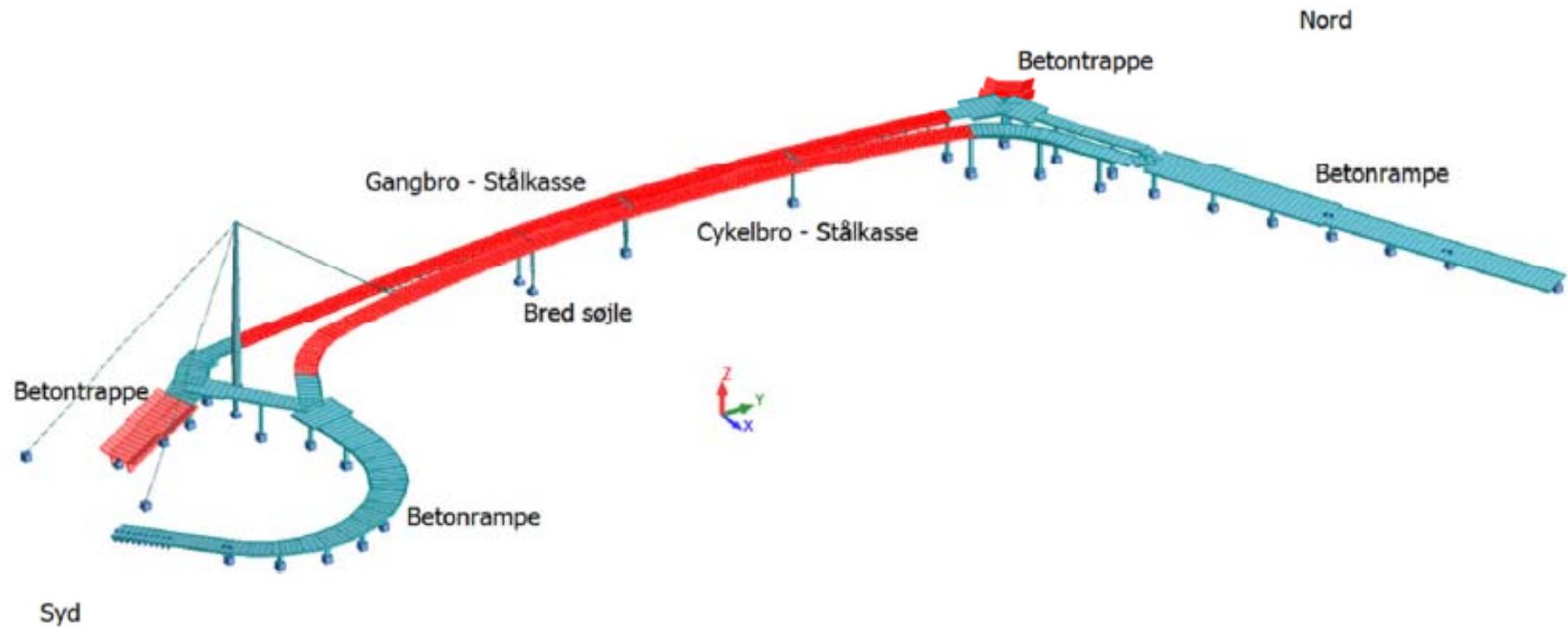
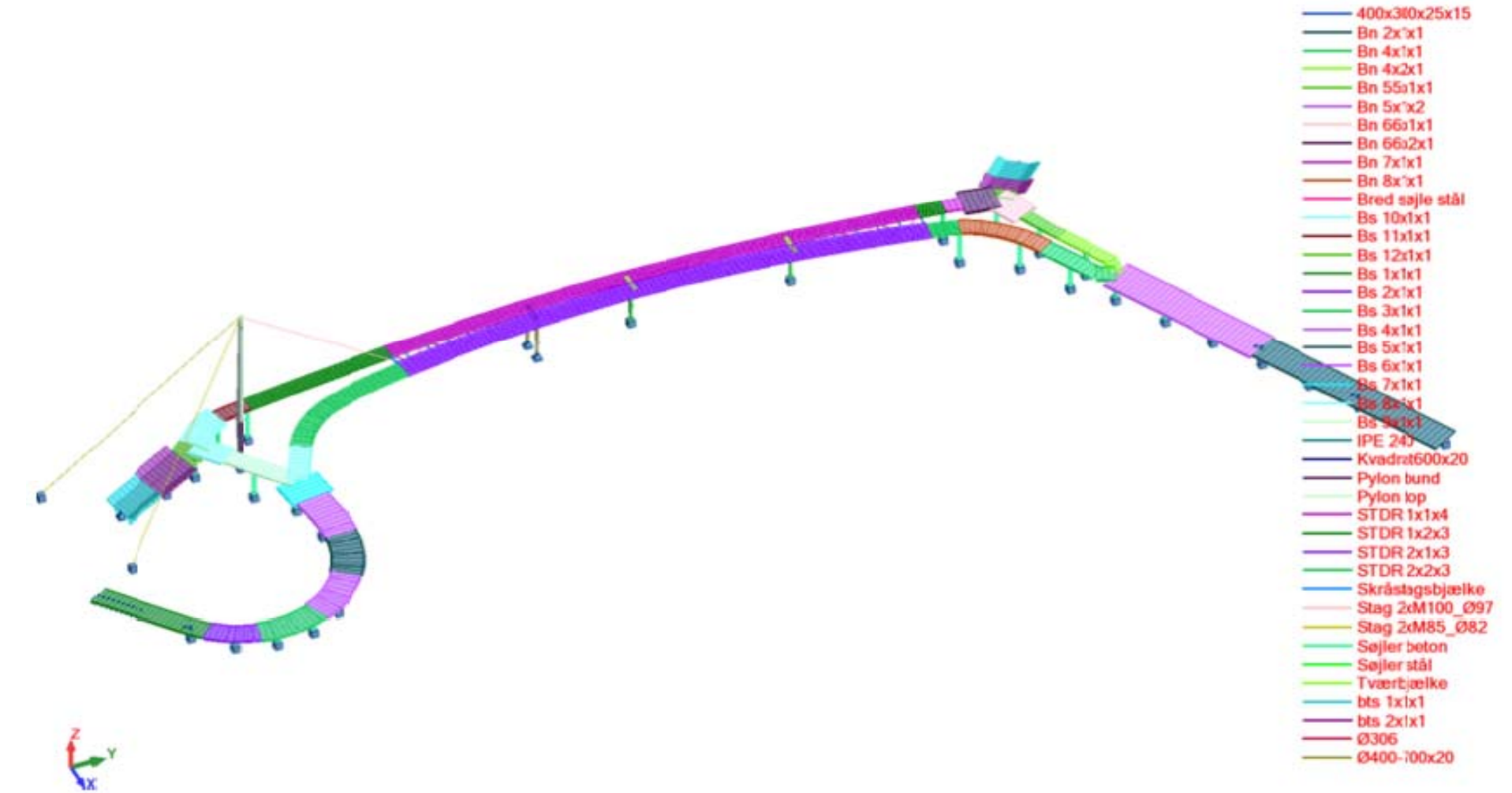


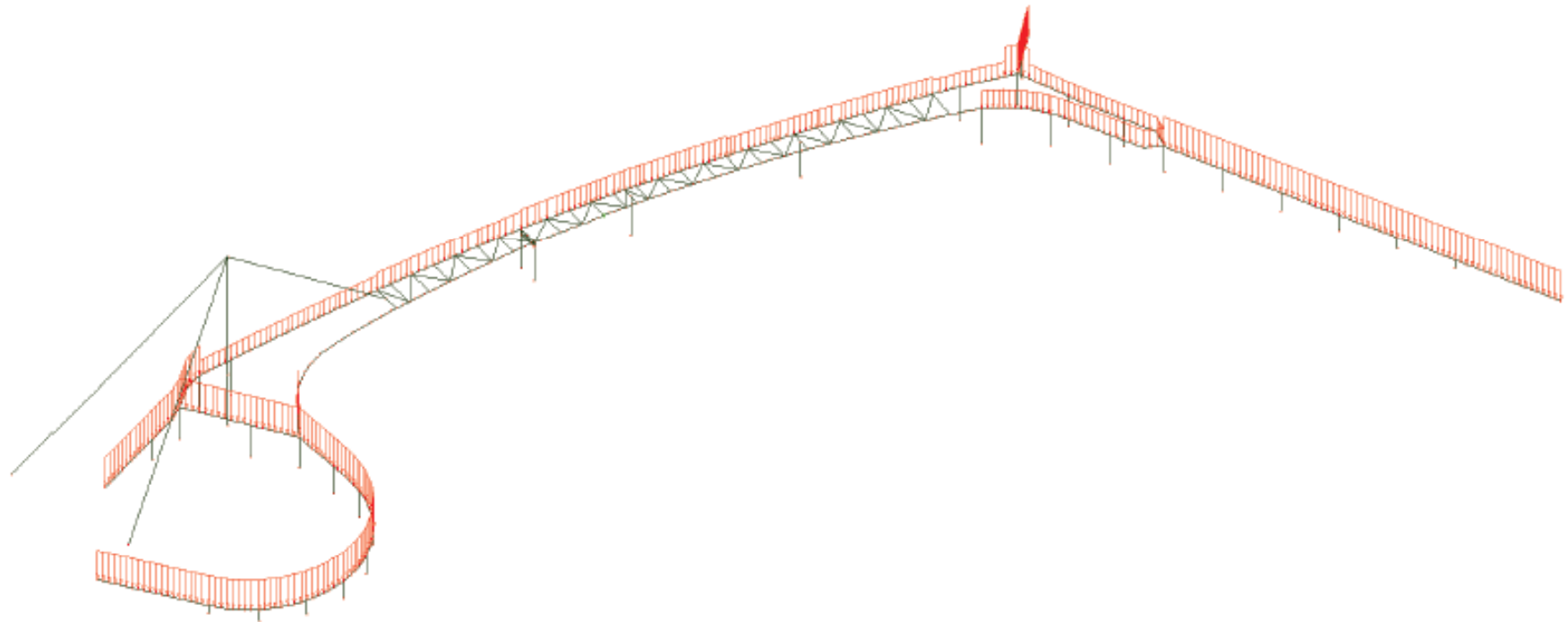
# Stibro mellem by og havn Odense



*Carsten Munk Plum*  
*ES-Consult A/S*  
*Formand for S-1993*

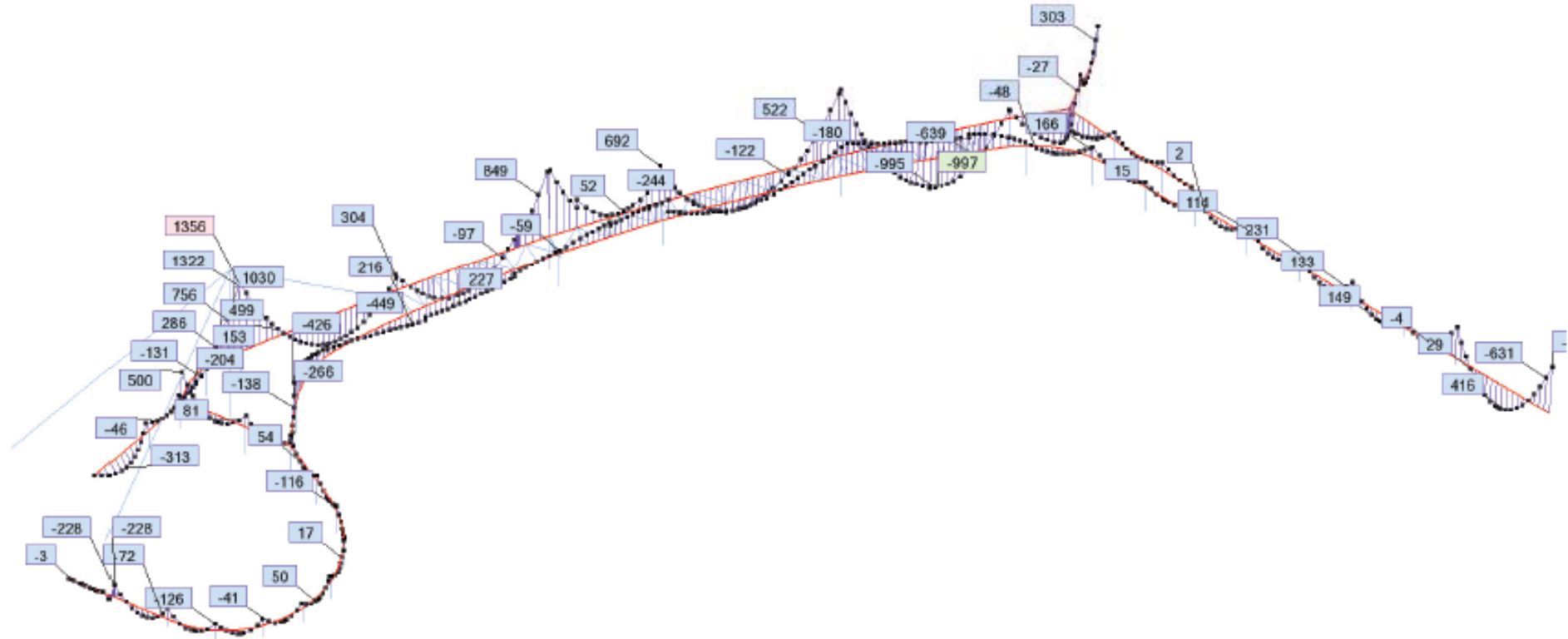


View - Cases: 102 (Nyttelast Tilf 2)



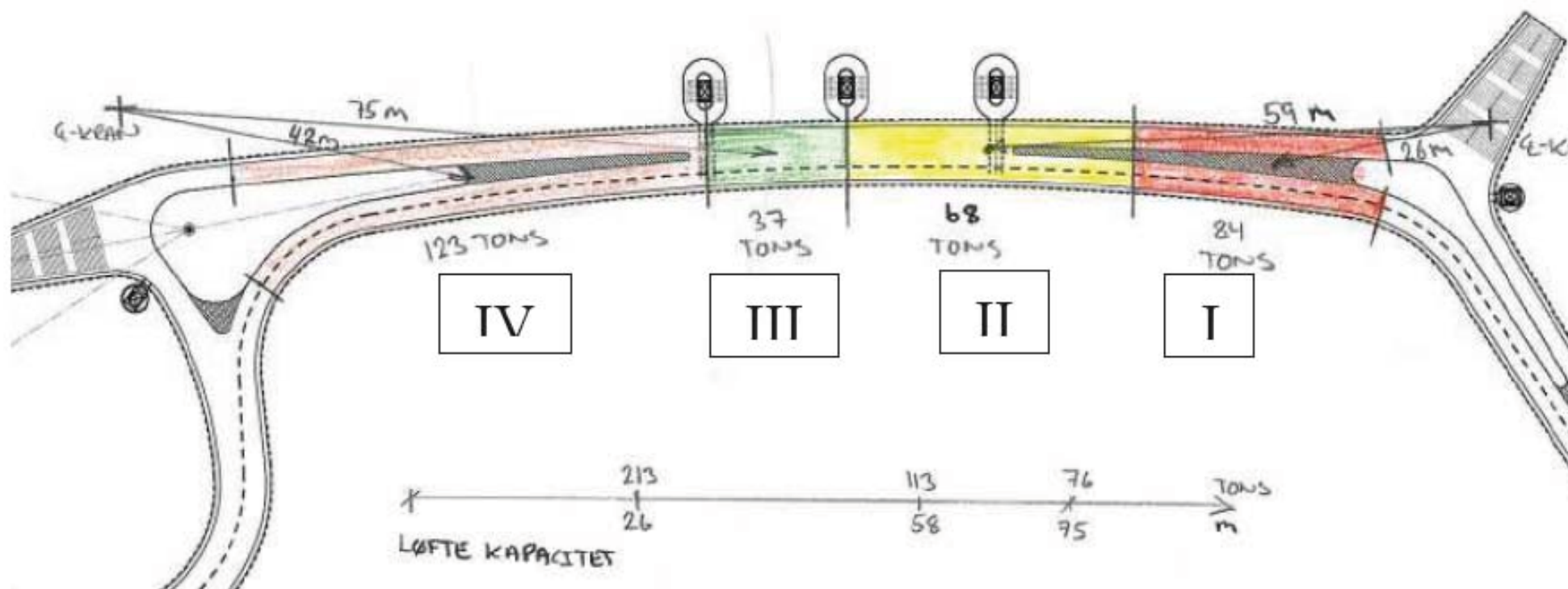
↓ kN/m  
Cases: 102 (Nyttelast Tilf 2)

View - MZ; Cases: 102 (Nyttelast Tilf 2)



Mz 100kNm  
Max=1356  
Min=-997

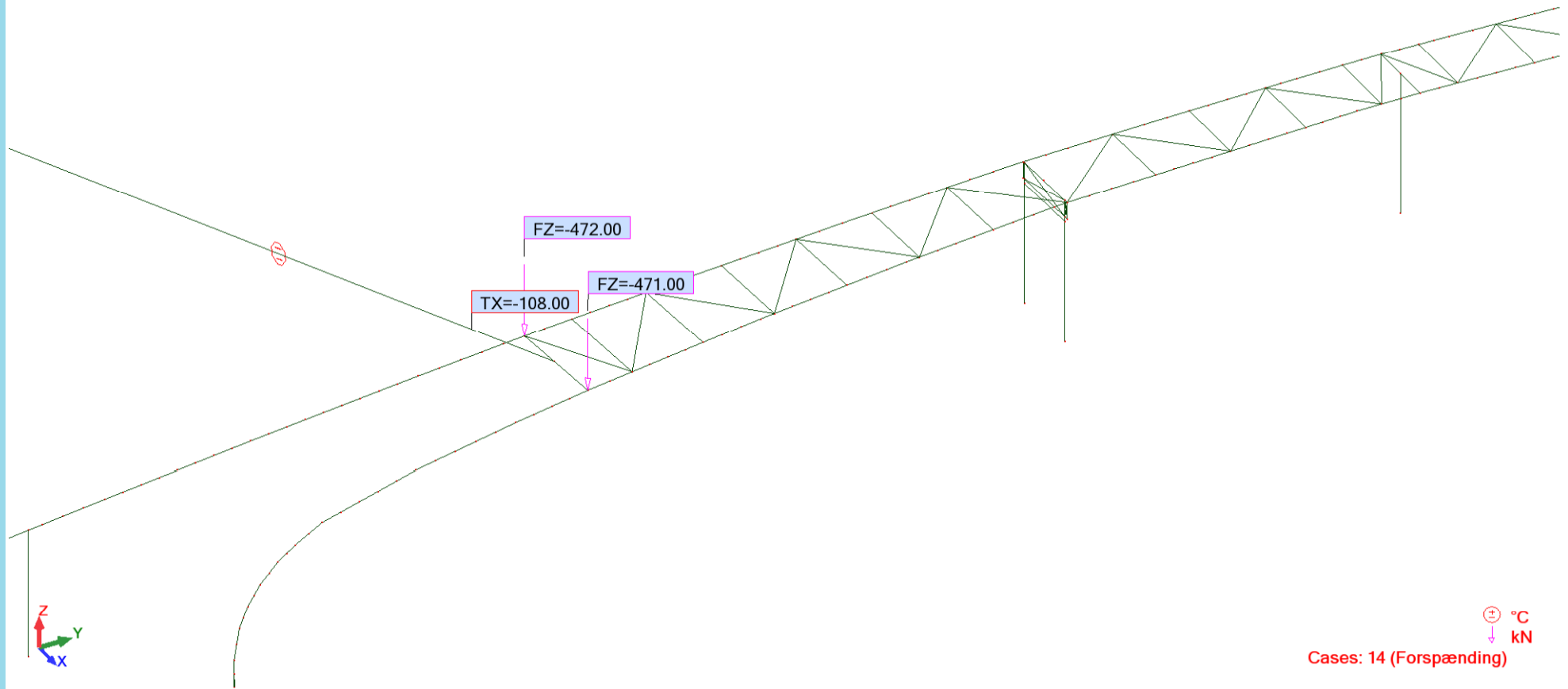
Cases: 102 (Nyttelast Tilf 2)



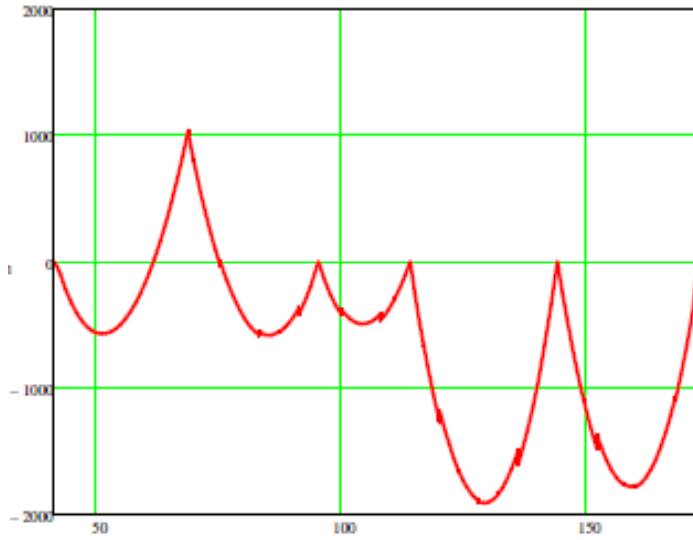
Efter indløft af stålsektionerne skal disse sammesvejses.

*Montage af elementer*

*Sektion IV understøttes midlertidig på midten.*



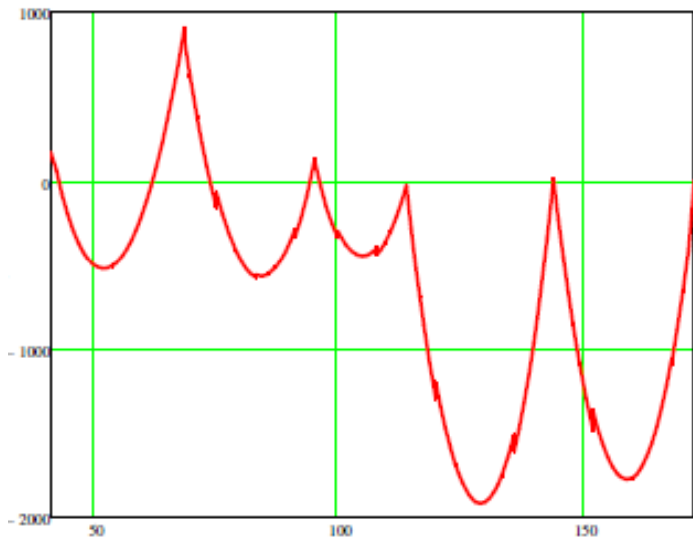
Efter sammensvejsning og støbning af betonramper kan stag spændes op, og den midlertidige understøtning ved stags fastgørelse i bro kan fjernes.



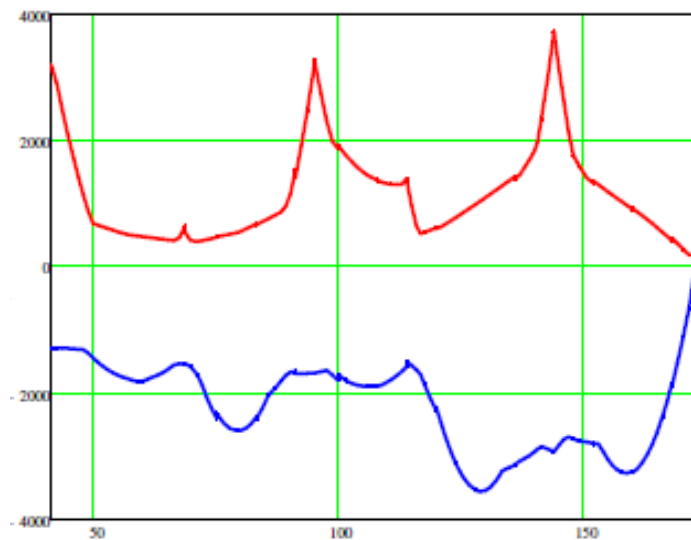
Moment fra egenvægt



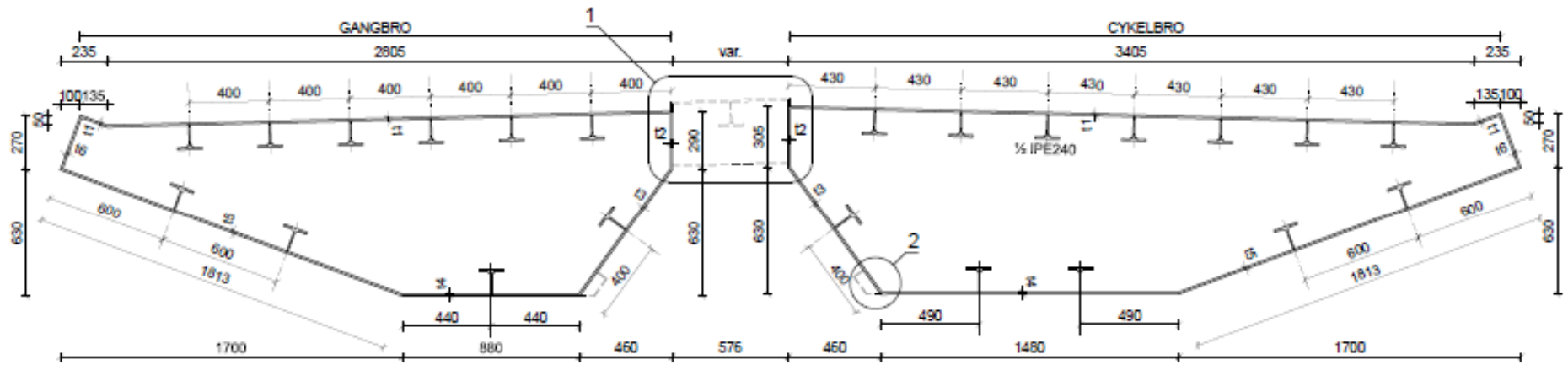
Moment fra stag og fjernet understøtning



Resulterende moment fra ovenstående

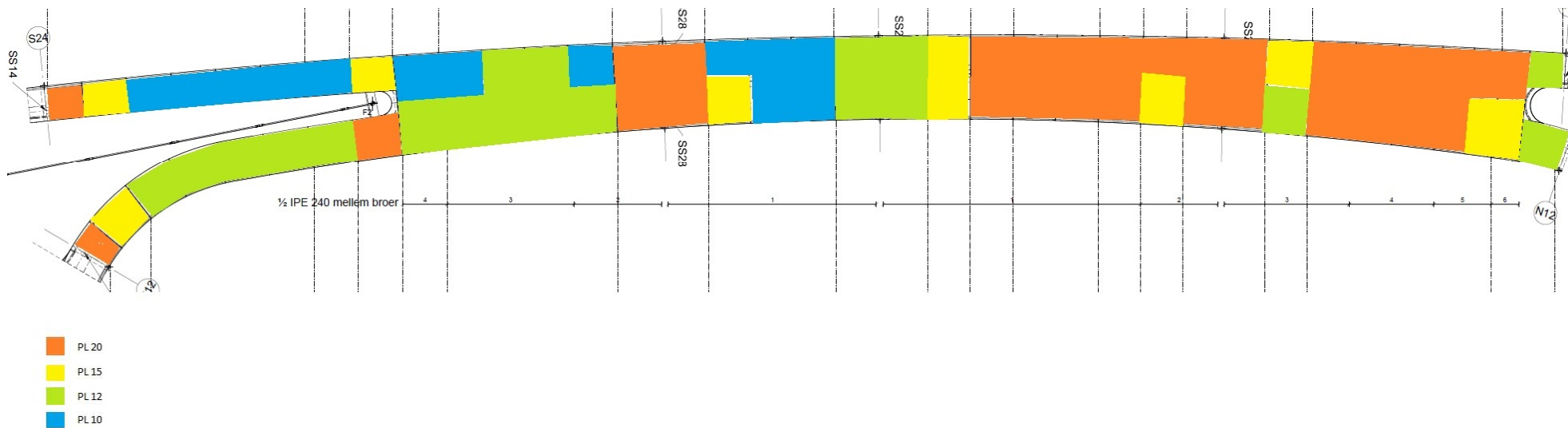


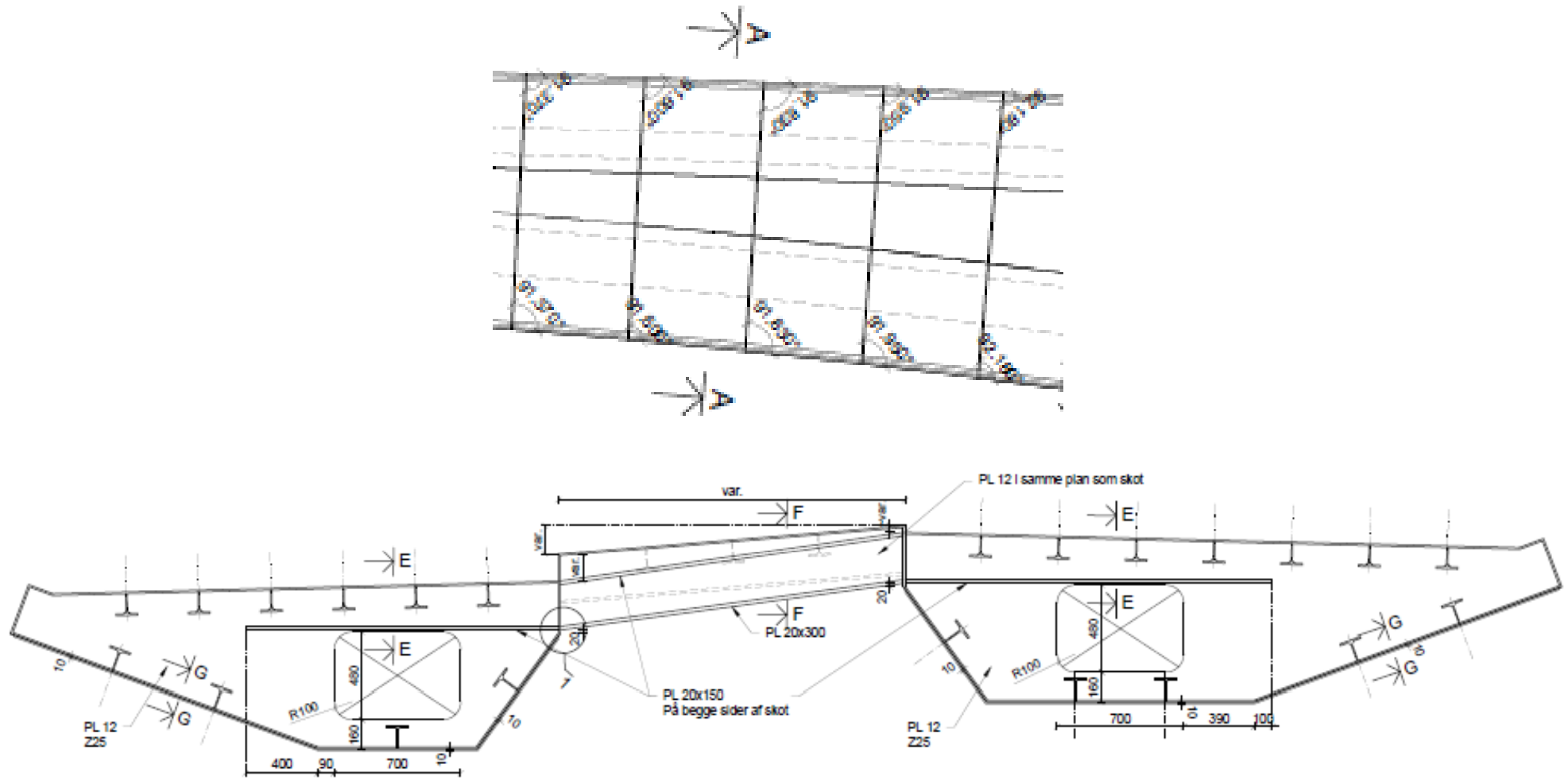
ULS-max/-min momenter



NORMALTVÆRSNIT, 1:20  
 Vinkelret på systemlinier  
 Vinkelret på oversider

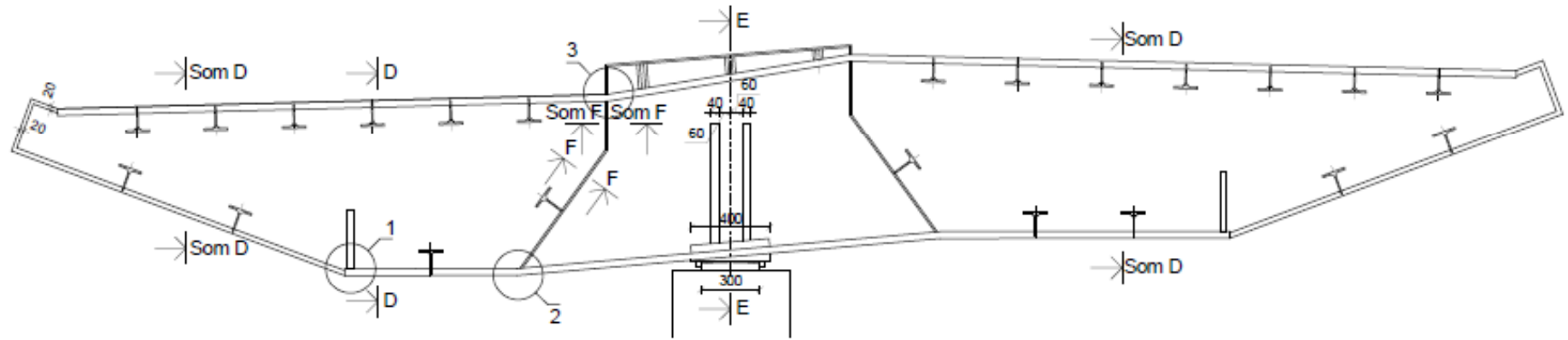




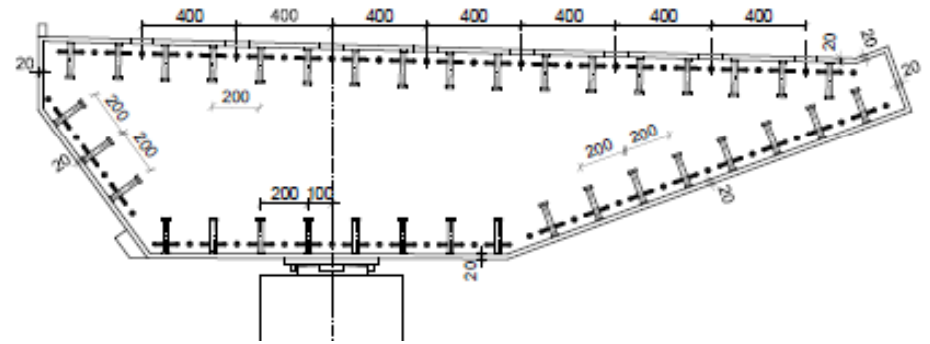
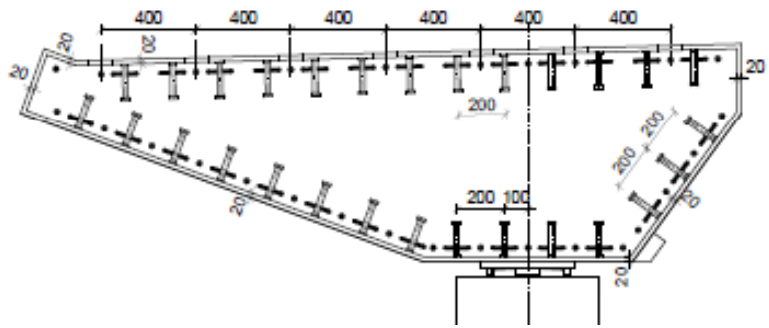


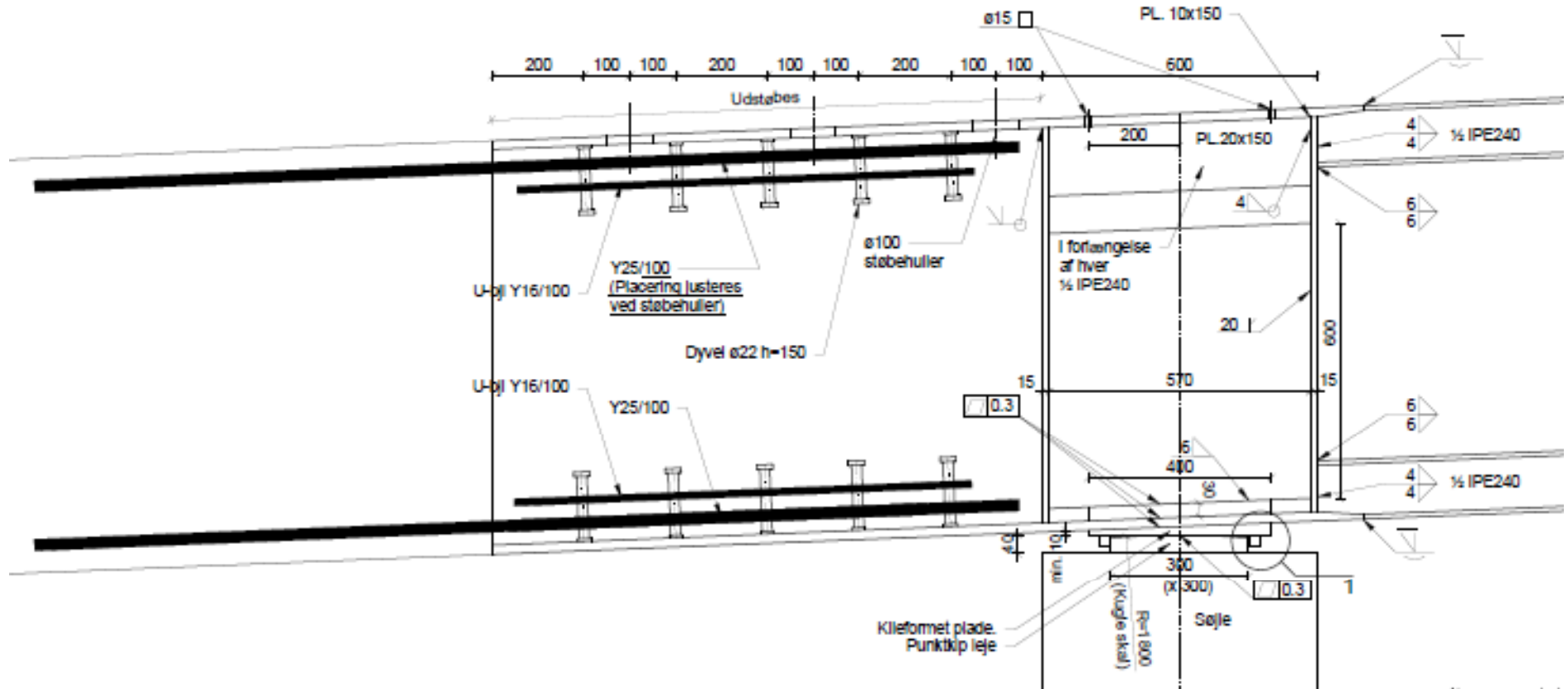
**SNIT A-A, 1:20**

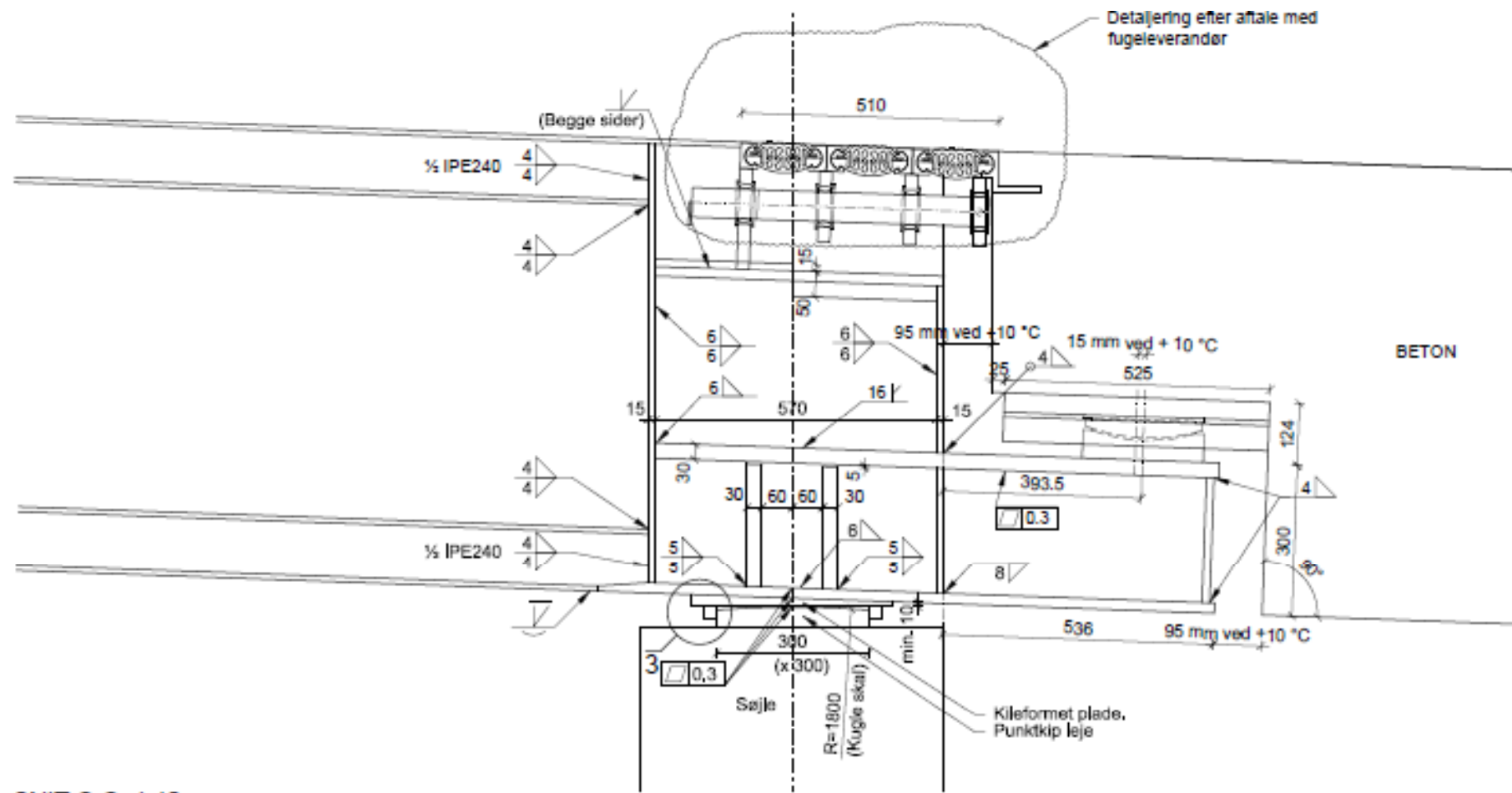
Principielt tværsnit, gennemgående skot  
 Skot er placeret i vertikalt plan



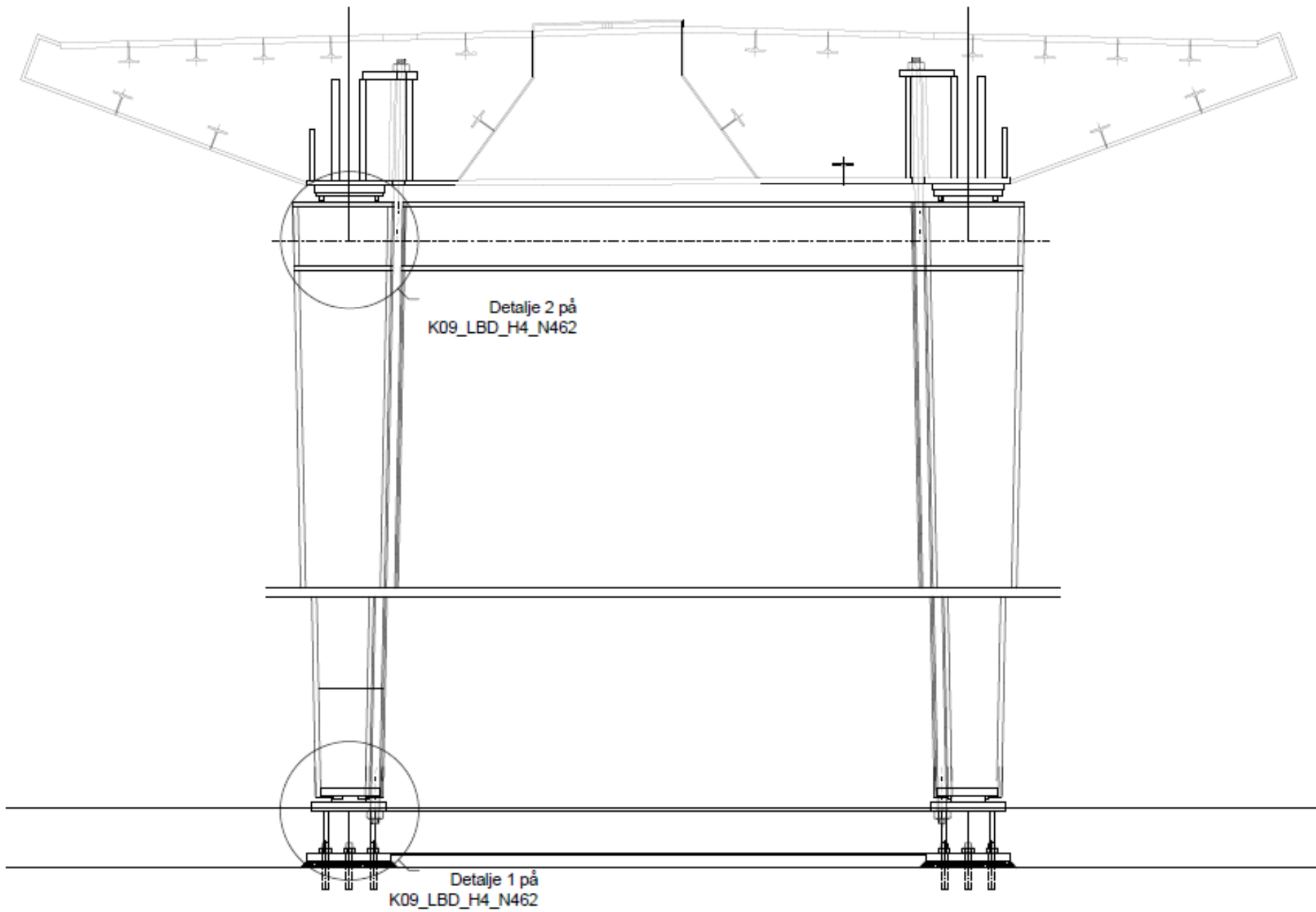
SNIT B-B, 1:20  
Principielt tværsnit, Tværbjelker over søjler

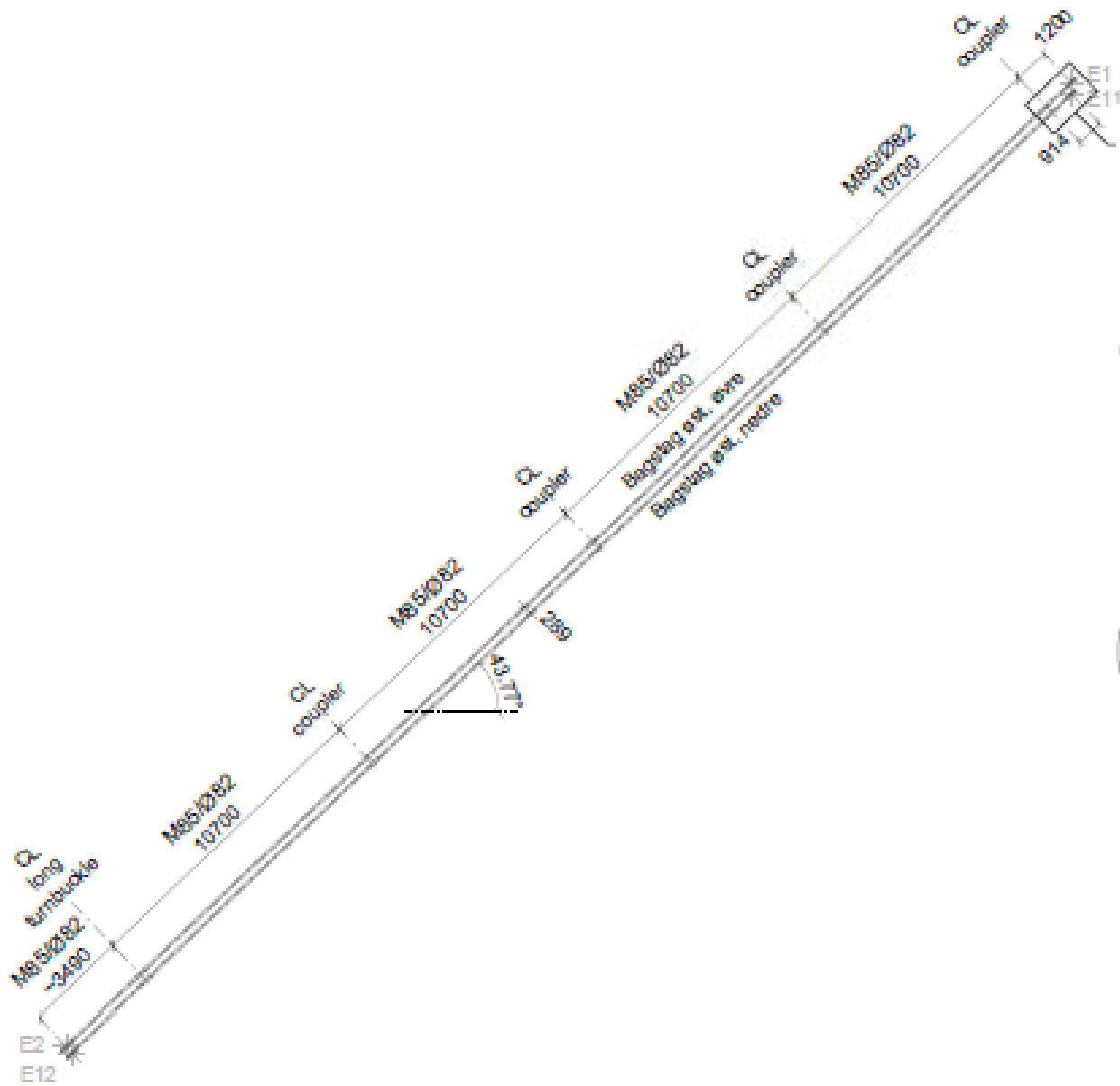




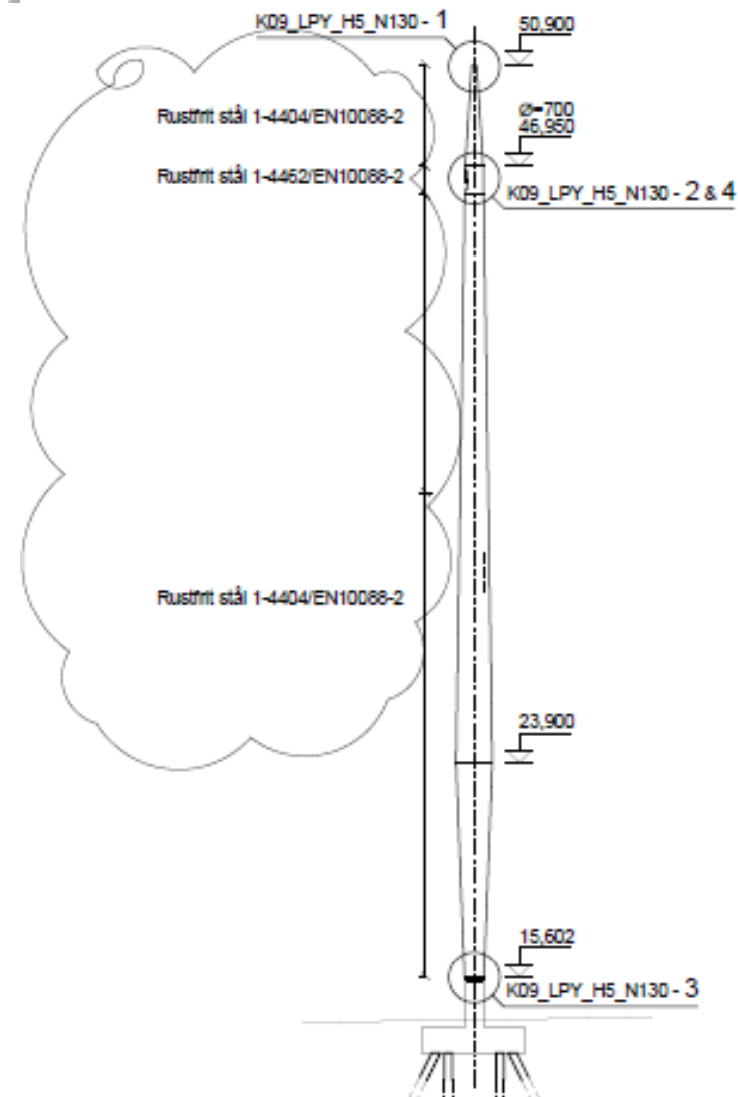


SNIT C-C, 1:10  
Principielt snit, Tværbjælker over søjler Gangbro



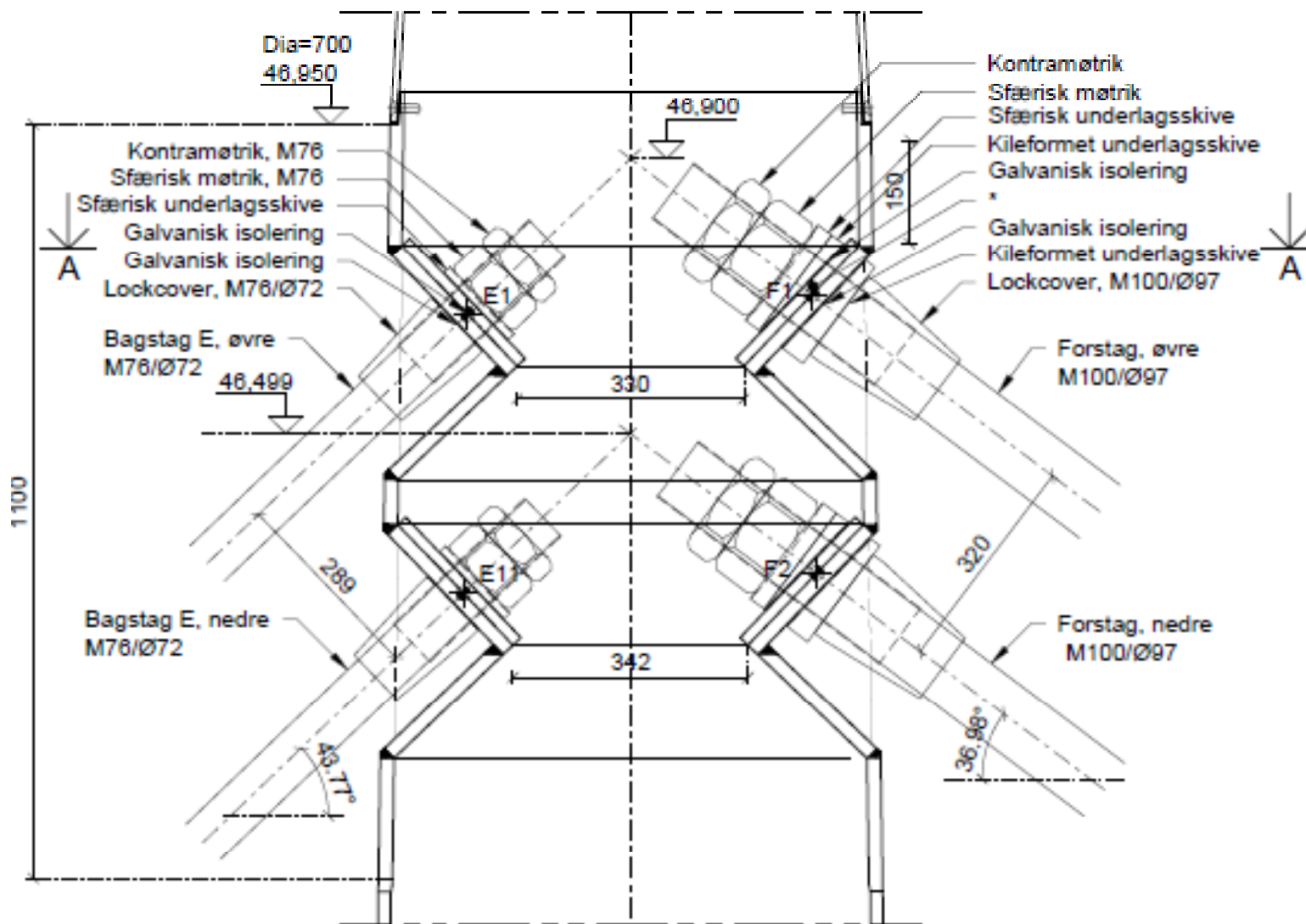


**OPSTALT, BAGSTAG E, 1:200**  
østlige bagstag



**OPSTALT, PYLON, 1:200**  
Set fra øst



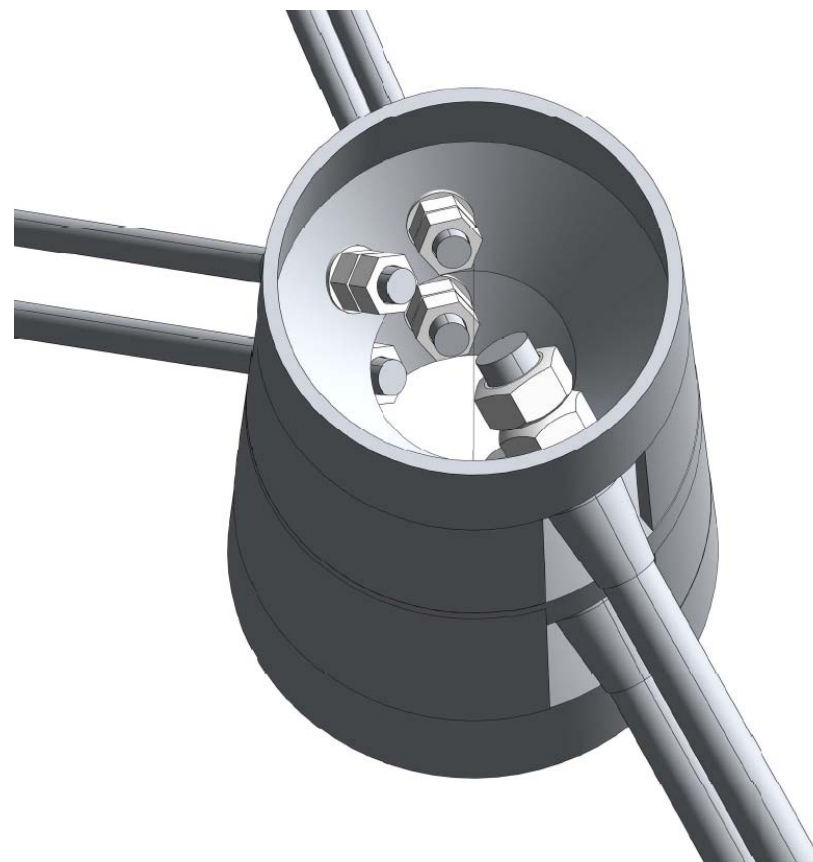
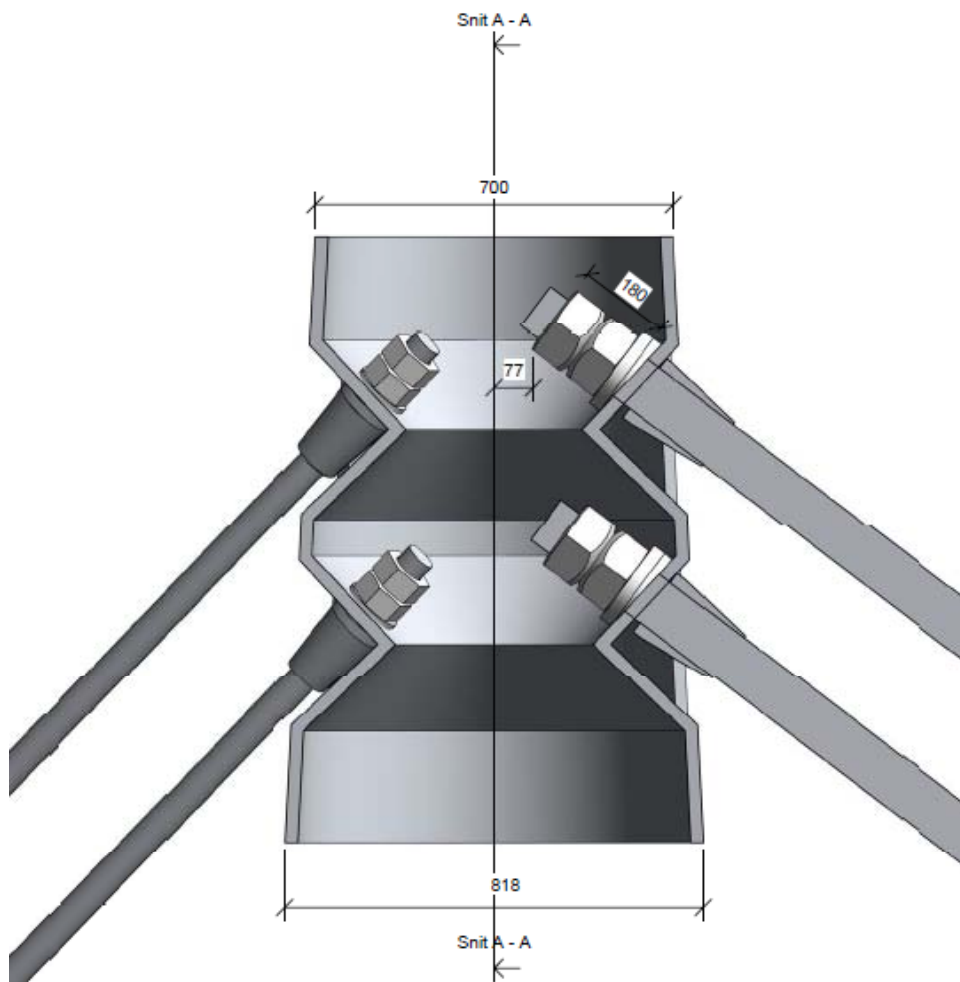


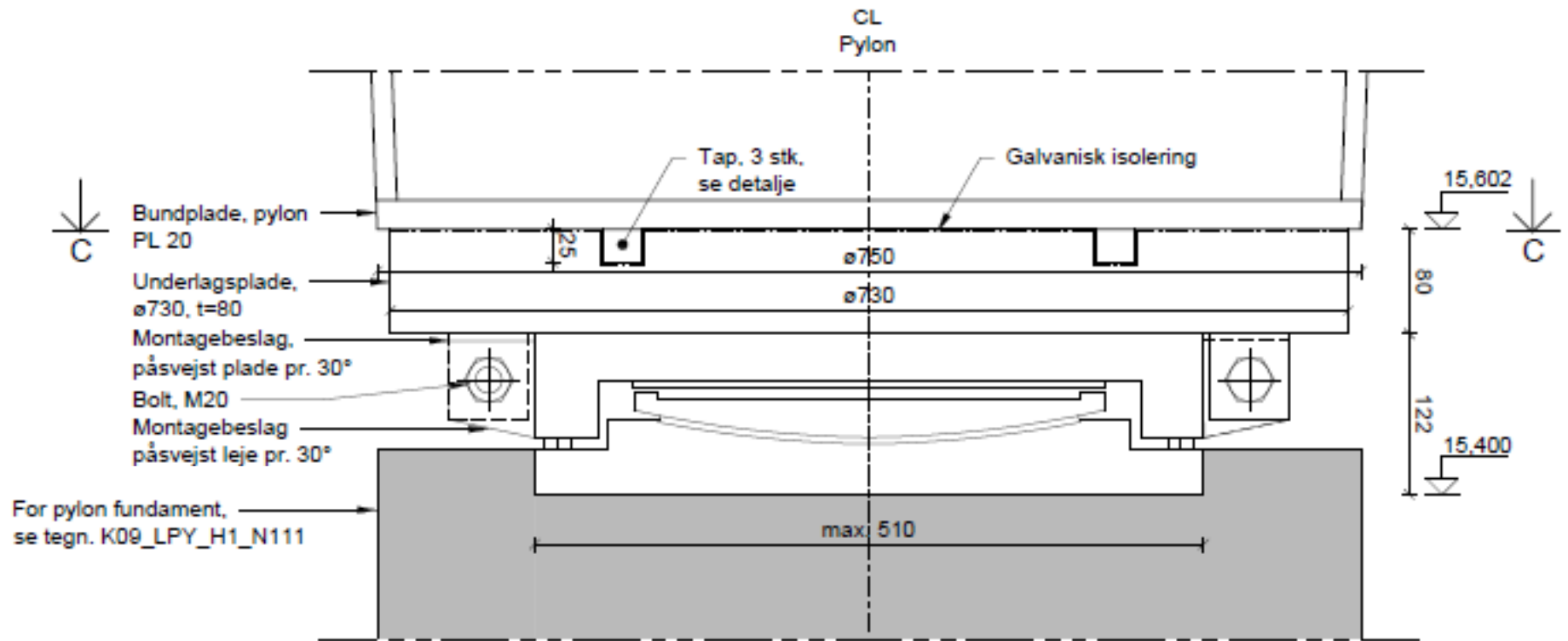
### DETALJE 2, 1:10

Lodret snit, stagbefæstigelse, pylon.

For svejsning af recesser, se detalje 8.

\* Løs 16mm underlagsplade under underlagsskiver  
(både forstag og bagstag)

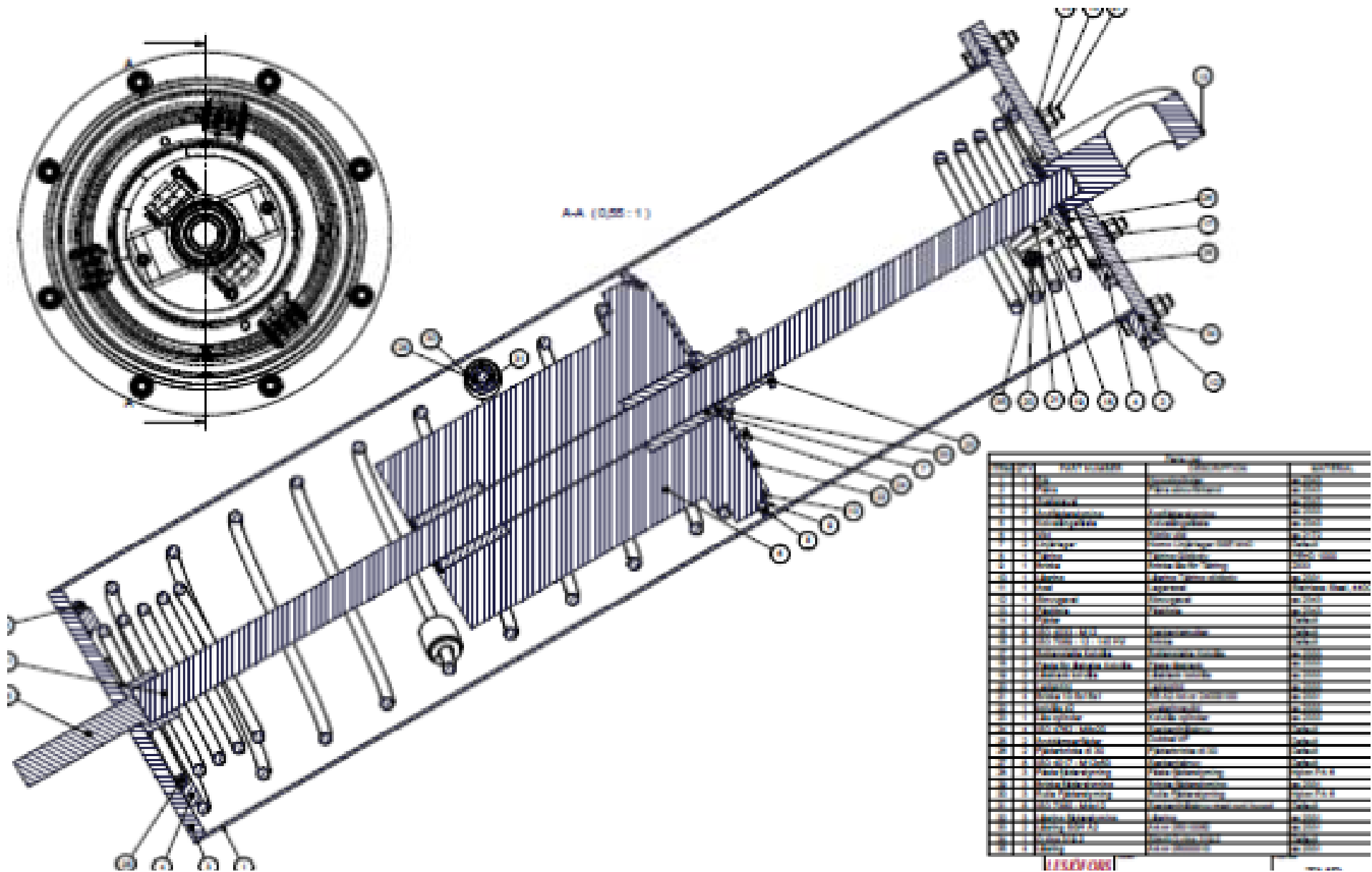




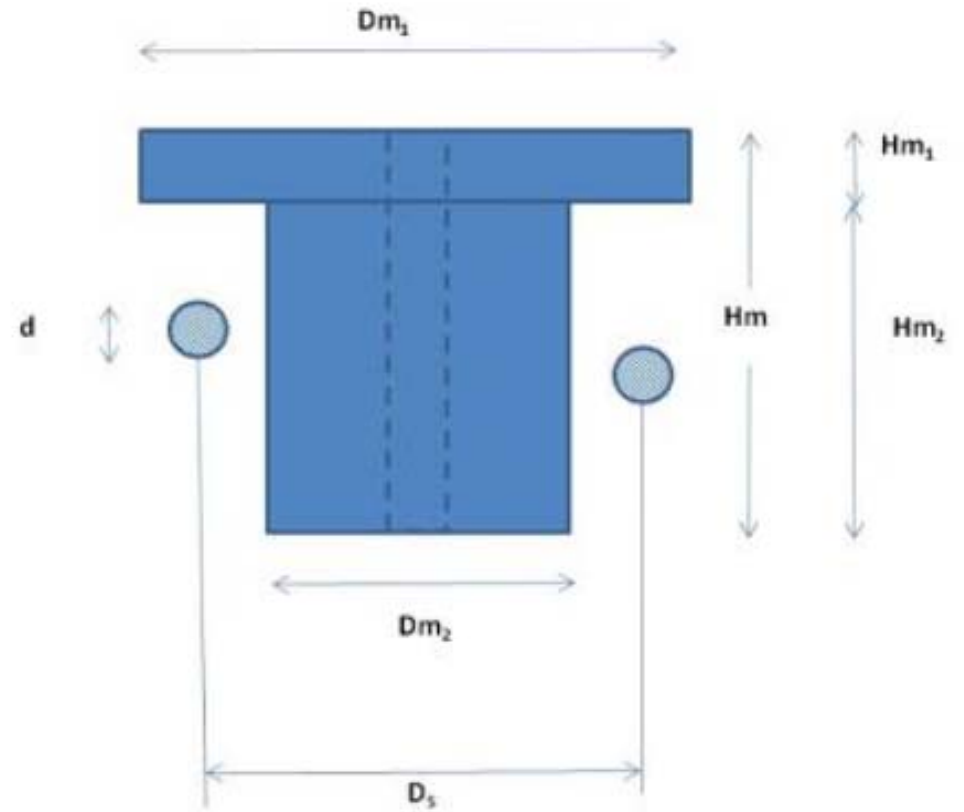
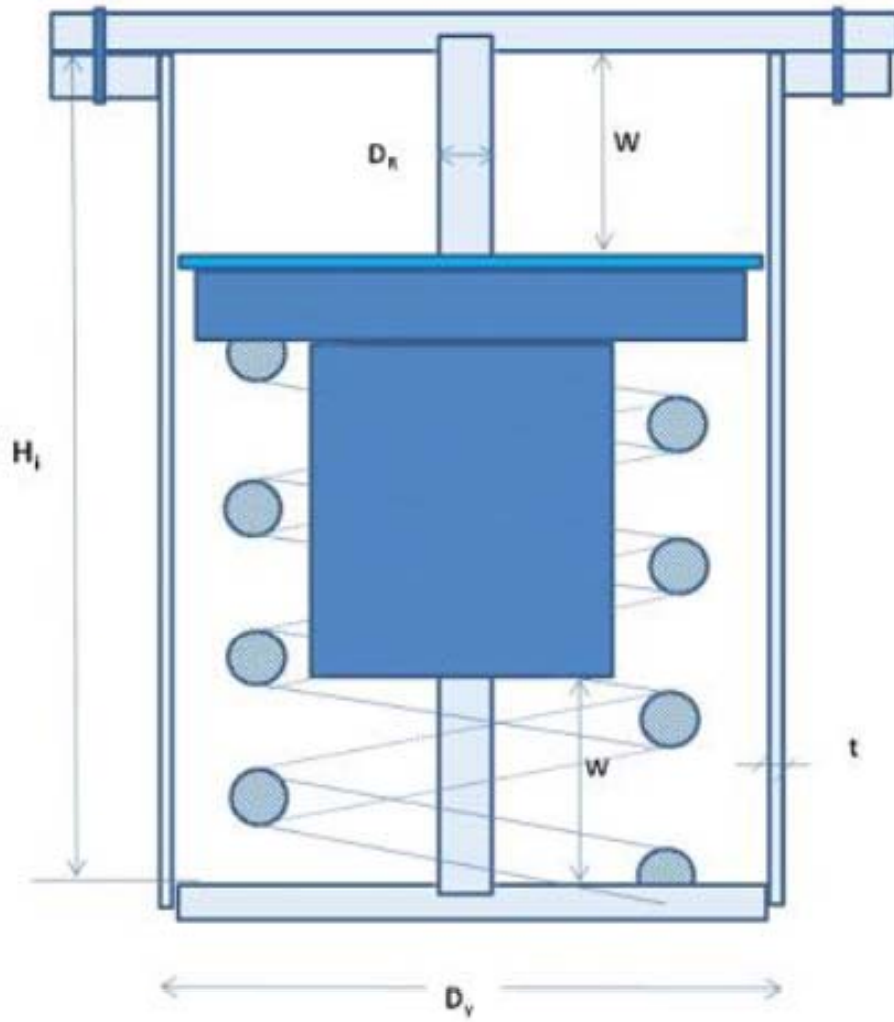
### DETALJE 3, 1:5

Lodret snit i bund af pylon og fastkuglekalotleje.

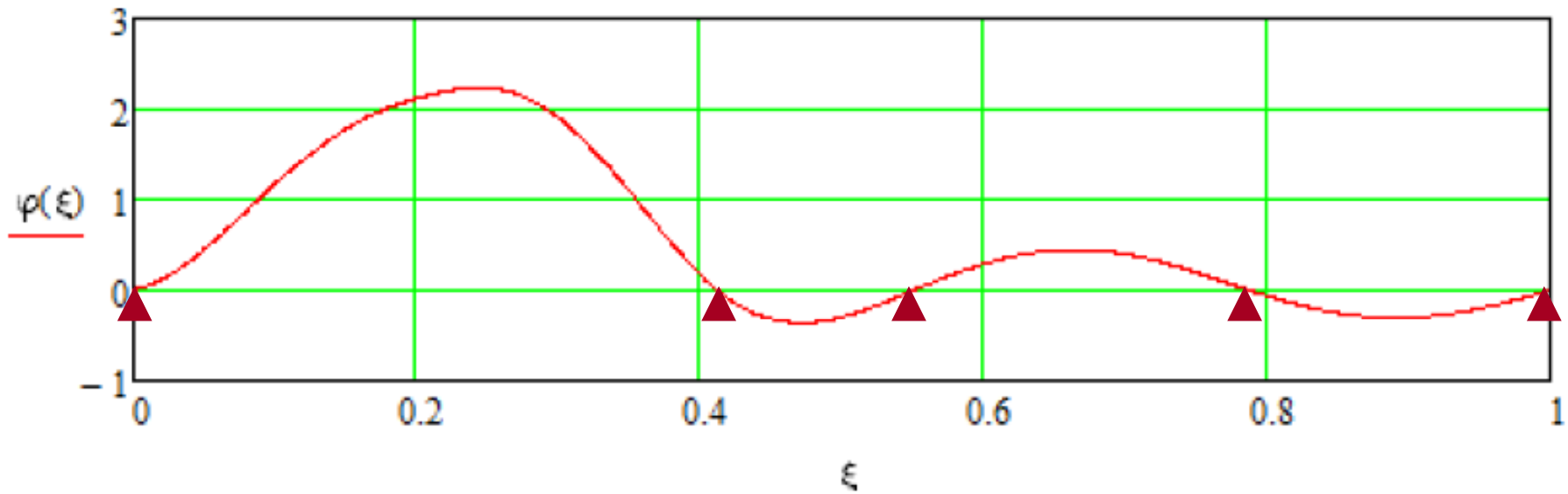
For informationer om fundament, se tegning K09\_LPY\_H4\_N111.



Tuned massedæmper. Eksempel



Tuned massdæmper – design eksempel.



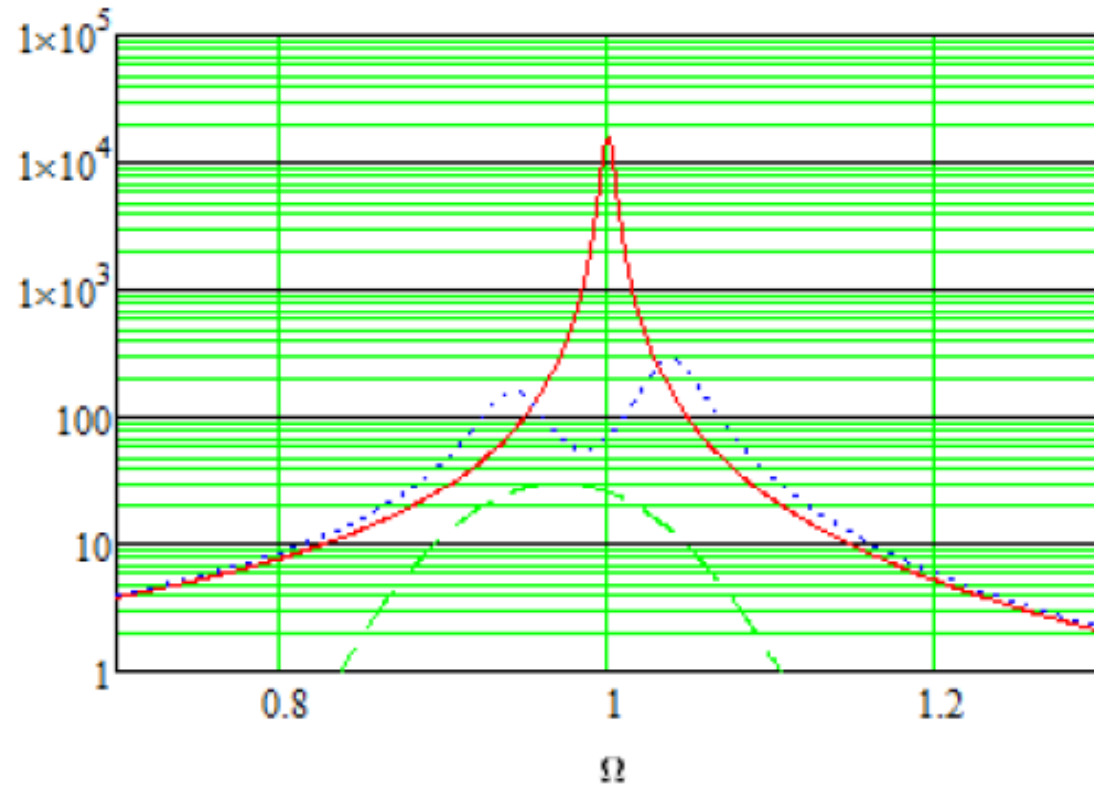
Dominerende svingningsform.

$f = 2.06 \text{ Hz}$

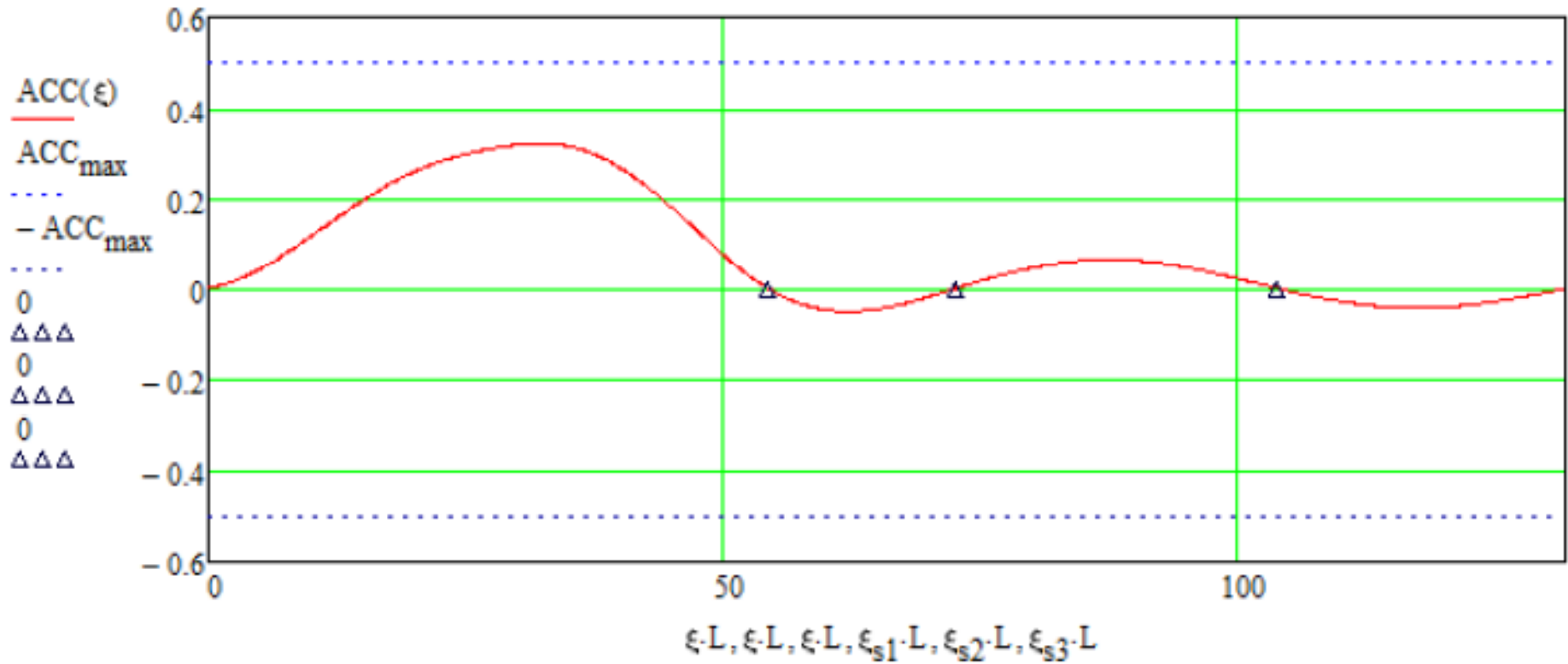
$$\text{---} H_{M0}(\Omega, \zeta_M)^2$$

$$\text{---} H_M(\Omega, \Omega_m, \chi_D(\xi_{tmd}, m_D), \zeta_M, \zeta_D)^2$$

$$\text{---} PS(\Omega)$$



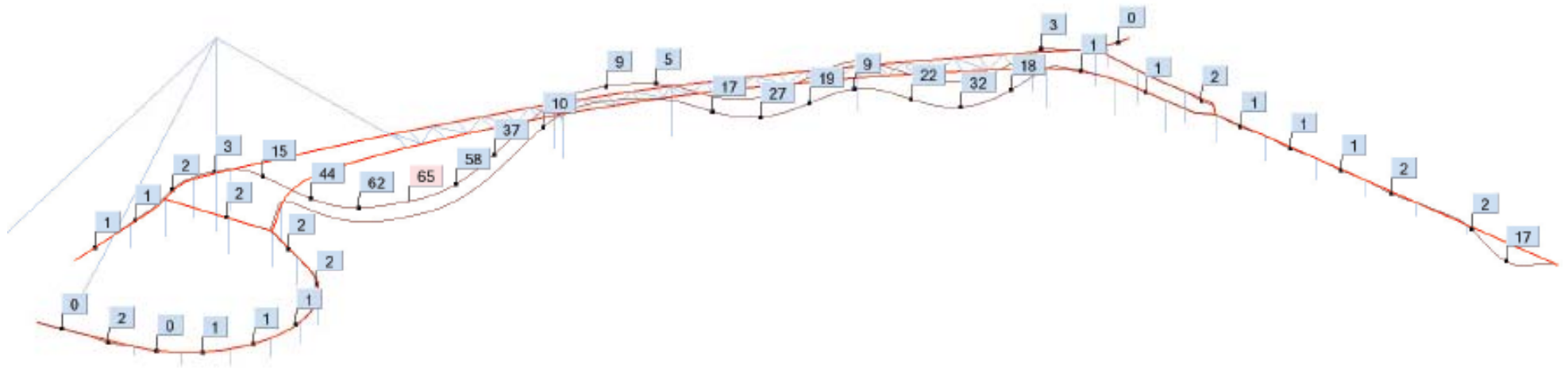
Relativt masseforhold for dæmper: 1%



**RESULTS**

- CASE 1: Very dense traffic - Opening  $ACC_{peak} = 0.67 \text{ m/s}^2$ ,  $ACC_{max} = 1.00 \text{ to } 2.50 \text{ m/s}^2$ : acceptable.  $U_{max} = 4.0 \text{ mm}$
- CASE 2: Weak traffic  $ACC_{peak} = 0.32 \text{ m/s}^2$ ,  $ACC_{max} = 0.50 \text{ m/s}^2$ : acceptable.  $U_{max} = 1.9 \text{ mm}$
- CASE 3: Dense traffic  $ACC_{peak} = 0.51 \text{ m/s}^2$ ,  $ACC_{max} = 0.70 \text{ m/s}^2$ : acceptable.  $U_{max} = 3.0 \text{ mm}$

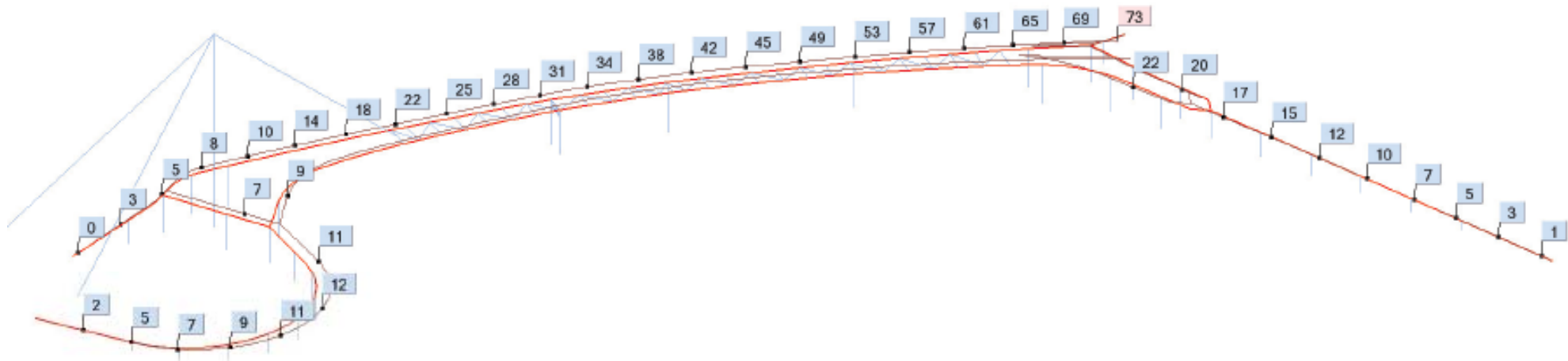




Dis 5mm  
Max=65

Cases: 101 (Nyttelast Tilf 1 Maksimallt)

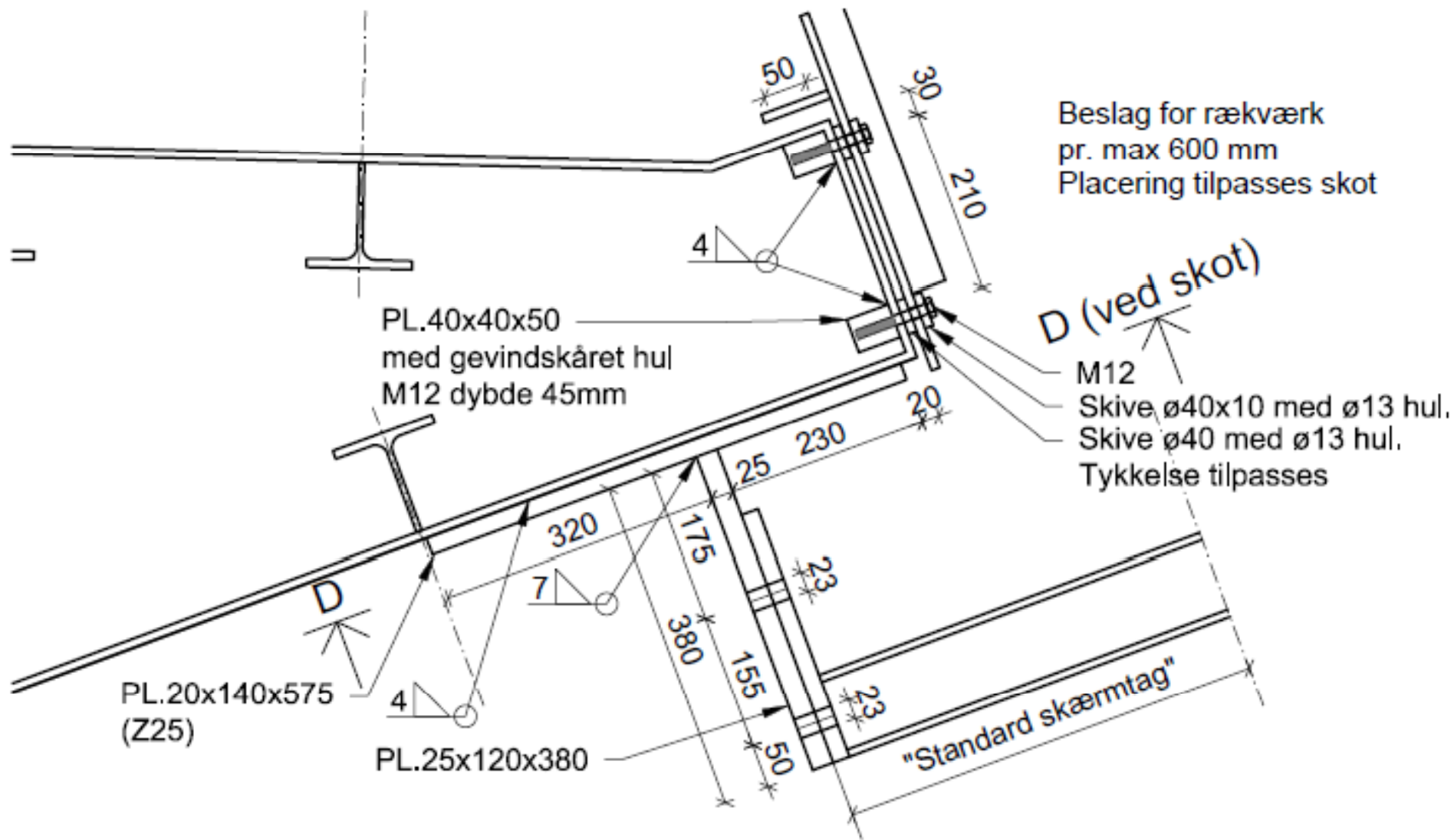
## Nedbøjninger for nyttelast



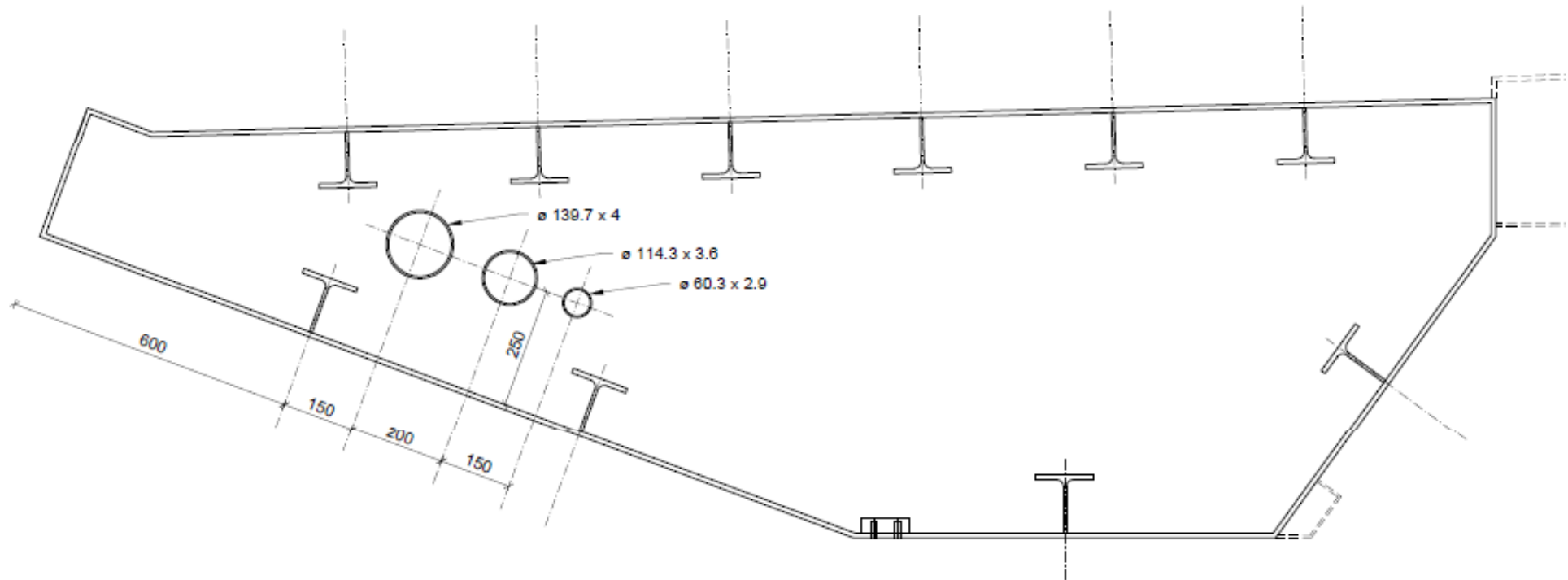
Dis 5mm  
Max=73

Cases: 9 (Temp længde opvarmning)

Temperatur, opvarmning, +44 grader C på staldelen.

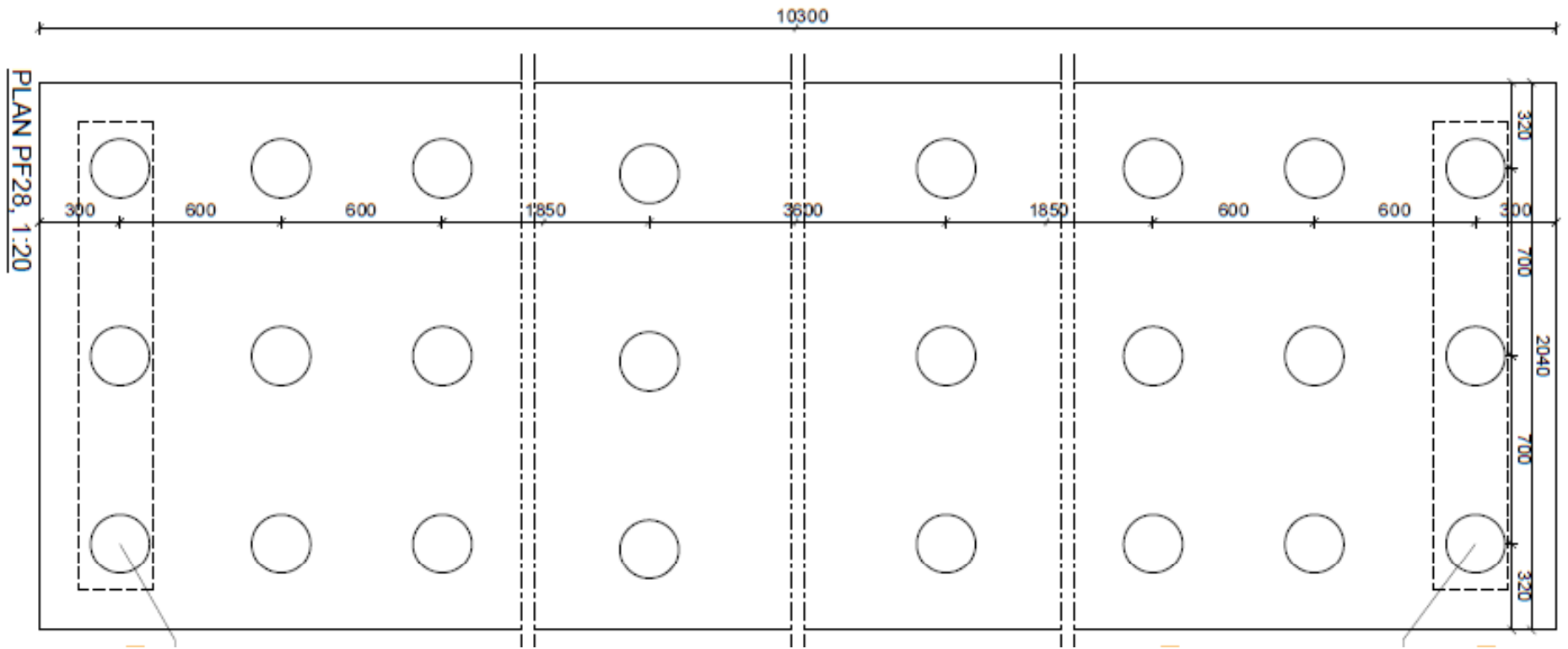


Fastgørelser af rækværk og af slærmtage.

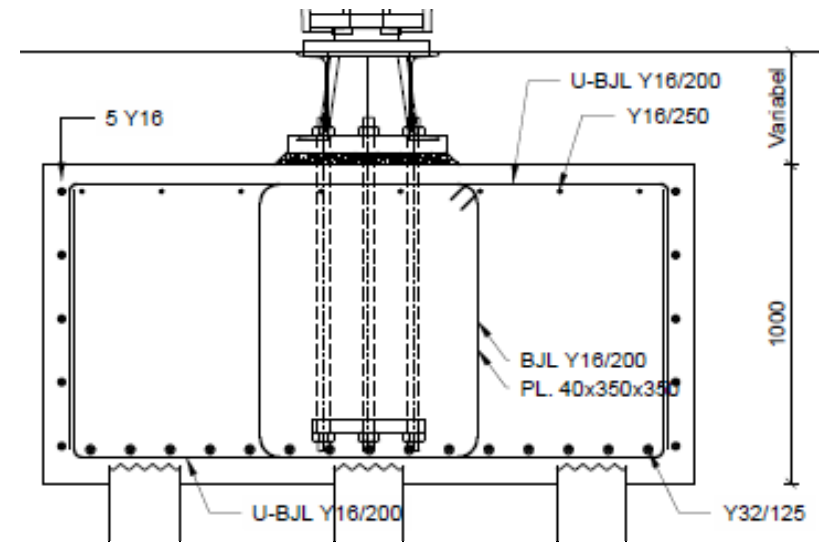


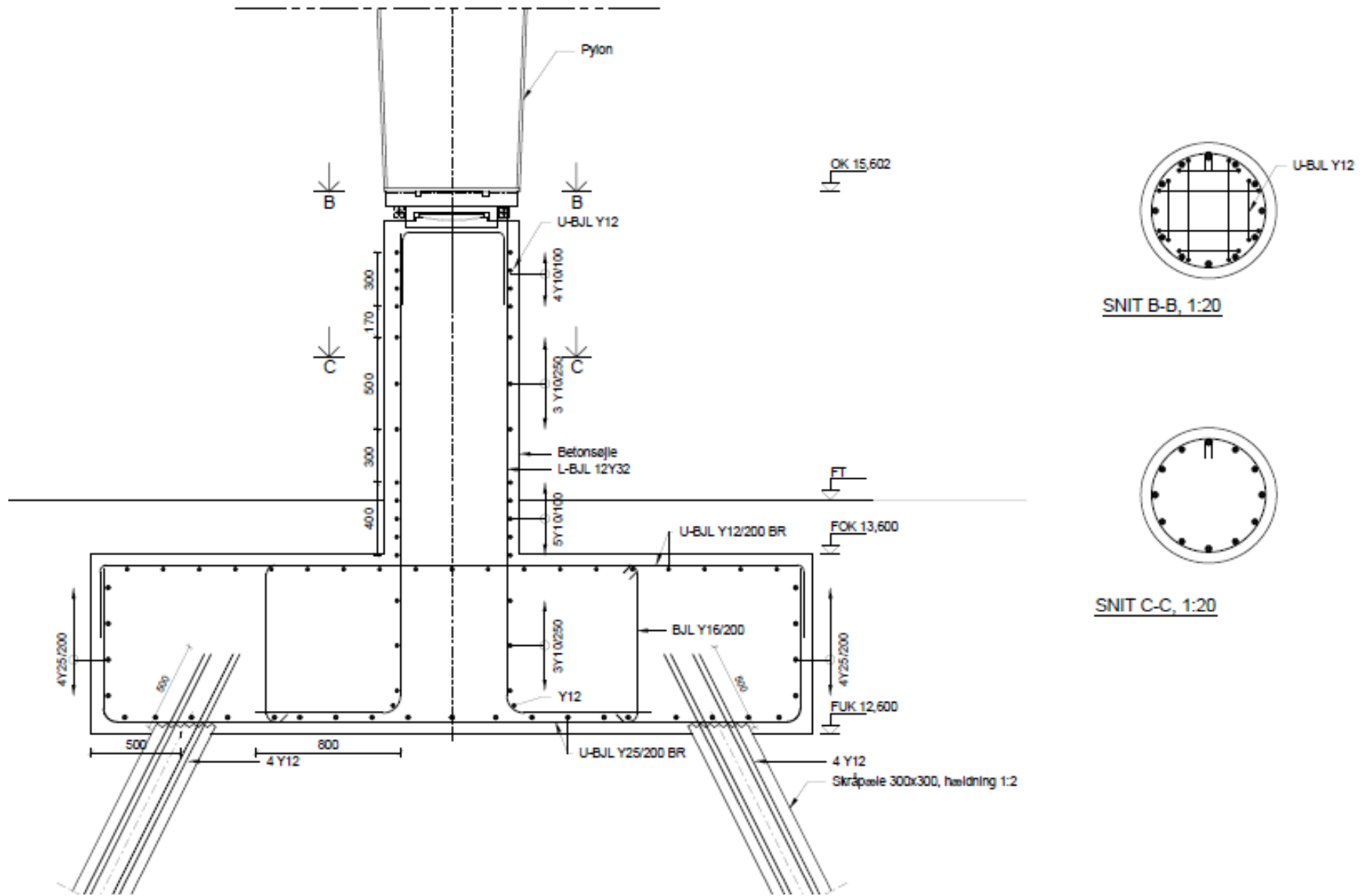
Gangbro.

Føringsrør til etablering af trækrør – op til 4 trækrør i et føringsrør

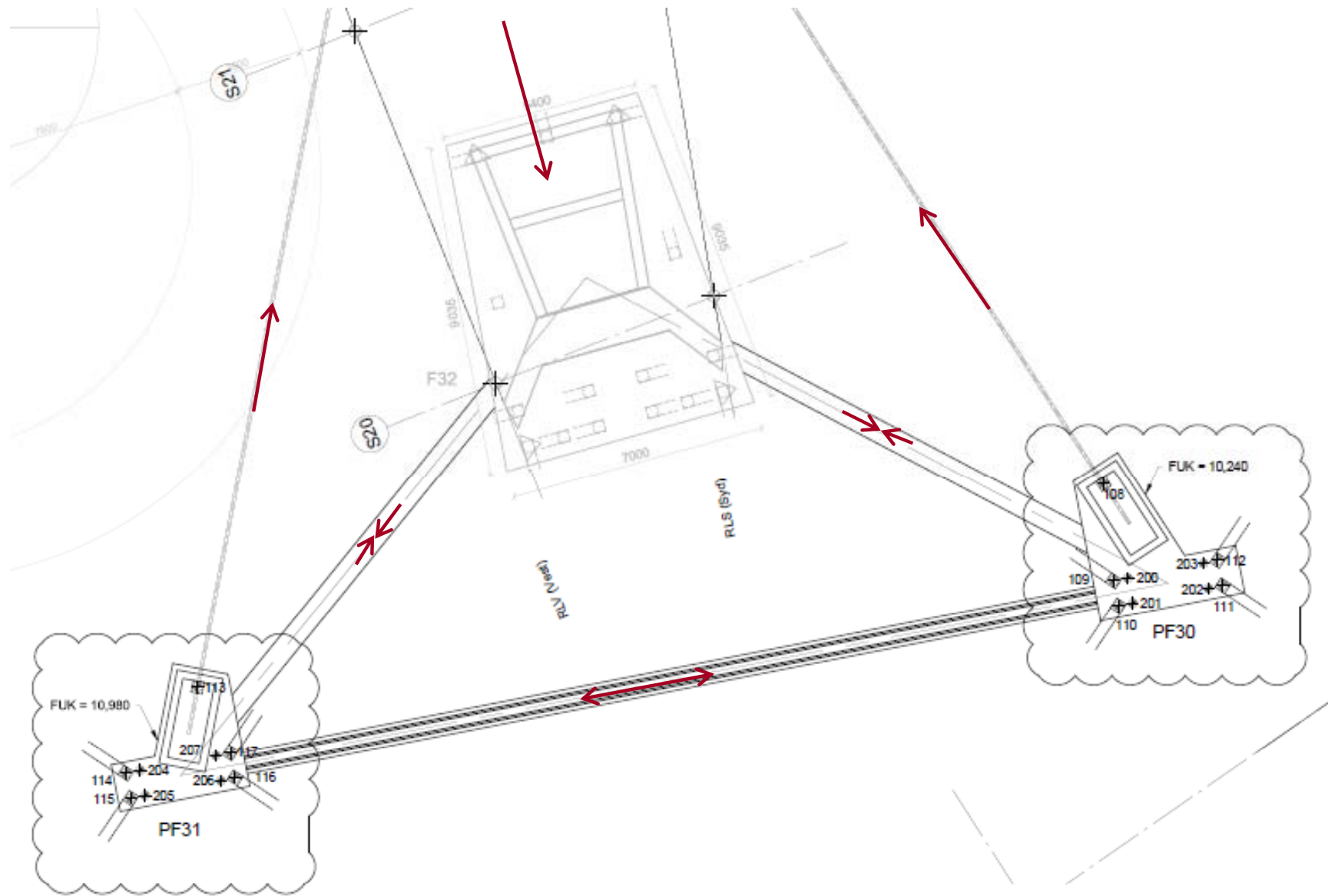


Plan og snit af fundament  
for dobbeltsøjle, perron 3





Fundament for pylon



## Fundamenter og udlignings træk- og trykstænger for stagsystem

# Stibro mellem by og havn

## Odense

