1 NASLOVNA STRAN S KLJUČNIMI PODATKI O NAČRTU

Načrt:

2/2 Načrt gradbenih konstrukcij
JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Investitor:

Republika Slovenija, Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana

Objekt/Projekt

REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Vrsta projektne dokumentacije:

IZVEDBENI NAČRT

Za gradnjo:

VZDRŽEVALNA DELA V JAVNO KORIST

Projektant:

Hiša, d.o.o.
načrtovanje in svetovanje
Ukmarjeva ulica 4, SI - 1000 Ljubljana

Odgovorni predstavnik projektanta:

mag. Tomaž Habič,
univ. dipl. inž. grad.

Poslujemo brez žiga

Podpis:

Odgovorni projektant:

dr. Leon Hladnik,
univ. dipl. inž. grad.
G-0296

dr. LEON HLADNIK
univ. dipl. inž. grad.
IZS G-0296

Podpis:

Številka načrta: **3719_2/2**

Številka projekta: **3719**

Kraj in datum: **Ljubljana, julij 2021**
Dopolnjeno po pregledu: **Ljubljana, oktober 2021**

Odgovorni vodja projekta:

Gregor Rakar,
univ. dipl. inž. grad.
G-2912

GREGOR RAKAR
univ.dipl.inž.grad.
IZS G-2912

Podpis:

ZR2100	0032.00.	007. 1276	S.1	

2 PRILOGA 1B – NASLOVNA STRAN NAČRTA

OSNOVNI PODATKI O GRADNJI	
naziv gradnje	**Rekonstrukcija železniške postaje Domžale**
kratek opis gradnje	**V sklopu rekonstrukcije se obnovijo vsi postajni tiri s kretnicami. Zgrajena bosta otočni in bočni peron, z novim podhodom za povezavo obeh strani postaje ter nadstrešnicami nad peroni. Predvidena je obnova postajnega poslopja in prenova parkirišč, vgradi se nova SV naprava.**
VRSTE GRADNJE	**REKONSTRUKCIJA**
DOKUMENTACIJA	
vrsta dokumentacije	**IZN (Izvedbeni načrt)**
številka projekta	**3719**
PODATKI O NAČRTU	
strokovno področje načrta	**2 Načrt s področja gradbenih konstrukcij**
številka in naziv načrta	**2/2 Načrt gradbenih konstrukcij**
številka načrta	**3719_2/2**
datum izdelave	**julij 2021**
PODATKI O IZDELOVALCU NAČRTA	
ime in priimek pooblaščenega arhitekta, pooblaščenega inženirja ali druge osebe	**dr. Leon Hladnik, univ. dipl. inž. grad.**
identifikacijska številka	**G-0296**
podpis pooblaščenega arhitekta, pooblaščenega inženirja ali druge osebe	dr. LEON HLADNIK univ. dipl. inž. grad. IZS G-0296
PODATKI O PROJEKTANTU	
projektant (naziv družbe)	**Hiša, d.o.o. načrtovanje in svetovanje**
sedež družbe	**Ukmarjeva ulica 4, 1000 Ljubljana**
vodja projekta	**Gregor Rakar, univ. dipl. inž. gradb.**
identifikacijska številka	**IZS G-2912**
podpis vodje projekta	GREGOR RAKAR univ.dipl.inž.grad. IZS G-2912
odgovorna oseba projektanta	**mag. Tomaž Habič,, univ. dipl. inž. gradb.**
podpis odgovorne osebe projektanta	

3 KAZALO VSEBINE NAČRTA

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3	Kazalo vsebine načrta	S.3.2
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	5.2 Analiza konstrukcije	T.1.2
6	Risbe:	
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	2 3D SHEMA – nadstrešek 2	G.455
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	6 DISPOZICIJA, SIDRANJE	G.402
	7 DISPOZICIJA, TLORISI, DETAJLI	G.402
	8 DISPOZICIJA, PREČNI PREREZI – nadstrešek 1	G.432
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	A-5 TEMELJ T5 - NADSTREŠEK OB OBJEKTU	G.471

6	Risbe:		
	DVG_1	DVIGALO DV1, DV2, DV2' – DISPOZICIJA, PREREZI, DETAJLI	G.402
	N1_D1	DETAJLI – nadstrešek 1	G.451
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4 IZJAVA POOBLAŠČENEGA INŽENIRJA

Odgovorni projektant načrta

dr. Leon Hladnik, univ. dipl. inž. grad.

V skladu s 7. točko 27. člena Pravilnika o pogojih in postopku za začetek, izvajanje in dokončanje tekočega in investicijskega vzdrževanja ter vzdrževalnih del v javno korist na področju železniške infrastrukture (Ur. l. RS, št. 82/2006),

I Z J A V L J A M ,

1. da je izvedbeni načrt skladen s projektno nalogo,
2. da predmetni izvedbeni načrt izpolnjuje vse pogoje interoperabilnosti podane v tehnični specifikaciji za interoperabilnost vseevropskega železniškega sistema za konvencionalne hitrosti v zvezi
   - z »infrastrukturnim« podsistemom TSI-2014/1299/EU z dne 18.11.2014
   - s »funkcionalno oviranimi osebami« TSI-2014/1300/EU z dne 18.11.2014
   - z »energijskim« podsistemom TSI-2014/1301/EU z dne 18.11.2014

3719_2/2	**dr. Leon Hladnik, univ. dipl. inž. grad. G-0296**
(št. izvedbenega načrta)	(ime in priimek, strokovna izobrazba, identifikacijska št.)
Ljubljana, julij 2021	dr. LEON HLADNIK univ. dipl. inž. grad. IZS G-0296
(kraj in datum izdelave)	(osebni žig, podpis)

5 Tehnično poročilo

ZR2100	**0032.00.**	**007. 1276**	**T.1**	

5.1 Tehnični opis

ZR2100	0032.00.	007. 1276	T.1.1	

TEHNIČNI OPIS

rev.1 **24.09.2021** po pregledu

Načrt gradbenih konstrukcij – Izvedbeni načrt (IZN)

Jekleni Nadstreški na železniški postaji Domžale

1.0 SPLOŠNI PODATKI

INVESTITOR: Republika Slovenija, Ministrstvo za infrastrukturo Direkcija RS za infrastrukturo

PROJEKT/OBJEKT: Rekonstrukcija železniške postaje Domžale, Jekleni Nadstreški

2.0 PODLOGE ZA PROJEKTIRANJE

IZN Načrt arhitekture: Ureditev železniške postaje Litija, projekt. št. 3719, SŽ-projektivno podjetje Ljubljana, julij 2021

3.0 OPIS OBJEKTA

V tem načrtu gradbenih konstrukcij so obravnavani naslednji konstrukcijski sklopi:

- Nadstrešek 1
- Nadstrešek 2 (peronski nadstrešek)
- Nadstrešek 3
- Nadstrešek 4
- Nadstrešek 5
- BUS – Nadstrešek 6
- Jeklene konstrukcije jaškov dvigal

Predmet tega načrta so jekleni deli zgoraj navedenih konstrukcijskih sklopov in novi točkovni in pasovni AB temelji jeklenih nadstreškov.

Obstoječe in nove AB podporne konstrukcije nadstreškov v območju podhodov in stopnišč in AB konstrukcije jaškov dvigal niso del tega načrta.

Pred izvedbo je potrebno izdelati delavniško dokumentacijo jeklenih konstrukcij. Za potrebe izdelave delavniške dokumentacije je obvezno potrebno preveriti geometrijo obstoječih in novih AB konstrukcij, ki niso del tega načrta, in po potrebi prilagoditi mere jeklenih nadstreškov.

Nadstrešek 1

Tlorisno je pravokotne oblike dimenzij cca 21.4x12.7m.Višina nadstreška znaša nad koto perona cca. 3.6m. Glavno nosilno jekleno konstrukcijo predstavlja momentni prostorski okvirni sistem, katerega stebri so členkasto podprti z AB podporno konstrukcijo. Stebri okvirja so iz hladno ali vroče oblikovanih cevi dimenzij KC160/8. Razmaki med stebri so različni. Stebri podpirajo branasto konstrukcijo oz. nosilce brane iz vročevaljanih profilov HEA200. Stebri in nosilci so momentno stikovani. Po obodu nadstreška poteka robni UNP200 nosilec. Nosilci brane podpirajo sekundarne nosilce v rastru do 1.05m. Priključki sekundarnih nosilcev so členkasti. Sekundarni nosilci so iz hladno ali vroče oblikovanih cevi dimenzij KC60/4, PC120/60/4, PC120/80/4 in KC120/5 glede na njihov razpon in obremenitve. Menjalnik okoli odprtine je HEA160.

AB podporno konstrukcijo sestavljajo novi AB točkovni dimenzij 1.2x1.2x0.8m in AB konstrukcija podhoda/stopnišč.

AB konstrukcija podhoda/stopnišč ni predmet tega načrta.

Jeklena konstrukcija je v AB parapetne zidove podhoda/stopnišč sidrana z predhodno vgrajenimi sidri (navojne palice) premera M24 kvalitete 5.6 (pozor-varjenje), ki so s pomočjo šablone skupaj z privarjeno ležiščno pločevino predhodno vgrajena v betonsko konstrukcijo podhoda.

Na nove AB točkovne temelje in na ploščo podhoda je pritrjevanje izvedeno z naknadno vgrajenimi lepljenimi sidri M24 HILTI HIT-HY 200 + navojne palice M24 kvalitete 5.6 (potrebna globina sidranja 300 mm). Za izravnave je predvideno podlitje ležiščnih pločevin stebrov v debelini cca 10 mm.

Kritina strehe so OSB3 vodoodporne plošče debeline 25 mm podložene z lesenimi morali. Minimalni naklon strehe se zagotovi z leseno konstrukcijo strehe po arhitekturnem detajlu.

Obloge strehe niso predmet tega načrta.

Nadstrešek 2 (peronski nadstrešek)

Peronski nadstrešek je širine cca. 5.1m in dolžine 94.0m. Višina nadstreška znaša nad koto perona cca. 4.25m (zgornji rob konstrukcije nadstreška). Nosilno jekleno konstrukcijo predstavljajo prečni okvirji, ki potekajo v rastru 9x9.0m+6.0m. Okvirna konstrukcija se sestoji iz dveh stebrov iz kvadratnih cevi KC 220x12.5mm, ki imata medsebojni osni razmak 1.0m v območju perona in cca. 2.85 m v območju stopnišča. Zgoraj sta obe cevi povezani v okvirno konstrukcijo s prečko, ki jo tvorita zvarjena U profila, ki segata previsno preko stebrov. Prečni okvirji so v vzdolžni smeri povezani z vroče valjanimi profili IPE 240 oziroma UNP 240 po robu nadstreška. Vzdolžne povezave so po statični zasnovi koncipirane kot kontinuirni nosilci preko več polj razpona 9.00m, ki v povezavi s prečnimi okvirji tvorijo okvirno konstrukcijo tudi v vzdolžni smeri strehe. Osni razmak med vzdolžnimi povezavami znaša cca 1. 1m. V strešni ravnini je izvedeno horizontalno povezje sistema nateznih diagonal iz okroglega jekla premera ϕ16mm z napenjalci.

Zasteklitev v območju podhoda oz. stopnišča se preko lastne podkonstrukcije naslanja na horizontalne nosilce iz pravokotnih cevi PC220/120/10 med glavnimi stebri. Ti nosilci so v vertikalni smeri dodatno podprti z stebri iz kvadratnih cevi KC120/6.3.

Stebri okvirjev so preko sidrnih vijakov M24 (navojne palice kvalitete 8.8), ki se s pomočjo šablone vgradijo v betonsko konstrukcijo, vpeti v temelje. Temelji so točkovni dimenzij 3.20x1.80x0.50m (temeljna peta) in temeljni nastavki 0.60x0.60x0.75m. Skupna višina temelja tako znaša 1.25m.
Predvideno je podlitje ležiščne pločevine jeklenih stebrov v debelini 40 mm.
Ker so zaradi lažje montaže predvidene povečane izvrtine v ležiščnih pločevinah stebrov, se debele podložne pločevine debeline 15 mm pod zgornjo matico sider na montaži zavari po obodu na ležiščno pločevino.
V območju podhoda oziroma stopnišča so stebri členkasto priključeni na armiranobetonsko konstrukcijo podhoda oziroma stopnišča ki pa ni del tega načrta. Pri detajlih sidranja stebrov KC120/6.3, (v območju podhoda oz. stopnišča), kjer je zaradi arhitekturnih zahtev potrebno varjenje sidrnih palic na predhodno vbetonirane ležiščne pločevine stebrov je potrebno zaradi varjenja uporabiti navojne palice M24 kvalitete 5.6 (detajl z varjenjem navojnih palic).
Kritina strehe so OSB3 vodoodporne plošče debeline 25 mm podložene z lesenimi morali. Minimalni naklon strehe se zagotovi z leseno konstrukcijo strehe po arhitekturnem detajlu.
Obloge strehe niso predmet tega načrta.
Zaradi dolžine in temperaturnih vplivov je konstrukcija na cca. sredini konstrukcije dilatirana, tako da so omogočeni vzdolžni pomiki med levim in desnim delom konstrukcije.
AB konstrukcija podhoda/stopnišč ni predmet tega načrta.

Nadstrešek 3

Nadstrešek je tlorisnih dimenzij 5.25x21.1m in višine cca 3.6m nad koto vrha parapetnih zidov AB konstrukcije stopnišča/podhoda (zgornji rob jeklene konstrukcije nadstreška). Nosilno jekleno konstrukcijo nadstreška predstavljajo prečni okvirji razpona 3.95m. Stebri so pod nivojem preček, povezani z vzdolžnimi povezavami in spodnjimi prečkami, tako da v konstrukcijskem smislu tvorijo prostorsko okvirno konstrukcijo. Stebri so v vzdolžni smeri postavljeni v rastru 3x3m+2x4.5m. Za stebre okvirjev so uporabljene kvadratne cevi KC120x10mm, za vzdolžne povezave in spodnje prečke pa kvadratne cevi KC 120x6.3mm. Na zgornjih prečkah okvirjev, ki so iz KC 120x8mm so privijačene strešne lege iz kvadratnih cevi KC 80x5mm v maksimalnem razmaku cca 0.86m. Strešne lege potekajo kontinuirno preko zgornjih prečko okvirjev.
Pri Nadstrešku so predvideni nekateri montažni kosi (prečni okvirji) dimenzij, ki zahtevajo izredni prevoz. V nasprotnem primeru je potrebno varjenje na gradbišču.
Okvirji so togo vpeti (zaradi zmanjšanja pomikov) v AB parapetne zidove podhoda oz. stopnišča in v dva nova AB točkovna temelja dimenzij 1.5x1.5x0.8m v osi 1_3. Dva jeklena stebra v osi 2_3 sta podprta na AB plošči konstrukcije podhoda.
AB konstrukcija podhoda oz. stopnišča ter dvigala ni del tega načrta.
Jeklena konstrukcija je v AB parapetne zidove podhoda sidrana z predhodno vgrajenimi sidri (navojne palice) premera M24 kvalitete 5.6 (pozor-varjenje), ki so s pomočjo šablone skupaj z privarjeno ležiščno pločevino predhodno vgrajena v betonsko konstrukcijo podhoda. Na nova AB točkovna temelja in na temelje, ki so sestavni del plošče podhoda, je pritrjevanje izvedeno z naknadno vgrajenimi lepljenimi sidri M24 HILTI HIT-HY 200 + navojne palice M24 kvalitete 5.6 (potrebna globina sidranja 300 mm). Za izravnave je predvideno podlitje ležiščnih pločevin stebrov v debelini cca 10 mm.

Nosilna konstrukcija strehe nadstreška je lesena, na jekleno konstrukcijo so privijačeni leseni morali, v katere se vijačijo OSB3 vodoodporne plošče debeline 25 mm. OSB3 plošče zagotavljajo horizontalno odpornost strešne ravnine. Minimalni naklon strehe se zagotovi z leseno konstrukcijo strehe po arhitekturnem detajlu.
Nadstrešek je delno zastekljen in sicer v območju stopnišča.
Obloga strehe in podkonstrukcija zasteklitve niso predmet tega načrta.

Nadstrešek 4

Nadstrešek je tlorisnih dimenzij 2.3x32.3m in višine cca 3.35m nad koto tlaka. Nosilno jekleno konstrukcijo nadstreška predstavljajo stebri s konzolo (v obliki črke L) postavljeni v rastru 7x4.5m. Stebri so togo vpeti v nove AB točkovne temelje. Stebri so iz pravokotne cevi PC300/200/8. Konzole so iz HEA200. detajl priključka med konzolo in stebrov je izveden tako, da je omogočeno odvodnjavanje strehe skozi notranjost stebra.
Konzola so v vzdolžni smeri povezane z vroče valjanimi profili IPE 180 oziroma UNP 180 po robu nadstreška.
Vzdolžne povezave so po statični zasnovi koncipirane kot kontinuirni nosilci preko več polj razpona 4.5m, ki v povezavi s stebri s konzolo tvorijo okvirno konstrukcijo tudi v vzdolžni smeri strehe. Osni razmak med vzdolžnimi povezavami znaša cca 0.96m.
Stebri so za potrebe namestitve zasteklitve zgoraj in spodaj povezani s kontinuiranimi nosilci iz pravokotnih profilov PC120/80/6.3.
Stebri so preko sidrnih vijakov M30 (navojne palice kvalitete 8.8), ki se s pomočjo šablone vgradijo v betonsko konstrukcijo, togo vpeti v temelje.
Stebri so togo vpeti v nove AB točkovne temelje dimenzij 2.40x1.80x0.50m (temeljna peta) in temeljni nastavki 0.70x0.70x0.75m. Skupna višina temelja tako znaša 1.25m.
Predvideno je podlitje ležiščne pločevine jeklenih stebrov v debelini 40 mm.
Ker so zaradi lažje montaže predvidene povečane izvrtine v ležiščnih pločevinah stebrov, se debele podložne pločevine debeline 15 mm pod zgornjo matico sider na montaži zavari po obodu na ležiščno pločevino.
Nosilna konstrukcija strehe nadstreška je lesena, na jekleno konstrukcijo so privijačeni leseni morali, v katere se vijačijo OSB3 vodoodporne plošče debeline 25 mm. OSB3 plošče zagotavljajo horizontalno odpornost strešne ravnine. Minimalni naklon strehe se zagotovi z leseno konstrukcijo strehe po arhitekturnem detajlu.
Med stebri nadstreška je izvedena zasteklitev.
Obloga strehe in podkonstrukcija zasteklitve niso predmet tega načrta.

Nadstrešek 5

Nadstrešek 5 v konstrukcijskem smislu predstavljata dve ločeni dilatacijski enoti ob obstoječem objektu.
Prvo dilatacijsko enoto predstavljajo horizontalni konzolni nosilci iz KC150/6.3, razpona cca. 1.45m, postavljeni v rastru cca. 2.40m, ki so sidrani v AB ploščo obstoječega objekta debeline 15 cm. Za sidra so predvidena lepljena sidra HILTI HVU HAS M16. Med horizontalnimi konzolnimi nosilci potekajo v razmaku cca 0.75m vzdolžni kontinuirani nosilci iz kvadratnih cevi 100/5. Horizontalni nosilci so nameščeni v linijah obstoječih betonskih stebrov premera 22cm in na sredini med betonskima stebroma (raster konzolnih nosilce je enkrat gostejši kot raster betonskih stebrov). Med betonskima stebroma (na lokaciji vmesnega konzolnega nosilca) se zaradi povečanih obremenitev betonske plošče, betonskega nosilca in betonskih stebrov vgradi

dodatne nihajne podporne jeklene stebre iz pravokotne cevi PC120/80/6. Dodatni jekleni nihajni steber je podprt z obstoječim pasovnim AB temeljem in podpira obstoječi AB nosilec, ki podpira zunanji rob obstoječe AB plošče. V enem rastru med betonskima stebroma se vgradi eden ali dva jeklena stebra, odvisno od arhitekturnih zahtev (lokacije odprtin). Za sidranje nihajnih stebrov v AB temelj spodaj in AB nosilec so predvidena lepljena sidra HILTI HVU HAS M16. Predvideno je da se pri montaži nihajnih stebrov najprej sidra zaključni pločevini stebra v temelj in nosilec. Nato pa se steber prilagodi po višini dejanski višini (vpaše) in zavari na montaži. Obstoječe betonske stebre premera 22 cm v celotnem območju nadstreška se zaradi povečanih obremenitev dodatno ojača z karbonsko tkanino po celotnem obodu in višini stebra. Predvidena je uporaba karbonske tkanine n.pr. SikaWrap-230C, ki jo je potrebno zaščititi pred direktno sončno svetlobi (n.pr. s cementno oblogo ali z zaščitnimi premezi). Vgradna karbonske tkanine se mora izvajati po navodilih proizvajalca tkanine.

Obstoječi pasovni temelj pa se dobetonira. Dobetonaža obstoječega pasovnega temelja ni predmet tega načrta.

Drugo dilatacijsko enoto predstavljajo jekleni prečni okvirji postavljeni v rastru 1.415+1.82+1.82+1.415m.

Stebri in prečka okvirja je iz pravokotne cevi PC 150/100/6. Razmak med stebroma je 1.46m. Višina stebrov je 2.9m. Med prečkami okvirjev potekajo v razmaku cca 0.73m vzdolžni kontinuirani nosilci iz kvadratnih cevi 100/5. Jekleni stebri so podprti z dvema linijskima novima AB pasovnima temeljema, različnih višin, ki sta spodaj povezana z AB ploščo, tako da se tvori U prerez (korito).

Predvideno je, da se jekleni konstrukciji obeh dilatacijskih enot zaradi prilagajanja obstoječemu objektu na licu mesta varita na montaži. Pred izvedbo je potrebno preveriti dimenzije obstoječega objekta in dimenzije jeklene konstrukcije prilagoditi dejanskemu stanju na objektu.

Obloga strehe ni predmet tega načrta.

BUS - Nadstrešek 6

Nadstrešek 6 je tlorisnih dimenzij 2.3x14.3m in višine cca 2.50m nad koto tlaka. Nosilno jekleno konstrukcijo nadstreška predstavljajo stebri s konzolo (v obliki črke L) postavljeni v rastru 3x4.5m. Po statični zasnovi je nosilna konstrukcija Nadstreška 6 identična zasnovi Nadstreška 4, le število polj med stebri je pri Nadstrešku 6 manjše kot pri Nadstrešku 4 in višina Nadstreška 6 nad koto tlaka je nekoliko manjša kot višina nadstreška 4. Analiza konstrukcije Nadstreška 4 tako velja tudi za Analizo konstrukcije Nadstreška 6. Podrobneje glede zasnove Nadstreška 6 glej pri Nadstrešku 4.

Jeklena konstrukcija jaškov dvigal

Nad koto perona/betona je konstrukcija jaška dvigala jeklena. Glavni elementi jeklene konstrukcije so stebri in prečke iz KC140/8, ki tvorijo prostorski okvir. Dimenzije profilov so izbrane konstruktivno. Dimenzije konstrukcije so razvidne iz risb. Konstrukcije so lahko v celoti izvedene v delavnici kot »zvarjenec« in transportirane na gradbišče, kjer se preko lepljenih sidrnih vijakov HILTI HVU HAS M16 sidra v izvedene AB konstrukcije ali pa se jo z varjenjem na montaži izvede na gradbišču.

AB konstrukcija jaškov dvigal ni predmet tega načrta.

4.0 TEMELJNA TLA

Podatki o temeljnih tleh so povzeti po Geotehničnem poročilu št. 275 za nadgradnjo železniške postaje Domžale; Lamela .d.o.o.; datum: 2.7.2021.

- globina prodiranja mraza 90 do 100 cm
- strižni kot 28^{o}
- seizmičnost terena, tip tal C (SIST EN 1998-1)
- Nosilnost temeljnih tal Rd/A znaša190 kN/m^2 (projektni pristop 2)
- Kota dna novih AB točkovnih oz. pasovnih temeljev jeklenih nadstreškov je višje od predvidenega nivoja podtalnice.

V analizi upoštevani modul reakcije tal za vertikalno smer znaša 26000 kN/m^3

Maksimalne kontaktne napetosti Rd/A pod novimi temelji pri ULS (faktorirana obtežba) in pri potresnih obtežnih kombinacijah ne presegajo maksimalnih dovoljenih napetosti 190 kN/m^2.

Sanacija temeljnih tal

Pri vseh novih temeljih je potrebno lokalno sanirati temeljna tla pod temelji. Iz temeljnih tal se odstrani glino in se jo nadomesti s kamnito blazino.

Geotehnični nadzor

Sestav temeljnih tal in skladnost dejanskih razmer na terenu s pogoji geotehničnega poročila določi in potrdi projektant v času gradnje, na mestu samem, v sklopu geotehničnega nadzora. V okviru izvedbe mora biti zagotovljen geotehnični nadzor za ugotavljanje skladnosti stanja na terenu s projektnimi izhodišči.

5.0 ANALIZA KONSTRUKCIJE IN VPLIVI NA KONSTRUKCIJO

Določitev obremenitev in dimenzioniranje elementov nosilne konstrukcije je bila opravljena z računalniškim programom ESA ENGINEER ob upoštevanju faktorirane obtežbe in upoštevanju teorije drugega reda in začetne nepopolnosti v skladu s standardi iz družine EVROKOD. Konstrukcija je bila obravnavana prostorsko. Dimenzioniranje in kontrola stabilnosti tipičnih konstrukcijskih elementov je prav tako izvedeno s programom SCIA ENGINEER

Uporabljeni standardi:

SIST EN 1990:	**Osnove projektiranja**
SIST EN 1990:	Osnove projektiranja
SIST EN 1991:	**Vplivi na konstrukcije**
SIST EN 1991-1-1:	Prostorninska teža, lastna teža, koristne obtežbe
SIST EN 1991-1-3:	Obtežba snega
SIST EN 1991-1-4:	Obtežba vetra

SIST EN 1992:	**Projektiranje betonskih konstrukcij**
SIST EN 1992-1-1:	Splošna pravila in pravila za stavbe
SIST EN 1993:	**Projektiranje jeklenih konstrukcij**
SIST EN 1993-1-1:	Splošna pravila in pravila za stavbe
SIST EN 1993-1-8:	Projektiranje spojev
SIST EN 1995:	**Projektiranje lesenih konstrukcij**
SIST EN 1995-1-1:	Splošna pravila in pravila za stavbe
SIST EN 1998:	**Projektiranje potresnoodpornih konstrukcij**
SIST EN 1998-1:	Splošna pravila, potresna obtežba in pravila za stavbe

Upoštevana obtežba:

Lokacija: Domžale

Lastna teža

Lastna teža konstrukcije je upoštevana avtomatično v računalniškem programu.

Stalna obtežba

Kritina (PVC folija, npr.: Sika)	0.10 kN/m^2
Trapezna pločevina ali OSB plošče	0.20 kN/m^2
Inštalacije	0.10 kN/m^2
Spuščen strop – profilirana pločevina	0.15 kN/m^2
Skupaj	**0.55 kN/m^2**
Teža LCD zaslona	1.5 kN

Obtežba s snegom S

vsi nadstreški

Cona A2, nadmorska višina 304 m, s_k = 1.52 kN/m2

S1 = μ s_k = 0.8 x 1.52 kN/m^2 = 1.22 kN/m^2

pri Nadstrešku 1 upoštevano kopičenje ob obstoječem objektu

dolžina kopičenja

h = 2.7 m, l_s = 2xh = 2x2.7 = 5.4 m; 5 m < l_s < 15 m

$\mu_w = \gamma$ x h/s_k =2x2.7/1.52 = 3.6, 0.8 < μ_w < 4 → μ_w = 3.6

obtežba kopičenja

$S_3 = \mu_w$ x s_k = 3.6 x 1.52 kN/m^2 = 5.5 kN/m^2

pri Nadstrešku 5 upoštevano kopičenje ob obstoječem objektu

dolžina kopičenja
h = 4.5 m, l_s = 2xh = 2x4.5 = 9 m; 5 m < l_s < 15 m
$\mu_w = \gamma$ x h/s_k =2x4.5/1.52 = 5.9, 0.8 < μ_w < 4 → μ_w = 4.0
obtežba kopičenja
$S_3 = \mu_w$ x s_k = 4.0 x 1.52 kN/m^2 = 6.1 kN/m^2

Obtežba z vetrom W

Cona 1, hitrost vetra 20 m/s, II. kategorija terena, z = 5,0 m

q_p (z) = c_e (z) x q_b = 1.93 x 0.25 = 0.50 kN/m^2

w=c_p* q_p

- veter na masko C_p = 1.6
- veter na profile C_p = 2.0
- veter na steklene površine C_p = 0.8+0.5 = 1.3
- veter pritisk na streho C_p = 0.5
- veter srk na streho C_p = -1.5

Horizontalna obtežba na ograjo oziroma stekleno steno:

Kategorija površine ob steni oziroma parapetu (kategorija C2-C4 in D)

H = 1,00 kN/m^1, višina delovanja obtežbe +1,20m nad koto perona

Potres

Pospešek temeljnih tal 0.25g. Faktor obnašanja q = 1.50, Tip tal C, faktor pomembnosti γ=1.0.

Vertikalni zemeljski pritisk

γ = 20 kN/m^3, $p_v = \gamma$ x h

Aerodinamični učinki vlakov

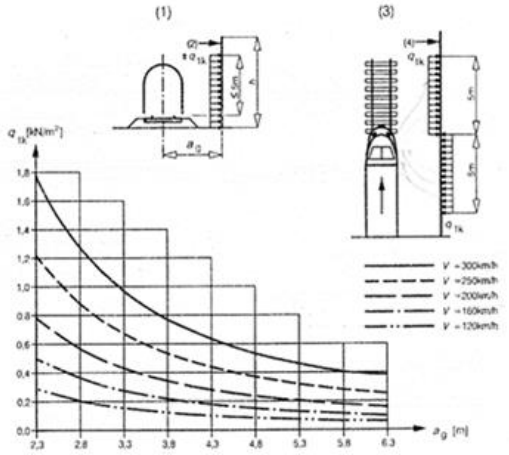
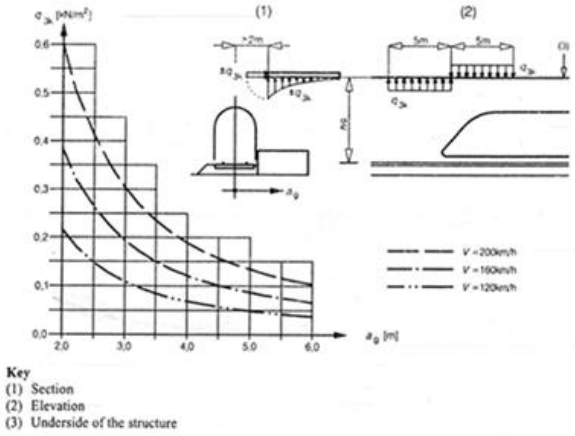
Projektna hitrost vlakov na postaji v = 70 km/h

Upoštevamo računsko hitrost vlakov v = 120 km/h

a_{g1} = 2.3 m (minimalna razdalja od osi tira vertikalnih stebrov)

a_{g3} = 2.0 m (minimalna razdalja od osi tira do roba strehe)

dinamični faktor d_f = 2.0

q_{1k} = 0.30 kN/m^2 q_{1d} = 0.30 x 2 = 0.60 kN/m^2 	q_{3k} = 0.22 kN/m^2 q_{3d} = 0.22 x 2 = 0.44 kN/m^2  Key (1) Section (2) Elevation (3) Underside of the structure

6.0 MATERIAL

Jeklo

- Osnovni material (profili, pločevine) elementov jeklenih konstrukcij je predviden v kvaliteti **S235J2** po SIST EN 10025. Za šablone za vgradnjo sider se lahko uporabi S235JR.

Sidra

- Predhodno vbetonirana sidra (navojne palice) M30 kvalitete 8.8 v skladu z SIST EN 15048-1 z navojem po celotni dolžini palice - novi točkovni AB temelji (Nadstrešek 4).
- Predhodno vbetonirana sidra (navojne palice) M24 kvalitete 8.8 v skladu z SIST EN 15048-1 z navojem po celotni dolžini palice - novi točkovni AB temelji (Nadstrešek 2).
- Predhodno vbetonirana sidra (navojne palice) M24 kvalitete 5.6 v skladu z SIST EN 15048-1 z navojem po celotni dolžini palice. – na mestih kjer je predvideno varjenje med sidri in predhodno vbetonirano ležiščno pločevino stebrov (kvaliteta sider 8.8 zaradi predvidenega varjenja sider na teh mestih NI dovoljana) - sidranje v parapetne zidove AB konstrukcije stopnišč/podhoda (Nadstrešek 1, Nadstrešek 2, Nadstrešek 3)
- Naknadno lepljena sidra M24 HILTI HIT-HY 200 + navojne palice M24 kvalitete 5.6 v skladu z SIST EN 15048-1 (sidrna dolžina 300 mm) - novi točkovni AB temelji (Nadstrešek 1, Nadstrešek 3)
- Naknadno lepljena sidra HILTI HVU HAS M16 (Nadstrešek 5, Jeklena konstrukcija jaškov dvigal)

Za spajanje jeklenih elementov na gradbišču so predvidene vijačne zveze:

- **kvalitete 8.8**,
  standard **SIST EN 15048-1**, navadni vijaki SB, čvrsto pritegnjeni;
- **kvalitete HV 10.9**,

standard **SIST EN 14399-1**, razred K1, prednapeti do sile 50% polnega prednapetja z atestiranimi momentnimi ključi.

Beton

- C 12/15 - podložni beton
- C 30/37 - AB konstrukcije, vodoneprepustni beton, PV-II, XC4, XF3, zaščitni sloj 5cm
- S 500 B – armatura

Les

- Leseni morali - masivni les – iglavci kvalitete C24
- OSB 3 vodoodporne plošče D = 25mm (nosilna kritina Nadstreškov)

Podlivanje

- Za podlivanje predlagamo **samorazlivno ekspanzijsko malto visoke trdnosti**, kot je na primer podlivna malta s komercialnim imenom ALTEKS ali ekvivalentna druga.

Tkanina iz karbonskih vlaken

Obstoječe betonske stebre premera 22 cm se zaradi povečanih obremenitev zaradi namestitve Nadstreška 5 dodatno v celotnem območju Nadstreška 5 ojača z karbonsko tkanino po celotnem obodu in višini stebra. Predvidena je uporaba karbonske tkanine n.pr. **SikaWrap-230C**, ki jo je potrebno zaščititi pred direktno sončno svetlobi (n.pr. s cementno oblogo ali z zaščitnimi premazi). Vgradna in zaščita karbonske tkanine se mora izvajati po navodilih proizvajalca tkanine.

Ves vgrajen material elementov nosilne jeklene konstrukcije (pločevine, profili, dodajni material, spojna sredstva…) mora biti opremljen s potrdili o kvaliteti v skladu z zakonom o standardizaciji. Potrdila o kvaliteti morajo biti stopnje v skladu z določili podanimi v standardu SIST EN 1090-2.
Izdelki za izdelavo elementov nosilne jeklene konstrukcije, ki so izdelani v skladu z harmoniziranimi standardi (profili, pločevine, dodajni material, vijačne zveze, ležišča,..), morajo biti ustrezno opremljeni s CE znakom in dobavljeni z ustrezno izjavo oziroma certifikatom o skladnosti (Zakon o gradbenih proizvodih).

7.0 IZDELAVA IN MONTAŽA JEKLENE KONSTRUKCIJE

Nosilno jekleno konstrukcijo lahko v delavnici izdeluje le izvajalec, ki ima v skladu z:

- SIST EN 1090-1 Izvedba jeklenih in aluminijastih konstrukcij – 1. del:
  Zahteve za ugotavljanje skladnosti jeklenih konstrukcij,

s strani priglašenega organa certificirano notranjo kontrolo proizvodnje (FPC).
Jeklena konstrukcija mora biti izdelana in montirana v skladu s projektno dokumentacijo in v skladu z določili slovenskega standarda:

- SIST EN 1090-2 Izvedba jeklenih in aluminijastih konstrukcij – 2. del:
  Tehnične zahteve za izvedbo jeklenih konstrukcij,

v katerem so navedene splošne zahteve za izdelavo in montažo jeklenih nosilnih konstrukcij, narejenih iz vroče valjanih, vroče obdelanih, varjenih in hladno oblikovanih jeklenih izdelkov.
V okviru izdelave in montaže jeklenih konstrukcije je potrebno upoštevati tudi druge standarde, ki jih krovni standard SIST EN 1090-2 uvaja oziroma se na njih sklicuje.
Pri izdelavi in montaži nosilne jeklene konstrukcije, pa je potrebno upoštevati tudi določila še vedno veljavnega jugoslovanskega pravilnika (ni bil razveljavljen):

- Pravilnik o tehničnih predpisih za pregled in preizkušanje nosilnih jeklenih konstrukcij (Ul. SFRJ 6/65).

Le ta predpisuje, da je pred pričetkom uporabe potrebno izvršiti tehnični pregled nove nosilne jeklene konstrukcije objektov. Namen tega tehničnega pregleda je, da se ugotovi:

- ali je konstrukcija zgrajena v skladu z projektom;
- ali je kvaliteta izdelave in montaže konstrukcije v skladu z tehničnimi predpisi in posebnimi tehničnimi pogoji.

Izvedbeni razred jeklenih konstrukcij je EXC2.

Izvajalec je dolžan pred začetkom izvedbe oz. gradnje na osnovi IZN izdelati:

- **delavniško dokumentacijo (načrte oz. risbe)**
- plan kontrole in preizkušanj (za izdelavo v delavnici in montažo na gradbišču);
- elaborat protikorozijske zaščite (s točnimi navodili izvedbe in kontrole tako za izvedbo v delavnici in kot izvedbo na gradbišču);
- navodila za montažo
- elaborat varstva pri delu.

Izvajalec mora tako za izdelavo v delavnici kot montažo na gradbišču pripraviti tudi Kontrolno (dokazno dokumentacijo), ki se nanaša na dejansko zgrajeno konstrukcijo in iz katere je razvidno, da so se dela izvajala v skladu s projektno dokumentacijo in da so dela izvedena kvalitetno (potrdila o kvaliteti osnovnega materiala, potrdila o kvaliteti dodajnega materiala (elektrode, varilna žica…), potrdila o kvaliteti spojnega materiala (vijaki), spričevala o usposobljenosti varilcev, varilski in montažni dnevnik, merski protokoli posameznih zvarjencev izdelanih v delavnici, poročila o rezultatih kontrol kvalitete zvarov (vizualna kontrola, neporušne preiskave), protokoli privijanja vijakov (prednapeti, navadni), rezultati kontrol protikorozijske zaščite (meritve debelin in oprijema posameznih premazov in skupne debeline), potrdila o kvaliteti uporabljenih premazov protikorozijske zaščite, pisne potrditve sprememb, ki so nastale v času izdelave in montaže, s strani odgovornega projektanta nosilne jeklene konstrukcije, razni zapisniki in izjave…

Pri izdelavi je potrebno upoštevati sledeče:

- Sledljivost materiala mora biti zagotovljena v vseh fazah izdelave in montaže. Neoznačen material se obravnava kot neustrezen.
- Pri izdelavi posameznih elementov jeklene konstrukcije je potrebno posebno pozornost posvetiti dimenzijski kontroli posameznih elementov in pripravi zvarnih robov.
- Vsi sočelni zvari (K, V, 1/2V, Y,…) morajo biti izvedeni s prevaritvijo korena.
- Varilne deformacije predvidi izvajalec.
- Izvajalec mora upoštevati tolerance valjanih profilov.

- Sestava in varjenje se mora izvajati v skladu s planom varjenja in sestave.
- Med izdelavo in montažo jeklene konstrukcije mora biti zagotovljena stalna merska in geodetska kontrola. Za vse faze izdelave in montaže morajo biti izdelani ustrezni merski protokoli.
- Večje sklope naj se predhodno v delavnici poizkusno zmontira in preveri točnost in naleganje spojev in geometrijske tolerance. Poizkusno montažo je potrebno protokolirati.
- Rokovanje in skladiščenje materiala in že izdelanih elementov konstrukcije se mora vršiti tako, da ne pride do trajnejših deformacij in poškodb površin elementov. Preprečiti je potrebno zadrževanje vode na skladiščenih elementih.

Glede kvalitete zvarov in obsega neporušnih preiskav je potrebno upoštevati določila standarda SIST EN1090-2.

Montaža

Pri montaži je potrebno upoštevati sledeče:

- Pred pričetkom montaže naj se geodetsko kontrolira tlorisni in višinski položaj pripravljenih sidrišč jeklene konstrukcije.
- Montaža se mora izvajati v skladu s planom montaže, ki ga izdela izvajalec.
- Pri montaži je potrebno s pravilnim vrstnim redom montaže zagotoviti stabilnost konstrukcije v času montaže.
- Med izdelavo in montažo jeklene konstrukcije mora biti s strani izvajalca zagotovljena stalna ustrezna kontrola glavnih dimenzij. Za vse faze izdelave in montaže morajo biti izdelani ustrezni merski protokoli.
- Kontrola vijačenja mora biti protokolirana.
- Po posameznih fazah montaže in po končani montaži mora biti zapisniško preverjena glavna geometrija montirane nosilne jeklene konstrukcije. Geometrija montirane konstrukcije mora biti v okviru predpisanih toleranc.
- Nameščanje strešne kritine se lahko prične, šele, ko je nosilna jeklena konstrukcija v celoti montirana.
- Po zaključku montaže in pred nameščanjem strešne kritine in fasadne obloge je potrebno izvesti vsa popravila poškodb AKZ nastalih med transportom in montažo.
- Glede geometrijskih toleranc izdelanih elementov in montirane konstrukcije je potrebno upoštevati določila standarda SIST EN1090-2.

Varjenje

Varjenje tako v delavnici kot na gradbišču se mora izvajati v skladu z zahtevami relevantnih delov standarda: **SIST EN ISO 3834 1-6:2006** Zahteve za kakovost pri talilnem varjenju kovinskih materialov.
Glede na določen izvedbeni razred je potrebno upoštevati sledeče dele standarda SIST EN ISO 3834:

- EXC2 SIST EN ISO 3834-3:2006

Varjenje se mora izvajati v skladu z varilnim planom, ki ga izdela izvajalec jeklene konstrukcije. Izvajalec mora v okviru izdelave plana kontrole kvalitete izdelati tudi plan kontrole kvalitete zvarov.
Varijo lahko le varilci z uspešno opravljenim preizkusom za uporabljeni način in položaj varjenja.

Vse zvare je potrebno 100% vizualno pregledati.

Obseg ostalih NDT (UT, RT, PT, MT) kontrol mora biti v skladu z zahtevami SIST EN 1090-2. Obseg kontrole je odvisen os tipa zvara, izvedbenega razreda in debelin zvarjencev.

Če je potrebno nosilce zaradi različnih trgovskih dolžin variti na pravo dolžino s sočelnimi zvari morajo biti le-ti 100% UZ ali RT kontrolirani.

V primeru montažnega varjenje na gradbišču, mora biti med varjenjem na gradbišču zagotovljena prisotnost varilnega koordinatorja.

Podlivanje

Podlivanje ležiščnih plošč jeklenih stebrov se lahko izvede po končani montaži glavne nosilne jeklene konstrukcije, privitju vijakov in po opravljeni dimenzijski kontroli montirane konstrukcije. Uporabiti je potrebno material za podlivanje v odvisnosti od višine podlitja, v skladu standardom SIST EN 1090-2.

Tehnični list in pogoje vgradnje podane s strani proizvajalca izbrane posebne podlivne malte za podlivanje je potrebno posredovati odgovornemu projektantu nosilne jeklene konstrukcije v pisno potrditev. Uporabi naj se malto z majhnim krčenjem

Za podlivanje predlagamo samorazlivno ekspanzijsko malto visoke trdnosti, kot je na primer podlivna malta s komercialnim imenom ALTEKS ali ekvivalentna druga.

8.0 ZAŠČITA PRED KOROZIJO

Pri načrtovanju in izvedbi protikorozijske zaščite z barvami je potrebno upoštevati določila skupine standardov SIST EN ISO 12944 (deli 1, 2, 3, 4, 5, 6, 7, 8) Barve in laki – Korozijska zaščita jeklenih konstrukcij z zaščitnimi premaznimi sistemi.

Jekleno konstrukcijo je potrebno zaščititi z barvami, ki **zagotavljajo visoko H trajnost (več kot 15 let)** protikorozijske zaščite.

Vplivi okolja in atmosfere za **stebre (soljenje površin pozimi)** sodijo **v zelo visoko kategorijo C5 korozijske ogroženosti** (industrijsko okolje z agresivno atmosfero in visoko vsebnostjo soli).

Stebri (H, C5); Tabela C.5 standard SIST EN ISO 12944-5:2018:

• priprava površine	peskanje Sa2½	
• osnovni premaz	zink epoksi	80µm
• vmesni + končni premazi	epoksi + poliuretan	220µm
	skupaj	300µm

Sidrišče stebrov in del stebra, ki se nahaja pod koto tlaka naj se dodatno protikorozijsko zaščiti (na primer z bitumenskim debelo slojnim premazom kompatibilnim z uporabljenim premazom protikorozijske zaščite).

Vplivi okolja in atmosfere **ostalih delov konstrukcije (strešni del – prečke, nosilci, lege, jeklena konstrukcija jaška dvigala,…) sodijo v srednjo kategorijo C3 korozijske ogroženosti** (urbano in industrijsko okolje z zmerno onesnaženostjo).

Ostala konstrukcija (H, C3); Tabela C.3 standard SIST EN ISO 12944-5:2018:

• priprava površine	peskanje Sa2½	
• osnovni premaz	zink epoksi	80µm
• vmesni + končni premaz	epoksi + poliuretan	100µm
	skupaj	180µm

Izvajalec lahko predlaga svoj sistem zaščite, ki zagotavljajo enak ali višji nivo protikorozijske zaščite in ustreza zgoraj navedenim standardom in zahtevam.
Nianso zaključnega premaza (RAL) določi arhitekt v soglasju z investitorjem.
Zaradi zasnove pogojene iz arhitekturnih razlogov konstrukcija Nadstreškov 2, 3 in 5 ter dvigal (dva stebra in osrednja prečka je en montažni kos, ki se zvari v delavnici – veliki segmenti za transport) ni primerna za vroče cinkanje.
Pred pričetkom izvedbe protikorozijske zaščite izvajalec izdela poseben Elaborat protikorozijske zaščite, ki ga mora predložiti investitorju, proizvajalcu premazov, projektantu in strokovnemu nadzoru v pregled in pisno potrditev. Elaborat protikorozijske zaščite mora poleg izbranega sistema protikorozijske zaščite vsebovati tudi opis načina izvedbe protikorozijske zaščite in plan kontrole kvalitete njene izvedbe.
Posebno pozornost je potrebno posvetiti izvedbi protikorozijske zaščite montažnih zvarov – ustrezno čiščenja in zadostna debelina premazov.

9.0 KONTROLA IZDELAVE IN MONTAŽE JEKLENE KONSTRUKCIJE

Konstrukcijo lahko izdela in montira le usposobljeno podjetje. Zagotoviti je potrebno strokovni nadzor nad izvajanjem jeklene konstrukcije. Nadzor mora opraviti strokovnjak za jeklene konstrukcije, ki po zaključeni montaži za potrebe tehničnega pregleda izda zaključno poročilo s strokovnim mnenjem o ustreznosti jeklene konstrukcije. Za vsako spremembo je potrebno pred njeno izvedbo pridobiti pisno soglasje projektanta in strokovnega nadzora.

10.0 IZVEDBA ARMIRANOBETONSKIH KONSTRUKCIJ

Izdelavo betonskih delov konstrukcije je potrebno izvesti v skladu z SIST EN 13670, izvedbeni razred konstrukcije je EXC2.

11.0 OZEMLJITEV JEKLENIH KONSTRUKCIJ

Jeklene konstrukcije je potrebno ozemljiti v skladu z zahtevami načrta ozemljitve oziroma načrta elektro inštalacij.

Priloga: Tehnični list Sika Wrap-230C

Zapisal:
Dr. Leon Hladnik, udig G-0296

Priloga: Tehnični list Sika Wrap-230C

BUILDING TRUST

TEHNIČNI LIST

SikaWrap®-230 C

Tkanina iz karbonskih vlaken za konstrukcijske ojačitve, kot del Sika® ojačitvenega sistema

OPIS IZDELKA

SikaWrap®-230 C je tkanina iz usmerjenih karbonskih vlaken srednje moči, za suho ali mokro vgradnjo.

UPORABA

SikaWrap®-230 C lahko uporabljajo le izkušeni poklicni izvajalci.

Za ojačitve armirano betonskih konstrukcij, zidov iz opeke in lesenih konstrukcij pri upogibnih in strižnih obremenitvah za:

- Izboljšanje protipotresnih lastnosti zidov
- Kot nadomestilo za manjkajočo jekleno armaturo
- Za večjo nosilnost in duktilnost stebrov
- Za povečanje nosilnosti konstrukcijskih elementov
- Pri spremembah namembnosti objekta
- Pri popravilih posledic poškodb
- Kot preventivna zaščita pred potresom
- Za izboljšanje uporabnosti in vzdržljivosti
- Kot konstrukcijska nadgradnja pri usklajevanju z veljavnimi predpisi

LASTNOSTI/PREDNOSTI

- Izdelana z votkom za dobro stabilnost vlaken (heat-set process)
- Mnogostranska uporaba za vse vrste ojačitev
- Prilagodljivost tkanine pri ojačitvah ukrivljenih površin (grede, stebri, dimniki, oporniki, piloti, okopi, kamini, silosi itd.)
- Dobavljiva v različnih širinah za optimalno možnost uporabe
- Zaradi nizke gostote le minimalna dodatna obtežba
- Boljša ekonomičnost v primerjavi s tradicionalnimi tehnikami

ODOBRITVE/STANDARDI

- Poljska: Tehnično poročilo ITB AT-15-5604/2011: Zestaw wyrobów Sika CarboDur do wzmacniania i napraw konstrukcji betonowych
- Poljska: Tehnično poročilo IBDiM Nr AT/2008-03-0336/1 "Płaskowniki. pręty, kształtki i maty kompozytowe do wzmacniania betonu o nazwie handlowej: Zestaw materiałów Sika CarboDur® do wzmacniania konstrukcji obiektów mostowych
- Francija: Avis Technique N° 3/16-875 (annule et remplance N° 3/10-669) Sika® CarboDur®, SikaWrap®

INFORMACIJE O IZDELKU

Gradnja	Smer vlaken	0° (vzdolžno, usmerjeno)	
	Osnova	Črna karbonska vlakna 99%	
	Votek	Bela termoplastično toplotno obdelana vlakna 1%	
Vrsta vlakna	Izbrana karbonska vlakna srednje moči		
Embalaža		**Dolžina tkanine na balo**	**Širina tkanine**
	4 bale v kartonski škatli	≥ 50 m	300 mm
	2 bali v kartonski škatli	≥ 50 m	600 mm
Rok uporabe	24 mesecev od datuma izdelave.		

Pogoji za shranjevanje	Hranite v originalni, nepoškodovani zaprti embalaži v hladnem in suhem prostoru pri temperaturah med +5°C in +35°C. Zaščitite pred direktno sončno svetlobo.	
Gostota vlaken	1.82 g/cm³	
Debelina vlaken	0.129 mm (odvisno od vsebine vlaken)	
Gostota območja	235 g/m² ±10 g/m² (samo karbonska vlakna)	
Natezna trdnost vlaken	4 000 N/mm²	(ISO 10618)
Modul elastičnosti vlaken pri pretrgu	230 000 N/mm²	(ISO 10618)
Razterek vlaken pri pretrgu	1.7 %	(ISO 10618)

TEHNIČNI PODATKI

Debelina laminata	0.129 mm		
Presek laminata	129 mm² na m širine		
Natezna trdnost laminata	**Povprečna** 3 500 N/mm²	**Značilna** 3 200 N/mm²	(EN 2561*) (ASTM D 3039*)
Modul elastičnosti laminata pri nateza-nju	**Povprečna** 225 kN/mm²	**Značilna** 220 kN/mm²	(EN 2561*)
	Povprečna 220 kN/mm²	**Značilna** 210 kN/mm²	(ASTM D 3039*)
	* modifikacija: vzorec širine 50 mm Vrednosti izmerjene v vzdolžni smeri vlaken Ena plast, najmanj 27 vzorcev na serijo testov		
Raztezek laminata pri pretrgu	1.56 % 1.59 %		(glede na EN 2561) (glede na ASTM D 3039)
Natezna odpornost	**Povprečna** 452 kN/m	**Značilna** 413 kN/m	(glede na EN 2561) (glede na ASTM D 3039)
Natezna togost	**Povprečna** 29.0 MN/m 29.0 kN/m per ‰ raztezka	**Značilna** 28.4 MN/m 28.4 kN/m per ‰ raztezka	(glede na EN 2561)
	Povprečna 28.4 MN/m 28.4 kN/m per ‰ raztezka	**Značilna** 27.1 MN/m 27.1 kN/m per ‰ raztezka	(glede na ASTM D 3039)

SISTEMSKE INFORMACIJE

Struktura sistema

Navedeni sistem vgradnje v celoti upoštevajmo kot je opisan in ga ne spreminjajmo.

Temeljni premaz za beton	Sikadur®-330
Impregnirna smola	Sikadur®-330 ali Sikadur®-300
Tkanina za ojačitev	SikaWrap®-230 C

Natančne lastnosti o Sikadur® -330, smoli in načinu vgradnje tkanine so navedene v tehničnem listu Sikadur® -330 in pripadajoči izjavi o metodah.

INFORMACIJE O VGRADNJI

Poraba

Suh nanos s Sikadur®-330	
Prva plast vključno s temeljnim premazom	0.8–1.2 kg/m²
Naknadne plasti	0.7 kg/m²
Moker nanos s Sikadur®-300, temeljni premaz Sikadur®-330	
Temeljni premaz	0.4–0.6 kg/m²
Plast tkanine	0.6 kg/m²

Please also refer to the relevant Method Statement for further information.

NAVODILA ZA VGRADNJO

KAKOVOST PODLAGE

Najmanjša natezna trdnost podlage: 1,0 N/mm² ali kot je predpisano v projektu ojačitve.
Prosimo glejte pripadajočo Izjavo o metodah za informacije.

PRIPRAVA PODLAGE

Beton je treba očistiti in pripraviti tako, da se odstrani cementna srajčka in slabo vezan material in doseže odprto strukturo površine. Prosimo glejte pripadajočo Izjavo o metodah za informacije.

METODA NANAŠANJA/ORODJE

Tkanino odrežemo s posebnimi škarjami ali ostrim nožem. Tkanina se ne sme gubati! SikaWrap®-230 C nanašamo po suhi ali mokri metodi. Prosimo glejte pripadajočo Izjavo o metodah za informacije o postopkih impregniranja / laminiranja.

OMEJITVE

- SikaWrap®-230 C smejo uporabljati samo izkušeni strokovnjaki.
- Pri vsakem konstrukcijskem izračunu načrtovanja se je potrebno posvetovati s strokovnim konstrukcijskim inženirjem.
- SikaWrap®-230 C tkanina zagotavlja največjo možno povezavo in obstojnost prav s Sikadur® impregnirnimi smolami. Zato sistem upoštevajmo tak kot je predpisan in ne zamenjujmo komponent.
- SikaWrap®-230 C tkanino je v določenih primerih potrebno prekriti s cementnimi oblogami, premazi za boljši estetski videz ali zaščitnimi premazi. Izbira je odvisna od izpostavljenosti objekta. Za osnovno UV zaščito lahko uporabimo Sikagard®-550 W Elastic, Sikagard® ElastoColor-675 W ali Sikagard® -680 S.
- Za dodatne informacije, nasvete in omejitve poglejte Izjavo o metodah za SikaWrap®

DRUGI DOKUMENTI

Izjave o metodah

- Ref. 850 41 02: SikaWrap® ročna suha vgradnja
- Ref. 850 41 03: SikaWrap® ročna mokra vgradnja
- Ref. 850 41 04: SikaWrap® strojna mokra vgradnja

PODATKI O IZDELKU

Vsi tehnični podatki, navedeni v tem tehničnem listu, temeljijo na laboratorijskih preizkusih. Dejanski izmerjeni podatki se lahko razlikujejo zaradi okoliščin, na katere nimamo vpliva.

LOKALNE OMEJITVE

Upoštevajte, da se lahko lastnosti tega izdelka zaradi specifičnih lokalnih predpisov od države do države razlikujejo. Oglejte si lokalni tehnični list izdelka za natančen opis področij uporabe.

OKOLJE, ZDRAVJE IN VARNOST

UREDBA (ES) ŠT. 1907/2006 – REACH

Pri izdelku gre za izdelek, kot je opredeljen v 3. členu Uredbe (ES) št. 1907/2006 (REACH). Izdelek ne vsebuje nobenih snovi, ki bi se lahko sprostile pod normalnimi ali predvidenimi pogoji uporabe. Za prodajo, prevoz ali uporabo izdelka ni potreben varnostni list skladno z 31. členom iste Uredbe. Za varno uporabo upoštevajte podatke v tem tehničnem listu. Skladno z našimi najnovejšimi dognanji izdelek ne vsebuje SVHC snovi (snovi, ki vzbujajo veliko zaskrbljenost), ki so navedene v Prilogi XIV Uredbe REACH ali na kandidatnem seznamu snovi, ki ga je izdala Evropska agencija za kemikalije, v koncentracijah nad 0,1 % (w/w).

PRAVNO OBVESTILO

Podjetje Sika informacije in zlasti priporočila o vgradnji in končni uporabi Sika izdelkov zagotavlja v dobri veri na osnovi trenutnega znanja in izkušenj z izdelki, ki so predmet ustreznega skladiščenja in rokovanje ter ki so uporabljeni v normalnih razmerah skladno s priporočili podjetja Sika. V praksi se lahko materiali, podlage in dejanske razmere ob uporabi izdelka razlikujejo v tolikšni meri, da ti podatki ali katera koli pisna priporočila ali navedeni nasveti ne predstavljajo nikakršne podlage za jamstvo glede primernosti za prodajo in določen namen uporabe ter kakršno koli odgovornost iz naslova katerega koli pravnega razmerja. Uporabnik izdelka mora preizkusiti primernost izdelka za načrtovani način in namen uporabe. Sika si pridržuje pravico do sprememb lastnosti izdelkov. Upoštevati je treba lastniške pravice tretjih oseb. Vsa sprejeta naročila urejajo naši veljavni prodajni in dobavni pogoji. Uporabniki morajo vselej upoštevati zadnjo izdajo lokalnega tehničnega lista za zadevni izdelek, katerega izvodi so na voljo na zahtevo.

Sika d.o.o.
Prevale 13
1236 Trzin, Slovenija
Tel: +386 580 95 34
Fax: +386 580 95 33
www.sika.si

5.2 Analiza konstrukcije

ZR2100	**0032.00.**	**007. 1276**	**T.1.2**	

H I Š A, NAČRTOVANJE IN SVETOVANJE, d.o.o.
Ukmarjeva ulica 4, 1000 Ljubljana

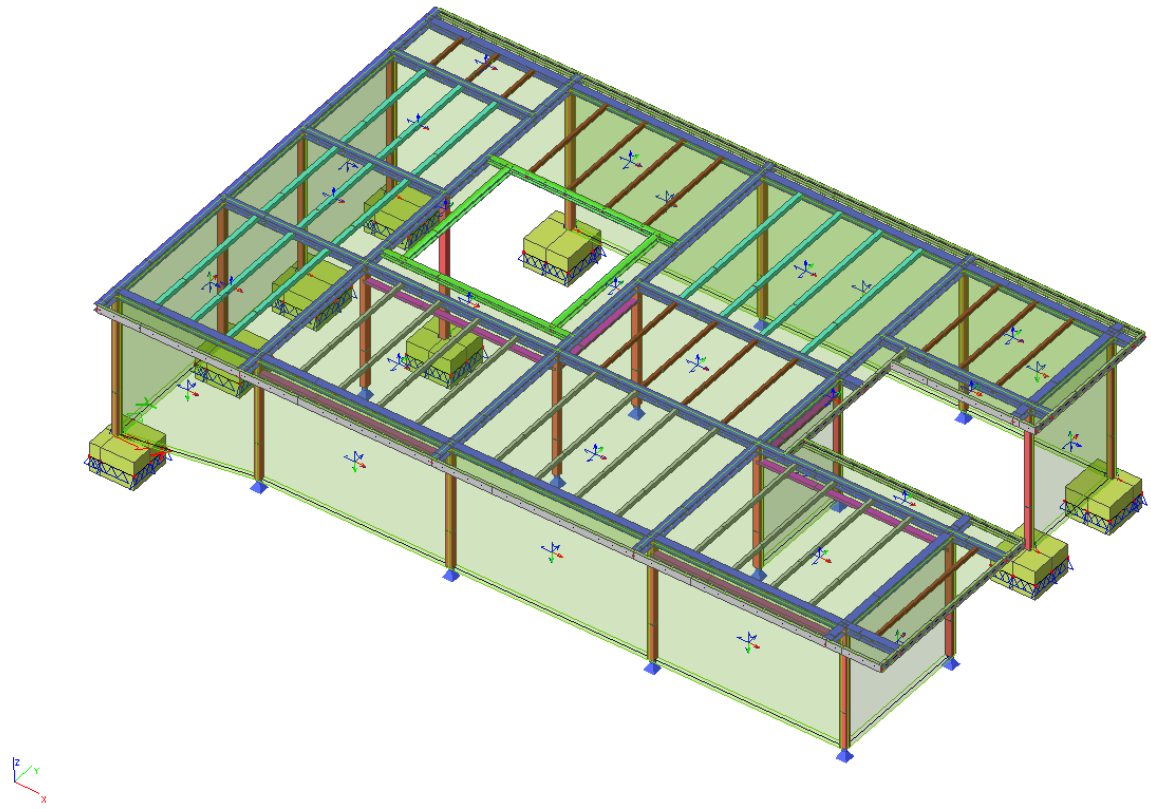
NADSTREŠEK 1

Železniška postaja Domžale

ANALIZA KONSTRUKCIJE

Faza: IZN

Revizija:0



Julij 2021

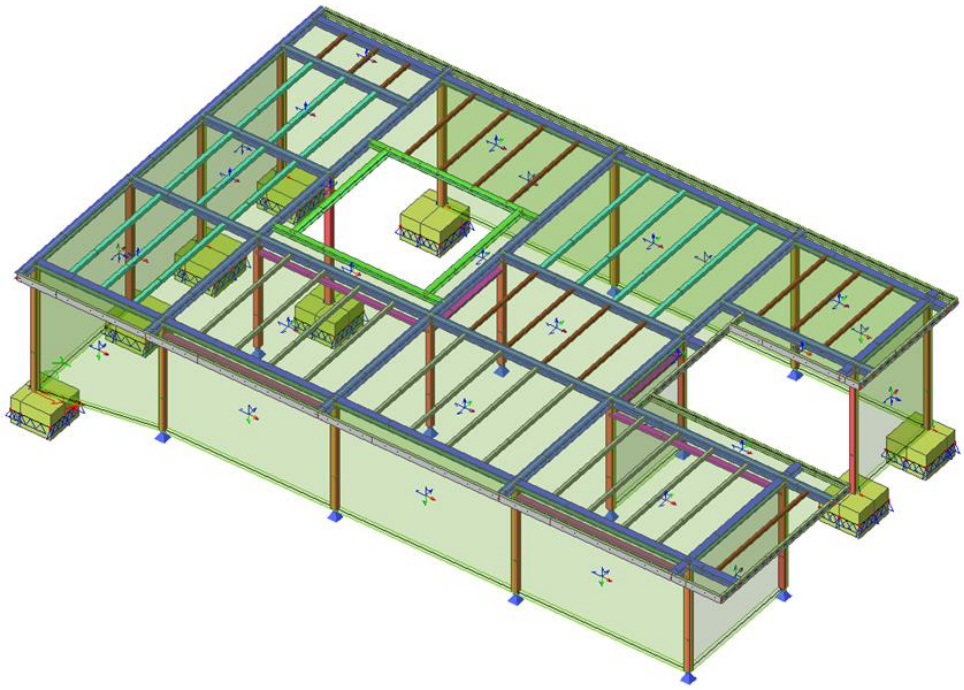
Računal:
Dr. Leon Hladnik, udig G-0296.

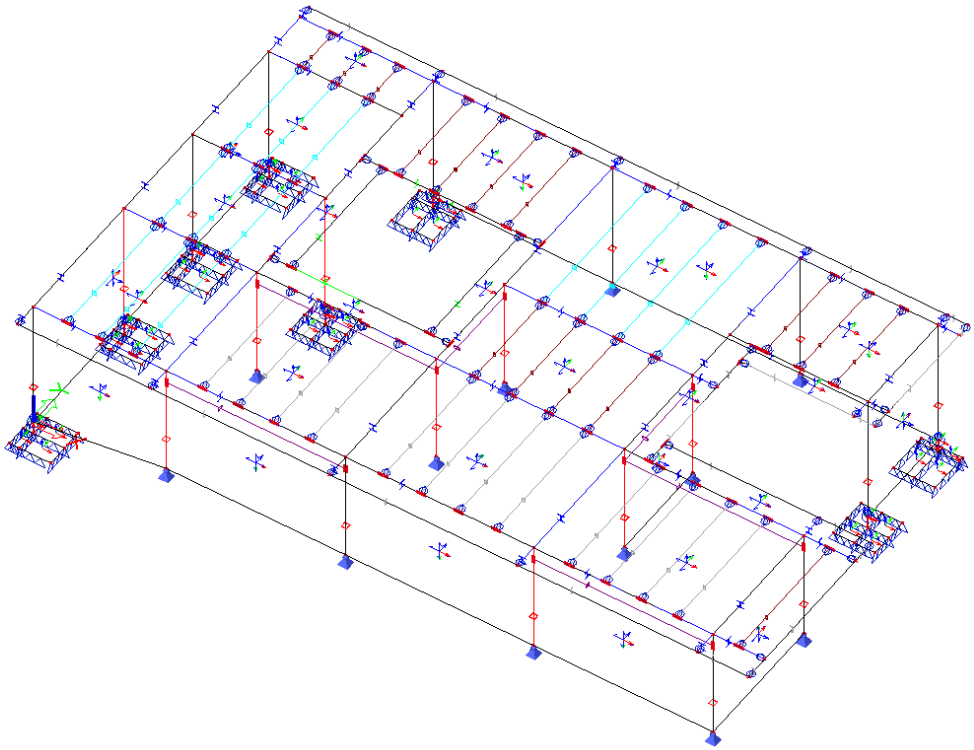
KAZALO

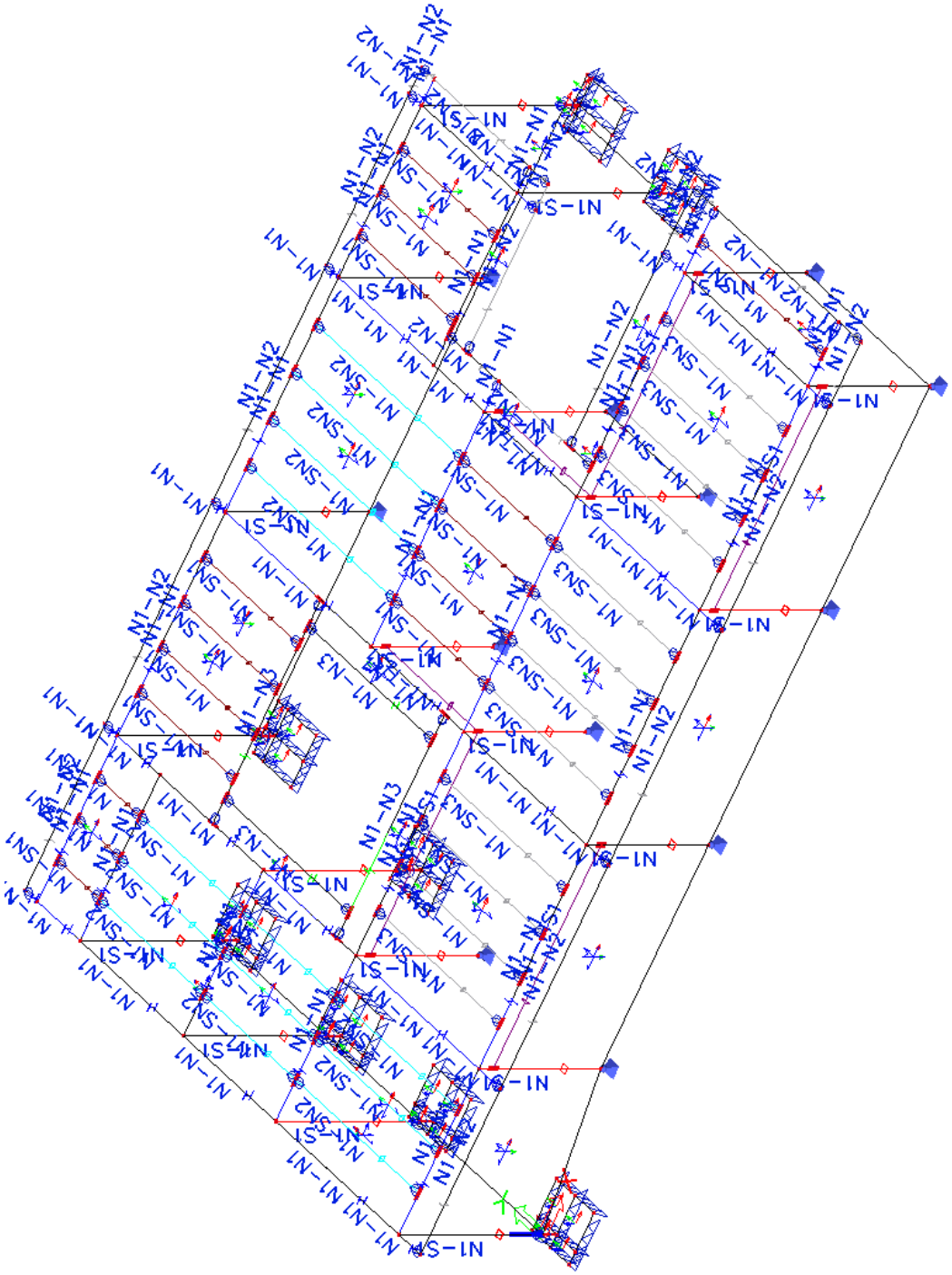
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1. RAČUNSKI MODEL

1.1. Statični model







1.2. Podatki o modelu

1. Bill of material

Selection: All
Type of sorting: Material

Summary

Material	Mass [kg]	Surface [m²]	Volume [m³]
Steel	13362.70	331.121	1.7023e+00
Concrete	23280.00	11.640	9.3120e+00
Total	36642.70	342.761	1.1014e+01

Note: Value 'Surface' represents for 1D members the total exposed surface area,
while for 2D members it corresponds only to the surface area of the centroidal plane.

Steel (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
S 235	7850.00	13362.70	331.121	1.7023e+00
Total		13362.70	331.121	1.7023e+00

Concrete (2D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	23280.00	11.640	9.3120e+00
Total		23280.00	11.640	9.3120e+00

2. Materials

Steel EC3

Name	ρ [kg/m³]	E_{mod} [MPa]	μ	Lower limit [mm]	Upper limit [mm]	F_y [kN/cm²]	F_u [kN/cm²]	Colour
		G_{mod} [MPa]	α [m/mK]					
S 235	7850.00	2.1000e+05	0.3	0	100	23.5	36.0	
		8.0769e+04	0.00					

Name	Type	ρ [kg/m³]	Density in fresh state [kg/m³]	E_{mod} [MPa]	μ	α [m/mK]	$f_{c.k.28}$ [MPa]	Colour
C25/30	Concrete	2500.00	2600.00	3.1500e+04	0.2	0.00	25.00	

Explanations of symbols	
Density in fresh state	The value in the density in fresh state property is used only in case a composite deck is input and its self-weight load is taken into account.

3. Cross-sections

Name	Type	Item material	Fabrication	A [m^2]	A_y [m^2]	I_y [m^4]	$W_{el.y}$ [m^3]	$W_{pl.y}$ [m^3]	Colour
	Detailed				A_z [m^2]	I_z [m^4]	$W_{el.z}$ [m^3]	$W_{pl.z}$ [m^3]	
N1-S1	CFRHS160X160X8	S 235	rolled	4.6440e-03	2.3201e-03	1.7412e-05	2.1765e-04	2.6014e-04	
					2.3201e-03	1.7412e-05	2.1765e-04	2.6014e-04	
N1-N1	HEA200	S 235	rolled	5.3800e-03	3.8781e-03	3.6900e-05	3.8900e-04	4.2917e-04	
					1.3287e-03	1.3400e-05	1.3400e-04	2.0375e-04	
N1-N2	UNP200	S 235	rolled	3.2200e-03	1.6758e-03	1.9100e-05	1.9100e-04	2.2800e-04	
					1.6900e-03	1.4800e-06	2.7000e-05	5.1800e-05	
N1-SN1	CFRHS120X60X4	S 235	cold formed	1.3350e-03	4.4468e-04	2.4074e-06	4.0120e-05	5.0490e-05	
					8.8935e-04	8.1250e-07	2.7080e-05	3.1080e-05	
N1-N3	HEA160	S 235	rolled	3.8800e-03	2.8071e-03	1.6700e-05	2.2000e-04	2.4500e-04	
					9.8390e-04	6.1600e-06	7.7000e-05	1.1750e-04	
N1-SN2	CFRHS120X120X5	S 235	cold formed	2.2360e-03	1.1172e-03	4.8547e-06	8.0910e-05	9.5450e-05	
					1.1172e-03	4.8547e-06	8.0910e-05	9.5450e-05	
N1-HS1	CFRHS160X80X8	S 235	rolled	3.3640e-03	1.1201e-03	1.0012e-05	1.2515e-04	1.6286e-04	
					2.2401e-03	3.3495e-06	8.3740e-05	9.9970e-05	
N1-SN3	CFRHS120X80X4	S 235	cold formed	1.4950e-03	5.9761e-04	2.9459e-06	4.9100e-05	5.9770e-05	
					8.9642e-04	1.5729e-06	3.9320e-05	4.5230e-05	

4. Nodes

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2402	0.000	0.000	4.000
N2403	3.850	0.000	4.000
N2404	9.050	0.000	4.000
N2405	14.500	0.000	4.000
N2406	19.700	0.000	4.000
N2407	21.200	0.000	4.000
N2408	0.000	0.000	0.000
N2409	3.850	0.000	0.600
N2410	9.050	0.000	0.600
N2411	14.500	0.000	0.600
N2412	19.700	0.000	0.600
N2413	0.000	3.950	4.000
N2414	3.850	3.950	4.000
N2415	9.050	3.950	4.000
N2416	14.500	3.950	4.000
N2417	19.700	3.950	4.000
N2418	21.200	3.950	4.000

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2419	0.000	3.950	0.000
N2420	3.850	3.950	0.600
N2421	9.050	3.950	0.600
N2422	14.500	3.950	0.600
N2423	19.700	3.950	0.600
N2424	0.000	6.919	4.000
N2425	3.850	6.919	4.000
N2426	9.050	6.919	4.000
N2427	14.500	6.919	4.000
N2430	0.000	6.919	0.000
N2431	3.850	6.919	0.000
N2432	9.050	6.919	0.600
N2433	14.500	6.919	0.600
N2435	0.000	10.237	0.000
N2436	0.000	11.599	4.000
N2437	3.850	11.599	4.000
N2438	3.850	11.599	0.000
N2439	9.050	11.599	0.000
N2440	9.050	11.599	4.000
N2441	14.500	11.599	4.000
N2442	18.500	11.599	0.000
N2443	19.100	11.599	4.000
N2445	18.500	11.599	4.000
N2446	14.500	11.599	0.000
N2447	18.500	8.537	0.000
N2448	18.500	8.537	4.000
N2449	0.000	10.237	4.000
N2450	14.500	8.537	4.000
N2451	3.850	10.237	4.000
N2452	19.100	8.537	4.000
N2453	0.000	-0.700	4.000
N2454	3.850	-0.700	4.000
N2455	9.050	-0.700	4.000
N2456	14.500	-0.700	4.000
N2457	19.700	-0.700	4.000
N2458	15.200	6.919	4.000
N2460	18.500	7.937	4.000
N2461	19.700	4.650	4.000
N2462	0.000	11.999	4.000
N2463	3.850	11.999	4.000
N2464	9.050	11.999	4.000
N2465	14.500	11.999	4.000
N2466	18.500	11.999	4.000
N2467	21.200	-0.700	4.000
N2468	21.200	4.650	4.000
N2469	19.100	7.937	4.000
N2470	19.100	11.999	4.000
N1906	15.200	8.537	4.000
N2471	15.200	3.950	4.000
N2472	15.200	7.937	4.000
N2473	15.200	4.650	4.000
N2477	18.500	8.537	-0.400
N2486	18.500	11.599	-0.400
N2487	18.500	11.749	-0.400
N2510	4.450	11.599	-0.400
N2511	4.450	11.899	-0.400
N2512	4.450	10.699	-0.400
N2513	3.850	11.599	-0.400
N2514	3.850	11.899	-0.400
N2515	3.250	11.599	-0.400
N2516	3.250	11.899	-0.400
N2517	3.850	10.699	-0.400
N2518	3.250	10.699	-0.400
N2519	0.900	10.237	-0.400
N2522	0.000	10.237	-0.400
N2524	-0.300	10.237	-0.400

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2528	0.900	6.919	-0.400
N2531	0.000	6.919	-0.400
N2533	-0.300	6.919	-0.400
N2537	0.900	3.950	-0.400
N2540	0.000	3.950	-0.400
N2542	-0.300	3.950	-0.400
N2546	0.900	0.000	-0.400
N2547	0.900	0.600	-0.400
N2548	0.900	-0.600	-0.400
N2549	0.000	0.000	-0.400
N2550	0.000	0.600	-0.400
N2551	-0.300	0.000	-0.400
N2552	-0.300	0.600	-0.400
N2553	0.000	-0.600	-0.400
N2554	-0.300	-0.600	-0.400
N2555	4.450	6.919	-0.400
N2556	4.450	7.519	-0.400
N2557	3.850	7.519	-0.400
N2558	3.250	6.919	-0.400
N2559	3.850	6.319	-0.400
N2560	3.250	6.319	-0.400
N2561	3.850	6.919	-0.400
N2562	3.250	7.519	-0.400
N2563	4.450	6.319	-0.400
N2564	0.000	3.350	-0.400
N2565	-0.300	3.350	-0.400
N2566	0.900	4.550	-0.400
N2567	0.000	4.550	-0.400
N2568	0.900	3.350	-0.400
N2569	-0.300	4.550	-0.400
N2570	0.000	6.219	-0.400
N2571	-0.300	6.219	-0.400
N2572	0.900	7.519	-0.400
N2573	0.000	7.519	-0.400
N2574	0.900	6.219	-0.400
N2575	-0.300	7.519	-0.400
N2576	0.000	9.637	-0.400
N2577	-0.300	9.637	-0.400
N2578	0.900	10.837	-0.400
N2579	0.000	10.837	-0.400
N2580	0.900	9.637	-0.400
N2581	-0.300	10.837	-0.400
N2582	18.500	10.549	-0.400
N2583	17.900	10.549	-0.400
N2584	19.100	11.599	-0.400
N2585	19.100	11.749	-0.400
N2586	19.100	10.549	-0.400
N2587	17.900	11.599	-0.400
N2588	17.900	11.749	-0.400
N2597	0.963	0.000	4.000
N2598	0.963	3.950	4.000
N2599	1.925	0.000	4.000
N2600	1.925	3.950	4.000
N2601	2.888	0.000	4.000
N2602	2.888	3.950	4.000
N2603	4.890	0.000	4.000
N2604	4.890	3.950	4.000
N2605	5.930	0.000	4.000
N2606	5.930	3.950	4.000
N2607	6.970	0.000	4.000
N2608	6.970	3.950	4.000
N2609	8.010	0.000	4.000
N2610	8.010	3.950	4.000
N2611	10.140	0.000	4.000
N2612	10.140	3.950	4.000
N2613	11.230	0.000	4.000

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2614	11.230	3.950	4.000
N2615	12.320	0.000	4.000
N2616	12.320	3.950	4.000
N2617	13.410	0.000	4.000
N2618	13.410	3.950	4.000
N2619	15.540	0.000	4.000
N2620	15.540	3.950	4.000
N2621	16.580	0.000	4.000
N2622	16.580	3.950	4.000
N2623	17.620	0.000	4.000
N2624	17.620	3.950	4.000
N2625	18.660	0.000	4.000
N2626	18.660	3.950	4.000
N2627	20.450	0.000	4.000
N2628	20.450	3.950	4.000
N2629	2.888	6.919	4.000
N2630	1.925	6.919	4.000
N2631	0.963	6.919	4.000
N2632	10.140	6.919	4.000
N2633	11.230	6.919	4.000
N2634	12.320	6.919	4.000
N2635	13.410	6.919	4.000
N2636	0.963	10.237	4.000
N2637	1.925	10.237	4.000
N2638	2.888	10.237	4.000
N2639	10.140	11.599	4.000
N2640	11.230	11.599	4.000
N2641	12.320	11.599	4.000
N2642	13.410	11.599	4.000
N2643	2.888	11.599	4.000
N2644	1.925	11.599	4.000
N2645	0.963	11.599	4.000
N2646	15.500	8.537	4.000
N2647	15.500	11.599	4.000
N2648	16.500	8.537	4.000
N2649	16.500	11.599	4.000
N2650	17.500	8.537	4.000
N2651	17.500	11.599	4.000
N2652	3.850	4.550	4.000
N2653	9.050	4.550	4.000
N2654	3.850	8.538	4.000
N2655	9.050	8.538	4.000
N2656	4.890	8.538	4.000
N2657	4.890	11.599	4.000
N2658	5.930	8.538	4.000
N2659	5.930	11.599	4.000
N2660	6.970	8.538	4.000
N2661	6.970	11.599	4.000
N2662	8.010	8.538	4.000
N2663	8.010	11.599	4.000
N2664	4.450	4.550	4.000
N2665	4.450	8.538	4.000
N2666	8.450	4.550	4.000
N2667	8.450	8.538	4.000
N2673	3.850	0.000	3.600
N2674	9.050	0.000	3.600
N1	3.850	3.950	3.600
N2675	9.050	3.950	3.600
N2676	14.500	0.000	3.600
N2677	19.700	0.000	3.600
N2678	14.500	3.950	3.600
N2679	19.700	3.950	3.600
N2681	9.050	6.919	3.600
N2682	14.500	6.919	3.600
N2683	19.100	8.537	-0.400
N2684	17.900	8.537	-0.400

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2685	17.900	7.937	-0.400
N2686	18.500	7.937	-0.400
N2687	19.100	7.937	-0.400
N2688	19.100	9.137	-0.400
N2689	18.500	9.137	-0.400
N2690	17.900	9.137	-0.400

5. Members

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B1	N1-N1 - HEA200	S 235	3.850	N2402	N2403	beam (80)
B2143	N1-N1 - HEA200	S 235	5.200	N2403	N2404	beam (80)
B2144	N1-N1 - HEA200	S 235	5.450	N2404	N2405	beam (80)
B2145	N1-N1 - HEA200	S 235	5.200	N2405	N2406	beam (80)
B2146	N1-N1 - HEA200	S 235	1.500	N2406	N2407	beam (80)
B2147	N1-S1 - CFRHS160X160X8	S 235	4.000	N2408	N2402	column (100)
B2148	N1-S1 - CFRHS160X160X8	S 235	3.400	N2409	N2403	column (100)
B2149	N1-S1 - CFRHS160X160X8	S 235	3.400	N2410	N2404	column (100)
B2150	N1-S1 - CFRHS160X160X8	S 235	3.400	N2411	N2405	column (100)
B2151	N1-S1 - CFRHS160X160X8	S 235	3.400	N2412	N2406	column (100)
B2152	N1-N1 - HEA200	S 235	3.850	N2413	N2414	beam (80)
B2153	N1-N1 - HEA200	S 235	5.200	N2414	N2415	beam (80)
B2154	N1-N1 - HEA200	S 235	5.450	N2415	N2416	beam (80)
B2155	N1-N1 - HEA200	S 235	5.200	N2416	N2417	beam (80)
B2156	N1-N1 - HEA200	S 235	1.500	N2417	N2418	beam (80)
B2157	N1-S1 - CFRHS160X160X8	S 235	4.000	N2419	N2413	column (100)
B2158	N1-S1 - CFRHS160X160X8	S 235	3.400	N2420	N2414	column (100)
B2159	N1-S1 - CFRHS160X160X8	S 235	3.400	N2421	N2415	column (100)
B2160	N1-S1 - CFRHS160X160X8	S 235	3.400	N2422	N2416	column (100)
B2161	N1-S1 - CFRHS160X160X8	S 235	3.400	N2423	N2417	column (100)
B2162	N1-N1 - HEA200	S 235	3.850	N2424	N2425	beam (80)
B2164	N1-N1 - HEA200	S 235	5.450	N2426	N2427	beam (80)
B2167	N1-S1 - CFRHS160X160X8	S 235	4.000	N2430	N2424	column (100)
B2168	N1-S1 - CFRHS160X160X8	S 235	4.000	N2431	N2425	column (100)
B2169	N1-S1 - CFRHS160X160X8	S 235	3.400	N2432	N2426	column (100)
B2170	N1-S1 - CFRHS160X160X8	S 235	3.400	N2433	N2427	column (100)
B2172	N1-S1 - CFRHS160X160X8	S 235	4.000	N2435	N2449	column (100)
B2173	N1-N1 - HEA200	S 235	3.850	N2436	N2437	beam (80)
B2174	N1-S1 - CFRHS160X160X8	S 235	4.000	N2438	N2437	column (100)
B2175	N1-S1 - CFRHS160X160X8	S 235	4.000	N2439	N2440	column (100)
B2176	N1-N1 - HEA200	S 235	5.200	N2437	N2440	beam (80)
B2177	N1-N1 - HEA200	S 235	5.450	N2440	N2441	beam (80)
B2178	N1-S1 - CFRHS160X160X8	S 235	4.000	N2442	N2445	column (100)
B2179	N1-N1 - HEA200	S 235	4.000	N2441	N2445	beam (80)
B2181	N1-S1 - CFRHS160X160X8	S 235	4.000	N2446	N2441	column (100)
B2182	N1-S1 - CFRHS160X160X8	S 235	4.000	N2447	N2448	column (100)
B2183	N1-N1 - HEA200	S 235	3.950	N2402	N2413	beam (80)
B2184	N1-N1 - HEA200	S 235	2.969	N2413	N2424	beam (80)
B2185	N1-N1 - HEA200	S 235	3.318	N2424	N2449	beam (80)
B2186	N1-N1 - HEA200	S 235	1.362	N2449	N2436	beam (80)
B2187	N1-N1 - HEA200	S 235	2.969	N2414	N2425	beam (80)
B2189	N1-N1 - HEA200	S 235	2.969	N2415	N2426	beam (80)
B2190	N1-N1 - HEA200	S 235	3.950	N2404	N2415	beam (80)
B2191	N1-N1 - HEA200	S 235	2.969	N2416	N2427	beam (80)
B2192	N1-N1 - HEA200	S 235	3.950	N2405	N2416	beam (80)
B2194	N1-N1 - HEA200	S 235	3.950	N2406	N2417	beam (80)
B2195	N1-N1 - HEA200	S 235	3.318	N2425	N2451	beam (80)
B2196	N1-N1 - HEA200	S 235	4.680	N2426	N2440	beam (80)
B2197	N1-N1 - HEA200	S 235	1.618	N2427	N2450	beam (80)
B2198	N1-N1 - HEA200	S 235	3.062	N2448	N2445	beam (80)
B2199	N1-N1 - HEA200	S 235	0.600	N2445	N2443	beam (80)
B2200	N1-N1 - HEA200	S 235	4.000	N2450	N2448	beam (80)
B2201	N1-N1 - HEA200	S 235	3.850	N2449	N2451	beam (80)
B2202	N1-N1 - HEA200	S 235	0.600	N2448	N2452	beam (80)
B2203	N1-N1 - HEA200	S 235	0.700	N2453	N2402	beam (80)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B2204	N1-N1 - HEA200	S 235	0.700	N2454	N2403	beam (80)
B2205	N1-N1 - HEA200	S 235	0.700	N2455	N2404	beam (80)
B2206	N1-N1 - HEA200	S 235	0.700	N2456	N2405	beam (80)
B2207	N1-N1 - HEA200	S 235	0.700	N2457	N2406	beam (80)
B2208	N1-N1 - HEA200	S 235	1.362	N2451	N2437	beam (80)
B2209	N1-N1 - HEA200	S 235	3.062	N2450	N2441	beam (80)
B2210	N1-N1 - HEA200	S 235	0.700	N2427	N2458	beam (80)
B2212	N1-N1 - HEA200	S 235	0.600	N2460	N2448	beam (80)
B2213	N1-N1 - HEA200	S 235	0.700	N2417	N2461	beam (80)
B2214	N1-N1 - HEA200	S 235	0.400	N2436	N2462	beam (80)
B2215	N1-N1 - HEA200	S 235	0.400	N2437	N2463	beam (80)
B2216	N1-N1 - HEA200	S 235	0.400	N2440	N2464	beam (80)
B2217	N1-N1 - HEA200	S 235	0.400	N2441	N2465	beam (80)
B2218	N1-N1 - HEA200	S 235	0.400	N2445	N2466	beam (80)
B2219	N1-N2 - UNP200	S 235	3.850	N2453	N2454	beam (80)
B2220	N1-N2 - UNP200	S 235	5.200	N2454	N2455	beam (80)
B2221	N1-N2 - UNP200	S 235	5.450	N2455	N2456	beam (80)
B2222	N1-N2 - UNP200	S 235	5.200	N2456	N2457	beam (80)
B2223	N1-N2 - UNP200	S 235	3.950	N2407	N2418	beam (80)
B2224	N1-N2 - UNP200	S 235	1.500	N2457	N2467	beam (80)
B2225	N1-N2 - UNP200	S 235	0.700	N2467	N2407	beam (80)
B2226	N1-N2 - UNP200	S 235	1.500	N2461	N2468	beam (80)
B2227	N1-N2 - UNP200	S 235	0.700	N2418	N2468	beam (80)
B2228	N1-N2 - UNP200	S 235	3.062	N2452	N2443	beam (80)
B2229	N1-N2 - UNP200	S 235	0.600	N2460	N2469	beam (80)
B2230	N1-N2 - UNP200	S 235	0.600	N2466	N2470	beam (80)
B2231	N1-N2 - UNP200	S 235	0.600	N2469	N2452	beam (80)
B2232	N1-N2 - UNP200	S 235	3.850	N2462	N2463	beam (80)
B2233	N1-N2 - UNP200	S 235	5.200	N2463	N2464	beam (80)
B2234	N1-N2 - UNP200	S 235	5.450	N2464	N2465	beam (80)
B2235	N1-N2 - UNP200	S 235	4.000	N2465	N2466	beam (80)
B2236	N1-N2 - UNP200	S 235	0.400	N2443	N2470	beam (80)
B2237	N1-N2 - UNP200	S 235	1.618	N2458	N1906	beam (80)
B2238	N1-N2 - UNP200	S 235	2.969	N2471	N2458	beam (80)
B2239	N1-N2 - UNP200	S 235	3.300	N2472	N2460	beam (80)
B2240	N1-N2 - UNP200	S 235	4.500	N2473	N2461	beam (80)
B2241	N1-N1 - HEA200	S 235	3.950	N2403	N2414	beam (80)
B2242	N1-SN2 - CFRHS120X120X5	S 235	3.950	N2597	N2598	beam (80)
B2243	N1-SN2 - CFRHS120X120X5	S 235	3.950	N2599	N2600	beam (80)
B2244	N1-SN2 - CFRHS120X120X5	S 235	3.950	N2601	N2602	beam (80)
B2245	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2603	N2604	beam (80)
B2246	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2605	N2606	beam (80)
B2247	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2607	N2608	beam (80)
B2248	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2609	N2610	beam (80)
B2249	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2611	N2612	beam (80)
B2250	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2613	N2614	beam (80)
B2251	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2615	N2616	beam (80)
B2252	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2617	N2618	beam (80)
B2253	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2619	N2620	beam (80)
B2254	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2621	N2622	beam (80)
B2255	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2623	N2624	beam (80)
B2256	N1-SN3 - CFRHS120X80X4	S 235	3.950	N2625	N2626	beam (80)
B2257	N1-SN1 - CFRHS120X60X4	S 235	3.950	N2627	N2628	beam (80)
B2258	N1-SN2 - CFRHS120X120X5	S 235	2.969	N2602	N2629	beam (80)
B2259	N1-SN2 - CFRHS120X120X5	S 235	2.969	N2600	N2630	beam (80)
B2260	N1-SN2 - CFRHS120X120X5	S 235	2.969	N2598	N2631	beam (80)
B2261	N1-SN1 - CFRHS120X60X4	S 235	2.969	N2612	N2632	beam (80)
B2262	N1-SN1 - CFRHS120X60X4	S 235	2.969	N2614	N2633	beam (80)
B2263	N1-SN1 - CFRHS120X60X4	S 235	2.969	N2616	N2634	beam (80)
B2264	N1-SN1 - CFRHS120X60X4	S 235	2.969	N2618	N2635	beam (80)
B2265	N1-SN2 - CFRHS120X120X5	S 235	3.318	N2631	N2636	beam (80)
B2266	N1-SN2 - CFRHS120X120X5	S 235	3.318	N2630	N2637	beam (80)
B2267	N1-SN2 - CFRHS120X120X5	S 235	3.318	N2629	N2638	beam (80)
B2268	N1-SN2 - CFRHS120X120X5	S 235	4.680	N2632	N2639	beam (80)
B2269	N1-SN2 - CFRHS120X120X5	S 235	4.680	N2633	N2640	beam (80)
B2270	N1-SN2 - CFRHS120X120X5	S 235	4.680	N2634	N2641	beam (80)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B2271	N1-SN2 - CFRHS120X120X5	S 235	4.680	N2635	N2642	beam (80)
B2272	N1-SN1 - CFRHS120X60X4	S 235	1.362	N2638	N2643	beam (80)
B2273	N1-SN1 - CFRHS120X60X4	S 235	1.362	N2637	N2644	beam (80)
B2274	N1-SN1 - CFRHS120X60X4	S 235	1.362	N2636	N2645	beam (80)
B2275	N1-SN1 - CFRHS120X60X4	S 235	3.062	N2646	N2647	beam (80)
B2276	N1-SN1 - CFRHS120X60X4	S 235	3.062	N2648	N2649	beam (80)
B2277	N1-SN1 - CFRHS120X60X4	S 235	3.062	N2650	N2651	beam (80)
B2278	N1-N3 - HEA160	S 235	5.200	N2652	N2653	beam (80)
B2279	N1-N3 - HEA160	S 235	5.200	N2654	N2655	beam (80)
B2280	N1-SN1 - CFRHS120X60X4	S 235	3.061	N2656	N2657	beam (80)
B2281	N1-SN1 - CFRHS120X60X4	S 235	3.061	N2658	N2659	beam (80)
B2282	N1-SN1 - CFRHS120X60X4	S 235	3.061	N2660	N2661	beam (80)
B2283	N1-SN1 - CFRHS120X60X4	S 235	3.061	N2662	N2663	beam (80)
B2284	N1-N3 - HEA160	S 235	3.988	N2664	N2665	beam (80)
B2285	N1-N3 - HEA160	S 235	3.988	N2666	N2667	beam (80)
B2291	N1-HS1 - CFRHS160X80X8	S 235	5.200	N2673	N2674	truss diagonal (90)
B2294	N1-HS1 - CFRHS160X80X8	S 235	5.200	N1	N2675	truss diagonal (90)
B2295	N1-HS1 - CFRHS160X80X8	S 235	5.200	N2676	N2677	truss diagonal (90)
B2296	N1-HS1 - CFRHS160X80X8	S 235	5.200	N2678	N2679	truss diagonal (90)
B2298	N1-HS1 - CFRHS160X80X8	S 235	2.969	N2675	N2681	truss diagonal (90)
B2299	N1-HS1 - CFRHS160X80X8	S 235	2.969	N2678	N2682	truss diagonal (90)

6. 2D members

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S29	konstrukcija	plate (90)	Standard	C25/30	constant	800
S30	konstrukcija	plate (90)	Standard	C25/30	constant	800
S31	konstrukcija	plate (90)	Standard	C25/30	constant	800
S32	konstrukcija	plate (90)	Standard	C25/30	constant	800
S45	konstrukcija	plate (90)	Standard	C25/30	constant	800
S46	konstrukcija	plate (90)	Standard	C25/30	constant	800
S47	konstrukcija	plate (90)	Standard	C25/30	constant	800
S48	konstrukcija	plate (90)	Standard	C25/30	constant	800
S49	konstrukcija	plate (90)	Standard	C25/30	constant	800
S50	konstrukcija	plate (90)	Standard	C25/30	constant	800
S51	konstrukcija	plate (90)	Standard	C25/30	constant	800
S52	konstrukcija	plate (90)	Standard	C25/30	constant	800
S53	konstrukcija	plate (90)	Standard	C25/30	constant	800
S54	konstrukcija	plate (90)	Standard	C25/30	constant	800
S55	konstrukcija	plate (90)	Standard	C25/30	constant	800
S56	konstrukcija	plate (90)	Standard	C25/30	constant	800
S57	konstrukcija	plate (90)	Standard	C25/30	constant	800
S58	konstrukcija	plate (90)	Standard	C25/30	constant	800
S59	konstrukcija	plate (90)	Standard	C25/30	constant	800
S60	konstrukcija	plate (90)	Standard	C25/30	constant	800
S61	konstrukcija	plate (90)	Standard	C25/30	constant	800
S62	konstrukcija	plate (90)	Standard	C25/30	constant	800
S63	konstrukcija	plate (90)	Standard	C25/30	constant	800
S64	konstrukcija	plate (90)	Standard	C25/30	constant	800
S65	konstrukcija	plate (90)	Standard	C25/30	constant	800
S66	konstrukcija	plate (90)	Standard	C25/30	constant	800
S67	konstrukcija	plate (90)	Standard	C25/30	constant	800
S68	konstrukcija	plate (90)	Standard	C25/30	constant	800
S73	konstrukcija	plate (90)	Standard	C25/30	constant	800
S74	konstrukcija	plate (90)	Standard	C25/30	constant	800
S75	konstrukcija	plate (90)	Standard	C25/30	constant	800
S76	konstrukcija	plate (90)	Standard	C25/30	constant	800

7. Hinges

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H399	B2207	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H400	B2206	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H401	B2205	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H402	B2204	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H403	B2203	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H404	B2225	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H405	B2227	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H406	B2213	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H407	B2237	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H408	B2236	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H409	B2218	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H410	B2217	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H411	B2216	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H412	B2215	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H413	B2214	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H414	B2202	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H415	B2238	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H416	B2231	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H417	B2212	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H418	B2156	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H419	B2146	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H420	B2240	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H421	B2239	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H422	B2147	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H423	B2157	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H424	B2167	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H425	B2172	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H426	B2174	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H427	B2168	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H430	B2178	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H431	B2182	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H432	B2210	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H433	B2242	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H434	B2243	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H435	B2244	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H436	B2245	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H437	B2246	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H438	B2247	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H439	B2248	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H440	B2249	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H441	B2250	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H442	B2251	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H443	B2252	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H444	B2253	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H445	B2254	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H446	B2255	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H447	B2256	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H448	B2257	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H449	B2258	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H450	B2259	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H451	B2260	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H452	B2261	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H453	B2262	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H454	B2263	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H455	B2264	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H456	B2265	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H457	B2266	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H458	B2267	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H459	B2268	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H460	B2269	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H461	B2270	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H462	B2271	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H463	B2272	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H464	B2273	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H465	B2274	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H466	B2275	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H467	B2276	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H468	B2277	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H469	B2278	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H470	B2279	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H471	B2280	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H472	B2281	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H473	B2282	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H474	B2283	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H475	B2284	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H476	B2285	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

8. Rigid arms

Name	Master	Slave	Hinge on master	Hinge on slave
RA12	N2408	N2549	No	No
RA13	N2419	N2540	No	No
RA14	N2430	N2531	No	No
RA15	N2435	N2522	No	No
RA16	N2438	N2513	No	No
RA19	N2442	N2486	No	No
RA20	N2447	N2477	No	No
RA21	N2431	N2561	No	No

9. Nodal supports

Name	Node	System	Type	X	Y	Z	Rx	Ry	Rz
Sn63	N2409	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn64	N2410	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn65	N2411	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn66	N2412	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn68	N2420	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn69	N2421	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn70	N2422	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn71	N2423	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn74	N2432	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn75	N2433	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn76	N2439	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn77	N2446	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free

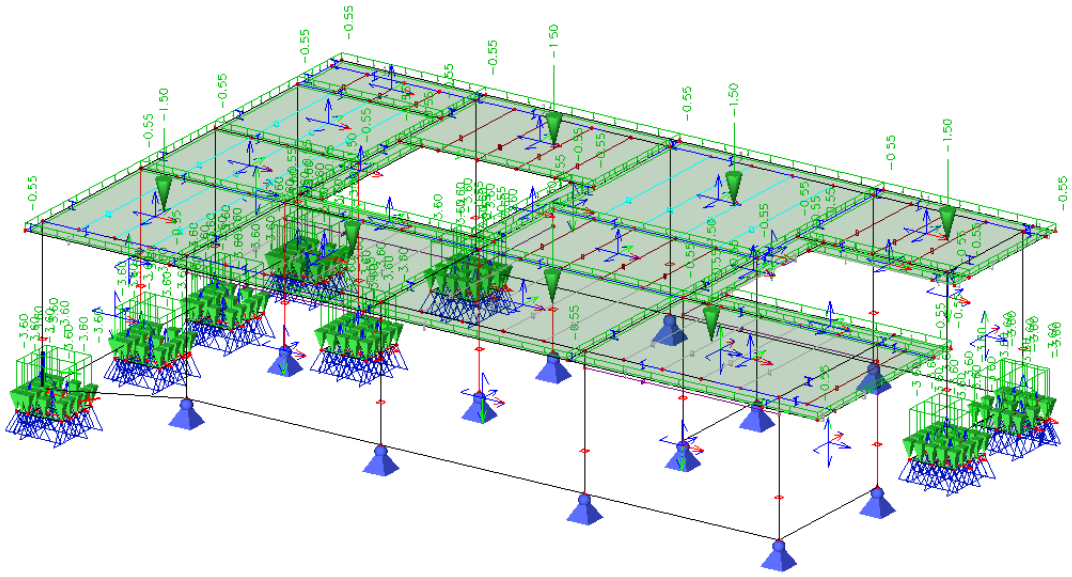
2. OBTEŽBE IN OBTEŽNE KOMBINACIJE

2.1. Obtežbe

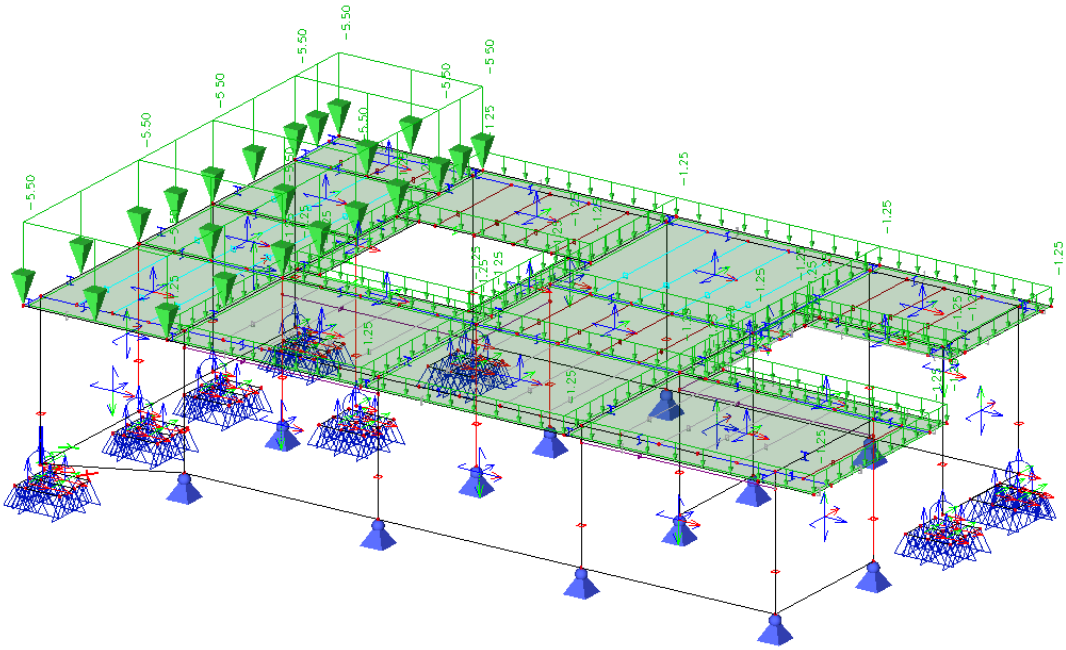
10. Load cases

Name	Description	Action type	Load group	Direction	Duration	Master load case
	Spec	Load type				
lastna		Permanent	L	-Z		
		Self weight				
stalna		Permanent	L			
		Standard				
sneg		Variable	S		Short	None
	Standard	Static				
horiz. ograja		Variable	HO		Short	None
	Standard	Static				
W x		Variable	Wxy		Short	None
	Standard	Static				
W -x		Variable	Wxy		Short	None
	Standard	Static				
W y		Variable	Wxy		Short	None
	Standard	Static				
W -y		Variable	Wxy		Short	None
	Standard	Static				
potres X		Variable	Ex			None
	Seismicity	Dynamic				
potres Y		Variable	Ey			None
	Seismicity	Dynamic				
W pritisk streha		Variable	Wps		Short	None
	Standard	Static				
W srk streha		Variable	Wps		Short	None
	Standard	Static				
Aeropri-1		Variable	aer		Short	None
	Standard	Static				
Aeropri-2		Variable	aer		Short	None
	Standard	Static				
sneg-s1		Variable	S		Short	None
	Standard	Static				
sneg-s2		Variable	S		Short	None
	Standard	Static				

stalna

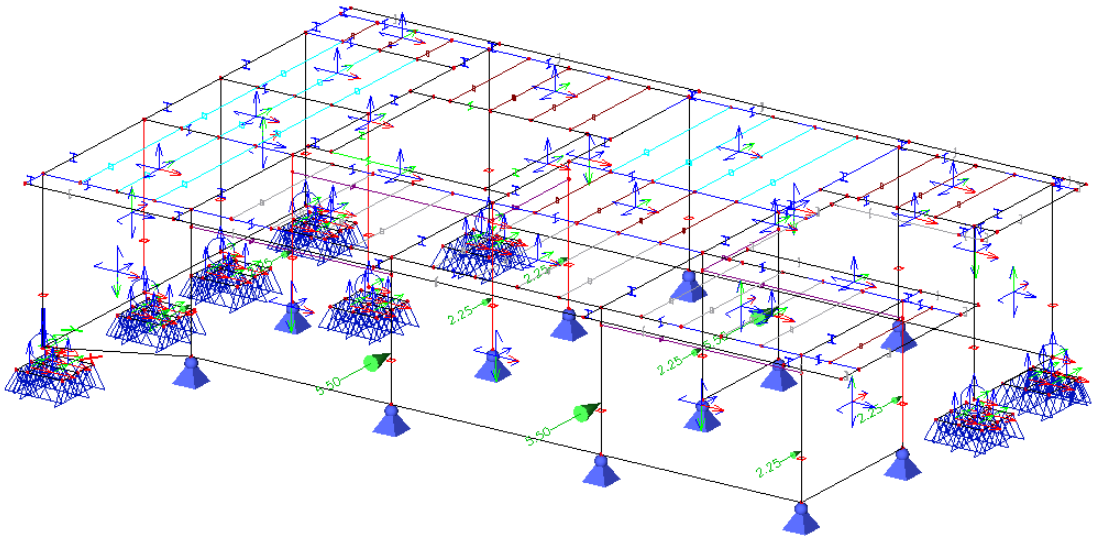


sneg

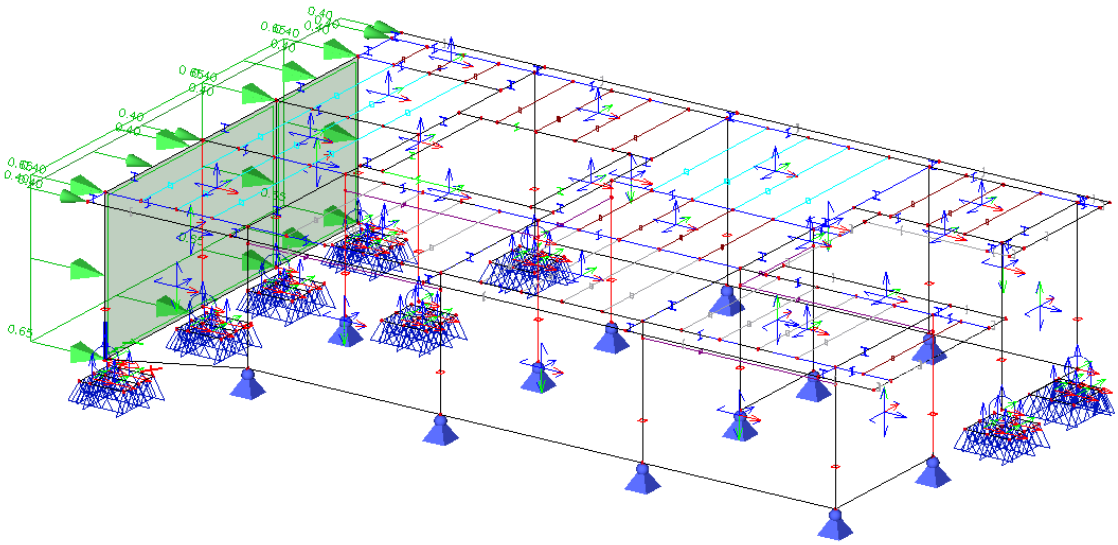


V področju kopičenja je podana povprečna obtežba kopičenja.

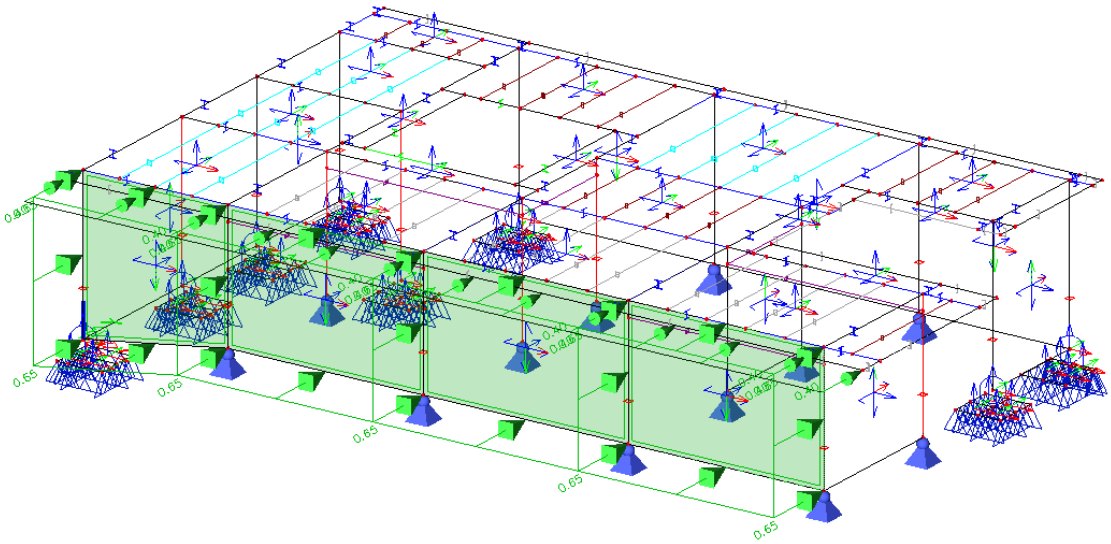
horzontalna ograja



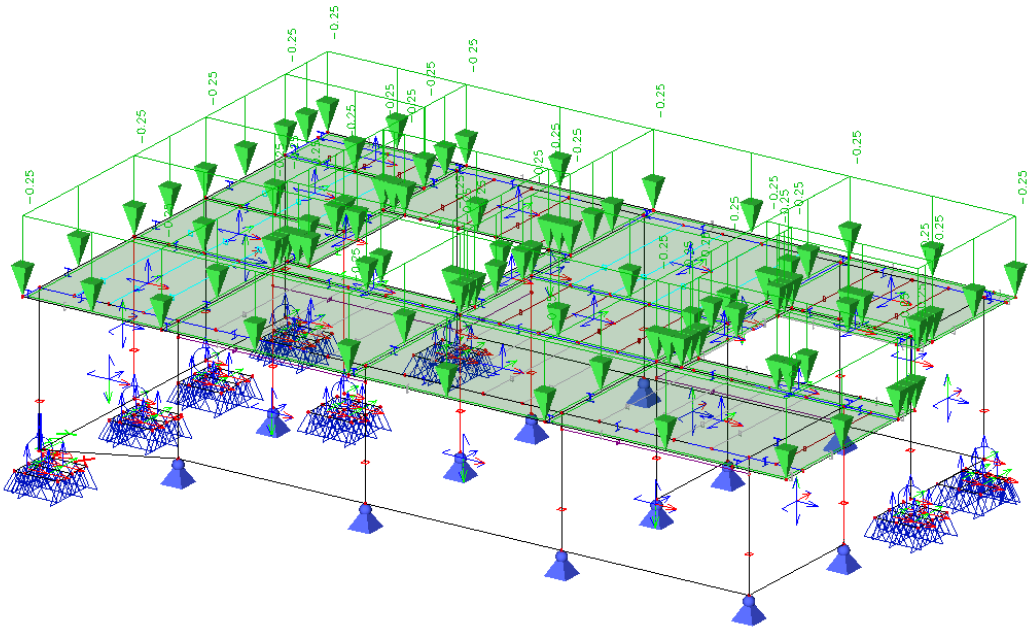
Wx



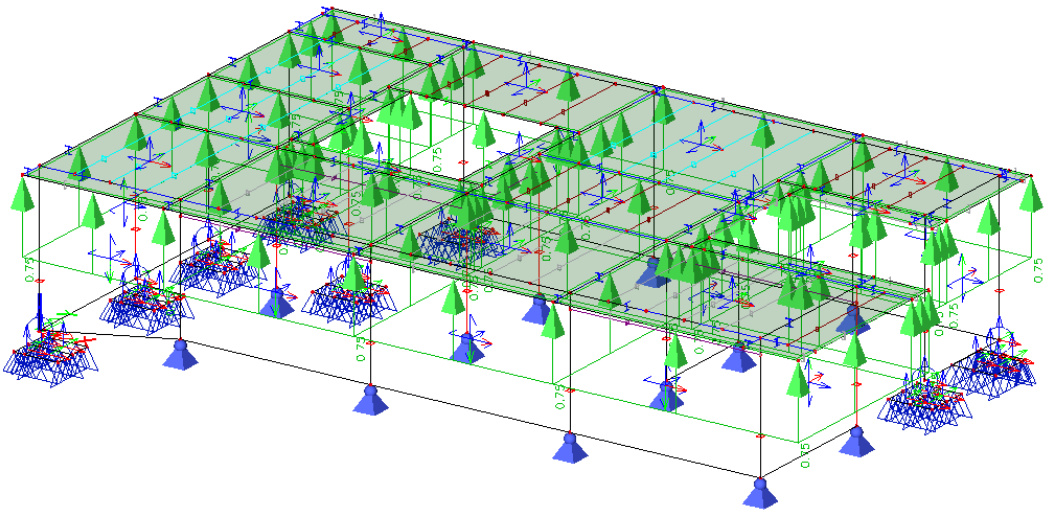
Wy



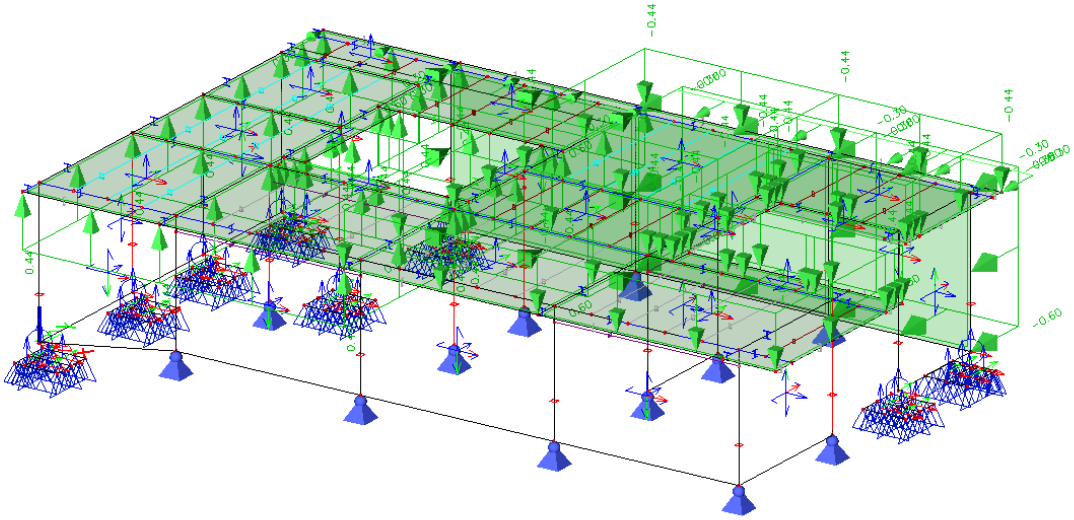
Wpritsk streha



W srk streha



aeroprit-1



11. Combinations

Name	Description	Type	Load cases	Coeff. [-]
potres 1		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	0.30
potres 2		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	-0.30
potres 3		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	0.30
potres 4		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	-0.30
potres 5		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	1.00
potres 6		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	1.00
potres 7		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	-1.00
potres 8		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	-1.00
MSN-temelj-1-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-1-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90

Name	Description	Type	Load cases	Coeff. [-]
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-1		Envelope - ultimate	lastna	1.35

Name	Description	Type	Load cases	Coeff. [-]
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-6-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-6-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-7		Linear - ultimate	lastna	1.35
			stalna	1.35
			W x	0.90
			sneg-s1	1.50
MSN-temelj-8		Linear - ultimate	lastna	1.35
			stalna	1.35
			W -x	0.90
			sneg-s2	1.50

12. Nonlinear combinations

Name	Type	Load cases	Coeff. [-]
NC1	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W pritisk streha	1.50
NC2	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W x	1.50
		W pritisk streha	1.50
NC3	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -x	1.50
		W pritisk streha	1.50
NC4	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W y	1.50
		W pritisk streha	1.50
NC5	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -y	1.50
		W pritisk streha	1.50
NC6	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
NC7	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
NC8	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
NC9	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
NC10	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W x	1.00
		W pritisk streha	1.00
NC11	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -x	1.00
		W pritisk streha	1.00
NC12	Serviceability	lastna	1.00
		stalna	1.00

Name	Type	Load cases	Coeff. [-]
		sneg	1.00
		horiz. ograja	1.00
		W y	1.00
		W pritisk streha	1.00
NC13	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -y	1.00
		W pritisk streha	1.00
NC14	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	1.50
		Aeropri-1	0.90
NC15	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC16	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC17	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC18	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC19	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC20	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC21	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC22	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50

Name	Type	Load cases	Coeff. [-]
		W srk streha	1.50
		Aeropri-1	0.90
NC23	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC24	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC25	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC26	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC27	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC28	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC29	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC30	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC31	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC32	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50

Name	Type	Load cases	Coeff. [-]
NC33	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC34	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC35	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC36	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC37	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC38	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC39	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC40	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC41	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC42	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC43	Ultimate	lastna	1.35

Name	Type	Load cases	Coeff. [-]
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC44	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC45	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC46	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC47	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC48	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC49	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC50-s1	Ultimate	lastna	1.35
		stalna	1.35
		W x	0.90
		sneg-s1	1.50
NC51-s2	Ultimate	lastna	1.35
		stalna	1.35
		W -x	0.90
		sneg-s2	1.50

13. Mass groups

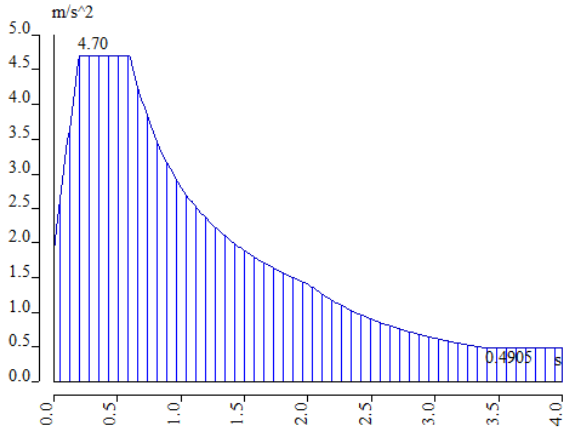
Name	Load case	Description
MG1	lastna	lastna
MG2	stalna	stalna

14. Combination of mass groups

Name	Mass group	Coeff. [-]
CM1	MG1 - lastna	1.00
	MG2 - stalna	1.00
CM1/1 - 1.85		
CM1/2 - 1.91		
CM1/3 - 2.07		
CM1/4 - 2.82		
CM1/5 - 3.46		
CM1/6 - 4.08		
CM1/7 - 4.86		
CM1/8 - 4.89		
CM1/9 - 5.03		
CM1/10 - 5.17		
CM1/11 - 5.41		
CM1/12 - 5.48		
CM1/13 - 5.59		
CM1/14 - 5.78		
CM1/15 - 5.84		
CM1/16 - 5.91		
CM1/17 - 6.26		
CM1/18 - 6.40		
CM1/19 - 6.42		
CM1/20 - 6.54		
CM1/21 - 6.55		
CM1/22 - 6.83		
CM1/23 - 6.83		
CM1/24 - 6.86		
CM1/25 - 6.95		
CM1/26 - 6.95		
CM1/27 - 6.95		
CM1/28 - 6.96		
CM1/29 - 6.96		
CM1/30 - 7.06		
CM1/31 - 7.06		
CM1/32 - 7.06		
CM1/33 - 7.07		
CM1/34 - 7.07		
CM1/35 - 7.07		
CM1/36 - 7.07		
CM1/37 - 7.14		
CM1/38 - 7.31		
CM1/39 - 7.38		
CM1/40 - 7.41		
CM1/41 - 7.43		
CM1/42 - 7.46		
CM1/43 - 7.47		
CM1/44 - 7.47		
CM1/45 - 7.47		
CM1/46 - 7.47		
CM1/47 - 7.47		
CM1/48 - 7.48		
CM1/49 - 7.48		
CM1/50 - 7.48		
CM1/51 - 7.48		
CM1/52 - 7.49		
CM1/53 - 7.49		
CM1/54 - 7.49		
CM1/55 - 7.52		

Name	Mass group	Coeff. [-]
CM1/56 - 7.52		
CM1/57 - 7.71		
CM1/58 - 7.75		
CM1/59 - 8.06		
CM1/60 - 8.12		
CM1/61 - 8.17		
CM1/62 - 8.19		
CM1/63 - 8.19		
CM1/64 - 8.29		
CM1/65 - 8.33		
CM1/66 - 8.45		
CM1/67 - 8.45		
CM1/68 - 8.57		
CM1/69 - 8.58		
CM1/70 - 8.65		
CM1/71 - 8.82		
CM1/72 - 8.82		
CM1/73 - 8.82		
CM1/74 - 8.88		
CM1/75 - 8.90		
CM1/76 - 8.94		
CM1/77 - 9.10		
CM1/78 - 9.13		
CM1/79 - 9.19		
CM1/80 - 9.23		
CM1/81 - 9.27		
CM1/82 - 9.29		
CM1/83 - 9.31		
CM1/84 - 9.45		
CM1/85 - 9.45		
CM1/86 - 9.49		
CM1/87 - 9.49		
CM1/88 - 9.80		
CM1/89 - 9.93		
CM1/90 - 11.12		
CM1/91 - 11.38		
CM1/92 - 11.62		
CM1/93 - 11.74		
CM1/94 - 11.96		
CM1/95 - 12.05		
CM1/96 - 12.09		
CM1/97 - 12.30		
CM1/98 - 12.40		
CM1/99 - 12.51		
CM1/100 - 12.79		

15. Seismic spectrums

Name	Type drawing	Info	Drawing
UniqueID			
EC 8, class C, q = 1.5, ag=0.25	Period	Type code - Eurocode Subsoil type - C Direction - Horizontal Spectrum type - type 1 coeff accel. ag - 0.25 ag - design acceleration - 2.4525 beta - 0.2 q - behaviour factor - 1.5	

2.2. Ovojnice

16. Result classes

Name	Description	List
ULS-potres	linearno	potres 2 - Linear - ultimate
		potres 3 - Linear - ultimate
		potres 4 - Linear - ultimate
		potres 5 - Linear - ultimate
		potres 6 - Linear - ultimate
		potres 7 - Linear - ultimate
		potres 8 - Linear - ultimate
		potres 1 - Linear - ultimate
ULS	nelinearno	NC1
		NC2
		NC3
		NC4
		NC5
		NC6
		NC7
		NC8
		NC9
		NC14
		NC15
		NC16
		NC17
		NC18
		NC19
		NC20
		NC21
		NC22
		NC23
		NC24
		NC25
		NC26
		NC27
		NC28
		NC29
		NC30
		NC31
		NC32
		NC33
		NC34
		NC35
		NC36
		NC37
		NC38
		NC39
		NC40
		NC41
		NC42
		NC43
		NC44
		NC45
		NC46
		NC47
		NC48
		NC49
		NC50-s1
		NC51-s2
SLS	linearno	NC10
		NC11
		NC12
		NC13
ULS-temelji	linearno	MSN-temelj-1-1 - Envelope - ultimate
		MSN-temelj-1-2 - Envelope - ultimate

Name	Description	List
		MSN-temelj-2-1 - Envelope - ultimate
		MSN-temelj-2-2 - Envelope - ultimate
		MSN-temelj-3-1 - Envelope - ultimate
		MSN-temelj-3-2 - Envelope - ultimate
		MSN-temelj-4-1 - Envelope - ultimate
		MSN-temelj-4-2 - Envelope - ultimate
		MSN-temelj-5-1 - Envelope - ultimate
		MSN-temelj-5-2 - Envelope - ultimate
		MSN-temelj-6-1 - Envelope - ultimate
		MSN-temelj-6-2 - Envelope - ultimate
		MSN-temelj-7 - Linear - ultimate
		MSN-temelj-8 - Linear - ultimate

2.3. Računski protokoli

17. Calculation protocol

Linear calculation

Number of 2D elements	132
Number of 1D elements	1233
Number of mesh nodes	1360
Number of equations	8160
Bending theory	Mindlin
Load cases	lastna, stalna, sneg, horiz. ograja, W x, W -x, W y, W -y, W pritisk streha, W srk streha, Aeropri-1, Aeropri-2, sneg-s1, sneg-s2
Start of calculation	01.07.2021 14:48
End of calculation	01.07.2021 14:48

Sum of loads and reactions

Load case	Value	X [kN]	Y [kN]	Z [kN]
lastna	loads	0.00	0.00	-359.46
	reaction in nodes	0.00	-0.05	92.44
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.05	267.03
stalna	loads	0.00	0.00	-176.16
	reaction in nodes	-0.28	-0.01	102.27
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.28	0.01	73.89
sneg	loads	0.00	0.00	-489.06
	reaction in nodes	-3.11	0.04	266.46
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	3.11	-0.04	222.60
horiz. ograja	loads	0.00	32.25	0.00
	reaction in nodes	-0.18	-29.18	-0.30
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.18	-3.07	0.30
W x	loads	31.70	0.00	0.00
	reaction in nodes	-15.05	0.08	-0.06
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-16.65	-0.08	0.06
W -x	loads	-28.85	0.00	0.00
	reaction in nodes	19.79	-0.30	-1.77
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	9.06	0.30	1.77
W y	loads	0.00	52.77	0.00
	reaction in nodes	0.04	-40.93	-2.50
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.04	-11.84	2.50
W -y	loads	0.00	-45.73	0.00
	reaction in nodes	0.22	33.24	1.58
	reaction on lines	0.00	0.00	0.00

Load case	Value	X [kN]	Y [kN]	Z [kN]
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.22	12.49	-1.58
W pritisk streha	loads	0.00	0.00	-56.25
	reaction in nodes	-0.11	-0.01	42.51
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.11	0.01	13.74
W srk streha	loads	0.00	0.00	168.76
	reaction in nodes	0.33	0.02	-127.54
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.33	-0.02	-41.22
Aeropri-1	loads	0.00	-10.50	-11.91
	reaction in nodes	1.06	11.39	27.29
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-1.06	-0.89	-15.38
Aeropri-2	loads	0.00	10.50	11.91
	reaction in nodes	-1.06	-11.39	-27.29
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	1.06	0.89	15.38
sneg-s1	loads	0.00	0.00	-489.06
	reaction in nodes	-3.11	0.04	266.46
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	3.11	-0.04	222.60
sneg-s2	loads	0.00	0.00	-489.06
	reaction in nodes	-3.11	0.04	266.46
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	3.11	-0.04	222.60

The following dynamic load cases are detailed separately (see below):potres X, potres Y

Dynamic load case 15 : potres X

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s^2]	Say [m/s^2]	Saz [m/s^2]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	1.85	0.05	1	4.701	0.000	0.000	-5.38	111.58	-6.86	28.41	-425.71
2	1.91	0.05	1	4.701	0.000	0.000	0.35	0.55	8.38	-32.05	-2.10
3	2.07	0.05	1	4.701	0.000	0.000	1.58	15.05	-1.51	3.25	-58.72
4	2.82	0.05	1	4.701	0.000	0.000	-0.19	0.78	0.03	0.31	-3.39
5	3.46	0.05	1	4.701	0.000	0.000	0.00	0.00	0.00	0.00	0.00
6	4.08	0.05	1	4.701	0.000	0.000	0.00	0.00	0.01	0.00	0.00
7	4.86	0.05	1	4.701	0.000	0.000	0.00	0.00	0.00	0.00	-0.01
8	4.89	0.05	1	4.701	0.000	0.000	0.00	0.00	0.00	0.00	0.00
9	5.03	0.05	1	4.660	0.000	0.000	-0.03	0.15	0.00	0.00	-0.44
10	5.17	0.05	1	4.606	0.000	0.000	0.01	0.02	0.01	0.00	-0.08
11	5.41	0.05	1	4.489	0.000	0.000	0.00	0.00	0.00	0.00	0.00
12	5.48	0.05	1	4.455	0.000	0.000	0.00	0.00	0.00	0.00	0.00
13	5.59	0.05	1	4.407	0.000	0.000	0.01	0.04	-0.04	0.02	-0.08
14	5.78	0.05	1	4.322	0.000	0.000	0.01	0.04	0.02	0.00	-0.08
15	5.84	0.05	1	4.296	0.000	0.000	0.00	0.00	0.01	0.00	0.01
16	5.91	0.05	1	4.267	0.000	0.000	0.00	0.00	0.00	0.00	0.00
17	6.26	0.05	1	4.135	0.000	0.000	-0.01	0.09	-0.01	0.00	-0.08
18	6.40	0.05	1	4.086	0.000	0.000	-0.01	0.03	0.07	0.00	-0.01
19	6.42	0.05	1	4.079	0.000	0.000	0.00	0.00	0.00	0.00	0.00
20	6.54	0.05	1	4.037	0.000	0.000	0.00	0.00	0.00	0.00	0.00
21	6.55	0.05	1	4.033	0.000	0.000	0.00	0.00	0.00	0.00	0.00
22	6.83	0.05	1	3.948	0.000	0.000	0.00	0.00	0.00	0.00	0.00
23	6.83	0.05	1	3.948	0.000	0.000	0.00	0.00	0.00	0.00	0.00
24	6.86	0.05	1	3.937	0.000	0.000	0.00	0.00	0.00	0.00	-0.01
25	6.95	0.05	1	3.911	0.000	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
26	6.95	0.05	1	3.908	0.000	0.000	0.00	0.00	0.00	0.00	0.00
27	6.95	0.05	1	3.908	0.000	0.000	0.00	0.00	0.00	0.00	0.00
28	6.96	0.05	1	3.908	0.000	0.000	0.00	0.00	0.00	0.00	0.00
29	6.96	0.05	1	3.908	0.000	0.000	0.00	0.00	0.00	0.00	0.00
30	7.06	0.05	1	3.880	0.000	0.000	0.00	0.00	0.00	-0.02	0.00
31	7.06	0.05	1	3.879	0.000	0.000	0.00	0.00	0.00	0.00	0.00
32	7.06	0.05	1	3.879	0.000	0.000	0.00	0.00	0.00	0.00	0.00
33	7.07	0.05	1	3.878	0.000	0.000	0.00	0.00	0.00	0.00	0.00
34	7.07	0.05	1	3.877	0.000	0.000	0.00	0.00	0.00	0.00	0.00
35	7.07	0.05	1	3.876	0.000	0.000	0.00	0.02	0.01	-0.01	-0.01
36	7.07	0.05	1	3.876	0.000	0.000	0.00	0.02	0.00	0.00	-0.01
37	7.14	0.05	1	3.858	0.000	0.000	-0.01	0.09	-0.01	0.00	-0.05
38	7.31	0.05	1	3.811	0.000	0.000	0.02	0.58	-2.24	-0.86	-0.03
39	7.38	0.05	1	3.792	0.000	0.000	0.02	0.46	-0.06	-0.01	0.00
40	7.41	0.05	1	3.784	0.000	0.000	0.05	3.41	-1.74	-0.68	1.64
41	7.43	0.05	1	3.779	0.000	0.000	0.06	4.21	3.23	1.47	1.03
42	7.46	0.05	1	3.771	0.000	0.000	-0.01	0.18	0.02	0.01	0.08
43	7.47	0.05	1	3.769	0.000	0.000	0.02	0.52	-0.44	-0.21	0.26
44	7.47	0.05	1	3.769	0.000	0.000	-0.03	0.88	-0.35	-0.16	0.40
45	7.47	0.05	1	3.768	0.000	0.000	0.05	3.55	-1.02	-0.46	1.70
46	7.47	0.05	1	3.768	0.000	0.000	-0.08	8.71	2.24	1.03	4.12
47	7.47	0.05	1	3.767	0.000	0.000	0.05	3.56	1.15	0.54	1.72
48	7.48	0.05	1	3.767	0.000	0.000	0.04	1.63	-0.69	-0.32	0.75
49	7.48	0.05	1	3.766	0.000	0.000	-0.14	23.79	-0.38	-0.19	11.40
50	7.48	0.05	1	3.766	0.000	0.000	-0.03	0.81	1.88	0.91	0.41
51	7.48	0.05	1	3.765	0.000	0.000	0.17	35.59	8.95	4.30	17.68
52	7.49	0.05	1	3.764	0.000	0.000	-0.01	0.10	0.41	0.20	0.06
53	7.49	0.05	1	3.762	0.000	0.000	0.06	4.54	-14.47	-7.14	2.52
54	7.49	0.05	1	3.762	0.000	0.000	0.04	2.43	4.12	2.03	1.61
55	7.52	0.05	1	3.757	0.000	0.000	0.04	1.71	-4.80	-2.38	1.07
56	7.52	0.05	1	3.755	0.000	0.000	0.05	3.94	4.43	2.24	1.74
57	7.71	0.05	1	3.711	0.000	0.000	0.01	0.05	-0.07	-0.05	0.05
58	7.75	0.05	1	3.704	0.000	0.000	0.00	0.02	-0.30	-0.19	-0.02
59	8.06	0.05	1	3.631	0.000	0.000	0.01	0.07	0.04	0.03	0.10
60	8.12	0.05	1	3.617	0.000	0.000	0.00	0.01	0.00	0.00	-0.01
61	8.17	0.05	1	3.607	0.000	0.000	0.00	0.00	0.00	0.00	0.00
62	8.19	0.05	1	3.603	0.000	0.000	0.00	0.00	0.00	0.00	0.00
63	8.19	0.05	1	3.603	0.000	0.000	0.00	0.00	0.00	0.00	0.00
64	8.29	0.05	1	3.584	0.000	0.000	0.01	0.07	-0.01	-0.01	0.03
65	8.33	0.05	1	3.575	0.000	0.000	0.00	0.00	0.00	0.00	0.00
66	8.45	0.05	1	3.553	0.000	0.000	0.00	0.00	0.00	0.00	0.00
67	8.45	0.05	1	3.553	0.000	0.000	0.00	0.00	0.00	0.00	0.00
68	8.57	0.05	1	3.528	0.000	0.000	0.00	0.00	0.00	0.00	0.00
69	8.58	0.05	1	3.526	0.000	0.000	0.00	0.00	0.00	0.00	0.00
70	8.65	0.05	1	3.513	0.000	0.000	0.00	0.00	0.00	0.00	0.00
71	8.82	0.05	1	3.479	0.000	0.000	0.00	0.00	0.00	0.00	0.00
72	8.82	0.05	1	3.479	0.000	0.000	0.00	0.00	0.00	0.00	0.00
73	8.82	0.05	1	3.479	0.000	0.000	0.00	0.00	0.00	0.00	0.00
74	8.88	0.05	1	3.469	0.000	0.000	0.00	0.00	0.00	0.00	0.00
75	8.90	0.05	1	3.465	0.000	0.000	0.00	0.00	0.00	0.00	0.01
76	8.94	0.05	1	3.459	0.000	0.000	0.00	0.01	0.00	0.00	0.05
77	9.10	0.05	1	3.434	0.000	0.000	0.00	0.00	0.00	0.00	0.00
78	9.13	0.05	1	3.427	0.000	0.000	0.00	0.00	0.00	0.00	-0.01
79	9.19	0.05	1	3.419	0.000	0.000	0.00	0.00	0.00	0.00	0.00
80	9.23	0.05	1	3.411	0.000	0.000	0.00	0.01	0.00	0.00	0.02
81	9.27	0.05	1	3.405	0.000	0.000	0.00	0.00	0.00	0.00	-0.01
82	9.29	0.05	1	3.401	0.000	0.000	0.00	0.00	0.00	0.00	0.00
83	9.31	0.05	1	3.397	0.000	0.000	0.00	0.00	0.00	0.00	0.00
84	9.45	0.05	1	3.376	0.000	0.000	0.00	0.00	0.00	0.00	0.00
85	9.45	0.05	1	3.375	0.000	0.000	0.00	0.00	0.00	0.00	0.00
86	9.49	0.05	1	3.368	0.000	0.000	0.00	0.00	0.00	0.00	0.00
87	9.49	0.05	1	3.368	0.000	0.000	0.00	0.00	0.00	0.00	0.00
88	9.80	0.05	1	3.321	0.000	0.000	0.00	0.00	0.00	0.00	0.00
89	9.93	0.05	1	3.304	0.000	0.000	0.00	0.03	0.00	0.00	0.01
90	11.12	0.05	1	3.152	0.000	0.000	0.00	0.00	0.00	0.00	0.00
91	11.38	0.05	1	3.124	0.000	0.000	0.00	0.01	0.00	0.00	-0.01

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
92	11.62	0.05	1	3.097	0.000	0.000	0.00	0.00	0.00	0.00	0.00
93	11.74	0.05	1	3.084	0.000	0.000	0.00	0.00	0.00	0.00	0.00
94	11.96	0.05	1	3.060	0.000	0.000	0.00	0.00	0.00	0.00	0.00
95	12.05	0.05	1	3.051	0.000	0.000	0.00	0.00	0.00	0.00	0.00
96	12.09	0.05	1	3.047	0.000	0.000	0.00	0.00	0.00	0.00	0.00
97	12.30	0.05	1	3.030	0.000	0.000	0.00	0.00	0.00	0.00	0.00
98	12.40	0.05	1	3.021	0.000	0.000	0.00	0.01	0.00	0.00	-0.01
99	12.51	0.05	1	3.012	0.000	0.000	0.00	0.00	0.00	0.00	0.00
100	12.79	0.05	1	2.988	0.000	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							121.20	22.35	-44.00	-430.32

Dynamic load case 16 : potres Y

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	1.85	0.05	1	0.000	4.701	0.000	0.33	-6.86	0.42	-1.75	26.16
2	1.91	0.05	1	0.000	4.701	0.000	5.40	8.38	127.53	-487.83	-32.02
3	2.07	0.05	1	0.000	4.701	0.000	-0.16	-1.51	0.15	-0.33	5.90
4	2.82	0.05	1	0.000	4.701	0.000	-0.01	0.03	0.00	0.01	-0.11
5	3.46	0.05	1	0.000	4.701	0.000	-0.11	0.00	0.62	-1.65	0.05
6	4.08	0.05	1	0.000	4.701	0.000	-0.06	0.01	0.28	-0.18	-0.06
7	4.86	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
8	4.89	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
9	5.03	0.05	1	0.000	4.660	0.000	0.00	0.00	0.00	0.00	0.01
10	5.17	0.05	1	0.000	4.606	0.000	0.00	0.01	0.01	0.00	-0.04
11	5.41	0.05	1	0.000	4.489	0.000	0.00	0.00	0.00	0.00	0.00
12	5.48	0.05	1	0.000	4.455	0.000	0.00	0.00	0.00	0.00	0.00
13	5.59	0.05	1	0.000	4.407	0.000	-0.01	-0.04	0.04	-0.02	0.08
14	5.78	0.05	1	0.000	4.322	0.000	0.00	0.02	0.01	0.00	-0.04
15	5.84	0.05	1	0.000	4.296	0.000	0.01	0.01	0.08	-0.02	0.03
16	5.91	0.05	1	0.000	4.267	0.000	0.00	0.00	0.00	0.00	0.00
17	6.26	0.05	1	0.000	4.135	0.000	0.00	-0.01	0.00	0.00	0.01
18	6.40	0.05	1	0.000	4.086	0.000	-0.02	0.07	0.19	0.01	-0.04
19	6.42	0.05	1	0.000	4.079	0.000	0.00	0.00	0.00	0.00	0.00
20	6.54	0.05	1	0.000	4.037	0.000	0.00	0.00	0.00	0.00	0.00
21	6.55	0.05	1	0.000	4.033	0.000	0.00	0.00	0.00	0.00	0.00
22	6.83	0.05	1	0.000	3.948	0.000	0.00	0.00	0.00	0.00	0.00
23	6.83	0.05	1	0.000	3.948	0.000	0.00	0.00	0.00	0.00	0.00
24	6.86	0.05	1	0.000	3.937	0.000	0.00	0.00	0.00	0.00	0.00
25	6.95	0.05	1	0.000	3.911	0.000	0.00	0.00	0.00	0.00	0.00
26	6.95	0.05	1	0.000	3.908	0.000	0.00	0.00	0.00	0.00	0.00
27	6.95	0.05	1	0.000	3.908	0.000	0.00	0.00	0.00	0.00	0.00
28	6.96	0.05	1	0.000	3.908	0.000	0.00	0.00	0.00	0.00	0.00
29	6.96	0.05	1	0.000	3.908	0.000	0.00	0.00	0.00	0.00	0.00
30	7.06	0.05	1	0.000	3.880	0.000	0.00	0.00	0.00	-0.01	0.00
31	7.06	0.05	1	0.000	3.879	0.000	0.00	0.00	0.00	0.00	0.00
32	7.06	0.05	1	0.000	3.879	0.000	0.00	0.00	0.00	0.00	0.00
33	7.07	0.05	1	0.000	3.878	0.000	0.00	0.00	0.00	0.00	0.00
34	7.07	0.05	1	0.000	3.877	0.000	0.00	0.00	0.00	0.00	0.00
35	7.07	0.05	1	0.000	3.876	0.000	0.00	0.01	0.00	0.00	0.00
36	7.07	0.05	1	0.000	3.876	0.000	0.00	0.00	0.00	0.00	0.00
37	7.14	0.05	1	0.000	3.858	0.000	0.00	-0.01	0.00	0.00	0.01
38	7.31	0.05	1	0.000	3.811	0.000	-0.09	-2.24	8.63	3.32	0.13
39	7.38	0.05	1	0.000	3.792	0.000	0.00	-0.06	0.01	0.00	0.00
40	7.41	0.05	1	0.000	3.784	0.000	-0.03	-1.74	0.89	0.35	-0.84
41	7.43	0.05	1	0.000	3.779	0.000	0.04	3.23	2.48	1.13	0.79
42	7.46	0.05	1	0.000	3.771	0.000	0.00	0.02	0.00	0.00	0.01
43	7.47	0.05	1	0.000	3.769	0.000	-0.02	-0.44	0.38	0.18	-0.22
44	7.47	0.05	1	0.000	3.769	0.000	0.01	-0.35	0.14	0.06	-0.16
45	7.47	0.05	1	0.000	3.768	0.000	-0.02	-1.02	0.29	0.13	-0.49
46	7.47	0.05	1	0.000	3.768	0.000	-0.02	2.24	0.58	0.27	1.06
47	7.47	0.05	1	0.000	3.767	0.000	0.02	1.15	0.37	0.17	0.55
48	7.48	0.05	1	0.000	3.767	0.000	-0.02	-0.69	0.29	0.14	-0.32
49	7.48	0.05	1	0.000	3.766	0.000	0.00	-0.38	0.01	0.00	-0.18
50	7.48	0.05	1	0.000	3.766	0.000	-0.06	1.88	4.37	2.10	0.94

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
51	7.48	0.05	1	0.000	3.765	0.000	0.04	8.95	2.25	1.08	4.45
52	7.49	0.05	1	0.000	3.764	0.000	-0.04	0.41	1.74	0.83	0.24
53	7.49	0.05	1	0.000	3.762	0.000	-0.19	-14.47	46.09	22.74	-8.02
54	7.49	0.05	1	0.000	3.762	0.000	0.07	4.12	7.01	3.46	2.74
55	7.52	0.05	1	0.000	3.757	0.000	-0.10	-4.80	13.43	6.68	-3.00
56	7.52	0.05	1	0.000	3.755	0.000	0.06	4.43	4.98	2.52	1.95
57	7.71	0.05	1	0.000	3.711	0.000	-0.01	-0.07	0.11	0.07	-0.08
58	7.75	0.05	1	0.000	3.704	0.000	-0.06	-0.30	6.01	3.74	0.43
59	8.06	0.05	1	0.000	3.631	0.000	0.00	0.04	0.02	0.01	0.05
60	8.12	0.05	1	0.000	3.617	0.000	0.00	0.00	0.00	0.00	0.00
61	8.17	0.05	1	0.000	3.607	0.000	0.00	0.00	0.00	0.00	0.00
62	8.19	0.05	1	0.000	3.603	0.000	0.00	0.00	0.00	0.00	0.00
63	8.19	0.05	1	0.000	3.603	0.000	0.00	0.00	0.00	0.00	0.00
64	8.29	0.05	1	0.000	3.584	0.000	0.00	-0.01	0.00	0.00	0.00
65	8.33	0.05	1	0.000	3.575	0.000	0.00	0.00	0.00	0.00	0.00
66	8.45	0.05	1	0.000	3.553	0.000	0.00	0.00	0.00	0.00	0.00
67	8.45	0.05	1	0.000	3.553	0.000	0.00	0.00	0.00	0.00	0.00
68	8.57	0.05	1	0.000	3.528	0.000	0.00	0.00	0.00	0.00	0.00
69	8.58	0.05	1	0.000	3.526	0.000	0.00	0.00	0.00	0.00	0.00
70	8.65	0.05	1	0.000	3.513	0.000	0.00	0.00	0.01	0.00	0.01
71	8.82	0.05	1	0.000	3.479	0.000	0.00	0.00	0.00	0.00	0.00
72	8.82	0.05	1	0.000	3.479	0.000	0.00	0.00	0.00	0.00	0.00
73	8.82	0.05	1	0.000	3.479	0.000	0.00	0.00	0.00	0.00	0.00
74	8.88	0.05	1	0.000	3.469	0.000	0.00	0.00	0.00	0.00	0.00
75	8.90	0.05	1	0.000	3.465	0.000	0.00	0.00	0.01	0.01	-0.02
76	8.94	0.05	1	0.000	3.459	0.000	0.00	0.00	0.00	0.00	0.02
77	9.10	0.05	1	0.000	3.434	0.000	0.00	0.00	0.00	0.00	0.01
78	9.13	0.05	1	0.000	3.427	0.000	0.00	0.00	0.00	0.00	0.00
79	9.19	0.05	1	0.000	3.419	0.000	0.00	0.00	0.00	0.00	0.00
80	9.23	0.05	1	0.000	3.411	0.000	0.00	0.00	0.00	0.00	0.00
81	9.27	0.05	1	0.000	3.405	0.000	0.00	0.00	0.00	0.00	0.00
82	9.29	0.05	1	0.000	3.401	0.000	0.00	0.00	0.01	0.00	0.00
83	9.31	0.05	1	0.000	3.397	0.000	0.00	0.00	0.00	0.00	0.00
84	9.45	0.05	1	0.000	3.376	0.000	0.00	0.00	0.00	0.00	0.00
85	9.45	0.05	1	0.000	3.375	0.000	0.00	0.00	0.00	0.00	0.00
86	9.49	0.05	1	0.000	3.368	0.000	0.00	0.00	0.00	0.00	0.00
87	9.49	0.05	1	0.000	3.368	0.000	0.00	0.00	0.00	0.00	0.00
88	9.80	0.05	1	0.000	3.321	0.000	0.00	0.00	0.00	0.00	0.00
89	9.93	0.05	1	0.000	3.304	0.000	0.00	0.00	0.00	0.00	0.00
90	11.12	0.05	1	0.000	3.152	0.000	0.00	0.00	0.00	0.00	0.00
91	11.38	0.05	1	0.000	3.124	0.000	0.00	0.00	0.00	0.00	0.00
92	11.62	0.05	1	0.000	3.097	0.000	0.00	0.00	0.00	0.00	0.00
93	11.74	0.05	1	0.000	3.084	0.000	0.00	0.00	0.00	0.00	0.00
94	11.96	0.05	1	0.000	3.060	0.000	0.00	0.00	0.00	0.00	0.00
95	12.05	0.05	1	0.000	3.051	0.000	0.00	0.00	0.00	0.00	0.00
96	12.09	0.05	1	0.000	3.047	0.000	0.00	0.00	0.00	0.00	0.00
97	12.30	0.05	1	0.000	3.030	0.000	0.00	0.00	0.00	0.00	0.00
98	12.40	0.05	1	0.000	3.021	0.000	0.00	0.00	0.00	0.00	0.00
99	12.51	0.05	1	0.000	3.012	0.000	0.00	0.00	0.00	0.00	0.00
100	12.79	0.05	1	0.000	2.988	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							22.35	137.07	-488.46	-43.05

18. Calculation protocol

Solution of Free vibration

Number of 2D elements	132
Number of 1D elements	1233
Number of mesh nodes	1360
Number of equations	8160
Combination of mass groups	MC1 CM1
Number of frequencies	100
Method	Lanczos
Bending theory	Mindlin
Type of analysis model	Standard

Start of calculation	01.07.2021 14:48
End of calculation	01.07.2021 14:48

Sum of masses

	X [kg]	Y [kg]	Z [kg]
1	54401.15	54401.15	54401.15
1	54539.68	54539.68	54539.68

Relative modal masses

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
1	11.6018	0.54	1.85	0.4363	0.0016	0.0000	0.0004	0.0367	0.0247
2	11.9737	0.52	1.91	0.0022	0.4987	0.0000	0.1163	0.0002	0.0331
3	12.9843	0.48	2.07	0.0589	0.0006	0.0000	0.0000	0.0055	0.3897
4	17.7045	0.35	2.82	0.0031	0.0000	0.0000	0.0000	0.0004	0.0003
5	21.7372	0.29	3.46	0.0000	0.0024	0.0000	0.0002	0.0000	0.0000
6	25.6155	0.25	4.08	0.0000	0.0011	0.0000	0.0000	0.0000	0.0000
7	30.5432	0.21	4.86	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	30.7415	0.20	4.89	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	31.5969	0.20	5.03	0.0006	0.0000	0.0000	0.0000	0.0000	0.0009
10	32.5106	0.19	5.17	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
11	33.9837	0.18	5.41	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	34.4257	0.18	5.48	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	35.093	0.18	5.59	0.0002	0.0002	0.0000	0.0000	0.0000	0.0019
14	36.2932	0.17	5.78	0.0002	0.0000	0.0000	0.0000	0.0000	0.0002
15	36.6936	0.17	5.84	0.0000	0.0003	0.0000	0.0000	0.0000	0.0011
16	37.1576	0.17	5.91	0.0000	0.0000	0.0129	0.0040	0.0046	0.0000
17	39.3301	0.16	6.26	0.0004	0.0000	0.0000	0.0000	0.0000	0.0002
18	40.2126	0.16	6.40	0.0001	0.0009	0.0000	0.0001	0.0000	0.0014
19	40.3224	0.16	6.42	0.0000	0.0000	0.0015	0.0014	0.0005	0.0000
20	41.0949	0.15	6.54	0.0000	0.0000	0.0001	0.0001	0.0076	0.0000
21	41.1628	0.15	6.55	0.0000	0.0000	0.0231	0.0225	0.0070	0.0000
22	42.8848	0.15	6.83	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	42.8895	0.15	6.83	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	43.1161	0.15	6.86	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	43.6498	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	43.6959	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	43.697	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	43.6999	0.14	6.96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	43.6999	0.14	6.96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
30	44.3335	0.14	7.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004
31	44.3712	0.14	7.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004
32	44.3712	0.14	7.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
33	44.3922	0.14	7.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
34	44.4098	0.14	7.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
35	44.4245	0.14	7.07	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
36	44.436	0.14	7.07	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
37	44.858	0.14	7.14	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
38	45.9526	0.14	7.31	0.0028	0.0416	0.0000	0.0088	0.0001	0.0155
39	46.3933	0.14	7.38	0.0022	0.0000	0.0000	0.0000	0.0001	0.0081
40	46.5834	0.13	7.41	0.0166	0.0043	0.0129	0.0020	0.0000	0.0001
41	46.688	0.13	7.43	0.0205	0.0121	0.0003	0.0039	0.0008	0.0215
42	46.8877	0.13	7.46	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000
43	46.9213	0.13	7.47	0.0025	0.0019	0.0000	0.0004	0.0001	0.0120
44	46.9344	0.13	7.47	0.0043	0.0007	0.0000	0.0002	0.0004	0.0019

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
45	46.9505	0.13	7.47	0.0173	0.0014	0.0000	0.0004	0.0012	0.0174
46	46.9554	0.13	7.47	0.0425	0.0028	0.0000	0.0003	0.0036	0.0014
47	46.964	0.13	7.47	0.0174	0.0018	0.0000	0.0005	0.0015	0.0008
48	46.9837	0.13	7.48	0.0079	0.0014	0.0001	0.0005	0.0008	0.0025
49	46.9948	0.13	7.48	0.1161	0.0000	0.0000	0.0000	0.0099	0.0135
50	46.9971	0.13	7.48	0.0040	0.0213	0.0002	0.0066	0.0001	0.0225
51	47.0109	0.13	7.48	0.1737	0.0110	0.0001	0.0034	0.0141	0.0060
52	47.0496	0.13	7.49	0.0005	0.0085	0.0000	0.0024	0.0000	0.0012
53	47.0839	0.13	7.49	0.0222	0.2252	0.0003	0.0608	0.0025	0.1393
54	47.0877	0.13	7.49	0.0119	0.0342	0.0000	0.0072	0.0011	0.0566
55	47.2308	0.13	7.52	0.0084	0.0657	0.0005	0.0204	0.0013	0.1959
56	47.2596	0.13	7.52	0.0193	0.0244	0.0072	0.0003	0.0045	0.0020
57	48.4522	0.13	7.71	0.0002	0.0006	0.0225	0.0091	0.0013	0.0002
58	48.667	0.13	7.75	0.0001	0.0298	0.0002	0.0076	0.0001	0.0219
59	50.6389	0.12	8.06	0.0004	0.0001	0.0000	0.0001	0.0002	0.0000
60	51.0235	0.12	8.12	0.0000	0.0000	0.0001	0.0000	0.0007	0.0000
61	51.3383	0.12	8.17	0.0000	0.0000	0.0010	0.0004	0.0001	0.0000
62	51.4583	0.12	8.19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
63	51.4682	0.12	8.19	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
64	52.0901	0.12	8.29	0.0004	0.0000	0.0112	0.0100	0.0092	0.0001
65	52.3617	0.12	8.33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
66	53.0627	0.12	8.45	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
67	53.0695	0.12	8.45	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
68	53.8578	0.12	8.57	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
69	53.929	0.12	8.58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
70	54.3314	0.12	8.65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
71	55.4182	0.11	8.82	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
72	55.4257	0.11	8.82	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
73	55.427	0.11	8.82	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
74	55.817	0.11	8.88	0.0000	0.0000	0.0042	0.0038	0.0011	0.0000
75	55.944	0.11	8.90	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000
76	56.1936	0.11	8.94	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000
77	57.1482	0.11	9.10	0.0000	0.0000	0.0002	0.0003	0.0003	0.0000
78	57.3873	0.11	9.13	0.0000	0.0000	0.0068	0.0073	0.0136	0.0000
79	57.7137	0.11	9.19	0.0000	0.0000	0.0180	0.0180	0.0001	0.0000
80	57.9902	0.11	9.23	0.0001	0.0000	0.0161	0.0090	0.0286	0.0000
81	58.2362	0.11	9.27	0.0000	0.0000	0.0002	0.0002	0.0020	0.0000
82	58.402	0.11	9.29	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
83	58.5215	0.11	9.31	0.0000	0.0000	0.0012	0.0012	0.0001	0.0000
84	59.3478	0.11	9.45	0.0000	0.0000	0.0014	0.0013	0.0006	0.0000
85	59.3694	0.11	9.45	0.0000	0.0000	0.0007	0.0007	0.0003	0.0000
86	59.6387	0.11	9.49	0.0000	0.0000	0.0008	0.0008	0.0013	0.0000
87	59.6428	0.11	9.49	0.0000	0.0000	0.0009	0.0009	0.0001	0.0000
88	61.5443	0.10	9.80	0.0000	0.0000	0.0048	0.0048	0.0128	0.0000
89	62.3631	0.10	9.93	0.0001	0.0000	0.0001	0.0000	0.0001	0.0000
90	69.8467	0.09	11.12	0.0000	0.0000	0.0335	0.0082	0.0100	0.0000
91	71.4751	0.09	11.38	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
92	73.0235	0.09	11.62	0.0000	0.0000	0.0240	0.0190	0.0194	0.0000
93	73.7868	0.09	11.74	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
94	75.1363	0.08	11.96	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
95	75.7102	0.08	12.05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
96	75.9819	0.08	12.09	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
97	77.2636	0.08	12.30	0.0000	0.0000	0.0070	0.0011	0.0021	0.0000
98	77.8906	0.08	12.40	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
99	78.587	0.08	12.51	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
100	80.3407	0.08	12.79	0.0000	0.0000	0.1394	0.0494	0.0920	0.0000
				0.9952	0.9951	0.3543	0.4164	0.3010	0.9955

3. REZULTATI ANALIZE KONSTRUKCIJE

3.1. Notranje sile

19. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-S1 - CFRHS160X160X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2158	N1-S1 - CFRHS160X160X8	0.000	NC41	**-114.12**	-1.08	2.10	0.00	0.00	0.00
B2150	N1-S1 - CFRHS160X160X8	3.400	NC30	**13.89**	4.45	-0.55	2.86	0.71	-12.82
B2159	N1-S1 - CFRHS160X160X8	3.000	NC26	-52.06	**-17.56**	-30.17	0.77	3.31	-14.87
B2169	N1-S1 - CFRHS160X160X8	3.000	NC27	-50.65	**13.94**	-4.03	0.55	-12.45	10.49
B2159	N1-S1 - CFRHS160X160X8	3.000	NC34	-53.20	-7.65	**-40.25**	1.27	-4.67	0.24
B2158	N1-S1 - CFRHS160X160X8	3.000	NC33	-90.79	-1.51	**43.58**	-0.68	8.86	-6.60
B2151	N1-S1 - CFRHS160X160X8	3.000	NC30	12.83	0.78	0.92	**-3.93**	-0.09	-16.49
B2150	N1-S1 - CFRHS160X160X8	3.000	NC17	-56.81	6.81	-7.44	**4.45**	2.18	-9.23
B2169	N1-S1 - CFRHS160X160X8	3.400	NC16	-59.07	10.82	-7.58	2.08	**-23.91**	5.20
B2158	N1-S1 - CFRHS160X160X8	3.400	NC15	-96.71	-0.86	42.46	-0.16	**28.84**	-5.70
B2174	N1-S1 - CFRHS160X160X8	4.000	NC4	-82.91	-5.14	1.28	0.01	5.88	**-23.54**
B2170	N1-S1 - CFRHS160X160X8	3.400	NC18	-67.26	9.44	4.55	-1.45	13.43	**18.33**

20. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-S1 - CFRHS160X160X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2150	N1-S1 - CFRHS160X160X8	0.000	potres 8/3	**-27.92**	-7.56	2.21	0.00	0.00	0.00
B2178	N1-S1 - CFRHS160X160X8	4.000	potres 8/3	**8.00**	-4.76	2.01	0.01	8.37	-19.93
B2159	N1-S1 - CFRHS160X160X8	3.000	potres 8/3	-13.19	**-14.31**	-1.13	-0.19	6.87	-24.00
B2160	N1-S1 - CFRHS160X160X8	3.000	potres 5/4	-16.69	**10.67**	-6.96	-0.55	-5.92	24.52
B2150	N1-S1 - CFRHS160X160X8	3.000	potres 4/1	-20.89	-4.00	**-13.27**	-0.72	14.18	-12.30
B2158	N1-S1 - CFRHS160X160X8	3.000	potres 4/1	-11.93	-4.35	**11.64**	**1.47**	19.02	-14.47
B2158	N1-S1 - CFRHS160X160X8	3.000	potres 1/2	-20.86	4.59	-6.27	**-1.46**	-17.85	15.27
B2169	N1-S1 - CFRHS160X160X8	3.400	potres 1/2	-23.10	5.59	-8.03	0.67	**-26.49**	11.60
B2170	N1-S1 - CFRHS160X160X8	3.400	potres 4/1	-16.14	-1.35	-6.47	0.54	**27.78**	-13.22
B2160	N1-S1 - CFRHS160X160X8	3.400	potres 8/3	-12.62	-13.91	5.44	0.24	9.64	**-30.06**
B2158	N1-S1 - CFRHS160X160X8	3.400	potres 5/4	-20.32	8.36	-0.88	-1.13	-7.00	**30.92**

21. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-N1 - HEA200

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2145	N1-N1 - HEA200	0.000	NC16	**-14.84**	1.87	22.85	0.00	-26.38	-0.50
B2153	N1-N1 - HEA200	1.872	NC36	**34.95**	0.86	7.76	0.00	-0.68	-0.65
B2216	N1-N1 - HEA200	0.400	NC38	-0.10	**-9.78**	1.26	0.01	0.00	0.00
B2216	N1-N1 - HEA200	0.400	NC45	-1.85	**16.28**	3.55	-0.01	0.00	0.00
B2152	N1-N1 - HEA200	3.850	NC42	-8.37	0.48	**-66.24**	-0.02	-52.66	0.89

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2162	N1-N1 - HEA200	0.000	NC25	-4.55	-1.17	**51.84**	0.01	-20.58	0.67
B2197	N1-N1 - HEA200	1.618	NC16	-1.29	-3.04	8.14	**-0.07**	6.24	-2.36
B2214	N1-N1 - HEA200	0.000	NC25	-0.33	-2.02	3.45	**0.09**	-1.26	0.81
B2152	N1-N1 - HEA200	3.850	NC24	-12.62	-0.59	-65.93	0.00	**-53.40**	-0.27
B2162	N1-N1 - HEA200	1.925	NC41	-4.21	0.52	12.55	0.02	**44.88**	0.00
B2176	N1-N1 - HEA200	5.200	NC45	8.26	-6.64	-13.50	0.00	-14.61	**-6.97**
B2155	N1-N1 - HEA200	0.700	NC18	-1.82	-8.69	20.91	0.00	-11.74	**6.73**

22. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-N1 - HEA200

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2145	N1-N1 - HEA200	0.000	potres 4/1	**-10.33**	-3.08	1.05	0.00	4.54	1.72
B2177	N1-N1 - HEA200	5.232	potres 4/1	**9.82**	1.45	-9.70	0.00	-14.67	2.71
B2176	N1-N1 - HEA200	0.000	potres 8/3	7.01	**-5.58**	0.60	0.00	-7.40	5.46
B2176	N1-N1 - HEA200	0.000	potres 5/4	-7.29	**5.57**	5.36	0.00	3.70	-5.44
B2164	N1-N1 - HEA200	5.450	potres 4/1	2.03	4.07	**-16.02**	0.00	**-27.39**	5.37
B2164	N1-N1 - HEA200	0.000	potres 1/2	3.68	4.87	**14.89**	0.00	-26.49	-5.69
B2156	N1-N1 - HEA200	0.000	potres 8/3	-0.74	-2.28	4.80	**-0.02**	-5.73	2.00
B2146	N1-N1 - HEA200	0.000	potres 5/4	-0.59	1.00	4.31	**0.03**	-5.00	-1.06
B2164	N1-N1 - HEA200	0.000	potres 4/1	-5.80	-4.87	-1.26	0.00	**19.24**	**5.77**
B2164	N1-N1 - HEA200	5.450	potres 5/4	-2.63	-4.90	-4.83	0.00	1.73	**-5.75**

23. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-N2 - UNP200

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2238	N1-N2 - UNP200	2.969	NC18	**-20.29**	0.42	-6.75	0.01	-12.00	0.38
B2234	N1-N2 - UNP200	0.000	NC44	**11.57**	0.98	-1.59	-0.01	1.74	-0.05
B2233	N1-N2 - UNP200	0.000	NC31	-10.04	**-2.39**	-0.48	0.00	0.11	1.95
B2234	N1-N2 - UNP200	5.450	NC22	-3.28	**2.49**	0.58	0.00	0.51	**2.11**
B2219	N1-N2 - UNP200	3.850	NC41	2.00	0.03	**-8.20**	0.00	-5.77	0.12
B2237	N1-N2 - UNP200	0.000	NC16	-8.98	-1.40	**10.31**	0.00	**-13.31**	0.51
B2233	N1-N2 - UNP200	5.200	NC42	-6.20	0.98	2.00	**-0.01**	1.96	-0.06
B2233	N1-N2 - UNP200	5.200	NC36	4.82	0.07	1.47	**0.01**	1.99	1.01
B2232	N1-N2 - UNP200	3.850	NC26	-0.54	0.69	5.67	0.00	**5.55**	0.68
B2234	N1-N2 - UNP200	2.543	NC40	-3.23	0.05	-0.03	0.00	-0.49	**-1.54**

24. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-N2 - UNP200

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2222	N1-N2 - UNP200	0.000	potres 2/5	**-0.05**	0.00	1.23	0.00	-1.16	0.00
B2237	N1-N2 - UNP200	0.000	potres 2/5	**0.20**	-0.01	**2.52**	0.00	**-3.08**	**0.01**
B2238	N1-N2 - UNP200	0.000	potres 2/5	0.05	**-0.03**	0.29	0.00	0.00	0.00
B2238	N1-N2 - UNP200	0.700	potres 2/5	0.05	**0.01**	-0.90	0.00	0.09	-0.02
B2238	N1-N2 - UNP200	2.969	potres 2/5	0.05	0.01	**-1.86**	0.00	-3.08	0.01
B2236	N1-N2 - UNP200	0.000	potres 2/5	0.00	0.00	0.23	**0.00**	-0.07	0.00
B2223	N1-N2 - UNP200	0.000	potres 2/5	0.00	0.00	0.86	**0.00**	-0.05	-0.01
B2235	N1-N2 - UNP200	0.000	potres 2/5	0.00	0.00	-0.99	0.00	**1.12**	0.00

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2238	N1-N2 - UNP200	0.700	potres 2/5	0.05	-0.03	-0.06	0.00	0.09	**-0.02**

25. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-SN1 - CFRHS120X60X4

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2275	N1-SN1 - CFRHS120X60X4	1.531	NC40	**-8.36**	0.00	0.00	0.02	0.74	0.00
B2275	N1-SN1 - CFRHS120X60X4	3.062	NC42	**4.43**	0.00	-2.99	0.00	0.00	0.00
B2283	N1-SN1 - CFRHS120X60X4	0.000	NC42	2.11	**-0.05**	4.82	**-0.46**	0.00	0.00
B2280	N1-SN1 - CFRHS120X60X4	0.000	NC42	-1.18	**0.03**	4.85	0.37	0.00	0.00
B2282	N1-SN1 - CFRHS120X60X4	3.061	NC41	-0.96	0.01	**-5.86**	-0.18	0.00	0.00
B2282	N1-SN1 - CFRHS120X60X4	0.000	NC41	-1.03	-0.03	**5.86**	-0.18	0.00	0.00
B2274	N1-SN1 - CFRHS120X60X4	0.545	NC24	2.46	0.00	1.30	**0.78**	1.76	0.01
B2257	N1-SN1 - CFRHS120X60X4	1.975	NC29	-1.72	0.00	0.00	0.00	**-1.21**	0.00
B2282	N1-SN1 - CFRHS120X60X4	1.530	NC41	-1.06	0.00	1.01	-0.18	**5.83**	-0.02
B2283	N1-SN1 - CFRHS120X60X4	1.224	NC42	2.09	-0.01	1.15	-0.46	4.07	**-0.03**
B2280	N1-SN1 - CFRHS120X60X4	1.224	NC42	-1.20	0.00	1.16	0.37	4.10	**0.02**

26. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-SN1 - CFRHS120X60X4

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2272	N1-SN1 - CFRHS120X60X4	0.000	potres 2/5	**-0.11**	0.00	0.30	0.02	0.00	0.00
B2274	N1-SN1 - CFRHS120X60X4	0.000	potres 2/5	**0.10**	0.00	0.30	0.08	0.00	0.00
B2257	N1-SN1 - CFRHS120X60X4	0.000	potres 2/5	-0.01	**0.00**	0.94	0.00	**0.00**	**0.00**
B2282	N1-SN1 - CFRHS120X60X4	3.061	potres 2/5	0.00	0.00	**-1.63**	-0.03	0.00	0.00
B2282	N1-SN1 - CFRHS120X60X4	0.000	potres 2/5	0.00	0.00	**1.63**	-0.03	0.00	0.00
B2283	N1-SN1 - CFRHS120X60X4	0.000	potres 2/5	0.01	0.00	0.88	**-0.11**	0.00	0.00
B2280	N1-SN1 - CFRHS120X60X4	0.000	potres 2/5	-0.01	0.00	0.88	**0.10**	0.00	0.00
B2282	N1-SN1 - CFRHS120X60X4	1.530	potres 2/5	0.00	0.00	0.75	-0.03	**1.91**	0.00

27. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-N3 - HEA160

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2278	N1-N3 - HEA160	2.600	NC28	**-5.89**	-0.12	0.00	0.00	1.13	0.19
B2278	N1-N3 - HEA160	5.200	NC35	**3.85**	0.29	-4.85	0.00	0.00	0.00
B2279	N1-N3 - HEA160	4.160	NC45	-0.38	**-1.73**	-6.24	0.03	12.18	-0.70
B2279	N1-N3 - HEA160	1.040	NC44	-1.28	**1.87**	9.85	0.01	12.31	0.80
B2279	N1-N3 - HEA160	5.200	NC42	-3.42	0.43	**-16.83**	0.00	0.00	0.00
B2279	N1-N3 - HEA160	0.000	NC42	-3.48	-0.12	**16.58**	0.00	0.00	0.00
B2279	N1-N3 - HEA160	3.120	NC36	-0.45	0.66	-4.23	**-0.03**	15.03	-0.25
B2279	N1-N3 - HEA160	3.120	NC43	-1.83	-1.39	-5.08	**0.04**	18.08	0.59
B2279	N1-N3 - HEA160	2.080	NC20	-2.24	-0.29	-0.80	0.00	**-2.69**	-0.51
B2279	N1-N3 - HEA160	3.120	NC42	-3.60	-1.22	-6.19	0.03	**22.02**	0.61
B2279	N1-N3 - HEA160	2.080	NC33	-3.49	-0.42	3.99	-0.02	14.62	**-0.89**
B2279	N1-N3 - HEA160	2.080	NC45	-0.43	-0.22	0.96	0.02	17.52	**1.32**

28. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-N3 - HEA160

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2279	N1-N3 - HEA160	0.000	potres 2/5	**-0.04**	0.00	**4.16**	0.00	0.00	0.00
B2278	N1-N3 - HEA160	0.000	potres 2/5	**0.15**	0.01	2.13	0.00	**0.00**	0.00
B2279	N1-N3 - HEA160	4.600	potres 2/5	-0.04	**-0.01**	-3.99	0.00	2.50	0.00
B2278	N1-N3 - HEA160	4.600	potres 2/5	0.15	**0.01**	-1.83	0.00	1.19	-0.01
B2279	N1-N3 - HEA160	5.200	potres 2/5	-0.04	-0.01	**-4.32**	0.00	0.00	0.00
B2284	N1-N3 - HEA160	0.000	potres 2/5	-0.01	0.00	0.90	**0.00**	0.00	0.00
B2285	N1-N3 - HEA160	0.000	potres 2/5	0.01	0.00	0.90	**0.00**	0.00	0.00
B2279	N1-N3 - HEA160	3.120	potres 2/5	-0.04	0.00	-1.57	0.00	**5.57**	0.00
B2278	N1-N3 - HEA160	4.600	potres 2/5	0.15	0.00	-0.93	0.00	1.20	**-0.01**
B2278	N1-N3 - HEA160	0.600	potres 2/5	0.15	0.01	1.83	0.00	1.19	**0.00**

29. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-SN2 - CFRHS120X120X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2267	N1-SN2 - CFRHS120X120X5	1.659	NC24	**-3.35**	0.00	0.00	-0.38	12.94	-0.04
B2265	N1-SN2 - CFRHS120X120X5	0.000	NC24	**6.12**	0.06	13.63	-0.25	0.00	0.00
B2265	N1-SN2 - CFRHS120X120X5	3.318	NC42	4.62	**-0.08**	-13.81	-0.22	0.00	0.00
B2244	N1-SN2 - CFRHS120X120X5	3.950	NC41	1.09	**0.08**	-16.93	0.23	0.00	0.01
B2243	N1-SN2 - CFRHS120X120X5	3.950	NC41	0.69	0.03	**-17.95**	0.05	0.00	0.00
B2243	N1-SN2 - CFRHS120X120X5	0.000	NC41	0.71	-0.02	**17.95**	0.05	0.00	0.00
B2267	N1-SN2 - CFRHS120X120X5	3.318	NC25	0.10	0.02	-13.71	**-0.52**	0.00	-0.01
B2268	N1-SN2 - CFRHS120X120X5	0.000	NC15	0.31	0.04	8.18	**0.41**	0.00	-0.01
B2269	N1-SN2 - CFRHS120X120X5	2.184	NC31	-0.75	0.00	-0.14	-0.02	**-2.37**	0.00
B2243	N1-SN2 - CFRHS120X120X5	1.975	NC41	0.24	0.00	1.01	0.05	**20.62**	-0.03
B2244	N1-SN2 - CFRHS120X120X5	2.370	NC41	0.71	0.02	-3.84	0.23	17.85	**-0.07**
B2265	N1-SN2 - CFRHS120X120X5	1.991	NC42	4.44	-0.02	-3.21	-0.22	12.44	**0.07**

30. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-SN2 - CFRHS120X120X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2267	N1-SN2 - CFRHS120X120X5	0.000	potres 2/5	**-0.13**	0.00	1.04	-0.06	0.00	0.00
B2265	N1-SN2 - CFRHS120X120X5	0.000	potres 2/5	**0.13**	0.00	1.04	-0.04	0.00	0.00
B2242	N1-SN2 - CFRHS120X120X5	0.000	potres 2/5	-0.04	**0.00**	1.26	-0.01	**0.00**	**0.00**
B2270	N1-SN2 - CFRHS120X120X5	4.680	potres 2/5	0.01	0.00	**-2.39**	-0.04	0.00	0.00
B2270	N1-SN2 - CFRHS120X120X5	0.000	potres 2/5	0.01	0.00	**2.39**	-0.04	0.00	0.00
B2260	N1-SN2 - CFRHS120X120X5	0.000	potres 2/5	0.00	0.00	0.91	**-0.10**	0.00	0.00
B2268	N1-SN2 - CFRHS120X120X5	0.000	potres 2/5	0.01	0.00	1.64	**0.09**	0.00	0.00
B2270	N1-SN2 - CFRHS120X120X5	2.340	potres 2/5	0.01	0.00	0.75	-0.04	**3.84**	0.00

31. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-HS1 - CFRHS160X80X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2294	N1-HS1 - CFRHS160X80X8	5.200	NC33	**-40.99**	-1.06	-0.29	-0.09	-0.92	-1.40
B2295	N1-HS1 - CFRHS160X80X8	1.040	NC17	**7.85**	0.59	3.40	0.09	-0.43	-0.08
B2299	N1-HS1 - CFRHS160X80X8	2.969	NC26	-5.41	**-3.24**	-0.25	0.43	-0.43	**-4.31**
B2299	N1-HS1 - CFRHS160X80X8	0.000	NC18	-2.13	**2.46**	-1.15	0.49	2.04	-3.14
B2295	N1-HS1 - CFRHS160X80X8	5.200	NC30	0.72	-0.72	**-3.99**	0.02	-3.92	-0.71
B2291	N1-HS1 - CFRHS160X80X8	0.000	NC26	-12.35	0.95	**4.13**	0.08	-4.36	-0.94
B2298	N1-HS1 - CFRHS160X80X8	2.969	NC15	-10.15	-1.10	1.47	**-0.96**	2.20	-1.15
B2299	N1-HS1 - CFRHS160X80X8	0.000	NC16	-4.80	0.82	0.88	**0.58**	0.13	-0.70
B2295	N1-HS1 - CFRHS160X80X8	0.000	NC17	7.84	0.96	4.13	0.09	**-4.45**	-0.88
B2291	N1-HS1 - CFRHS160X80X8	2.427	NC17	-18.26	0.13	0.39	-0.07	**3.03**	0.33
B2299	N1-HS1 - CFRHS160X80X8	0.000	NC26	-5.40	-2.20	-0.25	0.43	0.32	**3.82**

32. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-HS1 - CFRHS160X80X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2298	N1-HS1 - CFRHS160X80X8	2.375	potres 5/4	**-2.72**	-0.27	0.09	-0.29	0.14	-0.04
B2295	N1-HS1 - CFRHS160X80X8	0.000	potres 2/5	**2.14**	0.69	0.01	0.00	-0.02	-0.62
B2296	N1-HS1 - CFRHS160X80X8	5.200	potres 5/4	1.96	**-0.89**	0.13	-0.04	0.25	-1.15
B2296	N1-HS1 - CFRHS160X80X8	0.000	potres 4/1	-0.49	**0.95**	-0.04	0.03	0.15	**-1.30**
B2299	N1-HS1 - CFRHS160X80X8	0.000	potres 5/4	-2.09	0.55	**-0.30**	0.03	0.47	-0.44
B2298	N1-HS1 - CFRHS160X80X8	0.000	potres 4/1	-2.51	0.30	**0.27**	-0.06	**-0.46**	-0.07
B2298	N1-HS1 - CFRHS160X80X8	0.000	potres 5/4	-2.72	0.35	0.03	**-0.29**	0.02	-0.13
B2299	N1-HS1 - CFRHS160X80X8	0.000	potres 4/1	-1.38	0.18	-0.01	**0.20**	0.01	0.11
B2299	N1-HS1 - CFRHS160X80X8	0.000	potres 1/2	-2.09	0.55	-0.30	0.03	**0.47**	-0.44
B2296	N1-HS1 - CFRHS160X80X8	3.813	potres 4/1	-0.56	-0.04	-0.07	0.03	-0.05	**0.45**

33. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-SN3 - CFRHS120X80X4

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2253	N1-SN3 - CFRHS120X80X4	1.975	NC18	**-6.94**	0.00	0.00	0.01	7.15	0.01
B2253	N1-SN3 - CFRHS120X80X4	3.950	NC46	**2.81**	0.00	1.16	0.00	0.00	0.00
B2249	N1-SN3 - CFRHS120X80X4	3.950	NC36	-0.50	**-0.02**	-6.82	-0.07	0.00	0.00
B2252	N1-SN3 - CFRHS120X80X4	3.950	NC36	1.33	**0.02**	-6.79	**0.07**	0.00	0.00
B2251	N1-SN3 - CFRHS120X80X4	3.950	NC35	-1.40	0.01	**-7.85**	0.03	0.00	0.00
B2251	N1-SN3 - CFRHS120X80X4	0.000	NC35	-1.39	-0.01	**7.85**	0.03	0.00	0.00
B2249	N1-SN3 - CFRHS120X80X4	2.370	NC33	-0.08	0.00	-1.57	**-0.08**	7.25	0.02
B2250	N1-SN3 - CFRHS120X80X4	1.975	NC30	-1.37	0.00	0.00	0.01	**-1.79**	0.00
B2251	N1-SN3 - CFRHS120X80X4	1.975	NC35	-1.55	0.00	1.01	0.03	**9.60**	-0.01
B2252	N1-SN3 - CFRHS120X80X4	2.370	NC32	0.78	0.00	-1.57	0.07	7.24	**-0.02**
B2249	N1-SN3 - CFRHS120X80X4	2.370	NC36	-0.60	0.00	-1.57	-0.07	7.26	**0.02**

34. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-SN3 - CFRHS120X80X4

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2253	N1-SN3 - CFRHS120X80X4	0.000	potres 2/5	**-0.05**	0.00	1.21	0.00	0.00	0.00
B2252	N1-SN3 - CFRHS120X80X4	0.000	potres 2/5	**0.08**	0.00	1.25	**0.01**	0.00	0.00
B2245	N1-SN3 - CFRHS120X80X4	0.000	potres 2/5	-0.03	**0.00**	1.21	0.00	**0.00**	**0.00**

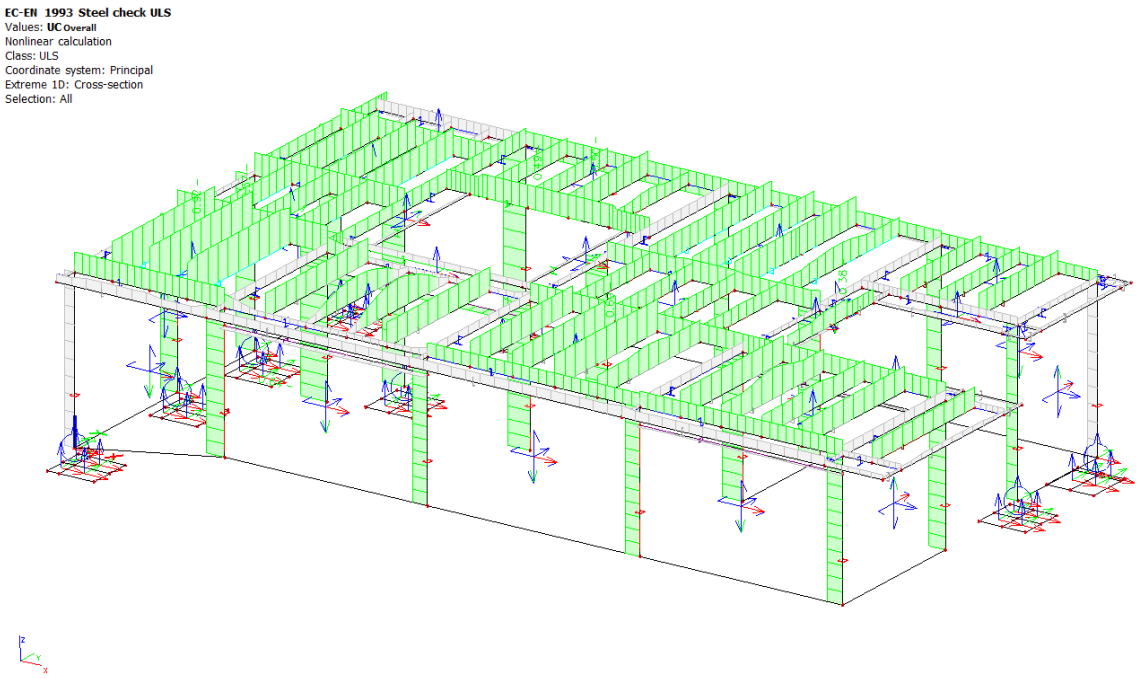
Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2251	N1-SN3 - CFRHS120X80X4	3.950	potres 2/5	-0.01	0.00	**-2.00**	0.01	0.00	0.00
B2251	N1-SN3 - CFRHS120X80X4	0.000	potres 2/5	-0.01	0.00	**2.00**	0.01	0.00	0.00
B2249	N1-SN3 - CFRHS120X80X4	0.000	potres 2/5	0.05	0.00	1.25	**-0.01**	0.00	0.00
B2251	N1-SN3 - CFRHS120X80X4	1.975	potres 2/5	-0.01	0.00	0.75	0.01	**2.85**	0.00

3.2. Izkoriščenost jeklenih elementov

35. EC-EN 1993 Steel check ULS

Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

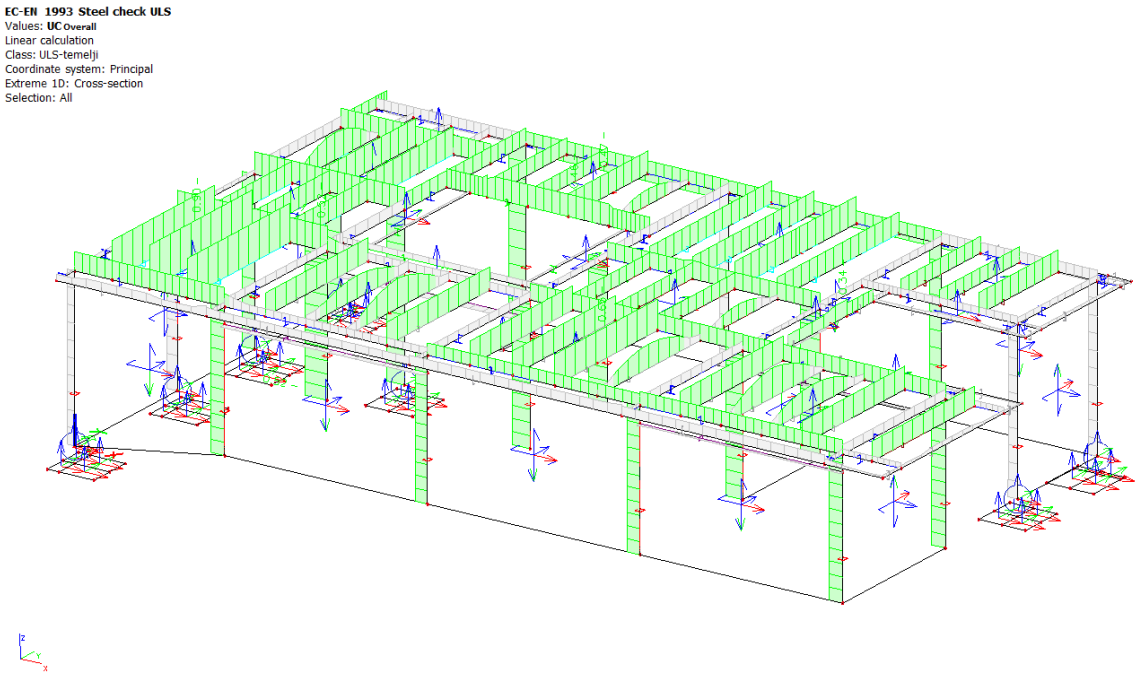
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2152	1.925-	NC24	N1-N1 - HEA200	S 235	**0.57**	0.35	0.57
B2158	0.000	NC17	N1-S1 - CFRHS160X160X8	S 235	**0.64**	0.09	0.64
B2238	2.969	NC16	N1-N2 - UNP200	S 235	**0.38**	0.30	0.38
B2243	1.975-	NC41	N1-SN2 - CFRHS120X120X5	S 235	**0.92**	0.92	0.00
B2251	1.975+	NC35	N1-SN3 - CFRHS120X80X4	S 235	**0.69**	0.68	0.69
B2282	1.224-	NC41	N1-SN1 - CFRHS120X60X4	S 235	**0.50**	0.45	0.50
B2279	2.496-	NC42	N1-N3 - HEA160	S 235	**0.49**	0.38	0.49
B2294	0.000	NC34	N1-HS1 - CFRHS160X80X8	S 235	**0.27**	0.08	0.27



36. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-temelji
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

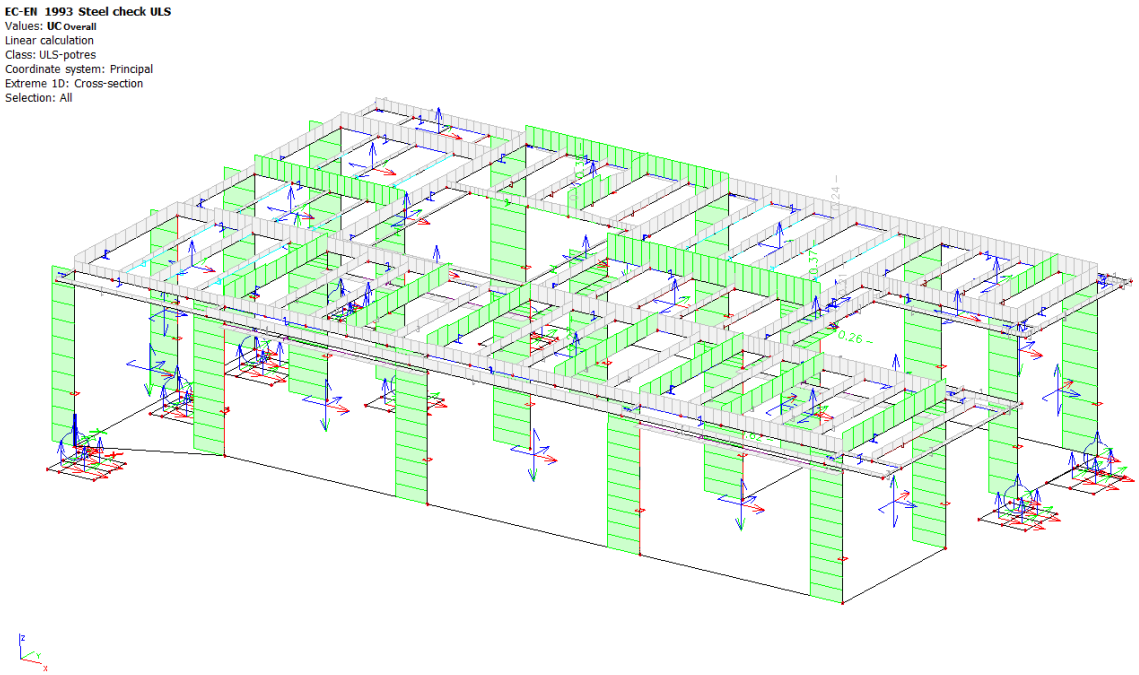
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2152	3.850	MSN-temelj-1-1/1	N1-N1 - HEA200	S 235	**0.52**	0.50	0.52
B2158	0.000	MSN-temelj-1-1/2	N1-S1 - CFRHS160X160X8	S 235	**0.52**	0.09	0.52
B2238	2.969	MSN-temelj-1-1/3	N1-N2 - UNP200	S 235	**0.34**	0.27	0.34
B2243	1.975-	MSN-temelj-1-1/4	N1-SN2 - CFRHS120X120X5	S 235	**0.90**	0.90	0.90
B2251	1.975-	MSN-temelj-1-1/5	N1-SN3 - CFRHS120X80X4	S 235	**0.65**	0.64	0.65
B2282	1.530-	MSN-temelj-1-1/6	N1-SN1 - CFRHS120X60X4	S 235	**0.47**	0.46	0.47
B2279	3.120+	MSN-temelj-1-1/6	N1-N3 - HEA160	S 235	**0.46**	0.36	0.46
B2294	0.000	MSN-temelj-1-1/7	N1-HS1 - CFRHS160X80X8	S 235	**0.24**	0.07	0.24



37. EC-EN 1993 Steel check ULS

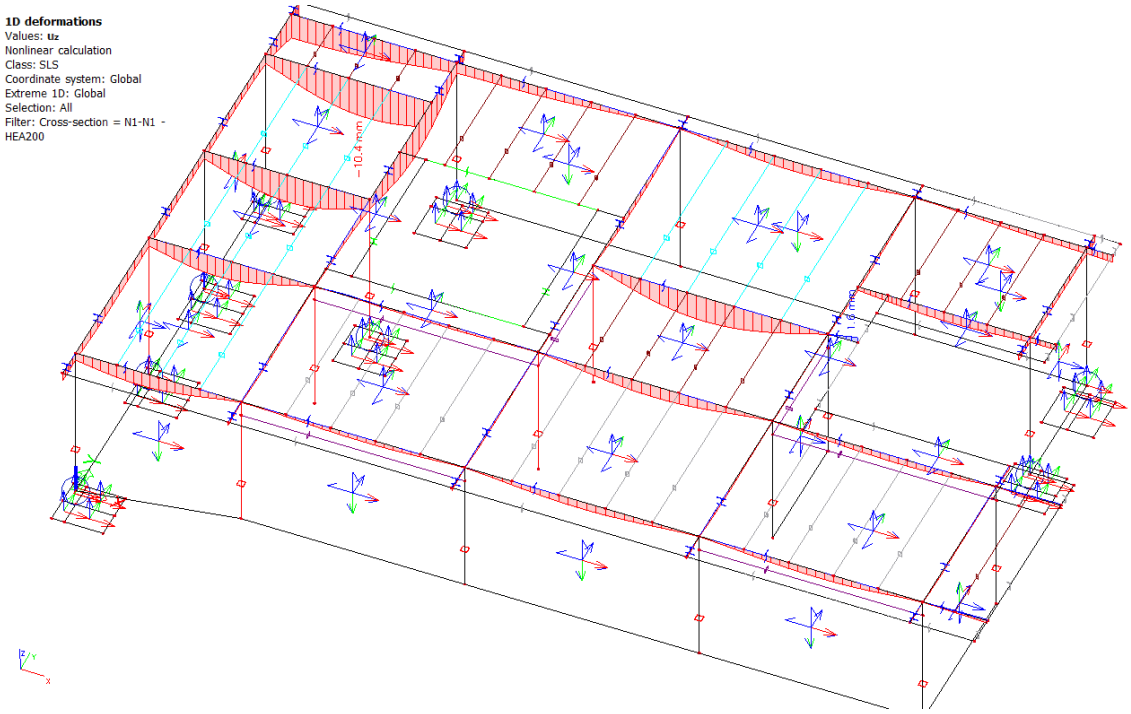
Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

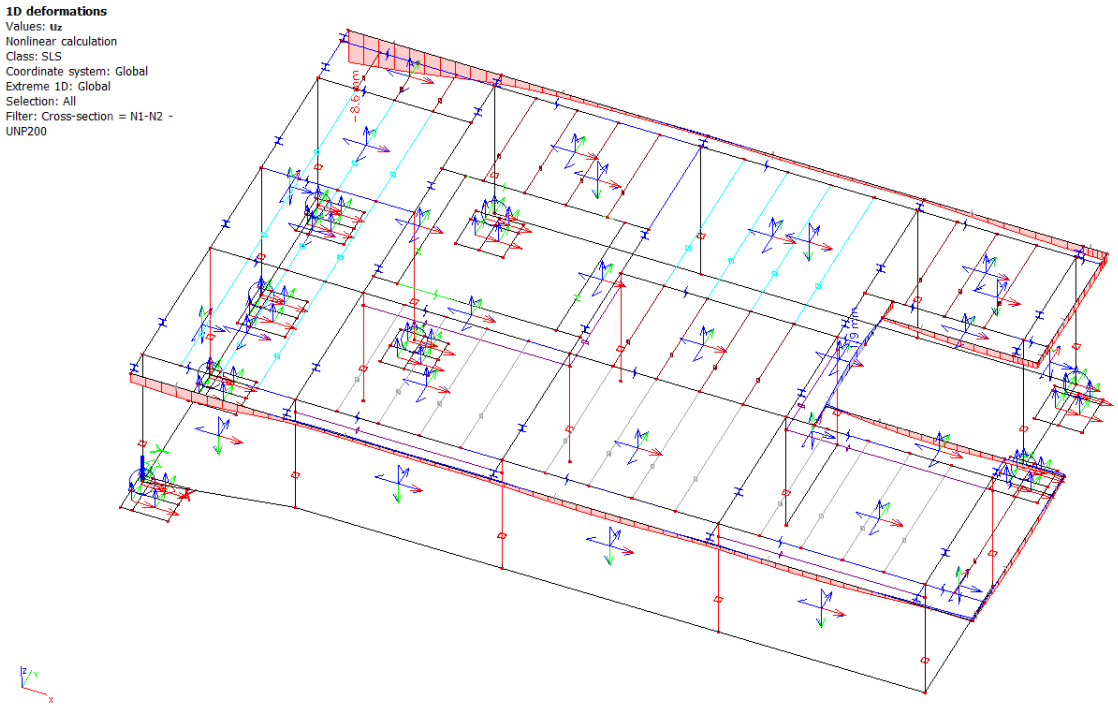
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2164	5.450	potres 1/1	N1-N1 - HEA200	S 235	**0.37**	0.27	0.37
B2170	0.000	potres 1/1	N1-S1 - CFRHS160X160X8	S 235	**0.62**	0.03	0.62
B2238	2.969	potres 4/2	N1-N2 - UNP200	S 235	**0.21**	0.17	0.21
B2270	3.744+	potres 1/1	N1-SN2 - CFRHS120X120X5	S 235	**0.24**	0.09	0.24
B2251	0.790-	potres 4/2	N1-SN3 - CFRHS120X80X4	S 235	**0.27**	0.10	0.27
B2282	0.612-	potres 4/2	N1-SN1 - CFRHS120X60X4	S 235	**0.35**	0.14	0.35
B2279	3.120+	potres 4/2	N1-N3 - HEA160	S 235	**0.14**	0.14	0.00
B2299	2.969	potres 5/3	N1-HS1 - CFRHS160X80X8	S 235	**0.26**	0.24	0.26



3.3. Pomiki

MSU – vertikalni pomiki

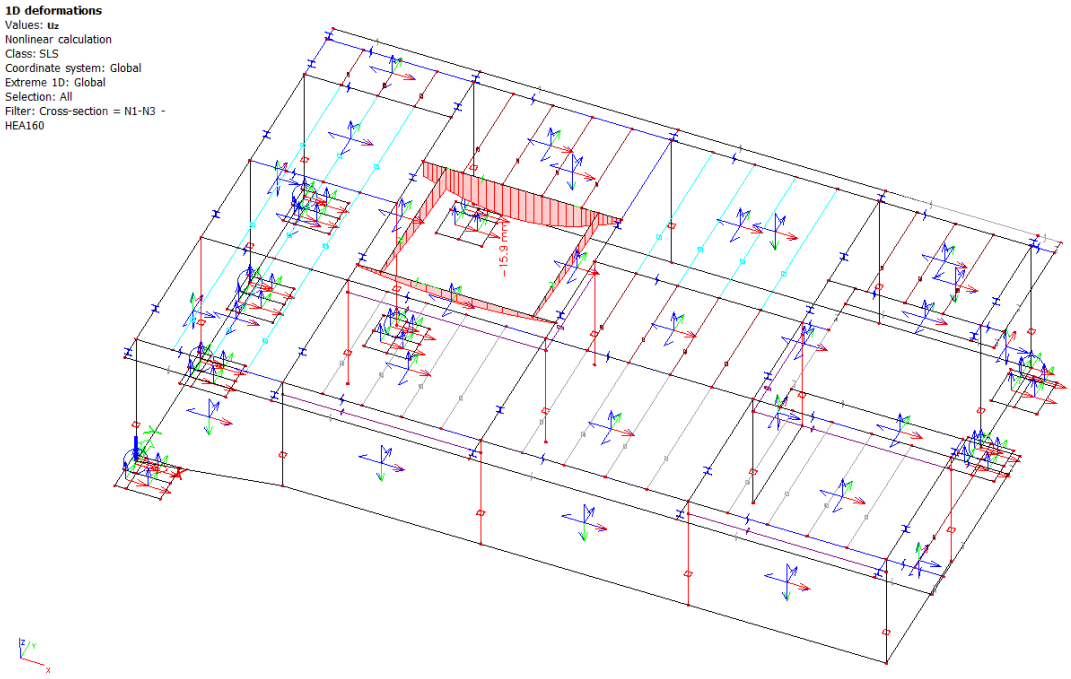




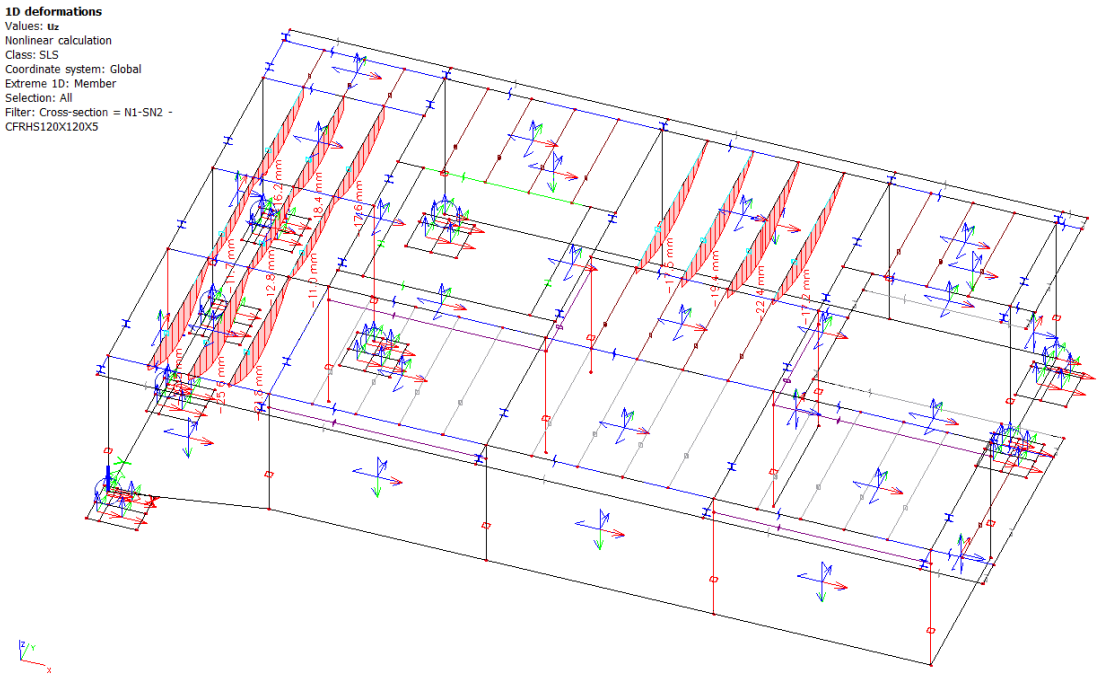
Nosilec HEA200, NPU200

$$w_{vert,max,Q} = 10.4 \text{ mm} \leq w_{vert,dov,Q} = L/250 = 5450/250 = 21.8 \text{ mm}$$

Sekundarni nosilci



$w_{vert,max,Q}$ = 15.9 mm ≤ $w_{vert,dov,Q}$ = L/250 = 5200/250 = 20.8 mm



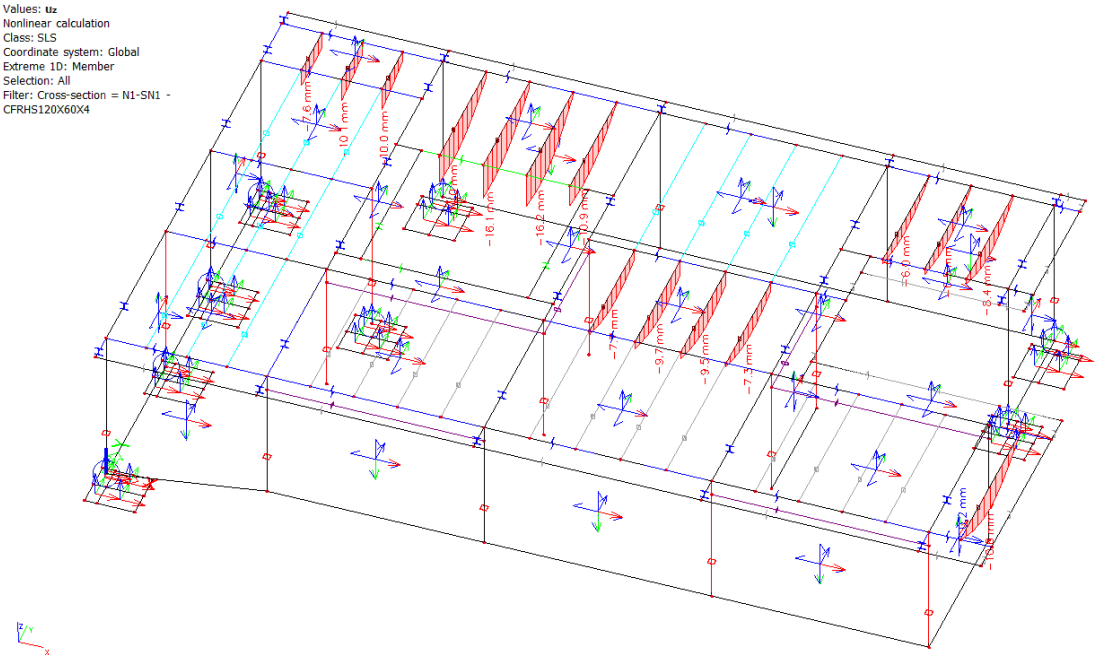
Izven območja kopičenja snega

$w_{vert,max,Q}$ = 22.4 mm ≤ $w_{vert,dov,Q}$ = L/250 = 4680/200 = 23.4 mm

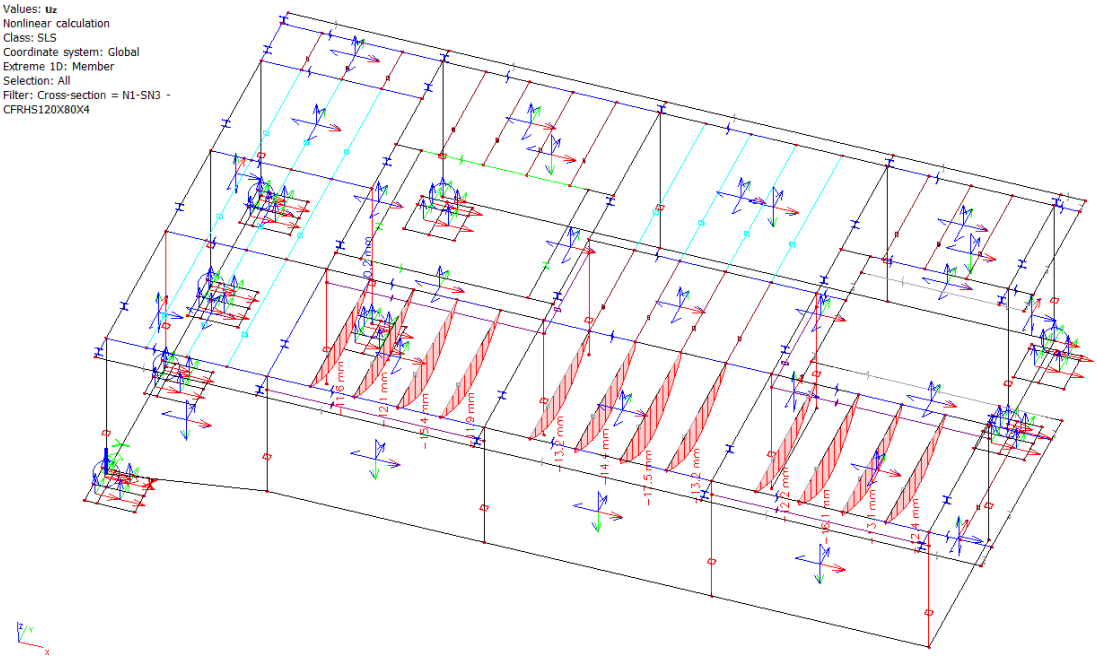
V območju kopičenja snega

$w_{vert,max,Q}$ = 25.4 mm pomiki so lahko povečani

1D deformations
Values: u_z
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Member
Selection: All
Filter: Cross-section = N1-SN1 - CFRHS120X60X4

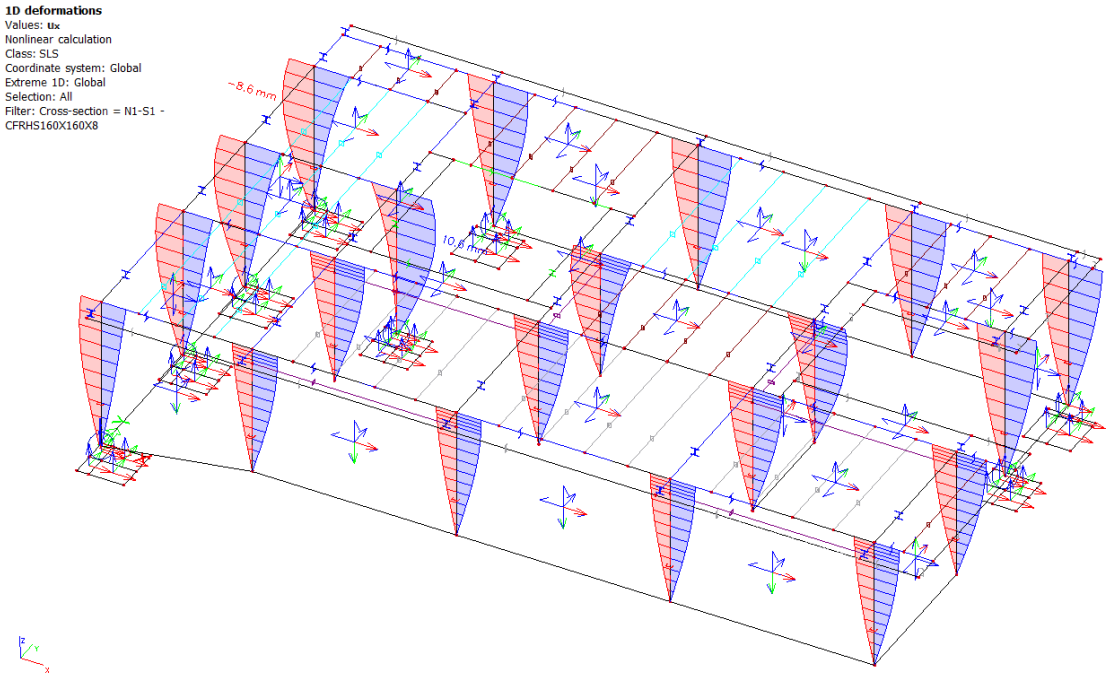


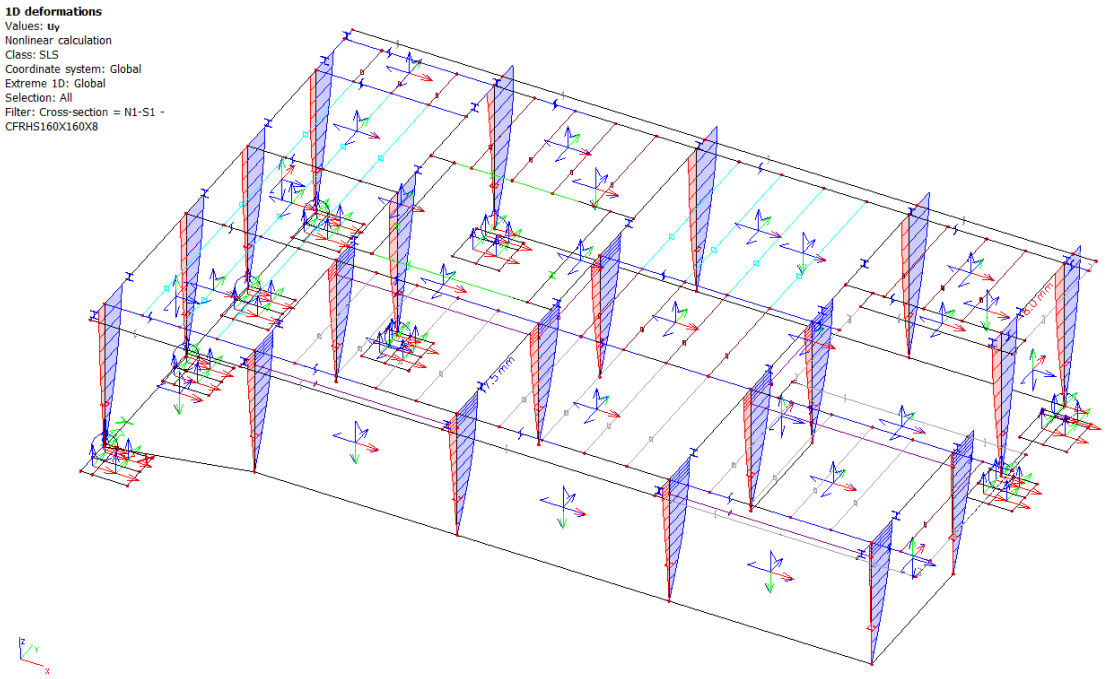
1D deformations
Values: u_z
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Member
Selection: All
Filter: Cross-section = N1-SN3 - CFRHS120X80X4



$$w_{vert,max,Q} = 17.5 \text{ mm} \leq w_{vert,dov,Q} = L/250 = 3950/200 = 19.8 \text{ mm}$$

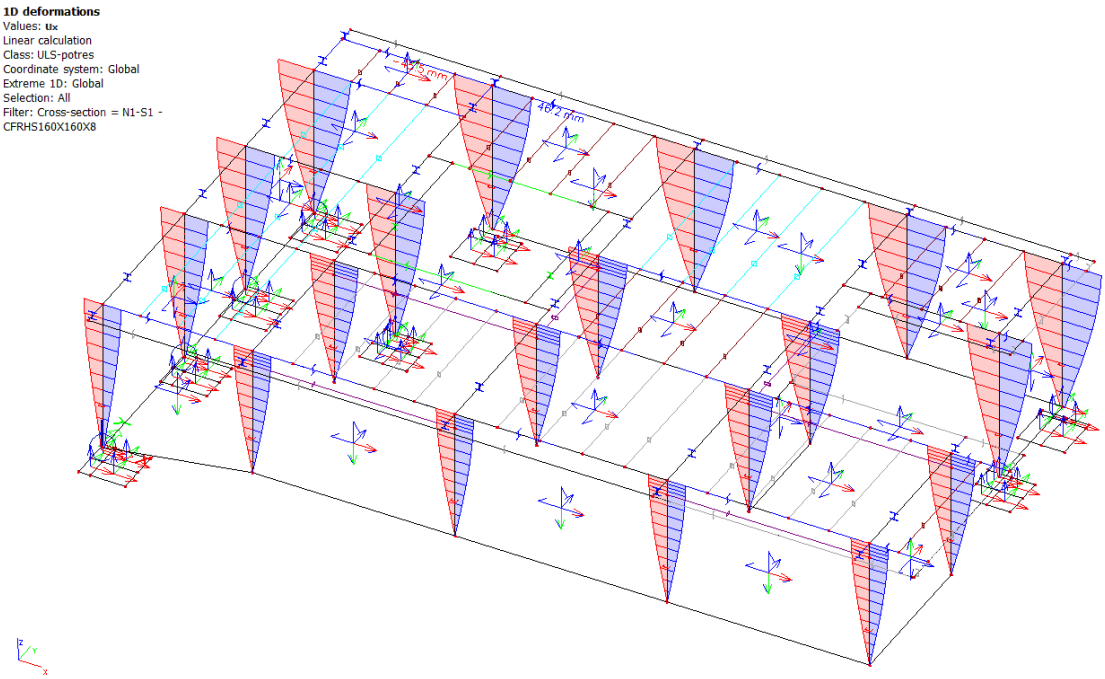
MSU – horizontalni pomiki

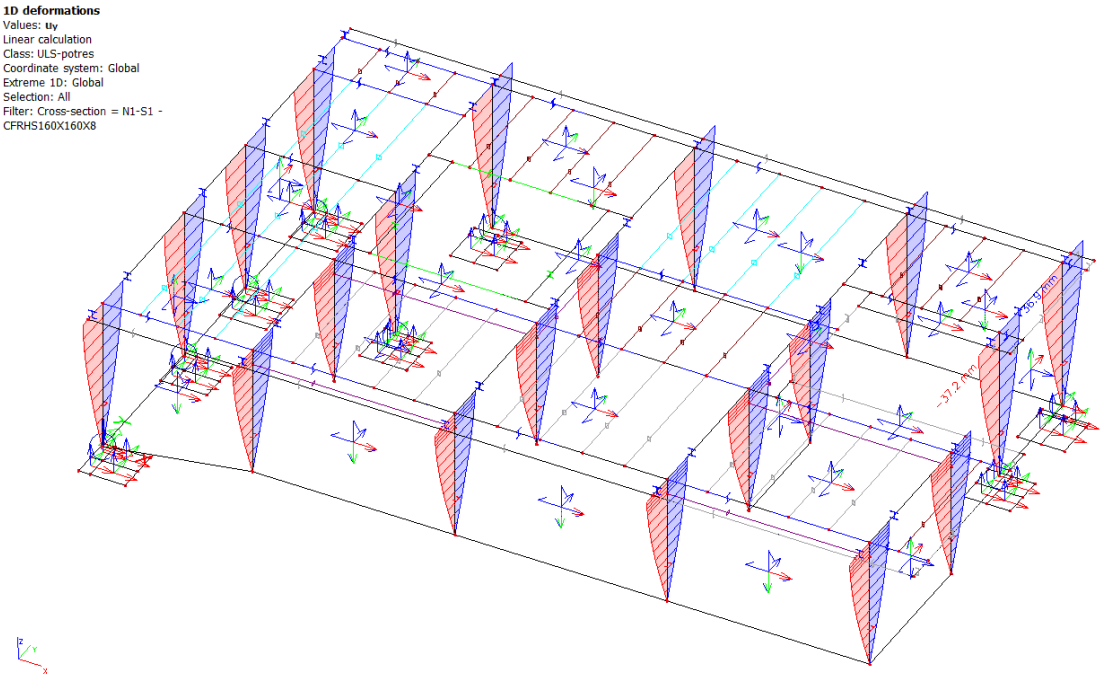




$u_{hor,max,W} = 10.6 \text{ mm} \leq u_{hor,dov,W} = h/150 = 4000/150 = 26.7 \text{ mm}$

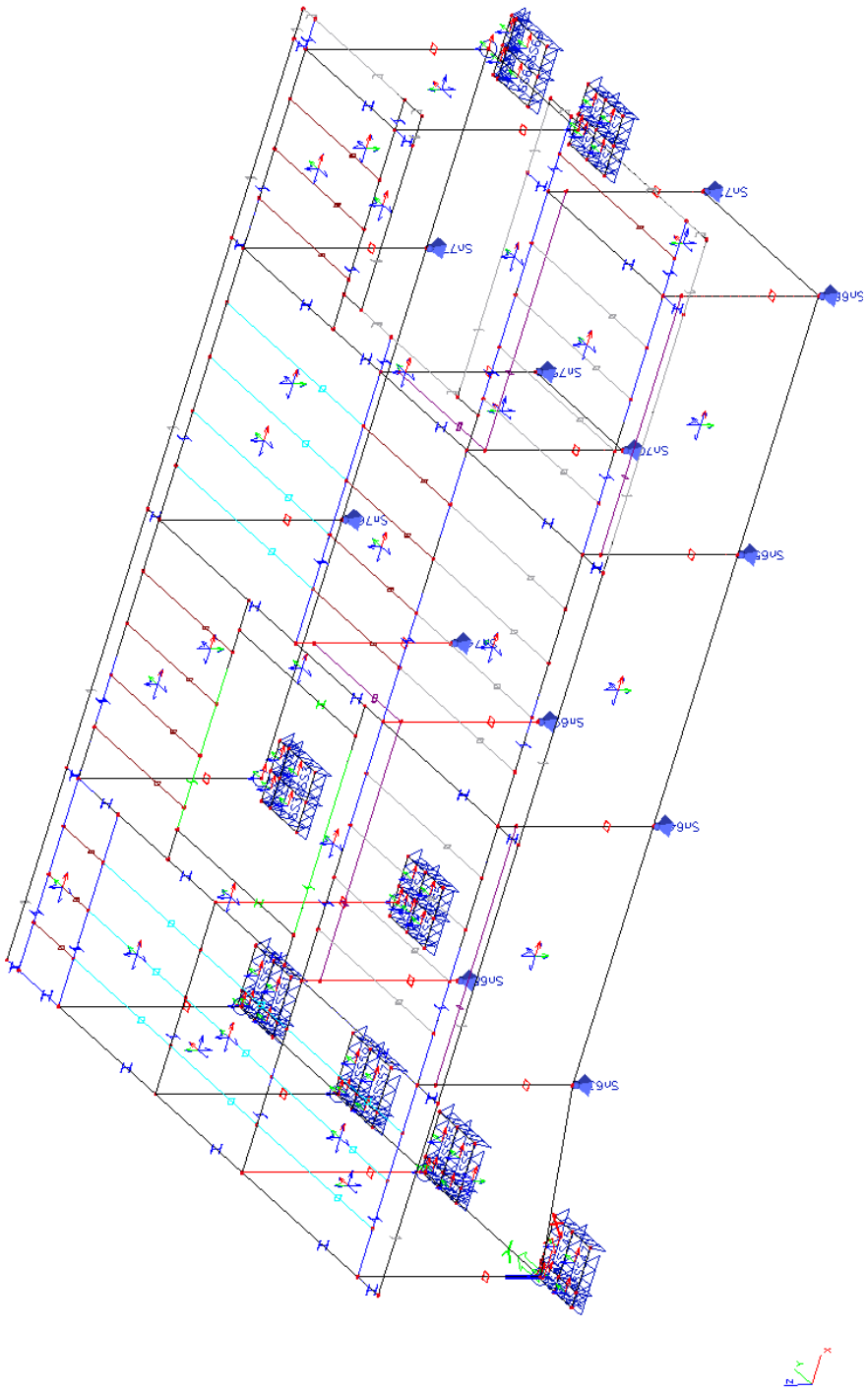
Potresna kombinacija





$U_{hor,max,E,x}$ = 1.5x46x0.5= 34 mm ≤ $U_{hor,dov,E}$ = 0.010xh = 0.010x4000 = 40 mm

4. REAKCIJE



42. Reactions

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn75/N2433	NC15	**-5.94**	-1.99	72.82	0.00	0.00	0.00
Sn74/N2432	NC16	**6.17**	-1.42	61.54	0.00	0.00	0.00
Sn64/N2410	NC4	-0.59	**-15.25**	45.80	0.00	0.00	0.00
Sn77/N2446	NC22	-0.33	**12.72**	5.18	0.00	0.00	0.00
Sn65/N2411	NC30	-0.24	-14.47	**-12.08**	0.00	0.00	0.00
Sn68/N2420	NC41	-1.31	-0.46	**114.14**	0.00	0.00	0.00
Sn63/N2409	NC1	-0.69	-2.72	89.20	**0.00**	**0.00**	**0.00**

43. Reactions

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn63/N2409	NC24	**-2.64**	-1.14	95.91	0.00	0.00	0.00
Sn63/N2409	NC20	**1.92**	-2.43	-6.39	0.00	0.00	0.00
Sn63/N2409	NC4	-0.72	**-11.35**	85.15	0.00	0.00	0.00
Sn63/N2409	NC27	-1.14	**0.91**	**101.18**	0.00	0.00	0.00
Sn63/N2409	NC21	0.05	-11.25	**-9.40**	0.00	0.00	0.00
Sn63/N2409	NC1	-0.69	-2.72	89.20	**0.00**	**0.00**	**0.00**
Sn64/N2410	NC24	**-2.85**	-3.75	50.02	0.00	0.00	0.00
Sn64/N2410	NC20	**1.89**	-3.77	-0.71	0.00	0.00	0.00
Sn64/N2410	NC4	-0.59	**-15.25**	45.80	0.00	0.00	0.00
Sn64/N2410	NC51-s2	0.72	**0.08**	45.87	0.00	0.00	0.00
Sn64/N2410	NC30	-0.51	-13.47	**-4.80**	0.00	0.00	0.00
Sn64/N2410	NC18	0.05	-0.17	**56.22**	0.00	0.00	0.00
Sn64/N2410	NC1	-0.58	-5.90	49.66	**0.00**	**0.00**	**0.00**
Sn65/N2411	NC24	**-2.39**	-4.77	45.58	0.00	0.00	0.00
Sn65/N2411	NC20	**1.86**	-3.00	7.87	0.00	0.00	0.00
Sn65/N2411	NC4	-0.39	**-15.15**	50.43	0.00	0.00	0.00
Sn65/N2411	NC18	0.03	**0.35**	68.79	0.00	0.00	0.00
Sn65/N2411	NC30	-0.24	-14.47	**-12.08**	0.00	0.00	0.00
Sn65/N2411	NC36	0.09	-0.11	**70.08**	0.00	0.00	0.00
Sn65/N2411	NC1	-0.33	-6.04	54.10	**0.00**	**0.00**	**0.00**
Sn66/N2412	NC24	**-2.66**	-2.86	36.53	0.00	0.00	0.00
Sn66/N2412	NC20	**3.96**	-1.63	3.49	0.00	0.00	0.00
Sn66/N2412	NC4	-0.77	**-9.93**	33.02	0.00	0.00	0.00
Sn66/N2412	NC18	-0.22	**1.03**	48.96	0.00	0.00	0.00
Sn66/N2412	NC30	-0.27	-9.87	**-11.03**	0.00	0.00	0.00
Sn66/N2412	NC36	-0.16	0.84	**49.67**	0.00	0.00	0.00
Sn66/N2412	NC1	-0.70	-3.40	38.84	**0.00**	**0.00**	**0.00**
Sn68/N2420	NC24	**-3.26**	-0.93	111.36	0.00	0.00	0.00
Sn68/N2420	NC20	**2.26**	-2.34	-4.56	0.00	0.00	0.00
Sn68/N2420	NC4	-1.07	**-6.26**	105.95	0.00	0.00	0.00
Sn68/N2420	NC27	-1.56	**1.74**	110.68	0.00	0.00	0.00
Sn68/N2420	NC19	-2.08	-2.43	**-4.76**	0.00	0.00	0.00
Sn68/N2420	NC41	-1.31	-0.46	**114.14**	0.00	0.00	0.00
Sn68/N2420	NC1	-1.09	-2.67	106.04	**0.00**	**0.00**	**0.00**
Sn69/N2421	NC24	**-3.05**	-2.27	55.10	0.00	0.00	0.00
Sn69/N2421	NC20	**2.18**	-2.13	-0.67	0.00	0.00	0.00
Sn69/N2421	NC4	-0.50	**-7.89**	53.33	0.00	0.00	0.00
Sn69/N2421	NC18	0.09	**2.64**	**58.74**	0.00	0.00	0.00
Sn69/N2421	NC30	-0.42	-6.94	**-5.34**	0.00	0.00	0.00
Sn69/N2421	NC1	-0.50	-3.47	55.65	**0.00**	**0.00**	**0.00**
Sn70/N2422	NC24	**-3.00**	-3.79	50.43	0.00	0.00	0.00
Sn70/N2422	NC29	**4.11**	-4.21	-8.53	0.00	0.00	0.00

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn70/N2422	NC44	-0.49	**-8.96**	30.28	0.00	0.00	0.00
Sn70/N2422	NC18	-0.65	**3.34**	66.87	0.00	0.00	0.00
Sn70/N2422	NC30	0.20	-8.36	**-10.87**	0.00	0.00	0.00
Sn70/N2422	NC36	-0.68	2.72	**68.79**	0.00	0.00	0.00
Sn70/N2422	NC1	-0.78	-3.84	57.94	**0.00**	**0.00**	**0.00**
Sn71/N2423	NC15	**-3.14**	-0.88	46.95	0.00	0.00	0.00
Sn71/N2423	NC29	**4.43**	-3.45	-0.71	0.00	0.00	0.00
Sn71/N2423	NC44	-0.54	**-6.97**	33.44	0.00	0.00	0.00
Sn71/N2423	NC18	-0.60	**1.04**	39.35	0.00	0.00	0.00
Sn71/N2423	NC31	0.16	-1.20	**-2.91**	0.00	0.00	0.00
Sn71/N2423	NC17	-0.84	-4.50	**50.56**	0.00	0.00	0.00
Sn71/N2423	NC1	-0.92	-3.41	43.42	**0.00**	**0.00**	**0.00**
Sn74/N2432	NC28	**-2.58**	-2.68	-4.49	0.00	0.00	0.00
Sn74/N2432	NC16	**6.17**	-1.42	61.54	0.00	0.00	0.00
Sn74/N2432	NC4	4.00	**-7.69**	60.54	0.00	0.00	0.00
Sn74/N2432	NC18	4.41	**2.71**	55.07	0.00	0.00	0.00
Sn74/N2432	NC31	-0.74	1.45	**-6.54**	0.00	0.00	0.00
Sn74/N2432	NC17	4.38	-6.02	**61.98**	0.00	0.00	0.00
Sn74/N2432	NC1	3.95	-3.33	57.55	**0.00**	**0.00**	**0.00**
Sn75/N2433	NC15	**-5.94**	-1.99	72.82	0.00	0.00	0.00
Sn75/N2433	NC29	**4.85**	-5.77	-6.88	0.00	0.00	0.00
Sn75/N2433	NC44	-1.75	**-11.00**	43.75	0.00	0.00	0.00
Sn75/N2433	NC18	-4.01	**2.01**	67.47	0.00	0.00	0.00
Sn75/N2433	NC31	0.94	-1.68	**-10.10**	0.00	0.00	0.00
Sn75/N2433	NC17	-4.00	-6.03	**74.97**	0.00	0.00	0.00
Sn75/N2433	NC1	-3.55	-5.97	67.21	**0.00**	**0.00**	**0.00**
Sn76/N2439	NC28	**-1.46**	-0.76	1.59	0.00	0.00	0.00
Sn76/N2439	NC16	**1.49**	-1.24	53.28	0.00	0.00	0.00
Sn76/N2439	NC4	0.04	**-3.58**	**57.50**	0.00	0.00	0.00
Sn76/N2439	NC22	-0.19	**9.32**	0.56	0.00	0.00	0.00
Sn76/N2439	NC31	-0.30	8.85	**-0.05**	0.00	0.00	0.00
Sn76/N2439	NC1	0.04	-1.64	54.46	**0.00**	**0.00**	**0.00**
Sn77/N2446	NC15	**-2.45**	3.49	54.14	0.00	0.00	0.00
Sn77/N2446	NC29	**1.92**	-5.16	-2.24	0.00	0.00	0.00
Sn77/N2446	NC44	0.03	**-9.89**	33.46	0.00	0.00	0.00
Sn77/N2446	NC22	-0.33	**12.72**	5.18	0.00	0.00	0.00
Sn77/N2446	NC31	0.32	3.74	**-4.69**	0.00	0.00	0.00
Sn77/N2446	NC35	-1.18	5.38	**58.97**	0.00	0.00	0.00
Sn77/N2446	NC1	-0.72	-1.37	51.36	**0.00**	**0.00**	**0.00**

44. Reactions

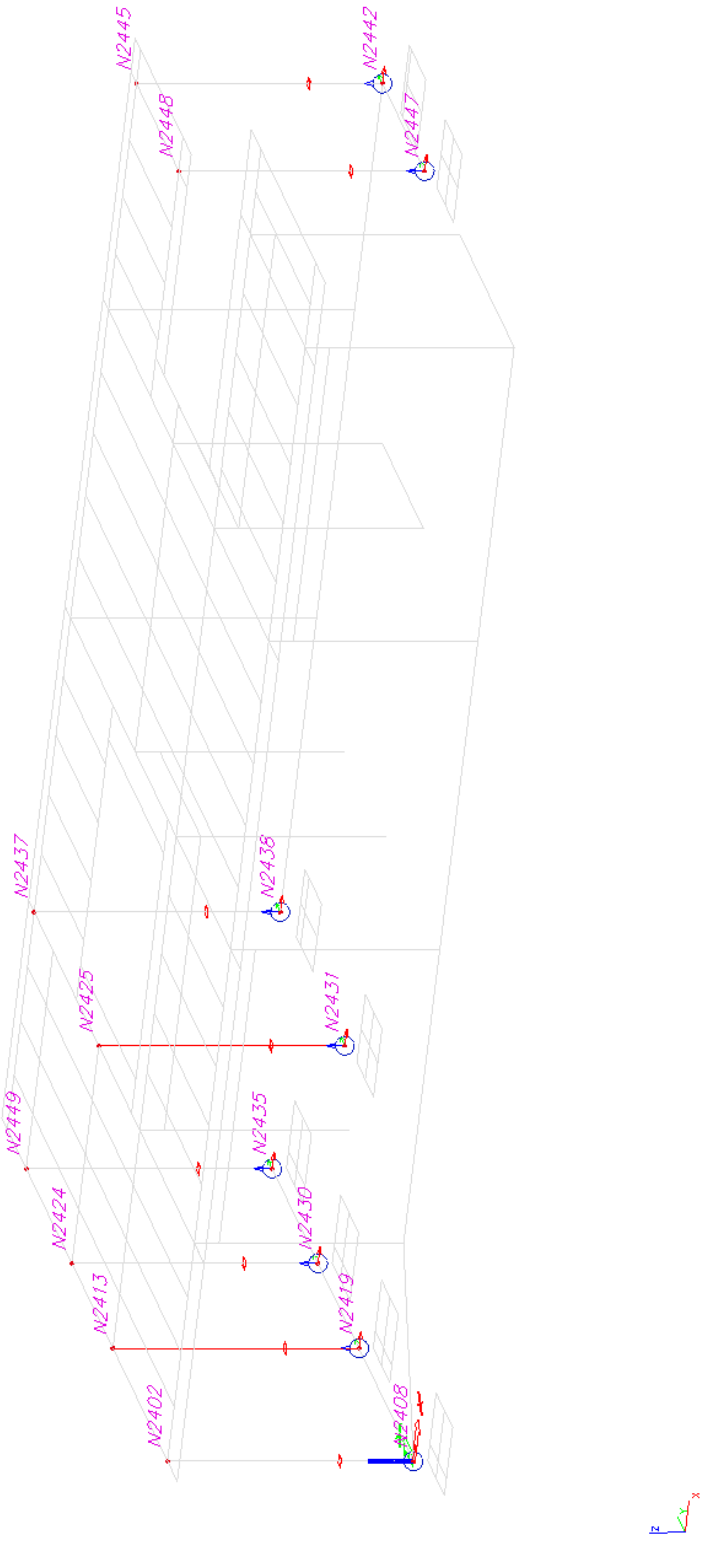
Linear calculation
Class: ULS-potres
System: Global
Extreme: Global
Selection: All
Nodal reactions

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn75/N2433	potres 1/1	**-8.32**	-5.35	22.05	0.00	0.00	0.00	0.0	0.0
Sn74/N2432	potres 4/2	**7.95**	3.77	6.95	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn70/N2422	potres 5/3	-2.72	**-9.94**	15.09	0.00	0.00	0.00	0.0	0.0
Sn70/N2422	potres 8/4	2.53	**10.06**	18.63	0.00	0.00	0.00	0.0	0.0
Sn66/N2412	potres 5/3	-2.27	-7.83	**-0.64**	0.00	0.00	0.00	0.0	0.0
Sn65/N2411	potres 8/4	2.26	7.50	**27.92**	0.00	0.00	0.00	0.0	0.0

45. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Mesh
Selection: All
Nodal reactions

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn63/N2409	potres 4/1	**5.64**	4.03	22.22	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn63/N2409	potres 5/2	-2.25	**-7.61**	**4.92**	0.00	0.00	0.00	0.0	0.0
Sn63/N2409	potres 8/3	2.34	**7.36**	**26.89**	0.00	0.00	0.00	0.0	0.0
Sn63/N2409	potres 1/4	**-5.55**	-4.28	9.59	0.00	0.00	**0.00**	0.0	0.0
Sn64/N2410	potres 4/1	**5.52**	2.74	20.48	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn64/N2410	potres 5/2	-2.27	**-7.49**	**5.42**	0.00	0.00	0.00	0.0	0.0
Sn64/N2410	potres 8/3	2.24	**7.41**	**26.50**	0.00	0.00	0.00	0.0	0.0
Sn64/N2410	potres 1/4	**-5.56**	-2.82	11.44	0.00	0.00	**0.00**	0.0	0.0
Sn65/N2411	potres 4/1	**5.38**	4.05	22.90	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn65/N2411	potres 5/2	-2.21	**-7.56**	**5.75**	0.00	0.00	0.00	0.0	0.0
Sn65/N2411	potres 8/3	2.26	**7.50**	**27.92**	0.00	0.00	0.00	0.0	0.0
Sn65/N2411	potres 1/4	**-5.33**	-4.12	10.76	0.00	0.00	**0.00**	0.0	0.0
Sn66/N2412	potres 4/1	**5.08**	6.15	26.30	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn66/N2412	potres 5/2	-2.27	**-7.83**	**-0.64**	0.00	0.00	0.00	0.0	0.0
Sn66/N2412	potres 8/3	2.07	**7.85**	**26.53**	0.00	0.00	0.00	0.0	0.0
Sn66/N2412	potres 1/4	**-5.28**	-6.13	-0.41	0.00	0.00	**0.00**	0.0	0.0
Sn68/N2420	potres 4/1	**7.10**	5.20	14.65	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn68/N2420	potres 5/2	-2.79	**-9.06**	**21.84**	0.00	0.00	0.00	0.0	0.0
Sn68/N2420	potres 8/3	2.79	**9.32**	**14.44**	0.00	0.00	0.00	0.0	0.0
Sn68/N2420	potres 1/4	**-7.11**	-4.94	21.63	0.00	0.00	**0.00**	0.0	0.0
Sn69/N2421	potres 4/1	**7.04**	3.76	18.63	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn69/N2421	potres 5/2	-2.75	**-9.80**	**15.46**	0.00	0.00	0.00	0.0	0.0
Sn69/N2421	potres 8/3	2.79	**9.97**	**19.01**	0.00	0.00	0.00	0.0	0.0
Sn69/N2421	potres 1/4	**-7.00**	-3.60	15.84	0.00	0.00	**0.00**	0.0	0.0
Sn70/N2422	potres 4/1	**6.69**	5.48	18.18	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn70/N2422	potres 5/2	-2.72	**-9.94**	**15.09**	0.00	0.00	0.00	0.0	0.0
Sn70/N2422	potres 8/3	2.53	**10.06**	**18.63**	0.00	0.00	0.00	0.0	0.0
Sn70/N2422	potres 1/4	**-6.88**	-5.36	15.55	0.00	0.00	**0.00**	0.0	0.0
Sn71/N2423	potres 4/1	**6.47**	6.43	3.58	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn71/N2423	potres 5/2	-2.71	**-7.91**	**26.09**	0.00	0.00	0.00	0.0	0.0
Sn71/N2423	potres 8/3	2.37	**8.02**	**-0.53**	0.00	0.00	0.00	0.0	0.0
Sn71/N2423	potres 1/4	**-6.82**	-6.33	21.98	0.00	0.00	**0.00**	0.0	0.0
Sn74/N2432	potres 5/2	-1.63	**-9.74**	23.57	0.00	0.00	0.00	0.0	0.0
Sn74/N2432	potres 8/3	3.61	**9.94**	9.19	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn74/N2432	potres 4/1	**7.95**	3.77	**6.95**	0.00	0.00	0.00	0.0	0.0
Sn74/N2432	potres 1/4	**-5.97**	-3.57	**25.81**	0.00	0.00	**0.00**	0.0	0.0
Sn75/N2433	potres 4/1	**6.69**	5.48	16.65	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn75/N2433	potres 5/2	-3.69	**-9.91**	**24.54**	0.00	0.00	0.00	0.0	0.0
Sn75/N2433	potres 8/3	2.06	**10.03**	**14.15**	0.00	0.00	0.00	0.0	0.0
Sn75/N2433	potres 1/4	**-8.32**	-5.35	22.05	0.00	0.00	**0.00**	0.0	0.0
Sn76/N2439	potres 4/1	**6.81**	1.53	13.21	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn76/N2439	potres 5/2	-2.58	**-4.94**	**23.62**	0.00	0.00	0.00	0.0	0.0
Sn76/N2439	potres 8/3	2.47	**4.48**	**10.09**	0.00	0.00	0.00	0.0	0.0
Sn76/N2439	potres 1/4	**-6.92**	-1.99	20.50	0.00	0.00	**0.00**	0.0	0.0
Sn77/N2446	potres 5/2	-2.71	**-4.89**	24.48	0.00	0.00	0.00	0.0	0.0
Sn77/N2446	potres 8/3	2.50	**4.63**	6.45	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn77/N2446	potres 4/1	**7.01**	2.48	**5.38**	0.00	0.00	0.00	0.0	0.0
Sn77/N2446	potres 1/4	**-7.21**	-2.74	**25.55**	0.00	0.00	**0.00**	0.0	0.0


N2445
N2442
N2448
N2447
N2437
N2438
N2425
N2431
N2449
N2435
N2424
N2430
N2413
N2419
N2402
N2408

46. Connection forces

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC25	FC4	N2435	B2172	**-5.54**	-1.99	-76.81	0.00	0.00	0.01
NC19	FC2	N2419	B2157	**6.67**	0.80	2.11	0.00	0.00	0.01
NC18	FC8	N2442	B2178	0.43	**-7.66**	-12.13	0.00	**0.00**	-0.03
NC35	FC6	N2438	B2174	2.02	**8.85**	-72.96	0.00	**0.00**	-0.01
NC42	FC5	N2431	B2168	5.08	-2.14	**-100.73**	0.00	0.00	0.01
NC20	FC5	N2431	B2168	-1.34	0.88	**8.34**	0.00	0.00	0.01
NC24	FC5	N2431	B2168	5.68	-1.80	-100.70	**0.00**	0.00	0.01
NC3	FC3	N2430	B2167	-5.19	0.33	-59.06	**0.00**	0.00	0.01
NC36	FC8	N2442	B2178	0.48	-7.34	-13.15	0.00	0.00	**-0.03**
NC46	FC6	N2438	B2174	0.41	-3.16	-15.07	0.00	0.00	**0.02**

47. Connection forces

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC16	FC1	N2408	B2147	**-2.77**	0.13	-45.88	0.00	0.00	0.01
NC28	FC1	N2408	B2147	**4.19**	-0.10	-1.61	**0.00**	0.00	0.01
NC27	FC1	N2408	B2147	-1.66	**-1.96**	**-50.11**	0.00	0.00	0.00
NC17	FC1	N2408	B2147	-1.39	**5.53**	-39.57	0.00	0.00	0.00
NC21	FC1	N2408	B2147	0.15	4.96	**3.41**	0.00	0.00	0.00
NC3	FC1	N2408	B2147	-2.66	-0.17	-47.63	**0.00**	0.00	**0.01**
NC30	FC1	N2408	B2147	0.24	4.23	-0.61	0.00	**0.00**	0.01
NC35	FC1	N2408	B2147	-1.41	3.94	-38.68	0.00	**0.00**	-0.01
NC32	FC1	N2408	B2147	-1.40	1.16	-40.21	0.00	0.00	**-0.01**
NC25	FC2	N2419	B2157	**-3.93**	-0.51	**-64.69**	0.00	0.00	0.01
NC19	FC2	N2419	B2157	**6.67**	0.80	**2.11**	0.00	0.00	0.01
NC27	FC2	N2419	B2157	-2.75	**-1.91**	-62.27	0.00	0.00	0.00
NC17	FC2	N2419	B2157	-2.11	**3.98**	-56.99	0.00	0.00	-0.01
NC28	FC2	N2419	B2157	6.55	-0.09	-2.13	**0.00**	0.00	**0.01**
NC3	FC2	N2419	B2157	-3.86	0.27	-62.64	**0.00**	0.00	0.01
NC30	FC2	N2419	B2157	0.12	1.96	-2.51	0.00	**0.00**	0.01
NC35	FC2	N2419	B2157	-2.04	3.31	-54.99	0.00	**0.00**	-0.01
NC32	FC2	N2419	B2157	-2.03	1.86	-55.31	0.00	0.00	**-0.01**
NC25	FC3	N2430	B2167	**-5.39**	-0.45	**-61.64**	0.00	0.00	0.01
NC19	FC3	N2430	B2167	**6.48**	0.79	**3.52**	0.00	0.00	0.01
NC27	FC3	N2430	B2167	-4.06	**-1.87**	-59.87	0.00	0.00	0.00
NC17	FC3	N2430	B2167	-3.14	**4.07**	-52.24	0.00	**0.00**	-0.01
NC28	FC3	N2430	B2167	6.10	-0.11	-1.48	**0.00**	0.00	**0.02**
NC3	FC3	N2430	B2167	-5.19	0.33	-59.06	**0.00**	0.00	0.01
NC30	FC3	N2430	B2167	-0.15	2.02	-2.36	0.00	**0.00**	0.01
NC32	FC3	N2430	B2167	-2.93	1.90	-50.53	0.00	0.00	**-0.01**
NC25	FC4	N2435	B2172	**-5.54**	-1.99	-76.81	**0.00**	0.00	0.01
NC19	FC4	N2435	B2172	**3.98**	0.68	0.82	0.00	0.00	0.01
NC27	FC4	N2435	B2172	-4.27	**-3.14**	-72.72	0.00	**0.00**	-0.01
NC21	FC4	N2435	B2172	0.44	**2.43**	-3.51	0.00	0.00	0.00
NC26	FC4	N2435	B2172	-3.65	1.15	**-78.95**	0.00	0.00	0.00
NC22	FC4	N2435	B2172	0.41	-0.41	**1.52**	0.00	0.00	-0.01
NC6	FC4	N2435	B2172	3.71	0.26	-1.24	**0.00**	0.00	0.01
NC35	FC4	N2435	B2172	-2.81	1.55	-71.15	0.00	**0.00**	-0.01
NC32	FC4	N2435	B2172	-2.88	0.27	-69.12	0.00	0.00	**-0.01**
NC28	FC4	N2435	B2172	3.43	-0.16	-3.30	0.00	0.00	**0.01**
NC20	FC5	N2431	B2168	**-1.34**	0.88	**8.34**	0.00	0.00	0.01
NC24	FC5	N2431	B2168	**5.68**	-1.80	-100.70	**0.00**	0.00	0.01
NC27	FC5	N2431	B2168	3.65	**-4.60**	-95.70	0.00	**0.00**	-0.02
NC21	FC5	N2431	B2168	-0.24	**3.19**	4.71	0.00	**0.00**	-0.01

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC42	FC5	N2431	B2168	5.08	-2.14	**-100.73**	0.00	0.00	**0.01**
NC18	FC5	N2431	B2168	3.46	-3.38	-87.40	**0.00**	0.00	**-0.02**
NC29	FC6	N2438	B2174	**-1.53**	-2.04	-6.55	0.00	0.00	0.00
NC15	FC6	N2438	B2174	**3.25**	6.21	-75.78	0.00	0.00	0.00
NC31	FC6	N2438	B2174	-0.10	**-7.00**	-5.16	0.00	**0.00**	**-0.02**
NC35	FC6	N2438	B2174	2.02	**8.85**	-72.96	0.00	**0.00**	-0.01
NC26	FC6	N2438	B2174	1.31	3.75	**-89.38**	0.00	0.00	0.00
NC22	FC6	N2438	B2174	0.44	-2.49	**4.70**	0.00	0.00	-0.02
NC24	FC6	N2438	B2174	2.67	1.63	-85.74	**0.00**	0.00	0.01
NC33	FC6	N2438	B2174	2.84	7.61	-70.83	**0.00**	0.00	-0.01
NC46	FC6	N2438	B2174	0.41	-3.16	-15.07	0.00	0.00	**0.02**
NC29	FC7	N2447	B2182	**-3.81**	1.68	4.88	**0.00**	0.00	0.01
NC15	FC7	N2447	B2182	**2.35**	-0.59	-28.82	0.00	0.00	0.00
NC18	FC7	N2447	B2182	0.52	**-3.40**	-32.90	0.00	**0.00**	-0.02
NC44	FC7	N2447	B2182	0.51	**3.70**	-6.44	0.00	0.00	-0.01
NC36	FC7	N2447	B2182	0.60	-3.17	**-33.04**	0.00	0.00	**-0.02**
NC30	FC7	N2447	B2182	-0.23	3.28	**8.08**	0.00	0.00	-0.01
NC34	FC7	N2447	B2182	-1.57	-1.69	-29.19	**0.00**	0.00	-0.01
NC4	FC7	N2447	B2182	1.03	2.71	-17.17	0.00	**0.00**	-0.01
NC47	FC7	N2447	B2182	-2.38	2.33	4.94	0.00	0.00	**0.02**
NC25	FC8	N2442	B2178	**-4.02**	3.31	-16.79	0.00	0.00	0.00
NC15	FC8	N2442	B2178	**2.07**	-2.09	-21.02	0.00	0.00	0.00
NC18	FC8	N2442	B2178	0.43	**-7.66**	-12.13	0.00	**0.00**	-0.03
NC44	FC8	N2442	B2178	-0.22	**6.60**	-19.92	0.00	0.00	-0.01
NC4	FC8	N2442	B2178	0.38	2.92	**-24.85**	0.00	0.00	-0.01
NC22	FC8	N2442	B2178	0.24	-7.30	**1.65**	0.00	0.00	-0.02
NC16	FC8	N2442	B2178	-3.52	-2.19	-15.62	**0.00**	0.00	-0.02
NC43	FC8	N2442	B2178	-2.78	5.46	-15.41	**0.00**	0.00	0.01
NC26	FC8	N2442	B2178	0.20	5.21	-24.33	0.00	**0.00**	-0.01
NC36	FC8	N2442	B2178	0.48	-7.34	-13.15	0.00	0.00	**-0.03**
NC47	FC8	N2442	B2178	-2.71	5.08	-5.11	0.00	0.00	**0.01**

48. Connection forces

Linear calculation, Extreme : Global
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 1/2	FC6	N2438	B2174	**-6.47**	-2.26	-18.52	0.00	0.00	-0.02
potres 4/1	FC6	N2438	B2174	**6.66**	3.14	-9.18	0.00	0.00	0.02
potres 5/4	FC5	N2431	B2168	-1.44	**-6.06**	-18.50	0.00	0.00	-0.02
potres 8/3	FC3	N2430	B2167	1.43	**5.68**	-11.93	0.00	0.00	0.03
potres 1/2	FC5	N2431	B2168	-4.36	-3.46	**-24.43**	0.00	0.00	**-0.04**
potres 8/3	FC8	N2442	B2178	2.14	5.15	**6.59**	0.00	0.00	-0.01
potres 8/3	FC2	N2419	B2157	1.42	5.67	-4.55	**0.00**	0.00	0.03
potres 5/4	FC2	N2419	B2157	-1.53	-5.56	-9.63	**0.00**	0.00	-0.03
potres 4/1	FC8	N2442	B2178	6.08	4.00	2.64	0.00	**0.00**	-0.02
potres 1/2	FC8	N2442	B2178	-6.19	-4.00	-15.26	0.00	**0.00**	0.02
potres 4/1	FC5	N2431	B2168	4.99	2.66	-0.99	0.00	0.00	**0.04**

49. Connection forces

Linear calculation, Extreme : Node
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 1/2	FC1	N2408	B2147	**-2.93**	-3.39	**3.48**	**0.00**	0.00	**-0.03**
potres 4/1	FC1	N2408	B2147	**2.93**	3.38	**-14.91**	**0.00**	0.00	**0.03**
potres 5/4	FC1	N2408	B2147	-1.19	**-4.62**	3.29	0.00	**0.00**	-0.02
potres 8/3	FC1	N2408	B2147	1.18	**4.61**	-14.73	0.00	**0.00**	0.02
potres 1/2	FC2	N2419	B2157	**-3.79**	-4.07	**-14.06**	0.00	0.00	**-0.03**

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 4/1	FC2	N2419	B2157	**3.68**	4.19	**-0.12**	0.00	**0.00**	**0.03**
potres 5/4	FC2	N2419	B2157	-1.53	**-5.56**	-9.63	**0.00**	0.00	-0.03
potres 8/3	FC2	N2419	B2157	1.42	**5.67**	-4.55	**0.00**	0.00	0.03
potres 1/2	FC3	N2430	B2167	**-4.95**	-4.04	**2.68**	0.00	**0.00**	**-0.04**
potres 4/1	FC3	N2430	B2167	**4.33**	4.16	**-16.32**	0.00	**0.00**	**0.04**
potres 5/4	FC3	N2430	B2167	-2.05	**-5.56**	-1.71	**0.00**	0.00	-0.03
potres 8/3	FC3	N2430	B2167	1.43	**5.68**	-11.93	**0.00**	0.00	0.03
potres 1/2	FC4	N2435	B2172	**-5.43**	-3.84	-17.44	**0.00**	**0.00**	**-0.03**
potres 4/1	FC4	N2435	B2172	**4.69**	3.55	-1.77	0.00	**0.00**	**0.03**
potres 5/4	FC4	N2435	B2172	-2.38	**-5.01**	**-17.88**	0.00	0.00	-0.03
potres 8/3	FC4	N2435	B2172	1.64	**4.72**	**-1.33**	0.00	0.00	0.02
potres 1/2	FC5	N2431	B2168	**-4.36**	-3.46	**-24.43**	0.00	**0.00**	**-0.04**
potres 4/1	FC5	N2431	B2168	**4.99**	2.66	**-0.99**	0.00	**0.00**	**0.04**
potres 5/4	FC5	N2431	B2168	-1.44	**-6.06**	-18.50	**0.00**	0.00	-0.02
potres 8/3	FC5	N2431	B2168	2.07	**5.26**	-6.93	**0.00**	0.00	0.01
potres 1/2	FC6	N2438	B2174	**-6.47**	-2.26	-18.52	0.00	**0.00**	**-0.02**
potres 4/1	FC6	N2438	B2174	**6.66**	3.14	-9.18	0.00	**0.00**	**0.02**
potres 5/4	FC6	N2438	B2174	-2.43	**-4.13**	**-21.57**	**0.00**	0.00	-0.01
potres 8/3	FC6	N2438	B2174	2.62	**5.01**	**-6.12**	**0.00**	0.00	0.01
potres 2/5	FC7	N2447	B2182	**0.11**	**-0.07**	**-8.53**	**0.00**	**0.00**	**0.00**
potres 1/2	FC8	N2442	B2178	**-6.19**	-4.00	-15.26	0.00	**0.00**	**0.02**
potres 4/1	FC8	N2442	B2178	**6.08**	4.00	2.64	0.00	**0.00**	**-0.02**
potres 5/4	FC8	N2442	B2178	-2.25	**-5.15**	**-19.20**	**0.00**	0.00	0.01
potres 8/3	FC8	N2442	B2178	2.14	**5.15**	**6.59**	**0.00**	0.00	-0.01

5. AB TEMELJI

Del tega načrta so tudi novi AB točkovni temelji, ki so izven območja podpiranja jeklenih stebrov z AB konstrukcjo podhoda in sicer

- osem novih AB točkovnih temeljev dimenzij 1.2x1.2x0.8m

Nekateri so zaradi bližine obstoječega objekta in tirniških naprav obremenjeni ekscentrično.

AB podporna konstrukcija podhoda ni predmet tega načrta.

V okviru analize je bi upoštevan vertikalni modul podajnosti tal 26000 kN/m^3.

Vodneprepustni beton
C30/37, PV-II, XC2, XD3-odporen proti solem

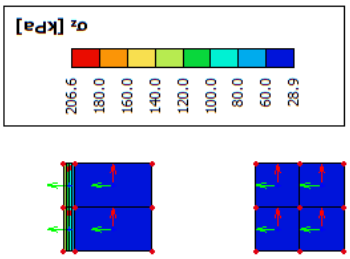
Armatura S500B

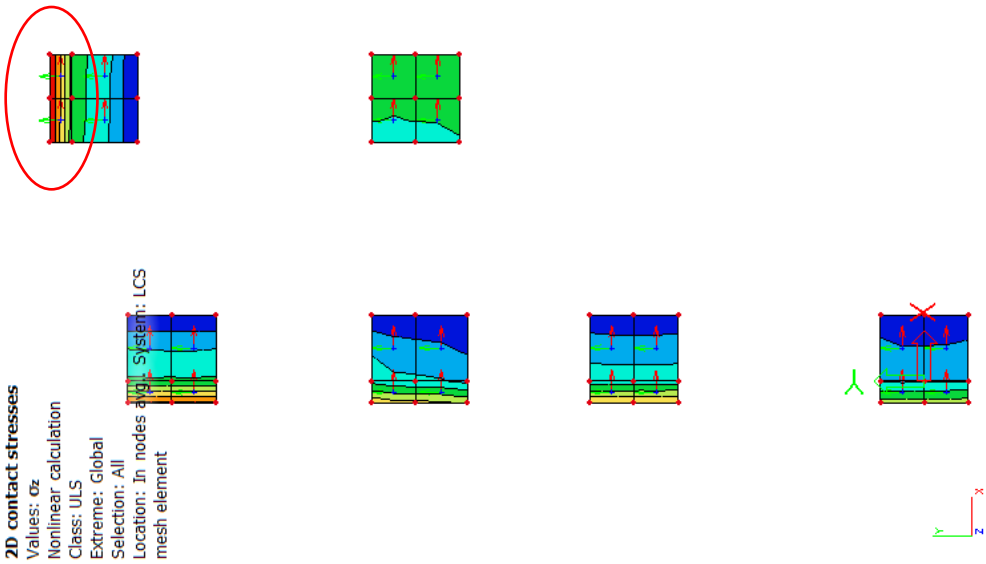
Za armiranje AB temeljev zadošča minimalna armatura (glej v nadaljevanju).

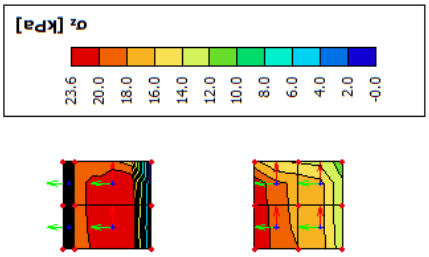
$A_{s,min}$ = 0.0013x80x100 = 10.4 cm^2/m
Izberem ø14/15cm $A_{s,dej}$ = 3.14x1.4^2 / 4 /0.15 = 10.3 cm^2/m…… OK

<u>Kontaktne napetosti v temeljnih tleh</u>

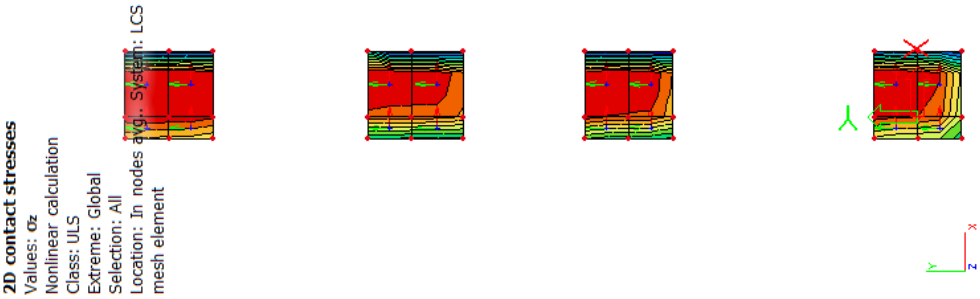
Maksimalne kontaktne napetosti R_d/A potd temelji pri ULS (faktrorirana obtežba) in pri potresnih obtežnih kombinacijah praviloma ne presegajo maksimalnih dovoljenih napetosti 190 kN/m^2.
Le na zelo ozkem območju na robu enega temelja v območju kopičenja snega napetosti pri ULS dosežejo vrednosti 206 kN/m^2, kar je sprejemljivo.

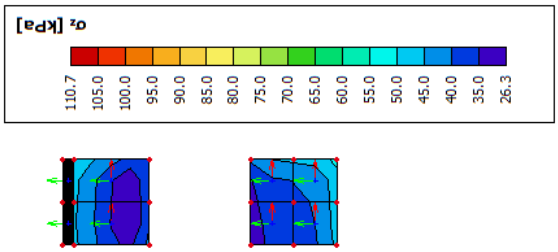

σz [kPa]
206.6
180.0
160.0
140.0
120.0
100.0
80.0
60.0
28.9


2D contact stresses
Values: σz
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. System: LCS
mesh element

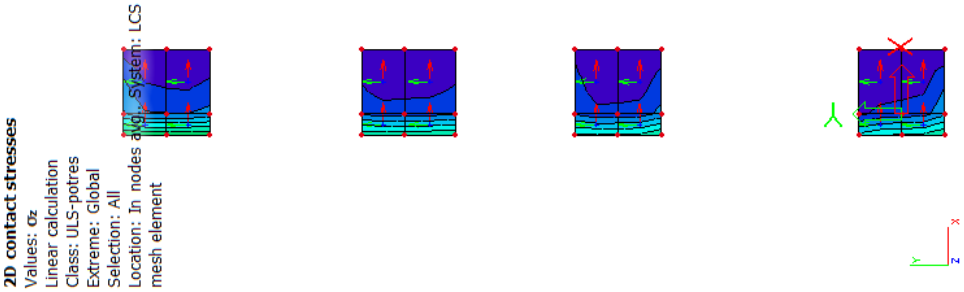

σz [kPa]
23.6
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
-0.0

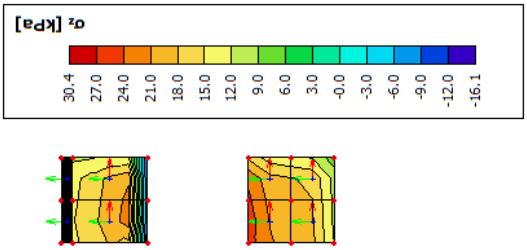



2D contact stresses
Values: σz
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. System: LCS
mesh element

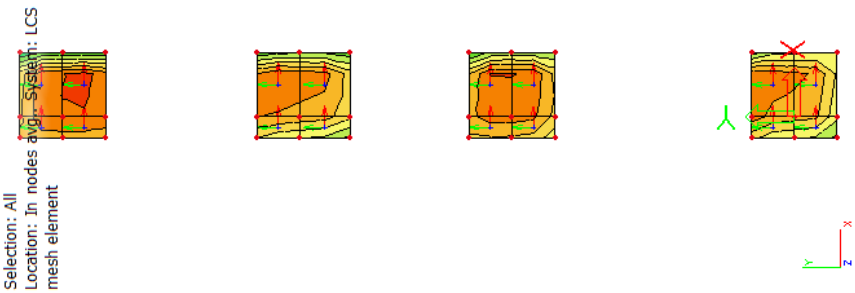

σz [kPa]
110.7
105.0
100.0
95.0
90.0
85.0
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
26.3



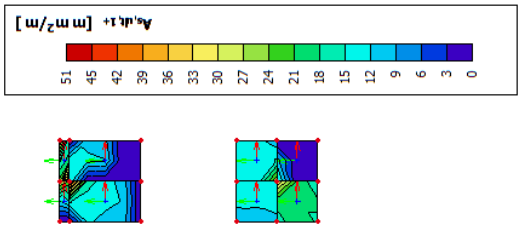

2D contact stresses
Values: σz
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg., System: LCS
mesh element

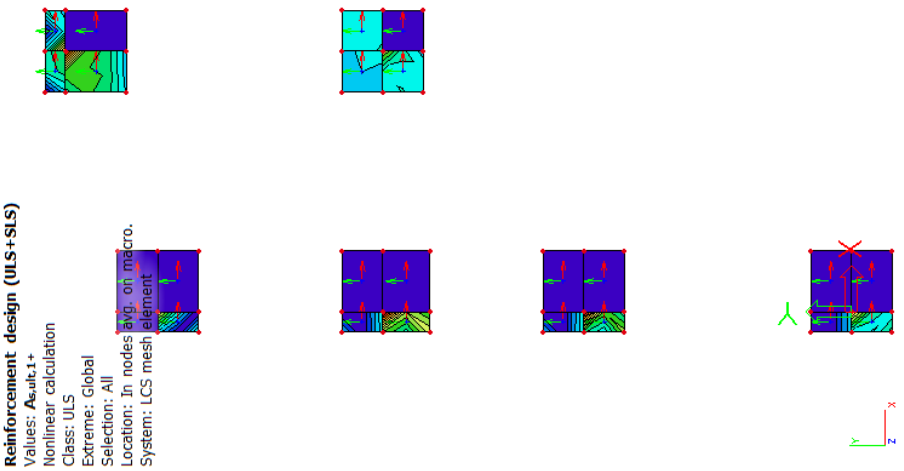

σz [kPa]
30.4
27.0
24.0
21.0
18.0
15.0
12.0
9.0
6.0
3.0
-0.0
-3.0
-6.0
-9.0
-12.0
-16.1

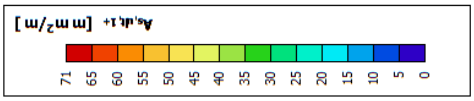


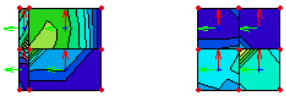

2D contact stresses
Values: σz
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. System: LCS
mesh element

Armatura

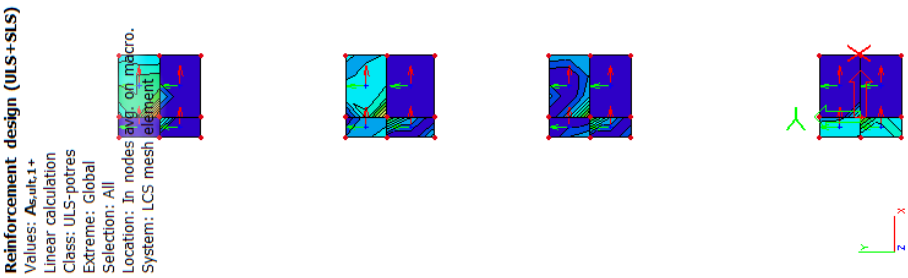

As,ult,1+ [m²/m]
51
45
42
39
36
33
30
27
24
21
18
15
12
9
6
3
0

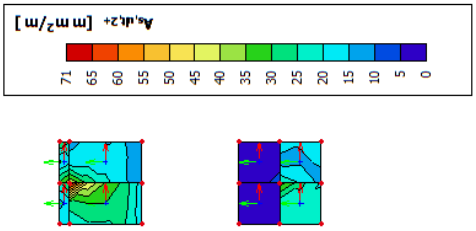

Reinforcement design (ULS+SLS)
Values: As,ult,1+
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

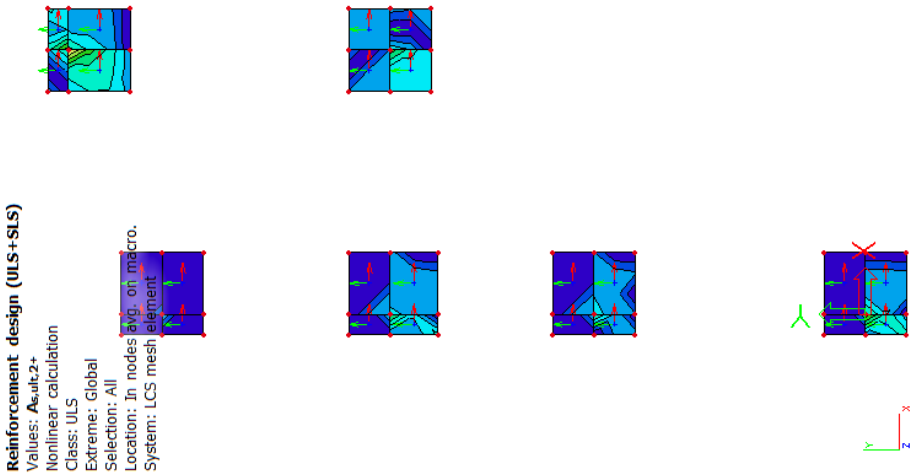

As,ult,1+ [m m²/m]
71
65
60
55
50
45
40
35
30
25
20
15
10
5
0

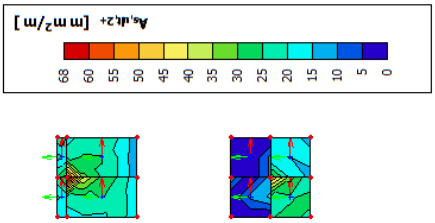


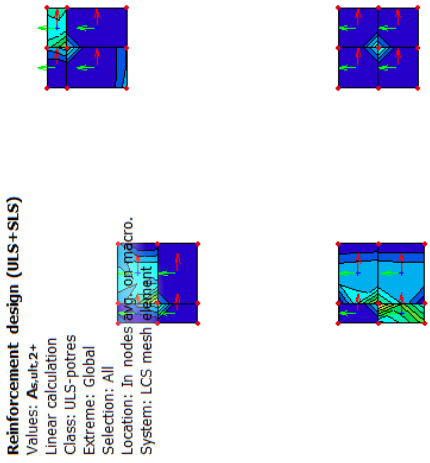


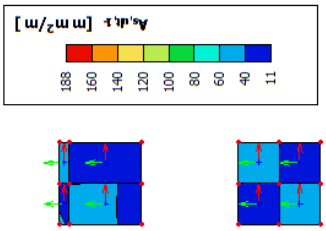

Reinforcement design (ULS+SLS)
Values: As,ult,1+
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element
Y
Z
X

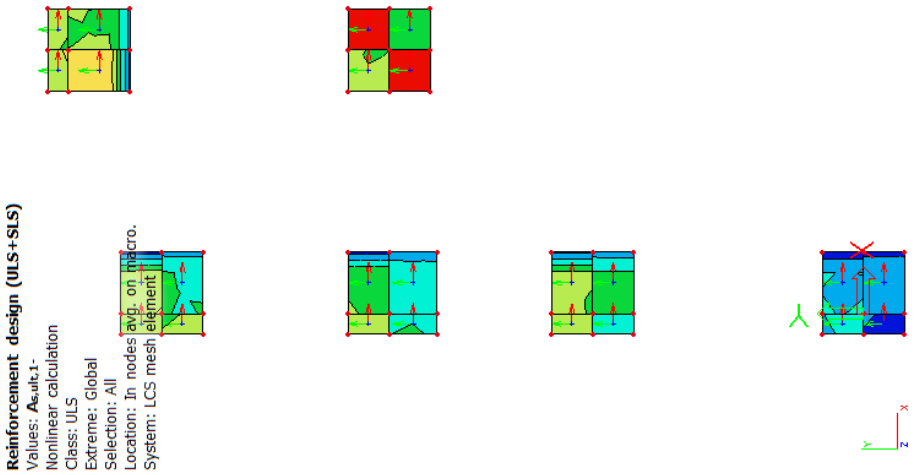

[m m²/m]
71
65
60
55
50
45
40
35
30
25
20
15
10
5
0

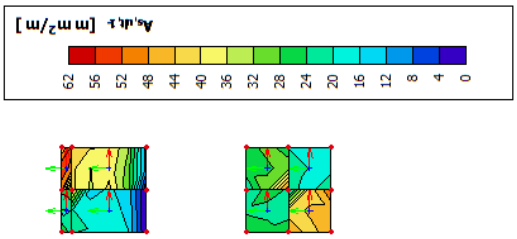

Reinforcement design (ULS+SLS)
Values: As,ult,2+
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

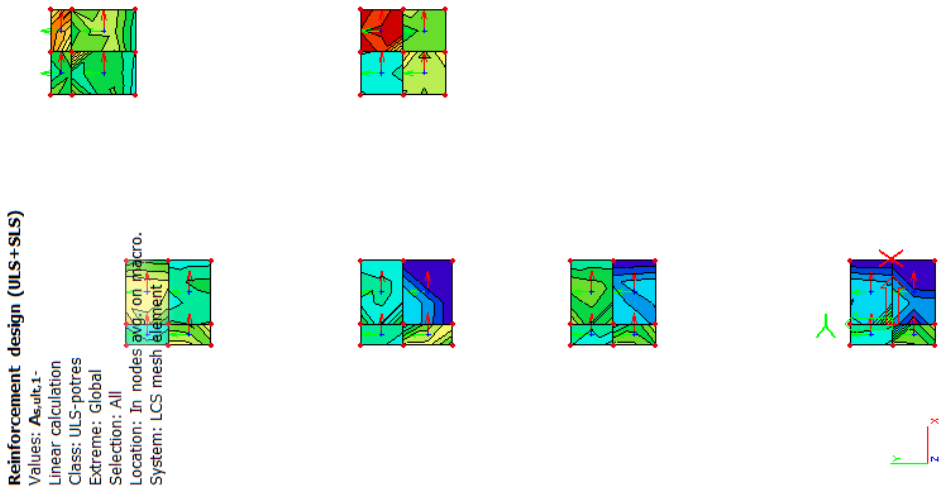

As,ult,z+ [m m²/m]
68
60
55
50
45
40
35
30
25
20
15
10
5
0

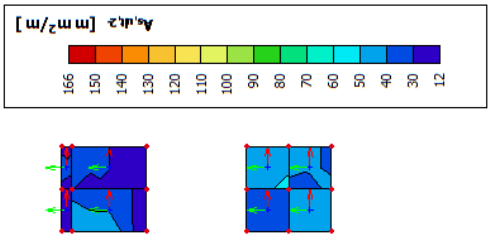

Reinforcement design (ULS+SLS)
Values: As,ult,z+
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

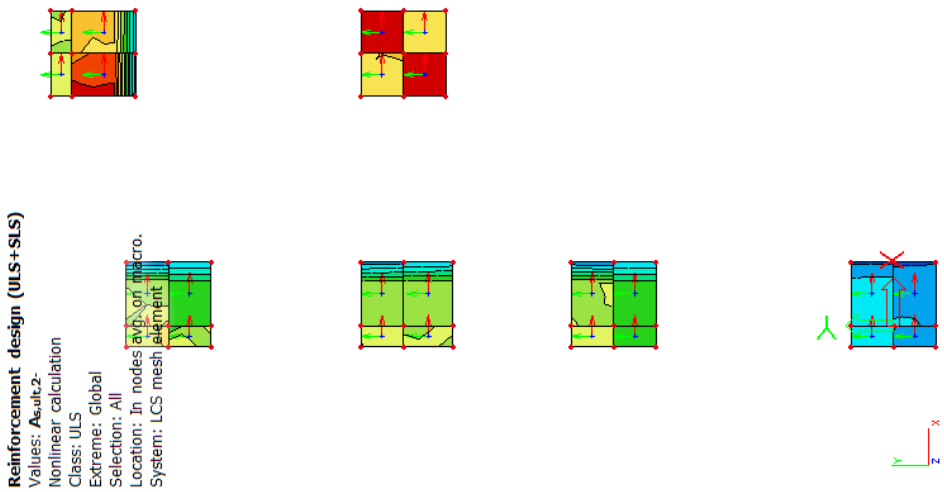

[mm²/m]
188
160
140
120
100
80
60
40
11

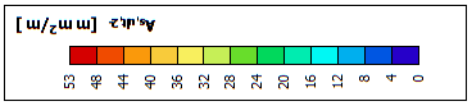

Reinforcement design (ULS+SLS)
Values: As,ult,1-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

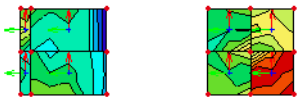

62
56
52
48
44
40
36
32
28
24
20
16
12
8
4
0


Reinforcement design (ULS+SLS)
Values: As,ult,1-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes averaged on macro.
System: LCS mesh element


As,ult,2 [m m²/m]
166
150
140
130
120
110
100
90
80
70
60
50
40
30
12

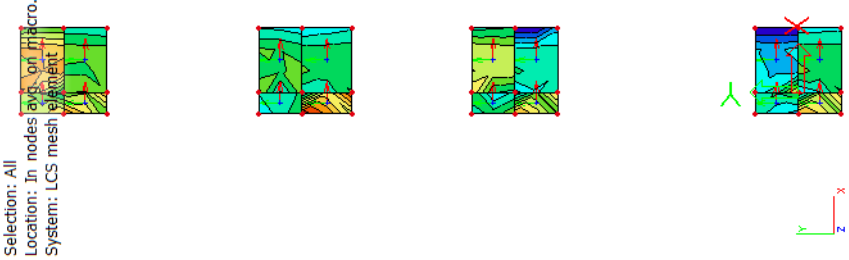

Reinforcement design (ULS+SLS)
Values: As,ult,2-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element
X
Y
Z







Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



6. LESENA KRITINA

OSB3 vodoodporna plošča D=25mm

Izven območja kopičenja snega

svetli razmak med sekundarnimi nosilciL = cca 1.0 m , nosilec preko dveh ali več polj (2xL, 3xL,…)

$q_{Ed,MSU}$ = 0.10+1.25 = 1.35 kN/m^2

AGEPAN® OSB/3 | TECHNISCHE DATEN

Zulässige Flächenlast q_{max} [kN/m²]
Zweifeldträger beidseitig belastet, Durchbiegungsbeschränkung l/300

	12	15	18	22	25
l (m)			Dicke (in mm)		
0,20	22,01	34,41	47,41	70,85	91,52
0,25	14,06	21,99	30,30	45,30	58,52
0,30	9,74	15,24	21,01	31,42	40,59
0,35	7,14	11,18	15,41	23,05	29,78
0,40	5,45	8,54	11,77	17,61	22,77
0,45	4,22	6,72	9,28	13,89	17,96
0,50	3,06	5,43	7,50	11,23	14,52
0,55	2,28	4,47	6,18	9,25	11,97
0,60	1,74	3,45	5,17	7,76	10,04
0,625	1,53	3,04	4,76	7,14	9,24
0,65	1,35	2,69	4,39	6,59	8,53
0,70	1,07	2,14	3,74	5,66	7,33
0,75	0,86	1,72	3,02	4,92	6,37
0,80	0,69	1,40	2,47	4,30	5,58
0,833	0,60	1,23	2,18	3,96	5,13
0,90	0,46	0,96	1,70	3,17	4,38
0,95	0,38	0,80	1,43	2,68	3,91
1,00	0,32	0,67	1,21	2,28	3,39

Max. zul. Flächenlast q_{max} gemäß Spannungsnachweis/Gebrauchstauglichkeit l = vorh. Unterstützungsabstand

Pri L=1.0m q_{dop} = 3.39 kN/m^2 pri L/300

Pri obtežbi kopičenja snega so dovoljeni večji upogibki (L/200)

$q_{Ed,MSU,\ kopicenje}$ = 0.10+5.5 = 5.6 kN/m^2

L/200 $q_{dop,pomiki}$ = 3.39x(300^4/200^4) = 17.1 kN/m^2

svetli razmak med nosilci L= 0.84 m q_{dop} = 5.0 kN/m^2 pri L/300 ≈ 5.6 kN/m^2 ≈ OK

dovoljeni večji upogibki pri kopičenju

7. DETAJLI

7.1. Sidranje KC160/8

Členkasti priključek na nove AB točkovne temelje.

www.hilti.com

Profis Anchor 2.8.8

Company:		Page:	1
Specifier:		Project:	Domžale - N1
Address:		Fastening Point:	
Phone I Fax:	|	Date:	28/06/2021
E-Mail:			

Specifier's comments: Sidranje KC160/160 - clenkast prikljucek - AB, novi temelji, konstrukcija podhoda

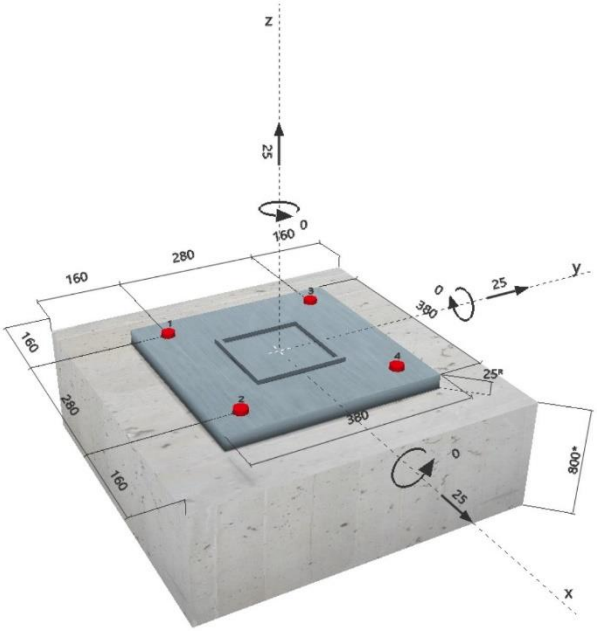
1 Input data



Anchor type and size:	**HIT-HY 150 MAX + HIT-V (5.8) M24**
Return period (service life in years):	50
Effective embedment depth:	$h_{ef,act}$ = 300 mm ($h_{ef,limit}$ = - mm)
Material:	5.8
Approval No.:	ETA 08/0352
Issued I Valid:	25/06/2018 | -
Proof:	Design method ETAG BOND (EOTA TR 029)
Stand-off installation:	e_b = 0 mm (no stand-off); t = 25 mm
Baseplate:	l_x x l_y x t = 380 mm x 380 mm x 25 mm; (Recommended plate thickness: not calculated
Profile:	Square hollow, 160 x 160 x 8,8; (L x W x T) = 160 mm x 160 mm x 9 mm
Base material:	uncracked concrete, C25/30, $f_{c,cube}$ = 30.00 N/mm²; h = 800 mm, Temp. short/long: 40/24 °C
Installation:	**hammer drilled hole, Installation condition: Dry**
Reinforcement:	Reinforcement spacing < 150 mm (any Ø) or < 100 mm (Ø <= 10 mm) with longitudinal edge reinforcement d >= 12 + close mesh (stirrups, hangers) s <= 100 Reinforcement to control splitting according to EOTA TR 029, 5.2.2.6 present.

R - The anchor calculation is based on a rigid baseplate assumption.

Geometry [mm] & Loading [kN, kNm]



Input data and results must be checked for agreement with the existing conditions and for plausibility!
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Profis Anchor 2.8.8

Company:		Page:	2
Specifier:		Project:	Domžale - N1
Address:		Fastening Point:	
Phone I Fax:	|	Date:	28/06/2021
E-Mail:			

2 Proof I Utilisation (Governing Cases)

		Design values [kN]		Utilisation	
Loading	Proof	Load	Capacity	β_N / β_V [%]	Status
Tension	Concrete cone failure	25.000	142.836	18 / -	OK
Shear	Concrete edge failure in direction x+	27.951	49.364	- / 57	OK

Loading	β_N	β_V	α	Utilisation $\beta_{N,V}$ [%]	Status
Combined tension and shear loads	0.175	0.566	1.5	50	OK

3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

4 Remarks; Your Cooperation Duties

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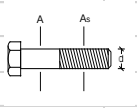
Input data and results must be checked for agreement with the existing conditions and for plausibility!
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Velja tudi za predhodno vgrajena sidra (4xM24 5.6) v AB konstrukcijo podhoda (AB zid).

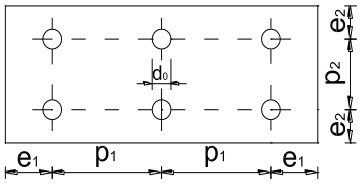
7.2. Spoj stebra KC160/HEA200

2x4 = 8 M24 HV 10.9 – za vsako os 4 vijaki

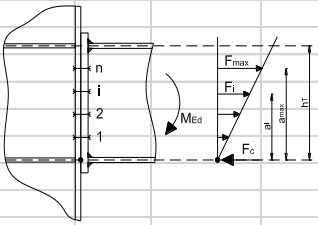
Detail D1.1: Bolted moment resistance joint 1 / 2

KC160/HEA200			SŽ PP Domzale			Nadstrešek 1			**Plate**		
Bolts		**d(cm)**	**d_0(cm)**	**As(cm²)**	**A(cm²)**				**grade**	235	
	M24	2.4	2.6	3.53	4.52				**s (cm)=**	3.0	
grade		10.9							**f_u(kN/cm²)=**	36	
f_{ub}(kN/cm²)		100									
shear plane		1	1 - share plane A_S						**γ_{M0}=**	1.00	
			2 - share plane A						**γ_{M2}=**	1.25	
factor		0.5	0,6 for shear plane A								
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S								
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S								
Shear resistance:		**$F_{v,Rd}$ = 0,6(0,5)*f_{ub}*A_s(A)/γ_{M2}**				**$F_{v,Ed}$ / $F_{v,Rd}$ < 1,0**					
		$F_{v,Rd}$ =	141.2	kN							
								interaction V - M			
Tension resistance		**$F_{t,Rd}$ = 0,9*f_{ub}*A_s/γ_{M2}**			**$F_{t,Ed}$ / $F_{t,Rd}$ < 1,0**			**($F_{v,Ed}$ / $F_{v,Rd}$)+($F_{t,Ed}$ / $F_{t,Rd}$)/1,4 < 1,0**			
		$F_{t,Rd}$ =	254.2	kN							
Bearing resistance		**$F_{b,Rd}$ = k_1*α_b*f_u*d*t/γ_{M2}**			**$F_{b,Ed}$ / $F_{b,Rd}$ < 1,0**						
		$F_{b,Rd}$ =	300.7	kN							
		usual values				I choose					
	e_1=2*d_o	e_1(cm)=	5.20		e_1(cm)=	4.50					
	p_1=3*d_o	p_1(cm)=	7.80		p_1(cm)=	11.00					
	e_2=1,5*d_o	e_2(cm)=	3.90		e_2(cm)=	4.50					
	p_2=3*d_o	p_2(cm)=	7.80		p_2(cm)=	11.00					
		in loading direction				orthogonal to loading direction					
outter ancho	→	α_d=e_1/3d_o		**$\alpha_{d,outter}$=**	0.58	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)				**$k_{1,outter}$=**	2.50
inner ancho	→	α_d=p_1/3d_o - 1/4		**$\alpha_{d,inner}$=**	1.16	k_1=1,4*p_2/d_o-1,7≤ 2,5				**$k_{1,inner}$=**	2.50
				α_d=	0.58	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	**α_b=**	0.58	**k_1=**	2.50	

load direction ← →



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	4000	kNcm			$F_{t,Ed,M}$=	74.07	kN		check		
N_{Ed} =	40	kN	(+) tension		$F_{t,Ed,N}$=	10.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.331	OK
$V_{Ed,z}$ =	40	kN			$F_{v,Ed}$=	10.00	kN		$F_{v,Ed}/F_{v,Rd}$=	0.071	OK
									interaction =	0.307	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.033	OK
num. of bolts in line		$n_{vij.v\ vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	27.00	729.0									
2	0.00	0.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	729.0	cm^2									
a_{max}=	27	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	13725	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					



T spoj – 6 x M24 10.9 (na robu strehe)

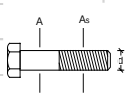
Detail D1.2: Bolted moment resistance joint

KC160/HEA200 | T spoj | SŽ PP Domzale | Nadstrešek 1 | **Plate**

Bolts		d(cm)	d_0(cm)	$As(cm^2)$	$A(cm^2)$
	M24	2.4	2.6	3.53	4.52

grade 10.9 — $f_{ub}(kN/cm^2)$ 100

shear plane 1 — 1 - share plane A_S; 2 - share plane A



grade | $f_u(kN/cm^2)$= 36 | γ_{M0}= 1.00 | γ_{M2}= 1.25

factor 0.5 — 0,6 for shear plane A; 0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S; 0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S

Shear resistance: $F_{v,Rd} = 0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$ — $F_{v,Ed} / F_{v,Rd} < 1,0$

$F_{v,Rd}$ = 141.2 kN

interaction V - M

Tension resistance $F_{t,Rd} = 0,9*f_{ub}*A_s/\gamma_{M2}$ — $F_{t,Ed} / F_{t,Rd} < 1,0$ — $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1,4 < 1,0$

$F_{t,Rd}$ = 254.2 kN

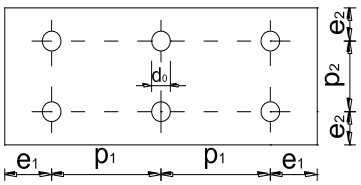
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ — $F_{b,Ed} / F_{b,Rd} < 1,0$

$F_{b,Rd}$ = 300.7 kN

		usual values			I choose
$e_1=2*d_o$	e_1(cm)=	5.20	e_1(cm)=	4.50	
$p_1=3*d_o$	p_1(cm)=	7.80	p_1(cm)=	11.00	
$e_2=1,5*d_o$	e_2(cm)=	3.90	e_2(cm)=	4.50	
$p_2=3*d_o$	p_2(cm)=	7.80	p_2(cm)=	11.00	

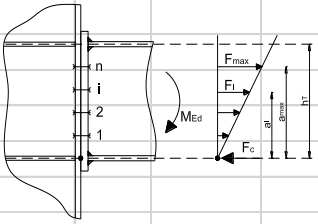
		in loading direction			orthogonal to loading direction				
outter ancho	→	$\alpha_d=e_1/3d_o$	$\alpha_{d,outter}$=	0.58	$k_1=min(2,8*e_2/d_o-1,7\leq 2,5;\ 1,4*p_2/d_o-1,7\leq 2,5)$			$k_{1,outter}$=	2.50
inner ancho	→	$\alpha_d=p_1/3d_o$ - 1/4	$\alpha_{d,inner}$=	1.16	$k_1=1,4*p_2/d_o-1,7\leq 2,5$			$k_{1,inner}$=	2.50
			α_d=	0.58	$\alpha_b=min(\alpha_d;\ f_{ub}/f_u;\ 1,0)$	α_b=	0.58	k_1=	2.50

load direction ⟵ ⟶



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	4000	kNcm			$F_{t,Ed,M}$=	143.24	kN		check		
N_{Ed} =	40	kN	(+) tension		$F_{t,Ed,N}$=	10.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.603	OK
$V_{Ed,z}$ =	40	kN			$F_{v,Ed}$=	10.00	kN		$F_{v,Ed}/F_{v,Rd}$=	0.071	OK
									interaction =	0.501	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.033	OK
num. of bolts in line		$n_{vij.v\ vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							

lines	a_i (cm)	a_i^2 (cm^2)
1	2.50	6.3
2	13.50	182.3
3	0.00	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0



Σa_i^2=	188.5	cm^2
a_{max}=	13.5	cm

Maximum bending load capacity of bolts

$M_{Rd,vija.}$=	**7098**	kNcm

Obojstranski koti zvari — **a = 0.6 x t** — polnonosilni

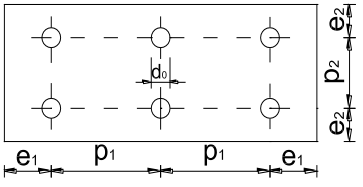
7.3. Montažni spoj nosilca HEA200

8xM20 HV 10.9

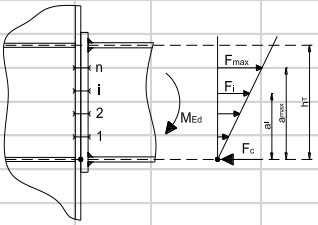
Detail D1.3: Bolted moment resistance joint 1 / 2

HEA200			SŽ PP Domzale			Nadstrešek 1			**Plate**	
Bolts		d(cm)	d_0(cm)	As(cm^2)	A(cm^2)				**grade**	235
	M20	2	2.2	2.45	3.14				**s (cm)=**	2.5
grade		10.9							**f_u(kN/cm^2)=**	36
f_{ub}(kN/cm^2)		100								
shear plane		1	1 - share plane A_S						**γ_{M0}=**	1.00
			2 - share plane A						**γ_{M2}=**	1.25
factor		0.5	0,6 for shear plane A							
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S							
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S							
Shear resistance:		**$F_{v,Rd}$ = 0,6(0,5)*f_{ub}*A_s(A)/γ_{M2}**				**$F_{v,Ed}$ / $F_{v,Rd}$ < 1,0**				
		$F_{v,Rd}$ =	98.0	kN						
								interaction V - M		
Tension resistance		**$F_{t,Rd}$ = 0,9*f_{ub}*A_s/γ_{M2}**			**$F_{t,Ed}$ / $F_{t,Rd}$ < 1,0**			**($F_{v,Ed}$ / $F_{v,Rd}$)+($F_{t,Ed}$ / $F_{t,Rd}$)/1,4 < 1,0**		
		$F_{t,Rd}$ =	176.4	kN						
Bearing resistance		**$F_{b,Rd}$ = k_1*α_b*f_u*d*t/γ_{M2}**			**$F_{b,Ed}$ / $F_{b,Rd}$ < 1,0**					
		$F_{b,Rd}$ =	219.6	kN						
		usual values				I choose				
	e_1=2*d_o	e_1 (cm)=	4.40		e_1 (cm)=	4.00				
	p_1=3*d_o	p_1 (cm)=	6.60		p_1 (cm)=	8.00				
	e_2=1,5*d_o	e_2 (cm)=	3.30		e_2 (cm)=	4.00				
	p_2=3*d_o	p_2 (cm)=	6.60		p_2 (cm)=	8.00				
		in loading direction				orthogonal to loading direction				
outter ancho	→	α_d=e_1/3d_o		**$\alpha_{d,outter}$=**	0.61	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)			**$k_{1,outter}$=**	2.50
inner ancho	→	α_d=p_1/3d_o - 1/4		**$\alpha_{d,inner}$=**	0.96	k_1=1,4*p_2/d_o-1,7≤ 2,5			**$k_{1,inner}$=**	2.50
				α_d=	0.61	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	**α_b=**	0.61	**k_1=**	2.50

load direction ← →



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	8					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	**6000**	**kNcm**			**$F_{t,Ed,M}$=**	105.58	kN		**check**		
N_{Ed} =	**20**	**kN**	(+) tension		**$F_{t,Ed,N}$=**	2.50	kN		**$F_{t,Ed\ My+N}/F_{t,Rd}$=**	**0.613**	OK
$V_{Ed,z}$ =	**80**	**kN**			**$F_{v,Ed}$=**	10.00	kN		**$F_{v,Ed}/F_{v,Rd}$=**	**0.102**	OK
									interaction =	**0.540**	OK
									$F_{v,Ed}/F_{b,Rd}$=	**0.046**	OK
num. of bolts in line		$n_{vij.v\ vrsti}$ =	3.6	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	5.00	25.0									
2	14.00	196.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	221.0	cm^2									
a_{max}=	14	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	**10025**	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					



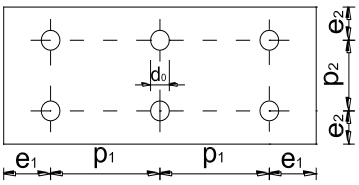
7.4. Spoj NPU200

Čelni momentni spoj 4xM16 HV10.9

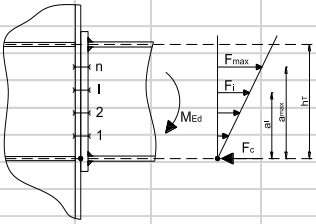
Detail D1.4: Bolted moment resistance joint 1 / 2

UNP200			SŽ PP Domzale			Nadstrešek 1			**Plate**	
Bolts		**d(cm)**	**d_0(cm)**	**As(cm²)**	**A(cm²)**			**grade**	235	
	M16	1.6	1.8	1.57	2.01			**s (cm)=**	2.5	
grade		10.9						**f_u(kN/cm²)=**	36	
f_{ub}(kN/cm²)		100								
shear plane		1	1 - share plane A_S					**γ_{M0}=**	1.00	
			2 - share plane A					**γ_{M2}=**	1.25	
factor		0.5	0,6 for shear plane A							
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S							
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S							
Shear resistance:		**$F_{v,Rd}$ = 0,6(0,5)*f_{ub}*A_s(A)/γ_{M2}**				**$F_{v,Ed}$ / $F_{v,Rd}$ < 1,0**				
		$F_{v,Rd}$ =	62.8	kN						
							interaction V - M			
Tension resistance		**$F_{t,Rd}$ = 0,9*f_{ub}*A_s/γ_{M2}**			**$F_{t,Ed}$ / $F_{t,Rd}$ < 1,0**		**($F_{v,Ed}$ / $F_{v,Rd}$)+($F_{t,Ed}$ / $F_{t,Rd}$)/1,4 < 1,0**			
		$F_{t,Rd}$ =	113.0	kN						
Bearing resistance		**$F_{b,Rd}$ = k_1*α_b*f_u*d*t/γ_{M2}**			**$F_{b,Ed}$ / $F_{b,Rd}$ < 1,0**					
		$F_{b,Rd}$ =	161.3	kN						
		usual values				I choose				
	e_1=2*d_o	e_1 (cm)=	3.60		e_1 (cm)=	3.00				
	p_1=3*d_o	p_1 (cm)=	5.40		p_1 (cm)=	5.00				
	e_2=1,5*d_o	e_2 (cm)=	2.70		e_2 (cm)=	3.00				
	p_2=3*d_o	p_2 (cm)=	5.40		p_2 (cm)=	5.00				
		in loading direction				orthogonal to loading direction				
outter ancho	→	α_d=e_1/3d_o		**$\alpha_{d,outter}$=**	0.56	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)			**$k_{1,outter}$=**	2.50
inner ancho	→	α_d=p_1/3d_o - 1/4		**$\alpha_{d,inner}$=**	0.68	k_1=1,4*p_2/d_o-1,7≤ 2,5			**$k_{1,inner}$=**	2.50
				α_d=	0.56	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	**α_b=**	0.56	**k_1=**	2.50

load direction ← →



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	2					2 / 2
Connection load				load of maximal loaded bolt							
$M_{Ed,y}$=	1400	kNcm		$F_{t,Ed,M}$=	83.30	kN		check			
N_{Ed} =	20	kN	(+) tension	$F_{t,Ed,N}$=	10.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.825	OK	
$V_{Ed,z}$ =	20	kN		$F_{v,Ed}$=	10.00	kN		$F_{v,Ed}/F_{v,Rd}$=	0.159	OK	
								interaction =	0.749	OK	
								$F_{v,Ed}/F_{b,Rd}$=	0.062	OK	
num. of bolts in line		$n_{vij.v\ vrsti}$ =	1	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	4.50	20.3									
2	15.50	240.3									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	260.5	cm^2									
a_{max}=	15.5	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	1900	kNcm									
Obojstranski koti zvari				a = 0.6 x t		polnonosilni					



Kontinuirani priključek UNP200 na HEA200 s čela

Prevzema samo strižne obremenitve
V_{Ed} = 2x40 = 80 kN

4 x M16 8.8 konstruktivno

7.5. Členkasti spoji sekundarnih nosilcev

- **PC120/60/4**

V_{Ed} = 10 kN
4xM16 8.8

- **PC120/80/4**

V_{Ed} = 15 kN
4xM16 8.8

- **KC120/5**

V_{Ed} = 20 kN
4xM16 8.8

- **KC60/4**

V_{Ed} = 5 kN
2xM16 8.8

- **HEA160**

V_{Ed} = 20 kN
4xM16 8.8

Nosilnost enega vijaka M16 8.8

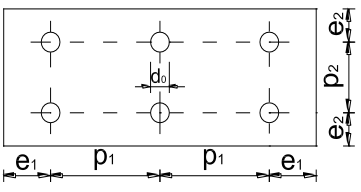
natezna	$F_{t,Rd}$ = 90.4 kN
strižna	$F_{v,Rd}$ = 60.3 kN

7.6. Priključek PC160/80/8 na stebre KC160

Detail D1.5: Bolted moment resistance joint 1 / 2

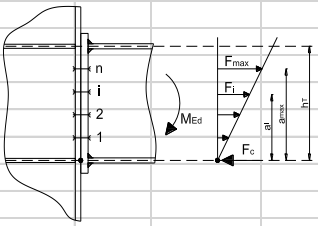
PC80/160/8			SŽ PP Domzale		Nadstrešek 1			**Plate**		
Bolts		**d(cm)**	**d_0(cm)**	**As(cm^2)**	**A(cm^2)**			**grade**	235	
	M16	1.6	1.8	1.57	2.01			**s (cm)=**	2.0	
grade		8.8						**f_u(kN/cm^2)=**	36	
f_{ub}(kN/cm^2)		80								
shear plane		1	1 - share plane A_S					**γ_{M0}=**	1.00	
			2 - share plane A					**γ_{M2}=**	1.25	
factor		0.6	0,6 for shear plane A							
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S							
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S							
Shear resistance:		**$F_{v,Rd}$ = 0,6(0,5)*f_{ub}*A_S(A)/γ_{M2}**				**$F_{v,Ed}$ / $F_{v,Rd}$ < 1,0**				
		$F_{v,Rd}$ =	60.3	kN						
							interaction V - M			
Tension resistance		**$F_{t,Rd}$ = 0,9*f_{ub}*A_s/γ_{M2}**			**$F_{t,Ed}$ / $F_{t,Rd}$ < 1,0**		**($F_{v,Ed}$ / $F_{v,Rd}$)+($F_{t,Ed}$ / $F_{t,Rd}$)/1,4 < 1,0**			
		$F_{t,Rd}$ =	90.4	kN						
Bearing resistance		**$F_{b,Rd}$ = k_1*α_b*f_u*d*t/γ_{M2}**			**$F_{b,Ed}$ / $F_{b,Rd}$ < 1,0**					
		$F_{b,Rd}$ =	129.0	kN						
		usual values				I choose				
	e_1=2*d_o	e_1 (cm)=	3.60		e_1 (cm)=	3.00				
	p_1=3*d_o	p_1 (cm)=	5.40		p_1 (cm)=	5.00				
	e_2=1,5*d_o	e_2 (cm)=	2.70		e_2 (cm)=	3.00				
	p_2=3*d_o	p_2 (cm)=	5.40		p_2 (cm)=	5.00				
		in loading direction				orthogonal to loading direction				
outter ancho	→	α_d=e_1/3d_o		**$\alpha_{d,outter}$=**	0.56	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)			**$k_{1,outter}$=**	2.50
inner ancho	→	α_d=p_1/3d_o - 1/4		**$\alpha_{d,inner}$=**	0.68	k_1=1,4*p_2/d_o-1,7≤ 2,5			**$k_{1,inner}$=**	2.50
				α_d=	0.56	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	**α_b=**	0.56	**k_1=**	2.50

load direction ← →



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load				load of maximal loaded bolt							
$M_{Ed,y}$=	**1000**	**kNcm**		**$F_{t,Ed,M}$=**	43.48	kN		**check**			
N_{Ed} =	**10**	**kN**	(+) tension	**$F_{t,Ed,N}$=**	2.50	kN		**$F_{t,Ed\ My+N}/F_{t,Rd}$=**	**0.508**	OK	
$V_{Ed,z}$ =	**10**	**kN**		**$F_{v,Ed}$=**	2.50	kN		**$F_{v,Ed}/F_{v,Rd}$=**	**0.041**	OK	
								interaction =	**0.405**	OK	
								$F_{v,Ed}/F_{b,Rd}$=	**0.019**	OK	
num. of bolts in line		$n_{vij.v\ vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							

lines	a_i (cm)	a_i^2 (cm^2)
1	11.50	132.3
2	0.00	0.0
3	0.00	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0
Σa_i^2=	132.3	cm^2
a_{max}=	11.5	cm



Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	**2080**	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					

H I Š A, NAČRTOVANJE IN SVETOVANJE, d.o.o.
Ukmarjeva ulica 4, 1000 Ljubljana

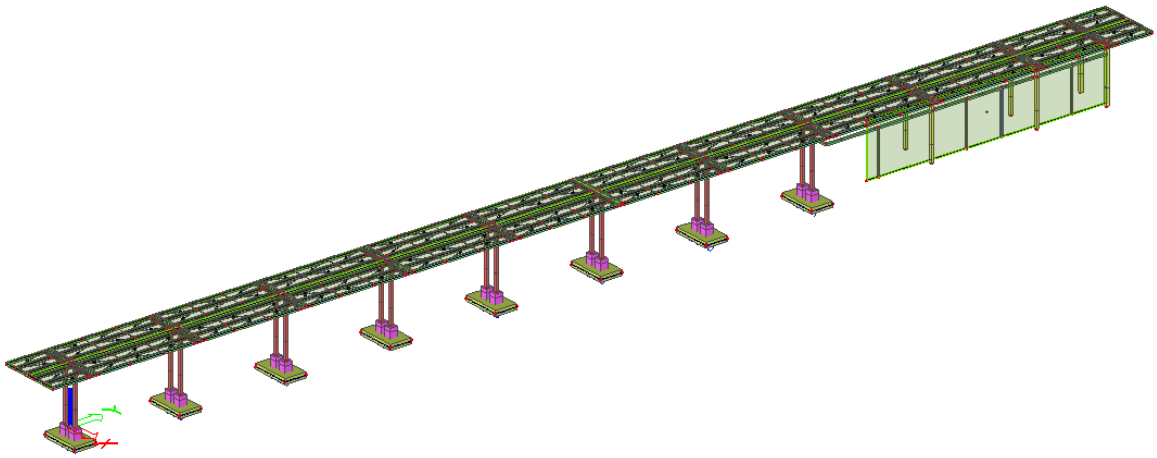
PERONSKI NADSTREŠEK 2

Železniška postaja Domžale

ANALIZA KONSTRUKCIJE

Faza: IZN

Revizija:0



Julij 2021

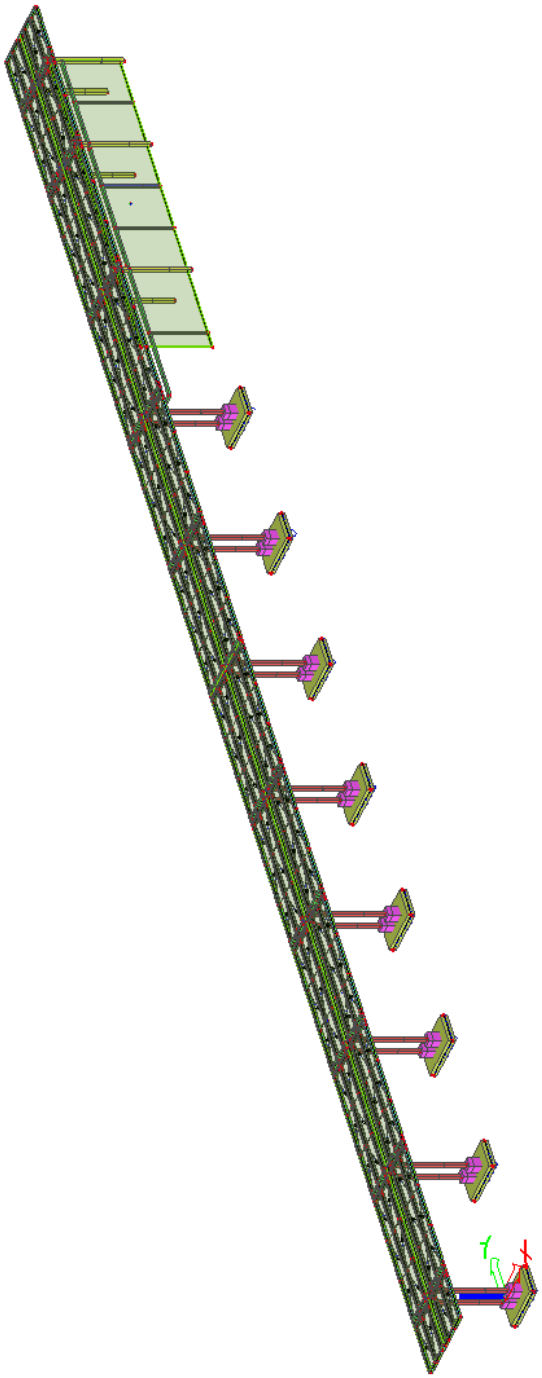
Računal:
Dr. Leon Hladnik, udig G-0296.

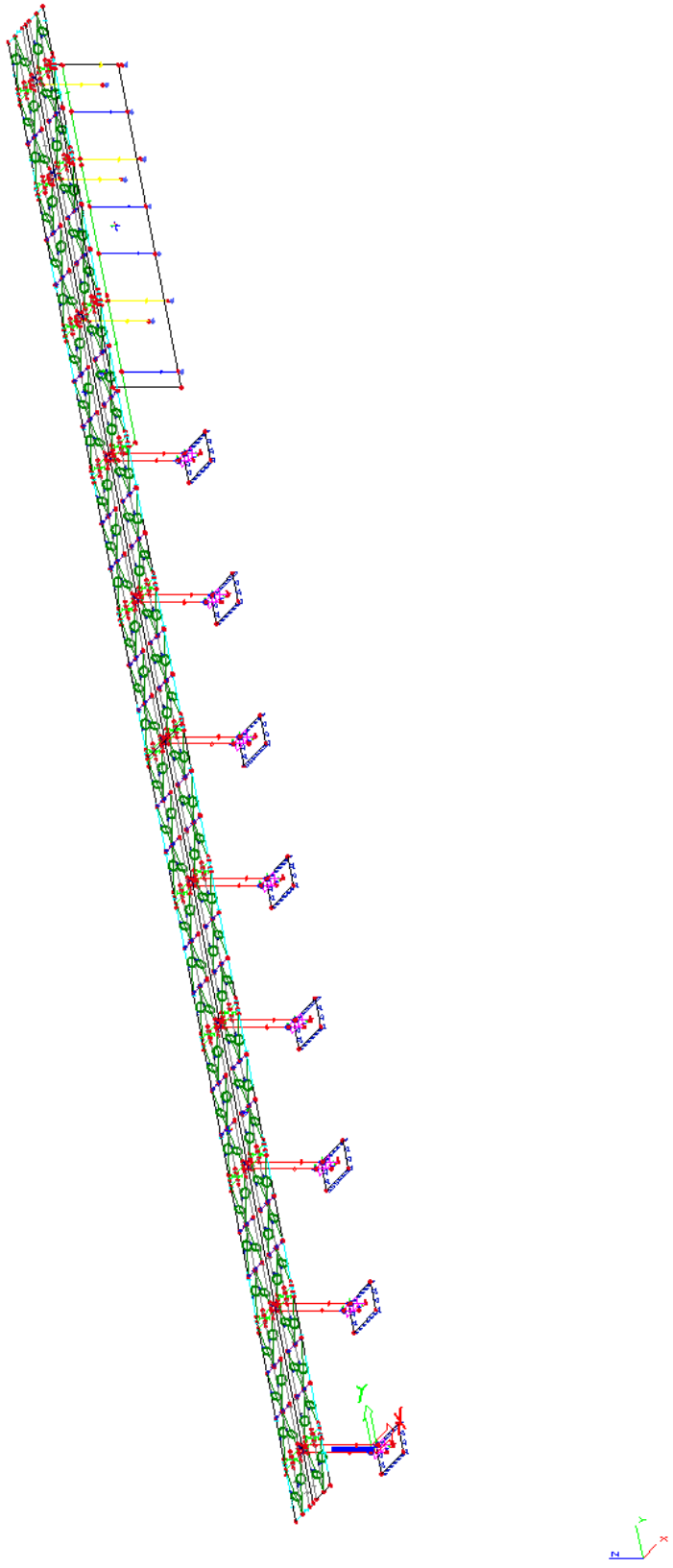
KAZALO

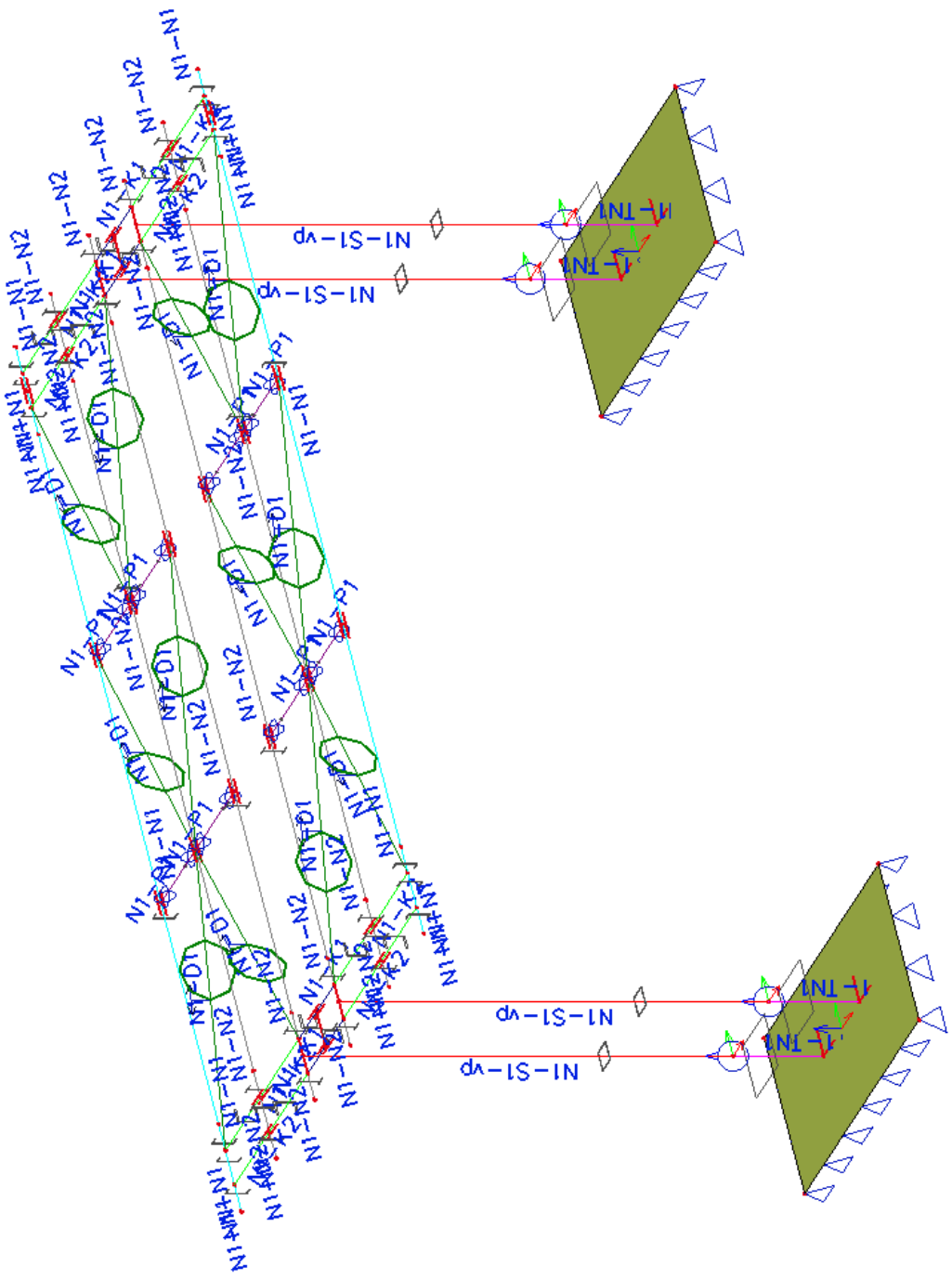
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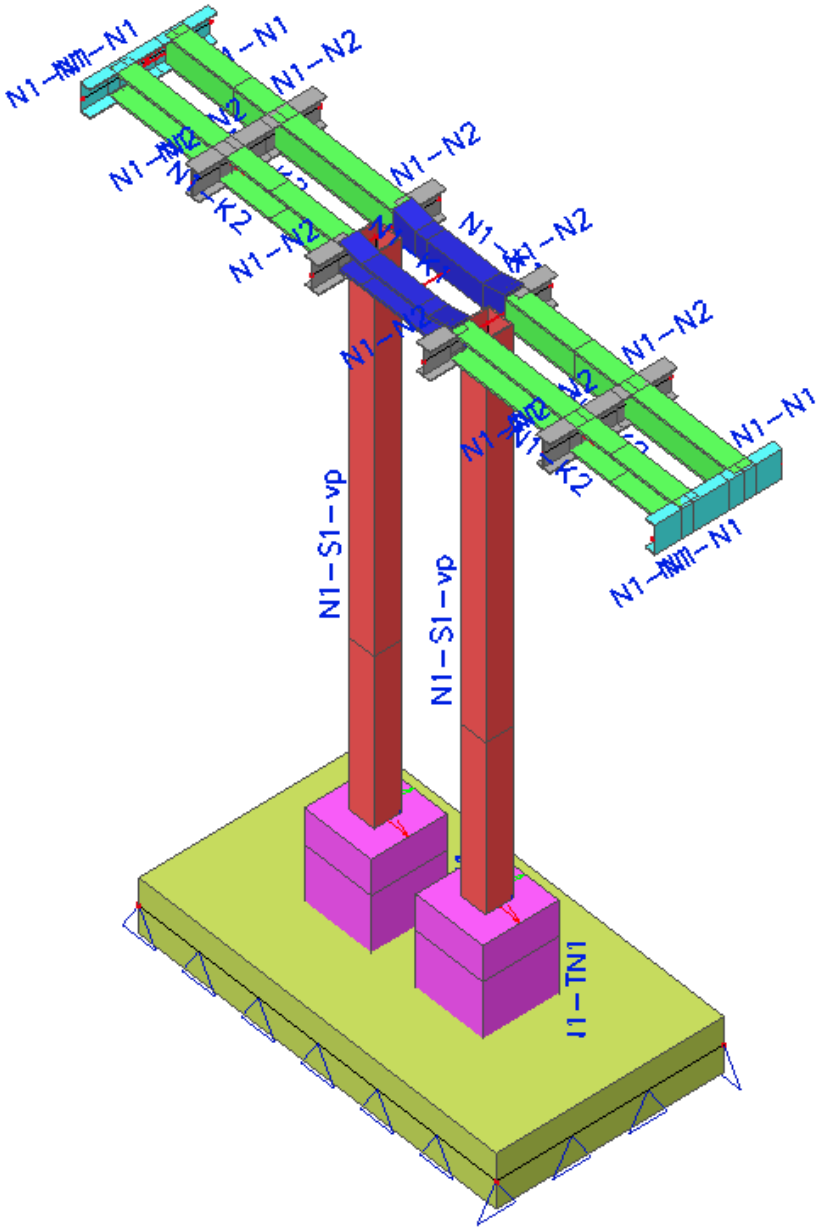
1. RAČUNSKI MODEL

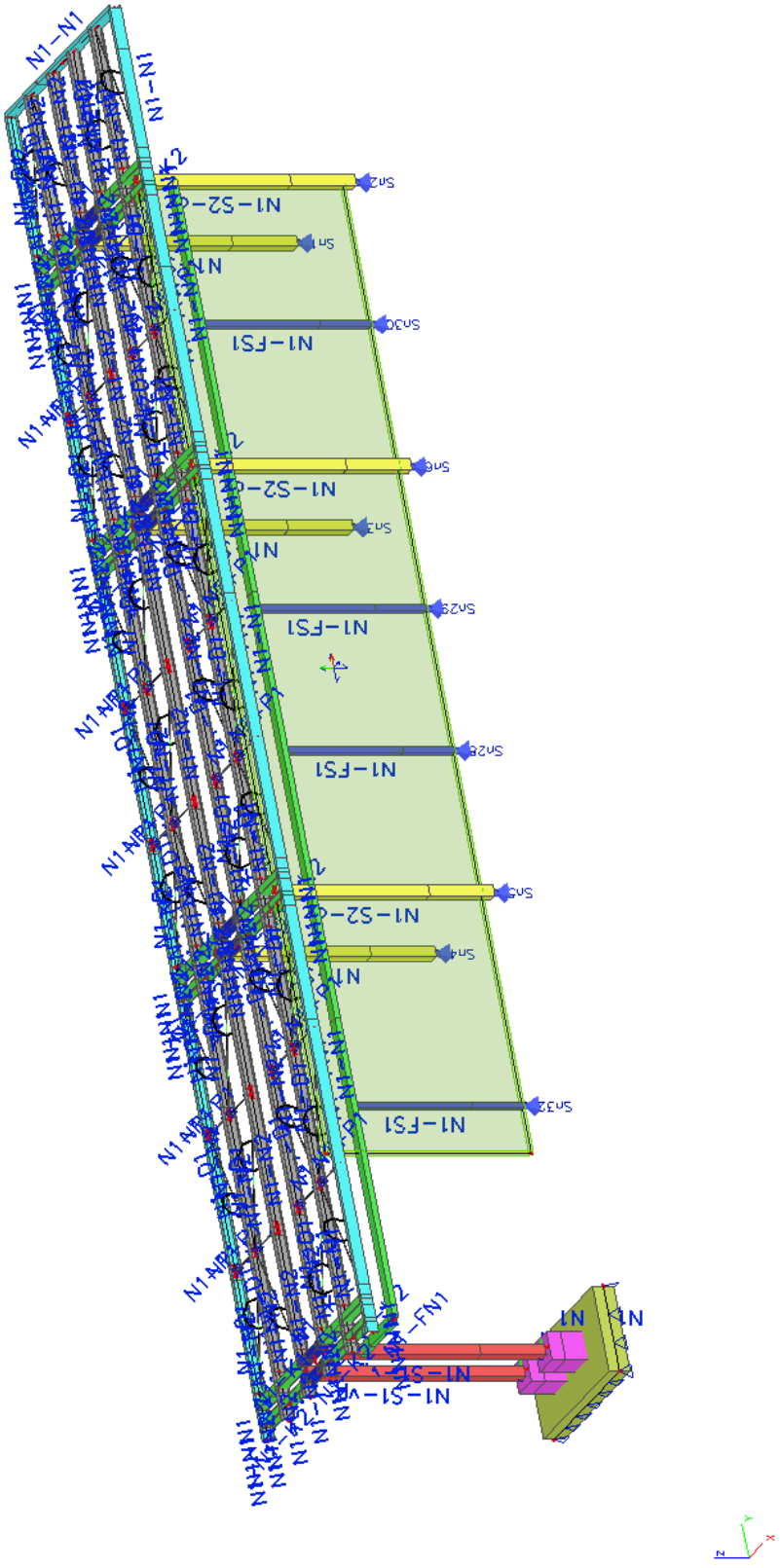
1.1. Statični model

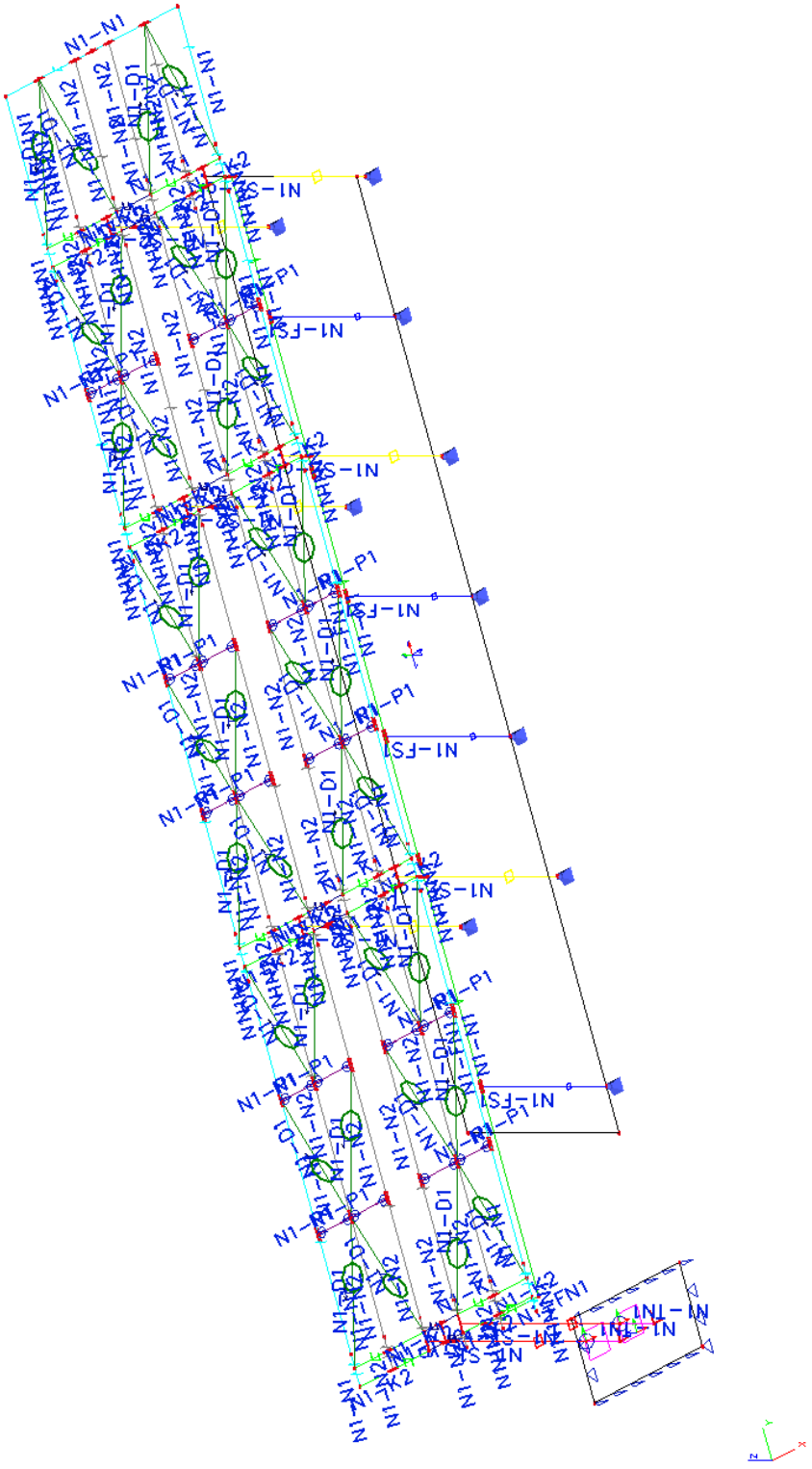







N1-N1
N1-N2
N1-S1-vp
N1-S1-vp
J1-TN1





1.2. Podatki o modelu

1. Bill of material

Selection: All
Type of sorting: Material

Summary

Material	Mass [kg]	Surface [m²]	Volume [m³]
Steel	35355.88	744.515	4.5039e+00
Concrete	65880.00	83.520	2.6352e+01
Total	101235.88	828.035	3.0856e+01

Note: Value 'Surface' represents for 1D members the total exposed surface area,
while for 2D members it corresponds only to the surface area of the centroidal plane.

Steel (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
S 235	7850.00	35355.88	744.515	4.5039e+00
Total		35355.88	744.515	4.5039e+00

Concrete (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	14040.00	37.440	5.6160e+00
Total		14040.00	37.440	5.6160e+00

Concrete (2D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	51840.00	46.080	2.0736e+01
Total		51840.00	46.080	2.0736e+01

2. Materials

Steel EC3

Name	ρ [kg/m³]	E_{mod} [MPa]	μ	Lower limit [mm]	Upper limit [mm]	F_y [kN/cm²]	F_u [kN/cm²]	Colour
		G_{mod} [MPa]	α [m/mK]					
S 235	7850.00	2.1000e+05	0.3	0	100	23.5	36.0	
		8.0769e+04	0.00					

Name	Type	ρ [kg/m³]	Density in fresh state [kg/m³]	E_{mod} [MPa]	μ	α [m/mK]	$f_{c.k.28}$ [MPa]	Colour
C25/30	Concrete	2500.00	2600.00	3.1500e+04	0.2	0.00	25.00	

Explanations of symbols	
Density in fresh state	The value in the density in fresh state property is used only in case a composite deck is input and its self-weight load is taken into account.

3. Cross-sections

Name	Type	Item material	Fabrication	A [m²]	A_y [m²]	I_y [m⁴]	$W_{el.y}$ [m³]	$W_{pl.y}$ [m³]	Colour
	Detailed				A_z [m²]	I_z [m⁴]	$W_{el.z}$ [m³]	$W_{pl.z}$ [m³]	
N1-S1-vp	QRO220X12.5	S 235	rolled	9.9700e-03	4.9826e-03	7.0100e-05	6.3700e-04	7.6500e-04	
					4.9826e-03	7.0100e-05	6.3700e-04	7.6500e-04	
N1-N1	UNP240	S 235	rolled	4.2300e-03	2.1541e-03	3.6000e-05	3.0000e-04	3.5800e-04	
					2.2612e-03	2.4800e-06	3.9600e-05	7.5700e-05	
N1-N2	IPE240	S 235	rolled	3.9100e-03	2.4315e-03	3.8920e-05	3.2400e-04	3.6700e-04	
					1.5295e-03	2.8400e-06	4.7300e-05	7.3900e-05	
N1-D1	RD16	S 235	rolled	2.0096e-04	1.8060e-04	3.1496e-09	3.9370e-07	6.7190e-07	
					1.8060e-04	3.1496e-09	3.9370e-07	6.7190e-07	
N1-P1	RO26.9X3.2	S 235	rolled	2.3800e-04	1.5168e-04	1.7000e-08	1.2700e-06	1.7974e-06	
					1.5168e-04	1.7000e-08	1.2700e-06	1.7974e-06	
N1-K1	U g	S 235	general	8.9500e-03	6.5771e-03	5.7119e-05	5.8583e-04	6.9006e-04	
	195; 150; 25; 10				1.9815e-03	2.0028e-05	2.3197e-04	3.7224e-04	
N1-K2	Uw	S 235	welded	8.0000e-03	5.2706e-03	7.9467e-05	6.6222e-04	7.6000e-04	
	240; 10; 150; 20; 0				2.4501e-03	1.8617e-05	2.0126e-04	3.4000e-04	
N1-TN1	Rectangle	C25/30	concrete	3.6000e-01	3.0037e-01	1.0800e-02	3.6000e-02	0.0000e+00	
	600; 600				3.0037e-01	1.0800e-02	3.6000e-02	0.0000e+00	
N1-FS1	QRO120X6.3	S 235	rolled	2.8000e-03	1.4015e-03	5.9800e-06	9.9700e-05	1.1900e-04	
					1.4015e-03	5.9800e-06	9.9700e-05	1.1900e-04	
N1-FN1	CFRHS220X120X10	S 235	cold formed	6.0570e-03	2.1354e-03	3.5758e-05	3.2507e-04	4.1465e-04	
					3.9149e-03	1.3835e-05	2.3058e-04	2.7182e-04	
N1-S2-cl	QRO220X12.5	S 235	rolled	9.9700e-03	4.9826e-03	7.0100e-05	6.3700e-04	7.6500e-04	
					4.9826e-03	7.0100e-05	6.3700e-04	7.6500e-04	

4. Nodes

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2196	-0.500	45.000	0.000
N2	-0.500	45.000	4.620
N3	0.500	45.000	0.000
N4	0.500	45.000	4.620
N5	-2.550	45.200	4.620
N6	2.550	45.200	4.620
N7	2.550	44.800	4.620
N8	-2.550	44.800	4.620
N9	0.500	45.200	4.620
N10	0.500	44.800	4.620
N11	-0.500	45.200	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N12	-0.500	44.800	4.620
N13	0.000	45.200	4.620
N14	0.000	44.800	4.620
N15	0.500	44.495	4.620
N16	-0.500	44.495	4.620
N17	2.550	44.495	4.620
N18	1.572	44.800	4.620
N19	1.572	44.495	4.620
N20	1.572	45.200	4.620
N21	0.500	81.505	4.620
N22	-0.500	81.505	4.620
N23	2.550	81.505	4.620
N24	1.572	81.505	4.620
N25	-2.550	44.495	4.620
N26	-1.572	44.800	4.620
N27	-1.572	44.495	4.620
N28	-1.572	45.200	4.620
N29	-2.550	81.505	4.620
N30	-1.572	81.505	4.620
N31	-1.572	36.200	4.620
N32	-1.572	36.505	4.620
N33	-2.550	36.200	4.620
N34	-2.550	36.505	4.620
N35	-0.500	36.200	4.620
N36	-0.500	36.505	4.620
N37	-1.572	35.800	4.620
N38	-1.572	35.495	4.620
N39	-2.550	35.800	4.620
N40	-2.550	35.495	4.620
N41	-0.500	35.800	4.620
N42	-0.500	35.495	4.620
N43	1.572	36.200	4.620
N44	1.572	36.505	4.620
N45	2.550	36.200	4.620
N46	2.550	36.505	4.620
N47	0.500	36.200	4.620
N48	0.500	36.505	4.620
N49	1.572	35.800	4.620
N50	1.572	35.495	4.620
N51	2.550	35.800	4.620
N52	2.550	35.495	4.620
N53	0.500	35.800	4.620
N54	0.500	35.495	4.620
N55	0.000	36.200	4.620
N56	0.000	35.800	4.620
N57	-1.572	18.200	4.620
N58	-1.572	18.505	4.620
N60	-2.550	18.505	4.620
N61	-0.500	18.200	4.620
N62	-0.500	18.505	4.620
N63	-1.572	17.800	4.620
N64	-1.572	17.495	4.620
N65	-2.550	17.800	4.620
N66	-2.550	17.495	4.620
N67	-0.500	17.800	4.620
N68	-0.500	17.495	4.620
N69	1.572	18.200	4.620
N70	1.572	18.505	4.620
N72	2.550	18.505	4.620
N73	0.500	18.200	4.620
N74	0.500	18.505	4.620
N75	1.572	17.800	4.620
N76	1.572	17.495	4.620
N77	2.550	17.800	4.620
N78	2.550	17.495	4.620
N79	0.500	17.800	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N80	0.500	17.495	4.620
N81	0.000	18.200	4.620
N82	0.000	17.800	4.620
N83	0.500	18.000	0.000
N84	0.500	18.000	4.620
N85	-0.500	18.000	0.000
N86	-0.500	18.000	4.620
N87	-1.572	9.200	4.620
N88	-1.572	9.505	4.620
N89	-2.550	9.200	4.620
N90	-2.550	9.505	4.620
N91	-0.500	9.200	4.620
N92	-0.500	9.505	4.620
N93	-1.572	8.800	4.620
N94	-1.572	8.495	4.620
N95	-2.550	8.800	4.620
N96	-2.550	8.495	4.620
N97	-0.500	8.800	4.620
N98	-0.500	8.495	4.620
N99	1.572	9.200	4.620
N100	1.572	9.505	4.620
N101	2.550	9.200	4.620
N102	2.550	9.505	4.620
N103	0.500	9.200	4.620
N104	0.500	9.505	4.620
N105	1.572	8.800	4.620
N106	1.572	8.495	4.620
N107	2.550	8.800	4.620
N108	2.550	8.495	4.620
N109	0.500	8.800	4.620
N110	0.500	8.495	4.620
N111	0.000	9.200	4.620
N112	0.000	8.800	4.620
N113	0.500	9.000	0.000
N114	0.500	9.000	4.620
N115	-0.500	9.000	0.000
N116	-0.500	9.000	4.620
N117	-1.572	0.200	4.620
N118	-1.572	0.505	4.620
N119	-2.550	0.200	4.620
N120	-2.550	0.505	4.620
N121	-0.500	0.200	4.620
N122	-0.500	0.505	4.620
N123	-1.572	-0.200	4.620
N124	-1.572	-0.505	4.620
N125	-2.550	-0.200	4.620
N126	-2.550	-0.505	4.620
N127	-0.500	-0.200	4.620
N128	-0.500	-0.505	4.620
N129	1.572	0.200	4.620
N130	1.572	0.505	4.620
N131	2.550	0.200	4.620
N132	2.550	0.505	4.620
N133	0.500	0.200	4.620
N134	0.500	0.505	4.620
N135	1.572	-0.200	4.620
N136	1.572	-0.505	4.620
N137	2.550	-0.200	4.620
N138	2.550	-0.505	4.620
N139	0.500	-0.200	4.620
N140	0.500	-0.505	4.620
N141	0.000	0.200	4.620
N142	0.000	-0.200	4.620
N143	0.500	0.000	0.000
N144	0.500	0.000	4.620
N145	-0.500	0.000	0.000

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N146	-0.500	0.000	4.620
N163	-2.550	27.200	4.620
N164	2.550	27.200	4.620
N165	2.550	26.800	4.620
N166	-2.550	26.800	4.620
N167	0.500	27.200	4.620
N168	0.500	26.800	4.620
N169	-0.500	27.200	4.620
N170	-0.500	26.800	4.620
N171	0.000	27.200	4.620
N172	0.000	26.800	4.620
N173	0.500	26.495	4.620
N174	-0.500	26.495	4.620
N175	2.550	26.495	4.620
N176	1.572	26.800	4.620
N177	1.572	26.495	4.620
N178	1.572	27.200	4.620
N179	0.500	27.505	4.620
N180	-0.500	27.505	4.620
N181	2.550	27.505	4.620
N182	1.572	27.505	4.620
N183	-2.550	26.495	4.620
N184	-1.572	26.800	4.620
N185	-1.572	26.495	4.620
N186	-1.572	27.200	4.620
N187	-2.550	27.505	4.620
N188	-1.572	27.505	4.620
N209	-1.572	41.933	4.620
N210	-2.550	41.933	4.620
N211	-1.572	39.067	4.620
N212	-2.550	39.067	4.620
N213	-0.500	39.067	4.620
N214	-0.500	41.933	4.620
N225	0.500	39.067	4.620
N226	0.500	41.933	4.620
N251	-2.550	-3.457	4.620
N252	-1.572	-3.457	4.620
N253	-0.500	-3.457	4.620
N254	0.500	-3.457	4.620
N255	1.572	-3.457	4.620
N256	2.550	-3.457	4.620
N257	-1.572	30.067	4.620
N258	-2.550	30.067	4.620
N259	-1.572	32.933	4.620
N260	-2.550	32.933	4.620
N261	-0.500	32.933	4.620
N262	-0.500	30.067	4.620
N265	1.572	30.067	4.620
N266	2.550	30.067	4.620
N267	1.572	32.933	4.620
N268	2.550	32.933	4.620
N269	0.500	32.933	4.620
N270	0.500	30.067	4.620
N273	-1.572	12.067	4.620
N274	-2.550	12.067	4.620
N275	-1.572	14.933	4.620
N276	-2.550	14.933	4.620
N277	-0.500	14.933	4.620
N278	-0.500	12.067	4.620
N281	1.572	12.067	4.620
N282	2.550	12.067	4.620
N283	1.572	14.933	4.620
N284	2.550	14.933	4.620
N285	0.500	14.933	4.620
N286	0.500	12.067	4.620
N289	-1.572	23.933	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N290	-2.550	23.933	4.620
N291	-1.572	21.067	4.620
N292	-2.550	21.067	4.620
N293	-0.500	21.067	4.620
N294	-0.500	23.933	4.620
N298	-2.550	18.200	4.620
N299	1.572	23.933	4.620
N300	2.550	23.933	4.620
N301	1.572	21.067	4.620
N302	2.550	21.067	4.620
N303	0.500	21.067	4.620
N304	0.500	23.933	4.620
N308	2.550	18.200	4.620
N309	-1.572	5.933	4.620
N310	-2.550	5.933	4.620
N311	-1.572	3.067	4.620
N312	-2.550	3.067	4.620
N313	-0.500	3.067	4.620
N314	-0.500	5.933	4.620
N317	1.572	5.933	4.620
N318	2.550	5.933	4.620
N319	1.572	3.067	4.620
N320	2.550	3.067	4.620
N321	0.500	3.067	4.620
N322	0.500	5.933	4.620
N336	0.500	45.000	-0.975
N337	-0.500	45.000	-0.975
N350	-0.500	18.000	-0.975
N351	0.500	18.000	-0.975
N356	-0.500	9.000	-0.975
N357	0.500	9.000	-0.975
N358	-1.600	0.900	-0.975
N359	-1.600	-0.900	-0.975
N360	1.600	-0.900	-0.975
N361	1.600	0.900	-0.975
N362	-0.500	0.000	-0.975
N363	0.500	0.000	-0.975
N2197	0.500	27.000	0.000
N2198	-0.500	27.000	0.000
N2203	-0.500	27.000	-0.975
N2204	0.500	27.000	-0.975
N2205	0.500	27.000	4.620
N2206	-0.500	27.000	4.620
N2207	0.500	36.000	0.000
N2208	-0.500	36.000	0.000
N2213	-0.500	36.000	-0.975
N2214	0.500	36.000	-0.975
N2215	0.500	36.000	4.620
N2216	-0.500	36.000	4.620
N2217	2.550	81.200	4.620
N2218	0.500	81.200	4.620
N2219	-0.500	81.200	4.620
N2220	1.572	81.200	4.620
N2221	-2.550	81.200	4.620
N2222	-1.572	81.200	4.620
N2223	-0.500	54.000	0.000
N2224	-0.500	54.000	4.620
N2225	0.500	54.000	0.000
N2226	0.500	54.000	4.620
N2227	-2.550	54.200	4.620
N2228	2.550	54.200	4.620
N2229	-2.550	53.800	4.620
N2230	0.500	54.200	4.620
N2231	-0.500	54.200	4.620
N2232	0.000	54.200	4.620
N2233	1.572	54.200	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2234	-1.572	54.200	4.620
N2235	0.500	54.000	-0.975
N2236	-0.500	54.000	-0.975
N2241	2.550	53.800	4.620
N2242	1.572	53.800	4.620
N2243	-1.572	53.800	4.620
N2244	-0.500	53.800	4.620
N2245	0.500	53.800	4.620
N2250	-2.550	72.200	4.620
N2251	2.550	72.200	4.620
N2252	-2.550	71.800	4.620
N2253	0.500	72.200	4.620
N2254	-0.500	72.200	4.620
N2255	0.000	72.200	4.620
N2256	1.572	72.200	4.620
N2257	-1.572	72.200	4.620
N2264	2.550	71.800	4.620
N2265	1.572	71.800	4.620
N2266	-1.572	71.800	4.620
N2267	-0.500	71.800	4.620
N2268	0.500	71.800	4.620
N2273	-2.550	80.800	4.620
N2281	2.550	80.800	4.620
N2282	1.572	80.800	4.620
N2283	-1.572	80.800	4.620
N2284	-0.500	80.800	4.620
N2285	0.500	80.800	4.620
N2286	-0.500	63.000	0.000
N2287	-0.500	63.000	4.620
N2288	0.500	63.000	0.000
N2289	0.500	63.000	4.620
N2290	-2.550	63.200	4.620
N2291	2.550	63.200	4.620
N2292	-2.550	62.800	4.620
N2293	0.500	63.200	4.620
N2294	-0.500	63.200	4.620
N2295	0.000	63.200	4.620
N2296	1.572	63.200	4.620
N2297	-1.572	63.200	4.620
N2298	0.500	63.000	-0.975
N2299	-0.500	63.000	-0.975
N2304	2.550	62.800	4.620
N2305	1.572	62.800	4.620
N2306	-1.572	62.800	4.620
N2307	-0.500	62.800	4.620
N2308	0.500	62.800	4.620
N2309	0.500	53.495	4.620
N2310	-0.500	53.495	4.620
N2311	2.550	53.495	4.620
N2312	1.572	53.495	4.620
N2313	-2.550	53.495	4.620
N2314	-1.572	53.495	4.620
N2315	-1.572	50.933	4.620
N2316	-2.550	50.933	4.620
N2317	-0.500	50.933	4.620
N2318	1.572	50.933	4.620
N2319	2.550	50.933	4.620
N2320	0.500	50.933	4.620
N2321	-1.572	45.505	4.620
N2322	-2.550	45.505	4.620
N2323	-0.500	45.505	4.620
N2324	1.572	45.505	4.620
N2325	2.550	45.505	4.620
N2326	0.500	45.505	4.620
N2333	-1.572	48.067	4.620
N2334	1.572	48.067	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2335	0.500	62.495	4.620
N2336	-0.500	62.495	4.620
N2337	2.550	62.495	4.620
N2338	1.572	62.495	4.620
N2339	-2.550	62.495	4.620
N2340	-1.572	62.495	4.620
N2341	-1.572	59.933	4.620
N2342	-2.550	59.933	4.620
N2343	-0.500	59.933	4.620
N2344	1.572	59.933	4.620
N2345	2.550	59.933	4.620
N2346	0.500	59.933	4.620
N2347	-1.572	54.505	4.620
N2348	-2.550	54.505	4.620
N2349	-0.500	54.505	4.620
N2350	1.572	54.505	4.620
N2351	2.550	54.505	4.620
N2352	0.500	54.505	4.620
N2359	-1.572	57.067	4.620
N2360	1.572	57.067	4.620
N2361	0.500	71.495	4.620
N2362	-0.500	71.495	4.620
N2363	2.550	71.495	4.620
N2364	1.572	71.495	4.620
N2365	-2.550	71.495	4.620
N2366	-1.572	71.495	4.620
N2367	-1.572	68.933	4.620
N2368	-2.550	68.933	4.620
N2369	-0.500	68.933	4.620
N2370	1.572	68.933	4.620
N2371	2.550	68.933	4.620
N2372	0.500	68.933	4.620
N2373	-1.572	63.505	4.620
N2374	-2.550	63.505	4.620
N2375	-0.500	63.505	4.620
N2376	1.572	63.505	4.620
N2377	2.550	63.505	4.620
N2378	0.500	63.505	4.620
N2385	-1.572	66.067	4.620
N2386	1.572	66.067	4.620
N2387	0.500	80.495	4.620
N2388	-0.500	80.495	4.620
N2389	2.550	80.495	4.620
N2390	1.572	80.495	4.620
N2391	-2.550	80.495	4.620
N2392	-1.572	80.495	4.620
N2399	-1.572	72.505	4.620
N2400	-2.550	72.505	4.620
N2401	-0.500	72.505	4.620
N2402	1.572	72.505	4.620
N2403	2.550	72.505	4.620
N2404	0.500	72.505	4.620
N2411	-1.572	84.067	4.620
N2412	1.572	84.067	4.620
N2185	0.000	53.800	4.620
N2413	0.000	62.800	4.620
N2414	0.000	71.800	4.620
N2416	0.000	-3.457	4.620
N2417	0.000	90.457	4.620
N2418	-2.550	45.000	4.620
N2419	0.000	45.000	4.620
N2420	2.550	45.000	4.620
N2421	1.572	41.933	4.620
N2422	1.572	39.067	4.620
N2423	2.550	41.933	4.620
N2424	2.550	39.067	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N1	-2.550	48.067	4.620
N2461	-0.500	48.067	4.620
N2462	0.500	48.067	4.620
N2463	2.550	48.067	4.620
N2464	-2.550	57.067	4.620
N2465	-0.500	57.067	4.620
N2466	0.500	57.067	4.620
N2467	2.550	57.067	4.620
N2468	-2.550	66.067	4.620
N2469	-0.500	66.067	4.620
N2470	0.500	66.067	4.620
N2471	2.550	66.067	4.620
N2472	-2.550	84.067	4.620
N2473	-0.500	84.067	4.620
N2474	0.500	84.067	4.620
N2475	2.550	84.067	4.620
N2961	0.500	87.505	4.620
N2962	-0.500	87.505	4.620
N2963	2.550	87.505	4.620
N2964	1.572	87.505	4.620
N2965	-2.550	87.505	4.620
N2966	-1.572	87.505	4.620
N2967	2.550	90.457	4.620
N2968	1.572	90.457	4.620
N2969	0.500	90.457	4.620
N2970	-0.500	90.457	4.620
N2971	-1.572	90.457	4.620
N2972	-2.550	90.457	4.620
N2973	2.550	87.200	4.620
N2974	0.500	87.200	4.620
N2975	-0.500	87.200	4.620
N2976	1.572	87.200	4.620
N2977	-2.550	87.200	4.620
N2978	-1.572	87.200	4.620
N2981	2.048	87.000	0.000
N2982	2.048	87.000	4.620
N2985	1.572	86.800	4.620
N2986	-1.572	86.800	4.620
N2995	-1.572	77.933	4.620
N2996	-2.550	77.933	4.620
N2997	-0.500	77.933	4.620
N2998	1.572	77.933	4.620
N2999	2.550	77.933	4.620
N3000	0.500	77.933	4.620
N3001	-1.572	75.067	4.620
N3002	1.572	75.067	4.620
N3003	-2.550	75.067	4.620
N3004	-0.500	75.067	4.620
N3005	0.500	75.067	4.620
N3006	2.550	75.067	4.620
N3013	-0.500	86.800	4.620
N3014	-2.550	86.800	4.620
N3015	0.500	86.800	4.620
N3016	2.550	86.800	4.620
N3021	1.572	86.495	4.620
N3024	0.500	86.495	4.620
N3026	-0.500	86.495	4.620
N3027	-1.572	86.495	4.620
N3030	-2.550	86.495	4.620
N3031	2.550	86.495	4.620
N3033	2.048	87.200	4.620
N3034	2.048	86.800	4.620
N3035	-0.802	87.000	4.620
N3036	-0.802	87.000	0.000
N3037	-0.802	87.200	4.620
N3038	-0.802	86.800	4.620

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N3039	2.048	81.200	4.620
N3040	2.048	80.800	4.620
N3041	2.048	81.000	0.000
N3042	2.048	81.000	4.620
N3043	-0.802	81.000	0.000
N3044	-0.802	81.000	4.620
N3045	-0.802	81.200	4.620
N3046	-0.802	80.800	4.620
N3047	2.048	72.200	4.620
N3048	2.048	71.800	4.620
N3049	2.048	72.000	0.000
N3050	2.048	72.000	4.620
N3051	-0.802	72.000	0.000
N3052	-0.802	72.000	4.620
N3053	-0.802	72.200	4.620
N3054	-0.802	71.800	4.620
N3055	-0.802	81.000	3.860
N198	-0.802	72.000	3.860
N200	2.048	72.350	3.860
N201	2.048	81.000	3.860
N202	2.048	72.000	3.860
N203	2.048	75.000	0.240
N204	2.048	75.000	3.860
N205	2.048	78.000	0.240
N206	2.048	78.000	3.860
N208	2.048	80.650	3.860
N3057	2.048	87.000	3.860
N3058	-0.802	87.000	3.860
N3059	2.048	84.000	0.240
N3060	2.048	84.000	3.860
N3062	2.048	67.500	0.240
N3063	2.048	63.000	3.860
N3065	2.048	67.500	3.860
N3066	0.500	63.000	3.860
N3067	-0.500	63.000	3.860
N3068	1.600	9.900	-0.975
N3069	-1.600	9.900	-0.975
N3070	-1.600	8.100	-0.975
N3071	1.600	8.100	-0.975
N3072	1.600	18.900	-0.975
N3073	-1.600	18.900	-0.975
N3074	-1.600	17.100	-0.975
N3075	1.600	17.100	-0.975
N3076	1.600	27.900	-0.975
N3077	-1.600	27.900	-0.975
N3078	-1.600	26.100	-0.975
N3079	1.600	26.100	-0.975
N3080	1.600	36.900	-0.975
N3081	-1.600	36.900	-0.975
N3082	-1.600	35.100	-0.975
N3083	1.600	35.100	-0.975
N3084	1.600	45.900	-0.975
N3085	-1.600	45.900	-0.975
N3086	-1.600	44.100	-0.975
N3087	1.600	44.100	-0.975
N3088	1.600	54.900	-0.975
N3089	-1.600	54.900	-0.975
N3090	-1.600	53.100	-0.975
N3091	1.600	53.100	-0.975
N3092	1.600	63.900	-0.975
N3093	-1.600	63.900	-0.975
N3094	-1.600	62.100	-0.975
N3095	1.600	62.100	-0.975
N3098	2.048	87.000	0.240
N3100	2.048	66.500	4.620
N3101	2.048	66.500	0.240

5. Members

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B1	N1-S1-vp - QRO220X12.5	S 235	4.620	N2196	N2	general (0)
B2	N1-S1-vp - QRO220X12.5	S 235	4.620	N3	N4	general (0)
B3	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N5	N11	general (0)
B4	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N7	N10	general (0)
B8	N1-N2 - IPE240	S 235	0.305	N10	N15	general (0)
B9	N1-N2 - IPE240	S 235	0.305	N12	N16	general (0)
B10	N1-N1 - UNP240	S 235	0.305	N7	N17	general (0)
B11	N1-N1 - UNP240	S 235	0.400	N6	N7	general (0)
B12	N1-N2 - IPE240	S 235	0.305	N18	N19	general (0)
B13	N1-N2 - IPE240	S 235	0.400	N20	N18	general (0)
B14	N1-N2 - IPE240	S 235	0.305	N2218	N21	general (0)
B15	N1-N2 - IPE240	S 235	0.305	N2219	N22	general (0)
B16	N1-N1 - UNP240	S 235	0.305	N2217	N23	general (0)
B17	N1-N2 - IPE240	S 235	0.305	N2220	N24	general (0)
B20	N1-N1 - UNP240	S 235	0.305	N8	N25	general (0)
B21	N1-N1 - UNP240	S 235	0.400	N5	N8	general (0)
B22	N1-N2 - IPE240	S 235	0.305	N26	N27	general (0)
B23	N1-N2 - IPE240	S 235	0.400	N28	N26	general (0)
B25	N1-N1 - UNP240	S 235	0.305	N2221	N29	general (0)
B26	N1-N2 - IPE240	S 235	0.305	N2222	N30	general (0)
B27	N1-N2 - IPE240	S 235	0.305	N31	N32	general (0)
B28	N1-N1 - UNP240	S 235	0.305	N33	N34	general (0)
B29	N1-N2 - IPE240	S 235	0.305	N35	N36	general (0)
B30	N1-N2 - IPE240	S 235	0.400	N31	N37	general (0)
B31	N1-N2 - IPE240	S 235	0.305	N37	N38	general (0)
B32	N1-N1 - UNP240	S 235	0.400	N33	N39	general (0)
B33	N1-N1 - UNP240	S 235	0.305	N39	N40	general (0)
B34	N1-N2 - IPE240	S 235	0.305	N41	N42	general (0)
B36	N1-N2 - IPE240	S 235	0.305	N43	N44	general (0)
B37	N1-N1 - UNP240	S 235	0.305	N45	N46	general (0)
B39	N1-N2 - IPE240	S 235	0.305	N47	N48	general (0)
B40	N1-N2 - IPE240	S 235	0.400	N43	N49	general (0)
B41	N1-N2 - IPE240	S 235	0.305	N49	N50	general (0)
B42	N1-N1 - UNP240	S 235	0.400	N45	N51	general (0)
B43	N1-N1 - UNP240	S 235	0.305	N51	N52	general (0)
B45	N1-N2 - IPE240	S 235	0.305	N53	N54	general (0)
B49	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N51	N53	general (0)
B50	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N33	N35	general (0)
B51	N1-N2 - IPE240	S 235	0.305	N57	N58	general (0)
B52	N1-N1 - UNP240	S 235	0.305	N298	N60	general (0)
B53	N1-N2 - IPE240	S 235	0.305	N61	N62	general (0)
B54	N1-N2 - IPE240	S 235	0.400	N57	N63	general (0)
B55	N1-N2 - IPE240	S 235	0.305	N63	N64	general (0)
B56	N1-N1 - UNP240	S 235	0.400	N298	N65	general (0)
B57	N1-N1 - UNP240	S 235	0.305	N65	N66	general (0)
B58	N1-N2 - IPE240	S 235	0.305	N67	N68	general (0)
B60	N1-N2 - IPE240	S 235	0.305	N69	N70	general (0)
B61	N1-N1 - UNP240	S 235	0.305	N308	N72	general (0)
B63	N1-N2 - IPE240	S 235	0.305	N73	N74	general (0)
B64	N1-N2 - IPE240	S 235	0.400	N69	N75	general (0)
B65	N1-N2 - IPE240	S 235	0.305	N75	N76	general (0)
B66	N1-N1 - UNP240	S 235	0.400	N308	N77	general (0)
B67	N1-N1 - UNP240	S 235	0.305	N77	N78	general (0)
B69	N1-N2 - IPE240	S 235	0.305	N79	N80	general (0)
B73	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N77	N79	general (0)
B74	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N298	N61	general (0)
B75	N1-S1-vp - QRO220X12.5	S 235	4.620	N83	N84	general (0)
B76	N1-S1-vp - QRO220X12.5	S 235	4.620	N85	N86	general (0)
B77	N1-N2 - IPE240	S 235	0.305	N87	N88	general (0)
B78	N1-N1 - UNP240	S 235	0.305	N89	N90	general (0)
B79	N1-N2 - IPE240	S 235	0.305	N91	N92	general (0)
B80	N1-N2 - IPE240	S 235	0.400	N87	N93	general (0)
B81	N1-N2 - IPE240	S 235	0.305	N93	N94	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B82	N1-N1 - UNP240	S 235	0.400	N89	N95	general (0)
B83	N1-N1 - UNP240	S 235	0.305	N95	N96	general (0)
B84	N1-N2 - IPE240	S 235	0.305	N97	N98	general (0)
B86	N1-N2 - IPE240	S 235	0.305	N99	N100	general (0)
B87	N1-N1 - UNP240	S 235	0.305	N101	N102	general (0)
B89	N1-N2 - IPE240	S 235	0.305	N103	N104	general (0)
B90	N1-N2 - IPE240	S 235	0.400	N99	N105	general (0)
B91	N1-N2 - IPE240	S 235	0.305	N105	N106	general (0)
B92	N1-N1 - UNP240	S 235	0.400	N101	N107	general (0)
B93	N1-N1 - UNP240	S 235	0.305	N107	N108	general (0)
B95	N1-N2 - IPE240	S 235	0.305	N109	N110	general (0)
B99	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N107	N109	general (0)
B100	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N89	N91	general (0)
B101	N1-S1-vp - QRO220X12.5	S 235	4.620	N113	N114	general (0)
B102	N1-S1-vp - QRO220X12.5	S 235	4.620	N115	N116	general (0)
B103	N1-N2 - IPE240	S 235	0.305	N117	N118	general (0)
B104	N1-N1 - UNP240	S 235	0.305	N119	N120	general (0)
B105	N1-N2 - IPE240	S 235	0.305	N121	N122	general (0)
B106	N1-N2 - IPE240	S 235	0.400	N117	N123	general (0)
B107	N1-N2 - IPE240	S 235	0.305	N123	N124	general (0)
B108	N1-N1 - UNP240	S 235	0.400	N119	N125	general (0)
B109	N1-N1 - UNP240	S 235	0.305	N125	N126	general (0)
B110	N1-N2 - IPE240	S 235	0.305	N127	N128	general (0)
B112	N1-N2 - IPE240	S 235	0.305	N129	N130	general (0)
B113	N1-N1 - UNP240	S 235	0.305	N131	N132	general (0)
B115	N1-N2 - IPE240	S 235	0.305	N133	N134	general (0)
B116	N1-N2 - IPE240	S 235	0.400	N129	N135	general (0)
B117	N1-N2 - IPE240	S 235	0.305	N135	N136	general (0)
B118	N1-N1 - UNP240	S 235	0.400	N131	N137	general (0)
B119	N1-N1 - UNP240	S 235	0.305	N137	N138	general (0)
B121	N1-N2 - IPE240	S 235	0.305	N139	N140	general (0)
B125	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N137	N139	general (0)
B126	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N119	N121	general (0)
B127	N1-S1-vp - QRO220X12.5	S 235	4.620	N143	N144	general (0)
B128	N1-S1-vp - QRO220X12.5	S 235	4.620	N145	N146	general (0)
B137	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N163	N169	general (0)
B138	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N165	N168	general (0)
B142	N1-N2 - IPE240	S 235	0.305	N168	N173	general (0)
B143	N1-N2 - IPE240	S 235	0.305	N170	N174	general (0)
B144	N1-N1 - UNP240	S 235	0.305	N165	N175	general (0)
B145	N1-N1 - UNP240	S 235	0.400	N164	N165	general (0)
B146	N1-N2 - IPE240	S 235	0.305	N176	N177	general (0)
B148	N1-N2 - IPE240	S 235	0.305	N167	N179	general (0)
B149	N1-N2 - IPE240	S 235	0.305	N169	N180	general (0)
B150	N1-N1 - UNP240	S 235	0.305	N164	N181	general (0)
B151	N1-N2 - IPE240	S 235	0.305	N178	N182	general (0)
B154	N1-N1 - UNP240	S 235	0.305	N166	N183	general (0)
B155	N1-N1 - UNP240	S 235	0.400	N163	N166	general (0)
B156	N1-N2 - IPE240	S 235	0.305	N184	N185	general (0)
B157	N1-N2 - IPE240	S 235	0.400	N186	N184	general (0)
B159	N1-N1 - UNP240	S 235	0.305	N163	N187	general (0)
B160	N1-N2 - IPE240	S 235	0.305	N186	N188	general (0)
B173	N1-N2 - IPE240	S 235	7.990	N19	N44	general (0)
B174	N1-N2 - IPE240	S 235	7.990	N48	N15	general (0)
B175	N1-N2 - IPE240	S 235	7.990	N36	N16	general (0)
B177	N1-N1 - UNP240	S 235	7.990	N34	N25	general (0)
B178	N1-N1 - UNP240	S 235	7.990	N17	N46	general (0)
B179	N1-P1 - RO26.9X3.2	S 235	0.978	N209	N210	general (0)
B180	N1-P1 - RO26.9X3.2	S 235	0.978	N211	N212	general (0)
B181	N1-P1 - RO26.9X3.2	S 235	1.072	N213	N211	general (0)
B182	N1-P1 - RO26.9X3.2	S 235	1.072	N214	N209	general (0)
B183	N1-D1 - RD16	S 235	3.061	N12	N209	truss diagonal (90)
B184	N1-D1 - RD16	S 235	3.029	N209	N8	truss diagonal (90)
B185	N1-D1 - RD16	S 235	3.060	N214	N211	truss diagonal (90)
B186	N1-D1 - RD16	S 235	3.029	N211	N210	truss diagonal (90)
B187	N1-D1 - RD16	S 235	3.061	N35	N211	truss diagonal (90)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B188	N1-D1 - RD16	S 235	3.029	N211	N33	truss diagonal (90)
B198	N1-P1 - RO26.9X3.2	S 235	0.978	N2421	N2423	general (0)
B199	N1-P1 - RO26.9X3.2	S 235	0.978	N2422	N2424	general (0)
B200	N1-P1 - RO26.9X3.2	S 235	1.072	N225	N2422	general (0)
B201	N1-P1 - RO26.9X3.2	S 235	1.072	N226	N2421	general (0)
B202	N1-D1 - RD16	S 235	3.061	N10	N2421	truss diagonal (90)
B203	N1-D1 - RD16	S 235	3.029	N2421	N7	truss diagonal (90)
B204	N1-D1 - RD16	S 235	3.060	N226	N2422	truss diagonal (90)
B205	N1-D1 - RD16	S 235	3.029	N2422	N2423	truss diagonal (90)
B206	N1-D1 - RD16	S 235	3.061	N47	N2422	truss diagonal (90)
B207	N1-D1 - RD16	S 235	3.029	N2422	N45	truss diagonal (90)
B210	N1-N1 - UNP240	S 235	7.990	N187	N40	general (0)
B211	N1-N2 - IPE240	S 235	7.990	N38	N188	general (0)
B212	N1-N2 - IPE240	S 235	7.990	N180	N42	general (0)
B213	N1-N2 - IPE240	S 235	7.990	N179	N54	general (0)
B214	N1-N2 - IPE240	S 235	7.990	N50	N182	general (0)
B215	N1-N1 - UNP240	S 235	7.990	N52	N181	general (0)
B216	N1-N1 - UNP240	S 235	7.990	N60	N183	general (0)
B217	N1-N2 - IPE240	S 235	7.990	N185	N58	general (0)
B218	N1-N2 - IPE240	S 235	7.990	N62	N174	general (0)
B219	N1-N2 - IPE240	S 235	7.990	N74	N173	general (0)
B220	N1-N2 - IPE240	S 235	7.990	N177	N70	general (0)
B221	N1-N1 - UNP240	S 235	7.990	N175	N72	general (0)
B222	N1-N1 - UNP240	S 235	7.990	N90	N66	general (0)
B223	N1-N2 - IPE240	S 235	7.990	N64	N88	general (0)
B224	N1-N2 - IPE240	S 235	7.990	N92	N68	general (0)
B225	N1-N2 - IPE240	S 235	7.990	N104	N80	general (0)
B226	N1-N2 - IPE240	S 235	7.990	N76	N100	general (0)
B227	N1-N1 - UNP240	S 235	7.990	N78	N102	general (0)
B228	N1-N1 - UNP240	S 235	7.990	N120	N96	general (0)
B229	N1-N2 - IPE240	S 235	7.990	N94	N118	general (0)
B230	N1-N2 - IPE240	S 235	7.990	N122	N98	general (0)
B231	N1-N2 - IPE240	S 235	7.990	N134	N110	general (0)
B232	N1-N2 - IPE240	S 235	7.990	N106	N130	general (0)
B233	N1-N1 - UNP240	S 235	7.990	N108	N132	general (0)
B234	N1-N1 - UNP240	S 235	2.952	N251	N126	general (0)
B235	N1-N2 - IPE240	S 235	2.952	N124	N252	general (0)
B236	N1-N2 - IPE240	S 235	2.952	N253	N128	general (0)
B237	N1-N2 - IPE240	S 235	2.952	N254	N140	general (0)
B238	N1-N2 - IPE240	S 235	2.952	N136	N255	general (0)
B239	N1-N1 - UNP240	S 235	2.952	N138	N256	general (0)
B240	N1-N1 - UNP240	S 235	5.100	N251	N256	general (0)
B241	N1-P1 - RO26.9X3.2	S 235	0.978	N257	N258	general (0)
B242	N1-P1 - RO26.9X3.2	S 235	0.978	N259	N260	general (0)
B243	N1-P1 - RO26.9X3.2	S 235	1.072	N261	N259	general (0)
B244	N1-P1 - RO26.9X3.2	S 235	1.072	N262	N257	general (0)
B245	N1-D1 - RD16	S 235	3.061	N169	N257	truss diagonal (90)
B246	N1-D1 - RD16	S 235	3.029	N257	N163	truss diagonal (90)
B247	N1-D1 - RD16	S 235	3.061	N262	N259	truss diagonal (90)
B248	N1-D1 - RD16	S 235	3.029	N259	N258	truss diagonal (90)
B249	N1-D1 - RD16	S 235	3.061	N41	N259	truss diagonal (90)
B250	N1-D1 - RD16	S 235	3.029	N259	N39	truss diagonal (90)
B251	N1-P1 - RO26.9X3.2	S 235	0.978	N265	N266	general (0)
B252	N1-P1 - RO26.9X3.2	S 235	0.978	N267	N268	general (0)
B253	N1-P1 - RO26.9X3.2	S 235	1.072	N269	N267	general (0)
B254	N1-P1 - RO26.9X3.2	S 235	1.072	N270	N265	general (0)
B255	N1-D1 - RD16	S 235	3.061	N167	N265	truss diagonal (90)
B256	N1-D1 - RD16	S 235	3.029	N265	N164	truss diagonal (90)
B257	N1-D1 - RD16	S 235	3.061	N270	N267	truss diagonal (90)
B258	N1-D1 - RD16	S 235	3.029	N267	N266	truss diagonal (90)
B259	N1-D1 - RD16	S 235	3.061	N53	N267	truss diagonal (90)
B260	N1-D1 - RD16	S 235	3.029	N267	N51	truss diagonal (90)
B261	N1-P1 - RO26.9X3.2	S 235	0.978	N273	N274	general (0)
B262	N1-P1 - RO26.9X3.2	S 235	0.978	N275	N276	general (0)
B263	N1-P1 - RO26.9X3.2	S 235	1.072	N277	N275	general (0)
B264	N1-P1 - RO26.9X3.2	S 235	1.072	N278	N273	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B265	N1-D1 - RD16	S 235	3.061	N91	N273	truss diagonal (90)
B266	N1-D1 - RD16	S 235	3.029	N273	N89	truss diagonal (90)
B267	N1-D1 - RD16	S 235	3.061	N278	N275	truss diagonal (90)
B268	N1-D1 - RD16	S 235	3.029	N275	N274	truss diagonal (90)
B269	N1-D1 - RD16	S 235	3.061	N67	N275	truss diagonal (90)
B270	N1-D1 - RD16	S 235	3.029	N275	N65	truss diagonal (90)
B271	N1-P1 - RO26.9X3.2	S 235	0.978	N281	N282	general (0)
B272	N1-P1 - RO26.9X3.2	S 235	0.978	N283	N284	general (0)
B273	N1-P1 - RO26.9X3.2	S 235	1.072	N285	N283	general (0)
B274	N1-P1 - RO26.9X3.2	S 235	1.072	N286	N281	general (0)
B275	N1-D1 - RD16	S 235	3.061	N103	N281	truss diagonal (90)
B276	N1-D1 - RD16	S 235	3.029	N281	N101	truss diagonal (90)
B277	N1-D1 - RD16	S 235	3.061	N286	N283	truss diagonal (90)
B278	N1-D1 - RD16	S 235	3.029	N283	N282	truss diagonal (90)
B279	N1-D1 - RD16	S 235	3.061	N79	N283	truss diagonal (90)
B280	N1-D1 - RD16	S 235	3.029	N283	N77	truss diagonal (90)
B281	N1-P1 - RO26.9X3.2	S 235	0.978	N289	N290	general (0)
B282	N1-P1 - RO26.9X3.2	S 235	0.978	N291	N292	general (0)
B283	N1-P1 - RO26.9X3.2	S 235	1.072	N293	N291	general (0)
B284	N1-P1 - RO26.9X3.2	S 235	1.072	N294	N289	general (0)
B285	N1-D1 - RD16	S 235	3.061	N170	N289	truss diagonal (90)
B286	N1-D1 - RD16	S 235	3.029	N289	N166	truss diagonal (90)
B287	N1-D1 - RD16	S 235	3.061	N294	N291	truss diagonal (90)
B288	N1-D1 - RD16	S 235	3.029	N291	N290	truss diagonal (90)
B289	N1-D1 - RD16	S 235	3.061	N61	N291	truss diagonal (90)
B290	N1-D1 - RD16	S 235	3.029	N291	N298	truss diagonal (90)
B291	N1-P1 - RO26.9X3.2	S 235	0.978	N299	N300	general (0)
B292	N1-P1 - RO26.9X3.2	S 235	0.978	N301	N302	general (0)
B293	N1-P1 - RO26.9X3.2	S 235	1.072	N303	N301	general (0)
B294	N1-P1 - RO26.9X3.2	S 235	1.072	N304	N299	general (0)
B295	N1-D1 - RD16	S 235	3.061	N168	N299	truss diagonal (90)
B296	N1-D1 - RD16	S 235	3.029	N299	N165	truss diagonal (90)
B297	N1-D1 - RD16	S 235	3.061	N304	N301	truss diagonal (90)
B298	N1-D1 - RD16	S 235	3.029	N301	N300	truss diagonal (90)
B299	N1-D1 - RD16	S 235	3.061	N73	N301	truss diagonal (90)
B300	N1-D1 - RD16	S 235	3.029	N301	N308	truss diagonal (90)
B301	N1-P1 - RO26.9X3.2	S 235	0.978	N309	N310	general (0)
B302	N1-P1 - RO26.9X3.2	S 235	0.978	N311	N312	general (0)
B303	N1-P1 - RO26.9X3.2	S 235	1.072	N313	N311	general (0)
B304	N1-P1 - RO26.9X3.2	S 235	1.072	N314	N309	general (0)
B305	N1-D1 - RD16	S 235	3.061	N97	N309	truss diagonal (90)
B306	N1-D1 - RD16	S 235	3.029	N309	N95	truss diagonal (90)
B307	N1-D1 - RD16	S 235	3.061	N314	N311	truss diagonal (90)
B308	N1-D1 - RD16	S 235	3.029	N311	N310	truss diagonal (90)
B309	N1-D1 - RD16	S 235	3.061	N121	N311	truss diagonal (90)
B310	N1-D1 - RD16	S 235	3.029	N311	N119	truss diagonal (90)
B311	N1-P1 - RO26.9X3.2	S 235	0.978	N317	N318	general (0)
B312	N1-P1 - RO26.9X3.2	S 235	0.978	N319	N320	general (0)
B313	N1-P1 - RO26.9X3.2	S 235	1.072	N321	N319	general (0)
B314	N1-P1 - RO26.9X3.2	S 235	1.072	N322	N317	general (0)
B315	N1-D1 - RD16	S 235	3.061	N109	N317	truss diagonal (90)
B316	N1-D1 - RD16	S 235	3.029	N317	N107	truss diagonal (90)
B317	N1-D1 - RD16	S 235	3.061	N322	N319	truss diagonal (90)
B318	N1-D1 - RD16	S 235	3.029	N319	N318	truss diagonal (90)
B319	N1-D1 - RD16	S 235	3.061	N133	N319	truss diagonal (90)
B320	N1-D1 - RD16	S 235	3.029	N319	N131	truss diagonal (90)
B321	N1-D1 - RD16	S 235	3.401	N137	N255	truss diagonal (90)
B322	N1-D1 - RD16	S 235	3.429	N255	N139	truss diagonal (90)
B323	N1-D1 - RD16	S 235	3.429	N127	N252	truss diagonal (90)
B324	N1-D1 - RD16	S 235	3.401	N252	N125	truss diagonal (90)
B325	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N11	N9	general (0)
B326	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N9	N6	general (0)
B327	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N10	N12	general (0)
B328	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N12	N8	general (0)
B329	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N35	N47	general (0)
B330	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N47	N45	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B331	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N53	N41	general (0)
B332	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N41	N39	general (0)
B333	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N168	N170	general (0)
B334	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N170	N166	general (0)
B335	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N169	N167	general (0)
B336	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N167	N164	general (0)
B337	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N61	N73	general (0)
B338	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N73	N308	general (0)
B339	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N79	N67	general (0)
B340	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N67	N65	general (0)
B343	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N109	N97	general (0)
B344	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N97	N95	general (0)
B345	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N91	N103	general (0)
B346	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N103	N101	general (0)
B347	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N139	N127	general (0)
B348	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N127	N125	general (0)
B349	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N121	N133	general (0)
B350	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N133	N131	general (0)
B364	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N3	N336	general (0)
B365	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2196	N337	general (0)
B366	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N85	N350	general (0)
B367	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N83	N351	general (0)
B368	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N115	N356	general (0)
B369	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N113	N357	general (0)
B370	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N145	N362	general (0)
B371	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N143	N363	general (0)
B372	N1-S1-vp - QRO220X12.5	S 235	4.620	N2197	N2205	general (0)
B373	N1-S1-vp - QRO220X12.5	S 235	4.620	N2198	N2206	general (0)
B374	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2198	N2203	general (0)
B375	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2197	N2204	general (0)
B376	N1-S1-vp - QRO220X12.5	S 235	4.620	N2207	N2215	general (0)
B377	N1-S1-vp - QRO220X12.5	S 235	4.620	N2208	N2216	general (0)
B378	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2208	N2213	general (0)
B379	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2207	N2214	general (0)
B380	N1-S1-vp - QRO220X12.5	S 235	4.620	N2223	N2224	general (0)
B381	N1-S1-vp - QRO220X12.5	S 235	4.620	N2225	N2226	general (0)
B382	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2227	N2231	general (0)
B383	N1-N1 - UNP240	S 235	0.400	N2228	N2241	general (0)
B384	N1-N2 - IPE240	S 235	0.400	N2233	N2242	general (0)
B385	N1-N1 - UNP240	S 235	0.400	N2227	N2229	general (0)
B386	N1-N2 - IPE240	S 235	0.400	N2234	N2243	general (0)
B387	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2231	N2230	general (0)
B388	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2230	N2228	general (0)
B389	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2225	N2235	general (0)
B390	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2223	N2236	general (0)
B391	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2244	N2229	general (0)
B392	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2245	N2244	general (0)
B393	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2241	N2245	general (0)
B396	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2250	N2254	general (0)
B397	N1-N1 - UNP240	S 235	0.400	N2251	N2264	general (0)
B398	N1-N2 - IPE240	S 235	0.400	N2256	N2265	general (0)
B399	N1-N1 - UNP240	S 235	0.400	N2250	N2252	general (0)
B400	N1-N2 - IPE240	S 235	0.400	N2257	N2266	general (0)
B401	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2254	N2253	general (0)
B402	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2253	N2251	general (0)
B405	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2267	N2252	general (0)
B406	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2268	N2267	general (0)
B407	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2264	N2268	general (0)
B410	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2221	N2219	general (0)
B411	N1-N1 - UNP240	S 235	0.400	N2217	N2281	general (0)
B412	N1-N2 - IPE240	S 235	0.400	N2220	N2282	general (0)
B413	N1-N1 - UNP240	S 235	0.400	N2221	N2273	general (0)
B414	N1-N2 - IPE240	S 235	0.400	N2222	N2283	general (0)
B415	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2219	N2218	general (0)
B416	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2218	N2217	general (0)
B419	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2284	N2273	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B420	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2285	N2284	general (0)
B421	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2281	N2285	general (0)
B422	N1-S1-vp - QRO220X12.5	S 235	4.620	N2286	N2287	general (0)
B423	N1-S1-vp - QRO220X12.5	S 235	4.620	N2288	N2289	general (0)
B424	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2290	N2294	general (0)
B425	N1-N1 - UNP240	S 235	0.400	N2291	N2304	general (0)
B426	N1-N2 - IPE240	S 235	0.400	N2296	N2305	general (0)
B427	N1-N1 - UNP240	S 235	0.400	N2290	N2292	general (0)
B428	N1-N2 - IPE240	S 235	0.400	N2297	N2306	general (0)
B429	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2294	N2293	general (0)
B430	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2293	N2291	general (0)
B431	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2288	N2298	general (0)
B432	N1-TN1 - Rectangle (600; 600)	C25/30	0.975	N2286	N2299	general (0)
B433	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2307	N2292	general (0)
B434	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2308	N2307	general (0)
B435	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2304	N2308	general (0)
B436	N1-P1 - RO26.9X3.2	S 235	0.978	N2315	N2316	general (0)
B437	N1-P1 - RO26.9X3.2	S 235	1.072	N2317	N2315	general (0)
B438	N1-P1 - RO26.9X3.2	S 235	0.978	N2318	N2319	general (0)
B439	N1-P1 - RO26.9X3.2	S 235	1.072	N2320	N2318	general (0)
B440	N1-N2 - IPE240	S 235	0.305	N2245	N2309	general (0)
B441	N1-N2 - IPE240	S 235	0.305	N2244	N2310	general (0)
B442	N1-N1 - UNP240	S 235	0.305	N2241	N2311	general (0)
B443	N1-N2 - IPE240	S 235	0.305	N2242	N2312	general (0)
B444	N1-N1 - UNP240	S 235	0.305	N2229	N2313	general (0)
B445	N1-N2 - IPE240	S 235	0.305	N2243	N2314	general (0)
B446	N1-N2 - IPE240	S 235	7.990	N2312	N2324	general (0)
B447	N1-N2 - IPE240	S 235	7.990	N2326	N2309	general (0)
B448	N1-N2 - IPE240	S 235	7.990	N2323	N2310	general (0)
B449	N1-N2 - IPE240	S 235	7.990	N2314	N2321	general (0)
B450	N1-N1 - UNP240	S 235	7.990	N2322	N2313	general (0)
B451	N1-N1 - UNP240	S 235	7.990	N2311	N2325	general (0)
B452	N1-D1 - RD16	S 235	3.061	N2244	N2315	truss diagonal (90)
B453	N1-D1 - RD16	S 235	3.029	N2315	N2229	truss diagonal (90)
B454	N1-D1 - RD16	S 235	3.061	N2317	N2333	truss diagonal (90)
B455	N1-D1 - RD16	S 235	3.029	N2333	N2316	truss diagonal (90)
B456	N1-D1 - RD16	S 235	3.061	N2245	N2318	truss diagonal (90)
B457	N1-D1 - RD16	S 235	3.029	N2318	N2241	truss diagonal (90)
B458	N1-D1 - RD16	S 235	3.061	N2320	N2334	truss diagonal (90)
B459	N1-D1 - RD16	S 235	3.029	N2334	N2319	truss diagonal (90)
B460	N1-N2 - IPE240	S 235	0.305	N28	N2321	general (0)
B461	N1-N1 - UNP240	S 235	0.305	N5	N2322	general (0)
B462	N1-N2 - IPE240	S 235	0.305	N11	N2323	general (0)
B463	N1-N2 - IPE240	S 235	0.305	N20	N2324	general (0)
B464	N1-N1 - UNP240	S 235	0.305	N6	N2325	general (0)
B465	N1-N2 - IPE240	S 235	0.305	N9	N2326	general (0)
B466	N1-D1 - RD16	S 235	3.061	N11	N2333	truss diagonal (90)
B467	N1-D1 - RD16	S 235	3.029	N2333	N5	truss diagonal (90)
B468	N1-D1 - RD16	S 235	3.061	N9	N2334	truss diagonal (90)
B469	N1-D1 - RD16	S 235	3.029	N2334	N6	truss diagonal (90)
B470	N1-P1 - RO26.9X3.2	S 235	0.978	N2341	N2342	general (0)
B471	N1-P1 - RO26.9X3.2	S 235	1.072	N2343	N2341	general (0)
B472	N1-P1 - RO26.9X3.2	S 235	0.978	N2344	N2345	general (0)
B473	N1-P1 - RO26.9X3.2	S 235	1.072	N2346	N2344	general (0)
B474	N1-N2 - IPE240	S 235	0.305	N2308	N2335	general (0)
B475	N1-N2 - IPE240	S 235	0.305	N2307	N2336	general (0)
B476	N1-N1 - UNP240	S 235	0.305	N2304	N2337	general (0)
B477	N1-N2 - IPE240	S 235	0.305	N2305	N2338	general (0)
B478	N1-N1 - UNP240	S 235	0.305	N2292	N2339	general (0)
B479	N1-N2 - IPE240	S 235	0.305	N2306	N2340	general (0)
B480	N1-N2 - IPE240	S 235	7.990	N2338	N2350	general (0)
B481	N1-N2 - IPE240	S 235	7.990	N2352	N2335	general (0)
B482	N1-N2 - IPE240	S 235	7.990	N2349	N2336	general (0)
B483	N1-N2 - IPE240	S 235	7.990	N2340	N2347	general (0)
B484	N1-N1 - UNP240	S 235	7.990	N2348	N2339	general (0)
B485	N1-N1 - UNP240	S 235	7.990	N2337	N2351	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B486	N1-D1 - RD16	S 235	3.061	N2307	N2341	truss diagonal (90)
B487	N1-D1 - RD16	S 235	3.029	N2341	N2292	truss diagonal (90)
B488	N1-D1 - RD16	S 235	3.061	N2343	N2359	truss diagonal (90)
B489	N1-D1 - RD16	S 235	3.029	N2359	N2342	truss diagonal (90)
B490	N1-D1 - RD16	S 235	3.061	N2308	N2344	truss diagonal (90)
B491	N1-D1 - RD16	S 235	3.029	N2344	N2304	truss diagonal (90)
B492	N1-D1 - RD16	S 235	3.061	N2346	N2360	truss diagonal (90)
B493	N1-D1 - RD16	S 235	3.029	N2360	N2345	truss diagonal (90)
B494	N1-N2 - IPE240	S 235	0.305	N2234	N2347	general (0)
B495	N1-N1 - UNP240	S 235	0.305	N2227	N2348	general (0)
B496	N1-N2 - IPE240	S 235	0.305	N2231	N2349	general (0)
B497	N1-N2 - IPE240	S 235	0.305	N2233	N2350	general (0)
B498	N1-N1 - UNP240	S 235	0.305	N2228	N2351	general (0)
B499	N1-N2 - IPE240	S 235	0.305	N2230	N2352	general (0)
B500	N1-D1 - RD16	S 235	3.061	N2231	N2359	truss diagonal (90)
B501	N1-D1 - RD16	S 235	3.029	N2359	N2227	truss diagonal (90)
B502	N1-D1 - RD16	S 235	3.061	N2230	N2360	truss diagonal (90)
B503	N1-D1 - RD16	S 235	3.029	N2360	N2228	truss diagonal (90)
B504	N1-P1 - RO26.9X3.2	S 235	0.978	N2367	N2368	general (0)
B505	N1-P1 - RO26.9X3.2	S 235	1.072	N2369	N2367	general (0)
B506	N1-P1 - RO26.9X3.2	S 235	0.978	N2370	N2371	general (0)
B507	N1-P1 - RO26.9X3.2	S 235	1.072	N2372	N2370	general (0)
B508	N1-N2 - IPE240	S 235	0.305	N2268	N2361	general (0)
B509	N1-N2 - IPE240	S 235	0.305	N2267	N2362	general (0)
B510	N1-N1 - UNP240	S 235	0.305	N2264	N2363	general (0)
B511	N1-N2 - IPE240	S 235	0.305	N2265	N2364	general (0)
B512	N1-N1 - UNP240	S 235	0.305	N2252	N2365	general (0)
B513	N1-N2 - IPE240	S 235	0.305	N2266	N2366	general (0)
B514	N1-N2 - IPE240	S 235	7.990	N2364	N2376	general (0)
B515	N1-N2 - IPE240	S 235	7.990	N2378	N2361	general (0)
B516	N1-N2 - IPE240	S 235	7.990	N2375	N2362	general (0)
B517	N1-N2 - IPE240	S 235	7.990	N2366	N2373	general (0)
B518	N1-N1 - UNP240	S 235	7.990	N2374	N2365	general (0)
B519	N1-N1 - UNP240	S 235	7.990	N2363	N2377	general (0)
B520	N1-D1 - RD16	S 235	3.061	N2267	N2367	truss diagonal (90)
B521	N1-D1 - RD16	S 235	3.029	N2367	N2252	truss diagonal (90)
B522	N1-D1 - RD16	S 235	3.061	N2369	N2385	truss diagonal (90)
B523	N1-D1 - RD16	S 235	3.029	N2385	N2368	truss diagonal (90)
B524	N1-D1 - RD16	S 235	3.061	N2268	N2370	truss diagonal (90)
B525	N1-D1 - RD16	S 235	3.029	N2370	N2264	truss diagonal (90)
B526	N1-D1 - RD16	S 235	3.061	N2372	N2386	truss diagonal (90)
B527	N1-D1 - RD16	S 235	3.029	N2386	N2371	truss diagonal (90)
B528	N1-N2 - IPE240	S 235	0.305	N2297	N2373	general (0)
B529	N1-N1 - UNP240	S 235	0.305	N2290	N2374	general (0)
B530	N1-N2 - IPE240	S 235	0.305	N2294	N2375	general (0)
B531	N1-N2 - IPE240	S 235	0.305	N2296	N2376	general (0)
B532	N1-N1 - UNP240	S 235	0.305	N2291	N2377	general (0)
B533	N1-N2 - IPE240	S 235	0.305	N2293	N2378	general (0)
B534	N1-D1 - RD16	S 235	3.061	N2294	N2385	truss diagonal (90)
B535	N1-D1 - RD16	S 235	3.029	N2385	N2290	truss diagonal (90)
B536	N1-D1 - RD16	S 235	3.061	N2293	N2386	truss diagonal (90)
B537	N1-D1 - RD16	S 235	3.029	N2386	N2291	truss diagonal (90)
B542	N1-N2 - IPE240	S 235	0.305	N2285	N2387	general (0)
B543	N1-N2 - IPE240	S 235	0.305	N2284	N2388	general (0)
B544	N1-N1 - UNP240	S 235	0.305	N2281	N2389	general (0)
B545	N1-N2 - IPE240	S 235	0.305	N2282	N2390	general (0)
B546	N1-N1 - UNP240	S 235	0.305	N2273	N2391	general (0)
B547	N1-N2 - IPE240	S 235	0.305	N2283	N2392	general (0)
B548	N1-N2 - IPE240	S 235	4.990	N3021	N24	general (0)
B549	N1-N2 - IPE240	S 235	4.990	N21	N3024	general (0)
B550	N1-N2 - IPE240	S 235	4.990	N22	N3026	general (0)
B551	N1-N2 - IPE240	S 235	4.990	N3027	N30	general (0)
B552	N1-N1 - UNP240	S 235	4.990	N29	N3030	general (0)
B553	N1-N1 - UNP240	S 235	4.990	N3031	N23	general (0)
B554	N1-D1 - RD16	S 235	2.936	N3013	N2411	truss diagonal (90)
B555	N1-D1 - RD16	S 235	2.903	N2411	N3014	truss diagonal (90)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B558	N1-D1 - RD16	S 235	2.936	N3015	N2412	truss diagonal (90)
B559	N1-D1 - RD16	S 235	2.903	N2412	N3016	truss diagonal (90)
B562	N1-N2 - IPE240	S 235	0.305	N2257	N2399	general (0)
B563	N1-N1 - UNP240	S 235	0.305	N2250	N2400	general (0)
B564	N1-N2 - IPE240	S 235	0.305	N2254	N2401	general (0)
B565	N1-N2 - IPE240	S 235	0.305	N2256	N2402	general (0)
B566	N1-N1 - UNP240	S 235	0.305	N2251	N2403	general (0)
B567	N1-N2 - IPE240	S 235	0.305	N2253	N2404	general (0)
B568	N1-D1 - RD16	S 235	3.061	N2219	N2411	truss diagonal (90)
B569	N1-D1 - RD16	S 235	3.029	N2411	N2221	truss diagonal (90)
B570	N1-D1 - RD16	S 235	3.061	N2218	N2412	truss diagonal (90)
B571	N1-D1 - RD16	S 235	3.029	N2412	N2217	truss diagonal (90)
B572	N1-N2 - IPE240	S 235	7.990	N27	N32	general (0)
B573	N1-P1 - RO26.9X3.2	S 235	0.978	N2333	N1	general (0)
B574	N1-P1 - RO26.9X3.2	S 235	1.072	N2461	N2333	general (0)
B575	N1-P1 - RO26.9X3.2	S 235	1.072	N2462	N2334	general (0)
B576	N1-P1 - RO26.9X3.2	S 235	0.978	N2334	N2463	general (0)
B577	N1-P1 - RO26.9X3.2	S 235	0.978	N2359	N2464	general (0)
B578	N1-P1 - RO26.9X3.2	S 235	1.072	N2465	N2359	general (0)
B579	N1-P1 - RO26.9X3.2	S 235	1.072	N2466	N2360	general (0)
B580	N1-P1 - RO26.9X3.2	S 235	0.978	N2360	N2467	general (0)
B581	N1-P1 - RO26.9X3.2	S 235	0.978	N2385	N2468	general (0)
B582	N1-P1 - RO26.9X3.2	S 235	1.072	N2469	N2385	general (0)
B583	N1-P1 - RO26.9X3.2	S 235	1.072	N2470	N2386	general (0)
B584	N1-P1 - RO26.9X3.2	S 235	0.978	N2386	N2471	general (0)
B585	N1-P1 - RO26.9X3.2	S 235	0.978	N2411	N2472	general (0)
B586	N1-P1 - RO26.9X3.2	S 235	1.072	N2473	N2411	general (0)
B587	N1-P1 - RO26.9X3.2	S 235	1.072	N2474	N2412	general (0)
B588	N1-P1 - RO26.9X3.2	S 235	0.978	N2412	N2475	general (0)
B1104	N1-N2 - IPE240	S 235	0.305	N2974	N2961	general (0)
B1105	N1-N2 - IPE240	S 235	0.305	N2975	N2962	general (0)
B1106	N1-N1 - UNP240	S 235	0.305	N2973	N2963	general (0)
B1107	N1-N2 - IPE240	S 235	0.305	N2976	N2964	general (0)
B1108	N1-N1 - UNP240	S 235	0.305	N2977	N2965	general (0)
B1109	N1-N2 - IPE240	S 235	0.305	N2978	N2966	general (0)
B1110	N1-N1 - UNP240	S 235	2.952	N2967	N2963	general (0)
B1111	N1-N2 - IPE240	S 235	2.952	N2968	N2964	general (0)
B1112	N1-N2 - IPE240	S 235	2.952	N2961	N2969	general (0)
B1113	N1-N2 - IPE240	S 235	2.952	N2962	N2970	general (0)
B1114	N1-N2 - IPE240	S 235	2.952	N2971	N2966	general (0)
B1115	N1-N1 - UNP240	S 235	2.952	N2965	N2972	general (0)
B1116	N1-N1 - UNP240	S 235	5.100	N2972	N2967	general (0)
B1117	N1-D1 - RD16	S 235	3.429	N2975	N2971	truss diagonal (90)
B1118	N1-D1 - RD16	S 235	3.401	N2971	N2977	truss diagonal (90)
B1119	N1-D1 - RD16	S 235	3.429	N2974	N2968	truss diagonal (90)
B1120	N1-D1 - RD16	S 235	3.401	N2968	N2973	truss diagonal (90)
B1122	N1-S2-cl - QRO220X12.5	S 235	4.620	N2981	N2982	general (0)
B1123	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2977	N2975	general (0)
B1124	N1-N1 - UNP240	S 235	0.400	N2973	N3016	general (0)
B1125	N1-N2 - IPE240	S 235	0.400	N2976	N2985	general (0)
B1126	N1-N1 - UNP240	S 235	0.400	N2977	N3014	general (0)
B1127	N1-N2 - IPE240	S 235	0.400	N2978	N2986	general (0)
B1128	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N2975	N2974	general (0)
B1129	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N2974	N2973	general (0)
B1132	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N3013	N3014	general (0)
B1133	N1-K1 - U g (195; 150; 25; 10)	S 235	1.000	N3015	N3013	general (0)
B1134	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	2.050	N3016	N3015	general (0)
B1135	N1-P1 - RO26.9X3.2	S 235	0.978	N2995	N2996	general (0)
B1136	N1-P1 - RO26.9X3.2	S 235	1.072	N2997	N2995	general (0)
B1137	N1-P1 - RO26.9X3.2	S 235	0.978	N2998	N2999	general (0)
B1138	N1-P1 - RO26.9X3.2	S 235	1.072	N3000	N2998	general (0)
B1139	N1-N2 - IPE240	S 235	0.305	N3015	N3024	general (0)
B1140	N1-N2 - IPE240	S 235	0.305	N3013	N3026	general (0)
B1141	N1-N1 - UNP240	S 235	0.305	N3016	N3031	general (0)
B1142	N1-N2 - IPE240	S 235	0.305	N2985	N3021	general (0)
B1143	N1-N1 - UNP240	S 235	0.305	N3014	N3030	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B1144	N1-N2 - IPE240	S 235	0.305	N2986	N3027	general (0)
B1145	N1-N2 - IPE240	S 235	7.990	N2390	N2402	general (0)
B1146	N1-N2 - IPE240	S 235	7.990	N2404	N2387	general (0)
B1147	N1-N2 - IPE240	S 235	7.990	N2401	N2388	general (0)
B1148	N1-N2 - IPE240	S 235	7.990	N2392	N2399	general (0)
B1149	N1-N1 - UNP240	S 235	7.990	N2400	N2391	general (0)
B1150	N1-N1 - UNP240	S 235	7.990	N2389	N2403	general (0)
B1151	N1-D1 - RD16	S 235	3.061	N2284	N2995	truss diagonal (90)
B1152	N1-D1 - RD16	S 235	3.029	N2995	N2273	truss diagonal (90)
B1153	N1-D1 - RD16	S 235	3.061	N2997	N3001	truss diagonal (90)
B1154	N1-D1 - RD16	S 235	3.029	N3001	N2996	truss diagonal (90)
B1155	N1-D1 - RD16	S 235	3.061	N2285	N2998	truss diagonal (90)
B1156	N1-D1 - RD16	S 235	3.029	N2998	N2281	truss diagonal (90)
B1157	N1-D1 - RD16	S 235	3.061	N3000	N3002	truss diagonal (90)
B1158	N1-D1 - RD16	S 235	3.029	N3002	N2999	truss diagonal (90)
B1159	N1-D1 - RD16	S 235	3.061	N2254	N3001	truss diagonal (90)
B1160	N1-D1 - RD16	S 235	3.029	N3001	N2250	truss diagonal (90)
B1161	N1-D1 - RD16	S 235	3.061	N2253	N3002	truss diagonal (90)
B1162	N1-D1 - RD16	S 235	3.029	N3002	N2251	truss diagonal (90)
B1163	N1-P1 - RO26.9X3.2	S 235	0.978	N3001	N3003	general (0)
B1164	N1-P1 - RO26.9X3.2	S 235	1.072	N3004	N3001	general (0)
B1165	N1-P1 - RO26.9X3.2	S 235	1.072	N3005	N3002	general (0)
B1166	N1-P1 - RO26.9X3.2	S 235	0.978	N3002	N3006	general (0)
B1167	N1-N2 - IPE240	S 235	0.400	N2974	N3015	general (0)
B1169	N1-S2-cl - QRO220X12.5	S 235	4.620	N3036	N3035	general (0)
B1171	N1-N2 - IPE240	S 235	0.400	N2975	N3013	general (0)
B1172	N1-N2 - IPE240	S 235	0.400	N2218	N2285	general (0)
B1173	N1-N2 - IPE240	S 235	0.400	N2219	N2284	general (0)
B1174	N1-N2 - IPE240	S 235	0.400	N2253	N2268	general (0)
B1175	N1-N2 - IPE240	S 235	0.400	N2254	N2267	general (0)
B1177	N1-S2-cl - QRO220X12.5	S 235	4.620	N3041	N3042	general (0)
B1178	N1-S2-cl - QRO220X12.5	S 235	4.620	N3043	N3044	general (0)
B1181	N1-S2-cl - QRO220X12.5	S 235	4.620	N3049	N3050	general (0)
B1182	N1-S2-cl - QRO220X12.5	S 235	4.620	N3051	N3052	general (0)
B167	N1-FN1 - CFRHS220X120X10	S 235	9.000	N201	N202	general (0)
B168	N1-FS1 - QRO120X6.3	S 235	3.620	N203	N204	general (0)
B169	N1-FS1 - QRO120X6.3	S 235	3.620	N205	N206	general (0)
B1183	N1-FN1 - CFRHS220X120X10	S 235	6.000	N3057	N201	general (0)
B1185	N1-FS1 - QRO120X6.3	S 235	3.620	N3059	N3060	general (0)
B1186	N1-FN1 - CFRHS220X120X10	S 235	9.000	N202	N3063	general (0)
B1188	N1-FS1 - QRO120X6.3	S 235	3.620	N3062	N3065	general (0)
B1189	N1-FN1 - CFRHS220X120X10	S 235	1.548	N3066	N3063	general (0)

6. 2D members

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S4	konstrukcija	plate (90)	Standard	C25/30	constant	450
S5	konstrukcija	plate (90)	Standard	C25/30	constant	450
S6	konstrukcija	plate (90)	Standard	C25/30	constant	450
S7	konstrukcija	plate (90)	Standard	C25/30	constant	450
S8	konstrukcija	plate (90)	Standard	C25/30	constant	450
S9	konstrukcija	plate (90)	Standard	C25/30	constant	450
S10	konstrukcija	plate (90)	Standard	C25/30	constant	450
S11	konstrukcija	plate (90)	Standard	C25/30	constant	450

7. Hinges

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H1	B252	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H2	B179	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H3	B180	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H4	B181	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H5	B182	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H6	B198	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H7	B199	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H8	B200	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H9	B201	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H10	B241	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H11	B242	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H12	B243	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H13	B251	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H14	B253	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H15	B254	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H16	B261	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H17	B262	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H18	B263	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H19	B264	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H20	B271	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H21	B272	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H22	B273	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H23	B274	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H24	B281	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H25	B282	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H26	B283	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H27	B284	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H28	B291	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H29	B292	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H30	B293	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H31	B294	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H32	B301	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H33	B302	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H34	B303	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H35	B304	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H36	B311	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H37	B312	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H38	B313	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H39	B314	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H40	B436	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H41	B437	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H42	B438	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H43	B439	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H44	B470	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H45	B471	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H46	B472	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H47	B473	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H48	B504	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H49	B505	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H50	B506	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H51	B507	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H56	B573	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H57	B574	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H58	B575	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H59	B576	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H60	B577	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H61	B578	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H62	B579	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H63	B580	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H64	B581	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H65	B582	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H66	B583	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H67	B584	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H68	B585	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H69	B586	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H70	B587	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H71	B588	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H237	B244	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H310	B1135	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H311	B1136	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H312	B1137	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H313	B1138	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H314	B1163	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H315	B1164	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H316	B1165	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H317	B1166	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

8. Rigid arms

Name	Master	Slave	Hinge on master	Hinge on slave
RA1	N142	N141	No	No
RA2	N146	N121	No	No
RA3	N146	N127	No	No
RA4	N112	N111	No	No
RA5	N116	N91	No	No
RA6	N116	N97	No	No
RA7	N114	N103	No	No
RA8	N114	N109	No	No
RA9	N82	N81	No	No
RA10	N86	N61	No	No
RA11	N86	N67	No	No
RA12	N84	N73	No	No
RA13	N84	N79	No	No
RA14	N172	N171	No	No
RA15	N56	N55	No	No
RA16	N2206	N169	No	No
RA17	N2206	N170	No	No
RA18	N2205	N168	No	No
RA19	N2205	N167	No	No
RA20	N2216	N35	No	No
RA21	N2216	N41	No	No
RA22	N2215	N47	No	No
RA23	N2215	N53	No	No
RA24	N14	N13	No	No
RA25	N2	N11	No	No
RA26	N2	N12	No	No
RA27	N4	N10	No	No
RA28	N4	N9	No	No
RA29	N2224	N2231	No	No
RA30	N2226	N2230	No	No
RA35	N2287	N2294	No	No
RA36	N2289	N2293	No	No
RA37	N2224	N2244	No	No
RA38	N2226	N2245	No	No
RA39	N2287	N2307	No	No
RA40	N2289	N2308	No	No
RA47	N2295	N2413	No	No
RA48	N2232	N2185	No	No
RA49	N144	N139	No	No
RA50	N144	N133	No	No
RA101	N2982	N3034	No	No
RA102	N2982	N3033	No	No
RA103	N3035	N3038	No	No
RA104	N3035	N3037	No	No
RA105	N3042	N3039	No	No
RA106	N3042	N3040	No	No
RA107	N3044	N3045	No	No
RA108	N3044	N3046	No	No
RA109	N3050	N3047	No	No
RA110	N3050	N3048	No	No
RA111	N3052	N3053	No	No
RA112	N3052	N3054	No	No

9. Nodal supports

Name	Node	System	Type	X	Y	Z	Rx	Ry	Rz
Sn2	N2981	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn1	N3036	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn3	N3043	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn4	N3051	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn5	N3049	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free

Name	Node	System	Type	X	Y	Z	Rx	Ry	Rz
Sn6	N3041	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn28	N203	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn29	N205	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn30	N3059	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn32	N3062	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free

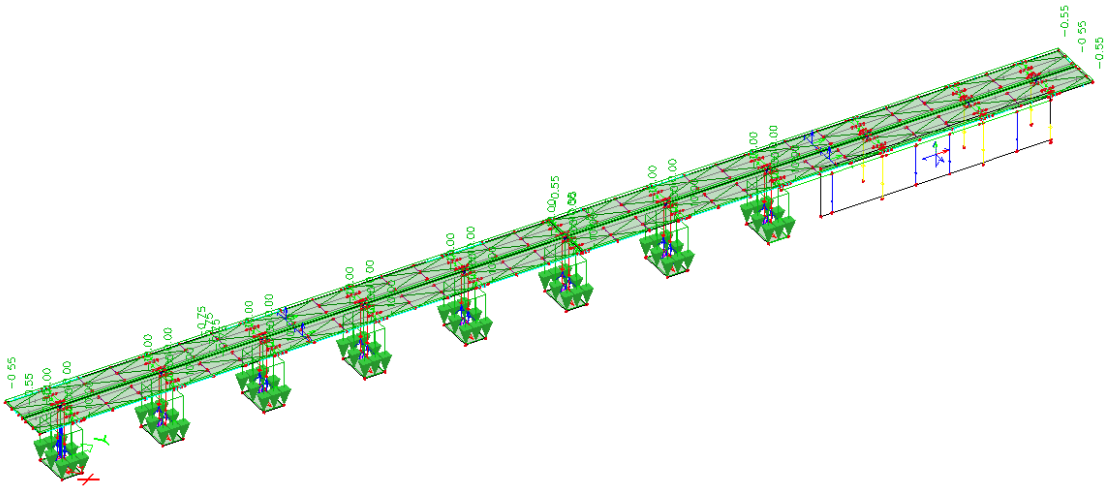
2. OBTEŽBE IN OBTEŽNE KOMBINACIJE

2.1. Obtežbe

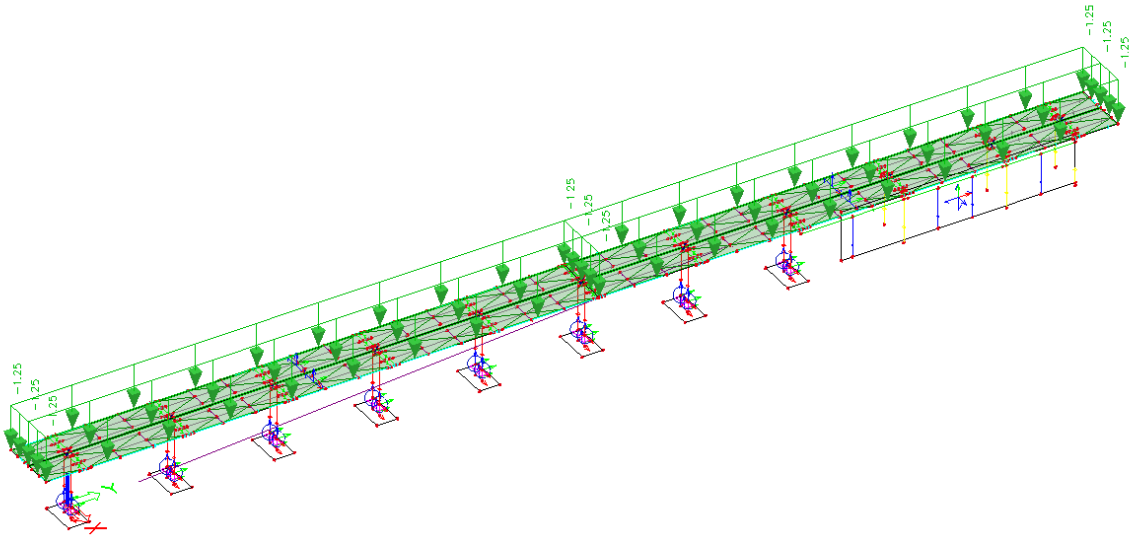
10. Load cases

Name	Description	Action type	Load group	Direction	Duration	Master load case
	Spec	Load type				
lastna		Permanent	L	-Z		
		Self weight				
stalna		Permanent	L			
		Standard				
sneg		Variable	S		Short	None
	Standard	Static				
horiz. ograja		Variable	HO		Short	None
	Standard	Static				
W x		Variable	Wxy		Short	None
	Standard	Static				
W -x		Variable	Wxy		Short	None
	Standard	Static				
W y		Variable	Wxy		Short	None
	Standard	Static				
W -y		Variable	Wxy		Short	None
	Standard	Static				
potres X		Variable	Ex			None
	Seismicity	Dynamic				
potres Y		Variable	Ey			None
	Seismicity	Dynamic				
W pritisk streha		Variable	Wps		Short	None
	Standard	Static				
W srk streha		Variable	Wps		Short	None
	Standard	Static				
Aeropri-1		Variable	aer		Short	None
	Standard	Static				
Aeropri-2		Variable	aer		Short	None
	Standard	Static				
sneg-s1		Variable	S		Short	None
	Standard	Static				
sneg-s2		Variable	S		Short	None
	Standard	Static				

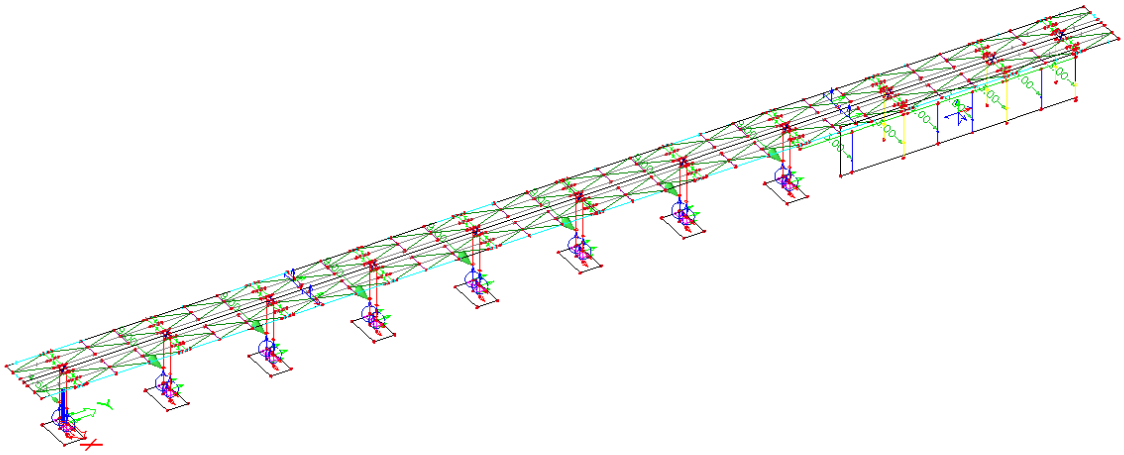
stalna



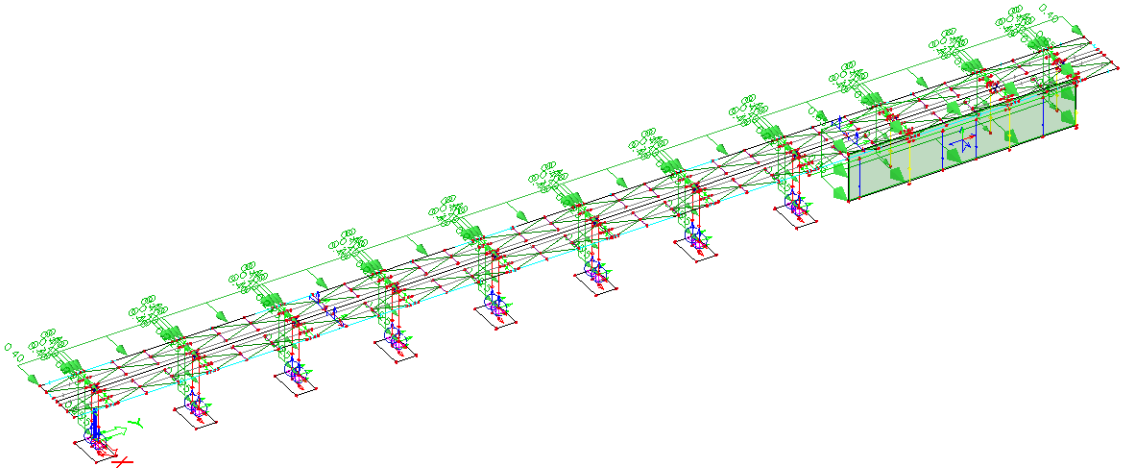
sneg



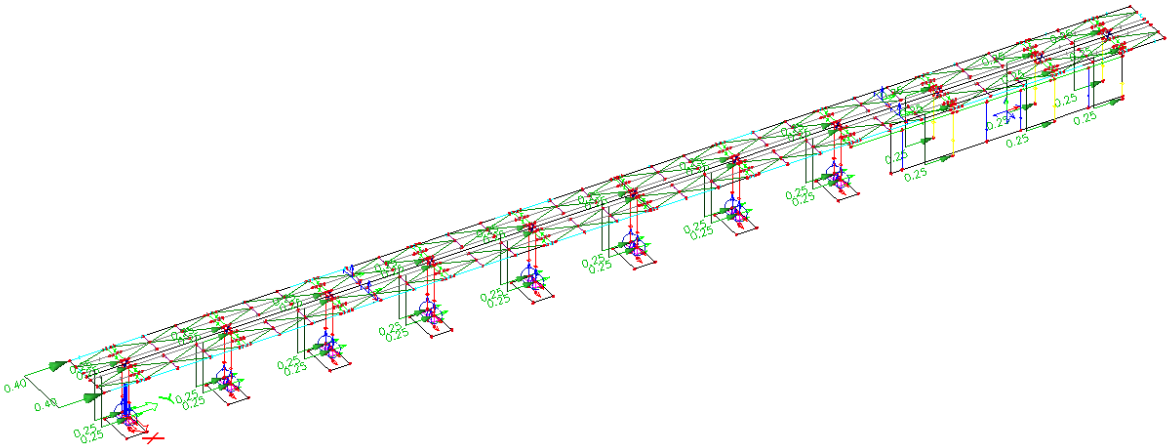
horzontalna ograja



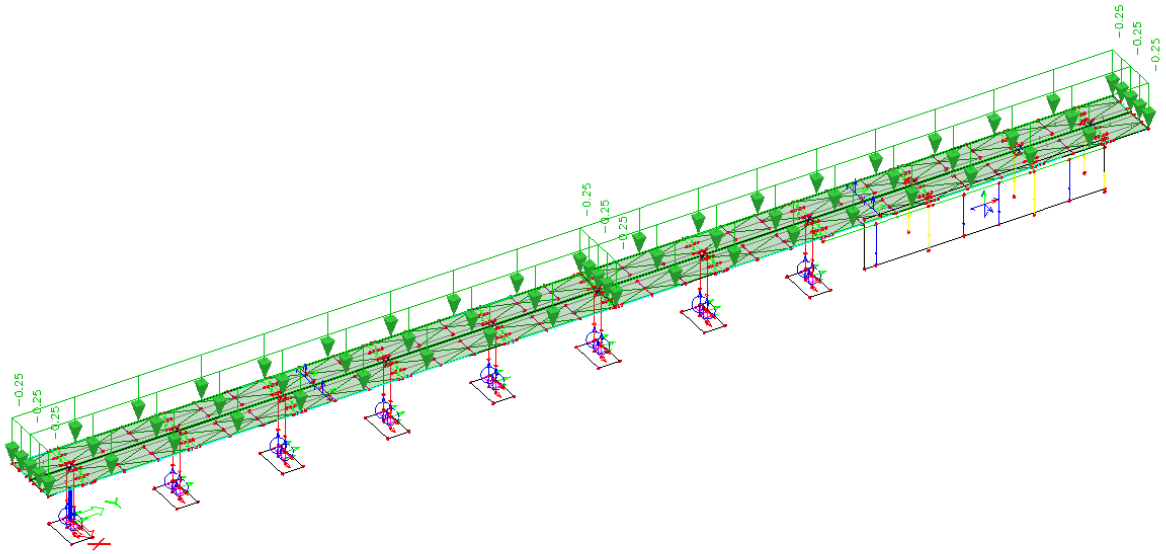
Wx



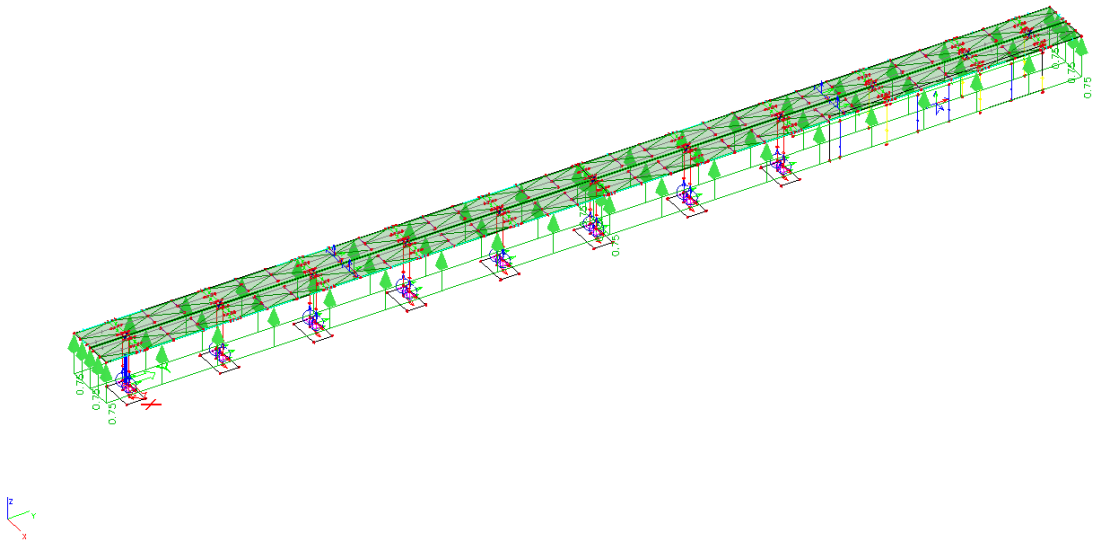
Wy



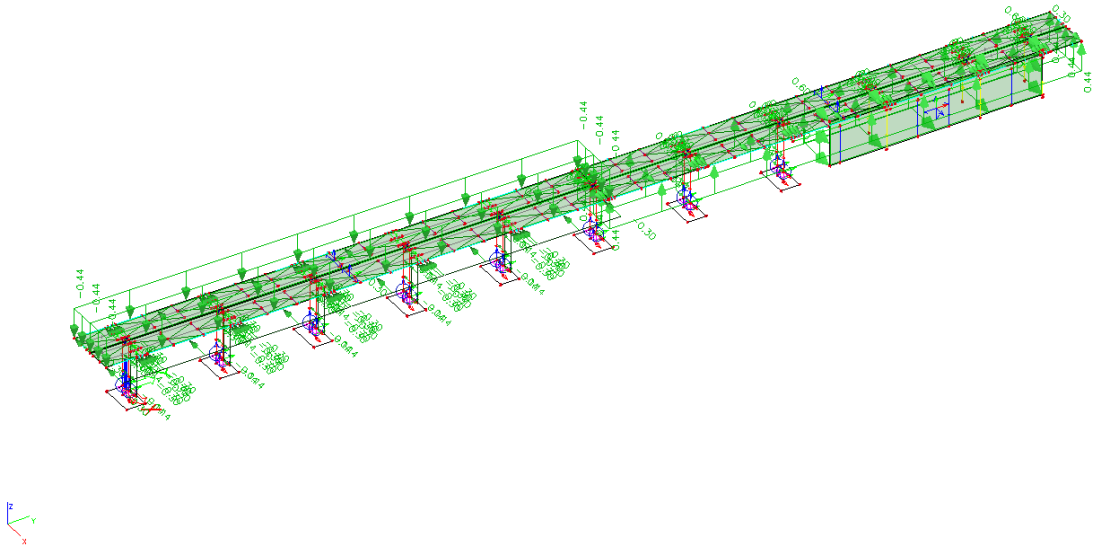
Wpritsk streha



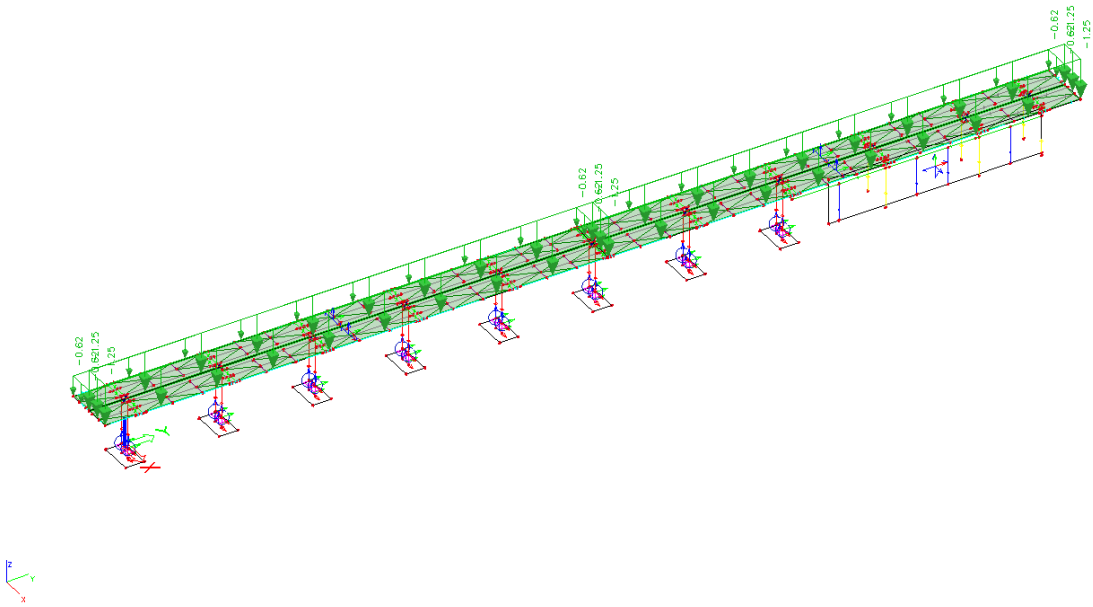
W srk streha



Aeroprit-1



sneg-s1



11. Combinations

Name	Description	Type	Load cases	Coeff. [-]
potres 1		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	0.30
potres 2		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	-0.30
potres 3		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	0.30
potres 4		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	-0.30
potres 5		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	1.00
potres 6		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	1.00
potres 7		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	-1.00
potres 8		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	-1.00
MSN-temelj-1-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-1-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90

Name	Description	Type	Load cases	Coeff. [-]
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-1		Envelope - ultimate	lastna	1.35

Name	Description	Type	Load cases	Coeff. [-]
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-6-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-6-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-7		Linear - ultimate	lastna	1.35
			stalna	1.35
			W x	0.90
			sneg-s1	1.50
MSN-temelj-8		Linear - ultimate	lastna	1.35
			stalna	1.35
			W -x	0.90
			sneg-s2	1.50

12. Nonlinear combinations

Name	Type	Load cases	Coeff. [-]
NC1	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W pritisk streha	1.50
NC2	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W x	1.50
		W pritisk streha	1.50
NC3	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -x	1.50
		W pritisk streha	1.50
NC4	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W y	1.50
		W pritisk streha	1.50
NC5	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -y	1.50
		W pritisk streha	1.50
NC6	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
NC7	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
NC8	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
NC9	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
NC10	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W x	1.00
		W pritisk streha	1.00
NC11	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -x	1.00
		W pritisk streha	1.00
NC12	Serviceability	lastna	1.00
		stalna	1.00

Name	Type	Load cases	Coeff. [-]
		sneg	1.00
		horiz. ograja	1.00
		W y	1.00
		W pritisk streha	1.00
NC13	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -y	1.00
		W pritisk streha	1.00
NC14	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	1.50
		Aeropri-1	0.90
NC15	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC16	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC17	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC18	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC19	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC20	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC21	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC22	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50

Name	Type	Load cases	Coeff. [-]
		W srk streha	1.50
		Aeropri-1	0.90
NC23	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC24	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC25	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC26	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC27	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC28	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC29	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC30	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC31	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC32	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50

Name	Type	Load cases	Coeff. [-]
NC33	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC34	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC35	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC36	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC37	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC38	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC39	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC40	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC41	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC42	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC43	Ultimate	lastna	1.35

Name	Type	Load cases	Coeff. [-]
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC44	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC45	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC46	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC47	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC48	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC49	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC50-s1	Ultimate	lastna	1.35
		stalna	1.35
		W x	0.90
		sneg-s1	1.50
NC51-s2	Ultimate	lastna	1.35
		stalna	1.35
		W -x	0.90
		sneg-s2	1.50

13. Mass groups

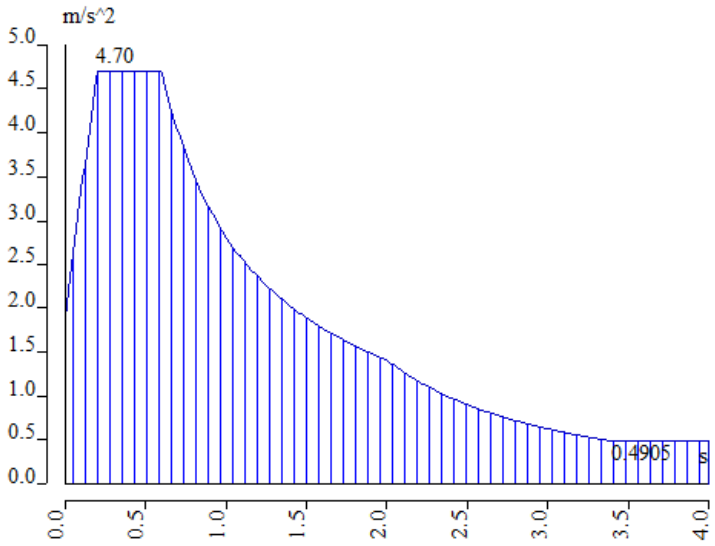
Name	Load case	Description
MG1	lastna	lastna
MG2	stalna	stalna

14. Combination of mass groups

Name	Mass group	Coeff. [-]
CM1	MG1 - lastna	1.00
	MG2 - stalna	1.00
CM1/1 - 2.12		
CM1/2 - 2.45		
CM1/3 - 2.74		
CM1/4 - 2.97		
CM1/5 - 3.49		
CM1/6 - 4.21		
CM1/7 - 4.97		
CM1/8 - 5.81		
CM1/9 - 5.94		
CM1/10 - 6.25		
CM1/11 - 6.59		
CM1/12 - 6.93		
CM1/13 - 7.00		
CM1/14 - 7.17		
CM1/15 - 7.18		
CM1/16 - 7.22		
CM1/17 - 7.33		
CM1/18 - 7.34		
CM1/19 - 7.35		
CM1/20 - 7.36		
CM1/21 - 7.40		
CM1/22 - 7.42		
CM1/23 - 7.43		
CM1/24 - 7.43		
CM1/25 - 7.44		
CM1/26 - 7.45		
CM1/27 - 7.46		
CM1/28 - 7.46		
CM1/29 - 7.48		
CM1/30 - 7.51		
CM1/31 - 7.56		
CM1/32 - 7.66		
CM1/33 - 7.67		
CM1/34 - 7.67		
CM1/35 - 7.68		
CM1/36 - 7.68		
CM1/37 - 7.68		
CM1/38 - 7.68		
CM1/39 - 7.68		
CM1/40 - 7.68		
CM1/41 - 7.79		
CM1/42 - 8.02		
CM1/43 - 8.04		
CM1/44 - 8.38		
CM1/45 - 8.47		
CM1/46 - 8.52		
CM1/47 - 8.64		
CM1/48 - 8.71		
CM1/49 - 8.84		
CM1/50 - 8.94		
CM1/51 - 8.96		
CM1/52 - 9.08		
CM1/53 - 9.14		
CM1/54 - 9.35		
CM1/55 - 9.42		
CM1/56 - 9.51		

Name	Mass group	Coeff. [-]
CM1/57 - 9.57		
CM1/58 - 9.70		
CM1/59 - 9.71		
CM1/60 - 9.73		
CM1/61 - 9.78		
CM1/62 - 9.89		
CM1/63 - 9.91		
CM1/64 - 10.10		
CM1/65 - 10.23		
CM1/66 - 10.25		
CM1/67 - 10.46		
CM1/68 - 10.64		
CM1/69 - 10.66		
CM1/70 - 10.73		
CM1/71 - 10.75		
CM1/72 - 10.75		
CM1/73 - 10.76		
CM1/74 - 10.77		
CM1/75 - 10.79		
CM1/76 - 10.81		
CM1/77 - 10.88		
CM1/78 - 10.97		
CM1/79 - 11.00		
CM1/80 - 11.02		
CM1/81 - 11.18		
CM1/82 - 11.31		
CM1/83 - 11.34		
CM1/84 - 11.39		
CM1/85 - 11.46		
CM1/86 - 11.68		
CM1/87 - 11.82		
CM1/88 - 11.89		
CM1/89 - 12.00		
CM1/90 - 12.07		
CM1/91 - 12.17		
CM1/92 - 12.27		
CM1/93 - 12.32		
CM1/94 - 12.37		
CM1/95 - 12.42		
CM1/96 - 12.60		
CM1/97 - 12.67		
CM1/98 - 12.70		
CM1/99 - 12.78		
CM1/100 - 12.95		

15. Seismic spectrums

Name	Type drawing	Info	Drawing
UniqueID			
EC 8, class C, q = 1.5, ag=0.25	Period	Type code - Eurocode Subsoil type - C Direction - Horizontal Spectrum type - type 1 coeff accel. ag - 0.25 ag - design acceleration - 2.4525 beta - 0.2 q - behaviour factor - 1.5	

2.2. Ovojnice

16. Result classes

Name	Description	List
ULS-potres	linearno	potres 2 - Linear - ultimate
		potres 3 - Linear - ultimate
		potres 4 - Linear - ultimate
		potres 5 - Linear - ultimate
		potres 6 - Linear - ultimate
		potres 7 - Linear - ultimate
		potres 8 - Linear - ultimate
		potres 1 - Linear - ultimate
ULS	nelinearno	NC1
		NC2
		NC3
		NC4
		NC5
		NC6
		NC7
		NC8
		NC9
		NC14
		NC15
		NC16
		NC17
		NC18
		NC19
		NC20
		NC21
		NC22
		NC23
		NC24
		NC25
		NC26
		NC27
		NC28
		NC29
		NC30
		NC31
		NC32
		NC33
		NC34
		NC35
		NC36
		NC37
		NC38
		NC39
		NC40
		NC41
		NC42
		NC43
		NC44
		NC45
		NC46
		NC47
		NC48
		NC49
		NC50-s1
		NC51-s2
SLS	linearno	NC10
		NC11
		NC12
		NC13
ULS-temelji	linearno	MSN-temelj-1-1 - Envelope - ultimate
		MSN-temelj-1-2 - Envelope - ultimate

Name	Description	List
		MSN-temelj-2-1 - Envelope - ultimate
		MSN-temelj-2-2 - Envelope - ultimate
		MSN-temelj-3-1 - Envelope - ultimate
		MSN-temelj-3-2 - Envelope - ultimate
		MSN-temelj-4-1 - Envelope - ultimate
		MSN-temelj-4-2 - Envelope - ultimate
		MSN-temelj-5-1 - Envelope - ultimate
		MSN-temelj-5-2 - Envelope - ultimate
		MSN-temelj-6-1 - Envelope - ultimate
		MSN-temelj-6-2 - Envelope - ultimate
		MSN-temelj-7 - Linear - ultimate
		MSN-temelj-8 - Linear - ultimate

2.3. Računski protokoli

17. Calculation protocol

Linear calculation

Number of 2D elements	528
Number of 1D elements	3364
Number of mesh nodes	3742
Number of equations	22452
Bending theory	Mindlin
Load cases	lastna, stalna, sneg, horiz. ograja, W x, W -x, W y, W -y, W pritisk streha, W srk streha, Aeropri-1, Aeropri-2, sneg-s1, sneg-s2
Start of calculation	29.06.2021 15:44
End of calculation	29.06.2021 15:44

Sum of loads and reactions

Load case	Value	X [kN]	Y [kN]	Z [kN]
lastna	loads	0.00	0.00	-993.12
	reaction in nodes	-0.20	0.24	100.65
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.20	-0.24	892.47
stalna	loads	0.00	0.00	-727.23
	reaction in nodes	-0.12	0.02	64.82
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.12	-0.02	662.41
sneg	loads	0.00	0.00	-598.71
	reaction in nodes	-0.28	0.12	146.88
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.28	-0.12	451.83
horiz. ograja	loads	88.50	0.00	0.00
	reaction in nodes	-19.82	0.10	0.06
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-68.68	-0.10	-0.06
W x	loads	117.87	0.00	0.00
	reaction in nodes	-59.87	0.74	0.27
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-58.00	-0.74	-0.27
W -x	loads	-114.41	0.00	0.00
	reaction in nodes	56.80	-0.72	-0.26
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	57.61	0.72	0.26
W y	loads	0.00	27.45	0.00
	reaction in nodes	0.01	-5.38	0.32
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.01	-22.07	-0.32
W -y	loads	0.00	-27.45	0.00
	reaction in nodes	-0.01	5.41	-0.32
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00

Load case	Value	X [kN]	Y [kN]	Z [kN]
	contact 2D	0.01	22.04	0.32
W pritisk streha	loads	0.00	0.00	-119.74
	reaction in nodes	-0.06	0.02	29.38
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.06	-0.02	90.37
W srk streha	loads	0.00	0.00	359.22
	reaction in nodes	0.17	-0.07	-88.13
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.17	0.07	-271.10
Aeropri-1	loads	42.81	0.00	-6.73
	reaction in nodes	-51.46	0.97	-51.59
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	8.65	-0.97	58.32
Aeropri-2	loads	-62.61	0.00	6.73
	reaction in nodes	51.01	-0.92	51.59
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	11.59	0.92	-58.32
sneg-s1	loads	0.00	0.00	-449.03
	reaction in nodes	-0.56	0.09	110.23
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.56	-0.09	338.80
sneg-s2	loads	0.00	0.00	-449.03
	reaction in nodes	0.14	0.09	110.09
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.14	-0.09	338.94

The following dynamic load cases are detailed separately (see below):potres X, potres Y

Dynamic load case 15 : potres X

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	2.12	0.05	1	4.701	0.000	0.000	3.87	100.18	1.99	-7.85	-430.51
2	2.45	0.05	1	4.701	0.000	0.000	-0.11	0.14	-6.88	26.95	-0.53
3	2.74	0.05	1	4.701	0.000	0.000	3.60	242.31	4.59	-17.58	-895.79
4	2.97	0.05	1	4.701	0.000	0.000	0.43	4.70	0.54	-2.01	-15.43
5	3.49	0.05	1	4.701	0.000	0.000	0.01	0.00	0.01	-0.02	0.01
6	4.21	0.05	1	4.701	0.000	0.000	-0.09	0.84	-0.06	0.17	-2.18
7	4.97	0.05	1	4.682	0.000	0.000	0.04	0.29	-0.03	0.06	-0.36
8	5.81	0.05	1	4.309	0.000	0.000	0.04	0.55	-0.01	0.00	-0.22
9	5.94	0.05	1	4.258	0.000	0.000	-0.02	0.24	-0.01	0.01	-0.08
10	6.25	0.05	1	4.140	0.000	0.000	0.00	0.00	0.14	-0.06	0.00
11	6.59	0.05	1	4.020	0.000	0.000	-0.02	0.18	0.00	0.01	0.14
12	6.93	0.05	1	3.916	0.000	0.000	0.01	0.05	0.17	0.14	0.02
13	7.00	0.05	1	3.895	0.000	0.000	0.00	0.02	-0.04	-0.04	0.02
14	7.17	0.05	1	3.850	0.000	0.000	-0.03	0.98	-1.36	-0.77	0.67
15	7.18	0.05	1	3.846	0.000	0.000	-0.01	0.23	0.06	0.17	0.22
16	7.22	0.05	1	3.836	0.000	0.000	-0.01	0.13	0.01	-0.17	0.14
17	7.33	0.05	1	3.806	0.000	0.000	0.07	6.59	-4.26	-5.40	6.40
18	7.34	0.05	1	3.803	0.000	0.000	0.01	0.08	0.10	0.23	0.05
19	7.35	0.05	1	3.801	0.000	0.000	-0.01	0.17	-0.34	-0.45	0.19
20	7.36	0.05	1	3.797	0.000	0.000	-0.09	10.76	-1.44	-0.62	10.69
21	7.40	0.05	1	3.787	0.000	0.000	-0.03	0.95	0.65	0.24	1.09
22	7.42	0.05	1	3.782	0.000	0.000	-0.23	66.29	6.57	6.40	72.62
23	7.43	0.05	1	3.780	0.000	0.000	-0.04	1.79	0.17	-0.11	2.04
24	7.43	0.05	1	3.779	0.000	0.000	-0.02	0.34	-0.05	-0.12	0.38
25	7.44	0.05	1	3.776	0.000	0.000	0.36	167.33	-0.72	-1.59	188.56
26	7.45	0.05	1	3.774	0.000	0.000	0.27	92.62	0.30	0.21	105.70

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
27	7.46	0.05	1	3.772	0.000	0.000	-0.05	2.85	-3.53	-3.85	3.22
28	7.46	0.05	1	3.770	0.000	0.000	-0.07	5.56	-3.27	-3.53	6.37
29	7.48	0.05	1	3.766	0.000	0.000	0.06	4.46	-3.48	-3.23	5.11
30	7.51	0.05	1	3.759	0.000	0.000	-0.02	0.70	15.34	19.17	0.85
31	7.56	0.05	1	3.747	0.000	0.000	-0.04	2.69	-1.27	-0.72	3.31
32	7.66	0.05	1	3.724	0.000	0.000	0.00	0.03	-0.66	-0.97	0.04
33	7.67	0.05	1	3.721	0.000	0.000	0.00	0.00	0.01	0.02	0.01
34	7.67	0.05	1	3.720	0.000	0.000	-0.01	0.05	0.12	0.19	0.07
35	7.68	0.05	1	3.720	0.000	0.000	0.00	0.03	-0.04	-0.07	0.05
36	7.68	0.05	1	3.719	0.000	0.000	-0.01	0.04	-0.02	-0.04	0.06
37	7.68	0.05	1	3.719	0.000	0.000	0.00	0.01	0.01	0.01	0.01
38	7.68	0.05	1	3.719	0.000	0.000	0.00	0.00	0.00	0.01	0.00
39	7.68	0.05	1	3.718	0.000	0.000	0.00	0.01	0.00	0.00	0.01
40	7.68	0.05	1	3.718	0.000	0.000	0.00	0.00	0.00	0.00	0.00
41	7.79	0.05	1	3.693	0.000	0.000	-0.06	6.03	-3.55	-5.69	10.29
42	8.02	0.05	1	3.640	0.000	0.000	-0.02	0.46	0.23	0.71	0.84
43	8.04	0.05	1	3.634	0.000	0.000	0.01	0.16	-0.35	-0.66	0.33
44	8.38	0.05	1	3.566	0.000	0.000	0.00	0.01	0.04	0.06	0.04
45	8.47	0.05	1	3.548	0.000	0.000	0.00	0.02	-0.01	0.04	0.04
46	8.52	0.05	1	3.538	0.000	0.000	0.00	0.02	-0.03	-0.09	0.02
47	8.64	0.05	1	3.515	0.000	0.000	-0.01	0.55	0.49	1.03	1.61
48	8.71	0.05	1	3.501	0.000	0.000	-0.01	0.41	-0.01	0.32	1.44
49	8.84	0.05	1	3.475	0.000	0.000	0.00	0.00	-0.04	-0.09	0.02
50	8.94	0.05	1	3.459	0.000	0.000	0.01	0.21	-0.03	-0.19	0.80
51	8.96	0.05	1	3.456	0.000	0.000	-0.01	0.16	-0.04	-0.16	0.41
52	9.08	0.05	1	3.435	0.000	0.000	0.00	0.00	0.00	0.00	0.00
53	9.14	0.05	1	3.426	0.000	0.000	0.00	0.01	0.01	-0.07	0.04
54	9.35	0.05	1	3.392	0.000	0.000	0.00	0.02	0.00	-0.12	0.08
55	9.42	0.05	1	3.380	0.000	0.000	0.00	0.07	0.03	0.23	0.29
56	9.51	0.05	1	3.365	0.000	0.000	0.01	0.60	0.00	-0.11	3.01
57	9.57	0.05	1	3.356	0.000	0.000	0.01	0.12	-0.02	0.00	0.60
58	9.70	0.05	1	3.335	0.000	0.000	0.00	0.00	0.00	0.00	0.00
59	9.71	0.05	1	3.333	0.000	0.000	0.01	0.33	-0.08	-0.41	1.81
60	9.73	0.05	1	3.331	0.000	0.000	0.00	0.02	-0.01	-0.08	0.09
61	9.78	0.05	1	3.323	0.000	0.000	0.03	3.08	0.02	0.26	17.18
62	9.89	0.05	1	3.308	0.000	0.000	0.00	0.08	0.05	0.27	0.48
63	9.91	0.05	1	3.306	0.000	0.000	0.00	0.05	0.02	0.09	0.26
64	10.10	0.05	1	3.280	0.000	0.000	0.01	0.30	0.03	-0.10	2.14
65	10.23	0.05	1	3.262	0.000	0.000	0.00	0.05	-0.02	0.00	0.49
66	10.25	0.05	1	3.260	0.000	0.000	0.00	0.00	0.00	0.00	0.00
67	10.46	0.05	1	3.231	0.000	0.000	0.00	0.01	0.01	-0.03	0.08
68	10.64	0.05	1	3.207	0.000	0.000	0.00	0.00	0.00	0.00	0.00
69	10.66	0.05	1	3.204	0.000	0.000	0.00	0.00	0.00	0.00	0.01
70	10.73	0.05	1	3.194	0.000	0.000	0.00	0.01	0.00	0.00	0.06
71	10.75	0.05	1	3.193	0.000	0.000	0.00	0.00	0.00	0.00	0.00
72	10.75	0.05	1	3.192	0.000	0.000	0.00	0.01	0.00	0.00	0.09
73	10.76	0.05	1	3.192	0.000	0.000	0.00	0.00	0.00	0.00	0.01
74	10.77	0.05	1	3.190	0.000	0.000	0.00	0.00	0.00	0.00	0.01
75	10.79	0.05	1	3.189	0.000	0.000	0.00	0.00	0.00	0.00	0.00
76	10.81	0.05	1	3.185	0.000	0.000	0.00	0.00	0.00	0.00	0.00
77	10.88	0.05	1	3.179	0.000	0.000	0.00	0.00	0.00	0.00	0.00
78	10.97	0.05	1	3.169	0.000	0.000	0.00	0.00	0.00	0.00	0.00
79	11.00	0.05	1	3.166	0.000	0.000	0.00	0.02	0.01	-0.01	0.14
80	11.02	0.05	1	3.162	0.000	0.000	0.00	0.01	-0.02	-0.05	0.10
81	11.18	0.05	1	3.145	0.000	0.000	0.00	0.01	0.00	-0.02	0.12
82	11.31	0.05	1	3.131	0.000	0.000	0.00	0.00	0.00	0.00	0.00
83	11.34	0.05	1	3.128	0.000	0.000	0.00	0.00	0.00	0.00	0.00
84	11.39	0.05	1	3.122	0.000	0.000	0.00	0.00	0.00	0.00	0.00
85	11.46	0.05	1	3.115	0.000	0.000	0.00	0.00	0.01	0.02	0.02
86	11.68	0.05	1	3.090	0.000	0.000	0.00	0.00	0.00	0.00	0.00
87	11.82	0.05	1	3.075	0.000	0.000	0.00	0.00	0.00	0.00	0.00
88	11.89	0.05	1	3.067	0.000	0.000	0.00	0.01	0.01	0.01	0.05
89	12.00	0.05	1	3.055	0.000	0.000	0.00	0.00	0.00	0.00	0.00
90	12.07	0.05	1	3.049	0.000	0.000	0.00	0.00	0.00	0.00	0.00
91	12.17	0.05	1	3.041	0.000	0.000	0.00	0.00	0.00	0.01	0.05
92	12.27	0.05	1	3.032	0.000	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
93	12.32	0.05	1	3.028	0.000	0.000	0.00	0.00	0.00	0.00	0.00
94	12.37	0.05	1	3.023	0.000	0.000	0.00	0.01	0.00	0.00	0.03
95	12.42	0.05	1	3.019	0.000	0.000	0.00	0.01	0.00	-0.01	0.07
96	12.60	0.05	1	3.004	0.000	0.000	0.00	0.00	0.00	0.00	0.00
97	12.67	0.05	1	2.998	0.000	0.000	0.00	0.00	0.00	0.00	0.01
98	12.70	0.05	1	2.995	0.000	0.000	0.00	0.00	0.00	0.00	0.00
99	12.78	0.05	1	2.988	0.000	0.000	0.00	0.01	-0.01	-0.01	0.06
100	12.95	0.05	1	2.974	0.000	0.000	0.00	0.02	-0.01	-0.02	-0.01
Level=	0.00							331.69	20.61	40.21	1020.15

Dynamic load case 16 : potres Y

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	2.12	0.05	1	0.000	4.701	0.000	0.08	1.99	0.04	-0.16	-8.55
2	2.45	0.05	1	0.000	4.701	0.000	5.37	-6.88	347.09	-1360.32	26.81
3	2.74	0.05	1	0.000	4.701	0.000	0.07	4.59	0.09	-0.33	-16.98
4	2.97	0.05	1	0.000	4.701	0.000	0.05	0.54	0.06	-0.23	-1.77
5	3.49	0.05	1	0.000	4.701	0.000	0.02	0.01	0.03	-0.10	0.04
6	4.21	0.05	1	0.000	4.701	0.000	0.01	-0.06	0.00	-0.01	0.15
7	4.97	0.05	1	0.000	4.682	0.000	0.00	-0.03	0.00	-0.01	0.04
8	5.81	0.05	1	0.000	4.309	0.000	0.00	-0.01	0.00	0.00	0.01
9	5.94	0.05	1	0.000	4.258	0.000	0.00	-0.01	0.00	0.00	0.00
10	6.25	0.05	1	0.000	4.140	0.000	-0.09	0.14	5.16	-2.23	-0.07
11	6.59	0.05	1	0.000	4.020	0.000	0.00	0.00	0.00	0.00	0.00
12	6.93	0.05	1	0.000	3.916	0.000	0.03	0.17	0.67	0.52	0.06
13	7.00	0.05	1	0.000	3.895	0.000	-0.01	-0.04	0.08	0.07	-0.03
14	7.17	0.05	1	0.000	3.850	0.000	0.04	-1.36	1.89	1.06	-0.93
15	7.18	0.05	1	0.000	3.846	0.000	0.00	0.06	0.01	0.04	0.05
16	7.22	0.05	1	0.000	3.836	0.000	0.00	0.01	0.00	-0.01	0.01
17	7.33	0.05	1	0.000	3.806	0.000	-0.05	-4.26	2.76	3.50	-4.14
18	7.34	0.05	1	0.000	3.803	0.000	0.01	0.10	0.13	0.30	0.07
19	7.35	0.05	1	0.000	3.801	0.000	0.02	-0.34	0.68	0.90	-0.38
20	7.36	0.05	1	0.000	3.797	0.000	0.01	-1.44	0.19	0.08	-1.43
21	7.40	0.05	1	0.000	3.787	0.000	-0.02	0.65	0.45	0.16	0.74
22	7.42	0.05	1	0.000	3.782	0.000	-0.02	6.57	0.65	0.63	7.20
23	7.43	0.05	1	0.000	3.780	0.000	0.00	0.17	0.02	-0.01	0.19
24	7.43	0.05	1	0.000	3.779	0.000	0.00	-0.05	0.01	0.02	-0.06
25	7.44	0.05	1	0.000	3.776	0.000	0.00	-0.72	0.00	0.01	-0.81
26	7.45	0.05	1	0.000	3.774	0.000	0.00	0.30	0.00	0.00	0.35
27	7.46	0.05	1	0.000	3.772	0.000	0.06	-3.53	4.38	4.78	-3.99
28	7.46	0.05	1	0.000	3.770	0.000	0.04	-3.27	1.93	2.08	-3.75
29	7.48	0.05	1	0.000	3.766	0.000	-0.05	-3.48	2.71	2.52	-3.98
30	7.51	0.05	1	0.000	3.759	0.000	-0.51	15.34	336.72	420.83	18.56
31	7.56	0.05	1	0.000	3.747	0.000	0.02	-1.27	0.60	0.34	-1.57
32	7.66	0.05	1	0.000	3.724	0.000	0.10	-0.66	14.59	21.24	-0.89
33	7.67	0.05	1	0.000	3.721	0.000	0.00	0.01	0.03	0.04	0.02
34	7.67	0.05	1	0.000	3.720	0.000	-0.01	0.12	0.32	0.49	0.18
35	7.68	0.05	1	0.000	3.720	0.000	0.01	-0.04	0.05	0.08	-0.06
36	7.68	0.05	1	0.000	3.719	0.000	0.00	-0.02	0.01	0.02	-0.03
37	7.68	0.05	1	0.000	3.719	0.000	0.00	0.01	0.01	0.02	0.01
38	7.68	0.05	1	0.000	3.719	0.000	0.01	0.00	0.26	0.39	0.01
39	7.68	0.05	1	0.000	3.718	0.000	0.00	0.00	0.00	0.00	0.00
40	7.68	0.05	1	0.000	3.718	0.000	0.00	0.00	0.00	0.00	0.00
41	7.79	0.05	1	0.000	3.693	0.000	0.04	-3.55	2.09	3.35	-6.07
42	8.02	0.05	1	0.000	3.640	0.000	-0.01	0.23	0.11	0.35	0.42
43	8.04	0.05	1	0.000	3.634	0.000	-0.02	-0.35	0.77	1.44	-0.72
44	8.38	0.05	1	0.000	3.566	0.000	-0.01	0.04	0.25	0.37	0.24
45	8.47	0.05	1	0.000	3.548	0.000	0.00	-0.01	0.00	-0.01	-0.01
46	8.52	0.05	1	0.000	3.538	0.000	0.00	-0.03	0.05	0.17	-0.04
47	8.64	0.05	1	0.000	3.515	0.000	-0.01	0.49	0.43	0.91	1.43
48	8.71	0.05	1	0.000	3.501	0.000	0.00	-0.01	0.00	-0.01	-0.03
49	8.84	0.05	1	0.000	3.475	0.000	-0.01	-0.04	0.36	0.81	-0.20
50	8.94	0.05	1	0.000	3.459	0.000	0.00	-0.03	0.01	0.03	-0.13
51	8.96	0.05	1	0.000	3.456	0.000	0.00	-0.04	0.01	0.04	-0.09

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
52	9.08	0.05	1	0.000	3.435	0.000	0.00	0.00	0.01	0.03	0.01
53	9.14	0.05	1	0.000	3.426	0.000	0.00	0.01	0.01	-0.06	0.03
54	9.35	0.05	1	0.000	3.392	0.000	0.00	0.00	0.00	0.01	-0.01
55	9.42	0.05	1	0.000	3.380	0.000	0.00	0.03	0.01	0.10	0.13
56	9.51	0.05	1	0.000	3.365	0.000	0.00	0.00	0.00	0.00	0.00
57	9.57	0.05	1	0.000	3.356	0.000	0.00	-0.02	0.00	0.00	-0.12
58	9.70	0.05	1	0.000	3.335	0.000	0.00	0.00	0.00	0.00	0.00
59	9.71	0.05	1	0.000	3.333	0.000	0.00	-0.08	0.02	0.10	-0.44
60	9.73	0.05	1	0.000	3.331	0.000	0.00	-0.01	0.01	0.06	-0.07
61	9.78	0.05	1	0.000	3.323	0.000	0.00	0.02	0.00	0.00	0.10
62	9.89	0.05	1	0.000	3.308	0.000	0.00	0.05	0.03	0.17	0.31
63	9.91	0.05	1	0.000	3.306	0.000	0.00	0.02	0.01	0.03	0.10
64	10.10	0.05	1	0.000	3.280	0.000	0.00	0.03	0.00	-0.01	0.20
65	10.23	0.05	1	0.000	3.262	0.000	0.00	-0.02	0.01	0.00	-0.16
66	10.25	0.05	1	0.000	3.260	0.000	0.00	0.00	0.00	0.00	0.01
67	10.46	0.05	1	0.000	3.231	0.000	0.00	0.01	0.00	-0.01	0.03
68	10.64	0.05	1	0.000	3.207	0.000	0.00	0.00	0.00	0.00	0.00
69	10.66	0.05	1	0.000	3.204	0.000	0.00	0.00	0.00	0.00	0.00
70	10.73	0.05	1	0.000	3.194	0.000	0.00	0.00	0.00	0.00	0.02
71	10.75	0.05	1	0.000	3.193	0.000	0.00	0.00	0.00	0.00	0.00
72	10.75	0.05	1	0.000	3.192	0.000	0.00	0.00	0.00	0.00	0.03
73	10.76	0.05	1	0.000	3.192	0.000	0.00	0.00	0.00	0.00	0.00
74	10.77	0.05	1	0.000	3.190	0.000	0.00	0.00	0.00	0.00	0.00
75	10.79	0.05	1	0.000	3.189	0.000	0.00	0.00	0.00	0.00	0.00
76	10.81	0.05	1	0.000	3.185	0.000	0.00	0.00	0.00	0.00	0.00
77	10.88	0.05	1	0.000	3.179	0.000	0.00	0.00	0.00	0.00	0.00
78	10.97	0.05	1	0.000	3.169	0.000	0.00	0.00	0.00	0.00	0.00
79	11.00	0.05	1	0.000	3.166	0.000	0.00	0.01	0.00	0.00	0.04
80	11.02	0.05	1	0.000	3.162	0.000	0.00	-0.02	0.02	0.07	-0.15
81	11.18	0.05	1	0.000	3.145	0.000	0.00	0.00	0.00	0.01	-0.04
82	11.31	0.05	1	0.000	3.131	0.000	0.00	0.00	0.00	0.00	0.00
83	11.34	0.05	1	0.000	3.128	0.000	0.00	0.00	0.00	0.00	0.01
84	11.39	0.05	1	0.000	3.122	0.000	0.00	0.00	0.00	0.00	0.00
85	11.46	0.05	1	0.000	3.115	0.000	0.00	0.01	0.01	0.05	0.05
86	11.68	0.05	1	0.000	3.090	0.000	0.00	0.00	0.01	0.04	0.00
87	11.82	0.05	1	0.000	3.075	0.000	0.00	0.00	0.00	0.00	-0.01
88	11.89	0.05	1	0.000	3.067	0.000	0.00	0.01	0.00	0.00	0.02
89	12.00	0.05	1	0.000	3.055	0.000	0.00	0.00	0.01	0.04	0.03
90	12.07	0.05	1	0.000	3.049	0.000	0.00	0.00	0.00	0.01	0.01
91	12.17	0.05	1	0.000	3.041	0.000	0.00	0.00	0.00	0.01	0.02
92	12.27	0.05	1	0.000	3.032	0.000	0.00	0.00	0.00	0.00	0.00
93	12.32	0.05	1	0.000	3.028	0.000	0.00	0.00	0.00	0.00	0.00
94	12.37	0.05	1	0.000	3.023	0.000	0.00	0.00	0.00	0.00	0.02
95	12.42	0.05	1	0.000	3.019	0.000	0.00	0.00	0.00	0.00	-0.01
96	12.60	0.05	1	0.000	3.004	0.000	0.00	0.00	0.00	0.01	-0.01
97	12.67	0.05	1	0.000	2.998	0.000	0.00	0.00	0.00	0.00	0.01
98	12.70	0.05	1	0.000	2.995	0.000	0.00	0.00	0.00	0.02	-0.01
99	12.78	0.05	1	0.000	2.988	0.000	0.00	-0.01	0.00	0.01	-0.05
100	12.95	0.05	1	0.000	2.974	0.000	0.00	-0.01	0.00	0.00	0.00
Level=	0.00							20.61	483.88	1424.11	39.88

18. Calculation protocol

Solution of Free vibration

Number of 2D elements	528
Number of 1D elements	3364
Number of mesh nodes	3742
Number of equations	22452
Combination of mass groups	MC1 CM1
Number of frequencies	100
Method	Lanczos
Bending theory	Mindlin
Type of analysis model	Standard
Start of calculation	29.06.2021 15:44
End of calculation	29.06.2021 15:44

Sum of masses

	X [kg]	Y [kg]	Z [kg]
1	175039.35	175039.35	175039.35
1	175252.44	175252.44	175252.44

Relative modal masses

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
1	13.3161	0.47	2.12	0.1218	0.0000	0.0000	0.0000	0.1808	0.3969
2	15.4175	0.41	2.45	0.0002	0.4218	0.0000	0.0079	0.0002	0.0000
3	17.2106	0.37	2.74	0.2945	0.0001	0.0000	0.0000	0.3481	0.0664
4	18.6909	0.34	2.97	0.0057	0.0001	0.0000	0.0000	0.0057	0.0876
5	21.9399	0.29	3.49	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
6	26.4462	0.24	4.21	0.0010	0.0000	0.0000	0.0000	0.0006	0.0000
7	31.2234	0.20	4.97	0.0004	0.0000	0.0000	0.0000	0.0001	0.0016
8	36.4948	0.17	5.81	0.0007	0.0000	0.0000	0.0000	0.0000	0.0005
9	37.2911	0.17	5.94	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
10	39.2491	0.16	6.25	0.0000	0.0071	0.0000	0.0005	0.0000	0.0000
11	41.4241	0.15	6.59	0.0003	0.0000	0.0000	0.0000	0.0000	0.0014
12	43.534	0.14	6.93	0.0001	0.0010	0.0000	0.0004	0.0001	0.0000
13	43.9824	0.14	7.00	0.0000	0.0001	0.0001	0.0001	0.0000	0.0002
14	45.0407	0.14	7.17	0.0015	0.0028	0.0000	0.0010	0.0016	0.0008
15	45.1408	0.14	7.18	0.0003	0.0000	0.0004	0.0002	0.0002	0.0010
16	45.3572	0.14	7.22	0.0002	0.0000	0.0012	0.0013	0.0000	0.0001
17	46.0731	0.14	7.33	0.0099	0.0041	0.0005	0.0007	0.0066	0.0004
18	46.1417	0.14	7.34	0.0001	0.0002	0.0002	0.0021	0.0003	0.0001
19	46.1723	0.14	7.35	0.0003	0.0010	0.0000	0.0005	0.0001	0.0000
20	46.2718	0.14	7.36	0.0162	0.0003	0.0000	0.0012	0.0132	0.0009
21	46.5046	0.14	7.40	0.0014	0.0007	0.0008	0.0022	0.0006	0.0098
22	46.6135	0.13	7.42	0.1001	0.0010	0.0002	0.0001	0.0716	0.0482
23	46.6698	0.13	7.43	0.0027	0.0000	0.0001	0.0006	0.0016	0.0028
24	46.6972	0.13	7.43	0.0005	0.0000	0.0000	0.0001	0.0003	0.0368
25	46.7524	0.13	7.44	0.2531	0.0000	0.0000	0.0000	0.1807	0.0717
26	46.8127	0.13	7.45	0.1402	0.0000	0.0000	0.0000	0.1000	0.2336
27	46.8522	0.13	7.46	0.0043	0.0066	0.0001	0.0007	0.0034	0.0041
28	46.8958	0.13	7.46	0.0084	0.0029	0.0001	0.0004	0.0064	0.0006
29	47.0002	0.13	7.48	0.0068	0.0041	0.0005	0.0025	0.0059	0.0011
30	47.1678	0.13	7.51	0.0011	0.5118	0.0000	0.0049	0.0008	0.0000
31	47.499	0.13	7.56	0.0041	0.0009	0.0005	0.0040	0.0040	0.0126
32	48.1057	0.13	7.66	0.0000	0.0224	0.0000	0.0004	0.0000	0.0013
33	48.2023	0.13	7.67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
34	48.2176	0.13	7.67	0.0001	0.0005	0.0000	0.0000	0.0000	0.0000
35	48.2264	0.13	7.68	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000
36	48.2387	0.13	7.68	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
37	48.252	0.13	7.68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
38	48.2573	0.13	7.68	0.0000	0.0004	0.0000	0.0000	0.0000	0.0008
39	48.2626	0.13	7.68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009
40	48.267	0.13	7.68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
41	48.9656	0.13	7.79	0.0093	0.0032	0.0025	0.0001	0.0049	0.0000
42	50.3943	0.12	8.02	0.0007	0.0002	0.0019	0.0004	0.0007	0.0001
43	50.5415	0.12	8.04	0.0003	0.0012	0.0000	0.0001	0.0001	0.0004
44	52.6571	0.12	8.38	0.0000	0.0004	0.0015	0.0015	0.0001	0.0003
45	53.2092	0.12	8.47	0.0000	0.0000	0.0000	0.0003	0.0002	0.0007
46	53.5571	0.12	8.52	0.0000	0.0001	0.0002	0.0007	0.0001	0.0000
47	54.2663	0.12	8.64	0.0009	0.0007	0.0028	0.0018	0.0004	0.0001
48	54.7089	0.11	8.71	0.0007	0.0000	0.0086	0.0005	0.0000	0.0002
49	55.5741	0.11	8.84	0.0000	0.0006	0.0000	0.0002	0.0002	0.0003
50	56.1679	0.11	8.94	0.0003	0.0000	0.0017	0.0000	0.0001	0.0001
51	56.3083	0.11	8.96	0.0003	0.0000	0.0013	0.0001	0.0008	0.0003
52	57.0777	0.11	9.08	0.0000	0.0000	0.0014	0.0067	0.0000	0.0000
53	57.4334	0.11	9.14	0.0000	0.0000	0.0009	0.0073	0.0007	0.0000
54	58.7259	0.11	9.35	0.0000	0.0000	0.0033	0.0002	0.0006	0.0002
55	59.1681	0.11	9.42	0.0001	0.0000	0.0000	0.0015	0.0000	0.0005
56	59.7735	0.11	9.51	0.0010	0.0000	0.0217	0.0043	0.0000	0.0000
57	60.1062	0.10	9.57	0.0002	0.0000	0.0174	0.0000	0.0000	0.0005
58	60.9375	0.10	9.70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
59	60.992	0.10	9.71	0.0006	0.0000	0.0150	0.0670	0.0001	0.0020
60	61.1229	0.10	9.73	0.0000	0.0000	0.0252	0.0282	0.0000	0.0016
61	61.4499	0.10	9.78	0.0053	0.0000	0.0043	0.0146	0.0010	0.0005
62	62.1649	0.10	9.89	0.0001	0.0001	0.0232	0.0459	0.0001	0.0000
63	62.2454	0.10	9.91	0.0001	0.0000	0.1626	0.0049	0.0000	0.0009
64	63.4604	0.10	10.10	0.0005	0.0000	0.0035	0.0094	0.0021	0.0001
65	64.2979	0.10	10.23	0.0001	0.0000	0.0258	0.0719	0.0022	0.0000
66	64.4034	0.10	10.25	0.0000	0.0000	0.0077	0.0083	0.0006	0.0001
67	65.7189	0.10	10.46	0.0000	0.0000	0.0170	0.0013	0.0000	0.0000
68	66.8225	0.09	10.64	0.0000	0.0000	0.0096	0.0048	0.0000	0.0000
69	66.9878	0.09	10.66	0.0000	0.0000	0.0008	0.0004	0.0000	0.0000
70	67.4475	0.09	10.73	0.0000	0.0000	0.0059	0.0000	0.0000	0.0000
71	67.5173	0.09	10.75	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000
72	67.5712	0.09	10.75	0.0000	0.0000	0.0084	0.0000	0.0000	0.0000
73	67.6007	0.09	10.76	0.0000	0.0000	0.0004	0.0000	0.0000	0.0000
74	67.6859	0.09	10.77	0.0000	0.0000	0.0010	0.0000	0.0000	0.0000
75	67.7672	0.09	10.79	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000
76	67.9467	0.09	10.81	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
77	68.3394	0.09	10.88	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
78	68.9092	0.09	10.97	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
79	69.0885	0.09	11.00	0.0000	0.0000	0.0081	0.0007	0.0002	0.0000
80	69.2678	0.09	11.02	0.0000	0.0000	0.0000	0.0165	0.0000	0.0000
81	70.2715	0.09	11.18	0.0000	0.0000	0.0095	0.0041	0.0001	0.0000
82	71.0479	0.09	11.31	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
83	71.2493	0.09	11.34	0.0000	0.0000	0.0007	0.0007	0.0001	0.0000
84	71.5837	0.09	11.39	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
85	71.9838	0.09	11.46	0.0000	0.0000	0.0094	0.0254	0.0006	0.0000
86	73.4041	0.09	11.68	0.0000	0.0000	0.0007	0.0001	0.0003	0.0000
87	74.2808	0.08	11.82	0.0000	0.0000	0.0001	0.0053	0.0003	0.0000
88	74.7121	0.08	11.89	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
89	75.418	0.08	12.00	0.0000	0.0000	0.0091	0.0003	0.0001	0.0000

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
90	75.8344	0.08	12.07	0.0000	0.0000	0.0023	0.0001	0.0000	0.0000
91	76.4796	0.08	12.17	0.0000	0.0000	0.0014	0.0042	0.0000	0.0000
92	77.089	0.08	12.27	0.0000	0.0000	0.0001	0.0026	0.0001	0.0000
93	77.3799	0.08	12.32	0.0000	0.0000	0.0006	0.0090	0.0001	0.0000
94	77.7298	0.08	12.37	0.0000	0.0000	0.0006	0.0000	0.0001	0.0000
95	78.0642	0.08	12.42	0.0000	0.0000	0.0109	0.0056	0.0003	0.0000
96	79.1724	0.08	12.60	0.0000	0.0000	0.0087	0.0040	0.0002	0.0000
97	79.6083	0.08	12.67	0.0000	0.0000	0.0000	0.0036	0.0000	0.0000
98	79.784	0.08	12.70	0.0000	0.0000	0.0013	0.0534	0.0000	0.0000
99	80.3123	0.08	12.78	0.0000	0.0000	0.0001	0.0023	0.0000	0.0000
100	81.3586	0.08	12.95	0.0000	0.0000	0.0015	0.0000	0.0000	0.0002
				0.9974	0.9971	0.4461	0.4531	0.9509	0.9917

3. REZULTATI ANALIZE KONSTRUKCIJE

3.1. Notranje sile

19. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-S1-vp - QRO220X12.5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B422	N1-S1-vp - QRO220X12.5	0.000	NC25	**-153.97**	0.49	-3.81	-0.30	23.64	-1.12
B422	N1-S1-vp - QRO220X12.5	4.620	NC19	**58.26**	-0.08	10.00	-0.17	24.98	-0.86
B423	N1-S1-vp - QRO220X12.5	4.468	NC25	-35.54	**-9.51**	-11.96	-1.19	-39.27	-2.79
B423	N1-S1-vp - QRO220X12.5	4.316	NC19	-37.63	**10.29**	6.23	0.73	25.19	1.50
B423	N1-S1-vp - QRO220X12.5	0.000	NC25	-42.34	1.44	**-20.51**	-0.13	41.97	-1.96
B422	N1-S1-vp - QRO220X12.5	0.000	NC2	-44.53	-0.97	**27.76**	-0.16	-42.77	1.63
B423	N1-S1-vp - QRO220X12.5	3.860	NC25	-36.15	-9.50	-12.32	**-1.19**	-31.88	2.99
B423	N1-S1-vp - QRO220X12.5	4.620	NC33	-121.37	9.73	4.17	**0.79**	19.19	3.26
B422	N1-S1-vp - QRO220X12.5	0.000	NC15	-19.39	-1.03	27.10	-0.18	**-48.46**	1.62
B422	N1-S1-vp - QRO220X12.5	4.620	NC15	-14.68	-0.99	16.64	-0.18	**43.77**	-3.04
B1	N1-S1-vp - QRO220X12.5	4.620	NC35	-74.51	-2.63	4.41	-0.01	15.43	**-9.51**
B1	N1-S1-vp - QRO220X12.5	4.620	NC45	-65.24	2.46	1.34	0.08	7.88	**9.21**

20. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-S1-vp - QRO220X12.5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B127	N1-S1-vp - QRO220X12.5	0.000	potres 1/1	**-116.21**	-4.97	17.38	-0.01	-42.81	12.64
B127	N1-S1-vp - QRO220X12.5	4.620	potres 4/5	**66.99**	4.38	-18.59	0.01	-42.93	8.59
B102	N1-S1-vp - QRO220X12.5	0.000	potres 5/3	0.66	**-16.93**	6.96	0.03	11.83	40.23
B102	N1-S1-vp - QRO220X12.5	0.000	potres 8/2	-58.32	**17.39**	-4.39	-0.03	-15.35	**-40.75**
B127	N1-S1-vp - QRO220X12.5	0.000	potres 4/5	63.53	4.60	**-19.61**	0.01	**45.80**	-12.34
B128	N1-S1-vp - QRO220X12.5	0.000	potres 4/5	63.40	4.59	**19.68**	-0.01	**-45.94**	-12.35
B423	N1-S1-vp - QRO220X12.5	4.164	potres 4/5	-17.12	-0.87	-2.24	**-0.06**	0.41	0.45
B76	N1-S1-vp - QRO220X12.5	0.000	potres 5/3	-2.17	-16.90	6.55	**0.03**	-14.36	40.31
B1	N1-S1-vp - QRO220X12.5	0.000	potres 5/3	-8.45	-16.86	-2.63	0.03	7.62	**40.37**

21. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-N1 - UNP240

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B484	N1-N1 - UNP240	4.282	NC25	**-20.22**	0.01	0.27	0.01	-7.63	-0.01
B383	N1-N1 - UNP240	0.300	NC25	**25.29**	-2.13	0.03	0.00	12.66	-0.09
B425	N1-N1 - UNP240	0.000	NC25	19.15	**-5.02**	-0.51	0.00	11.57	1.15
B427	N1-N1 - UNP240	0.200	NC25	-14.94	**6.83**	0.24	-0.01	-10.58	-0.08
B1124	N1-N1 - UNP240	0.000	NC27	5.59	2.26	**-18.51**	-0.01	15.01	-0.41
B411	N1-N1 - UNP240	0.400	NC26	1.93	-2.36	**12.66**	0.01	10.39	-0.46
B512	N1-N1 - UNP240	0.305	NC25	5.44	-0.35	8.92	**-0.02**	-12.12	0.78

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B519	N1-N1 - UNP240	4.855	NC25	-7.19	0.62	1.53	**0.02**	-6.19	-0.28
B1106	N1-N1 - UNP240	0.000	NC42	-0.22	-0.83	8.28	0.01	**-15.57**	0.54
B510	N1-N1 - UNP240	0.000	NC24	0.72	-0.55	-9.75	0.01	**15.95**	0.57
B427	N1-N1 - UNP240	0.000	NC25	-14.94	6.82	0.65	-0.01	-10.66	**-1.45**
B532	N1-N1 - UNP240	0.000	NC25	-7.19	-1.80	8.75	0.00	-11.53	**1.87**

22. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-N1 - UNP240

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B546	N1-N1 - UNP240	0.000	potres 1/1	**-46.94**	-2.29	-11.56	0.00	-12.76	-1.79
B546	N1-N1 - UNP240	0.000	potres 4/5	**46.96**	2.29	16.21	0.00	8.82	1.79
B552	N1-N1 - UNP240	4.019	potres 8/2	-10.35	**-9.55**	-1.20	1.11	-10.23	14.04
B552	N1-N1 - UNP240	4.019	potres 5/3	10.31	**9.55**	3.64	-1.11	14.18	-14.04
B485	N1-N1 - UNP240	0.000	potres 8/2	-0.66	-1.44	**-51.90**	0.21	11.76	-0.51
B485	N1-N1 - UNP240	1.537	potres 5/3	1.79	1.50	**48.20**	-0.21	-24.99	0.75
B566	N1-N1 - UNP240	0.000	potres 1/1	-1.86	1.83	2.87	**-2.16**	-3.70	-1.87
B566	N1-N1 - UNP240	0.000	potres 4/5	2.49	-1.83	2.54	**2.16**	-4.35	1.87
B552	N1-N1 - UNP240	1.537	potres 4/5	-40.21	-1.88	-11.13	0.00	**-52.93**	-9.81
B552	N1-N1 - UNP240	1.537	potres 1/1	40.18	1.88	10.60	0.00	**54.49**	9.81
B552	N1-N1 - UNP240	4.019	potres 5/3	12.72	-7.70	4.02	0.00	13.21	**-31.32**
B552	N1-N1 - UNP240	4.019	potres 8/2	-12.76	7.70	-1.57	0.00	-9.27	**31.32**

23. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-N2 - IPE240

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B513	N1-N2 - IPE240	0.000	NC25	**-20.10**	-0.36	17.26	-0.02	-25.53	1.06
B1174	N1-N2 - IPE240	0.400	NC25	**16.72**	-1.87	1.76	-0.01	-24.46	-0.36
B1167	N1-N2 - IPE240	0.000	NC19	3.93	**-5.35**	-1.21	0.00	2.33	1.09
B1174	N1-N2 - IPE240	0.200	NC15	-8.52	**8.59**	1.73	0.02	-19.62	-0.02
B412	N1-N2 - IPE240	0.400	NC26	4.63	-1.10	**-21.38**	-0.01	-19.67	-0.22
B1171	N1-N2 - IPE240	0.000	NC27	1.13	0.70	**23.13**	-0.01	-23.46	-0.16
B517	N1-N2 - IPE240	4.282	NC15	3.54	-0.15	-0.64	**-0.03**	9.87	-0.19
B514	N1-N2 - IPE240	4.855	NC25	6.48	0.16	-3.05	**0.03**	11.71	0.35
B41	N1-N2 - IPE240	0.000	NC35	-0.61	0.02	21.00	0.01	**-32.54**	-0.05
B220	N1-N2 - IPE240	3.135	NC35	0.45	0.01	-0.18	-0.01	**22.42**	0.04
B1174	N1-N2 - IPE240	0.000	NC15	-8.52	8.59	2.35	0.01	-20.02	**-1.74**
B533	N1-N2 - IPE240	0.000	NC25	-12.72	-0.75	17.39	-0.01	-23.11	**1.70**

24. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-N2 - IPE240

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B545	N1-N2 - IPE240	0.203	potres 1/1	**-46.95**	-2.33	-10.53	0.00	-3.59	0.01
B548	N1-N2 - IPE240	0.000	potres 4/5	**49.68**	1.94	15.08	0.00	53.91	9.10
B550	N1-N2 - IPE240	4.019	potres 8/2	16.07	**-18.41**	1.67	-0.37	14.28	12.52
B550	N1-N2 - IPE240	4.019	potres 5/3	-15.09	**18.40**	-4.77	0.37	-16.83	-12.53
B481	N1-N2 - IPE240	7.990	potres 8/2	1.14	-1.90	**-50.39**	0.17	4.19	0.29
B481	N1-N2 - IPE240	6.453	potres 5/3	-1.33	1.97	**44.79**	-0.17	-22.05	-0.84

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B567	N1-N2 - IPE240	0.000	potres 1/1	-1.89	1.83	3.60	**-2.16**	-5.41	1.05
B567	N1-N2 - IPE240	0.000	potres 4/5	2.62	-1.83	4.44	**2.16**	-6.33	-1.03
B481	N1-N2 - IPE240	1.025	potres 4/5	-45.80	1.87	-9.65	0.50	**-65.15**	7.24
B481	N1-N2 - IPE240	1.025	potres 1/1	45.68	-1.87	14.93	-0.50	**62.72**	-7.24
B550	N1-N2 - IPE240	4.019	potres 5/3	-14.00	-7.81	-5.14	0.00	-15.73	**-31.73**
B550	N1-N2 - IPE240	4.019	potres 8/2	14.98	7.80	2.05	0.00	13.17	**31.72**

25. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-D1 - RD16

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B537	N1-D1 - RD16	0.000	NC25	**26.93**	0.00	0.00	0.00	0.00	0.00

26. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-D1 - RD16

Member	css	dx [m]	Case	N [kN]
B250	N1-D1 - RD16	0.000	potres 1/1	**-90.08**
B249	N1-D1 - RD16	0.000	potres 4/5	**90.05**

27. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-P1 - RO26.9X3.2

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B507	N1-P1 - RO26.9X3.2	1.072	NC25	**-8.22**	0.00	**-0.02**	0.00	0.00	0.00
B302	N1-P1 - RO26.9X3.2	0.000	NC43	**1.28**	0.00	0.01	0.00	0.00	0.00
B251	N1-P1 - RO26.9X3.2	0.000	NC16	-2.38	**0.00**	0.01	0.00	0.00	0.00
B252	N1-P1 - RO26.9X3.2	0.000	NC16	-2.27	**0.00**	0.01	0.01	0.00	0.00
B507	N1-P1 - RO26.9X3.2	0.000	NC25	-8.22	0.00	**0.02**	0.00	0.00	0.00
B292	N1-P1 - RO26.9X3.2	0.391	NC35	-1.16	0.00	0.00	**-0.01**	0.00	0.00
B252	N1-P1 - RO26.9X3.2	0.000	NC36	-1.21	0.00	0.01	**0.01**	0.00	0.00
B292	N1-P1 - RO26.9X3.2	0.000	NC33	-1.11	0.00	0.01	-0.01	**0.00**	0.00
B507	N1-P1 - RO26.9X3.2	0.429	NC25	-8.22	0.00	0.00	0.00	**0.00**	0.00
B293	N1-P1 - RO26.9X3.2	0.643	NC33	-0.25	0.00	0.00	0.01	0.00	**0.00**
B253	N1-P1 - RO26.9X3.2	0.643	NC33	-0.04	0.00	0.00	-0.01	0.00	**0.00**

28. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-P1 - RO26.9X3.2

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B251	N1-P1 - RO26.9X3.2	0.000	potres 1/1	**-90.05**	-4.98	19.19	-0.01	58.88	16.18
B251	N1-P1 - RO26.9X3.2	0.000	potres 4/5	**90.11**	4.98	-19.18	0.01	-58.88	-16.18
B244	N1-P1 - RO26.9X3.2	0.643	potres 5/3	28.61	**-17.78**	-5.97	-0.03	-18.40	53.88
B244	N1-P1 - RO26.9X3.2	0.643	potres 8/2	-28.54	**17.78**	5.97	0.03	18.40	-53.88
B311	N1-P1 - RO26.9X3.2	0.978	potres 8/2	2.85	0.54	**-54.43**	0.22	-13.48	-0.70

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B311	N1-P1 - RO26.9X3.2	0.782	potres 5/3	-2.86	-0.54	**54.42**	-0.22	-8.03	0.71
B576	N1-P1 - RO26.9X3.2	0.196	potres 5/3	0.49	-1.44	4.04	**-4.23**	-4.19	1.95
B576	N1-P1 - RO26.9X3.2	0.196	potres 8/2	-0.49	1.44	-4.03	**4.23**	4.19	-1.95
B251	N1-P1 - RO26.9X3.2	0.196	potres 4/5	90.11	4.98	-19.18	0.01	**-62.56**	-17.10
B251	N1-P1 - RO26.9X3.2	0.196	potres 1/1	-90.05	-4.98	19.19	-0.01	**62.57**	17.10
B244	N1-P1 - RO26.9X3.2	0.858	potres 8/2	-28.54	17.78	5.96	0.03	19.55	**-57.27**
B244	N1-P1 - RO26.9X3.2	0.858	potres 5/3	28.61	-17.78	-5.97	-0.03	-19.54	**57.27**

29. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-K1 - U g (195; 150; 25; 10)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B401	N1-K1 - U g	0.000	NC25	**-20.11**	3.98	40.58	0.06	-42.56	-1.58
B420	N1-K1 - U g	0.000	NC37	**19.53**	2.73	23.10	0.04	5.52	-1.36
B429	N1-K1 - U g	1.000	NC15	11.08	**-8.56**	-36.71	-0.15	-42.08	-2.26
B429	N1-K1 - U g	0.000	NC25	5.11	**8.44**	33.95	0.14	**-48.84**	-2.20
B420	N1-K1 - U g	1.000	NC25	-17.30	-1.58	**-41.46**	-0.07	-40.02	-0.97
B1128	N1-K1 - U g	0.000	NC25	6.83	-2.13	**40.59**	-0.05	-38.05	1.49
B429	N1-K1 - U g	0.040	NC19	-11.17	-8.54	-29.54	**-0.16**	15.05	1.94
B429	N1-K1 - U g	1.000	NC25	-14.61	8.43	32.99	**0.15**	-17.93	2.28
B420	N1-K1 - U g	1.000	NC19	18.74	2.64	24.29	0.03	**29.86**	1.36
B406	N1-K1 - U g	1.000	NC15	0.82	-5.21	3.79	-0.09	12.16	**-3.10**
B401	N1-K1 - U g	0.000	NC15	15.80	-4.02	-2.84	-0.07	12.83	**2.45**

30. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-K1 - U g (195; 150; 25; 10)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B333	N1-K1 - U g	0.300	potres 4/5	**-54.74**	5.45	-12.70	-0.16	20.91	-13.37
B339	N1-K1 - U g	0.600	potres 1/1	**56.09**	-5.93	13.39	0.16	29.72	17.59
B339	N1-K1 - U g	0.160	potres 5/3	22.72	**-18.06**	-3.14	-0.36	-22.98	54.90
B339	N1-K1 - U g	0.160	potres 8/2	-21.47	**17.98**	5.33	**0.37**	3.81	-54.89
B329	N1-K1 - U g	0.800	potres 8/2	3.39	4.93	**-41.97**	0.15	-33.08	1.69
B329	N1-K1 - U g	0.400	potres 5/3	-2.15	-4.96	**40.13**	-0.16	-2.18	0.69
B339	N1-K1 - U g	0.000	potres 5/3	22.67	17.54	-2.94	**-0.36**	0.43	41.14
B339	N1-K1 - U g	0.200	potres 1/1	55.29	-6.32	-11.62	-0.17	**-51.33**	19.64
B339	N1-K1 - U g	0.200	potres 4/5	-54.05	6.24	13.76	0.18	**32.24**	-19.63
B339	N1-K1 - U g	0.200	potres 8/2	-21.47	17.98	5.31	0.37	4.66	**-58.36**
B339	N1-K1 - U g	0.200	potres 5/3	22.72	-18.06	-3.17	-0.36	-23.74	**58.37**

31. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-K2 - Uw (240; 10; 150; 20; 0)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B421	N1-K2 - Uw	0.502	NC29	**-26.08**	2.30	17.40	0.01	-23.30	-1.57
B402	N1-K2 - Uw	1.072	NC15	**26.30**	-2.03	32.47	-0.06	12.98	1.34
B416	N1-K2 - Uw	1.548	NC15	-10.76	**-9.28**	13.30	0.06	21.32	**-3.36**
B421	N1-K2 - Uw	0.502	NC25	-1.27	**7.31**	18.61	-0.08	9.23	2.27
B1123	N1-K2 - Uw	1.748	NC25	3.75	-0.30	**-77.13**	0.20	**61.44**	-0.91
B419	N1-K2 - Uw	0.302	NC25	-15.70	1.79	**68.94**	-0.18	60.46	0.98

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B336	N1-K2 - Uw	2.050	NC36	-2.87	0.78	-10.18	**-0.50**	0.00	-0.09
B336	N1-K2 - Uw	0.214	NC36	-3.01	-2.07	-26.07	**0.50**	32.40	0.62
B1134	N1-K2 - Uw	0.502	NC25	-23.79	7.21	32.44	-0.04	**-38.34**	-3.18
B421	N1-K2 - Uw	0.502	NC15	24.48	-8.88	-55.11	0.15	41.65	**3.37**

32. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-K2 - Uw (240; 10; 150; 20; 0)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B334	N1-K2 - Uw	1.072	potres 4/5	**-54.73**	4.79	-14.27	-1.79	20.82	7.32
B334	N1-K2 - Uw	1.072	potres 1/1	**54.78**	-4.82	7.53	1.79	-14.82	-7.30
B334	N1-K2 - Uw	0.000	potres 5/3	22.10	**-17.52**	-11.97	-0.36	0.84	**41.14**
B334	N1-K2 - Uw	0.000	potres 8/2	-21.97	**17.50**	-3.67	0.37	21.22	**-41.12**
B326	N1-K2 - Uw	0.858	potres 5/3	1.69	-2.24	**-63.56**	0.23	30.06	-0.99
B326	N1-K2 - Uw	1.463	potres 8/2	-1.54	2.15	**53.03**	-0.23	-7.19	0.37
B334	N1-K2 - Uw	1.072	potres 8/2	-21.12	13.13	-7.11	**-3.82**	9.95	21.55
B334	N1-K2 - Uw	1.072	potres 5/3	21.17	-13.17	0.37	**3.82**	-3.95	-21.53
B332	N1-K2 - Uw	1.463	potres 1/1	8.46	2.84	24.30	-0.06	**-29.51**	-0.78
B334	N1-K2 - Uw	0.000	potres 4/5	-54.51	5.98	4.57	0.18	**40.63**	-13.88

33. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-TN1 - Rectangle (600; 600)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B432	N1-TN1 - Rectangle	0.975	NC25	**-165.59**	-0.54	-3.87	-0.30	-27.39	-1.62
B432	N1-TN1 - Rectangle	0.000	NC19	**54.79**	0.10	21.36	-0.17	37.05	-0.44
B365	N1-TN1 - Rectangle	0.975	NC27	-103.03	**-3.84**	10.28	0.06	20.05	**-9.50**
B365	N1-TN1 - Rectangle	0.975	NC17	-95.60	**3.89**	12.53	0.00	26.85	**9.78**
B431	N1-TN1 - Rectangle	0.975	NC25	-53.97	-1.50	**-20.57**	-0.13	**-62.00**	-3.39
B432	N1-TN1 - Rectangle	0.975	NC2	-56.15	1.03	**27.83**	-0.16	69.87	2.60
B431	N1-TN1 - Rectangle	0.000	NC15	-139.54	2.36	13.74	**-0.38**	34.83	2.91
B432	N1-TN1 - Rectangle	0.975	NC40	26.37	-1.13	16.30	**0.22**	42.11	-3.17
B432	N1-TN1 - Rectangle	0.975	NC15	-31.01	1.09	27.17	-0.18	**74.91**	2.65

34. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-TN1 - Rectangle (600; 600)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B368	N1-TN1 - Rectangle	0.975	potres 1/1	**-63.60**	-0.32	2.15	0.00	3.90	-0.42
B371	N1-TN1 - Rectangle	0.000	potres 4/5	**1.53**	0.01	-0.16	0.00	-2.28	0.20
B368	N1-TN1 - Rectangle	0.195	potres 1/1	-43.52	**-0.69**	2.37	0.00	3.47	-0.42
B431	N1-TN1 - Rectangle	0.000	potres 1/1	-30.63	**0.76**	-2.37	0.00	1.32	0.41
B389	N1-TN1 - Rectangle	0.780	potres 5/3	-44.91	-0.09	**-4.70**	0.00	5.57	-0.06
B390	N1-TN1 - Rectangle	0.585	potres 8/2	-24.56	-0.03	**4.70**	0.00	1.39	-0.20
B432	N1-TN1 - Rectangle	0.000	potres 5/3	-30.70	-0.06	-1.28	**-0.01**	2.98	0.10
B431	N1-TN1 - Rectangle	0.000	potres 8/2	-27.08	-0.04	0.82	**0.01**	-9.13	0.02
B379	N1-TN1 - Rectangle	0.000	potres 8/2	-21.20	0.34	1.95	0.00	**-16.08**	-0.13
B365	N1-TN1 - Rectangle	0.390	potres 8/2	-28.30	0.11	4.53	0.00	**15.48**	-0.18
B368	N1-TN1 - Rectangle	0.390	potres 1/1	-45.25	-0.69	2.37	0.00	4.22	**-0.68**
B379	N1-TN1 - Rectangle	0.000	potres 1/1	-33.89	-0.58	-2.52	0.00	3.04	**0.60**

35. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-FN1 - CFRHS220X120X10

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B1183	N1-FN1 - CFRHS220X120X10	6.000	NC25	**-22.55**	-0.95	8.82	0.72	11.22	-0.53
B1186	N1-FN1 - CFRHS220X120X10	1.500	NC15	**12.36**	-0.42	10.35	-0.22	-0.79	0.38
B1186	N1-FN1 - CFRHS220X120X10	4.500	NC15	12.35	**-2.29**	0.97	-0.22	13.82	-3.67
B1186	N1-FN1 - CFRHS220X120X10	4.500	NC15	12.17	**2.84**	-5.34	0.38	13.83	**-4.48**
B167	N1-FN1 - CFRHS220X120X10	9.000	NC19	5.26	-0.80	**-15.86**	-1.26	**-25.93**	-0.54
B167	N1-FN1 - CFRHS220X120X10	0.000	NC19	5.04	0.43	**15.85**	1.04	-25.87	0.13
B167	N1-FN1 - CFRHS220X120X10	0.880	NC43	-6.69	0.39	-11.60	**-1.94**	9.05	0.13
B167	N1-FN1 - CFRHS220X120X10	7.590	NC43	-6.80	0.00	10.30	**2.22**	3.84	0.21
B167	N1-FN1 - CFRHS220X120X10	9.000	NC25	-7.08	-0.93	13.86	2.11	**22.45**	-0.50
B1186	N1-FN1 - CFRHS220X120X10	9.000	NC15	12.17	0.01	-7.27	0.40	-17.68	**1.90**

36. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N1-FN1 - CFRHS220X120X10

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B1183	N1-FN1 - CFRHS220X120X10	2.400	potres 5/3	**-5.42**	-0.30	0.11	-0.48	-0.02	0.01
B1186	N1-FN1 - CFRHS220X120X10	0.000	potres 5/3	**0.42**	0.99	-0.04	-0.09	-0.29	-0.73
B1186	N1-FN1 - CFRHS220X120X10	4.500	potres 4/5	-0.32	**-1.42**	-0.11	0.22	0.13	-1.84
B1186	N1-FN1 - CFRHS220X120X10	4.500	potres 4/5	-0.37	**1.65**	-0.12	-0.01	0.13	-2.12
B1189	N1-FN1 - CFRHS220X120X10	1.238	potres 5/3	0.28	0.95	**-0.36**	0.16	-0.57	0.17
B1189	N1-FN1 - CFRHS220X120X10	1.238	potres 4/5	-0.24	0.62	**0.31**	-0.54	0.63	-0.18
B167	N1-FN1 - CFRHS220X120X10	6.000	potres 4/5	-0.19	0.63	-0.03	**-0.69**	0.06	-0.29
B167	N1-FN1 - CFRHS220X120X10	6.000	potres 1/1	-0.78	0.76	0.02	**0.76**	-0.04	-0.42
B1186	N1-FN1 - CFRHS220X120X10	9.000	potres 4/5	-0.36	-0.47	-0.26	-0.01	**-0.73**	0.54
B1189	N1-FN1 - CFRHS220X120X10	1.548	potres 4/5	-0.24	0.48	0.31	-0.54	**0.73**	-0.01
B1186	N1-FN1 - CFRHS220X120X10	4.500	potres 8/2	-0.37	1.65	-0.12	-0.01	0.13	**-2.12**
B1186	N1-FN1 - CFRHS220X120X10	8.100	potres 4/5	-0.36	-0.04	-0.23	-0.01	-0.50	**0.78**

37. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N1-S2-cl - QRO220X12.5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B1182	N1-S2-cl - QRO220X12.5	0.000	NC25	**-179.76**	0.49	-11.71	0.00	0.00	0.00
B1182	N1-S2-cl - QRO220X12.5	4.620	NC19	**56.74**	0.05	13.76	0.00	65.86	0.17
B1177	N1-S2-cl - QRO220X12.5	3.860	NC24	-62.19	**-20.60**	-4.73	4.17	24.64	0.01
B1122	N1-S2-cl - QRO220X12.5	3.860	NC25	1.68	**22.30**	-4.50	-9.06	-57.33	-0.13
B1181	N1-S2-cl - QRO220X12.5	4.620	NC15	-86.37	-5.84	**-21.85**	-6.56	47.75	-3.07
B1181	N1-S2-cl - QRO220X12.5	0.000	NC19	-39.35	0.76	**27.24**	0.00	0.00	0.00
B1177	N1-S2-cl - QRO220X12.5	3.860	NC25	-4.45	-16.02	11.66	**-10.34**	**-63.67**	-1.92
B1177	N1-S2-cl - QRO220X12.5	4.316	NC19	-39.88	-0.04	-16.00	**12.93**	60.19	2.20
B1178	N1-S2-cl - QRO220X12.5	4.620	NC15	-39.65	-2.31	15.12	-0.08	**75.54**	-10.95
B1177	N1-S2-cl - QRO220X12.5	4.620	NC26	-32.68	-19.25	4.05	-3.17	-15.88	**-17.17**
B1122	N1-S2-cl - QRO220X12.5	4.620	NC27	-24.94	19.72	-2.24	-2.84	-22.57	**18.00**

38. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal

Selection : All
Class : ULS-potres
Cross-section : N1-S2-cl - QRO220X12.5

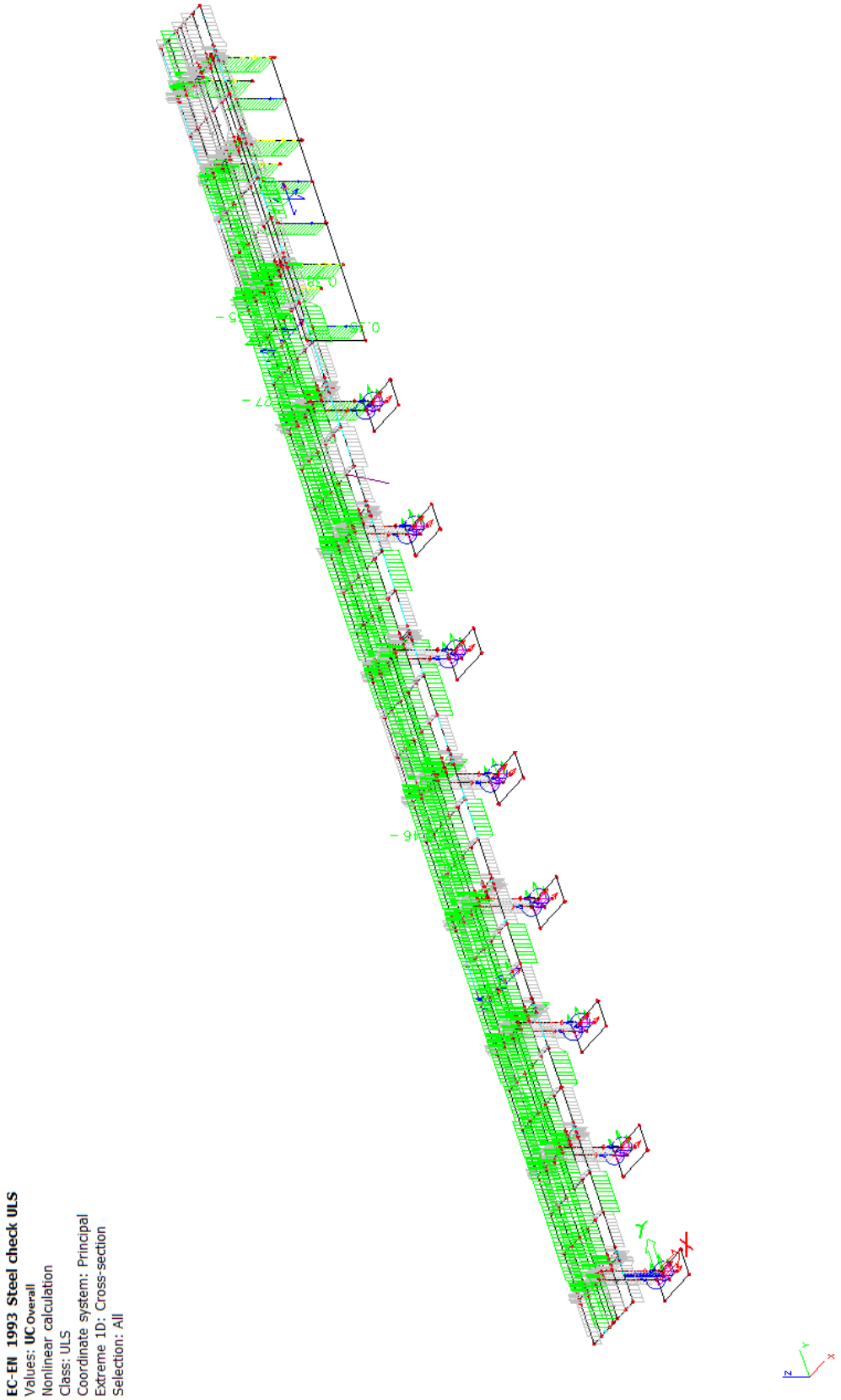
Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B1182	N1-S2-cl - QRO220X12.5	0.000	potres 4/5	**-49.69**	-0.01	3.38	0.00	0.00	0.00
B1122	N1-S2-cl - QRO220X12.5	4.620	potres 4/5	**3.57**	5.60	3.83	0.08	20.10	**5.20**
B1177	N1-S2-cl - QRO220X12.5	3.860	potres 5/3	-25.07	**-5.11**	-3.52	0.01	-16.82	-0.27
B1122	N1-S2-cl - QRO220X12.5	3.860	potres 4/5	2.99	**5.60**	3.93	0.08	17.14	0.94
B1122	N1-S2-cl - QRO220X12.5	0.000	potres 5/3	-29.73	-0.06	**-4.88**	0.00	0.00	0.00
B1169	N1-S2-cl - QRO220X12.5	0.000	potres 4/5	-47.10	0.80	**4.86**	0.00	0.00	0.00
B1181	N1-S2-cl - QRO220X12.5	3.860	potres 4/5	-5.67	-1.10	2.24	**-0.50**	11.37	0.12
B1181	N1-S2-cl - QRO220X12.5	3.860	potres 5/3	-25.11	-0.06	-2.59	**0.53**	-12.43	-0.36
B1122	N1-S2-cl - QRO220X12.5	4.620	potres 1/1	-25.59	5.06	-4.29	-0.04	**-22.17**	4.22
B1169	N1-S2-cl - QRO220X12.5	4.620	potres 4/5	-43.55	0.81	4.40	0.00	**21.68**	3.71
B1177	N1-S2-cl - QRO220X12.5	4.620	potres 5/3	-24.49	-5.10	-3.43	0.01	-19.46	**-4.15**

3.2. Izkoriščenost jeklenih elementov

39. EC-EN 1993 Steel check ULS

Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

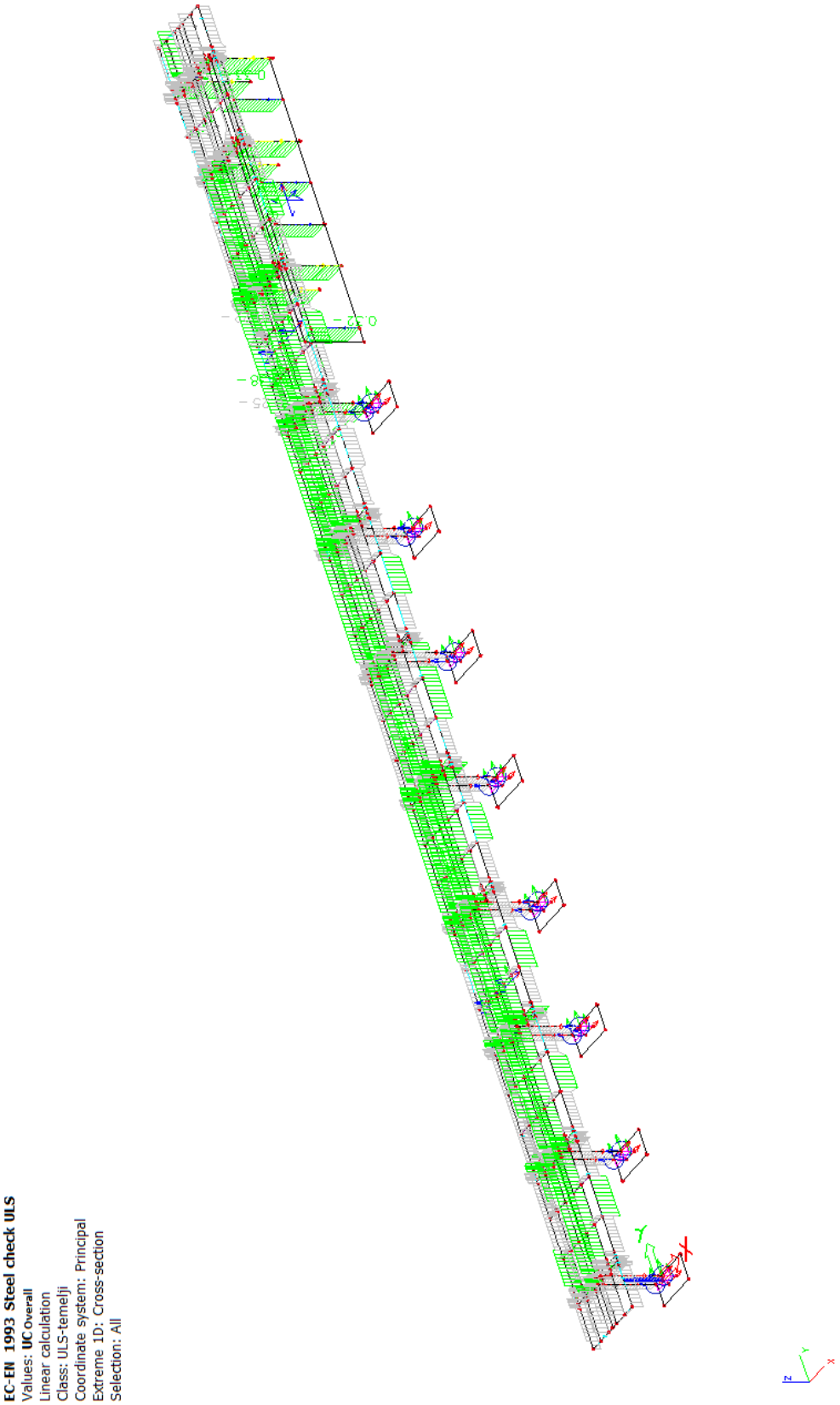
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B422	0.000	NC15	N1-S1-vp - QRO220X12.5	S 235	**0.28**	0.27	0.28
B396	1.748+	NC25	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	**0.38**	0.38	0.34
B214	4.568	NC33	N1-N2 - IPE240	S 235	**0.46**	0.26	0.46
B519	4.855-	NC24	N1-N1 - UNP240	S 235	**0.35**	0.08	0.35
B507	0.858-	NC25	N1-P1 - RO26.9X3.2	S 235	**0.35**	0.15	0.35
B537	0.000	NC25	N1-D1 - RD16	S 235	**0.57**	0.57	0.00
B429	0.200+	NC25	N1-K1 - U g (195; 150; 25; 10)	S 235	**0.27**	0.27	0.00
B1178	0.000	NC15	N1-S2-cl - QRO220X12.5	S 235	**0.48**	0.03	0.48
B167	9.000	NC19	N1-FN1 - CFRHS220X120X10	S 235	**0.27**	0.27	0.00
B169	0.000	NC19	N1-FS1 - QRO120X6.3	S 235	**0.34**	0.05	0.34


EC-EN 1993 Steel check ULS
Values: UCOverall
Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All

40. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-temelji
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

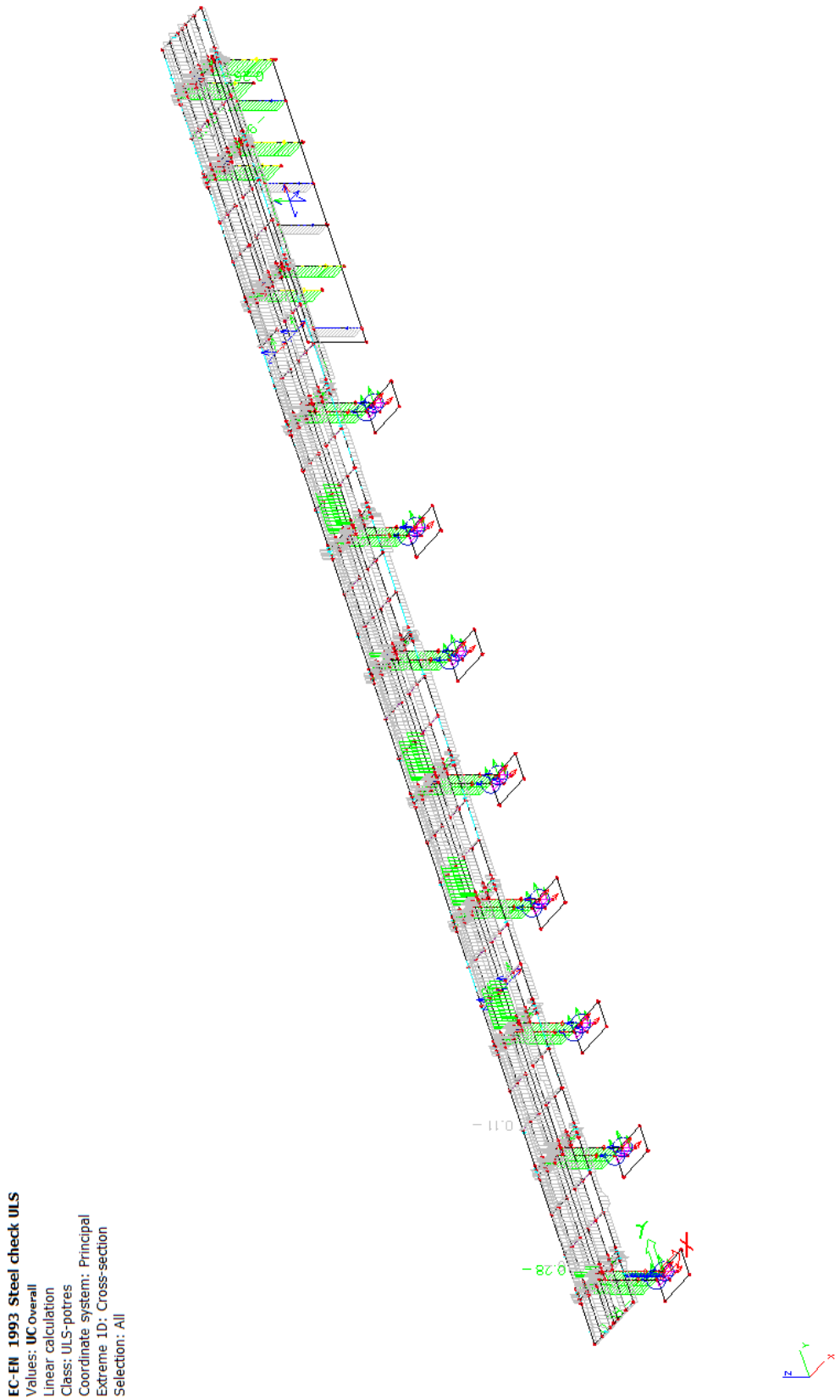
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B423	0.000	MSN-temelj-3-1/1	N1-S1-vp - QRO220X12.5	S 235	**0.26**	0.20	0.26
B1123	1.748+	MSN-temelj-6-1/2	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	**0.33**	0.33	0.00
B514	7.990	MSN-temelj-1-1/3	N1-N2 - IPE240	S 235	**0.38**	0.18	0.38
B519	4.282-	MSN-temelj-1-1/3	N1-N1 - UNP240	S 235	**0.32**	0.08	0.32
B507	0.000	MSN-temelj-3-1/4	N1-P1 - RO26.9X3.2	S 235	**0.22**	0.09	0.22
B429	0.200+	MSN-temelj-1-1/5	N1-K1 - U g (195; 150; 25; 10)	S 235	**0.25**	0.25	0.00
B1169	0.000	MSN-temelj-3-1/1	N1-S2-cl - QRO220X12.5	S 235	**0.42**	0.02	0.42
B167	9.000	MSN-temelj-3-1/1	N1-FN1 - CFRHS220X120X10	S 235	**0.28**	0.28	0.00
B169	0.000	MSN-temelj-3-1/6	N1-FS1 - QRO120X6.3	S 235	**0.33**	0.05	0.33


EC-EN 1993 Steel check ULS
Values: UCOverall
Linear calculation
Class: ULS-temelji
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All

41. EC-EN 1993 Steel check ULS

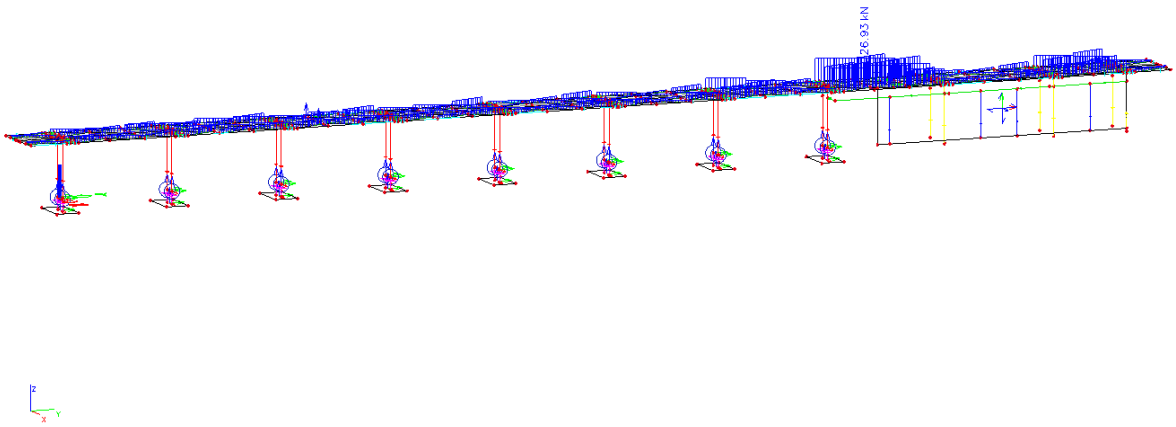
Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B128	0.000	potres 1/1	N1-S1-vp - QRO220X12.5	S 235	**0.38**	0.26	0.38
B1123	1.748+	potres 1/1	N1-K2 - Uw (240; 10; 150; 20; 0)	S 235	**0.26**	0.26	0.24
B105	0.000	potres 5/2	N1-N2 - IPE240	S 235	**0.28**	0.26	0.28
B450	3.135-	potres 1/1	N1-N1 - UNP240	S 235	**0.19**	0.07	0.19
B264	0.858+	potres 4/3	N1-P1 - RO26.9X3.2	S 235	**0.11**	0.05	0.11
B349	0.800+	potres 4/3	N1-K1 - U g (195; 150; 25; 10)	S 235	**0.16**	0.16	0.04
B1169	0.000	potres 1/1	N1-S2-cl - QRO220X12.5	S 235	**0.43**	0.03	0.43
B167	9.000	potres 5/2	N1-FN1 - CFRHS220X120X10	S 235	**0.17**	0.17	0.17
B1185	0.000	potres 8/4	N1-FS1 - QRO120X6.3	S 235	**0.26**	0.01	0.26

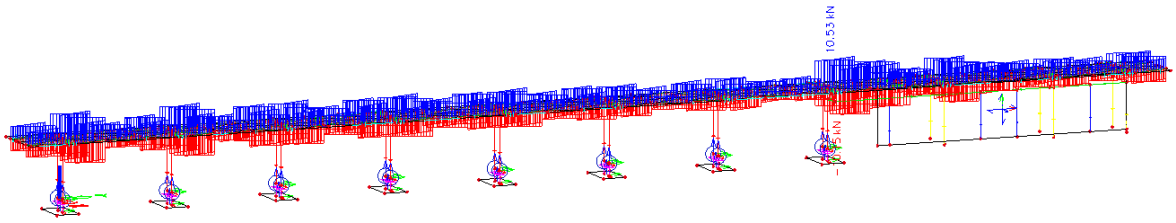

EC-EN 1993 Steel check ULS
Values: UCOverall
Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
0.11
0.28
Y
X
Z

Natezna diagonala M16

1D internal forces
Values: **N**
Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Global
Selection: All
Filter: Cross-section = N1-D1 - RD16



1D internal forces
Values: **N**
Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Global
Selection: All
Filter: Cross-section = N1-D1 - RD16

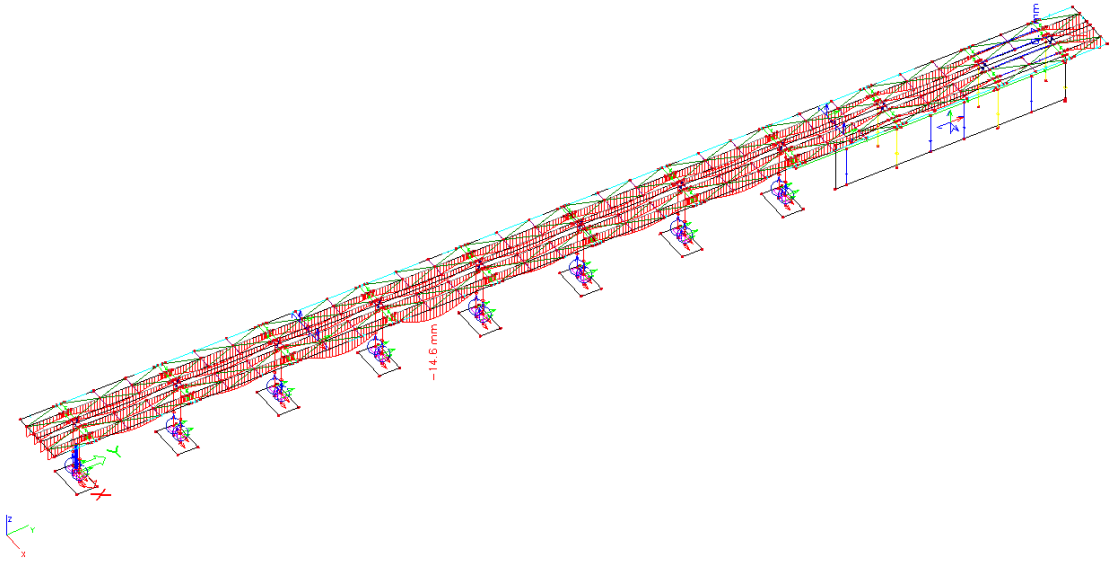


$F_{t,Ed,max}$ = max (26.93, 2x10.2) = 26.93 kN < $F_{t,Rd}$ = 45.2 kN (M16, S235 z napenjalko)

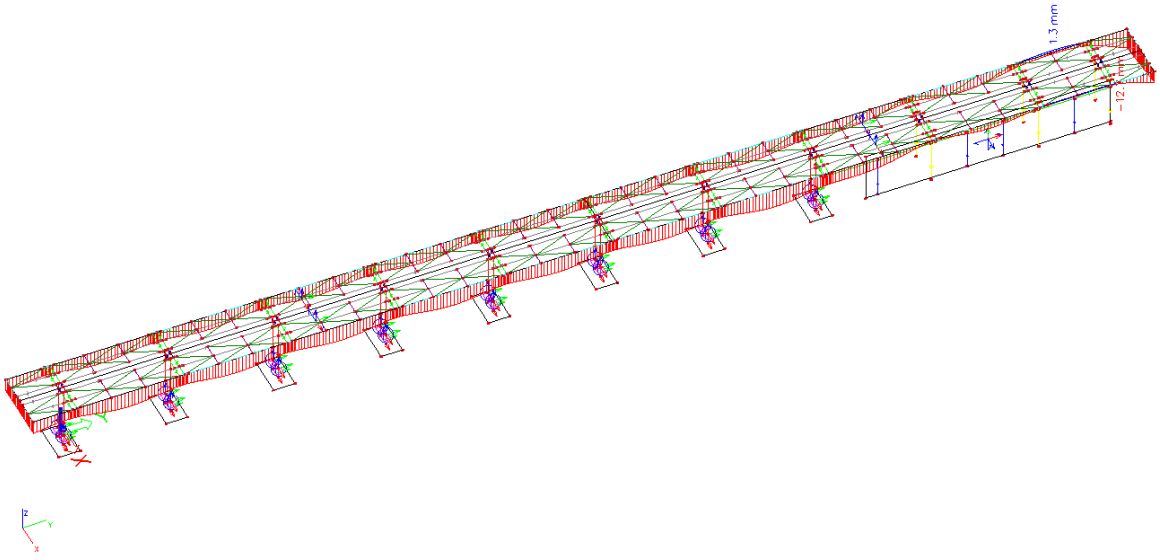
3.3. Pomiki

MSU – vertikalni pomiki

1D deformations
Values: u_z
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Global
Selection: All
Filter: Cross-section = N1-N2 - IPE240

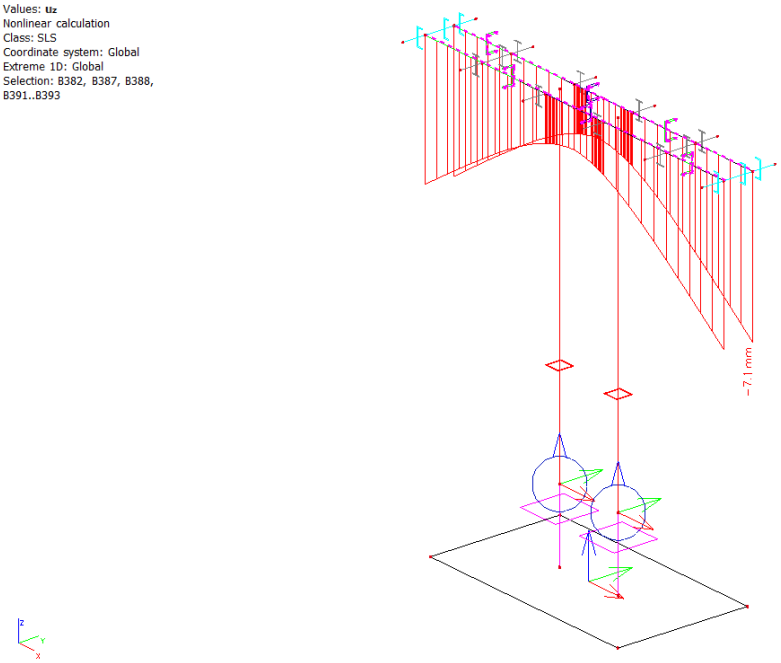


1D deformations
Values: u_z
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Global
Selection: All
Filter: Cross-section = N1-N1 - UNP240



$$w_{vert,max,Q} = 14.6 \text{ mm} \leq w_{vert,dov,Q} = L/250 = 9000/250 = 36 \text{ mm}$$

1D deformations
Values: **uz**
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Global
Selection: B382, B387, B388, B391..B393



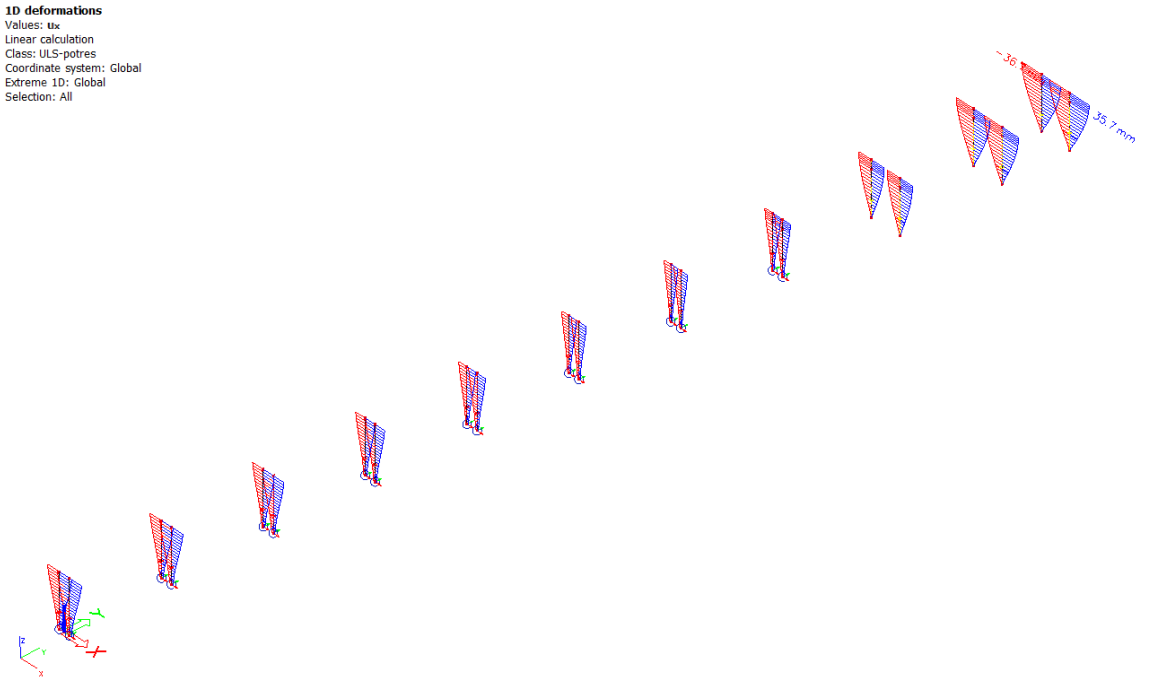
$w_{vert,max,Q} = 7.1 \text{ mm} \leq w_{vert,dov,Q} = 2xL/250 = 2x2550/250 = 20.4 \text{ mm}$

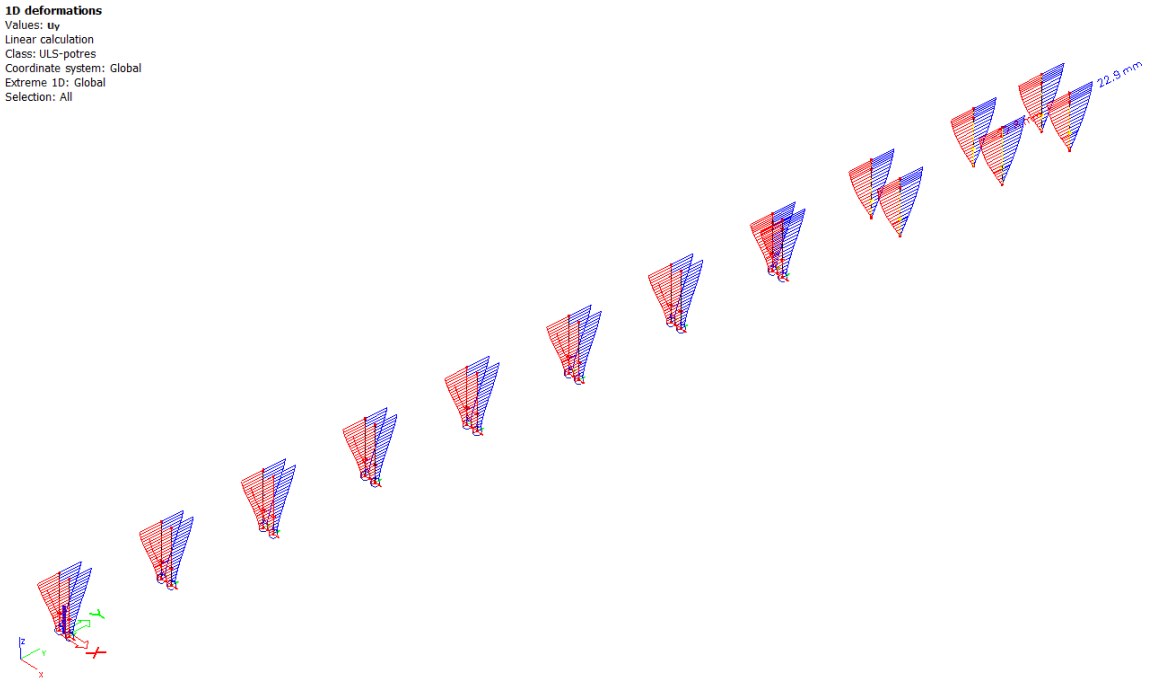
MSU – horizontalni pomiki



$u_{hor,max,W} = 20.2 \text{ mm} \leq u_{hor,dov,W} = h/150 = 4620/150 = 30.8 \text{ mm}$

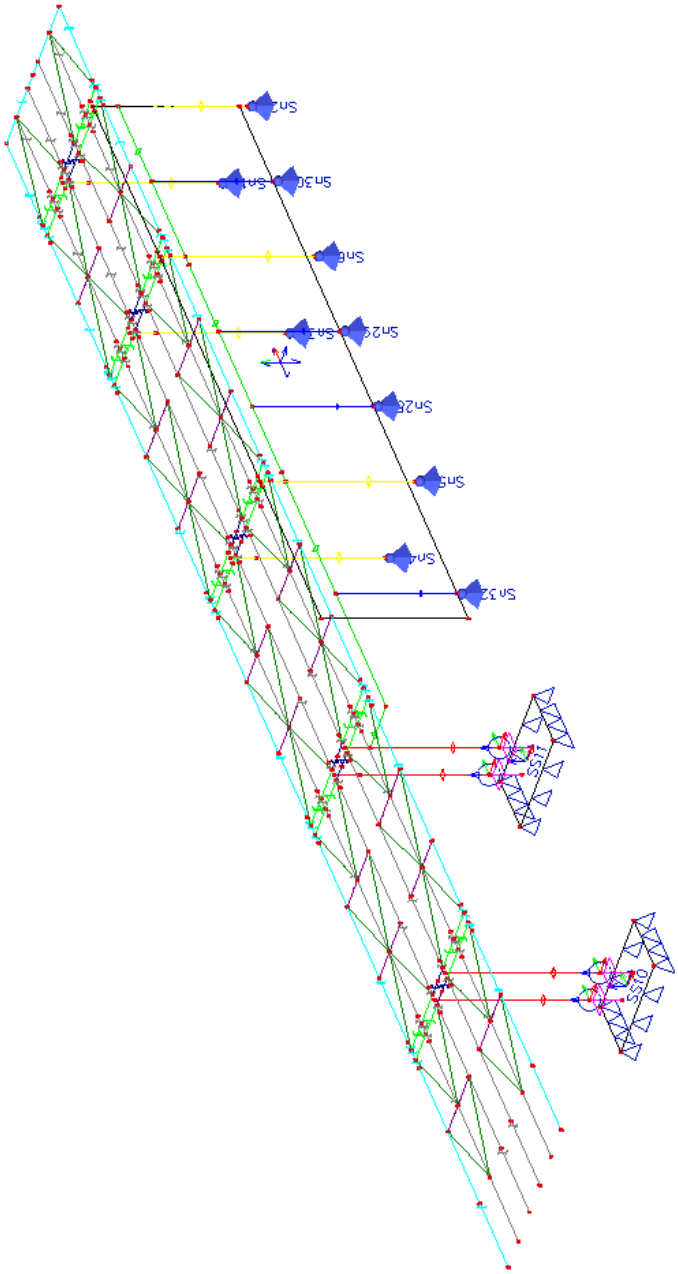
Potresna kombinacija





$U_{hor,max,E}$ = 1.5x36.7x0.5= 27.6 mm ≤ $U_{hor,dov,E}$ = 0.010xh = 0.010x4600 = 46 mm

4. REAKCIJE



46. Reactions

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn5/N3049	NC19	**-26.50**	0.97	39.85	0.00	0.00	0.00
Sn5/N3049	NC25	**21.26**	-0.65	26.61	0.00	0.00	0.00
Sn3/N3043	NC26	3.34	**-3.38**	121.43	0.00	0.00	0.00
Sn1/N3036	NC27	2.61	**3.85**	120.82	0.00	0.00	0.00
Sn4/N3051	NC19	-15.87	-0.23	**-53.10**	0.00	0.00	0.00
Sn4/N3051	NC25	8.91	-0.46	**179.92**	0.00	0.00	0.00
Sn2/N2981	NC1	-4.10	0.30	47.05	**0.00**	**0.00**	**0.00**

47. Reactions

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn2/N2981	NC19	**-20.50**	0.83	45.86	0.00	0.00	0.00
Sn2/N2981	NC25	**16.43**	-0.20	3.53	0.00	0.00	0.00
Sn2/N2981	NC30	3.11	**-1.51**	-1.97	0.00	0.00	0.00
Sn2/N2981	NC18	-8.33	**1.73**	52.81	0.00	0.00	0.00
Sn2/N2981	NC29	14.98	-0.43	**-29.37**	0.00	0.00	0.00
Sn2/N2981	NC15	-19.93	1.08	**85.07**	0.00	0.00	0.00
Sn2/N2981	NC1	-4.10	0.30	47.05	**0.00**	**0.00**	**0.00**
Sn1/N3036	NC15	**-16.17**	2.42	41.46	0.00	0.00	0.00
Sn1/N3036	NC29	**11.32**	0.28	52.65	0.00	0.00	0.00
Sn1/N3036	NC21	-5.77	**-1.55**	-20.87	0.00	0.00	0.00
Sn1/N3036	NC27	2.61	**3.85**	120.82	0.00	0.00	0.00
Sn1/N3036	NC19	-16.12	-0.60	**-49.40**	0.00	0.00	0.00
Sn1/N3036	NC25	10.45	2.67	**148.86**	0.00	0.00	0.00
Sn1/N3036	NC1	-2.01	3.11	93.05	**0.00**	**0.00**	**0.00**
Sn3/N3043	NC19	**-17.01**	0.07	**-51.95**	0.00	0.00	0.00
Sn3/N3043	NC29	**12.04**	-0.26	49.82	0.00	0.00	0.00
Sn3/N3043	NC26	3.34	**-3.38**	121.43	0.00	0.00	0.00
Sn3/N3043	NC22	-5.86	**1.79**	-24.18	0.00	0.00	0.00
Sn3/N3043	NC25	11.11	-3.14	**151.80**	0.00	0.00	0.00
Sn3/N3043	NC1	-1.92	-2.08	95.63	**0.00**	**0.00**	**0.00**
Sn4/N3051	NC19	**-15.87**	-0.23	**-53.10**	0.00	0.00	0.00
Sn4/N3051	NC29	**10.89**	-0.31	49.18	0.00	0.00	0.00
Sn4/N3051	NC21	-5.52	**-1.45**	-26.07	0.00	0.00	0.00
Sn4/N3051	NC22	-5.31	**1.28**	-26.52	0.00	0.00	0.00
Sn4/N3051	NC25	8.91	-0.46	**179.92**	0.00	0.00	0.00
Sn4/N3051	NC1	-2.27	0.73	125.12	**0.00**	**0.00**	**0.00**
Sn5/N3049	NC19	**-26.50**	0.97	39.85	0.00	0.00	0.00
Sn5/N3049	NC25	**21.26**	-0.65	26.61	0.00	0.00	0.00
Sn5/N3049	NC26	5.55	**-1.65**	53.10	0.00	0.00	0.00
Sn5/N3049	NC22	-11.26	**1.63**	14.19	0.00	0.00	0.00
Sn5/N3049	NC29	20.56	-0.46	**-23.27**	0.00	0.00	0.00
Sn5/N3049	NC15	-25.42	0.94	**92.51**	0.00	0.00	0.00
Sn5/N3049	NC1	-4.41	0.00	61.98	**0.00**	**0.00**	**0.00**
Sn6/N3041	NC19	**-25.87**	0.94	44.35	0.00	0.00	0.00
Sn6/N3041	NC25	**21.11**	-0.49	10.21	0.00	0.00	0.00
Sn6/N3041	NC26	5.38	**-1.67**	39.50	0.00	0.00	0.00
Sn6/N3041	NC22	-11.22	**1.62**	16.88	0.00	0.00	0.00
Sn6/N3041	NC29	20.08	-0.40	**-28.36**	0.00	0.00	0.00
Sn6/N3041	NC15	-25.26	0.88	**87.83**	0.00	0.00	0.00
Sn6/N3041	NC1	-4.55	0.00	51.22	**0.00**	**0.00**	**0.00**
Sn28/N203	NC19	**-10.04**	0.10	2.10	0.00	0.00	0.00
Sn28/N203	NC25	**6.44**	-0.05	2.85	0.00	0.00	0.00

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn28/N203	NC26	1.19	**-0.20**	**3.45**	0.00	0.00	0.00
Sn28/N203	NC18	-4.58	**0.20**	2.52	0.00	0.00	0.00
Sn28/N203	NC22	-4.79	0.17	**1.84**	0.00	0.00	0.00
Sn28/N203	NC1	-2.84	-0.04	3.12	**0.00**	**0.00**	**0.00**
Sn29/N205	NC19	**-10.05**	0.11	2.31	0.00	0.00	0.00
Sn29/N205	NC25	**6.46**	-0.05	3.00	0.00	0.00	0.00
Sn29/N205	NC26	1.20	**-0.20**	2.53	0.00	0.00	0.00
Sn29/N205	NC18	-4.59	**0.20**	**3.49**	0.00	0.00	0.00
Sn29/N205	NC30	1.00	-0.15	**1.88**	0.00	0.00	0.00
Sn29/N205	NC1	-2.84	-0.03	2.85	**0.00**	**0.00**	**0.00**
Sn30/N3059	NC19	**-9.70**	0.11	2.39	0.00	0.00	0.00
Sn30/N3059	NC25	**6.28**	-0.04	2.79	0.00	0.00	0.00
Sn30/N3059	NC26	1.17	**-0.22**	2.88	0.00	0.00	0.00
Sn30/N3059	NC18	-4.41	**0.21**	3.09	0.00	0.00	0.00
Sn30/N3059	NC29	6.01	-0.07	**2.03**	0.00	0.00	0.00
Sn30/N3059	NC15	-9.53	0.05	**3.16**	0.00	0.00	0.00
Sn30/N3059	NC1	-2.73	-0.04	2.96	**0.00**	**0.00**	**0.00**
Sn32/N3062	NC19	**-9.88**	-0.09	4.56	0.00	0.00	0.00
Sn32/N3062	NC25	**6.45**	-0.05	3.98	0.00	0.00	0.00
Sn32/N3062	NC4	-2.70	**-0.29**	5.09	0.00	0.00	0.00
Sn32/N3062	NC31	1.02	**0.06**	3.23	0.00	0.00	0.00
Sn32/N3062	NC29	6.21	-0.01	**2.43**	0.00	0.00	0.00
Sn32/N3062	NC15	-9.60	-0.20	**6.17**	0.00	0.00	0.00
Sn32/N3062	NC1	-2.70	-0.17	5.16	**0.00**	**0.00**	**0.00**

48. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Global
Selection: All
Nodal reactions

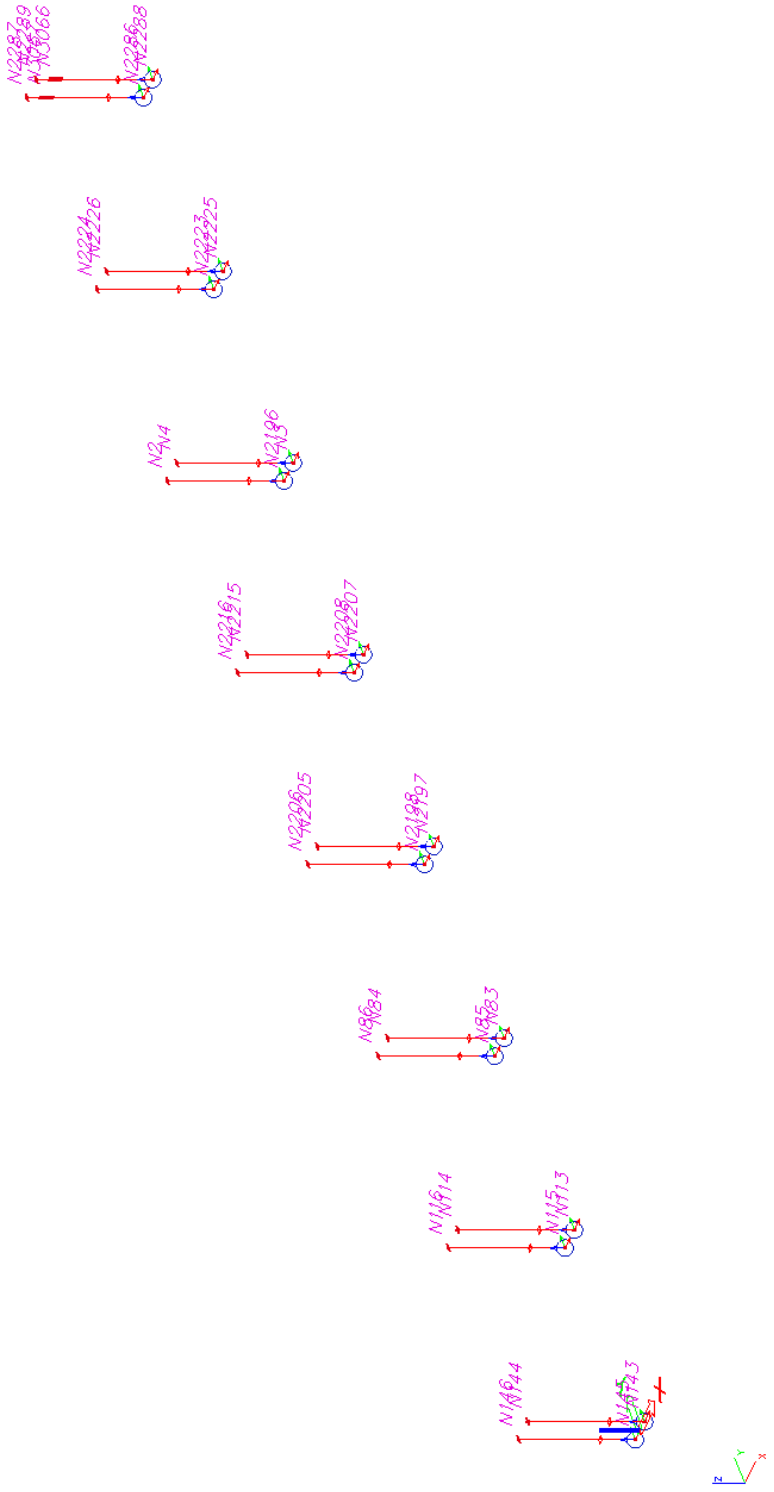
Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn1/N3036	potres 1/1	**-14.22**	3.23	**79.34**	0.00	0.00	0.00	0.0	0.0
Sn6/N3041	potres 8/2	4.01	**-8.51**	2.00	0.00	0.00	0.00	0.0	0.0
Sn6/N3041	potres 5/3	-3.69	**8.50**	30.98	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn2/N2981	potres 1/1	**14.33**	2.91	**-31.42**	0.00	0.00	0.00	0.0	0.0

49. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Mesh
Selection: All
Nodal reactions

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn2/N2981	potres 8/1	-4.29	**-7.72**	39.09	0.00	0.00	0.00	0.0	0.0
Sn2/N2981	potres 5/2	4.73	**7.87**	-8.57	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn2/N2981	potres 1/3	**14.33**	2.91	**-31.42**	0.00	0.00	0.00	0.0	0.0
Sn2/N2981	potres 4/4	**-13.90**	-2.77	**61.94**	0.00	0.00	**0.00**	0.0	0.0
Sn1/N3036	potres 8/1	4.27	**-4.98**	10.64	0.00	0.00	0.00	0.0	0.0
Sn1/N3036	potres 5/2	-4.75	**6.78**	54.14	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn1/N3036	potres 4/4	**13.73**	-1.42	**-14.56**	0.00	0.00	0.00	0.0	0.0
Sn1/N3036	potres 1/3	**-14.22**	3.23	**79.34**	0.00	0.00	**0.00**	0.0	0.0
Sn3/N3043	potres 5/2	3.67	**-7.25**	14.69	0.00	0.00	0.00	0.0	0.0
Sn3/N3043	potres 8/1	-4.12	**6.01**	48.20	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn3/N3043	potres 1/3	**11.83**	-2.88	**-8.75**	0.00	0.00	0.00	0.0	0.0
Sn3/N3043	potres 4/4	**-12.27**	1.64	**71.64**	0.00	0.00	**0.00**	0.0	0.0
Sn4/N3051	potres 8/1	2.65	**-6.37**	27.67	0.00	0.00	0.00	0.0	0.0

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn4/N3051	potres 5/2	-3.54	**6.42**	52.20	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn4/N3051	potres 4/4	**8.58**	-2.11	**9.37**	0.00	0.00	0.00	0.0	0.0
Sn4/N3051	potres 1/3	**-9.46**	2.17	**70.50**	0.00	0.00	**0.00**	0.0	0.0
Sn5/N3049	potres 8/1	-2.85	**-8.45**	32.63	0.00	0.00	0.00	0.0	0.0
Sn5/N3049	potres 5/2	3.14	**8.35**	7.15	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn5/N3049	potres 1/3	**9.12**	3.12	**-10.40**	0.00	0.00	0.00	0.0	0.0
Sn5/N3049	potres 4/4	**-8.83**	-3.21	**50.18**	0.00	0.00	**0.00**	0.0	0.0
Sn6/N3041	potres 8/1	4.01	**-8.51**	2.00	0.00	0.00	0.00	0.0	0.0
Sn6/N3041	potres 5/2	-3.69	**8.50**	30.98	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn6/N3041	potres 4/4	**12.13**	-3.11	**-22.73**	0.00	0.00	0.00	0.0	0.0
Sn6/N3041	potres 1/3	**-11.81**	3.10	**55.71**	0.00	0.00	**0.00**	0.0	0.0
Sn28/N203	potres 1/3	**0.56**	0.62	0.48	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn28/N203	potres 8/1	-0.17	**-1.70**	**6.94**	0.00	0.00	0.00	0.0	0.0
Sn28/N203	potres 5/2	0.19	**1.70**	**-2.60**	0.00	0.00	0.00	0.0	0.0
Sn28/N203	potres 4/4	**-0.54**	-0.62	3.86	0.00	0.00	**0.00**	0.0	0.0
Sn29/N205	potres 1/3	**0.65**	0.63	3.98	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn29/N205	potres 8/1	-0.20	**-1.70**	**-2.55**	0.00	0.00	0.00	0.0	0.0
Sn29/N205	potres 5/2	0.22	**1.70**	**6.95**	0.00	0.00	0.00	0.0	0.0
Sn29/N205	potres 4/4	**-0.63**	-0.63	0.42	0.00	0.00	**0.00**	0.0	0.0
Sn30/N3059	potres 4/4	**0.98**	-0.69	1.84	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn30/N3059	potres 8/1	0.32	**-1.87**	**1.71**	0.00	0.00	0.00	0.0	0.0
Sn30/N3059	potres 5/2	-0.29	**1.87**	**2.65**	0.00	0.00	0.00	0.0	0.0
Sn30/N3059	potres 1/3	**-0.95**	0.69	2.52	0.00	0.00	**0.00**	0.0	0.0
Sn32/N3062	potres 8/1	0.17	**-1.75**	4.97	0.00	0.00	0.00	0.0	0.0
Sn32/N3062	potres 5/2	-0.09	**1.62**	2.04	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn32/N3062	potres 4/4	**0.42**	-0.71	**4.98**	0.00	0.00	0.00	0.0	0.0
Sn32/N3062	potres 1/3	**-0.34**	0.58	**2.04**	0.00	0.00	**0.00**	0.0	0.0


N22287
N42239
N43066
N42238
N22234
N42226
N42225
N24
N2196
N22215
N42207
N22205
N2197
N984
N983
N714
N713
N1644
N1643
Z
Y
X

50. Connection forces

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC34	FC26	N113	B101	**-12.12**	-0.80	-72.51	1.75	**-22.79**	0.06
NC2	FC23	N2196	B1	**21.72**	0.74	-68.78	-1.81	**28.08**	0.12
NC27	FC23	N2196	B1	10.34	**-3.78**	-91.41	**5.79**	10.00	-0.06
NC17	FC23	N2196	B1	12.47	**3.83**	-83.97	**-6.02**	14.66	0.00
NC34	FC25	N115	B102	3.97	-0.64	**-132.29**	1.32	-5.07	0.09
NC28	FC3	N85	B76	12.78	0.36	**22.29**	-0.51	16.71	0.11
NC5	FC24	N3	B2	-3.19	-2.67	-88.91	4.73	-3.43	**-0.11**
NC2	FC24	N3	B2	2.52	0.31	-109.03	-0.81	9.00	**0.15**

51. Connection forces

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC51-s2	FC23	N2196	B1	**-0.01**	-0.52	**-108.48**	1.22	-3.27	0.05
NC2	FC23	N2196	B1	**21.72**	0.74	-68.78	-1.81	**28.08**	**0.12**
NC27	FC23	N2196	B1	10.34	**-3.78**	-91.41	**5.79**	10.00	-0.06
NC17	FC23	N2196	B1	12.47	**3.83**	-83.97	**-6.02**	14.66	0.00
NC19	FC23	N2196	B1	13.86	1.35	**18.76**	-1.57	19.38	0.12
NC29	FC23	N2196	B1	2.74	-1.35	-17.62	1.60	**-3.94**	0.03
NC5	FC23	N2196	B1	15.97	-2.62	-89.12	4.67	15.65	**-0.09**
NC25	FC24	N3	B2	**-9.28**	-1.34	-70.36	1.47	**-16.27**	0.03
NC19	FC24	N3	B2	**6.43**	0.71	-22.92	-0.06	**14.12**	0.11
NC27	FC24	N3	B2	-4.43	**-3.61**	-86.67	**5.35**	-5.95	-0.07
NC17	FC24	N3	B2	-2.29	**3.50**	-93.86	**-5.28**	-1.28	0.02
NC15	FC24	N3	B2	2.49	1.23	**-109.94**	-1.40	8.91	0.12
NC29	FC24	N3	B2	-4.68	-0.86	**13.19**	0.45	-9.20	0.04
NC5	FC24	N3	B2	-3.19	-2.67	-88.91	4.73	-3.43	**-0.11**
NC2	FC24	N3	B2	2.52	0.31	-109.03	-0.81	9.00	**0.15**
NC51-s2	FC3	N85	B76	**0.22**	-0.27	-107.07	0.90	-2.73	0.05
NC2	FC3	N85	B76	**21.15**	0.90	-69.33	-2.01	**26.71**	0.11
NC5	FC3	N85	B76	15.83	**-2.42**	-88.07	**4.38**	15.30	-0.08
NC26	FC3	N85	B76	12.08	**2.86**	-74.73	-5.11	13.65	0.01
NC34	FC3	N85	B76	4.29	-0.35	**-126.55**	0.96	-4.19	0.08
NC28	FC3	N85	B76	12.78	0.36	**22.29**	-0.51	16.71	**0.11**
NC17	FC3	N85	B76	9.58	2.85	-103.86	**-5.17**	7.65	-0.05
NC20	FC3	N85	B76	1.49	0.05	-35.45	0.15	**-7.47**	0.06
NC45	FC3	N85	B76	15.52	-1.37	-50.17	2.61	15.44	**-0.09**
NC34	FC4	N83	B75	**-11.96**	-0.93	-81.55	2.00	**-22.16**	0.06
NC28	FC4	N83	B75	**6.20**	0.27	-9.47	-0.22	**12.61**	0.11
NC18	FC4	N83	B75	-7.37	**-2.97**	-94.41	**5.34**	-12.34	-0.04
NC26	FC4	N83	B75	-2.10	**2.69**	-90.78	**-4.99**	-1.49	0.03
NC2	FC4	N83	B75	1.65	0.27	**-114.72**	-0.81	7.20	**0.14**
NC29	FC4	N83	B75	-2.43	0.49	**18.38**	-0.80	-5.24	0.02
NC5	FC4	N83	B75	-3.64	-2.74	-96.21	4.85	-4.21	**-0.10**
NC51-s2	FC25	N115	B102	**0.43**	-0.68	-108.39	1.33	-2.26	0.05
NC2	FC25	N115	B102	**20.93**	0.58	-74.21	-1.62	**26.09**	**0.11**
NC5	FC25	N115	B102	15.80	**-2.78**	-91.69	**4.81**	15.15	**-0.08**
NC17	FC25	N115	B102	9.37	**2.59**	-109.36	**-4.83**	7.03	-0.05
NC34	FC25	N115	B102	3.97	-0.64	**-132.29**	1.32	-5.07	0.09
NC28	FC25	N115	B102	11.93	-0.14	**19.56**	-0.05	14.68	0.11
NC38	FC25	N115	B102	1.65	-0.33	-55.63	0.48	**-8.18**	0.07
NC34	FC26	N113	B101	**-12.12**	-0.80	-72.51	1.75	**-22.79**	0.06
NC28	FC26	N113	B101	**5.35**	-0.31	-6.68	0.33	**10.58**	0.10

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC18	FC26	N113	B101	-7.40	**-2.89**	-86.02	**5.14**	-12.67	-0.04
NC26	FC26	N113	B101	-2.50	**2.68**	-82.89	**-5.07**	-2.66	0.02
NC50-s1	FC26	N113	B101	-0.35	0.22	**-107.62**	-0.76	2.41	0.05
NC29	FC26	N113	B101	-2.92	-0.09	**19.56**	-0.22	-6.40	0.03
NC5	FC26	N113	B101	-3.50	-2.74	-89.44	4.75	-4.12	**-0.10**
NC2	FC26	N113	B101	1.57	0.32	-107.22	-0.96	6.77	**0.14**
NC38	FC27	N145	B128	**-2.40**	0.14	-52.99	0.02	**-11.56**	0.09
NC2	FC27	N145	B128	**14.09**	0.37	-64.89	-1.43	**19.49**	0.08
NC18	FC27	N145	B128	4.17	**-2.72**	-102.38	**4.68**	0.70	0.01
NC30	FC27	N145	B128	3.80	**2.58**	3.91	-3.88	2.74	-0.01
NC34	FC27	N145	B128	-0.15	-0.81	**-119.89**	1.45	-8.75	**0.10**
NC28	FC27	N145	B128	7.52	0.73	**14.84**	-0.87	10.18	0.06
NC26	FC27	N145	B128	7.37	2.33	-70.98	**-4.59**	8.33	-0.01
NC35	FC27	N145	B128	2.96	1.34	-108.35	-3.08	-2.02	**-0.09**
NC34	FC28	N143	B127	**-11.74**	-1.05	-62.32	1.99	**-22.45**	0.08
NC28	FC28	N143	B127	**4.44**	0.57	-6.07	-0.50	8.46	0.07
NC18	FC28	N143	B127	-7.20	**-2.96**	-75.94	**5.21**	-12.75	-0.01
NC30	FC28	N143	B127	0.78	**2.64**	5.52	-4.04	1.07	-0.01
NC50-s1	FC28	N143	B127	-0.20	0.05	**-96.24**	-0.49	2.29	0.05
NC29	FC28	N143	B127	-2.94	0.77	**16.34**	-1.02	-6.37	0.05
NC26	FC28	N143	B127	-2.37	2.39	-73.28	**-4.77**	-2.87	0.00
NC6	FC28	N143	B127	4.18	0.36	-16.29	-0.11	**8.72**	0.08
NC39	FC28	N143	B127	-5.81	1.16	-6.83	-1.59	-12.04	**-0.08**
NC2	FC28	N143	B127	1.34	0.07	-96.01	-0.71	5.62	**0.10**
NC5	FC29	N2197	B372, B375	**0.00**	0.00	0.00	0.00	0.00	**0.00**
NC34	FC29	N2197	B372, B375	**0.00**	0.00	0.00	0.00	0.00	0.00
NC1	FC29	N2197	B372, B375	0.00	**0.00**	**0.00**	**0.00**	**0.00**	0.00
NC15	FC29	N2197	B372, B375	0.00	0.00	0.00	0.00	0.00	**0.00**
NC1	FC30	N2198	B373, B374	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
NC1	FC31	N2207	B376, B379	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
NC16	FC31	N2207	B376, B379	**0.00**	0.00	0.00	0.00	0.00	0.00
NC15	FC31	N2207	B376, B379	0.00	0.00	0.00	0.00	0.00	**0.00**
NC1	FC32	N2208	B377, B378	**0.00**	0.00	**0.00**	**0.00**	**0.00**	**0.00**
NC33	FC32	N2208	B377, B378	0.00	**0.00**	0.00	0.00	0.00	0.00
NC28	FC32	N2208	B377, B378	0.00	**0.00**	0.00	0.00	0.00	0.00
NC31	FC32	N2208	B377, B378	0.00	0.00	0.00	0.00	0.00	**0.00**
NC1	FC33	N2223	B380, B390	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
NC47	FC33	N2223	B380, B390	0.00	**0.00**	0.00	0.00	0.00	0.00
NC1	FC34	N2225	B381, B389	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
NC1	FC39	N2286	B422, B432	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
NC8	FC39	N2286	B422, B432	0.00	0.00	0.00	0.00	0.00	**0.00**
NC1	FC40	N2288	B423, B431	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

52. Connection forces

Linear calculation, Extreme : Global
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 4/5	FC28	N143	B127	**-19.61**	-4.60	**63.53**	12.34	**-45.80**	-0.01
potres 4/5	FC27	N145	B128	**19.68**	-4.59	63.40	12.35	**45.94**	0.01
potres 8/2	FC25	N115	B102	-4.39	**-17.39**	-58.32	**40.75**	15.35	0.03
potres 5/3	FC25	N115	B102	6.96	**16.93**	0.66	-40.23	-11.83	-0.03
potres 1/1	FC28	N143	B127	17.38	4.97	**-116.21**	-12.64	42.81	0.01
potres 5/3	FC23	N2196	B1	-2.63	16.86	-8.45	**-40.37**	-7.62	-0.03
potres 5/3	FC3	N85	B76	6.55	16.90	-2.17	-40.31	14.36	**-0.03**
potres 8/2	FC3	N85	B76	-4.04	-16.60	-54.36	40.07	-10.98	**0.03**

53. Connection forces

Linear calculation, Extreme : Node
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 1/1	FC23	N2196	B1	**-9.94**	5.61	**28.08**	-13.49	**-25.18**	-0.02
potres 4/5	FC23	N2196	B1	**12.44**	-5.67	**-84.12**	13.62	**28.60**	0.02
potres 8/2	FC23	N2196	B1	5.14	**-16.92**	-47.59	**40.49**	11.04	**0.03**
potres 5/3	FC23	N2196	B1	-2.63	**16.86**	-8.45	**-40.37**	-7.62	**-0.03**
potres 1/1	FC24	N3	B2	**-12.41**	5.56	**-84.17**	-13.39	**-28.54**	0.02
potres 4/5	FC24	N3	B2	**9.96**	-5.63	**28.78**	13.51	**25.23**	-0.02
potres 8/2	FC24	N3	B2	2.65	**-16.90**	-7.12	**40.40**	7.64	**-0.03**
potres 5/3	FC24	N3	B2	-5.10	**16.83**	-48.28	**-40.28**	-10.96	**0.03**
potres 4/5	FC3	N85	B76	**-15.06**	-5.38	**-107.02**	13.24	**-37.42**	0.02
potres 1/1	FC3	N85	B76	**17.57**	5.67	**50.48**	-13.49	**40.79**	-0.02
potres 8/2	FC3	N85	B76	-4.04	**-16.60**	-54.36	**40.07**	-10.98	**0.03**
potres 5/3	FC3	N85	B76	6.55	**16.90**	-2.17	**-40.31**	14.36	**-0.03**
potres 4/5	FC4	N83	B75	**-17.65**	-5.44	**-109.33**	13.29	**-40.93**	-0.01
potres 1/1	FC4	N83	B75	**14.96**	5.59	**48.90**	-13.33	**37.25**	0.01
potres 8/2	FC4	N83	B75	-6.61	**-16.62**	-56.66	**40.05**	-14.48	**-0.03**
potres 5/3	FC4	N83	B75	3.93	**16.76**	-3.76	**-40.09**	10.79	**0.03**
potres 4/5	FC25	N115	B102	**-16.26**	-5.93	**-113.17**	13.97	**43.81**	0.02
potres 1/1	FC25	N115	B102	**18.83**	5.46	**55.52**	-13.45	**-40.28**	-0.02
potres 8/2	FC25	N115	B102	-4.39	**-17.39**	-58.32	**40.75**	15.35	**0.03**
potres 5/3	FC25	N115	B102	6.96	**16.93**	0.66	**-40.23**	-11.83	**-0.03**
potres 1/1	FC26	N113	B101	**-18.84**	5.43	**55.47**	-13.38	**-43.81**	0.01
potres 4/5	FC26	N113	B101	**16.34**	-5.86	**-112.66**	13.85	**40.43**	-0.01
potres 8/2	FC26	N113	B101	4.58	**-17.36**	-57.07	**40.68**	12.14	**-0.03**
potres 5/3	FC26	N113	B101	-7.09	**16.92**	-0.12	**-40.21**	-15.53	**0.03**
potres 1/1	FC27	N145	B128	**-17.40**	4.96	**-115.76**	-12.63	**-42.82**	-0.01
potres 4/5	FC27	N145	B128	**19.68**	-4.59	**63.40**	12.35	**45.94**	0.01
potres 8/2	FC27	N145	B128	7.35	**-14.16**	6.62	**37.59**	16.18	**0.03**
potres 5/3	FC27	N145	B128	-5.07	**14.53**	-58.98	**-37.87**	-13.06	**-0.03**
potres 4/5	FC28	N143	B127	**-19.61**	-4.60	**63.53**	12.34	**-45.80**	-0.01
potres 1/1	FC28	N143	B127	**17.38**	4.97	**-116.21**	-12.64	**42.81**	0.01
potres 8/2	FC28	N143	B127	-7.15	**-14.15**	7.64	**37.56**	-15.85	**-0.03**
potres 5/3	FC28	N143	B127	4.92	**14.53**	-60.32	**-37.85**	12.86	**0.03**
potres 4/5	FC29	N2197	B372, B375	**-0.73**	**-0.07**	23.75	**0.06**	1.32	**0.00**
potres 1/1	FC29	N2197	B372, B375	**0.73**	**0.07**	-23.75	**-0.06**	-1.32	**0.00**
potres 2/4	FC29	N2197	B372, B375	0.48	0.06	**-23.95**	-0.05	-0.69	0.00
potres 3/6	FC29	N2197	B372, B375	-0.48	-0.06	**23.95**	0.05	0.69	0.00
potres 5/3	FC29	N2197	B372, B375	0.59	0.03	-6.82	-0.03	**-1.35**	0.00
potres 8/2	FC29	N2197	B372, B375	-0.59	-0.03	6.82	0.03	**1.35**	0.00
potres 4/5	FC30	N2198	B373, B374	**-0.81**	**0.34**	-0.24	**-0.14**	2.54	0.00
potres 1/1	FC30	N2198	B373, B374	**0.81**	**-0.34**	0.24	**0.14**	-2.54	0.00
potres 8/2	FC30	N2198	B373, B374	-0.62	0.12	**-0.67**	-0.04	**2.67**	0.00
potres 5/3	FC30	N2198	B373, B374	0.62	-0.12	**0.67**	0.04	**-2.67**	0.00
potres 2/4	FC30	N2198	B373, B374	0.56	-0.33	-0.16	0.14	-1.28	**0.00**
potres 7/7	FC31	N2207	B376, B379	**-2.42**	0.25	-3.92	**0.07**	17.23	0.00
potres 6/8	FC31	N2207	B376, B379	**2.42**	-0.25	3.92	**-0.07**	-17.23	0.00
potres 4/5	FC31	N2207	B376, B379	-0.05	**-1.30**	8.56	-0.01	7.13	**0.00**
potres 1/1	FC31	N2207	B376, B379	0.05	**1.30**	-8.56	0.01	-7.13	**0.00**
potres 2/4	FC31	N2207	B376, B379	-1.29	1.23	**-9.30**	0.05	3.53	0.00
potres 3/6	FC31	N2207	B376, B379	1.29	-1.23	**9.30**	-0.05	-3.53	0.00
potres 5/3	FC31	N2207	B376, B379	2.05	0.50	-1.44	-0.05	**-18.31**	0.00
potres 8/2	FC31	N2207	B376, B379	-2.05	-0.50	1.44	0.05	**18.31**	0.00
potres 4/5	FC32	N2208	B377, B378	**-2.40**	-0.18	**14.20**	0.13	1.01	**0.00**
potres 1/1	FC32	N2208	B377, B378	**2.40**	0.18	**-14.20**	-0.13	-1.01	**0.00**
potres 3/6	FC32	N2208	B377, B378	-1.40	**-0.18**	13.27	**0.14**	-0.72	0.00
potres 2/4	FC32	N2208	B377, B378	1.40	**0.18**	-13.27	**-0.14**	0.72	0.00
potres 5/3	FC32	N2208	B377, B378	2.23	0.05	-5.67	-0.02	**-2.93**	0.00
potres 8/2	FC32	N2208	B377, B378	-2.23	-0.05	5.67	0.02	**2.93**	0.00
potres 8/2	FC33	N2223	B380, B390	**-3.43**	-0.10	-6.87	0.02	**6.60**	0.00
potres 5/3	FC33	N2223	B380, B390	**3.43**	0.10	6.87	-0.02	**-6.60**	0.00
potres 4/5	FC33	N2223	B380, B390	-1.19	**-0.24**	0.68	**0.04**	2.28	**0.00**
potres 1/1	FC33	N2223	B380, B390	1.19	**0.24**	-0.68	**-0.04**	-2.28	**0.00**
potres 7/7	FC33	N2223	B380, B390	-3.33	0.04	**-8.68**	0.00	6.41	0.00
potres 6/8	FC33	N2223	B380, B390	3.33	-0.04	**8.68**	0.00	-6.41	0.00
potres 8/2	FC34	N2225	B381, B389	**-1.25**	0.14	-8.38	-0.05	**3.19**	**0.00**

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 5/3	FC34	N2225	B381, B389	**1.25**	-0.14	8.38	0.05	**-3.19**	**0.00**
potres 1/1	FC34	N2225	B381, B389	1.18	**-0.38**	**12.78**	**0.11**	-1.49	0.00
potres 4/5	FC34	N2225	B381, B389	-1.18	**0.38**	**-12.78**	**-0.11**	1.49	0.00
potres 8/2	FC39	N2286	B422, B432	**-2.43**	-0.17	-6.06	-0.04	**1.48**	**0.00**
potres 5/3	FC39	N2286	B422, B432	**2.43**	0.17	6.06	0.04	**-1.48**	**0.00**
potres 4/5	FC39	N2286	B422, B432	-1.05	**-0.46**	**-12.04**	**-0.12**	1.26	0.00
potres 1/1	FC39	N2286	B422, B432	1.05	**0.46**	**12.04**	**0.12**	-1.26	0.00
potres 8/2	FC40	N2288	B423, B431	**-4.64**	0.41	**12.54**	-0.33	**18.33**	0.00
potres 5/3	FC40	N2288	B423, B431	**4.64**	-0.41	**-12.54**	0.33	**-18.33**	0.00
potres 1/1	FC40	N2288	B423, B431	1.74	**-1.21**	-6.10	**0.93**	-7.14	0.00
potres 4/5	FC40	N2288	B423, B431	-1.74	**1.21**	6.10	**-0.93**	7.14	0.00
potres 3/6	FC40	N2288	B423, B431	0.98	1.17	-0.96	-0.89	-3.53	**0.00**
potres 2/4	FC40	N2288	B423, B431	-0.98	-1.17	0.96	0.89	3.53	**0.00**

5. AB TEMELJI

Del tega načrta so tudi novi AB temelji, ki so izven območja podpiranja jeklenih stebrov z AB konstrukcjo podhoda

- Temeljna peta

180x320x50 cm

- Temeljni nastavki

60x60x75 cm

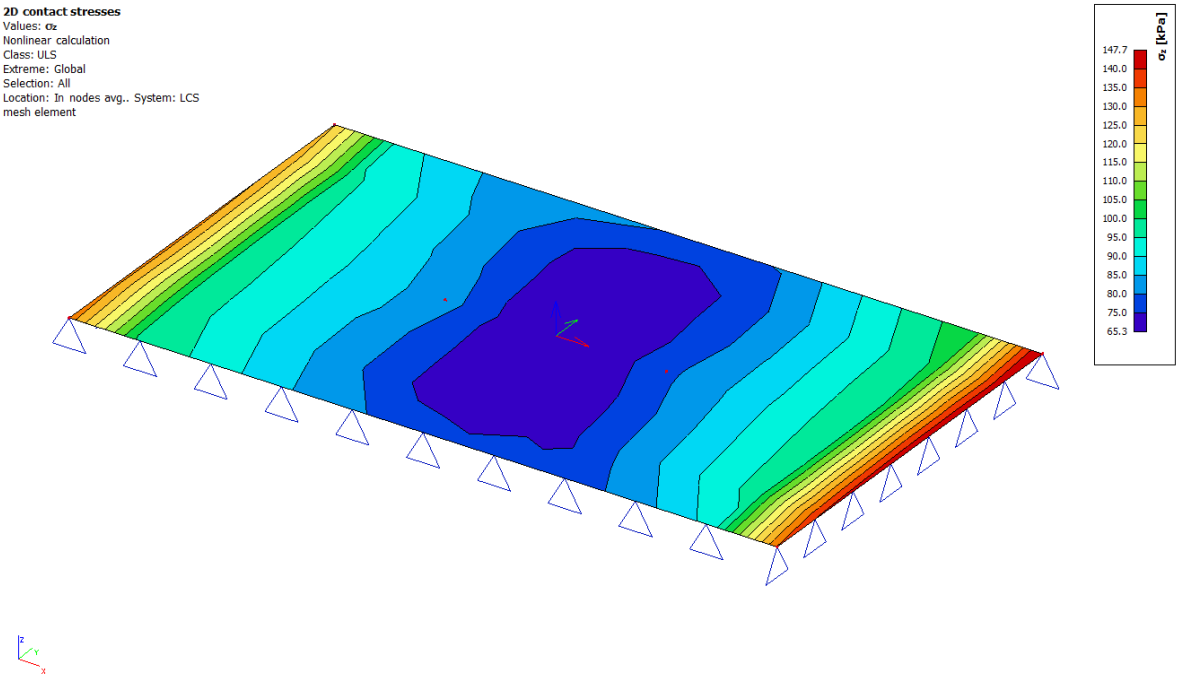
V okviru analize je bi upoštevan vertikalni modul podajnosti tal 26000 kN/m^3.

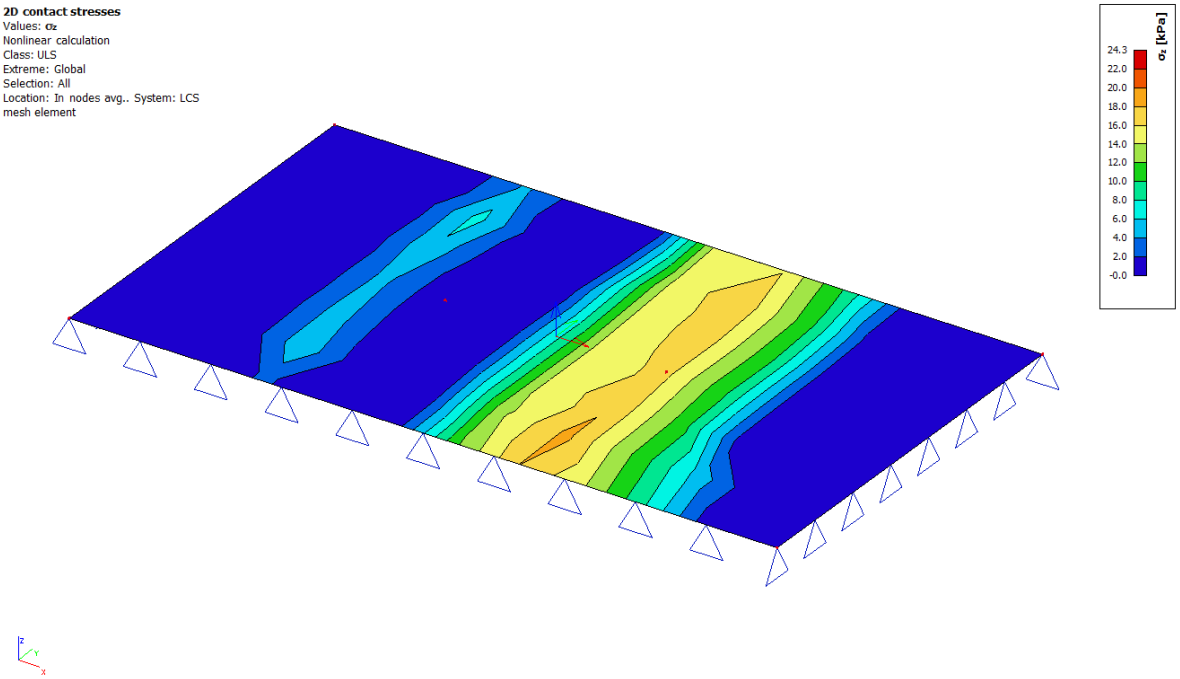
Vodneprepustni beton
C30/37, PV-II, XC2, XD3-odporen proti solem

Armatura S500B

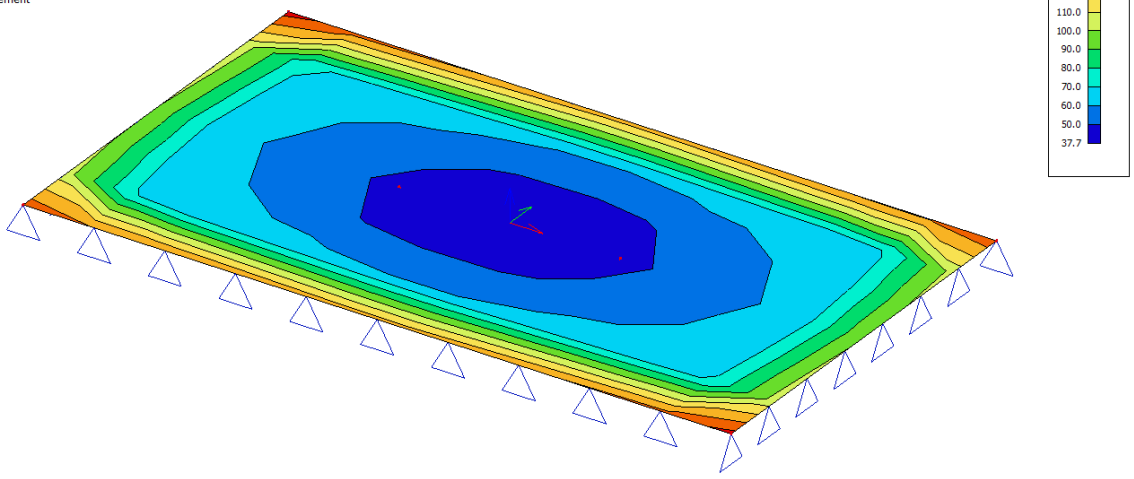
<u>Kontaktne napetosti v temeljnih tleh</u>

Maksimalne kontaktne napetosti R_d/A potd temelji pri ULS (faktrorirana obtežba) in pri potresnih obtežnih kombinacijah ne presegajo maksimalnih dovoljenih napetosti 190 kN/m^2.


2D contact stresses
Values: σz
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element
σz [kPa]
147.7
140.0
135.0
130.0
125.0
120.0
115.0
110.0
105.0
100.0
95.0
90.0
85.0
80.0
75.0
65.3

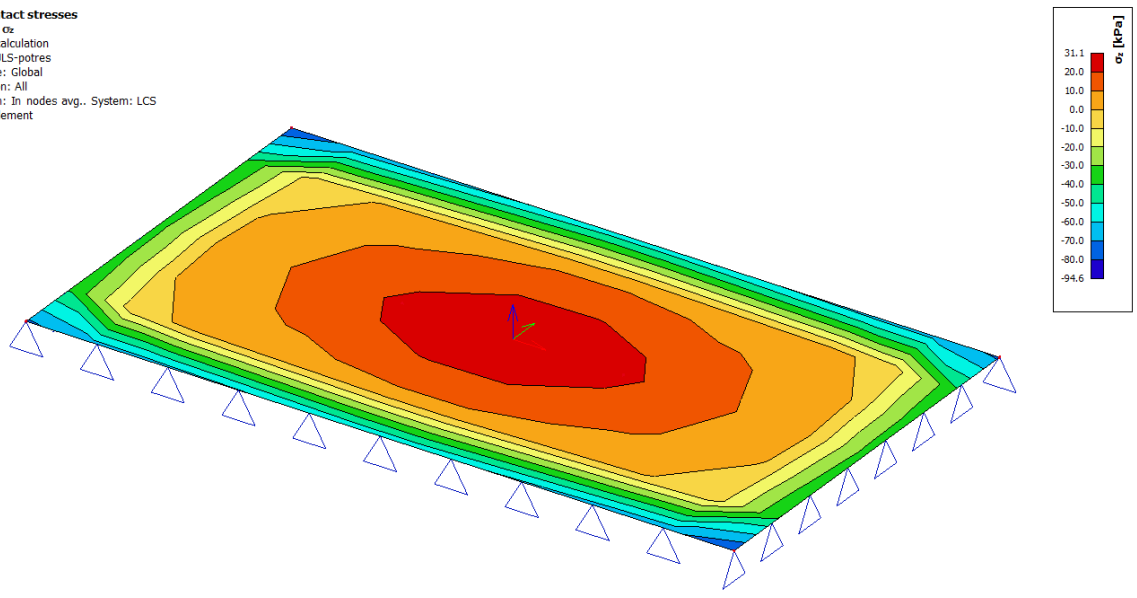

2D contact stresses
Values: σz
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element
σz [kPa]
24.3
22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
-0.0

2D contact stresses
Values: σ_z
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element





2D contact stresses
Values: σ_z
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element





Armatura

- Temeljna peta

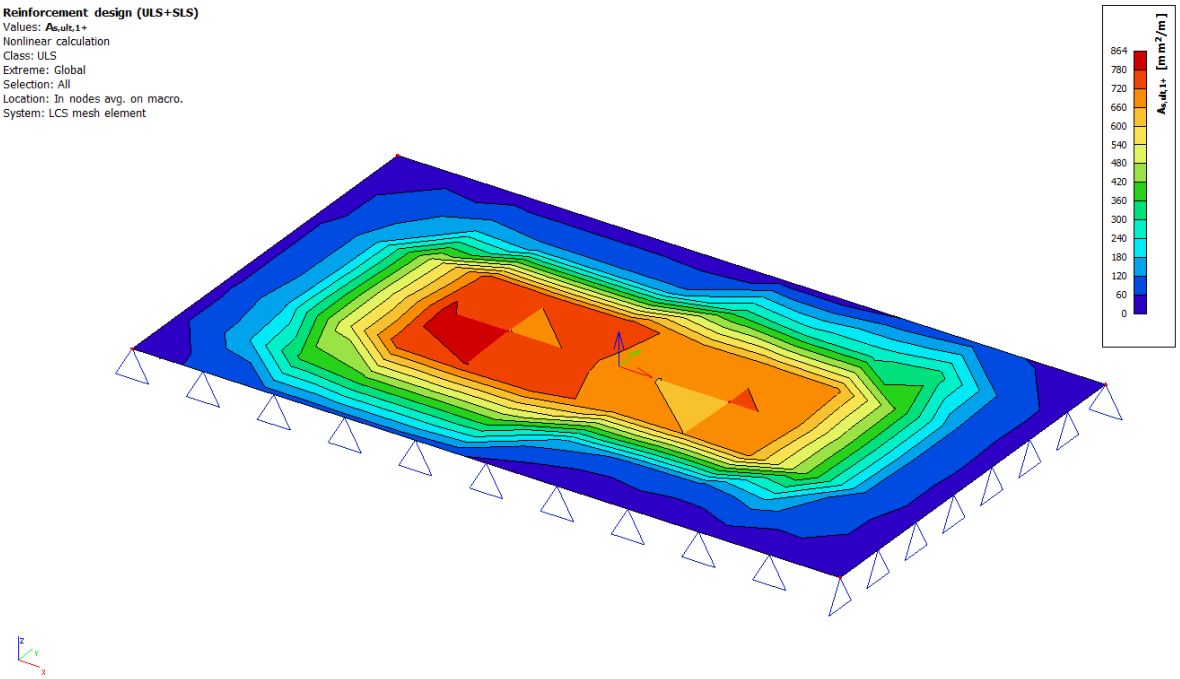
180x320x50 cm

Izberem armaturo zgoraj in spodaj v obeh smereh +/- ϕ16/15cm, $A_{s,dej}$ = 13.4 cm^2/m

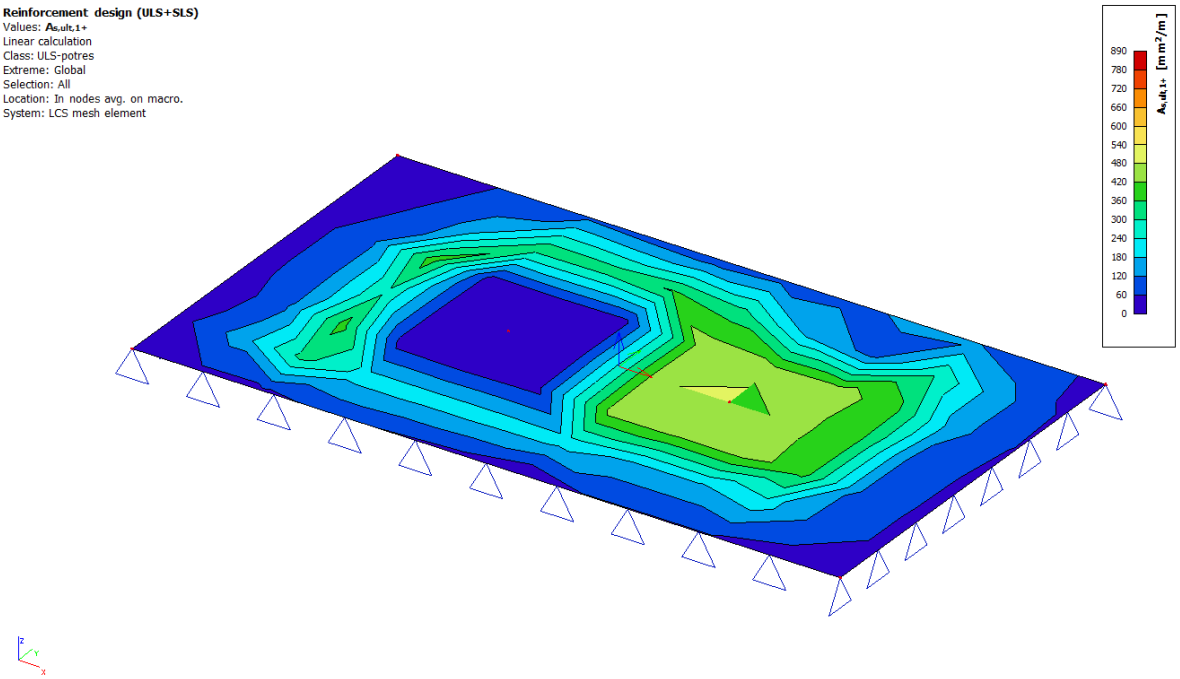
+

dodatno spodaj ϕ14/15cm, $A_{s,dej,skupno}$ = 10.2+13.4 = 23.6 cm^2/m.

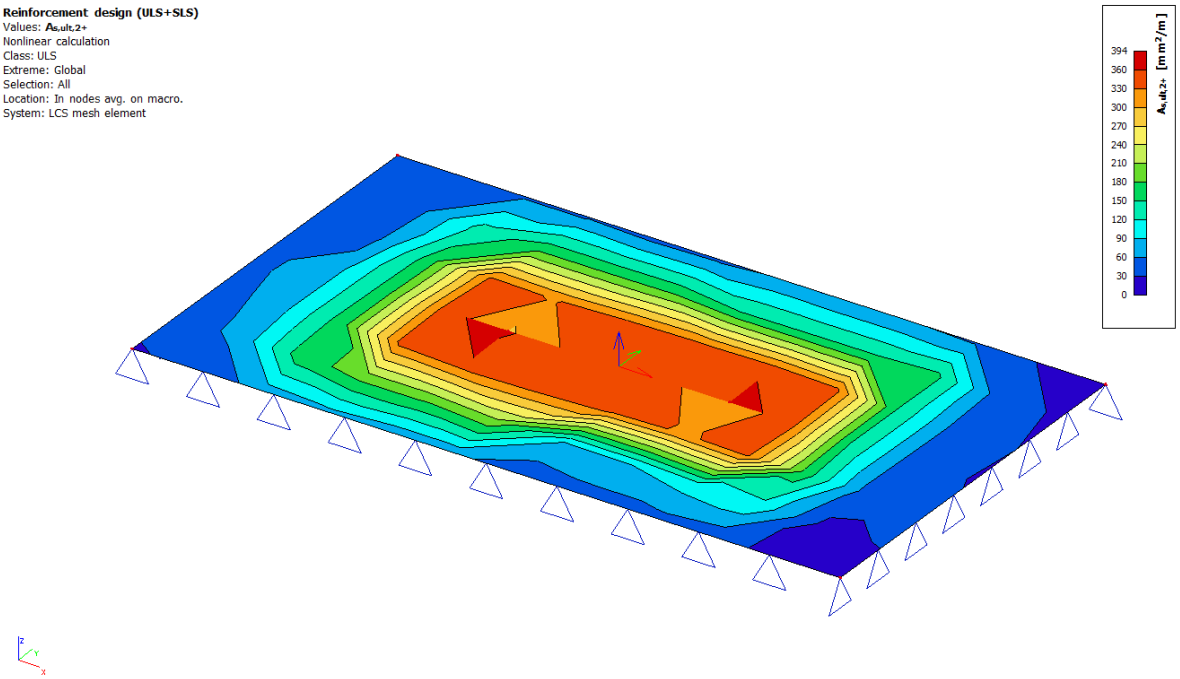
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1+}$
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



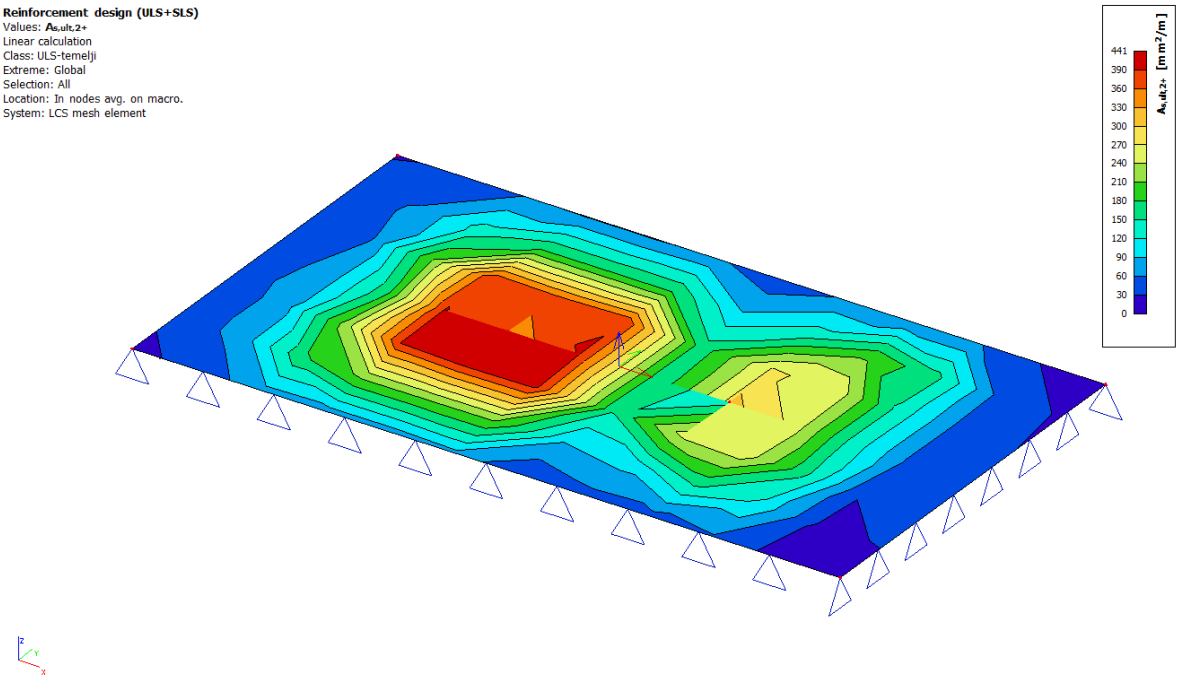
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1+}$
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



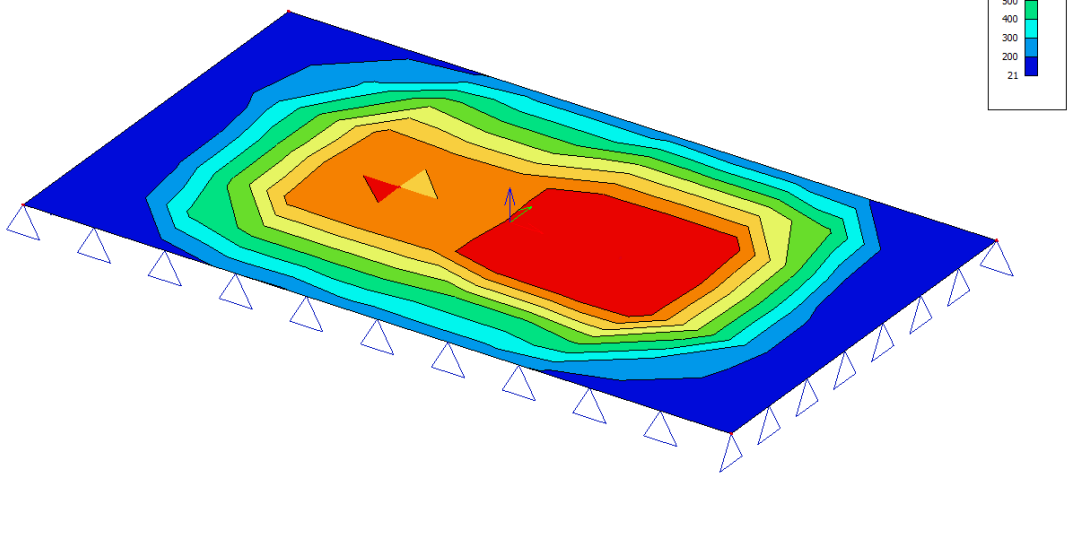
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2+}$
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



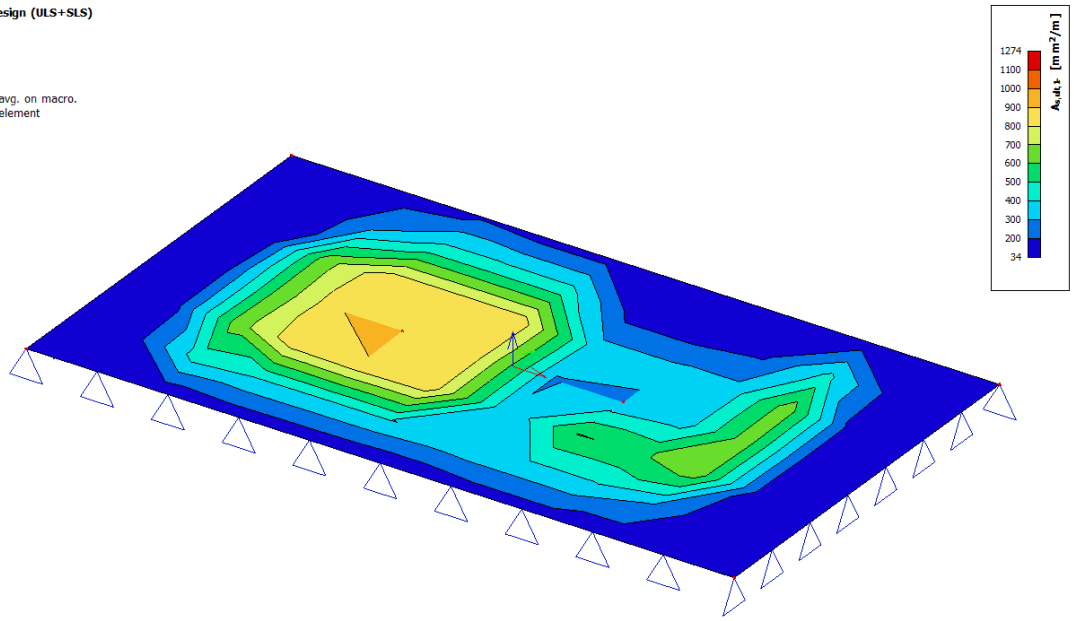
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2+}$
Linear calculation
Class: ULS-temelji
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



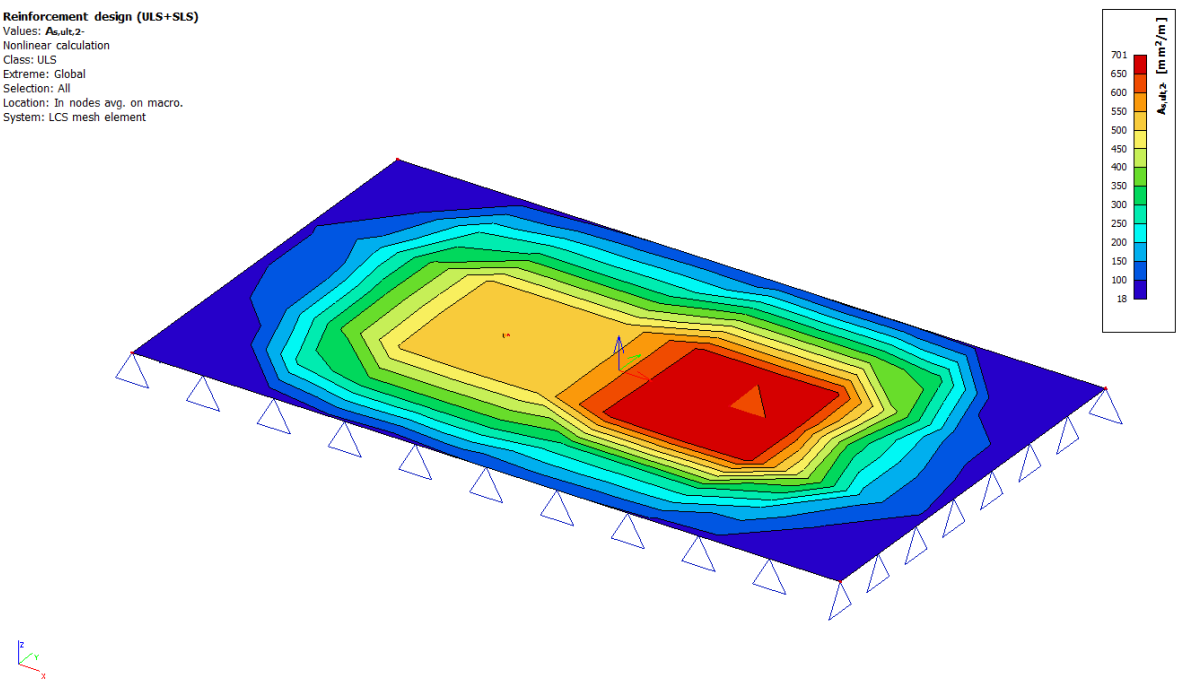
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1}$-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



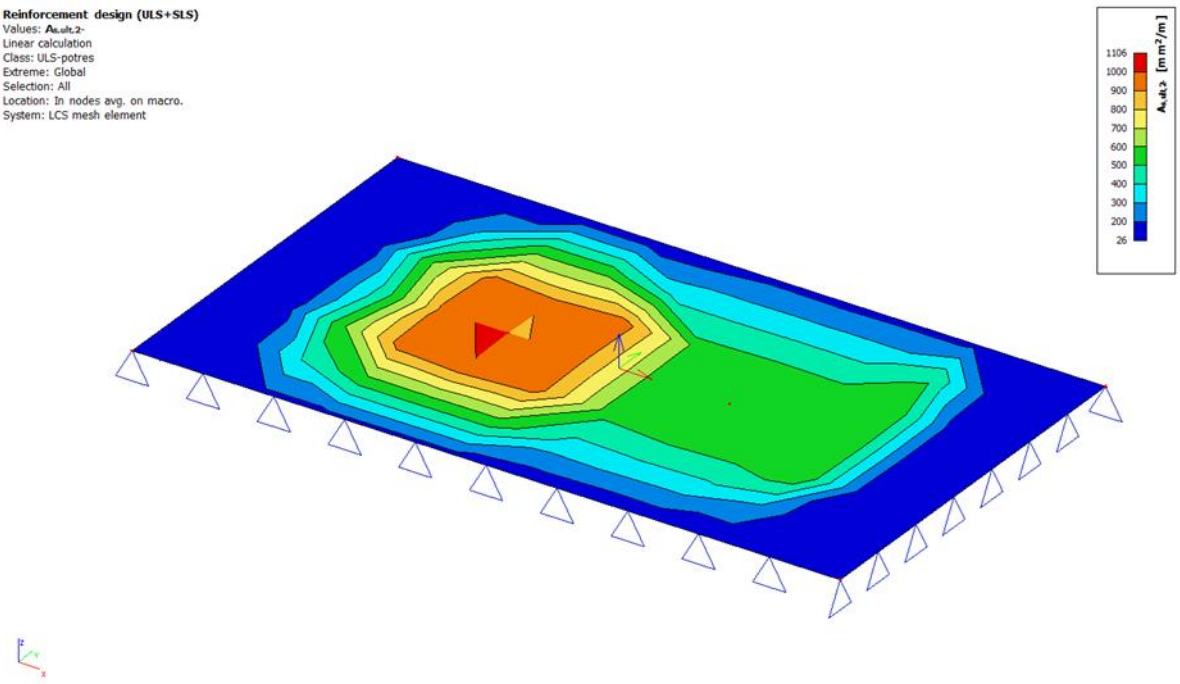
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

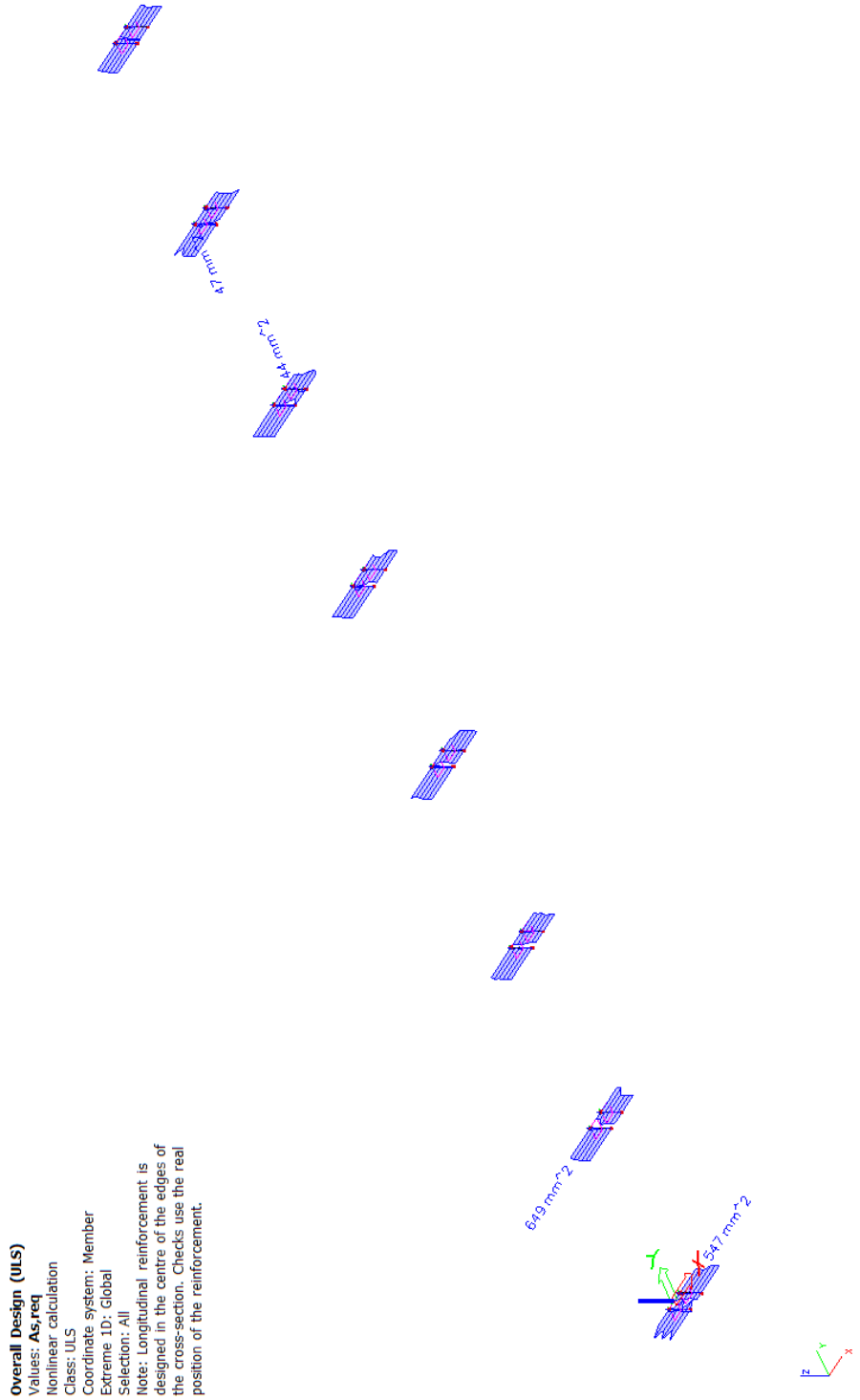


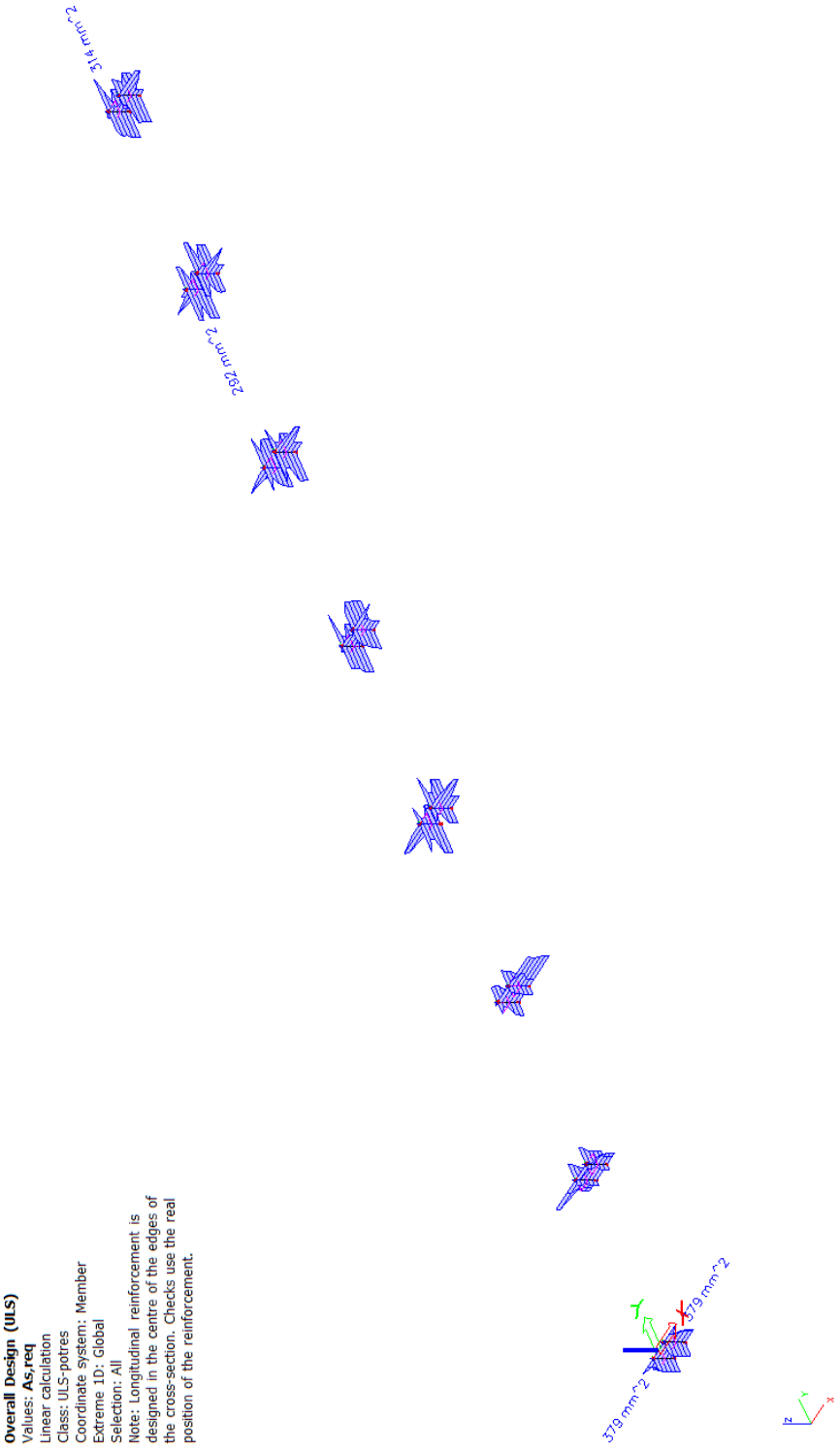
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



- Temeljni nastavki

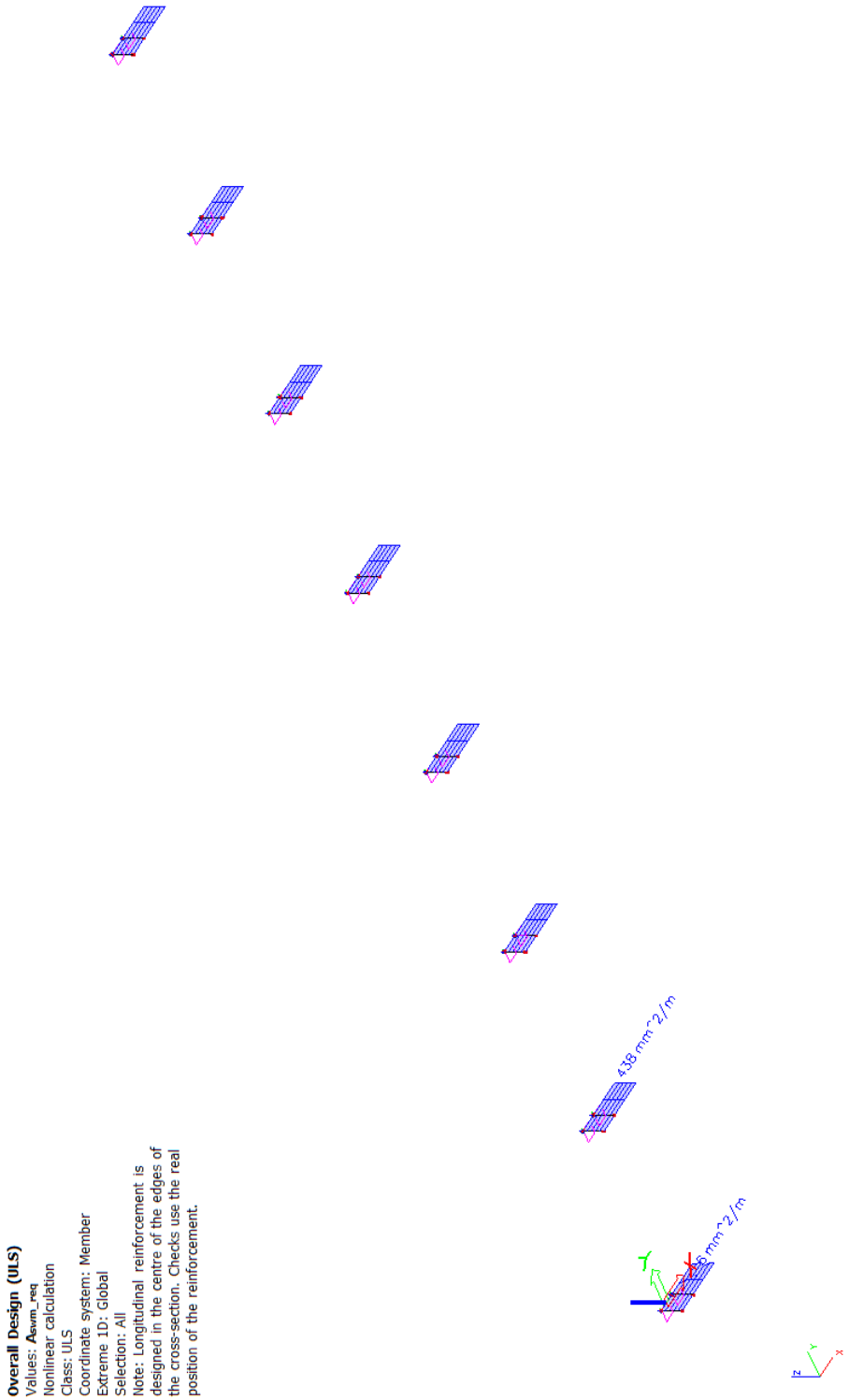
60x60x75 cm

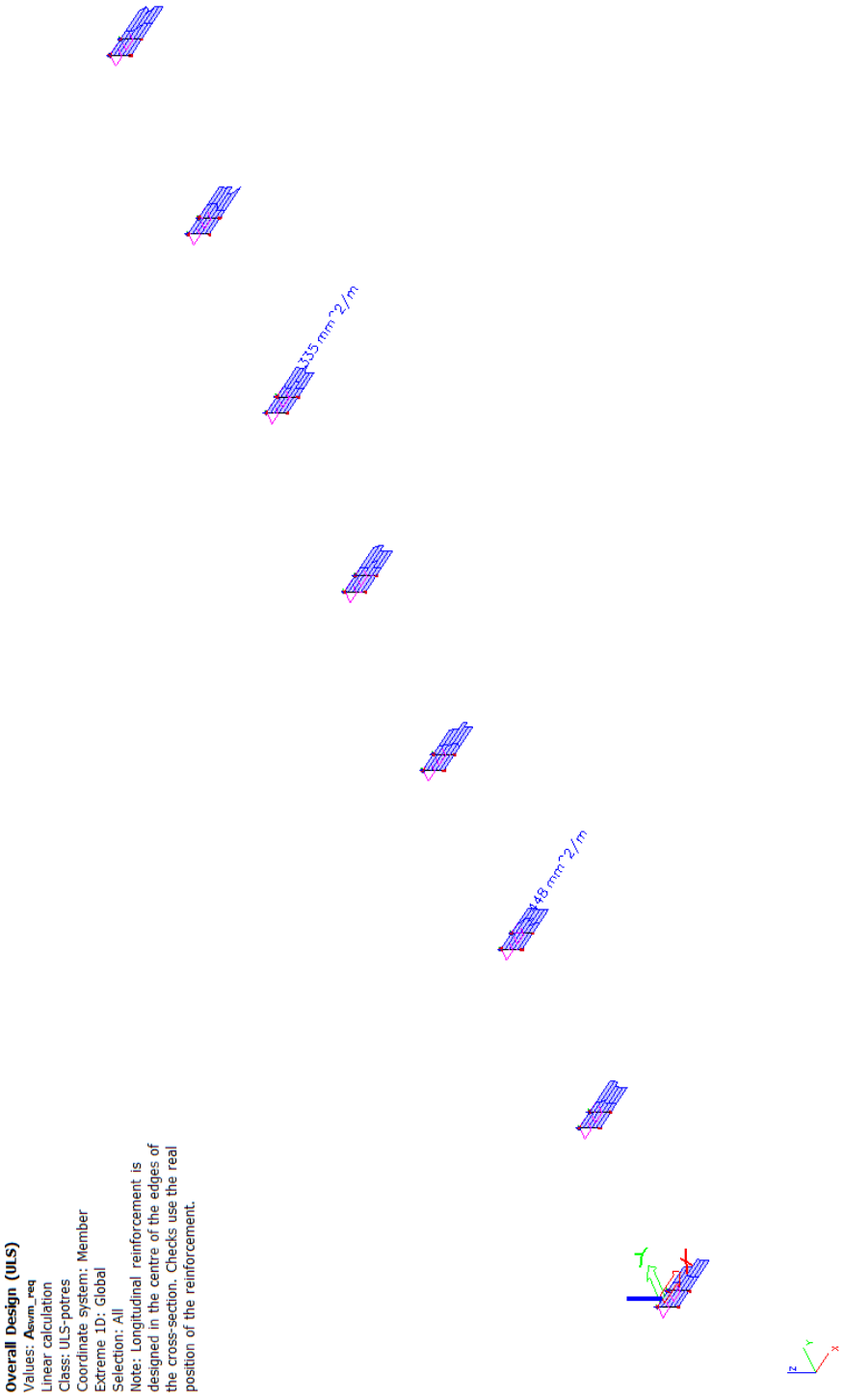




Izberem armaturo na vsaki stranici - 16ϕ14 po obodu.

To je na eni stranici 5ϕ14, $A_{s,dej}$ = 7.7 cm^2/eni stranici.


438 mm^2/m
Overall Design (ULS)
Values: Aswm_req
Nonlinear calculation
Class: ULS
Coordinate system: Member
Extreme 1D: Global
Selection: All
Note: Longitudinal reinforcement is designed in the centre of the edges of the cross-section. Checks use the real position of the reinforcement.



Izberem dvostrižno streme ϕ12/20, $A_{sw,dej}$ = 11.3 cm^2/m

6. LESENA KRITINA

OSB3 vodoodporna plošča D=25mm

L = cca 1.0 m , nosilec preko dveh ali več polj (2xL, 3xL,…)

$q_{Ed,MSU}$ = 0.1+1.25 = 1.35 kN/m^2

AGEPAN® OSB/3 | TECHNISCHE DATEN

Zulässige Flächenlast q_{max} [kN/m²]
Zweifeldträger beidseitig belastet, Durchbiegungsbeschränkung l/300

	12	15	18	22	25
l (m)			Dicke (in mm)		
0,20	22,01	34,41	47,41	70,85	91,52
0,25	14,06	21,99	30,30	45,30	58,52
0,30	9,74	15,24	21,01	31,42	40,59
0,35	7,14	11,18	15,41	23,05	29,78
0,40	5,45	8,54	11,77	17,61	22,77
0,45	4,22	6,72	9,28	13,89	17,96
0,50	3,06	5,43	7,50	11,23	14,52
0,55	2,28	4,47	6,18	9,25	11,97
0,60	1,74	3,45	5,17	7,76	10,04
0,625	1,53	3,04	4,76	7,14	9,24
0,65	1,35	2,69	4,39	6,59	8,53
0,70	1,07	2,14	3,74	5,66	7,33
0,75	0,86	1,72	3,02	4,92	6,37
0,80	0,69	1,40	2,47	4,30	5,58
0,833	0,60	1,23	2,18	3,96	5,13
0,90	0,46	0,96	1,70	3,17	4,38
0,95	0,38	0,80	1,43	2,68	3,91
1,00	0,32	0,67	1,21	2,28	3,39

Max. zul. Flächenlast q_{max} gemäß Spannungsnachweis/Gebrauchstauglichkeit l = vorh. Unterstützungsabstand

7. DETAJLI

7.1. Sidranje KC220/12.5

Vpeto na nov točkovni temelj

4xM24 8.8

maksimalne vrednosti

natezna sila na eno sidro

N = 64/4+(4594+1234)/26.5/2 = 126 kN

prečna sila na eno sidro

Vx = 20/4 = 5 kN
Vy = 20/4 = 5 kN

kontrola tlačnih kontaktnih napetosti betona:

$f_{j,d} = \alpha\beta f_{cd}$ = 1.0×2/3×2.5/1.5 = 1.11 kN/cm^2

σ = 133/(42×42)+(4594+1234)/(42×42^2/6) = 0.55 kN/cm^2 < 1.11 kN/cm^2 … OK

Detail S1: Control of anchoring rods

KC220/12.5, vpeto | SŽ PP Domžale | Peronski nadstrešek 2

Anchors		d (cm)	d_0 (cm)	A_s (cm^2)	A (cm^2)
	M24	2.4	2.6	3.53	4.52
grade		8.8			
f_{ub} (kN/cm^2)		80			
f_{yb} (kN/cm^2)		64			
num. of anchors		1	obravnavam eno sidro		

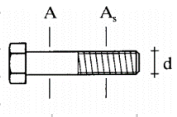
Concrete: f_{ck} (kN/cm^2) = 2.50; C25/30; $f_{ctk\,0,05}$ (kN/cm^2) = 0.18

Anchoring plate: t (cm) = 2.00; S235; f_u (kN/cm^2) = 36.0

k= 1 | k=0,85 carved later | γ_{M2}= 1.25

k=1,0 standard manufactured bolts, rods | γ_C= 1.5

share plane: 1 — 1 - share plane A_S; 2 - share plane A



factor: 0,6 for shear plane A

0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S

0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S

Shear resistance: $F_{v,Rd} = k*0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1,0$ | $F_{Rv,Ed} = (Fx^2+Fy^2)^{0,5}$

$F_{v,Rd}$ = 135.6 kN

$F_{vb,Rd} = \alpha_b*f_{ub}*A_s/\gamma_{M2}$ | $\alpha_b = 0,44 - 0,0003*f_{yb}$

$F_{vb,Rd}$ = 56.0 kN

min $F_{v,Rd}$ = 56.0 kN

Tension resistance $F_{t,Rd} = k*0,9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1,0$ | $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / (1,4\ F_{t,Rd})) < 1,0$

$F_{t,Rd}$ = 203.3 kN

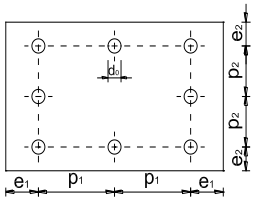
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1,0$

$F_{b,Rd}$ = 221.2 kN

		usual values		I choose
e_1=2*d_o	e_1 (cm)=	5.20	e_1 (cm)=	5.00
p_1=3*d_o	p_1 (cm)=	7.80	p_1 (cm)=	7.00
e_2=1,5*d_o	e_2 (cm)=	3.90	e_2 (cm)=	5.00
p_2=3*d_o	p_2 (cm)=	7.80	p_2 (cm)=	7.00

		in loading direction			orthogonal to loading direction		
outter anchor	→	α_d=e_1/3d_o	$\alpha_{d,outter}$=	0.64	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,	$k_{1,outter}$=	2.50
inner anchor	→	α_d=p_1/3d_o - 1/4	$\alpha_{d,inner}$=	0.65	k_1=1,4*p_2/d_o-1,7≤ 2,5	$k_{1,inner}$=	2.50
			α_d=	0.64	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	α_b= 0.64	k_1= 2.50

loading direction ⟷



Anchoring length: 2 / 2

$l_{b,req.} = \alpha_1 * F_{t,Ed} / (\pi * d * f_{bd})$

η_1 = 1…good anchoring conditions; 0,7…poor anchoring conditions

η_2 = 1 (d ≤ 32 mm); η_2 = 1.08 (μ_2=(132-d)/100) (d > 32 mm)

η_1 = 1

η_2 = 1

α_1 = 1 (α_1 = 0,7...bent rods or additional anchoring plates; 1...straight rod)

ribbed rebar (threaded rods) … EC2

$f_{bd} = 2{,}25 * \eta_1 * \eta_2 * f_{ctd}$ → f_{bd} (kN/cm^2) = 0.27

$f_{ctd} = \alpha_{ct} * f_{ctk,0,05} / \gamma_c$; α_{ct} = 1.00

plain rods … Tabel 5.3 or Equation 5.1, ENV 1992-1-1, for plain (smooth) rebar

f_{bd} (MPa) = $(0{,}36 * (f_{ck})^{0,5}) / \gamma_c$ …(f_{ck} in f_{bd} v MPa) → f_{bd} (kN/cm^2) = 0.12

I choose → f_{bd} (kN/cm^2) = 0.27 — threaded rods with thread along the entire lenght

obremenitve na eno sidro

(+) tension

F_X	F_Y	F_Z	$F_{Rv,Ed}$	$F_{v,Ed}$	$F_{v,Ed}/F_{v,Rd}$	$F_{b,Ed}/F_{b,Rd}$	$F_{t,Ed}$	$F_{t,Ed}/F_{t,Rd}$	inter.	$l_{b,req.}$ (cm)
5.0	5.0	126.0	7.1	7.1	0.13	0.03	126.0	0.62	0.57	62
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
(kN)				max.	0.13	0.03		0.62	0.57	62

Členkasti priključek na območju AB konstrukcije (podhod)

KC250/12.5 4xM24 8.8

velja tudi za KC120/6.3 4xM24 5.6 ali 5.8 pozor!! varjenje sider (zato 8.8 ni dovoljeno)

natezna sila na eno sidro

N = 60/4 = 15 kN

prečna sila na eno sidro

Vx = 30/4 = 7.5 kN
Vy = 30/4 = 7.5 kN

Detail S2: Control of anchoring rods

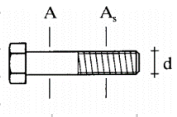
KC220/12.5, clenkasto | SŽ PP Domžale | Peronski nadstrešek 2

Anchors		d (cm)	d_0 (cm)	A_s (cm^2)	A (cm^2)
	M24	2.4	2.6	3.53	4.52
grade		5.6			
f_{ub} (kN/cm^2)		50			
f_{yb} (kN/cm^2)		30			
num. of anchors		1	obravnavam eno sidro		

Concrete f_{ck} (kN/cm^2) = 2.50
C25/30 $f_{ctk\,0,05}$ (kN/cm^2) = 0.18
Anchoring plate t (cm)= 2.00
S235 f_u (kN/cm^2)= 36.0

k= 1 | k=0,85 carved later | γ_{M2}= 1.25
k=1,0 standard manufactured bolts, rods | γ_C= 1.5

share plane: 1
1 - share plane A_S
2 - share plane A



factor: 0,6 for shear plane A
0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S
0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S

Shear resistance: $F_{v,Rd} = k*0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1,0$ | $F_{Rv,Ed} = (Fx^2+Fy^2)^{0,5}$

$F_{v,Rd}$ = 84.7 kN

$F_{vb,Rd} = \alpha_b*f_{ub}*A_s/\gamma_{M2}$ | $\alpha_b = 0,44 - 0,0003*f_{yb}$

$F_{vb,Rd}$ = 49.4 kN

min $F_{v,Rd}$ = 49.4 kN

Tension resistance $F_{t,Rd} = k*0,9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1,0$ | $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / (1,4\ F_{t,Rd})) < 1,0$

$F_{t,Rd}$ = 127.1 kN

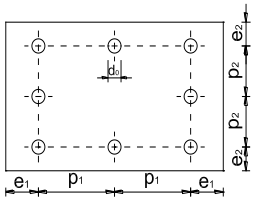
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1,0$

$F_{b,Rd}$ = 221.2 kN

		usual values		I choose
e_1=2*d_o	e_1 (cm)=	5.20	e_1 (cm)=	5.00
p_1=3*d_o	p_1 (cm)=	7.80	p_1 (cm)=	7.00
e_2=1,5*d_o	e_2 (cm)=	3.90	e_2 (cm)=	5.00
p_2=3*d_o	p_2 (cm)=	7.80	p_2 (cm)=	7.00

		in loading direction			orthogonal to loading direction		
outter anchor	→	α_d=e_1/3d_o	$\alpha_{d,outter}$=	0.64	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,	$k_{1,outter}$=	2.50
inner anchor	→	α_d=p_1/3d_o - 1/4	$\alpha_{d,inner}$=	0.65	k_1=1,4*p_2/d_o-1,7≤ 2,5	$k_{1,inner}$=	2.50
			α_d=	0.64	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	α_b= 0.64	k_1= 2.50

loading direction ← →



Anchoring length: 2 / 2

$l_{b,req.} = \alpha_1 * F_{t,Ed} / (\pi * d * f_{bd})$ η_1 = 1…good anchoring conditions η_2 = 1 d ≤ 32 mm

η_1 = 1 0,7…poor anchoring conditions $\mu_2 = (132-d)/100$ η_2 = 1.08 d > 32 mm

η_2 = 1

α_1 = 1 α_1 = 0,7...bent rods or additional anchoring plates

1...straight rod

ribbed rebar (threaded rods) … EC2

$f_{bd} = 2{,}25 * \eta_1 * \eta_2 * f_{ctd}$ f_{bd} (kN/cm^2) = 0.27 $f_{ctd} = \alpha_{ct} * f_{ctk,0,05} / \gamma_c$

α_{ct}= 1.00

plain rods … Tabel 5.3 or Equation 5.1, ENV 1992-1-1, for plain (smooth) rebar

f_{bd} (MPa) = $(0{,}36 * (f_{ck})^{0,5}) / \gamma_c$ ...(f_{ck} in f_{bd} v MPa) f_{bd} (kN/cm^2) = 0.12

I choose f_{bd} (kN/cm^2) = 0.27 threaded rods with thread along the entire lenght

obremenitve na eno sidro

(+) tension

F_X	F_Y	F_Z	$F_{Rv,Ed}$	$F_{v,Ed}$	$F_{v,Ed}/F_{v,Rd}$	$F_{b,Ed}/F_{b,Rd}$	$F_{t,Ed}$	$F_{t,Ed}/F_{t,Rd}$	inter.	$l_{b,req.}$ (cm)
7.5	7.5	15.0	10.6	10.6	0.21	0.05	15.0	0.12	0.30	7
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
(kN)				max.	0.21	0.05		0.12	0.30	7

7.2. Montažni spoj IPE240 in UNP240

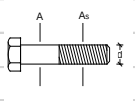
Detail D1.1: Bolted moment resistance joint

1 / 2

IPE240, U240 | SŽ PP Domžale | Peronski nadstrešek 2 | Plate

Bolts		d(cm)	d_0(cm)	As(cm^2)	A(cm^2)
	M20	2	2.2	2.45	3.14

grade		grade	235
		s (cm)=	2.0
grade	10.9	f_u(kN/cm^2)=	36
f_{ub}(kN/cm^2)	100		
shear plane	1	γ_{M0}=	1.00
	2	γ_{M2}=	1.25
factor	0.5		



1 - share plane A_S

2 - share plane A

0,6 for shear plane A

0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S

0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S

Shear resistance: $F_{v,Rd} = 0{,}6(0{,}5)*f_{ub}*A_s(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1{,}0$

$F_{v,Rd}$ = 98.0 kN

interaction V - M

Tension resistance $F_{t,Rd} = 0{,}9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1{,}0$ | $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1{,}4 < 1{,}0$

$F_{t,Rd}$ = 176.4 kN

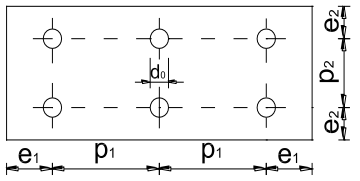
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1{,}0$

$F_{b,Rd}$ = 193.0 kN

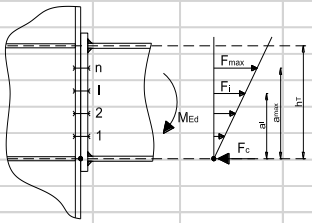
		usual values			I choose
$e_1=2*d_o$	e_1(cm)=	4.40	e_1(cm)=	4.40	
$p_1=3*d_o$	p_1(cm)=	6.60	p_1(cm)=	6.60	
$e_2=1{,}5*d_o$	e_2(cm)=	3.30	e_2(cm)=	3.30	
$p_2=3*d_o$	p_2(cm)=	6.60	p_2(cm)=	6.60	

		in loading direction			orthogonal to loading direction				
outter ancho	→	$\alpha_d=e_1/3d_o$	$\alpha_{d,outter}$=	0.67	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5	$k_{1,outter}$=	2.50		
inner anchor	→	$\alpha_d=p_1/3d_o$ - 1/4	$\alpha_{d,inner}$=	0.75	k_1=1,4*p_2/d_o-1,7≤ 2,5			$k_{1,inner}$=	2.50
			α_d=	0.67	α_b=min(α_d; f_{ub}/f_u ; 1,0)	α_b=	0.67	k_1=	2.50

load direction ⟵ ⟶



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	4500	kNcm			$F_{t,Ed,M}$=	110.75	kN		check		
N_{Ed} =	20	kN	(+) tension		$F_{t,Ed,N}$=	5.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.656	OK
$V_{Ed,z}$ =	30	kN			$F_{v,Ed}$=	7.50	kN		$F_{v,Ed}/F_{v,Rd}$=	0.077	OK
									interaction =	0.545	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.039	OK
num. of bolts in line		$n_{vij.v vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	5.00	25.0									
2	19.00	361.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	386.0	cm^2									
a_{max}=	19	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	7167	kNcm									
Obojstranski koti zvari				a = 0.6 x t		polnonosilni					



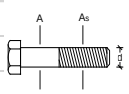
7.3. Montažni spoj U zvarjenca (Konzole)

Detail D1.2: Bolted moment resistance joint

1 / 2

U zvarjenec - konzola | SŽ PP Domžale | Peronski nadstrešek 2 | Plate

Bolts		d(cm)	d_0(cm)	As(cm^2)	A(cm^2)			grade	235
	M24	2.4	2.6	3.53	4.52			s (cm)=	2.5
grade		10.9						f_u(kN/cm^2)=	36
f_{ub}(kN/cm^2)		100							



shear plane		1	1 - share plane A_S					γ_{M0}=	1.00
			2 - share plane A					γ_{M2}=	1.25
factor		0.5	0,6 for shear plane A						
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S						
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S						

Shear resistance: $F_{v,Rd} = 0{,}6(0{,}5)*f_{ub}*A_s(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1{,}0$

$F_{v,Rd}$ = 141.2 kN

Tension resistance $F_{t,Rd} = 0{,}9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1{,}0$ | interaction V - M: $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1{,}4 < 1{,}0$

$F_{t,Rd}$ = 254.2 kN

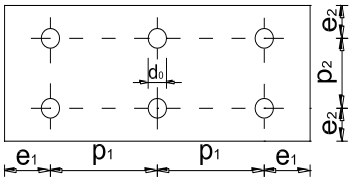
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1{,}0$

$F_{b,Rd}$ = 276.5 kN

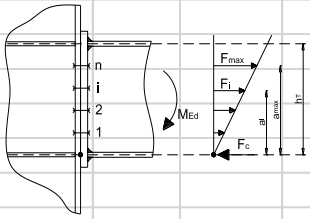
		usual values			I choose	
$e_1=2*d_o$	e_1(cm)=	5.20	e_1(cm)=	5.00		
$p_1=3*d_o$	p_1(cm)=	7.80	p_1(cm)=	7.80		
$e_2=1{,}5*d_o$	e_2(cm)=	3.90	e_2(cm)=	5.00		
$p_2=3*d_o$	p_2(cm)=	7.80	p_2(cm)=	7.80		

		in loading direction			orthogonal to loading direction				
outter ancho	→	$\alpha_d=e_1/3d_o$	$\alpha_{d,outter}$=	0.64	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5	$k_{1,outter}$=	2.50		
inner anchor	→	$\alpha_d=p_1/3d_o$ - 1/4	$\alpha_{d,inner}$=	0.75	k_1=1,4*p_2/d_o-1,7≤ 2,5			$k_{1,inner}$=	2.50
			α_d=	0.64	α_b=min(α_d; f_{ub}/f_u ; 1,0)	α_b=	0.64	k_1=	2.50

load direction ⟵ ⟶



num. of bolts for transfering tension and shear laod						$n_{vij,N,V}$=	4				2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	8000	kNcm			$F_{t,Ed,M}$=	200.86	kN		check		
N_{Ed} =	60	kN	(+) tension		$F_{t,Ed,N}$=	15.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.849	OK
$V_{Ed,z}$ =	80	kN			$F_{v,Ed}$=	20.00	kN		$F_{v,Ed}/F_{v,Rd}$=	0.142	OK
									interaction =	0.748	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.072	OK
num. of bolts in line		$n_{vij.v.vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	6.50	42.3									
2	17.50	306.3									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	348.5	cm^2									
a_{max}=	17.5	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	**10123**	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					



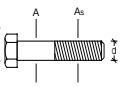
7.4. Priključek PC220/120/10 na KC220/12.5

Detail D1.3: Bolted moment resistance joint

1 / 2

PC220/120/10 na KC220/12.5 | SŽ PP Domžale | Peronski nadstrešek 2

Bolts		d(cm)	d_0(cm)	A_s(cm^2)	A(cm^2)		grade	235
	M24	2.4	2.6	3.53	4.52	navojne palice	s (cm)=	2.5
grade		8.8					f_u(kN/cm^2)=	36
f_{ub}(kN/cm^2)		80						



shear plane	1	1 - share plane A_S	γ_{M0}= 1.00
		2 - share plane A	γ_{M2}= 1.25
factor	0.6	0,6 for shear plane A	
		0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S	
		0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S	

Shear resistance: $F_{v,Rd} = 0{,}6(0{,}5)*f_{ub}*A_s(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1{,}0$

$F_{v,Rd}$ = 135.6 kN

Tension resistance $F_{t,Rd} = 0{,}9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1{,}0$

$F_{t,Rd}$ = 203.3 kN

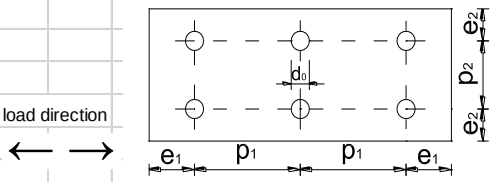
interaction V - M: $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1{,}4 < 1{,}0$

Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1{,}0$

$F_{b,Rd}$ = 289.4 kN

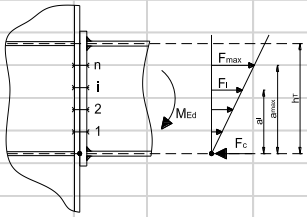
		usual values		I choose	
e_1=2*d_o	e_1 (cm)=	5.20	e_1 (cm)=	5.20	
p_1=3*d_o	p_1 (cm)=	7.80	p_1 (cm)=	7.80	
e_2=1,5*d_o	e_2 (cm)=	3.90	e_2 (cm)=	3.90	
p_2=3*d_o	p_2 (cm)=	7.80	p_2 (cm)=	7.80	

		in loading direction			orthogonal to loading direction			
outter ancho	→	α_d=e_1/3d_o	$\alpha_{d,outter}$=	0.67	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)		$k_{1,outter}$=	2.50
inner ancho	→	α_d=p_1/3d_o - 1/4	$\alpha_{d,inner}$=	0.75	k_1=1,4*p_2/d_o-1,7≤ 2,5		$k_{1,inner}$=	2.50
			α_d=	0.67	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	α_b= 0.67	k_1=	2.50



num. of bolts for transfering tension and shear laod						$n_{vij,N,V}$=	4				2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	3400	kNcm			$F_{t,Ed,M}$=	113.33	kN		check		
N_{Ed} =	90	kN	(+) tension		$F_{t,Ed,N}$=	22.50	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.668	OK
$V_{Ed,z}$ =	95	kN			$F_{v,Ed}$=	23.75	kN		$F_{v,Ed}/F_{v,Rd}$=	0.175	OK
									interaction =	0.652	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.082	OK
num. of bolts in line		$n_{vij,vvrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							

lines	a_i (cm)	a_i^2 (cm^2)
1	0.00	0.0
2	15.00	225.0
3	0.00	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0



Σa_i^2=	225.0	cm^2
a_{max}=	15	cm

Maximum bending load capacity of bolts

$M_{Rd,vija.}$ = **6100** kNcm

Obojstranski koti zvari **a = 0.6 x t** polnonosilni

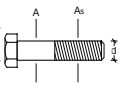
7.5. Priključek KC120/6.3 na PC220/120/10

Detail D1.4: Bolted moment resistance joint

1 / 2

KC120/6.3 na PC220/120/10 | SŽ PP Domžale | Peronski nadstrešek 2

Bolts		d(cm)	d_0(cm)	As(cm^2)	A(cm^2)			grade	235
	M20	2	2.2	2.45	3.14	navojne palice		s (cm)=	2.5
grade		8.8						f_u(kN/cm^2)=	36
f_{ub}(kN/cm^2)		80							
shear plane		1	1 - share plane A_S					γ_{M0}=	1.00
			2 - share plane A					γ_{M2}=	1.25
factor		0.6	0,6 for shear plane A						
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S						
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S						



Shear resistance: $F_{v,Rd} = 0,6(0,5)*f_{ub}*A_S(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1,0$

$F_{v,Rd}$ = 94.1 kN

Tension resistance $F_{t,Rd} = 0,9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1,0$ | interaction V - M: $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1,4 < 1,0$

$F_{t,Rd}$ = 141.1 kN

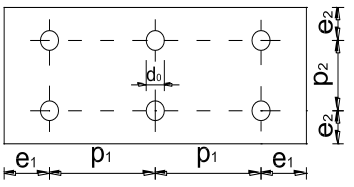
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1,0$

$F_{b,Rd}$ = 241.2 kN

		usual values		I choose	
e_1=2*d_o	e_1 (cm)=	4.40	e_1 (cm)=	4.40	
p_1=3*d_o	p_1 (cm)=	6.60	p_1 (cm)=	6.60	
e_2=1,5*d_o	e_2 (cm)=	3.30	e_2 (cm)=	3.30	
p_2=3*d_o	p_2 (cm)=	6.60	p_2 (cm)=	6.60	

		in loading direction			orthogonal to loading direction			
outter ancho	→	α_d=e_1/3d_o	$\alpha_{d,outter}$=	0.67	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)	$k_{1,outter}$=	2.50	
inner ancho	→	α_d=p_1/3d_o - 1/4	$\alpha_{d,inner}$=	0.75	k_1=1,4*p_2/d_o-1,7≤ 2,5	$k_{1,inner}$=	2.50	
			α_d=	0.67	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	α_b= 0.67	k_1=	2.50

load direction ← →



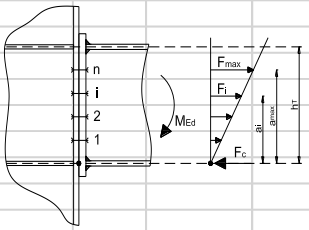
num. of bolts for transfering tension and shear laod $n_{vij,N,V}$= 4 2 / 2

Connection load load of maximal loaded bolt

$M_{Ed,y}$=	1500	kNcm		$F_{t,Ed,M}$=	50.00	kN	check		
N_{Ed} =	90	kN	(+) tension	$F_{t,Ed,N}$=	22.50	kN	$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.514	OK
$V_{Ed,z}$ =	20	kN		$F_{v,Ed}$=	5.00	kN	$F_{v,Ed}/F_{v,Rd}$=	0.053	OK
							interaction =	0.420	OK
							$F_{v,Ed}/F_{b,Rd}$=	0.021	OK

num. of bolts in line $n_{vij.v\ vrsti}$ = 2 (for 4 bolts in line we take 3,6 "due to prying force")

lines	a_i (cm)	a_i^2 (cm^2)
1	0.00	0.0
2	15.00	225.0
3	0.00	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0



Σa_i^2= 225.0 cm^2

a_{max}= 15 cm

Maximum bending load capacity of bolts

$M_{Rd,vija.}$ = **4234** kNcm

Obojstranski koti zvari **a = 0.6 x t** polnonosilni

H I Š A, NAČRTOVANJE IN SVETOVANJE, d.o.o.
Ukmarjeva ulica 4, 1000 Ljubljana

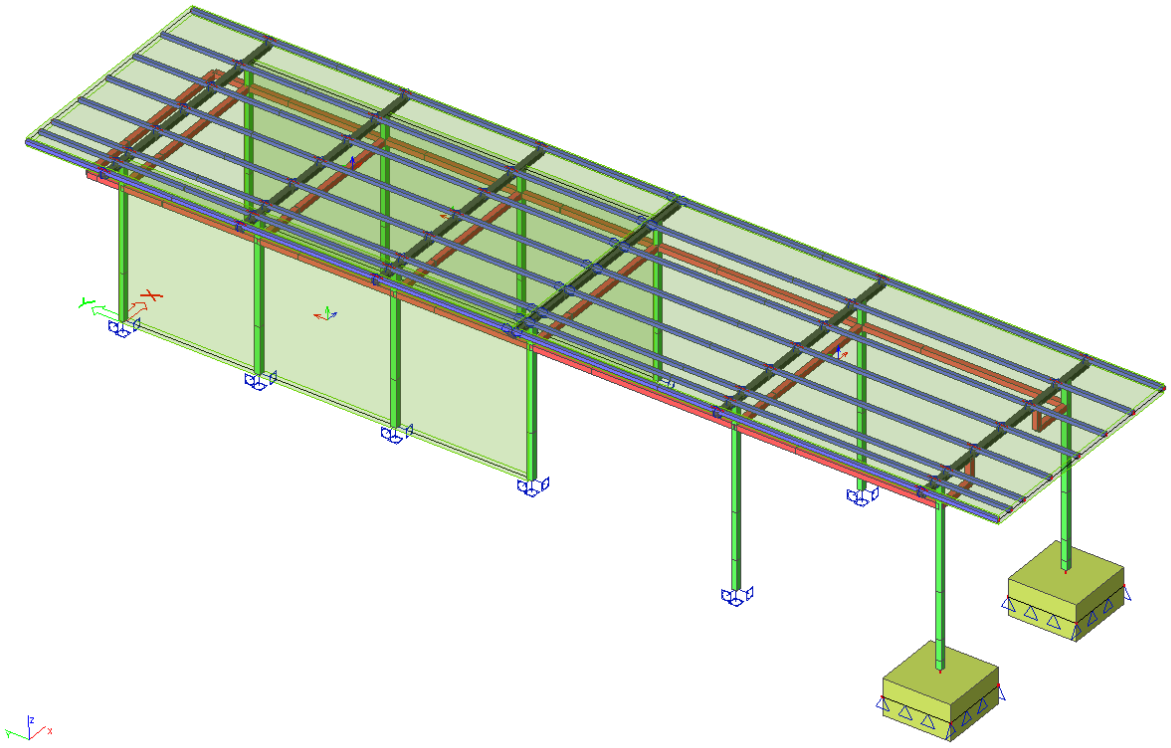
NADSTREŠEK 3

Železniška postaja Domžale

ANALIZA KONSTRUKCIJE

Faza: IZN

Revizija:0



Julij 2021

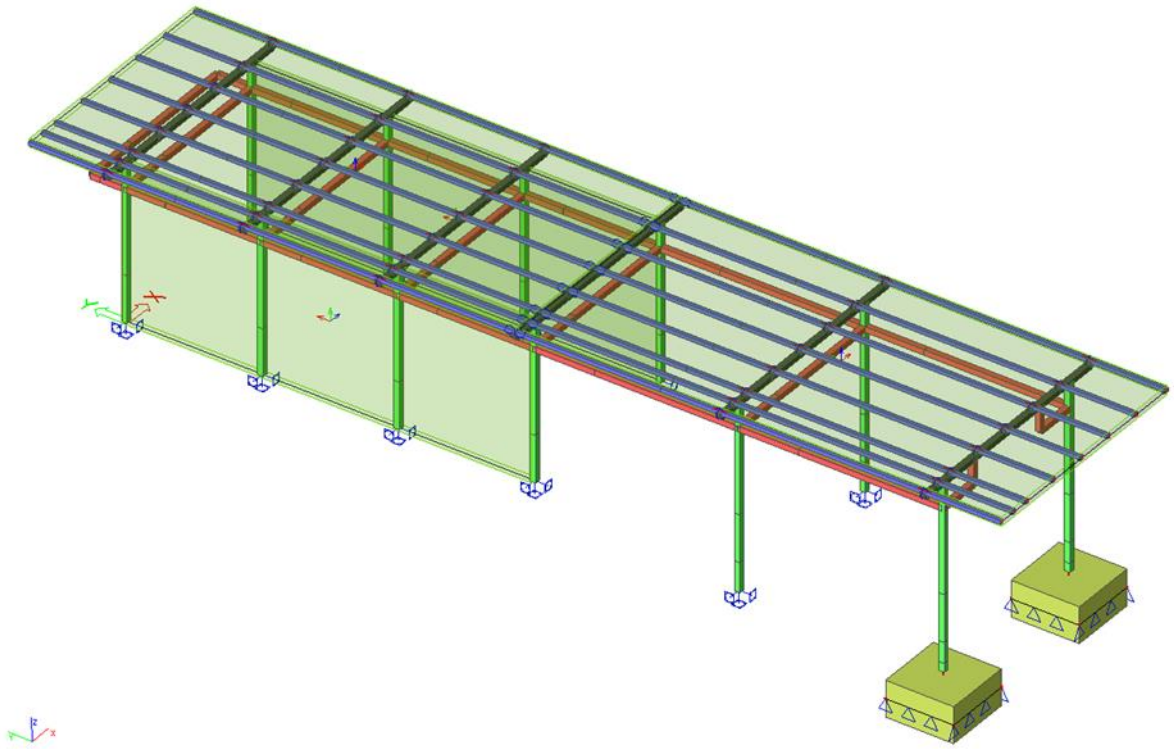
Računal:
Dr. Leon Hladnik, udig G-0296.

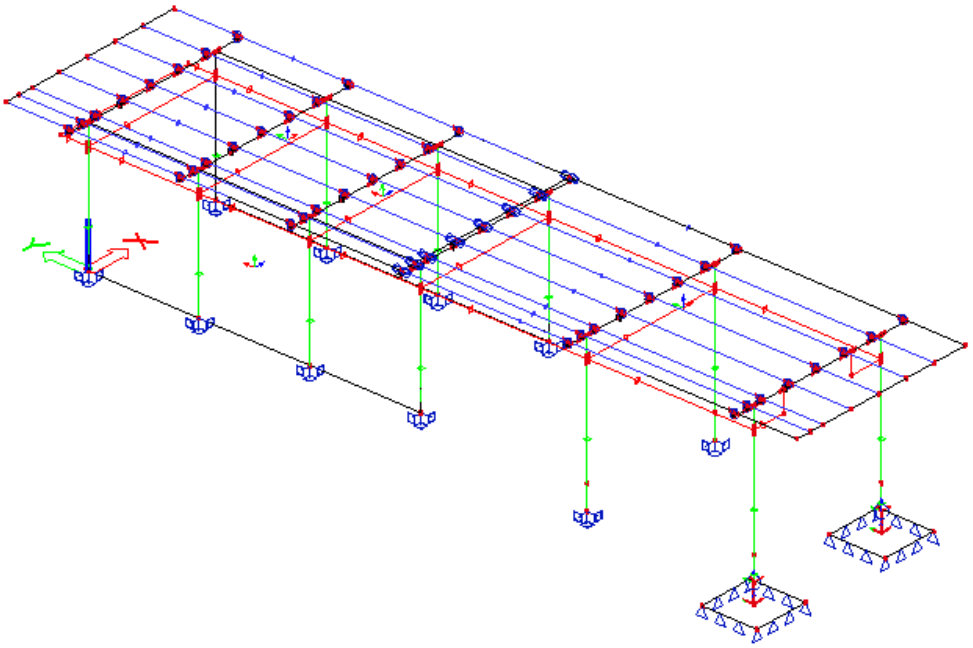
KAZALO

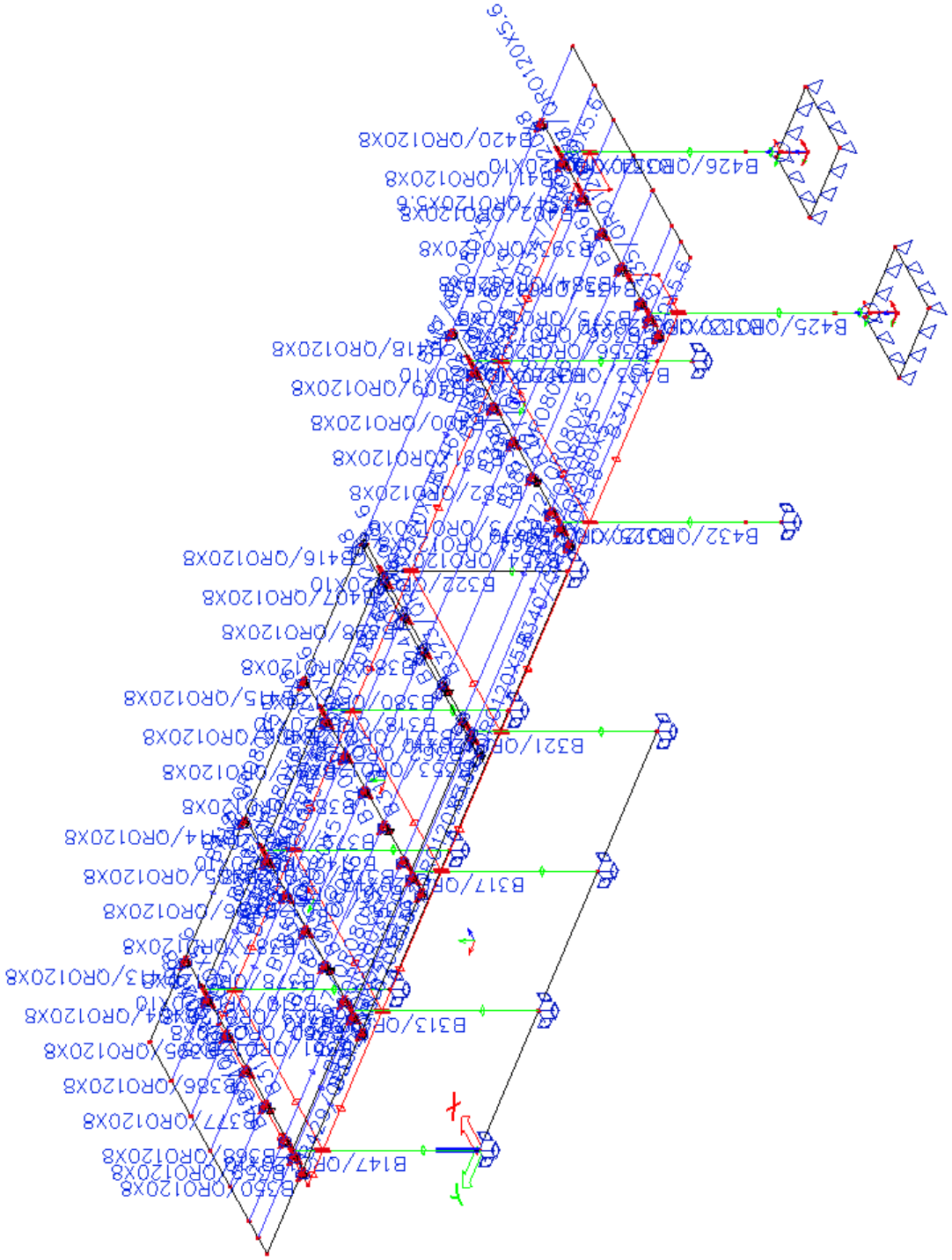
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1. RAČUNSKI MODEL

1.1. Statični model







1.2. Podatki o modelu

1. Bill of material

Selection: All
Type of sorting: Material

Summary

Material	Mass [kg]	Surface [m²]	Volume [m³]
Steel	5707.40	119.866	7.2706e-01
Concrete	9000.00	4.500	3.6000e+00
Total	14707.40	124.366	4.3271e+00

Note: Value 'Surface' represents for 1D members the total exposed surface area,
while for 2D members it corresponds only to the surface area of the centroidal plane.

Steel (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
S 235	7850.00	5707.40	119.866	7.2706e-01
Total		5707.40	119.866	7.2706e-01

Concrete (2D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	9000.00	4.500	3.6000e+00
Total		9000.00	4.500	3.6000e+00

2. Materials

Steel EC3

Name	ρ [kg/m³]	E_{mod} [MPa]	μ	Lower limit [mm]	Upper limit [mm]	F_y [kN/cm²]	F_u [kN/cm²]	Colour
		G_{mod} [MPa]	α [m/mK]					
S 235	7850.00	2.1000e+05	0.3	0	100	23.5	36.0	
		8.0769e+04	0.00					

Name	Type	ρ [kg/m³]	Density in fresh state [kg/m³]	E_{mod} [MPa]	μ	α [m/mK]	$f_{c.k.28}$ [MPa]	Colour
C25/30	Concrete	2500.00	2600.00	3.1500e+04	0.2	0.00	25.00	

Explanations of symbols	
Density in fresh state	The value in the density in fresh state property is used only in case a composite deck is input and its self-weight load is taken into account.

3. Cross-sections

Name	Type	Item material	Fabrication	A [m²]	A_y [m²]	I_y [m⁴]	$W_{el.y}$ [m³]	$W_{pl.y}$ [m³]	Colour
	Detailed				A_z [m²]	I_z [m⁴]	$W_{el.z}$ [m³]	$W_{pl.z}$ [m³]	
N3-S1	QRO120X10	S 235	rolled	4.2500e-03	2.1213e-03	8.4300e-06	1.4100e-04	1.7300e-04	
					2.1213e-03	8.4300e-06	1.4100e-04	1.7300e-04	
N3-N1	QRO120X5.6	S 235	rolled	2.5100e-03	1.2568e-03	5.4400e-06	9.0600e-05	1.0700e-04	
					1.2568e-03	5.4400e-06	9.0600e-05	1.0700e-04	
N3-SL1	QRO80X5	S 235	rolled	1.4800e-03	7.3907e-04	1.3800e-06	3.4500e-05	4.1400e-05	
					7.3907e-04	1.3800e-06	3.4500e-05	4.1400e-05	
N3-togielem	QRO120X8	S 235	rolled	3.4900e-03	1.7416e-03	7.2000e-06	1.2000e-04	1.4500e-04	
					1.7416e-03	7.2000e-06	1.2000e-04	1.4500e-04	
N3-N2	QRO120X8	S 235	rolled	3.4900e-03	1.7416e-03	7.2000e-06	1.2000e-04	1.4500e-04	
					1.7416e-03	7.2000e-06	1.2000e-04	1.4500e-04	

4. Nodes

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N278	0.000	0.000	0.000
N279	0.000	0.000	3.450
N280	3.950	0.000	0.000
N281	3.950	0.000	3.450
N282	0.000	0.000	2.890
N283	3.950	0.000	2.890
N284	-0.600	0.000	3.450
N286	0.000	-3.000	0.000
N287	0.000	-3.000	3.450
N288	3.950	-3.000	0.000
N289	3.950	-3.000	3.450
N290	0.000	-3.000	2.890
N291	3.950	-3.000	2.890
N292	-0.600	-3.000	3.450
N294	0.000	-6.000	0.000
N295	0.000	-6.000	3.450
N296	3.950	-6.000	0.000
N297	3.950	-6.000	3.450
N298	0.000	-6.000	2.890
N299	3.950	-6.000	2.890
N300	-0.600	-6.000	3.450

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N302	0.000	-9.000	0.000
N303	0.000	-9.000	3.450
N304	3.950	-9.000	0.000
N305	3.950	-9.000	3.450
N306	0.000	-9.000	2.890
N307	3.950	-9.000	2.890
N308	-0.600	-9.000	3.450
N310	0.000	-13.500	0.000
N311	0.000	-13.500	3.450
N312	3.950	-13.500	0.000
N313	3.950	-13.500	3.450
N314	0.000	-13.500	2.890
N315	3.950	-13.500	2.890
N316	-0.600	-13.500	3.450
N326	0.000	-18.000	0.000
N327	0.000	-18.000	3.450
N328	3.950	-18.000	0.000
N329	3.950	-18.000	3.450
N330	0.000	-18.000	2.890
N331	3.950	-18.000	2.890
N332	-0.600	-18.000	3.450
N342	-0.600	1.700	3.550
N343	-0.600	-9.000	3.550
N345	-0.600	0.000	3.550
N347	-0.600	-3.000	3.550
N349	-0.600	-6.000	3.550
N352	-0.600	-13.500	3.550
N356	-0.600	-18.000	3.550
N357	-0.600	-19.700	3.550
N358	-0.200	1.700	3.550
N359	-0.200	-9.000	3.550
N360	-0.200	0.000	3.450
N361	-0.200	0.000	3.550
N362	-0.200	-3.000	3.450
N363	-0.200	-3.000	3.550
N364	-0.200	-6.000	3.450
N365	-0.200	-6.000	3.550
N366	-0.200	-9.000	3.450
N367	-0.200	-19.700	3.550
N368	-0.200	-13.500	3.450
N369	-0.200	-13.500	3.550
N372	-0.200	-18.000	3.450
N373	-0.200	-18.000	3.550
N374	0.200	1.700	3.550
N375	0.200	-9.000	3.550
N376	0.200	0.000	3.450
N377	0.200	0.000	3.550
N378	0.200	-3.000	3.450
N379	0.200	-3.000	3.550
N380	0.200	-6.000	3.450
N381	0.200	-6.000	3.550
N382	0.200	-9.000	3.450
N383	0.200	-19.700	3.550
N384	0.200	-13.500	3.450
N385	0.200	-13.500	3.550
N388	0.200	-18.000	3.450
N389	0.200	-18.000	3.550
N390	1.060	1.700	3.550
N391	1.060	-9.000	3.550
N392	1.060	0.000	3.450
N393	1.060	0.000	3.550
N394	1.060	-3.000	3.450
N395	1.060	-3.000	3.550
N396	1.060	-6.000	3.450
N397	1.060	-6.000	3.550
N398	1.060	-9.000	3.450

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N399	1.060	-19.700	3.550
N400	1.060	-13.500	3.450
N401	1.060	-13.500	3.550
N404	1.060	-18.000	3.450
N405	1.060	-18.000	3.550
N406	1.920	1.700	3.550
N407	1.920	-9.000	3.550
N408	1.920	0.000	3.450
N409	1.920	0.000	3.550
N410	1.920	-3.000	3.450
N411	1.920	-3.000	3.550
N412	1.920	-6.000	3.450
N413	1.920	-6.000	3.550
N414	1.920	-9.000	3.450
N415	1.920	-19.700	3.550
N416	1.920	-13.500	3.450
N417	1.920	-13.500	3.550
N420	1.920	-18.000	3.450
N421	1.920	-18.000	3.550
N422	2.780	1.700	3.550
N423	2.780	-9.000	3.550
N424	2.780	0.000	3.450
N425	2.780	0.000	3.550
N426	2.780	-3.000	3.450
N427	2.780	-3.000	3.550
N428	2.780	-6.000	3.450
N429	2.780	-6.000	3.550
N430	2.780	-9.000	3.450
N431	2.780	-19.700	3.550
N432	2.780	-13.500	3.450
N433	2.780	-13.500	3.550
N436	2.780	-18.000	3.450
N437	2.780	-18.000	3.550
N438	3.640	1.700	3.550
N439	3.640	-9.000	3.550
N440	3.640	0.000	3.450
N441	3.640	0.000	3.550
N442	3.640	-3.000	3.450
N443	3.640	-3.000	3.550
N444	3.640	-6.000	3.450
N445	3.640	-6.000	3.550
N446	3.640	-9.000	3.450
N447	3.640	-19.700	3.550
N448	3.640	-13.500	3.450
N449	3.640	-13.500	3.550
N452	3.640	-18.000	3.450
N453	3.640	-18.000	3.550
N454	4.600	1.700	3.550
N455	4.600	-9.000	3.550
N456	4.600	0.000	3.450
N457	4.600	0.000	3.550
N459	4.600	-3.000	3.550
N461	4.600	-6.000	3.550
N462	4.600	-9.000	3.450
N463	4.600	-19.700	3.550
N465	4.600	-13.500	3.550
N469	4.600	-18.000	3.550
N500	3.950	-18.000	-0.650
N501	0.000	-18.000	-0.650
N505	3.950	0.750	2.890
N506	0.000	0.750	2.890
N513	3.950	-18.000	-1.150
N514	4.700	-18.750	-1.150
N515	4.700	-17.250	-1.150
N516	3.200	-18.750	-1.150
N517	3.200	-17.250	-1.150

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N518	0.750	-17.250	-1.150
N519	-0.750	-18.750	-1.150
N520	0.750	-18.750	-1.150
N521	-0.750	-17.250	-1.150
N522	0.000	-18.000	-1.150
N523	0.000	-13.500	-0.650
N524	3.950	-13.500	-0.650
N527	0.920	-18.000	3.450
N528	3.030	-18.000	3.450
N529	0.920	-18.000	2.890
N530	3.030	-18.000	2.890
N531	4.600	-18.000	3.450
N532	4.600	-13.500	3.450
N533	4.600	-6.000	3.450
N534	4.600	-3.000	3.450

5. Members

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B147	N3-S1 - QRO120X10	S 235	3.450	N278	N279	general (0)
B310	N3-S1 - QRO120X10	S 235	3.450	N280	N281	general (0)
B311	N3-N1 - QRO120X5.6	S 235	3.950	N282	N283	general (0)
B312	N3-N2 - QRO120X8	S 235	5.200	N284	N456	general (0)
B313	N3-S1 - QRO120X10	S 235	3.450	N286	N287	general (0)
B314	N3-S1 - QRO120X10	S 235	3.450	N288	N289	general (0)
B315	N3-N1 - QRO120X5.6	S 235	3.950	N290	N291	general (0)
B316	N3-N2 - QRO120X8	S 235	5.200	N292	N534	general (0)
B317	N3-S1 - QRO120X10	S 235	3.450	N294	N295	general (0)
B318	N3-S1 - QRO120X10	S 235	3.450	N296	N297	general (0)
B319	N3-N1 - QRO120X5.6	S 235	3.950	N298	N299	general (0)
B320	N3-N2 - QRO120X8	S 235	5.200	N300	N533	general (0)
B321	N3-S1 - QRO120X10	S 235	3.450	N302	N303	general (0)
B322	N3-S1 - QRO120X10	S 235	3.450	N304	N305	general (0)
B323	N3-N1 - QRO120X5.6	S 235	3.950	N306	N307	general (0)
B324	N3-N2 - QRO120X8	S 235	5.200	N308	N462	general (0)
B325	N3-S1 - QRO120X10	S 235	3.450	N310	N311	general (0)
B326	N3-S1 - QRO120X10	S 235	3.450	N312	N313	general (0)
B327	N3-N1 - QRO120X5.6	S 235	3.950	N314	N315	general (0)
B328	N3-N2 - QRO120X8	S 235	5.200	N316	N532	general (0)
B333	N3-S1 - QRO120X10	S 235	3.450	N326	N327	general (0)
B334	N3-S1 - QRO120X10	S 235	3.450	N328	N329	general (0)
B335	N3-N1 - QRO120X5.6	S 235	0.920	N330	N529	general (0)
B336	N3-N2 - QRO120X8	S 235	5.200	N332	N531	general (0)
B337	N3-N1 - QRO120X5.6	S 235	3.000	N282	N290	general (0)
B338	N3-N1 - QRO120X5.6	S 235	3.000	N290	N298	general (0)
B339	N3-N1 - QRO120X5.6	S 235	3.000	N298	N306	general (0)
B340	N3-N1 - QRO120X5.6	S 235	4.500	N306	N314	general (0)
B341	N3-N1 - QRO120X5.6	S 235	4.500	N314	N330	general (0)
B343	N3-N1 - QRO120X5.6	S 235	3.000	N283	N291	general (0)
B344	N3-N1 - QRO120X5.6	S 235	3.000	N291	N299	general (0)
B345	N3-N1 - QRO120X5.6	S 235	3.000	N299	N307	general (0)
B346	N3-N1 - QRO120X5.6	S 235	4.500	N307	N315	general (0)
B347	N3-N1 - QRO120X5.6	S 235	4.500	N315	N331	general (0)
B349	N3-SL1 - QRO80X5	S 235	10.700	N342	N343	general (0)
B350	N3-togielem - QRO120X8	S 235	0.100	N284	N345	general (0)
B351	N3-togielem - QRO120X8	S 235	0.100	N292	N347	general (0)
B352	N3-togielem - QRO120X8	S 235	0.100	N300	N349	general (0)
B353	N3-togielem - QRO120X8	S 235	0.100	N308	N343	general (0)
B354	N3-togielem - QRO120X8	S 235	0.100	N316	N352	general (0)
B356	N3-togielem - QRO120X8	S 235	0.100	N332	N356	general (0)
B357	N3-SL1 - QRO80X5	S 235	10.700	N343	N357	general (0)
B358	N3-SL1 - QRO80X5	S 235	10.700	N358	N359	general (0)
B359	N3-togielem - QRO120X8	S 235	0.100	N360	N361	general (0)
B360	N3-togielem - QRO120X8	S 235	0.100	N362	N363	general (0)
B361	N3-togielem - QRO120X8	S 235	0.100	N364	N365	general (0)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B362	N3-togielem - QRO120X8	S 235	0.100	N366	N359	general (0)
B363	N3-SL1 - QRO80X5	S 235	10.700	N359	N367	general (0)
B364	N3-togielem - QRO120X8	S 235	0.100	N368	N369	general (0)
B366	N3-togielem - QRO120X8	S 235	0.100	N372	N373	general (0)
B367	N3-SL1 - QRO80X5	S 235	10.700	N374	N375	general (0)
B368	N3-togielem - QRO120X8	S 235	0.100	N376	N377	general (0)
B369	N3-togielem - QRO120X8	S 235	0.100	N378	N379	general (0)
B370	N3-togielem - QRO120X8	S 235	0.100	N380	N381	general (0)
B371	N3-togielem - QRO120X8	S 235	0.100	N382	N375	general (0)
B372	N3-SL1 - QRO80X5	S 235	10.700	N375	N383	general (0)
B373	N3-togielem - QRO120X8	S 235	0.100	N384	N385	general (0)
B375	N3-togielem - QRO120X8	S 235	0.100	N388	N389	general (0)
B376	N3-SL1 - QRO80X5	S 235	10.700	N390	N391	general (0)
B377	N3-togielem - QRO120X8	S 235	0.100	N392	N393	general (0)
B378	N3-togielem - QRO120X8	S 235	0.100	N394	N395	general (0)
B379	N3-togielem - QRO120X8	S 235	0.100	N396	N397	general (0)
B380	N3-togielem - QRO120X8	S 235	0.100	N398	N391	general (0)
B381	N3-SL1 - QRO80X5	S 235	10.700	N391	N399	general (0)
B382	N3-togielem - QRO120X8	S 235	0.100	N400	N401	general (0)
B384	N3-togielem - QRO120X8	S 235	0.100	N404	N405	general (0)
B385	N3-SL1 - QRO80X5	S 235	10.700	N406	N407	general (0)
B386	N3-togielem - QRO120X8	S 235	0.100	N408	N409	general (0)
B387	N3-togielem - QRO120X8	S 235	0.100	N410	N411	general (0)
B388	N3-togielem - QRO120X8	S 235	0.100	N412	N413	general (0)
B389	N3-togielem - QRO120X8	S 235	0.100	N414	N407	general (0)
B390	N3-SL1 - QRO80X5	S 235	10.700	N407	N415	general (0)
B391	N3-togielem - QRO120X8	S 235	0.100	N416	N417	general (0)
B393	N3-togielem - QRO120X8	S 235	0.100	N420	N421	general (0)
B394	N3-SL1 - QRO80X5	S 235	10.700	N422	N423	general (0)
B395	N3-togielem - QRO120X8	S 235	0.100	N424	N425	general (0)
B396	N3-togielem - QRO120X8	S 235	0.100	N426	N427	general (0)
B397	N3-togielem - QRO120X8	S 235	0.100	N428	N429	general (0)
B398	N3-togielem - QRO120X8	S 235	0.100	N430	N423	general (0)
B399	N3-SL1 - QRO80X5	S 235	10.700	N423	N431	general (0)
B400	N3-togielem - QRO120X8	S 235	0.100	N432	N433	general (0)
B402	N3-togielem - QRO120X8	S 235	0.100	N436	N437	general (0)
B403	N3-SL1 - QRO80X5	S 235	10.700	N438	N439	general (0)
B404	N3-togielem - QRO120X8	S 235	0.100	N440	N441	general (0)
B405	N3-togielem - QRO120X8	S 235	0.100	N442	N443	general (0)
B406	N3-togielem - QRO120X8	S 235	0.100	N444	N445	general (0)
B407	N3-togielem - QRO120X8	S 235	0.100	N446	N439	general (0)
B408	N3-SL1 - QRO80X5	S 235	10.700	N439	N447	general (0)
B409	N3-togielem - QRO120X8	S 235	0.100	N448	N449	general (0)
B411	N3-togielem - QRO120X8	S 235	0.100	N452	N453	general (0)
B412	N3-SL1 - QRO80X5	S 235	10.700	N454	N455	general (0)
B413	N3-togielem - QRO120X8	S 235	0.100	N456	N457	general (0)
B414	N3-togielem - QRO120X8	S 235	0.100	N534	N459	general (0)
B415	N3-togielem - QRO120X8	S 235	0.100	N533	N461	general (0)
B416	N3-togielem - QRO120X8	S 235	0.100	N462	N455	general (0)
B417	N3-SL1 - QRO80X5	S 235	10.700	N455	N463	general (0)
B418	N3-togielem - QRO120X8	S 235	0.100	N532	N465	general (0)
B420	N3-togielem - QRO120X8	S 235	0.100	N531	N469	general (0)
B425	N3-S1 - QRO120X10	S 235	0.650	N501	N326	general (0)
B426	N3-S1 - QRO120X10	S 235	0.650	N500	N328	general (0)
B427	N3-N1 - QRO120X5.6	S 235	0.750	N505	N283	general (0)
B428	N3-N1 - QRO120X5.6	S 235	3.950	N506	N505	general (0)
B429	N3-N1 - QRO120X5.6	S 235	0.750	N506	N282	general (0)
B432	N3-S1 - QRO120X10	S 235	0.650	N523	N310	general (0)
B433	N3-S1 - QRO120X10	S 235	0.650	N524	N312	general (0)
B434	N3-N1 - QRO120X5.6	S 235	0.560	N530	N528	general (0)
B435	N3-N1 - QRO120X5.6	S 235	0.560	N529	N527	general (0)
B437	N3-N1 - QRO120X5.6	S 235	0.920	N530	N331	general (0)

6. 2D members

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S7	konstrukcija	plate (90)	Standard	C25/30	constant	800
S8	konstrukcija	plate (90)	Standard	C25/30	constant	800

7. Hinges

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H174	B359	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H175	B350	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H176	B351	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H177	B352	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H179	B354	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H181	B356	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H182	B360	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H183	B361	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H185	B364	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H187	B366	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H188	B368	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H189	B369	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H190	B370	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H192	B373	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H193	B375	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H194	B377	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H195	B378	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H196	B379	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H198	B382	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H200	B384	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H201	B386	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H202	B387	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H203	B388	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H205	B391	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H207	B393	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H208	B395	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H209	B396	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H210	B397	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H212	B400	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H214	B402	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H215	B404	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H216	B405	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H217	B406	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H219	B409	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H221	B411	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H222	B413	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H223	B414	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H224	B415	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H226	B418	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H228	B420	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H229	B412	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H230	B403	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H231	B394	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H232	B385	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H233	B376	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H234	B367	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H235	B358	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H236	B349	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H237	B417	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H238	B408	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H239	B399	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H240	B390	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H241	B381	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H242	B372	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H243	B363	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H244	B357	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free

8. Rigid arms

Name	Master	Slave	Hinge on master	Hinge on slave
RA1	N501	N522	No	No
RA2	N500	N513	No	No

9. Nodal supports

Name	Node	System	Type	X	Y	Z	Rx	Ry	Rz
Sn22	N302	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn23	N294	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn24	N286	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn25	N278	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn29	N304	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn30	N296	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn31	N288	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn32	N280	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn33	N523	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
Sn34	N524	GCS	Standard	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid

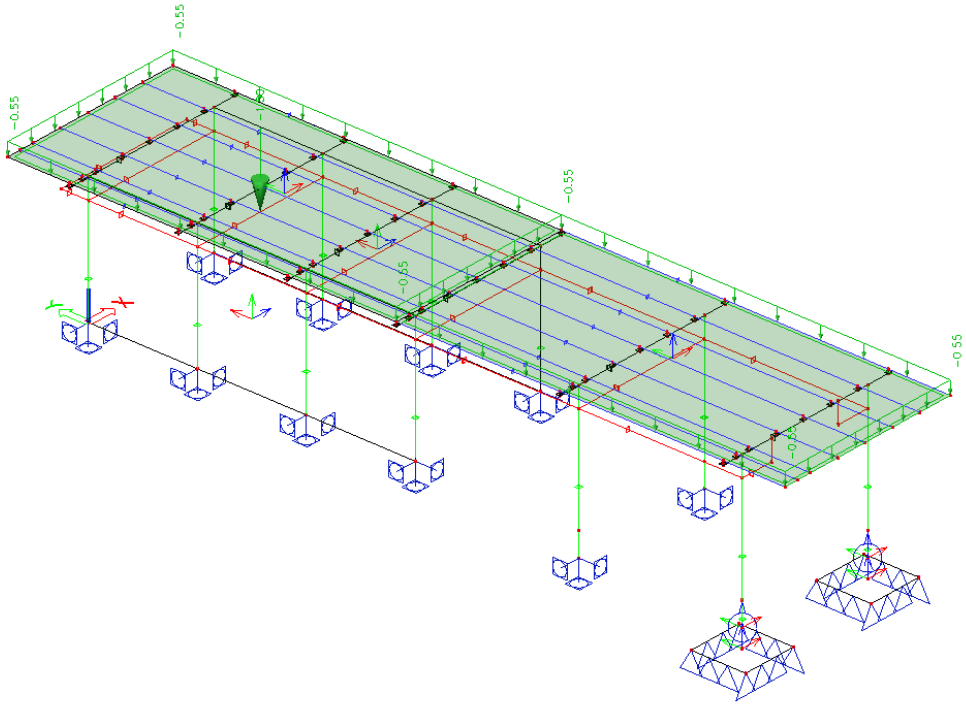
2. OBTEŽBE IN OBTEŽNE KOMBINACIJE

2.1. Obtežbe

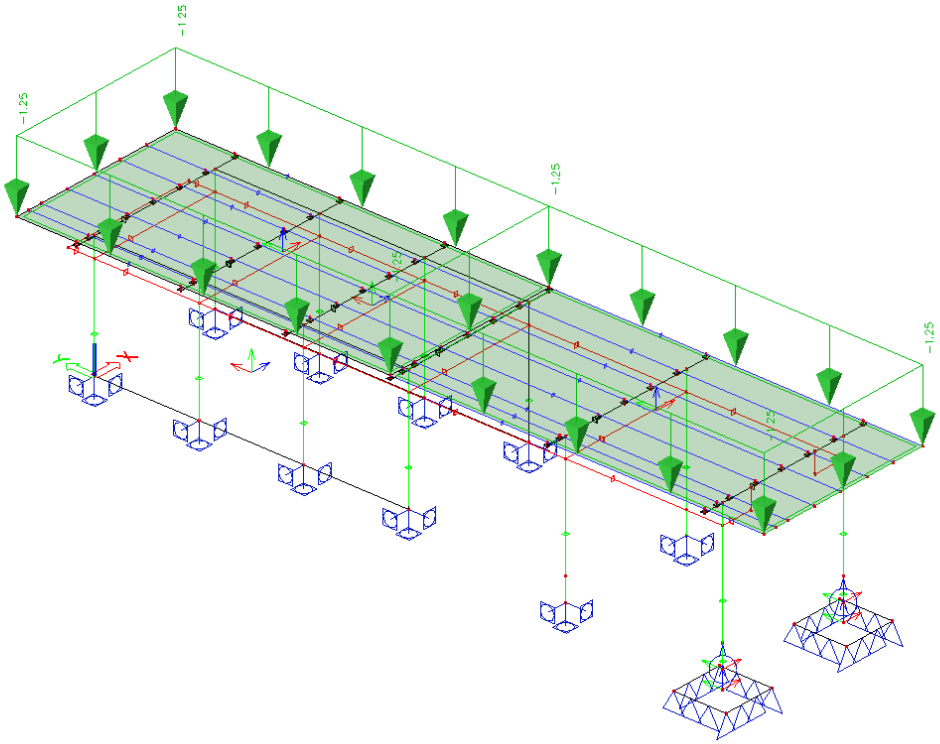
10. Load cases

Name	Description	Action type	Load group	Direction	Duration	Master load case
	Spec	Load type				
lastna		Permanent	L	-Z		
		Self weight				
stalna		Permanent	L			
		Standard				
sneg		Variable	S		Short	None
	Standard	Static				
horiz. ograja		Variable	HO		Short	None
	Standard	Static				
W x		Variable	Wxy		Short	None
	Standard	Static				
W -x		Variable	Wxy		Short	None
	Standard	Static				
W y		Variable	Wxy		Short	None
	Standard	Static				
W -y		Variable	Wxy		Short	None
	Standard	Static				
potres X		Variable	Ex			None
	Seismicity	Dynamic				
potres Y		Variable	Ey			None
	Seismicity	Dynamic				
W pritisk streha		Variable	Wps		Short	None
	Standard	Static				
W srk streha		Variable	Wps		Short	None
	Standard	Static				
Aeropri-1		Variable	aer		Short	None
	Standard	Static				
Aeropri-2		Variable	aer		Short	None
	Standard	Static				

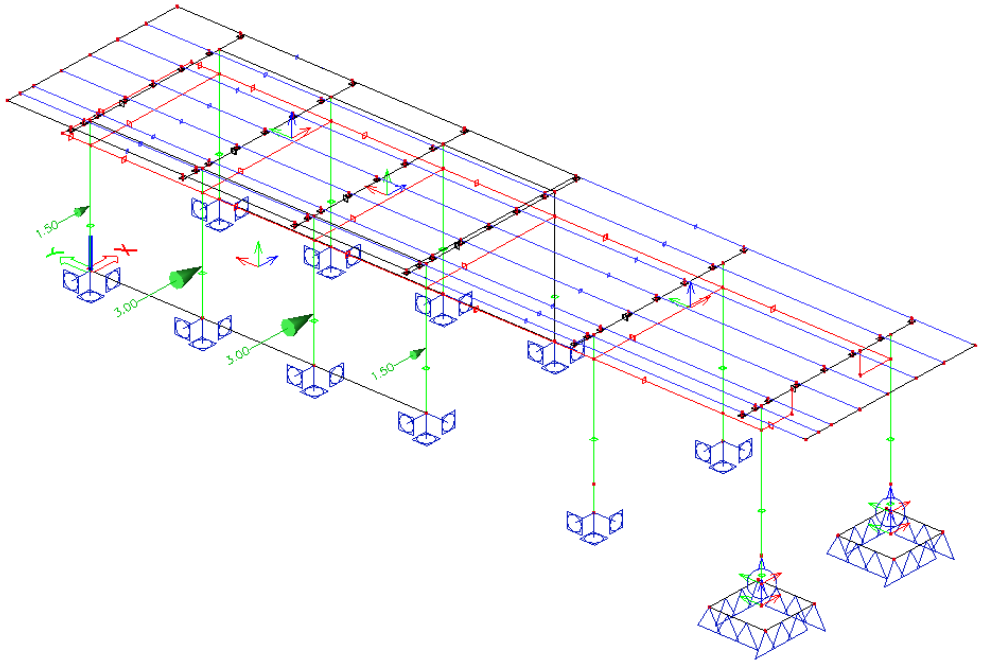
stalna



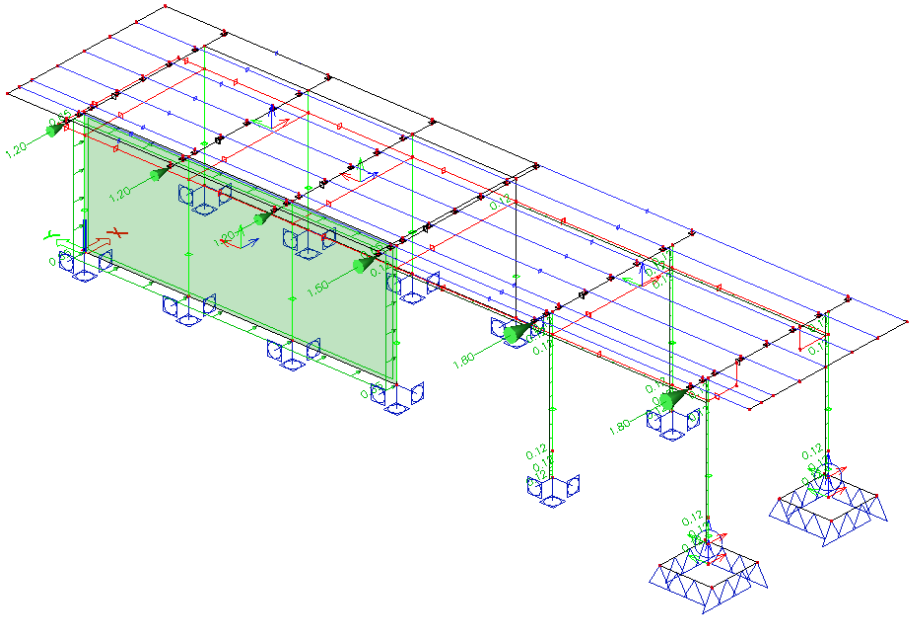
sneg



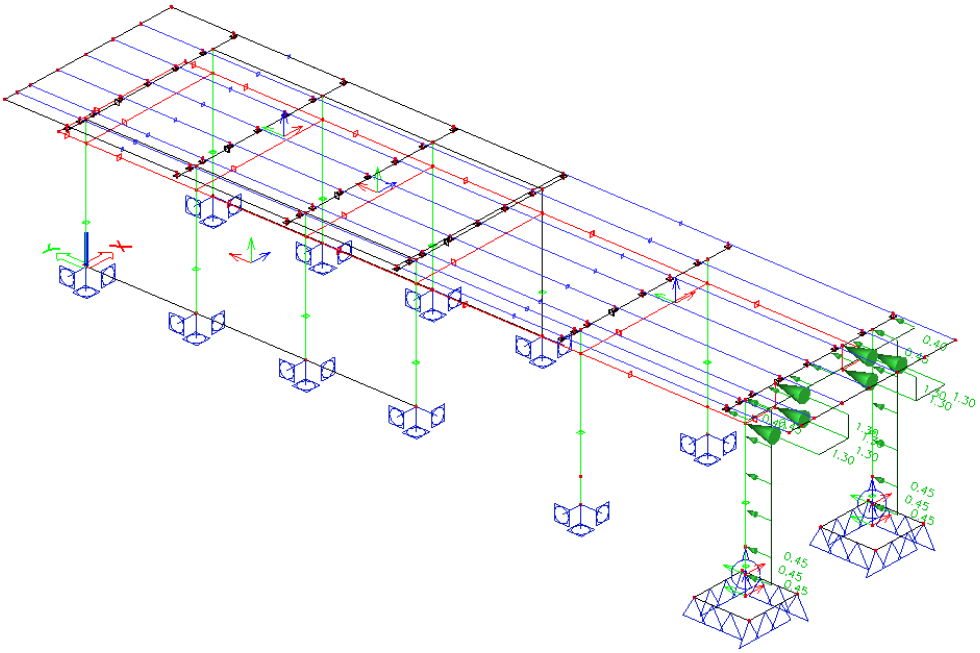
horizontlna ograja



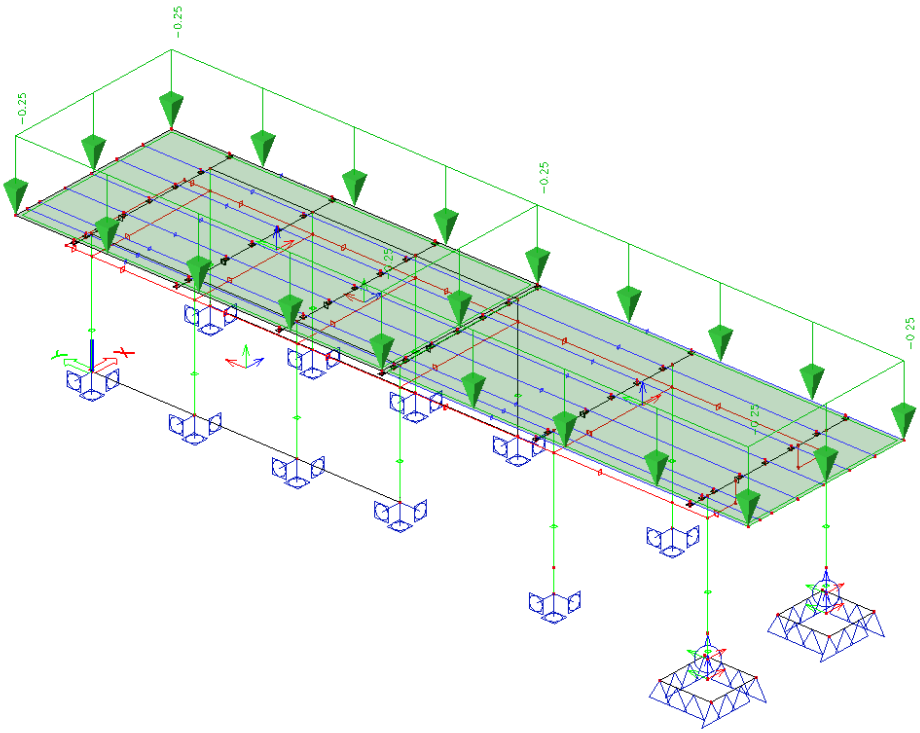
Wx



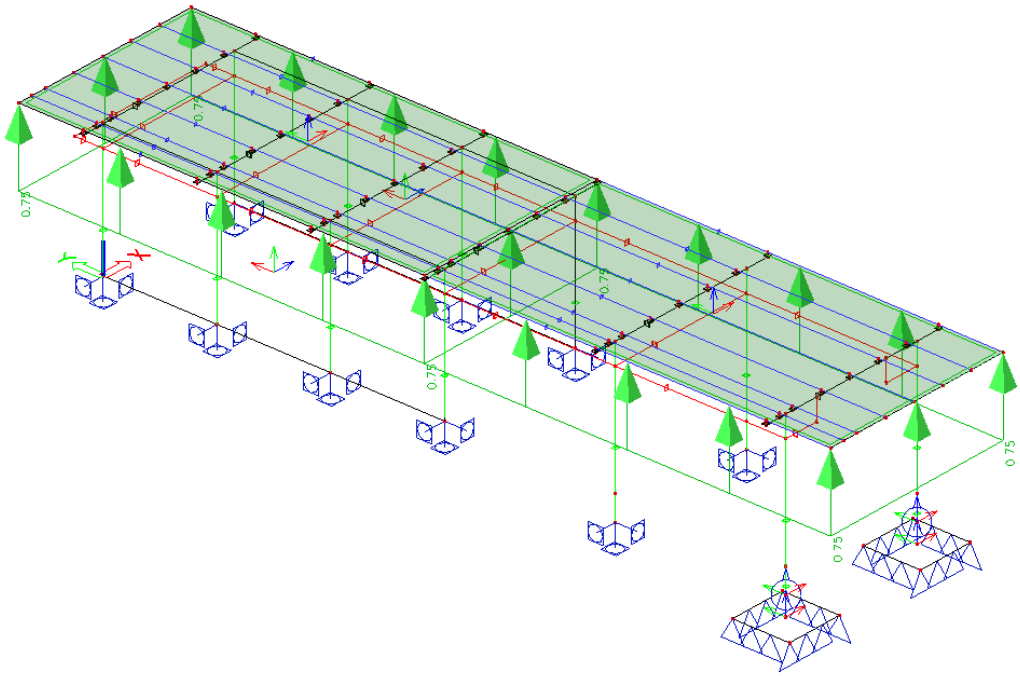
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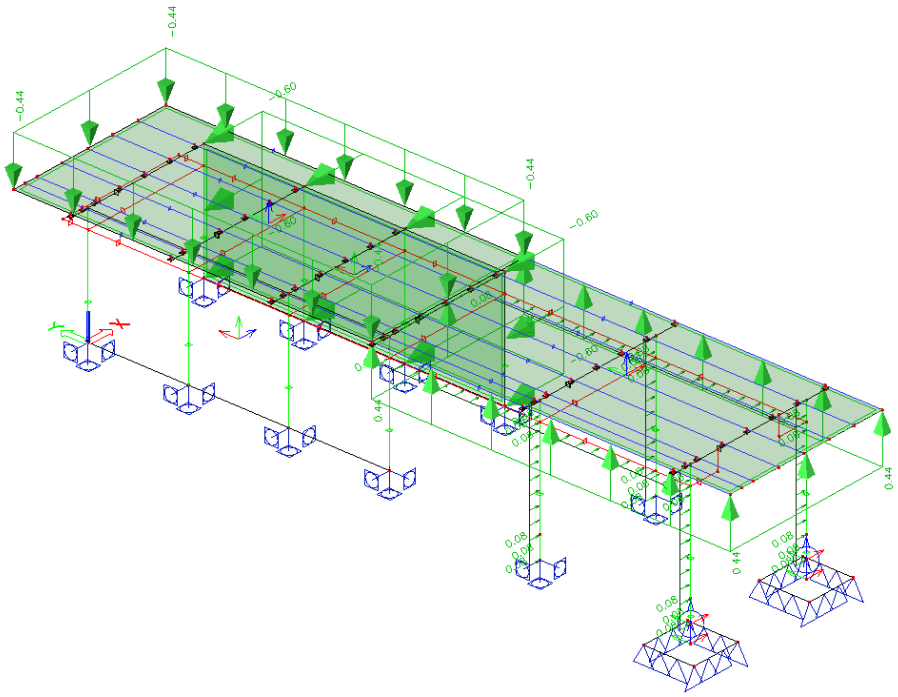
Wpritisk streha



Wsrk streha



Aeropritsk 1



2.2. Obtežne kombinacije

11. Combinations

Name	Description	Type	Load cases	Coeff. [-]
potres 1		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	0.30
potres 2		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	-0.30
potres 3		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	0.30
potres 4		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	-0.30
potres 5		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	1.00
potres 6		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	1.00
potres 7		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	-1.00
potres 8		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	-1.00
MSN-temelj-1-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-1-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	1.50

Name	Description	Type	Load cases	Coeff. [-]
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90

Name	Description	Type	Load cases	Coeff. [-]
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-6-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-6-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50

12. Nonlinear combinations

Name	Type	Load cases	Coeff. [-]
NC1	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W pritisk streha	1.50
NC2	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W x	1.50
		W pritisk streha	1.50

Name	Type	Load cases	Coeff. [-]
NC3	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -x	1.50
		W pritisk streha	1.50
NC4	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W y	1.50
		W pritisk streha	1.50
NC5	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -y	1.50
		W pritisk streha	1.50
NC6	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
NC7	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
NC8	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
NC9	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
NC10	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W x	1.00
		W pritisk streha	1.00
NC11	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -x	1.00
		W pritisk streha	1.00
NC12	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W y	1.00
		W pritisk streha	1.00
NC13	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -y	1.00
		W pritisk streha	1.00
NC14	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90

Name	Type	Load cases	Coeff. [-]
		W pritisk streha	1.50
		Aeropri-1	0.90
NC15	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC16	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC17	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC18	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC19	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC20	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC21	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC22	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC23	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC24	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50

Name	Type	Load cases	Coeff. [-]
		Aeropri-2	0.90
NC25	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC26	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC27	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC28	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC29	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC30	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC31	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC32	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC33	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC34	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50

Name	Type	Load cases	Coeff. [-]
NC35	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC36	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC37	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC38	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC39	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC40	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC41	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC42	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC43	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC44	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC45	Ultimate	lastna	1.35

Name	Type	Load cases	Coeff. [-]
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC46	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC47	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC48	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC49	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-2	1.50

13. Mass groups

Name	Load case	Description
MG1	lastna	lastna
MG2	stalna	stalna

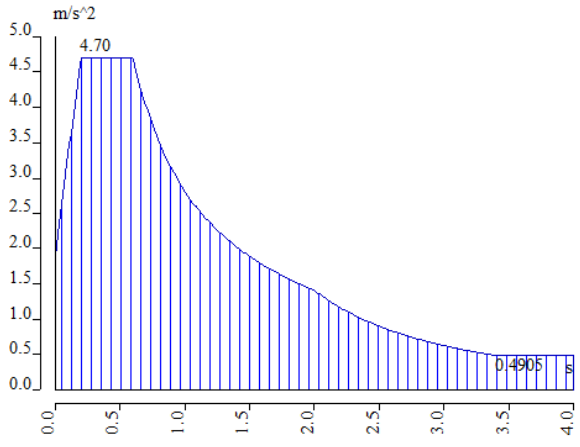
14. Combination of mass groups

Name	Mass group	Coeff. [-]
CM1	MG1 - lastna	1.00
	MG2 - stalna	1.00
CM1/1 - 2.78		
CM1/2 - 3.22		
CM1/3 - 3.73		
CM1/4 - 4.59		
CM1/5 - 4.63		
CM1/6 - 4.67		
CM1/7 - 4.70		
CM1/8 - 4.70		
CM1/9 - 4.90		
CM1/10 - 5.31		
CM1/11 - 5.85		
CM1/12 - 6.23		
CM1/13 - 6.50		
CM1/14 - 6.56		
CM1/15 - 6.91		
CM1/16 - 6.93		
CM1/17 - 7.02		
CM1/18 - 7.03		
CM1/19 - 7.08		
CM1/20 - 7.09		
CM1/21 - 7.45		
CM1/22 - 7.60		
CM1/23 - 7.97		

Name	Mass group	Coeff. [-]
CM1/24 - 7.99		
CM1/25 - 8.00		
CM1/26 - 8.02		
CM1/27 - 8.10		
CM1/28 - 8.10		
CM1/29 - 8.13		
CM1/30 - 8.14		
CM1/31 - 8.16		
CM1/32 - 8.18		
CM1/33 - 8.21		
CM1/34 - 8.24		
CM1/35 - 8.65		
CM1/36 - 8.67		
CM1/37 - 8.83		
CM1/38 - 8.90		
CM1/39 - 9.38		
CM1/40 - 9.39		
CM1/41 - 9.55		
CM1/42 - 10.25		
CM1/43 - 10.85		
CM1/44 - 10.97		
CM1/45 - 11.12		
CM1/46 - 11.20		
CM1/47 - 11.28		
CM1/48 - 11.28		
CM1/49 - 11.29		
CM1/50 - 11.31		

2.3. Potresni spekter

15. Seismic spectrums

Name	Type drawing	Info	Drawing
UniqueID			
EC 8, class C, q = 1.5, ag=0.25	Period	Type code - Eurocode Subsoil type - C Direction - Horizontal Spectrum type - type 1 coeff accel. ag - 0.25 ag - design acceleration - 2.4525 beta - 0.2 q - behaviour factor - 1.5	

2.4. Ovojnice

16. Result classes

Name	Description	List
ULS-potres	linearno	potres 2 - Linear - ultimate
		potres 3 - Linear - ultimate
		potres 4 - Linear - ultimate
		potres 5 - Linear - ultimate
		potres 6 - Linear - ultimate
		potres 7 - Linear - ultimate
		potres 8 - Linear - ultimate
		potres 1 - Linear - ultimate
ULS	nelinearno	NC1
		NC2
		NC3
		NC4
		NC5
		NC6
		NC7
		NC8
		NC9
		NC14
		NC15
		NC16
		NC17
		NC18
		NC19
		NC20
		NC21
		NC22
		NC23
		NC24
		NC25
		NC26
		NC27
		NC28
		NC29
		NC30
		NC31
		NC32
		NC33
		NC34
		NC35
		NC36
		NC37
		NC38
		NC39
		NC40
		NC41
		NC42
		NC43
		NC44
		NC45
		NC46
		NC47
		NC48
		NC49
SLS	linearno	NC10
		NC11
		NC12
		NC13
ULS-temelji	linearno	MSN-temelj-1-1 - Envelope - ultimate
		MSN-temelj-1-2 - Envelope - ultimate
		MSN-temelj-2-1 - Envelope - ultimate
		MSN-temelj-2-2 - Envelope - ultimate

Name	Description	List
		MSN-temelj-3-1 - Envelope - ultimate
		MSN-temelj-3-2 - Envelope - ultimate
		MSN-temelj-4-1 - Envelope - ultimate
		MSN-temelj-4-2 - Envelope - ultimate
		MSN-temelj-5-1 - Envelope - ultimate
		MSN-temelj-5-2 - Envelope - ultimate
		MSN-temelj-6-1 - Envelope - ultimate
		MSN-temelj-6-2 - Envelope - ultimate

2.5. Računski protokoli

17. Calculation protocol

Linear calculation

Number of 2D elements	456
Number of 1D elements	853
Number of mesh nodes	1315
Number of equations	7890
Bending theory	Mindlin
Load cases	lastna, stalna, sneg, horiz. ograja, W x, W -x, W y, W -y, W pritisk streha, W srk streha, Aeropri-1, Aeropri-2
Start of calculation	05.07.2021 11:01
End of calculation	05.07.2021 11:01

Sum of loads and reactions

Load case	Value	X [kN]	Y [kN]	Z [kN]
lastna	loads	0.00	0.00	-144.28
	reaction in nodes	0.00	-0.01	47.05
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.01	97.23
stalna	loads	0.00	0.00	-62.70
	reaction in nodes	0.00	0.00	51.88
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	10.83
sneg	loads	0.00	0.00	-139.10
	reaction in nodes	0.00	0.01	114.49
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-0.01	24.61
horiz. ograja	loads	9.00	0.00	0.00
	reaction in nodes	-8.98	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-0.02	0.00	0.00
W x	loads	33.01	0.00	0.00
	reaction in nodes	-29.51	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-3.50	0.00	0.00
W -x	loads	-33.01	0.00	0.00
	reaction in nodes	29.52	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00

Load case	Value	X [kN]	Y [kN]	Z [kN]
	contact 2D	3.49	0.00	0.00
W y	loads	0.00	9.62	0.00
	reaction in nodes	0.00	-7.30	0.31
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-2.32	-0.31
W -y	loads	0.00	-10.32	0.00
	reaction in nodes	0.00	9.60	-0.43
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.72	0.43
W pritisk streha	loads	0.00	0.00	-27.82
	reaction in nodes	0.00	0.00	22.90
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	4.92
W srk streha	loads	0.00	0.00	83.46
	reaction in nodes	0.00	-0.01	-68.69
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.01	-14.77
Aeropri-1	loads	-15.88	0.00	0.00
	reaction in nodes	16.91	0.00	8.67
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-1.03	0.00	-8.67
Aeropri-2	loads	16.09	0.00	0.00
	reaction in nodes	-17.01	0.00	-8.67
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.93	0.00	8.67

The following dynamic load cases are detailed separately (see below):potres X, potres Y

Dynamic load case 13 : potres X

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	2.78	0.05	1	4.701	0.000	0.000	1.24	30.53	-0.31	1.06	-96.60
2	3.22	0.05	1	4.701	0.000	0.000	-0.02	0.01	0.72	-2.41	-0.03
3	3.73	0.05	1	4.701	0.000	0.000	-0.60	22.89	-0.50	1.65	-80.25
4	4.59	0.05	1	4.701	0.000	0.000	0.01	0.02	0.00	0.00	-0.04
5	4.63	0.05	1	4.701	0.000	0.000	-0.13	2.43	0.04	-0.15	-5.58
6	4.67	0.05	1	4.701	0.000	0.000	0.00	0.00	0.00	0.00	0.00
7	4.70	0.05	1	4.701	0.000	0.000	0.01	0.03	0.00	0.00	-0.05
8	4.70	0.05	1	4.701	0.000	0.000	0.00	0.00	0.00	0.00	0.00
9	4.90	0.05	1	4.701	0.000	0.000	-0.07	0.82	0.06	-0.18	-3.06
10	5.31	0.05	1	4.538	0.000	0.000	0.00	0.00	0.00	0.00	0.00
11	5.85	0.05	1	4.293	0.000	0.000	0.00	0.00	0.00	0.00	0.00
12	6.23	0.05	1	4.144	0.000	0.000	0.00	0.00	0.00	0.00	0.00
13	6.50	0.05	1	4.050	0.000	0.000	0.00	0.00	0.00	0.00	0.00
14	6.56	0.05	1	4.030	0.000	0.000	0.00	0.00	0.00	0.00	0.00
15	6.91	0.05	1	3.921	0.000	0.000	0.00	0.00	0.00	0.00	0.00
16	6.93	0.05	1	3.918	0.000	0.000	0.00	0.00	0.00	0.00	0.00
17	7.02	0.05	1	3.891	0.000	0.000	0.00	0.00	0.00	0.00	0.00
18	7.03	0.05	1	3.888	0.000	0.000	0.00	0.00	0.00	0.00	0.01
19	7.08	0.05	1	3.875	0.000	0.000	0.00	0.00	0.00	0.00	0.00
20	7.09	0.05	1	3.871	0.000	0.000	0.00	0.00	0.00	0.00	0.00
21	7.45	0.05	1	3.775	0.000	0.000	0.02	0.55	-0.05	0.07	0.35
22	7.60	0.05	1	3.737	0.000	0.000	0.00	0.03	0.00	0.00	0.02
23	7.97	0.05	1	3.652	0.000	0.000	0.00	0.01	-0.02	0.00	0.02
24	7.99	0.05	1	3.648	0.000	0.000	0.00	0.01	-0.01	0.00	0.01
25	8.00	0.05	1	3.645	0.000	0.000	0.00	0.00	0.00	0.00	0.00
26	8.02	0.05	1	3.640	0.000	0.000	0.00	0.01	0.00	0.00	0.01

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
27	8.10	0.05	1	3.621	0.000	0.000	0.00	0.00	0.00	0.00	0.00
28	8.10	0.05	1	3.621	0.000	0.000	0.00	0.00	0.00	0.00	0.00
29	8.13	0.05	1	3.616	0.000	0.000	0.00	0.02	0.06	0.04	0.01
30	8.14	0.05	1	3.613	0.000	0.000	0.00	0.01	-0.01	-0.01	0.00
31	8.16	0.05	1	3.609	0.000	0.000	0.00	0.01	-0.01	-0.01	0.02
32	8.18	0.05	1	3.604	0.000	0.000	0.00	0.01	0.51	0.63	0.01
33	8.21	0.05	1	3.600	0.000	0.000	0.12	28.48	-0.42	-0.49	37.02
34	8.24	0.05	1	3.593	0.000	0.000	-0.03	1.47	-0.06	-0.20	1.74
35	8.65	0.05	1	3.514	0.000	0.000	0.00	0.04	0.00	0.00	0.02
36	8.67	0.05	1	3.509	0.000	0.000	0.00	0.00	0.00	0.00	0.00
37	8.83	0.05	1	3.478	0.000	0.000	0.00	0.02	0.00	-0.02	-0.03
38	8.90	0.05	1	3.466	0.000	0.000	0.00	0.00	0.00	0.00	0.00
39	9.38	0.05	1	3.386	0.000	0.000	0.00	0.00	0.00	0.00	0.00
40	9.39	0.05	1	3.384	0.000	0.000	0.00	0.00	0.00	0.00	0.00
41	9.55	0.05	1	3.358	0.000	0.000	0.00	0.02	0.00	0.02	-0.02
42	10.25	0.05	1	3.260	0.000	0.000	0.00	0.01	0.00	-0.01	-0.01
43	10.85	0.05	1	3.182	0.000	0.000	0.00	0.00	0.00	0.00	0.00
44	10.97	0.05	1	3.169	0.000	0.000	0.00	0.00	0.00	0.00	0.00
45	11.12	0.05	1	3.152	0.000	0.000	0.00	0.00	0.00	0.00	0.00
46	11.20	0.05	1	3.143	0.000	0.000	0.00	0.00	0.00	0.00	0.00
47	11.28	0.05	1	3.134	0.000	0.000	0.00	0.00	0.00	0.00	0.00
48	11.28	0.05	1	3.134	0.000	0.000	0.00	0.00	0.00	0.00	0.00
49	11.29	0.05	1	3.133	0.000	0.000	0.00	0.00	0.00	0.00	0.00
50	11.31	0.05	1	3.132	0.000	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							47.71	1.15	-3.22	-131.10

Dynamic load case 14 : potres Y

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	2.78	0.05	1	0.000	4.701	0.000	-0.01	-0.31	0.00	-0.01	0.99
2	3.22	0.05	1	0.000	4.701	0.000	-1.25	0.72	55.42	-184.87	-2.43
3	3.73	0.05	1	0.000	4.701	0.000	0.01	-0.50	0.01	-0.04	1.76
4	4.59	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
5	4.63	0.05	1	0.000	4.701	0.000	0.00	0.04	0.00	0.00	-0.10
6	4.67	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
7	4.70	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
8	4.70	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
9	4.90	0.05	1	0.000	4.701	0.000	0.00	0.06	0.00	-0.01	-0.22
10	5.31	0.05	1	0.000	4.538	0.000	0.00	0.00	0.00	0.00	0.00
11	5.85	0.05	1	0.000	4.293	0.000	0.00	0.00	0.00	0.00	0.00
12	6.23	0.05	1	0.000	4.144	0.000	0.00	0.00	0.00	0.00	0.00
13	6.50	0.05	1	0.000	4.050	0.000	0.00	0.00	0.00	0.00	0.00
14	6.56	0.05	1	0.000	4.030	0.000	0.00	0.00	0.00	0.00	0.00
15	6.91	0.05	1	0.000	3.921	0.000	0.00	0.00	0.00	0.00	0.00
16	6.93	0.05	1	0.000	3.918	0.000	0.00	0.00	0.00	0.00	0.00
17	7.02	0.05	1	0.000	3.891	0.000	0.00	0.00	0.00	0.00	0.00
18	7.03	0.05	1	0.000	3.888	0.000	0.00	0.00	0.00	0.00	0.00
19	7.08	0.05	1	0.000	3.875	0.000	0.00	0.00	0.00	0.00	0.00
20	7.09	0.05	1	0.000	3.871	0.000	0.00	0.00	0.00	0.00	0.00
21	7.45	0.05	1	0.000	3.775	0.000	0.00	-0.05	0.00	-0.01	-0.03
22	7.60	0.05	1	0.000	3.737	0.000	0.00	0.00	0.00	0.00	0.00
23	7.97	0.05	1	0.000	3.652	0.000	0.00	-0.02	0.03	0.00	-0.03
24	7.99	0.05	1	0.000	3.648	0.000	0.00	-0.01	0.00	0.00	-0.01
25	8.00	0.05	1	0.000	3.645	0.000	0.00	0.00	0.00	0.00	0.00
26	8.02	0.05	1	0.000	3.640	0.000	0.00	0.00	0.00	0.00	0.00
27	8.10	0.05	1	0.000	3.621	0.000	0.00	0.00	0.00	0.00	0.00
28	8.10	0.05	1	0.000	3.621	0.000	0.00	0.00	0.00	0.00	0.00
29	8.13	0.05	1	0.000	3.616	0.000	-0.01	0.06	0.20	0.13	0.02
30	8.14	0.05	1	0.000	3.613	0.000	0.00	-0.01	0.02	0.01	0.00
31	8.16	0.05	1	0.000	3.609	0.000	0.00	-0.01	0.02	0.02	-0.03
32	8.18	0.05	1	0.000	3.604	0.000	0.13	0.51	31.42	38.59	0.69
33	8.21	0.05	1	0.000	3.600	0.000	0.00	-0.42	0.01	0.01	-0.55
34	8.24	0.05	1	0.000	3.593	0.000	0.00	-0.06	0.00	0.01	-0.07
35	8.65	0.05	1	0.000	3.514	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
36	8.67	0.05	1	0.000	3.509	0.000	0.00	0.00	0.00	0.00	0.00
37	8.83	0.05	1	0.000	3.478	0.000	0.00	0.00	0.00	0.00	0.00
38	8.90	0.05	1	0.000	3.466	0.000	0.00	0.00	0.00	0.00	0.00
39	9.38	0.05	1	0.000	3.386	0.000	0.00	0.00	0.00	0.00	0.00
40	9.39	0.05	1	0.000	3.384	0.000	0.00	0.00	0.00	0.00	0.00
41	9.55	0.05	1	0.000	3.358	0.000	0.00	0.00	0.00	0.00	0.01
42	10.25	0.05	1	0.000	3.260	0.000	0.00	0.00	0.00	0.00	0.00
43	10.85	0.05	1	0.000	3.182	0.000	0.00	0.00	0.00	-0.01	0.00
44	10.97	0.05	1	0.000	3.169	0.000	0.00	0.00	0.00	0.00	0.00
45	11.12	0.05	1	0.000	3.152	0.000	0.00	0.00	0.00	0.00	0.00
46	11.20	0.05	1	0.000	3.143	0.000	0.00	0.00	0.00	0.00	0.00
47	11.28	0.05	1	0.000	3.134	0.000	0.00	0.00	0.00	0.00	0.00
48	11.28	0.05	1	0.000	3.134	0.000	0.00	0.00	0.00	0.00	0.00
49	11.29	0.05	1	0.000	3.133	0.000	0.00	0.00	0.00	0.00	0.00
50	11.31	0.05	1	0.000	3.132	0.000	0.00	0.00	0.00	-0.01	0.00
Level=	0.00							1.15	63.71	-188.85	-3.29

18. Calculation protocol

Solution of Free vibration

Number of 2D elements	456
Number of 1D elements	853
Number of mesh nodes	1315
Number of equations	7890
Combination of mass groups	MC1 CM1
Number of frequencies	50
Method	Lanczos
Bending theory	Mindlin
Type of analysis model	Standard
Start of calculation	05.07.2021 11:01
End of calculation	05.07.2021 11:01

Sum of masses

	X [kg]	Y [kg]	Z [kg]
1	21017.78	21017.78	21017.78
1	21099.25	21099.25	21099.25

Relative modal masses

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
1	17.484	0.36	2.78	0.3091	0.0000	0.0000	0.0000	0.1253	0.0328
2	20.2042	0.31	3.22	0.0001	0.5610	0.0000	0.0470	0.0000	0.0001
3	23.4487	0.27	3.73	0.2317	0.0001	0.0000	0.0000	0.1273	0.6470
4	28.8669	0.22	4.59	0.0002	0.0000	0.0003	0.0000	0.0000	0.0000
5	29.1066	0.22	4.63	0.0246	0.0000	0.0000	0.0000	0.0032	0.0071
6	29.3126	0.21	4.67	0.0000	0.0000	0.0007	0.0000	0.0000	0.0000
7	29.5188	0.21	4.70	0.0003	0.0000	0.0000	0.0000	0.0001	0.0001
8	29.5426	0.21	4.70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	30.7853	0.20	4.90	0.0083	0.0000	0.0000	0.0000	0.0056	0.0005
10	33.356	0.19	5.31	0.0000	0.0000	0.0002	0.0000	0.0001	0.0000
11	36.743	0.17	5.85	0.0000	0.0000	0.0002	0.0000	0.0001	0.0000
12	39.1647	0.16	6.23	0.0000	0.0000	0.0002	0.0000	0.0001	0.0000
13	40.8447	0.15	6.50	0.0000	0.0000	0.0116	0.0072	0.0000	0.0000
14	41.2291	0.15	6.56	0.0000	0.0000	0.0056	0.0244	0.0000	0.0000
15	43.4419	0.14	6.91	0.0000	0.0000	0.0004	0.0024	0.0004	0.0000
16	43.5112	0.14	6.93	0.0000	0.0000	0.0012	0.0012	0.0019	0.0000
17	44.0792	0.14	7.02	0.0000	0.0000	0.0000	0.0003	0.0001	0.0000
18	44.1591	0.14	7.03	0.0000	0.0000	0.0002	0.0002	0.0006	0.0001
19	44.4619	0.14	7.08	0.0000	0.0000	0.0001	0.0004	0.0000	0.0000

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
20	44.5499	0.14	7.09	0.0000	0.0000	0.0001	0.0002	0.0000	0.0000
21	46.7812	0.13	7.45	0.0069	0.0001	0.0000	0.0000	0.0029	0.0010
22	47.7703	0.13	7.60	0.0004	0.0000	0.0000	0.0000	0.0005	0.0001
23	50.0596	0.13	7.97	0.0001	0.0004	0.0025	0.0021	0.0004	0.0004
24	50.1778	0.13	7.99	0.0001	0.0000	0.0060	0.0019	0.0000	0.0002
25	50.2448	0.13	8.00	0.0000	0.0000	0.0004	0.0043	0.0002	0.0000
26	50.395	0.12	8.02	0.0001	0.0000	0.0122	0.0000	0.0009	0.0001
27	50.8909	0.12	8.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031
28	50.8913	0.12	8.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007
29	51.0601	0.12	8.13	0.0003	0.0027	0.0000	0.0003	0.0000	0.0063
30	51.1642	0.12	8.14	0.0001	0.0003	0.0000	0.0000	0.0000	0.0042
31	51.2701	0.12	8.16	0.0001	0.0003	0.0000	0.0000	0.0002	0.0087
32	51.4275	0.12	8.18	0.0001	0.4147	0.0000	0.0588	0.0001	0.0000
33	51.5581	0.12	8.21	0.3763	0.0001	0.0000	0.0000	0.3271	0.2597
34	51.7754	0.12	8.24	0.0195	0.0000	0.0000	0.0000	0.0147	0.0002
35	54.3209	0.12	8.65	0.0006	0.0000	0.0090	0.0001	0.0028	0.0002
36	54.4602	0.12	8.67	0.0000	0.0000	0.0010	0.0033	0.0006	0.0001
37	55.4687	0.11	8.83	0.0003	0.0000	0.0001	0.0004	0.0000	0.0000
38	55.929	0.11	8.90	0.0000	0.0000	0.0800	0.0211	0.0000	0.0000
39	58.9667	0.11	9.38	0.0000	0.0000	0.0005	0.0029	0.0003	0.0000
40	59.0268	0.11	9.39	0.0000	0.0000	0.0008	0.0023	0.0009	0.0000
41	60.0344	0.10	9.55	0.0002	0.0000	0.0001	0.0000	0.0000	0.0000
42	64.3821	0.10	10.25	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
43	68.1432	0.09	10.85	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001
44	68.911	0.09	10.97	0.0000	0.0000	0.0046	0.0008	0.0197	0.0000
45	69.8919	0.09	11.12	0.0000	0.0000	0.0005	0.0001	0.0002	0.0000
46	70.3768	0.09	11.20	0.0000	0.0000	0.0128	0.0040	0.0004	0.0000
47	70.8782	0.09	11.28	0.0000	0.0000	0.0000	0.0011	0.0006	0.0000
48	70.8888	0.09	11.28	0.0000	0.0000	0.0000	0.0003	0.0004	0.0000
49	70.9417	0.09	11.29	0.0000	0.0000	0.0002	0.0007	0.0005	0.0000
50	71.038	0.09	11.31	0.0000	0.0001	0.0000	0.0003	0.0000	0.0000
				0.9797	0.9800	0.1517	0.1886	0.6385	0.9732

3. REZULTATI ANALIZE KONSTRUKCIJE

3.1. Notranje sile

19. Internal forces on member

Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS
Cross-section : N3-S1 - QRO120X10

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B433	N3-S1 - QRO120X10	0.000	NC42	**-56.12**	-0.13	1.12	-0.01	-2.50	0.24
B326	N3-S1 - QRO120X10	3.450	NC20	**11.14**	-0.12	-8.54	-0.03	-5.54	0.01
B426	N3-S1 - QRO120X10	0.000	NC17	-31.69	**-1.86**	4.18	-0.02	-5.48	2.04
B310	N3-S1 - QRO120X10	0.000	NC27	-29.84	**2.66**	2.52	-0.02	-2.92	**-3.33**
B325	N3-S1 - QRO120X10	2.890	NC25	-50.61	-0.31	**-35.65**	-0.44	-0.02	0.17
B326	N3-S1 - QRO120X10	2.890	NC42	-51.69	-0.60	**36.26**	0.11	-1.07	0.43
B322	N3-S1 - QRO120X10	3.450	NC45	-20.22	0.20	13.14	**-1.00**	7.53	0.01
B322	N3-S1 - QRO120X10	3.450	NC38	0.91	-0.11	-1.69	**0.93**	-1.80	0.00
B325	N3-S1 - QRO120X10	3.450	NC25	-50.48	-0.32	-35.34	-0.43	**-19.91**	-0.01
B326	N3-S1 - QRO120X10	3.450	NC24	-50.40	-0.67	35.49	0.19	**19.48**	0.08
B321	N3-S1 - QRO120X10	0.000	NC26	-28.31	-1.53	2.01	0.08	-2.67	**2.55**

20. Internal forces on member

Linear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-S1 - QRO120X10

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B325	N3-S1 - QRO120X10	0.000	potres 4/1	**-18.42**	-1.43	4.95	-0.38	-6.98	2.06
B334	N3-S1 - QRO120X10	2.890	potres 1/2	**-1.38**	1.01	6.84	-0.03	**12.04**	1.35
B313	N3-S1 - QRO120X10	2.890	potres 8/3	-6.41	**-6.29**	-3.79	-0.48	1.07	4.03
B313	N3-S1 - QRO120X10	2.890	potres 5/4	-5.49	**6.32**	-5.58	0.50	0.43	-4.05
B325	N3-S1 - QRO120X10	2.890	potres 1/2	-8.48	2.27	**-11.97**	0.74	-1.17	-1.23
B326	N3-S1 - QRO120X10	2.890	potres 4/1	-7.92	-2.73	**11.93**	0.92	1.16	1.54
B322	N3-S1 - QRO120X10	2.890	potres 1/2	-7.66	1.60	1.85	**-1.13**	-1.31	-0.87
B322	N3-S1 - QRO120X10	2.890	potres 4/1	-5.09	-1.79	6.50	**1.10**	0.78	0.99
B333	N3-S1 - QRO120X10	2.890	potres 1/2	-1.76	1.04	-6.84	0.03	**-12.04**	1.39
B317	N3-S1 - QRO120X10	0.000	potres 5/4	-10.42	6.18	-0.92	0.12	1.61	**-10.39**
B317	N3-S1 - QRO120X10	0.000	potres 8/3	-8.79	-6.17	0.92	-0.12	-1.60	**10.36**

21. Internal forces on member

Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS
Cross-section : N3-N1 - QRO120X5.6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B335	N3-N1 - QRO120X5.6	0.000	NC25	**-15.74**	-0.13	14.82	0.02	**-8.75**	0.13
B327	N3-N1 - QRO120X5.6	2.370	NC42	**35.56**	-0.12	-0.81	0.00	-0.24	0.06
B428	N3-N1 - QRO120X5.6	3.950	NC18	-2.97	**-3.89**	-0.41	-0.01	-0.06	-2.25
B428	N3-N1 - QRO120X5.6	0.000	NC27	-3.44	**3.90**	0.38	0.00	0.02	-2.28
B435	N3-N1 - QRO120X5.6	0.336	NC25	-14.43	-0.06	**-15.80**	-0.03	-0.51	0.00
B434	N3-N1 - QRO120X5.6	0.336	NC24	-13.91	-0.13	**15.21**	0.03	0.43	0.01

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B429	N3-N1 - QRO120X5.6	0.000	NC16	-0.02	0.00	-0.92	**-1.09**	0.04	-0.05
B427	N3-N1 - QRO120X5.6	0.000	NC24	0.11	-0.48	-1.00	**1.21**	0.05	0.28
B335	N3-N1 - QRO120X5.6	0.920	NC25	-15.72	-0.14	14.60	0.02	**4.80**	0.01
B428	N3-N1 - QRO120X5.6	0.000	NC31	-3.80	3.90	0.24	0.00	0.16	**-2.35**
B429	N3-N1 - QRO120X5.6	0.000	NC31	-3.90	-3.80	-0.24	0.16	0.00	**2.35**

22. Internal forces on member

Linear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-N1 - QRO120X5.6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B335	N3-N1 - QRO120X5.6	0.000	potres 4/1	**-16.68**	-0.71	-6.00	0.16	3.53	0.69
B335	N3-N1 - QRO120X5.6	0.000	potres 1/2	**12.46**	0.60	**10.80**	-0.14	-6.27	-0.57
B346	N3-N1 - QRO120X5.6	0.000	potres 4/1	2.06	**-1.05**	1.11	0.28	-1.88	**2.22**
B346	N3-N1 - QRO120X5.6	0.000	potres 1/2	-2.31	**1.08**	-0.28	-0.27	1.30	**-2.25**
B335	N3-N1 - QRO120X5.6	0.920	potres 4/1	-16.59	-0.69	**-6.18**	0.16	-2.07	0.07
B347	N3-N1 - QRO120X5.6	0.000	potres 4/1	0.92	-0.53	1.29	**-0.33**	-2.20	1.19
B341	N3-N1 - QRO120X5.6	0.000	potres 1/2	-0.77	-0.40	-0.18	**0.33**	1.02	0.91
B337	N3-N1 - QRO120X5.6	0.000	potres 8/3	3.85	0.23	4.33	-0.03	**-6.42**	-0.30
B337	N3-N1 - QRO120X5.6	0.000	potres 5/4	-4.19	-0.25	-3.74	0.05	**6.11**	0.34

23. Internal forces on member

Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS
Cross-section : N3-SL1 - QRO80X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B349	N3-SL1 - QRO80X5	7.700	NC42	**-1.67**	-0.02	-0.99	0.00	-0.60	-0.05
B412	N3-SL1 - QRO80X5	7.100	NC46	**1.36**	-0.02	0.28	0.00	0.05	-0.02
B394	N3-SL1 - QRO80X5	4.700	NC24	-0.15	**-0.16**	-2.88	0.00	-1.35	-0.23
B403	N3-SL1 - QRO80X5	1.700	NC16	0.17	**0.16**	5.85	0.00	-4.68	-0.22
B408	N3-SL1 - QRO80X5	4.500	NC42	0.37	0.01	**-9.13**	0.00	**-7.27**	0.11
B408	N3-SL1 - QRO80X5	4.500	NC41	0.05	0.03	**8.06**	0.00	-7.27	-0.04
B408	N3-SL1 - QRO80X5	1.800	NC43	0.46	0.04	-0.09	**-0.01**	4.14	0.09
B403	N3-SL1 - QRO80X5	9.500	NC34	0.69	-0.05	0.09	**0.00**	2.29	0.07
B408	N3-SL1 - QRO80X5	1.800	NC42	0.31	0.03	-0.11	0.00	**5.20**	0.07
B376	N3-SL1 - QRO80X5	4.700	NC46	0.31	-0.16	0.68	0.00	0.33	**-0.24**
B376	N3-SL1 - QRO80X5	1.700	NC46	0.31	-0.16	-1.00	0.00	0.81	**0.24**

24. Internal forces on member

Linear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-SL1 - QRO80X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B357	N3-SL1 - QRO80X5	0.000	potres 1/2	**-2.25**	-0.20	0.43	0.00	0.00	0.00
B357	N3-SL1 - QRO80X5	0.000	potres 4/1	**2.20**	0.20	0.36	0.00	0.00	0.00
B367	N3-SL1 - QRO80X5	1.360	potres 4/1	-0.17	**-0.42**	-0.67	0.00	-0.46	-0.27
B367	N3-SL1 - QRO80X5	1.360	potres 1/2	0.17	**0.42**	-0.58	0.00	-0.39	0.27
B408	N3-SL1 - QRO80X5	4.500	potres 2/5	0.11	0.00	**-1.68**	0.00	**-1.35**	0.00
B408	N3-SL1 - QRO80X5	4.500	potres 2/5	-0.08	0.00	**1.49**	0.00	-1.35	0.00
B367	N3-SL1 - QRO80X5	1.700	potres 4/1	-0.67	0.35	0.85	**0.00**	-0.72	-0.31
B367	N3-SL1 - QRO80X5	1.700	potres 1/2	0.82	-0.35	0.82	**0.00**	-0.61	0.32
B408	N3-SL1 - QRO80X5	1.800	potres 2/5	0.11	0.00	-0.02	0.00	**0.95**	0.00
B363	N3-SL1 - QRO80X5	9.000	potres 1/2	-0.66	-0.41	-0.71	0.00	-0.50	**-0.48**

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B363	N3-SL1 - QRO80X5	9.000	potres 4/1	0.52	0.40	-0.68	0.00	-0.47	**0.46**

25. Internal forces on member

Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS
Cross-section : N3-N2 - QRO120X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B328	N3-N2 - QRO120X8	2.520	NC42	**-35.95**	-0.24	8.57	0.00	15.71	-0.07
B336	N3-N2 - QRO120X8	0.800	NC25	**9.78**	0.40	15.99	0.01	-1.67	0.13
B328	N3-N2 - QRO120X8	0.800	NC44	-27.89	**-1.22**	30.76	0.10	-11.97	0.17
B316	N3-N2 - QRO120X8	0.800	NC45	-9.45	**1.14**	8.50	-0.10	-2.62	0.01
B328	N3-N2 - QRO120X8	4.343	NC42	-35.76	0.01	**-42.05**	-0.05	-16.76	0.05
B328	N3-N2 - QRO120X8	0.800	NC41	-34.93	-0.89	**38.40**	0.08	-14.94	0.14
B336	N3-N2 - QRO120X8	0.600	NC30	0.60	-0.18	0.33	**-0.38**	-0.17	0.13
B336	N3-N2 - QRO120X8	4.240	NC21	-0.66	0.15	4.03	**0.38**	-0.08	0.03
B328	N3-N2 - QRO120X8	4.550	NC24	-35.28	0.16	-41.16	-0.04	**-25.53**	0.11
B328	N3-N2 - QRO120X8	2.520	NC42	-35.95	-0.24	-7.69	0.00	**15.72**	0.12
B324	N3-N2 - QRO120X8	4.550	NC45	-13.23	-0.84	-16.29	0.06	-9.97	**-0.48**
B324	N3-N2 - QRO120X8	4.550	NC41	0.01	-0.76	4.92	0.08	-3.13	**0.50**

26. Internal forces on member

Linear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-N2 - QRO120X8

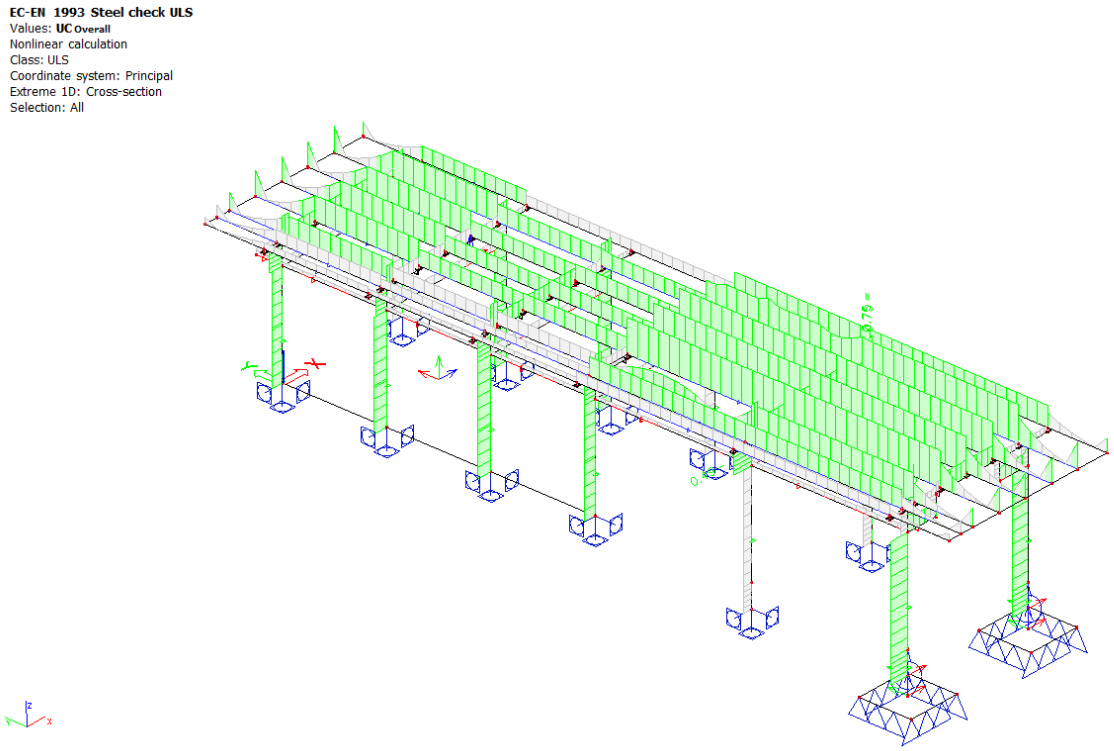
Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B336	N3-N2 - QRO120X8	1.376	potres 1/2	**-10.93**	1.14	3.32	-0.12	2.22	0.23
B336	N3-N2 - QRO120X8	1.376	potres 4/1	**13.20**	-1.16	0.14	0.17	-0.89	-0.21
B316	N3-N2 - QRO120X8	4.447	potres 5/4	-5.40	**-4.88**	-3.86	0.51	-1.32	-0.99
B316	N3-N2 - QRO120X8	4.447	potres 8/3	-3.98	**4.82**	-4.75	-0.50	-2.91	0.98
B328	N3-N2 - QRO120X8	4.550	potres 4/1	-10.84	3.05	**-10.52**	-0.24	**-9.29**	0.97
B336	N3-N2 - QRO120X8	1.520	potres 1/2	-3.47	1.69	**10.62**	-0.28	**7.52**	0.31
B316	N3-N2 - QRO120X8	4.240	potres 8/3	-3.99	4.80	-4.70	**-0.50**	-1.93	-0.04
B316	N3-N2 - QRO120X8	4.240	potres 5/4	-5.39	-4.86	-3.81	**0.51**	-0.53	0.04
B320	N3-N2 - QRO120X8	4.550	potres 5/4	-5.41	-4.61	-5.27	0.47	-2.58	**-1.55**
B328	N3-N2 - QRO120X8	4.550	potres 8/3	-8.08	4.73	-8.87	-0.44	-6.17	**1.64**

3.2. Izkoriščenost jeklenih elementov

27. EC-EN 1993 Steel check ULS

Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

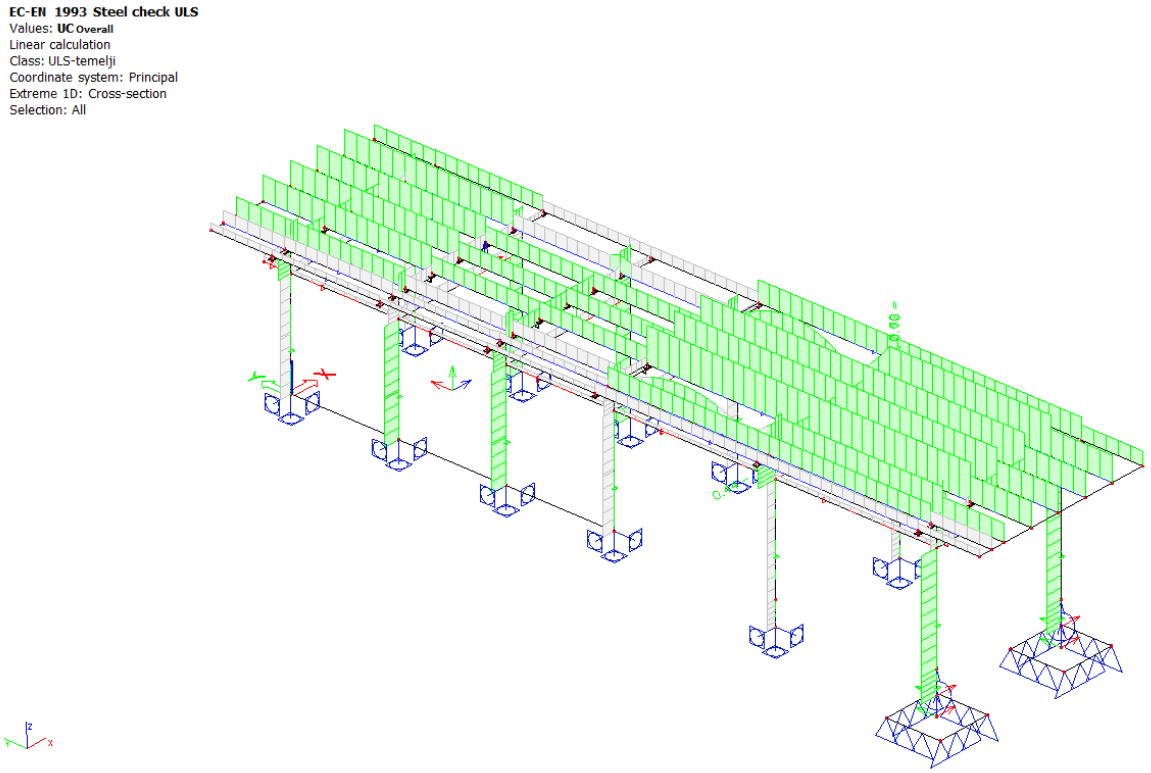
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B325	3.450	NC25	N3-S1 - QRO120X10	S 235	**0.49**	0.49	0.43
B335	0.000	NC25	N3-N1 - QRO120X5.6	S 235	**0.35**	0.35	0.26
B328	4.550-	NC24	N3-N2 - QRO120X8	S 235	**0.75**	0.75	0.72
B408	4.500+	NC42	N3-SL1 - QRO80X5	S 235	**0.75**	0.75	0.75
B409	0.000	NC42	N3-togielem - QRO120X8	S 235	**0.02**	0.02	0.02



28. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-temelji
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B325	3.450	MSN-temelj-1-1/1	N3-S1 - QRO120X10	S 235	**0.44**	0.44	0.39
B335	0.000	MSN-temelj-1-1/1	N3-N1 - QRO120X5.6	S 235	**0.30**	0.30	0.22
B328	4.550-	MSN-temelj-1-1/2	N3-N2 - QRO120X8	S 235	**0.69**	0.69	0.66
B408	4.500+	MSN-temelj-1-1/3	N3-SL1 - QRO80X5	S 235	**0.70**	0.69	0.70
B409	0.000	MSN-temelj-1-1/4	N3-togielem - QRO120X8	S 235	**0.02**	0.02	0.02

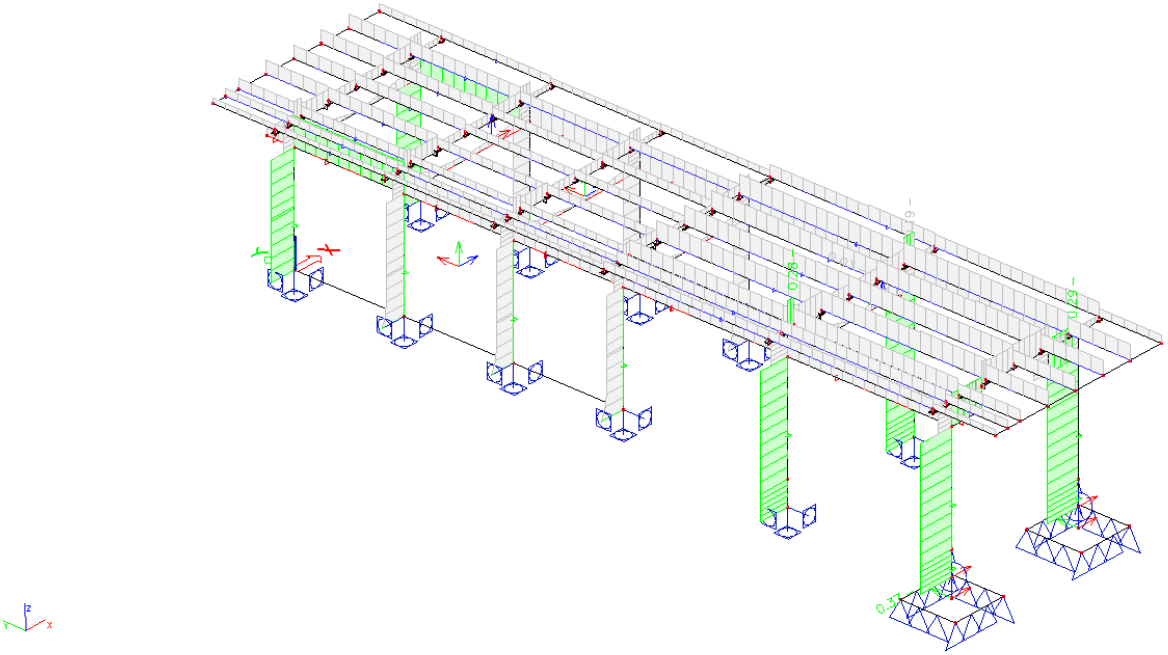


29. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B425	0.000	potres 4/1	N3-S1 - QRO120X10	S 235	**0.37**	0.31	0.37
B437	0.920	potres 1/2	N3-N1 - QRO120X5.6	S 235	**0.29**	0.25	0.29
B328	0.600+	potres 4/1	N3-N2 - QRO120X8	S 235	**0.28**	0.27	0.28
B408	4.500+	potres 1/2	N3-SL1 - QRO80X5	S 235	**0.19**	0.14	0.19
B400	0.000	potres 4/1	N3-togielem - QRO120X8	S 235	**0.03**	0.03	0.01

EC-EN 1993 Steel check ULS
Values: **UC Overall**
Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All



3.3. Pomiki

30. Displacement of nodes

Nonlinear calculation, Extreme : Global
Selection : All
Class : SLS

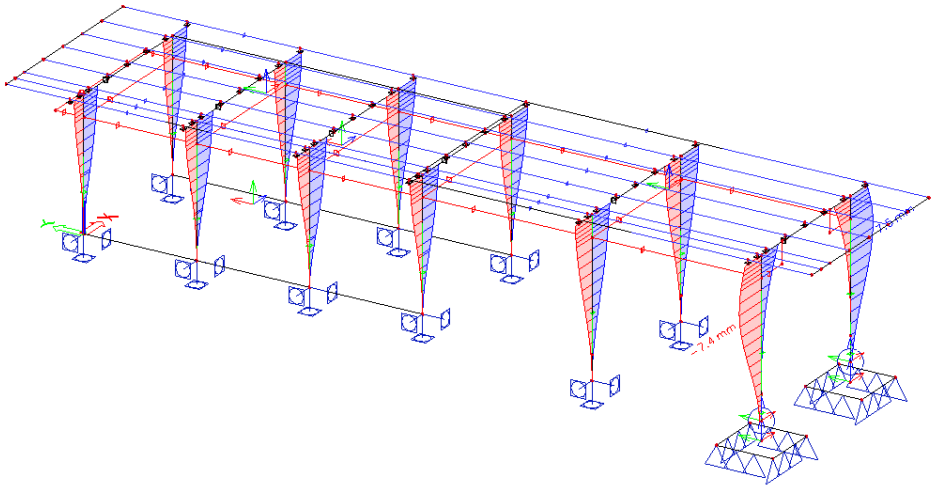
Node	Case	Ux [mm]	Uy [mm]	Uz [mm]
N529	NC11	**-6.9**	-0.3	-4.4
N530	NC10	**7.0**	0.2	-4.4
N406	NC13	0.6	**-2.2**	-18.7
N415	NC12	0.5	**2.0**	-13.1
N406	NC10	4.5	0.2	**-18.7**
N316	NC10	6.0	0.1	**0.9**

31. Deformations on member

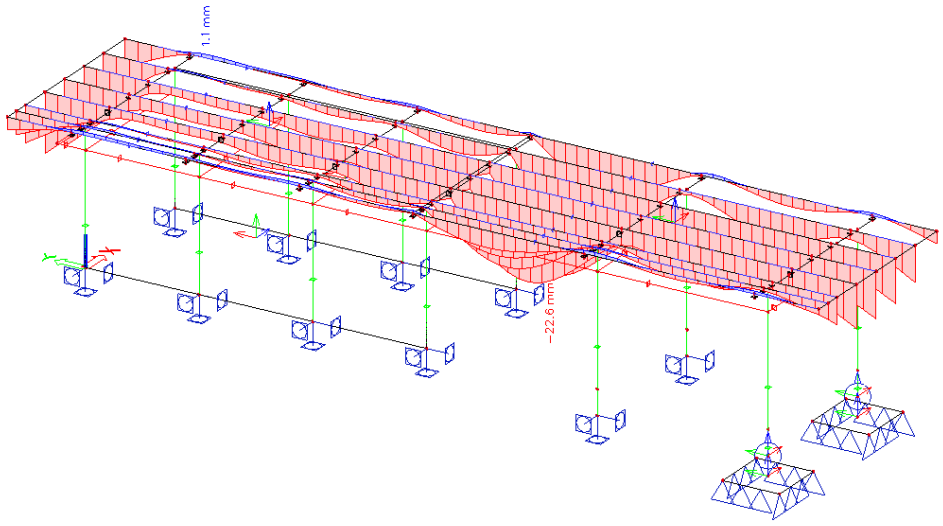
Nonlinear calculation, Extreme : Global, System : Principal
Selection : All
Class : SLS

Member	dx [m]	Case	ux [mm]	uy [mm]	uz [mm]	fix [mrad]	fiy [mrad]	fiz [mrad]
B335	0.920	NC11	**-6.9**	-0.3	-4.4	0.0	3.1	-0.1
B437	0.000	NC10	**7.0**	0.2	-4.4	-0.1	-3.1	0.1
B341	4.500	NC11	0.2	**-6.9**	-1.3	-2.2	0.1	-0.2
B347	4.500	NC10	-0.3	**7.0**	-1.3	2.1	-0.1	0.1
B390	2.100	NC12	-2.0	0.8	**-22.6**	-0.1	-0.5	-0.1
B333	2.312	NC11	-1.3	-0.1	**7.4**	-0.2	-0.4	-0.1
B341	4.500	NC10	-0.1	3.5	-1.3	**-3.3**	0.0	-0.2
B347	4.500	NC11	0.4	-3.4	-1.3	**3.3**	0.1	0.1
B408	3.600	NC12	-1.9	0.3	-8.2	2.1	**-10.2**	-0.1
B408	0.000	NC12	-1.9	0.7	-0.6	2.0	**14.9**	-0.1
B400	0.100	NC10	-4.6	5.5	0.3	0.0	-0.1	**-4.1**
B382	0.100	NC11	-4.2	-5.0	-0.4	-0.1	0.1	**4.3**

1D deformations
Values: u_x
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Global
Selection: All
Filter: Cross-section = N3-S1 - QRO120X10



1D deformations
Values: u_z
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Global
Selection: All
Filter: Cross-section = N3-SL1 - QRO80X5



$u_{hor,max,W} = 7.6 \text{ mm} \leq u_{hor,dov,W} = h/300 = 3450/300 = 11.5 \text{ mm}$
$w_{vert,max,Q} = 22.6 \text{ mm} \leq w_{vert,dov,Q} \approx L/200 = 4500/200 = 22.5 \text{ mm}$

32. Displacement of nodes

Linear calculation, Extreme : Global
Selection : All
Class : ULS-potres

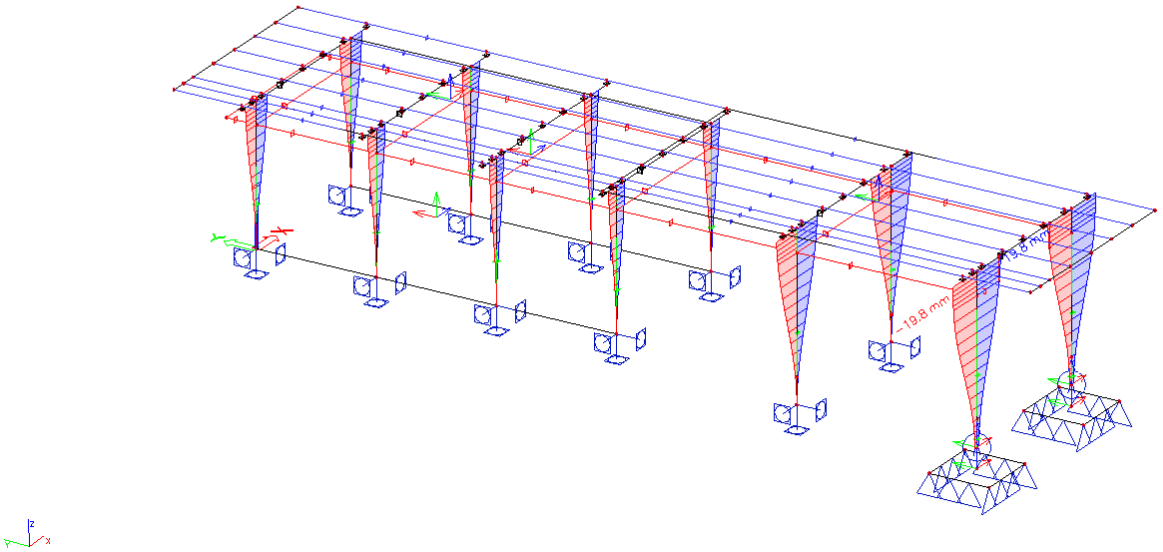
Node	Case	Ux [mm]	Uy [mm]	Uz [mm]
N447	potres 1/2	**-23.2**	5.2	-2.6
N447	potres 4/1	**23.0**	-5.2	-5.4
N415	potres 8/3	6.9	**-12.8**	-5.3
N415	potres 5/4	-6.9	**12.8**	-4.9
N431	potres 4/1	22.6	-4.6	**-6.9**
N506	potres 8/3	-2.9	-10.6	**2.1**

33. Deformations on member

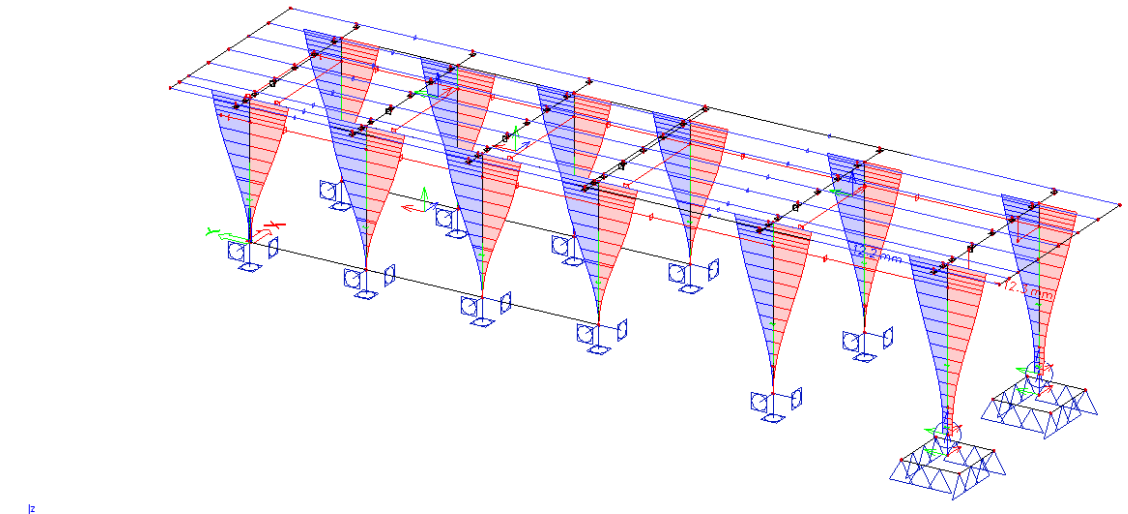
Linear calculation, Extreme : Global, System : Principal
Selection : All
Class : ULS-potres

Member	dx [m]	Case	ux [mm]	uy [mm]	uz [mm]	fix [mrad]	fiy [mrad]	fiz [mrad]
B336	0.000	potres 4/1	**-19.8**	-5.9	-1.4	1.2	2.4	-1.2
B336	0.000	potres 1/2	**19.8**	5.9	0.6	-1.2	-0.5	1.2
B408	10.700	potres 1/2	-5.2	**-23.2**	-2.6	0.1	1.1	-2.5
B408	10.700	potres 4/1	5.2	**23.0**	-5.4	1.3	2.9	2.5
B333	3.450	potres 1/2	-0.8	5.3	**-19.8**	1.1	-0.3	1.2
B333	3.450	potres 4/1	-1.1	-5.3	**19.8**	-1.2	2.5	-1.2
B316	2.520	potres 5/4	2.4	12.4	-1.2	**-3.3**	-0.1	-0.3
B316	2.520	potres 8/3	-2.4	-12.5	-1.1	**3.4**	0.2	0.3
B333	1.156	potres 4/1	-1.1	-2.1	10.3	-1.2	**-7.3**	-1.6
B334	1.156	potres 1/2	-0.8	2.0	-10.3	-1.1	**7.2**	1.6
B408	0.000	potres 4/1	5.2	-6.9	-0.4	1.3	4.2	**-5.4**
B408	0.000	potres 1/2	-5.1	6.8	0.0	0.1	5.0	**5.4**

1D deformations
Values: u_x
Linear calculation
Class: ULS-potres
Coordinate system: Global
Extreme 1D: Global
Selection: All
Filter: Cross-section = N3-S1 - QRO120X10

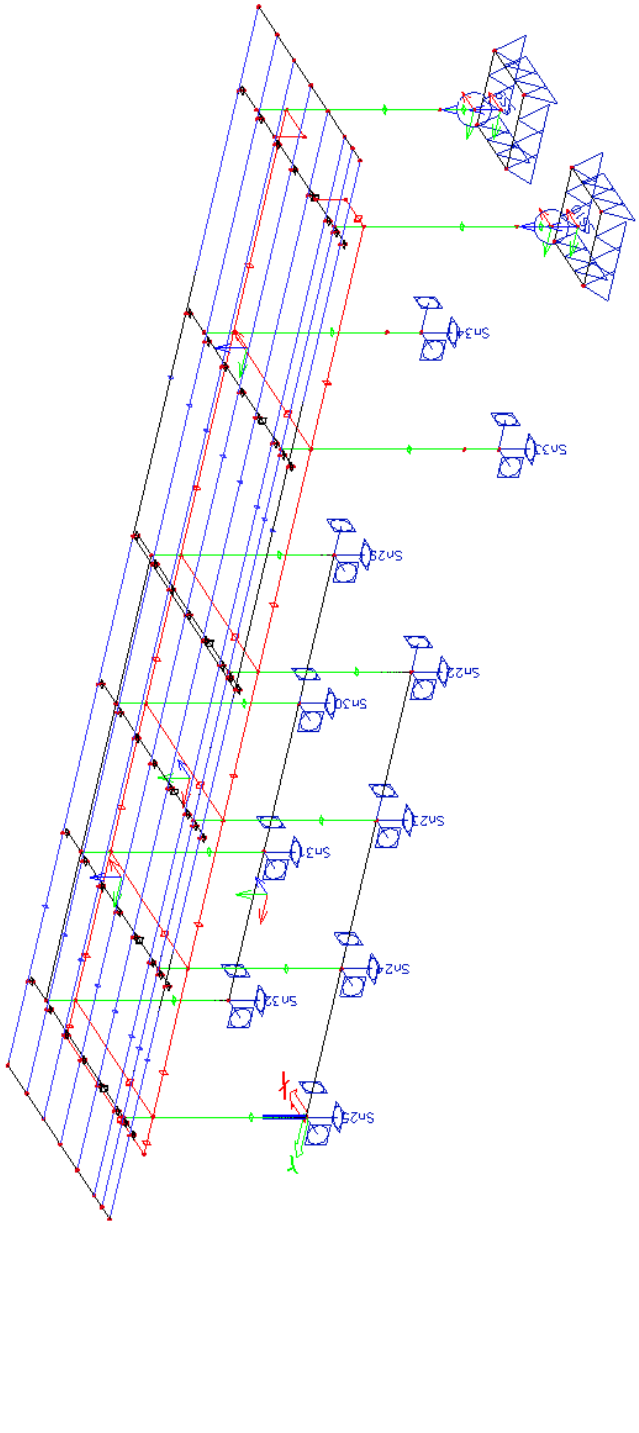


1D deformations
Values: u_y
Linear calculation
Class: ULS-potres
Coordinate system: Global
Extreme 1D: Global
Selection: All
Filter: Cross-section = N3-S1 - QRO120X10



$U_{hor,max,E}$ = 1.5x19.8x0.5= 14.9 mm ≤ $U_{hor,dov,E}$ = 0.005xh = 0.005x3450 = 17.3 mm

4. REAKCIJE



34. Reactions

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn23/N294	NC2	**-11.54**	0.03	30.46	0.20	-11.68	0.05
Sn30/N296	NC16	**11.10**	0.10	33.65	-0.46	**11.20**	0.03
Sn22/N302	NC26	-1.87	**-1.38**	28.33	**2.55**	-2.67	0.08
Sn32/N280	NC27	-2.67	**2.51**	29.84	**-3.33**	-2.92	-0.05
Sn34/N524	NC20	2.16	0.04	**-9.37**	-0.01	4.09	0.04
Sn34/N524	NC42	-0.84	0.15	**56.13**	0.24	-2.50	0.00
Sn23/N294	NC24	-11.37	-0.03	26.42	0.26	**-12.57**	0.09
Sn29/N304	NC33	0.84	-0.21	27.55	0.57	-1.31	**-0.24**
Sn29/N304	NC44	-3.62	-0.72	23.56	1.38	-4.05	**0.26**

35. Reactions

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn22/N302	NC24	**-7.37**	-0.06	26.45	0.30	**-9.57**	0.16
Sn22/N302	NC16	**3.00**	0.00	31.05	-0.30	**6.25**	0.01
Sn22/N302	NC26	-1.87	**-1.38**	28.33	**2.55**	-2.67	0.08
Sn22/N302	NC18	-0.36	**1.44**	29.19	**-2.72**	0.40	-0.08
Sn22/N302	NC19	-5.84	0.10	**-2.28**	-0.20	-6.66	0.00
Sn22/N302	NC25	1.57	-0.11	**31.43**	-0.12	3.82	0.18
Sn22/N302	NC35	0.06	-0.76	26.86	1.49	0.61	**-0.15**
Sn22/N302	NC43	-0.91	-0.14	23.69	-0.01	-0.09	**0.21**
Sn23/N294	NC2	**-11.54**	0.03	30.46	0.20	-11.68	0.05
Sn23/N294	NC16	**2.47**	0.00	39.32	-0.34	**6.61**	0.01
Sn23/N294	NC26	-3.58	**-1.37**	28.63	**2.53**	-4.38	0.05
Sn23/N294	NC18	-1.04	**1.48**	37.11	**-2.81**	0.51	-0.04
Sn23/N294	NC28	-11.48	0.01	**-6.75**	-0.08	-12.20	0.09
Sn23/N294	NC34	1.91	0.05	**39.86**	-0.43	5.63	-0.03
Sn23/N294	NC24	-11.37	-0.03	26.42	0.26	**-12.57**	0.09
Sn23/N294	NC35	-0.15	-0.68	38.27	1.47	1.36	**-0.08**
Sn23/N294	NC46	-9.24	-0.07	-4.64	0.07	-10.44	**0.12**
Sn24/N286	NC2	**-11.28**	0.00	24.05	0.19	-11.25	-0.01
Sn24/N286	NC16	**2.54**	0.03	31.71	-0.33	**6.49**	**0.10**
Sn24/N286	NC26	-3.53	**-1.38**	22.79	**2.50**	-4.33	-0.01
Sn24/N286	NC18	-0.82	**1.55**	29.75	**-2.84**	0.71	0.00
Sn24/N286	NC28	-11.26	0.03	**-4.14**	-0.09	-11.91	-0.01
Sn24/N286	NC34	2.09	0.09	**32.12**	-0.42	5.70	0.08
Sn24/N286	NC24	-11.15	-0.05	20.86	0.25	**-12.21**	-0.01
Sn24/N286	NC45	-5.81	0.86	14.94	-1.55	-6.63	**-0.04**
Sn25/N278	NC24	**-7.28**	0.01	27.05	0.23	**-9.32**	-0.07
Sn25/N278	NC20	**2.91**	-0.01	5.87	0.01	5.60	0.07
Sn25/N278	NC26	-2.27	**-1.15**	29.92	**2.32**	-3.37	0.01
Sn25/N278	NC18	-0.02	**2.45**	37.02	**-3.28**	1.03	-0.01
Sn25/N278	NC28	-7.26	0.01	**-6.69**	-0.08	-8.91	**-0.09**
Sn25/N278	NC34	2.45	0.08	**40.45**	-0.46	5.29	0.08
Sn25/N278	NC16	2.87	0.03	39.72	-0.37	**5.98**	**0.09**
Sn29/N304	NC28	**-5.62**	-0.04	3.02	0.06	-8.11	0.13
Sn29/N304	NC16	**7.18**	0.10	25.64	-0.42	**8.50**	-0.11
Sn29/N304	NC17	1.62	**-1.38**	27.66	**2.54**	1.00	-0.13
Sn29/N304	NC27	-2.07	**1.45**	30.31	**-2.76**	-1.95	0.13
Sn29/N304	NC20	6.97	0.03	**-3.39**	-0.03	7.91	-0.11
Sn29/N304	NC24	-5.50	-0.12	**32.33**	0.45	**-8.45**	0.12
Sn29/N304	NC33	0.84	-0.21	27.55	0.57	-1.31	**-0.24**

Support	Case	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn29/N304	NC44	-3.62	-0.72	23.56	1.38	-4.05	**0.26**
Sn30/N296	NC46	**-8.70**	0.01	-0.44	-0.03	-9.87	**0.11**
Sn30/N296	NC16	**11.10**	0.10	33.65	-0.46	**11.20**	0.03
Sn30/N296	NC17	3.36	**-1.32**	36.17	**2.52**	2.43	-0.05
Sn30/N296	NC27	-3.94	**1.56**	29.96	**-2.86**	-3.67	0.01
Sn30/N296	NC29	3.62	0.17	**-5.96**	-0.23	3.96	0.08
Sn30/N296	NC15	-0.18	-0.15	**38.36**	0.58	-3.70	-0.03
Sn30/N296	NC24	-7.48	-0.09	32.46	0.42	**-10.33**	0.07
Sn30/N296	NC35	5.78	-0.84	36.75	1.72	4.66	**-0.08**
Sn31/N288	NC46	**-8.75**	0.02	1.63	-0.03	-9.91	0.00
Sn31/N288	NC16	**10.85**	0.14	26.45	-0.46	**10.79**	**0.11**
Sn31/N288	NC17	3.21	**-1.35**	28.60	**2.50**	2.37	-0.01
Sn31/N288	NC27	-4.14	**1.62**	24.42	**-2.89**	-3.94	-0.04
Sn31/N288	NC29	3.29	0.15	**-3.11**	-0.23	3.45	0.07
Sn31/N288	NC15	-0.18	-0.19	**30.70**	0.58	-3.47	-0.05
Sn31/N288	NC24	-7.55	-0.12	26.58	0.42	**-10.24**	-0.02
Sn31/N288	NC45	-6.91	1.06	17.08	-1.90	-6.74	**-0.05**
Sn32/N280	NC46	**-6.06**	0.07	-0.12	-0.08	-7.73	-0.06
Sn32/N280	NC16	**7.09**	0.06	34.39	-0.43	**8.25**	0.13
Sn32/N280	NC17	2.06	**-1.08**	37.71	**2.29**	1.64	0.00
Sn32/N280	NC27	-2.67	**2.51**	29.84	**-3.33**	-2.92	-0.05
Sn32/N280	NC29	2.25	0.17	**-5.46**	-0.23	2.66	0.06
Sn32/N280	NC15	-0.81	-0.05	**39.15**	0.48	-3.30	-0.04
Sn32/N280	NC24	-5.47	0.03	33.27	0.31	**-8.26**	**-0.09**
Sn32/N280	NC20	6.92	0.02	0.38	-0.04	7.71	**0.16**
Sn33/N523	NC15	**-3.06**	0.12	40.35	0.13	**-6.11**	0.00
Sn33/N523	NC29	**2.93**	-0.13	5.99	0.18	5.44	0.11
Sn33/N523	NC21	-0.40	**-0.71**	-6.74	1.35	-0.57	-0.05
Sn33/N523	NC22	-0.38	**0.73**	-6.77	-1.46	-0.68	-0.06
Sn33/N523	NC19	-3.04	0.00	**-8.68**	-0.12	-5.44	-0.05
Sn33/N523	NC25	2.73	-0.30	**55.60**	-0.03	**5.89**	0.18
Sn33/N523	NC18	-0.54	0.54	42.76	**-1.70**	-0.39	0.01
Sn33/N523	NC26	0.28	-0.56	53.06	**1.73**	0.00	0.09
Sn33/N523	NC40	-0.65	0.47	-4.38	-0.95	-1.06	**-0.08**
Sn33/N523	NC43	1.93	-0.28	46.38	0.04	4.14	**0.19**
Sn34/N524	NC19	**-3.13**	-0.11	-5.48	0.15	-5.55	-0.02
Sn34/N524	NC25	**2.95**	-0.13	50.91	-0.34	**6.04**	0.06
Sn34/N524	NC21	-0.51	**-0.75**	-7.51	1.43	-0.67	-0.02
Sn34/N524	NC22	-0.48	**0.69**	-7.40	-1.37	-0.78	-0.03
Sn34/N524	NC20	2.16	0.04	**-9.37**	-0.01	4.09	0.04
Sn34/N524	NC42	-0.84	0.15	**56.13**	0.24	-2.50	0.00
Sn34/N524	NC27	0.34	0.49	52.97	**-1.73**	1.00	-0.01
Sn34/N524	NC17	-0.31	-0.61	42.93	**1.72**	-0.99	-0.08
Sn34/N524	NC15	-2.90	0.00	45.02	0.43	**-6.01**	-0.09
Sn34/N524	NC36	-0.67	0.24	37.11	-0.98	-0.74	**-0.11**
Sn34/N524	NC29	2.91	0.04	1.01	-0.12	5.38	**0.11**

36. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Global
Selection: All
Nodal reactions

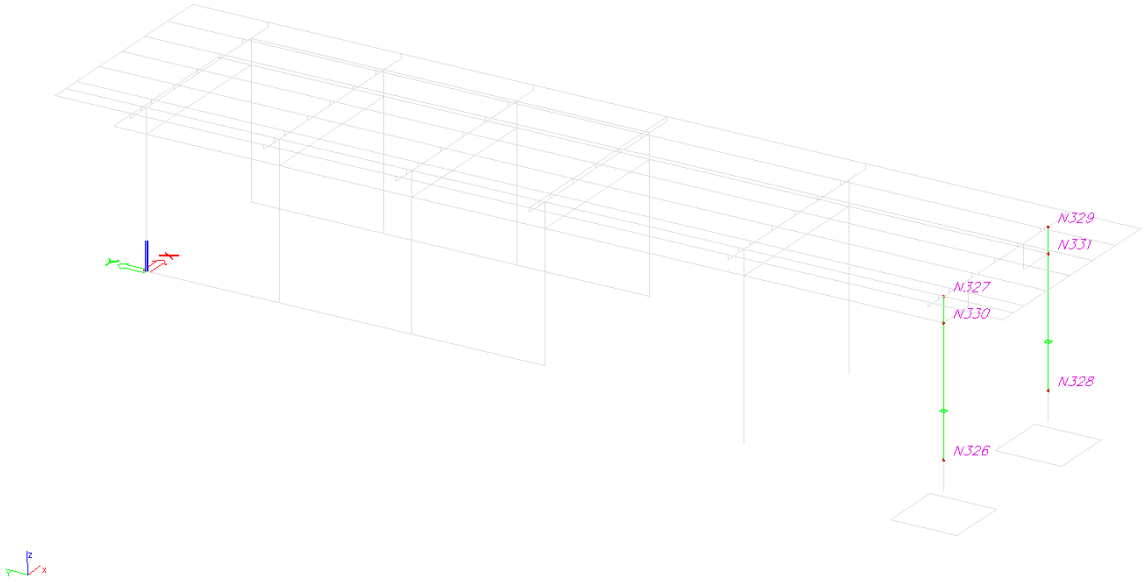
Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn33/N523	potres 1/1	**-4.96**	-1.43	8.43	2.98	-10.20	-0.38	353.8	-1209.7
Sn34/N524	potres 4/2	**4.96**	1.37	7.85	-2.91	10.20	-0.41	-370.6	1299.3
Sn23/N294	potres 5/3	-0.92	**-6.17**	10.42	**10.36**	-1.60	-0.12	994.7	-153.2
Sn32/N280	potres 8/4	1.54	5.31	**4.56**	-9.42	2.61	-0.15	-2064.6	571.7
Sn23/N294	potres 8/4	0.92	**6.18**	8.79	**-10.39**	1.61	0.12	-1181.4	182.9
Sn34/N524	potres 1/1	-4.95	-1.42	18.10	2.97	**-10.21**	0.39	164.0	-564.1
Sn33/N523	potres 4/2	4.95	1.38	**18.63**	-2.93	**10.21**	0.41	-157.2	548.2

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn29/N304	potres 4/2	3.26	2.67	11.65	-4.51	5.66	**-0.47**	-387.0	485.5
Sn29/N304	potres 1/1	-3.27	-2.70	5.22	4.53	-5.68	**0.47**	868.9	-1087.8

37. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Mesh
Selection: All
Nodal reactions

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn22/N302	potres 5/1	-1.05	**-6.02**	5.94	**10.22**	-1.81	-0.18	1722.2	-305.7
Sn22/N302	potres 8/2	1.05	**5.98**	11.56	**-10.20**	1.83	0.18	-882.9	158.1
Sn22/N302	potres 1/3	**-3.26**	-2.72	**5.52**	4.56	**-5.66**	**-0.46**	825.0	-1024.5
Sn22/N302	potres 4/4	**3.26**	2.68	**11.97**	-4.54	**5.67**	**0.46**	-379.1	474.0
Sn23/N294	potres 5/1	-0.92	**-6.17**	10.42	**10.36**	-1.60	-0.12	994.7	-153.2
Sn23/N294	potres 4/4	**2.82**	2.78	**7.21**	-4.62	**4.93**	**0.32**	-641.1	683.2
Sn23/N294	potres 8/2	0.92	**6.18**	8.79	**-10.39**	1.61	0.12	-1181.4	182.9
Sn23/N294	potres 1/3	**-2.82**	-2.76	**12.00**	4.60	**-4.91**	**-0.32**	383.1	-409.4
Sn24/N286	potres 5/1	-1.05	**-6.16**	7.29	**10.35**	-1.89	-0.14	1419.6	-258.8
Sn24/N286	potres 8/2	1.23	**6.18**	9.90	**-10.38**	2.08	0.14	-1048.7	209.7
Sn24/N286	potres 1/3	**-3.39**	-2.76	**5.63**	4.59	**-5.95**	**-0.31**	815.1	-1056.8
Sn24/N286	potres 4/4	**3.58**	2.77	**11.56**	-4.61	**6.14**	**0.31**	-399.2	531.0
Sn25/N278	potres 5/1	-1.54	**-5.43**	**14.82**	**9.64**	-2.61	-0.10	650.5	-176.3
Sn25/N278	potres 8/2	1.57	**5.49**	**5.03**	**-9.72**	2.66	0.11	-1931.8	528.9
Sn25/N278	potres 1/3	**-4.64**	-2.48	14.67	4.32	**-7.87**	**-0.30**	294.5	-536.5
Sn25/N278	potres 4/4	**4.67**	2.54	5.18	-4.40	**7.92**	**0.31**	-848.6	1528.4
Sn29/N304	potres 5/1	-1.05	**-5.85**	5.74	**9.95**	-1.83	0.20	1733.2	-318.9
Sn29/N304	potres 8/2	1.05	**5.81**	11.13	**-9.92**	1.81	-0.20	-891.1	162.7
Sn29/N304	potres 1/3	**-3.27**	-2.70	**5.22**	4.53	**-5.68**	**0.47**	868.9	-1087.8
Sn29/N304	potres 4/4	**3.26**	2.67	**11.65**	-4.51	**5.66**	**-0.47**	-387.0	485.5
Sn30/N296	potres 5/1	-0.92	**-6.01**	10.10	**10.09**	-1.61	0.15	999.5	-159.6
Sn30/N296	potres 8/2	0.92	**6.02**	8.37	**-10.11**	1.60	-0.16	-1208.9	190.7
Sn30/N296	potres 1/3	**-2.82**	-2.76	**11.64**	4.58	**-4.93**	**0.33**	393.5	-423.3
Sn30/N296	potres 4/4	**2.82**	2.77	**6.82**	-4.60	**4.91**	**-0.33**	-675.2	720.4
Sn31/N288	potres 5/1	-1.24	**-6.01**	7.11	**10.08**	-2.08	0.18	1417.8	-292.3
Sn31/N288	potres 8/2	1.05	**6.02**	9.53	**-10.11**	1.89	-0.18	-1060.7	197.8
Sn31/N288	potres 1/3	**-3.58**	-2.75	**5.38**	4.57	**-6.14**	**0.32**	851.0	-1142.5
Sn31/N288	potres 4/4	**3.39**	2.76	**11.27**	-4.60	**5.95**	**-0.32**	-408.1	527.8
Sn32/N280	potres 5/1	-1.57	**-5.24**	**14.54**	**9.34**	-2.66	0.14	642.1	-182.6
Sn32/N280	potres 8/2	1.54	**5.31**	**4.56**	**-9.42**	2.61	-0.15	-2064.6	571.7
Sn32/N280	potres 1/3	**-4.67**	-2.46	14.27	4.29	**-7.92**	**0.31**	300.7	-554.9
Sn32/N280	potres 4/4	**4.64**	2.53	4.83	-4.37	**7.87**	**-0.32**	-903.5	1627.9
Sn33/N523	potres 5/1	-1.57	**-3.10**	11.93	**6.62**	-3.22	-0.13	554.3	-269.6
Sn33/N523	potres 8/2	1.56	**3.04**	15.13	**-6.56**	3.23	0.16	-433.7	213.4
Sn33/N523	potres 1/3	**-4.96**	-1.43	**8.43**	2.98	**-10.20**	**-0.38**	353.8	-1209.7
Sn33/N523	potres 4/4	**4.95**	1.38	**18.63**	-2.93	**10.21**	**0.41**	-157.2	548.2
Sn34/N524	potres 5/1	-1.56	**-3.02**	14.65	**6.44**	-3.23	0.16	439.7	-220.3
Sn34/N524	potres 8/2	1.57	**2.96**	11.30	**-6.38**	3.22	-0.18	-564.9	284.7
Sn34/N524	potres 1/3	**-4.95**	-1.42	**18.10**	2.97	**-10.21**	**0.39**	164.0	-564.1
Sn34/N524	potres 4/4	**4.96**	1.37	**7.85**	-2.91	**10.20**	**-0.41**	-370.6	1299.3



38. Connection forces

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC25	FC1	N501	B425	**-7.78**	-0.02	**-42.22**	0.08	**-11.44**	0.06
NC24	FC2	N500	B426	**6.97**	0.11	-41.73	-0.24	10.10	**0.06**
NC27	FC2	N500	B426	3.88	**-0.64**	-39.38	**1.46**	4.54	-0.03
NC17	FC2	N500	B426	4.18	**1.86**	-31.69	-2.04	5.48	0.02
NC20	FC2	N500	B426	-3.04	-0.02	**7.46**	0.03	-4.88	0.03
NC26	FC1	N501	B425	-4.68	1.86	-39.03	**-2.04**	-5.87	**-0.05**
NC15	FC2	N500	B426	6.82	0.15	-34.27	-0.33	**10.15**	0.06

39. Connection forces

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC25	FC1	N501	B425	**-7.78**	-0.02	**-42.22**	0.08	**-11.44**	0.06
NC24	FC2	N500	B426	**6.97**	0.11	-41.73	-0.24	10.10	**0.06**
NC27	FC2	N500	B426	3.88	**-0.64**	-39.38	**1.46**	4.54	-0.03
NC17	FC2	N500	B426	4.18	**1.86**	-31.69	-2.04	5.48	0.02
NC20	FC2	N500	B426	-3.04	-0.02	**7.46**	0.03	-4.88	0.03
NC26	FC1	N501	B425	-4.68	1.86	-39.03	**-2.04**	-5.87	**-0.05**
NC15	FC2	N500	B426	6.82	0.15	-34.27	-0.33	**10.15**	0.06

5. AB TEMELJI

Del tega načrta so tudi novi AB temelji, ki so izven območja podpiranja jeklenih stebrov z AB konstrukcjo podhoda in sicer

- dva nova AB točkovni temelj dimenzij 1.5x1.5x0.8m

AB podporna konstrukcija podhoda za ni predmet tega načrta.

V okviru analize je bi upoštevan vertikalni modul podajnosti tal 26000 kN/m^3.

Vodneprepustni beton
C30/37, PV-II, XC2, XD3-odporen proti solem

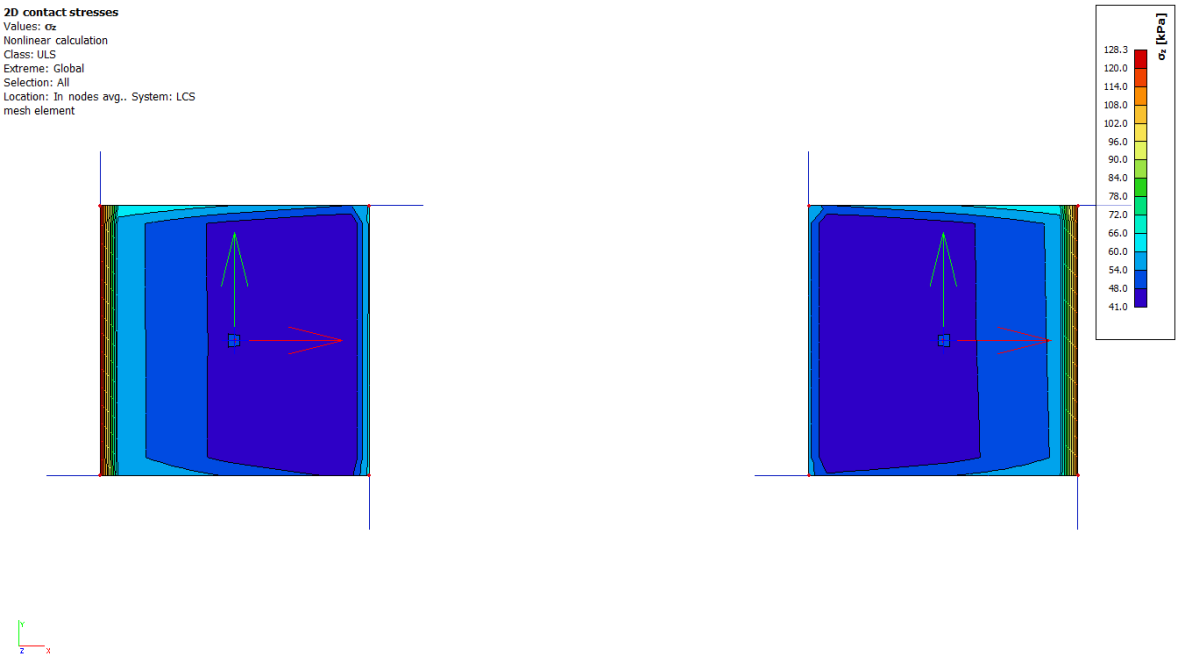
Armatura S500B

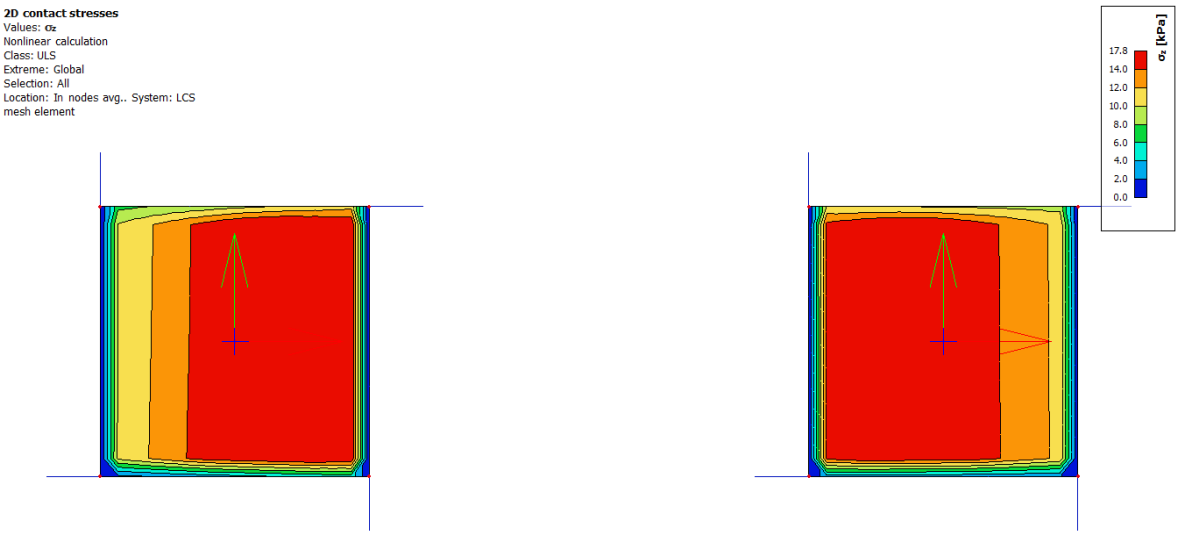
Maksimalne kontaktne napetosti R_d/A na robu temeljev pri ULS (faktrorirana obtežba) in pri potresnih obtežnih kombinacijah ne presegajo maksimalnih dovoljenih napetosti 190 kN/m^2.

Za armiranje AB temeljev zadošča minimalna armatura (glej v nadaljevanju).

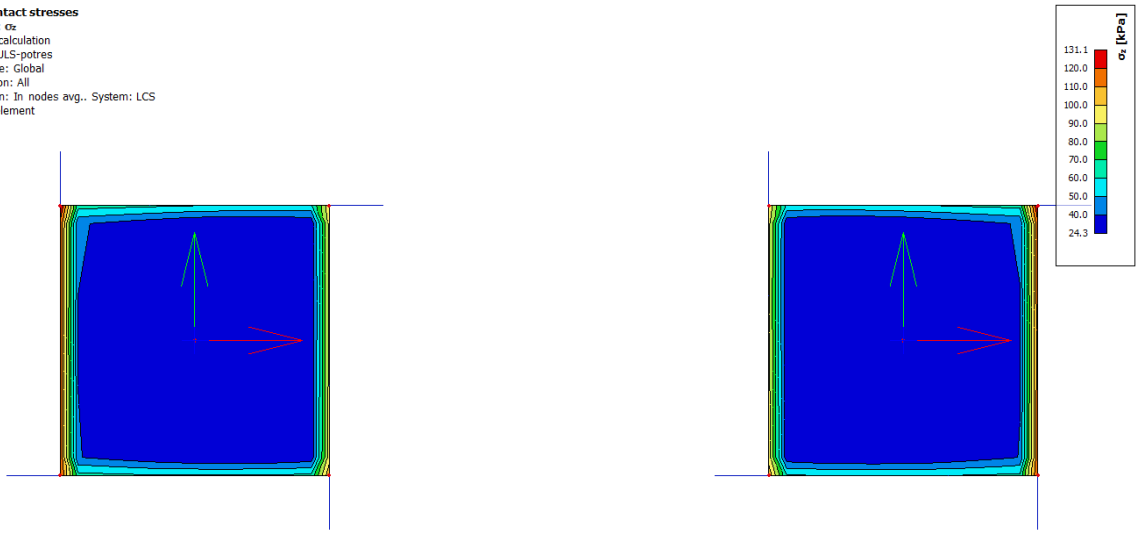
$A_{s,min}$ = 0.0013x80x100 = 10.4 cm^2/m
Izberem ø14/15cm $A_{s,dej}$ = 3.14x1.4^2 / 4 /0.15 = 10.3 cm^2/m…… OK

Kontaktne napetosti v temeljnih tleh



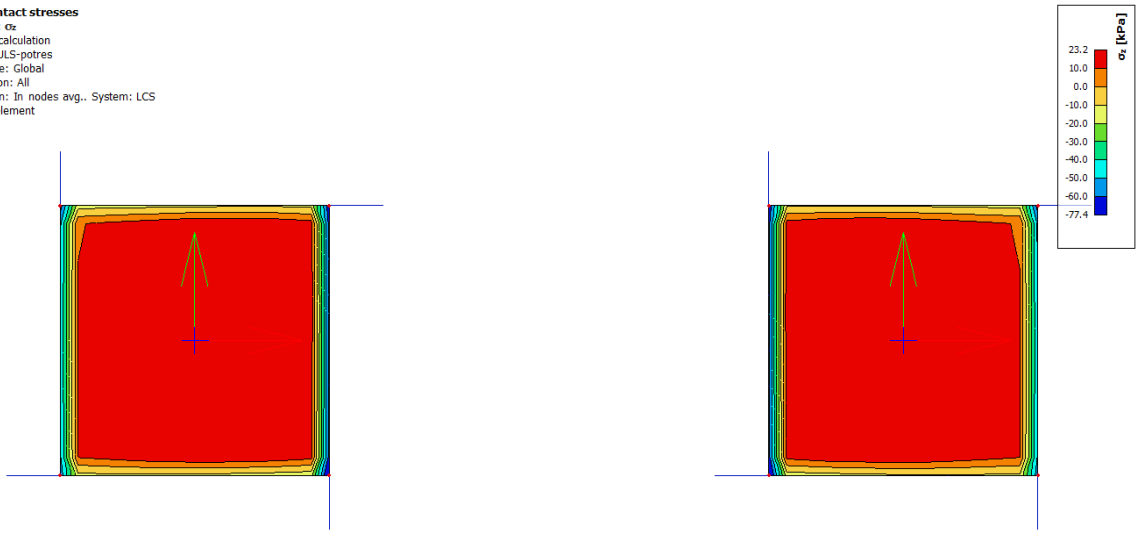


2D contact stresses
Values: σ_z
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element





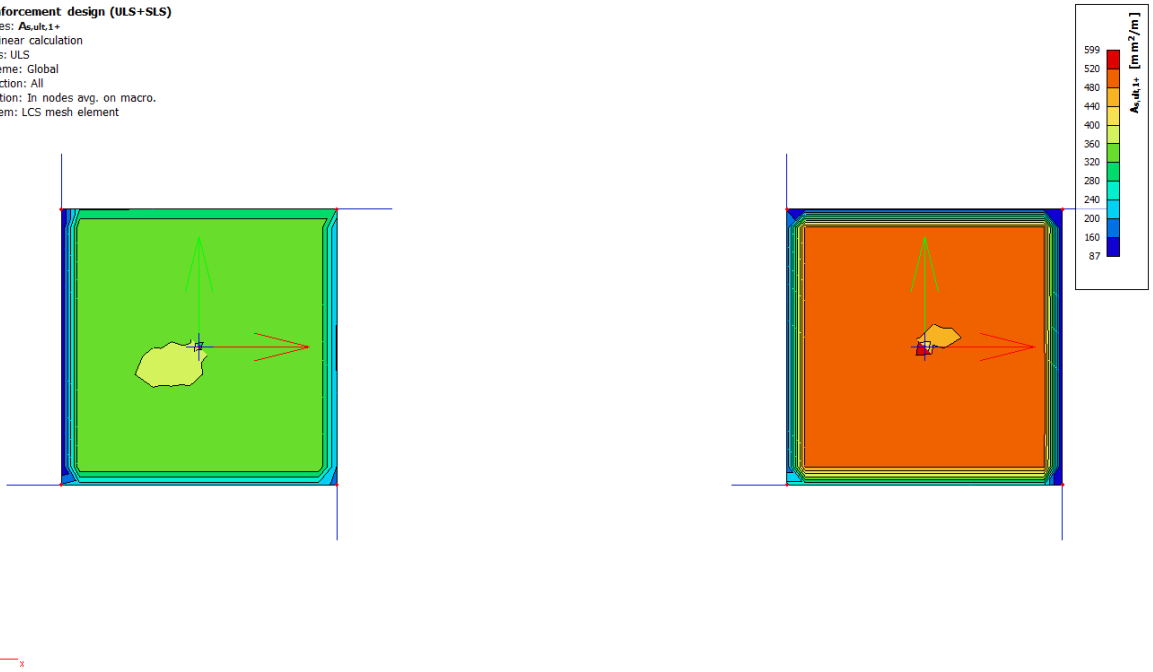
2D contact stresses
Values: σ_z
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element



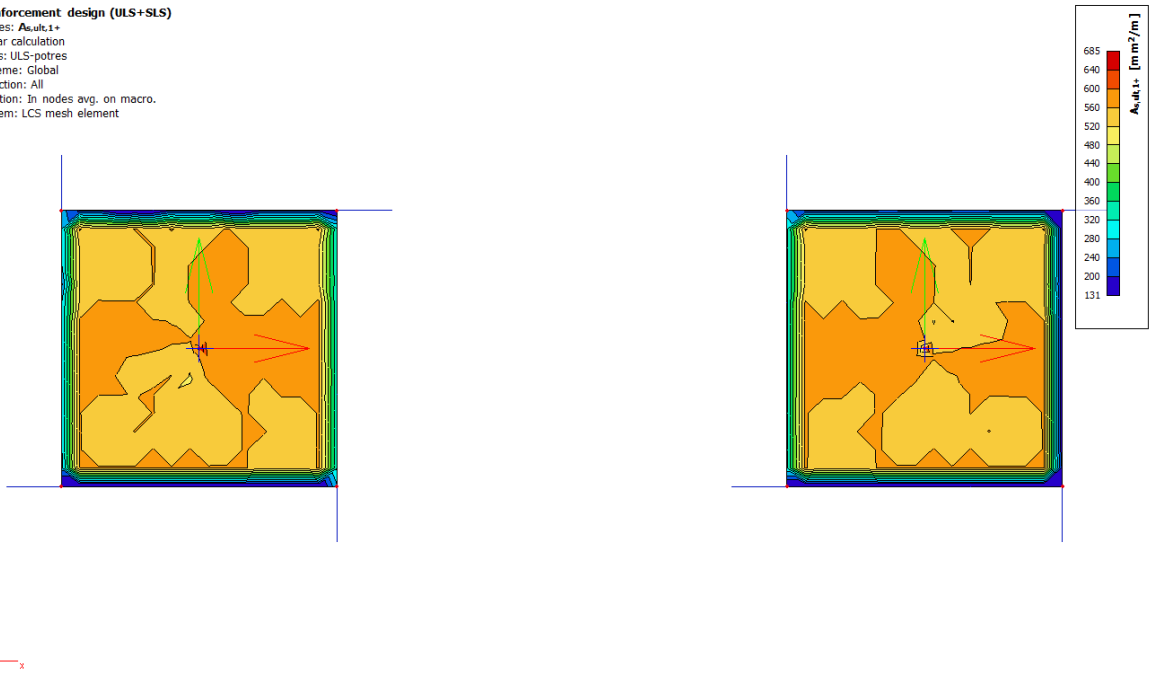


Armatura

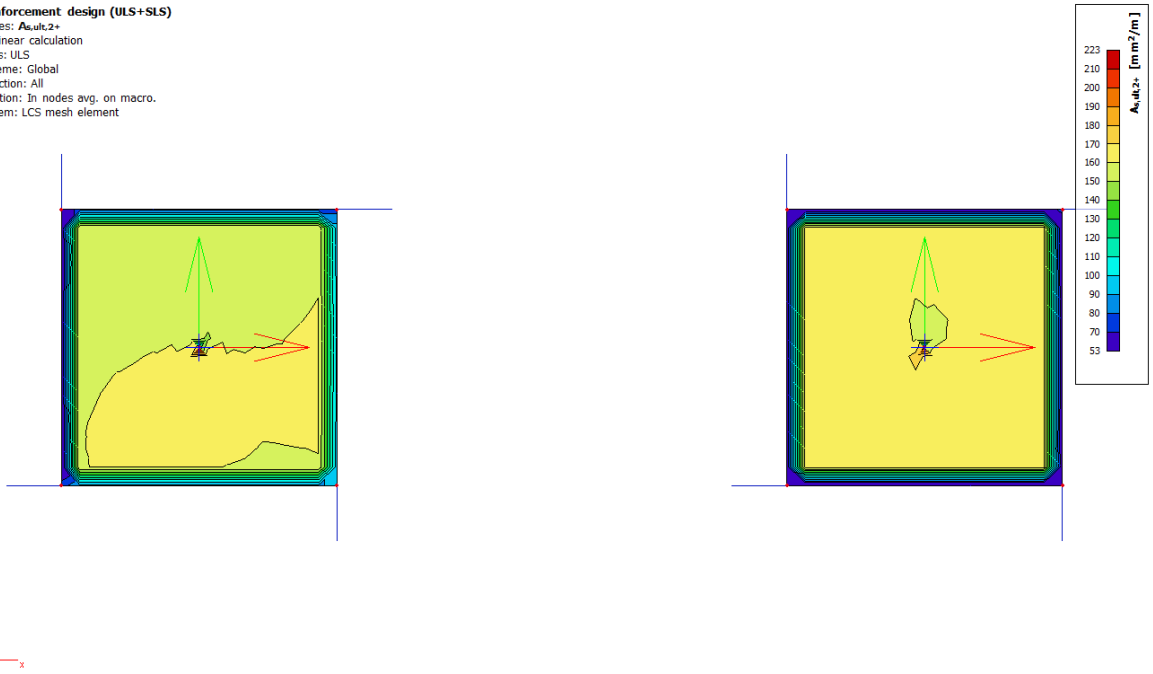
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1+}$
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



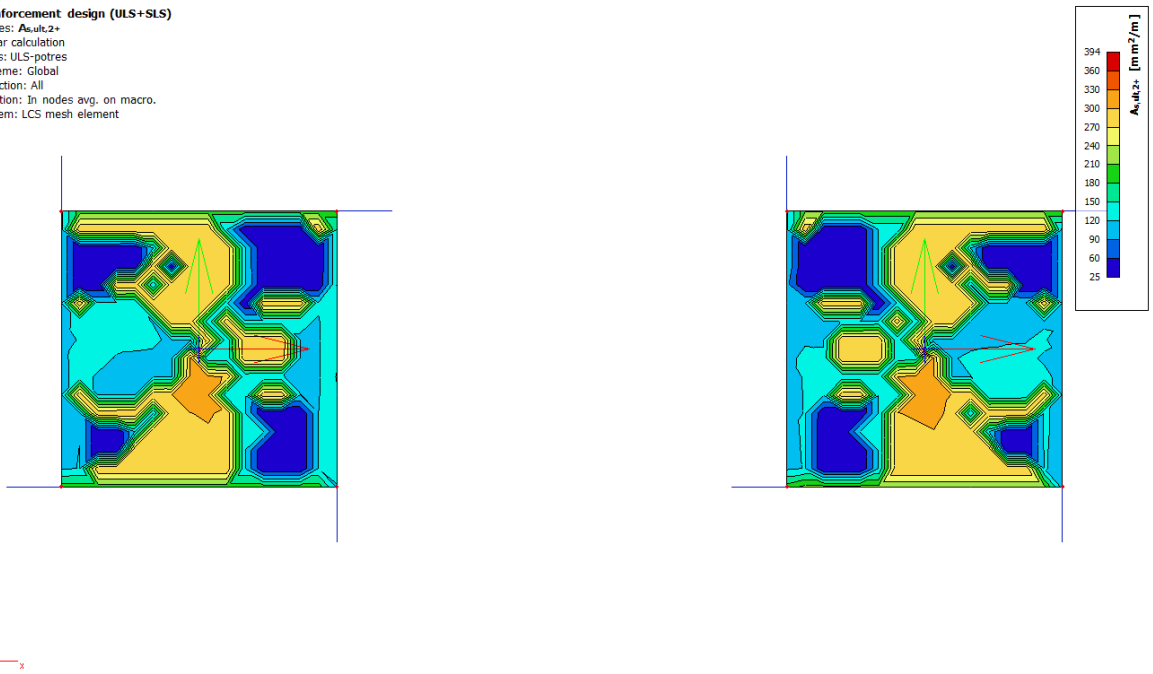
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1+}$
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



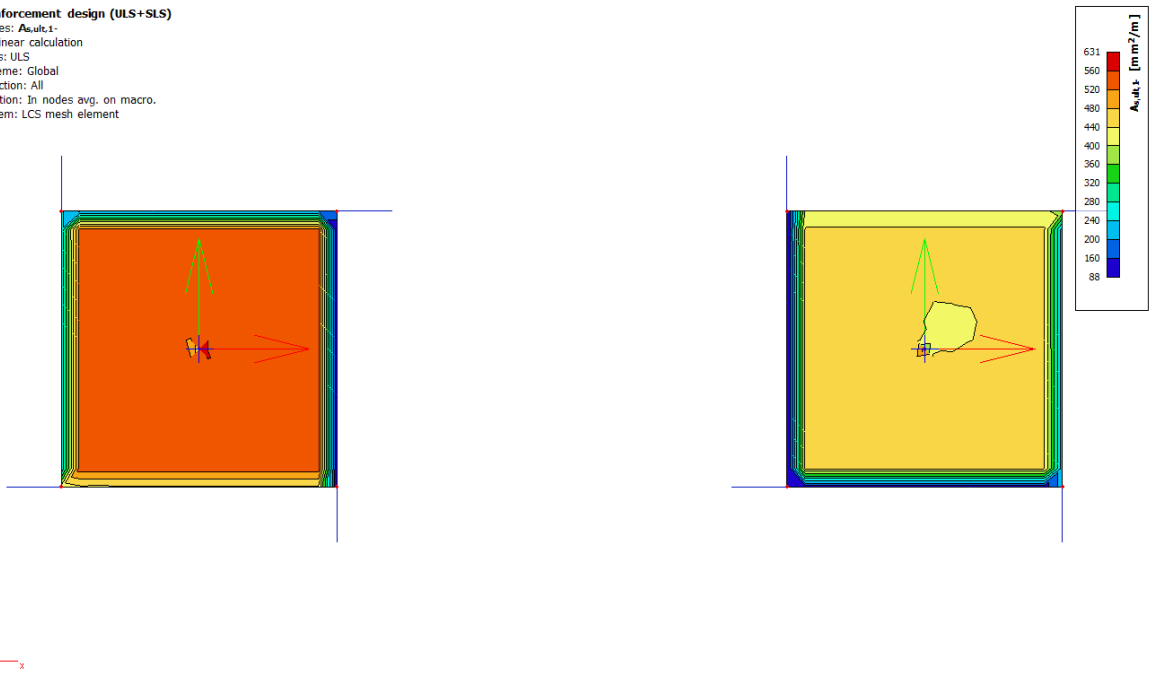
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2+}$
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



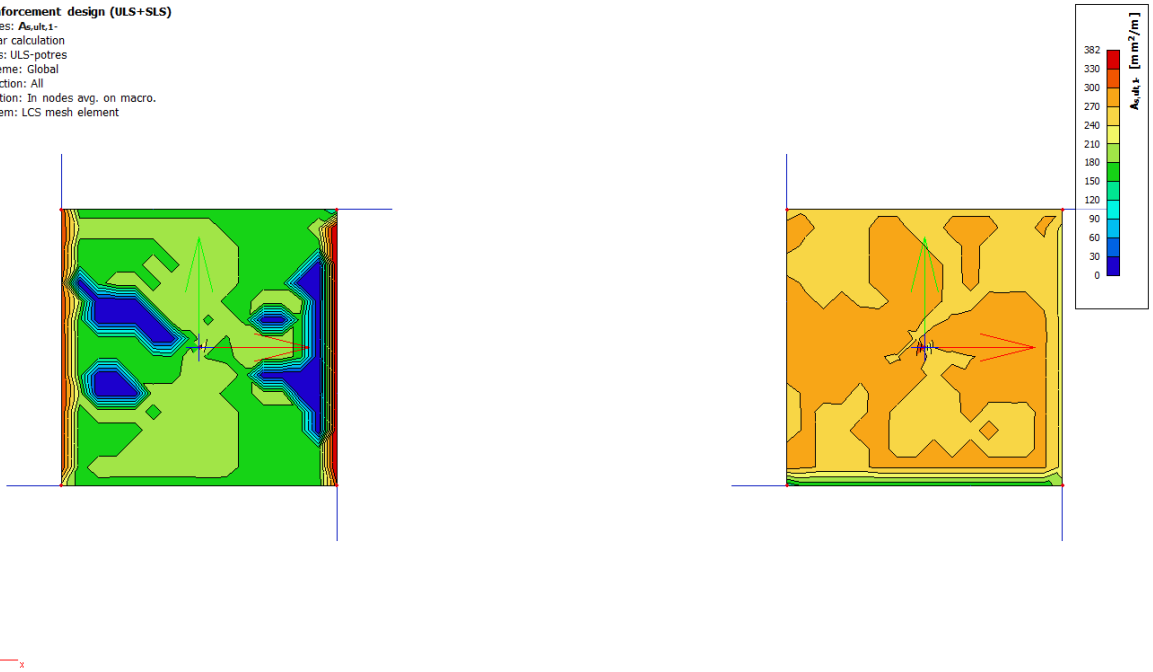
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2+}$
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



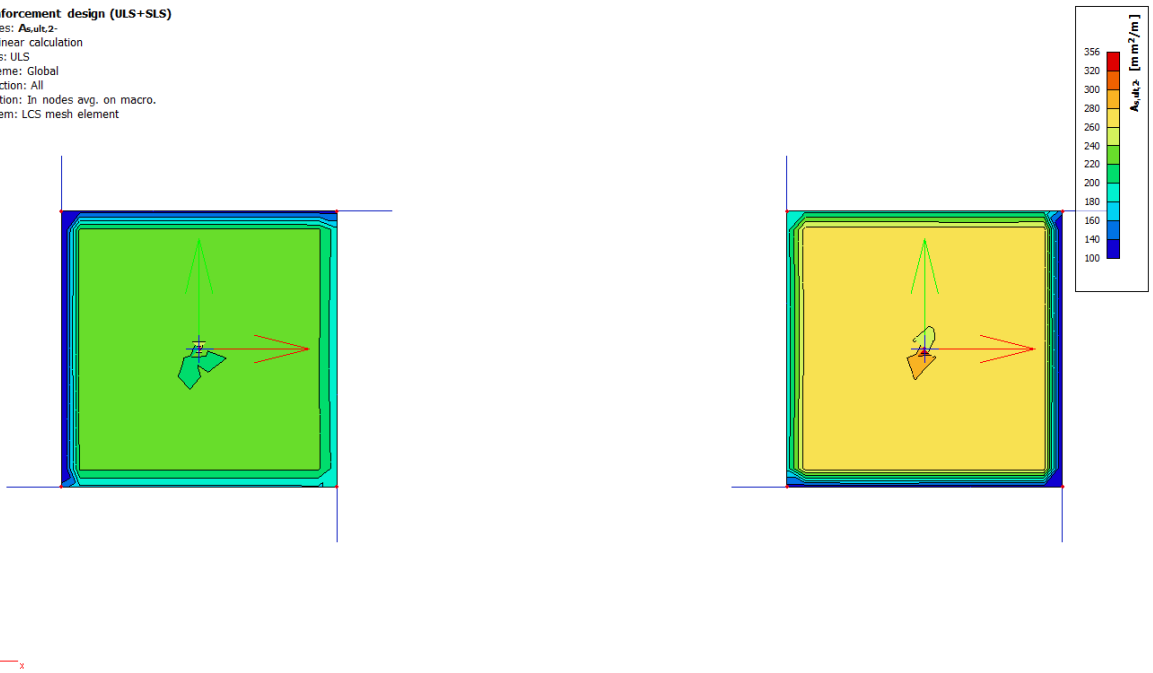
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1}$-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



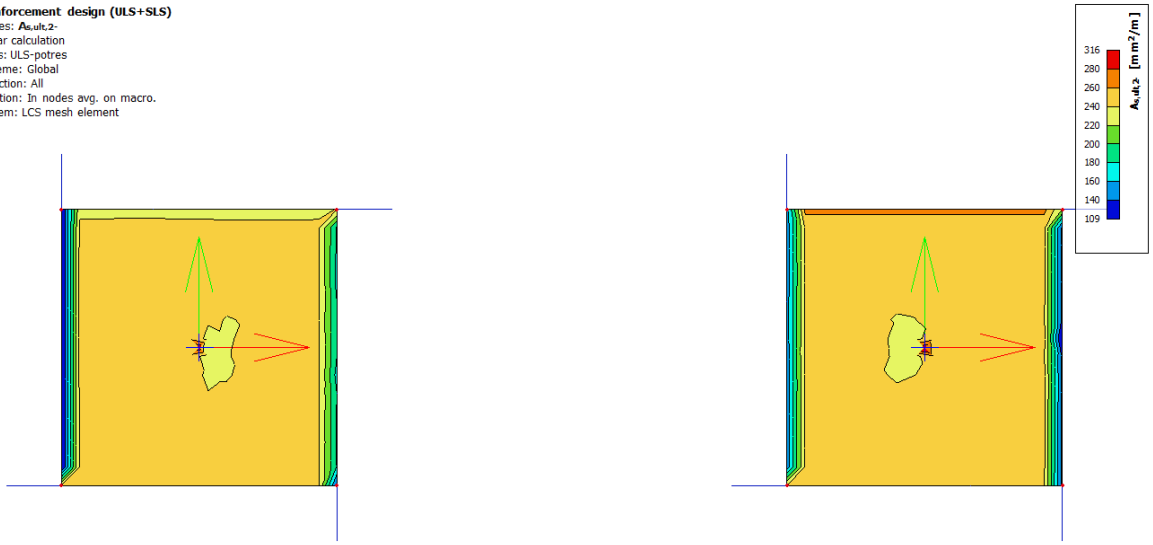
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



6. LESENA KRITINA

OSB3 vodoodporna plošča D=25mm

L = cca 0.90 m , nosilec preko dveh ali več polj (2xL, 3xL,…)

$q_{Ed,MSU}$ = 0.1+1.25 = 1.35 kN/m^2

AGEPAN® OSB/3 | TECHNISCHE DATEN

Zulässige Flächenlast q_{max} [kN/m²]
Zweifeldträger beidseitig belastet, Durchbiegungsbeschränkung l/300

	12	15	18	22	25
l (m)			Dicke (in mm)		
0,20	22,01	34,41	47,41	70,85	91,52
0,25	14,06	21,99	30,30	45,30	58,52
0,30	9,74	15,24	21,01	31,42	40,59
0,35	7,14	11,18	15,41	23,05	29,78
0,40	5,45	8,54	11,77	17,61	22,77
0,45	4,22	6,72	9,28	13,89	17,96
0,50	3,06	5,43	7,50	11,23	14,52
0,55	2,28	4,47	6,18	9,25	11,97
0,60	1,74	3,45	5,17	7,76	10,04
0,625	1,53	3,04	4,76	7,14	9,24
0,65	1,35	2,69	4,39	6,59	8,53
0,70	1,07	2,14	3,74	5,66	7,33
0,75	0,86	1,72	3,02	4,92	6,37
0,80	0,69	1,40	2,47	4,30	5,58
0,833	0,60	1,23	2,18	3,96	5,13
0,90	0,46	0,96	1,70	3,17	4,38
0,95	0,38	0,80	1,43	2,68	3,91
1,00	0,32	0,67	1,21	2,28	3,39

Max. zul. Flächenlast q_{max} gemäß Spannungsnachweis/Gebrauchstauglichkeit l = vorh. Unterstützungsabstand

7. DETAJLI

7.1. Sidranje KC120/10

Sidranje v AB točkovni temelj – naknadno lepljena sidra

HILTI HIT-HY 200 ali HY150

+ navojna palica M24 5.6 globina sidranja 300 mm

www.hilti.com

Profis Anchor 2.8.8

Company:		Page:	1
Specifier:		Project:	Domzale , Nadstresek 3
Address:		Fastening Point:	
Phone I Fax:	|	Date:	29/06/2021
E-Mail:			

Specifier's comments: Sidranje KC120/10 - steber, AB tockovni temelj

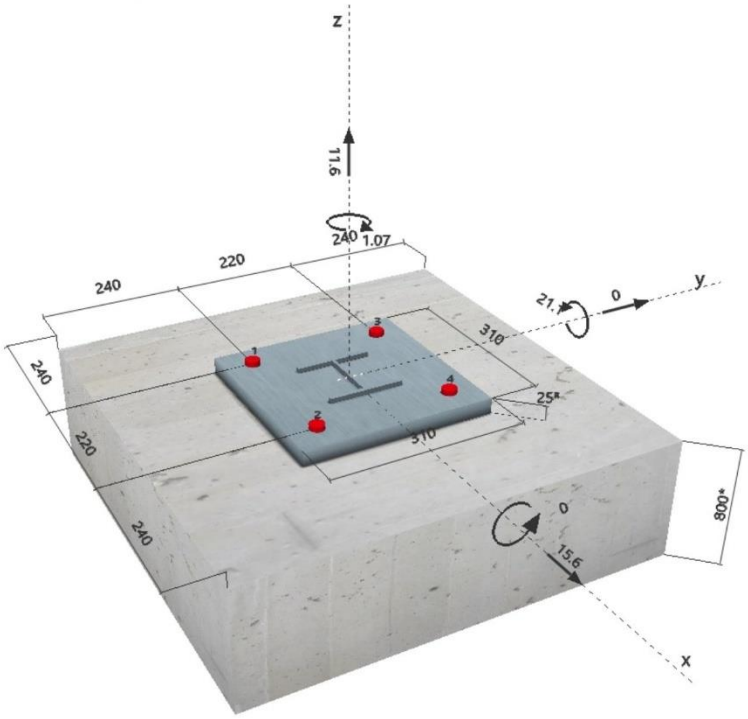
1 Input data



Anchor type and size:	**HIT-HY 150 MAX + HIT-V (5.8) M24**
Return period (service life in years):	50
Effective embedment depth:	$h_{ef,act}$ = 300 mm ($h_{ef,limit}$ = - mm)
Material:	5.8
Approval No.:	ETA 08/0352
Issued I Valid:	25/06/2018 | -
Proof:	Design method ETAG BOND (EOTA TR 029)
Stand-off installation:	e_b = 0 mm (no stand-off); t = 25 mm
Baseplate:	l_x x l_y x t = 310 mm x 310 mm x 25 mm; (Recommended plate thickness: not calculated
Profile:	IPBi/HEA, IPBI 120 / HE 120 A; (L x W x T x FT) = 114 mm x 120 mm x 5 mm x 8 mm
Base material:	uncracked concrete, C25/30, $f_{c,cube}$ = 30.00 N/mm^2; h = 800 mm, Temp. short/long: 40/24 °C
Installation:	**hammer drilled hole, Installation condition: Dry**
Reinforcement:	Reinforcement spacing < 150 mm (any Ø) or < 100 mm (Ø <= 10 mm) with longitudinal edge reinforcement d >= 12 + close mesh (stirrups, hangers) s <= 100 Reinforcement to control splitting according to EOTA TR 029, 5.2.2.6 present.

R - The anchor calculation is based on a rigid baseplate assumption.

Geometry [mm] & Loading [kN, kNm]



Input data and results must be checked for agreement with the existing conditions and for plausibility!
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2 Proof I Utilisation (Governing Cases)

		Design values [kN]		Utilisation	
Loading	**Proof**	**Load**	**Capacity**	**β_N / β_V [%]**	**Status**
Tension	Concrete cone failure	93.826	108.850	87 / -	OK
Shear	Concrete edge failure in direction x+	15.788	53.294	- / 30	OK

Loading	**β_N**	**β_V**	**α**	**Utilisation $\beta_{N,V}$ [%]**	**Status**
Combined tension and shear loads	0.862	0.296	1.5	97	OK

3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

4 Remarks; Your Cooperation Duties

- Any and all information and data contained in the Software concern solely the use of Hilti products and are based on the principles, formulas and security regulations in accordance with Hilti's technical directions and operating, mounting and assembly instructions, etc., that must be strictly complied with by the user. All figures contained therein are average figures, and therefore use-specific tests are to be conducted prior to using the relevant Hilti product. The results of the calculations carried out by means of the Software are based essentially on the data you put in. Therefore, you bear the sole responsibility for the absence of errors, the completeness and the relevance of the data to be put in by you. Moreover, you bear sole responsibility for having the results of the calculation checked and cleared by an expert, particularly with regard to compliance with applicable norms and permits, prior to using them for your specific facility. The Software serves only as an aid to interpret norms and permits without any guarantee as to the absence of errors, the correctness and the relevance of the results or suitability for a specific application.
- You must take all necessary and reasonable steps to prevent or limit damage caused by the Software. In particular, you must arrange for the regular backup of programs and data and, if applicable, carry out the updates of the Software offered by Hilti on a regular basis. If you do not use the AutoUpdate function of the Software, you must ensure that you are using the current and thus up-to-date version of the Software in each case by carrying out manual updates via the Hilti Website. Hilti will not be liable for consequences, such as the recovery of lost or damaged data or programs, arising from a culpable breach of duty by you.

Input data and results must be checked for agreement with the existing conditions and for plausibility!
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Sidranje v AB steno podhoda – predhodno vgrajena sidra 4xM24 5.6 – navojne palice

Detail S1: Control of anchoring rods

1 / 2

KC120/10 — Domzale, Nadstresek 3

Anchors		d (cm)	d_0 (cm)	A_s (cm^2)	A (cm^2)
	M24	2.4	2.6	3.53	4.52

Concrete f_{ck} (kN/cm^2) = 2.50
C25/30 $f_{ctk\,0,05}$ (kN/cm^2) = 0.18

grade	5.6
f_{ub} (kN/cm^2)	50
f_{yb} (kN/cm^2)	30
num. of anchors	1

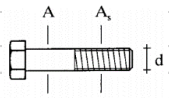
Anchoring plate t (cm)= 2.50
S235 f_u (kN/cm^2)= 36.0

obravnavam eno sidro

k= 1 — k=0,85 carved later; k=1,0 standard manufactured bolts, rods

γ_{M2}= 1.25
γ_C= 1.5

share plane: 1 — 1 - share plane A_S; 2 - share plane A



factor: 0.5 — 0,6 for shear plane A; 0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S; 0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S

Shear resistance: $F_{v,Rd} = k*0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$ — $F_{v,Ed} / F_{v,Rd} < 1,0$ — $F_{Rv,Ed} = (Fx^2+Fy^2)^{0,5}$

$F_{v,Rd}$ = 70.6 kN

$F_{vb,Rd} = \alpha_b*f_{ub}*A_s/\gamma_{M2}$ — $\alpha_b = 0,44 - 0,0003*f_{yb}$

$F_{vb,Rd}$ = 49.4 kN

min $F_{v,Rd}$ = 49.4 kN

Tension resistance $F_{t,Rd} = k*0,9*f_{ub}*A_s/\gamma_{M2}$ — $F_{t,Ed} / F_{t,Rd} < 1,0$ — $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / (1,4\ F_{t,Rd})) < 1,0$

$F_{t,Rd}$ = 127.1 kN

Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ — $F_{b,Ed} / F_{b,Rd} < 1,0$

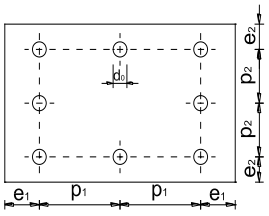
$F_{b,Rd}$ = 289.4 kN

	usual values		I choose	
$e_1=2*d_o$	e_1 (cm)=	5.20	e_1 (cm)=	4.40
$p_1=3*d_o$	p_1 (cm)=	7.80	p_1 (cm)=	6.60
$e_2=1,5*d_o$	e_2 (cm)=	3.90	e_2 (cm)=	3.30
$p_2=3*d_o$	p_2 (cm)=	7.80	p_2 (cm)=	6.60

		in loading direction			orthogonal to loading direction		
outter anchor	→	$\alpha_d=e_1/3d_o$	$\alpha_{d,outter}$=	0.56	$k_1=\min(2,8*e_2/d_o-1,7\le 2,5;\ 1,4*p_2/d_o-1,7\le 2,$	$k_{1,outter}$=	1.85
inner anchor	→	$\alpha_d=p_1/3d_o$ - 1/4	$\alpha_{d,inner}$=	0.60	$k_1=1,4*p_2/d_o-1,7\le 2,5$	$k_{1,inner}$=	2.50

α_d= 0.67 — $\alpha_b=\min(\alpha_d;\ f_{ub}/f_u;\ 1,0)$ α_b= 0.67 — k_1= 2.50

loading direction ← →



Anchoring length: 2 / 2

$l_{b,req.} = \alpha_1 * F_{t,Ed} / (\pi * d * f_{bd})$ η_1 = 1…good anchoring conditions η_2 = 1 d ≤ 32 mm

η_1 = 1 0,7…poor anchoring conditions μ_2=(132-d)/100 η_2 = 1.08 d > 32 mm

η_2 = 1

α_1 = 1 α_1 = 0,7...bent rods or additional anchoring plates

1...straight rod

ribbed rebar (threaded rods) … EC2

$f_{bd} = 2{,}25 * \eta_1 * \eta_2 * f_{ctd}$ f_{bd} (kN/cm^2) = 0.27 $f_{ctd} = \alpha_{ct} * f_{ctk,0,05} / \gamma_c$

α_{ct}= 1.00

plain rods … Tabel 5.3 or Equation 5.1, ENV 1992-1-1, for plain (smooth) rebar

f_{bd} (MPa) = $(0{,}36 * (f_{ck})^{0,5}) / \gamma_c$ ...(f_{ck} in f_{bd} v MPa) f_{bd} (kN/cm^2) = 0.12

I choose f_{bd} (kN/cm^2) = 0.27 threaded rods with thread along the entire lenght

obremenitve na eno sidro

(+) tension

F_X	F_Y	F_Z	$F_{Rv,Ed}$	$F_{v,Ed}$	$F_{v,Ed}/F_{v,Rd}$	$F_{b,Ed}/F_{b,Rd}$	$F_{t,Ed}$	$F_{t,Ed}/F_{t,Rd}$	inter.	$l_{b,req.}$ (cm)	
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0	
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0	
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0	
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0	
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0	
3.9	3.9	109.0	5.5	5.5	0.11	0.02	109.0	0.86	0.72	54	max
(kN)				max.	0.11	0.02		0.86	0.72	54	

Zaradi manjšega razmaka med sidri pri sidranju v AB stene podhoda (predhodno vgrajena sidra 4xM24 5.6 ali 5.8 - navojne palice) je pri izračunu potrebne sidrne dolžine (glej zgoraj) upoštevana povečana izvlečna sila na sidra glede na predhodno obravnavana lepljena HILTI sidra, ki se uporabijo za sidranje v nov AB točkovni temelj.

Obremenitve na 1 sidro (ovojnica obremenitev):

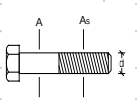
N_{Ed} = 11.6/4+2103/10/2 = 109 kN
V_{Ed} = 15.6/4 = 3.9 kN

Obvezna uporaba navojnih palic kvalitete 5.6 ali 5.8. Navojne palice 8.8 se ne smejo uporabiti zaradi predvidenega varjenja navojnih palic na (v) ležiščno pločevino.

7.2. Priključek KC120/5.6

Detail D1: Bolted moment resistance joint 1 / 2

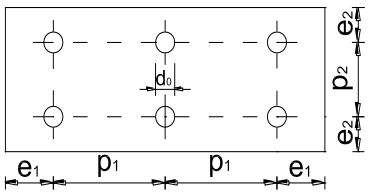
KC120/5.6/steber		**Močna os**			Domažale, Nadsteršek 3			**Plate**	
Bolts		d(cm)	d_0 (cm)	$As(cm^2)$	$A(cm^2)$			grade	235
	M16	1.6	1.8	1.57	2.01	navojne palice		s (cm)=	1.5
grade		8.8						$f_u(kN/cm^2)$=	36
$f_{ub}(kN/cm^2)$		80							
shear plane		1	1 - share plane A_S					γ_{M0}=	1.00
			2 - share plane A					γ_{M2}=	1.25
factor		0.6	0,6 for shear plane A						
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S						
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S						



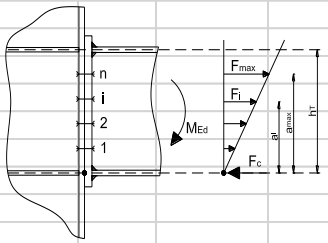
Shear resistance:	$F_{v,Rd} = 0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$			$F_{v,Ed} / F_{v,Rd} < 1,0$	
	$F_{v,Rd}$ =	60.3	kN		
					interaction V - M
Tension resistance	$F_{t,Rd} = 0,9*f_{ub}*A_s/\gamma_{M2}$			$F_{t,Ed} / F_{t,Rd} < 1,0$	$(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1,4 < 1,0$
	$F_{t,Rd}$ =	90.4	kN		
Bearing resistance	$F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$			$F_{b,Ed} / F_{b,Rd} < 1,0$	
	$F_{b,Rd}$ =	115.8	kN		

		usual values				I choose			
	$e_1=2*d_o$	e_1 (cm)=	3.60		e_1 (cm)=	3.60			
	$p_1=3*d_o$	p_1 (cm)=	5.40		p_1 (cm)=	5.40			
	$e_2=1,5*d_o$	e_2 (cm)=	2.70		e_2 (cm)=	2.70			
	$p_2=3*d_o$	p_2 (cm)=	5.40		p_2 (cm)=	5.40			
		in loading direction				orthogonal to loading direction			
outter ancho	→	$\alpha_d=e_1/3d_o$		$\alpha_{d,outter}$=	0.67	$k_1=min(2,8*e_2/d_o-1,7\leq 2,5; 1,4*p_2/d_o-1,7\leq 2,5)$		$k_{1,outter}$=	2.50
inner ancho	→	$\alpha_d=p_1/3d_o$ - 1/4		$\alpha_{d,inner}$=	0.75	$k_1=1,4*p_2/d_o-1,7\leq 2,5$		$k_{1,inner}$=	2.50
				α_d=	0.67	$\alpha_b=min(\alpha_d; f_{ub}/f_u; 1,0)$	α_b=	0.67	k_1= 2.50

load direction ← →



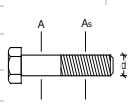
num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load				load of maximal loaded bolt							
$M_{Ed,y}$=	875	kNcm		$F_{t,Ed,M}$=	36.46	kN		check			
N_{Ed} =	16	kN	(+) tension	$F_{t,Ed,N}$=	4.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.447	OK	
$V_{Ed,z}$ =	15	kN		$F_{v,Ed}$=	3.75	kN		$F_{v,Ed}/F_{v,Rd}$=	0.062	OK	
								interaction =	0.382	OK	
								$F_{v,Ed}/F_{b,Rd}$=	0.032	OK	
num. of bolts in line		$n_{vij.v vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	0.00	0.0									
2	12.00	144.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	144.0	cm^2									
a_{max}=	12	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	2170	kNcm									
Obojstranski koti zvari				a = 0.6 x t		polnonosilni					



Detail D2.0: Bolted moment resistance joint

KC120/5.6/steber | **Šibka os** | Domzale, Nadstresek 3 | **Plate**

Bolts	d(cm)	d_0(cm)	$As(cm^2)$	$A(cm^2)$		**grade**	235
M16	1.6	1.8	1.57	2.01	navojne palice	**s (cm)=**	1.5
grade	8.8					**f_u(kN/cm²)=**	36
f_{ub}(kN/cm²)	80						



shear plane	1	1 - share plane A_S	**γ_{M0}=** 1.00
		2 - share plane A	**γ_{M2}=** 1.25
factor	0.6	0,6 for shear plane A	
		0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S	
		0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S	

Shear resistance: $F_{v,Rd} = 0{,}6(0{,}5)*f_{ub}*A_S(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1{,}0$

$F_{v,Rd}$ = 60.3 kN

interaction V - M

Tension resistance $F_{t,Rd} = 0{,}9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1{,}0$ | $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1{,}4 < 1{,}0$

$F_{t,Rd}$ = 90.4 kN

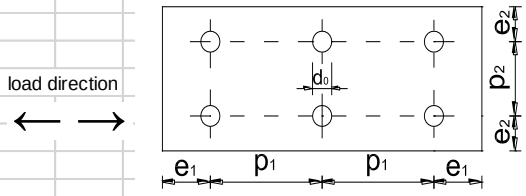
Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1{,}0$

$F_{b,Rd}$ = 115.8 kN

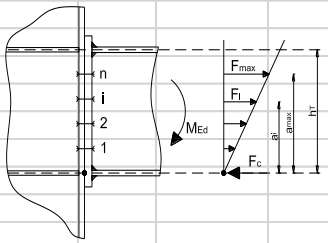
		usual values		I choose
$e_1=2*d_o$	e_1(cm)=	3.60	e_1(cm)=	3.60
$p_1=3*d_o$	p_1(cm)=	5.40	p_1(cm)=	5.40
$e_2=1{,}5*d_o$	e_2(cm)=	2.70	e_2(cm)=	2.70
$p_2=3*d_o$	p_2(cm)=	5.40	p_2(cm)=	5.40

		in loading direction			orthogonal to loading direction			
outter ancho	→	$\alpha_d=e_1/3d_o$	$\alpha_{d,outter}$=	0.67	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)		$k_{1,outter}$=	2.50
inner ancho	→	$\alpha_d=p_1/3d_o$ - 1/4	$\alpha_{d,inner}$=	0.75	k_1=1,4*p_2/d_o-1,7≤ 2,5		$k_{1,inner}$=	2.50
			α_d=	0.67	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	α_b= 0.67	k_1=	2.50

load direction



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	650	kNcm			$F_{t,Ed,M}$=	40.63	kN		check		
N_{Ed} =	16	kN	(+) tension		$F_{t,Ed,N}$=	4.00	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.493	OK
$V_{Ed,z}$ =	16	kN			$F_{v,Ed}$=	4.00	kN		$F_{v,Ed}/F_{v,Rd}$=	0.066	OK
									interaction =	0.419	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.035	OK
num. of bolts in line		$n_{vij.v\ vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	0.00	0.0									
2	8.00	64.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	64.0	cm^2									
a_{max}=	8	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	1447	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					



močna + šibka os

nateg	0.447+0.493 = 0.94 < 1.0
strig	0.062+0.066 = 0.13 < 1.0
interakcija	0.382+0.419 = 0.81 < 1.0
bočni pritisk	0.032+0.035 = 0.07 < 1.0

H I Š A, NAČRTOVANJE IN SVETOVANJE, d.o.o.
Ukmarjeva ulica 4, 1000 Ljubljana

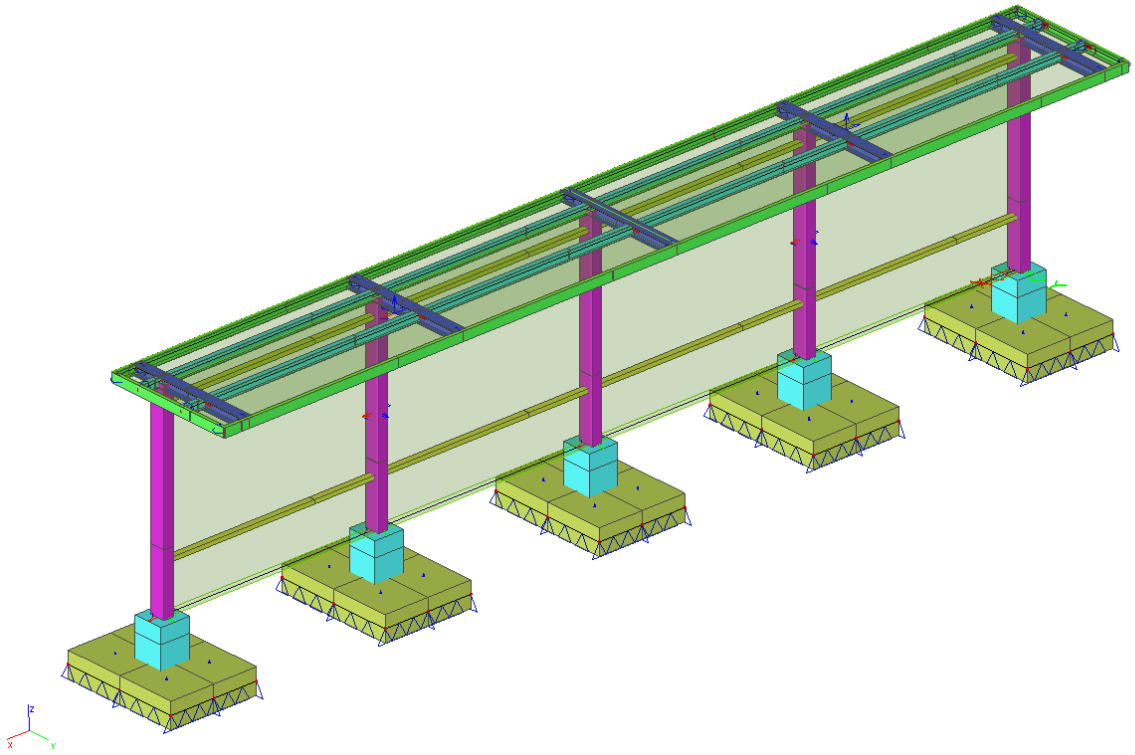
NADSTREŠEK 4

Železniška postaja Domžale

ANALIZA KONSTRUKCIJE

Faza: IZN

Revizija:0



Julij 2021

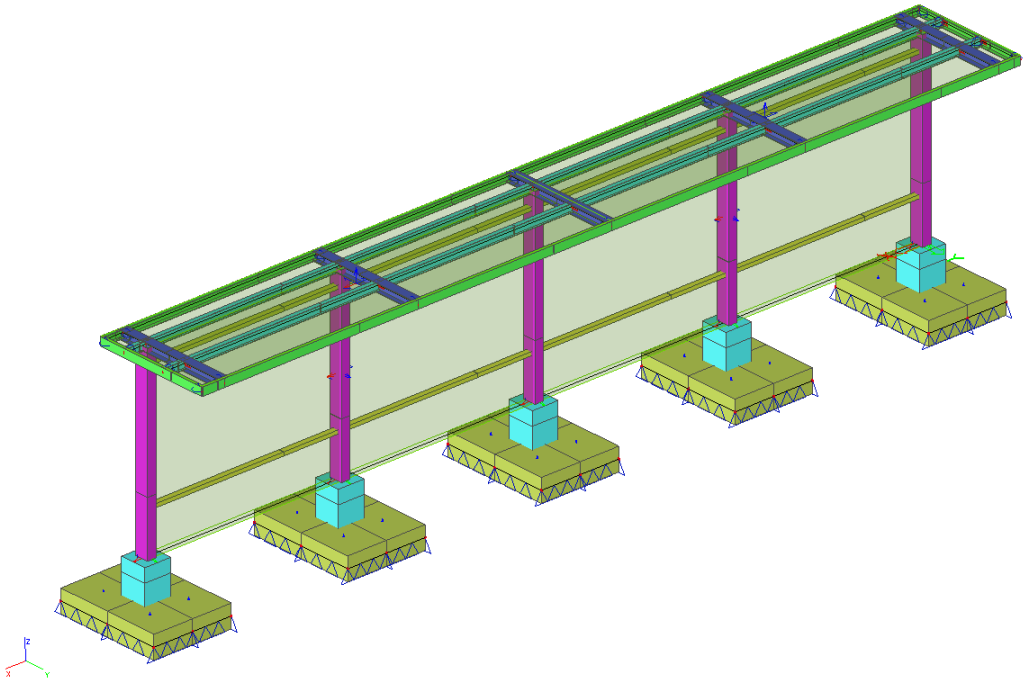
Računal:
Dr. Leon Hladnik, udig G-0296.

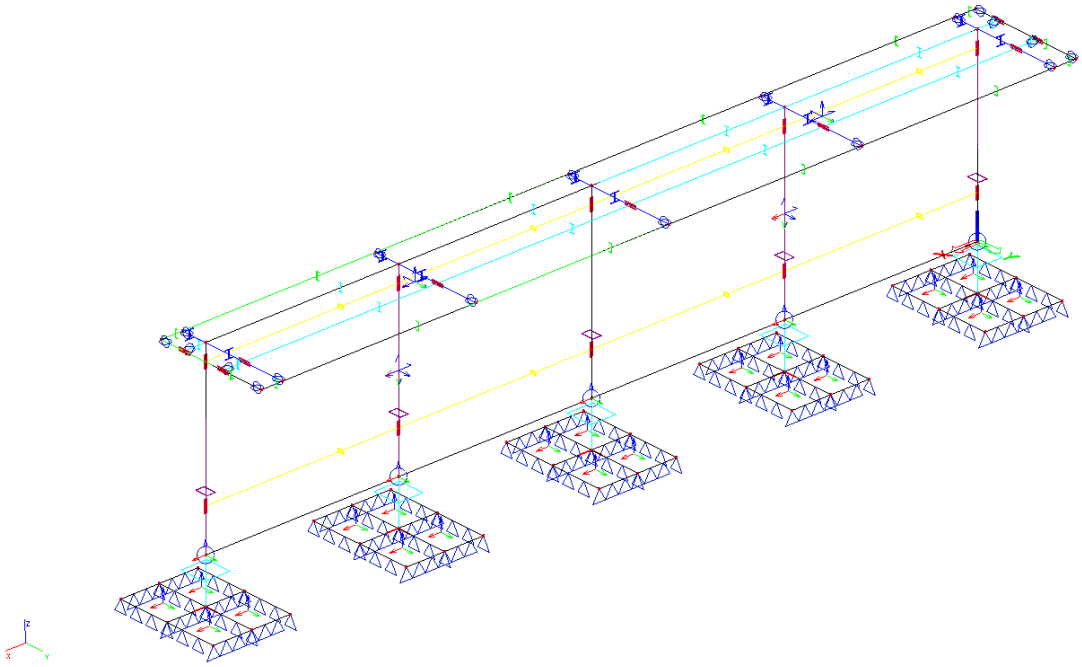
KAZALO

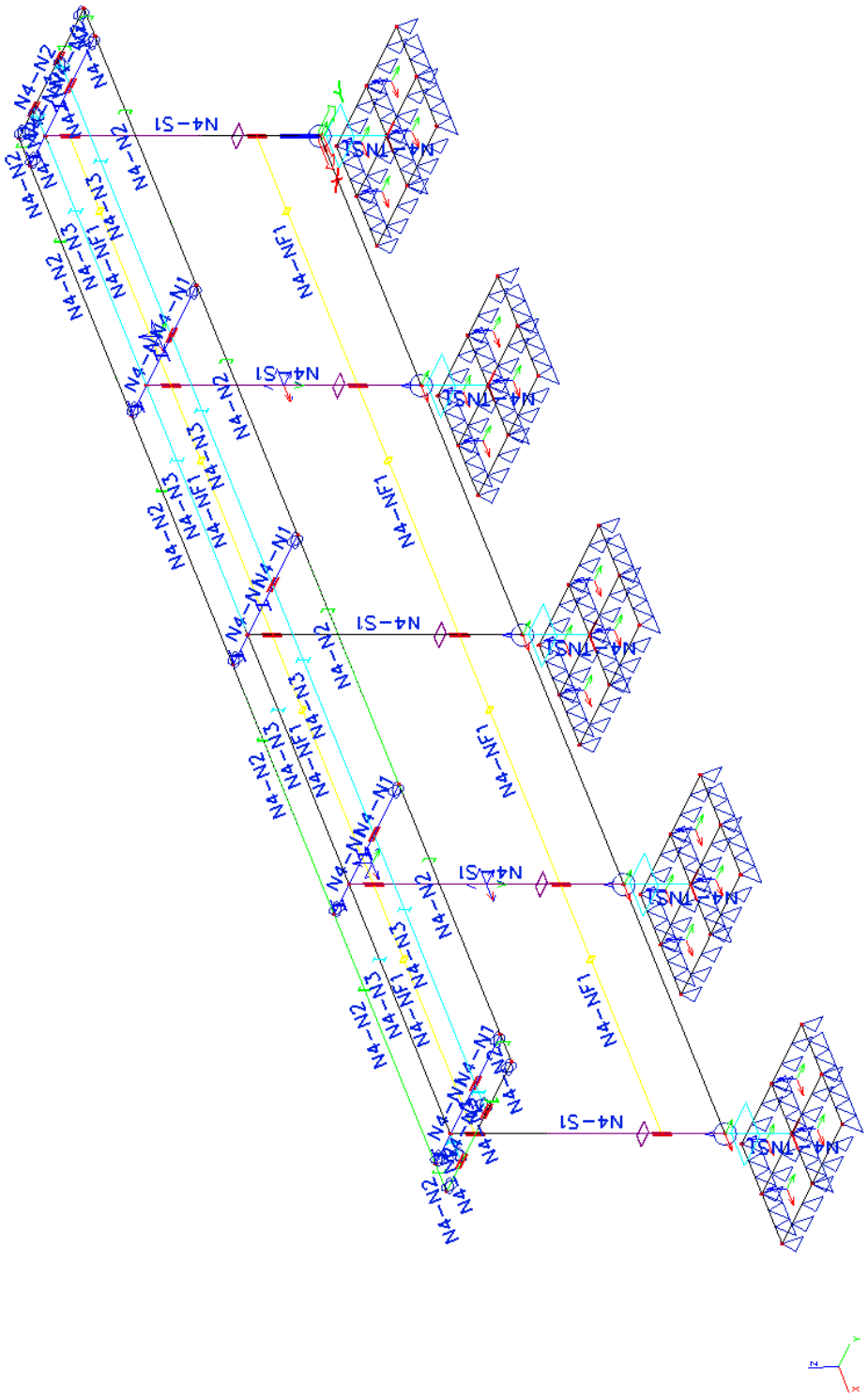
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1. RAČUNSKI MODEL

1.1. Statični model






N4-S1
TSNL-N4
N4-NF1
N4-N2
N4-N3
N4-N1
N4-NN4-N1

1.2. Podatki o modelu

1. Bill of material

Selection: All
Type of sorting: Material

Summary

Material	Mass [kg]	Surface [m²]	Volume [m³]
Steel	4038.00	101.254	5.1439e-01
Concrete	31500.00	33.600	1.2600e+01
Total	35538.00	134.854	1.3114e+01

Note: Value 'Surface' represents for 1D members the total exposed surface area, while for 2D members it corresponds only to the surface area of the centroidal plane.

Steel (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
S 235	7850.00	4038.00	101.254	5.1439e-01
Total		4038.00	101.254	5.1439e-01

Concrete (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	4500.00	12.000	1.8000e+00
Total		4500.00	12.000	1.8000e+00

Concrete (2D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	27000.00	21.600	1.0800e+01
Total		27000.00	21.600	1.0800e+01

2. Materials

Steel EC3

Name	ρ [kg/m³]	E_{mod} [MPa]	μ	Lower limit [mm]	Upper limit [mm]	F_y [kN/cm²]	F_u [kN/cm²]	Colour
		G_{mod} [MPa]	α [m/mK]					
S 235	7850.00	2.1000e+05	0.3	0	100	23.5	36.0	
		8.0769e+04	0.00					

Name	Type	ρ [kg/m³]	Density in fresh state [kg/m³]	E_{mod} [MPa]	μ	α [m/mK]	$f_{c.k.28}$ [MPa]	Colour
C25/30	Concrete	2500.00	2600.00	3.1500e+04	0.2	0.00	25.00	

Explanations of symbols	
Density in fresh state	The value in the density in fresh state property is used only in case a composite deck is input and its self-weight load is taken into account.

3. Cross-sections

Name	Type	Item material	Fabrication	A [m²]	A_y [m²]	I_y [m⁴]	$W_{el.y}$ [m³]	$W_{pl.y}$ [m³]	Colour
	Detailed				A_z [m²]	I_z [m⁴]	$W_{el.z}$ [m³]	$W_{pl.z}$ [m³]	
N4-NF1	CFRHS120X80X6	S 235	rolled	2.1630e-03	8.6463e-04	4.0606e-06	6.7680e-05	8.4250e-05	
					1.2969e-03	2.1503e-06	5.3760e-05	6.3550e-05	
N4-N1	HEA200	S 235	rolled	5.3800e-03	3.8781e-03	3.6900e-05	3.8900e-04	4.2917e-04	
					1.3287e-03	1.3400e-05	1.3400e-04	2.0375e-04	
N4-S1	CFRHS300X200X8	S 235	rolled	7.5240e-03	3.0081e-03	9.3893e-05	6.2595e-04	7.5707e-04	
					4.5121e-03	5.0417e-05	5.0417e-04	5.7446e-04	
N4-N2	UNP180	S 235	rolled	2.8000e-03	1.4920e-03	1.3500e-05	1.5000e-04	1.7920e-04	
					1.4353e-03	1.1400e-06	2.2400e-05	4.2900e-05	
N4-N3	IPE180	S 235	rolled	2.3900e-03	1.4865e-03	1.3170e-05	1.4600e-04	1.6600e-04	
					9.6640e-04	1.0100e-06	2.2200e-05	3.4600e-05	
N4-TNS1	Rectangle	C25/30	concrete	3.6000e-01	3.0037e-01	1.0800e-02	3.6000e-02	0.0000e+00	
	600; 600				3.0037e-01	1.0800e-02	3.6000e-02	0.0000e+00	

4. Nodes

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2691	0.000	0.000	0.000
N2692	0.000	0.000	4.115
N2693	0.000	-0.600	4.115
N2694	0.000	2.000	4.115
N2695	0.000	0.000	-1.000
N2696	0.900	0.000	-1.000
N2697	-0.900	0.000	-1.000
N2698	-0.900	-1.200	-1.000
N2699	0.000	-1.200	-1.000
N2700	0.900	-1.200	-1.000
N2701	0.900	1.200	-1.000
N2702	0.000	1.200	-1.000
N2703	-0.900	1.200	-1.000
N2704	0.000	1.000	4.115
N2705	4.500	0.000	0.000
N2706	4.500	0.000	4.115
N2707	4.500	-0.600	4.115
N2708	4.500	2.000	4.115
N2718	4.500	1.000	4.115
N2719	9.000	0.000	0.000
N2720	9.000	0.000	4.115
N2721	9.000	-0.600	4.115
N2722	9.000	2.000	4.115
N2732	9.000	1.000	4.115
N2733	13.500	0.000	0.000
N2734	13.500	0.000	4.115
N2735	13.500	-0.600	4.115
N2736	13.500	2.000	4.115
N2746	13.500	1.000	4.115
N2747	18.000	0.000	0.000
N2748	18.000	0.000	4.115

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2749	18.000	-0.600	4.115
N2750	18.000	2.000	4.115
N2760	18.000	1.000	4.115
N2761	18.500	-0.600	4.115
N2762	18.500	0.000	4.115
N2763	18.500	1.000	4.115
N2764	18.500	2.000	4.115
N2765	-0.500	2.000	4.115
N2766	-0.500	1.000	4.115
N2767	-0.500	0.000	4.115
N2768	-0.500	-0.600	4.115
N1	4.500	0.000	3.750
N2793	9.000	0.000	3.750
N2794	4.500	0.000	0.950
N2795	9.000	0.000	0.950
N2796	13.500	0.000	0.950
N2797	13.500	0.000	3.750
N2798	18.000	0.000	0.950
N2799	18.000	0.000	3.750
N2800	0.000	0.000	0.950
N2801	0.000	0.000	3.750
N2802	4.500	0.000	-1.000
N2803	5.400	0.000	-1.000
N2804	3.600	0.000	-1.000
N2805	3.600	-1.200	-1.000
N2806	4.500	-1.200	-1.000
N2807	5.400	-1.200	-1.000
N2808	5.400	1.200	-1.000
N2809	4.500	1.200	-1.000
N2810	3.600	1.200	-1.000
N2811	9.000	0.000	-1.000
N2812	9.900	0.000	-1.000
N2813	8.100	0.000	-1.000
N2814	8.100	-1.200	-1.000
N2815	9.000	-1.200	-1.000
N2816	9.900	-1.200	-1.000
N2817	9.900	1.200	-1.000
N2818	9.000	1.200	-1.000
N2819	8.100	1.200	-1.000
N2820	13.500	0.000	-1.000
N2821	14.400	0.000	-1.000
N2822	12.600	0.000	-1.000
N2823	12.600	-1.200	-1.000
N2824	13.500	-1.200	-1.000
N2825	14.400	-1.200	-1.000
N2826	14.400	1.200	-1.000
N2827	13.500	1.200	-1.000
N2828	12.600	1.200	-1.000
N2829	18.000	0.000	-1.000
N2830	18.900	0.000	-1.000
N2831	17.100	0.000	-1.000
N2832	17.100	-1.200	-1.000
N2833	18.000	-1.200	-1.000
N2834	18.900	-1.200	-1.000
N2835	18.900	1.200	-1.000
N2836	18.000	1.200	-1.000
N2837	17.100	1.200	-1.000

5. Members

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B2300	N4-S1 - CFRHS300X200X8	S 235	4.115	N2691	N2692	column (100)
B2301	N4-N1 - HEA200	S 235	0.600	N2693	N2692	beam (80)
B2302	N4-N1 - HEA200	S 235	2.000	N2692	N2694	beam (80)
B2303	N4-S1 - CFRHS300X200X8	S 235	4.115	N2705	N2706	column (100)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B2304	N4-N1 - HEA200	S 235	0.600	N2707	N2706	beam (80)
B2305	N4-N1 - HEA200	S 235	2.000	N2706	N2708	beam (80)
B2306	N4-S1 - CFRHS300X200X8	S 235	4.115	N2719	N2720	column (100)
B2307	N4-N1 - HEA200	S 235	0.600	N2721	N2720	beam (80)
B2308	N4-N1 - HEA200	S 235	2.000	N2720	N2722	beam (80)
B2309	N4-S1 - CFRHS300X200X8	S 235	4.115	N2733	N2734	column (100)
B2310	N4-N1 - HEA200	S 235	0.600	N2735	N2734	beam (80)
B2311	N4-N1 - HEA200	S 235	2.000	N2734	N2736	beam (80)
B2312	N4-S1 - CFRHS300X200X8	S 235	4.115	N2747	N2748	column (100)
B2313	N4-N1 - HEA200	S 235	0.600	N2749	N2748	beam (80)
B2314	N4-N1 - HEA200	S 235	2.000	N2748	N2750	beam (80)
B2315	N4-N2 - UNP180	S 235	4.500	N2693	N2707	beam (80)
B2316	N4-N3 - IPE180	S 235	4.500	N2692	N2706	beam (80)
B2317	N4-N3 - IPE180	S 235	4.500	N2704	N2718	beam (80)
B2318	N4-N2 - UNP180	S 235	4.500	N2694	N2708	beam (80)
B2319	N4-N2 - UNP180	S 235	4.500	N2707	N2721	beam (80)
B2320	N4-N3 - IPE180	S 235	4.500	N2706	N2720	beam (80)
B2321	N4-N3 - IPE180	S 235	4.500	N2718	N2732	beam (80)
B2322	N4-N2 - UNP180	S 235	4.500	N2708	N2722	beam (80)
B2323	N4-N2 - UNP180	S 235	4.500	N2721	N2735	beam (80)
B2324	N4-N3 - IPE180	S 235	4.500	N2720	N2734	beam (80)
B2325	N4-N3 - IPE180	S 235	4.500	N2732	N2746	beam (80)
B2326	N4-N2 - UNP180	S 235	4.500	N2722	N2736	beam (80)
B2327	N4-N2 - UNP180	S 235	4.500	N2735	N2749	beam (80)
B2328	N4-N3 - IPE180	S 235	4.500	N2734	N2748	beam (80)
B2329	N4-N3 - IPE180	S 235	4.500	N2746	N2760	beam (80)
B2330	N4-N2 - UNP180	S 235	4.500	N2736	N2750	beam (80)
B2331	N4-N2 - UNP180	S 235	0.500	N2749	N2761	beam (80)
B2332	N4-N3 - IPE180	S 235	0.500	N2748	N2762	beam (80)
B2333	N4-N3 - IPE180	S 235	0.500	N2760	N2763	beam (80)
B2334	N4-N2 - UNP180	S 235	0.500	N2750	N2764	beam (80)
B2335	N4-N2 - UNP180	S 235	0.500	N2765	N2694	beam (80)
B2336	N4-N3 - IPE180	S 235	0.500	N2766	N2704	beam (80)
B2337	N4-N3 - IPE180	S 235	0.500	N2767	N2692	beam (80)
B2338	N4-N2 - UNP180	S 235	0.500	N2768	N2693	beam (80)
B2339	N4-N2 - UNP180	S 235	2.600	N2765	N2768	beam (80)
B2340	N4-N2 - UNP180	S 235	2.600	N2764	N2761	beam (80)
B2341	N4-NF1 - CFRHS120X80X6	S 235	4.500	N1	N2793	beam (80)
B2342	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2794	N2795	beam (80)
B2343	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2795	N2796	beam (80)
B2344	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2793	N2797	beam (80)
B2345	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2796	N2798	beam (80)
B2346	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2797	N2799	beam (80)
B2347	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2800	N2794	beam (80)
B2348	N4-NF1 - CFRHS120X80X6	S 235	4.500	N2801	N1	beam (80)
B2349	N4-TNS1 - Rectangle (600; 600)	C25/30	1.000	N2691	N2695	beam (80)
B2350	N4-TNS1 - Rectangle (600; 600)	C25/30	1.000	N2705	N2802	beam (80)
B2351	N4-TNS1 - Rectangle (600; 600)	C25/30	1.000	N2719	N2811	beam (80)
B2352	N4-TNS1 - Rectangle (600; 600)	C25/30	1.000	N2733	N2820	beam (80)
B2353	N4-TNS1 - Rectangle (600; 600)	C25/30	1.000	N2747	N2829	beam (80)

6. 2D members

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S77	konstrukcija	plate (90)	Standard	C25/30	constant	500
S78	konstrukcija	plate (90)	Standard	C25/30	constant	500
S79	konstrukcija	plate (90)	Standard	C25/30	constant	500
S80	konstrukcija	plate (90)	Standard	C25/30	constant	500
S81	konstrukcija	plate (90)	Standard	C25/30	constant	500
S82	konstrukcija	plate (90)	Standard	C25/30	constant	500
S83	konstrukcija	plate (90)	Standard	C25/30	constant	500
S84	konstrukcija	plate (90)	Standard	C25/30	constant	500
S85	konstrukcija	plate (90)	Standard	C25/30	constant	500
S86	konstrukcija	plate (90)	Standard	C25/30	constant	500
S87	konstrukcija	plate (90)	Standard	C25/30	constant	500

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S88	konstrukcija	plate (90)	Standard	C25/30	constant	500
S89	konstrukcija	plate (90)	Standard	C25/30	constant	500
S90	konstrukcija	plate (90)	Standard	C25/30	constant	500
S91	konstrukcija	plate (90)	Standard	C25/30	constant	500
S92	konstrukcija	plate (90)	Standard	C25/30	constant	500
S93	konstrukcija	plate (90)	Standard	C25/30	constant	500
S94	konstrukcija	plate (90)	Standard	C25/30	constant	500
S95	konstrukcija	plate (90)	Standard	C25/30	constant	500
S96	konstrukcija	plate (90)	Standard	C25/30	constant	500

7. Hinges

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H484	B2301	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H485	B2304	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H486	B2307	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H487	B2310	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H488	B2313	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H489	B2332	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H490	B2333	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H491	B2337	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H492	B2336	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H493	B2314	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H494	B2311	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H495	B2308	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H496	B2305	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H497	B2302	End	Rigid	Rigid	Rigid	Rigid	Free	Free
H498	B2339	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H499	B2340	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

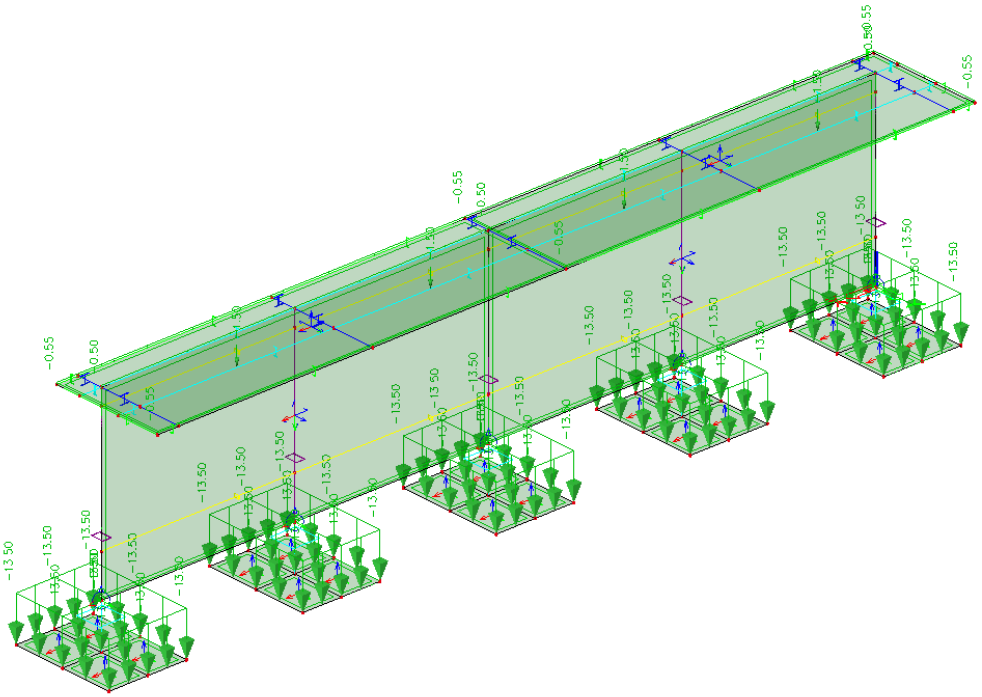
2. OBTEŽBE IN OBTEŽNE KOMBINACIJE

2.1. Obtežbe

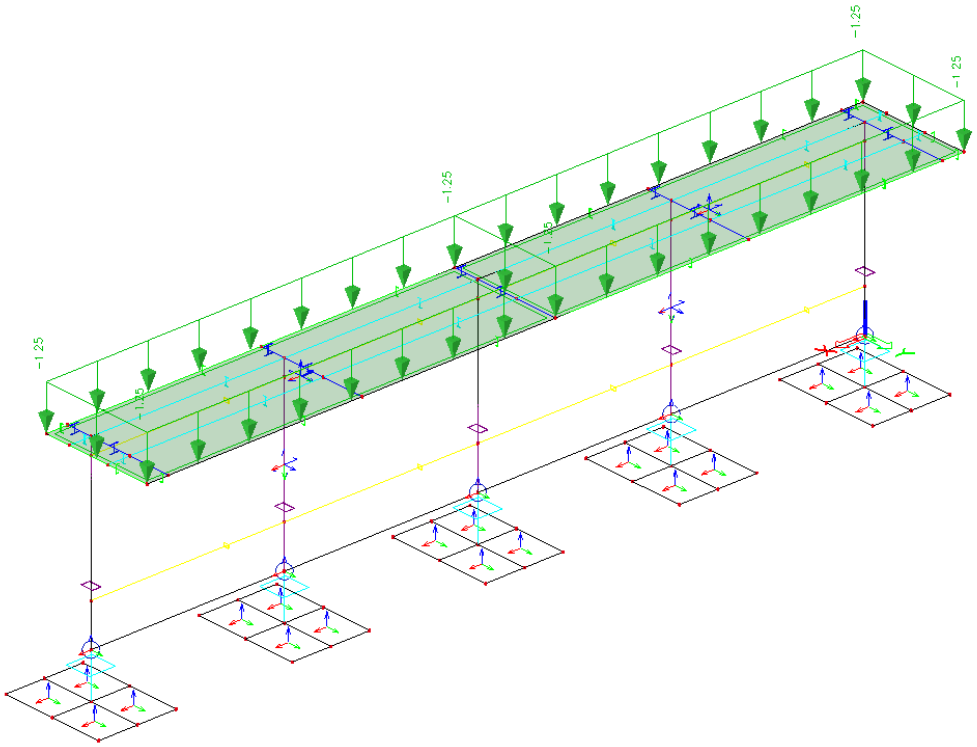
10. Load cases

Name	Description	Action type	Load group	Direction	Duration	Master load case
	Spec	Load type				
lastna		Permanent	L	-Z		
		Self weight				
stalna		Permanent	L			
		Standard				
sneg		Variable	S		Short	None
	Standard	Static				
horiz. ograja		Variable	HO		Short	None
	Standard	Static				
W x		Variable	Wxy		Short	None
	Standard	Static				
W -x		Variable	Wxy		Short	None
	Standard	Static				
W y		Variable	Wxy		Short	None
	Standard	Static				
W -y		Variable	Wxy		Short	None
	Standard	Static				
potres X		Variable	Ex			None
	Seismicity	Dynamic				
potres Y		Variable	Ey			None
	Seismicity	Dynamic				
W pritisk streha		Variable	Wps		Short	None
	Standard	Static				
W srk streha		Variable	Wps		Short	None
	Standard	Static				
Aeropri-1		Variable	aer		Short	None
	Standard	Static				
Aeropri-2		Variable	aer		Short	None
	Standard	Static				
sneg-s1		Variable	S		Short	None
	Standard	Static				
sneg-s2		Variable	S		Short	None
	Standard	Static				

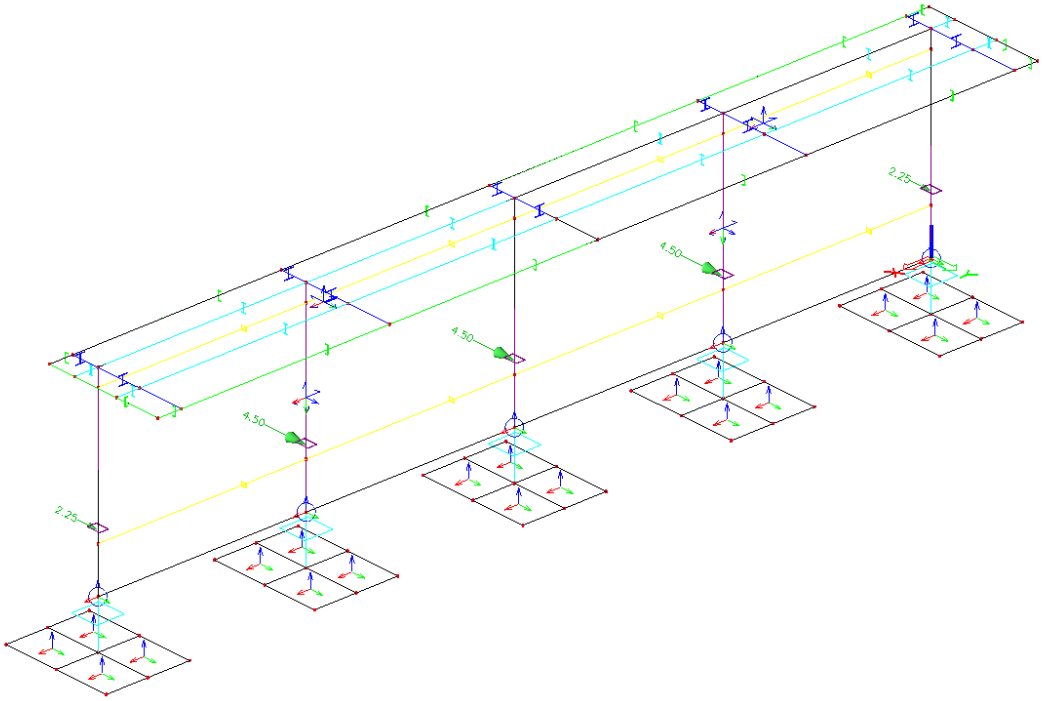
stalna



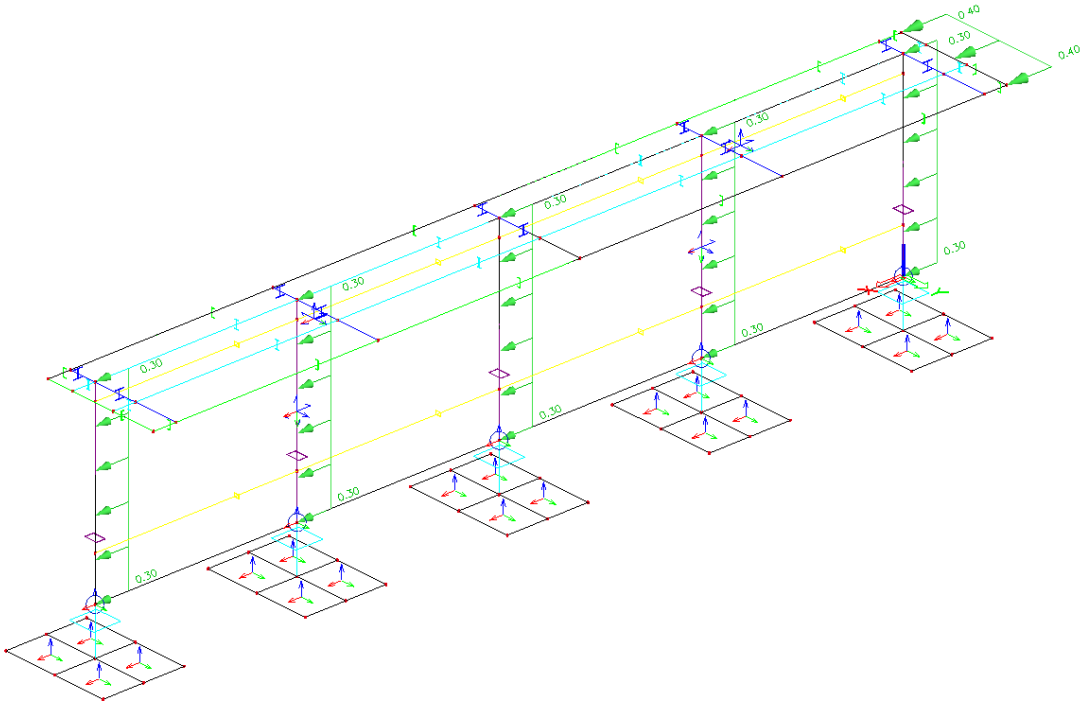
sneg



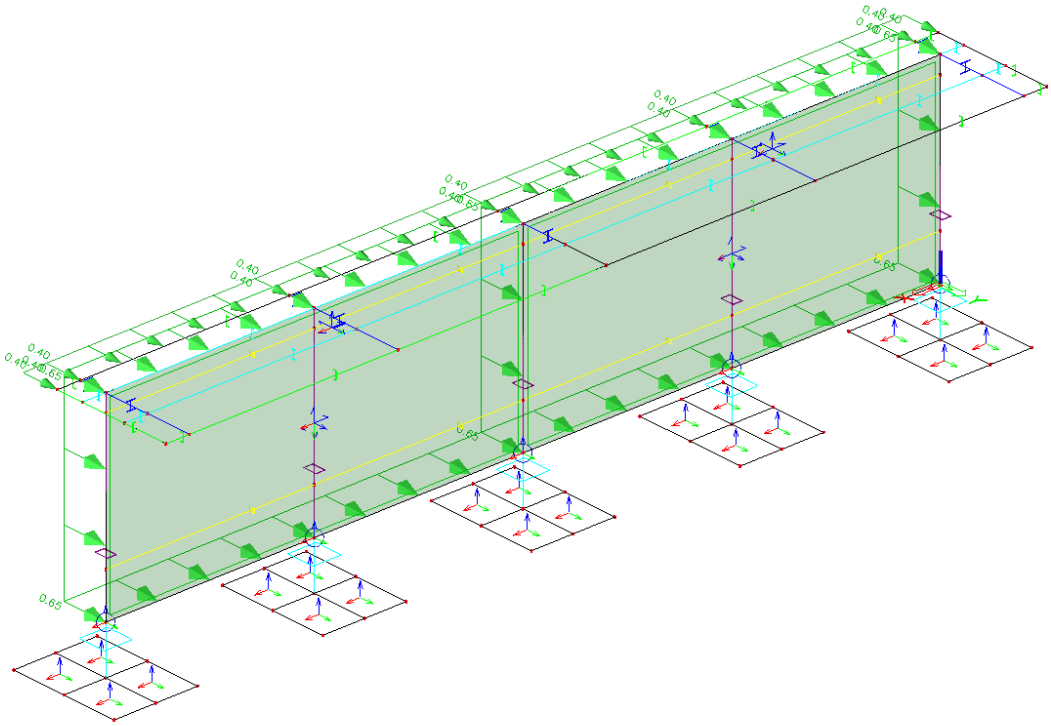
horzontalna ograja



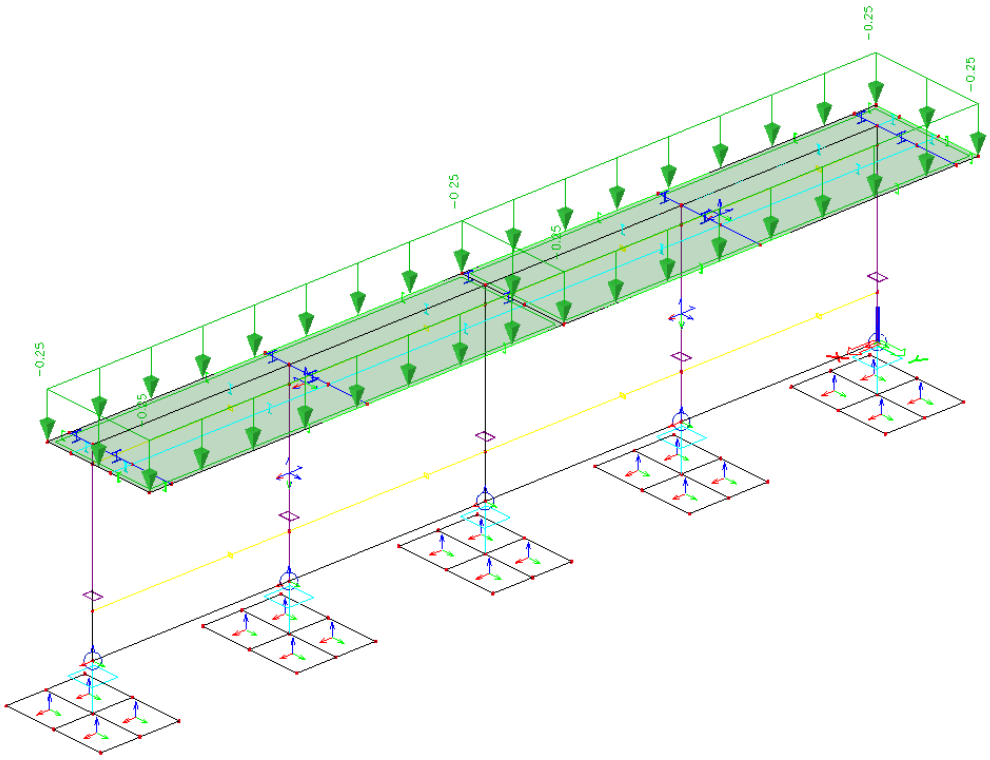
Wx



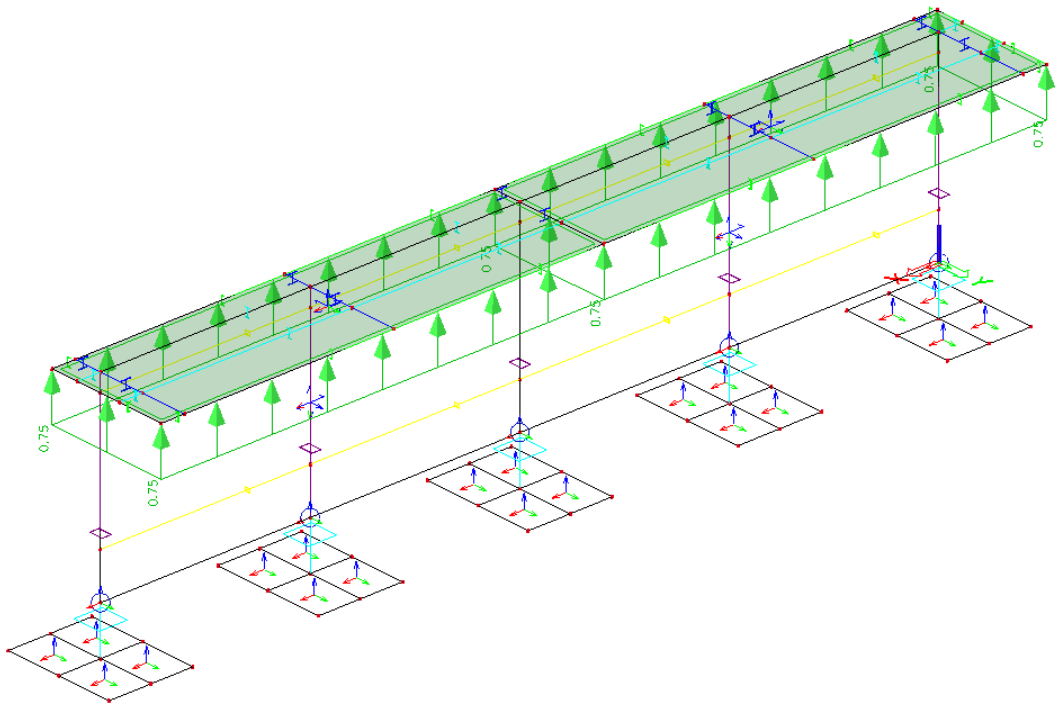
Wy



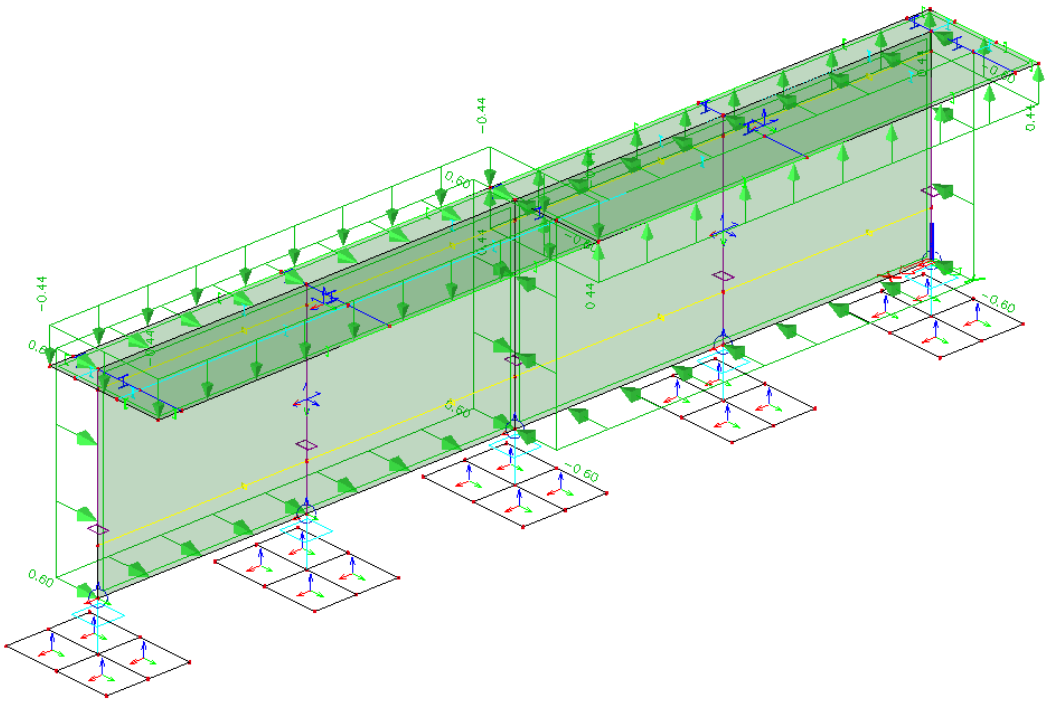
Wpritsk streha



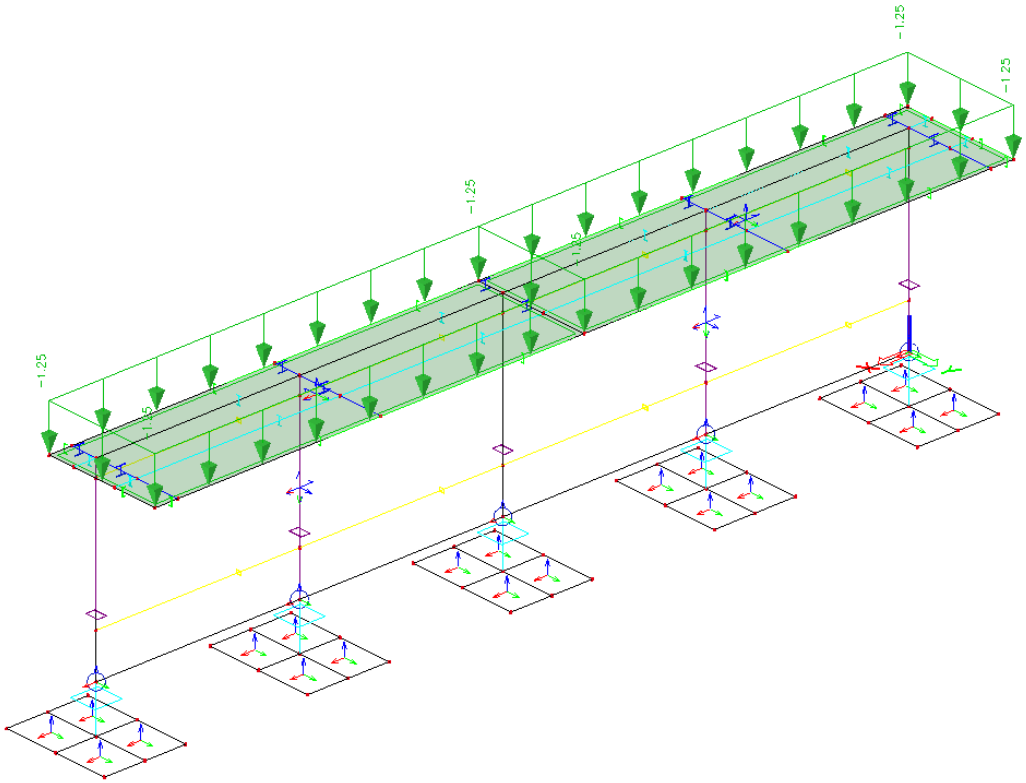
W srk streha



Aeroprit-1



sneg-s1



11. Combinations

Name	Description	Type	Load cases	Coeff. [-]
potres 1		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	0.30
potres 2		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	-0.30
potres 3		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	0.30
potres 4		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	-0.30
potres 5		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	1.00
potres 6		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	1.00
potres 7		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	-1.00
potres 8		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	-1.00
MSN-temelj-1-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-1-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90

Name	Description	Type	Load cases	Coeff. [-]
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-1		Envelope - ultimate	lastna	1.35

Name	Description	Type	Load cases	Coeff. [-]
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-6-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-6-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-7		Linear - ultimate	lastna	1.35
			stalna	1.35
			W x	0.90
			sneg-s1	1.50
MSN-temelj-8		Linear - ultimate	lastna	1.35
			stalna	1.35
			W -x	0.90
			sneg-s2	1.50

12. Nonlinear combinations

Name	Type	Load cases	Coeff. [-]
NC1	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W pritisk streha	1.50
NC2	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W x	1.50
		W pritisk streha	1.50
NC3	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -x	1.50
		W pritisk streha	1.50
NC4	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W y	1.50
		W pritisk streha	1.50
NC5	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -y	1.50
		W pritisk streha	1.50
NC6	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
NC7	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
NC8	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
NC9	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
NC10	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W x	1.00
		W pritisk streha	1.00
NC11	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -x	1.00
		W pritisk streha	1.00
NC12	Serviceability	lastna	1.00
		stalna	1.00

Name	Type	Load cases	Coeff. [-]
		sneg	1.00
		horiz. ograja	1.00
		W y	1.00
		W pritisk streha	1.00
NC13	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -y	1.00
		W pritisk streha	1.00
NC14	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	1.50
		Aeropri-1	0.90
NC15	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC16	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC17	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC18	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC19	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC20	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC21	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC22	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50

Name	Type	Load cases	Coeff. [-]
		W srk streha	1.50
		Aeropri-1	0.90
NC23	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC24	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC25	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC26	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC27	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC28	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC29	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC30	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC31	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC32	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50

Name	Type	Load cases	Coeff. [-]
NC33	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC34	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC35	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC36	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC37	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC38	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC39	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC40	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC41	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC42	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC43	Ultimate	lastna	1.35

Name	Type	Load cases	Coeff. [-]
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC44	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC45	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC46	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC47	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC48	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC49	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC50-s1	Ultimate	lastna	1.35
		stalna	1.35
		W x	0.90
		sneg-s1	1.50
NC51-s2	Ultimate	lastna	1.35
		stalna	1.35
		W -x	0.90
		sneg-s2	1.50

13. Mass groups

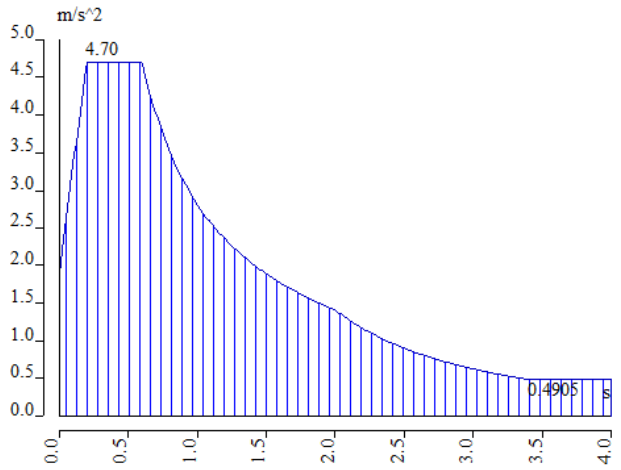
Name	Load case	Description
MG1	lastna	lastna
MG2	stalna	stalna

14. Combination of mass groups

Name	Mass group	Coeff. [-]
CM1	MG1 - lastna	1.00
	MG2 - stalna	1.00
CM1/1 - 2.86		
CM1/2 - 3.19		
CM1/3 - 3.45		
CM1/4 - 3.94		
CM1/5 - 4.82		
CM1/6 - 6.20		
CM1/7 - 6.24		
CM1/8 - 6.66		
CM1/9 - 6.69		
CM1/10 - 6.71		
CM1/11 - 6.75		
CM1/12 - 6.82		
CM1/13 - 6.90		
CM1/14 - 6.95		
CM1/15 - 6.95		
CM1/16 - 6.95		
CM1/17 - 6.95		
CM1/18 - 6.95		
CM1/19 - 6.99		
CM1/20 - 7.18		
CM1/21 - 7.28		
CM1/22 - 7.29		
CM1/23 - 7.32		
CM1/24 - 8.05		
CM1/25 - 8.30		
CM1/26 - 8.34		
CM1/27 - 8.39		
CM1/28 - 8.39		
CM1/29 - 8.71		
CM1/30 - 9.14		
CM1/31 - 9.57		
CM1/32 - 9.70		
CM1/33 - 9.84		
CM1/34 - 10.08		
CM1/35 - 10.08		
CM1/36 - 10.11		
CM1/37 - 10.12		
CM1/38 - 10.15		
CM1/39 - 10.37		
CM1/40 - 10.43		
CM1/41 - 10.62		
CM1/42 - 10.93		
CM1/43 - 11.01		
CM1/44 - 11.58		
CM1/45 - 11.79		
CM1/46 - 11.87		
CM1/47 - 11.90		
CM1/48 - 11.91		
CM1/49 - 11.94		
CM1/50 - 12.06		
CM1/51 - 12.27		
CM1/52 - 12.96		
CM1/53 - 13.11		

Name	Mass group	Coeff. [-]
CM1/54 - 14.19		
CM1/55 - 14.50		
CM1/56 - 14.65		
CM1/57 - 15.01		
CM1/58 - 15.05		
CM1/59 - 15.15		
CM1/60 - 15.49		
CM1/61 - 15.93		
CM1/62 - 15.99		
CM1/63 - 16.56		
CM1/64 - 17.79		
CM1/65 - 17.87		
CM1/66 - 18.73		
CM1/67 - 19.24		
CM1/68 - 19.29		
CM1/69 - 19.60		
CM1/70 - 20.11		
CM1/71 - 20.55		
CM1/72 - 20.81		
CM1/73 - 21.03		
CM1/74 - 21.67		
CM1/75 - 21.74		
CM1/76 - 21.90		
CM1/77 - 22.18		
CM1/78 - 22.61		
CM1/79 - 23.07		
CM1/80 - 23.28		
CM1/81 - 24.35		
CM1/82 - 25.31		
CM1/83 - 25.68		
CM1/84 - 25.79		
CM1/85 - 25.93		
CM1/86 - 26.79		
CM1/87 - 26.94		
CM1/88 - 26.99		
CM1/89 - 27.22		
CM1/90 - 28.39		
CM1/91 - 28.52		
CM1/92 - 28.84		
CM1/93 - 29.03		
CM1/94 - 29.25		
CM1/95 - 29.37		
CM1/96 - 29.49		
CM1/97 - 30.28		
CM1/98 - 30.36		
CM1/99 - 30.56		
CM1/100 - 31.32		

15. Seismic spectrums

Name	Type drawing	Info	Drawing
UniqueID			
EC 8, class C, q = 1.5, ag=0.25	Period	Type code - Eurocode Subsoil type - C Direction - Horizontal Spectrum type - type 1 coeff accel. ag - 0.25 ag - design acceleration - 2.4525 beta - 0.2 q - behaviour factor - 1.5	

2.2. Ovojnice

16. Result classes

Name	Description	List
ULS-potres	linearno	potres 2 - Linear - ultimate
		potres 3 - Linear - ultimate
		potres 4 - Linear - ultimate
		potres 5 - Linear - ultimate
		potres 6 - Linear - ultimate
		potres 7 - Linear - ultimate
		potres 8 - Linear - ultimate
		potres 1 - Linear - ultimate
ULS	nelinearno	NC1
		NC2
		NC3
		NC4
		NC5
		NC6
		NC7
		NC8
		NC9
		NC14
		NC15
		NC16
		NC17
		NC18
		NC19
		NC20
		NC21
		NC22
		NC23
		NC24
		NC25
		NC26
		NC27
		NC28
		NC29
		NC30
		NC31
		NC32
		NC33
		NC34
		NC35
		NC36
		NC37
		NC38
		NC39
		NC40
		NC41
		NC42
		NC43
		NC44
		NC45
		NC46
		NC47
		NC48
		NC49
		NC50-s1
		NC51-s2
SLS	linearno	NC10
		NC11
		NC12
		NC13
ULS-temelji	linearno	MSN-temelj-1-1 - Envelope - ultimate
		MSN-temelj-1-2 - Envelope - ultimate

Name	Description	List
		MSN-temelj-2-1 - Envelope - ultimate
		MSN-temelj-2-2 - Envelope - ultimate
		MSN-temelj-3-1 - Envelope - ultimate
		MSN-temelj-3-2 - Envelope - ultimate
		MSN-temelj-4-1 - Envelope - ultimate
		MSN-temelj-4-2 - Envelope - ultimate
		MSN-temelj-5-1 - Envelope - ultimate
		MSN-temelj-5-2 - Envelope - ultimate
		MSN-temelj-6-1 - Envelope - ultimate
		MSN-temelj-6-2 - Envelope - ultimate
		MSN-temelj-7 - Linear - ultimate
		MSN-temelj-8 - Linear - ultimate

2.3. Računski protokoli

17. Calculation protocol

Linear calculation

Number of 2D elements	240
Number of 1D elements	373
Number of mesh nodes	658
Number of equations	3948
Bending theory	Mindlin
Load cases	lastna, stalna, sneg, horiz. ograja, W x, W -x, W y, W -y, W pritisk streha, W srk streha, Aeropri-1, Aeropri-2, sneg-s1, sneg-s2
Start of calculation	28.06.2021 19:50
End of calculation	28.06.2021 19:50

Sum of loads and reactions

Load case	Value	X [kN]	Y [kN]	Z [kN]
lastna	loads	0.00	0.00	-348.63
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	348.63
stalna	loads	0.00	0.00	-361.81
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	361.81
sneg	loads	0.00	0.00	-61.75
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	61.75
horiz. ograja	loads	0.00	18.00	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-18.00	0.00
W x	loads	7.21	0.00	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-7.21	0.00	0.00
W -x	loads	-7.21	0.00	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	7.21	0.00	0.00
W y	loads	0.00	55.75	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-55.75	0.00
W -y	loads	0.00	-55.75	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	55.75	0.00

Load case	Value	X [kN]	Y [kN]	Z [kN]
W pritisk streha	loads	0.00	0.00	-12.35
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	12.35
W srk streha	loads	0.00	0.00	37.05
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	-37.05
Aeropri-1	loads	0.00	0.00	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	0.00
Aeropri-2	loads	0.00	0.00	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	0.00
sneg-s1	loads	0.00	0.00	-61.75
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	61.75
sneg-s2	loads	0.00	0.00	-61.75
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	61.75

The following dynamic load cases are detailed separately (see below):potres X, potres Y

Dynamic load case 15 : potres X

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	2.86	0.05	1	4.701	0.000	0.000	0.00	0.00	-0.11	0.32	0.00
2	3.19	0.05	1	4.701	0.000	0.000	-0.44	6.78	0.29	-0.95	-18.36
3	3.45	0.05	1	4.701	0.000	0.000	-1.21	69.12	-0.17	0.64	-171.92
4	3.94	0.05	1	4.701	0.000	0.000	0.00	0.00	-0.01	0.03	0.00
5	4.82	0.05	1	4.701	0.000	0.000	0.09	1.44	0.00	-0.06	-1.65
6	6.20	0.05	1	4.157	0.000	0.000	0.01	0.03	0.29	0.05	0.01
7	6.24	0.05	1	4.141	0.000	0.000	0.07	2.88	-0.41	-0.13	1.28
8	6.66	0.05	1	4.000	0.000	0.000	0.01	0.03	-2.18	-2.02	0.03
9	6.69	0.05	1	3.990	0.000	0.000	-0.07	4.36	3.51	3.31	4.17
10	6.71	0.05	1	3.985	0.000	0.000	-0.03	0.88	-0.69	-0.65	0.86
11	6.75	0.05	1	3.971	0.000	0.000	0.00	0.00	-0.20	-0.20	0.00
12	6.82	0.05	1	3.951	0.000	0.000	0.44	164.12	0.14	0.15	180.89
13	6.90	0.05	1	3.927	0.000	0.000	-0.19	33.20	-0.44	-0.50	39.58
14	6.95	0.05	1	3.910	0.000	0.000	0.00	0.02	0.00	0.00	0.02
15	6.95	0.05	1	3.910	0.000	0.000	0.00	0.00	0.00	0.00	0.00
16	6.95	0.05	1	3.910	0.000	0.000	0.00	0.01	0.00	0.00	0.01
17	6.95	0.05	1	3.910	0.000	0.000	0.00	0.01	0.00	0.00	0.02
18	6.95	0.05	1	3.910	0.000	0.000	0.00	0.00	0.00	0.00	0.00
19	6.99	0.05	1	3.899	0.000	0.000	0.00	0.00	0.09	0.12	0.00
20	7.18	0.05	1	3.847	0.000	0.000	-0.01	0.03	0.00	0.00	0.05
21	7.28	0.05	1	3.818	0.000	0.000	-0.02	0.26	-0.39	-0.41	0.43
22	7.29	0.05	1	3.816	0.000	0.000	0.02	0.38	1.25	1.94	0.63
23	7.32	0.05	1	3.810	0.000	0.000	-0.09	10.41	-0.98	-1.72	17.39
24	8.05	0.05	1	3.633	0.000	0.000	0.00	0.00	0.00	0.00	0.00
25	8.30	0.05	1	3.581	0.000	0.000	0.00	0.00	0.00	0.00	0.00
26	8.34	0.05	1	3.575	0.000	0.000	0.00	0.00	0.00	0.00	0.00
27	8.39	0.05	1	3.565	0.000	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
28	8.39	0.05	1	3.564	0.000	0.000	0.00	0.00	0.00	0.00	0.00
29	8.71	0.05	1	3.500	0.000	0.000	0.03	2.84	0.02	0.06	9.03
30	9.14	0.05	1	3.426	0.000	0.000	0.00	0.00	0.00	0.00	0.00
31	9.57	0.05	1	3.356	0.000	0.000	0.00	0.03	0.00	0.01	0.13
32	9.70	0.05	1	3.334	0.000	0.000	0.00	0.03	0.00	0.00	0.14
33	9.84	0.05	1	3.316	0.000	0.000	0.00	0.00	0.00	0.00	0.00
34	10.08	0.05	1	3.283	0.000	0.000	0.00	0.00	0.00	0.00	0.02
35	10.08	0.05	1	3.283	0.000	0.000	0.00	0.00	0.00	0.00	0.00
36	10.11	0.05	1	3.279	0.000	0.000	0.00	0.00	0.00	0.00	0.00
37	10.12	0.05	1	3.277	0.000	0.000	0.00	0.00	0.00	0.00	0.00
38	10.15	0.05	1	3.273	0.000	0.000	0.00	0.00	0.00	0.00	0.00
39	10.37	0.05	1	3.243	0.000	0.000	0.00	0.00	0.00	0.01	0.02
40	10.43	0.05	1	3.235	0.000	0.000	0.00	0.01	0.00	0.02	0.05
41	10.62	0.05	1	3.209	0.000	0.000	0.00	0.00	-0.01	-0.04	0.00
42	10.93	0.05	1	3.172	0.000	0.000	0.00	0.00	0.00	0.00	0.00
43	11.01	0.05	1	3.165	0.000	0.000	0.00	0.00	0.00	0.00	0.00
44	11.58	0.05	1	3.101	0.000	0.000	0.00	0.00	0.00	0.00	0.01
45	11.79	0.05	1	3.079	0.000	0.000	0.00	0.00	0.00	0.00	0.00
46	11.87	0.05	1	3.070	0.000	0.000	0.00	0.00	0.00	0.00	0.00
47	11.90	0.05	1	3.066	0.000	0.000	0.00	0.00	0.00	0.00	0.00
48	11.91	0.05	1	3.065	0.000	0.000	0.00	0.00	0.00	0.00	0.00
49	11.94	0.05	1	3.062	0.000	0.000	0.00	0.00	0.00	0.00	0.00
50	12.06	0.05	1	3.050	0.000	0.000	0.00	0.00	0.00	0.00	0.00
51	12.27	0.05	1	3.032	0.000	0.000	0.00	0.00	0.00	0.00	0.00
52	12.96	0.05	1	2.973	0.000	0.000	0.00	0.00	0.00	0.00	0.01
53	13.11	0.05	1	2.960	0.000	0.000	0.00	0.00	0.00	0.00	0.00
54	14.19	0.05	1	2.878	0.000	0.000	0.00	0.00	0.00	0.00	0.00
55	14.50	0.05	1	2.858	0.000	0.000	0.00	0.00	0.00	0.00	0.01
56	14.65	0.05	1	2.848	0.000	0.000	0.00	0.00	0.00	0.00	0.00
57	15.01	0.05	1	2.825	0.000	0.000	0.00	0.00	0.00	0.00	0.00
58	15.05	0.05	1	2.822	0.000	0.000	0.00	0.00	0.00	0.00	0.00
59	15.15	0.05	1	2.816	0.000	0.000	0.00	0.00	0.00	0.00	0.00
60	15.49	0.05	1	2.793	0.000	0.000	0.00	0.00	0.00	0.00	0.00
61	15.93	0.05	1	2.767	0.000	0.000	0.00	0.00	0.00	0.00	0.00
62	15.99	0.05	1	2.764	0.000	0.000	0.00	0.00	0.00	0.00	0.00
63	16.56	0.05	1	2.737	0.000	0.000	0.00	0.00	0.00	0.00	0.00
64	17.79	0.05	1	2.678	0.000	0.000	0.00	0.00	0.00	0.00	0.00
65	17.87	0.05	1	2.674	0.000	0.000	0.00	0.00	0.00	0.00	0.00
66	18.73	0.05	1	2.633	0.000	0.000	0.00	0.05	0.00	0.00	0.12
67	19.24	0.05	1	2.616	0.000	0.000	0.00	0.00	0.00	0.00	0.00
68	19.29	0.05	1	2.615	0.000	0.000	0.00	0.00	0.00	0.00	0.00
69	19.60	0.05	1	2.604	0.000	0.000	0.00	0.00	0.00	0.00	0.00
70	20.11	0.05	1	2.588	0.000	0.000	0.00	0.00	0.00	0.00	0.00
71	20.55	0.05	1	2.574	0.000	0.000	0.00	0.00	0.00	0.00	0.00
72	20.81	0.05	1	2.565	0.000	0.000	0.00	0.00	0.00	0.00	0.00
73	21.03	0.05	1	2.558	0.000	0.000	0.00	0.00	0.00	0.00	0.00
74	21.67	0.05	1	2.537	0.000	0.000	0.00	0.00	0.00	0.00	0.00
75	21.74	0.05	1	2.535	0.000	0.000	0.00	0.00	0.00	0.00	0.00
76	21.90	0.05	1	2.530	0.000	0.000	0.00	0.00	0.00	0.00	0.00
77	22.18	0.05	1	2.520	0.000	0.000	0.00	0.00	0.00	0.00	0.00
78	22.61	0.05	1	2.507	0.000	0.000	0.00	0.00	0.00	0.00	0.00
79	23.07	0.05	1	2.492	0.000	0.000	0.00	0.00	0.00	0.00	0.00
80	23.28	0.05	1	2.487	0.000	0.000	0.00	0.00	0.00	0.00	0.00
81	24.35	0.05	1	2.465	0.000	0.000	0.00	0.00	0.00	0.00	0.00
82	25.31	0.05	1	2.446	0.000	0.000	0.00	0.00	0.00	0.00	0.00
83	25.68	0.05	1	2.438	0.000	0.000	0.00	0.00	0.00	0.00	0.00
84	25.79	0.05	1	2.436	0.000	0.000	0.00	0.00	0.00	0.00	0.00
85	25.93	0.05	1	2.433	0.000	0.000	0.00	0.00	0.00	0.00	0.00
86	26.79	0.05	1	2.416	0.000	0.000	0.00	0.00	0.00	0.00	0.00
87	26.94	0.05	1	2.413	0.000	0.000	0.00	0.00	0.00	0.00	0.00
88	26.99	0.05	1	2.412	0.000	0.000	0.00	0.00	0.00	0.00	0.00
89	27.22	0.05	1	2.407	0.000	0.000	0.00	0.00	0.00	0.00	0.00
90	28.39	0.05	1	2.383	0.000	0.000	0.00	0.00	0.00	0.00	0.00
91	28.52	0.05	1	2.380	0.000	0.000	0.00	0.00	0.00	0.00	0.00
92	28.84	0.05	1	2.374	0.000	0.000	0.00	0.00	0.00	0.00	0.00
93	29.03	0.05	1	2.370	0.000	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
94	29.25	0.05	1	2.366	0.000	0.000	0.00	0.00	0.00	0.00	0.00
95	29.37	0.05	1	2.363	0.000	0.000	0.00	0.00	0.00	0.00	0.00
96	29.49	0.05	1	2.361	0.000	0.000	0.00	0.00	0.00	0.00	0.00
97	30.28	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
98	30.36	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
99	30.56	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
100	31.32	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							181.69	-4.57	-4.91	254.14

Dynamic load case 16 : potres Y

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	2.86	0.05	1	0.000	4.701	0.000	-1.57	-0.11	54.82	-159.27	0.33
2	3.19	0.05	1	0.000	4.701	0.000	-0.02	0.29	0.01	-0.04	-0.79
3	3.45	0.05	1	0.000	4.701	0.000	0.00	-0.17	0.00	0.00	0.43
4	3.94	0.05	1	0.000	4.701	0.000	0.23	-0.01	4.30	-9.35	0.03
5	4.82	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.01
6	6.20	0.05	1	0.000	4.157	0.000	0.07	0.29	2.58	0.45	0.12
7	6.24	0.05	1	0.000	4.141	0.000	-0.01	-0.41	0.06	0.02	-0.18
8	6.66	0.05	1	0.000	4.000	0.000	-0.47	-2.18	172.41	159.29	-2.01
9	6.69	0.05	1	0.000	3.990	0.000	-0.06	3.51	2.82	2.66	3.36
10	6.71	0.05	1	0.000	3.985	0.000	0.03	-0.69	0.55	0.51	-0.68
11	6.75	0.05	1	0.000	3.971	0.000	-0.23	-0.20	43.15	42.37	-0.20
12	6.82	0.05	1	0.000	3.951	0.000	0.00	0.14	0.00	0.00	0.16
13	6.90	0.05	1	0.000	3.927	0.000	0.00	-0.44	0.01	0.01	-0.52
14	6.95	0.05	1	0.000	3.910	0.000	0.00	0.00	0.00	0.00	0.00
15	6.95	0.05	1	0.000	3.910	0.000	0.00	0.00	0.00	0.00	0.00
16	6.95	0.05	1	0.000	3.910	0.000	0.00	0.00	0.00	0.00	0.00
17	6.95	0.05	1	0.000	3.910	0.000	0.00	0.00	0.00	0.00	0.00
18	6.95	0.05	1	0.000	3.910	0.000	0.00	0.00	0.00	0.00	0.00
19	6.99	0.05	1	0.000	3.899	0.000	-0.09	0.09	8.55	10.60	0.12
20	7.18	0.05	1	0.000	3.847	0.000	0.00	0.00	0.00	0.00	0.00
21	7.28	0.05	1	0.000	3.818	0.000	0.02	-0.39	0.57	0.60	-0.63
22	7.29	0.05	1	0.000	3.816	0.000	0.06	1.25	4.11	6.35	2.06
23	7.32	0.05	1	0.000	3.810	0.000	0.01	-0.98	0.09	0.16	-1.64
24	8.05	0.05	1	0.000	3.633	0.000	0.00	0.00	0.00	0.00	0.00
25	8.30	0.05	1	0.000	3.581	0.000	0.00	0.00	0.01	0.03	0.00
26	8.34	0.05	1	0.000	3.575	0.000	0.00	0.00	0.00	0.00	0.00
27	8.39	0.05	1	0.000	3.565	0.000	0.00	0.00	0.00	0.00	0.00
28	8.39	0.05	1	0.000	3.564	0.000	0.00	0.00	0.00	0.00	0.00
29	8.71	0.05	1	0.000	3.500	0.000	0.00	0.02	0.00	0.00	0.06
30	9.14	0.05	1	0.000	3.426	0.000	0.00	0.00	0.00	0.00	0.00
31	9.57	0.05	1	0.000	3.356	0.000	0.00	0.00	0.00	0.00	0.01
32	9.70	0.05	1	0.000	3.334	0.000	0.00	0.00	0.00	0.00	0.00
33	9.84	0.05	1	0.000	3.316	0.000	0.01	0.00	0.49	2.84	0.00
34	10.08	0.05	1	0.000	3.283	0.000	0.00	0.00	0.00	0.00	0.01
35	10.08	0.05	1	0.000	3.283	0.000	0.00	0.00	0.00	0.00	0.00
36	10.11	0.05	1	0.000	3.279	0.000	0.00	0.00	0.02	0.07	0.00
37	10.12	0.05	1	0.000	3.277	0.000	0.00	0.00	0.00	0.00	0.00
38	10.15	0.05	1	0.000	3.273	0.000	0.00	0.00	0.00	0.00	0.00
39	10.37	0.05	1	0.000	3.243	0.000	0.00	0.00	0.00	0.00	0.01
40	10.43	0.05	1	0.000	3.235	0.000	0.00	0.00	0.00	0.00	0.01
41	10.62	0.05	1	0.000	3.209	0.000	-0.01	-0.01	1.37	8.05	-0.03
42	10.93	0.05	1	0.000	3.172	0.000	0.00	0.00	0.17	0.72	0.00
43	11.01	0.05	1	0.000	3.165	0.000	0.00	0.00	0.00	0.01	0.00
44	11.58	0.05	1	0.000	3.101	0.000	0.00	0.00	0.00	0.00	0.00
45	11.79	0.05	1	0.000	3.079	0.000	0.00	0.00	0.00	-0.01	0.00
46	11.87	0.05	1	0.000	3.070	0.000	0.00	0.00	0.00	0.00	0.00
47	11.90	0.05	1	0.000	3.066	0.000	0.00	0.00	0.00	0.00	0.00
48	11.91	0.05	1	0.000	3.065	0.000	0.00	0.00	0.00	0.00	0.00
49	11.94	0.05	1	0.000	3.062	0.000	0.00	0.00	0.03	0.21	0.00
50	12.06	0.05	1	0.000	3.050	0.000	0.00	0.00	0.00	-0.02	0.00
51	12.27	0.05	1	0.000	3.032	0.000	0.00	0.00	0.16	0.77	0.00
52	12.96	0.05	1	0.000	2.973	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
53	13.11	0.05	1	0.000	2.960	0.000	0.00	0.00	0.20	0.40	0.00
54	14.19	0.05	1	0.000	2.878	0.000	0.00	0.00	0.00	-0.02	0.00
55	14.50	0.05	1	0.000	2.858	0.000	0.00	0.00	0.00	0.00	0.00
56	14.65	0.05	1	0.000	2.848	0.000	0.00	0.00	0.00	0.01	0.00
57	15.01	0.05	1	0.000	2.825	0.000	0.00	0.00	0.00	0.00	0.00
58	15.05	0.05	1	0.000	2.822	0.000	0.00	0.00	0.00	0.00	0.00
59	15.15	0.05	1	0.000	2.816	0.000	0.00	0.00	0.00	0.02	0.00
60	15.49	0.05	1	0.000	2.793	0.000	0.00	0.00	0.00	0.00	0.00
61	15.93	0.05	1	0.000	2.767	0.000	0.00	0.00	0.00	0.04	0.00
62	15.99	0.05	1	0.000	2.764	0.000	0.00	0.00	0.00	0.00	0.00
63	16.56	0.05	1	0.000	2.737	0.000	0.00	0.00	0.00	0.02	0.00
64	17.79	0.05	1	0.000	2.678	0.000	0.00	0.00	0.00	0.03	0.00
65	17.87	0.05	1	0.000	2.674	0.000	0.00	0.00	0.00	0.01	0.00
66	18.73	0.05	1	0.000	2.633	0.000	0.00	0.00	0.00	0.00	0.00
67	19.24	0.05	1	0.000	2.616	0.000	0.00	0.00	0.00	0.00	0.00
68	19.29	0.05	1	0.000	2.615	0.000	0.00	0.00	0.00	-0.01	0.00
69	19.60	0.05	1	0.000	2.604	0.000	0.00	0.00	0.00	0.00	0.00
70	20.11	0.05	1	0.000	2.588	0.000	0.00	0.00	0.00	0.00	0.00
71	20.55	0.05	1	0.000	2.574	0.000	0.00	0.00	0.00	0.00	0.00
72	20.81	0.05	1	0.000	2.565	0.000	0.00	0.00	0.00	0.00	0.00
73	21.03	0.05	1	0.000	2.558	0.000	0.00	0.00	0.00	0.00	0.00
74	21.67	0.05	1	0.000	2.537	0.000	0.00	0.00	0.00	0.00	0.00
75	21.74	0.05	1	0.000	2.535	0.000	0.00	0.00	0.00	0.00	0.00
76	21.90	0.05	1	0.000	2.530	0.000	0.00	0.00	0.00	0.00	0.00
77	22.18	0.05	1	0.000	2.520	0.000	0.00	0.00	0.00	0.01	0.00
78	22.61	0.05	1	0.000	2.507	0.000	0.00	0.00	0.00	0.01	0.00
79	23.07	0.05	1	0.000	2.492	0.000	0.00	0.00	0.00	0.00	0.00
80	23.28	0.05	1	0.000	2.487	0.000	0.00	0.00	0.00	0.02	0.00
81	24.35	0.05	1	0.000	2.465	0.000	0.00	0.00	0.00	0.00	0.00
82	25.31	0.05	1	0.000	2.446	0.000	0.00	0.00	0.00	0.00	0.00
83	25.68	0.05	1	0.000	2.438	0.000	0.00	0.00	0.00	0.00	0.00
84	25.79	0.05	1	0.000	2.436	0.000	0.00	0.00	0.00	0.01	0.00
85	25.93	0.05	1	0.000	2.433	0.000	0.00	0.00	0.00	0.00	0.00
86	26.79	0.05	1	0.000	2.416	0.000	0.00	0.00	0.00	0.00	0.00
87	26.94	0.05	1	0.000	2.413	0.000	0.00	0.00	0.00	0.00	0.00
88	26.99	0.05	1	0.000	2.412	0.000	0.00	0.00	0.00	0.00	0.00
89	27.22	0.05	1	0.000	2.407	0.000	0.00	0.00	0.00	0.00	0.00
90	28.39	0.05	1	0.000	2.383	0.000	0.00	0.00	0.00	0.00	0.00
91	28.52	0.05	1	0.000	2.380	0.000	0.00	0.00	0.00	0.00	0.00
92	28.84	0.05	1	0.000	2.374	0.000	0.00	0.00	0.00	0.00	0.00
93	29.03	0.05	1	0.000	2.370	0.000	0.00	0.00	0.00	0.00	0.00
94	29.25	0.05	1	0.000	2.366	0.000	0.00	0.00	0.00	0.00	0.00
95	29.37	0.05	1	0.000	2.363	0.000	0.00	0.00	0.00	0.00	0.00
96	29.49	0.05	1	0.000	2.361	0.000	0.00	0.00	0.00	0.00	0.00
97	30.28	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
98	30.36	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
99	30.56	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.01	0.00
100	31.32	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							-4.57	186.33	229.91	-4.94

18. Calculation protocol

Solution of Free vibration

Number of 2D elements	240
Number of 1D elements	373
Number of mesh nodes	658
Number of equations	3948
Combination of mass groups	MC1 CM1
Number of frequencies	100
Method	Lanczos
Bending theory	Mindlin
Type of analysis model	Standard
Start of calculation	28.06.2021 19:50
End of calculation	28.06.2021 19:50

Sum of masses

	X [kg]	Y [kg]	Z [kg]
1	72250.34	72250.34	72250.34
1	72250.34	72250.34	72250.34

Relative modal masses

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
1	17.9637	0.35	2.86	0.0000	0.1614	0.0026	0.6830	0.0000	0.0001
2	20.0632	0.31	3.19	0.0200	0.0000	0.0000	0.0002	0.0007	0.1375
3	21.6859	0.29	3.45	0.2035	0.0000	0.0000	0.0000	0.0477	0.0072
4	24.7543	0.25	3.94	0.0000	0.0127	0.0001	0.0333	0.0000	0.0000
5	30.2652	0.21	4.82	0.0042	0.0000	0.0000	0.0000	0.0005	0.0191
6	38.933	0.16	6.20	0.0001	0.0086	0.0000	0.0002	0.0000	0.0000
7	39.2226	0.16	6.24	0.0096	0.0002	0.0000	0.0000	0.0000	0.0046
8	41.8419	0.15	6.66	0.0001	0.5966	0.0020	0.0870	0.0000	0.0052
9	42.0336	0.15	6.69	0.0151	0.0098	0.0000	0.0015	0.0000	0.0001
10	42.1528	0.15	6.71	0.0030	0.0019	0.0000	0.0003	0.0013	0.6391
11	42.4187	0.15	6.75	0.0000	0.1504	0.0001	0.0234	0.0000	0.0027
12	42.8316	0.15	6.82	0.5749	0.0000	0.0000	0.0000	0.0085	0.0026
13	43.3256	0.15	6.90	0.1170	0.0000	0.0000	0.0000	0.0020	0.1056
14	43.6702	0.14	6.95	0.0001	0.0000	0.0000	0.0000	0.0000	0.0023
15	43.6702	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	43.6703	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050
17	43.6704	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0075
18	43.6704	0.14	6.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	43.8889	0.14	6.99	0.0000	0.0303	0.0000	0.0100	0.0000	0.0000
20	45.1076	0.14	7.18	0.0001	0.0000	0.0000	0.0000	0.0017	0.0272
21	45.7724	0.14	7.28	0.0009	0.0021	0.0026	0.0035	0.0001	0.0008
22	45.8317	0.14	7.29	0.0014	0.0149	0.0004	0.0117	0.0001	0.0010
23	45.9766	0.14	7.32	0.0378	0.0003	0.0000	0.0002	0.0022	0.0248
24	50.5865	0.12	8.05	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
25	52.16	0.12	8.30	0.0000	0.0001	0.0000	0.0002	0.0000	0.0000
26	52.3745	0.12	8.34	0.0000	0.0000	0.0000	0.0000	0.0004	0.0000
27	52.6934	0.12	8.39	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000
28	52.7199	0.12	8.39	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
29	54.745	0.11	8.71	0.0112	0.0000	0.0000	0.0000	0.0045	0.0001
30	57.4464	0.11	9.14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
31	60.1161	0.10	9.57	0.0001	0.0000	0.0000	0.0000	0.0002	0.0001
32	60.9559	0.10	9.70	0.0001	0.0000	0.0000	0.0000	0.0100	0.0003
33	61.8141	0.10	9.84	0.0000	0.0020	0.0742	0.0068	0.0000	0.0000
34	63.3119	0.10	10.08	0.0000	0.0000	0.0000	0.0001	0.0598	0.0004
35	63.3284	0.10	10.08	0.0000	0.0000	0.0002	0.0002	0.0110	0.0001
36	63.5059	0.10	10.11	0.0000	0.0001	0.0712	0.0011	0.0001	0.0000
37	63.5999	0.10	10.12	0.0000	0.0000	0.0000	0.0000	0.0029	0.0000
38	63.7607	0.10	10.15	0.0000	0.0000	0.0002	0.0002	0.0000	0.0000
39	65.1486	0.10	10.37	0.0000	0.0000	0.0000	0.0000	0.0099	0.0008
40	65.534	0.10	10.43	0.0000	0.0000	0.0000	0.0000	0.0062	0.0021
41	66.717	0.09	10.62	0.0000	0.0059	0.0413	0.0398	0.0000	0.0000
42	68.7024	0.09	10.93	0.0000	0.0007	0.0020	0.0043	0.0000	0.0000
43	69.1471	0.09	11.01	0.0000	0.0000	0.0001	0.0000	0.0119	0.0020
44	72.788	0.09	11.58	0.0000	0.0000	0.0000	0.0000	0.0158	0.0001
45	74.0604	0.08	11.79	0.0000	0.0000	0.0151	0.0001	0.0000	0.0000
46	74.5639	0.08	11.87	0.0000	0.0000	0.0001	0.0000	0.0130	0.0014

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
47	74.793	0.08	11.90	0.0000	0.0000	0.0000	0.0000	0.0036	0.0000
48	74.8545	0.08	11.91	0.0000	0.0000	0.0000	0.0000	0.0301	0.0001
49	75.0046	0.08	11.94	0.0000	0.0001	0.0656	0.0009	0.0000	0.0000
50	75.7732	0.08	12.06	0.0000	0.0000	0.0002	0.0001	0.0000	0.0000
51	77.1017	0.08	12.27	0.0000	0.0007	0.0001	0.0117	0.0000	0.0000
52	81.4101	0.08	12.96	0.0000	0.0000	0.0000	0.0000	0.0124	0.0000
53	82.3874	0.08	13.11	0.0000	0.0009	0.0122	0.0106	0.0000	0.0000
54	89.1327	0.07	14.19	0.0000	0.0000	0.0149	0.0002	0.0001	0.0000
55	91.1342	0.07	14.50	0.0000	0.0000	0.0003	0.0000	0.2893	0.0000
56	92.0356	0.07	14.65	0.0000	0.0000	0.0994	0.0008	0.0034	0.0000
57	94.295	0.07	15.01	0.0000	0.0000	0.0315	0.0000	0.0268	0.0000
58	94.5337	0.07	15.05	0.0000	0.0000	0.0484	0.0000	0.2638	0.0000
59	95.1596	0.07	15.15	0.0000	0.0000	0.4988	0.0000	0.0356	0.0000
60	97.3343	0.06	15.49	0.0000	0.0000	0.0000	0.0000	0.0497	0.0000
61	100.1	0.06	15.93	0.0000	0.0000	0.0069	0.0011	0.0002	0.0000
62	100.437	0.06	15.99	0.0000	0.0000	0.0000	0.0000	0.0628	0.0001
63	104.026	0.06	16.56	0.0000	0.0000	0.0002	0.0016	0.0000	0.0000
64	111.785	0.06	17.79	0.0000	0.0000	0.0034	0.0039	0.0001	0.0000
65	112.306	0.06	17.87	0.0000	0.0000	0.0006	0.0013	0.0005	0.0000
66	117.679	0.05	18.73	0.0003	0.0000	0.0000	0.0000	0.0024	0.0000
67	120.92	0.05	19.24	0.0000	0.0000	0.0000	0.0021	0.0033	0.0000
68	121.228	0.05	19.29	0.0000	0.0000	0.0000	0.0270	0.0001	0.0000
69	123.18	0.05	19.60	0.0000	0.0000	0.0000	0.0001	0.0006	0.0000
70	126.353	0.05	20.11	0.0000	0.0000	0.0000	0.0014	0.0000	0.0000
71	129.101	0.05	20.55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
72	130.75	0.05	20.81	0.0000	0.0000	0.0000	0.0054	0.0000	0.0000
73	132.142	0.05	21.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
74	136.145	0.05	21.67	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000
75	136.574	0.05	21.74	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000
76	137.572	0.05	21.90	0.0000	0.0000	0.0000	0.0000	0.0017	0.0000
77	139.39	0.05	22.18	0.0000	0.0000	0.0013	0.0125	0.0000	0.0000
78	142.067	0.04	22.61	0.0000	0.0000	0.0003	0.0047	0.0000	0.0000
79	144.957	0.04	23.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
80	146.27	0.04	23.28	0.0000	0.0000	0.0017	0.0059	0.0000	0.0000
81	153.021	0.04	24.35	0.0000	0.0000	0.0000	0.0000	0.0009	0.0000
82	159.033	0.04	25.31	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000
83	161.325	0.04	25.68	0.0000	0.0000	0.0001	0.0002	0.0000	0.0000
84	162.073	0.04	25.79	0.0000	0.0000	0.0001	0.0004	0.0000	0.0000
85	162.952	0.04	25.93	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
86	168.3	0.04	26.79	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
87	169.244	0.04	26.94	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
88	169.582	0.04	26.99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
89	171.057	0.04	27.22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
90	178.376	0.04	28.39	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
91	179.21	0.04	28.52	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
92	181.213	0.03	28.84	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
93	182.427	0.03	29.03	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
94	183.757	0.03	29.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
95	184.508	0.03	29.37	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
96	185.288	0.03	29.49	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
97	190.266	0.03	30.28	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000
98	190.752	0.03	30.36	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000
99	191.993	0.03	30.56	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000
100	196.805	0.03	31.32	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				1.0000	1.0000	0.9987	0.9998	0.9996	1.0000

3. REZULTATI ANALIZE KONSTRUKCIJE

3.1. Notranje sile

19. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N4-NF1 - CFRHS120X80X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2341	N4-NF1 - CFRHS120X80X6	0.000	NC40	**-1.58**	1.64	-3.22	0.27	1.85	-1.42
B2348	N4-NF1 - CFRHS120X80X6	0.900	NC42	**5.77**	1.55	2.66	0.23	-1.17	0.02
B2345	N4-NF1 - CFRHS120X80X6	4.500	NC2	1.71	**-3.23**	-0.01	-0.06	0.00	-2.96
B2347	N4-NF1 - CFRHS120X80X6	0.000	NC3	1.68	**3.23**	0.02	0.06	-0.04	-2.96
B2343	N4-NF1 - CFRHS120X80X6	4.500	NC35	2.08	-3.08	**-6.24**	0.15	-5.79	-2.69
B2343	N4-NF1 - CFRHS120X80X6	4.500	NC45	1.44	-3.09	**6.16**	-0.17	5.66	-2.69
B2346	N4-NF1 - CFRHS120X80X6	1.800	NC17	5.49	0.58	-0.07	**-0.36**	2.35	0.90
B2348	N4-NF1 - CFRHS120X80X6	2.700	NC26	5.68	-0.61	0.01	**0.36**	2.33	0.88
B2346	N4-NF1 - CFRHS120X80X6	4.500	NC17	5.50	-2.18	-5.07	-0.35	**-5.90**	-1.82
B2342	N4-NF1 - CFRHS120X80X6	0.000	NC36	1.80	3.12	-6.21	0.17	**5.80**	-2.74
B2347	N4-NF1 - CFRHS120X80X6	0.000	NC25	1.75	3.22	2.09	0.07	-1.72	**-2.96**
B2347	N4-NF1 - CFRHS120X80X6	2.400	NC16	1.62	-0.16	0.20	0.04	-1.15	**1.47**

20. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N4-NF1 - CFRHS120X80X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2346	N4-NF1 - CFRHS120X80X6	3.600	potres 2/1	**-2.51**	-0.61	-1.09	0.12	-1.40	-0.95
B2346	N4-NF1 - CFRHS120X80X6	3.600	potres 3/2	**5.16**	-1.83	0.87	-0.22	1.11	0.81
B2343	N4-NF1 - CFRHS120X80X6	4.500	potres 3/2	-0.17	**-2.90**	0.77	-0.12	1.30	-3.36
B2343	N4-NF1 - CFRHS120X80X6	0.000	potres 3/2	0.10	**2.90**	-0.87	-0.12	1.36	**-3.36**
B2346	N4-NF1 - CFRHS120X80X6	3.600	potres 7/3	-0.07	-1.01	**-1.48**	0.20	-1.40	-0.34
B2341	N4-NF1 - CFRHS120X80X6	3.600	potres 3/2	0.60	-1.84	**1.47**	0.23	-1.71	-0.94
B2346	N4-NF1 - CFRHS120X80X6	0.000	potres 6/4	2.25	1.88	-0.81	**-0.30**	1.83	-1.89
B2348	N4-NF1 - CFRHS120X80X6	0.000	potres 6/4	2.69	1.86	-1.20	**0.30**	2.07	-1.86
B2344	N4-NF1 - CFRHS120X80X6	4.500	potres 2/1	-1.08	-1.05	-1.25	0.22	**-2.87**	-0.03
B2344	N4-NF1 - CFRHS120X80X6	0.000	potres 3/2	0.83	2.26	-1.48	-0.23	**2.93**	-2.81
B2343	N4-NF1 - CFRHS120X80X6	2.100	potres 3/2	0.32	-0.42	-0.52	-0.12	-0.47	**1.38**

21. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N4-N1 - HEA200

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2313	N4-N1 - HEA200	0.600	NC17	**-4.54**	-10.86	-3.72	-0.06	-1.95	**-6.52**
B2314	N4-N1 - HEA200	1.000	NC35	**1.39**	-0.64	3.87	0.04	-2.83	0.64
B2313	N4-N1 - HEA200	0.000	NC17	-4.52	**-10.86**	-2.78	0.00	0.00	0.00
B2301	N4-N1 - HEA200	0.000	NC26	-4.50	**11.02**	-2.54	-0.01	0.00	0.00
B2310	N4-N1 - HEA200	0.600	NC34	0.18	-1.15	**-7.93**	0.00	-4.47	-0.69

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2311	N4-N1 - HEA200	0.000	NC36	-2.10	-0.06	**31.29**	-0.03	**-39.76**	0.02
B2308	N4-N1 - HEA200	0.000	NC35	0.30	6.67	25.83	**-0.12**	-33.27	-5.15
B2314	N4-N1 - HEA200	0.000	NC17	-0.78	-6.73	20.35	**0.11**	-22.00	5.24
B2305	N4-N1 - HEA200	0.000	NC21	0.11	1.20	-2.68	-0.01	**3.53**	-0.97
B2301	N4-N1 - HEA200	0.600	NC26	-4.52	11.02	-3.48	0.06	-1.81	**6.61**

22. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N4-N1 - HEA200

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2308	N4-N1 - HEA200	0.000	potres 6/4	**-6.22**	3.01	11.70	-0.01	**-15.56**	2.43
B2308	N4-N1 - HEA200	0.000	potres 7/3	**6.23**	-3.01	4.39	0.01	-4.91	-2.43
B2308	N4-N1 - HEA200	0.000	potres 2/1	2.19	**-8.42**	6.72	0.02	-8.26	**-7.44**
B2308	N4-N1 - HEA200	0.000	potres 3/2	-2.18	**8.42**	9.37	-0.02	-12.21	**7.44**
B2313	N4-N1 - HEA200	0.600	potres 2/1	-4.19	-4.88	**-6.18**	-0.03	-3.60	-2.89
B2311	N4-N1 - HEA200	0.000	potres 6/4	-5.85	-5.02	**11.80**	0.02	-15.54	-3.57
B2304	N4-N1 - HEA200	0.000	potres 3/2	1.62	-2.07	-1.13	**-0.07**	0.00	0.00
B2310	N4-N1 - HEA200	0.000	potres 3/2	-1.58	2.10	-1.14	**0.07**	0.00	0.00
B2313	N4-N1 - HEA200	0.600	potres 3/2	3.96	3.60	3.73	0.03	**2.34**	2.12

23. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N4-S1 - CFRHS300X200X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2309	N4-S1 - CFRHS300X200X8	0.000	NC34	**-69.69**	-1.48	17.96	-0.43	-63.80	2.31
B2303	N4-S1 - CFRHS300X200X8	4.115	NC20	**5.08**	-0.39	0.26	-0.01	2.97	-1.54
B2300	N4-S1 - CFRHS300X200X8	3.750	NC41	-29.50	**-7.86**	1.67	6.81	-21.20	-2.38
B2312	N4-S1 - CFRHS300X200X8	3.750	NC35	-29.67	**8.25**	3.23	-9.74	-22.01	2.84
B2309	N4-S1 - CFRHS300X200X8	0.000	NC27	-58.67	-0.17	**-26.33**	0.30	33.23	0.38
B2303	N4-S1 - CFRHS300X200X8	0.000	NC44	-59.85	0.18	**33.52**	0.62	-91.13	-0.35
B2306	N4-S1 - CFRHS300X200X8	3.750	NC43	-33.65	2.49	0.05	**-10.22**	-23.79	-0.47
B2306	N4-S1 - CFRHS300X200X8	3.750	NC33	-42.44	-2.63	0.54	**10.28**	-30.34	0.39
B2309	N4-S1 - CFRHS300X200X8	0.000	NC17	-67.65	0.38	32.85	0.66	**-101.71**	-0.68
B2303	N4-S1 - CFRHS300X200X8	0.000	NC22	-7.81	-0.07	-24.77	0.42	**60.31**	0.11
B2300	N4-S1 - CFRHS300X200X8	4.115	NC25	-28.85	-7.46	0.96	4.01	-19.78	**-6.68**
B2312	N4-S1 - CFRHS300X200X8	4.115	NC15	-28.89	7.56	1.27	-4.11	-19.81	**6.79**

24. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N4-S1 - CFRHS300X200X8

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2309	N4-S1 - CFRHS300X200X8	0.000	potres 7/3	**-29.89**	-3.12	12.11	0.02	39.42	6.52
B2309	N4-S1 - CFRHS300X200X8	3.750	potres 3/2	-11.80	**-11.11**	5.98	6.34	-13.31	10.59
B2303	N4-S1 - CFRHS300X200X8	3.750	potres 3/2	-11.91	**11.04**	6.07	-6.31	-13.31	-10.63
B2306	N4-S1 - CFRHS300X200X8	0.000	potres 6/4	-22.28	3.15	**-13.09**	0.01	**-59.83**	6.58
B2306	N4-S1 - CFRHS300X200X8	0.000	potres 7/3	-29.19	-3.15	**13.06**	-0.01	**41.59**	-6.58
B2306	N4-S1 - CFRHS300X200X8	3.750	potres 3/2	-12.03	8.70	3.26	**-7.35**	-11.95	-10.61
B2306	N4-S1 - CFRHS300X200X8	3.750	potres 2/1	-14.42	-8.70	-3.23	**7.35**	-6.46	10.61
B2300	N4-S1 - CFRHS300X200X8	0.000	potres 3/2	-9.38	9.69	-5.51	0.04	-29.95	**-21.65**
B2312	N4-S1 - CFRHS300X200X8	0.000	potres 2/1	-21.81	-9.71	5.91	0.05	17.20	**21.66**

25. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N4-N2 - UNP180

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2319	N4-N2 - UNP180	2.100	NC26	**-13.14**	0.01	0.56	0.00	0.63	-0.75
B2323	N4-N2 - UNP180	1.200	NC31	**9.10**	0.07	0.07	0.00	0.00	0.06
B2331	N4-N2 - UNP180	0.000	NC17	0.00	**-3.01**	0.70	0.00	-0.25	**1.43**
B2338	N4-N2 - UNP180	0.500	NC26	0.00	**2.99**	-0.48	0.00	-0.14	1.42
B2330	N4-N2 - UNP180	0.000	NC18	0.05	-1.45	**-4.72**	0.00	2.03	1.23
B2318	N4-N2 - UNP180	4.500	NC27	0.05	1.45	**4.72**	0.00	2.02	1.23
B2330	N4-N2 - UNP180	2.700	NC17	0.88	-0.23	0.41	**-0.02**	-4.87	-0.07
B2318	N4-N2 - UNP180	1.800	NC26	0.89	0.22	-0.41	**0.02**	-4.88	-0.07
B2330	N4-N2 - UNP180	2.400	NC35	0.70	-0.24	-0.11	-0.02	**-5.23**	0.01
B2322	N4-N2 - UNP180	0.000	NC36	0.27	-0.75	-2.90	0.00	**3.40**	0.34
B2323	N4-N2 - UNP180	2.400	NC17	-12.95	-0.01	-0.56	0.00	0.64	**-0.75**

26. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N4-N2 - UNP180

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2323	N4-N2 - UNP180	3.600	potres 6/4	**-7.10**	-0.98	-0.38	0.00	-0.45	0.40
B2323	N4-N2 - UNP180	3.600	potres 7/3	**5.10**	0.97	-0.77	0.00	0.11	-0.45
B2331	N4-N2 - UNP180	0.000	potres 3/2	0.32	**-2.75**	-4.18	0.00	2.13	1.37
B2338	N4-N2 - UNP180	0.400	potres 2/1	-0.37	**2.76**	4.21	0.00	1.71	1.10
B2338	N4-N2 - UNP180	0.500	potres 3/2	0.32	-2.57	**-4.62**	0.00	-2.27	-1.28
B2331	N4-N2 - UNP180	0.000	potres 2/1	-0.37	2.56	**4.62**	0.00	-2.27	-1.28
B2339	N4-N2 - UNP180	0.000	potres 3/2	1.56	-0.06	-1.04	**-0.01**	0.00	0.00
B2340	N4-N2 - UNP180	0.000	potres 3/2	-1.71	-0.06	1.05	**0.01**	0.00	0.00
B2339	N4-N2 - UNP180	2.000	potres 2/1	-1.67	0.15	-2.36	0.01	**-2.64**	0.24
B2340	N4-N2 - UNP180	2.000	potres 3/2	-2.55	0.48	-4.49	0.01	**2.65**	-0.27
B2323	N4-N2 - UNP180	1.800	potres 2/1	2.32	-0.88	0.23	0.00	0.51	**-2.06**
B2323	N4-N2 - UNP180	1.800	potres 3/2	-4.32	0.86	-0.01	0.00	-0.01	**2.04**

27. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N4-N3 - IPE180

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2325	N4-N3 - IPE180	2.250	NC31	**-6.58**	0.14	0.80	0.00	-0.43	-0.01
B2321	N4-N3 - IPE180	3.900	NC26	**7.28**	0.21	-6.89	0.00	-1.59	0.20
B2336	N4-N3 - IPE180	0.000	NC26	-0.17	**-2.65**	-6.31	0.01	0.00	0.00
B2333	N4-N3 - IPE180	0.500	NC17	-0.16	**2.64**	6.47	-0.01	0.00	0.00
B2317	N4-N3 - IPE180	4.500	NC42	3.18	-0.17	**-9.40**	0.01	-6.99	-0.57
B2329	N4-N3 - IPE180	0.000	NC36	1.19	0.08	**9.42**	-0.01	-7.14	-0.32
B2329	N4-N3 - IPE180	2.700	NC17	5.77	0.44	-1.89	**-0.03**	5.78	0.10
B2317	N4-N3 - IPE180	1.800	NC26	5.86	-0.43	1.87	**0.03**	5.82	0.10
B2329	N4-N3 - IPE180	0.000	NC18	-1.81	-0.01	9.24	-0.01	**-7.24**	-0.08
B2317	N4-N3 - IPE180	2.250	NC42	3.18	-0.28	0.18	0.02	**6.49**	-0.07
B2336	N4-N3 - IPE180	0.500	NC26	-0.17	-2.63	-6.86	0.01	-3.29	**-1.32**
B2328	N4-N3 - IPE180	4.500	NC17	-3.66	1.01	-6.18	0.00	-4.54	**1.30**

28. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N4-N3 - IPE180

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2328	N4-N3 - IPE180	0.000	potres 2/1	**-5.71**	0.71	-1.60	0.00	5.76	0.68
B2325	N4-N3 - IPE180	0.000	potres 6/4	**4.68**	-2.60	3.11	0.00	-2.69	2.67
B2325	N4-N3 - IPE180	3.600	potres 7/3	-4.17	**-2.62**	-0.94	0.00	-0.77	-0.55
B2325	N4-N3 - IPE180	3.600	potres 6/4	4.16	**2.64**	-2.59	0.00	0.25	0.57
B2332	N4-N3 - IPE180	0.500	potres 3/2	-0.59	1.93	**-7.88**	0.00	0.00	0.00
B2337	N4-N3 - IPE180	0.000	potres 3/2	-0.59	-1.98	**7.88**	0.00	0.00	0.00
B2333	N4-N3 - IPE180	0.000	potres 3/2	0.39	-1.45	5.56	**-0.01**	-2.74	0.73
B2336	N4-N3 - IPE180	0.000	potres 3/2	0.29	1.53	-5.38	**0.01**	0.00	0.00
B2316	N4-N3 - IPE180	4.500	potres 3/2	2.29	0.65	-4.76	0.00	**-8.35**	-0.84
B2316	N4-N3 - IPE180	0.000	potres 2/1	-4.33	-0.69	-1.74	0.00	**6.35**	-0.65
B2325	N4-N3 - IPE180	4.500	potres 7/3	-4.17	-2.62	-1.47	0.00	-1.41	**-2.76**
B2325	N4-N3 - IPE180	4.500	potres 6/4	4.16	2.64	-3.11	0.00	-2.84	**2.79**

29. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N4-TNS1 - Rectangle (600; 600)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2352	N4-TNS1 - Rectangle	1.000	NC34	**-81.62**	17.90	-1.54	-0.43	-3.83	81.74
B2352	N4-TNS1 - Rectangle	1.000	NC27	-70.59	**-26.39**	-0.23	0.30	-0.58	-59.59
B2350	N4-TNS1 - Rectangle	1.000	NC44	-71.78	**33.58**	0.24	0.62	0.55	124.69
B2349	N4-TNS1 - Rectangle	1.000	NC25	-51.22	8.17	**-2.98**	-0.28	**-6.66**	46.56
B2353	N4-TNS1 - Rectangle	1.000	NC24	-45.65	-2.43	**3.01**	-0.01	**6.65**	6.68
B2352	N4-TNS1 - Rectangle	0.000	NC34	-69.69	17.96	-1.48	**-0.43**	-2.31	63.80
B2350	N4-TNS1 - Rectangle	0.000	NC26	-67.71	32.85	0.21	**0.67**	0.43	101.69
B2352	N4-TNS1 - Rectangle	1.000	NC31	-16.66	-24.83	-0.08	0.43	-0.11	**-85.11**
B2352	N4-TNS1 - Rectangle	1.000	NC17	-79.58	32.91	0.44	0.66	1.10	**134.59**

30. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N4-TNS1 - Rectangle (600; 600)

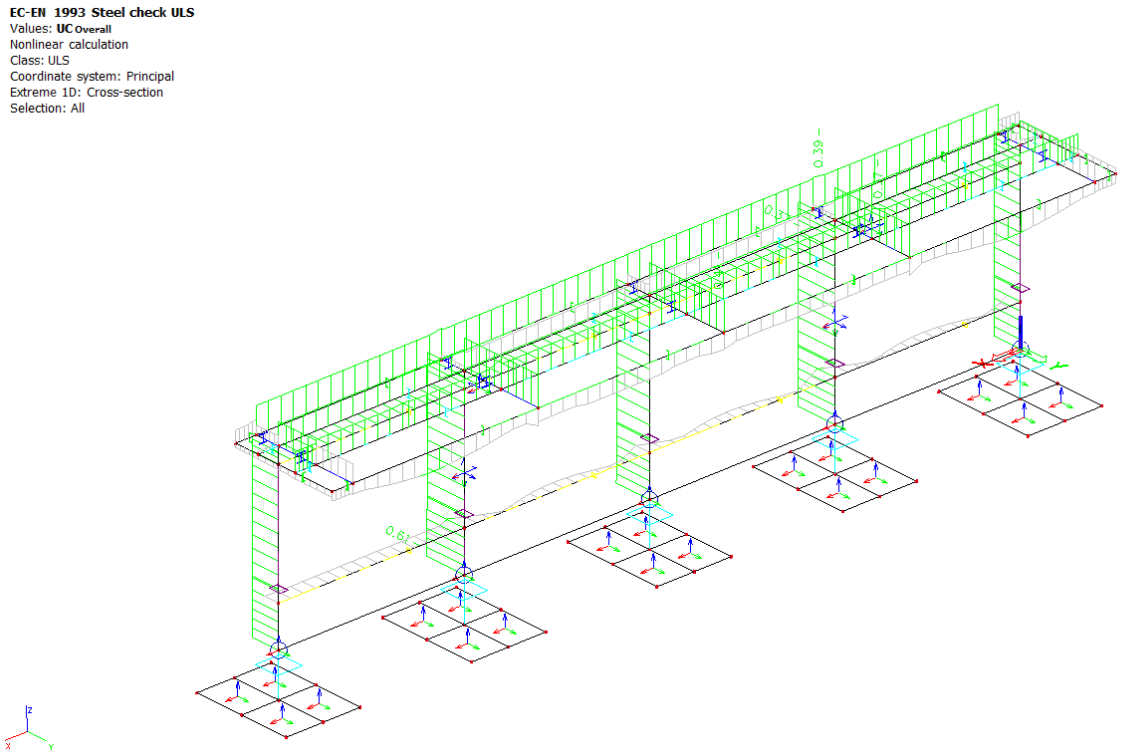
Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2352	N4-TNS1 - Rectangle	1.000	potres 7/3	**-38.77**	13.66	-3.33	0.02	-9.68	68.28
B2351	N4-TNS1 - Rectangle	0.800	potres 6/4	-29.29	**-14.77**	3.36	0.01	9.11	69.95
B2351	N4-TNS1 - Rectangle	0.800	potres 7/3	-36.31	**14.73**	-3.36	-0.01	-9.11	-51.73
B2349	N4-TNS1 - Rectangle	0.800	potres 2/1	-28.87	6.27	**-11.24**	-0.05	-29.68	34.65
B2353	N4-TNS1 - Rectangle	0.800	potres 3/2	-16.39	-5.86	**11.26**	-0.04	29.70	34.56
B2349	N4-TNS1 - Rectangle	0.000	potres 2/1	-21.79	5.96	-10.69	**-0.05**	-21.11	-17.27
B2353	N4-TNS1 - Rectangle	0.000	potres 2/1	-21.82	5.94	-9.77	**0.05**	-21.66	-17.20
B2349	N4-TNS1 - Rectangle	1.000	potres 2/1	-30.64	6.27	-11.24	-0.05	**-31.86**	35.83
B2353	N4-TNS1 - Rectangle	1.000	potres 3/2	-18.15	-5.86	11.26	-0.04	**31.88**	35.74
B2351	N4-TNS1 - Rectangle	1.000	potres 6/4	-31.05	-14.77	3.36	0.01	9.76	**-54.34**
B2351	N4-TNS1 - Rectangle	1.000	potres 7/3	-38.07	14.73	-3.36	-0.01	-9.76	**72.55**

3.2. Izkoriščenost jeklenih elementov

31. EC-EN 1993 Steel check ULS

Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

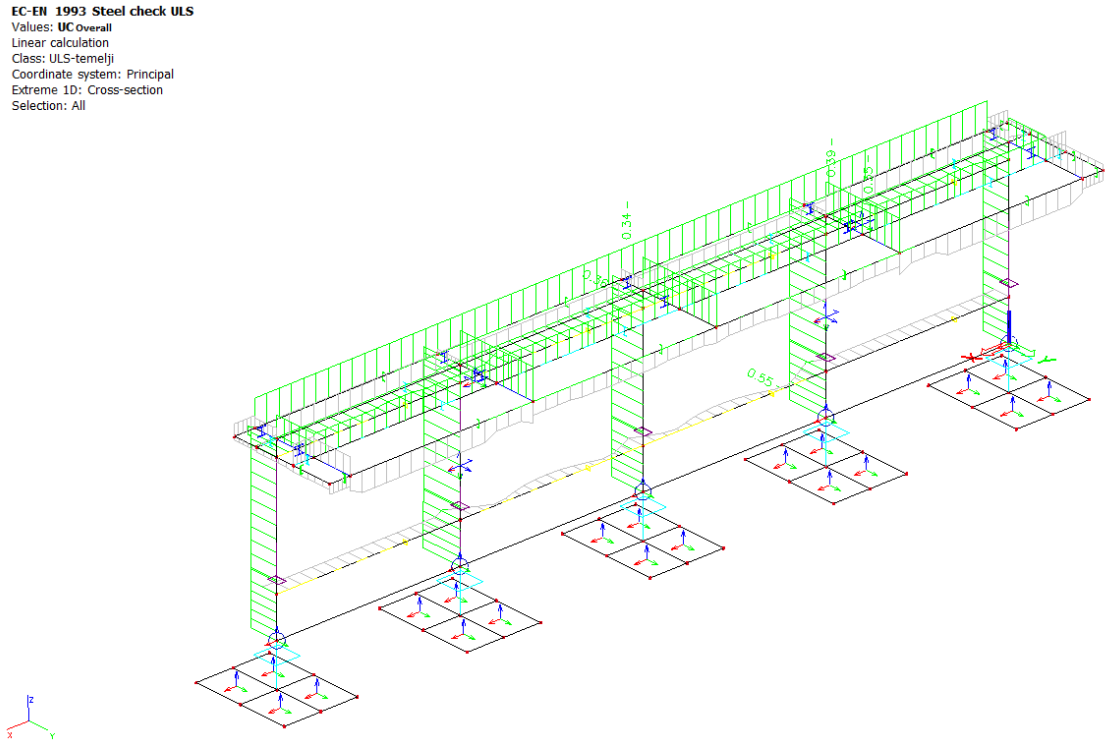
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2309	0.000	NC17	N4-S1 - CFRHS300X200X8	S 235	**0.61**	0.57	0.61
B2308	2.000	NC36	N4-N1 - HEA200	S 235	**0.41**	0.03	0.41
B2315	4.500	NC26	N4-N2 - UNP180	S 235	**0.39**	0.16	0.39
B2317	4.500	NC18	N4-N3 - IPE180	S 235	**0.37**	0.17	0.37
B2341	0.000	NC35	N4-NF1 - CFRHS120X80X6	S 235	**0.37**	0.13	0.37



32. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-temelji
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

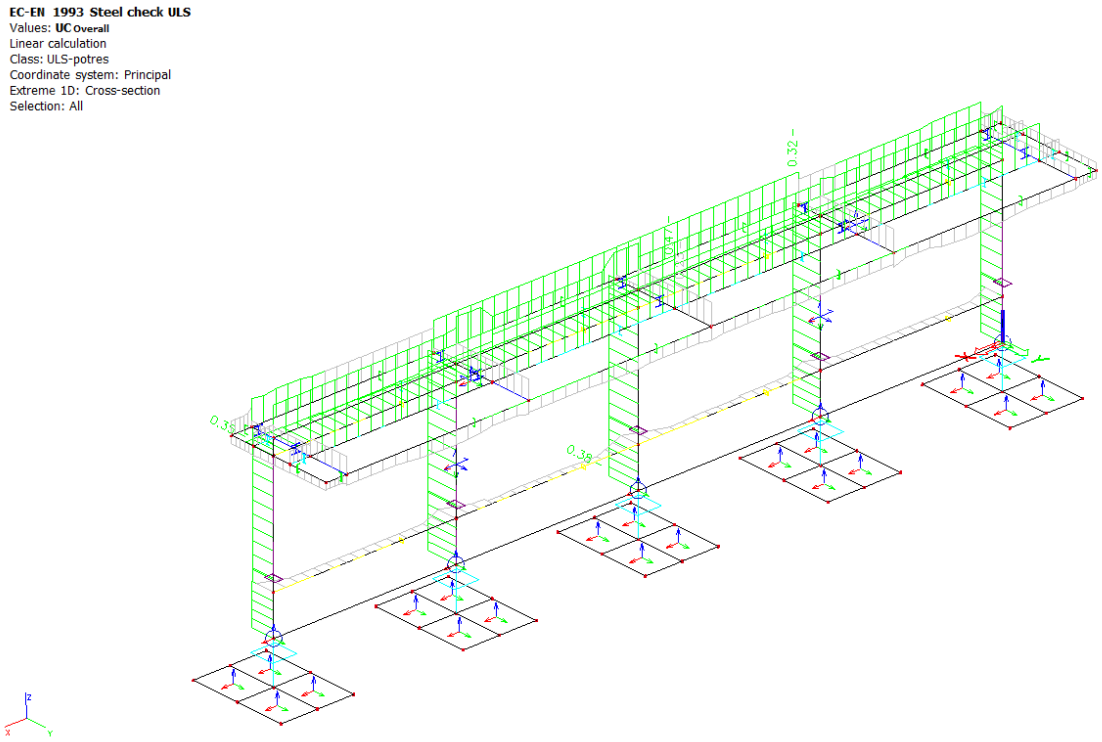
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2303	0.000	MSN-temelj-3-1/1	N4-S1 - CFRHS300X200X8	S 235	**0.55**	0.52	0.55
B2305	0.000	MSN-temelj-1-1/2	N4-N1 - HEA200	S 235	**0.39**	0.37	0.39
B2319	4.500	MSN-temelj-3-1/1	N4-N2 - UNP180	S 235	**0.34**	0.15	0.34
B2317	4.500	MSN-temelj-1-1/2	N4-N3 - IPE180	S 235	**0.35**	0.17	0.35
B2341	4.500	MSN-temelj-6-1/3	N4-NF1 - CFRHS120X80X6	S 235	**0.36**	0.23	0.36



33. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

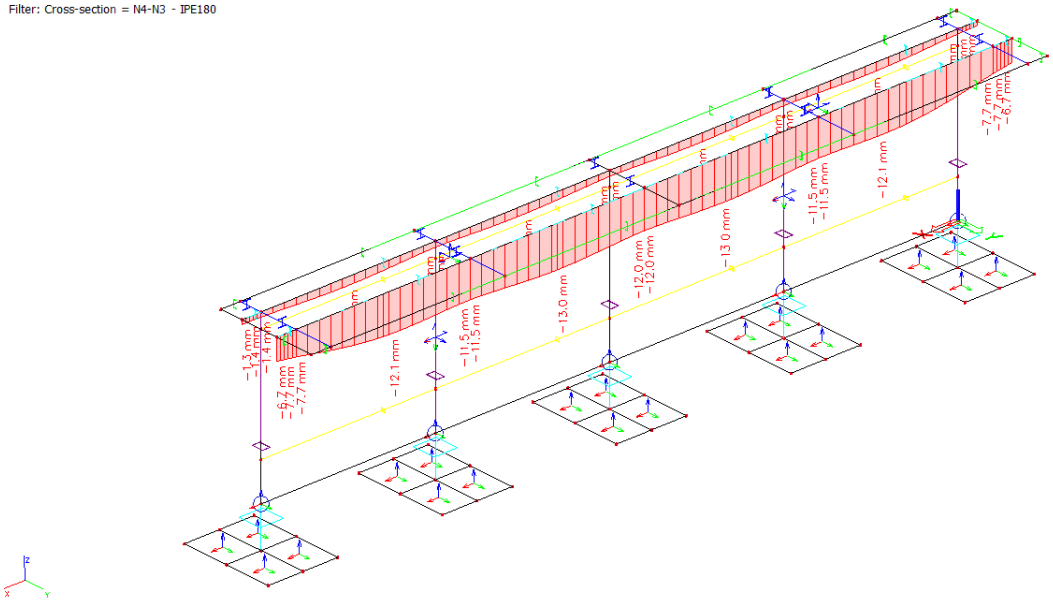
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2306	0.000	potres 7/1	N4-S1 - CFRHS300X200X8	S 235	**0.38**	0.34	0.38
B2308	1.000+	potres 2/2	N4-N1 - HEA200	S 235	**0.23**	0.05	0.23
B2319	0.000	potres 3/3	N4-N2 - UNP180	S 235	**0.32**	0.13	0.32
B2325	0.000	potres 7/1	N4-N3 - IPE180	S 235	**0.47**	0.33	0.47
B2346	4.500	potres 2/2	N4-NF1 - CFRHS120X80X6	S 235	**0.35**	0.19	0.35



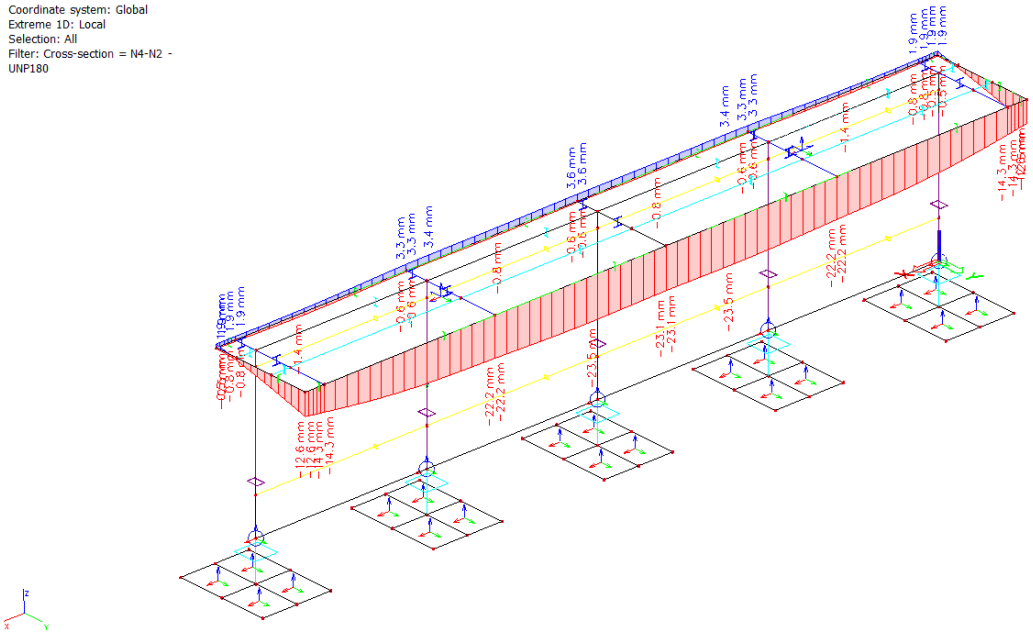
3.3. Pomiki

MSU – vertikalni pomiki

1D deformations
Values: uz
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Local
Selection: All
Filter: Cross-section = N4-N3 - IPE180

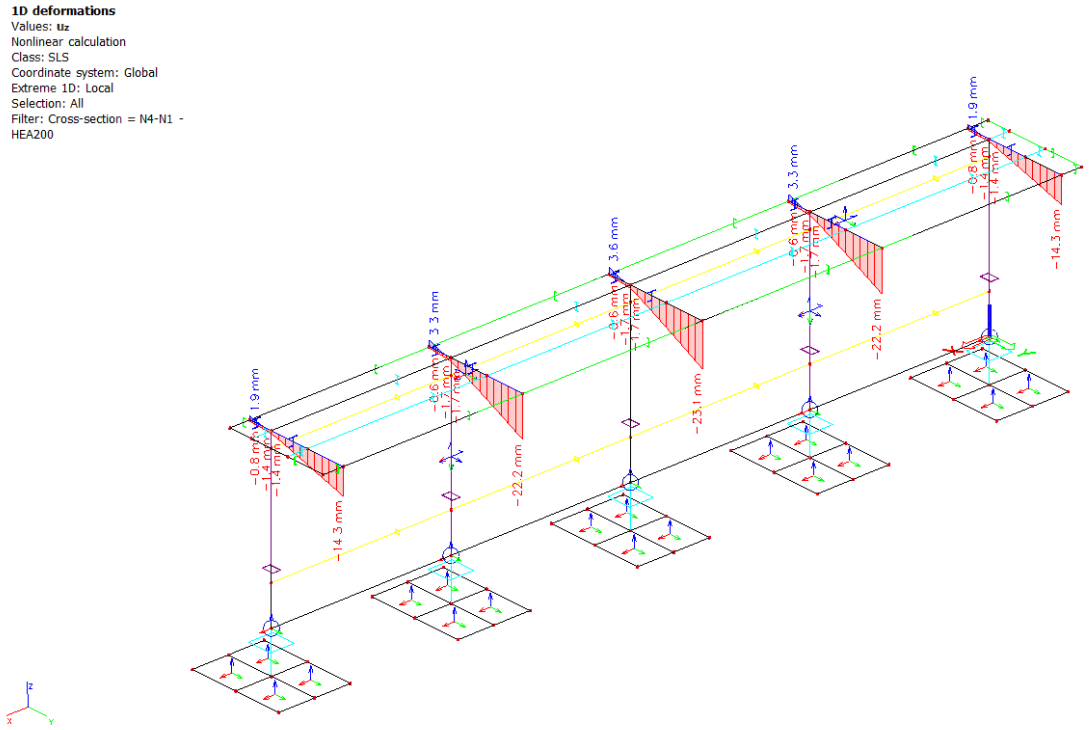


1D deformations
Values: uz
Nonlinear calculation
Class: SLS
Coordinate system: Global
Extreme 1D: Local
Selection: All
Filter: Cross-section = N4-N2 - UNP180



IPE180, NPU180

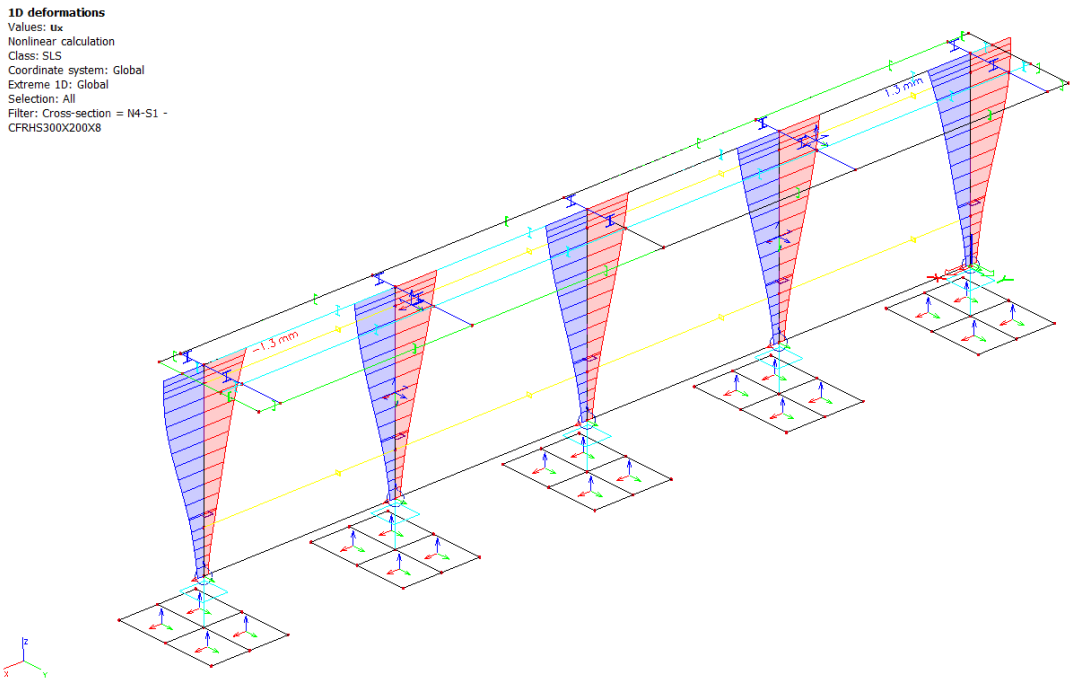
$w_{vert,max,Q}$ = 13-11= 2 mm ≤ $w_{vert,dov,Q}$ = L/200 = 4500/200 = 22.5 mm

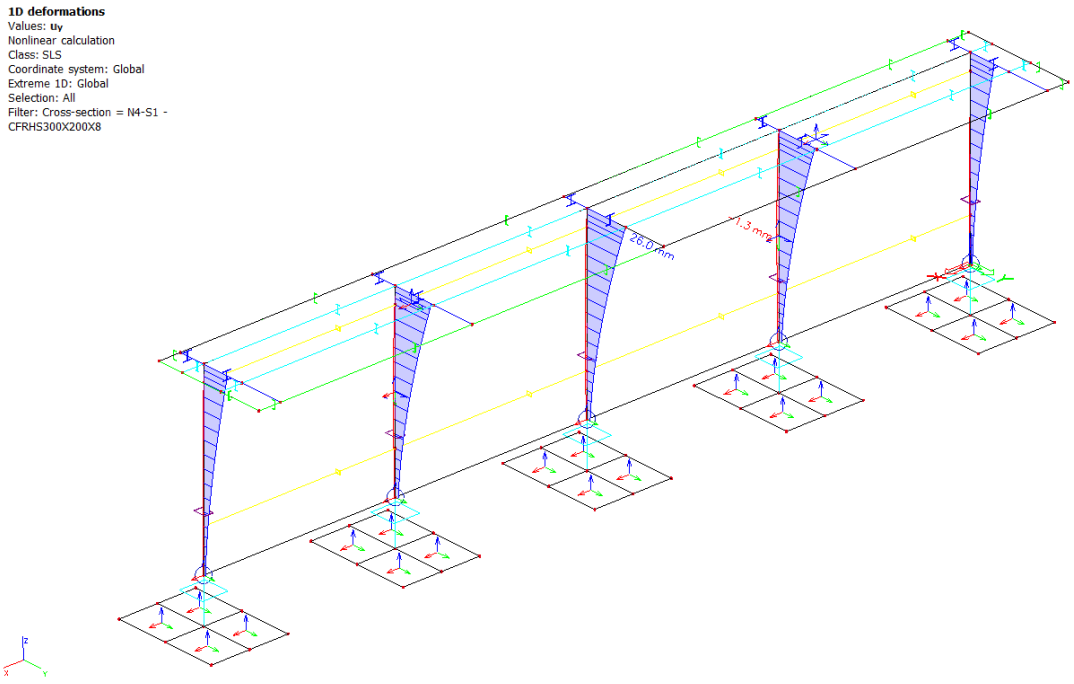


HEA200, konzola

$w_{vert,max,Q}$ = 23.1-1.7= 21.4 mm ≈ $w_{vert,dov,Q}$ = 2xL/250 = 2x2000/200 = 20 mm

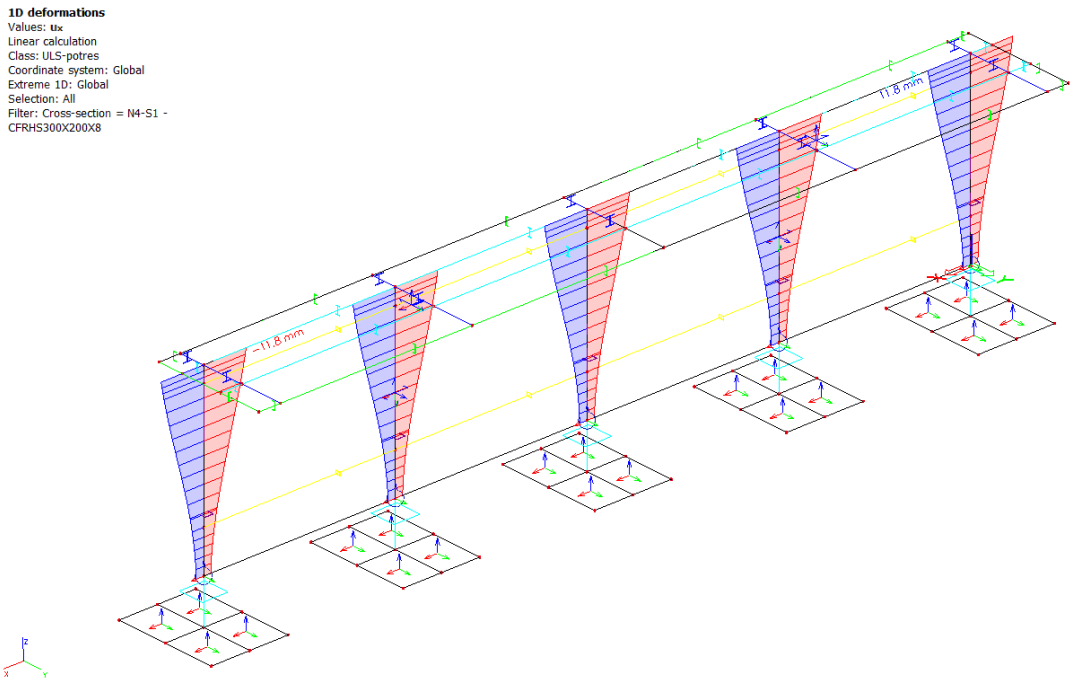
MSU – horizontalni pomiki

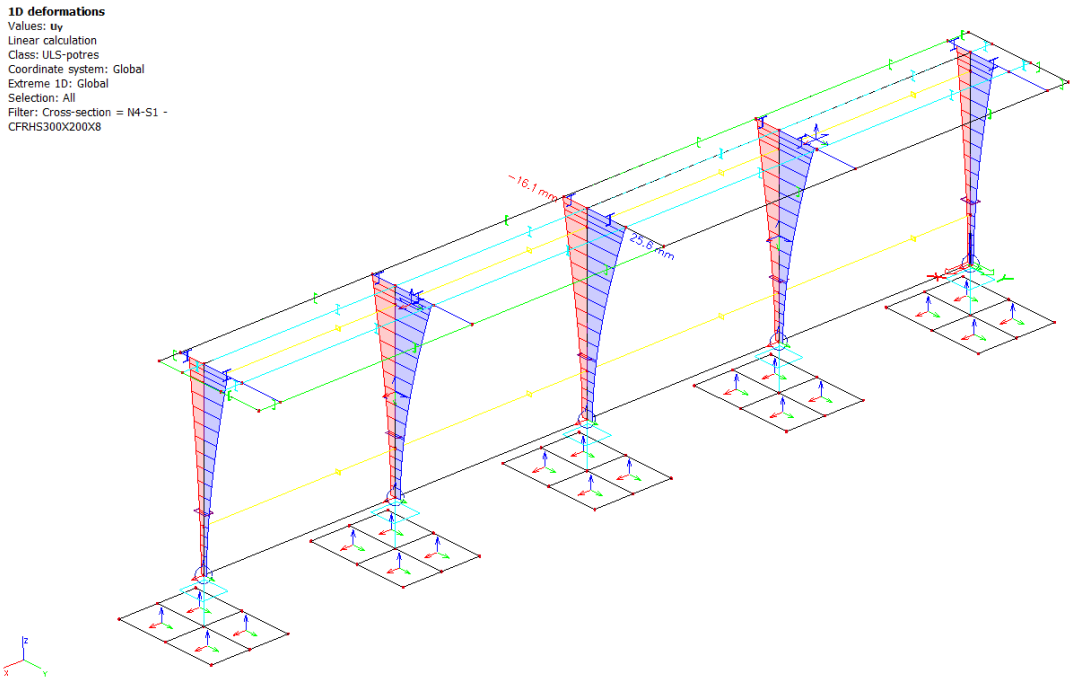




$u_{hor,max,W} = 26 \text{ mm} \leq u_{hor,dov,W} = h/150 = 4115/150 = 27.4 \text{ mm}$

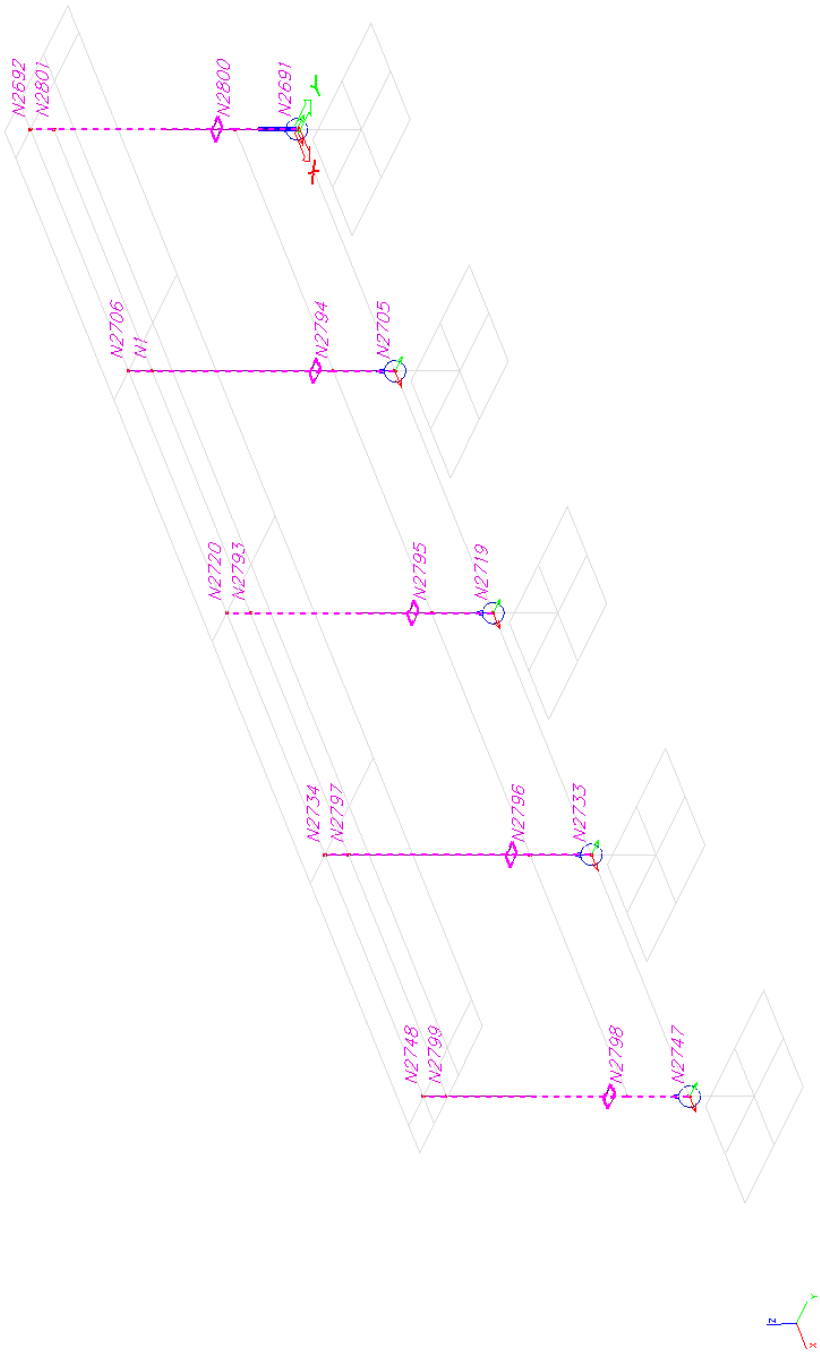
Potresna kombinacija





$U_{hor,max,E}$ = 1.5x25.6x0.5= 19.2 mm ≤ $U_{hor,dov,E}$ = 0.010xh = 0.010x4115 = 41.1 mm

4. REAKCIJE


N2692
N2801
N2800
N2691
N2706
N1
N2794
N2705
N2720
N2793
N2795
N2719
N2734
N2797
N2796
N2733
N2748
N2799
N2798
N2747

42. Connection forces

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC25	FC1	N2691	B2300	**-2.92**	8.23	-39.30	-38.37	-3.71	0.29
NC24	FC5	N2747	B2312	**2.95**	-2.49	-33.73	-9.14	3.67	0.01
NC27	FC4	N2733	B2309	-0.17	**-26.33**	-58.67	33.23	-0.38	-0.30
NC44	FC2	N2705	B2303	0.18	**33.52**	-59.85	-91.13	0.35	-0.62
NC34	FC4	N2733	B2309	-1.48	17.96	**-69.69**	-63.80	-2.31	**0.43**
NC29	FC5	N2747	B2312	-1.69	-3.14	**-4.80**	11.57	-3.75	-0.03
NC17	FC4	N2733	B2309	0.38	32.85	-67.65	**-101.71**	0.68	-0.66
NC22	FC2	N2705	B2303	-0.07	-24.77	-7.81	**60.31**	-0.11	-0.42
NC16	FC2	N2705	B2303	-2.56	-6.03	-58.44	-13.89	**-3.86**	0.08
NC15	FC4	N2733	B2309	2.57	12.56	-67.84	-54.43	**3.85**	-0.30
NC26	FC2	N2705	B2303	0.21	32.85	-67.71	-101.69	0.43	**-0.67**

43. Connection forces

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC25	FC1	N2691	B2300	**-2.92**	8.23	**-39.30**	-38.37	**-3.71**	0.29
NC24	FC1	N2691	B2300	**1.96**	8.71	-37.78	-40.24	**3.79**	-0.20
NC22	FC1	N2691	B2300	-0.45	**-14.62**	-5.27	**41.64**	0.57	-0.34
NC44	FC1	N2691	B2300	-0.14	**20.24**	-34.41	-64.75	0.77	-0.36
NC19	FC1	N2691	B2300	1.60	-3.08	**-4.81**	11.49	3.68	0.08
NC26	FC1	N2691	B2300	-0.07	19.90	-38.47	**-69.89**	0.80	**-0.38**
NC43	FC1	N2691	B2300	-2.07	13.17	-35.02	-45.53	-2.22	**0.34**
NC25	FC2	N2705	B2303	**-2.57**	11.92	-68.05	-52.17	-3.85	0.35
NC24	FC2	N2705	B2303	**2.38**	12.57	-68.20	-54.46	**3.60**	-0.31
NC18	FC2	N2705	B2303	-0.39	**-26.32**	-58.60	33.24	-0.69	-0.28
NC44	FC2	N2705	B2303	0.18	**33.52**	-59.85	-91.13	0.35	-0.62
NC42	FC2	N2705	B2303	1.50	18.61	**-69.40**	-66.09	2.32	-0.41
NC20	FC2	N2705	B2303	-2.23	-4.60	**-7.65**	14.06	-3.26	-0.06
NC26	FC2	N2705	B2303	0.21	32.85	-67.71	**-101.69**	0.43	**-0.67**
NC22	FC2	N2705	B2303	-0.07	-24.77	-7.81	**60.31**	-0.11	-0.42
NC16	FC2	N2705	B2303	-2.56	-6.03	-58.44	-13.89	**-3.86**	0.08
NC43	FC2	N2705	B2303	-1.64	20.78	-60.24	-60.92	-2.44	**0.42**
NC16	FC3	N2719	B2306	**-2.50**	3.74	-61.06	-35.72	**-3.79**	0.28
NC15	FC3	N2719	B2306	**2.59**	4.29	-61.03	-37.82	**3.80**	-0.14
NC27	FC3	N2719	B2306	-0.20	**-16.98**	-60.88	14.44	-0.38	-0.20
NC4	FC3	N2719	B2306	0.28	**27.69**	-60.95	**-91.21**	0.55	-0.59
NC3	FC3	N2719	B2306	-2.46	6.41	**-61.06**	-38.89	-3.72	0.26
NC22	FC3	N2719	B2306	-0.13	-16.18	**-12.39**	44.44	-0.28	-0.25
NC31	FC3	N2719	B2306	0.01	-16.23	-12.39	**44.53**	0.12	-0.35
NC26	FC3	N2719	B2306	0.11	25.01	-60.98	-88.03	0.38	**-0.60**
NC34	FC3	N2719	B2306	-1.64	3.77	-59.31	-34.50	-2.55	**0.29**
NC16	FC4	N2733	B2309	**-2.36**	11.93	-68.41	-52.19	**-3.60**	0.35
NC15	FC4	N2733	B2309	**2.57**	12.56	-67.84	-54.43	**3.85**	-0.30
NC27	FC4	N2733	B2309	-0.17	**-26.33**	-58.67	33.23	-0.38	-0.30
NC21	FC4	N2733	B2309	0.08	**33.42**	-17.04	-69.61	0.10	-0.51
NC34	FC4	N2733	B2309	-1.48	17.96	**-69.69**	-63.80	-2.31	**0.43**
NC30	FC4	N2733	B2309	0.04	15.75	**-7.65**	-32.64	0.08	-0.25
NC17	FC4	N2733	B2309	0.38	32.85	-67.65	**-101.71**	0.68	**-0.66**
NC31	FC4	N2733	B2309	-0.04	-24.78	-7.82	**60.31**	-0.05	-0.43
NC25	FC5	N2747	B2312	**-1.89**	-2.71	-32.20	-8.23	**-3.80**	0.07
NC24	FC5	N2747	B2312	**2.95**	-2.49	-33.73	-9.14	**3.67**	0.01
NC31	FC5	N2747	B2312	0.35	**-14.45**	-5.24	**41.28**	-0.72	-0.22
NC17	FC5	N2747	B2312	0.54	**20.11**	-38.72	**-70.32**	0.25	**-0.50**

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC33	FC5	N2747	B2312	1.91	12.34	**-39.89**	-49.43	2.30	-0.32
NC29	FC5	N2747	B2312	-1.69	-3.14	**-4.80**	11.57	-3.75	-0.03
NC34	FC5	N2747	B2312	-0.97	11.89	-38.96	-47.88	-2.42	**0.29**

44. Connection forces

Linear calculation, Extreme : Global
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 2/1	FC1	N2691	B2300	**-10.63**	5.93	-21.78	17.27	-21.11	**0.05**
potres 3/2	FC5	N2747	B2312	**10.64**	-5.49	**-9.35**	-29.88	21.11	0.04
potres 6/4	FC3	N2719	B2306	3.15	**-13.09**	-22.28	**-59.83**	-6.58	-0.01
potres 7/3	FC3	N2719	B2306	-3.15	**13.06**	-29.19	**41.59**	6.58	0.01
potres 7/3	FC4	N2733	B2309	-3.12	12.11	**-29.89**	39.42	-6.52	-0.02
potres 2/1	FC5	N2747	B2312	-9.71	5.91	-21.81	17.20	**-21.66**	**-0.05**
potres 3/2	FC1	N2691	B2300	9.69	-5.51	-9.38	-29.95	**21.65**	-0.04

45. Connection forces

Linear calculation, Extreme : Node
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 2/1	FC1	N2691	B2300	**-10.63**	5.93	**-21.78**	17.27	**-21.11**	**0.05**
potres 3/2	FC1	N2691	B2300	**9.69**	-5.51	**-9.38**	-29.95	**21.65**	**-0.04**
potres 6/4	FC1	N2691	B2300	2.67	**-7.06**	-12.77	**-36.01**	6.83	-0.02
potres 7/3	FC1	N2691	B2300	-3.60	**7.48**	-18.39	**23.33**	-6.28	0.02
potres 2/1	FC2	N2705	B2303	**-10.30**	7.58	-28.53	21.70	**-21.42**	**0.03**
potres 3/2	FC2	N2705	B2303	**10.24**	-7.98	-24.39	-38.71	**21.33**	**-0.03**
potres 6/4	FC2	N2705	B2303	3.13	**-11.76**	**-23.42**	**-54.49**	6.51	-0.02
potres 7/3	FC2	N2705	B2303	-3.19	**11.35**	**-29.49**	**37.49**	-6.60	0.02
potres 2/1	FC3	N2719	B2306	**-10.25**	4.27	-26.96	7.18	**21.44**	**0.02**
potres 3/2	FC3	N2719	B2306	**10.25**	-4.30	-24.51	-25.43	**-21.44**	**-0.02**
potres 6/4	FC3	N2719	B2306	3.15	**-13.09**	**-22.28**	**-59.83**	-6.58	-0.01
potres 7/3	FC3	N2719	B2306	-3.15	**13.06**	**-29.19**	**41.59**	6.58	0.01
potres 2/1	FC4	N2733	B2309	**-10.22**	7.74	-28.65	21.76	**-21.36**	**-0.03**
potres 3/2	FC4	N2733	B2309	**10.29**	-8.15	-24.27	-38.77	**21.45**	**0.03**
potres 6/4	FC4	N2733	B2309	3.19	**-12.51**	**-23.02**	**-56.43**	6.61	0.02
potres 7/3	FC4	N2733	B2309	-3.12	**12.11**	**-29.89**	**39.42**	-6.52	-0.02
potres 2/1	FC5	N2747	B2312	**-9.71**	5.91	**-21.81**	17.20	**-21.66**	**-0.05**
potres 3/2	FC5	N2747	B2312	**10.64**	-5.49	**-9.35**	-29.88	**21.11**	**0.04**
potres 6/4	FC5	N2747	B2312	3.60	**-7.39**	-12.64	**-37.30**	6.29	0.03
potres 7/3	FC5	N2747	B2312	-2.67	**7.81**	-18.53	**24.63**	-6.83	-0.03

5. AB TEMELJI

Del tega načrta so tudi novi AB točkovni temelji

- Temeljna peta

2.4 x 1.8 x 0.5 m

- Temeljni nastavek

70x70x75 cm

V okviru analize je bi upoštevan vertikalni modul podajnosti tal 26000 kN/m^3.

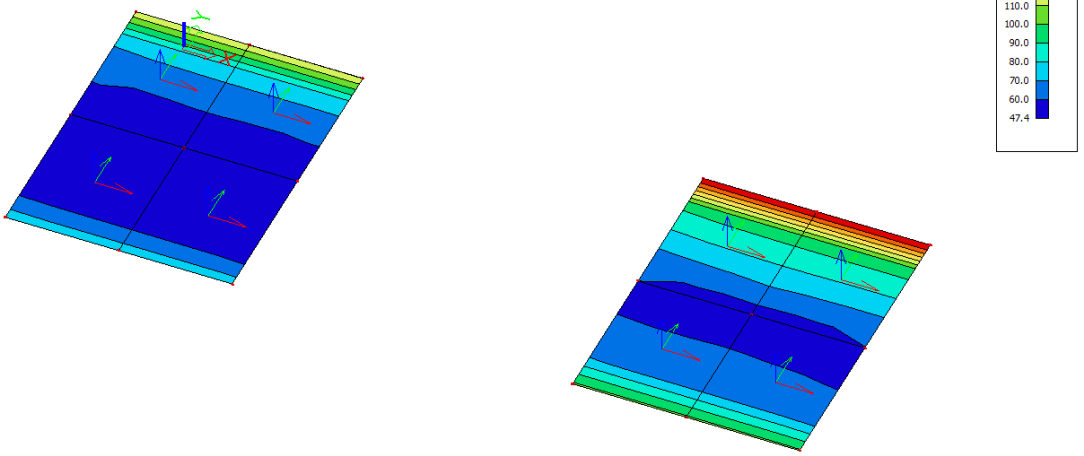
Vodneprepustni beton
C30/37, PV-II, XC2, XD3-odporen proti solem

Armatura S500B

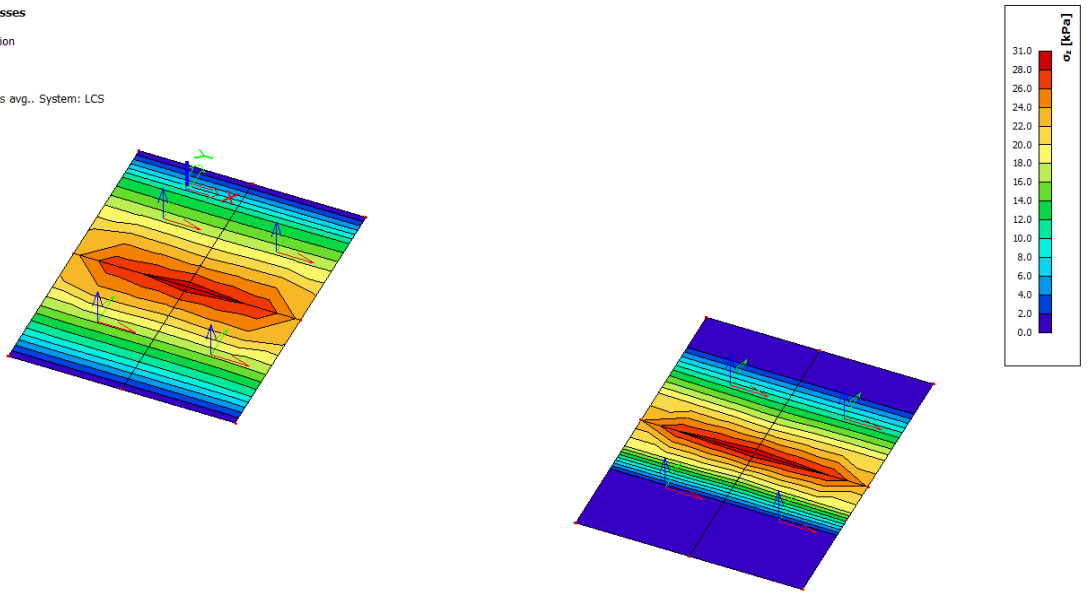
Kontaktne napetosti v temeljnih tleh

Maksimalne kontaktne napetosti R_d/A potd temelji pri ULS (faktrorirana obtežba) in pri potresnih obtežnih kombinacijah ne presegajo maksimalnih dovoljenih napetosti 190 kN/m^2.

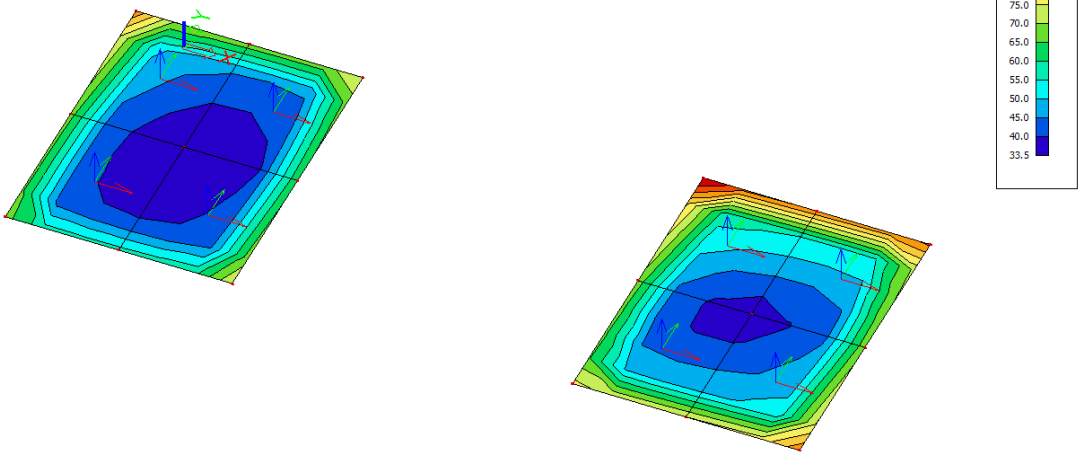
2D contact stresses
Values: σ_z
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element



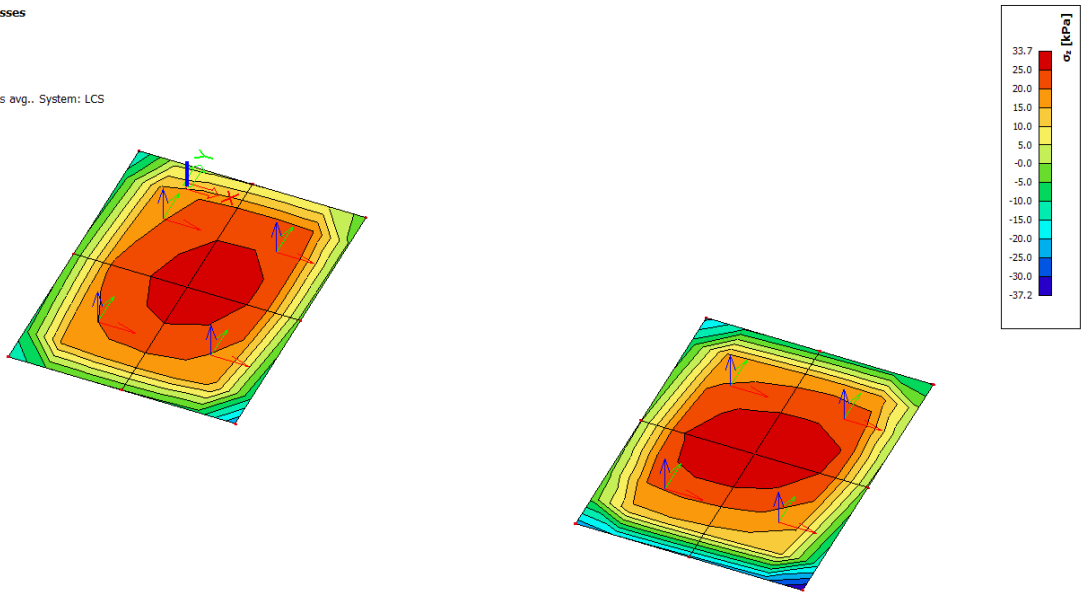
2D contact stresses
Values: σ_z
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element



2D contact stresses
Values: σ_z
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element



2D contact stresses
Values: σ_z
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element



Armatura

- Temeljna peta

2.4 x 1.8 x 0.5 m

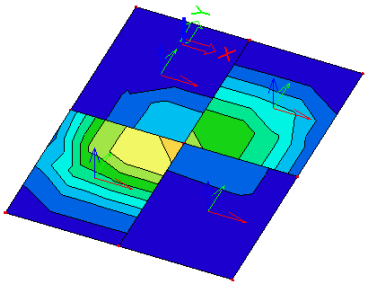
izberem armaturo zgoraj in spodaj v obeh smereh +/- ϕ16/15cm, $A_{s,dej}$ = 13.4 cm^2/m

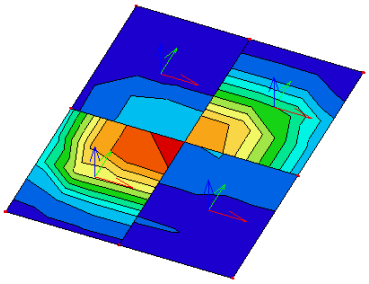
+

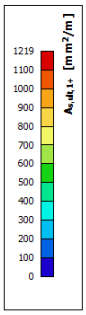
lokalno zgoraj in spodaj +/- ϕ14/15cm, $A_{s,dej}$ = 10.2 cm^2/m

skupaj lokalno $A_{s,dej}$ = 23.6 cm^2/m

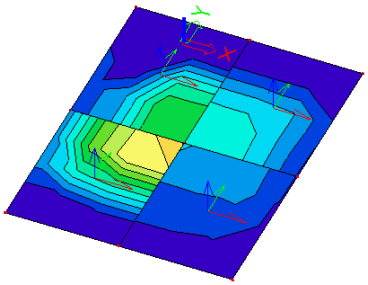
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1+}$
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

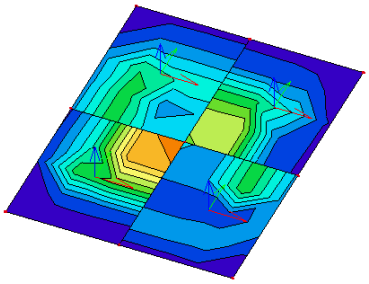


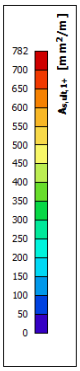




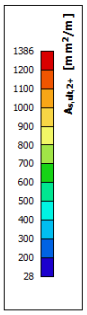
Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1+}$
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

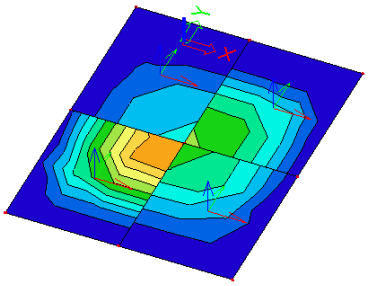


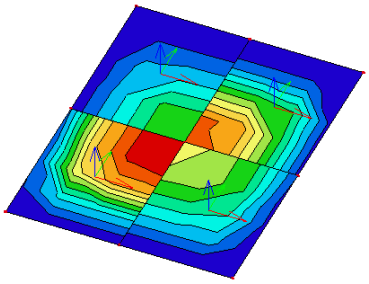




Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2+}$
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

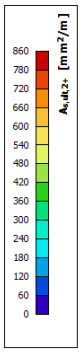


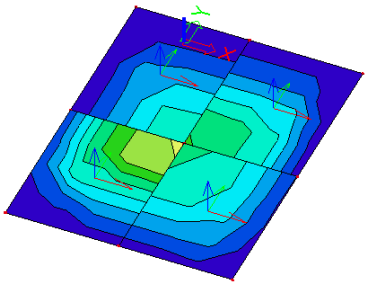


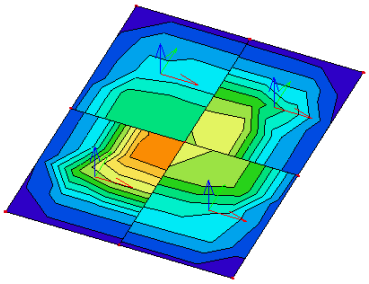




Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2+}$
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

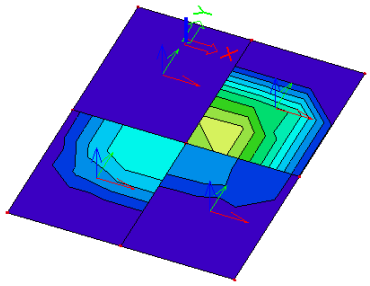


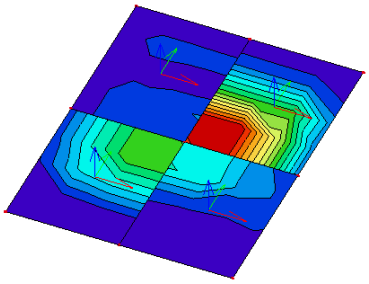


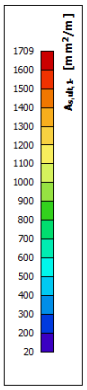




Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1}$-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

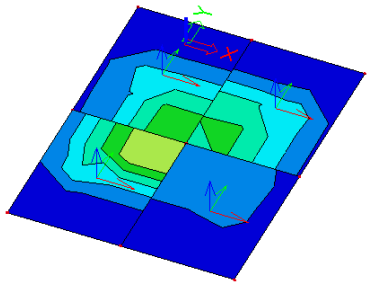


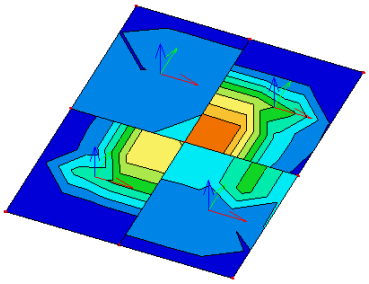


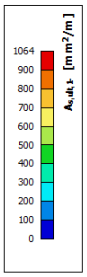




Reinforcement design (ULS+SLS)
Values: $A_{s,ult,1}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

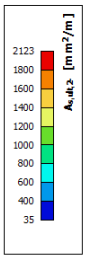


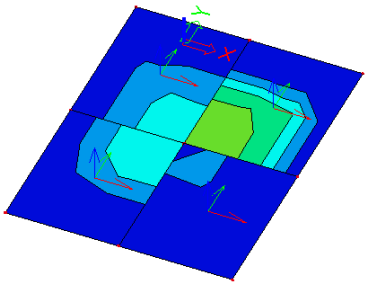


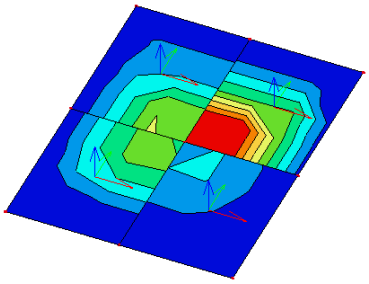




Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element

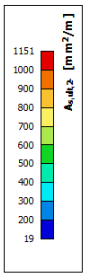


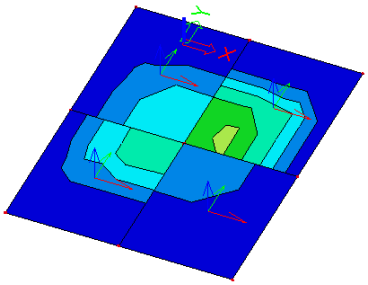


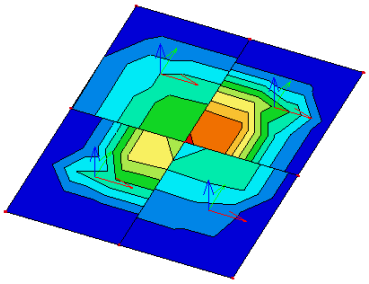




Reinforcement design (ULS+SLS)
Values: $A_{s,ult,2}$-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro.
System: LCS mesh element



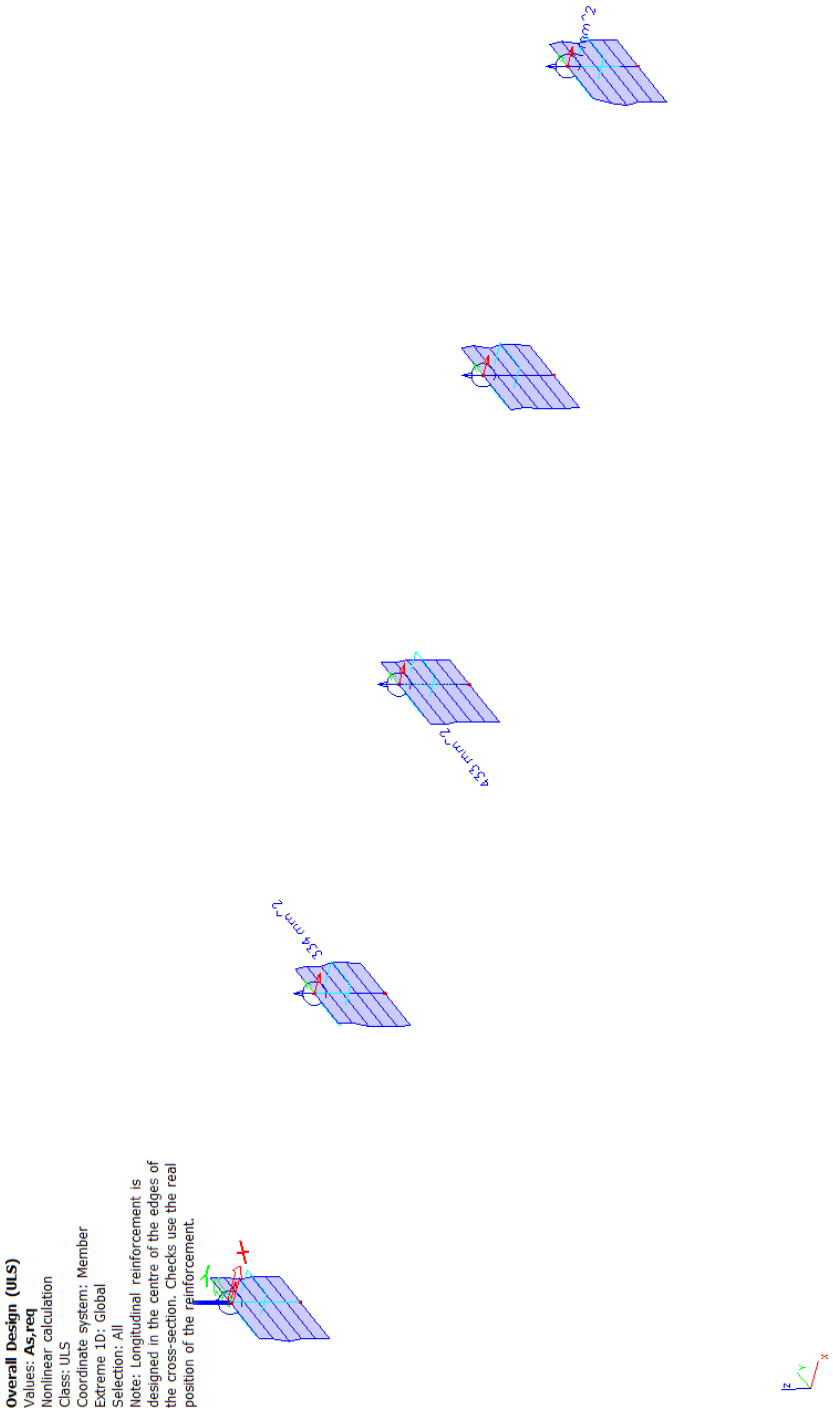


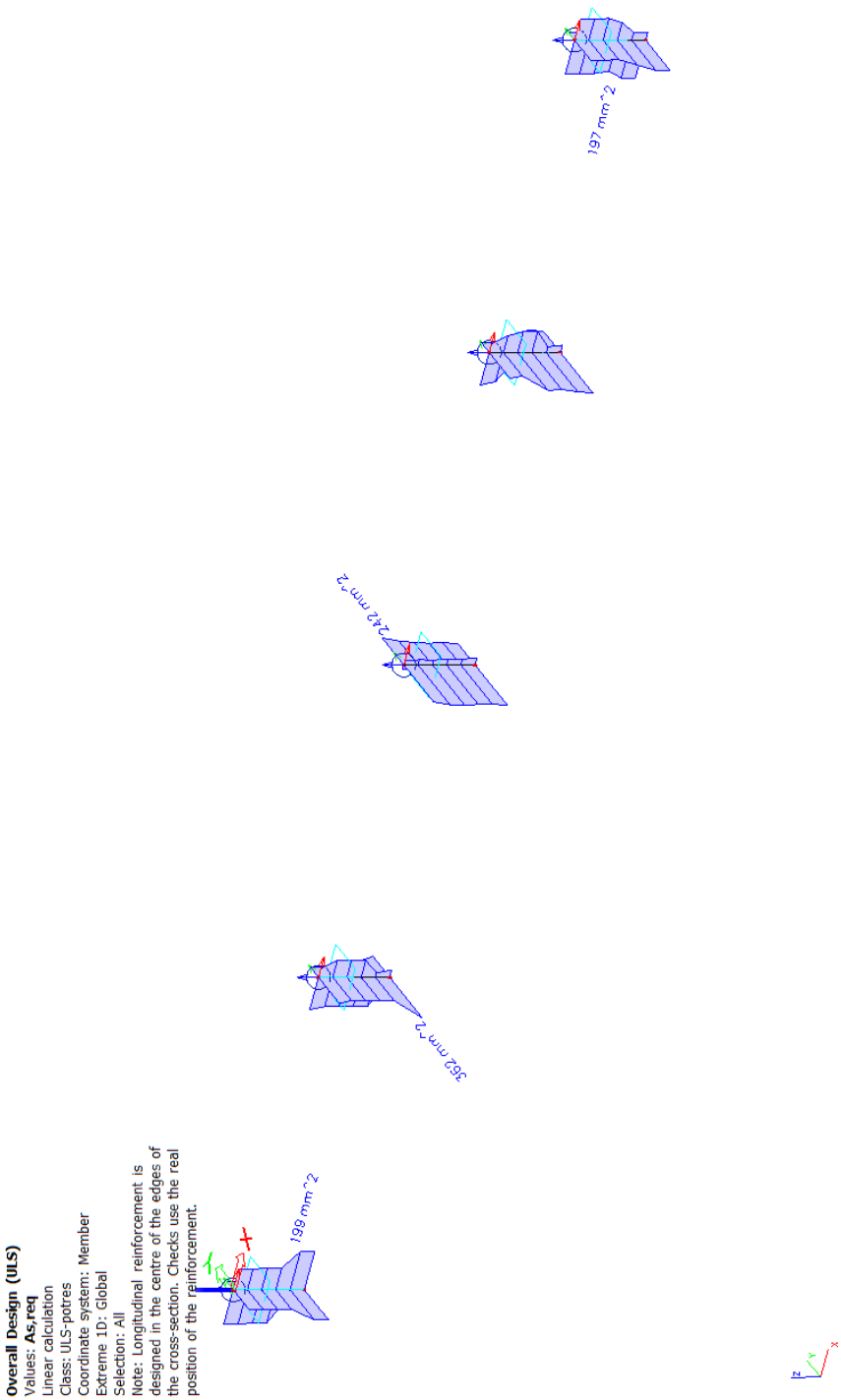




- Temeljni nastavki

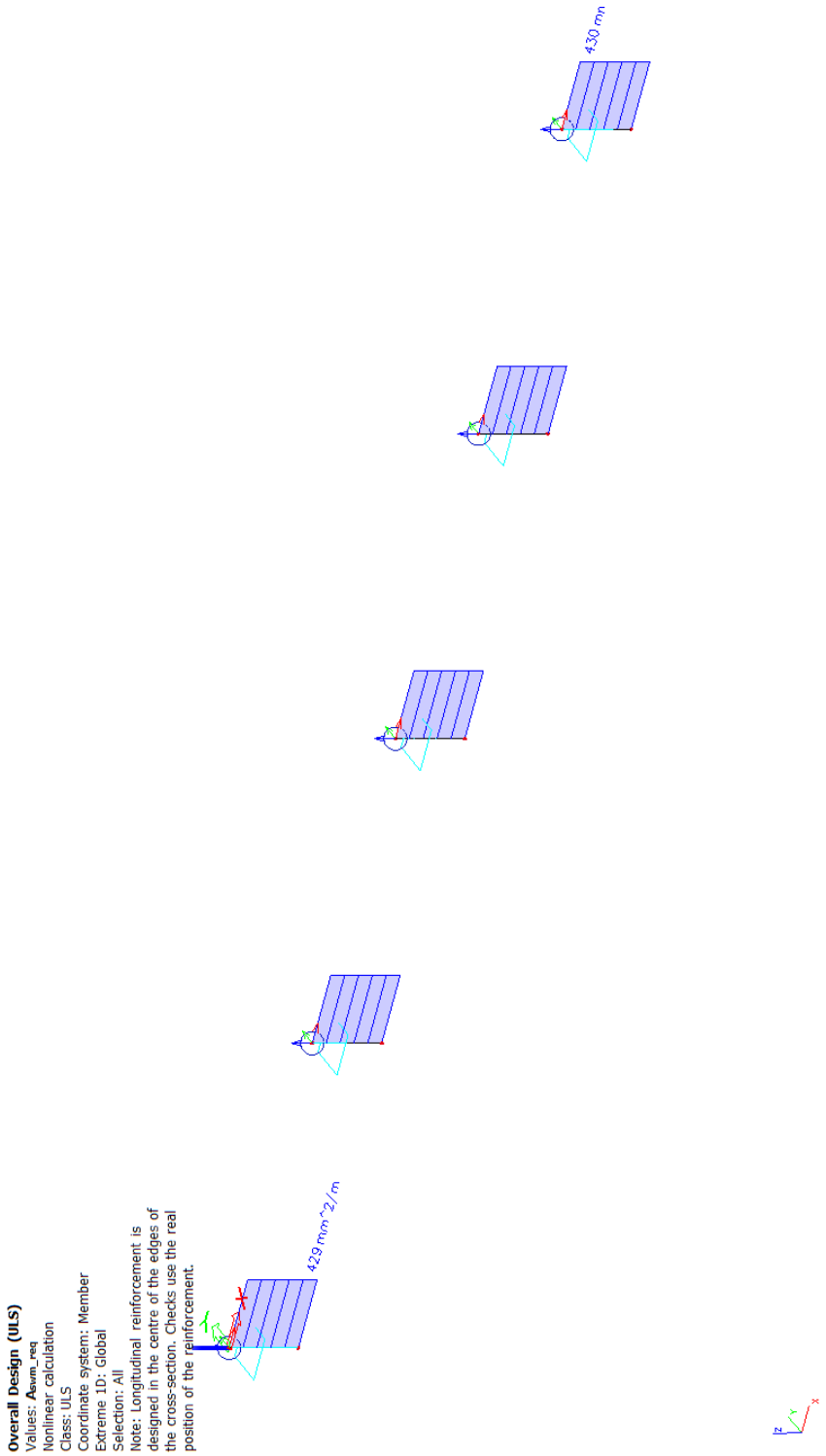
70x70x75 cm

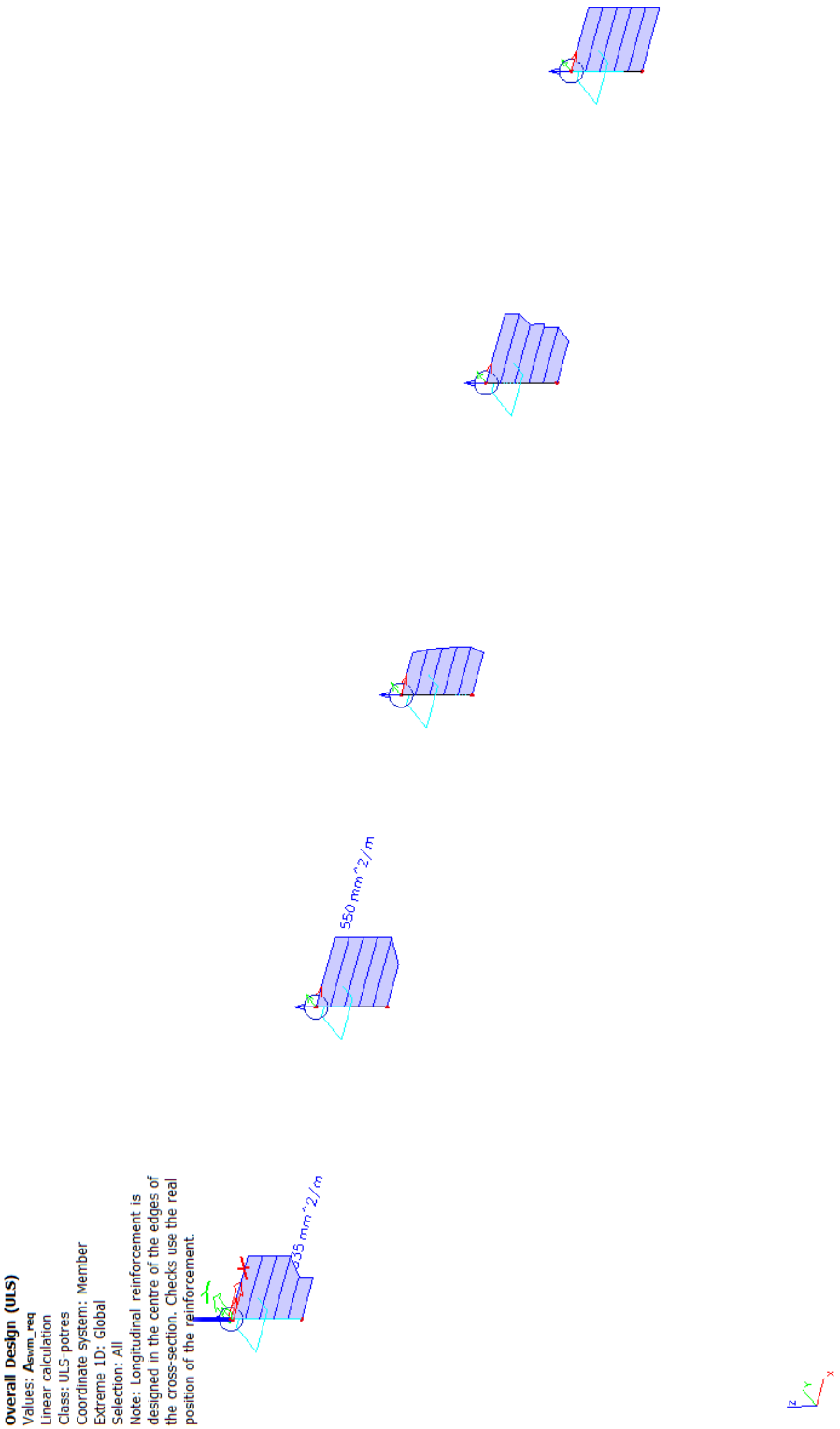




Izberem armaturo na vsaki stranici 20ϕ16 po obodu.

To je na eni stranici 6ϕ16, $A_{s,dej}$ = 12.05 cm^2/eni stranici.


430 mm
429 mm^2/m
Overall Design (ULS)
Values: Aswm_req
Nonlinear calculation
Class: ULS
Coordinate system: Member
Extreme 1D: Global
Selection: All
Note: Longitudinal reinforcement is designed in the centre of the edges of the cross-section. Checks use the real position of the reinforcement.



Izberem dvostrižno streme ϕ12/20, $A_{sw,dej}$ = 11.3 cm^2/m

6. LESENA KRITINA

OSB3 vodoodporna plošča D=25mm

L = cca 1.0 m , nosilec preko dveh ali več polj (2xL, 3xL,…)

$q_{Ed,MSU}$ = 0.10+1.25 = 1.35 kN/m^2

AGEPAN® OSB/3 | TECHNISCHE DATEN

Zulässige Flächenlast q_{max} [kN/m²]
Zweifeldträger beidseitig belastet, Durchbiegungsbeschränkung l/300

	12	15	18	22	25
l (m)			Dicke (in mm)		
0,20	22,01	34,41	47,41	70,85	91,52
0,25	14,06	21,99	30,30	45,30	58,52
0,30	9,74	15,24	21,01	31,42	40,59
0,35	7,14	11,18	15,41	23,05	29,78
0,40	5,45	8,54	11,77	17,61	22,77
0,45	4,22	6,72	9,28	13,89	17,96
0,50	3,06	5,43	7,50	11,23	14,52
0,55	2,28	4,47	6,18	9,25	11,97
0,60	1,74	3,45	5,17	7,76	10,04
0,625	1,53	3,04	4,76	7,14	9,24
0,65	1,35	2,69	4,39	6,59	8,53
0,70	1,07	2,14	3,74	5,66	7,33
0,75	0,86	1,72	3,02	4,92	6,37
0,80	0,69	1,40	2,47	4,30	5,58
0,833	0,60	1,23	2,18	3,96	5,13
0,90	0,46	0,96	1,70	3,17	4,38
0,95	0,38	0,80	1,43	2,68	3,91
1,00	0,32	0,67	1,21	2,28	3,39

Max. zul. Flächenlast q_{max} gemäß Spannungsnachweis/Gebrauchstauglichkeit l = vorh. Unterstützungsabstand

7. DETAJLI

7.1. Sidranje stebra PC300/200/8

Vpeto na nov točkovni temelj

8xM30 8.8

maksimalne vrednosti

natezna sila na eno sidro

N = 10171/39/3+2166/27/3= 114 kN

prečna sila na eno sidro

Vx = 40/8 = 5 kN
Vy = 40/8 = 5 kN

kontrola tlačnih kontaktnih napetosti betona:

$f_{j,d} = \alpha\beta f_{cd}$ = 1.5×2/3×2.5/1.5 = 1.66 kN/cm^2

upoštevam ugoden vpliv lokalne koncentracije napetosti α = 1.5

σ = 70/(46×58)+10171/(46×58^2/6)+2166/(58×46^2/6)= 0.52 kN/cm^2 < 1.66 kN/cm^2 … OK

Detail S1: Control of anchoring rods

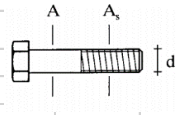
PC300/200/8, vpeto | SŽ PP Domžale | Nadstrešek 4

Anchors		d (cm)	d_0 (cm)	A_s (cm^2)	A (cm^2)
	M30	3	3.3	5.61	7.07
grade		8.8			
f_{ub} (kN/cm^2)		80			
f_{yb} (kN/cm^2)		64			
num. of anchors		1	obravnavam eno sidro		

Concrete f_{ck} (kN/cm^2) = 2.50
C25/30 $f_{ctk\,0,05}$ (kN/cm^2) = 0.18
Anchoring plate t (cm)= 3.00
S235 f_u (kN/cm^2)= 36.0

k= 1 | k=0,85 carved later | γ_{M2}= 1.25
k=1,0 standard manufactured bolts, rods | γ_C= 1.5

share plane: 1
1 - share plane A_S
2 - share plane A



factor: 0.6
0,6 for shear plane A
0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S
0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S

Shear resistance: $F_{v,Rd} = k*0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$ | $F_{v,Ed} / F_{v,Rd} < 1,0$ | $F_{Rv,Ed} = (Fx^2+Fy^2)^{0,5}$

$F_{v,Rd}$ = 215.4 kN

$F_{vb,Rd} = \alpha_b*f_{ub}*A_s/\gamma_{M2}$ | $\alpha_b = 0,44 - 0,0003*f_{yb}$

$F_{vb,Rd}$ = 89.0 kN

min $F_{v,Rd}$ = 89.0 kN

Tension resistance $F_{t,Rd} = k*0,9*f_{ub}*A_s/\gamma_{M2}$ | $F_{t,Ed} / F_{t,Rd} < 1,0$ | $(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / (1,4\ F_{t,Rd})) < 1,0$

$F_{t,Rd}$ = 323.1 kN

Bearing resistance $F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$ | $F_{b,Ed} / F_{b,Rd} < 1,0$

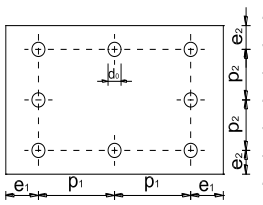
$F_{b,Rd}$ = 414.7 kN

		usual values		I choose
e_1=2*d_o	e_1 (cm)=	6.60	e_1 (cm)=	5.00
p_1=3*d_o	p_1 (cm)=	9.90	p_1 (cm)=	16.00
e_2=1,5*d_o	e_2 (cm)=	4.95	e_2 (cm)=	5.00
p_2=3*d_o	p_2 (cm)=	9.90	p_2 (cm)=	16.00

		in loading direction			orthogonal to loading direction		
outter anchor	→	α_d=e_1/3d_o	$\alpha_{d,outter}$=	0.51	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,	$k_{1,outter}$=	2.50
inner anchor	→	α_d=p_1/3d_o - 1/4	$\alpha_{d,inner}$=	1.37	k_1=1,4*p_2/d_o-1,7≤ 2,5	$k_{1,inner}$=	2.50

α_d= 0.64 | $_b$=min(α_d ; f_{ub}/f_u ; 1,0) | α_b= 0.64 | k_1= 2.50

loading direction ← →



Anchoring length: 2 / 2

$l_{b,req.} = \alpha_1 * F_{t,Ed} / (\pi * d * f_{bd})$ η_1 = 1…good anchoring conditions η_2 = 1 d ≤ 32 mm

η_1 = 1 0,7…poor anchoring conditions $\mu_2 = (132-d)/100$ η_2 = 1.02 d > 32 mm

η_2 = 1

α_1 = 1 α_1 = 0,7...bent rods or additional anchoring plates

1...straight rod

ribbed rebar (threaded rods) … EC2

$f_{bd} = 2{,}25 * \eta_1 * \eta_2 * f_{ctd}$ f_{bd} (kN/cm^2) = 0.27 $f_{ctd} = \alpha_{ct} * f_{ctk,0,05} / \gamma_c$

α_{ct}= 1.00

plain rods … Tabel 5.3 or Equation 5.1, ENV 1992-1-1, for plain (smooth) rebar

f_{bd} (MPa) = $(0{,}36 * (f_{ck})^{0,5}) / \gamma_c$ ...(f_{ck} in f_{bd} v MPa) f_{bd} (kN/cm^2) = 0.12

I choose f_{bd} (kN/cm^2) = 0.27 threaded rods with thread along the entire lenght

obremenitve na eno sidro

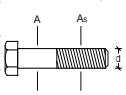
(+) tension

F_X	F_Y	F_Z	$F_{Rv,Ed}$	$F_{v,Ed}$	$F_{v,Ed}/F_{v,Rd}$	$F_{b,Ed}/F_{b,Rd}$	$F_{t,Ed}$	$F_{t,Ed}/F_{t,Rd}$	inter.	$l_{b,req.}$ (cm)
5.0	5.0	115.0	7.1	7.1	0.08	0.02	115.0	0.36	0.33	45
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.00	0.00	0
(kN)				max.	0.08	0.02		0.36	0.33	45

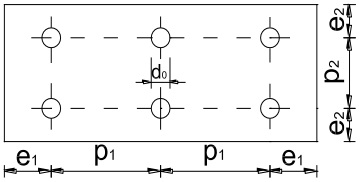
7.2. Montažni spoj nosilca HEA200

8xM20 HV 10.9

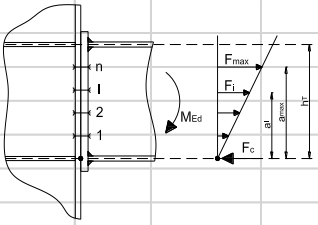
Detail D1.3: Bolted moment resistance joint 1 / 2

HEA200			SŽ PP Domzale			Nadstrešek 4			**Plate**	
Bolts		d(cm)	d_0(cm)	As(cm^2)	A(cm^2)			**grade**	235	
	M20	2	2.2	2.45	3.14			**s (cm)=**	2.5	
grade		10.9						**f_u(kN/cm^2)=**	36	
f_{ub}(kN/cm^2)		100								
shear plane		1	1 - share plane A_S					**γ_{M0}=**	1.00	
			2 - share plane A					**γ_{M2}=**	1.25	
factor		0.5	0,6 for shear plane A							
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S							
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S							
Shear resistance:		**$F_{v,Rd}$ = 0,6(0,5)*f_{ub}*A_s(A)/γ_{M2}**				**$F_{v,Ed}$ / $F_{v,Rd}$ < 1,0**				
		$F_{v,Rd}$ =	98.0	kN						
								interaction V - M		
Tension resistance		**$F_{t,Rd}$ = 0,9*f_{ub}*A_s/γ_{M2}**			**$F_{t,Ed}$ / $F_{t,Rd}$ < 1,0**			**($F_{v,Ed}$ / $F_{v,Rd}$)+($F_{t,Ed}$ / $F_{t,Rd}$)/1,4 < 1,0**		
		$F_{t,Rd}$ =	176.4	kN						
Bearing resistance		**$F_{b,Rd}$ = k_1*α_b*f_u*d*t/γ_{M2}**			**$F_{b,Ed}$ / $F_{b,Rd}$ < 1,0**					
		$F_{b,Rd}$ =	219.6	kN						
		usual values				I choose				
	e_1=2*d_o	e_1 (cm)=	4.40		e_1 (cm)=	4.00				
	p_1=3*d_o	p_1 (cm)=	6.60		p_1 (cm)=	8.00				
	e_2=1,5*d_o	e_2 (cm)=	3.30		e_2 (cm)=	4.00				
	p_2=3*d_o	p_2 (cm)=	6.60		p_2 (cm)=	8.00				
		in loading direction				orthogonal to loading direction				
outter ancho	→	α_d=e_1/3d_o		**$\alpha_{d,outter}$=**	0.61	k_1=min(2,8*e_2/d_o-1,7≤2,5; 1,4*p_2/d_o -1,7≤2,5)			**$k_{1,outter}$=**	2.50
inner ancho	→	α_d=p_1/3d_o - 1/4		**$\alpha_{d,inner}$=**	0.96	k_1=1,4*p_2/d_o-1,7≤ 2,5			**$k_{1,inner}$=**	2.50
				α_d=	0.61	α_b=min(α_d ; f_{ub}/f_u ; 1,0)	**α_b=**	0.61	**k_1=**	2.50

load direction ⟵ ⟶



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	8					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	5000	kNcm			$F_{t,Ed,M}$=	87.98	kN		check		
N_{Ed} =	20	kN	(+) tension		$F_{t,Ed,N}$=	2.50	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.513	OK
$V_{Ed,z}$ =	70	kN			$F_{v,Ed}$=	8.75	kN		$F_{v,Ed}/F_{v,Rd}$=	0.089	OK
									interaction =	0.456	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.040	OK
num. of bolts in line		$n_{vij.v\ vrsti}$ =	3.6	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	5.00	25.0									
2	14.00	196.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	221.0	cm^2									
a_{max}=	14	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vija.}$=	**10025**	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					

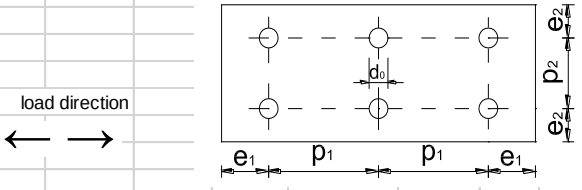


7.3. Montažni spoj nosilca IPE180

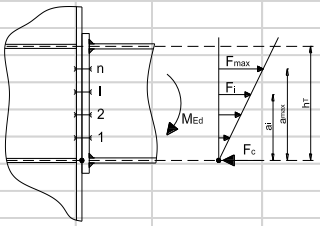
4xM20 HV 10.9

Detail D1.6: Bolted moment resistance joint 1 / 2

IPE180			SŽ PP Domzale			Nadstrešek 4			**Plate**	
Bolts		d(cm)	d_0 (cm)	As(cm^2)	A(cm^2)				grade	235
	M20	2	2.2	2.45	3.14				s (cm)=	2.0
grade		10.9							f_u(kN/cm^2)=	36
f_{ub}(kN/cm^2)		100								
shear plane		1	1 - share plane A_S						γ_{M0}=	1.00
			2 - share plane A						γ_{M2}=	1.25
factor		0.5	0,6 for shear plane A							
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S							
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S							
Shear resistance:		$F_{v,Rd} = 0,6(0,5)*f_{ub}*A_s(A)/\gamma_{M2}$				$F_{v,Ed} / F_{v,Rd} < 1,0$				
		$F_{v,Rd}$ =	98.0	kN						
								interaction V - M		
Tension resistance		$F_{t,Rd} = 0,9*f_{ub}*A_s/\gamma_{M2}$			$F_{t,Ed} / F_{t,Rd} < 1,0$			$(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1,4 < 1,0$		
		$F_{t,Rd}$ =	176.4	kN						
Bearing resistance		$F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$			$F_{b,Ed} / F_{b,Rd} < 1,0$					
		$F_{b,Rd}$ =	175.7	kN						
		usual values				I choose				
	$e_1=2*d_o$	e_1 (cm)=	4.40		e_1 (cm)=	4.00				
	$p_1=3*d_o$	p_1 (cm)=	6.60		p_1 (cm)=	8.00				
	$e_2=1,5*d_o$	e_2 (cm)=	3.30		e_2 (cm)=	4.00				
	$p_2=3*d_o$	p_2 (cm)=	6.60		p_2 (cm)=	8.00				
		in loading direction				orthogonal to loading direction				
outter ancho	→	$\alpha_d=e_1/3d_o$		$\alpha_{d,outter}$=	0.61	$k_1=\min(2,8*e_2/d_o-1,7\leq 2,5;\ 1,4*p_2/d_o-1,7\leq 2,5)$			$k_{1,outter}$=	2.50
inner ancho	→	$\alpha_d=p_1/3d_o$ - 1/4		$\alpha_{d,inner}$=	0.96	$k_1=1,4*p_2/d_o-1,7\leq 2,5$			$k_{1,inner}$=	2.50
				α_d=	0.61	$\alpha_b=\min(\alpha_d;\ f_{ub}/f_u;\ 1,0)$		α_b= 0.61	k_1=	2.50



num. of bolts for transfering tension and shear laod					$n_{vij,N,V}$=	4					2 / 2
Connection load					load of maximal loaded bolt						
$M_{Ed,y}$=	1500	kNcm			$F_{t,Ed,M}$=	50.26	kN		check		
N_{Ed} =	10	kN	(+) tension		$F_{t,Ed,N}$=	2.50	kN		$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.299	OK
$V_{Ed,z}$ =	20	kN			$F_{v,Ed}$=	5.00	kN		$F_{v,Ed}/F_{v,Rd}$=	0.051	OK
									interaction =	0.265	OK
									$F_{v,Ed}/F_{b,Rd}$=	0.028	OK
num. of bolts in line		$n_{vij.v\ vrsti}$ =	2	(for 4 bolts in line we take 3,6 "due to prying force")							
lines	a_i (cm)	a_i^2 (cm^2)									
1	5.00	25.0									
2	13.00	169.0									
3	0.00	0.0									
4	0.0	0.0									
5	0.0	0.0									
6	0.0	0.0									
7	0.0	0.0									
8	0.0	0.0									
9	0.0	0.0									
10	0.0	0.0									
11	0.0	0.0									
12	0.0	0.0									
Σa_i^2=	194.0	cm^2									
a_{max}=	13	cm									
Maximum bending load capacity of bolts											
$M_{Rd,vja.}$ =	5265	kNcm									
Obojstranski koti zvari				**a = 0.6 x t**		polnonosilni					



7.4. Priključek NPU180 na HEA200

Kontinuirani priključek UNP180 na HEA200 s čela

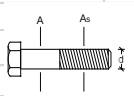
Prevzema samo strižne obremenitve
V_{Ed} = 2x10 = 20 kN

2x2 x M16 8.8 konstruktivno

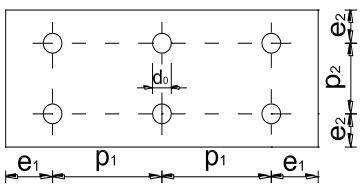
7.5. Priključek PC120/80/6 na stebre KC300/200

4xM12 8.4

Detail D1.5: Bolted moment resistance joint 1 / 2

PC80/120/6			SŽ PP Domzale			Nadstrešek 1			**Plate**	
Bolts		d(cm)	d_0(cm)	As(cm^2)	A(cm^2)				grade	235
	M12	1.2	1.3	0.843	1.13				s (cm)=	1.2
grade		8.8							f_u(kN/cm^2)=	36
f_{ub}(kN/cm^2)		80								
shear plane		1	1 - share plane A_S						γ_{M0}=	1.00
			2 - share plane A						γ_{M2}=	1.25
factor		0.6	0,6 for shear plane A							
			0,6 for ductility anchors (4.6, 5.6, 8.8) - share plane A_S							
			0,5 for nonductility anchors (4.8, 5.8, 6.8, 10.9) - share plane A_S							
Shear resistance:		$F_{v,Rd} = 0{,}6(0{,}5)*f_{ub}*A_s(A)/\gamma_{M2}$				$F_{v,Ed} / F_{v,Rd} < 1{,}0$				
		$F_{v,Rd}$ =	32.4	kN						
								interaction V - M		
Tension resistance		$F_{t,Rd} = 0{,}9*f_{ub}*A_s/\gamma_{M2}$				$F_{t,Ed} / F_{t,Rd} < 1{,}0$		$(F_{v,Ed} / F_{v,Rd})+(F_{t,Ed} / F_{t,Rd})/1{,}4 < 1{,}0$		
		$F_{t,Rd}$ =	48.6	kN						
Bearing resistance		$F_{b,Rd} = k_1*\alpha_b*f_u*d*t/\gamma_{M2}$				$F_{b,Ed} / F_{b,Rd} < 1{,}0$				
		$F_{b,Rd}$ =	52.9	kN						
		usual values				I choose				
	$e_1=2*d_o$	e_1 (cm)=	2.60			e_1 (cm)=	2.00			
	$p_1=3*d_o$	p_1 (cm)=	3.90			p_1 (cm)=	3.00			
	$e_2=1{,}5*d_o$	e_2 (cm)=	1.95			e_2 (cm)=	2.00			
	$p_2=3*d_o$	p_2 (cm)=	3.90			p_2 (cm)=	3.00			
		in loading direction				orthogonal to loading direction				
outter ancho	→	$\alpha_d=e_1/3d_o$		$\alpha_{d,outter}$=	0.51	$k_1=\min(2{,}8*e_2/d_o-1{,}7\le 2{,}5;\ 1{,}4*p_2/d_o-1{,}7\le 2{,}5)$			$k_{1,outter}$=	2.50
inner ancho	→	$\alpha_d=p_1/3d_o$ - 1/4		$\alpha_{d,inner}$=	0.52	$k_1=1{,}4*p_2/d_o-1{,}7\le 2{,}5$			$k_{1,inner}$=	2.50
				α_d=	0.51	$\alpha_b=\min(\alpha_d;\ f_{ub}/f_u;\ 1{,}0)$		α_b= 0.51	k_1=	2.50

load direction ← →



num. of bolts for transfering tension and shear laod $n_{vij,N,V}$= 4 — 2 / 2

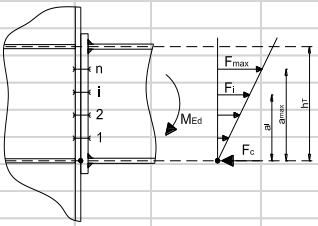
Connection load

load of maximal loaded bolt

$M_{Ed,y}$=	600	kNcm		$F_{t,Ed,M}$=	33.33	kN	check		
N_{Ed} =	10	kN	(+) tension	$F_{t,Ed,N}$=	2.50	kN	$F_{t,Ed\ My+N}/F_{t,Rd}$=	0.738	OK
$V_{Ed,z}$ =	10	kN		$F_{v,Ed}$=	2.50	kN	$F_{v,Ed}/F_{v,Rd}$=	0.077	OK
							interaction =	0.604	OK
							$F_{v,Ed}/F_{b,Rd}$=	0.047	OK

num. of bolts in line $n_{vij.v\ vrsti}$ = 2 (for 4 bolts in line we take 3,6 "due to prying force")

lines	a_i (cm)	a_i^2 (cm^2)
1	0.00	0.0
2	9.00	81.0
3	0.00	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0



Σa_i^2= 81.0 cm^2

a_{max}= 9 cm

Maximum bending load capacity of bolts

$M_{Rd,vija.}$= **874** kNcm

Obojstranski koti zvari — **a = 0.6 x t** — polnonosilni

H I Š A, NAČRTOVANJE IN SVETOVANJE, d.o.o.
Ukmarjeva ulica 4, 1000 Ljubljana

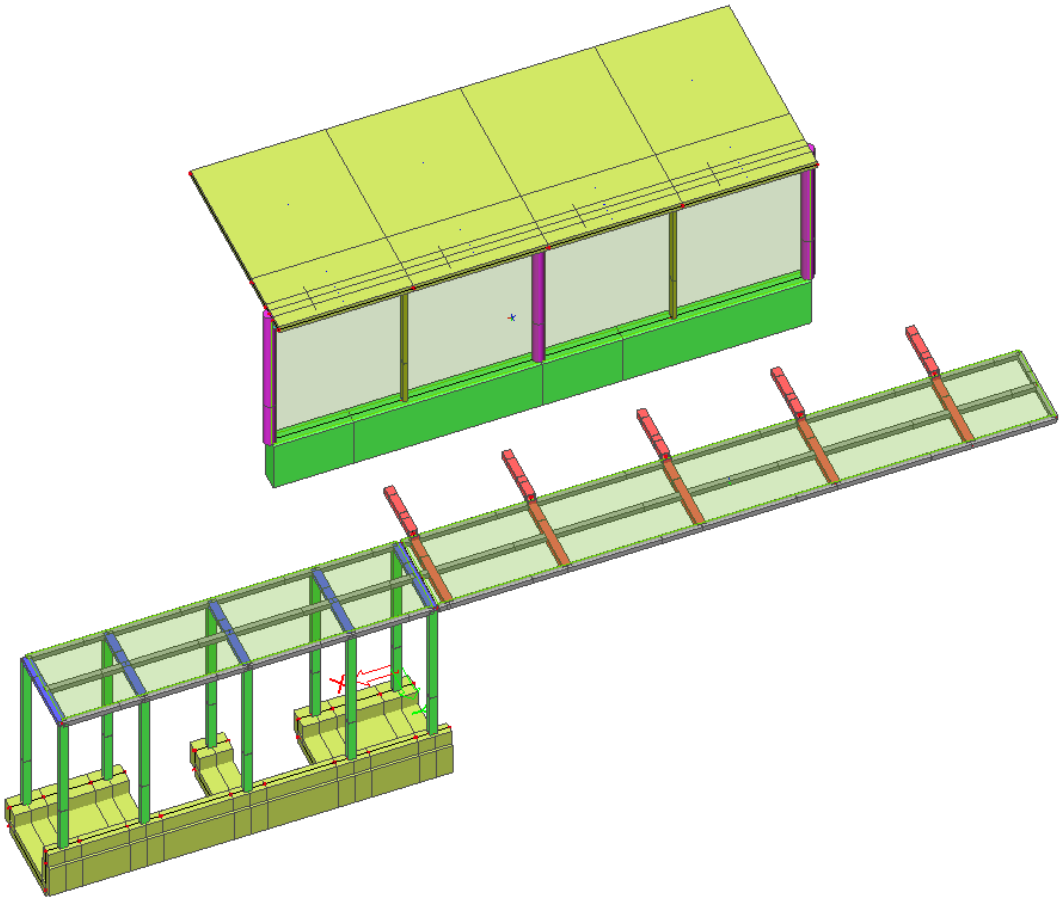
NADSTREŠEK 5

Železniška postaja Domžale

ANALIZA KONSTRUKCIJE

Faza: IZN

Revizija:0



Julij 2021

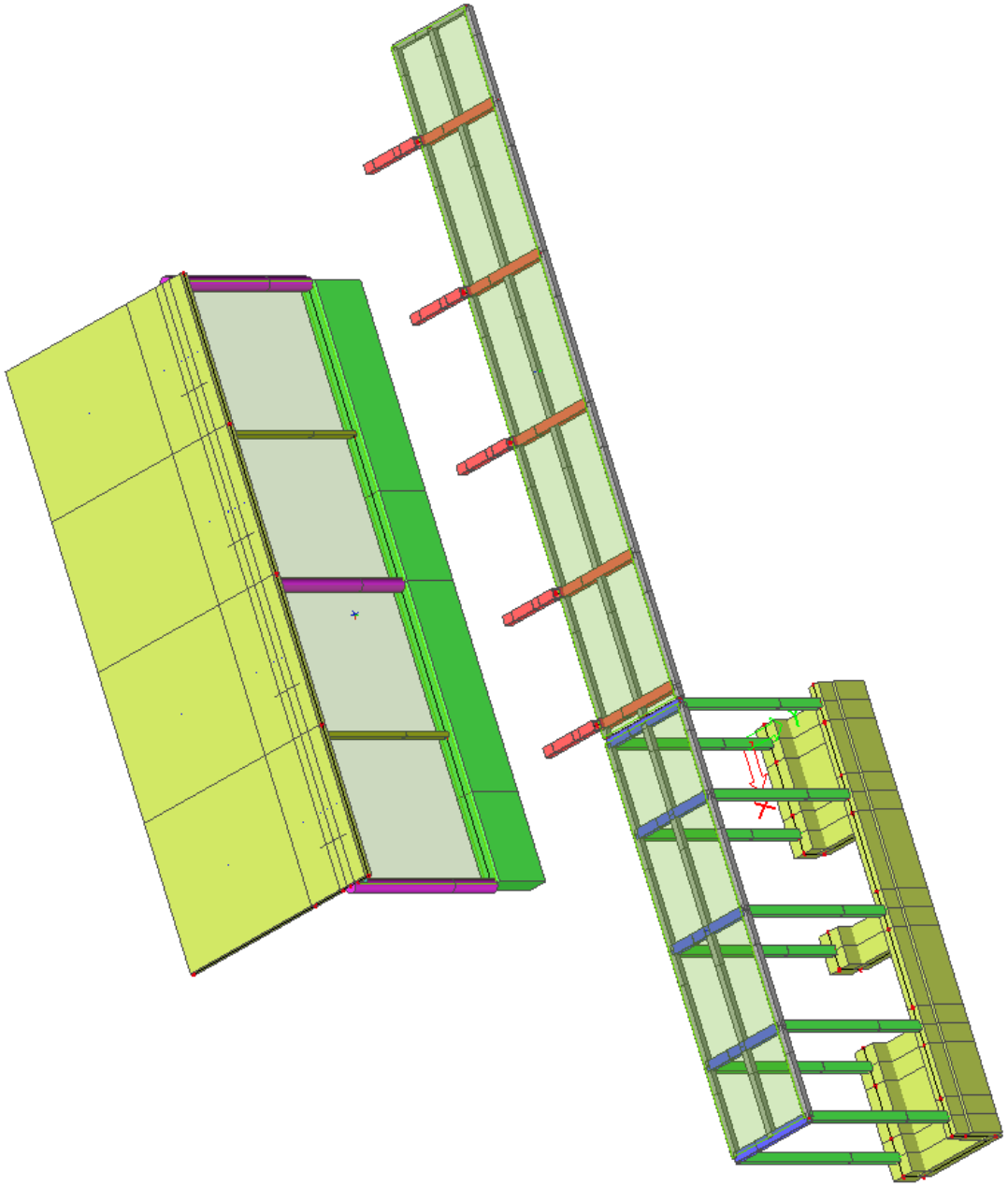
Računal:
Dr. Leon Hladnik, udig G-0296.

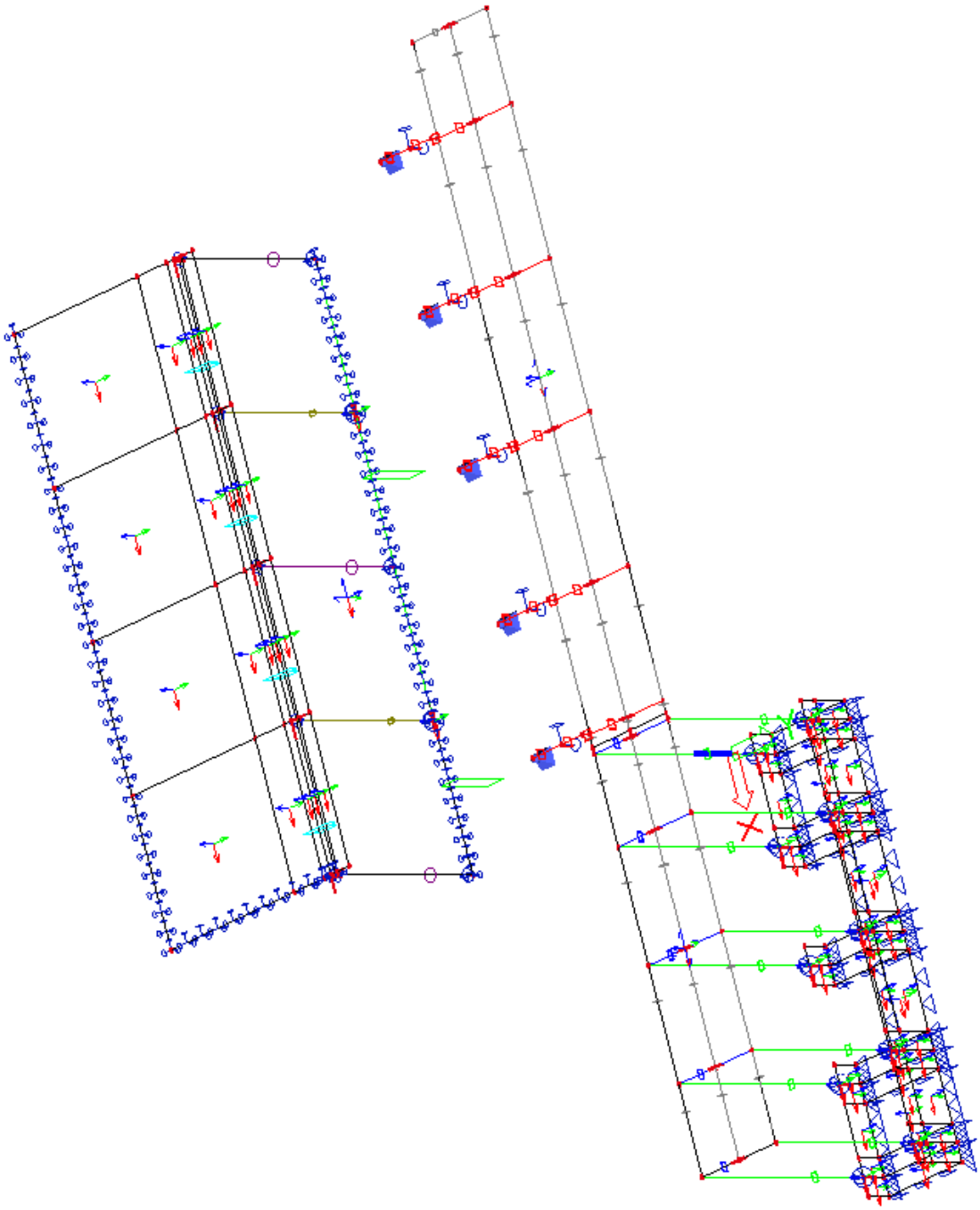
KAZALO

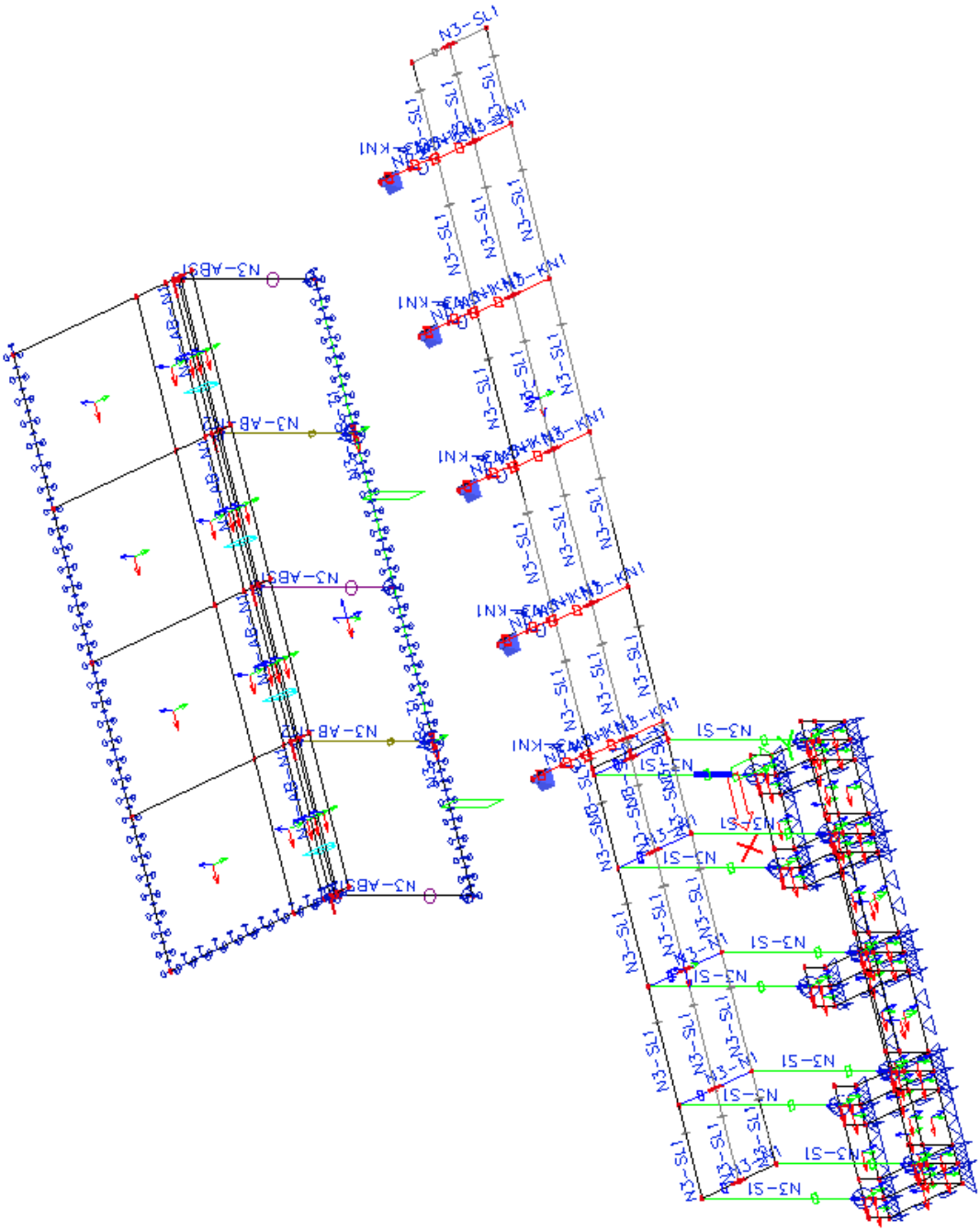
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1. RAČUNSKI MODEL

1.1. Statični model






N3-SL1
KN1
N3-AB1
N3-AB
N3-SI
SNO1

1.2. Podatki o modelu

1. Bill of material

Selection: All
Type of sorting: Material

Summary

Material	Mass [kg]	Surface [m²]	Volume [m³]
Steel	2111.18	50.486	2.6894e-01
Concrete	36836.26	94.771	1.4735e+01
Total	38947.44	145.256	1.5003e+01

Note: Value 'Surface' represents for 1D members the total exposed surface area,
while for 2D members it corresponds only to the surface area of the centroidal plane.

Steel (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
S 235	7850.00	2111.18	50.486	2.6894e-01
Total		2111.18	50.486	2.6894e-01

Concrete (1D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	9642.38	40.401	3.8570e+00
Total		9642.38	40.401	3.8570e+00

Concrete (2D)

Material	Density [kg/m³]	Mass [kg]	Surface [m²]	Volume [m³]
C25/30	2500.00	27193.88	54.370	1.0878e+01
Total		27193.88	54.370	1.0878e+01

2. Materials

Steel EC3

Name	ρ [kg/m³]	E_{mod} [MPa]	μ	Lower limit [mm]	Upper limit [mm]	F_y [kN/cm²]	F_u [kN/cm²]	Colour
		G_{mod} [MPa]	α [m/mK]					
S 235	7850.00	2.1000e+05	0.3	0	100	23.5	36.0	
		8.0769e+04	0.00					

Name	Type	ρ [kg/m³]	Density in fresh state [kg/m³]	E_{mod} [MPa]	μ	α [m/mK]	$f_{c.k.28}$ [MPa]	Colour
C25/30	Concrete	2500.00	2600.00	3.1500e+04	0.2	0.00	25.00	

Explanations of symbols	
Density in fresh state	The value in the density in fresh state property is used only in case a composite deck is input and its self-weight load is taken into account.

Reinforcement EC2

Name	Type	ρ [kg/m³]	E_{mod} [MPa]	G_{mod} [MPa]	α [m/mK]	$f_{y.k}$ [MPa]
B 500B	Reinforcement steel	7850.00	2.0000e+05	8.3333e+04	0.00	500.0

3. Cross-sections

Name	Type	Item material	Fabrication	A [m²]	A_y [m²]	I_y [m⁴]	$W_{el.y}$ [m³]	$W_{pl.y}$ [m³]	Co
	Detailed				A_z [m²]	I_z [m⁴]	$W_{el.z}$ [m³]	$W_{pl.z}$ [m³]	
N3-KN1	CFRHS150X150X6	S 235	cold formed	3.3630e-03	1.6808e-03	1.1459e-05	1.5279e-04	1.7988e-04	
					1.6808e-03	1.1459e-05	1.5279e-04	1.7988e-04	
N3-SL1	CFRHS100X100X5	S 235	cold formed	1.8360e-03	9.1721e-04	2.7110e-06	5.4220e-05	6.4590e-05	
					9.1721e-04	2.7110e-06	5.4220e-05	6.4590e-05	
N3-S1	CFRHS150X100X6	S 235	cold formed	2.7630e-03	1.1046e-03	8.3469e-06	1.1129e-04	1.3668e-04	
					1.6569e-03	4.4419e-06	8.8840e-05	1.0330e-04	
N3-N1	CFRHS150X100X6	S 235	cold formed	2.7630e-03	1.1046e-03	8.3469e-06	1.1129e-04	1.3668e-04	
					1.6569e-03	4.4419e-06	8.8840e-05	1.0330e-04	
N3-ABS1	Circle	C25/30	concrete	3.8013e-02	3.4271e-02	1.1499e-04	1.0454e-03	1.7747e-03	
	220				3.4271e-02	1.1499e-04	1.0454e-03	1.7747e-03	
N3-AB-N1	Rectangle	C25/30	concrete	4.5000e-02	3.7526e-02	8.4375e-05	1.1250e-03	0.0000e+00	
	150; 300				3.7604e-02	3.3750e-04	2.2500e-03	0.0000e+00	
N3-AB-N2	CFRHS120X80X5	S 235	cold formed	1.8360e-03	7.3377e-04	3.5314e-06	5.8860e-05	7.2450e-05	
					1.1007e-03	1.8778e-06	4.6940e-05	5.4740e-05	
N3-AB-T1	Rectangle	C25/30	concrete	3.2000e-01	2.6758e-01	2.6667e-02	5.3333e-02	0.0000e+00	
	1000; 320				2.6676e-01	2.7307e-03	1.7067e-02	0.0000e+00	

4. Nodes

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2793	0.000	0.000	3.000
N2794	0.000	1.550	3.000
N2795	0.000	0.000	-0.500
N1	0.000	1.550	0.000
N2796	1.450	0.000	3.000
N2797	1.450	1.550	3.000
N2798	1.450	0.000	-0.500
N2799	1.450	1.550	0.000
N2800	3.300	0.000	3.000
N2801	3.300	1.550	3.000
N2802	3.300	0.000	-0.500
N2803	3.300	1.550	0.000
N2804	5.150	0.000	3.000
N2805	5.150	1.550	3.000
N2806	5.150	0.000	-0.500
N2807	5.150	1.550	0.000
N2808	6.600	0.000	3.000
N2809	6.600	1.550	3.000
N2810	6.600	0.000	-0.500
N2811	6.600	1.550	0.000
N2816	0.000	0.775	3.000
N2817	1.450	0.775	3.000
N2818	3.300	0.775	3.000
N2819	5.150	0.775	3.000
N2820	6.600	0.775	3.000
N2821	-2.400	0.000	3.000
N2822	-2.400	1.550	3.000
N2824	-2.400	-0.440	3.160
N2825	-4.800	0.000	3.000
N2826	-4.800	1.550	3.000
N2829	-7.200	0.000	3.000
N2830	-7.200	1.550	3.000
N2832	-7.200	-0.440	3.160

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2833	-9.600	0.000	3.000
N2834	-9.600	1.550	3.000
N2836	-9.600	-0.440	3.160
N2838	-2.400	0.775	3.000
N2839	-4.800	0.775	3.000
N2840	-7.200	0.775	3.000
N2841	-9.600	0.775	3.000
N2842	-2.400	0.000	3.160
N2843	-4.800	0.000	3.160
N2844	-7.200	0.000	3.160
N2845	-9.600	0.000	3.160
N2850	-0.300	0.000	3.000
N2851	-0.300	1.550	3.000
N2852	-0.300	0.000	3.160
N2853	-0.300	-0.440	3.160
N2856	-0.300	0.775	3.000
N2857	-0.100	1.550	3.000
N2858	-0.100	0.000	3.000
N2859	-0.100	0.775	3.000
N2881	-11.100	1.550	3.000
N2882	-11.100	0.775	3.000
N2883	-11.100	0.000	3.000
N2893	3.600	0.000	-0.950
N2895	3.600	1.550	-0.950
N2896	3.300	1.550	-0.950
N2898	3.000	1.550	-0.950
N2899	3.000	0.000	-0.950
N2901	3.300	0.000	-0.950
N2903	-2.400	-1.060	3.160
N2904	-0.300	-1.060	3.160
N2905	-7.200	-1.060	3.160
N2906	-9.600	-1.060	3.160
N2907	-4.800	-0.440	3.160
N2908	-4.800	-1.060	3.160
N2909	3.600	1.550	-0.300
N2910	3.300	1.550	-0.300
N2913	3.000	1.550	-0.300
N2915	1.750	0.000	-0.950
N2916	1.750	1.550	-0.300
N2917	1.450	1.550	-0.300
N2918	1.750	1.550	-0.950
N2919	1.450	1.550	-0.950
N2920	1.450	0.000	-0.950
N2921	1.150	1.550	-0.950
N2922	1.150	0.000	-0.950
N2923	1.750	1.550	0.000
N2924	1.150	1.550	-0.300
N2925	1.150	1.550	0.000
N2926	0.300	0.000	-0.950
N2927	0.300	1.550	-0.300
N2928	0.000	1.550	-0.300
N2929	0.300	1.550	-0.950
N2930	0.000	1.550	-0.950
N2931	0.000	0.000	-0.950
N2932	-0.300	1.550	-0.950
N2933	-0.300	0.000	-0.950
N2934	0.300	1.550	0.000
N2935	-0.300	1.550	-0.300
N2936	-0.300	1.550	0.000
N2937	5.450	1.550	-0.950
N2938	5.450	1.550	-0.300
N2939	5.450	1.550	0.000
N2940	5.150	1.550	-0.950
N2941	4.850	1.550	-0.950
N2942	5.150	1.550	-0.300
N2943	4.850	1.550	-0.300

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N2944	5.150	0.000	-0.950
N2945	5.450	0.000	-0.950
N2946	4.850	0.000	-0.950
N2947	4.850	1.550	0.000
N2948	6.900	1.550	-0.950
N2949	6.900	1.550	-0.300
N2950	6.900	1.550	0.000
N2951	6.600	1.550	-0.950
N2952	6.300	1.550	-0.950
N2953	6.600	1.550	-0.300
N2954	6.300	1.550	-0.300
N2955	6.600	0.000	-0.950
N2956	6.900	0.000	-0.950
N2957	6.300	0.000	-0.950
N2958	6.300	1.550	0.000
N2959	0.300	0.000	-0.500
N2961	-0.300	0.000	-0.500
N2962	1.150	0.000	-0.500
N2963	1.750	0.000	-0.500
N2964	3.000	0.000	-0.500
N2965	3.600	0.000	-0.500
N2966	4.850	0.000	-0.500
N2967	5.450	0.000	-0.500
N2968	6.300	0.000	-0.500
N2969	6.900	0.000	-0.500
N2970	3.600	1.550	0.000
N2971	3.000	1.550	0.000
N3100	1.750	0.775	-0.950
N3101	3.000	0.775	-0.950
N3104	3.600	0.775	-0.950
N3105	4.850	0.775	-0.950
N3238	-4.800	-5.590	3.160
N3239	-7.200	-5.590	3.160
N3240	-7.200	-5.290	3.160
N3241	-4.800	-5.290	3.160
N3242	-7.200	-5.050	3.160
N3243	-4.800	-5.050	3.160
N3244	-4.800	-8.820	3.160
N3245	-7.200	-8.820	3.160
N3246	-7.200	-5.440	3.160
N3247	-4.800	-5.440	3.160
N3248	-4.800	-5.440	0.065
N3249	-9.600	-5.590	3.160
N3250	-9.600	-8.820	3.160
N3251	-9.600	-5.440	3.160
N3253	-9.600	-5.290	3.160
N3254	-9.600	-5.050	3.160
N3255	0.000	-5.590	3.160
N3256	-2.400	-5.590	3.160
N3257	-2.400	-5.290	3.160
N3258	0.000	-5.290	3.160
N3259	-2.400	-5.050	3.160
N3260	0.000	-5.050	3.160
N3261	0.000	-8.820	3.160
N3262	-2.400	-8.820	3.160
N3263	-2.400	-5.440	3.160
N3264	0.000	-5.440	3.160
N3266	-2.400	-5.440	0.065
N3267	-9.600	-5.440	0.065
N3268	0.000	-5.440	0.065
N3269	-7.200	-6.210	3.160
N3270	-4.800	-6.210	3.160
N3271	-9.600	-6.210	3.160
N3272	-2.400	-6.210	3.160
N3273	0.000	-6.210	3.160
N3303	0.000	-5.440	3.050

Name	Coord X [m]	Coord Y [m]	Coord Z [m]
N3366	-7.200	-5.440	0.065
N2813	-9.600	-5.440	3.050

5. Members

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B2342	N3-N1 - CFRHS150X100X6	S 235	1.550	N2793	N2794	beam (80)
B2343	N3-S1 - CFRHS150X100X6	S 235	3.500	N2795	N2793	beam (80)
B2344	N3-S1 - CFRHS150X100X6	S 235	3.000	N1	N2794	beam (80)
B2345	N3-N1 - CFRHS150X100X6	S 235	1.550	N2796	N2797	beam (80)
B2346	N3-S1 - CFRHS150X100X6	S 235	3.500	N2798	N2796	beam (80)
B2347	N3-S1 - CFRHS150X100X6	S 235	3.000	N2799	N2797	beam (80)
B2348	N3-N1 - CFRHS150X100X6	S 235	1.550	N2800	N2801	beam (80)
B2349	N3-S1 - CFRHS150X100X6	S 235	3.500	N2802	N2800	beam (80)
B2350	N3-S1 - CFRHS150X100X6	S 235	3.000	N2803	N2801	beam (80)
B2351	N3-N1 - CFRHS150X100X6	S 235	1.550	N2804	N2805	beam (80)
B2352	N3-S1 - CFRHS150X100X6	S 235	3.500	N2806	N2804	beam (80)
B2353	N3-S1 - CFRHS150X100X6	S 235	3.000	N2807	N2805	beam (80)
B2354	N3-N1 - CFRHS150X100X6	S 235	1.550	N2808	N2809	beam (80)
B2355	N3-S1 - CFRHS150X100X6	S 235	3.500	N2810	N2808	beam (80)
B2356	N3-S1 - CFRHS150X100X6	S 235	3.000	N2811	N2809	beam (80)
B2363	N3-SL1 - CFRHS100X100X5	S 235	1.450	N2793	N2796	beam (80)
B2364	N3-SL1 - CFRHS100X100X5	S 235	1.850	N2796	N2800	beam (80)
B2365	N3-SL1 - CFRHS100X100X5	S 235	1.850	N2800	N2804	beam (80)
B2366	N3-SL1 - CFRHS100X100X5	S 235	1.450	N2804	N2808	beam (80)
B2367	N3-SL1 - CFRHS100X100X5	S 235	1.450	N2816	N2817	beam (80)
B2368	N3-SL1 - CFRHS100X100X5	S 235	1.850	N2817	N2818	beam (80)
B2369	N3-SL1 - CFRHS100X100X5	S 235	1.850	N2818	N2819	beam (80)
B2370	N3-SL1 - CFRHS100X100X5	S 235	1.450	N2819	N2820	beam (80)
B2371	N3-SL1 - CFRHS100X100X5	S 235	1.450	N2794	N2797	beam (80)
B2372	N3-SL1 - CFRHS100X100X5	S 235	1.850	N2797	N2801	beam (80)
B2373	N3-SL1 - CFRHS100X100X5	S 235	1.850	N2801	N2805	beam (80)
B2374	N3-SL1 - CFRHS100X100X5	S 235	1.450	N2805	N2809	beam (80)
B2375	N3-KN1 - CFRHS150X150X6	S 235	1.550	N2821	N2822	beam (80)
B2376	N3-KN1 - CFRHS150X150X6	S 235	0.160	N2821	N2842	beam (80)
B2377	N3-KN1 - CFRHS150X150X6	S 235	0.440	N2824	N2842	beam (80)
B2378	N3-KN1 - CFRHS150X150X6	S 235	1.550	N2825	N2826	beam (80)
B2379	N3-KN1 - CFRHS150X150X6	S 235	0.160	N2825	N2843	beam (80)
B2381	N3-KN1 - CFRHS150X150X6	S 235	1.550	N2829	N2830	beam (80)
B2382	N3-KN1 - CFRHS150X150X6	S 235	0.160	N2829	N2844	beam (80)
B2383	N3-KN1 - CFRHS150X150X6	S 235	0.440	N2832	N2844	beam (80)
B2384	N3-KN1 - CFRHS150X150X6	S 235	1.550	N2833	N2834	beam (80)
B2385	N3-KN1 - CFRHS150X150X6	S 235	0.160	N2833	N2845	beam (80)
B2386	N3-KN1 - CFRHS150X150X6	S 235	0.440	N2836	N2845	beam (80)
B2387	N3-SL1 - CFRHS100X100X5	S 235	2.100	N2821	N2850	beam (80)
B2388	N3-SL1 - CFRHS100X100X5	S 235	2.100	N2838	N2856	beam (80)
B2389	N3-SL1 - CFRHS100X100X5	S 235	2.100	N2822	N2851	beam (80)
B2390	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2826	N2822	beam (80)
B2391	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2839	N2838	beam (80)
B2392	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2825	N2821	beam (80)
B2393	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2830	N2826	beam (80)
B2394	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2840	N2839	beam (80)
B2395	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2829	N2825	beam (80)
B2396	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2834	N2830	beam (80)
B2397	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2841	N2840	beam (80)
B2398	N3-SL1 - CFRHS100X100X5	S 235	2.400	N2833	N2829	beam (80)
B2403	N3-KN1 - CFRHS150X150X6	S 235	1.550	N2850	N2851	beam (80)
B2404	N3-KN1 - CFRHS150X150X6	S 235	0.160	N2850	N2852	beam (80)
B2405	N3-KN1 - CFRHS150X150X6	S 235	0.440	N2853	N2852	beam (80)
B2407	N3-SL1 - CFRHS100X100X5	S 235	0.200	N2851	N2857	beam (80)
B2408	N3-SL1 - CFRHS100X100X5	S 235	0.200	N2850	N2858	beam (80)
B2409	N3-SL1 - CFRHS100X100X5	S 235	0.200	N2856	N2859	beam (80)
B2410	N3-SL1 - CFRHS100X100X5	S 235	1.500	N2881	N2834	beam (80)
B2411	N3-SL1 - CFRHS100X100X5	S 235	1.500	N2882	N2841	beam (80)
B2412	N3-SL1 - CFRHS100X100X5	S 235	1.500	N2883	N2833	beam (80)

Name	Cross-section	Material	Length [m]	Beg. node	End node	Type
B2413	N3-SL1 - CFRHS100X100X5	S 235	1.550	N2883	N2881	beam (80)
B2414	N3-KN1 - CFRHS150X150X6	S 235	0.620	N2903	N2824	beam (80)
B2415	N3-KN1 - CFRHS150X150X6	S 235	0.620	N2904	N2853	beam (80)
B2416	N3-KN1 - CFRHS150X150X6	S 235	0.620	N2905	N2832	beam (80)
B2417	N3-KN1 - CFRHS150X150X6	S 235	0.620	N2906	N2836	beam (80)
B2418	N3-KN1 - CFRHS150X150X6	S 235	0.440	N2907	N2843	beam (80)
B2419	N3-KN1 - CFRHS150X150X6	S 235	0.620	N2908	N2907	beam (80)
B2486	N3-ABS1 - Circle (220)	C25/30	3.095	N3248	N3247	column (100)
B2490	N3-ABS1 - Circle (220)	C25/30	3.095	N3267	N3251	column (100)
B2491	N3-ABS1 - Circle (220)	C25/30	3.095	N3268	N3264	column (100)
B2494	N3-AB-N1 - Rectangle (150; 300)	C25/30	2.400	N3264	N3263	plate rib (92)
B2495	N3-AB-N1 - Rectangle (150; 300)	C25/30	2.400	N3263	N3247	plate rib (92)
B2496	N3-AB-N1 - Rectangle (150; 300)	C25/30	2.400	N3247	N3246	plate rib (92)
B2497	N3-AB-N1 - Rectangle (150; 300)	C25/30	2.400	N3246	N3251	plate rib (92)
B2515	N3-AB-N2 - CFRHS120X80X5	S 235	3.095	N3266	N3263	column (100)
B2516	N3-AB-N2 - CFRHS120X80X5	S 235	3.095	N3366	N3246	column (100)
B2523	N3-AB-T1 - Rectangle (1000; 320)	C25/30	4.800	N3248	N3267	beam (80)
B2524	N3-AB-T1 - Rectangle (1000; 320)	C25/30	4.800	N3268	N3248	beam (80)

6. 2D members

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S19	konstrukcija	plate (90)	Standard	C25/30	constant	300
S21	konstrukcija	plate (90)	Standard	C25/30	constant	300
S22	konstrukcija	plate (90)	Standard	C25/30	constant	300
S24	konstrukcija	plate (90)	Standard	C25/30	constant	300
S26	konstrukcija	plate (90)	Standard	C25/30	constant	300
S27	konstrukcija	plate (90)	Standard	C25/30	constant	300
S28	konstrukcija	plate (90)	Standard	C25/30	constant	300
S29	konstrukcija	plate (90)	Standard	C25/30	constant	200
S30	konstrukcija	plate (90)	Standard	C25/30	constant	300
S31	konstrukcija	plate (90)	Standard	C25/30	constant	200
S32	konstrukcija	plate (90)	Standard	C25/30	constant	300
S33	konstrukcija	plate (90)	Standard	C25/30	constant	300
S34	konstrukcija	plate (90)	Standard	C25/30	constant	300
S35	konstrukcija	plate (90)	Standard	C25/30	constant	200
S36	konstrukcija	plate (90)	Standard	C25/30	constant	300
S37	konstrukcija	plate (90)	Standard	C25/30	constant	200
S38	konstrukcija	plate (90)	Standard	C25/30	constant	300
S39	konstrukcija	plate (90)	Standard	C25/30	constant	300
S40	konstrukcija	plate (90)	Standard	C25/30	constant	200
S41	konstrukcija	plate (90)	Standard	C25/30	constant	300
S42	konstrukcija	plate (90)	Standard	C25/30	constant	300
S43	konstrukcija	plate (90)	Standard	C25/30	constant	200
S44	konstrukcija	plate (90)	Standard	C25/30	constant	300
S45	konstrukcija	plate (90)	Standard	C25/30	constant	300
S46	konstrukcija	plate (90)	Standard	C25/30	constant	200
S47	konstrukcija	plate (90)	Standard	C25/30	constant	300
S48	konstrukcija	plate (90)	Standard	C25/30	constant	300
S49	konstrukcija	plate (90)	Standard	C25/30	constant	200
S50	konstrukcija	plate (90)	Standard	C25/30	constant	400
S51	konstrukcija	plate (90)	Standard	C25/30	constant	400
S52	konstrukcija	plate (90)	Standard	C25/30	constant	400
S53	konstrukcija	plate (90)	Standard	C25/30	constant	400
S54	konstrukcija	plate (90)	Standard	C25/30	constant	400
S55	konstrukcija	plate (90)	Standard	C25/30	constant	400
S56	konstrukcija	plate (90)	Standard	C25/30	constant	400
S57	konstrukcija	plate (90)	Standard	C25/30	constant	400
S58	konstrukcija	plate (90)	Standard	C25/30	constant	400
S59	konstrukcija	plate (90)	Standard	C25/30	constant	400
S60	konstrukcija	plate (90)	Standard	C25/30	constant	200
S61	konstrukcija	plate (90)	Standard	C25/30	constant	200
S102	konstrukcija	plate (90)	Standard	C25/30	constant	300
S103	konstrukcija	plate (90)	Standard	C25/30	constant	300
S104	konstrukcija	plate (90)	Standard	C25/30	constant	200

Name	Layer	Type	Element type	Material	Thickness type	Th. [mm]
S105	konstrukcija	plate (90)	Standard	C25/30	constant	400
S106	konstrukcija	plate (90)	Standard	C25/30	constant	300
S107	konstrukcija	plate (90)	Standard	C25/30	constant	300
S108	konstrukcija	plate (90)	Standard	C25/30	constant	200
S110	konstrukcija	plate (90)	Standard	C25/30	constant	300
S111	konstrukcija	plate (90)	Standard	C25/30	constant	300
S112	konstrukcija	plate (90)	Standard	C25/30	constant	200
S118	konstrukcija	plate (90)	Standard	C25/30	constant	300
S119	konstrukcija	plate (90)	Standard	C25/30	constant	300
S120	konstrukcija	plate (90)	Standard	C25/30	constant	200
S121	konstrukcija	plate (90)	Standard	C25/30	constant	400
S1	konstrukcija	plate (90)	Standard	C25/30	constant	150
S176	konstrukcija	plate (90)	Standard	C25/30	constant	150
S177	konstrukcija	plate (90)	Standard	C25/30	constant	150
S178	konstrukcija	plate (90)	Standard	C25/30	constant	150
S179	konstrukcija	plate (90)	Standard	C25/30	constant	150
S180	konstrukcija	plate (90)	Standard	C25/30	constant	150
S181	konstrukcija	plate (90)	Standard	C25/30	constant	150
S182	konstrukcija	plate (90)	Standard	C25/30	constant	150
S183	konstrukcija	plate (90)	Standard	C25/30	constant	150
S184	konstrukcija	plate (90)	Standard	C25/30	constant	150
S185	konstrukcija	plate (90)	Standard	C25/30	constant	150
S186	konstrukcija	plate (90)	Standard	C25/30	constant	150
S187	konstrukcija	plate (90)	Standard	C25/30	constant	150
S188	konstrukcija	plate (90)	Standard	C25/30	constant	150
S189	konstrukcija	plate (90)	Standard	C25/30	constant	150
S190	konstrukcija	plate (90)	Standard	C25/30	constant	150
S191	konstrukcija	plate (90)	Standard	C25/30	constant	150
S192	konstrukcija	plate (90)	Standard	C25/30	constant	150
S193	konstrukcija	plate (90)	Standard	C25/30	constant	150
S194	konstrukcija	plate (90)	Standard	C25/30	constant	150

7. Hinges

Name	Member	Position	ux	uy	uz	fix	fiy	fiz
H1	B2343	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H2	B2346	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H3	B2349	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H4	B2352	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H5	B2355	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H6	B2350	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H7	B2347	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H8	B2344	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H9	B2353	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H10	B2356	Begin	Rigid	Rigid	Rigid	Rigid	Free	Free
H11	B2515	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H12	B2516	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H15	B2491	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H16	B2486	Both	Rigid	Rigid	Rigid	Rigid	Free	Free
H17	B2490	Both	Rigid	Rigid	Rigid	Rigid	Free	Free

9. Nodal supports

Name	Node	System	Type	X	Y	Z	Rx	Ry	Rz
Sn1	N2904	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn11	N2903	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn12	N2905	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn13	N2906	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn14	N2836	GCS	Standard	Rigid	Free	Rigid	Free	Free	Free
Sn15	N2824	GCS	Standard	Rigid	Free	Rigid	Free	Free	Free
Sn16	N2832	GCS	Standard	Rigid	Free	Rigid	Free	Free	Free
Sn17	N2853	GCS	Standard	Rigid	Free	Rigid	Free	Free	Free
Sn18	N2908	GCS	Standard	Rigid	Rigid	Rigid	Free	Free	Free
Sn19	N2907	GCS	Standard	Rigid	Free	Rigid	Free	Free	Free
Sn48	N3268	GCS	Standard	Rigid	Free	Free	Free	Free	Free

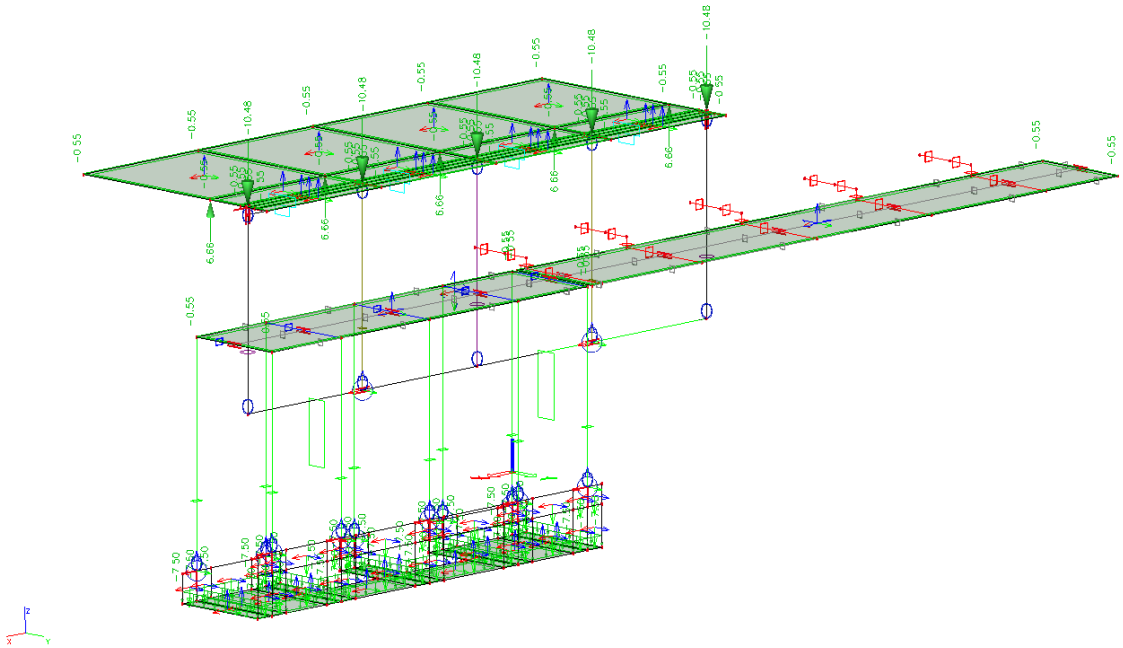
2. OBTEŽBE IN OBTEŽNE KOMBINACIJE

2.1. Obtežbe

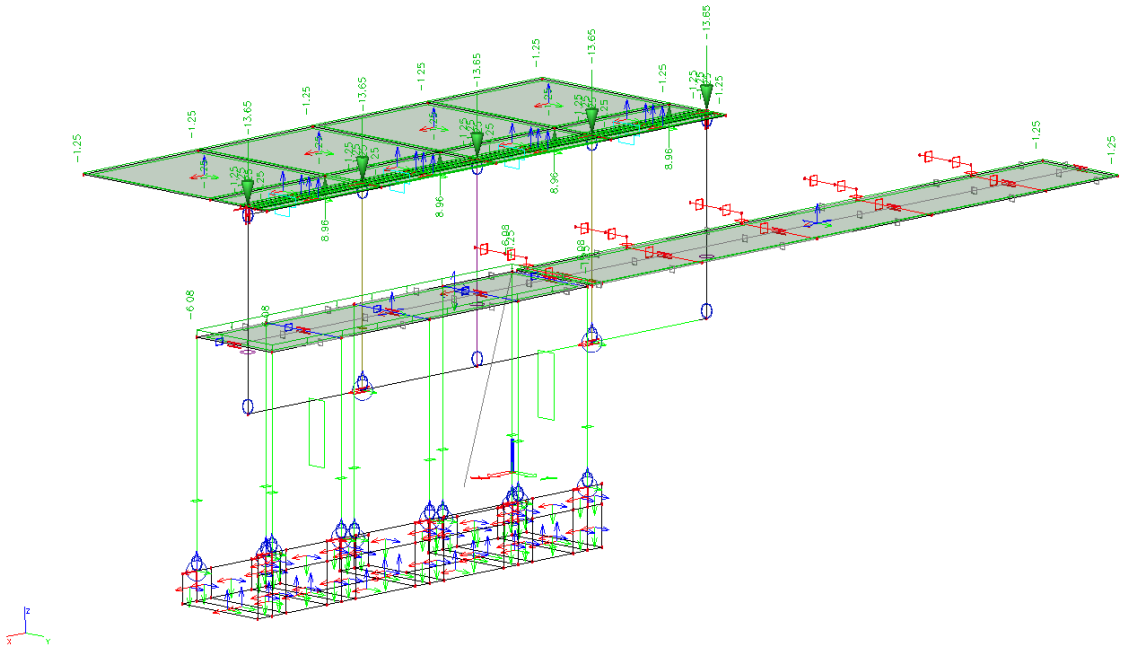
10. Load cases

Name	Description	Action type	Load group	Direction	Duration	Master load case
	Spec	Load type				
lastna		Permanent	L	-Z		
		Self weight				
stalna		Permanent	L			
		Standard				
sneg		Variable	S		Short	None
	Standard	Static				
horiz. ograja		Variable	HO		Short	None
	Standard	Static				
W x		Variable	Wxy		Short	None
	Standard	Static				
W -x		Variable	Wxy		Short	None
	Standard	Static				
W y		Variable	Wxy		Short	None
	Standard	Static				
W -y		Variable	Wxy		Short	None
	Standard	Static				
potres X		Variable	Ex			None
	Seismicity	Dynamic				
potres Y		Variable	Ey			None
	Seismicity	Dynamic				
W pritisk streha		Variable	Wps		Short	None
	Standard	Static				
W srk streha		Variable	Wps		Short	None
	Standard	Static				
Aeropri-1		Variable	aer		Short	None
	Standard	Static				
Aeropri-2		Variable	aer		Short	None
	Standard	Static				
sneg-s1		Variable	S		Short	None
	Standard	Static				
sneg-s2		Variable	S		Short	None
	Standard	Static				

stalna

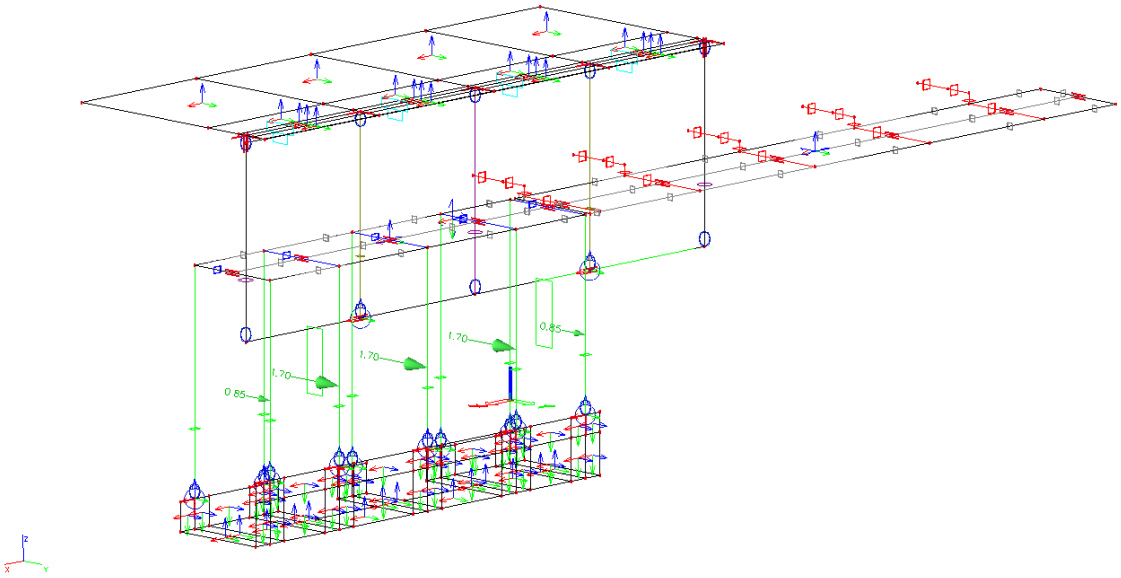


sneg

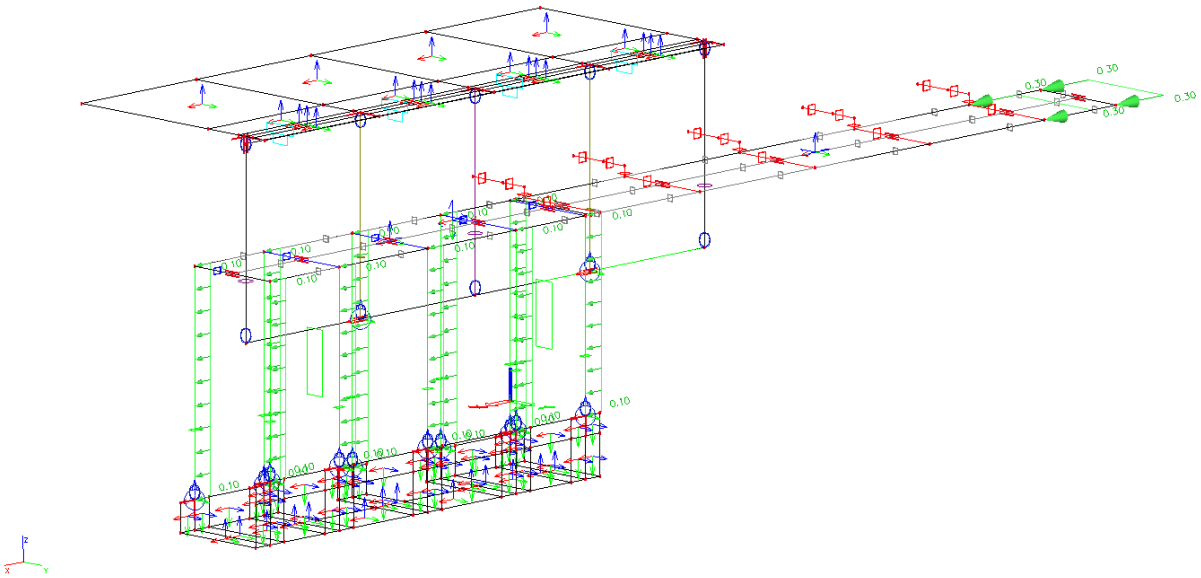


V področju kopoičenja je podana povprečna obtežba kopičenja.

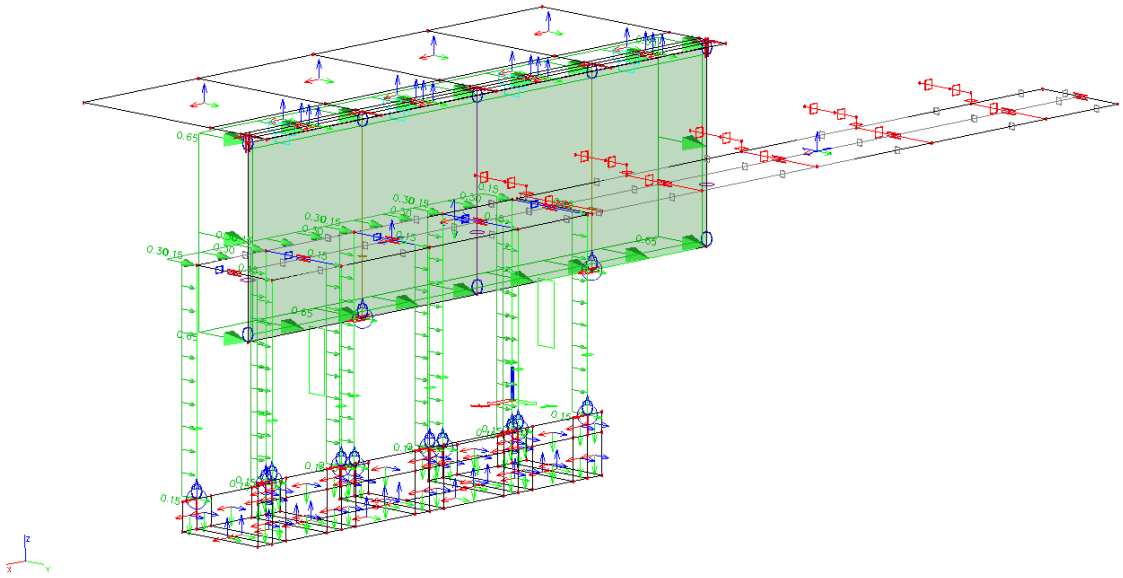
horzontalna ograja



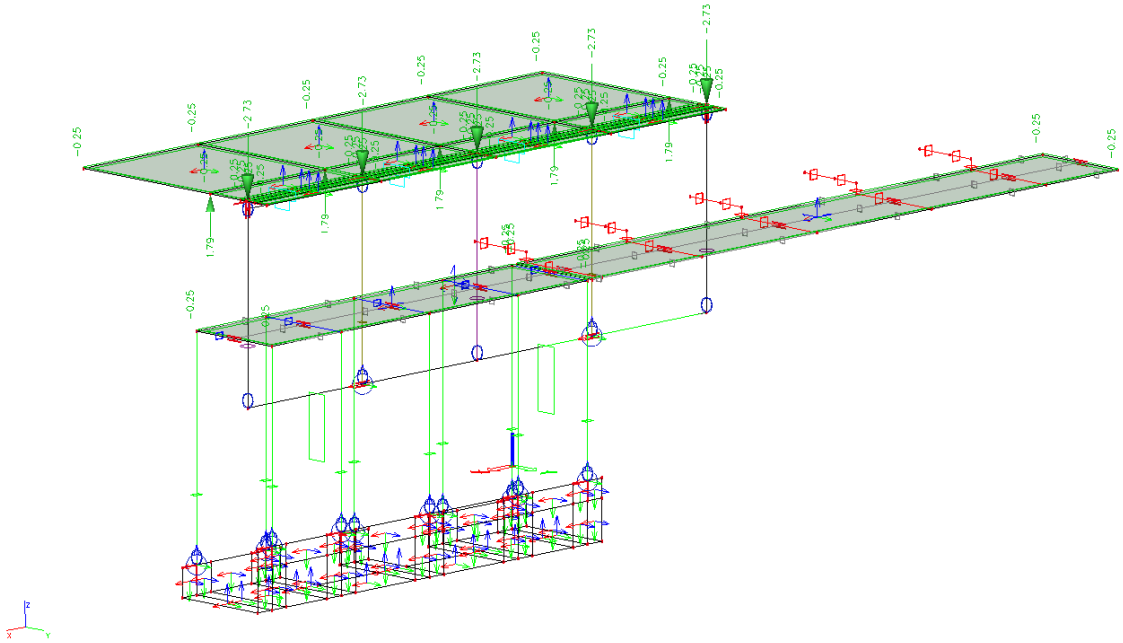
Wx


0.30
0.30
0.30
0.10
0.10
0.10

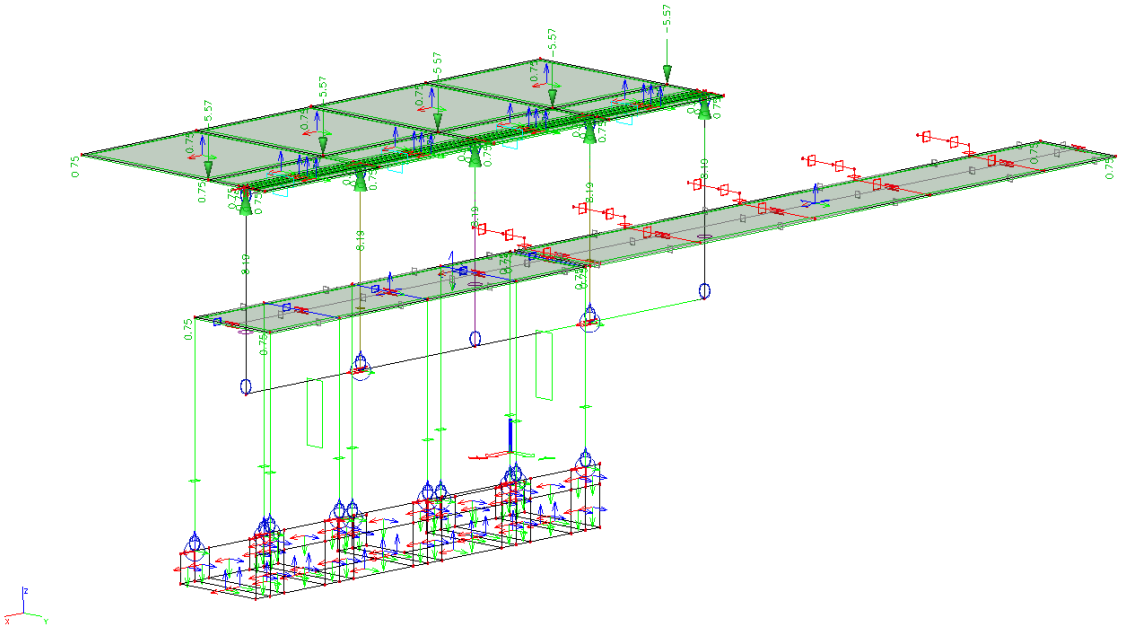
Wy



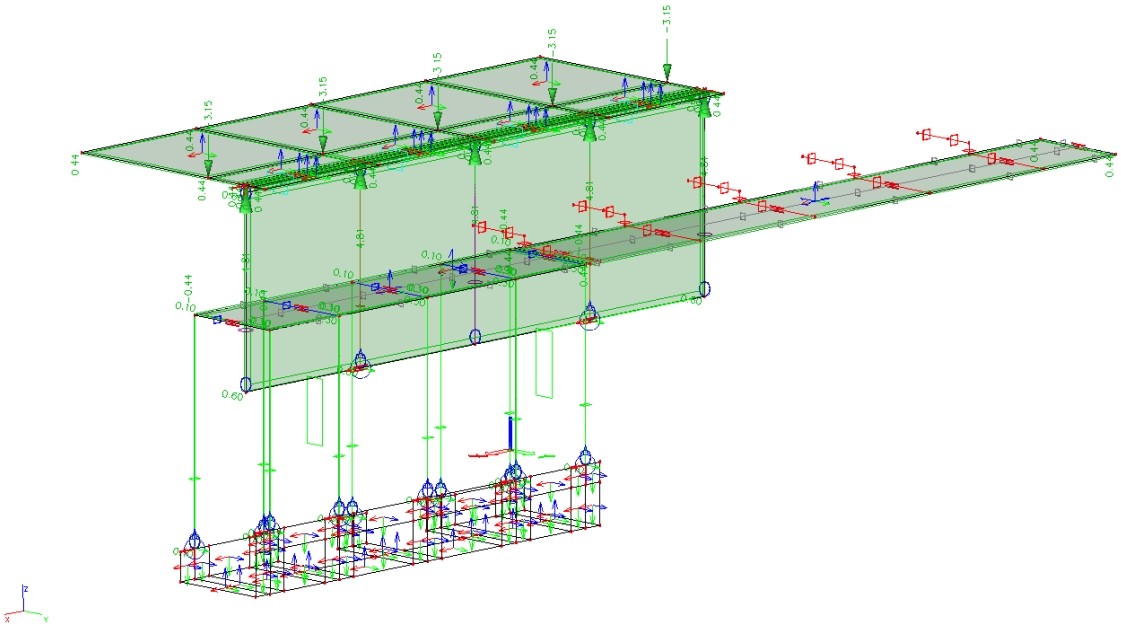
Wpritsk streha



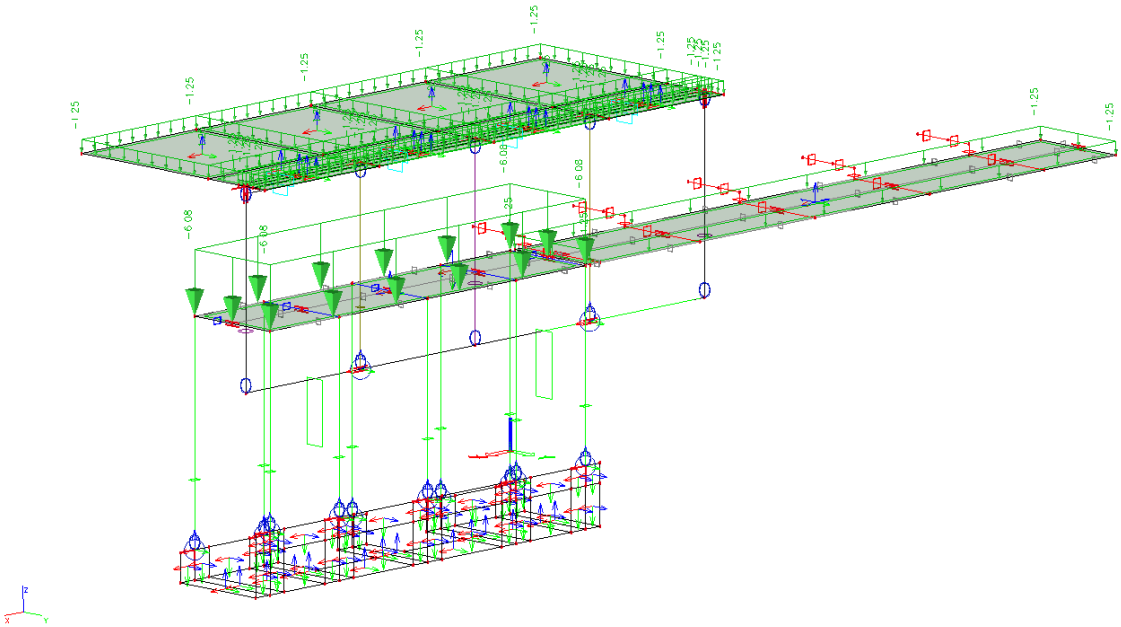
W srk streha



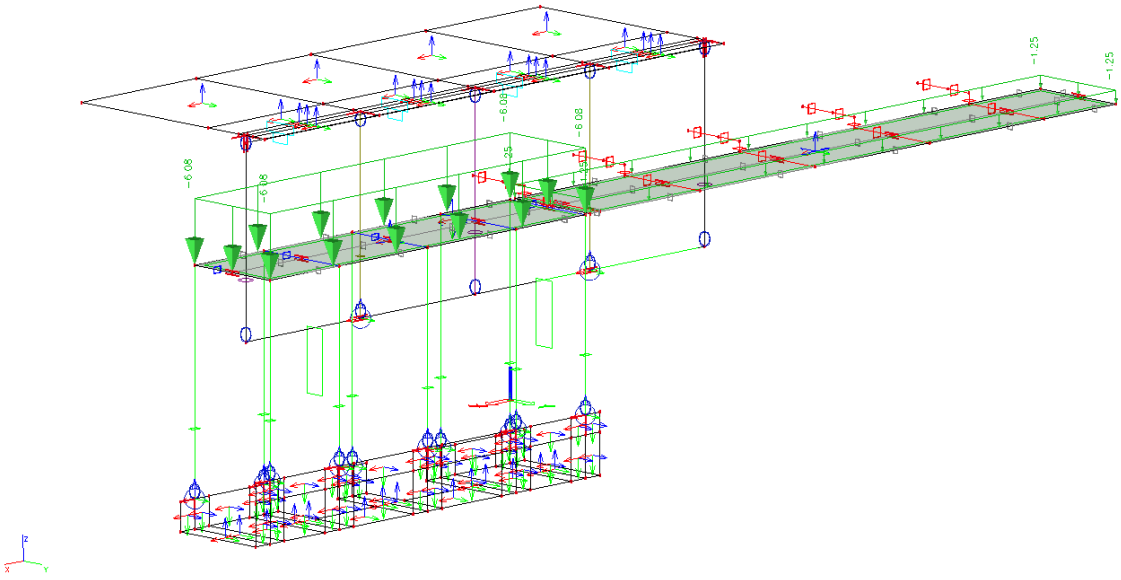
aeroprit-1



sneg-s1

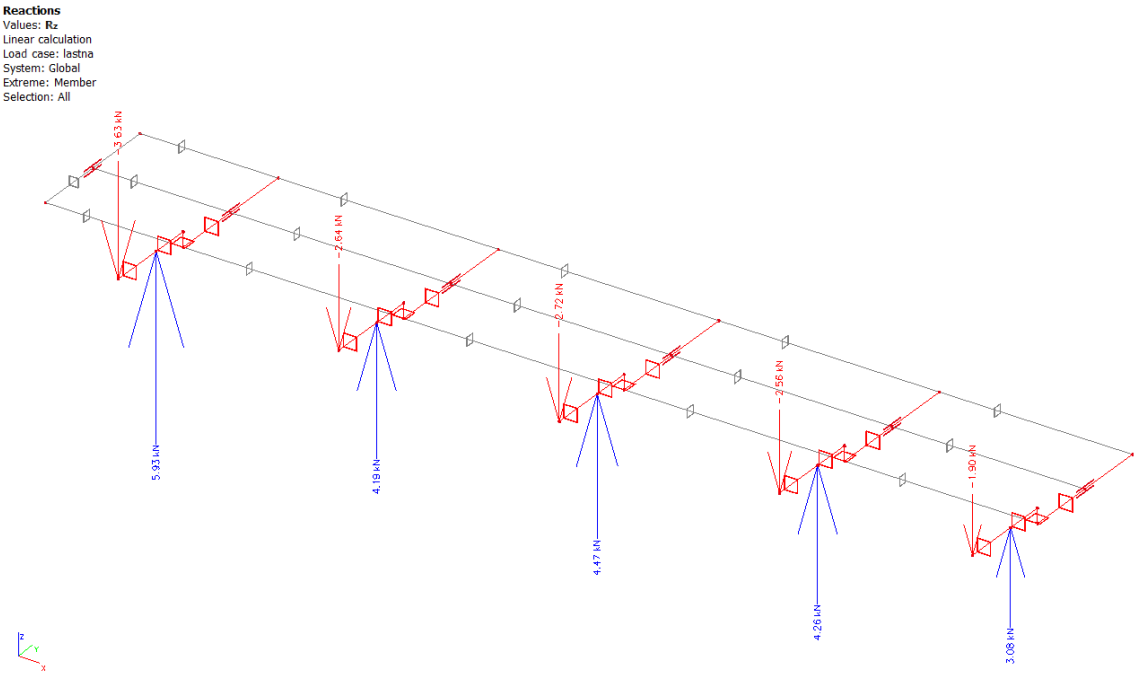


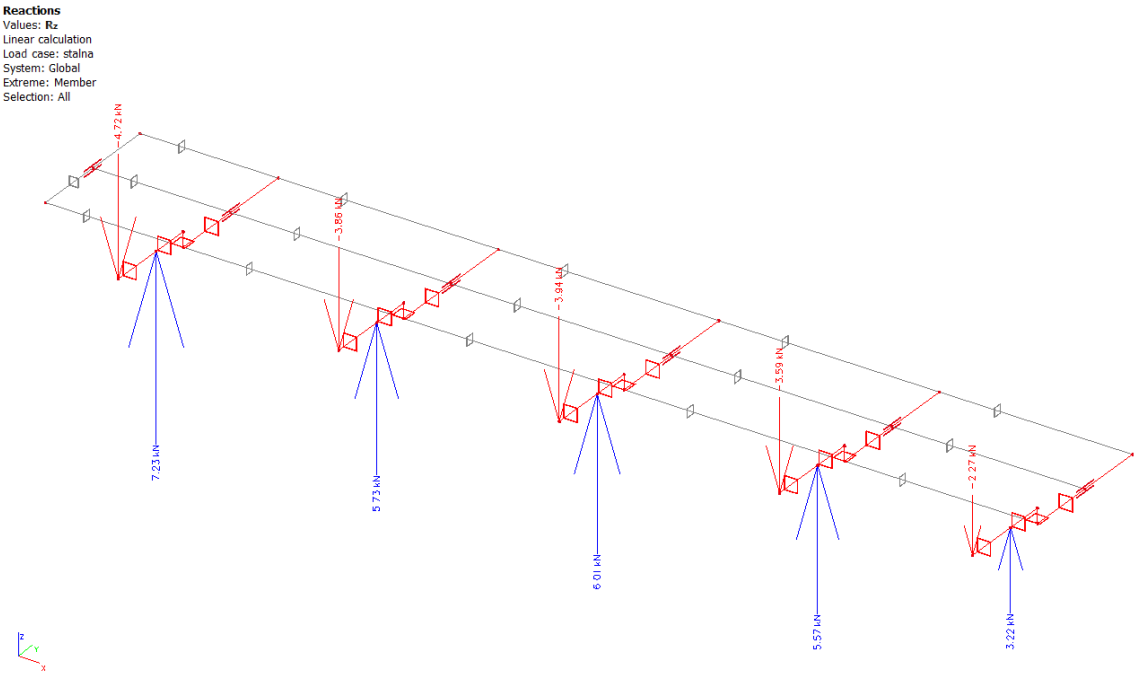
sneg-s2



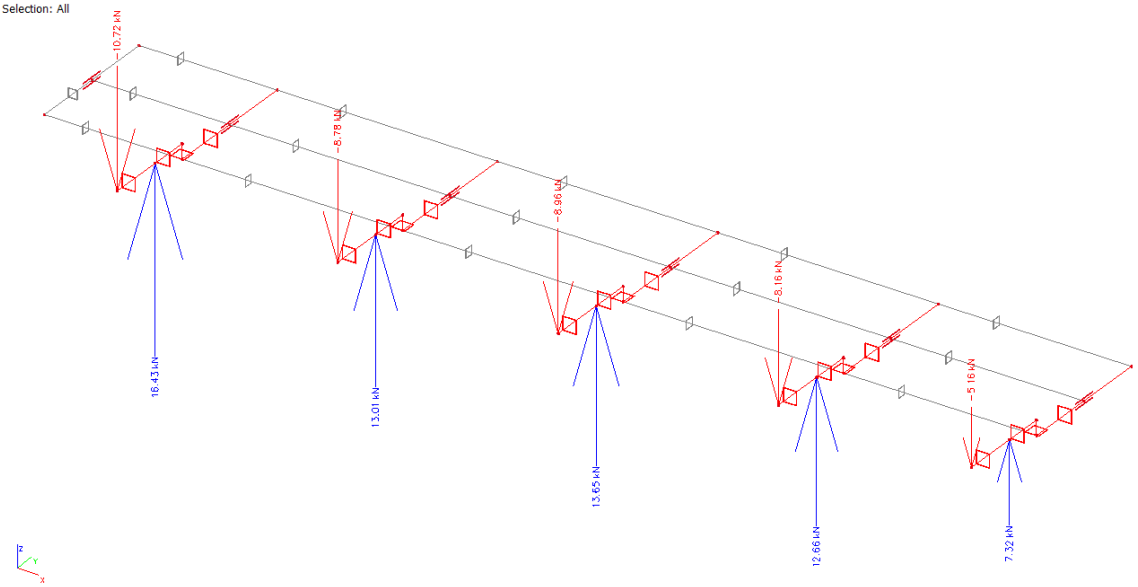
Reakcije oz. Akcije konzolnih nosilcev na obstoječo AB ploščo

Po obtežnih primerih (LC)

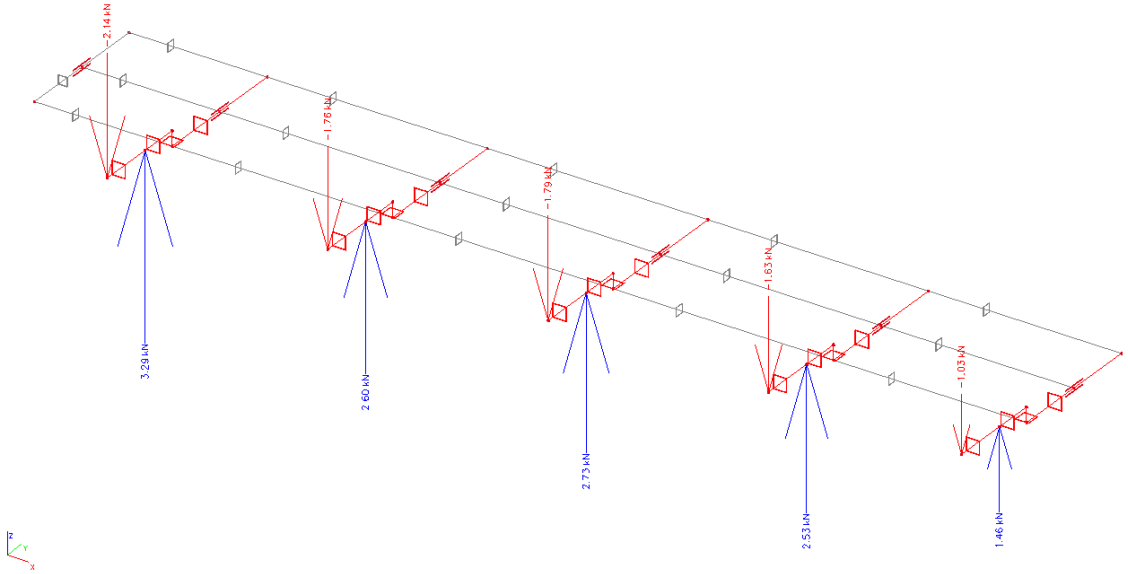


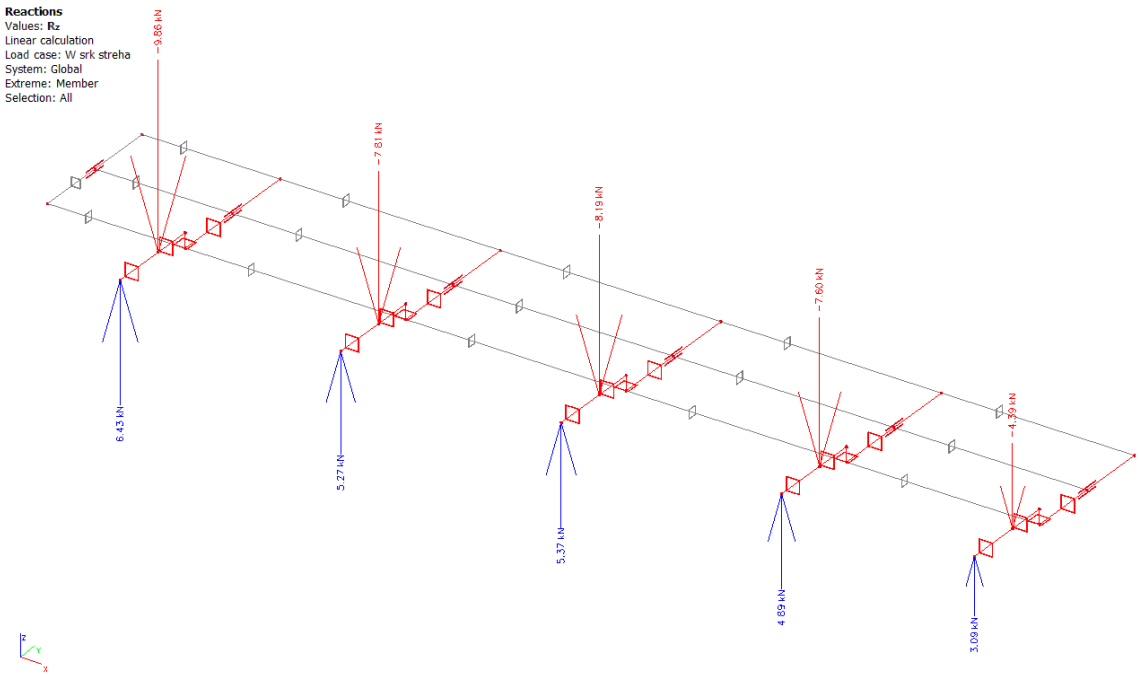


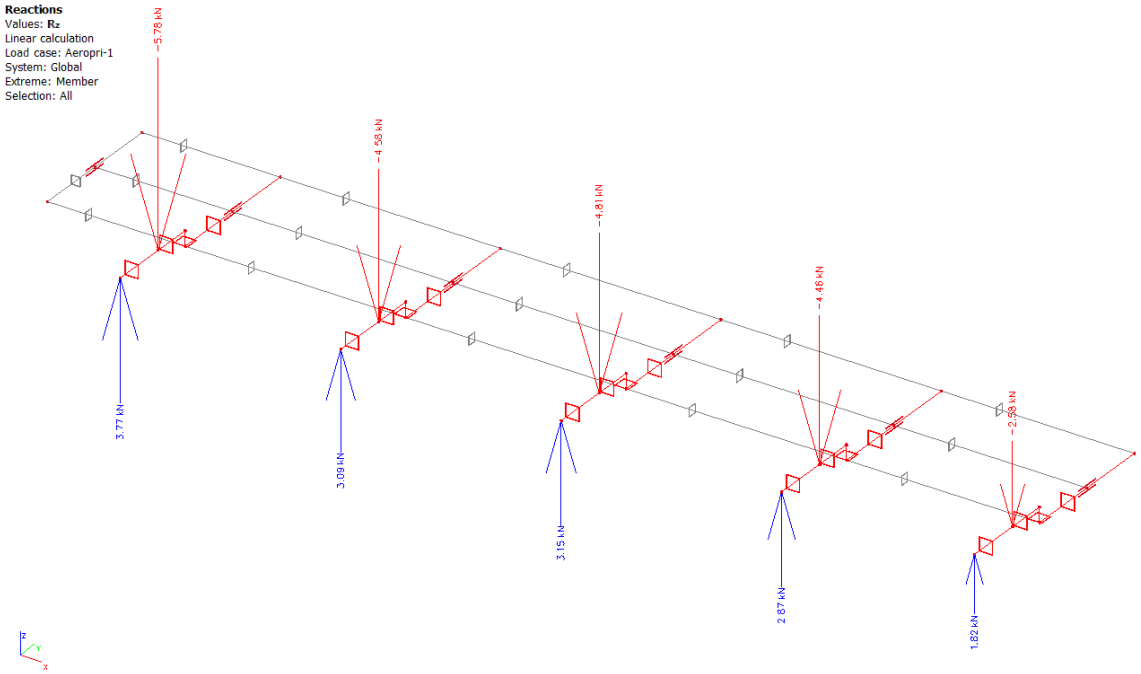
Reactions
Values: R_z
Linear calculation
Load case: sneg
System: Global
Extreme: Member
Selection: All

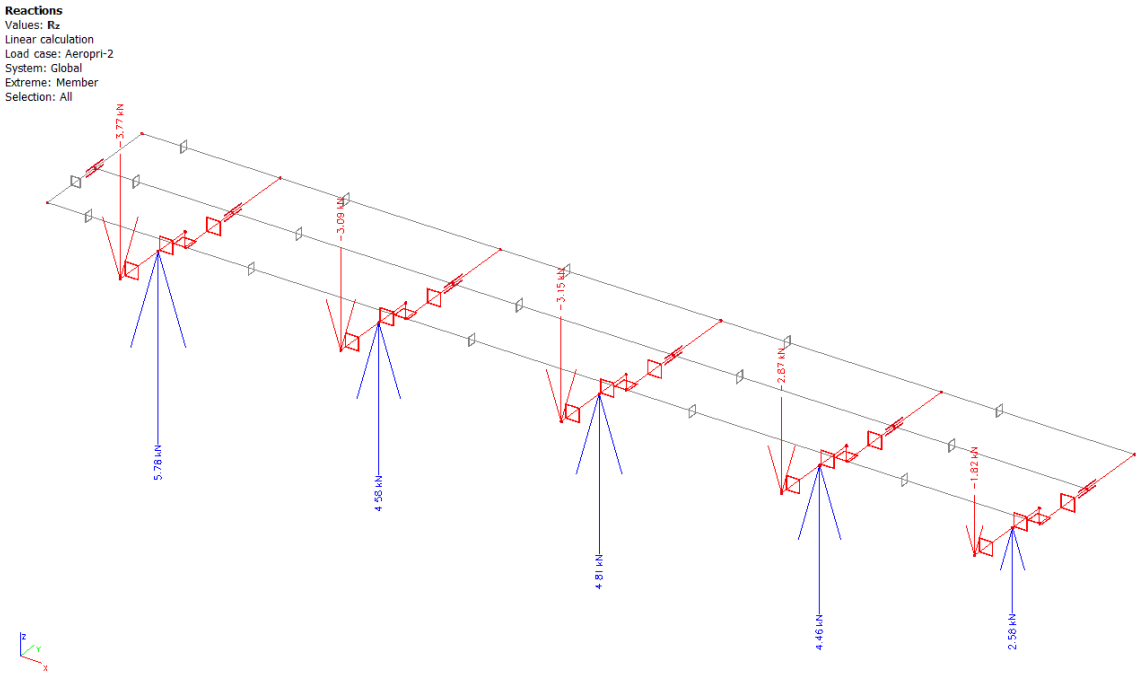


Reactions
Values: R_z
Linear calculation
Load case: W pritisk streha
System: Global
Extreme: Member
Selection: All



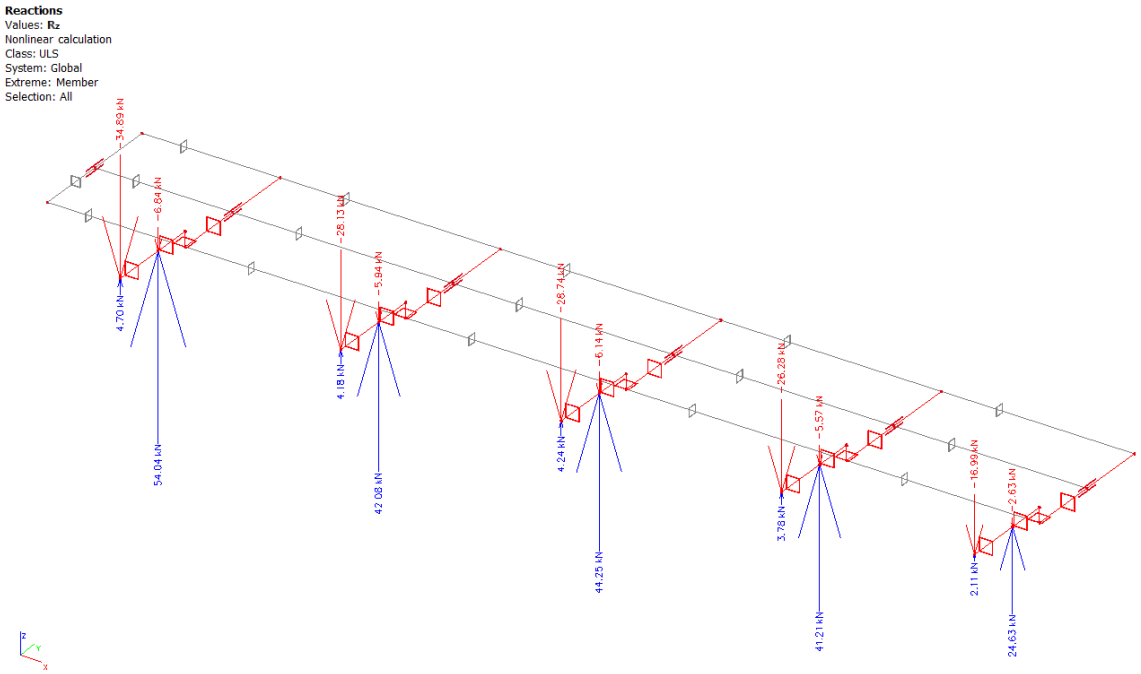

Reactions
Values: Rz
Linear calculation
Load case: W srk streha
System: Global
Extreme: Member
Selection: All
-9.86 kN
-7.81 kN
-8.19 kN
-7.60 kN
-4.39 kN
6.43 kN
5.27 kN
5.37 kN
4.89 kN
3.09 kN


Reactions
Values: Rz
Linear calculation
Load case: Aeropri-1
System: Global
Extreme: Member
Selection: All
-5.78 kN
-4.58 kN
-4.81 kN
-4.46 kN
-2.59 kN
3.77 kN
3.09 kN
3.15 kN
2.87 kN
1.82 kN



Krajna konzolna nosilca sta podprta z steno zato upoštevam rekacije nostranjih konzolnih nosilcev kot obtežbo AB plošče

Pri mejnem stanu nosilnosti – ULS (ovojnica)



11. Combinations

Name	Description	Type	Load cases	Coeff. [-]
potres 1		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	0.30
potres 2		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	1.00
			potres Y	-0.30
potres 3		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	0.30
potres 4		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-1.00
			potres Y	-0.30
potres 5		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	1.00
potres 6		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	1.00
potres 7		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	0.30
			potres Y	-1.00
potres 8		Linear - ultimate	lastna	1.00
			stalna	1.00
			potres X	-0.30
			potres Y	-1.00
MSN-temelj-1-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-1-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	1.50
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90

Name	Description	Type	Load cases	Coeff. [-]
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-2-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	1.50
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-3-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	1.50
			W -x	1.50
			W y	1.50
			W -y	1.50
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-4-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	1.50
			W srk streha	0.90
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-1		Envelope - ultimate	lastna	1.35

Name	Description	Type	Load cases	Coeff. [-]
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-5-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	1.50
			Aeropri-1	0.90
			Aeropri-2	0.90
MSN-temelj-6-1		Envelope - ultimate	lastna	1.35
			stalna	1.35
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-6-2		Envelope - ultimate	lastna	1.00
			stalna	1.00
			sneg	0.90
			horiz. ograja	0.90
			W x	0.90
			W -x	0.90
			W y	0.90
			W -y	0.90
			W pritisk streha	0.90
			W srk streha	0.90
			Aeropri-1	1.50
			Aeropri-2	1.50
MSN-temelj-7		Linear - ultimate	lastna	1.35
			stalna	1.35
			W x	0.90
			sneg-s1	1.50
MSN-temelj-8		Linear - ultimate	lastna	1.35
			stalna	1.35
			W -x	0.90
			sneg-s2	1.50

12. Nonlinear combinations

Name	Type	Load cases	Coeff. [-]
NC1	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W pritisk streha	1.50
NC2	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W x	1.50
		W pritisk streha	1.50
NC3	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -x	1.50
		W pritisk streha	1.50
NC4	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W y	1.50
		W pritisk streha	1.50
NC5	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	1.50
		W -y	1.50
		W pritisk streha	1.50
NC6	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
NC7	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
NC8	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
NC9	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
NC10	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W x	1.00
		W pritisk streha	1.00
NC11	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -x	1.00
		W pritisk streha	1.00
NC12	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00

Name	Type	Load cases	Coeff. [-]
		horiz. ograja	1.00
		W y	1.00
		W pritisk streha	1.00
NC13	Serviceability	lastna	1.00
		stalna	1.00
		sneg	1.00
		horiz. ograja	1.00
		W -y	1.00
		W pritisk streha	1.00
NC14	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	1.50
		Aeropri-1	0.90
NC15	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC16	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC17	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC18	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-1	0.90
NC19	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC20	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC21	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-1	0.90
NC22	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50

Name	Type	Load cases	Coeff. [-]
		Aeropri-1	0.90
NC23	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC24	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC25	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC26	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC27	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	1.50
		W pritisk streha	1.50
		Aeropri-2	0.90
NC28	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC29	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC30	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC31	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	1.50
		W srk streha	1.50
		Aeropri-2	0.90
NC32	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC33	Ultimate	lastna	1.35

Name	Type	Load cases	Coeff. [-]
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC34	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC35	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC36	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-1	1.50
NC37	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC38	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC39	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC40	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-1	1.50
NC41	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC42	Ultimate	lastna	1.35
		stalna	1.35
		sneg	1.50
		horiz. ograja	0.90
		W x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC43	Ultimate	lastna	1.35
		stalna	1.35

Name	Type	Load cases	Coeff. [-]
		sneg	0.90
		horiz. ograja	1.50
		W -x	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC44	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC45	Ultimate	lastna	1.35
		stalna	1.35
		sneg	0.90
		horiz. ograja	1.50
		W -y	0.90
		W pritisk streha	0.90
		Aeropri-2	1.50
NC46	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC47	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -x	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC48	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC49	Ultimate	lastna	1.00
		stalna	1.00
		horiz. ograja	1.00
		W -y	0.90
		W srk streha	0.90
		Aeropri-2	1.50
NC50-s1	Ultimate	lastna	1.35
		stalna	1.35
		W x	0.90
		sneg-s1	1.50
NC51-s2	Ultimate	lastna	1.35
		stalna	1.35
		W -x	0.90
		sneg-s2	1.50
NC52-AB-obstojece	Ultimate	lastna	1.35
		sneg-s1	1.50

13. Mass groups

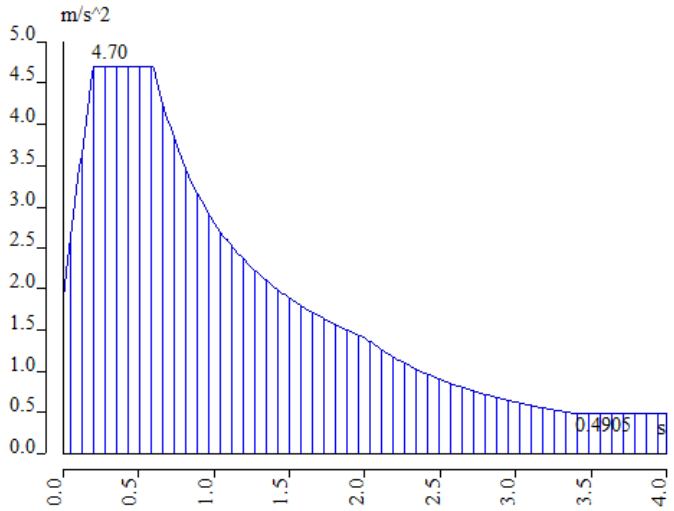
Name	Load case	Description
MG1	lastna	lastna
MG2	stalna	stalna

14. Combination of mass groups

Name	Mass group	Coeff. [-]
CM1	MG1 - lastna	1.00
	MG2 - stalna	1.00
CM1/1 - 3.31		
CM1/2 - 4.35		
CM1/3 - 4.96		
CM1/4 - 7.68		
CM1/5 - 7.70		
CM1/6 - 7.87		
CM1/7 - 9.13		
CM1/8 - 9.29		
CM1/9 - 10.89		
CM1/10 - 11.32		
CM1/11 - 13.64		
CM1/12 - 16.09		
CM1/13 - 16.58		
CM1/14 - 16.85		
CM1/15 - 17.64		
CM1/16 - 17.94		
CM1/17 - 18.23		
CM1/18 - 19.51		
CM1/19 - 21.32		
CM1/20 - 22.94		
CM1/21 - 23.67		
CM1/22 - 25.47		
CM1/23 - 27.02		
CM1/24 - 27.04		
CM1/25 - 27.55		
CM1/26 - 29.05		
CM1/27 - 29.31		
CM1/28 - 30.76		
CM1/29 - 31.29		
CM1/30 - 31.82		
CM1/31 - 31.86		
CM1/32 - 31.89		
CM1/33 - 31.93		
CM1/34 - 31.94		
CM1/35 - 31.94		
CM1/36 - 33.64		
CM1/37 - 33.97		
CM1/38 - 34.49		
CM1/39 - 34.84		
CM1/40 - 35.98		
CM1/41 - 36.74		
CM1/42 - 37.03		
CM1/43 - 37.03		
CM1/44 - 37.21		
CM1/45 - 38.44		
CM1/46 - 39.28		
CM1/47 - 40.82		
CM1/48 - 42.29		
CM1/49 - 42.43		
CM1/50 - 42.53		
CM1/51 - 43.22		
CM1/52 - 43.39		
CM1/53 - 44.74		

Name	Mass group	Coeff. [-]
CM1/54 - 45.33		
CM1/55 - 46.06		
CM1/56 - 46.92		
CM1/57 - 47.47		
CM1/58 - 48.45		
CM1/59 - 48.55		
CM1/60 - 49.05		
CM1/61 - 50.34		
CM1/62 - 50.61		
CM1/63 - 52.37		
CM1/64 - 53.58		
CM1/65 - 54.84		
CM1/66 - 55.20		
CM1/67 - 55.23		
CM1/68 - 55.72		
CM1/69 - 56.69		
CM1/70 - 56.77		
CM1/71 - 57.26		
CM1/72 - 57.95		
CM1/73 - 58.24		
CM1/74 - 58.25		
CM1/75 - 59.52		
CM1/76 - 60.21		
CM1/77 - 60.62		
CM1/78 - 61.12		
CM1/79 - 61.20		
CM1/80 - 61.32		
CM1/81 - 61.35		
CM1/82 - 63.42		
CM1/83 - 64.66		
CM1/84 - 65.14		
CM1/85 - 65.16		
CM1/86 - 65.69		
CM1/87 - 66.08		
CM1/88 - 67.54		
CM1/89 - 68.71		
CM1/90 - 69.90		
CM1/91 - 70.51		
CM1/92 - 72.14		
CM1/93 - 73.22		
CM1/94 - 74.55		
CM1/95 - 76.31		
CM1/96 - 76.98		
CM1/97 - 77.27		
CM1/98 - 78.33		
CM1/99 - 78.44		
CM1/100 - 79.12		

15. Seismic spectrums

Name	Type drawing	Info	Drawing
UniqueID			
EC 8, class C, q = 1.5, ag=0.25	Period	Type code - Eurocode Subsoil type - C Direction - Horizontal Spectrum type - type 1 coeff accel. ag - 0.25 ag - design acceleration - 2.4525 beta - 0.2 q - behaviour factor - 1.5	

2.2. Ovojnice

16. Result classes

Name	Description	List
ULS-potres	linearno	potres 2 - Linear - ultimate
		potres 3 - Linear - ultimate
		potres 4 - Linear - ultimate
		potres 5 - Linear - ultimate
		potres 6 - Linear - ultimate
		potres 7 - Linear - ultimate
		potres 8 - Linear - ultimate
		potres 1 - Linear - ultimate
ULS	nelinearno	NC1
		NC2
		NC3
		NC4
		NC5
		NC6
		NC7
		NC8
		NC9
		NC14
		NC15
		NC16
		NC17
		NC18
		NC19
		NC20
		NC21
		NC22
		NC23
		NC24
		NC25
		NC26
		NC27
		NC28
		NC29
		NC30
		NC31
		NC32
		NC33
		NC34
		NC35
		NC36
		NC37
		NC38
		NC39
		NC40
		NC41
		NC42
		NC43
		NC44
		NC45
		NC46
		NC47
		NC48
		NC49
		NC50-s1
		NC51-s2
		NC52-AB-obstojece
SLS	nelinearno	NC10
		NC11
		NC12
		NC13
ULS-temelji	linearno	MSN-temelj-1-1 - Envelope - ultimate

Name	Description	List
		MSN-temelj-1-2 - Envelope - ultimate
		MSN-temelj-2-1 - Envelope - ultimate
		MSN-temelj-2-2 - Envelope - ultimate
		MSN-temelj-3-1 - Envelope - ultimate
		MSN-temelj-3-2 - Envelope - ultimate
		MSN-temelj-4-1 - Envelope - ultimate
		MSN-temelj-4-2 - Envelope - ultimate
		MSN-temelj-5-1 - Envelope - ultimate
		MSN-temelj-5-2 - Envelope - ultimate
		MSN-temelj-6-1 - Envelope - ultimate
		MSN-temelj-6-2 - Envelope - ultimate
		MSN-temelj-7 - Linear - ultimate
		MSN-temelj-8 - Linear - ultimate

2.3. Računski protokoli

17. Calculation protocol

Linear calculation

Number of 2D elements	664
Number of 1D elements	450
Number of mesh nodes	1138
Number of equations	6828
Bending theory	Mindlin
Load cases	lastna, stalna, sneg, horiz. ograja, W x, W -x, W y, W -y, W pritisk streha, W srk streha, Aeropri-1, Aeropri-2, sneg-s1, sneg-s2
Start of calculation	08.07.2021 13:30
End of calculation	08.07.2021 13:30

Sum of loads and reactions

Load case	Value	X [kN]	Y [kN]	Z [kN]
lastna	loads	0.00	0.00	-382.07
	reaction in nodes	0.00	0.00	8.47
	reaction on lines	0.00	0.00	228.61
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	144.99
stalna	loads	0.00	0.00	-123.18
	reaction in nodes	0.00	0.00	9.38
	reaction on lines	0.00	0.00	39.01
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	74.80
sneg	loads	0.00	0.00	-161.16
	reaction in nodes	0.00	0.00	21.31
	reaction on lines	0.00	0.00	77.65
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	62.20
horiz. ograja	loads	0.00	6.80	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-6.80	0.00
W x	loads	4.18	0.00	0.00
	reaction in nodes	-0.93	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	-3.25	0.00	0.00
W -x	loads	-3.71	0.00	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	3.71	0.00	0.00
W y	loads	0.00	25.48	0.00
	reaction in nodes	0.00	0.00	0.00
	reaction on lines	0.00	-18.63	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-6.86	0.00
W -y	loads	0.00	-28.72	0.00
	reaction in nodes	0.00	3.24	0.00
	reaction on lines	0.00	18.63	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	6.86	0.00

Load case	Value	X [kN]	Y [kN]	Z [kN]
W pritisk streha	loads	0.00	0.00	-20.57
	reaction in nodes	0.00	0.00	4.26
	reaction on lines	0.00	0.00	13.75
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	2.56
W srk streha	loads	0.00	0.00	60.70
	reaction in nodes	0.00	0.00	-12.79
	reaction on lines	0.00	0.00	-40.24
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	-7.67
Aeropri-1	loads	0.00	22.42	27.23
	reaction in nodes	0.00	0.00	-7.50
	reaction on lines	0.00	-17.19	-24.22
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	-5.23	4.50
Aeropri-2	loads	0.00	-22.42	-27.23
	reaction in nodes	0.00	0.00	7.50
	reaction on lines	0.00	17.19	24.22
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	5.23	-4.50
sneg-s1	loads	0.00	0.00	-128.75
	reaction in nodes	0.00	0.00	21.31
	reaction on lines	0.00	0.00	45.24
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	62.20
sneg-s2	loads	0.00	0.00	-83.51
	reaction in nodes	0.00	0.00	21.31
	reaction on lines	0.00	0.00	0.00
	contact 1D	0.00	0.00	0.00
	contact 2D	0.00	0.00	62.20

The following dynamic load cases are detailed separately (see below):potres X, potres Y

Dynamic load case 15 : potres X

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	3.31	0.05	1	4.701	0.000	0.000	0.00	0.00	0.00	0.00	0.00
2	4.35	0.05	1	4.701	0.000	0.000	-0.35	14.77	0.00	0.00	-22.53
3	4.96	0.05	1	4.685	0.000	0.000	-0.09	1.63	0.00	0.00	-1.82
4	7.68	0.05	1	3.719	0.000	0.000	0.15	32.71	0.00	0.00	31.48
5	7.70	0.05	1	3.714	0.000	0.000	0.00	0.00	0.00	0.00	0.00
6	7.87	0.05	1	3.675	0.000	0.000	0.15	37.17	0.00	0.00	36.12
7	9.13	0.05	1	3.428	0.000	0.000	0.00	0.00	0.00	0.00	0.00
8	9.29	0.05	1	3.402	0.000	0.000	0.00	0.00	0.00	0.01	0.00
9	10.89	0.05	1	3.177	0.000	0.000	0.00	0.01	0.00	0.00	0.00
10	11.32	0.05	1	3.130	0.000	0.000	0.00	0.00	0.00	-0.01	0.00
11	13.64	0.05	1	2.914	0.000	0.000	0.00	0.01	0.00	0.00	-0.02
12	16.09	0.05	1	2.759	0.000	0.000	0.00	0.00	0.00	0.00	0.00
13	16.58	0.05	1	2.736	0.000	0.000	0.00	0.03	0.00	0.00	-0.01
14	16.85	0.05	1	2.723	0.000	0.000	0.00	0.01	0.00	0.00	0.00
15	17.64	0.05	1	2.685	0.000	0.000	0.00	0.04	0.01	-0.04	-0.12
16	17.94	0.05	1	2.671	0.000	0.000	0.00	0.00	0.00	0.00	0.00
17	18.23	0.05	1	2.657	0.000	0.000	0.00	0.19	0.00	0.00	-0.04
18	19.51	0.05	1	2.608	0.000	0.000	0.01	2.90	0.40	-1.19	-8.70
19	21.32	0.05	1	2.549	0.000	0.000	0.00	0.51	0.00	-0.01	-0.12
20	22.94	0.05	1	2.496	0.000	0.000	0.00	0.00	0.00	0.00	0.00
21	23.67	0.05	1	2.479	0.000	0.000	0.00	0.02	0.00	0.00	-0.05
22	25.47	0.05	1	2.443	0.000	0.000	0.00	1.29	0.00	-0.01	-0.47
23	27.02	0.05	1	2.411	0.000	0.000	0.00	0.07	0.00	0.00	-0.12
24	27.04	0.05	1	2.411	0.000	0.000	0.00	0.05	0.00	0.00	-0.11
25	27.55	0.05	1	2.400	0.000	0.000	0.00	0.00	0.00	0.00	0.00
26	29.05	0.05	1	2.370	0.000	0.000	0.00	0.00	0.00	0.00	0.00
27	29.31	0.05	1	2.364	0.000	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
28	30.76	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
29	31.29	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
30	31.82	0.05	1	2.350	0.000	0.000	0.00	0.74	0.04	-0.07	-1.17
31	31.86	0.05	1	2.350	0.000	0.000	0.00	0.00	-0.01	0.02	0.00
32	31.89	0.05	1	2.350	0.000	0.000	0.00	0.07	0.18	-0.31	-0.13
33	31.93	0.05	1	2.350	0.000	0.000	0.00	0.43	-0.19	0.31	-0.74
34	31.94	0.05	1	2.350	0.000	0.000	0.00	0.53	0.00	0.00	-0.85
35	31.94	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
36	33.64	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
37	33.97	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
38	34.49	0.05	1	2.350	0.000	0.000	0.00	0.54	-0.40	1.21	-1.63
39	34.84	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
40	35.98	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
41	36.74	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
42	37.03	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
43	37.03	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
44	37.21	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
45	38.44	0.05	1	2.350	0.000	0.000	0.00	0.01	-0.01	0.02	-0.04
46	39.28	0.05	1	2.350	0.000	0.000	0.00	0.22	0.00	0.01	-0.03
47	40.82	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
48	42.29	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
49	42.43	0.05	1	2.350	0.000	0.000	0.00	0.01	0.00	0.00	-0.01
50	42.53	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
51	43.22	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
52	43.39	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
53	44.74	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.01	-0.01
54	45.33	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
55	46.06	0.05	1	2.350	0.000	0.000	0.00	0.40	0.00	0.01	0.00
56	46.92	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
57	47.47	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
58	48.45	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
59	48.55	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
60	49.05	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	-0.01	0.00
61	50.34	0.05	1	2.350	0.000	0.000	0.00	0.51	0.02	-0.06	-0.27
62	50.61	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
63	52.37	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
64	53.58	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
65	54.84	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
66	55.20	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
67	55.23	0.05	1	2.350	0.000	0.000	0.00	0.16	-0.01	0.02	0.12
68	55.72	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
69	56.69	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.01	0.00
70	56.77	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
71	57.26	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
72	57.95	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
73	58.24	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	-0.01	0.00
74	58.25	0.05	1	2.350	0.000	0.000	0.00	0.01	0.00	0.00	-0.01
75	59.52	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
76	60.21	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
77	60.62	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
78	61.12	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
79	61.20	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
80	61.32	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
81	61.35	0.05	1	2.350	0.000	0.000	0.00	8.81	0.00	-0.01	-0.11
82	63.42	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
83	64.66	0.05	1	2.350	0.000	0.000	0.00	0.00	0.01	-0.02	0.00
84	65.14	0.05	1	2.350	0.000	0.000	0.00	0.04	0.00	0.00	0.02
85	65.16	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
86	65.69	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
87	66.08	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	-0.01	0.00
88	67.54	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	-0.01	0.00
89	68.71	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
90	69.90	0.05	1	2.350	0.000	0.000	0.00	0.00	-0.01	0.03	0.00
91	70.51	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
92	72.14	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
93	73.22	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
94	74.55	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
95	76.31	0.05	1	2.350	0.000	0.000	0.00	0.18	0.01	-0.03	-0.16
96	76.98	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
97	77.27	0.05	1	2.350	0.000	0.000	0.00	0.01	0.00	0.00	-0.02
98	78.33	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
99	78.44	0.05	1	2.350	0.000	0.000	0.00	0.30	-0.01	0.03	0.00
100	79.12	0.05	1	2.350	0.000	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							52.56	0.63	1.76	53.74

Dynamic load case 16 : potres Y

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
1	3.31	0.05	1	0.000	4.701	0.000	-0.55	0.00	12.00	-22.88	0.00
2	4.35	0.05	1	0.000	4.701	0.000	0.00	0.00	0.00	0.00	0.00
3	4.96	0.05	1	0.000	4.685	0.000	0.00	0.00	0.00	0.00	0.00
4	7.68	0.05	1	0.000	3.719	0.000	0.00	0.00	0.00	0.00	0.00
5	7.70	0.05	1	0.000	3.714	0.000	-0.22	0.00	73.59	66.56	0.00
6	7.87	0.05	1	0.000	3.675	0.000	0.00	0.00	0.00	0.00	0.00
7	9.13	0.05	1	0.000	3.428	0.000	0.00	0.00	0.00	0.00	0.00
8	9.29	0.05	1	0.000	3.402	0.000	0.00	0.00	0.02	-0.05	0.01
9	10.89	0.05	1	0.000	3.177	0.000	0.00	0.00	0.00	0.00	0.00
10	11.32	0.05	1	0.000	3.130	0.000	0.00	0.00	0.03	-0.10	-0.01
11	13.64	0.05	1	0.000	2.914	0.000	0.00	0.00	0.00	0.00	0.00
12	16.09	0.05	1	0.000	2.759	0.000	0.00	0.00	0.02	0.03	0.00
13	16.58	0.05	1	0.000	2.736	0.000	0.00	0.00	0.00	0.00	0.00
14	16.85	0.05	1	0.000	2.723	0.000	0.00	0.00	0.00	0.00	0.00
15	17.64	0.05	1	0.000	2.685	0.000	0.00	0.01	0.00	-0.01	-0.04
16	17.94	0.05	1	0.000	2.671	0.000	0.00	0.00	0.07	0.12	0.00
17	18.23	0.05	1	0.000	2.657	0.000	0.00	0.00	0.00	0.00	0.00
18	19.51	0.05	1	0.000	2.608	0.000	0.00	0.40	0.05	-0.16	-1.19
19	21.32	0.05	1	0.000	2.549	0.000	0.00	0.00	0.00	0.00	0.00
20	22.94	0.05	1	0.000	2.496	0.000	0.00	0.00	0.00	0.00	0.00
21	23.67	0.05	1	0.000	2.479	0.000	0.00	0.00	0.00	0.00	0.00
22	25.47	0.05	1	0.000	2.443	0.000	0.00	0.00	0.00	0.00	0.00
23	27.02	0.05	1	0.000	2.411	0.000	0.00	0.00	0.00	0.00	0.00
24	27.04	0.05	1	0.000	2.411	0.000	0.00	0.00	0.00	0.00	0.00
25	27.55	0.05	1	0.000	2.400	0.000	0.00	0.00	0.00	0.00	0.00
26	29.05	0.05	1	0.000	2.370	0.000	0.00	0.00	0.00	0.00	0.00
27	29.31	0.05	1	0.000	2.364	0.000	0.00	0.00	0.00	0.00	0.00
28	30.76	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
29	31.29	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
30	31.82	0.05	1	0.000	2.350	0.000	0.00	0.04	0.00	0.00	-0.06
31	31.86	0.05	1	0.000	2.350	0.000	0.00	-0.01	0.53	-0.87	0.02
32	31.89	0.05	1	0.000	2.350	0.000	0.00	0.18	0.51	-0.86	-0.35
33	31.93	0.05	1	0.000	2.350	0.000	0.00	-0.19	0.08	-0.14	0.32
34	31.94	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
35	31.94	0.05	1	0.000	2.350	0.000	0.00	0.00	0.53	-0.85	0.00
36	33.64	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
37	33.97	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
38	34.49	0.05	1	0.000	2.350	0.000	0.00	-0.40	0.30	-0.90	1.21
39	34.84	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
40	35.98	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
41	36.74	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
42	37.03	0.05	1	0.000	2.350	0.000	0.00	0.00	0.09	-0.15	0.00
43	37.03	0.05	1	0.000	2.350	0.000	0.00	0.00	0.08	-0.13	0.00
44	37.21	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
45	38.44	0.05	1	0.000	2.350	0.000	0.00	-0.01	0.00	-0.01	0.02
46	39.28	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
47	40.82	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
48	42.29	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
49	42.43	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
50	42.53	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
51	43.22	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
52	43.39	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00

Mode	Freq. [Hz]	Damp ratio	Damp coef.	Sax [m/s²]	Say [m/s²]	Saz [m/s²]	G(j) [-]	Fx [kN]	Fy [kN]	Mx [kNm]	My [kNm]
53	44.74	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.01
54	45.33	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
55	46.06	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
56	46.92	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
57	47.47	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
58	48.45	0.05	1	0.000	2.350	0.000	0.00	0.00	0.01	-0.02	0.00
59	48.55	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
60	49.05	0.05	1	0.000	2.350	0.000	0.00	0.00	0.14	-0.42	-0.01
61	50.34	0.05	1	0.000	2.350	0.000	0.00	0.02	0.00	0.00	-0.01
62	50.61	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
63	52.37	0.05	1	0.000	2.350	0.000	0.00	0.00	0.03	-0.10	0.00
64	53.58	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
65	54.84	0.05	1	0.000	2.350	0.000	0.00	0.00	0.01	-0.02	0.00
66	55.20	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
67	55.23	0.05	1	0.000	2.350	0.000	0.00	-0.01	0.00	0.00	0.00
68	55.72	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	-0.01	0.00
69	56.69	0.05	1	0.000	2.350	0.000	0.00	0.00	0.26	-0.79	0.01
70	56.77	0.05	1	0.000	2.350	0.000	0.00	0.00	0.66	-1.98	0.00
71	57.26	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
72	57.95	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
73	58.24	0.05	1	0.000	2.350	0.000	0.00	0.00	0.02	-0.05	-0.01
74	58.25	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
75	59.52	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
76	60.21	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
77	60.62	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
78	61.12	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
79	61.20	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
80	61.32	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
81	61.35	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
82	63.42	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
83	64.66	0.05	1	0.000	2.350	0.000	0.00	0.01	0.08	-0.23	-0.02
84	65.14	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
85	65.16	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
86	65.69	0.05	1	0.000	2.350	0.000	0.00	0.00	0.01	-0.02	0.00
87	66.08	0.05	1	0.000	2.350	0.000	0.00	0.00	0.05	-0.14	-0.01
88	67.54	0.05	1	0.000	2.350	0.000	0.00	0.00	0.05	-0.16	-0.01
89	68.71	0.05	1	0.000	2.350	0.000	0.00	0.00	0.01	-0.03	0.00
90	69.90	0.05	1	0.000	2.350	0.000	0.00	-0.01	0.69	-2.06	0.03
91	70.51	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
92	72.14	0.05	1	0.000	2.350	0.000	0.00	0.00	0.09	-0.26	0.00
93	73.22	0.05	1	0.000	2.350	0.000	0.00	0.00	0.04	-0.13	0.00
94	74.55	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
95	76.31	0.05	1	0.000	2.350	0.000	0.00	0.01	0.00	0.00	-0.01
96	76.98	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
97	77.27	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
98	78.33	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
99	78.44	0.05	1	0.000	2.350	0.000	0.00	-0.01	0.00	0.00	0.00
100	79.12	0.05	1	0.000	2.350	0.000	0.00	0.00	0.00	0.00	0.00
Level=	0.00							0.63	74.58	70.47	1.77

18. Calculation protocol

Solution of Free vibration

Number of 2D elements	664
Number of 1D elements	450
Number of mesh nodes	1138
Number of equations	6828
Combination of mass groups	MC1 CM1
Number of frequencies	100
Method	Lanczos
Bending theory	Mindlin
Type of analysis model	Standard
Start of calculation	08.07.2021 13:30
End of calculation	08.07.2021 13:30

Sum of masses

	X [kg]	Y [kg]	Z [kg]
1	52770.87	45298.31	54874.71
1	54898.34	54898.34	54898.34

Relative modal masses

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
1	20.8106	0.30	3.31	0.0000	0.0564	0.0000	0.0022	0.0000	0.0307
2	27.3514	0.23	4.35	0.0595	0.0000	0.0000	0.0000	0.0006	0.0159
3	31.1603	0.20	4.96	0.0066	0.0000	0.0000	0.0000	0.0000	0.0261
4	48.2593	0.13	7.68	0.1667	0.0000	0.0000	0.0000	0.0276	0.1850
5	48.3909	0.13	7.70	0.0000	0.4375	0.0000	0.0929	0.0000	0.2380
6	49.4479	0.13	7.87	0.1917	0.0000	0.0000	0.0000	0.0320	0.0154
7	57.3618	0.11	9.13	0.0000	0.0000	0.3305	0.1909	0.4024	0.0000
8	58.3506	0.11	9.29	0.0000	0.0001	0.0084	0.0071	0.0196	0.0001
9	68.4125	0.09	10.89	0.0001	0.0000	0.1833	0.0985	0.0008	0.0000
10	71.1238	0.09	11.32	0.0000	0.0002	0.0133	0.0115	0.0033	0.0001
11	85.6903	0.07	13.64	0.0000	0.0000	0.0004	0.0003	0.0017	0.0001
12	101.11	0.06	16.09	0.0000	0.0002	0.3393	0.3403	0.2765	0.0001
13	104.192	0.06	16.58	0.0002	0.0000	0.0220	0.0869	0.0149	0.0000
14	105.895	0.06	16.85	0.0001	0.0000	0.0000	0.0000	0.0765	0.0000
15	110.859	0.06	17.64	0.0003	0.0000	0.0002	0.0002	0.0000	0.0003
16	112.698	0.06	17.94	0.0000	0.0006	0.0688	0.0233	0.0561	0.0003
17	114.535	0.05	18.23	0.0013	0.0000	0.0000	0.0006	0.0015	0.0003
18	122.561	0.05	19.51	0.0211	0.0005	0.0000	0.0002	0.0022	0.0166
19	133.943	0.05	21.32	0.0038	0.0000	0.0075	0.0143	0.0019	0.0007
20	144.138	0.04	22.94	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	148.748	0.04	23.67	0.0001	0.0000	0.0001	0.0001	0.0000	0.0000
22	160.014	0.04	25.47	0.0100	0.0000	0.0000	0.0000	0.0002	0.0019
23	169.785	0.04	27.02	0.0006	0.0000	0.0000	0.0000	0.0000	0.0001
24	169.899	0.04	27.04	0.0004	0.0000	0.0000	0.0000	0.0000	0.0001
25	173.081	0.04	27.55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
26	182.556	0.03	29.05	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
27	184.188	0.03	29.31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
28	193.274	0.03	30.76	0.0000	0.0000	0.0025	0.0036	0.0007	0.0000
29	196.623	0.03	31.29	0.0000	0.0000	0.0001	0.0000	0.0004	0.0000
30	199.957	0.03	31.82	0.0060	0.0000	0.0000	0.0000	0.0000	0.0009
31	200.183	0.03	31.86	0.0000	0.0050	0.0000	0.0001	0.0000	0.0015
32	200.394	0.03	31.89	0.0005	0.0048	0.0000	0.0001	0.0000	0.0063
33	200.599	0.03	31.93	0.0034	0.0008	0.0000	0.0000	0.0000	0.0039
34	200.705	0.03	31.94	0.0043	0.0000	0.0000	0.0000	0.0000	0.0008
35	200.705	0.03	31.94	0.0000	0.0050	0.0000	0.0000	0.0000	0.0002
36	211.363	0.03	33.64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
37	213.465	0.03	33.97	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000
38	216.737	0.03	34.49	0.0044	0.0028	0.0000	0.0005	0.0006	0.0014
39	218.876	0.03	34.84	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
40	226.095	0.03	35.98	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
41	230.861	0.03	36.74	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
42	232.637	0.03	37.03	0.0000	0.0008	0.0000	0.0000	0.0000	0.0007
43	232.638	0.03	37.03	0.0000	0.0008	0.0000	0.0000	0.0000	0.0000
44	233.774	0.03	37.21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
45	241.538	0.03	38.44	0.0001	0.0000	0.0003	0.0002	0.0010	0.0000
46	246.809	0.03	39.28	0.0018	0.0000	0.0001	0.0002	0.0020	0.0004
47	256.47	0.02	40.82	0.0000	0.0000	0.0119	0.0224	0.0058	0.0000
48	265.695	0.02	42.29	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
49	266.614	0.02	42.43	0.0001	0.0000	0.0004	0.0003	0.0001	0.0000
50	267.238	0.02	42.53	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
51	271.555	0.02	43.22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
52	272.6	0.02	43.39	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
53	281.126	0.02	44.74	0.0000	0.0000	0.0001	0.0000	0.0004	0.0000
54	284.801	0.02	45.33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mode	Omega [rad/s]	Period [s]	Freq. [Hz]	W_{xi}/W_{xtot}	W_{yi}/W_{ytot}	W_{zi}/W_{ztot}	W_{xi_R}/W_{xtot_R}	W_{yi_R}/W_{ytot_R}	W_{zi_R}/W_{ztot_R}
55	289.406	0.02	46.06	0.0032	0.0000	0.0002	0.0004	0.0003	0.0007
56	294.783	0.02	46.92	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
57	298.274	0.02	47.47	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
58	304.438	0.02	48.45	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000
59	305.071	0.02	48.55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
60	308.174	0.02	49.05	0.0000	0.0013	0.0020	0.0002	0.0020	0.0008
61	316.269	0.02	50.34	0.0041	0.0000	0.0001	0.0001	0.0002	0.0007
62	317.967	0.02	50.61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
63	329.07	0.02	52.37	0.0000	0.0003	0.0004	0.0000	0.0000	0.0000
64	336.662	0.02	53.58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
65	344.576	0.02	54.84	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001
66	346.811	0.02	55.20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
67	347.004	0.02	55.23	0.0013	0.0000	0.0000	0.0001	0.0002	0.0003
68	350.076	0.02	55.72	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006
69	356.169	0.02	56.69	0.0000	0.0025	0.0001	0.0008	0.0002	0.0015
70	356.719	0.02	56.77	0.0000	0.0062	0.0000	0.0015	0.0000	0.0035
71	359.796	0.02	57.26	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
72	364.128	0.02	57.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
73	365.911	0.02	58.24	0.0000	0.0002	0.0004	0.0003	0.0000	0.0001
74	365.999	0.02	58.25	0.0001	0.0000	0.0003	0.0004	0.0000	0.0000
75	373.957	0.02	59.52	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
76	378.296	0.02	60.21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
77	380.913	0.02	60.62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
78	384.025	0.02	61.12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
79	384.56	0.02	61.20	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000
80	385.298	0.02	61.32	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
81	385.503	0.02	61.35	0.0710	0.0000	0.0000	0.0000	0.0033	0.0138
82	398.475	0.02	63.42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
83	406.299	0.02	64.66	0.0000	0.0007	0.0001	0.0000	0.0000	0.0002
84	409.291	0.02	65.14	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
85	409.433	0.02	65.16	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
86	412.761	0.02	65.69	0.0000	0.0001	0.0000	0.0001	0.0000	0.0000
87	415.214	0.02	66.08	0.0000	0.0004	0.0014	0.0002	0.0014	0.0003
88	424.352	0.01	67.54	0.0000	0.0005	0.0000	0.0001	0.0000	0.0003
89	431.717	0.01	68.71	0.0000	0.0001	0.0000	0.0001	0.0000	0.0001
90	439.219	0.01	69.90	0.0000	0.0065	0.0005	0.0024	0.0004	0.0029
91	443.031	0.01	70.51	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004
92	453.294	0.01	72.14	0.0000	0.0008	0.0000	0.0002	0.0000	0.0000
93	460.055	0.01	73.22	0.0000	0.0004	0.0001	0.0002	0.0000	0.0003
94	468.394	0.01	74.55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
95	479.475	0.01	76.31	0.0015	0.0000	0.0000	0.0000	0.0000	0.0003
96	483.665	0.01	76.98	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
97	485.521	0.01	77.27	0.0001	0.0000	0.0008	0.0003	0.0000	0.0001
98	492.132	0.01	78.33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
99	492.824	0.01	78.44	0.0025	0.0000	0.0000	0.0000	0.0001	0.0006
100	497.098	0.01	79.12	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				0.5670	0.5355	0.9957	0.9045	0.9381	0.5754

3. REZULTATI ANALIZE KONSTRUKCIJE

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19. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-KN1 - CFRHS150X150X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2385	N3-KN1 - CFRHS150X150X6	0.000	NC21	**-2.46**	-0.49	0.01	0.08	-1.82	0.08
B2385	N3-KN1 - CFRHS150X150X6	0.160	NC42	**18.79**	6.00	-0.30	-0.95	13.40	0.01
B2386	N3-KN1 - CFRHS150X150X6	0.000	NC41	0.08	**-6.26**	18.90	0.00	-21.69	**1.89**
B2385	N3-KN1 - CFRHS150X150X6	0.000	NC41	18.72	**6.17**	-0.25	-0.94	13.44	-0.97
B2417	N3-KN1 - CFRHS150X150X6	0.620	NC42	0.03	2.90	**-35.10**	0.00	-21.70	1.80
B2386	N3-KN1 - CFRHS150X150X6	0.000	NC42	0.15	-6.10	**18.92**	0.00	**-21.70**	1.80
B2385	N3-KN1 - CFRHS150X150X6	0.000	NC42	18.74	6.00	-0.32	**-0.96**	**13.45**	-0.95
B2403	N3-KN1 - CFRHS150X150X6	0.775	NC41	-0.14	0.60	5.34	**0.94**	-2.48	0.08
B2383	N3-KN1 - CFRHS150X150X6	0.000	NC24	-0.09	4.70	13.34	0.00	-17.00	**-1.27**

20. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-KN1 - CFRHS150X150X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2386	N3-KN1 - CFRHS150X150X6	0.000	potres 2/1	**-0.92**	**-2.27**	4.80	0.00	-5.35	**0.88**
B2385	N3-KN1 - CFRHS150X150X6	0.160	potres 6/2	**4.73**	1.30	-0.62	-0.15	3.07	0.00
B2385	N3-KN1 - CFRHS150X150X6	0.000	potres 2/1	4.35	**2.27**	0.92	**-0.40**	3.33	-0.36
B2417	N3-KN1 - CFRHS150X150X6	0.620	potres 2/1	0.01	0.80	**-8.50**	0.00	-5.22	0.50
B2386	N3-KN1 - CFRHS150X150X6	0.000	potres 7/3	-0.59	-2.06	**4.85**	0.00	**-5.42**	0.68
B2382	N3-KN1 - CFRHS150X150X6	0.000	potres 2/1	2.97	-1.78	-0.10	**0.30**	2.74	0.28
B2385	N3-KN1 - CFRHS150X150X6	0.000	potres 7/3	4.30	2.06	0.59	-0.33	**3.34**	-0.33
B2383	N3-KN1 - CFRHS150X150X6	0.000	potres 2/1	-0.16	1.78	3.38	0.00	-4.20	**-0.65**

21. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-SL1 - CFRHS100X100X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2398	N3-SL1 - CFRHS100X100X5	0.000	NC42	**-7.25**	-0.05	2.46	-0.16	-2.18	0.00
B2387	N3-SL1 - CFRHS100X100X5	2.100	NC41	**3.36**	-0.08	-0.57	-0.25	0.49	-0.07
B2373	N3-SL1 - CFRHS100X100X5	1.850	NC27	-0.89	**-0.74**	-2.76	0.07	-0.83	-0.26
B2372	N3-SL1 - CFRHS100X100X5	0.000	NC27	-0.91	**0.74**	2.95	-0.07	-1.00	-0.26
B2368	N3-SL1 - CFRHS100X100X5	1.850	NC33	-0.17	-0.06	**-6.50**	-0.04	-2.33	-0.05
B2369	N3-SL1 - CFRHS100X100X5	0.000	NC34	-0.30	0.03	**6.52**	0.04	-2.35	-0.03
B2412	N3-SL1 - CFRHS100X100X5	1.500	NC41	0.11	0.13	-2.53	**-0.48**	-2.47	0.13
B2374	N3-SL1 - CFRHS100X100X5	0.000	NC3	-0.17	0.07	4.03	**0.24**	-1.78	-0.05
B2411	N3-SL1 - CFRHS100X100X5	1.500	NC42	-0.44	-0.02	-3.60	0.04	**-2.82**	-0.02
B2368	N3-SL1 - CFRHS100X100X5	0.925	NC34	-0.25	-0.07	0.02	-0.05	**1.34**	0.00
B2393	N3-SL1 - CFRHS100X100X5	0.000	NC27	0.16	0.60	1.64	-0.02	-0.78	**-0.30**

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2374	N3-SL1 - CFRHS100X100X5	1.450	NC35	0.22	0.56	-1.93	0.22	-0.30	**0.25**

22. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-SL1 - CFRHS100X100X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2398	N3-SL1 - CFRHS100X100X5	0.000	potres 2/1	**-1.90**	0.00	0.61	-0.04	-0.55	-0.01
B2387	N3-SL1 - CFRHS100X100X5	1.680	potres 6/2	**0.77**	0.04	-0.08	-0.05	0.13	-0.04
B2370	N3-SL1 - CFRHS100X100X5	1.160	potres 6/2	0.10	**-0.40**	-0.45	-0.01	-0.14	-0.09
B2367	N3-SL1 - CFRHS100X100X5	0.000	potres 7/3	0.10	**0.40**	0.54	0.01	-0.29	0.20
B2371	N3-SL1 - CFRHS100X100X5	1.450	potres 3/4	-0.45	0.17	**-2.54**	-0.04	-1.57	0.10
B2374	N3-SL1 - CFRHS100X100X5	0.000	potres 2/1	-0.45	-0.17	**2.54**	0.04	-1.57	0.10
B2412	N3-SL1 - CFRHS100X100X5	0.000	potres 2/1	0.03	0.03	-0.18	**-0.12**	-0.01	-0.01
B2373	N3-SL1 - CFRHS100X100X5	0.000	potres 2/1	-0.48	-0.26	1.48	**0.06**	-1.24	0.21
B2371	N3-SL1 - CFRHS100X100X5	0.000	potres 2/1	0.37	-0.15	2.46	0.02	**-1.84**	0.11
B2371	N3-SL1 - CFRHS100X100X5	0.000	potres 3/4	-0.40	0.15	-2.11	-0.04	**1.80**	-0.11
B2364	N3-SL1 - CFRHS100X100X5	0.000	potres 3/4	-0.57	0.26	-0.89	-0.03	0.97	**-0.24**
B2364	N3-SL1 - CFRHS100X100X5	0.000	potres 2/1	0.55	-0.26	1.49	0.03	-1.17	**0.24**

23. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-S1 - CFRHS150X100X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2350	N3-S1 - CFRHS150X100X6	0.000	NC17	**-23.08**	-3.55	0.08	-0.01	0.00	0.00
B2343	N3-S1 - CFRHS150X100X6	3.500	NC21	**5.15**	-0.55	0.00	-0.01	0.01	-3.78
B2350	N3-S1 - CFRHS150X100X6	0.000	NC4	-21.74	**-3.74**	0.08	-0.01	0.00	0.00
B2350	N3-S1 - CFRHS150X100X6	1.200	NC31	3.51	**1.76**	0.00	0.00	0.00	0.30
B2347	N3-S1 - CFRHS150X100X6	0.000	NC16	-17.25	-2.04	**-0.86**	0.03	0.00	0.00
B2356	N3-S1 - CFRHS150X100X6	0.000	NC15	-10.32	-1.59	**0.76**	-0.03	0.00	0.00
B2347	N3-S1 - CFRHS150X100X6	3.000	NC15	-18.12	-0.25	0.11	**-0.05**	1.04	-3.23
B2353	N3-S1 - CFRHS150X100X6	3.000	NC16	-17.71	-0.11	-0.20	**0.05**	-1.33	-2.78
B2347	N3-S1 - CFRHS150X100X6	3.000	NC16	-16.40	-0.13	-0.37	0.03	**-1.85**	-2.83
B2356	N3-S1 - CFRHS150X100X6	3.000	NC15	-9.48	-0.49	0.29	-0.03	**1.59**	-2.91
B2350	N3-S1 - CFRHS150X100X6	3.000	NC17	-22.28	-0.78	0.07	-0.01	0.23	**-6.14**
B2352	N3-S1 - CFRHS150X100X6	3.500	NC27	-17.92	0.32	0.07	0.00	0.25	**3.36**

24. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-S1 - CFRHS150X100X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2346	N3-S1 - CFRHS150X100X6	0.000	potres 7/3	**-5.87**	0.81	-0.28	-0.10	0.00	0.00
B2344	N3-S1 - CFRHS150X100X6	3.000	potres 2/1	**3.89**	-0.53	-0.66	-0.34	-2.28	1.84
B2344	N3-S1 - CFRHS150X100X6	0.000	potres 6/2	-5.45	**-1.13**	0.23	0.11	0.00	0.00
B2344	N3-S1 - CFRHS150X100X6	0.000	potres 7/3	3.07	**1.10**	-0.26	-0.11	0.00	0.00
B2347	N3-S1 - CFRHS150X100X6	0.000	potres 2/1	-3.99	-0.53	**-1.07**	-0.35	0.00	0.00
B2353	N3-S1 - CFRHS150X100X6	0.000	potres 3/4	-3.99	0.48	**1.07**	0.35	0.00	0.00
B2353	N3-S1 - CFRHS150X100X6	0.000	potres 2/1	0.20	-0.53	-1.06	**-0.35**	0.00	0.00
B2347	N3-S1 - CFRHS150X100X6	0.000	potres 3/4	0.20	0.48	1.06	**0.35**	0.00	0.00
B2347	N3-S1 - CFRHS150X100X6	3.000	potres 2/1	-3.36	-0.41	-0.90	-0.35	**-3.00**	-1.45
B2353	N3-S1 - CFRHS150X100X6	3.000	potres 3/4	-3.36	0.35	0.90	0.35	**3.00**	1.29

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2344	N3-S1 - CFRHS150X100X6	3.000	potres 6/2	-4.80	0.88	0.18	0.11	0.63	**-3.10**
B2344	N3-S1 - CFRHS150X100X6	3.000	potres 7/3	3.70	-0.90	-0.21	-0.11	-0.72	**3.03**

25. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-N1 - CFRHS150X100X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2348	N3-N1 - CFRHS150X100X6	0.775	NC26	**-0.85**	2.85	0.00	0.02	0.00	4.39
B2348	N3-N1 - CFRHS150X100X6	0.775	NC37	**0.74**	-3.81	0.04	-0.10	-0.01	0.30
B2348	N3-N1 - CFRHS150X100X6	1.550	NC17	-0.34	**-15.67**	-0.02	-0.04	-0.01	**-6.26**
B2348	N3-N1 - CFRHS150X100X6	0.000	NC27	-0.36	**12.23**	-0.03	-0.02	0.02	-3.29
B2345	N3-N1 - CFRHS150X100X6	1.550	NC35	0.03	-14.43	**-0.55**	0.26	**-0.27**	-5.81
B2351	N3-N1 - CFRHS150X100X6	1.550	NC35	0.02	-14.41	**0.52**	-0.33	0.25	-5.81
B2354	N3-N1 - CFRHS150X100X6	1.550	NC15	-0.11	-6.76	0.31	**-0.64**	0.16	-2.69
B2342	N3-N1 - CFRHS150X100X6	1.550	NC16	-0.09	-6.28	-0.29	**0.68**	-0.14	-2.27
B2345	N3-N1 - CFRHS150X100X6	0.000	NC21	-0.05	-5.13	-0.55	-0.01	**0.27**	3.79
B2348	N3-N1 - CFRHS150X100X6	0.775	NC5	-0.13	-4.92	-0.02	0.04	0.00	**5.19**

26. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-N1 - CFRHS150X100X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2345	N3-N1 - CFRHS150X100X6	1.395	potres 6/2	**-0.60**	2.72	0.53	-0.12	0.15	2.43
B2345	N3-N1 - CFRHS150X100X6	1.395	potres 7/3	**0.54**	-4.07	-0.53	0.15	-0.15	-2.39
B2345	N3-N1 - CFRHS150X100X6	1.550	potres 7/3	0.54	**-4.12**	-0.53	0.15	-0.23	-3.03
B2345	N3-N1 - CFRHS150X100X6	0.000	potres 6/2	0.21	**4.24**	0.48	0.10	-0.18	-2.49
B2354	N3-N1 - CFRHS150X100X6	1.395	potres 3/4	-0.39	2.07	**-0.72**	-0.44	-0.24	1.52
B2342	N3-N1 - CFRHS150X100X6	1.395	potres 3/4	0.36	2.07	**0.72**	-0.38	-0.24	-1.46
B2348	N3-N1 - CFRHS150X100X6	0.775	potres 3/4	-0.14	0.50	0.43	**-0.47**	-0.20	0.46
B2348	N3-N1 - CFRHS150X100X6	0.775	potres 2/1	0.08	-1.43	-0.43	**0.47**	0.20	0.30
B2354	N3-N1 - CFRHS150X100X6	1.550	potres 3/4	-0.39	2.03	-0.72	-0.44	**-0.35**	1.83
B2342	N3-N1 - CFRHS150X100X6	1.550	potres 2/1	-0.39	-2.79	-0.72	0.44	**0.35**	1.83
B2342	N3-N1 - CFRHS150X100X6	1.550	potres 6/2	0.54	3.27	0.48	-0.10	-0.22	**-3.09**
B2342	N3-N1 - CFRHS150X100X6	1.550	potres 7/3	-0.56	-4.02	-0.48	0.15	0.22	**3.04**

27. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-ABS1 - Circle (220)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2486	N3-ABS1 - Circle	0.000	NC41	**-87.99**	2.26	0.01	0.00	0.00	0.00
B2491	N3-ABS1 - Circle	3.095	NC19	**6.62**	0.89	-0.01	0.01	0.00	0.00
B2486	N3-ABS1 - Circle	3.095	NC27	-82.63	**-5.06**	**0.01**	0.00	0.00	0.00
B2486	N3-ABS1 - Circle	3.095	NC17	-72.36	**5.05**	-0.01	0.00	0.00	0.00
B2486	N3-ABS1 - Circle	3.095	NC41	-84.06	-2.99	**-0.01**	0.00	0.00	0.00
B2490	N3-ABS1 - Circle	0.000	NC27	-46.35	1.89	-0.01	**-0.04**	0.00	0.00
B2491	N3-ABS1 - Circle	1.791	NC41	-20.61	-0.18	0.00	**0.08**	0.01	1.15
B2486	N3-ABS1 - Circle	1.444	NC27	-84.69	0.66	0.00	0.00	**-0.01**	3.96
B2486	N3-ABS1 - Circle	1.444	NC41	-86.16	0.39	0.00	0.00	**0.01**	2.34
B2486	N3-ABS1 - Circle	1.651	NC17	-74.16	0.11	0.00	0.00	0.01	**-4.00**
B2486	N3-ABS1 - Circle	1.651	NC27	-84.43	-0.11	0.00	0.00	-0.01	**4.02**

28. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-ABS1 - Circle (220)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2486	N3-ABS1 - Circle	0.000	potres 2/1	**-38.76**	**0.00**	**0.00**	0.00	**0.00**	**0.00**
B2490	N3-ABS1 - Circle	0.000	potres 2/1	-19.44	0.00	0.00	**0.00**	0.00	0.00
B2491	N3-ABS1 - Circle	0.000	potres 2/1	-3.50	0.00	0.00	**0.03**	0.00	0.00

29. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-AB-N1 - Rectangle (150; 300)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2495	N3-AB-N1 - Rectangle	2.400	NC41	**-45.08**	-0.10	-0.21	-0.03	**-1.98**	0.09
B2494	N3-AB-N1 - Rectangle	1.200	NC41	**42.34**	0.34	0.46	1.31	**0.81**	**0.39**
B2494	N3-AB-N1 - Rectangle	0.000	NC41	-2.19	**-2.84**	-1.99	1.13	0.07	-0.02
B2494	N3-AB-N1 - Rectangle	0.600	NC41	25.51	**1.95**	3.88	**1.69**	0.46	0.07
B2497	N3-AB-N1 - Rectangle	2.400	NC52-AB-obstojece	2.38	-0.23	**-7.22**	0.19	-0.17	0.01
B2496	N3-AB-N1 - Rectangle	0.300	NC50-s1	-26.04	-0.28	**6.43**	-0.10	-0.34	0.17
B2497	N3-AB-N1 - Rectangle	1.800	NC41	24.59	-1.13	-3.15	**-0.93**	0.51	0.01
B2494	N3-AB-N1 - Rectangle	0.300	NC41	11.28	0.65	2.44	1.53	-0.30	**-0.47**

30. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-N1 - CFRHS150X100X6

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2345	N3-N1 - CFRHS150X100X6	1.395	potres 6/2	**-0.60**	2.72	0.53	-0.12	0.15	2.43
B2345	N3-N1 - CFRHS150X100X6	1.395	potres 7/3	**0.54**	-4.07	-0.53	0.15	-0.15	-2.39
B2345	N3-N1 - CFRHS150X100X6	1.550	potres 7/3	0.54	**-4.12**	-0.53	0.15	-0.23	-3.03
B2345	N3-N1 - CFRHS150X100X6	0.000	potres 6/2	0.21	**4.24**	0.48	0.10	-0.18	-2.49
B2354	N3-N1 - CFRHS150X100X6	1.395	potres 3/4	-0.39	2.07	**-0.72**	-0.44	-0.24	1.52
B2342	N3-N1 - CFRHS150X100X6	1.395	potres 3/4	0.36	2.07	**0.72**	-0.38	-0.24	-1.46
B2348	N3-N1 - CFRHS150X100X6	0.775	potres 3/4	-0.14	0.50	0.43	**-0.47**	-0.20	0.46
B2348	N3-N1 - CFRHS150X100X6	0.775	potres 2/1	0.08	-1.43	-0.43	**0.47**	0.20	0.30
B2354	N3-N1 - CFRHS150X100X6	1.550	potres 3/4	-0.39	2.03	-0.72	-0.44	**-0.35**	1.83
B2342	N3-N1 - CFRHS150X100X6	1.550	potres 2/1	-0.39	-2.79	-0.72	0.44	**0.35**	1.83
B2342	N3-N1 - CFRHS150X100X6	1.550	potres 6/2	0.54	3.27	0.48	-0.10	-0.22	**-3.09**
B2342	N3-N1 - CFRHS150X100X6	1.550	potres 7/3	-0.56	-4.02	-0.48	0.15	0.22	**3.04**

31. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-AB-N2 - CFRHS120X80X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2516	N3-AB-N2 - CFRHS120X80X5	0.000	NC41	**-63.09**	0.00	-2.42	0.00	0.00	0.00
B2515	N3-AB-N2 - CFRHS120X80X5	3.095	NC41	-61.66	**0.00**	3.16	0.00	0.00	0.00
B2516	N3-AB-N2 - CFRHS120X80X5	3.095	NC27	-61.38	**0.00**	**5.32**	0.00	0.00	0.00
B2516	N3-AB-N2 - CFRHS120X80X5	3.095	NC17	-53.87	0.00	**-5.27**	0.00	0.00	0.00

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2516	N3-AB-N2 - CFRHS120X80X5	0.000	NC25	-61.98	0.00	-1.45	**0.00**	0.00	0.00
B2515	N3-AB-N2 - CFRHS120X80X5	1.238	NC41	-62.05	0.00	-0.90	**0.00**	-2.36	0.00
B2516	N3-AB-N2 - CFRHS120X80X5	1.651	NC27	-61.66	0.00	0.13	0.00	**-4.27**	**0.00**
B2516	N3-AB-N2 - CFRHS120X80X5	1.651	NC17	-54.15	0.00	-0.13	0.00	**4.22**	0.00
B2515	N3-AB-N2 - CFRHS120X80X5	1.651	NC41	-61.97	0.00	0.08	0.00	-2.53	**0.00**

32. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-AB-N2 - CFRHS120X80X5

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2516	N3-AB-N2 - CFRHS120X80X5	0.000	potres 2/1	**-27.29**	0.00	0.00	**0.00**	0.00	0.00
B2515	N3-AB-N2 - CFRHS120X80X5	0.000	potres 2/1	-26.80	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

33. Internal forces on member

Nonlinear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS
Cross-section : N3-AB-T1 - Rectangle (1000; 320)

Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2524	N3-AB-T1 - Rectangle	0.480	NC27	**-1.26**	-0.12	-17.22	0.00	-7.64	0.00
B2524	N3-AB-T1 - Rectangle	1.920	NC41	**1.29**	-0.01	28.10	0.00	-2.37	0.00
B2524	N3-AB-T1 - Rectangle	0.000	NC41	1.28	**-0.17**	-17.58	0.00	-0.64	**0.08**
B2523	N3-AB-T1 - Rectangle	4.320	NC27	-0.21	**0.08**	37.43	0.00	-17.86	0.00
B2523	N3-AB-T1 - Rectangle	0.000	NC41	0.53	0.00	**-42.60**	0.00	21.86	0.00
B2523	N3-AB-T1 - Rectangle	4.320	NC41	0.24	0.06	**38.11**	0.00	-18.40	0.00
B2523	N3-AB-T1 - Rectangle	4.800	NC52-AB-obstojece	-0.10	-0.04	17.16	**0.00**	0.05	**-0.02**
B2524	N3-AB-T1 - Rectangle	0.000	NC50-s1	0.90	-0.12	-2.75	**0.00**	-0.45	0.05
B2523	N3-AB-T1 - Rectangle	3.360	NC41	0.22	0.00	-13.46	0.00	**-29.78**	0.00
B2524	N3-AB-T1 - Rectangle	4.800	NC52-AB-obstojece	-0.52	0.00	16.00	0.00	**31.38**	0.00

34. Internal forces on member

Linear calculation, Extreme : Cross-section, System : Principal
Selection : All
Class : ULS-potres
Cross-section : N3-AB-T1 - Rectangle (1000; 320)

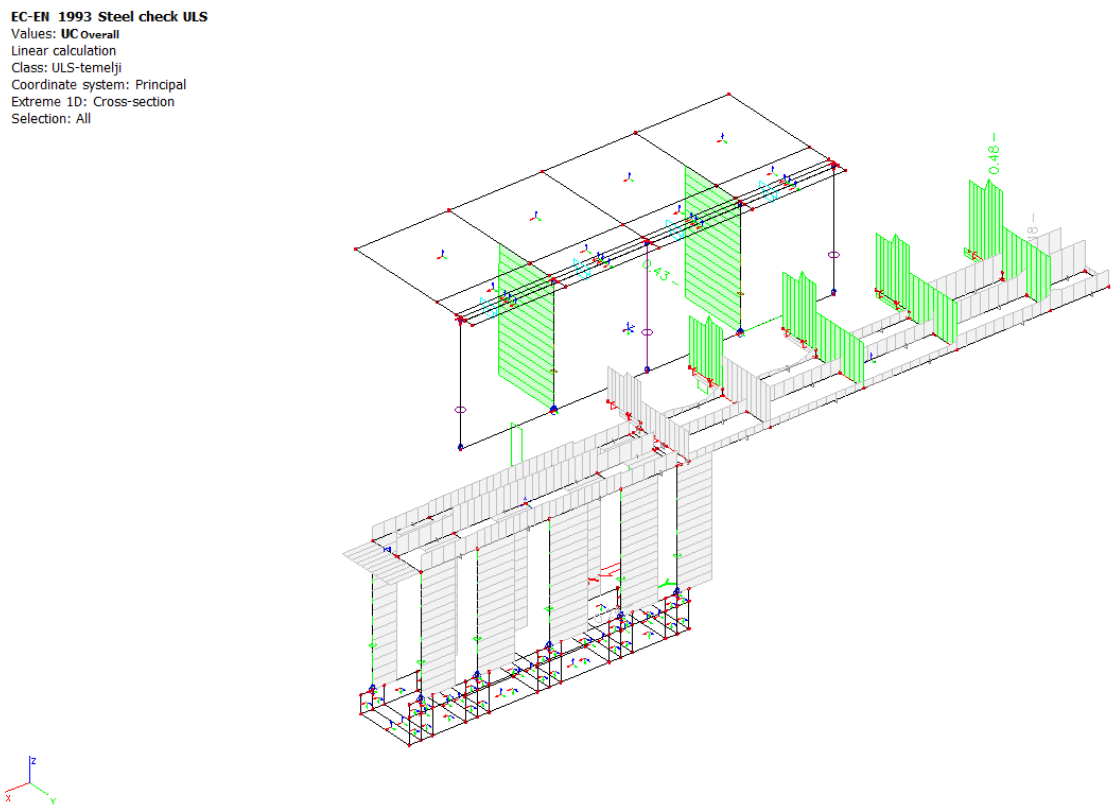
Member	css	dx [m]	Case	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
B2524	N3-AB-T1 - Rectangle	0.000	potres 2/1	**0.00**	**-0.07**	-1.93	**0.00**	0.00	**0.03**
B2523	N3-AB-T1 - Rectangle	2.400	potres 2/1	**0.00**	0.00	-14.70	0.00	-0.25	0.00
B2524	N3-AB-T1 - Rectangle	0.480	potres 2/1	0.00	**0.00**	1.51	**0.00**	-0.93	0.00
B2523	N3-AB-T1 - Rectangle	0.000	potres 2/1	0.00	0.00	**-20.15**	0.00	**17.67**	0.00
B2523	N3-AB-T1 - Rectangle	4.320	potres 2/1	0.00	0.00	**15.37**	0.00	-7.38	0.00
B2523	N3-AB-T1 - Rectangle	3.840	potres 2/1	0.00	0.00	-0.13	0.00	**-10.98**	0.00
B2524	N3-AB-T1 - Rectangle	0.480	potres 2/1	0.00	-0.07	-1.93	0.00	-0.93	**0.00**

3.2. Izkoriščenost jeklenih elementov

35. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-temelji
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2348	0.465-	MSN-temelj-3-1/1	N3-N1 - CFRHS150X100X6	S 235	**0.21**	0.13	0.21
B2350	0.000	MSN-temelj-3-1/1	N3-S1 - CFRHS150X100X6	S 235	**0.24**	0.03	0.24
B2411	1.500	MSN-temelj-1-1/2	N3-SL1 - CFRHS100X100X5	S 235	**0.18**	0.17	0.18
B2386	0.000	MSN-temelj-1-1/2	N3-KN1 - CFRHS150X150X6	S 235	**0.48**	0.48	0.46
B2516	0.000	MSN-temelj-6-1/3	N3-AB-N2 - CFRHS120X80X5	S 235	**0.43**	0.13	0.43

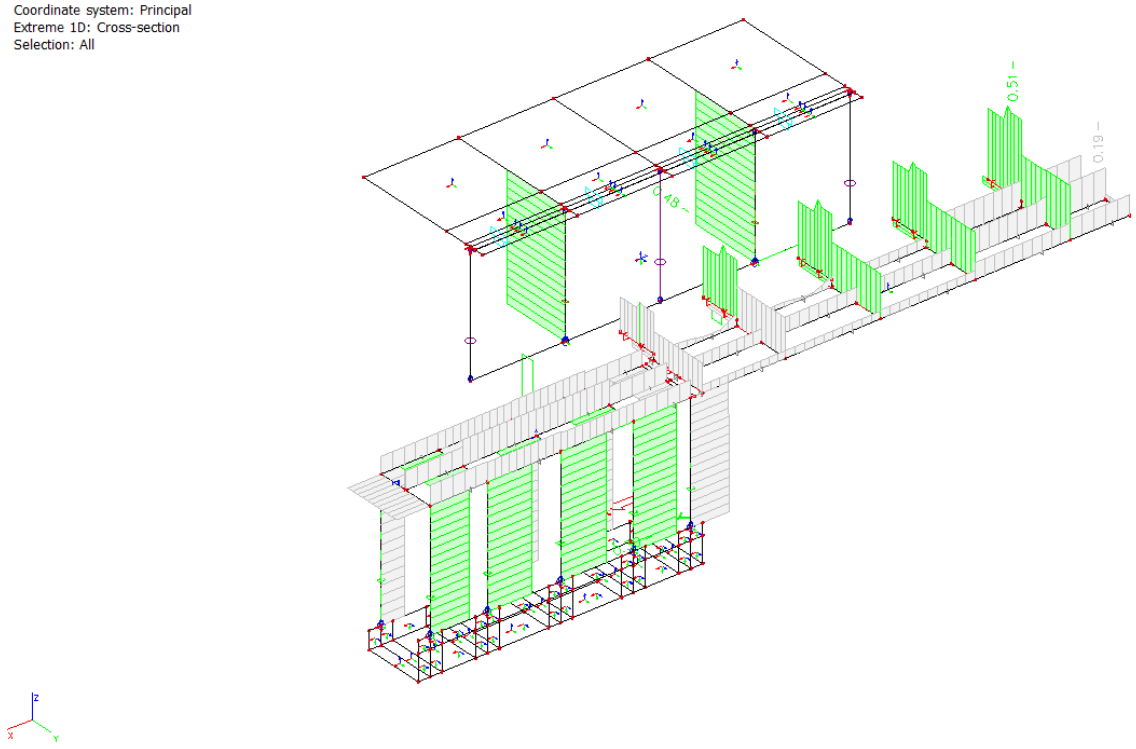


36. EC-EN 1993 Steel check ULS

Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2348	0.775-	NC17	N3-N1 - CFRHS150X100X6	S 235	**0.26**	0.18	0.26
B2350	0.000	NC17	N3-S1 - CFRHS150X100X6	S 235	**0.30**	0.04	0.30
B2411	0.000	NC42	N3-SL1 - CFRHS100X100X5	S 235	**0.19**	0.01	0.19
B2386	0.000	NC42	N3-KN1 - CFRHS150X150X6	S 235	**0.51**	0.51	0.00
B2516	0.000	NC27	N3-AB-N2 - CFRHS120X80X5	S 235	**0.48**	0.14	0.48

EC-EN 1993 Steel check ULS
Values: **UC Overall**
Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All

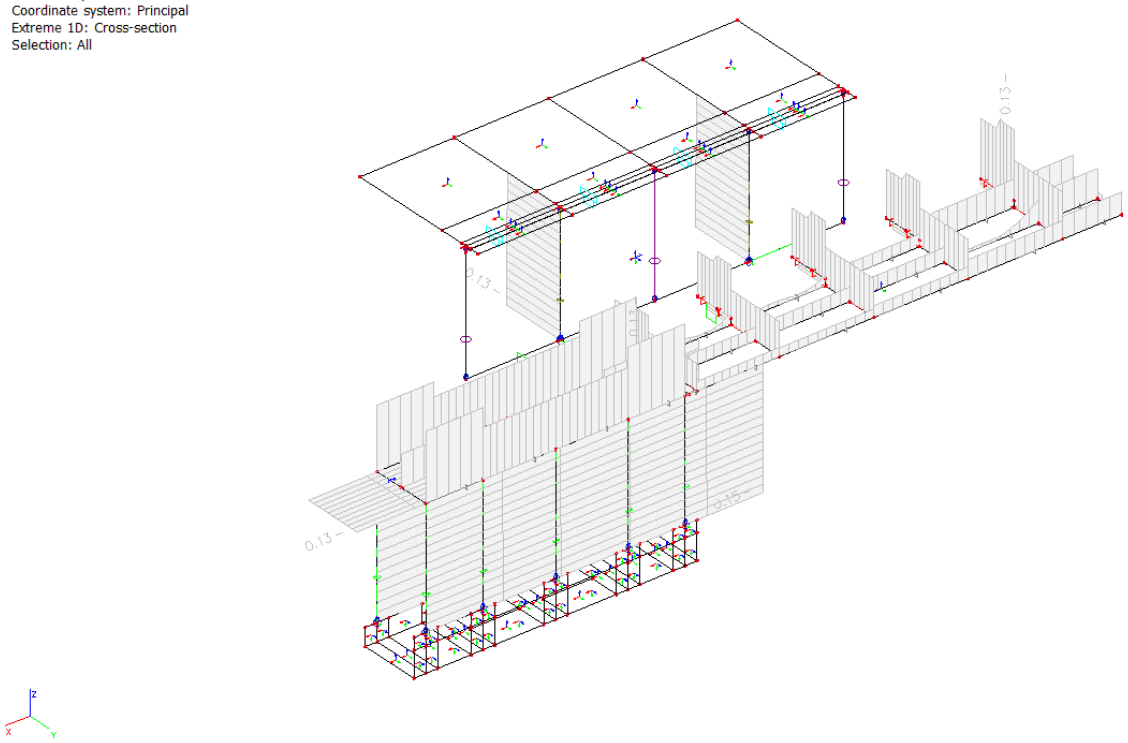


37. EC-EN 1993 Steel check ULS

Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All
Overall Unity Check

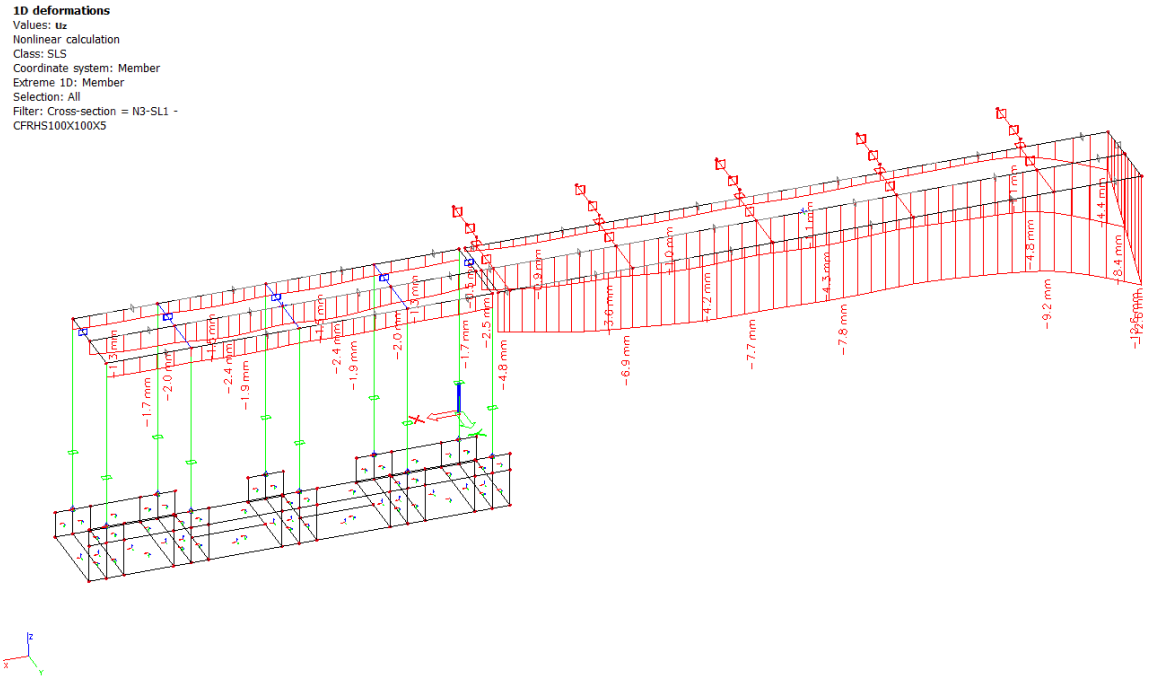
Name	dx [m]	Case	Cross-section	Material	$UC_{Overall}$ [-]	UC_{Sec} [-]	UC_{Stab} [-]
B2354	1.550	potres 6/1	N3-N1 - CFRHS150X100X6	S 235	**0.13**	0.13	0.13
B2347	0.000	potres 6/1	N3-S1 - CFRHS150X100X6	S 235	**0.15**	0.01	0.15
B2371	1.450	potres 3/2	N3-SL1 - CFRHS100X100X5	S 235	**0.13**	0.10	0.13
B2386	0.000	potres 6/1	N3-KN1 - CFRHS150X150X6	S 235	**0.13**	0.13	0.12
B2515	0.000	potres 3/2	N3-AB-N2 - CFRHS120X80X5	S 235	**0.13**	0.07	0.13

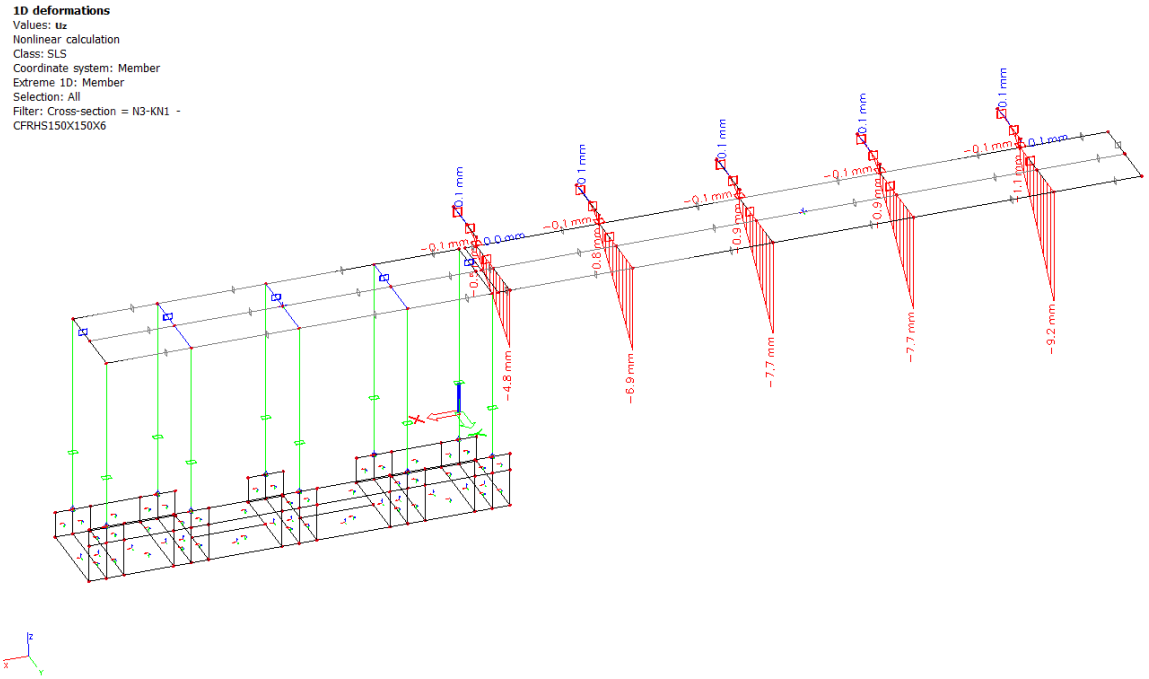
EC-EN 1993 Steel check ULS
Values: **UC Overall**
Linear calculation
Class: ULS-potres
Coordinate system: Principal
Extreme 1D: Cross-section
Selection: All



3.3. Pomiki

MSU – vertikalni pomiki

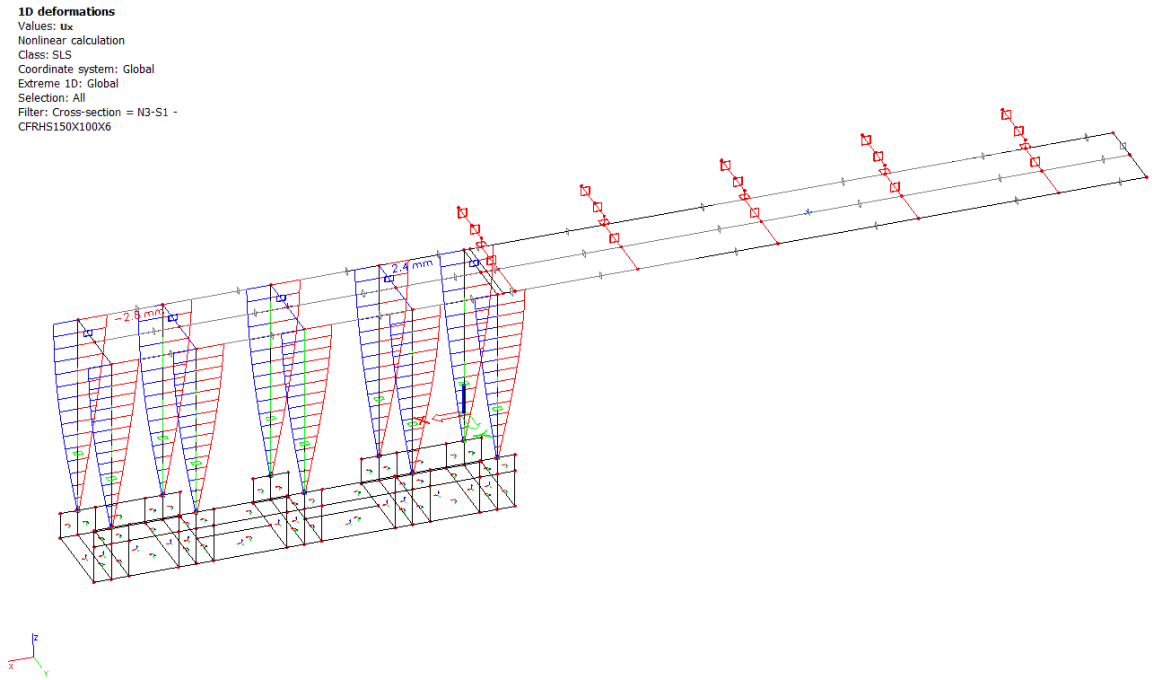


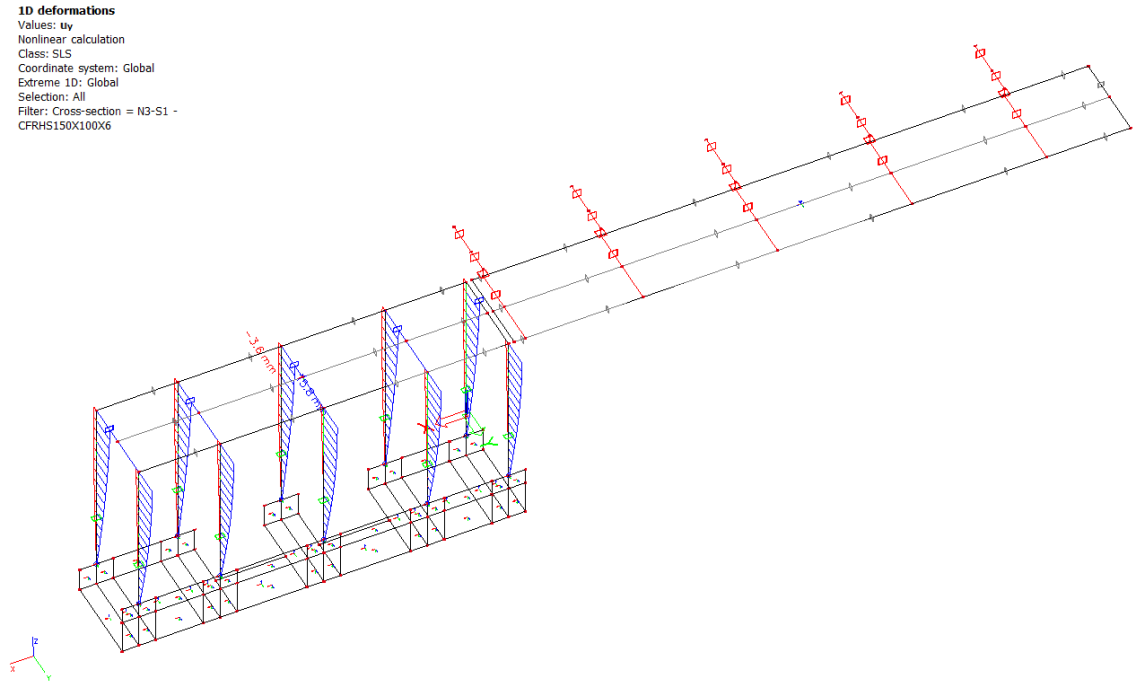


Konzolni nosilec KC150/6

$$w_{vert,max,Q} = 9.2 \text{ mm} \leq w_{vert,dov,Q} = 2xL/250 = 2x1550/250 = 12.4 \text{ mm}$$

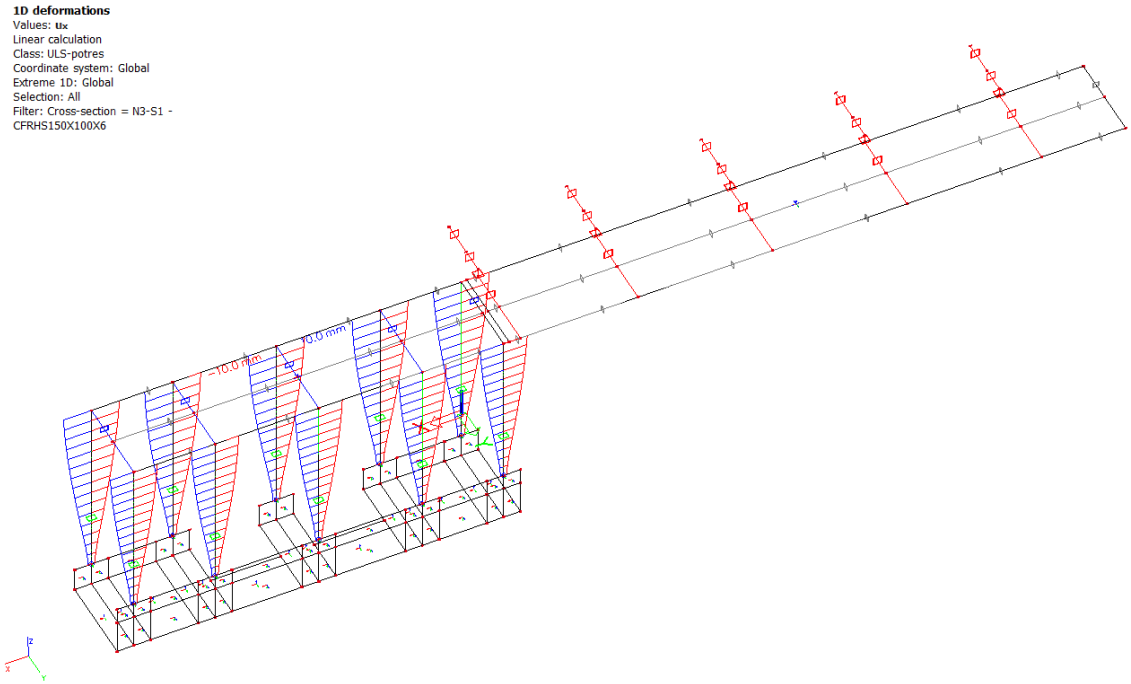
MSU – horizontalni pomiki

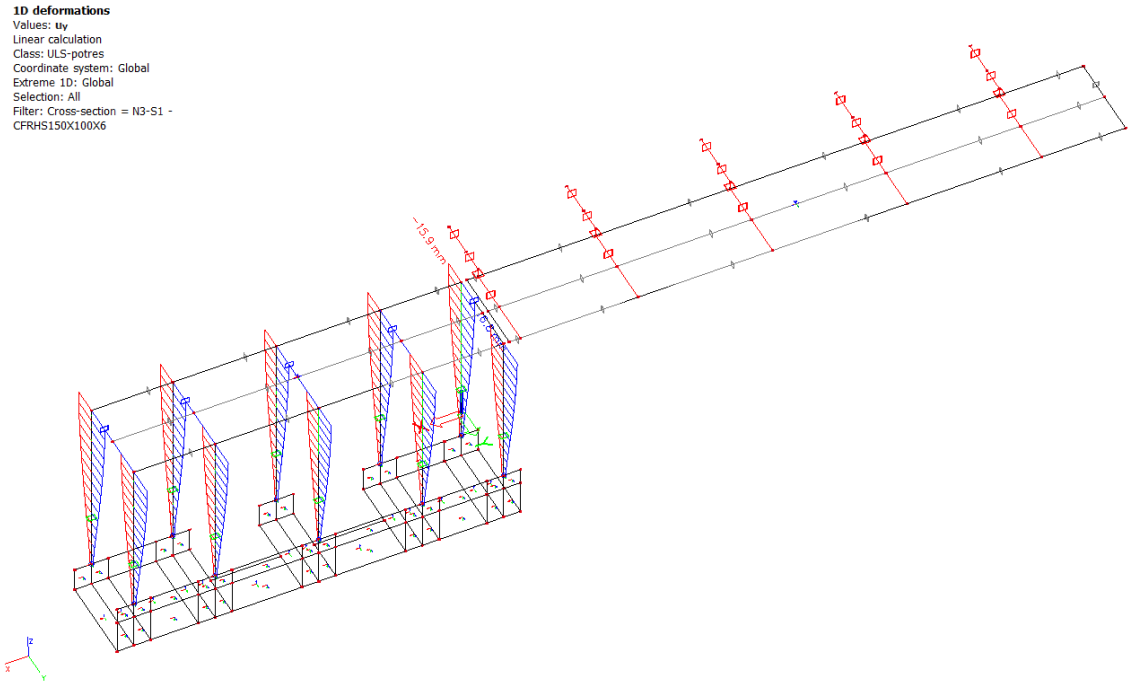




$u_{hor,max,W} = 15.9 \text{ mm} \leq u_{hor,dov,W} = h/150 = 3500/150 = 23.3 \text{ mm}$

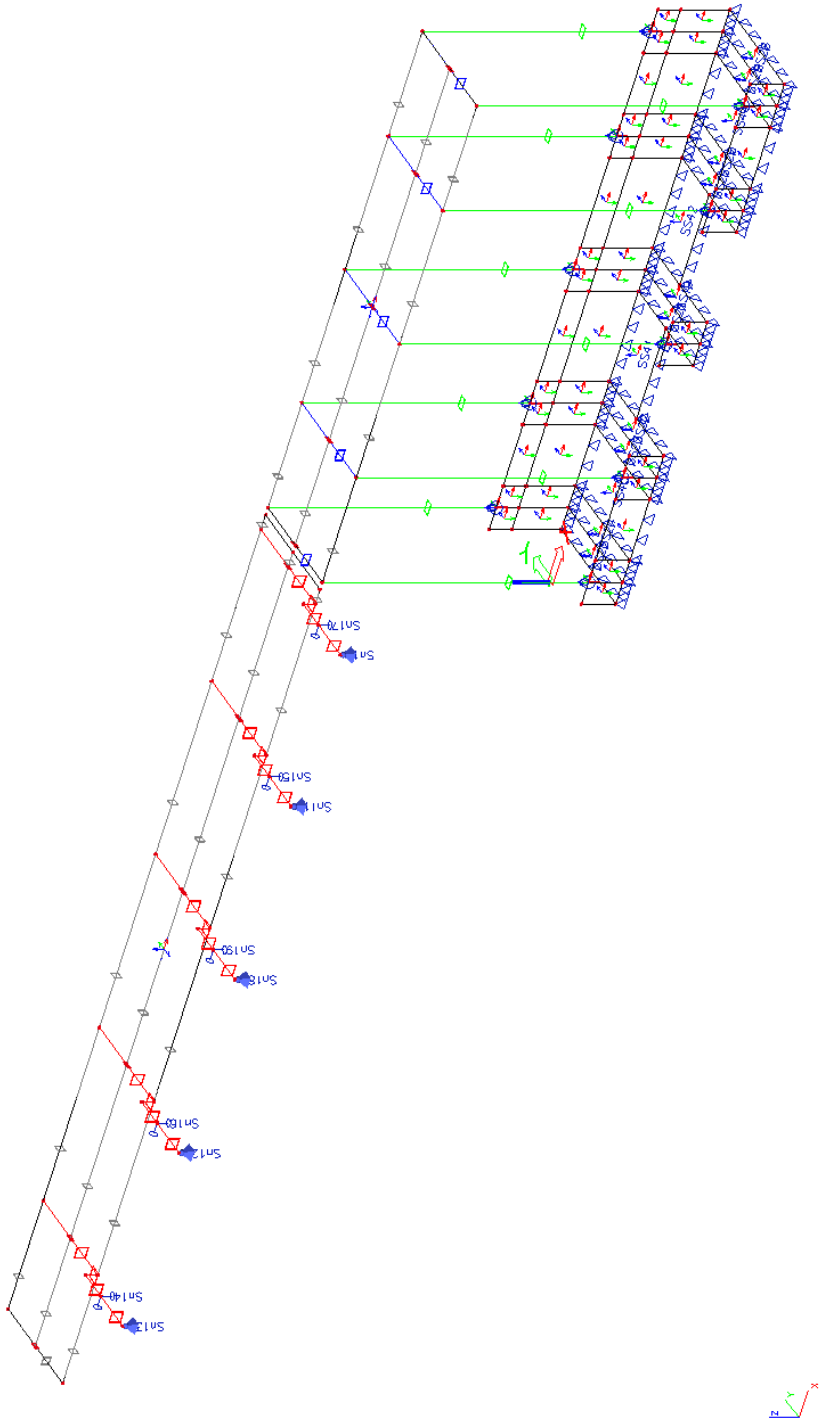
Potresna kombinacija





$U_{hor,max,E}$ = 1.5x15.9x0.5= 11.9 mm ≤ $U_{hor,dov,E}$ = 0.010xh = 0.010x3500 = 35 mm

4. REAKCIJE



42. Reactions

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Support	Case	dx [m]	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn16/N2832	NC24		**-6.75**	0.00	40.87	0.00	0.00	0.00
Sle2/S183	NC52-AB-obstojece	0.000	**9.36**	0.56	2.53	0.00	0.00	0.00
Slb6/B2524	NC21	2.400	0.00	**-3.77**	5.41	-0.06	0.00	0.00
Slb6/B2524	NC31	2.400	0.00	**3.74**	6.99	0.06	0.00	0.00
Sn13/N2906	NC42		-2.84	-0.10	**-34.89**	0.00	0.00	0.00
Sn14/N2836	NC42		8.90	0.00	**54.04**	0.00	0.00	0.00
Slb5/B2523	NC21	3.840	0.00	-0.69	7.54	**-0.34**	0.00	0.00
Slb6/B2524	NC27	0.960	0.00	0.69	16.10	**0.35**	0.00	0.00
Sn1/N2904	NC1		-1.22	0.22	-14.89	0.00	**0.00**	**0.00**

43. Reactions

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Support	Case	dx [m]	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn1/N2904	NC41		**-1.41**	0.25	**-16.99**	0.00	0.00	0.00
Sn1/N2904	NC19		**0.48**	0.08	2.11	0.00	0.00	0.00
Sn1/N2904	NC21		0.28	**-0.04**	2.10	0.00	0.00	0.00
Sn1/N2904	NC27		-1.41	**0.66**	-16.70	0.00	0.00	0.00
Sn1/N2904	NC20		0.28	-0.04	**2.11**	0.00	0.00	0.00
Sn1/N2904	NC1		-1.22	0.22	-14.89	**0.00**	**0.00**	**0.00**
Sn11/N2903	NC22		**-0.10**	**1.07**	3.54	0.00	0.00	0.00
Sn11/N2903	NC24		**0.81**	**-0.26**	-25.54	0.00	0.00	0.00
Sn11/N2903	NC42		0.74	-0.26	**-26.28**	0.00	0.00	0.00
Sn11/N2903	NC20		-0.06	0.04	**3.78**	0.00	0.00	0.00
Sn11/N2903	NC1		0.54	-0.21	-22.96	**0.00**	**0.00**	**0.00**
Sn12/N2905	NC22		**-0.24**	1.07	3.90	0.00	0.00	0.00
Sn12/N2905	NC24		**2.05**	0.11	-27.32	0.00	0.00	0.00
Sn12/N2905	NC21		-0.21	**-0.01**	4.17	0.00	0.00	0.00
Sn12/N2905	NC27		1.77	**1.18**	-27.67	0.00	0.00	0.00
Sn12/N2905	NC41		1.85	0.11	**-28.13**	0.00	0.00	0.00
Sn12/N2905	NC19		0.04	0.00	**4.18**	0.00	0.00	0.00
Sn12/N2905	NC1		1.62	0.10	-24.55	**0.00**	**0.00**	**0.00**
Sn13/N2906	NC41		**-2.99**	-0.04	-34.88	0.00	0.00	0.00
Sn13/N2906	NC19		**0.49**	-0.10	4.68	0.00	0.00	0.00
Sn13/N2906	NC24		-2.66	**-0.15**	-33.92	0.00	0.00	0.00
Sn13/N2906	NC22		0.20	**1.25**	4.38	0.00	0.00	0.00
Sn13/N2906	NC42		-2.84	-0.10	**-34.89**	0.00	0.00	0.00
Sn13/N2906	NC20		0.24	0.00	**4.70**	0.00	0.00	0.00
Sn13/N2906	NC1		-2.64	-0.04	-30.52	**0.00**	**0.00**	**0.00**
Sn14/N2836	NC19		**-1.27**	0.00	-6.80	0.00	0.00	0.00
Sn14/N2836	NC41		**9.21**	0.00	54.01	0.00	0.00	0.00
Sn14/N2836	NC1		8.13	**0.00**	47.31	**0.00**	**0.00**	**0.00**
Sn14/N2836	NC20		-0.73	0.00	**-6.84**	0.00	0.00	0.00
Sn14/N2836	NC42		8.90	0.00	**54.04**	0.00	0.00	0.00
Sn15/N2824	NC24		**-2.76**	0.00	40.06	0.00	0.00	0.00
Sn15/N2824	NC22		**0.33**	0.00	-5.34	0.00	0.00	0.00
Sn15/N2824	NC1		-2.04	**0.00**	36.04	**0.00**	**0.00**	**0.00**
Sn15/N2824	NC20		0.26	0.00	**-5.57**	0.00	0.00	0.00
Sn15/N2824	NC42		-2.62	0.00	**41.21**	0.00	0.00	0.00
Sn16/N2832	NC24		**-6.75**	0.00	40.87	0.00	0.00	0.00
Sn16/N2832	NC22		**0.72**	0.00	-5.65	0.00	0.00	0.00

Support	Case	dx [m]	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Sn16/N2832	NC1		-5.56	**0.00**	36.78	**0.00**	**0.00**	**0.00**
Sn16/N2832	NC19		0.13	0.00	**-5.94**	0.00	0.00	0.00
Sn16/N2832	NC41		-6.33	0.00	**42.08**	0.00	0.00	0.00
Sn17/N2853	NC19		**-1.24**	0.00	**-2.63**	0.00	0.00	0.00
Sn17/N2853	NC41		**4.16**	0.00	**24.63**	0.00	0.00	0.00
Sn17/N2853	NC1		3.60	**0.00**	21.65	**0.00**	**0.00**	**0.00**
Sn18/N2908	NC22		**-0.18**	**1.09**	3.97	0.00	0.00	0.00
Sn18/N2908	NC24		**1.34**	-0.08	-27.92	0.00	0.00	0.00
Sn18/N2908	NC41		1.14	**-0.08**	**-28.74**	0.00	0.00	0.00
Sn18/N2908	NC20		-0.14	0.01	**4.24**	0.00	0.00	0.00
Sn18/N2908	NC1		1.00	-0.07	-25.09	**0.00**	**0.00**	**0.00**
Sn19/N2907	NC24		**-4.33**	0.00	43.00	0.00	0.00	0.00
Sn19/N2907	NC22		**0.54**	0.00	-5.87	0.00	0.00	0.00
Sn19/N2907	NC1		-3.43	**0.00**	38.68	**0.00**	**0.00**	**0.00**
Sn19/N2907	NC20		0.50	0.00	**-6.14**	0.00	0.00	0.00
Sn19/N2907	NC41		-3.92	0.00	**44.25**	0.00	0.00	0.00
Sn48/N3268	NC27		**-1.36**	1.93	7.71	0.09	0.00	0.00
Sn48/N3268	NC41		**1.39**	1.41	**7.82**	**0.10**	0.00	0.00
Sn48/N3268	NC21		0.22	**-1.92**	2.05	**-0.02**	0.00	0.00
Sn48/N3268	NC31		-0.40	**1.96**	2.79	0.05	0.00	0.00
Sn48/N3268	NC20		-0.22	-0.64	**2.05**	0.00	0.00	0.00
Sn48/N3268	NC1		1.27	0.24	7.34	0.08	**0.00**	**0.00**

44. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Global
Selection: All
Nodal reactions

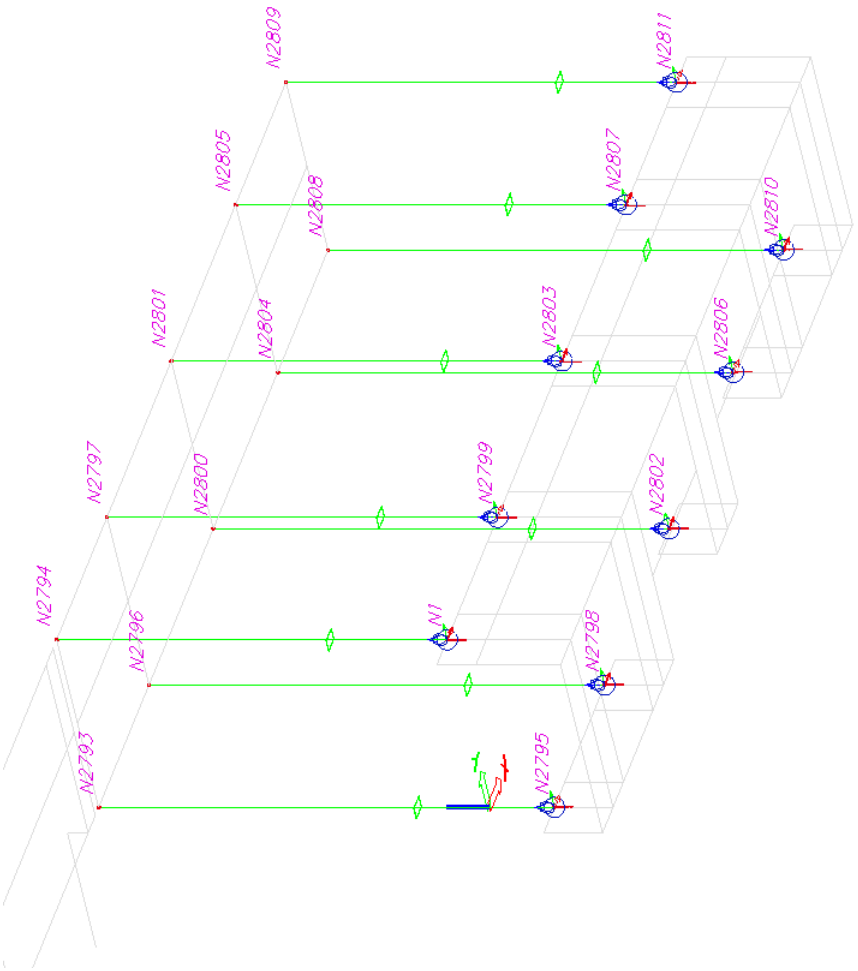
Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn48/N3268	potres 2/1	**-9.12**	0.15	3.51	**0.03**	0.00	0.00	10.0	0.0
Sn48/N3268	potres 3/2	**9.12**	-0.01	3.40	0.03	**0.00**	**0.00**	9.9	0.0
Sn13/N2906	potres 3/2	-1.42	**-0.95**	-8.54	0.00	0.00	0.00	0.0	0.0
Sn13/N2906	potres 2/1	-0.18	**0.92**	-8.14	**0.00**	0.00	0.00	0.0	0.0
Sn13/N2906	potres 6/3	-1.10	-0.62	**-8.65**	0.00	0.00	0.00	0.0	0.0
Sn14/N2836	potres 6/3	1.81	0.00	**13.64**	0.00	0.00	0.00	0.0	0.0

45. Reactions

Linear calculation
Class: ULS-potres
System: Global
Extreme: Mesh
Selection: All
Nodal reactions

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn1/N2904	potres 2/1	**0.29**	**0.47**	**-3.94**	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn1/N2904	potres 3/2	**-0.86**	**-0.37**	**-4.39**	0.00	0.00	**0.00**	0.0	0.0
Sn11/N2903	potres 2/1	**0.80**	0.10	-6.01	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn11/N2903	potres 6/3	-0.12	**-0.26**	**-6.36**	0.00	0.00	0.00	0.0	0.0
Sn11/N2903	potres 7/4	0.44	**0.16**	**-5.94**	0.00	0.00	0.00	0.0	0.0
Sn11/N2903	potres 3/2	**-0.48**	-0.20	-6.29	0.00	0.00	**0.00**	0.0	0.0
Sn12/N2905	potres 2/1	**1.05**	0.16	-6.32	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn12/N2905	potres 6/3	0.20	**-0.33**	**-6.74**	0.00	0.00	0.00	0.0	0.0
Sn12/N2905	potres 7/4	0.74	**0.39**	**-6.27**	0.00	0.00	0.00	0.0	0.0
Sn12/N2905	potres 3/2	**-0.12**	-0.10	-6.70	0.00	0.00	**0.00**	0.0	0.0
Sn13/N2906	potres 2/1	**-0.18**	**0.92**	-8.14	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn13/N2906	potres 6/3	-1.10	-0.62	**-8.65**	0.00	0.00	0.00	0.0	0.0

Name	Case	R_x [kN]	R_y [kN]	R_z [kN]	M_x [kNm]	M_y [kNm]	M_z [kNm]	e_x [mm]	e_y [mm]
Sn13/N2906	potres 7/4	-0.51	0.59	**-8.03**	0.00	0.00	0.00	0.0	0.0
Sn13/N2906	potres 3/2	**-1.42**	**-0.95**	-8.54	0.00	0.00	**0.00**	0.0	0.0
Sn14/N2836	potres 2/1	**3.68**	**0.00**	12.85	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn14/N2836	potres 7/4	3.14	0.00	**12.67**	0.00	0.00	0.00	0.0	0.0
Sn14/N2836	potres 6/3	1.81	0.00	**13.64**	0.00	0.00	0.00	0.0	0.0
Sn14/N2836	potres 3/2	**1.28**	0.00	13.46	0.00	0.00	**0.00**	0.0	0.0
Sn15/N2824	potres 2/1	**0.83**	**0.00**	10.05	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn15/N2824	potres 6/3	-1.22	0.00	**9.52**	0.00	0.00	0.00	0.0	0.0
Sn15/N2824	potres 7/4	0.05	0.00	**10.15**	0.00	0.00	0.00	0.0	0.0
Sn15/N2824	potres 3/2	**-2.00**	0.00	9.62	0.00	0.00	**0.00**	0.0	0.0
Sn16/N2832	potres 2/1	**-0.36**	**0.00**	10.23	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn16/N2832	potres 6/3	-2.21	0.00	**9.53**	0.00	0.00	0.00	0.0	0.0
Sn16/N2832	potres 7/4	-0.98	0.00	**10.30**	0.00	0.00	0.00	0.0	0.0
Sn16/N2832	potres 3/2	**-2.83**	0.00	9.60	0.00	0.00	**0.00**	0.0	0.0
Sn17/N2853	potres 2/1	**1.98**	**0.00**	**6.60**	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn17/N2853	potres 3/2	**-0.30**	0.00	**6.00**	0.00	0.00	**0.00**	0.0	0.0
Sn18/N2908	potres 2/1	**0.86**	0.09	-6.46	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn18/N2908	potres 6/3	0.02	**-0.35**	**-6.94**	0.00	0.00	0.00	0.0	0.0
Sn18/N2908	potres 7/4	0.55	**0.31**	**-6.39**	0.00	0.00	0.00	0.0	0.0
Sn18/N2908	potres 3/2	**-0.30**	-0.12	-6.87	0.00	0.00	**0.00**	0.0	0.0
Sn19/N2907	potres 2/1	**0.25**	**0.00**	10.81	**0.00**	**0.00**	**0.00**	0.0	0.0
Sn19/N2907	potres 6/3	-1.54	0.00	**10.05**	0.00	0.00	0.00	0.0	0.0
Sn19/N2907	potres 7/4	-0.37	0.00	**10.89**	0.00	0.00	0.00	0.0	0.0
Sn19/N2907	potres 3/2	**-2.16**	0.00	10.14	0.00	0.00	**0.00**	0.0	0.0
Sn48/N3268	potres 6/3	2.84	**-0.20**	3.43	0.03	0.00	0.00	9.9	0.0
Sn48/N3268	potres 7/4	-2.84	**0.33**	3.47	0.03	**0.00**	**0.00**	9.9	0.0
Sn48/N3268	potres 3/2	**9.12**	-0.01	**3.40**	**0.03**	0.00	0.00	9.9	0.0
Sn48/N3268	potres 2/1	**-9.12**	0.15	**3.51**	**0.03**	0.00	**0.00**	10.0	0.0



46. Connection forces

Nonlinear calculation, Extreme : Global
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC16	FC9	N2799	B2347	**-0.86**	2.04	-17.25	0.00	0.00	-0.03
NC15	FC6	N2811	B2356	**0.76**	1.59	-10.32	0.00	0.00	0.03
NC27	FC12	N3366	B2516	0.00	**-4.07**	-61.94	0.00	0.00	0.00
NC17	FC12	N3366	B2516	0.00	**4.02**	-54.42	0.00	0.00	0.00
NC41	FC12	N3366	B2516	0.00	-2.42	**-63.09**	0.00	0.00	0.00
NC21	FC1	N2795	B2343	0.00	1.62	**4.42**	0.00	0.00	0.01
NC16	FC7	N2807	B2353	-0.68	2.03	-18.57	**0.00**	0.00	**-0.05**
NC35	FC6	N2811	B2356	0.27	2.67	-12.06	**0.00**	0.00	-0.01
NC33	FC9	N2799	B2347	0.35	2.58	-19.90	0.00	**0.00**	0.04
NC34	FC7	N2807	B2353	-0.41	2.41	-19.46	0.00	**0.00**	-0.04
NC15	FC9	N2799	B2347	0.58	2.19	-18.95	0.00	0.00	**0.04**

47. Connection forces

Nonlinear calculation, Extreme : Node
Selection : All
Class : ULS

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC16	FC1	N2795	B2343	**-0.71**	0.46	-5.58	0.00	0.00	-0.03
NC28	FC1	N2795	B2343	**0.43**	-0.13	-0.02	0.00	0.00	0.02
NC27	FC1	N2795	B2343	-0.22	**-1.40**	**-10.06**	0.00	0.00	-0.01
NC21	FC1	N2795	B2343	0.00	**1.62**	**4.42**	0.00	0.00	0.01
NC25	FC1	N2795	B2343	-0.69	-0.40	-7.99	**0.00**	0.00	**-0.03**
NC40	FC1	N2795	B2343	-0.02	0.40	0.48	**0.00**	0.00	0.00
NC33	FC1	N2795	B2343	0.12	0.84	-2.60	0.00	**0.00**	0.03
NC20	FC1	N2795	B2343	-0.47	0.71	0.83	0.00	**0.00**	-0.02
NC15	FC1	N2795	B2343	0.29	0.54	-3.25	0.00	0.00	**0.03**
NC16	FC2	N2798	B2346	**-0.74**	0.31	-13.45	0.00	0.00	-0.03
NC19	FC2	N2798	B2346	**0.49**	0.69	1.16	0.00	0.00	0.03
NC27	FC2	N2798	B2346	-0.18	**-1.57**	**-18.75**	0.00	0.00	0.00
NC21	FC2	N2798	B2346	0.02	**1.62**	**4.39**	0.00	0.00	0.01
NC25	FC2	N2798	B2346	-0.73	-0.56	-15.32	**0.00**	0.00	**-0.03**
NC36	FC2	N2798	B2346	-0.18	0.00	-14.88	**0.00**	0.00	0.00
NC33	FC2	N2798	B2346	0.24	0.71	-12.87	0.00	**0.00**	0.03
NC20	FC2	N2798	B2346	-0.54	0.70	1.87	0.00	**0.00**	-0.02
NC15	FC2	N2798	B2346	0.43	0.41	-13.85	0.00	0.00	**0.03**
NC16	FC3	N2802	B2349	**-0.60**	0.31	-14.36	**0.00**	0.00	**-0.03**
NC15	FC3	N2802	B2349	**0.54**	0.42	-13.86	0.00	**0.00**	**0.03**
NC27	FC3	N2802	B2349	-0.05	**-1.55**	**-18.70**	0.00	0.00	0.00
NC21	FC3	N2802	B2349	0.00	**1.61**	**3.79**	0.00	0.00	0.00
NC39	FC3	N2802	B2349	0.01	1.51	2.73	**0.00**	0.00	0.00
NC20	FC3	N2802	B2349	-0.53	0.69	1.22	0.00	**0.00**	-0.03
NC20	FC4	N2806	B2352	**-0.55**	0.68	1.03	0.00	**0.00**	-0.03
NC15	FC4	N2806	B2352	**0.67**	0.42	-13.00	0.00	0.00	0.02
NC27	FC4	N2806	B2352	0.07	**-1.57**	**-18.91**	0.00	0.00	0.00
NC21	FC4	N2806	B2352	-0.01	**1.62**	**4.39**	0.00	0.00	-0.01
NC16	FC4	N2806	B2352	-0.50	0.29	-14.50	**0.00**	0.00	**-0.04**
NC17	FC4	N2806	B2352	0.17	1.40	-10.29	**0.00**	0.00	-0.01
NC19	FC4	N2806	B2352	0.47	0.71	1.81	0.00	**0.00**	0.02
NC24	FC4	N2806	B2352	0.66	-0.45	-14.92	0.00	0.00	**0.02**
NC29	FC5	N2810	B2355	**-0.48**	-0.14	0.19	0.00	0.00	-0.03
NC15	FC5	N2810	B2355	**0.66**	0.57	-4.85	0.00	**0.00**	0.02
NC27	FC5	N2810	B2355	0.13	**-1.40**	**-9.74**	0.00	0.00	0.00
NC21	FC5	N2810	B2355	0.00	**1.62**	**4.41**	0.00	0.00	-0.01
NC16	FC5	N2810	B2355	-0.34	0.43	-3.58	**0.00**	0.00	**-0.03**
NC17	FC5	N2810	B2355	0.23	1.53	-1.27	**0.00**	0.00	-0.01
NC20	FC5	N2810	B2355	-0.47	0.68	2.44	0.00	**0.00**	-0.03
NC24	FC5	N2810	B2355	0.64	-0.30	-7.31	0.00	0.00	**0.03**
NC29	FC6	N2811	B2356	**-0.56**	0.27	0.83	0.00	0.00	-0.03
NC15	FC6	N2811	B2356	**0.76**	1.59	-10.32	0.00	**0.00**	0.03
NC27	FC6	N2811	B2356	0.13	**-0.92**	-2.21	0.00	0.00	0.01
NC17	FC6	N2811	B2356	0.27	**2.77**	**-12.21**	0.00	0.00	-0.01
NC31	FC6	N2811	B2356	-0.01	-0.82	**2.30**	0.00	0.00	0.01
NC16	FC6	N2811	B2356	-0.43	1.35	-7.01	**0.00**	0.00	**-0.05**
NC35	FC6	N2811	B2356	0.27	2.67	-12.06	**0.00**	0.00	-0.01
NC34	FC6	N2811	B2356	-0.20	1.74	-8.54	0.00	**0.00**	-0.04
NC24	FC6	N2811	B2356	0.74	0.45	-7.07	0.00	0.00	**0.04**
NC16	FC7	N2807	B2353	**-0.68**	2.03	-18.57	**0.00**	0.00	**-0.05**
NC15	FC7	N2807	B2353	**0.76**	2.20	-17.89	0.00	**0.00**	0.03
NC31	FC7	N2807	B2353	0.00	**-0.44**	**3.16**	0.00	0.00	0.01
NC4	FC7	N2807	B2353	0.17	**3.62**	-19.95	0.00	0.00	-0.01
NC17	FC7	N2807	B2353	0.17	3.43	**-21.25**	0.00	0.00	-0.01
NC35	FC7	N2807	B2353	0.17	3.33	-21.19	**0.00**	0.00	-0.01
NC34	FC7	N2807	B2353	-0.41	2.41	-19.46	0.00	**0.00**	-0.04
NC24	FC7	N2807	B2353	0.75	1.03	-13.95	0.00	0.00	**0.03**
NC16	FC8	N2803	B2350	**-0.73**	2.15	-19.68	**0.00**	**0.00**	**-0.04**

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
NC15	FC8	N2803	B2350	**0.64**	2.31	-20.19	0.00	**0.00**	**0.03**
NC31	FC8	N2803	B2350	0.00	**-0.44**	**3.24**	0.00	0.00	0.00
NC4	FC8	N2803	B2350	0.08	**3.74**	-21.74	0.00	0.00	0.01
NC17	FC8	N2803	B2350	0.08	3.55	**-23.08**	0.00	0.00	0.01
NC21	FC8	N2803	B2350	0.01	2.94	-6.04	**0.00**	0.00	0.00
NC16	FC9	N2799	B2347	**-0.86**	2.04	-17.25	0.00	**0.00**	-0.03
NC15	FC9	N2799	B2347	**0.58**	2.19	-18.95	0.00	0.00	**0.04**
NC31	FC9	N2799	B2347	0.00	**-0.44**	**3.16**	0.00	0.00	-0.01
NC4	FC9	N2799	B2347	0.00	**3.62**	-20.15	0.00	0.00	0.02
NC17	FC9	N2799	B2347	0.00	3.43	**-21.46**	0.00	0.00	0.02
NC25	FC9	N2799	B2347	-0.84	0.88	-13.35	**0.00**	0.00	**-0.04**
NC40	FC9	N2799	B2347	-0.02	1.47	-3.52	**0.00**	0.00	0.00
NC33	FC9	N2799	B2347	0.35	2.58	-19.90	0.00	**0.00**	0.04
NC16	FC10	N1	B2344	**-0.84**	1.44	-10.09	0.00	**0.00**	-0.03
NC28	FC10	N1	B2344	**0.49**	0.28	0.57	0.00	0.00	0.03
NC27	FC10	N1	B2344	-0.25	**-0.91**	-2.65	0.00	0.00	-0.02
NC17	FC10	N1	B2344	-0.14	**2.76**	**-11.74**	0.00	0.00	0.02
NC31	FC10	N1	B2344	0.01	-0.82	**2.31**	0.00	0.00	-0.01
NC25	FC10	N1	B2344	-0.82	0.32	-6.86	**0.00**	0.00	**-0.04**
NC40	FC10	N1	B2344	-0.02	1.04	-3.04	**0.00**	0.00	0.01
NC33	FC10	N1	B2344	0.16	1.90	-9.22	0.00	**0.00**	0.04
NC15	FC10	N1	B2344	0.36	1.51	-7.80	0.00	0.00	**0.04**
NC27	FC11	N3266	B2515	**0.00**	**-4.06**	-61.12	0.00	**0.00**	0.00
NC41	FC11	N3266	B2515	**0.00**	-2.42	**-62.28**	0.00	0.00	**0.00**
NC17	FC11	N3266	B2515	0.00	**4.02**	-53.73	0.00	**0.00**	0.00
NC21	FC11	N3266	B2515	0.00	3.79	**-12.67**	0.00	0.00	0.00
NC52-AB-obstojece	FC11	N3266	B2515	0.00	0.00	-34.85	**0.00**	0.00	0.00
NC42	FC11	N3266	B2515	0.00	-2.42	-62.28	**0.00**	0.00	0.00
NC19	FC11	N3266	B2515	0.00	1.35	-12.70	0.00	0.00	**0.00**
NC27	FC12	N3366	B2516	**0.00**	**-4.07**	-61.94	0.00	**0.00**	0.00
NC41	FC12	N3366	B2516	**0.00**	-2.42	**-63.09**	**0.00**	0.00	0.00
NC17	FC12	N3366	B2516	0.00	**4.02**	-54.42	0.00	**0.00**	0.00
NC21	FC12	N3366	B2516	0.00	3.79	**-12.95**	0.00	0.00	0.00
NC51-s2	FC12	N3366	B2516	0.00	0.00	-36.80	**0.00**	0.00	0.00
NC22	FC12	N3366	B2516	0.00	-1.09	-12.96	0.00	0.00	**0.00**
NC25	FC12	N3366	B2516	0.00	-1.45	-61.98	0.00	0.00	**0.00**

48. Connection forces

Linear calculation, Extreme : Global
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 2/1	FC9	N2799	B2347	**-1.07**	0.53	-3.99	0.00	0.00	0.35
potres 3/4	FC7	N2807	B2353	**1.07**	-0.48	-3.99	0.00	0.00	-0.35
potres 6/2	FC6	N2811	B2356	0.26	**-1.10**	-5.45	0.00	0.00	-0.11
potres 7/3	FC6	N2811	B2356	-0.23	**1.13**	3.07	0.00	0.00	0.11
potres 2/1	FC12	N3366	B2516	0.00	0.00	**-27.29**	0.00	0.00	0.00
potres 2/1	FC6	N2811	B2356	-0.80	0.71	**3.26**	0.00	0.00	0.35
potres 7/3	FC1	N2795	B2343	-0.22	-0.82	2.44	**0.00**	0.00	0.09
potres 2/1	FC1	N2795	B2343	-0.69	-0.51	1.48	0.00	**0.00**	0.29
potres 3/4	FC9	N2799	B2347	1.06	-0.48	0.20	0.00	0.00	**-0.35**
potres 2/1	FC7	N2807	B2353	-1.06	0.53	0.20	0.00	0.00	**0.35**

49. Connection forces

Linear calculation, Extreme : Node
Selection : All
Class : ULS-potres

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 2/1	FC1	N2795	B2343	**-0.69**	-0.51	1.48	0.00	**0.00**	**0.29**
potres 3/4	FC1	N2795	B2343	**0.67**	0.48	-4.12	0.00	0.00	**-0.29**
potres 7/3	FC1	N2795	B2343	-0.22	**-0.82**	**2.44**	**0.00**	0.00	0.09
potres 6/2	FC1	N2795	B2343	0.19	**0.79**	**-5.08**	0.00	0.00	-0.09
potres 2/1	FC2	N2798	B2346	**-0.89**	-0.41	-4.59	**0.00**	0.00	**0.30**
potres 3/4	FC2	N2798	B2346	**0.87**	0.35	0.48	0.00	0.00	**-0.30**
potres 7/3	FC2	N2798	B2346	-0.28	**-0.81**	**-5.87**	0.00	**0.00**	0.10
potres 6/2	FC2	N2798	B2346	0.26	**0.75**	**1.76**	0.00	0.00	-0.10
potres 2/1	FC3	N2802	B2349	**-0.84**	0.19	-2.98	0.00	0.00	**0.30**
potres 3/4	FC3	N2802	B2349	**0.84**	-0.24	-1.12	0.00	0.00	**-0.30**
potres 5/5	FC3	N2802	B2349	-0.25	**-0.75**	**1.05**	0.00	0.00	0.09
potres 7/3	FC3	N2802	B2349	-0.25	**0.70**	**-5.14**	0.00	**0.00**	0.09
potres 6/2	FC3	N2802	B2349	0.25	-0.75	1.05	**0.00**	0.00	-0.09
potres 2/1	FC4	N2806	B2352	**-0.87**	0.35	-4.59	0.00	0.00	**0.30**
potres 3/4	FC4	N2806	B2352	**0.89**	-0.41	0.48	**0.00**	**0.00**	**-0.30**
potres 6/2	FC4	N2806	B2352	0.28	**-0.81**	**1.76**	0.00	0.00	-0.10
potres 7/3	FC4	N2806	B2352	-0.26	**0.75**	**-5.87**	0.00	0.00	0.10
potres 2/1	FC5	N2810	B2355	**-0.67**	0.48	-4.12	0.00	0.00	**0.29**
potres 3/4	FC5	N2810	B2355	**0.69**	-0.51	1.48	0.00	0.00	**-0.29**
potres 6/2	FC5	N2810	B2355	0.22	**-0.82**	**2.44**	**0.00**	**0.00**	-0.09
potres 7/3	FC5	N2810	B2355	-0.19	**0.79**	**-5.08**	0.00	0.00	0.09
potres 2/1	FC6	N2811	B2356	**-0.80**	0.71	**3.26**	0.00	**0.00**	**0.35**
potres 3/4	FC6	N2811	B2356	**0.83**	-0.68	**-5.64**	0.00	0.00	**-0.34**
potres 6/2	FC6	N2811	B2356	0.26	**-1.10**	-5.45	**0.00**	0.00	-0.11
potres 7/3	FC6	N2811	B2356	-0.23	**1.13**	3.07	0.00	0.00	0.11
potres 2/1	FC7	N2807	B2353	**-1.06**	0.53	0.20	0.00	**0.00**	**0.35**
potres 3/4	FC7	N2807	B2353	**1.07**	-0.48	-3.99	0.00	0.00	**-0.35**
potres 6/2	FC7	N2807	B2353	0.33	**-1.04**	**-5.49**	**0.00**	0.00	-0.11
potres 7/3	FC7	N2807	B2353	-0.32	**1.09**	**1.70**	0.00	0.00	0.11
potres 2/1	FC8	N2803	B2350	**-0.99**	0.34	-1.05	0.00	0.00	**0.35**
potres 3/4	FC8	N2803	B2350	**0.99**	-0.27	-2.99	0.00	**0.00**	**-0.35**
potres 5/5	FC8	N2803	B2350	-0.30	**-0.97**	**-5.26**	0.00	0.00	0.11
potres 7/3	FC8	N2803	B2350	-0.30	**1.04**	**1.21**	**0.00**	0.00	0.11
potres 2/1	FC9	N2799	B2347	**-1.07**	0.53	-3.99	0.00	0.00	**0.35**
potres 3/4	FC9	N2799	B2347	**1.06**	-0.48	0.20	0.00	0.00	**-0.35**
potres 6/2	FC9	N2799	B2347	0.32	**-1.04**	**1.70**	0.00	0.00	-0.11
potres 7/3	FC9	N2799	B2347	-0.33	**1.09**	**-5.49**	**0.00**	**0.00**	0.11
potres 2/1	FC10	N1	B2344	**-0.83**	-0.68	**3.26**	0.00	0.00	**0.34**

Case	Connection	Node	Beams	Rx [kN]	Ry [kN]	Rz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
potres 3/4	FC10	N1	B2344	**0.80**	0.71	**-5.64**	0.00	**0.00**	**-0.35**
potres 7/3	FC10	N1	B2344	-0.26	**-1.10**	3.07	**0.00**	0.00	0.11
potres 6/2	FC10	N1	B2344	0.23	**1.13**	-5.45	0.00	0.00	-0.11
potres 2/1	FC11	N3266	B2515	**0.00**	**0.00**	**-26.80**	**0.00**	**0.00**	**0.00**
potres 2/1	FC12	N3366	B2516	**0.00**	**0.00**	**-27.29**	**0.00**	**0.00**	**0.00**

5. AB KONSTRUKCIJA

5.1. Nov AB temelj

Del tega načrta je tudi novi AB temelji jeklenih okvirjev nadstreška.

Temelj se sestoji iz temeljne plošče in dveh vzporednih parapetnih zidov, ki podpirajo jeklene stebre.

V okviru analize je bi upoštevan vertikalni modul podajnosti tal 26000 kN/m^3.

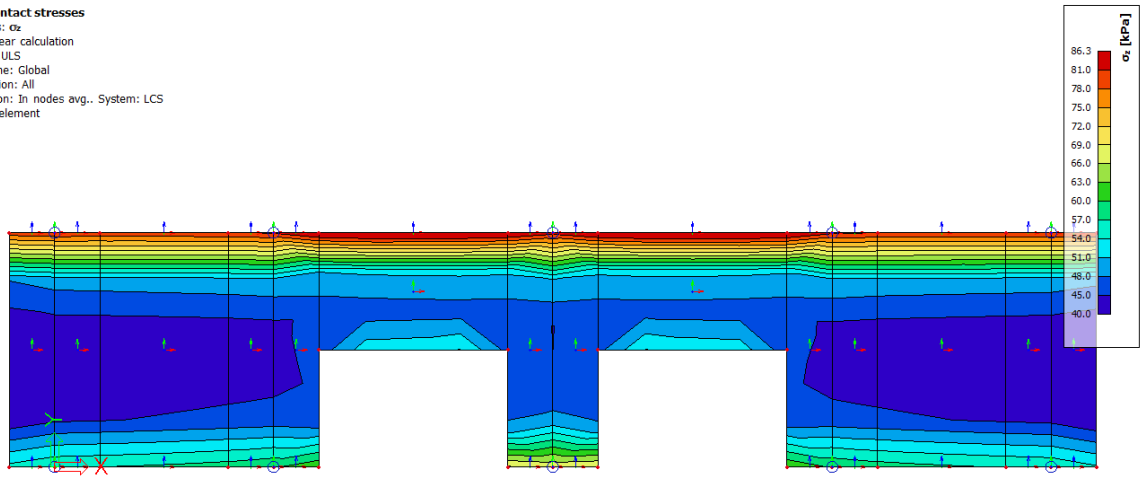
Vodneprepustni beton
C30/37, PV-II, XC2, XD3-odporen proti solem

Armatura S500B

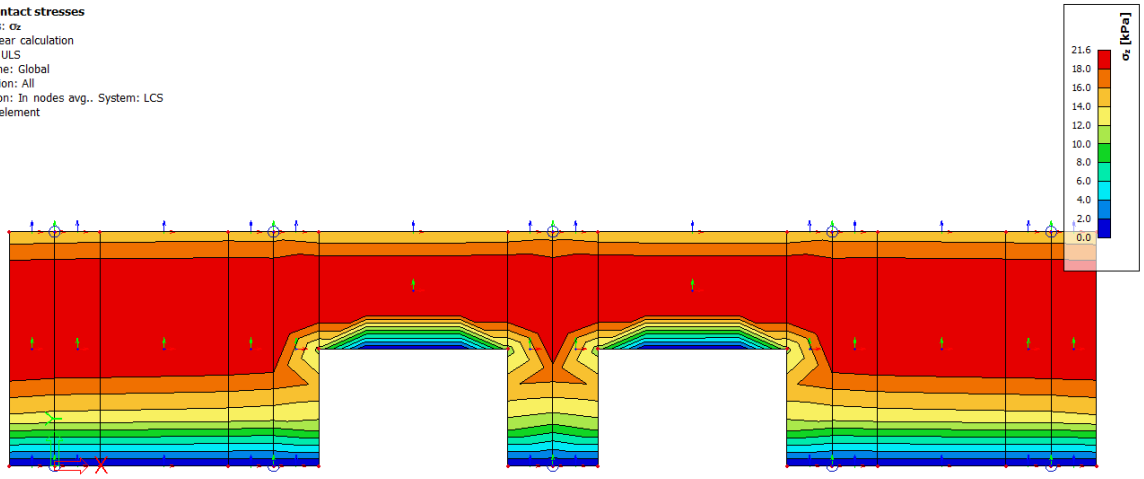
Kontaktne napetosti v temeljnih tleh

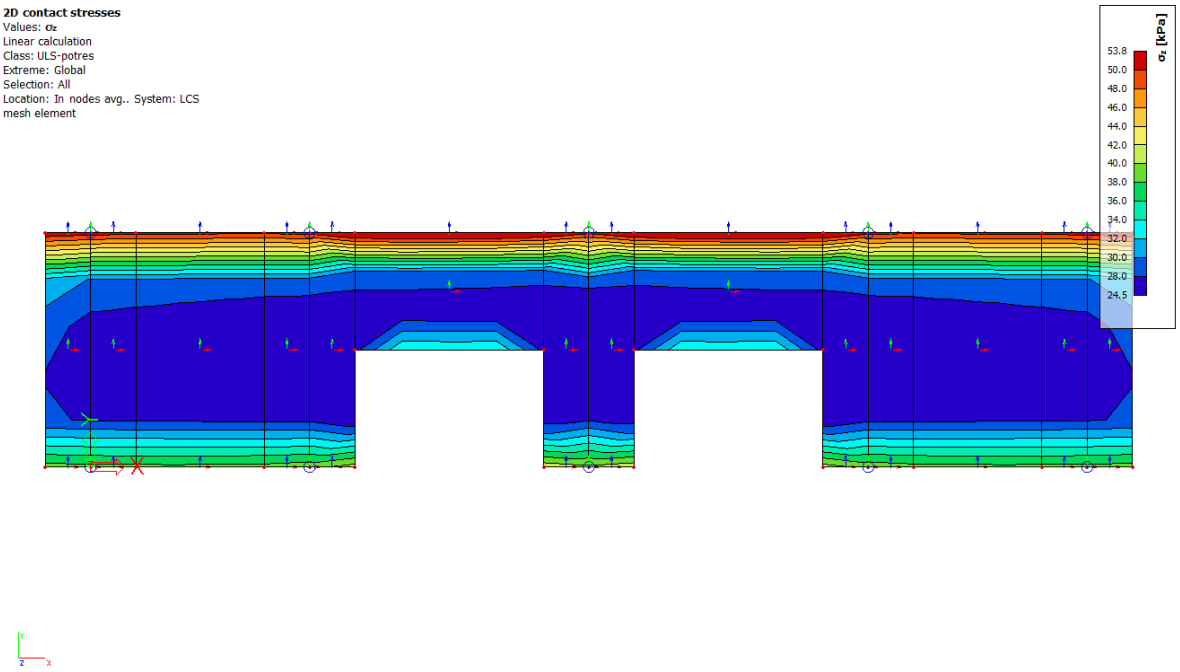
Maksimalne kontaktne napetosti R_d/A pod temelji pri ULS (faktrorirana obtežba) in pri potresnih obtežnih kombinacijah ne presegajo maksimalnih dovoljenih napetosti 190 kN/m^2.

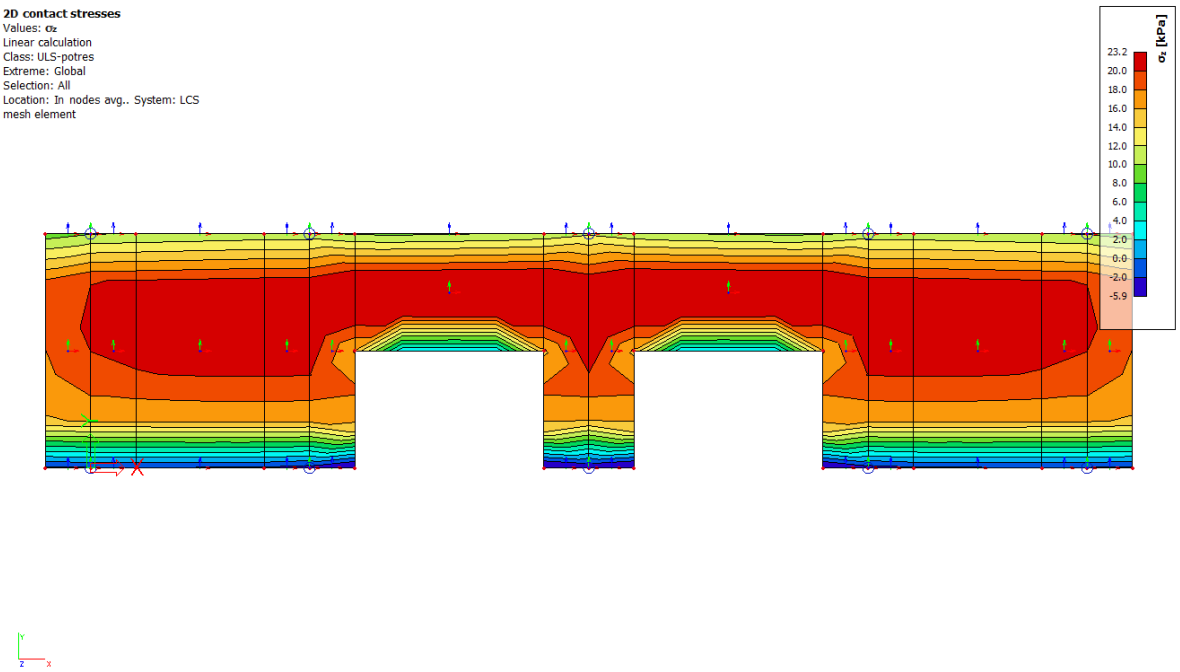
2D contact stresses
Values: σ_z
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element



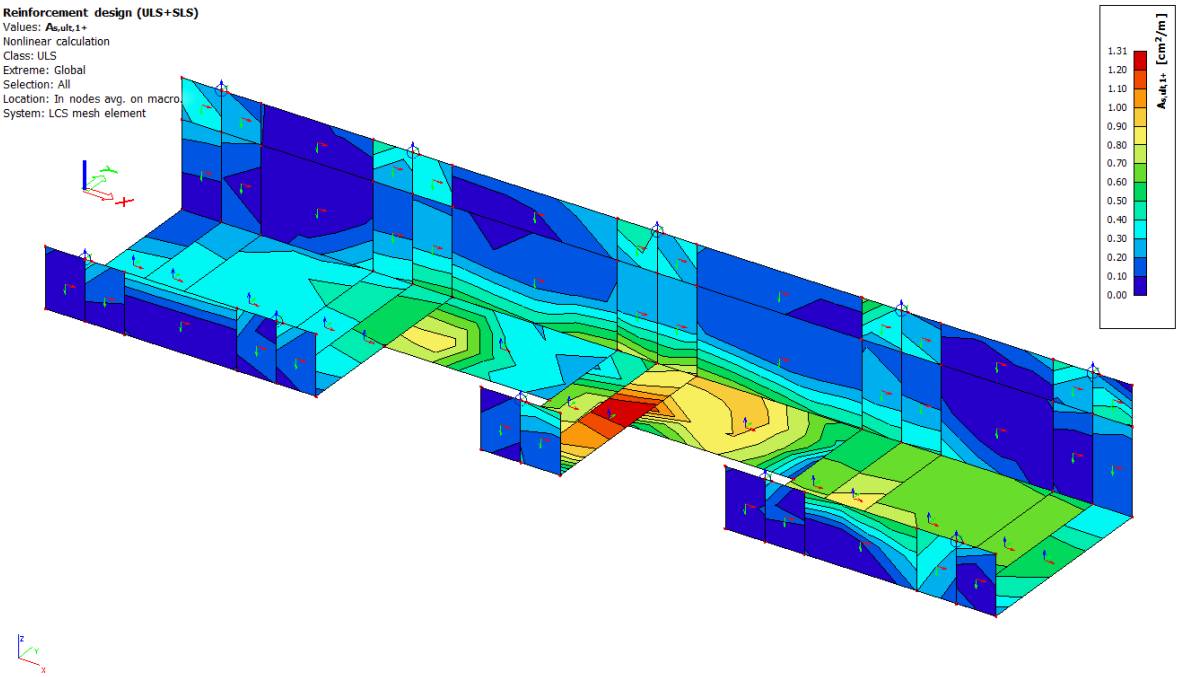
2D contact stresses
Values: σ_z
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element

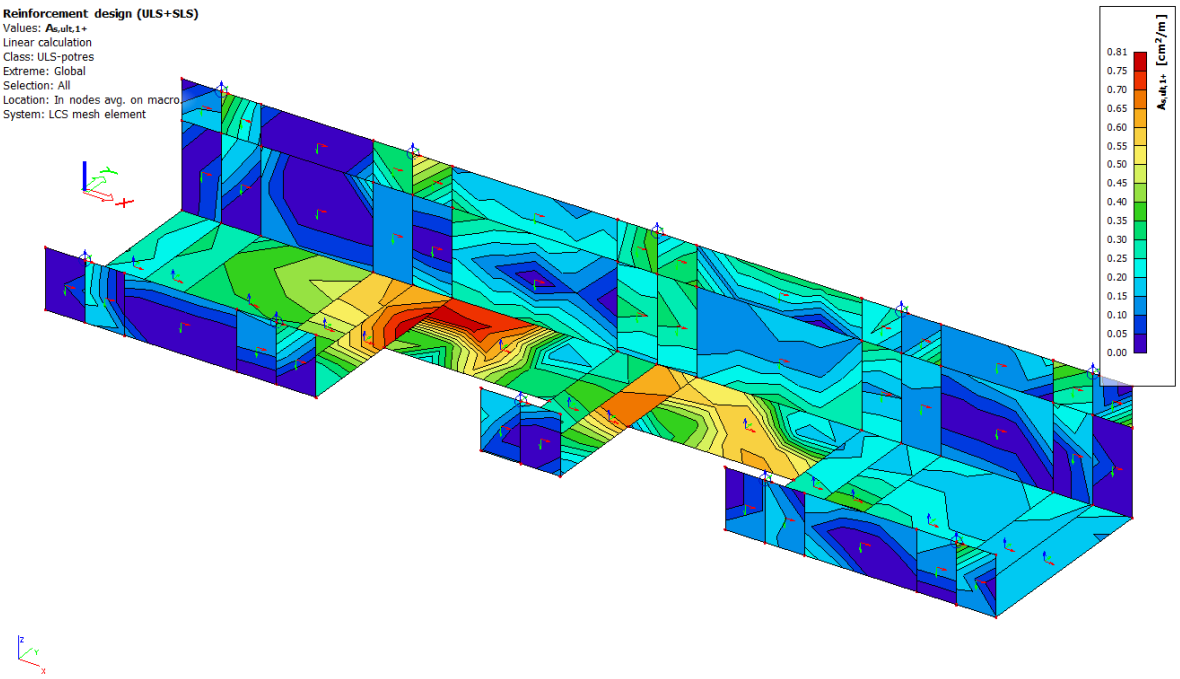


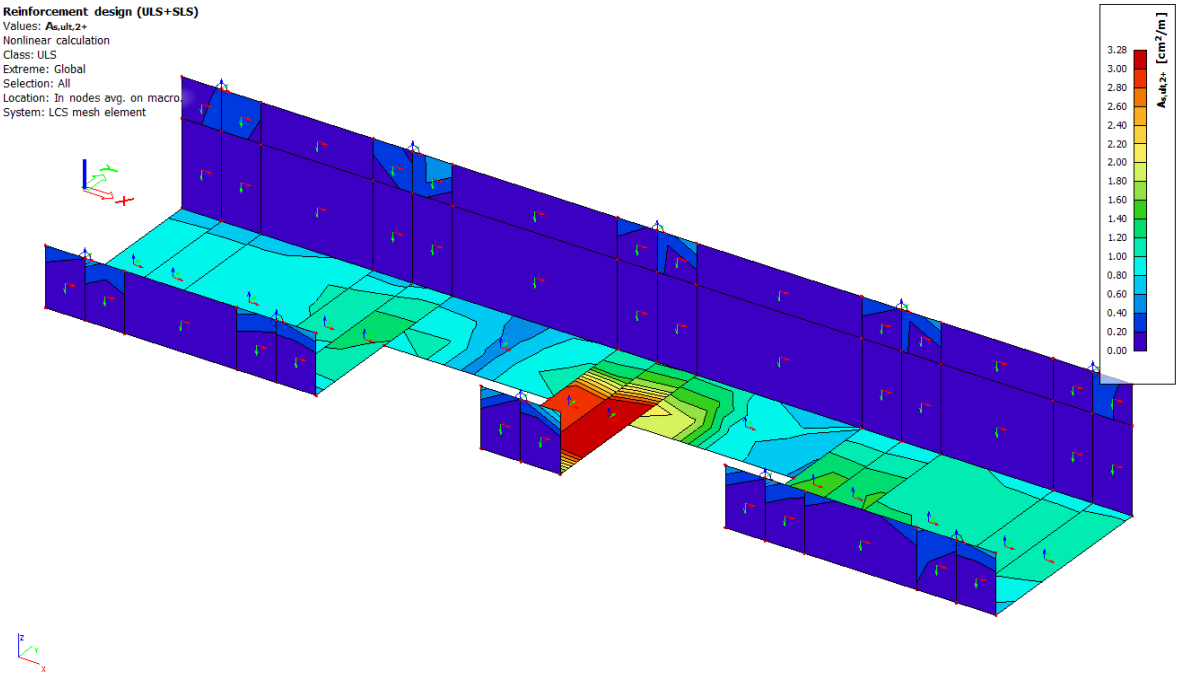

2D contact stresses
Values: σz
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element
σz [kPa]
53.8
50.0
48.0
46.0
44.0
42.0
40.0
38.0
36.0
34.0
32.0
30.0
28.0
24.5

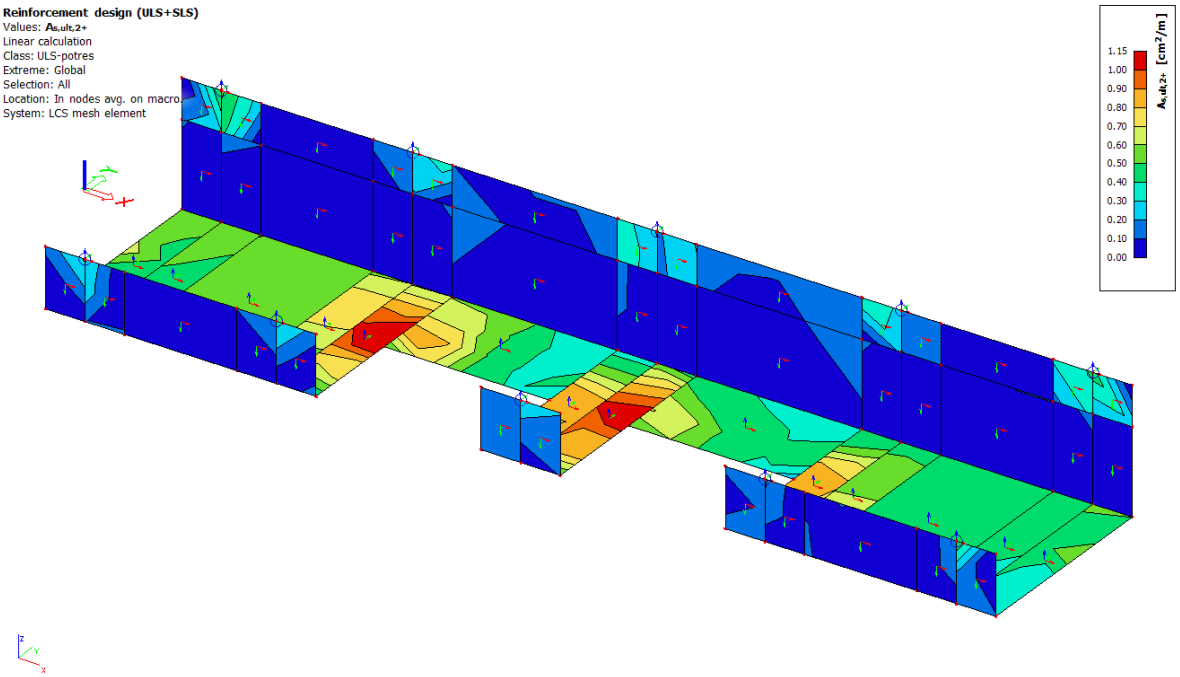

2D contact stresses
Values: σz
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg.. System: LCS
mesh element
σz [kPa]
23.2
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
-2.0
-5.9

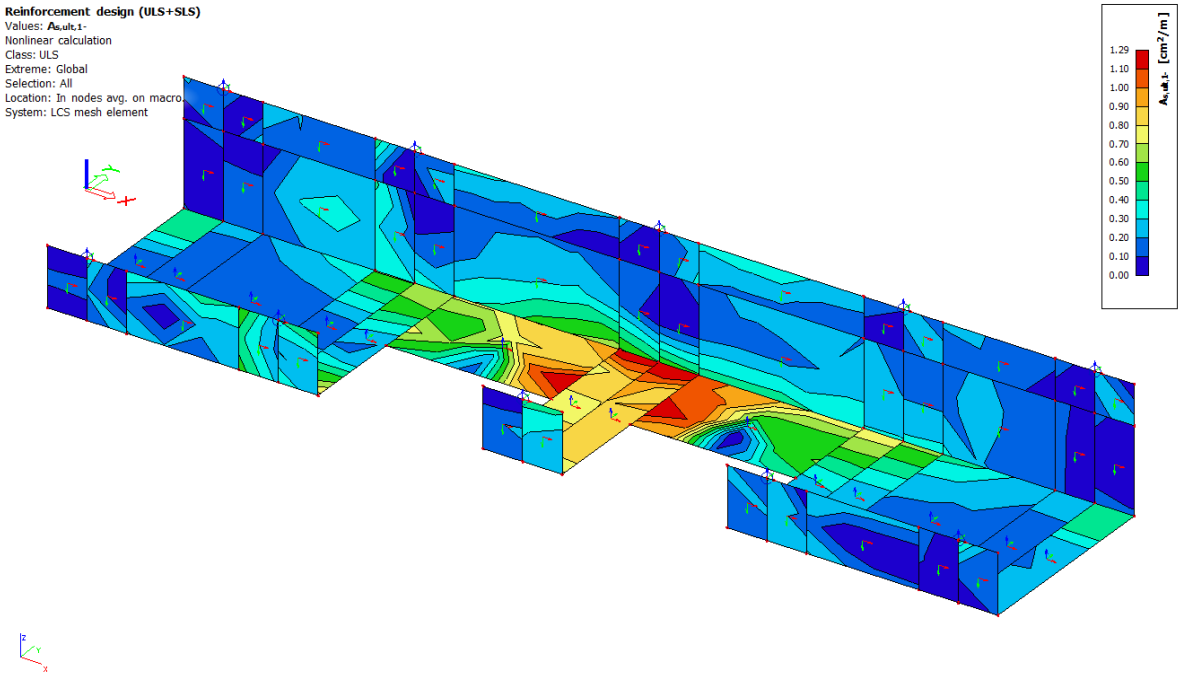
Armatura

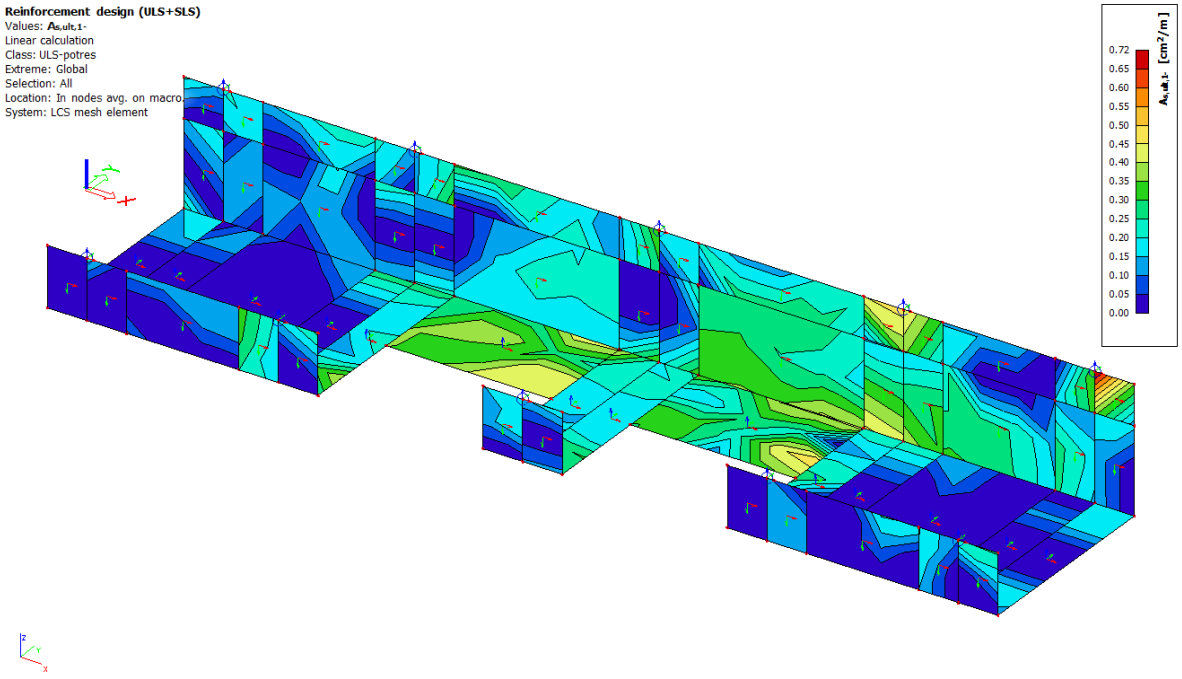

Reinforcement design (ULS+SLS)
Values: As,ult,1+
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro
System: LCS mesh element
As,ult,1+ [cm²/m]
1.31
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00

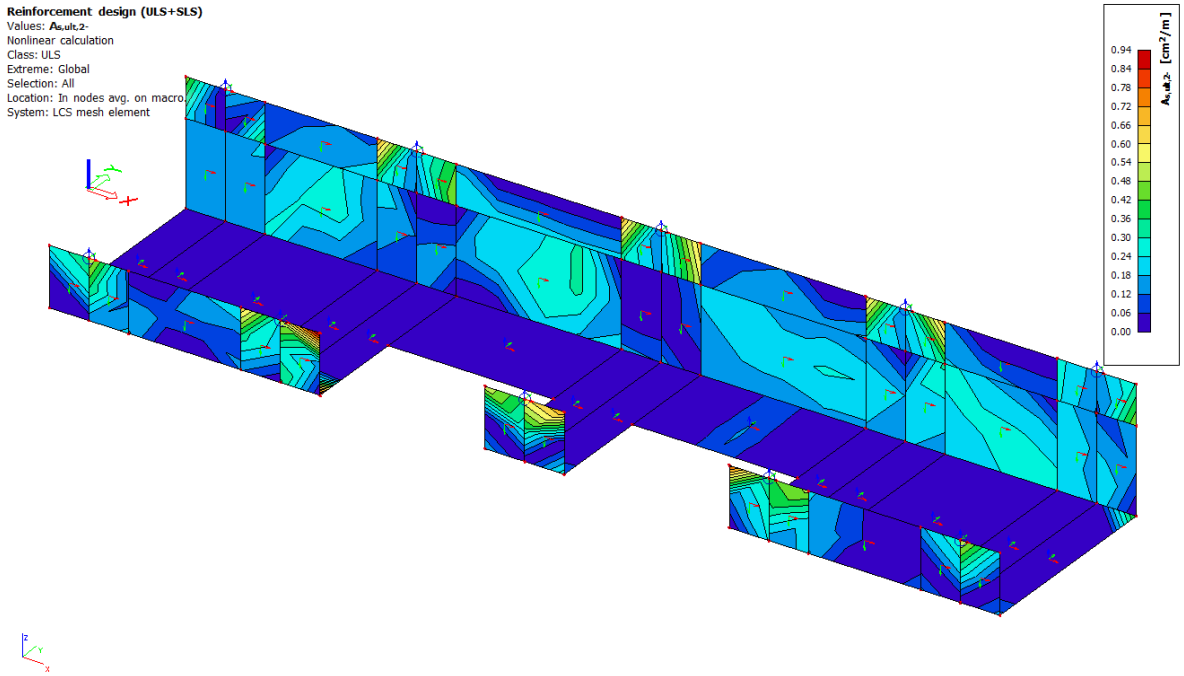

Reinforcement design (ULS+SLS)
Values: As,ult,1+
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro
System: LCS mesh element
As,ult,1+ [cm²/m]
0.81
0.75
0.70
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00

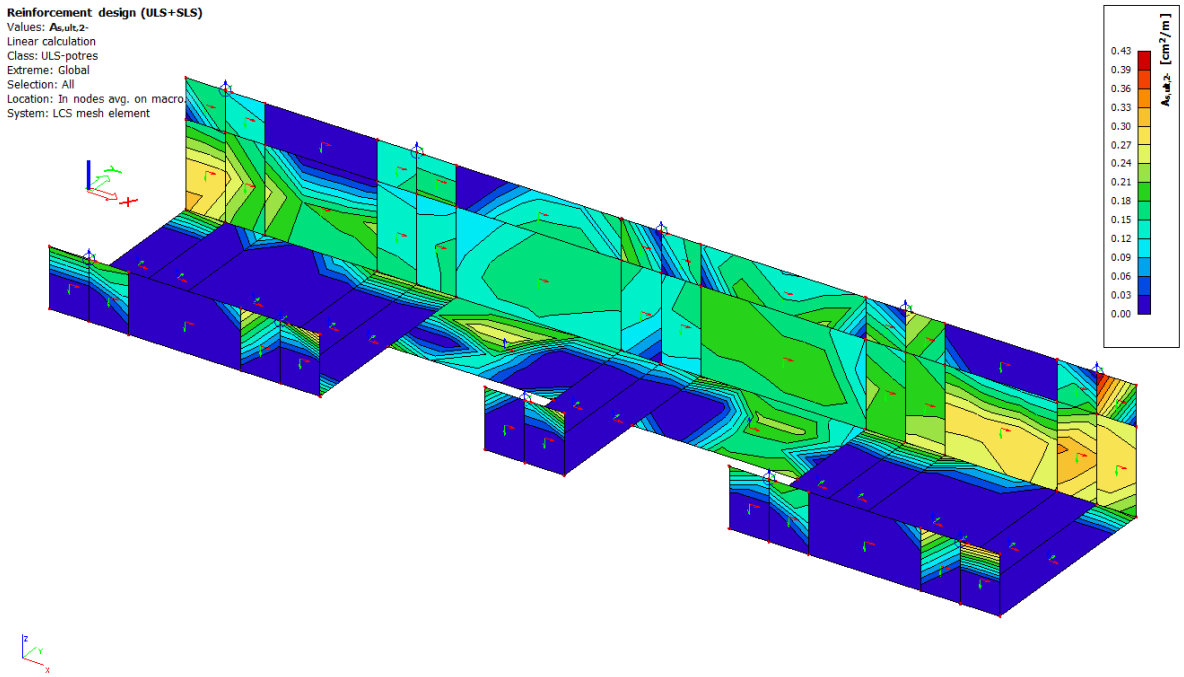

Reinforcement design (ULS+SLS)
Values: As,ult,2+
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro
System: LCS mesh element
As,ult,2+ [cm²/m]
3.28
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00


Reinforcement design (ULS+SLS)
Values: As,ult,2+
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro
System: LCS mesh element
As,ult,2+ [cm²/m]
1.15
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00


Reinforcement design (ULS+SLS)
Values: As,ult,1-
Nonlinear calculation
Class: ULS
Extreme: Global
Selection: All
Location: In nodes avg. on macro
System: LCS mesh element
1.29
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
As,ult,1- [cm²/m]


Reinforcement design (ULS+SLS)
Values: As,ult,1-
Linear calculation
Class: ULS-potres
Extreme: Global
Selection: All
Location: In nodes avg. on macro
System: LCS mesh element
0.72
0.65
0.60
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
As,ult,1- [cm²/m]



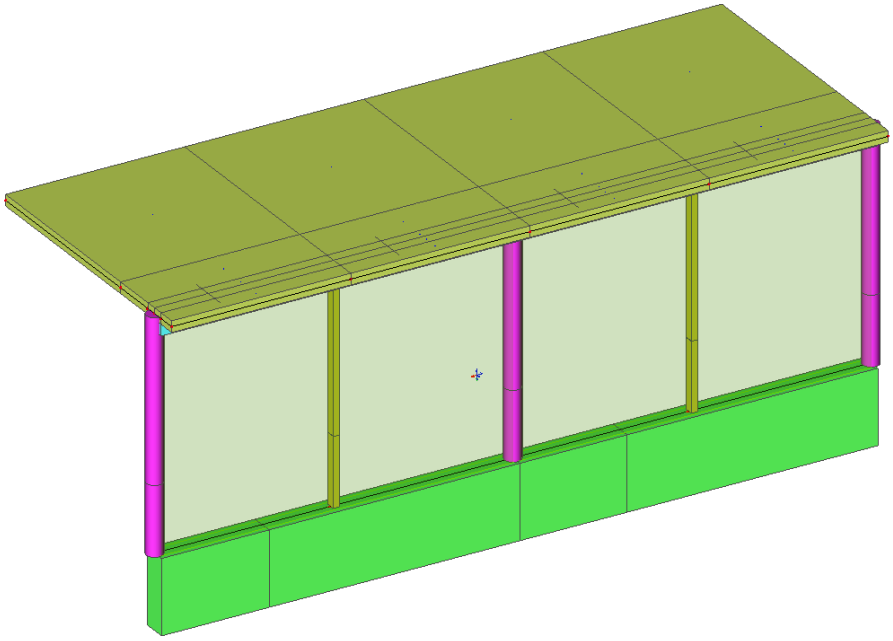


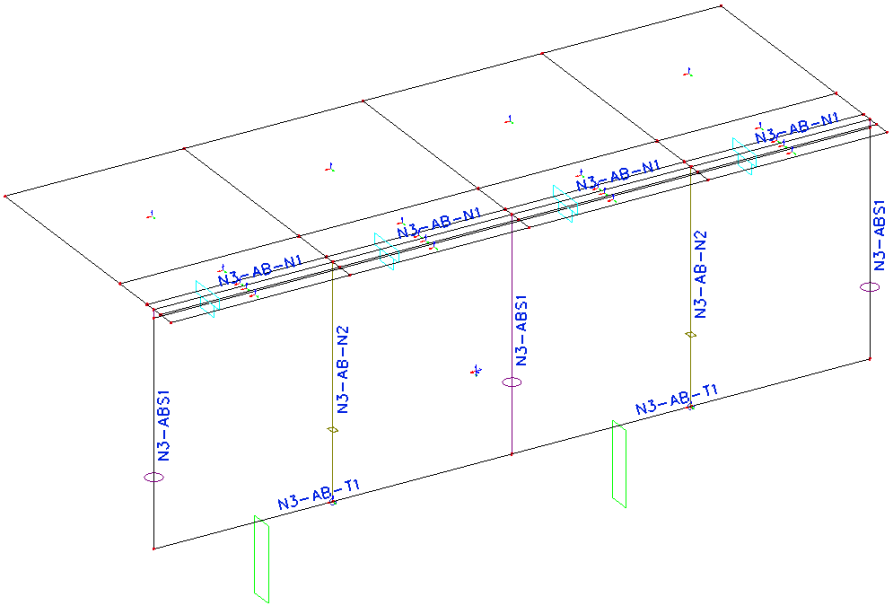
Izberem armaturo

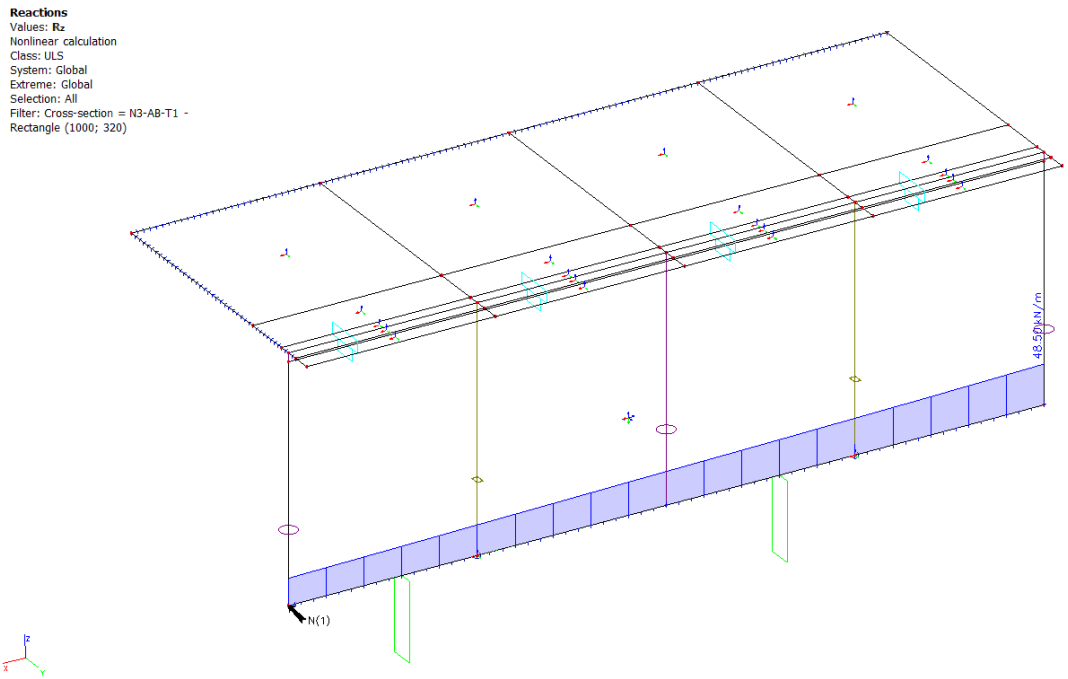
Temeljna plošča	zgoraj in spodaj v obeh smereh	+/- ϕ12/15cm, $A_{s,dej}$ = 7.5 cm²/m
Parapeti	vertkalna armatura	+/- ϕ12/15cm, $A_{s,dej}$ = 7.5 cm²/m
	horizontalna armatura	+/- ϕ10/15cm, $A_{s,dej}$ = 5.2 cm²/m

5.2. Del obstoječega objekta

Del, ki podpira del nadstreška N5



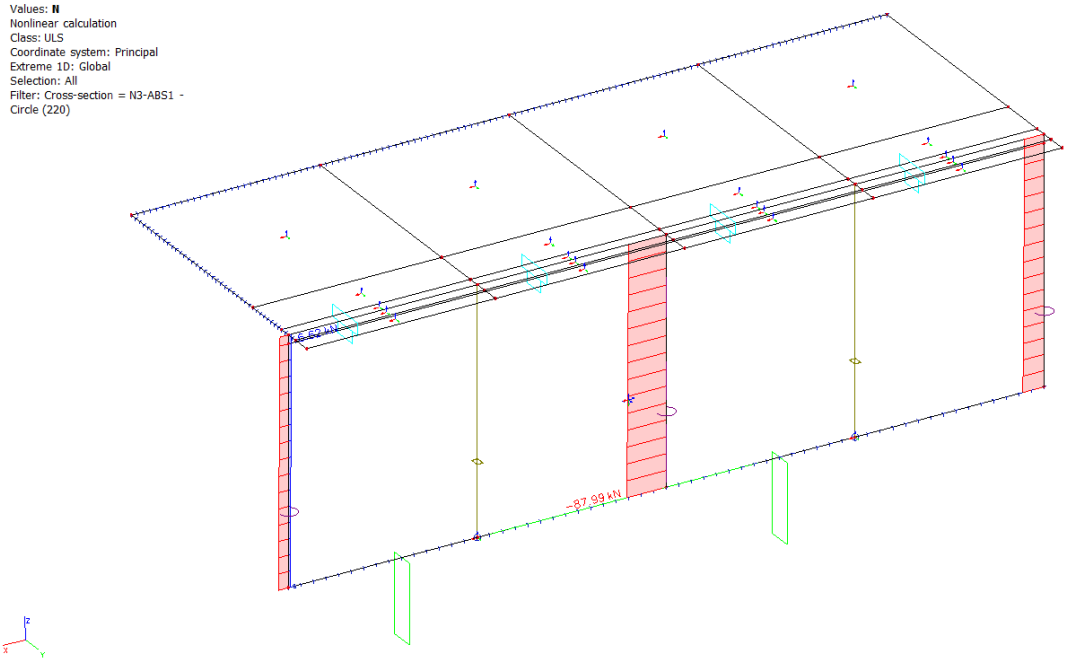




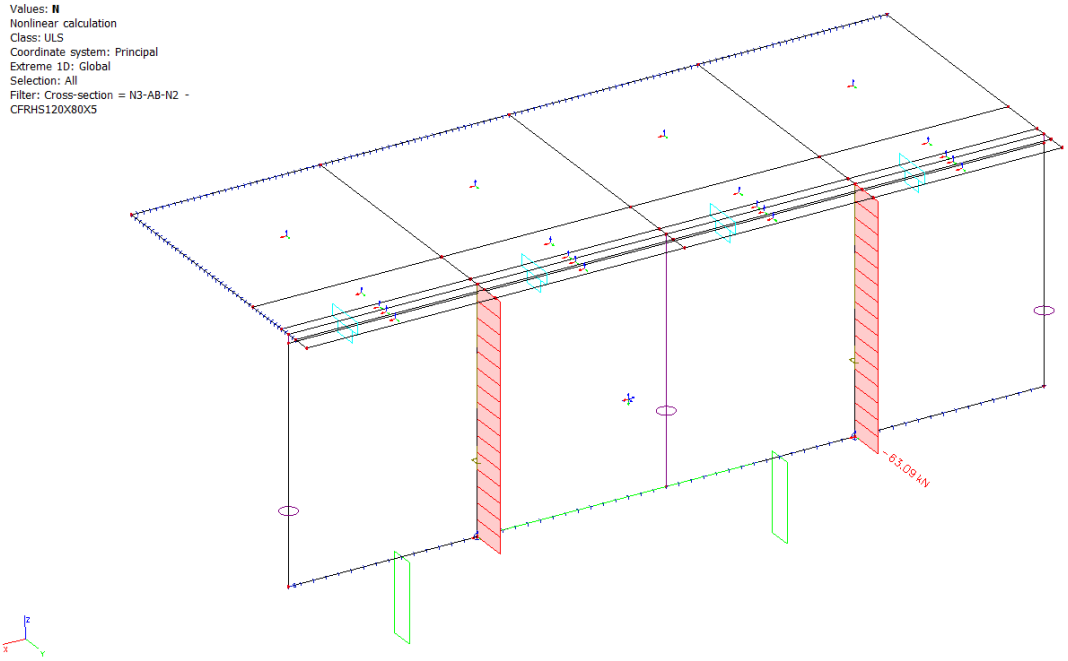
Kontaktne napetosti pod obstoječim pasovnim temeljem 100/32cm.

48.5/0.32 = 152 kN/m^2 je manj kot 190 kN/m^2

1D internal forces
Values: **N**
Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Global
Selection: All
Filter: Cross-section = N3-ABS1 - Circle (220)



1D internal forces
Values: **N**
Nonlinear calculation
Class: ULS
Coordinate system: Principal
Extreme 1D: Global
Selection: All
Filter: Cross-section = N3-AB-N2 - CFRHS120X80X5



Ocena povečanja tlačne osne sile v AB stebrih D=22cm zaradi namestitve dodatnega konzolnega nadstreška

obtežba na steber pri ULS

- obstoječe stanje

AB plošča d=15cm	0.15x25 =	3.75 kN/m^2
kritina		0.55
sneg		1.25

q_{Ed} = 1.35x(3.75+0.55)+1.5x1.25 = 7.68 kN/m^2
vplivno področje 0.5x3.34x4.7 = 7.85 m^2

osna sil v stebru $N_{Ed,obstoječe}$ = 7.68x7.85 = 60.3 kN

- novo stanje

sila v stebru zaradi lastne in stalne obtežbe na obstoječem sistemu (samo betonski stebri) – sila že v stebru pred namestitvijo dodatnega nadstreška

$q_{Ed,g,obst.sistem}$ = 1.35x(3.75+0.55) = 5.81 kN/m^2
vplivno področje 0.5x3.34x4.7 = 7.85 m^2

$N_{Ed,g,obst.sistem}$ = 5.81x7.85 = 45.6 kN

sila v stebru zaradi lastne in stalne obtežbe dodatnega nadstreška širine 1.5m in snega na novem sistemu (dodani jekleni stebri PC120/80/6 med betonske stebre ne sredini med betonskima stebroma)

lastna (0.40 kN/m^2)+stalna nadstreška

$q_{Ed,g,nov.sistem}$ = 1.35x(0.40+0.55) = 1.28 kN/m^2
vplivno področje 1.5x0.5x4.7 = 3.53 m^2

$N_{Ed,g,nov.sistem}$ = 1.28x3.53 = 4.6 kN

sneg

$q_{Ed,q,nov.sistem}$ = 1.5x1.25 = 1.88 kN/m^2
vplivno področje (0.5x3.34+1.5)x4.7x0. 5 = 7.45 m^2

$N_{Ed,q,nov.sistem}$ = 1.88x7.45 = 14.0 kN

$N_{Ed,novo}$ = 45.6+4.6+14 = 64.2 kN

Povečanje osne sile v stebru 64.2/60.3 = 1.07 (za 7%)

Ker podatek o obstoječi armaturi v obstoječem AB stebru D=22cm ni poznan, zaradi namestitve dodatnega nadsterška in posledično povečanja osne sile v stebru predvidimo, da se obstoječe betonske stebre D=22cm v celotnem območju nadstreška dodatno ojača z karbonsko tkanino po celotnem obodu in višini stebra. Predvidena je uporaba karbonske tkanine n.pr. SikaWrap-230C, ki jo je potrebno zaščititi pred direktno sončno svetlobi (n.pr. s cementno oblogo ali z zaščitnimi premezi). Vgradna karbonske tkanine se mora izvajati po navodilih proizvajalca tkanine.

BUILDING TRUST

TEHNIČNI LIST

SikaWrap®-230 C

Tkanina iz karbonskih vlaken za konstrukcijske ojačitve, kot del Sika® ojačitvenega sistema

OPIS IZDELKA

SikaWrap®-230 C je tkanina iz usmerjenih karbonskih vlaken srednje moči, za suho ali mokro vgradnjo.

UPORABA

SikaWrap®-230 C lahko uporabljajo le izkušeni poklicni izvajalci.

Za ojačitve armirano betonskih konstrukcij, zidov iz opeke in lesenih konstrukcij pri upogibnih in strižnih obremenitvah za:
- Izboljšanje protipotresnih lastnosti zidov
- Kot nadomestilo za manjkajočo jekleno armaturo
- Za večjo nosilnost in duktilnost stebrov
- Za povečanje nosilnosti konstrukcijskih elementov
- Pri spremembah namembnosti objekta
- Pri popravilih posledic poškodb
- Kot preventivna zaščita pred potresom
- Za izboljšanje uporabnosti in vzdržljivosti
- Kot konstrukcijska nadgradnja pri usklajevanju z veljavnimi predpisi

LASTNOSTI/PREDNOSTI

- Izdelana z votkom za dobro stabilnost vlaken (heat-set process)
- Mnogostranska uporaba za vse vrste ojačitev
- Prilagodljivost tkanine pri ojačitvah ukrivljenih površin (grede, stebri, dimniki, oporniki, piloti, okopi, kamini, silosi itd.)
- Dobavljiva v različnih širinah za optimalno možnost uporabe
- Zaradi nizke gostote le minimalna dodatna obtežba
- Boljša ekonomičnost v primerjavi s tradicionalnimi tehnikami

ODOBRITVE/STANDARDI

- Poljska: Tehnično poročilo ITB AT-15-5604/2011: Zestaw wyrobów Sika CarboDur do wzmacniania i napraw konstrukcji betonowych
- Poljska: Tehnično poročilo IBDiM Nr AT/2008-03-0336/1 "Płaskowniki. pręty, kształtki i maty kompozytowe do wzmacniania betonu o nazwie handlowej: Zestaw materiałów Sika CarboDur® do wzmacniania konstrukcji obiektów mostowych
- Francija: Avis Technique N° 3/16-875 (annule et remplance N° 3/10-669) Sika® CarboDur®, SikaWrap®

INFORMACIJE O IZDELKU

Gradnja	Smer vlaken	0° (vzdolžno, usmerjeno)	
	Osnova	Črna karbonska vlakna 99%	
	Votek	Bela termoplastično toplotno obdelana vlakna 1%	
Vrsta vlakna	Izbrana karbonska vlakna srednje moči		
Embalaža		**Dolžina tkanine na balo**	**Širina tkanine**
	4 bale v kartonski škatli	≥ 50 m	300 mm
	2 bali v kartonski škatli	≥ 50 m	600 mm
Rok uporabe	24 mesecev od datuma izdelave.		

Pogoji za shranjevanje	Hranite v originalni, nepoškodovani zaprti embalaži v hladnem in suhem prostoru pri temperaturah med +5°C in +35°C. Zaščitite pred direktno sončno svetlobo.
Gostota vlaken	1.82 g/cm³
Debelina vlaken	0.129 mm (odvisno od vsebine vlaken)

Gostota območja	235 g/m² ±10 g/m² (samo karbonska vlakna)	
Natezna trdnost vlaken	4 000 N/mm²	(ISO 10618)
Modul elastičnosti vlaken pri pretrgu	230 000 N/mm²	(ISO 10618)
Razterek vlaken pri pretrgu	1.7 %	(ISO 10618)

TEHNIČNI PODATKI

Debelina laminata	0.129 mm		
Presek laminata	129 mm² na m širine		
Natezna trdnost laminata	**Povprečna** 3 500 N/mm²	**Značilna** 3 200 N/mm²	(EN 2561*) (ASTM D 3039*)
Modul elastičnosti laminata pri nateza-nju	**Povprečna** 225 kN/mm²	**Značilna** 220 kN/mm²	(EN 2561*)
	Povprečna 220 kN/mm²	**Značilna** 210 kN/mm²	(ASTM D 3039*)
	* modifikacija: vzorec širine 50 mm Vrednosti izmerjene v vzdolžni smeri vlaken Ena plast, najmanj 27 vzorcev na serijo testov		
Raztezek laminata pri pretrgu	1.56 % 1.59 %		(glede na EN 2561) (glede na ASTM D 3039)
Natezna odpornost	**Povprečna** 452 kN/m	**Značilna** 413 kN/m	(glede na EN 2561) (glede na ASTM D 3039)
Natezna togost	**Povprečna** 29.0 MN/m 29.0 kN/m per ‰ raztezka	**Značilna** 28.4 MN/m 28.4 kN/m per ‰ raztezka	(glede na EN 2561)
	Povprečna 28.4 MN/m 28.4 kN/m per ‰ raztezka	**Značilna** 27.1 MN/m 27.1 kN/m per ‰ raztezka	(glede na ASTM D 3039)

SISTEMSKE INFORMACIJE

Struktura sistema

Navedeni sistem vgradnje v celoti upoštevajmo kot je opisan in ga ne spreminjajmo.

Temeljni premaz za beton	Sikadur®-330
Impregnirna smola	Sikadur®-330 ali Sikadur®-300
Tkanina za ojačitev	SikaWrap®-230 C

Natančne lastnosti o Sikadur® -330, smoli in načinu vgradnje tkanine so navedene v tehničnem listu Sikadur® -330 in pripadajoči izjavi o metodah.

INFORMACIJE O VGRADNJI

Poraba

Suh nanos s Sikadur®-330

Prva plast vključno s temeljnim premazom	0.8–1.2 kg/m²
Naknadne plasti	0.7 kg/m²

Moker nanos s Sikadur®-300, temeljni premaz Sikadur®-330

Temeljni premaz	0.4–0.6 kg/m²
Plast tkanine	0.6 kg/m²

Please also refer to the relevant Method Statement for further information.

NAVODILA ZA VGRADNJO

KAKOVOST PODLAGE

Najmanjša natezna trdnost podlage: 1,0 N/mm² ali kot je predpisano v projektu ojačitve.
Prosimo glejte pripadajočo Izjavo o metodah za informacije.

PRIPRAVA PODLAGE

Beton je treba očistiti in pripraviti tako, da se odstrani cementna srajčka in slabo vezan material in doseže odprto strukturo površine. Prosimo glejte pripadajočo Izjavo o metodah za informacije.

METODA NANAŠANJA/ORODJE

Tkanino odrežemo s posebnimi škarjami ali ostrim nožem. Tkanina se ne sme gubati! SikaWrap®-230 C nanašamo po suhi ali mokri metodi. Prosimo glejte pripadajočo Izjavo o metodah za informacije o postopkih impregniranja / laminiranja.

OMEJITVE

- SikaWrap®-230 C smejo uporabljati samo izkušeni strokovnjaki.
- Pri vsakem konstrukcijskem izračunu načrtovanja se je potrebno posvetovati s strokovnim konstrukcijskim inženirjem.
- SikaWrap®-230 C tkanina zagotavlja največjo možno povezavo in obstojnost prav s Sikadur® impregnirnimi smolami. Zato sistem upoštevajmo tak kot je predpisan in ne zamenjujmo komponent.
- SikaWrap®-230 C tkanino je v določenih primerih potrebno prekriti s cementnimi oblogami, premazi za boljši estetski videz ali zaščitnimi premazi. Izbira je odvisna od izpostavljenosti objekta. Za osnovno UV zaščito lahko uporabimo Sikagard®-550 W Elastic, Sikagard® ElastoColor-675 W ali Sikagard® -680 S.
- Za dodatne informacije, nasvete in omejitve poglejte Izjavo o metodah za SikaWrap®

DRUGI DOKUMENTI

Izjave o metodah

- Ref. 850 41 02: SikaWrap® ročna suha vgradnja
- Ref. 850 41 03: SikaWrap® ročna mokra vgradnja
- Ref. 850 41 04: SikaWrap® strojna mokra vgradnja

PODATKI O IZDELKU

Vsi tehnični podatki, navedeni v tem tehničnem listu, temeljijo na laboratorijskih preizkusih. Dejanski izmerjeni podatki se lahko razlikujejo zaradi okoliščin, na katere nimamo vpliva.

LOKALNE OMEJITVE

Upoštevajte, da se lahko lastnosti tega izdelka zaradi specifičnih lokalnih predpisov od države do države razlikujejo. Oglejte si lokalni tehnični list izdelka za natančen opis področij uporabe.

OKOLJE, ZDRAVJE IN VARNOST

UREDBA (ES) ŠT. 1907/2006 – REACH

Pri izdelku gre za izdelek, kot je opredeljen v 3. členu Uredbe (ES) št. 1907/2006 (REACH). Izdelek ne vsebuje nobenih snovi, ki bi se lahko sprostile pod normalnimi ali predvidenimi pogoji uporabe. Za prodajo, prevoz ali uporabo izdelka ni potreben varnostni list skladno z 31. členom iste Uredbe. Za varno uporabo upoštevajte podatke v tem tehničnem listu. Skladno z našimi najnovejšimi dognanji izdelek ne vsebuje SVHC snovi (snovi, ki vzbujajo veliko zaskrbljenost), ki so navedene v Prilogi XIV Uredbe REACH ali na kandidatnem seznamu snovi, ki ga je izdala Evropska agencija za kemikalije, v koncentracijah nad 0,1 % (w/w).

PRAVNO OBVESTILO

Podjetje Sika informacije in zlasti priporočila o vgradnji in končni uporabi Sika izdelkov zagotavlja v dobri veri na osnovi trenutnega znanja in izkušenj z izdelki, ki so predmet ustreznega skladiščenja in rokovanje ter ki so uporabljeni v normalnih razmerah skladno s priporočili podjetja Sika. V praksi se lahko materiali, podlage in dejanske razmere ob uporabi izdelka razlikujejo v tolikšni meri, da ti podatki ali katera koli pisna priporočila ali navedeni nasveti ne predstavljajo nikakršne podlage za jamstvo glede primernosti za prodajo in določen namen uporabe ter kakršno koli odgovornost iz naslova katerega koli pravnega razmerja. Uporabnik izdelka mora preizkusiti primernost izdelka za načrtovani način in namen uporabe. Sika si pridržuje pravico do sprememb lastnosti izdelkov. Upoštevati je treba lastniške pravice tretjih oseb. Vsa sprejeta naročila urejajo naši veljavni prodajni in dobavni pogoji. Uporabniki morajo vselej upoštevati zadnjo izdajo lokalnega tehničnega lista za zadevni izdelek, katerega izvodi so na voljo na zahtevo.

Sika d.o.o.
Prevale 13
1236 Trzin, Slovenija
Tel: +386 580 95 34
Fax: +386 580 95 33
www.sika.si

6. LESENA KRITINA

OSB3 vodoodporna plošča D=25mm

L = cca 0.75 m , nosilec preko dveh polj (2xL)

Območje kopičenja snega
$q_{Ed,MSU}$ = 0.1+6.1 = 6.2 kN/m^2

AGEPAN® OSB/3 | TECHNISCHE DATEN

Zulässige Flächenlast q_{max} [kN/m²]
Zweifeldträger beidseitig belastet, Durchbiegungsbeschränkung l/300

	12	15	18	22	25
l (m)			Dicke (in mm)		
0,20	22,01	34,41	47,41	70,85	91,52
0,25	14,06	21,99	30,30	45,30	58,52
0,30	9,74	15,24	21,01	31,42	40,59
0,35	7,14	11,18	15,41	23,05	29,78
0,40	5,45	8,54	11,77	17,61	22,77
0,45	4,22	6,72	9,28	13,89	17,96
0,50	3,06	5,43	7,50	11,23	14,52
0,55	2,28	4,47	6,18	9,25	11,97
0,60	1,74	3,45	5,17	7,76	10,04
0,625	1,53	3,04	4,76	7,14	9,24
0,65	1,35	2,69	4,39	6,59	8,53
0,70	1,07	2,14	3,74	5,66	7,33
0,75	0,86	1,72	3,02	4,92	6,37
0,80	0,69	1,40	2,47	4,30	5,58
0,833	0,60	1,23	2,18	3,96	5,13
0,90	0,46	0,96	1,70	3,17	4,38
0,95	0,38	0,80	1,43	2,68	3,91
1,00	0,32	0,67	1,21	2,28	3,39

Max. zul. Flächenlast q_{max} gemäß Spannungsnachweis/Gebrauchstauglichkeit l = vorh. Unterstützungsabstand

7. DETAJLI

7.1. Sidranje KC150/6 v obstoječo AB ploščo

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Profis Anchor 2.8.8

Company:		Page:	1
Specifier:		Project:	Domžale - N5
Address:		Fastening Point:	
Phone I Fax:	|	Date:	30/06/2021
E-Mail:			

Specifier's comments: Sidranje KC150 - na obstoječo AB ploščo

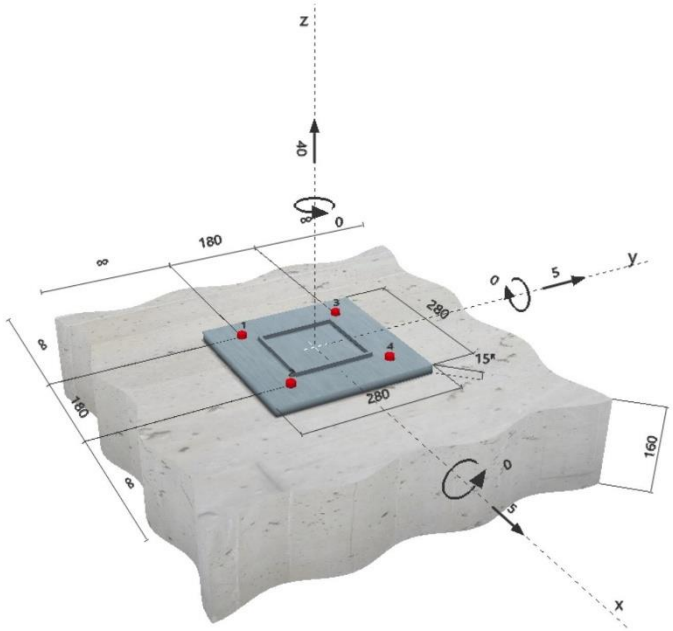
1 Input data



Anchor type and size:	**HVU2 + HAS-U 5.8 HDG M16_hef1**
Return period (service life in years):	50
Effective embedment depth:	$h_{ef,act}$ = 125 mm, h_{nom} = 125 mm
Material:	5.8
Approval No.:	ETA-16/0515
Issued I Valid:	13/11/2019 | -
Proof:	Design method ETAG BOND (EOTA TR 029)
Stand-off installation:	e_b = 0 mm (no stand-off); t = 15 mm
Baseplate:	l_x x l_y x t = 280 mm x 280 mm x 15 mm; (Recommended plate thickness: not calculated
Profile:	Square hollow, 140 x 140 x 5,0; (L x W x T) = 140 mm x 140 mm x 5 mm
Base material:	uncracked concrete, C25/30, $f_{c,cube}$ = 30.00 N/mm²; h = 160 mm, Temp. short/long: 40/24 °C
Installation:	**hammer drilled hole, Installation condition: Dry**
Reinforcement:	Reinforcement spacing < 150 mm (any Ø) or < 100 mm (Ø <= 10 mm) with longitudinal edge reinforcement d >= 12 + close mesh (stirrups, hangers) s <= 100 Reinforcement to control splitting according to EOTA TR 029, 5.2.2.6 present.

R - The anchor calculation is based on a rigid baseplate assumption.

Geometry [mm] & Loading [kN, kNm]



Input data and results must be checked for agreement with the existing conditions and for plausibility!
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Profis Anchor 2.8.8

Company:		Page:	2
Specifier:		Project:	Domžale - N5
Address:		Fastening Point:	
Phone I Fax:	|	Date:	30/06/2021
E-Mail:			

2 Proof I Utilisation (Governing Cases)

		Design values [kN]		Utilisation	
Loading	Proof	Load	Capacity	β_N / β_V [%]	Status
Tension	Splitting failure	40.000	89.613	45 / -	OK
Shear	Steel failure (without lever arm)	1.768	31.440	- / 6	OK

Loading	β_N	β_V	α	Utilisation $\beta_{N,V}$ [%]	Status
Combined tension and shear loads	0.446	0.056	1.5	32	OK

3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

4 Remarks; Your Cooperation Duties

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Ostali detajli sidranja – konstruktivni.

Spoji med elementi – varjenje na montaži (zaradi prilagajanja obstoječemu objektu.

6 Risbe

ZR2100	0032.00.	007. 1276	G	

POSAMEZNI ELEMENTI

objekt:	investitor:	
NADSTRESEK 2 PERONSKI		HIŠA d.o.o. Ukmarjeva 4, 1000 Ljubljana
JEKLENA KONSTRUKCIJA POSTAJA DOMZALE	ime risbe:	

Position	kom.	ime	Material	Length	Weight	Total
2	2	U 240	S235J2	4940.0000	164,0	328,0
2	18	U 240	S235J2	7940.0000	264,0	4752,0
3	4	IPE 240	S235J2	4930.0000	151,0	604,0
3	36	IPE 240	S235J2	7930.0000	243,0	8748,0
5	8	RQ 220x12.5	S235J2	4375.0000	351,0	2808,0
7	16	navojna palica - M20 (5.6)	5.6	620.0000	2,0	32,0
8	4	U 240	S235J2	2875.0000	95,0	380,0
9	8	IPE 240	S235J2	2870.0000	88,0	704,0
10	3	FL 150x25	S235J2	1837.0000	54,0	162,0
11	2	RR 220x120x10		2580.0000	124,0	248,0
11	22	U 240	S235J2	960.0000	32,0	704,0
13	4	RQ 120x6.3		3060.0000	67,0	268,0
13	2	U 240	S235J2	5100.0000	169,0	338,0
15	8	RQ 220x12.5	S235J2	4375.0000	351,0	2808,0
16	1	RQ 220x12.5	S235J2	4370.0000	350,0	350,0
16	1	RQ 220x12.5	S235J2	4420.0000	354,0	354,0
16	1	RQ 220x12.5	S235J2	4220.0000	338,0	338,0
17	1	RQ 220x12.5	S235J2	4380.0000	351,0	351,0
17	1	RQ 220x12.5	S235J2	4430.0000	355,0	355,0
17	1	RQ 220x12.5	S235J2	4230.0000	339,0	339,0
17	16	PLATE 15x60	S235J2	60.0000	0,0	0
20	68	FL 150x20	S235J2	1515.0000	36,0	2448,0
20	6	FL 150x20	S235J2	1465.0000	35,0	210,0
20A	2	FL 150x20	S235J2	1515.0000	36,0	72,0
21	16	FL 150x25	S235J2	1787.0000	53,0	848,0
21	3	FL 150x25	S235J2	1837.0000	54,0	162,0
21	4	PLATE 25x200	S235J2	270.0000	11,0	44,0
24	6	FL 150x20	S235J2	1465.0000	35,0	210,0
25	6	FL 150x20	S235J2	191.0000	4,0	24,0
27	6	FL 150x20	S235J2	924.0000	22,0	132,0
29	32	FL 150x20	S235J2	170.0000	4,0	128,0
30	32	PLATE 10x200	S235J2	1591.0000	25,0	800,0
31	6	PLATE 10x200	S235J2	1541.0000	24,0	144,0
32	6	PLATE 10x200	S235J2	1591.0000	24,0	144,0
33	6	PLATE 10x195	S235J2	1790.0000	24,0	144,0
34	1	PLATE 10x195	S235J2	1740.0000	24,0	24,0
34	15	PLATE 10x195	S235J2	1740.0000	23,0	345,0
35	1	RR 220x120x10		1549.0000	75,0	75,0

POSAMEZNI ELEMENTI

objekt:	investitor:	
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JEKLENA KONSTRUKCIJA POSTAJA DOMZALE	ime risbe:	

Position	kom.	ime	Material	Length	Weight	Total
35	1	RR 220x120x10		8975.0000	433,0	433,0
35	1	RR 220x120x10		5730.0000	276,0	276,0
35	1	RR 220x120x10		8730.0000	421,0	421,0
35	3	PLATE 25x550	S235J2	1790.0000	193,0	579,0
36	8	PLATE 25x550	S235J2	600.0000	65,0	520,0
37	19	PLATE 35x400	S235J2	550.0000	60,0	1140,0
43	44	PLATE 10x210	S235J2	340.0000	5,0	220,0
43	16	Gewindestange-M20		208.0000	1,0	16,0
44	44	PLATE 10x210	S235J2	340.0000	5,0	220,0
46	16	PLATE 15x205	S235J2	250.0000	6,0	96,0
47	16	PLATE 15x180	S235J2	250.0000	5,0	80,0
48	14	PLATE 15x205	S235J2	250.0000	4,0	56,0
48	6	PLATE 15x205	S235J2	250.0000	4,0	24,0
49	11	PLATE 15x205	S235J2	250.0000	4,0	44,0
49	16	Gewindestange-M20		318.0000	1,0	16,0
50	44	PLATE 15x140	S235J2	250.0000	4,0	176,0
51	16	PLATE 10x205	S235J2	250.0000	4,0	64,0
51	3	PLATE 10x210	S235J2	250.0000	4,0	12,0
51	24	Gewindestange-M24		1000.0000	4,0	96,0
51	64	Gewindestange-M24		1200.0000	4,0	256,0
52	24	PLATE 40x160	S235J2	245.0000	12,0	288,0
52	16	Gewindestange-M24		350.0000	1,0	16,0
53	64	PLATE 40x160	S235J2	240.0000	12,0	768,0
54	88	PLATE 30x150	S235J2	240.0000	8,0	704,0
55	88	PLATE 30x150	S235J2	240.0000	8,0	704,0
56	44	PLATE 25x129	S235J2	240.0000	6,0	264,0
57	44	PLATE 25x129	S235J2	240.0000	6,0	264,0
58	8	PLATE 10x150	S235J2	240.0000	3,0	24,0
59	4	PLATE 10x129	S235J2	240.0000	2,0	8,0
60	176	PLATE 15x140	S235J2	200.0000	3,0	528,0
60	6	PLATE 15x140	S235J2	250.0000	4,0	24,0
61	44	PLATE 12x140	S235J2	145.0000	2,0	88,0
93	264	PLATE 15x80	S235J2	80.0000	1,0	264,0
101	4	RS 16	S235J2	3021.0000	5,0	20,0
101	4	RS 16	S235J2	3048.0000	5,0	20,0
103	2	RS 16	S235J2	2626.0000	4,0	8,0
103	2	RS 16	S235J2	2658.0000	4,0	8,0
103	36	RS 16	S235J2	2743.0000	4,0	144,0

POSAMEZNI ELEMENTI

objekt:	investitor:	
NADSTRESEK 2 PERONSKI		HIŠA d.o.o. Ukmarjeva 4, 1000 Ljubljana
JEKLENA KONSTRUKCIJA POSTAJA DOMZALE	ime risbe:	

Position	kom.	ime	Material	Length	Weight	Total
103	36	RS 16	S235J2	2712.0000	4,0	144,0
104	20	RS 16	S235J2	2710.0000	4,0	80,0
104	20	RS 16	S235J2	2679.0000	4,0	80,0
106	38	RO63x5	S235J2	643.0000	5,0	190,0
107	38	RO63x5	S235J2	743.0000	5,0	190,0
109	114	napenjalec m16	S235J2	350.0000	1,0	114,0
111	36	PLATE 10x125	S235J2	162.0000	1,0	36,0
111	40	PLATE 10x125	S235J2	292.0000	3,0	120,0
115	248	PLATE 10x90	S235J2	190.0000	1,0	248,0
116	20	PLATE 10x123	S235J2	173.0000	1,0	20,0
116	20	PLATE 10x125	S235J2	173.0000	1,0	20,0
117	152	PLATE 10x100	S235J2	170.0000	1,0	152,0
118	8	PLATE 10x123	S235J2	166.0000	1,0	8,0
119	4	PLATE 10x123	S235J2	154.0000	1,0	4,0
119	4	PLATE 10x121	S235J2	154.0000	1,0	4,0
120	36	PLATE 10x124	S235J2	150.0000	1,0	36,0
123	20	PLATE 10x122	S235J2	136.0000	1,0	20,0
123	20	PLATE 10x124	S235J2	136.0000	1,0	20,0
124	38	PLATE 10x105	S235J2	137.0000	1,0	38,0
125	76	PLATE 10x105	S235J2	137.0000	1,0	76,0
126	38	PLATE 10x105	S235J2	137.0000	1,0	38,0
127	16	PLATE 20x420	S235J2	420.0000	28,0	448,0
223	7	PLATE 20x190	S235J2	260.0000	8,0	56,0
224	1	PLATE 20x190	S235J2	260.0000	8,0	8,0
225	8	PLATE 25x230	S235J2	260.0000	12,0	96,0
233	4	PLATE 25x220	S235J2	350.0000	15,0	60,0
234	7	PLATE 25x220	S235J2	350.0000	15,0	105,0
240	6	PLATE 25x420	S235J2	440.0000	36,0	216,0
	263		S235J2	24.0000	0,0	0
	175		S235J2	24.0000	0,0	0

·izvedbeni razred EXC 2
·Konstrukcijsko jeklo S235J2
·Konstrukcijsko jeklo S235JR - šablone
·vijaki 10.9 po SIST EN 14399
- vse vijačne zveze izvesti z dvema podložkama 10.9
- 50% prednapeto
·vijaki 8.8 po SIST EN 15048-1
- vse vijačne zveze izvesti z dvema podložkama 8.8
- čvrsto priviti

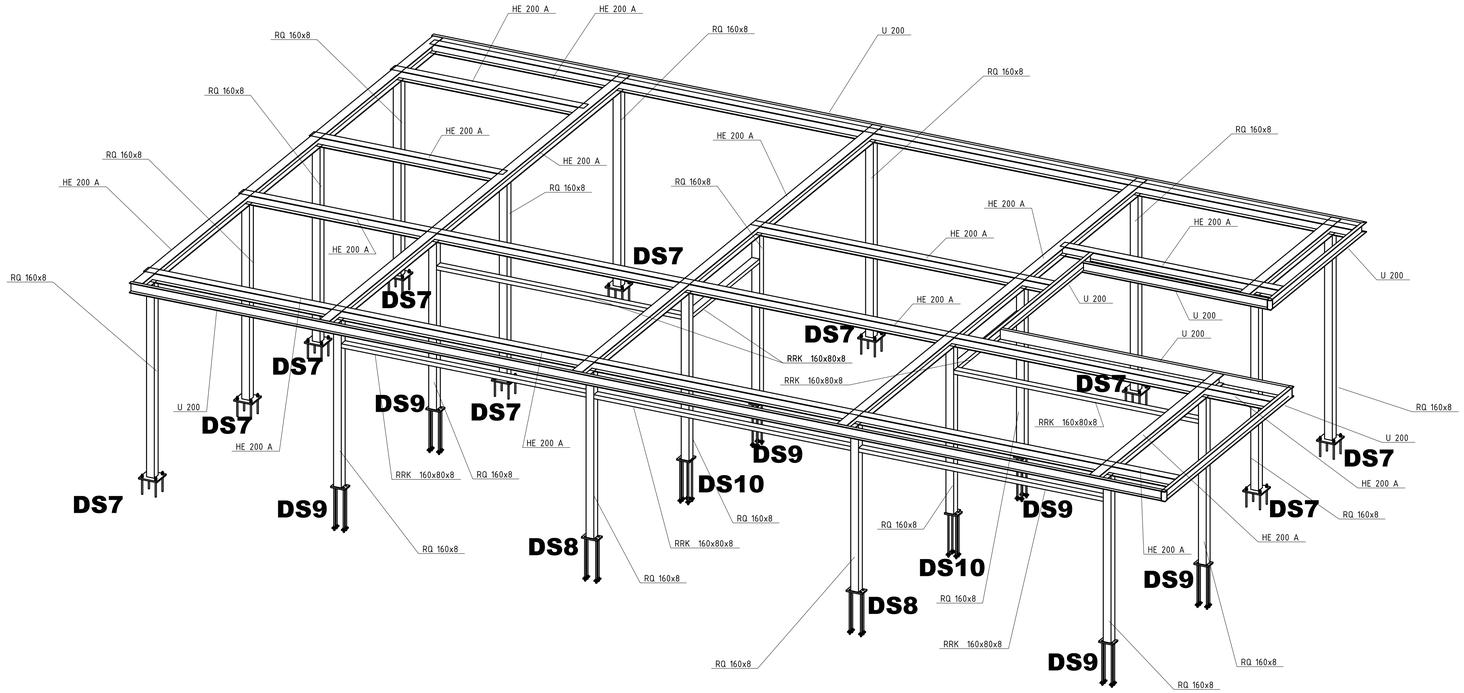
OPOMBE:
-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

106 elementov / celotna teža : 42441 kg

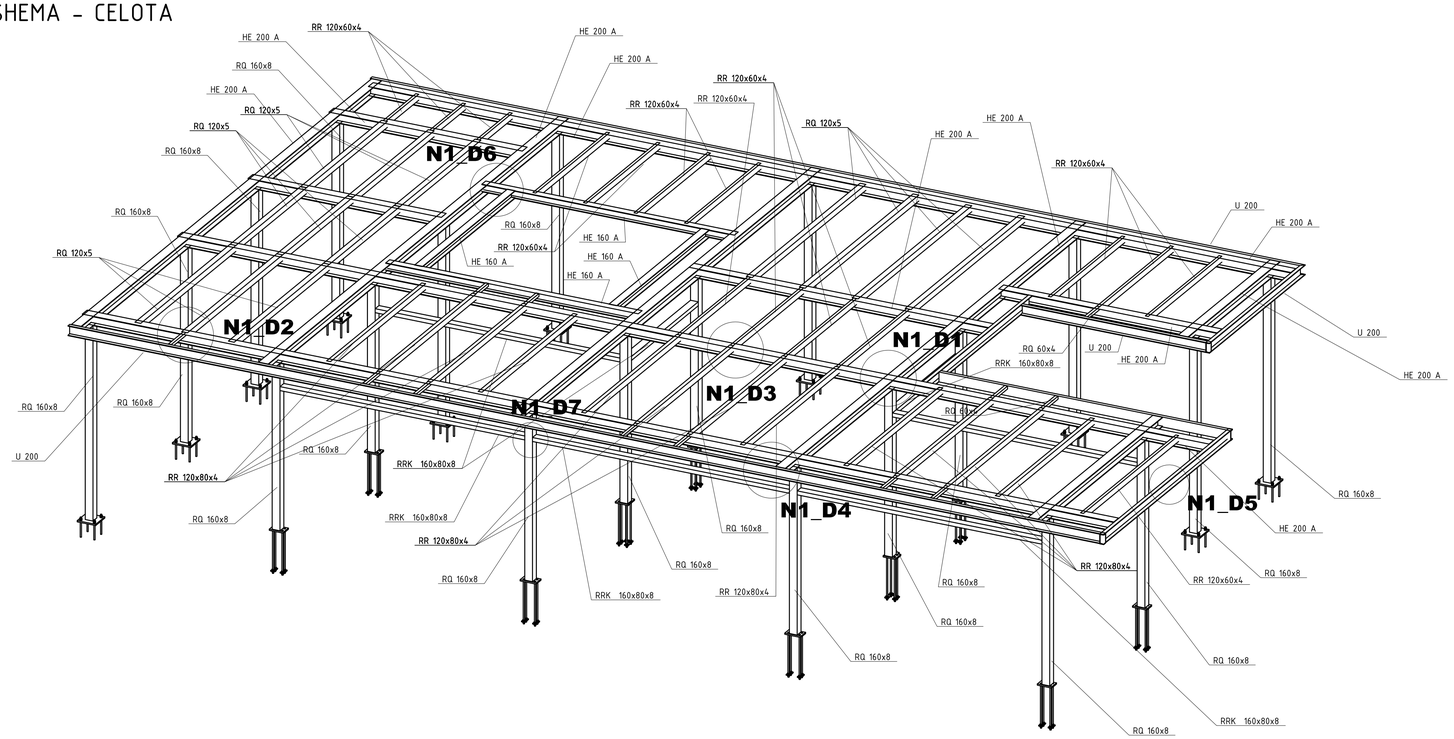
celotna teža + dodatek 3% zvari, vijaki... : 43714 kg

NADSTREŠEK 1

3D SHEMA - GLAVNI OKVIRJI



3D SHEMA - CELOTA



NADSTREŠEK 1

seznam materiala

kom	NAME	LENGTH	WEIGHT	TOTAL W.
2	RRK 160x80x8	2769	74.3	148.6
4	RRK 160x80x8	5040	135.3	541.1
1	RRK 160x80x8	5290	142.0	142.0
1	RQ 160x8	4155	151.5	151.5
9	RQ 160x8	3955	144.2	1297.7
10	RQ 160x8	3390	123.6	1235.9
40	M24 5.6 + HILTI HIT HY 200	400	1.4	56.8
42	navojna palica - M24 (5.6)	900	3.2	134.5
42	PLATE 70x60x15	70	0.5	20.8
2	PLATE 330x200x25	330	13.0	25.9
6	PLATE 295x200x25	295	11.6	69.5
10	PLATE 380x380x25	380	28.3	283.4
1	RQ 60x4	511	3.5	3.5
3	RR 120x60x4	1363	14.5	43.6
2	PLATE 265x265x25	265	13.0	25.9
7	RR 120x60x4	3058	32.6	228.3
124	Mu 24 DIN 934	0	0.0	0.0
2	HE 200 A	3980	168.4	336.7
3	RQ 120x5	2929	52.3	156.8
3	RQ 120x5	3950	70.5	211.5
9	RQ 60x4	610	4.2	37.9
288	Scheibe A 25 DIN125	0	0.0	0.0
4	HE 200 A	12456	526.9	2107.6
2	RQ 60x4	530	3.7	7.3
4	RR 120x60x4	2929	31.2	125.0
1	RR 120x60x4	3950	42.1	42.1
12	RR 120x80x4	3950	47.1	565.2
2	HE 160 A	3848	117.0	234.0
2	HE 160 A	5200	158.1	316.2
1	U 200	4388	111.0	111.0
1	U 200	6007	152.0	152.0
1	U 200	21330	539.7	539.7
1	U 200	5350	135.4	135.4
1	U 200	3889	98.4	98.4
1	HE 200 A	3808	161.1	161.1
1	HE 200 A	4496	190.2	190.2
3	RQ 120x5	3358	59.9	179.8
1	HE 200 A	18997	803.6	803.6
4	RQ 120x5	4721	84.2	337.0
1	HE 200 A	5170	218.7	218.7
2	HE 200 A	21240	898.5	1796.9
1	U 200	3973	100.5	100.5
1	U 200	19213	486.1	486.1
1	HE 200 A	6168	260.9	260.9
			Weight of 659 Parts 25 % Addition	17650 kg

- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8,8
  - čvrsto privliti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K,▽,▽,... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 35

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

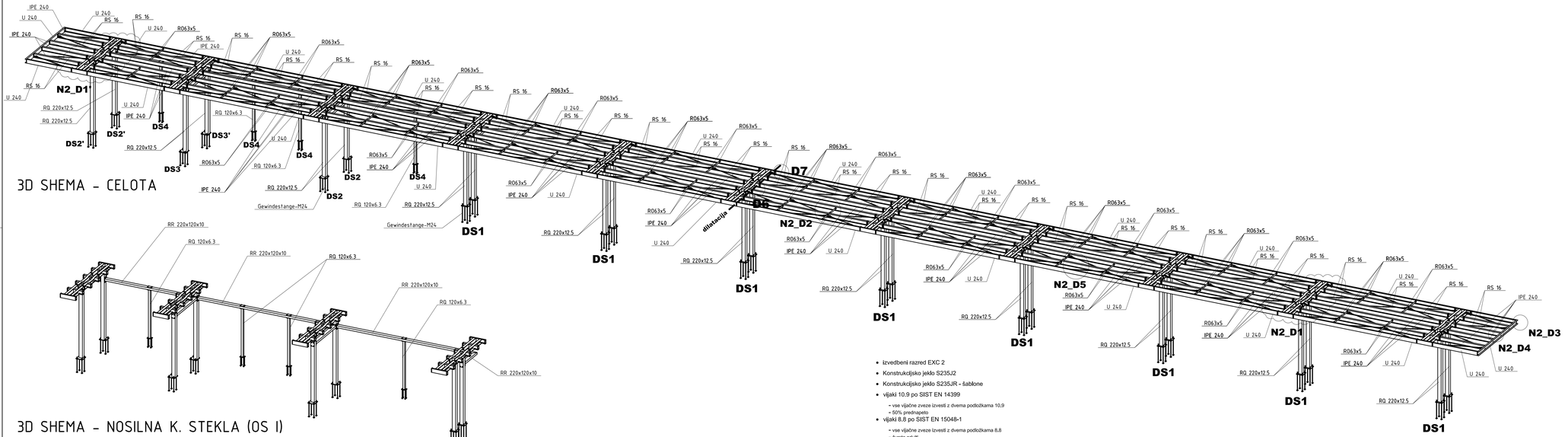
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Risba: 3D SHEMA - NADSTREŠEK 1

Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:	Rok SEVŠEK inž. grad.

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:50	julij 2021	3719	3719 2/2	3719_2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.455		1



3D SHEMA - CELOTA

3D SHEMA - NOSILNA K. STEKLA (OS I)

NADSTREŠEK 2

- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K,▽,▽̄,▽̄ ....morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije previdi izvajalec
- vsi neznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor:
Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:
sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 78 00, fax.: 01 300 76 36

Podizvajalec:
h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

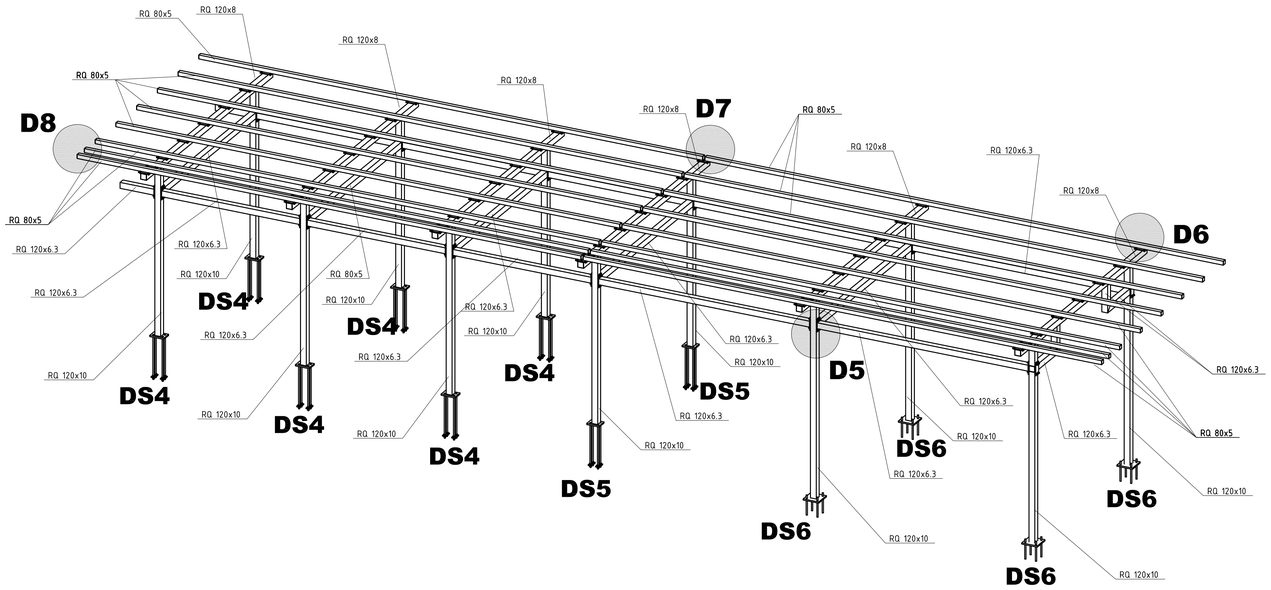
Objekt: Železniška postaja Domžale		**Id. št.:**	**Ime:**
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE		**Odg. vodja projekta:**	PI G-2912 Gregor Rakar, univ.dipl.inž.grads.
		Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE		**Izdelal:**	Rok SEVŠEK inž. grad.
Risba: 3D SHEMA - NADSTREŠEK 2			

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
Z1	IZN	1:100	julij 2021	3719	3719_2/2	3719_2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.455		2

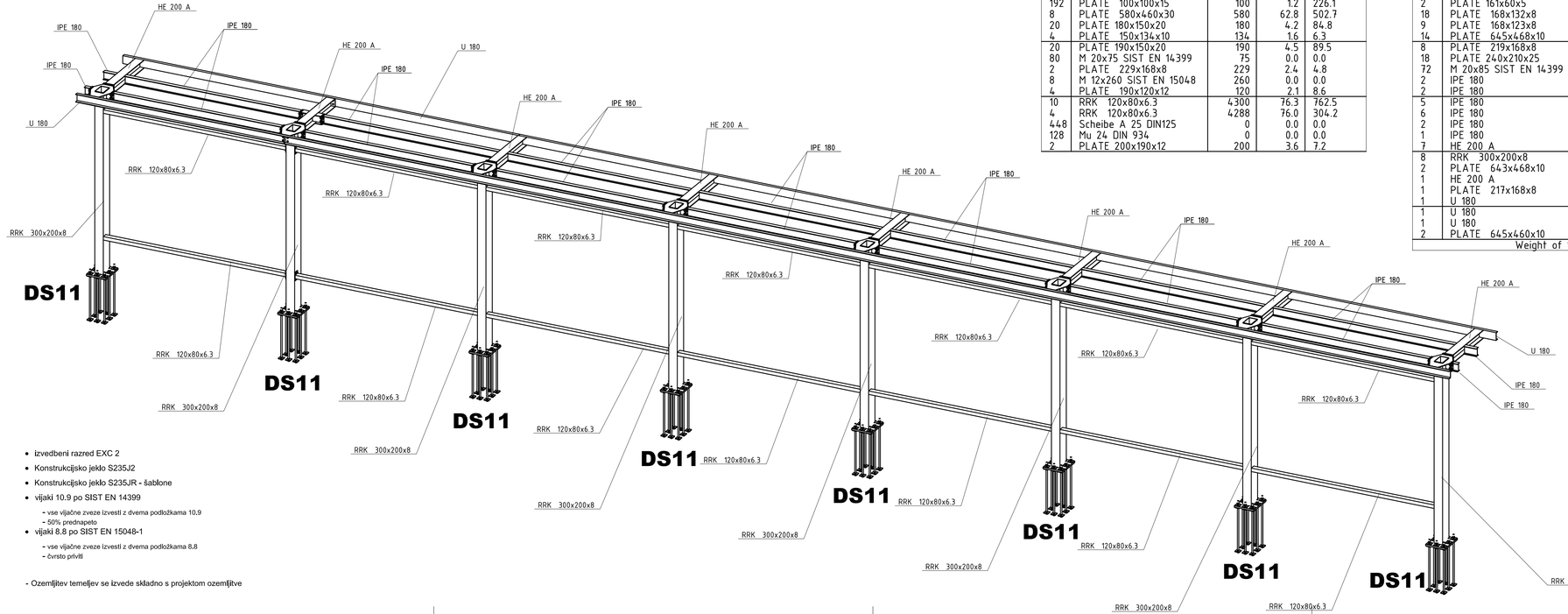
NADSTREŠEK 3

3D SHEMA


RQ 80x5
RQ 120x8
RQ 120x8
RQ 80x5
RQ 120x8
RQ 120x8
D8
D7
RQ 80x5
RQ 120x8
RQ 120x6.3
RQ 120x8
D6
RQ 80x5
RQ 120x6.3
RQ 120x6.3
RQ 120x10
RQ 120x6.3
RQ 80x5
RQ 120x10
RQ 120x6.3
RQ 120x6.3
RQ 120x10
RQ 120x6.3
RQ 120x10
RQ 120x6.3
RQ 120x10

NADSTREŠEK 4

3D SHEMA



- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

kom	NAME	LENGTH	WEIGHT	TOTAL W.
64	Gewindestange-M30	1195	6.6	424.5
192	PLATE 100x100x15	100	1.2	226.1
8	PLATE 580x460x30	580	62.8	502.7
20	PLATE 180x150x20	180	4.2	84.8
4	PLATE 150x134x10	134	1.6	6.3
20	PLATE 190x150x20	190	4.5	89.5
80	M 20x75 SIST EN 14399	75	0.0	0.0
2	PLATE 229x168x8	229	2.4	4.8
8	M 12x260 SIST EN 15048	260	0.0	0.0
4	PLATE 190x120x12	120	2.1	8.6
10	RRK 120x80x6.3	4300	76.3	762.5
4	RRK 120x80x6.3	4288	76.0	304.2
448	Scheibe A 25 DIN125	0	0.0	0.0
128	Mu 24 DIN 934	0	0.0	0.0
2	PLATE 200x190x12	200	3.6	7.2

kom	NAME	LENGTH	WEIGHT	TOTAL W.
8	M 16x45 SIST EN 15048	45	0.0	0.0
2	PLATE 161x60x5	161	0.3	0.7
18	PLATE 168x132x8	132	1.4	25.1
9	PLATE 168x123x8	168	1.3	11.7
14	PLATE 645x468x10	468	18.8	263.2
8	PLATE 219x168x8	168	2.3	18.5
18	PLATE 240x210x25	240	9.9	178.0
72	M 20x85 SIST EN 14399	85	0.0	0.0
2	IPE 180	300	5.6	11.3
2	IPE 180	126	2.4	4.7
5	IPE 180	4300	80.8	404.2
6	IPE 180	3960	74.4	446.7
2	IPE 180	4126	77.6	155.1
1	IPE 180	3952	74.3	74.3
7	HE 200 A	1455	61.5	430.8
8	RRK 300x200x8	4190	249.3	1994.3
2	PLATE 643x468x10	468	18.8	37.5
1	HE 200 A	1443	61.0	61.0
1	PLATE 217x168x8	168	2.3	2.3
1	U 180	9308	204.8	204.8
1	U 180	32300	710.6	710.6
1	U 180	22992	505.8	505.8
2	PLATE 645x460x10	460	18.4	36.8
	Weight of 1185 Parts 20 % Addition 9598 kg			

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, Y.... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi nezaznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi nezaznačeni zvari pri objestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:
-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO
-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

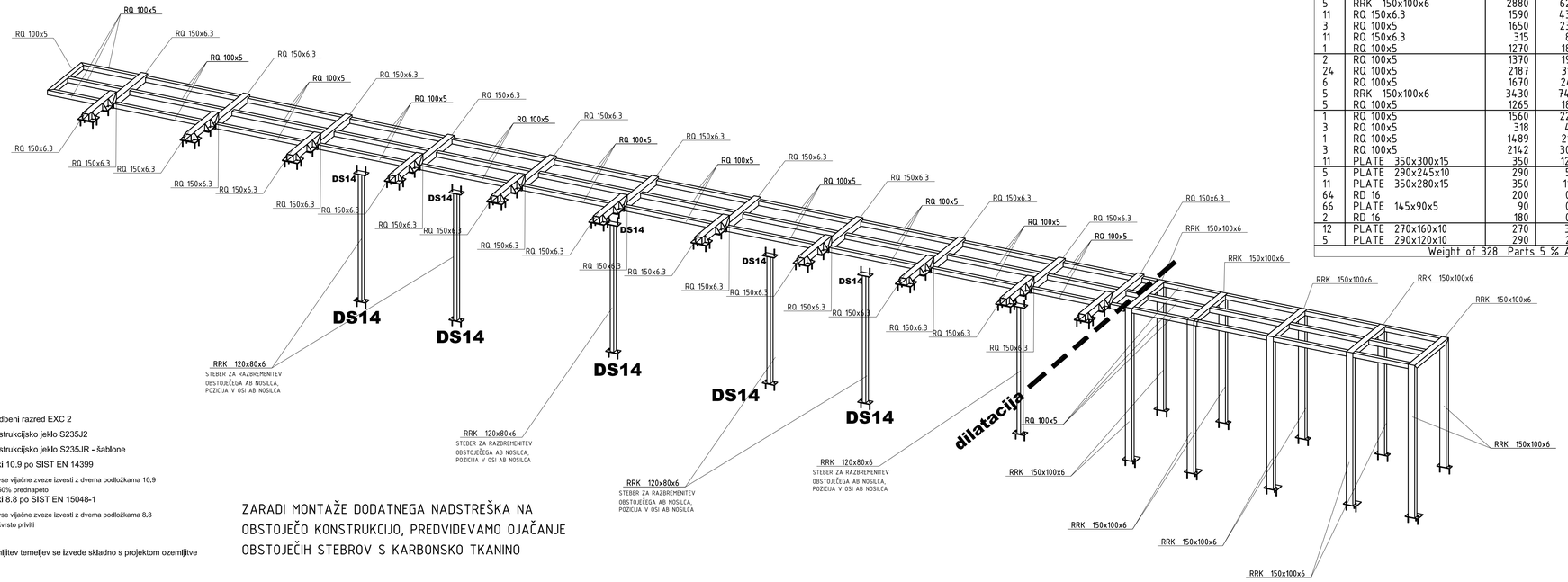
Objekt: Železniška postaja Domžale		**Id. št.:**	**Ime:**
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	**Odg. vodja projekta:**	PI G-2912	Gregor Rakar, univ.dipl.inž.gradb.
	Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 315 NAČRT GRADBENE KONSTRUKCIJE	**Izdelal:**		Rok SEVŠEK inž. grad.
Risba: 3D SHEMA - NADSTREŠEK 4			

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:50	julij 2021	3719	3719 2/2	3719 2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.455		4

NADSTREŠEK 5

3D SHEMA



kom	NAME	LENGTH	WEIGHT	TOTAL W.
2	HILTI HVU HAS M16	170	0.3	0.5
47	HILTI HVU HAS M16	190	0.3	14.1
11	RQ 150x6.3	1262	34.5	379.9
6	RRK 120x80x6	2850	48.4	290.4
5	RRK 150x100x6	1560	33.8	169.2
5	RRK 150x100x6	2880	62.5	312.4
11	RQ 150x6.3	1590	43.5	478.5
3	RQ 100x5	1650	23.8	71.3
11	RQ 150x6.3	315	8.6	94.8
1	RQ 100x5	1270	18.3	18.3
2	RQ 100x5	1370	19.7	39.5
24	RQ 100x5	2187	31.5	756.4
6	RQ 100x5	1670	24.1	144.4
5	RRK 150x100x6	3430	74.4	372.0
5	RQ 100x5	1265	18.2	91.1
1	RQ 100x5	1560	22.5	22.5
3	RQ 100x5	318	4.6	13.8
1	RQ 100x5	1489	21.5	21.5
3	RQ 100x5	2142	30.9	92.6
11	PLATE 350x300x15	350	12.4	136.0
5	PLATE 290x245x10	290	5.6	27.9
11	PLATE 350x280x15	350	11.5	126.9
64	RD 16	200	0.3	20.2
66	PLATE 145x90x5	90	0.5	33.8
2	RD 16	180	0.3	0.6
12	PLATE 270x160x10	270	3.4	40.7
5	PLATE 290x120x10	290	2.7	13.7

Weight of 328 Parts 5 % Addition 3972 kg

- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10,9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

ZARADI MONTAŽE DODATNEGA NADSTREŠKA NA OBSTOJEČO KONSTRUKCIJO, PREDVIDEVAMO OJAČANJE OBSTOJEČIH STEBROV S KARBONSKO TKANINO

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, Y.... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor:
Republika Slovenija
Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:
sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:
h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

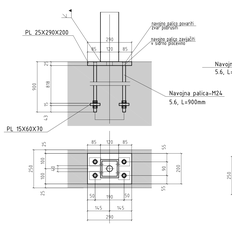
Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale		Id. št.:	Ime:
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	Odg. vodja projekta:	PI G-2912	Gregor Rakar, univ.dipl.inž.gradb.
	Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 315 NAČRT GRADBENE KONSTRUKCIJE	Izdelal:	Rok SEVŠEK	inž. grad.
Risba: 3D SHEMA - NADSTREŠEK 5			

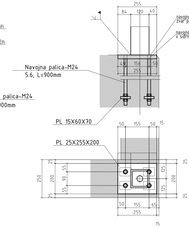
Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:50	julij 2021	3719	3719_2/2	

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.455		5

DETAJL SIDRANJA DS4
M 1:10

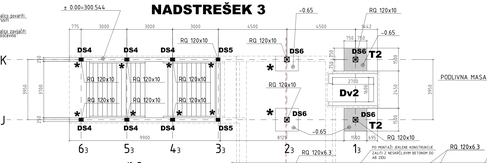


DETAJL SIDRANJA DS5
M 1:10

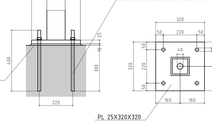


TLORIS SIDRANJA
M 1:100

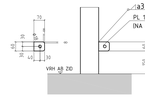
NADSTREŠEK 3



DETAJL SIDRANJA DS6
M 1:10

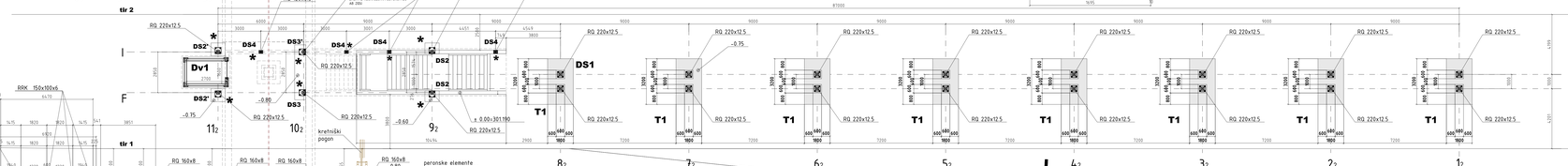


DETAJL PRIKLJUČKA
OZEMLJITVE M 1:10

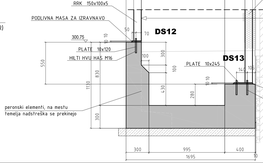


TLORIS SIDRANJA
M 1:100

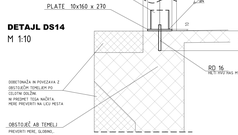
NADSTREŠEK 2



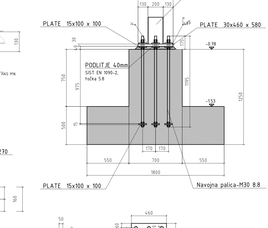
DETAJL DS12 IN DS13
M 1:20



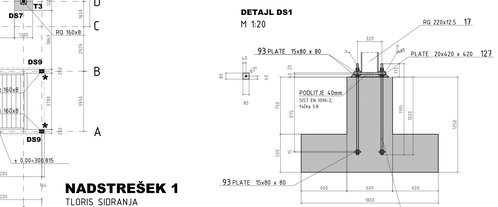
DETAJL DS14
M 1:10



DETAJL DS11
M 1:20

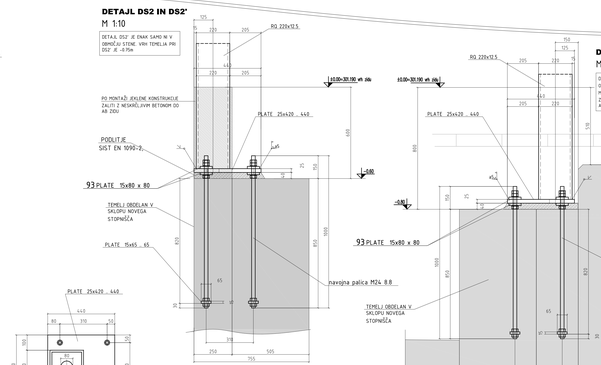


DETAJL DS1
M 1:20



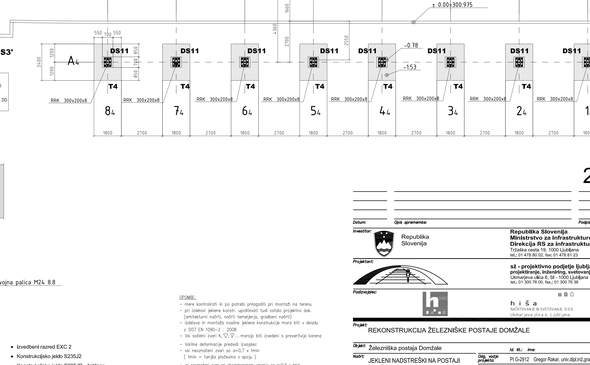
DETAJL DS2 IN DS2'
M 1:10

DETAJL DS2' JE ENAK SAMO NI V OBMOČJU STENE. VIH TEMELJA PRI DS2' JE -0.75m.

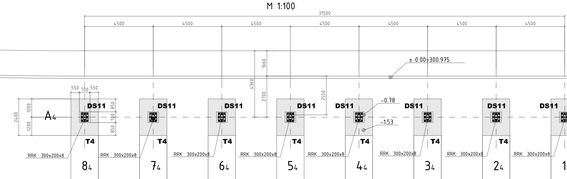


DETAJL DS3 IN DS3'
M 1:10

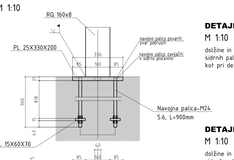
DETAIL DS3' JE ENAK SAMO V OBMOČJU PARAPETNEGA ZIDU. PO MONTAŽI JEKLENE KONSTRUKCIJE ZALITI Z NESKRČLJIVIM BETONOM DO AB ZIDU



NADSTREŠEK 4
TLORIS SIDRANJA
M 1:100

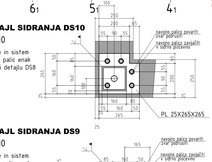


DETAJL DS8
M 1:10



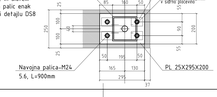
DETAJL SIDRANJA DS10
M 1:10

dolžine in sistem sidrnih palic enak kot pri detajlu DS8



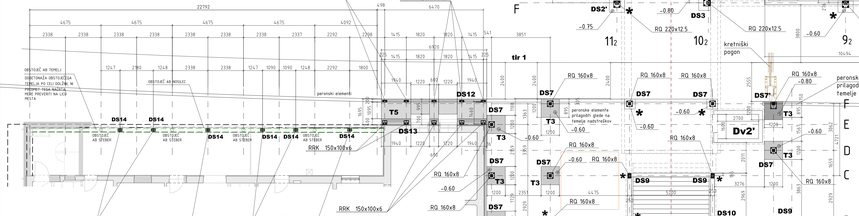
DETAJL SIDRANJA DS9
M 1:10

dolžine in sistem sidrnih palic enak kot pri detajlu DS8



NADSTREŠEK 5
TLORIS SIDRANJA
M 1:100

ZARADI MONTAŽE DODATNEGA NADSTREŠKA NA OBSTOJEČO KONSTRUKCIJO, PREDVIDEVAMO DJAČAVE OBSTOJEČIH AB STEBROV OLOČNI, S KARBONSKO TKANINO. SIKA WRAP-230C, W JE JE POTREBNO ZAŠČITITI PRED DIREKTNO SONČNO SVETLOBO, POHVATA PO NAVODILIH PROIZVAJALCA



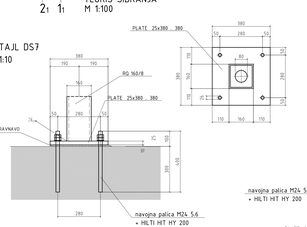
- za pozicijo lukenj za električne inštalacije in pozicijo pločevin za ozemljitev nadstreška glej načrt električnih inštalacij
- ploščica za ozemljitev privarjena na jekleno konstrukcijo nadstreška na višini cca 40cm od gotovih tal.

★ TEMELJI NI PREDMET TEGA NAČRTA (OBDELANI V SKLOPU STOPNIŠČ, PODHODA,..)

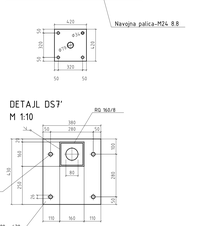
Sanacija temeljnih tal

Pri vseh novih temeljih je potrebno lokalno sanirati temeljna tla pod temelji s sanacije s kamnito blazino od dna temelja do raščenih tal, povprečno ca. 0.40 m. Modul stisljivosti Me = 60 MPa.

DETAJL DS7
M 1:10



DETAJL DS7'
M 1:10



- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JRH - šablona
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvedi z dvema podlagama 10.9
  - 50% predmontiranje
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvedi z dvema podlagama 8.8
  - brez predmontiranje

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ustrezno projektno dok. (prilagajanje naklonu, načrti temeljenja, gradbeni načrti)
- izdelava in montažo nosilne jeklene konstrukcije mora SIQ v skladu z SIST EN 1090-2 + 2008
- za sidrni zvari K_1, K_2, $\sqrt{2}$,... morajo biti izvedeni s previsnimi/iz kvenci
- točna deformacija pravzaš izvajalec
- vsi neposredni zvari so a=5,7 x tmin
  (tmin = tanjša pločevina v spoju)
- vsi neposredni zvari pri obojestranskem varjenju so a=5,5 x tmin
- vsi zvari so kontinuirani razen v spoju 1
- vse zvare pobrusiti

DPOMBE:
-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis sprememb:	Podpis:
Investitor:	Republika Slovenija	Republika Slovenija Ministrstvo za infrastrukturo Direkcija RS za infrastrukturo Tržaška cesta 19, 1000 Ljubljana tel.: 01 478 80 00, fax: 01 478 81 23
Projektant:		s.z. - projektivno podjetje Ljubljana, d.d. Dunajska cesta 160, 1000 Ljubljana Oddelek za cesto, tel.: 01 300 79 00, fax.: 01 300 79 36
Podizvajalci:		h i š a NAČRTOVANJE IN SVETOVANJE, d.o.o. Kamnogoriška cesta 1, 4000 Kranj

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt:	Železniška postaja Domžale
Vsebina:	JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE
Vrsta načrta:	NAČRT GRADBENE KONSTRUKCIJE
Faza:	DISPOZICIJA TLORISI sidranja

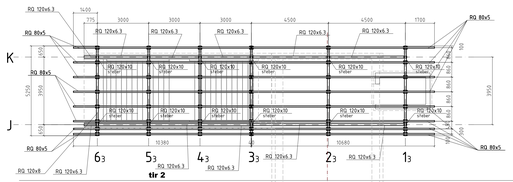
Št. proge	Oznaka projekta	Merilo	Datum:	Projekt št.:	Načrt št.:	Št. lič.
21	6274	1:100	feb 2021	3719	3719_2/2	

Št. odseka	Arhivska številka	Faza/objekt	Zap. štev.	Številka risbe	Format in čitrna kvota	Risbo št.:
ZR2100	0032.00.	007.1276	G.402			6

Odg. vodja projekta:	Gregor Rakar, univ.dipl.inž.građ.
Odg. projektant:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Sodelavci:	Rok SEVŠEK inž. grad.

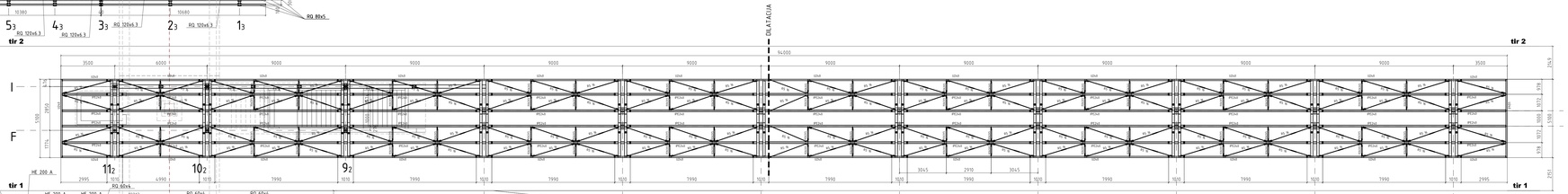
NADSTREŠEK 3

TLORIS
M 1:100



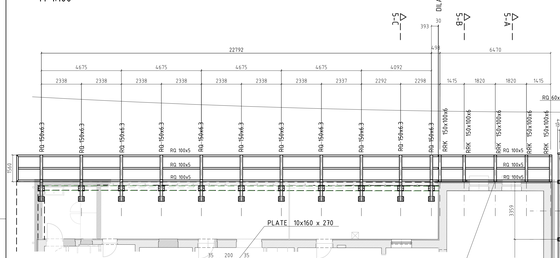
NADSTREŠEK 2

TLORIS
M 1:100



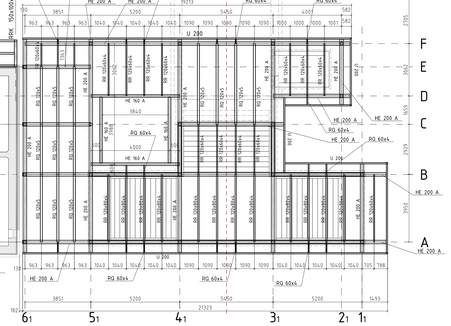
NADSTREŠEK 5

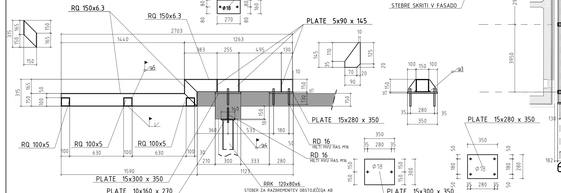
TLORIS
M 1:100



NADSTREŠEK 1

TLORIS
M 1:100





- Izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% predmontaža
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto pritrdi

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere konstrukcij in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostala projektna dok. (strokovnimi nadzirki načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K,½"/2"... morajo biti izvedeni s prevarilnih korena
- Varilne deformacije predvidi izvajalec
- vsi nespecifični zvari so a=0,7 x tmin
  (tmin = tanjša plošovina v spoju)
- vi nespecifični zvari pri dvojnem/enem varjenju so a=0,5 x tmin
  (tmin = tanjša plošovina v spoju)
- vse zvare pobrusiti

OPOMBE:
-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO
-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum: Opis spremembe: Podpis:

Investitor: Republika Slovenija
Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:
s2 - projektivno podjetje ljubljana, d.d.
podružnica nova gorica
Delpinova 2a, p.p. 516, 5001 Nova Gorica
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:
h i š a
TRETMAN IN SVETOVANJE, D.O.O.
Tržaška cesta 2112 A, 1 225 Lesce

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

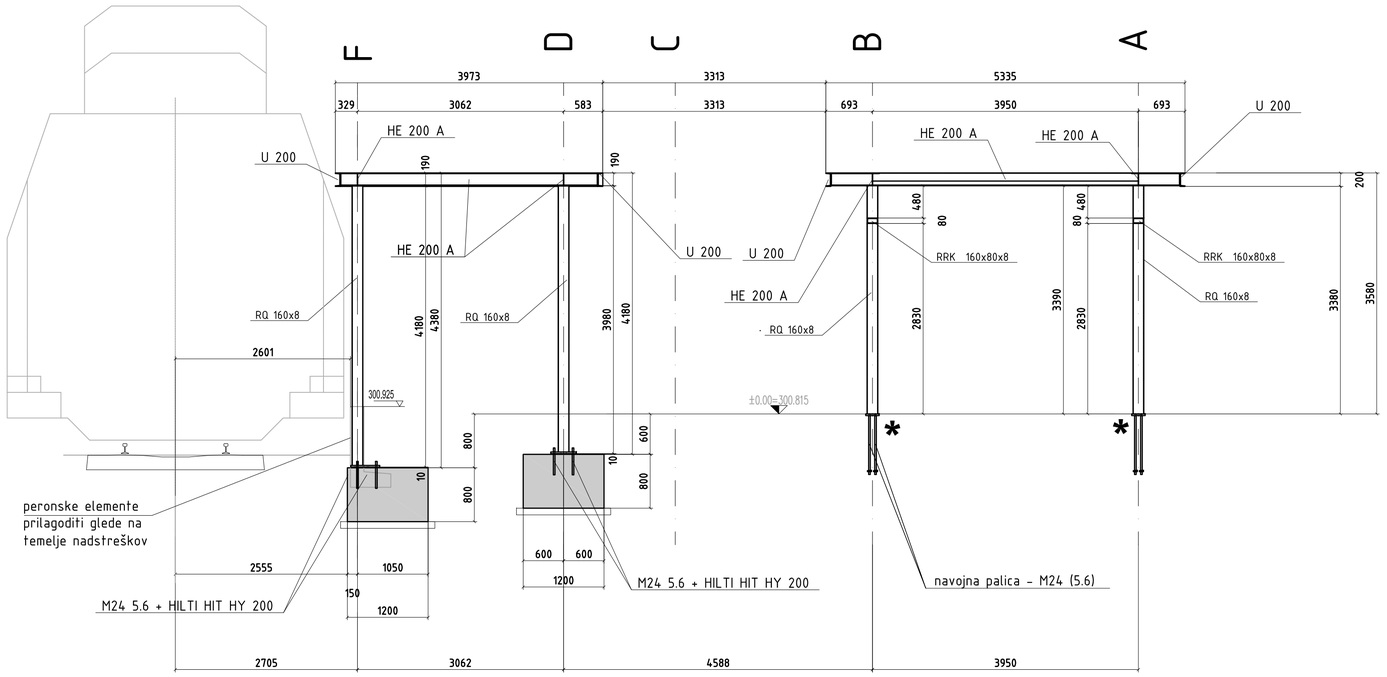
Objekt: Železniška postaja Domžale		Št. št.:	Ime:
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE		Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.grad.
		Odg. projektant načrta:	G-0296 dr. Leon HLADNIK, univ. dipl. inž. grad.
Vrsta načrta: PZI NAČRT GRADBENE KONSTRUKCIJE		Izdelal:	Rok SEVŠEK inž. grad.
Risba: DISPOZICIJA, TLORISI			

Št. proge	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:100	julij 2021	3719	3719 2/2	3719 2/2

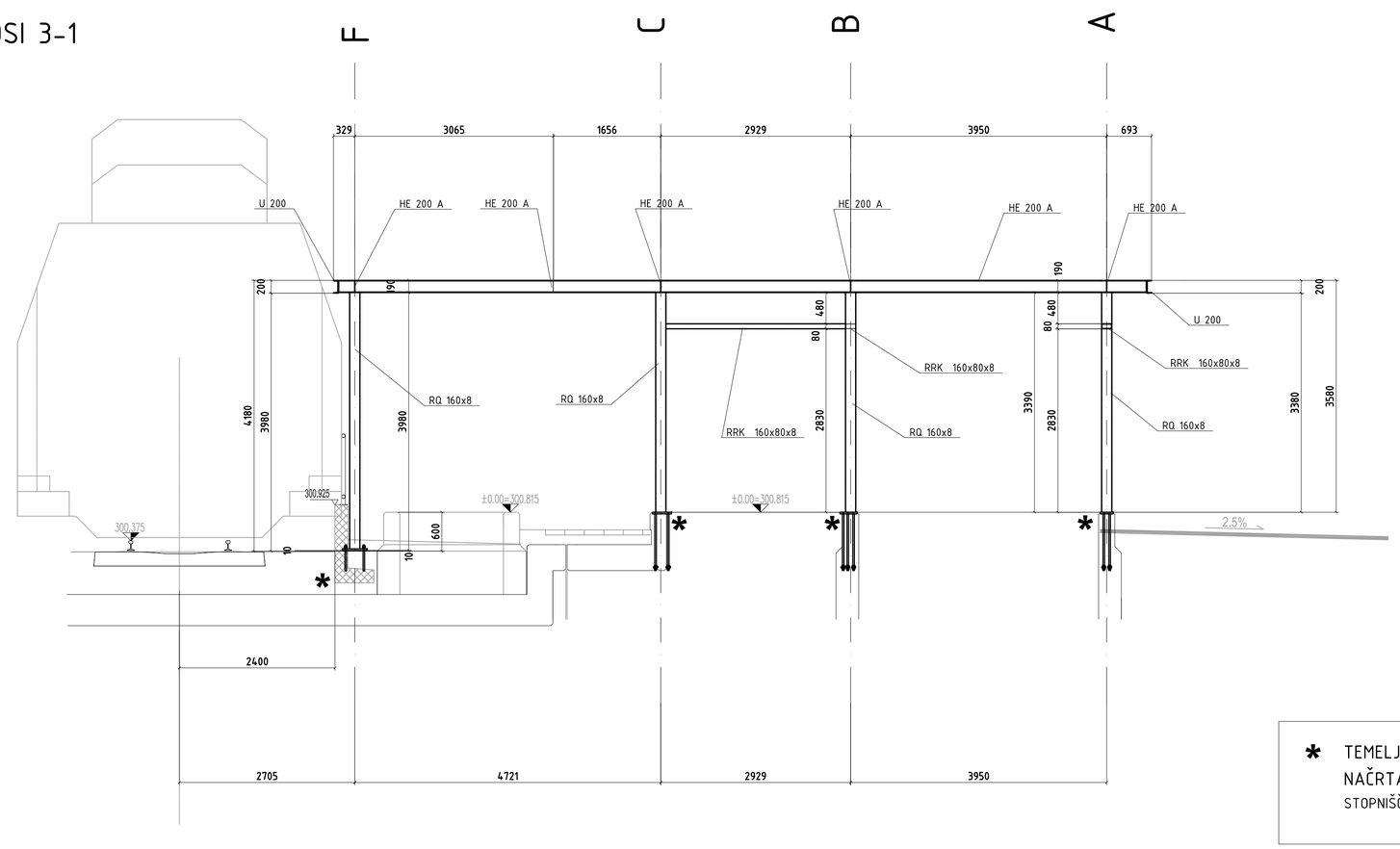
Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za drugo vsebino:	Risba št.:
ZR2100	0032.00.	007.1276	G.402		7

NADSTREŠEK 1

PREREZ V OSI 1-1



PREREZ V OSI 3-1



* TEMELJI NI PREDMET TEGA NAČRTA (OBDELANI V SKLOPU STOPNIŠČ, PODHODA,...)

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, ▽̄ .... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

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2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

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projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

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NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale — Id. št.: Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.

Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

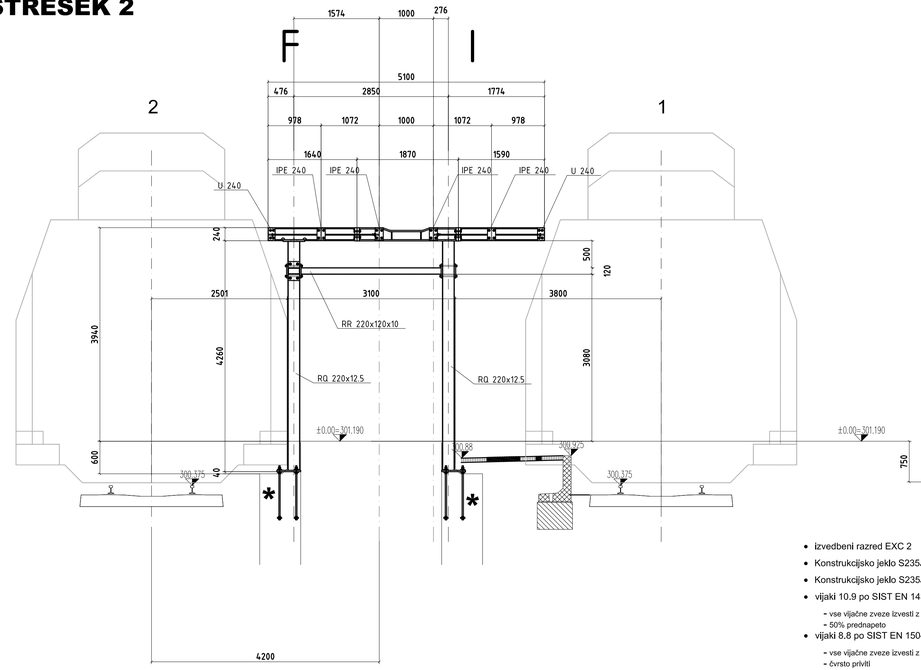
Izdelal: Rok SEVŠEK inž. grad.

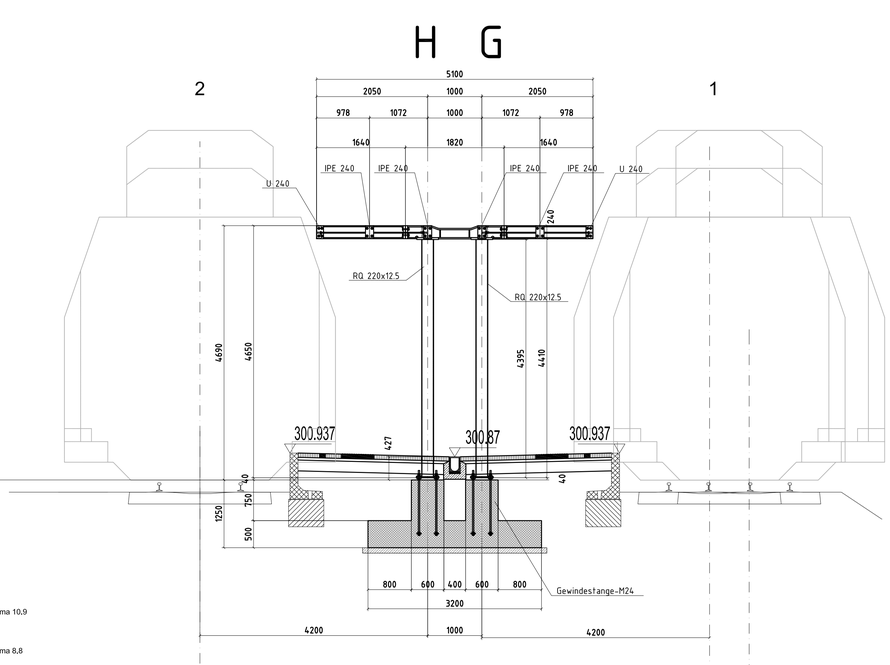
Risba: PREČNI PREREZI - NADSTREŠEK 1

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:50	julij 2021	3719	3719_2/2	3719_2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.432		8

NADSTREŠEK 2





- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10,9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8,8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
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- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
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- vse zvare pobrusiti

OPOMBE:

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2/2

Datum:	Opis spremembe:	Podpis:

Investitor:
Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
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Projektant:

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Podizvajalec:

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NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Risba: PREČNI PREREZI - NADSTREŠEK 2

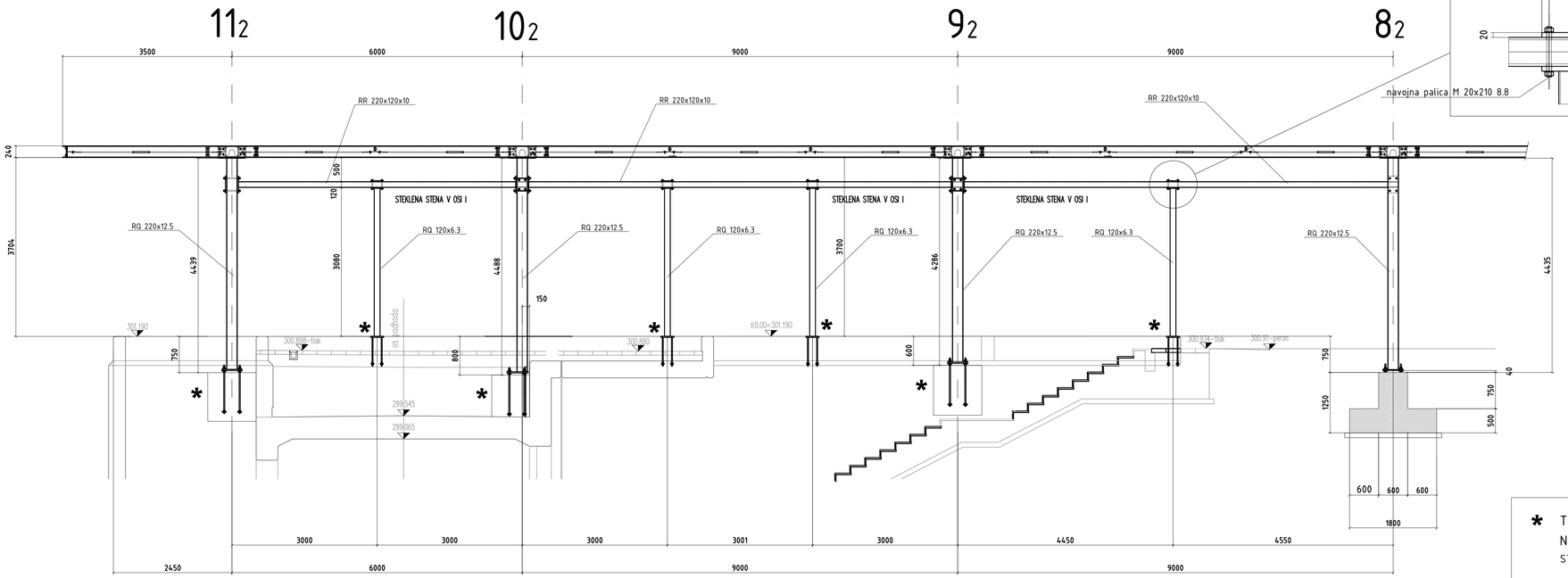
Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:	Rok SEVŠEK inž. grad.

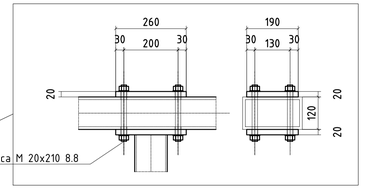
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21	IZN	1:50	julij 2021	3719	3719 2/2	3719 2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.432		9

NADSTREŠEK 2

VZDOLŽNI PREREZ





* TEMELJI NI PREDMET TEGA NAČRTA (OBDELANI V SKLOPU STOPNIŠČ, PODHODA,...)

OPOMBE:

- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
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OPOMBE:

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Podizvajalec:

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Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale — **Id. št.:** **Ime:**

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE
Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal: Rok SEVŠEK inž. grad.

Vrsta načrta: 3115 NAČRT GRADBENE KONSTRUKCIJE

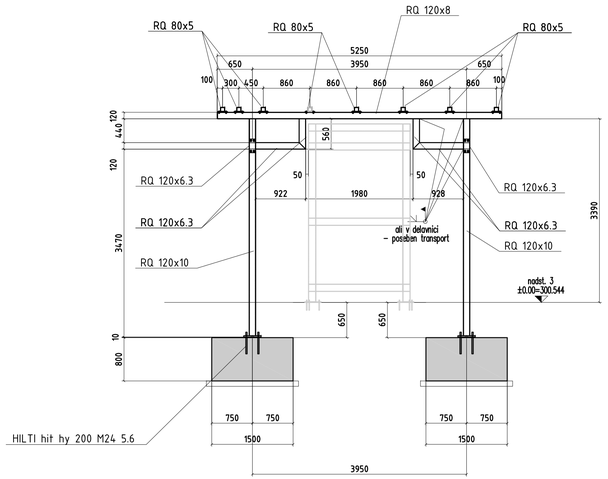
Risba: VZDOLŽNI PREREZI - NADSTREŠEK 2

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
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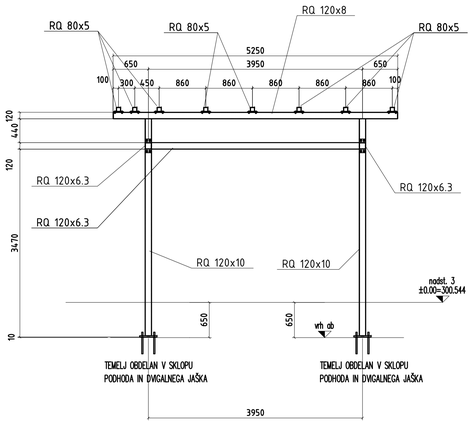
Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.442		10

NADSTREŠEK 3

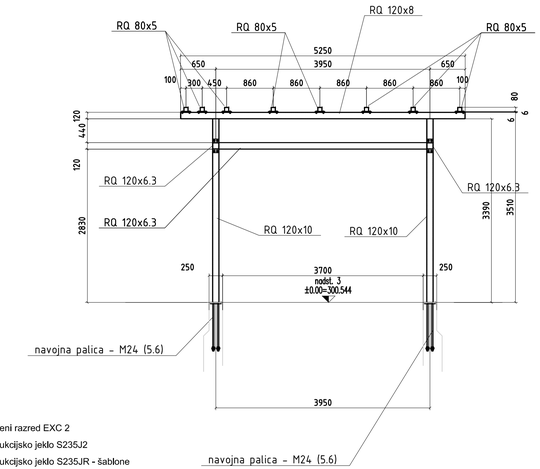
PREČNI PREREZ V OSI 1-3



PREČNI PREREZ V OSI 2-3



PREČNI PREREZ V OSI 4-3



- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
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OPOMBE:
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2/2

Datum:	Opis spremembe:	Podpis:

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Podizvajalec:

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NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale		**Id. št.:**	**Ime:**
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	**Odg. vodja projekta:**	PI G-2912	Gregor Rakar, univ.dipl.inž.gradb.
	Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE	**Izdelal:**	Rok SEVŠEK	inž. grad.

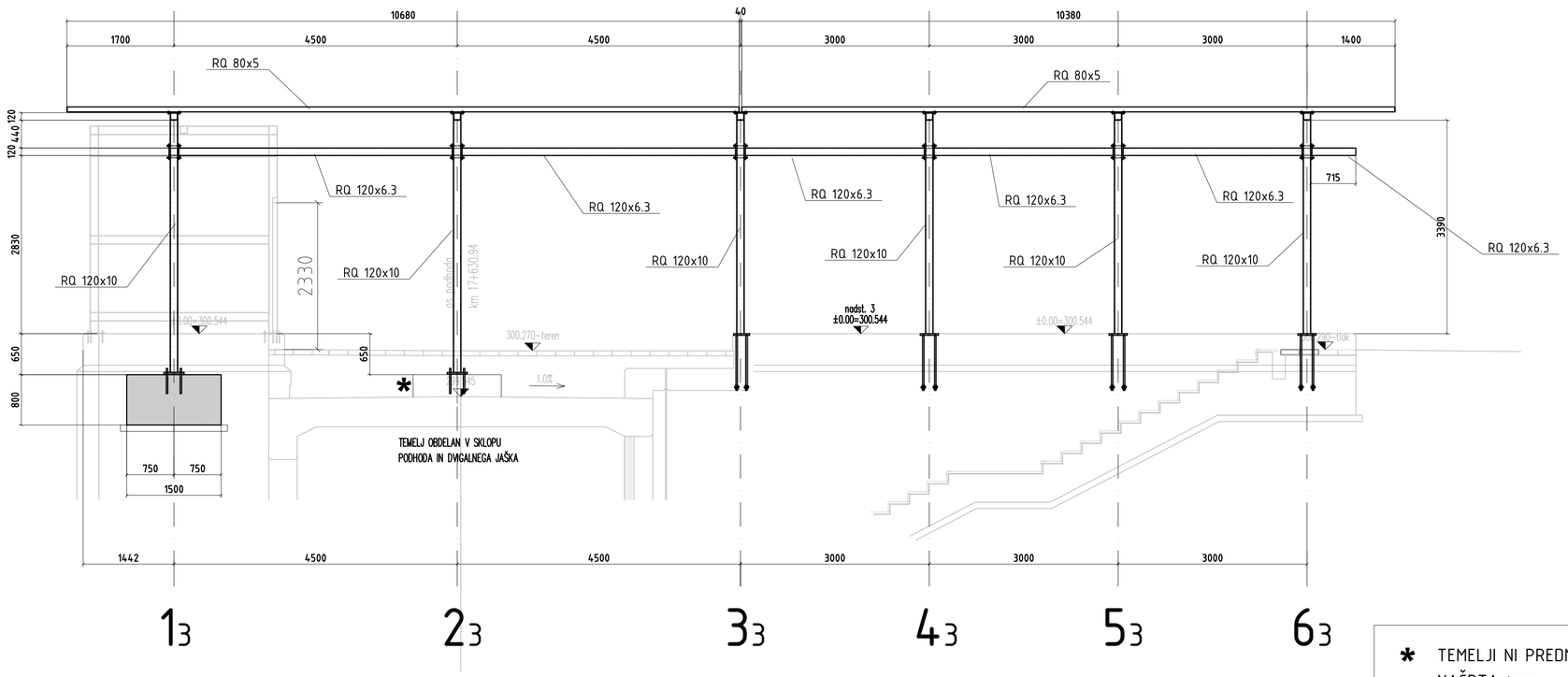
Risba: PREČNI PREREZI - NADSTREŠEK 3

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:50	julij 2021	3719	3719 2/2	

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.432		11

NADSTREŠEK 3

VZDOLŽNI PREREZ



* TEMELJI NI PREDMET TEGA NAČRTA (OBDELANI V SKLOPU STOPNIŠČ, PODHODA,...)

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Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Risba: VZDOLŽNI PREREZI - NADSTREŠEK 3

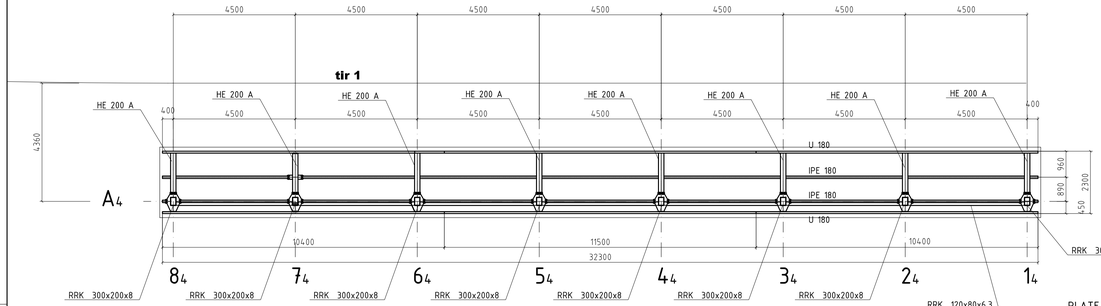
Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
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Izdelal:	Rok SEVŠEK inž. grad.

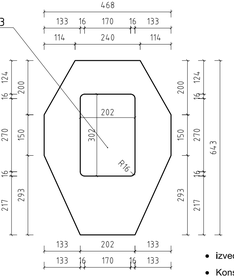
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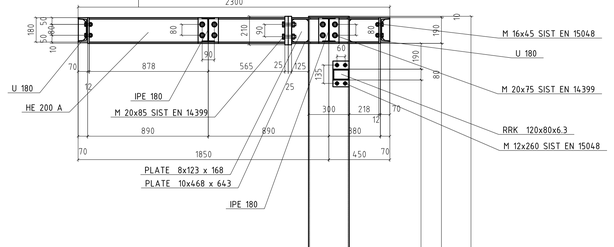
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ZR2100	0032.00.	007.1276	G.442		12

NADSTREŠEK 4

TLORIS
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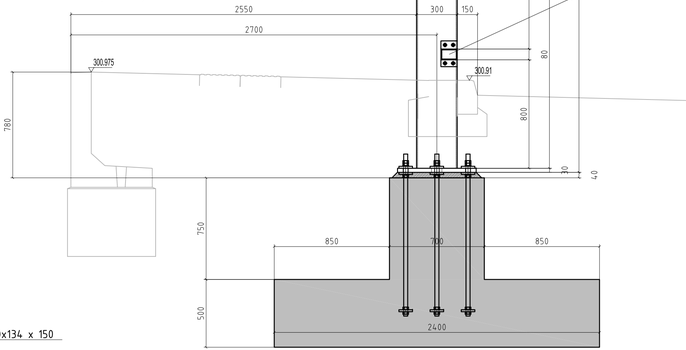


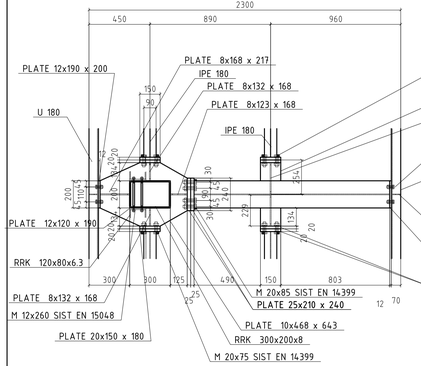


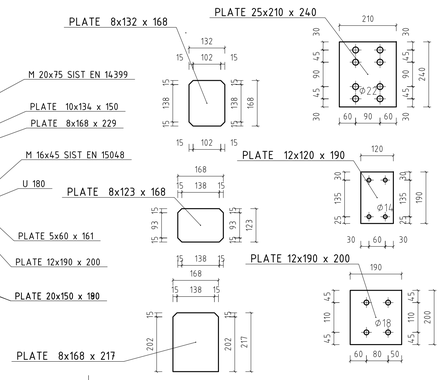


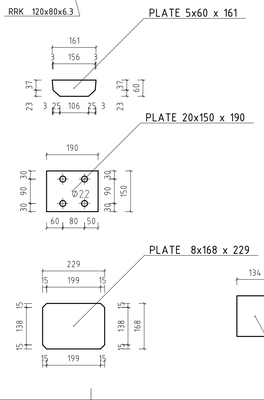
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Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

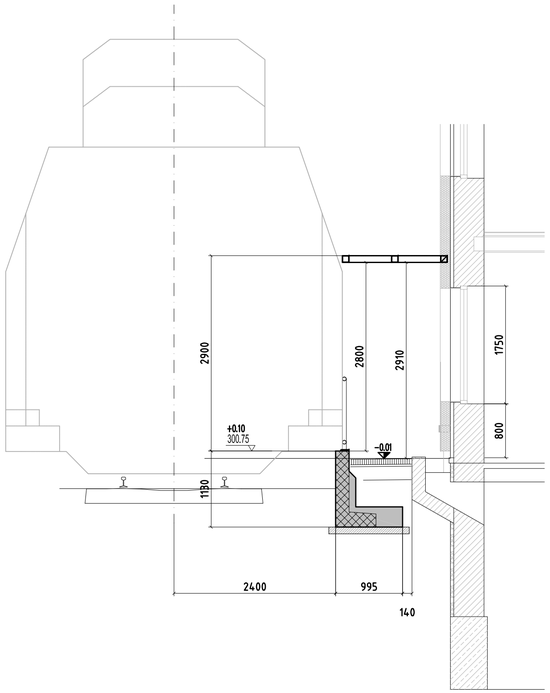
Objekt: Železniška postaja Domžale		**Id. št.:**	**Ime:**
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	**Odg. vodja projekta:**	PI G-2912	Gregor Rakar, univ.dipl.inž.gradb.
	Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE	**Izdelal:**		Rok SEVŠEK inž. grad.
Risba: DISPOZICIJA, DETAJLI - NADSTREŠEK 4			

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:100, 20, 10	julij 2021	3719	3719 2/2	3719 2/2

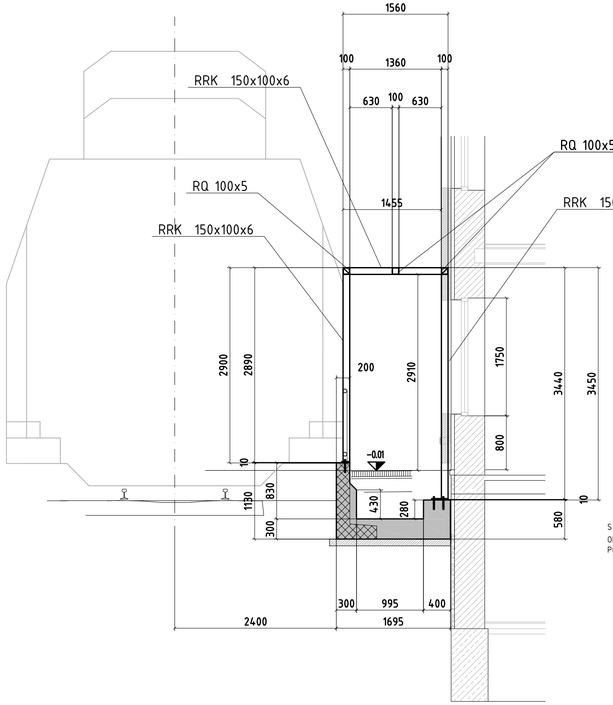
Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.402		13

NADSTREŠEK 5

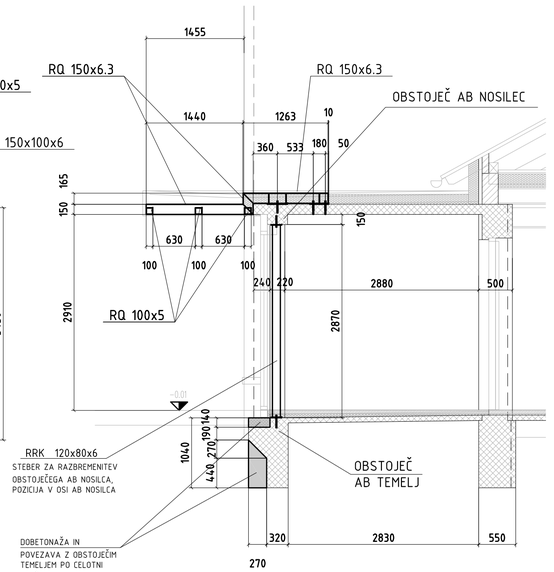
PREČNI PREREZ 5-A



PREČNI PREREZ 5-B



PREČNI PREREZ 5-C



- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, ▽̄ .... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax.: 01 478 81 23

Projektant:

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Podizvajalec:

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NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Risba: PREČNI PREREZI - NADSTREŠEK 5

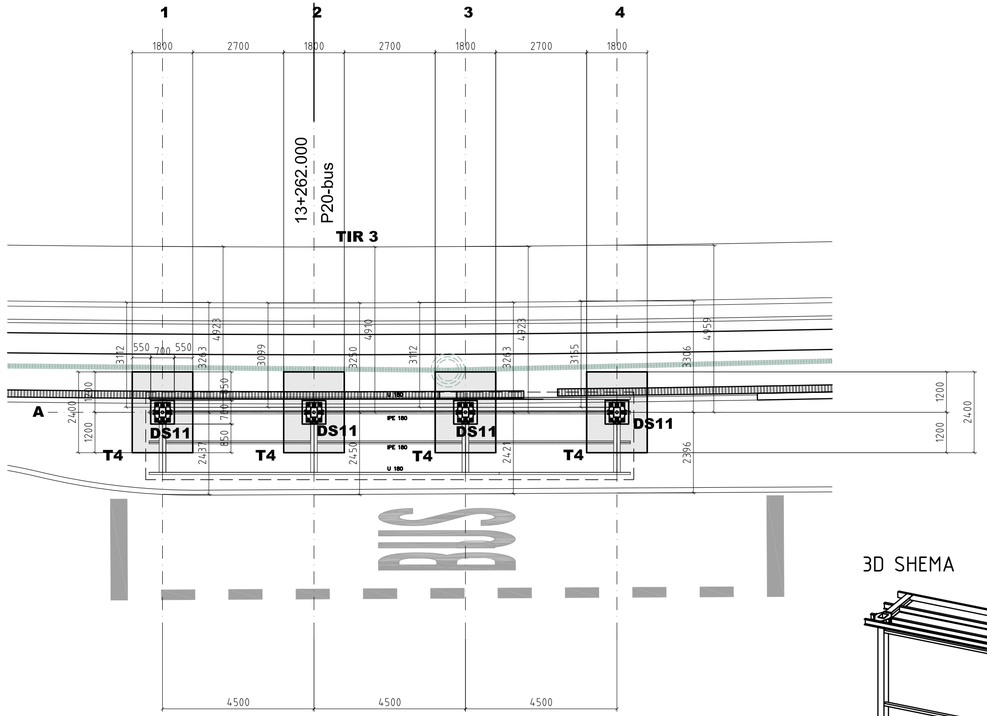
Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:	Rok SEVŠEK inž. grad.

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št.:	Načrt št.:	Int. št.:
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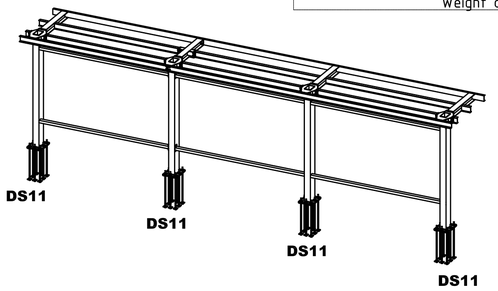
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ZR2100	0032.00.	007.1276	G.432		14

BUS - NADSTREŠEK 6

situacija
M 1:100



3D SHEMA



kom	NAME	LENGTH	WEIGHT	TOTAL W.
32	Gewindestange-M30	1195	6.6	212.2
96	PLATE 100x100x15	100	1.2	113.0
4	PLATE 580x460x30	580	62.8	251.3
2	IPE 180	300	5.6	11.3
2	IPE 180	126	2.4	4.7
3	HE 200 A	1455	61.5	184.6
4	RRK 300x200x8	3280	195.1	780.6
4	PLATE 219x168x8	168	2.3	9.2
5	PLATE 168x123x8	168	1.3	6.5
224	Scheibe A 25 DIN125	0	0.0	0.0
64	Mu 24 DIN 934	0	0.0	0.0
2	PLATE 645x460x10	460	18.4	36.8
40	M 20x85 SIST EN 14399	85	0.0	0.0
10	PLATE 240x210x25	240	9.9	98.9
1	IPE 180	4300	80.8	80.8
1	U 180	4992	109.8	109.8
1	U 180	14300	314.6	314.6
2	IPE 180	4126	77.6	155.1
2	IPE 180	3960	74.4	148.9
1	U 180	9308	204.8	204.8
12	PLATE 180x150x20	180	4.2	50.9
12	PLATE 190x150x20	190	4.5	53.7
48	M 20x75 SIST EN 14399	75	0.0	0.0
10	PLATE 168x132x8	132	1.4	13.9
4	RRK 120x80x6.3	4288	76.0	304.2
2	PLATE 643x468x10	468	18.8	37.5
1	PLATE 217x168x8	168	2.3	2.3
1	HE 200 A	1443	61.0	61.0
1	IPE 180	3952	74.3	74.3
6	PLATE 645x468x10	468	18.8	112.8
2	RRK 120x80x6.3	4300	76.3	152.5
4	PLATE 190x120x12	120	2.1	8.6
8	M 12x260 SIST EN 15048	260	0.0	0.0
2	PLATE 200x190x12	200	3.6	7.2
8	M 16x45 SIST EN 15048	45	0.0	0.0
2	PLATE 161x60x5	161	0.3	0.7
2	PLATE 229x168x8	229	2.4	4.8
4	PLATE 150x134x10	134	1.6	6.3
	Weight of 629 Parts 20 % Addition 4337 kg			

OPOMBE:
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- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ∇, $\bar{\nabla}$.... morajo biti izvedeni s prevaritvijo korena
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Podizvajalec:

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Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

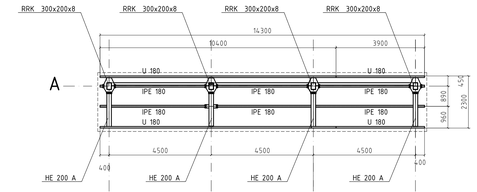
Risba: SITUACIJA - BUS NADSTREŠEK 6

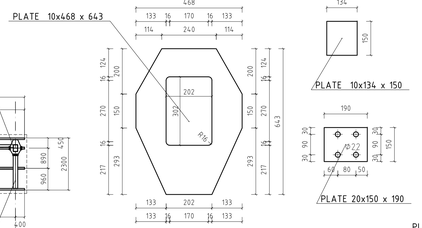
Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:	Rok SEVŠEK inž. grad.

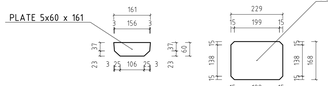
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21	IZN	1:100	julij 2021	3719	3719 2/2	3719_2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za črtno kodo:**		**Risba št.:**
ZR2100	0032.00.	007.1276	G.402			15

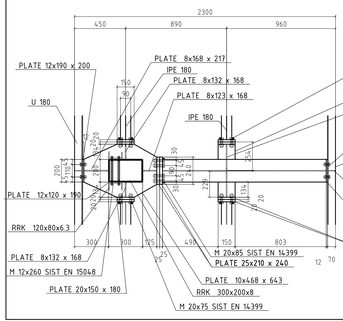
BUS - NADSTREŠEK 6

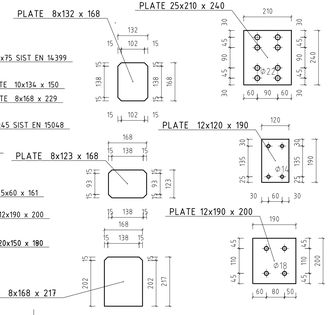
TLORIS
M 1:100





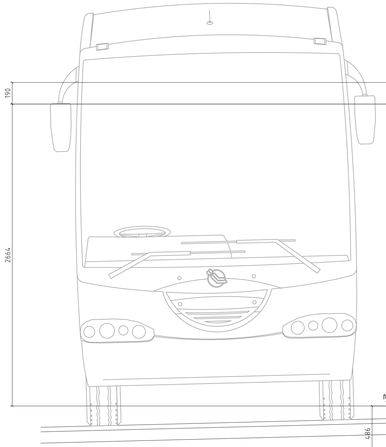




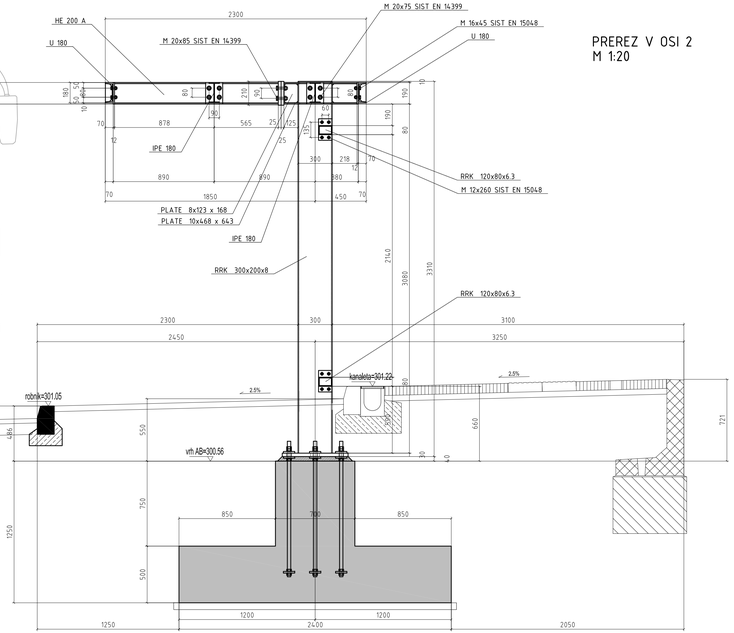


- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10,9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8,8
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- Ozemljitev temeljev se izvede skladno s projektom ozemljitve



PREREZ V OSI 2
M 1:20



OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
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OPOMBE:

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2/2

Datum:	Opis spremembe:	Podpis:

Investitor:
Republika Slovenija
Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
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tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:
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projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

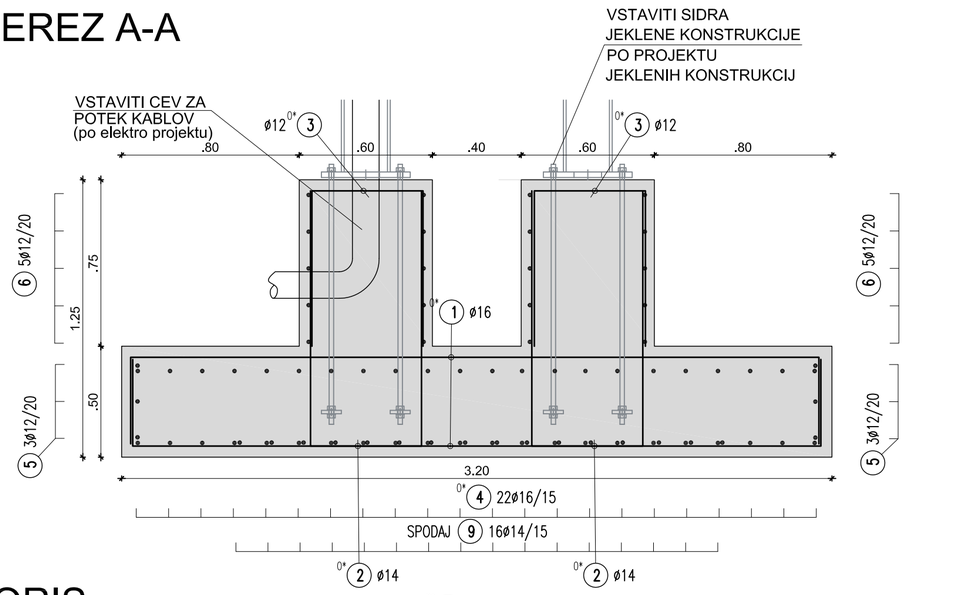
Podizvajalec:
h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

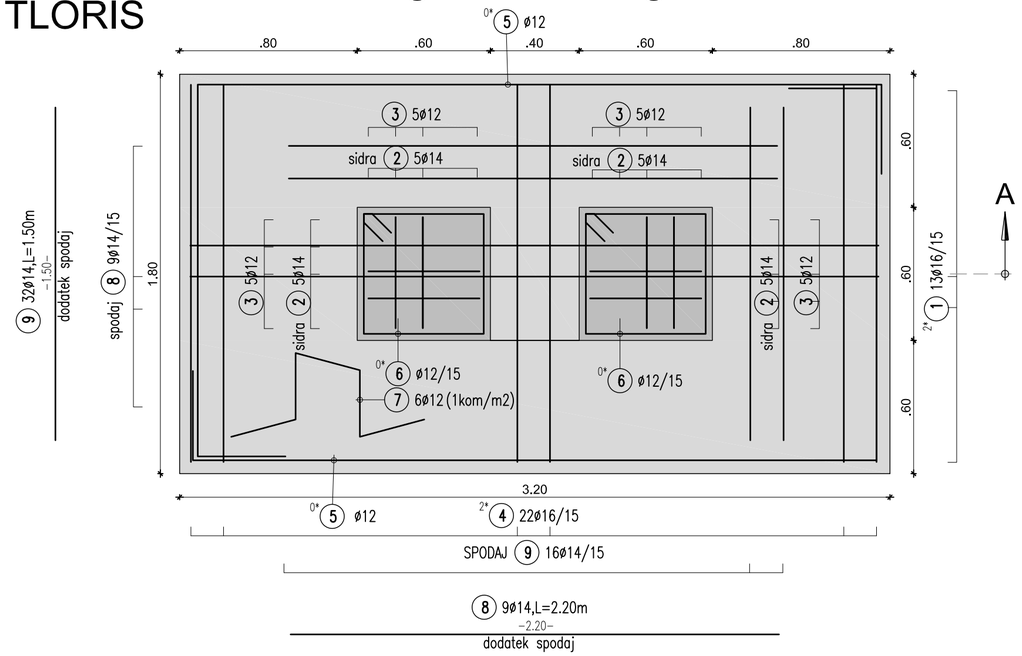
Objekt:	Železniška postaja Domžale	Id. št.:	Ime:
Načrt:	JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.grads.
		Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta:	3/15 NAČRT GRADBENE KONSTRUKCIJE	Izdelal:	Rok SEVŠEK inž. grad.
Risba:	DISPOZICIJA, DETAJLI - BUS NADSTREŠEK 6		

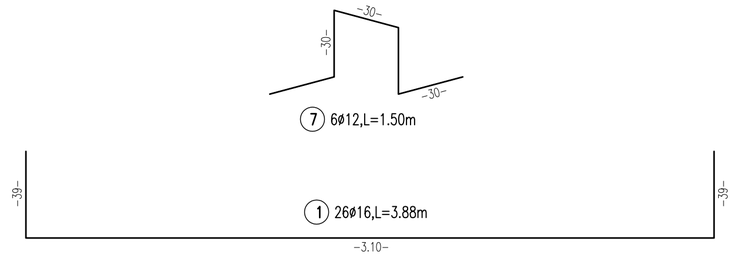
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Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:		Risba št.:
ZR2100	0032.00.	007.1276	G.402			16

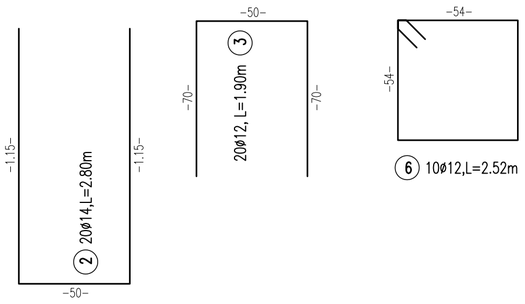
PREREZ A-A

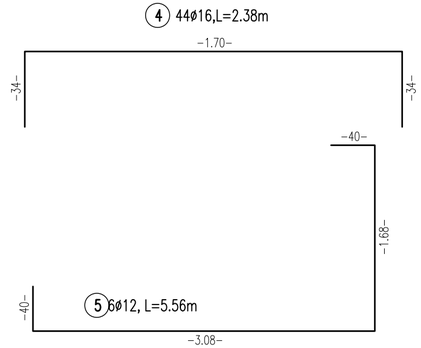


TLORIS









BAR SCHEDULE Steelgrade: 500S						
Pos.	No.	d	Length	D12	D14	D16
1	26	16	3.88			100.88
2	20	14	2.80		56.00	
3	20	12	1.90	38.00		
4	44	16	2.38			104.72
5	6	12	5.56	33.36		
6	10	12	2.52	25.20		
7	6	12	1.50	9.00		
8	9	14	2.20		19.80	
9	32	14	1.50		48.00	
Total lengths				105.56	123.80	205.60
kg / m				D12 0.888	D14 1.210	D16 1.580
kg / d				93.737	149.798	324.848
Total weight (kg)				568.383		

Pos.	Comment:
8	dodatek spodaj
9	dodatek spodaj

V TEMELJ SE POLOŽI PVC CEV ZA POLAGANJE
NAPAJALNEGA KABLA

VODONEPREPUSNI BETON: C30/37, PV-II, XC4, XF3, za ščitni sloj=5cm
PODLOŽNI BETON: C12/15
JEKLO ZA ARMIRANJE: S500B

temelj T1

2/2

Datum: | Opis spremembe: | Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
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tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

hiša
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Id. št.: Ime:

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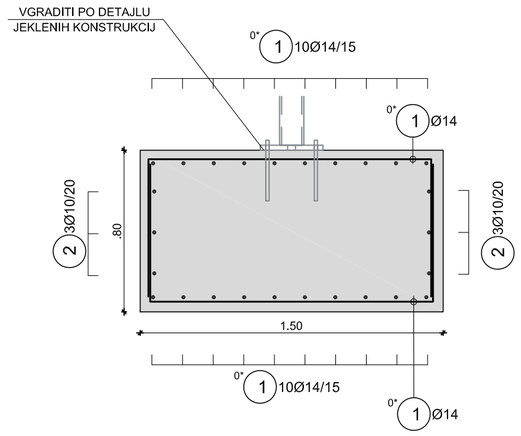
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Izdelal: Rok SEVŠEK inž. grad.

Risba: Opažno armaturni načrt: TEMELJ T1

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št.:	Načrt št.:	Int. št.:
21	IZN	1:20	julij 2021	3719	3719_2/2	3719_2/2
Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:		Risba št.:
ZR2100	0032.00.	007.1276	G.471			A1

TOČKOVNI TEMELJ
PREREZ A-A



B A R S C H E D U L E Steelgrade: S500B

Pos.	No.	d	Length	D14
1	40	14	2.76	110.40

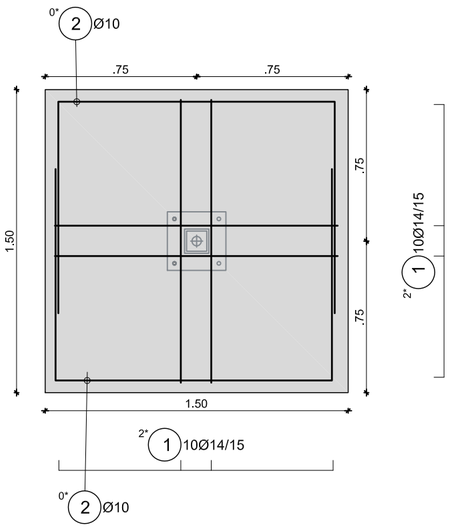
Total lengths	110.40
kg / m	D14 1.210
kg / d	133.584
Total weight (kg)	133.584

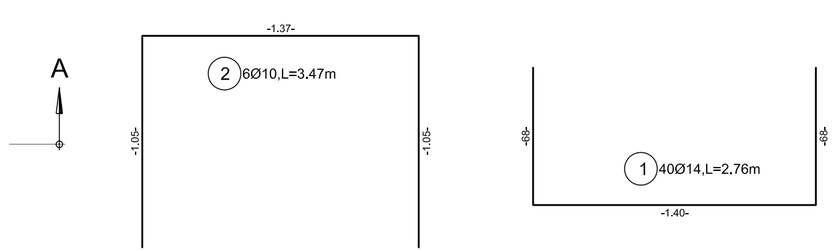
B A R S C H E D U L E Steelgrade: 500S

Pos.	No.	d	Length	D10
2	6	10	3.47	20.82

Total lengths	20.82
kg / m	D10 0.617
kg / d	12.846
Total weight (kg)	12.846

TLORIS





VODONEPREPUSNI BETON: C30/37, PV-II, XC4, XF3, zaščitni sloj=5cm
PODLOŽNI BETON: C12/15
JEKLO ZA ARMIRANJE: S500B

temelj T2

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt:
REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Id. št.: Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.

Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

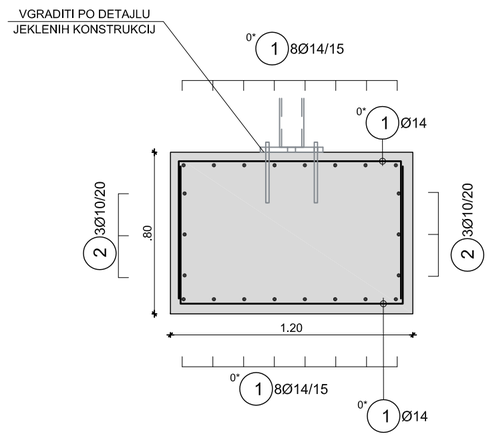
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Izdelal: Rok SEVŠEK inž. grad.

Risba: Opažno armaturni načrt: TEMELJ T2

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:25	julij 2021	3719	3719_2/2	3719_2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za črtno kodo:**		**Risba št.:**
ZR2100	0032.00.	007.1276	G.471			A2

TOČKOVNI TEMELJ
PREREZ A-A



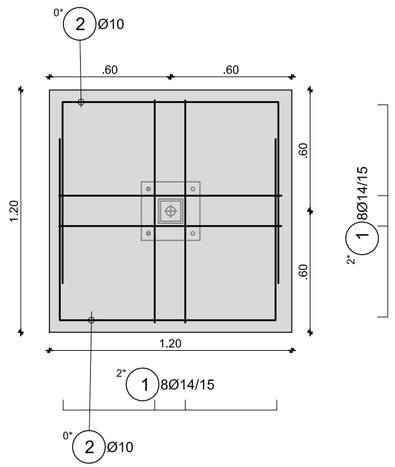
B A R S C H E D U L E Steelgrade: S500B

Pos.	No.	d	Length	D14
1	32	14	2.46	78.72
Total lengths				78.72
kg / m				D14 1.210
kg / d				95.251
Total weight (kg)				95.251

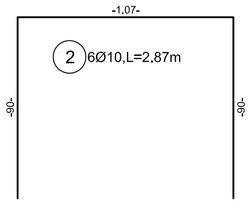
B A R S C H E D U L E Steelgrade: 500S

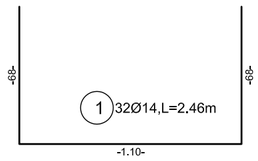
Pos.	No.	d	Length	D10
2	6	10	2.87	17.22
Total lengths				17.22
kg / m				D10 0.617
kg / d				10.625
Total weight (kg)				10.625

TLORIS









VODONEPREPUSNI BETON: C30/37, PV-II, XC4, XF3, zaščitni sloj=5cm
PODLOŽNI BETON: C12/15
JEKLO ZA ARMIRANJE: S500B

temelj T3

2/2

Datum: | Opis spremembe: | Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Id. št.: Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.

Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

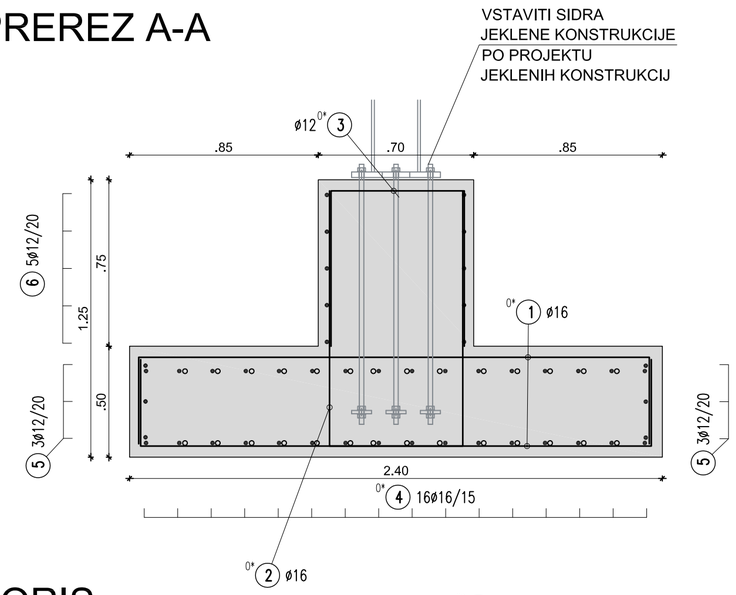
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Izdelal: Rok SEVŠEK inž. grad.

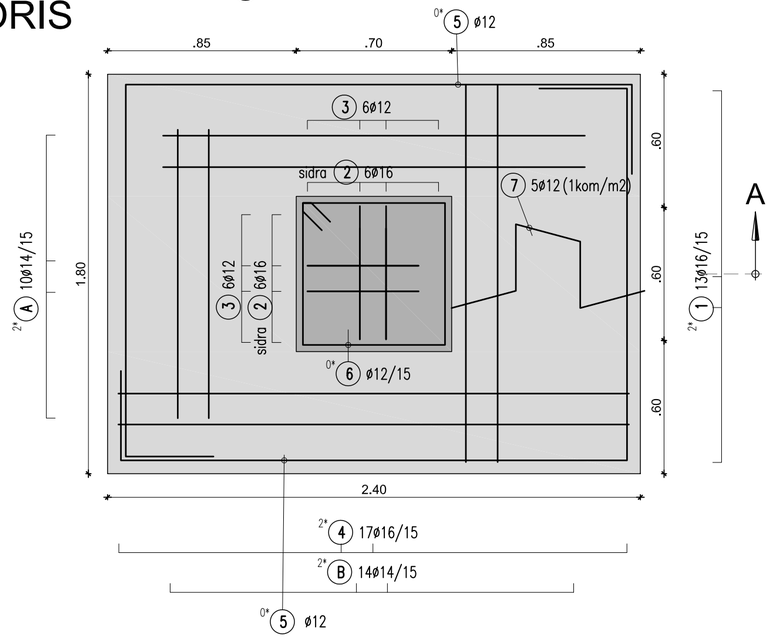
Risba: Opažno armaturni načrt: TEMELJ T3

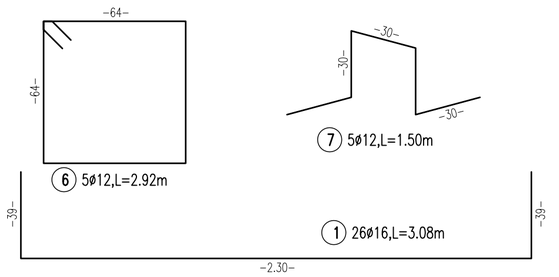
Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:25	julij 2021	3719	3719_2/2	3719_2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za črtno kodo:**		**Risba št.:**
ZR2100	0032.00.	007.1276	G.471			A3

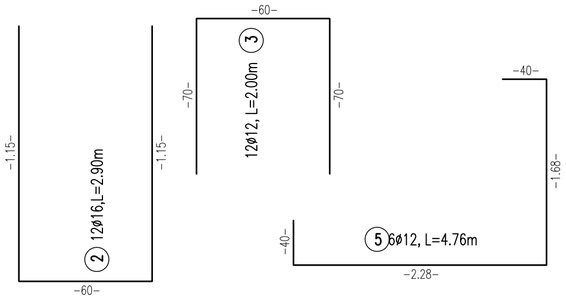
PREREZ A-A

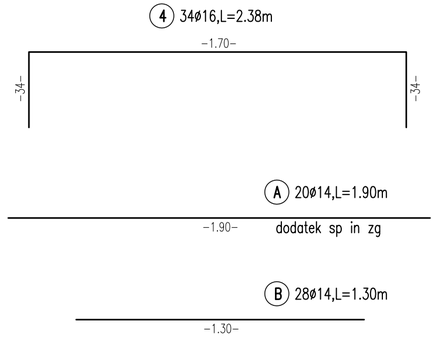


TLORIS









V TEMELJ SE POLOŽI PVC CEV ZA POLAGANJE NAPAJALNEGA KABLA

VODONEPREPUSNI BETON: C30/37, PV-II, XC4, XF3, za ščitni sloj=5cm
PODLOŽNI BETON: C12/15
JEKLO ZA ARMIRANJE: S500B

BAR SCHEDULE Steelgrade: 500S

Pos.	No.	d	Length	D12	D14	D16
B	28	14	1.30		36.40	
A	20	14	1.90		38.00	
1	26	16	3.08			80.08
2	12	16	2.90			34.80
3	12	12	2.00	24.00		
4	34	16	2.38			80.92
5	6	12	4.76	28.56		
6	5	12	2.92	14.60		
7	5	12	1.50	7.50		
Total lengths				74.66	74.40	195.80
kg / m				D12 0.888	D14 1.210	D16 1.580
kg / d				66.298	90.024	309.364
Total weight (kg)				465.686		

Pos. Comment:
B dodatek sp in zg
A dodatek sp in zg

temelj T4

2/2

Datum: | Opis spremembe: | Podpis:

Investitor:
Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:
sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:
h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Id. št.: Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.

Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Izdelal: Rok SEVŠEK inž. grad.

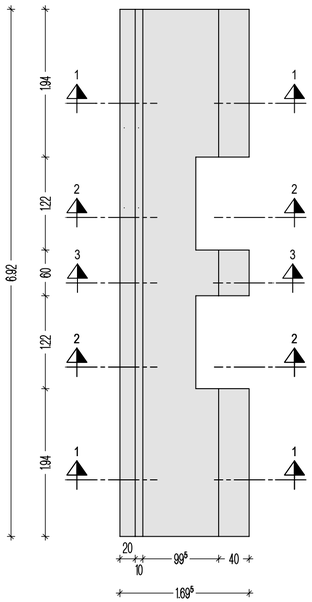
Risba: Opažno armaturni načrt: TEMELJ T4

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št.:	Načrt št.:	Int. št.:
21	IZN	1:20	julij 2021	3719	3719_2/2	3719_2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.471		A4

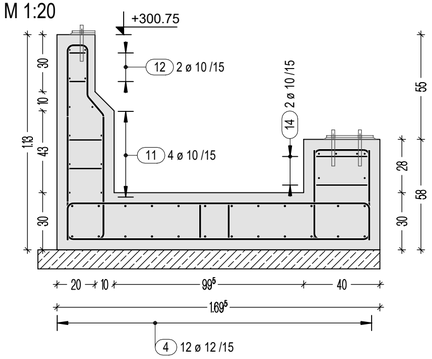
Tloris temelja 5

M 1:50



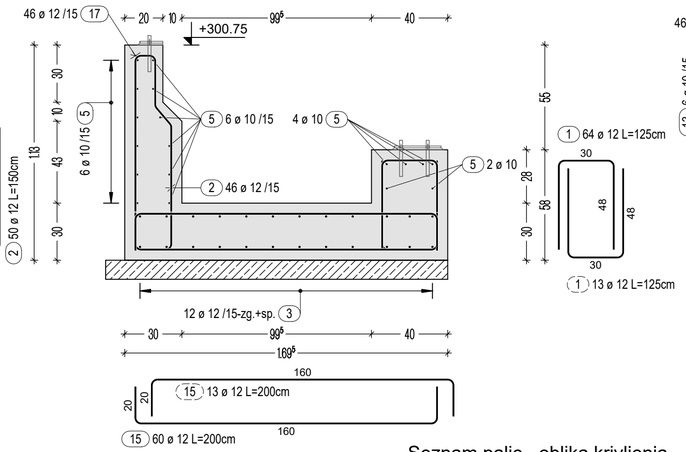
Detajl zapiranja

M 1:20



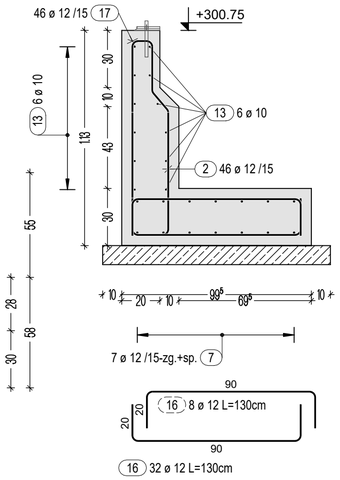
Prerez 1 - 1

M 1:20



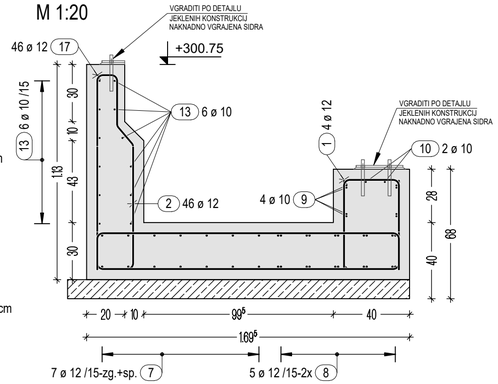
Prerez 2 - 2

M 1:20



Prerez 3 - 3

M 1:20



Preklopna dolžina armaturnih palic 70 cm.

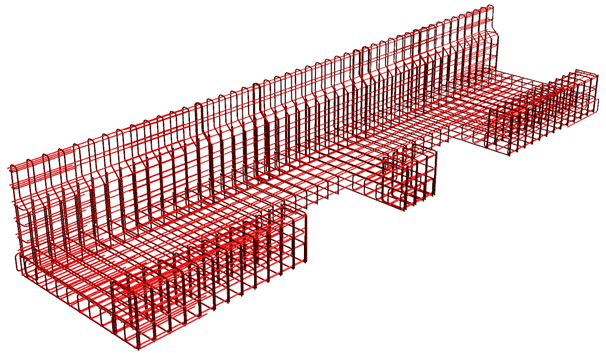
Seznam palic - oblika krivljenja

Poz.	Kosov	Fi [mm]	Posam. dolžina [m]	Kotirana oblika krivljenja (ni v merilu)	Skupna dolžina [m]	Teža [kg]
1	64	12	1.25	48 / 30 / 20 / 65	80.00	71.04
2	50	12	1.50	184	75.00	66.60
3	48	12	1.84	18 / 69. / 184	88.32	78.43
4	34	12	1.55	69. / 27 / 450	52.70	46.80
5	36	10	1.84	18 / 50	66.24	40.87
6	6	12	1.65	50 / 27	9.90	8.79
7	14	12	4.50		63.00	55.94
8	10	12	1.18		11.80	10.48
9	4	10	1.27		5.08	3.13

Seznam palic - oblika krivljenja

Poz.	Kosov	Fi [mm]	Posam. dolžina [m]	Kotirana oblika krivljenja (ni v merilu)	Skupna dolžina [m]	Teža [kg]
10	2	10	0.50	50	1.00	0.62
11	8	10	1.55	69. / 17	12.40	7.65
12	4	10	1.29	60 / 9 / 450	5.16	3.18
13	12	10	4.50	69. / 27 / 160	54.00	33.32
14	2	10	1.65	20 / 90	3.30	2.04
15	60	12	2.00	20 / 90 / 9 / 10 / 12 / 46 / 28 / 83	120.00	106.56
16	32	12	1.30		41.60	36.94
17	46	12	1.81		83.26	73.93

Skupna teža [kg] : 646.32



VODONEPREPUSTNI BETON: C30/37, PV-II, XC4, XF3, zaščitni sloj=5cm
PODLOŽNI BETON: C12/15
JEKLO ZA ARMIRANJE: S 500B

temelj T5

2/2

Datum: | Opis spremembe: | Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale | Id. št.: | Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.

Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Izdelal: Miha BLATNIK, mag. inž. grad.

Risba: Opažno armaturni načrt: TEMELJ T5

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:20; 1:50	julij 2021	3719	3719_2/2	3719_2/2

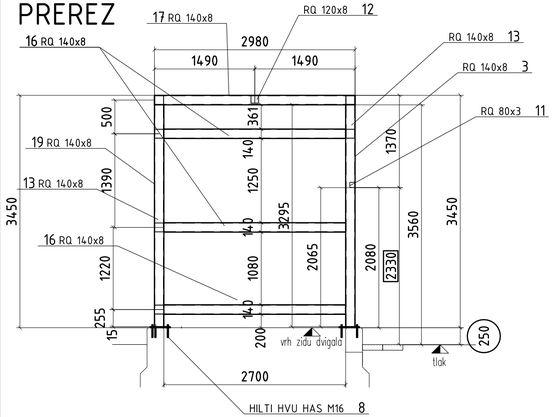
Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.471		A5

V/Š = 297 / 675 (0.20m2)

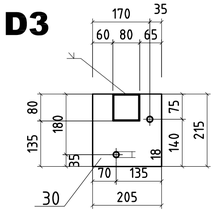
Allplan 2021

DVIGALO DV1

PREREZ



D3



DVIGALO - nadstrešek dv2 za 1 kom:

	POS	NUMBER	NAME	LENGTH	WEIGHT	TOTAL W.
*	3	1	RQ 140x8	3295	103.6	103.6
	8	14	HILTI HVU HAS M16	190	0.3	4.2
	11	1	RQ 80x3	1600	11.3	11.3
	12	1	RQ 120x8	1600	42.3	42.3
	13	4	RQ 140x8	1600	50.3	201.2
	14	2	RQ 140x8	1880	59.1	118.2
	16	6	RQ 140x8	2700	84.9	509.2
	17	2	RQ 140x8	2980	93.7	187.3
*	19	3	RQ 140x8	3295	103.6	310.7
	30	1	PLATE 215x205x15	265	6.4	6.4
	32	1	PLATE 300x235x15	300	8.6	8.6
	33	3	PLATE 300x300x15	300	9.5	28.6
	15a	1	RQ 80x3	2065	14.6	14.6
			Weight of 40 Parts 3 % Addition 1593 kg			

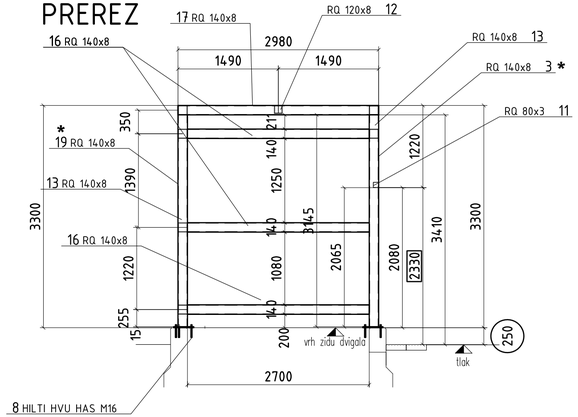
izvesti 3 kom

DVIGALO DV1=D2 IN DV2' RAZEN DA STA
DVIGALI DV2 IN DV2' NIŽJA ZA 150mm.
PRI DVIGALU DV2 IN DV2' STA POZICIJI:
* poz. ŠT. 19 IN 3 DOLŽINE 3145mm.

DVIGALAO DV2 JE ZRCALNO ENAKO DVIGALU DV2'. GLEJ DISPOZICIJO

DVIGALO DV2

PREREZ



- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

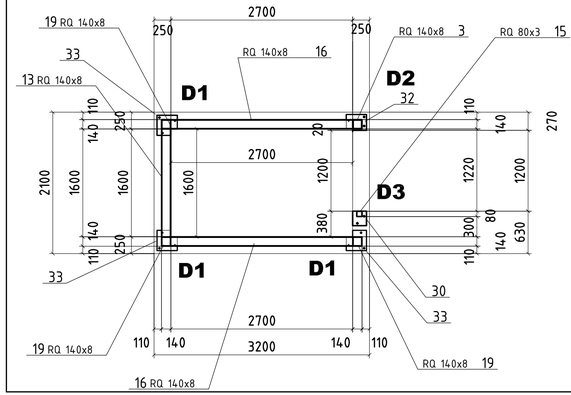
- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, ▽ .... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

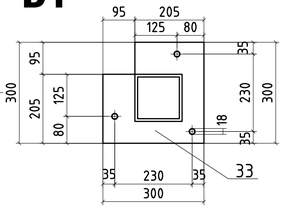
2/2

TLORIS - DVIGALO DV1

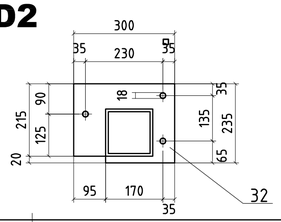
M 1:50



D1

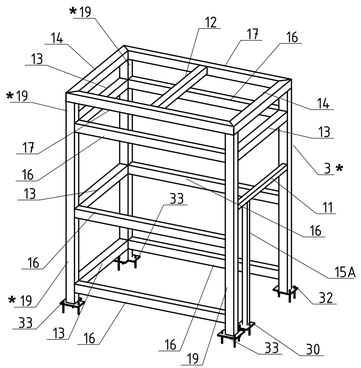


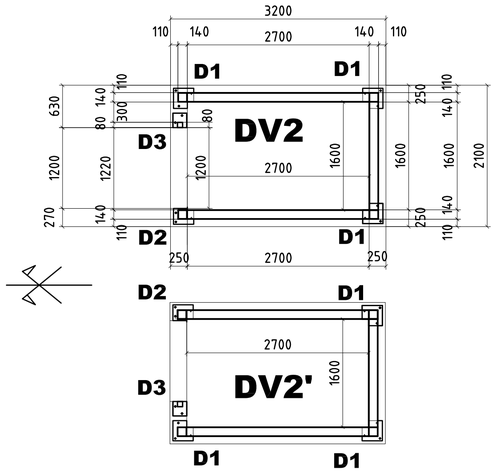
D2



3D SHEMA

DVIGALO DV1





Investitor:
Republika Slovenija
Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:
sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:
h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Datum:	Opis spremembe:	Podpis:

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale — Id. št.: — Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE
Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

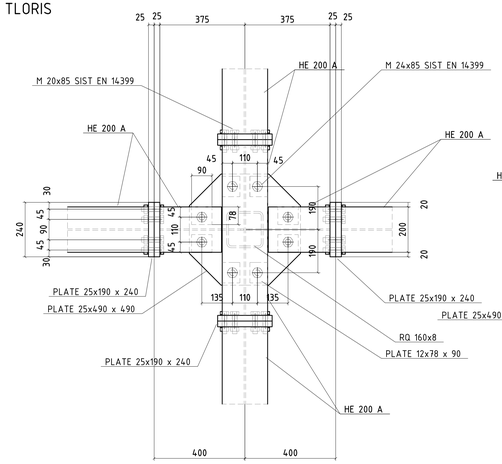
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE
Izdelal: Rok SEVŠEK inž. grad.

Risba: DVIGALO DV1, DV2, DV2' - DISPOZICIJA, PREREZI, DETAJLI

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:50,10	julij 2021	3719	3719_2/2	3719_2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za črtno kodo:**		**Risba št.:**
ZG2100	0032.00.	007.1276	G.402			DVG-1

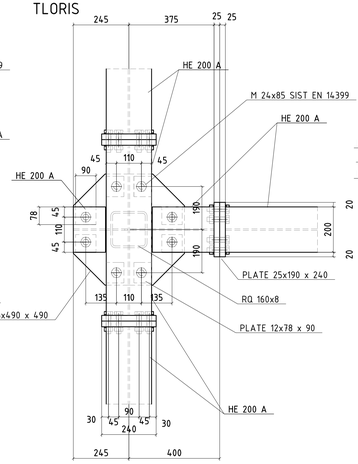
DETAJL **N1_D1**
M 1:10

TLORIS



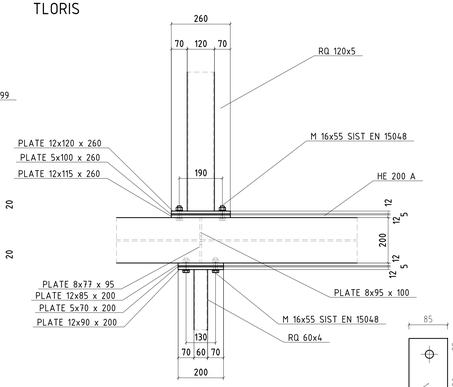
STIKOVANJE STEBRA KC 160X8
NA HEA200 NA T KRIŽANJIH
(NAPRIMER OB OBJEKTU...)

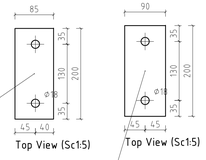
TLORIS



DETAJL **N1_D2**
M 1:10

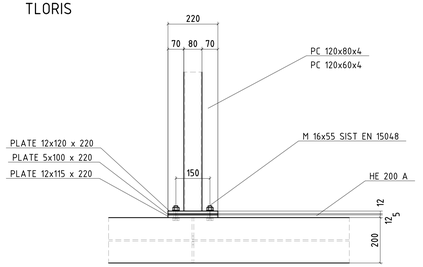
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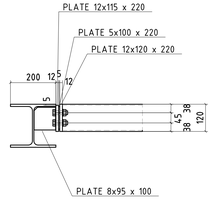


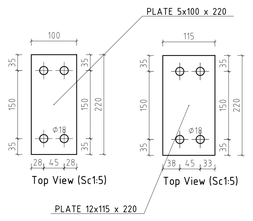


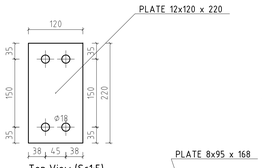
DETAJL **N1_D3**
M 1:10 STIK CEVI PC 120X60 IN PC 120X80 NA HEA200

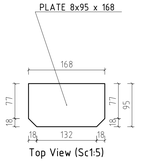
TLORIS





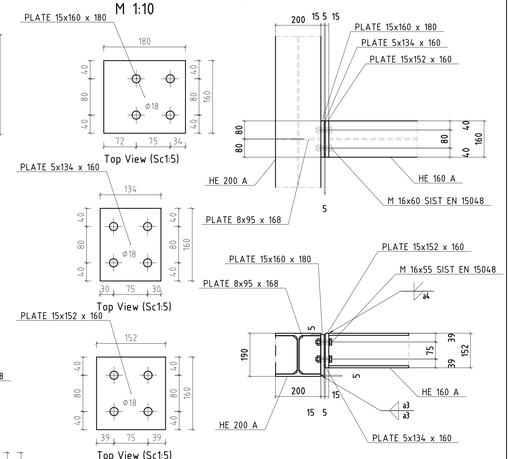






DETAJL **N1_D6**
ENAK SISTEM SPOJA HEA160
NA HEA160

M 1:10



DETAJL **N1_D7**
M 1:10

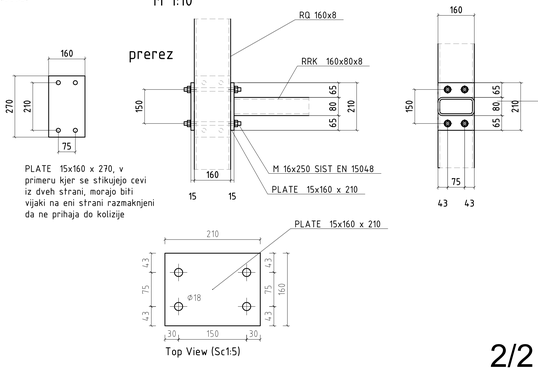
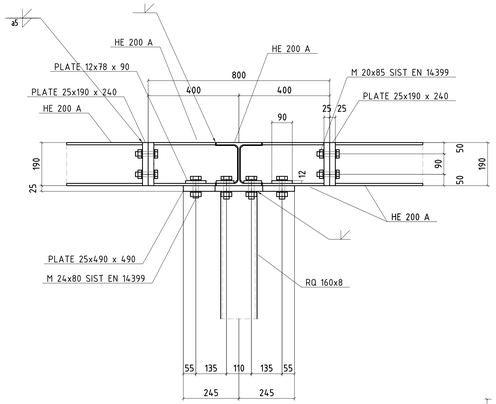
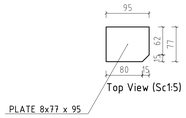
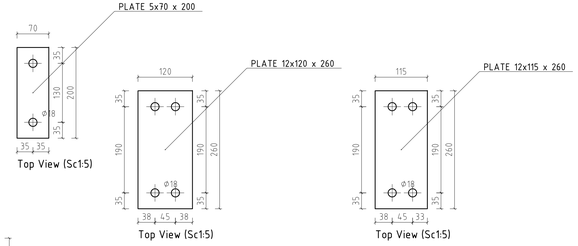


PLATE 15x160 x 270, v primeru kjer se stikujejo cevi iz dveh strani, morajo biti vijaki na eni strani razmaknjeni da ne prihaja do kolizije

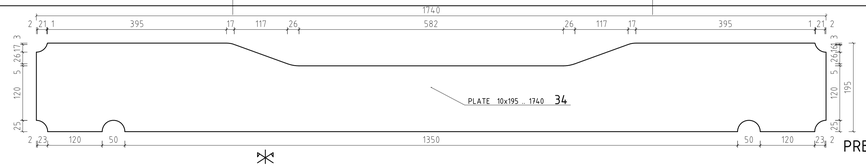




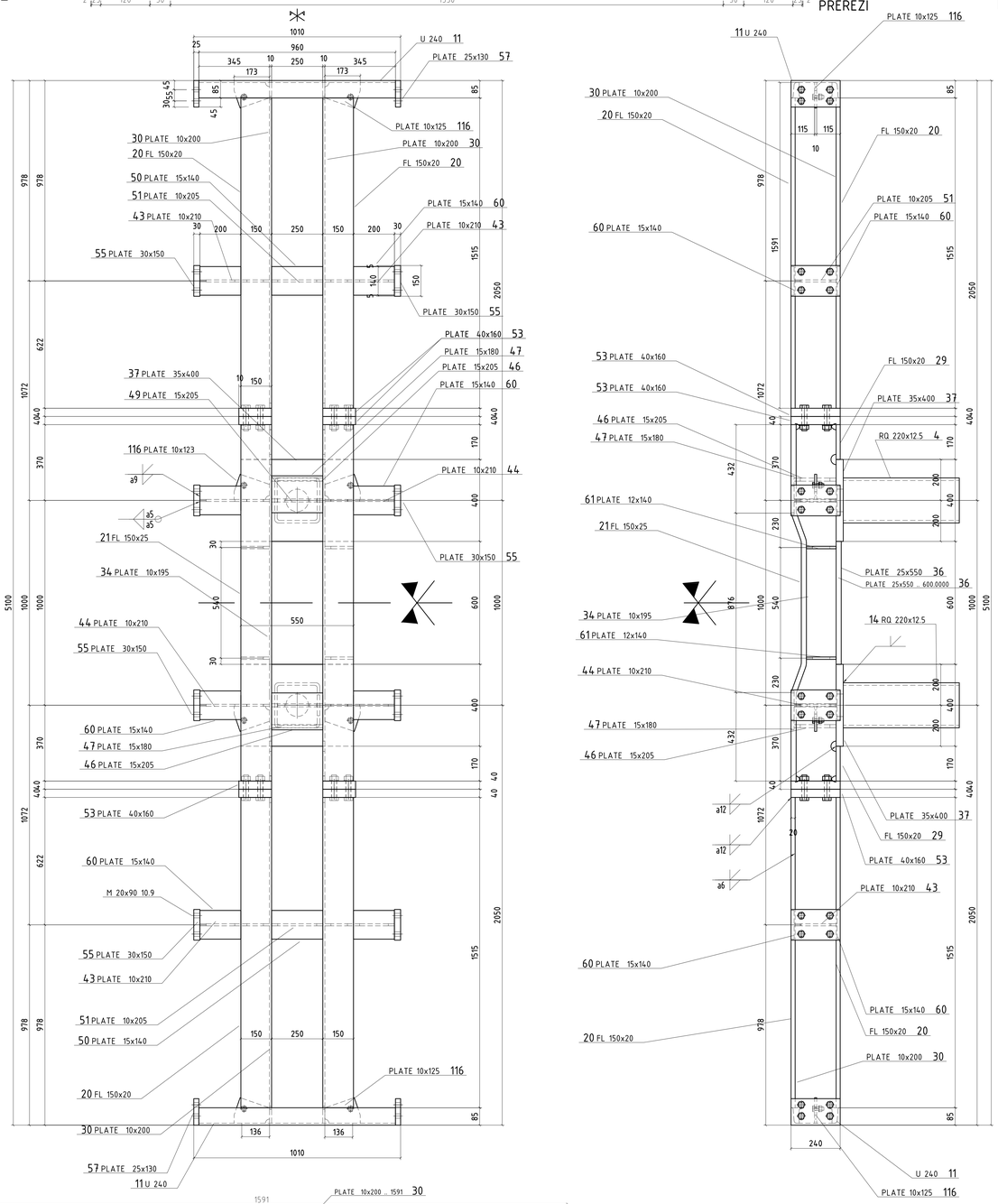

PLATE 12x115 x 260
PLATE 12x85 x 200
PLATE 5x100 x 260
PLATE 5x70 x 200
PLATE 12x120 x 260
PLATE 12x90 x 200
a3
a3
12 5 200 12 5 12
5 5
30 60 45
45 38 120
PLATE 8x77 x 95
PLATE 8x95 x 100

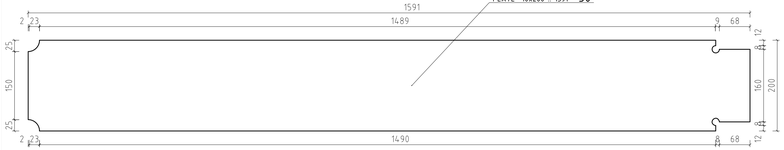
DETAJL
M 1:10
TLORIS

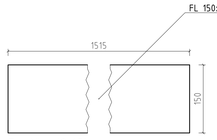
N2_D1

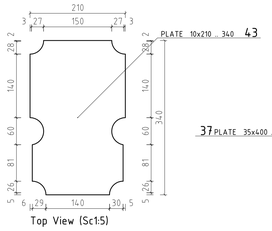


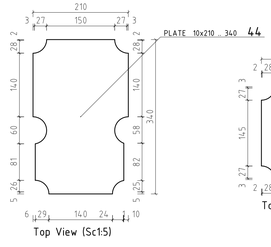
PREREZI

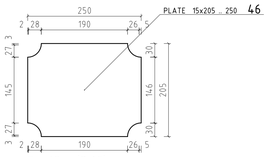


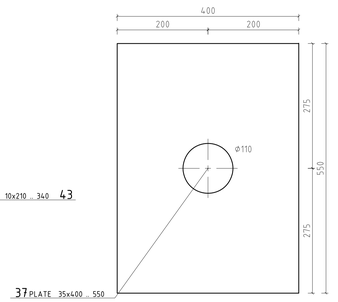


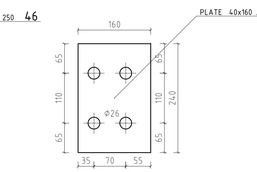


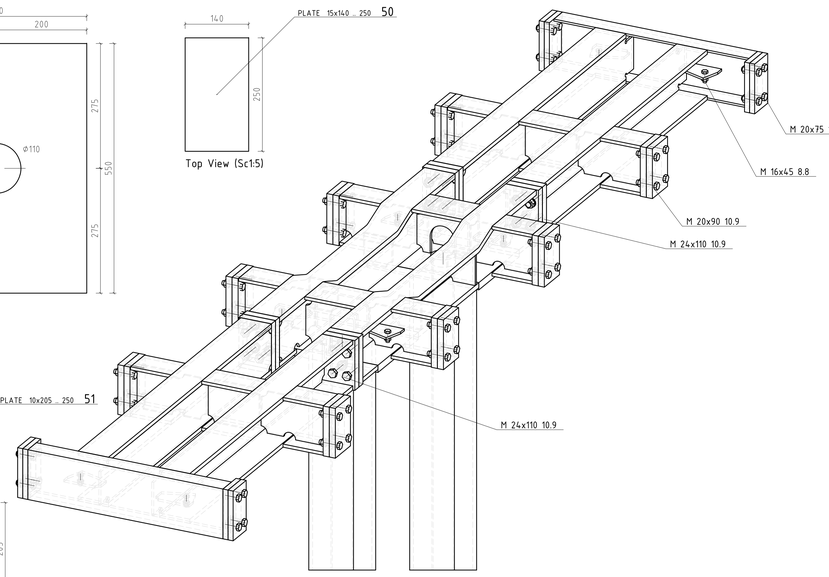


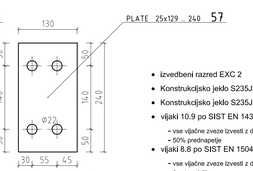


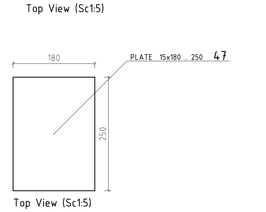


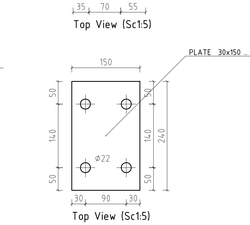


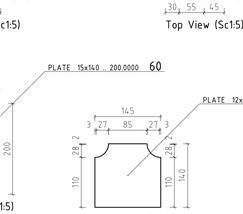


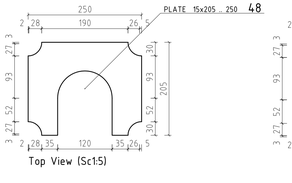


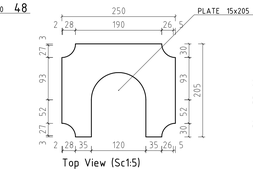


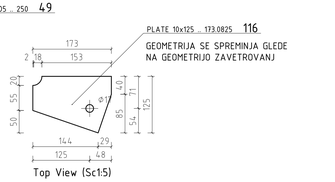


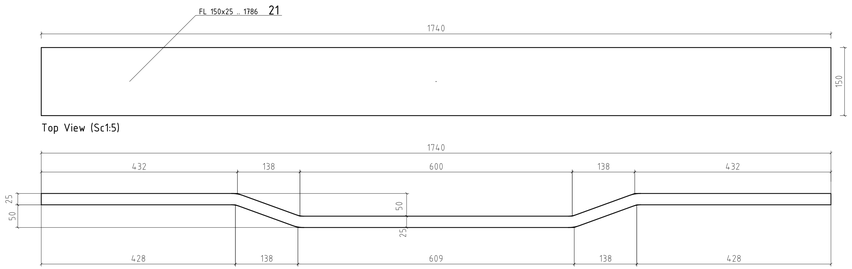


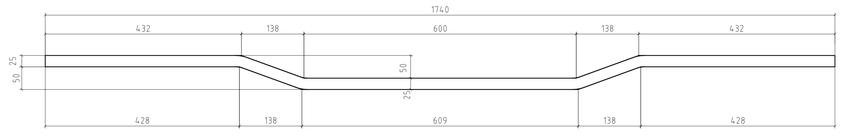












- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR- šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10,9
  - 50% prednapetje
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8,8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090–2 : 2008
- Vsi sobežni zvari x, ▽, ▽ ... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin
  (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin
  (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:
-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO
-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija
Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02; fax: 01 478 81 23

Projektant:
sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI- 1000 Ljubljana
tel.: 01 300 78 00, fax.: 01 300 78 36

Podizvajalec:
h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

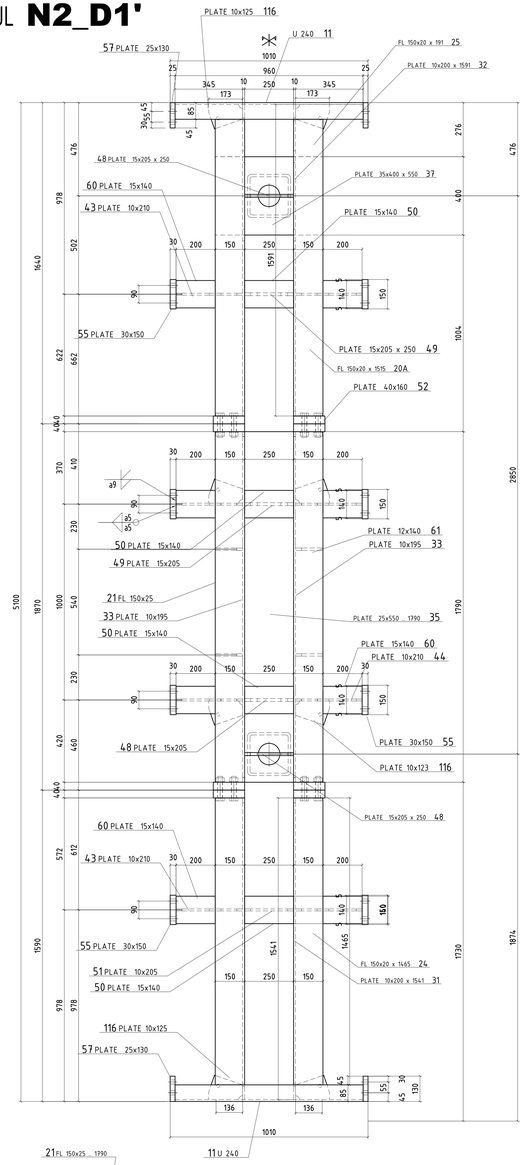
Objekt: Železniška postaja Domžale		**Št. št.:**	**Ime:**
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	**Odg. vodja projekta:**	PI G-2912	Gregor Rakar, univ.dipl.inž.grad.,
	Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE	**Izdelal:**		Rok SEVŠEK inž. grad.
Risba: DETAJL D1- NADSTREŠEK 2			

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:10, 5	LJB 2021	3719	3719_2/2	3719 2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za črtno kodo:**		**Risba št.:**
ZR2100	0032.00.	007.1276	G.451			N2-D1

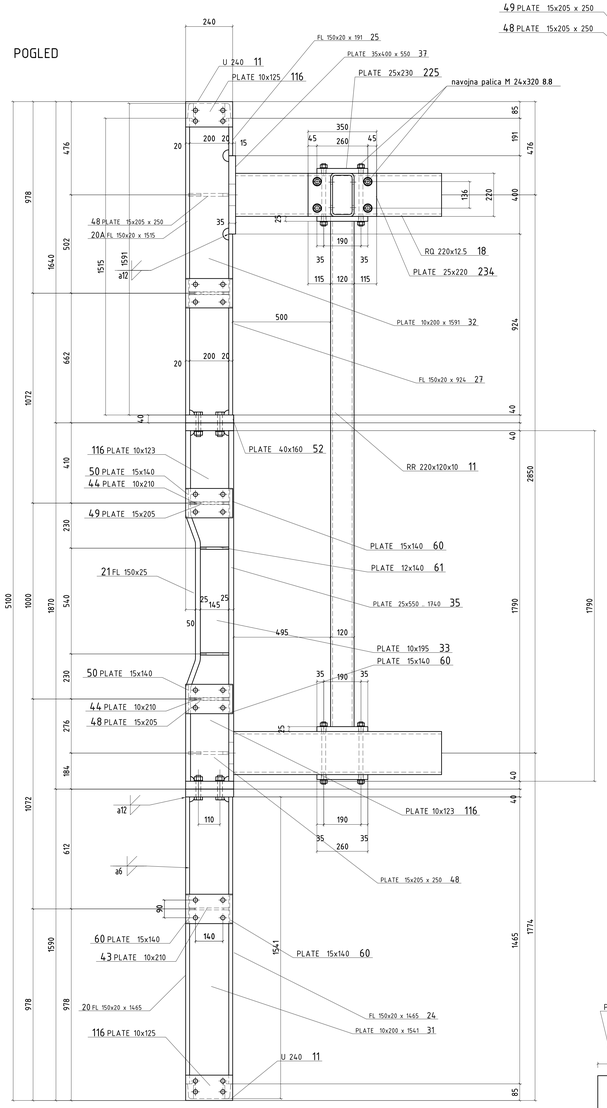
DETAJL **N2_D1'**

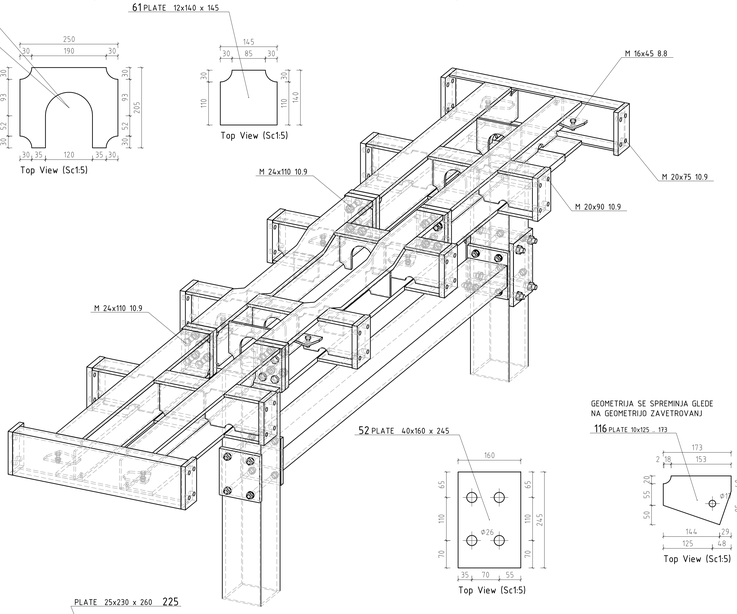
M 1:10

TLORIS



POGLED

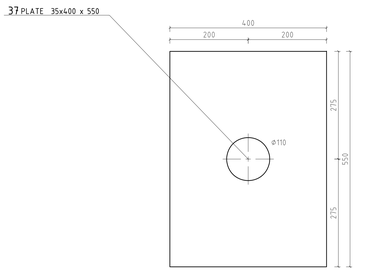




Top View (Sc1:5)

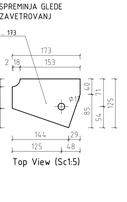
Top View (Sc1:5)



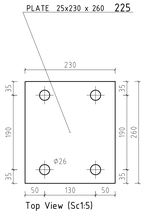


GEOMETRIJA SE SPREMINJA GLEDE NA GEOMETRIJO ZAVETROVANJ

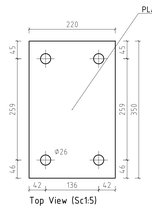
Top View (Sc1:5)



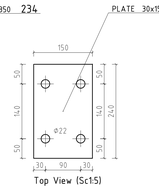
Top View (Sc1:5)



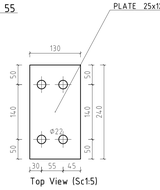
Top View (Sc1:5)



Top View (Sc1:5)



Top View (Sc1:5)



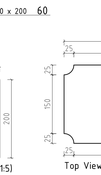
Top View (Sc1:5)

- Izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR- šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - ~ 50% predmontaže
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - ovrtalo privitli

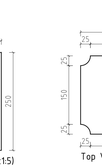
- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelavo in montažo nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K,X,V ,Y ..... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi nezaznačeni zvari so a=0,7 x tmin
  (tmin = tanjša plošavina v spoju)
- vsi nezaznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin
  (tmin = tanjša plošavina v spoju)
- vse zvare pobrusiti

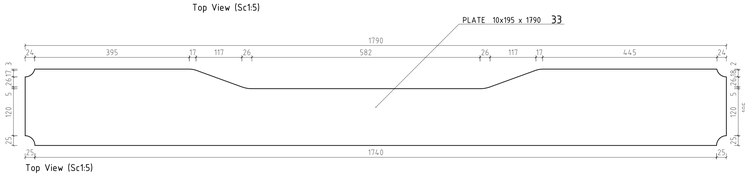
OPOMBE:
-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO
-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ



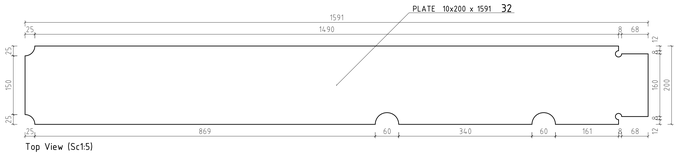
Top View (Sc1:5)



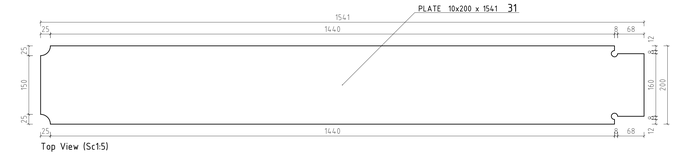
Top View (Sc1:5)



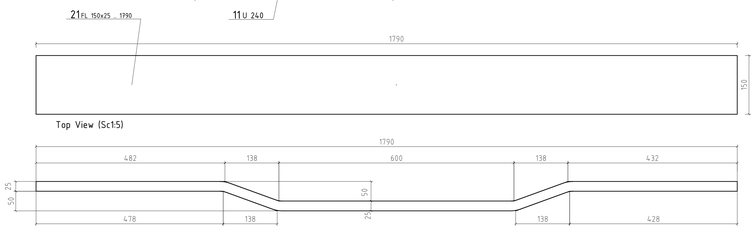
Top View (Sc1:5)



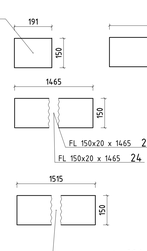
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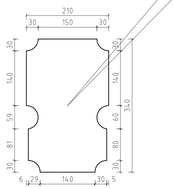


Top View (Sc1:5)

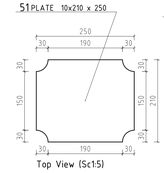


Top View (Sc1:5)





Top View (Sc1:5)



Top View (Sc1:5)

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija
Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 00, fax: 01 478 81 23

Projektant:
sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 8, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:
h i š a
NADSTREŠNICE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 6, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

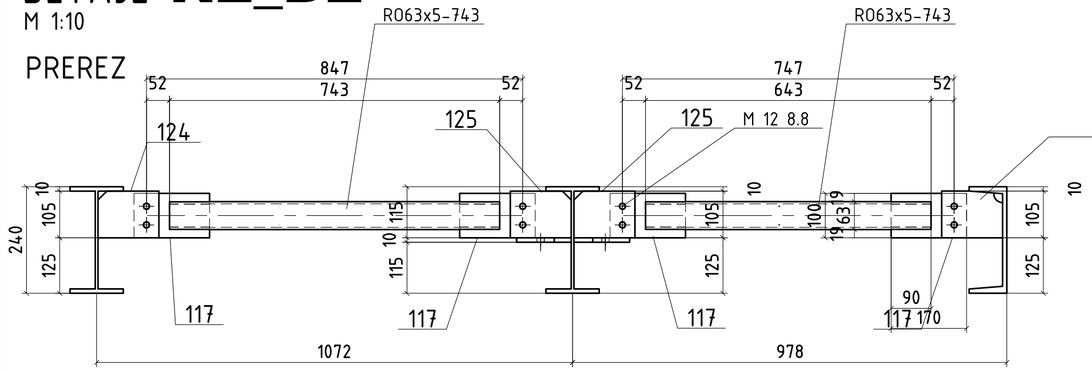
Objekt: Železniška postaja Domžale		**Id. št.:**	**Ime:**
Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE	**Odg. vodja projekta:**	PI G-2912	Gregor Rakar, univ.dipl.inž.grads.
	Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Vrsta načrta: 315 NAČRT GRADBENE KONSTRUKCIJE	**Izdelal:**	Rok SEVŠEK inž. grad.	
Risba: DETAJL D1'- NADSTREŠEK 2			

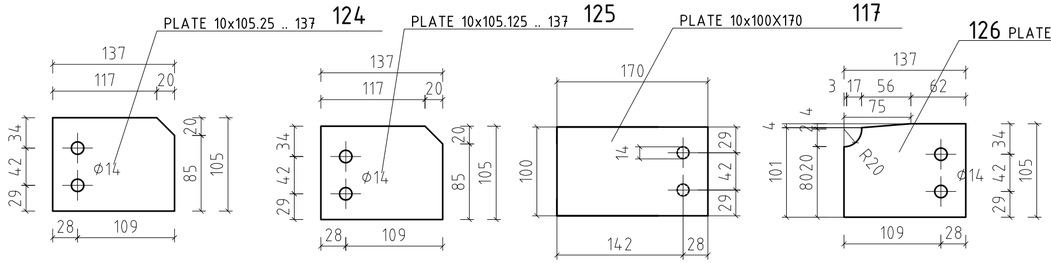
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21	IZN	1:10, 1: 5	julij 2021	3719	3719_2/2	3719_2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za oštevilčenje:**		**Risba št.:**
ZR2100	0032.00.	007.1276	G.451			N2-D2

DETAJL **N2_D2**

M 1:10

PREREZ

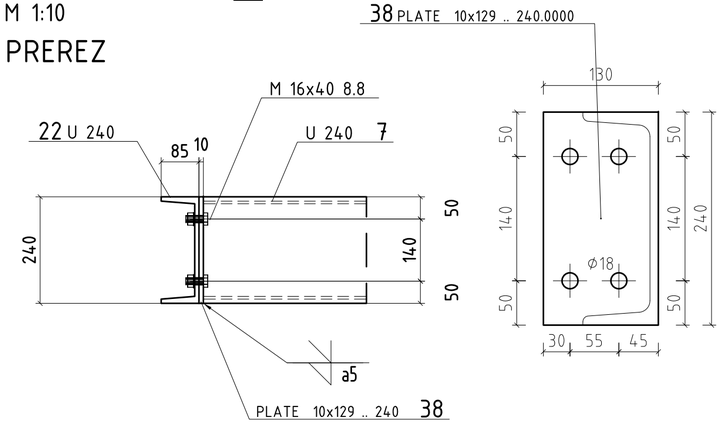




DETAJL **N2_D3**

M 1:10

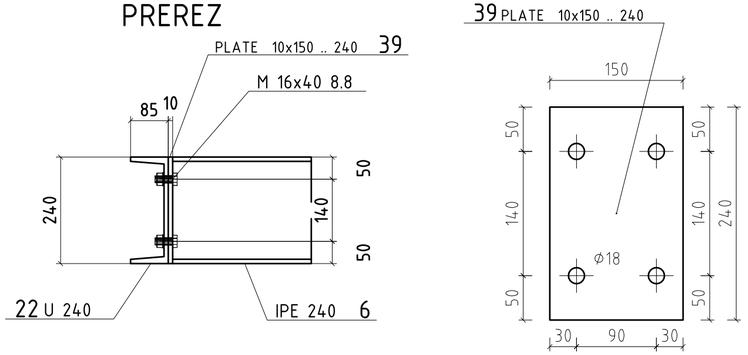
PREREZ



DETAJL **N2_D4**

M 1:10

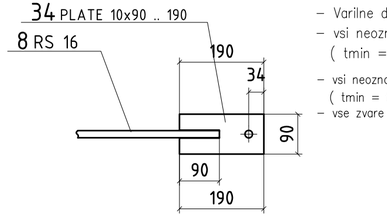
PREREZ



DETAJL **N2_D5**

M 1:10

PREREZ



OPOMBE:

- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, ▽ .... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR- šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapetje
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor:

Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Risba: DETAJLI 3 DO 5 - NADSTREŠEK 2

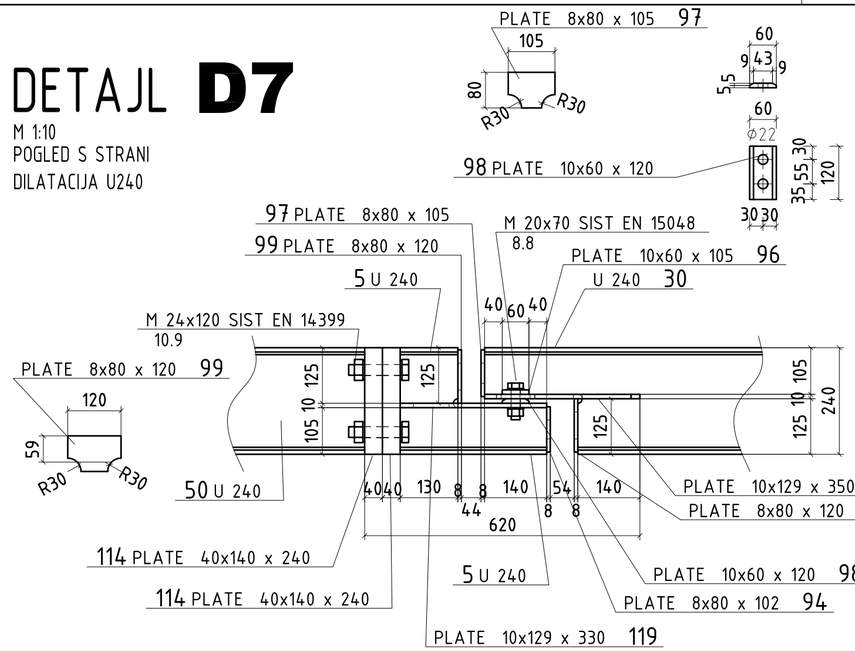
	Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912	Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:		Rok SEVŠEK inž. grad.

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št.:	Načrt št.:	Int. št.:
21	IZN	1:10, 5	julij 2021	3719	3719_2/2	3719_2/2

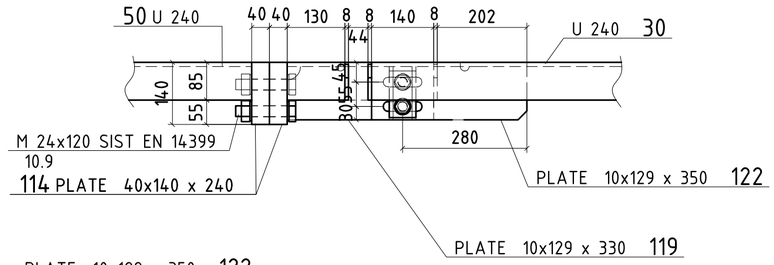
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ZR2100	0032.00.	007.1276	G.451		N2-D3

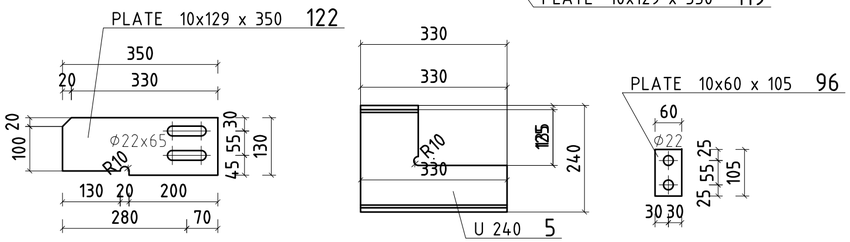
DETAJL **D7**

M 1:10
POGLED S STRANI
DILATACIJA U240



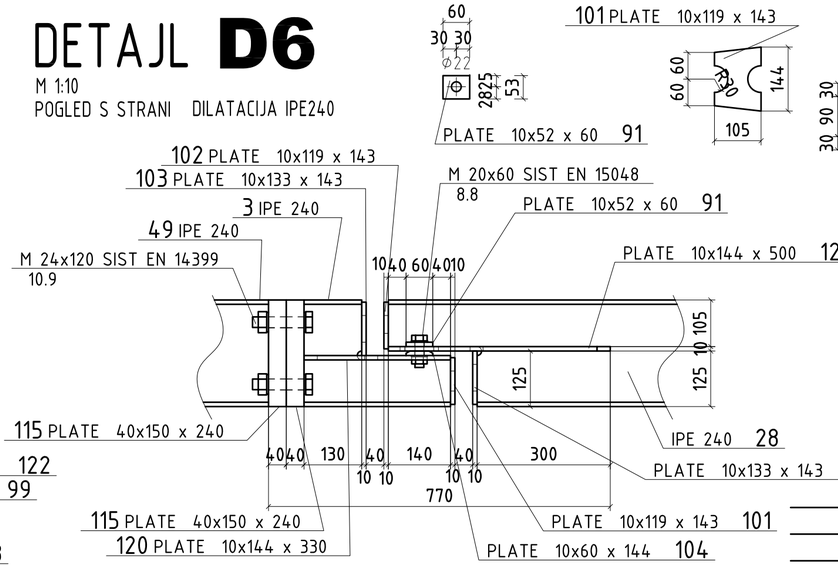
TLORIS



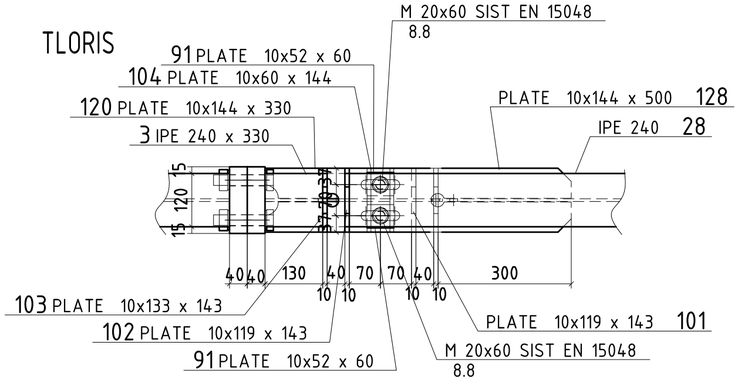


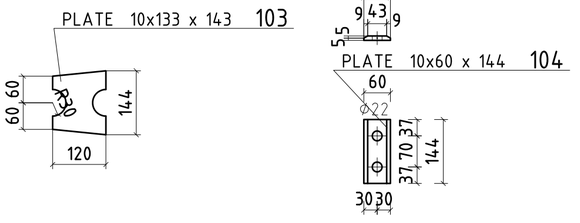
DETAJL **D6**

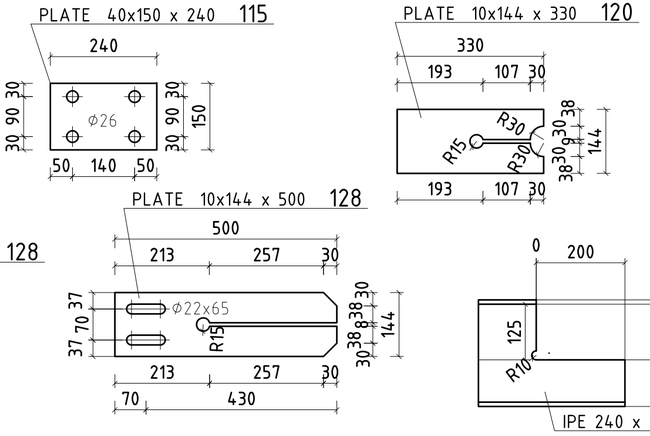
M 1:10
POGLED S STRANI DILATACIJA IPE240



TLORIS







2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

hiša
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale — Id. št.: Ime:

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Odg. vodja projekta: PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.

Odg. projektant načrta: G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.

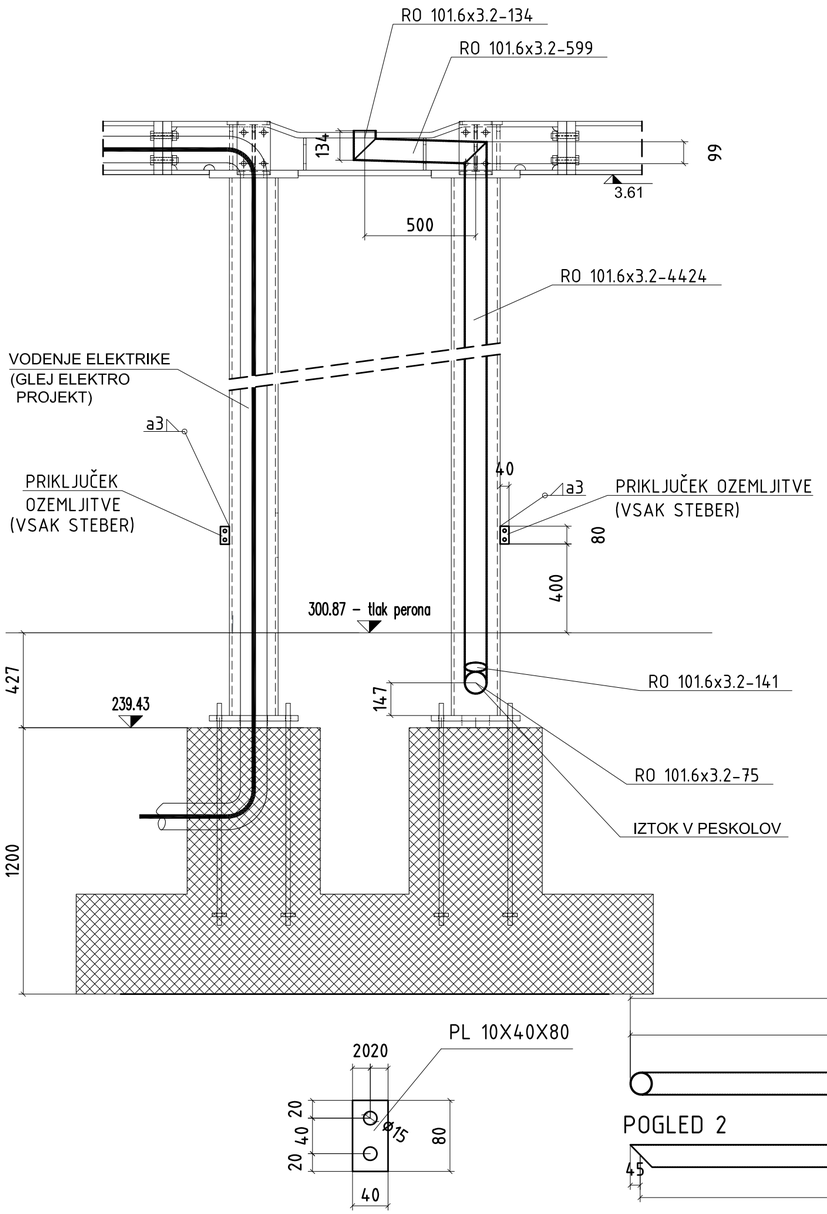
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

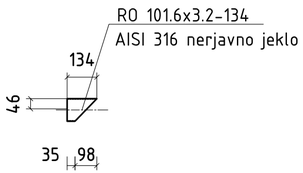
Izdelal: Rok SEVŠEK inž. grad.

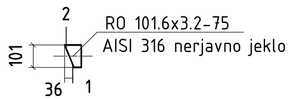
Risba: DETAJL D7, D6

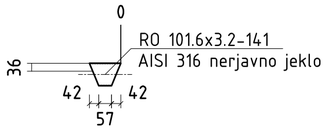
Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št.:	Načrt št.:	Int. št.:
21	IZN	1:10, 5	julij 2021	3719	3719_2/2	3719_2/2

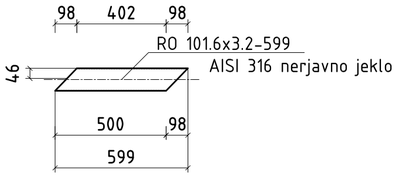
Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.451		N2-D4

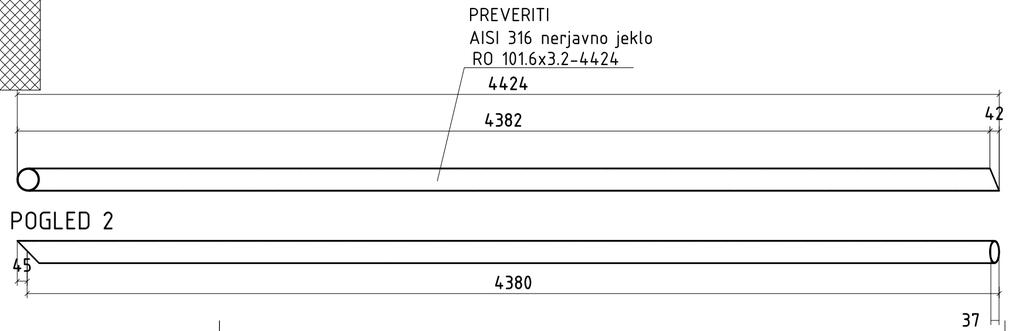












OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
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- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor: Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
projektiranje, inženiring, svetovanje
Ukmarjeva ulica 6, SI - 1000 Ljubljana
tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

h i š a
NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

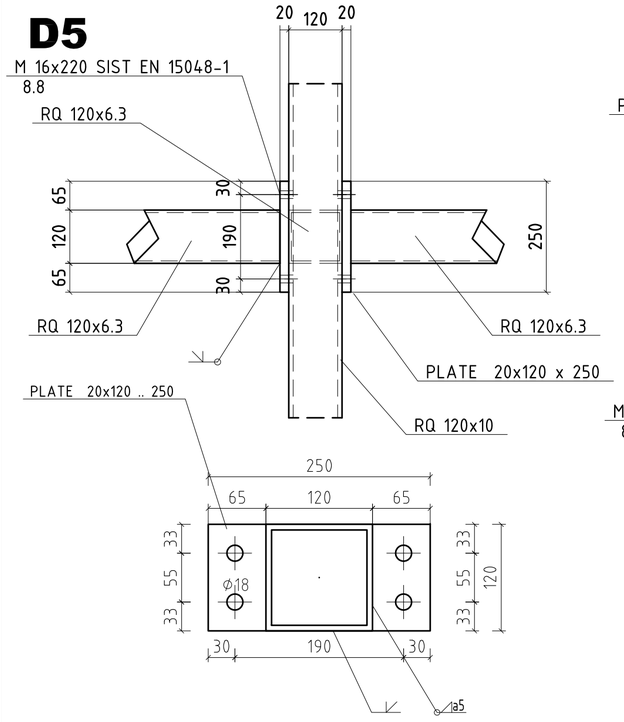
Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912 Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296 dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:	Rok SEVŠEK inž. grad.

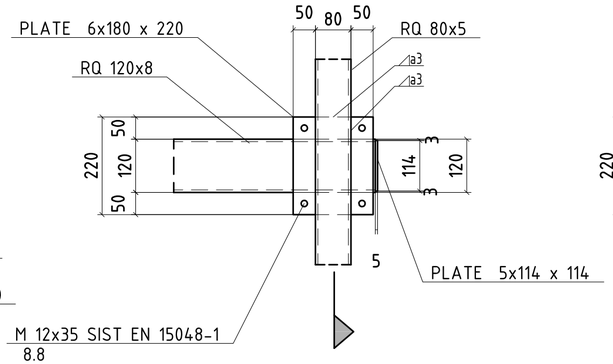
Risba: PERONSKI NADSTREŠEK 2, DETAJLI (odvodnja, el., ozemljitev)

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št:	Načrt št.:	Int. št.:
21	IZN	1:20	julij 2021	3719	3719_2/2	3719_2/2
Št. odseka:	**Arhivska številka:**	**Faza/objekt:**	**Šifra risbe:**	**Prostor za črtno kodo:**		**Risba št.:**
ZR2100	0032.00.	007.1276	G.451			N2-D5

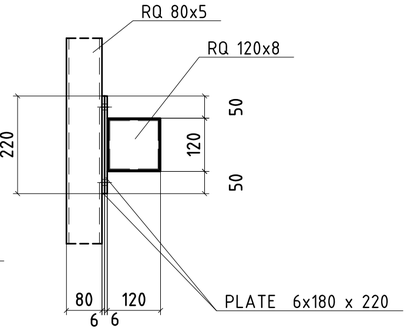
D5

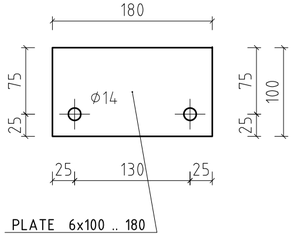


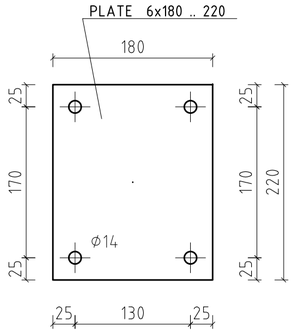
D6 TLORIS

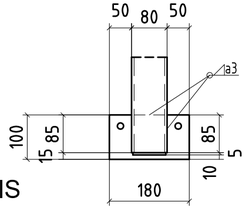


PREREZ

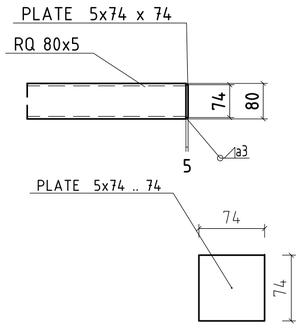




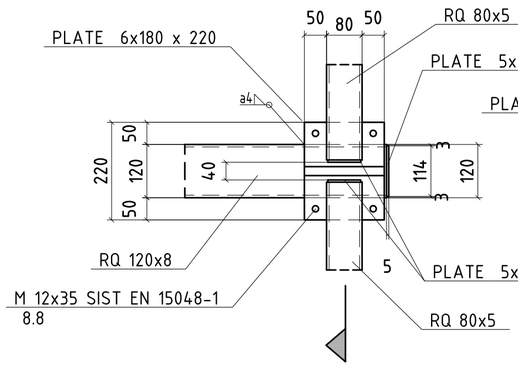




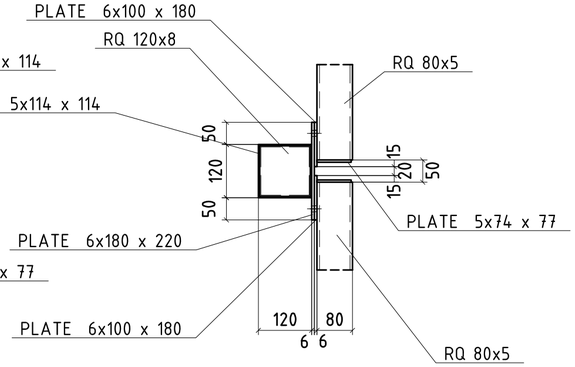
D8



D7 TLORIS



PREREZ



- izvedbeni razred EXC 2
- Konstrukcijsko jeklo S235J2
- Konstrukcijsko jeklo S235JR - šablone
- vijaki 10.9 po SIST EN 14399
  - vse vijačne zveze izvesti z dvema podložkama 10.9
  - 50% prednapeto
- vijaki 8.8 po SIST EN 15048-1
  - vse vijačne zveze izvesti z dvema podložkama 8.8
  - čvrsto priviti

- Ozemljitev temeljev se izvede skladno s projektom ozemljitve

OPOMBE:
- mere kontrolirati in po potrebi prilagoditi pri montaži na terenu
- pri izdelavi jeklene konstr. upoštevati tudi ostalo projektno dok. (arhitekturni načrti, načrti temeljenja, gradbeni načrti)
- izdelava in montaža nosilne jeklene konstrukcije mora biti v skladu z SIST EN 1090-2 : 2008
- Vsi sočelni zvari K, ▽, ▽ .... morajo biti izvedeni s prevaritvijo korena
- Varilne deformacije predvidi izvajalec
- vsi neoznačeni zvari so a=0,7 x tmin (tmin = tanjša pločevina v spoju)
- vsi neoznačeni zvari pri obojestranskem varjenju so a=0,5 x tmin (tmin = tanjša pločevina v spoju)
- vse zvare pobrusiti

OPOMBE:

-PRED IZVEDBO VSE MERE PREVERITI IN IZDELATI DELAVNIŠKO DOKUMENTACIJO

-ZA POZICIJO LUKENJ ZA ELEKTRIČNE INŠTALACIJE GLEJ NAČRT ELEKTRIČNIH INŠTALACIJ

2/2

Datum:	Opis spremembe:	Podpis:

Investitor:

Republika Slovenija

Republika Slovenija
Ministrstvo za infrastrukturo
Direkcija RS za infrastrukturo
Tržaška cesta 19, 1000 Ljubljana
tel.: 01 478 80 02, fax: 01 478 81 23

Projektant:

sž - projektivno podjetje ljubljana, d.d.
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tel.: 01 300 76 00, fax.: 01 300 76 36

Podizvajalec:

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NAČRTOVANJE IN SVETOVANJE, D.O.O.
Ukmarjeva ulica 4, Ljubljana

Projekt: REKONSTRUKCIJA ŽELEZNIŠKE POSTAJE DOMŽALE

Objekt: Železniška postaja Domžale

Načrt: JEKLENI NADSTREŠKI NA POSTAJI DOMŽALE

Vrsta načrta: 3/15 NAČRT GRADBENE KONSTRUKCIJE

Risba: DETAJLI - NADSTREŠEK 3

	Id. št.:	Ime:
Odg. vodja projekta:	PI G-2912	Gregor Rakar, univ.dipl.inž.gradb.
Odg. projektant načrta:	G-0296	dr. Leon HLADNIK univ. dipl. inž. grad.
Izdelal:		Rok SEVŠEK inž. grad.

Št. proge:	Vrsta projekta:	Merilo:	Datum:	Projekt št.:	Načrt št.:	Int. št.:
21	IZN	1:10,5	julij 2021	3719	3719_2/2	3719_2/2

Št. odseka:	Arhivska številka:	Faza/objekt:	Šifra risbe:	Prostor za črtno kodo:	Risba št.:
ZR2100	0032.00.	007.1276	G.451		N3-D1