Worked example: Composite steel girder bridge according to EC 1994-1

Transparent features:

1. **Geometry visualized** including points, lines & surfaces.

2. **FEM-modell using nodal lines & nodal surfaces** can be visualized

3. **Integrating loadeffects in shells and beam** within a given design width allowing deriving equivalent section forces.

4. Modell allows **design of both steel girder and concrete deck in both lontidudinal & transversal direction.**

5. **Several static systems (analysis) used within same modell.**

6. **Automatic traffic load evaluation in both transversal & longitudinal direction.**

7. **Input receipt** of all attributes added by designer.

8. **Locations of load effects** are given at locations defined by **global coordinate system.**

CONTENTS

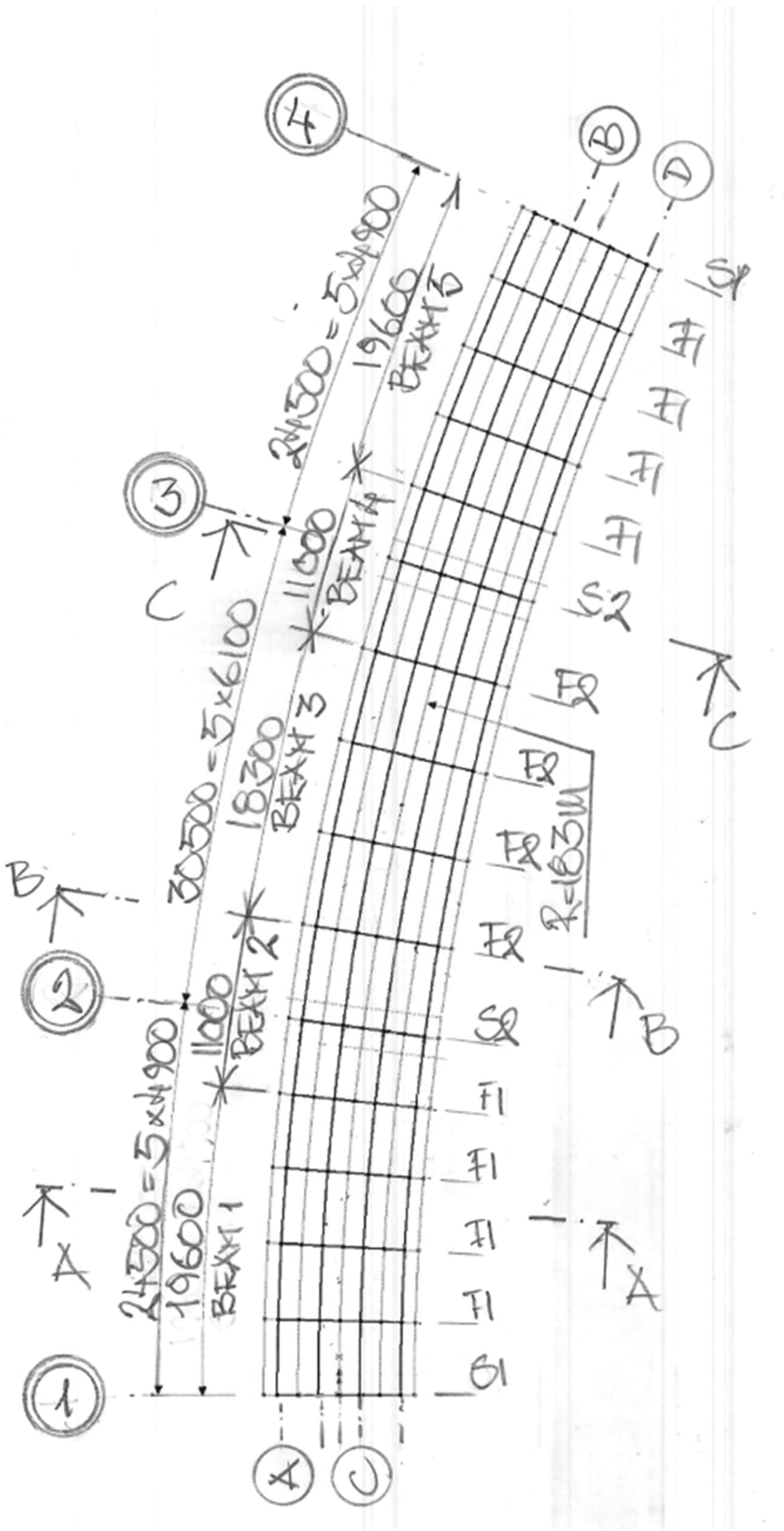
1. GENERAL / MEASUREMENT

1.1 CONSTRUCTION TYPE

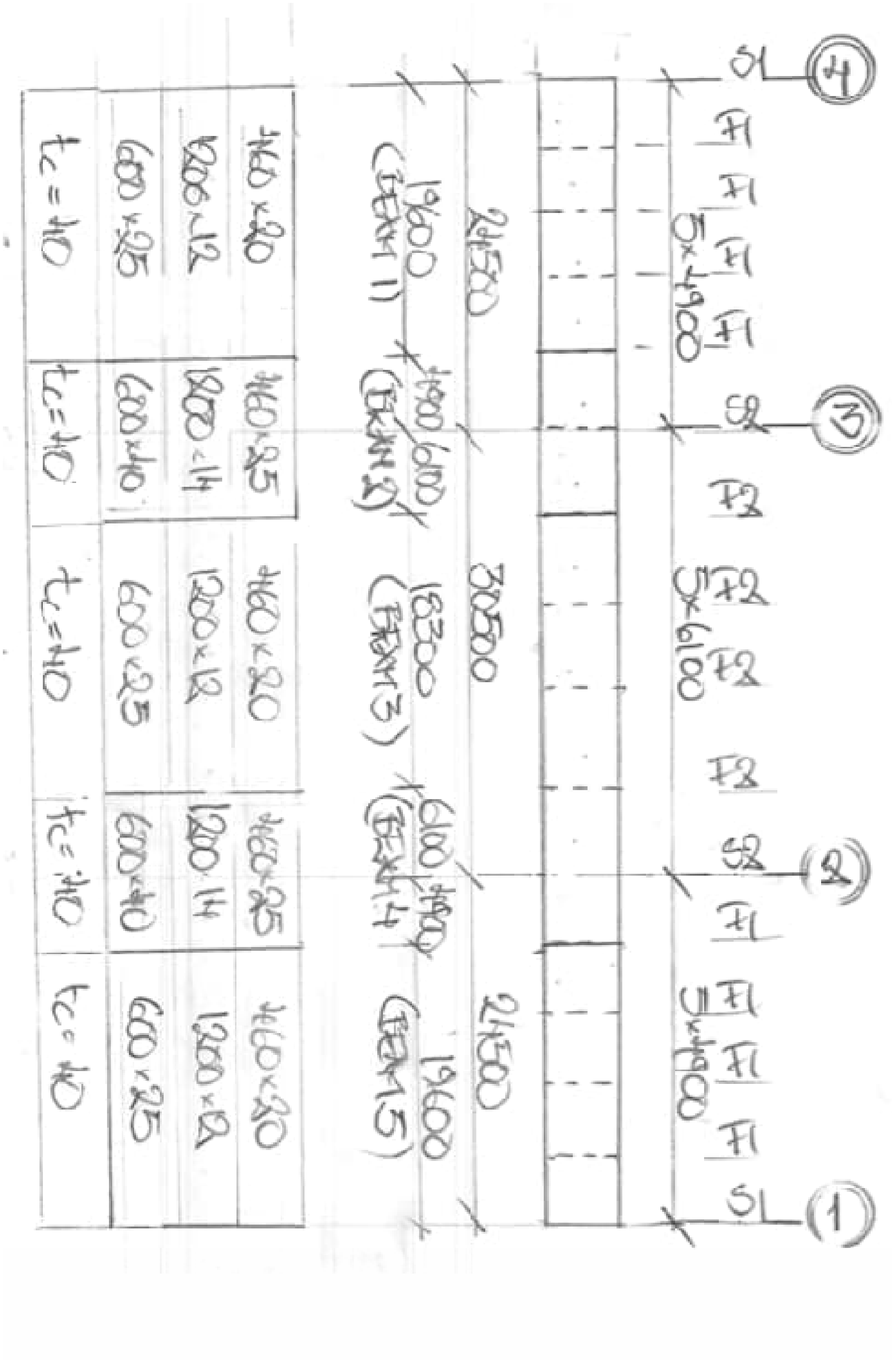
Composite steel girders.

Superstructure is modelled using girders modeled as shells (web) and flanges (beam) with deck as shells.

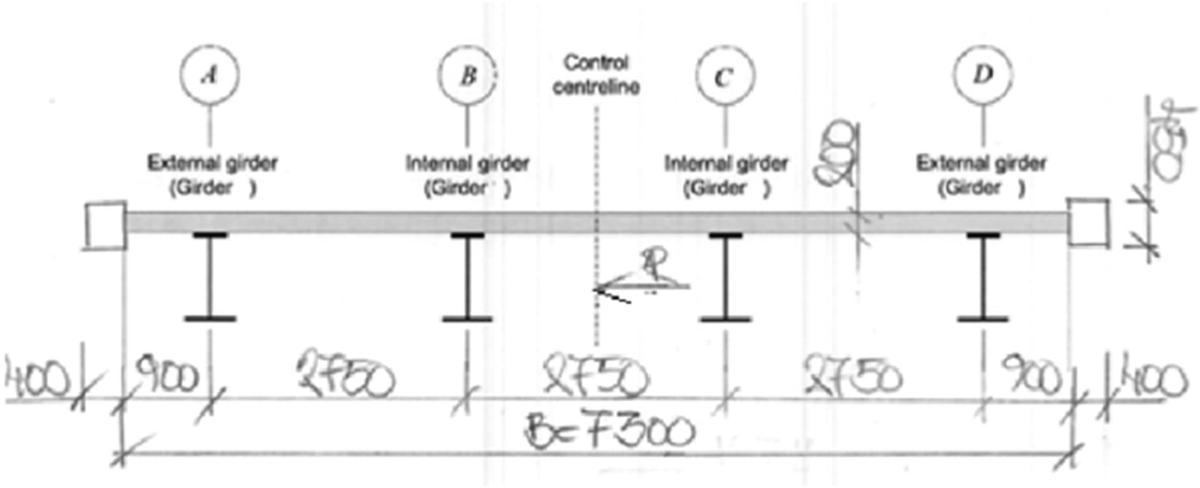
1.2 MEASURMENT



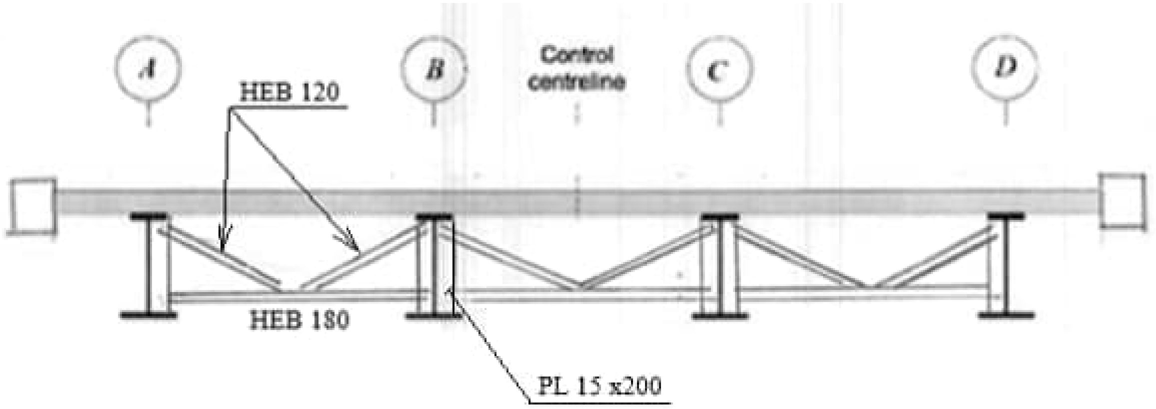
PLAN



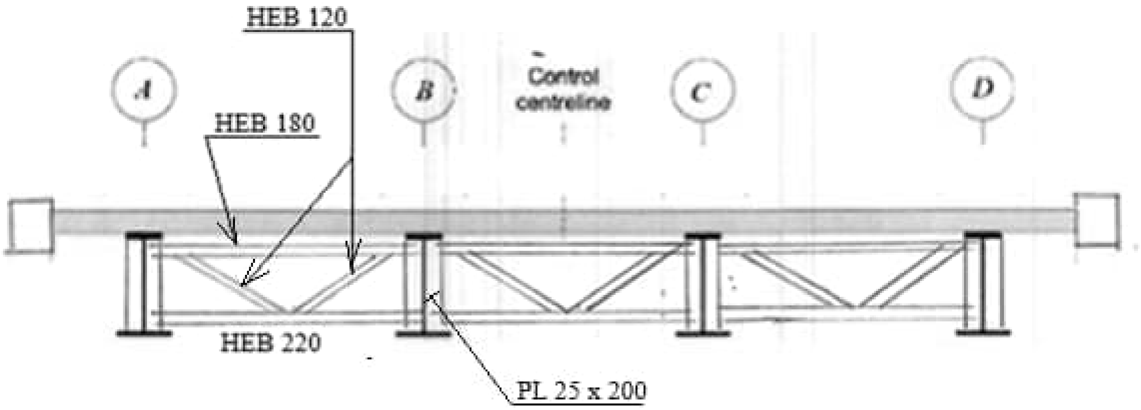
ELEVATION GIRDERS
BEAM 1-5



SECTION A-A
Concrete deck



SECTION B-B
Bracing F2 (F1)



SECTION C-C
Bracing S2 (S1)

-

1.4 CODE DOCUMENTS

Documents	Version	Name
SS-EN 1990-1997	-	Svensk Standard Eurokod 1-7
TRVINFRA-00226	2.0	KRAV, Bro och broliknande konstruktion, Allmänna krav
TRVINFRA-00227	2.0	KRAV, Bro och broliknande konstruktion, Byggande
TRVINFRA-00228	2.0	KRAV, Bro och broliknande konstruktion, Brounderhåll
TRVINFRA-00331	2.0	KRAV, Bro och broliknande konstruktion, Bärighetsberäkning
TSFS 2018:57		Transportstyrelsens föreskrifter och allmänna råd om tillämpning av eurokoder

1.5 TECHNICAL SERVICE LIFE

Technical life span 120 years (L100).

1.6 MATERIAL

Concrete : C35/45 (CEM I 42.5 ”Anläggningscement klass N”)

Reinforcement : B500B

Steel : S355 or S460 (SS-EN 1993-1-1 tabell 3.1)

Surfacing : Type “2aIA” with thickness 110 mm.

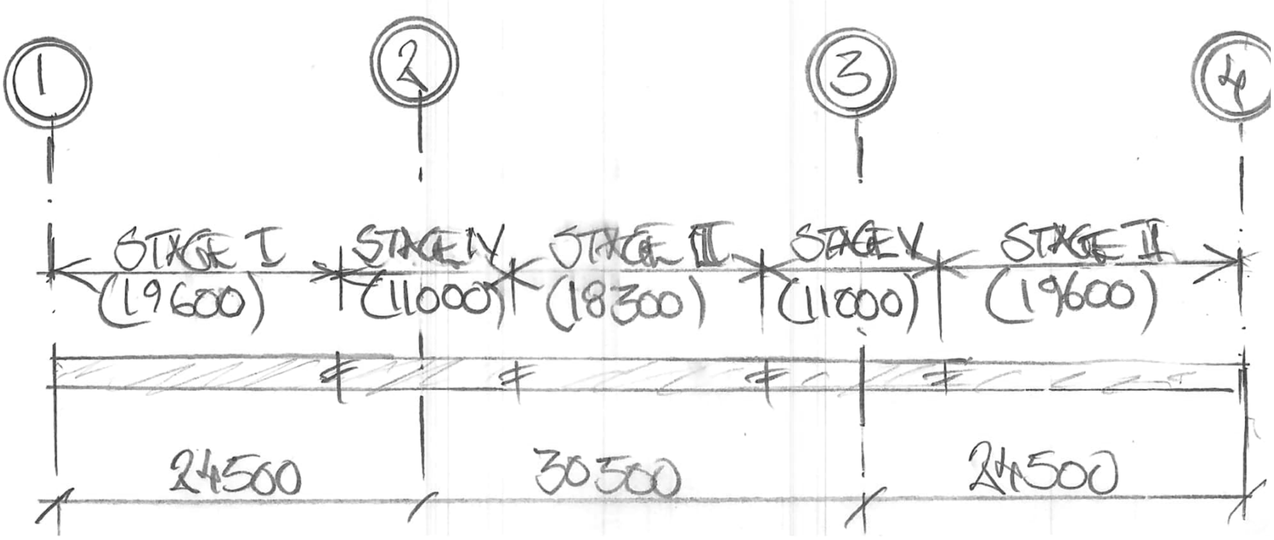
1.7 SAFETY CLASS

Geotechnical resistance: SK 2

Bridge structure : SK 3

1.8 CASTING STAGE

Concrete deck is cast in 5 casting stages seen below.



2. SYSTEM ANALYSIS

2.1 GENERAL

The bridge is a curved steel composite bridge. The bridge has threes spans with a total of 4 girders.

Full interaction between main beams and concrete roadway is assumed.

Edge beams are not considered to contribute any stiffness, however, as a load.

A local coordinate system orientated radial to centre line (R = 183 m).

Static model offers the possibility of staged expansion in the same static calculation. A total of 8 different static systems are used. These are designated Stage I, II, III, IV, V, O:P, O:V and O:TEMP.

The geometric model is the same for these, however, they may have different boundary conditions, material properties, cross-sectional constants and loads. In addition, individual structural parts can also be activated/deactivated.

Statice model also has a function called *Steel Composite Designer* that determines cross-sectional constants are used in system analysis.

Static model also has a function called *Steel Composite Designer* that can retrieve results from system analysis determine load capacity according to SS-EN 1994 and associated utilization ratios.

When determining load effects, the influence of the cracking of the roadway is considered by ignoring the stiffness of the tensile concrete. Only the effect of reinforcement is considered.

Cracking is considered to occur when $\sigma_{SLS\text{-}K} > 2f_{ctm}$ according to SS-EN 1994 sections 5.4.2.3 and 1.5.2.12.

Bridge deck is defined by using shell elements applied to horizontal nodal surface in superstructure.

Web of girders are defined by shell element vertical nodal surfaces in superstructure.

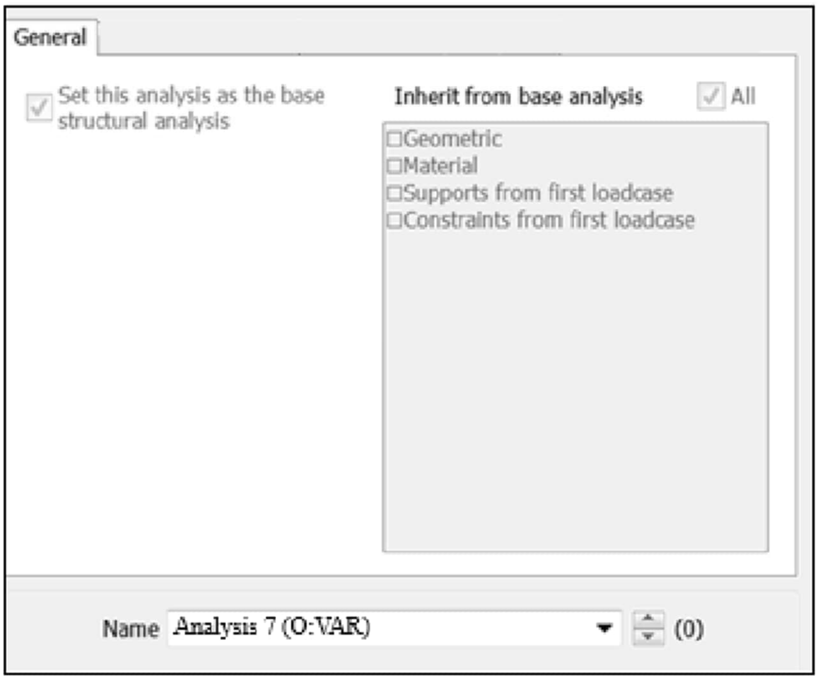
Flanges of girder are defined using beam elements applied to nodal line in superstructure.

Stiffeners and bracings are defined using beam elements applied to nodal line in superstructure.

.

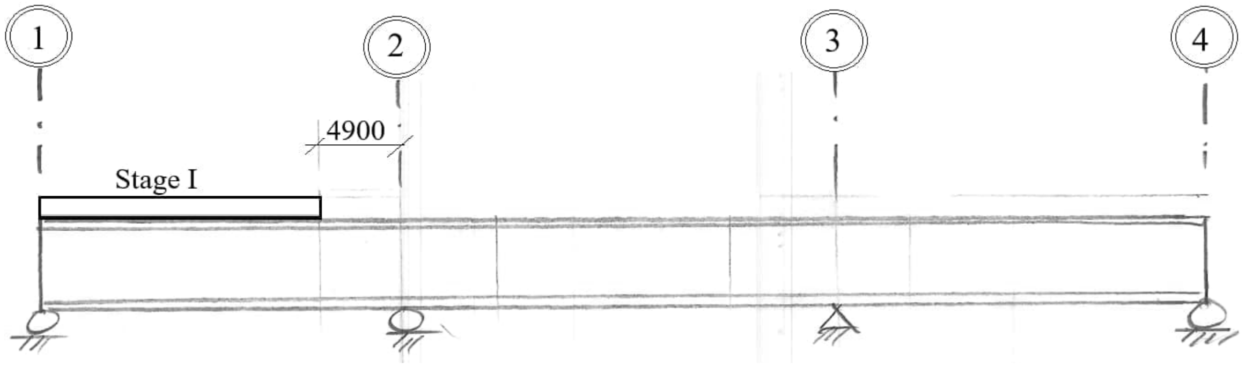
There is a total of 8 analysis.

Analysis 7 is introduced as the “Base Analysis”. It is based on this static system that changes to statics are carried out. It is also this system that is used for traffic load evaluation/VLO.

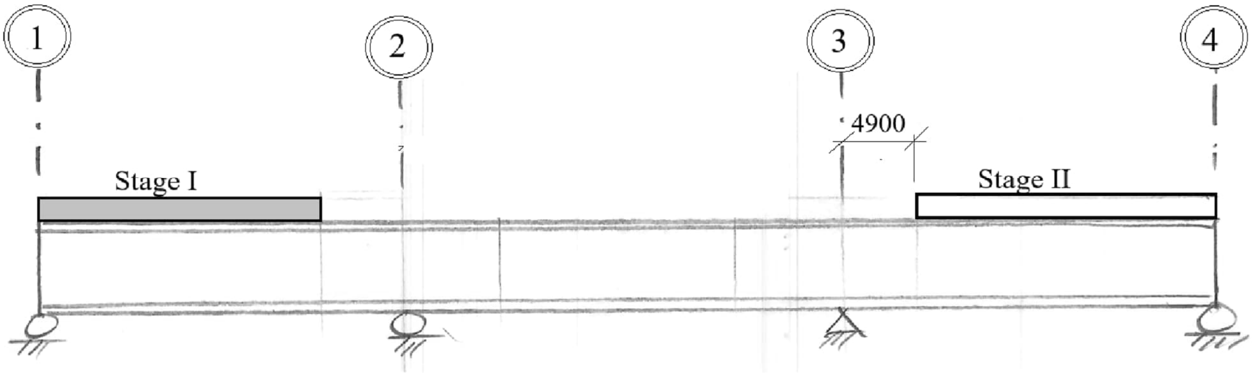


<u>Anlaysisp performed within static model SYSTEM 001</u>
(* = Base analysis)

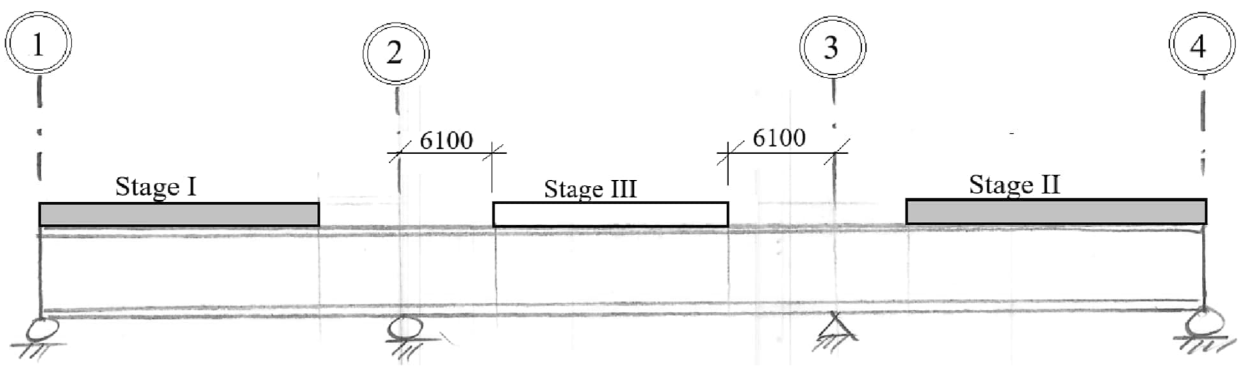
Analysis Nr.	Names	Stage	Casting stage
1	C1	Construction	I
2	C2	Construction	II
3	C3	Construction	III
4	C4	Construction	IV
5	C5	Construction	V
6	O:PERM	Operational	-
7*	O:VAR	Operational	-
8	O:TEMP	Operational	-



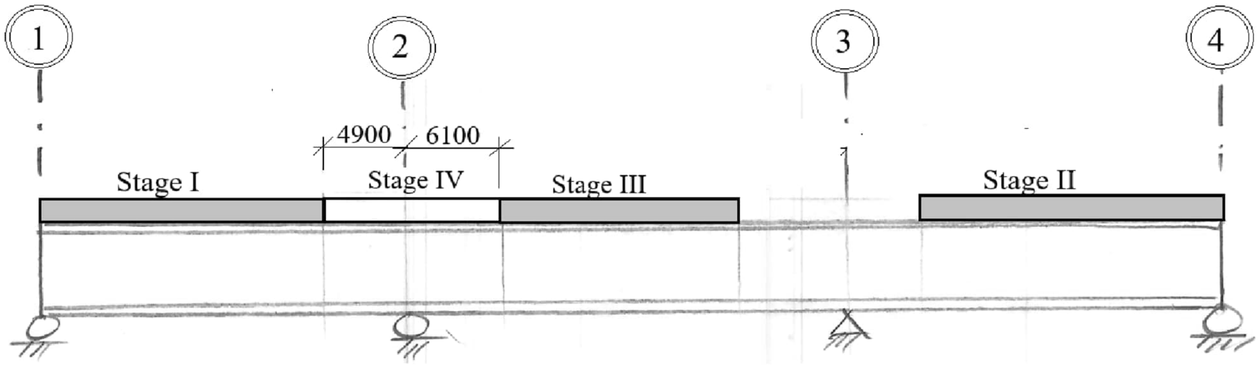
<u>Analysis 1 (C1): Stage I</u>
Construction stage: Wet concrete stage I



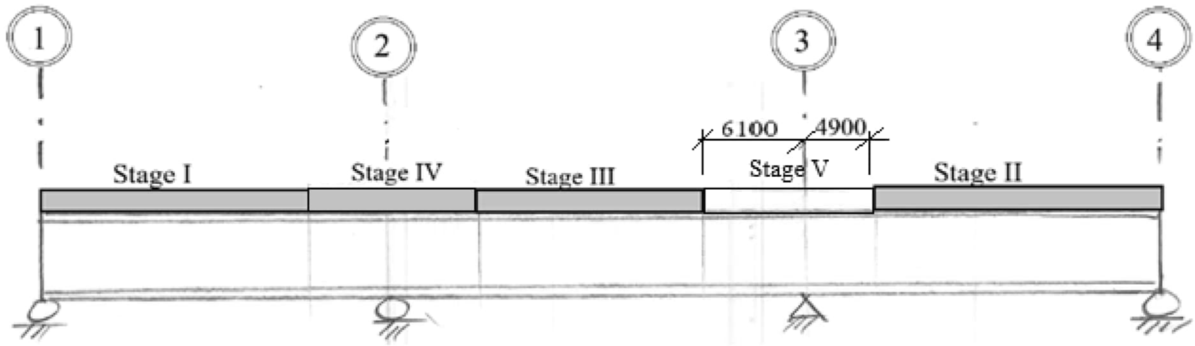
<u>Analysis 2 (C2): Stage II</u>
Construction stage: Wet concrete stage II



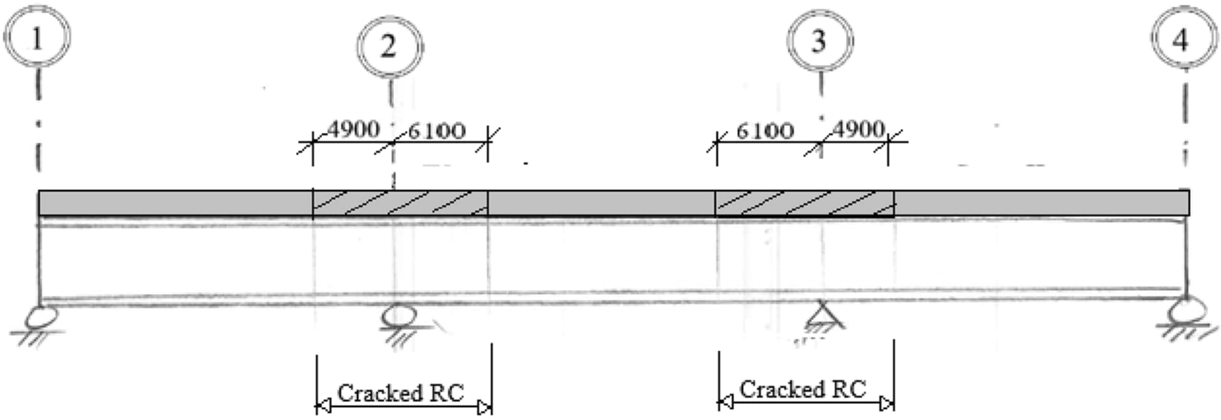
<u>Analysis 3 (C3): Stage III</u>
Construction stage: Wet concrete stage III



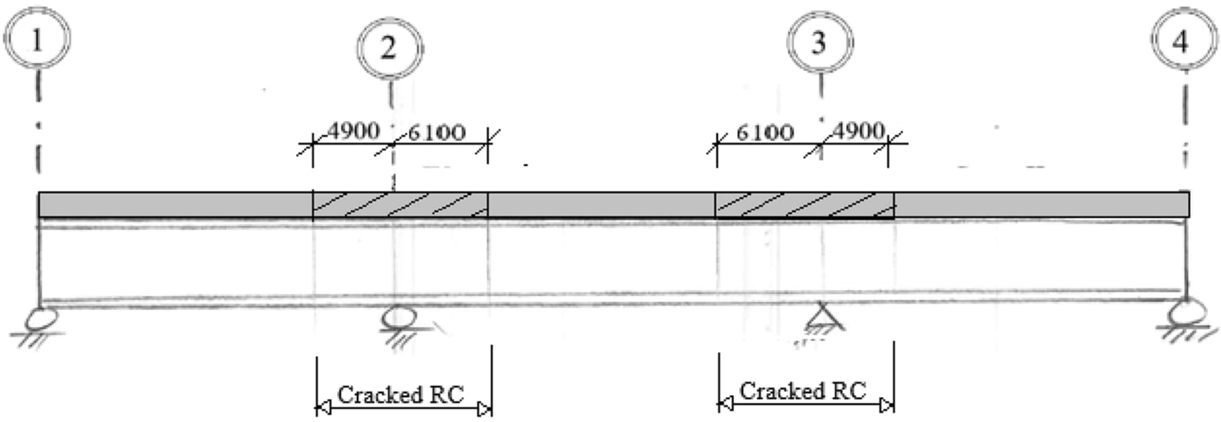
Analysis 4 (C4): Stage IV
Construction stage: Wet concrete stage IV



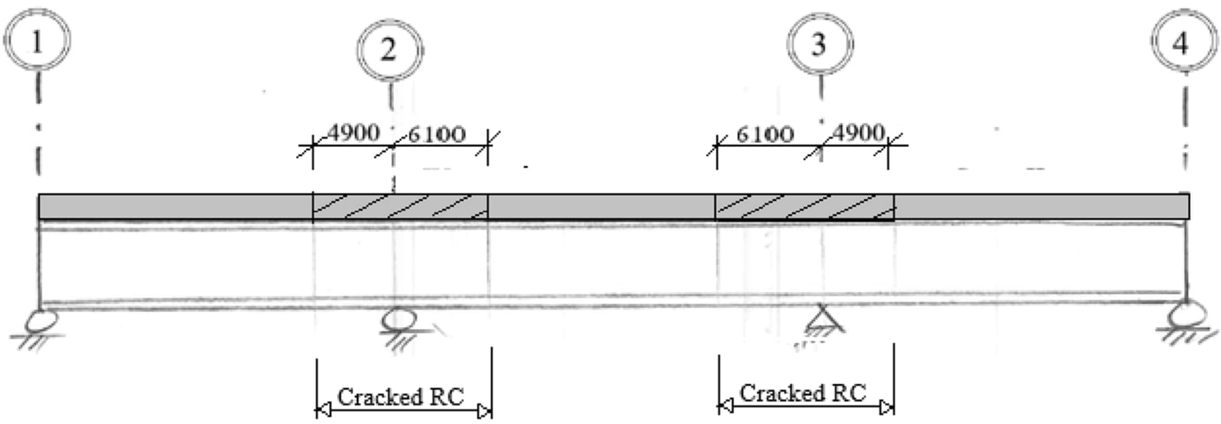
Analysis 5 (C5): Stage V
Construction stage: Wet concrete stage V



Analysis 6 (O:PERM)
Operation bridge: Cracking locally around support 2 & 3



Analysis 7 (O:VAR)
Operation bridge: Cracking locally around support 2 & 3



Analysis 8 (O:TEMP)
Operation bridge: Cracking locally around support 2 & 3

Summary appendices

Appendix	Name
1	Input receipt
2	Results reactions
3	Results longitudinal beams
4	Results bridge deck

2.2 SKETCH SYSTEM ANALYSIS

To describe geometry first POINTS are defined.

Beam elements are defined by applying attributes to LINES.

Shell elements are defined by applying attributes to SURFACES.

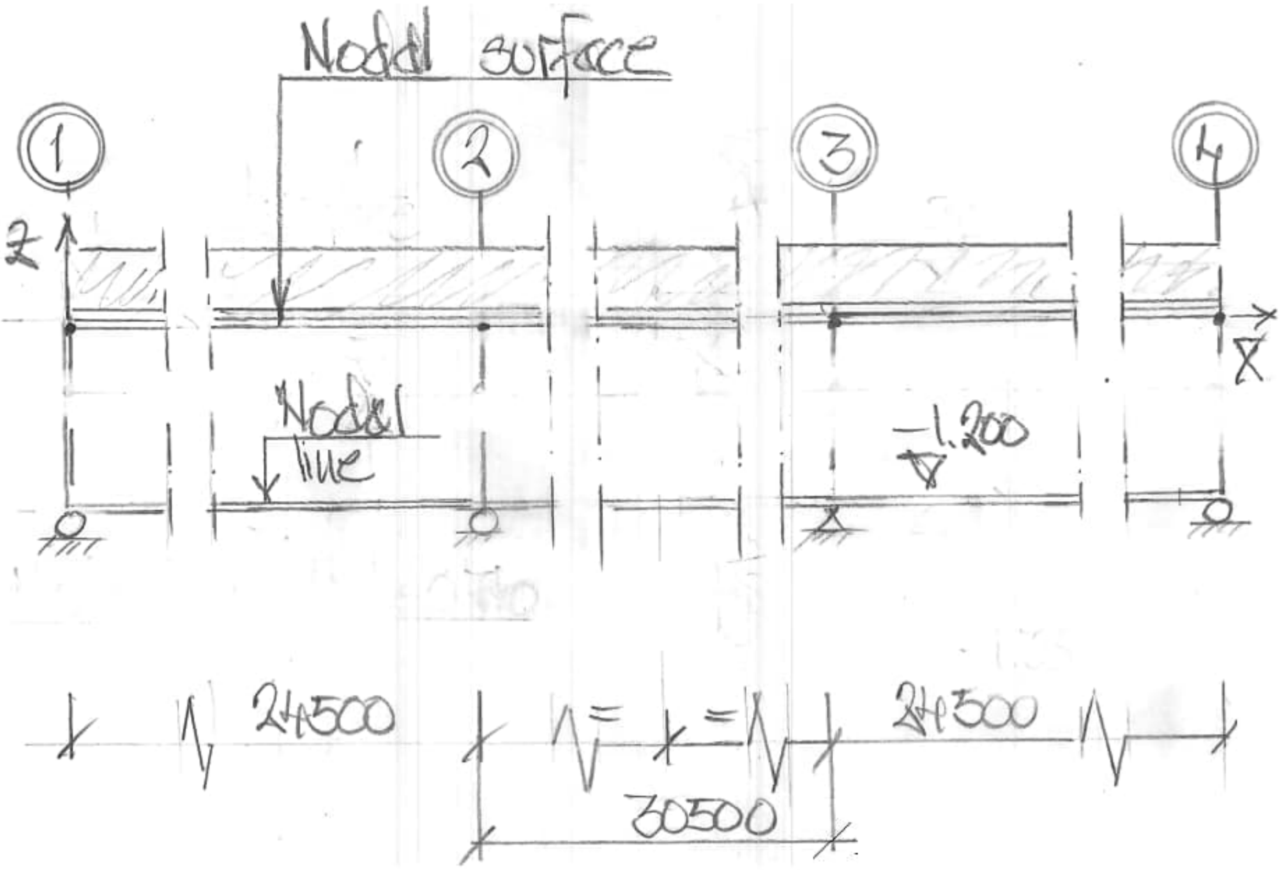
Attached pictures are retrieved from graphical sketches generated by STACTIC MODELL of POINTS, LINES and SURFACES.

All coordinates needed to describe POINTS are found in appendix 1.

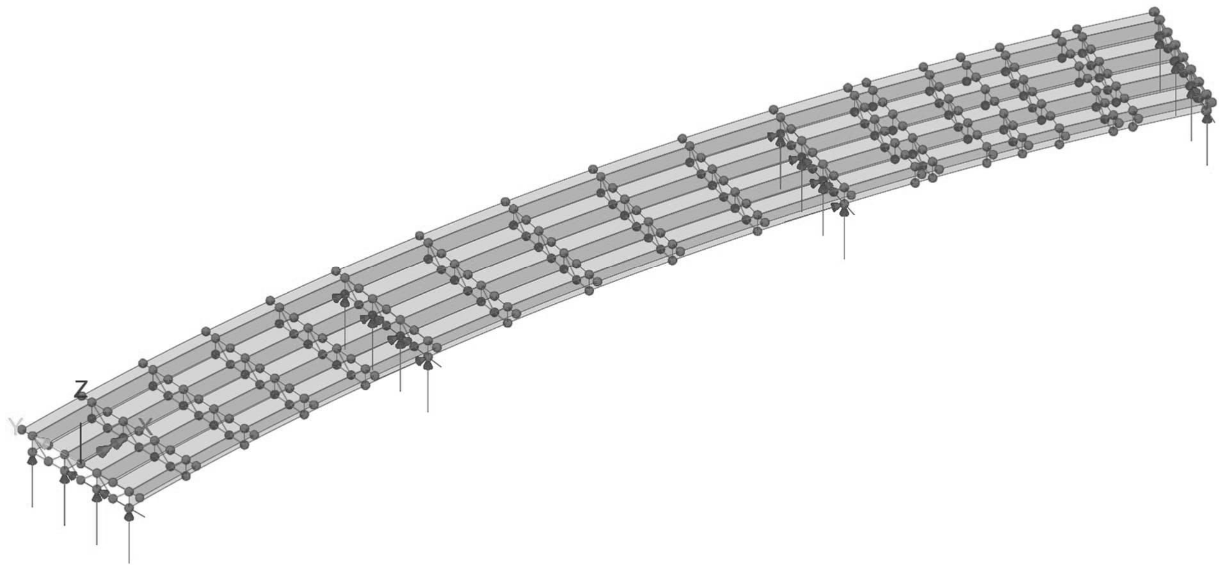
All POINTS needed to describe LINES are found in appendix 1.

All LINES need to describe SURFACE are found in appendix 1.

Superstructure is modelled using Nodal Line and Nodal Surfaces as seen in sketch below

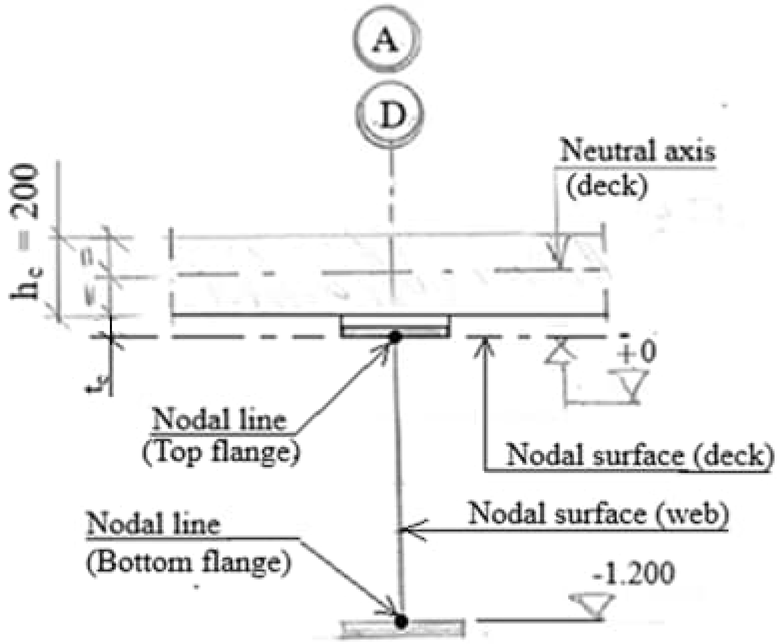


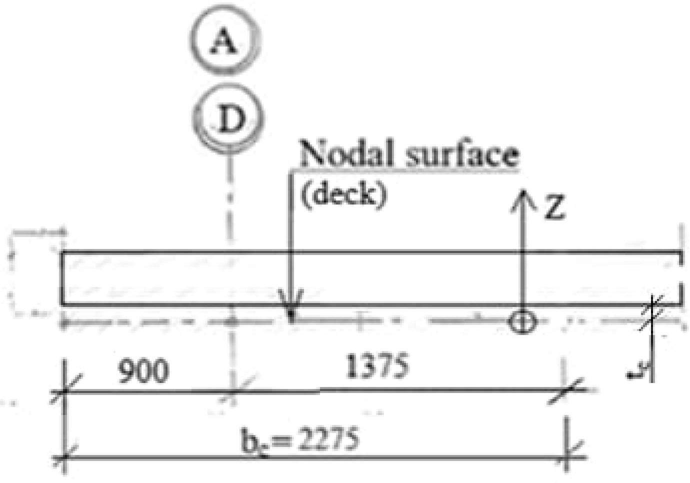
ELEVATION
Principal sketch girders.



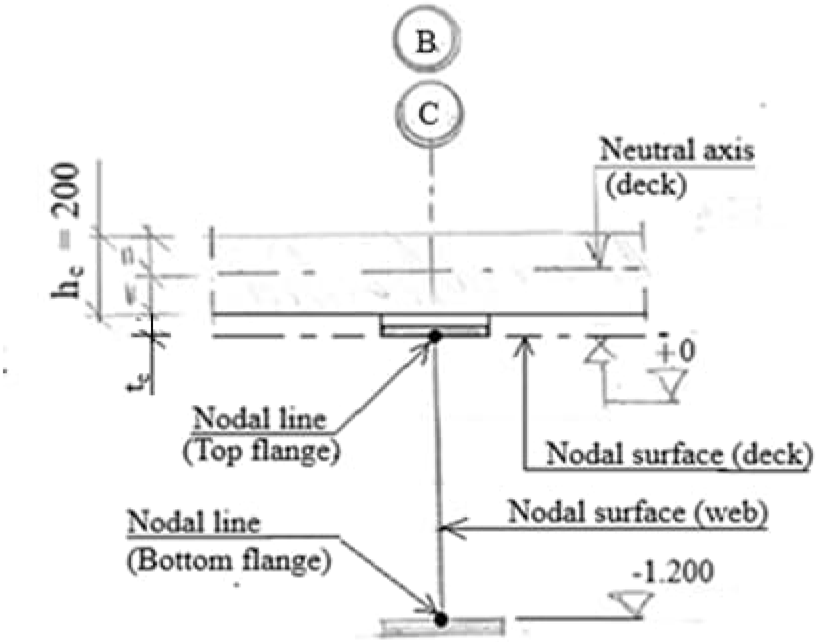
<u>3D sketch</u>
Overview

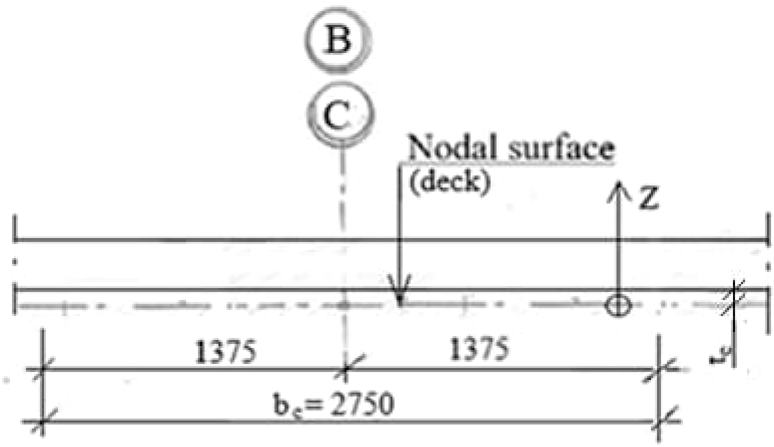
External beams:





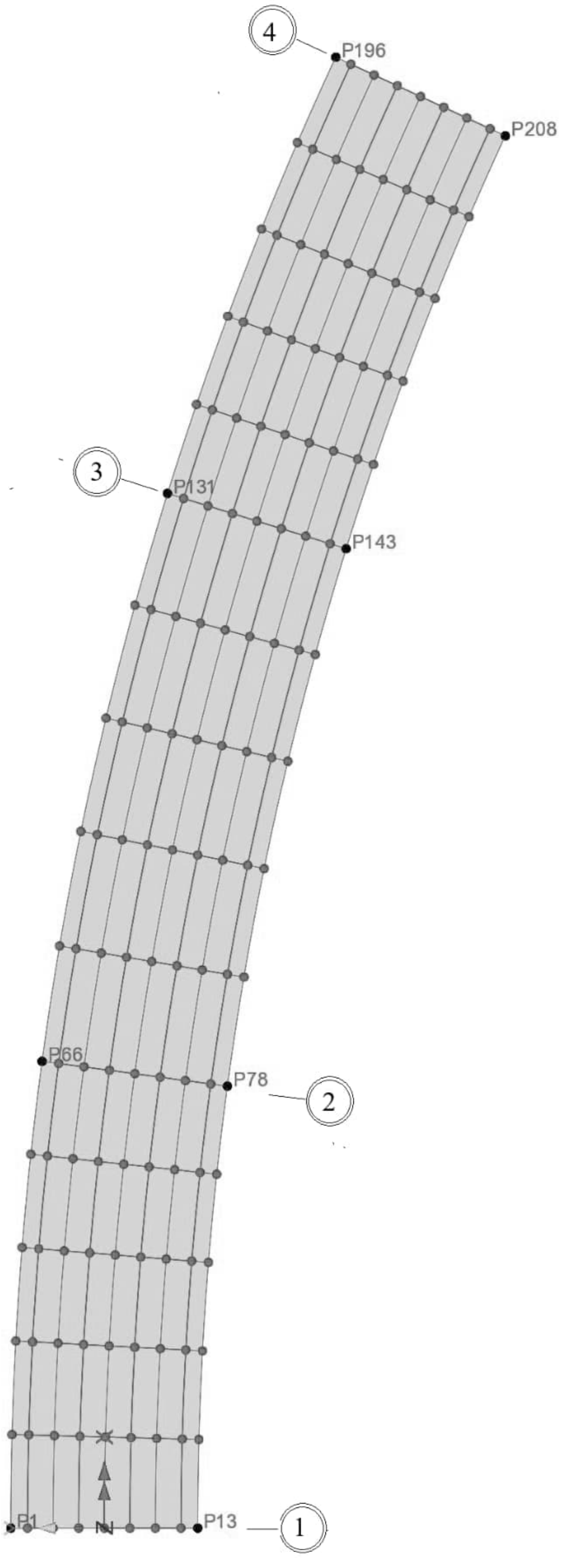
Internal beams:



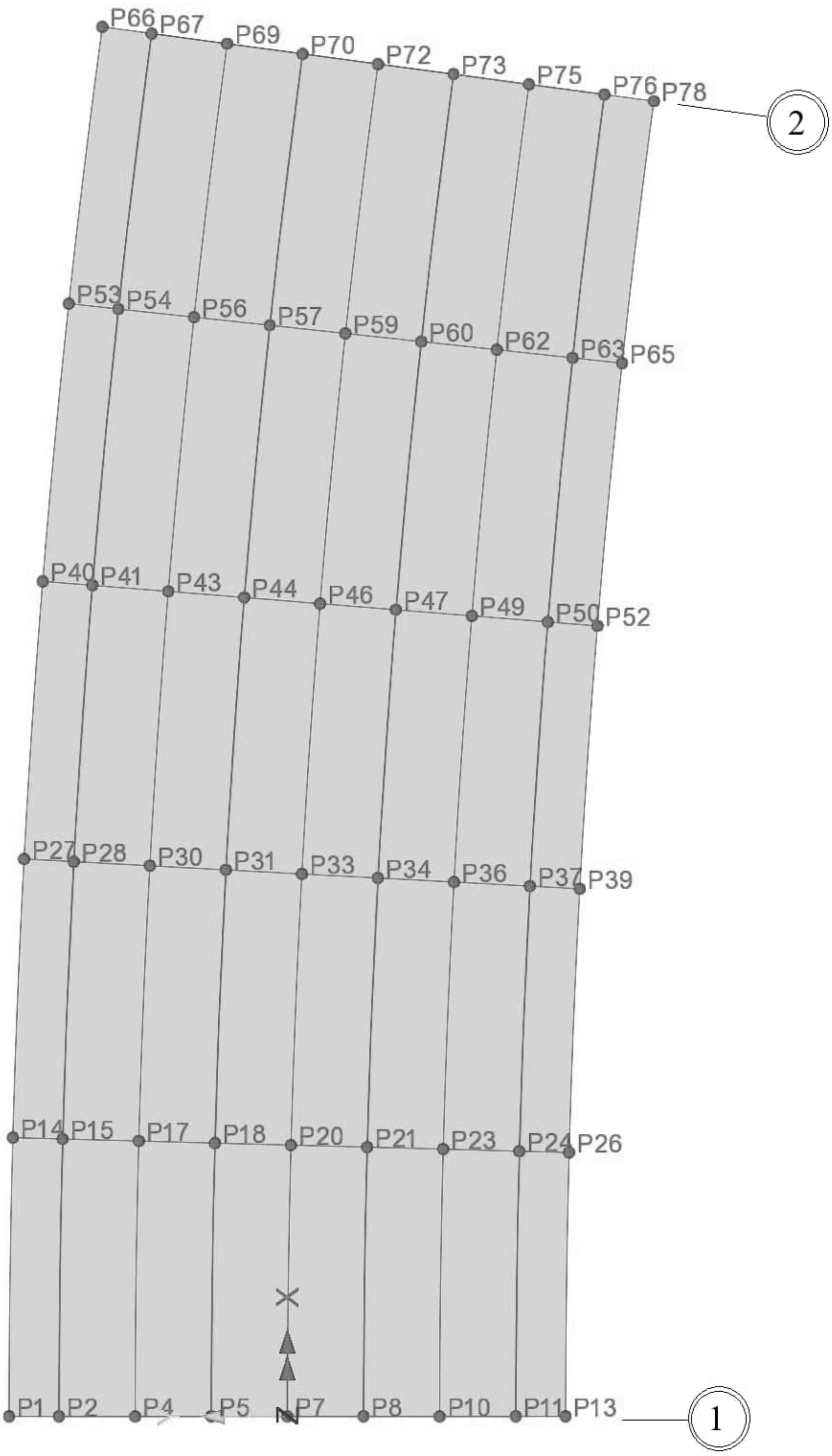


2.2.1 Geometry : POINTS

2.2.1.1 Deck



2D Overview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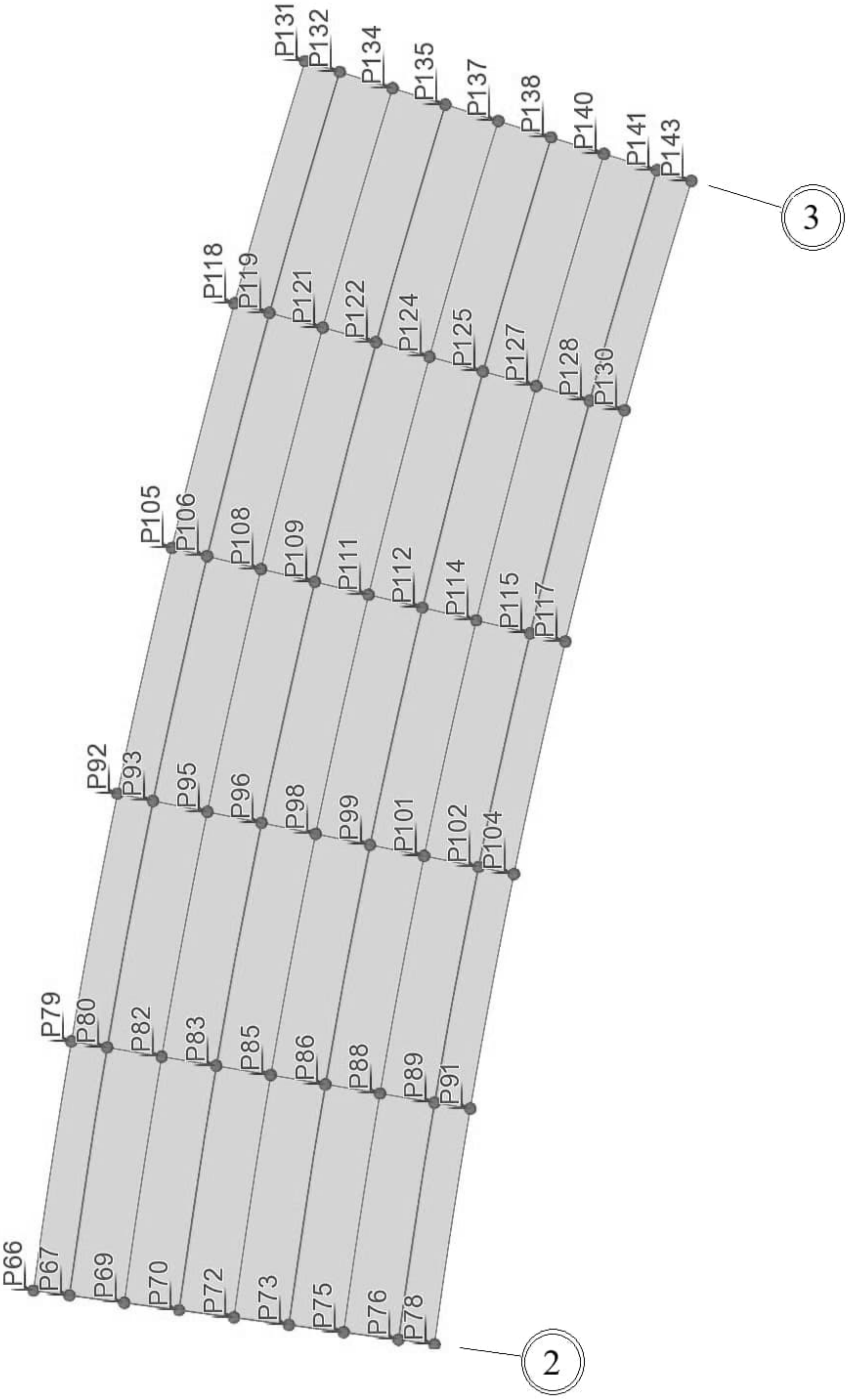

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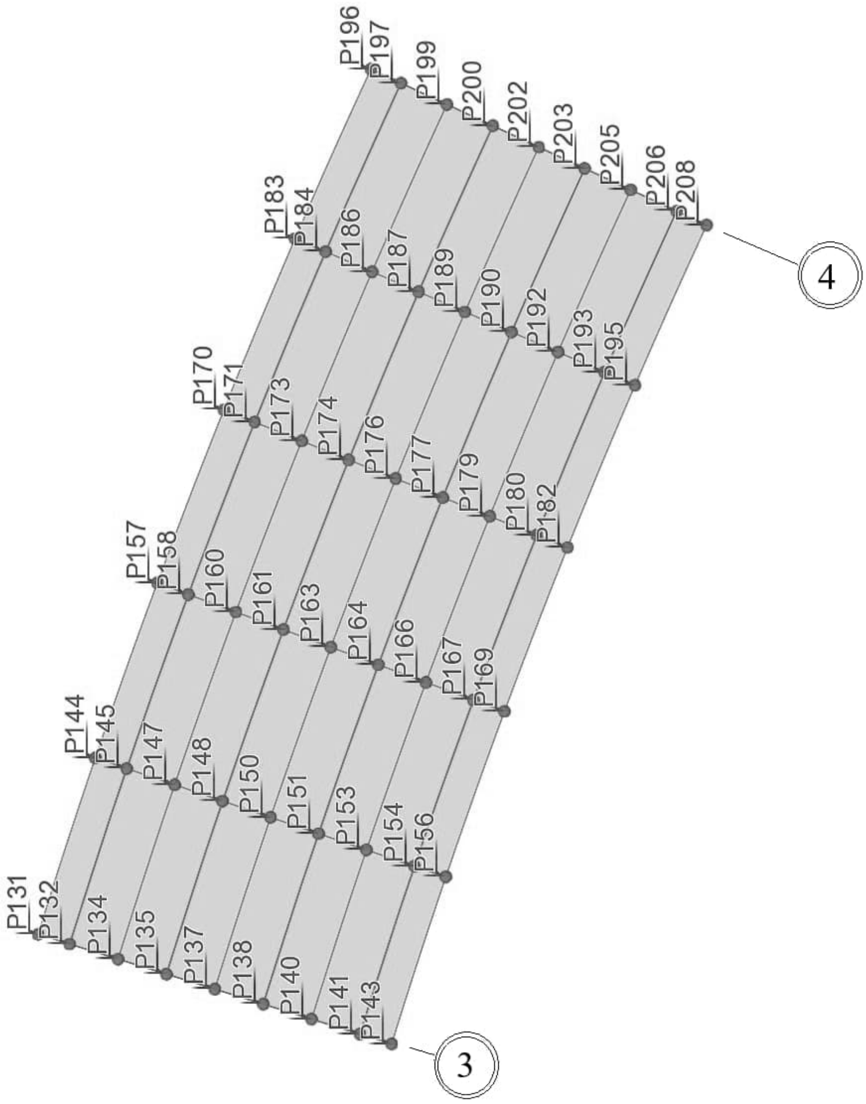
<u>Span 2</u>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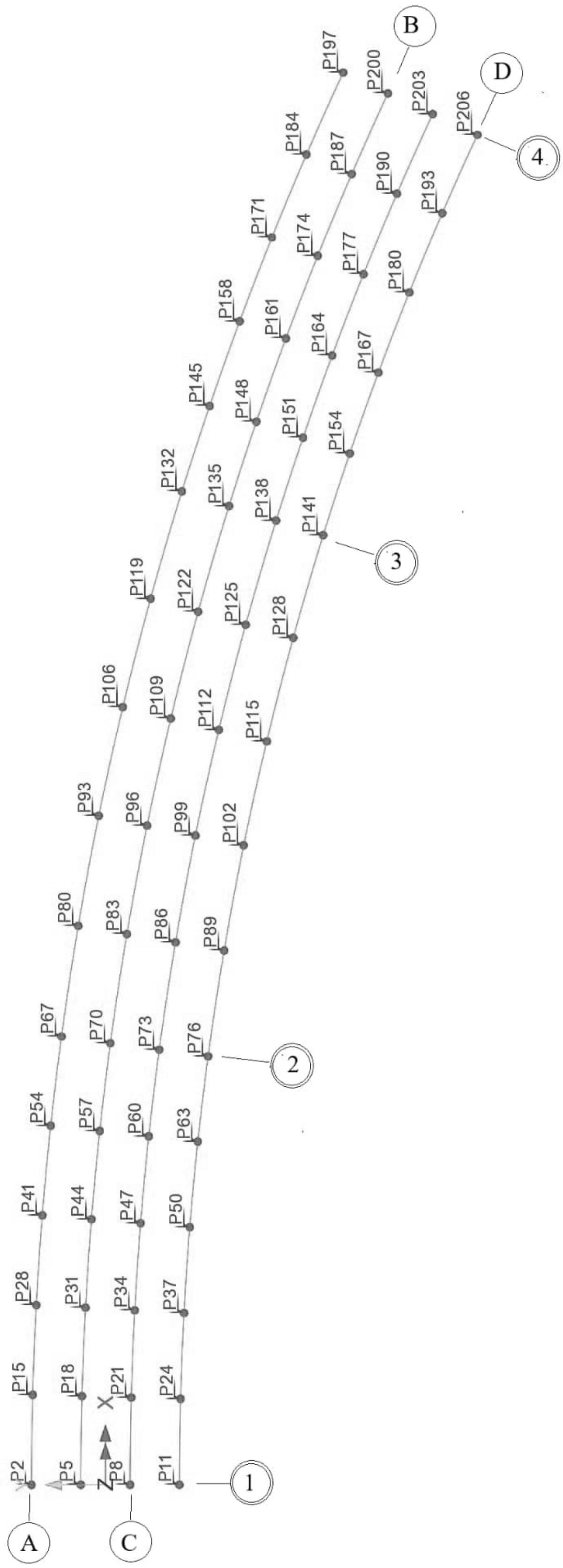
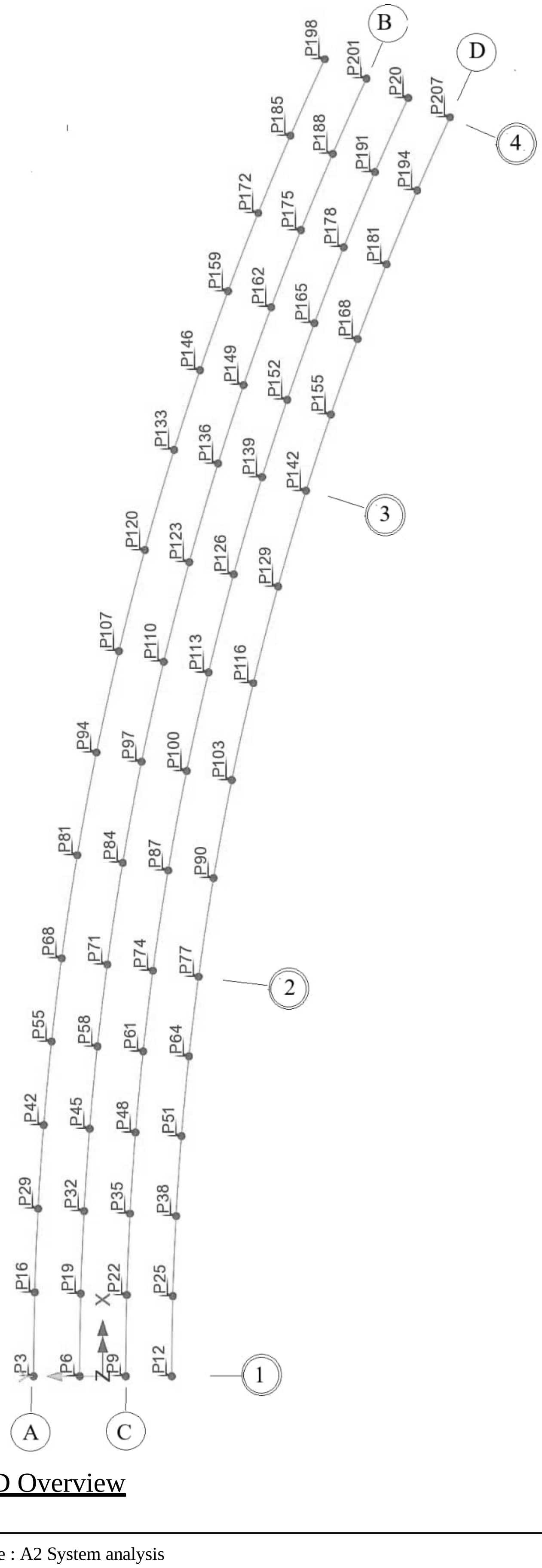
Span 3

2.2.1.2 Girder: top flange



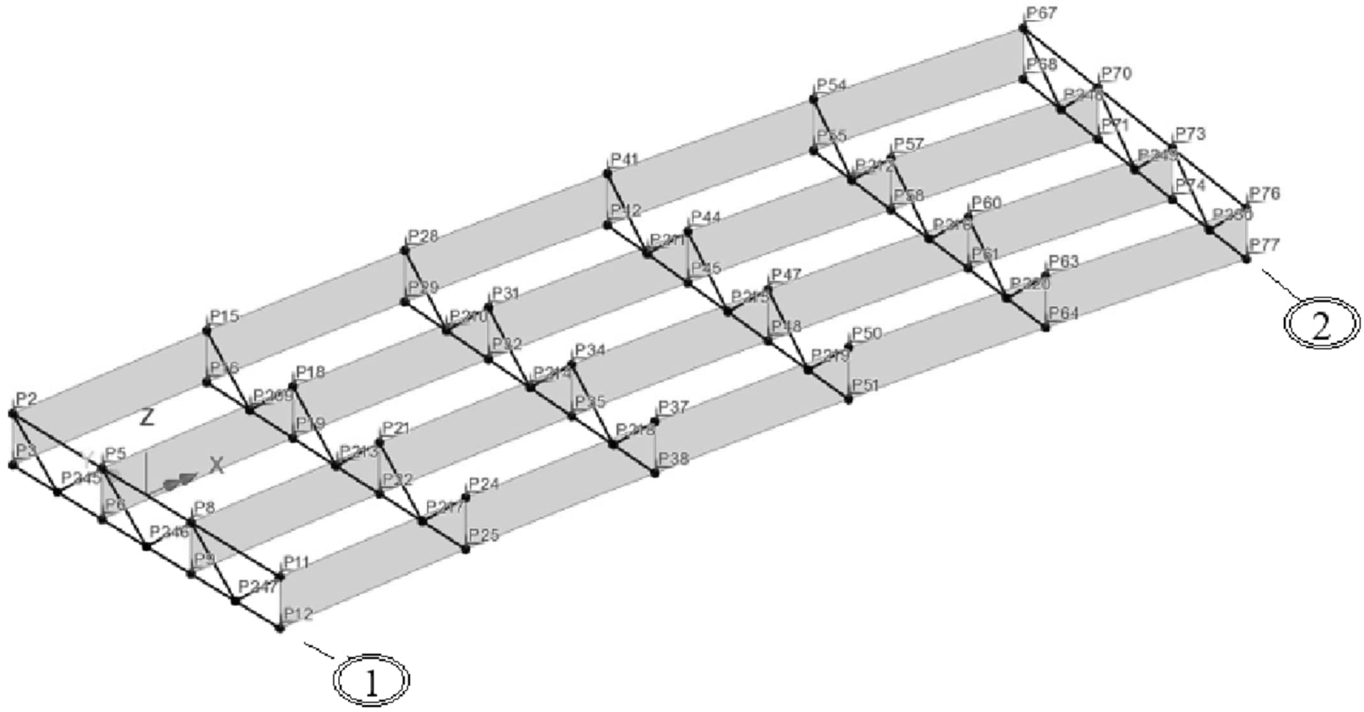
2D Overview

2.2.1.3 Girder: bottom flange



2D Overview

2.2.1.4 Bracings & web



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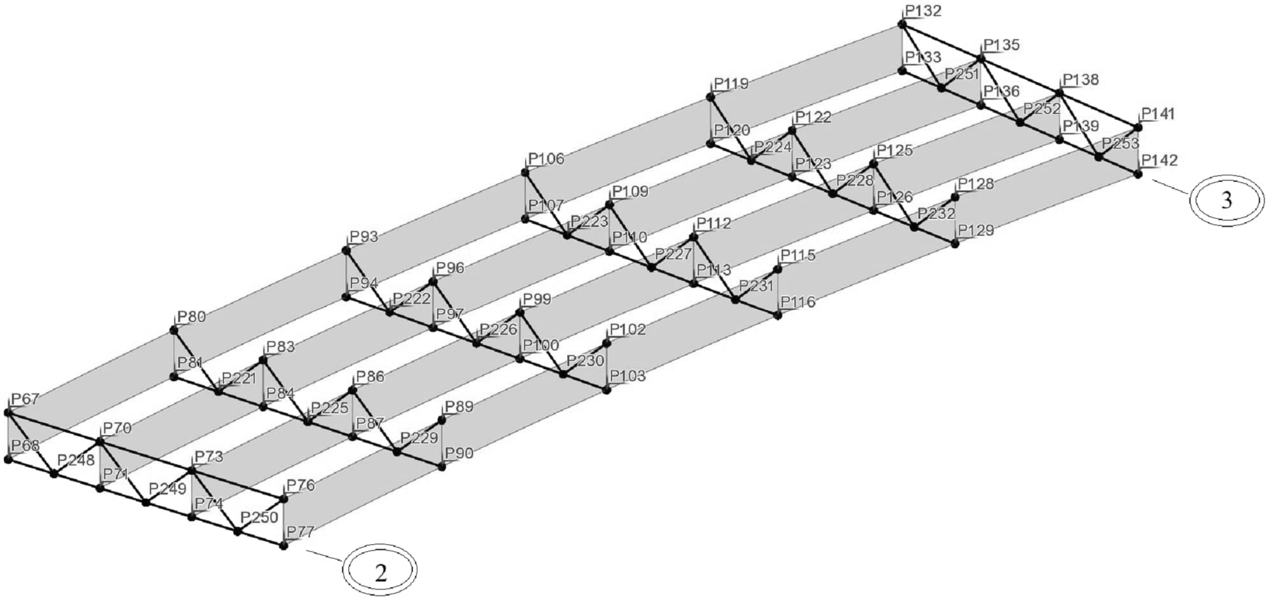

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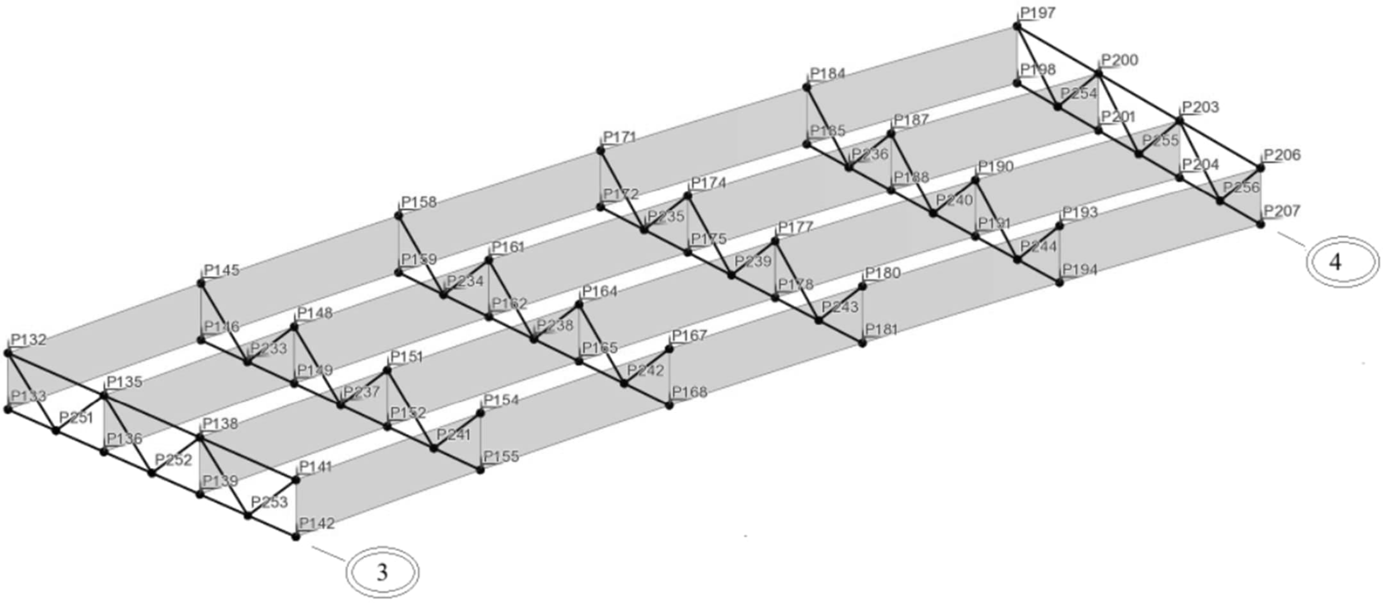

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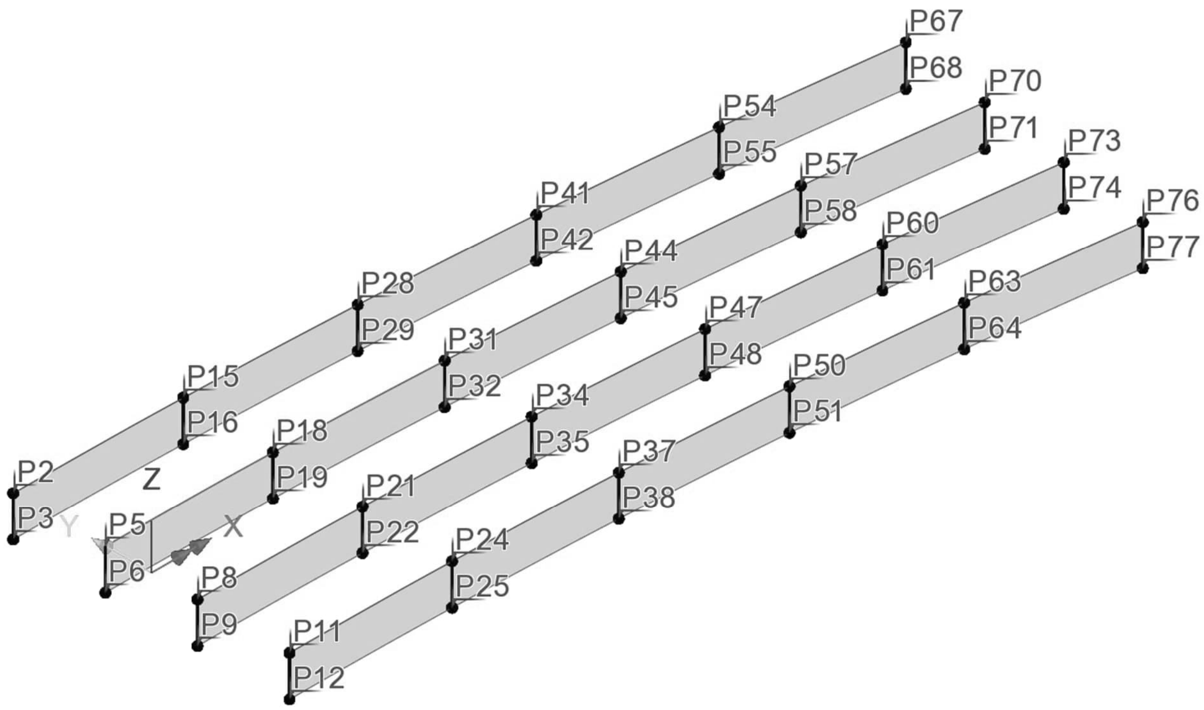
Span 3

2.2.1.5 Stiffners



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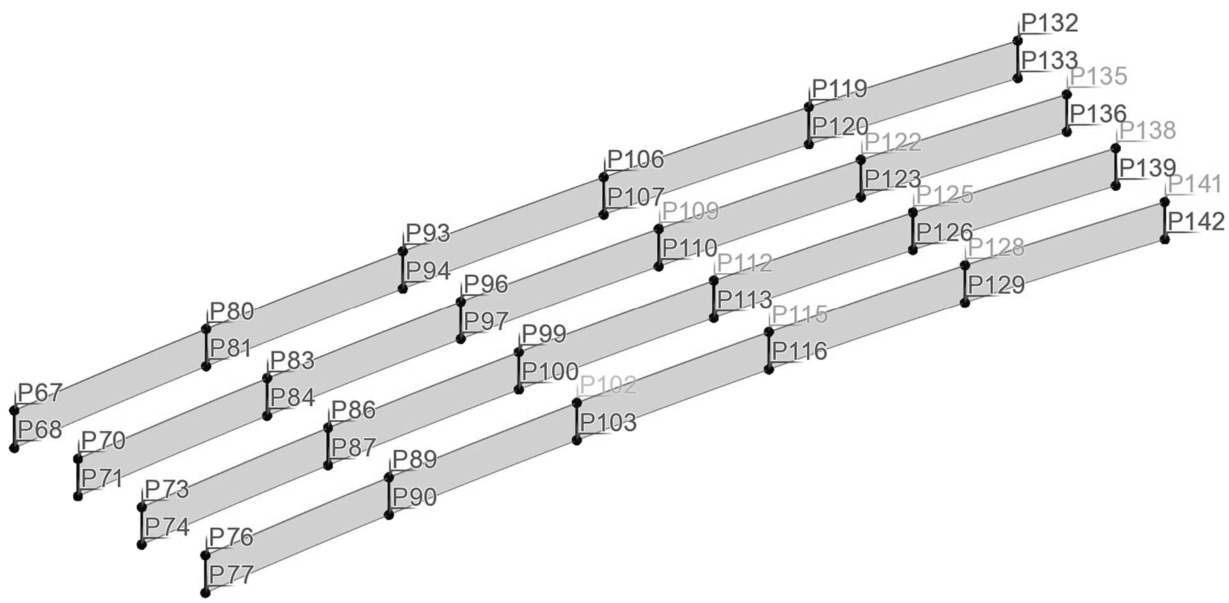
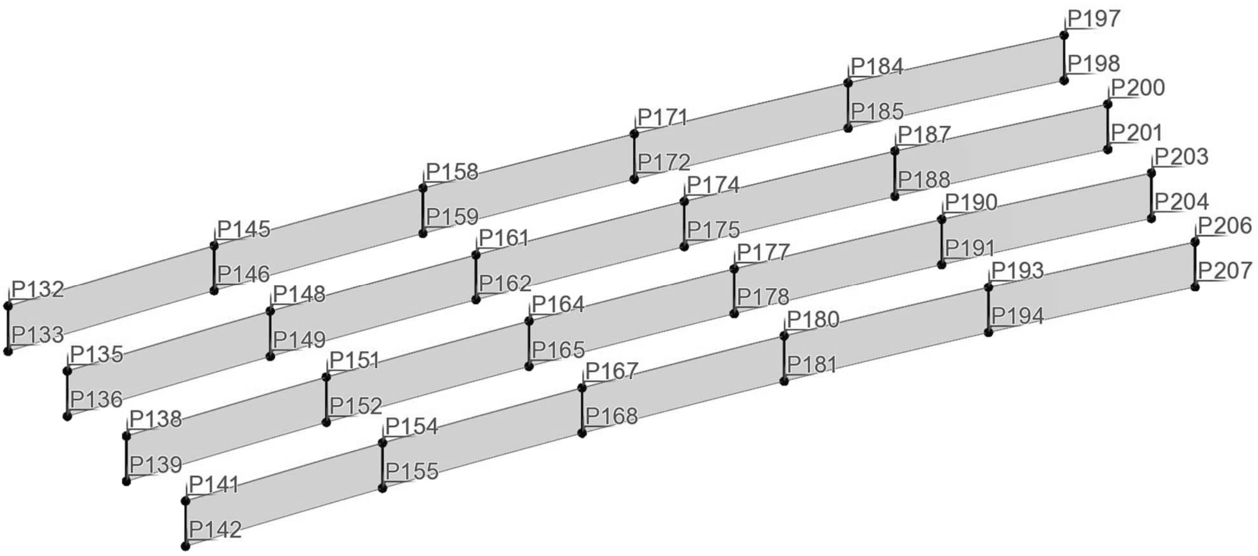


Span 2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Span 3

2.2.2 Geometry: LINES

LINES are defined by POINTS, see appendix 1.

2.2.3 Geometry : SURFACES

SURFACES are defined by LINES, see appendix 1.

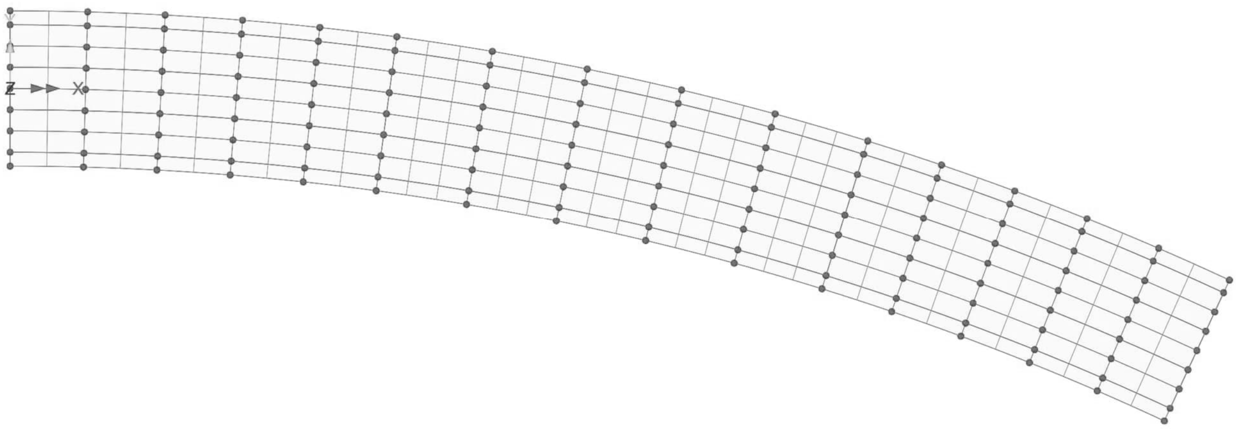
2.3 MESH

2.3.1 MESH: Shell element (QTS8)

Shell elements are used is webs and deck.

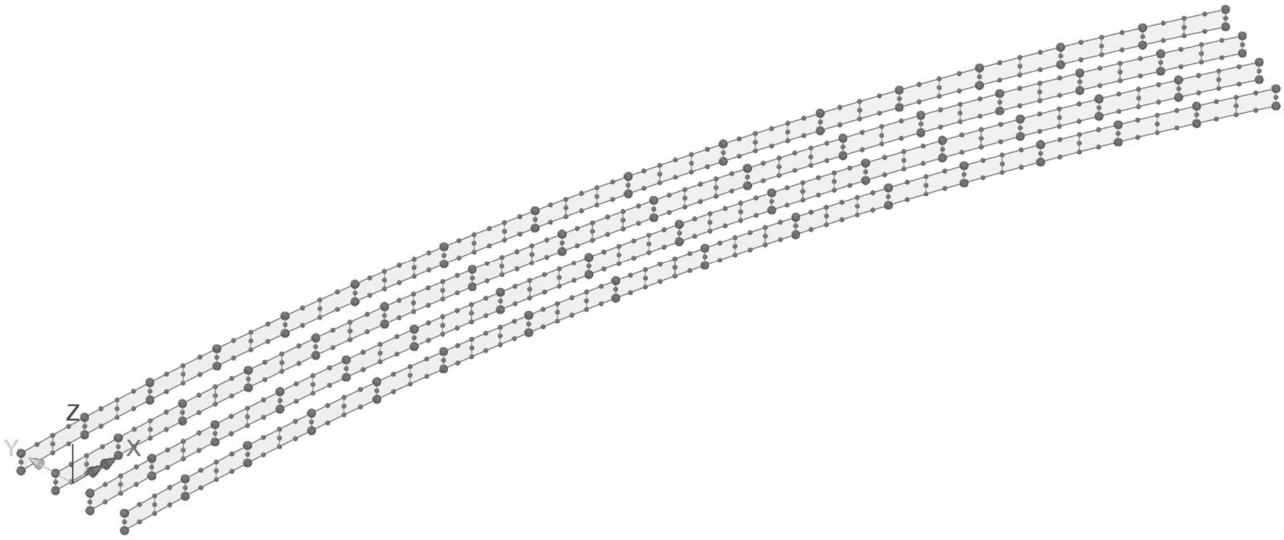
Type	x-divisions	y-divisions	Element size	Part
Thick shell	Auto	Auto	Max 2.10	Deck & Web
-	-	-	m	-

Deck:



2D Overview

Webs:



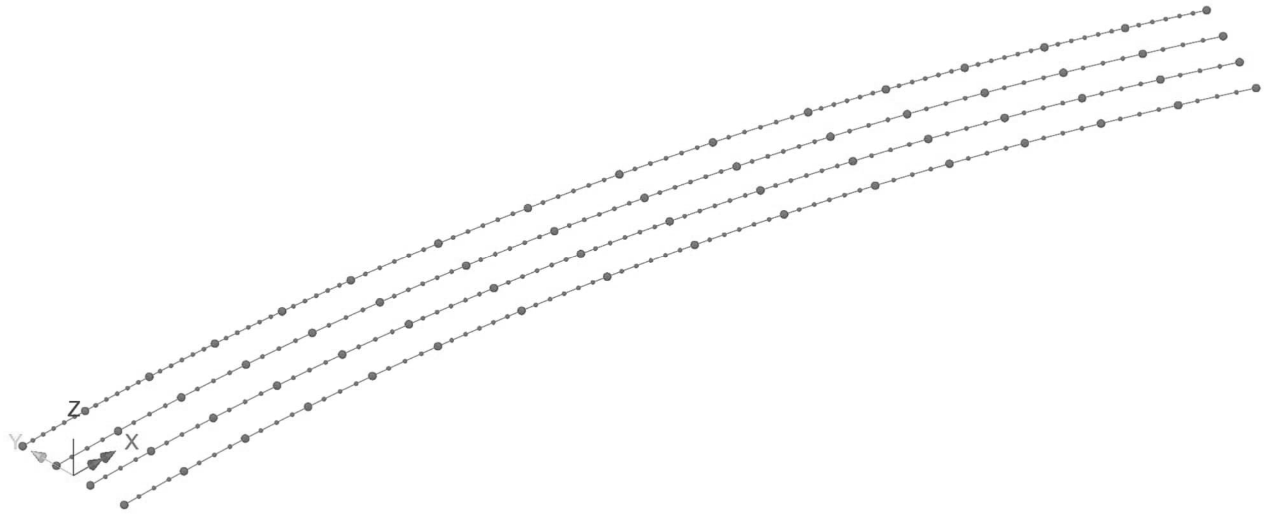
3D Overview

2.3.2 MESH: 3D-beam element (BMI31)

Beam elements are used for flanges and bracings, se table below.

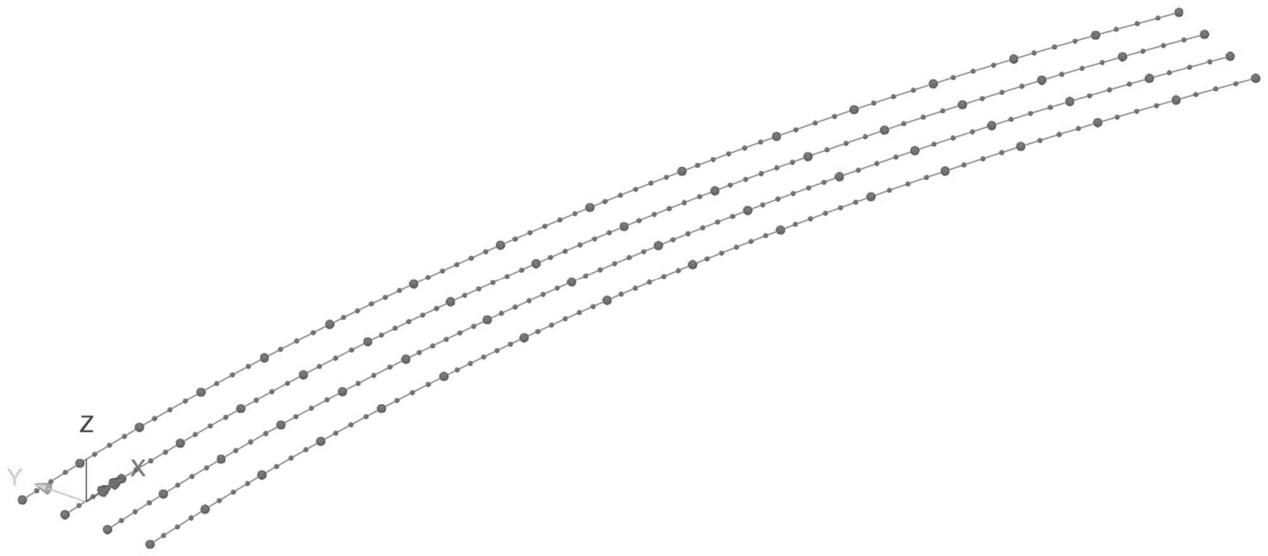
Type	Divisions	Element size	End release: Start	End release: End	Part
Thick beam	1	Auto	None	None	Bracings
Thick beam	Auto	Max 2.1	None	None	Flanges & Stiffners
	2	-	-	-	-

Top flanges:



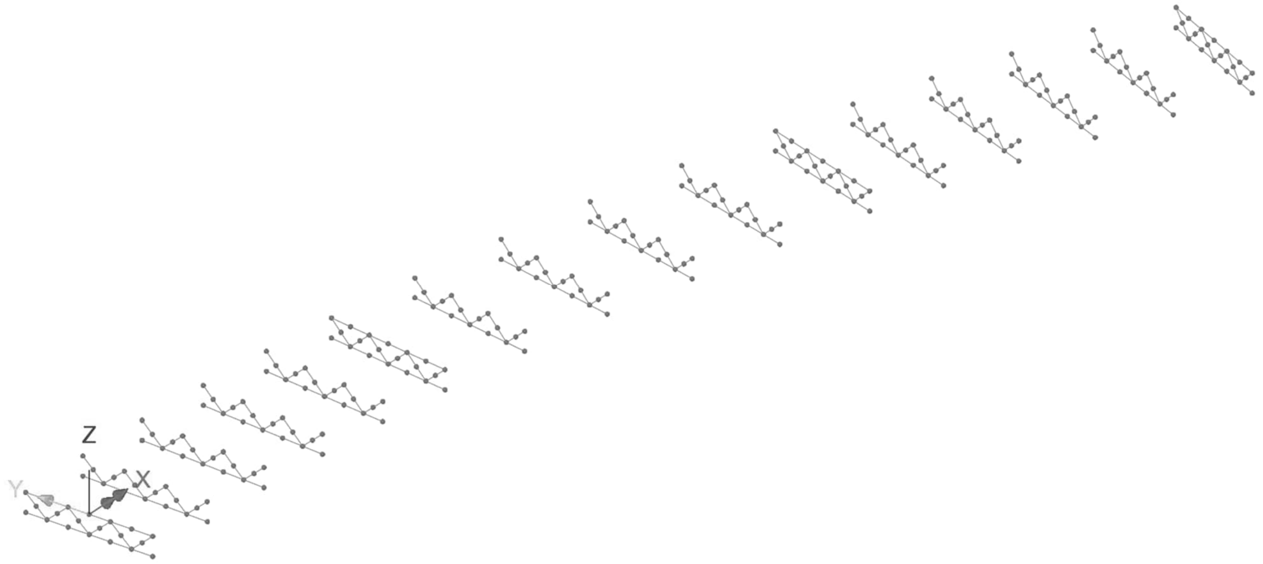
3D Overview

Bottom flanges:



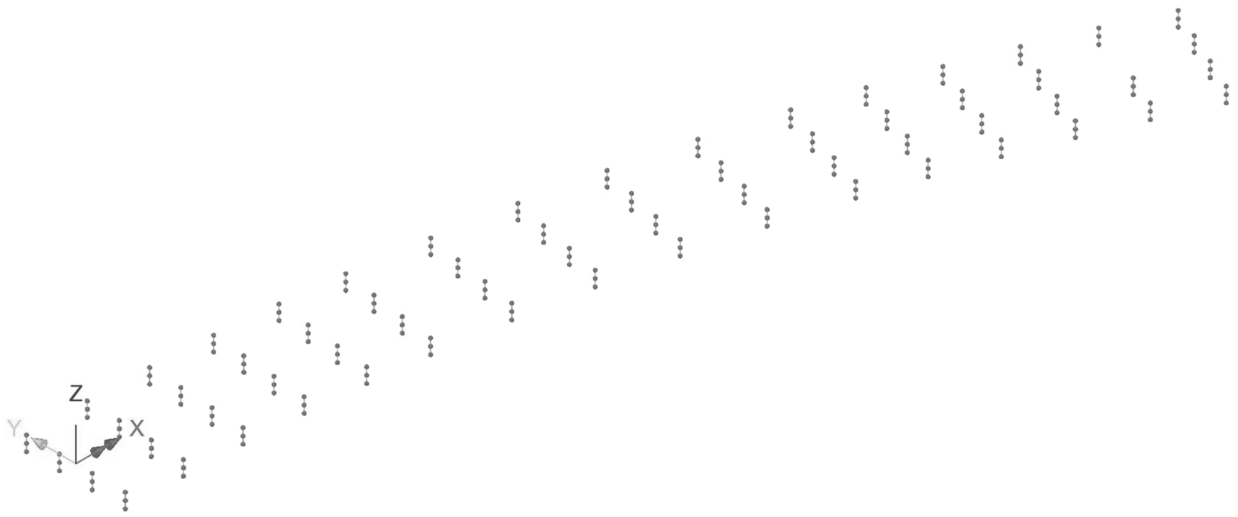
3D Overview

Bracings:



3D Overview

Stiffeners:

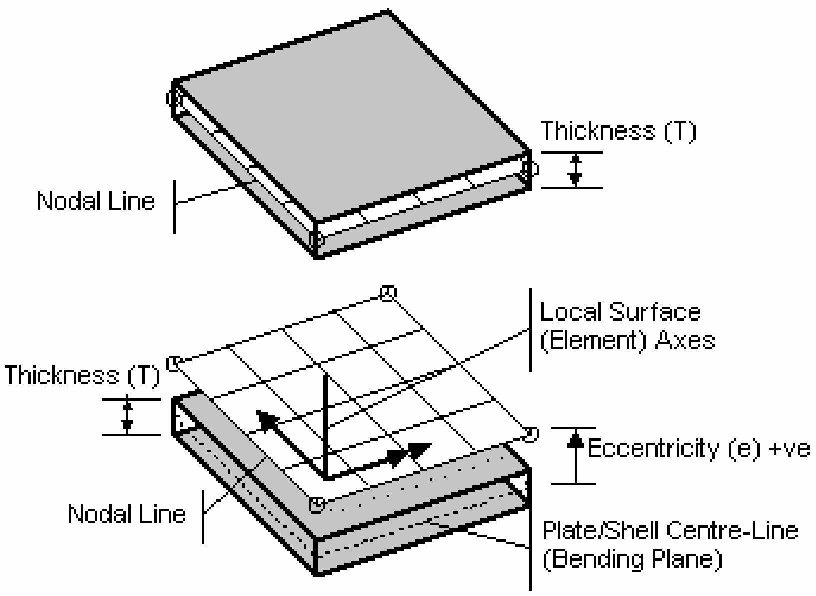


3D Overview

2.4 CROSS SECTION PROPERTIES

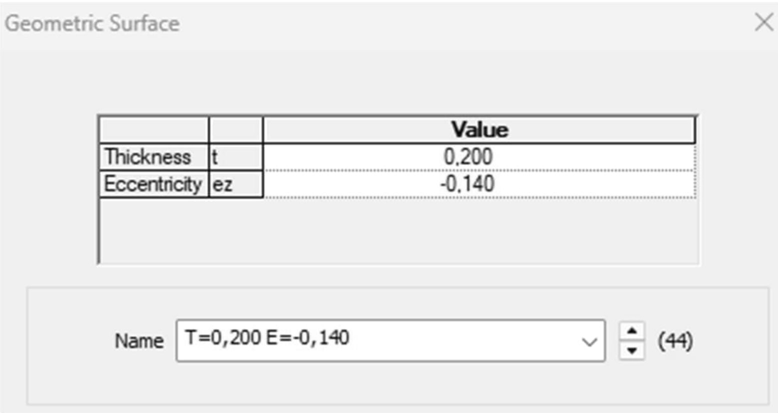
2.4.1 Shell elements

Web and deck are defined as shell elements. Principle figures of geometry is seen below.



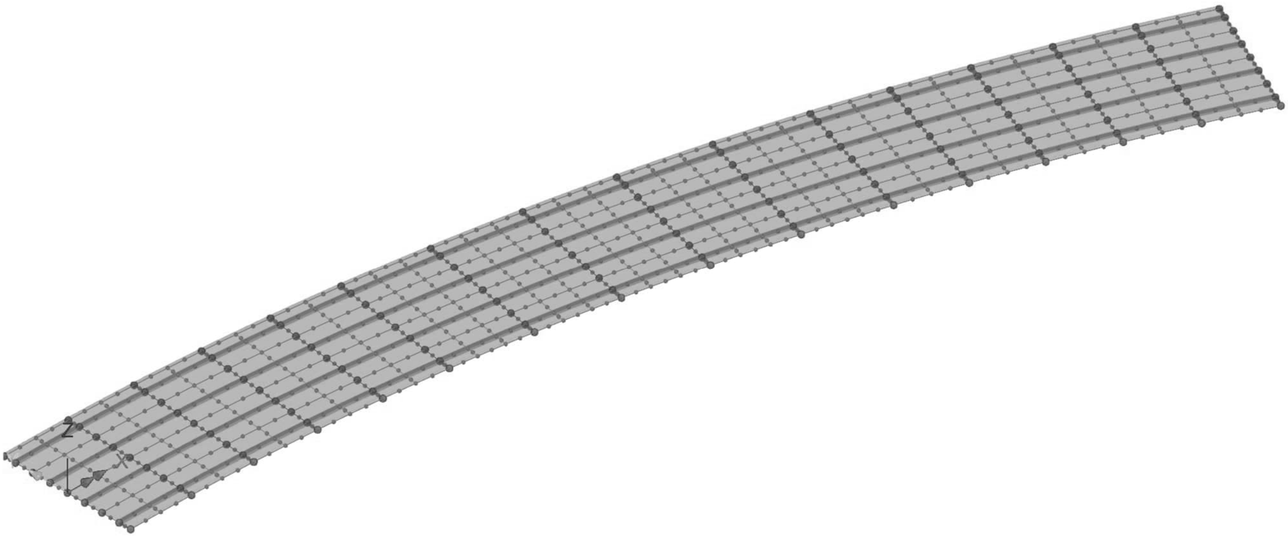
Deck :

Deck is given geometric properties seen below.


Geometric Surface

		Value
Thickness	t	0,200
Eccentricity	ez	-0,140

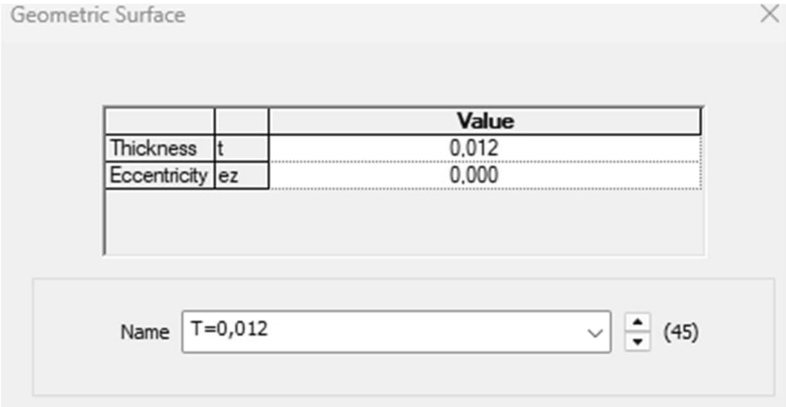
Name T=0,200 E=-0,140 (44)



<u>3D Overview</u>

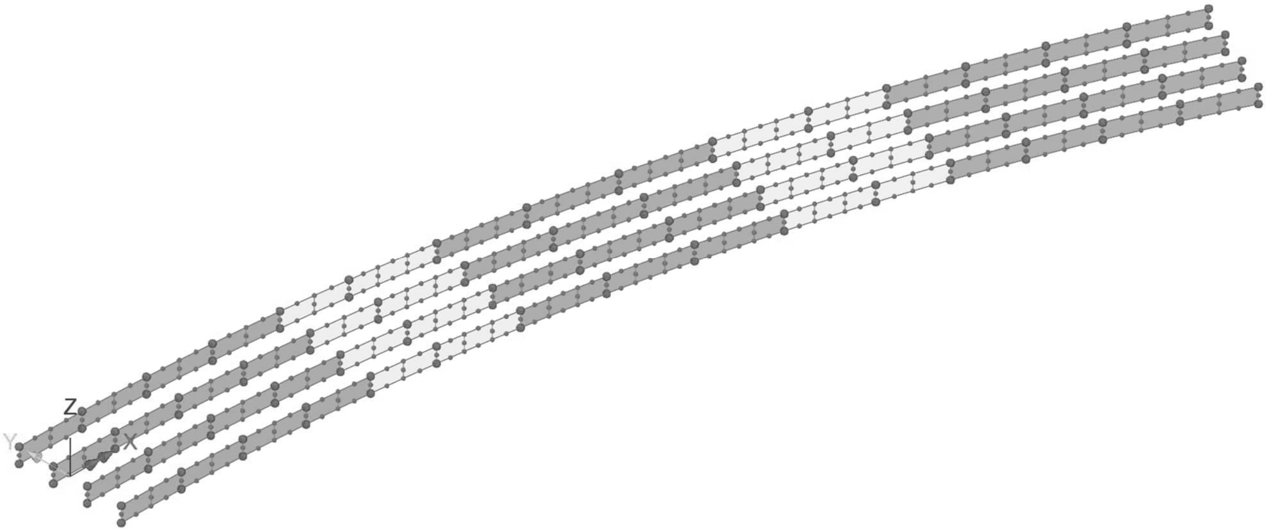
Web (BEAM 1, BEAM 3 & BEAM 5):

Deck is given geometric properties seen below.


Geometric Surface

		Value
Thickness	t	0,012
Eccentricity	ez	0,000

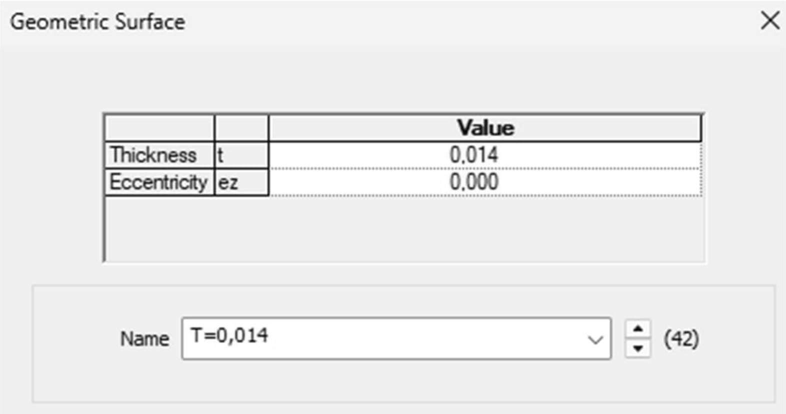
Name T=0,012 (45)

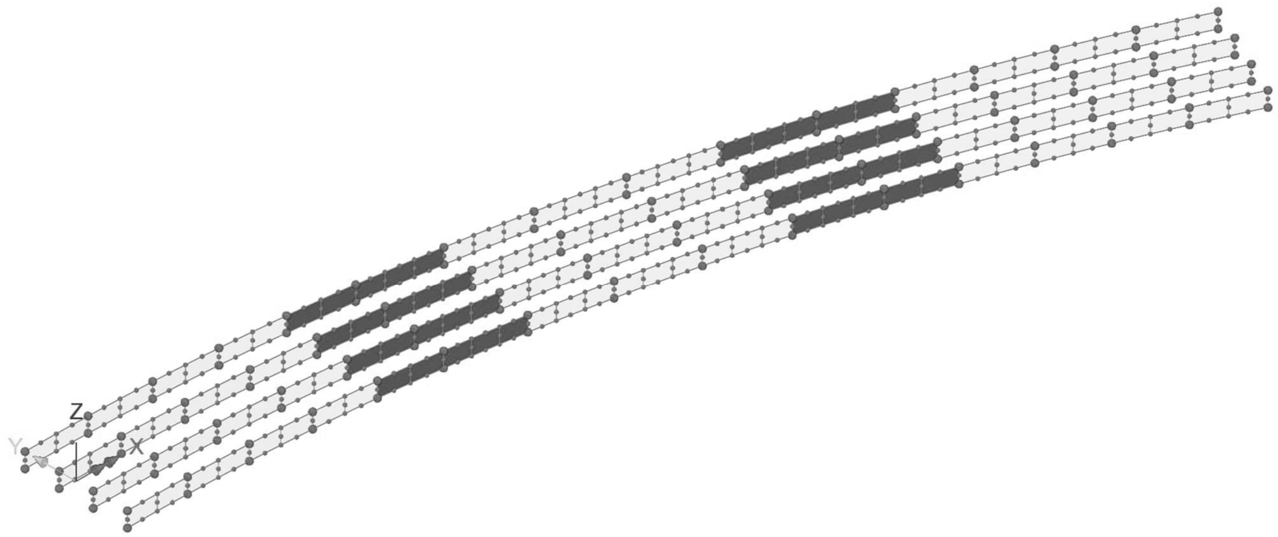


3D Overview

Web (BEAM 2 & BEAM 4):

Deck is given geometric properties seen below.



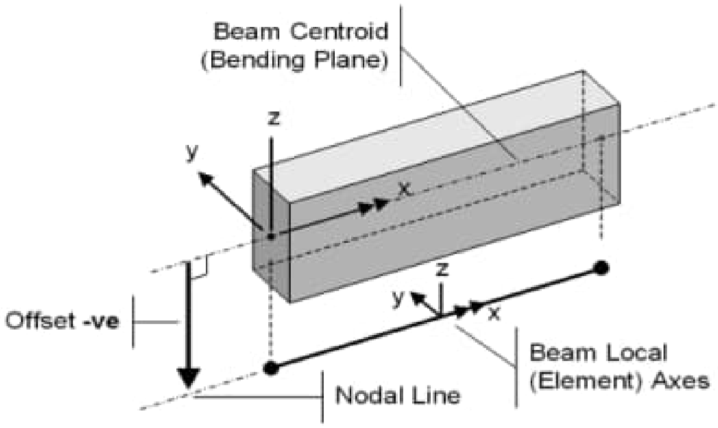


3D Overview

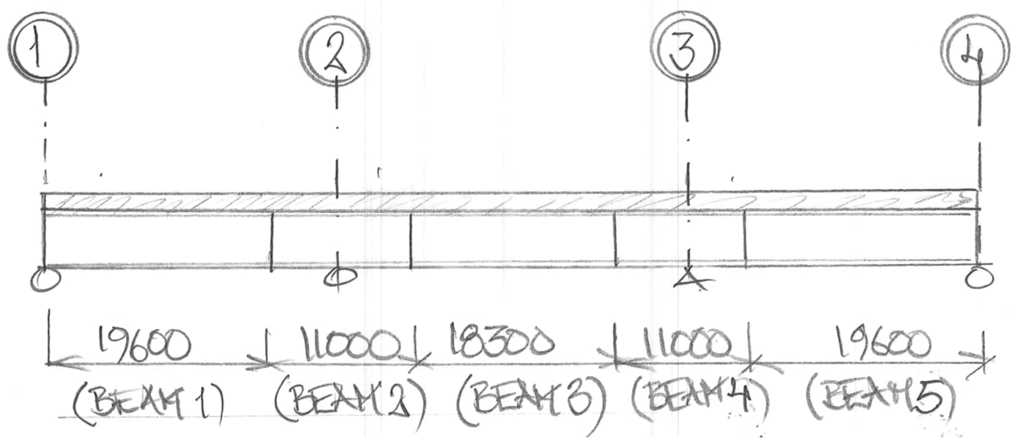
2.4.2 3D-beam elements

Flanges and bracing are as beam elements.

Principal sketch of geometry associated to 3D beam elements are seen below.

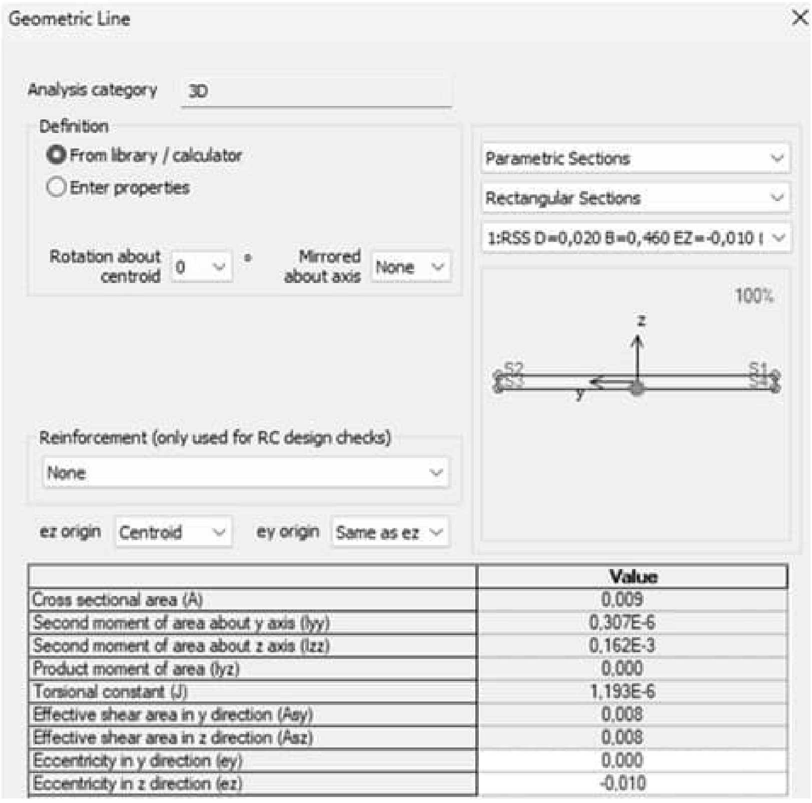


2.4.2.1 Flanges steel girders

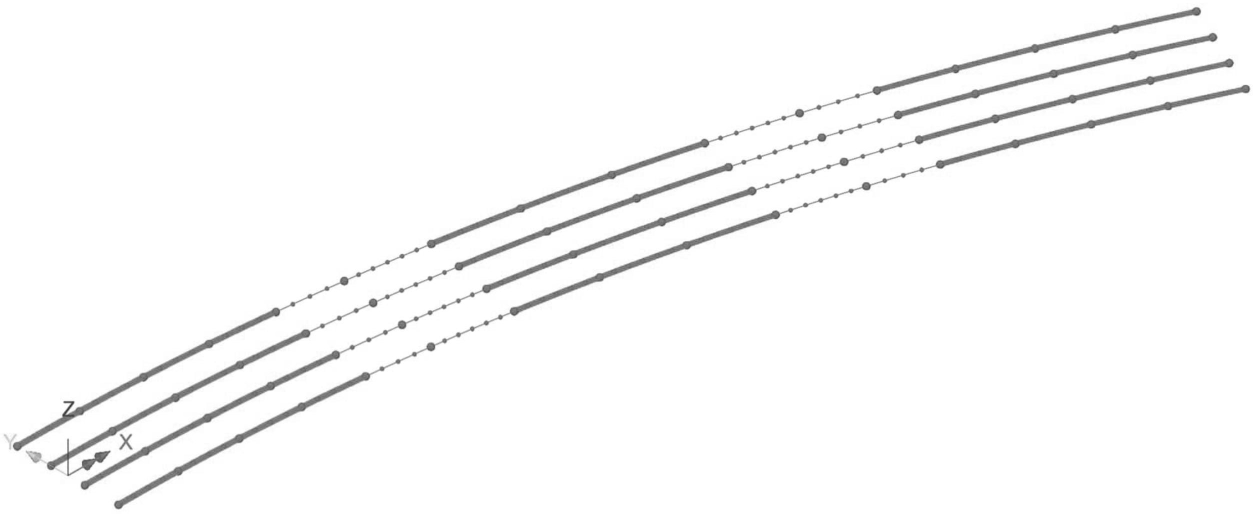


Top flange (BEAM 1, BEAM 3 & BEAM 5):

Flange is given geometric properties seen below.



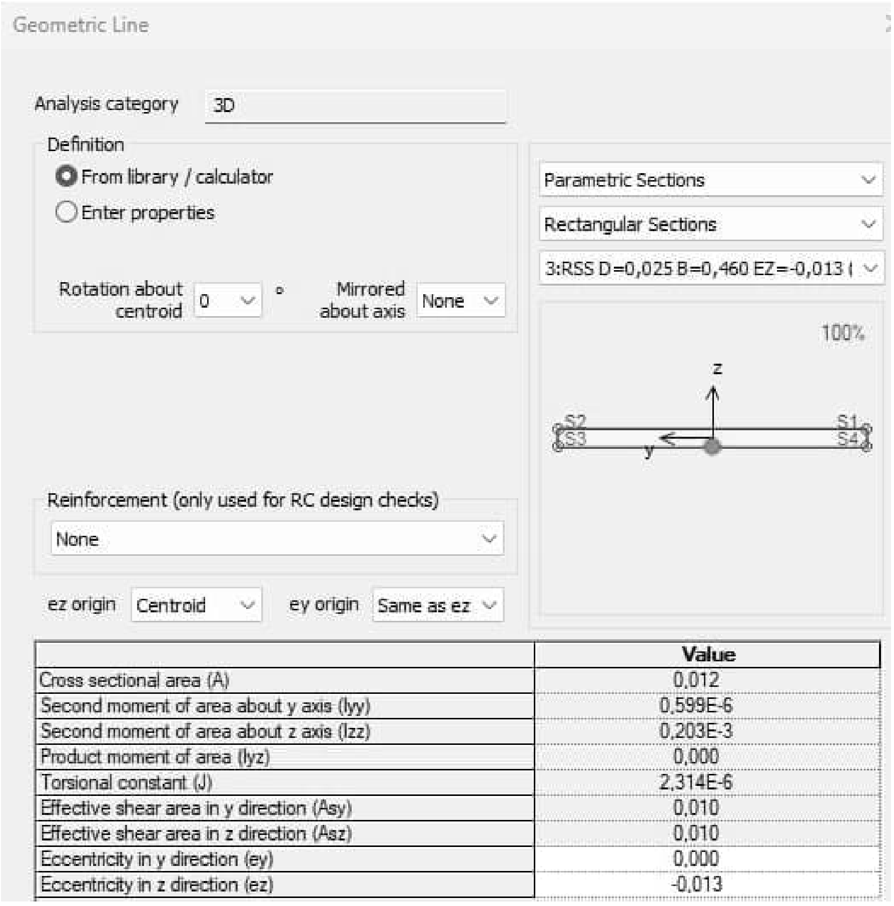
	Value
Cross sectional area (A)	0,009
Second moment of area about y axis (Iyy)	0,307E-6
Second moment of area about z axis (Izz)	0,162E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	1,193E-6
Effective shear area in y direction (Asy)	0,008
Effective shear area in z direction (Asz)	0,008
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	-0,010



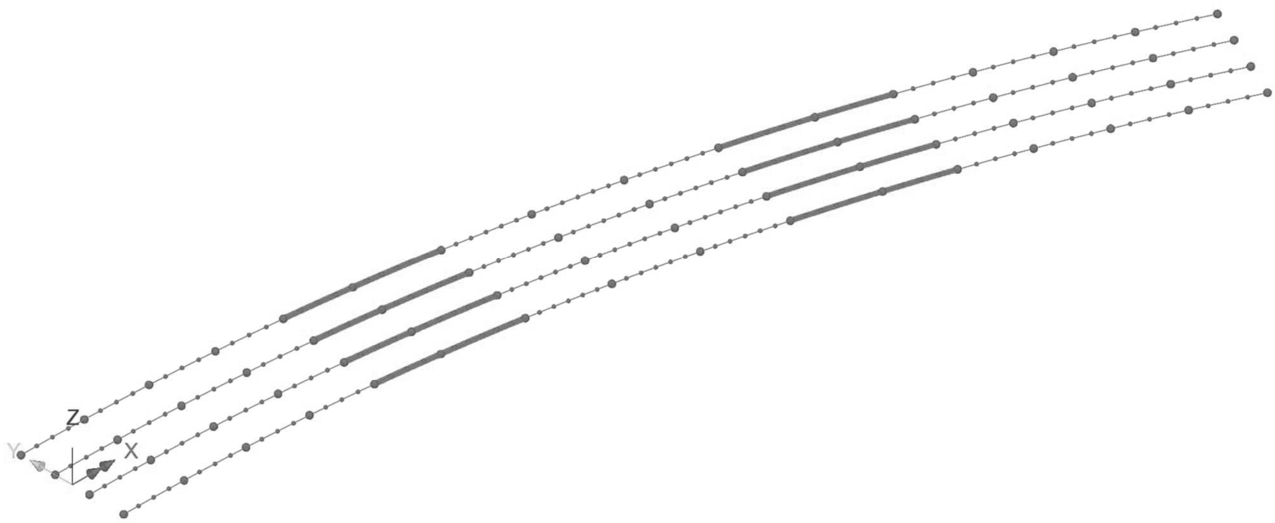
3D Overview

Top flange (BEAM 2 & BEAM 4):

Flange is given geometric properties seen below.



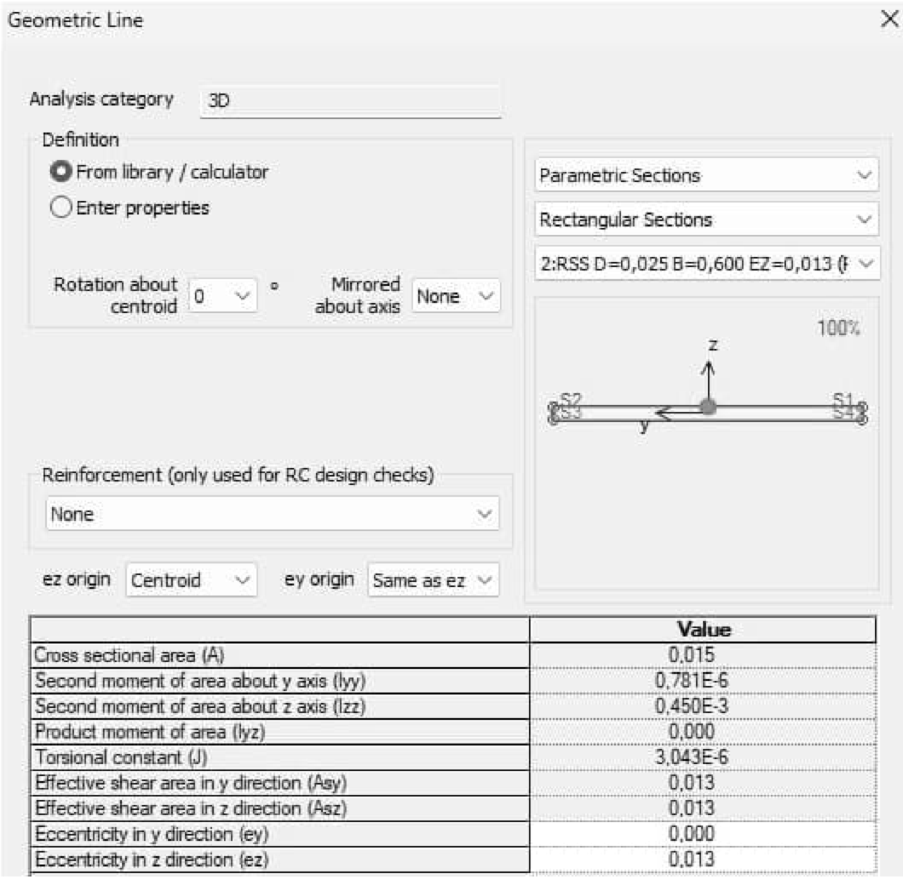
	Value
Cross sectional area (A)	0,012
Second moment of area about y axis (Iyy)	0,599E-6
Second moment of area about z axis (Izz)	0,203E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	2,314E-6
Effective shear area in y direction (Asy)	0,010
Effective shear area in z direction (Asz)	0,010
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	-0,013



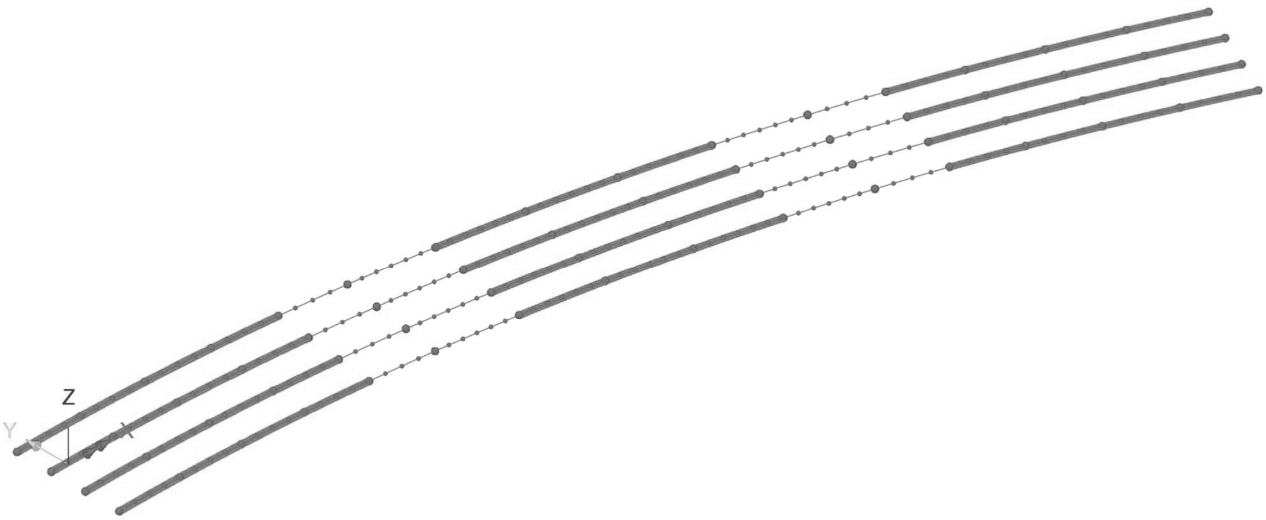
3D Overview

Bottom flange (BEAM 1, BEAM 3 & BEAM 5):

Flange is given geometric properties seen below.



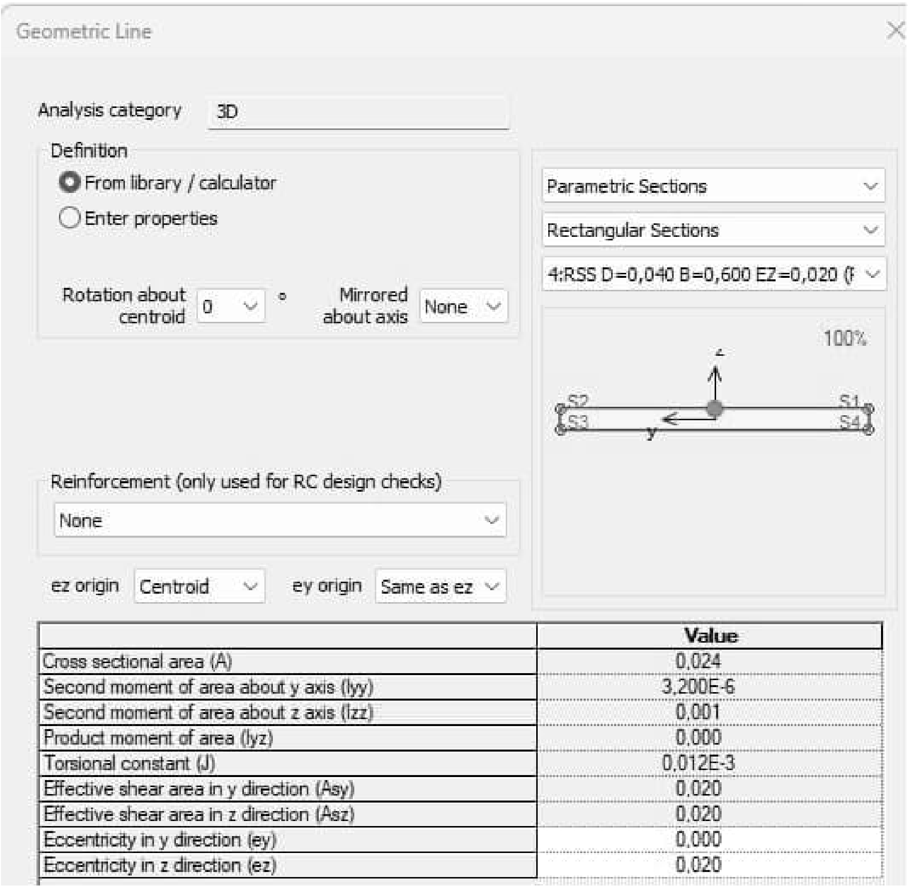
	Value
Cross sectional area (A)	0,015
Second moment of area about y axis (Iyy)	0,781E-6
Second moment of area about z axis (Izz)	0,450E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	3,043E-6
Effective shear area in y direction (Asy)	0,013
Effective shear area in z direction (Asz)	0,013
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,013



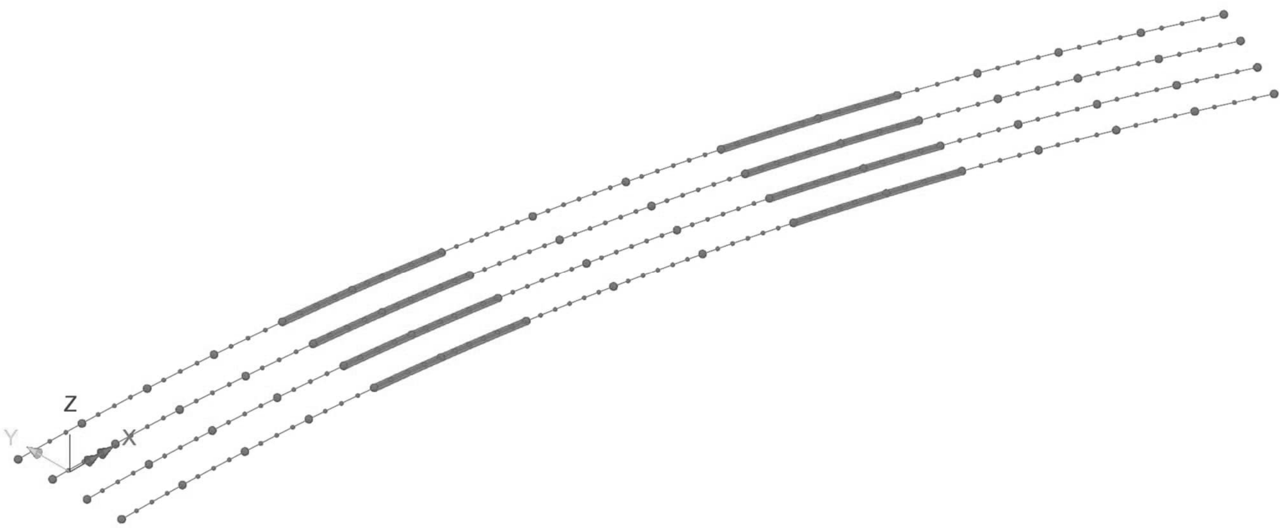
3D Overview

Bottom flange (BEAM 2 & BEAM 4):

Flange is given geometric properties seen below.



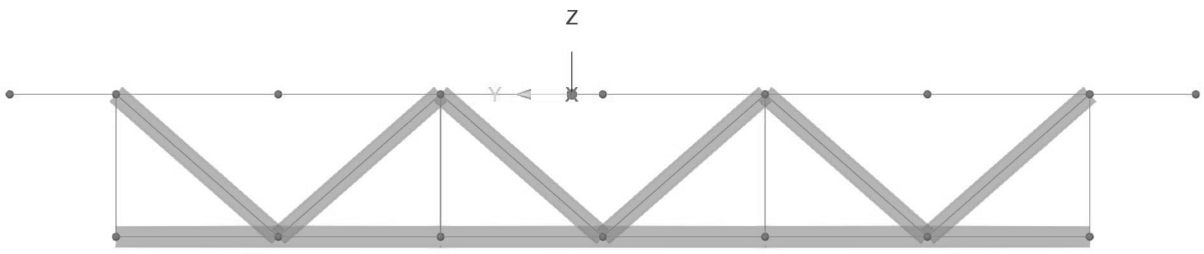
	Value
Cross sectional area (A)	0,024
Second moment of area about y axis (Iyy)	3,200E-6
Second moment of area about z axis (Izz)	0,001
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,012E-3
Effective shear area in y direction (Asy)	0,020
Effective shear area in z direction (Asz)	0,020
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,020



3D Overview

2.4.2.2 Intermediate bracing: type F

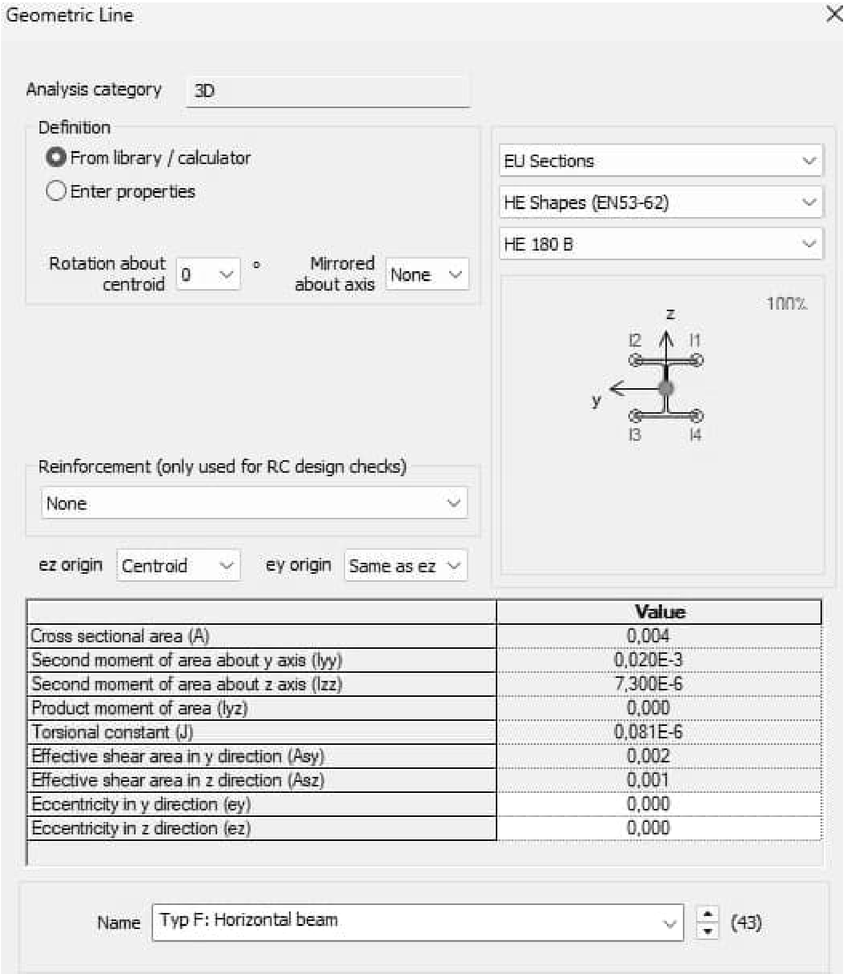
Each bracing consist of 2 part and are identical at all supports (F1& F2)



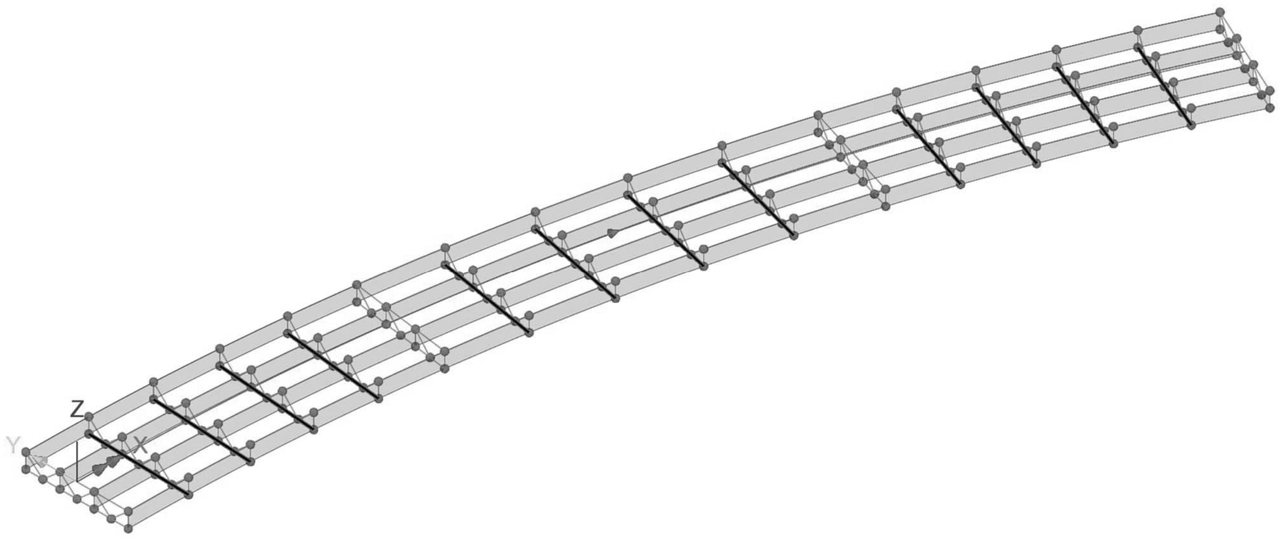
Typ F

Bracings intermediate (F1& F2)- horizontal beam (HEB 180):

Beam is given geometric properties seen below.



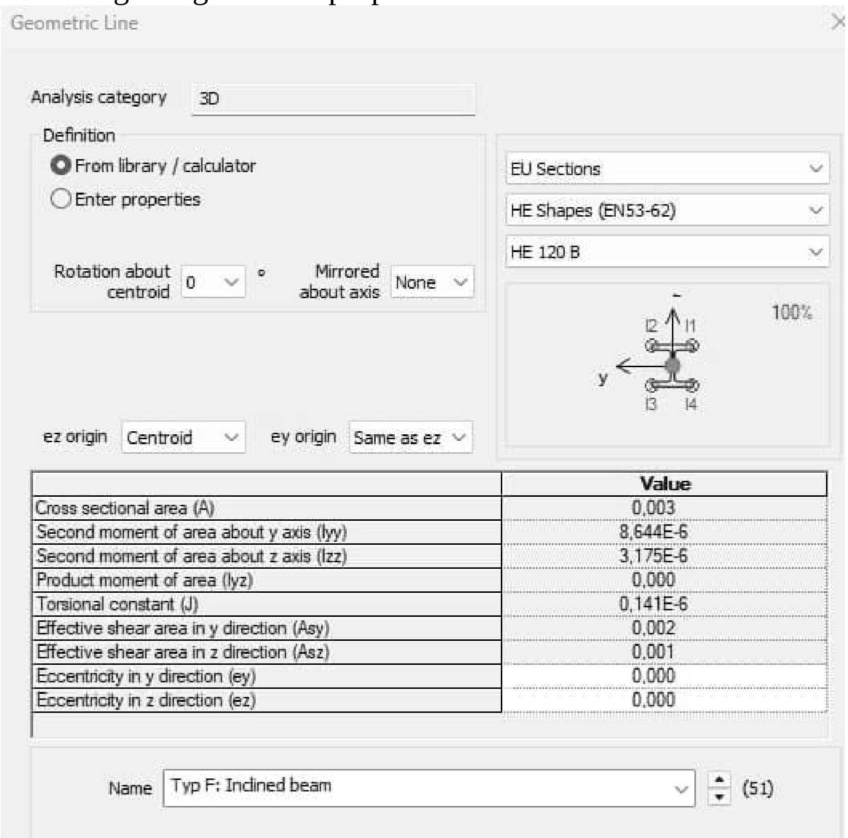
	Value
Cross sectional area (A)	0,004
Second moment of area about y axis (Iyy)	0,020E-3
Second moment of area about z axis (Izz)	7,300E-6
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,081E-6
Effective shear area in y direction (Asy)	0,002
Effective shear area in z direction (Asz)	0,001
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,000



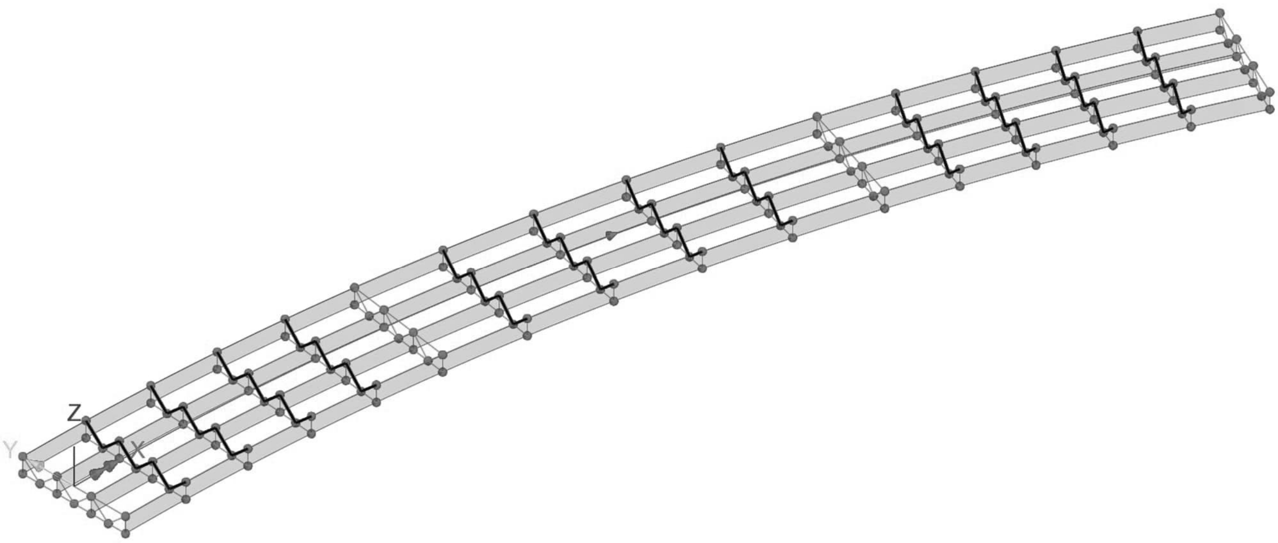
3D Overview

Bracings intermediate (F1& F2)- inclined beam (HEB 120):

Beam is given geometric properties seen below.



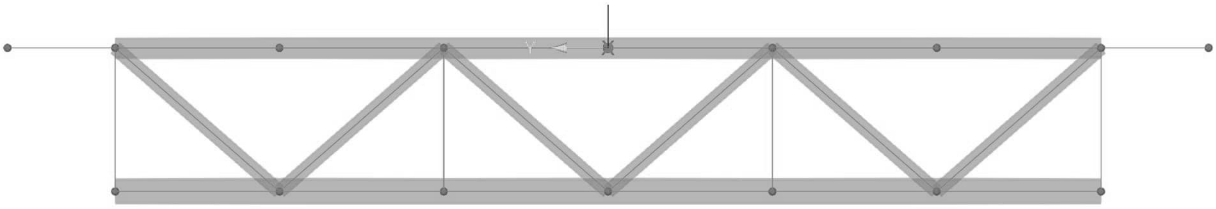
	Value
Cross sectional area (A)	0,003
Second moment of area about y axis (Iyy)	8,644E-6
Second moment of area about z axis (Izz)	3,175E-6
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,141E-6
Effective shear area in y direction (Asy)	0,002
Effective shear area in z direction (Asz)	0,001
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,000



3D Overview

2.4.2.4 Support bracing: type S

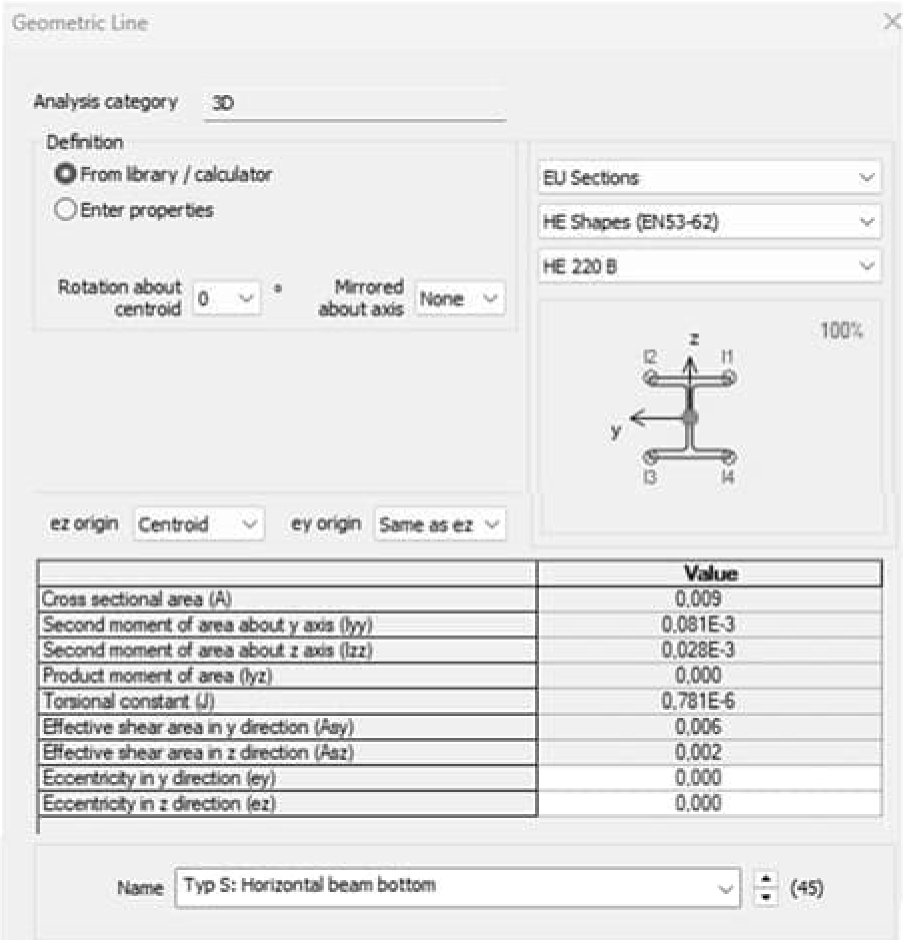
Each bracing consists of 3 part and are identical at all supports (S1 & S2)



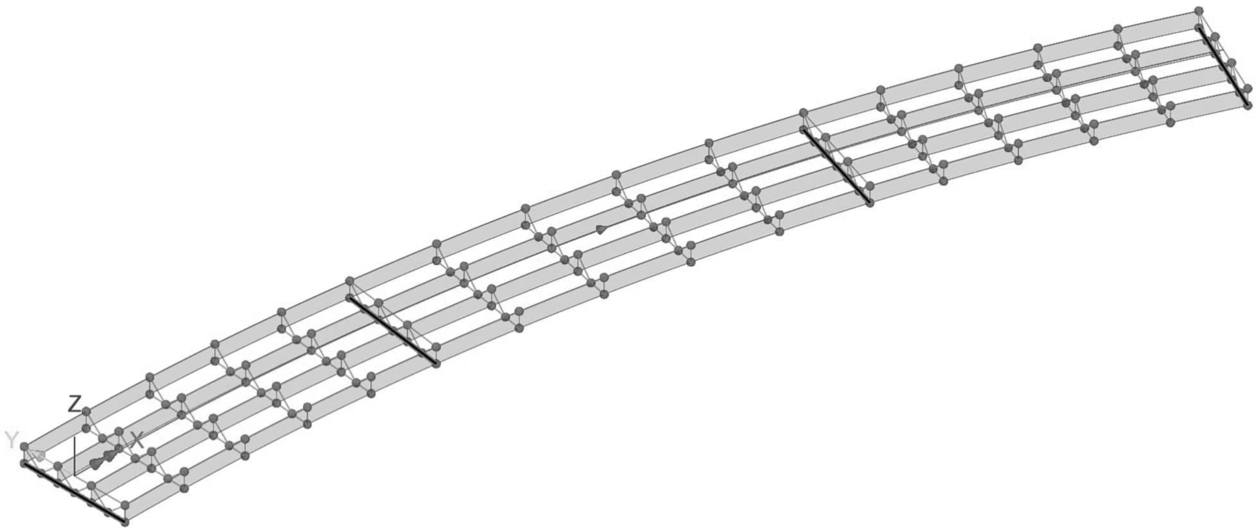
Typ S

Bracings supports (S1 & S2)- horizontal beam bottom (HEB 220):

Beam is given geometric properties seen below.



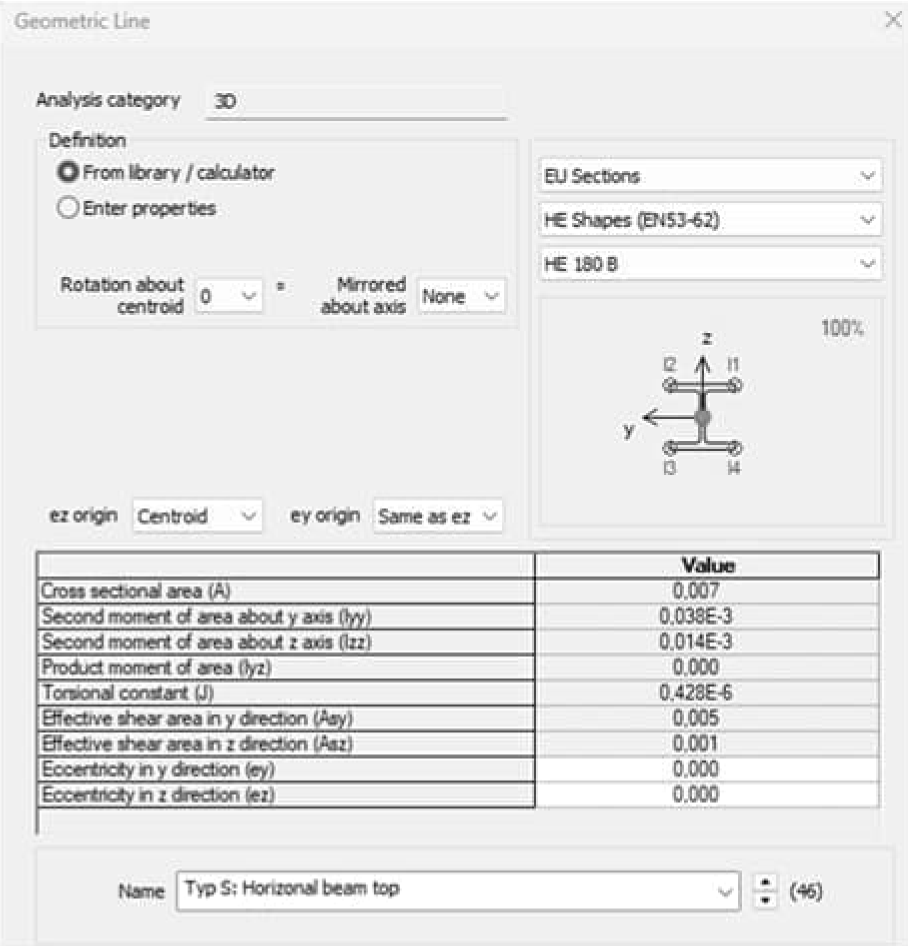
	Value
Cross sectional area (A)	0,009
Second moment of area about y axis (Iyy)	0,081E-3
Second moment of area about z axis (Izz)	0,028E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,781E-6
Effective shear area in y direction (Asy)	0,006
Effective shear area in z direction (Asz)	0,002
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,000



3D Overview

Bracings supports (S1 & S2)- horizontal beam top (HEB 180):

Beam is given geometric properties seen below.


Geometric Line

Analysis category: 3D

Definition
- From library / calculator
- Enter properties

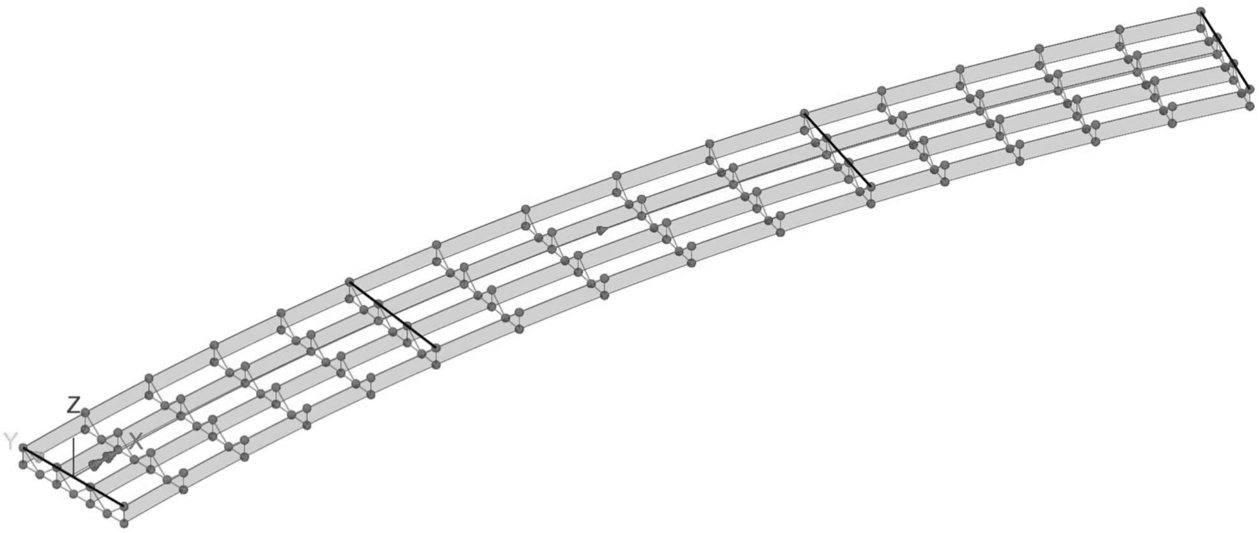
Rotation about centroid: 0 ° — Mirrored about axis: None

EU Sections
HE Shapes (EN53-62)
HE 180 B

ez origin: Centroid — ey origin: Same as ez

	Value
Cross sectional area (A)	0,007
Second moment of area about y axis (Iyy)	0,038E-3
Second moment of area about z axis (Izz)	0,014E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,428E-6
Effective shear area in y direction (Asy)	0,005
Effective shear area in z direction (Asz)	0,001
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,000

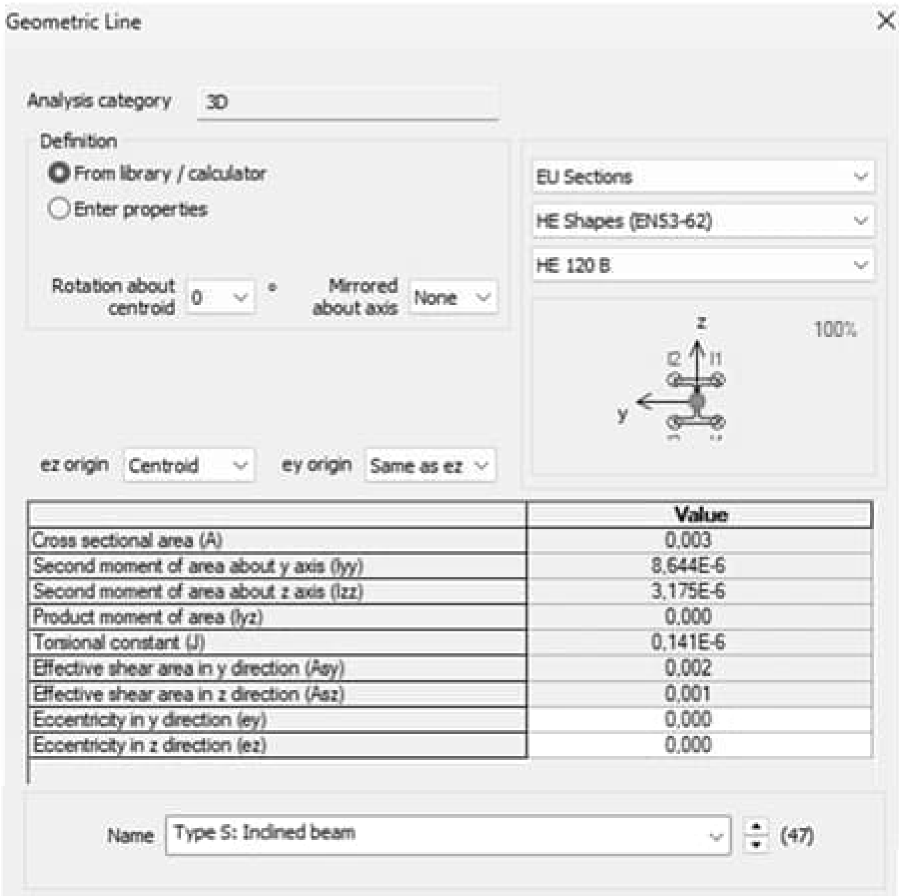
Name: Typ S: Horizonal beam top (46)



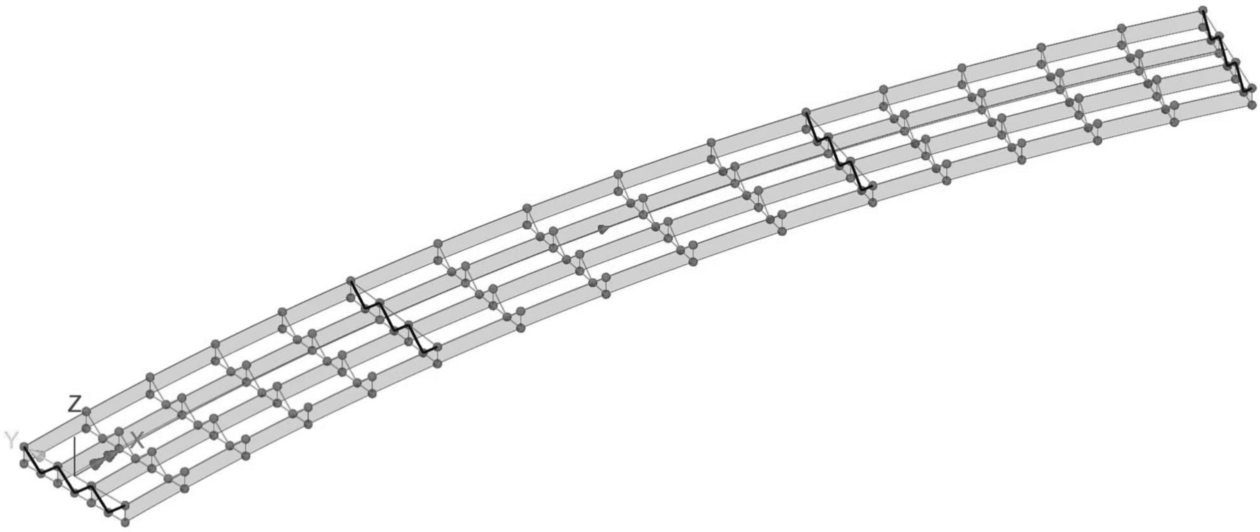
3D Overview

Bracings supports (S1& S2)- inclined beam (HEB 120):

Beam is given geometric properties seen below.



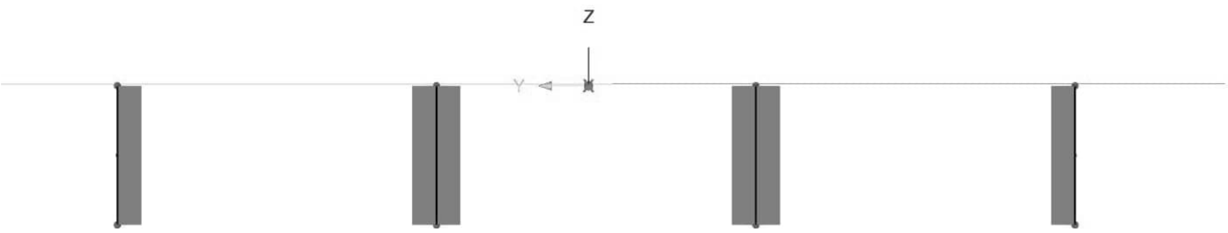
	Value
Cross sectional area (A)	0,003
Second moment of area about y axis (Iyy)	8,644E-6
Second moment of area about z axis (Izz)	3,175E-6
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,141E-6
Effective shear area in y direction (Asy)	0,002
Effective shear area in z direction (Asz)	0,001
Eccentricity in y direction (ey)	0,000
Eccentricity in z direction (ez)	0,000



3D Overview

2.4.2.5 Stiffeners (F)

At locations of every bracing type F, stiffeners seen below are applied.

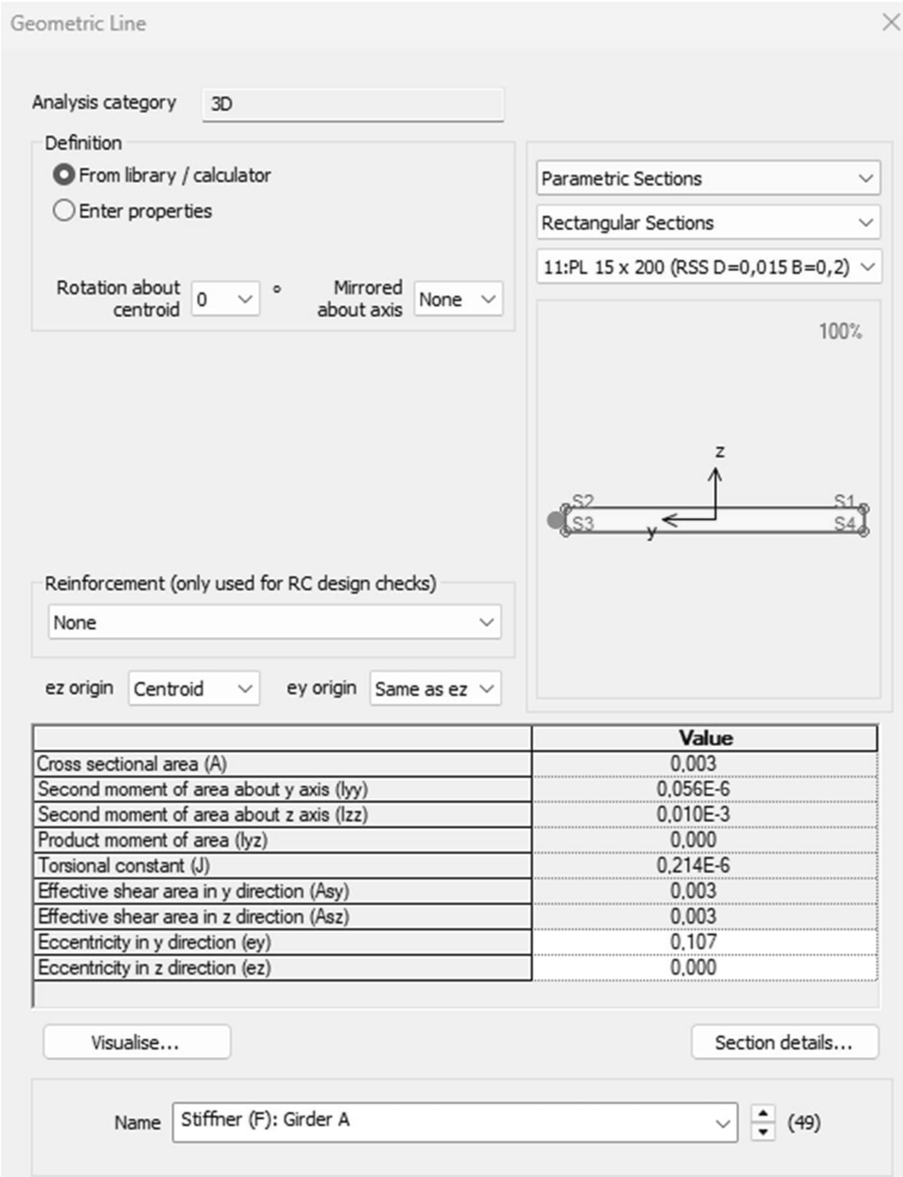


Stiffner (F): Girder A
Stiffner (F): Girder B
Stiffner (F): Girder C
Stiffner (F): Girder D

Stiffener(F) – Girder A:

A beam (PL 15 x 200) is placed eccentrically (e_y) as seen below.

$e_y = 0.5 \cdot (b + t_w) = 0.5 \cdot (200 \text{ mm} + 14 \text{ mm}) = +107 \text{ mm}.$

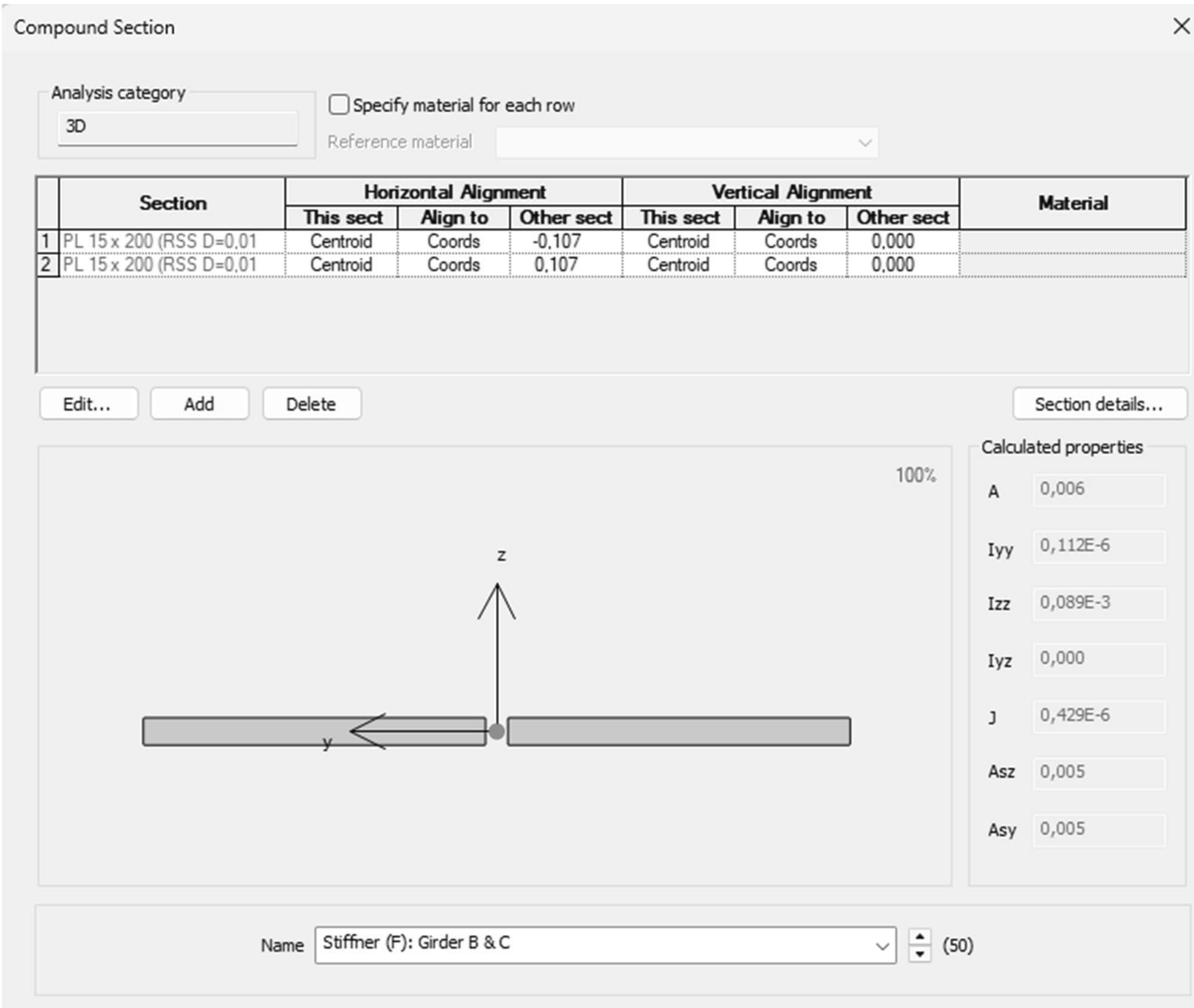


	Value
Cross sectional area (A)	0,003
Second moment of area about y axis (Iyy)	0,056E-6
Second moment of area about z axis (Izz)	0,010E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,214E-6
Effective shear area in y direction (Asy)	0,003
Effective shear area in z direction (Asz)	0,003
Eccentricity in y direction (ey)	0,107
Eccentricity in z direction (ez)	0,000

Stiffener(F) – Girders B & C:

Equivalent compounded section is used as seen below. Consists of 2 identical beams (PL 15 x 200) placed eccentrically (e_y) as seen below.

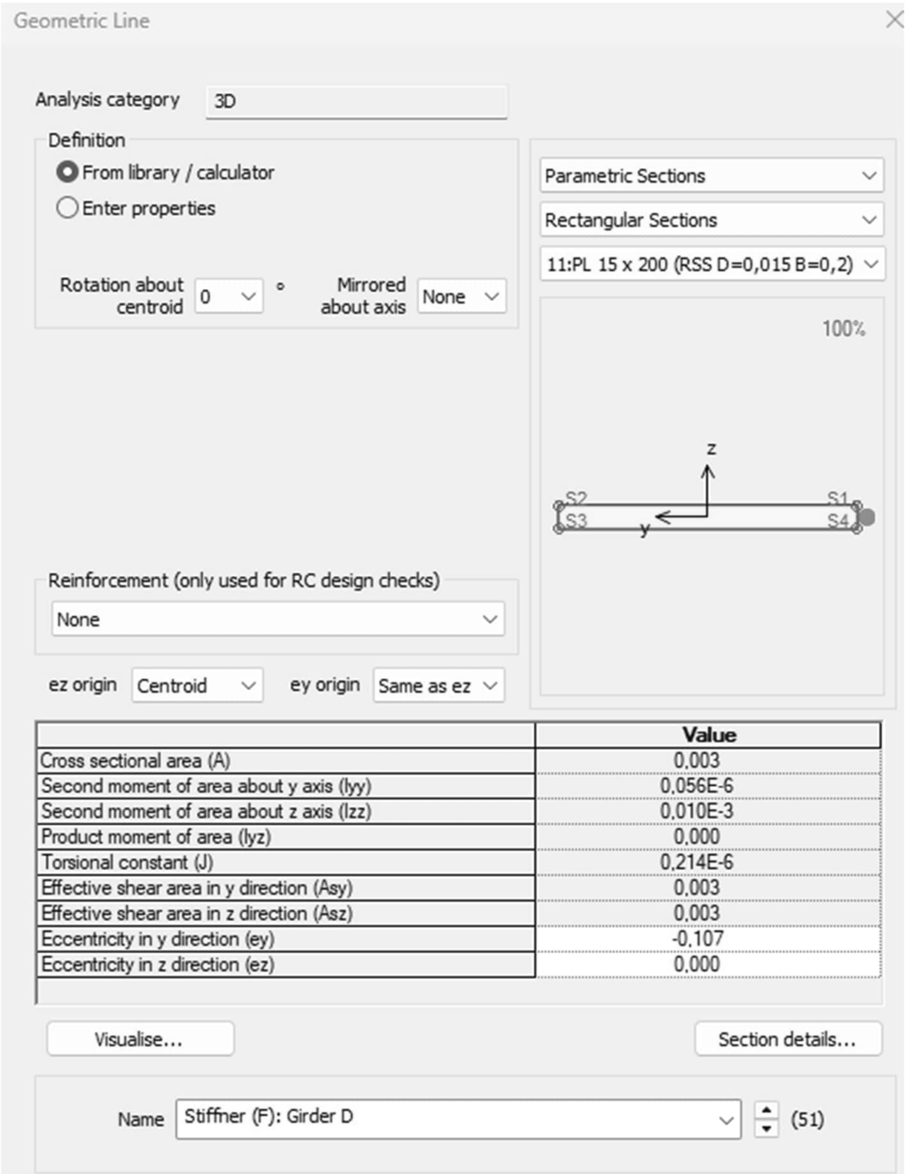
$e_y = \pm 0.5 \cdot (b + t_w) = \pm\, 0.5 \cdot\, (200\text{ mm} + 14\text{ mm}) = \pm\, 107\text{ mm}.$



Stiffener(F) – Girders D:

A beam (PL 15 x 200) is placed eccentrically (e_y) as seen below.

$e_y = -0.5 \cdot (b + t_w) = -0.5 \cdot (200\text{ mm} + 14\text{ mm}) = -107\text{ mm}.$

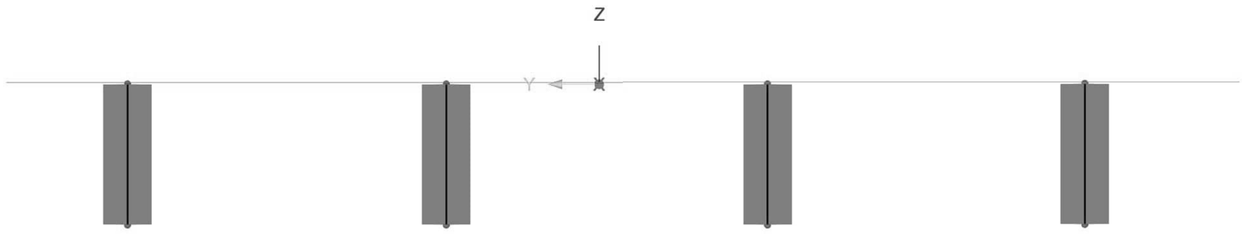


	Value
Cross sectional area (A)	0,003
Second moment of area about y axis (Iyy)	0,056E-6
Second moment of area about z axis (Izz)	0,010E-3
Product moment of area (Iyz)	0,000
Torsional constant (J)	0,214E-6
Effective shear area in y direction (Asy)	0,003
Effective shear area in z direction (Asz)	0,003
Eccentricity in y direction (ey)	-0,107
Eccentricity in z direction (ez)	0,000

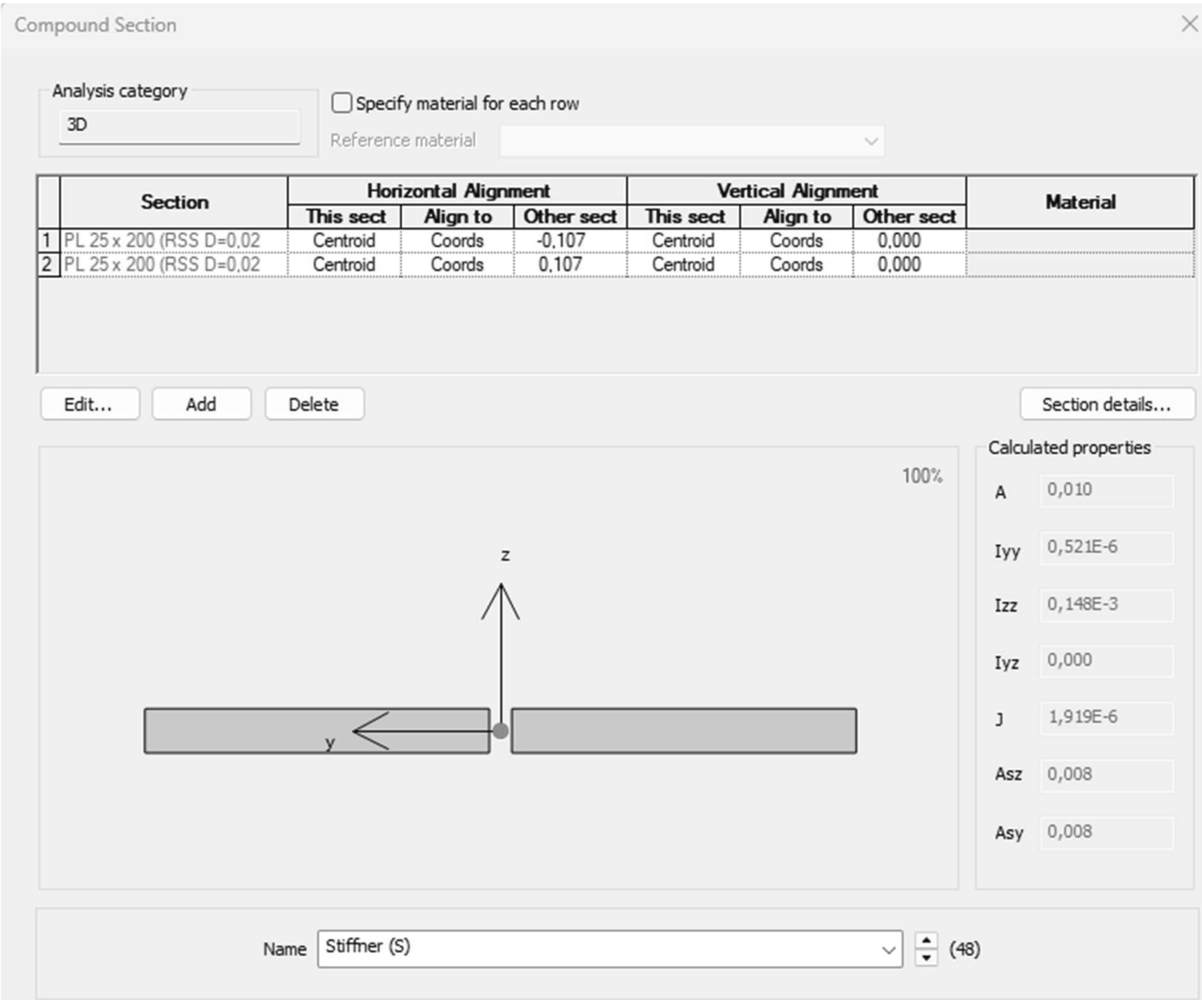
2.4.2.6 Stiffeners (S)

At locations of every bracing type S, identical stiffeners used. These consists of 2 identical beams (PL 25 x 200) placed eccentrically (e_y) as seen below.

$e_y = \pm 0.5 \cdot (b + t_w) = \pm\, 0.5 \cdot\, (200\ \text{mm} + 14\ \text{mm}) = \pm\, 107\ \text{mm}.$



Stiffner (S): Girder A Stiffner (S): Girder B Stiffner (S): Girder C Stiffner (S): Girder D



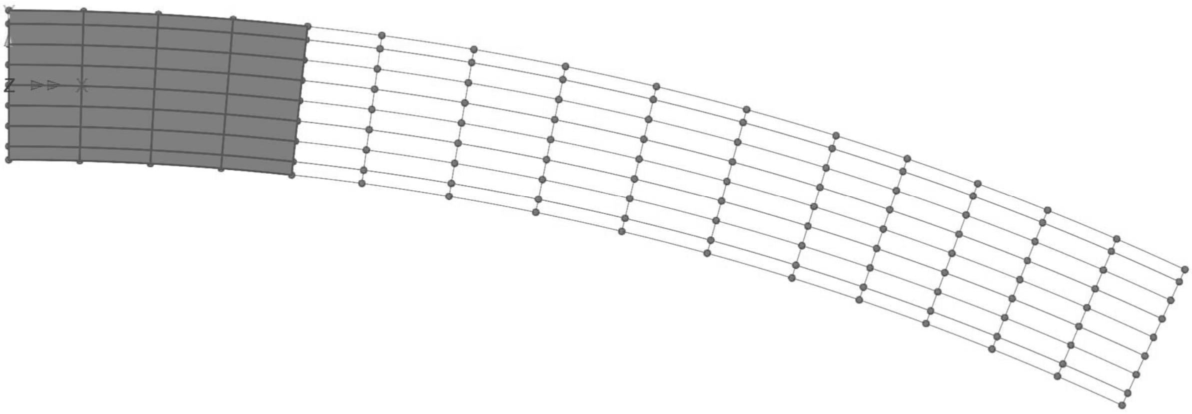
2.5 CASTING STAGES

There are a total of 5 construction and 2 operational stages. In the different phases the roadway is activated/deactivated. Changes are made in relation to system 7 (Base Analysis).

This is handled by applying “Deactivate” in the applicable phases. When applied to a static system, allocation must be made for each individual load case.

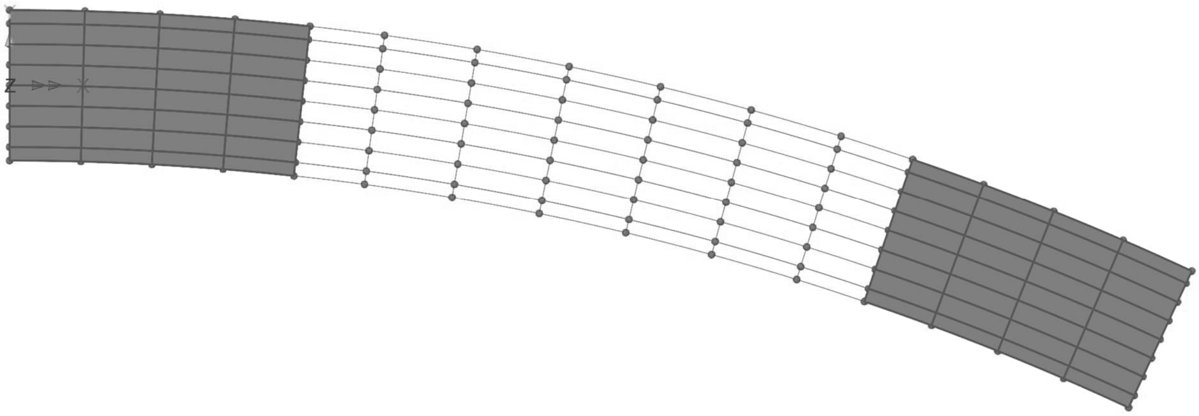
2.5.1 *Analysis 1 (Stage I)*

Deactivate : Stage II-V



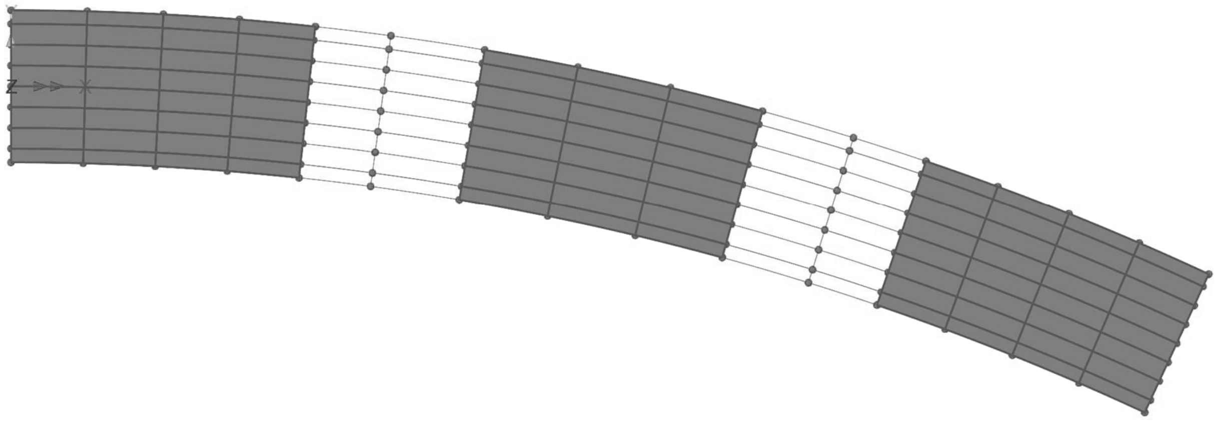
2.5.2 *Analysis 2 (Stage II)*

Deactivate : Stage III-V



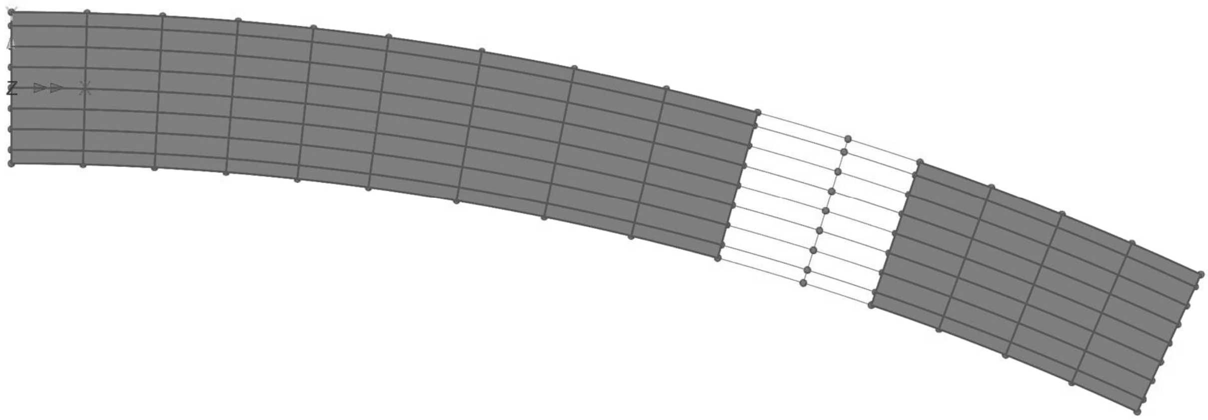
2.5.3 *Analysis 3 (Stage III)*

Deactivate : Stage IV-V



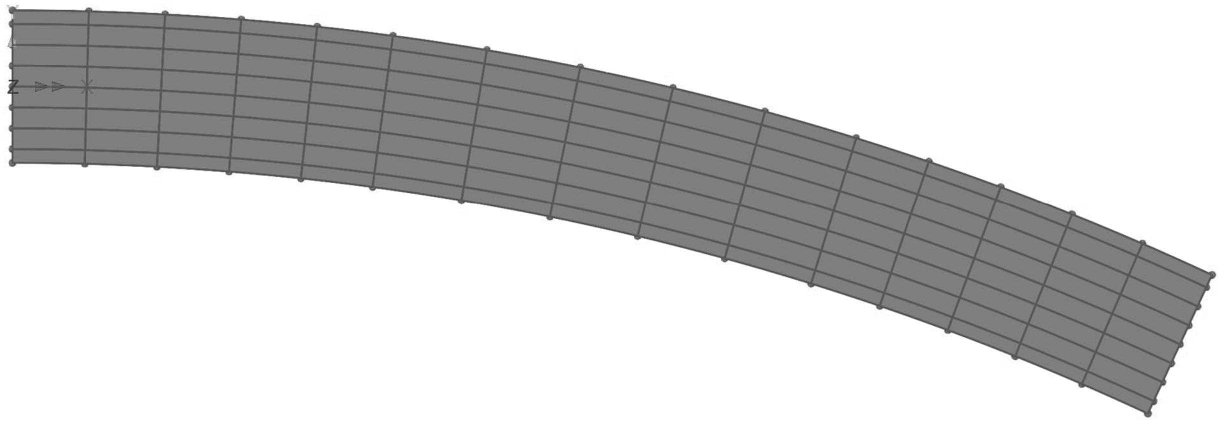
2.5.4 *Analysis 4 (Stage 4)*

Deactivate : Stage V



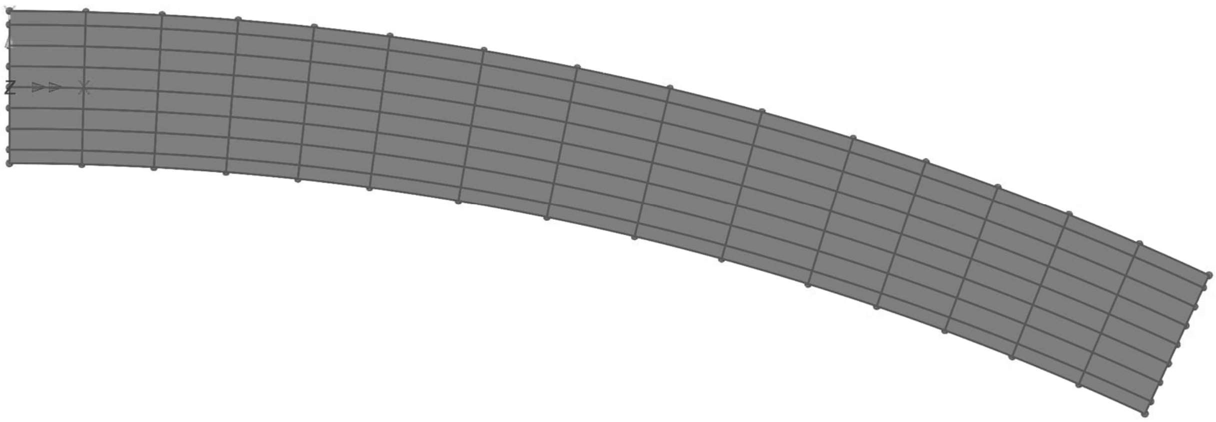
2.5.5 *Analysis 5 (Stage 5)*

Deactivate : None



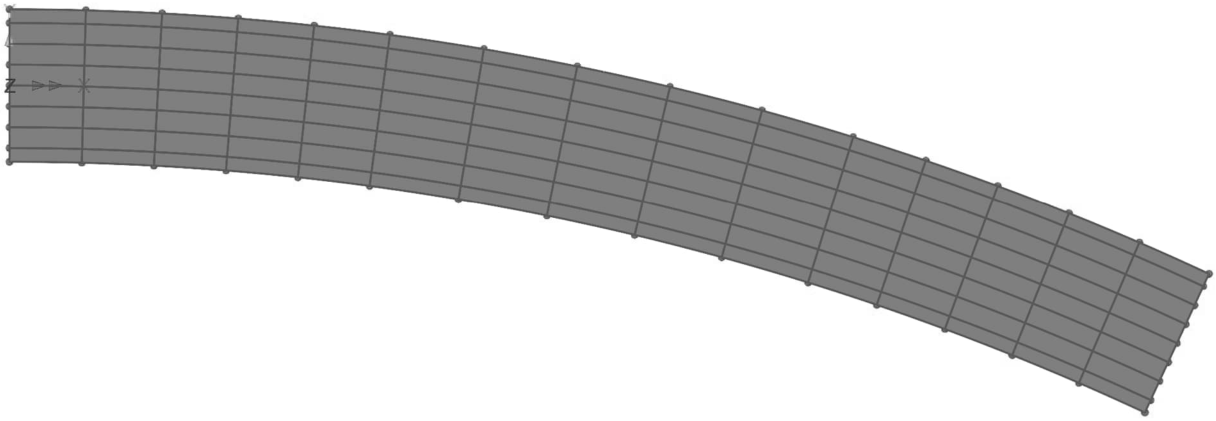
2.5.6 *Analysis 6 (O:PERM)*

Deactivate : None



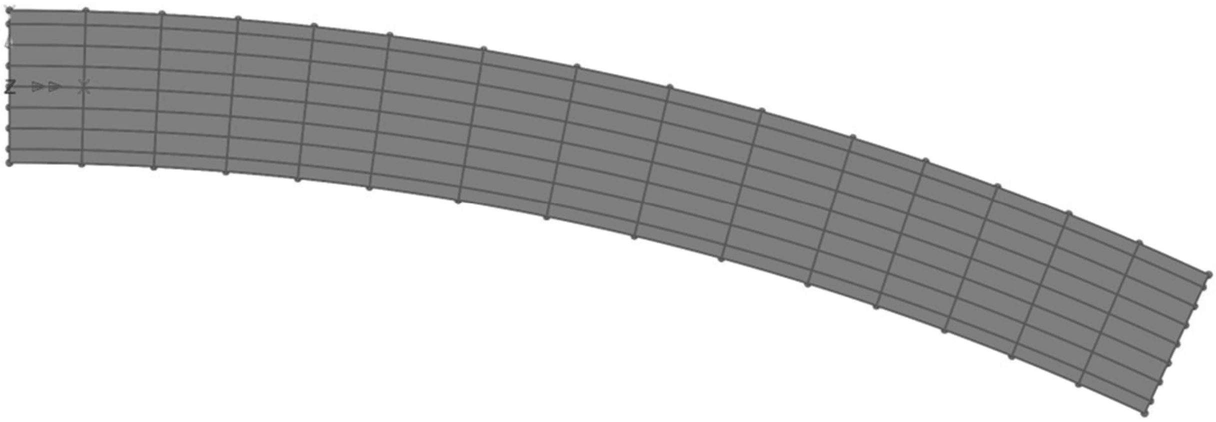
2.5.7 *Analysis 7 (O:VAR)*

Deactivate : None



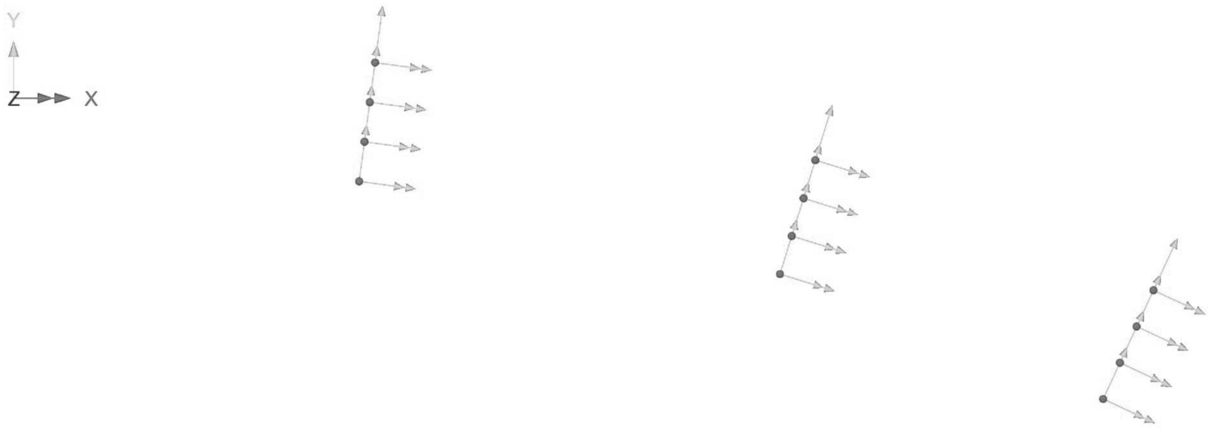
2.5.8 *Analysis 8 (O:TEMP)*

Deactivate : None



2.6 LOCAL COORDINATE SYTEM

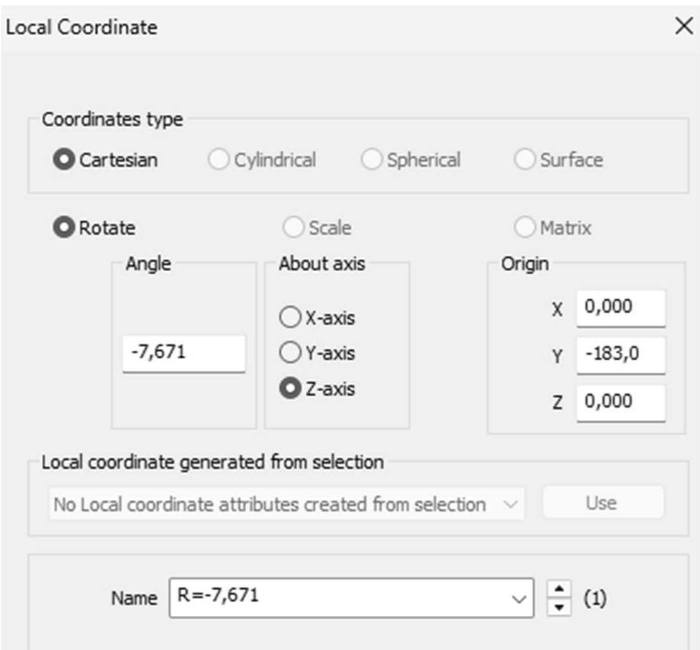
When assigning loads and boundary conditions, local coordinate systems are used at each support line as described below.



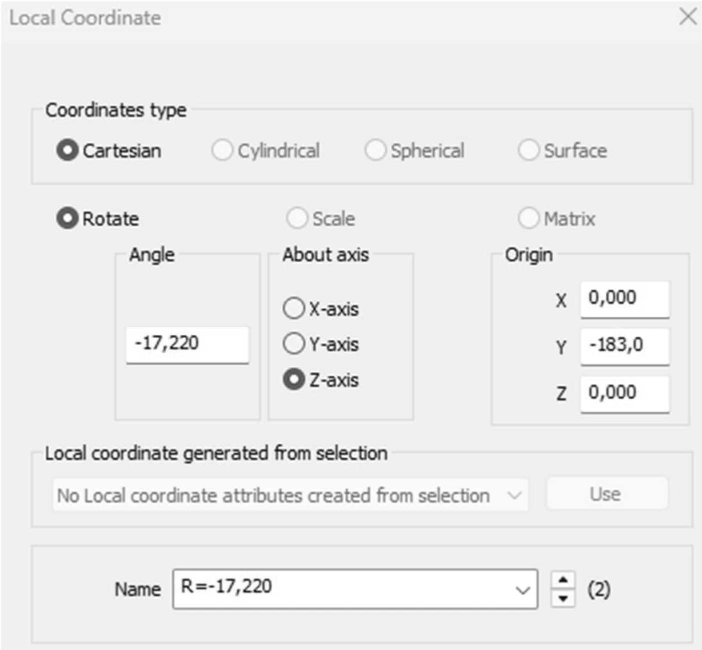
2D Overview

Coordinate system at support 1:
Global coordinate system

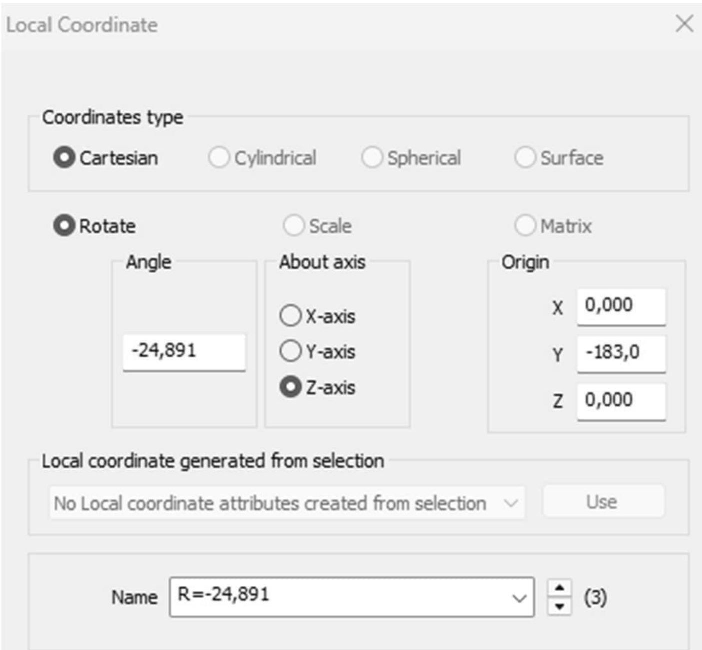
Coordinate system at support 2:



Coordinate system at support 3:



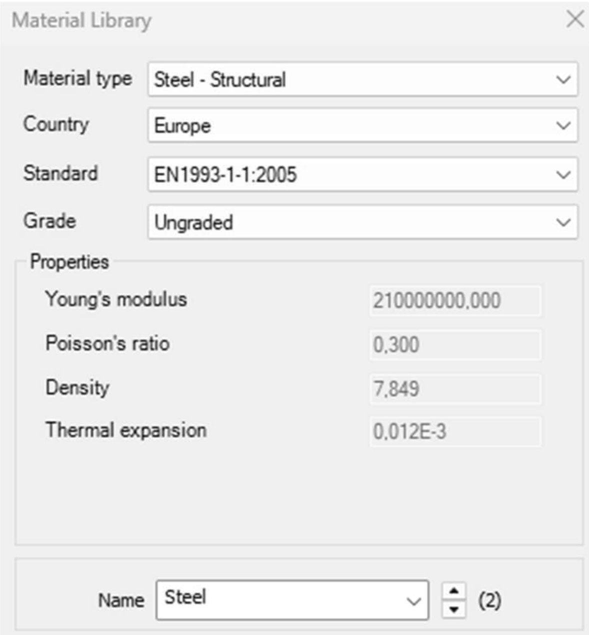
Coordinate system at support 4:



2.7 MATERIAL

2.7.1 Steel

Steel : $E_s = 210$ GPa



2.7.2 Concrete

In total, there are 7 stages, of which 5 are construction and 2 are operational stages. Considering this, the material properties of concrete deck vary.

Used concrete C35/45: E_{cm} = 34.0 GPa

There several types of concrete as seen in table below. In system analysis to determine load effects only types 3, 5 & 7 are considered.

Type	E	Stage	ϕ	ψ_L	Cross section	Load
1	0[1.)]	Constructional	-	-	Wet	Permanent loads
2	34.0[2.)]	Constructional	0	1.0[3.)]	Uncracked	Permanent loads
3	11.3	Operational	2.0	1.0[3.)]	Uncracked	Permanent loads excl. shrinkage
4	11.3	Operational	2.0	1.0[3.)]	Uncracked	Shrinkage
5	34.0	Operational	0	1.0[3.)]	Uncracked	Variable loads excl. temperature
6	26.2	Operational	0.3	1.0[3.)]	Uncracked	Variable excl. temperature
7	0[1.)]	Operational	-	1.0[3.)]	Cracked	All loads
-	GPa	-	-	-	-	-

Footnote:

1.) Instead, a negligible stiffness is used E_{cm}/1000. The effect of reinforcement is <u>not</u> considered when determining load effects in system analysis.

2.) Loads associated to permanent load will also act during operational stage, thus Young´s modulus associated to type 3 is used during system analysis.

3.) Used on safe side in example.

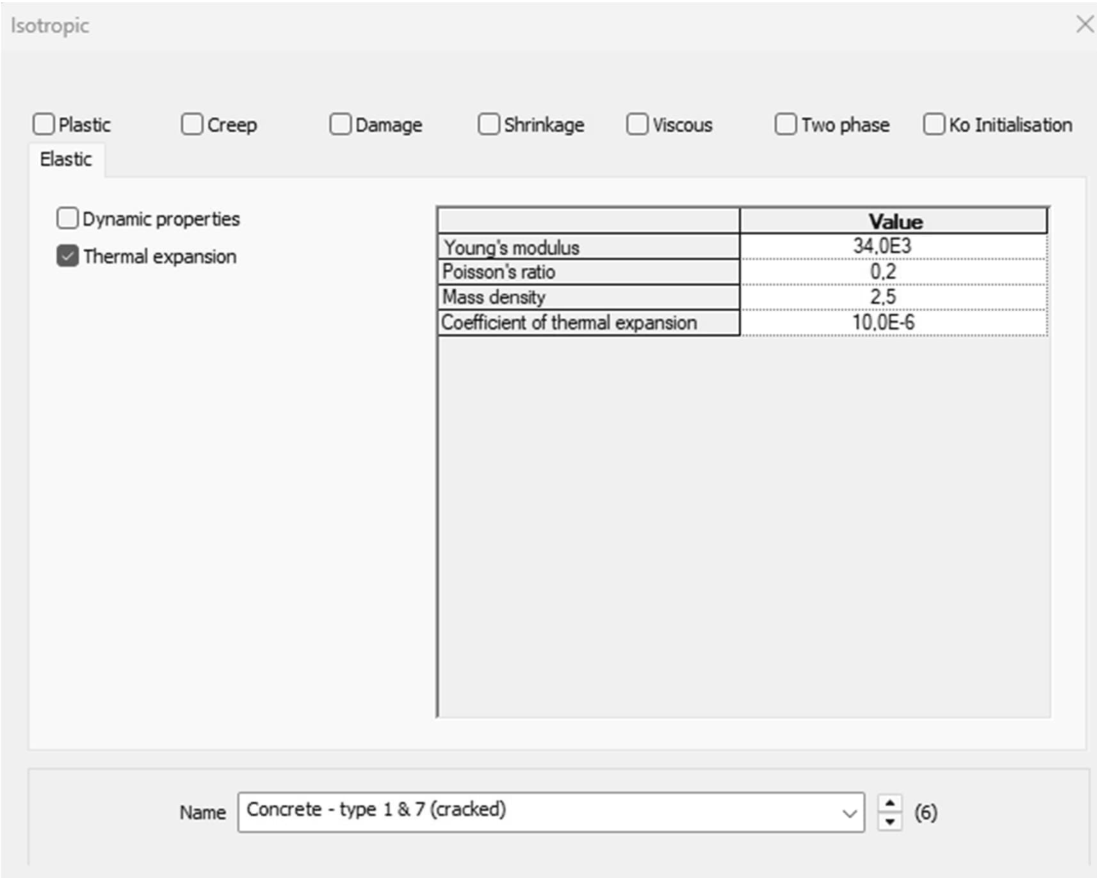
Remark

The effect of rebars and types 4 & 6 will only be considered when applying loads and determining resistance according SS-EN 1994-1.

2.7.2.1 Material : Wet & cracked concrete

The isotropic concrete has negligible stiffness (E_{cm}/1000), corresponding to material properties associated to concrete type 1& 7.

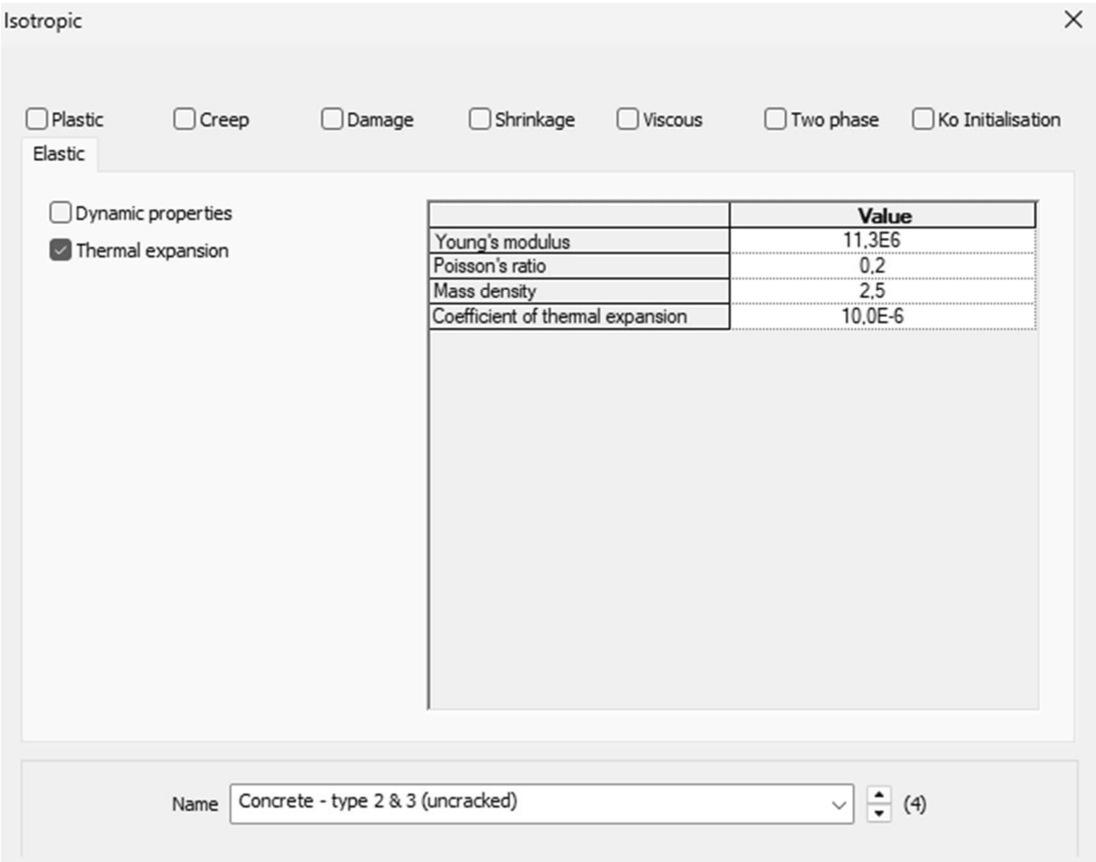
$E = E_{cm}/ 1000 = 34 \cdot 10^6$ kPa / 1000 = $34 \cdot 10^3$ kPa



2.7.2.2 Material : Uncracked concrete - permanent loads

The isotropic concrete material properties associated to concrete type 2 & 3.

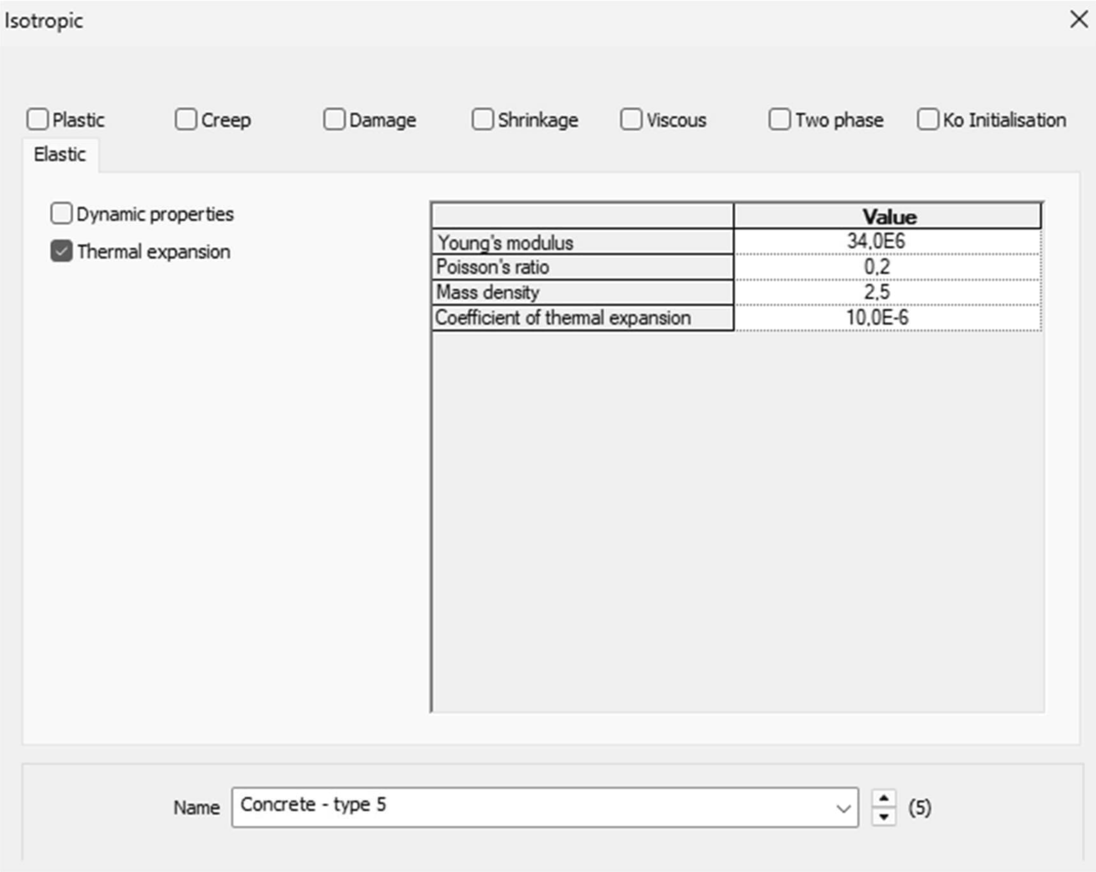
$E = E_{cm}/(1+\psi_L \cdot \phi) = 34 \cdot 10^6$ kPa / $(1+1.0 \cdot 2.0) = 11.3 \cdot 10^6$ kPa



2.7.2.3 Material : Uncracked concrete - variable loads excl. temperature

The isotropic concrete material properties associated to concrete type 5.

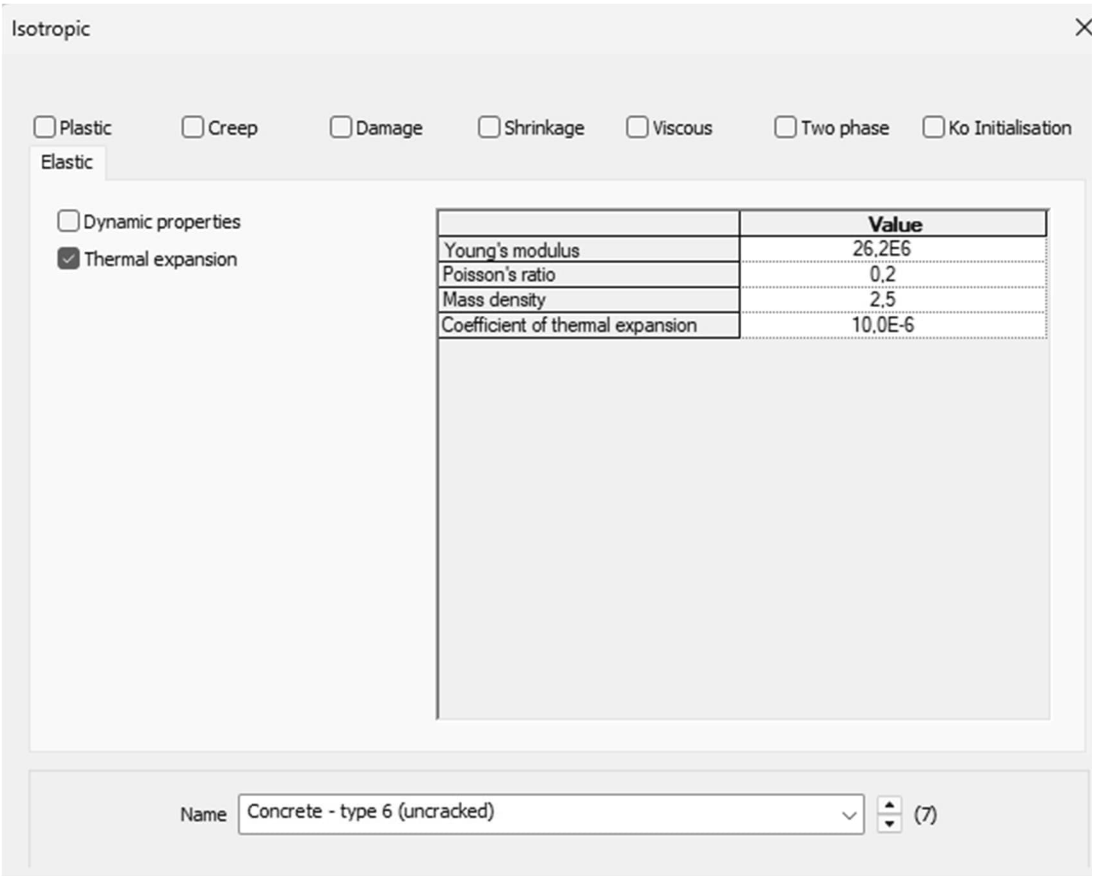
$E = E_{cm}/ (1+\psi_L \cdot \phi) = 34 \cdot 10^6$ kPa / (1+ 0) = $34.0 \cdot 10^6$ kPa



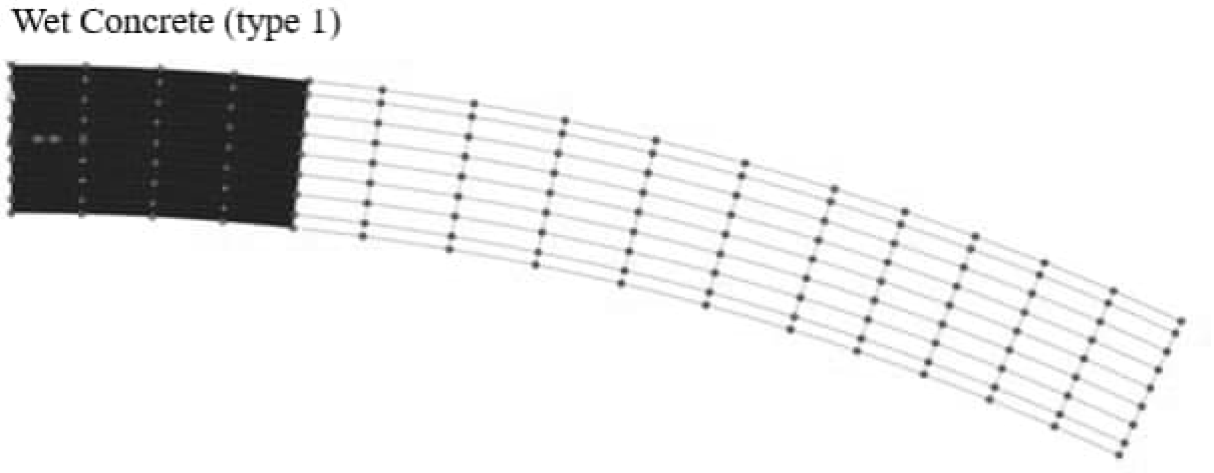
2.7.2.4 Material : Uncracked concrete - temperature

The isotropic concrete material properties associated to concrete type 6.

$E = E_{cm}/(1+\psi_L \cdot \phi) = 34 \cdot 10^6 \text{ kPa} / (1+ 1.0 \cdot 0.3) = 26.2 \cdot 10^6 \text{ kPa}$

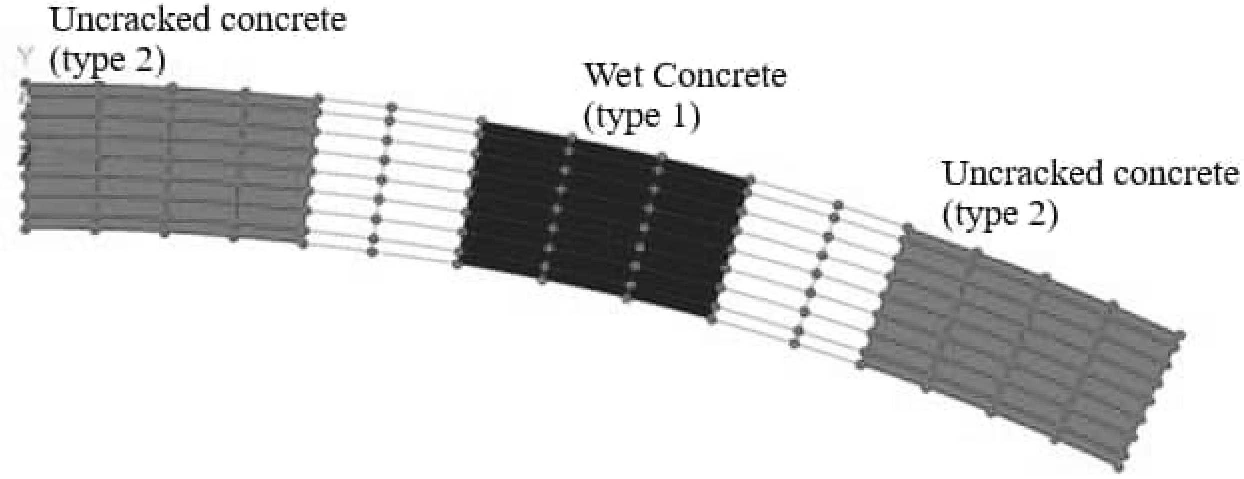


2.7.2.5 *Analysis 1 (Stage I)*

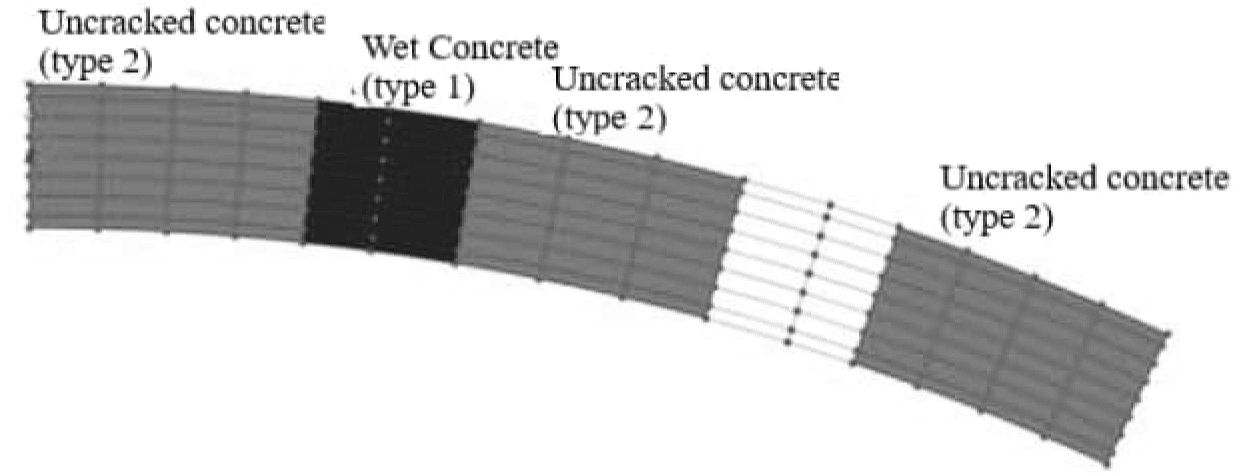


2.7.2.6 *Analysis 2 (Stage II)*

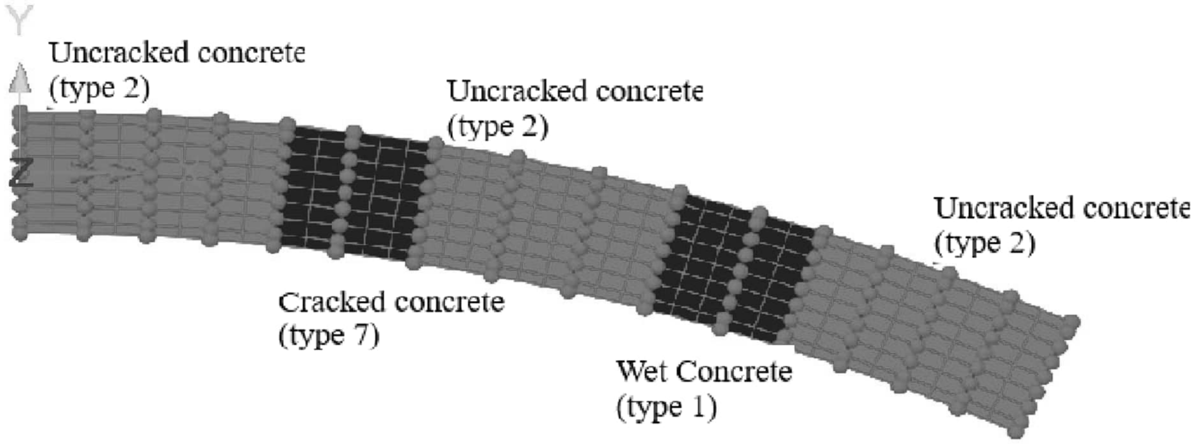
2.7.2.7 *Analysis 3 (Stage III)*



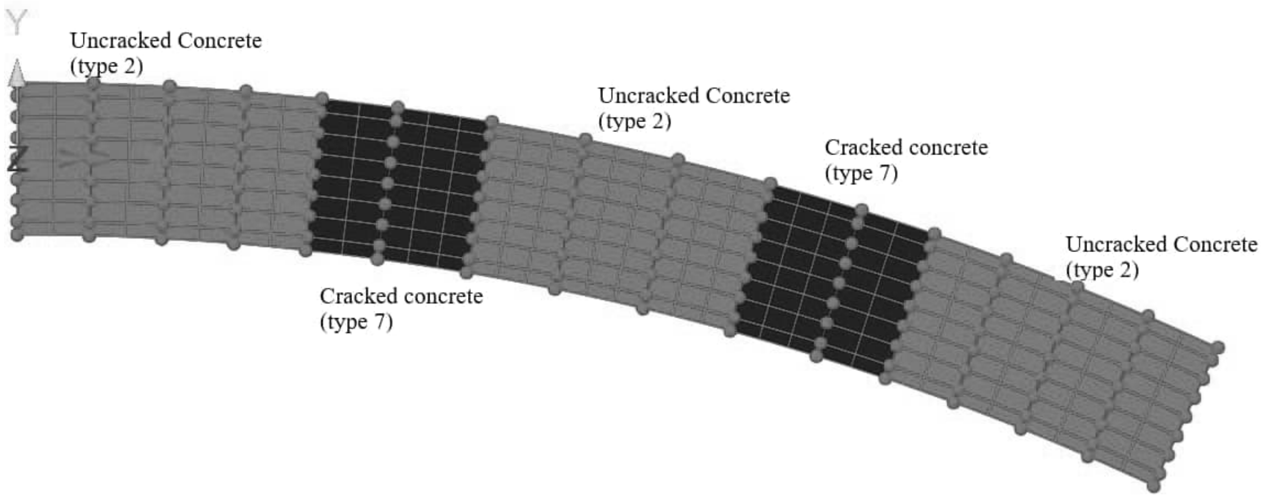
2.7.2.8 *Analysis 4 (Stage IV)*



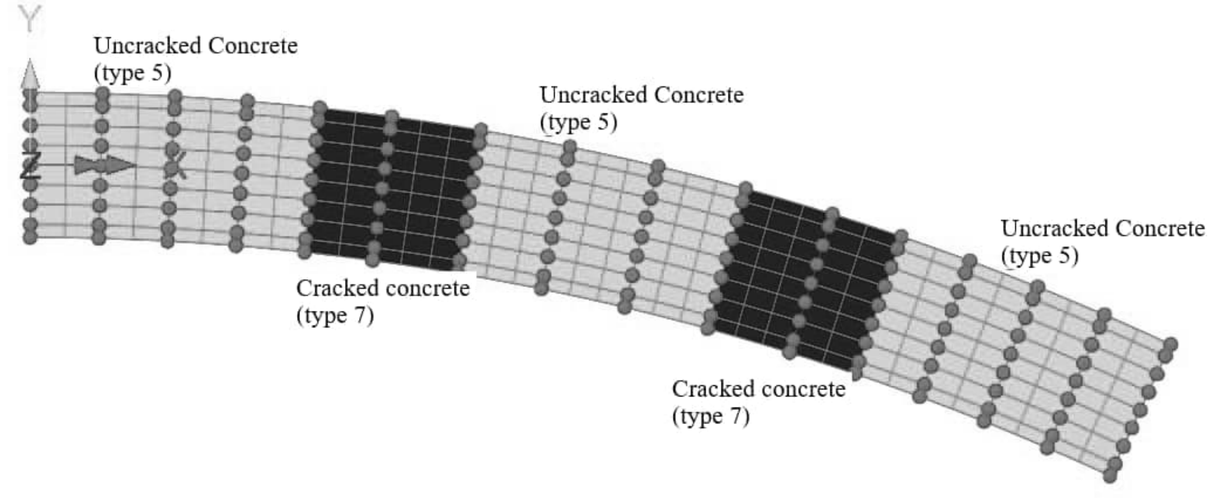
2.7.2.9 *Analysis 5 (Stage V)*



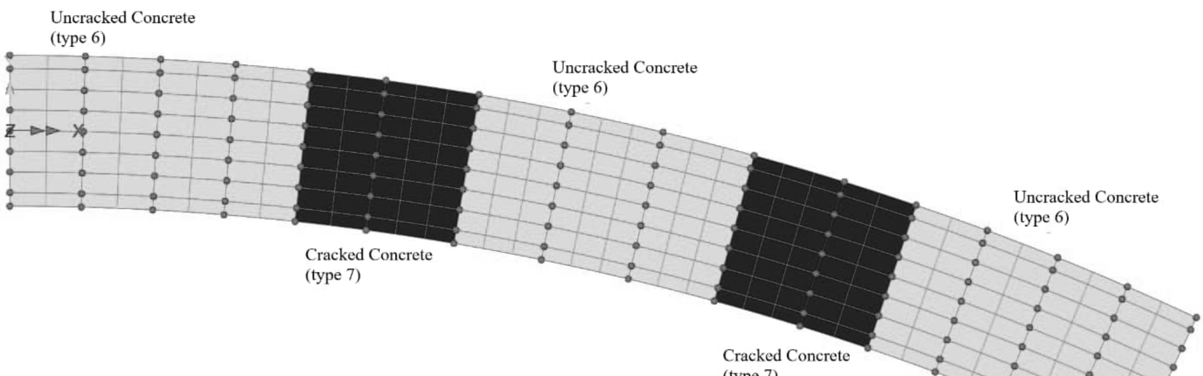
2.7.2.10 *Analysis 6 (O:PERM)*



2.7.2.11 *Analysis 7 (O:VAR)*

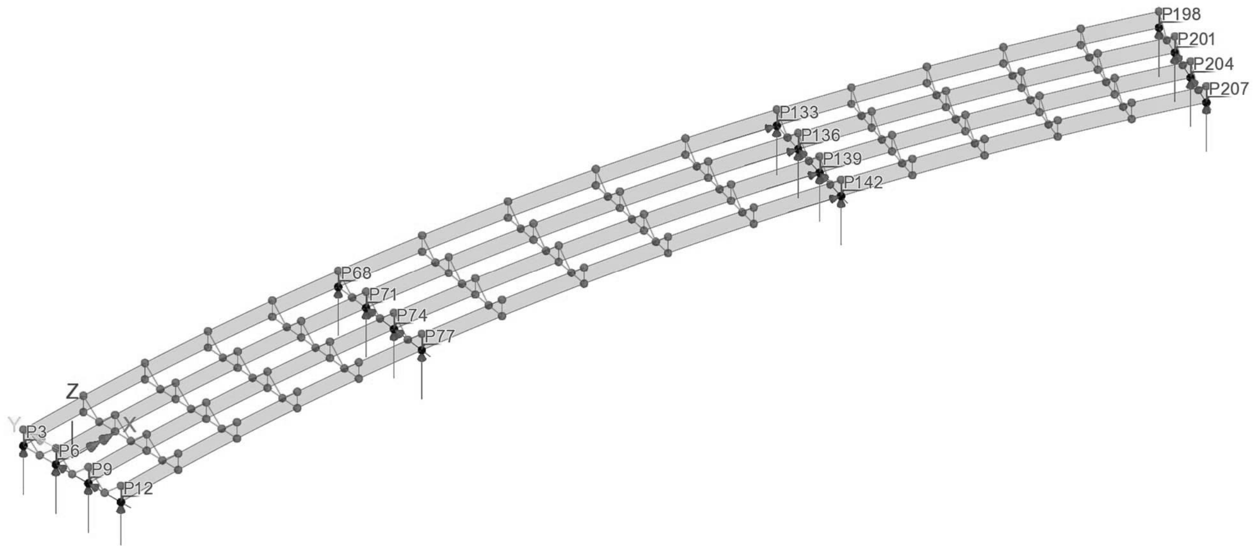


2.7.2.11 *Analysis 8 (O:TEMP)*



2.8 BOUNDARY CONDITIONS

At every support 4 bearings are defined as seen below. Support 3 is fixed in longitudinal direction.



Overview 3D

2.8.1 Bearings support 1

Girders

Girder number	Longitudinal support	Transverse support	Vertical support
1:A	☐	☐	☑
2:B	☐	☑	☑
3:C	☐	☑	☑
4:D	☐	☐	☑

2.8.2 Bearings support 2

Girders

Girder number	Longitudinal support	Transverse support	Vertical support
1:A	☐	☐	☑
2:B	☐	☑	☑
3:C	☐	☑	☑
4:D	☐	☐	☑

2.8.3 Bearings support 3

Girders

Girder number	Longitudinal support	Transverse support	Vertical support
1:A	☑	☐	☑
2:B	☑	☑	☑
3:C	☑	☑	☑
4:D	☑	☐	☑

2.8.4 Bearings support 4

Girders

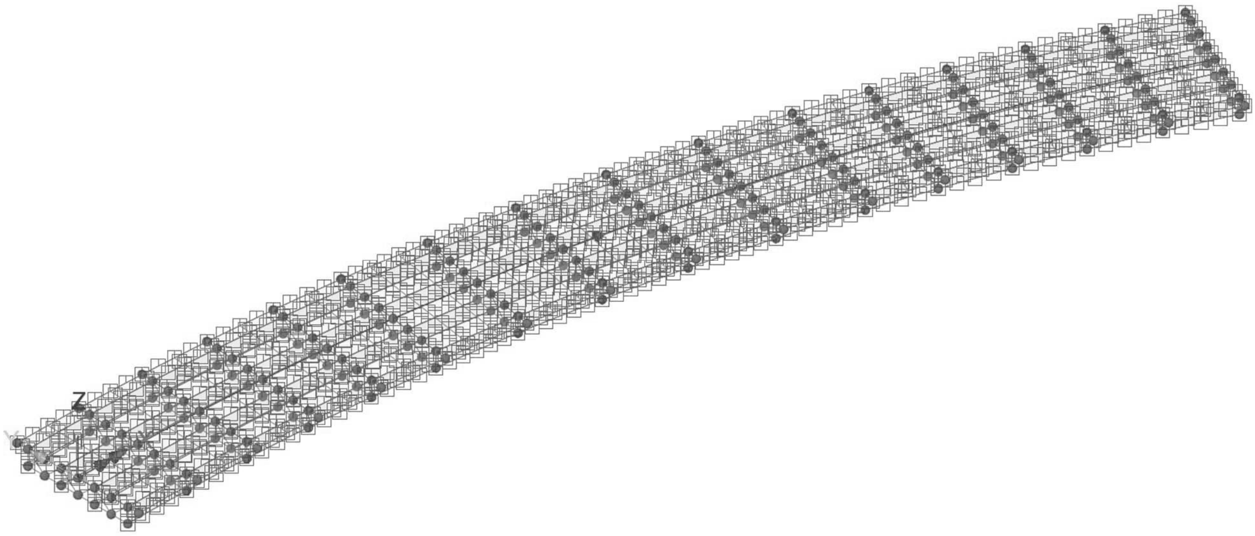
Girder number	Longitudinal support	Transverse support	Vertical support
1:A	☐	☐	☑
2:B	☐	☑	☑
3:C	☐	☑	☑
4:D	☐	☐	☑

2.9 SEARCH AREA

Discrete load can be applied to structure as geometrical load areas. In static model load areas are termed *Search Area.*

Deck:

-

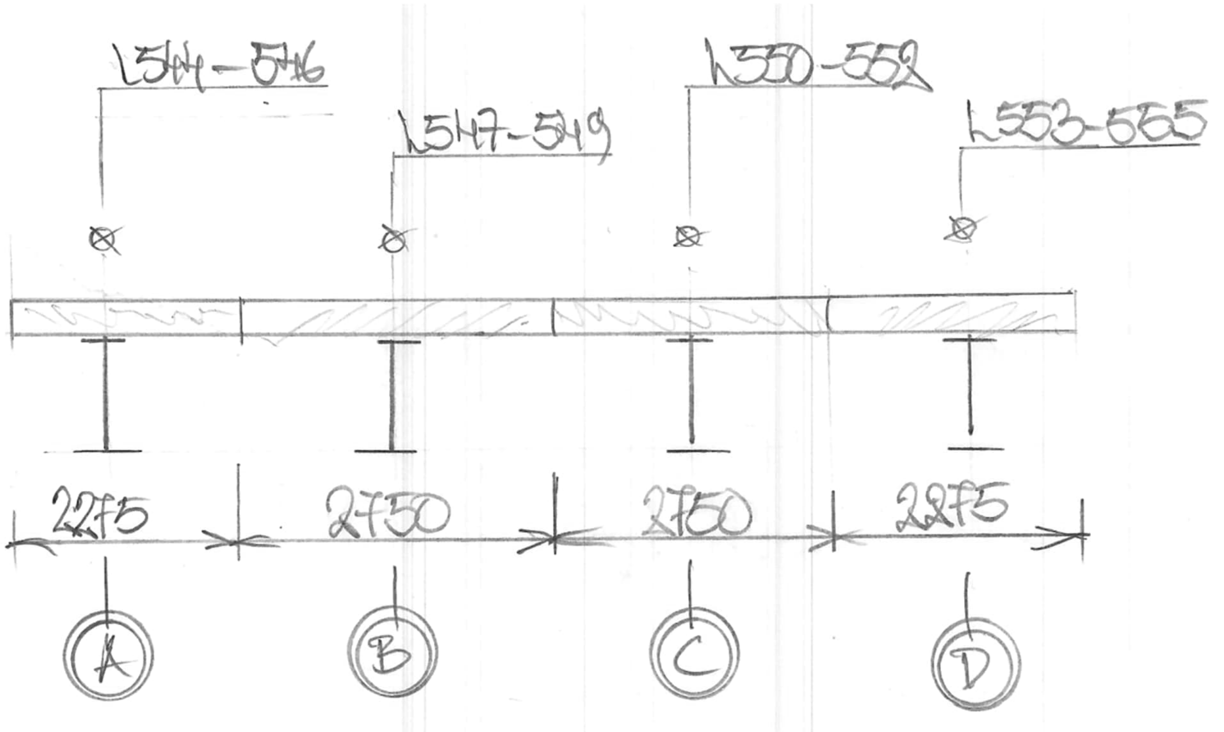


2.10 SLICE RESULTANTS BEAMS/SHELLS

Equivalent section forces will be determined at 4 sub-points for each main beam. This is done by studying load effects in the Nodal surface and Nodal line for the respective girder.

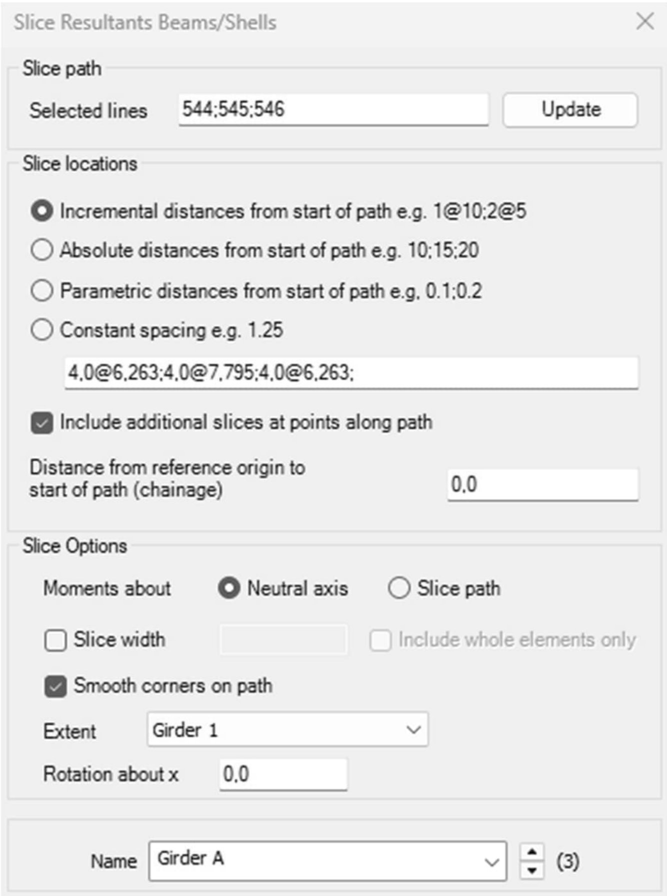
STACTIC MODELL has a script called "Slice Resultant Beams/Shells" to handle this, see the presentation below.

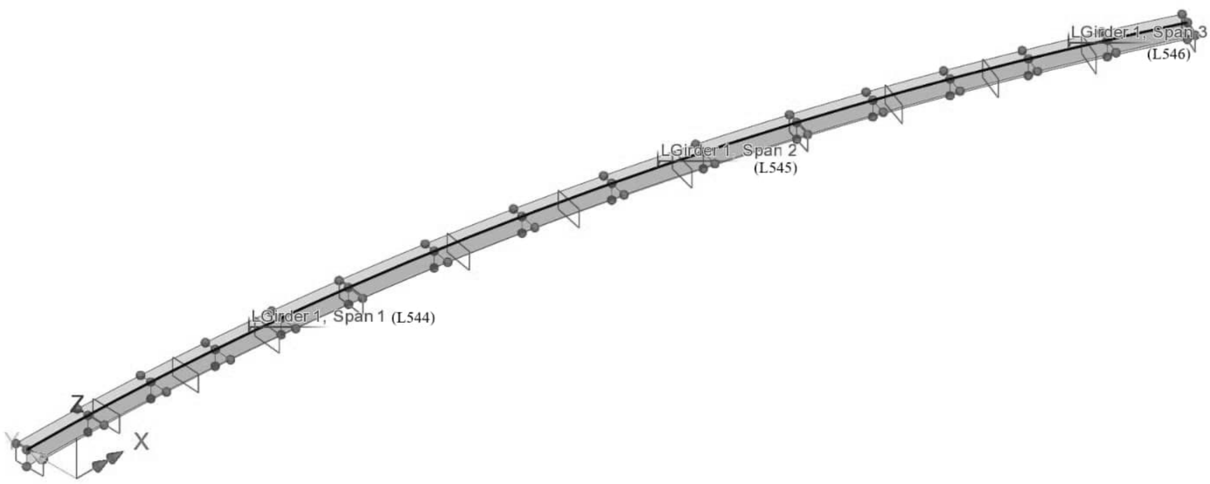
Grider	Path line	Width (b_c)	Extent
A	L544, L545, L546	2.275	Group ”Girder A”
B	L547, L548, L549	2.750	Group ”Girder B”
C	L550, L551, L552	2.750	Group ”Girder C”
D	L553, L554, L555	2.275	Group ”Girder D”
-	-	m	-



2.10.1 Slice beam: Girder A

Span 1: 25.052 m = 4 x 6.263 m;
Span 2: 31.184 m = 4 x 7.796 m
Span 3: 25.052 m = 4 x 6.263 m

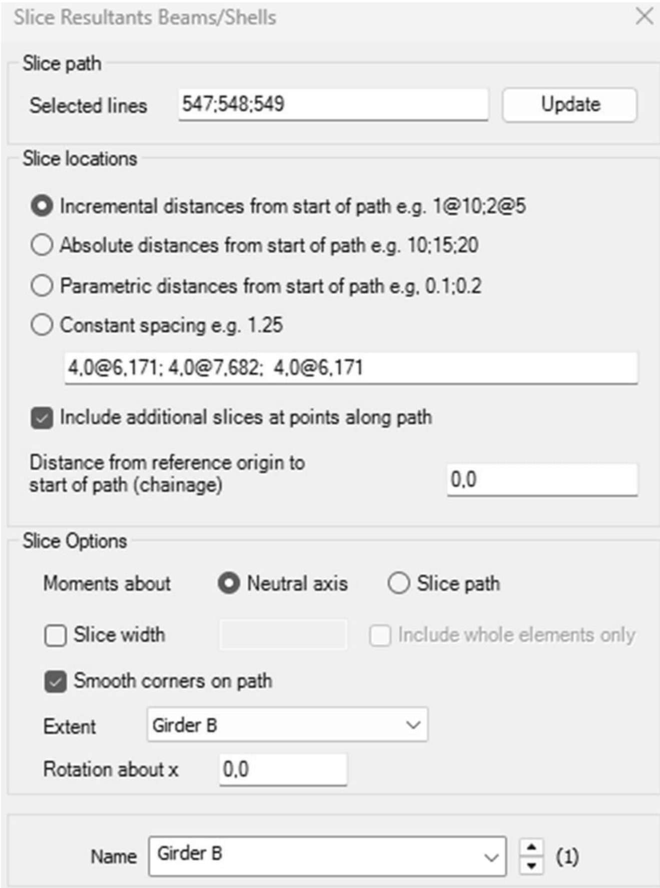


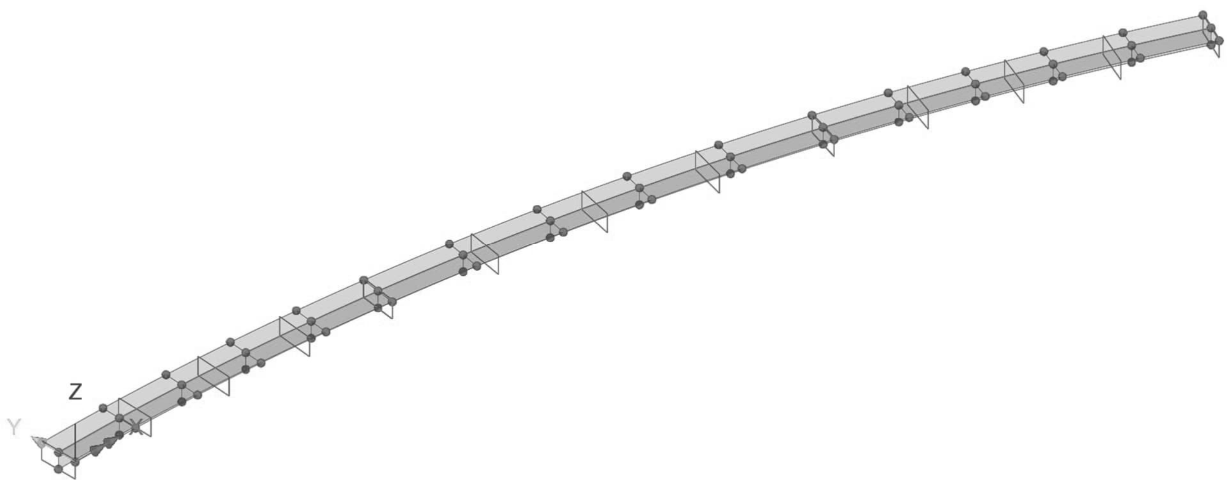


OVERVIEW

2.10.2 Slice beam: Girder B

Span 1: 24.684 m = 4 x 6.171 m
Span 2: 30.728 m = 4 x 7.682 m
Span 3: 24.484 m = 4 x 6.171 m

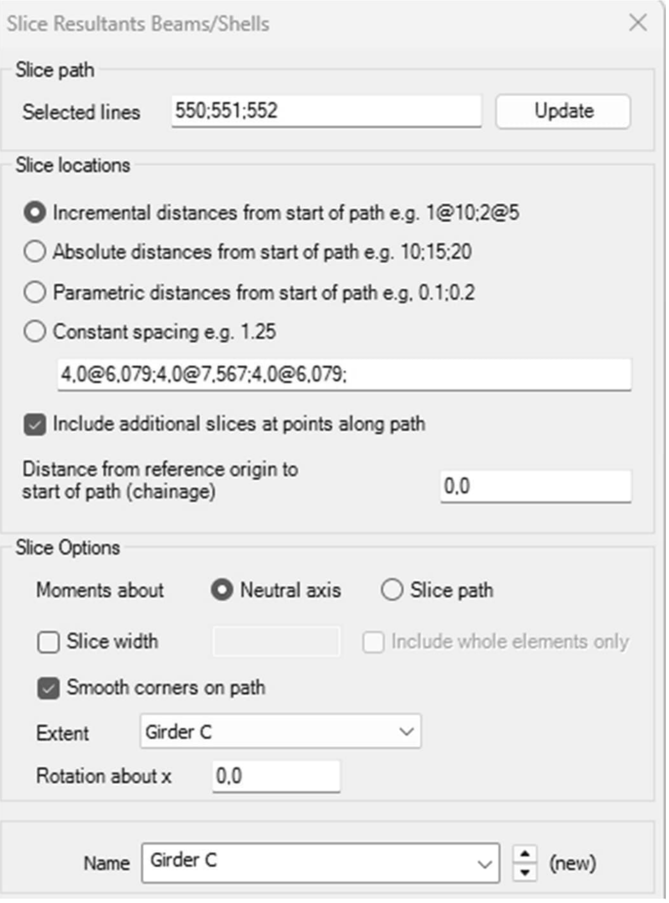


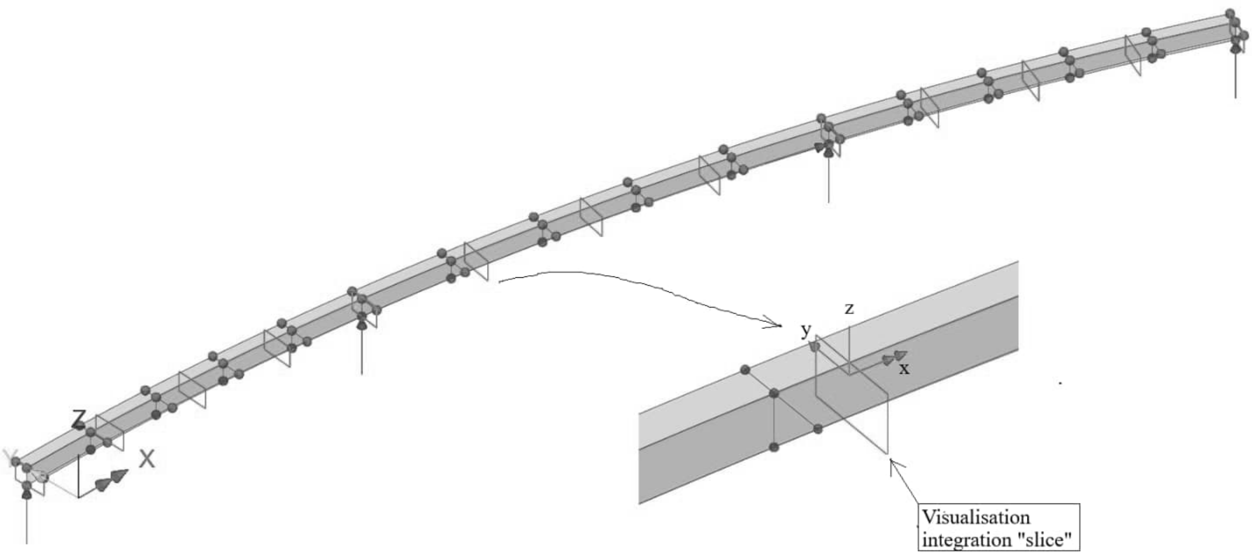


OVERVIEW

2.10.3 Slice beam: Girder C

Span 1: 24.316 m = 4 x 6.079 m
Span 2: 30.268 m = 4 x 7.567 m
Span 3: 24.316 m = 4 x 6.079 m

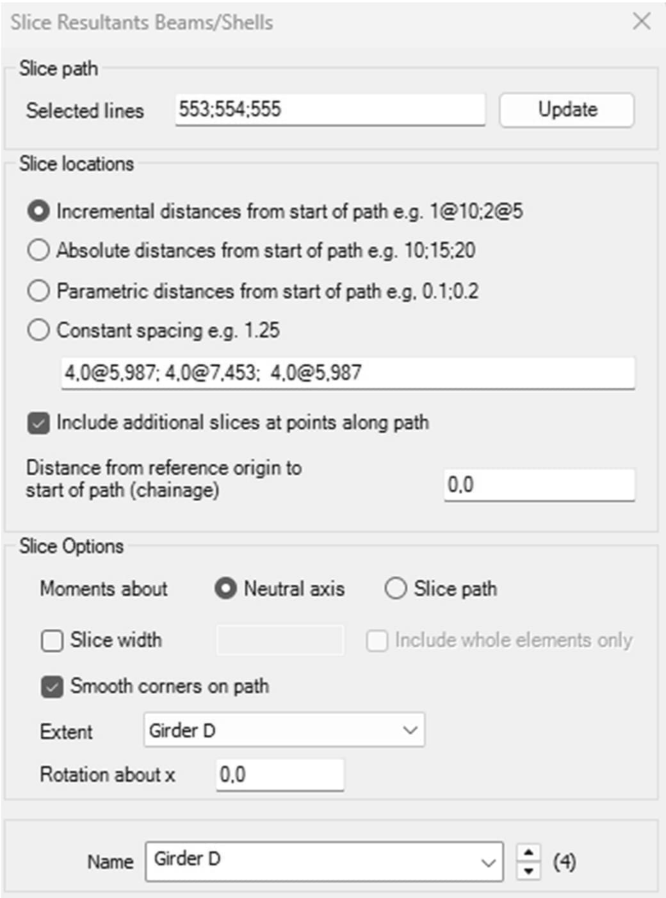


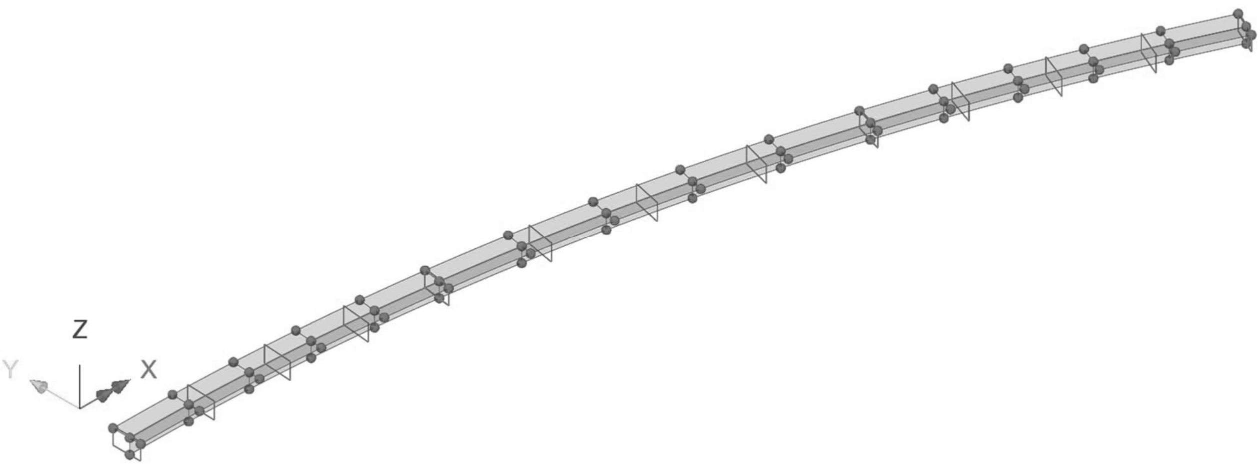


OVERVIEW

2.10.4 Slice beam: Girder D

Span 1: 23.948 m = 4 x 5.987 m
Span 2: 29.812 m = 4 x 7.453 m
Span 3: 23.948 m = 4 x 5.987 m





OVERVIEW

2.11 FLANGE WIDTH

Flange width is determined by SS-EN 1992-1-1 section 5.3.2.1.

No reduction cross section is considered ($\therefore\ b_{ef} \equiv b$).

3. LOADS

This worked example is only intended to illustrate software, thus the number of loads are simplified, thus only dead weight, surfacing, creep, shrinkage and traffic load is considered. (The effect of formwork is not considered in this example.)

3.1 DEAD WEIGHT

The dead weight is either steel structure or concrete deck. Densities below are applied.

$\gamma_c = 25 \cdot \frac{kN}{m^3}$: concrete

$\gamma_s = 77 \cdot \frac{kN}{m^3}$: steel

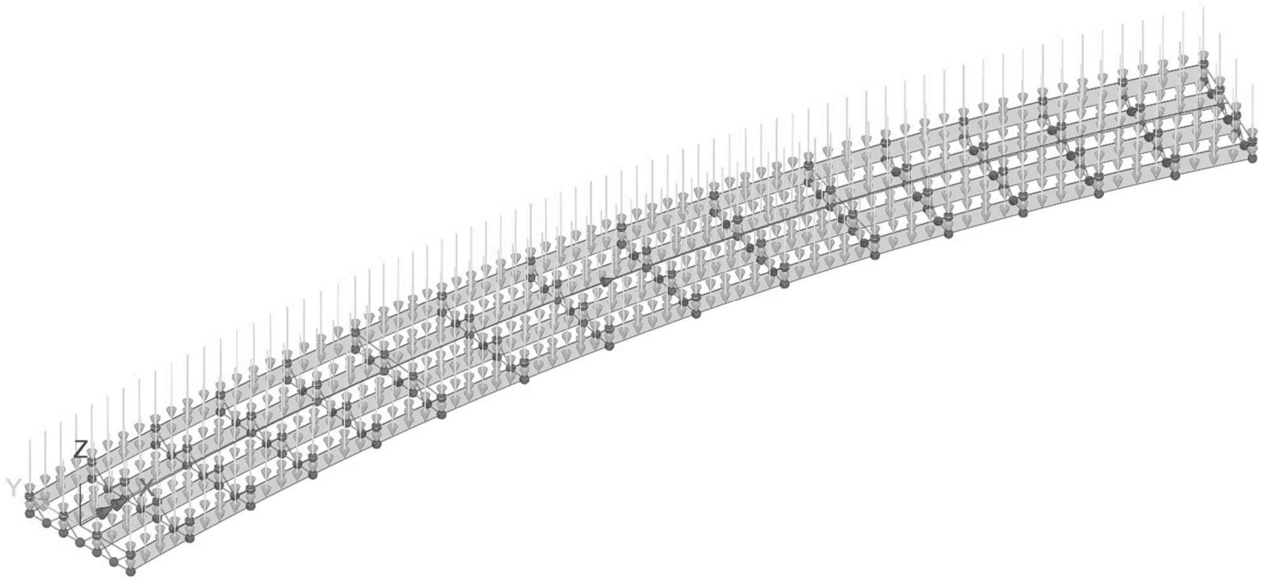
3.1.1 Steel structure (DEAD 1:1)

Load case : DEAD 1:1

Analysis: Analysis 1 (STAGE I)

Structural loading : Body force

Linear acceleration in Z (a_z) : -10 $\frac{m}{s^2}$



Overview 3D

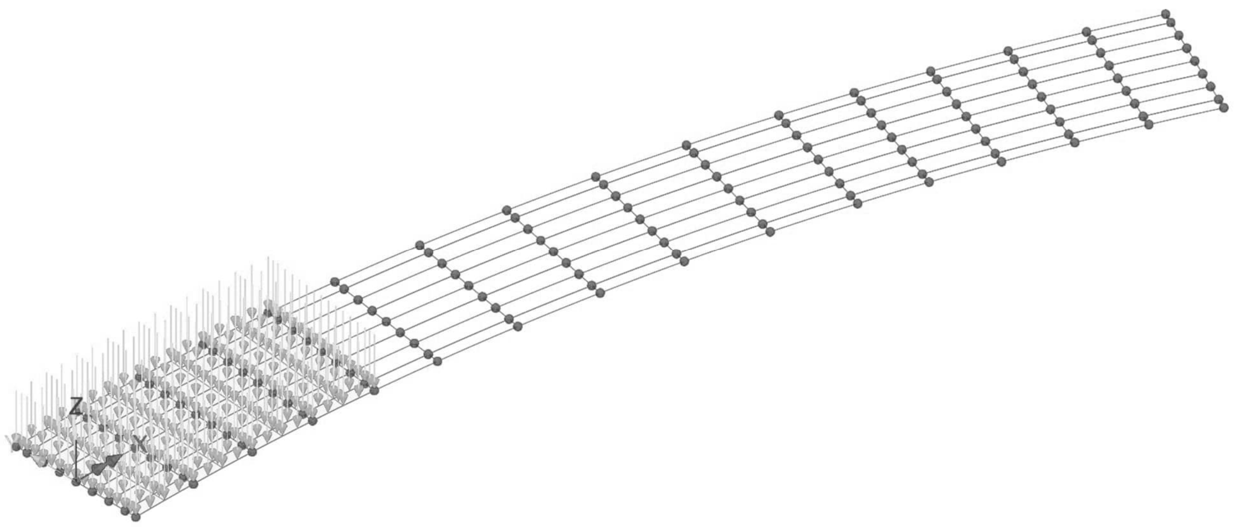
3.1.2 Concrete stage I (DEAD 2:1)

Load case : DEAD 2:1

Analysis: Analysis 1 (STAGE I)

Structural loading : Body force

Linear acceleration in Z (a_z) : -10 $\frac{m}{s^2}$



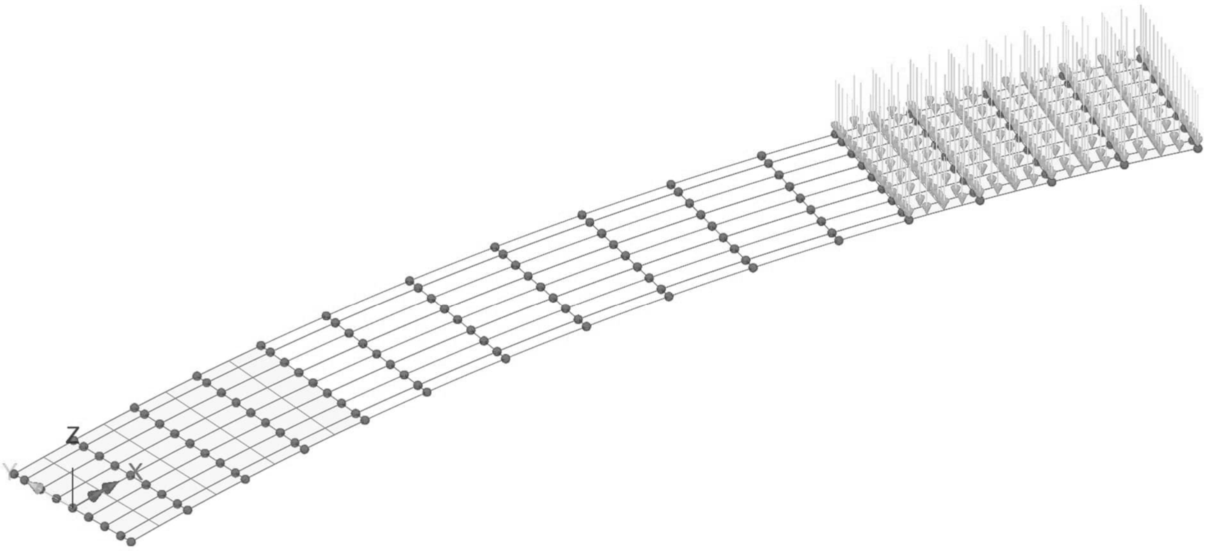
3.1.3 Concrete stage II (DEAD 2:2)

Load case : DEAD 2:2

Analysis: Analysis 2 (STAGE II)

Structural loading: Body force

Linear acceleration in Z (a_z) : -10 $\frac{m}{s^2}$



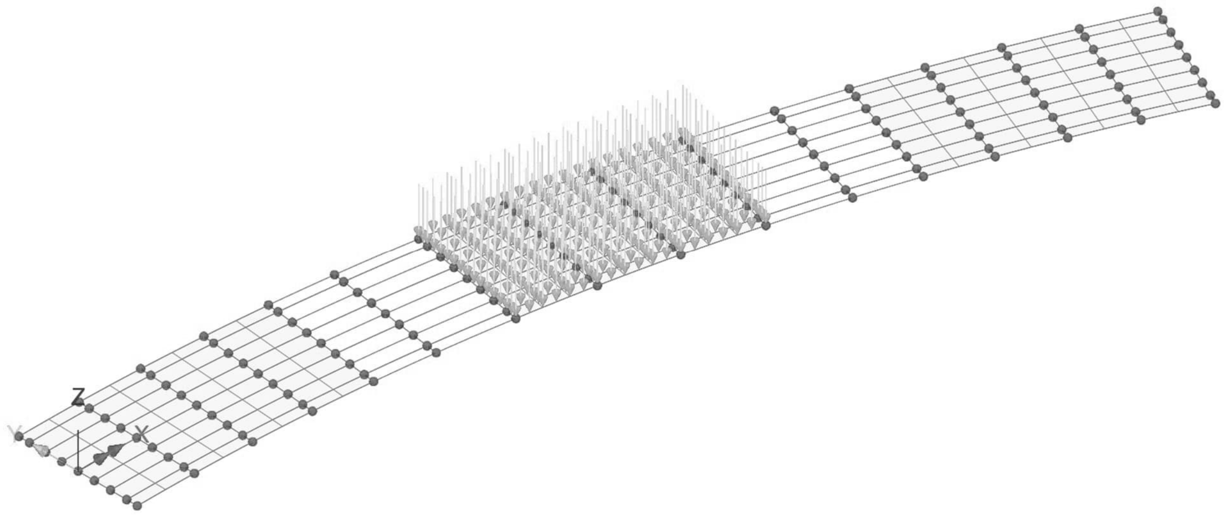
3.1.4 Concrete stage III (DEAD 2:3)

Load case : DEAD 2:3

Analysis: Analysis 3 (STAGE III)

Structural loading: Body force

Linear acceleration in Z (a_z) : -10 $\frac{m}{s^2}$



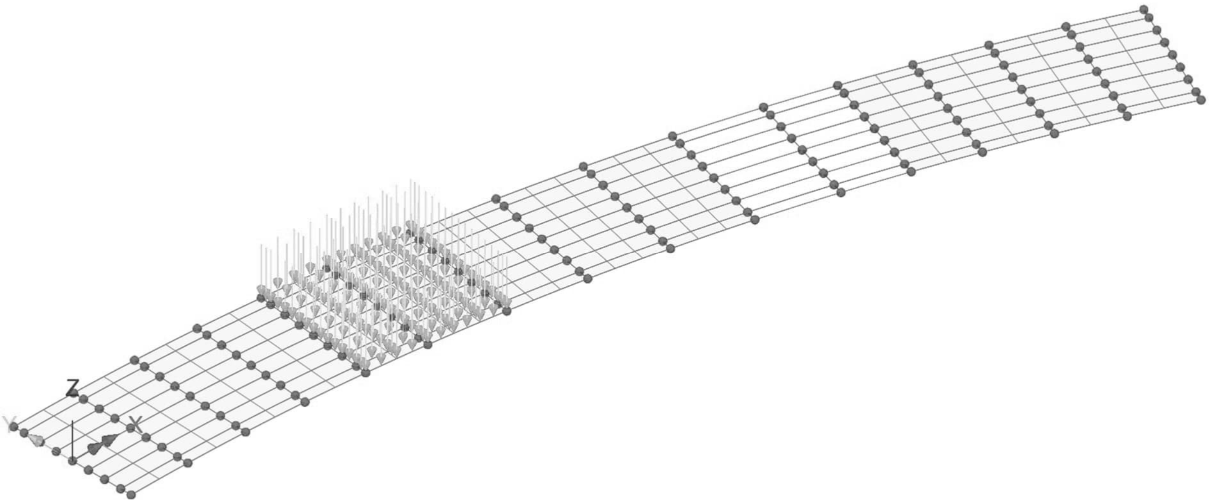
3.1.5 Concrete stage IV (DEAD 2:4)

Load case : DEAD 2:4

Analysis: Analysis 4 (STAGE IV)

Structural loading: Body force

Linear acceleration in Z (a_z) : -10 $\frac{m}{s^2}$



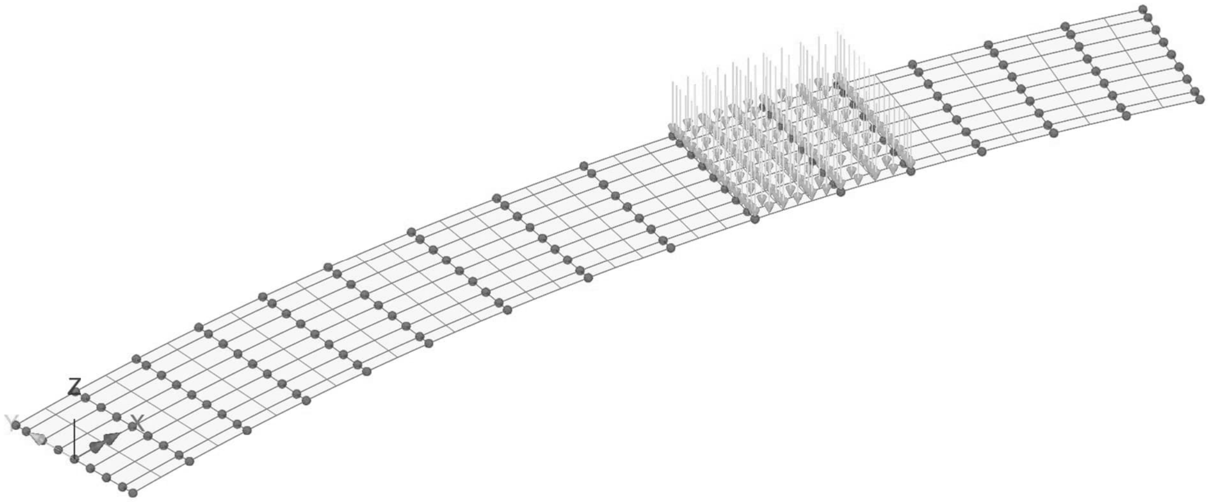
3.1.6 Concrete stage V (DEAD 2:5)

Load case : DEAD 2:5

Analysis: Analysis 5 (STAGE V)

Structural loading: Body force

Linear acceleration in Z (a_z) : -10 $\frac{m}{s^2}$



3.1.7 Edge beams including railing (DEAD 3)

Along each edge bream a line load is introduced. The load includes weight of edge beam and railing. The edge beam is assumed to be cast after completion stage I-V, thus analysis 6.

$p_{railing} = 0.7\frac{kN}{m}$: weight railing

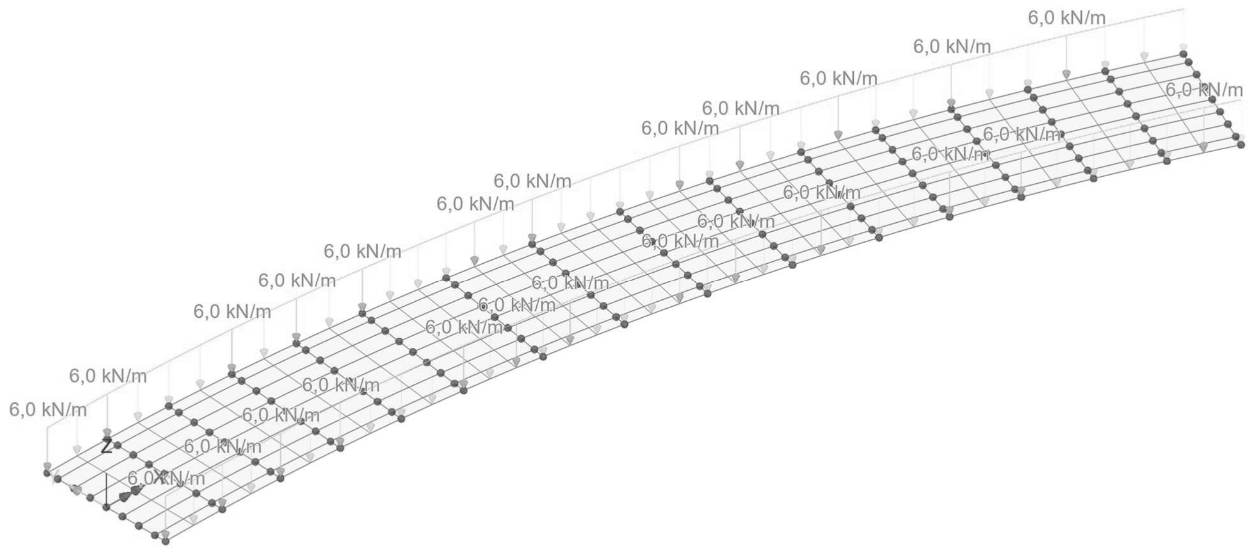
$$\rightarrow p_z = p_{railing} + p_{EB} = 0.7\frac{kN}{m} + 0.40m \cdot 0.45m \cdot 25\frac{kN}{m^3} = -6\frac{kN}{m}$$

Load case : DEAD 3

Analysis: Analysis 6 (O:PERM)

Structural loading : Global distributed

Line load per unit length in Z direction: -6 $\frac{kN}{m}$



Overview 3D

3.1.8 Load combination deadweight (DEAD)

Basic load combination DEAD:

Loadcase	Factor
DEAD 1:1	1.00
DEAD 2:1	1.00
DEAD 2:2	1.00
DEAD 2:3	1.00
DEAD 2:4	1.00
DEAD 2:5	1.00
DEAD 3	1.00

3.2 SURFACING

Thickness pavement with a thickness of 95 mm built as follows:

- Wearing course ABS 11 — 40 mm
- Combined protective and binder course PGJA — 50 mm
- Waterproofing layer — 5 mm

$\gamma = 23\frac{kN}{m^3}$: course

$q_{mat} = 0.11kPa$: waterproofing

$\rightarrow q_{surf} = \gamma \cdot t + q_{matta} = 23\frac{kN}{m^3} \cdot 0.09m + 0.11kPa = 2.2kPa$

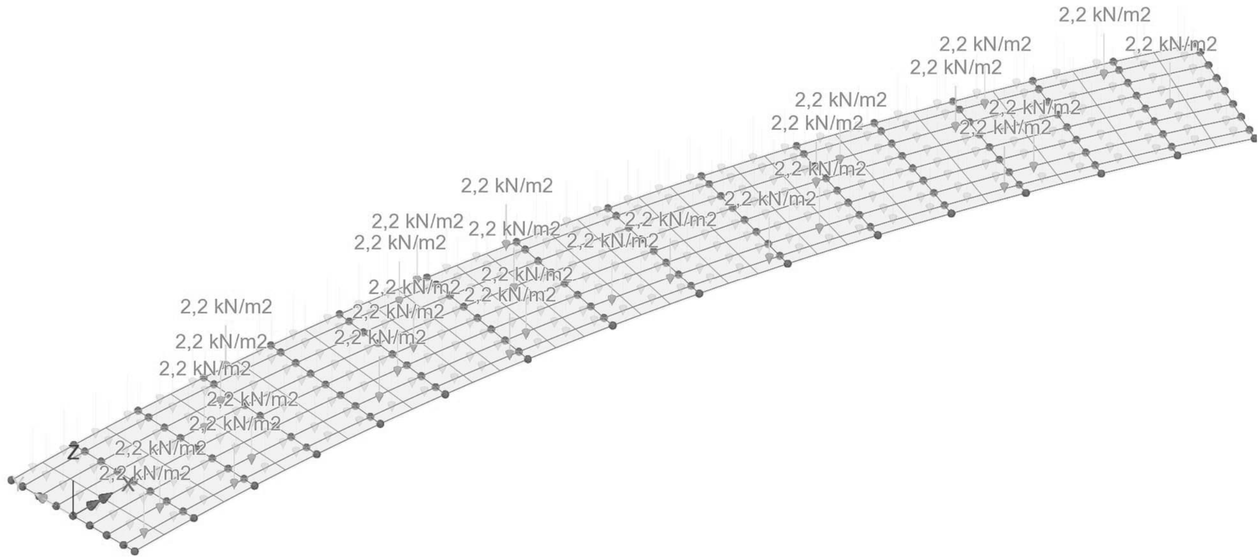
Load : SURF

Analysis: Analysis 6 (O:PERM)

Structural loading : Global distributed

Load per unit area in Z direction (q_z) : -2.2 kPa

Loadcase : SURF



Overview 3D

3.3 CREEP

Total creep is determined according to SS-EN 1992-1-1 §3.1.4 and TRVINFRA-00227 section 7.1.6.4 for RH 80% at time t_1.

Time for first loading (= time when formwork was removed) is termed t_0.

$t_0 = 5\ days$

$t_1 = 120\ years$

On safe side $\phi(t_1, t_0) = 2.0$ is applied.

$$\varepsilon_{cc}(t_1, t_0) = \varphi(t_1, t_0) \cdot \frac{\sigma_c}{E_c}$$

To study the effect concrete stiffness according to SS-EN 1992-1-1 5.8.7 creep values seen below are used.

Load cases	φ
Permanent	2.0
Variable excluding temperature	0
Temperature	0.3*

* = According to Swedish work practice

$$E^{system} = \frac{E_{cm}}{1+\varphi}$$

Instead of adjusting E-modulus the load coefficients are adjusted.

$$f_{shrinkage} = \frac{1}{1 + \varphi_{ef}} = \frac{1}{1 + 2.0} = 0.33$$

$$f_{temp} = \frac{1}{1 + \varphi_{ef}} = \frac{1}{1 + 0.3} = 0.77$$

Note:
According to TRVINFRA-00227 section 7.2.1.1.2.4, no reduction is permitted for uneven temperature across the cross-section. This is because this temperature variation is considered to have a very short duration (only over the day).

3.4 SHRINKAGE

Load applied to Analysis : *Analysis 6*

Total shrinkage according to SS-EN 1992-1-1 §3.1.4 and TRVINFRA-00227 section 7.1.6.4 for RH 80% at time t_1.

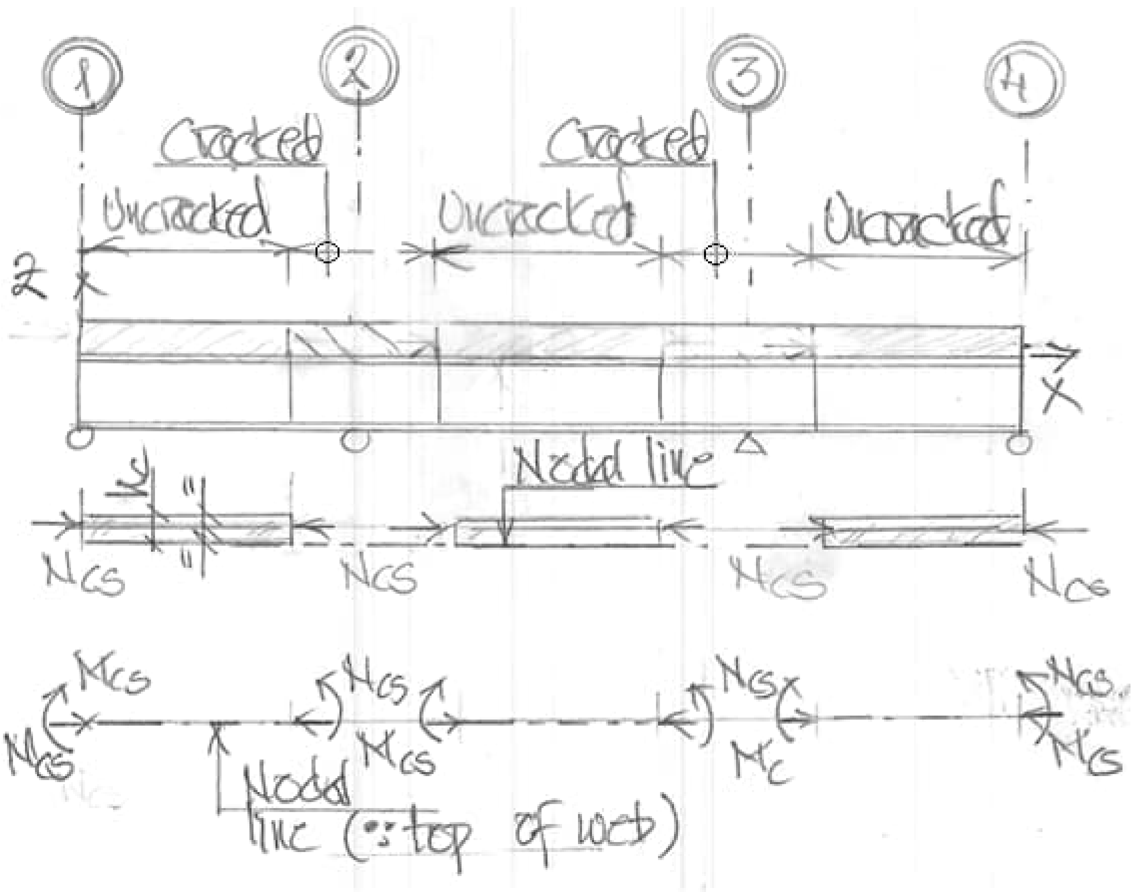
Determination of load effect from shrinkage should consider the reduced concrete stiffness from creep.

$t_s = 0\ days$

$t_1 = 120\ years$

On safe side $\varepsilon_{cs}\ (t_1) = 0.025\%$ is applied.

Shrinkage corresponds to movement due to an imaginary temperature load ∴ T = -25°C but a normal force (N_{cs}) is instead inserted at centre of deck at location of uncracked concrete. These force arises due to prevented movement by steel girder.



Uncracked concrete (girder A & D):

$$N_{cs.1} = \varepsilon_{cs} \cdot \frac{E_{cm}}{1+\psi_L \cdot \phi_{t1}} \cdot h_c \cdot b_c = 0.25 \cdot 10^{-3} \cdot \frac{34 \cdot 10^6 kPa}{1 + 0.55 \cdot 2.0} \cdot 0.20m \cdot 2.275m = 1842kN$$

$$M_{cs.1} = N_{cs.1} \cdot (t_c + 0.5h_c) = 1842kN \cdot (0.040\,m + 0.5 \cdot 0.20m) = 258kNm$$

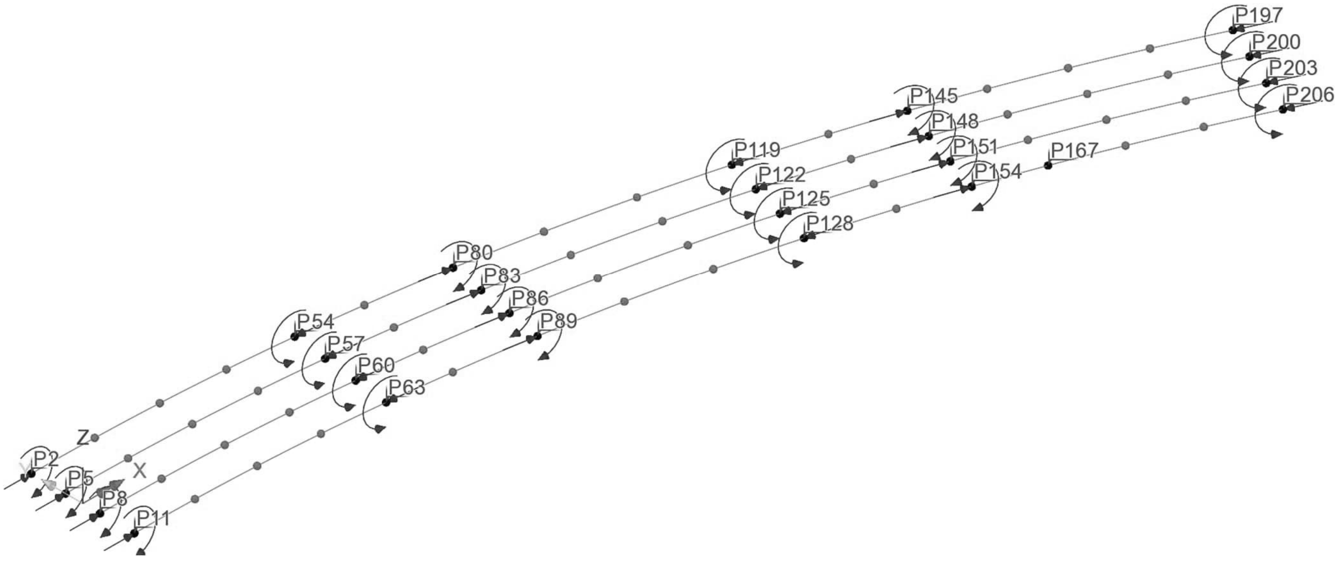
Uncracked concrete (girder B & C):

$$N_{cs.2} = \varepsilon_{cs} \cdot \frac{E_{cm}}{1+\psi_L \cdot \phi_{t1}} \cdot h_c \cdot b_c = 0.25 \cdot 10^{-3} \cdot \frac{34 \cdot 10^6 kPa}{1 + 0.55 \cdot 2.0} \cdot 0.20m \cdot 2.750m = 2228kN$$

$$M_{cs.2} = N_{cs.2} \cdot (t_c + 0.5h_c) = 2228kN \cdot (0.040\,m + 0.5 \cdot 0.20m) = 312kNm$$

Cracked concrete :

$$N_{cs} = 0kN$$



3D Overview

Load : Ncs:1+

Analysis : Analysis 6 (O:PERM)

Structural loading : Internal beam point

Point load in X direction (P_x) : 1842 kN

Point moment around Y direction (M_y) : 258 kNm

Distance along local element (parametric) : 0

Load direction : Element local

Load position : About nodal line

Points: P2, P11, P80, P89, P145 & P154

Load case : SHRINKAGE

Load : Ncs:1-

Analysis : Analysis 6 (O:PERM)

Structural loading : Internal beam point

Point load in X direction (P_x) : -1842 kN

Point moment around Y direction (M_y) : -258 kNm

Distance along local element (parametric) : 1.0

Load direction : Element local

Load position : About nodal line

Points: P54, P63, P119, P128, P197 & P206

Load case : SHRINKAGE

Load : Ncs:2+

Analysis : Analysis 6 (O:PERM)

Structural loading : Internal beam point

Point load in X direction (P_x) : 2228 kN

Point moment around Y direction (M_y) : 312 kNm

Distance along local element (parametric) : 0

Load direction : Element local

Load position : About nodal line

Points: P5, P8, P83, P86, P148 & P151

Load case : SHRINKAGE

Load : Ncs:2-

Analysis : Analysis 6 (O:PERM)

Structural loading : Internal beam point

Point load in X direction (P_x) : -2228 kN

Point moment around Y direction (M_y) : -312 kNm

Distance along local element (parametric) : 1.0

Load direction : Element local

Load position : About nodal line

Points: P57, P60, P122, P125, P200 & P203

Load case : SHRINKAGE

3.5 TEMPERATURE

Temperature effect bridges according to TSFS section B.3.2.5 and EN 1991-1-5 chapter 6.

Effect in service state see SS-EN 1992-1-1 §2.3.1.2. If used then apply effect of gradual cracking according to SS-EN 1992-1-1 §5.4(3).

Effect in ultimate state is not required according to SS-EN 1992-1-1 §2.3.1.2. If used apply reduced stiffness according to SS-EN 1992-1-1 §5.4(3).

Casting temperature, T_{mont} = +10° C : EN 1991-1-5A.1(3)

Expansion coefficient, $\alpha = 12 \cdot 10^{-6}$

Concrete slab $\Rightarrow$ typ 2

Location : Skellefteå

$T_{max} = +34°C$: TSFS chapter 8 sketch 8.1
$T_{min} = -42°C$: TSFS chapter 8 sketch 8.2

Duration coefficients :

Coefficients according to SS-EN 1990/A1 table A2.3

$\psi_0 = 0.60$
$\psi_1 = 0.60$
$\psi_2 = 0.50$

System superstructure:
Analysis 8 is used (see page A2:6).

3.5.1 Even temperature over entire bridge

Even temperature over entire bridge according to EN 1991-1-5 section 6.1.3.3. This temperature variation is seasonal and mainly gives rise to translation relative centre of movement located at support 3 where bearings are fixed.

Function according to SS-EN 1991-1-5 sketch 6.1 (bridge type 2):

$$T_e(T) = \mathrm{linterp}\left[\begin{pmatrix}-50 & 0 & 30 & 50\end{pmatrix}^T \cdot °C, \begin{pmatrix}-46 & 5 & 34 & 54\end{pmatrix}^T \cdot °C, T\right]$$

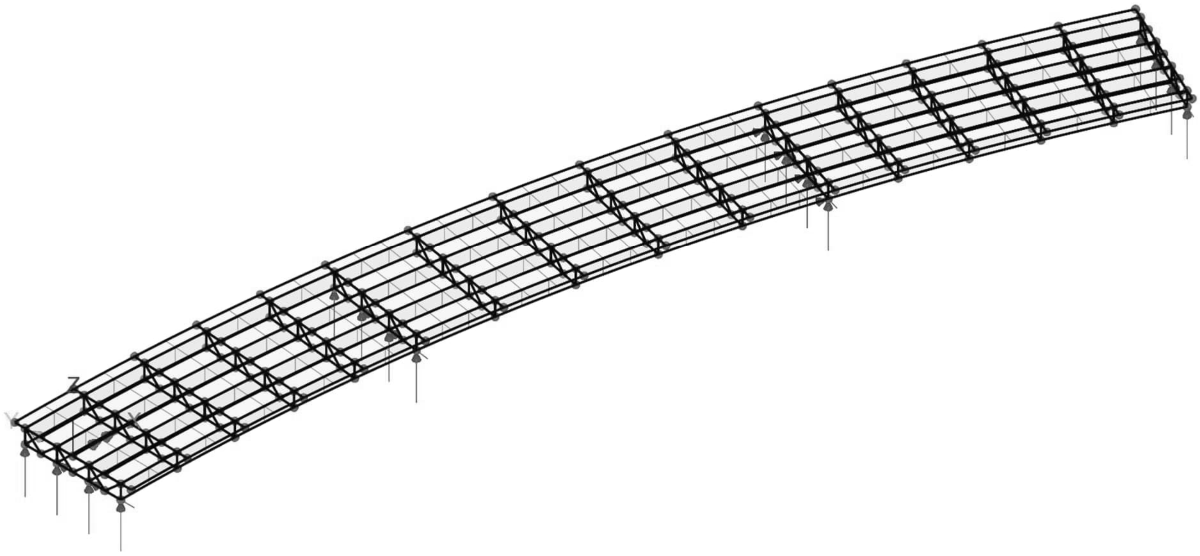
$$T_{e.max} = T_e\left(T_{max}\right) = 38\,°C$$

$$T_{e.min} = T_e\left(T_{min}\right) = -38\,°C$$

$$T^+ = T_{e.max} - T_0 = +38℃ - 10℃ = +28℃$$

$$T^- = T_{e.min} - T_0 = -38℃ - 10℃ = -48℃$$

Since temperature only gives rise to movement it is not added to this design report.



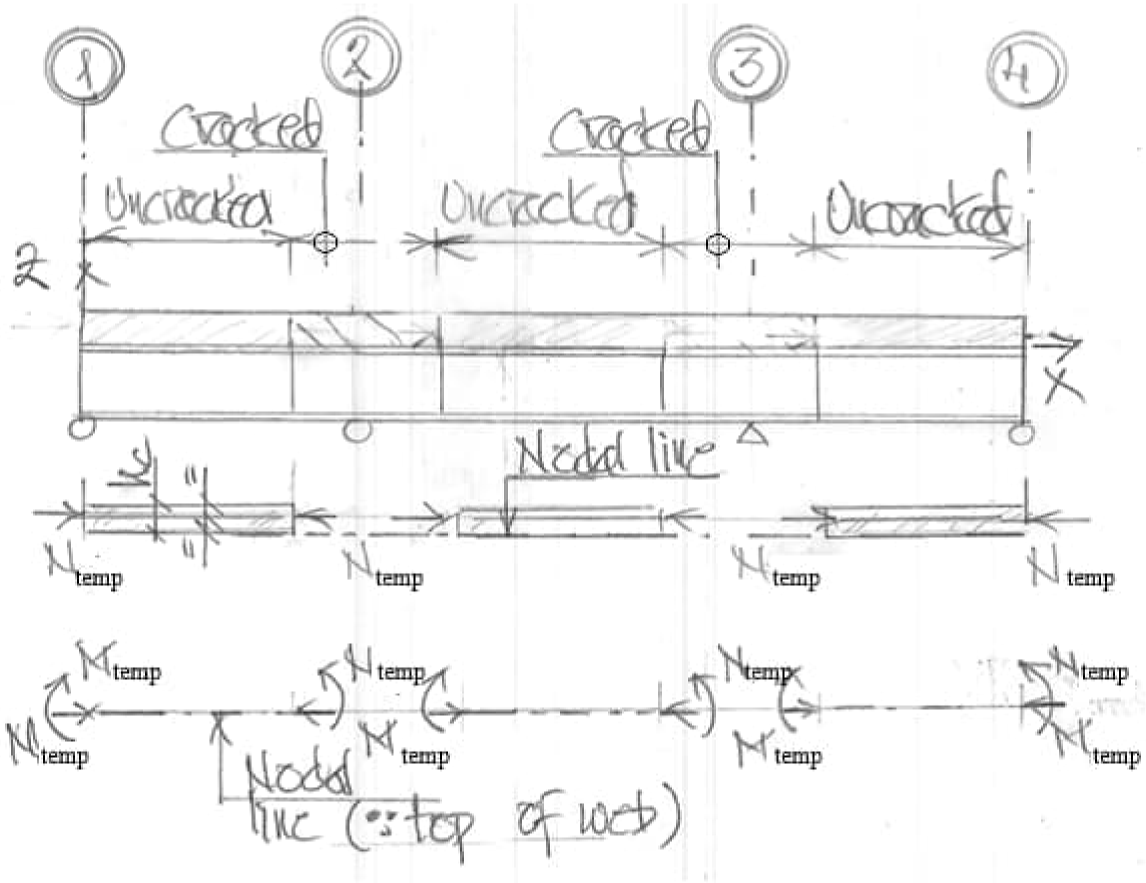
3.5.2 Uneven temperature between parts of cross section (UTEMP)

The linear temperature difference across the cross-section is determined according to the simplified procedure in EN 1991-1-5, clause 6.1.4.2 (method 2). Bridge superstructure type 2 (composite

$\Delta T_{\max} = +10°C$: top surface warmer

$\Delta T_{\min} = -10°C$: bottom surface warmer

The effect of temperature is disregarded in cracked areas while it is considered in uncracked areas as seen in stech below.



Uncracked concrete (girder A & D):

$$N_{temp.1} = \pm\alpha \cdot \frac{E_{cm}}{1+\psi_L \cdot \phi_{t1}} \cdot \Delta T \cdot h_c \cdot b_c = \pm 10^{-5} \cdot \frac{34 \cdot 10^6 kPa}{1+1.0 \cdot 0.3} \cdot 10°C \cdot 0.20m \cdot 2.275m \dots$$

$$= \pm 1190kN$$

$$M_{temp.1} = N_{temp.1} \cdot (t_c + 0.5h_c) = \pm 1190kN \cdot (0.040\,m + 0.5 \cdot 0.20m) = \pm 167kNm$$

Uncracked concrete (girder B & C):

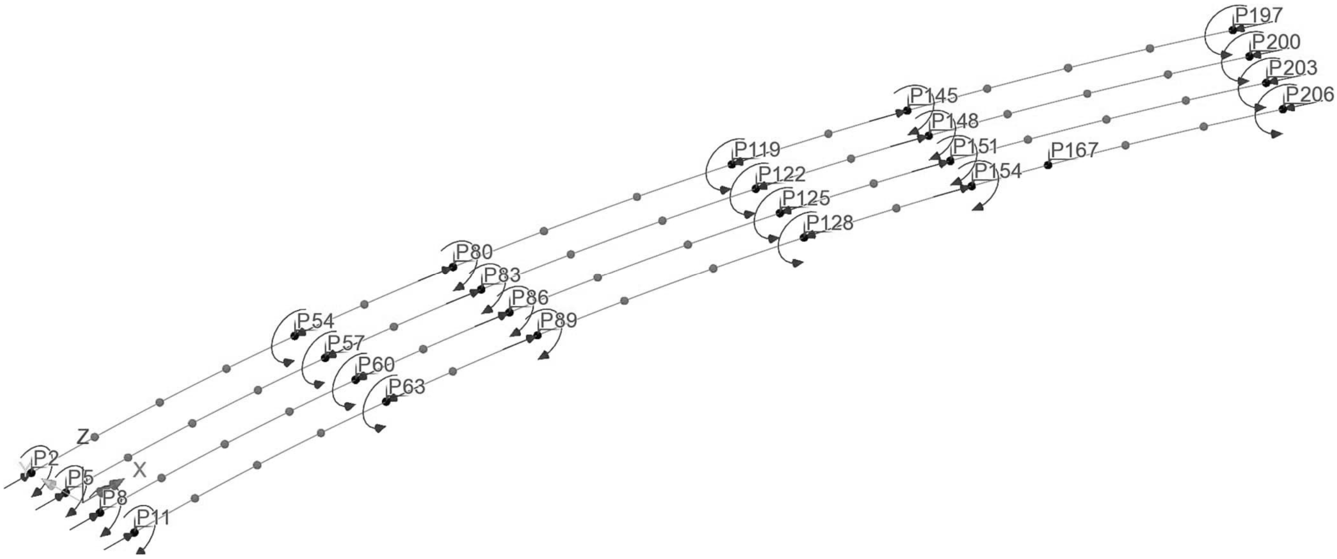
$$N_{temp.2} = \pm\alpha \cdot \frac{E_{cm}}{1+\psi_L \cdot \phi_{t1}} \cdot \Delta T \cdot h_c \cdot b_c = \pm 10^{-5} \cdot \frac{34 \cdot 10^6 kPa}{1+1.0 \cdot 0.3} \cdot 10°C \cdot 0.20m \cdot 2.750m \dots$$

$$= \pm 1438kN$$

$$M_{temp.2} = N_{temp.1} \cdot (t_c + 0.5h_c) = \pm 1438kN \cdot (0.040\,m + 0.5 \cdot 0.20m) = \pm 201kNm$$

Cracked concrete :

$$N_{temp} = 0kN$$



3D Overview

Load : Ntemp:1+

Analysis : Analysis 8 (O:TEMP)

Structural loading : Internal beam point

Point load in X direction (P_x) : 1190 kN

Point moment around Y direction (M_y) : 167 kNm

Distance along local element (parametric) : 0

Load direction : Element local

Load position : About nodal line

Points: P2, P11, P80, P89, P145 & P154

Load case : UTEMP+

Load : Ntemp:1-

Analysis : Analysis 8 (O:TEMP)

Structural loading : Internal beam point

Point load in X direction (P_x) : -1190 kN

Point moment around Y direction (M_y) : -167 kNm

Distance along local element (parametric) : 1.0

Load direction : Element local

Load position : About nodal line

Points: P54, P63, P119, P128, P197 & P206

Load case : UTEMP+

Load : Ntemp:2+

Analysis : Analysis 8 (O:TEMP)

Structural loading : Internal beam point

Point load in X direction (P_x) : 1438 kN

Point moment around Y direction (M_y) : 201 kNm

Distance along local element (parametric) : 0

Load direction : Element local

Load position : About nodal line

Points: P5, P8, P83, P86, P148 & P151

Load case : UTEMP+

Load : Ntemp:2-

Analysis : Analysis 8 (O:TEMP)

Structural loading : Internal beam point

Point load in X direction (P_x) : -1438 kN

Point moment around Y direction (M_y) : -201 kNm

Distance along local element (parametric) : 1.0

Load direction : Element local

Load position : About nodal line

Points: P57, P60, P122, P125, P200 & P203

Load case : UTEMP+

3.5.3 Uneven temperature across the cross section

The linear temperature difference across the cross-section is determined according to EN 1991-1-5 § 6.1.4.1 for a deck thickness of 100 mm and type 2 (composite bridge).

$k_{1.sur} = 1.00$

$k_{2.sur} = 1.00$

$\Delta T_{\max} = +15°C \cdot k_{1.sur} = +15°C$: top surface warmer

$\Delta T_{\min} = -18°C \cdot k_{2.sur} = -18°C$: bottom surface warmer

Remark
The described uneven temperature across the cross-section is considered to produce a lower load effect than between parts of cross section (UTEMP). For this read the load is not added to design report.

3.5.4 Combination of uniform and uneven temperature

Combination is done according to SS-EN 1991-1-5 section 6.1.5.

For design, however, the safe side is applied, which gives the load combination as shown below.

3.5.4 Kombination av jämn och ojämn temperatur

Kombinering sker enligt SS-EN 1991-1-5 avsnitt 6.1.5.

During design, however $\omega_M = 1.0$ and $\omega_N = 1.0$ are applied on safe side.

Smart Load combination *TEMP :*

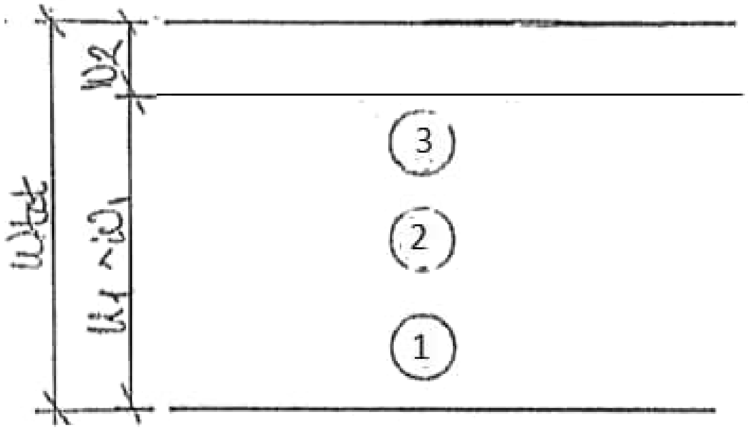
Load case	Permanent factor	Variable factor
UTEMP+	0	+1.00
UTEMP+	0	-1.00

3.6 TRAFFIC

Load applied to Analysis : Analysis 7 (O:VAR)

Evaluation of vertical traffic is performed for LM 1 and LM 2 according to SS-EN 1991-2 section 4.3.

3.6.1 Traffic lane division



Total traffic width : $w_{tot} = 10.05\, m$

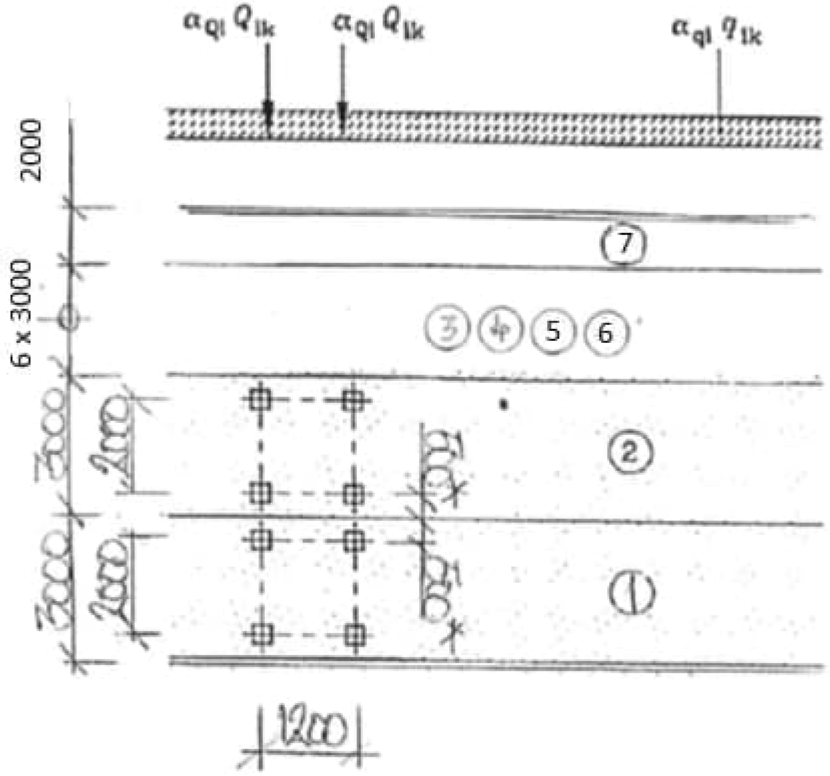
Number of traffic lanes : $n_1 = Integer\left[\frac{w_{tot}}{3.0m}\right] = 3\ lanes$

Full traffic width : $w_1 = 3.0m$

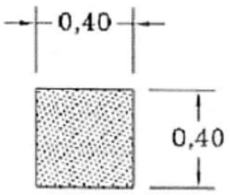
Remaining width : $w_2 = 1.05m$

3.6.2 Load model 1 (LM 1)

Characteristic values according to SS-EN 1991-2 §4.3.2.



* = When studying local effects 250 mm is to be assumed.



Axle loads:

α_Q : national adaptation factor according to TRVFS 2011:12 table 7.1

$Q'_k = \alpha_Q \cdot Q_k$: characteristic value including national adaptation factor

Traffic lane	Q_k	α_Q	Q'_k	Remark
1	300	0,9	270	LM1- 2 x 270 kN
2	200	0,9	180	LM1- 2 x 180 kN
3	100	0	0	No load
-	kN	-	kN	-

Surface loads:

α_q : national adaptation factor according to TRVFS 2011:12 table 7.1

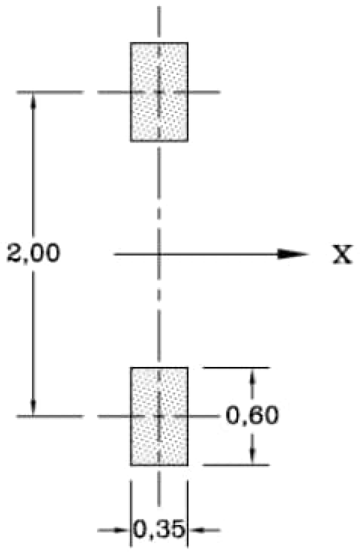
$q'_k = \alpha_q \cdot q_k$: characteristic value including national adaptation factor

Traffic lane	q_k	α_q	q'_k
1	9.0	0.8	7.2
2-3	2.5	1.0	2.5
-	kPa	-	kPa

Remark
Evaluation is performed using Vehicle Load Optimisation (VLO), see section 3.7.4.

3.6.3 Load model 2 (LM 2)

Characteristic vertical load according to SS-EN 1991-2 §4.3.3.



$\beta_Q = \alpha_Q = 0.90$: national adaptation factor

$Q_k = 400$ kN : characteristic value

$Q'_k = \beta_k \cdot Q_k = 360$ kN : characteristic value including national adaptation factor

Tire pressure

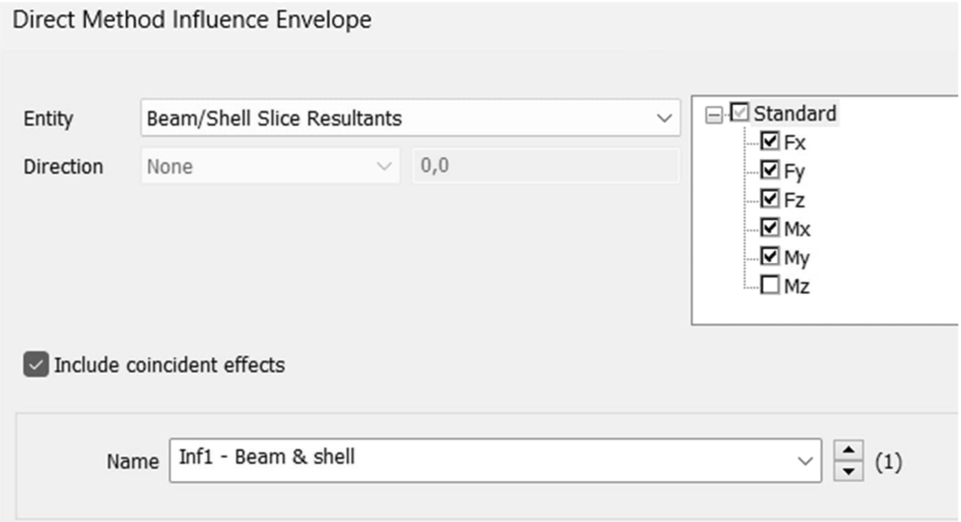
TSFS Chapter 11 Section 4 states that the same contact surface as LM 1 may be used.

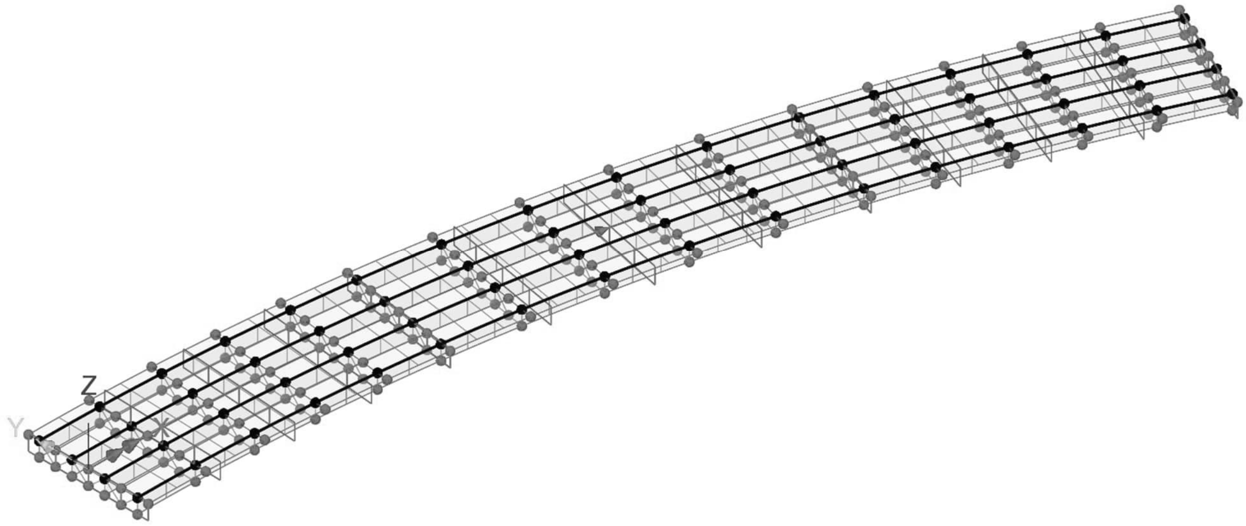
3.6.4 Vehicle Load Optimization (VLO)

3.6.4.1 Influence components

Influence surfaces are created using *Direct Method Influence Envelope.* This is done by applying *Influence components* seen below.

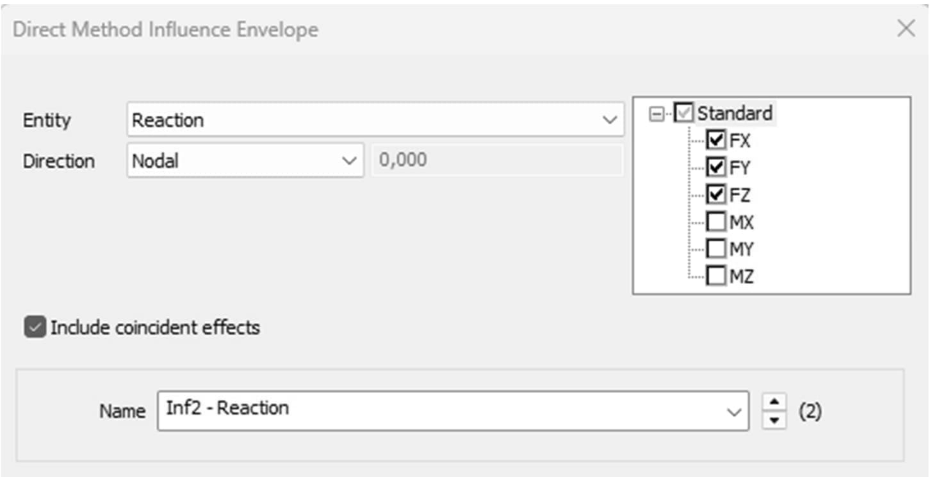
Inf1 – Beam & shells :

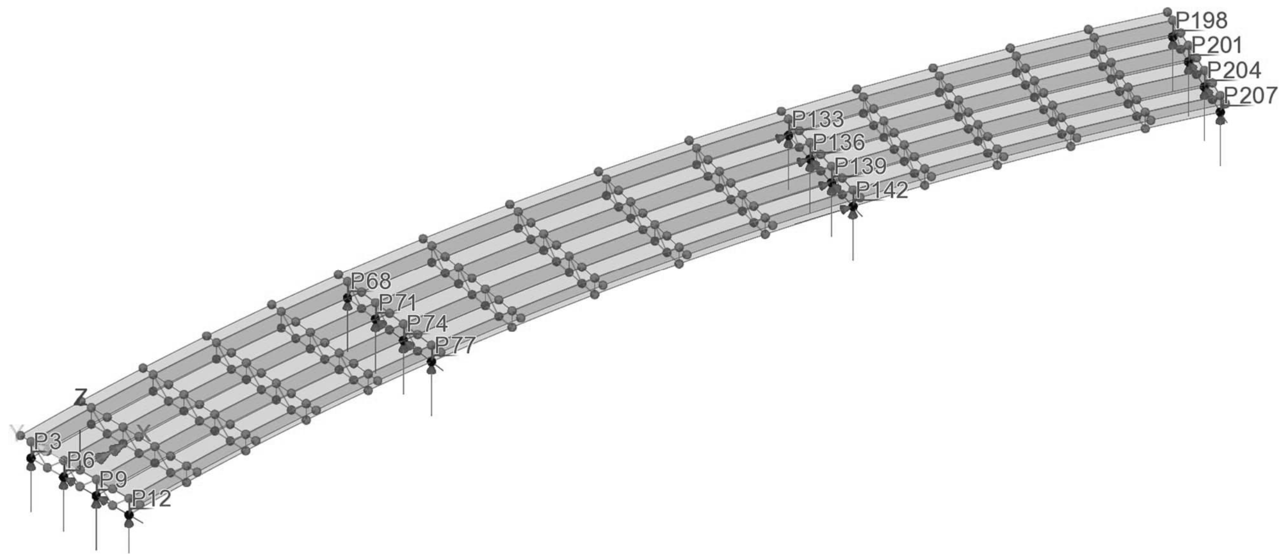




Overview 3D

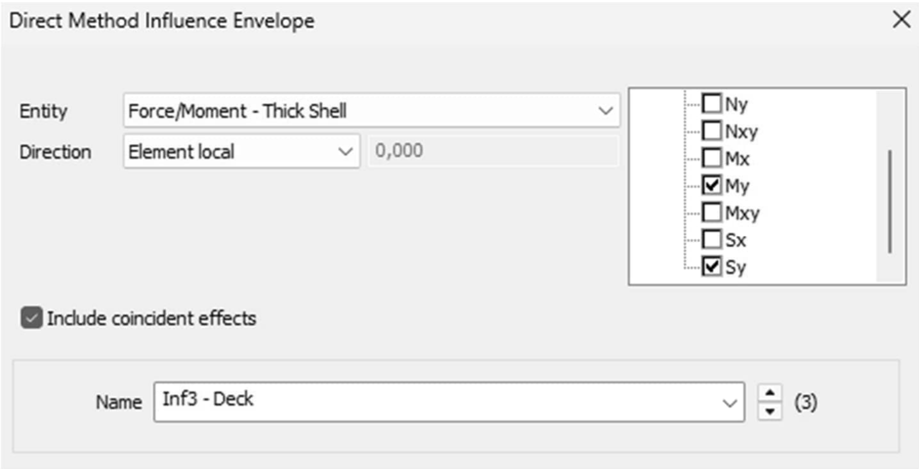
Inf2 – Reactions :

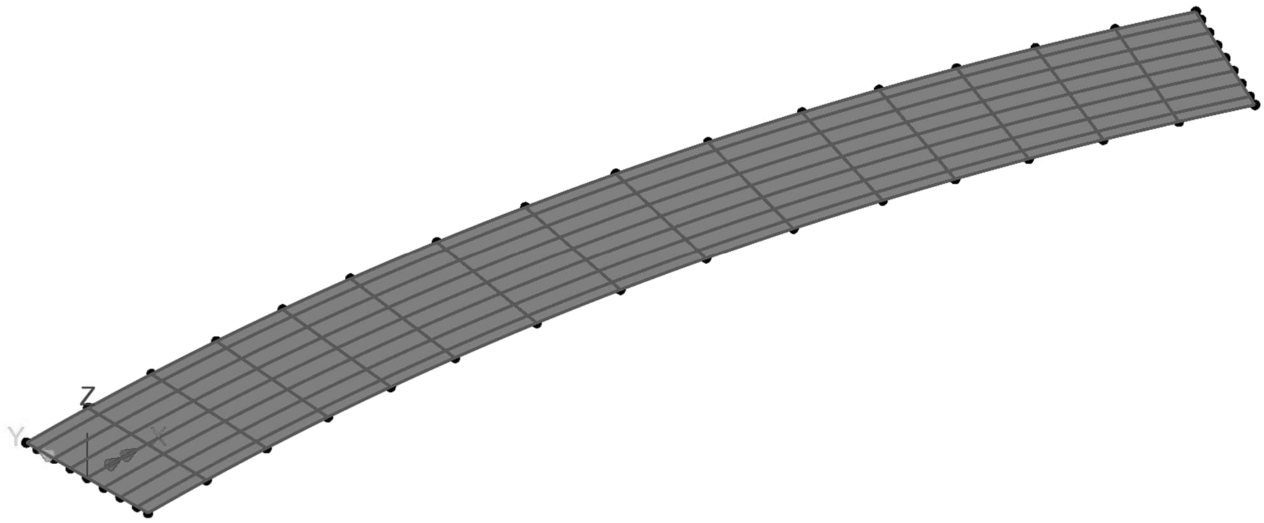




Overview 3D

Inf3 – Deck :





<u>Overview 3D</u>

3.6.4.2 Influence surface analysis

A influence surface is generated for every node grid. Below are the used settings.

Influence surfaces :

Search area: Superstructure

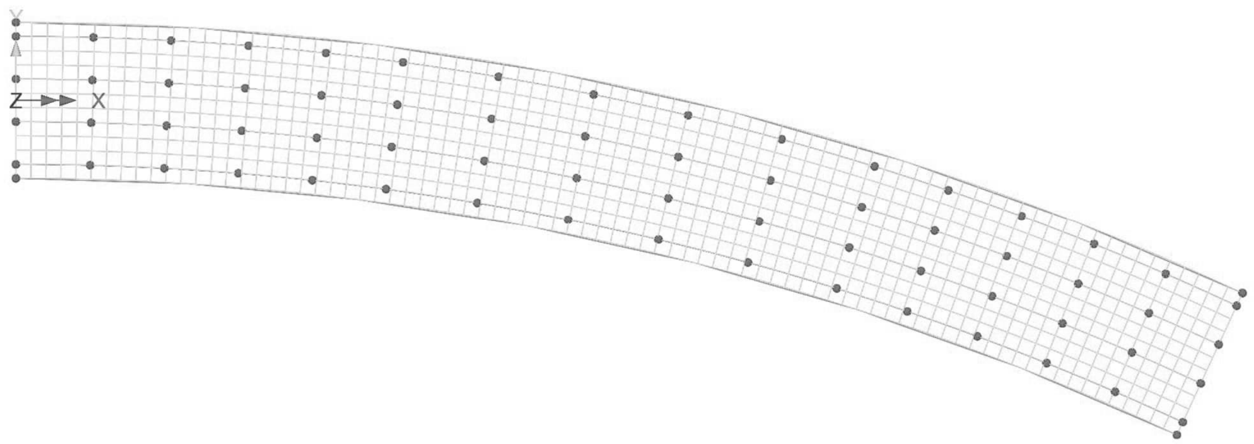
Definition type: Grid

Path: Centerline X

Transverse width: 10.05 m

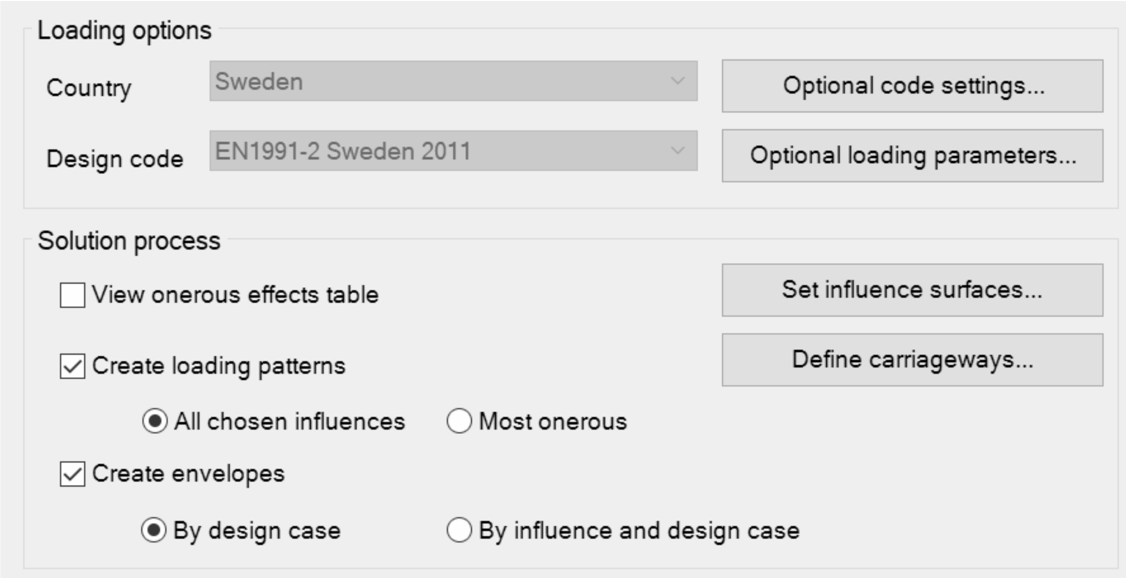
Longitudinal spacing (ΔL_x) : 1.0 m

Transversal spacing: (ΔL_y) : 1.0 m

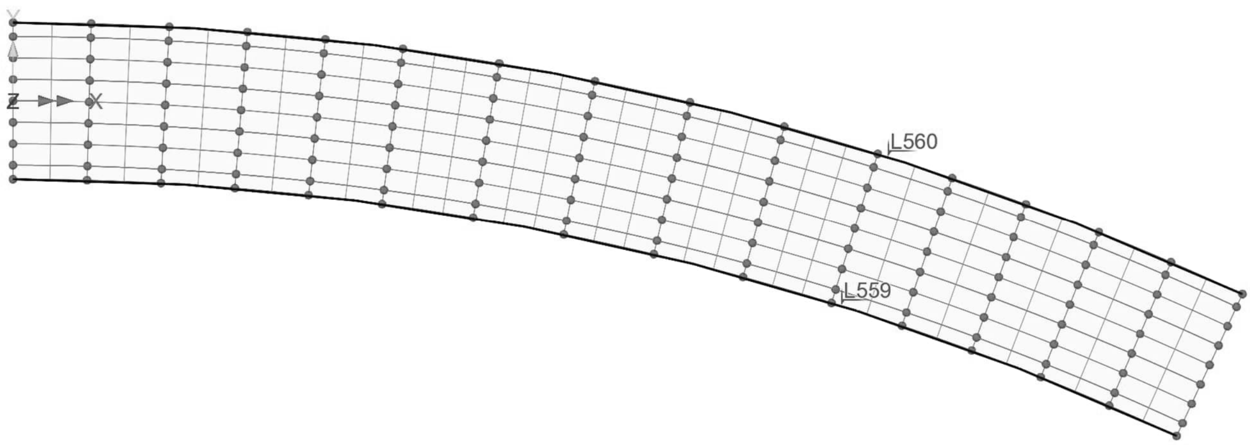


PLAN

3.6.4.3 Traffic load analysis (VLO)



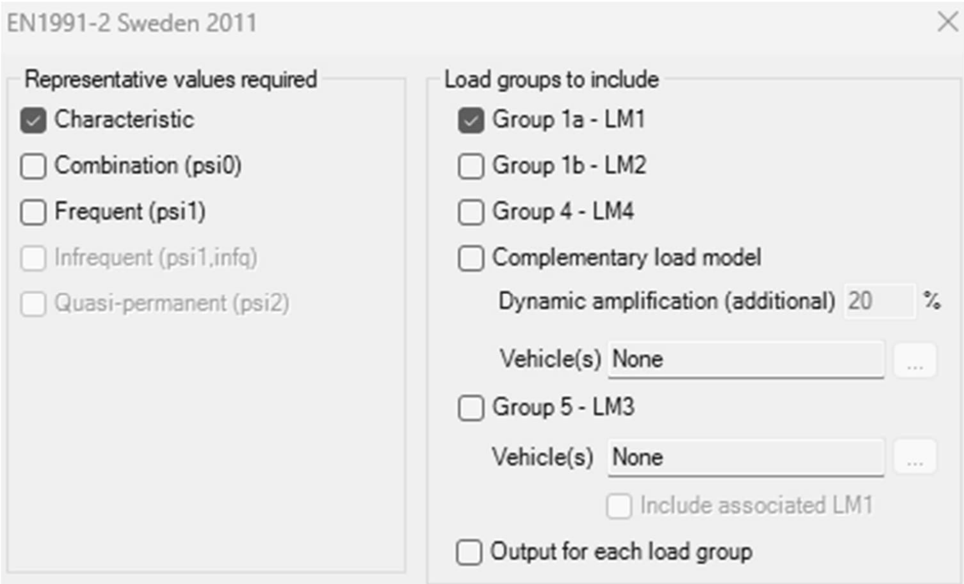
Vehicle longitudinal incremental movement:	0.25 m
Vehicle transverse incremental movement:	0.50 m
Vehicle direction:	both
Definition of carriageway (kerbs):	L559 & L560
Influence surfaces:	Include all (positive & negative)



PLAN

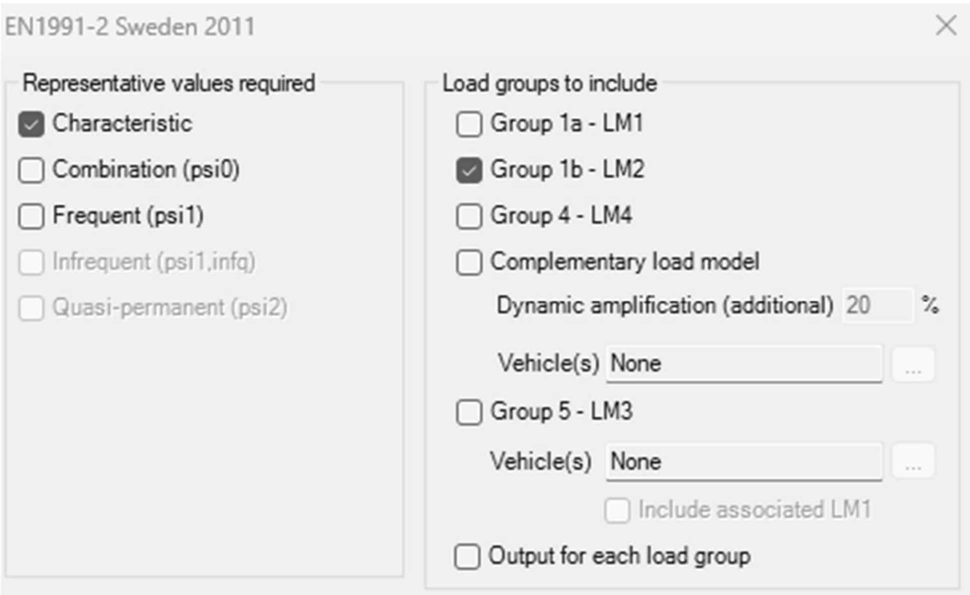
3.6.4.4 Envelope : LM 1

Load model 1 (LM1) defined in SS-EN 1991-2 section 4.3.2.



3.6.4.5 Envelope : LM 2

Load model 2 (LM2) defined in SS-EN 1991-2 section 4.3.3.



3.6.4.6 Combined traffic load (TRAFFIC)

There are a total 2 different traffic loads termed LM 1 and LM 2.

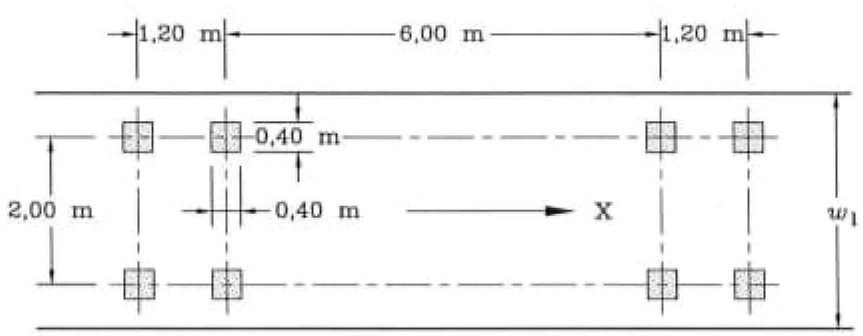
The envelope is used to identify the most onerous load effect.

Envelope TRAFFIC :

Envelope
LM 1
LM 2

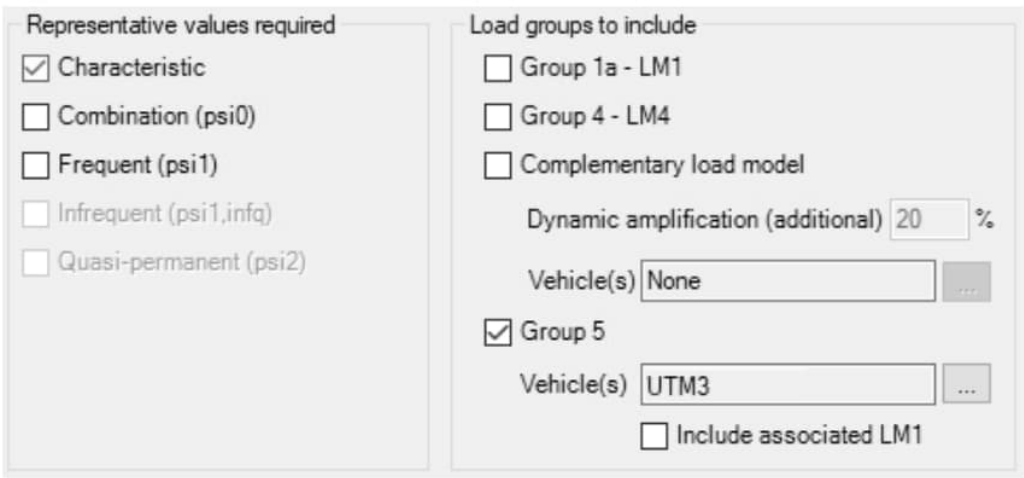
3.6.4.7 Fatigue model

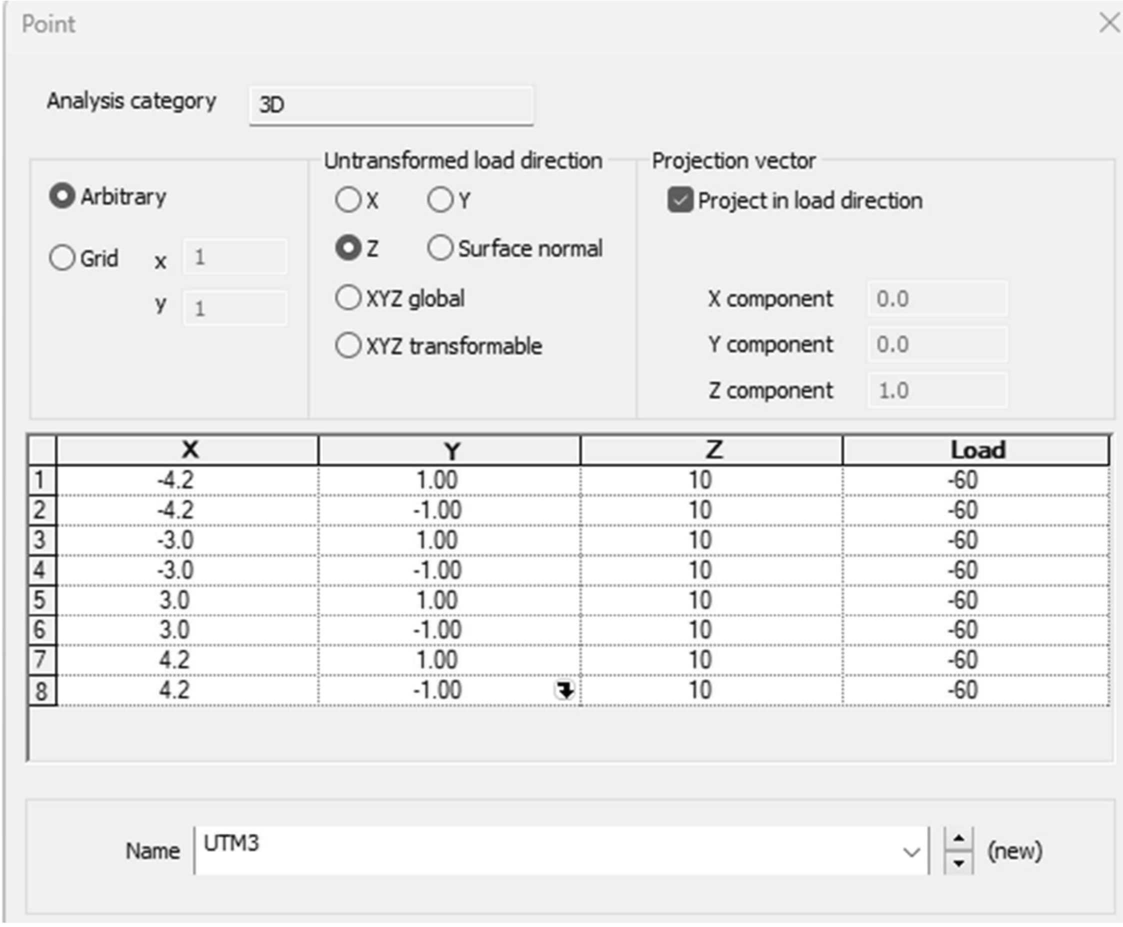
Fatigue model 3 (UTM3) defined in SS-EN 1991-2 section 4.6.4. The load is defined in Group 5 (special vehicle) in present version of software.



Q_k = 120 kN : characteristic value including nation adaptation factors.

The load definition:
The load UTM3 is defined as a special vehicle in "load group 5."





	X	Y	Z	Load
1	-4.2	1.00	10	-60
2	-4.2	-1.00	10	-60
3	-3.0	1.00	10	-60
4	-3.0	-1.00	10	-60
5	3.0	1.00	10	-60
6	3.0	-1.00	10	-60
7	4.2	1.00	10	-60
8	4.2	-1.00	10	-60

3.7 LOAD COMBINATIONS

Verification of load capacity shall be carried out for several limit states as detailed in this section.

Fatigue Limit State:
The risk of fatigue according to the partial factor method is checked using equation 6.69 provided in document SS-EN 1992-1-1.

Other Limit States:
For other limit states, section 6.4.3 of EN-1990 is applied.

Verification of load capacity shall be carried out for several limit states as detailed in this section.

Fatigue Limit State:
The risk of fatigue according to the partial factor method is checked using equation 6.69 provided in document SS-EN 1992-1-1.

Other Limit States:
For other limit states, section 6.4.3 of EN-1990 is applied.

3.7.1 Ultimate Limit States (ULS)

When checking the ultimate limit state, the load factors vary depending on the type of failure as detailed below:

STR: Verification of structural bearing capacity

GEO: Verification of geotechnical bearing capacity

For checking the ultimate limit state, TRVNFRA-00227 section 7.1.6.3 specifies requirements for load combinations as follows.

Design Method D2 (Set B):
Design Method D2 (Set B) according to TSFS 2018:57 Table 4.4 shall be applied for the structural bearing capacity of the construction (STR; SK 3).

Design Method is defined according to EN-1990 equations 6.10a and 6.10b as detailed below.

$$E_{Sd}^{10a} = \sum_{j\geq 1} \gamma_{G.j} \cdot G_{k,j} + \gamma_{Q.1} \cdot \psi_{0,1} \cdot Q_{k.1} + \sum_{i>1} \gamma_{Q.i} \cdot \psi_{0,i} \cdot Q_{k,i} = \psi\gamma_{ULS-A} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

$$E_{sd}^{10b} = \sum_{j\geq 1} \xi_j \cdot \gamma_{G.j} \cdot G_{k,j} + \gamma_{Q.1} \cdot Q_{k.1} + \sum_{i>1} \gamma_{Q.i} \cdot \psi_{0,i} \cdot Q_{k,i} = \psi\gamma_{ULS-B} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

Equation 6.10a refers to the (ULS-A) case where the permanent loads are dominant, usually during the construction phase.

Equation 6.10b refers to the (ULS-B) case where the variable loads are dominant.
Design method 2 (set B) according to TSFS 2018:57 table 4.4 shall be applied for the structural capacity (STR; SK3).

A1 (construction loads)
All load factors are greater than set C.

A2 (geotechnical loads)

- Load coefficient earth pressure:
  $\psi\gamma_{ULS-A} = \gamma_d \cdot 1.35 \cdot \eta_{sup.G} = 1.0 \cdot 0.89 \cdot 1.35 \cdot 1.1 = 1.49$ ← dimensioning
  $\psi\gamma_{ULS-B} = \gamma_d \cdot 0.89 \cdot 1.35 \cdot \eta_{sup.G} = 1.0 \cdot 0.89 \cdot 1.35 \cdot 1.1 = 1.33$

- Load coefficient surcharge:
  $\psi\gamma_{ULS-A} = \gamma_d \cdot \psi_0 \cdot 1.50 = 1.0 \cdot 0.75 \cdot 1.50 = 1.13$
  $\psi\gamma_{ULS-B} = \gamma_d \cdot 1.50 = 1.0 \cdot 1.50 = 1.50$ ← dimensioning

Design method D3 (set C) according to TSFS 2018:57 table 4.5 shall be applied for determining geotechnical bearing capacity (GEO; SK 2).

The design method is defined according to EN-1990 equation 6.10a and 6.10b as presented below.

$$E_{Sd}^{10a} = \sum_{j\geq 1} \gamma_{G.j} \cdot G_{k,j} + \gamma_{Q.1} \cdot \psi_{0,1} \cdot Q_{k.1} + \sum_{i>1} \gamma_{Q.i} \cdot \psi_{0,i} \cdot Q_{k,i} = \psi\gamma_{ULS-GA} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

$$E_{sd}^{10b} = \sum_{j\geq 1} \xi_j \cdot \gamma_{G.j} \cdot G_{k,j} + \gamma_{Q.1} \cdot Q_{k.1} + \sum_{i>1} \gamma_{Q.i} \cdot \psi_{0,i} \cdot Q_{k,i} = \psi\gamma_{ULS-GB} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

Equation 6.10a refers to the (ULS-A) case where the permanent loads are dominant, usually during the construction phase.

Equation 6.10b (ULS-B) refers to the case where the variable loads are dominant.

Design method 3 (set C) according to TSFS 2018:57 table 4.5 shall be applied for determining geotechnical bearing capacity (GEO).

<u>A1 (construction loads)</u>
All load factors are less than set B.

<u>A2 (geotechnical loads)</u>

- Load coefficient earth pressure: $\psi\gamma_{jord} = \gamma_d \cdot 1.1 \cdot \eta_{sup.G} = 0.91 \cdot 1.1 \cdot 1.1 = 1.10$

- Load coefficient surcharge: $\psi\gamma_{\text{över}} = \gamma_d \cdot 1.40 = 0.91 \cdot 1.40 = 1.27$

Simplified Design Method ULS:

To limit the number of load combinations, design method D2 (STR) is also applied for checking geotechnical bearing capacity (GEO). This is done by adjusting load coefficients associated with the geotechnical loads.
When applying the geotechnical loads, the earth pressure coefficient corresponding to D2 is applied.

Permanent loads:

Nr	Load		$\psi\gamma_{ULS-A}$	$\psi\gamma_{ULS-B}$
1	Dead weight	max	1.35	1.20
		min	1.00	1.00
2	Surfacing	max	1.45	1.35
		min	0.90	0.90
3	Fillling	max	1.45	1.35
		min	0.90	0.90
4	Earth pressure	max	1.49	1.35
		min	0.90	0.90
5	Water pressure	max	1.35	1.10
		min	1.00	1.00
6	Support settlement	max	1.35	1.20
		min	1.00	1.00
7	Shrinkage	max	1.35	1.20
		min	1.00	1.00

Remark
Equation ULS-B is considered dominant; thus ULS-A is not considered.

Variable loads:

Nr	Load	$\psi\gamma_{ULS-A}$	$\psi\gamma_{ULS-B}$
	Load model LM 1 :		
9	Tandem axel	1.13	1.03/1.50
10	Surface load	0.60	0.60/1.50
11	Braking force	0.84	0.84/1.13
12	Lateral force	0.84	0.84/1.13
13	Centrifugal force	0.84	0.84/1.13
	Load model LM 2 :		
14	Single axel	0	0/1.50
	Complementary load EG A/B :		
15	Vehicle EG A/B	1.13	1.13/1.50
16	Braking force	0.84	0.84/1.13
17	Lateral force	0.84	0.84/1.13
18	Centrifugal force	0.84	0.84/1.13
19	Temperature	0.90	0.90/1.50
	Wind load:		
20	Wind against bridge	0.45	0.45/1.50
21	Wind against vehicles	0.45	0.45/1.50
22	Surcharge	1.13	1.13/1.50

Remark

Equation ULS-B is considered dominant; thus ULS-A is not considered.

Load combination smart *ULS-PERM :*

Load case	Permanent factor	Variable factor
DEAD	1.00	0.20
SURF	0.90	0.45
SHRINKAGE	0	1.20

Load combination smart *ULS-VAR :*
(Load cases to consider : 2 / Variable load cases : 1)

Load case	Permanent factor	Variable factor
TRAFIK	1.03	0.47
TEMP	0.90	0.60

Load combination smart *ULS :*

Load case	Permanent factor	Variable factor
ULS-PERM	1	0
ULS-VAR	0	1

3.14.2 Service limit state (SLS)

The service limit state is divided into 3 load combinations based on their duration. The load combinations are presented below.

Load combination	Duration
SLS:K	Characteristic
SLS:F	Frequent
SLS:Q	Quasi-permanent

Load Combination SLS:K according to EN 1990 equation 6.14b is presented below.

$$E_{Sd} = \sum_{j\geq 1} G_{k,j} + Q_{k.1} + \sum_{i>1} \psi_{0,i} \cdot Q_{k,i} = \psi\gamma_{SLS.K} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

Load Combination SLS:F according to EN 1990 equation 6.15b is presented below.

$$E_{Sd} = \sum_{j\geq 1} G_{k,j} + \psi_1 \cdot Q_{k.1} + \sum_{i>1} \psi_{2,i} \cdot Q_{k,i} = \psi\gamma_{SLS.2} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

Load Combination SLS:Q according to EN 1990 equation 6.16b is presented below.

$$E_{Sd} = \sum_{j\geq 1} G_{k,j} + \sum_{i>0} \psi_{2,i} \cdot Q_{k,i} = \psi\gamma_{SLS.Q} \cdot (\sum_{j>1} G_{k,j} + \sum_{i>1} Q_{k,i})$$

When designing, load coefficients according to equations 6.14a, 6.15b, and 6.16b are applied.

Permanent loads:

Nr	Load		$\psi\gamma_{SLS-K}$	$\psi\gamma_{SLS-F}$	$\psi\gamma_{SLS-Q}$
1	Dead weight	max	1.00	1.00	1.00
		min	1.00	1.00	1.00
2	Surfacing	max	1.10	1.10	1.00
		min	0.90	0.90	1.00
3	Fillling	max	1.10	1.10	1.00
		min	0.90	0.90	1.00
4	Earth pressure	max	1.35	1.35	1.35
		min	0.90	0.90	1.00
5	Water pressure	max	1.00	1.00	1,00
		min	1.00	1.00	1.00
6	Support settlement	max	1.00	1.00	1.00
		min	1.00	1.00	1.00
7	Shrinkage	max	1.00	1.00	1.00
		min	1.00	1.00	1.00

Variable loads:

Nr	Load	$\psi\gamma_{SLS-K}$	$\psi\gamma_{SLS-F}$	$\psi\gamma_{SLS-Q}$
	Load model LM 1 :			
9	Tandem axel	0.75/1.00	0/0.75	0
10	Surface load	0.40/1.00	0/0.40	0
11	Braking force	0.56/0.75	0/0.56	0
12	Lateral force	0.56/0.75	0/0.56	0
13	Centrifugal force	0.56/0.75	0/0.56	0
	Load model LM 2 :			
14	Single axel	0.75/1.00	0/0.75	0
	Complementary load EG A/B :			
15	Vehicle EG A/B	0.75/1.00	0/0.75	0
16	Braking force	0.56/0.75	0/0.56	0
17	Lateral force	0.56/0.75	0/0.56	0
18	Centrifugal force	0.56/0.75	0/0.56	0
19	Temperature	0.60/1.00	0.50/0.60	0.50
	Wind load:			
20	Wind against bridge	0.30/1.00	0/0.30	0
21	Wind against vehicles	0.30/1.00	0/0.30	0
22	Surcharge	0.75/1.35	0/0.75	0

Load combination smart *SLS-PERM :*

Load case	Permanent factor	Variable factor
DEAD	1.00	0
SURF	0.90	0.20
SHRINKAGE	0	1.00

Load combination smart *SLS-K-VAR :*
(Load cases to consider : 2 / Variable load cases : 1)

Load case	Permanent factor	Variable factor
TRAFIK	0.75	0.25
TEMP	0.60	0.40

Load combination smart *SLS-F-VAR :*

Load case	Permanent factor	Variable factor
TRAFIK	0	0.75
TEMP	0	0.60

Load combination smart *SLS-K :*

Load case	Permanent factor	Variable factor
SLS-PERM	1	0
SLS-K-VAR	0	1

Load combination smart *SLS-F :*

Load case	Permanent factor	Variable factor
SLS-PERM	1	0
SLS-F-VAR	0	1

Load combination smart *SLS-Q :*

Load case	Permanent factor	Variable factor
DEAD	1.00	0
SURF	0.90	0.20
SHRINKAGE	0	1.00
TEMP	0	0.50

3.14.4 Fatigue load combination

Fatigue is considered according to SS EN 1992-1-1, 6.8.4 and 6.8.6, and SS EN 1992-2, 6.8 and Appendix NN.

The risk of fatigue is checked using a simplified method, denoted as the λ-method.
Load combination according to equation SS-EN 1992-1-1 section 6.8.3 equation 6.69.

In this load combination, the traffic load is considered to consist of UTM, whereby other traffic loads are excluded.

$$E_{Sd} = \sum_{j \geq 1} G_{k,j} + P + \psi_{1,1} \cdot Q_{k,1} + \sum_{i > 1} \psi_{2,i} \cdot Q_{k,i} + Q_{fat} = \psi\gamma_{UTM} \cdot (\sum_{j \geq 1} G_{k,j} + P + \sum_{i \geq 1} Q_{k,i} + Q_{fat})$$

Permanent loads:

Nr	Load		$\psi\gamma_{UTM}$
1	Dead weight	max	1.00
		min	1.00
2	Surfacing	max	1.10
		min	0.90
3	Fillling	max	1.10
		min	0.90
4	Earth pressure	max	1.48
		min	0.90
5	Water pressure	max	1.00
		min	1.00
6	Support settlement	max	1.00
		min	1.00
7	Shrinkage	max	1.00
		min	1.00

Variable loads:

Nr	Load	$\psi\gamma_{UTM}$
	Load model LM 1 :	
9	Tandem axel	-
10	Surface load	-
11	Braking force	-
12	Lateral force	-
13	Centrifugal force	-
	Load model LM 2 :	
14	Single axel	-
	Complementary load EG A/B :	
15	Vehicle EG A/B	-
16	Braking force	-
17	Lateral force	-
18	Centrifugal force	-
19	Temperature	0.60
	Wind load:	
20	Wind against bridge	0.30
21	Wind against vehicles	0.30
22	Surcharge	1.01
23	UTM3	1.00

Load combination smart FAT :

Load case	Permanent factor	Variable factor
DEAD	1.00	0
SURF	1.00	0
SHRINKAGE	-	-
UTM 3	-	1.00
TEMP	-	-

Load cases DEAD, SURF and SHRINKAGE are not fatigue loads, thus load coefficient 1.0 is applied.

Load case TEMP is not a fatigue loads, thus load is not considered.

Title: Input receipt

Model Units: kN,m,t,s,C
Report Units: kN,m,t,s,C

Model Title: System 001
Model File: System 001

Clarification of definitions.

In the report, the letter “T” is used to describe a range. The letter is an abbreviation of “to”.

See example of assignment below.

Assignment to Lines:
105T110;114T119

This expression means that the assignment occurs to the lines L105 → L110 and L114 → L119.

Assignment to Surfaces:
3T17;19T24
This expression means that the assignment occurs to the surfaces S3 → S17 and S19 → S24.

Table of Contents

1. Points

Point	X coordinate	Y coordinate	Z coordinate
1	0,0	5,0	0,0
2	0,0	4,1	0,0
3	0,0	4,1	-1,2
4	0,0	2,8	0,0
5	0,0	1,4	0,0
6	0,0	1,4	-1,2
7	0,0	0,0	0,0
8	0,0	-1,4	0,0
9	0,0	-1,4	-1,2
10	0,0	-2,8	0,0
11	0,0	-4,1	0,0
12	0,0	-4,1	-1,2
13	0,0	-5,0	0,0
14	5,0	5,0	0,0
15	5,0	4,1	0,0
16	5,0	4,1	-1,2
17	5,0	2,7	0,0
18	4,9	1,3	0,0
19	4,9	1,3	-1,2
20	4,9	-0,1	0,0
21	4,9	-1,4	0,0
22	4,9	-1,4	-1,2
23	4,8	-2,8	0,0
24	4,8	-4,2	0,0
25	4,8	-4,2	-1,2
26	4,8	-5,1	0,0
27	10,1	4,8	0,0
28	10,0	3,9	0,0
29	10,0	3,9	-1,2
30	9,9	2,5	0,0
31	9,9	1,1	0,0
32	9,9	1,1	-1,2
33	9,8	-0,3	0,0
34	9,7	-1,6	0,0
35	9,7	-1,6	-1,2
36	9,6	-3,0	0,0
37	9,6	-4,4	0,0
38	9,6	-4,4	-1,2
39	9,5	-5,3	0,0
40	15,1	4,4	0,0
41	15,0	3,5	0,0
42	15,0	3,5	-1,2
43	14,9	2,2	0,0
44	14,8	0,8	0,0
45	14,8	0,8	-1,2
46	14,7	-0,6	0,0
47	14,6	-2,0	0,0
48	14,6	-2,0	-1,2
49	14,5	-3,3	0,0
50	14,4	-4,7	0,0
51	14,4	-4,7	-1,2
52	14,3	-5,6	0,0
53	20,1	3,9	0,0
54	20,0	3,1	0,0
55	20,0	3,1	-1,2
56	19,9	1,7	0,0
57	19,7	0,3	0,0
58	19,7	0,3	-1,2
59	19,6	-1,0	0,0
60	19,4	-2,4	0,0
61	19,4	-2,4	-1,2
62	19,3	-3,8	0,0
63	19,1	-5,10,0	

Point	X coordinate	Y coordinate	Z coordinate
64	19,1	-5,1	-1,2
65	19,0	-6,0	0,0
66	25,1	3,3	0,0
67	25,0	2,5	0,0
68	25,0	2,5	-1,2
69	24,8	1,1	0,0
70	24,6	-0,3	0,0
71	24,6	-0,3	-1,2
72	24,4	-1,6	0,0
73	24,2	-3,0	0,0
74	24,2	-3,0	-1,2
75	24,1	-4,4	0,0
76	23,9	-5,7	0,0
77	23,9	-5,7	-1,2
78	23,8	-6,6	0,0
79	31,3	2,4	0,0
80	31,1	1,5	0,0
81	31,1	1,5	-1,2
82	30,9	0,2	0,0
83	30,7	-1,2	0,0
84	30,7	-1,2	-1,2
85	30,5	-2,6	0,0
86	30,2	-3,9	0,0
87	30,2	-3,9	-1,2
88	30,0	-5,3	0,0
89	29,8	-6,6	0,0
90	29,8	-6,6	-1,2
91	29,6	-7,5	0,0
92	37,5	1,3	0,0
93	37,3	0,4	0,0
94	37,3	0,4	-1,2
95	37,0	-1,0	0,0
96	36,7	-2,3	0,0
97	36,7	-2,3	-1,2
98	36,5	-3,7	0,0
99	36,2	-5,0	0,0
100	36,2	-5,0	-1,2
101	35,9	-6,4	0,0
102	35,6	-7,7	0,0
103	35,6	-7,7	-1,2
104	35,5	-8,6	0,0
105	43,6	-0,1	0,0
106	43,4	-1,0	0,0
107	43,4	-1,0	-1,2
108	43,0	-2,3	0,0
109	42,7	-3,6	0,0
110	42,7	-3,6	-1,2
111	42,4	-5,0	0,0
112	42,1	-6,3	0,0
113	42,1	-6,3	-1,2
114	41,8	-7,7	0,0
115	41,5	-9,0	0,0
116	41,5	-9,0	-1,2
117	41,2	-9,9	0,0
118	49,6	-1,6	0,0
119	49,4	-2,5	0,0
120	49,4	-2,5	-1,2
121	49,0	-3,8	0,0
122	48,7	-5,2	0,0
123	48,7	-5,2	-1,2
124	48,3	-6,5	0,0
125	48,0	-7,8	0,0
126	48,0	-7,8	-1,2
127	47,6	-9,1	0,0
128	47,2	-10,50,0	

Point	X coordinate	Y coordinate	Z coordinate
129	47,2	-10,5	-1,2
130	47,0	-11,3	0,0
131	55,7	-3,4	0,0
132	55,4	-4,3	0,0
133	55,4	-4,3	-1,2
134	55,0	-5,6	0,0
135	54,6	-6,9	0,0
136	54,6	-6,9	-1,2
137	54,2	-8,2	0,0
138	53,8	-9,5	0,0
139	53,8	-9,5	-1,2
140	53,4	-10,8	0,0
141	53,0	-12,1	0,0
142	53,0	-12,1	-1,2
143	52,7	-13,0	0,0
144	60,5	-5,0	0,0
145	60,2	-5,8	0,0
146	60,2	-5,8	-1,2
147	59,7	-7,1	0,0
148	59,3	-8,4	0,0
149	59,3	-8,4	-1,2
150	58,8	-9,7	0,0
151	58,4	-11,0	0,0
152	58,4	-11,0	-1,2
153	58,0	-12,3	0,0
154	57,5	-13,6	0,0
155	57,5	-13,6	-1,2
156	57,2	-14,5	0,0
157	65,2	-6,6	0,0
158	64,9	-7,5	0,0
159	64,9	-7,5	-1,2
160	64,4	-8,8	0,0
161	63,9	-10,1	0,0
162	63,9	-10,1	-1,2
163	63,5	-11,4	0,0
164	63,0	-12,6	0,0
165	63,0	-12,6	-1,2
166	62,5	-13,9	0,0
167	62,0	-15,2	0,0
168	62,0	-15,2	-1,2
169	61,7	-16,1	0,0
170	69,9	-8,4	0,0
171	69,6	-9,3	0,0
172	69,6	-9,3	-1,2
173	69,0	-10,6	0,0
174	68,5	-11,8	0,0
175	68,5	-11,8	-1,2
176	68,0	-13,1	0,0
177	67,5	-14,4	0,0
178	67,5	-14,4	-1,2
179	67,0	-15,7	0,0
180	66,5	-16,9	0,0
181	66,5	-16,9	-1,2
182	66,2	-17,8	0,0
183	74,5	-10,4	0,0
184	74,2	-11,2	0,0
185	74,2	-11,2	-1,2
186	73,6	-12,5	0,0
187	73,1	-13,7	0,0
188	73,1	-13,7	-1,2
189	72,6	-15,0	0,0
190	72,0	-16,3	0,0
191	72,0	-16,3	-1,2
192	71,5	-17,5	0,0
193	70,9	-18,80,0	

Point	X coordinate	Y coordinate	Z coordinate
194	70,9	-18,8	-1,2
195	70,6	-19,6	0,0
196	79,1	-12,4	0,0
197	78,8	-13,3	0,0
198	78,8	-13,3	-1,2
199	78,2	-14,5	0,0
200	77,6	-15,8	0,0
201	77,6	-15,8	-1,2
202	77,0	-17,0	0,0
203	76,4	-18,2	0,0
204	76,4	-18,2	-1,2
205	75,9	-19,5	0,0
206	75,3	-20,7	0,0
207	75,3	-20,7	-1,2
208	74,9	-21,6	0,0
209	5,0	2,7	-1,2
210	9,9	2,5	-1,2
211	14,9	2,2	-1,2
212	19,9	1,7	-1,2
213	4,9	-0,1	-1,2
214	9,8	-0,3	-1,2
215	14,7	-0,6	-1,2
216	19,6	-1,0	-1,2
217	4,8	-2,8	-1,2
218	9,6	-3,0	-1,2
219	14,5	-3,3	-1,2
220	19,3	-3,8	-1,2
221	30,9	0,2	-1,2
222	37,0	-1,0	-1,2
223	43,0	-2,3	-1,2
224	49,0	-3,8	-1,2
225	30,5	-2,6	-1,2
226	36,5	-3,7	-1,2
227	42,4	-5,0	-1,2
228	48,3	-6,5	-1,2
229	30,0	-5,3	-1,2
230	35,9	-6,4	-1,2
231	41,8	-7,7	-1,2
232	47,6	-9,1	-1,2
233	59,7	-7,1	-1,2
234	64,4	-8,8	-1,2
235	69,0	-10,6	-1,2
236	73,6	-12,5	-1,2
237	58,8	-9,7	-1,2
238	63,5	-11,4	-1,2
239	68,0	-13,1	-1,2
240	72,6	-15,0	-1,2
241	58,0	-12,3	-1,2
242	62,5	-13,9	-1,2
243	67,0	-15,7	-1,2
244	71,5	-17,5	-1,2
245	0,0	2,7	-1,2
246	0,0	0,0	-1,2
247	0,0	-2,7	-1,2
248	24,8	1,1	-1,2
249	24,4	-1,6	-1,2
250	24,1	-4,4	-1,2
251	55,0	-5,6	-1,2
252	54,2	-8,2	-1,2
253	53,4	-10,8	-1,2
254	78,2	-14,5	-1,2
255	77,0	-17,0	-1,2
256	75,9	-19,5	-1,2
257	0,0	-5,0	0,0
262	74,9	-21,6	0,0

2. Lines

Line	Points	Line	Points
1	1;2	2	2;3
3	2;4	4	4;5
5	5;6	6	5;7
7	7;8	8	8;9
9	8;10	10	10;11
11	11;12	12	11;13
13	1;14	14	2;15
15	3;16	16	4;17
17	5;18	18	6;19
19	7;20	20	8;21
21	9;22	22	10;23
23	11;24	24	12;25
25	13;26	26	14;15
27	15;16	28	15;17
29	17;18	30	18;19
31	18;20	32	20;21
33	21;22	34	21;23
35	23;24	36	24;25
37	24;26	38	14;27
39	15;28	40	16;29
41	17;30	42	18;31
43	19;32	44	20;33
45	21;34	46	22;35
47	23;36	48	24;37
49	25;38	50	26;39
51	27;28	52	28;29
53	28;30	54	30;31
55	31;32	56	31;33
57	33;34	58	34;35
59	34;36	60	36;37
61	37;38	62	37;39
63	27;40	64	28;41
65	29;42	66	30;43
67	31;44	68	32;45
69	33;46	70	34;47
71	35;48	72	36;49
73	37;50	74	38;51
75	39;52	76	40;41
77	41;42	78	41;43
79	43;44	80	44;45
81	44;46	82	46;47
83	47;48	84	47;49
85	49;50	86	50;51
87	50;52	88	40;53
89	41;54	90	42;55
91	43;56	92	44;57
93	45;58	94	46;59
95	47;60	96	48;61
97	49;62	98	50;63
99	51;64	100	52;65
101	53;54	102	54;55
103	54;56	104	56;57
105	57;58	106	57;59
107	59;60	108	60;61
109	60;62	110	62;63
111	63;64	112	63;65
113	53;66	114	54;67
115	55;68	116	56;69
117	57;70	118	58;71
119	59;72	120	60;73
121	61;74	122	62;75
123	63;76	124	64;77
125	65;78	12666;67	

Line	Points	Line	Points
127	67;68	128	67;69
129	69;70	130	70;71
131	70;72	132	72;73
133	73;74	134	73;75
135	75;76	136	76;77
137	76;78	138	66;79
139	67;80	140	68;81
141	69;82	142	70;83
143	71;84	144	72;85
145	73;86	146	74;87
147	75;88	148	76;89
149	77;90	150	78;91
151	79;80	152	80;81
153	80;82	154	82;83
155	83;84	156	83;85
157	85;86	158	86;87
159	86;88	160	88;89
161	89;90	162	89;91
163	79;92	164	80;93
165	81;94	166	82;95
167	83;96	168	84;97
169	85;98	170	86;99
171	87;100	172	88;101
173	89;102	174	90;103
175	91;104	176	92;93
177	93;94	178	93;95
179	95;96	180	96;97
181	96;98	182	98;99
183	99;100	184	99;101
185	101;102	186	102;103
187	102;104	188	92;105
189	93;106	190	94;107
191	95;108	192	96;109
193	97;110	194	98;111
195	99;112	196	100;113
197	101;114	198	102;115
199	103;116	200	104;117
201	105;106	202	106;107
203	106;108	204	108;109
205	109;110	206	109;111
207	111;112	208	112;113
209	112;114	210	114;115
211	115;116	212	115;117
213	105;118	214	106;119
215	107;120	216	108;121
217	109;122	218	110;123
219	111;124	220	112;125
221	113;126	222	114;127
223	115;128	224	116;129
225	117;130	226	118;119
227	119;120	228	119;121
229	121;122	230	122;123
231	122;124	232	124;125
233	125;126	234	125;127
235	127;128	236	128;129
237	128;130	238	118;131
239	119;132	240	120;133
241	121;134	242	122;135
243	123;136	244	124;137
245	125;138	246	126;139
247	127;140	248	128;141
249	129;142	250	130;143
251	131;132	252	132;133
253	132;134	254	134;135
255	135;136	256	135;137
257	137;138	258138;139	

Line	Points	Line	Points
259	138;140	260	140;141
261	141;142	262	141;143
263	131;144	264	132;145
265	133;146	266	134;147
267	135;148	268	136;149
269	137;150	270	138;151
271	139;152	272	140;153
273	141;154	274	142;155
275	143;156	276	144;145
277	145;146	278	145;147
279	147;148	280	148;149
281	148;150	282	150;151
283	151;152	284	151;153
285	153;154	286	154;155
287	154;156	288	144;157
289	145;158	290	146;159
291	147;160	292	148;161
293	149;162	294	150;163
295	151;164	296	152;165
297	153;166	298	154;167
299	155;168	300	156;169
301	157;158	302	158;159
303	158;160	304	160;161
305	161;162	306	161;163
307	163;164	308	164;165
309	164;166	310	166;167
311	167;168	312	167;169
313	157;170	314	158;171
315	159;172	316	160;173
317	161;174	318	162;175
319	163;176	320	164;177
321	165;178	322	166;179
323	167;180	324	168;181
325	169;182	326	170;171
327	171;172	328	171;173
329	173;174	330	174;175
331	174;176	332	176;177
333	177;178	334	177;179
335	179;180	336	180;181
337	180;182	338	170;183
339	171;184	340	172;185
341	173;186	342	174;187
343	175;188	344	176;189
345	177;190	346	178;191
347	179;192	348	180;193
349	181;194	350	182;195
351	183;184	352	184;185
353	184;186	354	186;187
355	187;188	356	187;189
357	189;190	358	190;191
359	190;192	360	192;193
361	193;194	362	193;195
363	183;196	364	184;197
365	185;198	366	186;199
367	187;200	368	188;201
369	189;202	370	190;203
371	191;204	372	192;205
373	193;206	374	194;207
375	195;208	376	196;197
377	197;198	378	197;199
379	199;200	380	200;201
381	200;202	382	202;203
383	203;204	384	203;205
385	205;206	386	206;207
387	206;208	388	209;18
389	209;15	39016;19	

Line	Points	Line	Points
391	210;31	392	210;28
393	29;32	394	211;44
395	211;41	396	42;45
397	212;57	398	212;54
399	55;58	400	213;21
401	213;18	402	19;22
403	214;34	404	214;31
405	32;35	406	215;47
407	215;44	408	45;48
409	216;60	410	216;57
411	58;61	412	217;24
413	217;21	414	22;25
415	218;37	416	218;34
417	35;38	418	219;50
419	219;47	420	48;51
421	220;63	422	220;60
423	61;64	424	221;83
425	221;80	426	81;84
427	222;96	428	222;93
429	94;97	430	223;109
431	223;106	432	107;110
433	224;122	434	224;119
435	120;123	436	225;86
437	225;83	438	84;87
439	226;99	440	226;96
441	97;100	442	227;112
443	227;109	444	110;113
445	228;125	446	228;122
447	123;126	448	229;89
449	229;86	450	87;90
451	230;102	452	230;99
453	100;103	454	231;115
455	231;112	456	113;116
457	232;128	458	232;125
459	126;129	460	233;148
461	233;145	462	146;149
463	234;161	464	234;158
465	159;162	466	235;174
467	235;171	468	172;175
469	236;187	470	236;184
471	185;188	472	237;151
473	237;148	474	149;152
475	238;164	476	238;161
477	162;165	478	239;177
479	239;174	480	175;178
481	240;190	482	240;187
483	188;191	484	241;154
485	241;151	486	152;155
487	242;167	488	242;164
489	165;168	490	243;180
491	243;177	492	178;181
493	244;193	494	244;190
495	191;194	496	3;6
497	2;5	498	2;245
499	5;245	500	6;9
501	5;8	502	5;246
503	8;246	504	9;12
505	8;11	506	8;247
507	11;247	508	68;71
509	67;70	510	67;248
511	70;248	512	71;74
513	70;73	514	70;249
515	73;249	516	74;77
517	73;76	518	73;250
519	76;250	520	133;136
521	132;135	522132;251	

Line	Points	Line	Points
523	135;251	524	136;139
525	135;138	526	135;252
527	138;252	528	139;142
529	138;141	530	138;253
531	141;253	532	198;201
533	197;200	534	197;254
535	200;254	536	201;204
537	200;203	538	200;255
539	203;255	540	204;207
541	203;206	542	203;256
543	206;256		

3. Surfaces

Surface	**Lines**	**Surface**	**Lines**
900	14;26;13;1	902	15;27;14;2
904	16;28;14;3	906	17;29;16;4
908	18;30;17;5	910	19;31;17;6
912	20;32;19;7	914	21;33;20;8
916	22;34;20;9	918	23;35;22;10
920	24;36;23;11	922	25;37;23;12
924	39;51;38;26	926	40;52;39;27
928	41;53;39;28	930	42;54;41;29
932	43;55;42;30	934	44;56;42;31
936	45;57;44;32	938	46;58;45;33
940	47;59;45;34	942	48;60;47;35
944	49;61;48;36	946	50;62;48;37
948	64;76;63;51	950	65;77;64;52
952	66;78;64;53	954	67;79;66;54
956	68;80;67;55	958	69;81;67;56
960	70;82;69;57	962	71;83;70;58
964	72;84;70;59	966	73;85;72;60
968	74;86;73;61	970	75;87;73;62
972	89;101;88;76	974	90;102;89;77
976	91;103;89;78	978	92;104;91;79
980	93;105;92;80	982	94;106;92;81
984	95;107;94;82	986	96;108;95;83
988	97;109;95;84	990	98;110;97;85
992	99;111;98;86	994	100;112;98;87
996	114;126;113;101	998	115;127;114;102
1000	116;128;114;103	1002	117;129;116;104
1004	118;130;117;105	1006	119;131;117;106
1008	120;132;119;107	1010	121;133;120;108
1012	122;134;120;109	1014	123;135;122;110
1016	124;136;123;111	1018	125;137;123;112
1020	139;151;138;126	1022	140;152;139;127
1024	141;153;139;128	1026	142;154;141;129
1028	143;155;142;130	1030	144;156;142;131
1032	145;157;144;132	1034	146;158;145;133
1036	147;159;145;134	1038	148;160;147;135
1040	149;161;148;136	1042	150;162;148;137
1044	164;176;163;151	1046	165;177;164;152
1048	166;178;164;153	1050	167;179;166;154
1052	168;180;167;155	1054	169;181;167;156
1056	170;182;169;157	1058	171;183;170;158
1060	172;184;170;159	1062	173;185;172;160
1064	174;186;173;161	1066	175;187;173;162
1068	189;201;188;176	1070	190;202;189;177
1072	191;203;189;178	1074	192;204;191;179
1076	193;205;192;180	1078	194;206;192;181
1080	195;207;194;182	1082	196;208;195;183
1084	197;209;195;184	1086	198;210;197;185
1088	199;211;198;186	1090	200;212;198;187
1092	214;226;213;201	1094	215;227;214;202
1096	216;228;214;203	1098	217;229;216;204
1100	218;230;217;205	1102	219;231;217;206
1104	220;232;219;207	1106	221;233;220;208
1108	222;234;220;209	1110	223;235;222;210
1112	224;236;223;211	1114	225;237;223;212
1116	239;251;238;226	1118	240;252;239;227
1120	241;253;239;228	1122	242;254;241;229
1124	243;255;242;230	1126	244;256;242;231
1128	245;257;244;232	1130	246;258;245;233
1132	247;259;245;234	1134	248;260;247;235
1136	249;261;248;236	1138	250;262;248;237
1140	264;276;263;251	1142	265;277;264;252
1144	266;278;264;253	1146267;279;266;254	

Surface	Lines	Surface	Lines
1148	268;280;267;255	1150	269;281;267;256
1152	270;282;269;257	1154	271;283;270;258
1156	272;284;270;259	1158	273;285;272;260
1160	274;286;273;261	1162	275;287;273;262
1164	289;301;288;276	1166	290;302;289;277
1168	291;303;289;278	1170	292;304;291;279
1172	293;305;292;280	1174	294;306;292;281
1176	295;307;294;282	1178	296;308;295;283
1180	297;309;295;284	1182	298;310;297;285
1184	299;311;298;286	1186	300;312;298;287
1188	314;326;313;301	1190	315;327;314;302
1192	316;328;314;303	1194	317;329;316;304
1196	318;330;317;305	1198	319;331;317;306
1200	320;332;319;307	1202	321;333;320;308
1204	322;334;320;309	1206	323;335;322;310
1208	324;336;323;311	1210	325;337;323;312
1212	339;351;338;326	1214	340;352;339;327
1216	341;353;339;328	1218	342;354;341;329
1220	343;355;342;330	1222	344;356;342;331
1224	345;357;344;332	1226	346;358;345;333
1228	347;359;345;334	1230	348;360;347;335
1232	349;361;348;336	1234	350;362;348;337
1236	364;376;363;351	1238	365;377;364;352
1240	366;378;364;353	1242	367;379;366;354
1244	368;380;367;355	1246	369;381;367;356
1248	370;382;369;357	1250	371;383;370;358
1252	372;384;370;359	1254	373;385;372;360
1256	374;386;373;361	1258	375;387;373;362

4. MESH:Line

Attribute: 2 Title: Line Size=2,100
Sub Type = Line Mesh **Element Type = BMI31**

Mesh spacing	Element size	Start node end releases:	End node end releases:
Irregular	2,100	None	None

Assignment to Lines: Beta angle = 0,000
2T14I3;15;17;18;20;21;23;24T39I3;40;42;43;45;46;48;49T64I3;65;67;68;70;71;73;74T89I3;90;92;93;95;96;98;99T114I3;115;117;118;120;121;123;124T139I3;140;142;143;145;146;148;149T164I3;165;167;168;170;171;173;174T189I3;190;192;193;195;196;198;199T214I3;215;217;218;220;221;223;224T239I3;240;242;243;245;246;248;249T264I3;265;267;268;270;271;273;274T289I3;290;292;293;295;296;298;299T314I3;315;317;318;320;321;323;324T339I3;340;342;343;345;346;348;349T364I3;365;367;368;370;371;373;374T386I3

Attribute: 3 Title: Line Divisions=1
Sub Type = Line Mesh **Element Type = BMI31**

Mesh spacing	Nr. of elements	Start node end releases:	End node end releases:
Uniform	1	None	None

Assignment to Lines: Beta angle = 0,000
388T543

5. MESH:Surface

Attribute: 1 Title: Surface Size=2,100
Sub Type = Surface Mesh Element Type = QTS8

Property	Symbol	Value
Element size	size	2,1
Number of divisions in x	xDivisions	0
Number of divisions in y	yDivisions	0
Transition mesh	transition	true
Allow irregular mesh	allowIrregular	true
Element defined by name	DefinedByName	false
Single feature joint	isSingleFtrJnt	false

Assignment to Surfaces:
900T1258I2

6. Geometric : Line

Attribute: 1 Title: Right web stiffner where web=0,012 (RSS D=0,020 B=0,200 EY=0,106 (RSS D=0,02 B=0,2))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,1
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,1
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,2
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
52;77;177;202;302T352I25

Attribute: 2 Title: Left web stiffner+Right web stiffner where web=0,012 (Compound - 2 sections)
Sub Type = Line Geometric

Assigned in: Analysis 7

Section	Name	Horizontal Alignment	Vertical Alignment
1	RSS D=0,020 B=0,200 (RSS D=0,02 B=0,2)	'Centroid' at coord (-0106)	'Centroid' at coord (0,000)
2	RSS D=0,020 B=0,200 (RSS D=0,02 B=0,2)	'Centroid' at coord (0,106)	'Centroid' at coord (0.000)

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	24
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
380;383

Attribute: 4 Title: Beam 1: External left top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
14T89I25

Attribute: 5 Title: Beam 1: External left bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
15T90I25

Attribute: 6 Title: Beam 1: Internal top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
17;20;42;45;67;70;92;95

Attribute: 7 Title: Beam 1: Internal bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
18;21;43;46;68;71;93;96

Attribute: 8 Title: Beam 1: External right top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
23T98I25

Attribute: 9 Title: Beam 1: External right bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
24T99I25

Attribute: 10 Title: Right web stiffner where web=0,013 (RSS D=0,020 B=0,200 EY=0,107 (RSS D=0,02 B=0,2))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,1
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,1
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,2
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
102;152;227;277

Attribute: 13 Title: Beam 2: External left top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
114;139

Attribute: 14 Title: Beam 2: External left bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
115;140

Attribute: 15 Title: Beam 2: Internal top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
117;120;142;145

Attribute: 16 Title: Beam 2: Internal bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
118;121;143;146

Attribute: 17   Title: Beam 2: External right top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
123;148

Attribute: 18 Title: Beam 2: External right bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
124;149

Attribute: 20 Title: Left web stiffner+Right web stiffner where web=0,014 (Compound - 2 sections)
Sub Type = Line Geometric
Assigned in: Analysis 7

Section	Name	Horizontal Alignment	Vertical Alignment
1	RSS D=0,020 B=0,200 (RSS D=0,02 B=0,2)	'Centroid' at coord (-0,107)	'Centroid' at coord (0,000)
2	RSS D=0,020 B=0,200 (RSS D=0,02 B=0,2)	'Centroid' at coord (0,107)	'Centroid' at coord (0,000)

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	24
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
130;133;255;258

Attribute: 22 Title: Beam 3: External left top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
164T214I25

Attribute: 23 Title: Beam 3: External left bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
165T215I25

Attribute: 24 Title: Beam 3: Internal top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
167;170;192;195;217;220

Attribute: 25 Title: Beam 3: Internal bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
168;171;193;196;218;221

Attribute: 26 Title: Beam 3: External right top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
173T223I25

Attribute: 27 Title: Beam 3: External right bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
174T224I25

Attribute: 28 Title: Beam 4: External left top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
239;264

Attribute: 29 Title: Beam 4: External left bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
240;265

Attribute: 30 Title: Beam 4: Internal top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
242;245

Attribute: 31 Title: Beam 4: Internal bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
243;246

Attribute: 32 Title: Beam 4: External right top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
248

Attribute: 33 Title: Beam 4: External right bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
249

Attribute: 34 Title: Beam 4: Internal top flange to Beam 5: Internal top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46)/ RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**End 1**	**End 2**
Cross sectional area	A	0,0	0,0
Second moment of area about y axis	Iyy	0,0	0,0
Second moment of area about z axis	Izz	0,0	0,0
Product moment of area	Iyz	0,0	0,0
Torsional constant	J	0,0	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0	0,0
Effective shear area in local z direction	Asz	0,0	0,0
Effective shear area in local y direction	Asy	0,0	0,0
Plastic area	Ap	0,0	0,0
Plastic modulus for bending about y	Zpy	0,0	0,0
Plastic modulus for bending about z	Zpz	0,0	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0	0,0
Plastic torsional section modulus	Zpt	0,0	0,0
Warping torsional constant about shear centre	Cw	0,0	0,0
Shear centre about y axis	yo	0,0	0,0
Shear centre about z axis	zo	0,0	0,0
Monosymmetry constant about y	betay	0,0	0,0
Monosymmetry constant about z	betaz	0,0	0,0
Radius of gyration about y axis	ky	0,0	0,0
Radius of gyration about z axis	kz	0,1	0,1
y axis extreme fibre, top	yt	0,2	0,2
y axis extreme fibre, bottom	yb	-0,2	-0,2
z axis extreme fibre, top	zt	0,0	0,0
z axis extreme fibre, bottom	zb	0,0	0,0
Shape code identifier	Type	1	1
Breadth of this section	B	0,5	0,5
Depth of this section	D	0,0	0,0
Element type	elementType	"3D Thick Beam"	"3D Thick Beam"
Vertical alignment eccentricity	vAlign	0,0	0,0
Horizontal alignment eccentricity	hAlign	0,0	0,0
Section to which others are aligned	alignToRow	0	0
Vertical alignment type	vAlignType	"Value"	"Value"
Horizontal alignment type	hAlignType	"Value"	"Value"
Interpolation method	interpMethod	"Enhanced"	"Enhanced"
Reinforcement	reinforcement	None	None

Assignment to Lines:
267;270

Attribute: 35 Title: Beam 4: Internal bottom flange to Beam 5: Internal bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6)/ RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**End 1**	**End 2**
Cross sectional area	A	0,0	0,0
Second moment of area about y axis	Iyy	0,0	0,0
Second moment of area about z axis	Izz	0,0	0,0
Product moment of area	Iyz	0,0	0,0
Torsional constant	J	0,0	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0	0,0
Effective shear area in local z direction	Asz	0,0	0,0
Effective shear area in local y direction	Asy	0,0	0,0
Plastic area	Ap	0,0	0,0
Plastic modulus for bending about y	Zpy	0,0	0,0
Plastic modulus for bending about z	Zpz	0,0	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0	0,0
Plastic torsional section modulus	Zpt	0,0	0,0
Warping torsional constant about shear centre	Cw	0,0	0,0
Shear centre about y axis	yo	0,0	0,0
Shear centre about z axis	zo	0,0	0,0
Monosymmetry constant about y	betay	0,0	0,0
Monosymmetry constant about z	betaz	0,0	0,0
Radius of gyration about y axis	ky	0,0	0,0
Radius of gyration about z axis	kz	0,2	0,2
y axis extreme fibre, top	yt	0,3	0,3
y axis extreme fibre, bottom	yb	-0,3	-0,3
z axis extreme fibre, top	zt	0,0	0,0
z axis extreme fibre, bottom	zb	0,0	0,0
Shape code identifier	Type	1	1
Breadth of this section	B	0,6	0,6
Depth of this section	D	0,0	0,0
Element type	elementType	"3D Thick Beam"	"3D Thick Beam"
Vertical alignment eccentricity	vAlign	0,0	0,0
Horizontal alignment eccentricity	hAlign	0,0	0,0
Section to which others are aligned	alignToRow	0	0
Vertical alignment type	vAlignType	"Value"	"Value"
Horizontal alignment type	hAlignType	"Value"	"Value"
Interpolation method	interpMethod	"Enhanced"	"Enhanced"
Reinforcement	reinforcement	None	None

Assignment to Lines:
268;271

Attribute: 36 Title: Beam 4: External right top flange to Beam 5: External right top flange (RSS D=0,025 B=0,460 EZ=-0,013 (RSS D=0,025 B=0,46)/ RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	End 1	End 2
Cross sectional area	A	0,0	0,0
Second moment of area about y axis	Iyy	0,0	0,0
Second moment of area about z axis	Izz	0,0	0,0
Product moment of area	Iyz	0,0	0,0
Torsional constant	J	0,0	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0	0,0
Effective shear area in local z direction	Asz	0,0	0,0
Effective shear area in local y direction	Asy	0,0	0,0
Plastic area	Ap	0,0	0,0
Plastic modulus for bending about y	Zpy	0,0	0,0
Plastic modulus for bending about z	Zpz	0,0	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0	0,0
Plastic torsional section modulus	Zpt	0,0	0,0
Warping torsional constant about shear centre	Cw	0,0	0,0
Shear centre about y axis	yo	0,0	0,0
Shear centre about z axis	zo	0,0	0,0
Monosymmetry constant about y	betay	0,0	0,0
Monosymmetry constant about z	betaz	0,0	0,0
Radius of gyration about y axis	ky	0,0	0,0
Radius of gyration about z axis	kz	0,1	0,1
y axis extreme fibre, top	yt	0,2	0,2
y axis extreme fibre, bottom	yb	-0,2	-0,2
z axis extreme fibre, top	zt	0,0	0,0
z axis extreme fibre, bottom	zb	0,0	0,0
Shape code identifier	Type	1	1
Breadth of this section	B	0,5	0,5
Depth of this section	D	0,0	0,0
Element type	elementType	"3D Thick Beam"	"3D Thick Beam"
Vertical alignment eccentricity	vAlign	0,0	0,0
Horizontal alignment eccentricity	hAlign	0,0	0,0
Section to which others are aligned	alignToRow	0	0
Vertical alignment type	vAlignType	"Value"	"Value"
Horizontal alignment type	hAlignType	"Value"	"Value"
Interpolation method	interpMethod	"Enhanced"	"Enhanced"
Reinforcement	reinforcement	None	None

Assignment to Lines:
273

Attribute: 37 Title: Beam 4: External right bottom flange to Beam 5: External right bottom flange (RSS D=0,040 B=0,600 EZ=0,020 (RSS D=0,04 B=0,6)/ RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**End 1**	**End 2**
Cross sectional area	A	0,0	0,0
Second moment of area about y axis	Iyy	0,0	0,0
Second moment of area about z axis	Izz	0,0	0,0
Product moment of area	Iyz	0,0	0,0
Torsional constant	J	0,0	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0	0,0
Effective shear area in local z direction	Asz	0,0	0,0
Effective shear area in local y direction	Asy	0,0	0,0
Plastic area	Ap	0,0	0,0
Plastic modulus for bending about y	Zpy	0,0	0,0
Plastic modulus for bending about z	Zpz	0,0	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0	0,0
Plastic torsional section modulus	Zpt	0,0	0,0
Warping torsional constant about shear centre	Cw	0,0	0,0
Shear centre about y axis	yo	0,0	0,0
Shear centre about z axis	zo	0,0	0,0
Monosymmetry constant about y	betay	0,0	0,0
Monosymmetry constant about z	betaz	0,0	0,0
Radius of gyration about y axis	ky	0,0	0,0
Radius of gyration about z axis	kz	0,2	0,2
y axis extreme fibre, top	yt	0,3	0,3
y axis extreme fibre, bottom	yb	-0,3	-0,3
z axis extreme fibre, top	zt	0,0	0,0
z axis extreme fibre, bottom	zb	0,0	0,0
Shape code identifier	Type	1	1
Breadth of this section	B	0,6	0,6
Depth of this section	D	0,0	0,0
Element type	elementType	"3D Thick Beam"	"3D Thick Beam"
Vertical alignment eccentricity	vAlign	0,0	0,0
Horizontal alignment eccentricity	hAlign	0,0	0,0
Section to which others are aligned	alignToRow	0	0
Vertical alignment type	vAlignType	"Value"	"Value"
Horizontal alignment type	hAlignType	"Value"	"Value"
Interpolation method	interpMethod	"Enhanced"	"Enhanced"
Reinforcement	reinforcement	None	None

Assignment to Lines:
274

Attribute: 38 Title: Beam 5: External left top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
289T364I25

Attribute: 39 Title: Beam 5: External left bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
290T365I25

Attribute: 40 Title: Beam 5: Internal top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
292;295;317;320;342;345;367;370

Attribute: 41 Title: Beam 5: Internal bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
293;296;318;321;343;346;368;371

Attribute: 42 Title: Beam 5: External right top flange (RSS D=0,020 B=0,460 EZ=-0,010 (RSS D=0,02 B=0,46))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,5
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
298T373I25

Attribute: 43 Title: Beam 5: External right bottom flange (RSS D=0,025 B=0,600 EZ=0,013 (RSS D=0,025 B=0,6))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,2
y axis extreme fibre, top	yt	0,3
y axis extreme fibre, bottom	yb	-0,3
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,6
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
299T374I25

Attribute: 48 Title: Stiffner (S) (Compound - 2 sections)
Sub Type = Line Geometric
Assigned in: Analysis 7

Section	Name	Horizontal Alignment	Vertical Alignment
1	PL 25 x 200 (RSS D=0,025 B=0,2)	'Centroid' at coord (-0,107)	'Centroid' at coord (0,000)
2	PL 25 x 200 (RSS D=0,025 B=0,2)	'Centroid' at coord (0,107)	'Centroid' at coord (0,000)

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	24
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
2T11I3;127;136;252;261;377;386

Attribute: 49 Title: Stiffner (F): Girder A (PL 15 x 200 (RSS D=0,015 B=0,2))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,1
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,1
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,2
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
27

Attribute: 50 Title: Stiffner (F): Girder B & C (Compound - 2 sections)
Sub Type = Line Geometric
Assigned in: Analysis 7

Section	Name	Horizontal Alignment	Vertical Alignment
1	PL 15 x 200 (RSS D=0,015 B=0,2)	'Centroid' at coord (-0,107)	'Centroid' at coord (0,000)
2	PL 15 x 200 (RSS D=0,015 B=0,2)	'Centroid' at coord (0,107)	'Centroid' at coord (0,000)

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,2
y axis extreme fibre, bottom	yb	-0,2
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	24
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
30;33;55;58;80;83;105;108;155;158;180;183;205;208;230;233;280;283;305;308;330;333;355;358

Attribute: 51 Title: Stiffner (F): Girder D (PL 15 x 200 (RSS D=0,015 B=0,2))
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	-0,1
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	-0,1
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,0
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,0
z axis extreme fibre, bottom	zb	0,0
Shape code identifier	Type	1
Breadth of this section	B	0,2
Depth of this section	D	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
36T111I25;161T236I25;286T361I25

Attribute: 52 Title: Typ F: Inclined beam (HE 120 B)
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,1
Radius of gyration about z axis	kz	0,0
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,1
z axis extreme fibre, bottom	zb	-0,1
Shape code identifier	Type	5
Breadth of this section	B	0,1
Depth of this section	D	0,1
Thickness of flange of this section	tf	0,0
Thickness of web of this section	tw	0,0
Radius of fillet of this section	r	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
388;389;391;392;394;395;397;398;400;401;403;404;406;407;409;410;412;413;415;416;418;419;421;422;424;425;427;428;430;431;433;434;436;4
37;439;440;442;443;445;446;448;449;451;452;454;455;457;458;460;461;463;464;466;467;469;470;472;473;475;476;478;479;481;482;484;485;48
7;488;490;491;493;494

Attribute: 53 Title: Typ F: Horizontal beam (HE 180 B)
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	Symbol	Value
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,1
Radius of gyration about z axis	kz	0,0
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,1
z axis extreme fibre, bottom	zb	-0,1
Shape code identifier	Type	5
Breadth of this section	B	0,2
Depth of this section	D	0,2
Thickness of flange of this section	tf	0,0
Thickness of web of this section	tw	0,0
Radius of fillet of this section	r	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
390T495I3

Attribute: 54 Title: Typ S: Horizontal beam bottom (HE 220 B)
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,1
Radius of gyration about z axis	kz	0,1
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,1
z axis extreme fibre, bottom	zb	-0,1
Shape code identifier	Type	5
Breadth of this section	B	0,2
Depth of this section	D	0,2
Thickness of flange of this section	tf	0,0
Thickness of web of this section	tw	0,0
Radius of fillet of this section	r	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
496T540I4

Attribute: 55 Title: Typ S: Horizonatal beam top (HE 180 B)
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,1
Radius of gyration about z axis	kz	0,0
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,1
z axis extreme fibre, bottom	zb	-0,1
Shape code identifier	Type	5
Breadth of this section	B	0,2
Depth of this section	D	0,2
Thickness of flange of this section	tf	0,0
Thickness of web of this section	tw	0,0
Radius of fillet of this section	r	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
497T541I4

Attribute: 56 Title: Type S: Inclined beam (HE 120 B)
Sub Type = Line Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Cross sectional area	A	0,0
Second moment of area about y axis	Iyy	0,0
Second moment of area about z axis	Izz	0,0
Product moment of area	Iyz	0,0
Torsional constant	J	0,0
Eccentricity in local z direction, relative to specified origin	ez0	0,0
Eccentricity in local y direction, relative to specified origin	ey0	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0
Eccentricity in local y direction, relative to beam centroid	ey	0,0
Wagner constant 1st moment of square radius about y (Iyr)	Iyr	0,0
Wagner constant 1st moment of square radius about z (Izr)	Izr	0,0
Wagner constant 4th moment of area about origin (Irr)	Irr	0,0
Wagner constant 2nd moment of warping about origin (Iwr)	Iwr	0,0
Effective shear area in local z direction	Asz	0,0
Effective shear area in local y direction	Asy	0,0
Plastic area	Ap	0,0
Plastic modulus for bending about y	Zpy	0,0
Plastic modulus for bending about z	Zpz	0,0
Plastic neutral axis, distance from centroid along y axis	yp	0,0
Plastic neutral axis, distance from centroid along z axis	zp	0,0
Plastic torsional section modulus	Zpt	0,0
Warping torsional constant about shear centre	Cw	0,0
Shear centre about y axis	yo	0,0
Shear centre about z axis	zo	0,0
Monosymmetry constant about y	betay	0,0
Monosymmetry constant about z	betaz	0,0
Radius of gyration about y axis	ky	0,1
Radius of gyration about z axis	kz	0,0
y axis extreme fibre, top	yt	0,1
y axis extreme fibre, bottom	yb	-0,1
z axis extreme fibre, top	zt	0,1
z axis extreme fibre, bottom	zb	-0,1
Shape code identifier	Type	5
Breadth of this section	B	0,1
Depth of this section	D	0,1
Thickness of flange of this section	tf	0,0
Thickness of web of this section	tw	0,0
Radius of fillet of this section	r	0,0
Element type	elementType	"3D Thick Beam"
Reinforcement	reinforcement	None

Assignment to Lines:
498;499;502;503;506;507;510;511;514;515;518;519;522;523;526;527;530;531;534;535;538;539;542;543

7. Geometric: Surface

7.1 Defintion surface

Attribute: 44 Title: T=0,200 E=-0,140
Sub Type = Surface Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Thickness	t	0,2
Eccentricity in local z direction, relative to beam centroid	ez	-0,1

Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994;996;1
000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1
078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;11
56;1158;1162;1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;123
4;1236;1240;1242;1246;1248;1252;1254;1258

Attribute: 45 Title: T=0,012
Sub Type = Surface Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Thickness	t	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0

Assignment to Surfaces:
902T992I6;1046T1112I6;1166T1256I6

Attribute: 46 Title: T=0,014
Sub Type = Surface Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Thickness	t	0,0
Eccentricity in local z direction, relative to beam centroid	ez	0,0

Assignment to Surfaces:
998T1040I6;1118T1142I6

Attribute: 47 Title: T=0,014 to T=0,012
Sub Type = Surface Geometric
Assigned in: Analysis 7

Property	**Symbol**	**Value**
Thickness	t	U0=0,014 U1=0,012
Eccentricity in local z direction, relative to beam centroid	ez	0,0

Assignment to Surfaces:
1148T1160I6

7.2 Surface variations

Attribute: 3 Title: U0=0,014 U1=0,012
Sub Type = Surface Function Variation

Property	Symbol	Value
Function	function	"u * 0.012 + (1.0 - u) * 0.014"

8. Isotropic material

Attribute: 2 Title: Steel (Ungraded | Steel - Structural | EN1993-1-1:2005)
Sub Type = Isotropic Material

Property	Symbol	Value
Young's modulus	E	210000000,0
Poisson's ratio	nu	0,3
Density	rho	7,8
Coefficient of thermal expansion	alpha	0,0

Assigned in: Analysis 7
Assignment to Lines:
2T14I3;15;17;18;20;21;23;24T39I3;40;42;43;45;46;48;49T64I3;65;67;68;70;71;73;74T89I3;90;92;93;95;96;98;99T114I3;115;117;118;120;121;123;124T139I3;140;142;143;145;146;148;149T164I3;165;167;168;170;171;173;174T189I3;190;192;193;195;196;198;199T214I3;215;217;218;220;221;223;224T239I3;240;242;243;245;246;248;249T264I3;265;267;268;270;271;273;274T289I3;290;292;293;295;296;298;299T314I3;315;317;318;320;321;323;324T339I3;340;342;343;345;346;348;349T364I3;365;367;368;370;371;373;374T386I3;388T543
Assignment to Surfaces:
902T1256I6

Attribute: 4 Title: Concrete - type 2 & 3 (uncracked)
Sub Type = Isotropic Material

Property	Symbol	Value
Young's modulus	E	11300000,0
Poisson's ratio	nu	0,2
Density	rho	2,5
Coefficient of thermal expansion	alpha	0,0

Assigned in: Analysis 5
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Assigned in: Analysis 2
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994

Assigned in: Analysis 3
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994;1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Assigned in: Analysis 4
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1164;1168;1170;1174;1176;1180;1182;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Attribute: 5 Title: Concrete - type 5 (uncracked)
Sub Type = Isotropic Material

Property	Symbol	Value
Young's modulus	E	34000000,0
Poisson's ratio	nu	0,2
Density	rho	2,5
Coefficient of thermal expansion	alpha	0,0

Assigned in: Analysis 7
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Attribute: 6 Title: Concrete - type 1 & 7 (no stiffness)
Sub Type = Isotropic Material

Property	Symbol	Value
Young's modulus	E	34000,0
Poisson's ratio	nu	0,2
Density	rho	2,5
Coefficient of thermal expansion	alpha	0,0

Assigned in: Analysis 7
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162

Assigned in: Analysis 5
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162

Assigned in: Analysis 1
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994

Assigned in: Analysis 2
Assignment to Surfaces:
1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Assigned in: Analysis 3
Assignment to Surfaces:
1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114

Assigned in: Analysis 4
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042

9. Support

Attribute: 1 Title: FFR
Sub Type = Structural Support
Assigned in: Analysis 7

Property	Symbol	Value
Translation in X	U	"F"
Translation in Y	V	"F"
Translation in Z	W	"R"
Rotation about X	THX	"F"
Rotation about Y	THY	"F"
Rotation about Z	THZ	"F"
Torsional warping	Torsion	"F"
Moment about hinge	L1	"F"
Pore pressure	pore	"C"

Assignment to Points:
3;12;68;77;198;207

Attribute: 2 Title: FRR
Sub Type = Structural Support
Assigned in: Analysis 7

Property	Symbol	Value
Translation in X	U	"F"
Translation in Y	V	"R"
Translation in Z	W	"R"
Rotation about X	THX	"F"
Rotation about Y	THY	"F"
Rotation about Z	THZ	"F"
Torsional warping	Torsion	"F"
Moment about hinge	L1	"F"
Pore pressure	pore	"C"

Assignment to Points:
6;9;71;74;201;204

Attribute: 3 Title: RFR
Sub Type = Structural Support
Assigned in: Analysis 7

Property	Symbol	Value
Translation in X	U	"R"
Translation in Y	V	"F"
Translation in Z	W	"R"
Rotation about X	THX	"F"
Rotation about Y	THY	"F"
Rotation about Z	THZ	"F"
Torsional warping	Torsion	"F"
Moment about hinge	L1	"F"
Pore pressure	pore	"C"

Assignment to Points:
133;142

Attribute: 4 Title: RRR
Sub Type = Structural Support
Assigned in: Analysis 7

Property	Symbol	Value
Translation in X	U	"R"
Translation in Y	V	"R"
Translation in Z	W	"R"
Rotation about X	THX	"F"
Rotation about Y	THY	"F"
Rotation about Z	THZ	"F"
Torsional warping	Torsion	"F"
Moment about hinge	L1	"F"
Pore pressure	pore	"C"

Assignment to Points:
136;139

10. Search Area

Attribute: 1 Title: Deck
Sub Type = Search Area

Assignment to Surfaces:
900T1258I2

11. Local coordinate systems

Attribute: 1 Title: R=-7,671
Sub Type = Local Coordinates

Property	Symbol	Value
Attribute type	type	"Cartesian"
Rotation angle	angle	-7,7
Origin	originPos[0]	0,0
Origin	originPos[1]	-183,0
Origin	originPos[2]	0,0
Type	plane	"XY_Angle"

Assignment to Points:
68T77I3

Attribute: 2 Title: R=-17,220
Sub Type = Local Coordinates

Property	Symbol	Value
Attribute type	type	"Cartesian"
Rotation angle	angle	-17,2
Origin	originPos[0]	0,0
Origin	originPos[1]	-183,0
Origin	originPos[2]	0,0
Type	plane	"XY_Angle"

Assignment to Points:
133T142I3

Attribute: 3 Title: R=-24,891
Sub Type = Local Coordinates

Property	Symbol	Value
Attribute type	type	"Cartesian"
Rotation angle	angle	-24,9
Origin	originPos[0]	0,0
Origin	originPos[1]	-183,0
Origin	originPos[2]	0,0
Type	plane	"XY_Angle"

Assignment to Points:
198T207I3

12. Structural analysis

Attribute: 1 Title: Analysis 1 (Stage I)
Base Analysis : No

Attribute: 2 Title: Analysis 2 (Stage II)
Base Analysis : No

Attribute: 3 Title: Analysis III (Stage III)
Base Analysis : No

Attribute: 4 Title: Analysis IV (Stage IV)
Base Analysis : No

Attribute: 5 Title: Analysis V (Stage V)
Base Analysis : No

Attribute: 6 Title: Analysis 6 (O:PERM)
Base Analysis : No

Attribute: 7 Title: Analysis 7 (O:VAR)
Base Analysis : Yes

Attribute: 8 Title: Analysis 8 (O:TEMP)
Base Analysis : No

13. Deactivate elements

Attribute: 1 Title: Stage II-V
Sub Type = Deactivate

Property	Symbol	Value
Percentage of internal forces to be redistributed	percent	100,0
Stiffness reduction factor	stfscl	0,0
Process constraint equations	createConstr	true
Constraint equation type	constrEquType	"none"
Increments	ninc	1
Basic Deactivation Options	deactType	"activeMesh"
Redistribution of Internal Forces	deactRedist	"number of increments"

Assigned to Analysis: 1
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162;1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Attribute: 2 Title: Stage III-V

Sub Type = Deactivate

Property	Symbol	Value
Percentage of internal forces to be redistributed	percent	100,0
Stiffness reduction factor	stfscl	0,0
Process constraint equations	createConstr	true
Constraint equation type	constrEquType	"none"
Increments	ninc	1
Basic Deactivation Options	deactType	"activeMesh"
Redistribution of Internal Forces	deactRedist	"number of increments"

Assigned to Analysis: 2
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162

Attribute: 3 Title: Stage IV-V
Sub Type = Deactivate

Property	Symbol	Value
Percentage of internal forces to be redistributed	percent	100,0
Stiffness reduction factor	stfscl	0,0
Process constraint equations	createConstr	true
Constraint equation type	constrEquType	"none"
Increments	ninc	1
Basic Deactivation Options	deactType	"activeMesh"
Redistribution of Internal Forces	deactRedist	"number of increments"

Assigned to Analysis: 3
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162

Attribute: 4 Title: Stage V
Sub Type = Deactivate

Property	Symbol	Value
Percentage of internal forces to be redistributed	percent	100,0
Stiffness reduction factor	stfscl	0,0
Process constraint equations	createConstr	true
Constraint equation type	constrEquType	"none"
Increments	ninc	1
Basic Deactivation Options	deactType	"activeMesh"
Redistribution of Internal Forces	deactRedist	"number of increments"

Assigned to Analysis: 4
Assignment to Surfaces:
1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162

14. Body load

Attribute: 1 Title: DEAD 1
Sub Type = Body Force Load

Property	Symbol	Value
Linear acceleration in X	AccX	0,0
Linear acceleration in Y	AccY	0,0
Linear acceleration in Z	AccZ	-10,0
Angular velocity about X axis	AngVelX	0,0
Angular velocity about Y axis	AngVelY	0,0
Angular velocity about Z axis	AngVelZ	0,0
Angular acceleration about X axis	AngAccX	0,0
Angular acceleration about Y axis	AngAccY	0,0
Angular acceleration about Z axis	AngAccZ	0,0
Linear acceleration In X fluid phase	lnFlAccX	0,0
Linear acceleration In Y fluid phase	lnFlAccY	0,0
Linear acceleration In Z fluid phase	lnFlAccZ	-10,0

Assigned to Analysis: 1
Loadcase ID: 12 Title: DEAD 1:1 Factor = 1.0
Assignment to Surfaces:
902T1256I6

Attribute: 2 Title: DEAD 2
Sub Type = Body Force Load

Property	**Symbol**	**Value**
Linear acceleration in X	AccX	0,0
Linear acceleration in Y	AccY	0,0
Linear acceleration in Z	AccZ	-10,0
Angular velocity about X axis	AngVelX	0,0
Angular velocity about Y axis	AngVelY	0,0
Angular velocity about Z axis	AngVelZ	0,0
Angular acceleration about X axis	AngAccX	0,0
Angular acceleration about Y axis	AngAccY	0,0
Angular acceleration about Z axis	AngAccZ	0,0
Linear acceleration In X fluid phase	lnFlAccX	0,0
Linear acceleration In Y fluid phase	lnFlAccY	0,0
Linear acceleration In Z fluid phase	lnFlAccZ	-10,0

Assigned to Analysis: 1
Loadcase ID: 13 Title: DEAD 2:1 Factor = 1.0
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994

Assigned to Analysis: 2
Loadcase ID: 14 Title: DEAD 2:2 Factor = 1.0
Assignment to Surfaces:
1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

Assigned to Analysis: 3
Loadcase ID: 15 Title: DEAD 2:3 Factor = 1.0
Assignment to Surfaces:
1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114

Assigned to Analysis: 4
Loadcase ID: 16 Title: DEAD 2:4 Factor = 1.0
Assignment to Surfaces:
996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042

Assigned to Analysis: 5
Loadcase ID: 17 Title: DEAD 2:5 Factor = 1.0
Assignment to Surfaces:
1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162

15. Global distributed

Attribute: 3 Title: DEAD 3
Sub Type = Global Distributed Load

Property	Symbol	Value
Attribute type	type	"Length"
X Direction	WX	0,0
Y Direction	WY	0,0
Z Direction	WZ	-6,0
Moment about X axis	MX	0,0
Moment about Y axis	MY	0,0
Moment about Z axis	MZ	0,0
Moment about hinge nodes	Hinge	0,0
Pore pressure flux	pwp	0,0
Keep global	keepGlobal	false

Assigned to Analysis: 6
Loadcase ID: 18 Title: DEAD 3 Factor = 1.0
Assignment to Lines:
13;25;38;50;63;75;88;100;113;125;138;150;163;175;188;200;213;225;238;250;263;275;288;300;313;325;338;350;363;375

Attribute: 4 Title: SURF
Sub Type = Global Distributed Load

Property	Symbol	Value
Attribute type	type	"Area"
X Direction	WX	0,0
Y Direction	WY	0,0
Z Direction	WZ	-2,2
Pore pressure flux	pwp	0,0
Keep global	keepGlobal	false

Assigned to Analysis: 6
Loadcase ID: 20 Title: SURF Factor = 1.0
Assignment to Surfaces:
900;904;906;910;912;916;918;922;924;928;930;934;936;940;942;946;948;952;954;958;960;964;966;970;972;976;978;982;984;988;990;994;996;1000;1002;1006;1008;1012;1014;1018;1020;1024;1026;1030;1032;1036;1038;1042;1044;1048;1050;1054;1056;1060;1062;1066;1068;1072;1074;1078;1080;1084;1086;1090;1092;1096;1098;1102;1104;1108;1110;1114;1116;1120;1122;1126;1128;1132;1134;1138;1140;1144;1146;1150;1152;1156;1158;1162;1164;1168;1170;1174;1176;1180;1182;1186;1188;1192;1194;1198;1200;1204;1206;1210;1212;1216;1218;1222;1224;1228;1230;1234;1236;1240;1242;1246;1248;1252;1254;1258

16. Beam point load

Attribute: 5 Title: Ncs:1+
Sub Type = Beam Point Load

Property	Symbol	Value
Distance type	type	1
Load direction	dirType	"Local(nodal)"
Distance	d	0,0
Point load in x direction	Px	1842,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	258,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 6
Loadcase ID: 22 Title: SHRINK Factor = 1.0
Assignment to Lines:
14;23;164;173;289;298

Attribute: 6 Title: Ncs:1-
Sub Type = Beam Point Load

Property	Symbol	Value
Distance type	type	0
Load direction	dirType	"Local(nodal)"
Distance	d	1,0
Point load in x direction	Px	-1842,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	-258,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 6
Loadcase ID: 22 Title: SHRINK Factor = 1.0
Assignment to Lines:
89;98;214;223;364;373

Attribute: 7 Title: Ncs:2+
Sub Type = Beam Point Load

Property	Symbol	Value
Distance type	type	1
Load direction	dirType	"Local(nodal)"
Distance	d	0,0
Point load in x direction	Px	2228,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	312,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 6
Loadcase ID: 22 Title: SHRINK Factor = 1.0
Assignment to Lines:
17;20;167;170;292;295

Attribute: 8 Title: Ncs:2-
Sub Type = Beam Point Load

Property	Symbol	Value
Distance type	type	0
Load direction	dirType	"Local(nodal)"
Distance	d	1,0
Point load in x direction	Px	-2228,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	-312,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 6
Loadcase ID: 22 Title: SHRINK Factor = 1.0
Assignment to Lines:
92;95;217;220;367;370

Attribute: 9 Title: Ntemp:1+
Sub Type = Beam Point Load

Property	Symbol	Value
Distance type	type	1
Load direction	dirType	"Local(nodal)"
Distance	d	0,0
Point load in x direction	Px	1190,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	167,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 8
Loadcase ID: 23 Title: UTEMP+ Factor = 1.0
Assignment to Lines:
14;23;164;173

Attribute: 10 Title: Ntemp:1-
Sub Type = Beam Point Load

Property	Symbol	Value
Distance type	type	0
Load direction	dirType	"Local(nodal)"
Distance	d	1,0
Point load in x direction	Px	-1190,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	-167,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 8
Loadcase ID: 23 Title: UTEMP+ Factor = 1.0
Assignment to Lines:
89;98;239;248;364;373

Attribute: 11 Title: Ntemp:2+
Sub Type = Beam Point Load

Property	**Symbol**	**Value**
Distance type	type	1
Load direction	dirType	"Local(nodal)"
Distance	d	0,0
Point load in x direction	Px	1438,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	201,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 8
Loadcase ID: 23 Title: UTEMP+ Factor = 1.0
Assignment to Lines:
17;20;167;170

Attribute: 12 Title: Ntemp:2-
Sub Type = Beam Point Load

Property	**Symbol**	**Value**
Distance type	type	0
Load direction	dirType	"Local(nodal)"
Distance	d	1,0
Point load in x direction	Px	-1438,0
Point load in y direction	Py	0,0
Point load in z direction	Pz	0,0
Moment about x axis	Mx	0,0
Moment about y axis	My	-201,0
Moment about z axis	Mz	0,0

Assigned to Analysis: 8
Loadcase ID: 23 Title: UTEMP+ Factor = 1.0
Assignment to Lines:
92;95;242;245;367;370

17. Beam/Shell Slicing

Attribute: 1 Title: Girder A
Slice path: L544, 545;546
Slice locations along path: 4,0@6,263;4,0@7,795;4,0@6,263;
Slice width: 2.275
Extent: Girder A
Moment about (Neutral Axis or Slice Path): Neutral axis

Attribute: 2 Title: Grider B
Slice path: L547;L548;L549
Slice locations along path: 4,0@6,171; 4,0@7,682; 4,0@6,171
Slice width: 2.750
Extent: Girder B
Moment about (Neutral Axis or Slice Path): Neutral axis

Attribute: 3 Title: Girder C
Slice path: L8022
Slice locations along path: 0, 3.28, 6.56, 13.64, 16.92, 20.2, 23.48, 26.76, 30.04, 33.32, 36.6
Slice width: 2.750
Extent: Girder C
Moment about (Neutral Axis or Slice Path): Neutral axis

Attribute: 3 Title: Girder D
Slice path: L 550;L551;L552
Slice locations along path: 4,0@6,079; 4,0@7,567; 4,0@6,079
Slice width: 2.275
Extent: Girder D
Moment about (Neutral Axis or Slice Path): Neutral axis

18. Direct Method Influence Envelope

Attribute: 1 Title: Inf1 – Beam & Shell
Sub Type = Direct method influence
Entity: Beam/shell
Directions: Fz, My
Assignment to Beam/Shell Slices: Girder A, Grider B, Girder C, Giorder D

Attribute: 2 Title: Inf2 – Reactions
Sub Type = Direct method influence
Entity: Reactions
Directions: FX, FY, FZ
Assignment to Points:
400;401

Attribute: 3 Title: Inf3 – Deck
Sub Type = Direct method influence
Entity: Force/Moment – Thick Shell
D**irections:** Sy, My

Assignment to Points:
2T11I3;15T24I3;28T37I3;41T50I3;54T63I3;67T76I3;80T89I3;93T102I3;106T115I3;119T128I3;132T141I3;145T154I3;158T1
67I3;171T180I3;184T193I3;197T206I3

Assignment to Lines:
14T23I3;39T48I3;64T73I3;89T98I3;114T123I3;139T148I3;164T173I3;189T198I3;214T223I3;239T248I3;264T273I3;289T298
I3;314T323I3;339T3
48I3;364T373I3

Attribute: 4 Title: Inf4 – Bracing & stiffners
Sub Type = Direct method influence
Entity: Force/Moment – 3D Thick Beam
Directions: Fx

Assignment to Lines:
559T568I3;584T593I3;609T618I3;634T643I3;659T668I3;684T693I3;709T718I3;734T743I3;759T768I3;784T793I3;809T818I3
;834T843I3;859T868I3;884T893I3;909T918I3;934T943I3;945T1148

19. Load groups: Traffic

Load groups : Eurocode Load Modell 1 (LM1)
Type: Tandem axle
Axle load - lane 1: 300 kN
Axle load - lane 2: 200 kN
Axel load - lane 3: 100 kN

Lane load
Surface load - lane 1: 9.0 kPa
Surface load - remaining: 2.5 kPa

Load groups : Eurocode Load Modell 2 (LM2)
Type: Single axle
Axle load: 400 kN

Load groups : Fatigue modell 3 (UTM3)
Type: Quadruple axel
Axle load: 120 kN

20. VLO Analysis

Type: VLO – LM1 ~ Characteristic
Representative values : Charateristic
Design code : EN 1991-2 Sweden 2011
Load groups : LM1
Longitudinal increment : 0.50 m
Transverse increment : 0.50 m
Vehicule direction : Both
Kerbs : L559, L560
UDL alfa factor : 0.8, 1, 1 , 1, 1
TS alfa factor : 0.9, 0.9,0
Influence attributes :

Inf1 – Beam & Shell

Inf2 – Reactions

Inf3 – Deck

Inf4 – Bracings & stiffners

Type: VLO – LM2 ~ Characteristic
Representative values : Charateristic
Design code : EN 1991-2 Sweden 2011
Load groups : LM2
Longitudinal increment : 0.50 m
Transverse increment : 0.50 m
Vehicule direction : Both
Kerbs : L559, L560
TS alfa factor : 0.9
Influence attributes :

Inf1 – Beam & Shell

Inf2 – Reactions

Inf3 – Deck

Inf4 – Bracings & stiffners

Type: VLO – UTM3 ~ Characteristic
Representative values : Charateristic
Design code : EN 1991-2 Sweden 2011
Load groups : UTM3
Longitudinal increment : 0.50 m
Transverse increment : 0.50 m
Vehicule direction : Both
Kerbs : L559, L560
Influence attributes :

Inf1 – Beam & Shell

Inf2 – Reactions

Inf3 – Deck

Inf4 – Bracings & stiffners

21. Basic combination

Loadcase ID: 19 Title: DEAD

Sub Type: Basic Combination

Loadcase File	Results Factor	Title	Type
12	0	1,000	DEAD 1:1
13	0	1,000	DEAD 2:1
14	0	1,000	DEAD 2:2
15	0	1,000	DEAD 2:3
16	0	1,000	DEAD 2:4
17	0	1,000	DEAD 2:5
18	0	1,000DEAD 3	

22. Smart combination

Loadcase ID: 24 Title: TEMP
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	Results File	Permanent Factor	Variable Factor	Title
23	0	0,000	1,000	UTEMP+
23	0	0,000	-1,000	UTEMP+

Loadcase ID: 12520 Title: ULS-PERM
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	Results File	Permanent Factor	Variable Factor	Title
19	0	1,000	0,200	DEAD
20	0	0,900	0,450	SURF
22	0	0,000	1,200	SHRINK

Loadcase ID: 12522 Title: ULS-VAR
Sub Type: Smart Combination
Loadcases to consider: 2
Variable Loadcases: 1

Loadcase	Results File	Permanent Factor	Variable Factor	Title
12518	0	1,030	0,470	TRAFFIC (Max)
12519	0	1,030	0,470	TRAFFIC (Min)
24	0	0,900	0,600	TEMP (Max)
25	0	0,900	0,600	TEMP (Min)

Loadcase ID: 12524 Title: ULS
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	Results File	Permanent Factor	Variable Factor	Title
12520	0	1,000	0,000	ULS-PERM (Max)
12521	0	1,000	0,000	ULS-PERM (Min)
12522	0	0,000	1,000	ULS-VAR (Max)
12523	0	0,000	1,000	ULS-VAR (Min)

Loadcase ID: 12526 Title: SLS-PERM
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	ResultsFile	Permanent Factor	Variable Factor	Title
19	0	1,000	0,000	DEAD
20	0	0,900	0,200	SURF
22	0	0,000	1,000	SHRINK

Loadcase ID: 12528 Title: SLS-K-VAR
Sub Type: Smart Combination
Loadcases to consider: 2
Variable Loadcases: 1

Loadcase	ResultsFile	PermanentFactor	VariableFactor	Title
12518	0	0,750	0,250	TRAFFIC (Max)
12519	0	0,750	0,250	TRAFFIC (Min)
24	0	0,600	0,400	TEMP (Max)
25	0	0,600	0,400	TEMP (Min)

Loadcase ID: 12530 Title: SLS-F-VAR
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	ResultsFile	PermanentFactor	VariableFactor	Title
12518	0	0,000	0,750	TRAFFIC (Max)
12519	0	0,000	0,750	TRAFFIC (Min)
24	0	0,000	0,600	TEMP (Max)
25	0	0,000	0,600	TEMP (Min)

adcase ID: 12532 Title: SLS-K
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase Type	Results	File	PermanentFactor	VariableFactor
12526	0	1,000	0,000	SLS-PERM (Max)
12527	0	1,000	0,000	SLS-PERM (Min)
12528	0	0,000	1,000	SLS-K-VAR (Max)
12529	0	0,000	1,000	SLS-K-VAR (Min)

Loadcase ID: 12534 Title: SLS-F
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	ResultsFile	PermanentFactor	VariableFactor	Title
12526	0	1,000	0,000	SLS-PERM (Max)
12527	0	1,000	0,000	SLS-PERM (Min)
12530	0	0,000	1,000	SLS-F-VAR (Max)
12531	0	0,000	1,000	SLS-F-VAR (Min)

Loadcase ID: 12536 Title: SLS-Q
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	ResultsFile	PermanentFactor	VariableFactor	Title
19	0	1,000	0,000	DEAD
20	0	0,900	0,200	SURF
22	0	0,000	1,000	SHRINK
24	0	0,000	0,500	TEMP (Max)
25	0	0,000	0,500	TEMP (Min)

Loadcase ID: 12538 Title: FAT
Sub Type: Smart Combination
Loadcases to consider: All
Variable Loadcases: All

Loadcase	ResultsFile	PermanentFactor	VariableFactor	Title
19	0	1,000	0,000	DEAD
20	0	1,000	0,000	SURF
12518	0	0,000	1,000	TRAFFIC (Max)
12519	0	0,000	1,000	TRAFFIC (Min)

23. Envelopes

Loadcase ID: 12518 Title: TRAFFIC

Sub Type: Envelope

Loadcase File	Results Title	Type
458	0	Inf1 - Beam & shell ~ LM1 Characteristic (Max)
459	0	Inf1 - Beam & shell ~ LM1 Characteristic (Min)
892	0	Inf1 - Beam & shell ~ LM2 Characteristic (Max)
893	0	Inf1 - Beam & shell ~ LM2 Characteristic (Min)
12510	0	Inf2 - Reaction ~ LM1 Characteristic (Max)
12511	0	Inf2 – Reaction ~ LM1 Characteristic (Min)
12514	0	Inf2 – Reaction ~ LM2 Characteristic (Max)
12515	0	Inf2 – Reaction ~ LM2 Characteristic (Min)
12512	0	Inf3 - Deck ~ LM1 Characteristic (Max)
12513	0	Inf3 – Deck ~ LM1 Characteristic (Min)
12516	0	Inf3 – Deck ~ LM2 Characteristic (Max)
12517	0	Inf3 – Deck ~ LM2 Characteristic (Min)

Loadcase ID: 120 Title: OJTEMP 1
Sub Type: Envelope

Loadcase File	Results Title	Type
25	0	OJTEMP:1+
26	0	OJTEMP:1-

Loadcase ID: 124 Title: TEMP
Sub Type: Envelope

Loadcase File	Results Title	Type
116	0	TEMP-1 (Max)
117	0	TEMP-1 (Min)
118	0	TEMP-2 (Max)
119	0	TEMP-2 (Min)
122	0	TEMP-3 (Max)
123	0	TEMP-3 (Min)

Loadcase ID: 4682 Title: EG A
Sub Type: Envelope

Loadcase File	Results Title	Type
2895	0	VLO – EG A ~ Characteristic

Loadcase ID: 4684 Title: EG B
Sub Type: Envelope

Loadcase File	Results Title	Type
3297	0	VLO – EG B ~ Characteristic

Loadcase ID: 4686 Title: UTM3
Sub Type: Envelope

Loadcase File	Results Title	Type
4503	0	VLO – UTM3 ~ Characteristic

Loadcase ID: 4634 Title: LM1
Sub Type: Envelope

Loadcase File	Results Title	Type
3699	0	VLO – LM1 ~ Characteristic

Loadcase ID: 4636 Title: LM2
Sub Type: Envelope

Loadcase File	Results Title	Type
3699	0	VLO – LM1 ~ Characteristic

Loadcase ID: 4636 Title: TRAFIK
Sub Type: Envelope

Loadcase File	**Results Title**	**Type**
4682	0	EG A (Max)
4683	0	EG A (Min)
4684	0	EG B (Max)
4685	0	EG B (Min)
4634	0	LM1 (Max)
4635	0	LM1 (Min)
4636	0	LM2 (Max)
4637	0	LM2 (Min)

Title: Results reactions

Model Units: kN,m,t,s,C
Report Units: kN,m,t,s,C

Model Title: System 001
Model File: System 001

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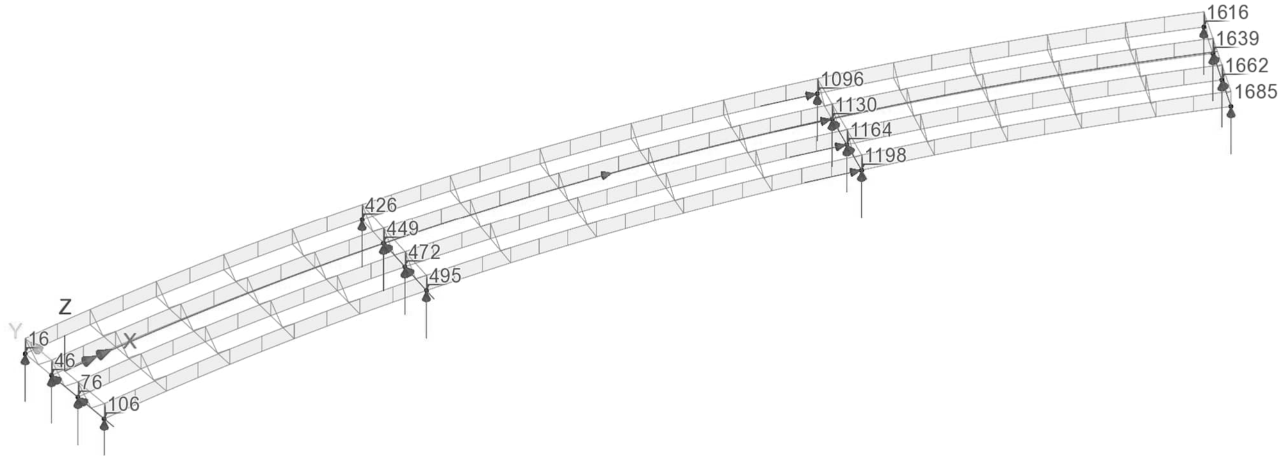
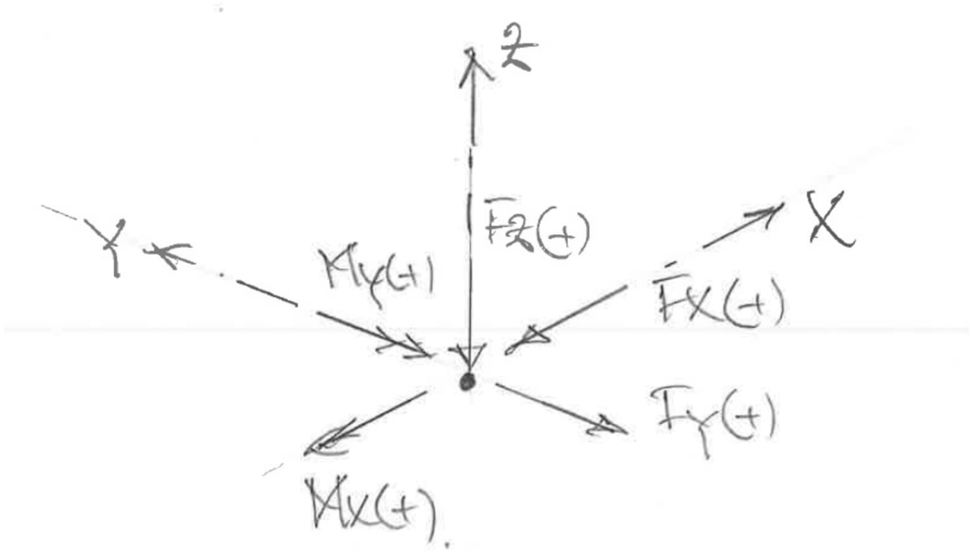
1. Reaction nodes



2. Sign convention



3. Results loadcases

Transformation: Local coordinate systems

Loadcase ID:19 **Title: DEAD**

Node	X	Y	Z	FX	FY	FZ	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	178	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	5	136	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	1	131	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	152	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	562	N/A	N/A	N/A
449	24,6	-0,3	-1,2	2	12	491	N/A	N/A	N/A
472	24,2	-3,0	-1,2	-2	-18	468	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	543	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	14	-4	568	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	-31	24	487	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	-20	-10	466	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	37	-12	544	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	178	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	1	2	136	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	0	-1	132	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	151	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:20 **Title: SURF**

Node	X	Y	Z	FX	FY	FZ	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	178	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	5	136	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	1	131	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	152	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	562	N/A	N/A	N/A
449	24,6	-0,3	-1,2	2	12	491	N/A	N/A	N/A
472	24,2	-3,0	-1,2	-2	-18	468	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	543	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	14	-4	568	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	-31	24	487	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	-20	-10	466	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	37	-12	544	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	178	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	1	2	136	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	0	-1	132	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	151	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:21 **Title: SHRINGAGE**

Node	X	Y	Z	FX	FY	FZ	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	86	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	-271	-25	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	-266	-11	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	-104	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	108	N/A	N/A	N/A
449	24,6	-0,3	-1,2	-48	-353	5	N/A	N/A	N/A
472	24,2	-3,0	-1,2	-51	-378	11	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	-69	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	-150	47	103	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	-135	-315	4	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	-72	-357	9	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	156	-48	-66	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	101	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	-124	-268	-28	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	-122	-264	-6	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	-118	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:22 **Title: UTEMP+**

Node	X	Y	Z	FX	FY	FZ	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	48	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	-165	-18	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	-161	-9	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	-64	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	86	N/A	N/A	N/A
449	24,6	-0,3	-1,2	-35	-258	8	N/A	N/A	N/A
472	24,2	-3,0	-1,2	-37	-273	8	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	-54	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	1123	-348	128	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	1129	-706	67	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	1205	-751	90	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	1363	-422	36	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	-16	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	-87	-187	-93	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	-85	-184	-72	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	-144	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

4. Results loadcombination – Fz

Loadcase ID:28750 Title: LM 1 (max)

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	620	0	0	0
46	0	1,4	-1,2	0	-25	568	0	0	0
76	0	-1,4	-1,2	0	23	558	0	0	0
106	0	-4,1	-1,2	0	0	588	0	0	0
426	25,0	2,5	-1,2	0	0	874	0	0	0
449	24,6	-0,3	-1,2	0	-40	805	0	0	0
472	24,2	-3,0	-1,2	0	24	793	0	0	0
495	23,9	-5,7	-1,2	0	0	884	0	0	0
1096	55,4	-4,3	-1,2	11	0	878	0	0	0
1130	54,6	-6,9	-1,2	-34	-61	801	0	0	0
1164	53,8	-9,5	-1,2	-35	25	790	0	0	0
1198	53,0	-12,1	-1,2	26	0	877	0	0	0
1616	78,8	-13,3	-1,2	0	0	588	0	0	0
1639	77,6	-15,8	-1,2	0	-10	548	0	0	0
1662	76,4	-18,2	-1,2	0	18	543	0	0	0
1685	75,3	-20,7	-1,2	0	0	539	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:28751 Title: LM 1 (min)

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	-111	0	0	0
46	0	1,4	-1,2	0	56	-47	0	0	0
76	0	-1,4	-1,2	0	-35	-38	0	0	0
106	0	-4,1	-1,2	0	0	-113	0	0	0
426	25,0	2,5	-1,2	0	0	-105	0	0	0
449	24,6	-0,3	-1,2	0	27	-43	0	0	0
472	24,2	-3,0	-1,2	0	-6	-33	0	0	0
495	23,9	-5,7	-1,2	0	0	-123	0	0	0
1096	55,4	-4,3	-1,2	-22	0	-103	0	0	0
1130	54,6	-6,9	-1,2	28	10	-43	0	0	0
1164	53,8	-9,5	-1,2	7	2	-33	0	0	0
1198	53,0	-12,1	-1,2	-84	0	-120	0	0	0
1616	78,8	-13,3	-1,2	0	0	-56	0	0	0
1639	77,6	-15,8	-1,2	0	-30	-43	0	0	0
1662	76,4	-18,2	-1,2	0	24	-35	0	0	0
1685	75,3	-20,7	-1,2	0	0	-63	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12514 **Title: LM 2 (max)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	334	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	-17	275	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	17	275	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	334	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	325	N/A	N/A	N/A
449	24,6	-0,3	-1,2	N/A	-28	265	N/A	N/A	N/A
472	24,2	-3,0	-1,2	N/A	28	265	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	324	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	-9	N/A	325	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	-1	-28	265	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	-1	28	265	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	-8	N/A	324	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	326	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	N/A	-12	262	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	N/A	13	262	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	325	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12515 **Title: LM 2 (min)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	-111	N/A	N/A	N/A
46	0	1,4	-1,2	0	56	-47	N/A	N/A	N/A
76	0	-1,4	-1,2	0	-35	-38	N/A	N/A	N/A
106	0	-4,1	-1,2	0	0	-113	N/A	N/A	N/A
426	25,0	2,5	-1,2	0	0	-105	N/A	N/A	N/A
449	24,6	-0,3	-1,2	0	27	-43	N/A	N/A	N/A
472	24,2	-3,0	-1,2	0	-6	-33	N/A	N/A	N/A
495	23,9	-5,7	-1,2	0	0	-123	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	-22	0	-103	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	28	10	-43	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	7	2	-33	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	-84	0	-120	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	0	0	-56	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	0	-30	-43	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	0	24	-35	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	0	0	-63	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12524 **Title: ULS (max)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	1320	0	0	0
46	0	1,4	-1,2	0	-29	1093	0	0	0
76	0	-1,4	-1,2	0	40	1070	0	0	0
106	0	-4,1	-1,2	0	0	1126	0	0	0
426	25,0	2,5	-1,2	0	0	2338	0	0	0
449	24,6	-0,3	-1,2	0	-481	2047	0	0	0
472	24,2	-3,0	-1,2	0	-442	1997	0	0	0
495	23,9	-5,7	-1,2	0	0	2177	0	0	0
1096	55,4	-4,3	-1,2	-154	0	2344	0	0	0
1130	54,6	-6,9	-1,2	-148	-491	2033	0	0	0
1164	53,8	-9,5	-1,2	-28	-415	1988	0	0	0
1198	53,0	-12,1	-1,2	95	0	2167	0	0	0
1616	78,8	-13,3	-1,2	0	0	1290	0	0	0
1639	77,6	-15,8	-1,2	0	-10	1063	0	0	0
1662	76,4	-18,2	-1,2	0	29	1048	0	0	0
1685	75,3	-20,7	-1,2	0	0	1051	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12525 **Title: ULS (min)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	61	0	0	0
46	0	1,4	-1,2	0	-235	88	0	0	0
76	0	-1,4	-1,2	0	-368	111	0	0	0
106	0	-4,1	-1,2	0	0	-102	0	0	0
426	25,0	2,5	-1,2	0	0	554	0	0	0
449	24,6	-0,3	-1,2	0	47	589	0	0	0
472	24,2	-3,0	-1,2	0	-25	574	0	0	0
495	23,9	-5,7	-1,2	0	0	410	0	0	0
1096	55,4	-4,3	-1,2	-18	0	562	0	0	0
1130	54,6	-6,9	-1,2	-2	25	584	0	0	0
1164	53,8	-9,5	-1,2	-6	-12	572	0	0	0
1198	53,0	-12,1	-1,2	116	0	417	0	0	0
1616	78,8	-13,3	-1,2	0	0	143	0	0	0
1639	77,6	-15,8	-1,2	0	-395	88	0	0	0
1662	76,4	-18,2	-1,2	0	-311	123	0	0	0
1685	75,3	-20,7	-1,2	0	0	-44	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12532 **Title: SLS-K (max)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	944	0	0	0
46	0	1,4	-1,2	0	-18	767	0	0	0
76	0	-1,4	-1,2	0	27	750	0	0	0
106	0	-4,1	-1,2	0	0	791	0	0	0
426	25,0	2,5	-1,2	0	0	1726	0	0	0
449	24,6	-0,3	-1,2	0	-391	1500	0	0	0
472	24,2	-3,0	-1,2	0	-374	1462	0	0	0
495	23,9	-5,7	-1,2	0	0	1590	0	0	0
1096	55,4	-4,3	-1,2	-131	0	1730	0	0	0
1130	54,6	-6,9	-1,2	-114	-393	1489	0	0	0
1164	53,8	-9,5	-1,2	-15	-352	1455	0	0	0
1198	53,0	-12,1	-1,2	73	0	1583	0	0	0
1616	78,8	-13,3	-1,2	0	0	927	0	0	0
1639	77,6	-15,8	-1,2	0	-6	747	0	0	0
1662	76,4	-18,2	-1,2	0	20	736	0	0	0
1685	75,3	-20,7	-1,2	0	0	740	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12533 **Title: SLS-K (min)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	116	0	0	0
46	0	1,4	-1,2	0	-209	116	0	0	0
76	0	-1,4	-1,2	0	-297	132	0	0	0
106	0	-4,1	-1,2	0	0	-24	0	0	0
426	25,0	2,5	-1,2	0	0	606	0	0	0
449	24,6	-0,3	-1,2	0	34	611	0	0	0
472	24,2	-3,0	-1,2	0	-23	590	0	0	0
495	23,9	-5,7	-1,2	0	0	485	0	0	0
1096	55,4	-4,3	-1,2	-7	0	614	0	0	0
1130	54,6	-6,9	-1,2	-16	19	605	0	0	0
1164	53,8	-9,5	-1,2	-10	-12	588	0	0	0
1198	53,0	-12,1	-1,2	125	0	490	0	0	0
1616	78,8	-13,3	-1,2	0	0	171	0	0	0
1639	77,6	-15,8	-1,2	0	-321	116	0	0	0
1662	76,4	-18,2	-1,2	0	-265	141	0	0	0
1685	75,3	-20,7	-1,2	0	0	11	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12534 **Title: SLS-F (max)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	116	0	0	0
46	0	1,4	-1,2	0	-209	116	0	0	0
76	0	-1,4	-1,2	0	-297	132	0	0	0
106	0	-4,1	-1,2	0	0	-24	0	0	0
426	25,0	2,5	-1,2	0	0	606	0	0	0
449	24,6	-0,3	-1,2	0	34	611	0	0	0
472	24,2	-3,0	-1,2	0	-23	590	0	0	0
495	23,9	-5,7	-1,2	0	0	485	0	0	0
1096	55,4	-4,3	-1,2	-7	0	614	0	0	0
1130	54,6	-6,9	-1,2	-16	19	605	0	0	0
1164	53,8	-9,5	-1,2	-10	-12	588	0	0	0
1198	53,0	-12,1	-1,2	125	0	490	0	0	0
1616	78,8	-13,3	-1,2	0	0	171	0	0	0
1639	77,6	-15,8	-1,2	0	-321	116	0	0	0
1662	76,4	-18,2	-1,2	0	-265	141	0	0	0
1685	75,3	-20,7	-1,2	0	0	11	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12535 **Title: SLS-F (min)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	0	0	144	0	0	0
46	0	1,4	-1,2	0	-223	128	0	0	0
76	0	-1,4	-1,2	0	-289	141	0	0	0
106	0	-4,1	-1,2	0	0	4	0	0	0
426	25,0	2,5	-1,2	0	0	632	0	0	0
449	24,6	-0,3	-1,2	0	27	621	0	0	0
472	24,2	-3,0	-1,2	0	-21	599	0	0	0
495	23,9	-5,7	-1,2	0	0	516	0	0	0
1096	55,4	-4,3	-1,2	-2	0	640	0	0	0
1130	54,6	-6,9	-1,2	-23	17	616	0	0	0
1164	53,8	-9,5	-1,2	-11	-13	596	0	0	0
1198	53,0	-12,1	-1,2	146	0	521	0	0	0
1616	78,8	-13,3	-1,2	0	0	185	0	0	0
1639	77,6	-15,8	-1,2	0	-314	127	0	0	0
1662	76,4	-18,2	-1,2	0	-272	150	0	0	0
1685	75,3	-20,7	-1,2	0	0	27	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12536 **Title: SLS-Q (max)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	324	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	7	199	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	4	192	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	203	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	852	N/A	N/A	N/A
449	24,6	-0,3	-1,2	N/A	-350	695	N/A	N/A	N/A
472	24,2	-3,0	-1,2	N/A	-398	669	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	706	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	-142	N/A	852	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	-80	-333	688	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	20	-376	665	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	47	N/A	706	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	339	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	N/A	4	199	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	N/A	1	193	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	201	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Loadcase ID:12537 **Title: SLS-Q (min)**

Node	X	Y	Z	FX	FY	FZ(*)	MX	MY	MZ
16	0	4,1	-1,2	N/A	N/A	227	N/A	N/A	N/A
46	0	1,4	-1,2	N/A	-264	163	N/A	N/A	N/A
76	0	-1,4	-1,2	N/A	-262	170	N/A	N/A	N/A
106	0	-4,1	-1,2	N/A	N/A	89	N/A	N/A	N/A
426	25,0	2,5	-1,2	N/A	N/A	711	N/A	N/A	N/A
449	24,6	-0,3	-1,2	N/A	7	654	N/A	N/A	N/A
472	24,2	-3,0	-1,2	N/A	-17	624	N/A	N/A	N/A
495	23,9	-5,7	-1,2	N/A	N/A	608	N/A	N/A	N/A
1096	55,4	-4,3	-1,2	15	N/A	717	N/A	N/A	N/A
1130	54,6	-6,9	-1,2	-43	9	648	N/A	N/A	N/A
1164	53,8	-9,5	-1,2	-17	-14	621	N/A	N/A	N/A
1198	53,0	-12,1	-1,2	209	N/A	611	N/A	N/A	N/A
1616	78,8	-13,3	-1,2	N/A	N/A	227	N/A	N/A	N/A
1639	77,6	-15,8	-1,2	N/A	-292	159	N/A	N/A	N/A
1662	76,4	-18,2	-1,2	N/A	-290	176	N/A	N/A	N/A
1685	75,3	-20,7	-1,2	N/A	N/A	74	N/A	N/A	N/A
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Model Units: kN,m,t,s,C
Report Units: kN,m,t,s,C

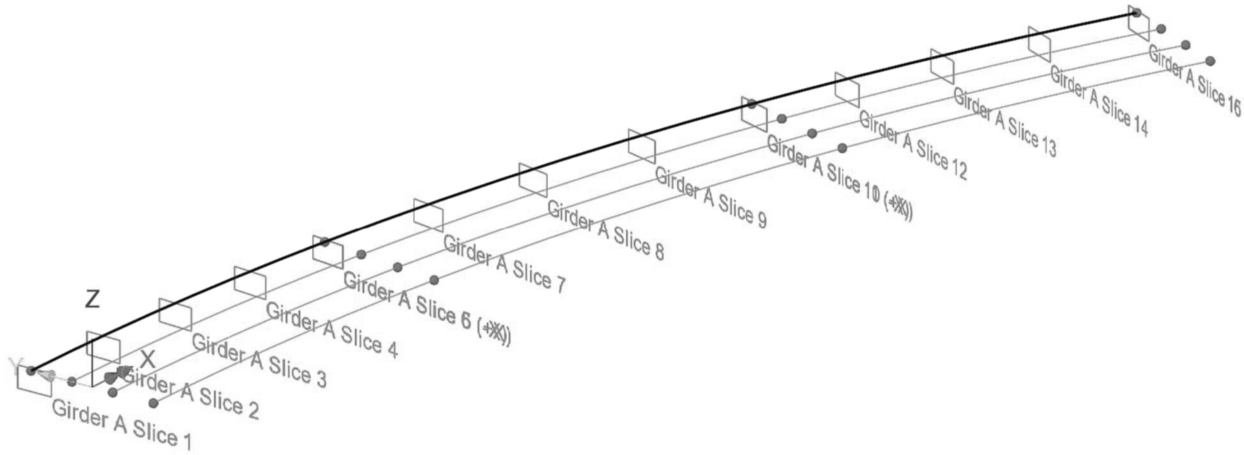
Model Title: System 1
Model File: System 1

Table of Contents

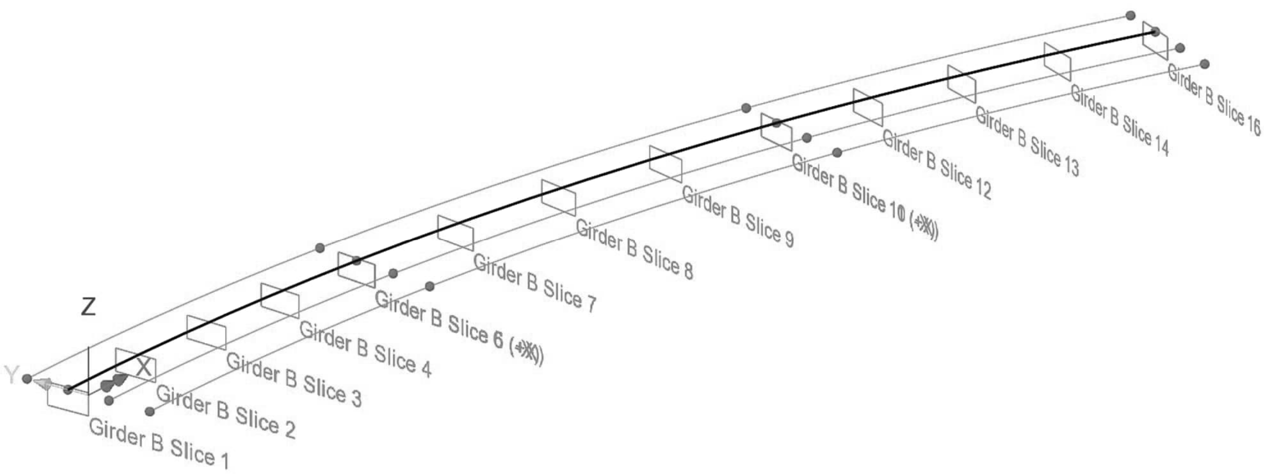
1. Principle "Slice beam/shell Resultsants"

Resultsants for equivalent forces are determed along distances seen below along beam LB 1 and LB 2.

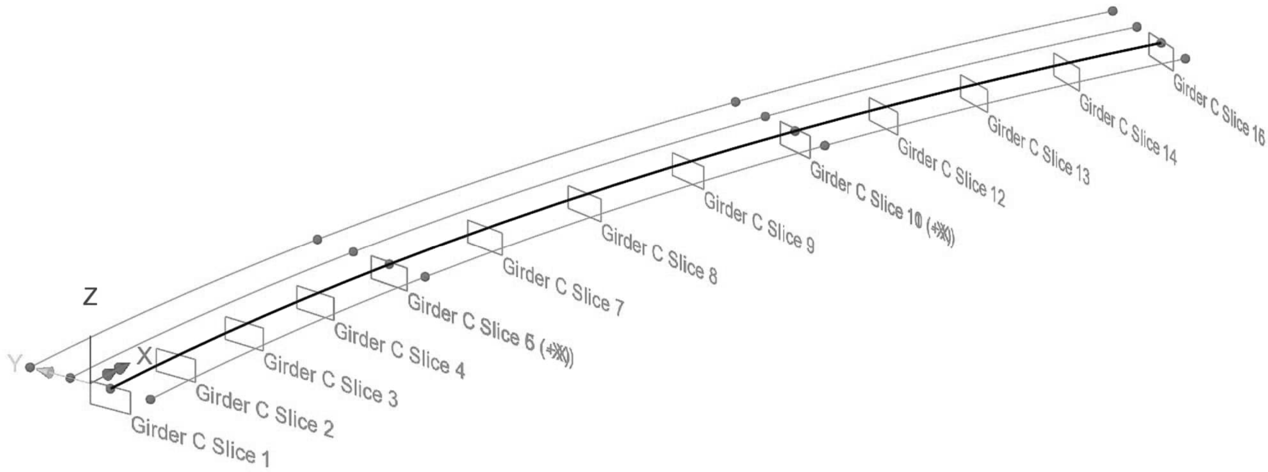
1.1 Girder A



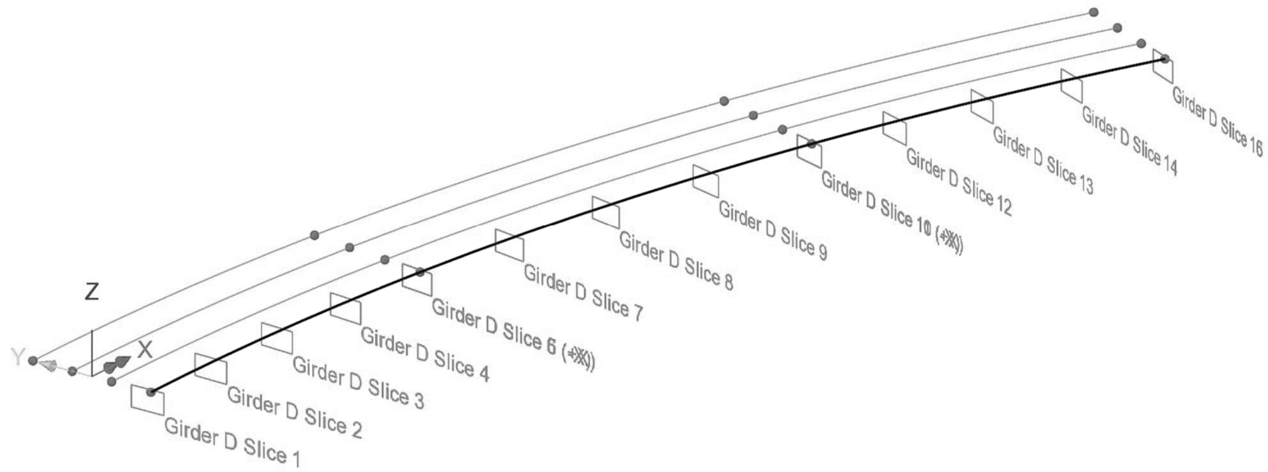
1.2 Girder B



1.3 Girder C

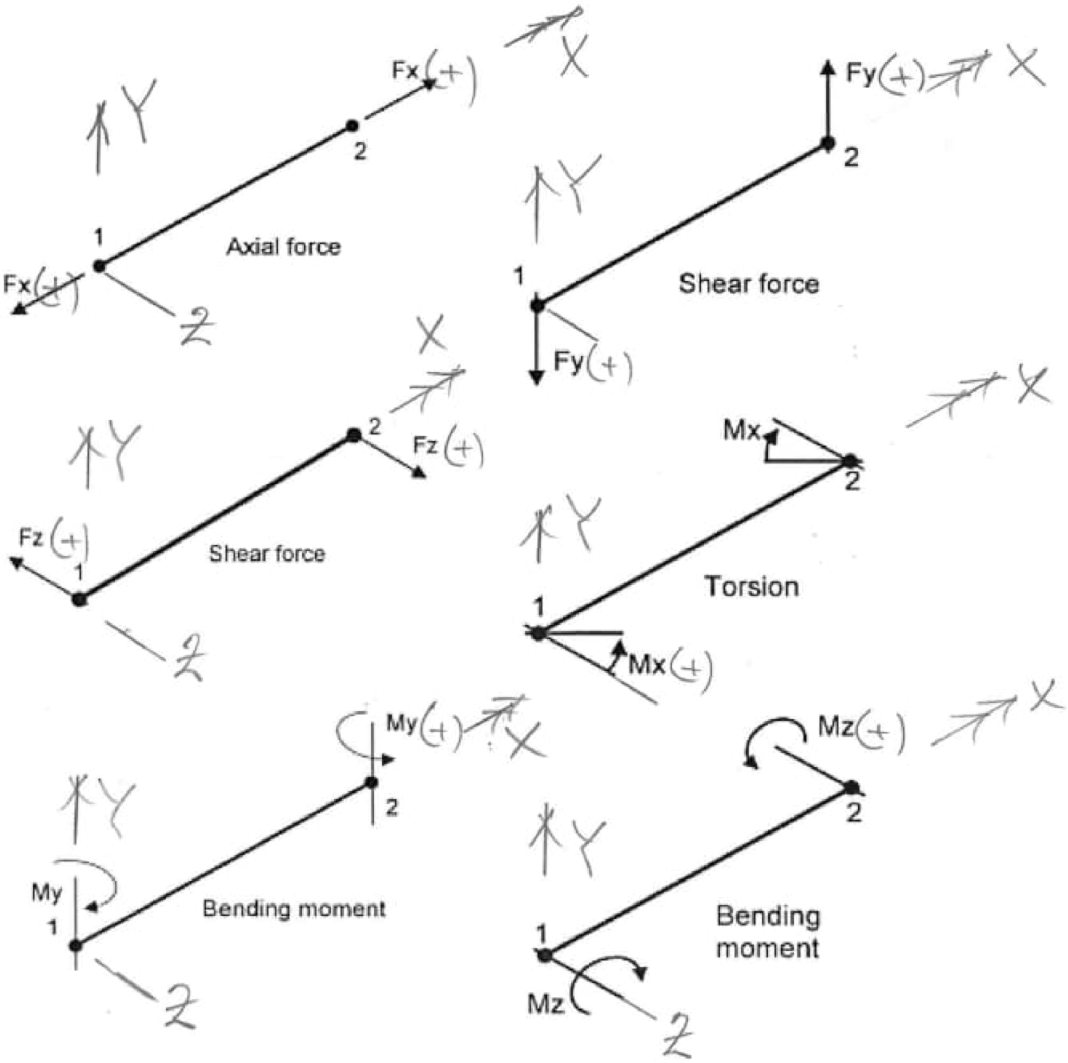


1.4 Girder D



2. Sign convention

Principle sign conventions (see Element reference manual – Appendix D):



3. DEAD WEIGHT

3.1 Diagram

Diagram – Fz:

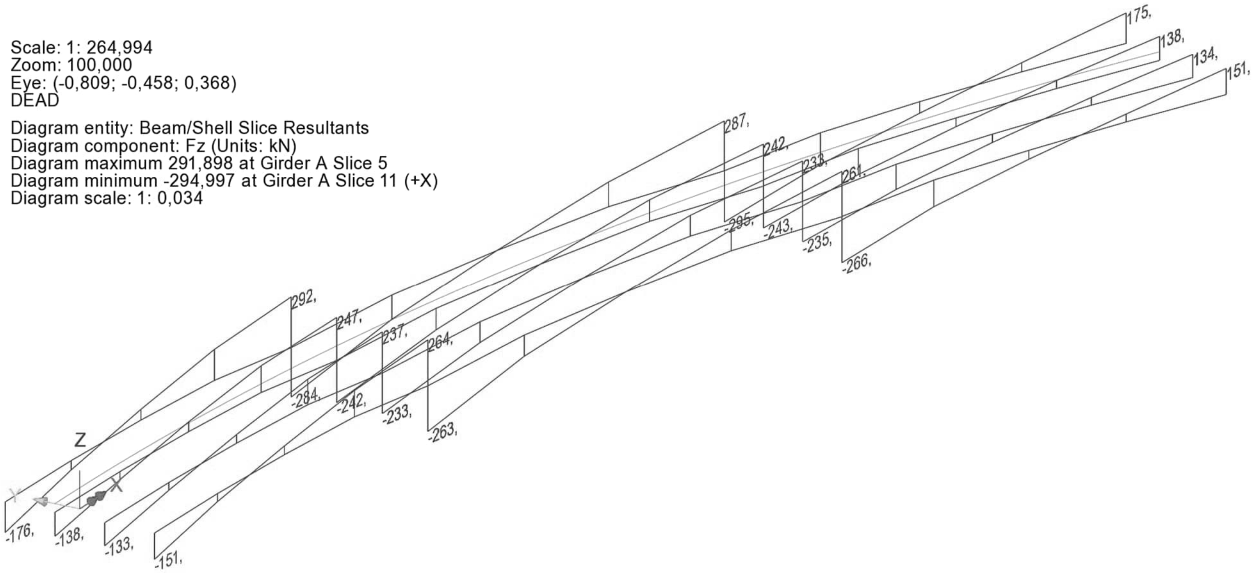
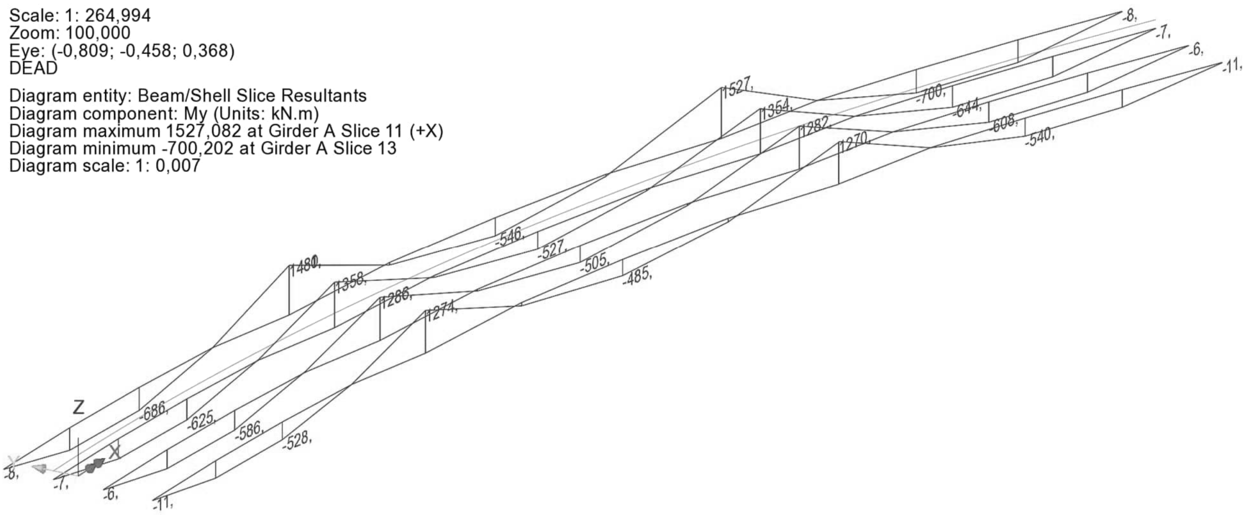


Diagram – My:



3.2 Tabell

Girder A: DEAD

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	4,1	-0,447	0	-4	-176	3	-8	-3
6,3	6,3	4,0	-0,447	55	0	-54	3	-669	-4
12,5	12,5	3,7	-0,447	-11	3	62	-4	-686	1
18,8	18,8	3,2	-0,447	-141	2	178	0	-4	6
25,1	25,0	2,5	-0,750	-66	3	292	12	1480	-4
25,1	25,0	2,5	-0,750	-66	4	292	8	1480	-4
25,1	25,0	2,5	-0,750	-67	-6	-284	-10	1481	-3
32,8	32,7	1,2	-0,447	48	8	-140	6	-79	1
40,6	40,3	-0,3	-0,447	166	1	1	-1	-546	-2
48,4	47,9	-2,1	-0,447	50	-8	142	-6	-61	2
56,2	55,4	-4,3	-0,750	-66	5	286	14	1520	-2
56,2	55,4	-4,3	-0,750	-66	6	287	10	1522	-3
56,2	55,4	-4,3	-0,750	-79	-4	-295	-9	1527	-4
62,5	61,3	-6,2	-0,447	-199	-3	-183	-1	2	5
68,8	67,2	-8,4	-0,447	-62	8	-66	-1	-700	4
75,0	73,0	-10,7	-0,447	30	1	53	-6	-680	-3
81,3	78,8	-13,3	-0,447	0	3	175	-3	-9	-3
81,3	78,8	-13,3	-0,447	0	3	175	-3	-8	-3
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: DEAD

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	1,4	-0,447	1	0	-138	4	-7	3
6,2	6,2	1,3	-0,447	-30	1	-46	3	-602	-2
12,3	12,3	1,0	-0,447	-84	0	57	-4	-625	0
18,5	18,5	0,4	-0,447	-109	-1	154	-3	25	3
24,7	24,6	-0,3	-0,750	38	-4	247	15	1356	-3
24,7	24,6	-0,3	-0,750	38	-3	247	12	1356	-3
24,7	24,6	-0,3	-0,750	38	2	-242	-13	1358	0
32,4	32,2	-1,5	-0,447	71	0	-124	2	-53	0
40,0	39,7	-3,0	-0,447	97	0	0	-1	-527	-4
47,7	47,2	-4,8	-0,447	70	0	124	-2	-53	1
55,4	54,6	-6,9	-0,750	35	-3	242	17	1354	0
55,4	54,6	-6,9	-0,750	35	-2	242	13	1354	0
55,4	54,6	-6,9	-0,736	72	2	-243	-12	1335	-2
61,6	60,4	-8,8	-0,447	-116	2	-150	3	-3	0
67,8	66,2	-10,9	-0,447	-105	6	-50	-1	-644	1
73,9	72,0	-13,2	-0,447	-43	-1	46	-7	-609	-1
80,1	77,6	-15,8	-0,447	1	0	138	-4	-7	3
80,1	77,6	-15,8	-0,447	1	0	138	-4	-7	3
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

4. Results SURFACING

4.1 Diagram

Diagram – Fz:

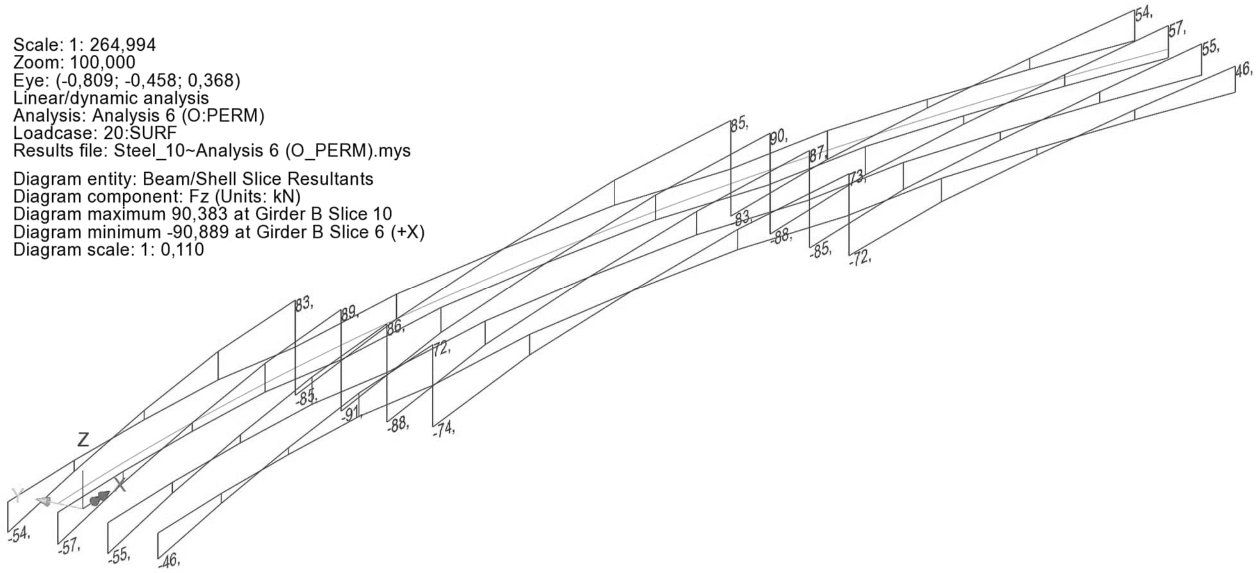
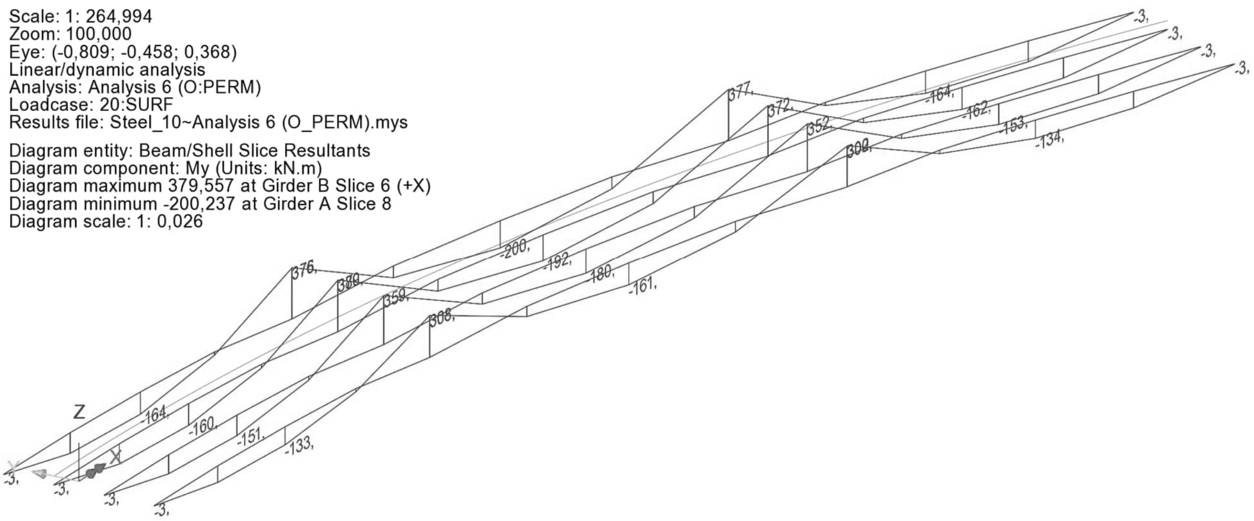


Diagram – My:



4.2 Tabell

Girder A: SURF

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	4,1	-0,447	-1	0	-54	1	-3	1
6,3	6,3	4,0	-0,447	139	1	-19	1	-152	-1
12,5	12,5	3,7	-0,447	150	-2	16	-1	-164	-2
18,8	18,8	3,2	-0,447	24	0	50	-1	-24	0
25,1	25,0	2,5	-0,750	-5	-1	83	5	375	0
25,1	25,0	2,5	-0,750	-5	-1	83	4	375	0
25,1	25,0	2,5	-0,750	-6	1	-85	-4	376	1
32,8	32,7	1,2	-0,447	70	3	-44	3	-87	-2
40,6	40,3	-0,3	-0,447	181	0	0	0	-200	-3
48,4	47,9	-2,1	-0,447	71	-3	44	-3	-88	-2
56,2	55,4	-4,3	-0,750	-5	-1	85	5	376	1
56,2	55,4	-4,3	-0,750	-5	-1	85	4	377	1
56,2	55,4	-4,3	-0,750	-6	1	-83	-4	377	1
62,5	61,3	-6,2	-0,447	24	1	-51	1	-24	0
68,8	67,2	-8,4	-0,447	151	0	-15	0	-164	-2
75,0	73,0	-10,7	-0,447	140	0	19	-2	-153	-1
81,3	78,8	-13,3	-0,447	-1	0	54	-1	-3	1
81,3	78,8	-13,3	-0,447	-1	-1	54	-1	-3	1
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SURF

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	1,4	-0,447	0	-1	-57	1	-3	1
6,2	6,2	1,3	-0,447	143	0	-20	1	-149	-1
12,3	12,3	1,0	-0,447	152	-2	15	-1	-160	-2
18,5	18,5	0,4	-0,447	24	1	51	0	-28	0
24,7	24,6	-0,3	-0,750	-11	-1	89	4	379	-1
24,7	24,6	-0,3	-0,750	-11	-1	89	3	379	-1
24,7	24,6	-0,3	-0,750	-11	0	-91	-4	380	1
32,4	32,2	-1,5	-0,447	73	-1	-44	1	-87	-1
40,0	39,7	-3,0	-0,447	181	0	0	0	-192	-3
47,7	47,2	-4,8	-0,447	73	1	44	-1	-88	-1
55,4	54,6	-6,9	-0,750	-13	0	90	4	372	1
55,4	54,6	-6,9	-0,750	-13	0	90	4	372	1
55,4	54,6	-6,9	-0,736	-6	0	-88	-3	369	0
61,6	60,4	-8,8	-0,447	30	-1	-50	0	-33	0
67,8	66,2	-10,9	-0,447	156	-1	-15	0	-162	-2
73,9	72,0	-13,2	-0,447	143	1	20	-1	-150	-1
80,1	77,6	-15,8	-0,447	0	1	57	-1	-3	1
80,1	77,6	-15,8	-0,447	0	1	57	-1	-3	1
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

5. Results SHRINKAGE

5.1 Diagram

Diagram – Fz:

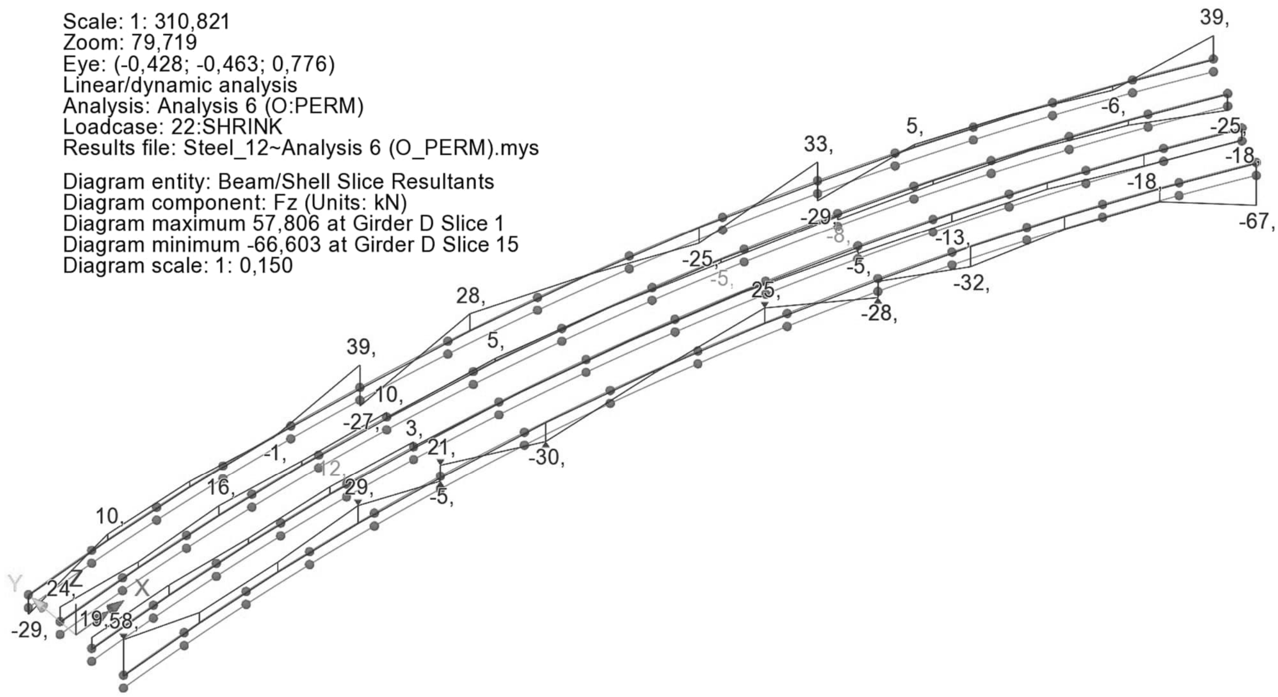
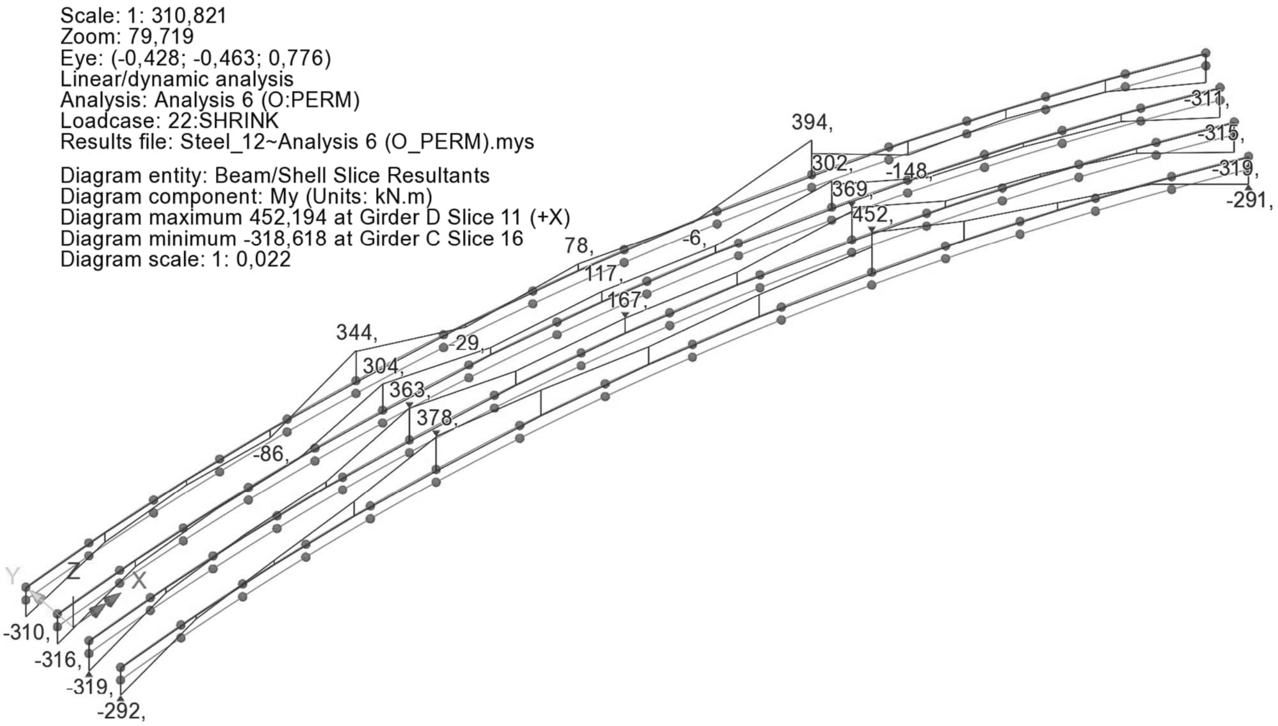


Diagram – My: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Zoom: 79,719
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Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 22:SHRINK
Results file: Steel_12~Analysis 6 (O_PERM).mys
Diagram entity: Beam/Shell Slice Resultants
Diagram component: My (Units: kN.m)
Diagram maximum 452,194 at Girder D Slice 11 (+X)
Diagram minimum -318,618 at Girder C Slice 16
Diagram scale: 1: 0,022
394,
302,
-148,
369,
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-311,
-315,
-319,
-291,
78,
-6,
117,
167,
344,
-29,
304,
363,
378,
-86,
-310,
-316,
-319,
-292,

5.2 Tabell

Girder A: SHRINK

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	4,1	-0,092	-1230	52	-29	-20	-310	-7
6,3	6,3	4,0	-0,092	-524	3	10	4	-98	9
12,5	12,5	3,7	-0,092	-530	1	9	2	-50	0
18,8	18,8	3,2	-0,092	-786	-14	-1	-14	-86	34
25,1	25,0	2,5	-0,166	136	-77	39	49	343	-250
25,1	25,0	2,5	-0,166	136	-77	39	47	344	-250
25,1	25,0	2,5	-0,166	147	81	-27	-49	336	-263
32,8	32,7	1,2	-0,092	-646	23	28	29	-29	56
40,6	40,3	-0,3	-0,092	-567	-1	2	0	78	-5
48,4	47,9	-2,1	-0,092	-663	-22	-25	-31	-6	60
56,2	55,4	-4,3	-0,166	122	-83	33	52	393	-261
56,2	55,4	-4,3	-0,166	122	-83	33	51	394	-261
56,2	55,4	-4,3	-0,166	261	69	-29	-43	246	-239
62,5	61,3	-6,2	-0,092	-697	16	5	12	-148	27
68,8	67,2	-8,4	-0,092	-481	4	3	5	-99	1
75,0	73,0	-10,7	-0,092	-496	-5	-6	-5	-123	10
81,3	78,8	-13,3	-0,092	-1227	-56	38	22	-311	-8
81,3	78,8	-13,3	-0,092	-1230	-55	39	23	-311	-8
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SHRINK

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	1,4	-0,092	-1329	77	24	-27	-316	-15
6,2	6,2	1,3	-0,092	-622	16	10	7	-66	11
12,3	12,3	1,0	-0,092	-649	-7	16	1	-13	-1
18,5	18,5	0,4	-0,092	-963	4	7	-8	-3	42
24,7	24,6	-0,3	-0,166	79	-88	10	51	304	-261
24,7	24,6	-0,3	-0,166	78	-88	10	50	304	-261
24,7	24,6	-0,3	-0,166	78	98	2	-53	304	-289
32,4	32,2	-1,5	-0,092	-876	-8	5	24	80	63
40,0	39,7	-3,0	-0,092	-722	-1	0	0	117	-4
47,7	47,2	-4,8	-0,092	-880	9	-5	-26	83	67
55,4	54,6	-6,9	-0,166	72	-100	-2	54	302	-283
55,4	54,6	-6,9	-0,166	72	-100	-2	53	302	-283
55,4	54,6	-6,9	-0,150	107	77	-8	-45	265	-236
61,6	60,4	-8,8	-0,092	-932	-2	-6	7	-34	33
67,8	66,2	-10,9	-0,092	-629	-9	-2	3	-39	2
73,9	72,0	-13,2	-0,092	-611	-20	-7	-9	-76	12
80,1	77,6	-15,8	-0,092	-1328	-86	-25	28	-315	-17
80,1	77,6	-15,8	-0,092	-1328	-85	-25	29	-315	-17
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

6. Results UNEVEN TEMPERARATURE

6.1 Diagram

Diagram – Fz:

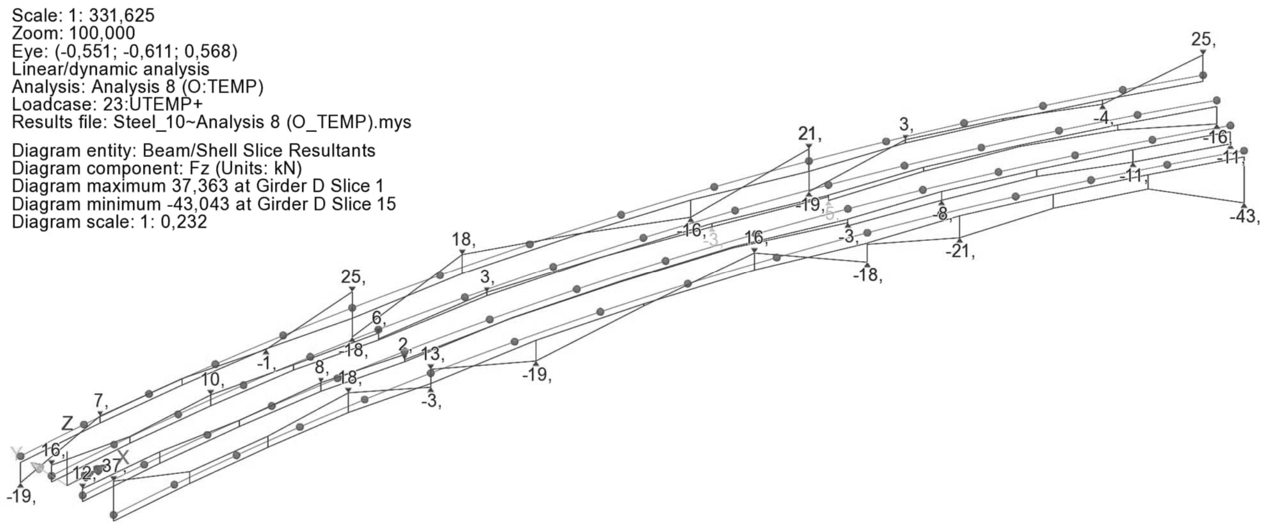
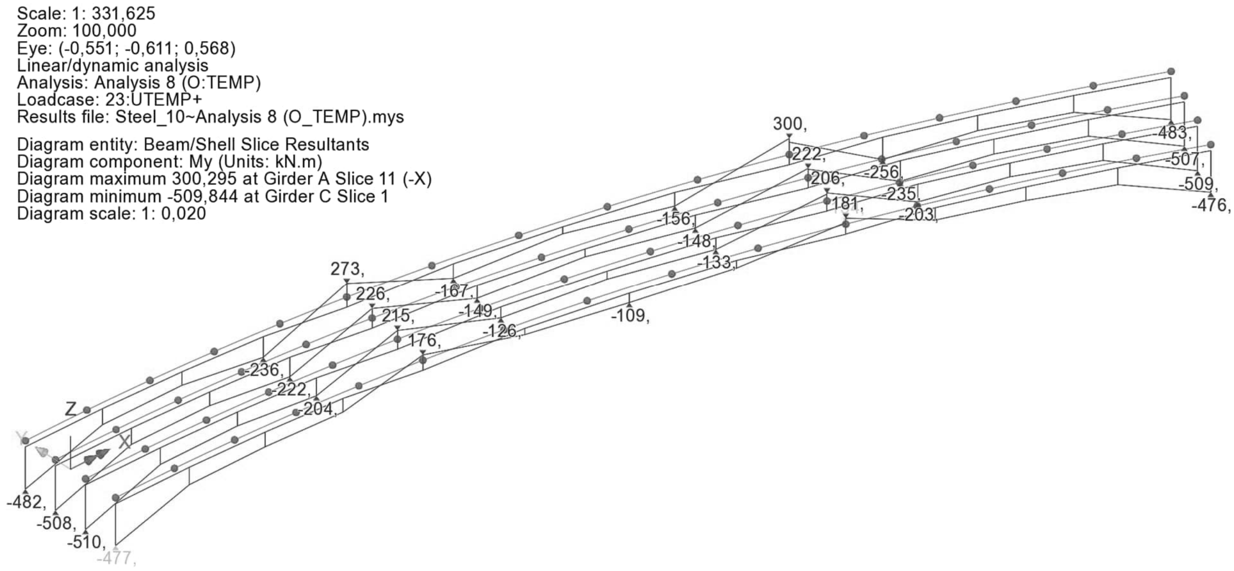


Diagram – My:


Scale: 1: 331,625
Zoom: 100,000
Eye: (-0,551; -0,611; 0,568)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 23:UTEMP+
Results file: Steel_10~Analysis 8 (O_TEMP).mys
Diagram entity: Beam/Shell Slice Resultants
Diagram component: My (Units: kN.m)
Diagram maximum 300,295 at Girder A Slice 11 (-X)
Diagram minimum -509,844 at Girder C Slice 1
Diagram scale: 1: 0,020
300,
222,
206,
181,
-256
-235
-203
-483,
-507,
-509,
-476,
-156
-148
-133
273,
226,
215,
176,
-167,
-149,
-126,
-109,
-236,
-222,
-204,
Z
X
-482,
-508,
-510,
-477,

6.2 Tabell

Girder A: UTEMP+

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	4,1	-0,092	-794	33	-19	-1	-482	-5
6,3	6,3	4,0	-0,092	-339	2	7	3	-184	6
12,5	12,5	3,7	-0,092	-342	1	6	2	-154	0
18,8	18,8	3,2	-0,092	-508	-9	-1	-12	-236	22
25,1	25,0	2,5	-0,166	88	-50	25	2	273	-162
25,1	25,0	2,5	-0,166	88	-50	25	1	273	-162
25,1	25,0	2,5	-0,166	95	52	-18	-1	272	-170
32,8	32,7	1,2	-0,092	-417	15	18	24	-167	36
40,6	40,3	-0,3	-0,092	-366	-1	1	0	-79	-3
48,4	47,9	-2,1	-0,092	-429	-14	-16	-25	-156	39
56,2	55,4	-4,3	-0,166	79	-54	21	2	300	-168
56,2	55,4	-4,3	-0,166	78	-54	21	1	300	-169
56,2	55,4	-4,3	-0,166	168	45	-19	-2	257	-154
62,5	61,3	-6,2	-0,092	-451	10	3	11	-256	17
68,8	67,2	-8,4	-0,092	-311	2	2	4	-174	1
75,0	73,0	-10,7	-0,092	-320	-3	-4	-4	-193	6
81,3	78,8	-13,3	-0,092	-793	-36	25	1	-482	-5
81,3	78,8	-13,3	-0,092	-794	-36	25	2	-483	-5
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: UTEMP+

Distance	X	Y	Z	Fx	Fy	Fz	Mx	My	Mz
0	0	1,4	-0,092	-858	50	16	0	-508	-10
6,2	6,2	1,3	-0,092	-402	11	6	8	-185	7
12,3	12,3	1,0	-0,092	-419	-4	10	-1	-157	-1
18,5	18,5	0,4	-0,092	-622	3	5	-4	-222	27
24,7	24,6	-0,3	-0,166	51	-57	6	0	226	-169
24,7	24,6	-0,3	-0,166	51	-57	6	-1	226	-169
24,7	24,6	-0,3	-0,166	51	63	1	3	226	-187
32,4	32,2	-1,5	-0,092	-565	-5	3	14	-149	40
40,0	39,7	-3,0	-0,092	-466	-1	0	0	-90	-3
47,7	47,2	-4,8	-0,092	-568	6	-3	-15	-148	43
55,4	54,6	-6,9	-0,166	46	-65	-1	-3	222	-183
55,4	54,6	-6,9	-0,166	46	-65	-1	-3	222	-183
55,4	54,6	-6,9	-0,150	69	50	-5	0	211	-152
61,6	60,4	-8,8	-0,092	-601	-1	-4	4	-235	22
67,8	66,2	-10,9	-0,092	-406	-6	-1	0	-169	1
73,9	72,0	-13,2	-0,092	-395	-13	-5	-10	-189	8
80,1	77,6	-15,8	-0,092	-857	-55	-16	-1	-507	-11
80,1	77,6	-15,8	-0,092	-858	-55	-16	-1	-507	-11
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

7. Results LM 1

7.1 Diagram

Diagram – Max Fz:

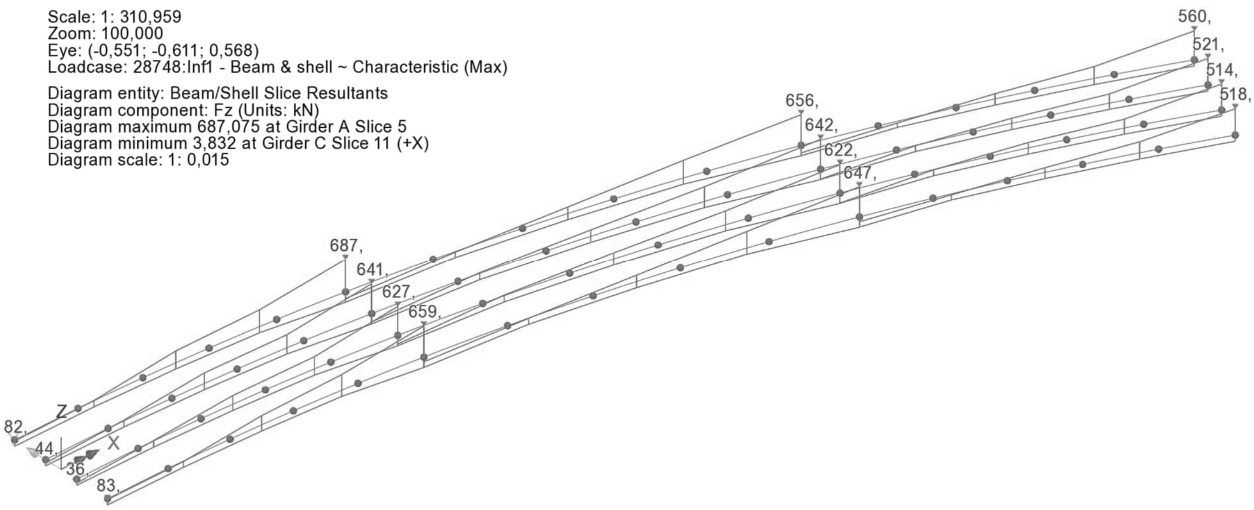


Diagram – Min Fz:

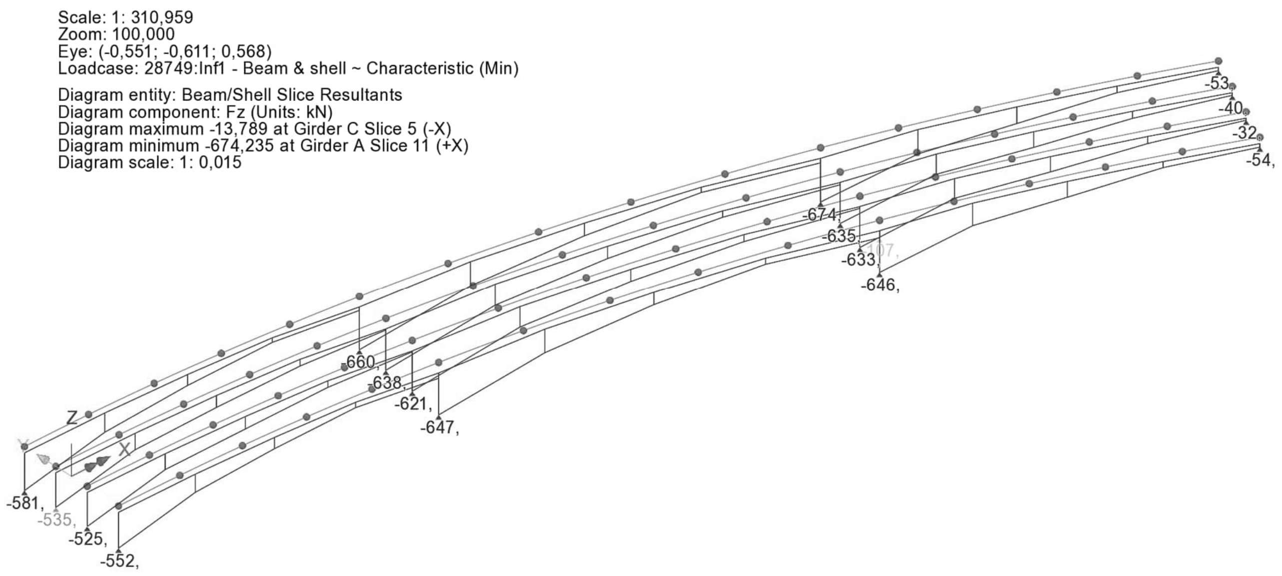


Diagram – Max My:

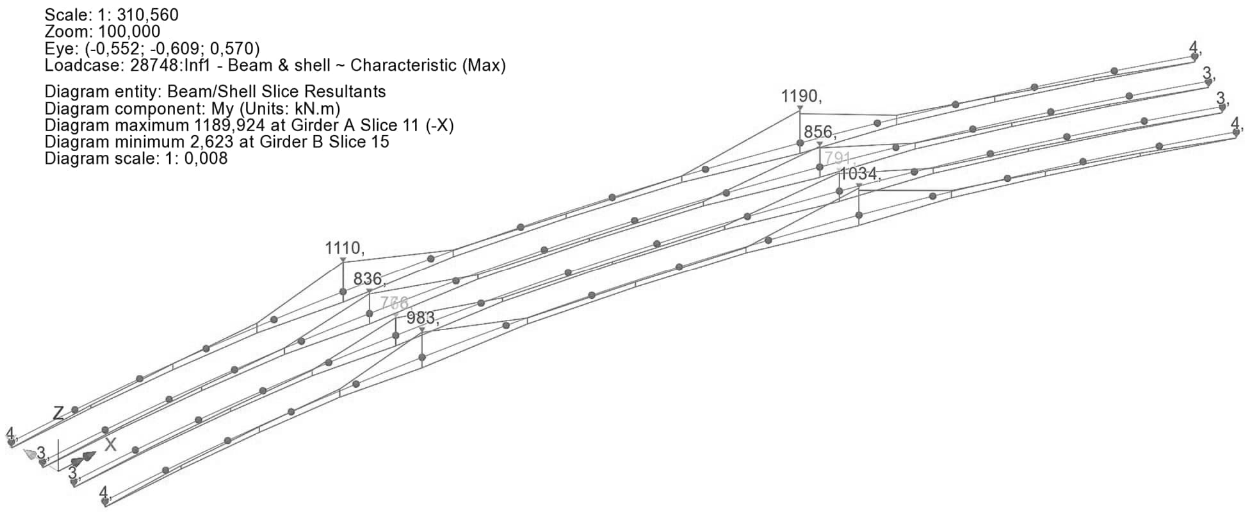
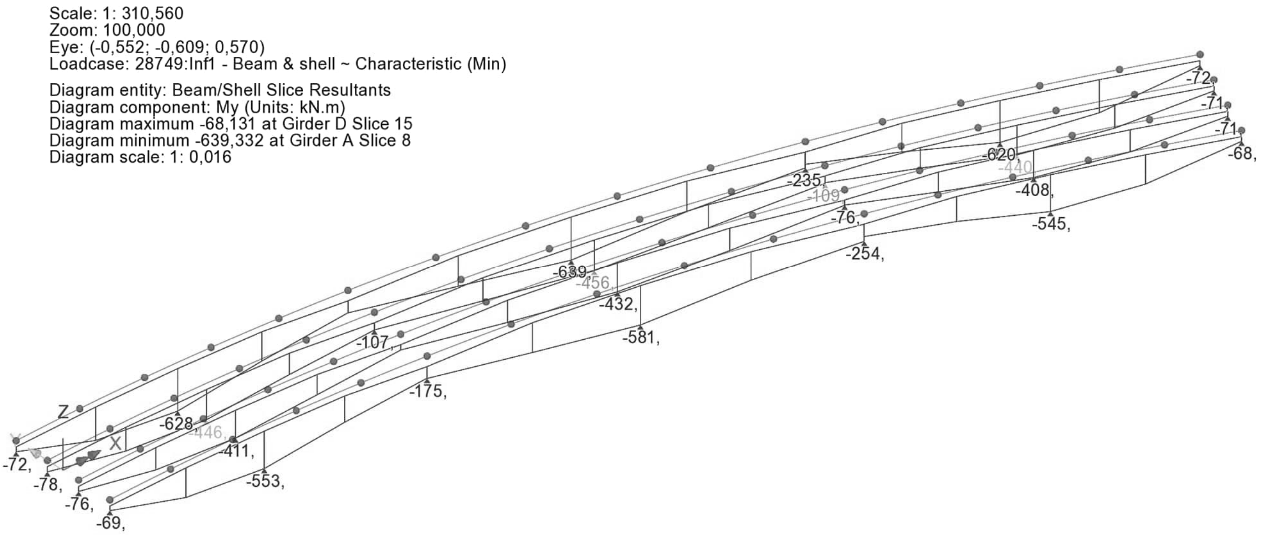


Diagram – Min My:



7.2 Tabell

7.2.1 Max/Min Fz

Girder A: LM 1

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	4,1	-0,092	5	-7	82	-2	3	-4
6,3	6,3	4,0	-0,092	55	-4	103	-1	-156	0
12,5	12,5	3,7	-0,092	125	-10	287	-2	-435	-1
18,8	18,8	3,2	-0,092	-24	-20	366	-14	-249	-1
25,1	25,0	2,5	-0,166	-892	-13	687	-11	734	12
25,1	25,0	2,5	-0,166	-892	-10	687	-13	734	12
25,1	25,0	2,5	-0,166	321	-5	59	0	-155	9
32,8	32,7	1,2	-0,092	-4	28	88	12	-226	-2
40,6	40,3	-0,3	-0,092	88	-6	202	-4	-412	-1
48,4	47,9	-2,1	-0,092	-51	-28	380	-21	-309	-2
56,2	55,4	-4,3	-0,166	-1066	37	655	26	857	11
56,2	55,4	-4,3	-0,166	-1068	40	656	25	859	11
56,2	55,4	-4,3	-0,166	106	2	46	10	-65	16
62,5	61,3	-6,2	-0,092	-51	2	71	8	-175	-1
68,8	67,2	-8,4	-0,092	128	-2	181	5	-448	-1
75,0	73,0	-10,7	-0,092	144	-7	287	-8	-436	-1
81,3	78,8	-13,3	-0,092	21	7	559	-14	-73	8
81,3	78,8	-13,3	-0,092	19	7	560	-13	-71	8
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: LM 1

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	4,1	-0,092	20	-3	-581	13	-72	9
6,3	6,3	4,0	-0,092	161	9	-297	10	-426	-1
12,5	12,5	3,7	-0,092	179	5	-169	5	-410	-1
18,8	18,8	3,2	-0,092	-1	1	-71	-7	-154	-1
25,1	25,0	2,5	-0,166	110	8	-54	-1	-34	9
25,1	25,0	2,5	-0,166	110	7	-54	-1	-34	9
25,1	25,0	2,5	-0,166	-935	-33	-660	-13	745	6
32,8	32,7	1,2	-0,092	-47	33	-375	24	-335	-3
40,6	40,3	-0,3	-0,092	73	4	-195	3	-428	-1
48,4	47,9	-2,1	-0,092	-40	-31	-82	-11	-204	-2
56,2	55,4	-4,3	-0,166	393	7	-70	-4	-223	-2
56,2	55,4	-4,3	-0,166	394	5	-70	-4	-224	-2
56,2	55,4	-4,3	-0,166	-905	11	-674	11	773	11
62,5	61,3	-6,2	-0,092	-49	18	-377	13	-246	-1
68,8	67,2	-8,4	-0,092	118	5	-257	8	-379	-1
75,0	73,0	-10,7	-0,092	68	3	-101	0	-195	-1
81,3	78,8	-13,3	-0,092	5	-6	-53	4	-1	-5
81,3	78,8	-13,3	-0,092	5	-6	-53	4	-2	-5
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: LM 1

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	1,4	-0,092	1	-12	44	-3	0	-6
6,2	6,2	1,3	-0,092	110	-2	108	0	-185	0
12,3	12,3	1,0	-0,092	146	0	267	4	-301	-1
18,5	18,5	0,4	-0,092	6	3	306	1	-188	0
24,7	24,6	-0,3	-0,166	-644	0	641	21	529	-21
24,7	24,6	-0,3	-0,166	-644	3	641	19	529	-21
24,7	24,6	-0,3	-0,166	141	-3	34	0	-98	5
32,4	32,2	-1,5	-0,092	17	-20	111	6	-196	0
40,0	39,7	-3,0	-0,092	143	1	199	0	-322	-1
47,7	47,2	-4,8	-0,092	6	12	332	2	-252	0
55,4	54,6	-6,9	-0,166	-734	-21	642	-2	591	-4
55,4	54,6	-6,9	-0,166	-734	-19	642	-3	591	-4
55,4	54,6	-6,9	-0,150	-16	0	5	-2	-5	-4
61,6	60,4	-8,8	-0,092	-46	2	94	0	-162	0
67,8	66,2	-10,9	-0,092	136	1	181	9	-331	-1
73,9	72,0	-13,2	-0,092	155	4	246	1	-278	0
80,1	77,6	-15,8	-0,092	28	11	521	-6	-66	9
80,1	77,6	-15,8	-0,092	28	11	521	-6	-66	9
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: LM 1

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	1,4	-0,092	34	-10	-535	6	-78	8
6,2	6,2	1,3	-0,092	162	-1	-254	2	-283	0
12,3	12,3	1,0	-0,092	169	-2	-184	5	-320	-1
18,5	18,5	0,4	-0,092	-17	-3	-104	1	-176	0
24,7	24,6	-0,3	-0,166	50	18	-17	-4	19	30
24,7	24,6	-0,3	-0,166	51	18	-17	-4	19	30
24,7	24,6	-0,3	-0,166	-684	-17	-638	-2	563	7
32,4	32,2	-1,5	-0,092	29	-9	-326	-3	-249	0
40,0	39,7	-3,0	-0,092	129	-1	-190	-1	-310	-1
47,7	47,2	-4,8	-0,092	-5	-3	-99	6	-186	0
55,4	54,6	-6,9	-0,166	128	7	-34	0	-104	3
55,4	54,6	-6,9	-0,166	128	6	-34	1	-104	3
55,4	54,6	-6,9	-0,150	-654	-5	-635	-16	545	-16
61,6	60,4	-8,8	-0,092	-14	-5	-312	-1	-179	0
67,8	66,2	-10,9	-0,092	146	-4	-242	4	-286	-1
73,9	72,0	-13,2	-0,092	104	2	-110	0	-164	0
80,1	77,6	-15,8	-0,092	0	-9	-40	3	1	-8
80,1	77,6	-15,8	-0,092	0	-9	-40	3	1	-8
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

7.2.2 Max/Min My

Girder A: LM 1

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	4,1	-0,092	1	-9	31	1	4	-1
6,3	6,3	4,0	-0,092	-52	-5	66	-4	84	0
12,5	12,5	3,7	-0,092	-105	-7	65	-5	163	0
18,8	18,8	3,2	-0,092	-21	11	94	8	270	2
25,1	25,0	2,5	-0,166	-1425	-51	247	11	1110	-32
25,1	25,0	2,5	-0,166	-1425	-46	247	9	1110	-32
25,1	25,0	2,5	-0,166	-1470	31	-534	1	1104	-12
32,8	32,7	1,2	-0,092	21	-20	-35	-14	192	2
40,6	40,3	-0,3	-0,092	-18	1	-32	1	125	0
48,4	47,9	-2,1	-0,092	43	18	30	12	179	2
56,2	55,4	-4,3	-0,166	-1585	-37	550	6	1188	-1
56,2	55,4	-4,3	-0,166	-1587	-32	550	3	1190	-1
56,2	55,4	-4,3	-0,166	-1417	32	-501	-6	1094	-20
62,5	61,3	-6,2	-0,092	91	-13	-89	-10	261	1
68,8	67,2	-8,4	-0,092	-27	-2	-50	-3	151	0
75,0	73,0	-10,7	-0,092	-14	0	-51	1	75	0
81,3	78,8	-13,3	-0,092	-5	7	50	-4	4	4
81,3	78,8	-13,3	-0,092	-13	11	138	-9	4	10
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: LM 1

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	4,1	-0,092	23	-2	-549	11	-72	6
6,3	6,3	4,0	-0,092	153	8	-193	8	-494	-1
12,5	12,5	3,7	-0,092	193	-3	144	2	-628	-1
18,8	18,8	3,2	-0,092	-37	-25	203	-16	-433	-2
25,1	25,0	2,5	-0,166	330	18	-29	-6	-176	23
25,1	25,0	2,5	-0,166	330	17	-29	-5	-176	23
25,1	25,0	2,5	-0,166	345	-6	57	0	-178	9
32,8	32,7	1,2	-0,092	-58	41	-299	33	-459	-4
40,6	40,3	-0,3	-0,092	98	0	-4	0	-639	-2
48,4	47,9	-2,1	-0,092	-75	-35	290	-29	-451	-4
56,2	55,4	-4,3	-0,166	408	8	-69	-3	-235	-1
56,2	55,4	-4,3	-0,166	408	7	-69	-3	-235	-1
56,2	55,4	-4,3	-0,166	223	-7	25	3	-181	10
62,5	61,3	-6,2	-0,092	-105	27	-225	17	-424	-2
68,8	67,2	-8,4	-0,092	147	5	-83	10	-620	-1
75,0	73,0	-10,7	-0,092	137	-5	172	-6	-490	-1
81,3	78,8	-13,3	-0,092	29	-2	450	-9	-74	0
81,3	78,8	-13,3	-0,092	29	-4	418	-7	-72	-2
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: LM 1

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	1,4	-0,092	1	4	19	0	3	-4
6,2	6,2	1,3	-0,092	-33	-7	45	-6	55	0
12,3	12,3	1,0	-0,092	-66	-6	46	-5	108	0
18,5	18,5	0,4	-0,092	-25	-11	75	-5	180	1
24,7	24,6	-0,3	-0,166	-1014	-41	219	6	836	-26
24,7	24,6	-0,3	-0,166	-1014	-37	219	5	836	-26
24,7	24,6	-0,3	-0,166	-1035	23	-452	4	828	-1
32,4	32,2	-1,5	-0,092	-23	5	-25	1	120	0
40,0	39,7	-3,0	-0,092	-34	1	-21	1	83	0
47,7	47,2	-4,8	-0,092	2	-7	20	-2	118	0
55,4	54,6	-6,9	-0,166	-1130	-29	455	1	856	1
55,4	54,6	-6,9	-0,166	-1131	-25	455	-1	856	1
55,4	54,6	-6,9	-0,150	-1012	22	-381	0	810	-2
61,6	60,4	-8,8	-0,092	35	3	-60	1	164	0
67,8	66,2	-10,9	-0,092	-30	-3	-30	-5	102	0
73,9	72,0	-13,2	-0,092	-18	-4	-37	-1	51	0
80,1	77,6	-15,8	-0,092	1	-3	-24	2	3	-6
80,1	77,6	-15,8	-0,092	1	-3	-24	2	3	-6
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: LM 1

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	1,4	-0,092	34	-10	-533	5	-78	8
6,2	6,2	1,3	-0,092	168	-1	-150	2	-352	0
12,3	12,3	1,0	-0,092	168	-3	112	6	-446	-1
18,5	18,5	0,4	-0,092	-14	6	138	3	-316	0
24,7	24,6	-0,3	-0,166	143	10	-6	-4	-107	16
24,7	24,6	-0,3	-0,166	143	9	-6	-3	-107	16
24,7	24,6	-0,3	-0,166	146	-2	33	0	-106	5
32,4	32,2	-1,5	-0,092	29	-3	-178	-4	-343	0
40,0	39,7	-3,0	-0,092	145	-2	18	0	-456	-1
47,7	47,2	-4,8	-0,092	-8	5	217	5	-343	0
55,4	54,6	-6,9	-0,166	135	4	-34	-2	-109	4
55,4	54,6	-6,9	-0,166	135	4	-34	-2	-109	4
55,4	54,6	-6,9	-0,150	110	-2	1	1	-100	3
61,6	60,4	-8,8	-0,092	-57	-3	-160	-2	-304	0
67,8	66,2	-10,9	-0,092	150	0	-79	12	-440	-1
73,9	72,0	-13,2	-0,092	161	4	107	0	-346	0
80,1	77,6	-15,8	-0,092	23	6	457	-7	-71	8
80,1	77,6	-15,8	-0,092	23	5	457	-7	-71	8
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

8. Results ULS

8.1 Diagram

Diagram – Max Fz:

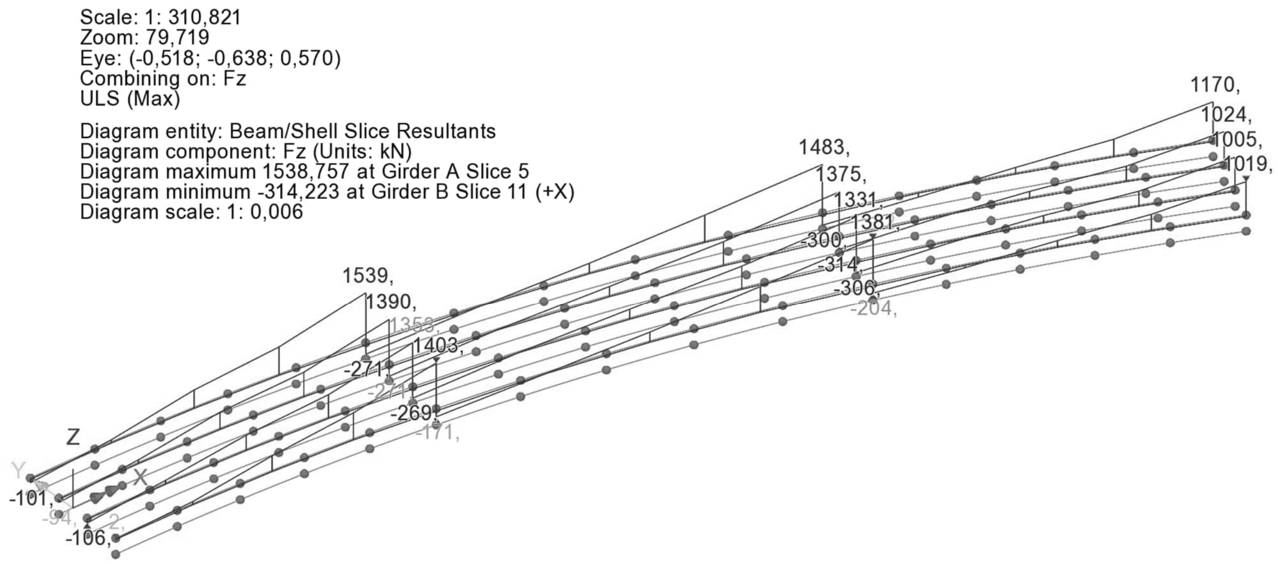


Diagram – Min Fz:

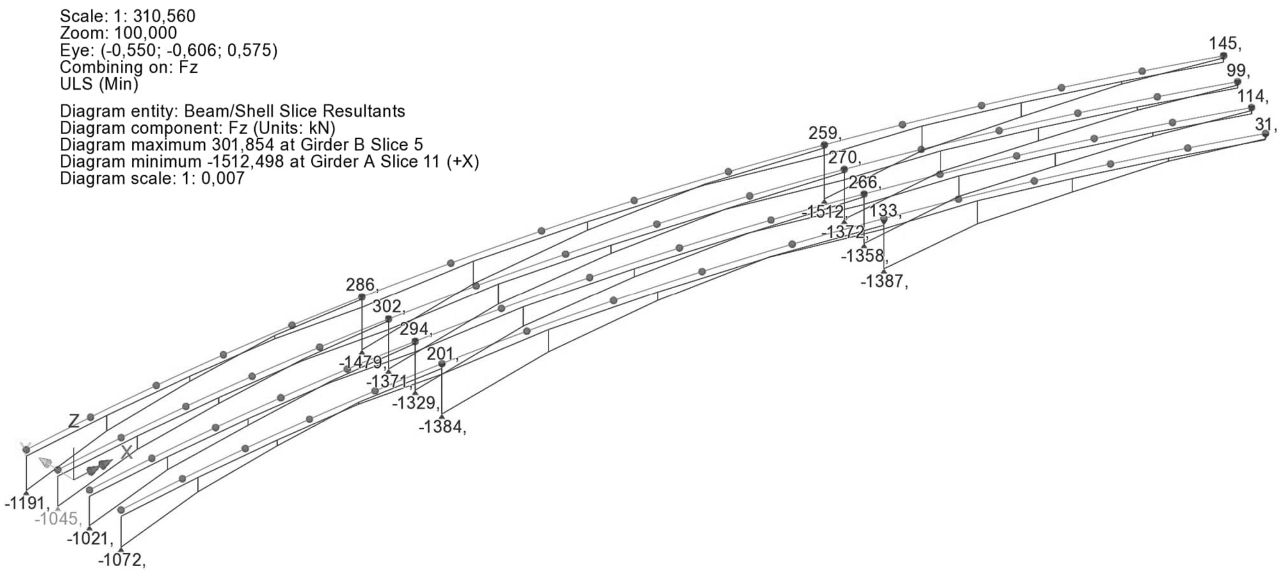


Diagram – Max My:

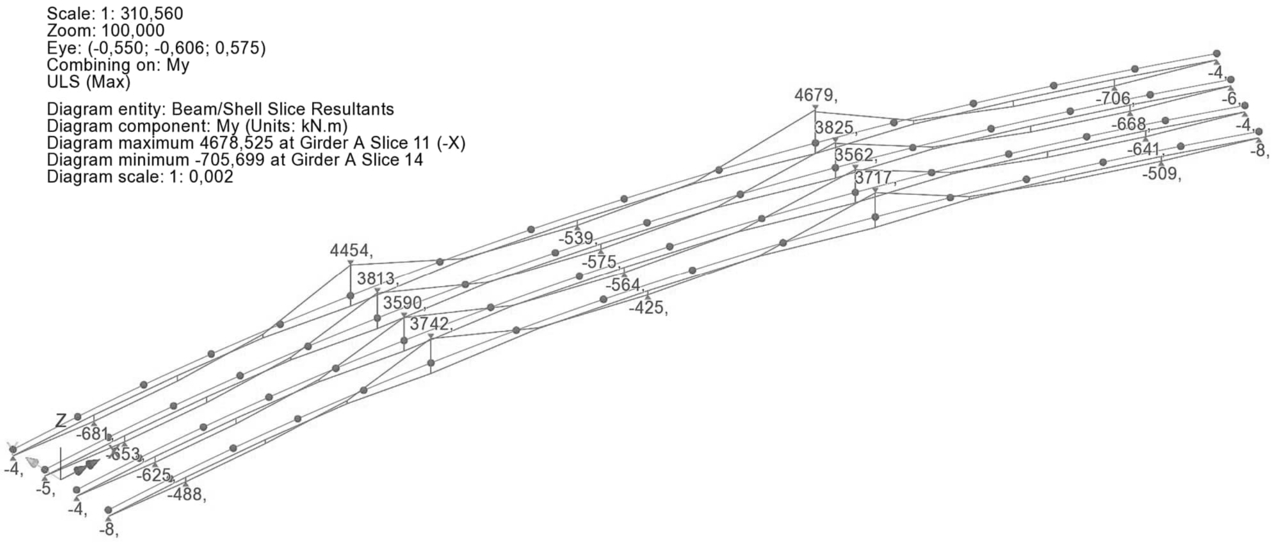
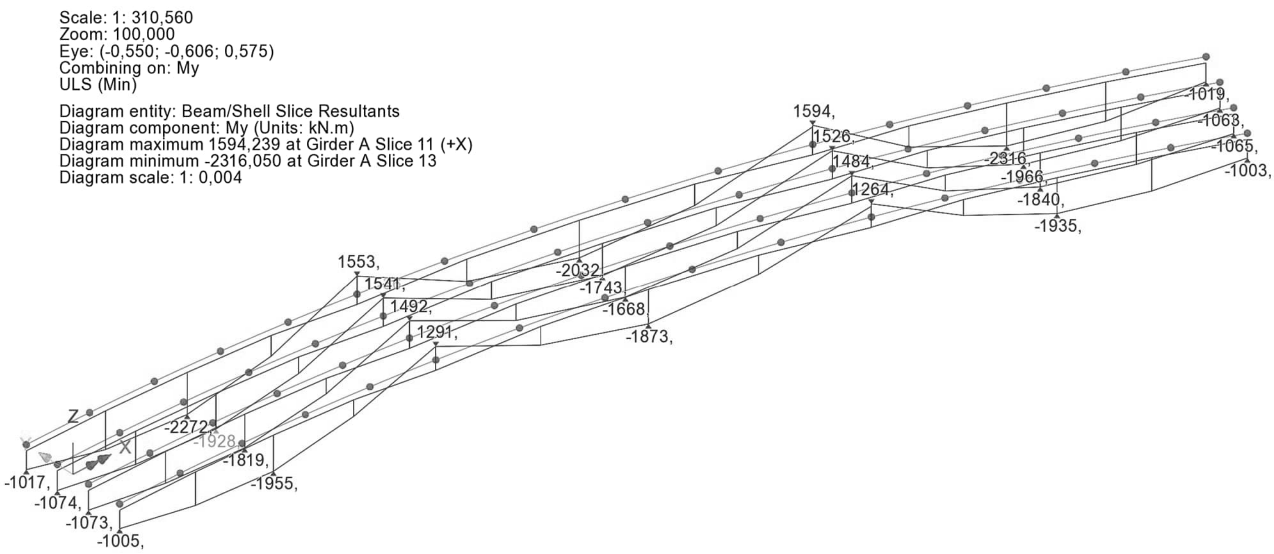


Diagram – Min My:



8.2 Tabell

8.2.1 Max/Min Fz

Girder A: ULS

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	4,1	-0,092	7	-13	-101	3	-6	-9
6,3	6,3	4,0	-0,092	-367	-2	96	6	-1246	6
12,5	12,5	3,7	-0,092	-260	-13	538	-6	-1882	-4
18,8	18,8	3,2	-0,092	-173	-27	830	-22	-417	6
25,1	25,0	2,5	-0,166	-1261	-111	1539	62	3841	-287
25,1	25,0	2,5	-0,166	-1261	-105	1539	51	3841	-287
25,1	25,0	2,5	-0,166	410	-12	-271	-10	1625	11
32,8	32,7	1,2	-0,092	-670	80	-15	58	-562	63
40,6	40,3	-0,3	-0,092	-186	-9	307	-8	-1473	-12
48,4	47,9	-2,1	-0,092	79	-55	801	-38	-699	-4
56,2	55,4	-4,3	-0,166	-1538	-40	1481	121	4135	-297
56,2	55,4	-4,3	-0,166	-1543	-34	1483	112	4143	-298
56,2	55,4	-4,3	-0,166	75	-1	-300	4	1802	21
62,5	61,3	-6,2	-0,092	-1092	20	-117	26	-465	35
68,8	67,2	-8,4	-0,092	-311	10	194	11	-1733	2
75,0	73,0	-10,7	-0,092	442	-10	519	-23	-1798	-6
81,3	78,8	-13,3	-0,092	-1442	-53	1168	0	-495	-1
81,3	78,8	-13,3	-0,092	-1448	-52	1170	1	-492	-1
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: ULS

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	4,1	-0,092	-1448	54	-1191	2	-493	2
6,3	6,3	4,0	-0,092	496	15	-536	19	-1767	-7
12,5	12,5	3,7	-0,092	393	8	-177	2	-1540	-3
18,8	18,8	3,2	-0,092	-1064	-14	116	-28	-363	46
25,1	25,0	2,5	-0,166	94	13	286	14	1804	9
25,1	25,0	2,5	-0,166	94	14	286	9	1804	9
25,1	25,0	2,5	-0,166	-1314	42	-1479	-91	3851	-309
32,8	32,7	1,2	-0,092	81	63	-790	43	-759	-5
40,6	40,3	-0,3	-0,092	520	8	-292	2	-1591	-7
48,4	47,9	-2,1	-0,092	-743	-83	28	-58	-484	69
56,2	55,4	-4,3	-0,166	520	14	259	9	1561	-4
56,2	55,4	-4,3	-0,166	520	13	259	6	1563	-5
56,2	55,4	-4,3	-0,166	-1147	95	-1512	-49	3838	-274
62,5	61,3	-6,2	-0,092	-281	25	-853	19	-408	5
68,8	67,2	-8,4	-0,092	307	17	-486	9	-1757	0
75,0	73,0	-10,7	-0,092	-336	0	-89	-14	-1347	8
81,3	78,8	-13,3	-0,092	7	-7	144	1	-13	-10
81,3	78,8	-13,3	-0,092	7	-7	145	1	-12	-11
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: ULS

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	1,4	-0,092	-1593	74	-94	-32	-388	-23
6,2	6,2	1,3	-0,092	-484	17	111	11	-1149	10
12,3	12,3	1,0	-0,092	-454	-10	508	3	-1523	-5
18,5	18,5	0,4	-0,092	-1246	10	721	-13	-316	54
24,7	24,6	-0,3	-0,166	-841	-111	1390	120	3274	-350
24,7	24,6	-0,3	-0,166	-842	-106	1390	111	3274	-350
24,7	24,6	-0,3	-0,166	333	116	-271	-81	1896	-339
32,4	32,2	-1,5	-0,092	-888	-42	9	41	-367	74
40,0	39,7	-3,0	-0,092	-373	1	299	-1	-1234	-13
47,7	47,2	-4,8	-0,092	192	20	706	-1	-615	-1
55,4	54,6	-6,9	-0,166	-1077	-35	1375	26	2992	-5
55,4	54,6	-6,9	-0,166	-1078	-31	1375	19	2993	-5
55,4	54,6	-6,9	-0,150	43	2	-314	-20	1635	-8
61,6	60,4	-8,8	-0,092	-158	4	-54	3	-295	1
67,8	66,2	-10,9	-0,092	240	6	208	11	-1351	-2
73,9	72,0	-13,2	-0,092	375	7	451	-10	-1433	-3
80,1	77,6	-15,8	-0,092	44	18	1024	-15	-111	19
80,1	77,6	-15,8	-0,092	43	17	1024	-14	-111	19
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: ULS

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	1,4	-0,092	52	-16	-1045	15	-129	18
6,2	6,2	1,3	-0,092	400	-1	-464	7	-1429	-4
12,3	12,3	1,0	-0,092	307	-5	-205	4	-1312	-3
18,5	18,5	0,4	-0,092	-112	-4	43	-2	-281	3
24,7	24,6	-0,3	-0,166	104	22	302	15	1706	42
24,7	24,6	-0,3	-0,166	104	23	302	11	1706	42
24,7	24,6	-0,3	-0,166	-995	-24	-1371	-26	2964	11
32,4	32,2	-1,5	-0,092	227	-16	-698	-2	-608	-2
40,0	39,7	-3,0	-0,092	535	-1	-284	-4	-1362	-8
47,7	47,2	-4,8	-0,092	-927	8	9	-25	-350	80
55,4	54,6	-6,9	-0,166	302	-113	270	88	1876	-334
55,4	54,6	-6,9	-0,166	301	-113	270	83	1877	-334
55,4	54,6	-6,9	-0,150	-774	87	-1372	-99	3207	-309
61,6	60,4	-8,8	-0,092	-1237	-9	-722	10	-384	41
67,8	66,2	-10,9	-0,092	-451	-11	-445	8	-1559	0
73,9	72,0	-13,2	-0,092	-492	-21	-109	-19	-1138	13
80,1	77,6	-15,8	-0,092	-1592	-116	99	34	-387	-28
80,1	77,6	-15,8	-0,092	-1593	-115	99	35	-387	-28
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

8.2.2 Max/Min My

Girder B: ULS

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	1,4	-0,092	52	-16	-1045	15	-129	18
6,2	6,2	1,3	-0,092	400	-1	-464	7	-1429	-4
12,3	12,3	1,0	-0,092	307	-5	-205	4	-1312	-3
18,5	18,5	0,4	-0,092	-112	-4	43	-2	-281	3
24,7	24,6	-0,3	-0,166	104	22	302	15	1706	42
24,7	24,6	-0,3	-0,166	104	23	302	11	1706	42
24,7	24,6	-0,3	-0,166	-995	-24	-1371	-26	2964	11
32,4	32,2	-1,5	-0,092	227	-16	-698	-2	-608	-2
40,0	39,7	-3,0	-0,092	535	-1	-284	-4	-1362	-8
47,7	47,2	-4,8	-0,092	-927	8	9	-25	-350	80
55,4	54,6	-6,9	-0,166	302	-113	270	88	1876	-334
55,4	54,6	-6,9	-0,166	301	-113	270	83	1877	-334
55,4	54,6	-6,9	-0,150	-774	87	-1372	-99	3207	-309
61,6	60,4	-8,8	-0,092	-1237	-9	-722	10	-384	41
67,8	66,2	-10,9	-0,092	-451	-11	-445	8	-1559	0
73,9	72,0	-13,2	-0,092	-492	-21	-109	-19	-1138	13
80,1	77,6	-15,8	-0,092	-1592	-116	99	34	-387	-28
80,1	77,6	-15,8	-0,092	-1593	-115	99	35	-387	-28
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: ULS

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	4,1	-0,092	-1444	56	-1142	0	-492	-2
6,3	6,3	4,0	-0,092	-146	16	-367	21	-1988	4
12,5	12,5	3,7	-0,092	-158	-3	324	-1	-2172	-4
18,8	18,8	3,2	-0,092	-1136	-52	585	-42	-796	46
25,1	25,0	2,5	-0,166	425	28	323	7	1590	31
25,1	25,0	2,5	-0,166	425	28	323	2	1590	31
25,1	25,0	2,5	-0,166	446	-15	-275	-10	1590	12
32,8	32,7	1,2	-0,092	-709	103	-643	91	-979	60
40,6	40,3	-0,3	-0,092	591	1	-4	-3	-2027	-8
48,4	47,9	-2,1	-0,092	-753	-91	635	-87	-920	67
56,2	55,4	-4,3	-0,166	542	17	260	10	1543	-3
56,2	55,4	-4,3	-0,166	542	16	260	7	1546	-3
56,2	55,4	-4,3	-0,166	251	-14	-332	-6	1628	12
62,5	61,3	-6,2	-0,092	-1161	57	-583	40	-854	34
68,8	67,2	-8,4	-0,092	-226	20	-222	17	-2238	1
75,0	73,0	-10,7	-0,092	-164	-12	339	-26	-2026	6
81,3	78,8	-13,3	-0,092	-1431	-67	1004	7	-497	-13
81,3	78,8	-13,3	-0,092	-1433	-68	957	10	-494	-16
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: ULS

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	1,4	-0,092	3	4	-161	5	-6	-1
6,2	6,2	1,3	-0,092	49	-11	4	-5	-709	-2
12,3	12,3	1,0	-0,092	-46	-11	140	-11	-670	-1
18,5	18,5	0,4	-0,092	-146	-17	342	-12	255	4
24,7	24,6	-0,3	-0,166	-1397	-173	757	99	3735	-357
24,7	24,6	-0,3	-0,166	-1397	-166	757	89	3735	-357
24,7	24,6	-0,3	-0,166	-1428	155	-1089	-81	3725	-348
32,4	32,2	-1,5	-0,092	-949	-3	-196	33	107	75
40,0	39,7	-3,0	-0,092	-658	1	-31	-1	-516	-11
47,7	47,2	-4,8	-0,092	-916	2	187	-37	106	80
55,4	54,6	-6,9	-0,166	-1585	-167	1092	94	3752	-337
55,4	54,6	-6,9	-0,166	-1586	-161	1093	86	3754	-337
55,4	54,6	-6,9	-0,150	-1311	128	-991	-74	3604	-289
61,6	60,4	-8,8	-0,092	-35	5	-285	5	193	0
67,8	66,2	-10,9	-0,092	-10	0	-109	-10	-701	0
73,9	72,0	-13,2	-0,092	58	-6	8	-10	-724	-1
80,1	77,6	-15,8	-0,092	3	-3	153	-2	-6	-5
80,1	77,6	-15,8	-0,092	3	-3	153	-2	-6	-5
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: ULS

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	1,4	-0,092	-1542	76	-1013	-18	-508	-1
6,2	6,2	1,3	-0,092	-339	19	-296	16	-1611	9
12,3	12,3	1,0	-0,092	-421	-14	275	5	-1742	-6
18,5	18,5	0,4	-0,092	-1253	15	438	-10	-511	54
24,7	24,6	-0,3	-0,166	243	10	318	16	1516	21
24,7	24,6	-0,3	-0,166	243	10	318	12	1516	21
24,7	24,6	-0,3	-0,166	247	-1	-274	-18	1520	7
32,4	32,2	-1,5	-0,092	228	-6	-476	-2	-748	-2
40,0	39,7	-3,0	-0,092	579	-1	28	-3	-1690	-10
47,7	47,2	-4,8	-0,092	170	10	533	4	-751	-1
55,4	54,6	-6,9	-0,166	225	3	272	20	1506	6
55,4	54,6	-6,9	-0,166	225	3	272	16	1507	6
55,4	54,6	-6,9	-0,150	231	-1	-321	-15	1493	2
61,6	60,4	-8,8	-0,092	-1301	-6	-494	8	-571	41
67,8	66,2	-10,9	-0,092	-446	-5	-201	19	-1790	-1
73,9	72,0	-13,2	-0,092	-351	-17	234	-21	-1627	12
80,1	77,6	-15,8	-0,092	-1557	-94	897	18	-498	-3
80,1	77,6	-15,8	-0,092	-1558	-93	898	18	-497	-3
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

9. Results SLS-K

9.1 Diagram

Diagram – Max Fz:

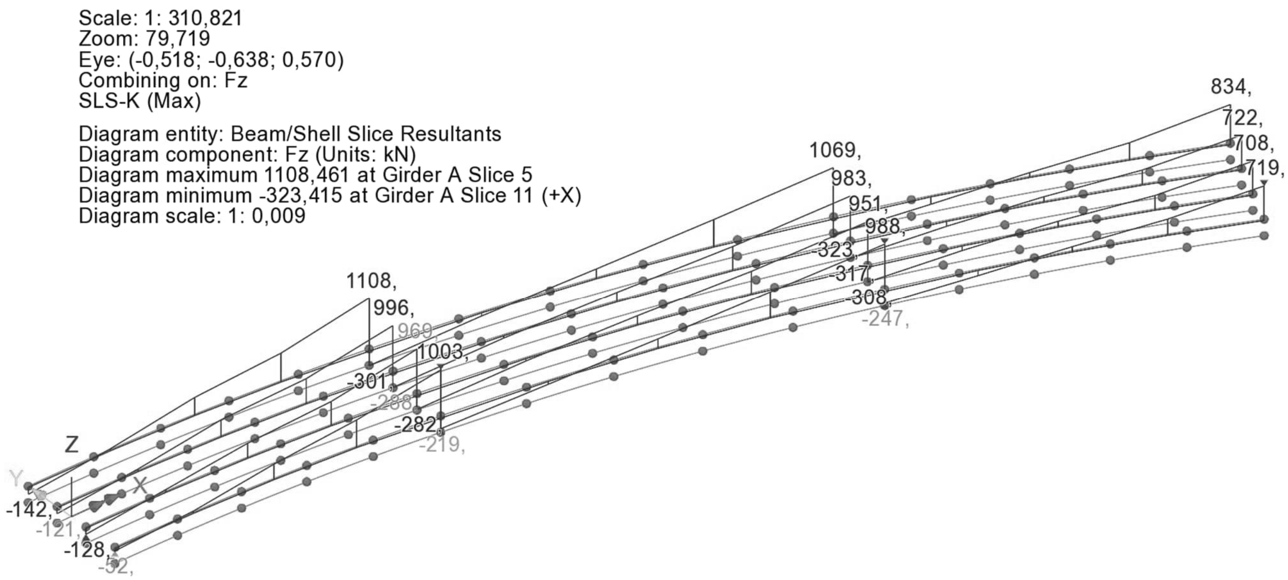


Diagram – Min Fz:

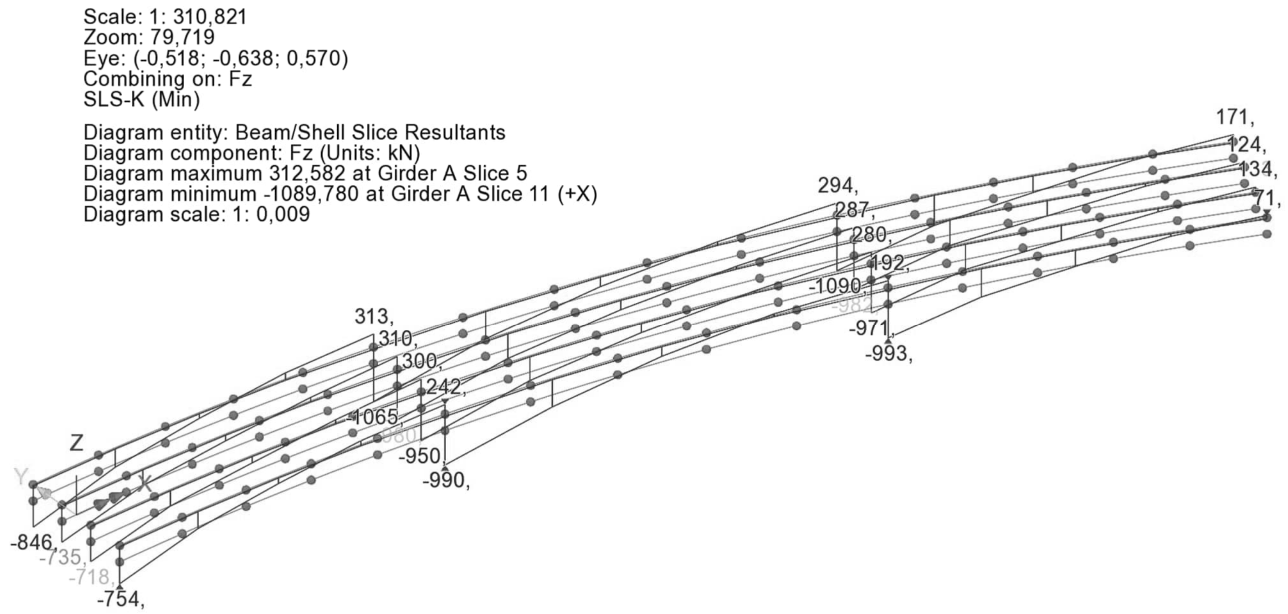


Diagram – Max My:

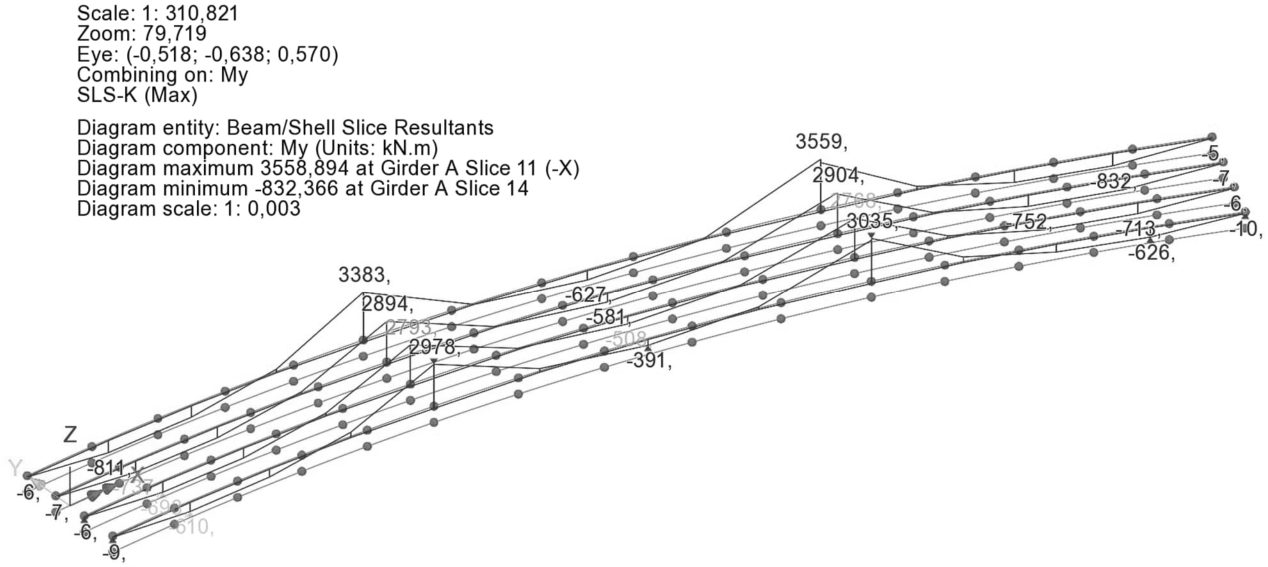
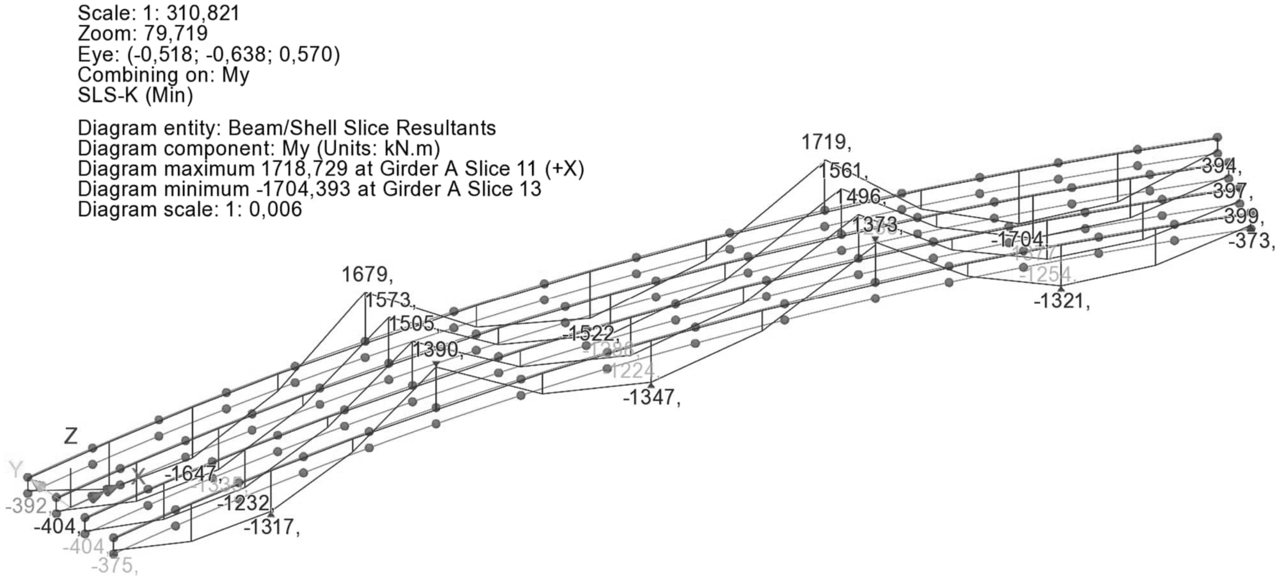


Diagram – Min My:



9.2 Tabell

9.2.1 Max/Min Fz

Girder A: SLS-K

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	4,1	-0,092	4	-10	-142	4	-7	-7
6,3	6,3	4,0	-0,092	-289	0	42	6	-1149	4
12,5	12,5	3,7	-0,092	-252	-8	376	-5	-1454	-3
18,8	18,8	3,2	-0,092	-139	-18	599	-15	-285	5
25,1	25,0	2,5	-0,166	-827	-89	1108	54	3007	-242
25,1	25,0	2,5	-0,166	-828	-85	1108	46	3008	-242
25,1	25,0	2,5	-0,166	249	-10	-301	-10	1702	6
32,8	32,7	1,2	-0,092	-539	62	-64	46	-443	53
40,6	40,3	-0,3	-0,092	-150	-6	205	-5	-1164	-10
48,4	47,9	-2,1	-0,092	77	-39	571	-27	-502	-3
56,2	55,4	-4,3	-0,166	-1015	-43	1069	94	3222	-251
56,2	55,4	-4,3	-0,166	-1018	-38	1069	87	3228	-251
56,2	55,4	-4,3	-0,166	22	-2	-323	-1	1835	13
62,5	61,3	-6,2	-0,092	-927	16	-153	20	-348	31
68,8	67,2	-8,4	-0,092	-278	10	103	7	-1489	2
75,0	73,0	-10,7	-0,092	329	-6	361	-17	-1384	-4
81,3	78,8	-13,3	-0,092	-1207	-46	832	3	-395	-3
81,3	78,8	-13,3	-0,092	-1212	-45	834	4	-392	-3
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: SLS-K

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	4,1	-0,092	-1212	45	-846	-1	-392	-1
6,3	6,3	4,0	-0,092	369	10	-372	13	-1361	-5
12,5	12,5	3,7	-0,092	303	6	-92	0	-1335	-2
18,8	18,8	3,2	-0,092	-907	-11	151	-21	-269	39
25,1	25,0	2,5	-0,166	39	9	313	14	1820	5
25,1	25,0	2,5	-0,166	39	10	313	9	1821	5
25,1	25,0	2,5	-0,166	-861	43	-1065	-72	3013	-259
32,8	32,7	1,2	-0,092	78	44	-563	30	-546	-4
40,6	40,3	-0,3	-0,092	438	5	-194	1	-1311	-6
48,4	47,9	-2,1	-0,092	-590	-63	75	-47	-381	58
56,2	55,4	-4,3	-0,166	323	11	294	11	1673	-3
56,2	55,4	-4,3	-0,166	323	11	294	7	1675	-4
56,2	55,4	-4,3	-0,166	-730	77	-1090	-43	2996	-231
62,5	61,3	-6,2	-0,092	-223	16	-615	13	-277	4
68,8	67,2	-8,4	-0,092	222	13	-340	6	-1364	0
75,0	73,0	-10,7	-0,092	-271	-1	-37	-13	-1225	6
81,3	78,8	-13,3	-0,092	5	-3	171	-1	-13	-8
81,3	78,8	-13,3	-0,092	4	-4	171	-1	-11	-8
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-K

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	1,4	-0,092	-1327	64	-121	-25	-325	-17
6,2	6,2	1,3	-0,092	-414	14	54	10	-1043	8
12,3	12,3	1,0	-0,092	-418	-8	356	2	-1189	-4
18,5	18,5	0,4	-0,092	-1040	8	523	-11	-216	45
24,7	24,6	-0,3	-0,166	-540	-92	996	95	2586	-286
24,7	24,6	-0,3	-0,166	-540	-89	996	87	2587	-286
24,7	24,6	-0,3	-0,166	247	98	-288	-71	1884	-284
32,4	32,2	-1,5	-0,092	-721	-30	-47	33	-286	61
40,0	39,7	-3,0	-0,092	-319	1	200	-1	-987	-11
47,7	47,2	-4,8	-0,092	157	14	504	-2	-446	0
55,4	54,6	-6,9	-0,166	-714	-24	983	22	2336	-3
55,4	54,6	-6,9	-0,166	-714	-21	983	16	2337	-4
55,4	54,6	-6,9	-0,150	51	2	-317	-19	1638	-6
61,6	60,4	-8,8	-0,092	-135	3	-101	3	-214	1
67,8	66,2	-10,9	-0,092	172	5	117	6	-1186	-2
73,9	72,0	-13,2	-0,092	270	5	314	-8	-1120	-2
80,1	77,6	-15,8	-0,092	29	12	722	-11	-76	13
80,1	77,6	-15,8	-0,092	29	12	722	-11	-76	13
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-K

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	1,4	-0,092	35	-11	-735	11	-88	13
6,2	6,2	1,3	-0,092	289	-1	-322	5	-1115	-3
12,3	12,3	1,0	-0,092	222	-3	-114	2	-1152	-2
18,5	18,5	0,4	-0,092	-104	-3	95	-2	-193	3
24,7	24,6	-0,3	-0,166	78	13	310	18	1696	27
24,7	24,6	-0,3	-0,166	78	14	310	13	1696	27
24,7	24,6	-0,3	-0,166	-658	-15	-980	-21	2319	7
32,4	32,2	-1,5	-0,092	180	-11	-499	-1	-442	-1
40,0	39,7	-3,0	-0,092	425	0	-190	-3	-1142	-7
47,7	47,2	-4,8	-0,092	-749	8	60	-23	-274	67
55,4	54,6	-6,9	-0,166	223	-96	287	77	1868	-279
55,4	54,6	-6,9	-0,166	223	-96	287	72	1868	-279
55,4	54,6	-6,9	-0,150	-481	74	-982	-78	2527	-254
61,6	60,4	-8,8	-0,092	-1028	-6	-522	8	-274	34
67,8	66,2	-10,9	-0,092	-416	-8	-310	6	-1222	0
73,9	72,0	-13,2	-0,092	-422	-18	-53	-17	-1041	10
80,1	77,6	-15,8	-0,092	-1326	-95	124	27	-325	-21
80,1	77,6	-15,8	-0,092	-1327	-94	124	27	-324	-21
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

9.2.2 Max/Min My

Girder A: SLS-K

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	4,1	-0,092	0	-12	-193	6	-6	-4
6,3	6,3	4,0	-0,092	128	-4	-5	-1	-811	-4
12,5	12,5	3,7	-0,092	19	-6	142	-10	-762	-1
18,8	18,8	3,2	-0,092	-141	13	318	8	241	8
25,1	25,0	2,5	-0,166	-1361	-127	668	77	3383	-286
25,1	25,0	2,5	-0,166	-1361	-121	668	67	3383	-286
25,1	25,0	2,5	-0,166	-1395	107	-939	-58	3372	-277
32,8	32,7	1,2	-0,092	132	-10	-215	-9	4	2
40,6	40,3	-0,3	-0,092	-255	2	-29	0	-627	-9
48,4	47,9	-2,1	-0,092	157	8	212	7	8	2
56,2	55,4	-4,3	-0,166	-1534	-116	963	74	3553	-263
56,2	55,4	-4,3	-0,166	-1537	-110	963	66	3559	-264
56,2	55,4	-4,3	-0,166	-1241	98	-917	-61	3317	-262
62,5	61,3	-6,2	-0,092	-87	-15	-317	-10	236	6
68,8	67,2	-8,4	-0,092	48	6	-131	-6	-790	2
75,0	73,0	-10,7	-0,092	143	1	19	-7	-832	-3
81,3	78,8	-13,3	-0,092	-6	10	274	-9	-7	1
81,3	78,8	-13,3	-0,092	-14	14	362	-14	-5	7
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: SLS-K

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	4,1	-0,092	-1209	47	-813	-3	-392	-4
6,3	6,3	4,0	-0,092	-163	11	-257	15	-1528	3
12,5	12,5	3,7	-0,092	-184	-2	233	-1	-1647	-3
18,8	18,8	3,2	-0,092	-938	-37	436	-31	-554	38
25,1	25,0	2,5	-0,166	260	19	338	10	1678	20
25,1	25,0	2,5	-0,166	260	19	338	5	1678	20
25,1	25,0	2,5	-0,166	273	-11	-303	-10	1679	7
32,8	32,7	1,2	-0,092	-578	75	-460	67	-699	51
40,6	40,3	-0,3	-0,092	463	1	-3	-2	-1522	-6
48,4	47,9	-2,1	-0,092	-610	-67	455	-65	-651	57
56,2	55,4	-4,3	-0,166	338	13	295	12	1661	-3
56,2	55,4	-4,3	-0,166	338	13	295	8	1664	-3
56,2	55,4	-4,3	-0,166	139	-11	-345	-7	1719	7
62,5	61,3	-6,2	-0,092	-976	40	-459	29	-604	30
68,8	67,2	-8,4	-0,092	-229	16	-164	12	-1704	1
75,0	73,0	-10,7	-0,092	-174	-9	239	-20	-1561	5
81,3	78,8	-13,3	-0,092	-1199	-55	723	8	-396	-11
81,3	78,8	-13,3	-0,092	-1202	-56	692	11	-394	-13
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-K

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	1,4	-0,092	3	2	-170	5	-7	1
6,2	6,2	1,3	-0,092	65	-7	-19	-2	-737	-2
12,3	12,3	1,0	-0,092	-13	-8	116	-8	-724	-1
18,5	18,5	0,4	-0,092	-112	-11	274	-9	162	4
24,7	24,6	-0,3	-0,166	-910	-134	574	81	2894	-291
24,7	24,6	-0,3	-0,166	-910	-129	574	73	2894	-291
24,7	24,6	-0,3	-0,166	-931	123	-792	-68	2888	-290
32,4	32,2	-1,5	-0,092	-762	-4	-184	28	30	62
40,0	39,7	-3,0	-0,092	-496	0	-21	-1	-581	-10
47,7	47,2	-4,8	-0,092	-742	3	178	-31	30	67
55,4	54,6	-6,9	-0,166	-1038	-132	794	78	2903	-281
55,4	54,6	-6,9	-0,166	-1039	-128	794	72	2904	-281
55,4	54,6	-6,9	-0,150	-839	101	-728	-62	2792	-240
61,6	60,4	-8,8	-0,092	-53	4	-255	4	111	0
67,8	66,2	-10,9	-0,092	5	1	-94	-7	-752	-1
73,9	72,0	-13,2	-0,092	67	-4	27	-9	-750	-2
80,1	77,6	-15,8	-0,092	2	-2	165	-3	-7	-2
80,1	77,6	-15,8	-0,092	2	-2	165	-3	-7	-2
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-K

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	1,4	-0,092	-1294	66	-709	-16	-404	-3
6,2	6,2	1,3	-0,092	-328	16	-208	13	-1249	8
12,3	12,3	1,0	-0,092	-397	-11	201	3	-1335	-5
18,5	18,5	0,4	-0,092	-1060	11	355	-9	-344	45
24,7	24,6	-0,3	-0,166	171	5	321	18	1570	13
24,7	24,6	-0,3	-0,166	171	5	321	14	1570	13
24,7	24,6	-0,3	-0,166	174	0	-291	-18	1573	5
32,4	32,2	-1,5	-0,092	181	-4	-351	-1	-535	-2
40,0	39,7	-3,0	-0,092	441	-1	18	-2	-1288	-8
47,7	47,2	-4,8	-0,092	142	7	389	2	-537	-1
55,4	54,6	-6,9	-0,166	158	1	289	21	1561	4
55,4	54,6	-6,9	-0,166	158	1	289	17	1561	4
55,4	54,6	-6,9	-0,150	176	0	-321	-15	1543	1
61,6	60,4	-8,8	-0,092	-1071	-4	-371	7	-399	34
67,8	66,2	-10,9	-0,092	-413	-4	-148	13	-1377	-1
73,9	72,0	-13,2	-0,092	-336	-15	168	-17	-1264	10
80,1	77,6	-15,8	-0,092	-1304	-79	632	16	-397	-4
80,1	77,6	-15,8	-0,092	-1304	-79	632	17	-397	-4
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

10. Results SLS-F

10.1 Diagram

Diagram – Max Fz:

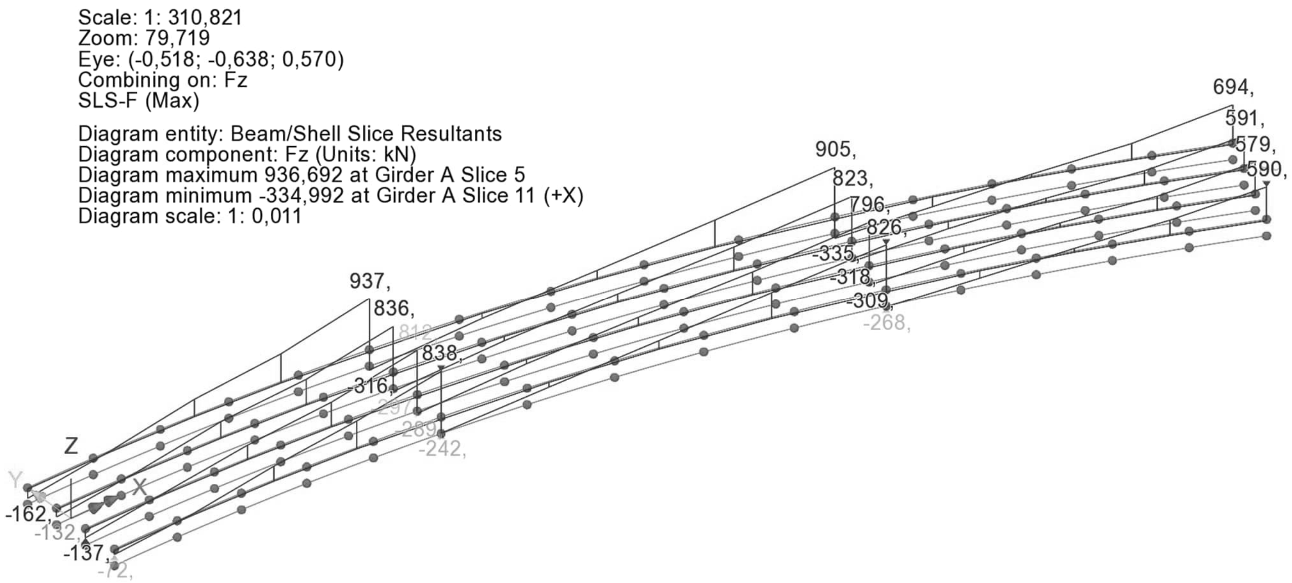


Diagram – Min Fz:

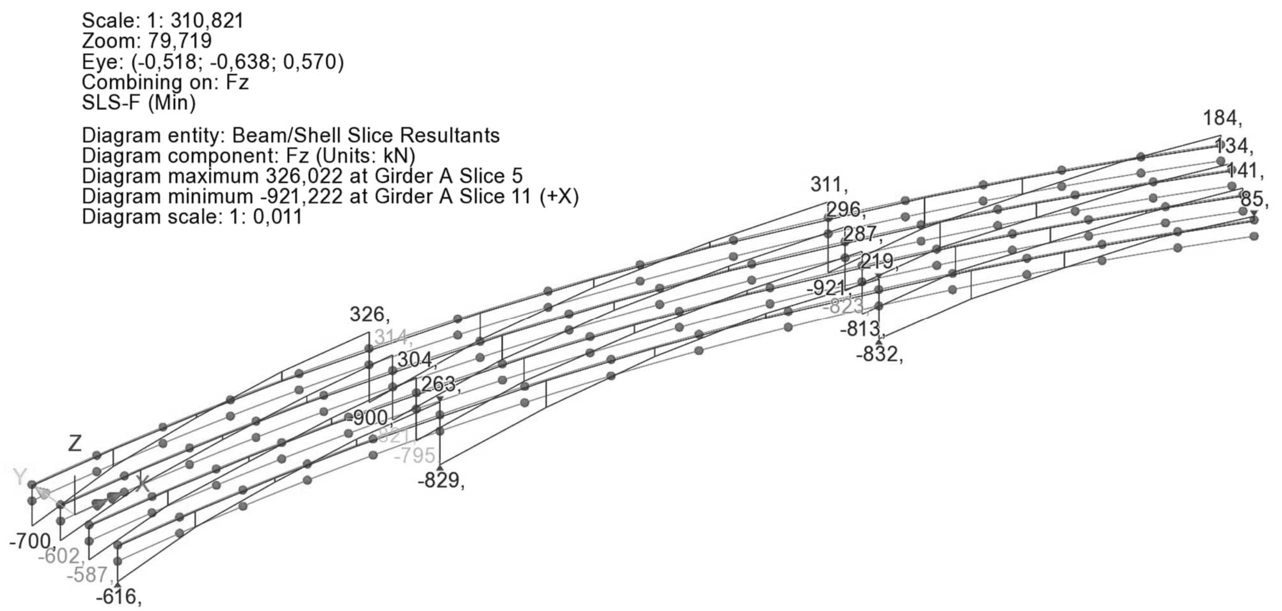


Diagram – Max My:

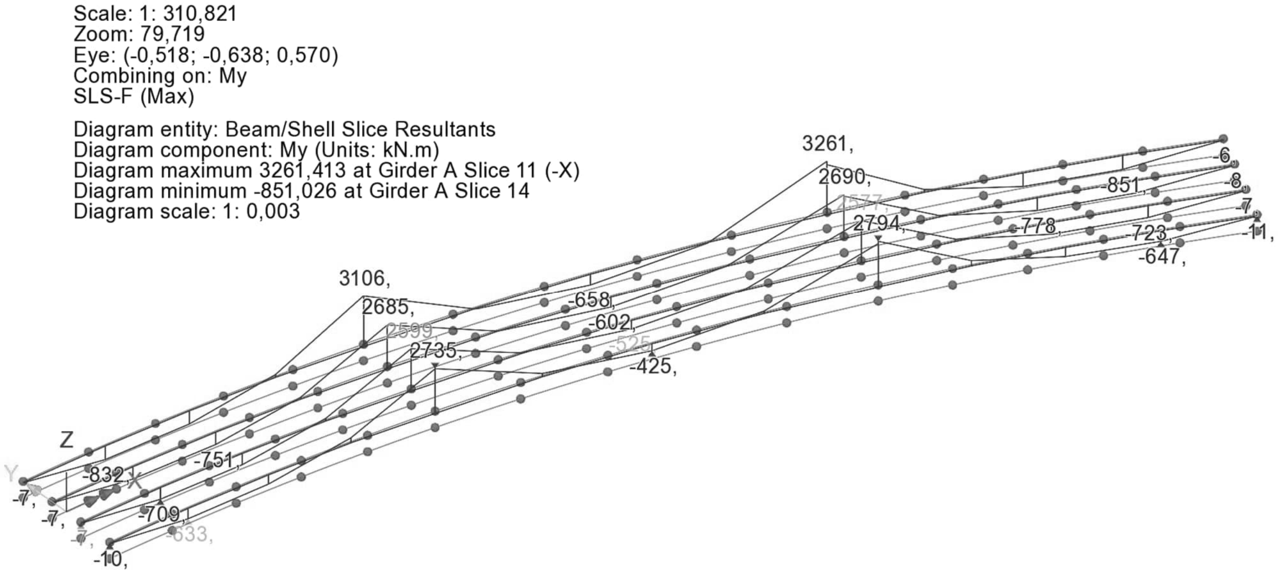
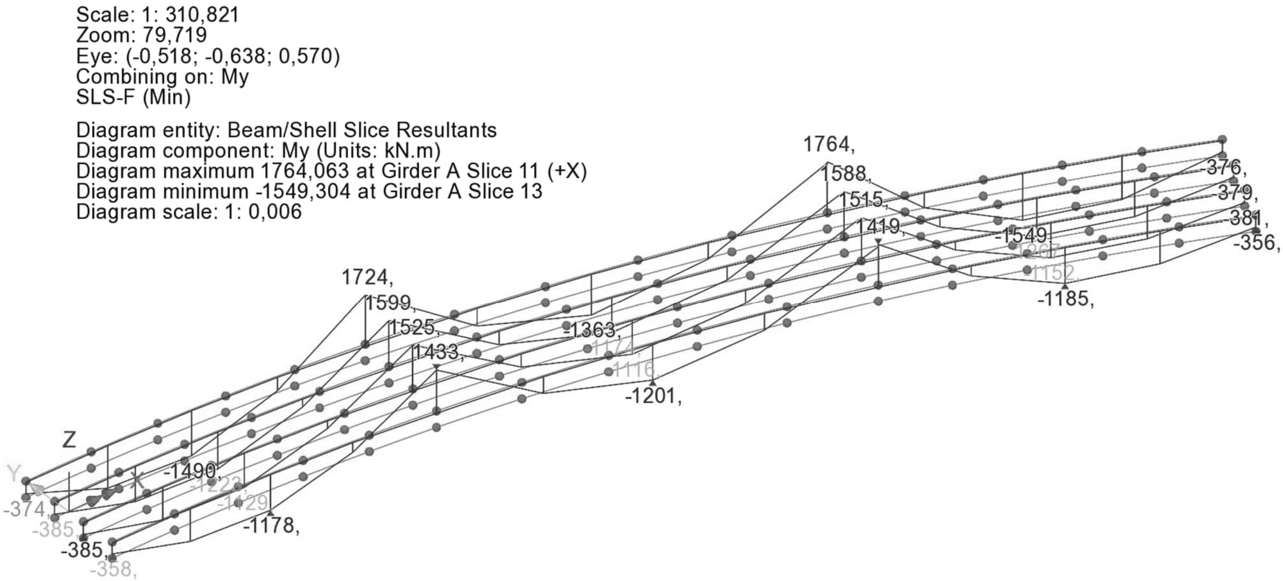


Diagram – Min My:



10.2 Tabell

10.2.1 Max/Min Fz

Girder A: SLS-F

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	4,1	-0,447	3	-8	-162	4	-8	-6
6,3	6,3	4,0	-0,447	-303	1	16	6	-1110	4
12,5	12,5	3,7	-0,447	-283	-6	305	-4	-1345	-2
18,8	18,8	3,2	-0,447	-133	-13	508	-11	-222	5
25,1	25,0	2,5	-0,750	-605	-86	937	57	2824	-245
25,1	25,0	2,5	-0,750	-605	-82	937	49	2824	-245
25,1	25,0	2,5	-0,750	169	-9	-316	-10	1741	4
32,8	32,7	1,2	-0,447	-538	55	-86	43	-387	54
40,6	40,3	-0,3	-0,447	-172	-4	155	-4	-1061	-10
48,4	47,9	-2,1	-0,447	90	-32	476	-21	-425	-2
56,2	55,4	-4,3	-0,750	-749	-52	905	88	3008	-254
56,2	55,4	-4,3	-0,750	-751	-48	905	81	3013	-254
56,2	55,4	-4,3	-0,750	-5	-2	-335	-3	1851	9
62,5	61,3	-6,2	-0,447	-914	15	-171	18	-304	31
68,8	67,2	-8,4	-0,447	-310	10	58	6	-1377	2
75,0	73,0	-10,7	-0,447	293	-5	289	-15	-1275	-4
81,3	78,8	-13,3	-0,447	-1212	-48	692	7	-377	-5
81,3	78,8	-13,3	-0,447	-1217	-47	694	8	-374	-5
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: SLS-F

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	4,1	-0,447	-1217	46	-700	-5	-374	-3
6,3	6,3	4,0	-0,447	329	8	-298	11	-1254	-5
12,5	12,5	3,7	-0,447	258	4	-50	-2	-1233	-2
18,8	18,8	3,2	-0,447	-906	-11	169	-20	-231	40
25,1	25,0	2,5	-0,750	12	7	326	15	1829	3
25,1	25,0	2,5	-0,750	12	8	326	9	1829	3
25,1	25,0	2,5	-0,750	-627	51	-900	-69	2827	-261
32,8	32,7	1,2	-0,447	90	36	-470	24	-462	-3
40,6	40,3	-0,3	-0,447	420	4	-145	0	-1204	-6
48,4	47,9	-2,1	-0,447	-580	-55	95	-44	-330	59
56,2	55,4	-4,3	-0,750	225	9	311	12	1728	-3
56,2	55,4	-4,3	-0,750	225	9	311	8	1731	-3
56,2	55,4	-4,3	-0,750	-503	74	-921	-46	2802	-234
62,5	61,3	-6,2	-0,447	-210	12	-521	9	-216	4
68,8	67,2	-8,4	-0,447	193	12	-276	3	-1269	1
75,0	73,0	-10,7	-0,447	-288	-2	-12	-13	-1176	6
81,3	78,8	-13,3	-0,447	3	-2	184	-2	-12	-7
81,3	78,8	-13,3	-0,447	3	-2	184	-2	-11	-7
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-F

Distance	X	Y	Z	Fx	Fy	Max Fz	Mx	My	Mz
0	0	1,4	-0,092	-1327	67	-132	-25	-325	-16
6,2	6,2	1,3	-0,092	-442	15	27	10	-997	8
12,3	12,3	1,0	-0,092	-455	-8	289	1	-1114	-4
18,5	18,5	0,4	-0,092	-1042	7	446	-11	-169	45
24,7	24,6	-0,3	-0,166	-379	-92	836	89	2454	-281
24,7	24,6	-0,3	-0,166	-379	-90	836	82	2455	-281
24,7	24,6	-0,3	-0,166	212	99	-297	-71	1909	-285
32,4	32,2	-1,5	-0,092	-726	-25	-75	31	-237	61
40,0	39,7	-3,0	-0,092	-355	1	150	-1	-906	-11
47,7	47,2	-4,8	-0,092	155	11	421	-2	-383	0
55,4	54,6	-6,9	-0,166	-530	-19	823	22	2188	-2
55,4	54,6	-6,9	-0,166	-530	-16	823	17	2189	-2
55,4	54,6	-6,9	-0,150	55	2	-318	-18	1639	-5
61,6	60,4	-8,8	-0,092	-123	3	-124	3	-174	1
67,8	66,2	-10,9	-0,092	138	5	72	4	-1103	-1
73,9	72,0	-13,2	-0,092	231	4	253	-8	-1050	-2
80,1	77,6	-15,8	-0,092	22	9	591	-9	-60	11
80,1	77,6	-15,8	-0,092	22	9	591	-9	-59	11
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-F

Distance	X	Y	Z	Fx	Fy	Min Fz	Mx	My	Mz
0	0	1,4	-0,092	27	-9	-602	9	-68	11
6,2	6,2	1,3	-0,092	248	0	-259	5	-1044	-3
12,3	12,3	1,0	-0,092	180	-3	-68	0	-1072	-2
18,5	18,5	0,4	-0,092	-100	-2	121	-3	-149	3
24,7	24,6	-0,3	-0,166	66	9	314	19	1691	19
24,7	24,6	-0,3	-0,166	66	9	314	14	1691	19
24,7	24,6	-0,3	-0,166	-487	-11	-821	-21	2179	6
32,4	32,2	-1,5	-0,092	173	-9	-417	0	-380	-1
40,0	39,7	-3,0	-0,092	393	0	-142	-3	-1065	-7
47,7	47,2	-4,8	-0,092	-748	8	85	-24	-227	67
55,4	54,6	-6,9	-0,166	191	-98	296	77	1894	-280
55,4	54,6	-6,9	-0,166	191	-98	296	72	1894	-280
55,4	54,6	-6,9	-0,150	-318	75	-823	-74	2391	-250
61,6	60,4	-8,8	-0,092	-1025	-5	-444	9	-230	34
67,8	66,2	-10,9	-0,092	-453	-7	-250	4	-1151	0
73,9	72,0	-13,2	-0,092	-448	-19	-25	-17	-1000	10
80,1	77,6	-15,8	-0,092	-1327	-92	134	26	-325	-19
80,1	77,6	-15,8	-0,092	-1327	-91	134	26	-325	-19
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

10.2.2 Max/Min My

Girder A: SLS-F

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	4,1	-0,447	0	-10	-201	6	-7	-3
6,3	6,3	4,0	-0,447	141	-3	-22	0	-832	-4
12,5	12,5	3,7	-0,447	45	-4	125	-9	-803	-1
18,8	18,8	3,2	-0,447	-136	10	294	6	173	7
25,1	25,0	2,5	-0,750	-1004	-114	607	74	3105	-278
25,1	25,0	2,5	-0,750	-1005	-109	607	65	3106	-278
25,1	25,0	2,5	-0,750	-1028	99	-805	-59	3096	-274
32,8	32,7	1,2	-0,447	127	-5	-206	-5	-44	1
40,6	40,3	-0,3	-0,447	-251	1	-21	-1	-658	-9
48,4	47,9	-2,1	-0,447	146	3	205	4	-37	1
56,2	55,4	-4,3	-0,750	-1138	-107	825	72	3256	-263
56,2	55,4	-4,3	-0,750	-1140	-102	826	65	3261	-263
56,2	55,4	-4,3	-0,750	-887	90	-791	-59	3043	-257
62,5	61,3	-6,2	-0,447	-110	-12	-295	-8	171	6
68,8	67,2	-8,4	-0,447	55	6	-118	-5	-828	2
75,0	73,0	-10,7	-0,447	146	1	32	-7	-851	-3
81,3	78,8	-13,3	-0,447	-4	8	262	-8	-8	0
81,3	78,8	-13,3	-0,447	-11	11	328	-12	-6	5
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder A: SLS-F

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	4,1	-0,447	-1215	47	-676	-6	-374	-5
6,3	6,3	4,0	-0,447	-201	10	-209	13	-1404	4
12,5	12,5	3,7	-0,447	-232	-1	197	-2	-1490	-3
18,8	18,8	3,2	-0,447	-929	-31	385	-27	-446	39
25,1	25,0	2,5	-0,750	177	15	345	11	1722	14
25,1	25,0	2,5	-0,750	177	15	345	6	1722	14
25,1	25,0	2,5	-0,750	187	-10	-318	-10	1724	5
32,8	32,7	1,2	-0,447	-564	65	-385	59	-584	52
40,6	40,3	-0,3	-0,447	439	1	-2	-2	-1363	-6
48,4	47,9	-2,1	-0,447	-592	-58	383	-58	-538	58
56,2	55,4	-4,3	-0,750	236	11	312	13	1720	-2
56,2	55,4	-4,3	-0,750	236	11	312	9	1722	-3
56,2	55,4	-4,3	-0,750	83	-9	-351	-8	1764	4
62,5	61,3	-6,2	-0,447	-949	34	-403	24	-498	30
68,8	67,2	-8,4	-0,447	-266	15	-143	9	-1549	2
75,0	73,0	-10,7	-0,447	-209	-8	197	-18	-1438	6
81,3	78,8	-13,3	-0,447	-1206	-55	611	10	-377	-11
81,3	78,8	-13,3	-0,447	-1209	-55	587	12	-376	-12
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-F

Distance	X	Y	Z	Fx	Fy	Fz	Mx	Max My	Mz
0	0	1,4	-0,092	2	1	-175	5	-8	1
6,2	6,2	1,3	-0,092	74	-5	-30	0	-751	-2
12,3	12,3	1,0	-0,092	4	-6	105	-7	-751	-1
18,5	18,5	0,4	-0,092	-106	-8	255	-7	117	3
24,7	24,6	-0,3	-0,166	-657	-124	519	79	2685	-284
24,7	24,6	-0,3	-0,166	-657	-120	519	71	2685	-284
24,7	24,6	-0,3	-0,166	-672	118	-679	-69	2681	-290
32,4	32,2	-1,5	-0,092	-756	-5	-178	28	0	62
40,0	39,7	-3,0	-0,092	-488	0	-15	-1	-602	-10
47,7	47,2	-4,8	-0,092	-742	5	173	-30	1	67
55,4	54,6	-6,9	-0,166	-756	-125	681	78	2689	-281
55,4	54,6	-6,9	-0,166	-756	-121	681	72	2690	-281
55,4	54,6	-6,9	-0,150	-586	95	-633	-62	2589	-239
61,6	60,4	-8,8	-0,092	-62	3	-240	4	70	0
67,8	66,2	-10,9	-0,092	13	2	-86	-6	-778	-1
73,9	72,0	-13,2	-0,092	72	-3	36	-9	-763	-2
80,1	77,6	-15,8	-0,092	2	-1	171	-4	-8	0
80,1	77,6	-15,8	-0,092	2	-1	171	-4	-8	0
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Girder B: SLS-F

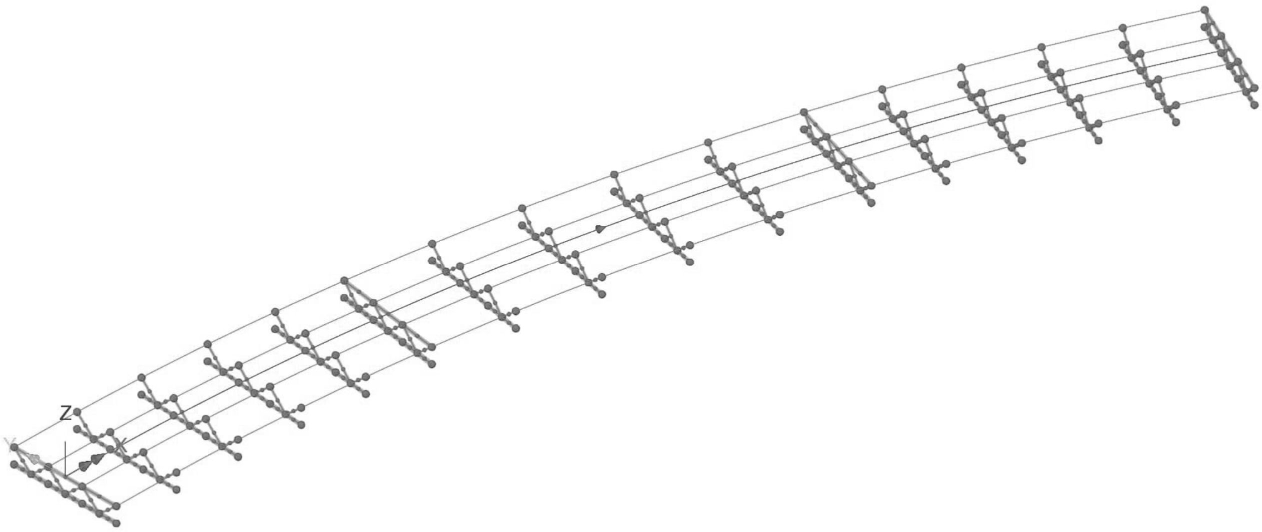
Distance	X	Y	Z	Fx	Fy	Fz	Mx	Min My	Mz
0	0	1,4	-0,092	-1302	68	-576	-18	-385	-5
6,2	6,2	1,3	-0,092	-370	16	-171	12	-1162	8
12,3	12,3	1,0	-0,092	-439	-10	173	2	-1223	-4
18,5	18,5	0,4	-0,092	-1056	9	320	-10	-265	45
24,7	24,6	-0,3	-0,166	135	3	322	19	1596	9
24,7	24,6	-0,3	-0,166	135	3	322	14	1596	9
24,7	24,6	-0,3	-0,166	138	1	-299	-18	1599	4
32,4	32,2	-1,5	-0,092	174	-4	-307	0	-449	-1
40,0	39,7	-3,0	-0,092	405	0	14	-2	-1174	-8
47,7	47,2	-4,8	-0,092	144	6	335	1	-451	0
55,4	54,6	-6,9	-0,166	124	0	298	21	1588	3
55,4	54,6	-6,9	-0,166	124	0	298	17	1588	3
55,4	54,6	-6,9	-0,150	149	1	-321	-16	1568	0
61,6	60,4	-8,8	-0,092	-1057	-3	-331	8	-323	34
67,8	66,2	-10,9	-0,092	-450	-5	-128	10	-1267	0
73,9	72,0	-13,2	-0,092	-376	-16	141	-17	-1177	10
80,1	77,6	-15,8	-0,092	-1309	-81	518	18	-379	-6
80,1	77,6	-15,8	-0,092	-1310	-80	518	19	-379	-6
m	m	m	m	kN	kN	kN	kNm	kNm	kNm

Model Units: kN,m,t,s,C
Report Units: kN,m,t,s,C

Model Title: System 001
Model File: System 001

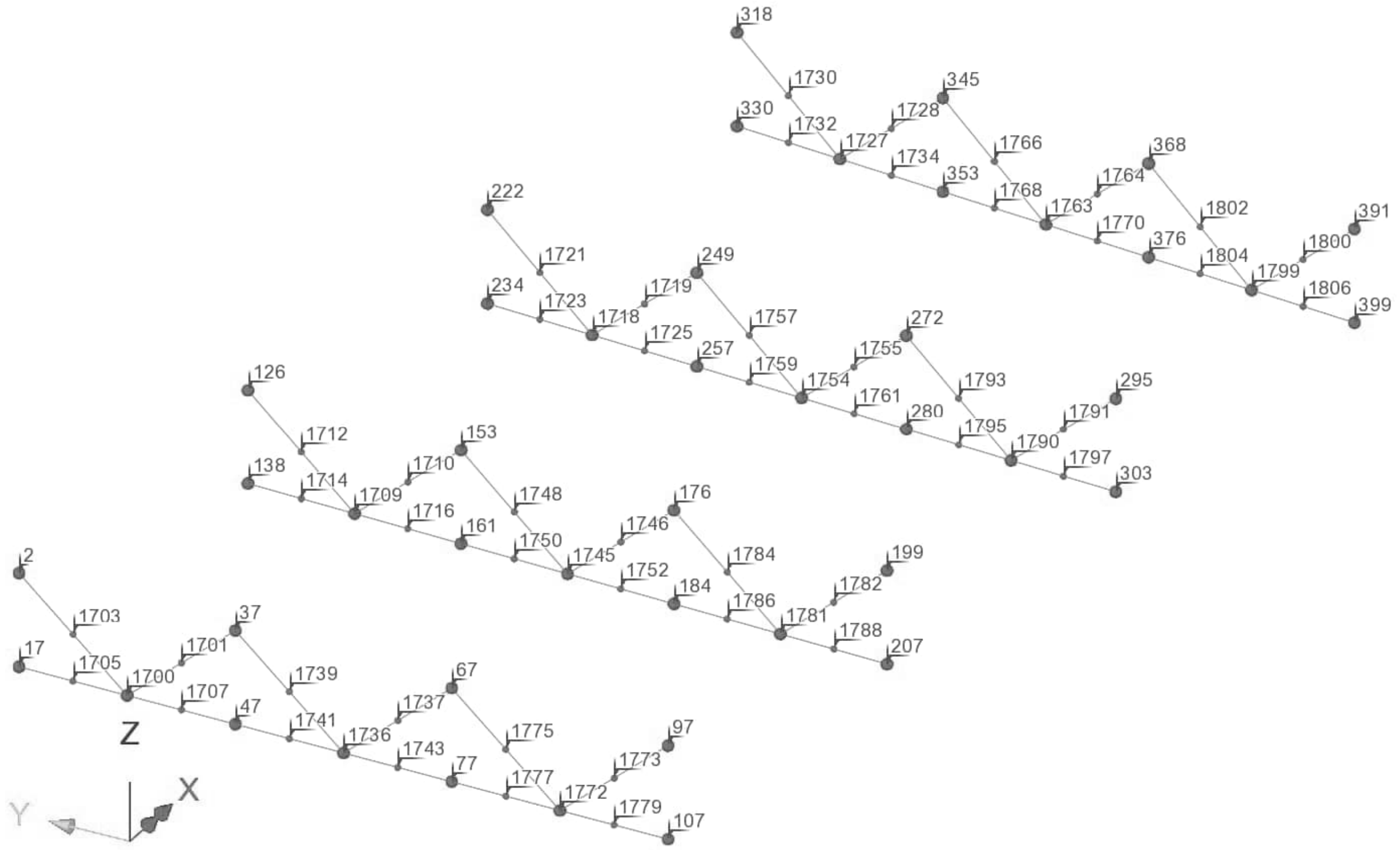
Table of Contents

1. Overview



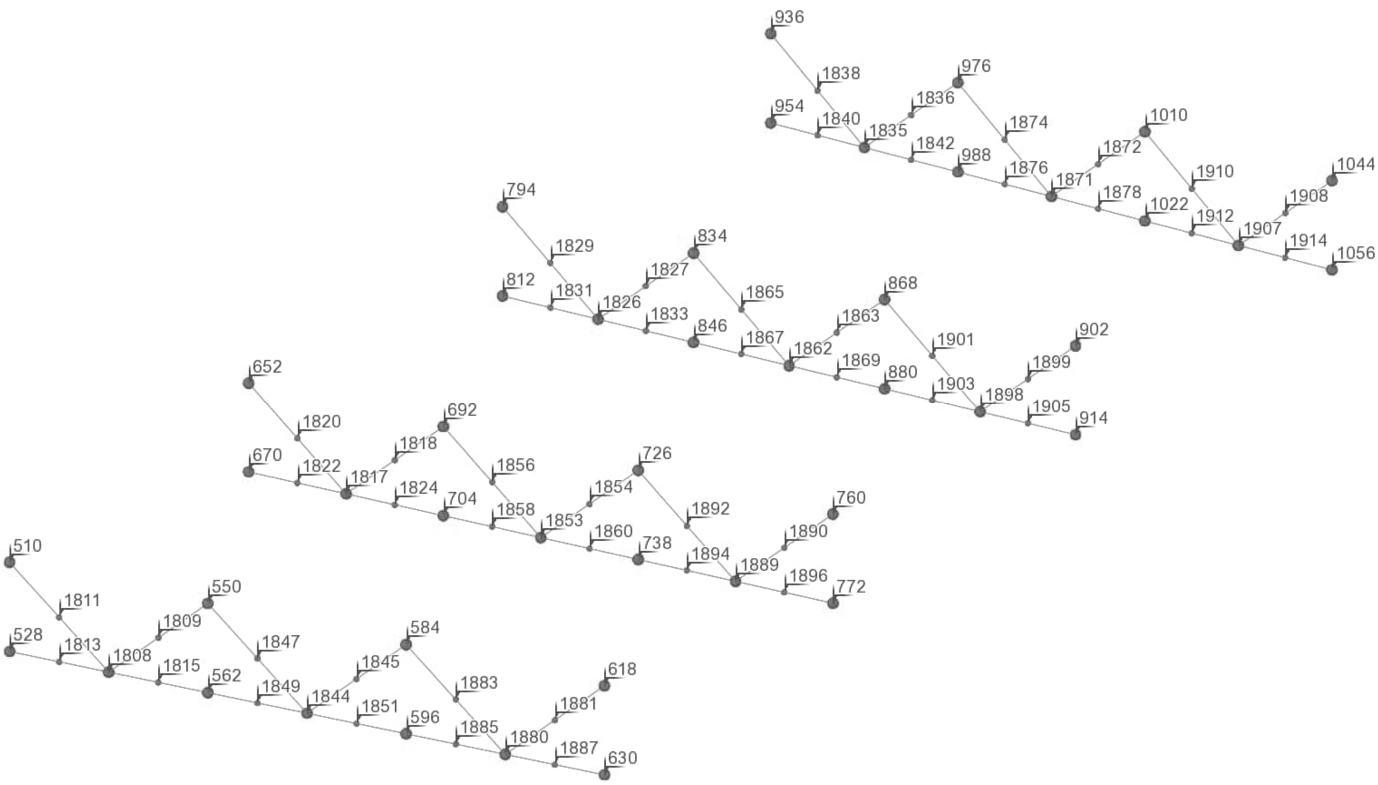
2. Bracings F - nodes

Span 1 :



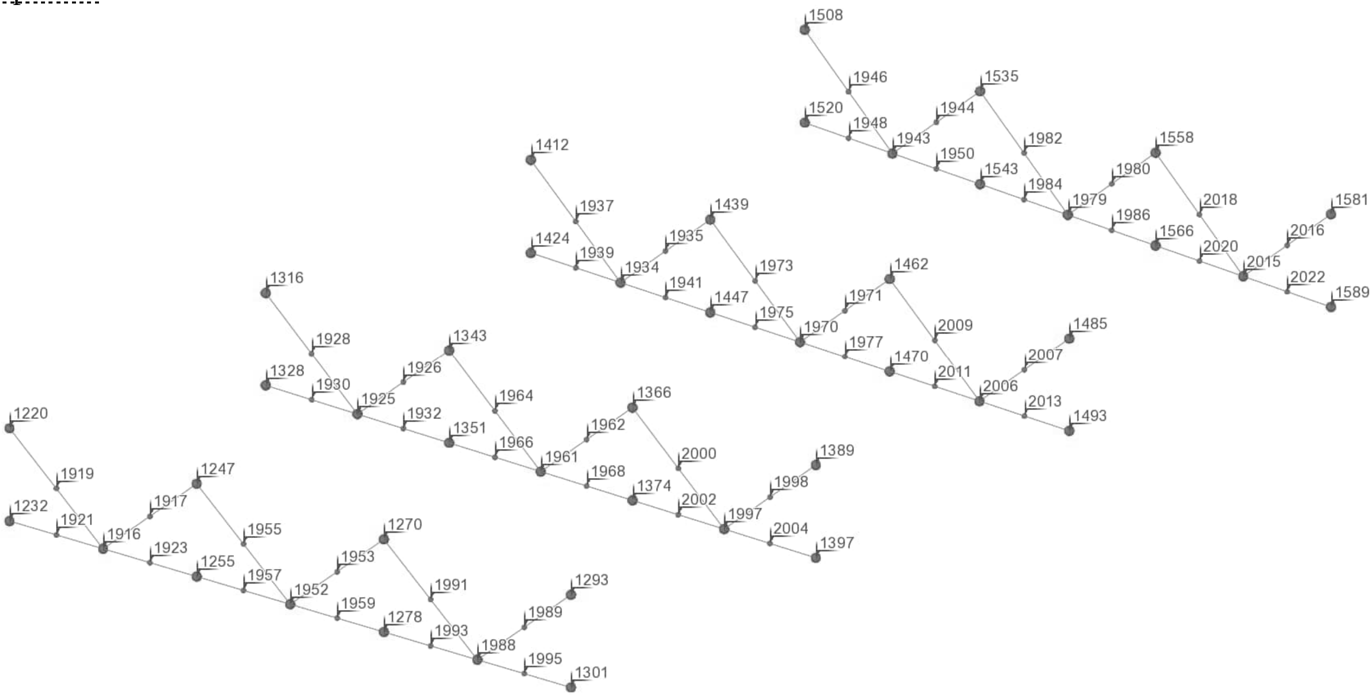
Remark
Local coordinate system see page 7.

Span 2 :

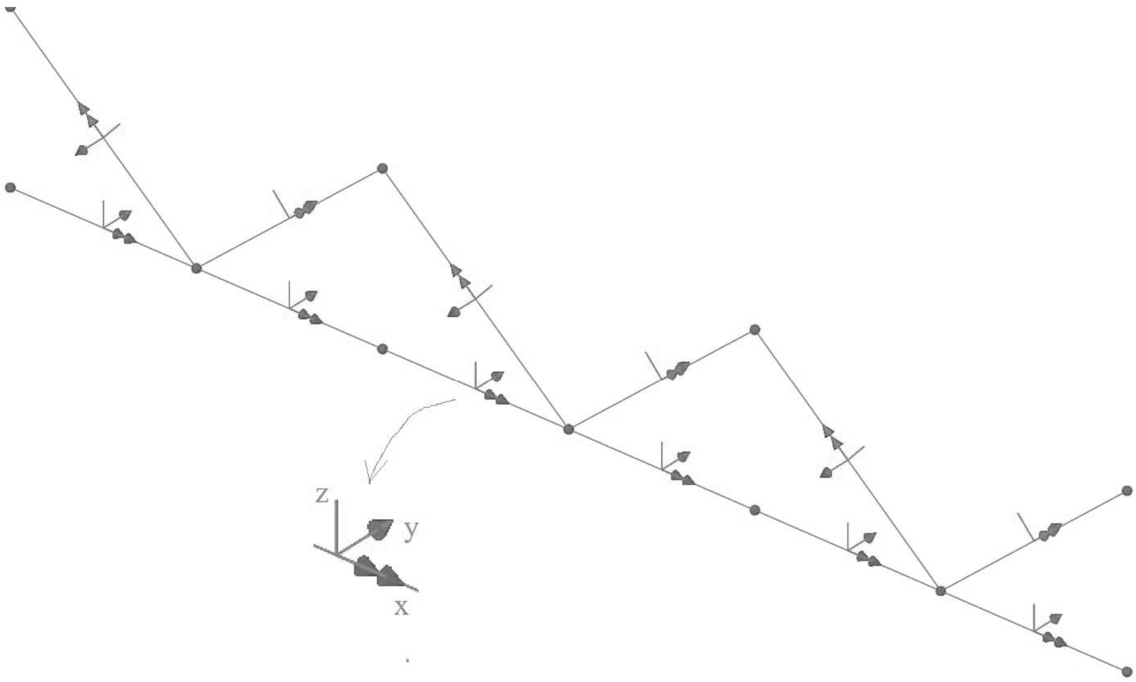


Remark
Local coordinate system see page 7.

Span 3 :



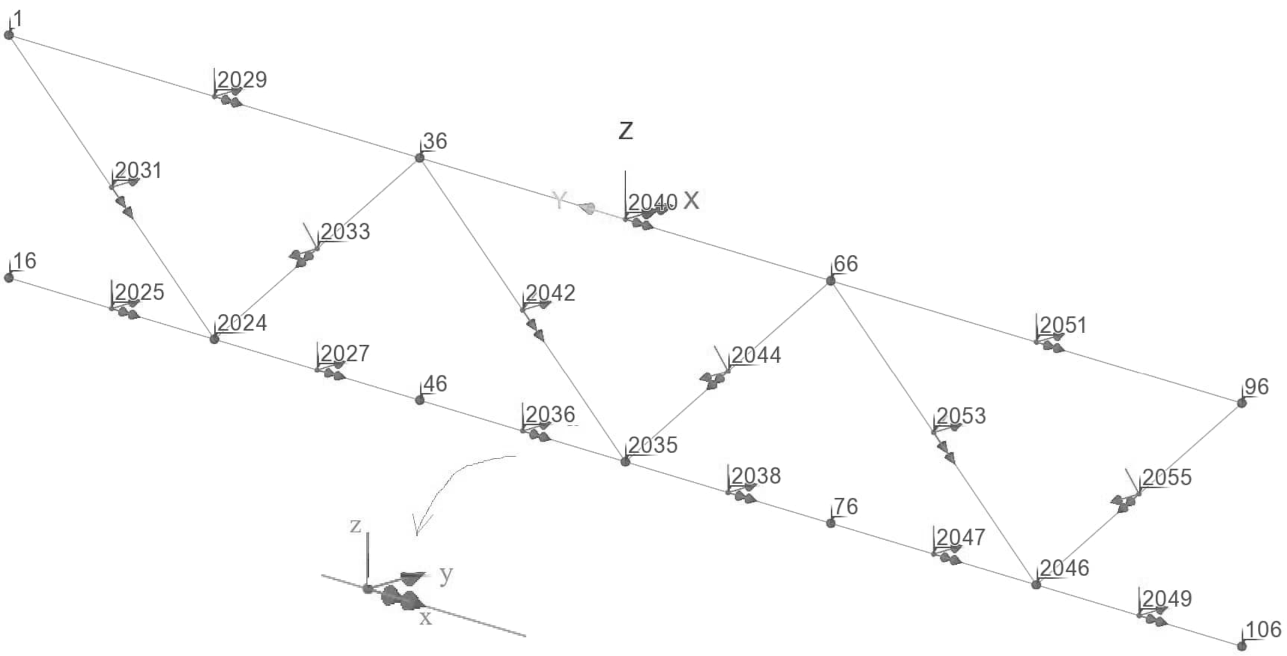
Remark
Local coordinate system see page 7.



Directions local coordinate system

3. Bracings S - nodes

Support 1 :



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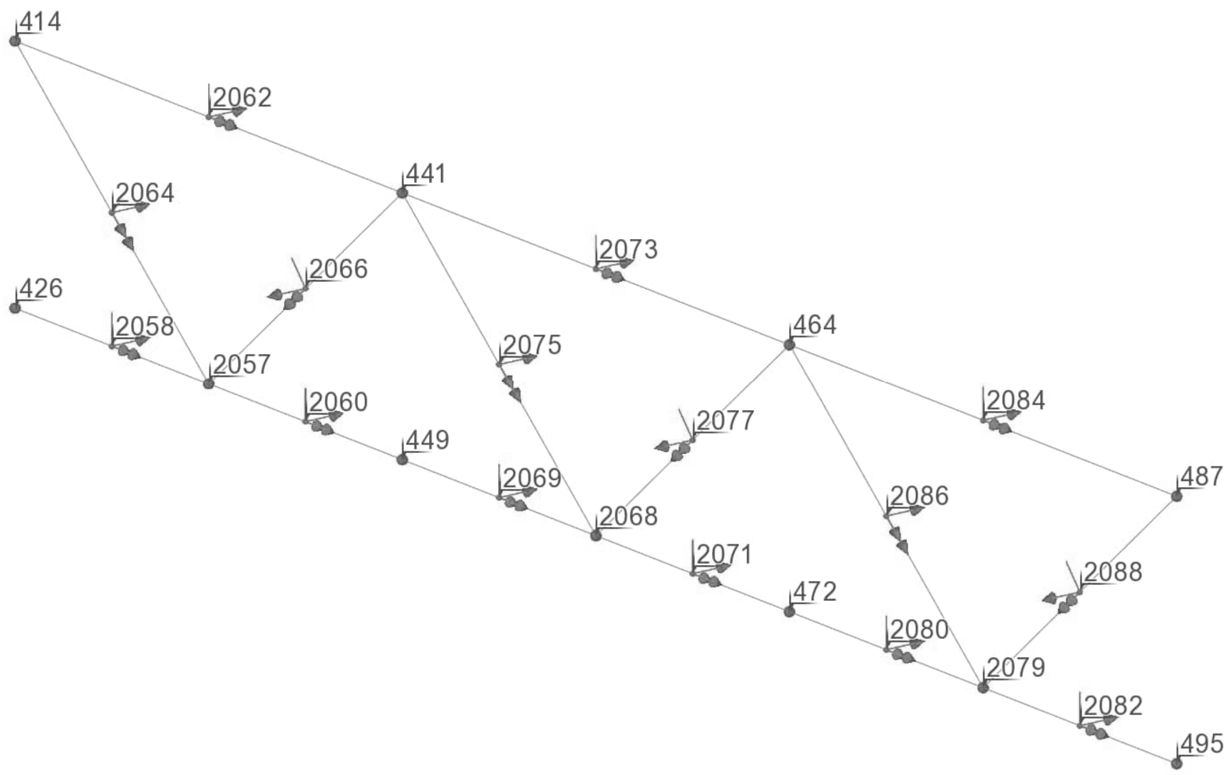
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472
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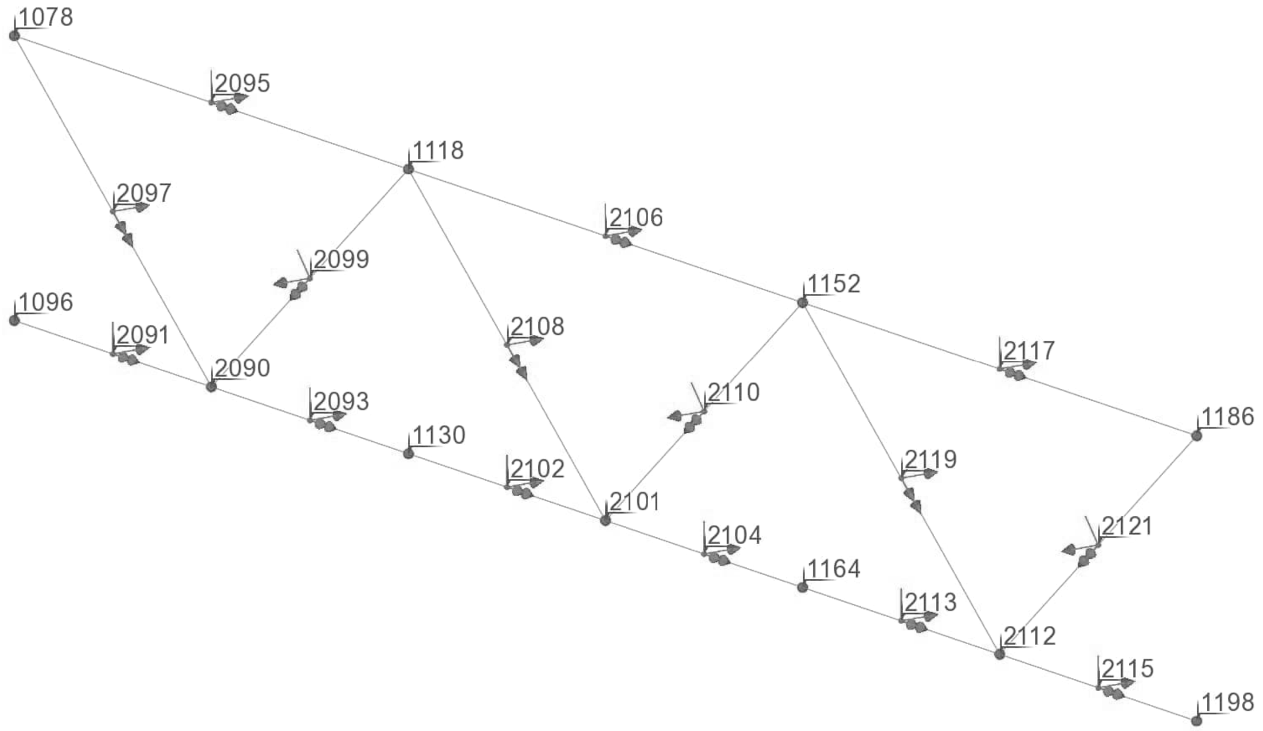
495

Support 3 :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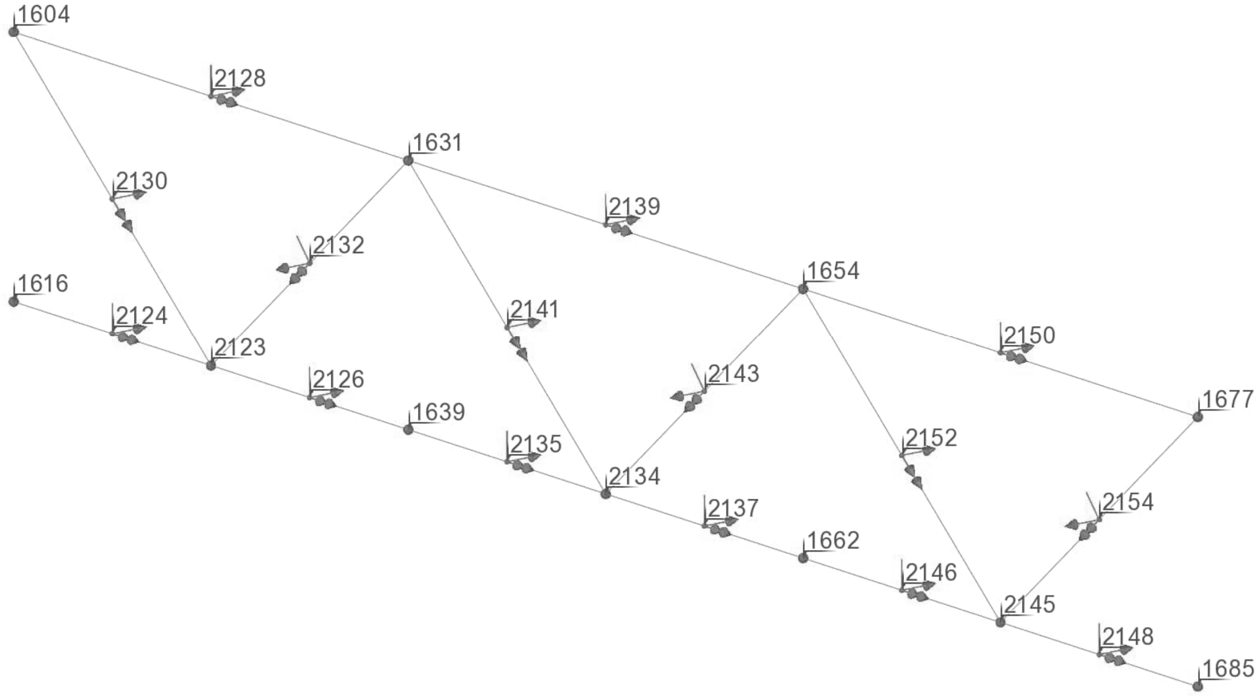
Support 4: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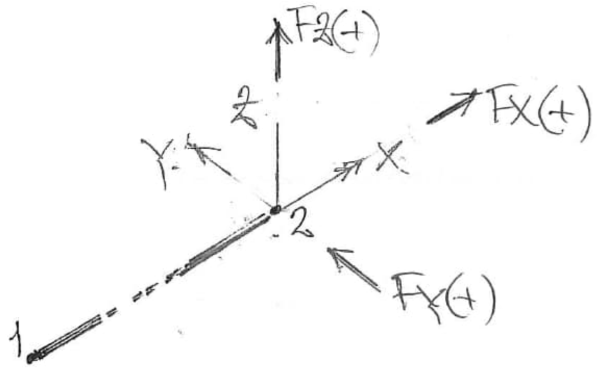
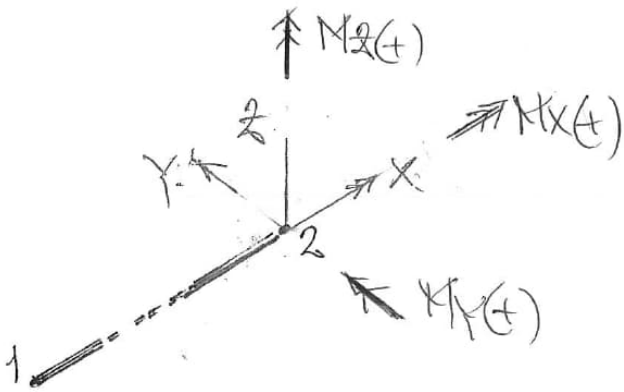
4. Sign convention

Principle sign conventions (see Element reference manual – Appendix D) :

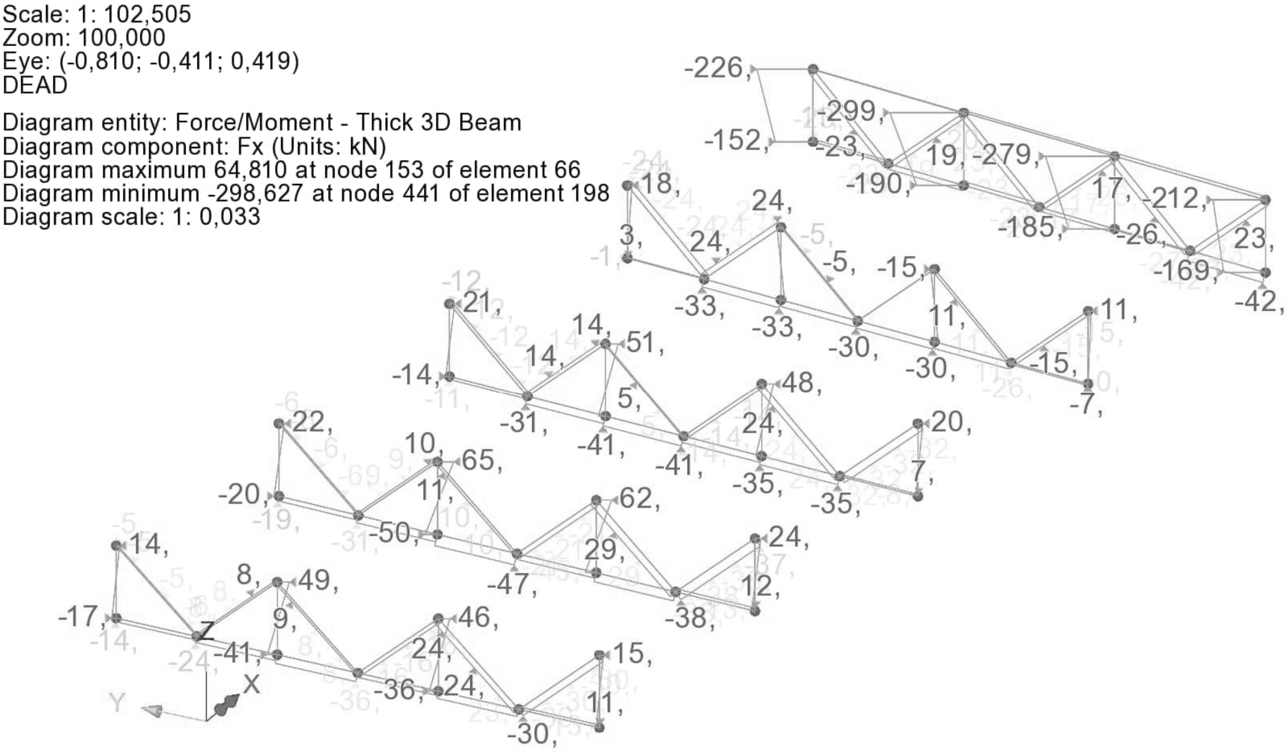




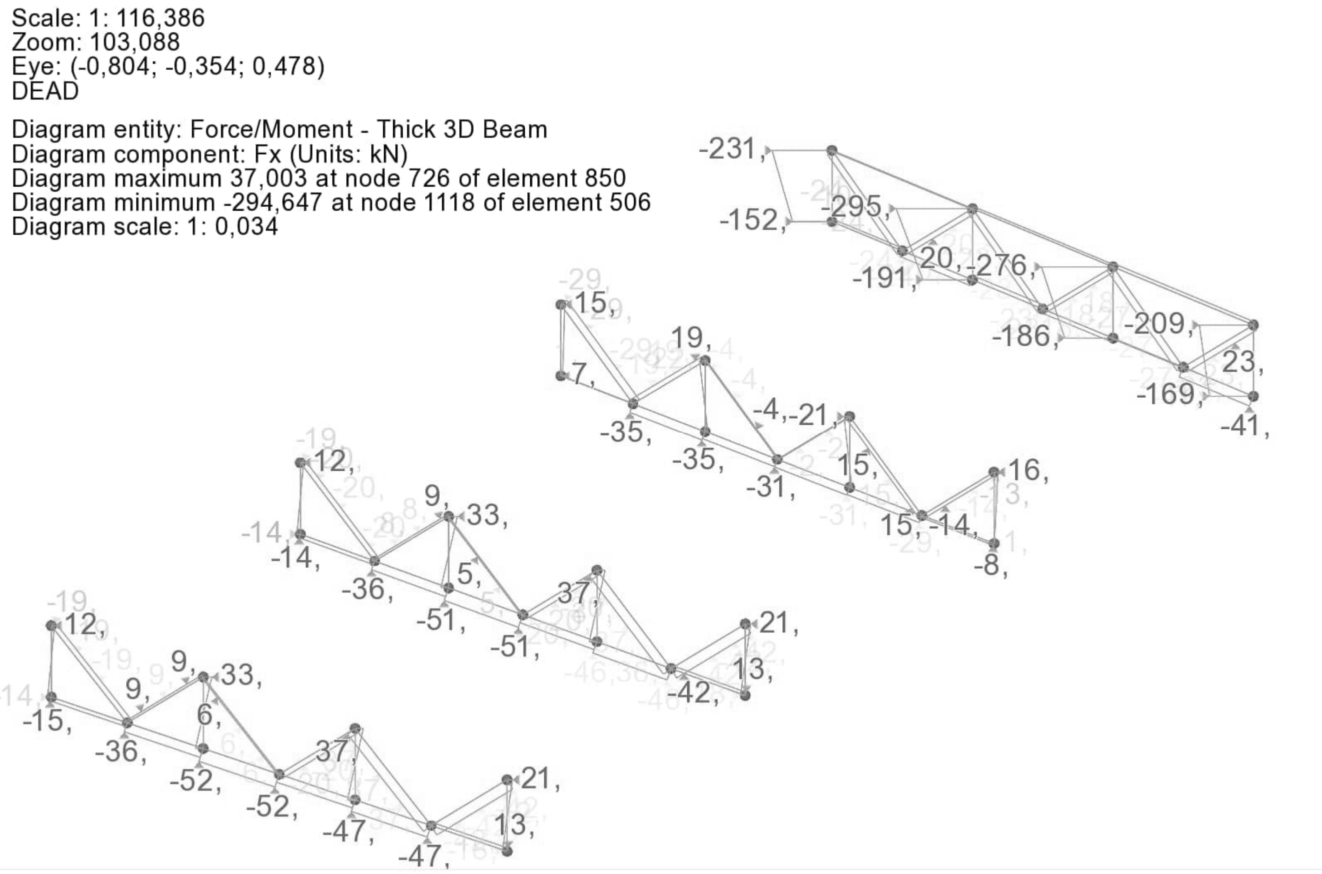
5. Results DEAD

5.1 Diagram

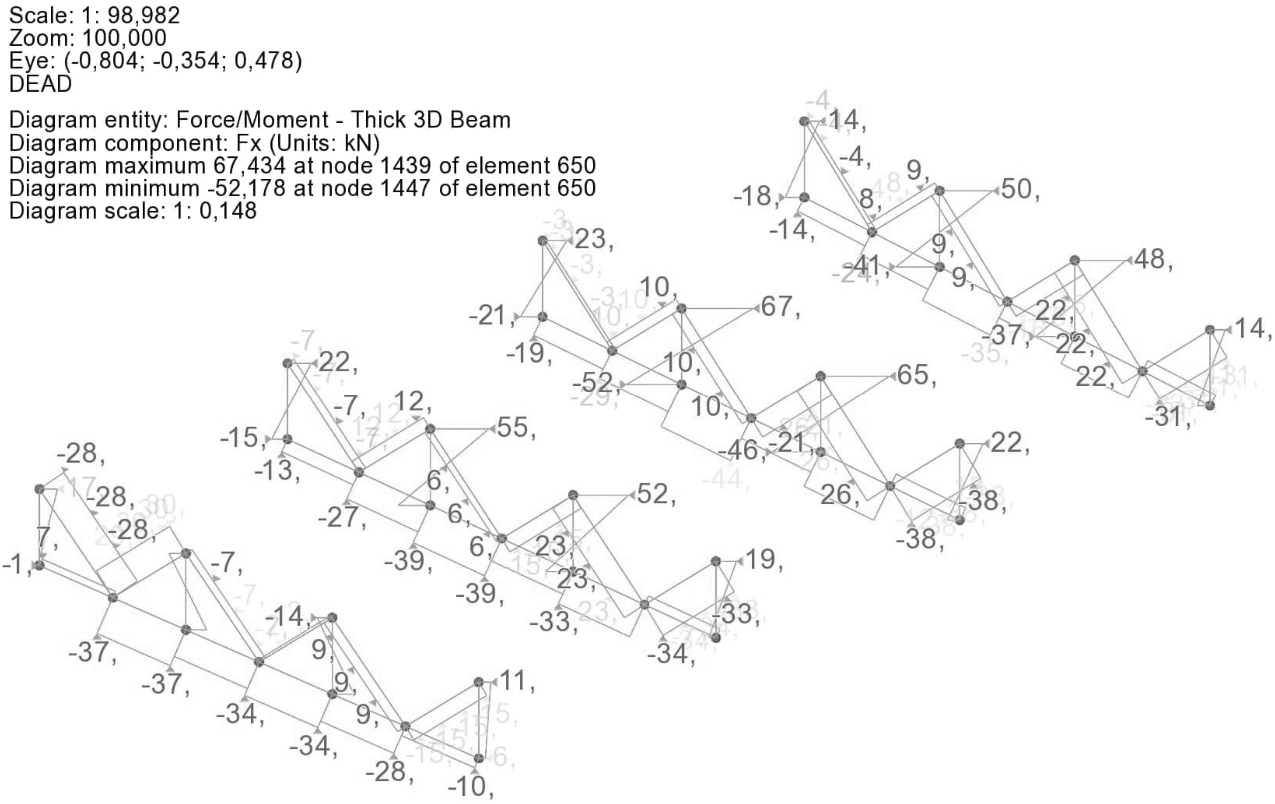
5.1.1 Bracings F & stiffners: Span 1



5.1.2 Bracings F & stiffners: Span 2



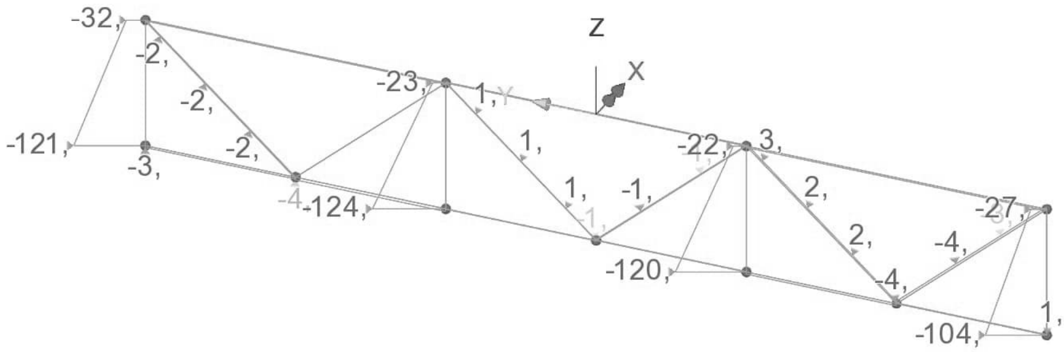
5.1.3 Bracings F & stiffners: Span 3



5.1.4 Bracings S & stiffners: Support 1

Scale: 1: 31,135
Zoom: 50,663
Eye: (-0,804; -0,354; 0,478)
DEAD

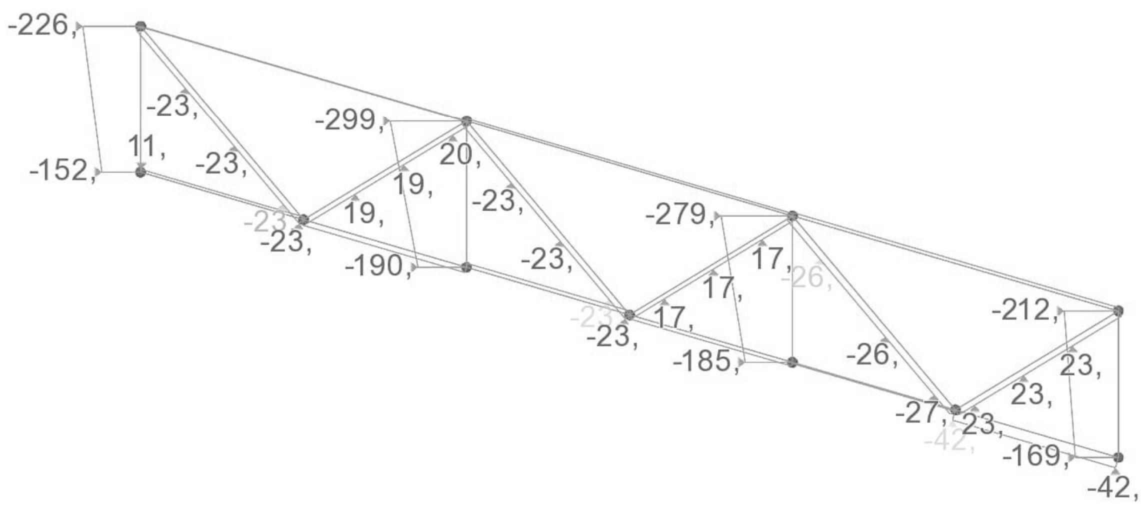
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 2,591 at node 66 of element 922
Diagram minimum -123,894 at node 46 of element 20
Diagram scale: 1: 0,081



5.1.5 Bracings S & stiffners: Support 2

Scale: 1: 34,924
Zoom: 63,552
Eye: (-0,804; -0,354; 0,478)
DEAD

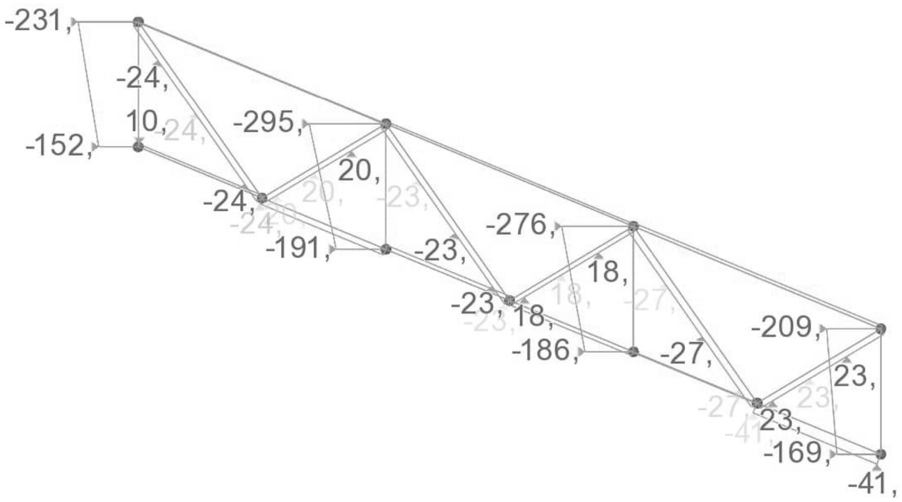
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 23,261 at node 487 of element 938
Diagram minimum -298,627 at node 441 of element 198
Diagram scale: 1: 0,033



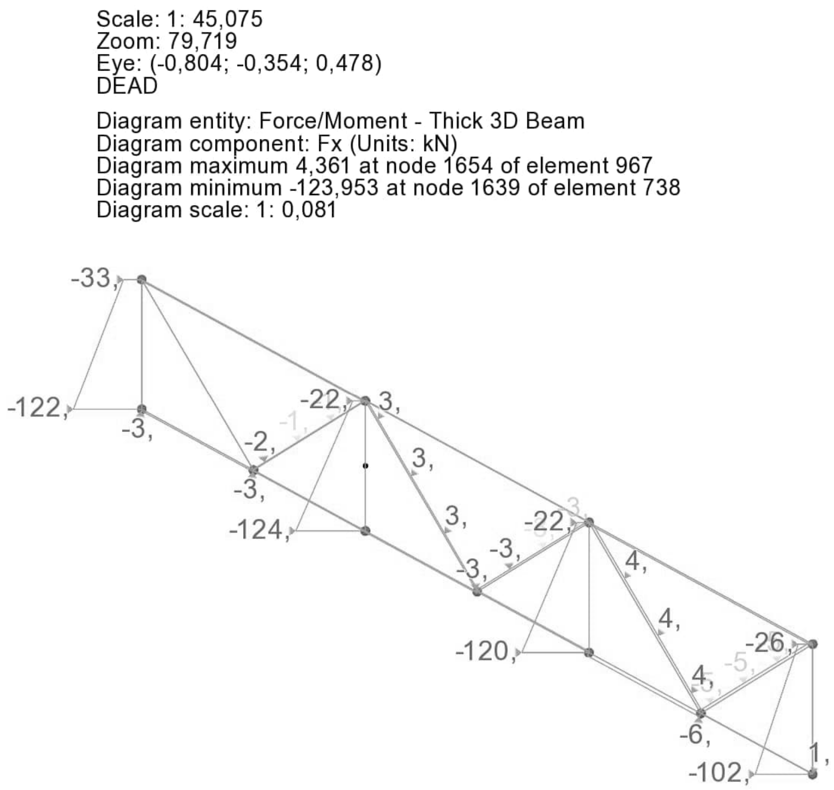
5.1.6 Bracings S & stiffners: Support 3

Scale: 1: 40,872
Zoom: 63,552
Eye: (-0,804; -0,354; 0,478)
DEAD

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 23,569 at node 1186 of element 953
Diagram minimum -294,647 at node 1118 of element 506
Diagram scale: 1: 0,034



5.1.7 Bracings S & stiffners: Support 4



5.2 Table

5.2.1 Bracings F & stiffners: Span 1

See separate presentation.

5.2.2 Bracings F & stiffners: Span 2

See separate presentation.

5.2.3 Bracings F & stiffners: Span 3

See separate presentation.

5.2.4 Bracings S & stiffners: Support 1

See separate presentation.

5.2.5 Bracings S & stiffners: Support 2

See separate presentation.

5.2.6 Bracings S & stiffners: Support 3

See separate presentation.

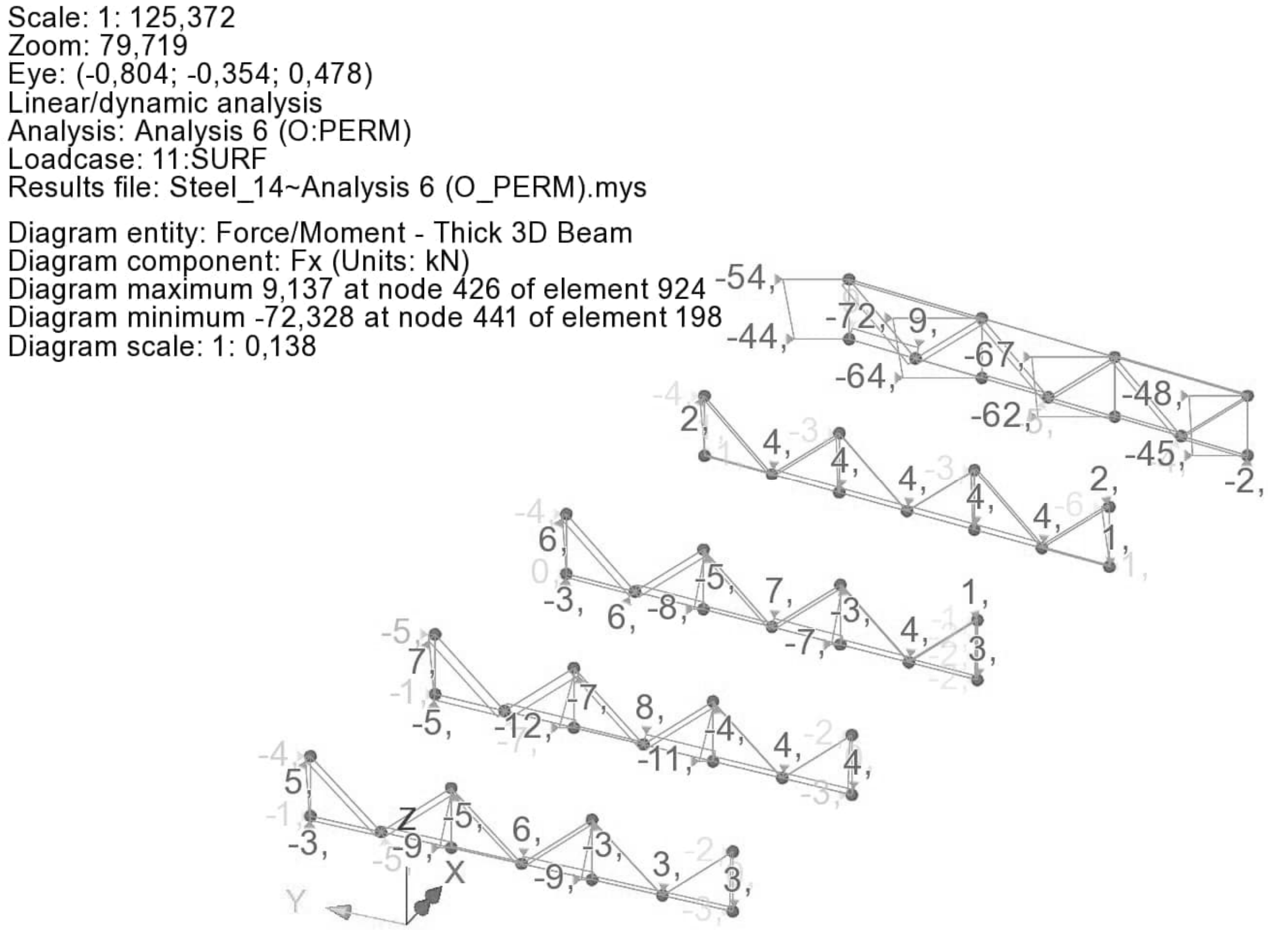
5.2.7 Bracings S & stiffners: Support 4

See separate presentation.

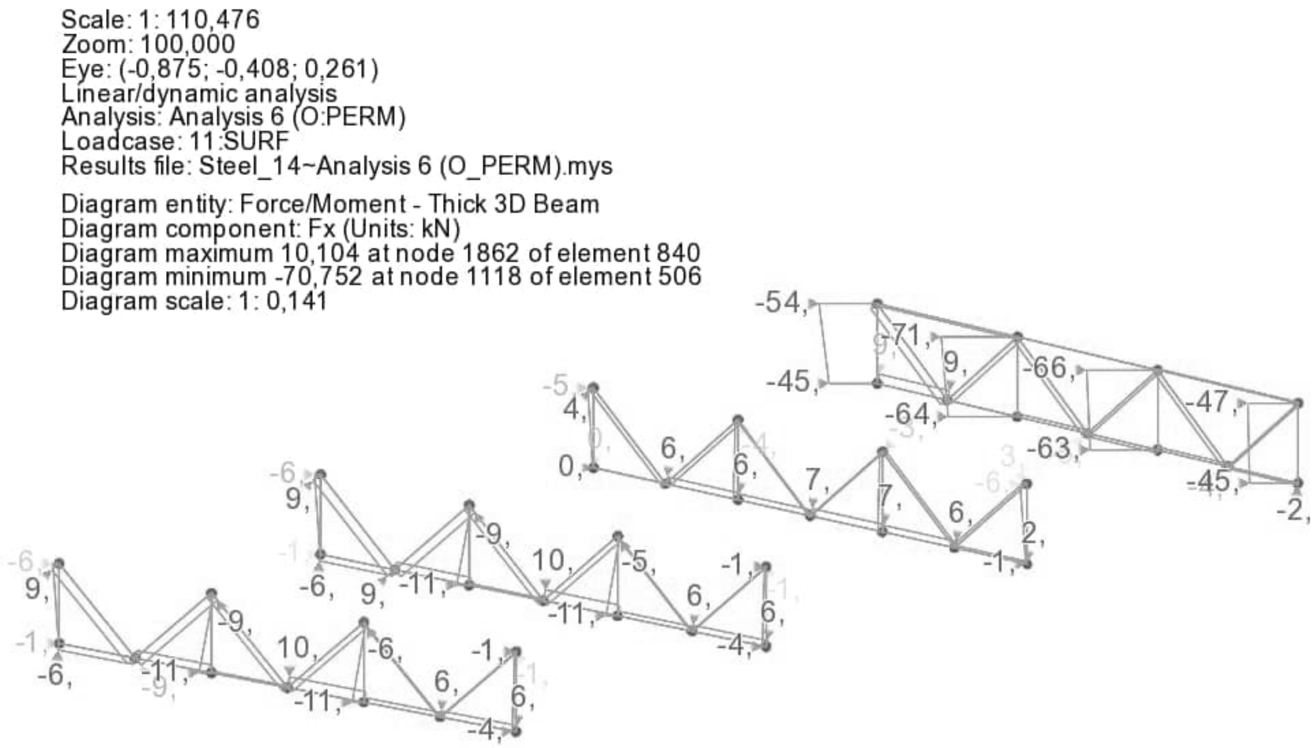
6. Results SURF

6.1 Diagram

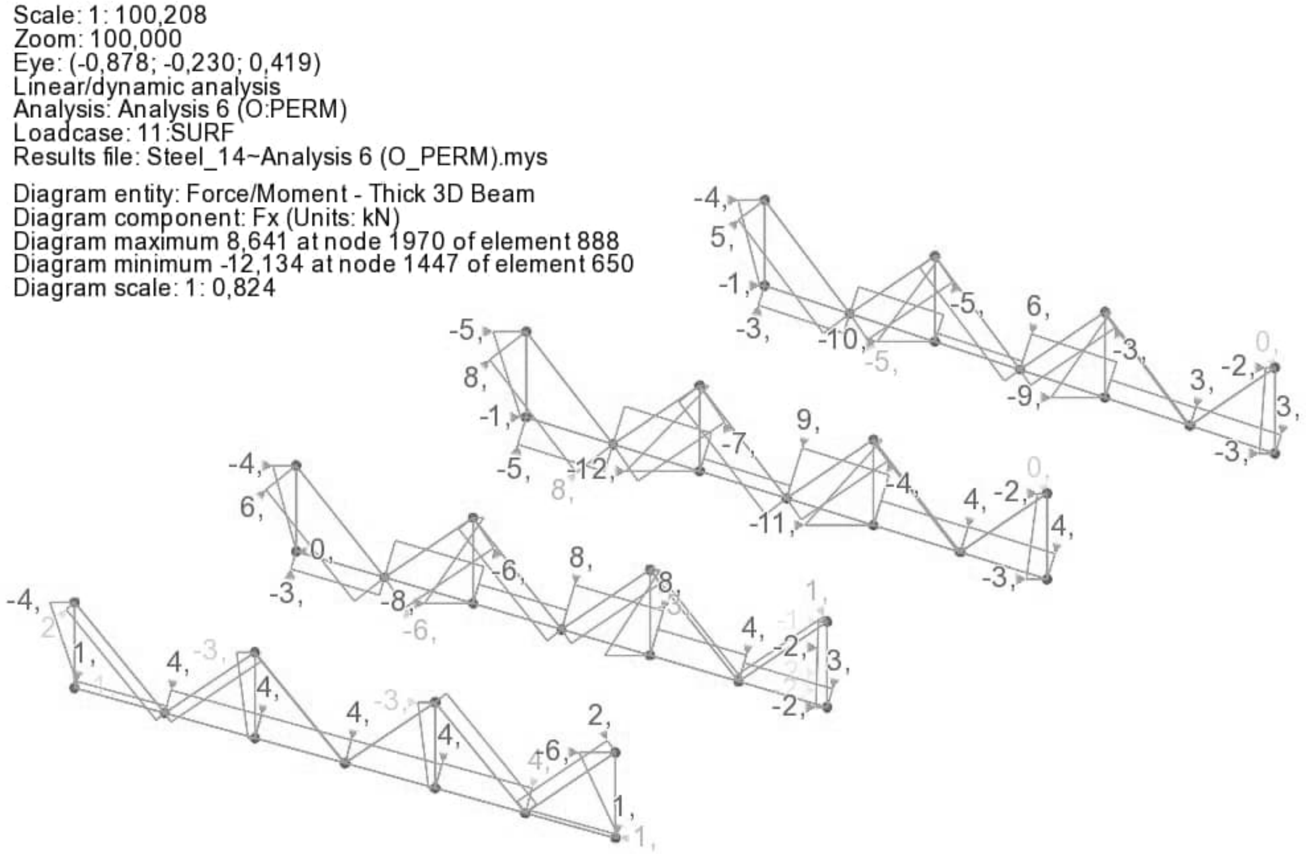
6.1.1 Bracings F & stiffners: Span 1



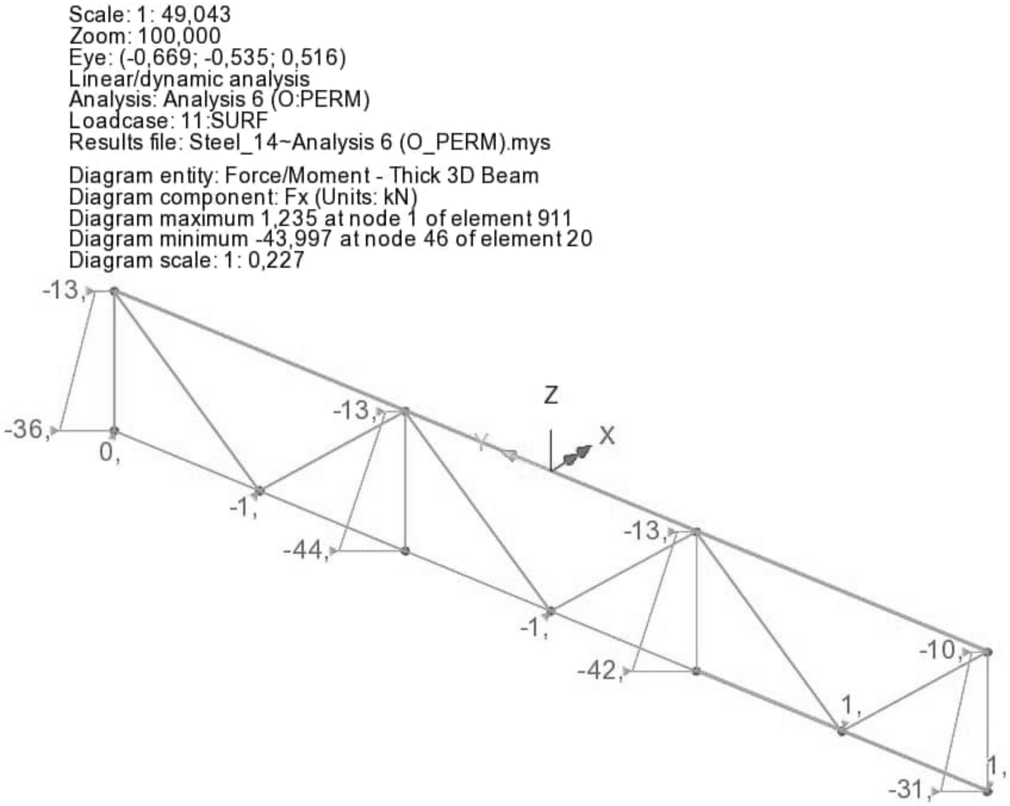
6.1.2 Bracings F & stiffners: Span 2



6.1.3 Bracings F & stiffners: Span 3



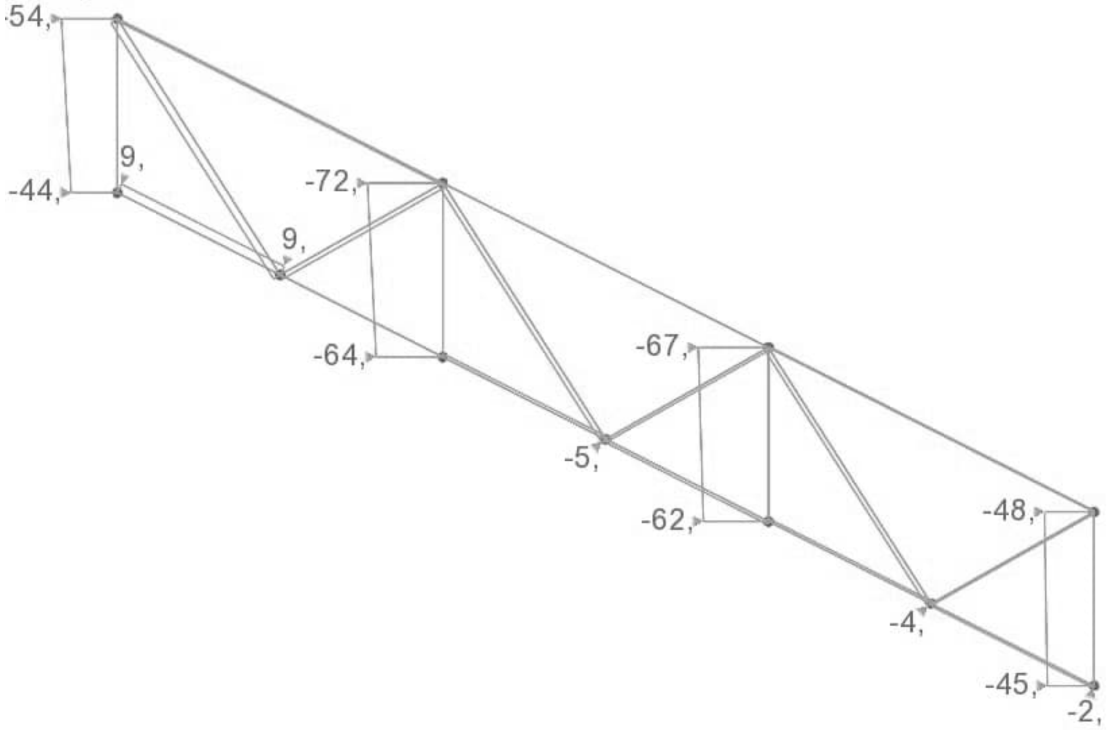
6.1.4 Bracings S & stiffners: Support 1



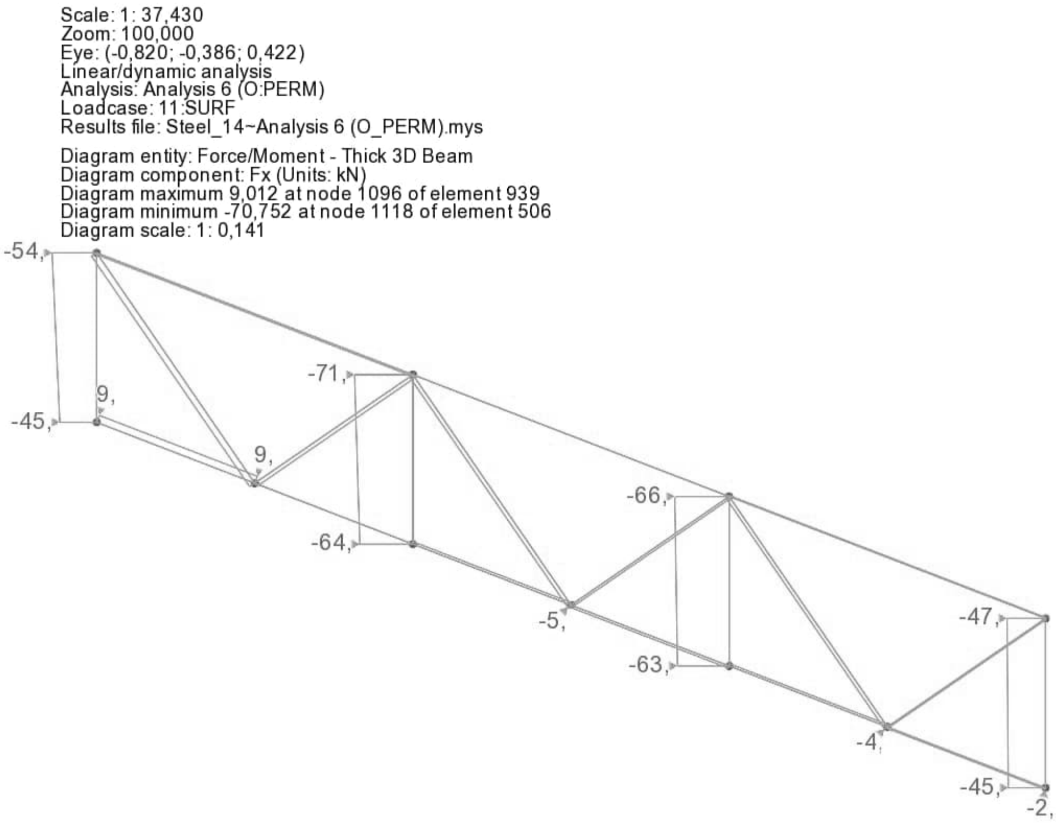
6.1.5 Bracings S & stiffners: Support 2

Scale: 1: 35,795
Zoom: 79,719
Eye: (-0,686; -0,525; 0,503)
Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 11:SURF
Results file: Steel_14~Analysis 6 (O_PERM).mys

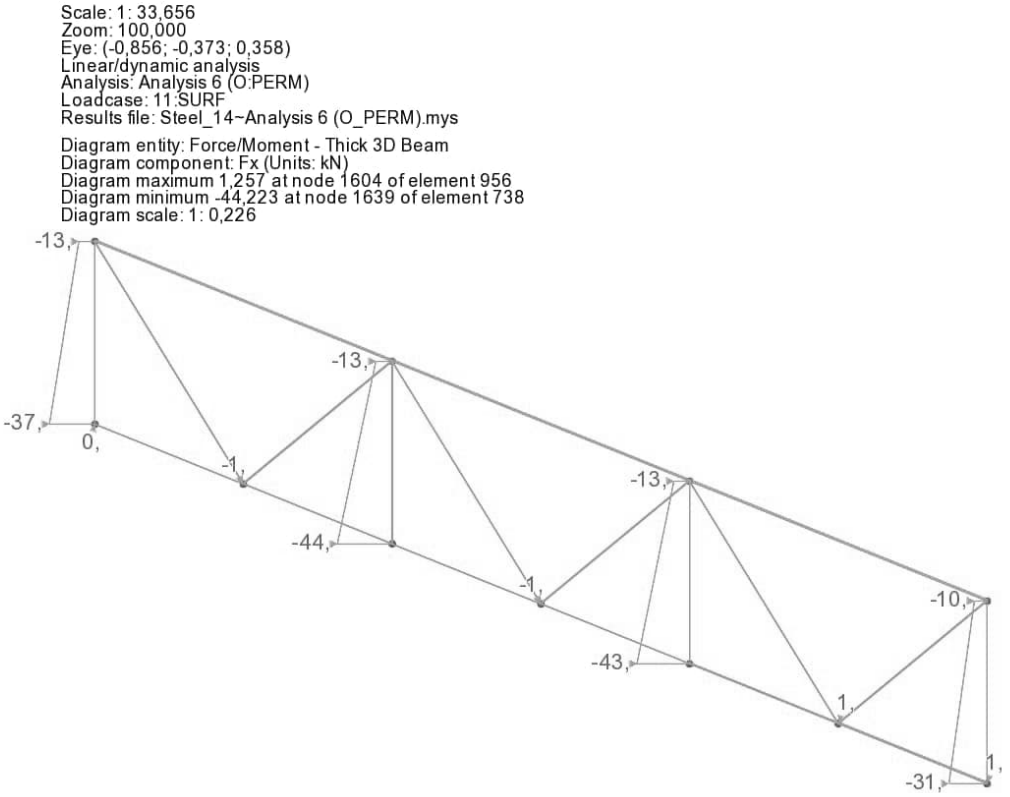
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 9,137 at node 426 of element 924
Diagram minimum -72,328 at node 441 of element 198
Diagram scale: 1: 0,138



6.1.6 Bracings S & stiffners: Support 3



6.1.7 Bracings S & stiffners: Support 4



6.2 Table

6.2.1 Bracings F & stiffners: Span 1

See separate presentation.

6.2.2 Bracings F & stiffners: Span 2

See separate presentation.

6.2.3 Bracings F & stiffners: Span 3

See separate presentation.

6.2.4 Bracings S & stiffners: Support 1

See separate presentation.

6.2.5 Bracings S & stiffners: Support 2

See separate presentation.

6.2.6 Bracings S & stiffners: Support 3

See separate presentation.

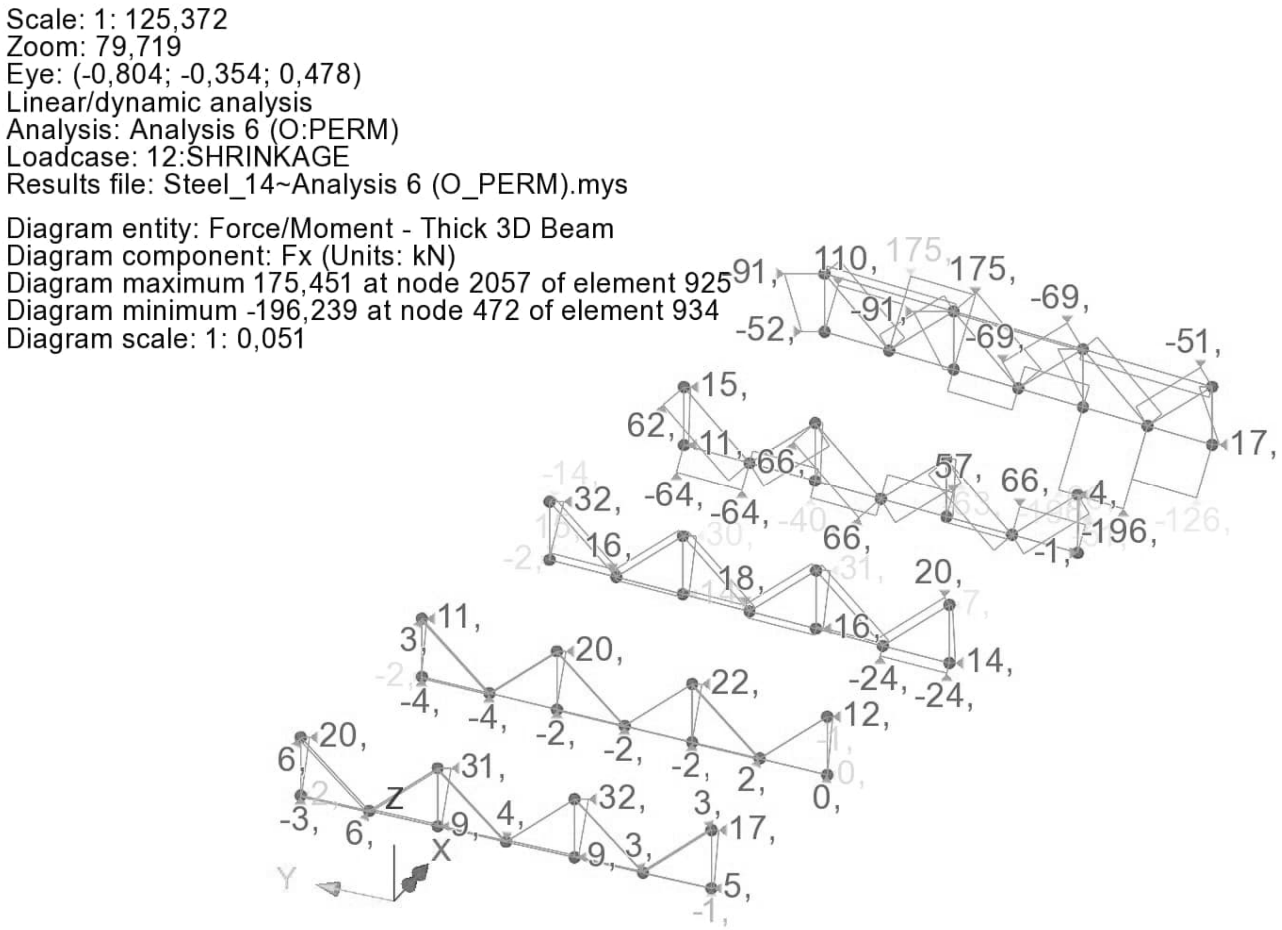
6.2.7 Bracings S & stiffners: Support 4

See separate presentation.

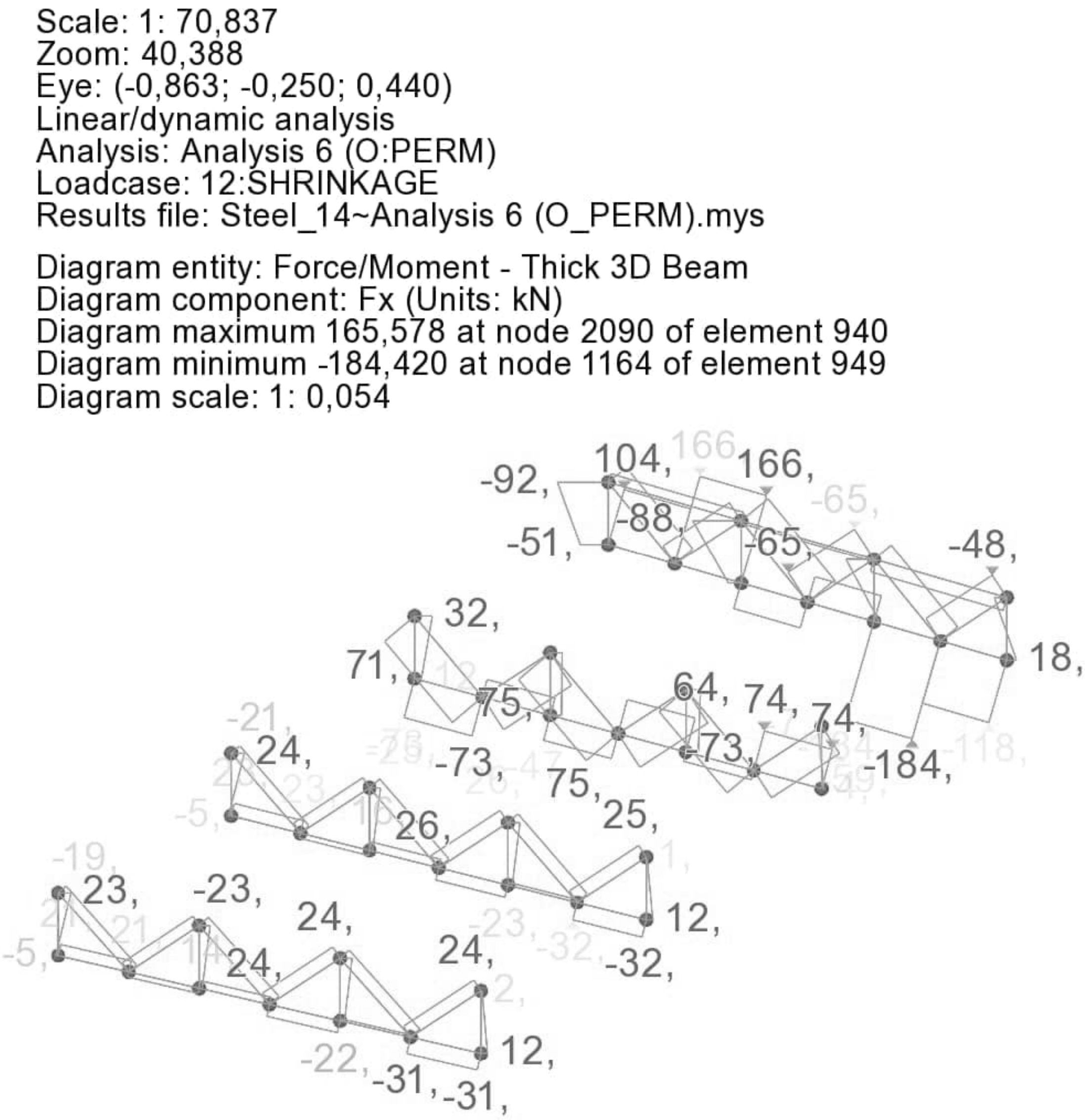
7. Results SHRINKAGE

7.1 Diagram

7.1.1 Bracings F & stiffners: Span 1



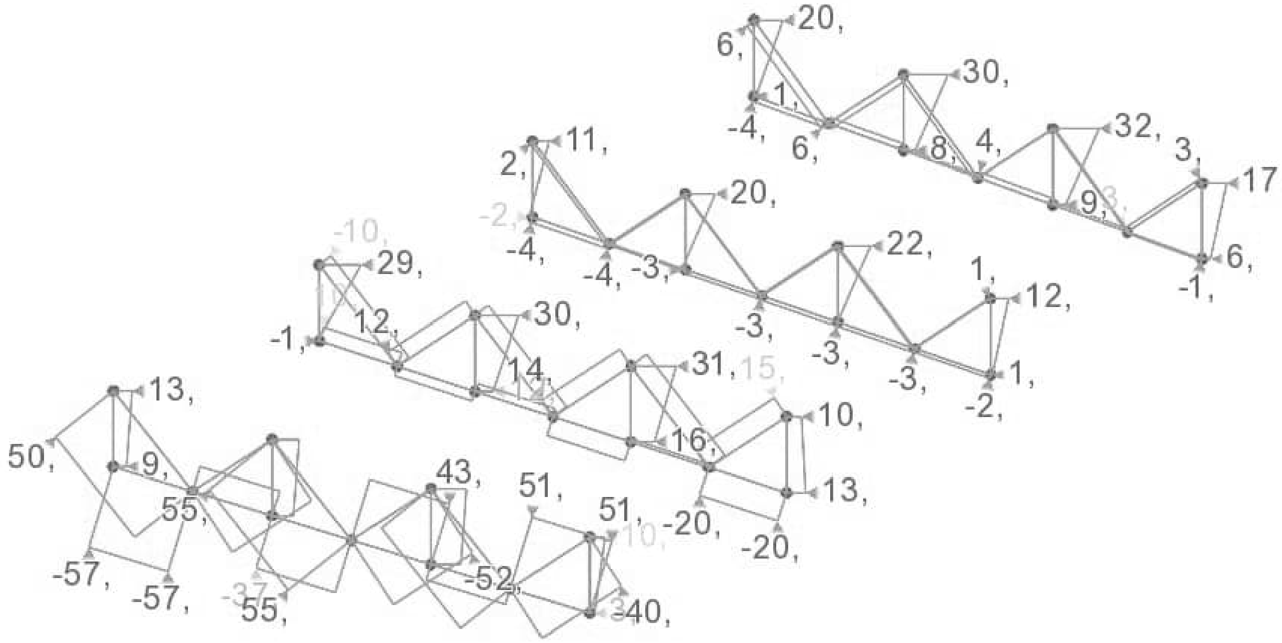
7.1.2 Bracings F & stiffners: Span 2



7.1.3 Bracings F & stiffners: Span 3

Scale: 1: 94,998
Zoom: 79,719
Eye: (-0,863; -0,250; 0,440)
Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 12:SHRINKAGE
Results file: Steel_14~Analysis 6 (O_PERM).mys

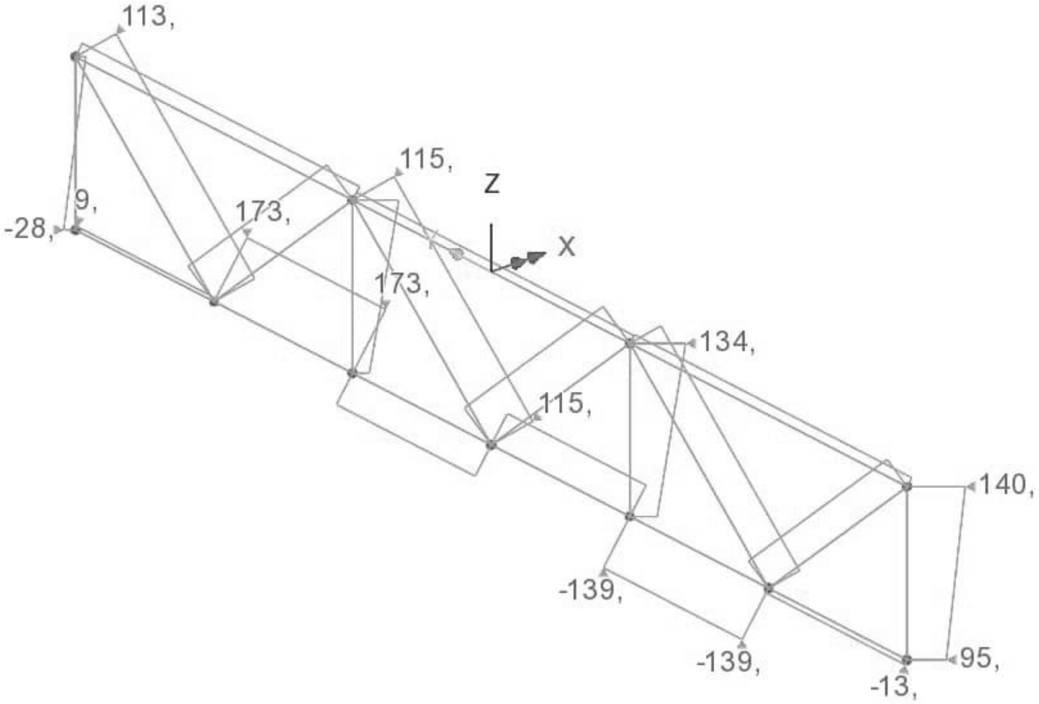
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 54,790 at node 1952 of element 878
Diagram minimum -57,072 at node 1232 of element 863
Diagram scale: 1: 0,175



7.1.4 Bracings S & stiffners: Support 1

Scale: 1: 32,110
Zoom: 71,178
Eye: (-0,574; -0,701; 0,423)
Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 12:SHRINKAGE
Results file: Steel_14~Analysis 6 (O_PERM).mys

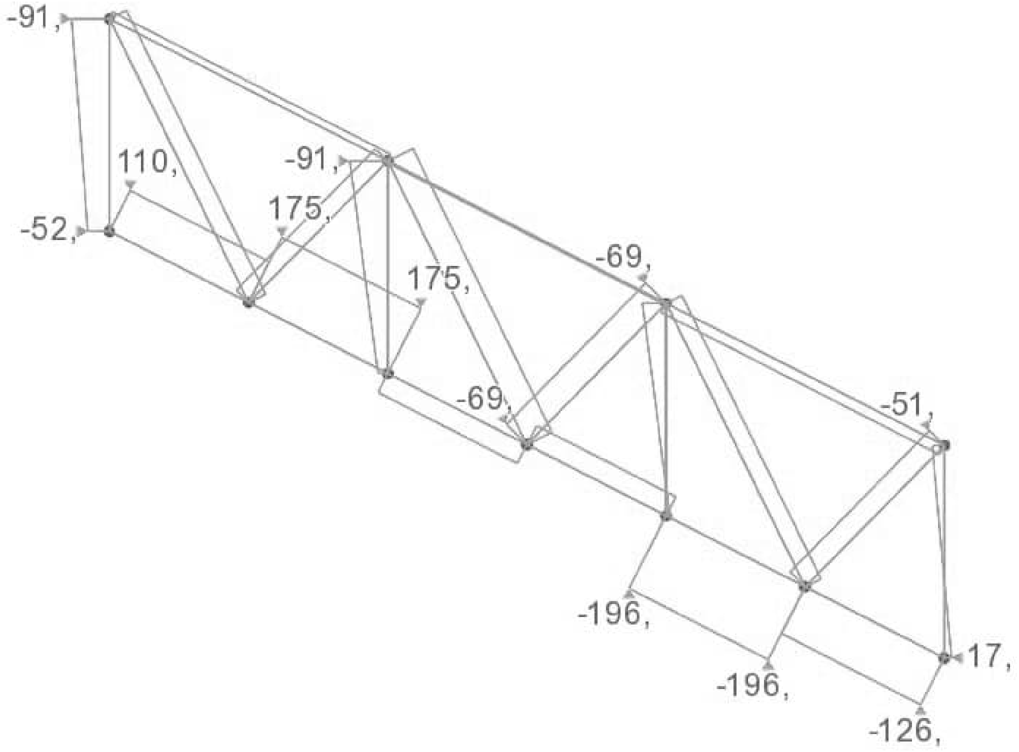
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 173,146 at node 2024 of element 910
Diagram minimum -139,013 at node 76 of element 919
Diagram scale: 1: 0,058



7.1.5 Bracings S & stiffners: Support 2

Scale: 1: 27,681
Zoom: 63,552
Eye: (-0,612; -0,720; 0,328)
Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 12:SHRINKAGE
Results file: Steel_14~Analysis 6 (O_PERM).mys

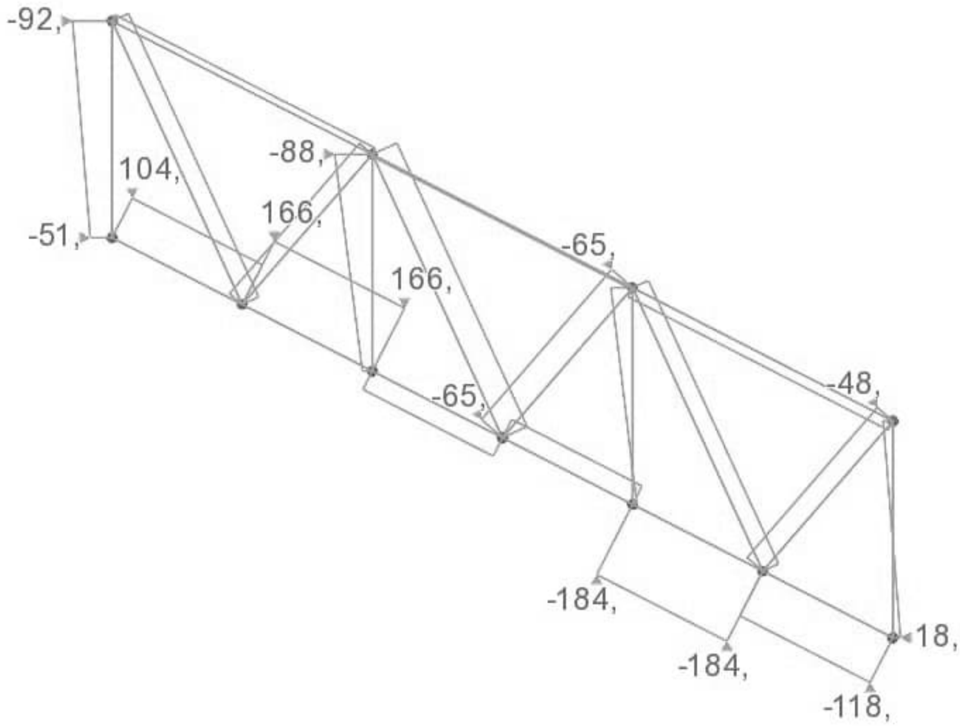
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 175,451 at node 2057 of element 925
Diagram minimum -196,239 at node 472 of element 934
Diagram scale: 1: 0,051



7.1.6 Bracings S & stiffners: Support 3

Scale: 1: 26,473
Zoom: 63,552
Eye: (-0,702; -0,648; 0,296)
Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 12:SHRINKAGE
Results file: Steel_14~Analysis 6 (O_PERM).mys

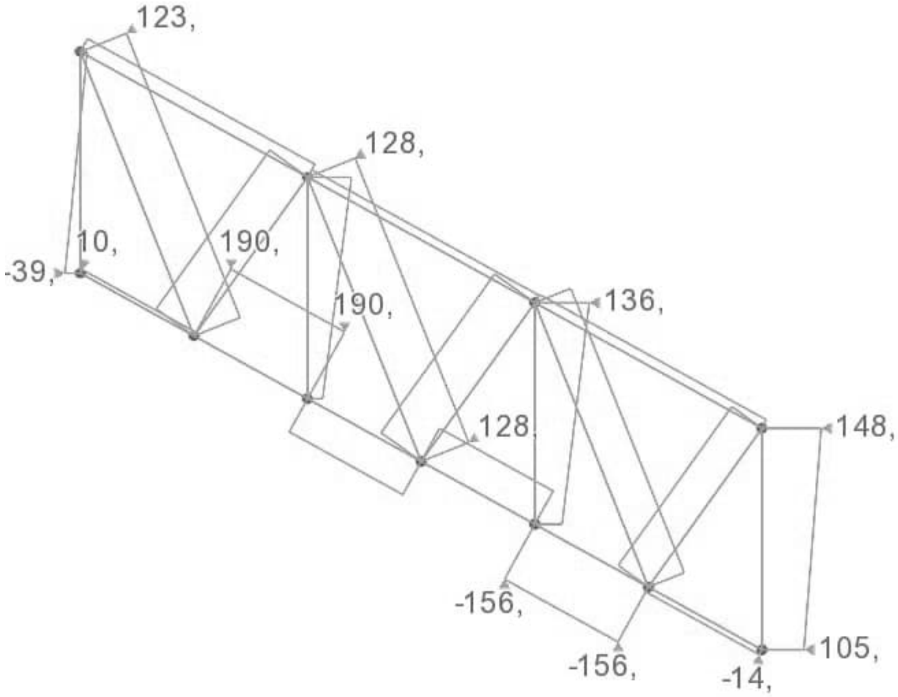
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 165,578 at node 2090 of element 940
Diagram minimum -184,420 at node 1164 of element 949
Diagram scale: 1: 0,054



7.1.7 Bracings S & stiffners: Support 4

Scale: 1: 25,366
Zoom: 63,552
Eye: (-0,744; -0,614; 0,264)
Linear/dynamic analysis
Analysis: Analysis 6 (O:PERM)
Loadcase: 12:SHRINKAGE
Results file: Steel_14~Analysis 6 (O_PERM).mys

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 190,321 at node 2123 of element 955
Diagram minimum -156,294 at node 1662 of element 964
Diagram scale: 1: 0,053



7.2 Table

7.2.1 Bracings F & stiffners: Span 1

See separate presentation.

7.2.2 Bracings F & stiffners: Span 2

See separate presentation.

7.2.3 Bracings F & stiffners: Span 3

See separate presentation.

7.2.4 Bracings S & stiffners: Support 1

See separate presentation.

7.2.5 Bracings S & stiffners: Support 2

See separate presentation.

7.2.6 Bracings S & stiffners: Support 3

See separate presentation.

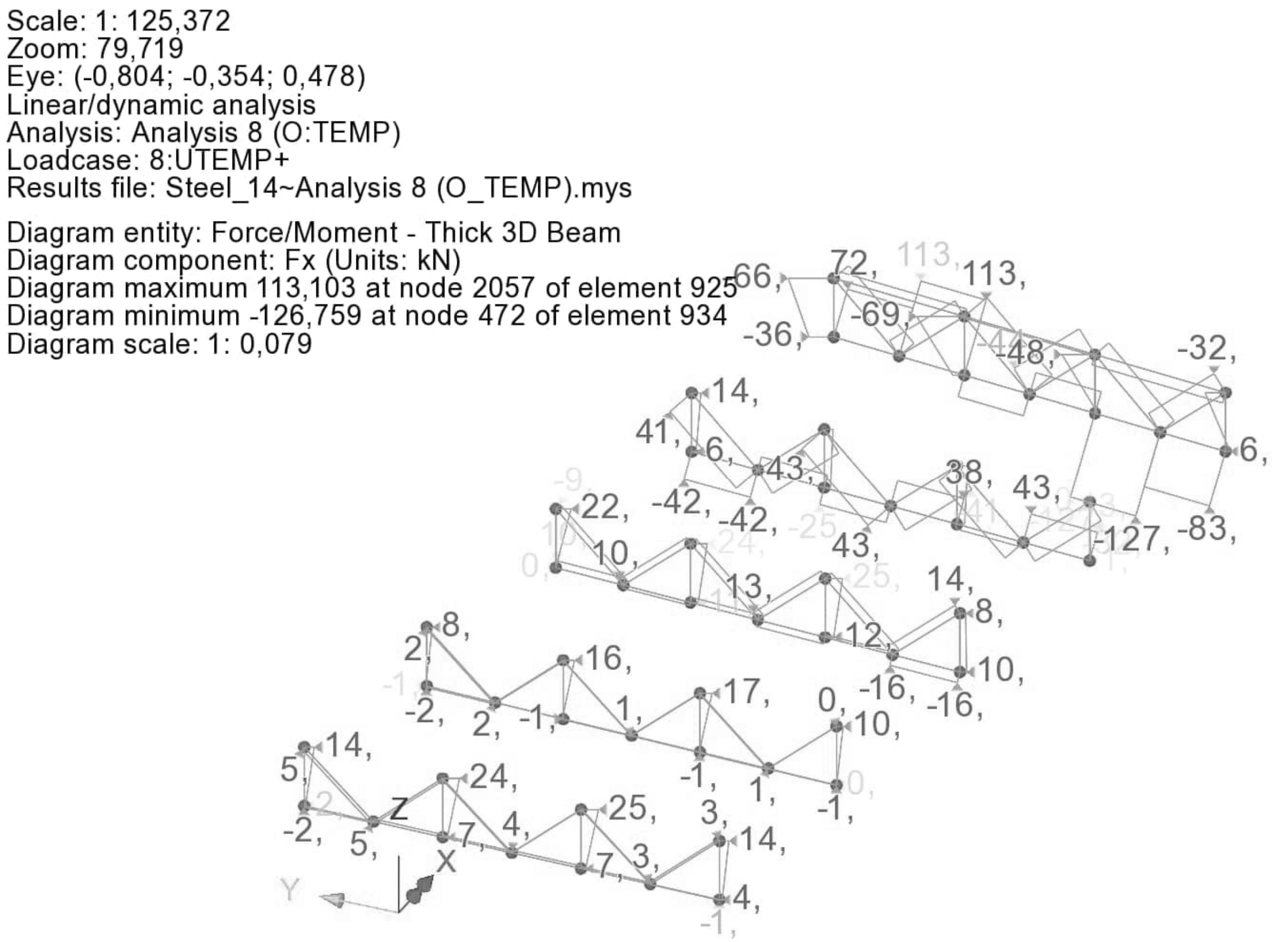
7.2.7 Bracings S & stiffners: Support 4

See separate presentation.

8. Result UTEMP+

8.1 Diagram

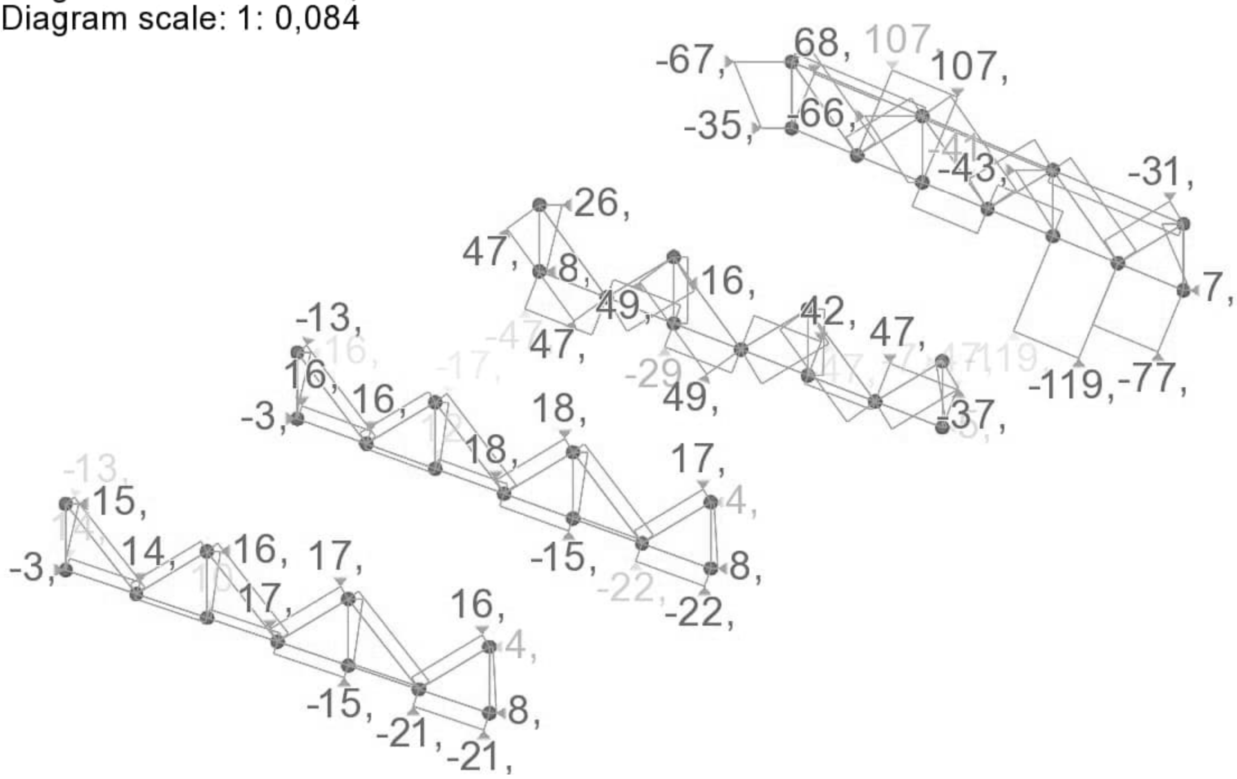
8.1.1 Bracings F & stiffners: Span 1



8.1.2 Bracings F & stiffners: Span 2

Scale: 1: 116,386
Zoom: 71,178
Eye: (-0,804; -0,354; 0,478)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 8:UTEMP+
Results file: Steel_14~Analysis 8 (O_TEMP).mys

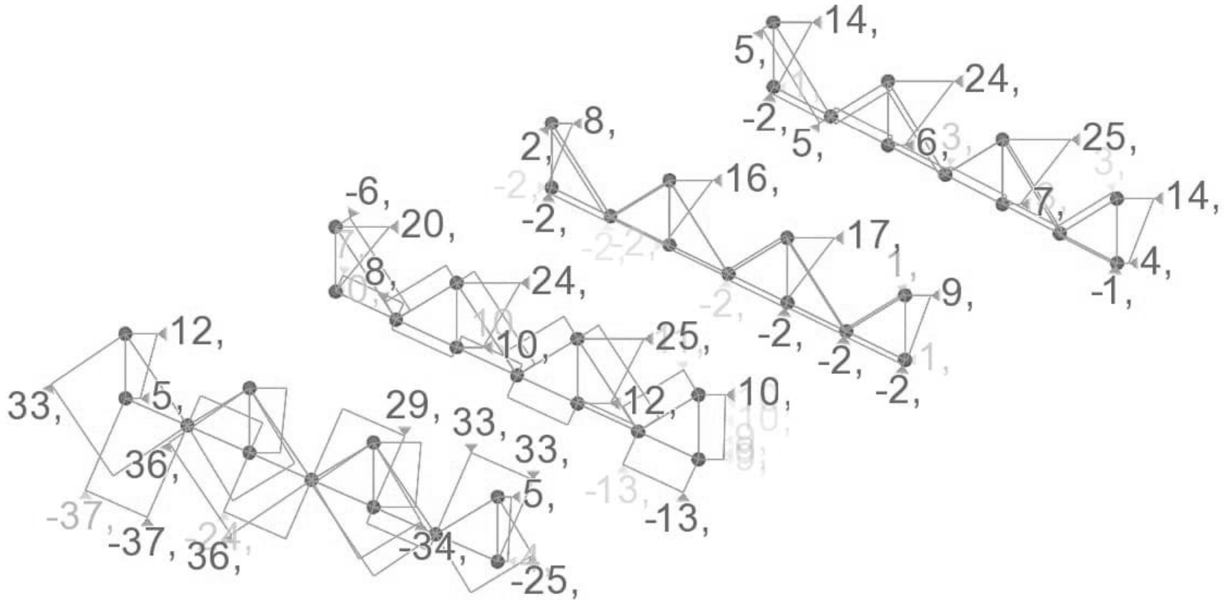
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 106,909 at node 2090 of element 940
Diagram minimum -119,289 at node 1164 of element 949
Diagram scale: 1: 0,084



8.1.3 Bracings F & stiffners: Span 3

Scale: 1: 116,386
Zoom: 71,178
Eye: (-0,804; -0,354; 0,478)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 8:UTEMP+
Results file: Steel_14~Analysis 8 (O_TEMP).mys

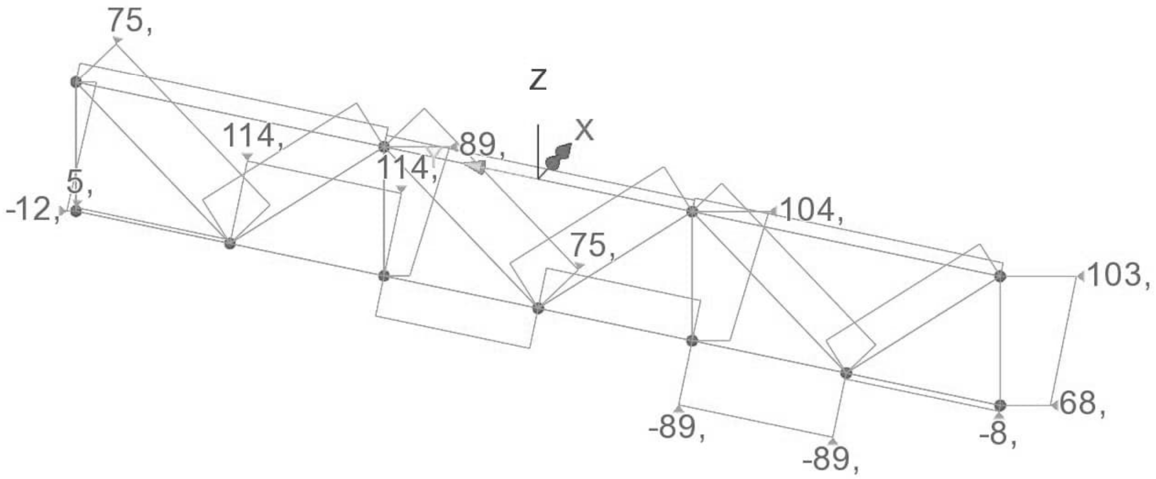
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 35,954 at node 1952 of element 878
Diagram minimum -36,969 at node 1232 of element 863
Diagram scale: 1: 0,270



8.1.4 Bracings S & stiffners: Support 1

Scale: 1: 31,135
Zoom: 45,235
Eye: (-0,804; -0,354; 0,478)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 8:UTEMP+
Results file: Steel_14~Analysis 8 (O_TEMP).mys

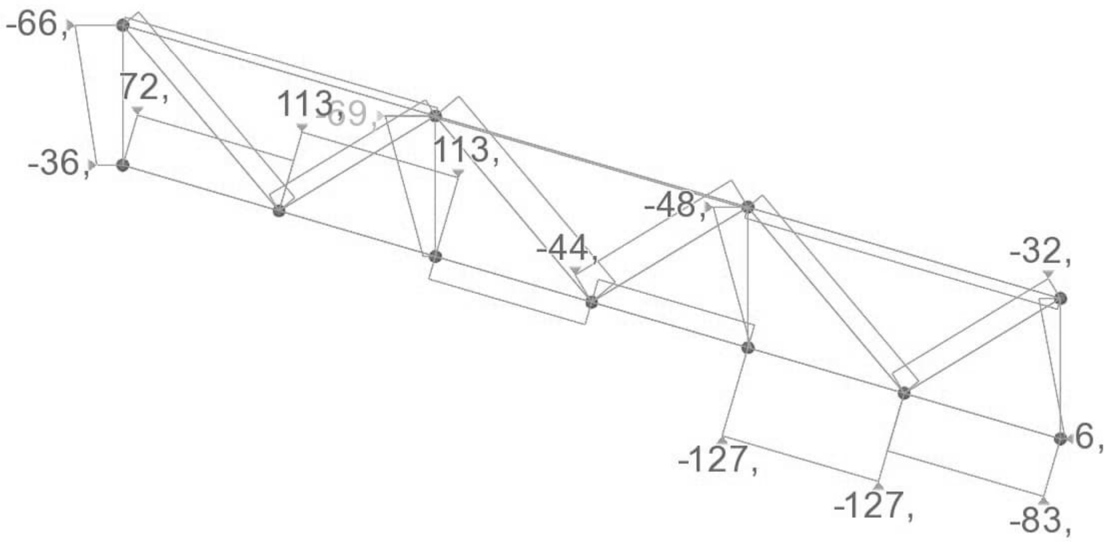
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 113,794 at node 2024 of element 910
Diagram minimum -88,585 at node 76 of element 919
Diagram scale: 1: 0,088



8.1.5 Bracings S & stiffners: Support 2

Scale: 1: 34,924
Zoom: 50,663
Eye: (-0,804; -0,354; 0,478)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 8:UTEMP+
Results file: Steel_14~Analysis 8 (O_TEMP).mys

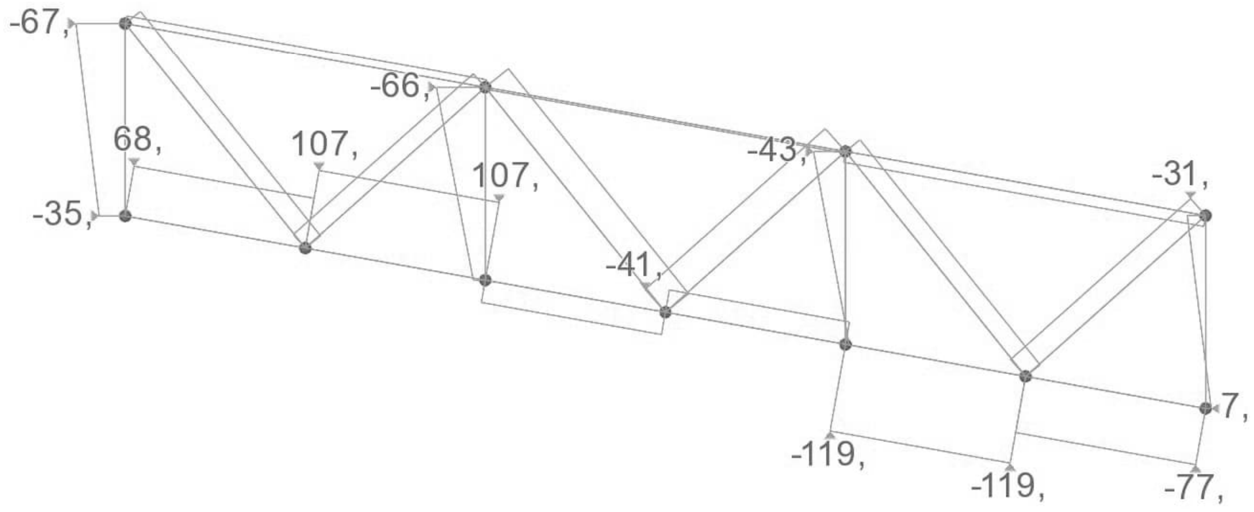
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 113,103 at node 2057 of element 925
Diagram minimum -126,759 at node 472 of element 934
Diagram scale: 1: 0,079



8.1.6 Bracings S & stiffners: Support 3

Scale: 1: 26,979
Zoom: 50,663
Eye: (-0,912; -0,337; 0,232)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 8:UTEMP+
Results file: Steel_14~Analysis 8 (O_TEMP).mys

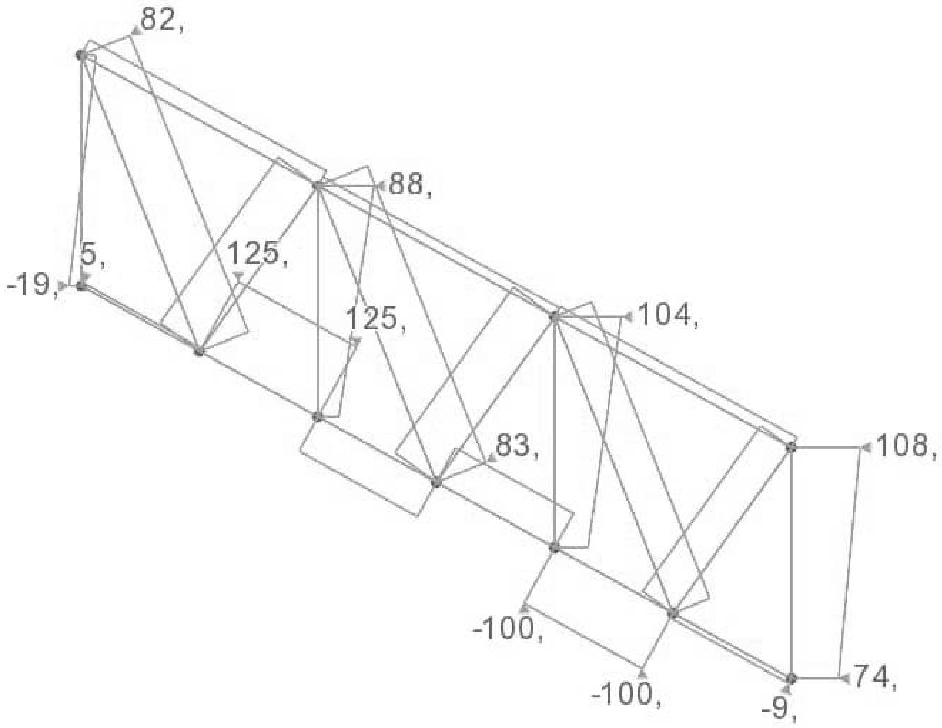
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 106,909 at node 2090 of element 940
Diagram minimum -119,289 at node 1164 of element 949
Diagram scale: 1: 0,084



8.1.7 Bracings S & stiffners: Support 4

Scale: 1: 25,366
Zoom: 63,552
Eye: (-0,744; -0,614; 0,264)
Linear/dynamic analysis
Analysis: Analysis 8 (O:TEMP)
Loadcase: 8:UTEMP+
Results file: Steel_14~Analysis 8 (O_TEMP).mys

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 124,827 at node 2123 of element 955
Diagram minimum -99,699 at node 1662 of element 964
Diagram scale: 1: 0,080



8.2 Table

8.2.1 Bracings F & stiffners: Span 1

See separate presentation.

8.2.2 Bracings F & stiffners: Span 2

See separate presentation.

8.2.3 Bracings F & stiffners: Span 3

See separate presentation.

8.2.4 Bracings S & stiffners: Support 1

See separate presentation.

8.2.5 Bracings S & stiffners: Support 2

See separate presentation.

8.2.6 Bracings S & stiffners: Support 3

See separate presentation.

8.2.7 Bracings S & stiffners: Support 4

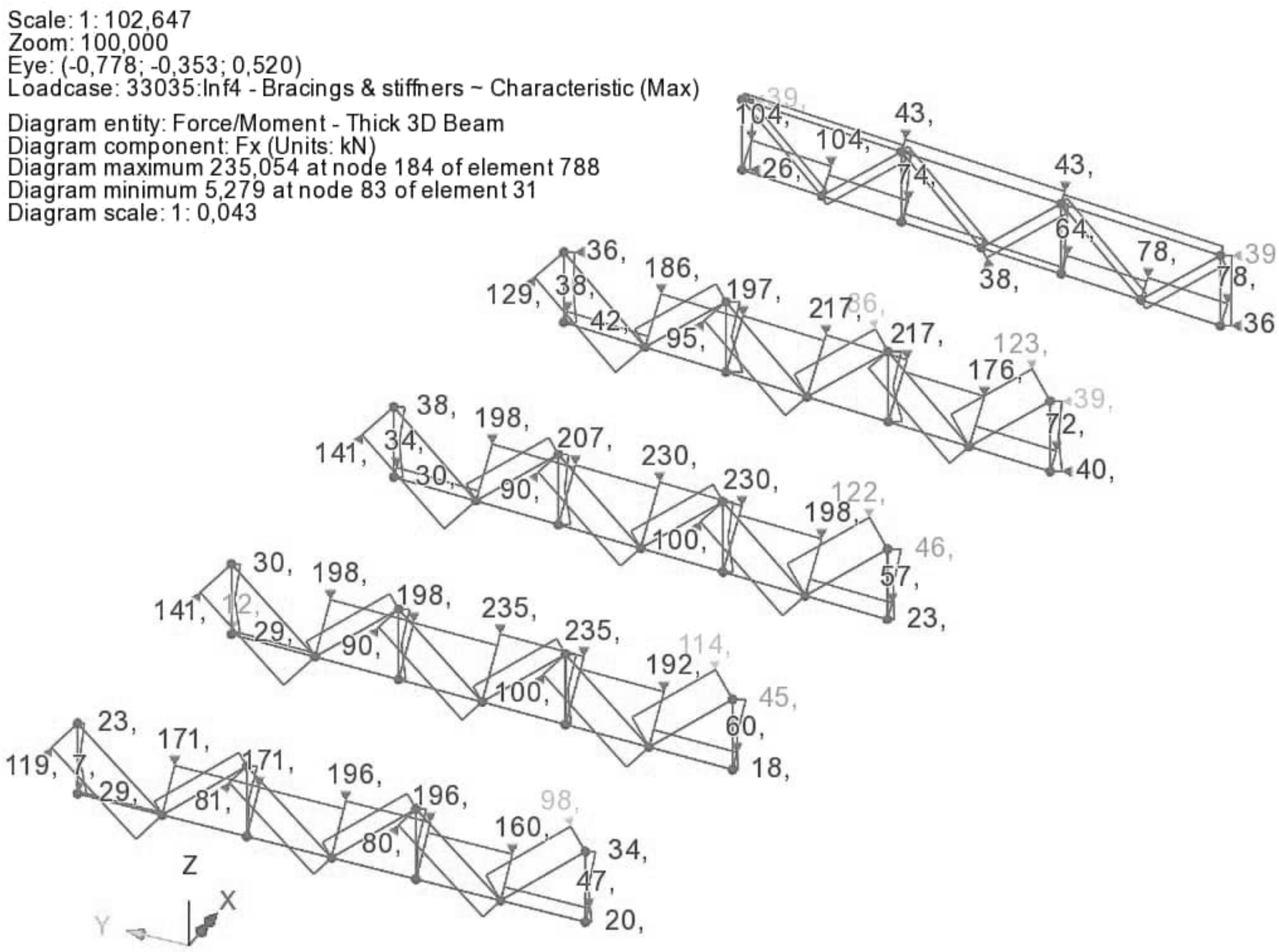
See separate presentation.

9. Result LM 1

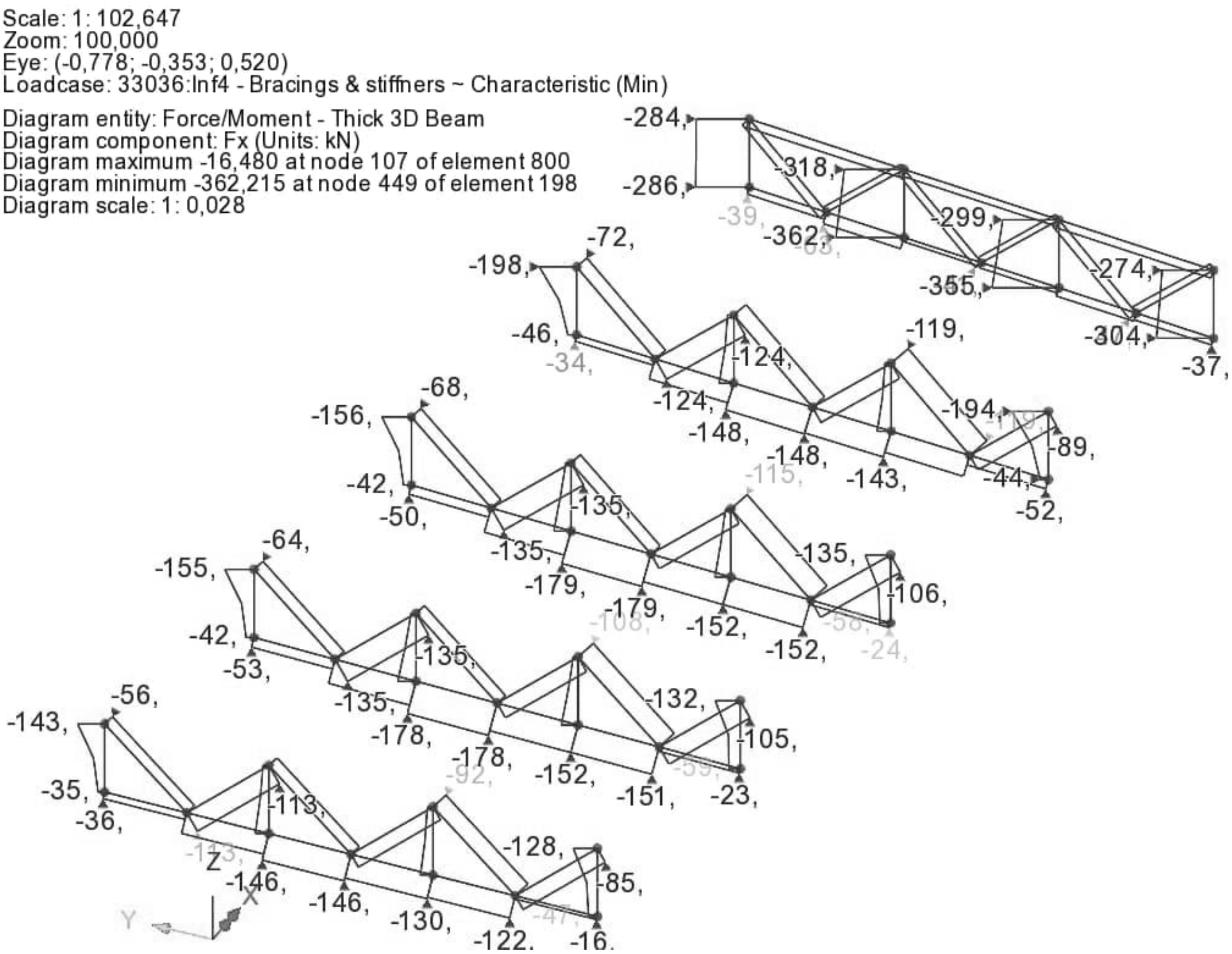
9.1 Diagram

9.1.1 Bracings F & stiffners: Span 1

Max Fx:



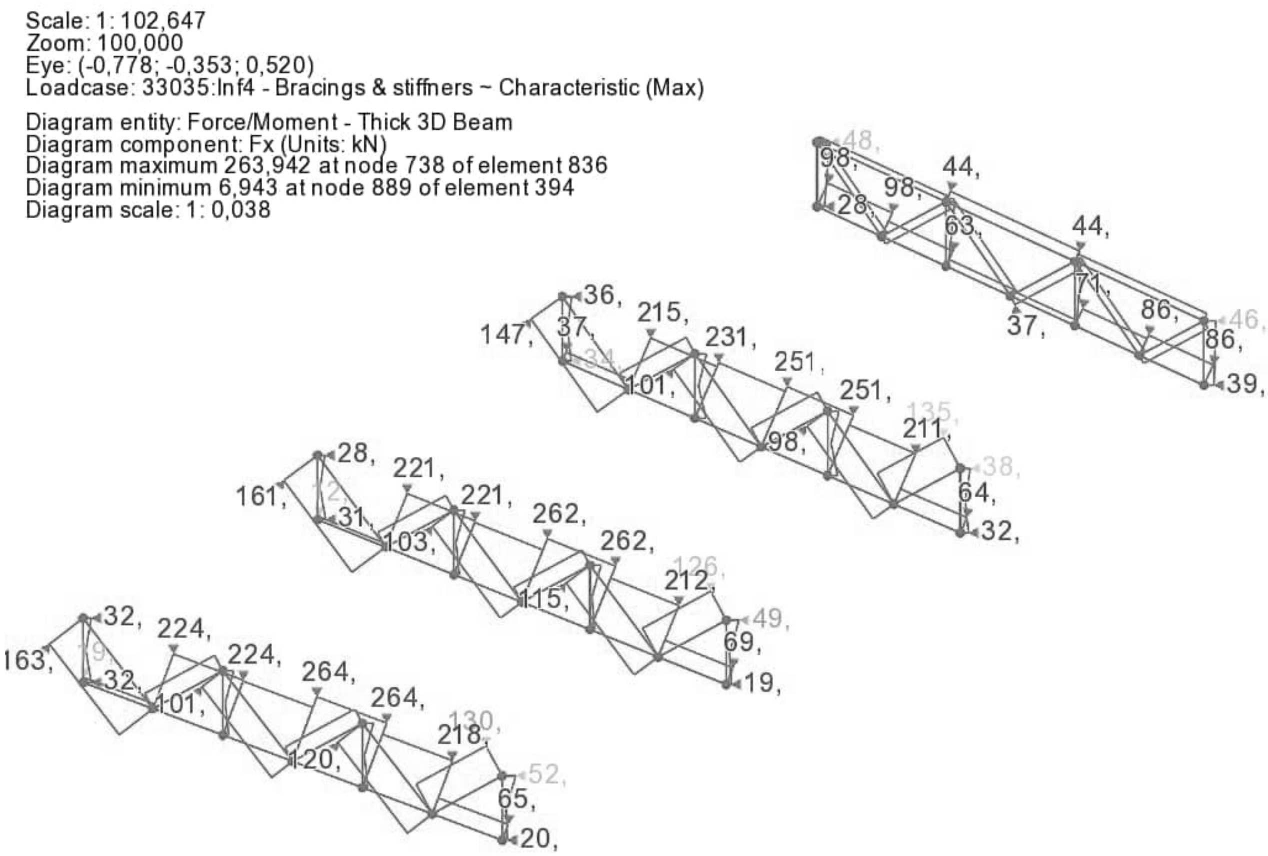
Min Fx:



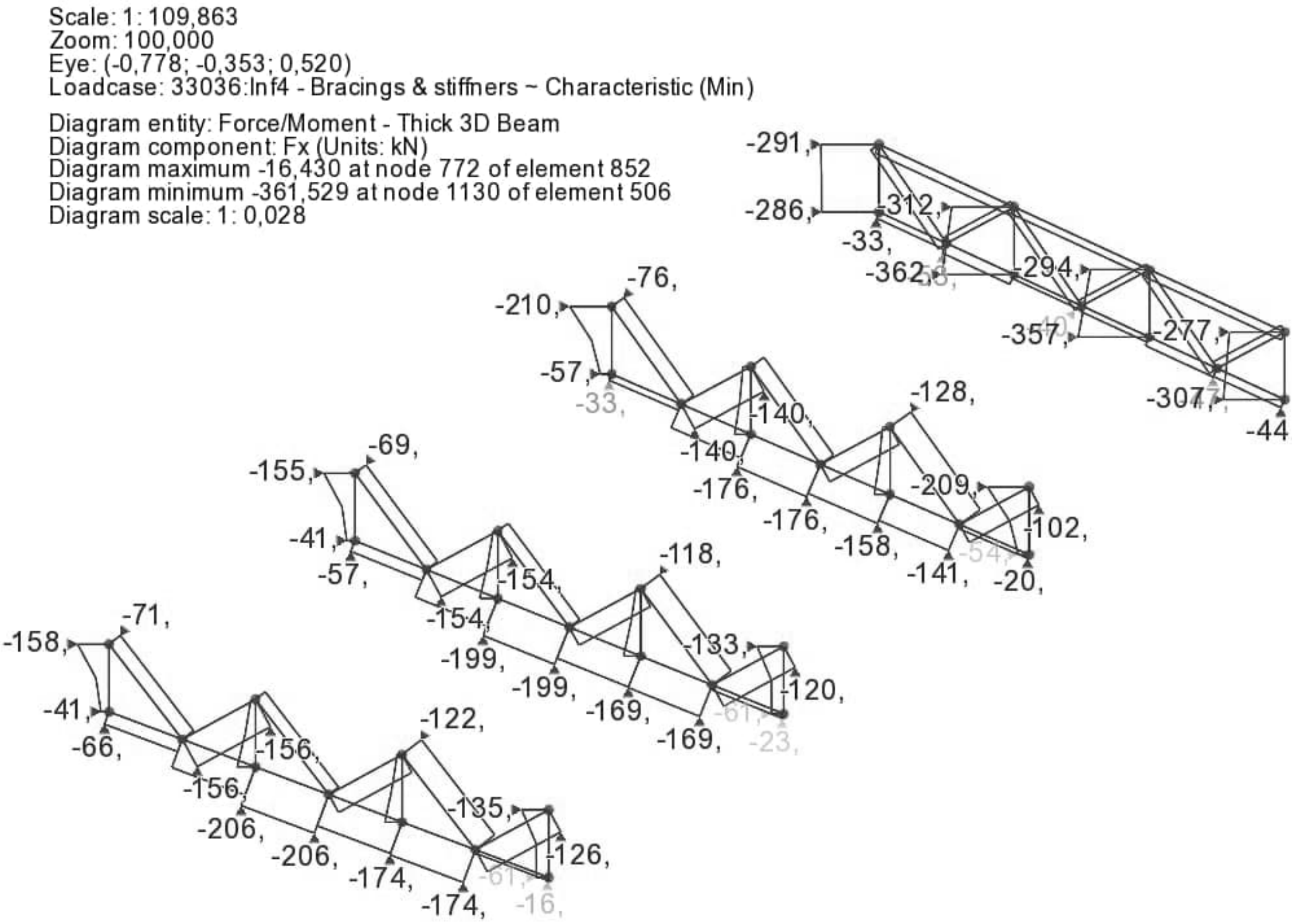
Scale: 1: 102,647
Zoom: 100,000
Eye: (-0,778; -0,353; 0,520)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -16,480 at node 107 of element 800
Diagram minimum -362,215 at node 449 of element 198
Diagram scale: 1: 0,028

9.1.2 Bracings F & stiffners: Span 2

Max Fx:



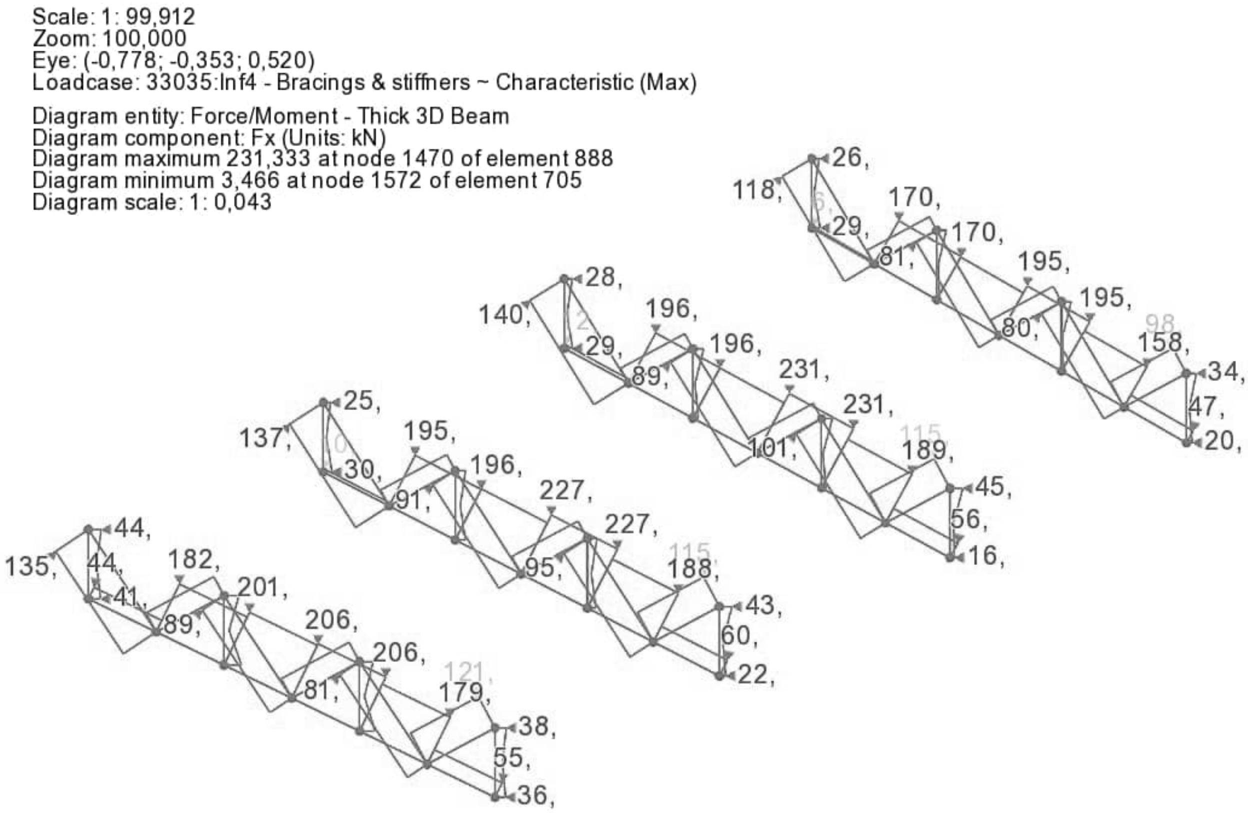
Min Fx:



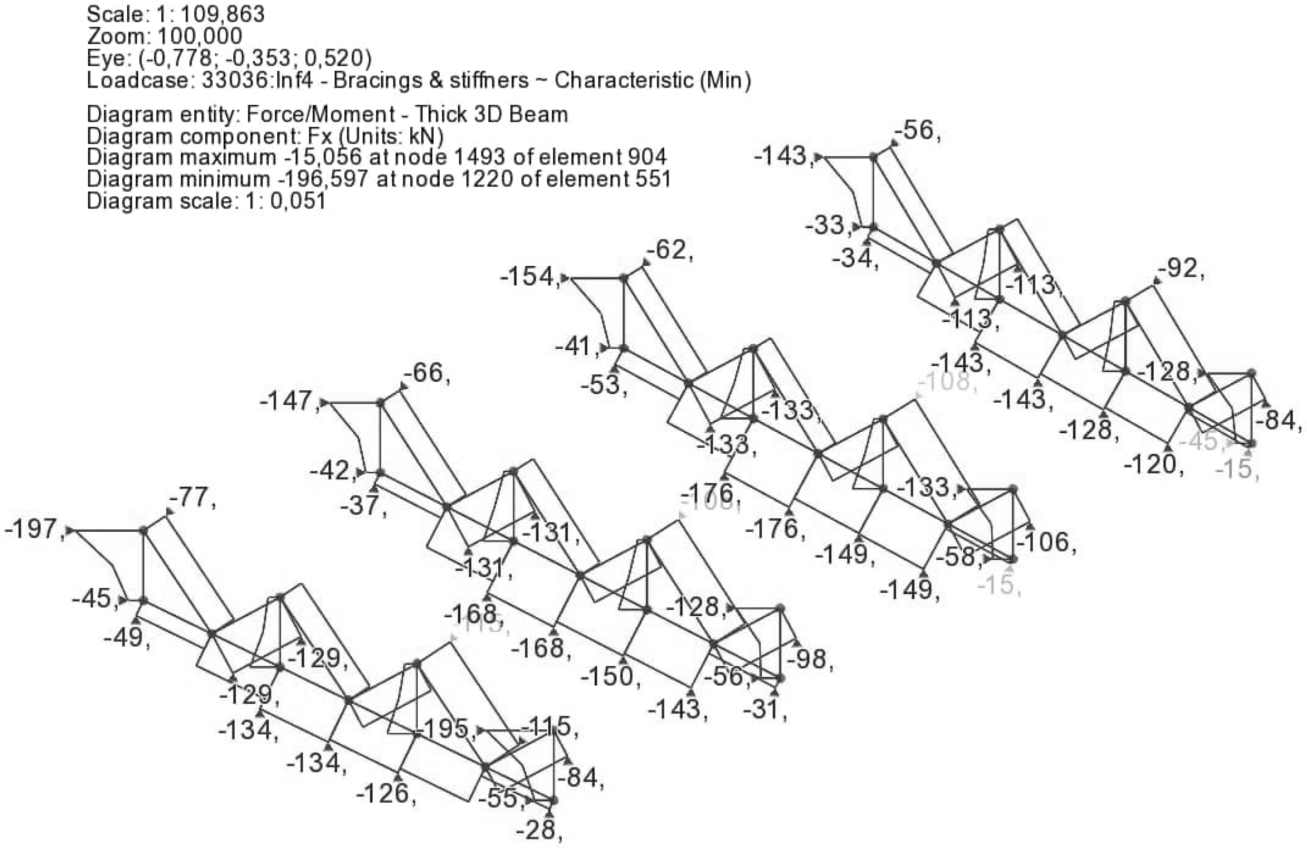
Scale: 1: 109,863
Zoom: 100,000
Eye: (-0,778; -0,353; 0,520)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -16,430 at node 772 of element 852
Diagram minimum -361,529 at node 1130 of element 506
Diagram scale: 1: 0,028

9.1.3 Bracings F & stiffners: Span 3

Max Fx:



Min Fx:



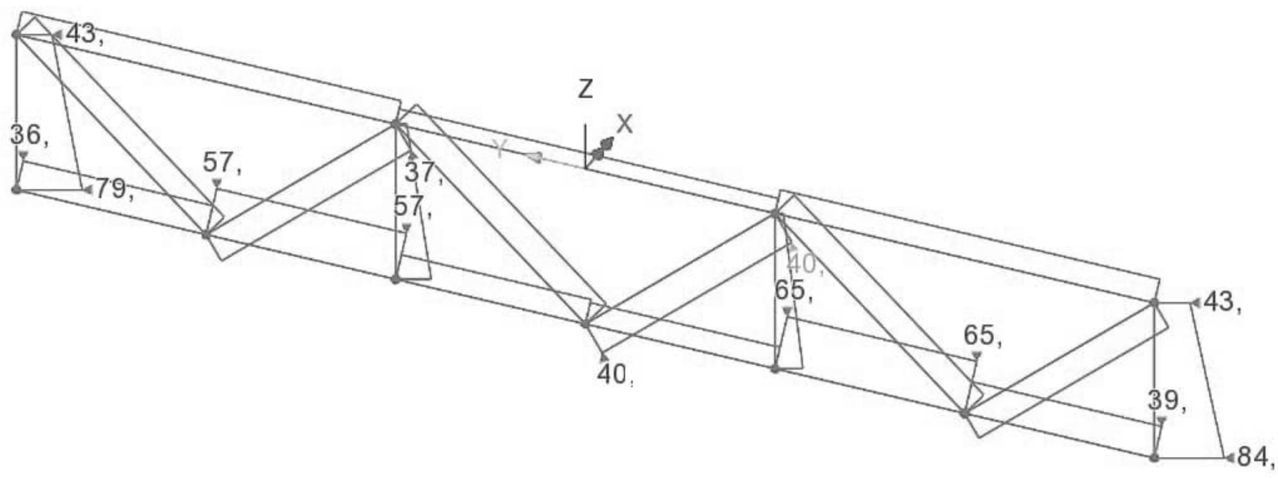
Scale: 1: 109,863
Zoom: 100,000
Eye: (-0,778; -0,353; 0,520)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -15,056 at node 1493 of element 904
Diagram minimum -196,597 at node 1220 of element 551
Diagram scale: 1: 0,051

9.1.4 Bracings S & stiffners: Support 1

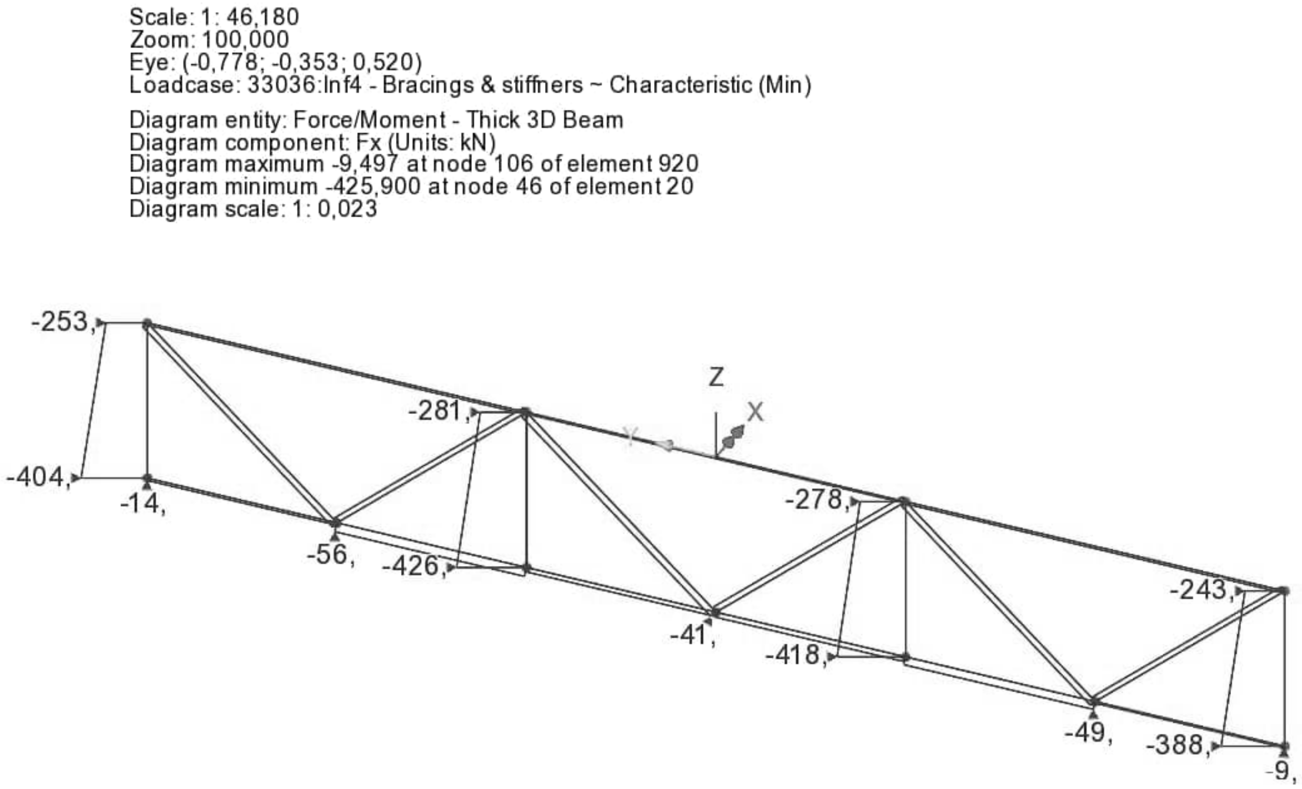
Max Fx:

Scale: 1: 46,180
Zoom: 100,000
Eye: (-0,778; -0,353; 0,520)
Loadcase: 33035:Inf4 - Bracings & stiffners ~ Characteristic (Max)

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 84,478 at node 106 of element 44
Diagram minimum 10,202 at node 66 of element 32
Diagram scale: 1: 0,118

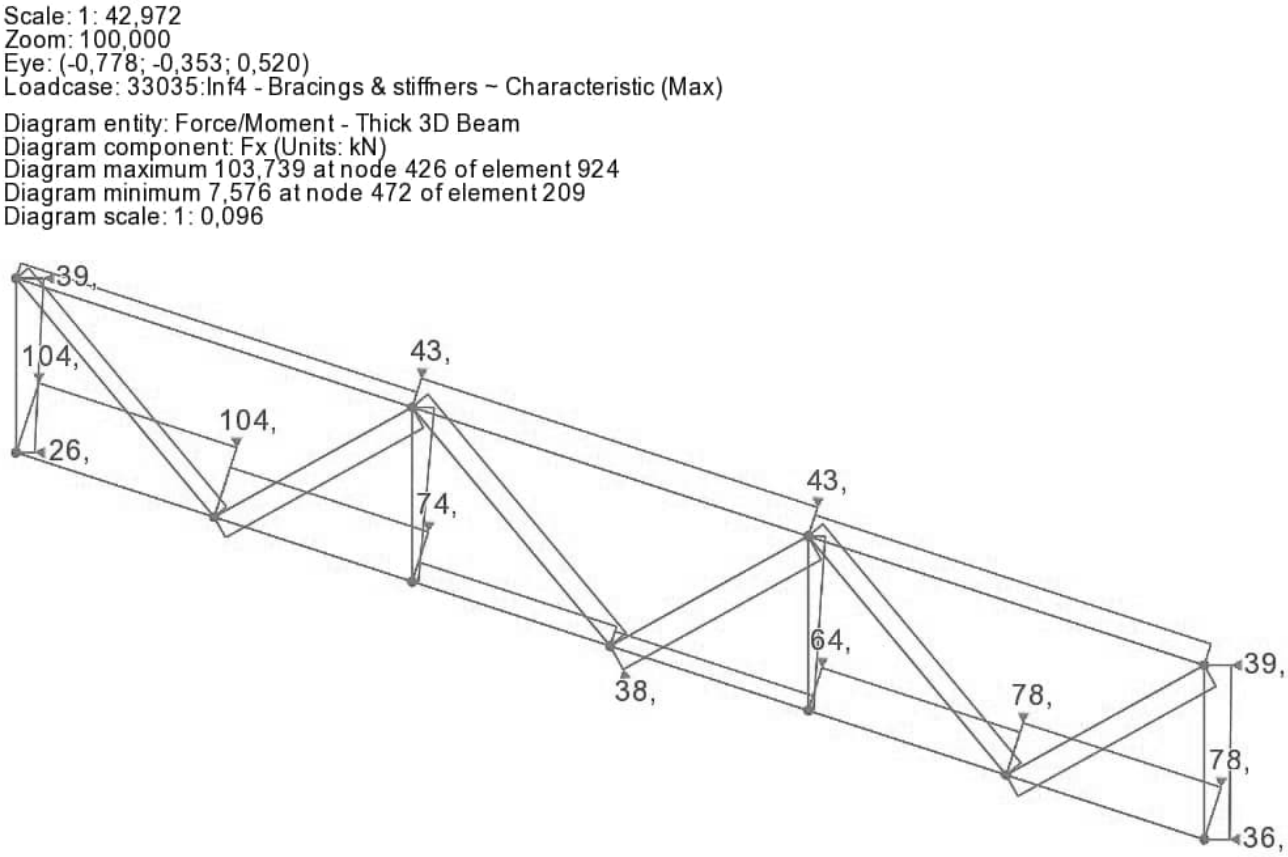


Min Fx:

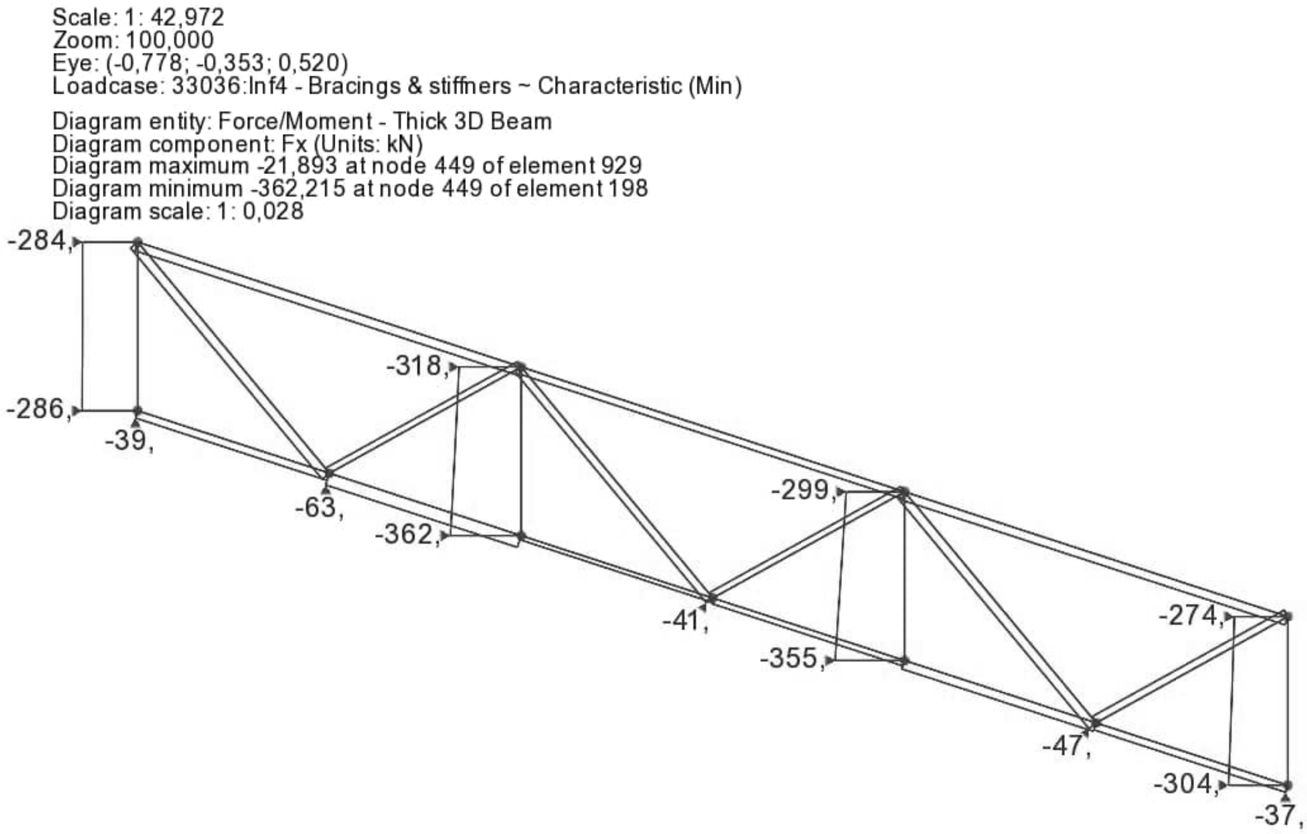

Scale: 1: 46,180
Zoom: 100,000
Eye: (-0,778; -0,353; 0,520)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -9,497 at node 106 of element 920
Diagram minimum -425,900 at node 46 of element 20
Diagram scale: 1: 0,023
-253,
-404,
-14,
-281,
Z
X
-56,
-426,
-278,
-41,
-418,
-243,
-49,
-388,
-9,

9.1.5 Bracings S & stiffners: Support 2

Max Fx:



Min Fx:

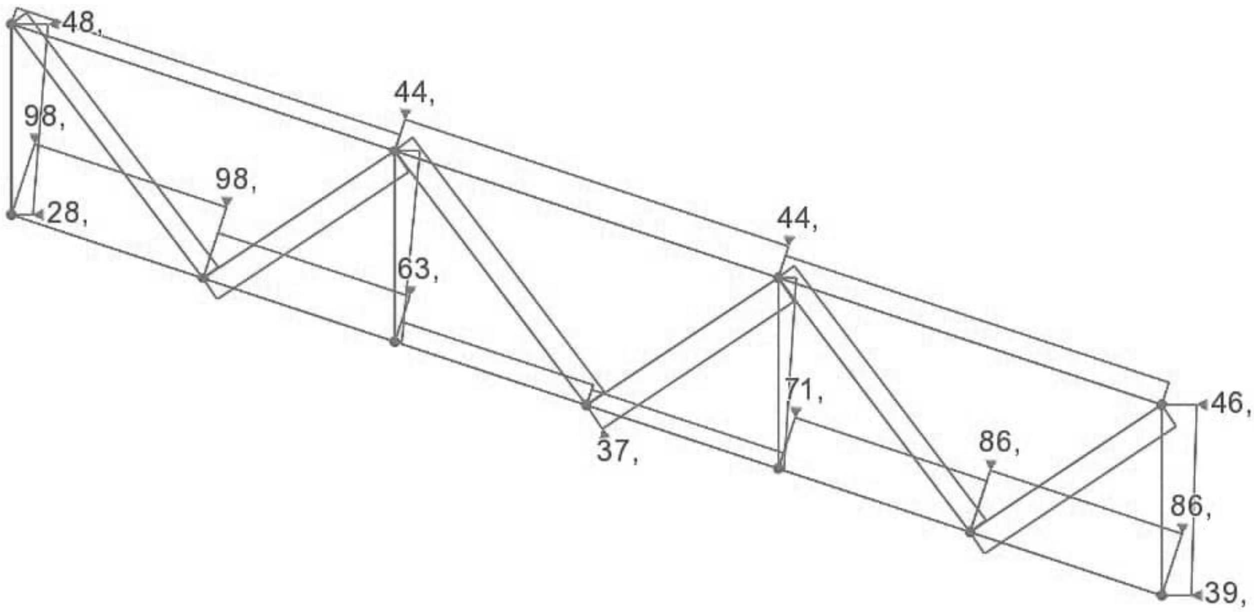

Scale: 1: 42,972
Zoom: 100,000
Eye: (-0,778; -0,353; 0,520)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -21,893 at node 449 of element 929
Diagram minimum -362,215 at node 449 of element 198
Diagram scale: 1: 0,028
-284,
-286,
-39,
-318,
-63,
-362,
-299,
-41,
-355,
-274,
-47,
-304,
-37,

9.1.6 Bracings S & stiffners: Support 3

Max Fx:

Scale: 1: 37,912
Zoom: 89,286
Eye: (-0,847; -0,315; 0,429)
Loadcase: 33035:Inf4 - Bracings & stiffners ~ Characteristic (Max)

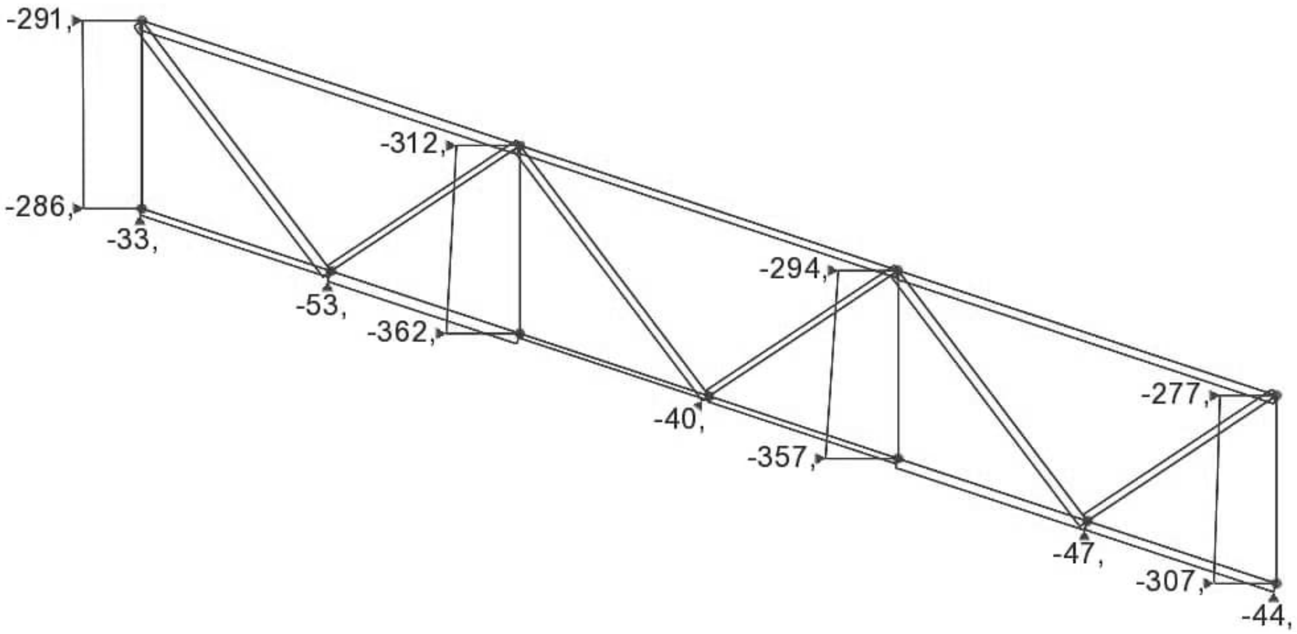
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 98,475 at node 1096 of element 939
Diagram minimum 7,713 at node 1164 of element 522
Diagram scale: 1: 0,102



Min Fx:

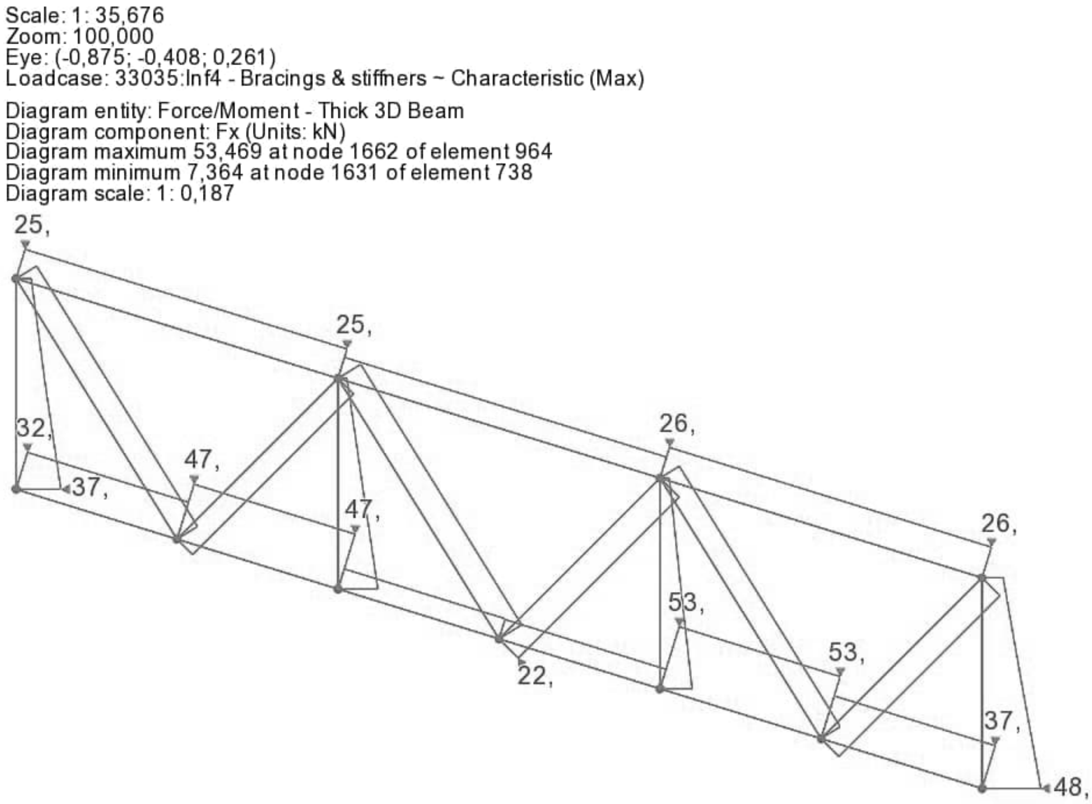
Scale: 1: 37,912
Zoom: 89,286
Eye: (-0,847; -0,315; 0,429)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -21,544 at node 1130 of element 944
Diagram minimum -361,529 at node 1130 of element 506
Diagram scale: 1: 0,028



9.1.7 Bracings S & stiffners: Support 4

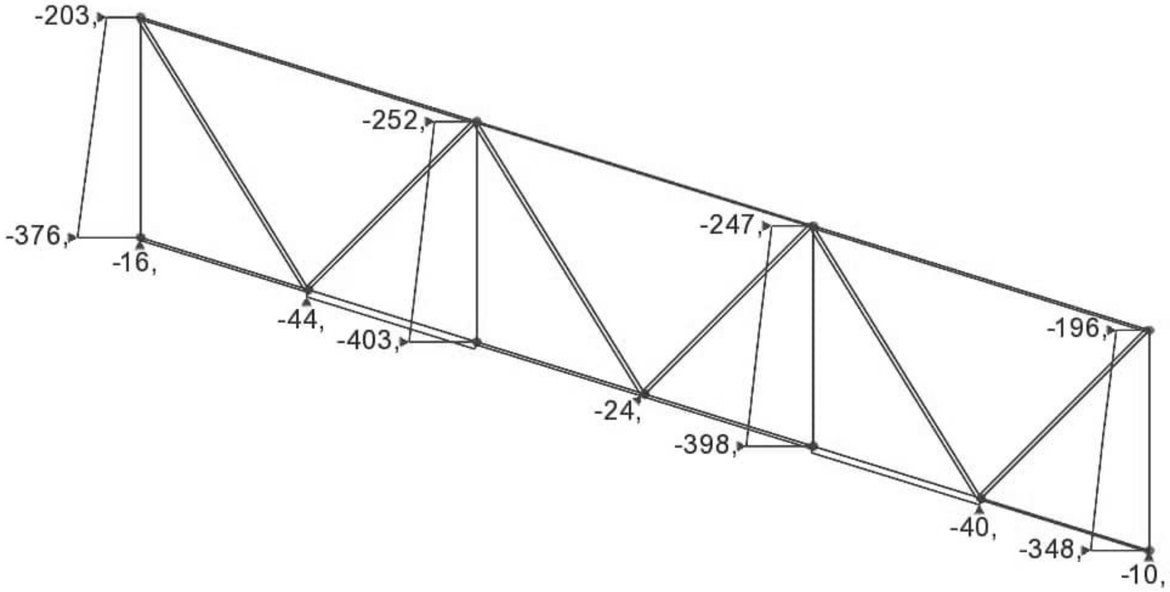
Max Fx:



Min Fx:

Scale: 1: 35,676
Zoom: 100,000
Eye: (-0,875; -0,408; 0,261)
Loadcase: 33036:Inf4 - Bracings & stiffners ~ Characteristic (Min)

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum -7,977 at node 1631 of element 961
Diagram minimum -403,278 at node 1639 of element 738
Diagram scale: 1: 0,025



9.2 Table

9.2.1 Bracings F & stiffners: Span 1

See separate presentation.

9.2.2 Bracings F & stiffners: Span 2

See separate presentation.

9.2.3 Bracings F & stiffners: Span 3

See separate presentation.

9.2.4 Bracings S & stiffners: Support 1

See separate presentation.

9.2.5 Bracings S & stiffners: Support 2

See separate presentation.

9.2.6 Bracings S & stiffners: Support 3

See separate presentation.

9.2.7 Bracings S & stiffners: Support 4

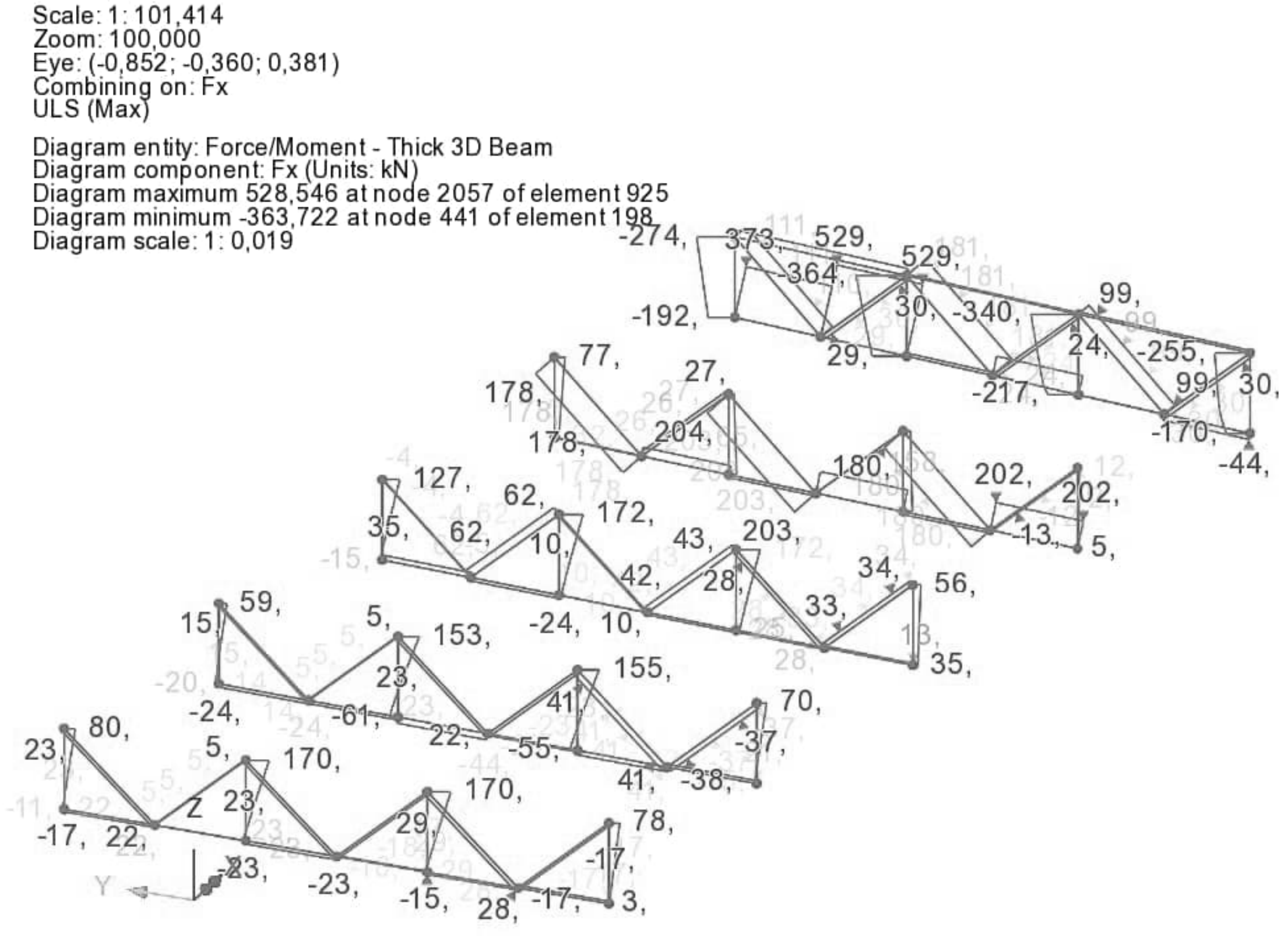
See separate presentation.

10. Result ULS

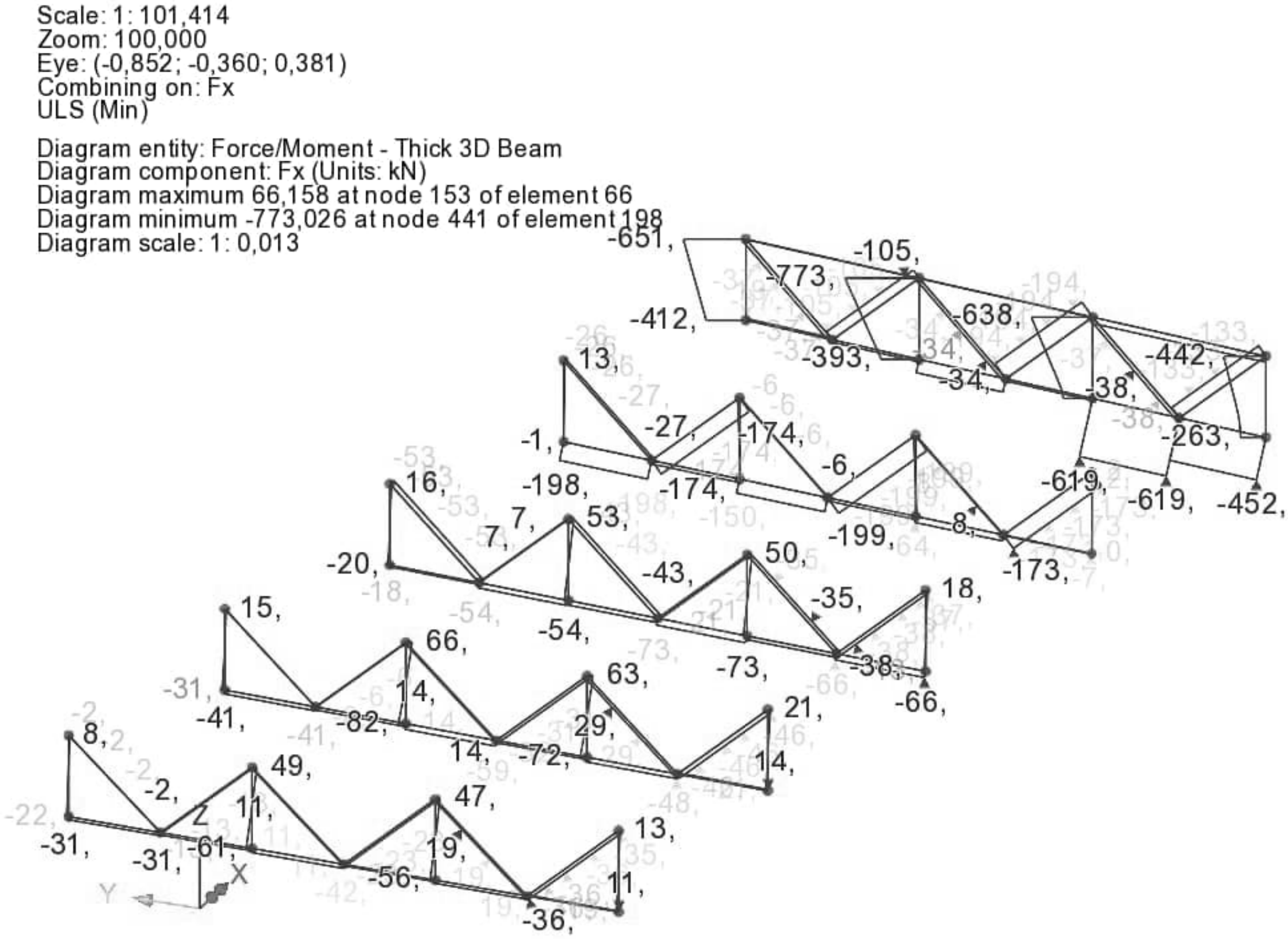
10.1 Diagram

10.1.1 Bracings F & stiffners: Span 1

Max Fx:

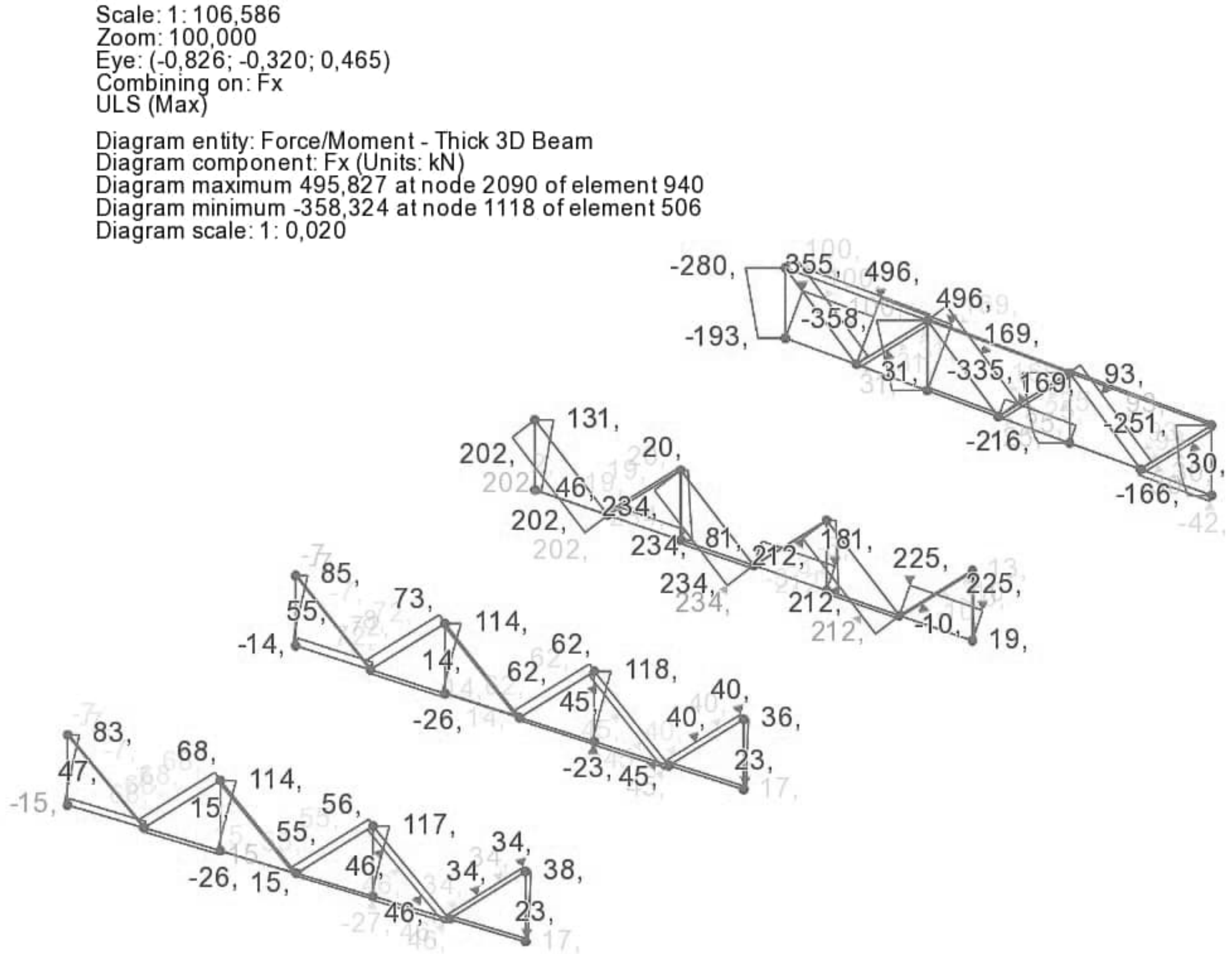


Min Fx:

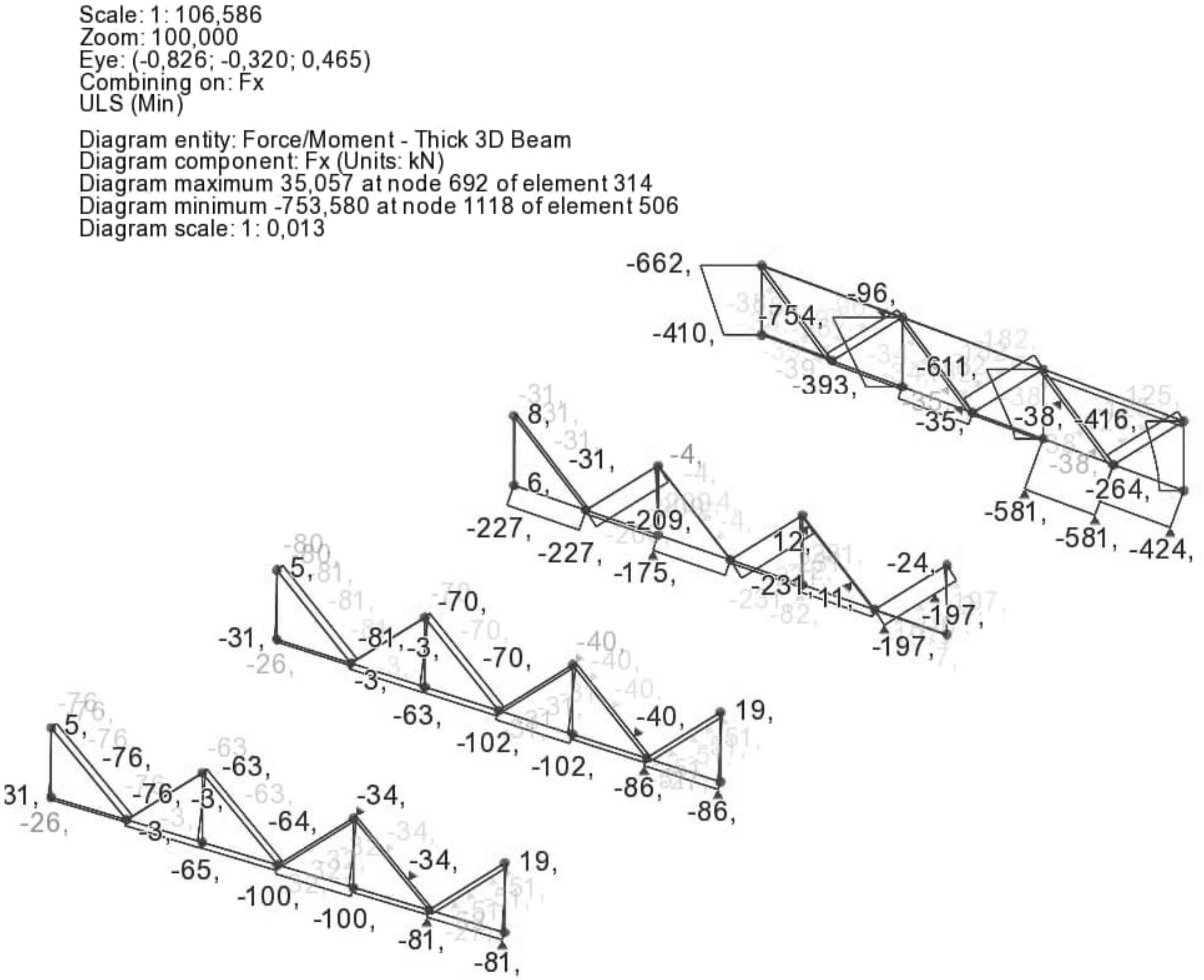

Scale: 1: 101,414
Zoom: 100,000
Eye: (-0,852; -0,360; 0,381)
Combining on: Fx
ULS (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 66,158 at node 153 of element 66
Diagram minimum -773,026 at node 441 of element 198
Diagram scale: 1: 0,013

10.1.2 Bracings F & stiffners: Span 2

Max Fx:



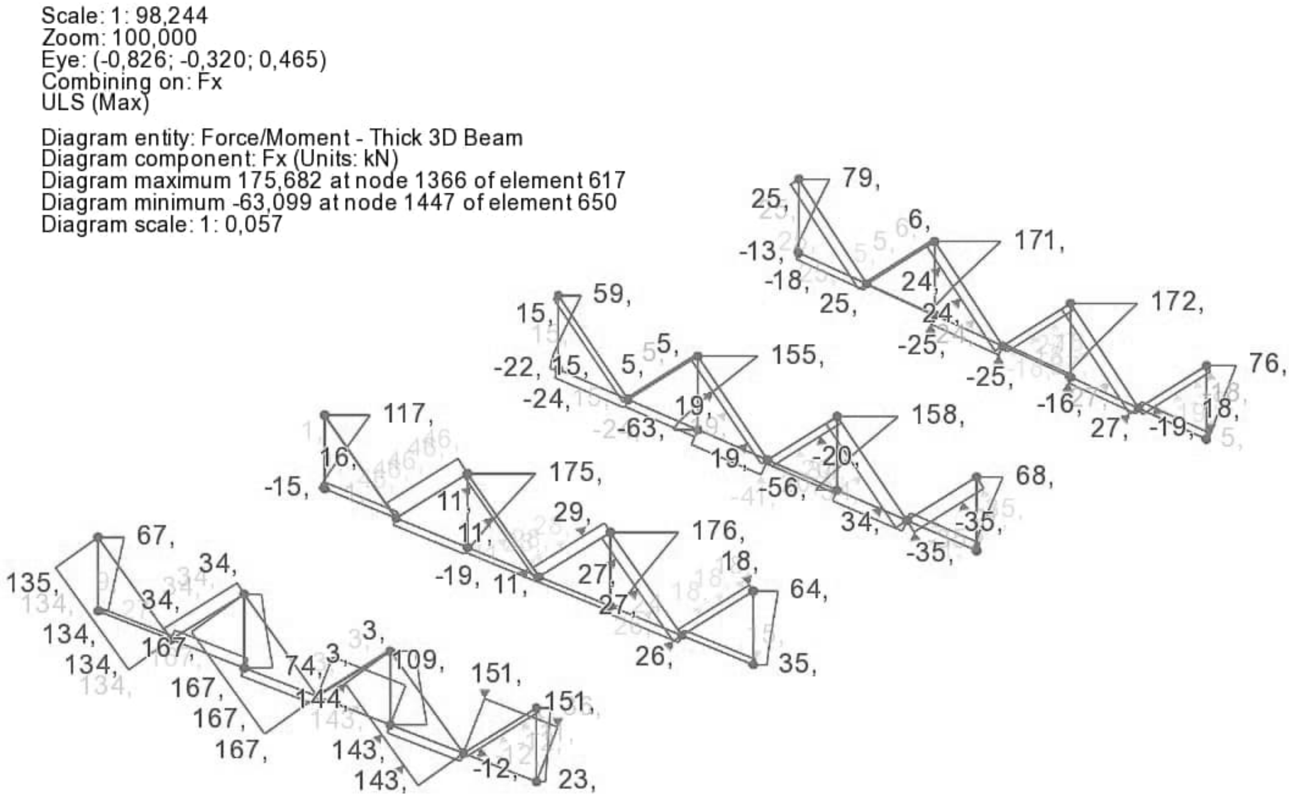
Min Fx:



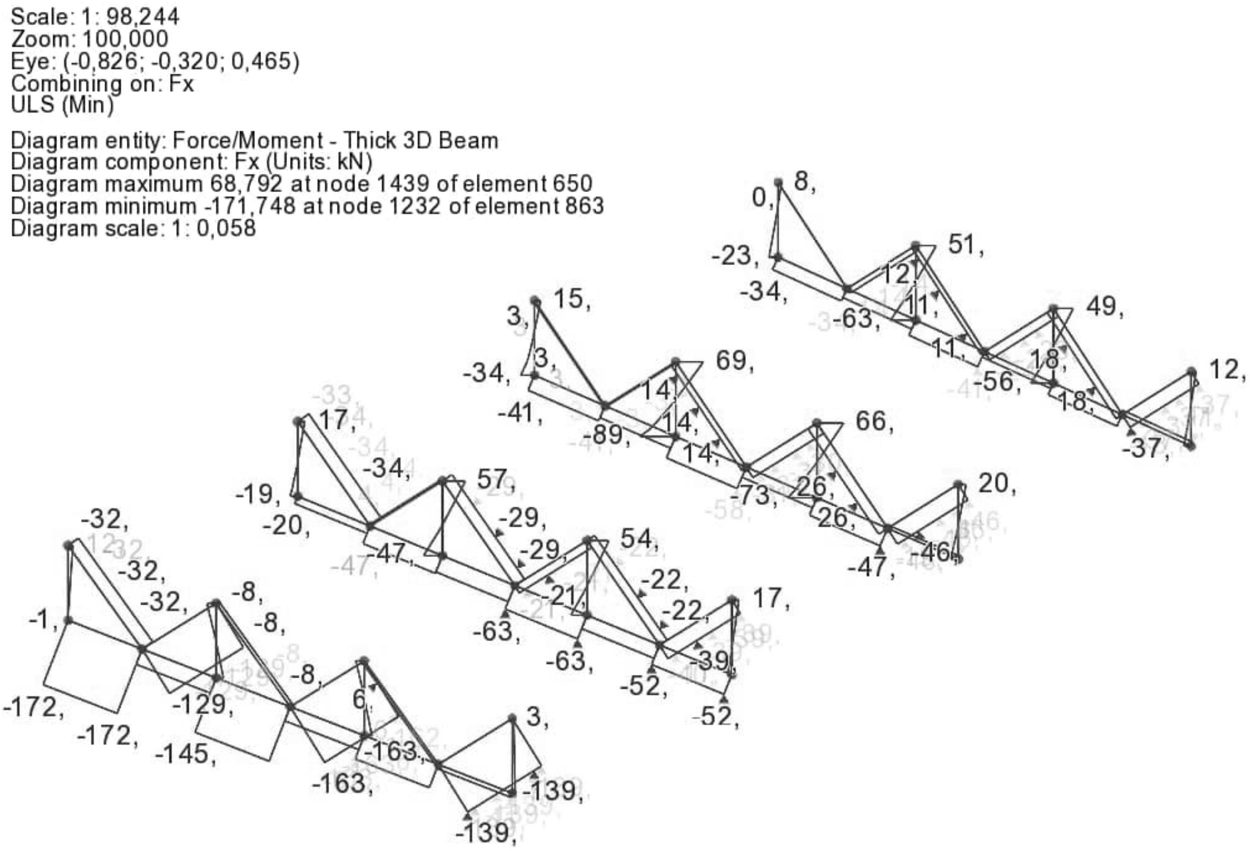
Scale: 1: 106,586
Zoom: 100,000
Eye: (-0,826; -0,320; 0,465)
Combining on: Fx
ULS (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 35,057 at node 692 of element 314
Diagram minimum -753,580 at node 1118 of element 506
Diagram scale: 1: 0,013
-662,
-410,
-754,
-96,
-393,
-611,
-35,
-38,
-416,
-264,
-581,
-581,
-424,
8,
6,
-31,
-4,
-227,
-227,
-209,
-175,
12,
-231,
-11,
-24,
-197,
-197,
5,
-31,
-26,
-81,
-3,
-70,
-70,
-3,
-63,
-102,
-102,
-40,
-86,
19,
-86,
5,
-76,
31,
-26,
-76,
-3,
-63,
-3,
-64,
-34,
-65,
-100,
-100,
-34,
-81,
19,
-81,

10.1.3 Bracings F & stiffners: Span 3

Max Fx:



Min Fx:



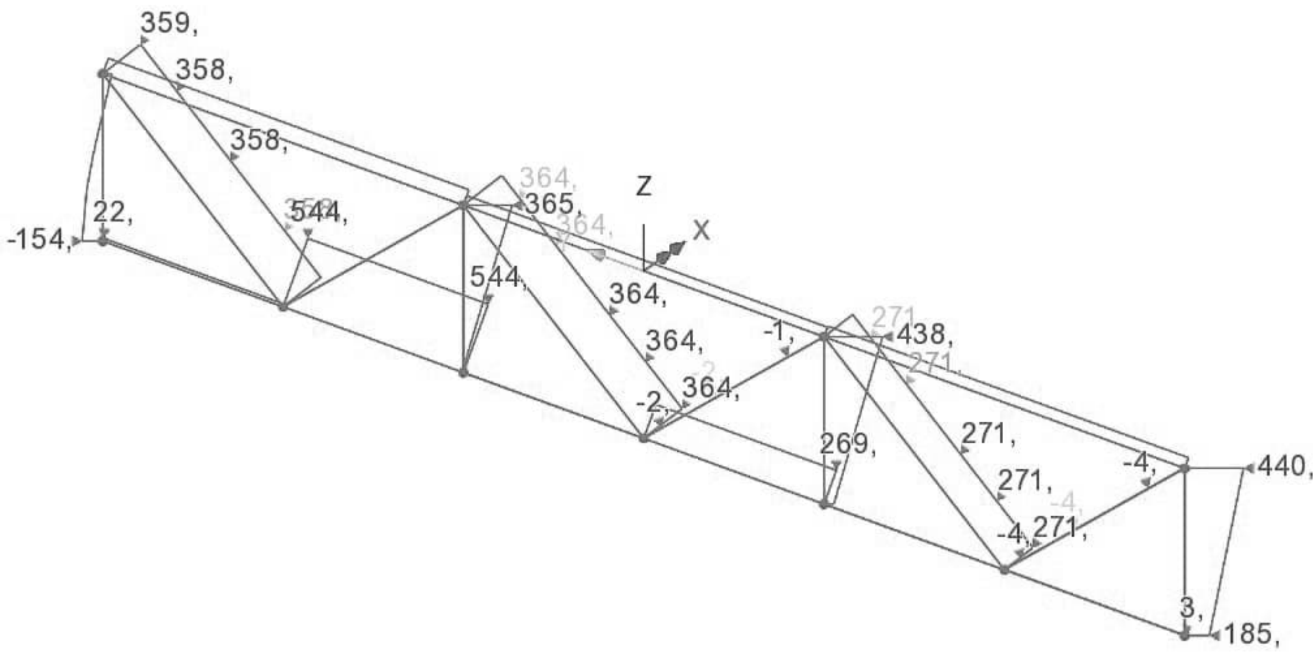
Scale: 1: 98,244
Zoom: 100,000
Eye: (-0,826; -0,320; 0,465)
Combining on: Fx
ULS (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 68,792 at node 1439 of element 650
Diagram minimum -171,748 at node 1232 of element 863
Diagram scale: 1: 0,058

10.1.4 Bracings S & stiffners: Support 1

Max Fx:

Scale: 1: 35,853
Zoom: 79,719
Eye: (-0,700; -0,504; 0,506)
Combining on: Fx
ULS (Max)

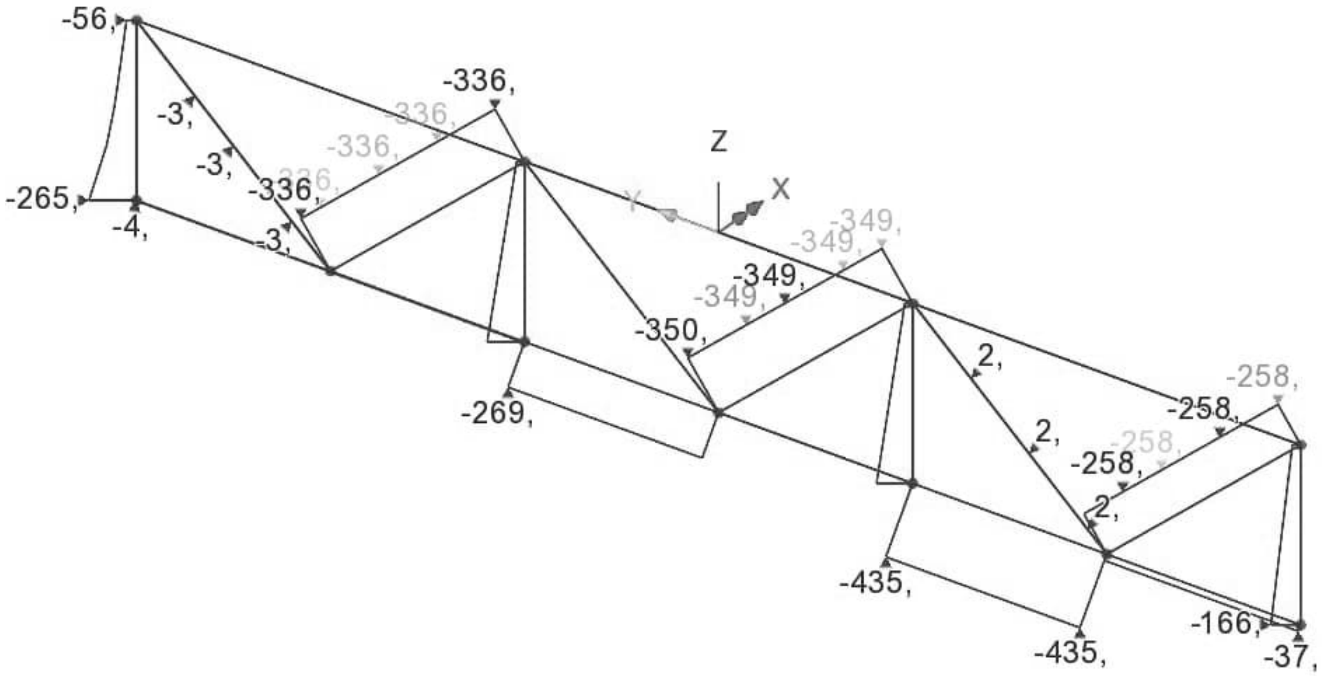
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 544,453 at node 2024 of element 910
Diagram minimum -153,654 at node 16 of element 8
Diagram scale: 1: 0,018



Min Fx:

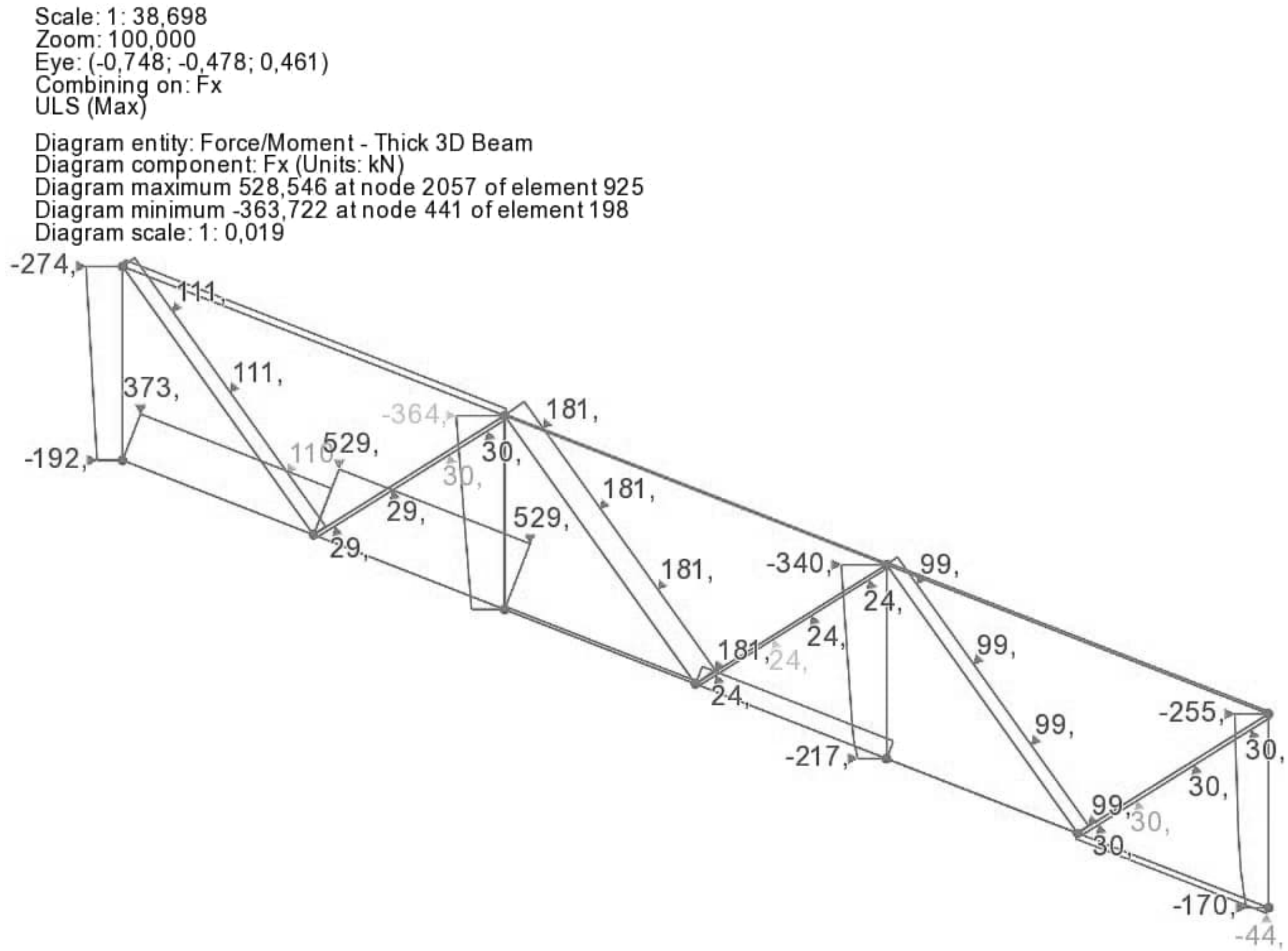
Scale: 1: 35,853
Zoom: 79,719
Eye: (-0,700; -0,504; 0,506)
Combining on: Fx
ULS (Min)

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 2,562 at node 36 of element 916
Diagram minimum -435,463 at node 76 of element 919
Diagram scale: 1: 0,023

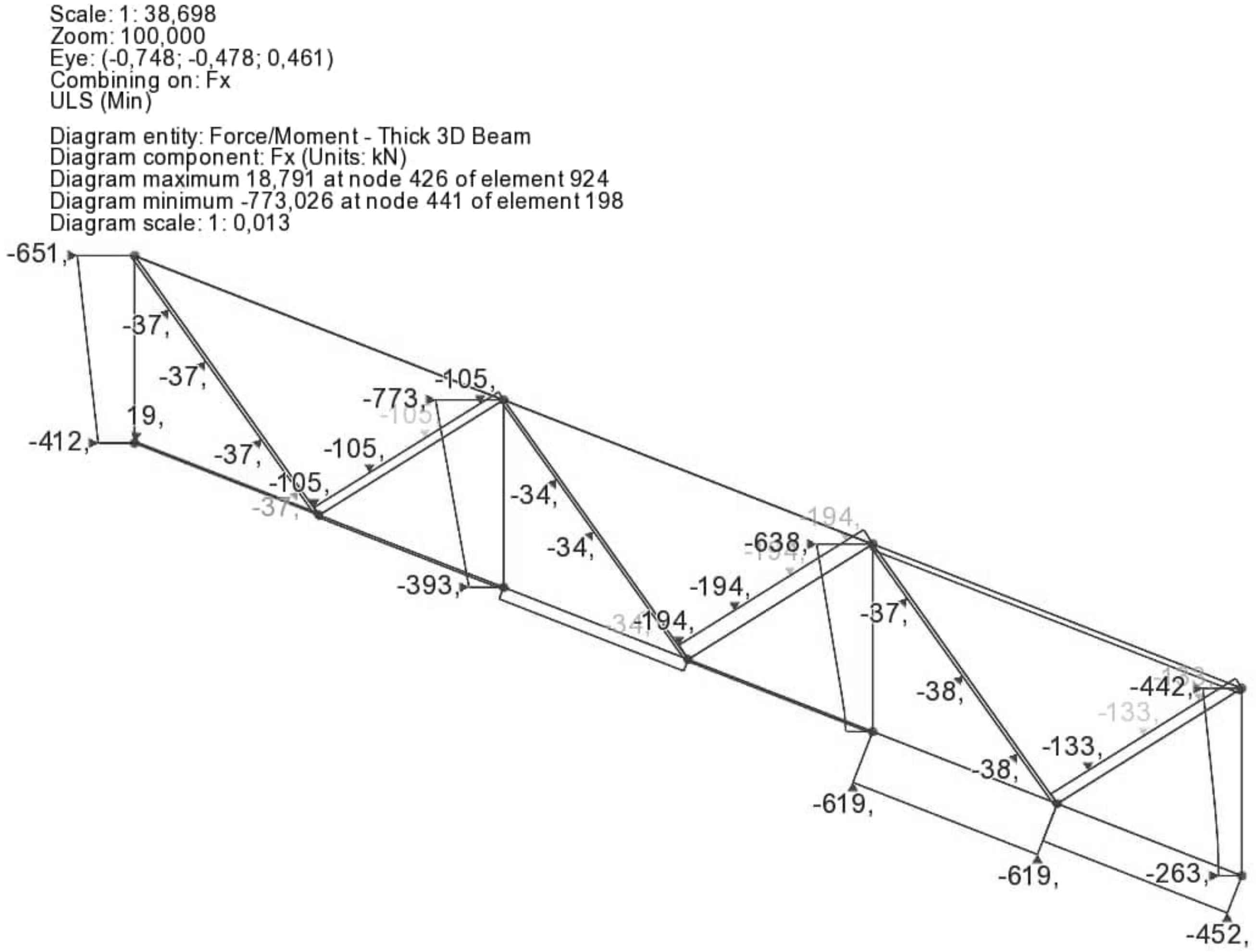


10.1.5 Bracings S & stiffners: Support 2

Max Fx:



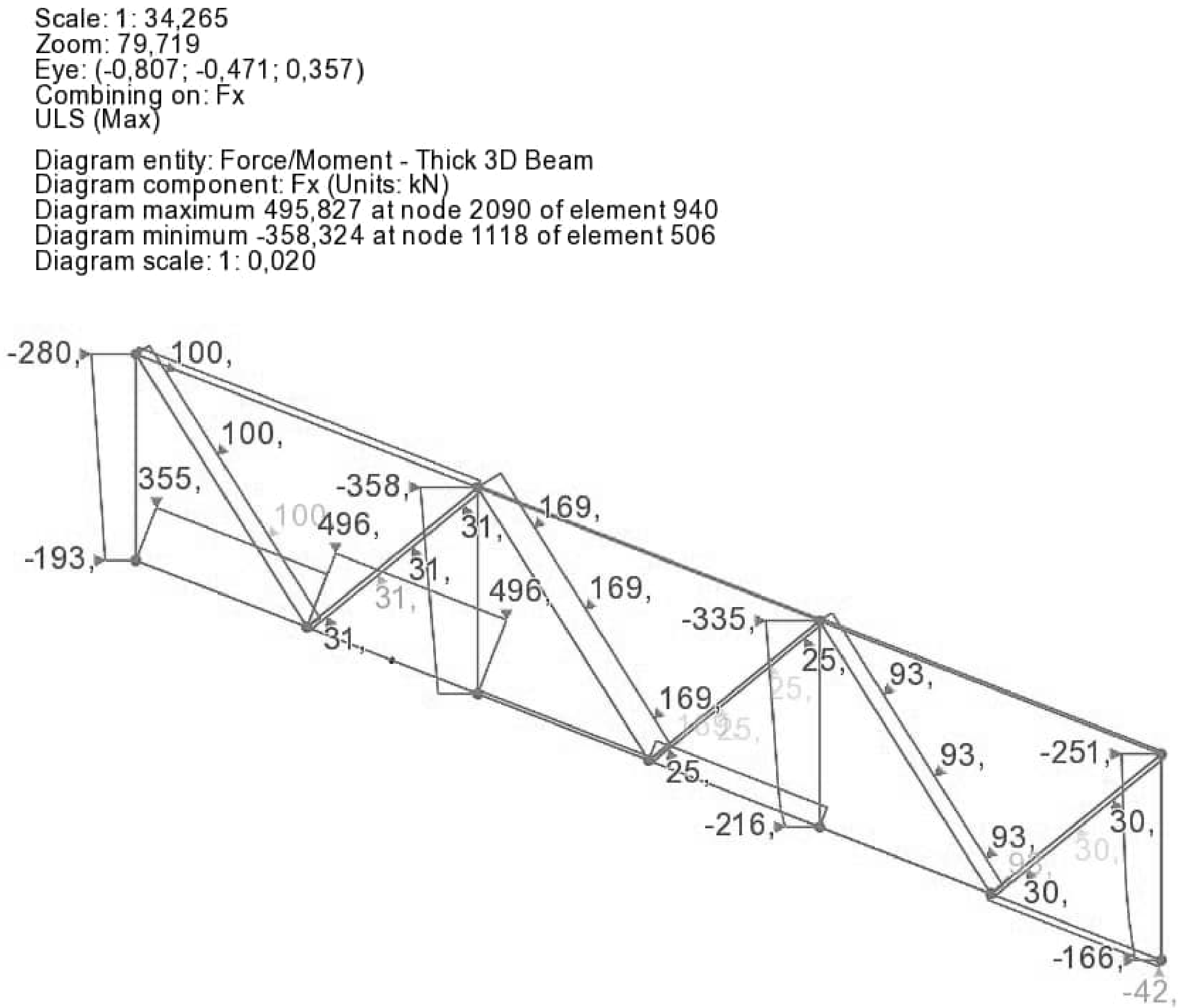
Min Fx:



Scale: 1: 38,698
Zoom: 100,000
Eye: (-0,748; -0,478; 0,461)
Combining on: Fx
ULS (Min)
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 18,791 at node 426 of element 924
Diagram minimum -773,026 at node 441 of element 198
Diagram scale: 1: 0,013
-651,
-37,
-37,
19,
-412,
-37,
-105,
-773,
-105,
-105,
-37,
-34,
-34,
-393,
-194,
-638,
-194,
-194,
-34,
-37,
-38,
-38,
-442,
-133,
-133,
-619,
-619,
-263,
-452,

10.1.6 Bracings S & stiffners: Support 3

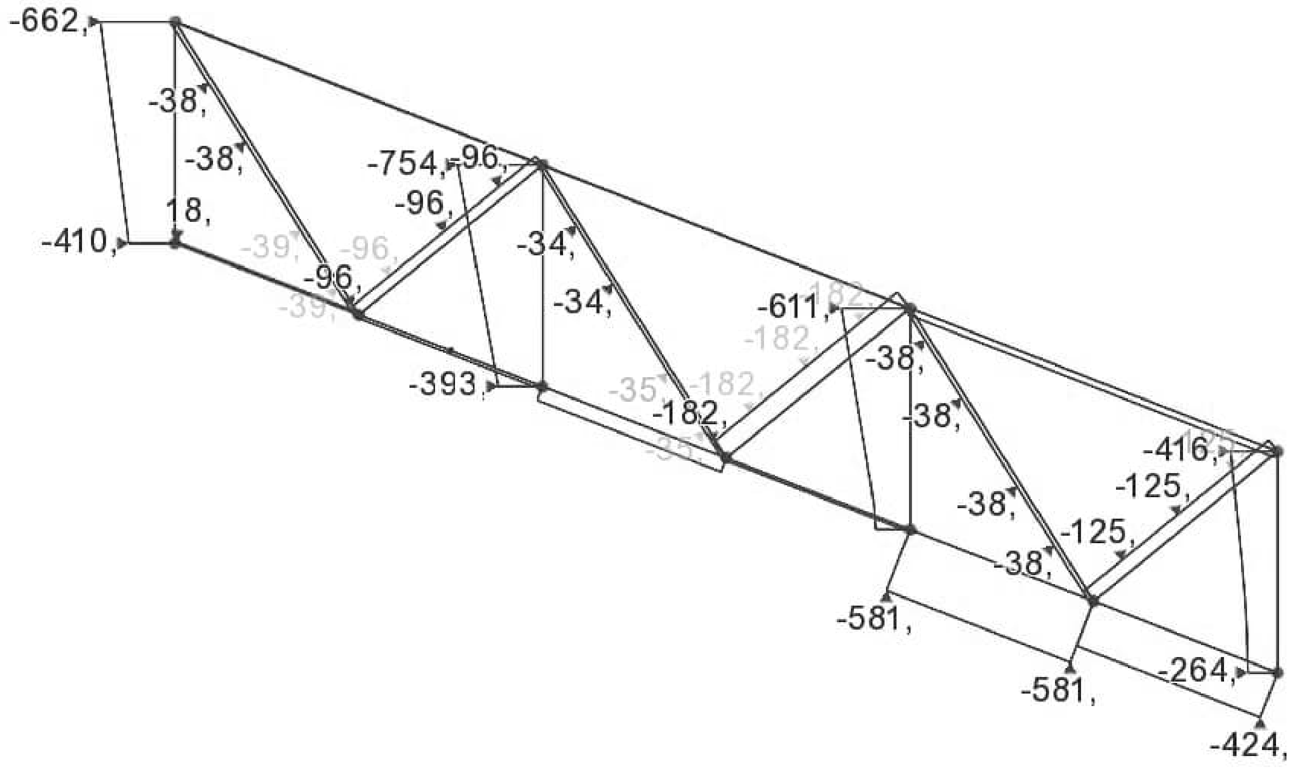
Max Fx:



Min Fx:

Scale: 1: 34,265
Zoom: 79,719
Eye: (-0,807; -0,471; 0,357)
Combining on: Fx
ULS (Min)

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 18,203 at node 1096 of element 939
Diagram minimum -753,580 at node 1118 of element 506
Diagram scale: 1: 0,013

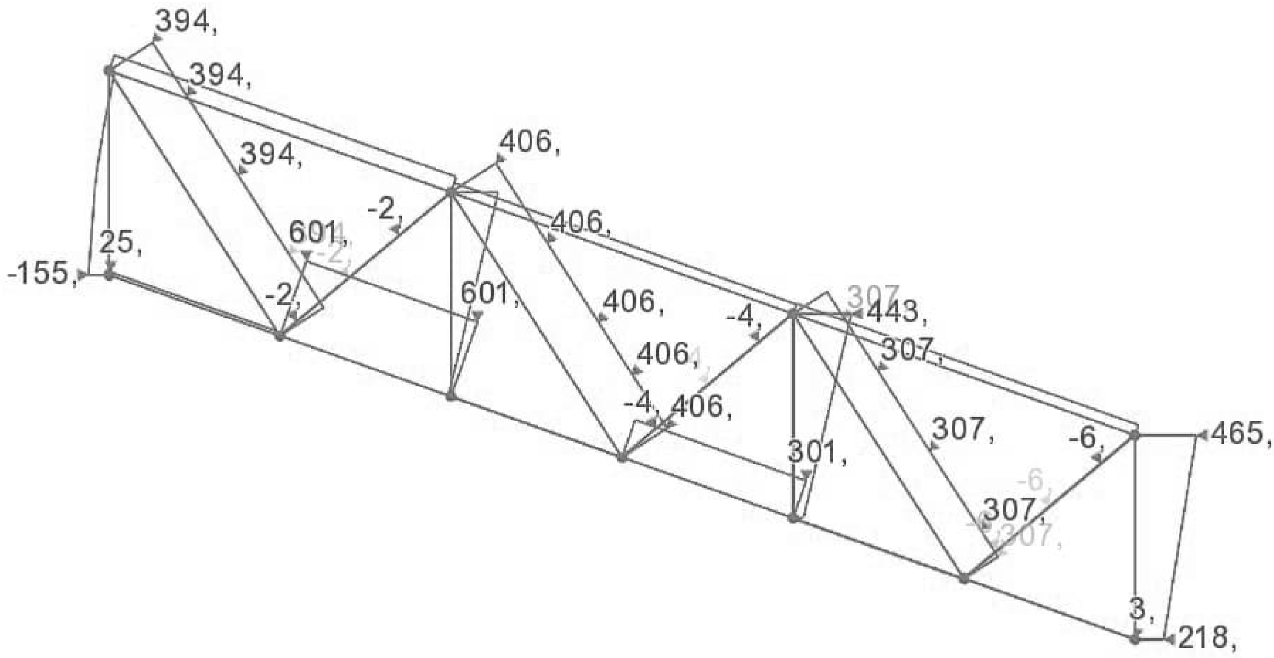


10.1.7 Bracings S & stiffners: Support 4

Max Fx:

Scale: 1: 34,882
Zoom: 79,719
Eye: (-0,875; -0,347; 0,337)
Combining on: Fx
ULS (Max)

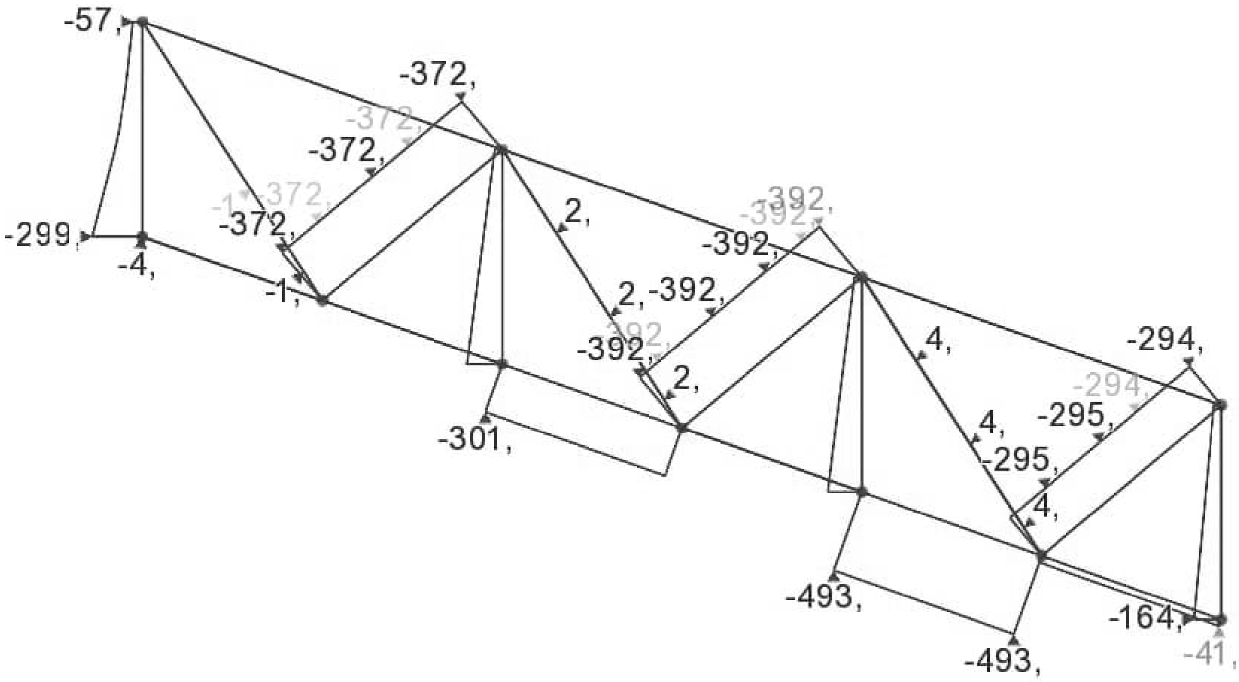
Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 601,339 at node 2123 of element 955
Diagram minimum -154,700 at node 1616 of element 727
Diagram scale: 1: 0,017



Min Fx:

Scale: 1: 34,882
Zoom: 79,719
Eye: (-0,875; -0,347; 0,337)
Combining on: Fx
ULS (Min)

Diagram entity: Force/Moment - Thick 3D Beam
Diagram component: Fx (Units: kN)
Diagram maximum 4,057 at node 1654 of element 967
Diagram minimum -493,495 at node 1662 of element 964
Diagram scale: 1: 0,020



10.2 Table

10.2.1 Bracings F & stiffners: Span 1

Max Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2 (A)	5	4,1	0	80	34	-9	0	2	-4
2 (B)	5	4,1	0	23	0	0	0	0	0
17 (A)	5	4,1	-1,2	-11	-14	10	0	2	-5
17 (B)	5	4,1	-1,2	-17	1	0	0	0	-1
23	5	4,1	-0,6	33	9	0	0	-1	3
37 (A)	4,9	1,3	0	170	19	-20	0	4	-4
37 (B)	4,9	1,3	0	5	0	0	0	0	0
37 (C)	4,9	1,3	0	23	0	1	0	1	0
47 (A)	4,9	1,3	-1,2	-19	-16	21	0	4	-4
47 (B)	4,9	1,3	-1,2	-1	0	-3	0	-2	-1
47 (C)	4,9	1,3	-1,2	-24	-1	-1	0	1	1
53	4,9	1,3	-0,6	71	1	0	0	-2	1
67 (A)	4,9	-1,4	0	171	17	-24	0	5	-5
67 (B)	4,9	-1,4	0	-17	0	0	0	0	0
67 (C)	4,9	-1,4	0	29	0	1	0	1	0
77 (A)	4,9	-1,4	-1,2	-14	-13	25	0	5	-3
77 (B)	4,9	-1,4	-1,2	7	-1	-1	0	-2	-1
77 (C)	4,9	-1,4	-1,2	-15	-1	-1	0	0	1
83	4,9	-1,4	-0,6	74	2	0	0	-2	1
97 (A)	4,8	-4,2	0	78	-11	-22	0	4	0
97 (B)	4,8	-4,2	0	-17	0	0	0	0	0
107 (A)	4,8	-4,2	-1,2	3	-6	22	0	4	1
107 (B)	4,8	-4,2	-1,2	17	1	2	0	-1	1
113	4,8	-4,2	-0,6	39	-8	0	0	-2	-1
126 (A)	10	3,9	0	59	38	-12	0	2	-4
126 (B)	10	3,9	0	15	0	0	0	0	0
138 (A)	10	3,9	-1,2	-21	-4	2	0	0	-2
138 (B)	10	3,9	-1,2	-24	0	0	0	0	0
144	10	3,9	-0,6	14	12	0	0	-1	3
153 (A)	9,9	1,1	0	153	18	-8	0	2	-4
153 (B)	9,9	1,1	0	5	0	0	0	0	0
153 (C)	9,9	1,1	0	23	0	1	0	1	0
161 (A)	9,9	1,1	-1,2	-61	-1	1	0	0	-1
161 (B)	9,9	1,1	-1,2	-21	1	-2	0	-1	1
161 (C)	9,9	1,1	-1,2	-44	0	-5	0	2	0
167	9,9	1,1	-0,6	38	4	0	0	-1	0
176 (A)	9,7	-1,6	0	155	19	-9	0	2	-4
176 (B)	9,7	-1,6	0	-23	0	1	0	0	0
176 (C)	9,7	-1,6	0	41	0	1	0	1	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
184 (A)	9,7	-1,6	-1,2	-55	-3	1	0	0	-2
184 (B)	9,7	-1,6	-1,2	-11	0	3	0	1	0
184 (C)	9,7	-1,6	-1,2	-32	0	-5	0	3	0
190	9,7	-1,6	-0,6	44	4	0	0	-1	1
199 (A)	9,6	-4,4	0	70	-7	-12	0	2	-1
199 (B)	9,6	-4,4	0	-37	0	1	0	0	0
207 (A)	9,6	-4,4	-1,2	-16	-5	11	0	2	1
207 (B)	9,6	-4,4	-1,2	21	0	2	0	-1	0
213	9,6	-4,4	-0,6	26	-6	0	0	-1	0
222 (A)	15	3,5	0	127	74	-24	0	5	-11
222 (B)	15	3,5	0	-4	0	0	0	0	0
234 (A)	15	3,5	-1,2	-15	-3	8	0	2	-1
234 (B)	15	3,5	-1,2	35	-3	2	0	0	5
240	15	3,5	-0,6	54	24	0	0	-2	6
249 (A)	14,8	0,8	0	172	87	-6	0	1	-21
249 (B)	14,8	0,8	0	62	1	-1	0	-1	1
249 (C)	14,8	0,8	0	10	0	1	0	1	0
257 (A)	14,8	0,8	-1,2	15	-36	4	0	1	-8
257 (B)	14,8	0,8	-1,2	-24	-1	0	0	1	-1
257 (C)	14,8	0,8	-1,2	-1	-3	1	0	-2	5
263	14,8	0,8	-0,6	90	25	0	0	0	4
272 (A)	14,6	-2	0	172	90	-6	0	1	-21
272 (B)	14,6	-2	0	43	1	0	0	0	1
272 (C)	14,6	-2	0	28	0	1	0	1	0
280 (A)	14,6	-2	-1,2	25	-38	3	0	1	-8
280 (B)	14,6	-2	-1,2	-17	-1	3	0	1	-1
280 (C)	14,6	-2	-1,2	-12	-3	0	0	-1	4
286	14,6	-2	-0,6	96	26	0	0	0	5
295 (A)	14,4	-4,7	0	56	36	-13	0	3	-8
295 (B)	14,4	-4,7	0	34	1	0	0	-1	1
303 (A)	14,4	-4,7	-1,2	35	-23	11	0	2	-5
303 (B)	14,4	-4,7	-1,2	13	-1	3	0	0	-1
309	14,4	-4,7	-0,6	45	6	0	0	-1	2
318 (A)	20	3,1	0	77	0	-129	0	26	-2
318 (B)	20	3,1	0	178	-1	2	0	3	-1
330 (A)	20	3,1	-1,2	32	10	125	0	25	0
330 (B)	20	3,1	-1,2	5	-1	0	0	-1	1
336	20	3,1	-0,6	54	6	0	0	-13	-2
345 (A)	19,7	0,3	0	40	-9	-158	0	32	-11
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
345 (B)	19,7	0,3	0	27	0	0	0	0	0
345 (C)	19,7	0,3	0	204	-1	2	0	3	-1
353 (A)	19,7	0,3	-1,2	58	12	161	0	32	-7
353 (B)	19,7	0,3	-1,2	65	14	-3	0	-4	20
353 (C)	19,7	0,3	-1,2	-20	-1	-2	0	1	1
359	19,7	0,3	-0,6	47	2	0	0	-16	-12
368 (A)	19,4	-2,4	0	54	-9	-154	0	31	-14
368 (B)	19,4	-2,4	0	0	0	0	0	0	1
368 (C)	19,4	-2,4	0	180	-1	2	0	2	-1
376 (A)	19,4	-2,4	-1,2	67	14	157	0	31	-6
376 (B)	19,4	-2,4	-1,2	158	15	-5	0	-6	20
376 (C)	19,4	-2,4	-1,2	-21	-1	-2	0	1	1
382	19,4	-2,4	-0,6	59	3	0	0	-15	-13
391 (A)	19,1	-5,1	0	12	6	-61	0	12	-1
391 (B)	19,1	-5,1	0	-12	0	1	0	0	1
399 (A)	19,1	-5,1	-1,2	5	-5	95	0	19	-3
399 (B)	19,1	-5,1	-1,2	202	15	-3	0	-3	21
405	19,1	-5,1	-0,6	8	0	0	0	-12	-1
414 (A)	25	2,5	0	-275	-45	-14	0	3	-5
414 (B)	25	2,5	0	52	-11	-6	0	7	15
414 (C)	25	2,5	0	111	-1	0	0	0	3
426 (A)	25	2,5	-1,2	-192	47	14	0	3	6
426 (B)	25	2,5	-1,2	373	-23	-4	0	2	33
432	25	2,5	-0,6	-233	1	0	0	-1	-14
441 (A)	24,6	-0,3	0	-364	-1	-13	0	3	-1
441 (B)	24,6	-0,3	0	52	-11	-5	0	-8	-15
441 (C)	24,6	-0,3	0	30	0	0	0	0	0
441 (D)	24,6	-0,3	0	11	1	0	0	-1	-1
441 (E)	24,6	-0,3	0	181	-1	0	0	1	3
449 (A)	24,6	-0,3	-1,2	-248	7	13	0	3	4
449 (B)	24,6	-0,3	-1,2	529	-24	-4	0	-9	-32
449 (C)	24,6	-0,3	-1,2	22	0	-3	0	1	0
455	24,6	-0,3	-0,6	-306	3	0	0	-1	0
464 (A)	24,2	-3	0	-340	3	-13	0	3	-3
464 (B)	24,2	-3	0	11	1	2	0	2	1
464 (C)	24,2	-3	0	25	0	0	0	0	0
464 (D)	24,2	-3	0	17	1	1	0	-2	-1
464 (E)	24,2	-3	0	100	-1	-1	0	2	3
472 (A)	24,2	-3	-1,2	-217	-18	69	0	14	-30
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
472 (B)	24,2	-3	-1,2	141	-24	-5	0	-10	-32
472 (C)	24,2	-3	-1,2	-2	0	-3	0	0	0
478	24,2	-3	-0,6	-291	5	0	0	-1	-1
487 (A)	23,9	-5,7	0	-255	43	-10	0	2	3
487 (B)	23,9	-5,7	0	17	1	3	0	4	2
487 (C)	23,9	-5,7	0	30	0	-1	0	1	0
495 (A)	23,9	-5,7	-1,2	-170	-34	76	0	15	-8
495 (B)	23,9	-5,7	-1,2	-44	0	4	0	2	0
501	23,9	-5,7	-0,6	-232	3	0	0	-1	12
1700 (A)	5	2,7	-1,2	5	0	0	0	0	0
1700 (B)	5	2,7	-1,2	22	0	-1	0	1	0
1700 (C)	5	2,7	-1,2	-17	1	1	0	1	0
1700 (D)	5	2,7	-1,2	-1	0	-4	0	3	0
1701	5	2	-0,6	5	0	0	0	0	0
1703	5	3,4	-0,6	23	0	-1	0	0	0
1705	5	3,4	-1,2	-17	1	0	0	0	0
1707	5	2	-1,2	-1	0	-4	0	0	0
1709 (A)	9,9	2,5	-1,2	5	0	0	0	0	0
1709 (B)	9,9	2,5	-1,2	14	0	-1	0	1	0
1709 (C)	9,9	2,5	-1,2	-24	0	1	0	1	0
1709 (D)	9,9	2,5	-1,2	-21	1	-3	0	3	0
1710	9,9	1,8	-0,6	5	0	0	0	0	0
1712	10	3,2	-0,6	15	0	-1	0	0	0
1714	10	3,2	-1,2	-24	0	1	0	0	0
1716	9,9	1,8	-1,2	-21	1	-2	0	1	1
1718 (A)	14,9	2,2	-1,2	62	1	-1	0	1	0
1718 (B)	14,9	2,2	-1,2	-5	0	-1	0	0	0
1718 (C)	14,9	2,2	-1,2	35	-3	3	0	3	0
1718 (D)	14,9	2,2	-1,2	-24	-1	0	0	1	0
1719	14,8	1,5	-0,6	62	1	-1	0	0	0
1721	15	2,8	-0,6	-4	0	0	0	0	0
1723	15	2,8	-1,2	35	-3	3	0	1	2
1725	14,8	1,5	-1,2	-24	-1	0	0	1	0
1727 (A)	19,9	1,7	-1,2	26	0	0	0	0	0
1727 (B)	19,9	1,7	-1,2	178	-1	2	0	0	1
1727 (C)	19,9	1,7	-1,2	5	-1	1	0	0	0
1727 (D)	19,9	1,7	-1,2	65	14	-4	0	1	0
1728	19,8	1	-0,6	27	0	0	0	0	0
1730	19,9	2,4	-0,6	178	-1	2	0	1	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1732	19,9	2,4	-1,2	5	-1	1	0	-1	0
1734	19,8	1	-1,2	65	14	-4	0	-2	10
1736 (A)	4,9	-0,1	-1,2	-18	0	0	0	0	0
1736 (B)	4,9	-0,1	-1,2	23	0	0	0	0	0
1736 (C)	4,9	-0,1	-1,2	-24	-1	0	0	0	0
1736 (D)	4,9	-0,1	-1,2	7	-1	-1	0	0	0
1737	4,9	-0,8	-0,6	-18	0	0	0	0	0
1739	4,9	0,6	-0,6	23	0	0	0	0	0
1741	4,9	0,6	-1,2	-24	-1	-1	0	0	1
1743	4,9	-0,8	-1,2	7	-1	-1	0	-1	-1
1745 (A)	9,8	-0,3	-1,2	-24	0	0	0	-1	0
1745 (B)	9,8	-0,3	-1,2	22	0	1	0	-1	0
1745 (C)	9,8	-0,3	-1,2	-44	0	-4	0	-4	0
1745 (D)	9,8	-0,3	-1,2	-11	0	3	0	-4	0
1746	9,8	-0,9	-0,6	-23	0	0	0	0	0
1748	9,8	0,4	-0,6	23	0	1	0	0	0
1750	9,8	0,4	-1,2	-44	0	-4	0	-1	0
1752	9,8	-0,9	-1,2	-11	0	3	0	-2	0
1754 (A)	14,7	-0,6	-1,2	42	1	0	0	0	0
1754 (B)	14,7	-0,6	-1,2	10	0	1	0	-1	0
1754 (C)	14,7	-0,6	-1,2	-1	-3	1	0	0	0
1754 (D)	14,7	-0,6	-1,2	-17	-1	3	0	-3	0
1755	14,6	-1,3	-0,6	43	1	0	0	0	0
1757	14,7	0,1	-0,6	10	0	1	0	0	0
1759	14,7	0,1	-1,2	-1	-3	1	0	-1	2
1761	14,6	-1,3	-1,2	-17	-1	3	0	-1	0
1763 (A)	19,6	-1	-1,2	0	0	0	0	0	0
1763 (B)	19,6	-1	-1,2	203	-1	1	0	0	1
1763 (C)	19,6	-1	-1,2	-20	-1	-2	0	-2	0
1763 (D)	19,6	-1	-1,2	158	15	-5	0	0	0
1764	19,5	-1,7	-0,6	0	0	0	0	0	0
1766	19,6	-0,4	-0,6	203	-1	1	0	1	0
1768	19,6	-0,4	-1,2	-20	-1	-2	0	0	0
1770	19,5	-1,7	-1,2	158	15	-5	0	-3	10
1772 (A)	4,8	-2,8	-1,2	-17	0	0	0	0	0
1772 (B)	4,8	-2,8	-1,2	28	0	0	0	-1	0
1772 (C)	4,8	-2,8	-1,2	-15	-1	0	0	0	0
1772 (D)	4,8	-2,8	-1,2	17	1	1	0	-3	0
1773	4,8	-3,5	-0,6	-17	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1775	4,8	-2,1	-0,6	29	0	1	0	0	0
1777	4,8	-2,1	-1,2	-15	-1	0	0	0	1
1779	4,8	-3,5	-1,2	17	1	2	0	-2	0
1781 (A)	9,6	-3	-1,2	-38	0	0	0	-1	0
1781 (B)	9,6	-3	-1,2	41	0	0	0	-1	0
1781 (C)	9,6	-3	-1,2	-32	0	-4	0	-4	0
1781 (D)	9,6	-3	-1,2	21	0	2	0	-4	0
1782	9,6	-3,7	-0,6	-38	0	0	0	0	0
1784	9,7	-2,3	-0,6	41	0	1	0	0	0
1786	9,7	-2,3	-1,2	-32	0	-4	0	-1	0
1788	9,6	-3,7	-1,2	21	0	2	0	-3	0
1790 (A)	14,5	-3,3	-1,2	33	1	-1	0	0	0
1790 (B)	14,5	-3,3	-1,2	28	0	1	0	-1	0
1790 (C)	14,5	-3,3	-1,2	-12	-3	1	0	0	0
1790 (D)	14,5	-3,3	-1,2	13	-1	2	0	-3	0
1791	14,4	-4	-0,6	34	1	0	0	0	0
1793	14,5	-2,6	-0,6	28	0	1	0	0	0
1795	14,5	-2,6	-1,2	-12	-3	1	0	-1	2
1797	14,4	-4	-1,2	13	-1	2	0	-2	-1
1799 (A)	19,3	-3,8	-1,2	-13	0	0	0	0	0
1799 (B)	19,3	-3,8	-1,2	180	-1	1	0	0	1
1799 (C)	19,3	-3,8	-1,2	-21	-1	-2	0	-2	0
1799 (D)	19,3	-3,8	-1,2	202	15	-4	0	1	0
1800	19,2	-4,5	-0,6	-13	0	1	0	0	0
1802	19,3	-3,1	-0,6	180	-1	1	0	1	0
1804	19,3	-3,1	-1,2	-21	-1	-2	0	0	0
1806	19,2	-4,5	-1,2	202	15	-4	0	-1	10
2057 (A)	24,8	1,1	-1,2	373	-23	-3	0	-3	0
2057 (B)	24,8	1,1	-1,2	529	-24	-5	0	-3	0
2057 (C)	24,8	1,1	-1,2	110	-1	0	0	1	0
2057 (D)	24,8	1,1	-1,2	29	0	0	0	0	0
2058	24,9	1,8	-1,2	373	-23	-4	0	-1	16
2060	24,7	0,4	-1,2	529	-24	-4	0	-6	-16
2062	24,8	1,1	0	52	-11	-6	0	-1	0
2064	24,9	1,8	-0,6	111	-1	0	0	0	1
2066	24,7	0,4	-0,6	30	0	0	0	0	0
2068 (A)	24,4	-1,6	-1,2	22	0	-2	0	-2	0
2068 (B)	24,4	-1,6	-1,2	141	-24	-6	0	-3	0
2068 (C)	24,4	-1,6	-1,2	181	-1	0	0	1	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Min Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2 (A)	5	4,1	0	8	7	3	0	-1	0
2 (B)	5	4,1	0	-2	0	0	0	0	0
17 (A)	5	4,1	-1,2	-22	-5	-3	0	-1	-2
17 (B)	5	4,1	-1,2	-31	0	1	0	2	1
23	5	4,1	-0,6	-6	2	0	0	0	1
37 (A)	4,9	1,3	0	50	-2	2	0	-1	1
37 (B)	4,9	1,3	0	-13	0	0	0	0	0
37 (C)	4,9	1,3	0	11	0	1	0	0	0
47 (A)	4,9	1,3	-1,2	-61	-2	-3	0	-1	-1
47 (B)	4,9	1,3	-1,2	-25	1	0	0	1	1
47 (C)	4,9	1,3	-1,2	-42	1	-4	0	2	-1
53	4,9	1,3	-0,6	-2	-2	0	0	0	0
67 (A)	4,9	-1,4	0	47	1	3	0	-1	-1
67 (B)	4,9	-1,4	0	-23	0	1	0	0	0
67 (C)	4,9	-1,4	0	19	0	1	0	0	0
77 (A)	4,9	-1,4	-1,2	-56	-2	-4	0	-1	-2
77 (B)	4,9	-1,4	-1,2	-16	1	3	0	1	1
77 (C)	4,9	-1,4	-1,2	-32	1	-4	0	2	-1
83	4,9	-1,4	-0,6	0	0	0	0	0	0
97 (A)	4,8	-4,2	0	13	-4	2	0	-1	0
97 (B)	4,8	-4,2	0	-36	0	1	0	0	0
107 (A)	4,8	-4,2	-1,2	-19	2	-3	0	-1	1
107 (B)	4,8	-4,2	-1,2	11	-1	0	0	-1	-1
113	4,8	-4,2	-0,6	-2	-1	0	0	0	0
126 (A)	10	3,9	0	15	8	-2	0	0	0
126 (B)	10	3,9	0	0	0	0	0	0	0
138 (A)	10	3,9	-1,2	-31	-14	12	0	2	-6
138 (B)	10	3,9	-1,2	-41	1	1	0	0	-1
144	10	3,9	-0,6	-3	2	0	0	0	1
153 (A)	9,9	1,1	0	66	-3	-1	0	0	1
153 (B)	9,9	1,1	0	-6	0	0	0	0	0
153 (C)	9,9	1,1	0	15	0	1	0	1	0
161 (A)	9,9	1,1	-1,2	-82	-10	8	0	2	-4
161 (B)	9,9	1,1	-1,2	-31	0	0	0	1	0
161 (C)	9,9	1,1	-1,2	-59	1	-4	0	2	-1
167	9,9	1,1	-0,6	0	-2	0	0	0	0
176 (A)	9,7	-1,6	0	63	3	-1	0	0	0
176 (B)	9,7	-1,6	0	-31	0	1	0	0	0
176 (C)	9,7	-1,6	0	29	0	1	0	1	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
184 (A)	9,7	-1,6	-1,2	-72	-11	9	0	2	-4
184 (B)	9,7	-1,6	-1,2	-23	1	2	0	0	1
184 (C)	9,7	-1,6	-1,2	-48	1	-4	0	3	-1
190	9,7	-1,6	-0,6	2	0	0	0	0	0
199 (A)	9,6	-4,4	0	22	-3	-2	0	0	0
199 (B)	9,6	-4,4	0	-46	0	1	0	0	0
207 (A)	9,6	-4,4	-1,2	-21	0	2	0	1	1
207 (B)	9,6	-4,4	-1,2	14	1	0	0	-2	1
213	9,6	-4,4	-0,6	2	-2	0	0	0	0
222 (A)	15	3,5	0	16	8	-9	0	2	0
222 (B)	15	3,5	0	-53	0	0	0	0	0
234 (A)	15	3,5	-1,2	-20	-27	25	0	5	-9
234 (B)	15	3,5	-1,2	-18	-1	0	0	0	1
240	15	3,5	-0,6	1	2	0	0	-1	1
249 (A)	14,8	0,8	0	53	-1	-7	0	1	1
249 (B)	14,8	0,8	0	7	0	0	0	0	0
249 (C)	14,8	0,8	0	-43	0	1	0	1	0
257 (A)	14,8	0,8	-1,2	-44	-2	9	0	2	-1
257 (B)	14,8	0,8	-1,2	-54	-4	-1	0	1	-5
257 (C)	14,8	0,8	-1,2	-46	-1	-5	0	2	1
263	14,8	0,8	-0,6	8	-1	0	0	-1	0
272 (A)	14,6	-2	0	50	4	-7	0	1	-1
272 (B)	14,6	-2	0	-21	0	1	0	0	0
272 (C)	14,6	-2	0	-35	0	1	0	1	0
280 (A)	14,6	-2	-1,2	-39	-4	9	0	2	-2
280 (B)	14,6	-2	-1,2	-73	-4	3	0	1	-5
280 (C)	14,6	-2	-1,2	-38	-1	-5	0	3	1
286	14,6	-2	-0,6	8	1	0	0	-1	0
295 (A)	14,4	-4,7	0	18	-2	-9	0	2	0
295 (B)	14,4	-4,7	0	-37	0	1	0	0	0
303 (A)	14,4	-4,7	-1,2	-13	-1	10	0	2	0
303 (B)	14,4	-4,7	-1,2	-66	-4	3	0	2	-5
309	14,4	-4,7	-0,6	4	-1	0	0	-1	0
318 (A)	20	3,1	0	13	-4	-31	0	6	0
318 (B)	20	3,1	0	-26	0	1	0	1	0
330 (A)	20	3,1	-1,2	-1	8	34	0	7	2
330 (B)	20	3,1	-1,2	-198	16	-2	0	4	-21
336	20	3,1	-0,6	6	1	0	0	-3	-1
345 (A)	19,7	0,3	0	-23	-1	-31	0	6	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
345 (B)	19,7	0,3	0	-174	1	-1	0	-2	3
345 (C)	19,7	0,3	0	-6	0	1	0	0	0
353 (A)	19,7	0,3	-1,2	13	0	27	0	5	0
353 (B)	19,7	0,3	-1,2	-36	-1	2	0	2	-1
353 (C)	19,7	0,3	-1,2	-150	16	-4	0	5	-21
359	19,7	0,3	-0,6	-3	-1	0	0	-3	1
368 (A)	19,4	-2,4	0	-22	3	-30	0	6	-3
368 (B)	19,4	-2,4	0	-199	1	-1	0	-3	3
368 (C)	19,4	-2,4	0	8	0	1	0	1	0
376 (A)	19,4	-2,4	-1,2	13	1	26	0	5	0
376 (B)	19,4	-2,4	-1,2	-32	-1	3	0	2	-1
376 (C)	19,4	-2,4	-1,2	-64	17	-1	0	3	-22
382	19,4	-2,4	-0,6	-3	2	0	0	-3	-1
391 (A)	19,1	-5,1	0	2	6	-91	0	18	-2
391 (B)	19,1	-5,1	0	-173	1	-2	0	-3	3
399 (A)	19,1	-5,1	-1,2	0	-4	56	0	11	-2
399 (B)	19,1	-5,1	-1,2	-7	-1	2	0	0	-1
405	19,1	-5,1	-0,6	2	1	0	0	-3	1
414 (A)	25	2,5	0	-651	-60	-57	0	12	-5
414 (B)	25	2,5	0	-5	1	-1	0	1	-1
414 (C)	25	2,5	0	-37	0	-1	0	1	0
426 (A)	25	2,5	-1,2	-413	51	57	0	11	-2
426 (B)	25	2,5	-1,2	19	0	0	0	-3	0
432	25	2,5	-0,6	-532	-5	0	0	-6	-20
441 (A)	24,6	-0,3	0	-773	-59	-75	0	15	14
441 (B)	24,6	-0,3	0	-5	1	1	0	1	1
441 (C)	24,6	-0,3	0	-105	-1	1	0	-2	2
441 (D)	24,6	-0,3	0	-4	-11	-8	0	10	15
441 (E)	24,6	-0,3	0	-34	0	0	0	0	0
449 (A)	24,6	-0,3	-1,2	-393	-12	73	0	14	-27
449 (B)	24,6	-0,3	-1,2	-26	0	7	0	6	0
449 (C)	24,6	-0,3	-1,2	-141	-23	-16	0	17	32
455	24,6	-0,3	-0,6	-583	-36	-1	0	-7	-14
464 (A)	24,2	-3	0	-638	-56	-74	0	15	13
464 (B)	24,2	-3	0	-4	-11	-7	0	-10	-15
464 (C)	24,2	-3	0	-194	-1	0	0	-1	2
464 (D)	24,2	-3	0	-62	-12	-5	0	8	16
464 (E)	24,2	-3	0	-37	0	0	0	0	0
472 (A)	24,2	-3	-1,2	-306	9	15	0	3	4
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
472 (B)	24,2	-3	-1,2	-22	0	7	0	6	0
472 (C)	24,2	-3	-1,2	-619	-24	-19	0	18	33
478	24,2	-3	-0,6	-460	-36	-1	0	-7	-14
487 (A)	23,9	-5,7	0	-442	33	-78	0	16	5
487 (B)	23,9	-5,7	0	-62	-12	-3	0	-3	-16
487 (C)	23,9	-5,7	0	-133	-1	-1	0	1	2
495 (A)	23,9	-5,7	-1,2	-263	-42	12	0	2	-3
495 (B)	23,9	-5,7	-1,2	-453	-25	6	0	1	-34
501	23,9	-5,7	-0,6	-333	-4	0	0	-8	9
1700 (A)	5	2,7	-1,2	-13	0	-1	0	0	0
1700 (B)	5	2,7	-1,2	-2	0	-1	0	0	0
1700 (C)	5	2,7	-1,2	-31	0	1	0	3	0
1700 (D)	5	2,7	-1,2	-25	1	-1	0	1	0
1701	5	2	-0,6	-13	0	0	0	0	0
1703	5	3,4	-0,6	-2	0	0	0	0	0
1705	5	3,4	-1,2	-31	0	1	0	2	0
1707	5	2	-1,2	-25	1	0	0	1	0
1709 (A)	9,9	2,5	-1,2	-6	0	-1	0	1	0
1709 (B)	9,9	2,5	-1,2	0	0	-1	0	0	0
1709 (C)	9,9	2,5	-1,2	-41	1	2	0	3	0
1709 (D)	9,9	2,5	-1,2	-31	0	-1	0	1	0
1710	9,9	1,8	-0,6	-6	0	0	0	0	0
1712	10	3,2	-0,6	0	0	-1	0	0	0
1714	10	3,2	-1,2	-41	1	2	0	1	-1
1716	9,9	1,8	-1,2	-31	0	0	0	1	0
1718 (A)	14,9	2,2	-1,2	7	0	0	0	0	0
1718 (B)	14,9	2,2	-1,2	-53	0	0	0	0	0
1718 (C)	14,9	2,2	-1,2	-18	-1	1	0	1	0
1718 (D)	14,9	2,2	-1,2	-54	-4	-2	0	3	0
1719	14,8	1,5	-0,6	7	0	0	0	0	0
1721	15	2,8	-0,6	-53	0	0	0	0	0
1723	15	2,8	-1,2	-18	-1	0	0	0	1
1725	14,8	1,5	-1,2	-54	-4	-1	0	2	-2
1727 (A)	19,9	1,7	-1,2	-174	1	-2	0	0	1
1727 (B)	19,9	1,7	-1,2	-27	0	0	0	0	0
1727 (C)	19,9	1,7	-1,2	-198	16	-2	0	2	1
1727 (D)	19,9	1,7	-1,2	-36	-1	1	0	-1	0
1728	19,8	1	-0,6	-174	1	-1	0	-1	2
1730	19,9	2,4	-0,6	-27	0	1	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1732	19,9	2,4	-1,2	-198	16	-2	0	3	-10
1734	19,8	1	-1,2	-36	-1	2	0	1	0
1736 (A)	4,9	-0,1	-1,2	-23	0	0	0	-1	0
1736 (B)	4,9	-0,1	-1,2	11	0	0	0	0	0
1736 (C)	4,9	-0,1	-1,2	-42	1	-3	0	-3	0
1736 (D)	4,9	-0,1	-1,2	-16	1	2	0	-3	0
1737	4,9	-0,8	-0,6	-23	0	1	0	0	0
1739	4,9	0,6	-0,6	11	0	0	0	0	0
1741	4,9	0,6	-1,2	-42	1	-4	0	-1	0
1743	4,9	-0,8	-1,2	-16	1	3	0	-1	0
1745 (A)	9,8	-0,3	-1,2	-32	0	1	0	-1	0
1745 (B)	9,8	-0,3	-1,2	14	0	1	0	-1	0
1745 (C)	9,8	-0,3	-1,2	-59	1	-3	0	-3	0
1745 (D)	9,8	-0,3	-1,2	-23	1	1	0	-3	0
1746	9,8	-0,9	-0,6	-32	0	1	0	0	0
1748	9,8	0,4	-0,6	14	0	1	0	0	0
1750	9,8	0,4	-1,2	-59	1	-3	0	-1	-1
1752	9,8	-0,9	-1,2	-23	1	2	0	-1	1
1754 (A)	14,7	-0,6	-1,2	-21	0	0	0	-1	0
1754 (B)	14,7	-0,6	-1,2	-43	0	1	0	-1	0
1754 (C)	14,7	-0,6	-1,2	-46	-1	-4	0	-4	0
1754 (D)	14,7	-0,6	-1,2	-73	-4	2	0	-2	0
1755	14,6	-1,3	-0,6	-21	0	1	0	0	0
1757	14,7	0,1	-0,6	-43	0	1	0	0	0
1759	14,7	0,1	-1,2	-46	-1	-4	0	-1	0
1761	14,6	-1,3	-1,2	-73	-4	2	0	0	-2
1763 (A)	19,6	-1	-1,2	-199	1	-2	0	0	1
1763 (B)	19,6	-1	-1,2	-6	0	0	0	0	0
1763 (C)	19,6	-1	-1,2	-150	16	-3	0	0	1
1763 (D)	19,6	-1	-1,2	-32	-1	2	0	-2	0
1764	19,5	-1,7	-0,6	-199	1	-1	0	-1	2
1766	19,6	-0,4	-0,6	-6	0	0	0	0	0
1768	19,6	-0,4	-1,2	-150	16	-4	0	3	-10
1770	19,5	-1,7	-1,2	-32	-1	3	0	0	0
1772 (A)	4,8	-2,8	-1,2	-36	0	0	0	-1	0
1772 (B)	4,8	-2,8	-1,2	19	0	0	0	0	0
1772 (C)	4,8	-2,8	-1,2	-32	1	-4	0	-3	0
1772 (D)	4,8	-2,8	-1,2	11	-1	-1	0	0	0
1773	4,8	-3,5	-0,6	-36	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1775	4,8	-2,1	-0,6	19	0	0	0	0	0
1777	4,8	-2,1	-1,2	-32	1	-4	0	0	0
1779	4,8	-3,5	-1,2	11	-1	-1	0	-1	-1
1781 (A)	9,6	-3	-1,2	-46	0	0	0	-1	0
1781 (B)	9,6	-3	-1,2	29	0	1	0	-1	0
1781 (C)	9,6	-3	-1,2	-48	1	-3	0	-2	0
1781 (D)	9,6	-3	-1,2	14	1	-1	0	-1	0
1782	9,6	-3,7	-0,6	-46	0	1	0	-1	0
1784	9,7	-2,3	-0,6	29	0	1	0	0	0
1786	9,7	-2,3	-1,2	-48	1	-4	0	0	-1
1788	9,6	-3,7	-1,2	14	1	0	0	-2	0
1790 (A)	14,5	-3,3	-1,2	-38	0	0	0	-1	0
1790 (B)	14,5	-3,3	-1,2	-35	0	1	0	-1	0
1790 (C)	14,5	-3,3	-1,2	-38	-1	-4	0	-4	0
1790 (D)	14,5	-3,3	-1,2	-66	-4	2	0	-1	0
1791	14,4	-4	-0,6	-38	0	1	0	-1	0
1793	14,5	-2,6	-0,6	-35	0	1	0	0	0
1795	14,5	-2,6	-1,2	-38	-1	-5	0	-1	0
1797	14,4	-4	-1,2	-66	-4	2	0	1	-2
1799 (A)	19,3	-3,8	-1,2	-173	1	-2	0	1	1
1799 (B)	19,3	-3,8	-1,2	8	0	0	0	0	0
1799 (C)	19,3	-3,8	-1,2	-64	17	0	0	2	1
1799 (D)	19,3	-3,8	-1,2	-7	-1	1	0	-2	0
1800	19,2	-4,5	-0,6	-173	1	-2	0	-1	2
1802	19,3	-3,1	-0,6	8	0	1	0	0	0
1804	19,3	-3,1	-1,2	-64	17	-1	0	2	-10
1806	19,2	-4,5	-1,2	-7	-1	2	0	-1	0
2057 (A)	24,8	1,1	-1,2	19	0	1	0	-2	0
2057 (B)	24,8	1,1	-1,2	-26	0	6	0	-3	0
2057 (C)	24,8	1,1	-1,2	-37	0	-1	0	0	0
2057 (D)	24,8	1,1	-1,2	-105	-1	1	0	0	0
2058	24,9	1,8	-1,2	19	0	1	0	-3	0
2060	24,7	0,4	-1,2	-26	0	7	0	1	0
2062	24,8	1,1	0	-5	1	0	0	1	0
2064	24,9	1,8	-0,6	-37	0	-1	0	0	0
2066	24,7	0,4	-0,6	-105	-1	1	0	-1	1
2068 (A)	24,4	-1,6	-1,2	-141	-23	-15	0	-4	0
2068 (B)	24,4	-1,6	-1,2	-22	0	5	0	-3	0
2068 (C)	24,4	-1,6	-1,2	-34	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

10.2.2 Bracings F & stiffners: Span 2

Max Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
652 (A)	37,3	0,4	0	83	73	-3	0	1	-10
652 (B)	37,3	0,4	0	-7	0	1	0	0	0
670 (A)	37,3	0,4	-1,2	-15	-6	0	0	0	-2
670 (B)	37,3	0,4	-1,2	47	8	-1	0	-1	-11
679	37,3	0,4	-0,6	26	23	0	0	0	5
692 (A)	36,7	-2,3	0	114	75	-15	0	3	-18
692 (B)	36,7	-2,3	0	69	-1	0	0	0	0
692 (C)	36,7	-2,3	0	15	0	1	0	1	0
704 (A)	36,7	-2,3	-1,2	-20	-24	16	0	3	-5
704 (B)	36,7	-2,3	-1,2	-27	0	4	0	2	0
704 (C)	36,7	-2,3	-1,2	-3	8	-1	0	-1	-11
713	36,7	-2,3	-0,6	43	25	0	0	-2	4
726 (A)	36,2	-5,0	0	117	79	-15	0	3	-18
726 (B)	36,2	-5,0	0	56	-1	1	0	0	-1
726 (C)	36,2	-5,0	0	46	0	1	0	1	0
738 (A)	36,2	-5,0	-1,2	-12	-28	16	0	3	-6
738 (B)	36,2	-5,0	-1,2	-19	0	4	0	1	0
738 (C)	36,2	-5,0	-1,2	-27	9	0	0	0	-11
747	36,2	-5,0	-0,6	49	25	0	0	-2	4
760 (A)	35,6	-7,7	0	38	27	-10	0	2	-6
760 (B)	35,6	-7,7	0	34	-1	0	0	0	-1
772 (A)	35,6	-7,7	-1,2	17	-15	10	0	2	-4
772 (B)	35,6	-7,7	-1,2	23	0	1	0	-1	0
781	35,6	-7,7	-0,6	26	6	0	0	-1	2
794 (A)	43,4	-1,0	0	85	76	3	0	-1	-11
794 (B)	43,4	-1,0	0	-7	0	1	0	0	0
812 (A)	43,4	-1,0	-1,2	-14	-6	0	0	0	-2
812 (B)	43,4	-1,0	-1,2	55	-10	-1	0	-1	13
821	43,4	-1,0	-0,6	27	24	0	0	0	5
834 (A)	42,7	-3,6	0	114	80	16	0	-3	-19
834 (B)	42,7	-3,6	0	73	1	0	0	0	0
834 (C)	42,7	-3,6	0	14	0	1	0	1	0
846 (A)	42,7	-3,6	-1,2	-20	-26	-17	0	-3	-5
846 (B)	42,7	-3,6	-1,2	-26	-1	4	0	2	-1
846 (C)	42,7	-3,6	-1,2	5	-9	-1	0	-1	12
855	42,7	-3,6	-0,6	44	27	0	0	2	4
868 (A)	42,1	-6,3	0	118	84	15	0	-3	-19
868 (B)	42,1	-6,3	0	62	1	1	0	0	1
868 (C)	42,1	-6,3	0	45	0	1	0	1	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
880 (A)	42,1	-6,3	-1,2	-14	-29	-16	0	-3	-6
880 (B)	42,1	-6,3	-1,2	-19	-1	5	0	1	-1
880 (C)	42,1	-6,3	-1,2	-23	-10	0	0	-1	12
889	42,1	-6,3	-0,6	49	27	0	0	2	5
902 (A)	41,5	-9	0	36	30	9	0	-2	-6
902 (B)	41,5	-9	0	40	1	0	0	0	1
914 (A)	41,5	-9	-1,2	17	-15	-9	0	-2	-4
914 (B)	41,5	-9	-1,2	23	-1	1	0	-1	-1
923	41,5	-9	-0,6	24	7	0	0	1	2
936 (A)	49,4	-2,5	0	131	24	-123	0	25	-7
936 (B)	49,4	-2,5	0	202	-1	4	0	6	0
954 (A)	49,4	-2,5	-1,2	47	11	123	0	25	-2
954 (B)	49,4	-2,5	-1,2	2	-1	-2	0	-1	1
963	49,4	-2,5	-0,6	89	17	0	0	-12	-2
976 (A)	48,7	-5,2	0	51	39	-176	0	35	-31
976 (B)	48,7	-5,2	0	20	0	1	0	1	0
976 (C)	48,7	-5,2	0	234	-1	3	0	4	0
988 (A)	48,7	-5,2	-1,2	81	6	176	0	35	-11
988 (B)	48,7	-5,2	-1,2	79	34	0	0	-3	45
988 (C)	48,7	-5,2	-1,2	-23	-1	-3	0	1	1
997	48,7	-5,2	-0,6	65	23	0	0	-18	-16
1010 (A)	48	-7,8	0	66	40	-175	0	35	-33
1010 (B)	48	-7,8	0	-3	0	0	0	0	0
1010 (C)	48	-7,8	0	212	-1	2	0	4	0
1022 (A)	48	-7,8	-1,2	85	8	175	0	35	-10
1022 (B)	48	-7,8	-1,2	181	34	-4	0	-7	46
1022 (C)	48	-7,8	-1,2	-21	-1	-1	0	1	1
1031	48	-7,8	-0,6	75	24	0	0	-17	-17
1044 (A)	47,2	-10,5	0	13	7	-20	0	4	-1
1044 (B)	47,2	-10,5	0	-10	0	1	0	1	0
1056 (A)	47,2	-10,5	-1,2	20	-10	151	0	30	-6
1056 (B)	47,2	-10,5	-1,2	226	35	-4	0	-3	47
1065	47,2	-10,5	-0,6	6	-2	0	0	-2	1
1078 (A)	55,4	-4,3	0	-280	-45	20	0	-4	-5
1078 (B)	55,4	-4,3	0	46	17	-6	0	7	-24
1078 (C)	55,4	-4,3	0	100	2	0	0	0	-4
1096 (A)	55,4	-4,3	-1,2	-193	47	-20	0	-4	6
1096 (B)	55,4	-4,3	-1,2	355	38	-4	0	1	-53
1105	55,4	-4,3	-0,6	-236	1	0	0	2	-14
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1118 (A)	54,6	-6,9	0	-358	-1	16	0	-3	-2
1118 (B)	54,6	-6,9	0	46	17	-5	0	-8	24
1118 (C)	54,6	-6,9	0	31	0	0	0	0	0
1118 (D)	54,6	-6,9	0	10	0	0	0	-1	1
1118 (E)	54,6	-6,9	0	169	2	0	0	1	-4
1130 (A)	54,6	-6,9	-1,2	-249	7	-16	0	-3	4
1130 (B)	54,6	-6,9	-1,2	496	39	-3	0	-8	53
1130 (C)	54,6	-6,9	-1,2	23	1	-3	0	1	-1
1139	54,6	-6,9	-0,6	-304	3	0	0	2	0
1152 (A)	53,8	-9,5	0	-335	2	14	0	-3	-3
1152 (B)	53,8	-9,5	0	10	0	2	0	2	-1
1152 (C)	53,8	-9,5	0	25	0	0	0	0	0
1152 (D)	53,8	-9,5	0	17	-1	1	0	-2	1
1152 (E)	53,8	-9,5	0	94	2	-1	0	2	-4
1164 (A)	53,8	-9,5	-1,2	-216	-17	-51	0	-10	-28
1164 (B)	53,8	-9,5	-1,2	132	39	-4	0	-9	53
1164 (C)	53,8	-9,5	-1,2	0	0	-2	0	0	-1
1173	53,8	-9,5	-0,6	-289	5	0	0	1	0
1186 (A)	53	-12,1	0	-251	42	8	0	-2	3
1186 (B)	53	-12,1	0	17	-1	3	0	4	-1
1186 (C)	53	-12,1	0	31	0	-1	0	1	0
1198 (A)	53	-12,1	-1,2	-166	-37	-31	0	-6	-7
1198 (B)	53	-12,1	-1,2	-42	1	4	0	2	1
1207	53	-12,1	-0,6	-230	2	0	0	1	12
1817 (A)	37	-1	-1,2	68	-1	0	0	0	1
1817 (B)	37	-1	-1,2	-8	0	0	0	-1	0
1817 (C)	37	-1	-1,2	47	8	0	0	-2	1
1817 (D)	37	-1	-1,2	-27	0	4	0	-3	0
1818	36,9	-1,6	-0,6	68	-1	0	0	0	0
1820	37,1	-0,3	-0,6	-7	0	1	0	0	0
1822	37,1	-0,3	-1,2	47	8	-1	0	-1	-5
1824	36,9	-1,6	-1,2	-27	0	4	0	-1	0
1826 (A)	43	-2,3	-1,2	72	1	0	0	0	-1
1826 (B)	43	-2,3	-1,2	-8	0	0	0	-1	0
1826 (C)	43	-2,3	-1,2	55	-10	0	0	-2	-1
1826 (D)	43	-2,3	-1,2	-26	-1	4	0	-4	0
1827	42,9	-3	-0,6	73	1	0	0	0	0
1829	43,2	-1,6	-0,6	-8	0	1	0	0	0
1831	43,2	-1,6	-1,2	55	-10	-1	0	-1	6
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1833	42,9	-3	-1,2	-26	-1	4	0	-1	0
1835 (A)	49	-3,8	-1,2	19	0	1	0	-1	0
1835 (B)	49	-3,8	-1,2	202	-1	4	0	-2	2
1835 (C)	49	-3,8	-1,2	2	-1	-2	0	-4	0
1835 (D)	49	-3,8	-1,2	79	34	-1	0	-3	-1
1836	48,9	-4,5	-0,6	20	0	1	0	0	0
1838	49,2	-3,2	-0,6	202	-1	4	0	2	1
1840	49,2	-3,2	-1,2	2	-1	-2	0	-3	1
1842	48,9	-4,5	-1,2	79	34	0	0	-3	22
1853 (A)	36,5	-3,7	-1,2	55	-1	0	0	0	1
1853 (B)	36,5	-3,7	-1,2	15	0	1	0	-1	0
1853 (C)	36,5	-3,7	-1,2	-3	8	-1	0	-2	1
1853 (D)	36,5	-3,7	-1,2	-19	0	4	0	-4	0
1854	36,3	-4,3	-0,6	56	-1	0	0	0	0
1856	36,6	-3	-0,6	15	0	1	0	0	0
1858	36,6	-3	-1,2	-3	8	-1	0	-2	-5
1860	36,3	-4,3	-1,2	-19	0	4	0	-2	0
1862 (A)	42,4	-5	-1,2	62	1	0	0	0	-1
1862 (B)	42,4	-5	-1,2	14	0	1	0	-1	0
1862 (C)	42,4	-5	-1,2	5	-9	-1	0	-2	-1
1862 (D)	42,4	-5	-1,2	-19	-1	4	0	-5	0
1863	42,3	-5,7	-0,6	62	1	0	0	0	0
1865	42,6	-4,3	-0,6	14	0	1	0	0	0
1867	42,6	-4,3	-1,2	5	-9	-1	0	-2	6
1869	42,3	-5,7	-1,2	-19	-1	4	0	-2	0
1871 (A)	48,3	-6,5	-1,2	-3	0	0	0	0	0
1871 (B)	48,3	-6,5	-1,2	234	-1	2	0	-1	2
1871 (C)	48,3	-6,5	-1,2	-23	-1	-2	0	-2	0
1871 (D)	48,3	-6,5	-1,2	181	34	-5	0	0	-1
1872	48,1	-7,2	-0,6	-3	0	0	0	0	0
1874	48,5	-5,8	-0,6	234	-1	3	0	2	1
1876	48,5	-5,8	-1,2	-23	-1	-3	0	-1	1
1878	48,1	-7,2	-1,2	181	34	-5	0	-4	22
1889 (A)	35,9	-6,4	-1,2	34	-1	-1	0	0	1
1889 (B)	35,9	-6,4	-1,2	46	0	0	0	0	0
1889 (C)	35,9	-6,4	-1,2	-27	9	1	0	0	1
1889 (D)	35,9	-6,4	-1,2	23	0	0	0	-2	0
1890	35,8	-7	-0,6	34	-1	0	0	0	0
1892	36	-5,7	-0,6	46	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1894	36	-5,7	-1,2	-27	9	0	0	0	-5
1896	35,8	-7	-1,2	23	0	1	0	-2	0
1898 (A)	41,8	-7,7	-1,2	40	1	-1	0	0	-1
1898 (B)	41,8	-7,7	-1,2	45	0	0	0	0	0
1898 (C)	41,8	-7,7	-1,2	-23	-10	1	0	0	-1
1898 (D)	41,8	-7,7	-1,2	23	-1	0	0	-2	0
1899	41,6	-8,3	-0,6	40	1	0	0	0	0
1901	41,9	-7	-0,6	45	0	0	0	0	0
1903	41,9	-7	-1,2	-23	-10	1	0	0	6
1905	41,6	-8,3	-1,2	23	-1	1	0	-2	0
1907 (A)	47,6	-9,1	-1,2	-10	0	0	0	0	0
1907 (B)	47,6	-9,1	-1,2	212	-1	2	0	0	2
1907 (C)	47,6	-9,1	-1,2	-21	-1	0	0	0	0
1907 (D)	47,6	-9,1	-1,2	226	35	-5	0	3	-1
1908	47,4	-9,8	-0,6	-10	0	0	0	0	0
1910	47,8	-8,5	-0,6	212	-1	2	0	2	1
1912	47,8	-8,5	-1,2	-21	-1	-1	0	0	1
1914	47,4	-9,8	-1,2	226	35	-5	0	0	23
2090 (A)	55	-5,6	-1,2	355	38	-3	0	-4	0
2090 (B)	55	-5,6	-1,2	496	39	-4	0	-3	0
2090 (C)	55	-5,6	-1,2	100	2	0	0	1	0
2090 (D)	55	-5,6	-1,2	31	0	0	0	0	0
2091	55,2	-4,9	-1,2	355	38	-3	0	-1	-26
2093	54,8	-6,2	-1,2	496	39	-3	0	-5	26
2095	55	-5,6	0	46	17	-5	0	-1	0
2097	55,2	-4,9	-0,6	100	2	0	0	0	-2
2099	54,8	-6,2	-0,6	31	0	0	0	0	0
2101 (A)	54,2	-8,2	-1,2	23	1	-2	0	-2	0
2101 (B)	54,2	-8,2	-1,2	132	39	-5	0	-3	0
2101 (C)	54,2	-8,2	-1,2	169	2	0	0	1	0
2101 (D)	54,2	-8,2	-1,2	25	0	0	0	0	0
2102	54,4	-7,5	-1,2	23	1	-2	0	-1	0
2104	54	-8,9	-1,2	132	39	-5	0	-6	27
2106	54,2	-8,2	0	10	0	1	0	0	0
2108	54,4	-7,5	-0,6	169	2	0	0	1	-2
2110	54	-8,9	-0,6	25	0	0	0	0	0
2112 (A)	53,4	-10,8	-1,2	0	0	-1	0	-2	0
2112 (B)	53,4	-10,8	-1,2	-42	1	3	0	-2	0
2112 (C)	53,4	-10,8	-1,2	93	2	-1	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2112 (D)	53,4	-10,8	-1,2	30	0	0	0	0	0
2113	53,6	-10,2	-1,2	0	0	-2	0	-1	0
2115	53,2	-11,5	-1,2	-42	1	3	0	0	0
2117	53,4	-10,8	0	17	-1	2	0	1	0
2119	53,6	-10,2	-0,6	93	2	-1	0	1	-2
2121	53,2	-11,5	-0,6	30	0	-1	0	0	0
1781 (D)	9,6	-3	-1,2	21	0	2	0	-4	0
1782	9,6	-3,7	-0,6	-38	0	0	0	0	0
1784	9,7	-2,3	-0,6	41	0	1	0	0	0
1786	9,7	-2,3	-1,2	-32	0	-4	0	-1	0
1788	9,6	-3,7	-1,2	21	0	2	0	-3	0
1790 (A)	14,5	-3,3	-1,2	33	1	-1	0	0	0
1790 (B)	14,5	-3,3	-1,2	28	0	1	0	-1	0
1790 (C)	14,5	-3,3	-1,2	-12	-3	1	0	0	0
1790 (D)	14,5	-3,3	-1,2	13	-1	2	0	-3	0
1791	14,4	-4	-0,6	34	1	0	0	0	0
1793	14,5	-2,6	-0,6	28	0	1	0	0	0
1795	14,5	-2,6	-1,2	-12	-3	1	0	-1	2
1797	14,4	-4	-1,2	13	-1	2	0	-2	-1
1799 (A)	19,3	-3,8	-1,2	-13	0	0	0	0	0
1799 (B)	19,3	-3,8	-1,2	180	-1	1	0	0	1
1799 (C)	19,3	-3,8	-1,2	-21	-1	-2	0	-2	0
1799 (D)	19,3	-3,8	-1,2	202	15	-4	0	1	0
1800	19,2	-4,5	-0,6	-13	0	1	0	0	0
1802	19,3	-3,1	-0,6	180	-1	1	0	1	0
1804	19,3	-3,1	-1,2	-21	-1	-2	0	0	0
1806	19,2	-4,5	-1,2	202	15	-4	0	-1	10
2057 (A)	24,8	1,1	-1,2	373	-23	-3	0	-3	0
2057 (B)	24,8	1,1	-1,2	529	-24	-5	0	-3	0
2057 (C)	24,8	1,1	-1,2	110	-1	0	0	1	0
2057 (D)	24,8	1,1	-1,2	29	0	0	0	0	0
2058	24,9	1,8	-1,2	373	-23	-4	0	-1	16
2060	24,7	0,4	-1,2	529	-24	-4	0	-6	-16
2062	24,8	1,1	0	52	-11	-6	0	-1	0
2064	24,9	1,8	-0,6	111	-1	0	0	0	1
2066	24,7	0,4	-0,6	30	0	0	0	0	0
2068 (A)	24,4	-1,6	-1,2	22	0	-2	0	-2	0
2068 (B)	24,4	-1,6	-1,2	141	-24	-6	0	-3	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2068 (C)	24,4	-1,6	-1,2	181	-1	0	0	1	0
2068 (D)	24,4	-1,6	-1,2	24	0	0	0	0	0
2069	24,5	-1	-1,2	22	0	-2	0	-1	0
2071	24,3	-2,3	-1,2	141	-24	-5	0	-6	-16
2073	24,4	-1,6	0	11	1	1	0	0	0
2075	24,5	-1	-0,6	181	-1	0	0	1	1
2077	24,3	-2,3	-0,6	24	0	0	0	0	0
2079 (A)	24,1	-4,4	-1,2	-2	0	-2	0	-2	0
2079 (B)	24,1	-4,4	-1,2	-44	0	3	0	-2	0
2079 (C)	24,1	-4,4	-1,2	99	-1	-1	0	0	0
2079 (D)	24,1	-4,4	-1,2	30	0	0	0	0	0
2080	24,2	-3,7	-1,2	-2	0	-2	0	-1	0
2082	24	-5	-1,2	-44	0	3	0	0	0
2084	24,1	-4,4	0	17	1	2	0	1	0
2086	24,2	-3,7	-0,6	99	-1	-1	0	1	1
2088	24	-5	-0,6	30	0	-1	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Min Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
652 (A)	37,3	0,4	0	5	10	1	0	0	-1
652 (B)	37,3	0,4	0	-76	-1	1	0	1	-1
670 (A)	37,3	0,4	-1,2	-31	-26	2	0	0	-9
670 (B)	37,3	0,4	-1,2	-26	0	-4	0	1	0
679	37,3	0,4	-0,6	-5	2	0	0	0	1
692 (A)	36,7	-2,3	0	35	-4	3	0	-1	1
692 (B)	36,7	-2,3	0	-3	0	1	0	1	0
692 (C)	36,7	-2,3	0	-63	-1	1	0	1	0
704 (A)	36,7	-2,3	-1,2	-52	1	-4	0	-1	0
704 (B)	36,7	-2,3	-1,2	-65	8	5	0	3	11
704 (C)	36,7	-2,3	-1,2	-61	0	-7	0	3	0
713	36,7	-2,3	-0,6	-5	-2	0	0	0	0
726 (A)	36,2	-5,0	0	33	2	3	0	-1	0
726 (B)	36,2	-5,0	0	-32	0	1	0	1	0
726 (C)	36,2	-5,0	0	-34	-1	1	0	1	-1
738 (A)	36,2	-5,0	-1,2	-50	-3	-4	0	-1	-2
738 (B)	36,2	-5,0	-1,2	-100	8	6	0	3	11
738 (C)	36,2	-5,0	-1,2	-52	0	-5	0	3	0
747	36,2	-5,0	-0,6	-5	0	0	0	0	0
760 (A)	35,6	-7,7	0	19	-10	1	0	0	1
760 (B)	35,6	-7,7	0	-51	0	1	0	0	0
772 (A)	35,6	-7,7	-1,2	-27	3	-1	0	0	1
772 (B)	35,6	-7,7	-1,2	-81	9	2	0	2	12
781	35,6	-7,7	-0,6	-2	-3	0	0	0	-1
794 (A)	43,4	-1,0	0	5	10	-1	0	0	-1
794 (B)	43,4	-1,0	0	-80	1	1	0	1	1
812 (A)	43,4	-1,0	-1,2	-31	-27	-2	0	0	-10
812 (B)	43,4	-1,0	-1,2	-26	-1	-4	0	1	1
821	43,4	-1,0	-0,6	-5	2	0	0	0	1
834 (A)	42,7	-3,6	0	35	-4	-3	0	1	1
834 (B)	42,7	-3,6	0	-3	0	1	0	1	0
834 (C)	42,7	-3,6	0	-70	1	1	0	1	0
846 (A)	42,7	-3,6	-1,2	-51	1	4	0	1	0
846 (B)	42,7	-3,6	-1,2	-63	-10	5	0	3	-12
846 (C)	42,7	-3,6	-1,2	-60	-1	-7	0	3	1
855	42,7	-3,6	-0,6	-5	-2	0	0	0	0
868 (A)	42,1	-6,3	0	33	2	-3	0	1	0
868 (B)	42,1	-6,3	0	-31	0	1	0	1	0
868 (C)	42,1	-6,3	0	-40	1	1	0	1	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
880 (A)	42,1	-6,3	-1,2	-51	-3	3	0	1	-2
880 (B)	42,1	-6,3	-1,2	-102	-9	6	0	4	-12
880 (C)	42,1	-6,3	-1,2	-52	-1	-5	0	3	1
889	42,1	-6,3	-0,6	-5	0	0	0	0	0
902 (A)	41,5	-9	0	19	-9	-1	0	0	1
902 (B)	41,5	-9	0	-51	0	1	0	0	0
914 (A)	41,5	-9	-1,2	-27	3	0	0	0	1
914 (B)	41,5	-9	-1,2	-86	-10	2	0	2	-13
923	41,5	-9	-0,6	-2	-3	0	0	0	-1
936 (A)	49,4	-2,5	0	8	-4	-17	0	3	0
936 (B)	49,4	-2,5	0	-31	0	2	0	1	0
954 (A)	49,4	-2,5	-1,2	6	7	17	0	3	1
954 (B)	49,4	-2,5	-1,2	-227	35	-4	0	4	-47
963	49,4	-2,5	-0,6	7	1	0	0	-2	-1
976 (A)	48,7	-5,2	0	-30	-1	-4	0	1	1
976 (B)	48,7	-5,2	0	-209	1	-2	0	-3	3
976 (C)	48,7	-5,2	0	-4	0	1	0	0	0
988 (A)	48,7	-5,2	-1,2	4	0	4	0	1	1
988 (B)	48,7	-5,2	-1,2	-37	-1	6	0	3	-1
988 (C)	48,7	-5,2	-1,2	-175	35	-4	0	6	-46
997	48,7	-5,2	-0,6	-12	-1	0	0	0	1
1010 (A)	48	-7,8	0	-29	4	-4	0	1	-3
1010 (B)	48	-7,8	0	-231	1	-2	0	-4	3
1010 (C)	48	-7,8	0	12	0	0	0	0	0
1022 (A)	48	-7,8	-1,2	3	1	3	0	1	0
1022 (B)	48	-7,8	-1,2	-32	-1	4	0	2	-1
1022 (C)	48	-7,8	-1,2	-82	36	2	0	2	-47
1031	48	-7,8	-0,6	-12	2	0	0	0	-1
1044 (A)	47,2	-10,5	0	-24	27	-148	0	30	-7
1044 (B)	47,2	-10,5	0	-197	1	-3	0	-5	3
1056 (A)	47,2	-10,5	-1,2	-1	-7	17	0	3	-1
1056 (B)	47,2	-10,5	-1,2	-7	-1	-1	0	-1	-2
1065	47,2	-10,5	-0,6	-2	10	0	0	-15	-1
1078 (A)	55,4	-4,3	0	-662	-60	92	0	-19	-6
1078 (B)	55,4	-4,3	0	-7	-1	-1	0	1	1
1078 (C)	55,4	-4,3	0	-38	0	-1	0	1	0
1096 (A)	55,4	-4,3	-1,2	-410	52	-91	0	-18	-1
1096 (B)	55,4	-4,3	-1,2	18	1	0	0	-3	-1
1105	55,4	-4,3	-0,6	-536	-4	0	0	9	-20
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1118 (A)	54,6	-6,9	0	-754	-53	75	0	-15	12
1118 (B)	54,6	-6,9	0	-7	-1	1	0	1	-1
1118 (C)	54,6	-6,9	0	-96	2	1	0	-1	-3
1118 (D)	54,6	-6,9	0	-5	18	-8	0	10	-24
1118 (E)	54,6	-6,9	0	-34	0	0	0	0	0
1130 (A)	54,6	-6,9	-1,2	-393	-10	-73	0	-14	-24
1130 (B)	54,6	-6,9	-1,2	-28	1	7	0	6	1
1130 (C)	54,6	-6,9	-1,2	-132	39	-15	0	16	-53
1139	54,6	-6,9	-0,6	-573	-32	1	0	7	-13
1152 (A)	53,8	-9,5	0	-611	-50	55	0	-12	12
1152 (B)	53,8	-9,5	0	-5	18	-6	0	-9	24
1152 (C)	53,8	-9,5	0	-182	2	0	0	-1	-3
1152 (D)	53,8	-9,5	0	-60	19	-4	0	7	-25
1152 (E)	53,8	-9,5	0	-38	0	0	0	0	0
1164 (A)	53,8	-9,5	-1,2	-308	8	-17	0	-3	4
1164 (B)	53,8	-9,5	-1,2	-23	1	7	0	6	1
1164 (C)	53,8	-9,5	-1,2	-581	40	-18	0	17	-55
1173	53,8	-9,5	-0,6	-447	-33	1	0	5	-13
1186 (A)	53	-12,1	0	-416	36	34	0	-7	4
1186 (B)	53	-12,1	0	-60	19	-3	0	-3	26
1186 (C)	53	-12,1	0	-125	2	-1	0	1	-3
1198 (A)	53	-12,1	-1,2	-264	-43	-10	0	-2	-3
1198 (B)	53	-12,1	-1,2	-424	41	5	0	1	56
1207	53	-12,1	-0,6	-318	-4	1	0	3	10
1817 (A)	37	-1	-1,2	-3	0	0	0	-1	0
1817 (B)	37	-1	-1,2	-76	-1	1	0	-1	1
1817 (C)	37	-1	-1,2	-26	0	-3	0	-4	0
1817 (D)	37	-1	-1,2	-65	8	4	0	-3	-1
1818	36,9	-1,6	-0,6	-3	0	1	0	0	0
1820	37,1	-0,3	-0,6	-76	-1	1	0	0	0
1822	37,1	-0,3	-1,2	-26	0	-4	0	-2	0
1824	36,9	-1,6	-1,2	-65	8	5	0	0	5
1826 (A)	43	-2,3	-1,2	-3	0	1	0	-1	0
1826 (B)	43	-2,3	-1,2	-81	1	1	0	-1	-1
1826 (C)	43	-2,3	-1,2	-26	-1	-4	0	-4	0
1826 (D)	43	-2,3	-1,2	-63	-10	4	0	-3	1
1827	42,9	-3	-0,6	-3	0	1	0	0	0
1829	43,2	-1,6	-0,6	-81	1	1	0	0	0
1831	43,2	-1,6	-1,2	-26	-1	-4	0	-2	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1833	42,9	-3	-1,2	-63	-10	5	0	0	-6
1835 (A)	49	-3,8	-1,2	-209	1	-2	0	0	2
1835 (B)	49	-3,8	-1,2	-31	0	1	0	-1	0
1835 (C)	49	-3,8	-1,2	-227	35	-4	0	-1	2
1835 (D)	49	-3,8	-1,2	-37	-1	5	0	-5	0
1836	48,9	-4,5	-0,6	-209	1	-2	0	-2	3
1838	49,2	-3,2	-0,6	-31	0	1	0	0	0
1840	49,2	-3,2	-1,2	-227	35	-4	0	1	-22
1842	48,9	-4,5	-1,2	-37	-1	5	0	-1	-1
1853 (A)	36,5	-3,7	-1,2	-32	0	1	0	-1	0
1853 (B)	36,5	-3,7	-1,2	-64	-1	1	0	-1	1
1853 (C)	36,5	-3,7	-1,2	-61	0	-6	0	-5	0
1853 (D)	36,5	-3,7	-1,2	-100	8	5	0	-4	-1
1854	36,3	-4,3	-0,6	-32	0	1	0	0	0
1856	36,6	-3	-0,6	-64	-1	1	0	0	0
1858	36,6	-3	-1,2	-61	0	-6	0	-1	0
1860	36,3	-4,3	-1,2	-100	8	5	0	-1	5
1862 (A)	42,4	-5	-1,2	-32	0	1	0	-1	0
1862 (B)	42,4	-5	-1,2	-71	1	1	0	-1	-1
1862 (C)	42,4	-5	-1,2	-60	-1	-6	0	-6	0
1862 (D)	42,4	-5	-1,2	-102	-9	5	0	-4	1
1863	42,3	-5,7	-0,6	-31	0	1	0	0	0
1865	42,6	-4,3	-0,6	-70	1	1	0	0	0
1867	42,6	-4,3	-1,2	-60	-1	-6	0	-1	0
1869	42,3	-5,7	-1,2	-102	-9	6	0	-1	-6
1871 (A)	48,3	-6,5	-1,2	-231	1	-3	0	0	2
1871 (B)	48,3	-6,5	-1,2	-5	0	0	0	0	0
1871 (C)	48,3	-6,5	-1,2	-175	35	-3	0	0	2
1871 (D)	48,3	-6,5	-1,2	-32	-1	3	0	-3	0
1872	48,1	-7,2	-0,6	-231	1	-2	0	-2	3
1874	48,5	-5,8	-0,6	-4	0	0	0	0	0
1876	48,5	-5,8	-1,2	-175	35	-4	0	3	-22
1878	48,1	-7,2	-1,2	-32	-1	3	0	-1	-1
1889 (A)	35,9	-6,4	-1,2	-52	0	0	0	-1	0
1889 (B)	35,9	-6,4	-1,2	-34	-1	0	0	0	1
1889 (C)	35,9	-6,4	-1,2	-52	0	-4	0	-2	0
1889 (D)	35,9	-6,4	-1,2	-81	9	1	0	0	-1
1890	35,8	-7	-0,6	-52	0	0	0	0	0
1892	36	-5,7	-0,6	-34	-1	1	0	0	0

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1894	36	-5,7	-1,2	-52	0	-4	0	0	0
1896	35,8	-7	-1,2	-81	9	2	0	1	6
1898 (A)	41,8	-7,7	-1,2	-51	0	0	0	-1	0
1898 (B)	41,8	-7,7	-1,2	-40	1	0	0	0	-1
1898 (C)	41,8	-7,7	-1,2	-52	-1	-4	0	-2	0
1898 (D)	41,8	-7,7	-1,2	-86	-10	1	0	0	1
1899	41,6	-8,3	-0,6	-51	0	0	0	0	0
1901	41,9	-7	-0,6	-40	1	1	0	0	0
1903	41,9	-7	-1,2	-52	-1	-4	0	0	0
1905	41,6	-8,3	-1,2	-86	-10	2	0	1	-6
1907 (A)	47,6	-9,1	-1,2	-197	1	-4	0	2	2
1907 (B)	47,6	-9,1	-1,2	11	0	0	0	0	0
1907 (C)	47,6	-9,1	-1,2	-82	36	3	0	5	2
1907 (D)	47,6	-9,1	-1,2	-7	-1	-2	0	0	0
1908	47,4	-9,8	-0,6	-197	1	-4	0	-2	3
1910	47,8	-8,5	-0,6	12	0	0	0	0	0
1912	47,8	-8,5	-1,2	-82	36	2	0	3	-23
1914	47,4	-9,8	-1,2	-7	-1	-1	0	-1	-1
2090 (A)	55	-5,6	-1,2	18	1	1	0	-2	0
2090 (B)	55	-5,6	-1,2	-28	1	6	0	-3	0
2090 (C)	55	-5,6	-1,2	-39	0	-1	0	0	0
2090 (D)	55	-5,6	-1,2	-96	2	1	0	0	0
2091	55,2	-4,9	-1,2	18	1	1	0	-3	0
2093	54,8	-6,2	-1,2	-28	1	7	0	1	0
2095	55	-5,6	0	-7	-1	0	0	1	0
2097	55,2	-4,9	-0,6	-39	0	-1	0	0	0
2099	54,8	-6,2	-0,6	-96	2	1	0	-1	-2
2101 (A)	54,2	-8,2	-1,2	-132	39	-14	0	-4	0
2101 (B)	54,2	-8,2	-1,2	-23	1	5	0	-3	0
2101 (C)	54,2	-8,2	-1,2	-35	0	0	0	0	0
2101 (D)	54,2	-8,2	-1,2	-182	2	0	0	-1	0
2102	54,4	-7,5	-1,2	-132	39	-15	0	6	-26
2104	54	-8,9	-1,2	-23	1	6	0	1	0
2106	54,2	-8,2	0	-5	18	-7	0	0	0
2108	54,4	-7,5	-0,6	-35	0	0	0	0	0
2110	54	-8,9	-0,6	-182	2	0	0	-1	-2
2112 (A)	53,4	-10,8	-1,2	-581	40	-17	0	-6	1
2112 (B)	53,4	-10,8	-1,2	-424	41	4	0	-6	1
2112 (C)	53,4	-10,8	-1,2	-38	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2112 (D)	53,4	-10,8	-1,2	-125	2	-1	0	-1	0
2113	53,6	-10,2	-1,2	-581	40	-17	0	5	-27
2115	53,2	-11,5	-1,2	-424	41	5	0	-3	28
2117	53,4	-10,8	0	-60	19	-4	0	2	1
2119	53,6	-10,2	-0,6	-38	0	0	0	0	0
2121	53,2	-11,5	-0,6	-125	2	-1	0	0	-2
1781 (D)	9,6	-3	-1,2	14	1	-1	0	-1	0
1782	9,6	-3,7	-0,6	-46	0	1	0	-1	0
1784	9,7	-2,3	-0,6	29	0	1	0	0	0
1786	9,7	-2,3	-1,2	-48	1	-4	0	0	-1
1788	9,6	-3,7	-1,2	14	1	0	0	-2	0
1790 (A)	14,5	-3,3	-1,2	-38	0	0	0	-1	0
1790 (B)	14,5	-3,3	-1,2	-35	0	1	0	-1	0
1790 (C)	14,5	-3,3	-1,2	-38	-1	-4	0	-4	0
1790 (D)	14,5	-3,3	-1,2	-66	-4	2	0	-1	0
1791	14,4	-4	-0,6	-38	0	1	0	-1	0
1793	14,5	-2,6	-0,6	-35	0	1	0	0	0
1795	14,5	-2,6	-1,2	-38	-1	-5	0	-1	0
1797	14,4	-4	-1,2	-66	-4	2	0	1	-2
1799 (A)	19,3	-3,8	-1,2	-173	1	-2	0	1	1
1799 (B)	19,3	-3,8	-1,2	8	0	0	0	0	0
1799 (C)	19,3	-3,8	-1,2	-64	17	0	0	2	1
1799 (D)	19,3	-3,8	-1,2	-7	-1	1	0	-2	0
1800	19,2	-4,5	-0,6	-173	1	-2	0	-1	2
1802	19,3	-3,1	-0,6	8	0	1	0	0	0
1804	19,3	-3,1	-1,2	-64	17	-1	0	2	-10
1806	19,2	-4,5	-1,2	-7	-1	2	0	-1	0
2057 (A)	24,8	1,1	-1,2	19	0	1	0	-2	0
2057 (B)	24,8	1,1	-1,2	-26	0	6	0	-3	0
2057 (C)	24,8	1,1	-1,2	-37	0	-1	0	0	0
2057 (D)	24,8	1,1	-1,2	-105	-1	1	0	0	0
2058	24,9	1,8	-1,2	19	0	1	0	-3	0
2060	24,7	0,4	-1,2	-26	0	7	0	1	0
2062	24,8	1,1	0	-5	1	0	0	1	0
2064	24,9	1,8	-0,6	-37	0	-1	0	0	0
2066	24,7	0,4	-0,6	-105	-1	1	0	-1	1
2068 (A)	24,4	-1,6	-1,2	-141	-23	-15	0	-4	0
2068 (B)	24,4	-1,6	-1,2	-22	0	5	0	-3	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2068 (C)	24,4	-1,6	-1,2	-34	0	0	0	0	0
2068 (D)	24,4	-1,6	-1,2	-194	-1	0	0	-1	0
2069	24,5	-1	-1,2	-141	-23	-15	0	6	16
2071	24,3	-2,3	-1,2	-22	0	6	0	1	0
2073	24,4	-1,6	0	-4	-11	-7	0	0	0
2075	24,5	-1	-0,6	-34	0	0	0	0	0
2077	24,3	-2,3	-0,6	-194	-1	0	0	-1	1
2079 (A)	24,1	-4,4	-1,2	-619	-24	-17	0	-7	0
2079 (B)	24,1	-4,4	-1,2	-453	-25	5	0	-6	0
2079 (C)	24,1	-4,4	-1,2	-38	0	0	0	0	0
2079 (D)	24,1	-4,4	-1,2	-133	-1	-1	0	-1	0
2080	24,2	-3,7	-1,2	-619	-24	-18	0	6	16
2082	24	-5	-1,2	-453	-25	5	0	-3	-17
2084	24,1	-4,4	0	-62	-12	-4	0	2	0
2086	24,2	-3,7	-0,6	-38	0	0	0	0	0
2088	24	-5	-0,6	-133	-1	-1	0	0	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

10.2.3 Bracings F & stiffners: Span 3

See bracings F & stiffners span 1.

10.2.4 Bracings S & stiffners: Support 1

Max Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1 (A)	0	4,1	0	70	54	69	0	-15	-7
1 (B)	0	4,1	0	123	-1	-14	0	19	1
1 (C)	0	4,1	0	359	1	0	0	1	-2
16 (A)	0	4,1	-1,2	-154	-1	6	0	1	-1
16 (B)	0	4,1	-1,2	22	-3	-16	0	24	4
25	0	4,1	-0,6	-76	0	1	0	5	-3
36 (A)	0	1,4	0	365	39	81	0	-18	20
36 (B)	0	1,4	0	123	-1	-12	0	-18	-2
36 (C)	0	1,4	0	0	0	0	0	0	0
36 (D)	0	1,4	0	76	-2	-14	0	18	3
36 (E)	0	1,4	0	364	1	0	0	1	-1
46 (A)	0	1,4	-1,2	-11	-137	-76	0	-14	-77
46 (B)	0	1,4	-1,2	545	-1	-28	0	-33	-3
46 (C)	0	1,4	-1,2	-1	1	-2	0	1	-2
55	0	1,4	-0,6	177	-49	3	0	8	-2
66 (A)	0	-1,4	0	438	34	83	0	-18	11
66 (B)	0	-1,4	0	76	-2	-12	0	-17	-3
66 (C)	0	-1,4	0	-1	0	0	0	0	0
66 (D)	0	-1,4	0	84	-3	-9	0	14	4
66 (E)	0	-1,4	0	271	1	-1	0	2	-1
76 (A)	0	-1,4	-1,2	74	-110	-78	0	-15	-66
76 (B)	0	-1,4	-1,2	269	-2	-25	0	-30	-4
76 (C)	0	-1,4	-1,2	-2	2	-2	0	1	-2
85	0	-1,4	-0,6	256	-38	3	0	8	-6
96 (A)	0	-4,1	0	440	7	90	0	-19	17
96 (B)	0	-4,1	0	84	-3	-8	0	-10	-4
96 (C)	0	-4,1	0	-4	0	0	0	0	0
106 (A)	0	-4,1	-1,2	185	-57	-87	0	-17	-29
106 (B)	0	-4,1	-1,2	3	2	2	0	1	3
115	0	-4,1	-0,6	313	-25	1	0	9	3
2024 (A)	0	2,7	-1,2	22	-3	-15	0	3	-1
2024 (B)	0	2,7	-1,2	545	-1	-29	0	5	-1
2024 (C)	0	2,7	-1,2	358	1	1	0	2	0
2024 (D)	0	2,7	-1,2	0	0	0	0	0	0
2025	0	3,4	-1,2	22	-3	-15	0	13	1
2027	0	2,1	-1,2	545	-1	-28	0	-14	-2
2029	0	2,7	0	123	-1	-13	0	0	0
2031	0	3,4	-0,6	358	1	0	0	1	-1
2033	0	2,1	-0,6	0	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2035 (A)	0	0	-1,2	-1	1	-1	0	-1	0
2035 (B)	0	0	-1,2	269	-2	-26	0	5	-1
2035 (C)	0	0	-1,2	364	1	0	0	2	0
2035 (D)	0	0	-1,2	-2	0	0	0	0	0
2036	0	0,7	-1,2	-1	1	-1	0	0	-1
2038	0	-0,7	-1,2	269	-2	-26	0	-13	-2
2040	0	0	0	76	-2	-13	0	0	0
2042	0	0,7	-0,6	364	1	0	0	1	-1
2044	0	-0,7	-0,6	-2	0	0	0	0	0
2046 (A)	0	-2,7	-1,2	-2	2	-1	0	-1	0
2046 (B)	0	-2,7	-1,2	3	2	1	0	-1	0
2046 (C)	0	-2,7	-1,2	271	1	0	0	1	0
2046 (D)	0	-2,7	-1,2	-4	0	0	0	0	0
2047	0	-2,1	-1,2	-2	2	-2	0	0	-1
2049	0	-3,4	-1,2	3	2	2	0	0	1
2051	0	-2,7	0	84	-3	-9	0	2	0
2053	0	-2,1	-0,6	271	1	0	0	1	-1
2055	0	-3,4	-0,6	-4	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Min Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
1 (A)	0	4,1	0	-56	3	-7	0	1	-3
1 (B)	0	4,1	0	-1	-1	-1	0	1	1
1 (C)	0	4,1	0	-3	0	0	0	0	0
16 (A)	0	4,1	-1,2	-265	-59	-65	0	-13	-34
16 (B)	0	4,1	-1,2	-4	2	-3	0	1	-2
25	0	4,1	-0,6	-127	-2	1	0	2	-2
36 (A)	0	1,4	0	-45	0	-4	0	1	0
36 (B)	0	1,4	0	-1	-1	1	0	0	-1
36 (C)	0	1,4	0	-336	-1	0	0	-2	2
36 (D)	0	1,4	0	3	-1	-1	0	0	1
36 (E)	0	1,4	0	0	0	0	0	0	0
46 (A)	0	1,4	-1,2	-208	-2	4	0	1	0
46 (B)	0	1,4	-1,2	-6	2	3	0	1	2
46 (C)	0	1,4	-1,2	-269	-4	-19	0	27	5
55	0	1,4	-0,6	-126	-1	0	0	0	1
66 (A)	0	-1,4	0	-44	0	-3	0	0	-1
66 (B)	0	-1,4	0	3	-1	1	0	0	-1
66 (C)	0	-1,4	0	-349	-1	0	0	-2	2
66 (D)	0	-1,4	0	-2	-1	-1	0	1	2
66 (E)	0	-1,4	0	2	0	0	0	0	0
76 (A)	0	-1,4	-1,2	-201	0	3	0	1	0
76 (B)	0	-1,4	-1,2	1	2	2	0	1	2
76 (C)	0	-1,4	-1,2	-436	-3	-14	0	21	4
85	0	-1,4	-0,6	-122	0	0	0	0	-1
96 (A)	0	-4,1	0	-46	-1	-4	0	1	2
96 (B)	0	-4,1	0	-2	-1	1	0	1	-2
96 (C)	0	-4,1	0	-258	-2	-1	0	0	2
106 (A)	0	-4,1	-1,2	-166	0	5	0	1	1
106 (B)	0	-4,1	-1,2	-37	-2	-20	0	-22	-3
115	0	-4,1	-0,6	-106	-1	0	0	0	1
2024 (A)	0	2,7	-1,2	-4	2	-1	0	-1	0
2024 (B)	0	2,7	-1,2	-6	2	1	0	-1	0
2024 (C)	0	2,7	-1,2	-3	0	0	0	0	0
2024 (D)	0	2,7	-1,2	-336	-1	1	0	-1	0
2025	0	3,4	-1,2	-4	2	-2	0	0	-1
2027	0	2,1	-1,2	-6	2	2	0	0	1
2029	0	2,7	0	-1	-1	0	0	0	0
2031	0	3,4	-0,6	-3	0	0	0	0	0
2033	0	2,1	-0,6	-336	-1	1	0	-1	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2035 (A)	0	0	-1,2	-269	-4	-17	0	2	-1
2035 (B)	0	0	-1,2	1	2	1	0	-1	0
2035 (C)	0	0	-1,2	0	0	0	0	0	0
2035 (D)	0	0	-1,2	-350	-1	1	0	-1	0
2036	0	0,7	-1,2	-269	-4	-18	0	14	2
2038	0	-0,7	-1,2	1	2	1	0	0	1
2040	0	0	0	3	-1	0	0	0	0
2042	0	0,7	-0,6	0	0	0	0	0	0
2044	0	-0,7	-0,6	-349	-1	0	0	-1	1
2046 (A)	0	-2,7	-1,2	-436	-3	-12	0	4	0
2046 (B)	0	-2,7	-1,2	-37	-2	-21	0	6	-1
2046 (C)	0	-2,7	-1,2	2	0	0	0	0	0
2046 (D)	0	-2,7	-1,2	-258	-2	-1	0	-1	-1
2047	0	-2,1	-1,2	-436	-3	-13	0	12	2
2049	0	-3,4	-1,2	-37	-2	-21	0	-8	-2
2051	0	-2,7	0	-2	-1	0	0	0	0
2053	0	-2,1	-0,6	2	0	0	0	0	0
2055	0	-3,4	-0,6	-258	-2	-1	0	-1	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

10.2.5 Bracings S & stiffners: Support 2

Max Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
414 (A)	25	2,5	0	-275	-45	-14	0	3	-5
414 (B)	25	2,5	0	52	-11	-6	0	7	15
414 (C)	25	2,5	0	111	-1	0	0	0	3
426 (A)	25	2,5	-1,2	-192	47	14	0	3	6
426 (B)	25	2,5	-1,2	373	-23	-4	0	2	33
432	25	2,5	-0,6	-233	1	0	0	-1	-14
441 (A)	24,6	-0,3	0	-364	-1	-13	0	3	-1
441 (B)	24,6	-0,3	0	52	-11	-5	0	-8	-15
441 (C)	24,6	-0,3	0	30	0	0	0	0	0
441 (D)	24,6	-0,3	0	11	1	0	0	-1	-1
441 (E)	24,6	-0,3	0	181	-1	0	0	1	3
449 (A)	24,6	-0,3	-1,2	-248	7	13	0	3	4
449 (B)	24,6	-0,3	-1,2	529	-24	-4	0	-9	-32
449 (C)	24,6	-0,3	-1,2	22	0	-3	0	1	0
455	24,6	-0,3	-0,6	-306	3	0	0	-1	0
464 (A)	24,2	-3,0	0	-340	3	-13	0	3	-3
464 (B)	24,2	-3,0	0	11	1	2	0	2	1
464 (C)	24,2	-3,0	0	25	0	0	0	0	0
464 (D)	24,2	-3,0	0	17	1	1	0	-2	-1
464 (E)	24,2	-3,0	0	100	-1	-1	0	2	3
472 (A)	24,2	-3,0	-1,2	-217	-18	69	0	14	-30
472 (B)	24,2	-3,0	-1,2	141	-24	-5	0	-10	-32
472 (C)	24,2	-3,0	-1,2	-2	0	-3	0	0	0
478	24,2	-3,0	-0,6	-291	5	0	0	-1	-1
487 (A)	23,9	-5,7	0	-255	43	-10	0	2	3
487 (B)	23,9	-5,7	0	17	1	3	0	4	2
487 (C)	23,9	-5,7	0	30	0	-1	0	1	0
495 (A)	23,9	-5,7	-1,2	-170	-34	76	0	15	-8
495 (B)	23,9	-5,7	-1,2	-44	0	4	0	2	0
501	23,9	-5,7	-0,6	-232	3	0	0	-1	12
2057 (A)	24,8	1,1	-1,2	373	-23	-3	0	-3	0
2057 (B)	24,8	1,1	-1,2	529	-24	-5	0	-3	0
2057 (C)	24,8	1,1	-1,2	110	-1	0	0	1	0
2057 (D)	24,8	1,1	-1,2	29	0	0	0	0	0
2058	24,9	1,8	-1,2	373	-23	-4	0	-1	16
2060	24,7	0,4	-1,2	529	-24	-4	0	-6	-16
2062	24,8	1,1	0	52	-11	-6	0	-1	0
2064	24,9	1,8	-0,6	111	-1	0	0	0	1
2066	24,7	0,4	-0,6	30	0	0	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2068 (A)	24,4	-1,6	-1,2	22	0	-2	0	-2	0
2068 (B)	24,4	-1,6	-1,2	141	-24	-6	0	-3	0
2068 (C)	24,4	-1,6	-1,2	181	-1	0	0	1	0
2068 (D)	24,4	-1,6	-1,2	24	0	0	0	0	0
2069	24,5	-1	-1,2	22	0	-2	0	-1	0
2071	24,3	-2,3	-1,2	141	-24	-5	0	-6	-16
2073	24,4	-1,6	0	11	1	1	0	0	0
2075	24,5	-1	-0,6	181	-1	0	0	1	1
2077	24,3	-2,3	-0,6	24	0	0	0	0	0
2079 (A)	24,1	-4,4	-1,2	-2	0	-2	0	-2	0
2079 (B)	24,1	-4,4	-1,2	-44	0	3	0	-2	0
2079 (C)	24,1	-4,4	-1,2	99	-1	-1	0	0	0
2079 (D)	24,1	-4,4	-1,2	30	0	0	0	0	0
2080	24,2	-3,7	-1,2	-2	0	-2	0	-1	0
2082	24	-5	-1,2	-44	0	3	0	0	0
2084	24,1	-4,4	0	17	1	2	0	1	0
2086	24,2	-3,7	-0,6	99	-1	-1	0	1	1
2088	24	-5	-0,6	30	0	-1	0	0	0
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Min Fx:

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
414 (A)	25	2,5	0	-651	-60	-57	0	12	-5
414 (B)	25	2,5	0	-5	1	-1	0	1	-1
414 (C)	25	2,5	0	-37	0	-1	0	1	0
426 (A)	25	2,5	-1,2	-413	51	57	0	11	-2
426 (B)	25	2,5	-1,2	19	0	0	0	-3	0
432	25	2,5	-0,6	-532	-5	0	0	-6	-20
441 (A)	24,6	-0,3	0	-773	-59	-75	0	15	14
441 (B)	24,6	-0,3	0	-5	1	1	0	1	1
441 (C)	24,6	-0,3	0	-105	-1	1	0	-2	2
441 (D)	24,6	-0,3	0	-4	-11	-8	0	10	15
441 (E)	24,6	-0,3	0	-34	0	0	0	0	0
449 (A)	24,6	-0,3	-1,2	-393	-12	73	0	14	-27
449 (B)	24,6	-0,3	-1,2	-26	0	7	0	6	0
449 (C)	24,6	-0,3	-1,2	-141	-23	-16	0	17	32
455	24,6	-0,3	-0,6	-583	-36	-1	0	-7	-14
464 (A)	24,2	-3,0	0	-638	-56	-74	0	15	13
464 (B)	24,2	-3,0	0	-4	-11	-7	0	-10	-15
464 (C)	24,2	-3,0	0	-194	-1	0	0	-1	2
464 (D)	24,2	-3,0	0	-62	-12	-5	0	8	16
464 (E)	24,2	-3,0	0	-37	0	0	0	0	0
472 (A)	24,2	-3,0	-1,2	-306	9	15	0	3	4
472 (B)	24,2	-3,0	-1,2	-22	0	7	0	6	0
472 (C)	24,2	-3,0	-1,2	-619	-24	-19	0	18	33
478	24,2	-3,0	-0,6	-460	-36	-1	0	-7	-14
487 (A)	23,9	-5,7	0	-442	33	-78	0	16	5
487 (B)	23,9	-5,7	0	-62	-12	-3	0	-3	-16
487 (C)	23,9	-5,7	0	-133	-1	-1	0	1	2
495 (A)	23,9	-5,7	-1,2	-263	-42	12	0	2	-3
495 (B)	23,9	-5,7	-1,2	-453	-25	6	0	1	-34
501	23,9	-5,7	-0,6	-333	-4	0	0	-8	9
2057 (A)	24,8	1,1	-1,2	19	0	1	0	-2	0
2057 (B)	24,8	1,1	-1,2	-26	0	6	0	-3	0
2057 (C)	24,8	1,1	-1,2	-37	0	-1	0	0	0
2057 (D)	24,8	1,1	-1,2	-105	-1	1	0	0	0
2058	24,9	1,8	-1,2	19	0	1	0	-3	0
2060	24,7	0,4	-1,2	-26	0	7	0	1	0
2062	24,8	1,1	0	-5	1	0	0	1	0
2064	24,9	1,8	-0,6	-37	0	-1	0	0	0
2066	24,7	0,4	-0,6	-105	-1	1	0	-1	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

Node	X	Y	Z	Fx(*)	Fy	Fz	Mx	My	Mz
2068 (A)	24,4	-1,6	-1,2	-141	-23	-15	0	-4	0
2068 (B)	24,4	-1,6	-1,2	-22	0	5	0	-3	0
2068 (C)	24,4	-1,6	-1,2	-34	0	0	0	0	0
2068 (D)	24,4	-1,6	-1,2	-194	-1	0	0	-1	0
2069	24,5	-1	-1,2	-141	-23	-15	0	6	16
2071	24,3	-2,3	-1,2	-22	0	6	0	1	0
2073	24,4	-1,6	0	-4	-11	-7	0	0	0
2075	24,5	-1	-0,6	-34	0	0	0	0	0
2077	24,3	-2,3	-0,6	-194	-1	0	0	-1	1
2079 (A)	24,1	-4,4	-1,2	-619	-24	-17	0	-7	0
2079 (B)	24,1	-4,4	-1,2	-453	-25	5	0	-6	0
2079 (C)	24,1	-4,4	-1,2	-38	0	0	0	0	0
2079 (D)	24,1	-4,4	-1,2	-133	-1	-1	0	-1	0
2080	24,2	-3,7	-1,2	-619	-24	-18	0	6	16
2082	24	-5	-1,2	-453	-25	5	0	-3	-17
2084	24,1	-4,4	0	-62	-12	-4	0	2	0
2086	24,2	-3,7	-0,6	-38	0	0	0	0	0
2088	24	-5	-0,6	-133	-1	-1	0	0	1
-	m	m	m	kN	kN	kN	kNm	kNm	kNm

10.2.6 Bracings S & stiffners: Support 3

See bracings S & stiffners at support 2.

10.2.7 Bracings S & stiffners: Support 4

See bracings S & stiffners at support 1.