-8.199	16.896	7.9762	-29.9800
68	RH-34	Combination		20.983	2.097	-13.154	-2.0837	20.2090
68	RH-35	Combination		17.728	-18.458	-14.103	17.7936	17.0283
68	RH-36	Combination		-14.545	1.735	6.988	-1.6612	-13.9751
68	RH-37	Combination		-25.350	5.738	12.603	-5.5132	-24.3536
68	RH-38	Combination		9.714	-7.253	-5.617	6.9870	9.3264
68	RH-39	Combination		-53.549	-20.983	-3.986	20.1160	-51.4798
68	RH-40	Combination		-40.229	31.397	42.063	-30.1457	-38.6574
68	RH-41	Combination		-1.827	-23.123	-21.349	22.2009	-1.7470
68	RH-42	Combination		11.493	29.257	24.700	-28.0608	11.0754
68	RH-43	Combination		-49.257	-1.271	10.708	1.1756	-47.3398
68	RH-44	Combination		-41.178	23.230	38.793	-22.2714	-39.5837
68	RH-45	Combination		-0.878	-14.956	-18.079	14.3266	-0.8207
68	RH-46	Combination		7.201	9.544	10.007	-9.1203	6.9354
68	RH-47	Combination		-46.517	10.000	19.265	-9.6509	-44.6987
68	RH-48	Combination		-44.984	8.438	30.674	-8.0362	-43.2590
68	RH-49	Combination		2.928	-0.164	-9.960	0.0915	2.8546
68	RH-50	Combination		4.461	-1.726	1.449	1.7061	4.2943
68	RH-51	Combination		-43.837	19.544	26.331	-18.8197	-42.1160
68	RH-52	Combination		-47.092	-1.011	25.382	1.0576	-45.2967
68	RH-53	Combination		5.036	9.285	-4.668	-9.0023	4.8923
68	RH-54	Combination		1.780	-11.271	-5.617	10.8749	1.7116
68	RH-55	Combination		-32.511	-28.778	-14.918	27.6161	-31.2717
68	RH-56	Combination		-19.191	23.602	31.131	-22.6456	-18.4494
68	RH-57	Combination		19.211	-30.918	-32.281	29.7010	18.4610
68	RH-58	Combination		32.531	21.462	13.768	-20.5607	31.2834

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
68	RH-59	Combination		-28.219	-9.065	-0.224	8.6756	-27.1318
68	RH-60	Combination		-20.140	15.435	27.861	-14.7713	-19.3757
68	RH-61	Combination		20.160	-22.751	-29.011	21.8267	19.3873
68	RH-62	Combination		28.239	1.749	-0.925	-1.6202	27.1434
68	RH-63	Combination		-25.479	2.205	8.333	-2.1508	-24.4907
68	RH-64	Combination		-23.945	0.643	19.742	-0.5361	-23.0510
68	RH-65	Combination		23.966	-7.959	-20.892	7.5915	23.0626
68	RH-66	Combination		25.499	-9.521	-9.483	9.2062	24.5023
68	RH-67	Combination		-22.798	11.749	15.399	-11.3196	-21.9080
68	RH-68	Combination		-26.054	-8.806	14.450	8.5576	-25.0887
68	RH-69	Combination		26.074	1.490	-15.600	-1.5022	25.1003
68	RH-70	Combination		22.819	-19.065	-16.549	18.3750	21.9196
68	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
68	RH-72	Combination		-10.805	4.003	5.614	-3.8519	-10.3785
68	RH-73	Combination		24.259	-8.988	-12.605	8.6482	23.3015
68	RH-74	Combination		-39.004	-22.718	-10.974	21.7772	-37.5047
68	RH-75	Combination		-25.684	29.662	35.075	-28.4844	-24.6823
68	RH-76	Combination		12.718	-24.858	-28.338	23.8621	12.2280
68	RH-77	Combination		26.038	27.522	17.712	-26.3995	25.0504
68	RH-78	Combination		-34.712	-3.005	3.719	2.8368	-33.3647
68	RH-79	Combination		-26.633	21.495	31.805	-20.6102	-25.6086
68	RH-80	Combination		13.667	-16.691	-25.068	15.9878	13.1544
68	RH-81	Combination		21.746	7.809	3.018	-7.4591	20.9105
68	RH-82	Combination		-31.972	8.265	12.277	-7.9897	-30.7236
68	RH-83	Combination		-30.438	6.703	23.685	-6.3750	-29.2839
68	RH-84	Combination		17.473	-1.899	-16.948	1.7527	16.8297
68	RH-85	Combination		19.006	-3.461	-5.539	3.3674	18.2694
68	RH-86	Combination		-29.291	17.809	19.343	-17.1585	-28.1409
68	RH-87	Combination		-32.547	-2.746	18.394	2.7188	-31.3216
68	RH-88	Combination		19.581	7.550	-11.656	-7.3411	18.8674
68	RH-89	Combination		16.326	-13.005	-12.605	12.5362	15.6867
68	RH-90	Combination		-17.966	-30.513	-21.906	29.2773	-17.2967
68	RH-91	Combination		-4.646	21.867	24.143	-20.9844	-4.4743
68	RH-92	Combination		33.756	-32.653	-39.270	31.3622	32.4361
68	RH-93	Combination		47.076	19.727	6.780	-18.8995	45.2585
68	RH-94	Combination		-13.674	-10.800	-7.213	10.3369	-13.1567
68	RH-95	Combination		-5.595	13.700	20.873	-13.1101	-5.4006
68	RH-96	Combination		34.705	-24.486	-36.000	23.4879	33.3624
68	RH-97	Combination		42.784	0.015	-7.914	0.0410	41.1185
68	RH-98	Combination		-10.934	0.470	1.345	-0.4896	-10.5156
68	RH-99	Combination		-9.400	-1.092	12.753	1.1251	-9.0759
68	RH-100	Combination		38.511	-9.694	-27.880	9.2528	37.0377
68	RH-101	Combination		40.044	-11.256	-16.471	10.8674	38.4774
68	RH-102	Combination		-8.253	10.015	8.411	-9.6584	-7.9329
68	RH-103	Combination		-11.509	-10.541	7.462	10.2189	-11.1136
68	RH-104	Combination		40.619	-0.245	-22.588	0.1590	39.0754
68	RH-105	Combination		37.364	-20.800	-23.537	20.0363	35.8947
68	RH-106	Combination		-5.497	39.769	3.516	-38.3344	-5.2891
68	RH-107	Combination		-6.901	36.088	2.246	-34.7954	-6.6410
68	RH-108	Combination		-7.379	31.200	3.463	-30.0923	-7.0915
68	RH-109	Combination		-8.558	24.266	6.882	-23.4082	-8.2122
68	RH-110	Combination		-9.050	19.085	7.910	-18.4046	-8.6894
68	RH-111	Combination		-10.556	13.923	9.046	-13.4124	-10.1380
68	RH-112	Combination		-12.149	7.367	8.848	-7.0797	-11.6765
68	RH-113	Combination		-13.806	0.974	7.232	-0.9145	-13.2795
68	RH-114	Combination		-15.394	-5.329	4.471	5.1554	-14.8126
68	RH-115	Combination		-16.974	-11.575	1.023	11.1656	-16.3374
68	RH-116	Combination		-9.819	41.370	5.761	-39.8751	-9.4405
68	RH-117	Combination		-11.223	37.689	4.492	-36.3362	-10.7924
68	RH-118	Combination		-11.701	32.801	5.709	-31.6331	-11.2430
68	RH-119	Combination		-12.880	25.867	9.128	-24.9489	-12.3636
68	RH-120	Combination		-13.372	20.686	10.156	-19.9454	-12.8409

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
68	RH-121	Combination		-14.877	15.524	11.292	-14.9532	-14.2894
68	RH-122	Combination		-16.471	8.968	11.094	-8.6205	-15.8279
68	RH-123	Combination		-18.128	2.575	9.477	-2.4553	-17.4309
68	RH-124	Combination		-19.716	-3.727	6.717	3.6146	-18.9640
68	RH-125	Combination		-21.296	-9.973	3.269	9.6248	-20.4888
68	RH-126	Combination		4.207	36.173	-1.527	-34.8751	4.0315
68	RH-127	Combination		2.803	32.493	-2.796	-31.3361	2.6796
68	RH-128	Combination		2.324	27.605	-1.579	-26.6331	2.2291
68	RH-129	Combination		1.146	20.671	1.840	-19.9489	1.1084
68	RH-130	Combination		0.654	15.490	2.868	-14.9453	0.6312
68	RH-131	Combination		-0.852	10.328	4.004	-9.9531	-0.8174
68	RH-132	Combination		-2.445	3.771	3.806	-3.6204	-2.3559
68	RH-133	Combination		-4.103	-2.622	2.189	2.5448	-3.9589
68	RH-134	Combination		-5.690	-8.924	-0.571	8.6146	-5.4920
68	RH-135	Combination		-7.271	-15.170	-4.019	14.6249	-7.0168
68	RH-136	Combination		9.048	38.034	-3.473	-36.6731	8.6860
68	RH-137	Combination		7.644	34.353	-4.742	-33.1342	7.3341
68	RH-138	Combination		7.166	29.465	-3.525	-28.4311	6.8835
68	RH-139	Combination		5.987	22.531	-0.106	-21.7469	5.7629
68	RH-140	Combination		5.495	17.350	0.922	-16.7434	5.2856
68	RH-141	Combination		3.990	12.188	2.058	-11.7512	3.8371
68	RH-142	Combination		2.396	5.632	1.860	-5.4185	2.2986
68	RH-143	Combination		0.739	-0.761	0.243	0.7467	0.6955
68	RH-144	Combination		-0.849	-7.063	-2.517	6.8166	-0.8375
68	RH-145	Combination		-2.429	-13.309	-5.965	12.8268	-2.3623
68	RH-146	Combination		4.726	39.635	-1.227	-38.2139	4.5346
68	RH-147	Combination		3.322	35.955	-2.497	-34.6750	3.1827
68	RH-148	Combination		2.844	31.066	-1.279	-29.9719	2.7321
68	RH-149	Combination		1.665	24.132	2.139	-23.2877	1.6115
68	RH-150	Combination		1.173	18.951	3.168	-18.2842	1.1342
68	RH-151	Combination		-0.332	13.790	4.304	-13.2919	-0.3143
68	RH-152	Combination		-1.925	7.233	4.106	-6.9593	-1.8528
68	RH-153	Combination		-3.583	0.840	2.489	-0.7940	-3.4559
68	RH-154	Combination		-5.171	-5.462	-0.271	5.2758	-4.9889
68	RH-155	Combination		-6.751	-11.708	-3.720	11.2860	-6.5137
68	RH-156	Combination		18.752	34.439	-8.515	-33.2138	18.0066
68	RH-157	Combination		17.348	30.758	-9.785	-29.6749	16.6547
68	RH-158	Combination		16.869	25.870	-8.567	-24.9718	16.2041
68	RH-159	Combination		15.691	18.936	-5.149	-18.2877	15.0835
68	RH-160	Combination		15.199	13.755	-4.120	-13.2841	14.6062
68	RH-161	Combination		13.693	8.593	-2.984	-8.2919	13.1577
68	RH-162	Combination		12.100	2.037	-3.182	-1.9592	11.6192
68	RH-163	Combination		10.442	-4.356	-4.799	4.2060	10.0161
68	RH-164	Combination		8.855	-10.659	-7.559	10.2759	8.4831
68	RH-165	Combination		7.274	-16.904	-11.008	16.2861	6.9583
72	ENV-ELS-CA	Combination	Max	31.925	22.490	241.021	21.7528	31.0965
72	ENV-ELS-CA	Combination	Min	-41.289	-21.955	61.796	-21.4306	-40.9811
72	ENV-ELS-CP	Combination	Max	8.083	2.083	96.066	1.5488	7.7166
72	ENV-ELS-CP	Combination	Min	-17.933	-1.353	76.764	-1.7599	-17.8468
72	ENV-ELU-PT	Combination	Max	44.796	30.460	326.564	29.5669	43.7936
72	ENV-ELU-PT	Combination	Min	-56.452	-29.848	53.363	-29.0274	-56.0516
72	ENV-ELU-AC	Combination	Max	14.436	40.419	198.356	17.4170	13.8617
72	ENV-ELU-AC	Combination	Min	-18.886	-17.440	65.373	-38.9002	-19.3993
72	ENV-ELU-EQ	Combination	Max	0.484	-2.638E-03	279.269	1.5240	0.8217
72	ENV-ELU-EQ	Combination	Min	-2.355	-0.535	77.181	0.0833	-3.8978
72	RH-1	Combination		-18.212	2.337	5.953	-2.2348	-17.4837

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
72	RH-2	Combination		-28.982	3.831	9.268	-3.6664	-27.8237
72	RH-3	Combination		5.968	-1.019	-1.492	0.9794	5.7313
72	RH-4	Combination		-53.850	-21.913	22.085	21.0326	-51.7322
72	RH-5	Combination		-46.095	30.493	13.237	-29.2662	-44.2773
72	RH-6	Combination		-3.253	-24.026	2.647	23.0787	-3.0980
72	RH-7	Combination		4.503	28.380	-6.201	-27.2202	4.3569
72	RH-8	Combination		-52.957	-2.194	20.176	2.0834	-50.8765
72	RH-9	Combination		-44.166	22.329	12.460	-21.3970	-42.4200
72	RH-10	Combination		-5.181	-15.862	3.424	15.2094	-4.9554
72	RH-11	Combination		3.610	8.660	-4.292	-8.2709	3.5011
72	RH-12	Combination		-51.990	9.081	18.851	-8.7482	-49.9478
72	RH-13	Combination		-44.220	7.536	13.049	-7.1613	-42.4678
72	RH-14	Combination		-5.127	-1.069	2.835	0.9737	-4.9076
72	RH-15	Combination		2.642	-2.614	-2.967	2.5606	2.5724
72	RH-16	Combination		-50.828	18.628	17.613	-17.9214	-48.8319
72	RH-17	Combination		-43.986	-1.914	13.323	1.9327	-42.2399
72	RH-18	Combination		-5.362	8.380	2.561	-8.1202	-5.1355
72	RH-19	Combination		1.480	-12.162	-1.729	11.7339	1.4565
72	RH-20	Combination		-32.880	-24.824	15.629	23.8201	-31.5992
72	RH-21	Combination		-25.125	27.583	6.781	-26.4787	-24.1444
72	RH-22	Combination		17.717	-26.937	-3.809	25.8662	17.0350
72	RH-23	Combination		25.472	25.470	-12.657	-24.4326	24.4898
72	RH-24	Combination		-31.987	-5.104	13.720	4.8709	-30.7435
72	RH-25	Combination		-23.196	19.419	6.004	-18.6095	-22.2870
72	RH-26	Combination		15.788	-18.773	-3.032	17.9970	15.1776
72	RH-27	Combination		24.579	5.750	-10.748	-5.4834	23.6341
72	RH-28	Combination		-31.020	6.170	12.395	-5.9607	-29.8148
72	RH-29	Combination		-23.250	4.626	6.593	-4.3737	-22.3348
72	RH-30	Combination		15.842	-3.980	-3.621	3.7612	15.2254
72	RH-31	Combination		23.612	-5.524	-9.423	5.3482	22.7054
72	RH-32	Combination		-29.858	15.718	11.157	-15.1339	-28.6989
72	RH-33	Combination		-23.016	-4.824	6.867	4.7202	-22.1069
72	RH-34	Combination		15.608	5.470	-3.896	-5.3327	14.9975
72	RH-35	Combination		22.450	-15.072	-8.185	14.5214	21.5895
72	RH-36	Combination		-13.490	1.731	4.409	-1.6554	-12.9509
72	RH-37	Combination		-24.260	3.225	7.725	-3.0870	-23.2909
72	RH-38	Combination		10.689	-1.625	-3.035	1.5588	10.2641
72	RH-39	Combination		-49.128	-22.519	20.542	21.6120	-47.1994
72	RH-40	Combination		-41.373	29.887	11.694	-28.6868	-39.7445
72	RH-41	Combination		1.469	-24.632	1.104	23.6581	1.4348
72	RH-42	Combination		9.224	27.774	-7.744	-26.6408	8.8897
72	RH-43	Combination		-48.235	-2.799	18.633	2.6628	-46.3437
72	RH-44	Combination		-39.444	21.723	10.917	-20.8176	-37.8872
72	RH-45	Combination		-0.460	-16.468	1.881	15.7888	-0.4226
72	RH-46	Combination		8.331	8.055	-5.835	-7.6915	8.0339
72	RH-47	Combination		-47.268	8.475	17.308	-8.1688	-45.4150
72	RH-48	Combination		-39.498	6.930	11.506	-6.5819	-37.9350
72	RH-49	Combination		-0.406	-1.675	1.292	1.5531	-0.3748
72	RH-50	Combination		7.364	-3.220	-4.510	3.1400	7.1052
72	RH-51	Combination		-46.106	18.023	16.070	-17.3420	-44.2991
72	RH-52	Combination		-39.264	-2.519	11.780	2.5121	-37.7071
72	RH-53	Combination		-0.640	7.775	1.018	-7.5408	-0.6026
72	RH-54	Combination		6.202	-12.767	-3.272	12.3133	5.9893
72	RH-55	Combination		-28.159	-25.429	14.085	24.3995	-27.0664
72	RH-56	Combination		-20.403	26.977	5.238	-25.8993	-19.6115
72	RH-57	Combination		22.439	-27.542	-5.352	26.4456	21.5678
72	RH-58	Combination		30.194	24.864	-14.200	-23.8533	29.0227
72	RH-59	Combination		-27.266	-5.710	12.176	5.4503	-26.2107
72	RH-60	Combination		-18.475	18.813	4.461	-18.0301	-17.7542
72	RH-61	Combination		20.510	-19.378	-4.575	18.5763	19.7104
72	RH-62	Combination		29.301	5.144	-12.291	-4.9040	28.1669
72	RH-63	Combination		-26.298	5.565	10.852	-5.3813	-25.2820

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
72	RH-64	Combination		-18.529	4.020	5.050	-3.7944	-17.8020
72	RH-65	Combination		20.564	-4.586	-5.165	4.3406	19.7582
72	RH-66	Combination		28.334	-6.130	-10.967	5.9275	27.2382
72	RH-67	Combination		-25.136	15.112	9.614	-14.5545	-24.1661
72	RH-68	Combination		-18.294	-5.430	5.324	5.2996	-17.5741
72	RH-69	Combination		20.330	4.864	-5.439	-4.7533	19.5303
72	RH-70	Combination		27.172	-15.678	-9.729	15.1008	26.1223
72	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
72	RH-72	Combination		-10.770	1.495	3.316	-1.4316	-10.3400
72	RH-73	Combination		24.180	-3.356	-7.445	3.2142	23.2150
72	RH-74	Combination		-35.638	-24.250	16.132	23.2674	-34.2485
72	RH-75	Combination		-27.883	28.156	7.284	-27.0314	-26.7937
72	RH-76	Combination		14.959	-26.363	-3.305	25.3135	14.3857
72	RH-77	Combination		22.714	26.044	-12.153	-24.9854	21.8405
72	RH-78	Combination		-34.745	-4.530	14.223	4.3182	-33.3928
72	RH-79	Combination		-25.954	19.992	6.508	-19.1622	-24.9363
72	RH-80	Combination		13.030	-18.199	-2.529	17.4442	12.5283
72	RH-81	Combination		21.822	6.324	-10.244	-6.0361	20.9848
72	RH-82	Combination		-33.778	6.744	12.899	-6.5134	-32.4641
72	RH-83	Combination		-26.008	5.200	7.097	-4.9265	-24.9841
72	RH-84	Combination		13.084	-3.406	-3.118	3.2085	12.5761
72	RH-85	Combination		20.854	-4.950	-8.920	4.7954	20.0561
72	RH-86	Combination		-32.616	16.292	11.661	-15.6866	-31.3482
72	RH-87	Combination		-25.774	-4.250	7.371	4.1675	-24.7562
72	RH-88	Combination		12.850	6.044	-3.392	-5.8854	12.3482
72	RH-89	Combination		19.692	-14.498	-7.682	13.9687	18.9402
72	RH-90	Combination		-14.668	-27.160	9.676	26.0549	-14.1156
72	RH-91	Combination		-6.913	25.246	0.828	-24.2439	-6.6607
72	RH-92	Combination		35.929	-29.273	-9.762	28.1010	34.5186
72	RH-93	Combination		43.684	23.133	-18.610	-22.1979	41.9735
72	RH-94	Combination		-13.776	-7.440	7.767	7.1057	-13.2598
72	RH-95	Combination		-4.984	17.082	0.051	-16.3747	-4.8033
72	RH-96	Combination		34.000	-21.109	-8.985	20.2317	32.6613
72	RH-97	Combination		42.791	3.413	-16.700	-3.2486	41.1178
72	RH-98	Combination		-12.808	3.834	6.442	-3.7259	-12.3311
72	RH-99	Combination		-5.038	2.289	0.640	-2.1390	-4.8511
72	RH-100	Combination		34.054	-6.316	-9.574	5.9960	32.7091
72	RH-101	Combination		41.824	-7.861	-15.376	7.5829	40.1891
72	RH-102	Combination		-11.646	13.381	5.204	-12.8991	-11.2152
72	RH-103	Combination		-4.804	-7.161	0.915	6.9550	-4.6232
72	RH-104	Combination		33.820	3.134	-9.848	-3.0979	32.4812
72	RH-105	Combination		40.662	-17.408	-14.138	16.7562	39.0732
72	RH-106	Combination		-10.253	39.958	-3.694	-38.6187	-9.8775
72	RH-107	Combination		-10.710	36.248	-2.754	-35.0429	-10.3182
72	RH-108	Combination		-9.981	31.294	-0.399	-30.2405	-9.6256
72	RH-109	Combination		-9.510	24.280	2.352	-23.4300	-9.1559
72	RH-110	Combination		-8.845	19.082	2.812	-18.3983	-8.5092
72	RH-111	Combination		-9.197	13.918	2.790	-13.4038	-8.8348
72	RH-112	Combination		-9.382	7.363	2.710	-7.0742	-9.0057
72	RH-113	Combination		-9.698	0.971	2.781	-0.9117	-9.3077
72	RH-114	Combination		-9.997	-5.330	2.978	5.1570	-9.5929
72	RH-115	Combination		-10.320	-11.577	3.326	11.1675	-9.9009
72	RH-116	Combination		-14.561	40.556	-2.368	-39.1914	-14.0135
72	RH-117	Combination		-15.018	36.846	-1.427	-35.6156	-14.4542
72	RH-118	Combination		-14.289	31.892	0.927	-30.8132	-13.7616
72	RH-119	Combination		-13.818	24.878	3.679	-24.0027	-13.2919
72	RH-120	Combination		-13.153	19.680	4.138	-18.9710	-12.6452
72	RH-121	Combination		-13.505	14.516	4.116	-13.9764	-12.9708
72	RH-122	Combination		-13.690	7.961	4.036	-7.6469	-13.1417
72	RH-123	Combination		-14.006	1.569	4.107	-1.4844	-13.4437
72	RH-124	Combination		-14.305	-4.733	4.304	4.5844	-13.7289
72	RH-125	Combination		-14.628	-10.979	4.653	10.5949	-14.0369

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
72	RH-126	Combination		-0.581	38.616	-6.672	-37.3330	-0.5915
72	RH-127	Combination		-1.039	34.905	-5.732	-33.7572	-1.0322
72	RH-128	Combination		-0.309	29.951	-3.377	-28.9548	-0.3396
72	RH-129	Combination		0.162	22.938	-0.626	-22.1443	0.1301
72	RH-130	Combination		0.827	17.739	-0.166	-17.1126	0.7768
72	RH-131	Combination		0.475	12.576	-0.188	-12.1181	0.4512
72	RH-132	Combination		0.290	6.021	-0.268	-5.7885	0.2803
72	RH-133	Combination		-0.026	-0.371	-0.197	0.3739	-0.0217
72	RH-134	Combination		-0.325	-6.673	-1.937E-04	6.4427	-0.3069
72	RH-135	Combination		-0.648	-12.919	0.349	12.4532	-0.6149
72	RH-136	Combination		3.237	38.227	-8.104	-36.9633	3.0734
72	RH-137	Combination		2.780	34.517	-7.163	-33.3875	2.6327
72	RH-138	Combination		3.509	29.563	-4.808	-28.5851	3.3253
72	RH-139	Combination		3.980	22.549	-2.057	-21.7746	3.7950
72	RH-140	Combination		4.645	17.351	-1.597	-16.7429	4.4417
72	RH-141	Combination		4.294	12.187	-1.619	-11.7484	4.1161
72	RH-142	Combination		4.108	5.632	-1.700	-5.4188	3.9452
72	RH-143	Combination		3.792	-0.759	-1.628	0.7437	3.6432
72	RH-144	Combination		3.493	-7.061	-1.432	6.8124	3.3580
72	RH-145	Combination		3.170	-13.308	-1.083	12.8229	3.0500
72	RH-146	Combination		-1.071	38.825	-6.777	-37.5360	-1.0626
72	RH-147	Combination		-1.528	35.115	-5.837	-33.9602	-1.5033
72	RH-148	Combination		-0.799	30.161	-3.482	-29.1578	-0.8107
72	RH-149	Combination		-0.328	23.147	-0.731	-22.3473	-0.3410
72	RH-150	Combination		0.337	17.949	-0.271	-17.3156	0.3057
72	RH-151	Combination		-0.014	12.785	-0.293	-12.3210	-0.0199
72	RH-152	Combination		-0.200	6.230	-0.373	-5.9915	-0.1908
72	RH-153	Combination		-0.516	-0.161	-0.302	0.1710	-0.4928
72	RH-154	Combination		-0.815	-6.463	-0.105	6.2398	-0.7780
72	RH-155	Combination		-1.138	-12.710	0.243	12.2503	-1.0860
72	RH-156	Combination		12.909	36.885	-11.082	-35.6776	12.3594
72	RH-157	Combination		12.452	33.175	-10.141	-32.1018	11.9187
72	RH-158	Combination		13.181	28.221	-7.786	-27.2994	12.6113
72	RH-159	Combination		13.652	21.207	-5.035	-20.4889	13.0809
72	RH-160	Combination		14.317	16.009	-4.575	-15.4572	13.7277
72	RH-161	Combination		13.965	10.845	-4.597	-10.4627	13.4021
72	RH-162	Combination		13.780	4.290	-4.677	-4.1331	13.2311
72	RH-163	Combination		13.464	-2.102	-4.606	2.0293	12.9292
72	RH-164	Combination		13.165	-8.404	-4.410	8.0981	12.6440
72	RH-165	Combination		12.842	-14.650	-4.061	14.1086	12.3360
122	ENV-ELS-CA	Combination	Max	24.428	19.059	246.940	17.5336	24.4107
122	ENV-ELS-CA	Combination	Min	-24.559	-17.822	56.723	-18.9789	-23.6847
122	ENV-ELS-CP	Combination	Max	2.308	3.301	96.003	2.0409	2.5612
122	ENV-ELS-CP	Combination	Min	-3.197	-1.950	83.300	-3.4690	-2.8632
122	ENV-ELU-PT	Combination	Max	33.287	25.927	334.200	24.2183	33.2604
122	ENV-ELU-PT	Combination	Min	-33.306	-24.543	45.575	-25.8485	-32.1294
122	ENV-ELU-AC	Combination	Max	4.676	20.826	206.799	2.5172	5.3364
122	ENV-ELU-AC	Combination	Min	-6.137	-2.390	68.338	-20.7129	-5.9024
122	ENV-ELU-EQ	Combination	Max	2.249	0.785	292.225	0.3977	3.3948
122	ENV-ELU-EQ	Combination	Min	0.051	-0.041	65.781	-1.6238	-0.0183
122	RH-1	Combination		-3.939	2.625	-0.562	-2.4998	-3.8187
122	RH-2	Combination		-6.115	5.064	-1.009	-4.8359	-5.9287
122	RH-3	Combination		0.946	-2.853	0.440	2.7450	0.9187
122	RH-4	Combination		-31.676	-16.527	-20.280	15.8289	-30.6255
122	RH-5	Combination		-29.929	15.894	13.324	-15.1815	-28.8817
122	RH-6	Combination		19.440	-7.717	-14.984	7.3786	18.7123

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
122	RH-7	Combination		21.187	24.705	18.620	-23.6318	20.4561
122	RH-8	Combination		-30.926	-9.427	-13.846	9.0230	-29.8792
122	RH-9	Combination		-30.482	18.673	17.424	-17.8203	-29.4262
122	RH-10	Combination		19.994	-10.495	-19.084	10.0174	19.2568
122	RH-11	Combination		20.438	17.604	12.186	-16.8259	19.7099
122	RH-12	Combination		-30.257	-4.581	-9.580	4.3787	-29.2205
122	RH-13	Combination		-32.526	17.531	18.388	-16.6990	-31.4171
122	RH-14	Combination		22.037	-9.353	-20.048	8.8961	21.2478
122	RH-15	Combination		19.769	12.758	7.920	-12.1816	19.0511
122	RH-16	Combination		-29.330	-0.432	-6.071	0.3999	-28.3137
122	RH-17	Combination		-33.482	16.697	18.995	-15.8815	-32.3522
122	RH-18	Combination		22.994	-8.519	-20.655	8.0786	22.1828
122	RH-19	Combination		18.841	8.609	4.411	-8.2028	18.1443
122	RH-20	Combination		-27.439	-21.278	-19.411	20.3774	-26.5170
122	RH-21	Combination		-25.692	11.144	14.193	-10.6330	-24.7732
122	RH-22	Combination		23.677	-12.467	-14.115	11.9271	22.8207
122	RH-23	Combination		25.424	19.954	19.490	-19.0833	24.5646
122	RH-24	Combination		-26.690	-14.177	-12.976	13.5715	-25.7708
122	RH-25	Combination		-26.246	13.922	18.293	-13.2718	-25.3177
122	RH-26	Combination		24.230	-15.246	-18.215	14.5659	23.3652
122	RH-27	Combination		24.674	12.854	13.055	-12.2774	23.8183
122	RH-28	Combination		-26.021	-9.331	-8.711	8.9272	-25.1120
122	RH-29	Combination		-28.289	12.780	19.257	-12.1505	-27.3087
122	RH-30	Combination		26.274	-14.104	-19.179	13.4446	25.3562
122	RH-31	Combination		24.005	8.008	8.790	-7.6331	23.1595
122	RH-32	Combination		-25.093	-5.182	-5.202	4.9484	-24.2053
122	RH-33	Combination		-29.246	11.946	19.865	-11.3330	-28.2438
122	RH-34	Combination		27.230	-13.270	-19.786	12.6271	26.2913
122	RH-35	Combination		23.078	3.859	5.281	-3.6543	22.2528
122	RH-36	Combination		-2.918	1.944	-0.416	-1.8517	-2.8286
122	RH-37	Combination		-5.093	4.384	-0.863	-4.1878	-4.9387
122	RH-38	Combination		1.968	-3.533	0.586	3.3931	1.9087
122	RH-39	Combination		-30.655	-17.208	-20.135	16.4770	-29.6355
122	RH-40	Combination		-28.908	15.214	13.470	-14.5334	-27.8916
122	RH-41	Combination		20.461	-8.398	-14.838	8.0267	19.7023
122	RH-42	Combination		22.208	24.024	18.766	-22.9837	21.4461
122	RH-43	Combination		-29.905	-10.107	-13.700	9.6711	-28.8892
122	RH-44	Combination		-29.461	17.992	17.570	-17.1722	-28.4361
122	RH-45	Combination		21.015	-11.176	-18.938	10.6655	20.2468
122	RH-46	Combination		21.459	16.923	12.332	-16.1778	20.6999
122	RH-47	Combination		-29.236	-5.262	-9.434	5.0268	-28.2304
122	RH-48	Combination		-31.505	16.850	18.534	-16.0509	-30.4271
122	RH-49	Combination		23.059	-10.034	-19.902	9.5442	22.2378
122	RH-50	Combination		20.790	12.078	8.066	-11.5335	20.0411
122	RH-51	Combination		-28.309	-1.112	-5.925	1.0480	-27.3237
122	RH-52	Combination		-32.461	16.016	19.141	-15.2334	-31.3622
122	RH-53	Combination		24.015	-9.200	-20.509	8.7267	23.1729
122	RH-54	Combination		19.862	7.928	4.557	-7.5547	19.1344
122	RH-55	Combination		-26.418	-21.958	-19.265	21.0255	-25.5270
122	RH-56	Combination		-24.671	10.463	14.339	-9.9849	-23.7832
122	RH-57	Combination		24.698	-13.148	-13.969	12.5752	23.8108
122	RH-58	Combination		26.445	19.274	19.635	-18.4352	25.5546
122	RH-59	Combination		-25.669	-14.857	-12.831	14.2196	-24.7808
122	RH-60	Combination		-25.225	13.242	18.439	-12.6237	-24.3277
122	RH-61	Combination		25.252	-15.926	-18.069	15.2140	24.3553
122	RH-62	Combination		25.696	12.173	13.201	-11.6293	24.8083
122	RH-63	Combination		-25.000	-10.012	-8.565	9.5753	-24.1220
122	RH-64	Combination		-27.268	12.100	19.403	-11.5024	-26.3187
122	RH-65	Combination		27.295	-14.784	-19.033	14.0927	26.3462
122	RH-66	Combination		25.027	7.328	8.935	-6.9850	24.1495
122	RH-67	Combination		-24.072	-5.862	-5.056	5.5965	-23.2153
122	RH-68	Combination		-28.225	11.266	20.010	-10.6849	-27.2537

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
122	RH-69	Combination		28.252	-13.950	-19.640	13.2752	27.2813
122	RH-70	Combination		24.099	3.178	5.426	-3.0062	23.2428
122	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
122	RH-72	Combination		-2.176	2.440	-0.446	-2.3360	-2.1100
122	RH-73	Combination		4.885	-5.477	1.002	5.2448	4.7374
122	RH-74	Combination		-27.737	-19.152	-19.718	18.3287	-26.8068
122	RH-75	Combination		-25.990	13.269	13.886	-12.6817	-25.0630
122	RH-76	Combination		23.379	-10.342	-14.422	9.8784	22.5310
122	RH-77	Combination		25.126	22.080	19.182	-21.1320	24.2748
122	RH-78	Combination		-26.988	-12.051	-13.284	11.5228	-26.0606
122	RH-79	Combination		-26.544	16.048	17.986	-15.3205	-25.6075
122	RH-80	Combination		23.933	-13.120	-18.522	12.5172	23.0755
122	RH-81	Combination		24.377	14.979	12.748	-14.3261	23.5285
122	RH-82	Combination		-26.319	-7.206	-9.018	6.8785	-25.4018
122	RH-83	Combination		-28.587	14.906	18.950	-14.1992	-27.5985
122	RH-84	Combination		25.976	-11.978	-19.486	11.3959	25.0664
122	RH-85	Combination		23.708	10.134	8.482	-9.6818	22.8698
122	RH-86	Combination		-25.391	-3.057	-5.509	2.8997	-24.4951
122	RH-87	Combination		-29.544	14.072	19.557	-13.3817	-28.5335
122	RH-88	Combination		26.933	-11.144	-20.093	10.5784	26.0015
122	RH-89	Combination		22.780	5.984	4.973	-5.7030	21.9630
122	RH-90	Combination		-23.501	-23.902	-18.849	22.8772	-22.6984
122	RH-91	Combination		-21.753	8.519	14.755	-8.1332	-20.9546
122	RH-92	Combination		27.616	-15.092	-13.552	14.4269	26.6394
122	RH-93	Combination		29.363	17.330	20.052	-16.5835	28.3832
122	RH-94	Combination		-22.751	-16.802	-12.414	16.0713	-21.9521
122	RH-95	Combination		-22.307	11.298	18.856	-10.7720	-21.4991
122	RH-96	Combination		28.169	-17.870	-17.653	17.0657	27.1839
122	RH-97	Combination		28.613	10.229	13.617	-9.7776	27.6370
122	RH-98	Combination		-22.082	-11.956	-8.149	11.4270	-21.2934
122	RH-99	Combination		-24.351	10.156	19.819	-9.6507	-23.4900
122	RH-100	Combination		30.213	-16.728	-18.616	15.9444	29.1749
122	RH-101	Combination		27.944	5.383	9.352	-5.1333	26.9782
122	RH-102	Combination		-21.154	-7.807	-4.640	7.4482	-20.3866
122	RH-103	Combination		-25.307	9.322	20.427	-8.8332	-24.4251
122	RH-104	Combination		31.169	-15.894	-19.224	15.1269	30.1099
122	RH-105	Combination		27.016	1.234	5.843	-1.1545	26.0715
122	RH-106	Combination		-1.409	19.203	7.856	-18.4531	-1.3649
122	RH-107	Combination		-2.219	18.717	6.747	-17.9947	-2.1519
122	RH-108	Combination		-1.997	18.417	2.867	-17.7356	-1.9507
122	RH-109	Combination		-2.190	17.691	-2.702	-17.0851	-2.1412
122	RH-110	Combination		-1.927	17.001	-4.183	-16.4357	-1.8767
122	RH-111	Combination		-2.688	15.999	-3.669	-15.4656	-2.5995
122	RH-112	Combination		-3.319	14.541	-0.814	-14.0315	-3.2051
122	RH-113	Combination		-4.019	12.948	2.566	-12.4578	-3.8840
122	RH-114	Combination		-4.650	11.279	4.563	-10.8232	-4.5028
122	RH-115	Combination		-5.272	9.571	5.001	-9.1656	-5.1131
122	RH-116	Combination		-2.279	20.178	7.678	-19.3875	-2.2089
122	RH-117	Combination		-3.089	19.693	6.568	-18.9292	-2.9959
122	RH-118	Combination		-2.868	19.393	2.688	-18.6700	-2.7948
122	RH-119	Combination		-3.060	18.666	-2.880	-18.0195	-2.9853
122	RH-120	Combination		-2.797	17.977	-4.361	-17.3701	-2.7208
122	RH-121	Combination		-3.558	16.975	-3.848	-16.4000	-3.4435
122	RH-122	Combination		-4.190	15.517	-0.992	-14.9659	-4.0491
122	RH-123	Combination		-4.889	13.924	2.388	-13.3923	-4.7280
122	RH-124	Combination		-5.520	12.255	4.385	-11.7576	-5.3468
122	RH-125	Combination		-6.142	10.547	4.823	-10.1000	-5.9571
122	RH-126	Combination		0.545	17.012	8.257	-16.3551	0.5300
122	RH-127	Combination		-0.265	16.526	7.148	-15.8968	-0.2569
122	RH-128	Combination		-0.043	16.226	3.268	-15.6377	-0.0558
122	RH-129	Combination		-0.236	15.500	-2.301	-14.9872	-0.2463
122	RH-130	Combination		0.027	14.810	-3.782	-14.3377	0.0182

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
122	RH-131	Combination		-0.734	13.808	-3.268	-13.3677	-0.7045
122	RH-132	Combination		-1.365	12.350	-0.413	-11.9335	-1.3101
122	RH-133	Combination		-2.064	10.757	2.967	-10.3599	-1.9891
122	RH-134	Combination		-2.696	9.088	4.964	-8.7253	-2.6079
122	RH-135	Combination		-3.318	7.380	5.402	-7.0677	-3.2181
122	RH-136	Combination		1.509	17.258	8.273	-16.6014	1.4637
122	RH-137	Combination		0.699	16.773	7.163	-16.1430	0.6768
122	RH-138	Combination		0.920	16.473	3.283	-15.8839	0.8779
122	RH-139	Combination		0.728	15.746	-2.285	-15.2334	0.6874
122	RH-140	Combination		0.991	15.057	-3.766	-14.5839	0.9519
122	RH-141	Combination		0.230	14.055	-3.253	-13.6139	0.2292
122	RH-142	Combination		-0.402	12.597	-0.397	-12.1797	-0.3764
122	RH-143	Combination		-1.101	11.004	2.983	-10.6061	-1.0554
122	RH-144	Combination		-1.732	9.335	4.980	-8.9715	-1.6742
122	RH-145	Combination		-2.354	7.627	5.418	-7.3139	-2.2844
122	RH-146	Combination		0.638	18.234	8.094	-17.5358	0.6197
122	RH-147	Combination		-0.171	17.749	6.984	-17.0775	-0.1672
122	RH-148	Combination		0.050	17.449	3.104	-16.8183	0.0339
122	RH-149	Combination		-0.142	16.722	-2.464	-16.1678	-0.1566
122	RH-150	Combination		0.120	16.033	-3.945	-15.5184	0.1079
122	RH-151	Combination		-0.640	15.030	-3.431	-14.5483	-0.6148
122	RH-152	Combination		-1.272	13.573	-0.576	-13.1142	-1.2204
122	RH-153	Combination		-1.971	11.980	2.804	-11.5405	-1.8994
122	RH-154	Combination		-2.602	10.311	4.801	-9.9059	-2.5182
122	RH-155	Combination		-3.224	8.603	5.239	-8.2483	-3.1284
122	RH-156	Combination		3.463	15.067	8.674	-14.5034	3.3587
122	RH-157	Combination		2.653	14.582	7.564	-14.0451	2.5717
122	RH-158	Combination		2.874	14.282	3.684	-13.7860	2.7728
122	RH-159	Combination		2.682	13.555	-1.884	-13.1355	2.5823
122	RH-160	Combination		2.945	12.866	-3.365	-12.4860	2.8468
122	RH-161	Combination		2.184	11.864	-2.852	-11.5160	2.1241
122	RH-162	Combination		1.552	10.406	3.525E-03	-10.0818	1.5185
122	RH-163	Combination		0.853	8.813	3.384	-8.5082	0.8396
122	RH-164	Combination		0.222	7.144	5.381	-6.8736	0.2208
122	RH-165	Combination		-0.400	5.436	5.819	-5.2160	-0.3895
123	ENV-ELS-CA	Combination	Max	22.623	18.392	250.607	15.8388	22.6130
123	ENV-ELS-CA	Combination	Min	-22.887	-16.315	49.956	-18.2339	-22.0938
123	ENV-ELS-CP	Combination	Max	2.256	2.707	116.378	0.7263	2.4947
123	ENV-ELS-CP	Combination	Min	-3.210	-0.755	75.028	-2.7872	-2.9065
123	ENV-ELU-PT	Combination	Max	30.852	24.918	340.991	21.7040	30.8353
123	ENV-ELU-PT	Combination	Min	-31.051	-22.299	28.855	-24.7168	-29.9847
123	ENV-ELU-AC	Combination	Max	3.575	20.277	205.317	0.9954	4.2113
123	ENV-ELU-AC	Combination	Min	-5.163	-0.958	68.880	-20.1053	-4.9597
123	ENV-ELU-EQ	Combination	Max	2.032	0.875	278.540	0.1379	3.0895
123	ENV-ELU-EQ	Combination	Min	0.032	0.122	85.775	-1.7704	-0.0419
123	RH-1	Combination		-3.872	2.621	-3.768	-2.4966	-3.7533
123	RH-2	Combination		-6.043	3.805	-6.037	-3.6215	-5.8582
123	RH-3	Combination		1.002	-0.039	1.328	0.0291	0.9727
123	RH-4	Combination		-29.815	-17.295	-8.023	16.5737	-28.8322
123	RH-5	Combination		-31.092	15.144	-2.206	-14.4586	-30.0138
123	RH-6	Combination		20.742	-8.481	-8.053	8.1155	19.9813
123	RH-7	Combination		19.466	23.958	-2.236	-22.9168	18.7997
123	RH-8	Combination		-30.872	-10.200	-6.460	9.7732	-29.8387
123	RH-9	Combination		-30.217	17.919	-2.085	-17.0953	-29.1694
123	RH-10	Combination		19.868	-11.256	-8.174	10.7522	19.1369
123	RH-11	Combination		20.523	16.863	-3.799	-16.1163	19.8061

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
123	RH-12	Combination		-31.163	-5.346	-5.492	5.1204	-30.1115
123	RH-13	Combination		-30.267	16.779	-2.646	-15.9773	-29.2233
123	RH-14	Combination		19.918	-10.116	-7.613	9.6342	19.1908
123	RH-15	Combination		20.814	12.009	-4.767	-11.4635	20.0790
123	RH-16	Combination		-31.061	-1.192	-4.678	1.1367	-30.0054
123	RH-17	Combination		-29.982	15.943	-3.031	-15.1580	-28.9512
123	RH-18	Combination		19.632	-9.279	-7.228	8.8149	18.9187
123	RH-19	Combination		20.712	7.855	-5.581	-7.4798	19.9728
123	RH-20	Combination		-25.588	-19.602	-3.604	18.7641	-24.7337
123	RH-21	Combination		-26.864	12.837	2.213	-12.2682	-25.9153
123	RH-22	Combination		24.970	-10.788	-3.634	10.3059	24.0798
123	RH-23	Combination		23.693	21.651	2.183	-20.7265	22.8982
123	RH-24	Combination		-26.645	-12.507	-2.041	11.9636	-25.7401
123	RH-25	Combination		-25.990	15.612	2.334	-14.9049	-25.0709
123	RH-26	Combination		24.095	-13.562	-3.755	12.9426	23.2355
123	RH-27	Combination		24.750	14.556	0.620	-13.9259	23.9047
123	RH-28	Combination		-26.936	-7.653	-1.073	7.3108	-26.0129
123	RH-29	Combination		-26.040	14.472	1.773	-13.7869	-25.1248
123	RH-30	Combination		24.145	-12.423	-3.194	11.8245	23.2893
123	RH-31	Combination		25.041	9.703	-0.348	-9.2731	24.1775
123	RH-32	Combination		-26.834	-3.499	-0.259	3.3270	-25.9068
123	RH-33	Combination		-25.754	13.636	1.388	-12.9676	-24.8527
123	RH-34	Combination		23.860	-11.586	-2.809	11.0053	23.0173
123	RH-35	Combination		24.939	5.549	-1.162	-5.2894	24.0714
123	RH-36	Combination		-2.868	1.941	-2.791	-1.8493	-2.7802
123	RH-37	Combination		-5.039	3.126	-5.061	-2.9743	-4.8852
123	RH-38	Combination		2.006	-0.718	2.305	0.6764	1.9457
123	RH-39	Combination		-28.811	-17.974	-7.046	17.2210	-27.8591
123	RH-40	Combination		-30.088	14.465	-1.229	-13.8113	-29.0407
123	RH-41	Combination		21.746	-9.160	-7.076	8.7627	20.9544
123	RH-42	Combination		20.469	23.279	-1.259	-22.2696	19.7728
123	RH-43	Combination		-29.868	-10.879	-5.483	10.4205	-28.8656
123	RH-44	Combination		-29.213	17.239	-1.108	-16.4480	-28.1964
123	RH-45	Combination		20.872	-11.935	-7.197	11.3994	20.1100
123	RH-46	Combination		21.526	16.184	-2.823	-15.4690	20.7792
123	RH-47	Combination		-30.160	-6.026	-4.515	5.7677	-29.1384
123	RH-48	Combination		-29.263	16.100	-1.670	-15.3300	-28.2502
123	RH-49	Combination		20.922	-10.795	-6.636	10.2814	20.1639
123	RH-50	Combination		21.818	11.330	-3.791	-10.8162	21.0520
123	RH-51	Combination		-30.057	-1.872	-3.701	1.7839	-29.0323
123	RH-52	Combination		-28.978	15.263	-2.054	-14.5108	-27.9782
123	RH-53	Combination		20.636	-9.959	-6.251	9.4622	19.8918
123	RH-54	Combination		21.715	7.176	-4.604	-6.8325	20.9459
123	RH-55	Combination		-24.584	-20.281	-2.627	19.4114	-23.7606
123	RH-56	Combination		-25.861	12.158	3.190	-11.6209	-24.9422
123	RH-57	Combination		25.974	-11.467	-2.657	10.9531	25.0529
123	RH-58	Combination		24.697	20.972	3.160	-20.0792	23.8713
123	RH-59	Combination		-25.641	-13.186	-1.064	12.6109	-24.7670
123	RH-60	Combination		-24.986	14.933	3.311	-14.2576	-24.0978
123	RH-61	Combination		25.099	-14.242	-2.778	13.5898	24.2085
123	RH-62	Combination		25.754	13.877	1.596	-13.2787	24.8778
123	RH-63	Combination		-25.932	-8.332	-0.096	7.9580	-25.0399
123	RH-64	Combination		-25.036	13.793	2.750	-13.1396	-24.1517
123	RH-65	Combination		25.149	-13.102	-2.217	12.4718	24.2624
123	RH-66	Combination		26.045	9.023	0.629	-8.6258	25.1506
123	RH-67	Combination		-25.830	-4.178	0.718	3.9743	-24.9337
123	RH-68	Combination		-24.750	12.956	2.365	-12.3204	-23.8796
123	RH-69	Combination		24.863	-12.266	-1.832	11.6526	23.9903
123	RH-70	Combination		25.943	4.869	-0.185	-4.6421	25.0444
123	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
123	RH-72	Combination		-2.171	1.185	-2.270	-1.1249	-2.1050
123	RH-73	Combination		4.874	-2.660	5.096	2.5257	4.7260

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
123	RH-74	Combination		-25.943	-19.916	-4.256	19.0703	-25.0789
123	RH-75	Combination		-27.220	12.523	1.562	-11.9620	-26.2605
123	RH-76	Combination		24.614	-11.102	-4.285	10.6120	23.7346
123	RH-77	Combination		23.338	21.337	1.532	-20.4203	22.5530
123	RH-78	Combination		-27.000	-12.821	-2.692	12.2698	-26.0854
123	RH-79	Combination		-26.345	15.298	1.683	-14.5987	-25.4161
123	RH-80	Combination		23.740	-13.876	-4.406	13.2487	22.8902
123	RH-81	Combination		24.395	14.242	-0.032	-13.6197	23.5594
123	RH-82	Combination		-27.291	-7.967	-1.724	7.6170	-26.3582
123	RH-83	Combination		-26.395	14.158	1.121	-13.4807	-25.4700
123	RH-84	Combination		23.790	-12.737	-3.845	12.1307	22.9441
123	RH-85	Combination		24.686	9.389	-1.000	-8.9669	23.8323
123	RH-86	Combination		-27.189	-3.813	-0.910	3.6332	-26.2521
123	RH-87	Combination		-26.110	13.322	0.737	-12.6614	-25.1979
123	RH-88	Combination		23.504	-11.900	-3.460	11.3115	22.6720
123	RH-89	Combination		24.584	5.234	-1.813	-4.9832	23.7261
123	RH-90	Combination		-21.716	-22.222	0.164	21.2607	-20.9804
123	RH-91	Combination		-22.992	10.217	5.981	-9.7716	-22.1620
123	RH-92	Combination		28.842	-13.408	0.134	12.8024	27.8331
123	RH-93	Combination		27.565	19.031	5.951	-18.2299	26.6515
123	RH-94	Combination		-22.773	-15.127	1.727	14.4602	-21.9868
123	RH-95	Combination		-22.118	12.991	6.102	-12.4083	-21.3176
123	RH-96	Combination		27.967	-16.183	0.013	15.4391	26.9887
123	RH-97	Combination		28.622	11.936	4.387	-11.4293	27.6580
123	RH-98	Combination		-23.064	-10.274	2.695	9.8074	-22.2597
123	RH-99	Combination		-22.168	11.852	5.540	-11.2903	-21.3715
123	RH-100	Combination		28.017	-15.043	0.574	14.3211	27.0426
123	RH-101	Combination		28.913	7.082	3.419	-6.7765	27.9308
123	RH-102	Combination		-22.962	-6.120	3.509	5.8236	-22.1535
123	RH-103	Combination		-21.882	11.015	5.156	-10.4711	-21.0994
123	RH-104	Combination		27.732	-14.207	0.959	13.5019	26.7705
123	RH-105	Combination		28.811	2.928	2.606	-2.7928	27.8247
123	RH-106	Combination		-4.175	19.204	-0.950	-18.4591	-4.0327
123	RH-107	Combination		-4.565	18.722	-1.079	-18.0052	-4.4108
123	RH-108	Combination		-3.796	18.432	-2.074	-17.7603	-3.6756
123	RH-109	Combination		-3.212	17.721	-2.830	-17.1309	-3.1154
123	RH-110	Combination		-2.378	17.036	-2.803	-16.4872	-2.3008
123	RH-111	Combination		-2.553	16.030	-2.482	-15.5119	-2.4673
123	RH-112	Combination		-2.454	14.554	-2.186	-14.0524	-2.3752
123	RH-113	Combination		-2.437	12.951	-2.037	-12.4647	-2.3572
123	RH-114	Combination		-2.375	11.280	-1.961	-10.8274	-2.2991
123	RH-115	Combination		-2.320	9.570	-2.173	-9.1675	-2.2510
123	RH-116	Combination		-5.044	19.678	-1.858	-18.9091	-4.8746
123	RH-117	Combination		-5.434	19.196	-1.987	-18.4552	-5.2528
123	RH-118	Combination		-4.665	18.906	-2.982	-18.2103	-4.5175
123	RH-119	Combination		-4.081	18.195	-3.738	-17.5809	-3.9574
123	RH-120	Combination		-3.246	17.510	-3.711	-16.9372	-3.1428
123	RH-121	Combination		-3.421	16.504	-3.390	-15.9619	-3.3093
123	RH-122	Combination		-3.322	15.028	-3.094	-14.5024	-3.2172
123	RH-123	Combination		-3.305	13.425	-2.944	-12.9146	-3.1992
123	RH-124	Combination		-3.243	11.754	-2.869	-11.2774	-3.1411
123	RH-125	Combination		-3.189	10.043	-3.080	-9.6175	-3.0930
123	RH-126	Combination		-2.225	18.140	1.088	-17.4488	-2.1423
123	RH-127	Combination		-2.616	17.658	0.959	-16.9949	-2.5204
123	RH-128	Combination		-1.847	17.368	-0.036	-16.7500	-1.7852
123	RH-129	Combination		-1.263	16.657	-0.792	-16.1207	-1.2250
123	RH-130	Combination		-0.428	15.972	-0.765	-15.4770	-0.4104
123	RH-131	Combination		-0.603	14.966	-0.444	-14.5016	-0.5769
123	RH-132	Combination		-0.504	13.490	-0.148	-13.0421	-0.4849
123	RH-133	Combination		-0.487	11.888	1.665E-03	-11.4544	-0.4668
123	RH-134	Combination		-0.425	10.216	0.077	-9.8172	-0.4087
123	RH-135	Combination		-0.371	8.506	-0.134	-8.1572	-0.3606

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
123	RH-136	Combination		-1.307	17.262	1.841	-16.6098	-1.2524
123	RH-137	Combination		-1.697	16.781	1.712	-16.1559	-1.6306
123	RH-138	Combination		-0.928	16.491	0.717	-15.9110	-0.8954
123	RH-139	Combination		-0.344	15.780	-0.039	-15.2816	-0.3352
123	RH-140	Combination		0.490	15.095	-0.013	-14.6379	0.4794
123	RH-141	Combination		0.315	14.088	0.309	-13.6626	0.3129
123	RH-142	Combination		0.414	12.613	0.605	-12.2031	0.4050
123	RH-143	Combination		0.432	11.010	0.754	-10.6153	0.4230
123	RH-144	Combination		0.494	9.338	0.830	-8.9781	0.4811
123	RH-145	Combination		0.548	7.628	0.618	-7.3182	0.5292
123	RH-146	Combination		-2.175	17.736	0.933	-17.0598	-2.0944
123	RH-147	Combination		-2.566	17.254	0.804	-16.6058	-2.4726
123	RH-148	Combination		-1.797	16.965	-0.191	-16.3610	-1.7373
123	RH-149	Combination		-1.213	16.254	-0.947	-15.7316	-1.1771
123	RH-150	Combination		-0.378	15.569	-0.920	-15.0879	-0.3626
123	RH-151	Combination		-0.553	14.562	-0.599	-14.1125	-0.5291
123	RH-152	Combination		-0.454	13.087	-0.303	-12.6531	-0.4370
123	RH-153	Combination		-0.437	11.484	-0.153	-11.0653	-0.4189
123	RH-154	Combination		-0.375	9.812	-0.078	-9.4281	-0.3608
123	RH-155	Combination		-0.321	8.102	-0.290	-7.7682	-0.3128
123	RH-156	Combination		0.643	16.198	3.879	-15.5995	0.6379
123	RH-157	Combination		0.253	15.717	3.750	-15.1456	0.2598
123	RH-158	Combination		1.022	15.427	2.755	-14.9007	0.9950
123	RH-159	Combination		1.606	14.716	1.999	-14.2713	1.5552
123	RH-160	Combination		2.440	14.031	2.026	-13.6276	2.3698
123	RH-161	Combination		2.265	13.024	2.347	-12.6523	2.2033
123	RH-162	Combination		2.364	11.549	2.643	-11.1928	2.2953
123	RH-163	Combination		2.381	9.946	2.793	-9.6051	2.3134
123	RH-164	Combination		2.443	8.275	2.868	-7.9678	2.3715
123	RH-165	Combination		2.497	6.564	2.657	-6.3079	2.4196
125	ENV-ELS-CA	Combination	Max	23.810	18.091	308.898	14.6350	23.7112
125	ENV-ELS-CA	Combination	Min	-24.222	-15.208	38.660	-17.9689	-23.4560
125	ENV-ELS-CP	Combination	Max	2.215	2.402	131.748	-0.2406	2.4439
125	ENV-ELS-CP	Combination	Min	-3.228	0.160	77.885	-2.4690	-2.9556
125	ENV-ELU-PT	Combination	Max	32.455	24.453	420.457	19.9225	32.3208
125	ENV-ELU-PT	Combination	Min	-32.855	-20.651	9.196	-24.2958	-31.8278
125	ENV-ELU-AC	Combination	Max	6.646	20.053	255.043	-0.0015	7.1273
125	ENV-ELU-AC	Combination	Min	-7.665	0.082	58.573	-19.9267	-7.4321
125	ENV-ELU-EQ	Combination	Max	1.925	1.053	347.976	0.0481	2.8768
125	ENV-ELU-EQ	Combination	Min	-0.116	0.144	81.540	-2.0792	-0.2569
125	RH-1	Combination		-3.816	2.619	-6.948	-2.4937	-3.6987
125	RH-2	Combination		-5.983	2.547	-10.934	-2.4050	-5.8003
125	RH-3	Combination		1.050	2.780	2.001	-2.6928	1.0197
125	RH-4	Combination		-27.971	-18.032	4.343	17.2776	-27.0557
125	RH-5	Combination		-32.268	14.392	-17.676	-13.7286	-31.1627
125	RH-6	Combination		22.036	-9.242	-1.004	8.8476	21.2435
125	RH-7	Combination		17.740	23.183	-23.023	-22.1586	17.1364
125	RH-8	Combination		-30.823	-10.950	0.971	10.4918	-29.8042
125	RH-9	Combination		-29.961	17.152	-21.451	-16.3505	-28.9255
125	RH-10	Combination		19.729	-12.002	2.771	11.4695	19.0062
125	RH-11	Combination		20.591	16.100	-19.650	-15.3728	19.8850
125	RH-12	Combination		-32.079	-6.099	-1.388	5.8436	-31.0137
125	RH-13	Combination		-28.023	16.017	-23.451	-15.2372	-27.0476
125	RH-14	Combination		17.792	-10.866	4.771	10.3562	17.1283
125	RH-15	Combination		21.847	11.250	-17.292	-10.7246	21.0945
125	RH-16	Combination		-32.804	-1.947	-3.293	1.8641	-31.7106

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
125	RH-17	Combination		-26.495	15.181	-24.774	-14.4195	-25.5670
125	RH-18	Combination		16.263	-10.031	6.094	9.5385	15.6477
125	RH-19	Combination		22.572	7.098	-15.386	-6.7451	21.7913
125	RH-20	Combination		-23.752	-17.892	12.104	17.1049	-22.9637
125	RH-21	Combination		-28.048	14.533	-9.915	-13.9013	-27.0707
125	RH-22	Combination		26.256	-9.101	6.757	8.6749	25.3355
125	RH-23	Combination		21.959	23.323	-15.262	-22.3312	21.2284
125	RH-24	Combination		-26.603	-10.809	8.731	10.3191	-25.7122
125	RH-25	Combination		-25.742	17.293	-13.690	-16.5232	-24.8335
125	RH-26	Combination		23.949	-11.861	10.532	11.2968	23.0982
125	RH-27	Combination		24.811	16.241	-11.890	-15.5454	23.9770
125	RH-28	Combination		-27.859	-5.959	6.373	5.6709	-26.9217
125	RH-29	Combination		-23.804	16.157	-15.690	-15.4099	-22.9556
125	RH-30	Combination		22.011	-10.726	12.532	10.1835	21.2203
125	RH-31	Combination		26.067	11.390	-9.531	-10.8973	25.1865
125	RH-32	Combination		-28.584	-1.807	4.467	1.6914	-27.6186
125	RH-33	Combination		-22.275	15.322	-17.013	-14.5922	-21.4750
125	RH-34	Combination		20.483	-9.890	13.855	9.3658	19.7397
125	RH-35	Combination		26.792	7.238	-7.625	-6.9178	25.8833
125	RH-36	Combination		-2.826	1.940	-5.147	-1.8472	-2.7398
125	RH-37	Combination		-4.994	1.868	-9.133	-1.7585	-4.8413
125	RH-38	Combination		2.039	2.101	3.802	-2.0463	1.9787
125	RH-39	Combination		-26.982	-18.711	6.144	17.9241	-26.0968
125	RH-40	Combination		-31.279	13.714	-15.875	-13.0821	-30.2038
125	RH-41	Combination		23.025	-9.921	0.798	9.4941	22.2024
125	RH-42	Combination		18.729	22.504	-21.221	-21.5121	18.0953
125	RH-43	Combination		-29.834	-11.629	2.772	11.1383	-28.8453
125	RH-44	Combination		-28.972	16.474	-19.650	-15.7040	-27.9666
125	RH-45	Combination		20.719	-12.681	4.573	12.1160	19.9652
125	RH-46	Combination		21.580	15.422	-17.849	-14.7263	20.8439
125	RH-47	Combination		-31.090	-6.778	0.413	6.4901	-30.0548
125	RH-48	Combination		-27.034	15.338	-21.649	-14.5907	-26.0887
125	RH-49	Combination		18.781	-11.545	6.573	11.0027	18.0872
125	RH-50	Combination		22.837	10.571	-15.490	-10.0781	22.0534
125	RH-51	Combination		-31.815	-2.626	-1.492	2.5106	-30.7517
125	RH-52	Combination		-25.505	14.503	-22.973	-13.7730	-24.6081
125	RH-53	Combination		17.252	-10.709	7.896	10.1850	16.6066
125	RH-54	Combination		23.561	6.419	-13.585	-6.0986	22.7502
125	RH-55	Combination		-22.762	-18.571	13.905	17.7514	-22.0048
125	RH-56	Combination		-27.059	13.854	-8.114	-13.2548	-26.1118
125	RH-57	Combination		27.245	-9.780	8.559	9.3214	26.2944
125	RH-58	Combination		22.949	22.644	-13.460	-21.6847	22.1874
125	RH-59	Combination		-25.614	-11.488	10.533	10.9656	-24.7533
125	RH-60	Combination		-24.752	16.614	-11.889	-15.8767	-23.8746
125	RH-61	Combination		24.939	-12.540	12.334	11.9434	24.0572
125	RH-62	Combination		25.800	15.562	-10.088	-14.8989	24.9359
125	RH-63	Combination		-26.870	-6.637	8.174	6.3175	-25.9628
125	RH-64	Combination		-22.814	15.478	-13.889	-14.7634	-21.9966
125	RH-65	Combination		23.001	-11.405	14.333	10.8300	22.1792
125	RH-66	Combination		27.056	10.711	-7.729	-10.2508	26.1454
125	RH-67	Combination		-27.595	-2.486	6.269	2.3380	-26.6596
125	RH-68	Combination		-21.286	14.643	-15.212	-13.9456	-20.5161
125	RH-69	Combination		21.472	-10.569	15.657	10.0123	20.6987
125	RH-70	Combination		27.781	6.559	-5.824	-6.2713	26.8422
125	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
125	RH-72	Combination		-2.167	-0.072	-3.986	0.0887	-2.1016
125	RH-73	Combination		4.866	0.162	8.949	-0.1991	4.7184
125	RH-74	Combination		-24.156	-20.651	11.291	19.7713	-23.3570
125	RH-75	Combination		-28.452	11.774	-10.728	-11.2349	-27.4640
125	RH-76	Combination		25.852	-11.860	5.945	11.3413	24.9421
125	RH-77	Combination		21.555	20.564	-16.074	-19.6649	20.8351
125	RH-78	Combination		-27.007	-13.568	7.919	12.9855	-26.1056

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
125	RH-79	Combination		-26.146	14.534	-14.503	-13.8568	-25.2268
125	RH-80	Combination		23.545	-14.620	9.720	13.9632	22.7049
125	RH-81	Combination		24.407	13.482	-12.702	-12.8791	23.5837
125	RH-82	Combination		-28.264	-8.717	5.560	8.3373	-27.3151
125	RH-83	Combination		-24.208	13.398	-16.502	-12.7435	-23.3489
125	RH-84	Combination		21.607	-13.485	11.719	12.8499	20.8270
125	RH-85	Combination		25.663	8.631	-10.343	-8.2309	24.7932
125	RH-86	Combination		-28.988	-4.566	3.655	4.3578	-28.0119
125	RH-87	Combination		-22.679	12.563	-17.826	-11.9258	-21.8683
125	RH-88	Combination		20.078	-12.649	13.043	12.0322	19.3464
125	RH-89	Combination		26.388	4.479	-8.438	-4.2514	25.4900
125	RH-90	Combination		-19.936	-20.511	19.052	19.5986	-19.2650
125	RH-91	Combination		-24.233	11.914	-2.967	-11.4076	-23.3720
125	RH-92	Combination		30.072	-11.720	13.706	11.1686	29.0341
125	RH-93	Combination		25.775	20.705	-8.314	-19.8375	24.9271
125	RH-94	Combination		-22.788	-13.428	15.680	12.8128	-22.0136
125	RH-95	Combination		-21.926	14.674	-6.742	-14.0295	-21.1348
125	RH-96	Combination		27.765	-14.480	17.481	13.7906	26.7969
125	RH-97	Combination		28.627	13.622	-4.941	-13.0517	27.6757
125	RH-98	Combination		-24.044	-8.577	13.321	8.1646	-23.2231
125	RH-99	Combination		-19.988	13.538	-8.742	-12.9162	-19.2569
125	RH-100	Combination		25.827	-13.344	19.480	12.6772	24.9190
125	RH-101	Combination		29.883	8.771	-2.583	-8.4036	28.8852
125	RH-102	Combination		-24.768	-4.426	11.416	4.1852	-23.9199
125	RH-103	Combination		-18.459	12.703	-10.065	-12.0985	-17.7763
125	RH-104	Combination		24.298	-12.509	20.804	11.8595	23.4384
125	RH-105	Combination		30.607	4.620	-0.677	-4.4241	29.5820
125	RH-106	Combination		-6.952	19.200	-9.442	-18.4530	-6.7117
125	RH-107	Combination		-6.920	18.722	-8.473	-18.0046	-6.6784
125	RH-108	Combination		-5.596	18.449	-5.921	-17.7869	-5.3990
125	RH-109	Combination		-4.239	17.778	-0.739	-17.2168	-4.0945
125	RH-110	Combination		-2.837	17.105	0.979	-16.5885	-2.7353
125	RH-111	Combination		-2.436	16.085	0.866	-15.5974	-2.3593
125	RH-112	Combination		-1.609	14.566	-2.672	-14.0718	-1.5737
125	RH-113	Combination		-0.867	12.949	-6.396	-12.4603	-0.8448
125	RH-114	Combination		-0.109	11.277	-8.277	-10.8226	-0.1065
125	RH-115	Combination		0.622	9.568	-9.125	-9.1642	0.6013
125	RH-116	Combination		-7.819	19.171	-11.037	-18.4176	-7.5523
125	RH-117	Combination		-7.787	18.693	-10.067	-17.9691	-7.5191
125	RH-118	Combination		-6.463	18.421	-7.515	-17.7514	-6.2396
125	RH-119	Combination		-5.106	17.749	-2.333	-17.1814	-4.9351
125	RH-120	Combination		-3.704	17.076	-0.616	-16.5531	-3.5760
125	RH-121	Combination		-3.303	16.056	-0.728	-15.5619	-3.2000
125	RH-122	Combination		-2.476	14.537	-4.267	-14.0364	-2.4144
125	RH-123	Combination		-1.734	12.920	-7.990	-12.4249	-1.6854
125	RH-124	Combination		-0.976	11.248	-9.872	-10.7871	-0.9472
125	RH-125	Combination		-0.245	9.539	-10.719	-9.1288	-0.2393
125	RH-126	Combination		-5.005	19.265	-5.863	-18.5327	-4.8243
125	RH-127	Combination		-4.974	18.787	-4.893	-18.0842	-4.7911
125	RH-128	Combination		-3.649	18.514	-2.341	-17.8665	-3.5116
125	RH-129	Combination		-2.293	17.842	2.841	-17.2965	-2.2071
125	RH-130	Combination		-0.890	17.169	4.558	-16.6682	-0.8480
125	RH-131	Combination		-0.490	16.150	4.446	-15.6770	-0.4720
125	RH-132	Combination		0.337	14.631	0.907	-14.1515	0.3136
125	RH-133	Combination		1.079	13.013	-2.816	-12.5400	1.0426
125	RH-134	Combination		1.837	11.342	-4.698	-10.9022	1.7808
125	RH-135	Combination		2.568	9.632	-5.545	-9.2439	2.4887
125	RH-136	Combination		-4.125	17.261	-4.296	-16.6058	-3.9719
125	RH-137	Combination		-4.094	16.782	-3.326	-16.1574	-3.9387
125	RH-138	Combination		-2.769	16.510	-0.774	-15.9397	-2.6592
125	RH-139	Combination		-1.412	15.838	4.408	-15.3697	-1.3547
125	RH-140	Combination		-0.010	15.165	6.126	-14.7413	0.0044

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
125	RH-141	Combination		0.390	14.146	6.013	-13.7502	0.3804
125	RH-142	Combination		1.217	12.626	2.475	-12.2246	1.1660
125	RH-143	Combination		1.960	11.009	-1.249	-10.6131	1.8950
125	RH-144	Combination		2.717	9.337	-3.130	-8.9754	2.6332
125	RH-145	Combination		3.448	7.628	-3.978	-7.3171	3.3411
125	RH-146	Combination		-4.992	17.232	-5.890	-16.5704	-4.8126
125	RH-147	Combination		-4.961	16.754	-4.920	-16.1219	-4.7793
125	RH-148	Combination		-3.636	16.481	-2.368	-15.9042	-3.4998
125	RH-149	Combination		-2.279	15.809	2.814	-15.3342	-2.1954
125	RH-150	Combination		-0.877	15.136	4.531	-14.7059	-0.8362
125	RH-151	Combination		-0.477	14.117	4.419	-13.7147	-0.4602
125	RH-152	Combination		0.350	12.598	0.880	-12.1892	0.3254
125	RH-153	Combination		1.093	10.980	-2.843	-10.5777	1.0543
125	RH-154	Combination		1.850	9.308	-4.725	-8.9399	1.7926
125	RH-155	Combination		2.581	7.599	-5.572	-7.2816	2.5005
125	RH-156	Combination		-2.179	17.325	-0.716	-16.6855	-2.0846
125	RH-157	Combination		-2.147	16.847	0.254	-16.2370	-2.0513
125	RH-158	Combination		-0.823	16.574	2.806	-16.0193	-0.7718
125	RH-159	Combination		0.534	15.903	7.988	-15.4493	0.5326
125	RH-160	Combination		1.936	15.230	9.705	-14.8210	1.8918
125	RH-161	Combination		2.337	14.210	9.592	-13.8298	2.2678
125	RH-162	Combination		3.163	12.691	6.054	-12.3043	3.0534
125	RH-163	Combination		3.906	11.074	2.331	-10.6928	3.7823
125	RH-164	Combination		4.664	9.402	0.449	-9.0550	4.5206
125	RH-165	Combination		5.395	7.693	-0.398	-7.3967	5.2285
128	ENV-ELS-CA	Combination	Max	23.403	18.198	210.217	16.6171	23.2320
128	ENV-ELS-CA	Combination	Min	-23.372	-16.918	41.926	-18.1444	-22.6476
128	ENV-ELS-CP	Combination	Max	1.544	3.335	84.179	2.0055	1.7273
128	ENV-ELS-CP	Combination	Min	-1.997	-1.932	66.868	-3.5130	-1.7780
128	ENV-ELU-PT	Combination	Max	31.792	24.764	285.190	22.9880	31.5600
128	ENV-ELU-PT	Combination	Min	-31.654	-23.326	30.063	-24.7205	-30.6788
128	ENV-ELU-AC	Combination	Max	3.746	19.011	176.817	2.4798	4.2559
128	ENV-ELU-AC	Combination	Min	-5.015	-2.370	53.731	-18.9568	-4.9263
128	ENV-ELU-EQ	Combination	Max	1.810	0.764	242.807	0.3101	2.7035
128	ENV-ELU-EQ	Combination	Min	-0.189	-0.012	54.435	-1.5906	-0.4005
128	RH-1	Combination		-2.515	2.662	0.099	-2.5353	-2.4383
128	RH-2	Combination		-3.872	5.104	0.047	-4.8731	-3.7545
128	RH-3	Combination		0.532	-2.820	0.216	2.7134	0.5166
128	RH-4	Combination		-29.752	-15.308	-19.336	14.6518	-28.7525
128	RH-5	Combination		-28.002	15.151	11.228	-14.4688	-27.0143
128	RH-6	Combination		21.344	-6.897	-11.092	6.5928	20.5582
128	RH-7	Combination		23.093	23.562	19.472	-22.5277	22.2964
128	RH-8	Combination		-29.023	-9.385	-14.123	8.9788	-28.0276
128	RH-9	Combination		-28.539	18.848	15.871	-17.9901	-27.5422
128	RH-10	Combination		21.880	-10.594	-15.735	10.1141	21.0861
128	RH-11	Combination		22.364	17.639	14.259	-16.8548	21.5715
128	RH-12	Combination		-28.339	-5.149	-10.550	4.9202	-27.3561
128	RH-13	Combination		-30.615	18.974	17.770	-18.0880	-29.5645
128	RH-14	Combination		23.956	-10.720	-17.634	10.2120	23.1084
128	RH-15	Combination		21.681	13.403	10.686	-12.7962	20.9001
128	RH-16	Combination		-27.395	-1.523	-7.619	1.4450	-26.4345
128	RH-17	Combination		-31.588	18.929	19.003	-18.0284	-30.5155
128	RH-18	Combination		24.929	-10.675	-18.868	10.1524	24.0594
128	RH-19	Combination		20.737	9.777	7.754	-9.3210	19.9784
128	RH-20	Combination		-27.110	-20.062	-19.234	19.2037	-26.1898
128	RH-21	Combination		-25.360	10.397	11.330	-9.9169	-24.4517

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
128	RH-22	Combination		23.986	-11.651	-10.991	11.1447	23.1209
128	RH-23	Combination		25.736	18.808	19.573	-17.9758	24.8591
128	RH-24	Combination		-26.380	-14.139	-14.022	13.5307	-25.4649
128	RH-25	Combination		-25.896	14.094	15.973	-13.4382	-24.9795
128	RH-26	Combination		24.522	-15.348	-15.634	14.6660	23.6488
128	RH-27	Combination		25.006	12.885	14.361	-12.3029	24.1342
128	RH-28	Combination		-25.697	-9.903	-10.449	9.4721	-24.7935
128	RH-29	Combination		-27.973	14.220	17.872	-13.5361	-27.0018
128	RH-30	Combination		26.599	-15.475	-17.533	14.7639	25.6711
128	RH-31	Combination		24.323	8.649	10.788	-8.2443	23.4627
128	RH-32	Combination		-24.753	-6.277	-7.517	5.9969	-23.8719
128	RH-33	Combination		-28.945	14.175	19.105	-13.4765	-27.9528
128	RH-34	Combination		27.572	-15.429	-18.766	14.7043	26.6221
128	RH-35	Combination		23.379	5.023	7.856	-4.7691	22.5411
128	RH-36	Combination		-1.863	1.972	0.073	-1.8780	-1.8062
128	RH-37	Combination		-3.220	4.413	0.021	-4.2158	-3.1223
128	RH-38	Combination		1.184	-3.510	0.191	3.3707	1.1488
128	RH-39	Combination		-29.100	-15.999	-19.362	15.3091	-28.1203
128	RH-40	Combination		-27.350	14.461	11.202	-13.8115	-26.3822
128	RH-41	Combination		21.996	-7.587	-11.118	7.2501	21.1904
128	RH-42	Combination		23.746	22.872	19.446	-21.8704	22.9286
128	RH-43	Combination		-28.371	-10.075	-14.149	9.6361	-27.3954
128	RH-44	Combination		-27.887	18.158	15.845	-17.3328	-26.9100
128	RH-45	Combination		22.532	-11.284	-15.761	10.7714	21.7183
128	RH-46	Combination		23.016	16.949	14.233	-16.1975	22.2037
128	RH-47	Combination		-27.687	-5.839	-10.576	5.5775	-26.7240
128	RH-48	Combination		-29.963	18.284	17.744	-17.4307	-28.9323
128	RH-49	Combination		24.608	-11.411	-17.660	10.8693	23.7406
128	RH-50	Combination		22.333	12.713	10.660	-12.1389	21.5322
128	RH-51	Combination		-26.743	-2.213	-7.644	2.1023	-25.8024
128	RH-52	Combination		-30.936	18.239	18.978	-17.3711	-29.8833
128	RH-53	Combination		25.581	-11.365	-18.893	10.8097	24.6916
128	RH-54	Combination		21.389	9.087	7.729	-8.6637	20.6106
128	RH-55	Combination		-26.458	-20.753	-19.260	19.8610	-25.5577
128	RH-56	Combination		-24.708	9.707	11.304	-9.2596	-23.8195
128	RH-57	Combination		24.638	-12.341	-11.017	11.8020	23.7531
128	RH-58	Combination		26.388	18.118	19.548	-17.3185	25.4913
128	RH-59	Combination		-25.728	-14.830	-14.048	14.1880	-24.8328
128	RH-60	Combination		-25.244	13.404	15.947	-12.7809	-24.3474
128	RH-61	Combination		25.174	-16.038	-15.660	15.3233	24.2809
128	RH-62	Combination		25.658	12.195	14.335	-11.6456	24.7663
128	RH-63	Combination		-25.045	-10.593	-10.474	10.1294	-24.1613
128	RH-64	Combination		-27.321	13.530	17.846	-12.8788	-26.3697
128	RH-65	Combination		27.251	-16.165	-17.559	15.4213	26.3032
128	RH-66	Combination		24.975	7.959	10.762	-7.5870	24.0949
128	RH-67	Combination		-24.101	-6.967	-7.543	6.6542	-23.2397
128	RH-68	Combination		-28.293	13.485	19.079	-12.8192	-27.3207
128	RH-69	Combination		28.224	-16.119	-18.792	15.3616	27.2542
128	RH-70	Combination		24.031	4.333	7.830	-4.1118	23.1733
128	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
128	RH-72	Combination		-1.357	2.442	-0.052	-2.3378	-1.3161
128	RH-73	Combination		3.047	-5.482	0.117	5.2487	2.9550
128	RH-74	Combination		-27.237	-17.970	-19.435	17.1871	-26.3141
128	RH-75	Combination		-25.487	12.489	11.129	-11.9335	-24.5760
128	RH-76	Combination		23.859	-9.559	-11.192	9.1281	22.9966
128	RH-77	Combination		25.608	20.900	19.373	-19.9924	24.7348
128	RH-78	Combination		-26.508	-12.047	-14.223	11.5141	-25.5892
128	RH-79	Combination		-26.024	16.186	15.772	-15.4548	-25.1038
128	RH-80	Combination		24.395	-13.256	-15.835	12.6494	23.5245
128	RH-81	Combination		24.879	14.977	14.160	-14.3195	24.0099
128	RH-82	Combination		-25.824	-7.811	-10.650	7.4555	-24.9178
128	RH-83	Combination		-28.100	16.312	17.671	-15.5527	-27.1261

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
128	RH-84	Combination		26.471	-13.382	-17.734	12.7474	25.5468
128	RH-85	Combination		24.196	10.741	10.587	-10.2609	23.3384
128	RH-86	Combination		-24.880	-4.185	-7.718	3.9803	-23.9962
128	RH-87	Combination		-29.073	16.267	18.904	-15.4931	-28.0771
128	RH-88	Combination		27.444	-13.337	-18.967	12.6877	26.4978
128	RH-89	Combination		23.252	7.115	7.655	-6.7857	22.4168
128	RH-90	Combination		-24.595	-22.724	-19.334	21.7390	-23.7515
128	RH-91	Combination		-22.845	7.735	11.231	-7.3816	-22.0133
128	RH-92	Combination		26.501	-14.313	-11.090	13.6800	25.5593
128	RH-93	Combination		28.251	16.146	19.474	-15.4405	27.2974
128	RH-94	Combination		-23.865	-16.801	-14.121	16.0660	-23.0266
128	RH-95	Combination		-23.381	11.432	15.874	-10.9028	-22.5412
128	RH-96	Combination		27.037	-18.010	-15.733	17.2013	26.0871
128	RH-97	Combination		27.521	10.223	14.262	-9.7676	26.5725
128	RH-98	Combination		-23.182	-12.565	-10.548	12.0074	-22.3551
128	RH-99	Combination		-25.458	11.558	17.773	-11.0008	-24.5635
128	RH-100	Combination		29.114	-18.137	-17.632	17.2993	28.1094
128	RH-101	Combination		26.838	5.987	10.689	-5.7090	25.9011
128	RH-102	Combination		-22.238	-8.939	-7.616	8.5322	-21.4335
128	RH-103	Combination		-26.430	11.513	19.006	-10.9411	-25.5145
128	RH-104	Combination		30.087	-18.091	-18.865	17.2396	29.0604
128	RH-105	Combination		25.894	2.361	7.757	-2.2338	24.9795
128	RH-106	Combination		-0.368	17.400	7.852	-16.7111	-0.3508
128	RH-107	Combination		-1.168	17.178	6.979	-16.5052	-1.1274
128	RH-108	Combination		-0.932	17.220	3.788	-16.5742	-0.9111
128	RH-109	Combination		-1.110	16.992	-1.452	-16.4046	-1.0888
128	RH-110	Combination		-0.843	16.682	-3.461	-16.1236	-0.8238
128	RH-111	Combination		-1.604	16.087	-3.677	-15.5518	-1.5457
128	RH-112	Combination		-2.244	15.121	-1.189	-14.5975	-2.1570
128	RH-113	Combination		-2.956	13.982	2.405	-13.4610	-2.8495
128	RH-114	Combination		-3.600	12.746	4.957	-12.2402	-3.4822
128	RH-115	Combination		-4.235	11.463	5.968	-10.9893	-4.1054
128	RH-116	Combination		-0.911	18.377	7.831	-17.6463	-0.8773
128	RH-117	Combination		-1.711	18.155	6.958	-17.4403	-1.6539
128	RH-118	Combination		-1.475	18.197	3.767	-17.5094	-1.4376
128	RH-119	Combination		-1.653	17.969	-1.473	-17.3397	-1.6153
128	RH-120	Combination		-1.386	17.659	-3.482	-17.0587	-1.3503
128	RH-121	Combination		-2.147	17.064	-3.698	-16.4869	-2.0722
128	RH-122	Combination		-2.786	16.098	-1.210	-15.5326	-2.6835
128	RH-123	Combination		-3.499	14.959	2.384	-14.3961	-3.3760
128	RH-124	Combination		-4.143	13.723	4.936	-13.1754	-4.0087
128	RH-125	Combination		-4.778	12.440	5.947	-11.9244	-4.6318
128	RH-126	Combination		0.851	15.208	7.899	-14.6117	0.8312
128	RH-127	Combination		0.051	14.985	7.026	-14.4057	0.0546
128	RH-128	Combination		0.286	15.027	3.835	-14.4748	0.2709
128	RH-129	Combination		0.109	14.799	-1.405	-14.3051	0.0931
128	RH-130	Combination		0.375	14.490	-3.414	-14.0241	0.3582
128	RH-131	Combination		-0.386	13.894	-3.630	-13.4523	-0.3637
128	RH-132	Combination		-1.025	12.928	-1.143	-12.4980	-0.9751
128	RH-133	Combination		-1.737	11.790	2.452	-11.3615	-1.6675
128	RH-134	Combination		-2.382	10.554	5.004	-10.1407	-2.3003
128	RH-135	Combination		-3.016	9.270	6.015	-8.8898	-2.9234
128	RH-136	Combination		1.495	15.428	7.778	-14.8331	1.4554
128	RH-137	Combination		0.695	15.206	6.906	-14.6272	0.6788
128	RH-138	Combination		0.931	15.248	3.714	-14.6962	0.8951
128	RH-139	Combination		0.753	15.020	-1.525	-14.5266	0.7173
128	RH-140	Combination		1.020	14.711	-3.535	-14.2456	0.9824
128	RH-141	Combination		0.259	14.115	-3.750	-13.6738	0.2605
128	RH-142	Combination		-0.381	13.149	-1.263	-12.7194	-0.3509
128	RH-143	Combination		-1.093	12.011	2.332	-11.5829	-1.0433
128	RH-144	Combination		-1.738	10.774	4.884	-10.3622	-1.6761
128	RH-145	Combination		-2.372	9.491	5.894	-9.1113	-2.2992

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
128	RH-146	Combination		0.952	16.405	7.757	-15.7683	0.9289
128	RH-147	Combination		0.152	16.183	6.885	-15.5623	0.1523
128	RH-148	Combination		0.388	16.225	3.693	-15.6314	0.3686
128	RH-149	Combination		0.210	15.997	-1.546	-15.4617	0.1909
128	RH-150	Combination		0.477	15.687	-3.555	-15.1807	0.4559
128	RH-151	Combination		-0.284	15.092	-3.771	-14.6089	-0.2660
128	RH-152	Combination		-0.923	14.126	-1.284	-13.6546	-0.8773
128	RH-153	Combination		-1.636	12.987	2.311	-12.5181	-1.5698
128	RH-154	Combination		-2.280	11.751	4.863	-11.2973	-2.2025
128	RH-155	Combination		-2.915	10.468	5.873	-10.0464	-2.8257
128	RH-156	Combination		2.714	13.236	7.825	-12.7336	2.6374
128	RH-157	Combination		1.914	13.013	6.953	-12.5277	1.8608
128	RH-158	Combination		2.149	13.056	3.761	-12.5967	2.0771
128	RH-159	Combination		1.972	12.827	-1.478	-12.4271	1.8993
128	RH-160	Combination		2.238	12.518	-3.488	-12.1461	2.1644
128	RH-161	Combination		1.477	11.922	-3.703	-11.5743	1.4425
128	RH-162	Combination		0.838	10.956	-1.216	-10.6199	0.8311
128	RH-163	Combination		0.126	9.818	2.378	-9.4835	0.1387
128	RH-164	Combination		-0.519	8.582	4.930	-8.2627	-0.4941
128	RH-165	Combination		-1.153	7.299	5.941	-7.0118	-1.1172
129	ENV-ELS-CA	Combination	Max	21.604	17.506	212.588	14.9299	21.4476
129	ENV-ELS-CA	Combination	Min	-21.642	-15.416	46.079	-17.3664	-20.9688
129	ENV-ELS-CP	Combination	Max	1.501	2.734	99.476	0.6947	1.6723
129	ENV-ELS-CP	Combination	Min	-1.993	-0.739	65.963	-2.8202	-1.7937
129	ENV-ELU-PT	Combination	Max	29.363	23.720	289.133	20.4801	29.1514
129	ENV-ELU-PT	Combination	Min	-29.318	-21.086	29.261	-23.5436	-28.4131
129	ENV-ELU-AC	Combination	Max	2.675	18.442	173.948	0.9432	3.1658
129	ENV-ELU-AC	Combination	Min	-3.985	-0.940	61.033	-18.3242	-3.9109
129	ENV-ELU-EQ	Combination	Max	1.637	0.825	236.963	0.0835	2.4677
129	ENV-ELU-EQ	Combination	Min	-0.155	0.130	74.992	-1.7052	-0.3433
129	RH-1	Combination		-2.453	2.660	-3.123	-2.5342	-2.3781
129	RH-2	Combination		-3.807	3.847	-5.002	-3.6613	-3.6921
129	RH-3	Combination		0.589	-4.821E-03	1.096	-0.0038	0.5721
129	RH-4	Combination		-27.876	-16.066	-6.939	15.3822	-26.9399
129	RH-5	Combination		-29.174	14.407	-3.630	-13.7553	-28.1603
129	RH-6	Combination		22.643	-7.663	-4.871	7.3344	21.8272
129	RH-7	Combination		21.346	22.810	-1.561	-21.8032	20.6069
129	RH-8	Combination		-28.966	-10.144	-6.124	9.7102	-27.9817
129	RH-9	Combination		-28.327	18.110	-3.443	-17.2840	-27.3447
129	RH-10	Combination		21.797	-11.367	-5.057	10.8631	21.0116
129	RH-11	Combination		22.435	16.888	-2.376	-16.1311	21.6487
129	RH-12	Combination		-29.250	-5.907	-5.590	5.6501	-28.2501
129	RH-13	Combination		-28.374	18.226	-3.687	-17.3714	-27.3951
129	RH-14	Combination		21.843	-11.482	-4.814	10.9505	21.0620
129	RH-15	Combination		22.719	12.651	-2.911	-12.0711	21.9171
129	RH-16	Combination		-29.146	-2.277	-5.128	2.1705	-28.1446
129	RH-17	Combination		-28.093	18.177	-3.853	-17.3090	-27.1274
129	RH-18	Combination		21.562	-11.434	-4.648	10.8881	20.7943
129	RH-19	Combination		22.615	9.021	-3.373	-8.5914	21.8115
129	RH-20	Combination		-25.239	-18.377	-3.280	17.5768	-24.3814
129	RH-21	Combination		-26.536	12.096	0.029	-11.5608	-25.6018
129	RH-22	Combination		25.281	-9.974	-1.212	9.5289	24.3858
129	RH-23	Combination		23.983	20.499	2.097	-19.6086	23.1654
129	RH-24	Combination		-26.328	-12.455	-2.466	11.9047	-25.4232
129	RH-25	Combination		-25.690	15.800	0.216	-15.0895	-24.7862
129	RH-26	Combination		24.434	-13.677	-1.399	13.0576	23.5702

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
129	RH-27	Combination		25.073	14.577	1.283	-13.9366	24.2072
129	RH-28	Combination		-26.613	-8.218	-1.931	7.8447	-25.6916
129	RH-29	Combination		-25.736	15.915	-0.028	-15.1769	-24.8366
129	RH-30	Combination		24.481	-13.793	-1.155	13.1450	23.6206
129	RH-31	Combination		25.357	10.340	0.748	-9.8765	24.4756
129	RH-32	Combination		-26.508	-4.588	-1.469	4.3650	-25.5860
129	RH-33	Combination		-25.455	15.867	-0.194	-15.1145	-24.5689
129	RH-34	Combination		24.199	-13.744	-0.989	13.0826	23.3528
129	RH-35	Combination		25.253	6.710	0.286	-6.3969	24.3700
129	RH-36	Combination		-1.817	1.970	-2.313	-1.8772	-1.7616
129	RH-37	Combination		-3.171	3.157	-4.192	-3.0043	-3.0756
129	RH-38	Combination		1.224	-0.694	1.906	0.6533	1.1886
129	RH-39	Combination		-27.240	-16.755	-6.129	16.0393	-26.3234
129	RH-40	Combination		-28.538	13.717	-2.820	-13.0983	-27.5437
129	RH-41	Combination		23.279	-8.353	-4.061	7.9914	22.4438
129	RH-42	Combination		21.982	22.120	-0.752	-21.1462	21.2234
129	RH-43	Combination		-28.330	-10.834	-5.315	10.3672	-27.3652
129	RH-44	Combination		-27.691	17.421	-2.633	-16.6270	-26.7282
129	RH-45	Combination		22.433	-12.056	-4.248	11.5201	21.6282
129	RH-46	Combination		23.071	16.199	-1.567	-15.4741	22.2652
129	RH-47	Combination		-28.614	-6.597	-4.780	6.3072	-27.6336
129	RH-48	Combination		-27.738	17.536	-2.877	-16.7144	-26.7785
129	RH-49	Combination		22.479	-12.172	-4.004	11.6075	21.6786
129	RH-50	Combination		23.355	11.961	-2.101	-11.4140	22.5336
129	RH-51	Combination		-28.510	-2.967	-4.318	2.8275	-27.5280
129	RH-52	Combination		-27.457	17.488	-3.043	-16.6520	-26.5108
129	RH-53	Combination		22.198	-12.123	-3.838	11.5451	21.4109
129	RH-54	Combination		23.251	8.331	-2.563	-7.9344	22.4281
129	RH-55	Combination		-24.603	-19.066	-2.471	18.2338	-23.7649
129	RH-56	Combination		-25.901	11.406	0.839	-10.9038	-24.9852
129	RH-57	Combination		25.916	-10.663	-0.402	10.1859	25.0023
129	RH-58	Combination		24.619	19.809	2.907	-18.9516	23.7819
129	RH-59	Combination		-25.693	-13.145	-1.656	12.5617	-24.8066
129	RH-60	Combination		-25.054	15.110	1.025	-14.4325	-24.1696
129	RH-61	Combination		25.070	-14.367	-0.589	13.7146	24.1867
129	RH-62	Combination		25.709	13.888	2.092	-13.2796	24.8237
129	RH-63	Combination		-25.977	-8.908	-1.122	8.5017	-25.0751
129	RH-64	Combination		-25.100	15.225	0.782	-14.5199	-24.2200
129	RH-65	Combination		25.116	-14.482	-0.345	13.8021	24.2371
129	RH-66	Combination		25.993	9.651	1.558	-9.2195	25.0921
129	RH-67	Combination		-25.873	-5.278	-0.659	5.0220	-24.9695
129	RH-68	Combination		-24.819	15.177	0.616	-14.4575	-23.9523
129	RH-69	Combination		24.835	-14.434	-0.180	13.7396	23.9694
129	RH-70	Combination		25.889	6.021	1.096	-5.7399	24.9866
129	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
129	RH-72	Combination		-1.355	1.187	-1.879	-1.1271	-1.3140
129	RH-73	Combination		3.041	-2.665	4.219	2.5305	2.9502
129	RH-74	Combination		-25.424	-18.726	-3.816	17.9165	-24.5618
129	RH-75	Combination		-26.721	11.747	-0.507	-11.2211	-25.7822
129	RH-76	Combination		25.096	-10.323	-1.748	9.8686	24.2054
129	RH-77	Combination		23.798	20.150	1.561	-19.2689	22.9850
129	RH-78	Combination		-26.513	-12.804	-3.002	12.2444	-25.6036
129	RH-79	Combination		-25.875	15.451	-0.320	-14.7498	-24.9666
129	RH-80	Combination		24.249	-14.026	-1.935	13.3973	23.3898
129	RH-81	Combination		24.888	14.228	0.747	-13.5969	24.0268
129	RH-82	Combination		-26.797	-8.567	-2.467	8.1844	-25.8720
129	RH-83	Combination		-25.921	15.566	-0.564	-14.8372	-25.0170
129	RH-84	Combination		24.296	-14.142	-1.691	13.4847	23.4402
129	RH-85	Combination		25.172	9.991	0.212	-9.5368	24.2952
129	RH-86	Combination		-26.693	-4.937	-2.005	4.7047	-25.7664
129	RH-87	Combination		-25.640	15.518	-0.730	-14.7748	-24.7493
129	RH-88	Combination		24.015	-14.093	-1.525	13.4223	23.1724

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
129	RH-89	Combination		25.068	6.361	-0.250	-6.0572	24.1896
129	RH-90	Combination		-22.786	-21.037	-0.158	20.1110	-22.0033
129	RH-91	Combination		-24.084	9.436	3.152	-9.0266	-23.2237
129	RH-92	Combination		27.733	-12.634	1.911	12.0631	26.7639
129	RH-93	Combination		26.436	17.839	5.220	-17.0744	25.5435
129	RH-94	Combination		-23.876	-15.115	0.657	14.4389	-23.0451
129	RH-95	Combination		-23.237	13.140	3.338	-12.5553	-22.4081
129	RH-96	Combination		26.887	-16.337	1.724	15.5918	25.9483
129	RH-97	Combination		27.525	11.918	4.405	-11.4024	26.5853
129	RH-98	Combination		-24.160	-10.878	1.192	10.3789	-23.3135
129	RH-99	Combination		-23.284	13.255	3.095	-12.6427	-22.4585
129	RH-100	Combination		26.933	-16.453	1.968	15.6793	25.9987
129	RH-101	Combination		27.809	7.680	3.871	-7.3423	26.8537
129	RH-102	Combination		-24.056	-7.248	1.654	6.8992	-23.2079
129	RH-103	Combination		-23.003	13.207	2.929	-12.5803	-22.1907
129	RH-104	Combination		26.652	-16.404	2.134	15.6168	25.7310
129	RH-105	Combination		27.705	4.050	3.409	-3.8627	26.7481
129	RH-106	Combination		-3.133	17.402	-0.988	-16.7173	-3.0267
129	RH-107	Combination		-3.520	17.182	-1.063	-16.5143	-3.4011
129	RH-108	Combination		-2.744	17.232	-1.665	-16.5931	-2.6570
129	RH-109	Combination		-2.155	17.017	-2.177	-16.4424	-2.0922
129	RH-110	Combination		-1.323	16.714	-2.527	-16.1692	-1.2838
129	RH-111	Combination		-1.497	16.118	-2.411	-15.5970	-1.4459
129	RH-112	Combination		-1.400	15.138	-1.970	-14.6239	-1.3559
129	RH-113	Combination		-1.388	13.987	-1.855	-13.4686	-1.3441
129	RH-114	Combination		-1.329	12.747	-1.661	-12.2435	-1.2892
129	RH-115	Combination		-1.278	11.462	-1.634	-10.9905	-1.2439
129	RH-116	Combination		-3.675	17.877	-1.739	-17.1681	-3.5523
129	RH-117	Combination		-4.062	17.657	-1.815	-16.9652	-3.9267
129	RH-118	Combination		-3.286	17.706	-2.417	-17.0439	-3.1826
129	RH-119	Combination		-2.697	17.492	-2.929	-16.8932	-2.6178
129	RH-120	Combination		-1.865	17.188	-3.278	-16.6200	-1.8094
129	RH-121	Combination		-2.038	16.592	-3.162	-16.0478	-1.9715
129	RH-122	Combination		-1.942	15.613	-2.722	-15.0747	-1.8815
129	RH-123	Combination		-1.930	14.461	-2.606	-13.9194	-1.8697
129	RH-124	Combination		-1.871	13.222	-2.413	-12.6943	-1.8148
129	RH-125	Combination		-1.820	11.936	-2.386	-11.4413	-1.7695
129	RH-126	Combination		-1.917	16.336	0.700	-15.7051	-1.8466
129	RH-127	Combination		-2.304	16.116	0.624	-15.5022	-2.2210
129	RH-128	Combination		-1.528	16.166	0.022	-15.5809	-1.4769
129	RH-129	Combination		-0.939	15.951	-0.490	-15.4302	-0.9121
129	RH-130	Combination		-0.107	15.648	-0.839	-15.1570	-0.1037
129	RH-131	Combination		-0.280	15.052	-0.723	-14.5848	-0.2658
129	RH-132	Combination		-0.184	14.072	-0.283	-13.6117	-0.1758
129	RH-133	Combination		-0.172	12.921	-0.167	-12.4564	-0.1640
129	RH-134	Combination		-0.113	11.681	0.026	-11.2313	-0.1092
129	RH-135	Combination		-0.062	10.396	0.054	-9.9783	-0.0639
129	RH-136	Combination		-1.317	15.432	1.326	-14.8401	-1.2651
129	RH-137	Combination		-1.703	15.212	1.250	-14.6371	-1.6395
129	RH-138	Combination		-0.927	15.261	0.648	-14.7159	-0.8954
129	RH-139	Combination		-0.339	15.047	0.136	-14.5652	-0.3306
129	RH-140	Combination		0.493	14.743	-0.213	-14.2920	0.4778
129	RH-141	Combination		0.320	14.147	-0.097	-13.7198	0.3157
129	RH-142	Combination		0.416	13.168	0.343	-12.7467	0.4057
129	RH-143	Combination		0.429	12.016	0.458	-11.5914	0.4175
129	RH-144	Combination		0.487	10.777	0.652	-10.3663	0.4723
129	RH-145	Combination		0.538	9.491	0.679	-9.1133	0.5176
129	RH-146	Combination		-1.859	15.906	0.574	-15.2909	-1.7907
129	RH-147	Combination		-2.245	15.687	0.498	-15.0880	-2.1651
129	RH-148	Combination		-1.469	15.736	-0.104	-15.1667	-1.4210
129	RH-149	Combination		-0.880	15.521	-0.616	-15.0160	-0.8562
129	RH-150	Combination		-0.049	15.218	-0.965	-14.7428	-0.0478

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
129	RH-151	Combination		-0.222	14.622	-0.849	-14.1706	-0.2099
129	RH-152	Combination		-0.125	13.642	-0.409	-13.1975	-0.1199
129	RH-153	Combination		-0.113	12.491	-0.293	-12.0422	-0.1081
129	RH-154	Combination		-0.055	11.251	-0.100	-10.8171	-0.0533
129	RH-155	Combination		-3.448E-03	9.966	-0.073	-9.5641	-0.0080
129	RH-156	Combination		-0.100	14.366	3.013	-13.8279	-0.0851
129	RH-157	Combination		-0.487	14.146	2.937	-13.6250	-0.4594
129	RH-158	Combination		0.289	14.195	2.336	-13.7037	0.2846
129	RH-159	Combination		0.878	13.981	1.823	-13.5530	0.8494
129	RH-160	Combination		1.710	13.678	1.474	-13.2798	1.6579
129	RH-161	Combination		1.537	13.081	1.590	-12.7076	1.4957
129	RH-162	Combination		1.633	12.102	2.030	-11.7345	1.5858
129	RH-163	Combination		1.645	10.951	2.146	-10.5792	1.5976
129	RH-164	Combination		1.704	9.711	2.339	-9.3541	1.6524
129	RH-165	Combination		1.755	8.426	2.367	-8.1011	1.6977
131	ENV-ELS-CA	Combination	Max	22.841	17.241	272.053	13.7793	22.6327
131	ENV-ELS-CA	Combination	Min	-22.982	-14.345	36.084	-17.1646	-22.3324
131	ENV-ELS-CP	Combination	Max	1.464	2.449	115.390	-0.2341	1.6291
131	ENV-ELS-CP	Combination	Min	-1.992	0.150	70.591	-2.5330	-1.8122
131	ENV-ELU-PT	Combination	Max	31.033	23.308	370.087	18.7752	30.7524
131	ENV-ELU-PT	Combination	Min	-31.127	-19.490	11.195	-23.2146	-30.2558
131	ENV-ELU-AC	Combination	Max	5.804	18.243	225.057	-0.0161	6.1758
131	ENV-ELU-AC	Combination	Min	-6.479	0.073	50.892	-18.1937	-6.3770
131	ENV-ELU-EQ	Combination	Max	1.606	1.005	308.463	-0.0028	2.4012
131	ENV-ELU-EQ	Combination	Min	-0.322	0.149	69.464	-2.0375	-0.5856
131	RH-1	Combination		-2.395	2.656	-6.308	-2.5297	-2.3227
131	RH-2	Combination		-3.747	2.586	-9.895	-2.4435	-3.6338
131	RH-3	Combination		0.639	2.812	1.746	-2.7232	0.6209
131	RH-4	Combination		-26.012	-16.814	5.602	16.0994	-25.1393
131	RH-5	Combination		-30.344	13.648	-18.394	-13.0172	-29.3019
131	RH-6	Combination		23.931	-8.420	1.475	8.0613	23.0832
131	RH-7	Combination		19.600	22.041	-22.522	-21.0553	18.9205
131	RH-8	Combination		-28.909	-10.914	2.000	10.4508	-27.9367
131	RH-9	Combination		-28.090	17.324	-22.652	-16.5188	-27.1176
131	RH-10	Combination		21.678	-12.097	5.732	11.5629	20.8988
131	RH-11	Combination		22.496	16.142	-18.920	-15.4067	21.7179
131	RH-12	Combination		-30.166	-6.666	-0.509	6.3814	-29.1507
131	RH-13	Combination		-26.128	17.457	-25.032	-16.6226	-25.2143
131	RH-14	Combination		19.716	-12.229	8.113	11.6666	18.9955
131	RH-15	Combination		23.754	11.894	-16.410	-11.3373	22.9319
131	RH-16	Combination		-30.903	-3.038	-2.519	2.9045	-29.8626
131	RH-17	Combination		-24.590	17.409	-26.596	-16.5604	-23.7236
131	RH-18	Combination		18.178	-12.181	9.677	11.6045	17.5049
131	RH-19	Combination		24.491	8.265	-14.401	-7.8604	23.6438
131	RH-20	Combination		-23.380	-16.678	12.587	15.9316	-22.5864
131	RH-21	Combination		-27.712	13.783	-11.410	-13.1851	-26.7491
131	RH-22	Combination		26.563	-8.285	8.459	7.8935	25.6360
131	RH-23	Combination		22.231	22.177	-15.537	-21.2231	21.4734
131	RH-24	Combination		-26.277	-10.779	8.985	10.2830	-25.3838
131	RH-25	Combination		-25.459	17.460	-15.667	-16.6867	-24.5647
131	RH-26	Combination		24.310	-11.961	12.716	11.3951	23.4517
131	RH-27	Combination		25.128	16.278	-11.936	-15.5745	24.2708
131	RH-28	Combination		-27.534	-6.530	6.475	6.2136	-26.5978
131	RH-29	Combination		-23.496	17.592	-18.048	-16.7904	-22.6615
131	RH-30	Combination		22.347	-12.093	15.097	11.4988	21.5484
131	RH-31	Combination		26.385	12.029	-9.426	-11.5052	25.4848

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
131	RH-32	Combination		-28.271	-2.902	4.466	2.7367	-27.3097
131	RH-33	Combination		-21.958	17.544	-19.612	-16.7282	-21.1708
131	RH-34	Combination		20.809	-12.045	16.661	11.4367	20.0577
131	RH-35	Combination		27.123	8.401	-7.416	-8.0283	26.1967
131	RH-36	Combination		-1.774	1.967	-4.672	-1.8738	-1.7205
131	RH-37	Combination		-3.126	1.897	-8.259	-1.7876	-3.0316
131	RH-38	Combination		1.260	2.124	3.381	-2.0674	1.2231
131	RH-39	Combination		-25.391	-17.502	7.237	16.7552	-24.5371
131	RH-40	Combination		-29.723	12.959	-16.759	-12.3614	-28.6998
131	RH-41	Combination		24.552	-9.109	3.110	8.7172	23.6854
131	RH-42	Combination		20.221	21.353	-20.886	-20.3995	19.5227
131	RH-43	Combination		-28.288	-11.603	3.636	11.1066	-27.3345
131	RH-44	Combination		-27.469	16.636	-21.016	-15.8630	-26.5154
131	RH-45	Combination		22.299	-12.785	7.367	12.2188	21.5010
131	RH-46	Combination		23.117	15.454	-17.285	-14.7509	22.3201
131	RH-47	Combination		-29.545	-7.355	1.126	7.0373	-28.5485
131	RH-48	Combination		-25.507	16.768	-23.397	-15.9667	-24.6121
131	RH-49	Combination		20.337	-12.918	9.748	12.3225	19.5977
131	RH-50	Combination		24.375	11.205	-14.775	-10.6815	23.5341
131	RH-51	Combination		-30.282	-3.726	-0.884	3.5604	-29.2604
131	RH-52	Combination		-23.969	16.720	-24.961	-15.9046	-23.1215
131	RH-53	Combination		18.799	-12.869	11.312	12.2603	18.1071
131	RH-54	Combination		25.112	7.577	-12.766	-7.2046	24.2460
131	RH-55	Combination		-22.759	-17.367	14.222	16.5874	-21.9843
131	RH-56	Combination		-27.091	13.095	-9.775	-12.5292	-26.1469
131	RH-57	Combination		27.184	-8.973	10.094	8.5493	26.2382
131	RH-58	Combination		22.852	21.489	-13.902	-20.5673	22.0756
131	RH-59	Combination		-25.656	-11.467	10.620	10.9388	-24.7816
131	RH-60	Combination		-24.838	16.772	-14.032	-16.0308	-23.9626
131	RH-61	Combination		24.931	-12.650	14.352	12.0509	24.0539
131	RH-62	Combination		25.749	15.589	-10.300	-14.9187	24.8730
131	RH-63	Combination		-26.913	-7.219	8.111	6.8694	-25.9956
131	RH-64	Combination		-22.875	16.904	-16.412	-16.1346	-22.0593
131	RH-65	Combination		22.968	-12.782	16.732	12.1547	22.1506
131	RH-66	Combination		27.006	11.341	-7.791	-10.8493	26.0870
131	RH-67	Combination		-27.651	-3.591	6.101	3.3925	-26.7075
131	RH-68	Combination		-21.337	16.856	-17.977	-16.0724	-20.5686
131	RH-69	Combination		21.430	-12.734	18.297	12.0925	20.6599
131	RH-70	Combination		27.743	7.713	-5.781	-7.3724	26.7988
131	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
131	RH-72	Combination		-1.352	-0.070	-3.587	0.0862	-1.3111
131	RH-73	Combination		3.034	0.156	8.054	-0.1935	2.9437
131	RH-74	Combination		-23.617	-19.469	11.910	18.6291	-22.8166
131	RH-75	Combination		-27.948	10.992	-12.087	-10.4876	-26.9792
131	RH-76	Combination		26.327	-11.076	7.782	10.5910	25.4059
131	RH-77	Combination		21.995	19.386	-16.214	-18.5256	21.2432
131	RH-78	Combination		-26.513	-13.570	8.308	12.9805	-25.6140
131	RH-79	Combination		-25.695	14.669	-16.344	-13.9892	-24.7949
131	RH-80	Combination		24.073	-14.752	12.039	14.0926	23.2215
131	RH-81	Combination		24.892	13.486	-12.613	-12.8770	24.0406
131	RH-82	Combination		-27.771	-9.322	5.798	8.9111	-26.8280
131	RH-83	Combination		-23.733	14.801	-18.725	-14.0929	-22.8916
131	RH-84	Combination		22.111	-14.885	14.420	14.1963	21.3183
131	RH-85	Combination		26.149	9.238	-10.103	-8.8077	25.2546
131	RH-86	Combination		-28.508	-5.693	3.789	5.4342	-27.5398
131	RH-87	Combination		-22.195	14.753	-20.289	-14.0307	-21.4009
131	RH-88	Combination		20.573	-14.837	15.984	14.1342	19.8276
131	RH-89	Combination		26.886	5.610	-8.093	-5.3308	25.9665
131	RH-90	Combination		-20.985	-19.334	18.894	18.4612	-20.2637
131	RH-91	Combination		-25.317	11.128	-5.102	-10.6554	-24.4264
131	RH-92	Combination		28.958	-10.940	14.767	10.4232	27.9588
131	RH-93	Combination		24.626	19.521	-9.230	-18.6935	23.7961

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
131	RH-94	Combination		-23.882	-13.434	15.292	12.8126	-23.0611
131	RH-95	Combination		-23.064	14.805	-9.360	-14.1570	-22.2420
131	RH-96	Combination		26.705	-14.617	19.024	13.9248	25.7744
131	RH-97	Combination		27.523	13.622	-5.628	-13.0449	26.5935
131	RH-98	Combination		-25.139	-9.186	12.783	8.7433	-24.2751
131	RH-99	Combination		-21.101	14.937	-11.740	-14.2607	-20.3387
131	RH-100	Combination		24.742	-14.749	21.405	14.0285	23.8711
131	RH-101	Combination		28.781	9.374	-3.118	-8.9755	27.8075
131	RH-102	Combination		-25.876	-5.558	10.773	5.2664	-24.9870
131	RH-103	Combination		-19.563	14.889	-13.304	-14.1986	-18.8481
131	RH-104	Combination		23.204	-14.701	22.969	13.9663	22.3804
131	RH-105	Combination		29.518	5.745	-1.109	-5.4986	28.5194
131	RH-106	Combination		-5.900	17.398	-9.576	-16.7109	-5.7013
131	RH-107	Combination		-5.871	17.180	-8.783	-16.5110	-5.6695
131	RH-108	Combination		-4.547	17.241	-6.342	-16.6084	-4.3871
131	RH-109	Combination		-3.188	17.062	-0.950	-16.5127	-3.0752
131	RH-110	Combination		-1.798	16.778	0.772	-16.2663	-1.7350
131	RH-111	Combination		-1.394	16.180	1.243	-15.6929	-1.3513
131	RH-112	Combination		-0.571	15.161	-1.458	-14.6618	-0.5740
131	RH-113	Combination		0.175	13.986	-5.813	-13.4681	0.1568
131	RH-114	Combination		0.940	12.744	-8.103	-12.2395	0.9044
131	RH-115	Combination		1.679	11.458	-9.087	-10.9858	1.6210
131	RH-116	Combination		-6.441	17.370	-11.011	-16.6764	-6.2257
131	RH-117	Combination		-6.411	17.152	-10.218	-16.4766	-6.1939
131	RH-118	Combination		-5.088	17.213	-7.777	-16.5739	-4.9116
131	RH-119	Combination		-3.729	17.034	-2.385	-16.4782	-3.5996
131	RH-120	Combination		-2.339	16.750	-0.663	-16.2318	-2.2595
131	RH-121	Combination		-1.934	16.152	-0.192	-15.6584	-1.8758
131	RH-122	Combination		-1.112	15.133	-2.893	-14.6273	-1.0985
131	RH-123	Combination		-0.366	13.958	-7.247	-13.4337	-0.3677
131	RH-124	Combination		0.400	12.716	-9.538	-12.2050	0.3800
131	RH-125	Combination		1.138	11.430	-10.522	-10.9513	1.0966
131	RH-126	Combination		-4.687	17.460	-6.354	-16.7883	-4.5238
131	RH-127	Combination		-4.657	17.243	-5.561	-16.5884	-4.4920
131	RH-128	Combination		-3.333	17.303	-3.120	-16.6858	-3.2097
131	RH-129	Combination		-1.975	17.124	2.272	-16.5901	-1.8977
131	RH-130	Combination		-0.585	16.841	3.993	-16.3437	-0.5576
131	RH-131	Combination		-0.180	16.243	4.464	-15.7703	-0.1738
131	RH-132	Combination		0.643	15.224	1.763	-14.7392	0.6034
131	RH-133	Combination		1.389	14.048	-2.591	-13.5456	1.3342
131	RH-134	Combination		2.154	12.806	-4.882	-12.3169	2.0819
131	RH-135	Combination		2.893	11.521	-5.866	-11.0632	2.7985
131	RH-136	Combination		-4.126	15.431	-4.904	-14.8371	-3.9808
131	RH-137	Combination		-4.097	15.213	-4.110	-14.6372	-3.9490
131	RH-138	Combination		-2.773	15.274	-1.670	-14.7345	-2.6666
131	RH-139	Combination		-1.414	15.095	3.722	-14.6388	-1.3547
131	RH-140	Combination		-0.024	14.811	5.444	-14.3925	-0.0145
131	RH-141	Combination		0.380	14.213	5.915	-13.8191	0.3692
131	RH-142	Combination		1.203	13.194	3.214	-12.7879	1.1465
131	RH-143	Combination		1.949	12.019	-1.140	-11.5943	1.8773
131	RH-144	Combination		2.715	10.777	-3.431	-10.3657	2.6249
131	RH-145	Combination		3.453	9.491	-4.415	-9.1120	3.3416
131	RH-146	Combination		-4.667	15.403	-6.339	-14.8026	-4.5052
131	RH-147	Combination		-4.637	15.185	-5.545	-14.6027	-4.4734
131	RH-148	Combination		-3.314	15.246	-3.104	-14.7001	-3.1911
131	RH-149	Combination		-1.955	15.067	2.288	-14.6043	-1.8791
131	RH-150	Combination		-0.565	14.783	4.009	-14.3580	-0.5389
131	RH-151	Combination		-0.160	14.185	4.480	-13.7846	-0.1552
131	RH-152	Combination		0.662	13.166	1.779	-12.7535	0.6221
131	RH-153	Combination		1.408	11.991	-2.575	-11.5598	1.3529
131	RH-154	Combination		2.174	10.749	-4.866	-10.3312	2.1005
131	RH-155	Combination		2.912	9.463	-5.850	-9.0775	2.8171

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
131	RH-156	Combination		-2.912	15.493	-1.682	-14.9145	-2.8033
131	RH-157	Combination		-2.883	15.275	-0.889	-14.7146	-2.7715
131	RH-158	Combination		-1.559	15.336	1.552	-14.8120	-1.4891
131	RH-159	Combination		-0.200	15.157	6.944	-14.7162	-0.1772
131	RH-160	Combination		1.189	14.874	8.665	-14.4699	1.1630
131	RH-161	Combination		1.594	14.276	9.137	-13.8965	1.5467
131	RH-162	Combination		2.417	13.256	6.435	-12.8654	2.3240
131	RH-163	Combination		3.163	12.081	2.081	-11.6717	3.0548
131	RH-164	Combination		3.928	10.839	-0.210	-10.4431	3.8024
131	RH-165	Combination		4.667	9.554	-1.193	-9.1894	4.5190
141	ENV-ELS-CA	Combination	Max	24.769	19.588	210.823	17.9926	24.0834
141	ENV-ELS-CA	Combination	Min	-23.497	-18.417	10.293	-19.4349	-22.9386
141	ENV-ELS-CP	Combination	Max	2.576	3.324	73.284	1.9961	2.4870
141	ENV-ELS-CP	Combination	Min	-1.080	-1.944	47.502	-3.5189	-1.0421
141	ENV-ELU-PT	Combination	Max	33.536	26.640	286.868	24.8502	32.6075
141	ENV-ELU-PT	Combination	Min	-31.974	-25.348	-7.837	-26.4620	-31.2115
141	ENV-ELU-AC	Combination	Max	3.661	20.014	175.790	2.4711	3.6901
141	ENV-ELU-AC	Combination	Min	-4.981	-2.384	23.723	-19.8772	-5.0424
141	ENV-ELU-EQ	Combination	Max	0.629	0.631	240.755	0.3156	0.8676
141	ENV-ELU-EQ	Combination	Min	-0.555	-0.047	20.043	-1.4336	-0.9494
141	RH-1	Combination		2.583	2.658	0.935	-2.5317	2.4946
141	RH-2	Combination		4.105	5.128	1.405	-4.8971	3.9641
141	RH-3	Combination		-0.834	-2.887	-0.120	2.7789	-0.8046
141	RH-4	Combination		-21.999	-12.313	-16.914	11.7643	-21.2589
141	RH-5	Combination		-21.668	10.985	6.745	-10.4810	-20.9139
141	RH-6	Combination		28.660	-2.706	-4.310	2.5792	27.6665
141	RH-7	Combination		28.991	20.593	19.348	-19.6661	28.0115
141	RH-8	Combination		-21.552	-10.596	-15.270	10.1279	-20.8124
141	RH-9	Combination		-22.423	17.821	13.762	-17.0134	-21.6551
141	RH-10	Combination		29.415	-9.542	-11.327	9.1116	28.4077
141	RH-11	Combination		28.544	18.875	17.705	-18.0297	27.5650
141	RH-12	Combination		-20.962	-8.718	-13.753	8.3323	-20.2329
141	RH-13	Combination		-24.801	22.672	19.352	-21.6441	-23.9702
141	RH-14	Combination		31.793	-14.392	-16.918	13.7423	30.7227
141	RH-15	Combination		27.954	16.997	16.188	-16.2341	26.9855
141	RH-16	Combination		-20.066	-7.054	-12.614	6.7392	-19.3593
141	RH-17	Combination		-25.951	25.557	23.037	-24.3953	-25.0934
141	RH-18	Combination		32.943	-17.278	-20.603	16.4935	31.8459
141	RH-19	Combination		27.058	15.334	15.048	-14.6411	26.1119
141	RH-20	Combination		-24.962	-17.122	-17.829	16.3699	-24.1201
141	RH-21	Combination		-24.631	6.176	5.830	-5.8754	-23.7751
141	RH-22	Combination		25.697	-7.515	-5.225	7.1848	24.8053
141	RH-23	Combination		26.028	15.784	18.433	-15.0606	25.1503
141	RH-24	Combination		-24.515	-15.405	-16.185	14.7334	-23.6736
141	RH-25	Combination		-25.386	13.012	12.847	-12.4078	-24.5163
141	RH-26	Combination		26.452	-14.351	-12.242	13.7172	25.5465
141	RH-27	Combination		25.581	14.066	16.790	-13.4241	24.7038
141	RH-28	Combination		-23.925	-13.527	-14.668	12.9379	-23.0942
141	RH-29	Combination		-27.764	17.863	18.437	-17.0386	-26.8314
141	RH-30	Combination		28.830	-19.201	-17.833	18.3479	27.8615
141	RH-31	Combination		24.991	12.188	15.273	-11.6286	24.1243
141	RH-32	Combination		-23.029	-11.863	-13.529	11.3448	-22.2206
141	RH-33	Combination		-28.914	20.748	22.123	-19.7897	-27.9546
141	RH-34	Combination		29.980	-22.087	-21.518	21.0991	28.9847
141	RH-35	Combination		24.095	10.525	14.133	-10.0355	23.2507
141	RH-36	Combination		1.913	1.969	0.693	-1.8753	1.8478

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
141	RH-37	Combination		3.435	4.439	1.163	-4.2407	3.3173
141	RH-38	Combination		-1.503	-3.576	-0.362	3.4353	-1.4514
141	RH-39	Combination		-22.668	-13.002	-17.156	12.4207	-21.9057
141	RH-40	Combination		-22.338	10.296	6.502	-9.8246	-21.5607
141	RH-41	Combination		27.990	-3.395	-4.553	3.2355	27.0197
141	RH-42	Combination		28.321	19.903	19.106	-19.0098	27.3647
141	RH-43	Combination		-22.222	-11.285	-15.513	10.7842	-21.4592
141	RH-44	Combination		-23.092	17.132	13.519	-16.3571	-22.3019
141	RH-45	Combination		28.745	-10.231	-11.570	9.7680	27.7609
141	RH-46	Combination		27.875	18.186	17.462	-17.3733	26.9183
141	RH-47	Combination		-21.631	-9.407	-13.996	8.9887	-20.8797
141	RH-48	Combination		-25.470	21.983	19.110	-20.9878	-24.6169
141	RH-49	Combination		31.123	-15.081	-17.160	14.3987	30.0760
141	RH-50	Combination		27.284	16.308	15.945	-15.5778	26.3388
141	RH-51	Combination		-20.735	-7.743	-12.856	7.3956	-20.0061
141	RH-52	Combination		-26.620	24.868	22.795	-23.7389	-25.7401
141	RH-53	Combination		32.273	-17.967	-20.845	17.1498	31.1992
141	RH-54	Combination		26.388	14.645	14.806	-13.9847	25.4652
141	RH-55	Combination		-25.631	-17.811	-18.071	17.0263	-24.7669
141	RH-56	Combination		-25.301	5.487	5.588	-5.2191	-24.4219
141	RH-57	Combination		25.027	-8.204	-5.468	7.8411	24.1585
141	RH-58	Combination		25.358	15.094	18.191	-14.4042	24.5035
141	RH-59	Combination		-25.185	-16.094	-16.428	15.3898	-24.3204
141	RH-60	Combination		-26.055	12.323	12.605	-11.7515	-25.1631
141	RH-61	Combination		25.782	-15.040	-12.485	14.3736	24.8997
141	RH-62	Combination		24.912	13.377	16.548	-12.7677	24.0570
141	RH-63	Combination		-24.594	-14.216	-14.911	13.5943	-23.7409
141	RH-64	Combination		-28.433	17.174	18.195	-16.3822	-27.4781
141	RH-65	Combination		28.160	-19.890	-18.075	19.0043	27.2148
141	RH-66	Combination		24.321	11.499	15.031	-10.9722	23.4776
141	RH-67	Combination		-23.698	-12.552	-13.771	12.0012	-22.8673
141	RH-68	Combination		-29.583	20.059	21.880	-19.1334	-28.6013
141	RH-69	Combination		29.310	-22.776	-21.760	21.7554	28.3380
141	RH-70	Combination		23.425	9.836	13.891	-9.3791	22.6040
141	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
141	RH-72	Combination		1.522	2.470	0.470	-2.3654	1.4695
141	RH-73	Combination		-3.417	-5.545	-1.055	5.3106	-3.2992
141	RH-74	Combination		-24.582	-14.971	-17.849	14.2960	-23.7535
141	RH-75	Combination		-24.251	8.327	5.810	-7.9493	-23.4085
141	RH-76	Combination		26.077	-5.364	-5.246	5.1109	25.1719
141	RH-77	Combination		26.408	17.935	18.413	-17.1344	25.5169
141	RH-78	Combination		-24.135	-13.254	-16.206	12.6596	-23.3070
141	RH-79	Combination		-25.006	15.163	12.827	-14.4817	-24.1497
141	RH-80	Combination		26.832	-12.200	-12.263	11.6433	25.9131
141	RH-81	Combination		25.961	16.217	16.770	-15.4980	25.0704
141	RH-82	Combination		-23.545	-11.376	-14.689	10.8640	-22.7275
141	RH-83	Combination		-27.383	20.014	18.417	-19.1124	-26.4647
141	RH-84	Combination		29.210	-17.050	-17.853	16.2740	28.2281
141	RH-85	Combination		25.371	14.339	15.253	-13.7024	24.4909
141	RH-86	Combination		-22.649	-9.712	-13.549	9.2709	-21.8539
141	RH-87	Combination		-28.534	22.899	22.102	-21.8636	-27.5880
141	RH-88	Combination		30.360	-19.936	-21.538	19.0252	29.3514
141	RH-89	Combination		24.475	12.676	14.113	-12.1094	23.6173
141	RH-90	Combination		-27.545	-19.780	-18.764	18.9016	-26.6147
141	RH-91	Combination		-27.214	3.519	4.895	-3.3437	-26.2697
141	RH-92	Combination		23.114	-10.173	-6.161	9.7165	22.3107
141	RH-93	Combination		23.445	13.126	17.498	-12.5288	22.6557
141	RH-94	Combination		-27.098	-18.063	-17.121	17.2652	-26.1682
141	RH-95	Combination		-27.969	10.354	11.912	-9.8761	-27.0109
141	RH-96	Combination		23.869	-17.008	-13.178	16.2489	23.0519
141	RH-97	Combination		22.998	11.408	15.855	-10.8924	22.2092
141	RH-98	Combination		-26.508	-16.185	-15.604	15.4696	-25.5888

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
141	RH-99	Combination		-30.347	15.205	17.502	-14.5069	-29.3260
141	RH-100	Combination		26.247	-21.859	-18.768	20.8796	25.3669
141	RH-101	Combination		22.408	9.531	14.338	-9.0968	21.6297
141	RH-102	Combination		-25.612	-14.521	-14.464	13.8765	-24.7152
141	RH-103	Combination		-31.497	18.091	21.187	-17.2580	-30.4492
141	RH-104	Combination		27.397	-24.745	-22.453	23.6308	26.4901
141	RH-105	Combination		21.512	7.867	13.198	-7.5038	20.7561
141	RH-106	Combination		2.727	10.852	5.751	-10.4049	2.6487
141	RH-107	Combination		1.937	11.522	5.717	-11.0528	1.8813
141	RH-108	Combination		2.173	12.783	4.482	-12.2842	2.1008
141	RH-109	Combination		2.000	14.289	0.942	-13.7760	1.9231
141	RH-110	Combination		2.258	15.327	-1.387	-14.7977	2.1683
141	RH-111	Combination		1.486	16.170	-3.786	-15.6308	1.4291
141	RH-112	Combination		0.825	17.051	-3.967	-16.4825	0.8062
141	RH-113	Combination		0.075	17.636	-0.275	-17.0166	0.0881
141	RH-114	Combination		-0.612	18.017	4.505	-17.3403	-0.5843
141	RH-115	Combination		-1.288	18.315	7.928	-17.5984	-1.2485
141	RH-116	Combination		3.336	11.840	5.939	-11.3510	3.2365
141	RH-117	Combination		2.545	12.510	5.905	-11.9990	2.4691
141	RH-118	Combination		2.782	13.770	4.670	-13.2303	2.6886
141	RH-119	Combination		2.609	15.277	1.130	-14.7221	2.5108
141	RH-120	Combination		2.867	16.315	-1.199	-15.7438	2.7561
141	RH-121	Combination		2.095	17.158	-3.598	-16.5769	2.0169
141	RH-122	Combination		1.434	18.039	-3.779	-17.4286	1.3940
141	RH-123	Combination		0.684	18.624	-0.088	-17.9628	0.6759
141	RH-124	Combination		-3.556E-03	19.005	4.693	-18.2864	0.0035
141	RH-125	Combination		-0.679	19.303	8.116	-18.5445	-0.6607
141	RH-126	Combination		1.360	8.634	5.329	-8.2806	1.3291
141	RH-127	Combination		0.570	9.304	5.295	-8.9286	0.5616
141	RH-128	Combination		0.806	10.565	4.060	-10.1600	0.7811
141	RH-129	Combination		0.633	12.071	0.520	-11.6517	0.6034
141	RH-130	Combination		0.891	13.109	-1.808	-12.6734	0.8486
141	RH-131	Combination		0.120	13.952	-4.207	-13.5065	0.1094
141	RH-132	Combination		-0.542	14.833	-4.389	-14.3582	-0.5135
141	RH-133	Combination		-1.292	15.418	-0.697	-14.8924	-1.2316
141	RH-134	Combination		-1.979	15.799	4.083	-15.2160	-1.9039
141	RH-135	Combination		-2.655	16.097	7.506	-15.4741	-2.5682
141	RH-136	Combination		0.814	8.883	5.058	-8.5295	0.8009
141	RH-137	Combination		0.023	9.553	5.024	-9.1775	0.0335
141	RH-138	Combination		0.260	10.814	3.789	-10.4089	0.2529
141	RH-139	Combination		0.087	12.320	0.249	-11.9006	0.0752
141	RH-140	Combination		0.345	13.359	-2.079	-12.9223	0.3205
141	RH-141	Combination		-0.427	14.202	-4.478	-13.7554	-0.4187
141	RH-142	Combination		-1.088	15.082	-4.660	-14.6071	-1.0416
141	RH-143	Combination		-1.838	15.667	-0.968	-15.1413	-1.7598
141	RH-144	Combination		-2.526	16.048	3.812	-15.4649	-2.4321
141	RH-145	Combination		-3.201	16.346	7.235	-15.7230	-3.0964
141	RH-146	Combination		1.422	9.871	5.246	-9.4757	1.3887
141	RH-147	Combination		0.632	10.541	5.212	-10.1237	0.6213
141	RH-148	Combination		0.868	11.802	3.977	-11.3550	0.8407
141	RH-149	Combination		0.695	13.308	0.437	-12.8468	0.6630
141	RH-150	Combination		0.953	14.347	-1.891	-13.8685	0.9083
141	RH-151	Combination		0.182	15.190	-4.290	-14.7016	0.1691
141	RH-152	Combination		-0.480	16.070	-4.472	-15.5533	-0.4538
141	RH-153	Combination		-1.230	16.655	-0.780	-16.0874	-1.1720
141	RH-154	Combination		-1.917	17.036	4.000	-16.4111	-1.8443
141	RH-155	Combination		-2.593	17.334	7.423	-16.6692	-2.5086
141	RH-156	Combination		-0.553	6.665	4.636	-6.4053	-0.5188
141	RH-157	Combination		-1.343	7.335	4.602	-7.0533	-1.2862
141	RH-158	Combination		-1.107	8.596	3.367	-8.2846	-1.0668
141	RH-159	Combination		-1.280	10.102	-0.172	-9.7764	-1.2445
141	RH-160	Combination		-1.022	11.141	-2.501	-10.7981	-0.9992

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
141	RH-161	Combination		-1.794	11.984	-4.900	-11.6312	-1.7384
141	RH-162	Combination		-2.455	12.864	-5.082	-12.4829	-2.3613
141	RH-163	Combination		-3.205	13.449	-1.390	-13.0170	-3.0795
141	RH-164	Combination		-3.892	13.830	3.390	-13.3407	-3.7518
141	RH-165	Combination		-4.568	14.128	6.813	-13.5988	-4.4161
145	ENV-ELS-CA	Combination	Max	23.363	18.616	253.110	15.2295	22.7553
145	ENV-ELS-CA	Combination	Min	-22.105	-15.865	29.253	-18.4092	-21.5579
145	ENV-ELS-CP	Combination	Max	2.465	2.440	96.024	-0.1774	2.3939
145	ENV-ELS-CP	Combination	Min	-1.079	0.099	62.805	-2.5351	-1.0275
145	ENV-ELU-PT	Combination	Max	31.638	25.169	343.716	20.7278	30.8132
145	ENV-ELU-PT	Combination	Min	-30.090	-21.535	10.083	-24.9010	-29.3466
145	ENV-ELU-AC	Combination	Max	5.829	19.188	208.047	0.0603	5.8084
145	ENV-ELU-AC	Combination	Min	-6.146	0.019	43.332	-19.0592	-6.1416
145	ENV-ELU-EQ	Combination	Max	0.734	0.811	295.261	0.0630	1.0307
145	ENV-ELU-EQ	Combination	Min	-0.499	0.113	56.123	-1.7484	-0.8542
145	RH-1	Combination		2.456	2.655	-5.419	-2.5301	2.3712
145	RH-2	Combination		3.975	2.604	-8.476	-2.4612	3.8375
145	RH-3	Combination		-0.953	2.772	1.446	-2.6850	-0.9208
145	RH-4	Combination		-18.421	-13.825	6.596	13.2217	-17.7904
145	RH-5	Combination		-24.252	9.471	-16.920	-9.0169	-23.4407
145	RH-6	Combination		30.986	-4.222	2.413	4.0394	29.9427
145	RH-7	Combination		25.155	19.074	-21.102	-18.1992	24.2924
145	RH-8	Combination		-21.525	-12.102	4.114	11.5810	-20.7985
145	RH-9	Combination		-22.410	16.325	-22.650	-15.5661	-21.6554
145	RH-10	Combination		29.144	-11.076	8.143	10.5887	28.1574
145	RH-11	Combination		28.260	17.351	-18.621	-16.5585	27.3005
145	RH-12	Combination		-23.042	-10.244	2.270	9.8047	-22.2686
145	RH-13	Combination		-20.593	21.147	-26.912	-20.1694	-19.8912
145	RH-14	Combination		27.328	-15.898	12.406	15.1919	26.3932
145	RH-15	Combination		29.776	15.493	-16.777	-14.7822	28.7706
145	RH-16	Combination		-23.963	-8.574	0.877	8.2058	-23.1637
145	RH-17	Combination		-19.103	24.026	-29.724	-22.9131	-18.4460
145	RH-18	Combination		25.838	-18.777	15.218	17.9356	24.9480
145	RH-19	Combination		30.698	13.823	-15.384	-13.1833	29.6657
145	RH-20	Combination		-21.377	-13.724	12.549	13.0874	-20.6454
145	RH-21	Combination		-27.209	9.572	-10.967	-9.1512	-26.2957
145	RH-22	Combination		28.029	-4.121	8.367	3.9051	27.0877
145	RH-23	Combination		22.198	19.174	-15.149	-18.3335	21.4374
145	RH-24	Combination		-24.482	-12.002	10.067	11.4467	-23.6535
145	RH-25	Combination		-25.367	16.426	-16.696	-15.7004	-24.5104
145	RH-26	Combination		26.187	-10.975	14.097	10.4544	25.3024
145	RH-27	Combination		25.303	17.452	-12.667	-16.6928	24.4455
145	RH-28	Combination		-25.999	-10.143	8.223	9.6704	-25.1236
145	RH-29	Combination		-23.550	21.248	-20.959	-20.3037	-22.7462
145	RH-30	Combination		24.371	-15.798	18.359	15.0576	23.5382
145	RH-31	Combination		26.820	15.594	-10.823	-14.9165	25.9156
145	RH-32	Combination		-26.920	-8.473	6.830	8.0715	-26.0187
145	RH-33	Combination		-22.060	24.126	-23.771	-23.0474	-21.3010
145	RH-34	Combination		22.881	-18.676	21.171	17.8013	22.0930
145	RH-35	Combination		27.741	13.924	-9.430	-13.3176	26.8107
145	RH-36	Combination		1.819	1.967	-4.014	-1.8742	1.7565
145	RH-37	Combination		3.338	1.915	-7.072	-1.8052	3.2227
145	RH-38	Combination		-1.590	2.083	2.851	-2.0290	-1.5356
145	RH-39	Combination		-19.057	-14.513	8.000	13.8777	-18.4052
145	RH-40	Combination		-24.888	8.782	-15.515	-8.3609	-24.0554
145	RH-41	Combination		30.350	-4.910	3.818	4.6954	29.3279

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
145	RH-42	Combination		24.518	18.385	-19.697	-17.5432	23.6776
145	RH-43	Combination		-22.162	-12.791	5.519	12.2369	-21.4133
145	RH-44	Combination		-23.047	15.636	-21.245	-14.9102	-22.2702
145	RH-45	Combination		28.508	-11.764	9.548	11.2446	27.5427
145	RH-46	Combination		27.623	16.663	-17.216	-15.9025	26.6857
145	RH-47	Combination		-23.679	-10.932	3.675	10.4607	-22.8834
145	RH-48	Combination		-21.230	20.459	-25.507	-19.5134	-20.5060
145	RH-49	Combination		26.691	-16.587	13.810	15.8478	25.7785
145	RH-50	Combination		29.140	14.804	-15.372	-14.1262	28.1558
145	RH-51	Combination		-24.600	-9.263	2.282	8.8617	-23.7785
145	RH-52	Combination		-19.740	23.337	-28.320	-22.2572	-19.0607
145	RH-53	Combination		25.201	-19.465	16.623	18.5916	24.3332
145	RH-54	Combination		30.061	13.135	-13.979	-12.5273	29.0509
145	RH-55	Combination		-22.014	-14.412	13.954	13.7434	-21.2602
145	RH-56	Combination		-27.845	8.883	-9.562	-8.4952	-26.9104
145	RH-57	Combination		27.393	-4.810	9.772	4.5611	26.4729
145	RH-58	Combination		21.562	18.486	-13.744	-17.6775	20.8227
145	RH-59	Combination		-25.119	-12.690	11.472	12.1026	-24.2683
145	RH-60	Combination		-26.003	15.737	-15.292	-15.0445	-25.1252
145	RH-61	Combination		25.551	-11.664	15.502	11.1103	24.6877
145	RH-62	Combination		24.666	16.763	-11.262	-16.0368	23.8308
145	RH-63	Combination		-26.635	-10.832	9.628	10.3264	-25.7384
145	RH-64	Combination		-24.187	20.560	-19.554	-19.6477	-23.3610
145	RH-65	Combination		23.734	-16.486	19.764	15.7136	22.9235
145	RH-66	Combination		26.183	14.905	-9.418	-14.2605	25.3008
145	RH-67	Combination		-27.557	-9.162	8.235	8.7274	-26.6335
145	RH-68	Combination		-22.697	23.438	-22.366	-22.3915	-21.9157
145	RH-69	Combination		22.244	-19.364	22.576	18.4573	21.4782
145	RH-70	Combination		27.104	13.235	-8.025	-12.6616	26.1960
145	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
145	RH-72	Combination		1.519	-0.052	-3.058	0.0690	1.4663
145	RH-73	Combination		-3.410	0.116	6.865	-0.1548	-3.2920
145	RH-74	Combination		-20.877	-16.480	12.014	15.7518	-20.1616
145	RH-75	Combination		-26.708	6.815	-11.501	-6.4868	-25.8119
145	RH-76	Combination		28.530	-6.878	7.832	6.5695	27.5714
145	RH-77	Combination		22.699	16.418	-15.683	-15.6691	21.9212
145	RH-78	Combination		-23.982	-14.758	9.533	14.1111	-23.1697
145	RH-79	Combination		-24.866	13.669	-17.231	-13.0360	-24.0267
145	RH-80	Combination		26.688	-13.731	13.562	13.1188	25.7862
145	RH-81	Combination		25.804	14.696	-13.202	-14.0283	24.9293
145	RH-82	Combination		-25.498	-12.900	7.689	12.3348	-24.6398
145	RH-83	Combination		-23.049	18.492	-21.493	-17.6392	-22.2625
145	RH-84	Combination		24.872	-18.554	17.824	17.7220	24.0220
145	RH-85	Combination		27.320	12.837	-11.358	-12.2521	26.3994
145	RH-86	Combination		-26.420	-11.230	6.296	10.7359	-25.5349
145	RH-87	Combination		-21.560	21.370	-24.306	-20.3830	-20.8172
145	RH-88	Combination		23.382	-21.432	20.637	20.4658	22.5767
145	RH-89	Combination		28.242	11.168	-9.965	-10.6531	27.2945
145	RH-90	Combination		-23.834	-16.380	17.968	15.6175	-23.0166
145	RH-91	Combination		-29.665	6.916	-5.548	-6.6211	-28.6669
145	RH-92	Combination		25.573	-6.777	13.786	6.4352	24.7164
145	RH-93	Combination		19.742	16.519	-9.730	-15.8033	19.0662
145	RH-94	Combination		-26.939	-14.657	15.486	13.9768	-26.0247
145	RH-95	Combination		-27.823	13.770	-11.278	-13.1703	-26.8816
145	RH-96	Combination		23.731	-13.631	19.515	12.9845	22.9312
145	RH-97	Combination		22.847	14.796	-7.248	-14.1626	22.0743
145	RH-98	Combination		-28.455	-12.799	13.642	12.2005	-27.4948
145	RH-99	Combination		-26.006	18.593	-15.540	-17.7735	-25.1175
145	RH-100	Combination		21.915	-18.453	23.778	17.5877	21.1670
145	RH-101	Combination		24.363	12.938	-5.404	-12.3863	23.5444
145	RH-102	Combination		-29.377	-11.129	12.249	10.6016	-28.3899
145	RH-103	Combination		-24.517	21.471	-18.352	-20.5173	-23.6722

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
145	RH-104	Combination		20.425	-21.331	26.590	20.3315	19.7217
145	RH-105	Combination		25.285	11.268	-4.011	-10.7874	24.4395
145	RH-106	Combination		-2.916	10.846	-8.213	-10.3999	-2.8265
145	RH-107	Combination		-2.914	11.518	-8.088	-11.0508	-2.8218
145	RH-108	Combination		-1.644	12.786	-6.753	-12.2908	-1.5888
145	RH-109	Combination		-0.328	14.311	-3.074	-13.8106	-0.3037
145	RH-110	Combination		1.033	15.379	-1.044	-14.8774	1.0143
145	RH-111	Combination		1.421	16.269	1.213	-15.7783	1.3801
145	RH-112	Combination		2.246	17.157	1.387	-16.6416	2.1627
145	RH-113	Combination		2.983	17.670	-2.520	-17.0694	2.8610
145	RH-114	Combination		3.796	18.020	-6.924	-17.3472	3.6578
145	RH-115	Combination		4.585	18.311	-8.886	-17.5965	4.4266
145	RH-116	Combination		-2.309	10.825	-9.436	-10.3723	-2.2400
145	RH-117	Combination		-2.307	11.498	-9.311	-11.0232	-2.2353
145	RH-118	Combination		-1.037	12.765	-7.976	-12.2632	-1.0023
145	RH-119	Combination		0.280	14.290	-4.297	-13.7830	0.2828
145	RH-120	Combination		1.641	15.358	-2.267	-14.8498	1.6009
145	RH-121	Combination		2.029	16.249	-0.010	-15.7507	1.9666
145	RH-122	Combination		2.854	17.136	0.164	-16.6140	2.7492
145	RH-123	Combination		3.591	17.649	-3.743	-17.0419	3.4475
145	RH-124	Combination		4.404	18.000	-8.147	-17.3197	4.2443
145	RH-125	Combination		5.192	18.290	-10.109	-17.5689	5.0131
145	RH-126	Combination		-4.280	10.892	-5.467	-10.4618	-4.1433
145	RH-127	Combination		-4.278	11.565	-5.342	-11.1127	-4.1386
145	RH-128	Combination		-3.008	12.832	-4.007	-12.3527	-2.9056
145	RH-129	Combination		-1.692	14.358	-0.328	-13.8726	-1.6205
145	RH-130	Combination		-0.331	15.425	1.702	-14.9393	-0.3025
145	RH-131	Combination		0.057	16.316	3.959	-15.8402	0.0632
145	RH-132	Combination		0.882	17.203	4.133	-16.7035	0.8459
145	RH-133	Combination		1.620	17.716	0.226	-17.1314	1.5441
145	RH-134	Combination		2.432	18.067	-4.178	-17.4092	2.3410
145	RH-135	Combination		3.221	18.357	-6.140	-17.6584	3.1098
145	RH-136	Combination		-4.736	8.879	-4.199	-8.5257	-4.5829
145	RH-137	Combination		-4.734	9.551	-4.074	-9.1766	-4.5783
145	RH-138	Combination		-3.464	10.819	-2.739	-10.4166	-3.3453
145	RH-139	Combination		-2.147	12.344	0.940	-11.9365	-2.0602
145	RH-140	Combination		-0.786	13.412	2.970	-13.0032	-0.7421
145	RH-141	Combination		-0.398	14.302	5.227	-13.9041	-0.3764
145	RH-142	Combination		0.427	15.190	5.401	-14.7674	0.4062
145	RH-143	Combination		1.164	15.703	1.494	-15.1953	1.1045
145	RH-144	Combination		1.977	16.053	-2.910	-15.4731	1.9013
145	RH-145	Combination		2.766	16.344	-4.872	-15.7223	2.6701
145	RH-146	Combination		-4.128	8.858	-5.422	-8.4981	-3.9964
145	RH-147	Combination		-4.126	9.531	-5.297	-9.1490	-3.9918
145	RH-148	Combination		-2.856	10.798	-3.962	-10.3890	-2.7588
145	RH-149	Combination		-1.540	12.323	-0.283	-11.9089	-1.4737
145	RH-150	Combination		-0.179	13.391	1.747	-12.9756	-0.1556
145	RH-151	Combination		0.209	14.282	4.004	-13.8765	0.2101
145	RH-152	Combination		1.034	15.169	4.178	-14.7398	0.9927
145	RH-153	Combination		1.771	15.682	0.271	-15.1677	1.6910
145	RH-154	Combination		2.584	16.033	-4.133	-15.4455	2.4878
145	RH-155	Combination		3.373	16.323	-6.095	-15.6947	3.2566
145	RH-156	Combination		-6.099	8.925	-1.453	-8.5877	-5.8998
145	RH-157	Combination		-6.098	9.598	-1.328	-9.2385	-5.8951
145	RH-158	Combination		-4.828	10.865	6.721E-03	-10.4785	-4.6621
145	RH-159	Combination		-3.511	12.391	3.686	-11.9984	-3.3770
145	RH-160	Combination		-2.150	13.458	5.716	-13.0652	-2.0589
145	RH-161	Combination		-1.762	14.349	7.973	-13.9661	-1.6932
145	RH-162	Combination		-0.937	15.236	8.147	-14.8294	-0.9106
145	RH-163	Combination		-0.200	15.749	4.240	-15.2572	-0.2123
145	RH-164	Combination		0.613	16.100	-0.164	-15.5350	0.5845
145	RH-165	Combination		1.402	16.390	-2.126	-15.7843	1.3533

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
155	ENV-ELS-CA	Combination	Max	30.244	24.263	225.727	22.7270	29.3261
155	ENV-ELS-CA	Combination	Min	-26.849	-23.343	20.885	-23.7880	-26.2199
155	ENV-ELS-CP	Combination	Max	7.154	3.141	74.489	2.0317	6.8415
155	ENV-ELS-CP	Combination	Min	-3.296	-1.967	64.282	-3.2906	-3.2335
155	ENV-ELU-PT	Combination	Max	41.095	32.944	305.430	31.1855	39.8460
155	ENV-ELU-PT	Combination	Min	-36.844	-31.957	4.120	-32.3285	-35.9693
155	ENV-ELU-AC	Combination	Max	7.503	27.541	187.652	2.4903	7.3197
155	ENV-ELU-AC	Combination	Min	-8.236	-2.394	36.514	-26.9701	-8.0021
155	ENV-ELU-EQ	Combination	Max	0.514	0.417	272.079	0.4131	0.7184
155	ENV-ELU-EQ	Combination	Min	-0.650	-0.116	22.149	-1.0454	-1.0732
155	RH-1	Combination		7.648	2.590	0.167	-2.4678	7.3879
155	RH-2	Combination		12.039	5.032	0.244	-4.8075	11.6300
155	RH-3	Combination		-2.212	-2.894	-5.018E-03	2.7853	-2.1362
155	RH-4	Combination		-14.134	-9.325	-13.818	8.8927	-13.6571
155	RH-5	Combination		-15.319	6.740	3.523	-6.4115	-14.7913
155	RH-6	Combination		35.884	1.370	-3.096	-1.3317	34.6576
155	RH-7	Combination		34.699	17.435	14.246	-16.6359	33.5233
155	RH-8	Combination		-13.998	-11.626	-14.963	11.1115	-13.5144
155	RH-9	Combination		-16.253	16.462	12.044	-15.7128	-15.7051
155	RH-10	Combination		36.818	-8.352	-11.617	7.9695	35.5714
155	RH-11	Combination		34.563	19.736	15.390	-18.8547	33.3807
155	RH-12	Combination		-13.615	-12.347	-15.175	11.8114	-13.1373
155	RH-13	Combination		-18.816	26.161	20.428	-24.9966	-18.1984
155	RH-14	Combination		39.381	-18.051	-20.001	17.2534	38.0647
155	RH-15	Combination		34.180	20.458	15.602	-19.5546	33.0036
155	RH-16	Combination		-12.759	-12.832	-15.599	12.2789	-12.3046
155	RH-17	Combination		-20.130	32.123	25.998	-30.6989	-19.4795
155	RH-18	Combination		40.695	-24.013	-25.570	22.9556	39.3458
155	RH-19	Combination		33.324	20.942	16.026	-20.0222	32.1709
155	RH-20	Combination		-22.684	-14.080	-13.968	13.4484	-21.9168
155	RH-21	Combination		-23.870	1.984	3.373	-1.8558	-23.0510
155	RH-22	Combination		27.334	-3.385	-3.245	3.2240	26.3979
155	RH-23	Combination		26.148	12.679	14.096	-12.0802	25.2636
155	RH-24	Combination		-22.549	-16.381	-15.113	15.6672	-21.7741
155	RH-25	Combination		-24.803	11.706	11.894	-11.1571	-23.9648
155	RH-26	Combination		28.267	-13.107	-11.766	12.5252	27.3117
155	RH-27	Combination		26.012	14.980	15.241	-14.2990	25.1210
155	RH-28	Combination		-22.165	-17.103	-15.325	16.3671	-21.3970
155	RH-29	Combination		-27.367	21.405	20.278	-20.4409	-26.4581
155	RH-30	Combination		30.831	-22.806	-20.150	21.8091	29.8050
155	RH-31	Combination		25.629	15.702	15.453	-14.9989	24.7439
155	RH-32	Combination		-21.310	-17.588	-15.748	16.8346	-20.5643
155	RH-33	Combination		-28.681	27.367	25.848	-26.1432	-27.7392
155	RH-34	Combination		32.145	-28.768	-25.720	27.5113	31.0861
155	RH-35	Combination		24.774	16.187	15.876	-15.4665	23.9112
155	RH-36	Combination		5.665	1.918	0.124	-1.8280	5.4725
155	RH-37	Combination		10.056	4.361	0.201	-4.1677	9.7146
155	RH-38	Combination		-4.195	-3.565	-0.048	3.4251	-4.0516
155	RH-39	Combination		-16.116	-9.996	-13.862	9.5325	-15.5724
155	RH-40	Combination		-17.302	6.068	3.479	-5.7717	-16.7067
155	RH-41	Combination		33.902	0.699	-3.139	-0.6919	32.7422
155	RH-42	Combination		32.716	16.763	14.202	-15.9962	31.6080
155	RH-43	Combination		-15.981	-12.297	-15.007	11.7513	-15.4298
155	RH-44	Combination		-18.235	15.791	12.000	-15.0730	-17.6205
155	RH-45	Combination		34.835	-9.023	-11.660	8.6093	33.6560
155	RH-46	Combination		32.580	19.064	15.347	-18.2149	31.4653

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
155	RH-47	Combination		-15.597	-13.019	-15.219	12.4512	-15.0527
155	RH-48	Combination		-20.799	25.490	20.384	-24.3568	-20.1138
155	RH-49	Combination		37.399	-18.722	-20.044	17.8932	36.1493
155	RH-50	Combination		32.197	19.786	15.559	-18.9148	31.0882
155	RH-51	Combination		-14.742	-13.503	-15.642	12.9187	-14.2200
155	RH-52	Combination		-22.113	31.451	25.954	-30.0591	-21.3949
155	RH-53	Combination		38.713	-24.684	-25.614	23.5954	37.4304
155	RH-54	Combination		31.342	20.271	15.982	-19.3824	30.2555
155	RH-55	Combination		-24.667	-14.752	-14.011	14.0882	-23.8321
155	RH-56	Combination		-25.853	1.313	3.330	-1.2160	-24.9664
155	RH-57	Combination		25.351	-4.057	-3.288	3.8638	24.4825
155	RH-58	Combination		24.165	12.008	14.053	-11.4405	23.3483
155	RH-59	Combination		-24.531	-17.053	-15.156	16.3070	-23.6895
155	RH-60	Combination		-26.786	11.035	11.851	-10.5173	-25.8802
155	RH-61	Combination		26.284	-13.779	-11.809	13.1650	25.3963
155	RH-62	Combination		24.030	14.309	15.197	-13.6592	23.2056
155	RH-63	Combination		-24.148	-17.774	-15.368	17.0069	-23.3124
155	RH-64	Combination		-29.350	20.734	20.235	-19.8011	-28.3735
155	RH-65	Combination		28.848	-23.478	-20.194	22.4489	27.8896
155	RH-66	Combination		23.646	15.031	15.409	-14.3591	22.8285
155	RH-67	Combination		-23.293	-18.259	-15.792	17.4744	-22.4797
155	RH-68	Combination		-30.664	26.696	25.805	-25.5034	-29.6546
155	RH-69	Combination		30.162	-29.440	-25.763	28.1511	29.1707
155	RH-70	Combination		22.791	15.515	15.833	-14.8267	21.9958
155	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
155	RH-72	Combination		4.392	2.442	0.077	-2.3397	4.2421
155	RH-73	Combination		-9.860	-5.484	-0.172	5.2531	-9.5241
155	RH-74	Combination		-21.781	-11.914	-13.986	11.3605	-21.0450
155	RH-75	Combination		-22.967	4.150	3.355	-3.9437	-22.1792
155	RH-76	Combination		28.237	-1.219	-3.263	1.1360	27.2697
155	RH-77	Combination		27.051	14.845	14.078	-14.1682	26.1354
155	RH-78	Combination		-21.646	-14.215	-15.131	13.5793	-20.9023
155	RH-79	Combination		-23.900	13.872	11.876	-13.2450	-23.0930
155	RH-80	Combination		29.170	-10.941	-11.784	10.4373	28.1835
155	RH-81	Combination		26.915	17.146	15.223	-16.3870	25.9928
155	RH-82	Combination		-21.262	-14.937	-15.343	14.2791	-20.5252
155	RH-83	Combination		-26.464	23.571	20.260	-22.5289	-25.5863
155	RH-84	Combination		31.734	-20.640	-20.168	19.7212	30.6768
155	RH-85	Combination		26.532	17.868	15.435	-17.0868	25.6157
155	RH-86	Combination		-20.407	-15.422	-15.766	14.7467	-19.6925
155	RH-87	Combination		-27.778	29.533	25.830	-28.2311	-26.8674
155	RH-88	Combination		33.048	-26.602	-25.738	25.4234	31.9579
155	RH-89	Combination		25.677	18.353	15.858	-17.5544	24.7830
155	RH-90	Combination		-30.332	-16.670	-14.136	15.9162	-29.3047
155	RH-91	Combination		-31.518	-0.605	3.206	0.6120	-30.4389
155	RH-92	Combination		19.686	-5.975	-3.413	5.6917	19.0100
155	RH-93	Combination		18.500	10.090	13.929	-9.6125	17.8757
155	RH-94	Combination		-30.196	-18.971	-15.280	18.1350	-29.1620
155	RH-95	Combination		-32.451	9.117	11.727	-8.6893	-31.3527
155	RH-96	Combination		20.619	-15.697	-11.934	14.9930	19.9238
155	RH-97	Combination		18.365	12.390	15.073	-11.8313	17.7331
155	RH-98	Combination		-29.813	-19.693	-15.492	18.8348	-28.7849
155	RH-99	Combination		-35.015	18.816	20.111	-17.9732	-33.8460
155	RH-100	Combination		23.183	-25.396	-20.318	24.2769	22.4171
155	RH-101	Combination		17.981	13.112	15.285	-12.5311	17.3560
155	RH-102	Combination		-28.958	-20.177	-15.916	19.3024	-27.9522
155	RH-103	Combination		-36.329	24.777	25.681	-23.6754	-35.1271
155	RH-104	Combination		24.497	-31.358	-25.888	29.9791	23.6982
155	RH-105	Combination		17.126	13.597	15.709	-12.9987	16.5233
155	RH-106	Combination		5.718	4.378	1.799	-4.1816	5.5375
155	RH-107	Combination		4.946	5.899	2.536	-5.6437	4.7880
155	RH-108	Combination		5.187	8.317	2.873	-7.9792	5.0153

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
155	RH-109	Combination		5.036	11.460	1.705	-11.0301	4.8595
155	RH-110	Combination		5.308	13.756	0.727	-13.2575	5.1157
155	RH-111	Combination		4.554	15.948	-1.451	-15.3959	4.3831
155	RH-112	Combination		3.902	18.678	-3.941	-18.0546	3.7575
155	RH-113	Combination		3.149	21.146	-3.303	-20.4313	3.0473
155	RH-114	Combination		2.442	23.297	1.389	-22.4664	2.3715
155	RH-115	Combination		1.734	25.291	6.426	-24.3452	1.6803
155	RH-116	Combination		7.475	5.355	1.830	-5.1175	7.2343
155	RH-117	Combination		6.702	6.876	2.567	-6.5796	6.4848
155	RH-118	Combination		6.944	9.294	2.903	-8.9151	6.7121
155	RH-119	Combination		6.792	12.437	1.736	-11.9660	6.5563
155	RH-120	Combination		7.064	14.733	0.757	-14.1934	6.8125
155	RH-121	Combination		6.310	16.925	-1.420	-16.3318	6.0799
155	RH-122	Combination		5.658	19.655	-3.911	-18.9905	5.4543
155	RH-123	Combination		4.906	22.123	-3.272	-21.3672	4.7441
155	RH-124	Combination		4.199	24.274	1.420	-23.4023	4.0684
155	RH-125	Combination		3.491	26.268	6.456	-25.2811	3.3771
155	RH-126	Combination		1.774	2.185	1.730	-2.0804	1.7278
155	RH-127	Combination		1.002	3.705	2.467	-3.5425	0.9783
155	RH-128	Combination		1.244	6.124	2.804	-5.8780	1.2056
155	RH-129	Combination		1.092	9.266	1.636	-8.9289	1.0499
155	RH-130	Combination		1.364	11.563	0.658	-11.1562	1.3061
155	RH-131	Combination		0.610	13.754	-1.520	-13.2947	0.5735
155	RH-132	Combination		-0.042	16.485	-4.010	-15.9534	-0.0522
155	RH-133	Combination		-0.795	18.952	-3.372	-18.3301	-0.7624
155	RH-134	Combination		-1.502	21.104	1.320	-20.3651	-1.4381
155	RH-135	Combination		-2.210	23.097	6.357	-22.2439	-2.1294
155	RH-136	Combination		0.053	2.460	1.675	-2.3536	0.0650
155	RH-137	Combination		-0.719	3.981	2.412	-3.8158	-0.6846
155	RH-138	Combination		-0.477	6.399	2.749	-6.1513	-0.4573
155	RH-139	Combination		-0.629	9.542	1.581	-9.2021	-0.6130
155	RH-140	Combination		-0.357	11.838	0.603	-11.4295	-0.3568
155	RH-141	Combination		-1.111	14.029	-1.575	-13.5680	-1.0894
155	RH-142	Combination		-1.763	16.760	-4.065	-16.2266	-1.7150
155	RH-143	Combination		-2.516	19.228	-3.427	-18.6034	-2.4252
155	RH-144	Combination		-3.223	21.379	1.265	-20.6384	-3.1010
155	RH-145	Combination		-3.931	23.372	6.302	-22.5172	-3.7922
155	RH-146	Combination		1.810	3.437	1.706	-3.2895	1.7618
155	RH-147	Combination		1.037	4.958	2.443	-4.7516	1.0123
155	RH-148	Combination		1.279	7.376	2.779	-7.0872	1.2396
155	RH-149	Combination		1.127	10.519	1.612	-10.1380	1.0838
155	RH-150	Combination		1.400	12.815	0.633	-12.3654	1.3400
155	RH-151	Combination		0.646	15.006	-1.544	-14.5038	0.6074
155	RH-152	Combination		-6.532E-03	17.737	-4.035	-17.1625	-0.0182
155	RH-153	Combination		-0.759	20.205	-3.396	-19.5393	-0.7284
155	RH-154	Combination		-1.466	22.356	1.296	-21.5743	-1.4042
155	RH-155	Combination		-2.174	24.349	6.332	-23.4531	-2.0954
155	RH-156	Combination		-3.891	0.267	1.606	-0.2524	-3.7447
155	RH-157	Combination		-4.663	1.787	2.343	-1.7145	-4.4942
155	RH-158	Combination		-4.421	4.206	2.680	-4.0500	-4.2669
155	RH-159	Combination		-4.573	7.348	1.512	-7.1009	-4.4227
155	RH-160	Combination		-4.301	9.645	0.534	-9.3282	-4.1664
155	RH-161	Combination		-5.055	11.836	-1.644	-11.4667	-4.8990
155	RH-162	Combination		-5.707	14.567	-4.134	-14.1254	-5.5247
155	RH-163	Combination		-6.460	17.034	-3.496	-16.5021	-6.2349
155	RH-164	Combination		-7.166	19.186	1.196	-18.5371	-6.9106
155	RH-165	Combination		-7.875	21.179	6.233	-20.4160	-7.6019
159	ENV-ELS-CA	Combination	Max	28.319	23.374	267.724	20.1441	27.5515
159	ENV-ELS-CA	Combination	Min	-24.937	-20.925	20.959	-22.8672	-24.3134
159	ENV-ELS-CP	Combination	Max	6.910	2.350	102.433	0.0081	6.6648

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
159	ENV-ELS-CP	Combination	Min	-3.242	-0.035	62.420	-2.4349	-3.1550
159	ENV-ELU-PT	Combination	Max	38.495	31.604	363.954	27.3294	37.4513
159	ENV-ELU-PT	Combination	Min	-34.272	-28.341	-2.909	-30.9338	-33.4034
159	ENV-ELU-AC	Combination	Max	9.737	26.733	221.048	0.2328	9.5787
159	ENV-ELU-AC	Combination	Min	-9.288	-0.105	38.003	-26.2337	-9.0053
159	ENV-ELU-EQ	Combination	Max	0.755	0.534	309.063	0.1668	1.0662
159	ENV-ELU-EQ	Combination	Min	-0.483	0.038	51.291	-1.2523	-0.8263
159	RH-1	Combination		7.281	2.585	-5.958	-2.4624	7.0328
159	RH-2	Combination		11.661	2.512	-9.354	-2.3730	11.2639
159	RH-3	Combination		-2.553	2.748	1.665	-2.6633	-2.4668
159	RH-4	Combination		-10.771	-10.833	6.845	10.3483	-10.3948
159	RH-5	Combination		-18.096	5.231	-14.172	-4.9543	-17.5004
159	RH-6	Combination		37.915	-0.149	-1.819	0.1368	36.6432
159	RH-7	Combination		30.590	15.915	-22.836	-15.1658	29.5377
159	RH-8	Combination		-14.043	-13.133	6.490	12.5659	-13.5663
159	RH-9	Combination		-16.579	14.957	-21.980	-14.2575	-16.0303
159	RH-10	Combination		36.397	-9.874	5.989	9.4400	35.1731
159	RH-11	Combination		33.862	18.216	-22.480	-17.3834	32.7091
159	RH-12	Combination		-15.862	-13.878	5.886	13.2874	-15.3300
159	RH-13	Combination		-14.970	24.624	-29.068	-23.5086	-14.4675
159	RH-14	Combination		34.789	-19.541	13.077	18.6911	33.6103
159	RH-15	Combination		35.680	18.961	-21.877	-18.1049	34.4729
159	RH-16	Combination		-17.015	-14.349	5.616	13.7411	-16.4501
159	RH-17	Combination		-13.474	30.595	-33.794	-29.2188	-13.0154
159	RH-18	Combination		33.292	-25.512	17.803	24.4013	32.1582
159	RH-19	Combination		36.833	19.431	-21.607	-18.5586	35.5930
159	RH-20	Combination		-19.300	-10.691	13.456	10.1741	-18.6333
159	RH-21	Combination		-26.625	5.373	-7.561	-5.1285	-25.7388
159	RH-22	Combination		29.386	-6.817E-03	4.792	-0.0374	28.4048
159	RH-23	Combination		22.061	16.057	-16.225	-15.3400	21.2993
159	RH-24	Combination		-22.572	-12.992	13.101	12.3917	-21.8047
159	RH-25	Combination		-25.108	15.098	-15.369	-14.4317	-24.2687
159	RH-26	Combination		27.869	-9.733	12.600	9.2658	26.9347
159	RH-27	Combination		25.333	18.357	-15.870	-17.5576	24.4707
159	RH-28	Combination		-24.391	-13.736	12.497	13.1132	-23.5685
159	RH-29	Combination		-23.499	24.765	-22.457	-23.6828	-22.7059
159	RH-30	Combination		26.260	-19.399	19.688	18.5169	25.3719
159	RH-31	Combination		27.152	19.102	-15.266	-18.2791	26.2345
159	RH-32	Combination		-25.544	-14.207	12.227	13.5669	-24.6885
159	RH-33	Combination		-22.002	30.737	-27.183	-29.3930	-21.2538
159	RH-34	Combination		24.763	-25.371	24.414	24.2271	23.9198
159	RH-35	Combination		28.305	19.573	-14.996	-18.7328	27.3546
159	RH-36	Combination		5.393	1.915	-4.414	-1.8240	5.2094
159	RH-37	Combination		9.774	1.842	-7.809	-1.7346	9.4406
159	RH-38	Combination		-4.441	2.078	3.209	-2.0249	-4.2901
159	RH-39	Combination		-12.659	-11.503	8.390	10.9867	-12.2181
159	RH-40	Combination		-19.984	4.561	-12.627	-4.3159	-19.3237
159	RH-41	Combination		36.027	-0.819	-0.274	0.7752	34.8199
159	RH-42	Combination		28.702	15.245	-21.291	-14.5274	27.7144
159	RH-43	Combination		-15.931	-13.803	8.034	13.2043	-15.3896
159	RH-44	Combination		-18.467	14.287	-20.435	-13.6191	-17.8536
159	RH-45	Combination		34.510	-10.544	7.534	10.0784	33.3498
159	RH-46	Combination		31.974	17.546	-20.936	-16.7450	30.8858
159	RH-47	Combination		-17.749	-14.548	7.430	13.9258	-17.1534
159	RH-48	Combination		-16.858	23.953	-27.523	-22.8702	-16.2908
159	RH-49	Combination		32.901	-20.211	14.622	19.3295	31.7870
159	RH-50	Combination		33.793	18.290	-20.332	-17.4665	32.6496
159	RH-51	Combination		-18.903	-15.019	7.161	14.3795	-18.2734

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
159	RH-52	Combination		-15.361	29.925	-32.250	-28.5804	-14.8387
159	RH-53	Combination		31.404	-26.182	19.348	25.0397	30.3349
159	RH-54	Combination		34.946	18.761	-20.062	-17.9202	33.7697
159	RH-55	Combination		-21.188	-11.361	15.001	10.8125	-20.4566
159	RH-56	Combination		-28.513	4.703	-6.016	-4.4901	-27.5621
159	RH-57	Combination		27.498	-0.677	6.337	0.6010	26.5815
159	RH-58	Combination		20.174	15.387	-14.681	-14.7016	19.4760
159	RH-59	Combination		-24.460	-13.662	14.645	13.0301	-23.6280
159	RH-60	Combination		-26.995	14.428	-13.824	-13.7933	-26.0920
159	RH-61	Combination		25.981	-10.403	14.145	9.9042	25.1114
159	RH-62	Combination		23.445	17.687	-14.325	-16.9192	22.6474
159	RH-63	Combination		-26.278	-14.407	14.041	13.7516	-25.3918
159	RH-64	Combination		-25.387	24.095	-20.912	-23.0444	-24.5292
159	RH-65	Combination		24.372	-20.070	21.233	19.1553	23.5486
159	RH-66	Combination		25.264	18.432	-13.721	-17.6407	24.4112
159	RH-67	Combination		-27.431	-14.877	13.771	14.2053	-26.5118
159	RH-68	Combination		-23.890	30.066	-25.639	-28.7546	-23.0771
159	RH-69	Combination		22.876	-26.041	25.959	24.8655	22.0965
159	RH-70	Combination		26.417	18.903	-13.451	-18.0944	25.5313
159	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
159	RH-72	Combination		4.380	-0.073	-3.395	0.0895	4.2311
159	RH-73	Combination		-9.834	0.163	7.623	-0.2009	-9.4996
159	RH-74	Combination		-18.053	-13.418	12.804	12.8107	-17.4276
159	RH-75	Combination		-25.377	2.646	-8.214	-2.4918	-24.5331
159	RH-76	Combination		30.634	-2.733	4.140	2.5992	29.6105
159	RH-77	Combination		23.309	13.331	-16.878	-12.7034	22.5049
159	RH-78	Combination		-21.324	-15.718	12.448	15.0283	-20.5990
159	RH-79	Combination		-23.860	12.372	-16.022	-11.7951	-23.0630
159	RH-80	Combination		29.116	-12.459	11.947	11.9024	28.1404
159	RH-81	Combination		26.580	15.631	-16.522	-14.9209	25.6764
159	RH-82	Combination		-23.143	-16.463	11.844	15.7499	-22.3628
159	RH-83	Combination		-22.252	22.039	-23.109	-21.0462	-21.5002
159	RH-84	Combination		27.508	-22.126	19.035	21.1535	26.5776
159	RH-85	Combination		28.399	16.376	-15.918	-15.6425	27.4402
159	RH-86	Combination		-24.296	-16.934	11.574	16.2035	-23.4829
159	RH-87	Combination		-20.755	28.010	-27.836	-26.7564	-20.0481
159	RH-88	Combination		26.011	-28.097	23.762	26.8637	25.1255
159	RH-89	Combination		29.552	16.846	-15.648	-16.0961	28.5602
159	RH-90	Combination		-26.581	-13.276	19.415	12.6365	-25.6660
159	RH-91	Combination		-33.906	2.788	-1.603	-2.6660	-32.7715
159	RH-92	Combination		22.105	-2.592	10.750	2.4250	21.3720
159	RH-93	Combination		14.780	13.472	-10.267	-12.8776	14.2665
159	RH-94	Combination		-29.853	-15.577	19.059	14.8541	-28.8375
159	RH-95	Combination		-32.389	12.514	-9.411	-11.9693	-31.3014
159	RH-96	Combination		20.588	-12.317	18.558	11.7282	19.9019
159	RH-97	Combination		18.052	15.773	-9.911	-15.0951	17.4380
159	RH-98	Combination		-31.672	-16.321	18.455	15.5757	-30.6012
159	RH-99	Combination		-30.780	22.180	-16.499	-21.2204	-29.7386
159	RH-100	Combination		18.979	-21.984	25.646	20.9793	18.3392
159	RH-101	Combination		19.870	16.517	-9.307	-15.8167	19.2017
159	RH-102	Combination		-32.825	-16.792	18.185	16.0293	-31.7213
159	RH-103	Combination		-29.283	28.152	-21.225	-26.9306	-28.2865
159	RH-104	Combination		17.482	-27.956	30.373	26.6895	16.8871
159	RH-105	Combination		21.024	16.988	-9.037	-16.2703	20.3218
159	RH-106	Combination		0.023	4.374	-6.736	-4.1780	0.0095
159	RH-107	Combination		5.374E-03	5.895	-7.230	-5.6405	-0.0051
159	RH-108	Combination		1.226	8.315	-7.056	-7.9771	1.1792
159	RH-109	Combination		2.488	11.461	-5.521	-11.0320	2.4092
159	RH-110	Combination		3.819	13.762	-4.748	-13.2663	3.7033
159	RH-111	Combination		4.221	15.984	-1.832	-15.4530	4.1002
159	RH-112	Combination		5.057	18.791	1.663	-18.2249	4.8975
159	RH-113	Combination		5.811	21.266	1.233	-20.6144	5.5990

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
159	RH-114	Combination		6.667	23.322	-4.577	-22.5059	6.4168
159	RH-115	Combination		7.549	25.291	-8.959	-24.3482	7.2817
159	RH-116	Combination		1.775	4.345	-8.094	-4.1422	1.7019
159	RH-117	Combination		1.757	5.866	-8.589	-5.6047	1.6873
159	RH-118	Combination		2.978	8.286	-8.414	-7.9413	2.8717
159	RH-119	Combination		4.240	11.431	-6.879	-10.9962	4.1017
159	RH-120	Combination		5.571	13.733	-6.106	-13.2305	5.3958
159	RH-121	Combination		5.973	15.955	-3.190	-15.4172	5.7927
159	RH-122	Combination		6.809	18.762	0.305	-18.1892	6.5899
159	RH-123	Combination		7.564	21.237	-0.125	-20.5786	7.2915
159	RH-124	Combination		8.419	23.292	-5.935	-22.4701	8.1093
159	RH-125	Combination		9.301	25.262	-10.317	-24.3124	8.9741
159	RH-126	Combination		-3.911	4.440	-3.687	-4.2583	-3.7904
159	RH-127	Combination		-3.928	5.961	-4.181	-5.7208	-3.8049
159	RH-128	Combination		-2.708	8.380	-4.007	-8.0575	-2.6206
159	RH-129	Combination		-1.446	11.526	-2.471	-11.1123	-1.3906
159	RH-130	Combination		-0.114	13.827	-1.699	-13.3466	-0.0965
159	RH-131	Combination		0.287	16.049	1.217	-15.5334	0.3004
159	RH-132	Combination		1.123	18.856	4.712	-18.3053	1.0976
159	RH-133	Combination		1.878	21.331	4.282	-20.6948	1.7992
159	RH-134	Combination		2.733	23.387	-1.528	-22.5862	2.6170
159	RH-135	Combination		3.615	25.356	-5.909	-24.4286	3.4818
159	RH-136	Combination		-5.370	2.459	-2.323	-2.3539	-5.2000
159	RH-137	Combination		-5.388	3.981	-2.817	-3.8165	-5.2146
159	RH-138	Combination		-4.168	6.400	-2.642	-6.1531	-4.0302
159	RH-139	Combination		-2.906	9.546	-1.107	-9.2079	-2.8002
159	RH-140	Combination		-1.574	11.847	-0.334	-11.4423	-1.5061
159	RH-141	Combination		-1.173	14.069	2.581	-13.6290	-1.1092
159	RH-142	Combination		-0.336	16.876	6.077	-16.4009	-0.3120
159	RH-143	Combination		0.418	19.351	5.647	-18.7904	0.3896
159	RH-144	Combination		1.274	21.407	-0.163	-20.6819	1.2074
159	RH-145	Combination		2.155	23.376	-4.545	-22.5242	2.0722
159	RH-146	Combination		-3.618	2.430	-3.681	-2.3182	-3.5075
159	RH-147	Combination		-3.636	3.951	-4.175	-3.7807	-3.5221
159	RH-148	Combination		-2.416	6.371	-4.000	-6.1173	-2.3377
159	RH-149	Combination		-1.154	9.517	-2.465	-9.1722	-1.1077
159	RH-150	Combination		0.178	11.818	-1.693	-11.4065	0.1863
159	RH-151	Combination		0.579	14.040	1.223	-13.5932	0.5832
159	RH-152	Combination		1.416	16.847	4.719	-16.3651	1.3805
159	RH-153	Combination		2.170	19.322	4.288	-18.7546	2.0820
159	RH-154	Combination		3.026	21.378	-1.521	-20.6461	2.8998
159	RH-155	Combination		3.907	23.347	-5.903	-22.4884	3.7647
159	RH-156	Combination		-9.304	2.525	0.727	-2.4343	-8.9998
159	RH-157	Combination		-9.322	4.046	0.232	-3.8968	-9.0144
159	RH-158	Combination		-8.101	6.465	0.407	-6.2335	-7.8300
159	RH-159	Combination		-6.839	9.611	1.942	-9.2883	-6.6000
159	RH-160	Combination		-5.508	11.912	2.715	-11.5226	-5.3060
159	RH-161	Combination		-5.106	14.134	5.630	-13.7093	-4.9091
159	RH-162	Combination		-4.270	16.942	9.126	-16.4813	-4.1118
159	RH-163	Combination		-3.516	19.417	8.696	-18.8707	-3.4103
159	RH-164	Combination		-2.660	21.472	2.886	-20.7622	-2.5924
159	RH-165	Combination		-1.778	23.442	-1.496	-22.6045	-1.7276
169	ENV-ELS-CA	Combination	Max	36.445	29.102	252.948	27.8796	35.2564
169	ENV-ELS-CA	Combination	Min	-30.781	-28.623	34.622	-28.2886	-30.0430
169	ENV-ELS-CP	Combination	Max	11.817	3.060	91.690	2.3787	11.2926
169	ENV-ELS-CP	Combination	Min	-5.530	-2.275	80.790	-3.1446	-5.4315
169	ENV-ELU-PT	Combination	Max	49.641	39.489	342.037	38.1081	48.0199
169	ENV-ELU-PT	Combination	Min	-42.539	-39.073	16.293	-38.4157	-41.5060

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
169	ENV-ELU-AC	Combination	Max	12.311	35.486	210.065	6.5929	11.7843
169	ENV-ELU-AC	Combination	Min	-12.486	-6.598	57.132	-34.4639	-12.1280
169	ENV-ELU-EQ	Combination	Max	0.559	0.184	303.465	0.6294	0.7253
169	ENV-ELU-EQ	Combination	Min	-0.688	-0.212	43.819	-0.6196	-1.1418
169	RH-1	Combination		12.725	2.556	0.459	-2.4376	12.2839
169	RH-2	Combination		19.976	5.275	0.787	-5.0451	19.2835
169	RH-3	Combination		-3.556	-3.549	-0.278	3.4165	-3.4314
169	RH-4	Combination		-6.650	-6.036	-12.610	5.7313	-6.4302
169	RH-5	Combination		-8.563	2.737	2.626	-2.5719	-8.2675
169	RH-6	Combination		42.714	5.639	-1.315	-5.4324	41.2348
169	RH-7	Combination		40.802	14.412	13.921	-13.7355	39.3975
169	RH-8	Combination		-6.357	-12.249	-16.057	11.7047	-6.1357
169	RH-9	Combination		-10.014	15.168	13.620	-14.4716	-9.6805
169	RH-10	Combination		44.165	-6.792	-12.308	6.4674	42.6478
169	RH-11	Combination		40.508	20.625	17.369	-19.7089	39.1030
169	RH-12	Combination		-5.952	-15.580	-17.679	14.9103	-5.7378
169	RH-13	Combination		-13.187	29.561	25.483	-28.2616	-12.7618
169	RH-14	Combination		47.338	-21.185	-24.171	20.2574	45.7291
169	RH-15	Combination		40.103	23.956	18.990	-22.9145	38.7051
169	RH-16	Combination		-4.903	-18.538	-19.460	17.7527	-4.7185
169	RH-17	Combination		-15.070	38.942	33.466	-37.2470	-14.5921
169	RH-18	Combination		49.222	-30.566	-32.155	29.2427	47.5594
169	RH-19	Combination		39.054	26.913	20.772	-25.7569	37.6858
169	RH-20	Combination		-20.770	-11.331	-13.249	10.8083	-20.0592
169	RH-21	Combination		-22.682	-2.558	1.987	2.5051	-21.8964
169	RH-22	Combination		28.595	0.344	-1.954	-0.3554	27.6058
169	RH-23	Combination		26.683	9.118	13.283	-8.6586	25.7686
169	RH-24	Combination		-20.476	-17.543	-16.696	16.7816	-19.7646
169	RH-25	Combination		-24.133	9.873	12.981	-9.3947	-23.3095
169	RH-26	Combination		30.046	-12.086	-12.947	11.5444	29.0189
169	RH-27	Combination		26.389	15.330	16.730	-14.6319	25.4741
169	RH-28	Combination		-20.071	-20.875	-18.318	19.9872	-19.3667
169	RH-29	Combination		-27.306	24.267	24.844	-23.1846	-26.3907
169	RH-30	Combination		33.219	-26.480	-24.810	25.3343	32.1002
169	RH-31	Combination		25.984	18.661	18.351	-17.8375	25.0762
169	RH-32	Combination		-19.022	-23.832	-20.099	22.8297	-18.3474
169	RH-33	Combination		-29.190	33.648	32.827	-32.1700	-28.2210
169	RH-34	Combination		35.102	-35.861	-32.794	34.3197	33.9304
169	RH-35	Combination		24.935	21.619	20.133	-20.6800	24.0568
169	RH-36	Combination		9.426	1.894	0.340	-1.8057	9.0992
169	RH-37	Combination		16.677	4.613	0.668	-4.4131	16.0988
169	RH-38	Combination		-6.855	-4.211	-0.397	4.0485	-6.6161
169	RH-39	Combination		-9.949	-6.699	-12.729	6.3633	-9.6149
169	RH-40	Combination		-11.862	2.074	2.507	-1.9399	-11.4522
169	RH-41	Combination		39.415	4.976	-1.434	-4.8004	38.0501
169	RH-42	Combination		37.503	13.749	13.803	-13.1035	36.2128
169	RH-43	Combination		-9.656	-12.912	-16.176	12.3366	-9.3204
169	RH-44	Combination		-13.313	14.505	13.501	-13.8396	-12.8652
169	RH-45	Combination		40.866	-7.455	-12.427	7.0994	39.4631
169	RH-46	Combination		37.209	19.962	17.250	-19.0769	35.9183
169	RH-47	Combination		-9.251	-16.243	-17.798	15.5423	-8.9225
169	RH-48	Combination		-16.486	28.898	25.364	-27.6296	-15.9465
169	RH-49	Combination		44.039	-21.848	-24.290	20.8893	42.5444
169	RH-50	Combination		36.804	23.293	18.871	-22.2825	35.5204
169	RH-51	Combination		-8.202	-19.201	-19.579	18.3847	-7.9032
169	RH-52	Combination		-18.369	38.279	33.347	-36.6150	-17.7768
169	RH-53	Combination		45.923	-31.229	-32.274	29.8747	44.3747
169	RH-54	Combination		35.755	26.251	20.653	-25.1250	34.5011
169	RH-55	Combination		-24.069	-11.994	-13.368	11.4402	-23.2439

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
169	RH-56	Combination		-25.981	-3.220	1.868	3.1371	-25.0811
169	RH-57	Combination		25.296	-0.318	-2.073	0.2766	24.4211
169	RH-58	Combination		23.383	8.455	13.164	-8.0266	22.5839
169	RH-59	Combination		-23.775	-18.206	-16.815	17.4136	-22.9494
169	RH-60	Combination		-27.432	9.210	12.862	-8.7627	-26.4942
169	RH-61	Combination		26.747	-12.749	-13.066	12.1763	25.8342
169	RH-62	Combination		23.090	14.667	16.611	-13.9999	22.2894
169	RH-63	Combination		-23.370	-21.537	-18.437	20.6192	-22.5515
169	RH-64	Combination		-30.605	23.604	24.725	-22.5526	-29.5754
169	RH-65	Combination		29.920	-27.143	-24.929	25.9663	28.9154
169	RH-66	Combination		22.685	17.999	18.233	-17.2056	21.8915
169	RH-67	Combination		-22.321	-24.495	-20.218	23.4617	-21.5321
169	RH-68	Combination		-32.489	32.985	32.708	-31.5380	-31.4057
169	RH-69	Combination		31.803	-36.524	-32.913	34.9517	30.7457
169	RH-70	Combination		21.636	20.956	20.014	-20.0480	20.8721
169	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
169	RH-72	Combination		7.251	2.719	0.328	-2.6075	6.9996
169	RH-73	Combination		-16.281	-6.105	-0.737	5.8542	-15.7153
169	RH-74	Combination		-19.375	-8.593	-13.069	8.1689	-18.7141
169	RH-75	Combination		-21.288	0.181	2.167	-0.1342	-20.5513
169	RH-76	Combination		29.989	3.082	-1.774	-2.9947	28.9509
169	RH-77	Combination		28.077	11.856	13.463	-11.2979	27.1136
169	RH-78	Combination		-19.082	-14.805	-16.516	14.1423	-18.4196
169	RH-79	Combination		-22.738	12.611	13.161	-12.0340	-21.9644
169	RH-80	Combination		31.440	-9.348	-12.767	8.9050	30.3639
169	RH-81	Combination		27.783	18.068	16.910	-17.2713	26.8191
169	RH-82	Combination		-18.676	-18.137	-18.138	17.3479	-18.0217
169	RH-83	Combination		-25.912	27.005	25.024	-25.8239	-25.0457
169	RH-84	Combination		34.614	-23.742	-24.630	22.6950	33.4452
169	RH-85	Combination		27.378	21.400	18.531	-20.4769	26.4212
169	RH-86	Combination		-17.628	-21.094	-19.919	20.1904	-17.0024
169	RH-87	Combination		-27.795	36.386	33.007	-34.8093	-26.8760
169	RH-88	Combination		36.497	-33.123	-32.614	31.6804	35.2755
169	RH-89	Combination		26.329	24.357	20.313	-23.3193	25.4019
169	RH-90	Combination		-33.494	-13.887	-13.708	13.2459	-32.3430
169	RH-91	Combination		-35.407	-5.114	1.529	4.9427	-34.1803
169	RH-92	Combination		15.870	-2.212	-2.413	2.0822	15.3219
169	RH-93	Combination		13.958	6.561	12.824	-6.2209	13.4847
169	RH-94	Combination		-33.201	-20.100	-17.155	19.2193	-32.0485
169	RH-95	Combination		-36.858	7.317	12.522	-6.9570	-35.5933
169	RH-96	Combination		17.321	-14.643	-13.406	13.9820	16.7350
169	RH-97	Combination		13.664	12.774	16.271	-12.1943	13.1902
169	RH-98	Combination		-32.796	-23.431	-18.777	22.4249	-31.6506
169	RH-99	Combination		-40.031	21.710	24.385	-20.7470	-38.6746
169	RH-100	Combination		20.494	-29.036	-25.269	27.7720	19.8163
169	RH-101	Combination		13.259	16.105	17.893	-15.3999	12.7923
169	RH-102	Combination		-31.747	-26.389	-20.558	25.2673	-30.6313
169	RH-103	Combination		-41.914	31.091	32.368	-29.7323	-40.5049
169	RH-104	Combination		22.378	-38.417	-33.252	36.7573	21.6466
169	RH-105	Combination		12.210	19.063	19.674	-18.2423	11.7730
169	RH-106	Combination		9.429	-1.966	-0.900	1.9167	9.1170
169	RH-107	Combination		8.574	0.369	0.541	-0.3263	8.2877
169	RH-108	Combination		8.684	3.896	2.052	-3.7203	8.3893
169	RH-109	Combination		8.362	8.605	2.763	-8.2653	8.0700
169	RH-110	Combination		8.507	12.100	3.221	-11.6369	8.2034
169	RH-111	Combination		7.631	15.552	2.275	-14.9815	7.3509
169	RH-112	Combination		6.810	20.023	0.046	-19.3228	6.5518
169	RH-113	Combination		5.868	24.425	-2.272	-23.5935	5.6496
169	RH-114	Combination		4.956	28.591	-1.183	-27.6050	4.7927
169	RH-115	Combination		4.014	32.505	3.918	-31.3420	3.8931
169	RH-116	Combination		12.330	-0.879	-0.769	0.8737	11.9168
169	RH-117	Combination		11.475	1.457	0.673	-1.3693	11.0876

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
169	RH-118	Combination		11.585	4.983	2.184	-4.7633	11.1891
169	RH-119	Combination		11.263	9.693	2.894	-9.3083	10.8698
169	RH-120	Combination		11.408	13.188	3.352	-12.6799	11.0033
169	RH-121	Combination		10.532	16.639	2.406	-16.0245	10.1507
169	RH-122	Combination		9.711	21.111	0.178	-20.3658	9.3516
169	RH-123	Combination		8.769	25.512	-2.141	-24.6365	8.4495
169	RH-124	Combination		7.856	29.679	-1.052	-28.6479	7.5925
169	RH-125	Combination		6.915	33.593	4.049	-32.3850	6.6929
169	RH-126	Combination		2.917	-4.408	-1.195	4.2584	2.8308
169	RH-127	Combination		2.062	-2.073	0.247	2.0153	2.0016
169	RH-128	Combination		2.172	1.454	1.758	-1.3787	2.1032
169	RH-129	Combination		1.850	6.163	2.469	-5.9237	1.7839
169	RH-130	Combination		1.995	9.658	2.927	-9.2952	1.9173
169	RH-131	Combination		1.119	13.110	1.980	-12.6399	1.0648
169	RH-132	Combination		0.298	17.581	-0.248	-16.9812	0.2657
169	RH-133	Combination		-0.644	21.983	-2.567	-21.2518	-0.6365
169	RH-134	Combination		-1.557	26.149	-1.478	-25.2633	-1.4935
169	RH-135	Combination		-2.498	30.063	3.623	-29.0003	-2.3930
169	RH-136	Combination		3.651E-03	-3.860	-1.240	3.7224	0.0178
169	RH-137	Combination		-0.852	-1.524	0.201	1.4793	-0.8114
169	RH-138	Combination		-0.741	2.002	1.713	-1.9147	-0.7099
169	RH-139	Combination		-1.063	6.712	2.423	-6.4597	-1.0292
169	RH-140	Combination		-0.919	10.206	2.881	-9.8312	-0.8957
169	RH-141	Combination		-1.795	13.658	1.935	-13.1759	-1.7483
169	RH-142	Combination		-2.616	18.130	-0.294	-17.5172	-2.5474
169	RH-143	Combination		-3.558	22.531	-2.612	-21.7878	-3.4495
169	RH-144	Combination		-4.470	26.697	-1.523	-25.7993	-4.3065
169	RH-145	Combination		-5.411	30.611	3.578	-29.5363	-5.2061
169	RH-146	Combination		2.904	-2.772	-1.109	2.6794	2.8176
169	RH-147	Combination		2.049	-0.437	0.333	0.4364	1.9884
169	RH-148	Combination		2.159	3.090	1.844	-2.9576	2.0900
169	RH-149	Combination		1.837	7.799	2.555	-7.5026	1.7706
169	RH-150	Combination		1.982	11.294	3.013	-10.8742	1.9041
169	RH-151	Combination		1.106	14.746	2.066	-14.2189	1.0516
169	RH-152	Combination		0.285	19.217	-0.162	-18.5601	0.2525
169	RH-153	Combination		-0.657	23.619	-2.481	-22.8308	-0.6497
169	RH-154	Combination		-1.570	27.785	-1.392	-26.8423	-1.5067
169	RH-155	Combination		-2.511	31.699	3.709	-30.5793	-2.4062
169	RH-156	Combination		-6.509	-6.302	-1.535	6.0640	-6.2683
169	RH-157	Combination		-7.364	-3.966	-0.093	3.8210	-7.0975
169	RH-158	Combination		-7.254	-0.440	1.418	0.4270	-6.9960
169	RH-159	Combination		-7.576	4.270	2.129	-4.1180	-7.3153
169	RH-160	Combination		-7.431	7.764	2.587	-7.4896	-7.1819
169	RH-161	Combination		-8.307	11.216	1.640	-10.8342	-8.0344
169	RH-162	Combination		-9.128	15.688	-0.588	-15.1755	-8.8335
169	RH-163	Combination		-10.070	20.089	-2.907	-19.4462	-9.7356
169	RH-164	Combination		-10.982	24.255	-1.818	-23.4576	-10.5926
169	RH-165	Combination		-11.924	28.169	3.283	-27.1947	-11.4922
173	ENV-ELS-CA	Combination	Max	33.039	28.085	267.334	25.1974	32.0671
173	ENV-ELS-CA	Combination	Min	-27.522	-26.135	26.029	-27.1895	-26.7883
173	ENV-ELS-CP	Combination	Max	11.427	2.192	113.171	0.2849	10.9804
173	ENV-ELS-CP	Combination	Min	-5.435	-0.280	62.081	-2.2029	-5.2758
173	ENV-ELU-PT	Combination	Max	45.041	37.966	364.332	34.0887	43.7120
173	ENV-ELU-PT	Combination	Min	-38.139	-35.342	-2.381	-36.7712	-37.1081
173	ENV-ELU-AC	Combination	Max	12.998	34.506	222.293	4.2382	12.5902
173	ENV-ELU-AC	Combination	Min	-11.983	-4.202	47.089	-33.5742	-11.6068

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
173	ENV-ELU-EQ	Combination	Max	0.752	0.209	298.061	0.3981	1.0742
173	ENV-ELU-EQ	Combination	Min	-0.456	-0.095	70.163	-0.6412	-0.7987
173	RH-1	Combination		12.115	2.549	-5.513	-2.4283	11.6938
173	RH-2	Combination		19.347	2.748	-8.712	-2.6001	18.6748
173	RH-3	Combination		-4.122	2.104	1.669	-2.0427	-3.9797
173	RH-4	Combination		-3.508	-7.550	5.203	7.1934	-3.3818
173	RH-5	Combination		-11.545	1.227	-10.130	-1.1142	-11.1709
173	RH-6	Combination		44.455	4.110	-4.735	-3.9485	42.9358
173	RH-7	Combination		36.418	12.886	-20.068	-12.2562	35.1467
173	RH-8	Combination		-6.537	-13.762	6.956	13.1650	-6.3162
173	RH-9	Combination		-10.658	13.659	-18.720	-13.0133	-10.3114
173	RH-10	Combination		43.567	-8.322	3.855	7.9506	42.0763
173	RH-11	Combination		39.446	19.099	-21.821	-18.2278	38.0811
173	RH-12	Combination		-8.284	-17.073	7.660	16.3500	-8.0086
173	RH-13	Combination		-9.761	28.065	-27.519	-26.8136	-9.4378
173	RH-14	Combination		42.670	-22.728	12.653	21.7509	41.2027
173	RH-15	Combination		41.193	22.410	-22.525	-21.4127	39.7735
173	RH-16	Combination		-9.509	-20.062	8.585	19.2218	-9.1980
173	RH-17	Combination		-8.611	37.407	-33.435	-35.7598	-8.3223
173	RH-18	Combination		41.520	-32.071	18.570	30.6971	40.0871
173	RH-19	Combination		42.418	25.399	-23.450	-24.2846	40.9629
173	RH-20	Combination		-17.590	-7.936	11.432	7.5278	-16.9745
173	RH-21	Combination		-25.627	0.841	-3.902	-0.7798	-24.7636
173	RH-22	Combination		30.373	3.724	1.494	-3.6141	29.3431
173	RH-23	Combination		22.336	12.500	-13.840	-11.9218	21.5540
173	RH-24	Combination		-20.619	-14.148	13.184	13.4994	-19.9089
173	RH-25	Combination		-24.740	13.272	-12.492	-12.6789	-23.9041
173	RH-26	Combination		29.486	-8.708	10.084	8.2850	28.4836
173	RH-27	Combination		25.365	18.713	-15.592	-17.8933	24.4884
173	RH-28	Combination		-22.365	-17.459	13.889	16.6844	-21.6013
173	RH-29	Combination		-23.842	27.679	-21.290	-26.4792	-23.0305
173	RH-30	Combination		28.588	-23.114	18.882	22.0853	27.6100
173	RH-31	Combination		27.111	22.024	-16.297	-21.0783	26.1808
173	RH-32	Combination		-23.591	-20.448	14.813	19.5562	-22.7907
173	RH-33	Combination		-22.693	37.021	-27.207	-35.4254	-21.9150
173	RH-34	Combination		27.438	-32.457	24.799	31.0315	26.4944
173	RH-35	Combination		28.337	25.013	-17.221	-23.9502	27.3702
173	RH-36	Combination		8.974	1.888	-4.084	-1.7988	8.6621
173	RH-37	Combination		16.206	2.087	-7.283	-1.9705	15.6431
173	RH-38	Combination		-7.263	1.443	3.098	-1.4132	-7.0114
173	RH-39	Combination		-6.649	-8.211	6.632	7.8230	-6.4136
173	RH-40	Combination		-14.686	0.566	-8.701	-0.4847	-14.2027
173	RH-41	Combination		41.314	3.449	-3.305	-3.3189	39.9041
173	RH-42	Combination		33.277	12.225	-18.639	-11.6266	32.1150
173	RH-43	Combination		-9.678	-14.423	8.385	13.7946	-9.3480
173	RH-44	Combination		-13.799	12.998	-17.291	-12.3838	-13.3431
173	RH-45	Combination		40.426	-8.983	5.284	8.5801	39.0445
173	RH-46	Combination		36.305	18.438	-20.392	-17.5982	35.0494
173	RH-47	Combination		-11.425	-17.734	9.089	16.9796	-11.0403
173	RH-48	Combination		-12.902	27.404	-26.089	-26.1841	-12.4696
173	RH-49	Combination		39.529	-23.389	14.083	22.3804	38.1710
173	RH-50	Combination		38.052	21.749	-21.096	-20.7832	36.7417
173	RH-51	Combination		-12.650	-20.723	10.014	19.8514	-12.2297
173	RH-52	Combination		-11.752	36.746	-32.006	-35.1303	-11.3540
173	RH-53	Combination		38.379	-32.732	19.999	31.3267	37.0554
173	RH-54	Combination		39.277	24.738	-22.020	-23.6550	37.9311
173	RH-55	Combination		-20.731	-8.597	12.861	8.1574	-20.0063
173	RH-56	Combination		-28.768	0.180	-2.473	-0.1503	-27.7954
173	RH-57	Combination		27.232	3.063	2.923	-2.9845	26.3114
173	RH-58	Combination		19.195	11.839	-12.410	-11.2922	18.5223

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
173	RH-59	Combination		-23.760	-14.809	14.614	14.1290	-22.9407
173	RH-60	Combination		-27.881	12.612	-11.062	-12.0493	-26.9358
173	RH-61	Combination		26.345	-9.369	11.513	8.9145	25.4518
173	RH-62	Combination		22.224	18.052	-14.163	-17.2638	21.4567
173	RH-63	Combination		-25.506	-18.120	15.318	17.3140	-24.6330
173	RH-64	Combination		-26.983	27.018	-19.861	-25.8497	-26.0623
173	RH-65	Combination		25.447	-23.775	20.311	22.7149	24.5783
173	RH-66	Combination		23.970	21.363	-14.867	-20.4488	23.1490
173	RH-67	Combination		-26.732	-21.109	16.242	20.1858	-25.8224
173	RH-68	Combination		-25.834	36.360	-25.777	-34.7959	-24.9467
173	RH-69	Combination		24.297	-33.118	26.228	31.6611	23.4627
173	RH-70	Combination		25.196	24.352	-15.792	-23.3206	24.3384
173	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
173	RH-72	Combination		7.232	0.198	-3.199	-0.1717	6.9810
173	RH-73	Combination		-16.237	-0.445	7.182	0.3856	-15.6735
173	RH-74	Combination		-15.624	-10.099	10.716	9.6218	-15.0757
173	RH-75	Combination		-23.661	-1.323	-4.617	1.3141	-22.8648
173	RH-76	Combination		32.339	1.561	0.778	-1.5202	31.2420
173	RH-77	Combination		24.302	10.337	-14.555	-9.8279	23.4529
173	RH-78	Combination		-18.653	-16.312	12.469	15.5933	-18.0101
173	RH-79	Combination		-22.773	11.109	-13.207	-10.5850	-22.0052
173	RH-80	Combination		31.452	-10.871	9.368	10.3789	30.3824
173	RH-81	Combination		27.331	16.549	-16.308	-15.7994	26.3873
173	RH-82	Combination		-20.399	-19.622	13.173	18.7783	-19.7024
173	RH-83	Combination		-21.876	25.516	-22.005	-24.3853	-21.1317
173	RH-84	Combination		30.555	-25.278	18.167	24.1792	29.5089
173	RH-85	Combination		29.077	19.860	-17.012	-18.9844	28.0796
173	RH-86	Combination		-21.625	-22.611	14.098	21.6502	-20.8918
173	RH-87	Combination		-20.726	34.858	-27.922	-33.3315	-20.0161
173	RH-88	Combination		29.405	-34.620	24.083	33.1254	28.3933
173	RH-89	Combination		30.303	22.849	-17.937	-21.8563	29.2690
173	RH-90	Combination		-29.705	-10.485	16.945	9.9562	-28.6683
173	RH-91	Combination		-37.742	-1.709	1.611	1.6485	-36.4575
173	RH-92	Combination		18.258	1.175	7.007	-1.1858	17.6493
173	RH-93	Combination		10.221	9.951	-8.327	-9.4934	9.8602
173	RH-94	Combination		-32.734	-16.698	18.698	15.9277	-31.6028
173	RH-95	Combination		-36.855	10.723	-6.978	-10.2506	-35.5979
173	RH-96	Combination		17.370	-11.257	15.597	10.7133	16.7897
173	RH-97	Combination		13.249	16.163	-10.079	-15.4650	12.7946
173	RH-98	Combination		-34.480	-20.009	19.402	19.1127	-33.2951
173	RH-99	Combination		-35.958	25.130	-15.777	-24.0509	-34.7243
173	RH-100	Combination		16.473	-25.664	24.395	24.5136	15.9162
173	RH-101	Combination		14.996	19.474	-10.783	-18.6500	14.4869
173	RH-102	Combination		-35.706	-22.997	20.326	21.9846	-34.4845
173	RH-103	Combination		-34.808	34.472	-21.693	-32.9971	-33.6088
173	RH-104	Combination		15.323	-35.006	30.312	33.4598	14.8006
173	RH-105	Combination		16.222	22.463	-11.708	-21.5218	15.6763
173	RH-106	Combination		3.641	-1.971	-3.964	1.9206	3.5000
173	RH-107	Combination		3.515	0.365	-4.927	-0.3224	3.3798
173	RH-108	Combination		4.565	3.892	-5.726	-3.7160	4.3982
173	RH-109	Combination		5.602	8.602	-5.920	-8.2608	5.4065
173	RH-110	Combination		6.766	12.097	-6.328	-11.6325	6.5354
173	RH-111	Combination		7.009	15.552	-5.360	-14.9810	6.7791
173	RH-112	Combination		7.689	20.048	-2.779	-19.3608	7.4497
173	RH-113	Combination		8.313	24.538	0.977	-23.7640	8.0446
173	RH-114	Combination		8.999	28.712	-0.130	-27.7882	8.6677
173	RH-115	Combination		9.780	32.524	-5.533	-31.3764	9.4190
173	RH-116	Combination		6.534	-1.891	-5.244	1.8519	6.2924
173	RH-117	Combination		6.407	0.445	-6.207	-0.3911	6.1722
173	RH-118	Combination		7.458	3.971	-7.006	-3.7847	7.1906
173	RH-119	Combination		8.495	8.681	-7.199	-8.3295	8.1989
173	RH-120	Combination		9.659	12.176	-7.607	-11.7012	9.3278

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
173	RH-121	Combination		9.902	15.631	-6.640	-15.0497	9.5715
173	RH-122	Combination		10.582	20.127	-4.059	-19.4295	10.2421
173	RH-123	Combination		11.206	24.618	-0.303	-23.8327	10.8370
173	RH-124	Combination		11.892	28.791	-1.409	-27.8569	11.4601
173	RH-125	Combination		12.673	32.603	-6.813	-31.4451	12.2114
173	RH-126	Combination		-2.854	-2.149	-1.091	2.0749	-2.7694
173	RH-127	Combination		-2.980	0.187	-2.055	-0.1682	-2.8896
173	RH-128	Combination		-1.930	3.714	-2.854	-3.5618	-1.8712
173	RH-129	Combination		-0.893	8.424	-3.047	-8.1066	-0.8629
173	RH-130	Combination		0.271	11.919	-3.455	-11.4783	0.2660
173	RH-131	Combination		0.515	15.374	-2.488	-14.8267	0.5097
173	RH-132	Combination		1.194	19.870	0.093	-19.2065	1.1803
173	RH-133	Combination		1.818	24.360	3.850	-23.6097	1.7752
173	RH-134	Combination		2.504	28.534	2.743	-27.6340	2.3983
173	RH-135	Combination		3.285	32.346	-2.660	-31.2221	3.1496
173	RH-136	Combination		-5.333	-3.859	0.120	3.7194	-5.1621
173	RH-137	Combination		-5.460	-1.523	-0.843	1.4764	-5.2823
173	RH-138	Combination		-4.409	2.003	-1.642	-1.9172	-4.2639
173	RH-139	Combination		-3.373	6.713	-1.836	-6.4621	-3.2556
173	RH-140	Combination		-2.208	10.209	-2.244	-9.8337	-2.1267
173	RH-141	Combination		-1.965	13.663	-1.276	-13.1822	-1.8830
173	RH-142	Combination		-1.285	18.160	1.305	-17.5620	-1.2124
173	RH-143	Combination		-0.662	22.650	5.061	-21.9652	-0.6175
173	RH-144	Combination		0.025	26.823	3.954	-25.9895	0.0056
173	RH-145	Combination		0.806	30.636	-1.449	-29.5776	0.7569
173	RH-146	Combination		-2.440	-3.780	-1.160	3.6507	-2.3697
173	RH-147	Combination		-2.567	-1.444	-2.123	1.4077	-2.4899
173	RH-148	Combination		-1.516	2.083	-2.922	-1.9859	-1.4715
173	RH-149	Combination		-0.480	6.793	-3.115	-6.5308	-0.4632
173	RH-150	Combination		0.684	10.288	-3.523	-9.9024	0.6657
173	RH-151	Combination		0.928	13.743	-2.556	-13.2509	0.9094
173	RH-152	Combination		1.608	18.239	0.025	-17.6307	1.5800
173	RH-153	Combination		2.231	22.729	3.781	-22.0339	2.1749
173	RH-154	Combination		2.918	26.902	2.675	-26.0582	2.7980
173	RH-155	Combination		3.699	30.715	-2.729	-29.6463	3.5493
173	RH-156	Combination		-11.828	-4.037	2.993	3.8736	-11.4315
173	RH-157	Combination		-11.955	-1.701	2.029	1.6306	-11.5517
173	RH-158	Combination		-10.904	1.825	1.230	-1.7630	-10.5333
173	RH-159	Combination		-9.867	6.535	1.037	-6.3078	-9.5250
173	RH-160	Combination		-8.703	10.031	0.629	-9.6795	-8.3961
173	RH-161	Combination		-8.460	13.485	1.596	-13.0280	-8.1524
173	RH-162	Combination		-7.780	17.981	4.177	-17.4078	-7.4818
173	RH-163	Combination		-7.156	22.472	7.934	-21.8110	-6.8869
173	RH-164	Combination		-6.470	26.645	6.827	-25.8352	-6.2638
173	RH-165	Combination		-5.689	30.458	1.424	-29.4234	-5.5125
185	ENV-ELS-CA	Combination	Max	42.364	33.810	283.837	32.9019	40.9901
185	ENV-ELS-CA	Combination	Min	-34.883	-33.794	70.386	-32.5907	-34.4063
185	ENV-ELS-CP	Combination	Max	16.454	2.867	122.839	2.6911	15.7541
185	ENV-ELS-CP	Combination	Min	-7.904	-2.539	110.404	-2.8408	-7.8748
185	ENV-ELU-PT	Combination	Max	57.822	45.850	383.697	44.8697	55.9553
185	ENV-ELU-PT	Combination	Min	-48.484	-46.055	54.221	-44.2223	-47.8043
185	ENV-ELU-AC	Combination	Max	17.155	43.543	239.423	12.9018	16.4415
185	ENV-ELU-AC	Combination	Min	-16.674	-13.104	89.430	-42.1568	-16.3178
185	ENV-ELU-EQ	Combination	Max	0.546	5.709E-03	332.661	0.8798	0.7374
185	ENV-ELU-EQ	Combination	Min	-1.251	-0.383	80.066	-0.1638	-2.2238
185	RH-1	Combination		17.708	2.503	3.187	-2.3874	17.0775

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
185	RH-2	Combination		27.786	5.424	5.162	-5.1904	26.7955
185	RH-3	Combination		-4.918	-4.057	-1.249	3.9058	-4.7411
185	RH-4	Combination		0.882	-2.764	-9.018	2.5835	0.8360
185	RH-5	Combination		-1.880	-1.282	1.659	1.2888	-1.8195
185	RH-6	Combination		49.389	9.794	7.085	-9.4271	47.6361
185	RH-7	Combination		46.628	11.276	17.762	-10.7218	44.9805
185	RH-8	Combination		1.280	-12.802	-13.855	12.2326	1.2292
185	RH-9	Combination		-3.820	13.731	12.807	-13.0916	-3.6995
185	RH-10	Combination		51.329	-5.220	-4.063	4.9533	49.5160
185	RH-11	Combination		46.229	21.314	22.599	-20.3709	44.5874
185	RH-12	Combination		1.716	-18.588	-16.392	17.7979	1.6549
185	RH-13	Combination		-7.468	32.643	25.370	-31.2227	-7.2321
185	RH-14	Combination		54.977	-24.131	-16.626	23.0844	53.0487
185	RH-15	Combination		45.793	27.100	25.136	-25.9362	44.1616
185	RH-16	Combination		2.763	-24.351	-19.013	23.3379	2.6705
185	RH-17	Combination		-9.774	45.619	33.962	-43.6649	-9.4666
185	RH-18	Combination		57.284	-37.108	-25.218	35.5266	55.2832
185	RH-19	Combination		44.746	32.863	27.757	-31.4762	43.1460
185	RH-20	Combination		-18.740	-8.453	-12.865	8.0412	-18.0859
185	RH-21	Combination		-21.502	-6.970	-2.188	6.7465	-20.7415
185	RH-22	Combination		29.767	4.105	3.238	-3.9694	28.7142
185	RH-23	Combination		27.006	5.587	13.916	-5.2641	26.0586
185	RH-24	Combination		-18.342	-18.490	-17.701	17.6903	-17.6927
185	RH-25	Combination		-23.442	8.043	8.960	-7.6339	-22.6214
185	RH-26	Combination		31.707	-10.908	-7.909	10.4110	30.5941
185	RH-27	Combination		26.607	15.625	18.752	-14.9132	25.6655
185	RH-28	Combination		-17.906	-24.277	-20.238	23.2556	-17.2670
185	RH-29	Combination		-27.090	26.954	21.523	-25.7650	-26.1540
185	RH-30	Combination		35.355	-29.820	-20.473	28.5421	34.1267
185	RH-31	Combination		26.171	21.411	21.289	-20.4785	25.2397
185	RH-32	Combination		-16.859	-30.039	-22.859	28.7956	-16.2514
185	RH-33	Combination		-29.396	39.931	30.115	-38.2072	-28.3886
185	RH-34	Combination		37.662	-42.796	-29.065	40.9843	36.3613
185	RH-35	Combination		25.124	27.174	23.910	-26.0185	24.2241
185	RH-36	Combination		13.117	1.854	2.361	-1.7684	12.6500
185	RH-37	Combination		23.195	4.776	4.336	-4.5714	22.3680
185	RH-38	Combination		-9.509	-4.705	-2.075	4.5248	-9.1685
185	RH-39	Combination		-3.709	-3.413	-9.844	3.2024	-3.5915
185	RH-40	Combination		-6.471	-1.931	0.833	1.9077	-6.2470
185	RH-41	Combination		44.798	9.145	6.259	-8.8081	43.2086
185	RH-42	Combination		42.037	10.627	16.936	-10.1029	40.5531
185	RH-43	Combination		-3.311	-13.451	-14.681	12.8515	-3.1983
185	RH-44	Combination		-8.411	13.083	11.981	-12.4727	-8.1270
185	RH-45	Combination		46.738	-5.869	-4.889	5.5722	45.0886
185	RH-46	Combination		41.638	20.665	21.773	-19.7520	40.1599
185	RH-47	Combination		-2.875	-19.237	-17.218	18.4168	-2.7726
185	RH-48	Combination		-12.059	31.994	24.544	-30.6038	-11.6596
185	RH-49	Combination		50.386	-24.780	-17.452	23.7033	48.6212
185	RH-50	Combination		41.202	26.451	24.310	-25.3172	39.7341
185	RH-51	Combination		-1.828	-25.000	-19.839	23.9569	-1.7570
185	RH-52	Combination		-14.365	44.970	33.136	-43.0460	-13.8941
185	RH-53	Combination		52.693	-37.757	-26.044	36.1455	50.8557
185	RH-54	Combination		40.155	32.214	26.931	-30.8573	38.7185
185	RH-55	Combination		-23.331	-9.101	-13.691	8.6602	-22.5134
185	RH-56	Combination		-26.093	-7.619	-3.014	7.3654	-25.1689
185	RH-57	Combination		25.176	3.456	2.412	-3.3504	24.2867
185	RH-58	Combination		22.415	4.938	13.089	-4.6451	21.6311
185	RH-59	Combination		-22.933	-19.139	-18.528	18.3093	-22.1202
185	RH-60	Combination		-28.032	7.394	8.134	-7.0149	-27.0489
185	RH-61	Combination		27.116	-11.557	-8.736	11.0300	26.1666
185	RH-62	Combination		22.016	14.976	17.926	-14.2943	21.2380
185	RH-63	Combination		-22.497	-24.926	-21.065	23.8745	-21.6945

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
185	RH-64	Combination		-31.681	26.305	20.697	-25.1460	-30.5815
185	RH-65	Combination		30.764	-30.469	-21.299	29.1611	29.6992
185	RH-66	Combination		21.580	20.763	20.463	-19.8595	20.8122
185	RH-67	Combination		-21.450	-30.688	-23.686	29.4146	-20.6789
185	RH-68	Combination		-33.987	39.282	29.289	-37.5882	-32.8160
185	RH-69	Combination		33.071	-43.445	-29.891	41.6033	31.9338
185	RH-70	Combination		20.533	26.525	23.084	-25.3996	19.7966
185	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
185	RH-72	Combination		10.078	2.922	1.976	-2.8030	9.7180
185	RH-73	Combination		-22.626	-6.559	-4.436	6.2932	-21.8185
185	RH-74	Combination		-16.826	-5.267	-12.205	4.9708	-16.2415
185	RH-75	Combination		-19.588	-3.785	-1.528	3.6761	-18.8970
185	RH-76	Combination		31.681	7.291	3.898	-7.0397	30.5586
185	RH-77	Combination		28.919	8.773	14.576	-8.3345	27.9031
185	RH-78	Combination		-16.428	-15.305	-17.041	14.6200	-15.8483
185	RH-79	Combination		-21.528	11.229	9.620	-10.7042	-20.7770
185	RH-80	Combination		33.621	-7.723	-7.249	7.3406	32.4386
185	RH-81	Combination		28.521	18.811	19.412	-17.9836	27.5099
185	RH-82	Combination		-15.992	-21.091	-19.578	20.1852	-15.4225
185	RH-83	Combination		-25.176	30.140	22.183	-28.8354	-24.3096
185	RH-84	Combination		37.269	-26.634	-19.813	25.4717	35.9712
185	RH-85	Combination		28.085	24.597	21.949	-23.5488	27.0842
185	RH-86	Combination		-14.945	-26.854	-22.199	25.7253	-14.4069
185	RH-87	Combination		-27.483	43.116	30.775	-41.2776	-26.5441
185	RH-88	Combination		39.576	-39.611	-28.405	37.9139	38.2057
185	RH-89	Combination		27.038	30.360	24.570	-29.0889	26.0686
185	RH-90	Combination		-36.448	-10.955	-16.052	10.4286	-35.1634
185	RH-91	Combination		-39.210	-9.473	-5.374	9.1338	-37.8189
185	RH-92	Combination		12.059	1.602	0.052	-1.5820	11.6367
185	RH-93	Combination		9.298	3.084	10.729	-2.8767	8.9812
185	RH-94	Combination		-36.050	-20.993	-20.888	20.0777	-34.7702
185	RH-95	Combination		-41.150	5.540	5.773	-5.2465	-39.6989
185	RH-96	Combination		13.999	-13.411	-11.096	12.7984	13.5167
185	RH-97	Combination		8.899	13.122	15.565	-12.5258	8.5880
185	RH-98	Combination		-35.614	-26.780	-23.425	25.6430	-34.3445
185	RH-99	Combination		-44.798	24.451	18.337	-23.3776	-43.2315
185	RH-100	Combination		17.647	-32.323	-23.659	30.9295	17.0493
185	RH-101	Combination		8.463	18.909	18.102	-18.0911	8.1622
185	RH-102	Combination		-34.567	-32.542	-26.046	31.1830	-33.3289
185	RH-103	Combination		-47.104	37.428	26.929	-35.8198	-45.4660
185	RH-104	Combination		19.954	-45.299	-32.251	43.3717	19.2838
185	RH-105	Combination		7.416	24.671	20.723	-23.6311	7.1466
185	RH-106	Combination		12.976	-8.229	-1.329	7.9400	12.5255
185	RH-107	Combination		12.050	-5.104	0.337	4.9393	11.6299
185	RH-108	Combination		12.040	-0.506	2.469	0.5183	11.6172
185	RH-109	Combination		11.567	5.724	4.390	-5.4807	11.1551
185	RH-110	Combination		11.599	10.380	5.879	-9.9641	11.1817
185	RH-111	Combination		10.622	15.048	6.102	-14.4715	10.2343
185	RH-112	Combination		9.671	21.173	5.364	-20.3966	9.3107
185	RH-113	Combination		8.594	27.408	2.912	-26.4451	8.2683
185	RH-114	Combination		7.528	33.681	-0.153	-32.5283	7.2523
185	RH-115	Combination		6.421	39.815	0.085	-38.4440	6.2132
185	RH-116	Combination		17.007	-7.061	-0.539	6.8188	16.4127
185	RH-117	Combination		16.081	-3.935	1.127	3.8181	15.5171
185	RH-118	Combination		16.071	0.663	3.259	-0.6029	15.5044
185	RH-119	Combination		15.598	6.892	5.180	-6.6019	15.0424
185	RH-120	Combination		15.630	11.549	6.669	-11.0853	15.0689
185	RH-121	Combination		14.653	16.217	6.893	-15.5927	14.1215
185	RH-122	Combination		13.702	22.342	6.154	-21.5178	13.1979
185	RH-123	Combination		12.625	28.577	3.702	-27.5663	12.1555
185	RH-124	Combination		11.559	34.850	0.637	-33.6495	11.1395
185	RH-125	Combination		10.452	40.983	0.875	-39.5652	10.1004

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
185	RH-126	Combination		3.925	-10.853	-3.104	10.4573	3.7981
185	RH-127	Combination		2.999	-7.728	-1.437	7.4566	2.9025
185	RH-128	Combination		2.990	-3.130	0.695	3.0356	2.8897
185	RH-129	Combination		2.516	3.100	2.616	-2.9634	2.4277
185	RH-130	Combination		2.549	7.756	4.105	-7.4468	2.4543
185	RH-131	Combination		1.572	12.425	4.328	-11.9542	1.5069
185	RH-132	Combination		0.621	18.550	3.590	-17.8793	0.5833
185	RH-133	Combination		-0.457	24.784	1.137	-23.9279	-0.4591
185	RH-134	Combination		-1.522	31.057	-1.927	-30.0110	-1.4752
185	RH-135	Combination		-2.629	37.191	-1.689	-35.9267	-2.5143
185	RH-136	Combination		-0.142	-10.083	-3.690	9.7084	-0.1245
185	RH-137	Combination		-1.067	-6.958	-2.024	6.7077	-1.0201
185	RH-138	Combination		-1.077	-2.360	0.108	2.2867	-1.0328
185	RH-139	Combination		-1.550	3.870	2.030	-3.7123	-1.4948
185	RH-140	Combination		-1.518	8.526	3.519	-8.1957	-1.4683
185	RH-141	Combination		-2.495	13.194	3.742	-12.7031	-2.4157
185	RH-142	Combination		-3.446	19.319	3.004	-18.6282	-3.3393
185	RH-143	Combination		-4.523	25.554	0.551	-24.6767	-4.3817
185	RH-144	Combination		-5.589	31.827	-2.513	-30.7599	-5.3977
185	RH-145	Combination		-6.696	37.961	-2.276	-36.6756	-6.4368
185	RH-146	Combination		3.889	-8.915	-2.900	8.5872	3.7627
185	RH-147	Combination		2.964	-5.789	-1.233	5.5865	2.8672
185	RH-148	Combination		2.954	-1.191	0.899	1.1655	2.8544
185	RH-149	Combination		2.481	5.038	2.820	-4.8335	2.3924
185	RH-150	Combination		2.513	9.695	4.309	-9.3169	2.4189
185	RH-151	Combination		1.536	14.363	4.532	-13.8243	1.4715
185	RH-152	Combination		0.585	20.488	3.794	-19.7494	0.5479
185	RH-153	Combination		-0.492	26.723	1.341	-25.7979	-0.4945
185	RH-154	Combination		-1.558	32.996	-1.723	-31.8811	-1.5105
185	RH-155	Combination		-2.665	39.129	-1.485	-37.7968	-2.5496
185	RH-156	Combination		-9.192	-12.707	-5.464	12.2257	-8.8519
185	RH-157	Combination		-10.118	-9.582	-3.798	9.2250	-9.7475
185	RH-158	Combination		-10.127	-4.983	-1.666	4.8040	-9.7602
185	RH-159	Combination		-10.601	1.246	0.255	-1.1950	-10.2222
185	RH-160	Combination		-10.568	5.902	1.744	-5.6784	-10.1957
185	RH-161	Combination		-11.545	10.571	1.968	-10.1858	-11.1431
185	RH-162	Combination		-12.496	16.696	1.229	-16.1109	-12.0667
185	RH-163	Combination		-13.574	22.930	-1.223	-22.1594	-13.1091
185	RH-164	Combination		-14.639	29.203	-4.288	-28.2426	-14.1251
185	RH-165	Combination		-15.746	35.337	-4.050	-34.1583	-15.1642
188	ENV-ELS-CA	Combination	Max	37.714	32.819	256.049	30.4822	36.5988
188	ENV-ELS-CA	Combination	Min	-30.559	-31.500	46.823	-31.5545	-30.1239
188	ENV-ELS-CP	Combination	Max	15.916	2.045	119.711	0.7484	15.3183
188	ENV-ELS-CP	Combination	Min	-7.776	-0.646	83.685	-1.9731	-7.6708
188	ENV-ELU-PT	Combination	Max	51.542	44.371	348.106	41.2424	50.0250
188	ENV-ELU-PT	Combination	Min	-42.641	-42.610	24.691	-42.6799	-42.0190
188	ENV-ELU-AC	Combination	Max	16.614	42.651	217.175	10.7575	16.0035
188	ENV-ELU-AC	Combination	Min	-14.939	-10.849	72.156	-41.3413	-14.6070
188	ENV-ELU-EQ	Combination	Max	0.696	-0.049	287.486	0.8067	1.0128
188	ENV-ELU-EQ	Combination	Min	-1.037	-0.404	90.317	-0.0959	-1.9015
188	RH-1	Combination		16.859	2.493	-2.698	-2.3733	16.2556
188	RH-2	Combination		26.911	2.894	-4.338	-2.7400	25.9486
188	RH-3	Combination		-5.709	1.592	0.985	-1.5500	-5.5066
188	RH-4	Combination		3.783	-4.277	6.330	4.0455	3.6485
188	RH-5	Combination		-5.062	-2.792	-7.227	2.7475	-4.9080
188	RH-6	Combination		50.843	8.260	-0.137	-7.9341	49.0509

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
188	RH-7	Combination		41.997	9.744	-13.694	-9.2321	40.4943
188	RH-8	Combination		0.920	-14.312	10.216	13.6904	0.8763
188	RH-9	Combination		-4.733	12.218	-18.210	-11.6283	-4.5863
188	RH-10	Combination		50.514	-6.750	10.846	6.4417	48.7291
188	RH-11	Combination		44.861	19.780	-17.580	-18.8770	43.2666
188	RH-12	Combination		-0.758	-20.098	12.201	19.2542	-0.7487
188	RH-13	Combination		-4.400	31.126	-30.455	-29.7540	-4.2553
188	RH-14	Combination		50.181	-25.659	23.091	24.5674	48.3981
188	RH-15	Combination		46.539	25.566	-19.565	-24.4408	44.8916
188	RH-16	Combination		-2.070	-25.865	14.428	24.7980	-2.0202
188	RH-17	Combination		-3.609	44.092	-38.725	-42.1840	-3.4853
188	RH-18	Combination		49.390	-38.624	31.360	36.9973	47.6281
188	RH-19	Combination		47.851	31.333	-21.792	-29.9846	46.1630
188	RH-20	Combination		-15.789	-5.058	9.524	4.7595	-15.2246
188	RH-21	Combination		-24.634	-3.574	-4.033	3.4615	-23.7812
188	RH-22	Combination		31.271	7.479	3.057	-7.2201	30.1778
188	RH-23	Combination		22.425	8.963	-10.500	-8.5181	21.6212
188	RH-24	Combination		-18.652	-15.093	13.410	14.4044	-17.9968
188	RH-25	Combination		-24.306	11.437	-15.016	-10.9143	-23.4594
188	RH-26	Combination		30.942	-7.532	14.040	7.1556	29.8560
188	RH-27	Combination		25.289	18.999	-14.386	-18.1631	24.3934
188	RH-28	Combination		-20.330	-20.879	15.395	19.9682	-19.6218
188	RH-29	Combination		-23.972	30.345	-27.261	-29.0400	-23.1284
188	RH-30	Combination		30.609	-26.440	26.285	25.2814	29.5250
188	RH-31	Combination		26.967	24.785	-16.371	-23.7269	26.0185
188	RH-32	Combination		-21.642	-26.647	17.622	25.5119	-20.8933
188	RH-33	Combination		-23.181	43.311	-35.531	-41.4700	-22.3584
188	RH-34	Combination		29.818	-39.406	34.554	37.7113	28.7550
188	RH-35	Combination		28.279	30.552	-18.598	-29.2706	27.2899
188	RH-36	Combination		12.488	1.847	-1.998	-1.7580	12.0412
188	RH-37	Combination		22.540	2.248	-3.639	-2.1247	21.7342
188	RH-38	Combination		-10.080	0.946	1.684	-0.9347	-9.7210
188	RH-39	Combination		-0.588	-4.923	7.029	4.6608	-0.5659
188	RH-40	Combination		-9.433	-3.439	-6.528	3.3628	-9.1225
188	RH-41	Combination		46.472	7.614	0.563	-7.3188	44.8364
188	RH-42	Combination		37.627	9.098	-12.994	-8.6168	36.2799
188	RH-43	Combination		-3.451	-14.958	10.915	14.3057	-3.3381
188	RH-44	Combination		-9.104	11.572	-17.511	-11.0130	-8.8007
188	RH-45	Combination		46.143	-7.397	11.545	7.0570	44.5147
188	RH-46	Combination		40.490	19.133	-16.880	-18.2617	39.0521
188	RH-47	Combination		-5.129	-20.744	12.900	19.8695	-4.9632
188	RH-48	Combination		-8.771	30.480	-29.755	-29.1387	-8.4697
188	RH-49	Combination		45.810	-26.305	23.790	25.1827	44.1837
188	RH-50	Combination		42.168	24.920	-18.865	-23.8255	40.6771
188	RH-51	Combination		-6.441	-26.512	15.128	25.4133	-6.2346
188	RH-52	Combination		-7.980	43.446	-38.025	-41.5687	-7.6997
188	RH-53	Combination		45.019	-39.271	32.060	37.6126	43.4137
188	RH-54	Combination		43.480	30.687	-21.093	-29.3693	41.9486
188	RH-55	Combination		-20.160	-5.704	10.223	5.3748	-19.4390
188	RH-56	Combination		-29.005	-4.220	-3.334	4.0768	-27.9956
188	RH-57	Combination		26.900	6.833	3.756	-6.6048	25.9633
188	RH-58	Combination		18.054	8.317	-9.801	-7.9028	17.4068
188	RH-59	Combination		-23.023	-15.740	14.109	15.0197	-22.2113
188	RH-60	Combination		-28.676	10.791	-14.317	-10.2990	-27.6738
188	RH-61	Combination		26.571	-8.178	14.739	7.7709	25.6416
188	RH-62	Combination		20.918	18.352	-13.687	-17.5478	20.1790
188	RH-63	Combination		-24.701	-21.526	16.094	20.5835	-23.8363
188	RH-64	Combination		-28.343	29.699	-26.562	-28.4247	-27.3428
188	RH-65	Combination		26.238	-27.086	26.984	25.8967	25.3106
188	RH-66	Combination		22.596	24.138	-15.672	-23.1116	21.8040
188	RH-67	Combination		-26.013	-27.293	18.321	26.1272	-25.1077
188	RH-68	Combination		-27.552	42.664	-34.831	-40.8547	-26.5728

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
188	RH-69	Combination		25.447	-40.052	35.254	38.3266	24.5406
188	RH-70	Combination		23.908	29.906	-17.899	-28.6553	23.0755
188	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
188	RH-72	Combination		10.052	0.401	-1.640	-0.3667	9.6930
188	RH-73	Combination		-22.568	-0.901	3.683	0.8233	-21.7622
188	RH-74	Combination		-13.076	-6.770	9.028	6.4188	-12.6071
188	RH-75	Combination		-21.921	-5.286	-4.529	5.1208	-21.1637
188	RH-76	Combination		33.984	5.767	2.561	-5.5608	32.7952
188	RH-77	Combination		25.138	7.251	-10.996	-6.8588	24.2387
188	RH-78	Combination		-15.939	-16.805	12.914	16.0637	-15.3794
188	RH-79	Combination		-21.593	9.725	-15.512	-9.2550	-20.8419
188	RH-80	Combination		33.655	-9.244	13.544	8.8150	32.4735
188	RH-81	Combination		28.002	17.287	-14.882	-16.5037	27.0109
188	RH-82	Combination		-17.617	-22.591	14.899	21.6275	-17.0044
188	RH-83	Combination		-21.259	28.633	-27.757	-27.3807	-20.5109
188	RH-84	Combination		33.322	-28.152	25.789	26.9407	32.1425
188	RH-85	Combination		29.680	23.073	-16.867	-22.0675	28.6359
188	RH-86	Combination		-18.929	-28.358	17.126	27.1713	-18.2758
188	RH-87	Combination		-20.468	41.599	-36.027	-39.8107	-19.7409
188	RH-88	Combination		32.531	-41.117	34.058	39.3706	31.3725
188	RH-89	Combination		30.992	28.840	-19.094	-27.6113	29.9074
188	RH-90	Combination		-32.648	-7.551	12.221	7.1328	-31.4802
188	RH-91	Combination		-41.493	-6.067	-1.336	5.8348	-40.0368
188	RH-92	Combination		14.411	4.986	5.755	-4.8468	13.9221
188	RH-93	Combination		5.566	6.470	-7.802	-6.1448	5.3655
188	RH-94	Combination		-35.512	-17.586	16.108	16.7777	-34.2525
188	RH-95	Combination		-41.165	8.944	-12.318	-8.5410	-39.7150
188	RH-96	Combination		14.083	-10.025	16.738	9.5289	13.6004
188	RH-97	Combination		8.430	16.505	-11.688	-15.7898	8.1378
188	RH-98	Combination		-37.190	-23.373	18.092	22.3415	-35.8775
188	RH-99	Combination		-40.831	27.852	-24.563	-26.6667	-39.3841
188	RH-100	Combination		13.749	-28.933	28.982	27.6547	13.2694
188	RH-101	Combination		10.108	22.292	-13.673	-21.3536	9.7628
188	RH-102	Combination		-38.501	-29.140	20.320	27.8852	-37.1489
188	RH-103	Combination		-40.040	40.818	-32.833	-39.0967	-38.6140
188	RH-104	Combination		12.958	-41.899	37.252	40.0846	12.4994
188	RH-105	Combination		11.419	28.059	-15.901	-26.8973	11.0343
188	RH-106	Combination		7.081	-8.233	0.285	7.9453	6.8114
188	RH-107	Combination		6.867	-5.109	-1.341	4.9454	6.6070
188	RH-108	Combination		7.771	-0.511	-3.065	0.5262	7.4833
188	RH-109	Combination		8.620	5.717	-4.590	-5.4708	8.3078
188	RH-110	Combination		9.644	10.372	-5.838	-9.9524	9.2993
188	RH-111	Combination		9.756	15.040	-6.105	-14.4589	9.4132
188	RH-112	Combination		10.266	21.166	-5.419	-20.3852	9.9141
188	RH-113	Combination		10.779	27.423	-2.293	-26.4697	10.4255
188	RH-114	Combination		11.425	33.809	2.545	-32.7218	11.0461
188	RH-115	Combination		12.108	39.957	1.740	-38.6610	11.6611
188	RH-116	Combination		11.102	-8.073	-0.371	7.7987	10.6886
188	RH-117	Combination		10.888	-4.948	-1.997	4.7987	10.4842
188	RH-118	Combination		11.792	-0.351	-3.721	0.3795	11.3605
188	RH-119	Combination		12.641	5.877	-5.246	-5.6174	12.1850
188	RH-120	Combination		13.665	10.533	-6.495	-10.0991	13.1765
188	RH-121	Combination		13.777	15.200	-6.761	-14.6056	13.2904
188	RH-122	Combination		14.287	21.326	-6.075	-20.5319	13.7913
188	RH-123	Combination		14.799	27.583	-2.949	-26.6164	14.3027
188	RH-124	Combination		15.445	33.970	1.889	-32.8684	14.9233
188	RH-125	Combination		16.129	40.118	1.084	-38.8077	15.5383
188	RH-126	Combination		-1.946	-8.594	1.758	8.2746	-1.8935
188	RH-127	Combination		-2.160	-5.469	0.132	5.2747	-2.0979
188	RH-128	Combination		-1.256	-0.872	-1.592	0.8555	-1.2216
188	RH-129	Combination		-0.407	5.356	-3.116	-5.1415	-0.3971
188	RH-130	Combination		0.616	10.012	-4.365	-9.6231	0.5944

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
188	RH-131	Combination		0.729	14.680	-4.632	-14.1296	0.7083
188	RH-132	Combination		1.238	20.805	-3.946	-20.0559	1.2092
188	RH-133	Combination		1.751	27.063	-0.820	-26.1404	1.7206
188	RH-134	Combination		2.397	33.449	4.018	-32.3925	2.3412
188	RH-135	Combination		3.080	39.597	3.213	-38.3317	2.9562
188	RH-136	Combination		-5.407	-10.080	2.284	9.7033	-5.2299
188	RH-137	Combination		-5.621	-6.955	0.658	6.7034	-5.4342
188	RH-138	Combination		-4.717	-2.358	-1.066	2.2842	-4.5579
188	RH-139	Combination		-3.868	3.870	-2.591	-3.7128	-3.7334
188	RH-140	Combination		-2.845	8.525	-3.840	-8.1944	-2.7419
188	RH-141	Combination		-2.732	13.193	-4.107	-12.7009	-2.6280
188	RH-142	Combination		-2.223	19.319	-3.421	-18.6272	-2.1271
188	RH-143	Combination		-1.710	25.576	-0.294	-24.7117	-1.6157
188	RH-144	Combination		-1.064	31.962	4.543	-30.9638	-0.9951
188	RH-145	Combination		-0.381	38.110	3.739	-36.9030	-0.3801
188	RH-146	Combination		-1.386	-9.920	1.628	9.5567	-1.3527
188	RH-147	Combination		-1.601	-6.795	1.420E-03	6.5567	-1.5571
188	RH-148	Combination		-0.696	-2.198	-1.723	2.1375	-0.6807
188	RH-149	Combination		0.153	4.030	-3.247	-3.8594	0.1438
188	RH-150	Combination		1.176	8.686	-4.496	-8.3411	1.1352
188	RH-151	Combination		1.289	13.354	-4.763	-12.8476	1.2491
188	RH-152	Combination		1.798	19.480	-4.077	-18.7739	1.7501
188	RH-153	Combination		2.311	25.737	-0.951	-24.8584	2.2615
188	RH-154	Combination		2.957	32.123	3.887	-31.1104	2.8821
188	RH-155	Combination		3.640	38.271	3.083	-37.0497	3.4971
188	RH-156	Combination		-14.435	-10.440	3.757	10.0326	-13.9347
188	RH-157	Combination		-14.649	-7.316	2.131	7.0327	-14.1391
188	RH-158	Combination		-13.744	-2.718	0.407	2.6135	-13.2628
188	RH-159	Combination		-12.896	3.510	-1.118	-3.3835	-12.4383
188	RH-160	Combination		-11.872	8.165	-2.367	-7.8651	-11.4468
188	RH-161	Combination		-11.760	12.833	-2.634	-12.3716	-11.3329
188	RH-162	Combination		-11.250	18.959	-1.948	-18.2979	-10.8320
188	RH-163	Combination		-10.737	25.216	1.179	-24.3824	-10.3206
188	RH-164	Combination		-10.091	31.602	6.016	-30.6345	-9.7000
188	RH-165	Combination		-9.408	37.750	5.212	-36.5737	-9.0850
197	ENV-ELS-CA	Combination	Max	49.110	38.495	520.829	38.2619	47.6564
197	ENV-ELS-CA	Combination	Min	-39.781	-39.244	67.278	-36.9636	-39.5875
197	ENV-ELS-CP	Combination	Max	21.366	2.763	216.217	3.3064	20.6263
197	ENV-ELS-CP	Combination	Min	-10.385	-3.082	126.475	-2.6210	-10.4943
197	ENV-ELU-PT	Combination	Max	67.146	52.200	711.027	52.1625	65.1939
197	ENV-ELU-PT	Combination	Min	-55.538	-53.475	24.022	-50.1485	-55.2638
197	ENV-ELU-AC	Combination	Max	22.690	51.808	435.705	19.5547	21.9561
197	ENV-ELU-AC	Combination	Min	-21.823	-19.917	90.728	-50.0483	-21.5422
197	ENV-ELU-EQ	Combination	Max	0.630	-0.150	561.539	1.3967	0.8777
197	ENV-ELU-EQ	Combination	Min	-1.961	-0.773	113.149	0.1303	-3.3429
197	RH-1	Combination		22.735	2.436	11.742	-2.3210	21.9052
197	RH-2	Combination		35.623	5.858	18.690	-5.6065	34.3223
197	RH-3	Combination		-6.201	-5.249	-3.857	5.0554	-5.9734
197	RH-4	Combination		8.057	0.732	-3.770	-0.7847	7.7529
197	RH-5	Combination		5.214	-5.126	3.160	4.9899	5.0241
197	RH-6	Combination		55.721	14.104	28.662	-13.5746	53.6869
197	RH-7	Combination		52.878	8.247	35.591	-7.8000	50.9580
197	RH-8	Combination		8.978	-13.101	-9.364	12.5184	8.6448
197	RH-9	Combination		2.492	12.408	13.812	-11.8155	2.3997
197	RH-10	Combination		58.443	-3.430	18.010	3.2309	56.3113
197	RH-11	Combination		51.957	22.080	41.185	-21.1030	50.0662

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
197	RH-12	Combination		9.715	-21.343	-12.370	20.4473	9.3574
197	RH-13	Combination		-2.134	35.759	25.782	-34.2207	-2.0626
197	RH-14	Combination		63.069	-26.781	6.039	25.6361	60.7736
197	RH-15	Combination		51.220	30.321	44.191	-29.0320	49.3536
197	RH-16	Combination		11.034	-29.828	-15.314	28.6102	10.6313
197	RH-17	Combination		-5.143	52.247	34.148	-50.0442	-4.9655
197	RH-18	Combination		66.078	-43.269	-2.327	41.4595	63.6764
197	RH-19	Combination		49.902	38.807	47.135	-37.1949	48.0797
197	RH-20	Combination		-17.037	-5.933	-17.298	5.6125	-16.4245
197	RH-21	Combination		-19.880	-11.790	-10.368	11.3871	-19.1534
197	RH-22	Combination		30.627	7.440	15.134	-7.1774	29.5094
197	RH-23	Combination		27.784	1.582	22.063	-1.4029	26.7806
197	RH-24	Combination		-16.116	-19.766	-22.892	18.9155	-15.5327
197	RH-25	Combination		-22.602	5.744	0.284	-5.4184	-21.7778
197	RH-26	Combination		33.348	-10.094	4.482	9.6280	32.1338
197	RH-27	Combination		26.863	15.416	27.657	-14.7059	25.8888
197	RH-28	Combination		-15.379	-28.007	-25.898	26.8445	-14.8201
197	RH-29	Combination		-27.228	29.095	12.254	-27.8236	-26.2401
197	RH-30	Combination		37.975	-33.445	-7.489	32.0332	36.5961
197	RH-31	Combination		26.126	23.657	30.664	-22.6348	25.1762
197	RH-32	Combination		-14.061	-36.493	-28.842	35.0074	-13.5462
197	RH-33	Combination		-30.237	45.583	20.620	-43.6471	-29.1429
197	RH-34	Combination		40.984	-49.933	-15.854	47.8567	39.4990
197	RH-35	Combination		24.807	32.142	33.607	-30.7977	23.9022
197	RH-36	Combination		16.841	1.804	8.698	-1.7193	16.2261
197	RH-37	Combination		29.729	5.227	15.645	-5.0048	28.6432
197	RH-38	Combination		-12.095	-5.880	-6.901	5.6571	-11.6525
197	RH-39	Combination		2.163	0.100	-6.814	-0.1829	2.0738
197	RH-40	Combination		-0.680	-5.757	0.115	5.5917	-0.6550
197	RH-41	Combination		49.827	13.473	25.617	-12.9728	48.0078
197	RH-42	Combination		46.984	7.615	32.547	-7.1983	45.2789
197	RH-43	Combination		3.084	-13.733	-12.408	13.1201	2.9656
197	RH-44	Combination		-3.402	11.777	10.767	-11.2138	-3.2794
197	RH-45	Combination		52.548	-4.061	14.965	3.8326	50.6322
197	RH-46	Combination		46.063	21.448	38.141	-20.5013	44.3871
197	RH-47	Combination		3.821	-21.974	-15.414	21.0491	3.6782
197	RH-48	Combination		-8.028	35.128	22.738	-33.6190	-7.7418
197	RH-49	Combination		57.175	-27.412	2.995	26.2378	55.0945
197	RH-50	Combination		45.326	29.690	41.147	-28.4302	43.6745
197	RH-51	Combination		5.139	-30.460	-18.358	29.2120	4.9521
197	RH-52	Combination		-11.037	51.616	31.104	-49.4425	-10.6446
197	RH-53	Combination		60.184	-43.900	-5.371	42.0613	57.9973
197	RH-54	Combination		44.007	38.175	44.091	-36.5931	42.4006
197	RH-55	Combination		-22.931	-6.564	-20.342	6.2143	-22.1036
197	RH-56	Combination		-25.774	-12.421	-13.412	11.9888	-24.8325
197	RH-57	Combination		24.733	6.808	12.090	-6.5757	23.8303
197	RH-58	Combination		21.890	0.951	19.019	-0.8011	21.1015
197	RH-59	Combination		-22.010	-20.397	-25.936	19.5173	-21.2118
197	RH-60	Combination		-28.496	5.112	-2.760	-4.8166	-27.4569
197	RH-61	Combination		27.454	-10.725	1.438	10.2298	26.4547
197	RH-62	Combination		20.968	14.784	24.613	-14.1041	20.2096
197	RH-63	Combination		-21.273	-28.639	-28.942	27.4462	-20.4992
197	RH-64	Combination		-33.122	28.463	9.210	-27.2218	-31.9192
197	RH-65	Combination		32.081	-34.077	-10.533	32.6350	30.9170
197	RH-66	Combination		20.232	23.026	27.619	-22.0331	19.4970
197	RH-67	Combination		-19.955	-37.124	-31.886	35.6091	-19.2253
197	RH-68	Combination		-36.131	44.952	17.576	-43.0453	-34.8220
197	RH-69	Combination		35.090	-50.565	-18.899	48.4584	33.8198
197	RH-70	Combination		18.913	31.511	30.563	-30.1960	18.2231
197	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
197	RH-72	Combination		12.888	3.423	6.948	-3.2855	12.4172
197	RH-73	Combination		-28.936	-7.685	-15.599	7.3764	-27.8786

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
197	RH-74	Combination		-14.678	-1.704	-15.512	1.5364	-14.1523
197	RH-75	Combination		-17.521	-7.561	-8.582	7.3109	-16.8811
197	RH-76	Combination		32.986	11.669	16.919	-11.2535	31.7817
197	RH-77	Combination		30.143	5.811	23.849	-5.4790	29.0529
197	RH-78	Combination		-13.756	-15.537	-21.106	14.8394	-13.2604
197	RH-79	Combination		-20.242	9.972	2.070	-9.4945	-19.5055
197	RH-80	Combination		35.708	-5.865	6.267	5.5519	34.4061
197	RH-81	Combination		29.222	19.644	29.443	-18.7820	28.1610
197	RH-82	Combination		-13.020	-23.778	-24.112	22.7684	-12.5478
197	RH-83	Combination		-24.869	33.324	14.040	-31.8997	-23.9678
197	RH-84	Combination		40.334	-29.216	-5.703	27.9571	38.8684
197	RH-85	Combination		28.485	27.886	32.449	-26.7109	27.4484
197	RH-86	Combination		-11.701	-32.264	-27.056	30.9313	-11.2739
197	RH-87	Combination		-27.878	49.812	22.406	-47.7232	-26.8706
197	RH-88	Combination		43.343	-45.705	-14.069	43.7806	41.7712
197	RH-89	Combination		27.167	36.371	35.393	-34.8738	26.1745
197	RH-90	Combination		-39.772	-8.368	-29.040	7.9335	-38.3297
197	RH-91	Combination		-42.615	-14.226	-22.110	13.7081	-41.0585
197	RH-92	Combination		7.892	5.004	3.392	-4.8564	7.6043
197	RH-93	Combination		5.049	-0.853	10.321	0.9182	4.8754
197	RH-94	Combination		-38.851	-22.201	-34.634	21.2366	-37.4379
197	RH-95	Combination		-45.336	3.308	-11.458	-3.0973	-43.6829
197	RH-96	Combination		10.614	-12.529	-7.260	11.9491	10.2287
197	RH-97	Combination		4.128	12.980	15.915	-12.3848	3.9836
197	RH-98	Combination		-38.114	-30.443	-37.640	29.1655	-36.7253
197	RH-99	Combination		-49.963	26.659	0.512	-25.5025	-48.1452
197	RH-100	Combination		15.240	-35.881	-19.231	34.3543	14.6910
197	RH-101	Combination		3.391	21.221	18.922	-20.3138	3.2710
197	RH-102	Combination		-36.795	-38.928	-40.584	37.3284	-35.4513
197	RH-103	Combination		-52.972	43.147	8.878	-41.3260	-51.0481
197	RH-104	Combination		18.249	-52.369	-27.596	50.1777	17.5938
197	RH-105	Combination		2.073	29.707	21.865	-28.4767	1.9971
197	RH-106	Combination		17.223	-14.481	3.227	13.9635	16.6027
197	RH-107	Combination		16.137	-10.577	4.747	10.2137	15.5555
197	RH-108	Combination		15.888	-4.922	7.153	4.7770	15.3135
197	RH-109	Combination		15.092	2.809	9.521	-2.6643	14.5444
197	RH-110	Combination		14.882	8.613	11.560	-8.2501	14.3396
197	RH-111	Combination		13.666	14.486	12.147	-13.9133	13.1656
197	RH-112	Combination		12.401	22.241	12.053	-21.4028	11.9432
197	RH-113	Combination		11.005	30.250	9.801	-29.1567	10.5956
197	RH-114	Combination		9.601	38.554	5.158	-37.2158	9.2462
197	RH-115	Combination		8.123	47.065	-0.541	-45.4637	7.8440
197	RH-116	Combination		22.378	-13.111	6.006	12.6493	21.5696
197	RH-117	Combination		21.293	-9.208	7.526	8.8995	20.5223
197	RH-118	Combination		21.043	-3.553	9.932	3.4628	20.2804
197	RH-119	Combination		20.247	4.178	12.300	-3.9785	19.5113
197	RH-120	Combination		20.037	9.982	14.339	-9.5643	19.3065
197	RH-121	Combination		18.821	15.855	14.926	-15.2275	18.1325
197	RH-122	Combination		17.557	23.610	14.832	-22.7170	16.9101
197	RH-123	Combination		16.160	31.619	12.580	-30.4709	15.5625
197	RH-124	Combination		14.756	39.923	7.937	-38.5300	14.2131
197	RH-125	Combination		13.279	48.434	2.238	-46.7779	12.8109
197	RH-126	Combination		5.649	-17.554	-3.012	16.9140	5.4513
197	RH-127	Combination		4.563	-13.651	-1.493	13.1643	4.4040
197	RH-128	Combination		4.313	-7.996	0.914	7.7275	4.1621
197	RH-129	Combination		3.518	-0.265	3.281	0.2863	3.3930
197	RH-130	Combination		3.307	5.539	5.320	-5.2996	3.1882
197	RH-131	Combination		2.092	11.412	5.907	-10.9627	2.0142
197	RH-132	Combination		0.827	19.167	5.814	-18.4522	0.7918
197	RH-133	Combination		-0.570	27.176	3.562	-26.2061	-0.5558
197	RH-134	Combination		-1.973	35.480	-1.081	-34.2652	-1.9052
197	RH-135	Combination		-3.451	43.991	-6.781	-42.5131	-3.3074

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
197	RH-136	Combination		0.383	-16.285	-5.470	15.6827	0.3767
197	RH-137	Combination		-0.703	-12.381	-3.951	11.9330	-0.6706
197	RH-138	Combination		-0.953	-6.726	-1.544	6.4963	-0.9125
197	RH-139	Combination		-1.749	1.005	0.823	-0.9450	-1.6817
197	RH-140	Combination		-1.959	6.809	2.862	-6.5308	-1.8864
197	RH-141	Combination		-3.174	12.681	3.449	-12.1940	-3.0604
197	RH-142	Combination		-4.439	20.437	3.355	-19.6835	-4.2828
197	RH-143	Combination		-5.836	28.446	1.103	-27.4374	-5.6305
197	RH-144	Combination		-7.239	36.750	-3.540	-35.4965	-6.9799
197	RH-145	Combination		-8.717	45.261	-9.239	-43.7444	-8.3820
197	RH-146	Combination		5.538	-14.916	-2.691	14.3686	5.3436
197	RH-147	Combination		4.452	-11.012	-1.172	10.6188	4.2963
197	RH-148	Combination		4.202	-5.357	1.235	5.1821	4.0543
197	RH-149	Combination		3.407	2.374	3.602	-2.2592	3.2852
197	RH-150	Combination		3.196	8.178	5.641	-7.8450	3.0804
197	RH-151	Combination		1.981	14.050	6.228	-13.5082	1.9064
197	RH-152	Combination		0.716	21.806	6.134	-20.9977	0.6840
197	RH-153	Combination		-0.681	29.815	3.882	-28.7516	-0.6636
197	RH-154	Combination		-2.084	38.119	-0.761	-36.8107	-2.0130
197	RH-155	Combination		-3.562	46.630	-6.460	-45.0586	-3.4152
197	RH-156	Combination		-11.191	-19.359	-11.710	18.6333	-10.7747
197	RH-157	Combination		-12.277	-15.455	-10.191	14.8836	-11.8220
197	RH-158	Combination		-12.527	-9.800	-7.784	9.4468	-12.0639
197	RH-159	Combination		-13.323	-2.069	-5.417	2.0056	-12.8331
197	RH-160	Combination		-13.533	3.735	-3.378	-3.5803	-13.0379
197	RH-161	Combination		-14.749	9.608	-2.791	-9.2434	-14.2119
197	RH-162	Combination		-16.013	17.363	-2.884	-16.7329	-15.4343
197	RH-163	Combination		-17.410	25.372	-5.136	-24.4868	-16.7819
197	RH-164	Combination		-18.814	33.676	-9.779	-32.5459	-18.1313
197	RH-165	Combination		-20.291	42.187	-15.479	-40.7938	-19.5335
200	ENV-ELS-CA	Combination	Max	43.274	37.564	433.226	35.9234	42.0904
200	ENV-ELS-CA	Combination	Min	-34.521	-37.012	43.142	-35.9116	-34.4368
200	ENV-ELS-CP	Combination	Max	20.626	1.982	162.418	1.3784	19.9783
200	ENV-ELS-CP	Combination	Min	-10.288	-1.204	100.983	-1.7867	-10.3408
200	ENV-ELU-PT	Combination	Max	59.266	50.807	590.413	48.6525	57.6785
200	ENV-ELU-PT	Combination	Min	-48.434	-50.120	10.139	-48.5854	-48.3070
200	ENV-ELU-AC	Combination	Max	21.566	51.193	359.687	17.5347	20.9298
200	ENV-ELU-AC	Combination	Min	-17.540	-17.743	77.129	-49.5396	-17.3993
200	ENV-ELU-EQ	Combination	Max	0.705	-0.171	485.425	1.3913	1.0259
200	ENV-ELU-EQ	Combination	Min	-1.774	-0.838	94.997	0.2704	-3.0794
200	RH-1	Combination		21.652	2.427	5.752	-2.3089	20.8585
200	RH-2	Combination		34.513	3.335	8.927	-3.1642	33.2484
200	RH-3	Combination		-7.221	0.389	-1.376	-0.3889	-6.9588
200	RH-4	Combination		10.711	-0.778	9.868	0.6742	10.3213
200	RH-5	Combination		1.825	-6.633	-3.579	6.4448	1.7435
200	RH-6	Combination		56.912	12.577	18.894	-12.0890	54.8415
200	RH-7	Combination		48.026	6.722	5.447	-6.3183	46.2636
200	RH-8	Combination		8.407	-14.608	14.912	13.9724	8.0918
200	RH-9	Combination		1.335	10.897	-16.276	-10.3553	1.2782
200	RH-10	Combination		57.402	-4.954	31.591	4.7112	55.3068
200	RH-11	Combination		50.330	20.552	0.403	-19.6165	48.4931
200	RH-12	Combination		7.051	-22.848	17.636	21.8986	6.7799
200	RH-13	Combination		0.636	34.245	-31.218	-32.7538	0.6160
200	RH-14	Combination		58.101	-28.301	46.533	27.1097	55.9689
200	RH-15	Combination		51.686	28.792	-2.321	-27.5428	49.8051
200	RH-16	Combination		6.040	-31.329	20.739	30.0566	5.7997

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
200	RH-17	Combination		0.699	50.734	-41.255	-48.5763	0.6855
200	RH-18	Combination		58.038	-44.790	56.570	42.9321	55.8995
200	RH-19	Combination		52.697	37.273	-5.424	-35.7007	50.7852
200	RH-20	Combination		-14.329	-2.545	3.686	2.3394	-13.8030
200	RH-21	Combination		-23.215	-8.400	-9.761	8.1100	-22.3809
200	RH-22	Combination		31.872	10.809	12.712	-10.4238	30.7172
200	RH-23	Combination		22.986	4.954	-0.735	-4.6532	22.1393
200	RH-24	Combination		-16.633	-16.375	8.730	15.6375	-16.0325
200	RH-25	Combination		-23.705	9.130	-22.458	-8.6902	-22.8462
200	RH-26	Combination		32.362	-6.721	25.409	6.3764	31.1825
200	RH-27	Combination		25.290	18.785	-5.779	-17.9513	24.3688
200	RH-28	Combination		-17.989	-24.615	11.454	23.5638	-17.3444
200	RH-29	Combination		-24.404	32.477	-37.400	-31.0886	-23.5083
200	RH-30	Combination		33.061	-30.068	40.351	28.7748	31.8446
200	RH-31	Combination		26.646	27.024	-8.503	-25.8776	25.6807
200	RH-32	Combination		-19.000	-33.097	14.557	31.7217	-18.3246
200	RH-33	Combination		-24.341	48.966	-47.437	-46.9111	-23.4388
200	RH-34	Combination		32.998	-46.557	50.388	44.5973	31.7752
200	RH-35	Combination		27.657	35.506	-11.606	-34.0355	26.6609
200	RH-36	Combination		16.039	1.798	4.261	-1.7103	15.4508
200	RH-37	Combination		28.899	2.706	7.436	-2.5655	27.8407
200	RH-38	Combination		-12.834	-0.240	-2.867	0.2098	-12.3665
200	RH-39	Combination		5.098	-1.407	8.377	1.2728	4.9136
200	RH-40	Combination		-3.789	-7.262	-5.070	7.0434	-3.6643
200	RH-41	Combination		51.299	11.947	17.402	-11.4904	49.4337
200	RH-42	Combination		42.412	6.092	3.955	-5.7197	40.8558
200	RH-43	Combination		2.793	-15.237	13.420	14.5710	2.6840
200	RH-44	Combination		-4.279	10.268	-17.767	-9.7567	-4.1296
200	RH-45	Combination		51.789	-5.583	30.099	5.3098	49.8990
200	RH-46	Combination		44.716	19.923	-1.089	-19.0179	43.0854
200	RH-47	Combination		1.438	-23.477	16.144	22.4972	1.3721
200	RH-48	Combination		-4.978	33.615	-32.710	-32.1552	-4.7917
200	RH-49	Combination		52.488	-28.930	45.042	27.7083	50.5611
200	RH-50	Combination		46.072	28.162	-3.812	-26.9441	44.3973
200	RH-51	Combination		0.427	-31.959	19.248	30.6552	0.3920
200	RH-52	Combination		-4.915	50.104	-42.747	-47.9777	-4.7223
200	RH-53	Combination		52.424	-45.419	55.079	43.5308	50.4917
200	RH-54	Combination		47.083	36.644	-6.916	-35.1021	45.3774
200	RH-55	Combination		-19.942	-3.175	2.195	2.9380	-19.2107
200	RH-56	Combination		-28.829	-9.029	-11.252	8.7086	-27.7886
200	RH-57	Combination		26.259	10.180	11.221	-9.8252	25.3094
200	RH-58	Combination		17.372	4.325	-2.226	-4.0545	16.7315
200	RH-59	Combination		-22.247	-17.005	7.239	16.2362	-21.4403
200	RH-60	Combination		-29.319	8.501	-23.949	-8.0915	-28.2539
200	RH-61	Combination		26.749	-7.350	23.917	6.9750	25.7747
200	RH-62	Combination		19.676	18.155	-7.270	-17.3527	18.9610
200	RH-63	Combination		-23.602	-25.244	9.963	24.1624	-22.7522
200	RH-64	Combination		-30.018	31.848	-38.891	-30.4900	-28.9160
200	RH-65	Combination		27.448	-30.697	38.860	29.3735	26.4368
200	RH-66	Combination		21.032	26.395	-9.994	-25.2790	20.2730
200	RH-67	Combination		-24.613	-33.726	13.066	32.3204	-23.7324
200	RH-68	Combination		-29.955	48.337	-48.928	-46.3125	-28.8466
200	RH-69	Combination		27.384	-47.186	48.897	45.1959	26.3674
200	RH-70	Combination		22.043	34.876	-13.097	-33.4369	21.2531
200	RH-71	Combination		0.000	0.000	0.000	0.0000	0.0000
200	RH-72	Combination		12.860	0.908	3.175	-0.8552	12.3899
200	RH-73	Combination		-28.873	-2.038	-7.128	1.9201	-27.8173
200	RH-74	Combination		-10.941	-3.205	4.115	2.9831	-10.5372
200	RH-75	Combination		-19.828	-9.060	-9.331	8.7538	-19.1151
200	RH-76	Combination		35.260	10.149	13.141	-9.7800	33.9830
200	RH-77	Combination		26.373	4.294	-0.306	-4.0094	25.4051
200	RH-78	Combination		-13.245	-17.035	9.159	16.2813	-12.7667

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
200	RH-79	Combination		-20.318	8.470	-22.028	-8.0464	-19.5804
200	RH-80	Combination		35.750	-7.381	25.838	7.0201	34.4483
200	RH-81	Combination		28.678	18.125	-5.350	-17.3076	27.6346
200	RH-82	Combination		-14.601	-25.275	11.883	24.2076	-14.0786
200	RH-83	Combination		-21.017	31.817	-36.971	-30.4449	-20.2425
200	RH-84	Combination		36.449	-30.728	40.781	29.4186	35.1104
200	RH-85	Combination		30.033	26.364	-8.074	-25.2338	28.9465
200	RH-86	Combination		-15.612	-33.757	14.986	32.3655	-15.0588
200	RH-87	Combination		-20.953	48.306	-47.008	-46.2673	-20.1731
200	RH-88	Combination		36.386	-47.217	50.817	45.2411	35.0409
200	RH-89	Combination		31.045	34.846	-11.177	-33.3918	29.9267
200	RH-90	Combination		-35.981	-4.973	-2.066	4.6483	-34.6615
200	RH-91	Combination		-44.868	-10.827	-15.513	10.4190	-43.2394
200	RH-92	Combination		10.220	8.382	6.960	-8.1149	9.8586
200	RH-93	Combination		1.333	2.527	-6.487	-2.3442	1.2807
200	RH-94	Combination		-38.285	-18.803	2.978	17.9465	-36.8911
200	RH-95	Combination		-45.358	6.703	-28.210	-6.3812	-43.7047
200	RH-96	Combination		10.710	-9.148	19.656	8.6853	10.3239
200	RH-97	Combination		3.638	16.357	-11.531	-15.6424	3.5103
200	RH-98	Combination		-39.641	-27.042	5.702	25.8727	-38.2030
200	RH-99	Combination		-46.057	30.050	-43.152	-28.7797	-44.3668
200	RH-100	Combination		11.409	-32.495	34.599	31.0838	10.9860
200	RH-101	Combination		4.993	24.597	-14.255	-23.5686	4.8222
200	RH-102	Combination		-40.652	-35.524	8.805	34.0307	-39.1831
200	RH-103	Combination		-45.993	46.539	-53.189	-44.6022	-44.2974
200	RH-104	Combination		11.346	-48.984	44.636	46.9063	10.9166
200	RH-105	Combination		6.005	33.078	-17.358	-31.7266	5.8024
200	RH-106	Combination		11.203	-14.483	7.426	13.9663	10.7791
200	RH-107	Combination		10.820	-10.580	5.200	10.2175	10.4115
200	RH-108	Combination		11.470	-4.926	2.961	4.7827	11.0410
200	RH-109	Combination		11.974	2.803	0.579	-2.6560	11.5320
200	RH-110	Combination		12.740	8.606	-1.085	-8.2398	12.2725
200	RH-111	Combination		12.596	14.478	-2.235	-13.9014	12.1371
200	RH-112	Combination		12.767	22.232	-2.799	-21.3891	12.3072
200	RH-113	Combination		12.931	30.241	-1.896	-29.1439	12.4741
200	RH-114	Combination		13.270	38.566	1.369	-37.2375	12.8176
200	RH-115	Combination		13.720	47.243	6.536	-45.7366	13.2469
200	RH-116	Combination		16.347	-14.120	8.696	13.6242	15.7351
200	RH-117	Combination		15.964	-10.217	6.470	9.8754	15.3674
200	RH-118	Combination		16.614	-4.563	4.231	4.4407	15.9970
200	RH-119	Combination		17.119	3.166	1.849	-2.9981	16.4879
200	RH-120	Combination		17.884	8.969	0.185	-8.5819	17.2284
200	RH-121	Combination		17.740	14.841	-0.965	-14.2435	17.0931
200	RH-122	Combination		17.911	22.595	-1.529	-21.7312	17.2632
200	RH-123	Combination		18.075	30.604	-0.626	-29.4860	17.4300
200	RH-124	Combination		18.414	38.929	2.638	-37.5796	17.7736
200	RH-125	Combination		18.864	47.606	7.806	-46.0787	18.2028
200	RH-126	Combination		-0.346	-15.298	4.575	14.7343	-0.3478
200	RH-127	Combination		-0.730	-11.395	2.349	10.9855	-0.7155
200	RH-128	Combination		-0.080	-5.741	0.110	5.5508	-0.0859
200	RH-129	Combination		0.425	1.988	-2.272	-1.8880	0.4050
200	RH-130	Combination		1.191	7.791	-3.936	-7.4718	1.1455
200	RH-131	Combination		1.047	13.662	-5.087	-13.1334	1.0102
200	RH-132	Combination		1.218	21.417	-5.650	-20.6211	1.1803
200	RH-133	Combination		1.381	29.426	-4.748	-28.3758	1.3471
200	RH-134	Combination		1.720	37.751	-1.483	-36.4695	1.6907
200	RH-135	Combination		2.171	46.428	3.685	-44.9686	2.1200
200	RH-136	Combination		-4.836	-16.281	3.165	15.6766	-4.6717
200	RH-137	Combination		-5.219	-12.378	0.939	11.9278	-5.0393
200	RH-138	Combination		-4.569	-6.724	-1.300	6.4931	-4.4097
200	RH-139	Combination		-4.064	1.005	-3.682	-0.9457	-3.9188
200	RH-140	Combination		-3.299	6.808	-5.346	-6.5295	-3.1783

Table: Joint Reactions, Part 1 of 2

Joint	OutputCase	CaseType	StepType	F1	F2	F3	M1	M2
				KN	KN	KN	KN-m	KN-m
200	RH-141	Combination		-3.443	12.680	-6.496	-12.1911	-3.3137
200	RH-142	Combination		-3.272	20.434	-7.060	-19.6788	-3.1435
200	RH-143	Combination		-3.108	28.443	-6.157	-27.4335	-2.9767
200	RH-144	Combination		-2.769	36.768	-2.893	-35.5272	-2.6331
200	RH-145	Combination		-2.319	45.445	2.275	-44.0263	-2.2039
200	RH-146	Combination		0.309	-15.918	4.435	15.3345	0.2843
200	RH-147	Combination		-0.075	-12.015	2.209	11.5858	-0.0834
200	RH-148	Combination		0.575	-6.361	-0.030	6.1510	0.5462
200	RH-149	Combination		1.080	1.368	-2.412	-1.2878	1.0371
200	RH-150	Combination		1.845	7.171	-4.076	-6.8716	1.7777
200	RH-151	Combination		1.701	13.043	-5.226	-12.5332	1.6423
200	RH-152	Combination		1.872	20.797	-5.790	-20.0209	1.8124
200	RH-153	Combination		2.036	28.806	-4.888	-27.7756	1.9792
200	RH-154	Combination		2.375	37.131	-1.623	-35.8693	2.3228
200	RH-155	Combination		2.825	45.808	3.545	-44.3684	2.7521
200	RH-156	Combination		-16.385	-17.096	0.314	16.4447	-15.7986
200	RH-157	Combination		-16.769	-13.193	-1.912	12.6959	-16.1662
200	RH-158	Combination		-16.119	-7.539	-4.151	7.2611	-15.5367
200	RH-159	Combination		-15.614	0.190	-6.533	-0.1776	-15.0457
200	RH-160	Combination		-14.848	5.993	-8.197	-5.7615	-14.3052
200	RH-161	Combination		-14.992	11.864	-9.348	-11.4230	-14.4406
200	RH-162	Combination		-14.821	19.619	-9.911	-18.9108	-14.2705
200	RH-163	Combination		-14.657	27.628	-9.009	-26.6655	-14.1036
200	RH-164	Combination		-14.318	35.953	-5.744	-34.7592	-13.7601
200	RH-165	Combination		-13.868	44.630	-0.576	-43.2582	-13.3308

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
59	RH-15		0.2551
59	RH-16		-0.1507
59	RH-17		0.6404
59	RH-18		-0.4172
59	RH-19		0.3739
59	RH-20		0.3674
59	RH-21		-0.0670
59	RH-22		0.2806
59	RH-23		-0.1538
59	RH-24		0.1014
59	RH-25		0.1579
59	RH-26		0.0557
59	RH-27		0.1123
59	RH-28		-0.0367
59	RH-29		0.4523
59	RH-30		-0.2387
59	RH-31		0.2503
59	RH-32		-0.1555
59	RH-33		0.6356
59	RH-34		-0.4220
59	RH-35		0.3691
59	RH-36		0.0816
59	RH-37		0.0840
59	RH-38		0.0760
59	RH-39		0.3437
59	RH-40		-0.0907
59	RH-41		0.2568
59	RH-42		-0.1776
59	RH-43		0.0776
59	RH-44		0.1342
59	RH-45		0.0319
59	RH-46		0.0885
59	RH-47		-0.0605
59	RH-48		0.4286
59	RH-49		-0.2625
59	RH-50		0.2266
59	RH-51		-0.1793
59	RH-52		0.6119
59	RH-53		-0.4458
59	RH-54		0.3454
59	RH-55		0.3389
59	RH-56		-0.0955
59	RH-57		0.2520
59	RH-58		-0.1824
59	RH-59		0.0728
59	RH-60		0.1294
59	RH-61		0.0271
59	RH-62		0.0837
59	RH-63		-0.0653
59	RH-64		0.4238
59	RH-65		-0.2673
59	RH-66		0.2218
59	RH-67		-0.1841
59	RH-68		0.6071
59	RH-69		-0.4506
59	RH-70		0.3406
59	RH-71		0.0000
59	RH-72		0.0025
59	RH-73		-0.0055
59	RH-74		0.2621
59	RH-75		-0.1723
59	RH-76		0.1752

Table: Joint Reactions, Part 2 of 2

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
59	ENV-ELS-CA	Max	0.4749
59	ENV-ELS-CA	Min	-0.4028
59	ENV-ELS-CP	Max	0.0803
59	ENV-ELS-CP	Min	-0.0054
59	ENV-ELU-PT	Max	0.6415
59	ENV-ELU-PT	Min	-0.5443
59	ENV-ELU-AC	Max	0.5627
59	ENV-ELU-AC	Min	-0.4658
59	ENV-ELU-EQ	Max	0.0019
59	ENV-ELU-EQ	Min	-0.0128
59	RH-1		0.1101
59	RH-2		0.1126
59	RH-3		0.1046
59	RH-4		0.3722
59	RH-5		-0.0622
59	RH-6		0.2853
59	RH-7		-0.1490
59	RH-8		0.1061
59	RH-9		0.1627
59	RH-10		0.0605
59	RH-11		0.1170
59	RH-12		-0.0319
59	RH-13		0.4571
59	RH-14		-0.2340

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
59	RH-77		-0.2591
59	RH-78		-0.0040
59	RH-79		0.0526
59	RH-80		-0.0497
59	RH-81		0.0069
59	RH-82		-0.1421
59	RH-83		0.3470
59	RH-84		-0.3441
59	RH-85		0.1450
59	RH-86		-0.2609
59	RH-87		0.5303
59	RH-88		-0.5273
59	RH-89		0.2638
59	RH-90		0.2573
59	RH-91		-0.1771
59	RH-92		0.1704
59	RH-93		-0.2639
59	RH-94		-0.0088
59	RH-95		0.0478
59	RH-96		-0.0545
59	RH-97		0.0021
59	RH-98		-0.1468
59	RH-99		0.3422
59	RH-100		-0.3489
59	RH-101		0.1402
59	RH-102		-0.2657
59	RH-103		0.5255
59	RH-104		-0.5321
59	RH-105		0.2590
59	RH-106		-0.3736
59	RH-107		-0.2984
59	RH-108		-0.2012
59	RH-109		-0.0707
59	RH-110		0.0190
59	RH-111		0.1084
59	RH-112		0.2177
59	RH-113		0.3222
59	RH-114		0.4227
59	RH-115		0.5210
59	RH-116		-0.3726
59	RH-117		-0.2974
59	RH-118		-0.2002
59	RH-119		-0.0697
59	RH-120		0.0200
59	RH-121		0.1094
59	RH-122		0.2187
59	RH-123		0.3232
59	RH-124		0.4237
59	RH-125		0.5220
59	RH-126		-0.3758
59	RH-127		-0.3006
59	RH-128		-0.2034
59	RH-129		-0.0729
59	RH-130		0.0168
59	RH-131		0.1062
59	RH-132		0.2155
59	RH-133		0.3200
59	RH-134		0.4205
59	RH-135		0.5188
59	RH-136		-0.4552
59	RH-137		-0.3800
59	RH-138		-0.2827

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
59	RH-139		-0.1523
59	RH-140		-0.0626
59	RH-141		0.0268
59	RH-142		0.1362
59	RH-143		0.2406
59	RH-144		0.3412
59	RH-145		0.4394
59	RH-146		-0.4542
59	RH-147		-0.3790
59	RH-148		-0.2818
59	RH-149		-0.1513
59	RH-150		-0.0616
59	RH-151		0.0278
59	RH-152		0.1372
59	RH-153		0.2416
59	RH-154		0.3421
59	RH-155		0.4404
59	RH-156		-0.4574
59	RH-157		-0.3822
59	RH-158		-0.2850
59	RH-159		-0.1545
59	RH-160		-0.0648
59	RH-161		0.0246
59	RH-162		0.1340
59	RH-163		0.2384
59	RH-164		0.3390
59	RH-165		0.4372
61	ENV-ELS-CA	Max	0.4768
61	ENV-ELS-CA	Min	-0.4034
61	ENV-ELS-CP	Max	0.0816
61	ENV-ELS-CP	Min	-0.0053
61	ENV-ELU-PT	Max	0.6440
61	ENV-ELU-PT	Min	-0.5450
61	ENV-ELU-AC	Max	0.5649
61	ENV-ELU-AC	Min	-0.4719
61	ENV-ELU-EQ	Max	0.0019
61	ENV-ELU-EQ	Min	-0.0127
61	RH-1		0.1118
61	RH-2		0.1142
61	RH-3		0.1063
61	RH-4		0.3764
61	RH-5		-0.0616
61	RH-6		0.2880
61	RH-7		-0.1499
61	RH-8		0.1091
61	RH-9		0.1645
61	RH-10		0.0620
61	RH-11		0.1173
61	RH-12		-0.0303
61	RH-13		0.4589
61	RH-14		-0.2324
61	RH-15		0.2568
61	RH-16		-0.1495
61	RH-17		0.6429
61	RH-18		-0.4164
61	RH-19		0.3760

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
61	RH-20		0.3717
61	RH-21		-0.0663
61	RH-22		0.2833
61	RH-23		-0.1546
61	RH-24		0.1044
61	RH-25		0.1597
61	RH-26		0.0573
61	RH-27		0.1126
61	RH-28		-0.0350
61	RH-29		0.4542
61	RH-30		-0.2371
61	RH-31		0.2520
61	RH-32		-0.1543
61	RH-33		0.6382
61	RH-34		-0.4211
61	RH-35		0.3713
61	RH-36		0.0828
61	RH-37		0.0852
61	RH-38		0.0774
61	RH-39		0.3474
61	RH-40		-0.0905
61	RH-41		0.2591
61	RH-42		-0.1789
61	RH-43		0.0802
61	RH-44		0.1355
61	RH-45		0.0330
61	RH-46		0.0884
61	RH-47		-0.0593
61	RH-48		0.4299
61	RH-49		-0.2614
61	RH-50		0.2278
61	RH-51		-0.1785
61	RH-52		0.6139
61	RH-53		-0.4454
61	RH-54		0.3470
61	RH-55		0.3427
61	RH-56		-0.0953
61	RH-57		0.2543
61	RH-58		-0.1836
61	RH-59		0.0754
61	RH-60		0.1308
61	RH-61		0.0283
61	RH-62		0.0836
61	RH-63		-0.0640
61	RH-64		0.4252
61	RH-65		-0.2661
61	RH-66		0.2231
61	RH-67		-0.1832
61	RH-68		0.6092
61	RH-69		-0.4501
61	RH-70		0.3423
61	RH-71		0.0000
61	RH-72		0.0024
61	RH-73		-0.0054
61	RH-74		0.2646
61	RH-75		-0.1733
61	RH-76		0.1763
61	RH-77		-0.2617
61	RH-78		-0.0026
61	RH-79		0.0527
61	RH-80		-0.0498
61	RH-81		0.0056

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
61	RH-82		-0.1421
61	RH-83		0.3471
61	RH-84		-0.3442
61	RH-85		0.1450
61	RH-86		-0.2613
61	RH-87		0.5311
61	RH-88		-0.5282
61	RH-89		0.2642
61	RH-90		0.2599
61	RH-91		-0.1781
61	RH-92		0.1715
61	RH-93		-0.2664
61	RH-94		-0.0074
61	RH-95		0.0480
61	RH-96		-0.0545
61	RH-97		8.382E-04
61	RH-98		-0.1468
61	RH-99		0.3424
61	RH-100		-0.3489
61	RH-101		0.1403
61	RH-102		-0.2661
61	RH-103		0.5264
61	RH-104		-0.5329
61	RH-105		0.2595
61	RH-106		-0.3785
61	RH-107		-0.2998
61	RH-108		-0.2005
61	RH-109		-0.0709
61	RH-110		0.0191
61	RH-111		0.1089
61	RH-112		0.2187
61	RH-113		0.3235
61	RH-114		0.4244
61	RH-115		0.5230
61	RH-116		-0.3775
61	RH-117		-0.2988
61	RH-118		-0.1996
61	RH-119		-0.0700
61	RH-120		0.0201
61	RH-121		0.1099
61	RH-122		0.2196
61	RH-123		0.3245
61	RH-124		0.4254
61	RH-125		0.5240
61	RH-126		-0.3807
61	RH-127		-0.3019
61	RH-128		-0.2027
61	RH-129		-0.0731
61	RH-130		0.0170
61	RH-131		0.1067
61	RH-132		0.2165
61	RH-133		0.3213
61	RH-134		0.4222
61	RH-135		0.5208
61	RH-136		-0.4613
61	RH-137		-0.3826
61	RH-138		-0.2833
61	RH-139		-0.1537
61	RH-140		-0.0637
61	RH-141		0.0261
61	RH-142		0.1359
61	RH-143		0.2407

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
61	RH-144		0.3416
61	RH-145		0.4402
61	RH-146		-0.4603
61	RH-147		-0.3816
61	RH-148		-0.2824
61	RH-149		-0.1528
61	RH-150		-0.0627
61	RH-151		0.0271
61	RH-152		0.1368
61	RH-153		0.2417
61	RH-154		0.3426
61	RH-155		0.4412
61	RH-156		-0.4635
61	RH-157		-0.3848
61	RH-158		-0.2855
61	RH-159		-0.1559
61	RH-160		-0.0659
61	RH-161		0.0239
61	RH-162		0.1337
61	RH-163		0.2385
61	RH-164		0.3394
61	RH-165		0.4380
62	ENV-ELS-CA	Max	0.4757
62	ENV-ELS-CA	Min	-0.4030
62	ENV-ELS-CP	Max	0.0806
62	ENV-ELS-CP	Min	-0.0051
62	ENV-ELU-PT	Max	0.6424
62	ENV-ELU-PT	Min	-0.5445
62	ENV-ELU-AC	Max	0.5642
62	ENV-ELU-AC	Min	-0.4728
62	ENV-ELU-EQ	Max	0.0019
62	ENV-ELU-EQ	Min	-0.0128
62	RH-1		0.1106
62	RH-2		0.1128
62	RH-3		0.1058
62	RH-4		0.3743
62	RH-5		-0.0634
62	RH-6		0.2872
62	RH-7		-0.1505
62	RH-8		0.1070
62	RH-9		0.1625
62	RH-10		0.0613
62	RH-11		0.1168
62	RH-12		-0.0323
62	RH-13		0.4573
62	RH-14		-0.2335
62	RH-15		0.2561
62	RH-16		-0.1516
62	RH-17		0.6413
62	RH-18		-0.4175
62	RH-19		0.3754
62	RH-20		0.3701
62	RH-21		-0.0675
62	RH-22		0.2830
62	RH-23		-0.1547
62	RH-24		0.1028

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
62	RH-25		0.1584
62	RH-26		0.0571
62	RH-27		0.1127
62	RH-28		-0.0365
62	RH-29		0.4531
62	RH-30		-0.2377
62	RH-31		0.2519
62	RH-32		-0.1558
62	RH-33		0.6372
62	RH-34		-0.4217
62	RH-35		0.3713
62	RH-36		0.0819
62	RH-37		0.0841
62	RH-38		0.0771
62	RH-39		0.3456
62	RH-40		-0.0921
62	RH-41		0.2585
62	RH-42		-0.1792
62	RH-43		0.0783
62	RH-44		0.1338
62	RH-45		0.0326
62	RH-46		0.0882
62	RH-47		-0.0610
62	RH-48		0.4286
62	RH-49		-0.2622
62	RH-50		0.2274
62	RH-51		-0.1803
62	RH-52		0.6126
62	RH-53		-0.4462
62	RH-54		0.3467
62	RH-55		0.3415
62	RH-56		-0.0962
62	RH-57		0.2543
62	RH-58		-0.1833
62	RH-59		0.0741
62	RH-60		0.1297
62	RH-61		0.0284
62	RH-62		0.0840
62	RH-63		-0.0651
62	RH-64		0.4245
62	RH-65		-0.2663
62	RH-66		0.2233
62	RH-67		-0.1844
62	RH-68		0.6085
62	RH-69		-0.4504
62	RH-70		0.3426
62	RH-71		0.0000
62	RH-72		0.0021
62	RH-73		-0.0048
62	RH-74		0.2637
62	RH-75		-0.1740
62	RH-76		0.1766
62	RH-77		-0.2611
62	RH-78		-0.0037
62	RH-79		0.0519
62	RH-80		-0.0493
62	RH-81		0.0062
62	RH-82		-0.1429
62	RH-83		0.3467
62	RH-84		-0.3441
62	RH-85		0.1455
62	RH-86		-0.2622

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
62	RH-87		0.5307
62	RH-88		-0.5281
62	RH-89		0.2648
62	RH-90		0.2595
62	RH-91		-0.1782
62	RH-92		0.1724
62	RH-93		-0.2653
62	RH-94		-0.0078
62	RH-95		0.0477
62	RH-96		-0.0535
62	RH-97		0.0021
62	RH-98		-0.1471
62	RH-99		0.3425
62	RH-100		-0.3483
62	RH-101		0.1413
62	RH-102		-0.2664
62	RH-103		0.5265
62	RH-104		-0.5323
62	RH-105		0.2606
62	RH-106		-0.3805
62	RH-107		-0.2955
62	RH-108		-0.1996
62	RH-109		-0.0717
62	RH-110		0.0184
62	RH-111		0.1082
62	RH-112		0.2180
62	RH-113		0.3229
62	RH-114		0.4238
62	RH-115		0.5224
62	RH-116		-0.3796
62	RH-117		-0.2947
62	RH-118		-0.1988
62	RH-119		-0.0708
62	RH-120		0.0192
62	RH-121		0.1090
62	RH-122		0.2188
62	RH-123		0.3237
62	RH-124		0.4246
62	RH-125		0.5233
62	RH-126		-0.3824
62	RH-127		-0.2974
62	RH-128		-0.2015
62	RH-129		-0.0736
62	RH-130		0.0165
62	RH-131		0.1063
62	RH-132		0.2161
62	RH-133		0.3209
62	RH-134		0.4219
62	RH-135		0.5205
62	RH-136		-0.4624
62	RH-137		-0.3775
62	RH-138		-0.2816
62	RH-139		-0.1536
62	RH-140		-0.0635
62	RH-141		0.0262
62	RH-142		0.1360
62	RH-143		0.2409
62	RH-144		0.3418
62	RH-145		0.4405
62	RH-146		-0.4616
62	RH-147		-0.3766
62	RH-148		-0.2807

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
62	RH-149		-0.1528
62	RH-150		-0.0627
62	RH-151		0.0271
62	RH-152		0.1369
62	RH-153		0.2418
62	RH-154		0.3427
62	RH-155		0.4413
62	RH-156		-0.4643
62	RH-157		-0.3794
62	RH-158		-0.2835
62	RH-159		-0.1555
62	RH-160		-0.0655
62	RH-161		0.0243
62	RH-162		0.1341
62	RH-163		0.2390
62	RH-164		0.3399
62	RH-165		0.4386
65	ENV-ELS-CA	Max	0.4754
65	ENV-ELS-CA	Min	-0.4025
65	ENV-ELS-CP	Max	0.0806
65	ENV-ELS-CP	Min	-0.0050
65	ENV-ELU-PT	Max	0.6420
65	ENV-ELU-PT	Min	-0.5438
65	ENV-ELU-AC	Max	0.5646
65	ENV-ELU-AC	Min	-0.4792
65	ENV-ELU-EQ	Max	0.0019
65	ENV-ELU-EQ	Min	-0.0128
65	RH-1		0.1107
65	RH-2		0.1127
65	RH-3		0.1063
65	RH-4		0.3747
65	RH-5		-0.0650
65	RH-6		0.2888
65	RH-7		-0.1509
65	RH-8		0.1070
65	RH-9		0.1616
65	RH-10		0.0623
65	RH-11		0.1169
65	RH-12		-0.0328
65	RH-13		0.4566
65	RH-14		-0.2327
65	RH-15		0.2567
65	RH-16		-0.1524
65	RH-17		0.6409
65	RH-18		-0.4171
65	RH-19		0.3763
65	RH-20		0.3709
65	RH-21		-0.0688
65	RH-22		0.2850
65	RH-23		-0.1547
65	RH-24		0.1032
65	RH-25		0.1578
65	RH-26		0.0585
65	RH-27		0.1130
65	RH-28		-0.0367
65	RH-29		0.4527

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
65	RH-30		-0.2365
65	RH-31		0.2529
65	RH-32		-0.1563
65	RH-33		0.6371
65	RH-34		-0.4209
65	RH-35		0.3725
65	RH-36		0.0820
65	RH-37		0.0840
65	RH-38		0.0776
65	RH-39		0.3460
65	RH-40		-0.0937
65	RH-41		0.2601
65	RH-42		-0.1796
65	RH-43		0.0783
65	RH-44		0.1329
65	RH-45		0.0336
65	RH-46		0.0882
65	RH-47		-0.0616
65	RH-48		0.4278
65	RH-49		-0.2614
65	RH-50		0.2280
65	RH-51		-0.1812
65	RH-52		0.6122
65	RH-53		-0.4458
65	RH-54		0.3476
65	RH-55		0.3422
65	RH-56		-0.0975
65	RH-57		0.2563
65	RH-58		-0.1834
65	RH-59		0.0744
65	RH-60		0.1290
65	RH-61		0.0297
65	RH-62		0.0843
65	RH-63		-0.0654
65	RH-64		0.4240
65	RH-65		-0.2652
65	RH-66		0.2242
65	RH-67		-0.1850
65	RH-68		0.6084
65	RH-69		-0.4496
65	RH-70		0.3438
65	RH-71		0.0000
65	RH-72		0.0020
65	RH-73		-0.0044
65	RH-74		0.2640
65	RH-75		-0.1758
65	RH-76		0.1781
65	RH-77		-0.2616
65	RH-78		-0.0038
65	RH-79		0.0508
65	RH-80		-0.0485
65	RH-81		0.0061
65	RH-82		-0.1436
65	RH-83		0.3458
65	RH-84		-0.3435
65	RH-85		0.1459
65	RH-86		-0.2632
65	RH-87		0.5302
65	RH-88		-0.5278
65	RH-89		0.2655
65	RH-90		0.2602
65	RH-91		-0.1796

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
65	RH-92		0.1743
65	RH-93		-0.2654
65	RH-94		-0.0076
65	RH-95		0.0470
65	RH-96		-0.0523
65	RH-97		0.0023
65	RH-98		-0.1474
65	RH-99		0.3420
65	RH-100		-0.3473
65	RH-101		0.1421
65	RH-102		-0.2670
65	RH-103		0.5263
65	RH-104		-0.5316
65	RH-105		0.2617
65	RH-106		-0.3869
65	RH-107		-0.2972
65	RH-108		-0.2012
65	RH-109		-0.0725
65	RH-110		0.0178
65	RH-111		0.1078
65	RH-112		0.2178
65	RH-113		0.3229
65	RH-114		0.4240
65	RH-115		0.5228
65	RH-116		-0.3861
65	RH-117		-0.2965
65	RH-118		-0.2004
65	RH-119		-0.0718
65	RH-120		0.0186
65	RH-121		0.1085
65	RH-122		0.2185
65	RH-123		0.3236
65	RH-124		0.4248
65	RH-125		0.5236
65	RH-126		-0.3886
65	RH-127		-0.2990
65	RH-128		-0.2029
65	RH-129		-0.0743
65	RH-130		0.0160
65	RH-131		0.1060
65	RH-132		0.2160
65	RH-133		0.3211
65	RH-134		0.4222
65	RH-135		0.5211
65	RH-136		-0.4689
65	RH-137		-0.3793
65	RH-138		-0.2832
65	RH-139		-0.1546
65	RH-140		-0.0642
65	RH-141		0.0257
65	RH-142		0.1357
65	RH-143		0.2408
65	RH-144		0.3419
65	RH-145		0.4408
65	RH-146		-0.4681
65	RH-147		-0.3785
65	RH-148		-0.2824
65	RH-149		-0.1538
65	RH-150		-0.0635
65	RH-151		0.0265
65	RH-152		0.1365
65	RH-153		0.2416

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
65	RH-154		0.3427
65	RH-155		0.4416
65	RH-156		-0.4707
65	RH-157		-0.3810
65	RH-158		-0.2850
65	RH-159		-0.1563
65	RH-160		-0.0660
65	RH-161		0.0240
65	RH-162		0.1340
65	RH-163		0.2391
65	RH-164		0.3402
65	RH-165		0.4390
68	ENV-ELS-CA	Max	0.4762
68	ENV-ELS-CA	Min	-0.4021
68	ENV-ELS-CP	Max	0.0818
68	ENV-ELS-CP	Min	-0.0050
68	ENV-ELU-PT	Max	0.6431
68	ENV-ELU-PT	Min	-0.5432
68	ENV-ELU-AC	Max	0.5653
68	ENV-ELU-AC	Min	-0.4709
68	ENV-ELU-EQ	Max	0.0019
68	ENV-ELU-EQ	Min	-0.0128
68	RH-1		0.1123
68	RH-2		0.1142
68	RH-3		0.1080
68	RH-4		0.3762
68	RH-5		-0.0629
68	RH-6		0.2899
68	RH-7		-0.1492
68	RH-8		0.1088
68	RH-9		0.1636
68	RH-10		0.0633
68	RH-11		0.1182
68	RH-12		-0.0312
68	RH-13		0.4578
68	RH-14		-0.2308
68	RH-15		0.2582
68	RH-16		-0.1506
68	RH-17		0.6420
68	RH-18		-0.4150
68	RH-19		0.3775
68	RH-20		0.3725
68	RH-21		-0.0667
68	RH-22		0.2862
68	RH-23		-0.1530
68	RH-24		0.1051
68	RH-25		0.1599
68	RH-26		0.0596
68	RH-27		0.1145
68	RH-28		-0.0349
68	RH-29		0.4540
68	RH-30		-0.2345
68	RH-31		0.2545
68	RH-32		-0.1543
68	RH-33		0.6382
68	RH-34		-0.4187

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
68	RH-35		0.3738
68	RH-36		0.0832
68	RH-37		0.0851
68	RH-38		0.0789
68	RH-39		0.3471
68	RH-40		-0.0921
68	RH-41		0.2608
68	RH-42		-0.1784
68	RH-43		0.0797
68	RH-44		0.1345
68	RH-45		0.0342
68	RH-46		0.0891
68	RH-47		-0.0603
68	RH-48		0.4286
68	RH-49		-0.2599
68	RH-50		0.2291
68	RH-51		-0.1797
68	RH-52		0.6128
68	RH-53		-0.4441
68	RH-54		0.3484
68	RH-55		0.3434
68	RH-56		-0.0958
68	RH-57		0.2571
68	RH-58		-0.1821
68	RH-59		0.0759
68	RH-60		0.1308
68	RH-61		0.0305
68	RH-62		0.0853
68	RH-63		-0.0641
68	RH-64		0.4249
68	RH-65		-0.2636
68	RH-66		0.2253
68	RH-67		-0.1834
68	RH-68		0.6091
68	RH-69		-0.4478
68	RH-70		0.3447
68	RH-71		0.0000
68	RH-72		0.0019
68	RH-73		-0.0043
68	RH-74		0.2639
68	RH-75		-0.1753
68	RH-76		0.1776
68	RH-77		-0.2616
68	RH-78		-0.0035
68	RH-79		0.0513
68	RH-80		-0.0490
68	RH-81		0.0058
68	RH-82		-0.1435
68	RH-83		0.3454
68	RH-84		-0.3431
68	RH-85		0.1458
68	RH-86		-0.2629
68	RH-87		0.5296
68	RH-88		-0.5273
68	RH-89		0.2652
68	RH-90		0.2602
68	RH-91		-0.1790
68	RH-92		0.1739
68	RH-93		-0.2653
68	RH-94		-0.0073
68	RH-95		0.0476
68	RH-96		-0.0527

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
68	RH-97		0.0021
68	RH-98		-0.1473
68	RH-99		0.3417
68	RH-100		-0.3468
68	RH-101		0.1421
68	RH-102		-0.2666
68	RH-103		0.5259
68	RH-104		-0.5311
68	RH-105		0.2615
68	RH-106		-0.3774
68	RH-107		-0.3007
68	RH-108		-0.2014
68	RH-109		-0.0713
68	RH-110		0.0191
68	RH-111		0.1090
68	RH-112		0.2189
68	RH-113		0.3238
68	RH-114		0.4248
68	RH-115		0.5235
68	RH-116		-0.3767
68	RH-117		-0.3000
68	RH-118		-0.2007
68	RH-119		-0.0705
68	RH-120		0.0199
68	RH-121		0.1098
68	RH-122		0.2196
68	RH-123		0.3246
68	RH-124		0.4256
68	RH-125		0.5243
68	RH-126		-0.3792
68	RH-127		-0.3025
68	RH-128		-0.2031
68	RH-129		-0.0730
68	RH-130		0.0174
68	RH-131		0.1073
68	RH-132		0.2172
68	RH-133		0.3221
68	RH-134		0.4231
68	RH-135		0.5218
68	RH-136		-0.4606
68	RH-137		-0.3840
68	RH-138		-0.2846
68	RH-139		-0.1545
68	RH-140		-0.0641
68	RH-141		0.0258
68	RH-142		0.1357
68	RH-143		0.2406
68	RH-144		0.3416
68	RH-145		0.4403
68	RH-146		-0.4599
68	RH-147		-0.3832
68	RH-148		-0.2839
68	RH-149		-0.1537
68	RH-150		-0.0633
68	RH-151		0.0266
68	RH-152		0.1364
68	RH-153		0.2414
68	RH-154		0.3424
68	RH-155		0.4411
68	RH-156		-0.4624
68	RH-157		-0.3857
68	RH-158		-0.2864

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
68	RH-159		-0.1562
68	RH-160		-0.0658
68	RH-161		0.0241
68	RH-162		0.1340
68	RH-163		0.2389
68	RH-164		0.3399
68	RH-165		0.4386
72	ENV-ELS-CA	Max	0.4766
72	ENV-ELS-CA	Min	-0.4037
72	ENV-ELS-CP	Max	0.0812
72	ENV-ELS-CP	Min	-0.0054
72	ENV-ELU-PT	Max	0.6437
72	ENV-ELU-PT	Min	-0.5454
72	ENV-ELU-AC	Max	0.5648
72	ENV-ELU-AC	Min	-0.4675
72	ENV-ELU-EQ	Max	0.0019
72	ENV-ELU-EQ	Min	-0.0127
72	RH-1		0.1112
72	RH-2		0.1137
72	RH-3		0.1055
72	RH-4		0.3770
72	RH-5		-0.0624
72	RH-6		0.2878
72	RH-7		-0.1516
72	RH-8		0.1090
72	RH-9		0.1632
72	RH-10		0.0622
72	RH-11		0.1164
72	RH-12		-0.0305
72	RH-13		0.4584
72	RH-14		-0.2330
72	RH-15		0.2559
72	RH-16		-0.1501
72	RH-17		0.6426
72	RH-18		-0.4172
72	RH-19		0.3755
72	RH-20		0.3721
72	RH-21		-0.0674
72	RH-22		0.2829
72	RH-23		-0.1566
72	RH-24		0.1040
72	RH-25		0.1583
72	RH-26		0.0572
72	RH-27		0.1114
72	RH-28		-0.0354
72	RH-29		0.4535
72	RH-30		-0.2380
72	RH-31		0.2509
72	RH-32		-0.1551
72	RH-33		0.6376
72	RH-34		-0.4222
72	RH-35		0.3706
72	RH-36		0.0824
72	RH-37		0.0849
72	RH-38		0.0766
72	RH-39		0.3482

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
72	RH-40		-0.0913
72	RH-41		0.2590
72	RH-42		-0.1805
72	RH-43		0.0802
72	RH-44		0.1344
72	RH-45		0.0333
72	RH-46		0.0876
72	RH-47		-0.0593
72	RH-48		0.4296
72	RH-49		-0.2618
72	RH-50		0.2271
72	RH-51		-0.1789
72	RH-52		0.6138
72	RH-53		-0.4460
72	RH-54		0.3467
72	RH-55		0.3433
72	RH-56		-0.0962
72	RH-57		0.2541
72	RH-58		-0.1854
72	RH-59		0.0752
72	RH-60		0.1295
72	RH-61		0.0284
72	RH-62		0.0826
72	RH-63		-0.0643
72	RH-64		0.4246
72	RH-65		-0.2668
72	RH-66		0.2221
72	RH-67		-0.1839
72	RH-68		0.6088
72	RH-69		-0.4510
72	RH-70		0.3417
72	RH-71		0.0000
72	RH-72		0.0025
72	RH-73		-0.0057
72	RH-74		0.2659
72	RH-75		-0.1736
72	RH-76		0.1767
72	RH-77		-0.2628
72	RH-78		-0.0022
72	RH-79		0.0521
72	RH-80		-0.0490
72	RH-81		0.0052
72	RH-82		-0.1417
72	RH-83		0.3473
72	RH-84		-0.3442
72	RH-85		0.1447
72	RH-86		-0.2613
72	RH-87		0.5314
72	RH-88		-0.5284
72	RH-89		0.2643
72	RH-90		0.2609
72	RH-91		-0.1786
72	RH-92		0.1717
72	RH-93		-0.2678
72	RH-94		-0.0071
72	RH-95		0.0471
72	RH-96		-0.0540
72	RH-97		2.651E-04
72	RH-98		-0.1466
72	RH-99		0.3423
72	RH-100		-0.3492
72	RH-101		0.1398

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
72	RH-102		-0.2662
72	RH-103		0.5265
72	RH-104		-0.5333
72	RH-105		0.2594
72	RH-106		-0.3745
72	RH-107		-0.2996
72	RH-108		-0.2017
72	RH-109		-0.0721
72	RH-110		0.0181
72	RH-111		0.1079
72	RH-112		0.2179
72	RH-113		0.3229
72	RH-114		0.4240
72	RH-115		0.5228
72	RH-116		-0.3735
72	RH-117		-0.2986
72	RH-118		-0.2007
72	RH-119		-0.0710
72	RH-120		0.0191
72	RH-121		0.1090
72	RH-122		0.2189
72	RH-123		0.3240
72	RH-124		0.4250
72	RH-125		0.5238
72	RH-126		-0.3768
72	RH-127		-0.3019
72	RH-128		-0.2040
72	RH-129		-0.0743
72	RH-130		0.0158
72	RH-131		0.1057
72	RH-132		0.2156
72	RH-133		0.3206
72	RH-134		0.4217
72	RH-135		0.5205
72	RH-136		-0.4569
72	RH-137		-0.3820
72	RH-138		-0.2841
72	RH-139		-0.1544
72	RH-140		-0.0643
72	RH-141		0.0256
72	RH-142		0.1355
72	RH-143		0.2406
72	RH-144		0.3417
72	RH-145		0.4405
72	RH-146		-0.4558
72	RH-147		-0.3810
72	RH-148		-0.2830
72	RH-149		-0.1534
72	RH-150		-0.0633
72	RH-151		0.0266
72	RH-152		0.1366
72	RH-153		0.2416
72	RH-154		0.3427
72	RH-155		0.4415
72	RH-156		-0.4591
72	RH-157		-0.3843
72	RH-158		-0.2863
72	RH-159		-0.1567
72	RH-160		-0.0666
72	RH-161		0.0233
72	RH-162		0.1332
72	RH-163		0.2383

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
72	RH-164		0.3394
72	RH-165		0.4382
122	ENV-ELS-CA	Max	0.4019
122	ENV-ELS-CA	Min	-0.4062
122	ENV-ELS-CP	Max	0.0021
122	ENV-ELS-CP	Min	-0.0038
122	ENV-ELU-PT	Max	0.5428
122	ENV-ELU-PT	Min	-0.5486
122	ENV-ELU-AC	Max	0.5013
122	ENV-ELU-AC	Min	-0.4540
122	ENV-ELU-EQ	Max	0.0021
122	ENV-ELU-EQ	Min	-0.0126
122	RH-1		0.0050
122	RH-2		0.0056
122	RH-3		0.0038
122	RH-4		0.2880
122	RH-5		-0.1895
122	RH-6		0.2002
122	RH-7		-0.2773
122	RH-8		0.0061
122	RH-9		0.0385
122	RH-10		-0.0278
122	RH-11		0.0046
122	RH-12		-0.1433
122	RH-13		0.3490
122	RH-14		-0.3383
122	RH-15		0.1540
122	RH-16		-0.2723
122	RH-17		0.5412
122	RH-18		-0.5305
122	RH-19		0.2830
122	RH-20		0.2869
122	RH-21		-0.1906
122	RH-22		0.1991
122	RH-23		-0.2784
122	RH-24		0.0050
122	RH-25		0.0374
122	RH-26		-0.0289
122	RH-27		0.0036
122	RH-28		-0.1443
122	RH-29		0.3479
122	RH-30		-0.3394
122	RH-31		0.1529
122	RH-32		-0.2733
122	RH-33		0.5401
122	RH-34		-0.5316
122	RH-35		0.2819
122	RH-36		0.0037
122	RH-37		0.0043
122	RH-38		0.0025
122	RH-39		0.2867
122	RH-40		-0.1908
122	RH-41		0.1989
122	RH-42		-0.2786
122	RH-43		0.0047
122	RH-44		0.0372

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
122	RH-45		-0.0291
122	RH-46		0.0033
122	RH-47		-0.1446
122	RH-48		0.3477
122	RH-49		-0.3396
122	RH-50		0.1527
122	RH-51		-0.2736
122	RH-52		0.5399
122	RH-53		-0.5318
122	RH-54		0.2817
122	RH-55		0.2856
122	RH-56		-0.1919
122	RH-57		0.1978
122	RH-58		-0.2797
122	RH-59		0.0037
122	RH-60		0.0361
122	RH-61		-0.0302
122	RH-62		0.0023
122	RH-63		-0.1456
122	RH-64		0.3466
122	RH-65		-0.3407
122	RH-66		0.1516
122	RH-67		-0.2746
122	RH-68		0.5388
122	RH-69		-0.5329
122	RH-70		0.2806
122	RH-71		0.0000
122	RH-72		5.493E-04
122	RH-73		-0.0012
122	RH-74		0.2830
122	RH-75		-0.1945
122	RH-76		0.1952
122	RH-77		-0.2823
122	RH-78		0.0010
122	RH-79		0.0335
122	RH-80		-0.0328
122	RH-81		-3.764E-04
122	RH-82		-0.1483
122	RH-83		0.3440
122	RH-84		-0.3433
122	RH-85		0.1489
122	RH-86		-0.2773
122	RH-87		0.5362
122	RH-88		-0.5355
122	RH-89		0.2779
122	RH-90		0.2819
122	RH-91		-0.1956
122	RH-92		0.1941
122	RH-93		-0.2834
122	RH-94		-3.393E-05
122	RH-95		0.0324
122	RH-96		-0.0339
122	RH-97		-0.0014
122	RH-98		-0.1494
122	RH-99		0.3429
122	RH-100		-0.3444
122	RH-101		0.1479
122	RH-102		-0.2784
122	RH-103		0.5351
122	RH-104		-0.5366
122	RH-105		0.2769
122	RH-106		-0.4412

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
122	RH-107		-0.3760
122	RH-108		-0.2921
122	RH-109		-0.1696
122	RH-110		-0.0783
122	RH-111		0.0175
122	RH-112		0.1347
122	RH-113		0.2458
122	RH-114		0.3528
122	RH-115		0.4574
122	RH-116		-0.4410
122	RH-117		-0.3758
122	RH-118		-0.2919
122	RH-119		-0.1694
122	RH-120		-0.0781
122	RH-121		0.0178
122	RH-122		0.1350
122	RH-123		0.2460
122	RH-124		0.3530
122	RH-125		0.4576
122	RH-126		-0.4417
122	RH-127		-0.3765
122	RH-128		-0.2926
122	RH-129		-0.1701
122	RH-130		-0.0788
122	RH-131		0.0170
122	RH-132		0.1342
122	RH-133		0.2453
122	RH-134		0.3523
122	RH-135		0.4569
122	RH-136		-0.4449
122	RH-137		-0.3797
122	RH-138		-0.2958
122	RH-139		-0.1733
122	RH-140		-0.0821
122	RH-141		0.0138
122	RH-142		0.1310
122	RH-143		0.2421
122	RH-144		0.3490
122	RH-145		0.4536
122	RH-146		-0.4447
122	RH-147		-0.3795
122	RH-148		-0.2956
122	RH-149		-0.1731
122	RH-150		-0.0818
122	RH-151		0.0140
122	RH-152		0.1312
122	RH-153		0.2423
122	RH-154		0.3493
122	RH-155		0.4539
122	RH-156		-0.4454
122	RH-157		-0.3802
122	RH-158		-0.2963
122	RH-159		-0.1738
122	RH-160		-0.0826
122	RH-161		0.0133
122	RH-162		0.1305
122	RH-163		0.2416
122	RH-164		0.3486
122	RH-165		0.4532
123	ENV-ELS-CA	Max	0.4043

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
123	ENV-ELS-CA	Min	-0.4054
123	ENV-ELS-CP	Max	0.0054
123	ENV-ELS-CP	Min	-0.0039
123	ENV-ELU-PT	Max	0.5460
123	ENV-ELU-PT	Min	-0.5474
123	ENV-ELU-AC	Max	0.5039
123	ENV-ELU-AC	Min	-0.4552
123	ENV-ELU-EQ	Max	0.0021
123	ENV-ELU-EQ	Min	-0.0126
123	RH-1		0.0094
123	RH-2		0.0100
123	RH-3		0.0080
123	RH-4		0.2972
123	RH-5		-0.1805
123	RH-6		0.2000
123	RH-7		-0.2776
123	RH-8		0.0098
123	RH-9		0.0444
123	RH-10		-0.0248
123	RH-11		0.0097
123	RH-12		-0.1406
123	RH-13		0.3507
123	RH-14		-0.3311
123	RH-15		0.1601
123	RH-16		-0.2679
123	RH-17		0.5444
123	RH-18		-0.5249
123	RH-19		0.2875
123	RH-20		0.2960
123	RH-21		-0.1817
123	RH-22		0.1988
123	RH-23		-0.2788
123	RH-24		0.0086
123	RH-25		0.0432
123	RH-26		-0.0260
123	RH-27		0.0085
123	RH-28		-0.1418
123	RH-29		0.3495
123	RH-30		-0.3323
123	RH-31		0.1589
123	RH-32		-0.2691
123	RH-33		0.5432
123	RH-34		-0.5261
123	RH-35		0.2863
123	RH-36		0.0070
123	RH-37		0.0076
123	RH-38		0.0056
123	RH-39		0.2947
123	RH-40		-0.1829
123	RH-41		0.1976
123	RH-42		-0.2801
123	RH-43		0.0074
123	RH-44		0.0419
123	RH-45		-0.0273
123	RH-46		0.0073
123	RH-47		-0.1430

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
123	RH-48		0.3482
123	RH-49		-0.3336
123	RH-50		0.1577
123	RH-51		-0.2704
123	RH-52		0.5420
123	RH-53		-0.5273
123	RH-54		0.2850
123	RH-55		0.2935
123	RH-56		-0.1841
123	RH-57		0.1964
123	RH-58		-0.2812
123	RH-59		0.0062
123	RH-60		0.0407
123	RH-61		-0.0284
123	RH-62		0.0061
123	RH-63		-0.1442
123	RH-64		0.3471
123	RH-65		-0.3348
123	RH-66		0.1565
123	RH-67		-0.2716
123	RH-68		0.5408
123	RH-69		-0.5285
123	RH-70		0.2839
123	RH-71		0.0000
123	RH-72		6.050E-04
123	RH-73		-0.0014
123	RH-74		0.2878
123	RH-75		-0.1899
123	RH-76		0.1906
123	RH-77		-0.2870
123	RH-78		4.167E-04
123	RH-79		0.0350
123	RH-80		-0.0342
123	RH-81		3.093E-04
123	RH-82		-0.1500
123	RH-83		0.3413
123	RH-84		-0.3405
123	RH-85		0.1507
123	RH-86		-0.2773
123	RH-87		0.5350
123	RH-88		-0.5343
123	RH-89		0.2781
123	RH-90		0.2866
123	RH-91		-0.1911
123	RH-92		0.1894
123	RH-93		-0.2882
123	RH-94		-7.613E-04
123	RH-95		0.0338
123	RH-96		-0.0354
123	RH-97		-8.687E-04
123	RH-98		-0.1512
123	RH-99		0.3401
123	RH-100		-0.3417
123	RH-101		0.1495
123	RH-102		-0.2785
123	RH-103		0.5338
123	RH-104		-0.5355
123	RH-105		0.2769
123	RH-106		-0.4391
123	RH-107		-0.3740
123	RH-108		-0.2880
123	RH-109		-0.1662

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
123	RH-110		-0.0741
123	RH-111		0.0213
123	RH-112		0.1380
123	RH-113		0.2489
123	RH-114		0.3555
123	RH-115		0.4599
123	RH-116		-0.4389
123	RH-117		-0.3738
123	RH-118		-0.2878
123	RH-119		-0.1659
123	RH-120		-0.0739
123	RH-121		0.0216
123	RH-122		0.1383
123	RH-123		0.2491
123	RH-124		0.3558
123	RH-125		0.4602
123	RH-126		-0.4397
123	RH-127		-0.3746
123	RH-128		-0.2886
123	RH-129		-0.1667
123	RH-130		-0.0747
123	RH-131		0.0208
123	RH-132		0.1375
123	RH-133		0.2483
123	RH-134		0.3550
123	RH-135		0.4594
123	RH-136		-0.4461
123	RH-137		-0.3810
123	RH-138		-0.2950
123	RH-139		-0.1731
123	RH-140		-0.0811
123	RH-141		0.0144
123	RH-142		0.1310
123	RH-143		0.2419
123	RH-144		0.3486
123	RH-145		0.4530
123	RH-146		-0.4459
123	RH-147		-0.3808
123	RH-148		-0.2947
123	RH-149		-0.1729
123	RH-150		-0.0809
123	RH-151		0.0146
123	RH-152		0.1313
123	RH-153		0.2421
123	RH-154		0.3488
123	RH-155		0.4532
123	RH-156		-0.4466
123	RH-157		-0.3815
123	RH-158		-0.2955
123	RH-159		-0.1737
123	RH-160		-0.0816
123	RH-161		0.0138
123	RH-162		0.1305
123	RH-163		0.2413
123	RH-164		0.3480
123	RH-165		0.4524
125	ENV-ELS-CA	Max	0.4049
125	ENV-ELS-CA	Min	-0.4047
125	ENV-ELS-CP	Max	0.0067

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
125	ENV-ELS-CP	Min	-0.0039
125	ENV-ELU-PT	Max	0.5468
125	ENV-ELU-PT	Min	-0.5465
125	ENV-ELU-AC	Max	0.5046
125	ENV-ELU-AC	Min	-0.4551
125	ENV-ELU-EQ	Max	0.0021
125	ENV-ELU-EQ	Min	-0.0126
125	RH-1		0.0112
125	RH-2		0.0119
125	RH-3		0.0097
125	RH-4		0.2893
125	RH-5		-0.1881
125	RH-6		0.2113
125	RH-7		-0.2660
125	RH-8		0.0212
125	RH-9		0.0550
125	RH-10		-0.0318
125	RH-11		0.0020
125	RH-12		-0.1391
125	RH-13		0.3516
125	RH-14		-0.3284
125	RH-15		0.1623
125	RH-16		-0.2661
125	RH-17		0.5453
125	RH-18		-0.5221
125	RH-19		0.2893
125	RH-20		0.2880
125	RH-21		-0.1894
125	RH-22		0.2100
125	RH-23		-0.2673
125	RH-24		0.0199
125	RH-25		0.0537
125	RH-26		-0.0331
125	RH-27		7.433E-04
125	RH-28		-0.1404
125	RH-29		0.3503
125	RH-30		-0.3297
125	RH-31		0.1610
125	RH-32		-0.2674
125	RH-33		0.5440
125	RH-34		-0.5234
125	RH-35		0.2880
125	RH-36		0.0083
125	RH-37		0.0090
125	RH-38		0.0068
125	RH-39		0.2864
125	RH-40		-0.1910
125	RH-41		0.2084
125	RH-42		-0.2689
125	RH-43		0.0183
125	RH-44		0.0521
125	RH-45		-0.0347
125	RH-46		-8.595E-04
125	RH-47		-0.1420
125	RH-48		0.3487
125	RH-49		-0.3313
125	RH-50		0.1594
125	RH-51		-0.2690

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
125	RH-52		0.5424
125	RH-53		-0.5250
125	RH-54		0.2864
125	RH-55		0.2850
125	RH-56		-0.1923
125	RH-57		0.2071
125	RH-58		-0.2702
125	RH-59		0.0170
125	RH-60		0.0508
125	RH-61		-0.0360
125	RH-62		-0.0022
125	RH-63		-0.1433
125	RH-64		0.3474
125	RH-65		-0.3326
125	RH-66		0.1581
125	RH-67		-0.2703
125	RH-68		0.5411
125	RH-69		-0.5263
125	RH-70		0.2851
125	RH-71		0.0000
125	RH-72		6.695E-04
125	RH-73		-0.0015
125	RH-74		0.2780
125	RH-75		-0.1993
125	RH-76		0.2001
125	RH-77		-0.2772
125	RH-78		0.0100
125	RH-79		0.0438
125	RH-80		-0.0430
125	RH-81		-0.0092
125	RH-82		-0.1503
125	RH-83		0.3404
125	RH-84		-0.3396
125	RH-85		0.1511
125	RH-86		-0.2773
125	RH-87		0.5341
125	RH-88		-0.5333
125	RH-89		0.2781
125	RH-90		0.2767
125	RH-91		-0.2006
125	RH-92		0.1988
125	RH-93		-0.2785
125	RH-94		0.0087
125	RH-95		0.0425
125	RH-96		-0.0443
125	RH-97		-0.0105
125	RH-98		-0.1516
125	RH-99		0.3391
125	RH-100		-0.3409
125	RH-101		0.1498
125	RH-102		-0.2786
125	RH-103		0.5328
125	RH-104		-0.5346
125	RH-105		0.2768
125	RH-106		-0.4376
125	RH-107		-0.3728
125	RH-108		-0.2862
125	RH-109		-0.1652
125	RH-110		-0.0729
125	RH-111		0.0232
125	RH-112		0.1394
125	RH-113		0.2499

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
125	RH-114		0.3565
125	RH-115		0.4607
125	RH-116		-0.4374
125	RH-117		-0.3726
125	RH-118		-0.2859
125	RH-119		-0.1650
125	RH-120		-0.0726
125	RH-121		0.0235
125	RH-122		0.1397
125	RH-123		0.2502
125	RH-124		0.3567
125	RH-125		0.4610
125	RH-126		-0.4382
125	RH-127		-0.3734
125	RH-128		-0.2868
125	RH-129		-0.1658
125	RH-130		-0.0735
125	RH-131		0.0226
125	RH-132		0.1388
125	RH-133		0.2493
125	RH-134		0.3559
125	RH-135		0.4601
125	RH-136		-0.4459
125	RH-137		-0.3811
125	RH-138		-0.2945
125	RH-139		-0.1735
125	RH-140		-0.0812
125	RH-141		0.0149
125	RH-142		0.1311
125	RH-143		0.2416
125	RH-144		0.3481
125	RH-145		0.4524
125	RH-146		-0.4457
125	RH-147		-0.3809
125	RH-148		-0.2942
125	RH-149		-0.1733
125	RH-150		-0.0809
125	RH-151		0.0152
125	RH-152		0.1314
125	RH-153		0.2419
125	RH-154		0.3484
125	RH-155		0.4527
125	RH-156		-0.4465
125	RH-157		-0.3817
125	RH-158		-0.2951
125	RH-159		-0.1741
125	RH-160		-0.0818
125	RH-161		0.0143
125	RH-162		0.1305
125	RH-163		0.2410
125	RH-164		0.3475
125	RH-165		0.4518
128	ENV-ELS-CA	Max	0.4057
128	ENV-ELS-CA	Min	-0.4076
128	ENV-ELS-CP	Max	0.0044
128	ENV-ELS-CP	Min	-0.0038
128	ENV-ELU-PT	Max	0.5478
128	ENV-ELU-PT	Min	-0.5504

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
128	ENV-ELU-AC	Max	0.5066
128	ENV-ELU-AC	Min	-0.4512
128	ENV-ELU-EQ	Max	0.0021
128	ENV-ELU-EQ	Min	-0.0126
128	RH-1		0.0081
128	RH-2		0.0087
128	RH-3		0.0069
128	RH-4		0.2959
128	RH-5		-0.1812
128	RH-6		0.1981
128	RH-7		-0.2789
128	RH-8		0.0062
128	RH-9		0.0336
128	RH-10		-0.0167
128	RH-11		0.0108
128	RH-12		-0.1424
128	RH-13		0.3505
128	RH-14		-0.3336
128	RH-15		0.1593
128	RH-16		-0.2714
128	RH-17		0.5462
128	RH-18		-0.5293
128	RH-19		0.2883
128	RH-20		0.2948
128	RH-21		-0.1823
128	RH-22		0.1970
128	RH-23		-0.2800
128	RH-24		0.0051
128	RH-25		0.0325
128	RH-26		-0.0178
128	RH-27		0.0097
128	RH-28		-0.1435
128	RH-29		0.3494
128	RH-30		-0.3347
128	RH-31		0.1583
128	RH-32		-0.2725
128	RH-33		0.5452
128	RH-34		-0.5304
128	RH-35		0.2872
128	RH-36		0.0060
128	RH-37		0.0066
128	RH-38		0.0048
128	RH-39		0.2937
128	RH-40		-0.1833
128	RH-41		0.1960
128	RH-42		-0.2810
128	RH-43		0.0040
128	RH-44		0.0315
128	RH-45		-0.0188
128	RH-46		0.0087
128	RH-47		-0.1445
128	RH-48		0.3484
128	RH-49		-0.3357
128	RH-50		0.1572
128	RH-51		-0.2735
128	RH-52		0.5441
128	RH-53		-0.5314
128	RH-54		0.2862
128	RH-55		0.2927

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
128	RH-56		-0.1844
128	RH-57		0.1949
128	RH-58		-0.2821
128	RH-59		0.0030
128	RH-60		0.0304
128	RH-61		-0.0199
128	RH-62		0.0076
128	RH-63		-0.1456
128	RH-64		0.3473
128	RH-65		-0.3368
128	RH-66		0.1562
128	RH-67		-0.2746
128	RH-68		0.5431
128	RH-69		-0.5325
128	RH-70		0.2851
128	RH-71		0.0000
128	RH-72		5.566E-04
128	RH-73		-0.0012
128	RH-74		0.2877
128	RH-75		-0.1893
128	RH-76		0.1900
128	RH-77		-0.2871
128	RH-78		-0.0020
128	RH-79		0.0255
128	RH-80		-0.0248
128	RH-81		0.0026
128	RH-82		-0.1506
128	RH-83		0.3424
128	RH-84		-0.3417
128	RH-85		0.1512
128	RH-86		-0.2795
128	RH-87		0.5381
128	RH-88		-0.5375
128	RH-89		0.2802
128	RH-90		0.2866
128	RH-91		-0.1904
128	RH-92		0.1889
128	RH-93		-0.2881
128	RH-94		-0.0031
128	RH-95		0.0244
128	RH-96		-0.0259
128	RH-97		0.0016
128	RH-98		-0.1516
128	RH-99		0.3413
128	RH-100		-0.3428
128	RH-101		0.1501
128	RH-102		-0.2806
128	RH-103		0.5370
128	RH-104		-0.5385
128	RH-105		0.2791
128	RH-106		-0.4362
128	RH-107		-0.3720
128	RH-108		-0.2879
128	RH-109		-0.1680
128	RH-110		-0.0775
128	RH-111		0.0181
128	RH-112		0.1365
128	RH-113		0.2488
128	RH-114		0.3566
128	RH-115		0.4622
128	RH-116		-0.4360
128	RH-117		-0.3718

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
128	RH-118		-0.2877
128	RH-119		-0.1677
128	RH-120		-0.0773
128	RH-121		0.0183
128	RH-122		0.1367
128	RH-123		0.2490
128	RH-124		0.3568
128	RH-125		0.4624
128	RH-126		-0.4367
128	RH-127		-0.3725
128	RH-128		-0.2884
128	RH-129		-0.1685
128	RH-130		-0.0780
128	RH-131		0.0176
128	RH-132		0.1360
128	RH-133		0.2483
128	RH-134		0.3561
128	RH-135		0.4617
128	RH-136		-0.4422
128	RH-137		-0.3781
128	RH-138		-0.2939
128	RH-139		-0.1740
128	RH-140		-0.0835
128	RH-141		0.0121
128	RH-142		0.1305
128	RH-143		0.2427
128	RH-144		0.3506
128	RH-145		0.4562
128	RH-146		-0.4420
128	RH-147		-0.3778
128	RH-148		-0.2937
128	RH-149		-0.1737
128	RH-150		-0.0833
128	RH-151		0.0123
128	RH-152		0.1307
128	RH-153		0.2430
128	RH-154		0.3508
128	RH-155		0.4564
128	RH-156		-0.4427
128	RH-157		-0.3786
128	RH-158		-0.2944
128	RH-159		-0.1745
128	RH-160		-0.0840
128	RH-161		0.0116
128	RH-162		0.1300
128	RH-163		0.2422
128	RH-164		0.3501
128	RH-165		0.4557
129	ENV-ELS-CA	Max	0.4044
129	ENV-ELS-CA	Min	-0.4073
129	ENV-ELS-CP	Max	0.0033
129	ENV-ELS-CP	Min	-0.0037
129	ENV-ELU-PT	Max	0.5462
129	ENV-ELU-PT	Min	-0.5500
129	ENV-ELU-AC	Max	0.5069
129	ENV-ELU-AC	Min	-0.4502

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
129	ENV-ELU-EQ	Max	0.0022
129	ENV-ELU-EQ	Min	-0.0125
129	RH-1		0.0066
129	RH-2		0.0070
129	RH-3		0.0057
129	RH-4		0.2914
129	RH-5		-0.1858
129	RH-6		0.1996
129	RH-7		-0.2776
129	RH-8		0.0102
129	RH-9		0.0382
129	RH-10		-0.0245
129	RH-11		0.0036
129	RH-12		-0.1436
129	RH-13		0.3503
129	RH-14		-0.3365
129	RH-15		0.1573
129	RH-16		-0.2749
129	RH-17		0.5445
129	RH-18		-0.5307
129	RH-19		0.2887
129	RH-20		0.2906
129	RH-21		-0.1866
129	RH-22		0.1988
129	RH-23		-0.2784
129	RH-24		0.0094
129	RH-25		0.0374
129	RH-26		-0.0253
129	RH-27		0.0028
129	RH-28		-0.1444
129	RH-29		0.3495
129	RH-30		-0.3373
129	RH-31		0.1565
129	RH-32		-0.2757
129	RH-33		0.5437
129	RH-34		-0.5315
129	RH-35		0.2879
129	RH-36		0.0049
129	RH-37		0.0053
129	RH-38		0.0040
129	RH-39		0.2896
129	RH-40		-0.1876
129	RH-41		0.1979
129	RH-42		-0.2793
129	RH-43		0.0085
129	RH-44		0.0365
129	RH-45		-0.0262
129	RH-46		0.0018
129	RH-47		-0.1453
129	RH-48		0.3486
129	RH-49		-0.3382
129	RH-50		0.1556
129	RH-51		-0.2766
129	RH-52		0.5428
129	RH-53		-0.5325
129	RH-54		0.2870
129	RH-55		0.2888
129	RH-56		-0.1883
129	RH-57		0.1971
129	RH-58		-0.2801

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
129	RH-59		0.0077
129	RH-60		0.0357
129	RH-61		-0.0270
129	RH-62		0.0010
129	RH-63		-0.1461
129	RH-64		0.3478
129	RH-65		-0.3390
129	RH-66		0.1548
129	RH-67		-0.2774
129	RH-68		0.5420
129	RH-69		-0.5333
129	RH-70		0.2862
129	RH-71		0.0000
129	RH-72		4.076E-04
129	RH-73		-9.151E-04
129	RH-74		0.2847
129	RH-75		-0.1925
129	RH-76		0.1930
129	RH-77		-0.2842
129	RH-78		0.0036
129	RH-79		0.0316
129	RH-80		-0.0311
129	RH-81		-0.0031
129	RH-82		-0.1502
129	RH-83		0.3437
129	RH-84		-0.3432
129	RH-85		0.1507
129	RH-86		-0.2816
129	RH-87		0.5379
129	RH-88		-0.5374
129	RH-89		0.2820
129	RH-90		0.2839
129	RH-91		-0.1933
129	RH-92		0.1922
129	RH-93		-0.2850
129	RH-94		0.0028
129	RH-95		0.0308
129	RH-96		-0.0319
129	RH-97		-0.0039
129	RH-98		-0.1510
129	RH-99		0.3429
129	RH-100		-0.3440
129	RH-101		0.1499
129	RH-102		-0.2823
129	RH-103		0.5371
129	RH-104		-0.5382
129	RH-105		0.2812
129	RH-106		-0.4364
129	RH-107		-0.3723
129	RH-108		-0.2896
129	RH-109		-0.1696
129	RH-110		-0.0799
129	RH-111		0.0162
129	RH-112		0.1350
129	RH-113		0.2477
129	RH-114		0.3562
129	RH-115		0.4623
129	RH-116		-0.4362
129	RH-117		-0.3721
129	RH-118		-0.2894
129	RH-119		-0.1695
129	RH-120		-0.0797

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
129	RH-121		0.0164
129	RH-122		0.1352
129	RH-123		0.2479
129	RH-124		0.3563
129	RH-125		0.4624
129	RH-126		-0.4368
129	RH-127		-0.3726
129	RH-128		-0.2899
129	RH-129		-0.1700
129	RH-130		-0.0802
129	RH-131		0.0158
129	RH-132		0.1347
129	RH-133		0.2474
129	RH-134		0.3558
129	RH-135		0.4619
129	RH-136		-0.4413
129	RH-137		-0.3772
129	RH-138		-0.2945
129	RH-139		-0.1745
129	RH-140		-0.0848
129	RH-141		0.0113
129	RH-142		0.1301
129	RH-143		0.2428
129	RH-144		0.3513
129	RH-145		0.4573
129	RH-146		-0.4411
129	RH-147		-0.3770
129	RH-148		-0.2943
129	RH-149		-0.1744
129	RH-150		-0.0846
129	RH-151		0.0115
129	RH-152		0.1303
129	RH-153		0.2430
129	RH-154		0.3514
129	RH-155		0.4575
129	RH-156		-0.4417
129	RH-157		-0.3775
129	RH-158		-0.2949
129	RH-159		-0.1749
129	RH-160		-0.0851
129	RH-161		0.0109
129	RH-162		0.1297
129	RH-163		0.2425
129	RH-164		0.3509
129	RH-165		0.4570
131	ENV-ELS-CA	Max	0.4025
131	ENV-ELS-CA	Min	-0.4070
131	ENV-ELS-CP	Max	0.0018
131	ENV-ELS-CP	Min	-0.0037
131	ENV-ELU-PT	Max	0.5436
131	ENV-ELU-PT	Min	-0.5496
131	ENV-ELU-AC	Max	0.5033
131	ENV-ELU-AC	Min	-0.4496
131	ENV-ELU-EQ	Max	0.0022
131	ENV-ELU-EQ	Min	-0.0125
131	RH-1		0.0045

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
131	RH-2		0.0049
131	RH-3		0.0036
131	RH-4		0.2941
131	RH-5		-0.1818
131	RH-6		0.1913
131	RH-7		-0.2846
131	RH-8		-0.0184
131	RH-9		0.0166
131	RH-10		-0.0071
131	RH-11		0.0279
131	RH-12		-0.1443
131	RH-13		0.3492
131	RH-14		-0.3396
131	RH-15		0.1539
131	RH-16		-0.2749
131	RH-17		0.5419
131	RH-18		-0.5324
131	RH-19		0.2844
131	RH-20		0.2933
131	RH-21		-0.1825
131	RH-22		0.1905
131	RH-23		-0.2854
131	RH-24		-0.0192
131	RH-25		0.0159
131	RH-26		-0.0079
131	RH-27		0.0271
131	RH-28		-0.1451
131	RH-29		0.3484
131	RH-30		-0.3404
131	RH-31		0.1531
131	RH-32		-0.2756
131	RH-33		0.5411
131	RH-34		-0.5332
131	RH-35		0.2836
131	RH-36		0.0034
131	RH-37		0.0038
131	RH-38		0.0025
131	RH-39		0.2930
131	RH-40		-0.1829
131	RH-41		0.1901
131	RH-42		-0.2857
131	RH-43		-0.0195
131	RH-44		0.0155
131	RH-45		-0.0083
131	RH-46		0.0268
131	RH-47		-0.1455
131	RH-48		0.3480
131	RH-49		-0.3408
131	RH-50		0.1527
131	RH-51		-0.2760
131	RH-52		0.5408
131	RH-53		-0.5335
131	RH-54		0.2832
131	RH-55		0.2922
131	RH-56		-0.1837
131	RH-57		0.1894
131	RH-58		-0.2865
131	RH-59		-0.0203
131	RH-60		0.0147
131	RH-61		-0.0090
131	RH-62		0.0260
131	RH-63		-0.1463

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
131	RH-64		0.3472
131	RH-65		-0.3416
131	RH-66		0.1519
131	RH-67		-0.2768
131	RH-68		0.5400
131	RH-69		-0.5343
131	RH-70		0.2824
131	RH-71		0.0000
131	RH-72		4.052E-04
131	RH-73		-9.097E-04
131	RH-74		0.2896
131	RH-75		-0.1863
131	RH-76		0.1868
131	RH-77		-0.2891
131	RH-78		-0.0229
131	RH-79		0.0121
131	RH-80		-0.0116
131	RH-81		0.0234
131	RH-82		-0.1488
131	RH-83		0.3447
131	RH-84		-0.3442
131	RH-85		0.1493
131	RH-86		-0.2794
131	RH-87		0.5374
131	RH-88		-0.5369
131	RH-89		0.2799
131	RH-90		0.2888
131	RH-91		-0.1871
131	RH-92		0.1860
131	RH-93		-0.2899
131	RH-94		-0.0237
131	RH-95		0.0113
131	RH-96		-0.0124
131	RH-97		0.0226
131	RH-98		-0.1496
131	RH-99		0.3439
131	RH-100		-0.3450
131	RH-101		0.1485
131	RH-102		-0.2802
131	RH-103		0.5366
131	RH-104		-0.5377
131	RH-105		0.2791
131	RH-106		-0.4374
131	RH-107		-0.3731
131	RH-108		-0.2910
131	RH-109		-0.1710
131	RH-110		-0.0808
131	RH-111		0.0165
131	RH-112		0.1342
131	RH-113		0.2460
131	RH-114		0.3537
131	RH-115		0.4590
131	RH-116		-0.4372
131	RH-117		-0.3729
131	RH-118		-0.2908
131	RH-119		-0.1709
131	RH-120		-0.0806
131	RH-121		0.0166
131	RH-122		0.1344
131	RH-123		0.2462
131	RH-124		0.3539
131	RH-125		0.4592

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
131	RH-126		-0.4378
131	RH-127		-0.3734
131	RH-128		-0.2914
131	RH-129		-0.1714
131	RH-130		-0.0812
131	RH-131		0.0161
131	RH-132		0.1339
131	RH-133		0.2456
131	RH-134		0.3533
131	RH-135		0.4587
131	RH-136		-0.4408
131	RH-137		-0.3764
131	RH-138		-0.2944
131	RH-139		-0.1744
131	RH-140		-0.0842
131	RH-141		0.0131
131	RH-142		0.1309
131	RH-143		0.2426
131	RH-144		0.3503
131	RH-145		0.4557
131	RH-146		-0.4406
131	RH-147		-0.3763
131	RH-148		-0.2942
131	RH-149		-0.1742
131	RH-150		-0.0840
131	RH-151		0.0133
131	RH-152		0.1310
131	RH-153		0.2428
131	RH-154		0.3505
131	RH-155		0.4558
131	RH-156		-0.4411
131	RH-157		-0.3768
131	RH-158		-0.2947
131	RH-159		-0.1748
131	RH-160		-0.0845
131	RH-161		0.0127
131	RH-162		0.1305
131	RH-163		0.2423
131	RH-164		0.3500
131	RH-165		0.4553
141	ENV-ELS-CA	Max	0.4022
141	ENV-ELS-CA	Min	-0.4182
141	ENV-ELS-CP	Max	-0.0015
141	ENV-ELS-CP	Min	-0.0120
141	ENV-ELU-PT	Max	0.5441
141	ENV-ELU-PT	Min	-0.5647
141	ENV-ELU-AC	Max	0.5127
141	ENV-ELU-AC	Min	-0.4498
141	ENV-ELU-EQ	Max	0.0023
141	ENV-ELU-EQ	Min	-0.0123
141	RH-1		-0.0115
141	RH-2		-0.0117
141	RH-3		-0.0111
141	RH-4		0.2778
141	RH-5		-0.2017
141	RH-6		0.1784

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
141	RH-7		-0.3012
141	RH-8		-4.837E-04
141	RH-9		-0.0019
141	RH-10		-0.0215
141	RH-11		-0.0228
141	RH-12		-0.1655
141	RH-13		0.3249
141	RH-14		-0.3482
141	RH-15		0.1422
141	RH-16		-0.3020
141	RH-17		0.5295
141	RH-18		-0.5528
141	RH-19		0.2787
141	RH-20		0.2782
141	RH-21		-0.2013
141	RH-22		0.1787
141	RH-23		-0.3008
141	RH-24		-1.136E-04
141	RH-25		-0.0015
141	RH-26		-0.0211
141	RH-27		-0.0225
141	RH-28		-0.1652
141	RH-29		0.3253
141	RH-30		-0.3478
141	RH-31		0.1426
141	RH-32		-0.3017
141	RH-33		0.5298
141	RH-34		-0.5524
141	RH-35		0.2791
141	RH-36		-0.0086
141	RH-37		-0.0087
141	RH-38		-0.0081
141	RH-39		0.2808
141	RH-40		-0.1987
141	RH-41		0.1814
141	RH-42		-0.2982
141	RH-43		0.0025
141	RH-44		0.0011
141	RH-45		-0.0185
141	RH-46		-0.0198
141	RH-47		-0.1625
141	RH-48		0.3279
141	RH-49		-0.3452
141	RH-50		0.1452
141	RH-51		-0.2990
141	RH-52		0.5325
141	RH-53		-0.5498
141	RH-54		0.2817
141	RH-55		0.2812
141	RH-56		-0.1983
141	RH-57		0.1817
141	RH-58		-0.2978
141	RH-59		0.0029
141	RH-60		0.0015
141	RH-61		-0.0181
141	RH-62		-0.0195
141	RH-63		-0.1622
141	RH-64		0.3283
141	RH-65		-0.3448
141	RH-66		0.1456
141	RH-67		-0.2987
141	RH-68		0.5328

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
141	RH-69		-0.5494
141	RH-70		0.2821
141	RH-71		0.0000
141	RH-72		-1.901E-04
141	RH-73		4.267E-04
141	RH-74		0.2894
141	RH-75		-0.1901
141	RH-76		0.1899
141	RH-77		-0.2896
141	RH-78		0.0111
141	RH-79		0.0097
141	RH-80		-0.0099
141	RH-81		-0.0113
141	RH-82		-0.1540
141	RH-83		0.3364
141	RH-84		-0.3367
141	RH-85		0.1537
141	RH-86		-0.2905
141	RH-87		0.5410
141	RH-88		-0.5412
141	RH-89		0.2902
141	RH-90		0.2898
141	RH-91		-0.1898
141	RH-92		0.1903
141	RH-93		-0.2893
141	RH-94		0.0114
141	RH-95		0.0100
141	RH-96		-0.0095
141	RH-97		-0.0109
141	RH-98		-0.1536
141	RH-99		0.3368
141	RH-100		-0.3363
141	RH-101		0.1541
141	RH-102		-0.2901
141	RH-103		0.5414
141	RH-104		-0.5409
141	RH-105		0.2906
141	RH-106		-0.4412
141	RH-107		-0.3802
141	RH-108		-0.3010
141	RH-109		-0.1875
141	RH-110		-0.1020
141	RH-111		-0.0084
141	RH-112		0.1137
141	RH-113		0.2326
141	RH-114		0.3462
141	RH-115		0.4573
141	RH-116		-0.4412
141	RH-117		-0.3802
141	RH-118		-0.3010
141	RH-119		-0.1876
141	RH-120		-0.1021
141	RH-121		-0.0085
141	RH-122		0.1136
141	RH-123		0.2325
141	RH-124		0.3461
141	RH-125		0.4572
141	RH-126		-0.4410
141	RH-127		-0.3800
141	RH-128		-0.3008
141	RH-129		-0.1873
141	RH-130		-0.1019

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
141	RH-131		-0.0083
141	RH-132		0.1139
141	RH-133		0.2328
141	RH-134		0.3463
141	RH-135		0.4575
141	RH-136		-0.4326
141	RH-137		-0.3716
141	RH-138		-0.2924
141	RH-139		-0.1789
141	RH-140		-0.0935
141	RH-141		1.124E-04
141	RH-142		0.1223
141	RH-143		0.2411
141	RH-144		0.3547
141	RH-145		0.4659
141	RH-146		-0.4327
141	RH-147		-0.3717
141	RH-148		-0.2925
141	RH-149		-0.1790
141	RH-150		-0.0936
141	RH-151		3.634E-05
141	RH-152		0.1222
141	RH-153		0.2411
141	RH-154		0.3546
141	RH-155		0.4658
141	RH-156		-0.4324
141	RH-157		-0.3714
141	RH-158		-0.2922
141	RH-159		-0.1788
141	RH-160		-0.0933
141	RH-161		2.831E-04
141	RH-162		0.1224
141	RH-163		0.2413
141	RH-164		0.3549
141	RH-165		0.4660
145	ENV-ELS-CA	Max	0.4035
145	ENV-ELS-CA	Min	-0.4193
145	ENV-ELS-CP	Max	-0.0015
145	ENV-ELS-CP	Min	-0.0118
145	ENV-ELU-PT	Max	0.5459
145	ENV-ELU-PT	Min	-0.5662
145	ENV-ELU-AC	Max	0.5130
145	ENV-ELU-AC	Min	-0.4478
145	ENV-ELU-EQ	Max	0.0023
145	ENV-ELU-EQ	Min	-0.0123
145	RH-1		-0.0114
145	RH-2		-0.0116
145	RH-3		-0.0108
145	RH-4		0.2796
145	RH-5		-0.1980
145	RH-6		0.1750
145	RH-7		-0.3026
145	RH-8		-0.0132
145	RH-9		-0.0205
145	RH-10		-0.0025
145	RH-11		-0.0098

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
145	RH-12		-0.1594
145	RH-13		0.3324
145	RH-14		-0.3554
145	RH-15		0.1364
145	RH-16		-0.3007
145	RH-17		0.5313
145	RH-18		-0.5544
145	RH-19		0.2777
145	RH-20		0.2801
145	RH-21		-0.1975
145	RH-22		0.1755
145	RH-23		-0.3021
145	RH-24		-0.0127
145	RH-25		-0.0200
145	RH-26		-0.0020
145	RH-27		-0.0093
145	RH-28		-0.1589
145	RH-29		0.3329
145	RH-30		-0.3549
145	RH-31		0.1369
145	RH-32		-0.3002
145	RH-33		0.5318
145	RH-34		-0.5538
145	RH-35		0.2782
145	RH-36		-0.0084
145	RH-37		-0.0087
145	RH-38		-0.0078
145	RH-39		0.2825
145	RH-40		-0.1951
145	RH-41		0.1779
145	RH-42		-0.2996
145	RH-43		-0.0102
145	RH-44		-0.0176
145	RH-45		4.656E-04
145	RH-46		-0.0069
145	RH-47		-0.1565
145	RH-48		0.3353
145	RH-49		-0.3525
145	RH-50		0.1394
145	RH-51		-0.2978
145	RH-52		0.5343
145	RH-53		-0.5514
145	RH-54		0.2806
145	RH-55		0.2830
145	RH-56		-0.1945
145	RH-57		0.1784
145	RH-58		-0.2991
145	RH-59		-0.0097
145	RH-60		-0.0171
145	RH-61		9.822E-04
145	RH-62		-0.0064
145	RH-63		-0.1560
145	RH-64		0.3358
145	RH-65		-0.3519
145	RH-66		0.1399
145	RH-67		-0.2973
145	RH-68		0.5348
145	RH-69		-0.5509
145	RH-70		0.2812
145	RH-71		0.0000
145	RH-72		-2.653E-04
145	RH-73		5.957E-04

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
145	RH-74		0.2909
145	RH-75		-0.1866
145	RH-76		0.1863
145	RH-77		-0.2912
145	RH-78		-0.0018
145	RH-79		-0.0092
145	RH-80		0.0089
145	RH-81		0.0015
145	RH-82		-0.1481
145	RH-83		0.3437
145	RH-84		-0.3441
145	RH-85		0.1478
145	RH-86		-0.2894
145	RH-87		0.5427
145	RH-88		-0.5430
145	RH-89		0.2891
145	RH-90		0.2914
145	RH-91		-0.1861
145	RH-92		0.1868
145	RH-93		-0.2907
145	RH-94		-0.0013
145	RH-95		-0.0087
145	RH-96		0.0094
145	RH-97		0.0020
145	RH-98		-0.1476
145	RH-99		0.3443
145	RH-100		-0.3435
145	RH-101		0.1483
145	RH-102		-0.2889
145	RH-103		0.5432
145	RH-104		-0.5425
145	RH-105		0.2896
145	RH-106		-0.4392
145	RH-107		-0.3783
145	RH-108		-0.3000
145	RH-109		-0.1869
145	RH-110		-0.1019
145	RH-111		-0.0079
145	RH-112		0.1150
145	RH-113		0.2333
145	RH-114		0.3467
145	RH-115		0.4578
145	RH-116		-0.4393
145	RH-117		-0.3784
145	RH-118		-0.3001
145	RH-119		-0.1870
145	RH-120		-0.1020
145	RH-121		-0.0080
145	RH-122		0.1149
145	RH-123		0.2331
145	RH-124		0.3466
145	RH-125		0.4577
145	RH-126		-0.4390
145	RH-127		-0.3780
145	RH-128		-0.2998
145	RH-129		-0.1866
145	RH-130		-0.1016
145	RH-131		-0.0077
145	RH-132		0.1152
145	RH-133		0.2335
145	RH-134		0.3469
145	RH-135		0.4581

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
145	RH-136		-0.4308
145	RH-137		-0.3698
145	RH-138		-0.2916
145	RH-139		-0.1785
145	RH-140		-0.0935
145	RH-141		4.826E-04
145	RH-142		0.1234
145	RH-143		0.2417
145	RH-144		0.3551
145	RH-145		0.4662
145	RH-146		-0.4309
145	RH-147		-0.3700
145	RH-148		-0.2917
145	RH-149		-0.1786
145	RH-150		-0.0936
145	RH-151		3.764E-04
145	RH-152		0.1233
145	RH-153		0.2416
145	RH-154		0.3550
145	RH-155		0.4661
145	RH-156		-0.4306
145	RH-157		-0.3696
145	RH-158		-0.2914
145	RH-159		-0.1782
145	RH-160		-0.0932
145	RH-161		7.209E-04
145	RH-162		0.1236
145	RH-163		0.2419
145	RH-164		0.3553
145	RH-165		0.4665
155	ENV-ELS-CA	Max	0.4056
155	ENV-ELS-CA	Min	-0.4344
155	ENV-ELS-CP	Max	-0.0010
155	ENV-ELS-CP	Min	-0.0254
155	ENV-ELU-PT	Max	0.5487
155	ENV-ELU-PT	Min	-0.5866
155	ENV-ELU-AC	Max	0.5304
155	ENV-ELU-AC	Min	-0.4525
155	ENV-ELU-EQ	Max	0.0025
155	ENV-ELU-EQ	Min	-0.0121
155	RH-1		-0.0298
155	RH-2		-0.0306
155	RH-3		-0.0278
155	RH-4		0.2613
155	RH-5		-0.2175
155	RH-6		0.1570
155	RH-7		-0.3219
155	RH-8		-0.0016
155	RH-9		-0.0292
155	RH-10		-0.0314
155	RH-11		-0.0589
155	RH-12		-0.1887
155	RH-13		0.2925
155	RH-14		-0.3530
155	RH-15		0.1282
155	RH-16		-0.3328

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
155	RH-17		0.5147
155	RH-18		-0.5753
155	RH-19		0.2722
155	RH-20		0.2630
155	RH-21		-0.2159
155	RH-22		0.1587
155	RH-23		-0.3202
155	RH-24		6.104E-05
155	RH-25		-0.0275
155	RH-26		-0.0297
155	RH-27		-0.0573
155	RH-28		-0.1870
155	RH-29		0.2941
155	RH-30		-0.3513
155	RH-31		0.1298
155	RH-32		-0.3311
155	RH-33		0.5164
155	RH-34		-0.5736
155	RH-35		0.2739
155	RH-36		-0.0220
155	RH-37		-0.0229
155	RH-38		-0.0201
155	RH-39		0.2690
155	RH-40		-0.2098
155	RH-41		0.1647
155	RH-42		-0.3141
155	RH-43		0.0061
155	RH-44		-0.0214
155	RH-45		-0.0237
155	RH-46		-0.0512
155	RH-47		-0.1810
155	RH-48		0.3002
155	RH-49		-0.3453
155	RH-50		0.1359
155	RH-51		-0.3250
155	RH-52		0.5224
155	RH-53		-0.5676
155	RH-54		0.2799
155	RH-55		0.2707
155	RH-56		-0.2082
155	RH-57		0.1664
155	RH-58		-0.3125
155	RH-59		0.0078
155	RH-60		-0.0198
155	RH-61		-0.0220
155	RH-62		-0.0496
155	RH-63		-0.1793
155	RH-64		0.3018
155	RH-65		-0.3436
155	RH-66		0.1375
155	RH-67		-0.3234
155	RH-68		0.5241
155	RH-69		-0.5659
155	RH-70		0.2816
155	RH-71		0.0000
155	RH-72		-8.533E-04
155	RH-73		0.0019
155	RH-74		0.2911
155	RH-75		-0.1878
155	RH-76		0.1868
155	RH-77		-0.2921
155	RH-78		0.0282

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
155	RH-79		5.992E-04
155	RH-80		-0.0016
155	RH-81		-0.0292
155	RH-82		-0.1590
155	RH-83		0.3222
155	RH-84		-0.3232
155	RH-85		0.1579
155	RH-86		-0.3030
155	RH-87		0.5445
155	RH-88		-0.5455
155	RH-89		0.3020
155	RH-90		0.2927
155	RH-91		-0.1861
155	RH-92		0.1884
155	RH-93		-0.2904
155	RH-94		0.0298
155	RH-95		0.0023
155	RH-96		3.832E-05
155	RH-97		-0.0275
155	RH-98		-0.1573
155	RH-99		0.3239
155	RH-100		-0.3216
155	RH-101		0.1596
155	RH-102		-0.3013
155	RH-103		0.5461
155	RH-104		-0.5438
155	RH-105		0.3036
155	RH-106		-0.4440
155	RH-107		-0.3861
155	RH-108		-0.3113
155	RH-109		-0.2036
155	RH-110		-0.1229
155	RH-111		-0.0344
155	RH-112		0.0851
155	RH-113		0.2111
155	RH-114		0.3358
155	RH-115		0.4570
155	RH-116		-0.4444
155	RH-117		-0.3864
155	RH-118		-0.3116
155	RH-119		-0.2040
155	RH-120		-0.1232
155	RH-121		-0.0347
155	RH-122		0.0848
155	RH-123		0.2107
155	RH-124		0.3355
155	RH-125		0.4567
155	RH-126		-0.4433
155	RH-127		-0.3853
155	RH-128		-0.3105
155	RH-129		-0.2029
155	RH-130		-0.1221
155	RH-131		-0.0336
155	RH-132		0.0859
155	RH-133		0.2118
155	RH-134		0.3366
155	RH-135		0.4578
155	RH-136		-0.4220
155	RH-137		-0.3640
155	RH-138		-0.2892
155	RH-139		-0.1816
155	RH-140		-0.1009

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
155	RH-141		-0.0124
155	RH-142		0.1071
155	RH-143		0.2331
155	RH-144		0.3578
155	RH-145		0.4791
155	RH-146		-0.4223
155	RH-147		-0.3644
155	RH-148		-0.2896
155	RH-149		-0.1819
155	RH-150		-0.1012
155	RH-151		-0.0127
155	RH-152		0.1068
155	RH-153		0.2328
155	RH-154		0.3575
155	RH-155		0.4787
155	RH-156		-0.4212
155	RH-157		-0.3632
155	RH-158		-0.2884
155	RH-159		-0.1808
155	RH-160		-0.1001
155	RH-161		-0.0116
155	RH-162		0.1079
155	RH-163		0.2339
155	RH-164		0.3586
155	RH-165		0.4798
159	ENV-ELS-CA	Max	0.4085
159	ENV-ELS-CA	Min	-0.4371
159	ENV-ELS-CP	Max	-9.577E-04
159	ENV-ELS-CP	Min	-0.0253
159	ENV-ELU-PT	Max	0.5525
159	ENV-ELU-PT	Min	-0.5902
159	ENV-ELU-AC	Max	0.5306
159	ENV-ELU-AC	Min	-0.4524
159	ENV-ELU-EQ	Max	0.0025
159	ENV-ELU-EQ	Min	-0.0121
159	RH-1		-0.0297
159	RH-2		-0.0306
159	RH-3		-0.0275
159	RH-4		0.2623
159	RH-5		-0.2151
159	RH-6		0.1547
159	RH-7		-0.3228
159	RH-8		-0.0057
159	RH-9		-0.0300
159	RH-10		-0.0304
159	RH-11		-0.0548
159	RH-12		-0.1662
159	RH-13		0.3138
159	RH-14		-0.3743
159	RH-15		0.1058
159	RH-16		-0.3305
159	RH-17		0.5185
159	RH-18		-0.5789
159	RH-19		0.2701
159	RH-20		0.2642
159	RH-21		-0.2133

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
159	RH-22		0.1565
159	RH-23		-0.3209
159	RH-24		-0.0038
159	RH-25		-0.0282
159	RH-26		-0.0286
159	RH-27		-0.0529
159	RH-28		-0.1644
159	RH-29		0.3157
159	RH-30		-0.3724
159	RH-31		0.1076
159	RH-32		-0.3287
159	RH-33		0.5203
159	RH-34		-0.5771
159	RH-35		0.2719
159	RH-36		-0.0220
159	RH-37		-0.0229
159	RH-38		-0.0198
159	RH-39		0.2700
159	RH-40		-0.2074
159	RH-41		0.1624
159	RH-42		-0.3151
159	RH-43		0.0020
159	RH-44		-0.0224
159	RH-45		-0.0227
159	RH-46		-0.0471
159	RH-47		-0.1585
159	RH-48		0.3215
159	RH-49		-0.3666
159	RH-50		0.1135
159	RH-51		-0.3229
159	RH-52		0.5261
159	RH-53		-0.5712
159	RH-54		0.2778
159	RH-55		0.2718
159	RH-56		-0.2056
159	RH-57		0.1642
159	RH-58		-0.3132
159	RH-59		0.0039
159	RH-60		-0.0205
159	RH-61		-0.0209
159	RH-62		-0.0452
159	RH-63		-0.1567
159	RH-64		0.3233
159	RH-65		-0.3647
159	RH-66		0.1153
159	RH-67		-0.3210
159	RH-68		0.5280
159	RH-69		-0.5694
159	RH-70		0.2796
159	RH-71		0.0000
159	RH-72		-9.570E-04
159	RH-73		0.0021
159	RH-74		0.2919
159	RH-75		-0.1855
159	RH-76		0.1843
159	RH-77		-0.2931
159	RH-78		0.0240
159	RH-79		-3.851E-04
159	RH-80		-7.632E-04
159	RH-81		-0.0251
159	RH-82		-0.1366
159	RH-83		0.3434

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
159	RH-84		-0.3446
159	RH-85		0.1354
159	RH-86		-0.3009
159	RH-87		0.5481
159	RH-88		-0.5493
159	RH-89		0.2997
159	RH-90		0.2938
159	RH-91		-0.1836
159	RH-92		0.1862
159	RH-93		-0.2912
159	RH-94		0.0258
159	RH-95		0.0015
159	RH-96		0.0011
159	RH-97		-0.0233
159	RH-98		-0.1347
159	RH-99		0.3453
159	RH-100		-0.3427
159	RH-101		0.1373
159	RH-102		-0.2990
159	RH-103		0.5500
159	RH-104		-0.5474
159	RH-105		0.3016
159	RH-106		-0.4439
159	RH-107		-0.3856
159	RH-108		-0.3107
159	RH-109		-0.2027
159	RH-110		-0.1216
159	RH-111		-0.0331
159	RH-112		0.0860
159	RH-113		0.2140
159	RH-114		0.3369
159	RH-115		0.4577
159	RH-116		-0.4443
159	RH-117		-0.3860
159	RH-118		-0.3111
159	RH-119		-0.2031
159	RH-120		-0.1220
159	RH-121		-0.0335
159	RH-122		0.0856
159	RH-123		0.2136
159	RH-124		0.3365
159	RH-125		0.4573
159	RH-126		-0.4430
159	RH-127		-0.3848
159	RH-128		-0.3099
159	RH-129		-0.2019
159	RH-130		-0.1207
159	RH-131		-0.0323
159	RH-132		0.0868
159	RH-133		0.2148
159	RH-134		0.3378
159	RH-135		0.4585
159	RH-136		-0.4219
159	RH-137		-0.3637
159	RH-138		-0.2888
159	RH-139		-0.1807
159	RH-140		-0.0996
159	RH-141		-0.0112
159	RH-142		0.1079
159	RH-143		0.2359
159	RH-144		0.3589
159	RH-145		0.4797

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
159	RH-146		-0.4223
159	RH-147		-0.3641
159	RH-148		-0.2892
159	RH-149		-0.1811
159	RH-150		-0.1000
159	RH-151		-0.0115
159	RH-152		0.1075
159	RH-153		0.2355
159	RH-154		0.3585
159	RH-155		0.4793
159	RH-156		-0.4211
159	RH-157		-0.3628
159	RH-158		-0.2879
159	RH-159		-0.1799
159	RH-160		-0.0988
159	RH-161		-0.0103
159	RH-162		0.1088
159	RH-163		0.2368
159	RH-164		0.3597
159	RH-165		0.4805
169	ENV-ELS-CA	Max	0.4115
169	ENV-ELS-CA	Min	-0.4517
169	ENV-ELS-CP	Max	-4.153E-04
169	ENV-ELS-CP	Min	-0.0375
169	ENV-ELU-PT	Max	0.5567
169	ENV-ELU-PT	Min	-0.6101
169	ENV-ELU-AC	Max	0.5537
169	ENV-ELU-AC	Min	-0.4570
169	ENV-ELU-EQ	Max	0.0026
169	ENV-ELU-EQ	Min	-0.0119
169	RH-1		-0.0461
169	RH-2		-0.0476
169	RH-3		-0.0426
169	RH-4		0.2464
169	RH-5		-0.2301
169	RH-6		0.1361
169	RH-7		-0.3403
169	RH-8		-0.0105
169	RH-9		-0.0504
169	RH-10		-0.0435
169	RH-11		-0.0834
169	RH-12		-0.1804
169	RH-13		0.2622
169	RH-14		-0.3561
169	RH-15		0.0865
169	RH-16		-0.3613
169	RH-17		0.5050
169	RH-18		-0.5990
169	RH-19		0.2674
169	RH-20		0.2494
169	RH-21		-0.2271
169	RH-22		0.1391
169	RH-23		-0.3374
169	RH-24		-0.0076
169	RH-25		-0.0475
169	RH-26		-0.0405

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
169	RH-27		-0.0804
169	RH-28		-0.1774
169	RH-29		0.2651
169	RH-30		-0.3531
169	RH-31		0.0894
169	RH-32		-0.3583
169	RH-33		0.5080
169	RH-34		-0.5960
169	RH-35		0.2704
169	RH-36		-0.0341
169	RH-37		-0.0356
169	RH-38		-0.0307
169	RH-39		0.2583
169	RH-40		-0.2181
169	RH-41		0.1481
169	RH-42		-0.3284
169	RH-43		0.0014
169	RH-44		-0.0385
169	RH-45		-0.0316
169	RH-46		-0.0715
169	RH-47		-0.1685
169	RH-48		0.2741
169	RH-49		-0.3442
169	RH-50		0.0984
169	RH-51		-0.3494
169	RH-52		0.5170
169	RH-53		-0.5870
169	RH-54		0.2793
169	RH-55		0.2613
169	RH-56		-0.2152
169	RH-57		0.1511
169	RH-58		-0.3254
169	RH-59		0.0044
169	RH-60		-0.0355
169	RH-61		-0.0286
169	RH-62		-0.0685
169	RH-63		-0.1655
169	RH-64		0.2771
169	RH-65		-0.3412
169	RH-66		0.1014
169	RH-67		-0.3464
169	RH-68		0.5200
169	RH-69		-0.5841
169	RH-70		0.2823
169	RH-71		0.0000
169	RH-72		-0.0015
169	RH-73		0.0034
169	RH-74		0.2925
169	RH-75		-0.1840
169	RH-76		0.1822
169	RH-77		-0.2943
169	RH-78		0.0355
169	RH-79		-0.0044
169	RH-80		0.0025
169	RH-81		-0.0374
169	RH-82		-0.1344
169	RH-83		0.3082
169	RH-84		-0.3101
169	RH-85		0.1325
169	RH-86		-0.3153
169	RH-87		0.5511
169	RH-88		-0.5529

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
169	RH-89		0.3134
169	RH-90		0.2954
169	RH-91		-0.1810
169	RH-92		0.1852
169	RH-93		-0.2913
169	RH-94		0.0385
169	RH-95		-0.0014
169	RH-96		0.0055
169	RH-97		-0.0344
169	RH-98		-0.1314
169	RH-99		0.3112
169	RH-100		-0.3071
169	RH-101		0.1355
169	RH-102		-0.3123
169	RH-103		0.5541
169	RH-104		-0.5500
169	RH-105		0.3164
169	RH-106		-0.4485
169	RH-107		-0.3924
169	RH-108		-0.3203
169	RH-109		-0.2164
169	RH-110		-0.1384
169	RH-111		-0.0530
169	RH-112		0.0614
169	RH-113		0.1867
169	RH-114		0.3232
169	RH-115		0.4611
169	RH-116		-0.4491
169	RH-117		-0.3930
169	RH-118		-0.3209
169	RH-119		-0.2170
169	RH-120		-0.1390
169	RH-121		-0.0536
169	RH-122		0.0608
169	RH-123		0.1861
169	RH-124		0.3226
169	RH-125		0.4605
169	RH-126		-0.4471
169	RH-127		-0.3910
169	RH-128		-0.3189
169	RH-129		-0.2150
169	RH-130		-0.1371
169	RH-131		-0.0517
169	RH-132		0.0628
169	RH-133		0.1881
169	RH-134		0.3246
169	RH-135		0.4625
169	RH-136		-0.4143
169	RH-137		-0.3582
169	RH-138		-0.2862
169	RH-139		-0.1823
169	RH-140		-0.1043
169	RH-141		-0.0189
169	RH-142		0.0955
169	RH-143		0.2209
169	RH-144		0.3573
169	RH-145		0.4952
169	RH-146		-0.4150
169	RH-147		-0.3589
169	RH-148		-0.2868
169	RH-149		-0.1829
169	RH-150		-0.1049

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
169	RH-151		-0.0195
169	RH-152		0.0949
169	RH-153		0.2202
169	RH-154		0.3567
169	RH-155		0.4946
169	RH-156		-0.4130
169	RH-157		-0.3569
169	RH-158		-0.2848
169	RH-159		-0.1809
169	RH-160		-0.1029
169	RH-161		-0.0175
169	RH-162		0.0969
169	RH-163		0.2222
169	RH-164		0.3587
169	RH-165		0.4966
173	ENV-ELS-CA	Max	0.4119
173	ENV-ELS-CA	Min	-0.4542
173	ENV-ELS-CP	Max	-3.462E-04
173	ENV-ELS-CP	Min	-0.0396
173	ENV-ELU-PT	Max	0.5573
173	ENV-ELU-PT	Min	-0.6133
173	ENV-ELU-AC	Max	0.5518
173	ENV-ELU-AC	Min	-0.4592
173	ENV-ELU-EQ	Max	0.0027
173	ENV-ELU-EQ	Min	-0.0119
173	RH-1		-0.0489
173	RH-2		-0.0505
173	RH-3		-0.0452
173	RH-4		0.2444
173	RH-5		-0.2320
173	RH-6		0.1323
173	RH-7		-0.3441
173	RH-8		-0.0131
173	RH-9		-0.0524
173	RH-10		-0.0472
173	RH-11		-0.0866
173	RH-12		-0.1731
173	RH-13		0.2732
173	RH-14		-0.3728
173	RH-15		0.0735
173	RH-16		-0.3622
173	RH-17		0.5026
173	RH-18		-0.6022
173	RH-19		0.2625
173	RH-20		0.2476
173	RH-21		-0.2288
173	RH-22		0.1355
173	RH-23		-0.3409
173	RH-24		-0.0099
173	RH-25		-0.0492
173	RH-26		-0.0441
173	RH-27		-0.0834
173	RH-28		-0.1700
173	RH-29		0.2763
173	RH-30		-0.3696
173	RH-31		0.0767

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
173	RH-32		-0.3590
173	RH-33		0.5058
173	RH-34		-0.5991
173	RH-35		0.2657
173	RH-36		-0.0362
173	RH-37		-0.0378
173	RH-38		-0.0325
173	RH-39		0.2571
173	RH-40		-0.2193
173	RH-41		0.1450
173	RH-42		-0.3314
173	RH-43		-4.214E-04
173	RH-44		-0.0398
173	RH-45		-0.0346
173	RH-46		-0.0739
173	RH-47		-0.1605
173	RH-48		0.2858
173	RH-49		-0.3602
173	RH-50		0.0861
173	RH-51		-0.3495
173	RH-52		0.5152
173	RH-53		-0.5896
173	RH-54		0.2752
173	RH-55		0.2603
173	RH-56		-0.2161
173	RH-57		0.1482
173	RH-58		-0.3283
173	RH-59		0.0028
173	RH-60		-0.0366
173	RH-61		-0.0314
173	RH-62		-0.0707
173	RH-63		-0.1573
173	RH-64		0.2890
173	RH-65		-0.3570
173	RH-66		0.0893
173	RH-67		-0.3464
173	RH-68		0.5184
173	RH-69		-0.5864
173	RH-70		0.2784
173	RH-71		0.0000
173	RH-72		-0.0016
173	RH-73		0.0037
173	RH-74		0.2933
173	RH-75		-0.1831
173	RH-76		0.1812
173	RH-77		-0.2953
173	RH-78		0.0358
173	RH-79		-0.0036
173	RH-80		0.0016
173	RH-81		-0.0377
173	RH-82		-0.1243
173	RH-83		0.3220
173	RH-84		-0.3240
173	RH-85		0.1223
173	RH-86		-0.3133
173	RH-87		0.5514
173	RH-88		-0.5534
173	RH-89		0.3114
173	RH-90		0.2965
173	RH-91		-0.1800
173	RH-92		0.1844
173	RH-93		-0.2921

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
173	RH-94		0.0389
173	RH-95		-3.930E-04
173	RH-96		0.0048
173	RH-97		-0.0345
173	RH-98		-0.1211
173	RH-99		0.3252
173	RH-100		-0.3208
173	RH-101		0.1255
173	RH-102		-0.3102
173	RH-103		0.5546
173	RH-104		-0.5502
173	RH-105		0.3146
173	RH-106		-0.4507
173	RH-107		-0.3945
173	RH-108		-0.3224
173	RH-109		-0.2184
173	RH-110		-0.1404
173	RH-111		-0.0548
173	RH-112		0.0593
173	RH-113		0.1833
173	RH-114		0.3227
173	RH-115		0.4595
173	RH-116		-0.4514
173	RH-117		-0.3952
173	RH-118		-0.3231
173	RH-119		-0.2191
173	RH-120		-0.1410
173	RH-121		-0.0554
173	RH-122		0.0587
173	RH-123		0.1826
173	RH-124		0.3221
173	RH-125		0.4588
173	RH-126		-0.4492
173	RH-127		-0.3930
173	RH-128		-0.3210
173	RH-129		-0.2169
173	RH-130		-0.1389
173	RH-131		-0.0533
173	RH-132		0.0608
173	RH-133		0.1848
173	RH-134		0.3242
173	RH-135		0.4609
173	RH-136		-0.4145
173	RH-137		-0.3583
173	RH-138		-0.2862
173	RH-139		-0.1822
173	RH-140		-0.1042
173	RH-141		-0.0186
173	RH-142		0.0955
173	RH-143		0.2195
173	RH-144		0.3589
173	RH-145		0.4957
173	RH-146		-0.4152
173	RH-147		-0.3590
173	RH-148		-0.2869
173	RH-149		-0.1829
173	RH-150		-0.1048
173	RH-151		-0.0192
173	RH-152		0.0948
173	RH-153		0.2188
173	RH-154		0.3583
173	RH-155		0.4950

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
173	RH-156		-0.4130
173	RH-157		-0.3569
173	RH-158		-0.2848
173	RH-159		-0.1808
173	RH-160		-0.1027
173	RH-161		-0.0171
173	RH-162		0.0970
173	RH-163		0.2210
173	RH-164		0.3604
173	RH-165		0.4971
185	ENV-ELS-CA	Max	0.4016
185	ENV-ELS-CA	Min	-0.4563
185	ENV-ELS-CP	Max	4.508E-05
185	ENV-ELS-CP	Min	-0.0525
185	ENV-ELU-PT	Max	0.5434
185	ENV-ELU-PT	Min	-0.6162
185	ENV-ELU-AC	Max	0.5712
185	ENV-ELU-AC	Min	-0.4686
185	ENV-ELU-EQ	Max	0.0027
185	ENV-ELU-EQ	Min	-0.0118
185	RH-1		-0.0662
185	RH-2		-0.0682
185	RH-3		-0.0615
185	RH-4		0.2273
185	RH-5		-0.2477
185	RH-6		0.1129
185	RH-7		-0.3621
185	RH-8		-0.0268
185	RH-9		-0.0715
185	RH-10		-0.0633
185	RH-11		-0.1080
185	RH-12		-0.1925
185	RH-13		0.2380
185	RH-14		-0.3728
185	RH-15		0.0577
185	RH-16		-0.3898
185	RH-17		0.4705
185	RH-18		-0.6053
185	RH-19		0.2550
185	RH-20		0.2313
185	RH-21		-0.2437
185	RH-22		0.1170
185	RH-23		-0.3580
185	RH-24		-0.0228
185	RH-25		-0.0675
185	RH-26		-0.0593
185	RH-27		-0.1039
185	RH-28		-0.1885
185	RH-29		0.2420
185	RH-30		-0.3688
185	RH-31		0.0617
185	RH-32		-0.3858
185	RH-33		0.4745
185	RH-34		-0.6013
185	RH-35		0.2590
185	RH-36		-0.0490

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
185	RH-37		-0.0511
185	RH-38		-0.0444
185	RH-39		0.2444
185	RH-40		-0.2306
185	RH-41		0.1301
185	RH-42		-0.3449
185	RH-43		-0.0097
185	RH-44		-0.0544
185	RH-45		-0.0461
185	RH-46		-0.0908
185	RH-47		-0.1754
185	RH-48		0.2551
185	RH-49		-0.3556
185	RH-50		0.0749
185	RH-51		-0.3727
185	RH-52		0.4877
185	RH-53		-0.5882
185	RH-54		0.2722
185	RH-55		0.2484
185	RH-56		-0.2266
185	RH-57		0.1341
185	RH-58		-0.3409
185	RH-59		-0.0056
185	RH-60		-0.0503
185	RH-61		-0.0421
185	RH-62		-0.0868
185	RH-63		-0.1713
185	RH-64		0.2592
185	RH-65		-0.3516
185	RH-66		0.0789
185	RH-67		-0.3686
185	RH-68		0.4917
185	RH-69		-0.5841
185	RH-70		0.2762
185	RH-71		0.0000
185	RH-72		-0.0021
185	RH-73		0.0046
185	RH-74		0.2934
185	RH-75		-0.1816
185	RH-76		0.1791
185	RH-77		-0.2959
185	RH-78		0.0393
185	RH-79		-0.0054
185	RH-80		0.0029
185	RH-81		-0.0418
185	RH-82		-0.1263
185	RH-83		0.3041
185	RH-84		-0.3066
185	RH-85		0.1239
185	RH-86		-0.3237
185	RH-87		0.5367
185	RH-88		-0.5391
185	RH-89		0.3212
185	RH-90		0.2975
185	RH-91		-0.1776
185	RH-92		0.1831
185	RH-93		-0.2919
185	RH-94		0.0434
185	RH-95		-0.0013
185	RH-96		0.0069
185	RH-97		-0.0378
185	RH-98		-0.1223

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
185	RH-99		0.3082
185	RH-100		-0.3026
185	RH-101		0.1279
185	RH-102		-0.3196
185	RH-103		0.5407
185	RH-104		-0.5351
185	RH-105		0.3252
185	RH-106		-0.4600
185	RH-107		-0.4046
185	RH-108		-0.3337
185	RH-109		-0.2314
185	RH-110		-0.1545
185	RH-111		-0.0703
185	RH-112		0.0425
185	RH-113		0.1651
185	RH-114		0.3023
185	RH-115		0.4545
185	RH-116		-0.4608
185	RH-117		-0.4054
185	RH-118		-0.3346
185	RH-119		-0.2322
185	RH-120		-0.1554
185	RH-121		-0.0711
185	RH-122		0.0416
185	RH-123		0.1642
185	RH-124		0.3015
185	RH-125		0.4537
185	RH-126		-0.4581
185	RH-127		-0.4028
185	RH-128		-0.3319
185	RH-129		-0.2295
185	RH-130		-0.1527
185	RH-131		-0.0684
185	RH-132		0.0443
185	RH-133		0.1669
185	RH-134		0.3042
185	RH-135		0.4564
185	RH-136		-0.4110
185	RH-137		-0.3556
185	RH-138		-0.2847
185	RH-139		-0.1823
185	RH-140		-0.1055
185	RH-141		-0.0213
185	RH-142		0.0915
185	RH-143		0.2141
185	RH-144		0.3513
185	RH-145		0.5035
185	RH-146		-0.4118
185	RH-147		-0.3564
185	RH-148		-0.2855
185	RH-149		-0.1832
185	RH-150		-0.1064
185	RH-151		-0.0221
185	RH-152		0.0907
185	RH-153		0.2133
185	RH-154		0.3505
185	RH-155		0.5027
185	RH-156		-0.4091
185	RH-157		-0.3538
185	RH-158		-0.2829
185	RH-159		-0.1805
185	RH-160		-0.1037

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
185	RH-161		-0.0194
185	RH-162		0.0933
185	RH-163		0.2159
185	RH-164		0.3532
185	RH-165		0.5054
188	ENV-ELS-CA	Max	0.4123
188	ENV-ELS-CA	Min	-0.4670
188	ENV-ELS-CP	Max	1.384E-04
188	ENV-ELS-CP	Min	-0.0527
188	ENV-ELU-PT	Max	0.5577
188	ENV-ELU-PT	Min	-0.6307
188	ENV-ELU-AC	Max	0.5716
188	ENV-ELU-AC	Min	-0.4682
188	ENV-ELU-EQ	Max	0.0027
188	ENV-ELU-EQ	Min	-0.0118
188	RH-1		-0.0663
188	RH-2		-0.0685
188	RH-3		-0.0614
188	RH-4		0.2274
188	RH-5		-0.2473
188	RH-6		0.1121
188	RH-7		-0.3627
188	RH-8		-0.0262
188	RH-9		-0.0717
188	RH-10		-0.0636
188	RH-11		-0.1090
188	RH-12		-0.1909
188	RH-13		0.2373
188	RH-14		-0.3725
188	RH-15		0.0557
188	RH-16		-0.3736
188	RH-17		0.4845
188	RH-18		-0.6197
188	RH-19		0.2384
188	RH-20		0.2317
188	RH-21		-0.2431
188	RH-22		0.1163
188	RH-23		-0.3585
188	RH-24		-0.0220
188	RH-25		-0.0674
188	RH-26		-0.0594
188	RH-27		-0.1048
188	RH-28		-0.1867
188	RH-29		0.2415
188	RH-30		-0.3683
188	RH-31		0.0599
188	RH-32		-0.3694
188	RH-33		0.4887
188	RH-34		-0.6155
188	RH-35		0.2426
188	RH-36		-0.0491
188	RH-37		-0.0513
188	RH-38		-0.0442
188	RH-39		0.2446
188	RH-40		-0.2301
188	RH-41		0.1293

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
188	RH-42		-0.3455
188	RH-43		-0.0090
188	RH-44		-0.0545
188	RH-45		-0.0464
188	RH-46		-0.0918
188	RH-47		-0.1737
188	RH-48		0.2545
188	RH-49		-0.3553
188	RH-50		0.0729
188	RH-51		-0.3565
188	RH-52		0.5017
188	RH-53		-0.6026
188	RH-54		0.2556
188	RH-55		0.2489
188	RH-56		-0.2259
188	RH-57		0.1335
188	RH-58		-0.3413
188	RH-59		-0.0048
188	RH-60		-0.0502
188	RH-61		-0.0422
188	RH-62		-0.0876
188	RH-63		-0.1695
188	RH-64		0.2587
188	RH-65		-0.3511
188	RH-66		0.0771
188	RH-67		-0.3522
188	RH-68		0.5059
188	RH-69		-0.5983
188	RH-70		0.2598
188	RH-71		0.0000
188	RH-72		-0.0022
188	RH-73		0.0049
188	RH-74		0.2938
188	RH-75		-0.1810
188	RH-76		0.1784
188	RH-77		-0.2964
188	RH-78		0.0401
188	RH-79		-0.0053
188	RH-80		0.0027
188	RH-81		-0.0427
188	RH-82		-0.1246
188	RH-83		0.3036
188	RH-84		-0.3062
188	RH-85		0.1220
188	RH-86		-0.3073
188	RH-87		0.5508
188	RH-88		-0.5534
188	RH-89		0.3047
188	RH-90		0.2980
188	RH-91		-0.1768
188	RH-92		0.1826
188	RH-93		-0.2921
188	RH-94		0.0443
188	RH-95		-0.0011
188	RH-96		0.0070
188	RH-97		-0.0385
188	RH-98		-0.1204
188	RH-99		0.3078
188	RH-100		-0.3020
188	RH-101		0.1262
188	RH-102		-0.3031
188	RH-103		0.5551

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
188	RH-104		-0.5492
188	RH-105		0.3090
188	RH-106		-0.4595
188	RH-107		-0.4043
188	RH-108		-0.3336
188	RH-109		-0.2315
188	RH-110		-0.1549
188	RH-111		-0.0708
188	RH-112		0.0418
188	RH-113		0.1637
188	RH-114		0.3018
188	RH-115		0.4574
188	RH-116		-0.4604
188	RH-117		-0.4052
188	RH-118		-0.3345
188	RH-119		-0.2324
188	RH-120		-0.1557
188	RH-121		-0.0717
188	RH-122		0.0409
188	RH-123		0.1629
188	RH-124		0.3009
188	RH-125		0.4565
188	RH-126		-0.4576
188	RH-127		-0.4024
188	RH-128		-0.3317
188	RH-129		-0.2295
188	RH-130		-0.1529
188	RH-131		-0.0688
188	RH-132		0.0438
188	RH-133		0.1657
188	RH-134		0.3037
188	RH-135		0.4594
188	RH-136		-0.4104
188	RH-137		-0.3552
188	RH-138		-0.2845
188	RH-139		-0.1824
188	RH-140		-0.1057
188	RH-141		-0.0217
188	RH-142		0.0910
188	RH-143		0.2129
188	RH-144		0.3509
188	RH-145		0.5065
188	RH-146		-0.4113
188	RH-147		-0.3561
188	RH-148		-0.2854
188	RH-149		-0.1832
188	RH-150		-0.1066
188	RH-151		-0.0225
188	RH-152		0.0901
188	RH-153		0.2120
188	RH-154		0.3500
188	RH-155		0.5056
188	RH-156		-0.4085
188	RH-157		-0.3532
188	RH-158		-0.2825
188	RH-159		-0.1804
188	RH-160		-0.1038
188	RH-161		-0.0197
188	RH-162		0.0929
188	RH-163		0.2148
188	RH-164		0.3529
188	RH-165		0.5085

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
197	ENV-ELS-CA	Max	0.4033
197	ENV-ELS-CA	Min	-0.4693
197	ENV-ELS-CP	Max	1.384E-04
197	ENV-ELS-CP	Min	-0.0639
197	ENV-ELU-PT	Max	0.5457
197	ENV-ELU-PT	Min	-0.6338
197	ENV-ELU-AC	Max	0.5754
197	ENV-ELU-AC	Min	-0.4779
197	ENV-ELU-EQ	Max	0.0027
197	ENV-ELU-EQ	Min	-0.0117
197	RH-1		-0.0815
197	RH-2		-0.0837
197	RH-3		-0.0767
197	RH-4		0.2116
197	RH-5		-0.2622
197	RH-6		0.0965
197	RH-7		-0.3772
197	RH-8		-0.0409
197	RH-9		-0.0877
197	RH-10		-0.0779
197	RH-11		-0.1247
197	RH-12		-0.2053
197	RH-13		0.2193
197	RH-14		-0.3849
197	RH-15		0.0397
197	RH-16		-0.3853
197	RH-17		0.4573
197	RH-18		-0.6229
197	RH-19		0.2197
197	RH-20		0.2158
197	RH-21		-0.2579
197	RH-22		0.1007
197	RH-23		-0.3730
197	RH-24		-0.0367
197	RH-25		-0.0835
197	RH-26		-0.0737
197	RH-27		-0.1205
197	RH-28		-0.2011
197	RH-29		0.2235
197	RH-30		-0.3807
197	RH-31		0.0439
197	RH-32		-0.3811
197	RH-33		0.4615
197	RH-34		-0.6187
197	RH-35		0.2239
197	RH-36		-0.0604
197	RH-37		-0.0625
197	RH-38		-0.0555
197	RH-39		0.2327
197	RH-40		-0.2410
197	RH-41		0.1177
197	RH-42		-0.3561
197	RH-43		-0.0198
197	RH-44		-0.0666
197	RH-45		-0.0568
197	RH-46		-0.1036

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
197	RH-47		-0.1842
197	RH-48		0.2404
197	RH-49		-0.3638
197	RH-50		0.0608
197	RH-51		-0.3642
197	RH-52		0.4784
197	RH-53		-0.6018
197	RH-54		0.2408
197	RH-55		0.2370
197	RH-56		-0.2368
197	RH-57		0.1219
197	RH-58		-0.3519
197	RH-59		-0.0156
197	RH-60		-0.0624
197	RH-61		-0.0526
197	RH-62		-0.0994
197	RH-63		-0.1800
197	RH-64		0.2446
197	RH-65		-0.3596
197	RH-66		0.0651
197	RH-67		-0.3599
197	RH-68		0.4826
197	RH-69		-0.5976
197	RH-70		0.2450
197	RH-71		0.0000
197	RH-72		-0.0022
197	RH-73		0.0049
197	RH-74		0.2931
197	RH-75		-0.1806
197	RH-76		0.1780
197	RH-77		-0.2957
197	RH-78		0.0406
197	RH-79		-0.0062
197	RH-80		0.0036
197	RH-81		-0.0432
197	RH-82		-0.1238
197	RH-83		0.3008
197	RH-84		-0.3034
197	RH-85		0.1212
197	RH-86		-0.3038
197	RH-87		0.5388
197	RH-88		-0.5414
197	RH-89		0.3012
197	RH-90		0.2973
197	RH-91		-0.1764
197	RH-92		0.1823
197	RH-93		-0.2915
197	RH-94		0.0448
197	RH-95		-0.0020
197	RH-96		0.0078
197	RH-97		-0.0390
197	RH-98		-0.1196
197	RH-99		0.3050
197	RH-100		-0.2992
197	RH-101		0.1254
197	RH-102		-0.2996
197	RH-103		0.5430
197	RH-104		-0.5372
197	RH-105		0.3054
197	RH-106		-0.4693
197	RH-107		-0.4144
197	RH-108		-0.3441

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3
			KN-m
197	RH-109		-0.2425
197	RH-110		-0.1663
197	RH-111		-0.0827
197	RH-112		0.0292
197	RH-113		0.1508
197	RH-114		0.2864
197	RH-115		0.4429
197	RH-116		-0.4702
197	RH-117		-0.4152
197	RH-118		-0.3449
197	RH-119		-0.2434
197	RH-120		-0.1672
197	RH-121		-0.0836
197	RH-122		0.0284
197	RH-123		0.1499
197	RH-124		0.2855
197	RH-125		0.4421
197	RH-126		-0.4673
197	RH-127		-0.4124
197	RH-128		-0.3421
197	RH-129		-0.2406
197	RH-130		-0.1644
197	RH-131		-0.0808
197	RH-132		0.0312
197	RH-133		0.1527
197	RH-134		0.2884
197	RH-135		0.4449
197	RH-136		-0.4089
197	RH-137		-0.3540
197	RH-138		-0.2837
197	RH-139		-0.1821
197	RH-140		-0.1059
197	RH-141		-0.0223
197	RH-142		0.0896
197	RH-143		0.2112
197	RH-144		0.3468
197	RH-145		0.5033
197	RH-146		-0.4098
197	RH-147		-0.3549
197	RH-148		-0.2846
197	RH-149		-0.1830
197	RH-150		-0.1068
197	RH-151		-0.0232
197	RH-152		0.0887
197	RH-153		0.2103
197	RH-154		0.3459
197	RH-155		0.5025
197	RH-156		-0.4070
197	RH-157		-0.3520
197	RH-158		-0.2817
197	RH-159		-0.1802
197	RH-160		-0.1040
197	RH-161		-0.0204
197	RH-162		0.0915
197	RH-163		0.2131
197	RH-164		0.3487
197	RH-165		0.5053
200	ENV-ELS-CA	Max	0.4046
200	ENV-ELS-CA	Min	-0.4728
200	ENV-ELS-CP	Max	6.404E-04

Table: Joint Reactions, Part 2 of 2

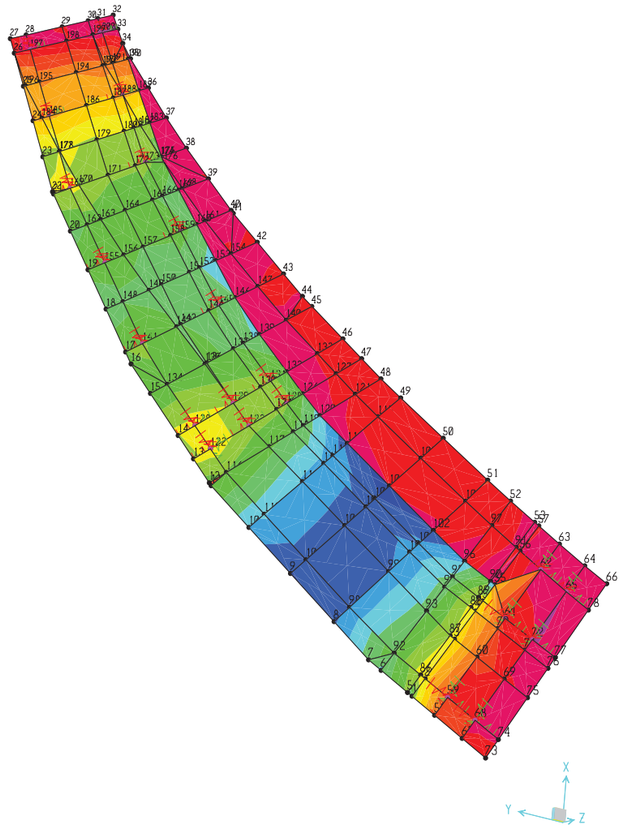
Joint	OutputCase	StepType	M3 KN-m
200	ENV-ELS-CP	Min	-0.0666
200	ENV-ELU-PT	Max	0.5475
200	ENV-ELU-PT	Min	-0.6385
200	ENV-ELU-AC	Max	0.5813
200	ENV-ELU-AC	Min	-0.4798
200	ENV-ELU-EQ	Max	0.0027
200	ENV-ELU-EQ	Min	-0.0117
200	RH-1		-0.0849
200	RH-2		-0.0877
200	RH-3		-0.0787
200	RH-4		0.2087
200	RH-5		-0.2643
200	RH-6		0.0911
200	RH-7		-0.3819
200	RH-8		-0.0433
200	RH-9		-0.0903
200	RH-10		-0.0830
200	RH-11		-0.1299
200	RH-12		-0.2067
200	RH-13		0.2166
200	RH-14		-0.3898
200	RH-15		0.0335
200	RH-16		-0.3899
200	RH-17		0.4544
200	RH-18		-0.6276
200	RH-19		0.2167
200	RH-20		0.2141
200	RH-21		-0.2588
200	RH-22		0.0965
200	RH-23		-0.3765
200	RH-24		-0.0379
200	RH-25		-0.0848
200	RH-26		-0.0775
200	RH-27		-0.1245
200	RH-28		-0.2013
200	RH-29		0.2220
200	RH-30		-0.3843
200	RH-31		0.0389
200	RH-32		-0.3845
200	RH-33		0.4599
200	RH-34		-0.6222
200	RH-35		0.2222
200	RH-36		-0.0629
200	RH-37		-0.0657
200	RH-38		-0.0567
200	RH-39		0.2307
200	RH-40		-0.2423
200	RH-41		0.1131
200	RH-42		-0.3599
200	RH-43		-0.0213
200	RH-44		-0.0682
200	RH-45		-0.0609
200	RH-46		-0.1079
200	RH-47		-0.1847
200	RH-48		0.2386
200	RH-49		-0.3677
200	RH-50		0.0555
200	RH-51		-0.3679

Table: Joint Reactions, Part 2 of 2

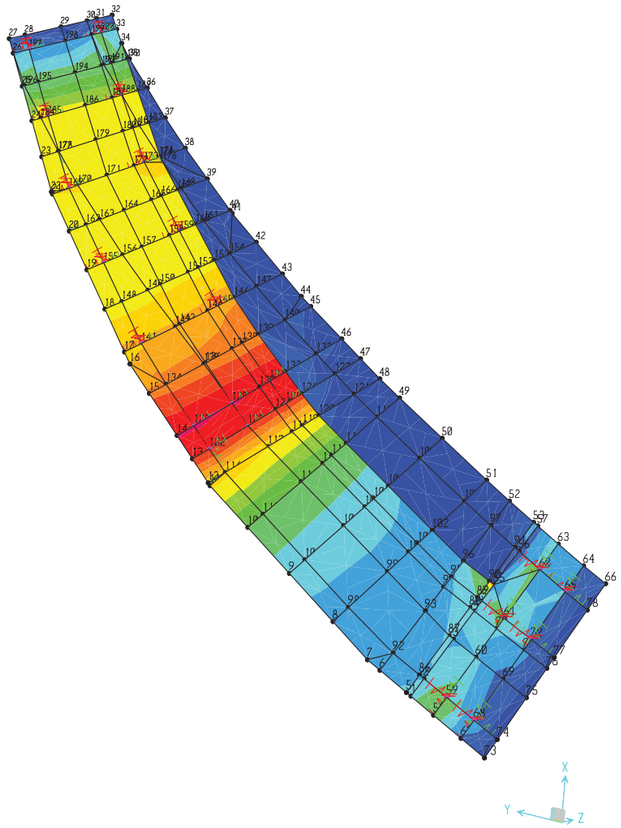
Joint	OutputCase	StepType	M3 KN-m
200	RH-52		0.4765
200	RH-53		-0.6056
200	RH-54		0.2387
200	RH-55		0.2361
200	RH-56		-0.2368
200	RH-57		0.1185
200	RH-58		-0.3545
200	RH-59		-0.0159
200	RH-60		-0.0628
200	RH-61		-0.0555
200	RH-62		-0.1025
200	RH-63		-0.1793
200	RH-64		0.2440
200	RH-65		-0.3623
200	RH-66		0.0610
200	RH-67		-0.3625
200	RH-68		0.4819
200	RH-69		-0.6002
200	RH-70		0.2442
200	RH-71		0.0000
200	RH-72		-0.0028
200	RH-73		0.0063
200	RH-74		0.2936
200	RH-75		-0.1793
200	RH-76		0.1760
200	RH-77		-0.2970
200	RH-78		0.0416
200	RH-79		-0.0053
200	RH-80		0.0020
200	RH-81		-0.0450
200	RH-82		-0.1218
200	RH-83		0.3015
200	RH-84		-0.3048
200	RH-85		0.1184
200	RH-86		-0.3050
200	RH-87		0.5394
200	RH-88		-0.5427
200	RH-89		0.3017
200	RH-90		0.2991
200	RH-91		-0.1739
200	RH-92		0.1814
200	RH-93		-0.2915
200	RH-94		0.0470
200	RH-95		1.045E-04
200	RH-96		0.0074
200	RH-97		-0.0395
200	RH-98		-0.1164
200	RH-99		0.3069
200	RH-100		-0.2994
200	RH-101		0.1239
200	RH-102		-0.2996
200	RH-103		0.5448
200	RH-104		-0.5373
200	RH-105		0.3071
200	RH-106		-0.4710
200	RH-107		-0.4162
200	RH-108		-0.3461
200	RH-109		-0.2448
200	RH-110		-0.1688
200	RH-111		-0.0853
200	RH-112		0.0264
200	RH-113		0.1477

Table: Joint Reactions, Part 2 of 2

Joint	OutputCase	StepType	M3 KN-m
200	RH-114		0.2831
200	RH-115		0.4385
200	RH-116		-0.4722
200	RH-117		-0.4173
200	RH-118		-0.3472
200	RH-119		-0.2459
200	RH-120		-0.1699
200	RH-121		-0.0865
200	RH-122		0.0253
200	RH-123		0.1466
200	RH-124		0.2820
200	RH-125		0.4373
200	RH-126		-0.4685
200	RH-127		-0.4137
200	RH-128		-0.3436
200	RH-129		-0.2423
200	RH-130		-0.1663
200	RH-131		-0.0828
200	RH-132		0.0289
200	RH-133		0.1502
200	RH-134		0.2856
200	RH-135		0.4410
200	RH-136		-0.4081
200	RH-137		-0.3533
200	RH-138		-0.2832
200	RH-139		-0.1819
200	RH-140		-0.1059
200	RH-141		-0.0224
200	RH-142		0.0893
200	RH-143		0.2107
200	RH-144		0.3460
200	RH-145		0.5014
200	RH-146		-0.4092
200	RH-147		-0.3544
200	RH-148		-0.2843
200	RH-149		-0.1830
200	RH-150		-0.1070
200	RH-151		-0.0235
200	RH-152		0.0882
200	RH-153		0.2095
200	RH-154		0.3449
200	RH-155		0.5003
200	RH-156		-0.4056
200	RH-157		-0.3508
200	RH-158		-0.2807
200	RH-159		-0.1794
200	RH-160		-0.1034
200	RH-161		-0.0199
200	RH-162		0.0918
200	RH-163		0.2132
200	RH-164		0.3485
200	RH-165		0.5039



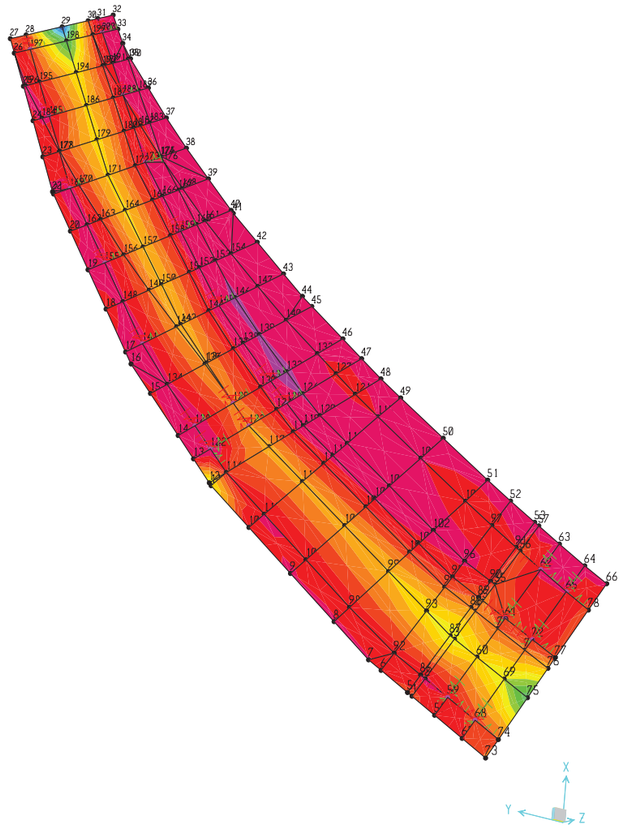
SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M11 Diagram (ENV-ELU-PT - Max) - KN, m, C Units



SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M11 Diagram (ENV-ELU-PT - Min) - KN, m, C Units

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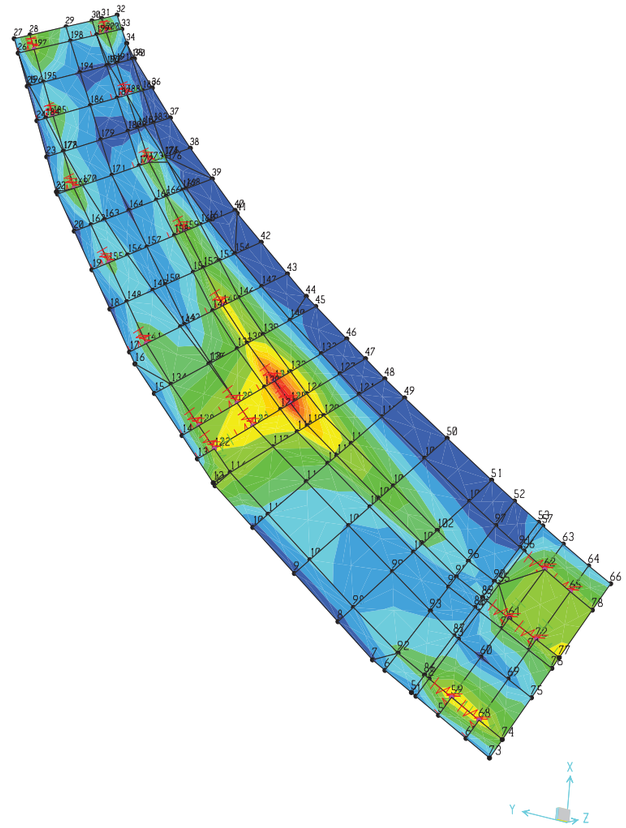


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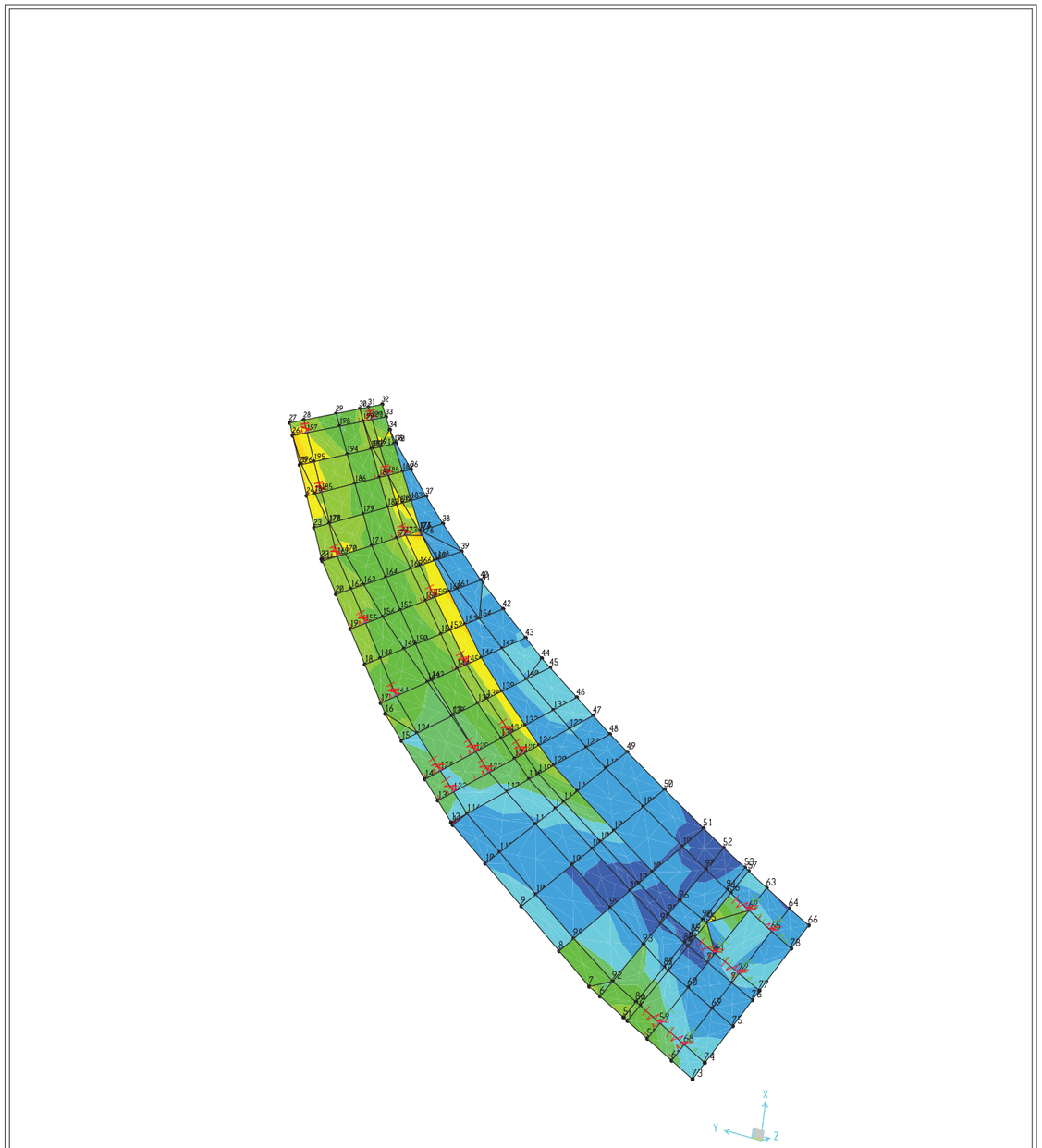
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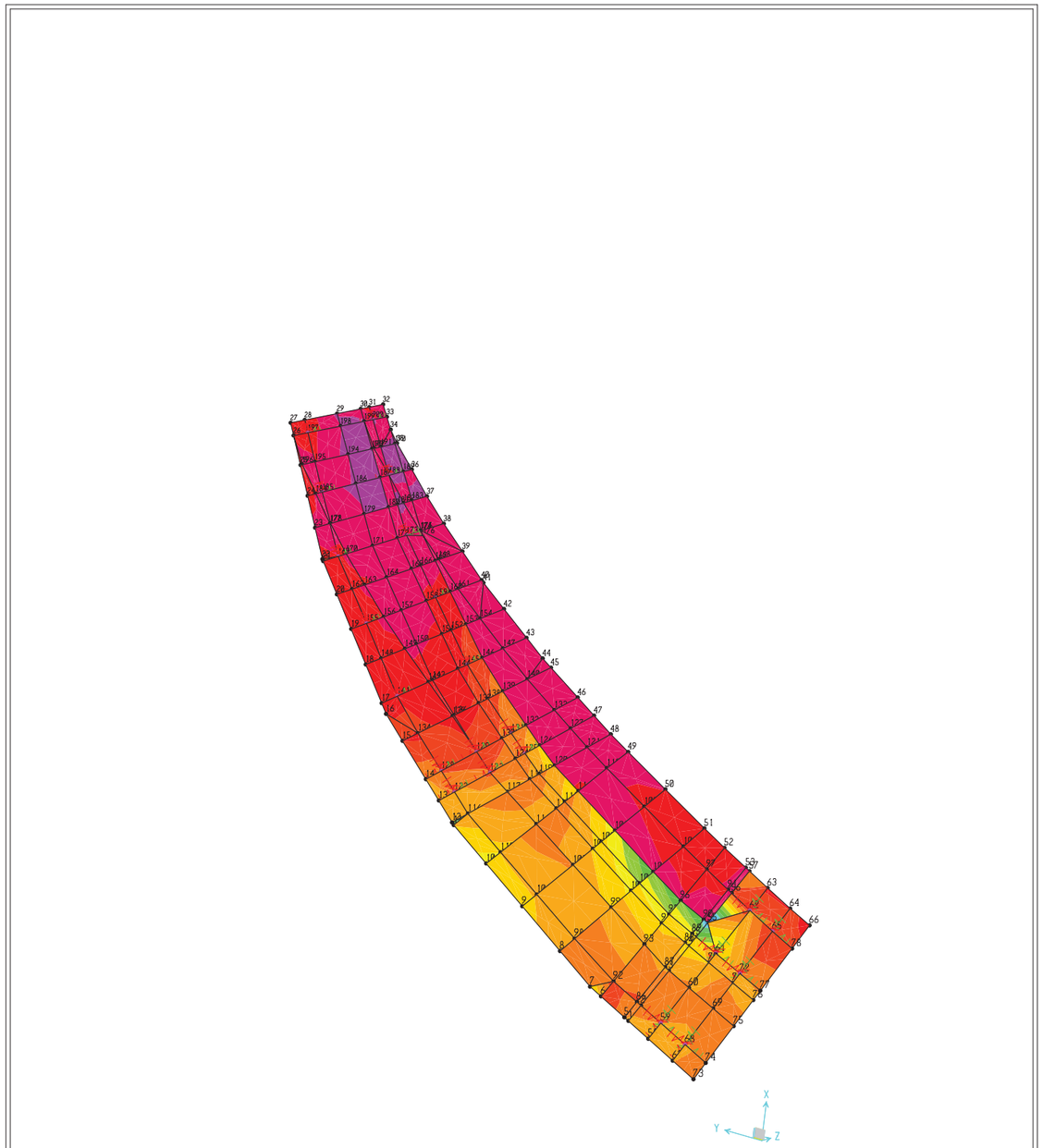


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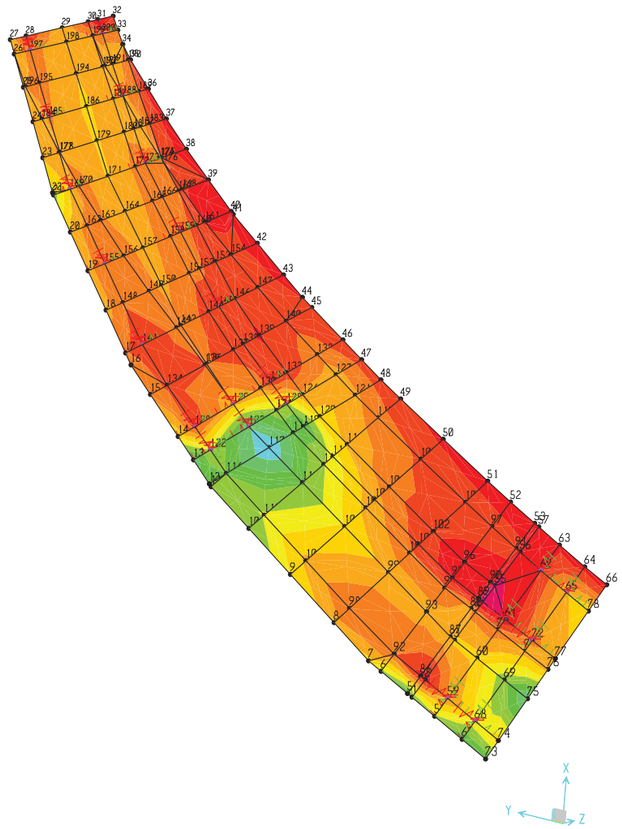
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SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M12 Diagram (ENV-ELU-PT - Min) - KN, m, C Units

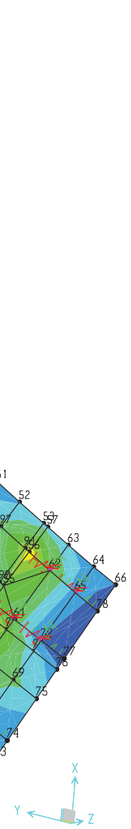


SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M12 Diagram (ENV-ELU-PT - Max) - KN, m, C Units



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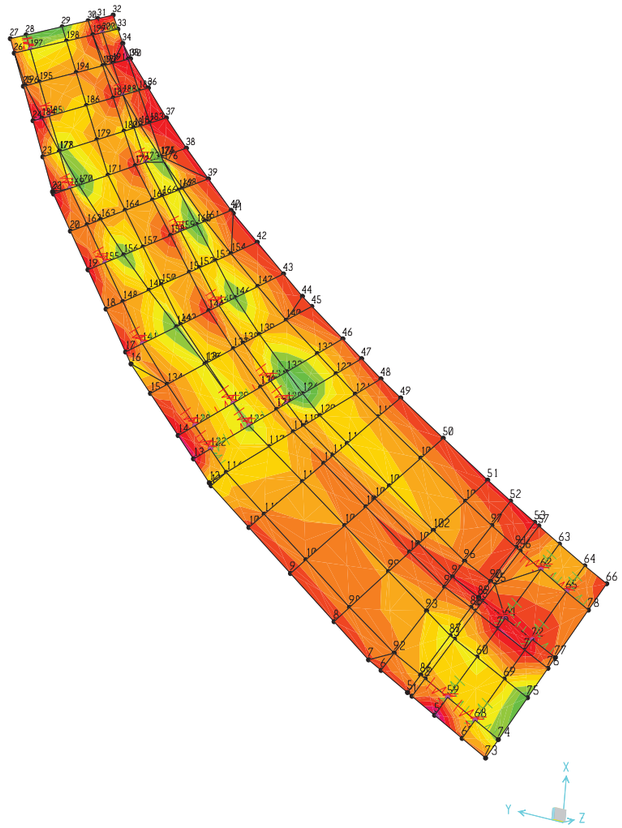
SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant V13 Diagram (ENV-ELU-PT - Max) - KN, m, C Units



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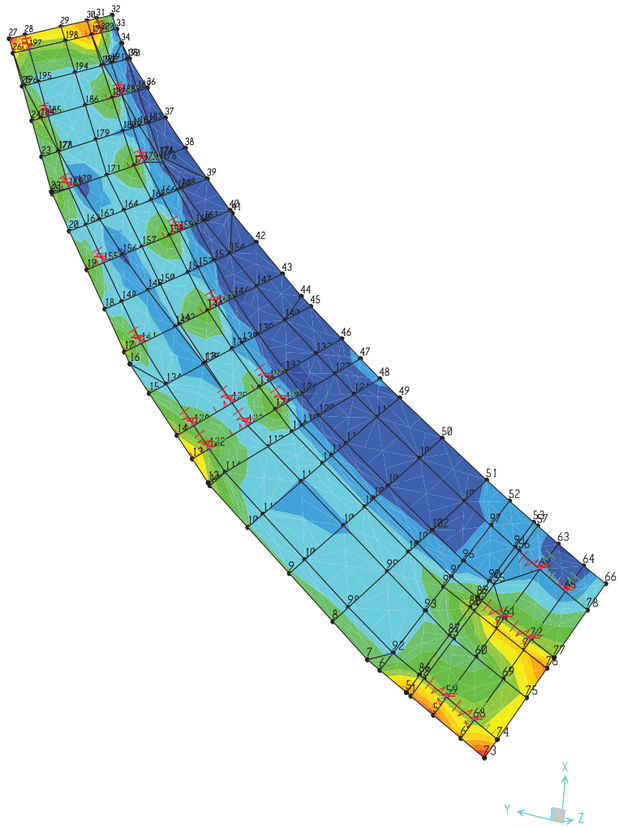
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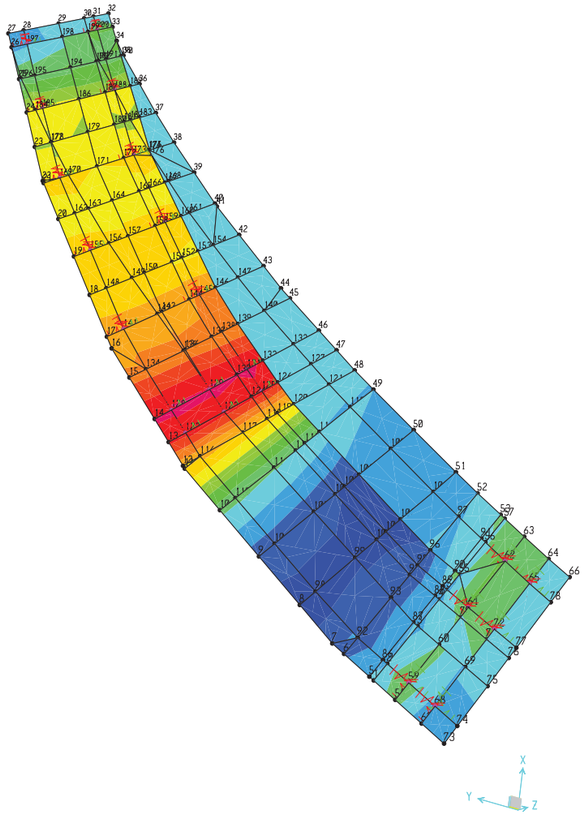
SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant V23 Diagram (ENV-ELU-PT - Max) - KN, m, C Units

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SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant V23 Diagram (ENV-ELU-PT - Min) - KN, m, C Units

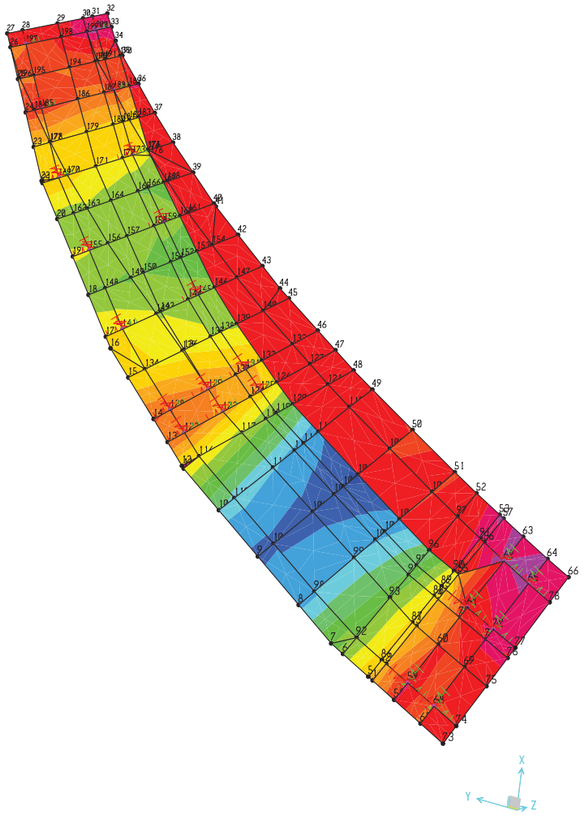
SAP2000 12/13/16 15:35:50



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SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M11 Diagram (ENV-ELS-CP - Min) - KN, m, C Units

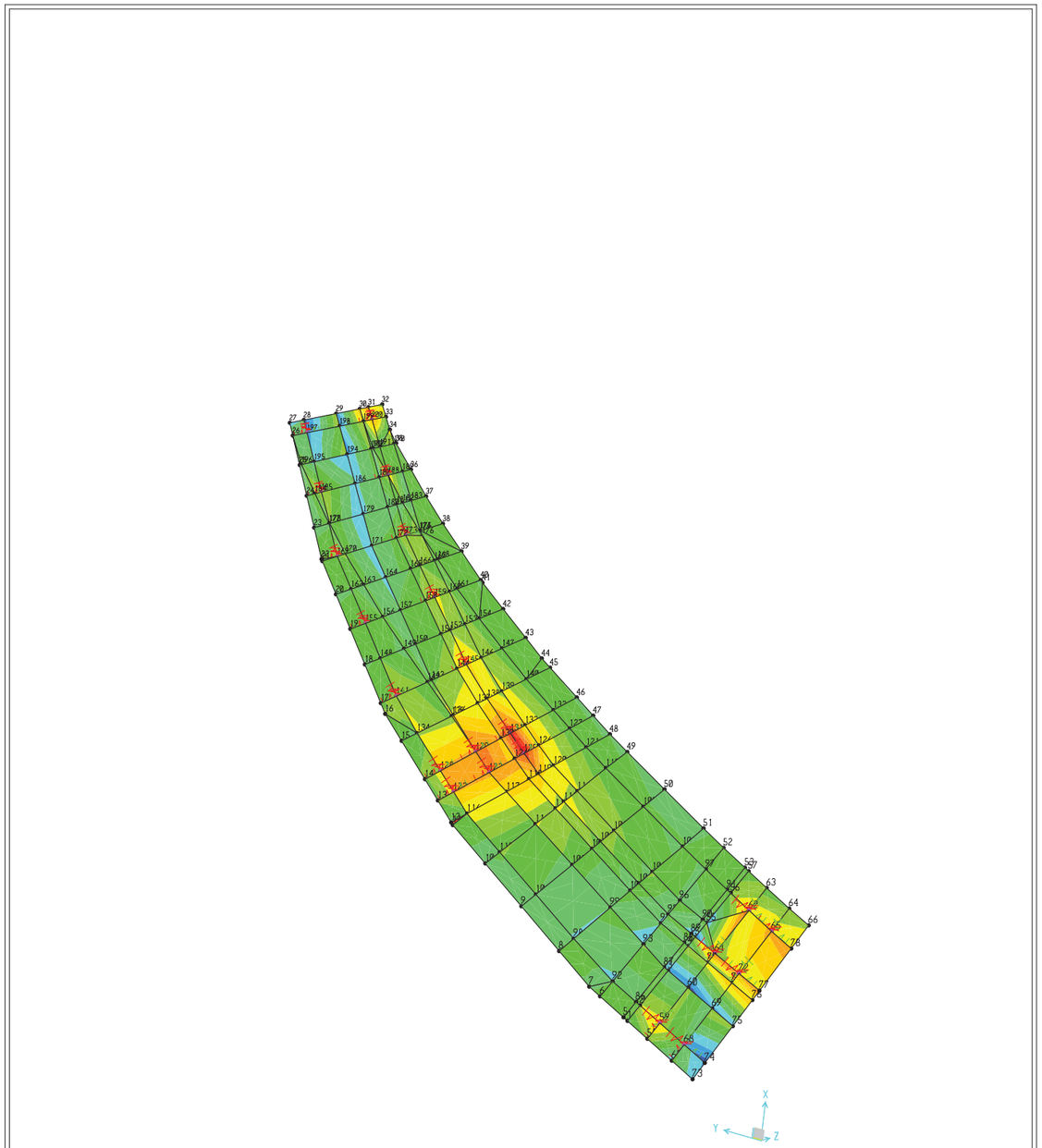
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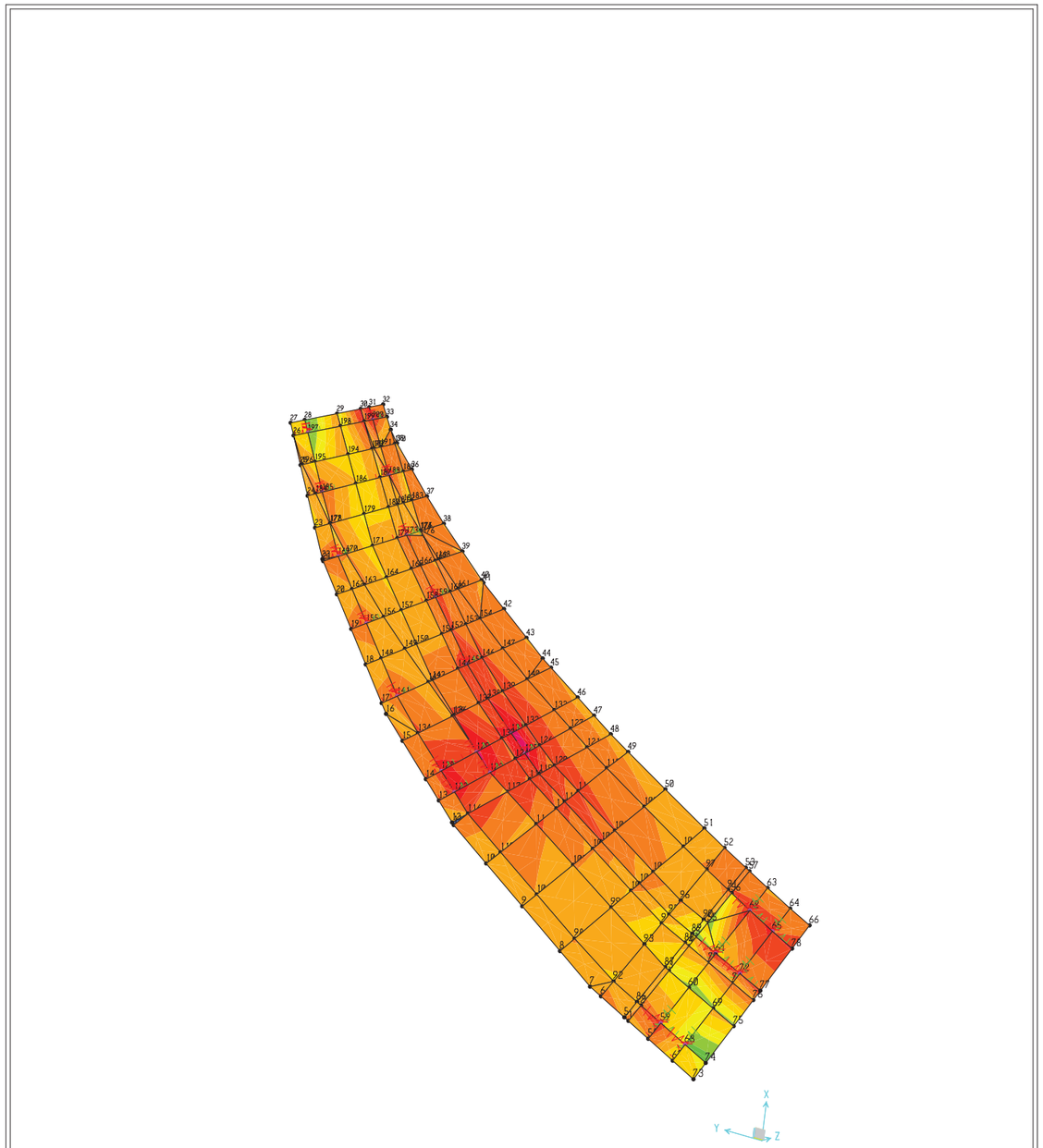
SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M11 Diagram (ENV-ELS-CP - Max) - KN, m, C Units

SAP2000 12/13/16 15:36:54

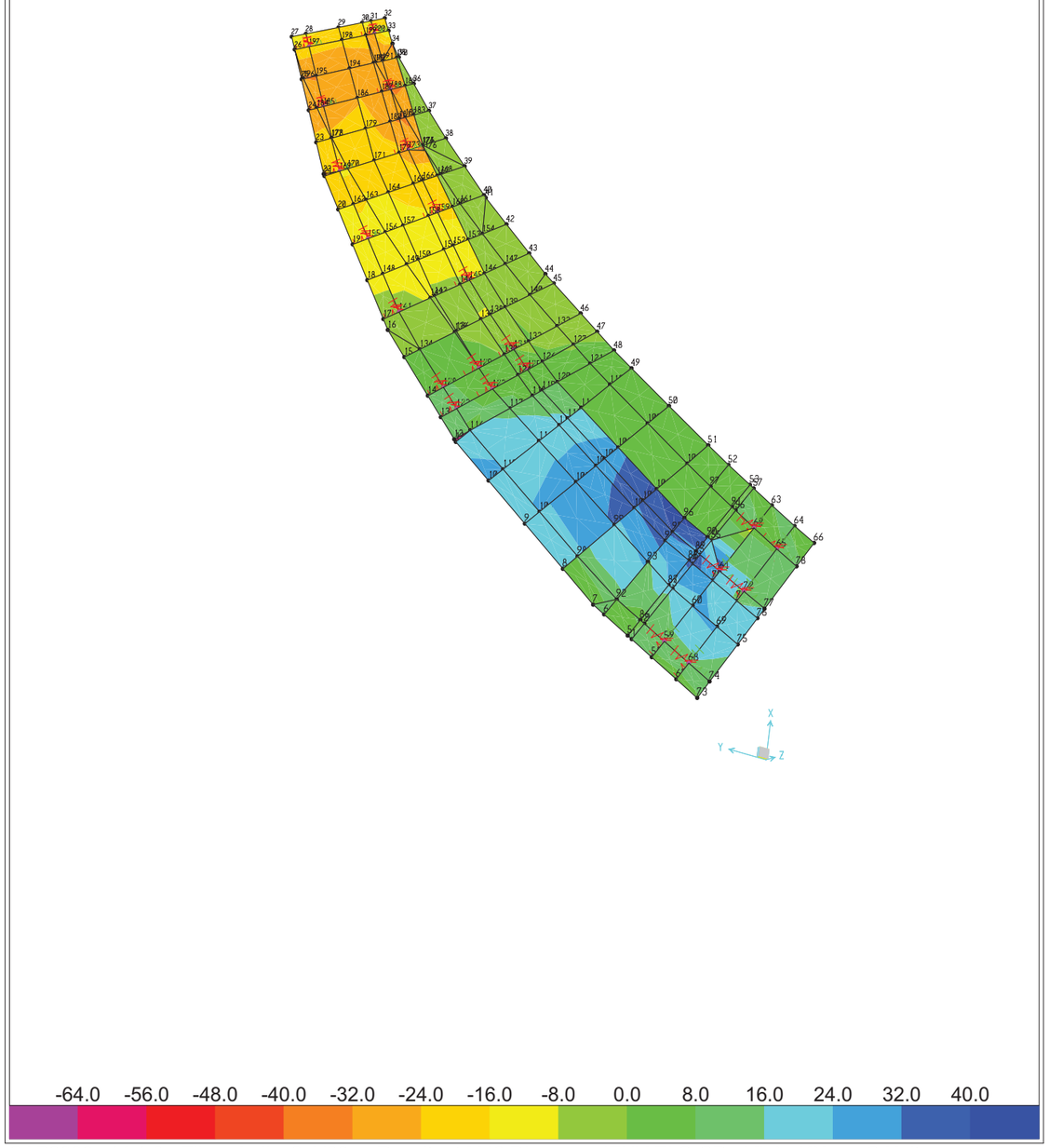


SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M22 Diagram (ENV-ELS-CP - Min) - KN, m, C Units

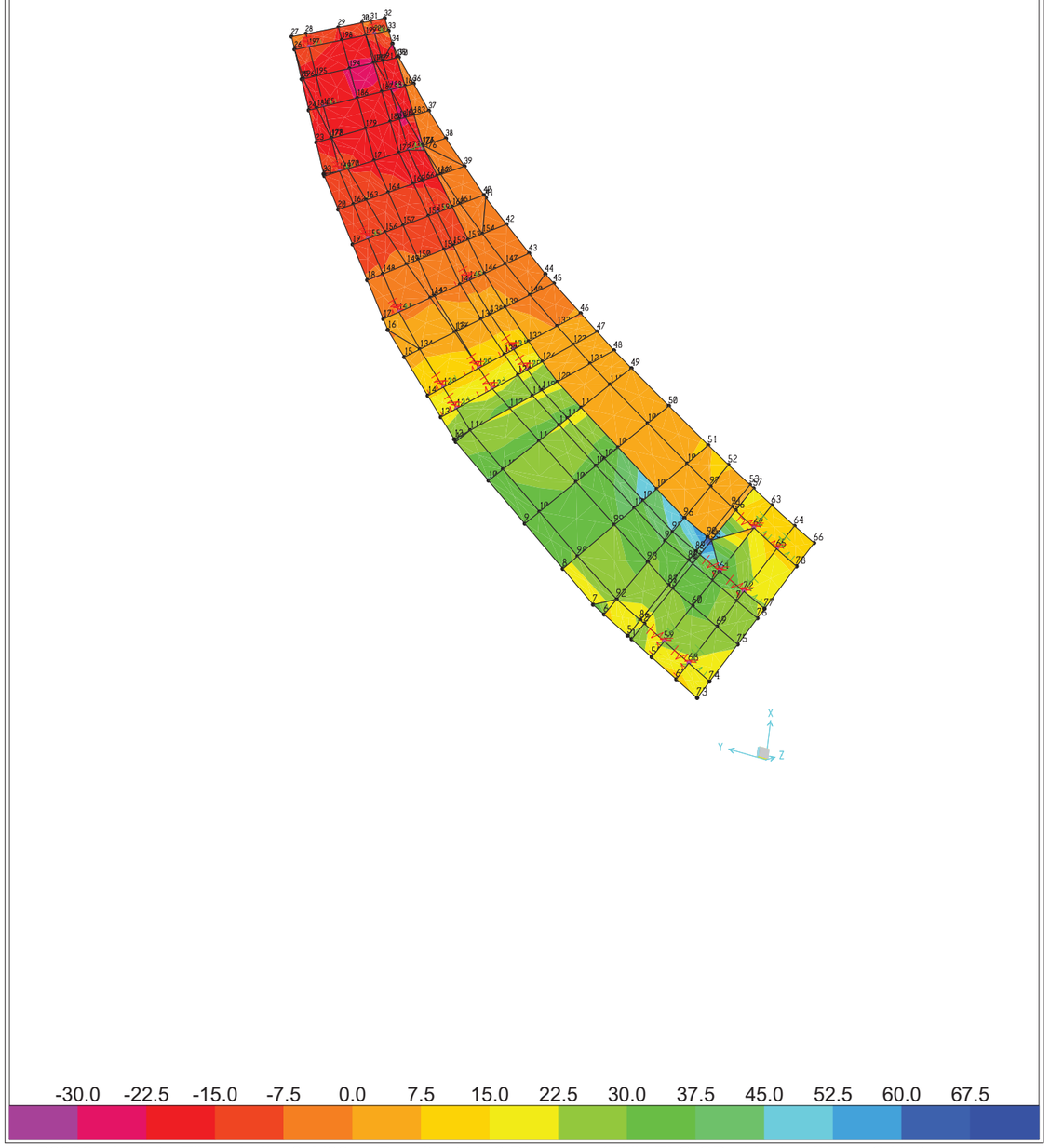
SAP2000 12/13/16 15:37:48



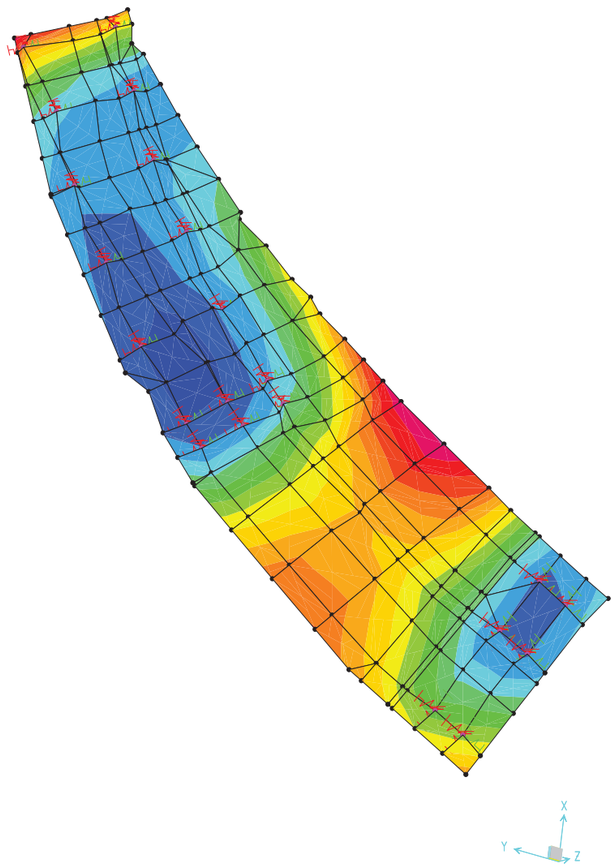
SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M22 Diagram (ENV-ELS-CP - Max) - KN, m, C Units



SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M12 Diagram (ENV-ELS-CP - Min) - KN, m, C Units



SAP2000 v14.1.0 - File:voladizo2_V09 - Resultant M12 Diagram (ENV-ELS-CP - Max) - KN, m, C Units



-1.90 -1.80 -1.70 -1.60 -1.50 -1.40 -1.30 -1.20 -1.10 -1.00 -0.90 -0.80 -0.70 -0.60 E-3

SAP2000 v14.1.0 - File:voladizo2_V09 - Deformed Shape (ENV-ELS-CA) - KN, m, C Units

ANEXO 3 AL APÉNDICE Nº 12.2

COMPROBACIÓN DE SECCIONES DE HORMIGÓN

LOSA-100-ELU-M-LONG-POS

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 16/12/2016

Hora: 9:42:34

Comprobación de secciones a flexión simple

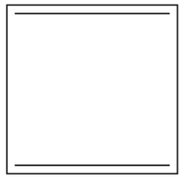
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

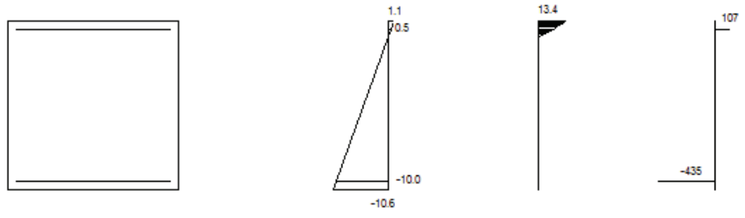
Sección : LS
b [m] = 1.00
h [m] = 1.00
ri [m] = 0.050
rs [m] = 0.050



2 Comprobación

At [cm²] = 20.1
Ac [cm²] = 13.4

Mu [kN·m] = 798.0



Plano de deformación de agotamiento

x [m] = 0.096
1/r [1/m]·1.E-3 = 11.7
ε_s ·1.E-3 = 1.1

ε_i ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	13.4	0.5	-107.0
0.950	20.1	-10.0	434.8

LOSA-100-ELU-M-LONG-POS-REF

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 16/12/2016

Hora: 10:42:40

Comprobación de secciones a flexión simple

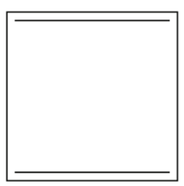
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

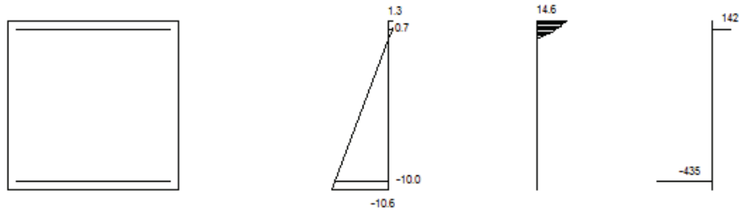
Sección : LS
b [m] = 1.00
h [m] = 1.00
ri [m] = 0.050
rs [m] = 0.050



2 Comprobación

At [cm²] = 25.8
Ac [cm²] = 13.4

Mu [kN·m] = 1017.8



Plano de deformación de agotamiento

x [m] = 0.110
1/r [1/m]·1.E-3 = 11.9
ε_s ·1.E-3 = 1.3

ε_i ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	13.4	0.7	-142.0
0.950	25.8	-10.0	434.8

LOSA-100-ELS-FIS-M-LONG-POS

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2

fyk= 500 N/mm2

Sección:

Geometría

b= 1 m

h= 1 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm

Arm. Intercalada ϕ2= 0 mm

separación strac = 100 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2

recub. geom= 50 mm

Armadura de compresión

ϕ3= 16 mm

separacion scomp= 150 mm

recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	454.032	-	-	-	M<Mfis. La sección no fisura
2	454.032	-	-	-	M<Mfis. La sección no fisura
3	454.032	-	-	-	M<Mfis. La sección no fisura
4	454.032	-	-	-	M<Mfis. La sección no fisura
5	454.032	-	-	-	M<Mfis. La sección no fisura
6	454.032	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-100-ELU-M-LONG-NEG

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 16/12/2016

Hora: 9:44:53

Comprobación de secciones a flexión simple

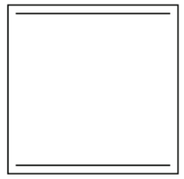
1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Sección

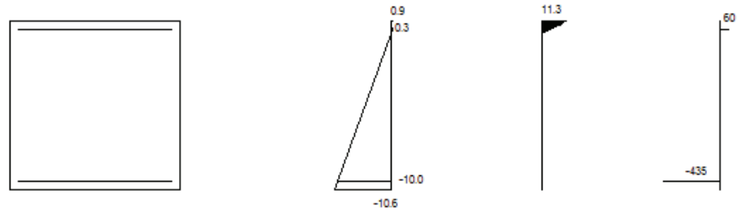
```
Sección : LS
b  [m] = 1.00
h  [m] = 1.00
ri [m] = 0.050
rs [m] = 0.050
```



2 Comprobación

```
At [cm²]  = 13.4
Ac [cm²]  = 20.1

Mu [kN·m] = 536.0
```



Plano de deformación de agotamiento

```
x    [m]          = 0.076
1/r  [1/m]·1.E-3  = 11.4
εs ·1.E-3         = 0.9
```

ε_i ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	20.1	0.3	-59.6
0.950	13.4	-10.0	434.8

LOSA-100-ELU-M-LONG-NEG-REF

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 16/12/2016

Hora: 10:46:44

Comprobación de secciones a flexión simple

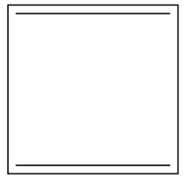
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

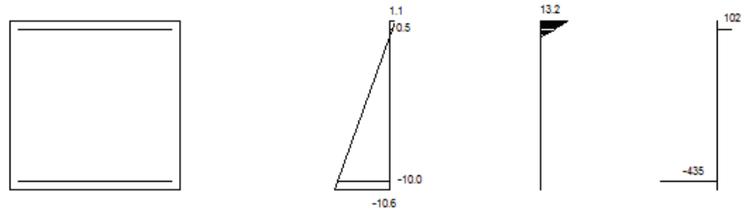
Sección : LS
b [m] = 1.00
h [m] = 1.00
ri [m] = 0.050
rs [m] = 0.050



2 Comprobación

At [cm²] = 21.0
Ac [cm²] = 20.1

Mu [kN·m] = 831.2



Plano de deformación de agotamiento

x [m] = 0.094
1/r [1/m]·1.E-3 = 11.7
ε_s ·1.E-3 = 1.1

ε_i ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	20.1	0.5	-102.0
0.950	21.0	-10.0	434.8

LOSA-100-ELS-FIS-M-LONG-NEG

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 1 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 150 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 16 mm
separacion scomp= 100 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	450.197	-	-	-	M<Mfis. La sección no fisura
2	450.197	-	-	-	M<Mfis. La sección no fisura
3	450.197	-	-	-	M<Mfis. La sección no fisura
4	450.197	-	-	-	M<Mfis. La sección no fisura
5	450.197	-	-	-	M<Mfis. La sección no fisura
6	450.197	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-100-ELU-M-TRANS

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 13/10/2016

Hora: 3:44:14

Comprobación de secciones a flexión simple

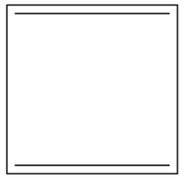
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

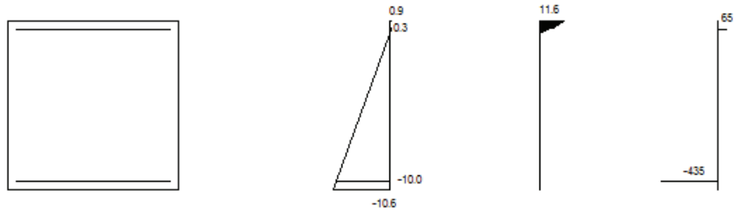
Sección : LS
b [m] = 1.00
h [m] = 1.00
ri [m] = 0.050
rs [m] = 0.050



2 Comprobación

At [cm²] = 13.4
Ac [cm²] = 13.4

Mu [kN·m] = 536.0



Plano de deformación de agotamiento

x [m] = 0.078
1/r [1/m]·1.E-3 = 11.4
ε_s ·1.E-3 = 0.9

ε_i ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	13.4	0.3	-64.6
0.950	13.4	-10.0	434.8

LOSA-100-ELS-FIS-M-TRANS

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 1 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 150 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 16 mm
separacion scomp= 150 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	447.203	-	-	-	M<Mfis. La sección no fisura
2	447.203	-	-	-	M<Mfis. La sección no fisura
3	447.203	-	-	-	M<Mfis. La sección no fisura
4	447.203	-	-	-	M<Mfis. La sección no fisura
5	447.203	-	-	-	M<Mfis. La sección no fisura
6	447.203	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-100-ELU-Q-SIN-ARM

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 13/10/2016

Hora: 3:49:16

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

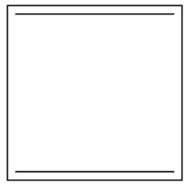
```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento sin armadura a cortante
```

- Sección

```
Sección : LS
b0  [m] = 1.00
h   [m] = 1.00
```



2 Comprobación

```
ρl [·1.E-3] = 1
 Nd [kN]    = 0.0

 Vu [kN]    = 418.5
```

LOSA-100-ELU-Q-CON-ARM

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 13/10/2016

Hora: 5:05:36

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

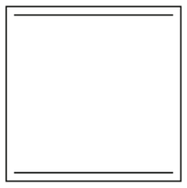
```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento con armadura a cortante
```

- Sección

```
Sección : LS
b0  [m] = 1.00
h   [m] = 1.00
```



2 Comprobación

```
Tipo de armadura: cercos a 90.0°
separación st [m]  = 0.226
ϕ [mm]             = 10
n° ramas           : 4
Area [cm²/m]       = 13.9
ρl [·1.E-3]        = 1

Inclinación de las bielas θ[°] = 45
Nd [kN]            = 0.0
ρcomprimida [·1.E-3] = 0.0
σyd [MPa]          = 0.0

Vu1 [kN]           = 4750.0
Vu2 [kN]           = 663.5
Vcu [kN]           = 188.1
Vsu [kN]           = 475.4
```

- Resistencia a cortante:

```
Vu [kN]            = 663.5
```

LOSA-40-ELU-M-LONG-POS

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 15/12/2016

Hora: 17:56:03

Comprobación de secciones a flexión simple

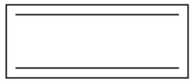
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

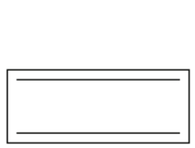
Sección : LS40
b [m] = 1.00
h [m] = 0.40
ri [m] = 0.050
rs [m] = 0.050

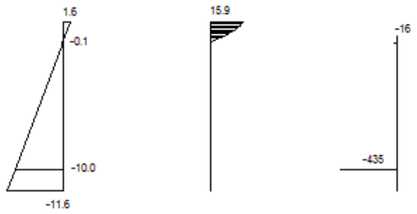


2 Comprobación

At [cm²] = 10.1
Ac [cm²] = 13.4

Mu [kN·m] = 146.1





Plano de deformación de agotamiento

x [m] = 0.048
1/r [1/m]·1.E-3 = 33.0
ε_s ·1.E-3 = 1.6

ε_i ·1.E-3 = -11.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	13.4	-0.1	16.3
0.350	10.1	-10.0	434.8

LOSA-40-ELS-FIS-M-LONG-POS

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 0.4 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 200 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 16 mm
separacion scomp= 150 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	72.542	-	-	-	M<Mfis. La sección no fisura
2	72.542	-	-	-	M<Mfis. La sección no fisura
3	72.542	-	-	-	M<Mfis. La sección no fisura
4	72.542	-	-	-	M<Mfis. La sección no fisura
5	72.542	-	-	-	M<Mfis. La sección no fisura
6	72.542	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-40-ELU-M-LONG-NEG

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 15/12/2016

Hora: 17:58:35

Comprobación de secciones a flexión simple

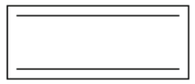
1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Sección

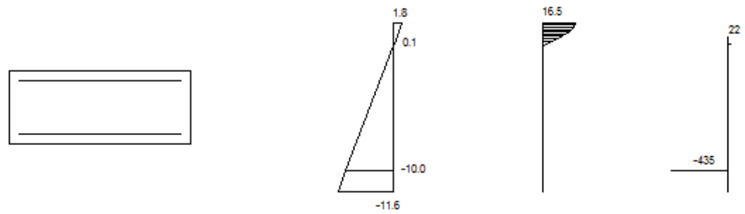
```
Sección : LS40
b  [m] = 1.00
h  [m] = 0.40
ri [m] = 0.050
rs [m] = 0.050
```



2 Comprobación

```
At [cm²]  = 13.4
Ac [cm²]  = 10.1

Mu [kN·m] = 191.8
```



Plano de deformación de agotamiento

```
x    [m]          = 0.053
1/r  [1/m]·1.E-3  = 33.6
εs ·1.E-3         = 1.8
```

ε_i ·1.E-3 = -11.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	10.1	0.1	-22.3
0.350	13.4	-10.0	434.8

LOSA-40-ELS-FIS-M-LONG-NEG

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 0.4 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 150 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 16 mm
separacion scomp= 200 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	73.151	-	-	-	M<Mfis. La sección no fisura
2	73.151	-	-	-	M<Mfis. La sección no fisura
3	73.151	-	-	-	M<Mfis. La sección no fisura
4	73.151	-	-	-	M<Mfis. La sección no fisura
5	73.151	-	-	-	M<Mfis. La sección no fisura
6	73.151	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-40-ELU-M-TRAN-POS

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 15/12/2016

Hora: 18:00:03

Comprobación de secciones a flexión simple

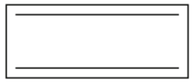
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

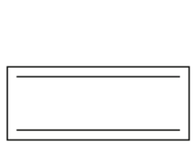
Sección : LS40
b [m] = 1.00
h [m] = 0.40
ri [m] = 0.050
rs [m] = 0.050

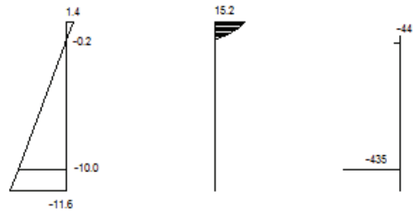


2 Comprobación

At [cm²] = 7.5
Ac [cm²] = 13.4

Mu [kN·m] = 111.7





Plano de deformación de agotamiento

x [m] = 0.043
1/r [1/m]·1.E-3 = 32.5
ε_s ·1.E-3 = 1.4

ε_i ·1.E-3 = -11.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	13.4	-0.2	43.5
0.350	7.5	-10.0	434.8

LOSA-40-ELS-FIS-M-TRAN-POS

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 0.4 m

Armadura de tracción

Arm. Principal ϕ1= 12 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 150 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 16 mm
separacion scomp= 150 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	71.883	-	-	-	M<Mfis. La sección no fisura
2	71.883	-	-	-	M<Mfis. La sección no fisura
3	71.883	-	-	-	M<Mfis. La sección no fisura
4	71.883	-	-	-	M<Mfis. La sección no fisura
5	71.883	-	-	-	M<Mfis. La sección no fisura
6	71.883	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-40-ELU-M-TRAN-NEG

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 15/12/2016

Hora: 18:01:36

Comprobación de secciones a flexión simple

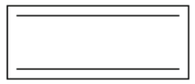
1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Sección

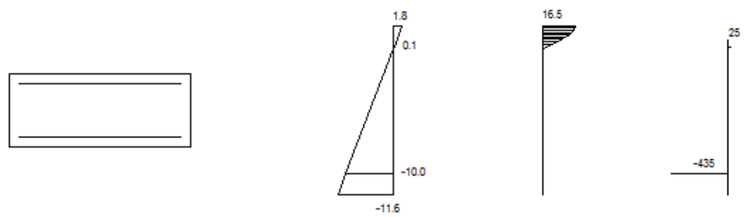
```
Sección : LS40
b  [m] = 1.00
h  [m] = 0.40
ri [m] = 0.050
rs [m] = 0.050
```



2 Comprobación

```
At [cm²]  = 13.4
Ac [cm²]  = 7.5

Mu [kN·m] = 191.9
```



Plano de deformación de agotamiento

```
x    [m]          = 0.054
1/r  [1/m]·1.E-3  = 33.6
εs ·1.E-3         = 1.8
```

ε_i ·1.E-3 = -11.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.050	7.5	0.1	-24.5
0.350	13.4	-10.0	434.8

LOSA-40-ELS-FIS-M-TRAN-NEG

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 0.4 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 150 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 12 mm
separacion scomp= 150 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	72.928	-	-	-	M<Mfis. La sección no fisura
2	72.928	-	-	-	M<Mfis. La sección no fisura
3	72.928	-	-	-	M<Mfis. La sección no fisura
4	72.928	-	-	-	M<Mfis. La sección no fisura
5	72.928	-	-	-	M<Mfis. La sección no fisura
6	72.928	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.000**	

LOSA-40-ELU-Q-SIN-ARM

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 13/10/2016

Hora: 5:26:26

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

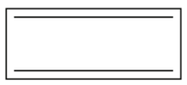
```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento sin armadura a cortante
```

- Sección

```
Sección : LS40
b0  [m] = 1.00
h   [m] = 0.40
```



2 Comprobación

```
ρl [·1.E-3] = 2
 Nd [kN]    = 0.0

 Vu [kN]    = 203.6
```


LOSA-40-ELU-Q-CON-ARM

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 13/10/2016

Hora: 6:06:45

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

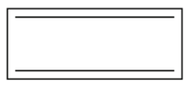
```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento con armadura a cortante
```

- Sección

```
Sección : LS40
b0  [m] = 1.00
h   [m] = 0.40
```



2 Comprobación

Tipo de armadura: cercos a 90.0°
separación st [m] = 0.181
ϕ [mm] = 10
n° ramas : 4
Area [cm²/m] = 17.4
ρ_l [·1.E-3] = 2

Inclinación de las bielas θ[°] = 45
Nd [kN] = 0.0
$\rho_{comprimida}$ [·1.E-3] = 0.0
σyd [MPa] = 0.0

Vu1 [kN] = 1750.0
Vu2 [kN] = 323.8
Vcu [kN] = 105.1
Vsu [kN] = 218.7

- Resistencia a cortante:

Vu [kN] = 323.8

APÉNDICE Nº 12.3

CÁLCULOS ESTRUCTURALES DE MUROS

ÍNDICE

1. REFUERZO DE MURO EXISTENTE 1
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1.2. CÁLCULO DE EMPUJES 1
1.3. COMPROBACIÓN DE ANCLAJES 2
1.3.1. COMPROBACIÓN DE LA TENSIÓN ADMISIBLE DEL ACERO 2
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2. MURO MÉNSULA 3
2.1. DESCRIPCIÓN DE LA ESTRUCTURA 3

ANEXO 1: LISTADOS DE CÁLCULO DEL REFUERZO DEL MURO EXISTENTE
ANEXO 2: LISTADOS DE CÁLCULO DEL MURO MÉNSULA

1. REFUERZO DE MURO EXISTENTE

1.1. DESCRIPCIÓN DE LA ESTRUCTURA

En el P.K. 1+280, en la margen derecha de la BI-633, se proyecta el refuerzo de un muro de mampostería existente, sobre el que actualmente se apoya la carretera existente. Su estado de conservación no es bueno, por lo que se procederá a reforzarlo mediante hormigón proyectado y la ejecución de anclajes al terreno. Además se ejecutarán carriles perforados para reforzar el terreno a los lados del muro. Los carriles irán arriostrados con una viga de atado en cabeza.

La altura del muro de mampostería existente a reforzar varía entre 2,00 m y 2,75 m y tiene una longitud de 10,30 metros. El hormigón proyectado tendrá un espesor mínimo de 15 cm y se ejecutará con doble mallazo. Se ejecutará según la siguiente secuencia:

- Capa regularizadora de 5cm de espesor mínimo de hormigón proyectado.
- Colocación de primer mallazo Φ12 c/ 0,10x0,10
- Segunda capa de 5cm de espesor mínimo de hormigón proyectado.
- Colocación de segundo mallazo Φ12 c/ 0,10x0,10
- Tercera y última capa de 5cm de espesor mínimo de hormigón proyectado.

Los anclajes proyectados son de barra Gewi de 25 mm de diámetro con una longitud libre de 5,00 m y una longitud de bulbo de 3,00 m. Se ejecutarán dos filas de anclajes sobre la gunita colocando 5 anclajes en la fila superior y 4 anclajes en la fila inferior. Se reforzará la zona de asiento de la placa de anclaje sobre la gunita según los detalles indicados en los planos.

El refuerzo del muro existente se ejecutará en dos fases:

- En la primera fase se aplicará el hormigón proyectado en la zona vista del muro existente y se ejecutará la fila superior de anclajes.
- En la segunda fase se ejecutarán los carriles perforados, se excavará la parte superficial del terreno del intradós del muro para extender el gunitado y se ejecutará la segunda fila de anclajes.

1.2. CÁLCULO DE EMPUJES

Se calcula el empuje al reposo a partir de los siguientes parámetros:

- Angulo de rozamiento interno: 30 º
- Densidad: 2,2 Ton/ m
- K= 0,5
- H=2,5 m
- Sobrecarga en el trasdós: 1 Ton/ m^2

$E_{tierras}=1/2*\gamma*k*H^2$= 3,44 Ton/ m de muro

$E_{sobrecarga}=k*q*H$= 1,25 Ton/ m de muro

Empuje total = 4,69 Ton/ m de muro

Aplicando un coeficiente de seguridad de 1,5 se obtiene un empuje a aplicar de 7,035 Ton / m de muro.

Colocando 9 anclajes repartidos en dos filas en una anchura de 10,30 m de largo tenemos:

- Fuerza total: 72,46 Ton
- Fuerza horizontal por cada anclaje: 8,05 Ton
- Fuerza por cada anclaje en su dirección teniendo en cuenda una inclinación de 2H:1V: 9,00 Ton

Se colocan anclajes de barra tipo Gewi de 32 mm de diámetro tesados a 13,5 Ton.

1.3. COMPROBACIÓN DE ANCLAJES

1.3.1. COMPROBACIÓN DE LA TENSIÓN ADMISIBLE DEL ACERO

En anclajes permanentes se deberá comprobar que:

$$P_{Nd} / A_T \leq f_{pk} / 1{,}30$$
$$P_{Nd} / A_T \leq f_{yk} / 1{,}15$$

Siendo: P_{Nd} = carga nominal mayorada de cada anclaje.
A_T = sección del tirante.
f_{pk} = límite de rotura del acero del tirante.
f_{yk} = límite elástico del acero del tirante.

Las características del acero que compone las barras Gewi de los anclajes son:

- Límite elástico $f_{yk} = 500\ MPa$
- Límite de rotura $f_{pk} = 550\ MPa$

Anclaje de barra Gewi de 32 mm de diámetro: Para una carga nominal mayorada de 1,5 x 13,5 Ton = 20,25 Ton se obtiene:

$$\frac{A_T . f_{pk}}{P_{Nd}} = 2{,}18 \geq 1{,}30$$

$$\frac{A_T . f_{yk}}{P_{Nd}} = 1{,}98 \geq 1{,}15$$

1.3.2. COMPROBACIÓN DEL DESLIZAMIENTO DE LA LECHADA (BULBO)

Se deberá garantizar que:

$$P_{Nd} / (L_b \cdot p_T) \leq \tau_{lim} / 1{,}2$$

Con: $\tau_{lim} = 6{,}9\ (f_{ck}/22{,}5)^{2/3}$

Siendo: P_{Nd} = carga nominal mayorada de cada anclaje.
p_T = perímetro nominal del tirante = $2\sqrt{\pi \cdot A_T}$
A_T = sección del tirante.
L_b = longitud de cálculo del bulbo.
τ_{lim} = adherencia límite entre el tirante y la lechada expresada en MPa.
f_{ck} = resistencia característica (rotura a compresión a 28 días) de la lechada expresada en MPa.

En este caso, para una lechada de fck = 20 MPa se obtiene una adherencia límite de 6,37 MPa. Teniendo en cuenta que la longitud de bulbo es de 3,00 m, para una carga nominal mayorada de 1,5 x 13,5 Ton = 20,25 Ton se obtiene:

$$\frac{L_b \cdot p_T \cdot \tau_{lim}}{P_{Nd}} = 9{,}5 \geq 1{,}2$$

1.3.3. COMPROBACIÓN FRENTE A ARRANCAMIENTO DE BULBO

Se deberá garantizar que:

$$P_{Nd} / (\pi \cdot D_N \cdot L_b) \leq a_{adm}$$

Siendo: P_{Nd} = carga nominal mayorada de cada anclaje.
D_N = diámetro nominal del bulbo.
L_b = longitud de cálculo del bulbo.
a_{adm} = adherencia admisible frente al deslizamiento o arrancamiento del terreno que rodea el bulbo.

Se ha tomado una adherencia admisible de 0,167 MPa. Teniendo en cuenta que la longitud de bulbo es de 3,00 m, que la carga nominal mayorada de 1,5 x 13,5 Ton = 20,25 Ton y el diámetro nominal del bulbo de 133 mm se obtiene:

$$\frac{P_{Nd}}{\pi . D_N . L_b} = 0{,}162 \leq 0{,}167$$

1.4. CÁLCULO DE ESFUERZOS Y ARMADOS

El cálculo de esfuerzos sobre del hormigón proyectado y los desplazamientos se ha llevado a cabo a través del programa informático CYPECAD. La placa de hormigón proyectado se ha modelado como una losa de cimentación apoyada sobre un terreno con un módulo de balasto de 1000 Ton/m^3. Las cargas de los anclajes se han aplicado como cargas puntuales actuantes sobre la losa. De esta forma se han obtenido los esfuerzos sobre la placa de 15 cm formada por el hormigón proyectado.

Los esfuerzos de dimensionamiento de armaduras obtenidos para la placa de hormigón proyectado son los siguientes:

- Estado límite último:
  - Flexión (armado ambas caras): M_x=M_y= 40,90 KN.m
  - Cortante: Q= 60 KN
  - Punzonamiento: 120 KN
- Estados límite de servicio. Fisuración:
  - Flexión(armado ambas caras): M_x=M_y= 27,27 KN.m

En el “Anexo 1: Listados de cálculo del refuerzo del muro existente” se adjuntan los cálculos realizados y la comprobación de los armados. Se dispone mallazo Φ12 c/ 0,10x0,10 m en ambas caras.

Para las vigas de atado de los carriles se ha dispuesto un armado que cumple holgadamente las cuantías mínimas exigidas por la instrucción EHE-08. Se dispone de una armadura longitudinal de 5 barras Φ16 en cada cara vertical de la viga y cercos Φ10 c/0,10 m. Con estos armados las vigas de atado son capaces de resistir los siguientes esfuerzos:

- Estado límite último:
  - Flexión (armado ambas caras): Mu= 94,2 KN.m
  - Cortante: Qu= 173,8 KN
- Estados límite de servicio. Fisuración:
  - Flexión(armado ambas caras): M(fis<0,3mm)= 53 KN.m

En el “Anexo 1: Listados de cálculo del refuerzo del muro existente” se adjuntan los cálculos realizados y la comprobación de los armados.

2. MURO MÉNSULA

2.1. DESCRIPCIÓN DE LA ESTRUCTURA

A continuación de la estructura en voladizo en la margen izquierda, se proyecta un muro ménsula de hormigón armado, de unos 20 m de longitud, para salvar el desnivel entre la rasante futura y el terreno.

Este muro va desde el P.K. 1+000 del eje B de la Intersección BI-2405 al P.K. 1+020 del mismo eje. En esta zona la plataforma de la calzada se amplía considerablemente respecto de la actual, debido al carril central dispuesto en la intersección, así como por la creación de un sobreancho para crear la acera-resguardo como itinerario peatonal entre las paradas de autobús.

La altura del muro varía entre 3,60 y 4,60 metros y se cimenta en roca con grado de meteorización GM≤ IV con una tensión admisible de 2,5 Kg/cm2. Se ha optado por dotar al alzado de un canto igual a la anchura de la cimentación del pretil. Cabe destacar que debido a la presencia de una conducción de gas se ha previsto dejar un hueco en el muro, y se han proyectado los correspondientes refuerzos.

En el “Anexo 2: Listados de cálculo del muro ménsula” se adjuntan los cálculos realizados.

ANEXO 1 AL APÉNDICE Nº 12.3

LISTADOS DE CÁLCULO DEL REFUERZO DEL MURO EXISTENTE

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Listado de datos de la obra

muro Fecha: 08/06/17

1.- DATOS GENERALES DE LA ESTRUCTURA

Proyecto: muro

Clave: muro_v03

2.- NORMAS CONSIDERADAS

Hormigón: EHE-08

Aceros conformados: EAE 2011

Aceros laminados y armados: EAE 2011

Categoría de uso: A. Zonas residenciales

3.- ACCIONES CONSIDERADAS

3.1.- Hipótesis de carga

Automáticas	Carga permanente Sobrecarga de uso

3.2.- Listado de cargas

Cargas especiales introducidas (en Tm, Tm/m y Tm/m2)

Grupo	Hipótesis	Tipo	Valor	Coordenadas
0	Sobrecarga de uso	Puntual	12.10	(4.83, 1.20)
	Sobrecarga de uso	Puntual	12.10	(6.83, 1.09)
	Sobrecarga de uso	Puntual	12.10	(8.82, 0.98)
	Sobrecarga de uso	Puntual	12.10	(10.82, 0.87)
	Sobrecarga de uso	Puntual	12.10	(12.82, 0.77)
	Sobrecarga de uso	Puntual	12.10	(5.83, 0.51)
	Sobrecarga de uso	Puntual	12.10	(7.83, 0.51)
	Sobrecarga de uso	Puntual	12.10	(9.83, 0.50)
	Sobrecarga de uso	Puntual	12.10	(11.83, 0.50)

4.- ESTADOS LÍMITE

E.L.U. de rotura. Hormigón E.L.U. de rotura. Hormigón en cimentaciones	CTE Cota de nieve: Altitud inferior o igual a 1000 m
Tensiones sobre el terreno Desplazamientos	Acciones características

5.- SITUACIONES DE PROYECTO

Para las distintas situaciones de proyecto, las combinaciones de acciones se definirán de acuerdo con los siguientes criterios:

- Con coeficientes de combinación

$$\sum_{j \geq 1} \gamma_{Gj} G_{kj} + \gamma_{Q1} \Psi_{p1} Q_{k1} + \sum_{i>1} \gamma_{Qi} \Psi_{ai} Q_{ki}$$

- Sin coeficientes de combinación

$$\sum_{j \geq 1} \gamma_{Gj} G_{kj} + \sum_{i \geq 1} \gamma_{Qi} Q_{ki}$$

- Donde:

- G_k Acción permanente
- Q_k Acción variable
- γ_G Coeficiente parcial de seguridad de las acciones permanentes
- $\gamma_{Q,1}$ Coeficiente parcial de seguridad de la acción variable principal
- $\gamma_{Q,i}$ Coeficiente parcial de seguridad de las acciones variables de acompañamiento
- $\psi_{p,1}$ Coeficiente de combinación de la acción variable principal
- $\psi_{a,i}$ Coeficiente de combinación de las acciones variables de acompañamiento

5.1.- Coeficientes parciales de seguridad (γ) y coeficientes de combinación (ψ)

Para cada situación de proyecto y estado límite los coeficientes a utilizar serán:

E.L.U. de rotura. Hormigón: EHE-08

Persistente o transitoria				
	Coeficientes parciales de seguridad (γ)		Coeficientes de combinación (ψ)	
	Favorable	Desfavorable	Principal (ψ_p)	Acompañamiento (ψ_a)
Carga permanente (G)	1.000	1.350	-	-
Sobrecarga (Q)	0.000	1.500	1.000	0.700

E.L.U. de rotura. Hormigón en cimentaciones: EHE-08 / CTE DB-SE C

Persistente o transitoria				
	Coeficientes parciales de seguridad (γ)		Coeficientes de combinación (ψ)	
	Favorable	Desfavorable	Principal (ψ_p)	Acompañamiento (ψ_a)
Carga permanente (G)	1.000	1.600	-	-
Sobrecarga (Q)	0.000	1.600	1.000	0.700

Tensiones sobre el terreno

Característica				
	Coeficientes parciales de seguridad (γ)		Coeficientes de combinación (ψ)	
	Favorable	Desfavorable	Principal (ψ_p)	Acompañamiento (ψ_a)
Carga permanente (G)	1.000	1.000	-	-
Sobrecarga (Q)	0.000	1.000	1.000	1.000

Desplazamientos

Característica				
	Coeficientes parciales de seguridad (γ)		Coeficientes de combinación (ψ)	
	Favorable	Desfavorable	Principal (ψ_p)	Acompañamiento (ψ_a)
Carga permanente (G)	1.000	1.000	-	-
Sobrecarga (Q)	0.000	1.000	1.000	1.000

5.2.- Combinaciones

- **Nombres de las hipótesis**

G Carga permanente
Qa Sobrecarga de uso

- **E.L.U. de rotura. Hormigón**

Comb.	G	Qa
1	1.000	
2	1.350	
3	1.000	1.500
4	1.350	1.500

- **E.L.U. de rotura. Hormigón en cimentaciones**

Comb.	G	Qa
1	1.000	
2	1.600	
3	1.000	1.600
4	1.600	1.600

- **Tensiones sobre el terreno**
- **Desplazamientos**

Comb.	G	Qa
1	1.000	
2	1.000	1.000

6.- LOSAS Y ELEMENTOS DE CIMENTACIÓN

Losas cimentación	Canto (cm)	Módulo balasto (t/m³)	Tensión admisible en situaciones persistentes (kp/cm²)	Tensión admisible en situaciones accidentales (kp/cm²)
Todas	15	1000.00	2.00	3.00

7.- MATERIALES UTILIZADOS

7.1.- Hormigones

Para todos los elementos estructurales de la obra: HA-25; f_{ck} = 255 kp/cm²; γ_c = 1.50

7.2.- Aceros por elemento y posición

7.2.1.- Aceros en barras

Para todos los elementos estructurales de la obra: B 500 S; f_{yk} = 5097 kp/cm²; γ_s = 1.15

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Cortantes en Tm. Momentos en Tm.x m.

Coord. X y Coord. Y son coordenadas generales. Los esfuerzos están referidos a los ejes locales de la malla correspondiente.

Cimentación

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
3.701	1.629	1	-0.0001	0.0001	-0.0004	-0.0006	0.0000
		2	-0.2165	0.1807	-0.0056	-0.0028	-0.0002
3.734	1.379	1	-0.0000	0.0000	-0.0002	-0.0005	0.0000
		2	-0.1956	0.0359	-0.0040	0.0176	-0.0001
3.856	1.304	1	-0.0002	-0.0000	-0.0006	-0.0001	-0.0000
		2	-0.9200	-0.1254	0.0206	-0.0016	0.0000
3.856	1.379	1	-0.0002	0.0000	-0.0006	-0.0005	0.0000
		2	-0.9200	0.0359	0.0206	0.0176	0.0121
3.856	1.629	1	-0.0002	0.0001	-0.0007	-0.0006	0.0000
		2	-0.7620	0.1807	0.0155	-0.0028	0.0101
3.856	1.750	1	-0.0002	0.0000	-0.0007	-0.0002	0.0000
		2	-0.7620	0.1642	0.0155	-0.0033	-0.0001
4.097	1.129	1	-0.0000	0.0001	-0.0000	-0.0005	-0.0000
		2	-0.0178	0.5846	-0.0000	0.1223	-0.0000
4.106	1.122	1	-0.0002	-0.0000	-0.0005	-0.0000	-0.0000
		2	-1.1027	-0.0130	0.1101	-0.0000	0.0000
4.106	1.129	1	-0.0002	0.0001	-0.0005	-0.0005	0.0000
		2	-1.1027	0.5846	0.1101	0.1223	0.1259
4.106	1.379	1	-0.0004	0.0002	-0.0009	-0.0010	0.0000
		2	-2.0325	0.7161	0.3436	-0.0036	0.1157
4.106	1.629	1	-0.0004	0.0000	-0.0009	-0.0006	0.0000
		2	-1.9132	0.2027	0.2978	-0.0025	0.0331
4.106	1.736	1	-0.0004	0.0000	-0.0009	-0.0002	0.0000
		2	-1.9132	0.1553	0.2978	-0.0028	-0.0000
4.356	0.947	1	-0.0006	-0.0000	-0.0008	-0.0005	-0.0000
		2	-3.4725	-0.3769	0.8614	-0.0113	0.0001
4.356	1.129	1	-0.0006	0.0001	-0.0008	-0.0007	0.0000
		2	-3.4725	-0.0085	0.8614	0.1855	0.2450
4.356	1.379	1	-0.0004	0.0001	-0.0008	-0.0010	0.0000
		2	-3.6479	0.6970	0.7870	0.2341	0.1260
4.356	1.629	1	-0.0005	0.0000	-0.0008	-0.0006	0.0000
		2	-2.7475	0.5889	0.8726	-0.0015	0.0354
4.356	1.723	1	-0.0005	0.0000	-0.0008	-0.0001	0.0000
		2	-2.7475	0.1436	0.8726	-0.0023	-0.0000
4.457	0.879	1	-0.0000	0.0003	-0.0003	-0.0005	-0.0000
		2	-0.3265	-1.0521	-0.0081	0.2811	-0.0001
4.606	0.779	1	-0.0004	-0.0000	-0.0006	-0.0002	-0.0000
		2	-0.3148	-0.2241	0.5145	-0.0037	0.0000
4.606	0.879	1	-0.0004	0.0003	-0.0006	-0.0005	0.0001
		2	-0.3148	-1.0521	0.5145	0.2811	0.3763
4.606	1.129	1	-0.0005	0.0004	-0.0006	-0.0010	0.0001
		2	-3.6183	-0.0169	1.8489	0.9960	0.5878
4.606	1.379	1	-0.0004	0.0001	-0.0007	-0.0010	0.0001
		2	-3.2238	2.5807	1.8105	0.5801	0.2273
4.606	1.629	1	-0.0006	0.0000	-0.0007	-0.0005	0.0001
		2	-2.0700	1.7216	1.5306	-0.0885	0.1025
4.606	1.710	1	-0.0006	0.0000	-0.0007	-0.0001	0.0000
		2	-2.0700	0.1283	1.5306	-0.0017	-0.0000

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
4.820	0.629	1	-0.0000	0.0003	-0.0000	-0.0004	-0.0000
		2	-0.0839	-0.9564	-0.0005	0.0058	-0.0000
4.856	0.603	1	-0.0003	-0.0000	-0.0004	-0.0000	-0.0000
		2	0.1612	-0.0608	0.1368	-0.0003	-0.0000
4.856	0.629	1	-0.0003	0.0003	-0.0004	-0.0004	0.0001
		2	0.1612	-0.9564	0.1368	0.0058	0.0811
4.856	0.879	1	-0.0006	0.0003	-0.0006	-0.0010	0.0001
		2	1.3167	-4.5674	1.0652	0.2034	0.2824
4.856	1.129	1	-0.0003	0.0001	-0.0006	-0.0010	0.0001
		2	2.9139	-2.0184	2.2023	1.5928	0.3258
4.856	1.379	1	-0.0004	0.0000	-0.0006	-0.0010	0.0001
		2	2.2584	3.6933	2.0760	0.7066	0.3509
4.856	1.629	1	-0.0006	0.0000	-0.0007	-0.0005	0.0001
		2	0.1639	2.1250	1.5865	-0.1179	0.2588
4.856	1.696	1	-0.0006	0.0000	-0.0007	-0.0001	0.0000
		2	0.1639	0.1094	1.5865	-0.0012	-0.0000
5.106	0.423	1	-0.0007	-0.0000	-0.0006	-0.0007	-0.0000
		2	-0.0706	-0.4953	0.1244	-0.0169	-0.0000
5.106	0.629	1	-0.0007	0.0000	-0.0006	-0.0008	0.0001
		2	-0.0706	-1.1247	0.1244	0.0735	-0.0109
5.106	0.879	1	-0.0004	0.0000	-0.0006	-0.0010	0.0001
		2	2.1131	-2.0161	0.3264	0.4267	-0.0849
5.106	1.129	1	-0.0003	0.0000	-0.0006	-0.0010	0.0001
		2	5.7116	-0.6903	0.3366	0.8594	0.0904
5.106	1.379	1	-0.0003	0.0000	-0.0006	-0.0010	0.0001
		2	4.7785	1.2853	0.6232	0.5145	0.3575
5.106	1.629	1	-0.0006	0.0000	-0.0006	-0.0005	0.0001
		2	1.6081	0.8806	0.8373	0.0214	0.3196
5.106	1.683	1	-0.0006	0.0000	-0.0006	-0.0000	0.0000
		2	1.6081	0.0880	0.8373	-0.0008	0.0000
5.166	0.379	1	-0.0000	0.0004	-0.0006	-0.0005	-0.0000
		2	-0.4646	-0.0460	-0.0147	0.2981	-0.0001
5.356	0.242	1	-0.0004	-0.0000	-0.0006	-0.0003	-0.0000
		2	-1.7605	-0.3403	0.1628	-0.0077	-0.0000
5.356	0.379	1	-0.0004	0.0004	-0.0006	-0.0005	0.0001
		2	-1.7605	-0.0460	0.1628	0.2981	0.1809
5.356	0.629	1	-0.0004	0.0004	-0.0004	-0.0010	0.0002
		2	-2.0256	0.5801	0.0717	0.5469	0.0550
5.356	0.879	1	-0.0003	0.0001	-0.0005	-0.0010	0.0001
		2	0.4081	0.7222	0.0102	0.4216	-0.0933
5.356	1.129	1	-0.0003	0.0001	-0.0005	-0.0009	0.0001
		2	2.1454	0.5111	-0.1466	0.3645	0.0494
5.356	1.379	1	-0.0003	0.0001	-0.0005	-0.0010	0.0001
		2	2.5850	0.4632	-0.1019	0.2308	0.2519
5.356	1.629	1	-0.0006	0.0000	-0.0005	-0.0005	0.0001
		2	1.2518	0.2512	0.0588	0.0438	0.2504
5.356	1.670	1	-0.0006	-0.0000	-0.0005	-0.0000	0.0000
		2	1.2518	0.0657	0.0588	-0.0004	0.0000
5.512	0.129	1	-0.0000	0.0002	-0.0001	-0.0005	-0.0000
		2	-0.2366	-1.5492	-0.0037	0.2018	-0.0001
5.606	0.062	1	-0.0003	-0.0000	-0.0004	-0.0001	-0.0000
		2	0.3173	-0.1712	0.3320	-0.0019	-0.0000

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
5.606	0.129	1	-0.0003	0.0002	-0.0004	-0.0005	0.0001
		2	0.3173	-1.5492	0.3320	0.2018	0.2642
5.606	0.379	1	-0.0005	0.0001	-0.0005	-0.0010	0.0002
		2	-2.0366	-1.1420	0.8938	1.1277	0.5314
5.606	0.629	1	-0.0001	-0.0001	-0.0005	-0.0009	0.0002
		2	-2.5683	2.5911	0.6650	1.1133	0.2628
5.606	0.879	1	-0.0003	-0.0000	-0.0004	-0.0009	0.0002
		2	-0.2321	3.2407	0.1424	0.3023	0.1298
5.606	1.129	1	-0.0003	0.0001	-0.0005	-0.0009	0.0001
		2	0.8402	1.2993	-0.2878	0.1020	0.1795
5.606	1.379	1	-0.0003	0.0002	-0.0005	-0.0009	0.0001
		2	1.1284	0.3331	-0.4460	0.0553	0.2391
5.606	1.629	1	-0.0004	0.0001	-0.0005	-0.0005	0.0001
		2	0.1222	0.0268	-0.3959	0.0326	0.1917
5.606	1.656	1	-0.0004	-0.0000	-0.0005	-0.0000	0.0000
		2	0.1222	0.0436	-0.3959	-0.0002	0.0000
5.856	0.001	1	-0.0004	-0.0000	-0.0005	-0.0003	-0.0000
		2	2.5071	-0.3192	0.6082	-0.0068	-0.0000
5.856	0.129	1	-0.0004	-0.0002	-0.0005	-0.0006	0.0001
		2	2.5071	-3.0272	0.6082	-0.0426	0.2598
5.856	0.379	1	-0.0003	-0.0003	-0.0005	-0.0009	0.0001
		2	2.9780	-2.8627	1.1152	1.2662	0.4689
5.856	0.629	1	-0.0003	-0.0002	-0.0004	-0.0009	0.0001
		2	2.3941	3.0100	0.9648	1.3877	0.5711
5.856	0.879	1	-0.0003	-0.0001	-0.0004	-0.0009	0.0002
		2	0.9200	4.0585	0.0919	0.2883	0.5430
5.856	1.129	1	-0.0004	0.0000	-0.0004	-0.0009	0.0002
		2	0.2379	1.4092	-0.4459	0.1204	0.4242
5.856	1.379	1	-0.0005	0.0003	-0.0004	-0.0009	0.0001
		2	0.0497	0.3286	-0.6545	0.0911	0.2810
5.856	1.629	1	0.0000	0.0003	-0.0005	-0.0005	0.0001
		2	-1.1973	-0.0162	-0.4738	0.0630	0.1244
5.856	1.643	1	0.0000	-0.0000	-0.0005	-0.0000	0.0000
		2	-1.1973	0.0220	-0.4738	-0.0000	0.0000
6.106	0.001	1	-0.0002	-0.0000	-0.0004	-0.0003	-0.0000
		2	4.0952	-0.3093	-0.0920	-0.0066	-0.0000
6.106	0.129	1	-0.0002	-0.0001	-0.0004	-0.0006	0.0001
		2	4.0952	-1.3009	-0.0920	0.0669	0.2345
6.106	0.379	1	-0.0003	-0.0002	-0.0004	-0.0010	0.0001
		2	4.9832	-1.4424	-0.3673	0.7173	0.4818
6.106	0.629	1	-0.0003	-0.0002	-0.0003	-0.0009	0.0001
		2	4.2000	0.5425	-0.4858	0.9485	0.7803
6.106	0.879	1	-0.0003	-0.0001	-0.0003	-0.0009	0.0001
		2	1.0443	1.4385	-0.4882	0.6258	0.8270
6.106	1.129	1	-0.0004	-0.0001	-0.0003	-0.0009	0.0002
		2	-0.5861	0.7986	-0.6394	0.4455	0.6172
6.106	1.379	1	-0.0006	-0.0002	-0.0002	-0.0009	0.0002
		2	-2.4923	1.5491	-0.9140	0.5743	0.3382
6.106	1.629	1	0.0002	-0.0001	-0.0003	-0.0004	0.0001
		2	-0.9257	1.3511	-0.0517	0.0323	-0.0011
6.106	1.629	1	0.0002	0.0001	-0.0003	-0.0000	-0.0000
		2	-0.9257	0.0014	-0.0517	-0.0000	0.0000

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
6.111	1.629	1	-0.0000	-0.0001	-0.0000	-0.0004	-0.0000
		2	0.0085	1.3511	-0.0000	0.0323	0.0000
6.356	0.001	1	-0.0001	-0.0000	-0.0003	-0.0003	-0.0000
		2	3.4006	-0.2996	-0.7422	-0.0064	-0.0000
6.356	0.129	1	-0.0001	-0.0001	-0.0003	-0.0006	0.0001
		2	3.4006	-0.6609	-0.7422	0.0399	0.2894
6.356	0.379	1	-0.0003	-0.0001	-0.0003	-0.0010	0.0001
		2	2.0552	-1.1920	-0.8093	0.2979	0.5335
6.356	0.629	1	-0.0003	-0.0001	-0.0002	-0.0009	0.0001
		2	0.8528	-1.2992	-0.7522	0.5920	0.7834
6.356	0.879	1	-0.0003	-0.0001	-0.0002	-0.0009	0.0001
		2	-1.3756	-0.6160	-0.6767	0.8279	0.8427
6.356	1.129	1	-0.0003	-0.0001	-0.0002	-0.0009	0.0001
		2	-2.8886	0.7956	-0.6274	0.7471	0.6329
6.356	1.379	1	-0.0005	-0.0001	-0.0001	-0.0009	0.0001
		2	-4.8160	0.9942	-0.3215	0.1909	0.3873
6.356	1.616	1	-0.0005	-0.0000	-0.0001	-0.0009	-0.0000
		2	-4.8160	0.4015	-0.3215	-0.0160	-0.0000
6.606	0.001	1	-0.0000	-0.0000	-0.0002	-0.0003	-0.0000
		2	1.9977	-0.2915	-1.0446	-0.0062	-0.0000
6.606	0.129	1	-0.0000	-0.0000	-0.0002	-0.0006	0.0001
		2	1.9977	-0.5175	-1.0446	-0.0215	0.2620
6.606	0.379	1	-0.0002	-0.0001	-0.0002	-0.0010	0.0001
		2	0.6682	-1.3786	-0.8715	0.0202	0.4316
6.606	0.629	1	-0.0003	-0.0001	-0.0002	-0.0010	0.0001
		2	-0.2745	-3.0594	-0.5022	0.2647	0.5863
6.606	0.879	1	-0.0002	-0.0001	-0.0001	-0.0009	0.0001
		2	-2.5682	-3.2004	0.0120	0.9666	0.6627
6.606	1.129	1	-0.0002	-0.0000	-0.0001	-0.0009	0.0001
		2	-5.4559	0.7890	0.2097	1.2872	0.4765
6.606	1.379	1	-0.0005	-0.0000	-0.0001	-0.0009	0.0001
		2	-4.2342	2.1293	0.5563	0.1469	0.2404
6.606	1.603	1	-0.0005	-0.0000	-0.0001	-0.0008	-0.0000
		2	-4.2342	0.3851	0.5563	-0.0145	-0.0000
6.856	0.001	1	0.0000	-0.0000	-0.0001	-0.0003	-0.0000
		2	0.4715	-0.2861	-1.0768	-0.0061	-0.0000
6.856	0.129	1	0.0000	-0.0000	-0.0001	-0.0006	0.0000
		2	0.4715	-0.4814	-1.0768	-0.0368	0.1695
6.856	0.379	1	-0.0002	-0.0001	-0.0001	-0.0010	0.0001
		2	-0.1704	-1.3547	-0.8525	-0.0505	0.2017
6.856	0.629	1	-0.0002	-0.0001	-0.0001	-0.0010	0.0001
		2	0.1135	-3.4571	-0.3683	0.1104	0.1695
6.856	0.879	1	-0.0002	-0.0001	-0.0001	-0.0010	0.0001
		2	0.9210	-5.5712	0.5631	0.7821	0.1845
6.856	1.129	1	-0.0002	-0.0000	-0.0001	-0.0010	0.0001
		2	1.0940	0.6770	1.6334	1.9228	0.2611
6.856	1.379	1	-0.0004	-0.0000	-0.0000	-0.0008	0.0001
		2	-0.6079	3.9900	1.1083	-0.0123	0.2350
6.856	1.589	1	-0.0004	-0.0000	-0.0000	-0.0007	-0.0000
		2	-0.6079	0.3652	1.1083	-0.0129	0.0000
7.106	0.001	1	0.0000	-0.0000	-0.0001	-0.0003	0.0000
		2	-0.9863	-0.2834	-0.8658	-0.0061	-0.0000

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
7.106	0.129	1	0.0000	-0.0000	-0.0001	-0.0006	0.0000
		2	-0.9863	-0.5519	-0.8658	0.0053	0.1012
7.106	0.379	1	-0.0001	-0.0001	-0.0001	-0.0010	0.0001
		2	-1.2277	-1.2125	-0.8069	0.1362	0.0196
7.106	0.629	1	-0.0002	-0.0001	-0.0000	-0.0010	0.0001
		2	-0.1410	-1.9880	-0.5987	0.3856	-0.1758
7.106	0.879	1	-0.0001	-0.0000	-0.0000	-0.0010	0.0001
		2	2.6052	-1.9985	-0.3547	0.7745	-0.2359
7.106	1.129	1	-0.0002	-0.0000	-0.0000	-0.0010	0.0001
		2	5.5552	0.3368	-0.2455	0.9672	0.0307
7.106	1.379	1	-0.0004	0.0000	-0.0000	-0.0008	0.0000
		2	2.2792	1.3202	0.3228	0.1682	0.1956
7.106	1.576	1	-0.0004	-0.0000	-0.0000	-0.0006	-0.0000
		2	2.2792	0.3414	0.3228	-0.0113	0.0000
7.356	0.001	1	0.0001	-0.0000	-0.0000	-0.0003	0.0000
		2	-1.9981	-0.2827	-0.3559	-0.0061	0.0000
7.356	0.129	1	0.0001	-0.0000	-0.0000	-0.0006	0.0000
		2	-1.9981	-0.9138	-0.3559	0.0521	0.1152
7.356	0.379	1	-0.0001	-0.0001	-0.0000	-0.0010	0.0001
		2	-3.3321	-1.1668	-0.5469	0.4907	0.0048
7.356	0.629	1	-0.0001	-0.0001	-0.0000	-0.0010	0.0001
		2	-2.4517	-0.1463	-0.6104	0.7245	-0.2624
7.356	0.879	1	-0.0001	-0.0000	-0.0000	-0.0010	0.0001
		2	0.1548	0.5991	-0.5652	0.6126	-0.3279
7.356	1.129	1	-0.0001	-0.0000	0.0000	-0.0010	0.0001
		2	1.6560	0.7545	-0.5785	0.4127	-0.1176
7.356	1.379	1	-0.0003	0.0000	0.0000	-0.0007	0.0000
		2	1.8248	0.5615	-0.3764	0.1142	0.0444
7.356	1.563	1	-0.0003	-0.0000	0.0000	-0.0005	-0.0000
		2	1.8248	0.3159	-0.3764	-0.0097	0.0000
7.606	0.001	1	0.0001	-0.0000	0.0000	-0.0003	0.0000
		2	-1.4405	-0.2829	0.3573	-0.0061	0.0000
7.606	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	-1.4405	-2.1204	0.3573	-0.0073	0.1285
7.606	0.379	1	-0.0001	-0.0001	0.0000	-0.0010	0.0000
		2	-3.7202	-2.0786	0.4176	0.9670	0.0708
7.606	0.629	1	-0.0001	-0.0001	0.0000	-0.0010	0.0000
		2	-3.3502	2.0079	0.2055	1.1616	-0.1359
7.606	0.879	1	-0.0001	-0.0000	0.0000	-0.0010	0.0000
		2	-0.7546	3.0566	-0.2341	0.3728	-0.1891
7.606	1.129	1	-0.0001	0.0000	0.0000	-0.0010	0.0000
		2	0.3444	1.2886	-0.5582	0.1095	-0.0732
7.606	1.379	1	-0.0002	0.0000	0.0000	-0.0007	0.0000
		2	0.6226	0.4852	-0.6628	0.0248	0.0117
7.606	1.549	1	-0.0002	-0.0000	0.0000	-0.0005	-0.0000
		2	0.6226	0.2914	-0.6628	-0.0083	0.0000
7.856	0.001	1	0.0001	-0.0000	0.0000	-0.0003	0.0000
		2	1.0151	-0.2824	0.5983	-0.0060	-0.0000
7.856	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	1.0151	-2.8113	0.5983	-0.0669	0.0403
7.856	0.379	1	-0.0000	-0.0001	0.0000	-0.0010	0.0000
		2	1.7001	-2.7210	1.0311	1.1588	0.0908

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
7.856	0.629	1	-0.0001	-0.0000	0.0000	-0.0010	0.0000
		2	1.5319	2.9109	0.7881	1.3540	0.1701
7.856	0.879	1	-0.0001	-0.0000	0.0000	-0.0010	0.0000
		2	0.3462	4.0185	-0.0749	0.2648	0.1724
7.856	1.129	1	-0.0001	0.0000	0.0000	-0.0010	0.0000
		2	-0.1932	1.3978	-0.5324	0.0393	0.1128
7.856	1.379	1	-0.0002	0.0000	0.0001	-0.0007	0.0000
		2	-0.5902	0.4755	-0.6940	-0.0014	0.0623
7.856	1.536	1	-0.0002	-0.0000	0.0001	-0.0004	-0.0000
		2	-0.5902	0.2690	-0.6940	-0.0071	-0.0000
8.106	0.001	1	0.0001	-0.0000	0.0000	-0.0003	0.0000
		2	2.5694	-0.2807	-0.0143	-0.0060	-0.0000
8.106	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	2.5694	-1.2097	-0.0143	0.0642	0.0124
8.106	0.379	1	-0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	4.2015	-1.3242	-0.3060	0.6943	0.1509
8.106	0.629	1	-0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	3.4652	0.6475	-0.4832	0.9367	0.4031
8.106	0.879	1	-0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	0.4475	1.6443	-0.4968	0.5790	0.4223
8.106	1.129	1	-0.0000	0.0000	0.0001	-0.0010	0.0000
		2	-1.0241	1.1633	-0.5596	0.2552	0.2286
8.106	1.379	1	-0.0002	0.0000	0.0001	-0.0006	0.0000
		2	-1.6823	0.5455	-0.5197	0.0408	0.0845
8.106	1.522	1	-0.0002	-0.0000	0.0001	-0.0003	-0.0000
		2	-1.6823	0.2484	-0.5197	-0.0060	-0.0000
8.356	0.001	1	0.0001	-0.0000	0.0000	-0.0003	0.0000
		2	1.9942	-0.2789	-0.5686	-0.0060	-0.0000
8.356	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	1.9942	-0.6671	-0.5686	0.0393	0.0707
8.356	0.379	1	-0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	1.4719	-1.2462	-0.6455	0.3160	0.2268
8.356	0.629	1	-0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	0.1255	-1.2997	-0.6286	0.6512	0.4288
8.356	0.879	1	-0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	-2.2195	-0.3056	-0.5833	0.8603	0.3977
8.356	1.129	1	-0.0000	0.0000	0.0001	-0.0010	0.0000
		2	-3.0615	1.0276	-0.3704	0.5926	0.1532
8.356	1.379	1	-0.0001	0.0000	0.0001	-0.0006	0.0000
		2	-2.3352	0.8662	-0.0763	0.0827	0.0170
8.356	1.509	1	-0.0001	-0.0000	0.0001	-0.0003	-0.0000
		2	-2.3352	0.2284	-0.0763	-0.0050	-0.0000
8.606	0.001	1	0.0001	-0.0000	0.0000	-0.0003	-0.0000
		2	0.7998	-0.2785	-0.8142	-0.0060	0.0000
8.606	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	0.7998	-0.5817	-0.8142	-0.0249	0.0431
8.606	0.379	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	0.3288	-1.6521	-0.6302	0.0478	0.1314
8.606	0.629	1	0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	-0.8424	-3.6374	-0.2554	0.3958	0.2461
8.606	0.879	1	0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	-3.4564	-2.2355	0.2290	1.2954	0.1951

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
8.606	1.129	1	-0.0000	0.0000	0.0001	-0.0010	0.0000
		2	-3.2821	2.0639	0.5494	0.9943	0.0103
8.606	1.379	1	-0.0001	0.0000	0.0001	-0.0006	0.0000
		2	-1.5138	1.9755	0.5531	0.0125	-0.0441
8.606	1.495	1	-0.0001	-0.0000	0.0001	-0.0002	-0.0000
		2	-1.5138	0.2078	0.5531	-0.0040	-0.0000
8.856	0.001	1	0.0001	-0.0000	0.0000	-0.0003	-0.0000
		2	-0.5046	-0.2801	-0.8521	-0.0060	0.0000
8.856	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	-0.5046	-0.5627	-0.8521	-0.0378	-0.0530
8.856	0.379	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	-0.1366	-1.7208	-0.6140	-0.0161	-0.1088
8.856	0.629	1	0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	0.4302	-4.7106	-0.0717	0.2699	-0.1683
8.856	0.879	1	0.0000	-0.0000	0.0001	-0.0010	0.0000
		2	1.6822	-2.8384	0.8864	1.5445	-0.1482
8.856	1.129	1	0.0000	0.0000	0.0001	-0.0010	0.0000
		2	1.7908	2.9226	1.0402	1.0682	-0.0500
8.856	1.379	1	-0.0000	0.0000	0.0001	-0.0006	0.0000
		2	0.9332	2.4411	0.7197	-0.0445	-0.0027
8.856	1.482	1	-0.0000	-0.0000	0.0001	-0.0002	-0.0000
		2	0.9332	0.1854	0.7197	-0.0032	-0.0000
9.106	0.001	1	0.0001	-0.0000	0.0000	-0.0003	-0.0000
		2	-1.7787	-0.2838	-0.6996	-0.0061	0.0000
9.106	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	-1.7787	-0.6352	-0.6996	0.0162	-0.1141
9.106	0.379	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	-0.9494	-1.4246	-0.6725	0.2152	-0.2795
9.106	0.629	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	0.6426	-2.0356	-0.5424	0.5847	-0.4732
9.106	0.879	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	3.8223	-0.8265	-0.4889	0.9946	-0.4167
9.106	1.129	1	0.0000	0.0000	0.0001	-0.0010	0.0000
		2	4.0245	1.2270	-0.1995	0.6886	-0.1466
9.106	1.379	1	-0.0000	0.0000	0.0001	-0.0005	0.0000
		2	2.4985	1.0299	0.1349	0.0690	-0.0170
9.106	1.468	1	-0.0000	-0.0000	0.0001	-0.0001	0.0000
		2	2.4985	0.1614	0.1349	-0.0024	0.0000
9.356	0.001	1	0.0001	-0.0000	0.0000	-0.0003	-0.0000
		2	-2.6969	-0.2893	-0.2667	-0.0062	0.0000
9.356	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	-2.6969	-0.9580	-0.2667	0.0733	-0.0756
9.356	0.379	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	-3.1248	-1.1696	-0.5195	0.5754	-0.2529
9.356	0.629	1	0.0000	-0.0000	0.0000	-0.0010	0.0000
		2	-2.0681	0.0751	-0.6460	0.8344	-0.5001
9.356	0.879	1	0.0001	0.0000	0.0000	-0.0010	0.0000
		2	0.2863	0.9941	-0.6304	0.6454	-0.4997
9.356	1.129	1	0.0001	0.0000	0.0000	-0.0010	0.0000
		2	1.5646	0.9802	-0.5583	0.3275	-0.2815
9.356	1.379	1	0.0000	0.0000	0.0000	-0.0005	0.0000
		2	2.1808	0.4860	-0.4029	0.0459	-0.1127

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
9.356	1.455	1	0.0000	-0.0000	0.0000	-0.0001	0.0000
		2	2.1808	0.1371	-0.4029	-0.0017	-0.0000
9.606	0.001	1	0.0001	-0.0000	0.0000	-0.0003	-0.0000
		2	-2.1397	-0.2953	0.3995	-0.0063	0.0000
9.606	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	-2.1397	-2.1600	0.3995	0.0177	-0.0299
9.606	0.379	1	0.0001	-0.0000	0.0000	-0.0010	0.0000
		2	-3.7152	-1.9662	0.3984	1.0529	-0.1470
9.606	0.629	1	0.0001	-0.0000	0.0000	-0.0010	0.0000
		2	-3.1233	2.2560	0.1570	1.2042	-0.3479
9.606	0.879	1	0.0001	0.0000	0.0000	-0.0010	0.0000
		2	-0.6666	3.2023	-0.2817	0.3632	-0.3762
9.606	1.129	1	0.0001	0.0000	0.0000	-0.0010	0.0000
		2	0.4528	1.3008	-0.5642	0.0570	-0.2529
9.606	1.379	1	0.0001	0.0000	0.0000	-0.0005	0.0000
		2	1.2684	0.3650	-0.6512	-0.0169	-0.1312
9.606	1.441	1	0.0001	-0.0000	0.0000	-0.0001	0.0000
		2	1.2684	0.1132	-0.6512	-0.0012	-0.0000
9.856	0.001	1	0.0001	-0.0000	0.0000	-0.0003	-0.0000
		2	0.2892	-0.3004	0.6422	-0.0064	0.0000
9.856	0.129	1	0.0001	-0.0000	0.0000	-0.0006	0.0000
		2	0.2892	-2.8779	0.6422	-0.0377	-0.0816
9.856	0.379	1	0.0001	-0.0000	0.0000	-0.0010	0.0000
		2	1.5469	-2.4883	1.0060	1.2734	-0.0824
9.856	0.629	1	0.0001	0.0000	-0.0000	-0.0009	0.0000
		2	1.4843	3.2201	0.6816	1.3625	-0.0260
9.856	0.879	1	0.0001	0.0001	-0.0000	-0.0009	0.0000
		2	0.3694	4.0788	-0.1429	0.2589	-0.0367
9.856	1.129	1	0.0001	0.0001	-0.0000	-0.0010	0.0000
		2	-0.0247	1.3994	-0.5546	-0.0120	-0.0882
9.856	1.379	1	0.0002	0.0000	-0.0000	-0.0005	0.0000
		2	0.2778	0.3460	-0.6983	-0.0379	-0.0824
9.856	1.428	1	0.0002	-0.0000	-0.0000	-0.0000	0.0000
		2	0.2778	0.0896	-0.6983	-0.0007	-0.0000
10.106	0.001	1	0.0001	-0.0000	-0.0000	-0.0003	-0.0000
		2	1.7739	-0.3041	0.0873	-0.0065	0.0000
10.106	0.129	1	0.0001	-0.0000	-0.0000	-0.0006	0.0000
		2	1.7739	-1.2541	0.0873	0.1021	-0.0631
10.106	0.379	1	0.0001	-0.0000	-0.0000	-0.0010	0.0000
		2	3.7089	-1.1983	-0.3129	0.8195	0.0364
10.106	0.629	1	0.0000	0.0000	-0.0000	-0.0009	0.0000
		2	2.9907	1.0196	-0.5530	1.0354	0.2303
10.106	0.879	1	0.0000	0.0001	-0.0000	-0.0009	0.0000
		2	0.3712	2.0190	-0.5617	0.5824	0.1949
10.106	1.129	1	0.0001	0.0002	-0.0001	-0.0010	0.0000
		2	-0.7302	1.3225	-0.5929	0.1755	0.0184
10.106	1.379	1	0.0003	0.0001	-0.0001	-0.0005	0.0000
		2	-0.5733	0.4524	-0.5848	-0.0109	-0.0491
10.106	1.414	1	0.0003	-0.0000	-0.0001	-0.0000	0.0000
		2	-0.5733	0.0659	-0.5848	-0.0004	-0.0000
10.356	0.001	1	0.0002	-0.0000	-0.0000	-0.0003	-0.0000
		2	1.1637	-0.3075	-0.3154	-0.0066	0.0000

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
10.356	0.129	1	0.0002	-0.0000	-0.0000	-0.0006	0.0000
		2	1.1637	-0.8141	-0.3154	0.0710	0.0461
10.356	0.379	1	0.0001	-0.0000	-0.0000	-0.0010	0.0000
		2	0.4692	-1.3812	-0.4970	0.4873	0.1905
10.356	0.629	1	0.0000	-0.0000	-0.0000	-0.0010	0.0000
		2	-1.1597	-0.7243	-0.6514	0.9163	0.3147
10.356	0.879	1	-0.0000	0.0001	-0.0000	-0.0009	0.0001
		2	-2.3800	0.8275	-0.6566	0.9037	0.1821
10.356	1.129	1	-0.0001	0.0004	-0.0001	-0.0009	0.0001
		2	-2.1827	1.5738	-0.4205	0.4118	-0.0250
10.356	1.379	1	0.0008	0.0003	-0.0003	-0.0005	0.0001
		2	-0.9623	0.7636	-0.3004	-0.0003	-0.0638
10.356	1.401	1	0.0008	-0.0000	-0.0003	-0.0000	-0.0000
		2	-0.9623	0.0415	-0.3004	-0.0001	-0.0000
10.606	0.001	1	0.0002	-0.0000	-0.0000	-0.0003	-0.0000
		2	0.1242	-0.3115	-0.3627	-0.0067	0.0000
10.606	0.129	1	0.0002	-0.0000	-0.0000	-0.0006	0.0000
		2	0.1242	-0.8580	-0.3627	-0.0214	0.0445
10.606	0.379	1	0.0001	-0.0000	-0.0000	-0.0010	0.0000
		2	-0.6761	-2.5245	-0.1744	0.1896	0.1588
10.606	0.629	1	0.0001	-0.0000	-0.0000	-0.0010	0.0000
		2	-2.8442	-3.1947	0.1158	0.9293	0.2652
10.606	0.879	1	0.0000	-0.0000	0.0000	-0.0010	0.0001
		2	-6.0756	0.5598	0.1147	1.4808	0.1045
10.606	1.129	1	0.0002	-0.0006	0.0001	-0.0011	0.0002
		2	-3.5391	3.2375	0.3054	0.4987	-0.0514
10.606	1.379	1	0.0006	-0.0006	-0.0005	-0.0004	0.0001
		2	-0.3472	1.3131	0.0104	-0.0606	-0.0348
10.606	1.387	1	0.0006	-0.0000	-0.0005	-0.0000	-0.0000
		2	-0.3472	0.0158	0.0104	-0.0000	-0.0000
10.754	1.379	1	-0.0000	-0.0006	-0.0003	-0.0004	-0.0000
		2	0.2964	1.3131	-0.0073	-0.0606	0.0001
10.856	0.001	1	0.0002	-0.0000	-0.0001	-0.0003	-0.0000
		2	-0.9421	-0.3165	-0.2617	-0.0068	0.0000
10.856	0.129	1	0.0002	-0.0000	-0.0001	-0.0006	0.0000
		2	-0.9421	-0.8273	-0.2617	-0.0549	-0.0688
10.856	0.379	1	0.0002	-0.0000	-0.0000	-0.0010	0.0000
		2	-0.4394	-2.8178	0.0674	0.0303	-0.1102
10.856	0.629	1	0.0001	-0.0001	-0.0000	-0.0010	0.0000
		2	0.1643	-6.0041	0.8261	0.6607	-0.1062
10.856	0.879	1	0.0002	-0.0002	0.0000	-0.0010	0.0000
		2	0.3030	0.5275	1.9560	2.2174	-0.0333
10.856	1.129	1	0.0007	-0.0002	0.0001	-0.0009	-0.0000
		2	-0.8956	4.6356	1.2952	0.0206	0.0369
10.856	1.374	1	0.0007	-0.0000	0.0001	-0.0009	0.0000
		2	-0.8956	0.5056	1.2952	-0.0207	-0.0000
11.106	0.001	1	0.0002	-0.0000	-0.0001	-0.0003	-0.0000
		2	-2.0674	-0.3222	-0.0596	-0.0069	0.0000
11.106	0.129	1	0.0002	-0.0000	-0.0001	-0.0006	-0.0000
		2	-2.0674	-0.8453	-0.0596	0.0072	-0.1564
11.106	0.379	1	0.0002	-0.0001	-0.0001	-0.0010	-0.0000
		2	-0.7749	-1.9544	-0.0066	0.2826	-0.3291

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
11.106	0.629	1	0.0002	-0.0001	-0.0001	-0.0010	-0.0000
		2	1.5874	-2.2827	0.0850	0.8164	-0.4548
11.106	0.879	1	0.0003	-0.0001	-0.0000	-0.0010	-0.0000
		2	4.9597	0.3491	0.1071	1.1483	-0.2419
11.106	1.129	1	0.0005	-0.0001	-0.0000	-0.0009	-0.0000
		2	2.2262	1.6037	0.7538	0.2243	-0.0019
11.106	1.360	1	0.0005	-0.0000	-0.0000	-0.0008	0.0000
		2	2.2262	0.4843	0.7538	-0.0188	-0.0000
11.356	0.001	1	0.0002	-0.0000	-0.0002	-0.0003	0.0000
		2	-3.0093	-0.3281	0.3774	-0.0070	0.0000
11.356	0.129	1	0.0002	-0.0000	-0.0002	-0.0006	-0.0000
		2	-3.0093	-1.0599	0.3774	0.0715	-0.1280
11.356	0.379	1	0.0003	-0.0001	-0.0002	-0.0010	-0.0000
		2	-3.0728	-1.3466	0.1252	0.6078	-0.3057
11.356	0.629	1	0.0003	-0.0001	-0.0002	-0.0010	-0.0000
		2	-1.9609	0.0244	-0.0100	0.9012	-0.4926
11.356	0.879	1	0.0004	-0.0001	-0.0001	-0.0010	-0.0000
		2	0.1106	1.1506	0.0766	0.6291	-0.4087
11.356	1.129	1	0.0005	-0.0000	-0.0001	-0.0009	-0.0000
		2	1.6772	0.9046	0.3449	0.1618	-0.1775
11.356	1.347	1	0.0005	-0.0000	-0.0001	-0.0007	0.0000
		2	1.6772	0.4583	0.3449	-0.0167	-0.0000
11.606	0.001	1	0.0003	-0.0000	-0.0003	-0.0003	0.0000
		2	-2.6350	-0.3329	1.0744	-0.0071	0.0000
11.606	0.129	1	0.0003	-0.0000	-0.0003	-0.0006	-0.0000
		2	-2.6350	-2.2067	1.0744	0.0119	-0.0909
11.606	0.379	1	0.0004	-0.0001	-0.0003	-0.0010	-0.0000
		2	-3.9945	-2.0677	1.0860	1.0378	-0.2148
11.606	0.629	1	0.0004	-0.0001	-0.0002	-0.0010	-0.0000
		2	-3.4877	2.0760	0.8965	1.1818	-0.3843
11.606	0.879	1	0.0004	-0.0000	-0.0002	-0.0010	-0.0000
		2	-1.1073	2.9381	0.5674	0.3201	-0.3718
11.606	1.129	1	0.0005	-0.0000	-0.0002	-0.0008	-0.0000
		2	0.6522	1.0497	0.3802	0.0325	-0.2033
11.606	1.333	1	0.0005	-0.0000	-0.0002	-0.0006	-0.0000
		2	0.6522	0.4301	0.3802	-0.0147	0.0000
11.856	0.001	1	0.0004	-0.0000	-0.0004	-0.0003	0.0000
		2	-0.3443	-0.3351	1.3874	-0.0072	0.0000
11.856	0.129	1	0.0004	-0.0001	-0.0004	-0.0006	-0.0000
		2	-0.3443	-3.0060	1.3874	-0.0586	-0.1664
11.856	0.379	1	0.0004	-0.0001	-0.0004	-0.0010	-0.0000
		2	1.0478	-2.6917	1.8153	1.2502	-0.1961
11.856	0.629	1	0.0004	-0.0001	-0.0003	-0.0010	-0.0001
		2	0.9256	3.0083	1.5910	1.3104	-0.1341
11.856	0.879	1	0.0004	-0.0000	-0.0003	-0.0010	-0.0001
		2	-0.1399	3.7334	0.8754	0.1848	-0.1122
11.856	1.129	1	0.0006	-0.0000	-0.0003	-0.0008	-0.0000
		2	-0.1167	1.0722	0.5297	-0.0160	-0.0976
11.856	1.320	1	0.0006	-0.0000	-0.0003	-0.0006	-0.0000
		2	-0.1167	0.4008	0.5297	-0.0128	0.0000
12.106	0.015	1	0.0005	-0.0000	-0.0005	-0.0002	0.0000
		2	1.3164	-0.2972	0.8630	-0.0057	-0.0000

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
12.106	0.129	1	0.0005	-0.0002	-0.0005	-0.0006	-0.0001
		2	1.3164	-1.5255	0.8630	0.0637	-0.1939
12.106	0.379	1	0.0003	-0.0002	-0.0005	-0.0010	-0.0001
		2	2.8690	-1.5281	0.6002	0.8288	-0.1635
12.106	0.629	1	0.0003	-0.0000	-0.0004	-0.0010	-0.0001
		2	2.3423	0.9120	0.5144	0.9643	0.0273
12.106	0.879	1	0.0004	-0.0000	-0.0004	-0.0010	-0.0001
		2	-0.1217	1.8156	0.6442	0.4428	0.0386
12.106	1.129	1	0.0006	-0.0000	-0.0004	-0.0007	-0.0000
		2	-0.8984	0.9374	0.6970	0.0564	-0.0365
12.106	1.306	1	0.0006	-0.0000	-0.0004	-0.0005	-0.0000
		2	-0.8984	0.3700	0.6970	-0.0110	0.0000
12.356	0.078	1	0.0003	-0.0000	-0.0007	-0.0000	0.0000
		2	0.9734	-0.1308	0.2346	-0.0011	-0.0000
12.356	0.129	1	0.0003	0.0003	-0.0007	-0.0005	-0.0001
		2	0.9734	-0.6224	0.2346	0.1041	-0.1322
12.356	0.379	1	0.0004	0.0003	-0.0004	-0.0010	-0.0001
		2	-0.7653	-1.1760	0.7431	0.5010	-0.1409
12.356	0.629	1	0.0004	0.0000	-0.0005	-0.0010	-0.0001
		2	-2.0534	-0.4296	0.6221	0.8174	0.0160
12.356	0.879	1	0.0004	-0.0000	-0.0005	-0.0010	-0.0001
		2	-2.7009	1.0097	0.7691	0.6411	-0.0529
12.356	1.129	1	0.0006	-0.0000	-0.0005	-0.0007	-0.0000
		2	-1.6496	0.9890	1.0833	0.1041	-0.1024
12.356	1.293	1	0.0006	-0.0000	-0.0005	-0.0004	-0.0000
		2	-1.6496	0.3374	1.0833	-0.0092	0.0000
12.558	0.129	1	0.0000	0.0003	-0.0006	-0.0005	0.0000
		2	0.5101	-0.6224	-0.0172	0.1041	0.0001
12.606	0.141	1	0.0006	-0.0000	-0.0006	-0.0009	0.0000
		2	-1.3774	-0.5874	1.3631	-0.0232	-0.0001
12.606	0.379	1	0.0006	0.0000	-0.0006	-0.0009	-0.0000
		2	-1.3774	-2.3299	1.3631	0.0661	-0.0812
12.606	0.629	1	0.0004	0.0001	-0.0006	-0.0010	-0.0001
		2	-3.0415	-2.3241	1.6145	0.9497	-0.0592
12.606	0.879	1	0.0004	0.0000	-0.0006	-0.0010	-0.0001
		2	-3.5767	1.6516	1.7568	0.9858	-0.1489
12.606	1.129	1	0.0006	0.0000	-0.0006	-0.0007	-0.0000
		2	-1.1142	2.0906	1.7376	0.0149	-0.1519
12.606	1.279	1	0.0006	0.0000	-0.0006	-0.0004	-0.0000
		2	-1.1142	0.3022	1.7376	-0.0076	0.0001
12.856	0.205	1	0.0005	-0.0000	-0.0007	-0.0005	0.0000
		2	0.5788	-0.4157	1.3966	-0.0120	-0.0001
12.856	0.379	1	0.0005	-0.0000	-0.0007	-0.0007	-0.0000
		2	0.5788	-2.8962	1.3966	-0.0754	-0.2476
12.856	0.629	1	0.0004	-0.0000	-0.0007	-0.0010	-0.0001
		2	1.7094	-3.3328	2.1384	0.9700	-0.2984
12.856	0.879	1	0.0004	0.0000	-0.0007	-0.0010	-0.0001
		2	2.0655	2.0677	2.4456	1.1472	-0.1601
12.856	1.129	1	0.0006	0.0000	-0.0007	-0.0006	-0.0000
		2	1.4382	2.8442	1.9517	-0.0805	-0.0617
12.856	1.266	1	0.0006	0.0000	-0.0007	-0.0003	-0.0000
		2	1.4382	0.2639	1.9517	-0.0060	0.0001

Esfuerzos en nudos de losas y reticulares

muro

Fecha: 08/06/17

Coord. X	Coord. Y	Nº Hipótesis	Cort. X	Cort. Y	Mom. X	Mom. Y	Mom. XY
13.106	0.269	1	0.0002	-0.0000	-0.0005	-0.0002	0.0000
		2	1.1087	-0.2508	0.3798	-0.0046	-0.0001
13.106	0.379	1	0.0002	0.0001	-0.0005	-0.0006	-0.0000
		2	1.1087	-0.1804	0.3798	0.2451	-0.2999
13.106	0.629	1	0.0004	0.0002	-0.0008	-0.0010	-0.0001
		2	4.3627	-0.0725	1.0008	0.5186	-0.5050
13.106	0.879	1	0.0003	0.0000	-0.0008	-0.0010	-0.0001
		2	4.9439	0.8530	0.9850	0.5260	-0.1852
13.106	1.129	1	0.0005	0.0000	-0.0008	-0.0006	-0.0000
		2	3.0774	0.9823	1.2290	0.0442	-0.0119
13.106	1.252	1	0.0005	0.0000	-0.0008	-0.0002	-0.0000
		2	3.0774	0.2236	1.2290	-0.0046	0.0001
13.213	0.379	1	0.0000	0.0001	-0.0002	-0.0006	0.0000
		2	0.2358	-0.1804	-0.0042	0.2451	0.0001
13.356	0.527	1	0.0003	-0.0000	-0.0005	-0.0002	0.0000
		2	1.7282	-0.2065	0.1919	-0.0035	-0.0001
13.356	0.629	1	0.0003	0.0002	-0.0005	-0.0005	-0.0000
		2	1.7282	0.6319	0.1919	0.2252	-0.2005
13.356	0.879	1	0.0004	0.0002	-0.0009	-0.0010	-0.0000
		2	2.6273	0.9722	0.5221	0.1057	-0.1971
13.356	1.129	1	0.0004	0.0000	-0.0009	-0.0006	-0.0000
		2	2.4210	0.3290	0.5480	0.0221	-0.0523
13.356	1.239	1	0.0004	0.0000	-0.0009	-0.0002	-0.0000
		2	2.4210	0.1837	0.5480	-0.0034	0.0001
13.455	0.629	1	0.0000	0.0002	-0.0002	-0.0005	0.0000
		2	0.1926	0.6319	-0.0032	0.2252	0.0001
13.606	0.786	1	0.0002	-0.0000	-0.0005	-0.0001	0.0000
		2	1.1741	-0.1625	0.0575	-0.0025	-0.0001
13.606	0.879	1	0.0002	0.0001	-0.0005	-0.0005	-0.0000
		2	1.1741	0.2778	0.0575	0.0625	-0.0557
13.606	1.129	1	0.0003	0.0001	-0.0009	-0.0006	-0.0000
		2	1.4425	0.4324	0.2037	-0.0277	-0.0425
13.606	1.225	1	0.0003	0.0000	-0.0009	-0.0001	-0.0000
		2	1.4425	0.1466	0.2037	-0.0024	0.0001
13.697	0.879	1	0.0000	0.0001	-0.0001	-0.0005	0.0000
		2	0.1507	0.2778	-0.0023	0.0625	0.0001
13.856	1.044	1	0.0002	-0.0000	-0.0005	-0.0001	0.0000
		2	0.5873	-0.1222	0.0007	-0.0017	-0.0001
13.856	1.129	1	0.0002	-0.0000	-0.0005	-0.0001	0.0000
		2	0.5873	-0.0045	0.0007	0.0082	0.0004
13.856	1.212	1	0.0002	0.0000	-0.0005	-0.0001	-0.0000
		2	0.5873	0.1132	0.0007	-0.0016	0.0001
13.938	1.129	1	0.0000	-0.0000	-0.0001	-0.0001	-0.0000
		2	0.1128	-0.0045	-0.0016	0.0082	0.0001

Desplazamientos en nudos de losas y reticulares

muro Fecha: 08/06/17

Desp en mm. Giros en radianes x 1000

Cimentación

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
3.701	1.629	1	-0.3765	-0.0003	-0.0018
		2	-5.5158	3.2027	1.2895
3.734	1.379	1	-0.3764	-0.0000	-0.0018
		2	-6.3607	3.2020	1.2828
3.856	1.304	1	-0.3762	0.0000	-0.0017
		2	-6.7578	3.2017	1.2816
3.856	1.379	1	-0.3762	-0.0000	-0.0017
		2	-6.5173	3.2020	1.2816
3.856	1.629	1	-0.3763	-0.0003	-0.0017
		2	-5.7161	3.2028	1.2874
3.856	1.750	1	-0.3763	-0.0003	-0.0017
		2	-5.3304	3.2037	1.2874
4.097	1.129	1	-0.3759	0.0003	-0.0015
		2	-7.6215	3.1595	1.1197
4.106	1.122	1	-0.3759	0.0003	-0.0015
		2	-7.6535	3.1595	1.1197
4.106	1.129	1	-0.3759	0.0003	-0.0015
		2	-7.6320	3.1595	1.1197
4.106	1.379	1	-0.3758	-0.0000	-0.0014
		2	-6.8345	3.1892	1.2119
4.106	1.629	1	-0.3759	-0.0003	-0.0014
		2	-6.0359	3.1930	1.2363
4.106	1.736	1	-0.3759	-0.0003	-0.0014
		2	-5.6940	3.1938	1.2363
4.356	0.947	1	-0.3756	0.0004	-0.0012
		2	-8.4561	3.0533	0.9681
4.356	1.129	1	-0.3755	0.0003	-0.0012
		2	-7.9002	3.0584	0.9682
4.356	1.379	1	-0.3755	-0.0000	-0.0012
		2	-7.1241	3.1409	1.0409
4.356	1.629	1	-0.3755	-0.0003	-0.0012
		2	-6.3310	3.1763	1.0580
4.356	1.723	1	-0.3756	-0.0003	-0.0012
		2	-6.0334	3.1768	1.0580
4.457	0.879	1	-0.3755	0.0006	-0.0011
		2	-8.7575	2.6170	0.1256
4.606	0.779	1	-0.3754	0.0006	-0.0010
		2	-9.0383	2.6161	0.1226
4.606	0.879	1	-0.3754	0.0006	-0.0010
		2	-8.7765	2.6170	0.1226
4.606	1.129	1	-0.3753	0.0003	-0.0010
		2	-8.0986	2.8560	0.4921
4.606	1.379	1	-0.3752	-0.0000	-0.0009
		2	-7.3497	3.0856	0.6344
4.606	1.629	1	-0.3753	-0.0003	-0.0009
		2	-6.5585	3.1559	0.6828
4.606	1.710	1	-0.3753	-0.0004	-0.0009
		2	-6.3049	3.1562	0.6828
4.820	0.629	1	-0.3753	0.0008	-0.0009
		2	-9.3664	2.3345	-0.3047

Desplazamientos en nudos de losas y reticulares

muro Fecha: 08/06/17

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
4.856	0.603	1	-0.3753	0.0008	-0.0009
		2	-9.4159	2.3345	-0.3048
4.856	0.629	1	-0.3753	0.0008	-0.0009
		2	-9.3555	2.3345	-0.3048
4.856	0.879	1	-0.3751	0.0005	-0.0008
		2	-8.7687	2.4088	-0.1926
4.856	1.129	1	-0.3750	0.0002	-0.0008
		2	-8.1584	2.6678	-0.0798
4.856	1.379	1	-0.3750	-0.0001	-0.0007
		2	-7.4413	2.9828	0.0558
4.856	1.629	1	-0.3751	-0.0004	-0.0007
		2	-6.6712	3.0674	0.1876
4.856	1.696	1	-0.3751	-0.0004	-0.0007
		2	-6.4657	3.0676	0.1876
5.106	0.423	1	-0.3753	0.0009	-0.0007
		2	-9.7469	2.3135	-0.3724
5.106	0.629	1	-0.3751	0.0008	-0.0007
		2	-9.2695	2.3222	-0.3724
5.106	0.879	1	-0.3750	0.0005	-0.0006
		2	-8.6840	2.4084	-0.4072
5.106	1.129	1	-0.3749	0.0002	-0.0006
		2	-8.0650	2.6043	-0.4463
5.106	1.379	1	-0.3749	-0.0001	-0.0006
		2	-7.3847	2.8143	-0.3464
5.106	1.629	1	-0.3749	-0.0004	-0.0005
		2	-6.6660	2.8904	-0.1895
5.106	1.683	1	-0.3750	-0.0004	-0.0005
		2	-6.5109	2.8905	-0.1895
5.166	0.379	1	-0.3753	0.0010	-0.0008
		2	-9.8237	2.1549	-0.4834
5.356	0.242	1	-0.3753	0.0011	-0.0007
		2	-10.0271	2.1523	-0.4903
5.356	0.379	1	-0.3752	0.0010	-0.0007
		2	-9.7323	2.1549	-0.4903
5.356	0.629	1	-0.3750	0.0007	-0.0005
		2	-9.1725	2.3165	-0.4177
5.356	0.879	1	-0.3748	0.0004	-0.0005
		2	-8.5718	2.4653	-0.4562
5.356	1.129	1	-0.3747	0.0001	-0.0004
		2	-7.9381	2.5899	-0.4857
5.356	1.379	1	-0.3747	-0.0002	-0.0004
		2	-7.2764	2.6907	-0.4275
5.356	1.629	1	-0.3748	-0.0004	-0.0003
		2	-6.5969	2.7337	-0.3176
5.356	1.670	1	-0.3748	-0.0004	-0.0003
		2	-6.4867	2.7338	-0.3176
5.512	0.129	1	-0.3754	0.0012	-0.0006
		2	-10.1313	1.7163	-0.9333
5.606	0.062	1	-0.3754	0.0012	-0.0006
		2	-10.1601	1.7160	-0.9341
5.606	0.129	1	-0.3753	0.0012	-0.0006
		2	-10.0440	1.7163	-0.9341
5.606	0.379	1	-0.3750	0.0009	-0.0005
		2	-9.5955	1.9496	-0.6850

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
5.606	0.629	1	-0.3748	0.0007	-0.0004
		2	-9.0657	2.2718	-0.5299
5.606	0.879	1	-0.3747	0.0004	-0.0003
		2	-8.4562	2.4837	-0.4811
5.606	1.129	1	-0.3747	0.0001	-0.0003
		2	-7.8196	2.5571	-0.4308
5.606	1.379	1	-0.3747	-0.0002	-0.0002
		2	-7.1734	2.5957	-0.3516
5.606	1.629	1	-0.3748	-0.0005	-0.0002
		2	-6.5219	2.6158	-0.2618
5.606	1.656	1	-0.3748	-0.0005	-0.0002
		2	-6.4513	2.6158	-0.2618
5.856	0.001	1	-0.3754	0.0012	-0.0004
		2	-9.9873	1.5577	-1.0989
5.856	0.129	1	-0.3752	0.0012	-0.0004
		2	-9.7870	1.5598	-1.0989
5.856	0.379	1	-0.3749	0.0009	-0.0003
		2	-9.3932	1.7433	-0.9608
5.856	0.629	1	-0.3748	0.0006	-0.0003
		2	-8.9106	2.1169	-0.7543
5.856	0.879	1	-0.3747	0.0003	-0.0002
		2	-8.3304	2.3651	-0.5251
5.856	1.129	1	-0.3746	0.0000	-0.0001
		2	-7.7223	2.4438	-0.3346
5.856	1.379	1	-0.3746	-0.0002	-0.0001
		2	-7.1029	2.4926	-0.1976
5.856	1.629	1	-0.3747	-0.0005	-0.0000
		2	-6.4753	2.5292	-0.1249
5.856	1.643	1	-0.3747	-0.0005	-0.0000
		2	-6.4409	2.5292	-0.1249
6.106	0.001	1	-0.3753	0.0012	-0.0002
		2	-9.6750	1.4534	-1.1820
6.106	0.129	1	-0.3751	0.0011	-0.0002
		2	-9.4881	1.4555	-1.1820
6.106	0.379	1	-0.3749	0.0008	-0.0002
		2	-9.1170	1.5744	-1.0631
6.106	0.629	1	-0.3747	0.0005	-0.0001
		2	-8.6934	1.8307	-0.8132
6.106	0.879	1	-0.3746	0.0003	-0.0001
		2	-8.2002	2.0697	-0.4676
6.106	1.129	1	-0.3746	-0.0000	-0.0000
		2	-7.6584	2.2333	-0.1775
6.106	1.379	1	-0.3746	-0.0003	0.0000
		2	-7.0811	2.3741	0.0115
6.106	1.629	1	-0.3747	-0.0006	0.0001
		2	-6.4632	2.4976	-0.0218
6.106	1.629	1	-0.3747	-0.0006	0.0001
		2	-6.4607	2.4976	-0.0218
6.111	1.629	1	-0.3747	-0.0006	0.0001
		2	-6.4631	2.4976	-0.0218
6.356	0.001	1	-0.3752	0.0011	-0.0001
		2	-9.3654	1.3166	-1.0461
6.356	0.129	1	-0.3751	0.0011	-0.0001
		2	-9.1961	1.3186	-1.0461

Desplazamientos en nudos de losas y reticulares

muro Fecha: 08/06/17

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
6.356	0.379	1	-0.3748	0.0008	-0.0001
		2	-8.8632	1.3725	-0.8880
6.356	0.629	1	-0.3747	0.0005	-0.0001
		2	-8.5068	1.5146	-0.6265
6.356	0.879	1	-0.3746	0.0002	-0.0000
		2	-8.1052	1.7312	-0.2857
6.356	1.129	1	-0.3746	-0.0001	0.0000
		2	-7.6419	1.9754	0.0153
6.356	1.379	1	-0.3746	-0.0004	0.0001
		2	-7.1235	2.1292	0.2073
6.356	1.616	1	-0.3748	-0.0006	0.0001
		2	-6.6167	2.1384	0.2073
6.606	0.001	1	-0.3752	0.0011	-0.0001
		2	-9.1093	1.1673	-0.7759
6.606	0.129	1	-0.3751	0.0011	-0.0001
		2	-8.9592	1.1693	-0.7759
6.606	0.379	1	-0.3748	0.0008	-0.0000
		2	-8.6687	1.1750	-0.6382
6.606	0.629	1	-0.3747	0.0005	-0.0000
		2	-8.3747	1.2304	-0.4378
6.606	0.879	1	-0.3746	0.0002	0.0000
		2	-8.0573	1.4178	-0.1775
6.606	1.129	1	-0.3746	-0.0001	0.0001
		2	-7.6684	1.7546	0.0737
6.606	1.379	1	-0.3747	-0.0004	0.0001
		2	-7.1898	1.9715	0.1870
6.606	1.603	1	-0.3748	-0.0006	0.0001
		2	-6.7470	1.9793	0.1870
6.856	0.001	1	-0.3752	0.0011	-0.0000
		2	-8.9355	1.0522	-0.4627
6.856	0.129	1	-0.3751	0.0010	-0.0000
		2	-8.8003	1.0541	-0.4627
6.856	0.379	1	-0.3748	0.0007	0.0000
		2	-8.5398	1.0481	-0.3873
6.856	0.629	1	-0.3747	0.0004	0.0000
		2	-8.2811	1.0752	-0.3181
6.856	0.879	1	-0.3746	0.0001	0.0001
		2	-8.0098	1.2252	-0.2592
6.856	1.129	1	-0.3746	-0.0002	0.0001
		2	-7.6764	1.6084	-0.1765
6.856	1.379	1	-0.3747	-0.0004	0.0001
		2	-7.2159	1.8734	-0.0677
6.856	1.589	1	-0.3748	-0.0006	0.0001
		2	-6.8204	1.8800	-0.0677
7.106	0.001	1	-0.3752	0.0010	0.0000
		2	-8.8480	0.9826	-0.1737
7.106	0.129	1	-0.3750	0.0010	0.0000
		2	-8.7217	0.9845	-0.1737
7.106	0.379	1	-0.3748	0.0007	0.0000
		2	-8.4752	1.0099	-0.1445
7.106	0.629	1	-0.3747	0.0004	0.0001
		2	-8.2170	1.0982	-0.1817
7.106	0.879	1	-0.3746	0.0001	0.0001
		2	-7.9281	1.2762	-0.2893

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
7.106	1.129	1	-0.3746	-0.0002	0.0001
		2	-7.5808	1.5452	-0.3636
7.106	1.379	1	-0.3747	-0.0005	0.0001
		2	-7.1650	1.7195	-0.2819
7.106	1.576	1	-0.3748	-0.0006	0.0001
		2	-6.8252	1.7249	-0.2819
7.356	0.001	1	-0.3752	0.0010	0.0000
		2	-8.8266	0.9260	0.0162
7.356	0.129	1	-0.3751	0.0010	0.0000
		2	-8.7076	0.9279	0.0162
7.356	0.379	1	-0.3748	0.0007	0.0000
		2	-8.4705	1.0099	0.0570
7.356	0.629	1	-0.3747	0.0004	0.0001
		2	-8.1969	1.2002	0.0001
7.356	0.879	1	-0.3747	0.0001	0.0001
		2	-7.8695	1.4055	-0.1461
7.356	1.129	1	-0.3747	-0.0002	0.0001
		2	-7.4954	1.5686	-0.2490
7.356	1.379	1	-0.3748	-0.0005	0.0001
		2	-7.0898	1.6549	-0.2560
7.356	1.563	1	-0.3749	-0.0006	0.0001
		2	-6.7850	1.6592	-0.2560
7.606	0.001	1	-0.3752	0.0010	0.0000
		2	-8.8286	0.8466	0.0200
7.606	0.129	1	-0.3751	0.0010	0.0000
		2	-8.7199	0.8485	0.0200
7.606	0.379	1	-0.3749	0.0007	0.0000
		2	-8.5036	0.9866	0.0810
7.606	0.629	1	-0.3747	0.0004	0.0001
		2	-8.2187	1.2980	0.0651
7.606	0.879	1	-0.3747	0.0001	0.0001
		2	-7.8511	1.5305	-0.0256
7.606	1.129	1	-0.3747	-0.0002	0.0001
		2	-7.4515	1.6159	-0.0843
7.606	1.379	1	-0.3748	-0.0005	0.0001
		2	-7.0417	1.6445	-0.0956
7.606	1.549	1	-0.3749	-0.0006	0.0001
		2	-6.7612	1.6479	-0.0956
7.856	0.001	1	-0.3752	0.0010	0.0000
		2	-8.8087	0.7898	-0.1356
7.856	0.129	1	-0.3751	0.0009	0.0000
		2	-8.7073	0.7917	-0.1356
7.856	0.379	1	-0.3749	0.0006	0.0000
		2	-8.5078	0.9463	-0.1189
7.856	0.629	1	-0.3747	0.0004	0.0001
		2	-8.2271	1.3022	-0.0671
7.856	0.879	1	-0.3747	0.0001	0.0001
		2	-7.8513	1.5465	0.0113
7.856	1.129	1	-0.3747	-0.0002	0.0001
		2	-7.4495	1.6110	0.0690
7.856	1.379	1	-0.3748	-0.0005	0.0001
		2	-7.0427	1.6256	0.1035
7.856	1.536	1	-0.3749	-0.0006	0.0001
		2	-6.7875	1.6283	0.1035

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
8.106	0.001	1	-0.3752	0.0010	0.0000
		2	-8.7563	0.8014	-0.2265
8.106	0.129	1	-0.3751	0.0009	0.0000
		2	-8.6534	0.8033	-0.2265
8.106	0.379	1	-0.3749	0.0006	0.0000
		2	-8.4456	0.9156	-0.2166
8.106	0.629	1	-0.3748	0.0003	0.0000
		2	-8.1870	1.1672	-0.1031
8.106	0.879	1	-0.3747	0.0000	0.0001
		2	-7.8599	1.4020	0.0913
8.106	1.129	1	-0.3747	-0.0003	0.0001
		2	-7.4878	1.5350	0.2261
8.106	1.379	1	-0.3748	-0.0006	0.0001
		2	-7.0952	1.5833	0.2850
8.106	1.522	1	-0.3749	-0.0006	0.0001
		2	-6.8681	1.5854	0.2850
8.356	0.001	1	-0.3752	0.0010	0.0000
		2	-8.7008	0.7807	-0.1283
8.356	0.129	1	-0.3751	0.0009	0.0000
		2	-8.6006	0.7826	-0.1283
8.356	0.379	1	-0.3749	0.0006	0.0000
		2	-8.4015	0.8380	-0.0746
8.356	0.629	1	-0.3748	0.0003	0.0000
		2	-8.1776	0.9912	0.0622
8.356	0.879	1	-0.3747	0.0000	0.0000
		2	-7.9042	1.2274	0.2532
8.356	1.129	1	-0.3747	-0.0003	0.0000
		2	-7.5672	1.4538	0.3654
8.356	1.379	1	-0.3748	-0.0006	0.0001
		2	-7.1861	1.5547	0.3844
8.356	1.509	1	-0.3749	-0.0006	0.0001
		2	-6.9843	1.5563	0.3844
8.606	0.001	1	-0.3752	0.0009	-0.0000
		2	-8.6856	0.7466	0.0800
8.606	0.129	1	-0.3751	0.0009	-0.0000
		2	-8.5897	0.7485	0.0800
8.606	0.379	1	-0.3749	0.0006	-0.0000
		2	-8.4044	0.7580	0.1139
8.606	0.629	1	-0.3748	0.0003	0.0000
		2	-8.2131	0.8367	0.1939
8.606	0.879	1	-0.3747	0.0000	0.0000
		2	-7.9878	1.0946	0.3079
8.606	1.129	1	-0.3748	-0.0003	0.0000
		2	-7.6708	1.4311	0.3444
8.606	1.379	1	-0.3749	-0.0006	0.0000
		2	-7.2825	1.5763	0.3199
8.606	1.495	1	-0.3749	-0.0006	0.0000
		2	-7.0992	1.5774	0.3199
8.856	0.001	1	-0.3752	0.0009	-0.0000
		2	-8.7356	0.7483	0.3226
8.856	0.129	1	-0.3751	0.0009	-0.0000
		2	-8.6395	0.7502	0.3226
8.856	0.379	1	-0.3749	0.0006	-0.0000
		2	-8.4548	0.7502	0.2906

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
8.856	0.629	1	-0.3748	0.0003	-0.0000
		2	-8.2687	0.8075	0.2338
8.856	0.879	1	-0.3747	0.0000	0.0000
		2	-8.0557	1.0783	0.1592
8.856	1.129	1	-0.3748	-0.0003	0.0000
		2	-7.7358	1.4500	0.1202
8.856	1.379	1	-0.3749	-0.0006	0.0000
		2	-7.3392	1.5980	0.1198
8.856	1.482	1	-0.3749	-0.0006	0.0000
		2	-7.1751	1.5988	0.1198
9.106	0.001	1	-0.3752	0.0009	-0.0000
		2	-8.8550	0.7959	0.5522
9.106	0.129	1	-0.3751	0.0009	-0.0000
		2	-8.7528	0.7978	0.5522
9.106	0.379	1	-0.3749	0.0006	-0.0000
		2	-8.5518	0.8362	0.4769
9.106	0.629	1	-0.3748	0.0003	-0.0000
		2	-8.3330	0.9636	0.3209
9.106	0.879	1	-0.3747	0.0000	-0.0000
		2	-8.0688	1.2085	0.1113
9.106	1.129	1	-0.3748	-0.0003	-0.0000
		2	-7.7324	1.4683	0.0028
9.106	1.379	1	-0.3749	-0.0006	-0.0000
		2	-7.3450	1.5799	-0.0091
9.106	1.468	1	-0.3749	-0.0006	-0.0000
		2	-7.2042	1.5804	-0.0091
9.356	0.001	1	-0.3752	0.0009	-0.0000
		2	-9.0269	0.8481	0.7055
9.356	0.129	1	-0.3750	0.0009	-0.0000
		2	-8.9179	0.8501	0.7055
9.356	0.379	1	-0.3749	0.0006	-0.0000
		2	-8.6985	0.9480	0.6552
9.356	0.629	1	-0.3748	0.0003	-0.0000
		2	-8.4364	1.1683	0.5002
9.356	0.879	1	-0.3747	-0.0000	-0.0000
		2	-8.1125	1.3999	0.2760
9.356	1.129	1	-0.3748	-0.0003	-0.0000
		2	-7.7394	1.5546	0.1170
9.356	1.379	1	-0.3749	-0.0006	-0.0000
		2	-7.3408	1.6122	0.0442
9.356	1.455	1	-0.3749	-0.0006	-0.0000
		2	-7.2189	1.6125	0.0442
9.606	0.001	1	-0.3751	0.0009	-0.0001
		2	-9.2133	0.8616	0.6922
9.606	0.129	1	-0.3750	0.0009	-0.0001
		2	-9.1026	0.8636	0.6922
9.606	0.379	1	-0.3749	0.0006	-0.0000
		2	-8.8806	1.0192	0.6774
9.606	0.629	1	-0.3747	0.0003	-0.0000
		2	-8.5839	1.3521	0.5762
9.606	0.879	1	-0.3747	-0.0000	-0.0000
		2	-8.2011	1.5926	0.4105
9.606	1.129	1	-0.3747	-0.0003	-0.0000
		2	-7.7869	1.6686	0.2826

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
9.606	1.379	1	-0.3749	-0.0006	-0.0000
		2	-7.3663	1.6801	0.2066
9.606	1.441	1	-0.3749	-0.0006	-0.0000
		2	-7.2620	1.6803	0.2066
9.856	0.001	1	-0.3751	0.0009	-0.0001
		2	-9.3721	0.8792	0.5266
9.856	0.129	1	-0.3750	0.0009	-0.0001
		2	-9.2592	0.8813	0.5267
9.856	0.379	1	-0.3748	0.0006	-0.0001
		2	-9.0350	1.0576	0.4838
9.856	0.629	1	-0.3747	0.0003	-0.0000
		2	-8.7217	1.4355	0.4642
9.856	0.879	1	-0.3747	-0.0000	-0.0000
		2	-8.3120	1.6839	0.4637
9.856	1.129	1	-0.3747	-0.0003	-0.0000
		2	-7.8768	1.7390	0.4413
9.856	1.379	1	-0.3749	-0.0006	-0.0000
		2	-7.4402	1.7377	0.4057
9.856	1.428	1	-0.3749	-0.0006	-0.0000
		2	-7.3559	1.7378	0.4057
10.106	0.001	1	-0.3751	0.0009	-0.0001
		2	-9.4924	0.9439	0.4177
10.106	0.129	1	-0.3750	0.0009	-0.0001
		2	-9.3711	0.9460	0.4178
10.106	0.379	1	-0.3748	0.0006	-0.0001
		2	-9.1248	1.0833	0.3903
10.106	0.629	1	-0.3747	0.0003	-0.0000
		2	-8.8185	1.3720	0.4509
10.106	0.879	1	-0.3747	-0.0000	-0.0000
		2	-8.4363	1.6260	0.5630
10.106	1.129	1	-0.3747	-0.0003	-0.0000
		2	-8.0088	1.7460	0.6087
10.106	1.379	1	-0.3749	-0.0006	-0.0000
		2	-7.5664	1.7709	0.5978
10.106	1.414	1	-0.3749	-0.0006	-0.0000
		2	-7.5043	1.7710	0.5978
10.356	0.001	1	-0.3751	0.0009	-0.0001
		2	-9.5979	0.9486	0.4671
10.356	0.129	1	-0.3750	0.0008	-0.0001
		2	-9.4760	0.9507	0.4671
10.356	0.379	1	-0.3748	0.0005	-0.0001
		2	-9.2322	1.0349	0.5112
10.356	0.629	1	-0.3747	0.0003	-0.0000
		2	-8.9509	1.2546	0.6261
10.356	0.879	1	-0.3747	-0.0000	-0.0000
		2	-8.6013	1.5425	0.7441
10.356	1.129	1	-0.3747	-0.0003	0.0000
		2	-8.1847	1.7455	0.7656
10.356	1.379	1	-0.3749	-0.0006	0.0000
		2	-7.7364	1.8021	0.7372
10.356	1.401	1	-0.3749	-0.0006	0.0000
		2	-7.6976	1.8021	0.7372
10.606	0.001	1	-0.3751	0.0009	-0.0001
		2	-9.7215	0.9173	0.5706

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
10.606	0.129	1	-0.3750	0.0008	-0.0001
		2	-9.6037	0.9194	0.5706
10.606	0.379	1	-0.3748	0.0005	-0.0000
		2	-9.3747	0.9499	0.6116
10.606	0.629	1	-0.3747	0.0002	-0.0000
		2	-9.1278	1.1218	0.7100
10.606	0.879	1	-0.3747	-0.0001	-0.0000
		2	-8.8110	1.4860	0.8197
10.606	1.129	1	-0.3747	-0.0004	0.0000
		2	-8.3902	1.7774	0.7952
10.606	1.379	1	-0.3749	-0.0007	0.0002
		2	-7.9293	1.8404	0.7801
10.606	1.387	1	-0.3749	-0.0007	0.0002
		2	-7.9146	1.8404	0.7801
10.754	1.379	1	-0.3749	-0.0007	0.0002
		2	-8.0442	1.8404	0.7774
10.856	0.001	1	-0.3751	0.0009	-0.0000
		2	-9.8759	0.9212	0.6509
10.856	0.129	1	-0.3750	0.0008	-0.0000
		2	-9.7576	0.9233	0.6509
10.856	0.379	1	-0.3748	0.0005	-0.0000
		2	-9.5303	0.9305	0.6143
10.856	0.629	1	-0.3747	0.0002	-0.0000
		2	-9.2964	1.0555	0.5666
10.856	0.879	1	-0.3747	-0.0001	-0.0000
		2	-9.0067	1.4673	0.5365
10.856	1.129	1	-0.3747	-0.0004	-0.0000
		2	-8.5710	1.7848	0.5457
10.856	1.374	1	-0.3749	-0.0007	-0.0000
		2	-8.1315	1.7971	0.5457
11.106	0.001	1	-0.3751	0.0009	-0.0000
		2	-10.0567	0.9862	0.6883
11.106	0.129	1	-0.3750	0.0008	-0.0000
		2	-9.9300	0.9884	0.6883
11.106	0.379	1	-0.3748	0.0005	-0.0000
		2	-9.6817	1.0347	0.5923
11.106	0.629	1	-0.3747	0.0002	-0.0000
		2	-9.4099	1.2070	0.4220
11.106	0.879	1	-0.3747	-0.0001	-0.0000
		2	-9.0762	1.5163	0.2452
11.106	1.129	1	-0.3747	-0.0004	-0.0000
		2	-8.6614	1.7299	0.2351
11.106	1.360	1	-0.3748	-0.0006	-0.0000
		2	-8.2592	1.7405	0.2351
11.356	0.001	1	-0.3751	0.0009	0.0000
		2	-10.2422	1.0652	0.6440
11.356	0.129	1	-0.3750	0.0008	0.0000
		2	-10.1053	1.0675	0.6440
11.356	0.379	1	-0.3748	0.0005	0.0000
		2	-9.8317	1.1694	0.5705
11.356	0.629	1	-0.3747	0.0002	0.0000
		2	-9.5127	1.4066	0.4044
11.356	0.879	1	-0.3747	-0.0001	0.0000
		2	-9.1272	1.6517	0.2015

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
11.356	1.129	1	-0.3747	-0.0004	-0.0000
		2	-8.6941	1.7775	0.0872
11.356	1.347	1	-0.3748	-0.0006	-0.0000
		2	-8.3054	1.7863	0.0872
11.606	0.001	1	-0.3751	0.0009	0.0001
		2	-10.3931	1.1092	0.4277
11.606	0.129	1	-0.3750	0.0008	0.0001
		2	-10.2505	1.1114	0.4277
11.606	0.379	1	-0.3748	0.0005	0.0001
		2	-9.9671	1.2644	0.3870
11.606	0.629	1	-0.3747	0.0002	0.0001
		2	-9.6100	1.5942	0.2658
11.606	0.879	1	-0.3747	-0.0000	0.0001
		2	-9.1684	1.8266	0.0953
11.606	1.129	1	-0.3747	-0.0003	0.0000
		2	-8.6985	1.8882	-0.0232
11.606	1.333	1	-0.3748	-0.0005	0.0000
		2	-8.3117	1.8955	-0.0232
11.856	0.001	1	-0.3751	0.0009	0.0002
		2	-10.4651	1.1640	0.0419
11.856	0.129	1	-0.3750	0.0009	0.0002
		2	-10.3155	1.1663	0.0419
11.856	0.379	1	-0.3748	0.0006	0.0002
		2	-10.0215	1.3372	-0.0387
11.856	0.629	1	-0.3747	0.0003	0.0002
		2	-9.6402	1.7049	-0.1011
11.856	0.879	1	-0.3747	-0.0000	0.0001
		2	-9.1664	1.9335	-0.1375
11.856	1.129	1	-0.3747	-0.0003	0.0001
		2	-8.6725	1.9711	-0.1784
11.856	1.320	1	-0.3748	-0.0005	0.0001
		2	-8.2958	1.9770	-0.1784
12.106	0.015	1	-0.3752	0.0009	0.0003
		2	-10.4255	1.2848	-0.3060
12.106	0.129	1	-0.3751	0.0009	0.0003
		2	-10.2785	1.2864	-0.3060
12.106	0.379	1	-0.3749	0.0006	0.0003
		2	-9.9491	1.4225	-0.3985
12.106	0.629	1	-0.3748	0.0003	0.0003
		2	-9.5596	1.7013	-0.4176
12.106	0.879	1	-0.3747	-0.0000	0.0003
		2	-9.0997	1.9214	-0.3775
12.106	1.129	1	-0.3748	-0.0003	0.0002
		2	-8.6049	1.9971	-0.3753
12.106	1.306	1	-0.3749	-0.0004	0.0002
		2	-8.2504	2.0018	-0.3753
12.356	0.078	1	-0.3752	0.0009	0.0006
		2	-10.2458	1.3714	-0.4789
12.356	0.129	1	-0.3752	0.0009	0.0006
		2	-10.1756	1.3715	-0.4789
12.356	0.379	1	-0.3750	0.0006	0.0005
		2	-9.8233	1.4765	-0.5968
12.356	0.629	1	-0.3749	0.0003	0.0004
		2	-9.4324	1.6839	-0.6018

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
12.356	0.879	1	-0.3748	0.0000	0.0004
		2	-8.9811	1.9164	-0.5965
12.356	1.129	1	-0.3749	-0.0003	0.0004
		2	-8.4824	2.0292	-0.6396
12.356	1.293	1	-0.3749	-0.0004	0.0004
		2	-8.1500	2.0329	-0.6396
12.558	0.129	1	-0.3753	0.0009	0.0007
		2	-10.0770	1.3715	-0.4874
12.606	0.141	1	-0.3753	0.0009	0.0006
		2	-9.9942	1.5022	-0.9442
12.606	0.379	1	-0.3751	0.0006	0.0006
		2	-9.6371	1.5158	-0.9442
12.606	0.629	1	-0.3750	0.0003	0.0006
		2	-9.2516	1.6769	-0.9521
12.606	0.879	1	-0.3750	0.0000	0.0006
		2	-8.7983	1.9648	-0.9843
12.606	1.129	1	-0.3750	-0.0003	0.0006
		2	-8.2759	2.1113	-1.0651
12.606	1.279	1	-0.3750	-0.0003	0.0006
		2	-7.9587	2.1140	-1.0651
12.856	0.205	1	-0.3754	0.0008	0.0008
		2	-9.6246	1.5881	-1.3913
12.856	0.379	1	-0.3753	0.0007	0.0008
		2	-9.3479	1.5933	-1.3914
12.856	0.629	1	-0.3752	0.0004	0.0008
		2	-8.9498	1.7348	-1.5166
12.856	0.879	1	-0.3751	0.0001	0.0008
		2	-8.4832	2.0321	-1.6080
12.856	1.129	1	-0.3751	-0.0002	0.0008
		2	-7.9385	2.1816	-1.6410
12.856	1.266	1	-0.3752	-0.0003	0.0008
		2	-7.6404	2.1836	-1.6410
13.106	0.269	1	-0.3756	0.0007	0.0011
		2	-9.1508	1.7693	-1.6942
13.106	0.379	1	-0.3755	0.0007	0.0011
		2	-8.9556	1.7706	-1.6942
13.106	0.629	1	-0.3754	0.0004	0.0010
		2	-8.4949	1.9182	-1.9773
13.106	0.879	1	-0.3753	0.0001	0.0010
		2	-7.9945	2.0862	-2.1204
13.106	1.129	1	-0.3754	-0.0002	0.0010
		2	-7.4563	2.1731	-2.1333
13.106	1.252	1	-0.3754	-0.0002	0.0010
		2	-7.1889	2.1745	-2.1333
13.213	0.379	1	-0.3756	0.0007	0.0011
		2	-8.7745	1.7706	-1.6953
13.356	0.527	1	-0.3757	0.0004	0.0013
		2	-8.1722	2.0830	-2.2155
13.356	0.629	1	-0.3757	0.0004	0.0013
		2	-7.9599	2.0839	-2.2155
13.356	0.879	1	-0.3756	0.0001	0.0013
		2	-7.4245	2.1603	-2.3578
13.356	1.129	1	-0.3756	-0.0002	0.0012
		2	-6.8795	2.1870	-2.4002

Coord. X	Coord. Y		Desp. Z	Giro X	Giro Y
13.356	1.239	1	-0.3757	-0.0002	0.0012
		2	-6.6401	2.1879	-2.4002
13.455	0.629	1	-0.3758	0.0004	0.0013
		2	-7.7413	2.0839	-2.2163
13.606	0.786	1	-0.3760	0.0001	0.0015
		2	-7.0192	2.2035	-2.4739
13.606	0.879	1	-0.3760	0.0001	0.0015
		2	-6.8132	2.2041	-2.4739
13.606	1.129	1	-0.3760	-0.0002	0.0015
		2	-6.2590	2.2110	-2.5157
13.606	1.225	1	-0.3760	-0.0002	0.0015
		2	-6.0469	2.2115	-2.5157
13.697	0.879	1	-0.3761	0.0001	0.0015
		2	-6.5893	2.2040	-2.4744
13.856	1.044	1	-0.3764	-0.0002	0.0018
		2	-5.8096	2.2101	-2.5545
13.856	1.129	1	-0.3764	-0.0002	0.0018
		2	-5.6217	2.2105	-2.5545
13.856	1.212	1	-0.3764	-0.0002	0.0018
		2	-5.4395	2.2108	-2.5545
13.938	1.129	1	-0.3765	-0.0002	0.0018
		2	-5.4114	2.2105	-2.5548

Armados de losas

muro

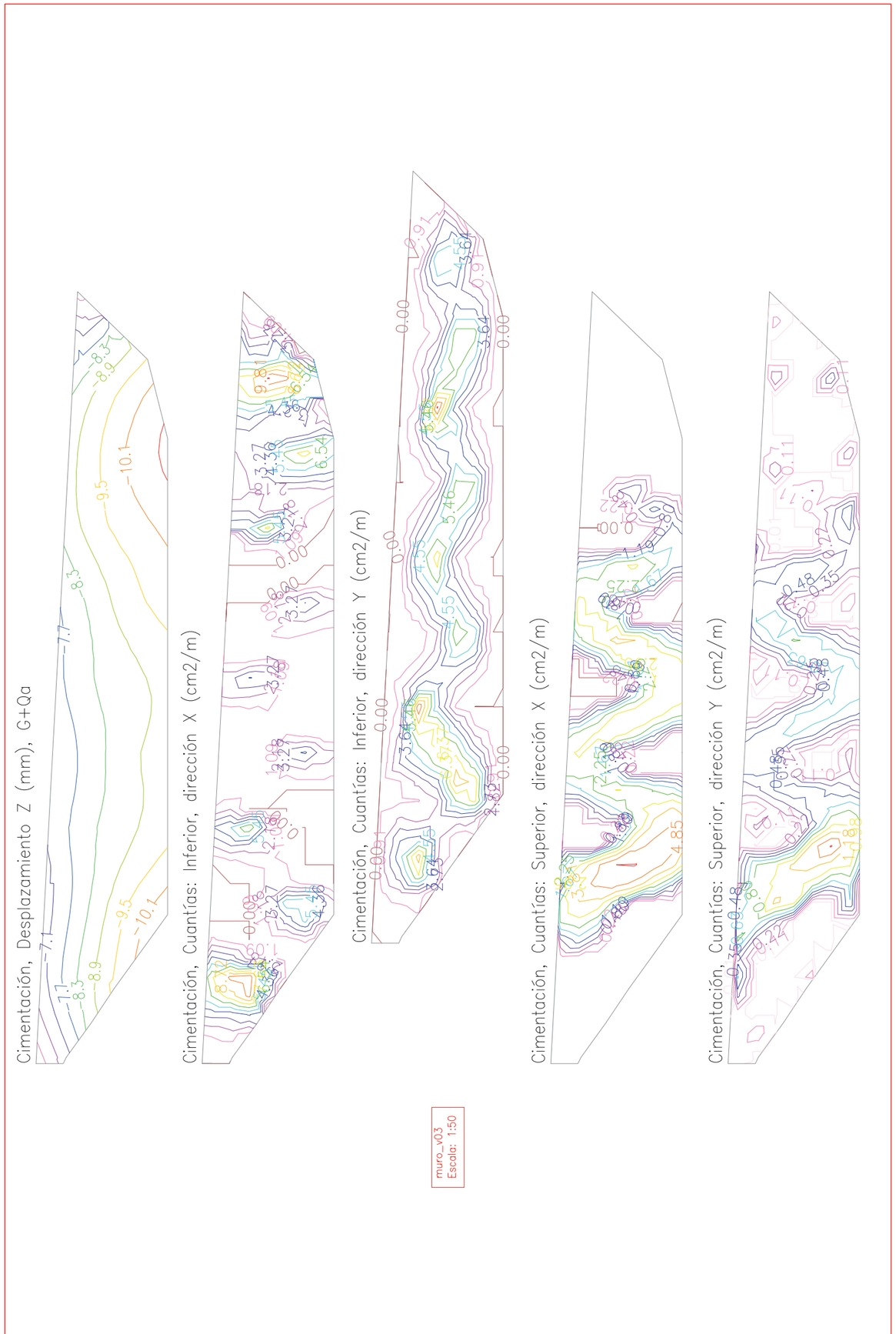
Fecha: 08/06/17

Cimentación
Número Plantas Iguales: 1

Malla 1: Losa maciza

Alineaciones longitudinales
Armadura Base Inferior: 1Ø12c/10
Armadura Base Superior: 1Ø12c/10
Canto: 15

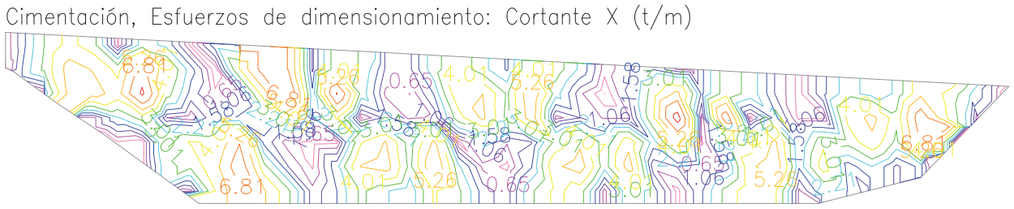
Alineaciones transversales
Armadura Base Inferior: 1Ø12c/10
Armadura Base Superior: 1Ø12c/10
Canto: 15



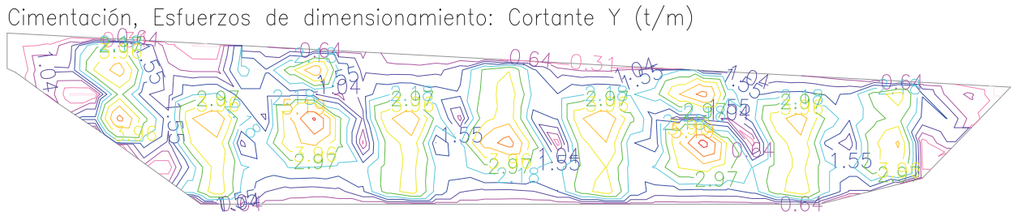
Cimentación, Esfuerzos de dimensionamiento: Cortante total (t/m)



Cimentación, Esfuerzos de dimensionamiento: Cortante X (t/m)



Cimentación, Esfuerzos de dimensionamiento: Cortante Y (t/m)

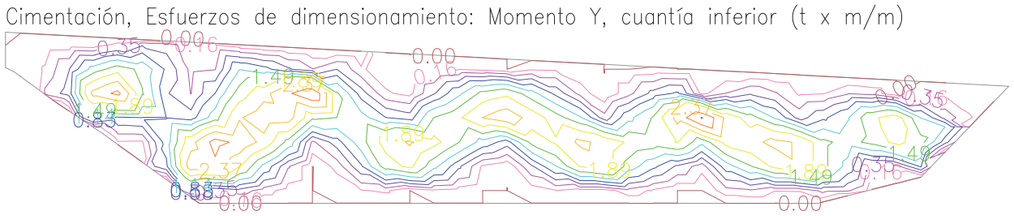


muro_v03
Escala: 1:50

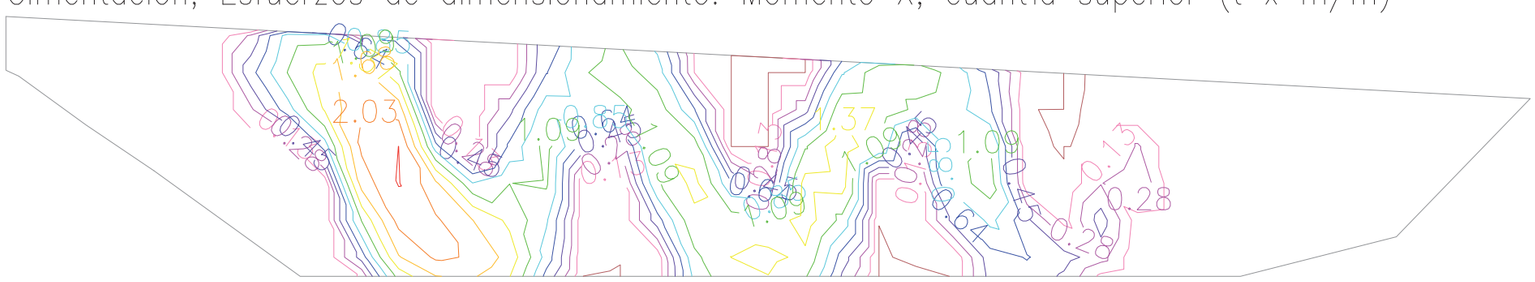
Cimentación, Esfuerzos de dimensionamiento: Momento X, cuantía inferior (t x m/m)



Cimentación, Esfuerzos de dimensionamiento: Momento Y, cuantía inferior (t x m/m)



Cimentación, Esfuerzos de dimensionamiento: Momento X, cuantía superior (t x m/m)



muro_v03
Escala: 1:50

Cimentación, Esfuerzos de dimensionamiento: Momento Y, cuantía superior (t x m/m)



PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 08/06/2017

Hora: 20:03:53

Comprobación de secciones a flexión simple

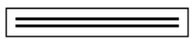
1 Datos

- Materiales

Tipo de hormigón : HA-25
Tipo de acero : B-500-S
fck [MPa] = 25.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

- Sección

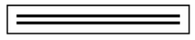
Sección : REF
b [m] = 1.00
h [m] = 0.15
ri [m] = 0.056
rs [m] = 0.056

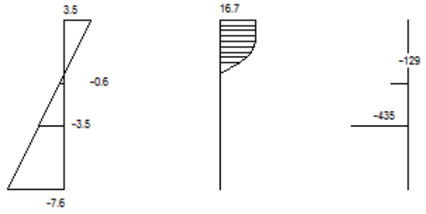


2 Comprobación

At [cm²] = 11.3
Ac [cm²] = 11.3

Mu [kN·m] = 41.8





Plano de deformación de agotamiento

x [m] = 0.047
1/r [1/m]·1.E-3 = 74.0
ε_s ·1.E-3 = 3.5

ε_i ·1.E-3 = -7.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E^{-3}	Tensión [MPa]
0.056	11.3	-0.6	129.2
0.094	11.3	-3.5	434.8

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 08/12/2016

Hora: 17:51:06

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento sin armadura a cortante
```

- Sección

```
Sección : REF
b0  [m] = 1.00
h   [m] = 0.15
```



2 Comprobación

```
ρl [·1.E-3] = 2
 Nd [kN]    = 0.0

 Vu [kN]    = 63.6
```


PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 08/12/2016

Hora: 17:57:11

Cálculo a punzonamiento

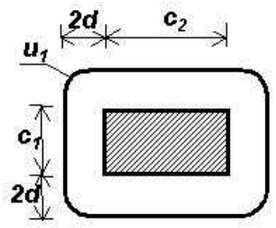
1 Datos

- Materiales losa

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc = 1.50
γs = 1.15
```

- Datos geométricos

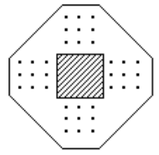
```
Tipo de pilar               : Pilar rectangular interior
c1 [m]                      = 0.3
c2 [m]                      = 0.3
Canto útil de la losa d [m] = 0.15
```



- Armado losa

```
ρl en zona critica de punzonamiento [·1.E-3]                = 2
ρl en zona exterior a la armadura de punzonamiento [·1.E-3] = 2.0

Esquema de armado
```



- Perímetros de cálculo

```
d [m]                                                      = 0.15
Perímetro de comprobación u0 [m]                           = 1.20
Perímetro crítico u1 [m]                                   = 2.14
Perímetro exterior a la armadura de punzonamiento un,ef [m] = 4.59
β                                                          = 1.15
```

- Control del hormigón

Control normal

2 Dimensionamiento

Esfuerzo de cálculo en el perímetro crítico Fsd [kN]	= 184.28
Esfuerzo de cálculo eficaz en el perímetro crítico Fsd,ef [kN]	= 211.9
Esfuerzo de cálculo en el perímetro exterior a la armadura de punzonamiento [kN]	= 184.3
Ángulo de las ramas α [°]	= 45.0
Tensión media en el perímetro crítico τsd [MPa]	= 0.66
Tensión media en el perímetro exterior a la armadura de dimensionamiento τsd [MPa]	= 0.71
σ'_{cd} [MPa]	= 0.00

NO ES NECESARIO DISPONER ARMADURA DE PUNZONAMIENTO

Asw_estricta [cm²]=

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0,3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 1 m
h= 0,15 m

Armadura de tracción

Arm. Principal ϕ1= 12 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 100 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 50 mm

Armadura de compresión

ϕ3= 12 mm
separacion scomp= 100 mm
recub. geom= 50 mm

Tipo de elemento: 5

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	27,27
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	9,823	0,001159994	139,894	0,276	
2	9,823	-	-	-	M<Mfis. La sección no fisura
3	9,823	-	-	-	M<Mfis. La sección no fisura
4	9,823	-	-	-	M<Mfis. La sección no fisura
5	9,823	-	-	-	M<Mfis. La sección no fisura
6	9,823	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0,276**	

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 08/06/2017

Hora: 20:17:46

Comprobación de secciones a flexión simple

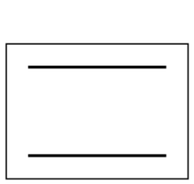
1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Sección

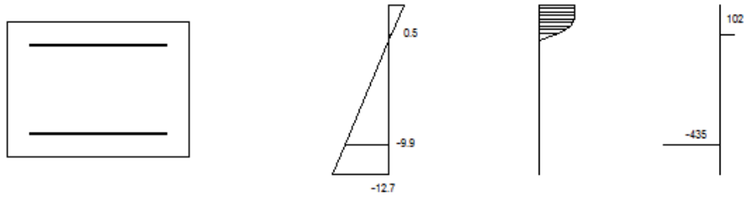
```
Sección : VIGA
b  [m] = 0.40
h  [m] = 0.30
ri [m] = 0.053
rs [m] = 0.053
```



2 Comprobación

```
At [cm²]  = 10.1
Ac [cm²]  = 10.1

Mu [kN·m] = 94.2
```



Plano de deformación de agotamiento

```
x    [m]          = 0.062
1/r  [1/m]·1.E-3  = 53.6
εs ·1.E-3         = 3.4
εi ·1.E-3         = -12.7
```

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.053	10.1	0.5	-101.6
0.247	10.1	-9.9	434.8

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.1 SEGÚN EHE-08

Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: EHE
Fecha: 08/06/2017

Hora: 20:19:30

Cálculo de secciones a cortante

1 Datos

- Materiales

```
Tipo de hormigón : HA-25
Tipo de acero    : B-500-S
fck [MPa]        = 25.00
fyk [MPa]        = 500.00
γc               = 1.50
γs               = 1.15
```

- Control del hormigón

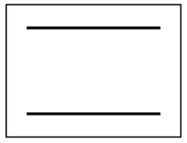
```
Control normal
```

- Tipo de elemento estructural

```
Tipo : elemento con armadura a cortante
```

- Sección

```
Sección : VIGA
b0  [m] = 0.40
h   [m] = 0.30
```



2 Comprobación

```
Tipo de armadura: cercos a 90.0°
separación st [m]  = 0.1
ϕ [mm]             = 10
n° ramas           : 2
Area [cm²/m]       = 15.7
ρl [·1.E-3]        = 2

Inclinación de las bielas θ[°] = 45
Nd [kN]            = 0.0
ρcomprimida [·1.E-3] = 0.0
σyd [MPa]          = 0.0

Vu1 [kN]           = 500.0
Vu2 [kN]           = 173.8
Vcu [kN]           = 32.4
Vsu [kN]           = 141.4
```

- Resistencia a cortante:

```
Vu [kN]            = 173.8
```

FISURACIÓN POR SOLICITACIONES NORMALES ART.49.2 EHE-08

DATOS

Máxima abertura de fisura admisible:

wmax= 0.3 mm Art. 5:Tabla 5.1.1.2

Tipo de carga(I/O): O I= Carga isntantánea no repetida
O= Otros casos

Materiales:

fck= 25 N/mm2
fyk= 500 N/mm2

Sección:

Geometría

b= 0.4 m
h= 0.3 m

Armadura de tracción

Arm. Principal ϕ1= 16 mm
Arm. Intercalada ϕ2= 0 mm
separación strac = 73.5 mm Sep.entre ϕ1 y ϕ1= Sep.entre ϕ2 y ϕ2
recub. geom= 45 mm

Armadura de compresión

ϕ3= 16 mm
separacion scomp= 73.5 mm
recub. geom= 45 mm

Tipo de elemento: 1

1= Viga rectangular con s≤15ϕ
2= Viga rectangular con losa colaborante a traccion s≤15ϕ
3= Viga plana s≤15ϕ
4= Viga plana s>15ϕ
5= Muro o losa s≤15ϕ
6= Muro o losa s>15ϕ

Solicitaciones

	ACCIONES	
	AXIL(Compr.+)	MOMENTO(+Trac.Arm)
CASO	N(kN)	M(m*kN)
1	0	53
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

RESULTADOS

CASO	Mom.fisuracion (m.KN)	Alarg. medio εsm	Sep. Fisuras Sm (mm)	Abertura wk (mm)	
1	17.763	0.001138038	152.447	0.295	
2	17.763	-	-	-	M<Mfis. La sección no fisura
3	17.763	-	-	-	M<Mfis. La sección no fisura
4	17.763	-	-	-	M<Mfis. La sección no fisura
5	17.763	-	-	-	M<Mfis. La sección no fisura
6	17.763	-	-	-	M<Mfis. La sección no fisura
	Abertura característica de fisura máxima			**0.295**	

ANEXO 2 AL APÉNDICE Nº 12.3

LISTADOS DE CÁLCULO DEL MURO MÉNSULA

Programa: CivilCAD3000

Versión: 15 - 8
Barcelona, 2014

CivilCAD3000, software propiedad de CivilCAD Consultores, S.L.
Autores: L.M.Callís, J.M.Roig, I.Callís, P.Reinés
Licencia de uso concedida a: INGEPLAN CONSULTING
Número de usuario: 725

Proyecto:

Nombre del proyecto: *Mejora de la carretera BI-633, del P.K. 52+200 al P.K. 54+000, en Urberuaga - Markina*
Nombre de la estructura: *Muro1*
Nombre del elemento estructural:
Tipo de estructura: *Muro in situ*
Funcionalidad de la estructura: *Muro de contención*
Clase de estructura: *Canto variable*
Vida útil: *100 años*

Normativas:

Ámbito: *Normas españolas*
Normativa de acciones de cálculo: *IAP-2011*
Norma para las verificaciones estructurales: *EHE-2008*
Norma para las verificaciones geotécnicas: *Guía de cimentaciones*

Unidades:

Sistema *S.I.*

Despiece:

Sistema Métrico Europeo

Módulo del programa:

Módulo Muro
Nombre del archivo de proyecto: *muro1.mur*
Ruta de acceso: *|server2008|datos|p|p1309 mejora paco martin|p1309-3 plazakola|documentos|memoria y anejos|anejos|p1309_3_an012_estructuras|_trabajo|muro1|civilcad|*

Informe:

Tipo de informe: *Informe de la Memoria de cálculo*
Informe generado el día 06-10-2016 a las 18:54:20.

CivilCAD3000

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2.1.2 Zapata
2.1.3 Alzado
2.2 Materiales
2.2.1 Hormigón de la zapata
2.2.2 Hormigón del alzado
2.2.3 Hormigón de nivelación
2.2.4 Acero de las armaduras
2.3 Recubrimientos geométricos
2.4 Clases de exposición y fisuración
2.5 Terreno
2.6 Acciones
2.6.1 Acciones permanentes
2.6.2 Acciones variables
2.6.3 Acciones accidentales
2.7 Coeficientes de seguridad
2.7.1 Coeficientes de mayoración de las acciones, γ_F
2.7.2 Coeficientes de seguridad y combinación
2.8 Configuración del cálculo

3 ESFUERZOS EN ALZADO Y ACCIONES EN ZAPATA

3.1 Módulo 1
3.1.1 Sección 1 (x = 18.000 m)

4 ESTADO LÍMITE DE DESLIZAMIENTO

4.1 Módulo 1
4.1.1 Situación persistente. Combinación cuasi permanente
4.1.2 Situación persistente. Combinación característica
4.1.3 Situación accidental. Combinación de impacto
4.2 Resumen de verificaciones

5 ESTADO LÍMITE DE VUELCO

5.1 Módulo 1
5.1.1 Situación persistente. Combinación cuasi permanente.
5.1.2 Situación persistente. Combinación característica.
5.1.3 Situación accidental. Combinación de impacto.
5.2 Resumen de verificaciones

6 ESTADO LÍMITE DE ESTABILIDAD GLOBAL

6.1 Módulo 1
6.1.1 Situación persistente. Combinación cuasi permanente

6.1.2 Situación persistente. Combinación característica
6.1.3 Situación accidental. Combinación de impacto
6.2 Resumen de verificaciones

7 ESTADO LÍMITE ÚLTIMO DE HUNDIMIENTO DEL TERRENO

7.1 Módulo 1
7.1.1 Situación persistente. Combinación cuasi permanente
7.1.2 Situación persistente. Combinación característica
7.1.3 Situación accidental. Combinación de impacto
7.2 Resumen de verificaciones

8 ESTADO LÍMITE ÚLTIMO DE ROTURA POR FLEXIÓN

8.1 Módulo 1
8.1.1 Alzado
8.1.1.1 Situación persistente. Combinación fundamental
8.1.1.2 Situación accidental. Combinación de impacto
8.1.1.3 Envolvente de armaduras
8.1.2 Zapata
8.1.2.1 Situación persistente. Combinación fundamental
8.1.2.2 Situación accidental. Combinación de impacto
8.1.2.3 Envolvente de armaduras
8.2 Resumen de verificaciones

9 ESTADO LÍMITE DE FISURACIÓN

9.1 Módulo 1
9.1.1 Alzado
9.1.1.1 Situación persistente. Combinación cuasi permanente
9.1.2 Zapata
9.1.2.1 Situación persistente. Combinación cuasi permanente
9.2 Resumen de verificaciones

10 ESTADO LÍMITE ÚLTIMO DE ROTURA POR CORTANTE

10.1 Módulo 1
10.1.1 Alzado
10.1.1.1 Situación persistente. Combinación fundamental
10.1.1.2 Situación accidental. Combinación de impacto
10.1.1.3 Envolvente de armaduras
10.1.2 Zapata
10.1.2.1 Situación persistente. Combinación fundamental
10.1.2.2 Situación accidental. Combinación de impacto
10.1.2.3 Envolvente de armaduras
10.2 Resumen de verificaciones

11 ESTADO LÍMITE DE DEFORMACIONES

11.1 Módulo 1
11.2 Resumen de verificaciones

12 VERIFICACIÓN DEL DESPIECE

1 RESUMEN DE VERIFICACIONES

Nombre del proyecto: *Mejora de la carretera BI-633, del P.K. 52+200 al P.K. 54+000, en Urberuaga - Markina*
Nombre de la estructura: *Muro1*
Nombre del elemento estructural:
Tipo de estructura: *Muro in situ*
Funcionalidad de la estructura: *Muro de contención*
Clase de estructura: *Canto variable*
Vida útil: *100 años*

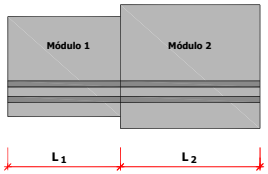
Módulo 1		
Estado límite de deslizamiento zapata - terreno		
Situación persistente	Combinación cuasi permanente	Cumple
	Combinación característica	Cumple
Situación accidental	Combinación de impacto	Cumple
Estado límite de vuelco rígido		
Situación persistente	Combinación cuasi permanente	Cumple
	Combinación característica	Cumple
Situación accidental	Combinación de impacto	Cumple
Estado límite geotécnico último de hundimiento		
Situación persistente	Combinación cuasi permanente	Cumple
	Combinación característica	Cumple
Situación accidental	Combinación de impacto	Cumple
Estado límite estructural último de rotura por flexión		
Situación persistente	Combinación fundamental	Cumple
Situación accidental	Combinación de impacto	Cumple
Estado límite estructural de servicio de fisuración		
Situación persistente	Combinación cuasi permanente	Cumple
Estado límite estructural último de rotura por cortante		
Situación persistente	Combinación fundamental	Cumple
Situación accidental	Combinación de impacto	Cumple
Estado límite estructural de servicio de deformaciones		
Situación persistente	Combinación cuasi permanente	Cumple
	Combinación frecuente	Cumple
	Combinación característica	Cumple

Estado límite de estabilidad global		
Situación persistente	Combinación cuasi permanente	Cumple
	Combinación característica	Cumple
Situación accidental	Combinación de impacto	Cumple
Obtención del despiece de la armadura		
Generación del armado	.	Cumple

2 DEFINICIÓN DEL PROYECTO

2.1 Geometría

2.1.1 Planta del paramento

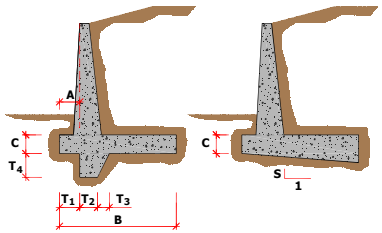


Módulo	Coordenadas Paramento				Longitud L (m)
	Punto inicial		Punto final		
	X (m)	Y (m)	X (m)	Y (m)	
1	0.000	0.000	20.000	0.000	20.000

Ángulo inicial de la zapata con el paramento α_1 : 100.000 g
Ángulo final de la zapata con el paramento α_2 : 100.000 g

2.1.2 Zapata

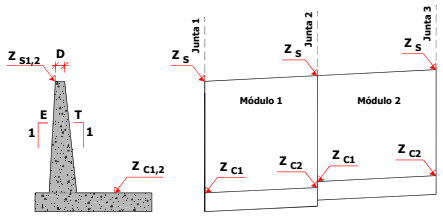
Dimensiones de la zapata



Módulo	A (m)	Ancho B (m)	Canto C (m)	Pendiente S
1	0.600	3.200	0.600	0.000

Espesor del hormigón de limpieza : 0.100 m

2.1.3 Alzado



Junta	Cota coronación Z_s (m)	Pendiente E	Canto coronación D (m)
1	39.000	0.000	0.650
2	40.100	0.000	0.650

Módulo	Cota zapata Z_{c1} (m)	Cota zapata Z_{c2} (m)	Pendiente trasdós T_1	Pendiente trasdós T_2
1	36.000	36.000	0.000	0.000

2.2 Materiales

2.2.1 Hormigón de la zapata

Denominación: HA-25

Resistencia característica a compresión, f_{ck}	:	25.0	MPa
Resistencia media a compresión, f_{cm}	:	33.0	MPa
Resistencia característica a tracción, $f_{ct,k}$	:	-1.8	MPa
Resistencia media a tracción, $f_{ct,m}$	:	-2.6	MPa
Módulo elástico secante, E_{cm}	:	27264.0	MPa
Módulo elástico inicial (tangente), E_c	:	32035.2	MPa
Coeficiente de Poisson, ν	:	0.20	
Peso específico, γ	:	25.0	kN/m^3
Coeficiente del tipo de cemento, s	:	0.250	
Coeficiente de la naturaleza del árido, α	:	1.000	
Coeficiente de dilatación térmica, α	:	0.00001000	$^oC^{-1}$

Diagrama parábola-rectángulo:

Grado de la parábola, n	:	2.000
Deformación de rotura a compresión simple, ε_{c0}	:	0.00200
Deformación de rotura en flexión, ε_{cu}	:	0.00350
Coeficiente de intensidad del bloque de compresión, k	:	1.000

Diagrama rectangular:

Coeficiente profundidad del bloque de compresión, λ	:	0.800
Coeficiente intensidad del bloque de compresión, η	:	1.000

Endurecimiento : Normal
Tipo de cemento para la zapata: CEM II/A-S (según RC-08).

2.2.2 Hormigón del alzado

Denominación: HA-25

Resistencia característica a compresión, f_{ck}	:	25.0	MPa

Resistencia media a compresión, f_{cm}	33.0	MPa
Resistencia característica a tracción, $f_{ct,k}$	-1.8	MPa
Resistencia media a tracción, $f_{ct,m}$	-2.6	MPa
Módulo elástico secante, E_{cm}	27264.0	MPa
Módulo elástico inicial (tangente), E_c	32035.2	MPa
Coeficiente de Poisson, ν	0.20	
Peso específico, γ	25.0	kN/m^3
Coeficiente del tipo de cemento, s	0.250	
Coeficiente de la naturaleza del árido, α	1.000	
Coeficiente de dilatación térmica, α	0.00001000	ºC^{-1}

Diagrama parábola-rectángulo:

Grado de la parábola, n	2.000	
Deformación de rotura a compresión simple, ε_{c0}	0.00200	
Deformación de rotura en flexión, ε_{cu}	0.00350	
Coeficiente de intensidad del bloque de compresión, k	1.000	

Diagrama rectangular:

Coeficiente profundidad del bloque de compresión, λ	0.800	
Coeficiente intensidad del bloque de compresión, η	1.000	

Endurecimiento : Normal
Tipo de cemento para el alzado: CEM II/A-S (según RC-08).

2.2.3 Hormigón de nivelación

Denominación: HM-15

Resistencia característica a compresión, f_{ck}	15.0	MPa

Tipo de cemento para el hormigón de nivelación: CEM I (según RC-08).

2.2.4 Acero de las armaduras

Denominación: AP500 S

Límite elástico característico, f_{yk}	500	MPa
Tensión unitaria de rotura , f_s	550	MPa
Módulo de deformación longitudinal del acero, E_s	200000	MPa
Deformación última en compresión, $\varepsilon_{max,1}$	0.01000	
Deformación última en tracción, $\varepsilon_{max,2}$	-0.01000	
Densidad del acero, γ	77.0	kN/m^3

Coeficientes de seguridad:

ELServicio, γ_s	1.00
ELU, situación persistente, γ_s	1.15
ELU, situación accidental, γ_s	1.00

2.3 Recubrimientos geométricos

Zapata	35	mm
Alzado	35	mm

2.4 Clases de exposición y fisuración

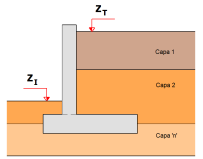
Zapata:
Ambiente: IIa
Anchura de fisura admisible : 0.30 mm

Alzado:
Ambiente: IIa
Anchura de fisura admisible : 0.30 mm

2.5 Terreno

CivilCAD3000

Definición de las cotas del terreno



Junta	Cota terreno en puntera Z_I (m)	Cota terreno tradós Z_T (m)
1	36.500	38.900
2	36.500	40.000

Definición de parámetros geotécnicos de las capas del terreno

Capa	Nombre	Tipo	Cota inferior (m)	Densidad natural (kN/m^3)	Densidad saturada (kN/m^3)
1	Relleno	Granular	-10000.000	20.0	22.0

Capa	Nombre	Tipo	Ángulo de rozamiento (º)	Cohesión (kN/m^2)	Presión de hundimiento (kN/m^2)
1	Relleno	Granular	30.0	0.0	500.0

Definición de los parámetros contacto hormigón-terreno

Capa	Nombre	Áng. roz. zapata-terreno (º)	Adherencia (kN/m^2)	Áng. roz. alzado-terreno (º)
1	Relleno	25.0	0.0	0.0

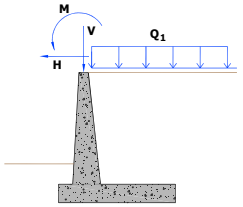
2.6 Acciones

2.6.1 Acciones permanentes

Empuje de tierras :

En el trasdós del muro se aplica el empuje activo.
No se considera la componente vertical del empuje activo en el contacto terreno-terreno.
No se considera el empuje pasivo en la puntera.

2.6.2 Acciones variables



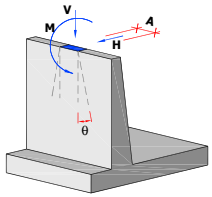
Acción del tráfico

- Sobrecarga en trasdós :

Sobrecarga uniforme en trasdós, Q_1 : 10.00 kN/m^2

2.6.3 Acciones accidentales

Impacto de vehículos



Fuerza vertical, V	:	0.00 kN
Fuerza horizontal, H	:	300.00 kN
Momento, M	:	180.00 kNm
Anchura de aplicación, A	:	2.000 m
Ángulo de reparto, θ	:	45.0 º

2.7 Coeficientes de seguridad

2.7.1 Coeficientes de mayoración de las acciones, γ_F

ESTADOS LÍMITE ESTRUCTURALES						
	Estado límite de Servicio		Estado límite Último			
			Situación Persistente		Situación Accidental	
	Coeficiente favorable	Coeficiente desfavorable	Coeficiente favorable	Coeficiente desfavorable	Coeficiente favorable	Coeficiente desfavorable
Peso propio muro	1.00	1.00	1.00	1.35	1.00	1.00
Peso tierras trasdós	1.00	1.00	1.00	1.35	1.00	1.00
Peso tierras puntera	1.00	1.00	1.00	1.35	1.00	1.00
Empuje activo trasdós	1.00	1.00	1.00	1.50	1.00	1.00
Empuje pasivo puntera	1.00	1.00	1.00	1.50	1.00	1.00
Sobrecarga permanente trasdós. Empuje	1.00	1.00	1.00	1.50	1.00	1.00
Sobrecarga permanente trasdós. Acción vertical	1.00	1.00	1.00	1.35	1.00	1.00
Carga permanente en coronación	1.00	1.00	1.00	1.35	1.00	1.00
Carga permanente en faja. Empuje	1.00	1.00	1.00	1.35	1.00	1.00
Carga permanente en faja. Acción vertical	1.00	1.00	1.00	1.35	1.00	1.00
Sobrecarga de tráfico. Empuje	0.00	1.00	0.00	1.50	0.00	1.00
Sobrecarga de tráfico. Acción vertical	0.00	1.00	0.00	1.35	0.00	1.00
Carga de tráfico en coronación	0.00	1.00	0.00	1.35	0.00	1.00
Viento	0.00	1.00	0.00	1.50	0.00	1.00
Nivel freático	0.00	1.00	0.00	1.50	0.00	1.00
Sismo	0.00	0.00	0.00	0.00	1.00	1.00
Impacto	0.00	0.00	0.00	0.00	1.00	1.00

ESTADOS LÍMITE GEOTÉCNICOS		
	Estado límite Último	
	Situación Persistente	Situación Accidental

	Coeficiente favorable	Coeficiente desfavorable	Coeficiente favorable	Coeficiente desfavorable
Peso propio muro	1.00	1.00	1.00	1.00
Peso tierras trasdós	1.00	1.00	1.00	1.00
Peso tierras puntera	1.00	1.00	1.00	1.00
Empuje activo trasdós	1.00	1.00	1.00	1.00
Empuje pasivo puntera	1.00	1.00	1.00	1.00
Sobrecarga permanente trasdós. Empuje	1.00	1.00	1.00	1.00
Sobrecarga permanente trasdós. Acción vertical	1.00	1.00	1.00	1.00
Carga permanente en coronación	1.00	1.00	1.00	1.00
Carga permanente en faja. Empuje	1.00	1.00	1.00	1.00
Carga permanente en faja. Acción vertical	1.00	1.00	1.00	1.00
Sobrecarga de tráfico. Empuje	0.00	1.00	0.00	1.00
Sobrecarga de tráfico. Acción vertical	0.00	1.00	0.00	1.00
Carga de tráfico en coronación	0.00	1.00	0.00	1.00
Viento	0.00	1.00	0.00	1.00
Nivel freático	0.00	1.00	0.00	1.00
Sismo	0.00	0.00	1.00	1.00
Impacto	0.00	0.00	1.00	1.00

2.7.2 Coeficientes de seguridad y combinación

Coeficientes de combinación

	ψ_0	ψ_1	ψ_2
Sobrecarga de tráfico	1.00	1.00	1.00
Viento	0.60	0.20	0.00
Nivel freático	1.00	1.00	1.00

Movimientos admisibles

Desplazamiento máximo horizontal en coronación, U_X : 1 mm

Factores de seguridad. EL geotécnico de Hundimiento

Situación persistente. Combinación característica	:	2.600
Situación persistente. Combinación cuasi permanente	:	3.000
Situación accidental. Combinación sísmica	:	2.200
Situación accidental. Combinación de impacto	:	2.200

Factores de seguridad. EL geotécnico de Deslizamiento

Situación persistente. Combinación característica	:	1.300
Situación persistente. Combinación cuasi permanente	:	1.500
Situación accidental. Combinación sísmica	:	1.100
Situación accidental. Combinación de impacto	:	1.100

Factores de seguridad. EL geotécnico de Vuelco rígido

Situación persistente. Combinación característica	:	1.800
Situación persistente. Combinación cuasi permanente	:	2.000
Situación accidental. Combinación sísmica	:	1.500
Situación accidental. Combinación de impacto	:	1.500

Factores de seguridad. EL geotécnico de Estabilidad global

Situación persistente. Combinación característica	:	1.300
Situación persistente. Combinación cuasi permanente	:	1.500
Situación accidental. Combinación sísmica	:	1.100
Situación accidental. Combinación de impacto	:	1.100

2.8 Configuración del cálculo

El cálculo de cada módulo se realiza considerando 1 sección transversal del muro.

Las verificaciones de deslizamiento, vuelco y estabilidad global se realizan en las secciones transversales definidas, obteniéndose a partir de ellas un coeficiente de seguridad global del módulo ponderando cada sección por su anchura contributiva.

Para la verificación del estado límite de hundimiento, el cálculo se realiza para cada sección transversal definida, adoptándose para la verificación la presión máxima de entre todas las secciones transversales.

Para la obtención de las armaduras de flexión, cortante y fisuración, se realiza el cálculo de las mismas en cada una de las secciones transversales definidas, adoptándose la armadura máxima de entre todas ellas.

Las secciones transversales consideradas en cada módulo son :

Sección transversal	s / L (tanto por uno)
1	0.900

s : Distancia de la sección transversal al inicio del módulo.
L : Longitud del módulo.

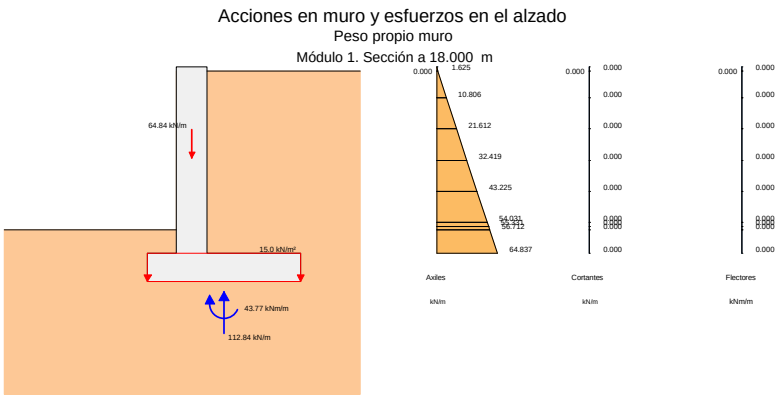
3 ESFUERZOS EN ALZADO Y ACCIONES EN ZAPATA

En este apartado se presentan los esfuerzos característicos (sin mayorar) correspondientes a cada acción. Así mismo, los parámetros geotécnicos utilizados corresponden también a los valores característicos.

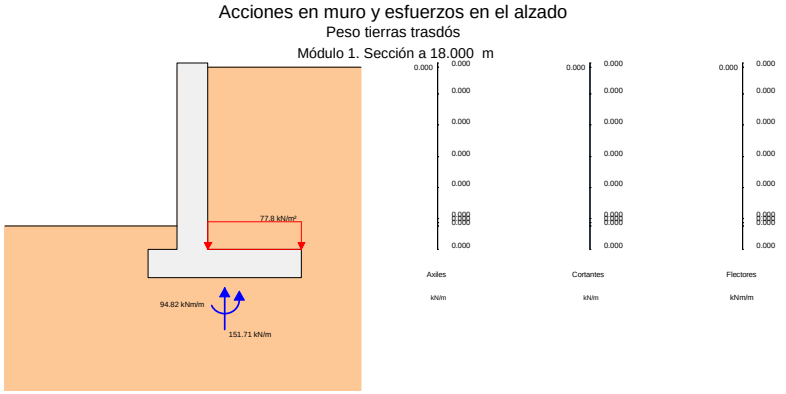
3.1 Módulo 1

3.1.1 Sección 1 (x = 18.000 m)

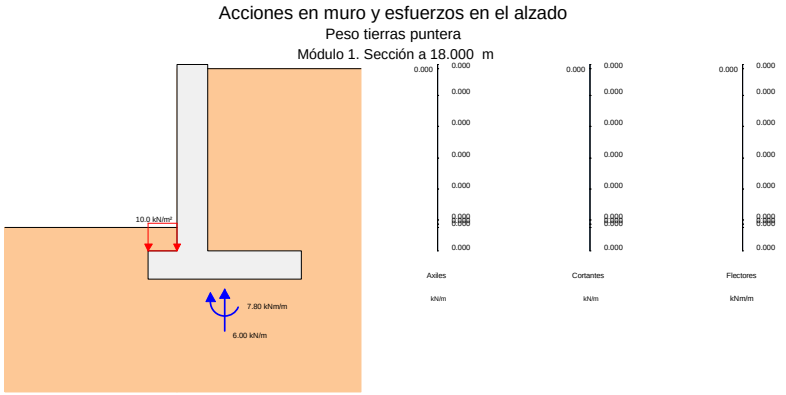
Peso propio muro



Peso tierras trasdós

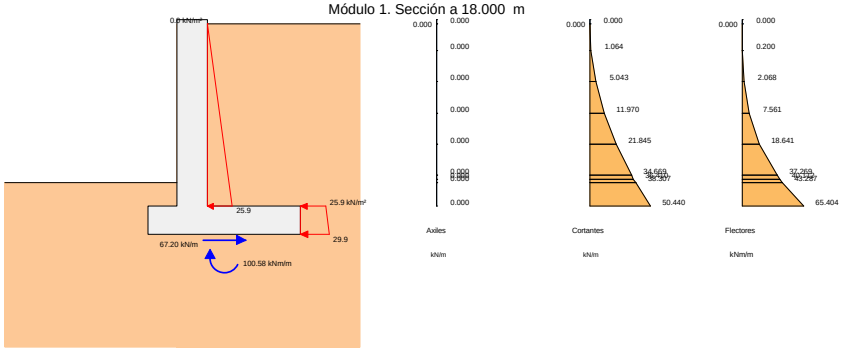


Peso tierras puntera



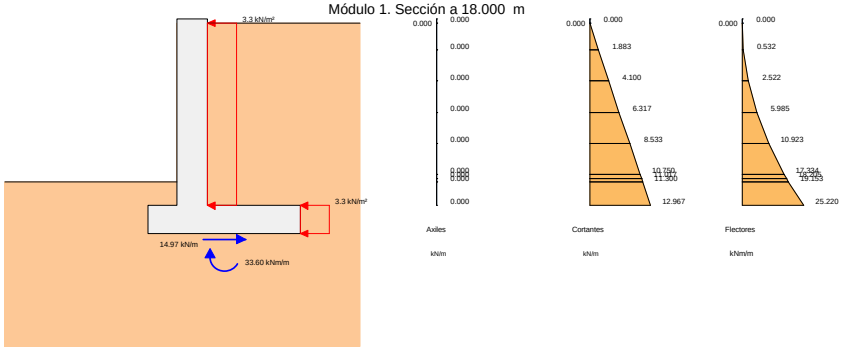
Empuje activo de las tierras del trasdós

Acciones en muro y esfuerzos en el alzado
Empuje activo de las tierras del trasdós
Módulo 1. Sección a 18.000 m



Empuje sobrecarga de tráfico en trasdós

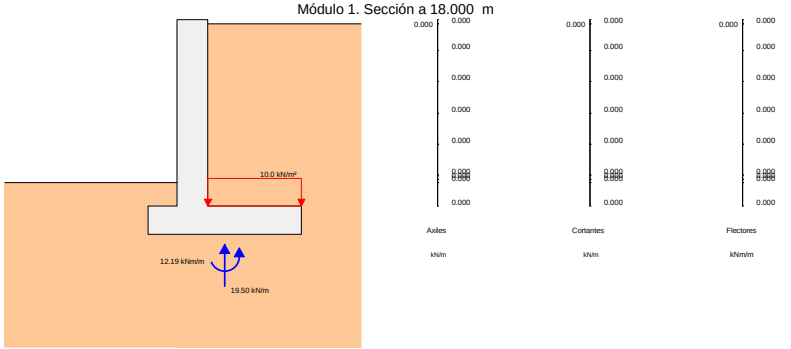
Acciones en muro y esfuerzos en el alzado
Empuje sobrecarga de tráfico en trasdós
Módulo 1. Sección a 18.000 m



Acción vertical sobrecarga de tráfico en trasdós

CivilCAD3000

Acciones en muro y esfuerzos en el alzado
Acción vertical sobrecarga de tráfico en trasdós
Módulo 1. Sección a 18.000 m



4 ESTADO LÍMITE DE DESLIZAMIENTO

4.1 Módulo 1

4.1.1 Situación persistente. Combinación cuasi permanente.

Acción	F normal (kN)	F roz. (kN)	F horiz. estab. (kN)	F desest. (kN)
Peso propio muro	2256.7	1052.3	0.0	0.0
Peso tierras trasdós	3034.2	1414.9	0.0	0.0
Peso tierras puntera	120.0	56.0	0.0	0.0
Empuje activo trasdós	0.0	0.0	0.0	1344.0
Sobrecarga de tráfico. Empuje	0.0	0.0	0.0	299.3
Sobrecarga de tráfico. Acción vertical	0.0	0.0	0.0	0.0
Impacto	0.0	0.0	0.0	0.0
Total	5411.0	2523.2	0.0	1643.3

Fuerza estabilizadora:

Fuerza de rozamiento	:	2523.2 kN
Fuerza horizontal estabilizadora	:	0.0 kN
Adherencia	:	0.0 kN
Total	:	2523.2 kN

Fuerza desestabilizadora : 1643.3 kN

Factor de seguridad : 1.535
Factor de seguridad admisible : 1.500

FS = 1.535 > $FS_{admisible}$ = 1.500 -> **Cumple a deslizamiento.**

4.1.2 Situación persistente. Combinación característica.

Acción	F normal (kN)	F roz. (kN)	F horiz. estab. (kN)	F desest. (kN)
Peso propio muro	2256.7	1052.3	0.0	0.0
Peso tierras trasdós	3034.2	1414.9	0.0	0.0
Peso tierras puntera	120.0	56.0	0.0	0.0
Empuje activo trasdós	0.0	0.0	0.0	1344.0
Sobrecarga de tráfico. Empuje	0.0	0.0	0.0	299.3

Sobrecarga de tráfico. Acción vertical	0.0	0.0	0.0	0.0
Impacto	0.0	0.0	0.0	0.0
Total	5411.0	2523.2	0.0	1643.3

Fuerza estabilizadora:

Fuerza de rozamiento	:	2523.2	kN
Fuerza horizontal estabilizadora	:	0.0	kN
Adherencia	:	0.0	kN
Total	:	2523.2	kN

Fuerza desestabilizadora : 1643.3 kN

Factor de seguridad : 1.535
Factor de seguridad admisible : 1.300

FS = 1.535 > $FS_{admisible}$ = 1.300 -> **Cumple a deslizamiento.**

4.1.3 Situación accidental. Combinación de impacto.

Acción	F normal (kN)	F roz. (kN)	F horiz. estab. (kN)	F desest. (kN)
Peso propio muro	2256.7	1052.3	0.0	0.0
Peso tierras trasdós	3034.2	1414.9	0.0	0.0
Peso tierras puntera	120.0	56.0	0.0	0.0
Empuje activo trasdós	0.0	0.0	0.0	1344.0
Sobrecarga de tráfico. Empuje	0.0	0.0	0.0	299.3
Sobrecarga de tráfico. Acción vertical	0.0	0.0	0.0	0.0
Impacto	0.0	0.0	0.0	300.0
Total	5411.0	2523.2	0.0	1943.3

Fuerza estabilizadora:

Fuerza de rozamiento	:	2523.2	kN
Fuerza horizontal estabilizadora	:	0.0	kN
Adherencia	:	0.0	kN
Total	:	2523.2	kN

Fuerza desestabilizadora : 1943.3 kN

Factor de seguridad : 1.298
Factor de seguridad admisible : 1.100

FS = 1.298 > $FS_{admisible}$ = 1.100 -> **Cumple a deslizamiento.**

4.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación cuasi permanente
Módulo 1 : Verifica la comprobación para la situación persistente, combinación característica
Módulo 1 : Verifica la comprobación para la situación accidental, combinación de impacto

5 ESTADO LÍMITE DE VUELCO

5.1 Módulo 1

5.1.1 Situación persistente. Combinación cuasi permanente.

Acción	M estab. (kNm)	M desest. (kNm)
Peso propio muro	2735.5	0.0
Peso tierras trasdós	6751.1	0.0

Peso tierras puntera	36.0	0.0
Empuje activo trasdós	0.0	2011.5
Sobrecarga de tráfico. Empuje	0.0	672.0
Sobrecarga de tráfico. Acción vertical	0.0	0.0
Impacto	0.0	0.0
Total	9522.6	2683.5

Momento estabilizador : 9522.6 kNm
Momento desestabilizador : 2683.5 kNm

Factor de seguridad : 3.549
Factor de seguridad admisible : 2.000

FS = 3.549 > FSadm = 2.000 -> **Cumple a vuelco.**

5.1.2 Situación persistente. Combinación característica.

Acción	M estab. (kNm)	M desest. (kNm)
Peso propio muro	2735.5	0.0
Peso tierras trasdós	6751.1	0.0
Peso tierras puntera	36.0	0.0
Empuje activo trasdós	0.0	2011.5
Sobrecarga de tráfico. Empuje	0.0	672.0
Sobrecarga de tráfico. Acción vertical	0.0	0.0
Impacto	0.0	0.0
Total	9522.6	2683.5

Momento estabilizador : 9522.6 kNm
Momento desestabilizador : 2683.5 kNm

Factor de seguridad : 3.549
Factor de seguridad admisible : 1.800

FS = 3.549 > FSadm = 1.800 -> **Cumple a vuelco.**

5.1.3 Situación accidental. Combinación de impacto.

Acción	M estab. (kNm)	M desest. (kNm)
Peso propio muro	2735.5	0.0
Peso tierras trasdós	6751.1	0.0
Peso tierras puntera	36.0	0.0
Empuje activo trasdós	0.0	2011.5
Sobrecarga de tráfico. Empuje	0.0	672.0
Sobrecarga de tráfico. Acción vertical	0.0	0.0
Impacto	0.0	1557.0
Total	9522.6	4240.5

Momento estabilizador : 9522.6 kNm
Momento desestabilizador : 4240.5 kNm

Factor de seguridad : 2.246
Factor de seguridad admisible : 1.500

FS = 2.246 > FSadm = 1.500 -> **Cumple a vuelco.**

5.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación cuasi permanente
Módulo 1 : Verifica la comprobación para la situación persistente, combinación característica
Módulo 1 : Verifica la comprobación para la situación accidental, combinación de impacto

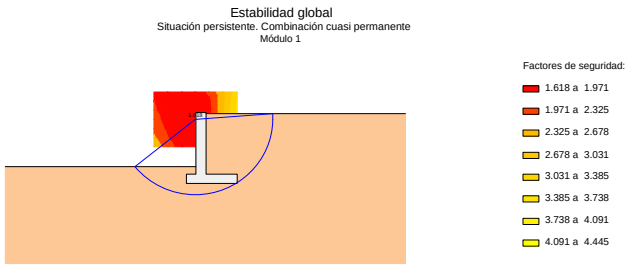
6 ESTADO LÍMITE DE ESTABILIDAD GLOBAL

El cálculo a estabilidad global se realiza con el método aproximado de Fellenius, considerando únicamente superficies de rotura circulares y con distribuciones de presiones intersticiales hidrostáticas (con variación lineal entre la zarpa delantera y la trasera).

El proyectista deberá valorar la verificación de la estabilidad global con métodos más precisos en función de la geometría, la estratificación y el flujo de agua.

6.1 Módulo 1

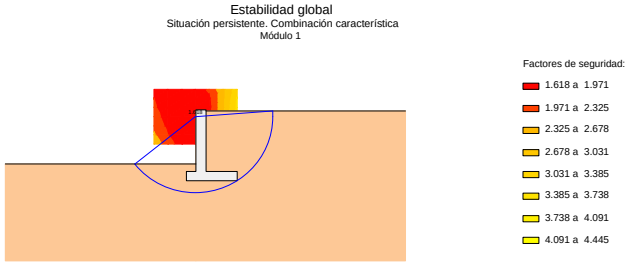
6.1.1 Situación persistente. Combinación cuasi permanente.



Factor de seguridad	:	1.618
Factor de seguridad admisible	:	1.500

FS = 1.618 > FSadm = 1.500 -> **Cumple a estabilidad global.**

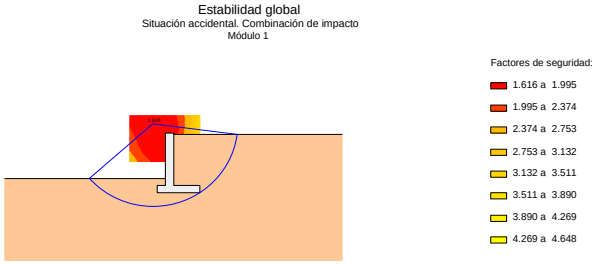
6.1.2 Situación persistente. Combinación característica.



Factor de seguridad	:	1.618
Factor de seguridad admisible	:	1.300

FS = 1.618 > FSadm = 1.300 -> **Cumple a estabilidad global.**

6.1.3 Situación accidental. Combinación de impacto.



Factor de seguridad	:	1.616
Factor de seguridad admisible	:	1.100

FS = 1.616 > FSadm = 1.100 -> **Cumple a estabilidad global.**

6.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación cuasi permanente
Módulo 1 : Verifica la comprobación para la situación persistente, combinación característica
Módulo 1 : Verifica la comprobación para la situación accidental, combinación de impacto

7 ESTADO LÍMITE ÚLTIMO DE HUNDIMIENTO DEL TERRENO

Para el cálculo de las presiones en el terreno se ha considerado una ley de distribución lineal sin resistencia a tracción.

7.1 Módulo 1

7.1.1 Situación persistente. Combinación cuasi permanente.

Esfuerzos en la base de la zapata:

Sección	Resultante en la base de la zapata		
x (m)	N (kN/m)	H (kN/m)	M (kNm/m)
18.000	270.55	82.17	90.92

N: Resultante de las fuerzas verticales en el centro de la base de la zapata.
H: Resultante de las fuerzas horizontales en el centro de la base de la zapata.
M: Momento resultante respecto al centro de la base de la zapata.
Los esfuerzos N, H, M corresponden a la hipótesis que genera la presión máxima en el terreno.

Distribución de presiones:

Sección	Distribución de presión máxima			
x	σ_1	σ_2	b	Tipo

(m)	(kN/m2)	(kN/m2)	(m)	
18.000	137.8	31.3	3.200	Trapecial

Comprobación a hundimiento:

Presión máxima	:	137.8 kN/m2
Presión admisible	:	245.0 kN/m2

Cumple

7.1.2 Situación persistente. Combinación característica.

Esfuerzos en la base de la zapata:

Sección	Resultante en la base de la zapata		
x (m)	N (kN/m)	H (kN/m)	M (kNm/m)
18.000	270.55	82.17	90.92

N: Resultante de las fuerzas verticales en el centro de la base de la zapata.
H: Resultante de las fuerzas horizontales en el centro de la base de la zapata.
M: Momento resultante respecto al centro de la base de la zapata.
Los esfuerzos N, H, M corresponden a la hipótesis que genera la presión máxima en el terreno.

Distribución de presiones:

Sección	Distribución de presión máxima			
x (m)	σ_1 (kN/m2)	σ_2 (kN/m2)	b (m)	Tipo
18.000	137.8	31.3	3.200	Trapecial

Comprobación a hundimiento:

Presión máxima	:	137.8 kN/m2
Presión admisible	:	245.0 kN/m2

Cumple

7.1.3 Situación accidental. Combinación de impacto.

Esfuerzos en la base de la zapata:

Sección	Resultante en la base de la zapata		
x (m)	N (kN/m)	H (kN/m)	M (kNm/m)
18.000	270.55	97.17	168.77

N: Resultante de las fuerzas verticales en el centro de la base de la zapata.
H: Resultante de las fuerzas horizontales en el centro de la base de la zapata.
M: Momento resultante respecto al centro de la base de la zapata.
Los esfuerzos N, H, M corresponden a la hipótesis que genera la presión máxima en el terreno.

Distribución de presiones:

Sección	Distribución de presión máxima			
x (m)	σ_1 (kN/m2)	σ_2 (kN/m2)	b (m)	Tipo
18.000	184.8	0.0	2.929	Triangular

Comprobación a hundimiento:

Presión máxima	:	184.8 kN/m2
Presión admisible	:	245.0 kN/m2

Cumple

7.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación cuasi permanente
Módulo 1 : Verifica la comprobación para la situación persistente, combinación característica
Módulo 1 : Verifica la comprobación para la situación accidental, combinación de impacto

8 ESTADO LÍMITE ÚLTIMO DE ROTURA POR FLEXIÓN

8.1 Módulo 1

8.1.1 Alzado

8.1.1.1 Situación persistente. Combinación fundamental.

Sección 1 (x = 18.000 m)

	Envolvente de esfuerzos			
	Axiles		Flectores	
Altura sobre zapata (m)	$N_{d\,max}^+$ (kN/m)	$N_{d\,max}^-$ (kN/m)	$M_{d\,max}^+$ (kNm/m)	$M_{d\,max}^-$ (kNm/m)
3.990	0.0	0.0	0.0	0.0
3.890	2.2	1.6	0.0	-0.0
3.325	14.6	10.8	1.1	0.2
2.660	29.2	21.6	6.9	2.1
1.995	43.8	32.4	20.3	7.6
1.330	58.4	43.2	44.3	18.6
0.665	72.9	54.0	81.9	37.3
0.585	74.7	55.3	87.5	40.1
0.500	76.6	56.7	93.7	43.3
0.000	87.5	64.8	135.9	65.4

	Armadura vertical interior (lado tierras)				
	Esfuerzos armadura máxima		Armadura interior		
Altura sobre zapata (m)	N_d (kN/m)	M_d (kNm/m)	$A_{s\,cálculo}$ (cm2/m)	$A_{s\,mecánica}$ (cm2/m)	$A_{s\,geométrica}$ (cm2/m)
3.990	0.0	0.0	0.0	0.0	1.8
3.890	2.2	0.0	0.0	0.0	1.8
3.325	14.6	0.2	0.0	0.0	1.8
2.660	29.2	2.1	0.0	0.0	1.8
1.995	32.4	20.3	0.4	7.1	5.8
1.330	43.2	44.3	1.2	7.1	5.8
0.665	54.0	81.9	2.6	7.2	5.8
0.585	55.3	87.5	2.8	7.2	5.8
0.500	56.7	93.7	3.0	7.2	5.8
0.000	64.8	135.9	4.6	7.2	5.8

	Armadura vertical exterior (lado visto)				
	Esfuerzos armadura máxima		Armadura exterior		
Altura sobre zapata (m)	N_d (kN/m)	M_d (kNm/m)	$A_{s\,cálculo}$ (cm2/m)	$A_{s\,mecánica}$ (cm2/m)	$A_{s\,geométrica}$ (cm2/m)
3.990	0.0	0.0	0.0	0.0	1.8
3.890	2.2	0.0	0.0	0.0	1.8
3.325	14.6	0.2	0.0	0.0	1.8
2.660	29.2	2.1	0.0	0.0	1.8

1.995	43.8	7.6	0.0	0.0	1.8
1.330	58.4	18.6	0.0	0.0	1.8
0.665	72.9	37.3	0.0	0.0	1.8
0.585	74.7	40.1	0.0	0.0	1.8
0.500	76.6	43.3	0.0	0.0	1.8
0.000	87.5	65.4	0.0	0.0	1.8

8.1.1.2 Situación accidental. Combinación de impacto.

Sección 1 (x = 18.000 m)

	Envolvente de esfuerzos			
	Axiles		Flectores	
Altura sobre zapata (m)	$N_{d\ max}^{+}$ (kN/m)	$N_{d\ max}^{-}$ (kN/m)	$M_{d\ max}^{+}$ (kNm/m)	$M_{d\ max}^{-}$ (kNm/m)
3.990	0.0	-0.0	90.0	90.0
3.890	1.6	1.6	95.5	95.5
3.325	10.8	10.8	114.7	114.2
2.660	21.6	21.6	138.3	135.8
1.995	32.4	32.4	169.4	163.4
1.330	43.2	43.2	202.4	191.4
0.665	54.0	54.0	240.8	223.4
0.585	55.3	55.3	245.9	227.7
0.500	56.7	56.7	251.5	232.3
0.000	64.8	64.8	287.6	262.4

	Armadura vertical interior (lado tierras)				
	Esfuerzos armadura máxima		Armadura interior		
Altura sobre zapata (m)	N_d (kN/m)	M_d (kNm/m)	$A_{s\ cálculo}$ (cm^2/m)	$A_{s\ mecánica}$ (cm^2/m)	$A_{s\ geométrica}$ (cm^2/m)
3.990	0.0	90.0	3.1	4.2	5.8
3.890	1.6	95.5	3.3	6.2	5.8
3.325	10.8	114.7	3.8	6.2	5.8
2.660	21.6	138.3	4.5	6.2	5.8
1.995	32.4	169.4	5.5	6.3	5.8
1.330	43.2	202.4	6.6	6.3	5.8
0.665	54.0	240.8	7.8	6.3	5.8
0.585	55.3	245.9	8.0	6.3	5.8
0.500	56.7	251.5	8.2	6.3	5.8
0.000	64.8	287.6	9.4	6.3	5.8

	Armadura vertical exterior (lado visto)				
	Esfuerzos armadura máxima		Armadura exterior		
Altura sobre zapata (m)	N_d (kN/m)	M_d (kNm/m)	$A_{s\ cálculo}$ (cm^2/m)	$A_{s\ mecánica}$ (cm^2/m)	$A_{s\ geométrica}$ (cm^2/m)
3.990	0.0	90.0	0.0	0.0	1.8
3.890	1.6	95.5	0.0	0.0	1.8
3.325	10.8	114.2	0.0	0.0	1.8
2.660	21.6	135.8	0.0	0.0	1.8
1.995	32.4	163.4	0.0	0.0	1.8
1.330	43.2	191.4	0.0	0.0	1.8
0.665	54.0	223.4	0.0	0.0	1.8
0.585	55.3	227.7	0.0	0.0	1.8
0.500	56.7	232.3	0.0	0.0	1.8
0.000	64.8	262.4	0.0	0.0	1.8

8.1.1.3 Envolvente de armaduras

Altura sobre zapata (m)	Armadura interior (cm^2/m)	Armadura exterior (cm^2/m)
3.990	5.8	1.8
3.890	6.2	1.8

3.325	6.2	1.8
2.660	6.2	1.8
1.995	7.1	1.8
1.330	7.1	1.8
0.665	7.8	1.8
0.585	8.0	1.8
0.500	8.2	1.8
0.000	9.4	1.8

8.1.2 Zapata

8.1.2.1 Situación persistente. Combinación fundamental.

Sección 1 (x = 18.000 m)

		Armadura inferior			
Distancia a puntera (m)	Zarpa	$M_{d\ max}^{+}$ (kNm/m)	$A_{s\ cálculo}$ (cm^2/m)	$A_{s\ mecánica}$ (cm^2/m)	$A_{s\ geométrica}$ (cm^2/m)
0.139	Delantera	1.6	0.1	0.1	5.4
0.279	Delantera	6.3	0.3	0.4	5.4
0.419	Delantera	13.9	0.6	0.9	5.4
0.558	Delantera	24.3	1.0	1.5	5.4
0.698	Delantera	37.4	1.6	2.3	5.4
1.152	Trasera	0.0	0.0	0.0	5.4
1.562	Trasera	0.0	0.0	0.0	5.4
1.971	Trasera	0.0	0.0	0.0	5.4
2.381	Trasera	0.0	0.0	0.0	5.4
2.791	Trasera	0.0	0.0	0.0	5.4

		Armadura superior			
Distancia a puntera (m)	Zarpa	$M_{d\ max}^{-}$ (kNm/m)	$A_{s\ cálculo}$ (cm^2/m)	$A_{s\ mecánica}$ (cm^2/m)	$A_{s\ geométrica}$ (cm^2/m)
0.139	Delantera	0.0	0.0	0.0	0.0
0.279	Delantera	0.0	0.0	0.0	0.0
0.419	Delantera	0.0	0.0	0.0	0.0
0.558	Delantera	0.0	0.0	0.0	0.0
0.698	Delantera	0.0	0.0	0.0	0.0
1.152	Trasera	-128.2	5.6	6.7	5.4
1.562	Trasera	-92.0	4.0	5.2	5.4
1.971	Trasera	-57.2	2.5	3.4	5.4
2.381	Trasera	-28.0	1.2	1.7	5.4
2.791	Trasera	-7.7	0.3	0.5	5.4

8.1.2.2 Situación accidental. Combinación de impacto.

Sección 1 (x = 18.000 m)

		Armadura inferior			
Distancia a puntera (m)	Zarpa	$M_{d\ max}^{+}$ (kNm/m)	$A_{s\ cálculo}$ (cm^2/m)	$A_{s\ mecánica}$ (cm^2/m)	$A_{s\ geométrica}$ (cm^2/m)
0.139	Delantera	3.0	0.1	0.2	5.4
0.279	Delantera	11.7	0.4	0.6	5.4
0.419	Delantera	25.5	1.0	1.4	5.4
0.558	Delantera	43.9	1.6	2.3	5.4
0.698	Delantera	66.3	2.5	3.4	5.4
1.152	Trasera	0.0	0.0	0.0	5.4
1.562	Trasera	0.0	0.0	0.0	5.4
1.971	Trasera	0.0	0.0	0.0	5.4
2.381	Trasera	0.0	0.0	0.0	5.4
2.791	Trasera	0.0	0.0	0.0	5.4

	Armadura superior				
Distancia a puntera (m)	Zarpa	$M_{d\ max}^-$ (kNm/m)	$A_{s\ cálculo}$ (cm^2/m)	$A_{s\ mecánica}$ (cm^2/m)	$A_{s\ geométrica}$ (cm^2/m)
0.139	Delantera	0.0	0.0	0.0	0.0
0.279	Delantera	0.0	0.0	0.0	0.0
0.419	Delantera	0.0	0.0	0.0	0.0
0.558	Delantera	0.0	0.0	0.0	0.0
0.698	Delantera	0.0	0.0	0.0	0.0
1.152	Trasera	-210.0	8.0	5.9	5.4
1.562	Trasera	-137.8	5.2	5.8	5.4
1.971	Trasera	-77.6	2.9	3.9	5.4
2.381	Trasera	-34.5	1.3	1.9	5.4
2.791	Trasera	-8.6	0.3	0.5	5.4

8.1.2.3 Envolvente de armaduras

Distancia a puntera (m)	Zarpa	Armadura inferior (cm^2/m)	Armadura superior (cm^2/m)
0.139	Delantera	5.4	0.0
0.279	Delantera	5.4	0.0
0.419	Delantera	5.4	0.0
0.558	Delantera	5.4	0.0
0.698	Delantera	5.4	0.0
1.152	Trasera	5.4	8.0
1.562	Trasera	5.4	5.8
1.971	Trasera	5.4	5.4
2.381	Trasera	5.4	5.4
2.791	Trasera	5.4	5.4

8.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación fundamental
Módulo 1 : Verifica la comprobación para la situación accidental, combinación de impacto

9 ESTADO LÍMITE DE FISURACIÓN

M_k: Flector máximo. Situación persistente. Combinación cuasi permanente.
N_k: Axil concomitante. Situación persistente. Combinación cuasi permanente.
w_k: Abertura de fisura.
w_{adm}: Abertura de fisura admisible.

9.1 Módulo 1

9.1.1 Alzado

9.1.1.1 Situación persistente. Combinación cuasi permanente.

Armadura vertical interior del alzado. Posición J.

Altura sobre zapata (m)	Armadura	N_k (kN/m)	M_k (kNm/m)	W_k (mm)	W_{adm} (mm)
3.990	Ø16/0.200 m	0.00	0.00	0.00	0.30
3.890	Ø16/0.200 m	1.62	0.00	0.00	0.30
3.325	Ø16/0.200 m	10.81	0.73	0.00	0.30
2.660	Ø16/0.200 m	21.61	4.59	0.00	0.30
1.995	Ø16/0.200 m	32.42	13.55	0.01	0.30
1.330	Ø16/0.200 m	43.22	29.56	0.03	0.30
0.665	Ø16/0.200 m	54.03	54.60	0.06	0.30
0.585	Ø16/0.200 m	55.33	58.32	0.06	0.30
0.500	Ø16/0.200 m	56.71	62.44	0.07	0.30
0.000	Ø16/0.200 m	64.84	90.62	0.11	0.30

Armadura vertical exterior del alzado. Posición M.

Altura sobre zapata (m)	Armadura	N_k (kN/m)	M_k (kNm/m)	W_k (mm)	W_{adm} (mm)
3.990	Ø12/0.350 m	0.00	0.00	0.00	0.30
3.890	Ø12/0.350 m	1.62	0.00	0.00	0.30
3.325	Ø12/0.350 m	10.81	0.20	0.00	0.30
2.660	Ø12/0.350 m	21.61	2.07	0.00	0.30
1.995	Ø12/0.350 m	32.42	7.56	0.00	0.30
1.330	Ø12/0.350 m	43.22	18.64	0.00	0.30
0.665	Ø12/0.350 m	54.03	37.27	0.00	0.30
0.585	Ø12/0.350 m	55.33	40.11	0.00	0.30
0.500	Ø12/0.350 m	56.71	43.29	0.00	0.30
0.000	Ø12/0.350 m	64.84	65.40	0.00	0.30

9.1.2 Zapata

9.1.2.1 Situación persistente. Combinación cuasi permanente.

Armadura transversal inferior de la zapata. Posición B.

Distancia a puntera (m)	Zarpa	Armadura	N_k (kN/m)	M_k (kNm/m)	W_k (mm)	W_{adm} (mm)
0.139	Delantera	Ø12/0.200 m	0.00	1.07	0.00	0.30
0.279	Delantera	Ø12/0.200 m	0.00	4.25	0.01	0.30
0.419	Delantera	Ø12/0.200 m	0.00	9.44	0.03	0.30
0.558	Delantera	Ø12/0.200 m	0.00	16.57	0.04	0.30
0.698	Delantera	Ø12/0.200 m	0.00	25.61	0.07	0.30
1.152	Trasera	Ø12/0.200 m	0.00	0.00	0.00	0.30
1.562	Trasera	Ø12/0.200 m	0.00	0.00	0.00	0.30
1.971	Trasera	Ø12/0.200 m	0.00	0.00	0.00	0.30
2.381	Trasera	Ø12/0.200 m	0.00	0.00	0.00	0.30
2.791	Trasera	Ø12/0.200 m	0.00	0.00	0.00	0.30

Armadura transversal superior de la zapata. Posición E.

Distancia a puntera (m)	Zarpa	Armadura	N_k (kN/m)	M_k (kNm/m)	W_k (mm)	W_{adm} (mm)
0.139	Delantera	Ø16/0.250 m	0.00	0.00	0.00	0.30
0.279	Delantera	Ø16/0.250 m	0.00	0.00	0.00	0.30
0.419	Delantera	Ø16/0.250 m	0.00	0.00	0.00	0.30
0.558	Delantera	Ø16/0.250 m	0.00	0.00	0.00	0.30
0.698	Delantera	Ø16/0.250 m	0.00	0.00	0.00	0.30
1.152	Trasera	Ø16/0.250 m	0.00	-80.53	0.18	0.30
1.562	Trasera	Ø16/0.250 m	0.00	-57.08	0.13	0.30
1.971	Trasera	Ø16/0.250 m	0.00	-35.08	0.08	0.30
2.381	Trasera	Ø16/0.250 m	0.00	-16.91	0.04	0.30
2.791	Trasera	Ø16/0.250 m	0.00	-4.56	0.01	0.30

9.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación cuasi permanente

10 ESTADO LÍMITE ÚLTIMO DE ROTURA POR CORTANTE

10.1 Módulo 1

10.1.1 Alzado

10.1.1.1 Situación persistente. Combinación fundamental.

Sección 1 (x = 18.000 m)

	Envolvente de esfuerzos						
	Axiles		Cortantes		Esfuerzos armadura máxima		
Altura sobre zapata (m)	$N_{d\,max}^{+}$ (kN/m)	$N_{d\,max}^{-}$ (kN/m)	$V_{d\,max}^{+}$ (kN/m)	$V_{d\,max}^{-}$ (kN/m)	N_d (kN/m)	V_d (kN/m)	M_d (kNm/m)
3.990	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.890	2.2	1.6	0.0	-0.0	2.2	-0.0	0.0
3.325	14.6	10.8	4.4	1.1	10.8	4.4	1.1
2.660	29.2	21.6	13.7	5.0	21.6	13.7	6.9
1.995	43.8	32.4	27.4	12.0	32.4	27.4	20.3
1.330	58.4	43.2	45.6	21.8	43.2	45.6	44.3
0.665	72.9	54.0	68.1	34.7	54.0	68.1	81.9
0.585	74.7	55.3	71.1	36.4	55.3	71.1	87.5
0.500	76.6	56.7	74.4	38.3	56.7	74.4	93.7
0.000	87.5	64.8	95.1	50.4	64.8	95.1	135.9

	Verificación por agotamiento de las bielas de compresión			
Altura sobre zapata (m)	V_d (kN/m)	V_{u1} (kN/m)	V_d / V_{u1}	Observaciones
3.990	0.0			No es necesaria la verificación por compresión oblicua del alma
3.890	-0.0			No es necesaria la verificación por compresión oblicua del alma
3.325	4.4			No es necesaria la verificación por compresión oblicua del alma
2.660	13.7			No es necesaria la verificación por compresión oblicua del alma
1.995	27.4			No es necesaria la verificación por compresión oblicua del alma
1.330	45.6			No es necesaria la verificación por compresión oblicua del alma
0.665	68.1			No es necesaria la verificación por compresión oblicua del alma
0.585	71.1			No es necesaria la verificación por compresión oblicua del alma
0.500	74.4			No es necesaria la verificación por compresión oblicua del alma
0.000	95.1			No es necesaria la verificación por compresión oblicua del alma

	Armadura de cortante							
Altura sobre zapata (m)	V_d (kN/m)	V_{cu} (kN/m)	V_{su} (kN/m)	V_{u2} (kN/m)	A_t (cm^2/m^2)	$A_{t\,min}$ (cm^2/m^2)	$S_{max\,long}$ (m)	$S_{max\,trans}$ (m)
3.990	0.0			520.7	0.0	0.0		
3.890	-0.0			521.5	0.0	0.0		
3.325	4.4			524.3	0.0	0.0		
2.660	13.7			527.8	0.0	0.0		
1.995	27.4			531.3	0.0	0.0		
1.330	45.6			534.8	0.0	0.0		
0.665	68.1			538.3	0.0	0.0		
0.585	71.1			538.7	0.0	0.0		
0.500	74.4			299.3	0.0	0.0		
0.000	95.1			300.4	0.0	0.0		

10.1.1.2 Situación accidental. Combinación de impacto.

Sección 1 (x = 18.000 m)

	Envolvente de esfuerzos						
	Axiles		Cortantes		Esfuerzos armadura máxima		
Altura sobre zapata (m)	$N_{d\,max}^{+}$ (kN/m)	$N_{d\,max}^{-}$ (kN/m)	$V_{d\,max}^{+}$ (kN/m)	$V_{d\,max}^{-}$ (kN/m)	N_d (kN/m)	V_d (kN/m)	M_d (kNm/m)
3.990	0.0	-0.0	150.0	150.0	0.0	150.0	90.0
3.890	1.6	1.6	136.4	136.4	1.6	136.4	95.5
3.325	10.8	10.8	93.0	91.2	10.8	93.0	114.7
2.660	21.6	21.6	78.4	74.3	21.6	78.4	138.3
1.995	32.4	32.4	78.3	72.0	32.4	78.3	169.4
1.330	43.2	43.2	83.4	74.8	43.2	83.4	202.4
0.665	54.0	54.0	92.8	82.1	54.0	92.8	240.8
0.585	55.3	55.3	94.3	83.2	55.3	94.3	245.9
0.500	56.7	56.7	95.8	84.5	56.7	95.8	251.5
0.000	64.8	64.8	106.3	93.4	64.8	106.3	287.6

	Verificación por agotamiento de las bielas de compresión			
Altura sobre zapata (m)	V_d (kN/m)	V_{u1} (kN/m)	V_d / V_{u1}	Observaciones
3.990	150.0			No es necesaria la verificación por compresión oblicua del alma
3.890	136.4			No es necesaria la verificación por compresión oblicua del alma
3.325	93.0			No es necesaria la verificación por compresión oblicua del alma
2.660	78.4			No es necesaria la verificación por compresión oblicua del alma
1.995	78.3			No es necesaria la verificación por compresión oblicua del alma
1.330	83.4			No es necesaria la verificación por compresión oblicua del alma
0.665	92.8			No es necesaria la verificación por compresión oblicua del alma
0.585	94.3			No es necesaria la verificación por compresión oblicua del alma
0.500	95.8			No es necesaria la verificación por compresión oblicua del alma
0.000	106.3			No es necesaria la verificación por compresión oblicua del alma

	Armadura de cortante							
Altura sobre zapata (m)	V_d (kN/m)	V_{cu} (kN/m)	V_{su} (kN/m)	V_{u2} (kN/m)	A_t (cm^2/m^2)	$A_{t\,min}$ (cm^2/m^2)	$S_{max\,long}$ (m)	$S_{max\,trans}$ (m)
3.990	150.0			600.8	0.0	0.0		
3.890	136.4			601.4	0.0	0.0		
3.325	93.0			338.1	0.0	0.0		
2.660	78.4			339.5	0.0	0.0		
1.995	78.3			341.0	0.0	0.0		
1.330	83.4			342.4	0.0	0.0		
0.665	92.8			343.8	0.0	0.0		
0.585	94.3			344.0	0.0	0.0		
0.500	95.8			344.2	0.0	0.0		
0.000	106.3			345.3	0.0	0.0		

10.1.1.3 Envolvente de armaduras

Altura sobre zapata (m)	Armadura (cm^2/m^2)
3.990	0.0
3.890	0.0
3.325	0.0
2.660	0.0
1.995	0.0
1.330	0.0
0.665	0.0
0.585	0.0
0.500	0.0
0.000	0.0

10.1.2 Zapata

10.1.2.1 Situación persistente. Combinación fundamental.

Sección 1 (x = 18.000 m)

		Envolvente de esfuerzos			
		Cortantes		Esfuerzos armadura máxima	
Distancia a puntera (m)	Zarpa	$V_{d\ max}^+$ (kN/m)	$V_{d\ max}^-$ (kN/m)	V_d (kN/m)	M_d (kNm/m)
0.011	Delantera	0.0	-1.8	-1.8	0.0
0.600	Delantera	0.0	-90.2	-90.2	27.9
1.250	Trasera	0.0	-95.5	-95.5	-117.6
2.021	Trasera	0.0	-78.1	-78.1	-53.3
2.257	Trasera	0.0	-68.4	-68.4	-36.0
2.492	Trasera	0.0	-55.7	-55.7	-21.3
2.728	Trasera	0.0	-40.3	-40.3	-10.0
2.964	Trasera	0.0	-21.8	-21.8	-2.6

	Verificación por agotamiento de las bielas de compresión			
Distancia a puntera (m)	V_d (kN/m)	V_{u1} (kN/m)	V_d/V_{u1}	Observaciones
0.011	-1.8			No es necesaria la verificación por compresión oblicua del alma
0.600	-90.2			No es necesaria la verificación por compresión oblicua del alma
1.250	-95.5			No es necesaria la verificación por compresión oblicua del alma
2.021	-78.1			No es necesaria la verificación por compresión oblicua del alma
2.257	-68.4			No es necesaria la verificación por compresión oblicua del alma
2.492	-55.7			No es necesaria la verificación por compresión oblicua del alma
2.728	-40.3			No es necesaria la verificación por compresión oblicua del alma
2.964	-21.8			No es necesaria la verificación por compresión oblicua del alma

	Armadura de cortante							
Distancia a puntera (m)	V_d (kN/m)	V_{cu} (kN/m)	V_{su} (kN/m)	V_{u2} (kN/m)	A_t (cm^2/m^2)	$A_{t\ min}$ (cm^2/m^2)	$S_{max\ long}$ (m)	$S_{max\ trans}$ (m)
0.011	-1.8			480.6	0	0		
0.600	-90.2			480.6	0	0		
1.250	-95.5			273.6	0	0		
2.021	-78.1			480.6	0	0		
2.257	-68.4			480.6	0	0		

2.492	-55.7		480.6	0	0
2.728	-40.3		480.6	0	0
2.964	-21.8		480.6	0	0

10.1.2.2 Situación accidental. Combinación de impacto.

Sección 1 (x = 18.000 m)

		Envolvente de esfuerzos			
		Cortantes		Esfuerzos armadura máxima	
Distancia a puntera (m)	Zarpa	$V_{d\ max}^+$ (kN/m)	$V_{d\ max}^-$ (kN/m)	V_d (kN/m)	M_d (kNm/m)
0.011	Delantera	0.0	-3.5	-3.5	0.0
0.600	Delantera	0.0	-155.0	-155.0	50.2
1.250	Trasera	0.0	-181.3	-181.3	-192.7
2.021	Trasera	0.0	-121.2	-121.2	-71.5
2.257	Trasera	0.0	-97.0	-97.0	-45.7
2.492	Trasera	0.0	-72.7	-72.7	-25.7
2.728	Trasera	0.0	-48.5	-48.5	-11.4
2.964	Trasera	0.0	-24.2	-24.2	-2.9

	Verificación por agotamiento de las bielas de compresión			
Distancia a puntera (m)	V_d (kN/m)	V_{u1} (kN/m)	V_d/V_{u1}	Observaciones
0.011	-3.5			No es necesaria la verificación por compresión oblicua del alma
0.600	-155.0			No es necesaria la verificación por compresión oblicua del alma
1.250	-181.3			No es necesaria la verificación por compresión oblicua del alma
2.021	-121.2			No es necesaria la verificación por compresión oblicua del alma
2.257	-97.0			No es necesaria la verificación por compresión oblicua del alma
2.492	-72.7			No es necesaria la verificación por compresión oblicua del alma
2.728	-48.5			No es necesaria la verificación por compresión oblicua del alma
2.964	-24.2			No es necesaria la verificación por compresión oblicua del alma

	Armadura de cortante							
Distancia a puntera (m)	V_d (kN/m)	V_{cu} (kN/m)	V_{su} (kN/m)	V_{u2} (kN/m)	A_t (cm^2/m^2)	$A_{t\ min}$ (cm^2/m^2)	$S_{max\ long}$ (m)	$S_{max\ trans}$ (m)
0.011	-3.5			554.6	0	0		
0.600	-155.0			554.6	0	0		
1.250	-181.3			315.7	0	0		
2.021	-121.2			554.6	0	0		
2.257	-97.0			554.6	0	0		
2.492	-72.7			554.6	0	0		
2.728	-48.5			554.6	0	0		
2.964	-24.2			554.6	0	0		

10.1.2.3 Envolvente de armaduras

Distancia a puntera (m)	Armadura (cm^2/m^2)
0.011	0.0
0.600	0.0
1.250	0.0

2.021	0.0
2.257	0.0
2.492	0.0
2.728	0.0
2.964	0.0

10.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación fundamental
Módulo 1 : Verifica la comprobación para la situación accidental, combinación de impacto

11 ESTADO LÍMITE DE DEFORMACIONES

Los movimientos calculados corresponden a la deformación del alzado del muro, no incluyendo por tanto los movimientos derivados del giro de la cimentación.
Los movimientos y giros corresponden a las deformaciones elásticas, es decir, considerando inercias no fisuradas. Tampoco incluyen la deformación por efectos reológicos (fluencia).

11.1 Módulo 1

Movimientos en coronación por cada acción

Acción	Hip: U_x (mm)	$U_{x,\ máximo}$ G (rad)	Hip: U_x (mm)	$G_{máximo}$ G (rad)
Empuje activo de las tierras del trasdós	0.3	0.000102	0.3	0.000102
Empuje sobrecarga de tráfico en trasdós	0.2	0.000052	0.2	0.000052

U_x : desplazamiento horizontal
G : giro

Movimientos totales

Combinación	Hip: U_x (mm)	$U_{x,\ máximo}$ G (rad)	Hip: U_x (mm)	$G_{máximo}$ G (rad)
Situación persistente. Combinación cuasi permanente.	0.5	0.000154	0.5	0.000154
Situación persistente. Combinación frecuente.	0.5	0.000154	0.5	0.000154
Situación persistente. Combinación característica.	0.5	0.000154	0.5	0.000154

U_x : desplazamiento horizontal
G : giro

U_{xmax} = 0.5 mm < $U_{xadmisible}$ = 1.0 mm -> **Cumple a deformación.**

11.2 Resumen de verificaciones

Módulo 1 : Verifica la comprobación para la situación persistente, combinación cuasi permanente
Módulo 1 : Verifica la comprobación para la situación persistente, combinación frecuente
Módulo 1 : Verifica la comprobación para la situación persistente, combinación característica

12 VERIFICACIÓN DEL DESPIECE

Módulo 1 : Generación correcta del despiece de la armadura.