

**OBRAZAC 1**

elektronski potpis projektanta	elektronski potpis revidenta
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INVESTITOR<sup>1</sup> "MASTER INŽENJERING" D.O.O  
PODGORICA

OBJEKAT<sup>2</sup> HOTELSKI KOMPLEKS 5\*  
- G+P+Mz+7(11) - FAZA III

LOKACIJA<sup>3</sup> dio UP br.23.1, blok br.23,  
DUP "BUDVA CENTAR" Opština Budva

VRSTA TEHNIČKE  
DOKUMENTACIJE<sup>4</sup> GLAVNI PROJEKAT KONSTRUKCIJE

PROJEKTANT<sup>5</sup> "PROSTOR PLUS MN" DOO BUDVA, društvo za projektovanje i  
inženjering , Hotel Obala , Rafailovići, Bečićka plaža br.25

ODGOVORNO LICE<sup>6</sup> Milivoj Ilibašić, dipl.ing.građ.

GLAVNI INŽENJER<sup>7</sup> Marija Bliznakovski, dipl.ing.arh.

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1 Naziv/ime investitora

2 Naziv projektovanog objekta

3 Mjesto građenja, planski dokument, urbanistička parcela, katastarska parcela

4 Idejno rješenje, idejni projekat, glavni projekat odnosno projekat izvedenog objekta projekat (ako je u pitanju naslovna strana cjelokupne tehničke dokumentacije)

5 Naziv privrednog društva, pravnog lica odnosno preduzetnika koji je izradio tehničku dokumentaciju

6 Ime odgovornog lica u privrednom društvu, pravnom licu odnosno ime i prezime preduzetnika

7 Ime i prezime glavnog inženjera.

elektronski potpis projektanta	elektronski potpis revidenta
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INVESTITOR <sup>8</sup>	“MASTER INŽENJERING” D.O.O PODGORICA
OBJEKAT <sup>9</sup>	HOTELSKI KOMPLEKS 5* - G+P+Mz+7(11) - FAZA III
LOKACIJA <sup>10</sup>	dio UP br.23.1, blok br.23, DUP "BUDVA CENTAR" Opština Budva
DIO TEHNIČKE DOKUMENTACIJE <sup>11</sup>	GLAVNI PROJEKAT KONSTRUKCIJE
PROJEKTANT <sup>12</sup>	“PROSTOR PLUS MN” DOO BUDVA, društvo za projektovanje i inženjering , Hotel Obala , Rafailovići, Bečićka plaža br.25
ODGOVORNO LICE <sup>13</sup>	Milivoj Ilibašić, dipl.ing.građ.
ODGOVORNI INŽENJER <sup>14</sup>	Milivoj Ilibašić, dipl.ing.gradj.broj licence;UPI 107/7-225/2
SARADNICI NA PROJEKTU <sup>15</sup>	

8 <sup>1</sup>Naziv/ime investitora

9 <sup>2</sup> Naziv projektovanog objekta

10 <sup>3</sup> Mjesto građenja, planski dokument, urbanistička parcela, katastarska parcela

11 <sup>4</sup> Arhitektonski projekat, građevinski projekat, elektrotehnički projekat odnosno mašinski projekat (ako je u pitanju naslovna strana dijela tehnički dokumentacije)

12 <sup>5</sup> Naziv privrednog društva, pravnog lica odnosno preduzetnika koji je izradio dio tehničke dokumentacije

13 <sup>6</sup> Ime odgovornog lica u privrednom društvu, pravnom licu odnosno ime i prezime preduzetnika

14<sup>7</sup> Ime i prezime glavnog inženjera

15<sup>8</sup> Ime i prezime saradnika na izradi dijela tehnički dokumentacije

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# TEHNIČKI OPIS UZ GLAVNI PROJEKAT KONSTRUKCIJE

## 1.1 Podloge za projektovanje

Kao podloge za ovaj glavni projekat konstrukcije su korišćeni:

- Glavni projekat arhitekture koji je izradio projektni biro "KALOS " d.o.o Budva
- Elaborat o geotehničkim svojstvima terena koji je je izradila "GEOTEHNIKA Montenegro" d.o.o. iz Nikšića
- IZVJEŠTAJ O SEIZMIČKOM HAZARDU I REFRAKACIONIM SEIZMIČKIM ISPITIVANJIMA LOKACIJE HOTELA NA URBANISTIČKIM PARCELAMA UP16.3 I UP16.5, U OKVIRU BLOKA 16, U ZAHVATU IZMJENA I DOPUNA DUP-a "BUDVA CENTAR", S.O. BUDVA

## 1.2 Gabariti konstrukcije

Konstrukcija objekta obuhvata jednu pozemnu i jedanaest nadzemnih etaža , pri čemu se u okviru prizemlja pojavljuje međуетaža ( mezanin ) . Podzemne etaže prate granicu parcele i imaju ( maksimalne )gabarite 138.0\*64.0m . Spratna visina podzemne etaže je 5.10 m , a komunikacija se ostvaruje pomoću silazne rampe za dvosmerni saobraćaj. Nadzemne etaže imaju gabarite 110.0\*35.50 sa povučenim etažama posle VIII sprata . Spratne visine nadzemnih etaža su 3,50m i 6.90 ( prizemlje i mezanin ) . Preovlađujući raster stubova u osnovi je 7,90 m . Objekat je posle I sprata koncipiran i obliku dve “ potkovice “ koje formiraju atrijum maksimalnog raspona 14.00m . Potkovice su na III,V,VII spratu povezane sa centralnim jezgrom “ mostovima “ širine 8.00m. Od VIII sprata konstrukcija nema atrijume i ploče su monolitne sa povlečenjem na svakoj sledećoj etaži od 7.80m.

## 1.3 Opis konstruktivnog sistema

Konstrukcija objekta se sastoji od glavnih AB nosećih vertikalnih i AB nosećih horizontalnih elemenata. Horizontalni noseći elementi su AB ploče i AB grede. Glavni vertikalni noseći elementi su AB zidovi ( seizmički zidovi , pos SZ... ) i AB stubovi ( pos S... ) . Sekundarni vertikalni noseći elementi su AB podrumski o obodni zidovi ( pos PZ... ) , AB stepeništa ( pos SK... ) . Kao konstruktivni elementi uvode se i “ reduktori “ koji predstavljaju sklop zidova i stubova na koji se redukuju svi statički uticaji i kao takvi se dimenzionišu

AB ploče ( pos P ) se izvode sa MB 45 i imaju sledeće dimenzije :

- Temeljna ploča ( pos P-100 ) d=100cm
- Ploče prizemlja , mezanina I , VIII-XI sprata d=40.0cm

- Ploče II-VII sprata  $d=30.0\text{cm}$

Sve međuspratne tavanice ( ploče  $d=40.0$  i  $d=30.0\text{cm}$  se izvode kao olakšane AB ploče koje u centralnom delu sadrže plastične kutijaste elemente koji se postavljaju prema zadatom rasteru i formiraju svojevrsnu kasetiranu tavanicu. Debljina gornje i donje zone AB kasetirane tavanice je  $6.0\text{cm}$  . Konzolni prepusti na terasama se izvode kao pune ploče  $d=20.0\text{cm}$  sa denivelacijom prema arh. detalju.

AB grede ( pos G ) se izvode sa MB 45 sa dimenzijama prikazanim u planu oplata .

AB stubovi ( pos S ) se izvode sa MB 45 sa dimenzijama prikazanim u planu oplata.

AB seizmički zidovi ( pos SZ ) se izvode sa MB 45 sa dimenzijama prikazanim u planovima oplata skladu sa arhitektonskim zahtevima .

AB podrumski i obodni zidovi ( pos PZ ) su debljine  $d_z=20,5\text{cm}$  sa položajem u osnovi koji je u skladu sa arhitektonskim rešenjem.

### 1.3 Opis fundiranja objekta

Objekat je fundiran preko temeljne ploče  $d=100\text{cm}$  koja se oslanja na šipove  $f_i800$  čiji su raspored i proračun prikazani u posebnom projektu fundiranja.

### 1.4 Proračun konstrukcije

Konstrukcija je modelirana kao 3D model u programu "TOWER 8" Radimpex. Sproveden je statički i dinamički proračun konstrukcije kao i proračun stabilnosti

#### *a) Analiza vertikalnog opterećenja*

U okviru proračunskog modela konstrukcije za glavni projekat, pored sopstvene težine konstrukcije, zadata su dodatna stalna linjska opterećenja od pregradnih zidova, kao i površinska opterećenja od težine podova i plafona prema šemama datim u prilogu. Korisna , povremena opterećenja su data u skladu sa namenom prostorija. ( usvojeno je pojačano korisno opterećenje od  $2,0\text{kN/m}^2$  i  $4.0\text{kN/m}^2$  za prostorije sa ljudskom navalom ). Opterećenje od vode u bazenima je tretirano kao vertikalno i horizontalno sa alternativnim smerom dejstva od  $20.0\text{kN/m}^2$

#### *b) Uticaj seizmičkih sila*

Na osnovu parametara definisanih u Izveštaju o seizmičkom hazardu, definisano je da je projektno ubrzanje  $a_{gR}=0.35g$  za povratni period od 475 godina. Tlo ispod objekta je okarakterisano kao tip C , prema EC8. Za ovako visoku vrednost ubrzanja tla pri dejstvu seizmike, ovo horizontalno opterećenje je, sa aspekta dejstva na konstrukciju kao celinu, apsolutno merodavno u odnosu na dejstvo vetra, pa dejstvo vetra na konstrukciju u ovom delu projekta nije razmatrano.

Primarnu konstrukciju za prihvatanje horizontalnih dejstava čini armiranobetonski zidovi i elementi ramovskih konstrukcija koji su uključeni u proračunski model, i prihvataju deo opterećenja saglasno njihovoj krutosti. Konstrukcija je tretirana kao, klase duktilnosti DCM. Lokalno se spojevi greda sa AB zidovima tretiraju kao srednje duktilni, uz odgovarajuće mere poprečnog armiranja, kako bi se mogla dopustiti plastifikacija ovih preseka i pri nižim nivoima opterećenja u odnosu na graničnu nosivost cele konstrukcije. Za proračun konstrukcije za dejstvo seizmike je korišćena multimodalna analiza.

Za potrebe modalne analize krutost konstruktivnih elemenata je umanjena : ploče na 20% , grede, stubovi, seizmička platna su računati sa redukovanim krutostima koji su obezbedili zadovoljavajući odnos centra krutosti i centra mase . Dodatno smanjenje smičuće krutosti je uvedeno u gredama koje se nalaze u oviru seizmičkih platana ( nadvratne grede ) . Usvojeni procenti umanjnja krutosti su se pokazali kao opravdani jer su obezbedili torzionu krutost objekta . Prema rezultatima modalne analize I i II ton su izrazito translatorni ( za pravac seizmičkog dejstva od 6 stepeni ) pri čemu :

I ton sa periodom od 1.418 sekunde angažuje 71.05 % mase nadzemnog dela objekta

II ton sa periodom od 1.102 sekunde angažuje 69.98 % mase nadzemnog dela objekta

III ton sa periodom od 0.924 sekunde angažuje 0.04 % mase nadzemnog dela objekta

Angažovani procenat masa nadzemnog dela objekta za sve tonove je 95.33 za X-pravac i 92.72 za Y-pravac.

### Seizmički proračun je sproveden prema EC8

Za potrebe seizmičkog proračuna objekat je tretiran kao duktilni sistem zidova , klase duktilnosti DCM . Prilikom usvajanja preovladjujućeg oblika loma objekat je tretiran kao sistem sa jezgrom . Kategorija značaja je II . Objekat je tretiran kao neregularan po visini i usvojen je **faktor ponašanja od 2.4** Proračun tretira slučajne torzione efekte i usvojen je excentricitet spratne mase od 0,05%.

#### *c) Rezultati proračuna konstrukcije*

U prilogu su prikazani rezultati proračuna i dimenzionisanja karakterističnih elemenata konstrukcije. Izvršeno je dimenzionisanje zidova i stubova za sve ramove.

Visoka vrednost projektnog ubrzanja tla, praćena relativno niskim faktorom ponašanja, kao rezultat proračuna za dejstvo seizmike daju značajne uticaje i značajne količine armature u armiranobetonskim zidovima, ali u granicama koje su propisane u odgovarajućim normama. Treba napomenuti da pri usvajanju armature za smicanje dobijene proračunom ( $A_{ah}$ ) treba usvojiti površinu za 50% veću od proračunate, u skladu sa odredbama EC8 za proračun duktilnih zidova.

Torziona regularnost je kontrolisana na osnovu oblika oscilovanja konstrukcije, kao i činjenice da za horizontalno pomeranje pojedinih tavanica pri dejstvu seizmike u X i Y pravcu, odnos maksimalnog i srednjeg pomeranja tavanice nije veći od 1.2 . Zadovoljenje ovog uslova prema ASCE (2010) odgovara torziono regularnim konstrukcijama.

U prilogu je pokazano da je zadovoljen uslov  $0.5d_r < 0.0050h$  (EC8, uslov 4.4.3.2b), gde je  $d_r$  srednje **maksimalno relativno pomeranje tavanica**, a  $h$  odgovarajuća spratna visina.

U statičkom proračunu izvršena je kontrola ploča na probijanje kao i kontrola trajnog ugiba za merodavno opterećenje .

Izvršena je kontrola duktilnosti zidova i stubova izvršena je u skladu sa EN 1998-1:2004 prilog 5.4.3.4.1 (3),

U izlaznoj dokumentaciji prikazani su :

- Geometrijske karakteristike modela i svih konstruktivnih elemenata
- Intenzitet i položaj svih opterećenja
- Rezultati modalne analize i seizmički proračun
- Statički uticaji u linijskim i površinskim elementima
- Usvojena armatura u pločama , gredama , stubovima , zidovima i sekundarnim nosećim elementima .
- Planovi oplata
- Detalji armature

Sastavio : Milivoj Ilibašić dipl.ing.grad

## Legenda pozicija

- **pos P** n... : AB ploča na koti n ...
- **pos G** n... : AB greda na koti n ...
- **pos S** n... : AB glavni stub
- **pos Ss** n... : AB sekundarni stub u
- **pos SZ** n... : AB seizmički zid
- **pos Ssz** n... : AB sekundarni seizmički zid
- **pos Pz** n... : AB podrumski zid
- **pos Sje** n.. : AB seizmičko jezgro
- **pos Ssje** n.. : AB sekundarno seizmičko jezgro
- **pos L** n.. : AB reduktor tipa L
- **pos T** n.. : AB reduktor tipa T
- **pos Zb** n.. : AB zidovi bazena
- **pos Sk** n.. : AB stepenišni krak

# ANALIZA POVRŠINSKIH OPTEREĆENJA

		<b>g ( kN/m<sup>2</sup> )</b>	<b>p( kN/m<sup>2</sup> )</b>
		stalna	korisna
<b>1</b>	<b>pos -100 ( garaža )</b>	kategorija upotrebe	<b>G</b>
1.1	podna obloga ( keramika , EPOXID )	0.50	
1.2	sloj za pad 20.0cm	4.80	
1.3	izolacije	0.10	
<b>ukupno</b>		<b>5.40</b>	<b>5.00</b>
	<b>pos 000 ( prizemlje )</b>	kategorija upotrebe	<b>B,C,D</b>
1.1	podna obloga ( kamen 3.0cm )	0.90	
1.2	sloj za pad 10.0cm	2.40	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
<b>ukupno</b>		<b>3.70</b>	
	adminstrativni deo ( B )		3.00
	restorani ( C1 )		3.00
	kongresna sala ( C2 )		4.00
	prodajni prostori i spa ( D2 )		5.00
	prohodne terase ( C5 )		7.50
	<b>pos 100 ( galerija )</b>	kategorija upotrebe	<b>C1</b>
1.1	podna obloga ( kamen 3.0cm )	0.90	
1.2	cem. košuljica 4.0cm	1.00	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
<b>ukupno</b>		<b>2.30</b>	
	restorani ( C1 )		3.00

**pos 200 ( mezanin )**kategorija  
upotrebe

C

1	unutrašnji prostori		
1.1	podna obloga ( kamen 3.0cm )	0.90	
1.2	cem. Košuljica 4.0-10.0cm	1.75	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>3.05</b>	
2	spoljni prostori ( prohodne terase )		
2.1	podna obloga ( kamen 3.0cm )	0.90	
3.2	sloj za pad 4.0cm	1.00	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>2.30</b>	
3	spoljni prostori ( zeleni krov )		
3.1	slojevi zelenog krova	1.60	
3.2	sloj za pad 4.0cm	1.00	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>3.00</b>	
4	vodena površina		
4.1	AB konst . Bazena 1	7.00	
4.2	sloj za pad 4.0cm	1.00	
4.3	izolacije	0.20	
4.4	plafonska konst	0.20	
4.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>8.50</b>	
	restorani ,repcije	( C1 )	3.00
	hol	( C3 )	5.00
	zelene površine		3.00
	vertikalni pritisak vode		5.00

**pos 300 - (hotelski , stambeni sadržaji )**kategorija  
upotrebe

A

1	unutrašnji prostori		
1.1	podna obloga ( keramika 1.0cm )	0.30	
1.2	cem. košuljica 4.0cm	1.00	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>1.70</b>	
2	spoljni prostori ( balkoni , hodnici )		
2.1	podna obloga ( keramika 1.0cm )	0.30	
3.2	cem. košuljica 4.0cm	1.00	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>1.70</b>	
3	spoljni prostori ( zeleni krov )		
3.1	slojevi zelenog krova	1.60	
3.2	sloj za pad 6.0cm	1.50	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<hr/>	<hr/>	
	ukupno	<b>3.50</b>	
	hotelske sobe ( A )		2.00
	stepeništa ( A )		3.00
	balkoni ( A )		3.00
	zelene površine		3.00

**pos 400 (hotelski , stambeni sadržaji ,teretana )**kategorija  
upotrebe

A,C

1	unutrašnji prostori		
1.1	podna obloga ( keramika 1.0cm )	0.30	
1.2	cem. košuljica 4.0cm	1.00	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.70</b>	
2	spoljni prostori (balkoni , hodnici )		
2.1	podna obloga ( keramika 1.0cm )	0.30	
3.2	cem. košuljica 4.0cm	1.00	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.70</b>	
3	spoljni prostori (zeleni krov )		
3.1	slojevi zelenog krova	1.60	
3.2	sloj za pad 6.0cm	1.50	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<b>ukupno</b>	<b>3.50</b>	
4	teretana		
4.1	podna obloga ( guma 1.0cm )	0.10	
4.2	cem. košuljica 4.0cm	1.00	
4.3	izolacije	0.20	
4.4	plafonska konst	0.20	
4.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.60</b>	
	hotelske sobe ( A )		2.00
	stepeništa ( A )		3.00
	balkoni ( A )		3.00
	teretana ( C4 )		5.00
	zelene površine		3.00

**pos 600 (hotelski , stambeni sadržaji ,teretana )**kategorija  
upotrebe

A

1	unutrašnji prostori		
1.1	podna obloga ( keramika 1.0cm )	0.30	
1.2	cem. košuljica 4.0cm	1.00	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.70</b>	
2	spoljni prostori (balkoni , hodnici )		
2.1	podna obloga ( keramika 1.0cm )	0.30	
3.2	cem. košuljica 4.0cm	1.00	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.70</b>	
3	spoljni prostori (zeleni krov )		
3.1	slojevi zelenog krova	1.60	
3.2	sloj za pad 6.0cm	1.50	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<b>ukupno</b>	<b>3.50</b>	
4	krov teretane		
4.1	slojevi zelenog krova	1.60	
4.2	sloj za pad 6.0cm	1.50	
4.3	izolacije	0.10	
4.4	plafonska konst	0.20	
4.5	instalacije	0.10	
	<b>ukupno</b>	<b>3.50</b>	
	hotelske sobe ( A )		2.00
	stepeništa ( A )		4.00
	balkoni ( A )		4.00
	zelene površine		3.00

<b>pos 1000 (hotelski , stamb. sadržaji ,kongresna sala )</b>		kategorija upotrebe	A,C
1	unutrašnji prostori		
1.1	podna obloga ( keramika 1.0cm )	0.30	
1.2	cem. košuljica 4.0cm	1.00	
1.3	izolacije	0.10	
1.4	plafonska konst	0.20	
1.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.70</b>	
2	spoljni prostori (balkoni , hodnici )		
2.1	podna obloga ( keramika 1.0cm )	0.30	
3.2	cem. košuljica 4.0cm	1.00	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<b>ukupno</b>	<b>1.70</b>	
3	spoljni prostori (zeleni krov )		
3.1	slojevi zelenog krova	1.60	
3.2	sloj za pad 6.0cm	1.50	
3.3	izolacije	0.10	
3.4	plafonska konst	0.20	
3.5	instalacije	0.10	
	<b>ukupno</b>	<b>3.50</b>	
4	krov teretane		
4.1	slojevi zelenog krova	1.60	
4.2	sloj za pad 6.0cm	1.50	
4.3	izolacije	0.10	
4.4	plafonska konst	0.20	
4.5	instalacije	0.10	
	<b>ukupno</b>	<b>3.50</b>	
	hotelske sobe ( A )		2.00
	stepeništa ( A )		4.00
	balkoni ( A )		4.00
	kongresna sala ( C2 )		4.00
	zelene površine		2.00

**pos 1100 ( hotelski , stamb. sadržaji  
restoran , terasa bazena )**

kategorija  
upotrebe

A,C

1	unutrašnji prostori	
1.1	podna obloga ( keramika 1.0cm )	0.30
1.2	cem. košuljica 4.0cm	1.00
1.3	izolacije	0.10
1.4	plafonska konst	0.20
1.5	instalacije	0.10
	<hr/>	<hr/>
	ukupno	<b>1.70</b>
2	spoljni prostori ( balkoni , hodnici ,terase )	
2.1	podna obloga ( keramika 1.0cm )	0.30
3.2	cem. košuljica 4.0cm	1.00
3.3	izolacije	0.10
3.4	plafonska konst	0.20
3.5	instalacije	0.10
	<hr/>	<hr/>
	ukupno	<b>1.70</b>
3	spoljni prostori ( zeleni krov )	
3.1	slojevi zelenog krova	1.60
3.2	sloj za pad 6.0cm	1.50
3.3	izolacije	0.10
3.4	plafonska konst	0.20
3.5	instalacije	0.10
	<hr/>	<hr/>
	ukupno	<b>3.50</b>
4	terasa bazena	
4.1	deking	0.50
4.2	sloj za pad 6.0cm	1.50
4.3	izolacije	0.10
4.4	plafonska konst	0.20
4.5	instalacije	0.10
	<hr/>	<hr/>
	ukupno	<b>2.40</b>
	hotelske sobe ( A )	2.00
	stepeništa ( A )	4.00
	balkoni ( A )	4.00
	restorani ,recepције ( C1 )	3.00
	terasa bazena ( C4 )	5.00
	zelene površine	3.00

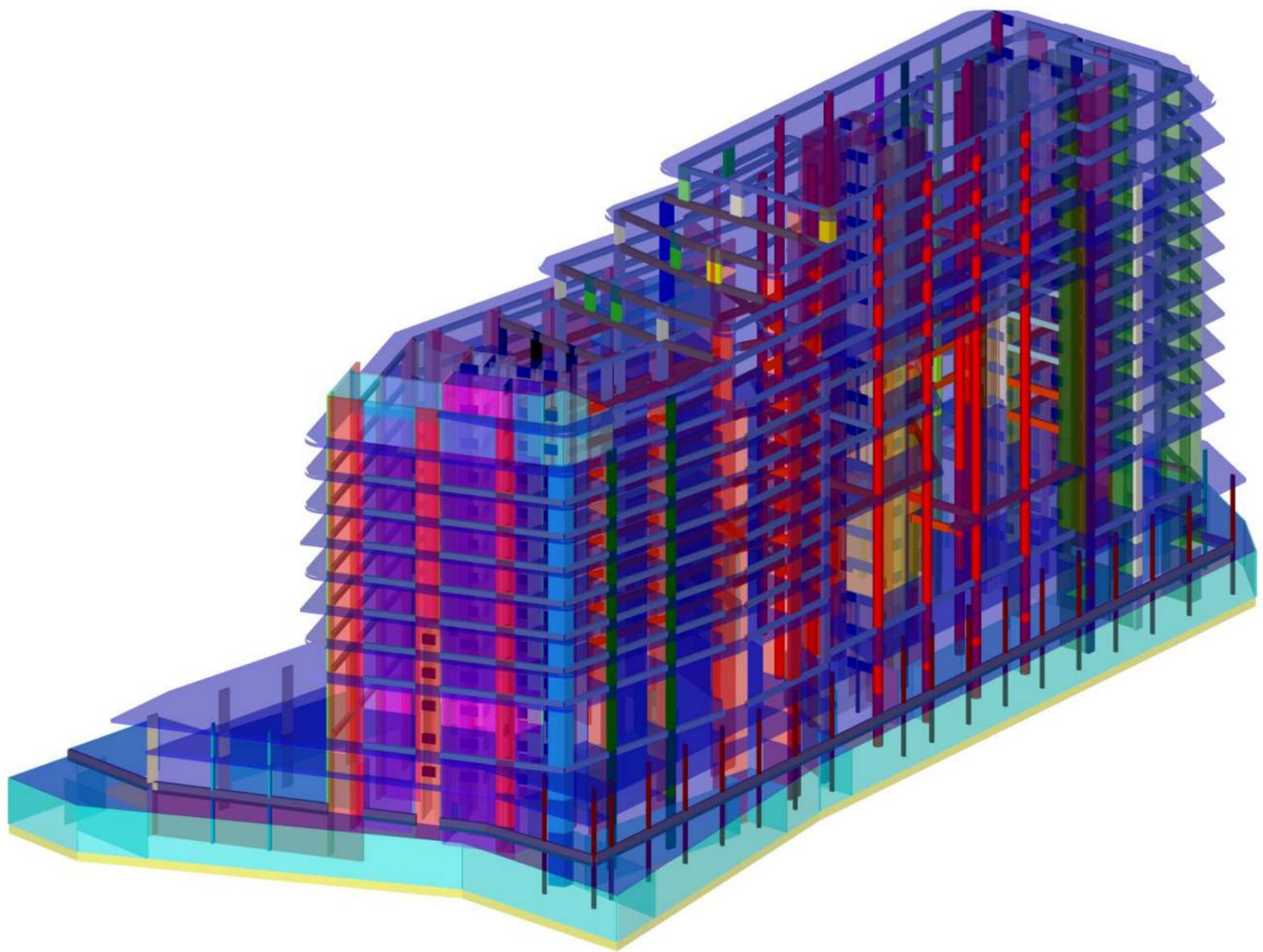
**pos B1,2 ( bazeni )**kategorija  
upotrebe

A,C

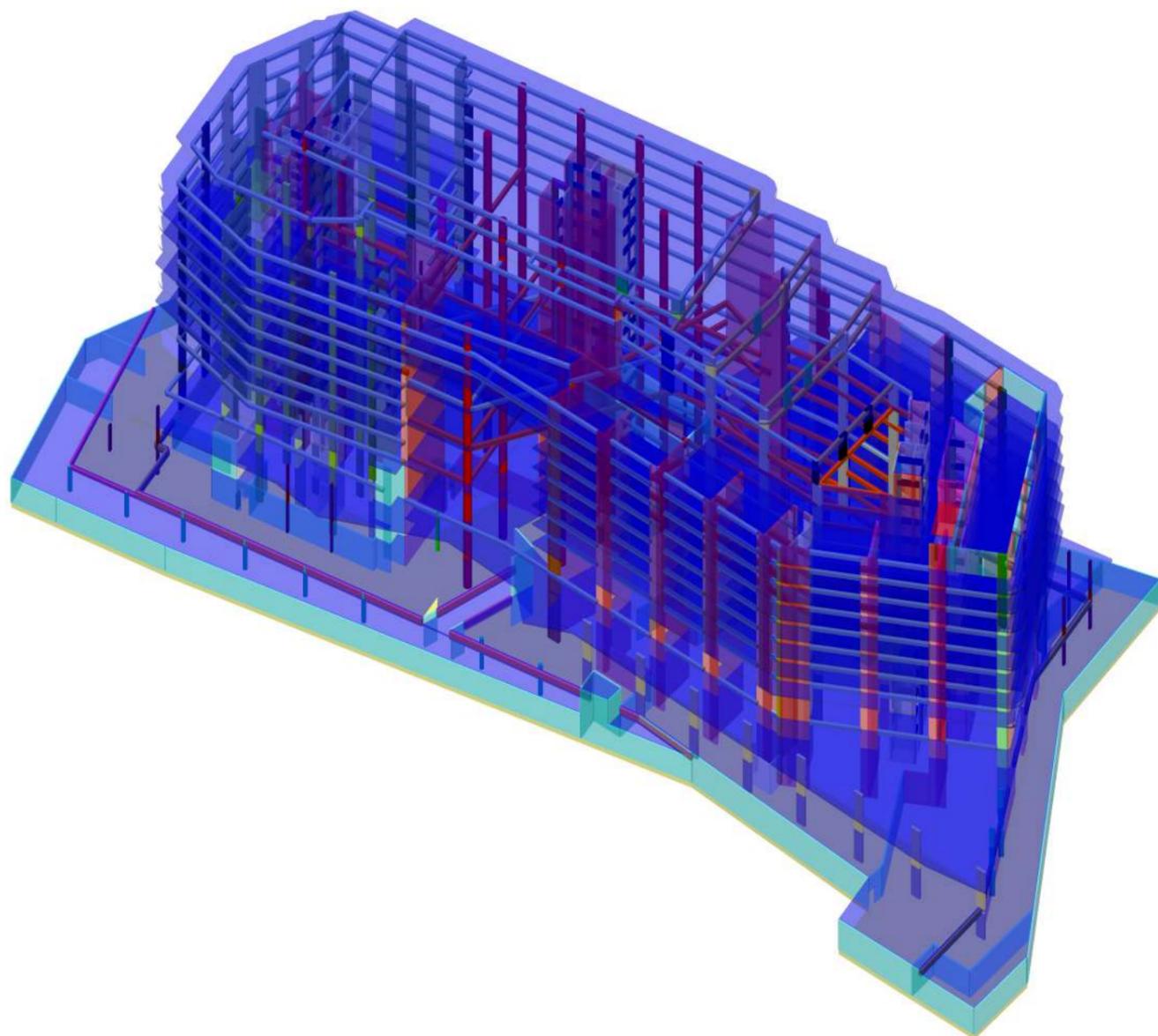
1.1 podna obloga ( keramika 1.0cm )	0.30
1.2 cem. košuljica 6.0cm	1.50
1.3 izolacije	0.10
1.4 zidovi bazena	2.82
1.5 dno bazena	5.00
<hr/>	<hr/>
ukupno	9.72
vertikalni pritisak vode	15.00
horizontalni pritisak vode	30.00

# ANALIZA LINIJSKIH OPTEREĆENJA

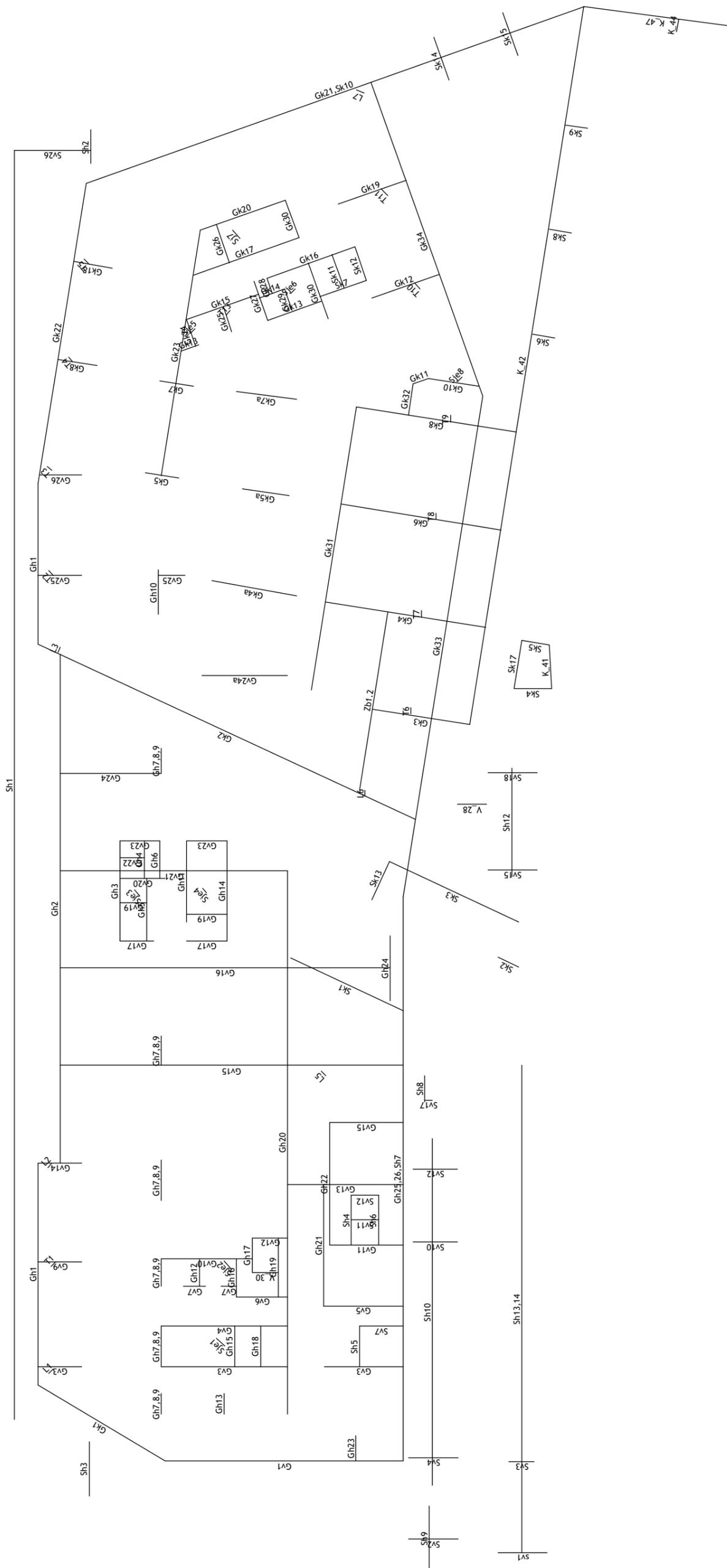
		<b>g ( kN/m)</b>	
<b>1</b>	<b>FZ1 (fasadni zid )</b> h= 320 cm		
1.1	giter blok d=20.0cm , $\gamma =$	2.60 kN/m <sup>2</sup>	8.32
1.2	AB serklaž 20*20.0cm		1.00
1.3	termoizolacija d=5.0cm , $\gamma =$	0.15 kN/m <sup>2</sup>	0.48
1.4	fasadna obloga d=1.0cm , $\gamma =$	1.00 kN/m <sup>2</sup>	3.20
1.5	produžni malter d=2.5cm , $\gamma =$	0.60 kN/m <sup>2</sup>	1.92
	ukupno		14.92
<b>2</b>	<b>FZ2 (staklena fasada)</b> h= 300 cm		
2.1	staklo	1.00 kN/m <sup>2</sup>	3.00
2.2	aluminijum	0.15 kN/m <sup>2</sup>	0.45
	ukupno		3.45
<b>3</b>	<b>UZ1 (unutrašnji zid d=20cm)</b> h= 320 cm		
3.1	giter blok d=20.0cm , $\gamma =$	2.60 kN/m <sup>2</sup>	8.32
3.2	AB serklaž 20*20.0cm	1.00 kN/m	1.00
3.3	produžni malt. d=2*2.5cm, $\gamma =$	1.20 kN/m <sup>2</sup>	3.84
	ukupno		13.16
<b>4</b>	<b>UZ2 (unutrašnji zid d=12cm)</b> h= 320 cm		
4.1	giter blok d=12.0cm , $\gamma =$	1.60 kN/m <sup>2</sup>	5.12
4.2	AB serklaž 12*20.0cm	0.60 kN/m	0.60
4.3	produžni malt. d=2*2.5cm, $\gamma =$	1.20 kN/m <sup>2</sup>	3.84
	ukupno		9.56
<b>5</b>	<b>UZ2 (unutrašnji zid d=12cm)</b> h= 320 cm		
4.1	KNAUF	0.34 kN/m <sup>2</sup>	1.08
4.2	podkonstrukcija	0.10 kN/m	0.32
4.3	izolacija	0.10 kN/m <sup>2</sup>	0.32
4.3	instalacije	0.05 kN/m <sup>2</sup>	0.16
	ukupno		1.72
<b>6</b>	<b>ograde na terasama</b> h= 110 cm		
6.1	metalna ograda		1.00
6.2	betonska ograda d= 14.00 cm		3.85



Izometrija



Izometrija



### Sema nivoa

Naziv	z [m]	h [m]
P 1400	52.85	3.50
P 1300	49.35	3.50
P 1200	45.85	3.50
P 1100	42.35	4.20
P 1000	38.15	3.50
P 900	34.65	3.50
P 800	31.15	3.50

Naziv	z [m]	h [m]
P 700	27.65	3.50
P 600	24.15	3.50
P 500	20.65	3.50
P 400	17.15	3.50
P 300	13.65	6.90
P 200	6.75	3.45
P 100	3.30	3.30

Naziv	z [m]	h [m]
P 000	0.00	0.15
	-0.15	0.75
	-0.90	0.25
	-1.15	4.55
P -100	-5.70	

### Tabela materijala

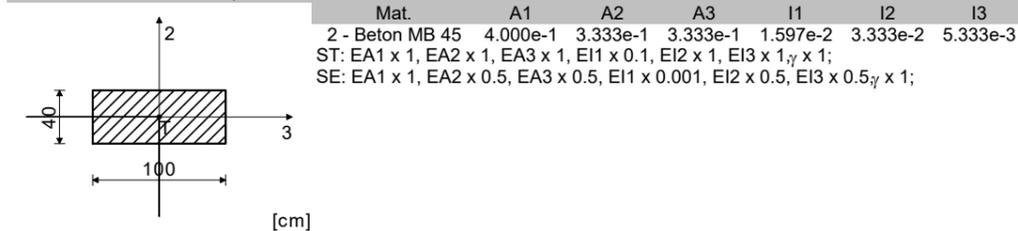
No	Naziv materijala	E[kN/m <sup>2</sup> ]	$\mu$	$\gamma$ [kN/m <sup>3</sup> ]	$\alpha_t$ [1/C]	Em[kN/m <sup>2</sup> ]	$\mu_m$
1	Beton MB 40	3.400e+7	0.20	25.00	1.000e-5	3.400e+7	0.20
2	Beton MB 45	3.500e+7	0.20	25.00	1.000e-5	3.500e+7	0.20
3	Beton MB 30	3.150e+7	0.20	25.00	1.000e-5	3.150e+7	0.20

### Setovi ploča

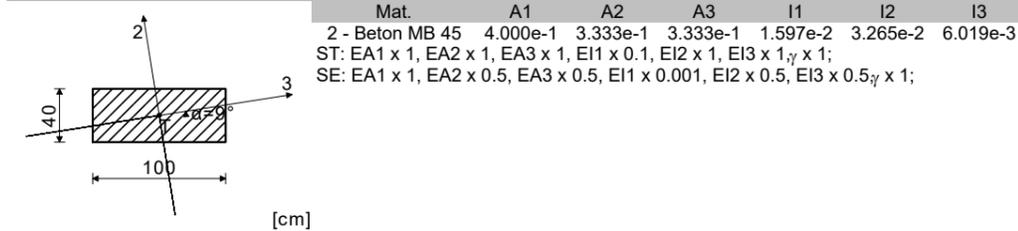
No	d[m]	e[m]	Materijal	Tip proračuna	Ortotropija	E2[kN/m <sup>2</sup> ]	G[kN/m <sup>2</sup> ]	$\alpha$
<1>	1.000	0.000	1	Debela ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 1, E x 1, $\gamma$ x 1;								
<2>	0.400	0.000	1	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 0.5; SE: Em x 1, E x 0.2, $\gamma$ x 0.5;								
<3>	0.250	0.125	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.25, E x 0.8, $\gamma$ x 1;								
<4>	0.400	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.5, E x 0.4, $\gamma$ x 1;								
<5>	0.400	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.3, E x 0.8, $\gamma$ x 1;								
<6>	0.400	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.2, E x 0.8, $\gamma$ x 1;								
<7>	0.400	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.4, E x 0.8, $\gamma$ x 1;								
<8>	0.250	0.125	1	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 1, E x 100, $\gamma$ x 1;								
<10>	0.400	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.3, E x 0.8, $\gamma$ x 1;								
<11>	0.400	0.200	1	Tanka ploča	Izotropna			
ST: Em x 0.001, E x 0.001, $\gamma$ x 0.1; SE: Em x 0.1, E x 100, $\gamma$ x 0.1;								
<12>	0.400	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 1, E x 100, $\gamma$ x 1;								
<14>	0.400	0.000	1	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 0.5; SE: Em x 1, E x 2, $\gamma$ x 0.5;								
<15>	0.300	0.000	1	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 0.7; SE: Em x 1, E x 0.2, $\gamma$ x 0.7;								
<16>	0.300	0.000	1	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 0.7; SE: Em x 1, E x 2, $\gamma$ x 0.7;								
<17>	0.250	0.200	2	Tanka ploča	Izotropna			
ST: Em x 1, E x 1, $\gamma$ x 1; SE: Em x 0.25, E x 0.8, $\gamma$ x 1;								

### Setovi greda

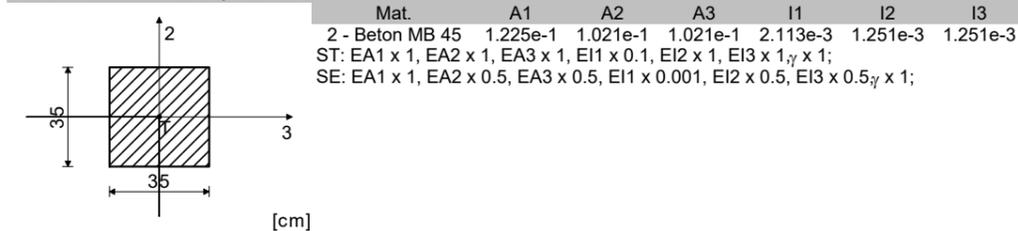
Set: 3 Presek: b/d=100/40, Fiktivna ekscentričnost



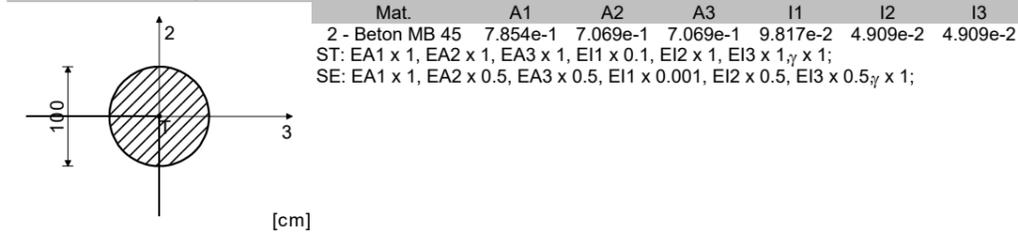
Set: 4 Presek: b/d=100/40, Fiktivna ekscentričnost



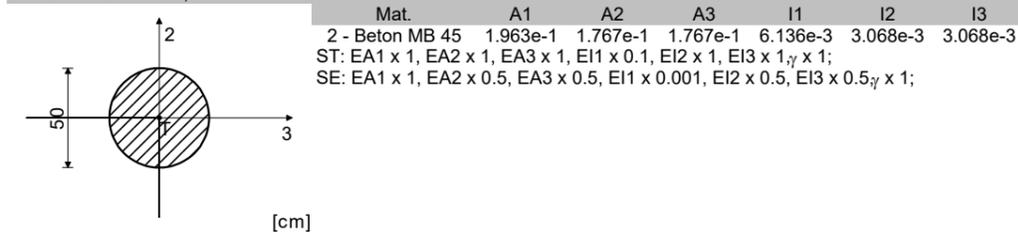
Set: 6 Presek: b/d=35/35, Fiktivna ekscentričnost



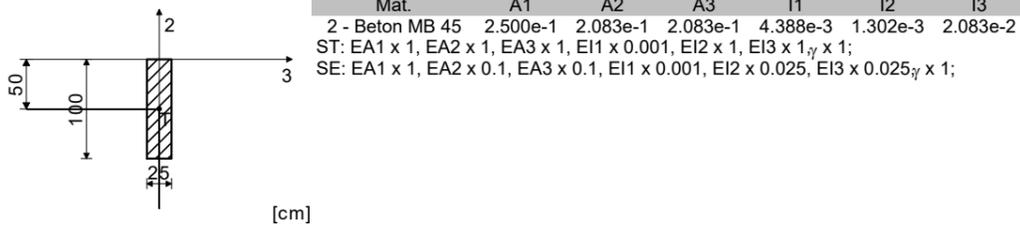
Set: 7 Presek: D=100, Fiktivna ekscentričnost



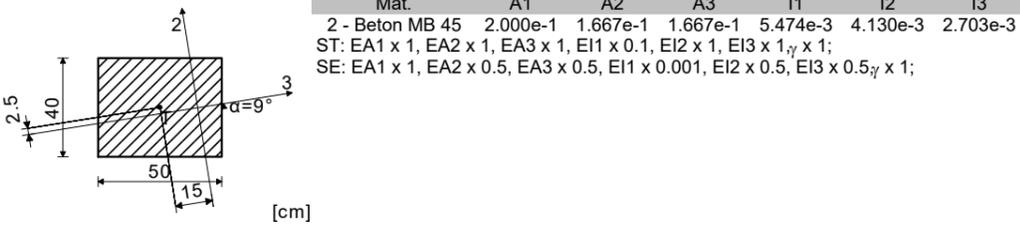
Set: 8 Presek: D=50, Fiktivna ekscentričnost



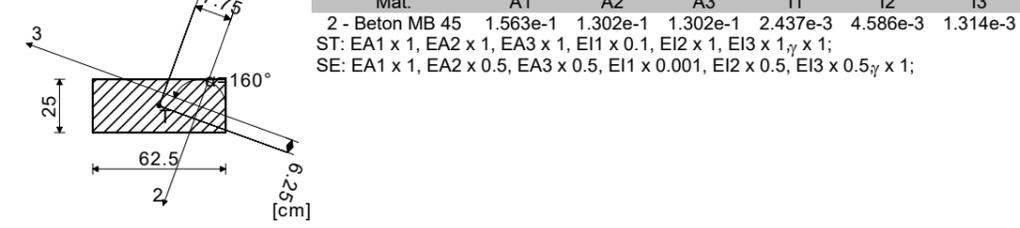
Set: 9 Presek: b/d=25/100, Fiktivna ekscentričnost



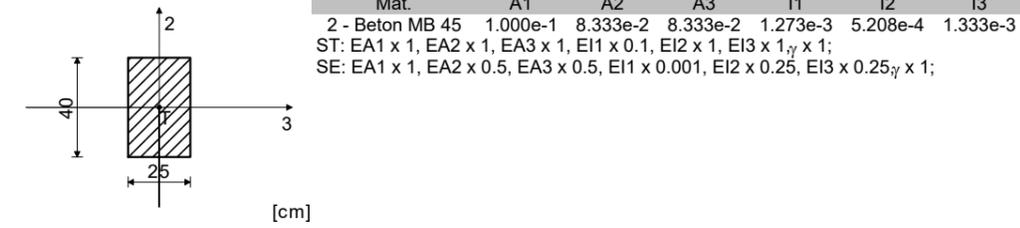
Set: 10 Presek: b/d=50/40, Fiktivna ekscentričnost



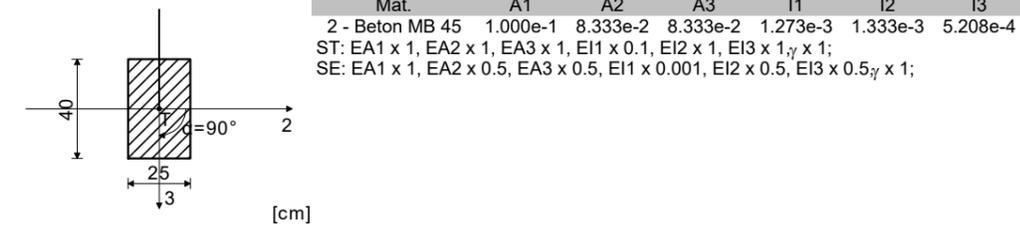
Set: 12 Presek: b/d=62.5/25, Fiktivna ekscentričnost



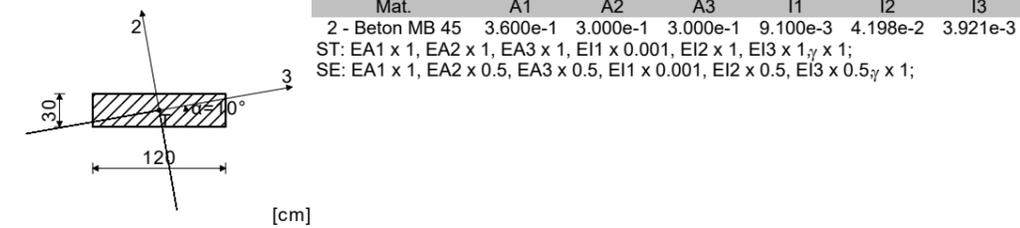
Set: 17 Presek: b/d=25/40, Fiktivna ekscentričnost



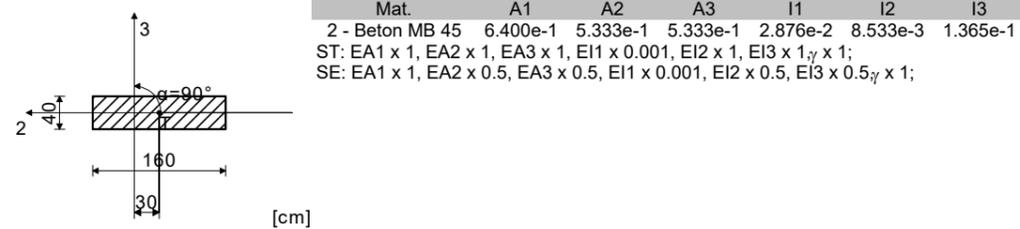
Set: 18 Presek: b/d=25/40, Fiktivna ekscentričnost



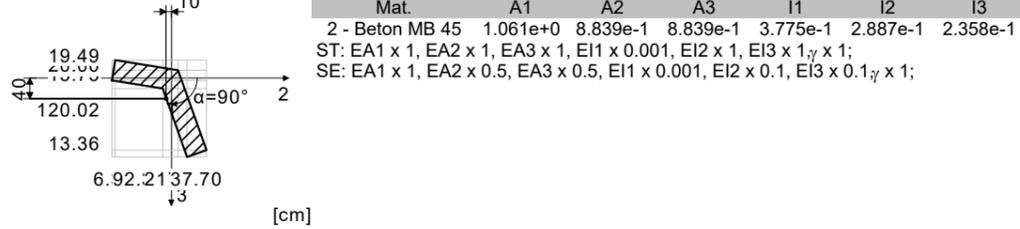
Set: 19 Presek: b/d=120/30, Fiktivna ekscentričnost



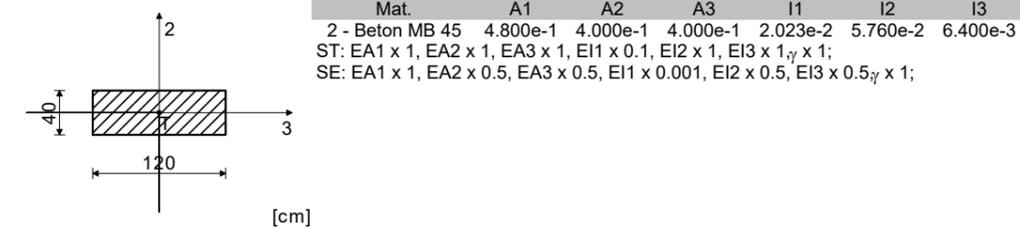
Set: 20 Presek: b/d=160/40, Fiktivna ekscentričnost



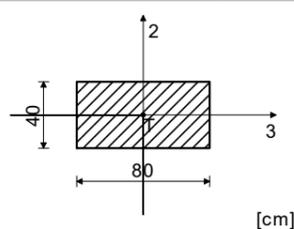
Set: 21 Presek: G1, Fiktivna ekscentričnost



Set: 25 Presek: b/d=120/40, Fiktivna ekscentričnost

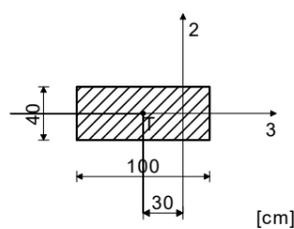


Set: 26 Presek: b/d=80/40, Fiktivna ekscentričnost



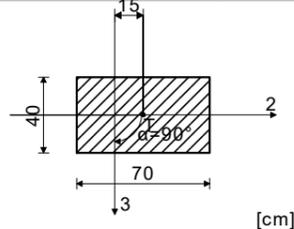
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	3.200e-1	2.667e-1	2.667e-1	1.172e-2	1.707e-2	4.267e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 29 Presek: b/d=100/40, Fiktivna ekscentričnost



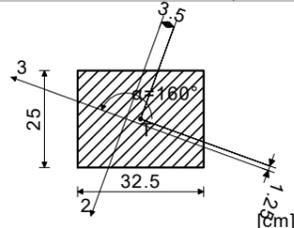
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	4.000e-1	3.333e-1	3.333e-1	1.597e-2	3.333e-2	5.333e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 31 Presek: b/d=70/40, Fiktivna ekscentričnost



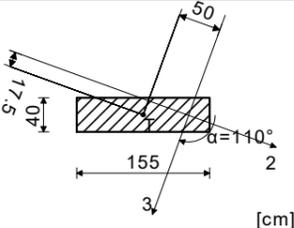
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	2.800e-1	2.333e-1	2.333e-1	9.605e-3	3.733e-3	1.143e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 34 Presek: b/d=32.5/25, Fiktivna ekscentričnost



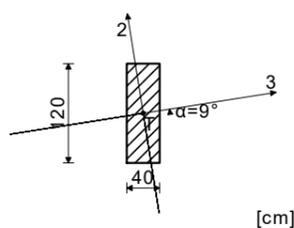
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	8.125e-2	6.771e-2	6.771e-2	8.963e-4	6.810e-4	4.573e-4
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 35 Presek: b/d=155/40, Fiktivna ekscentričnost



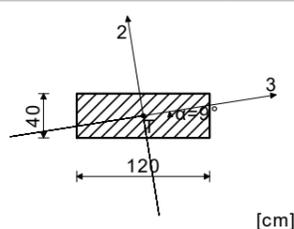
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	6.200e-1	5.167e-1	5.167e-1	2.769e-2	2.182e-2	1.106e-1
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 38 Presek: b/d=40/120, Fiktivna ekscentričnost



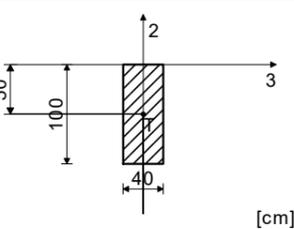
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton MB 40	4.800e-1	4.000e-1	4.000e-1	2.023e-2	7.653e-3	5.635e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 40 Presek: b/d=120/40, Fiktivna ekscentričnost



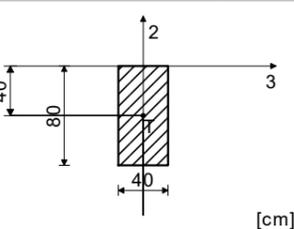
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	4.800e-1	4.000e-1	4.000e-1	2.023e-2	5.635e-2	7.653e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.25, EI3 x 0.25, $\gamma$ x 1;					

Set: 47 Presek: b/d=40/100, Fiktivna ekscentričnost



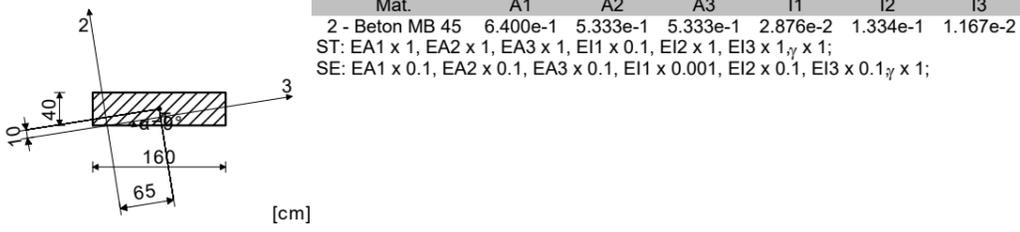
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	4.000e-1	3.333e-1	3.333e-1	1.597e-2	5.333e-3	3.333e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.25, EA3 x 0.25, EI1 x 0.001, EI2 x 0.25, EI3 x 0.25, $\gamma$ x 1;					

Set: 50 Presek: b/d=40/80, Fiktivna ekscentričnost

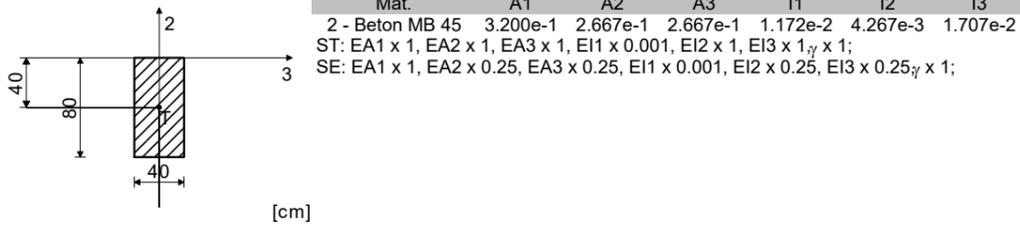


Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	3.200e-1	2.667e-1	2.667e-1	1.172e-2	4.267e-3	1.707e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.25, EA3 x 0.25, EI1 x 0.001, EI2 x 0.25, EI3 x 0.25, $\gamma$ x 1;					

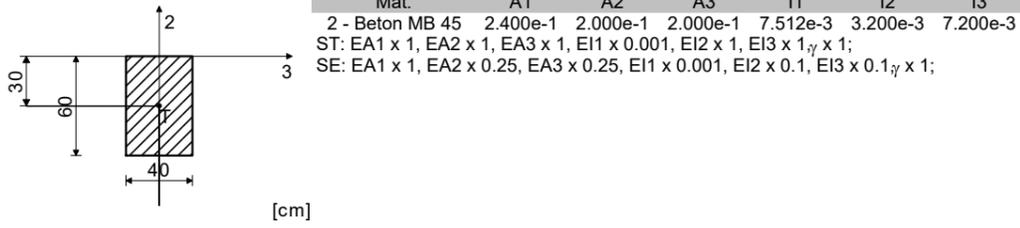
Set: 52 Presek: b/d=160/40, Fiktivna ekscentričnost



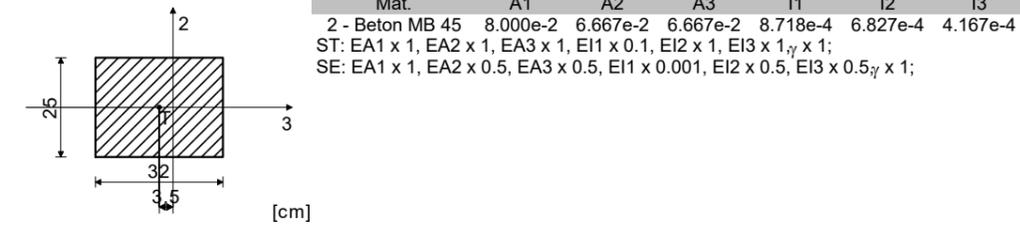
Set: 55 Presek: b/d=40/80, Fiktivna ekscentričnost



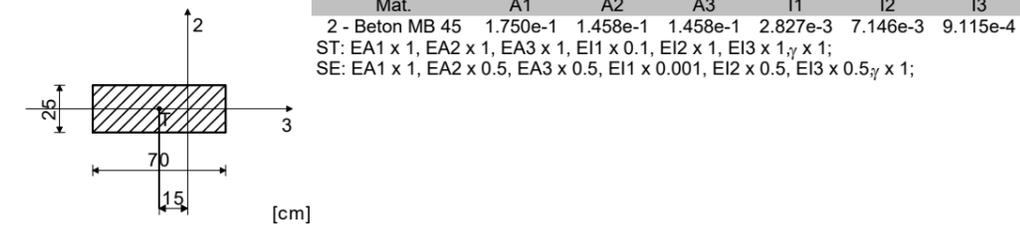
Set: 56 Presek: b/d=40/60, Fiktivna ekscentričnost



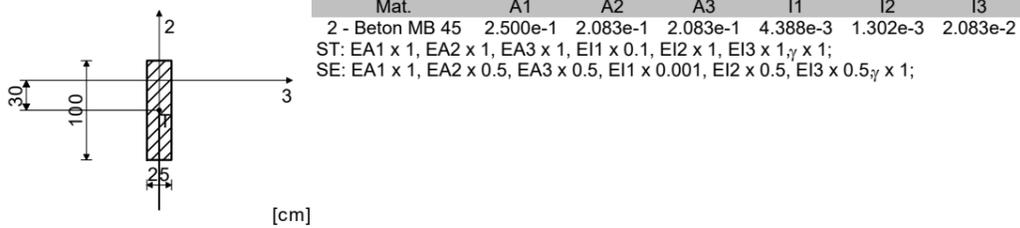
Set: 59 Presek: b/d=32/25, Fiktivna ekscentričnost



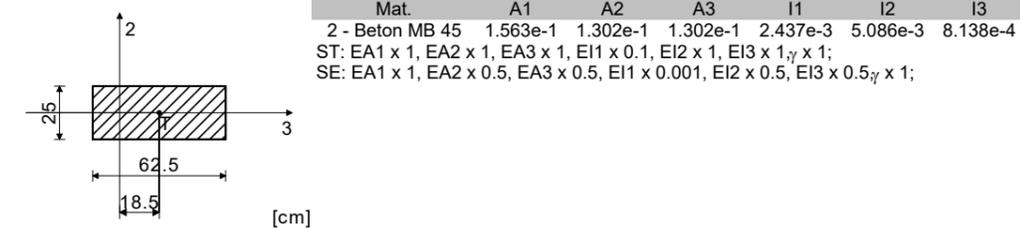
Set: 60 Presek: b/d=70/25, Fiktivna ekscentričnost



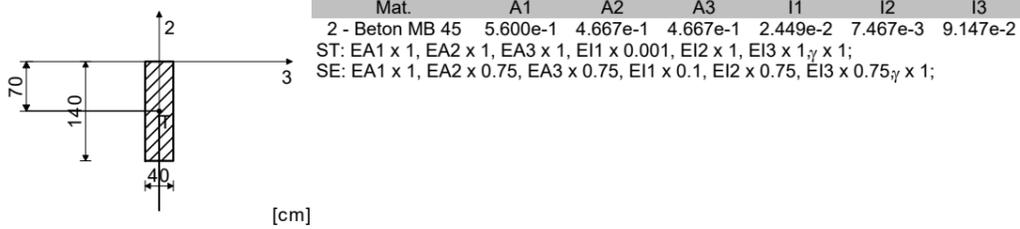
Set: 61 Presek: b/d=25/100, Fiktivna ekscentričnost



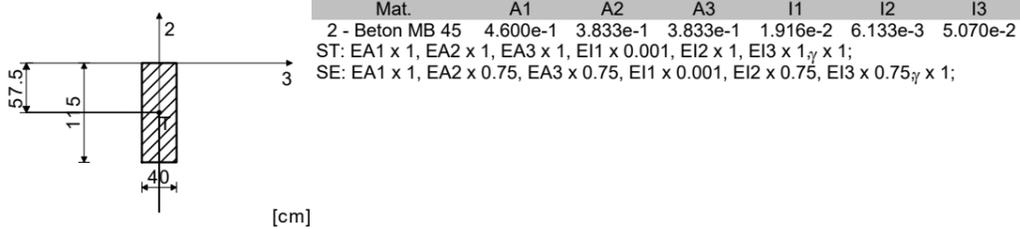
Set: 63 Presek: b/d=62.5/25, Fiktivna ekscentričnost



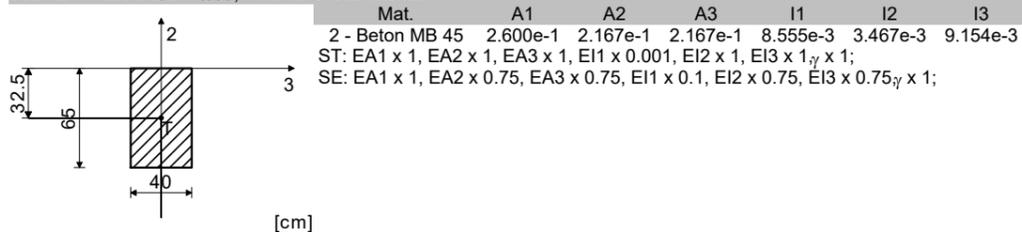
Set: 70 Presek: b/d=40/140, Fiktivna ekscentričnost



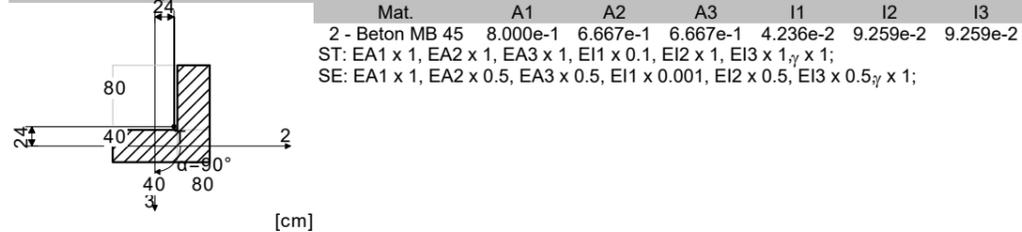
Set: 71 Presek: b/d=40/115, Fiktivna ekscentričnost



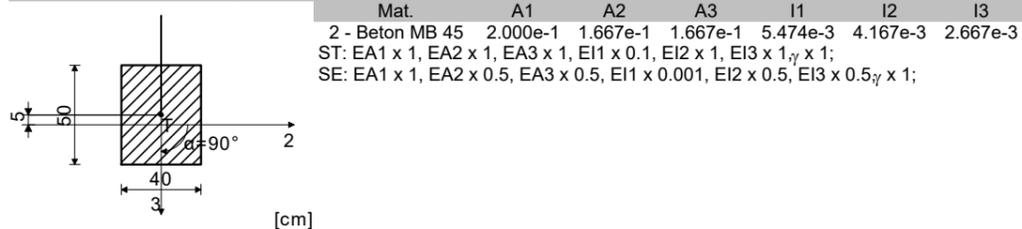
Set: 72 Presek: b/d=40/65, Fiktivna ekscentričnost



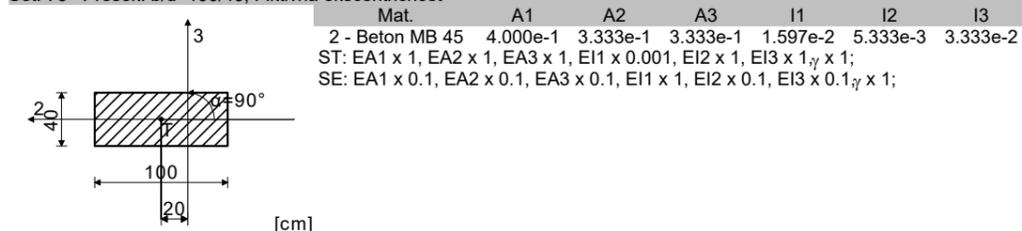
Set: 73 Presek: L, Fiktivna ekscentričnost



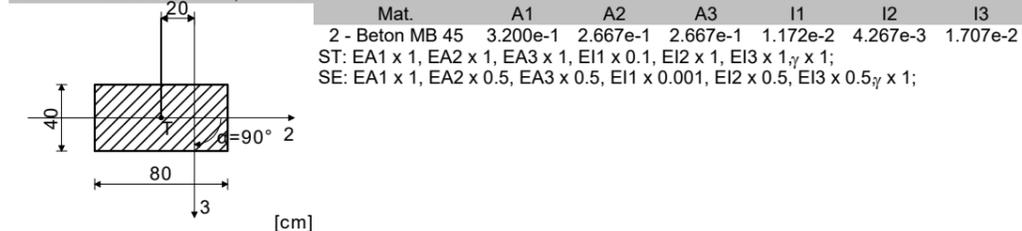
Set: 75 Presek: b/d=40/50, Fiktivna ekscentričnost



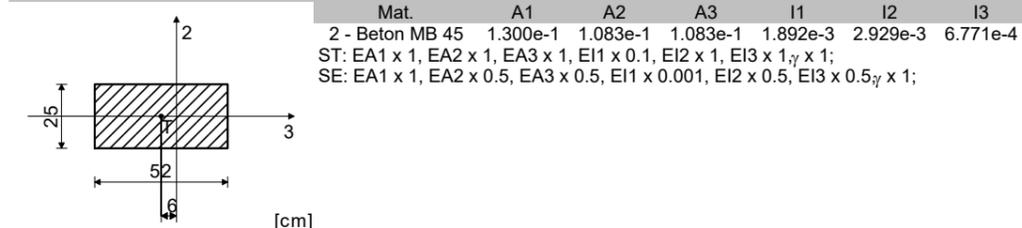
Set: 76 Presek: b/d=100/40, Fiktivna ekscentričnost



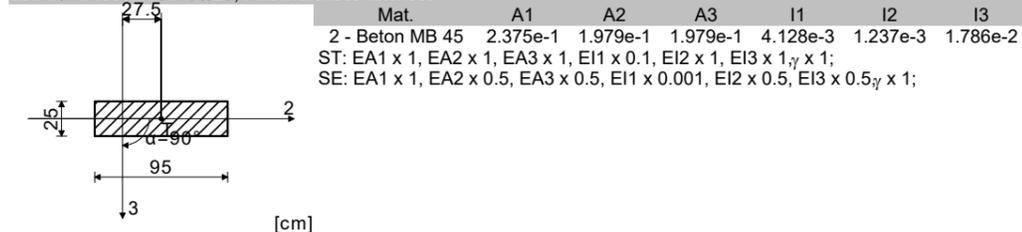
Set: 77 Presek: b/d=80/40, Fiktivna ekscentričnost



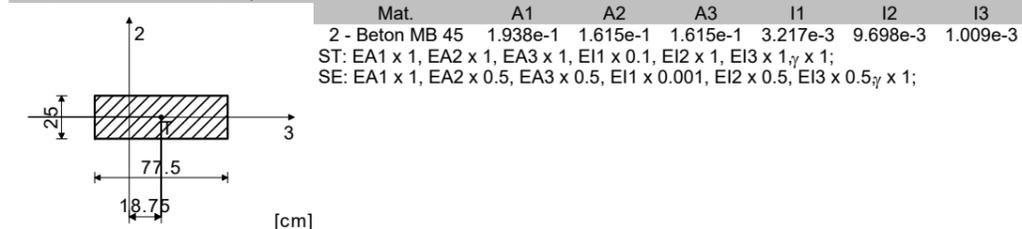
Set: 78 Presek: b/d=52/25, Fiktivna ekscentričnost



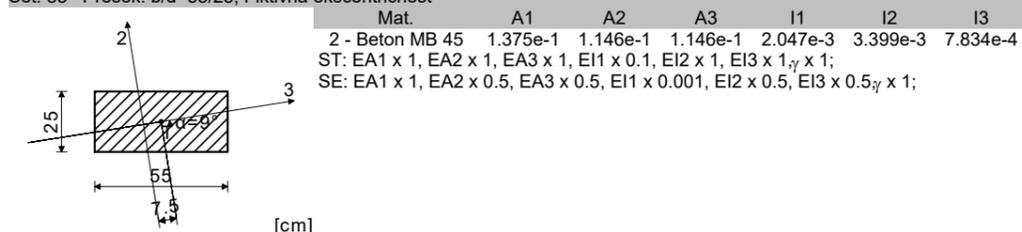
Set: 79 Presek: b/d=95/25, Fiktivna ekscentričnost



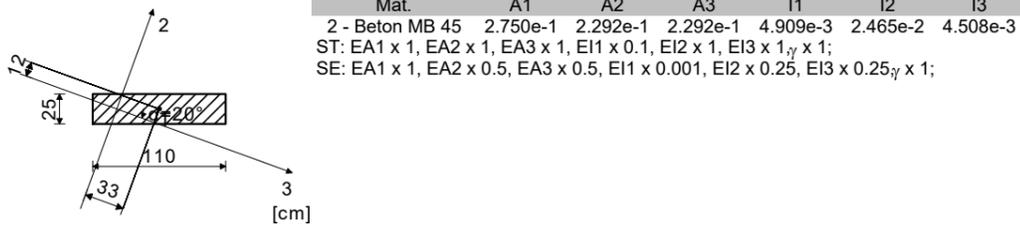
Set: 82 Presek: b/d=77.5/25, Fiktivna ekscentričnost



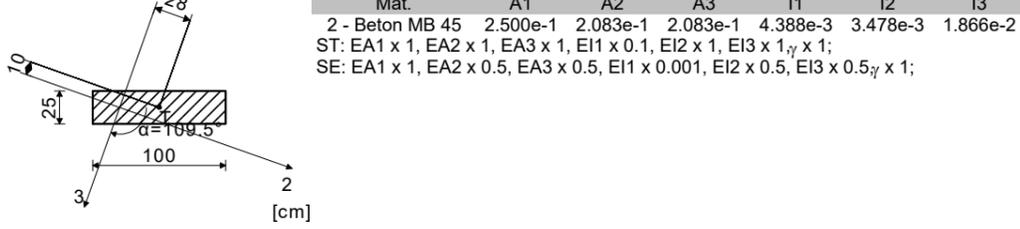
Set: 83 Presek: b/d=55/25, Fiktivna ekscentričnost



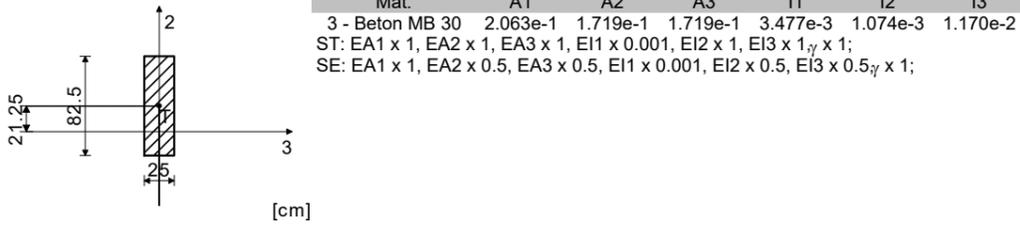
Set: 84 Presek: b/d=110/25, Fiktivna ekscentričnost



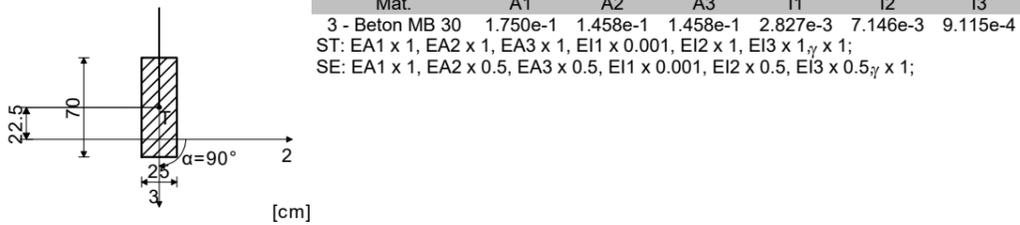
Set: 85 Presek: b/d=100/25, Fiktivna ekscentričnost



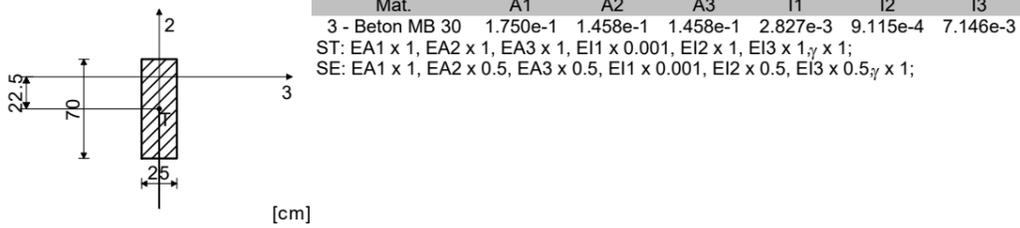
Set: 87 Presek: b/d=25/82.5, Fiktivna ekscentričnost



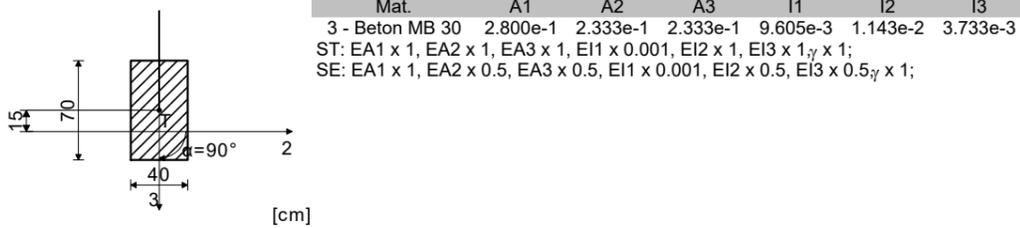
Set: 88 Presek: b/d=25/70, Fiktivna ekscentričnost



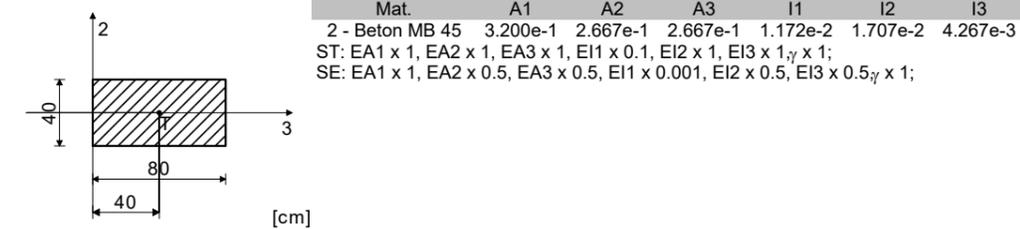
Set: 89 Presek: b/d=25/70, Fiktivna ekscentričnost



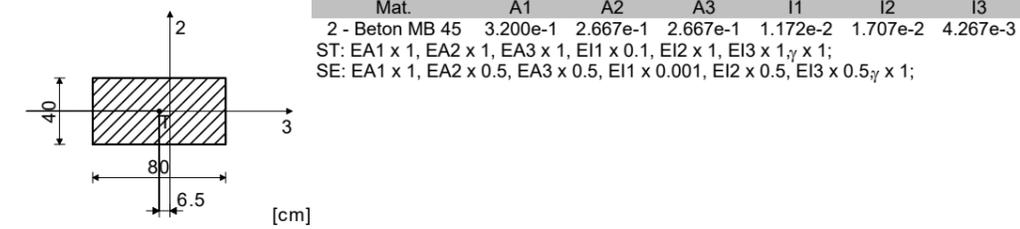
Set: 90 Presek: b/d=40/70, Fiktivna ekscentričnost



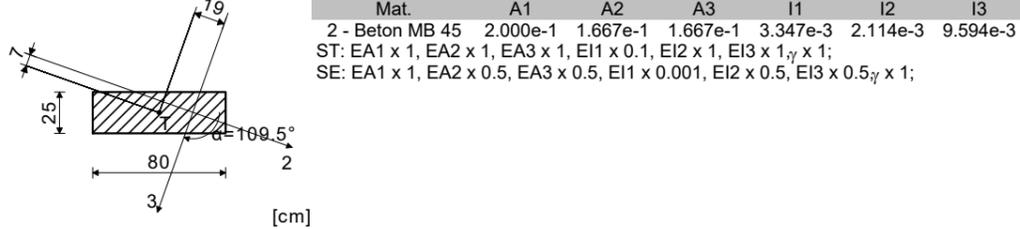
Set: 91 Presek: b/d=80/40, Fiktivna ekscentričnost



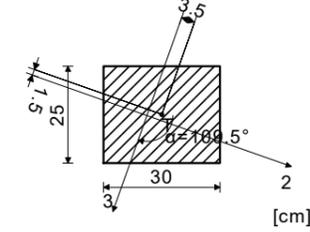
Set: 92 Presek: b/d=80/40, Fiktivna ekscentričnost



Set: 94 Presek: b/d=80/25, Fiktivna ekscentričnost

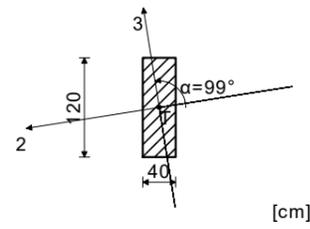


Set: 95 Presek: b/d=30/25, Fiktivna ekscentričnost



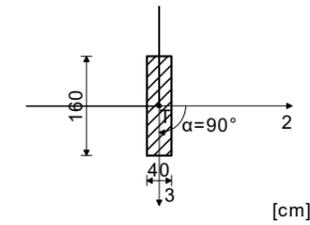
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	7.500e-2	6.250e-2	6.250e-2	7.752e-4	4.098e-4	5.433e-4
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 96 Presek: b/d=40/120, Fiktivna ekscentričnost



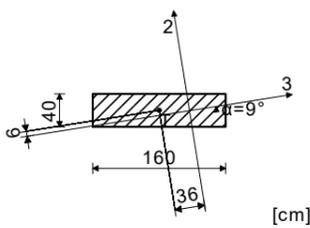
Mat.	A1	A2	A3	I1	I2	I3
1 - Beton MB 40	4.800e-1	4.000e-1	4.000e-1	2.023e-2	5.635e-2	7.653e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 97 Presek: b/d=40/160, Fiktivna ekscentričnost



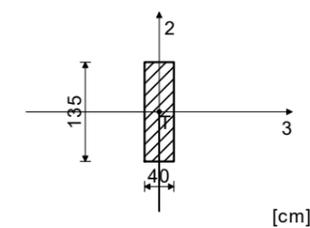
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	6.400e-1	5.333e-1	5.333e-1	2.876e-2	1.365e-1	8.533e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.25, EA3 x 0.25, EI1 x 0.001, EI2 x 0.25, EI3 x 0.25, $\gamma$ x 1;					

Set: 98 Presek: b/d=160/40, Fiktivna ekscentričnost



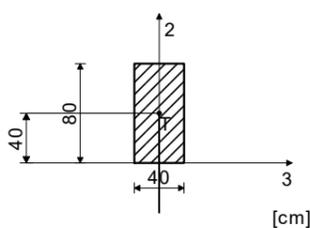
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	6.400e-1	5.333e-1	5.333e-1	2.876e-2	1.334e-1	1.167e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 99 Presek: b/d=40/135, Fiktivna ekscentričnost



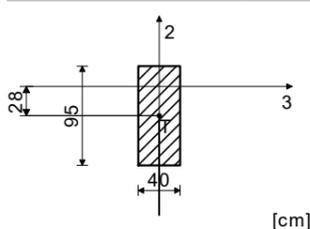
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	5.400e-1	4.500e-1	4.500e-1	2.343e-2	7.200e-3	8.201e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 100 Presek: b/d=40/80, Fiktivna ekscentričnost



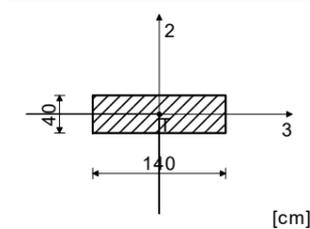
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	3.200e-1	2.667e-1	2.667e-1	1.172e-2	4.267e-3	1.707e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 101 Presek: b/d=40/95, Fiktivna ekscentričnost



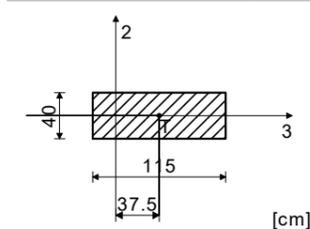
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	3.800e-1	3.167e-1	3.167e-1	1.490e-2	5.067e-3	2.858e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 102 Presek: b/d=140/40, Fiktivna ekscentričnost



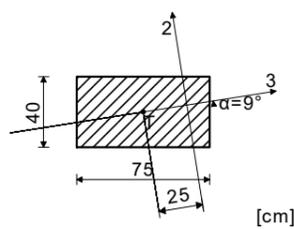
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	5.600e-1	4.667e-1	4.667e-1	2.449e-2	9.147e-2	7.467e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 103 Presek: b/d=115/40, Fiktivna ekscentričnost



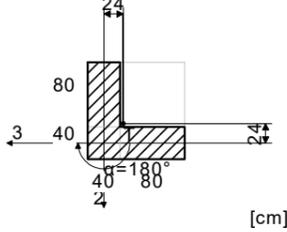
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	4.600e-1	3.833e-1	3.833e-1	1.916e-2	5.070e-2	6.133e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 105 Presek: b/d=75/40, Fiktivna ekscentričnost



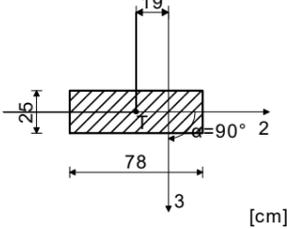
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	3.000e-1	2.500e-1	2.500e-1	1.066e-2	1.382e-2	4.246e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 106 Presek: L, Fiktivna ekscentričnost



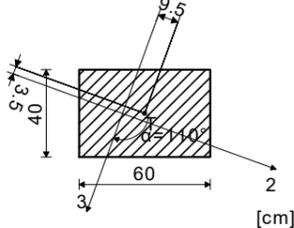
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	8.000e-1	6.667e-1	6.667e-1	4.236e-2	9.259e-2	9.259e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 107 Presek: b/d=78/25, Fiktivna ekscentričnost



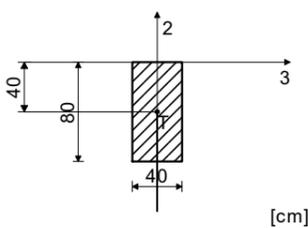
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	1.950e-1	1.625e-1	1.625e-1	3.243e-3	1.016e-3	9.886e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

Set: 108 Presek: b/d=60/40, Fiktivna ekscentričnost



Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	2.400e-1	2.000e-1	2.000e-1	7.512e-3	3.668e-3	6.732e-3
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.1, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.5, EA3 x 0.5, EI1 x 0.001, EI2 x 0.5, EI3 x 0.5, $\gamma$ x 1;					

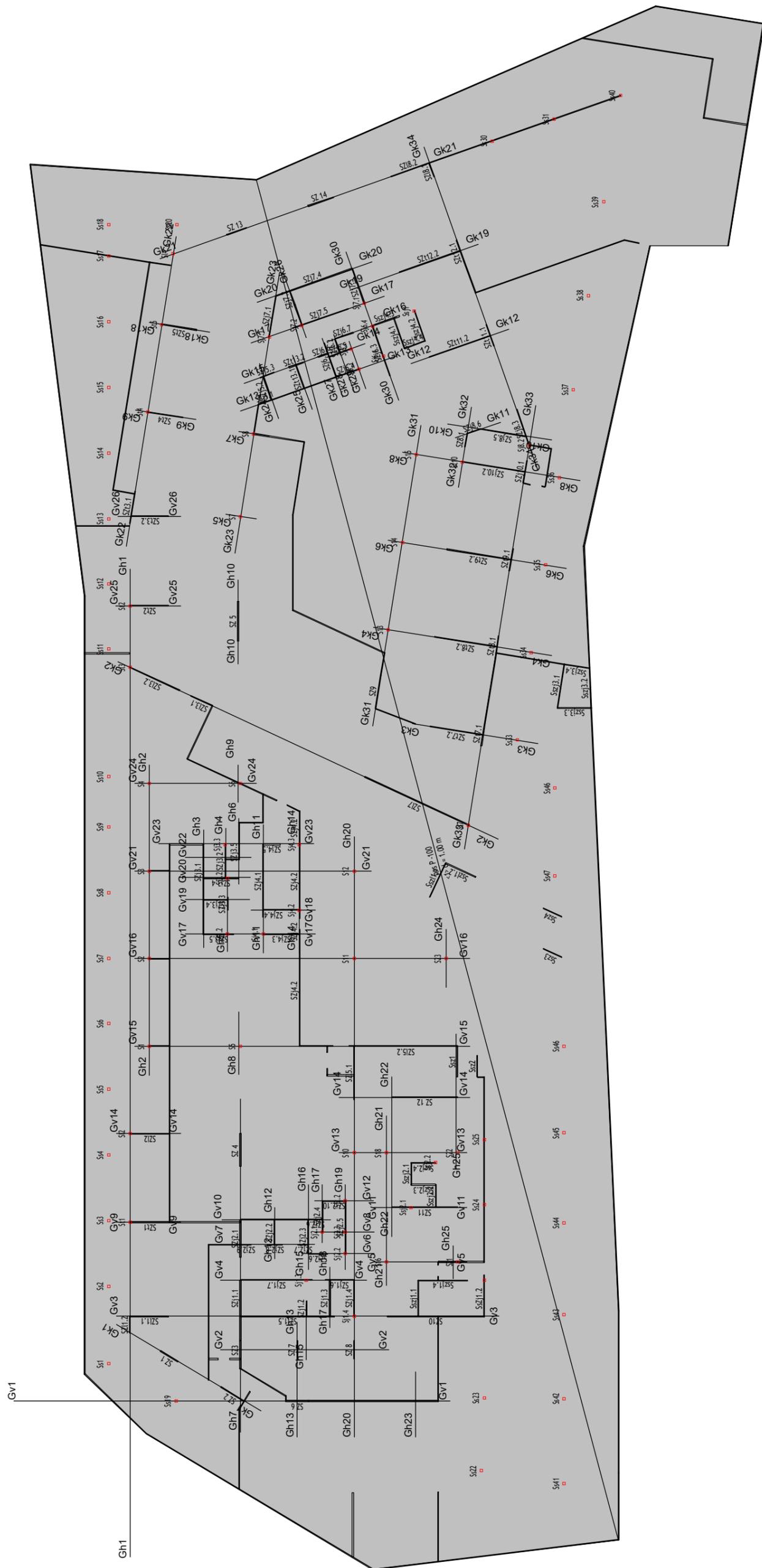
Set: 109 Presek: b/d=40/80, Fiktivna ekscentričnost

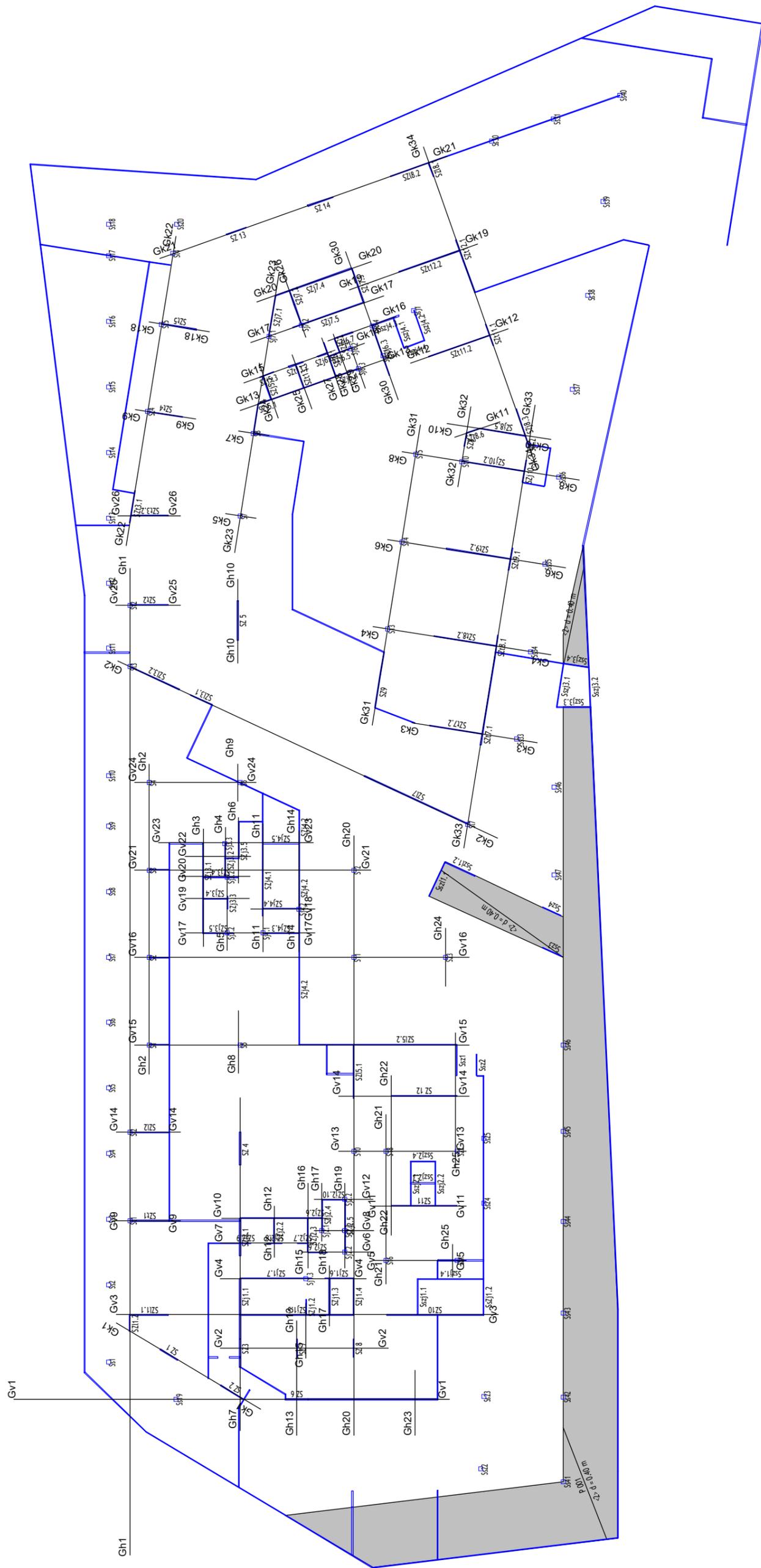


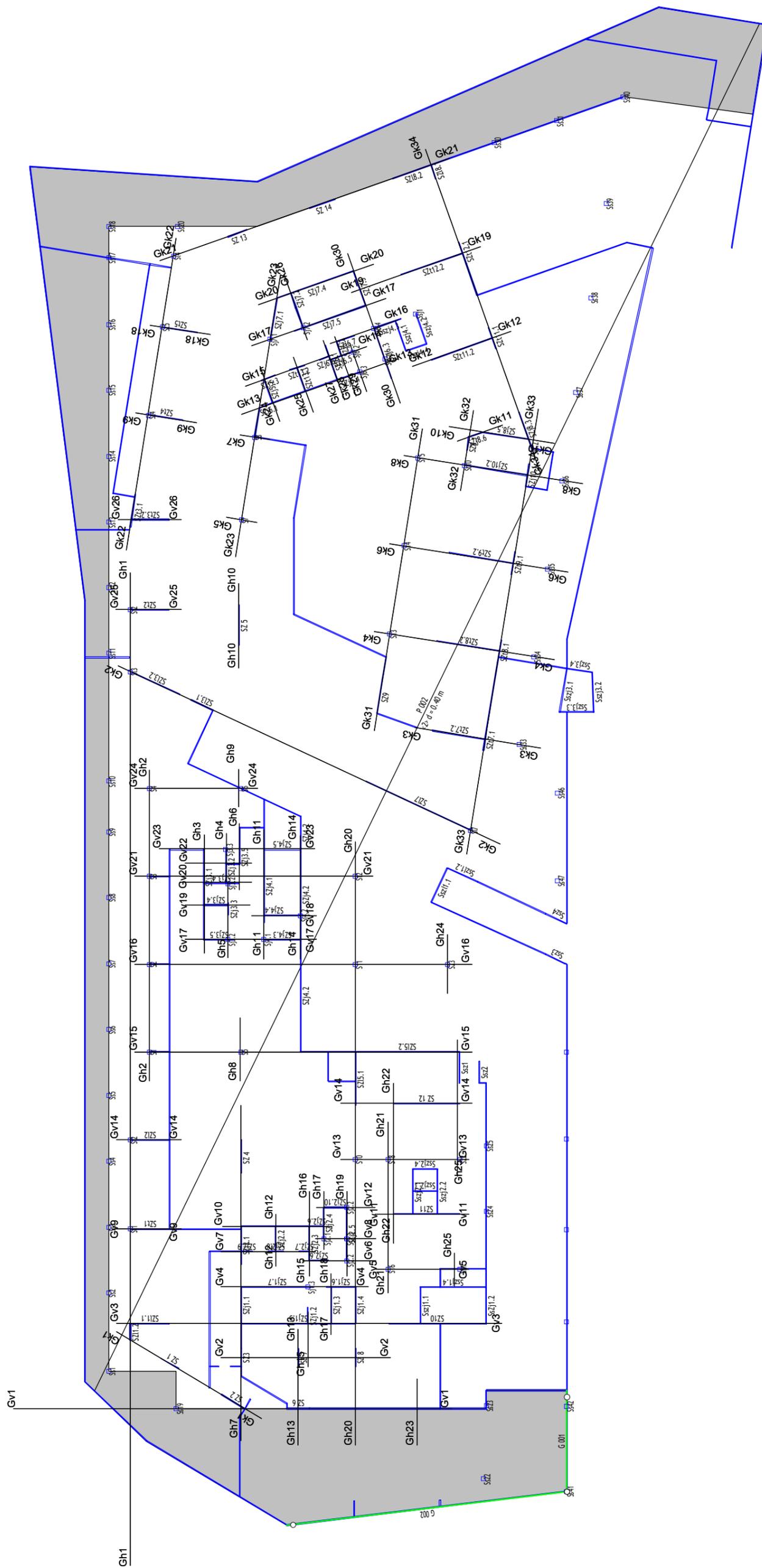
Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 45	3.200e-1	2.667e-1	2.667e-1	1.172e-2	4.267e-3	1.707e-2
ST:	EA1 x 1, EA2 x 1, EA3 x 1, EI1 x 0.001, EI2 x 1, EI3 x 1, $\gamma$ x 1;					
SE:	EA1 x 1, EA2 x 0.25, EA3 x 0.25, EI1 x 0.001, EI2 x 0.1, EI3 x 0.1, $\gamma$ x 1;					

**Setovi površinskih oslonaca**

Set	K,R1	K,R2	K,R3
1	1.000e+10	1.000e+10	1.000e+4
SE: K,R1 x 100; K,R2 x 100; K,R3 x 100			

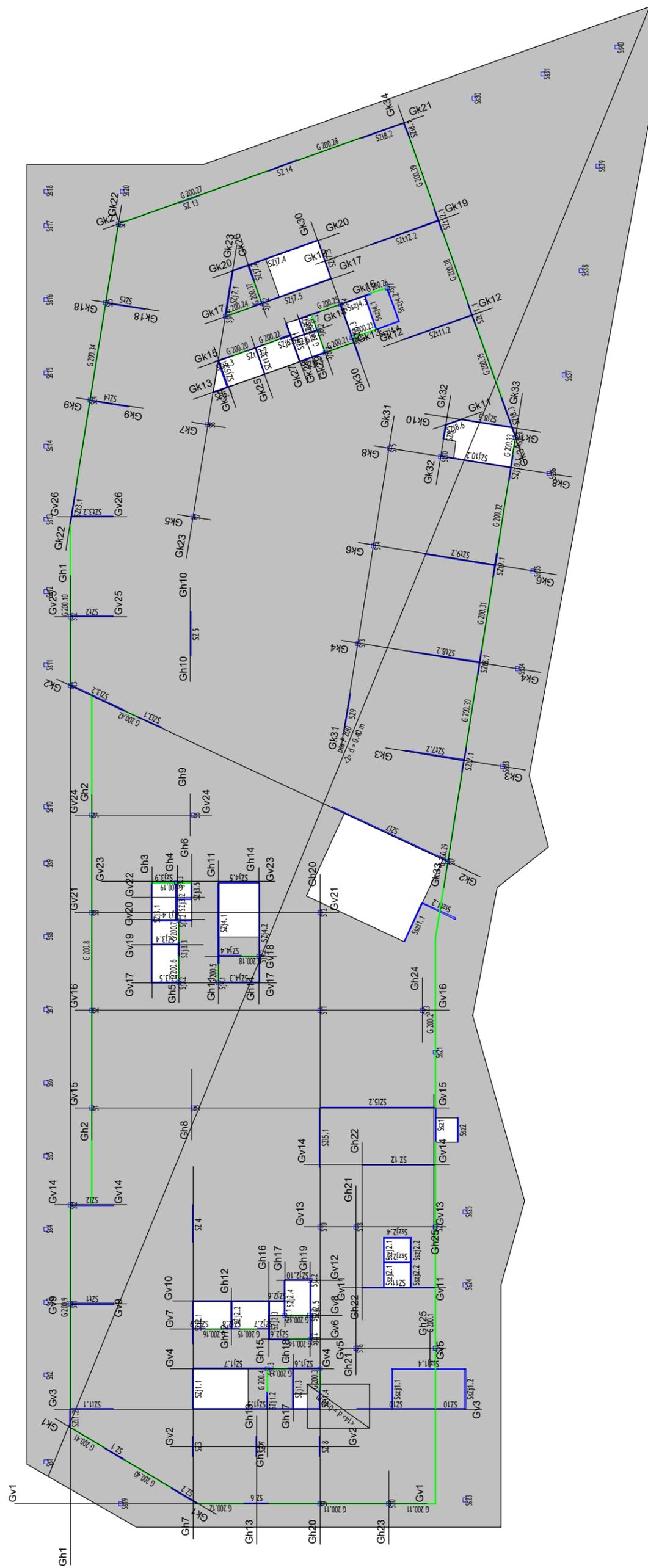


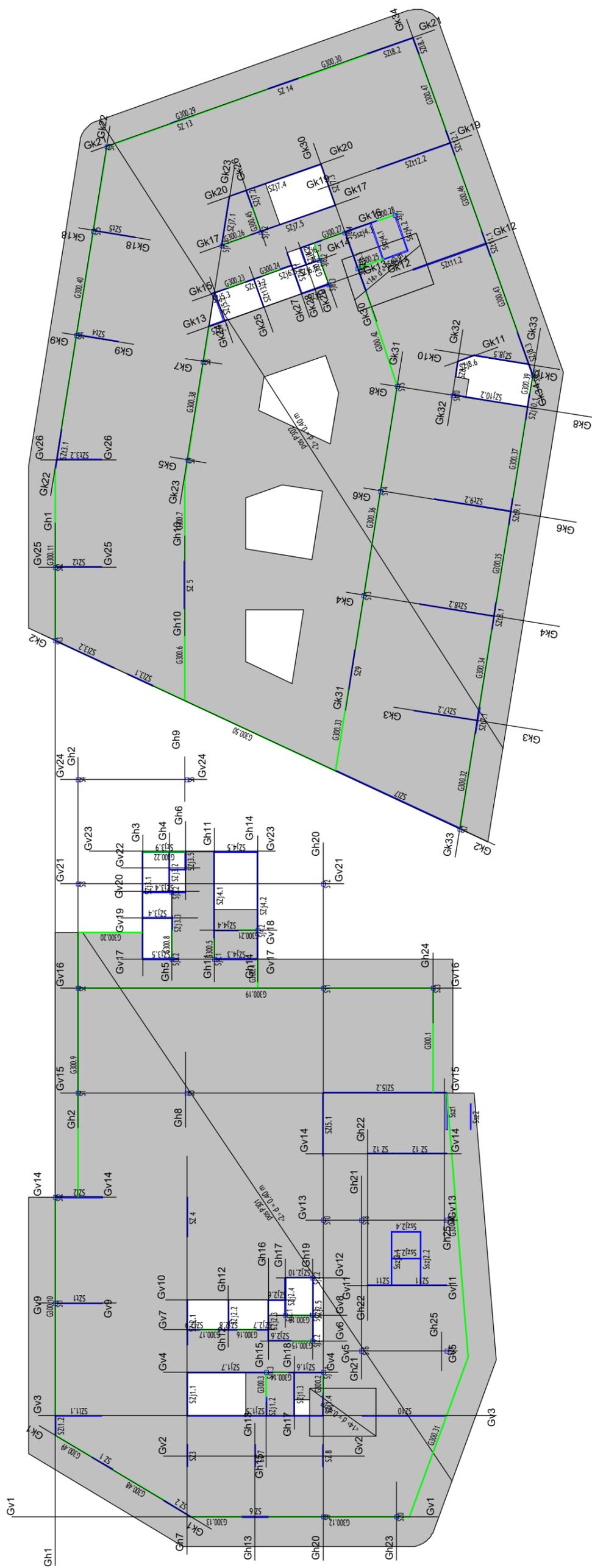


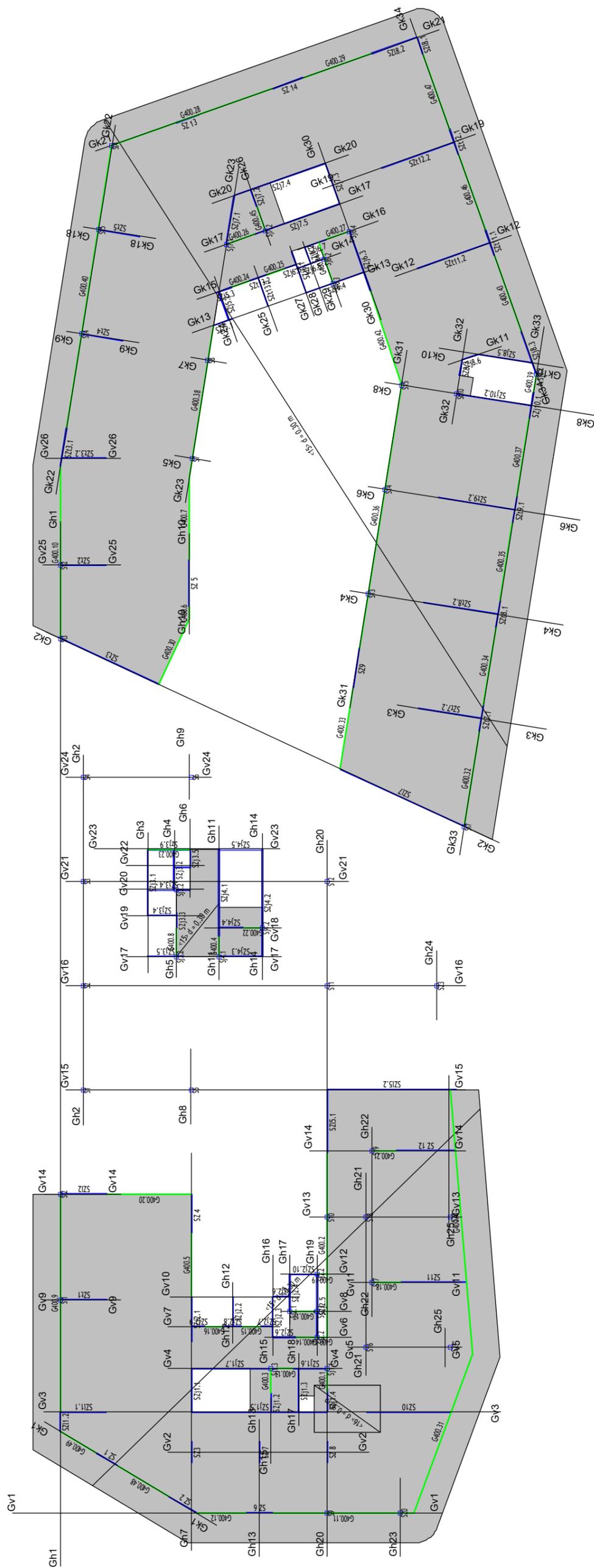


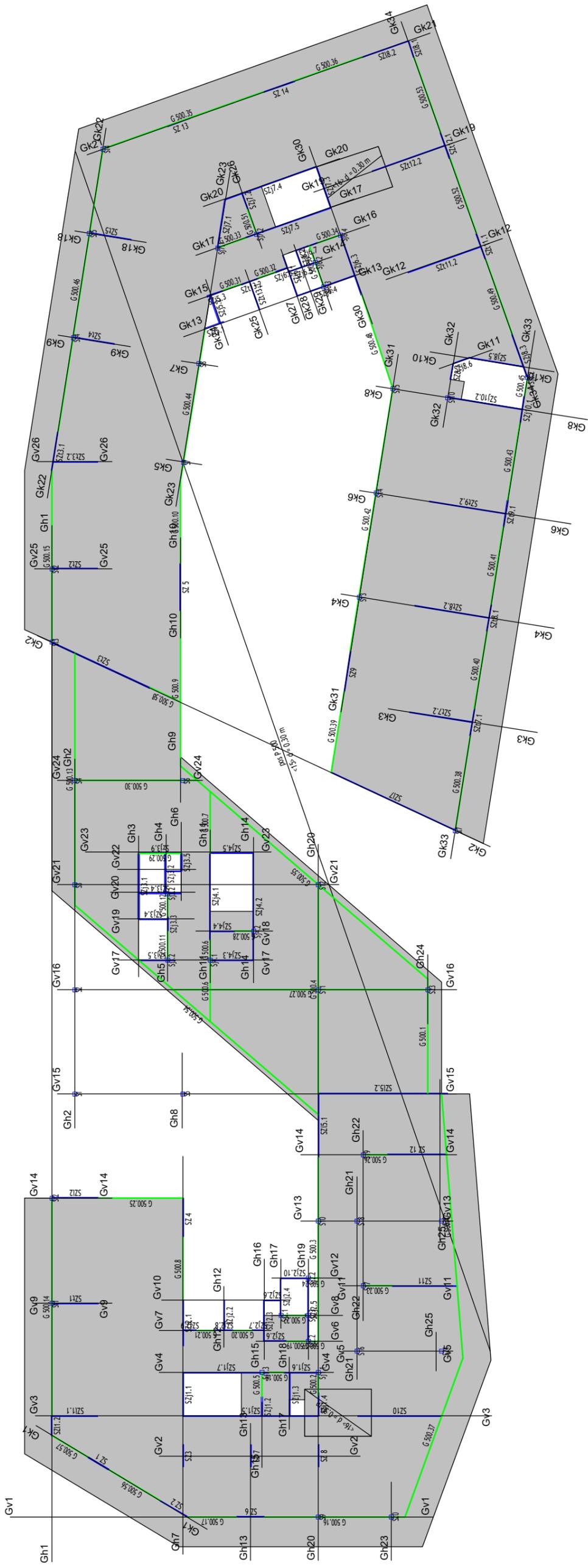


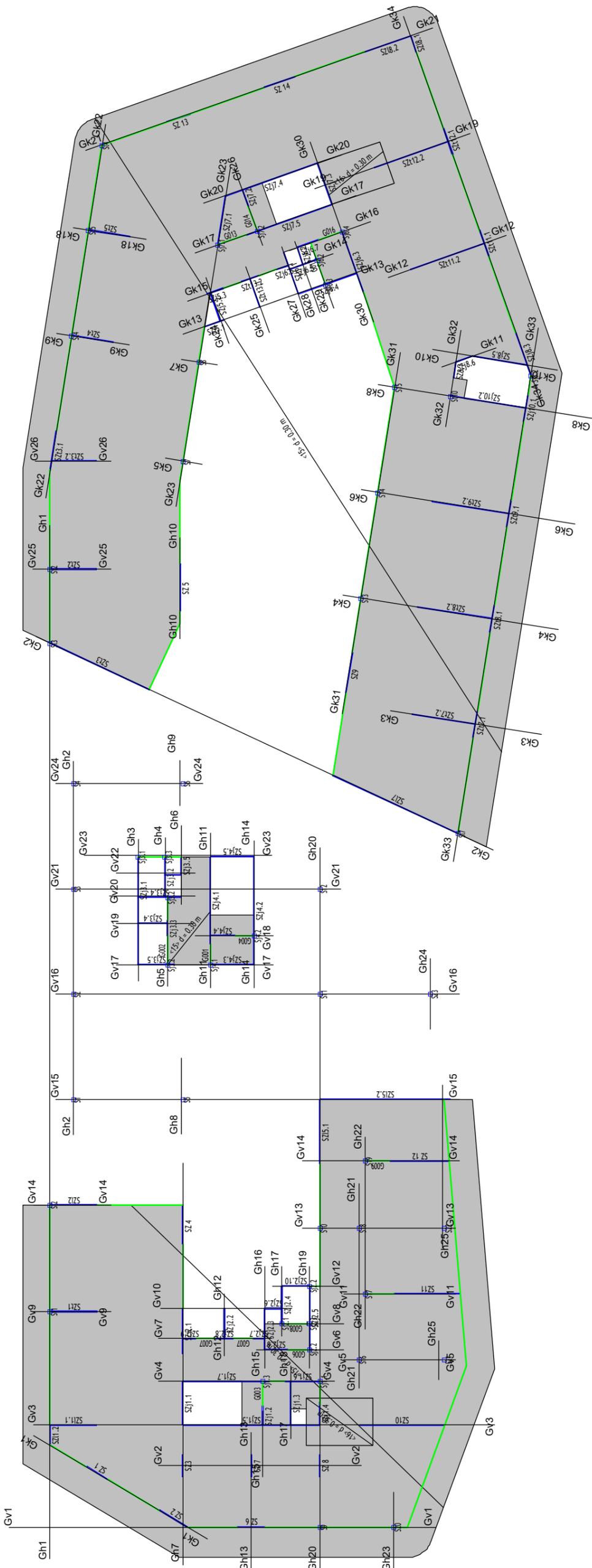
Nivo: P 000 [-0.15 m]

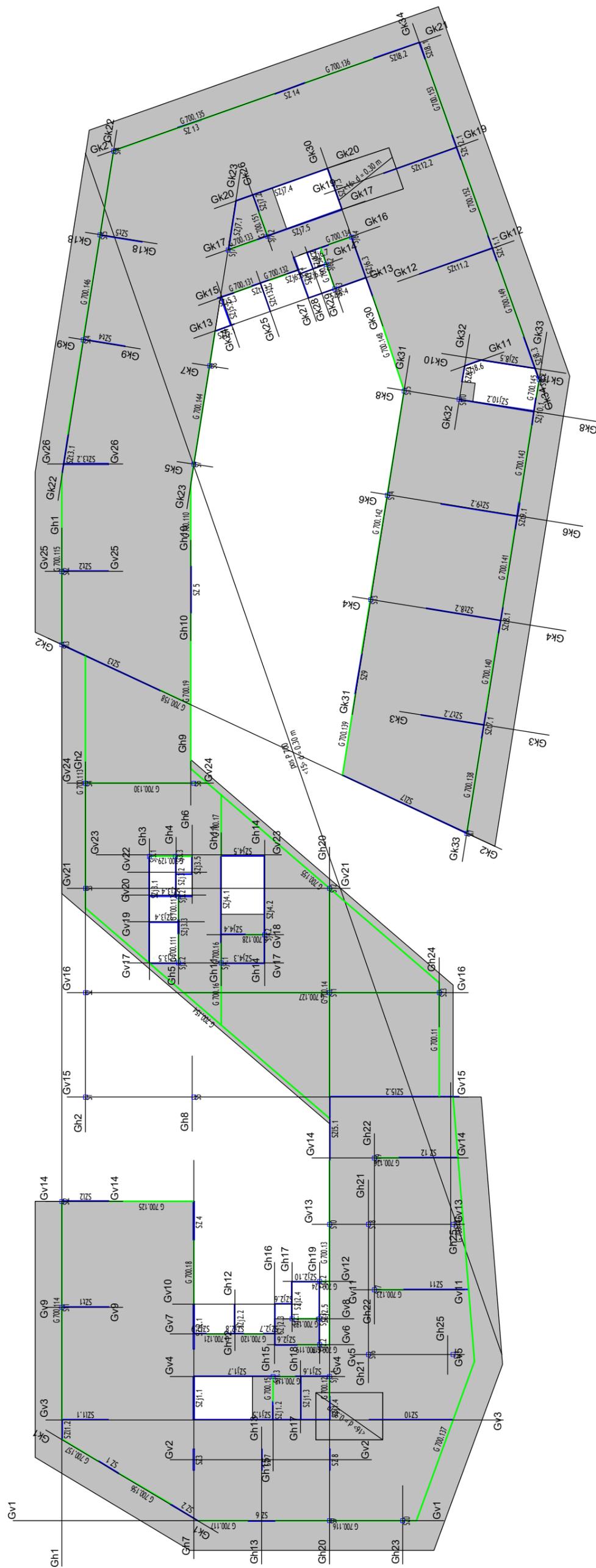




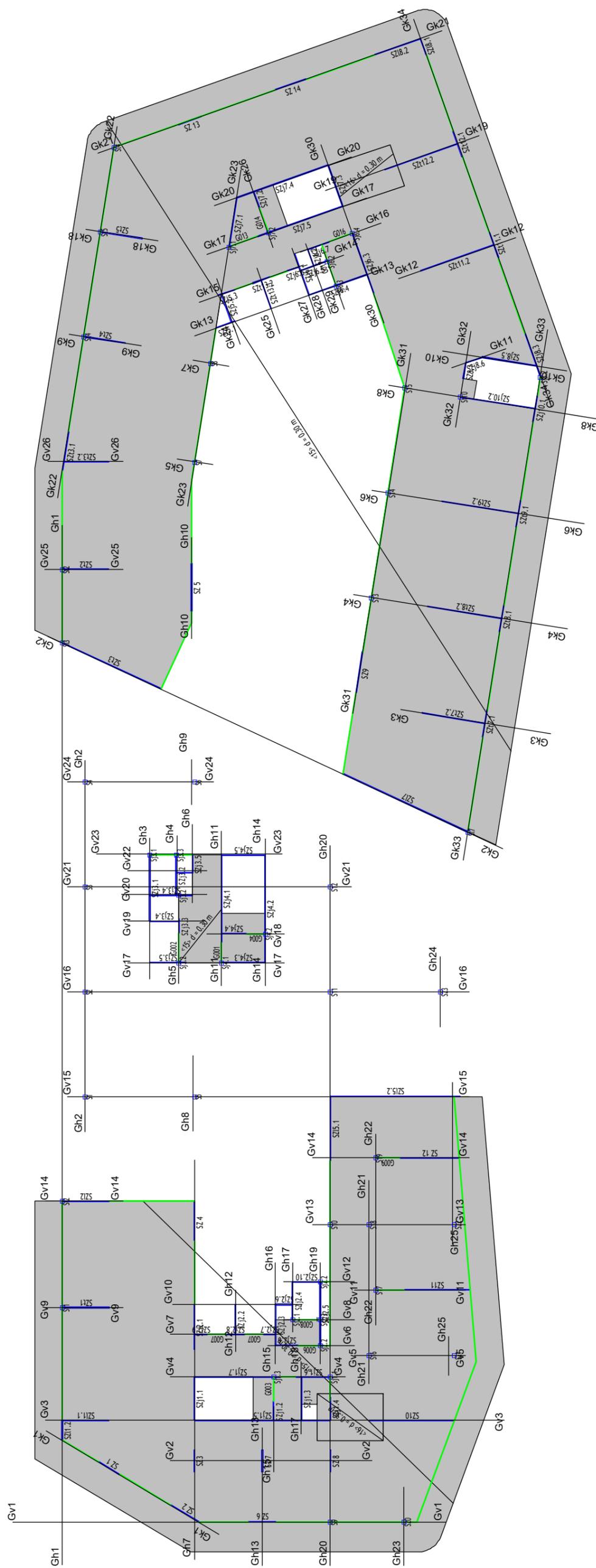


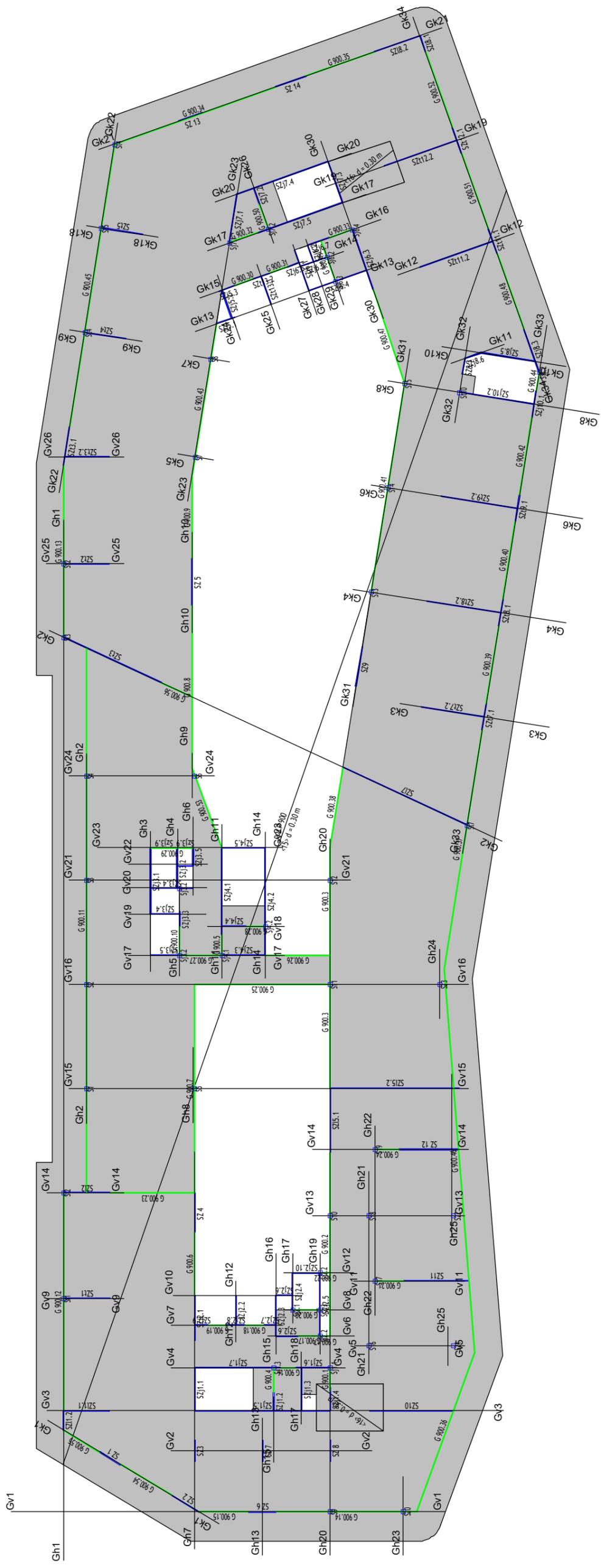




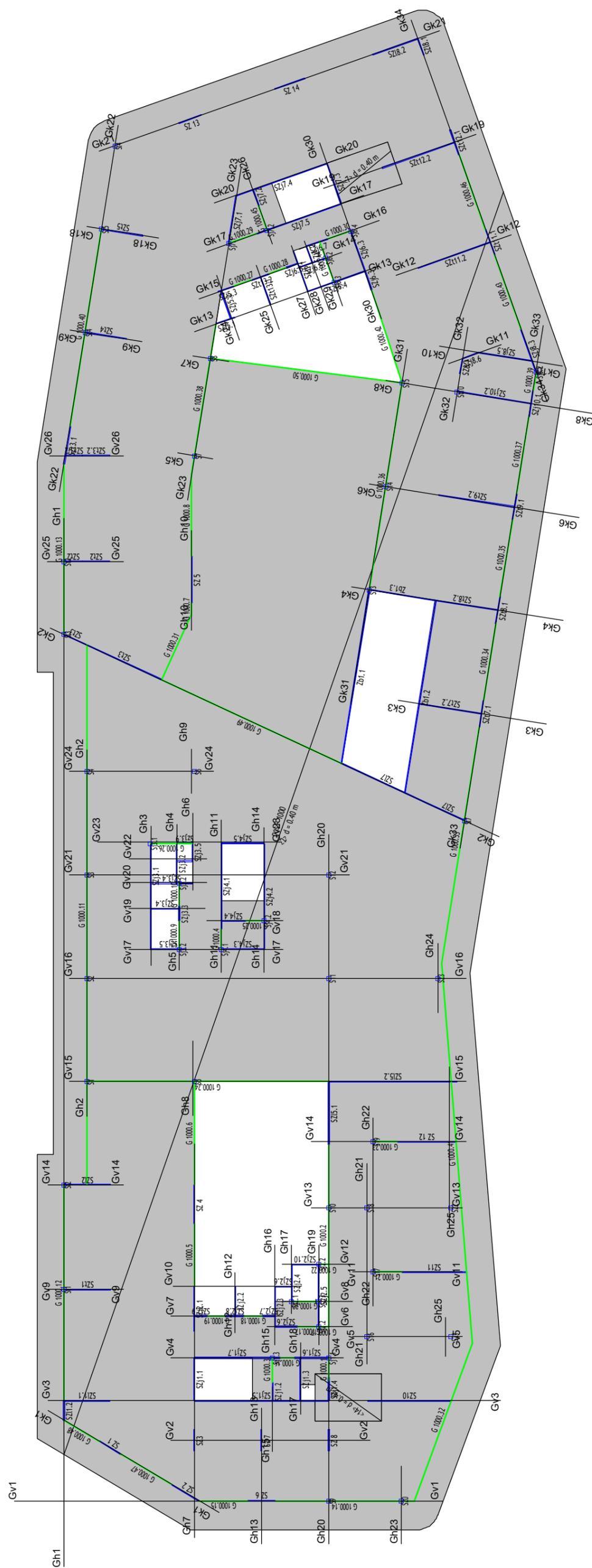


Nivo: P 700 [27.65 m]

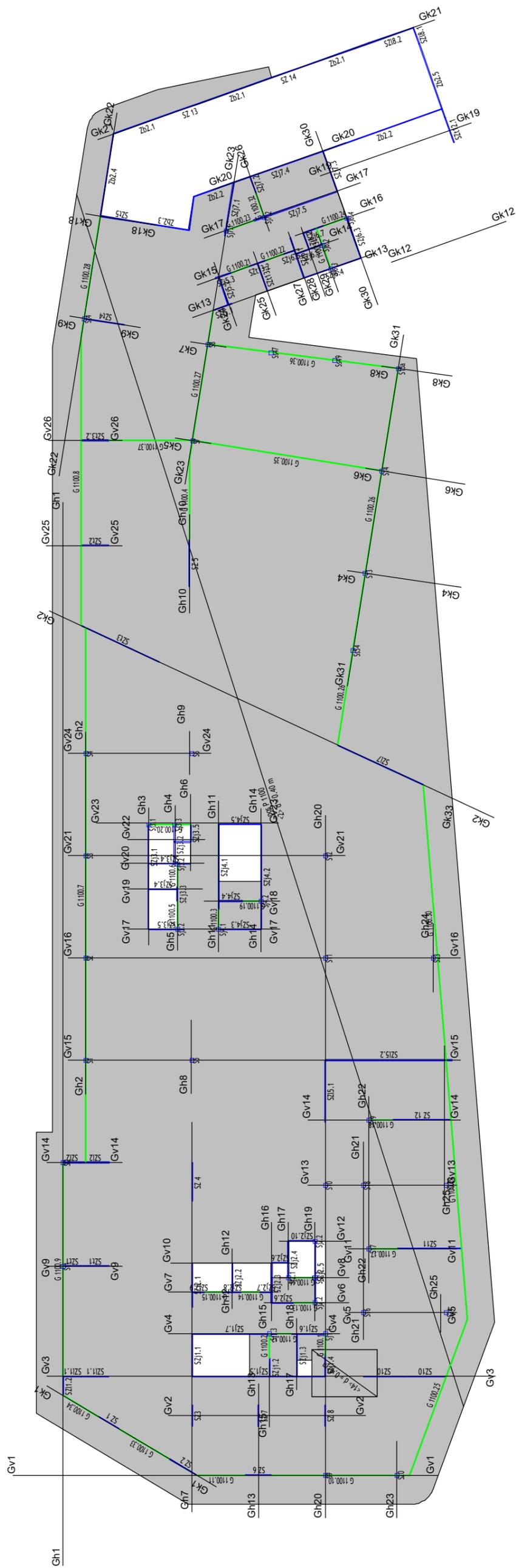


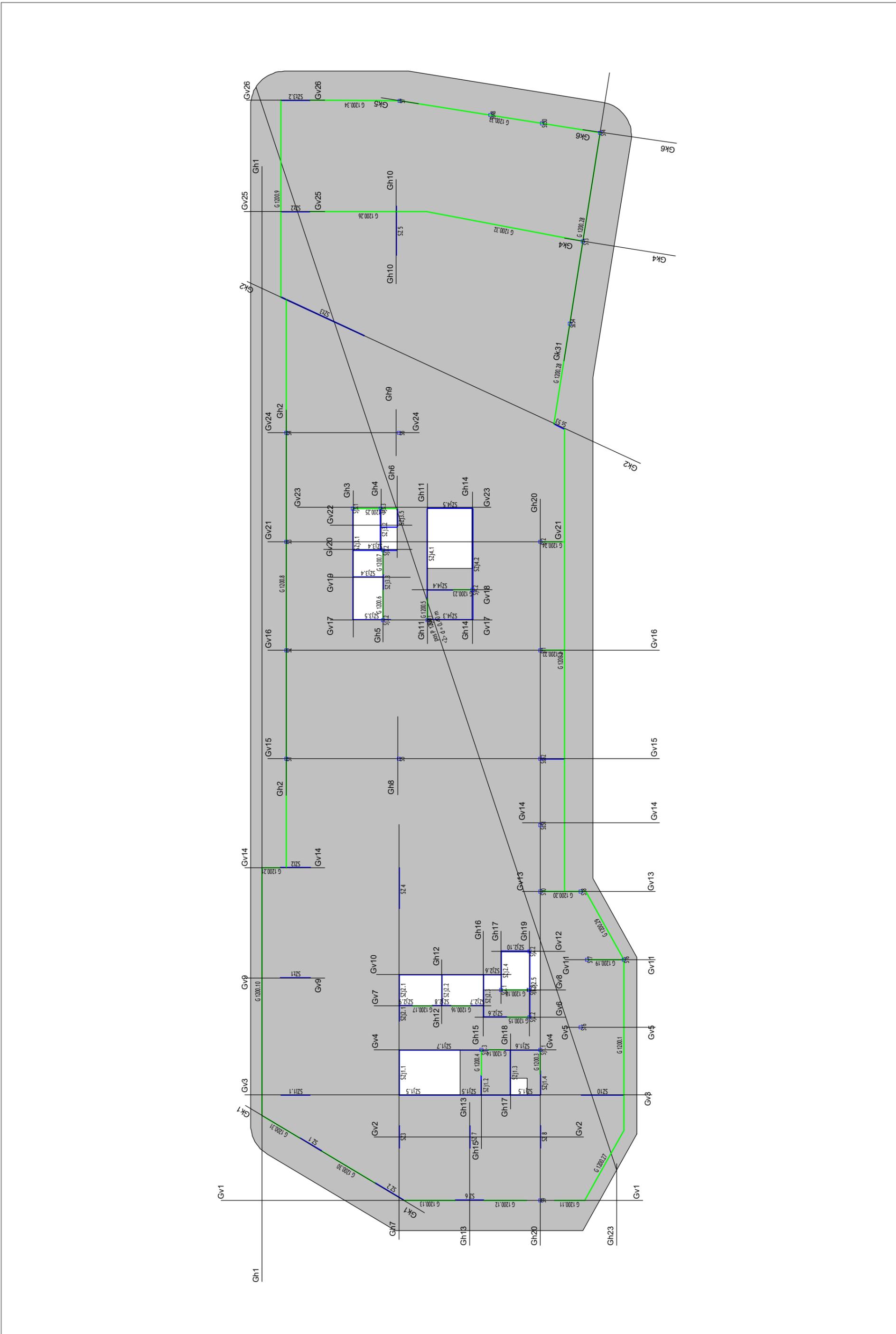


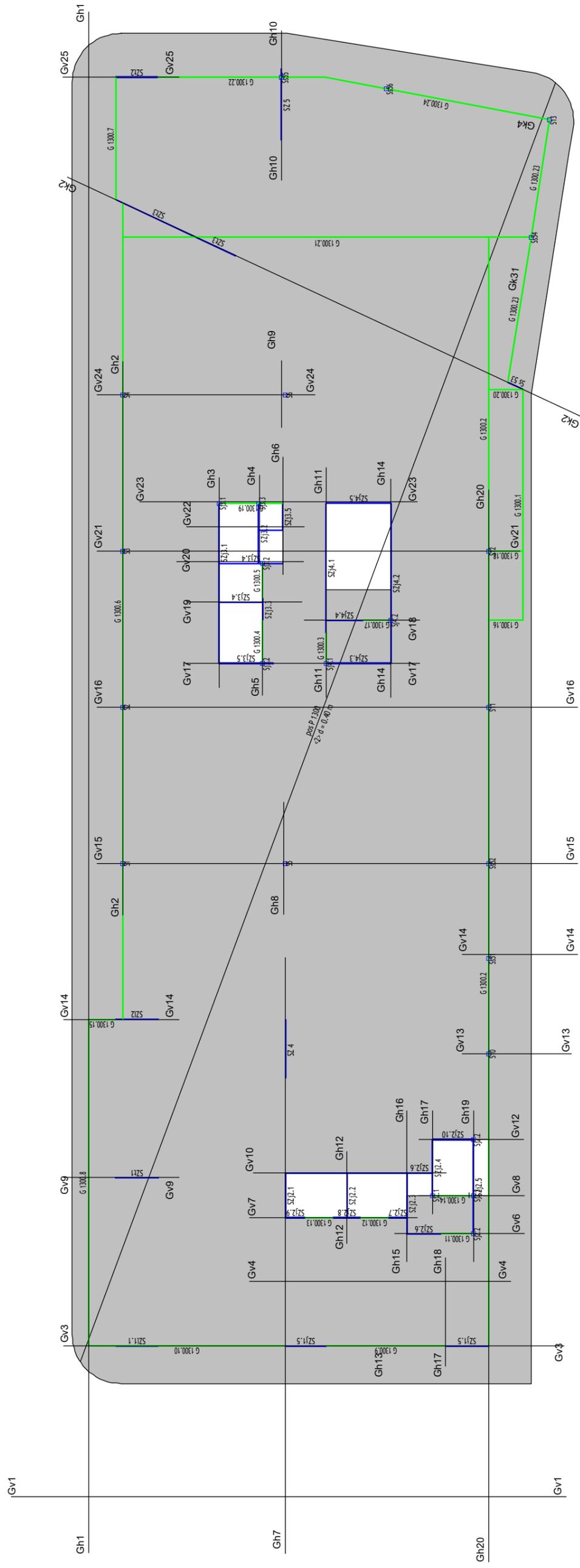
Nivo: P 900 [34.65 m]



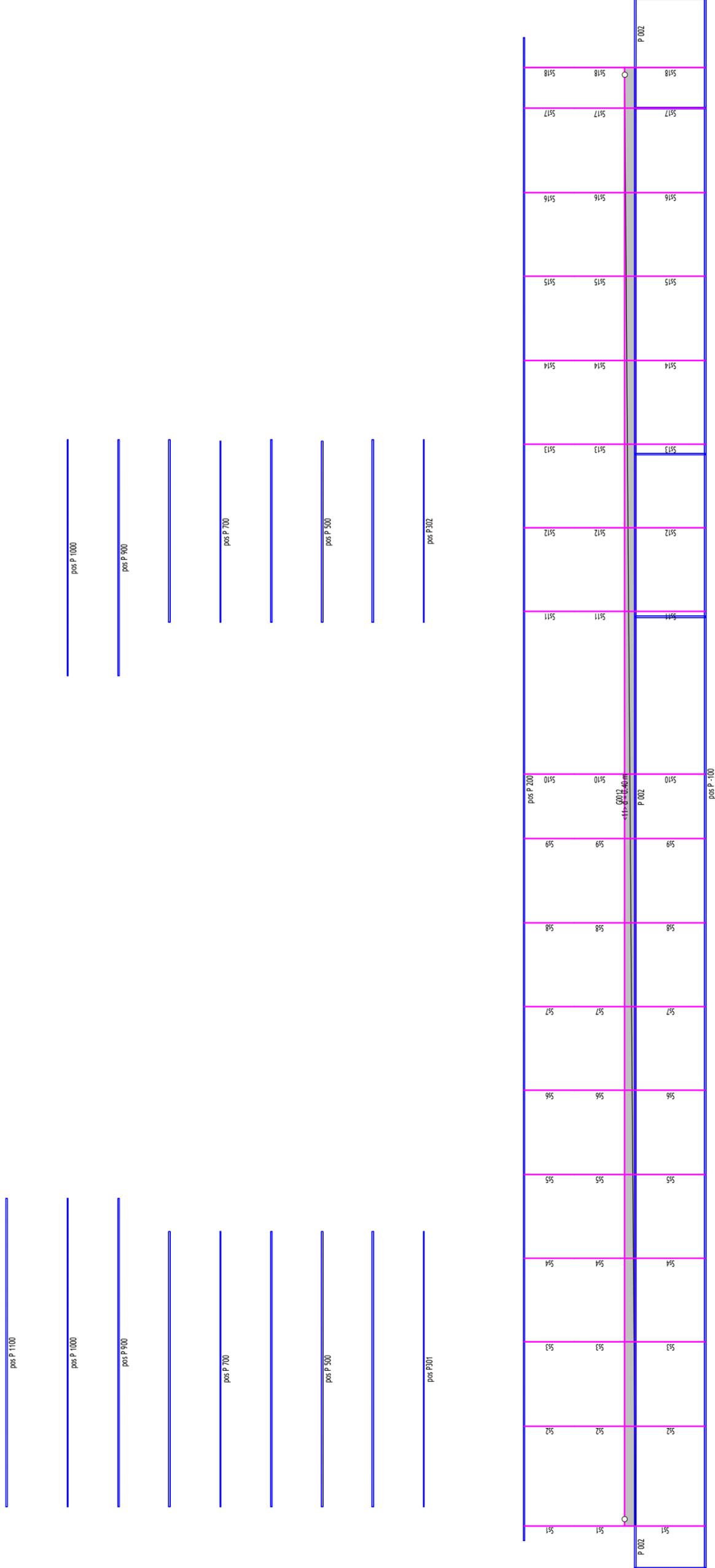
Nivo: P 1000 [38.15 m]

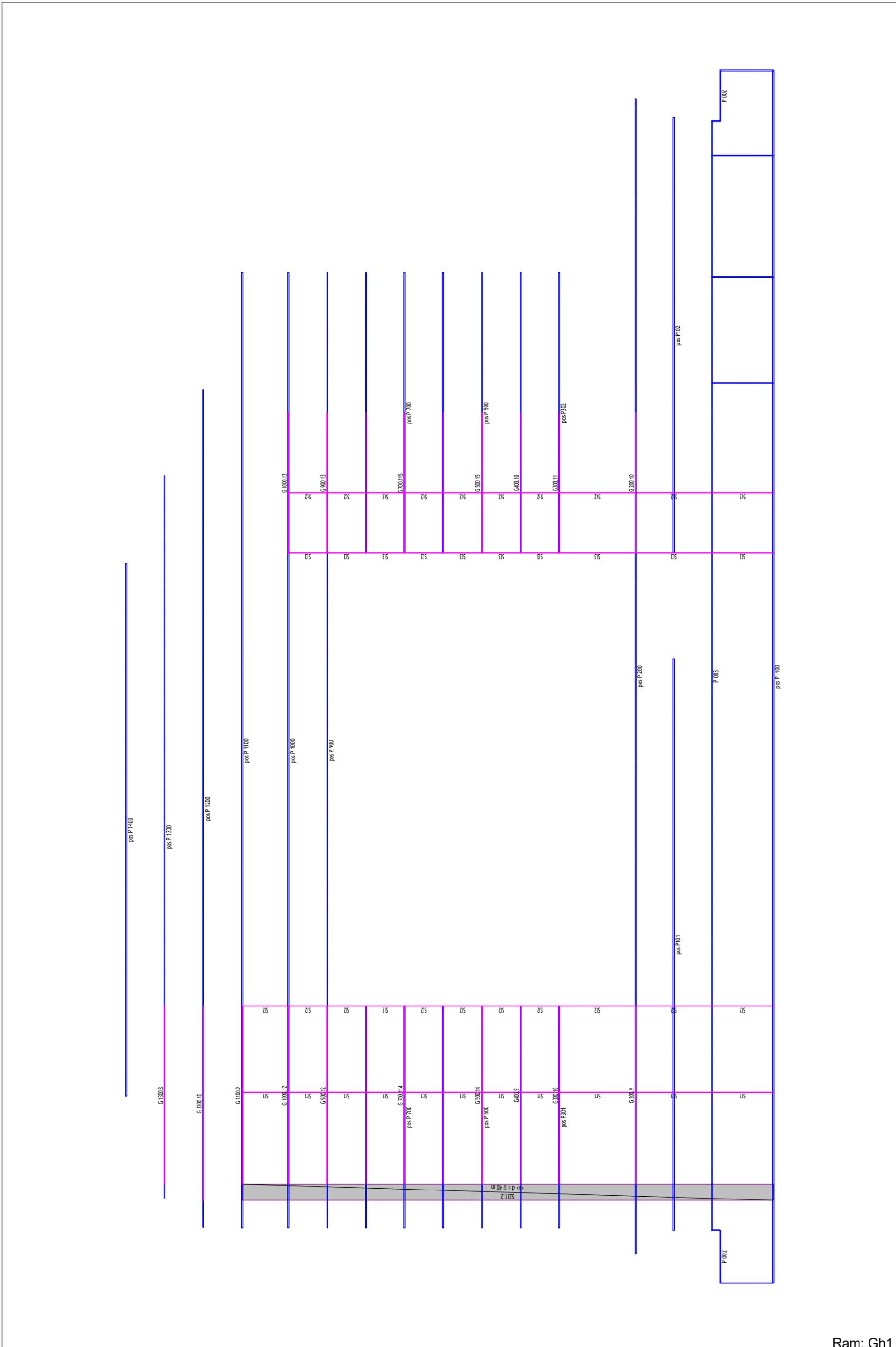


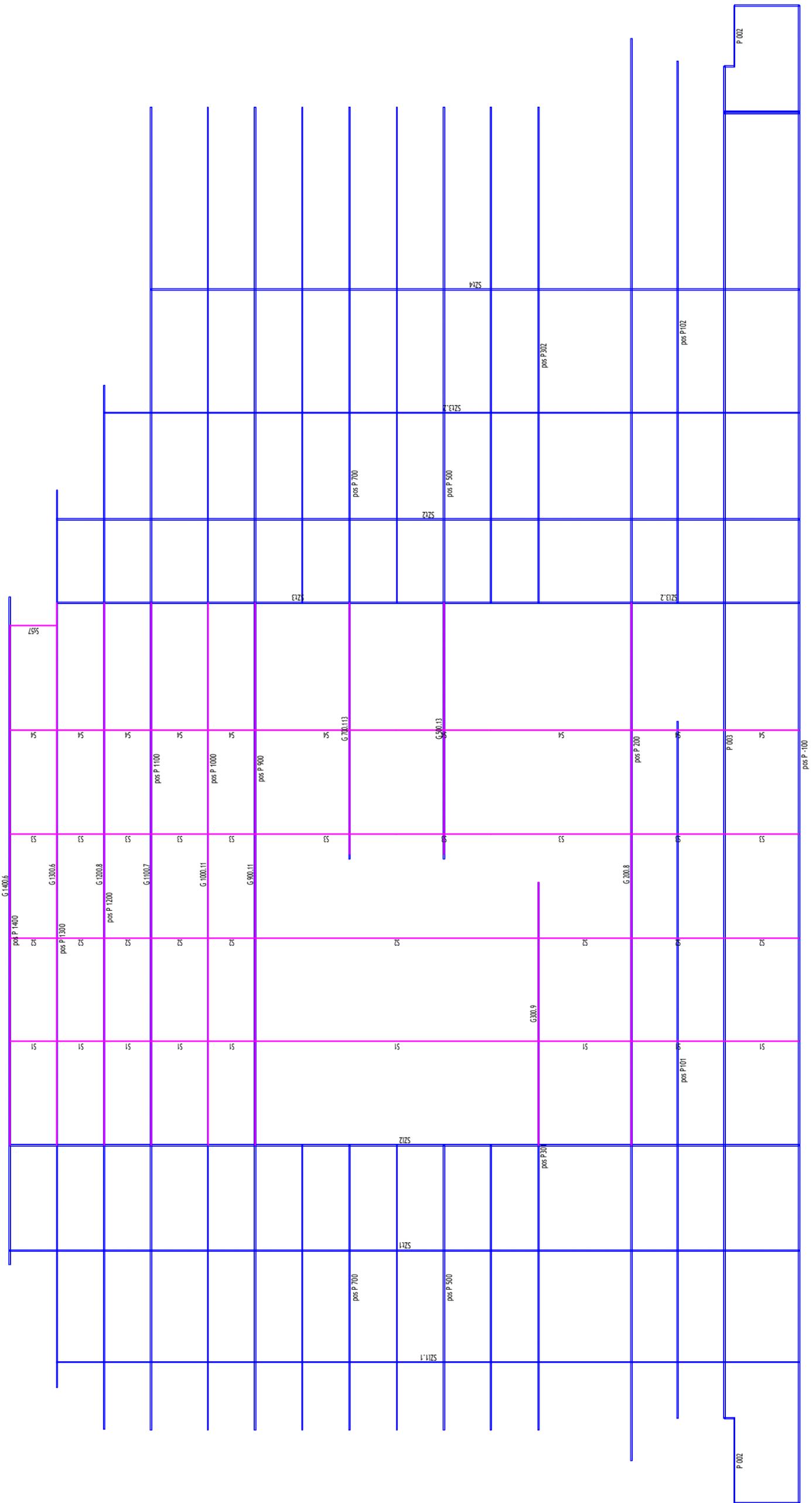






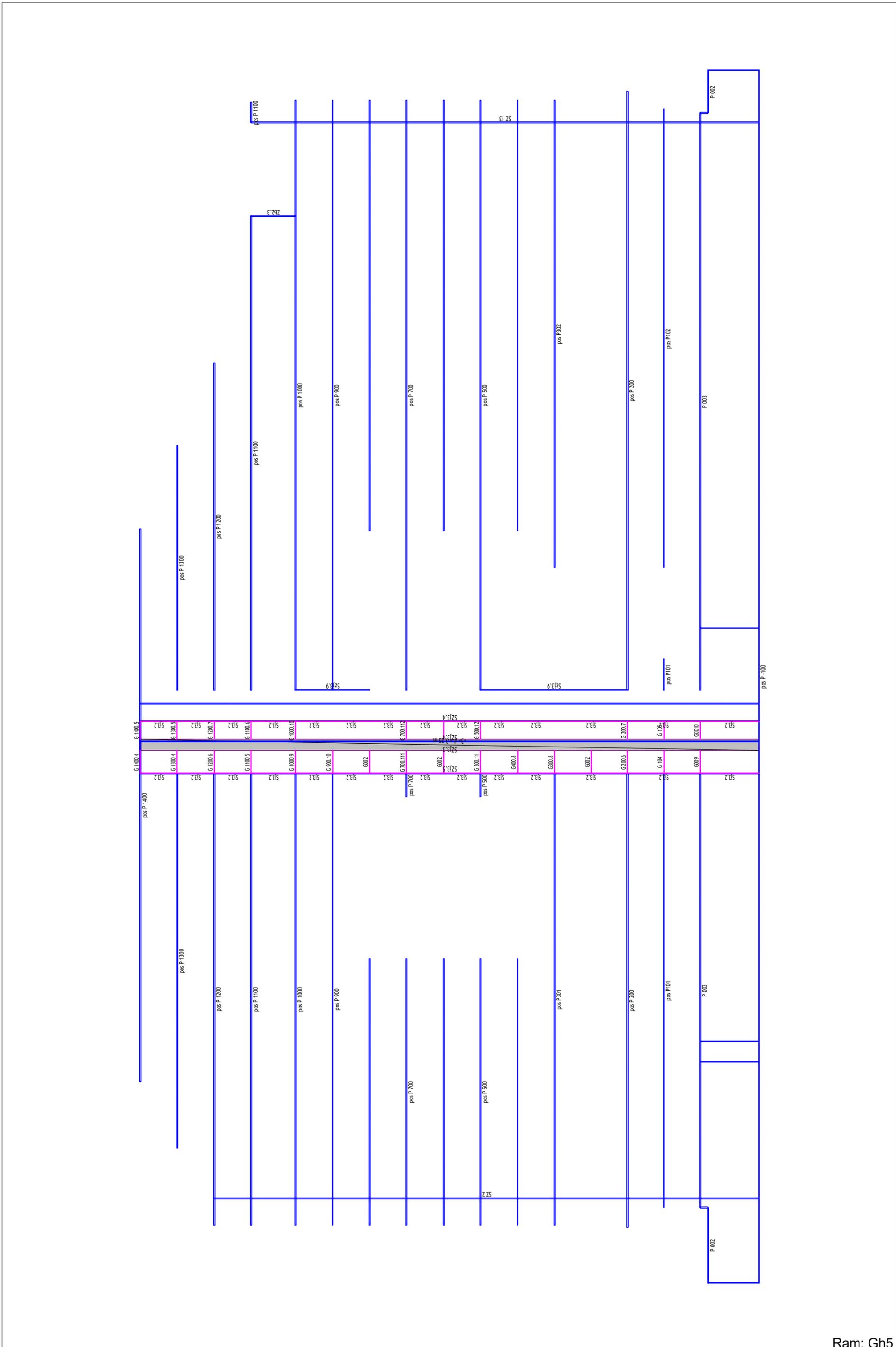


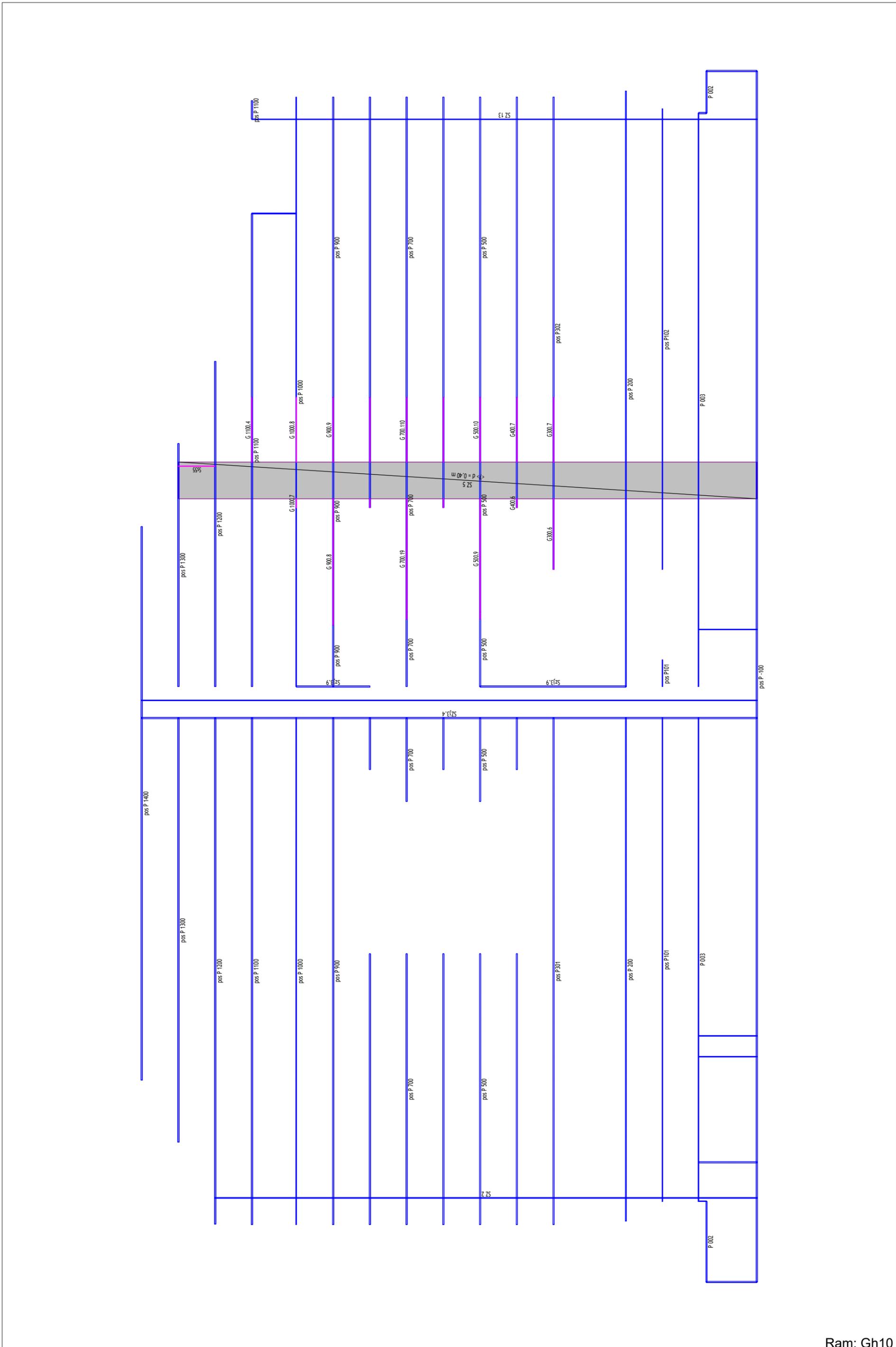




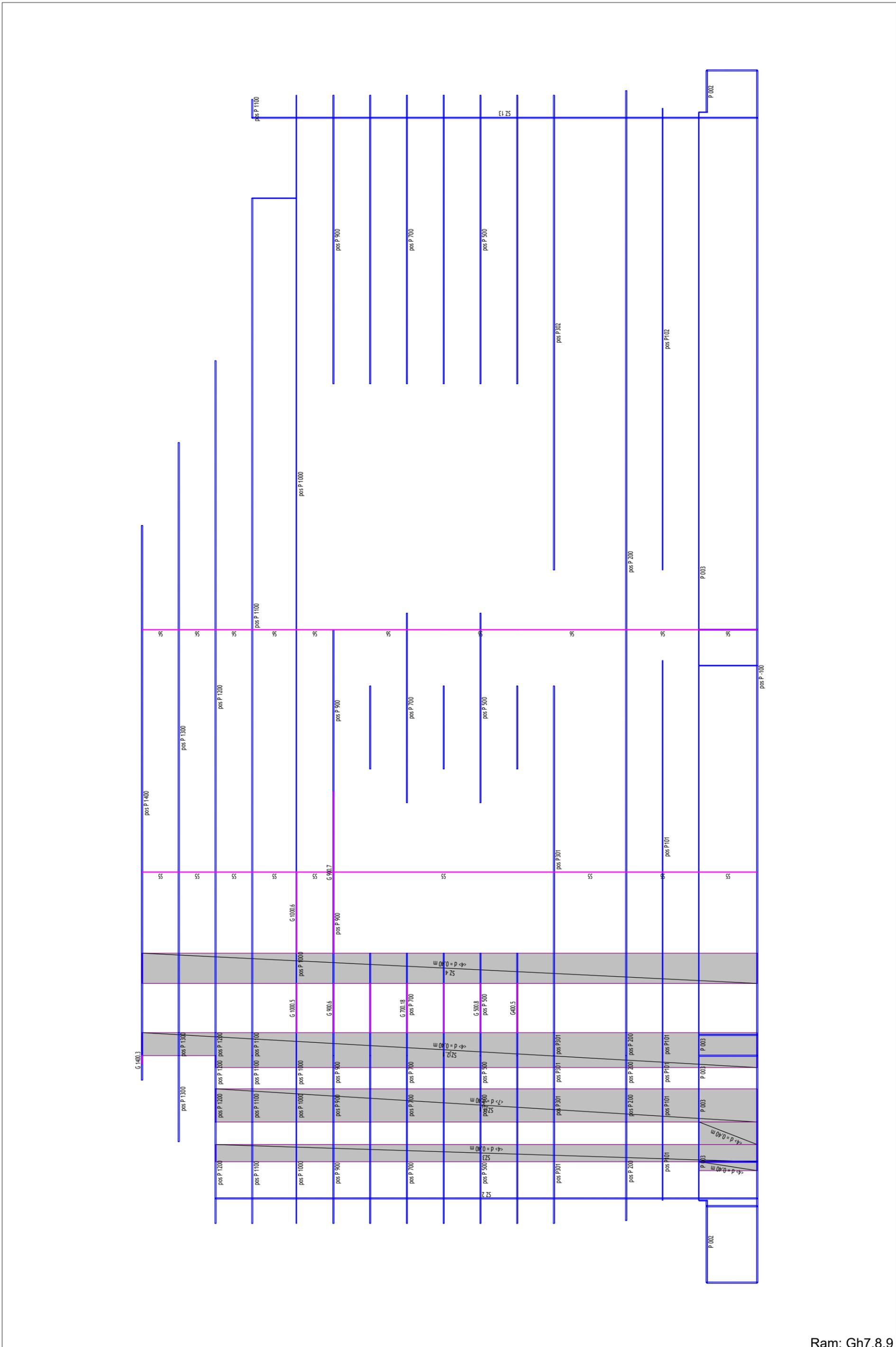




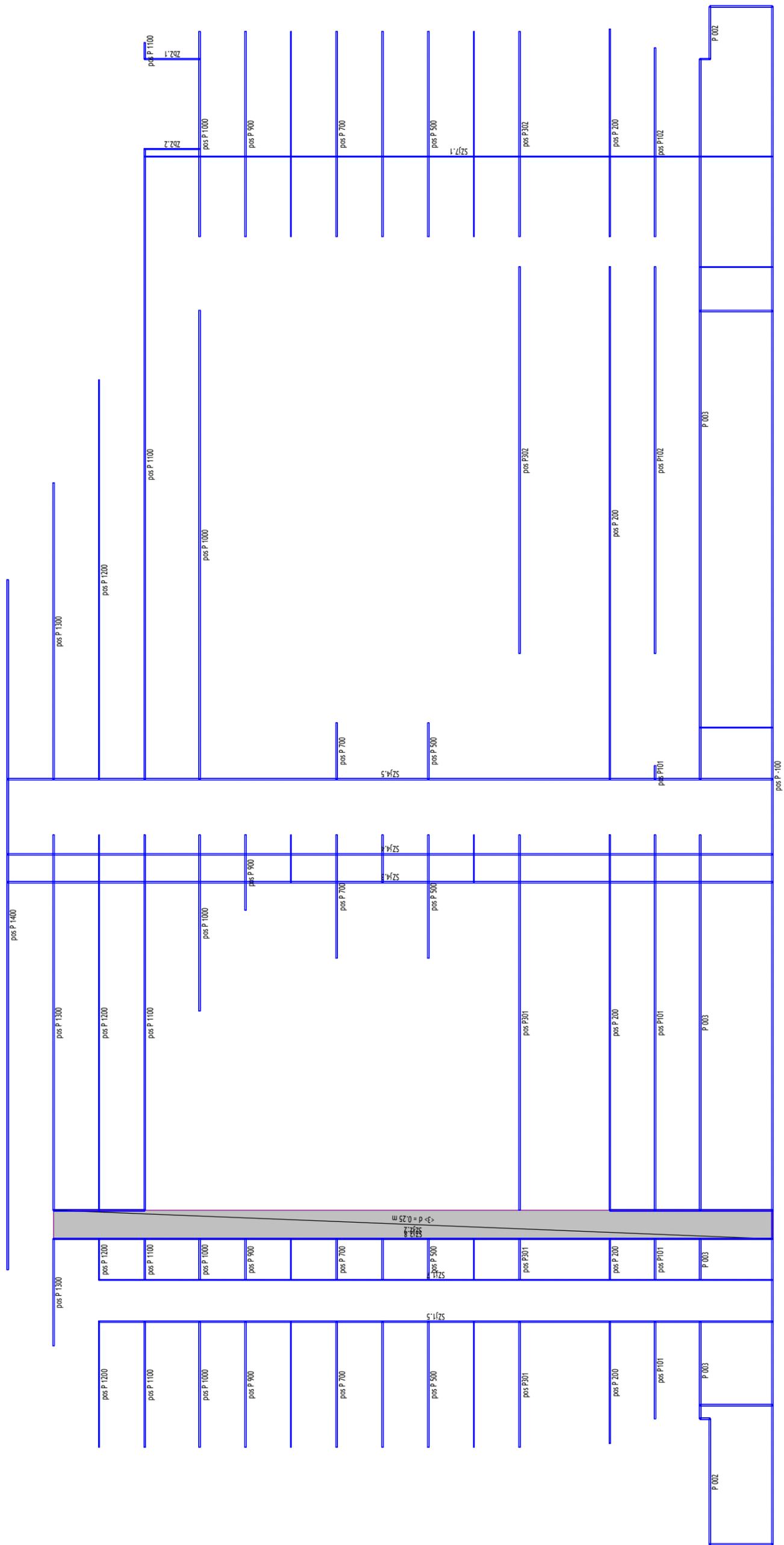


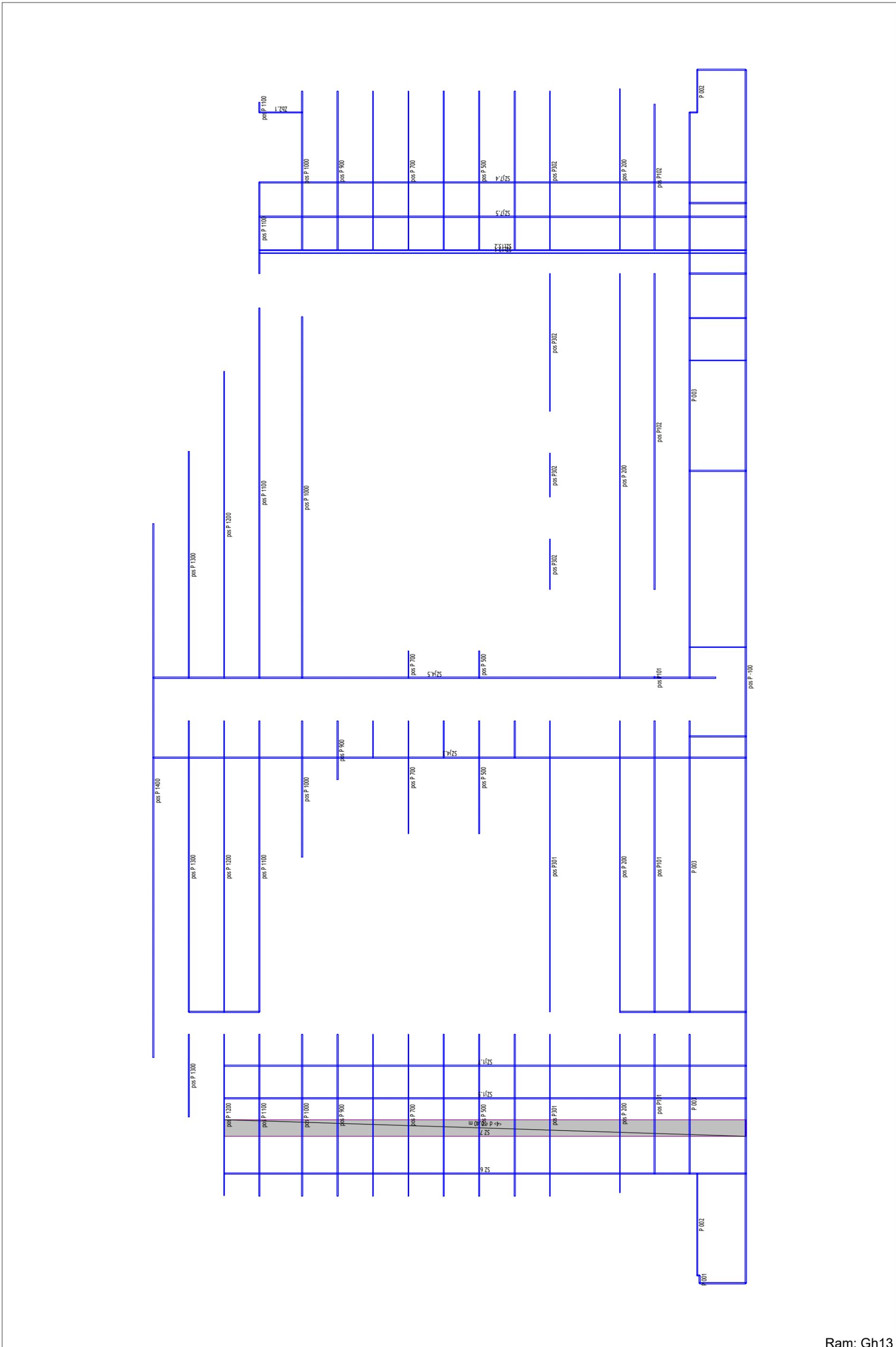




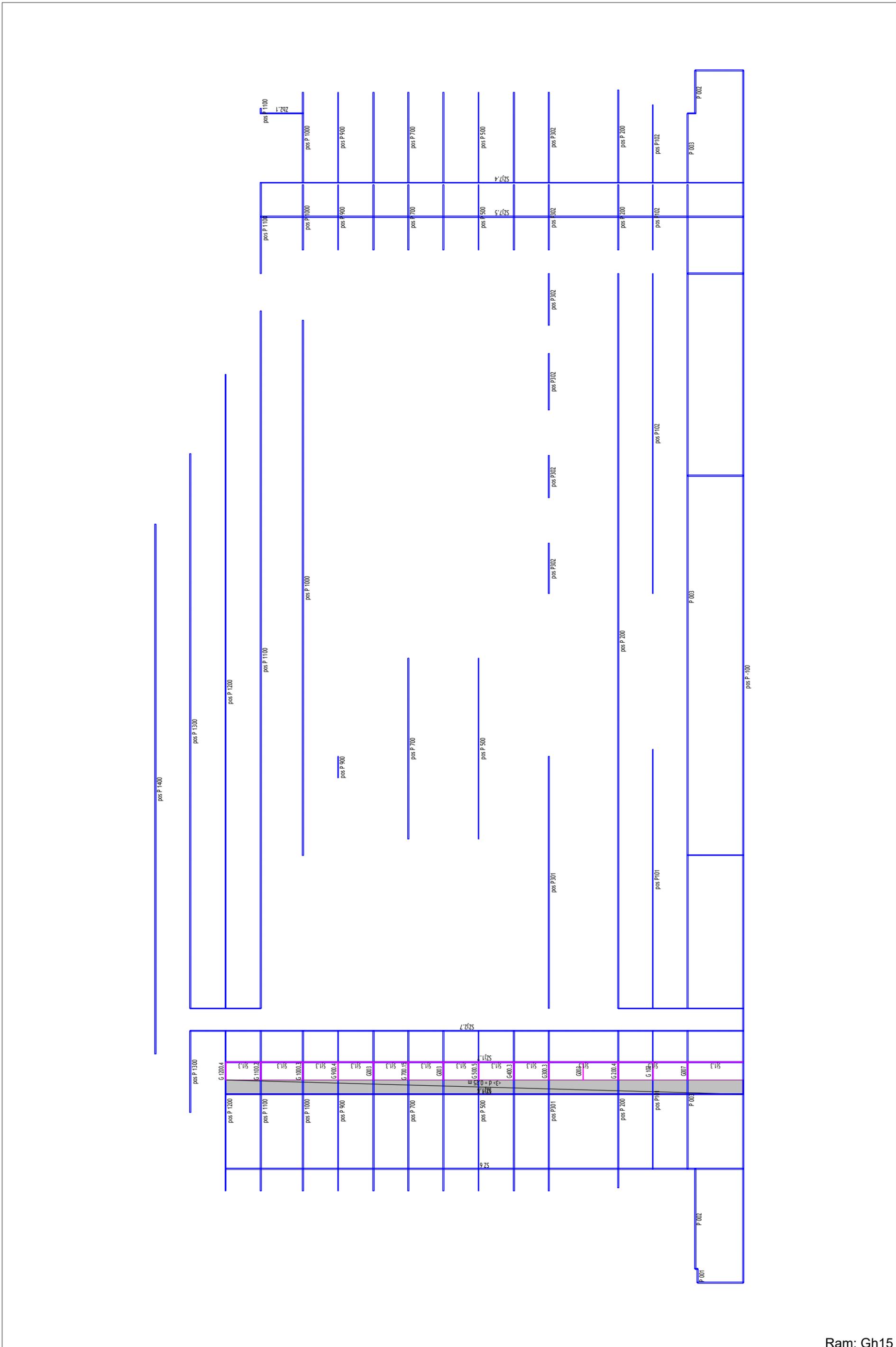




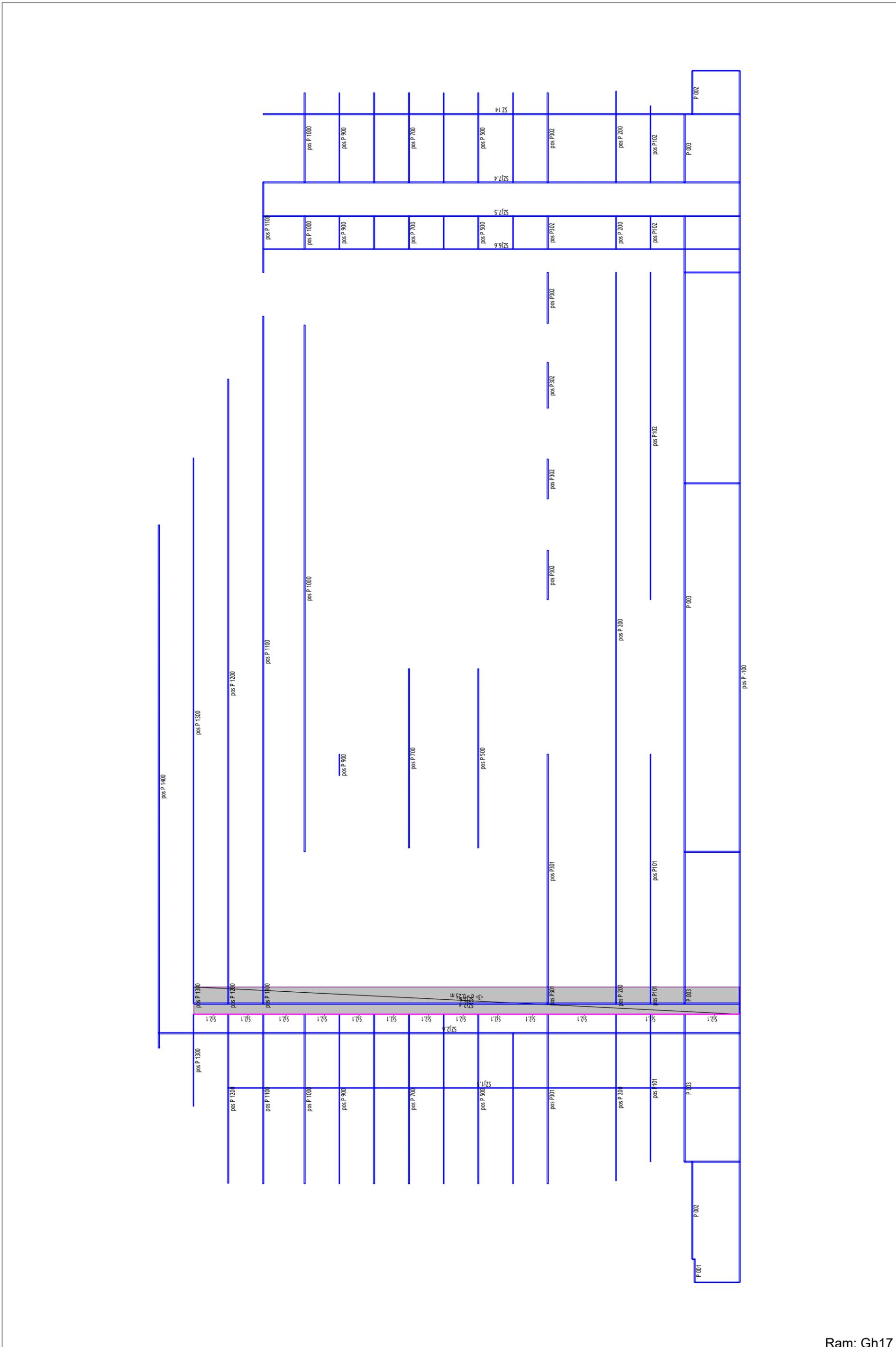


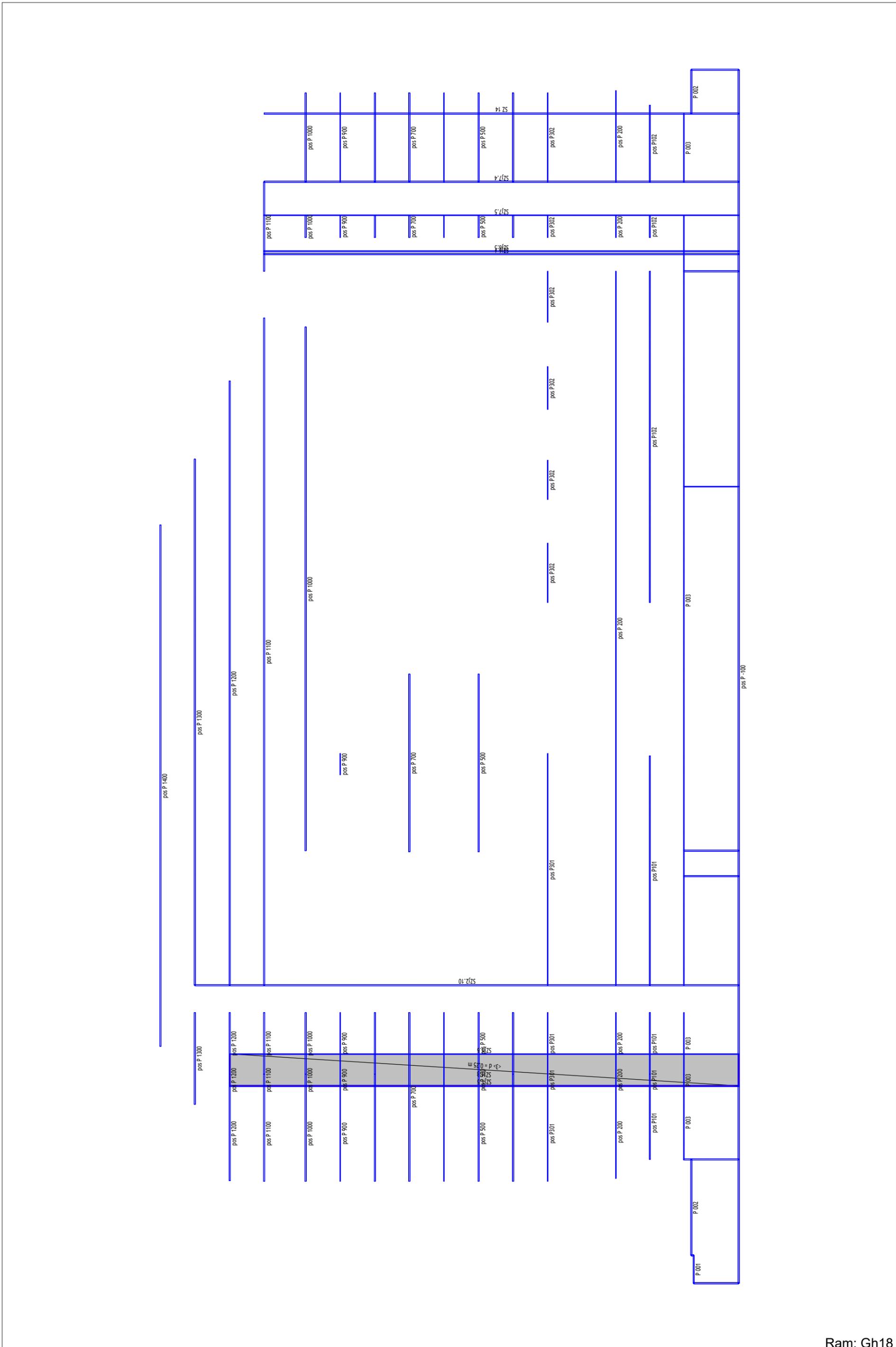


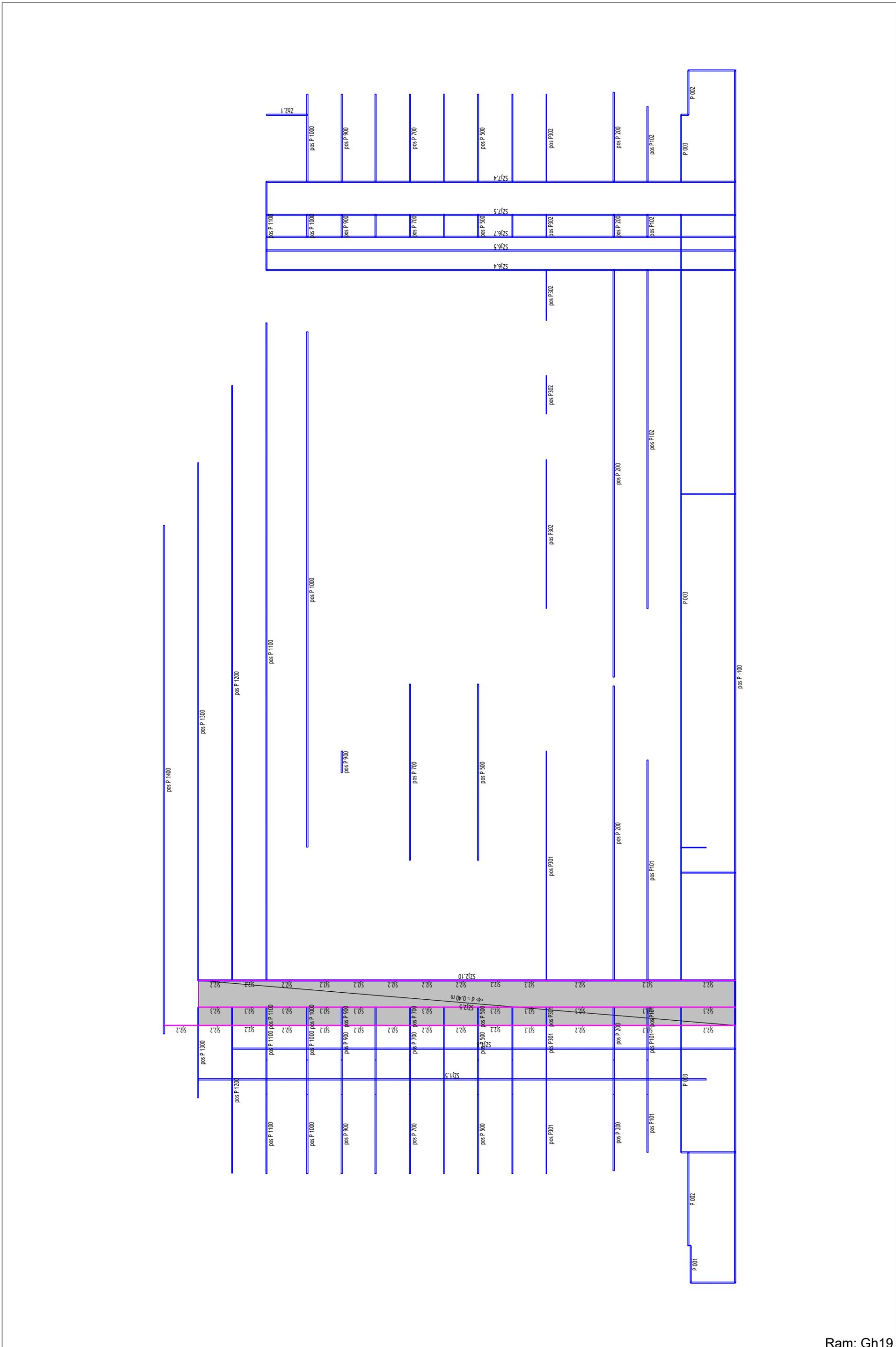


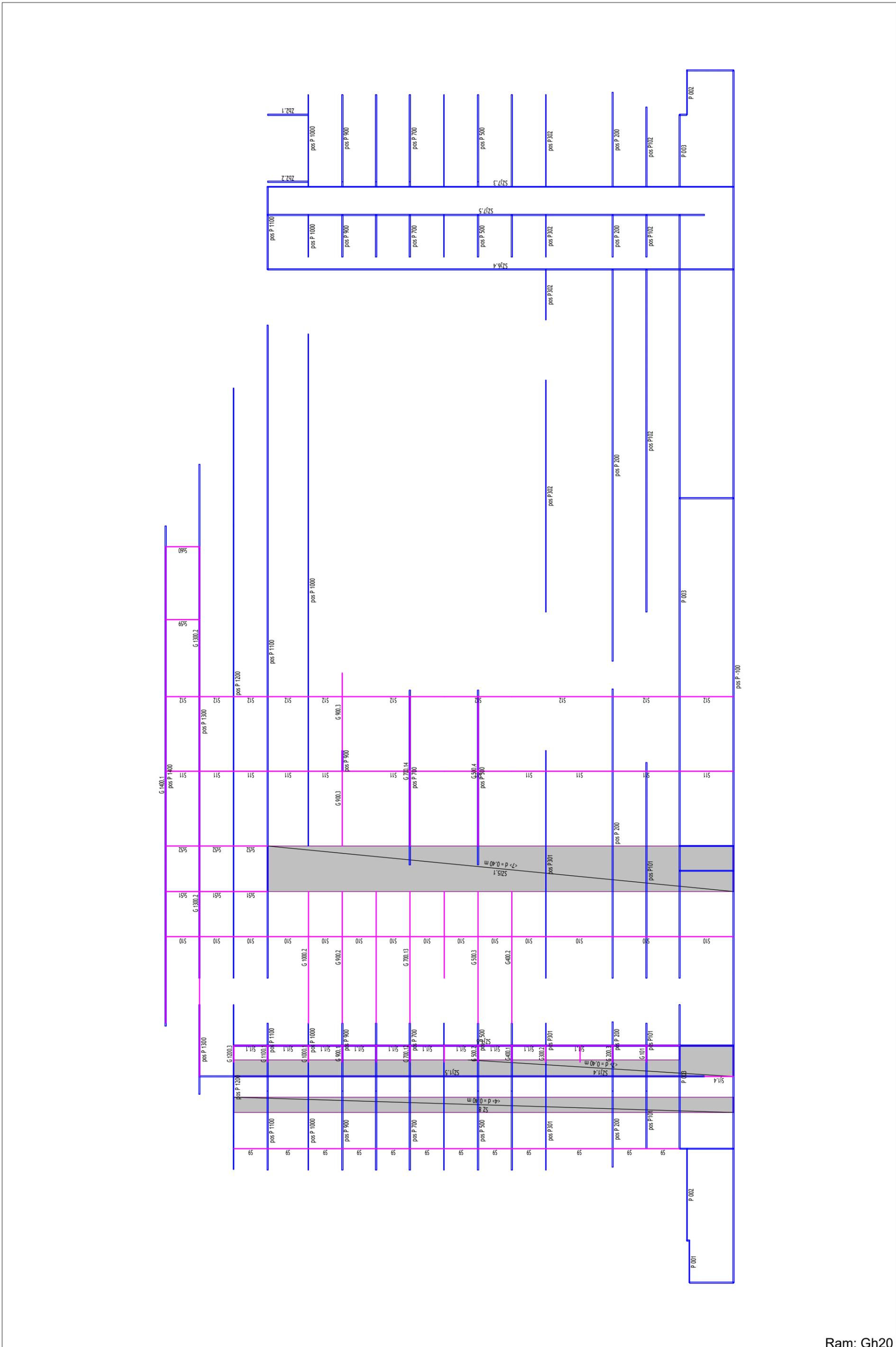


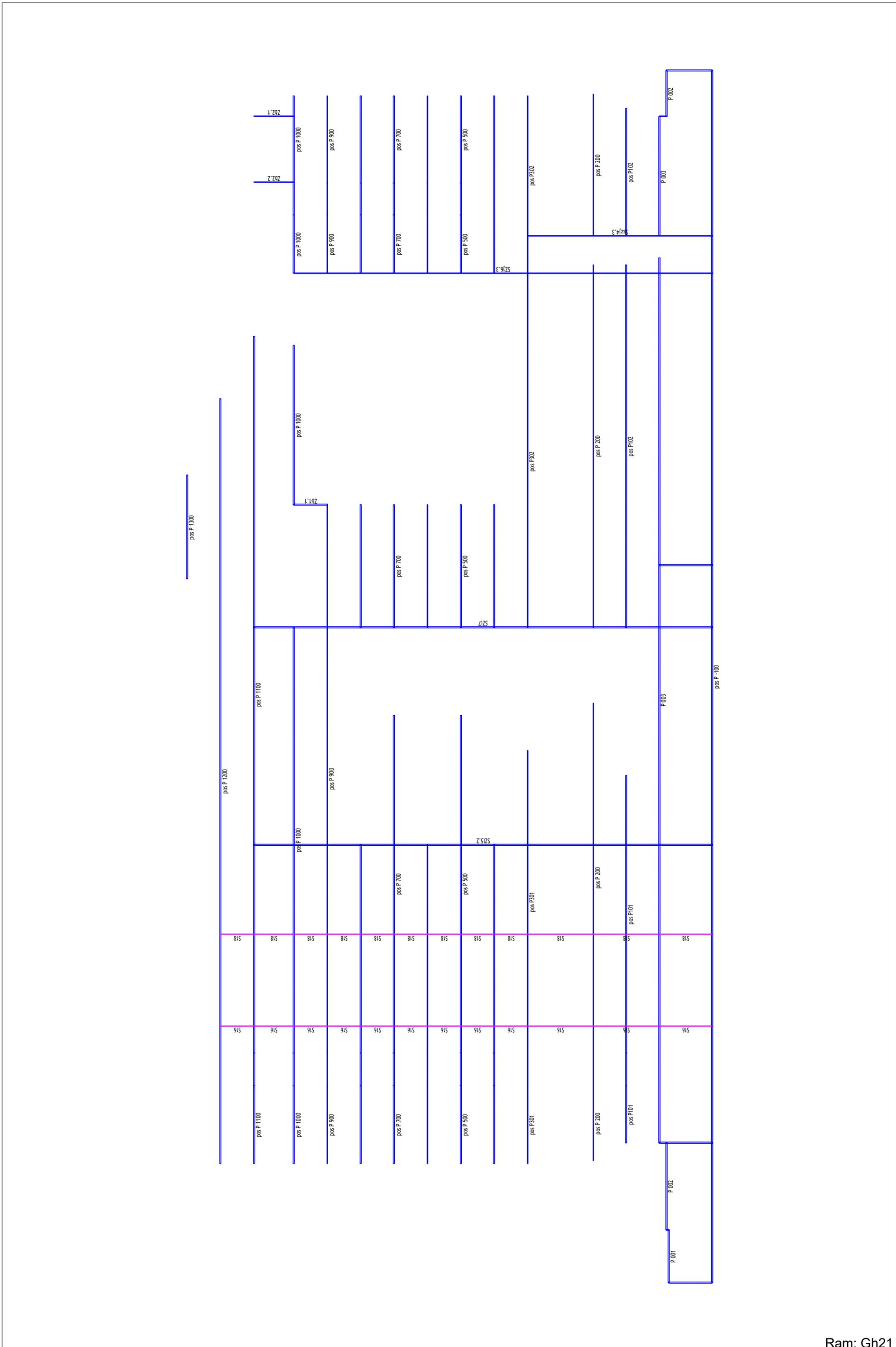




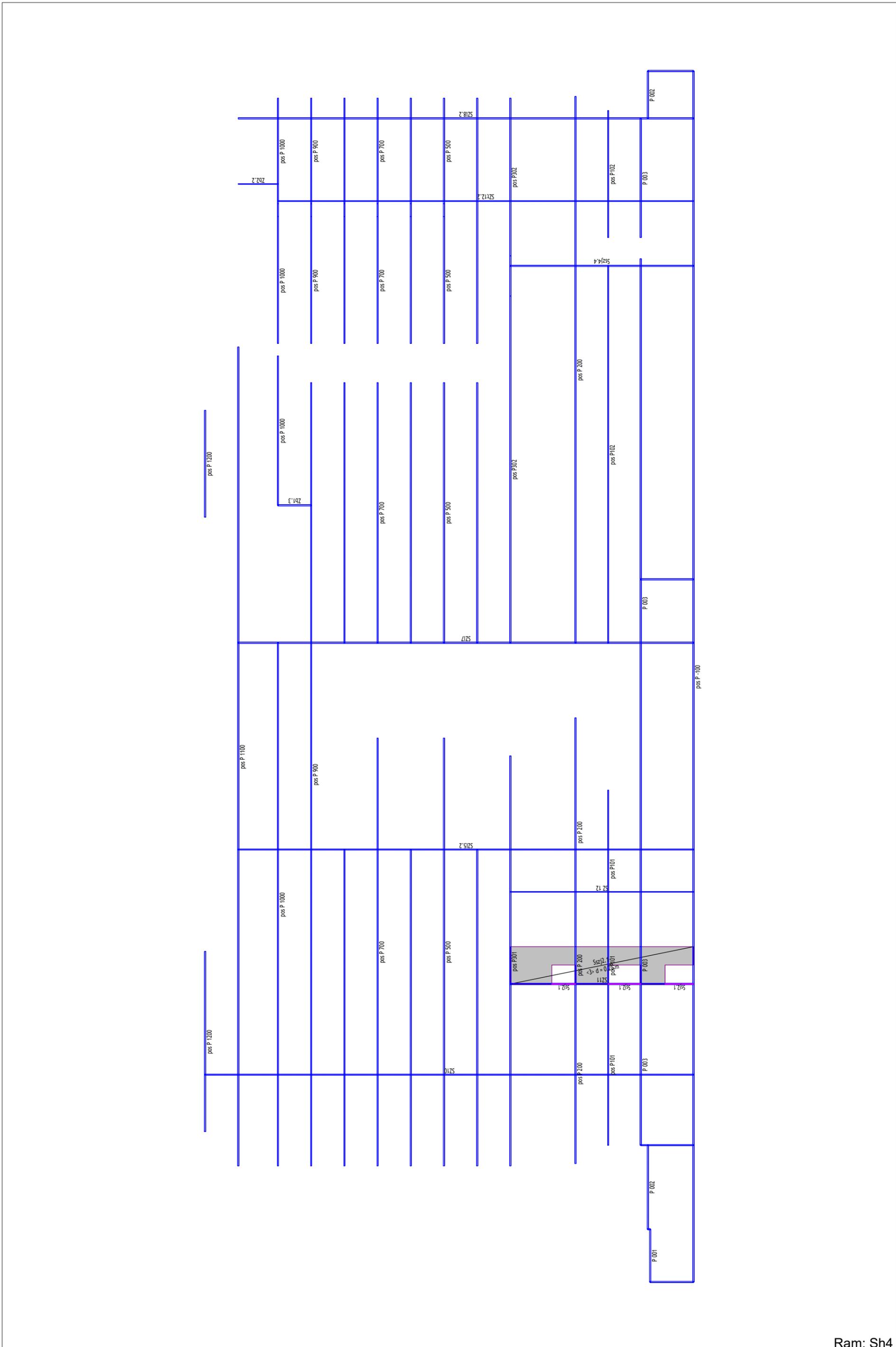


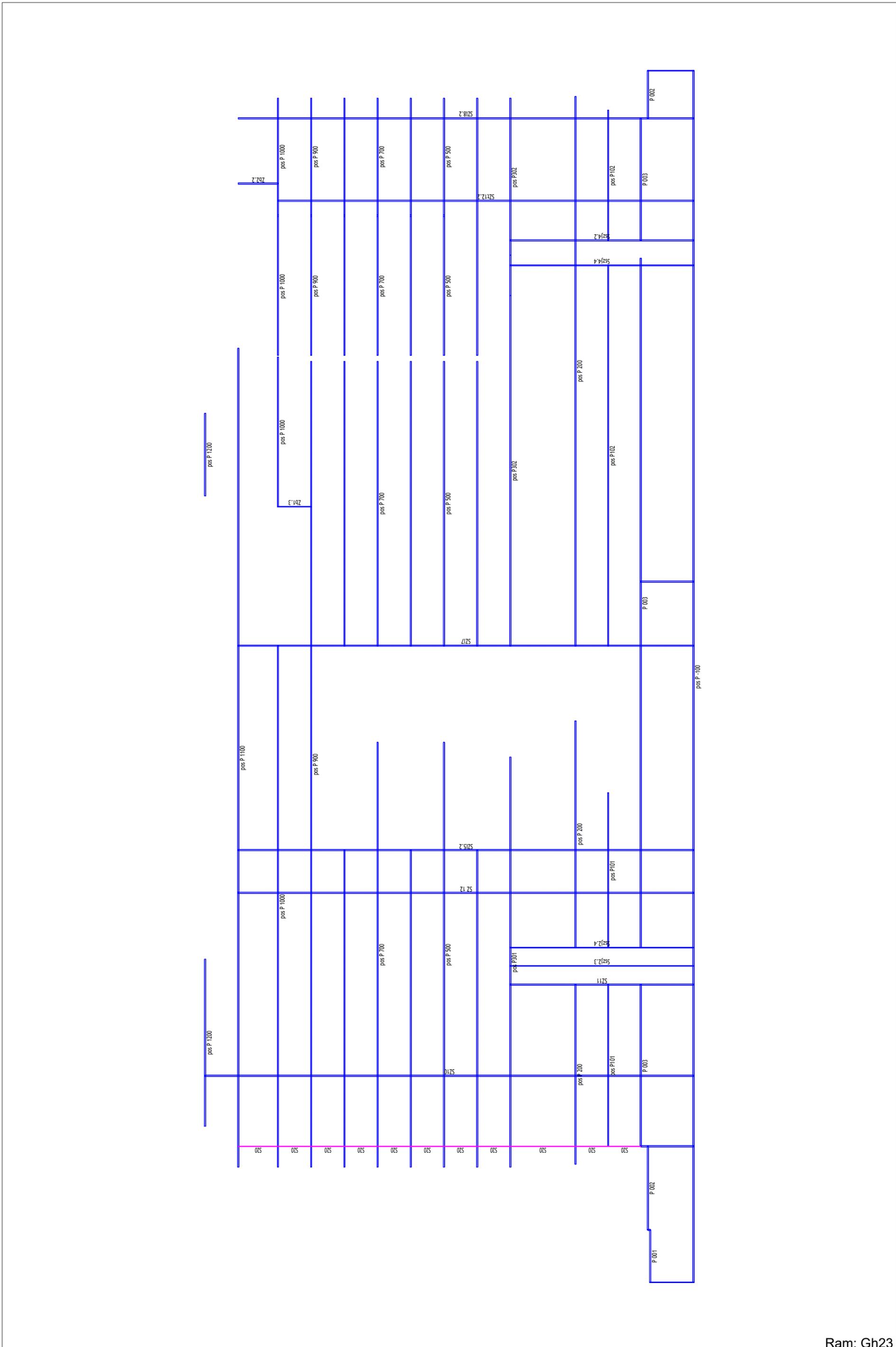


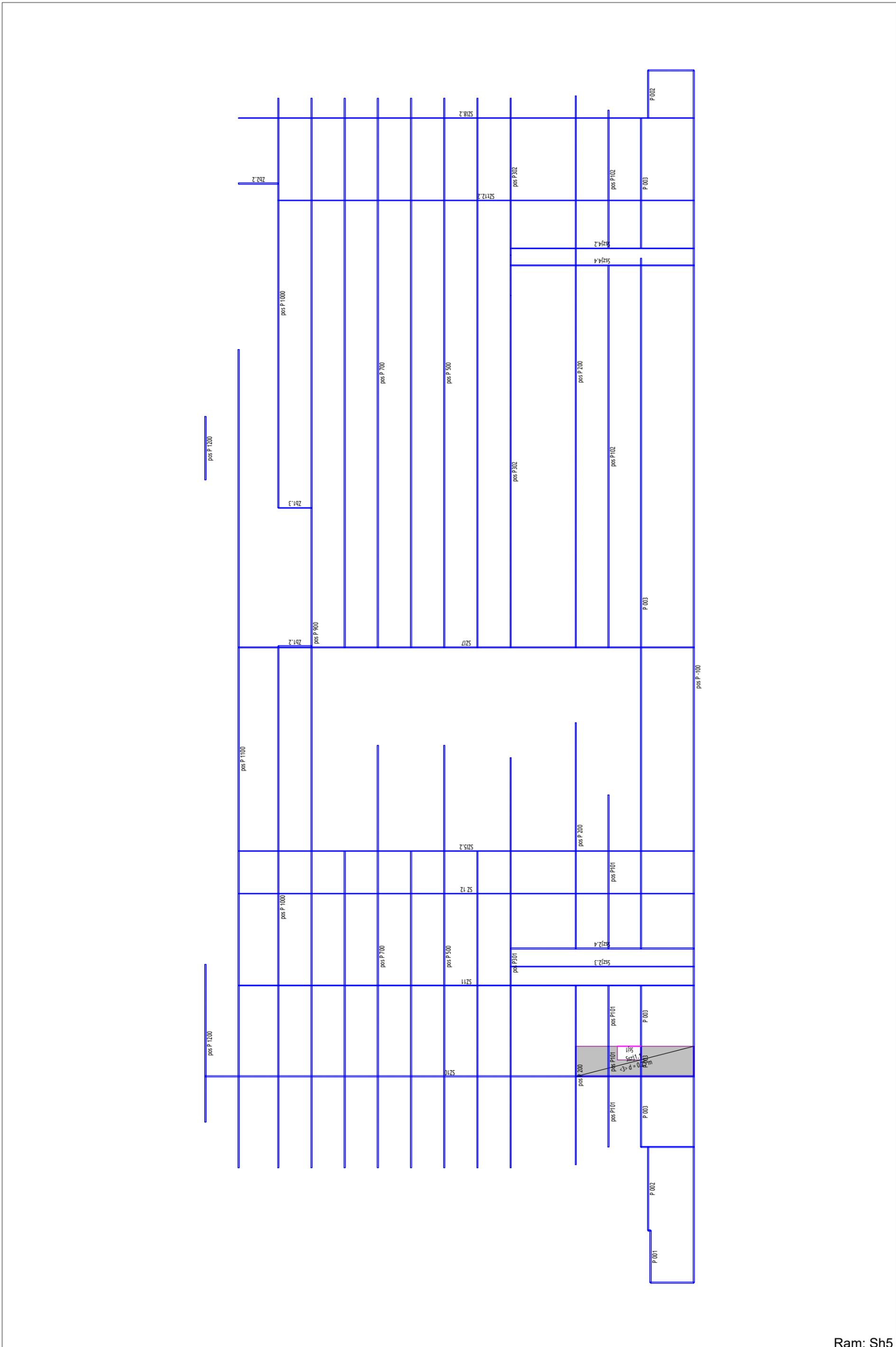


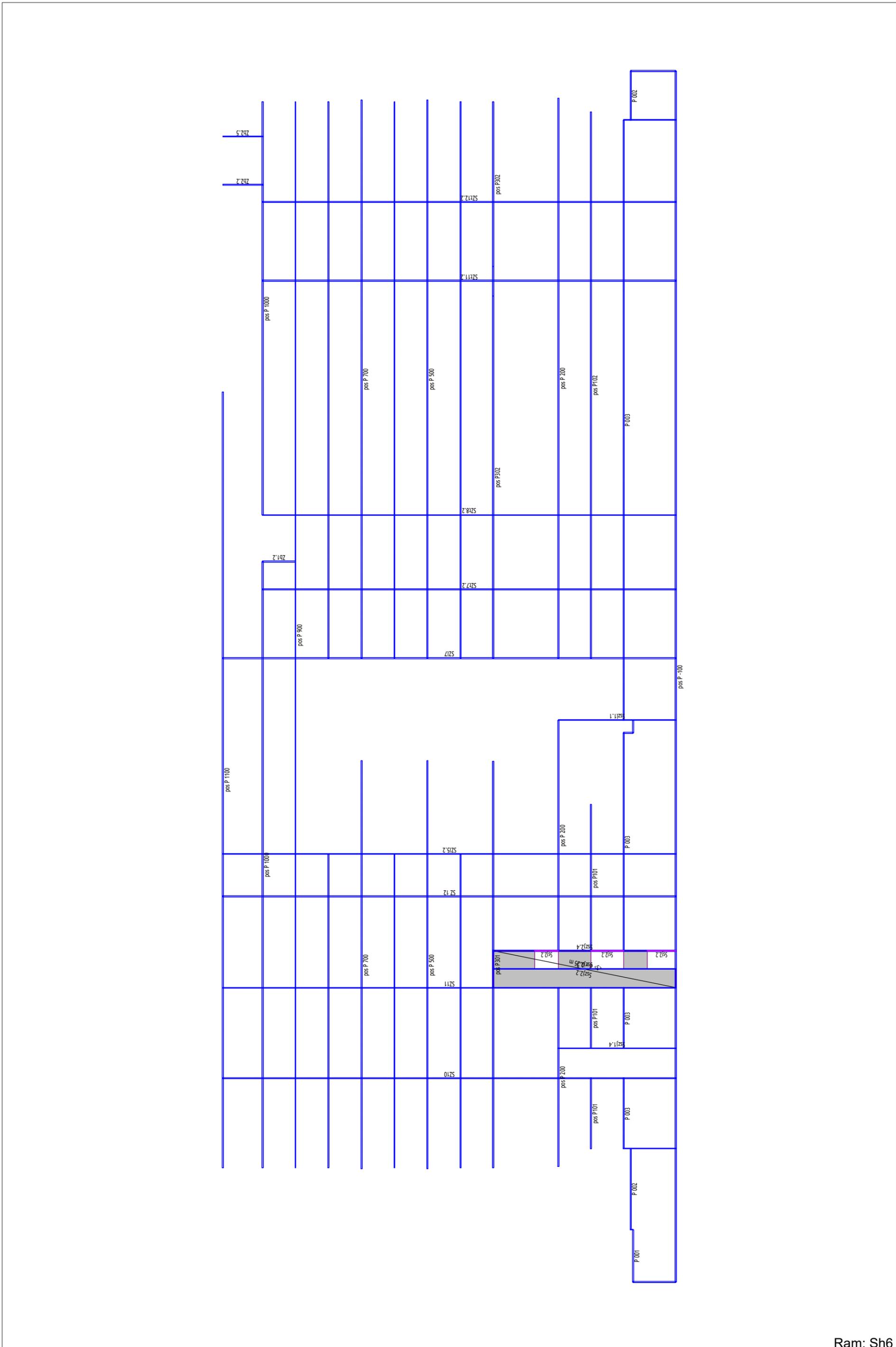




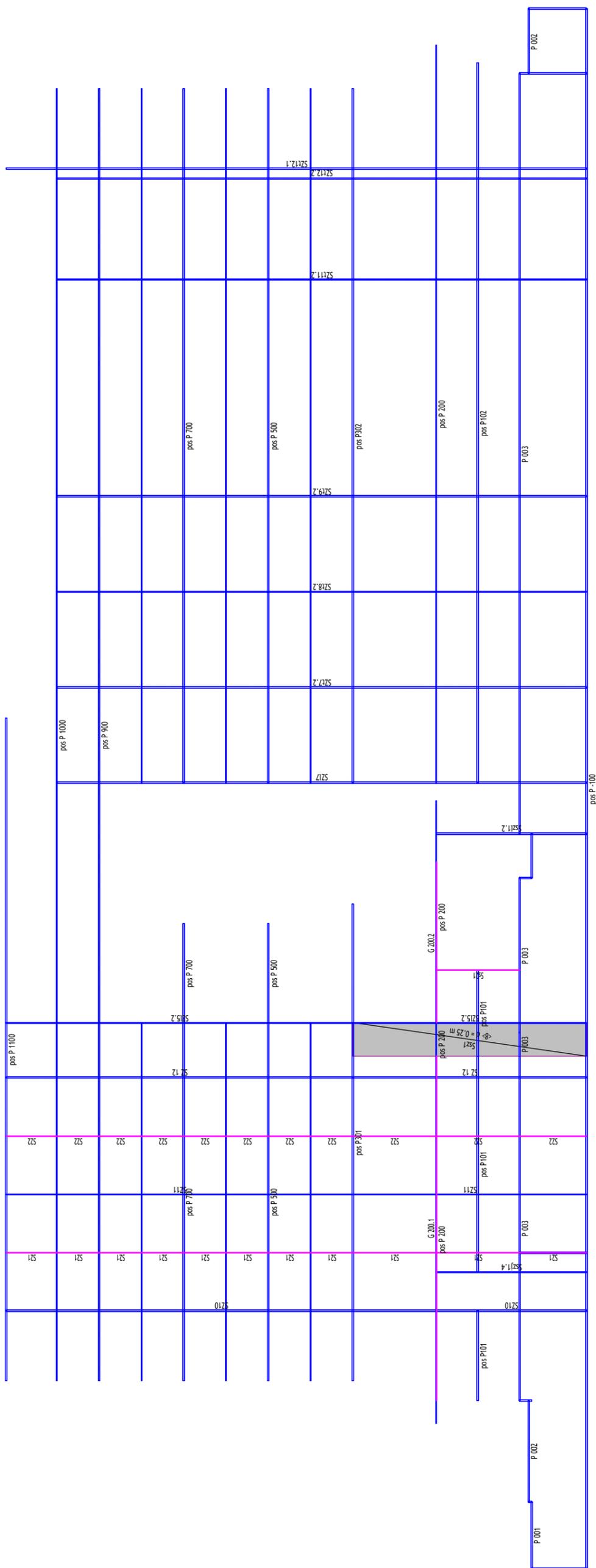


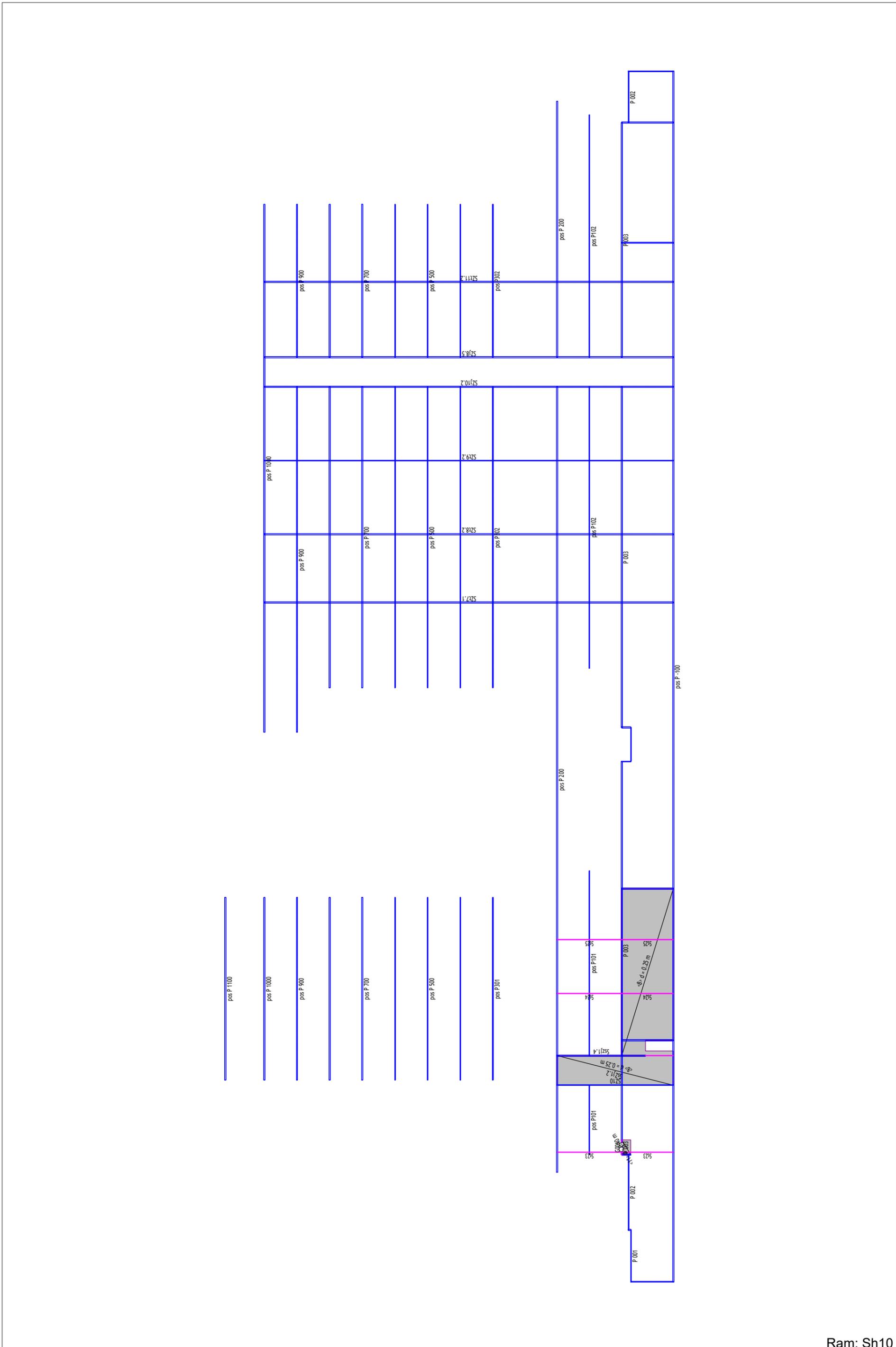


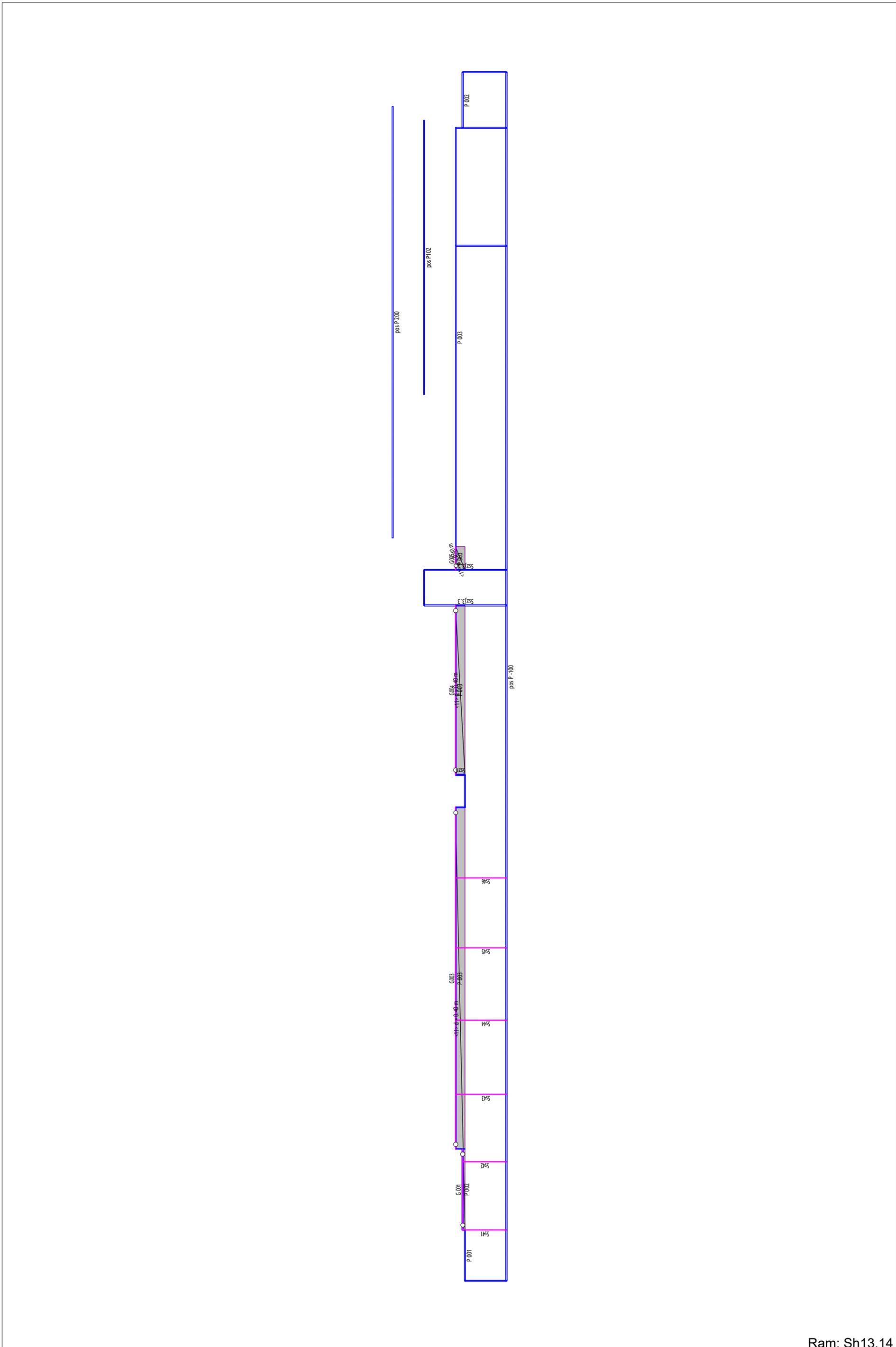


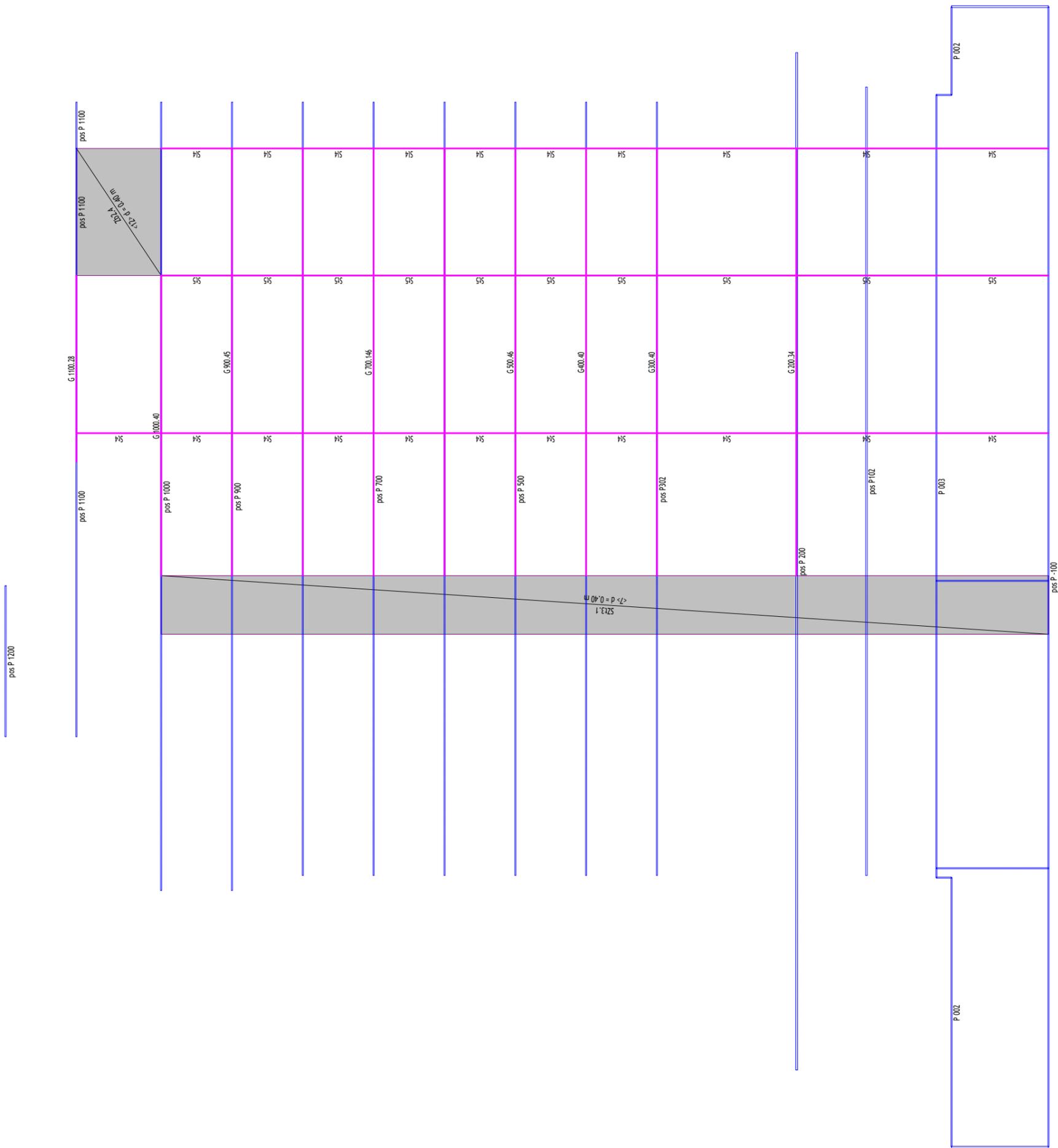


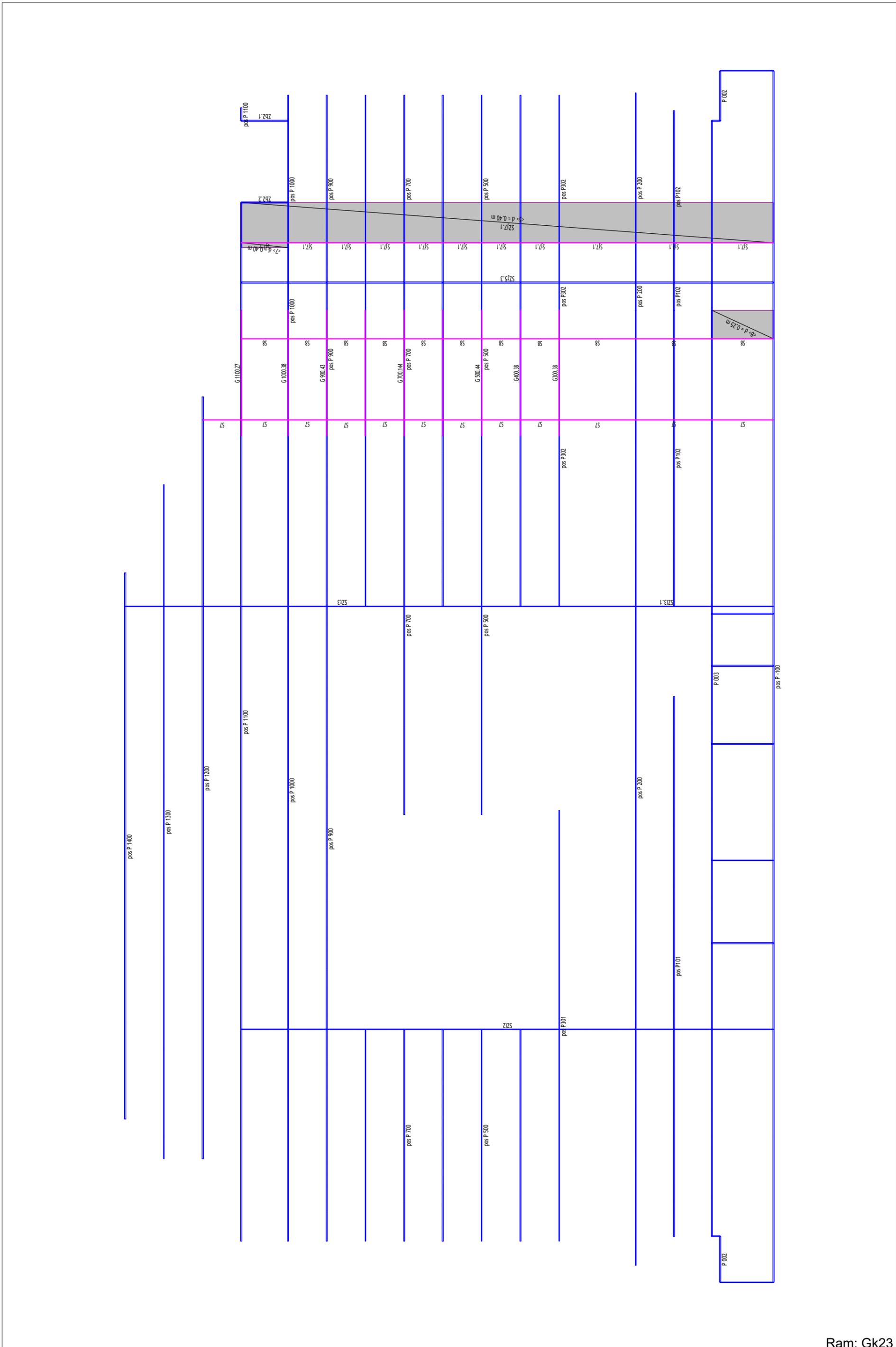


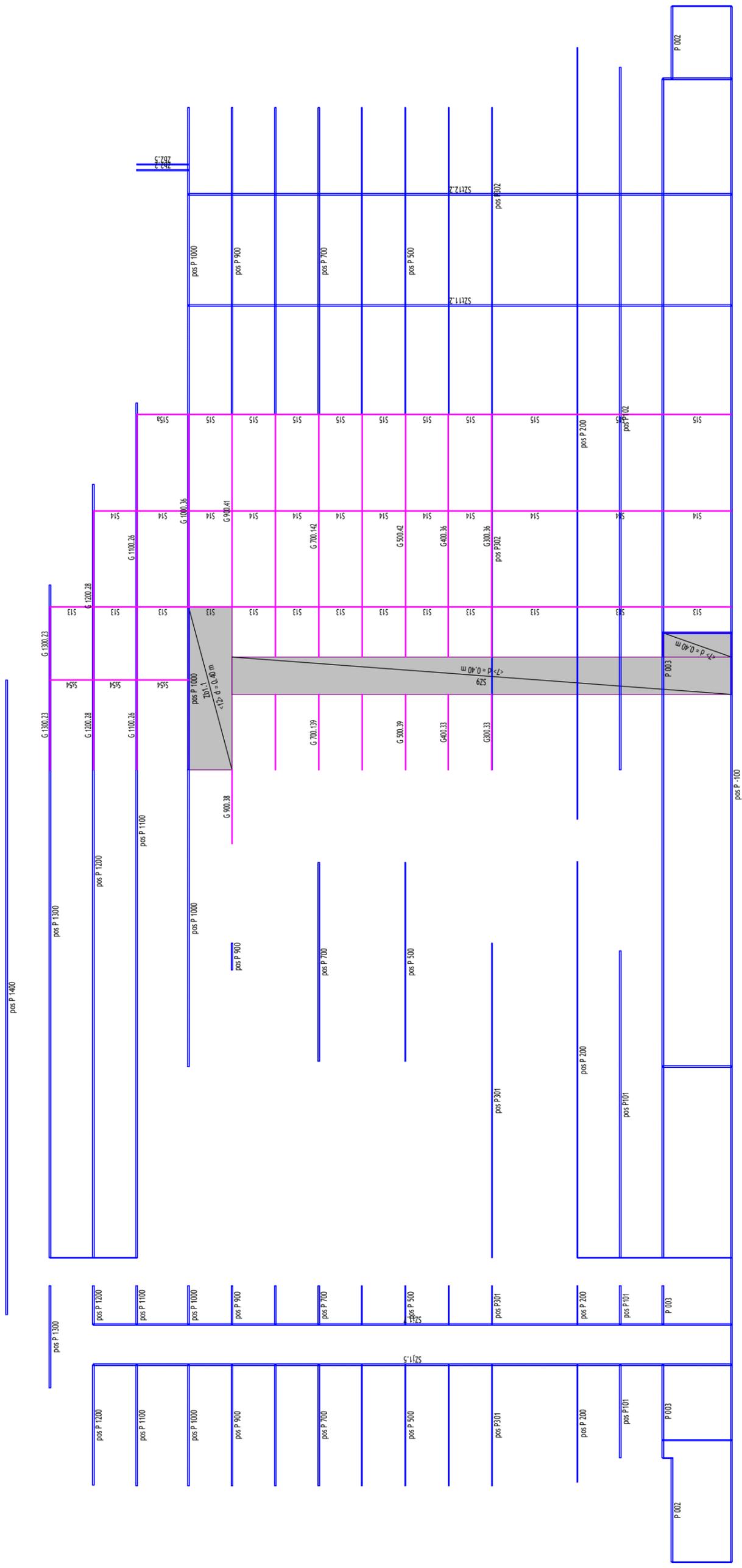


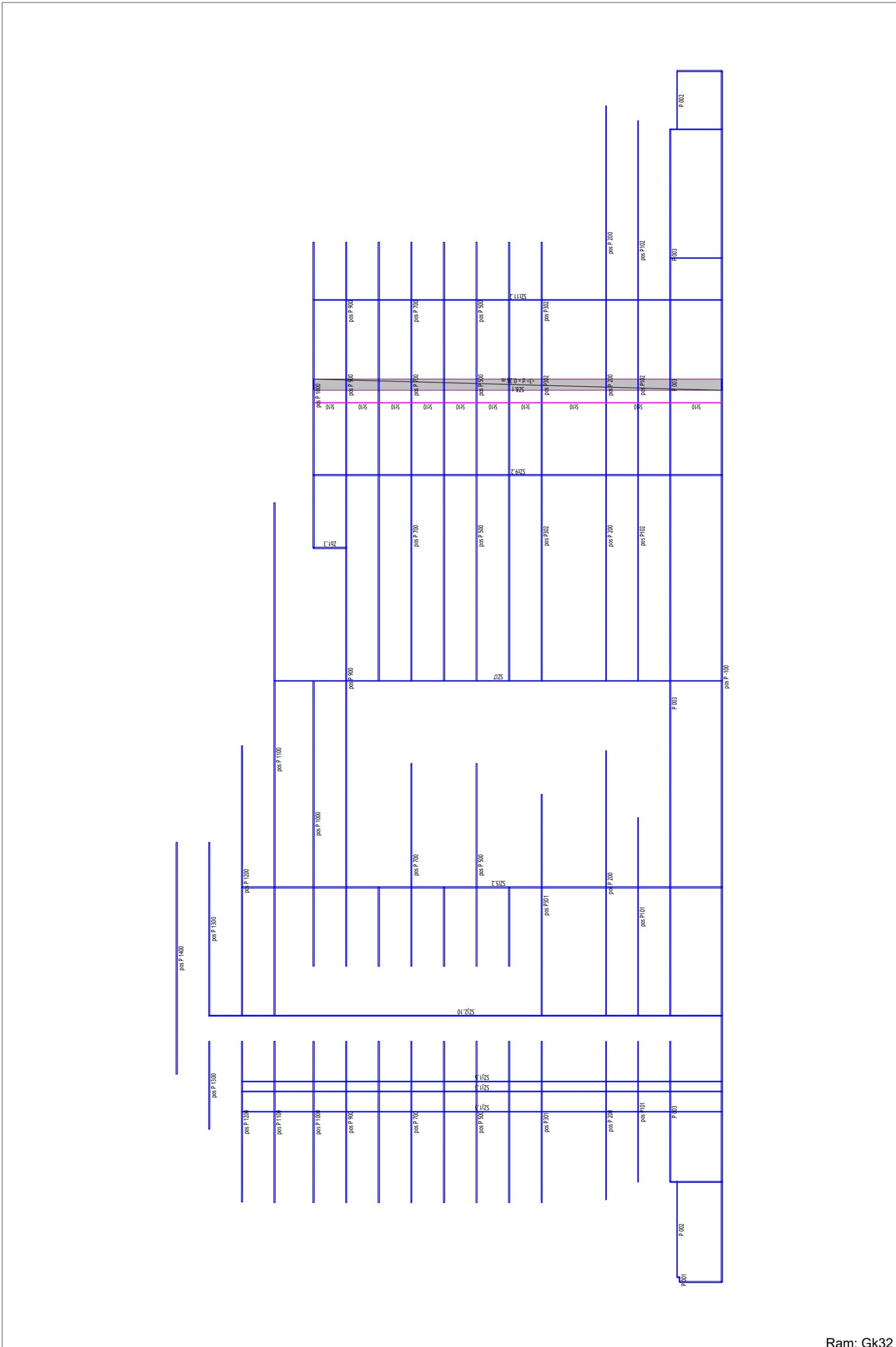




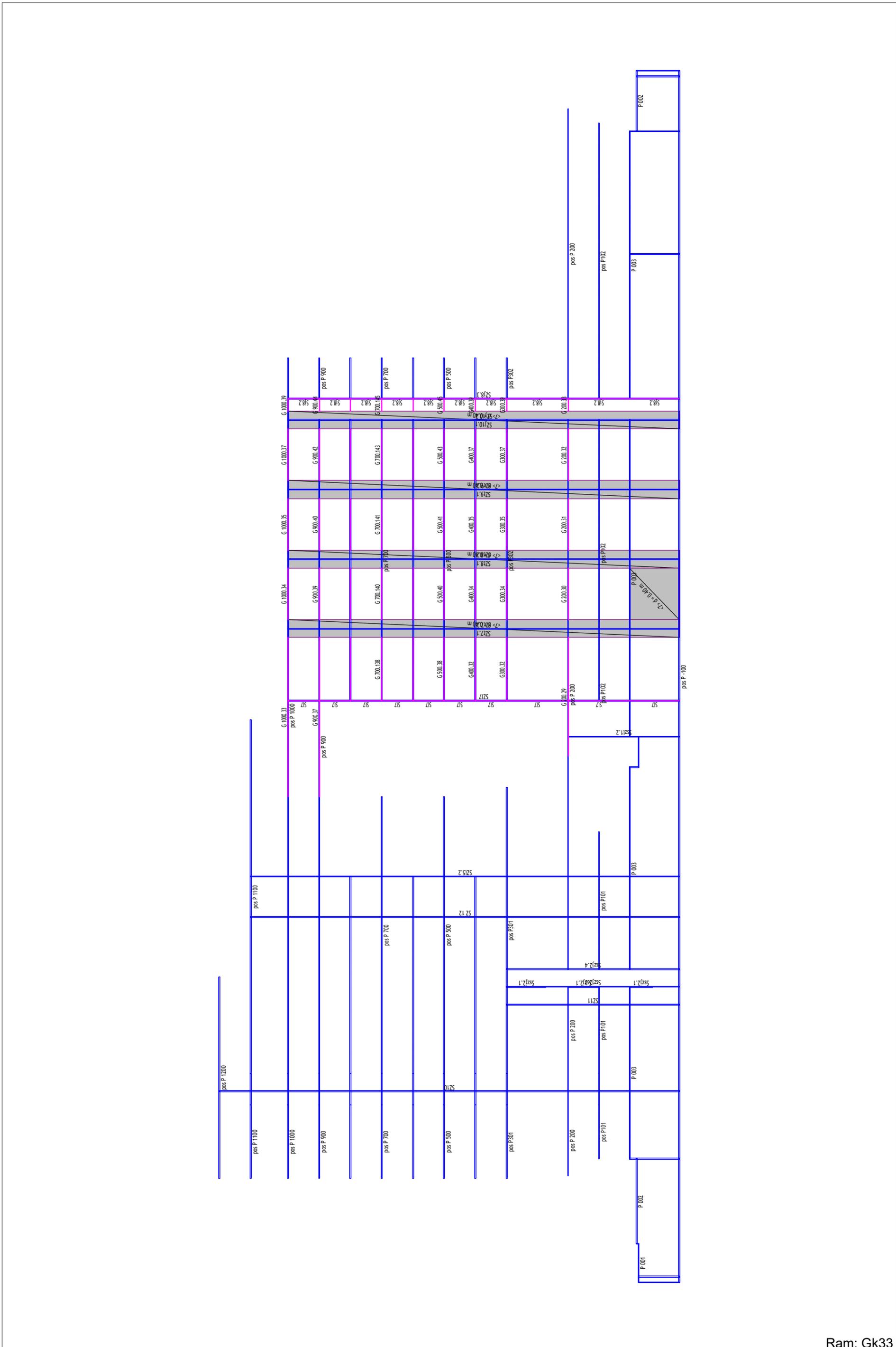


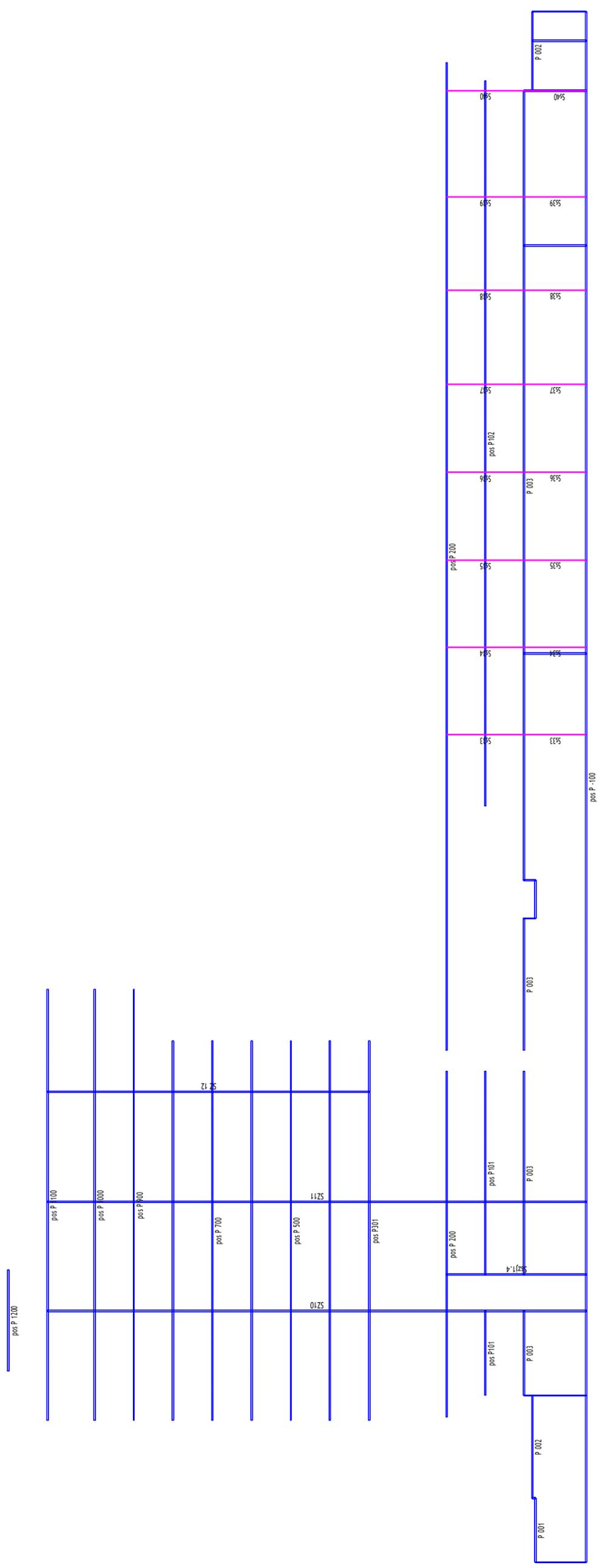


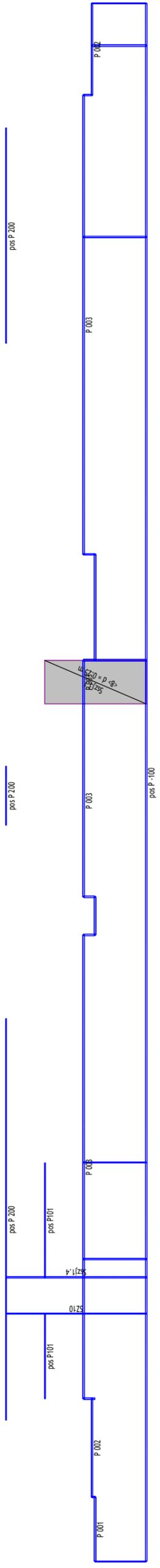
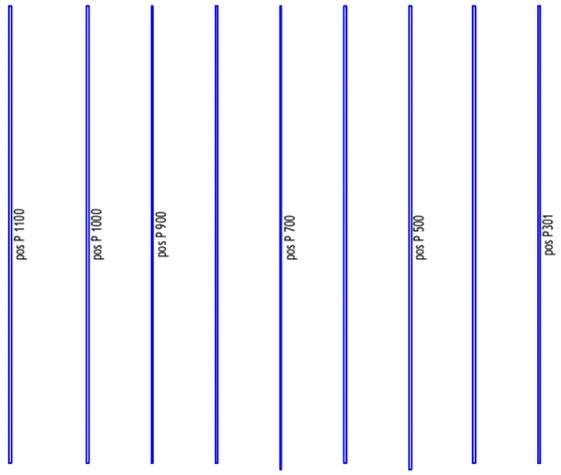






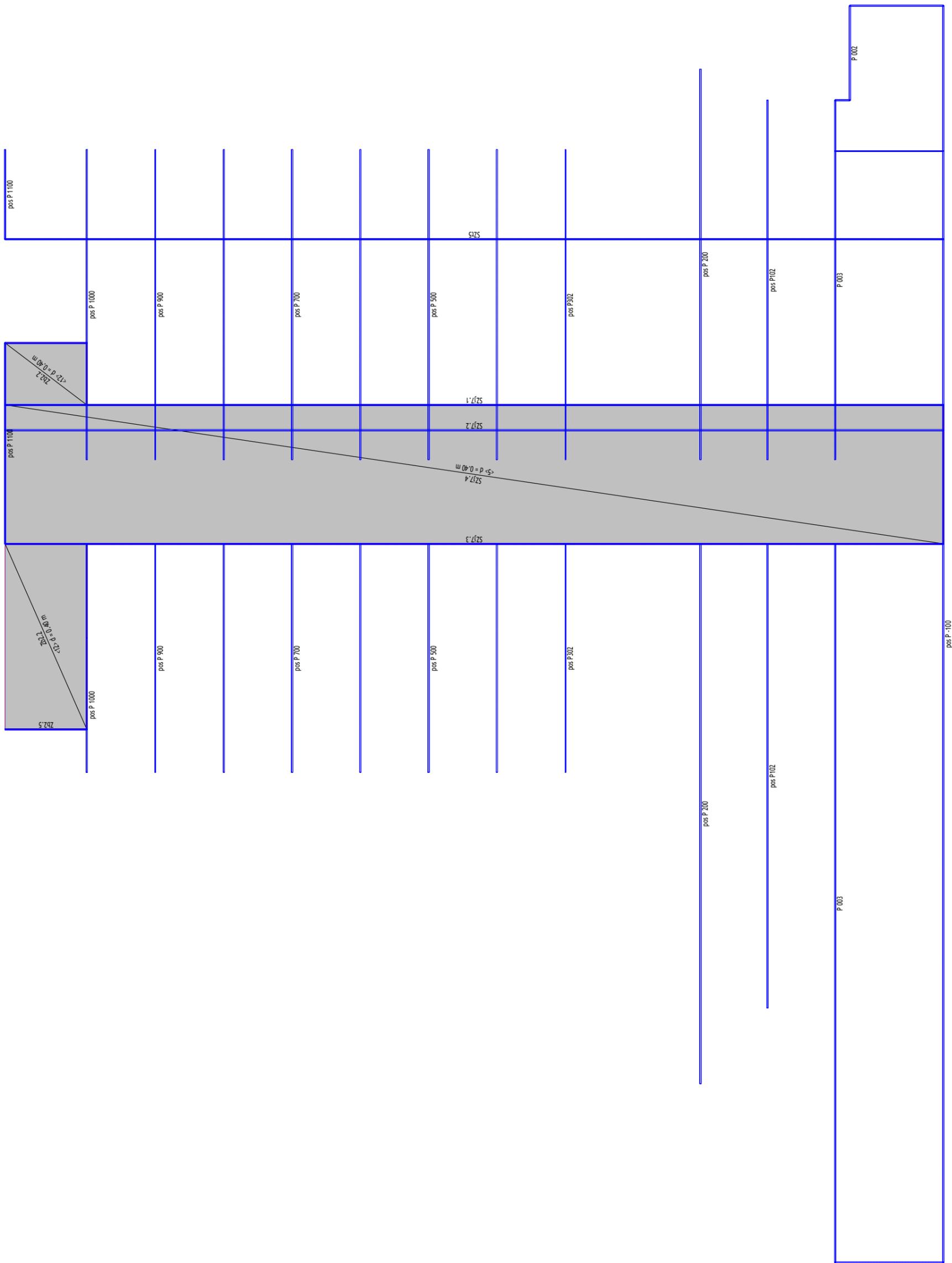


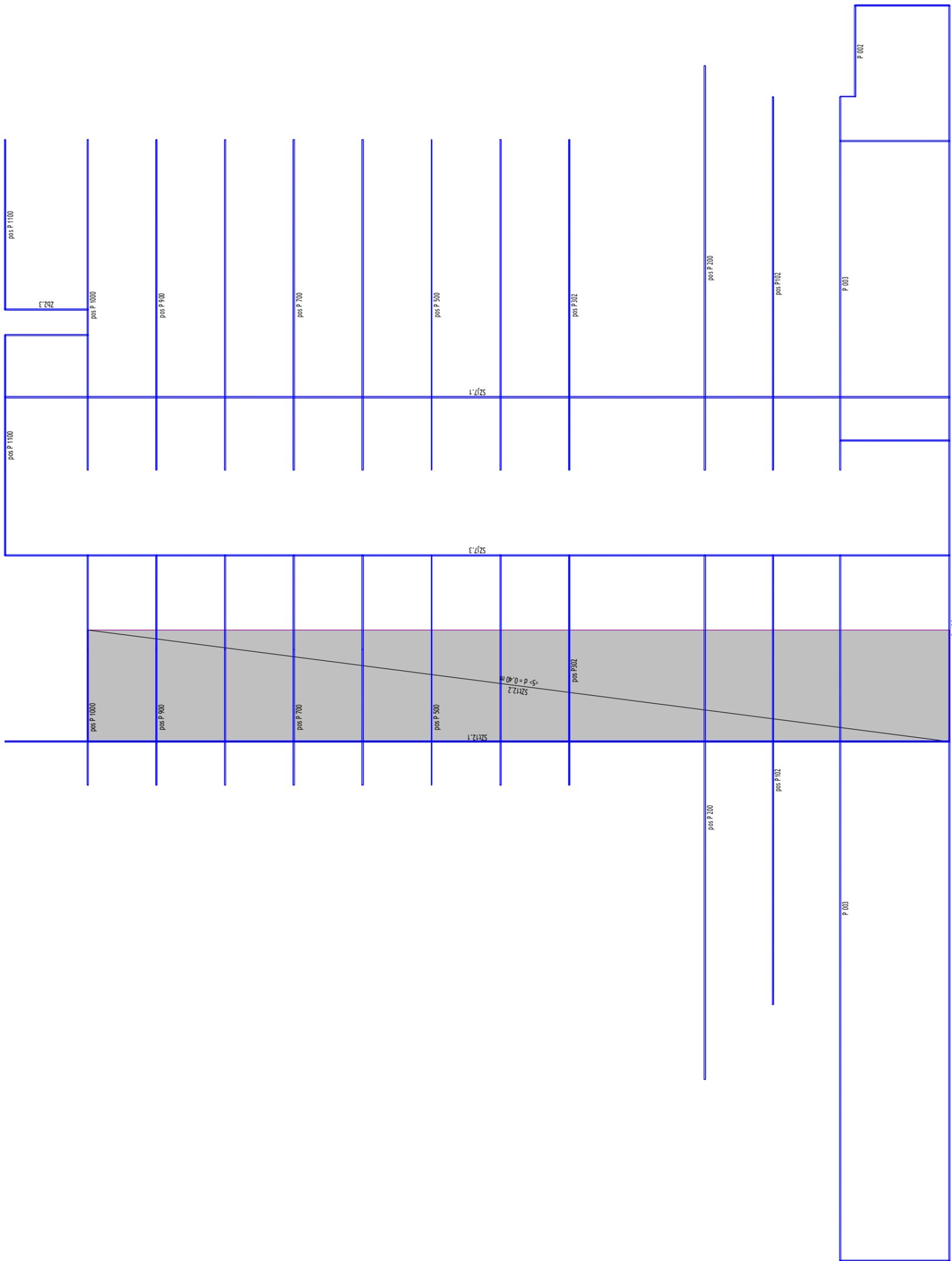


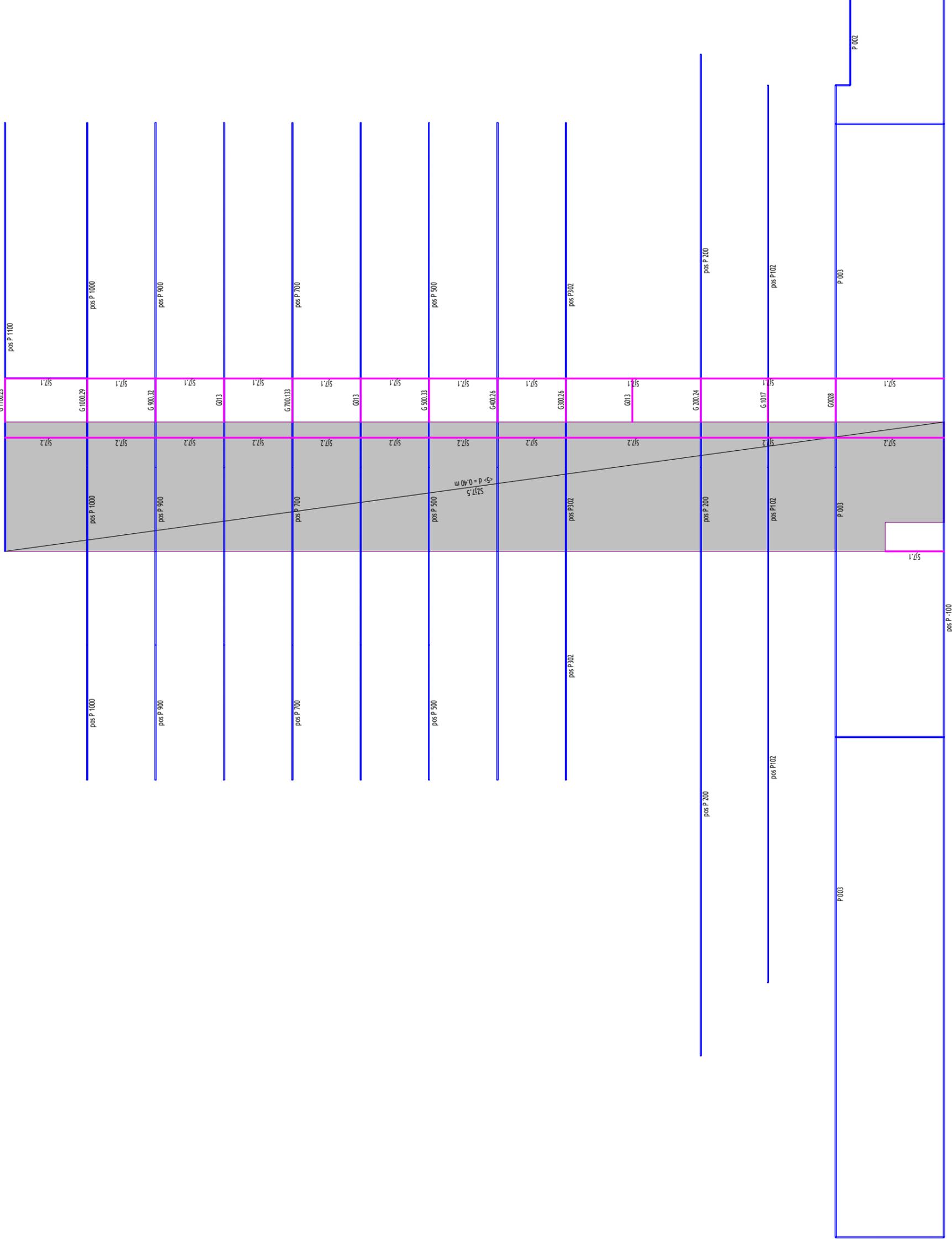


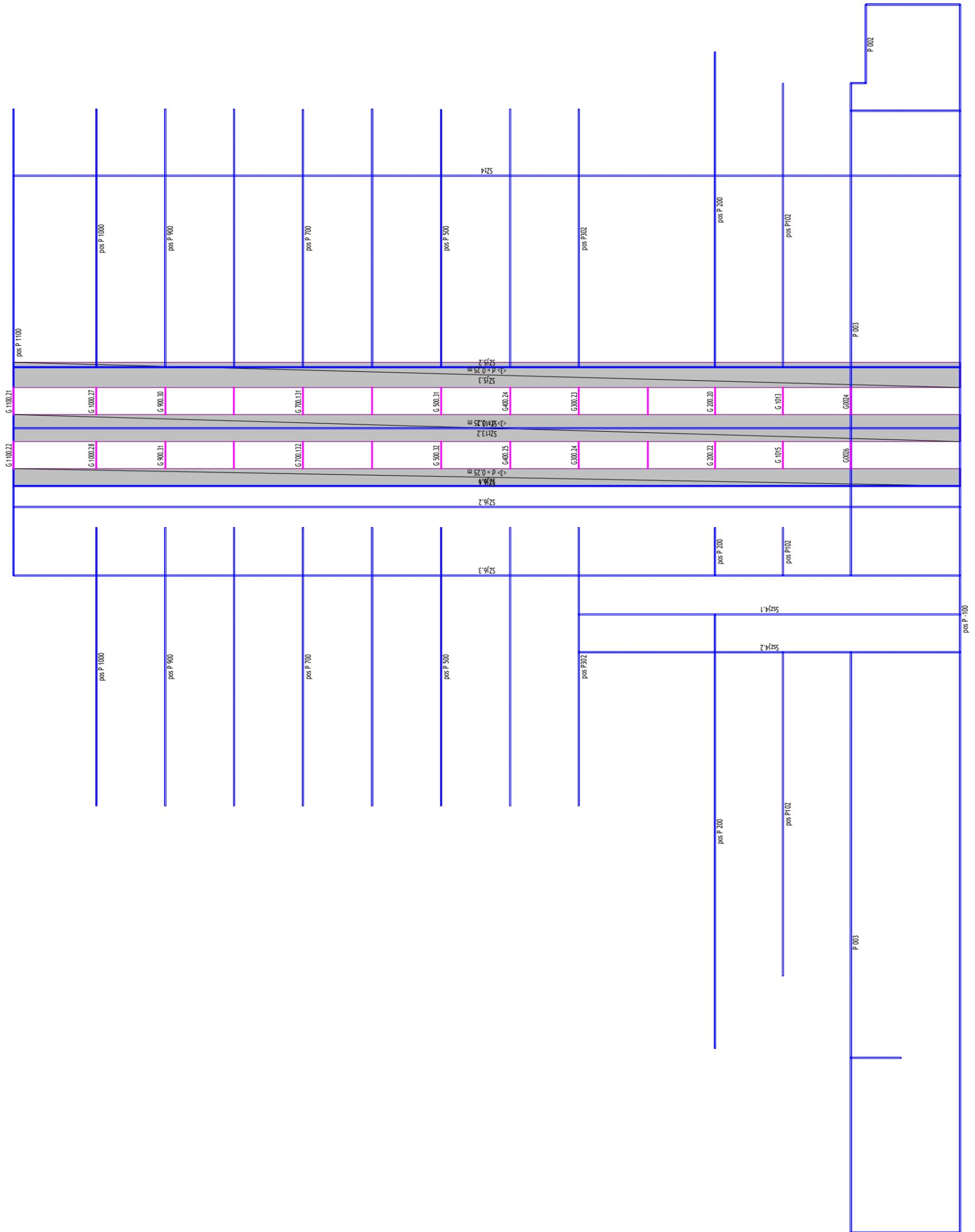


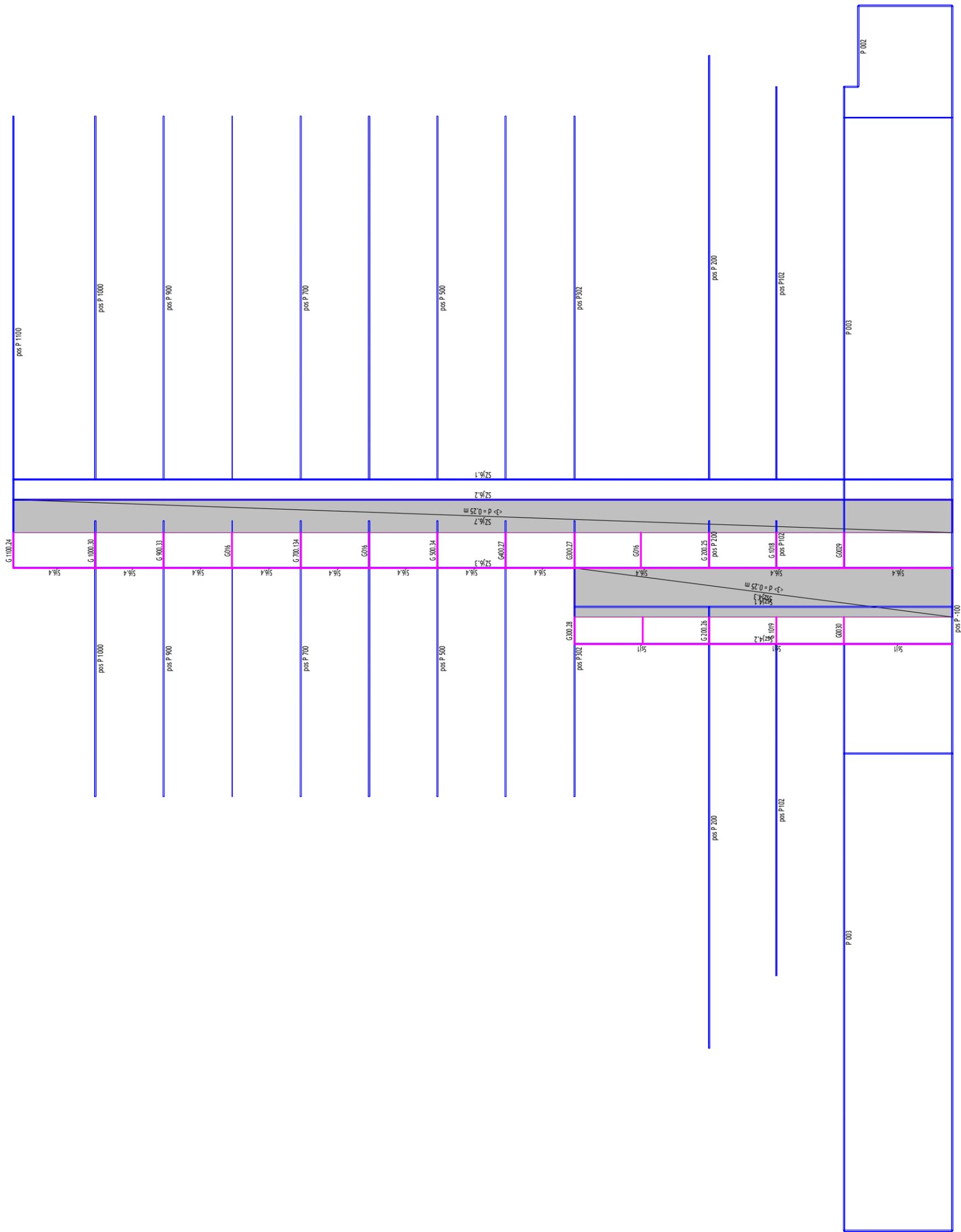


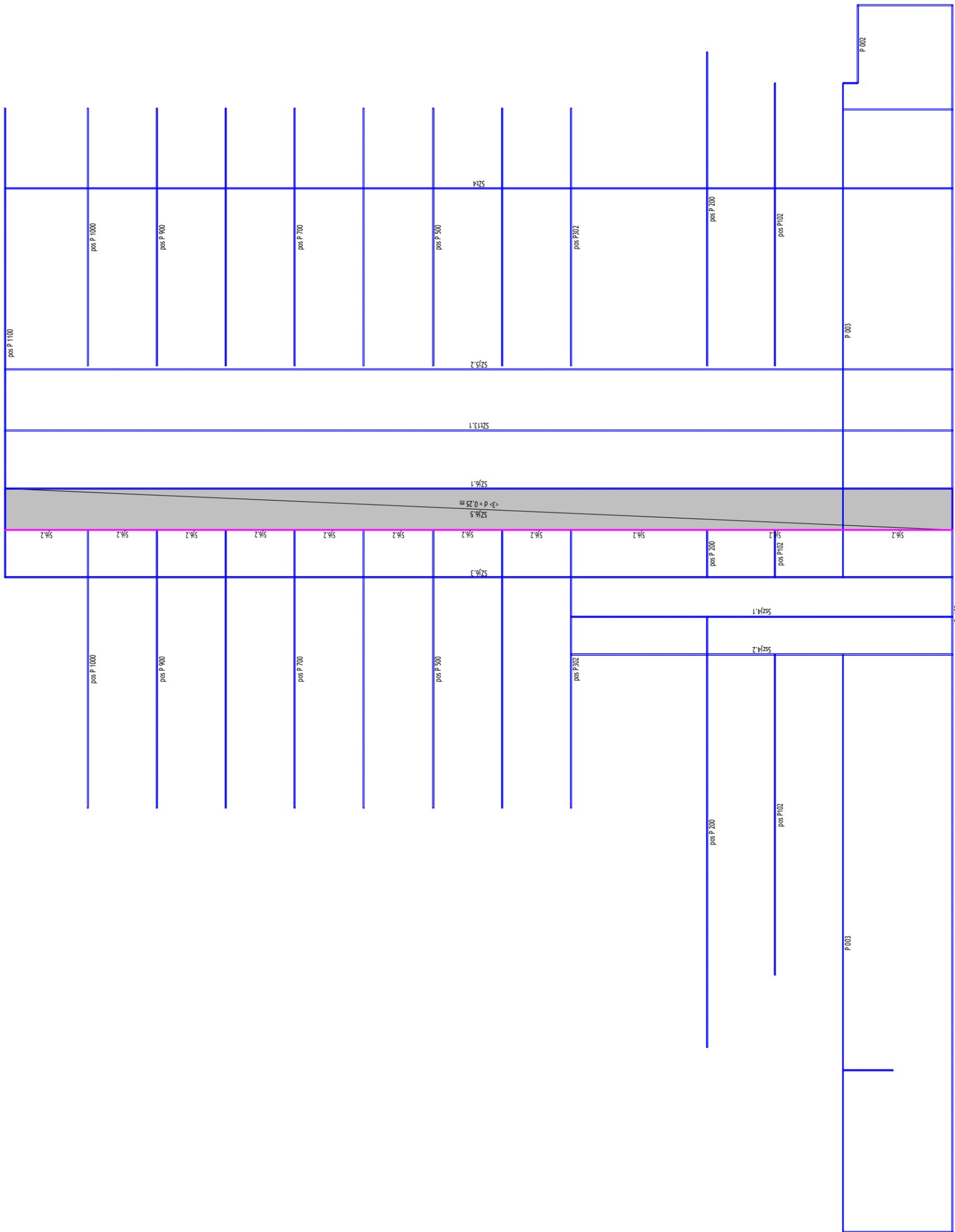


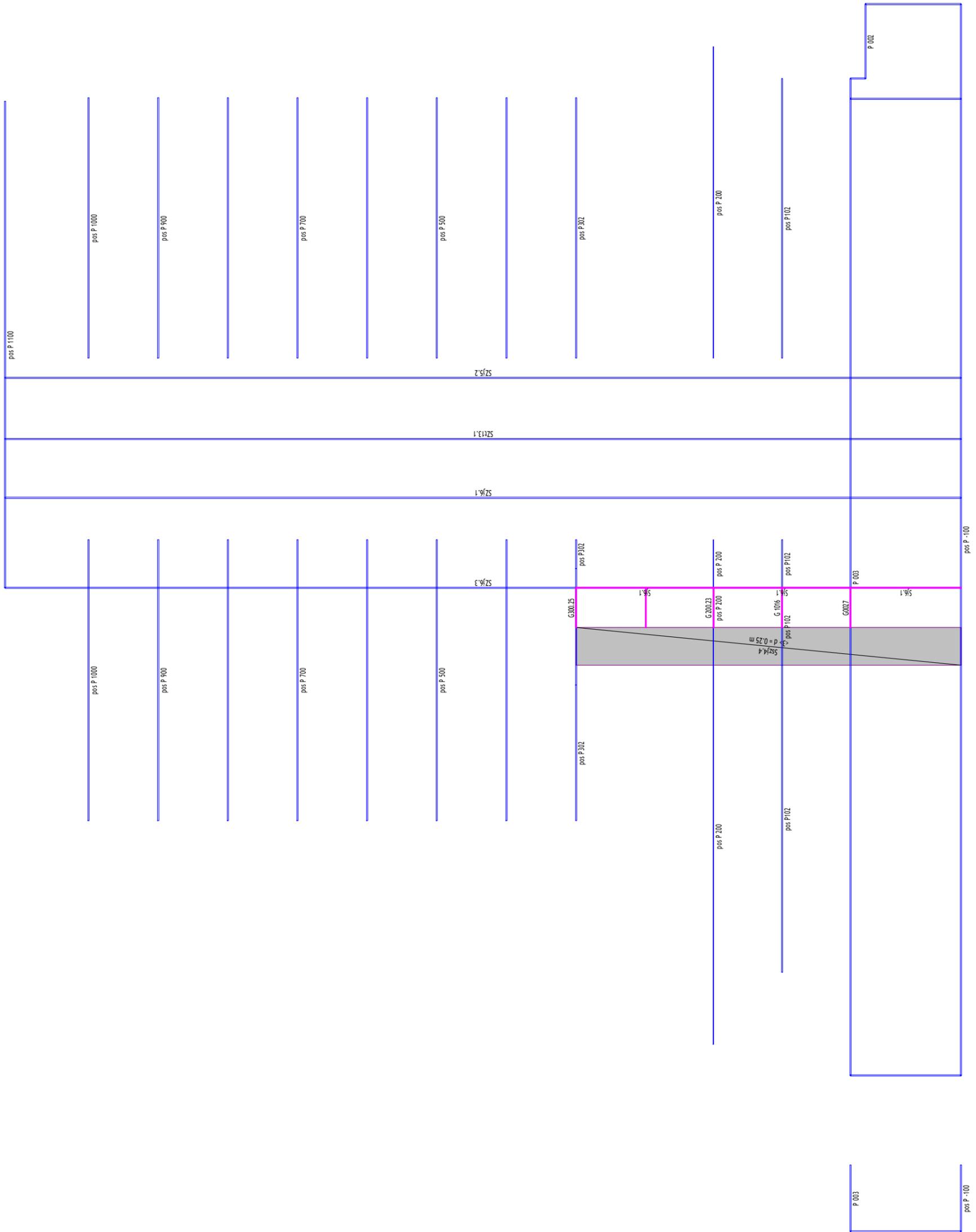


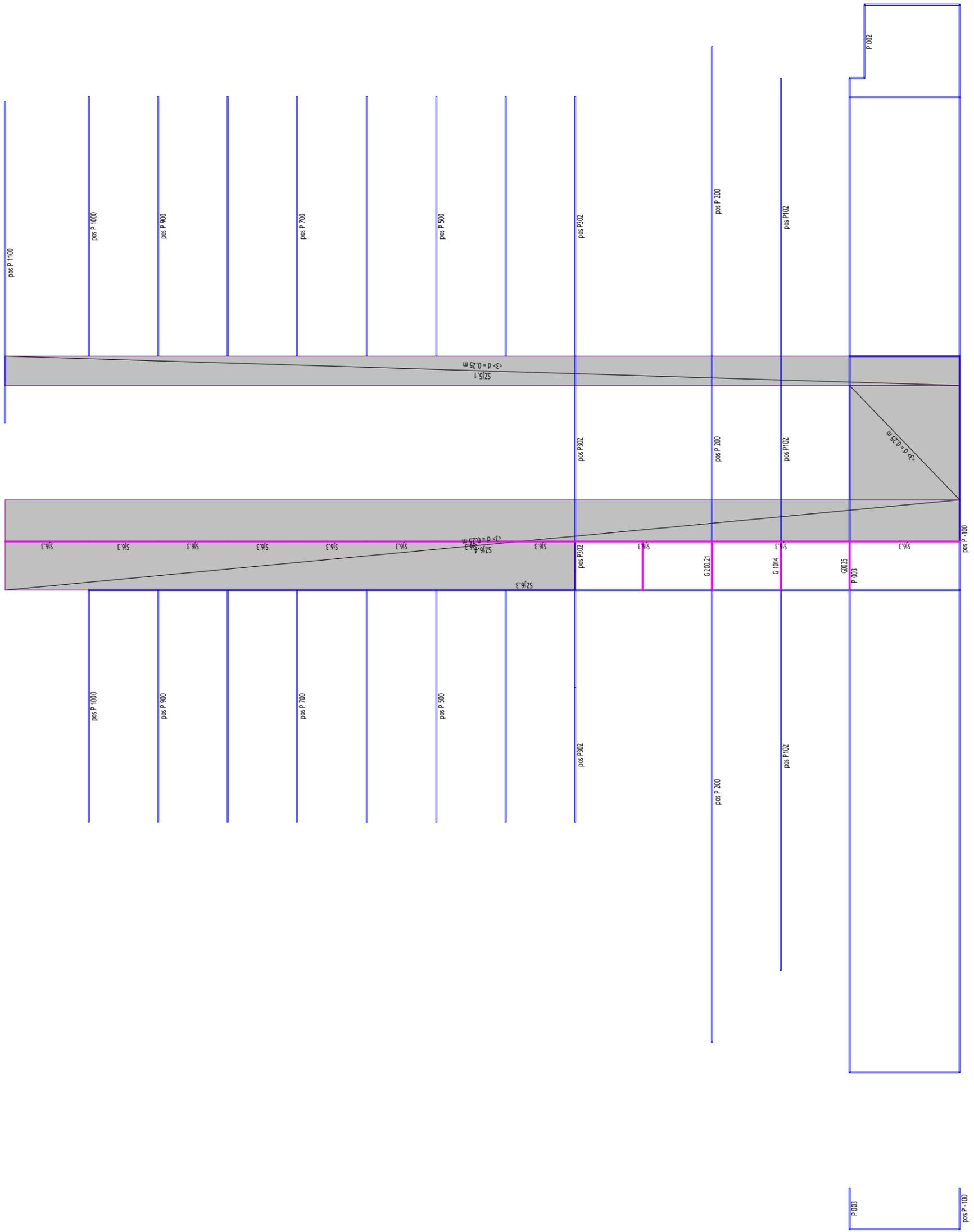












pos P 1100

pos P 1000

pos P 900

pos P 700

pos P 500

pos P3102

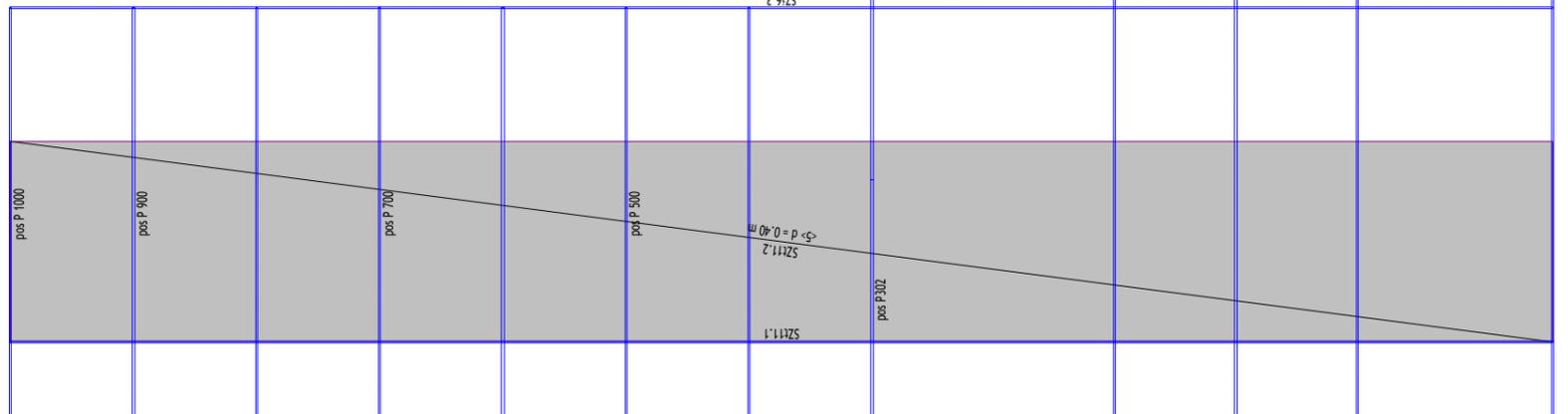
pos P 200

pos P102

P 003

P 002

pos P -100



pos P 1200

pos P 1100

pos P 1000

pos P 900

pos P 700

pos P 500

pos P302

pos P 200

pos P102

P 003

P 002

pos P -100

pos P 1000

pos P 900

pos P 700

pos P 500

pos P302

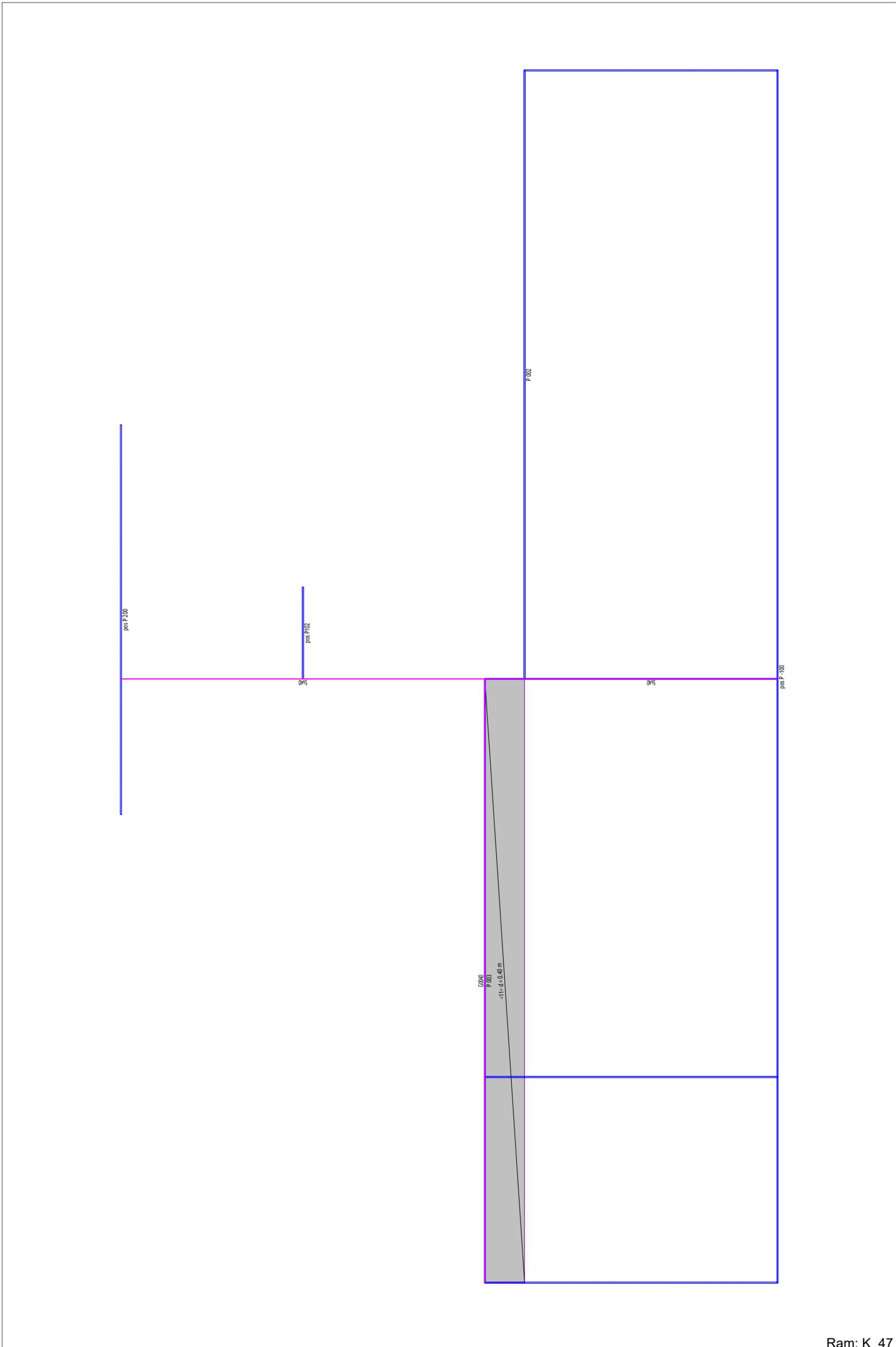
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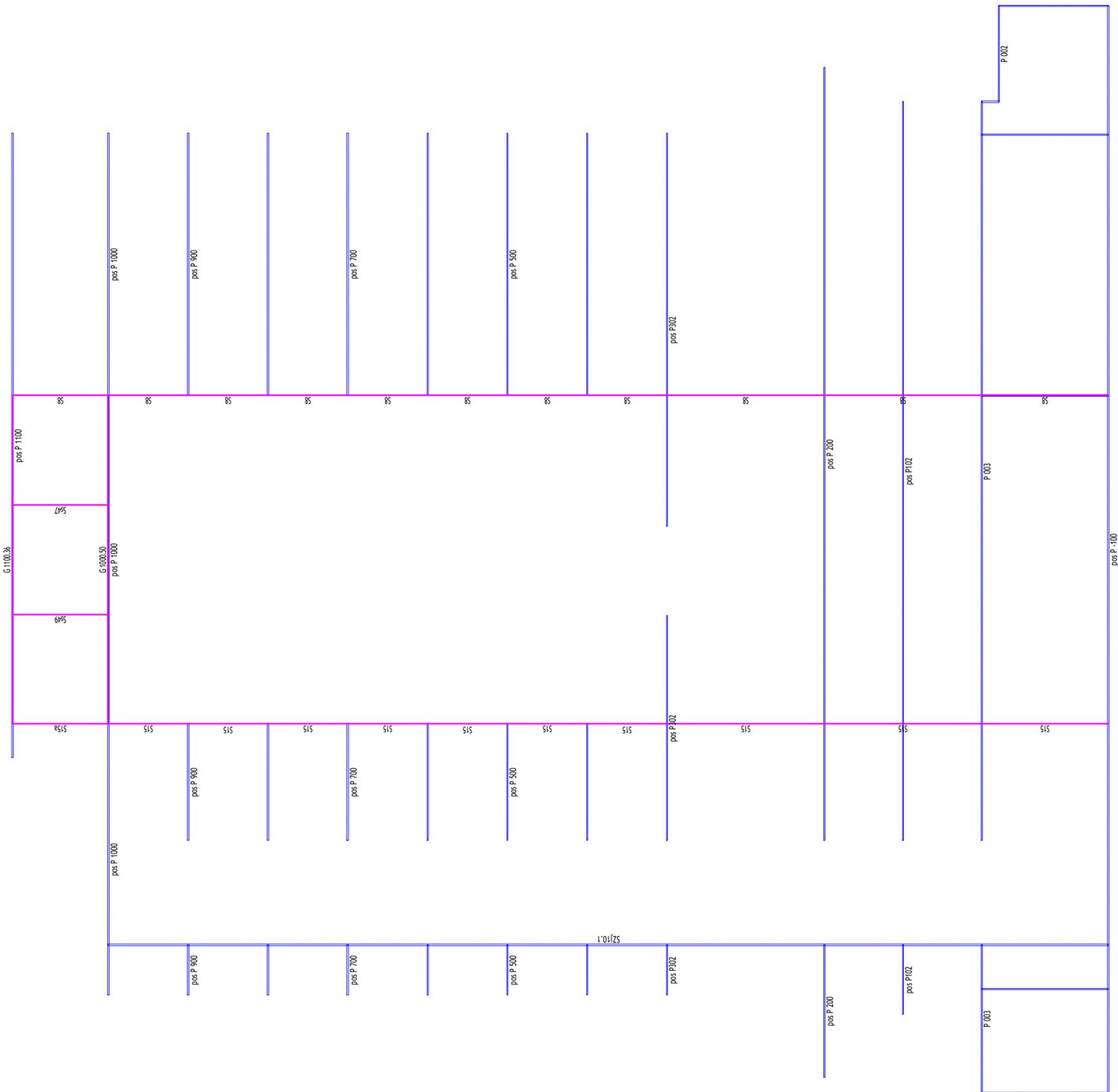
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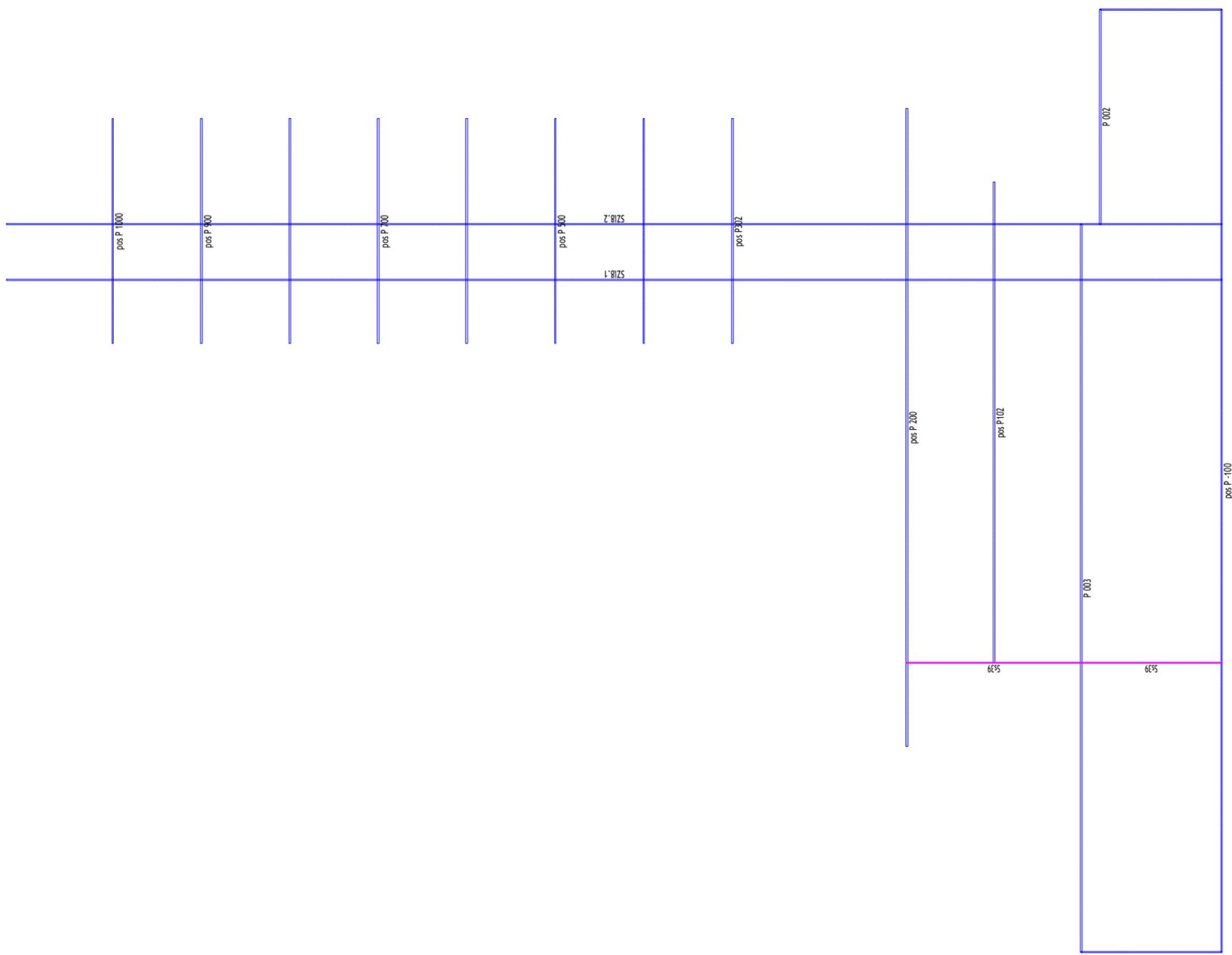
P 003

528.1  
<math>C \cdot D = 0.25 \text{ m}</math>

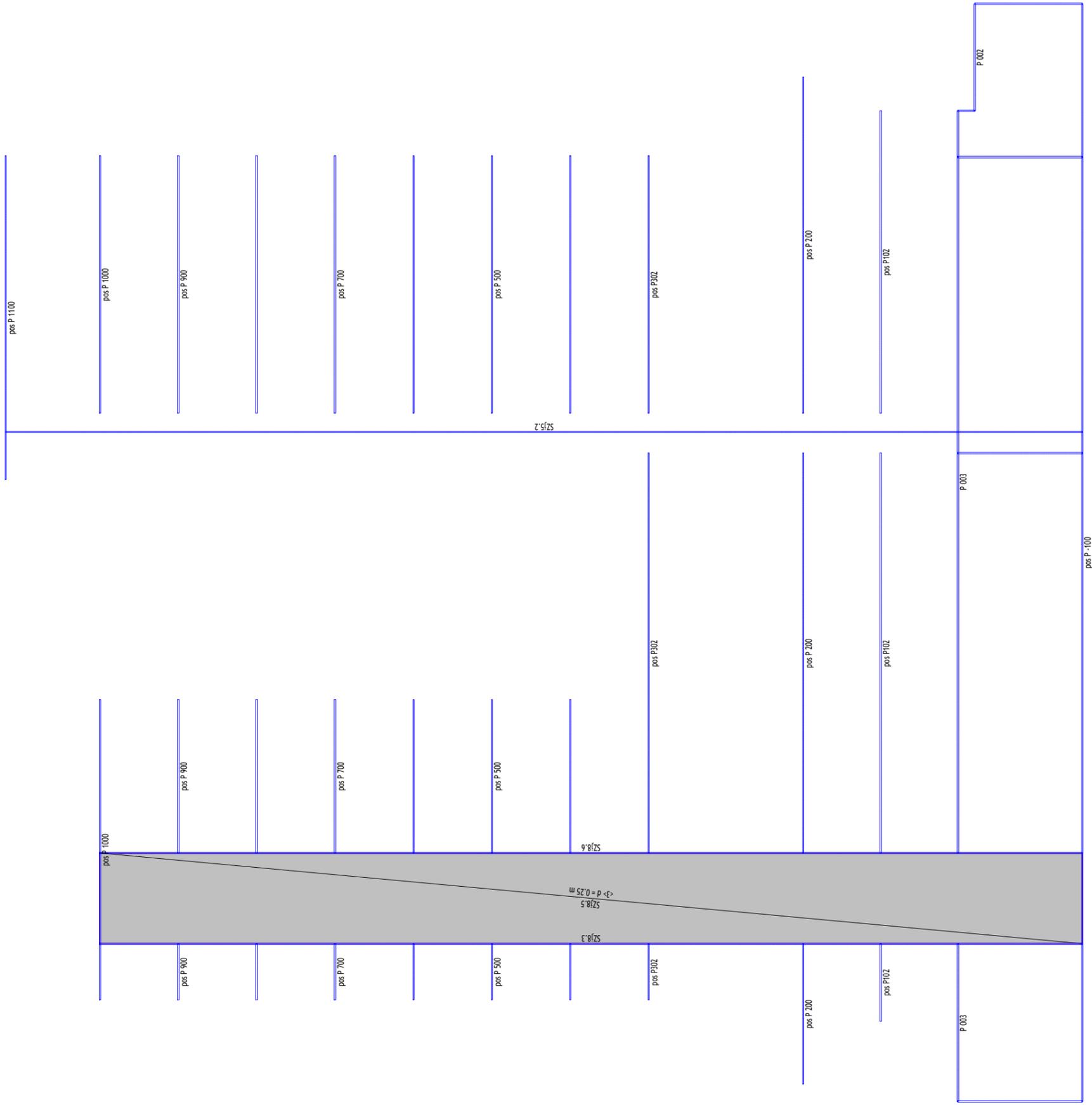
528.3

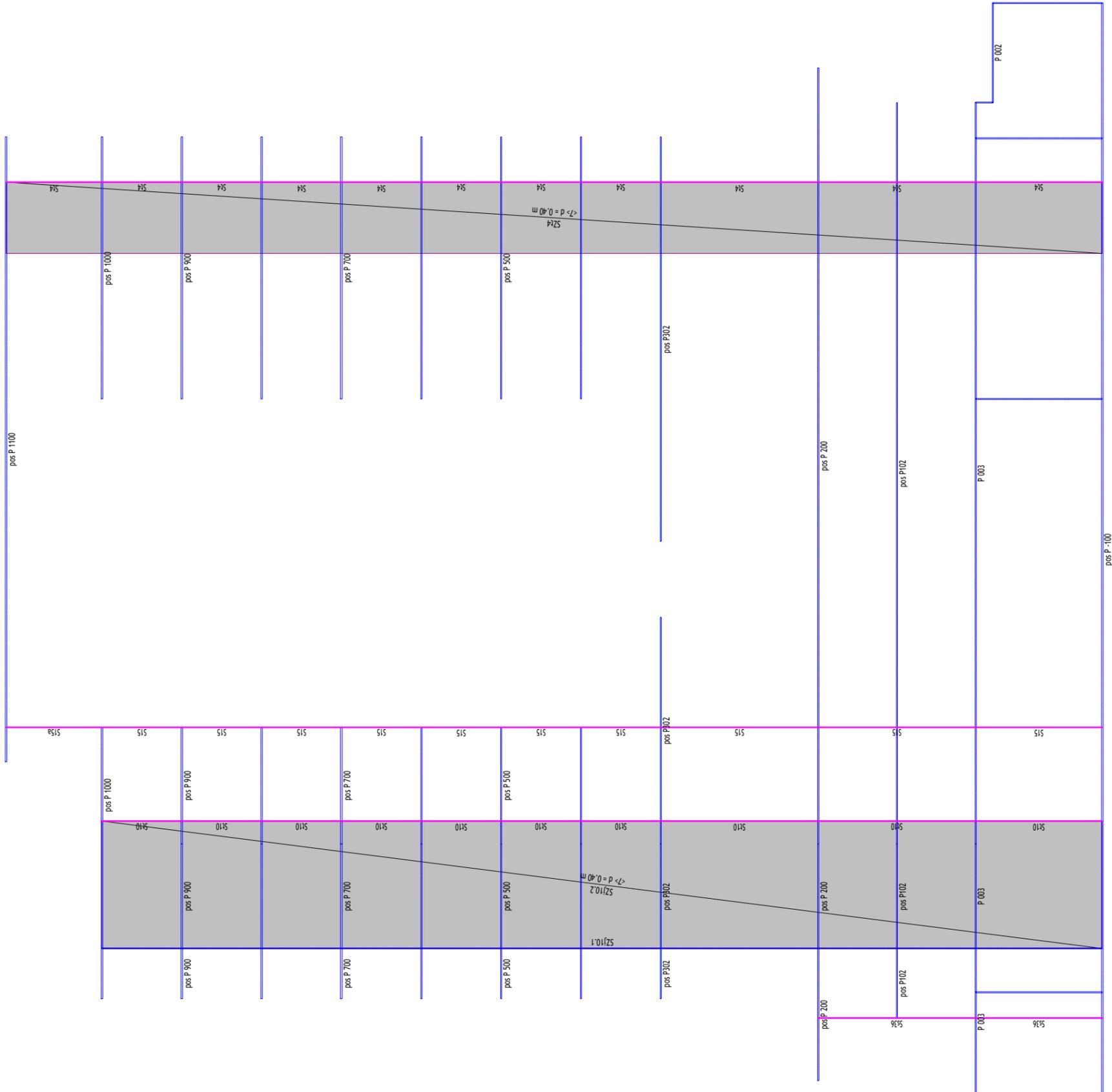


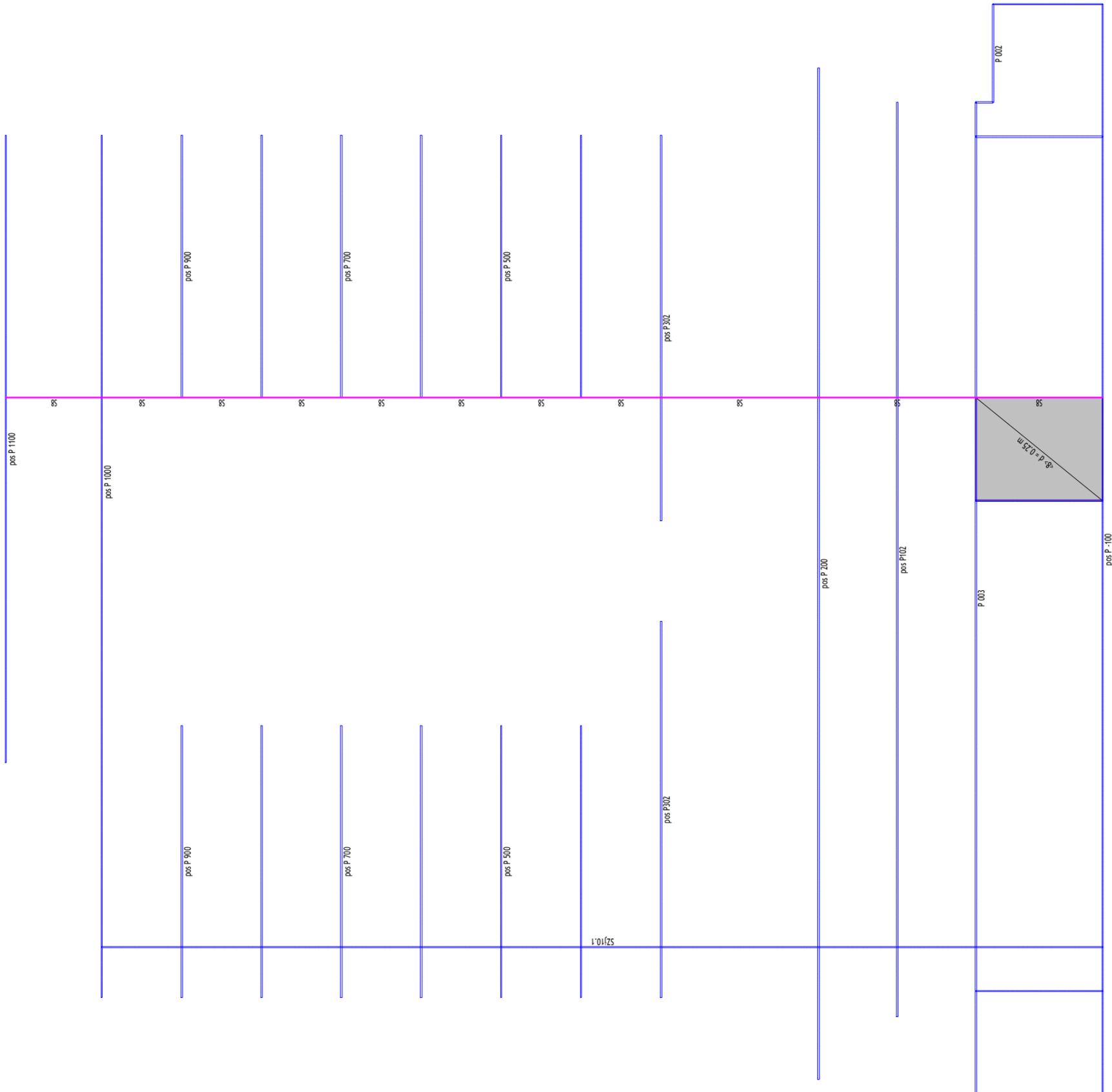


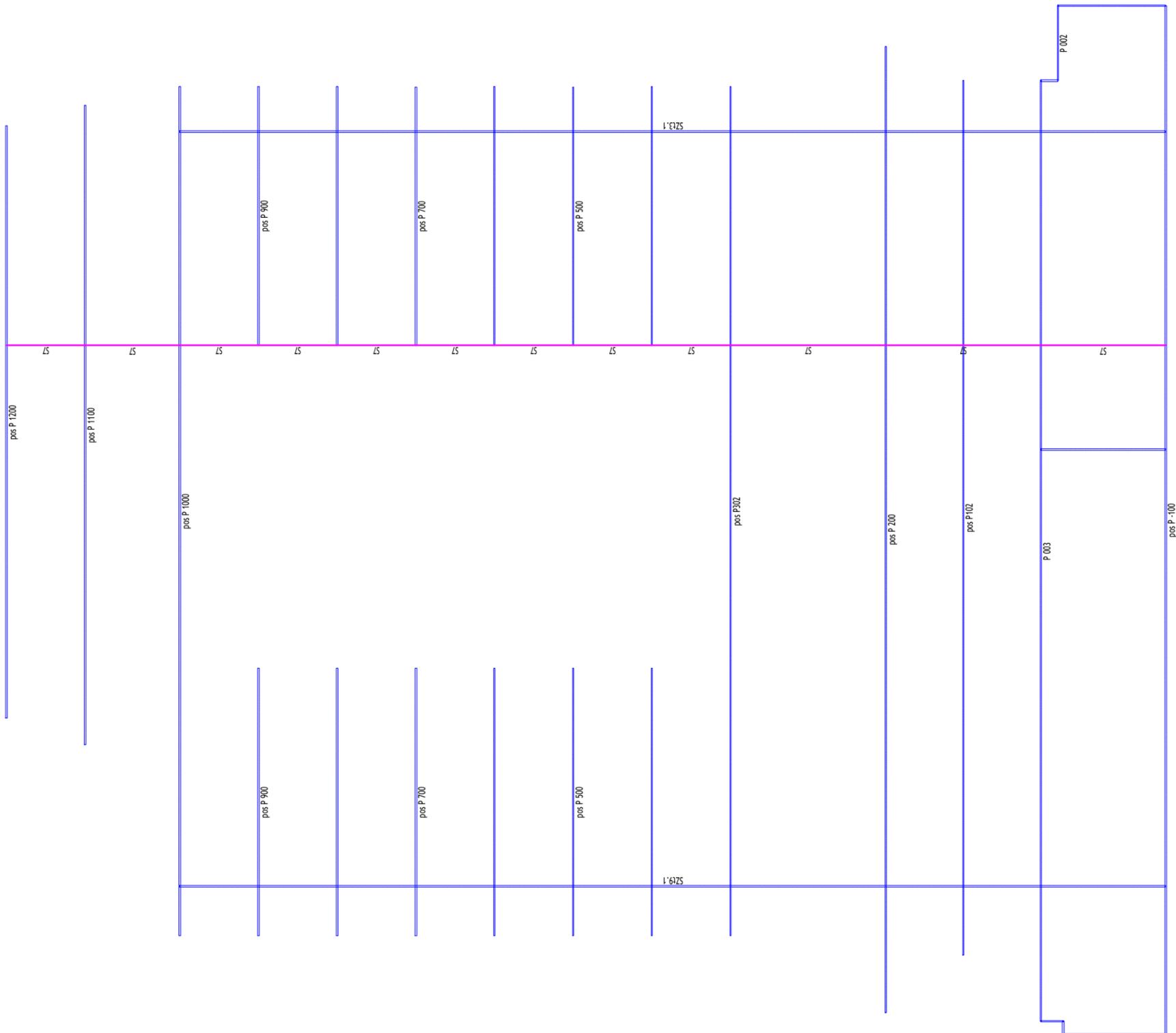


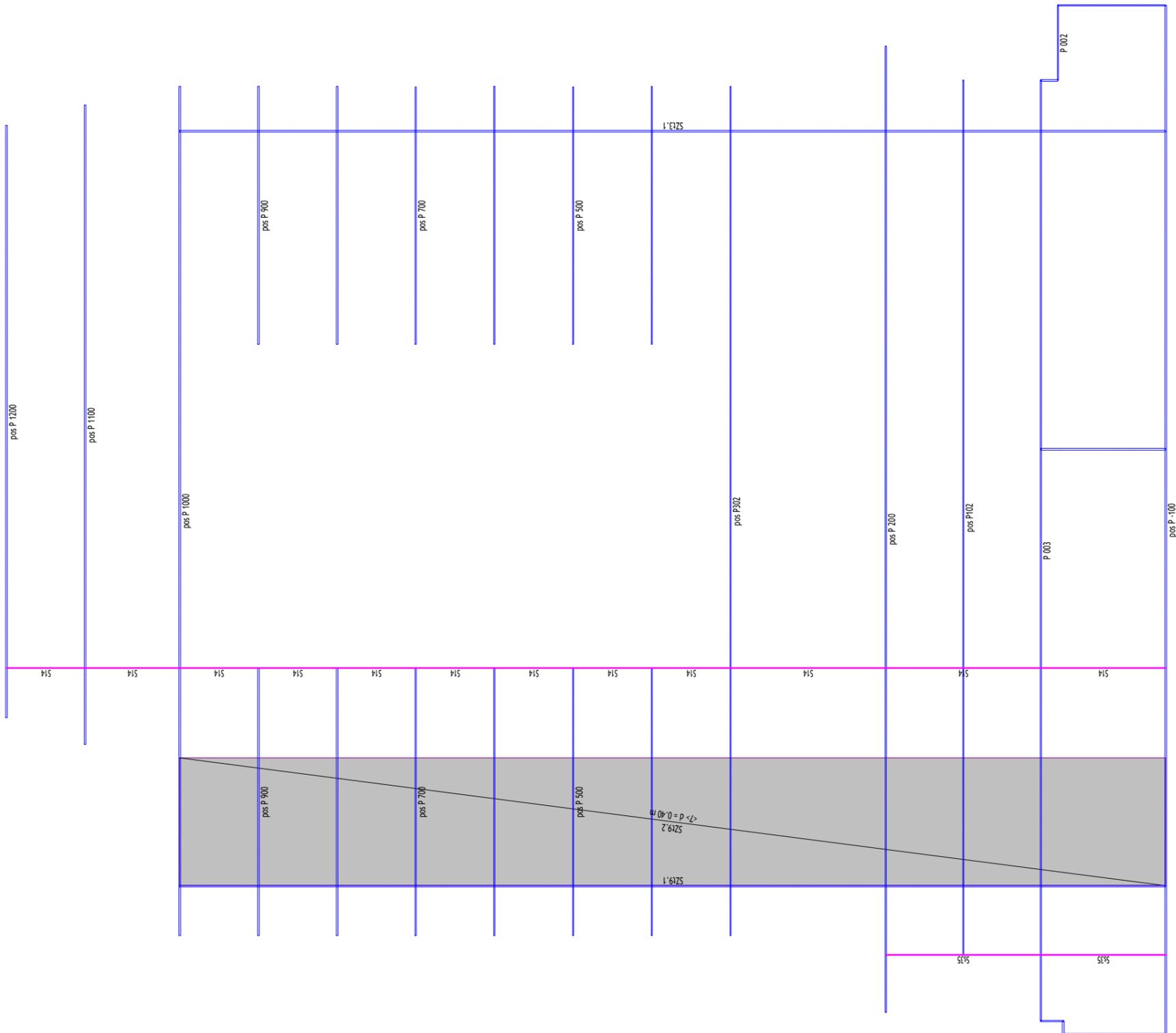


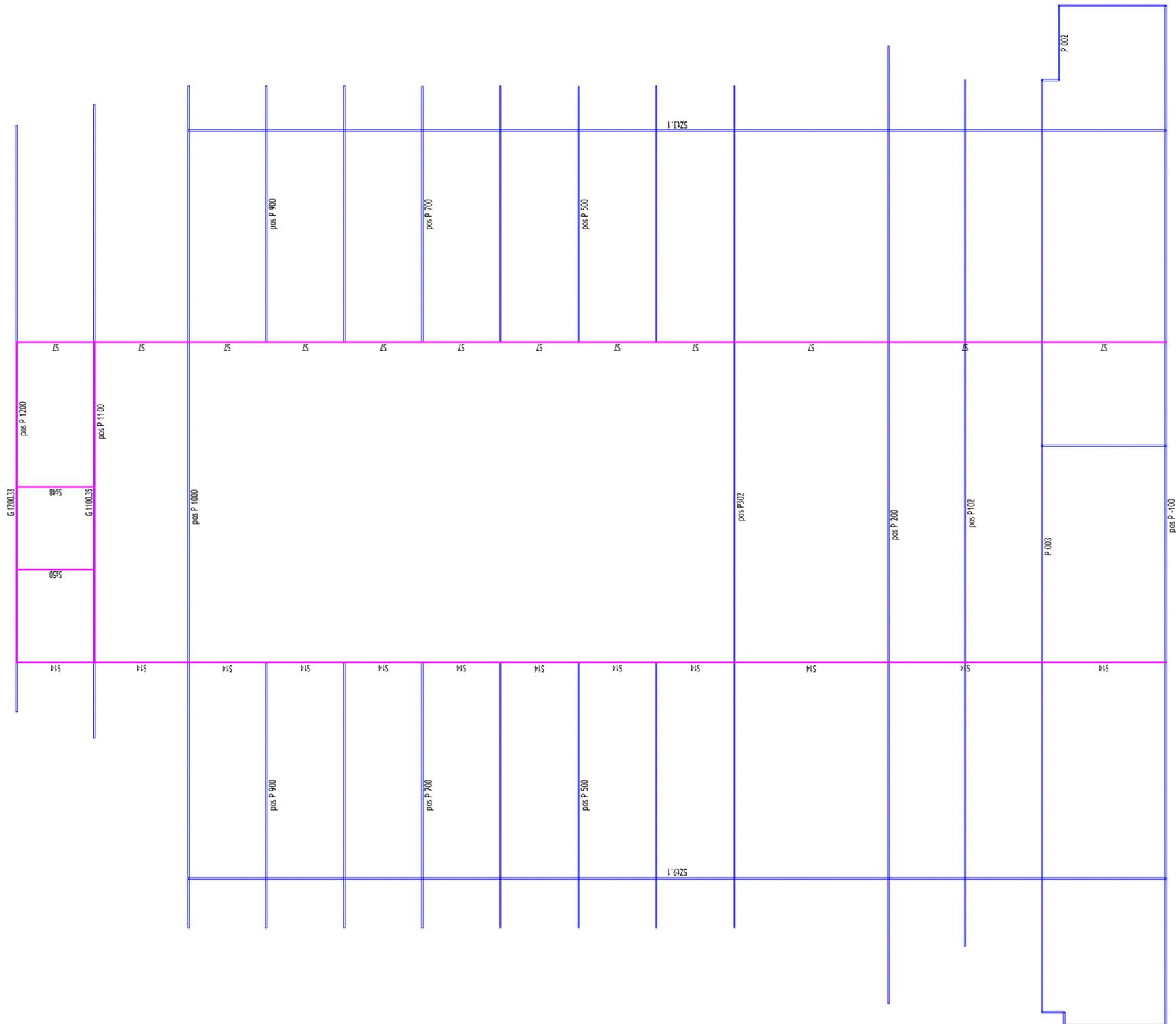


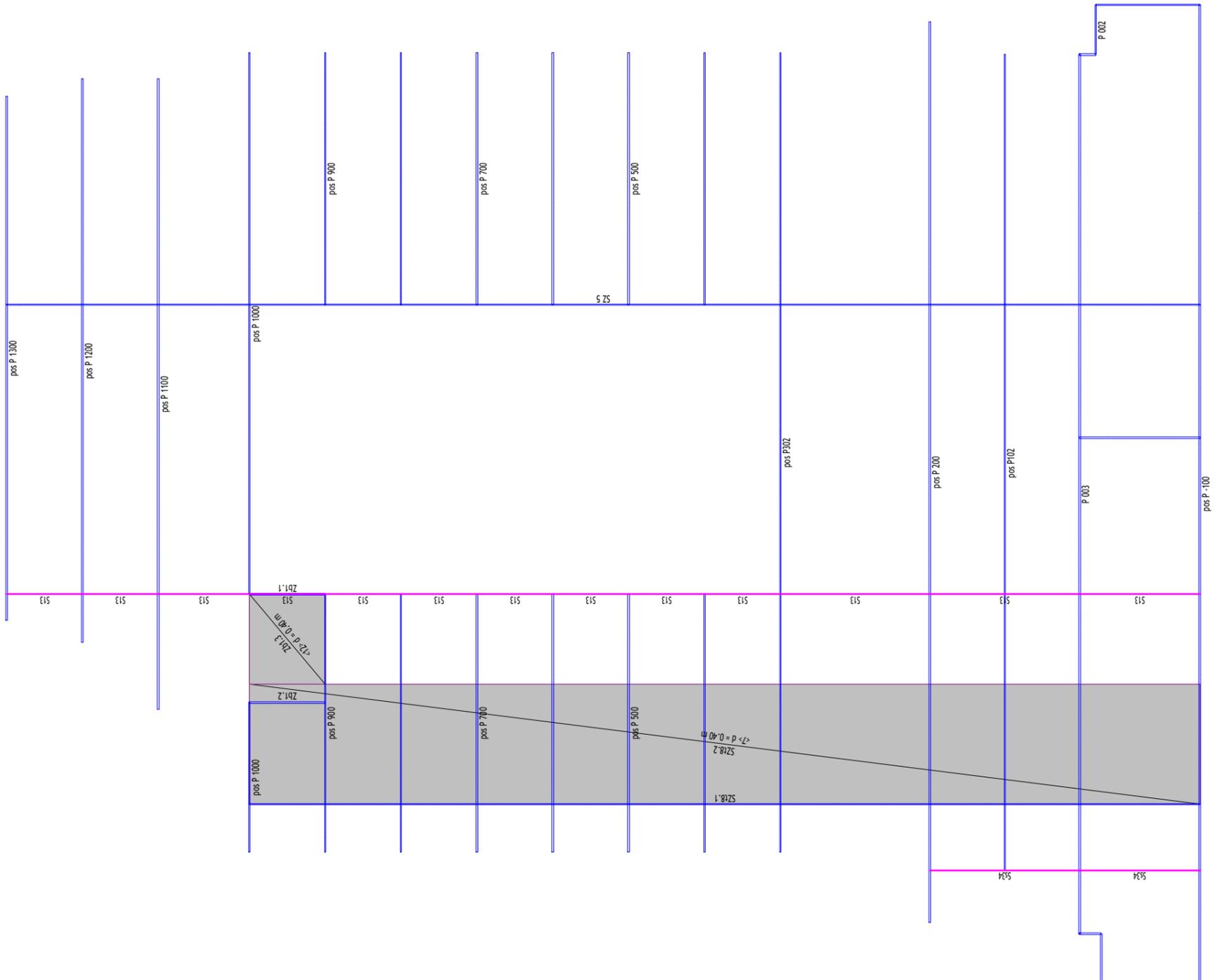


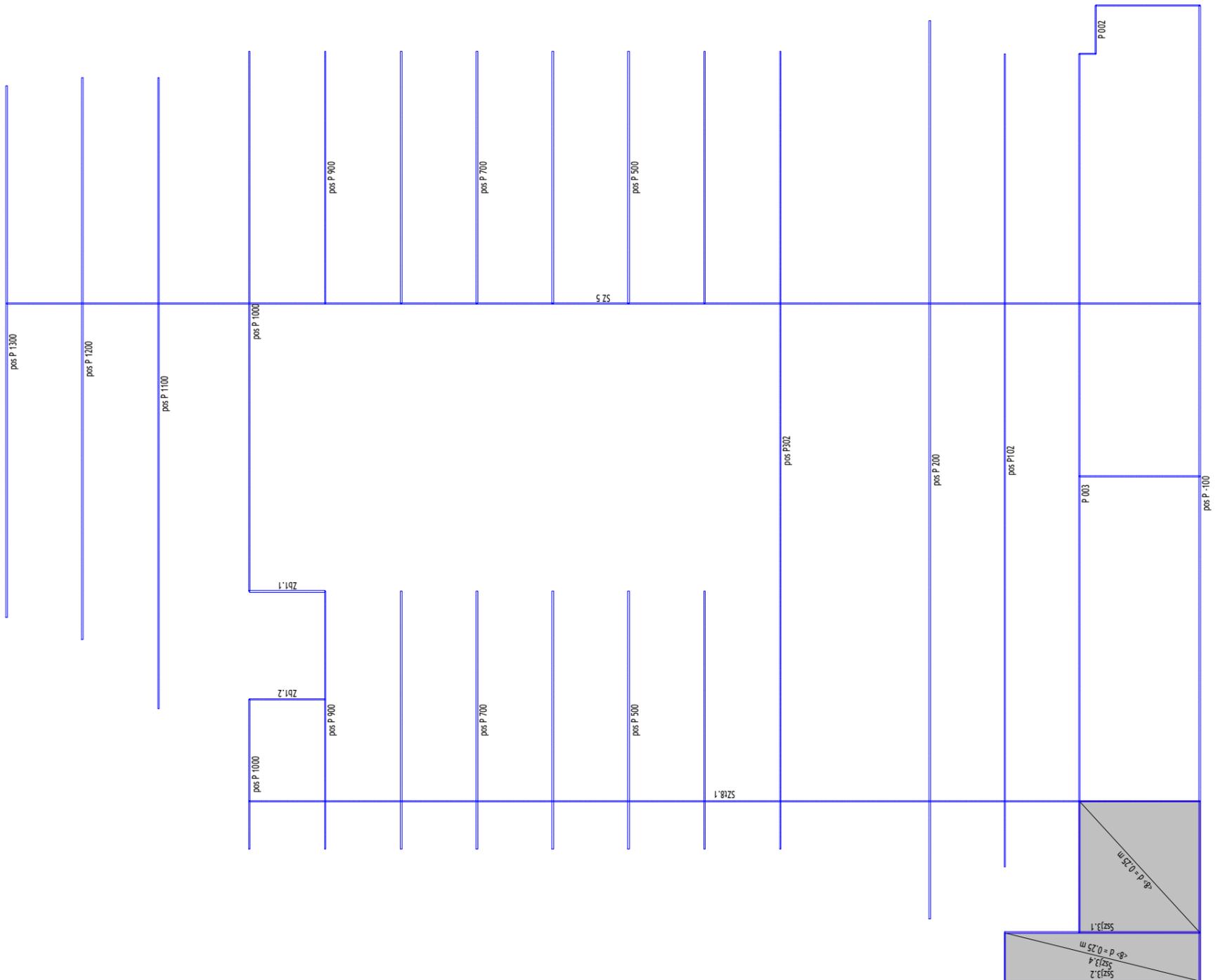


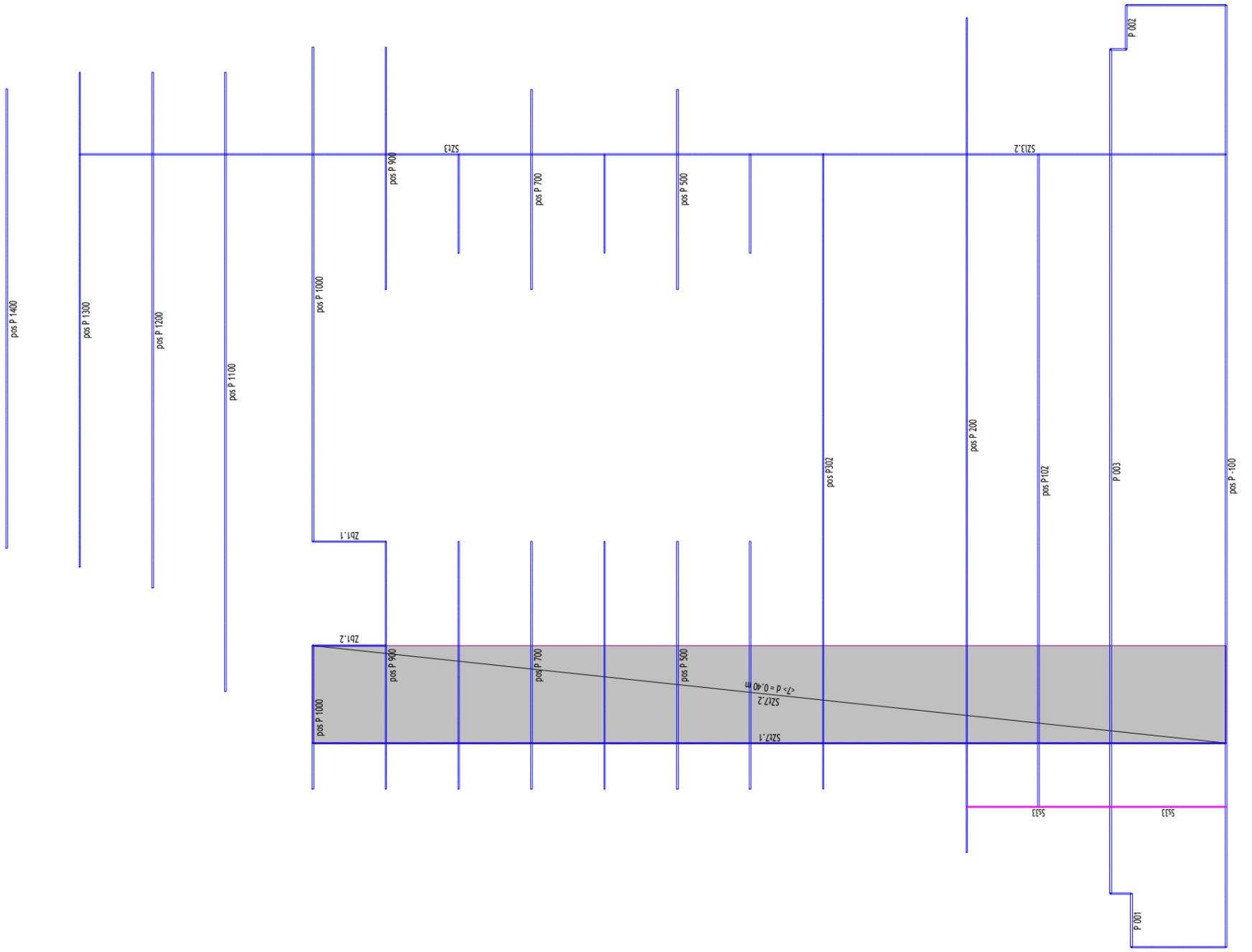


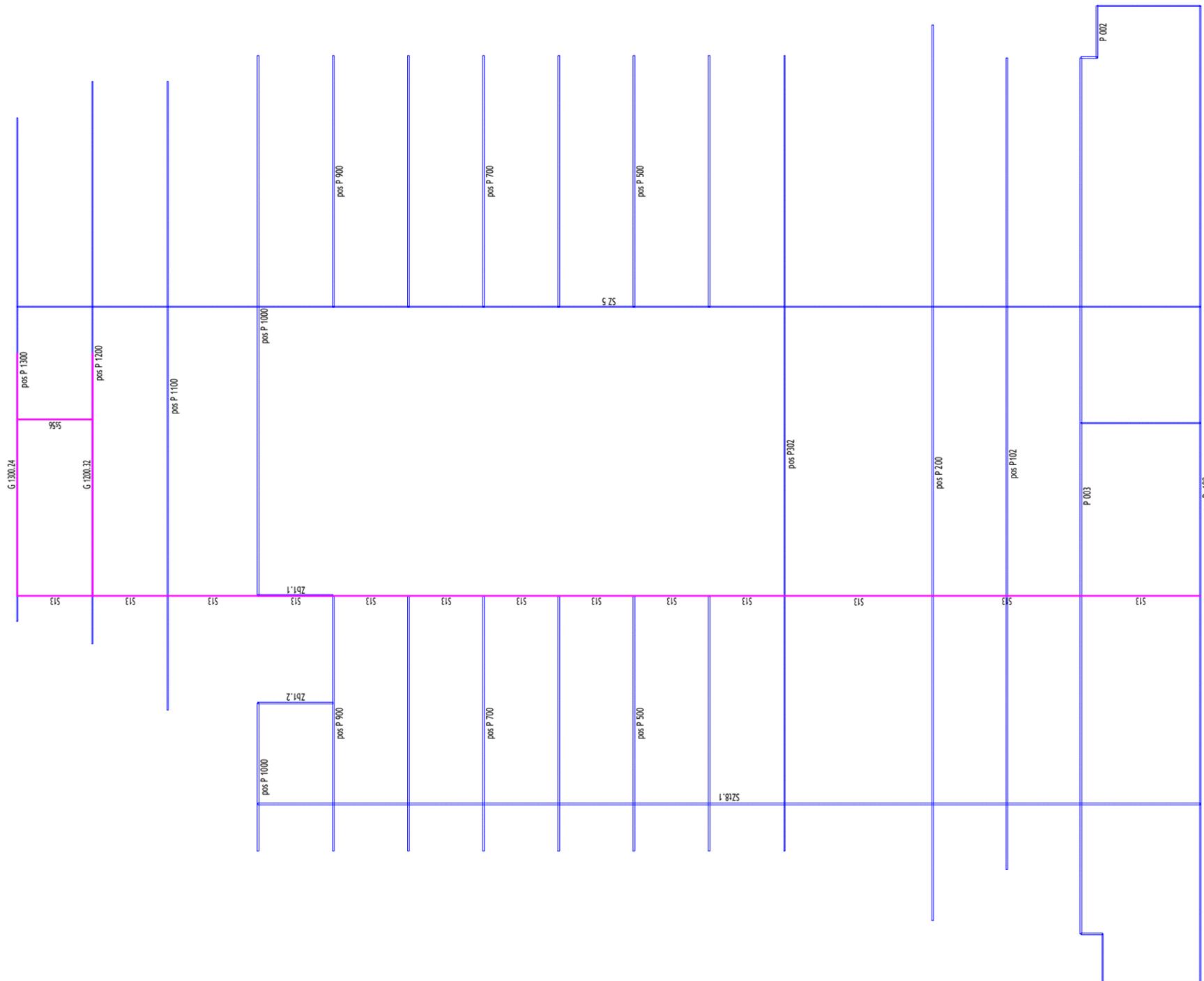


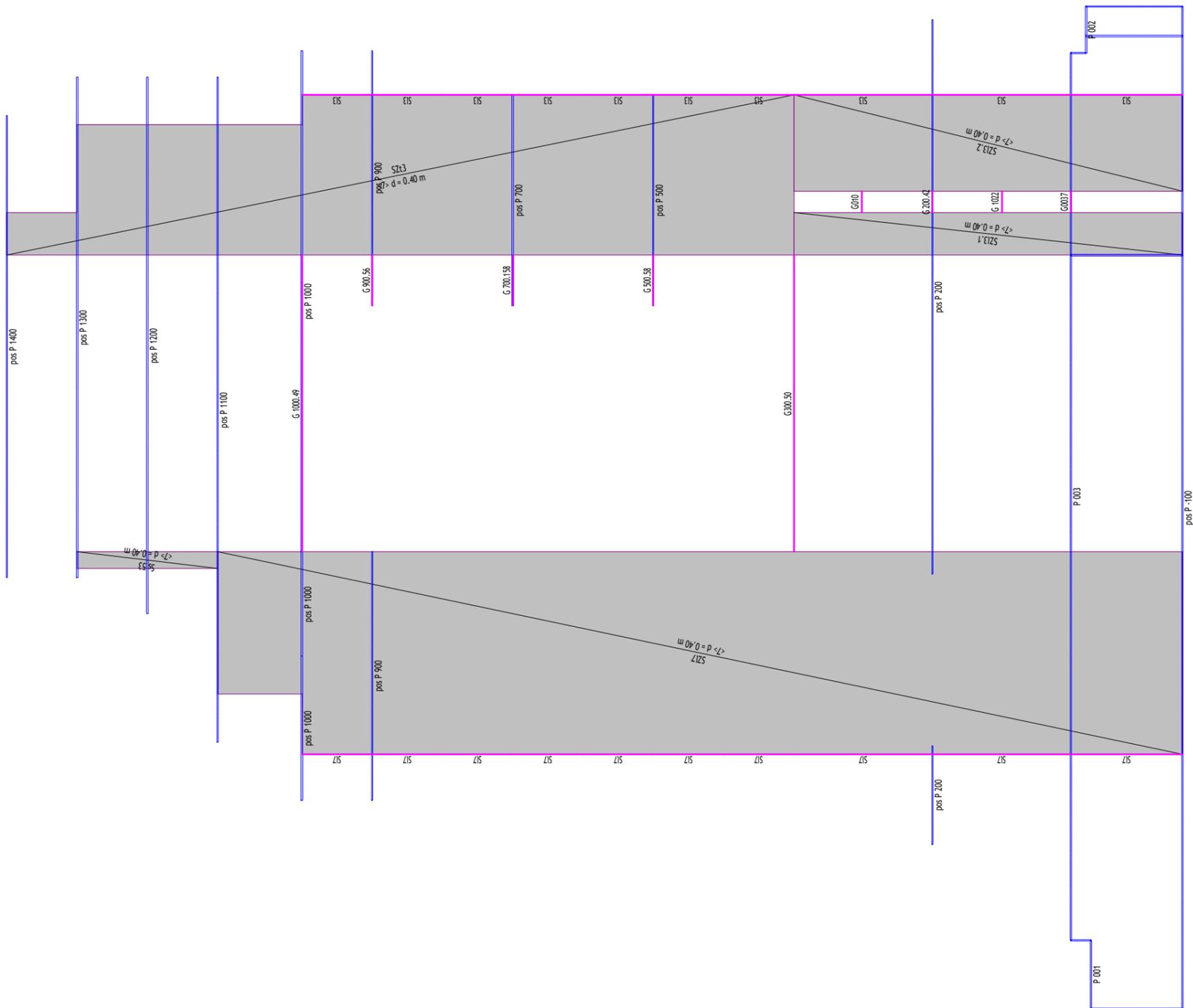


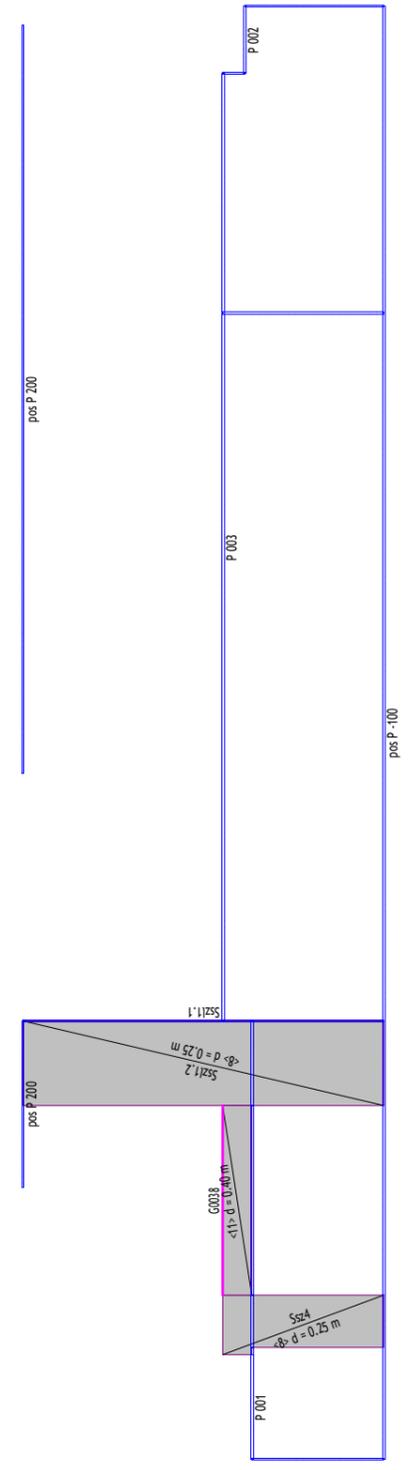
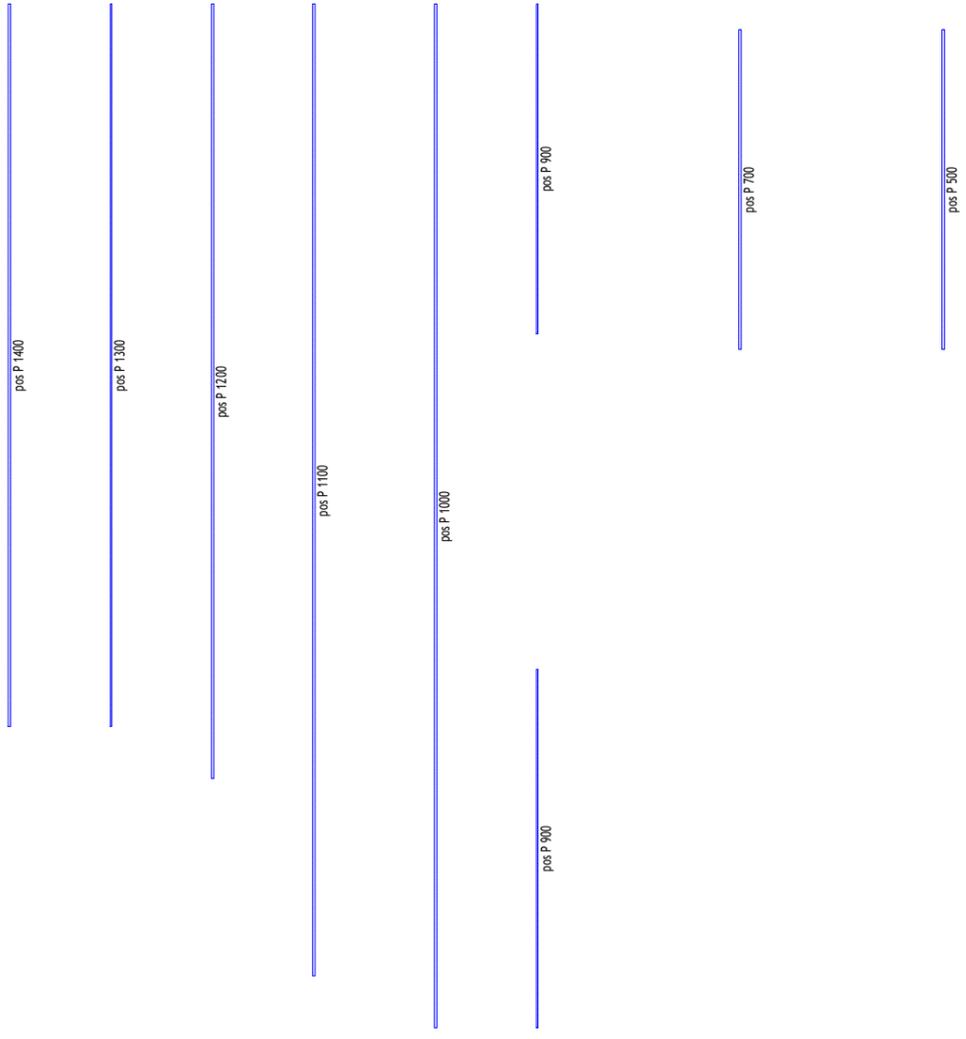


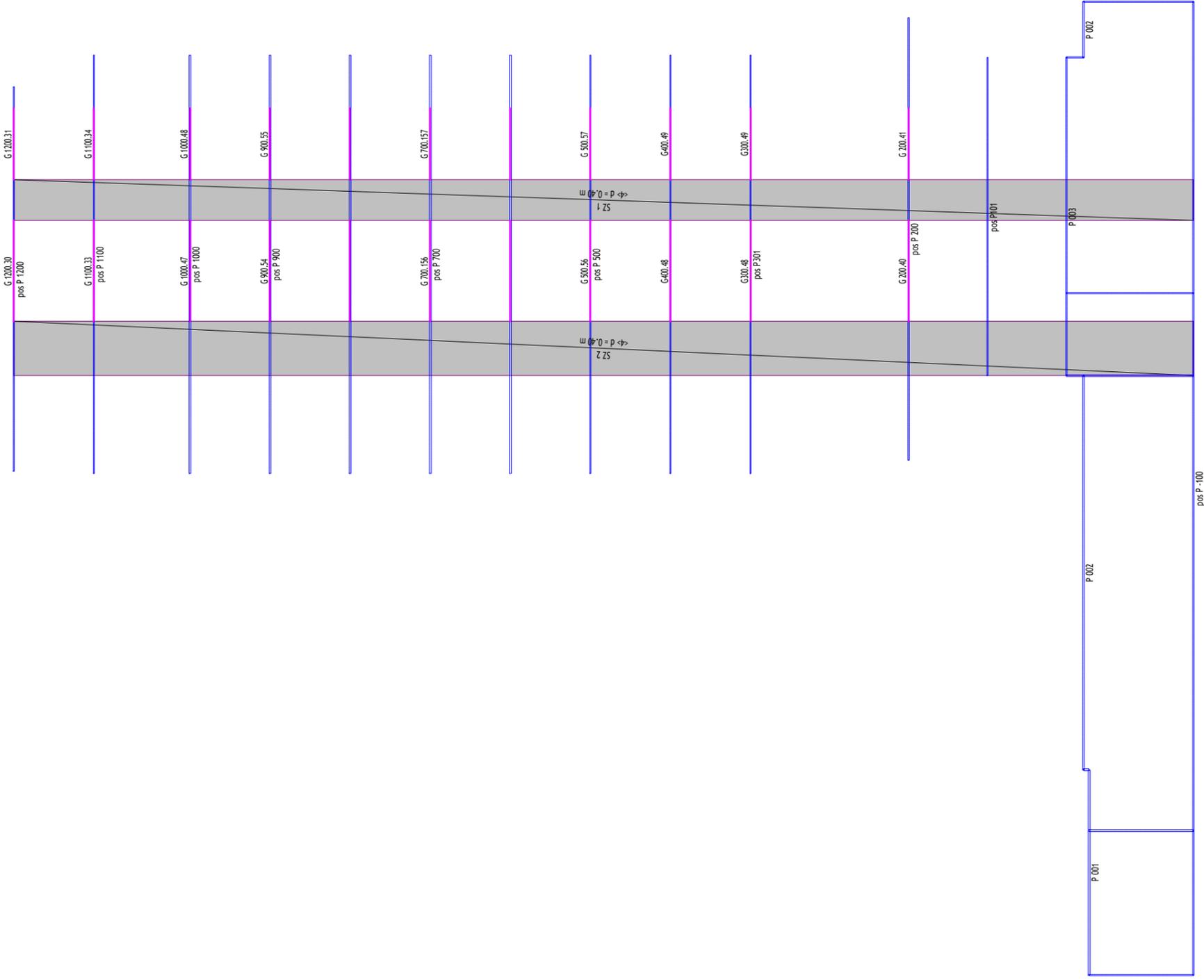




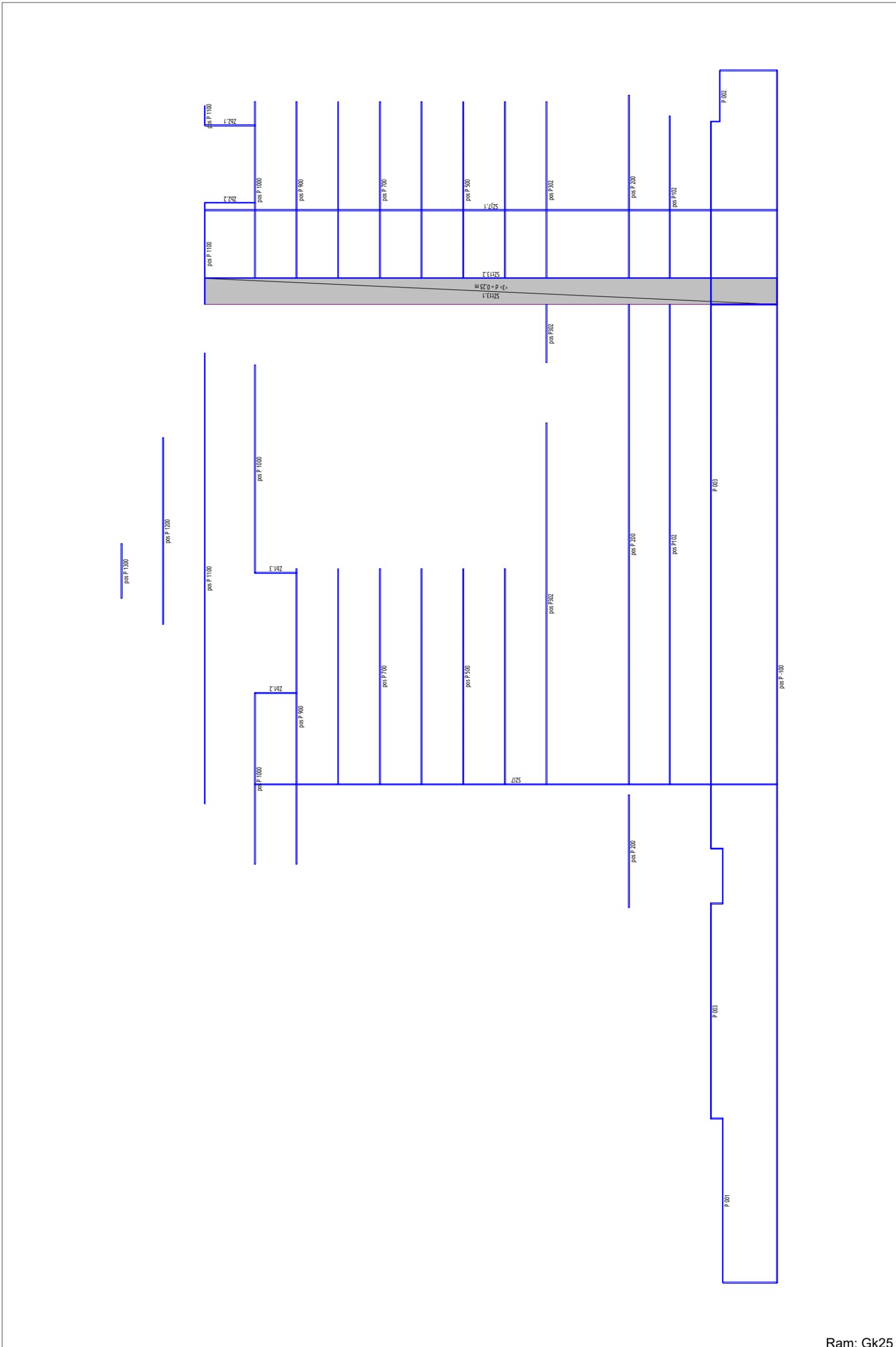


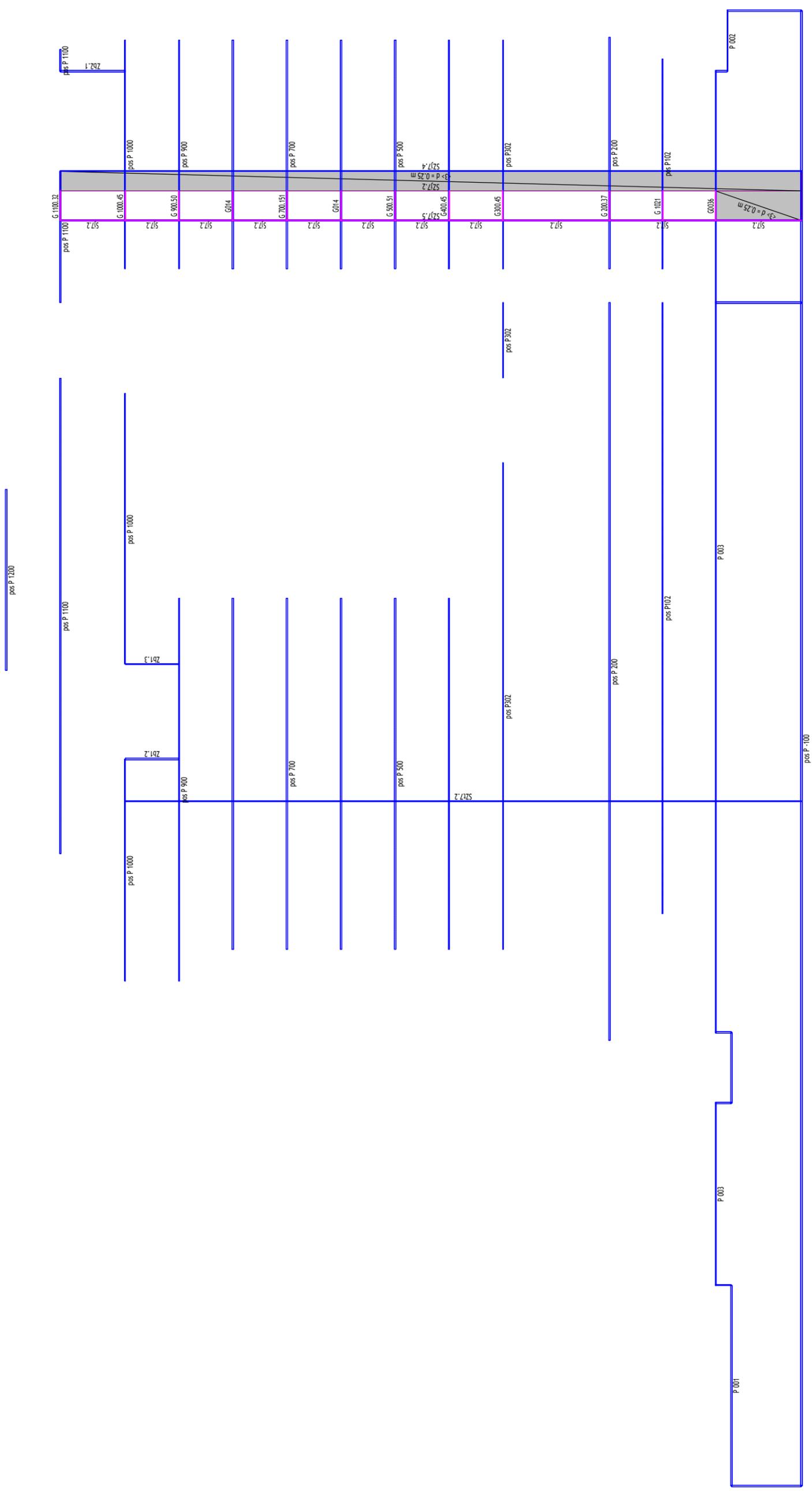


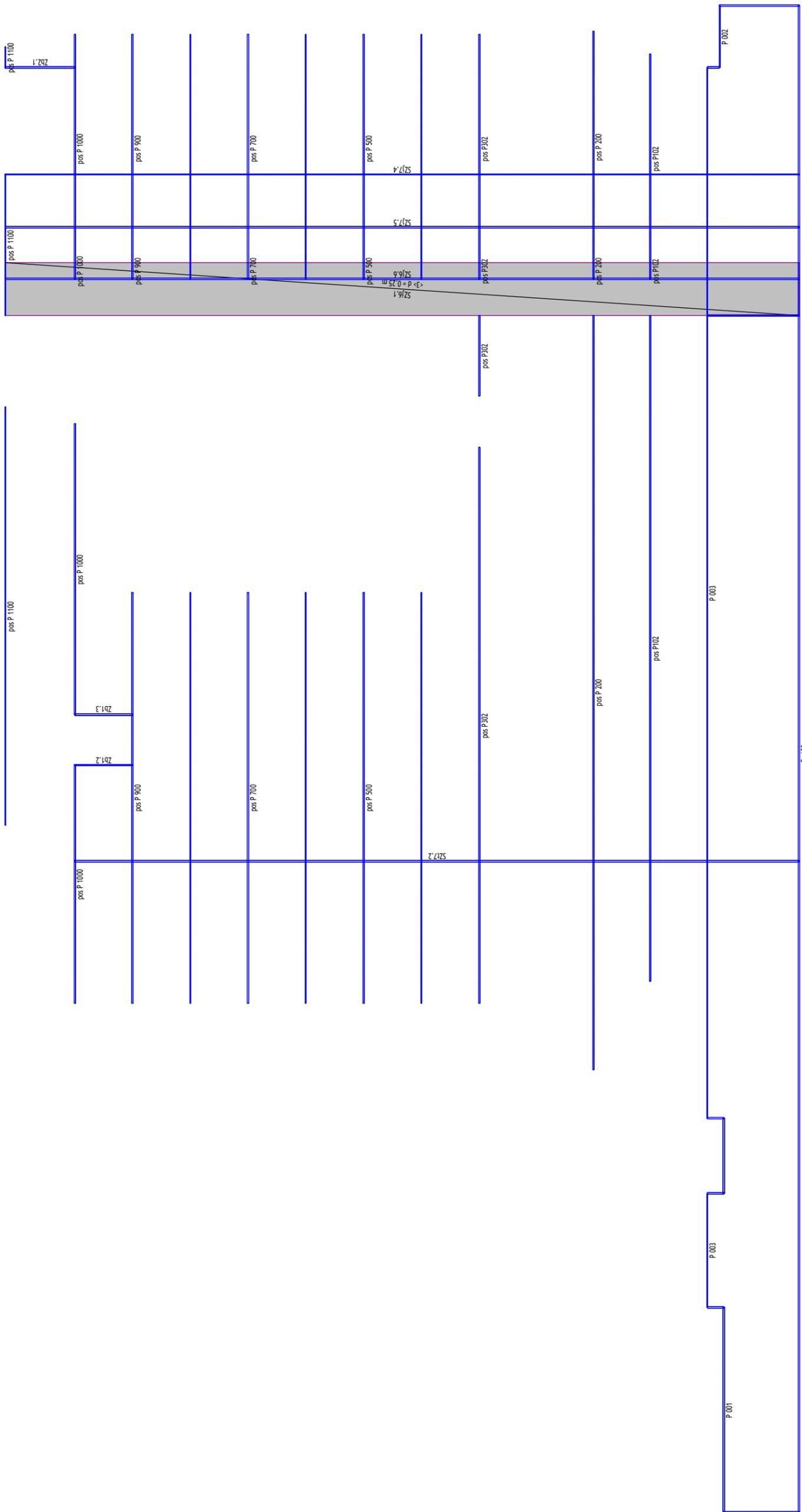












pos P 1200

pos P 1100

pos P 1000

ZB1.3

pos P 900

ZB1.2

pos P 1000

pos P 700

pos P 500

SZ7.2

pos P 302

pos P 200

pos P 102

P 003

pos P -100

P 003

P 001

P 002

pos P 1100

ZB2.1

pos P 1000

pos P 900

pos P 700

pos P 500

SZ7.4

pos P 302

pos P 200

pos P 102

pos P 1100

pos P 1000

pos P 900

pos P 700

pos P 500

SZ7.6

SZ7.5

pos P 302

pos P 200

pos P 102

SZ7.1

SZ7.3

SZ7.4

SZ7.5

SZ7.6

SZ7.7

SZ7.8

SZ7.9

SZ7.10

SZ7.11

SZ7.12

SZ7.13

SZ7.14

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SZ7.93

SZ7.94

SZ7.95

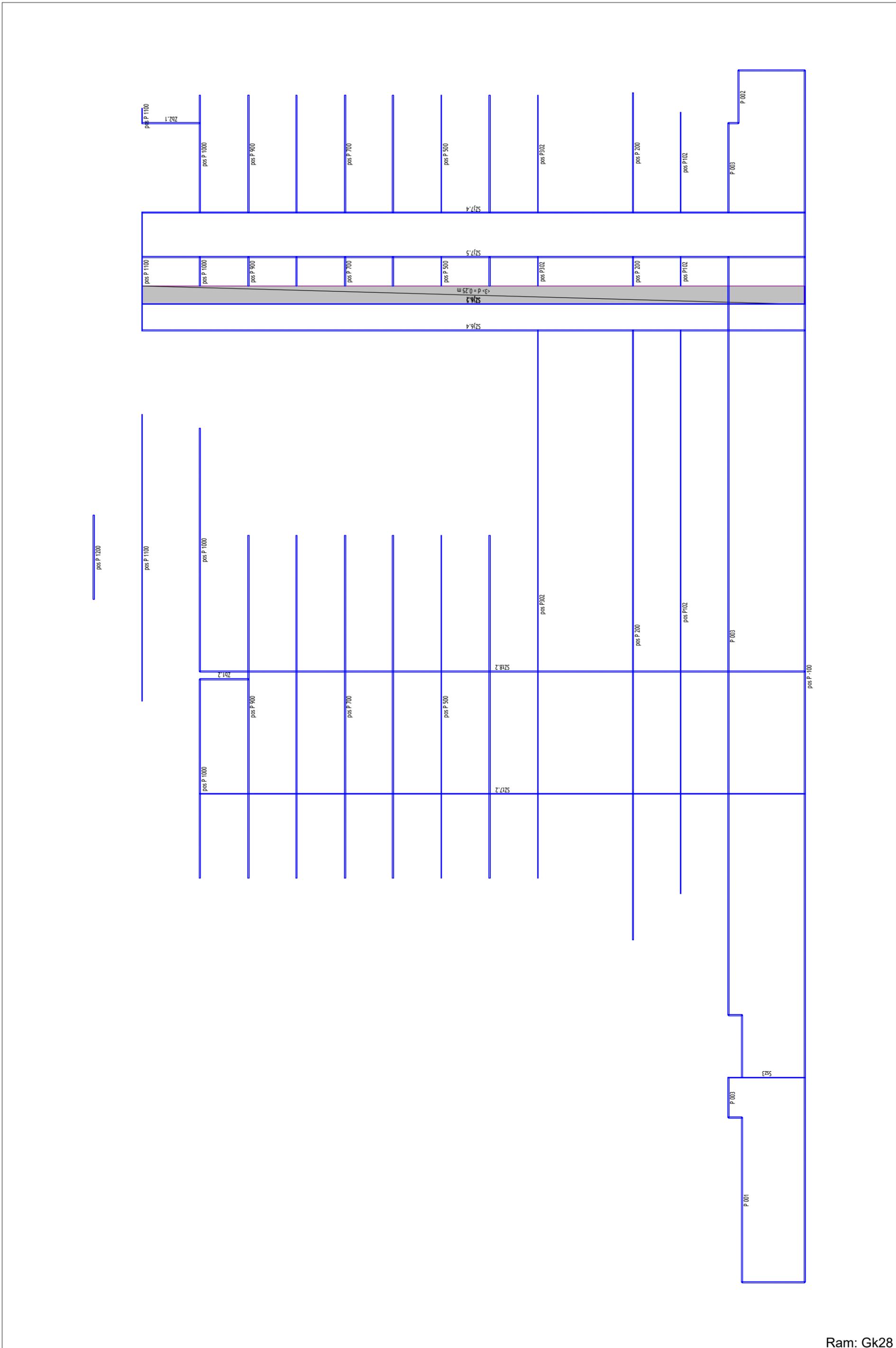
SZ7.96

SZ7.97

SZ7.98

SZ7.99

SZ7.100

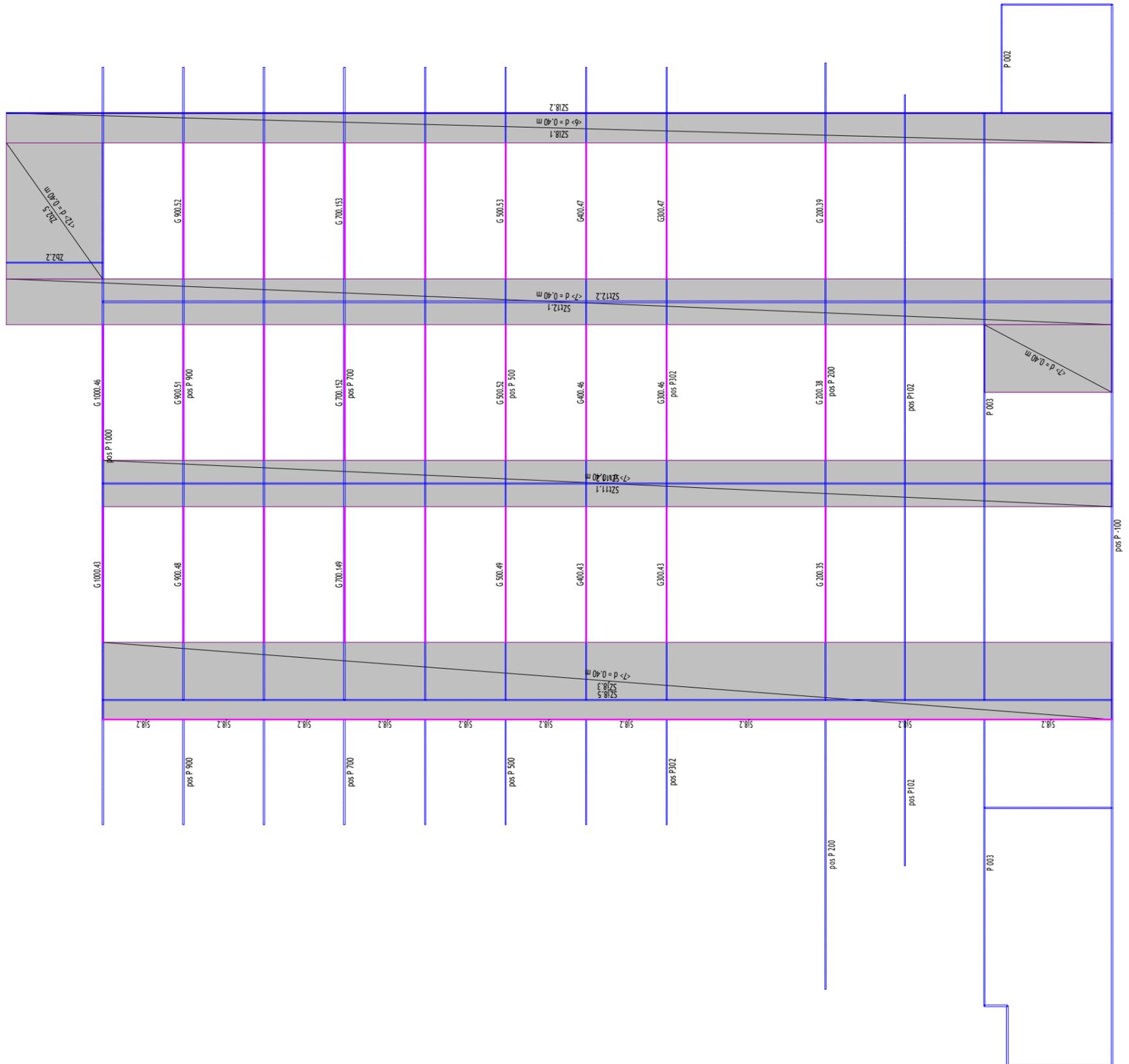


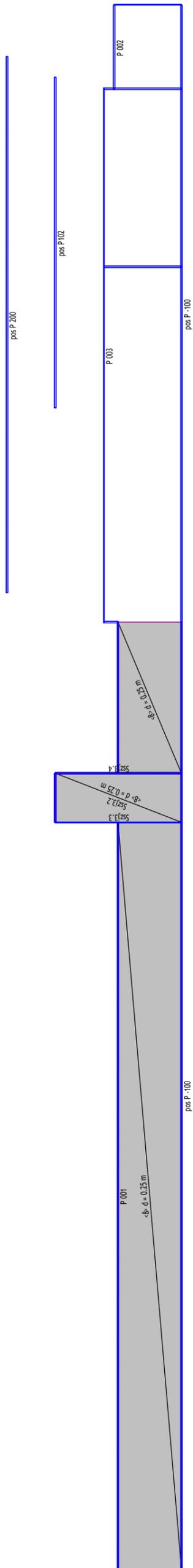


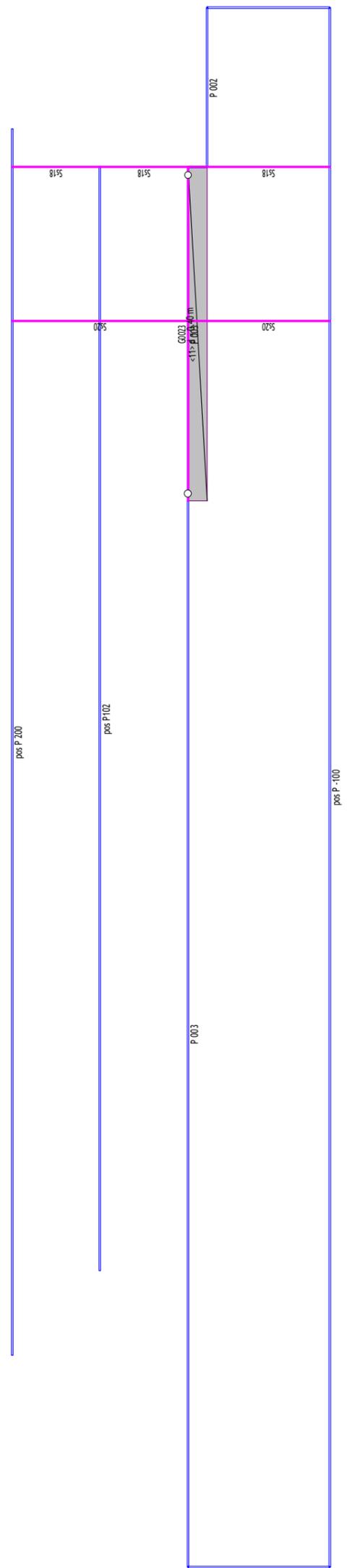
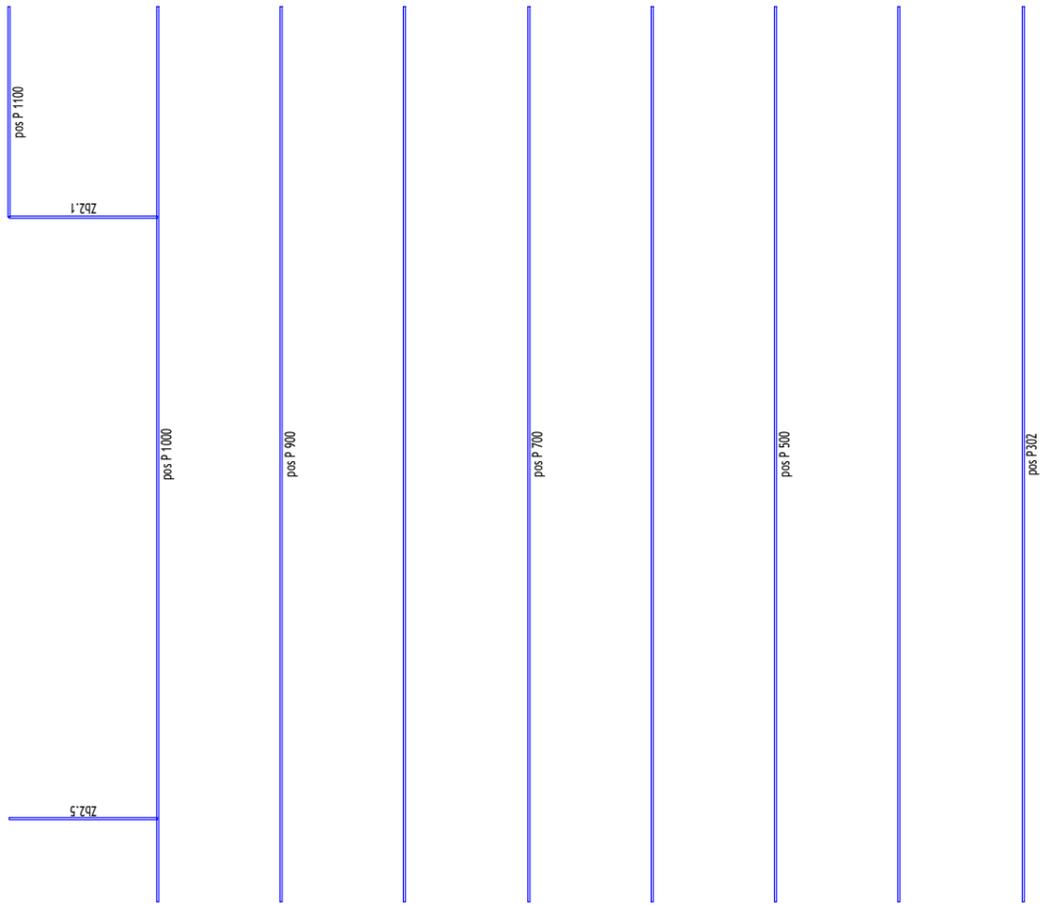


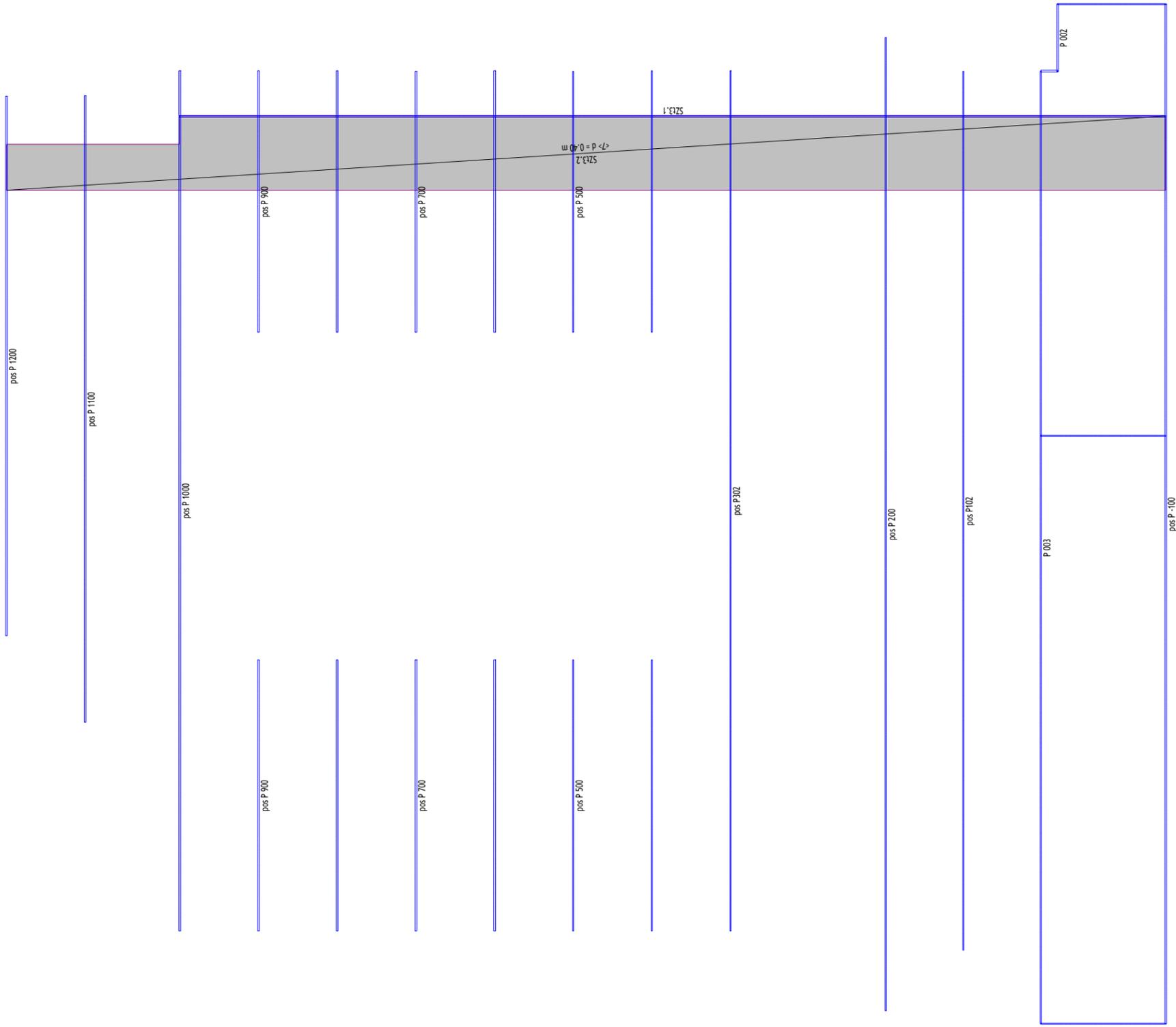


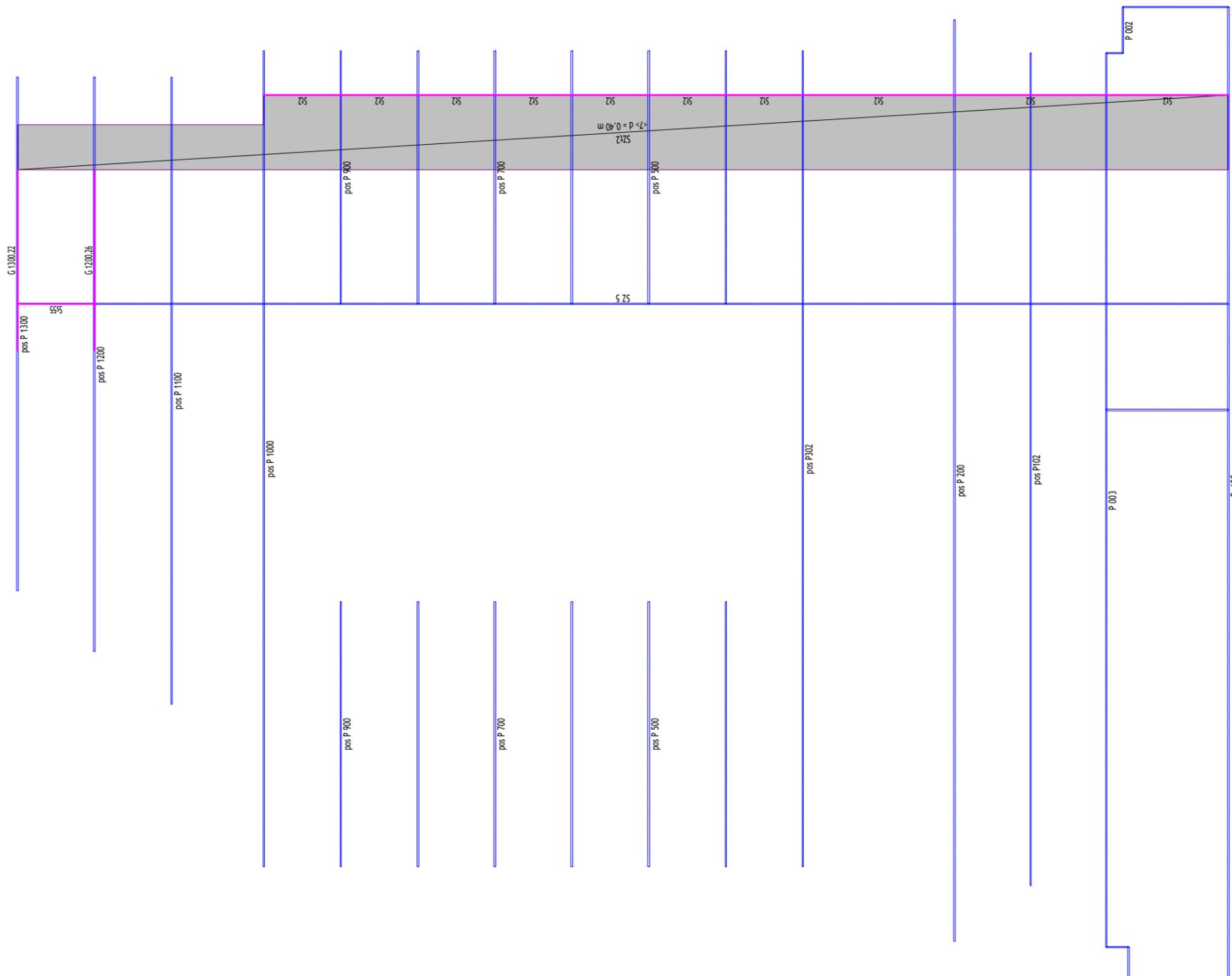




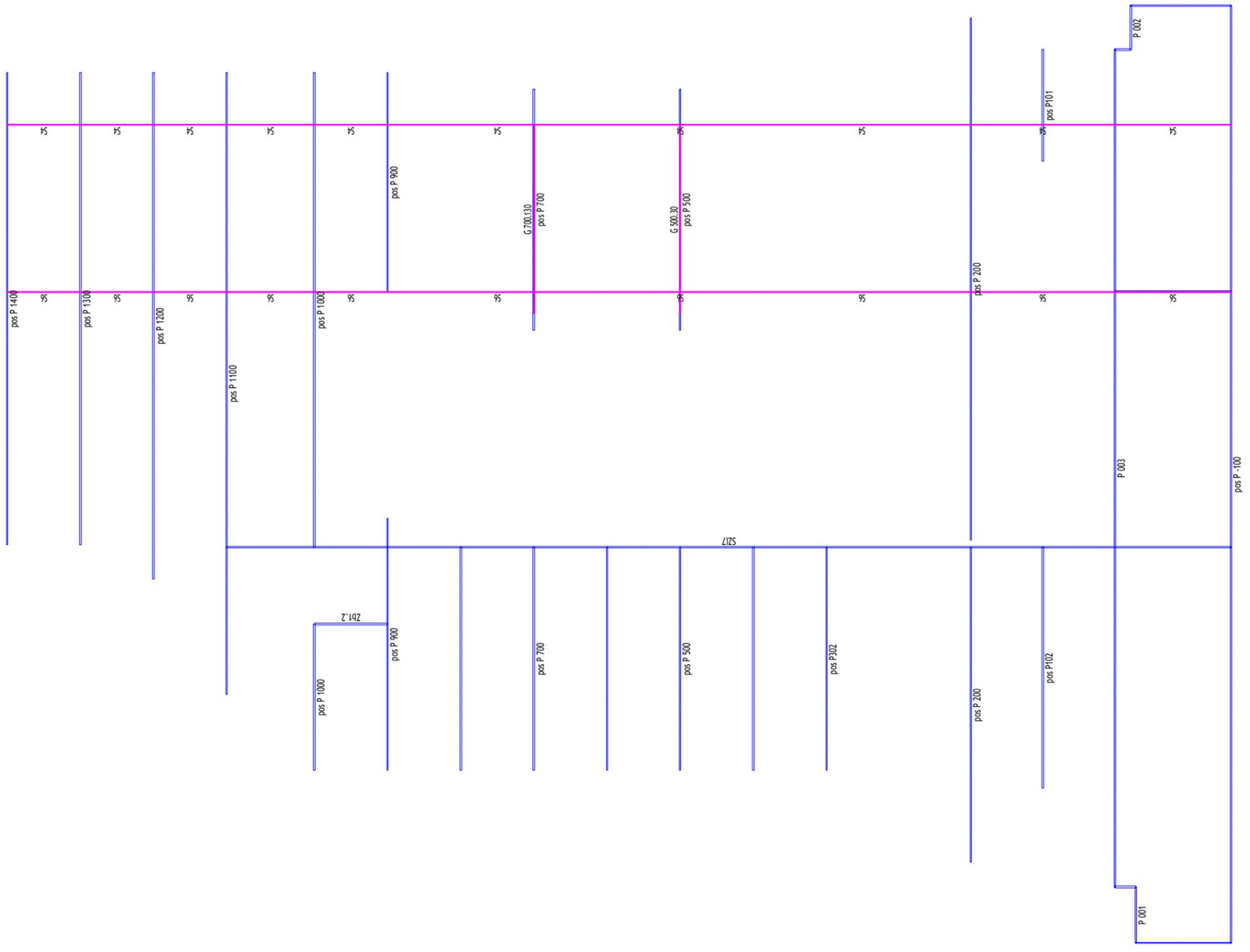




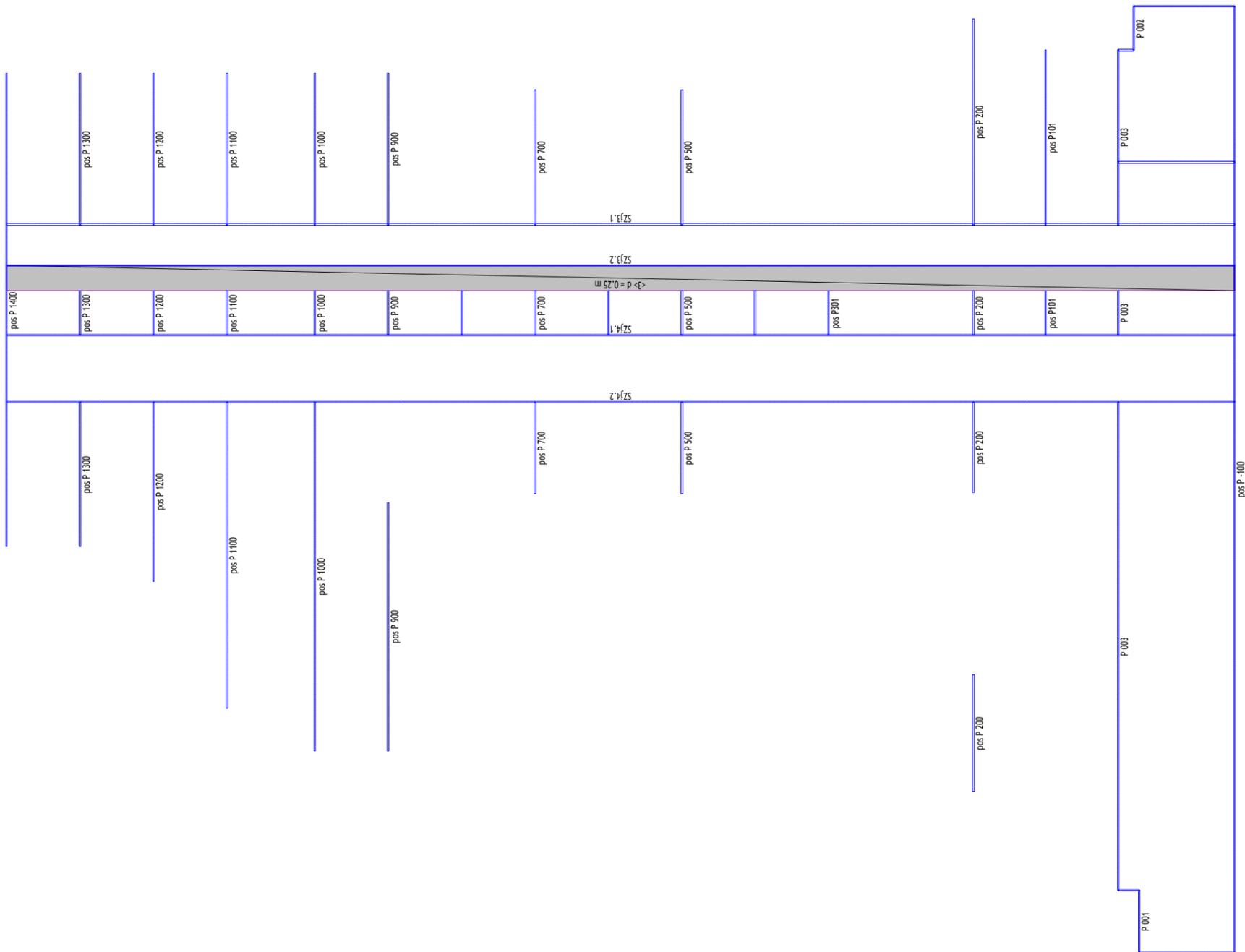


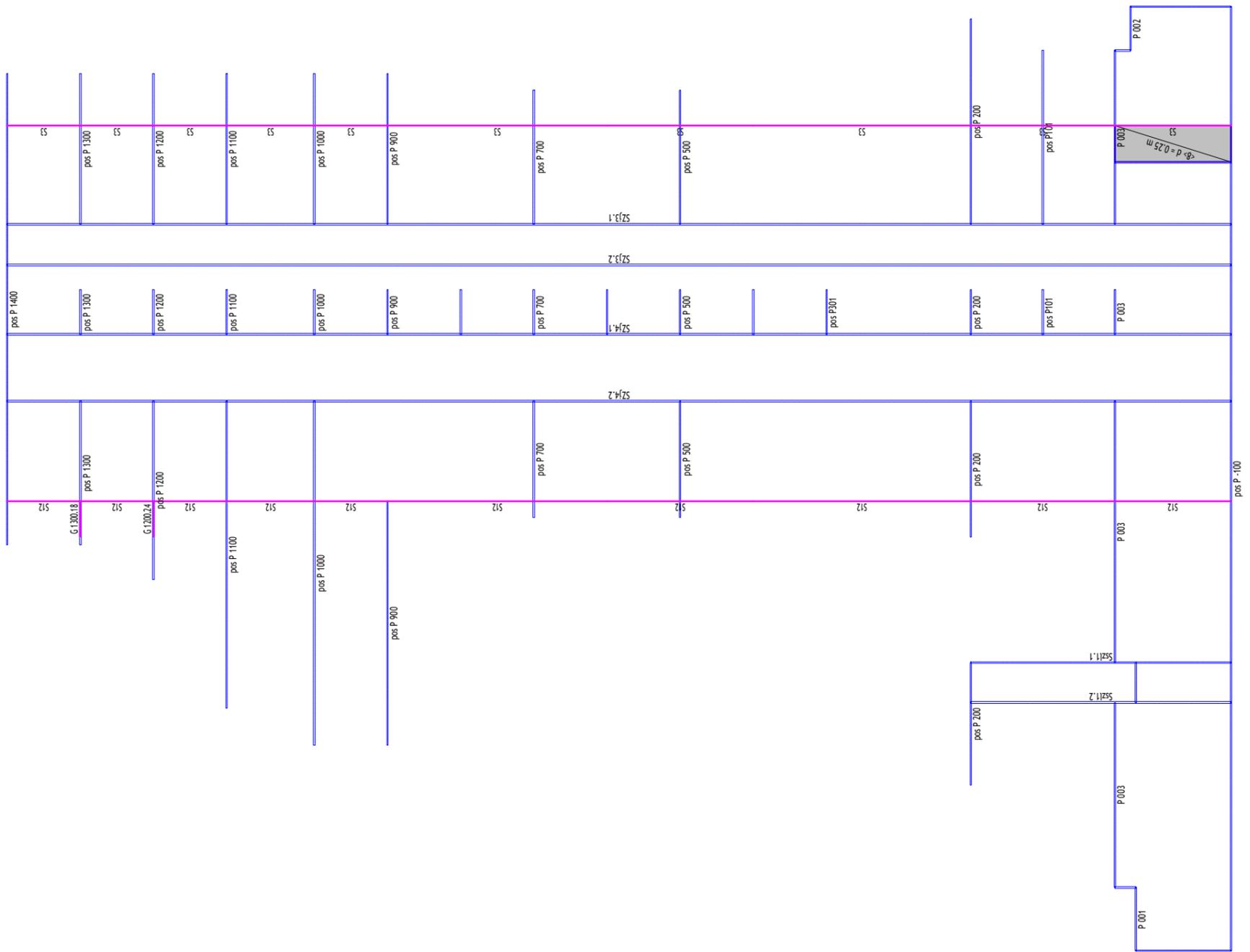


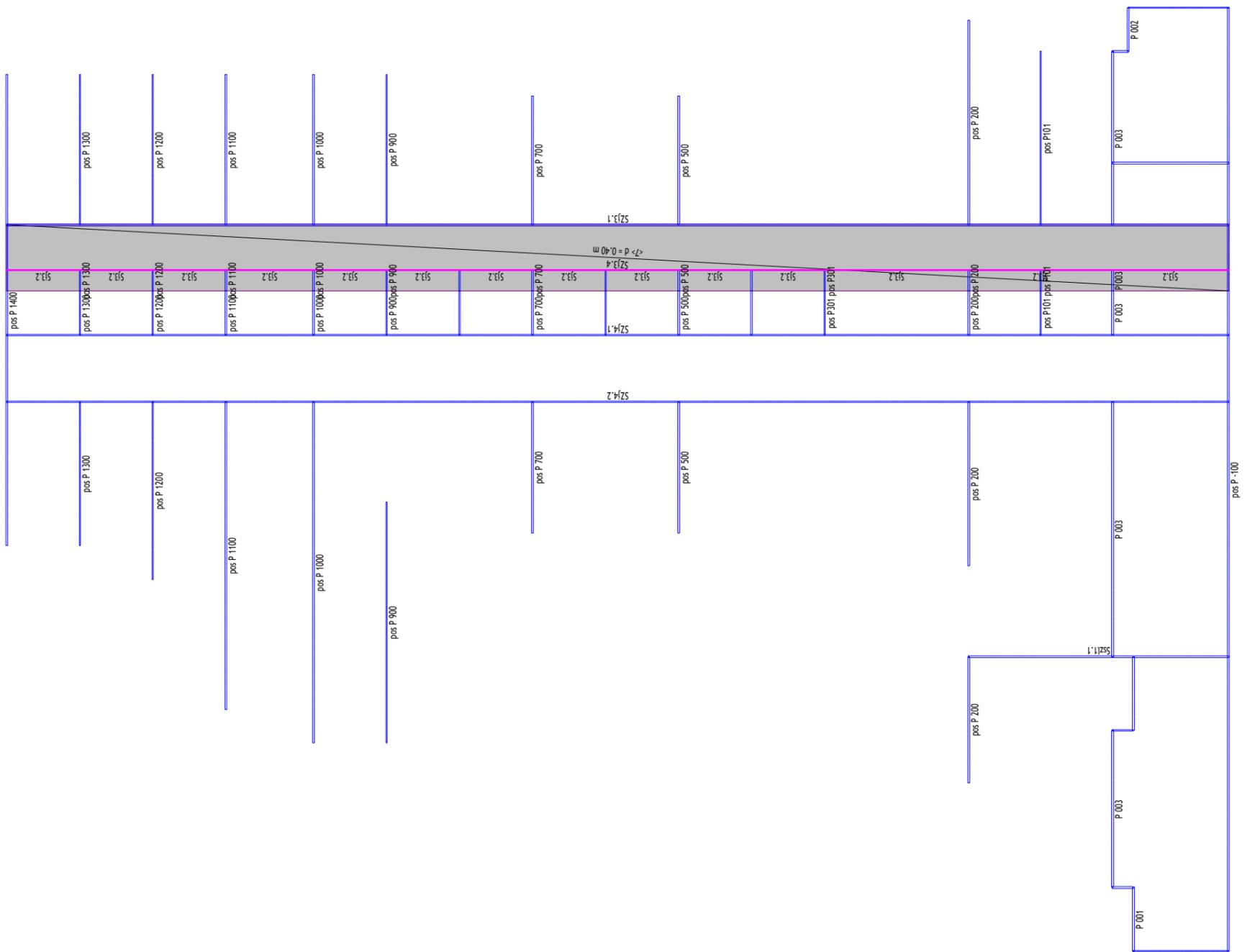


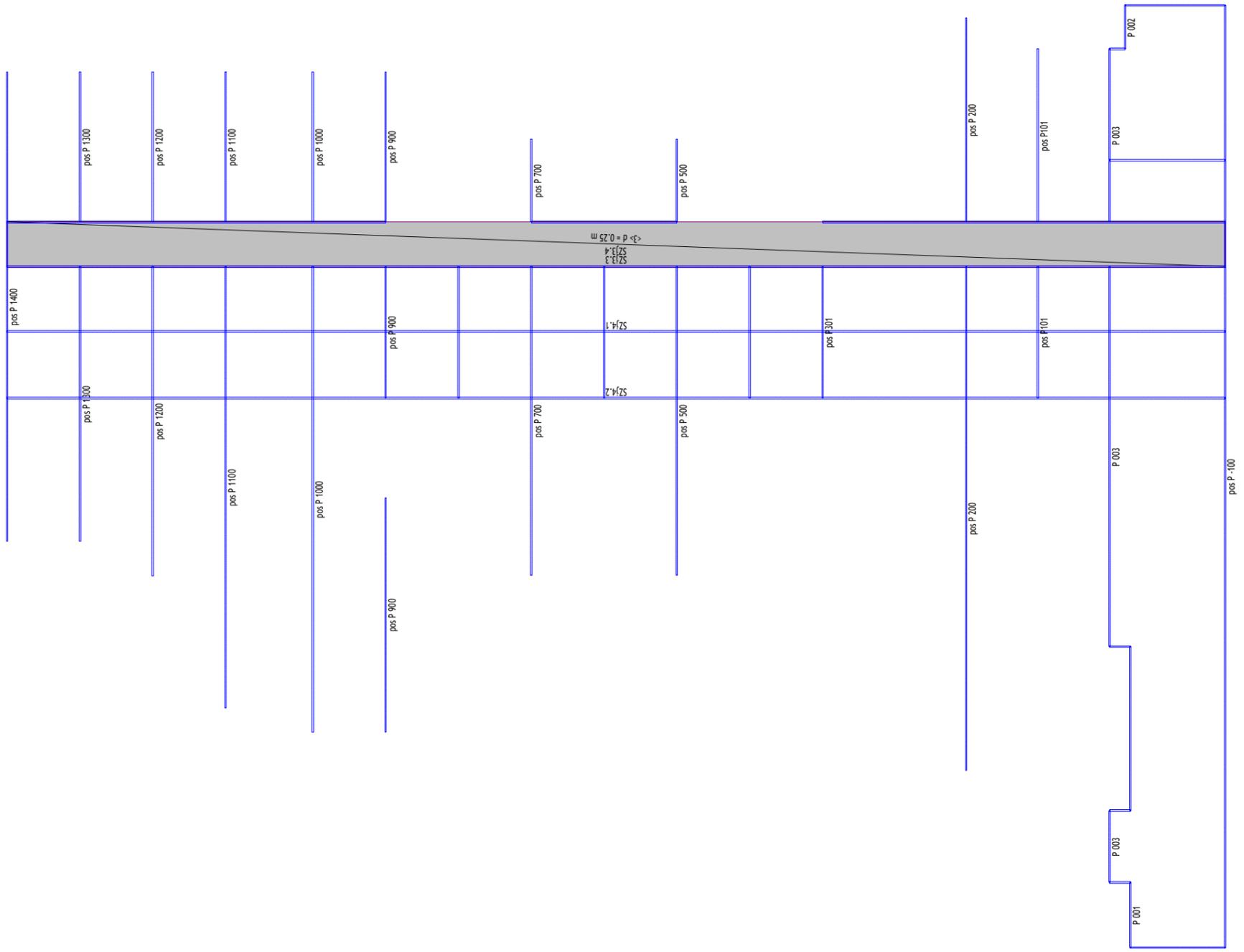


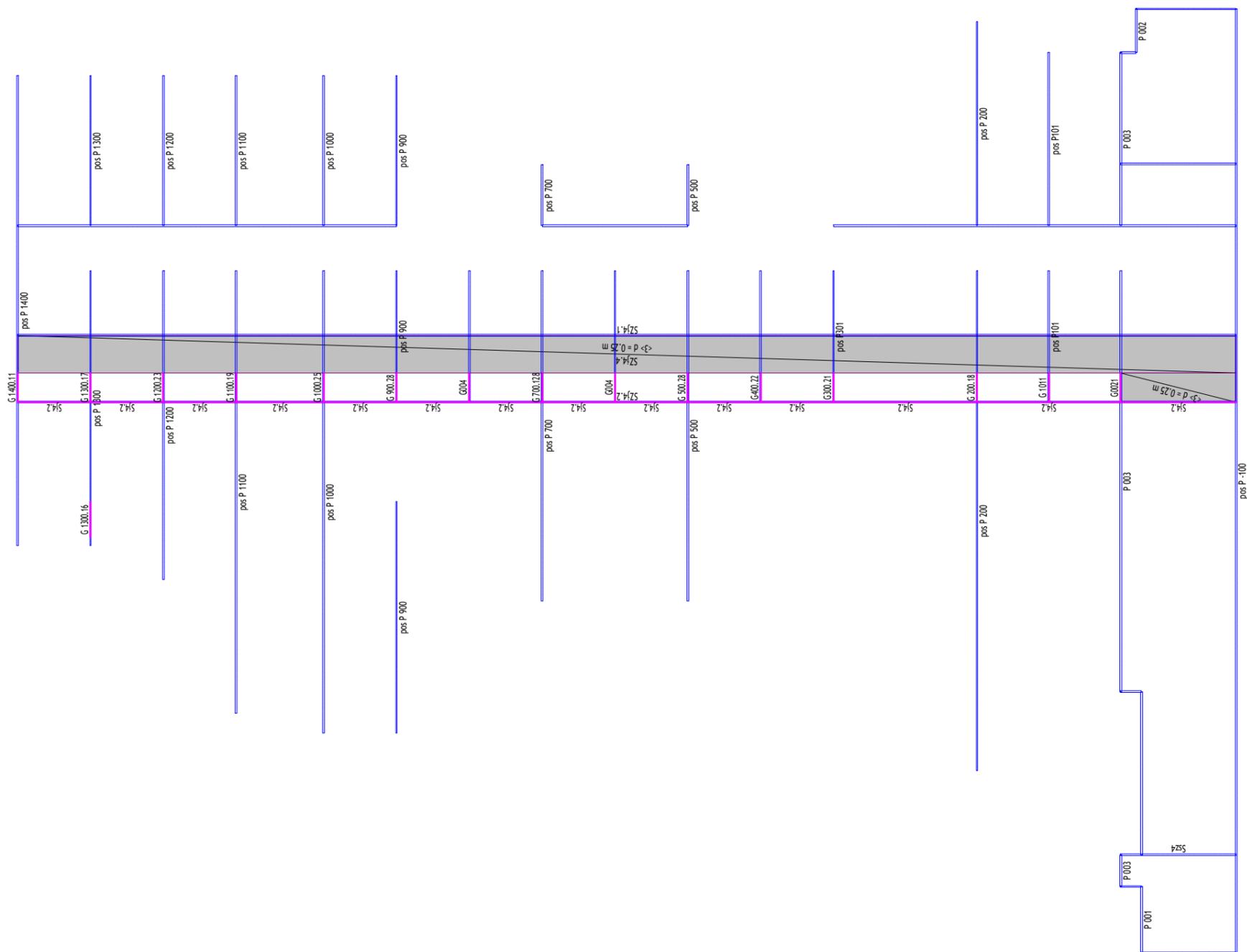


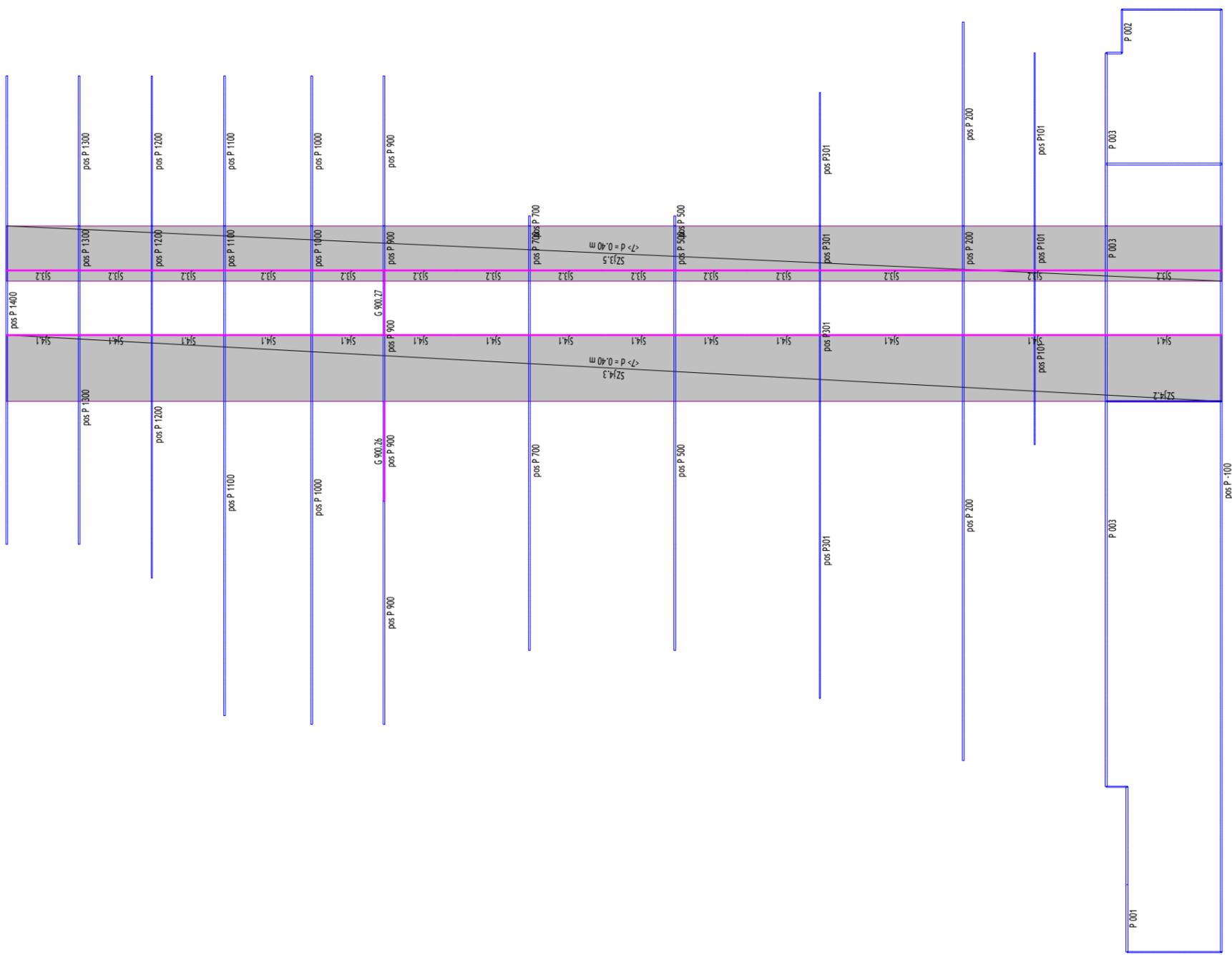


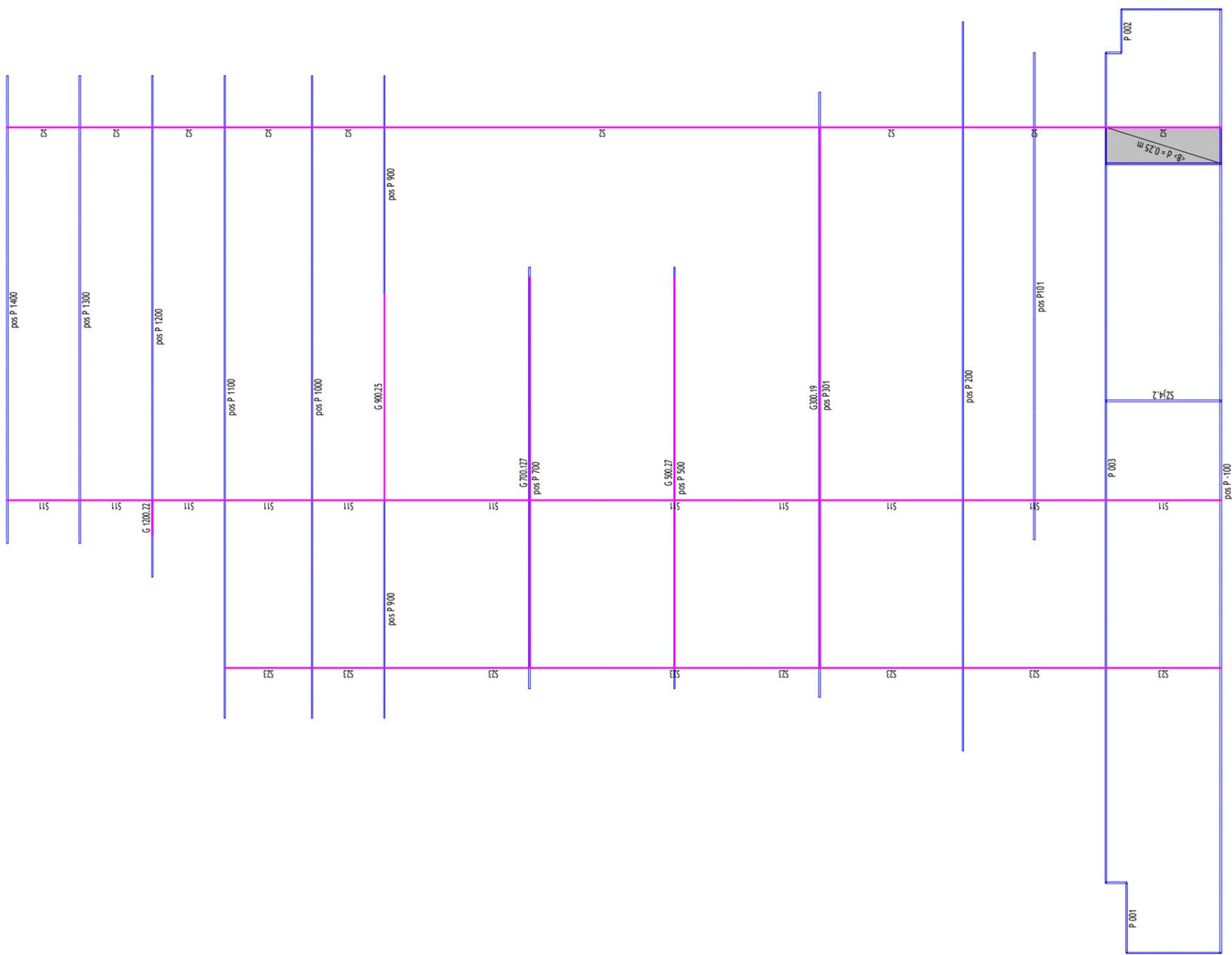


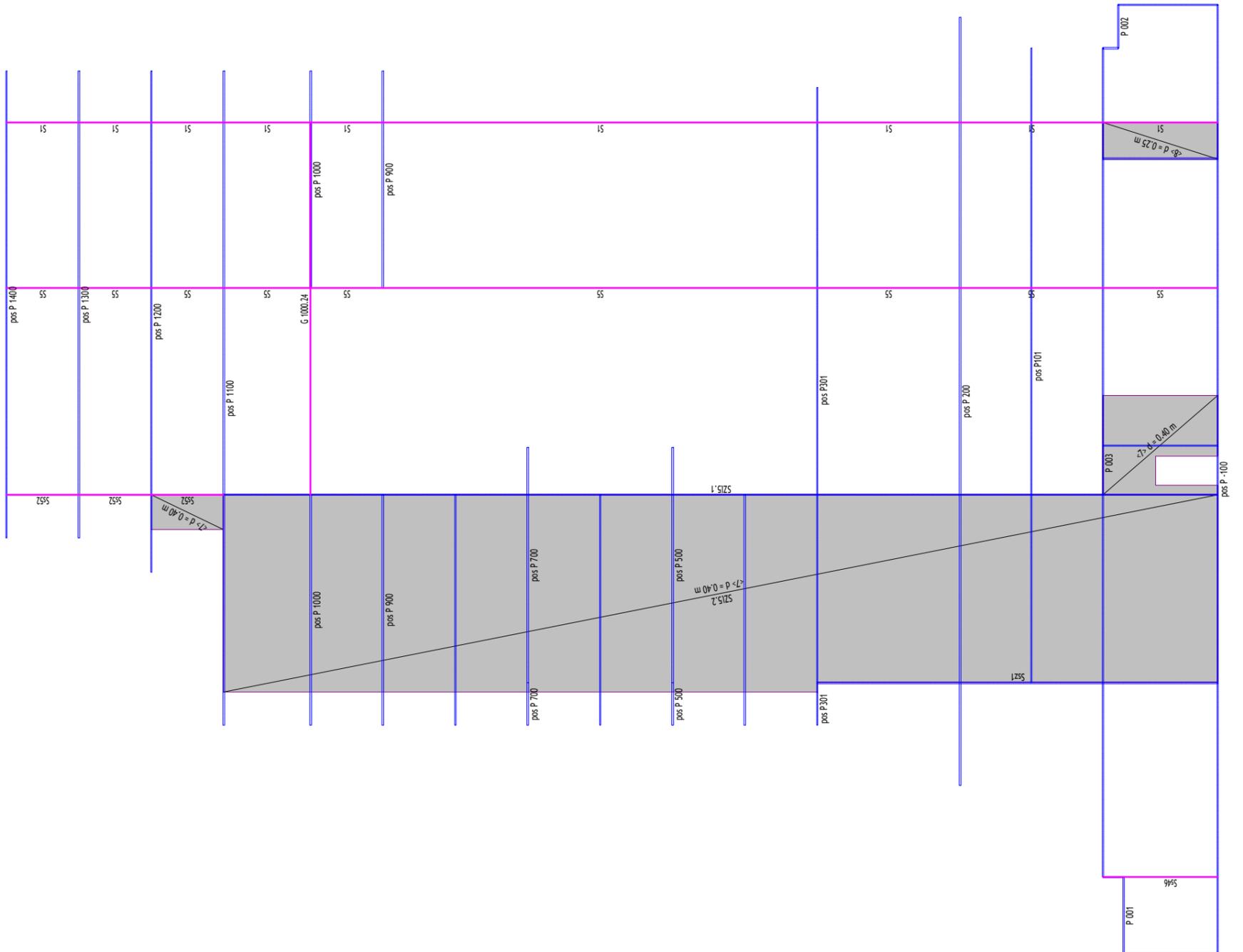












pos P 1400

pos P 1300

pos P 1200

G 1100.18

pos P 1100

G 1000.23

pos P 1000

pos P 1000

G 900.24

pos P 900

pos P 900

G 800

G 700.126

pos P 700

G 600

G 500.26

pos P 500

G 400.21

pos P 400

pos P 301

pos P 200

pos P 101

P 003

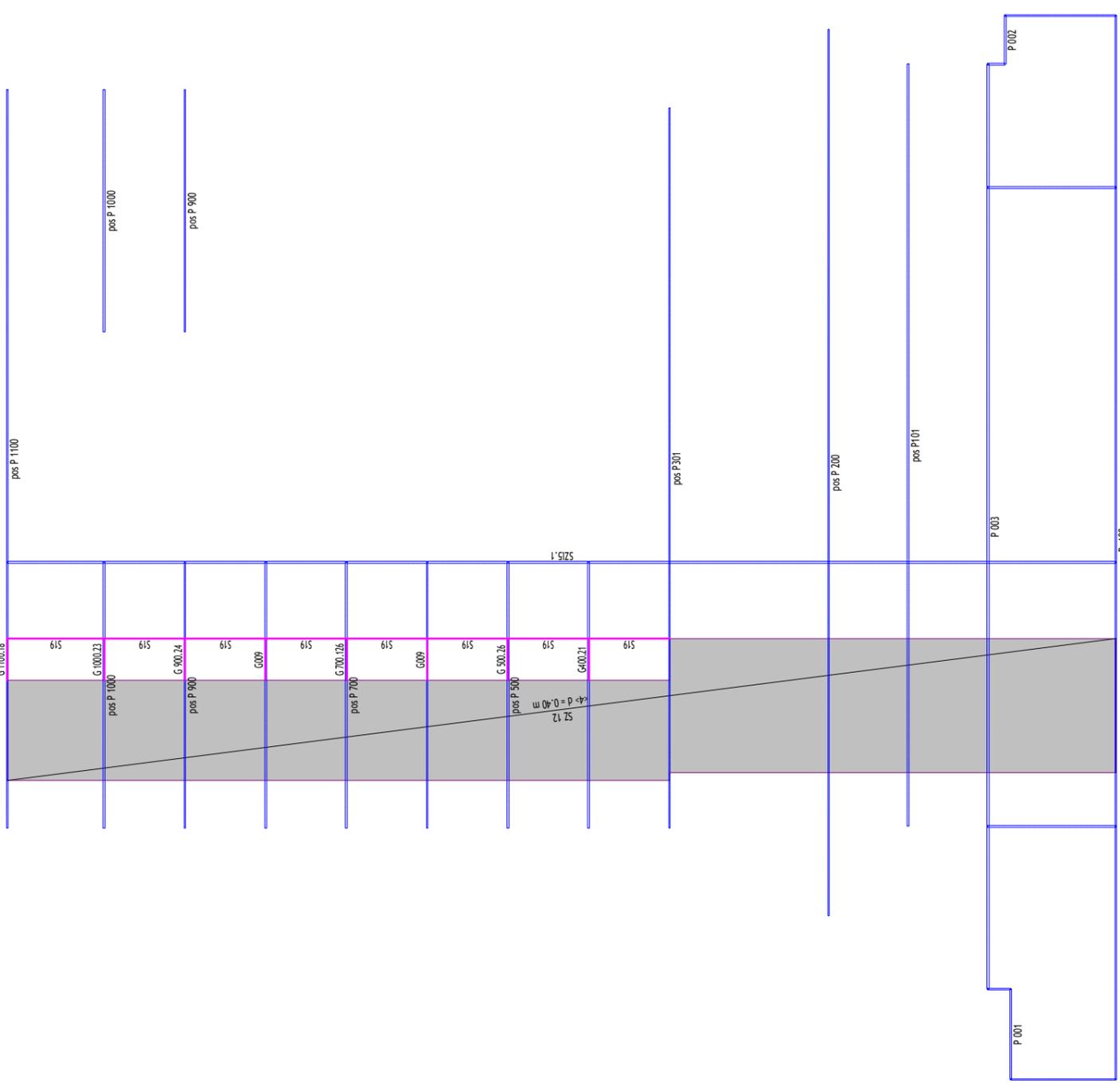
P 002

P 001

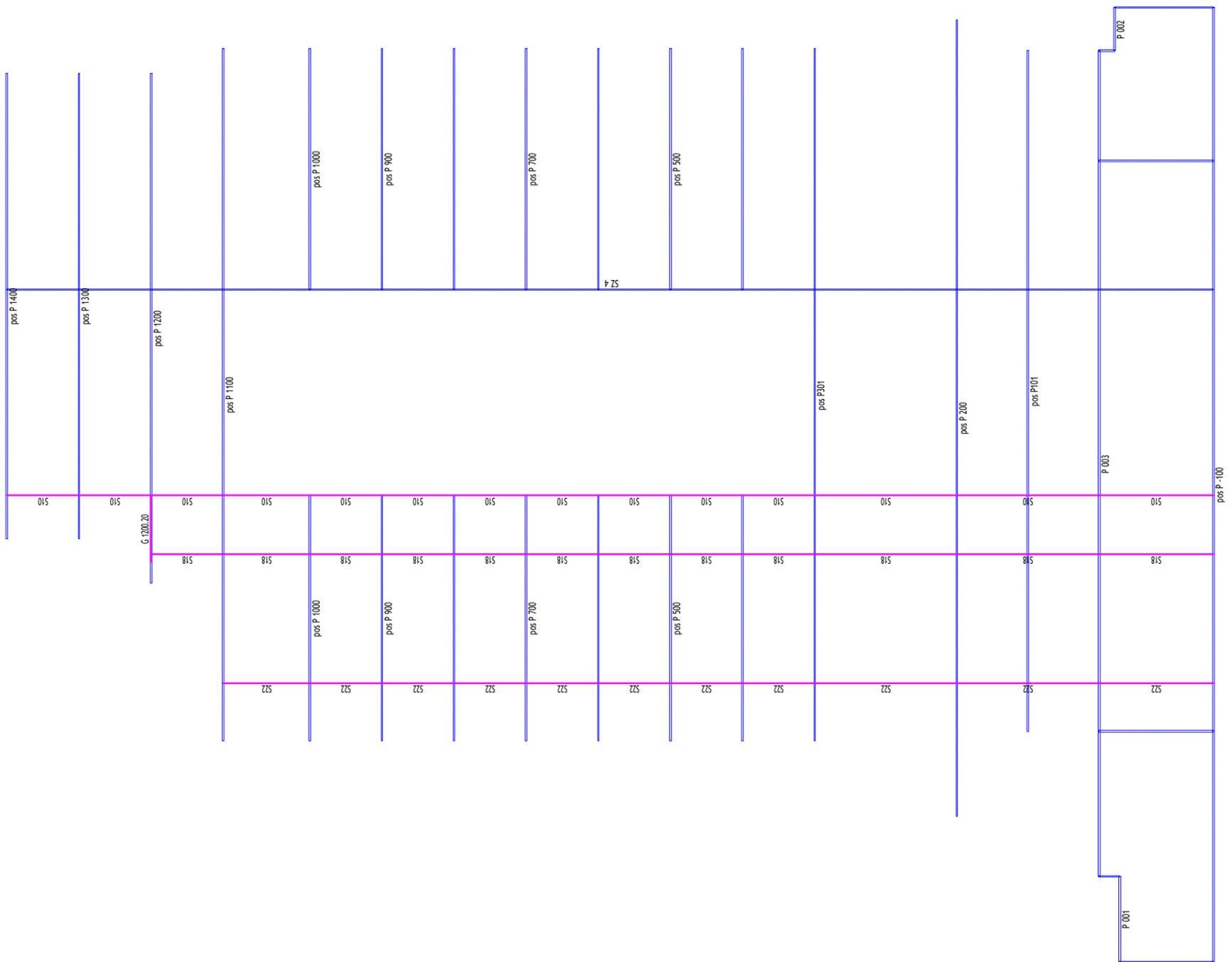
pos P -100

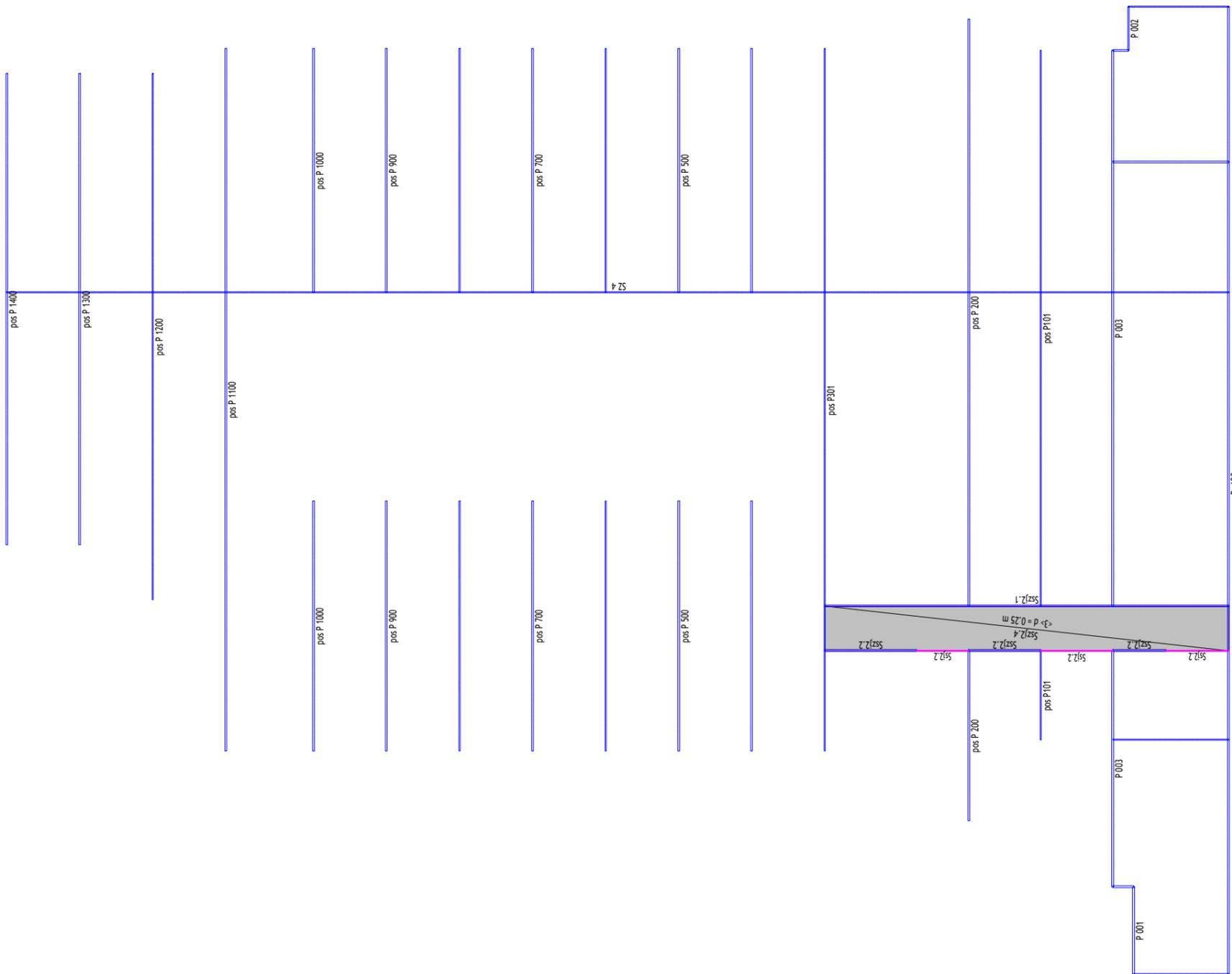
SZ 12  
d = 0.40 m

SZ 15.1









pos P 1400

pos P 1300

pos P 1200

pos P 1100

pos P 1000

pos P 900

pos P 700

pos P 500

pos P 1000

pos P 900

pos P 700

pos P 500

pos P 300

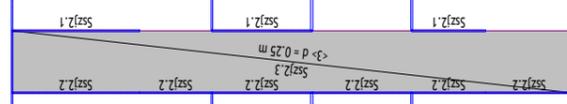
pos P 200

pos P 100

P 003

P 002

pos P -100



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Ssz2.22

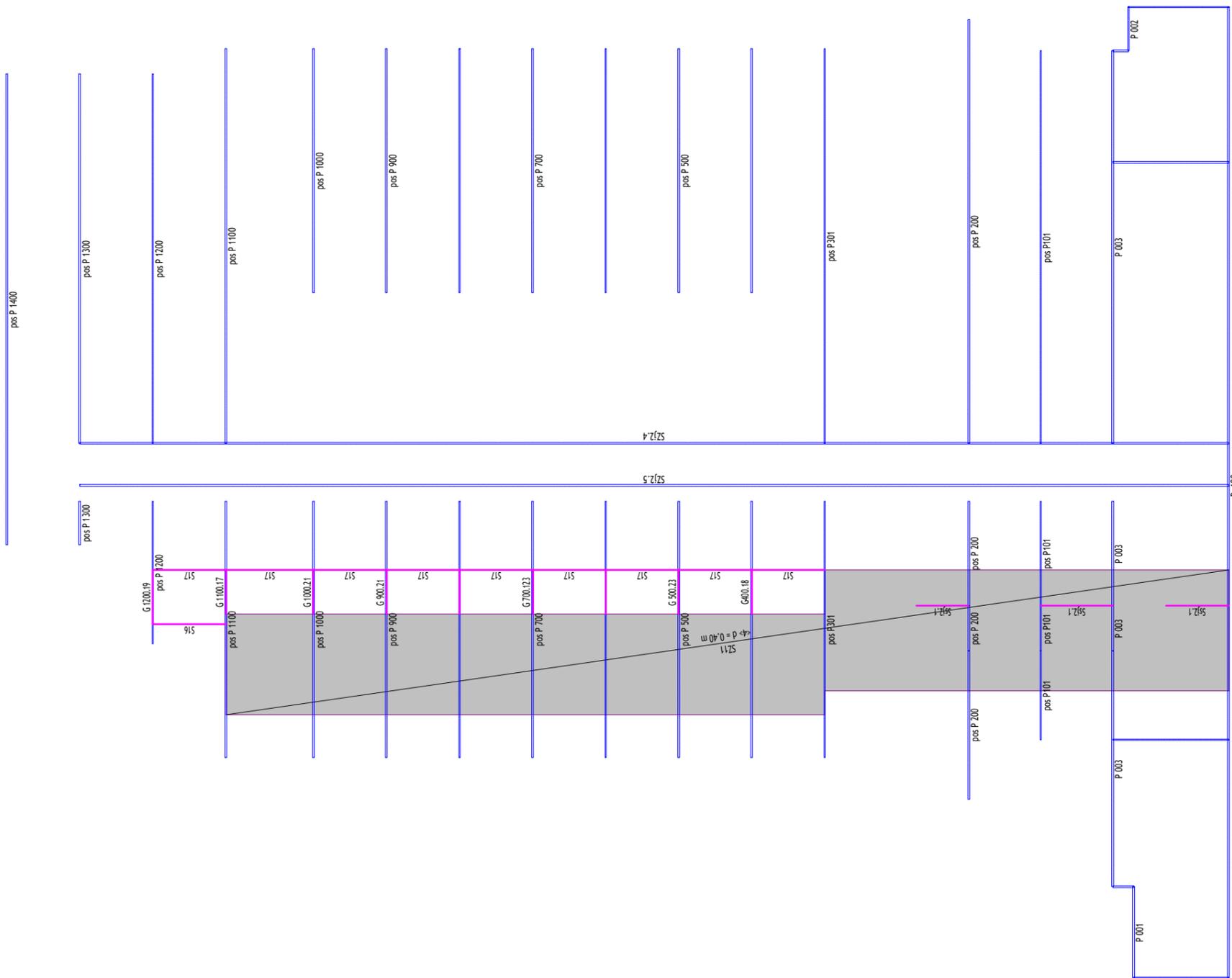
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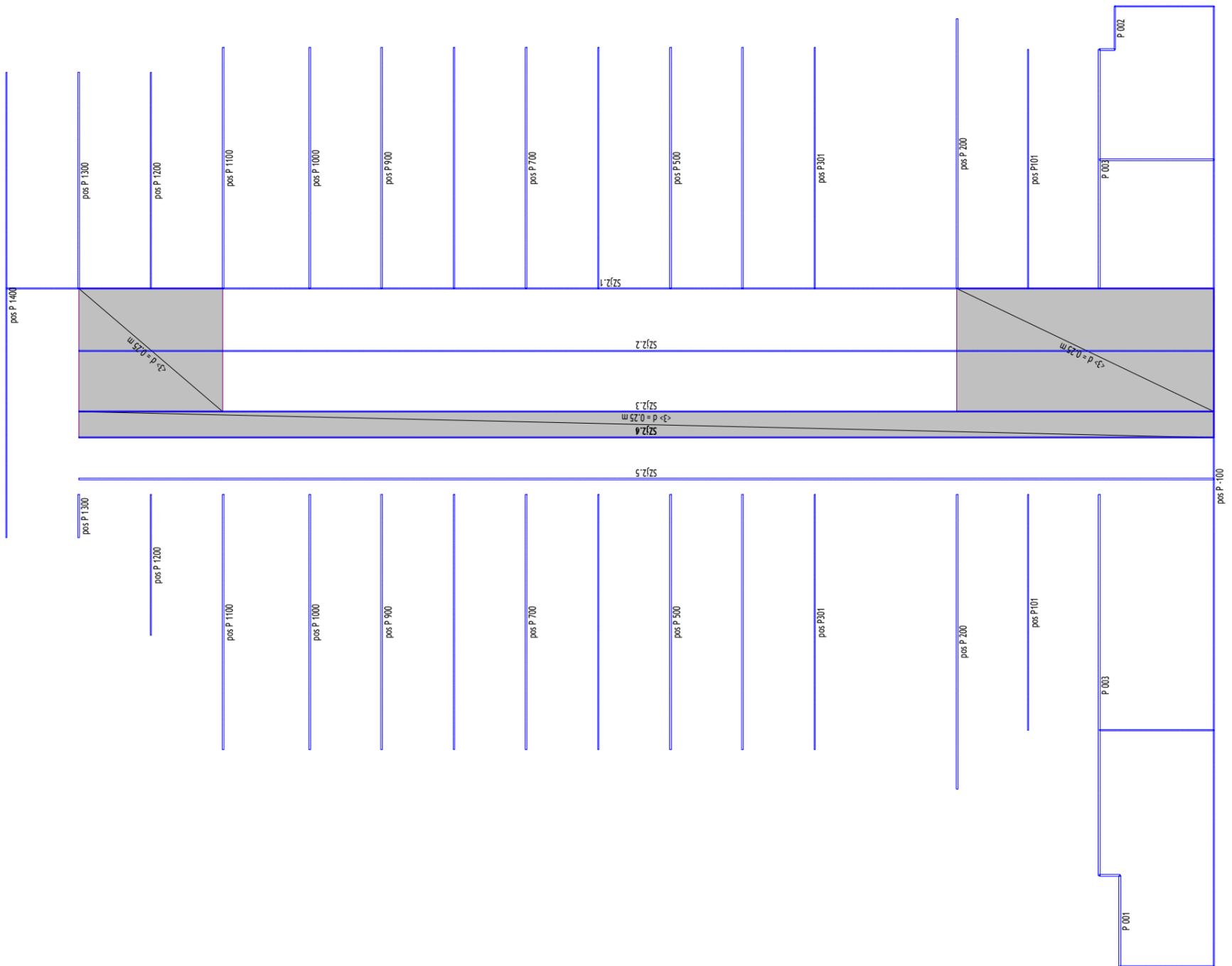
Ssz2.23

Ssz2.23

Ssz2.23



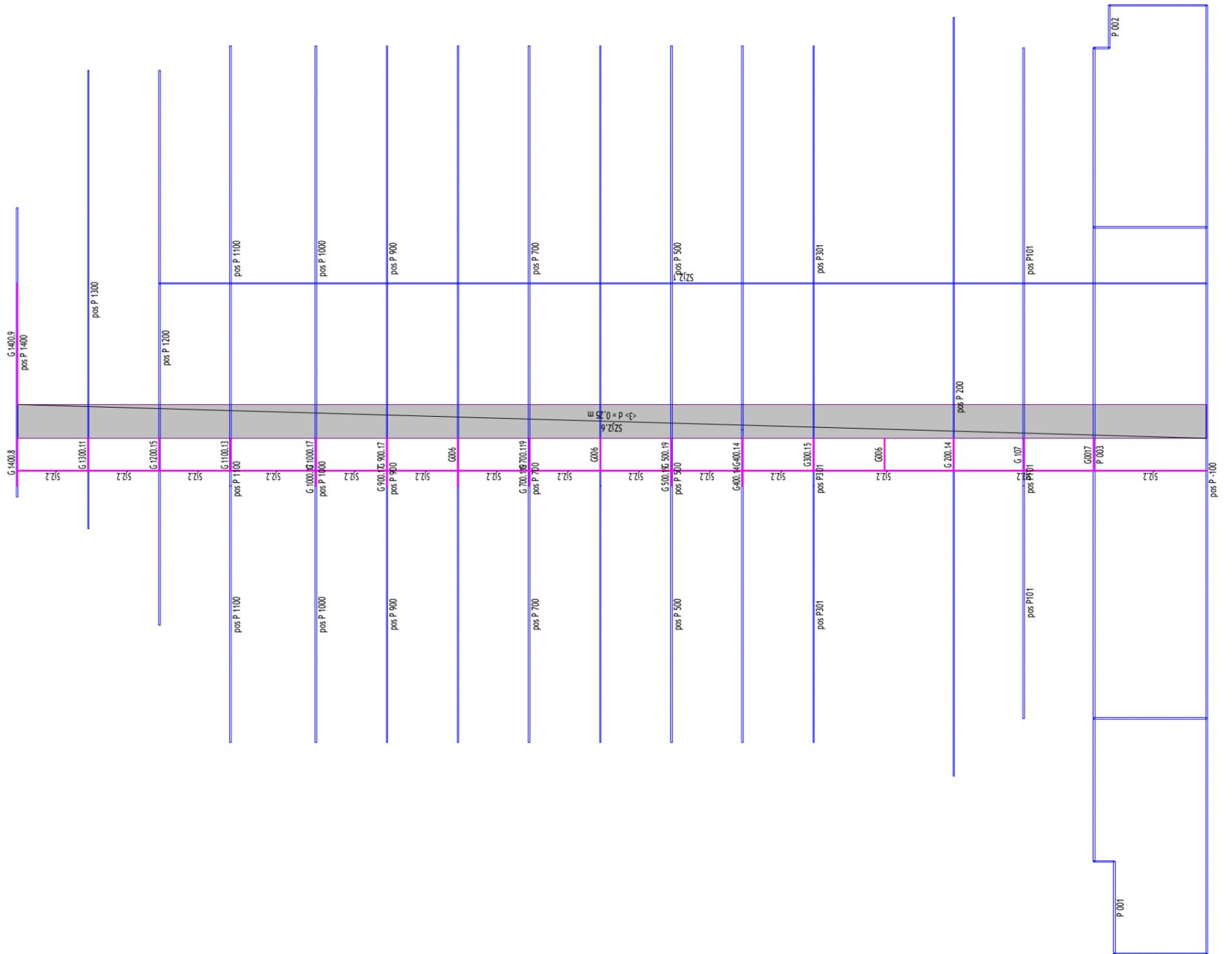












pos P 1400

pos P 1300

pos P 1200

pos P 1100

pos P 1000

pos P 900

pos P 800

pos P 700

pos P 600

pos P 500

pos P 400

pos P 300

pos P 200

pos P 100

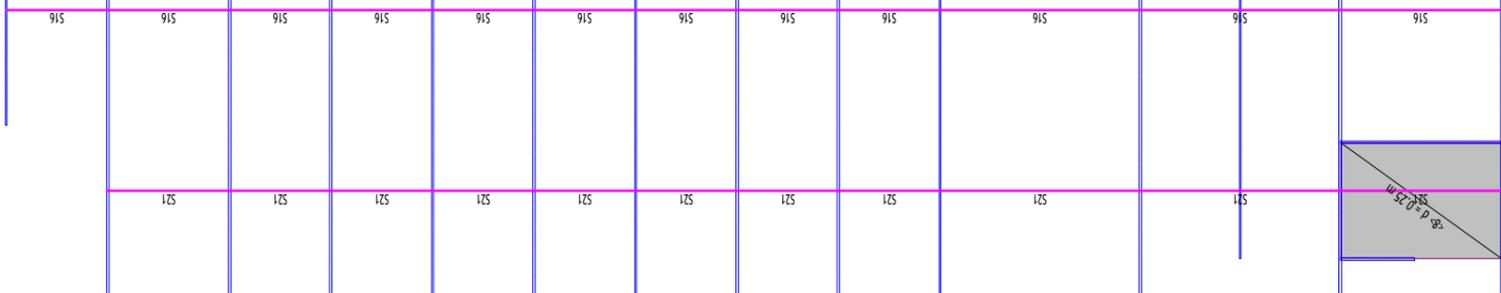
pos P 000

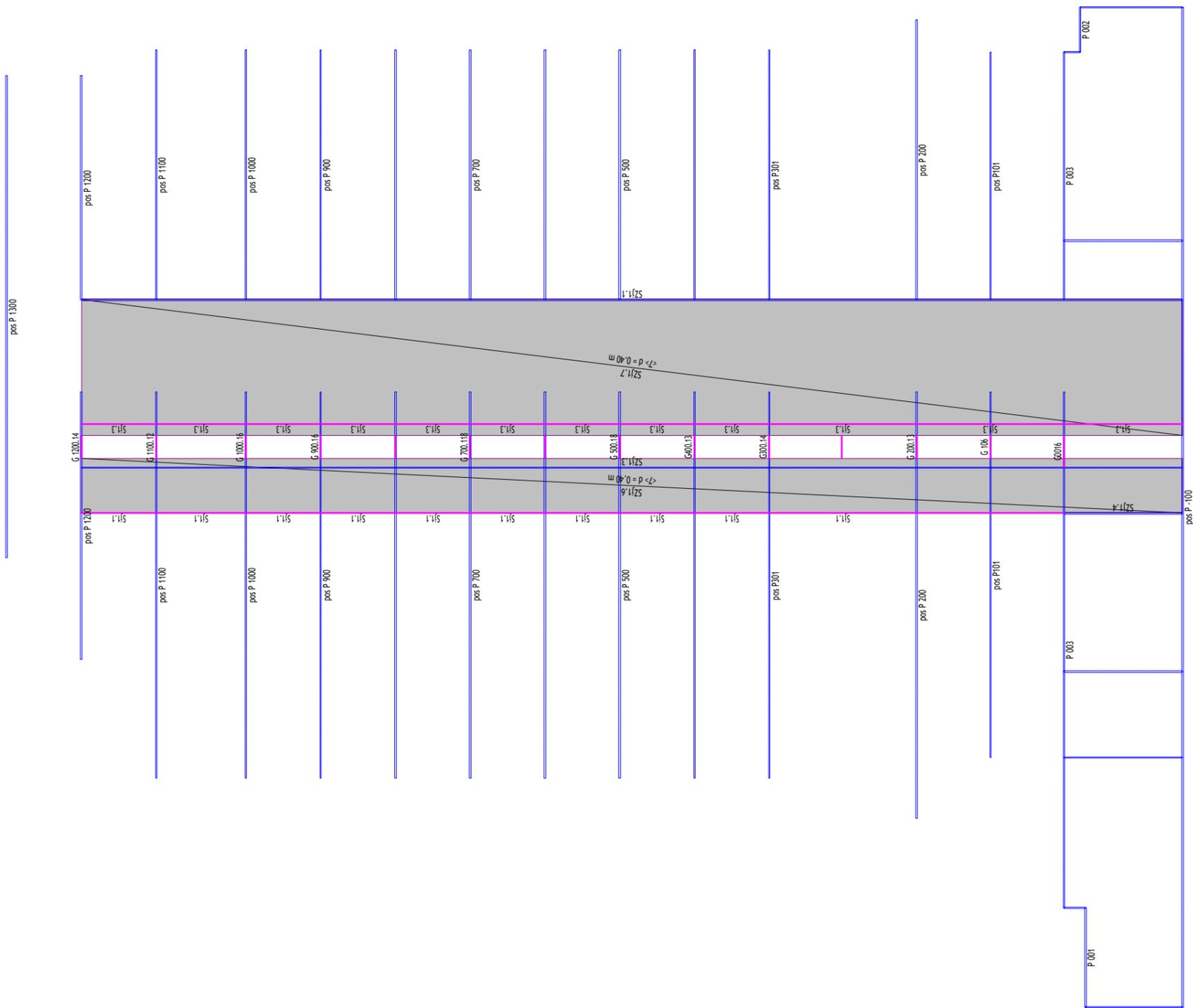
P 003

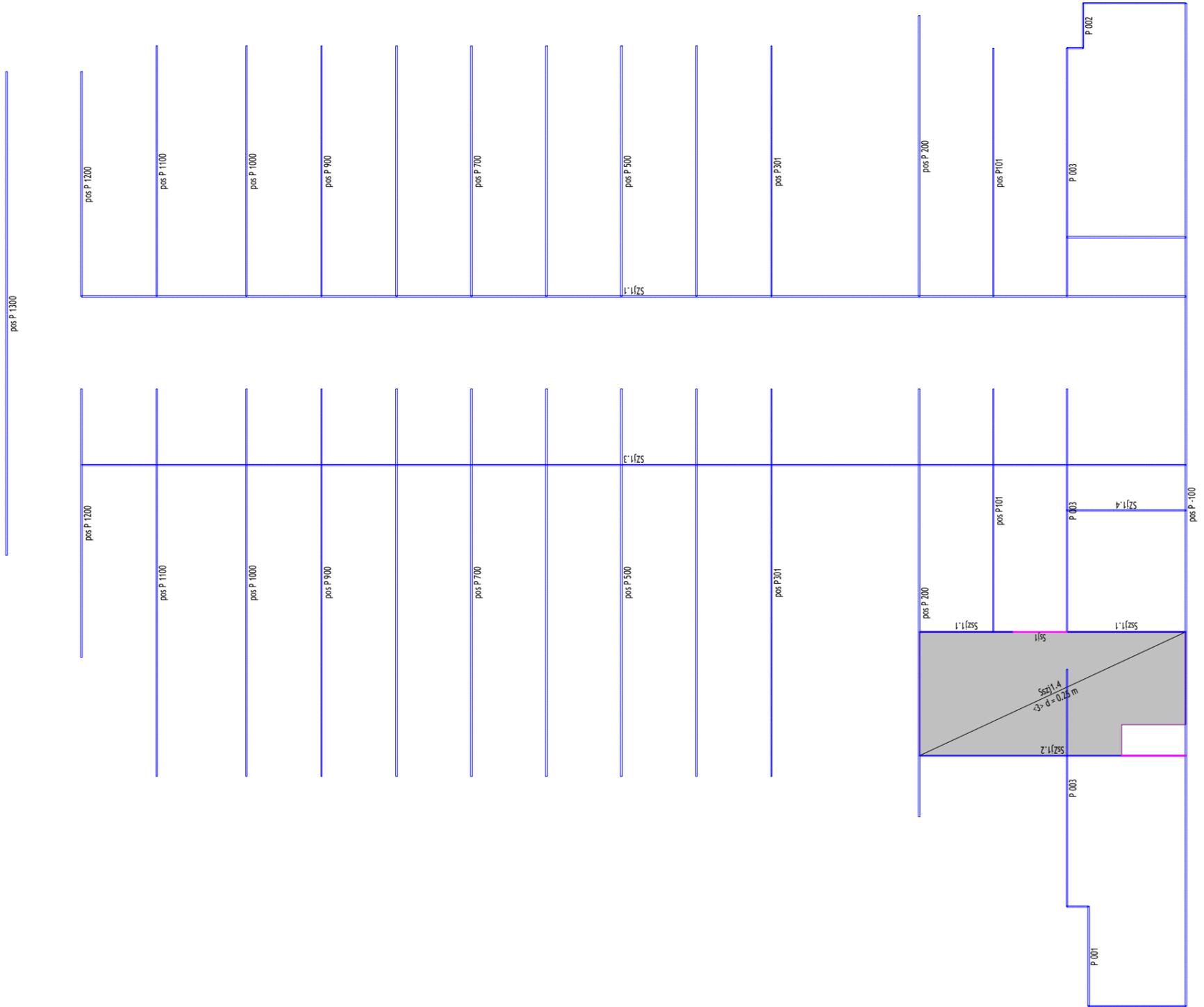
P 002

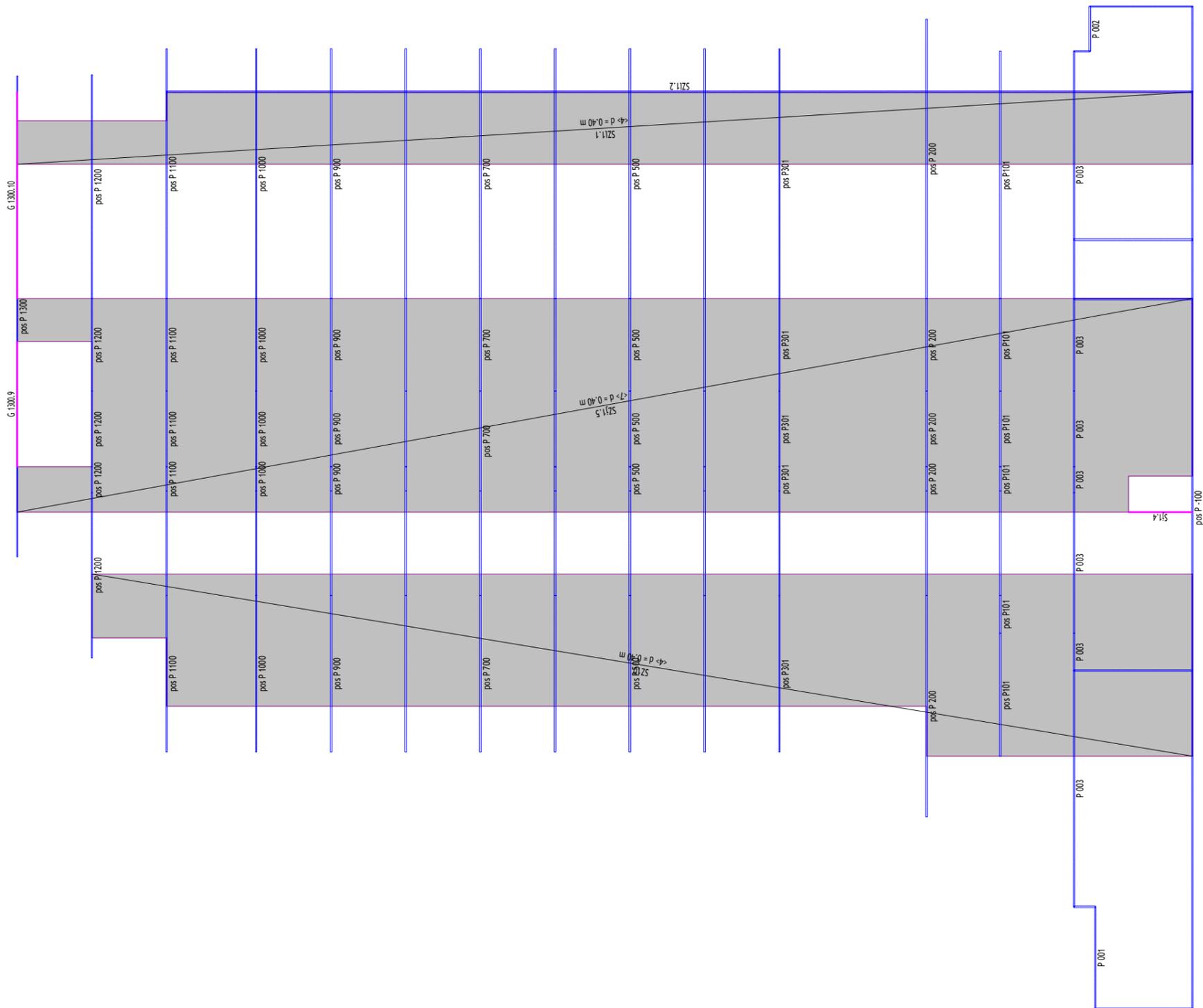
P 001

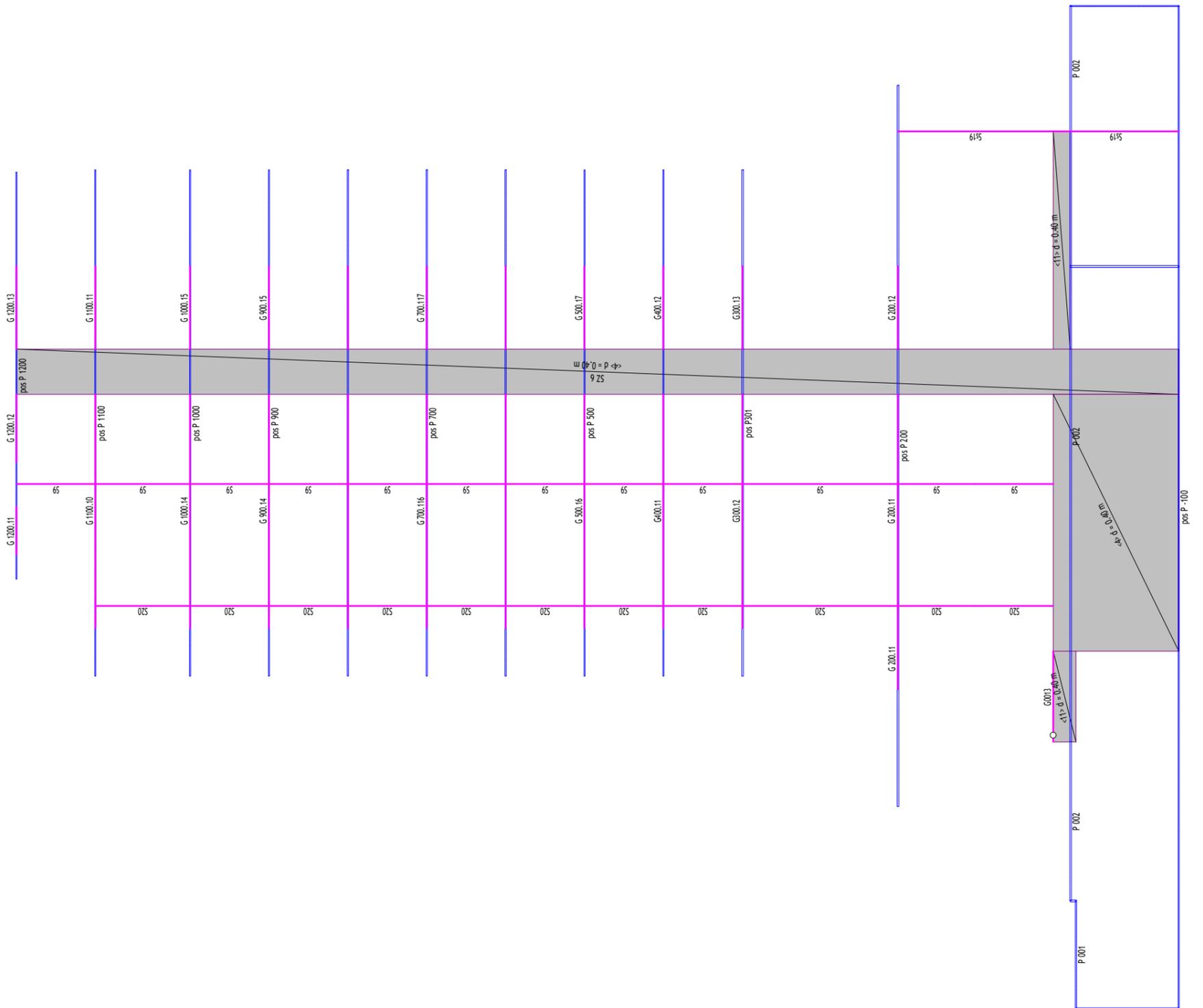
pos P -100









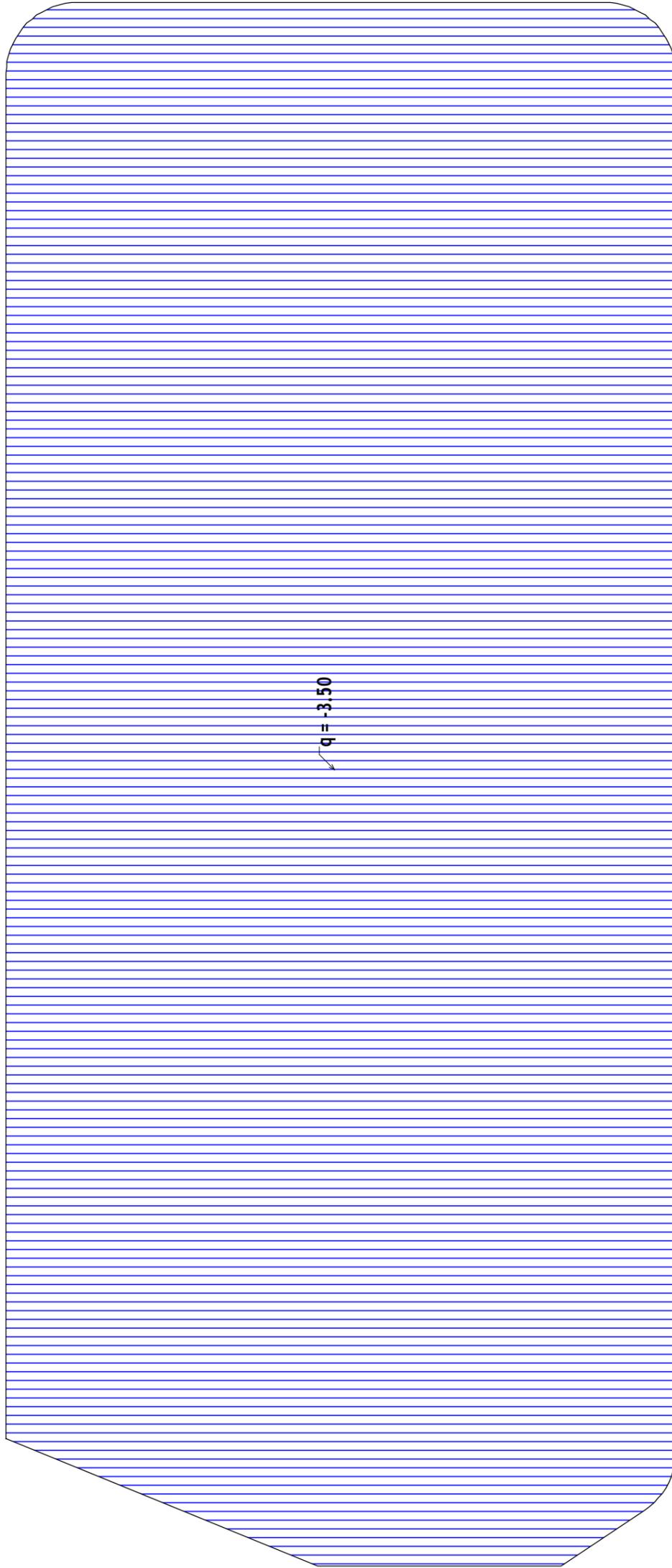


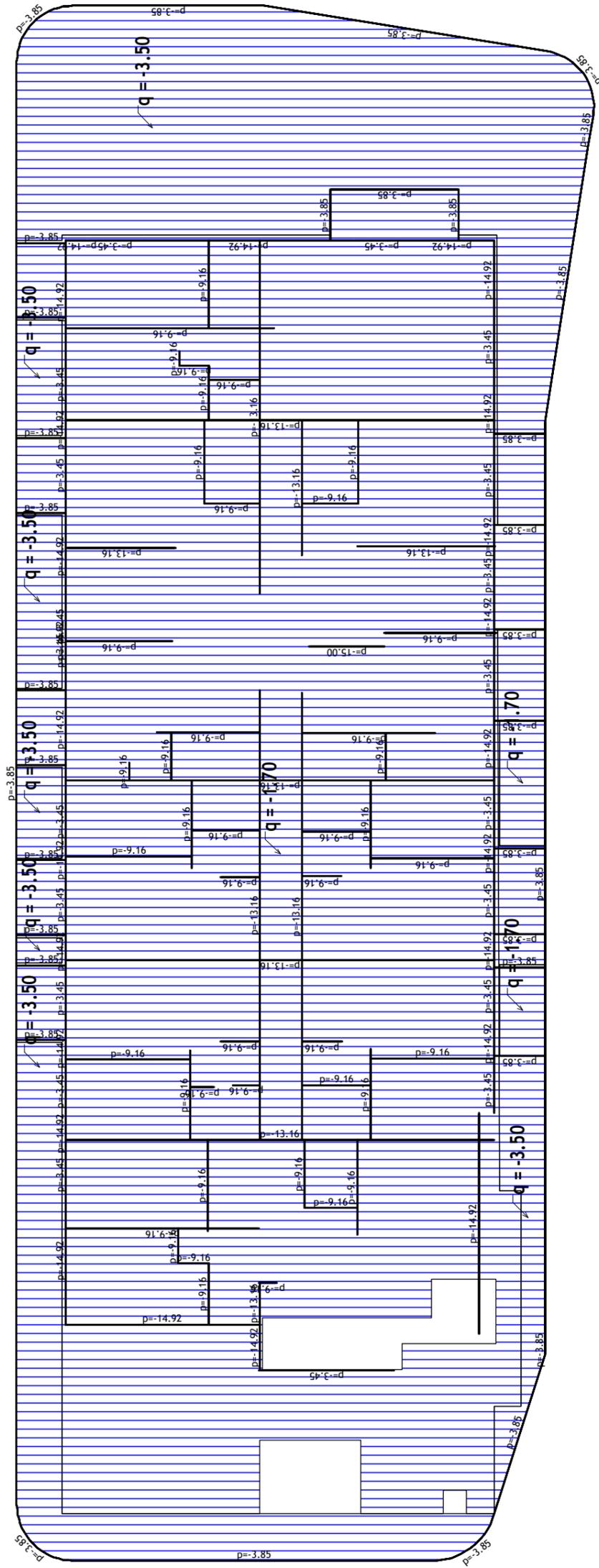
## Lista slučajeva opterećenja

LC	Naziv
1	G (g)
2	P
3	P ( voda - dinamičko )
4	Komb.: 1.35xI+1.05xII+1.5xIII
5	Komb.: 1.35xI+1.5xII+1.05xIII

LC	Naziv
6	Komb.: I+1.05xII+1.5xIII
7	Komb.: I+1.5xII+1.05xIII
8	Komb.: 1.35xI+1.5xIII
9	Komb.: 1.35xI+1.5xII
10	Komb.: I+1.5xIII

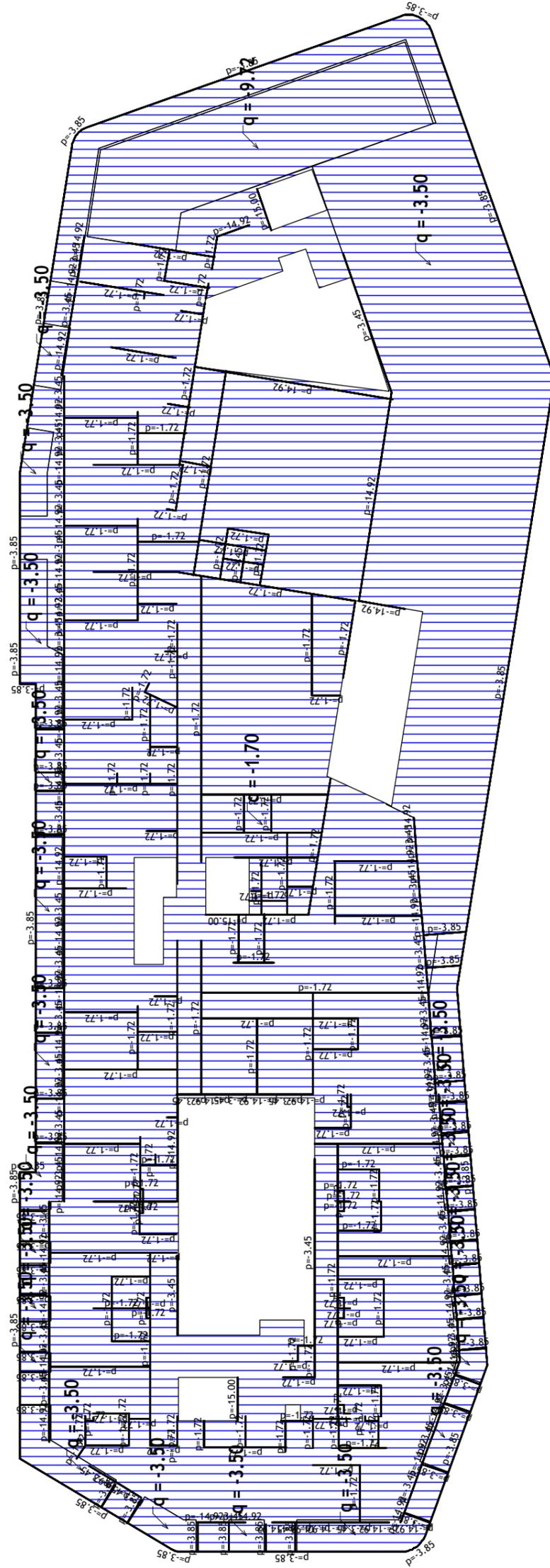
LC	Naziv
11	Komb.: I+1.5xII
12	Komb.: 1.35xI
13	Komb.: I

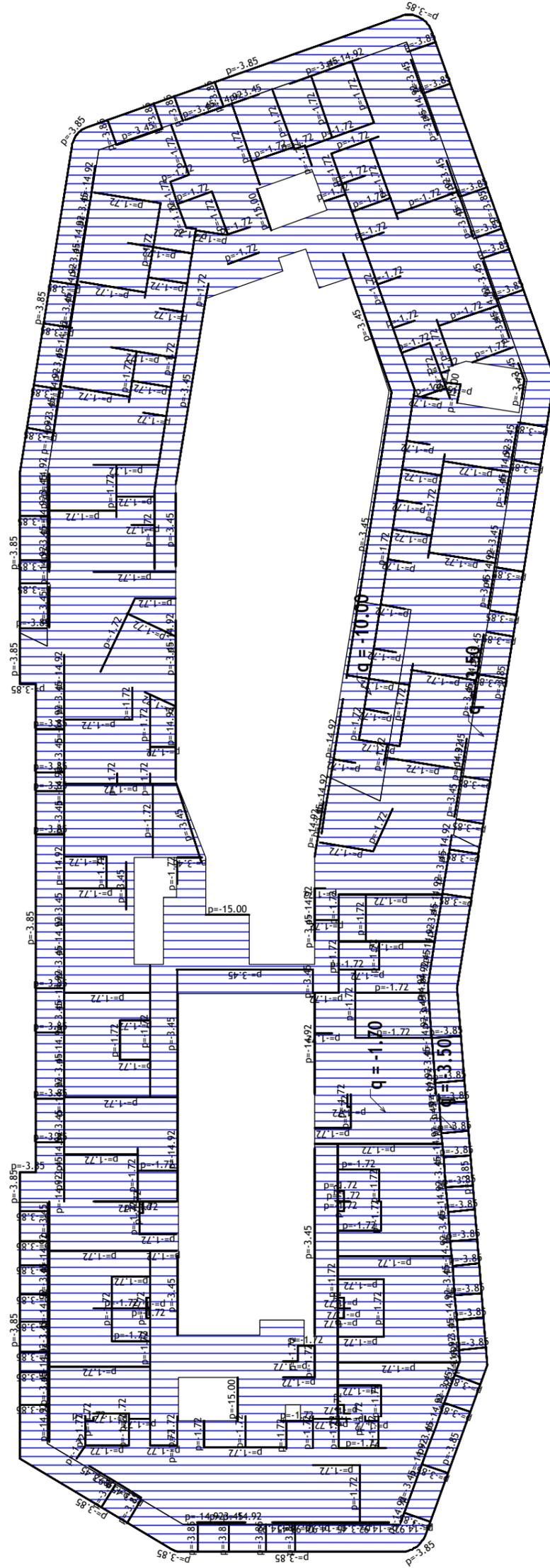




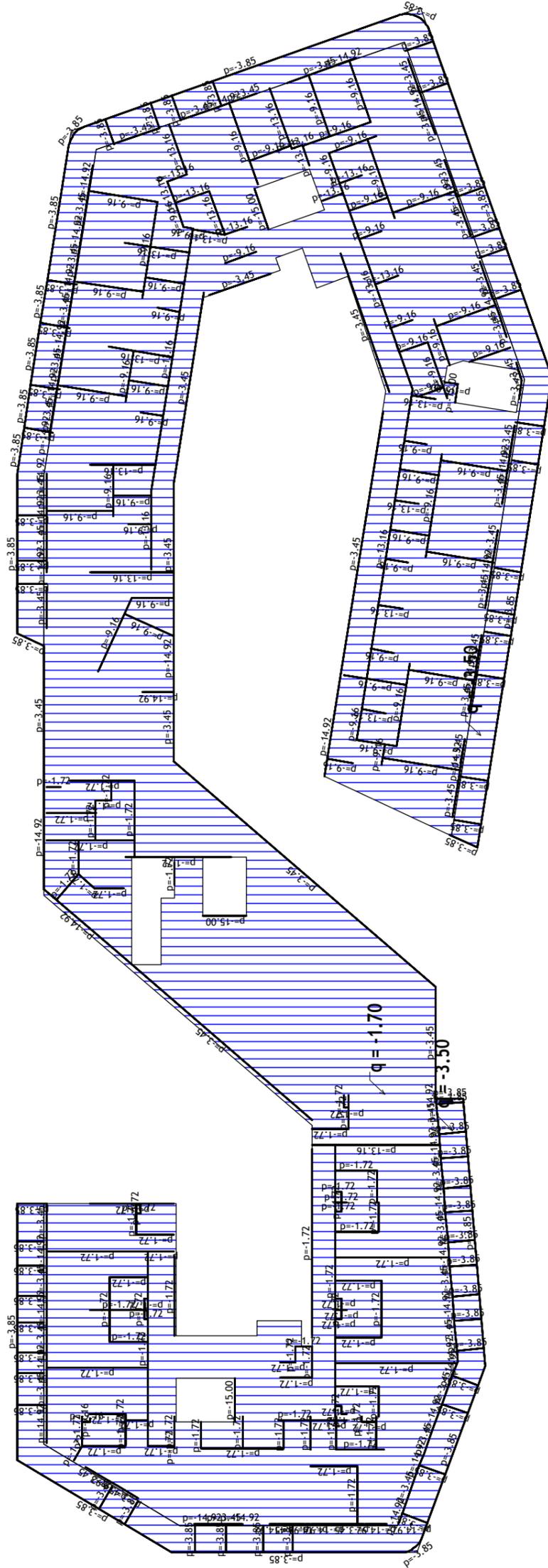




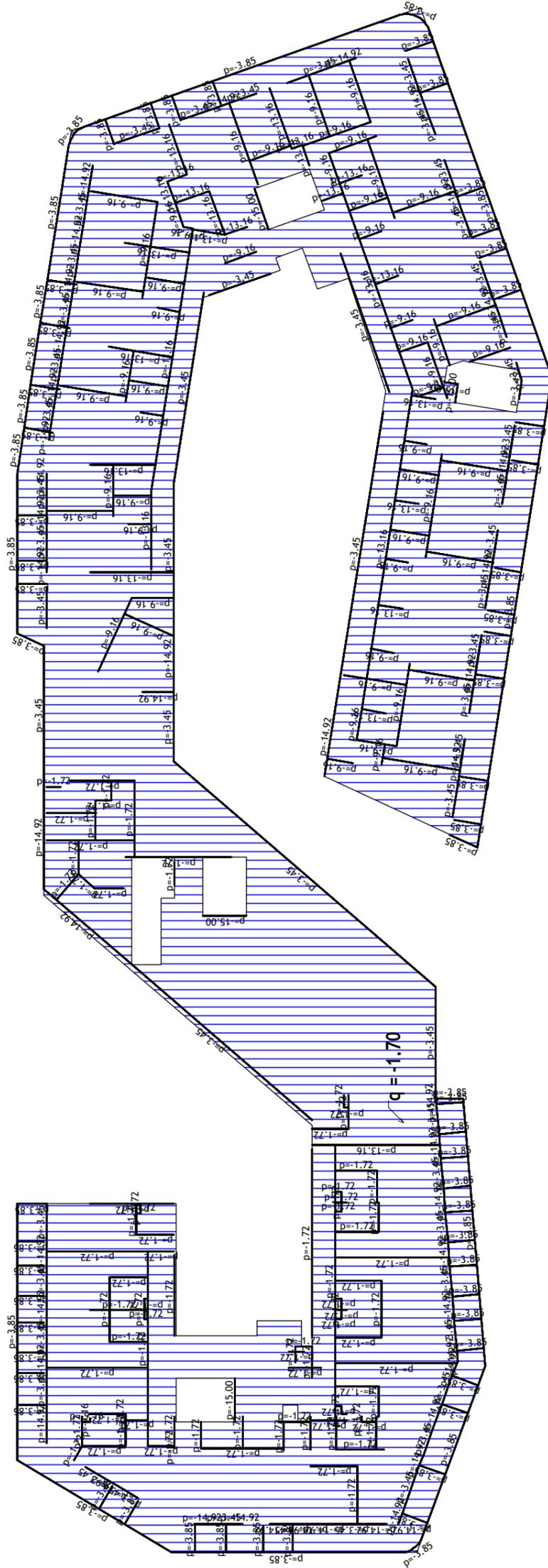






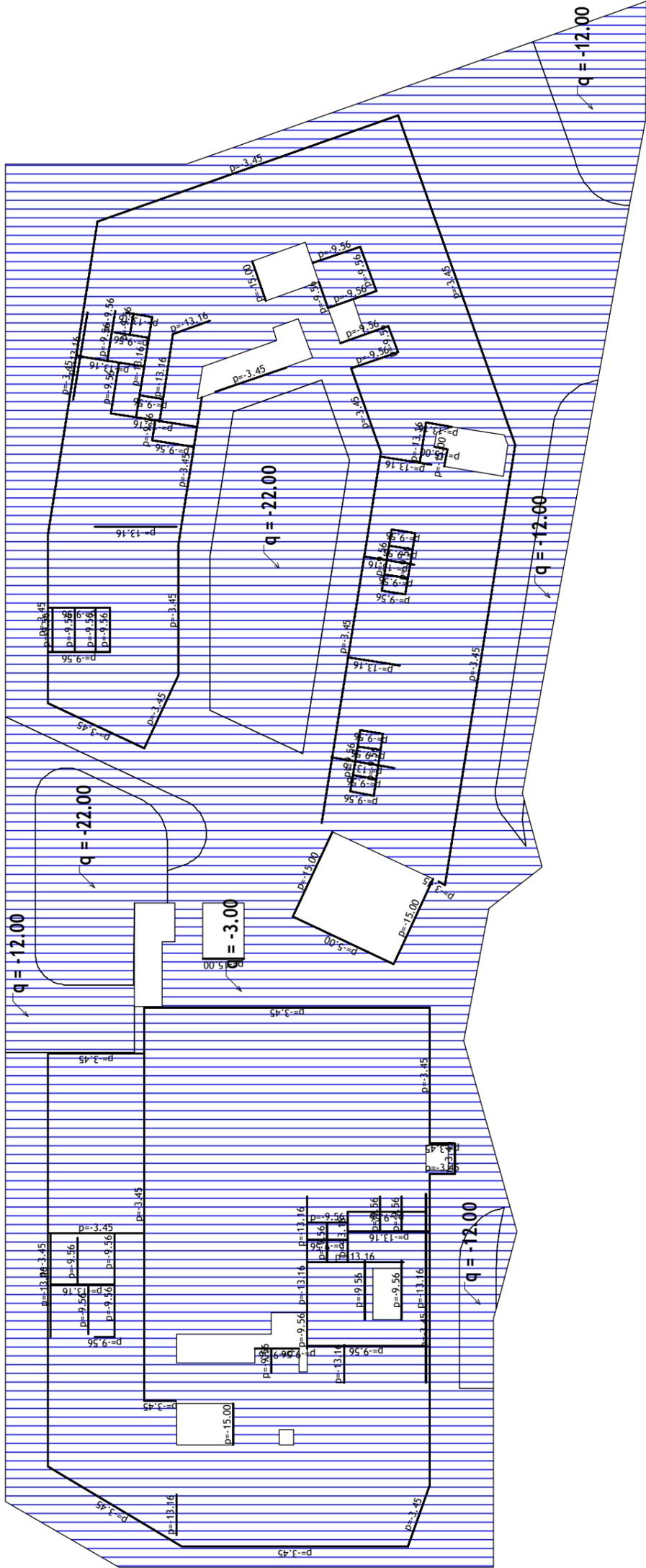


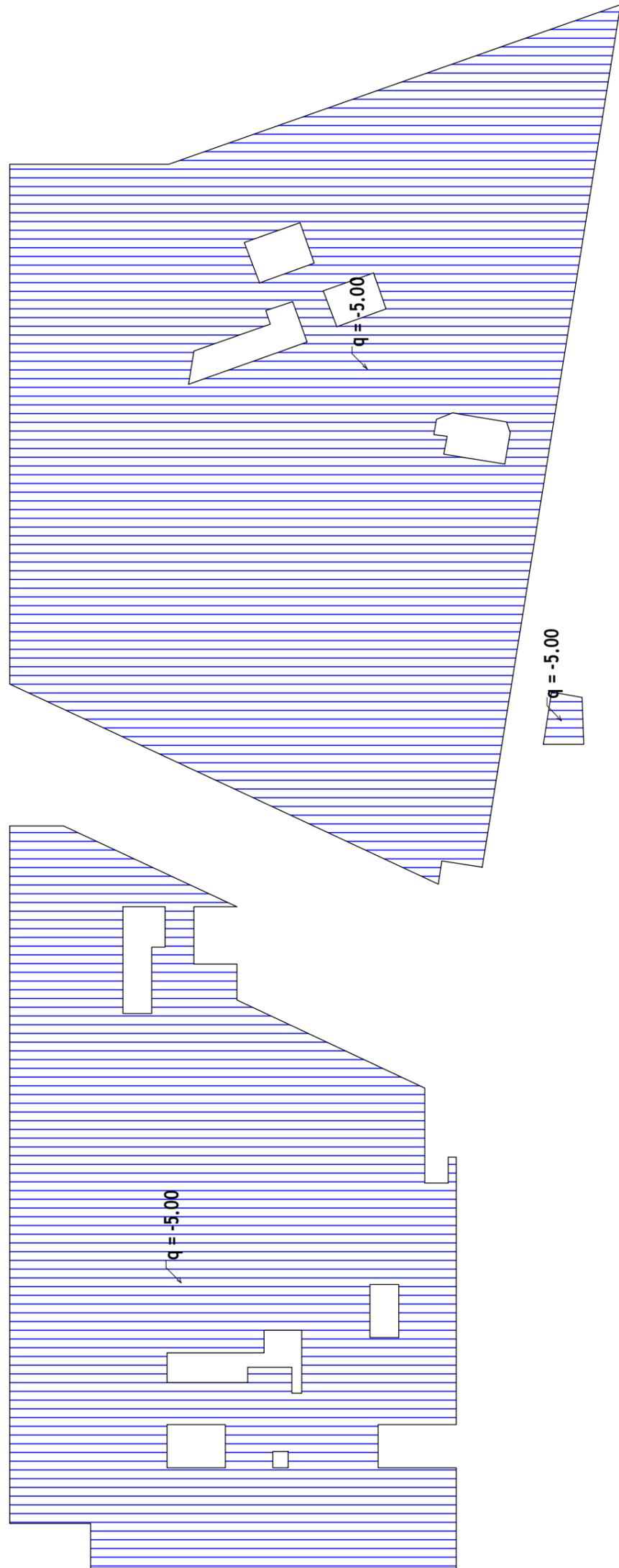


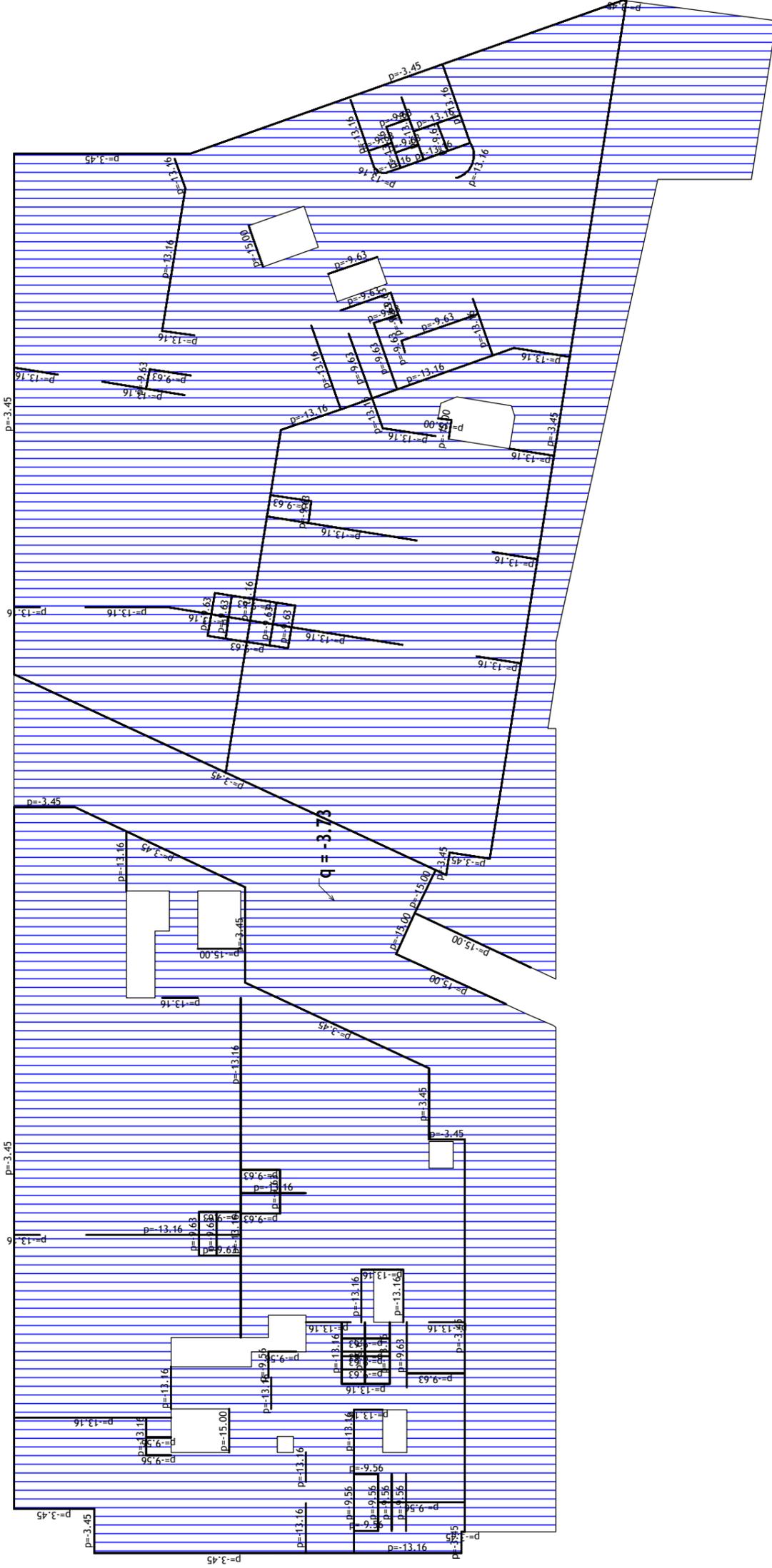


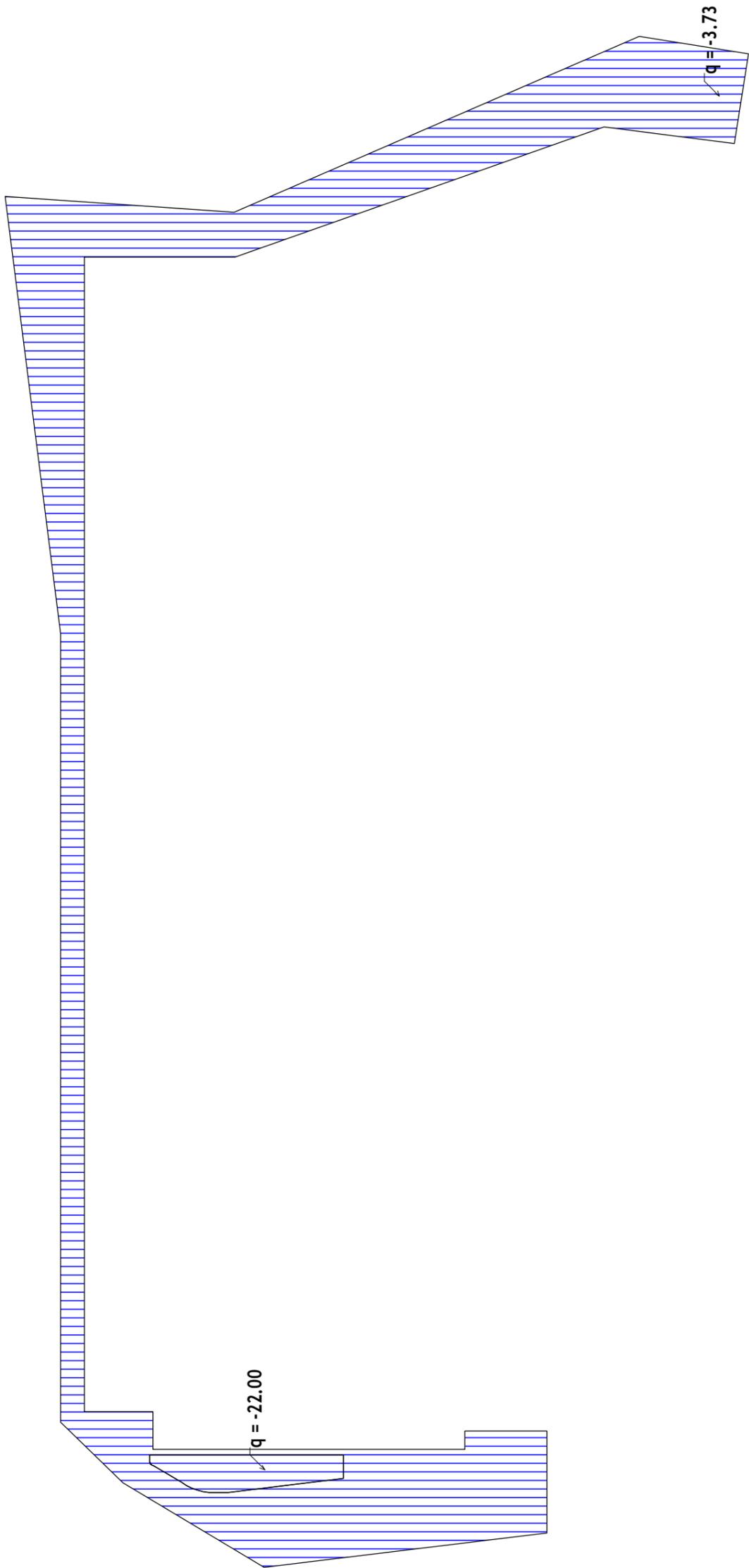


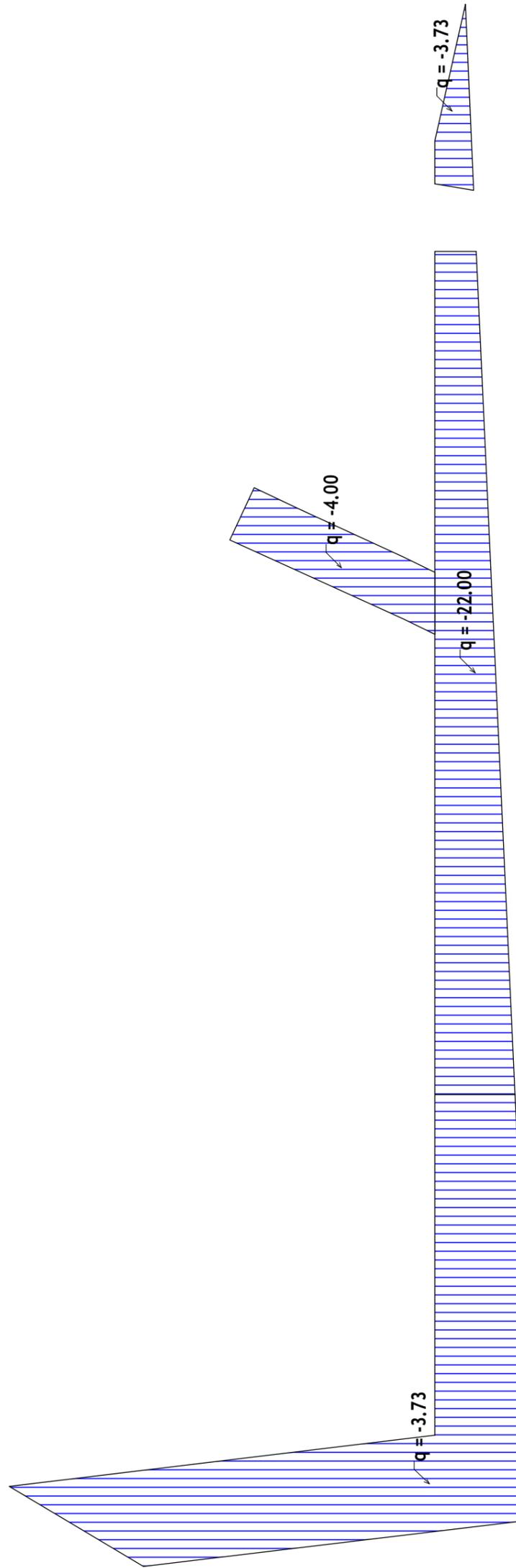


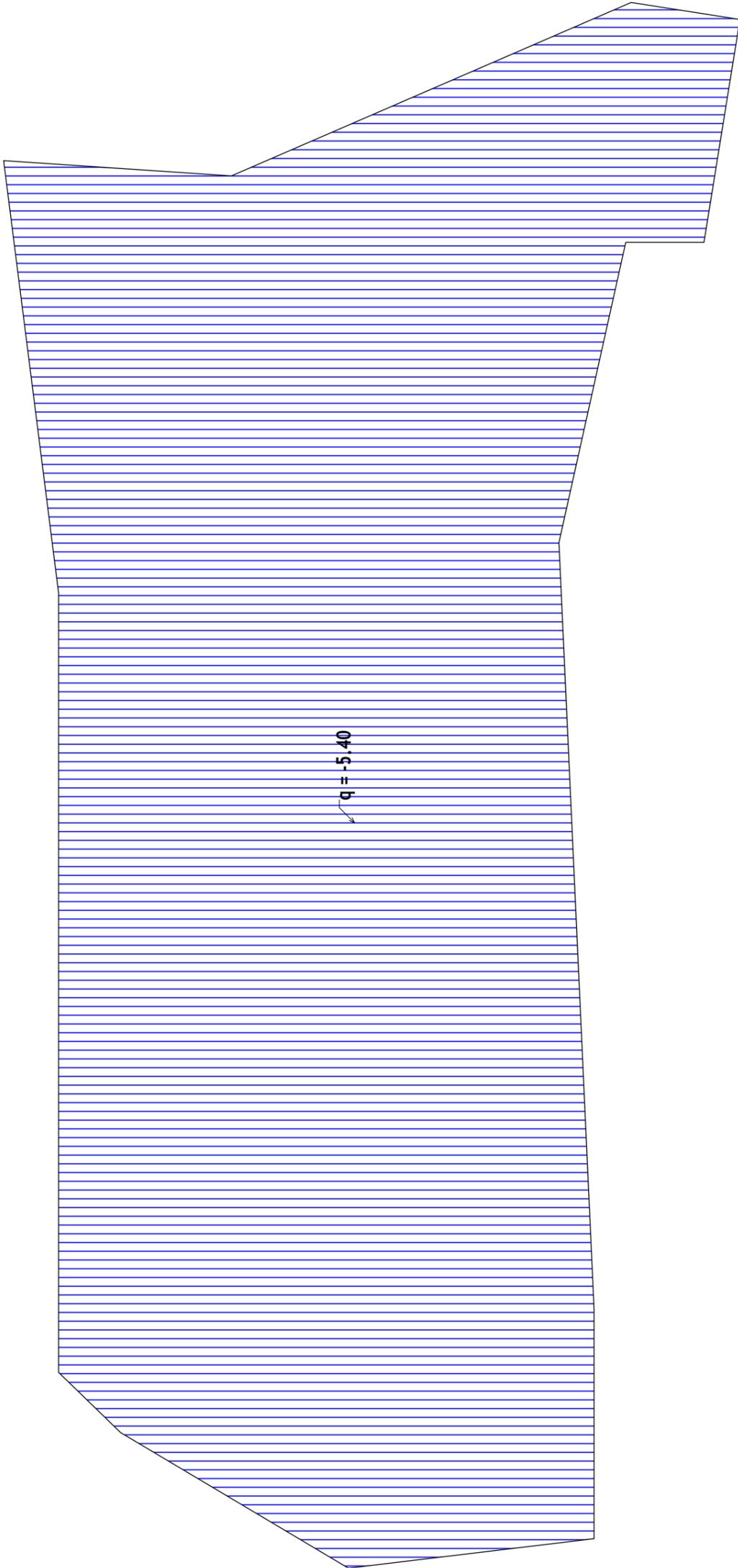


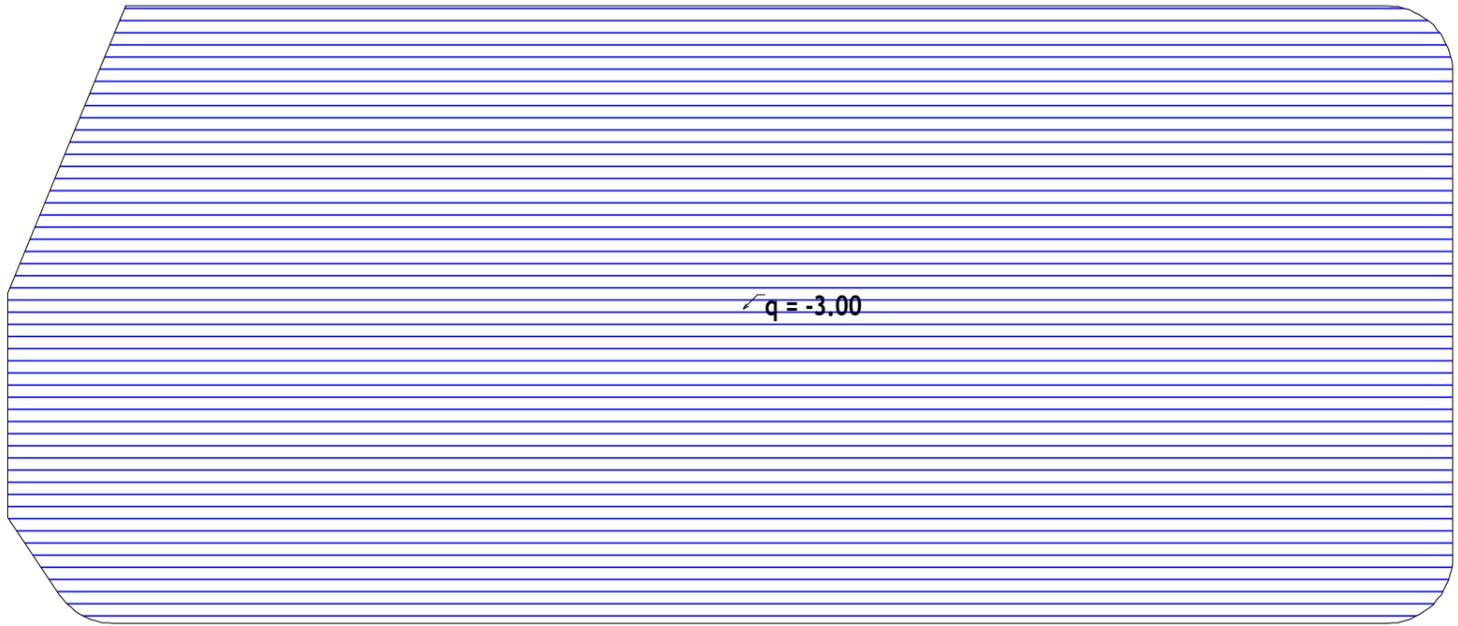




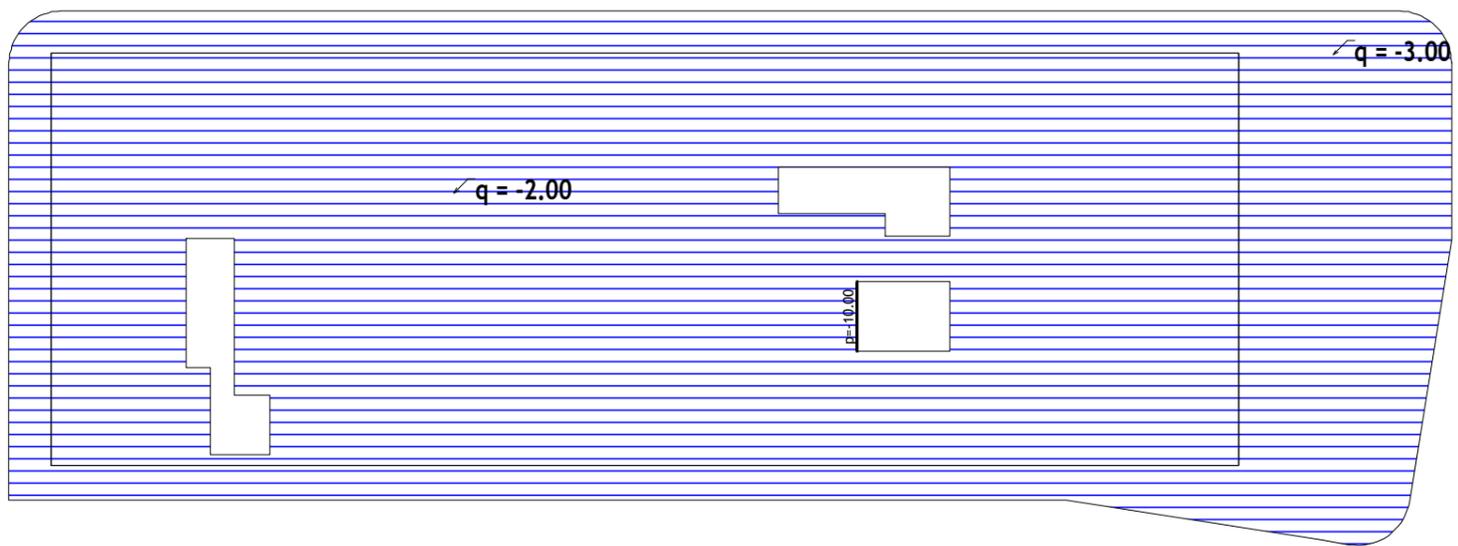




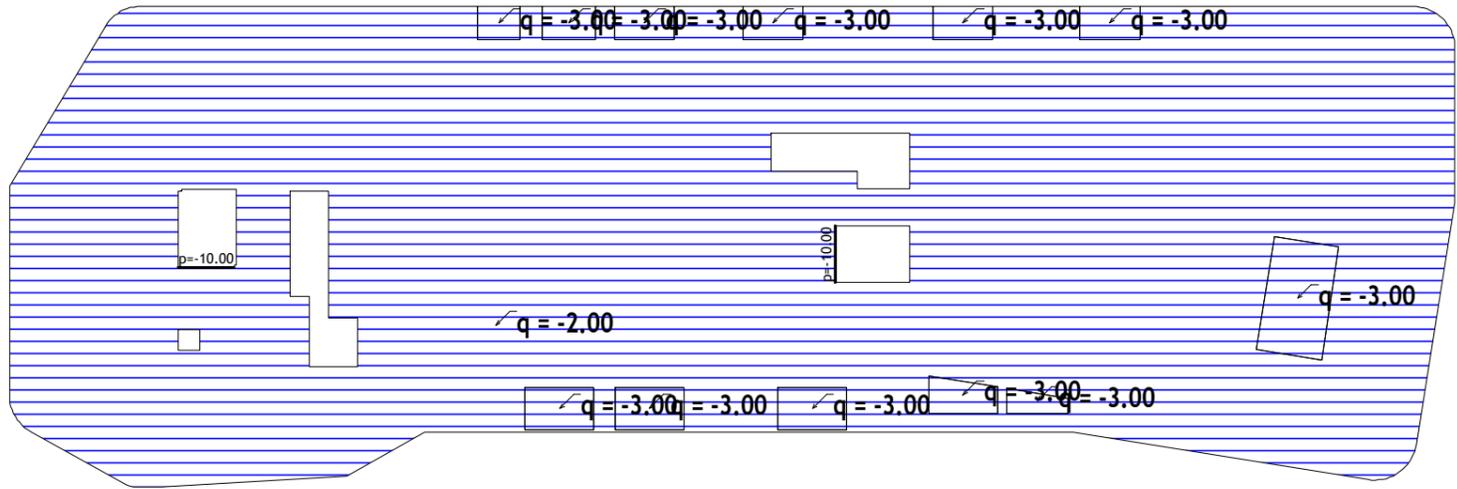




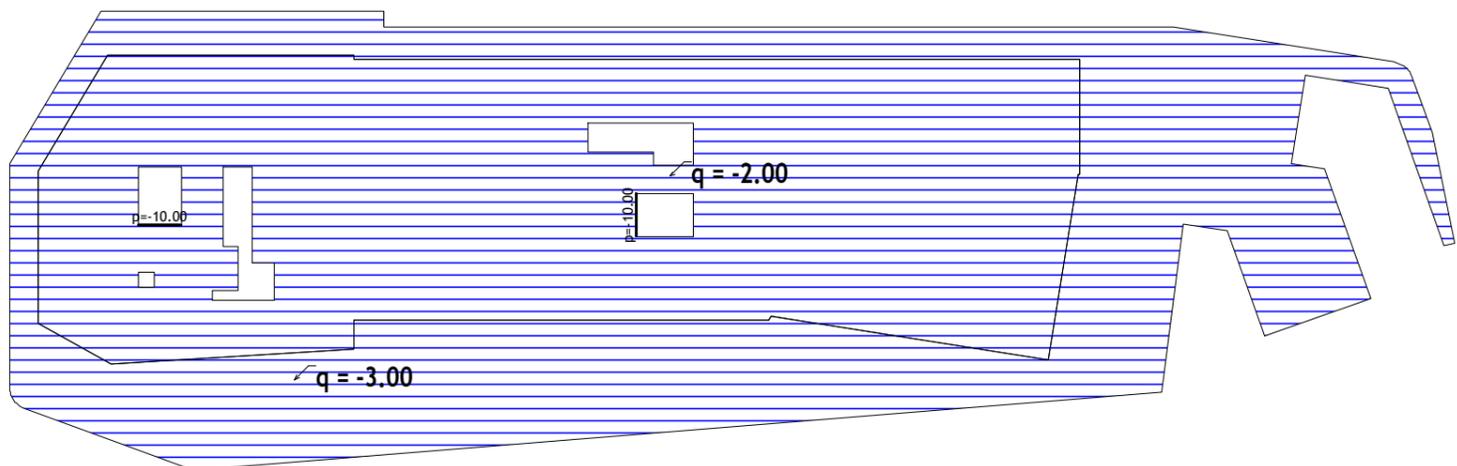
Nivo: P 1400 [52.85 m]  
Opt. 2: P



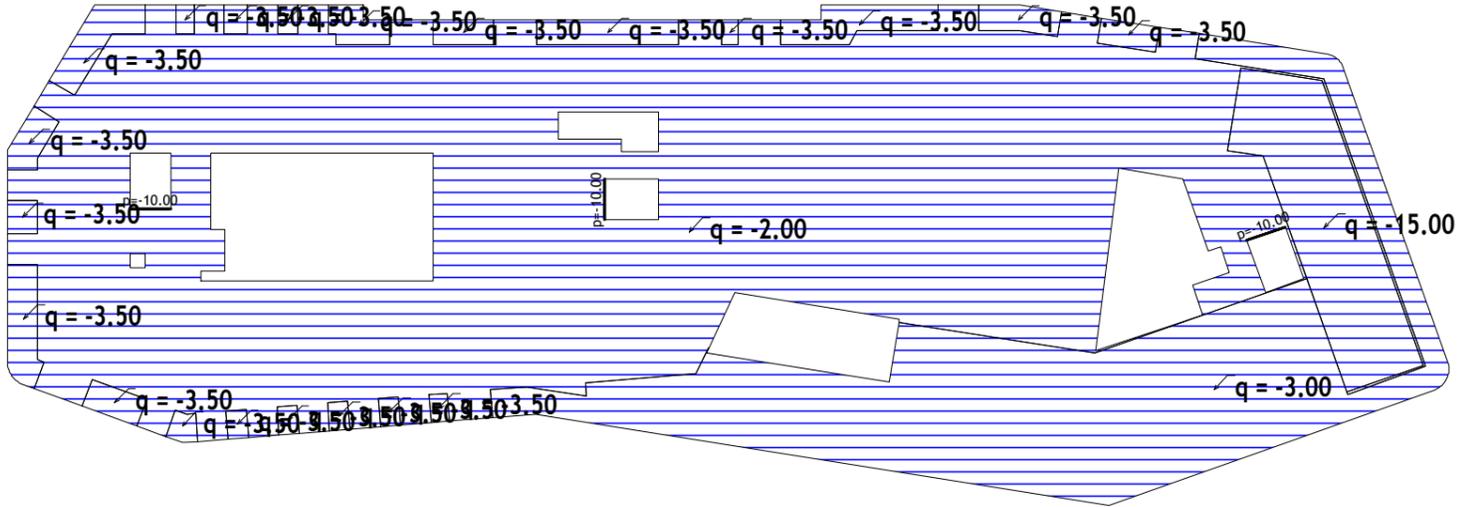
Nivo: P 1300 [49.35 m]



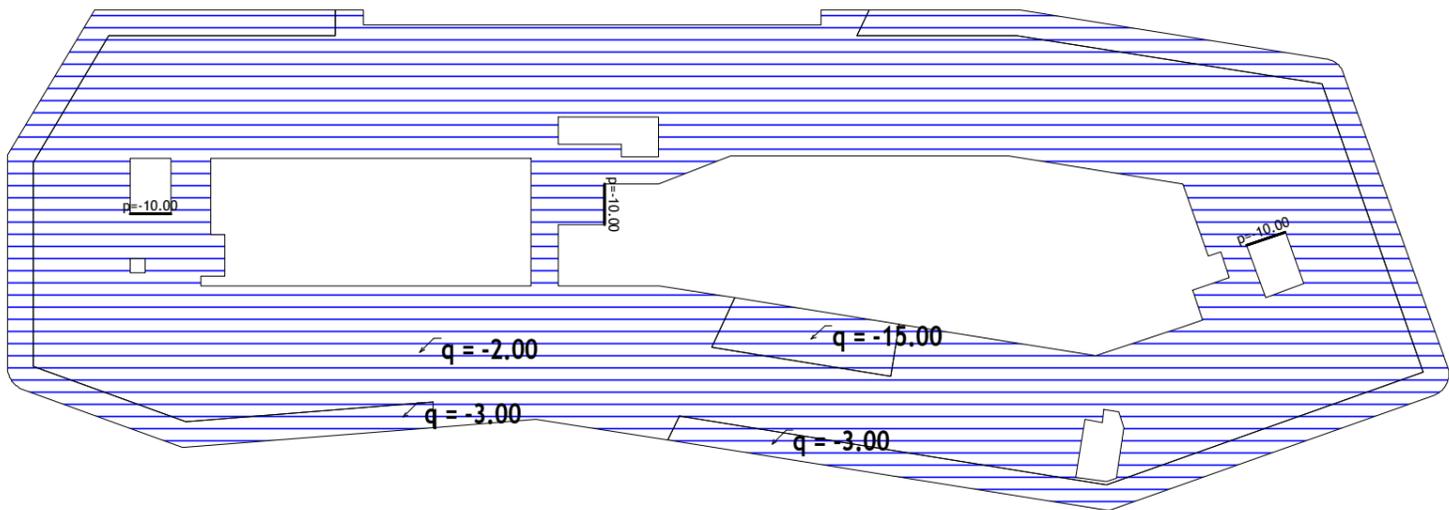
Nivo: P 1200 [45.85 m]  
Opt. 2: P



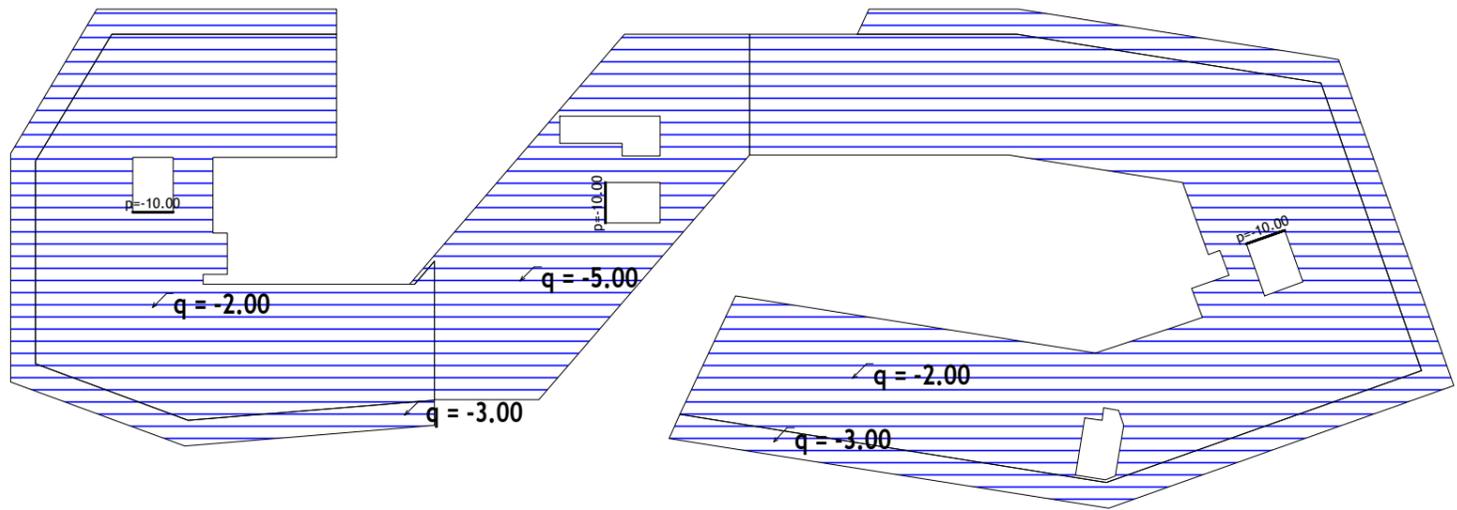
Nivo: P 1100 [42.35 m]



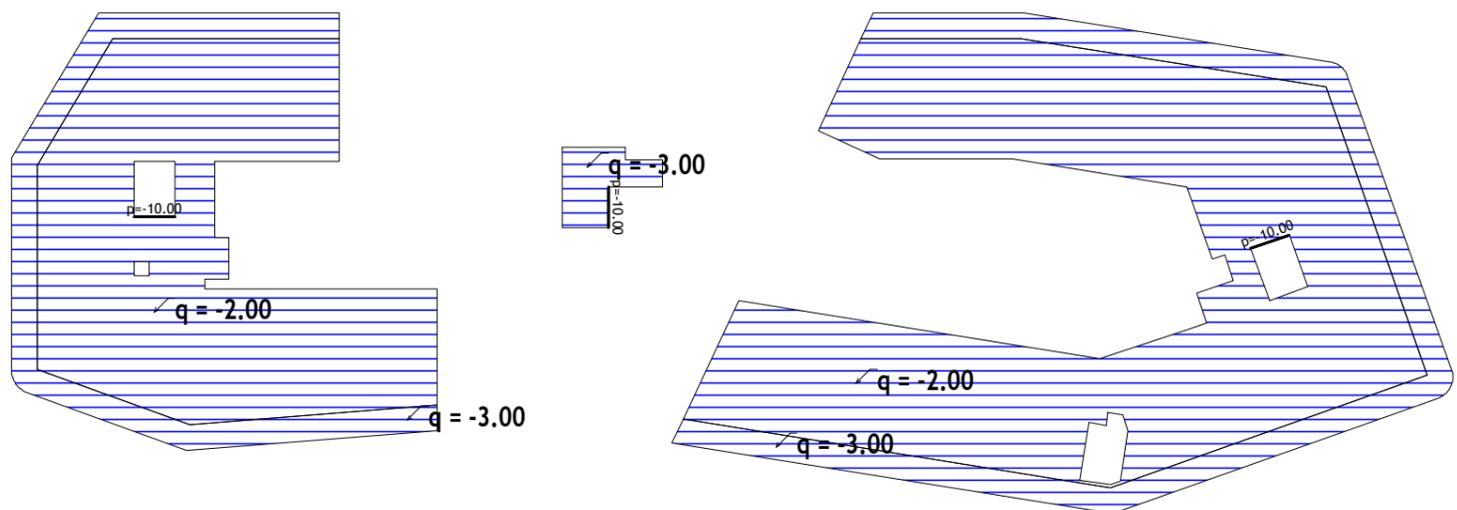
Nivo: P 1000 [38.15 m]  
Opt. 2: P



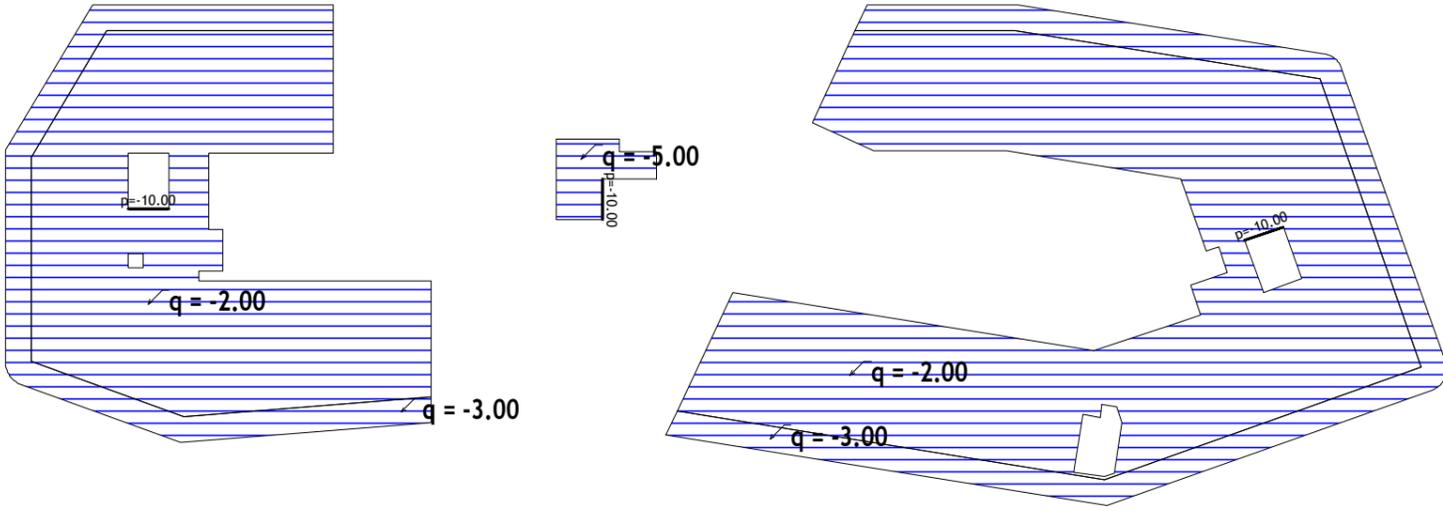
Nivo: P 900 [34.65 m]



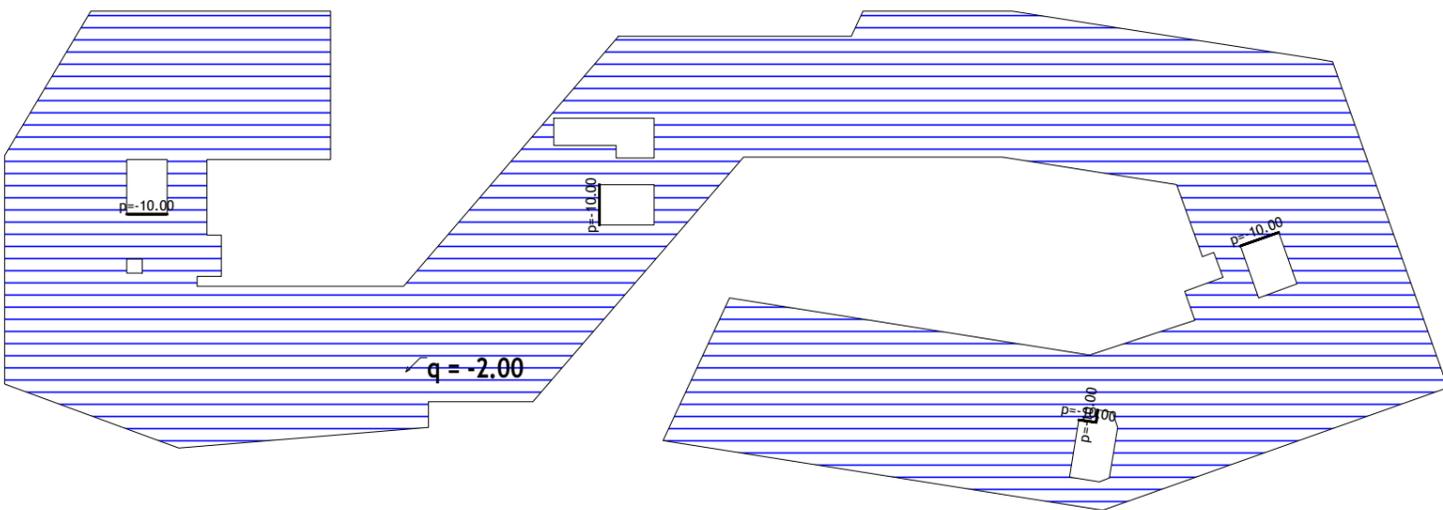
Nivo: P 700 [27.65 m]  
Opt. 2: P



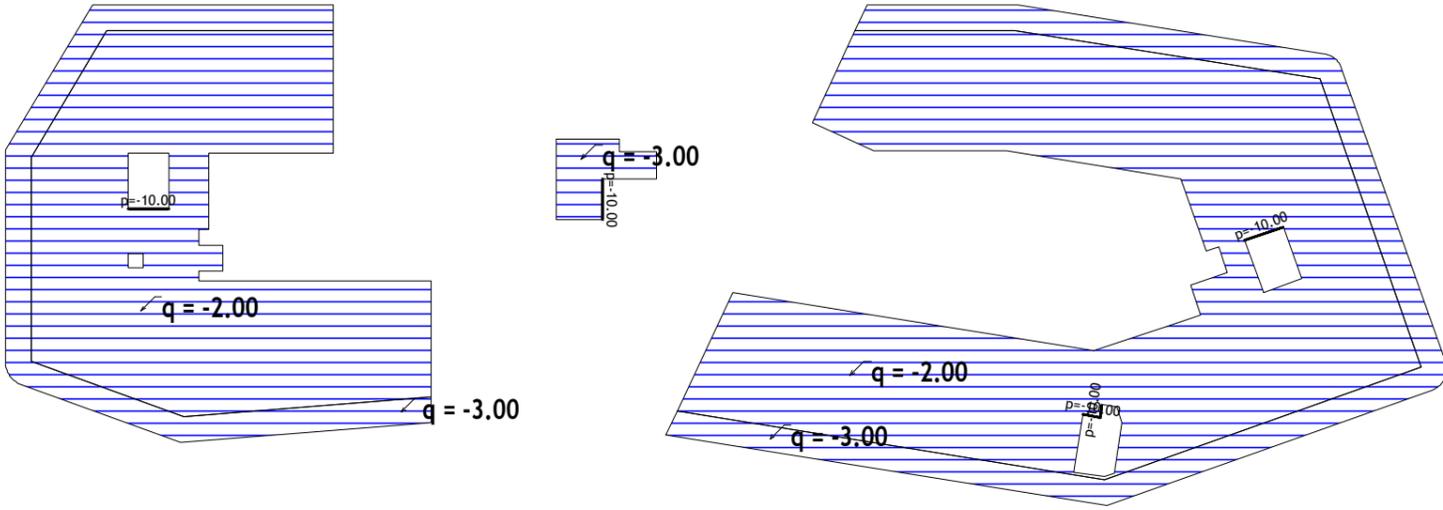
Nivo: P 800 [31.15 m]



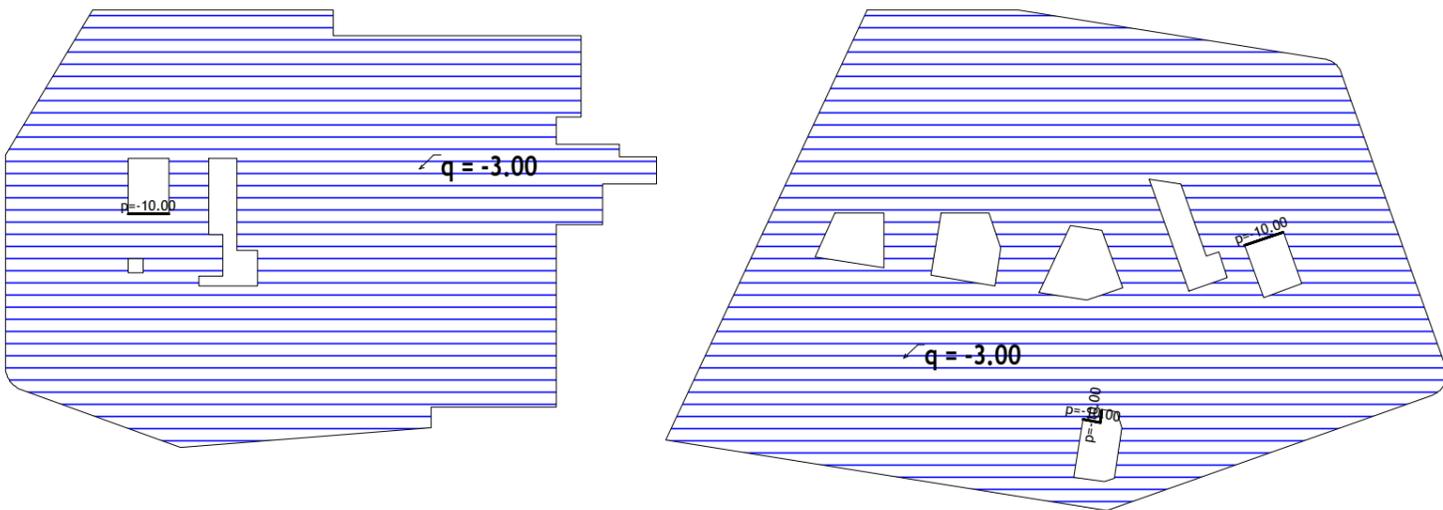
Nivo: P 600 [24.15 m]  
Opt. 2: P



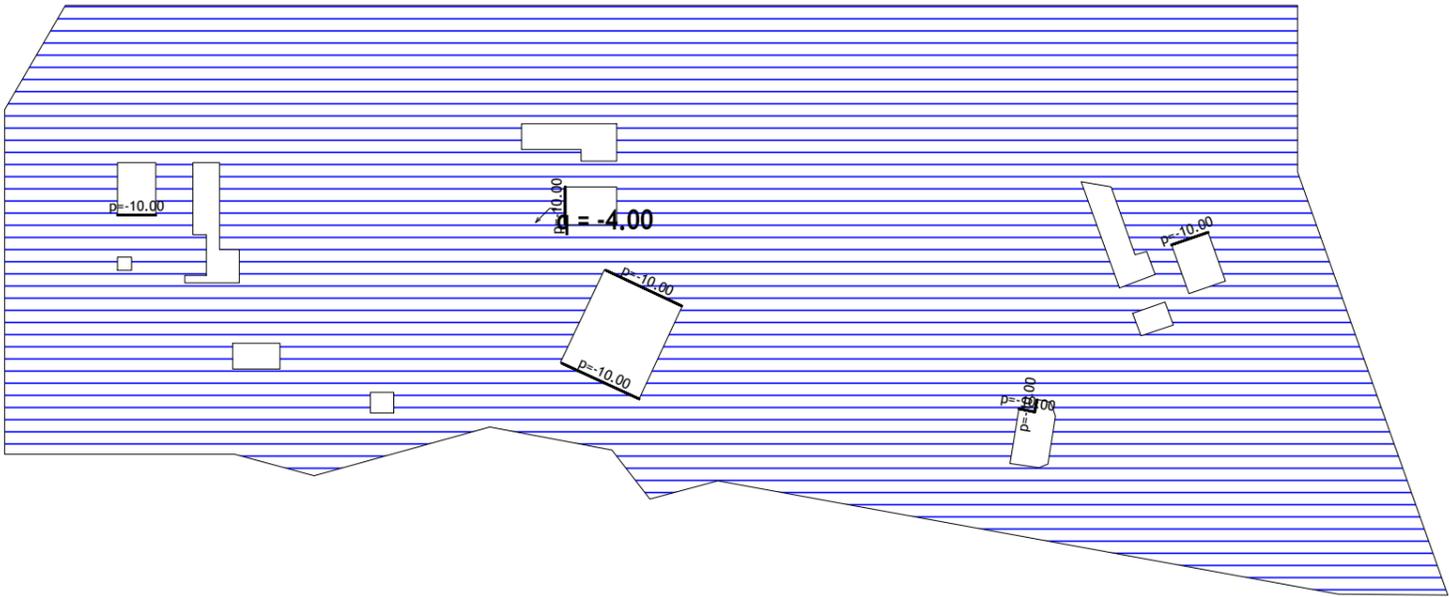
Nivo: P 500 [20.65 m]



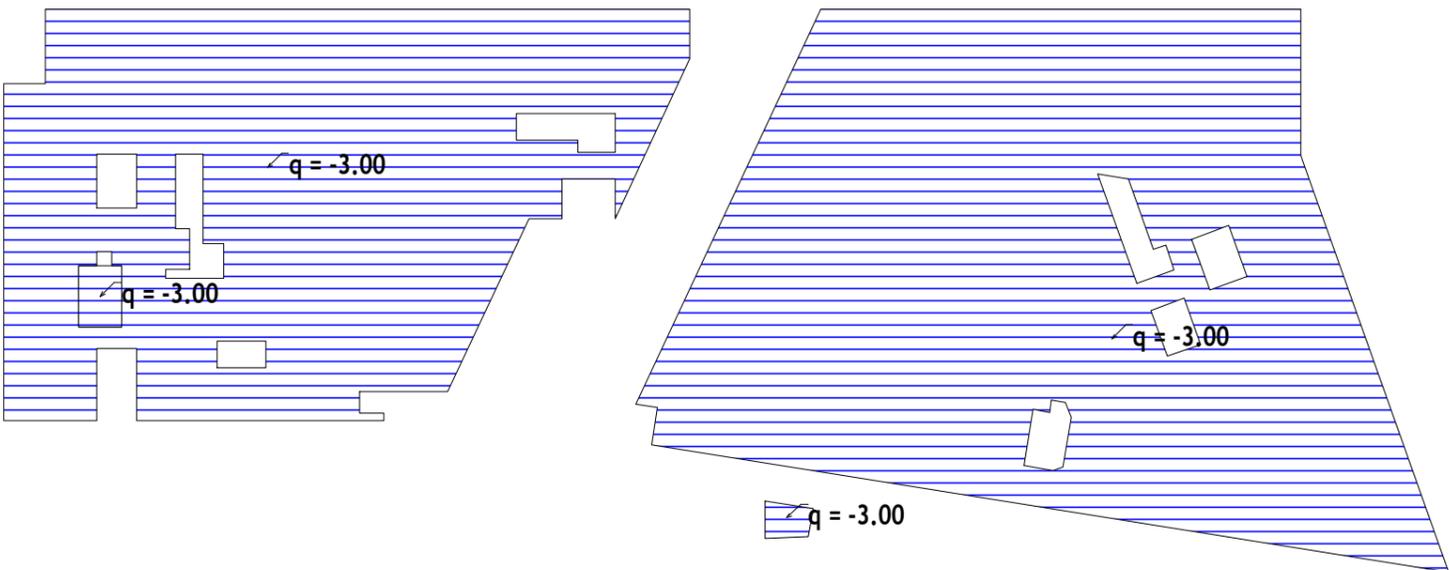
Nivo: P 400 [17.15 m]  
Opt. 2: P



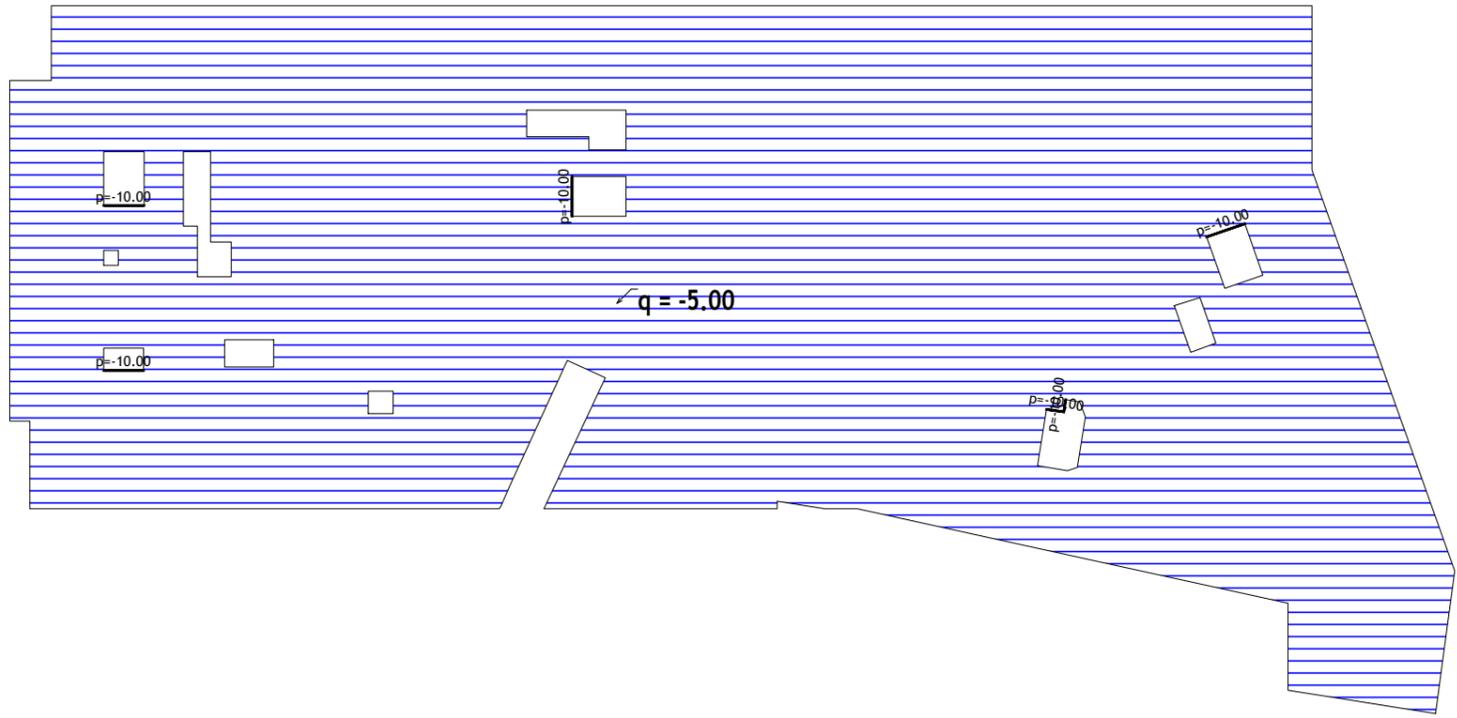
Nivo: P 300 [13.65 m]



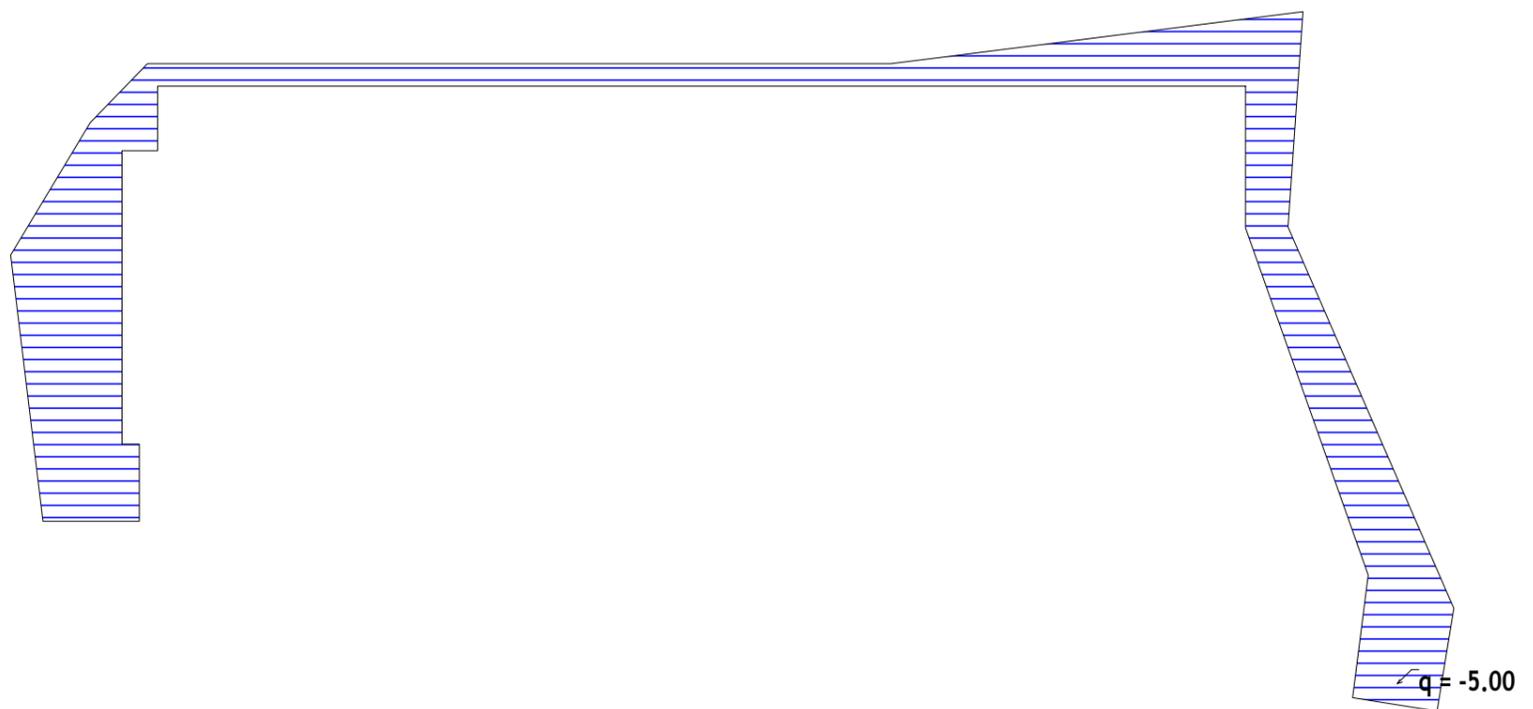
Nivo: P 200 [6.75 m]  
Opt. 2: P



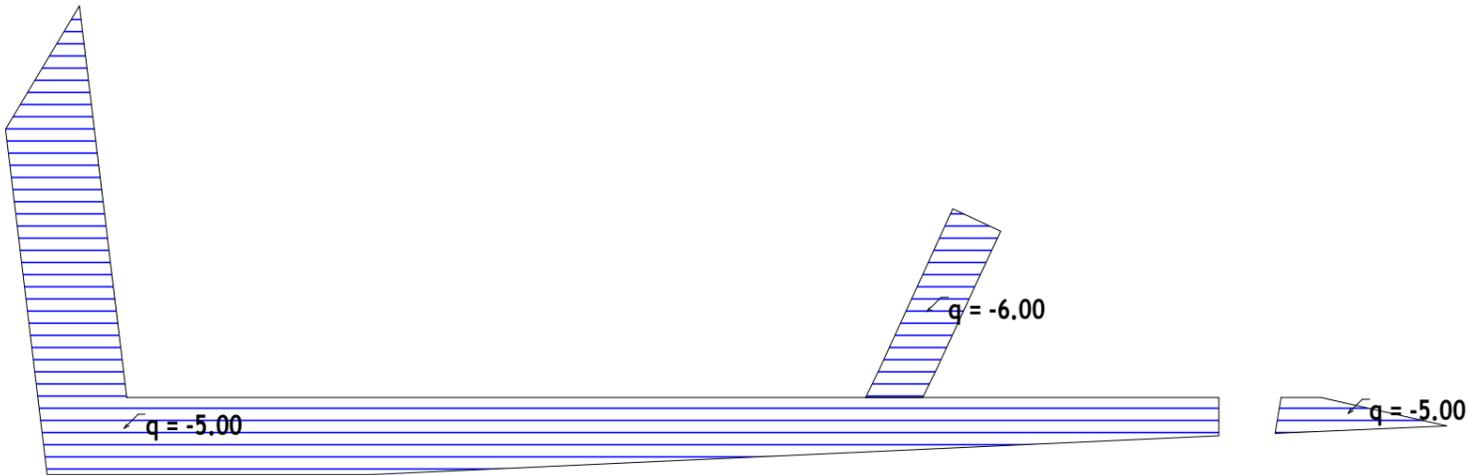
Nivo: P 100 [3.30 m]



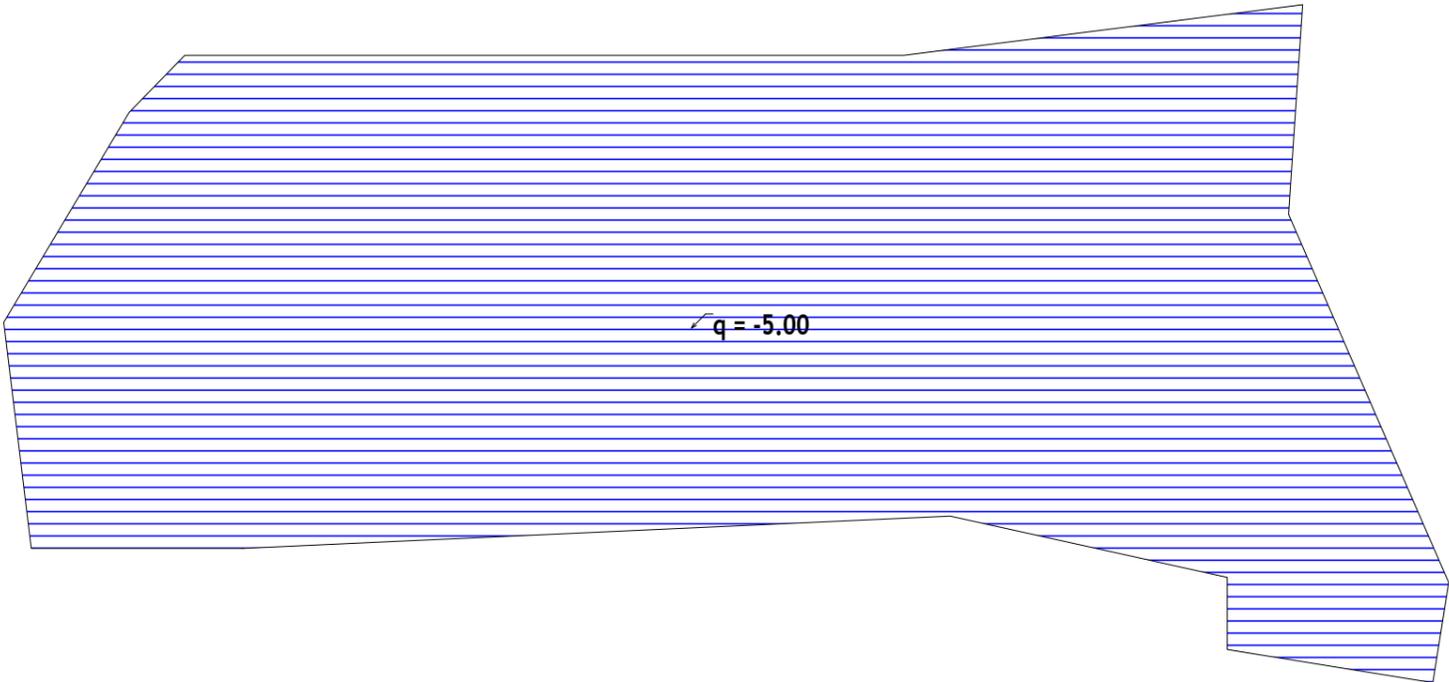
Nivo: P 000 [-0.15 m]  
Opt. 2: P



Nivo: [-0.90 m]



Nivo: [-1.15 m]  
Opt. 2: P



Nivo: P -100 [-5.70 m]

**Napredne opcije seizmičkog proračuna:**

Mase grupisane u nivoima izabranih tavanica  
 Multiplikator krutosti oslonaca: 100.000  
 Sadejstvo zidova: 6.000 x d  
 Sprečeno oscilovanje u Z pravcu

**Faktori opterećenja za proračun masa**

No	Naziv	Koeficijent
1	G (g)	1.00
2	P	0.30
3	P ( voda - dinamičko )	1.00

**Raspored masa po visini objekta**

Nivo	Z [m]	X [m]	Y [m]	Masa [T]	T/m²
P 1400	52.85	38.88	27.23	1347.36	1.16
P 1300	49.35	39.93	27.25	2217.63	1.53
P 1200	45.85	38.98	26.18	2898.52	1.48
P 1100	42.35	47.12	23.83	3991.05	1.42
P 1000	38.15	55.63	21.69	4754.87	1.47
P 900	34.65	52.38	21.35	4465.21	1.64
P 800	31.15	57.03	20.28	3724.80	1.80
P 700	27.65	55.42	20.89	4297.66	1.72
P 600	24.15	56.91	20.35	3771.03	1.82
P 500	20.65	55.53	20.90	4194.49	1.68
P 400	17.15	56.87	20.39	3787.31	1.83
P 300	13.65	55.02	20.83	5282.14	1.78
P 200	6.75	57.00	20.57	7623.94	1.75
P 100	3.30	57.00	20.51	5093.19	1.52
P 000	-0.15	54.13	17.25	32321.99	7.34
Ukupno:	15.95	53.68	20.08	89771.19	

**Položaj centara krutosti po visini objekta (tačna...)**

Nivo	Z [m]	X [m]	Y [m]
P 1400	52.85	38.40	25.82
P 1300	49.35	38.21	25.18
P 1200	45.85	40.98	25.49
P 1100	42.35	46.28	25.27
P 1000	38.15	44.24	25.28
P 900	34.65	43.71	25.51
P 800	31.15	43.90	25.35
P 700	27.65	43.99	25.49

Nivo	Z [m]	X [m]	Y [m]
P 600	24.15	44.64	25.00
P 500	20.65	44.79	25.38
P 400	17.15	45.42	24.57
P 300	13.65	44.61	24.29
P 200	6.75	48.04	23.96
P 100	3.30	50.23	22.46
P 000	-0.15	57.64	18.80

**Ekscentricitet po visini objekta (tačna metoda)**

Nivo	Z [m]	e <sub>ox</sub> [m]	e <sub>oy</sub> [m]
P 1400	52.85	0.48	1.41
P 1300	49.35	1.73	2.08
P 1200	45.85	2.00	0.69
P 1100	42.35	0.85	1.44
P 1000	38.15	11.38	3.59
P 900	34.65	8.66	4.15
P 800	31.15	13.13	5.07
P 700	27.65	11.42	4.60

Nivo	Z [m]	e <sub>ox</sub> [m]	e <sub>oy</sub> [m]
P 600	24.15	12.27	4.65
P 500	20.65	10.74	4.47
P 400	17.15	11.45	4.18
P 300	13.65	10.41	3.47
P 200	6.75	8.97	3.40
P 100	3.30	6.77	1.95
P 000	-0.15	3.51	1.55

**Periodi oscilovanja konstrukcije**

No	T [s]	f [Hz]
1	1.4869	0.6726
2	1.1838	0.8447
3	0.9551	1.0470
4	0.4089	2.4453
5	0.3727	2.6830
6	0.3267	3.0613

No	T [s]	f [Hz]
7	0.2548	3.9246
8	0.2417	4.1371
9	0.2349	4.2572
10	0.2094	4.7759
11	0.2018	4.9551
12	0.1733	5.7709

No	T [s]	f [Hz]
13	0.1537	6.5071
14	0.1484	6.7386
15	0.1379	7.2493
16	0.1361	7.3479
17	0.1308	7.6424
18	0.1219	8.2057

**Regularnost u osnovi**

Z [m]	e <sub>ox</sub> [m]	e <sub>oy</sub> [m]	r <sub>x</sub> [m]	r <sub>y</sub> [m]	l <sub>s</sub> [m]	e <sub>ox</sub> <= 0.3r <sub>x</sub>	e <sub>oy</sub> <= 0.3r <sub>y</sub>	r <sub>x</sub> > l <sub>s</sub>	r <sub>y</sub> > l <sub>s</sub>
52.85	0.48	1.41	27.30	31.63	16.13	Da	Da	Da	Da
49.35	1.73	2.08	32.74	39.35	19.42	Da	Da	Da	Da
45.85	2.00	0.69	35.76	43.60	23.91	Da	Da	Da	Da
42.35	0.85	1.44	37.67	47.37	31.53	Da	Da	Da	Da
38.15	11.38	3.59	40.39	47.57	34.14	Da	Da	Da	Da
34.65	8.66	4.15	39.00	47.70	33.84	Da	Da	Da	Da
31.15	13.13	5.07	40.08	47.46	36.89	Ne	Da	Da	Da
27.65	11.42	4.60	38.19	46.19	34.92	Da	Da	Da	Da
24.15	12.27	4.65	37.99	45.81	36.68	Ne	Da	Da	Da
20.65	10.74	4.47	36.19	44.12	34.79	Da	Da	Da	Da
17.15	11.45	4.18	36.42	44.32	36.60	Ne	Da	Ne	Da
13.65	10.41	3.47	35.46	43.45	34.84	Da	Da	Da	Da
6.75	8.97	3.40	31.81	34.56	33.97	Da	Da	Ne	Da
3.30	6.77	1.95	28.16	30.11	35.05	Da	Da	Ne	Ne
-0.15	3.51	1.55	43.15	37.21	38.87	Da	Da	Da	Ne

# Seizmički proračun

Seizmički proračun: EC8 (EN 1998)

Kategorija tla: C  
 Kategorija značaja: II ( $\gamma=1.0$ )  
 Odnos  $ag/g$ : 0.35  
 Koeficijent prigušenja: 0.05  
 Slučajni ekscentricitet spratne mase:  $e_i = \pm 0.050 \times L_i$

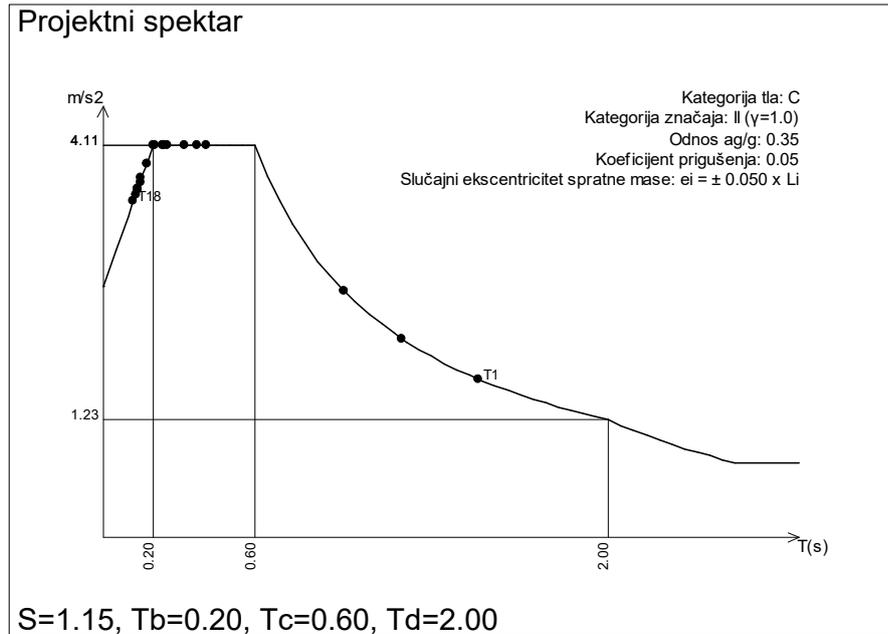
## Faktori pravca zemljotresa:

Slučaj opterećenja	Ugao $\alpha$ [°]	$k, \alpha$	$k, \alpha+90^\circ$	$k_z$	Faktor q
sx	7	1.000	0.000	0.000	2.400*
sy	98	1.000	0.000	0.000	2.400*

## Tip spektra

Slučaj opterećenja	S	Tb	Tc	Td	avg/ag
sx	1.150	0.200	0.600	2.000	1.000
sy	1.150	0.200	0.600	2.000	1.000

## Projektni spektar



sx (+e)

Konstrukcija neregularna po visini, Duktilni sistemi nepovezanih zidova, Klasa duktilnosti DCM:

$q_0=3.0$

Okvirni i dvojni dominantno okvirni sistem:  $\alpha_0=2.00$ ,  $k_w=1.00$ .

Faktor ponašanja:  $q=0.8 \cdot q_0 \cdot k_w=2.40$

Nivo	Z [m]	Ton 1			Ton 2			Ton 3		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	3334.3	343.32	7.54	4.68	-21.29	0.34	26.13	114.78	-1.45
P 1300	49.35	5167.4	555.04	3.90	7.21	-33.55	0.48	40.17	167.66	-1.84
P 1200	45.85	6330.1	679.86	12.20	8.24	-40.61	0.48	38.26	210.03	-1.17
P 1100	42.35	8120.9	1018.7	30.20	9.00	-55.63	0.61	19.80	165.98	2.79
P 1000	38.15	8870.1	1279.7	25.40	8.25	-65.87	-0.01	-8.56	53.11	2.23
P 900	34.65	7699.6	1037.9	52.05	6.87	-54.81	-0.18	-14.12	74.34	1.60
P 800	31.15	5784.0	826.66	31.84	4.59	-42.84	-0.32	-22.44	9.37	1.69
P 700	27.65	5791.2	806.11	37.27	4.74	-42.37	-0.25	-19.13	18.05	1.61
P 600	24.15	4324.0	616.29	29.66	3.25	-32.11	-0.27	-19.79	-0.24	1.50
P 500	20.65	3898.7	537.94	33.72	3.06	-28.69	-0.16	-14.67	4.34	1.31
P 400	17.15	2742.8	393.79	24.72	2.04	-20.67	-0.21	-12.97	-5.10	1.40
P 300	13.65	2765.9	375.10	35.78	2.26	-20.71	-0.12	-9.71	-0.15	0.36
P 200	6.75	1477.5	213.09	23.05	1.19	-12.33	-0.06	-1.64	-9.17	-1.03
P 100	3.30	424.84	64.89	11.02	0.39	-3.88	-0.05	0.00	-2.78	-0.90
P 000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-0.15	319.60	49.83	18.84	0.33	-4.29	-0.09	-0.62	7.20	0.02
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	$\Sigma=$	67051	8798.2	377.21	66.10	-479.65	0.18	0.70	807.45	8.12

Nivo	Z [m]	Ton 4			Ton 5			Ton 6		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	3636.59	569.05	-96.34	-94.66	1247.04	29.77	1221.68	152.51	8.87
P 1300	49.35	4706.90	662.82	-104.00	-115.40	1567.30	36.17	1443.00	261.95	33.95
P 1200	45.85	4374.09	553.87	-96.26	-179.87	1081.58	26.65	1021.96	55.66	44.13
P 1100	42.35	3587.19	16.54	-147.24	-230.41	-289.87	40.26	-196.65	-252.38	17.59
P 1000	38.15	1238.20	-544.16	-84.09	-46.28	471.59	-1.03	764.89	-236.05	17.75
P 900	34.65	973.65	-514.65	-153.33	66.08	867.39	7.02	1158.6	-70.75	6.15
P 800	31.15	3065.7	-302.51	-26.69	123.25	944.01	-4.38	1021.2	-241.79	-18.02
P 700	27.65	5586.1	-562.58	-33.63	235.84	1382.4	0.95	1339.8	70.54	-18.78
P 600	24.15	6540.8	-288.78	-20.24	217.93	1268.5	1.89	866.62	-121.19	-8.05
P 500	20.65	7588.8	-525.33	-21.17	291.08	1473.6	4.74	1075.2	202.50	-7.25
P 400	17.15	6926.4	-203.30	-8.63	235.25	1189.7	5.57	636.95	-63.49	1.71

P 300	13.65	8004.5	-429.66	-3.73	296.10	1423.3	3.07	895.81	159.60	-6.23
P 200	6.75	4947.2	-272.58	27.03	235.93	1050.9	13.95	889.00	57.75	-1.83
P 100	3.30	1543.1	-45.64	13.87	75.76	355.25	2.00	320.45	-42.00	-2.51
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	1352.3	-165.10	4.64	72.69	486.49	-5.04	333.71	23.69	-6.32
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	28986.2	2052.02	-749.81	1183.3	6727.3	161.60	5418.9	-43.47	61.15

Nivo	Z [m]	Ton 7			Ton 8			Ton 9		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	69.91	520.62	-2.77	60.49	-59.09	8.74	261.36	-164.67	2.49
P 1300	49.35	85.03	492.55	3.67	70.26	-20.60	16.42	276.33	-97.14	-0.82
P 1200	45.85	58.32	211.63	18.90	88.35	-158.05	19.17	152.99	7.74	-3.94
P 1100	42.35	-18.60	-337.21	42.98	55.81	-421.39	7.14	-73.47	74.59	-16.94
P 1000	38.15	-109.66	-771.32	28.83	-72.46	-480.63	-0.53	-401.51	147.48	-8.65
P 900	34.65	-116.48	-608.35	12.61	-101.48	-199.88	-14.52	-463.90	210.53	-11.20
P 800	31.15	-96.63	-404.17	7.91	-100.52	53.59	-13.63	-326.66	-47.87	2.58
P 700	27.65	-56.79	-220.96	5.71	-105.32	280.95	-12.73	-210.11	111.02	0.95
P 600	24.15	-12.39	5.23	3.01	-46.94	487.51	-9.25	2.45	-106.00	0.88
P 500	20.65	65.16	207.53	0.75	-25.12	641.70	-7.25	200.13	58.34	-2.76
P 400	17.15	111.30	309.45	-0.89	29.03	691.22	-4.00	366.18	-121.59	-0.94
P 300	13.65	178.93	465.72	-0.30	57.47	886.81	-0.22	484.63	-7.61	-1.27
P 200	6.75	168.29	540.48	12.46	32.16	741.92	11.89	239.89	42.65	-0.25
P 100	3.30	58.99	189.96	5.19	7.59	284.55	2.80	68.47	0.20	-2.98
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	84.46	141.73	0.52	-5.05	481.58	4.09	59.81	33.56	-4.47
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	469.83	742.89	138.58	-55.73	3210.2	8.12	636.58	141.22	-47.32

Nivo	Z [m]	Ton 10			Ton 11			Ton 12		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	1897.5	-304.03	84.00	943.49	-278.85	-14.29	316.23	736.59	-17.36
P 1300	49.35	1932.9	-312.80	125.56	969.69	-90.89	-71.08	281.57	332.14	-26.31
P 1200	45.85	832.22	76.14	121.08	495.84	43.00	-110.77	36.35	-269.35	-12.76
P 1100	42.35	-931.67	809.30	209.23	-317.18	43.83	-132.59	-348.30	-533.68	-24.60
P 1000	38.15	2659.69	919.01	161.22	1365.88	63.80	-69.89	-482.67	-502.80	-29.96
P 900	34.65	2891.77	367.06	129.35	1493.93	193.08	9.00	-394.53	-503.66	-31.31
P 800	31.15	2372.85	241.67	54.08	1268.07	9.26	-25.60	-105.38	-93.90	-14.67
P 700	27.65	1752.57	-655.67	37.63	-782.64	482.85	-7.19	75.90	5.85	-16.76
P 600	24.15	-194.56	-325.72	24.15	-58.62	-18.08	14.69	214.07	148.89	-13.40
P 500	20.65	1515.3	1135.58	-11.66	868.46	244.03	38.78	266.85	386.13	-8.25
P 400	17.15	2884.3	-491.13	-4.27	1273.9	-252.10	42.33	210.23	322.78	-4.52
P 300	13.65	4847.6	-869.97	-33.14	2122.7	-454.84	39.25	251.85	586.76	-0.77
P 200	6.75	4516.0	1124.88	34.86	2403.1	-266.84	-19.66	162.14	574.05	-8.24
P 100	3.30	1656.8	-432.95	21.51	896.84	-59.48	-2.53	51.15	197.14	-5.66
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	1735.9	-844.37	27.52	982.80	-171.46	21.47	51.29	561.76	-6.03
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	11015.4	4083.92	981.11	5670.5	-512.67	-288.08	586.73	1948.7	-220.60

Nivo	Z [m]	Ton 13			Ton 14			Ton 15		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-587.59	870.14	-0.83	-114.80	-303.27	-10.87	-122.55	1121.80	-16.53
P 1300	49.35	-462.11	178.39	-0.48	-49.33	5.23	-27.67	-122.61	-307.92	-41.16
P 1200	45.85	55.12	-468.95	-4.15	113.98	-140.05	29.94	-57.62	1350.2	-146.65
P 1100	42.35	899.51	-681.58	0.83	138.42	76.46	17.01	243.54	2016.0	-124.05
P 1000	38.15	1250.0	-423.42	-11.14	457.69	333.97	11.54	240.03	985.09	-57.60
P 900	34.65	721.31	-313.67	11.97	233.58	225.59	42.41	143.10	-339.16	-35.36
P 800	31.15	-280.63	-50.81	-23.36	-210.48	574.96	42.33	26.88	1128.46	8.25
P 700	27.65	-929.22	93.11	-16.23	-502.45	173.77	33.10	-188.21	1896.77	2.33
P 600	24.15	1166.05	240.10	-13.15	-736.30	130.31	34.27	-375.52	1490.11	-5.71
P 500	20.65	-717.38	296.30	-2.97	-351.46	-280.81	26.98	-359.46	-859.14	-1.86
P 400	17.15	-6.64	394.57	-4.21	35.30	-425.86	19.70	-168.18	156.65	-6.05
P 300	13.65	746.47	503.24	5.00	807.20	-766.41	33.06	432.12	1521.6	-26.86
P 200	6.75	1346.1	495.13	16.26	1778.4	1041.02	-6.59	1736.0	3697.7	-27.79
P 100	3.30	562.66	282.15	5.42	769.81	-457.90	4.58	797.54	1671.3	-6.96
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	617.79	588.29	36.06	1013.1	1071.03	16.09	1205.6	3078.3	5.38
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	2049.4	2003.0	-0.98	3382.7	2966.06	265.88	3430.6	7333.6	-480.61

Nivo	Z [m]	Ton 16			Ton 17			Ton 18		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-317.21	20.26	1.38	-363.92	338.15	-4.66	-173.84	-286.71	-8.30
P 1300	49.35	-230.24	16.13	6.02	-291.49	59.62	48.40	-106.93	-15.35	-22.10
P 1200	45.85	82.57	-80.85	29.12	31.89	-398.99	96.41	86.71	420.80	-73.65
P 1100	42.35	482.58	58.79	25.47	489.85	-766.69	57.42	334.32	176.70	-57.32
P 1000	38.15	634.39	158.71	5.16	703.11	-525.80	-30.95	217.97	-292.15	-31.47
P 900	34.65	324.99	49.24	17.60	419.99	233.30	-119.52	63.64	-209.86	-17.38
P 800	31.15	-177.96	-18.85	1.17	191.04	139.22	-47.51	-99.23	-77.94	-7.01
P 700	27.65	-599.80	-55.54	6.68	-566.88	660.16	-71.80	-245.16	113.36	-1.55
P 600	24.15	-530.31	-177.80	9.20	-995.91	671.37	-82.00	-270.83	212.02	6.68
P 500	20.65	-382.38	-61.06	4.89	-1305.22	537.84	-92.37	-228.08	179.71	8.13
P 400	17.15	143.13	-127.17	8.35	-891.57	343.12	-66.33	3.11	153.90	8.51

P 300	13.65	456.68	4.81	-11.38	733.63	-244.11	-60.82	249.71	-74.96	4.54
P 200	6.75	381.81	288.96	7.44	5670.0	1932.88	-26.68	508.10	-698.82	-9.79
P 100	3.30	157.95	108.63	0.53	2736.2	-829.03	-7.18	248.46	-369.57	-2.35
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	208.12	222.57	-3.66	3838.1	1901.28	14.22	324.64	-765.83	-10.29
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	634.33	406.84	107.97	10399	3616.02	-393.36	912.59	1534.70	-213.35

sx (-e)

Konstrukcija neregularna po visini, Duktilni sistemi nepovezanih zidova, Klasa duktilnosti DCM:

qo=3.0

Okvirni i dvojni dominantno okvirni sistem: αo=2.00, kw=1.00.

Faktor ponašanja: q=0.8·qo·kw=2.40

Nivo	Z [m]	Ton 1			Ton 2			Ton 3		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	3334.3	343.32	7.54	4.68	-21.29	0.34	26.13	114.78	-1.45
P 1300	49.35	5167.4	555.04	3.90	7.21	-33.55	0.48	40.17	167.66	-1.84
P 1200	45.85	6330.1	679.86	12.20	8.24	-40.61	0.48	38.26	210.03	-1.17
P 1100	42.35	8120.9	1018.7	30.20	9.00	-55.63	0.61	19.80	165.98	2.79
P 1000	38.15	8870.1	1279.7	25.40	8.25	-65.87	-0.01	-8.56	53.11	2.23
P 900	34.65	7699.6	1037.9	52.05	6.87	-54.81	-0.18	-14.12	74.34	1.60
P 800	31.15	5784.0	826.66	31.84	4.59	-42.84	-0.32	-22.44	9.37	1.69
P 700	27.65	5791.2	806.11	37.27	4.74	-42.37	-0.25	-19.13	18.05	1.61
P 600	24.15	4324.0	616.29	29.66	3.25	-32.11	-0.27	-19.79	-0.24	1.50
P 500	20.65	3898.7	537.94	33.72	3.06	-28.69	-0.16	-14.67	4.34	1.31
P 400	17.15	2742.8	393.79	24.72	2.04	-20.67	-0.21	-12.97	-5.10	1.40
P 300	13.65	2765.9	375.10	35.78	2.26	-20.71	-0.12	-9.71	-0.15	0.36
P 200	6.75	1477.5	213.09	23.05	1.19	-12.33	-0.06	-1.64	-9.17	-1.03
P 100	3.30	424.84	64.89	11.02	0.39	-3.88	-0.05	0.00	-2.78	-0.90
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	319.60	49.83	18.84	0.33	-4.29	-0.09	-0.62	7.20	0.02
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	67051	8798.2	377.21	66.10	-479.65	0.18	0.70	807.45	8.12

Nivo	Z [m]	Ton 4			Ton 5			Ton 6		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	3636.59	569.05	-96.34	-94.66	1247.04	29.77	1221.68	152.51	8.87
P 1300	49.35	4706.90	662.82	-104.00	-115.40	1567.30	36.17	1443.00	261.95	33.95
P 1200	45.85	4374.09	553.87	-96.26	-179.87	1081.58	26.65	1021.96	55.66	44.13
P 1100	42.35	3587.19	16.54	-147.24	-230.41	-289.87	40.26	-196.65	-252.38	17.59
P 1000	38.15	1238.20	-544.16	-84.09	-46.28	471.59	-1.03	764.89	-236.05	17.75
P 900	34.65	973.65	-514.65	-153.33	66.08	867.39	7.02	1158.6	-70.75	6.15
P 800	31.15	3065.7	-302.51	-26.69	123.25	944.01	-4.38	1021.2	-241.79	-18.02
P 700	27.65	5586.1	-562.58	-33.63	235.84	1382.4	0.95	1339.8	70.54	-18.78
P 600	24.15	6540.8	-288.78	-20.24	217.93	1268.5	1.89	866.62	-121.19	-8.05
P 500	20.65	7588.8	-525.33	-21.17	291.08	1473.6	4.74	1075.2	202.50	-7.25
P 400	17.15	6926.4	-203.30	-8.63	235.25	1189.7	5.57	636.95	-63.49	1.71
P 300	13.65	8004.5	-429.66	-3.73	296.10	1423.3	3.07	895.81	159.60	-6.23
P 200	6.75	4947.2	-272.58	27.03	235.93	1050.9	13.95	889.00	57.75	-1.83
P 100	3.30	1543.1	-45.64	13.87	75.76	355.25	2.00	320.45	-42.00	-2.51
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	1352.3	-165.10	4.64	72.69	486.49	-5.04	333.71	23.69	-6.32
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	28986	2052.02	-749.81	1183.3	6727.3	161.60	5418.9	-43.47	61.15

Nivo	Z [m]	Ton 7			Ton 8			Ton 9		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	69.91	520.62	-2.77	60.49	-59.09	8.74	261.36	-164.67	2.49
P 1300	49.35	85.03	492.55	3.67	70.26	-20.60	16.42	276.33	-97.14	-0.82
P 1200	45.85	58.32	211.63	18.90	88.35	-158.05	19.17	152.99	7.74	-3.94
P 1100	42.35	-18.60	-337.21	42.98	55.81	-421.39	7.14	-73.47	74.59	-16.94
P 1000	38.15	-109.66	-771.32	28.83	-72.46	-480.63	-0.53	-401.51	147.48	-8.65
P 900	34.65	-116.48	-608.35	12.61	-101.48	-199.88	-14.52	-463.90	210.53	-11.20
P 800	31.15	-96.63	-404.17	7.91	-100.52	53.59	-13.63	-326.66	-47.87	2.58
P 700	27.65	-56.79	-220.96	5.71	-105.32	280.95	-12.73	-210.11	111.02	0.95
P 600	24.15	-12.39	5.23	3.01	-46.94	487.51	-9.25	2.45	-106.00	0.88
P 500	20.65	65.16	207.53	0.75	-25.12	641.70	-7.25	200.13	58.34	-2.76
P 400	17.15	111.30	309.45	-0.89	29.03	691.22	-4.00	366.18	-121.59	-0.94
P 300	13.65	178.93	465.72	-0.30	57.47	886.81	-0.22	484.63	-7.61	-1.27
P 200	6.75	168.29	540.48	12.46	32.16	741.92	11.89	239.89	42.65	-0.25
P 100	3.30	58.99	189.96	5.19	7.59	284.55	2.80	68.47	0.20	-2.98
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	84.46	141.73	0.52	-5.05	481.58	4.09	59.81	33.56	-4.47
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	469.83	742.89	138.58	-55.73	3210.2	8.12	636.58	141.22	-47.32

Nivo	Z [m]	Ton 10			Ton 11			Ton 12		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	1897.5	-304.03	84.00	943.49	-278.85	-14.29	316.23	736.59	-17.36
P 1300	49.35	1932.9	-312.80	125.56	969.69	-90.89	-71.08	281.57	332.14	-26.31
P 1200	45.85	832.22	76.14	121.08	495.84	43.00	-110.77	36.35	-269.35	-12.76
P 1100	42.35	-931.67	809.30	209.23	-317.18	43.83	-132.59	-348.30	-533.68	-24.60

P 1000	38.15	2659.69	919.01	161.22	1365.88	63.80	-69.89	-482.67	-502.80	-29.96
P 900	34.65	2891.77	367.06	129.35	1493.93	193.08	9.00	-394.53	-503.66	-31.31
P 800	31.15	2372.85	241.67	54.08	1268.07	9.26	-25.60	-105.38	-93.90	-14.67
P 700	27.65	1752.57	-655.67	37.63	-782.64	482.85	-7.19	75.90	5.85	-16.76
P 600	24.15	-194.56	-325.72	24.15	-58.62	-18.08	14.69	214.07	148.89	-13.40
P 500	20.65	1515.3	1135.58	-11.66	868.46	244.03	38.78	266.85	386.13	-8.25
P 400	17.15	2884.3	-491.13	-4.27	1273.9	-252.10	42.33	210.23	322.78	-4.52
P 300	13.65	4847.6	-869.97	-33.14	2122.7	-454.84	39.25	251.85	586.76	-0.77
P 200	6.75	4516.0	1124.88	34.86	2403.1	-266.84	-19.66	162.14	574.05	-8.24
P 100	3.30	1656.8	-432.95	21.51	896.84	-59.48	-2.53	51.15	197.14	-5.66
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	1735.9	-844.37	27.52	982.80	-171.46	21.47	51.29	561.76	-6.03
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	11015.4	4083.92	981.11	5670.5	-512.67	-288.08	586.73	1948.7	-220.60

Nivo	Z [m]	Ton 13			Ton 14			Ton 15		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-587.59	870.14	-0.83	-114.80	-303.27	-10.87	-122.55	1121.80	-16.53
P 1300	49.35	-462.11	178.39	-0.48	-49.33	5.23	-27.67	-122.61	-307.92	-41.16
P 1200	45.85	55.12	-468.95	-4.15	113.98	-140.05	29.94	-57.62	1350.2	-146.65
P 1100	42.35	899.51	-681.58	0.83	138.42	76.46	17.01	243.54	2016.0	-124.05
P 1000	38.15	1250.0	-423.42	-11.14	457.69	333.97	11.54	240.03	985.09	-57.60
P 900	34.65	721.31	-313.67	11.97	233.58	225.59	42.41	143.10	-339.16	-35.36
P 800	31.15	-280.63	-50.81	-23.36	-210.48	574.96	42.33	26.88	1128.46	8.25
P 700	27.65	-929.22	93.11	-16.23	-502.45	173.77	33.10	-188.21	1896.77	2.33
P 600	24.15	1166.05	240.10	-13.15	-736.30	130.31	34.27	-375.52	1490.11	-5.71
P 500	20.65	-717.38	296.30	-2.97	-351.46	-280.81	26.98	-359.46	-859.14	-1.86
P 400	17.15	-6.64	394.57	-4.21	35.30	-425.86	19.70	-168.18	156.65	-6.05
P 300	13.65	746.47	503.24	5.00	807.20	-766.41	33.06	432.12	1521.6	-26.86
P 200	6.75	1346.1	495.13	16.26	1778.4	1041.02	-6.59	1736.0	3697.7	-27.79
P 100	3.30	562.66	282.15	5.42	769.81	-457.90	4.58	797.54	1671.3	-6.96
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	617.79	588.29	36.06	1013.1	1071.03	16.09	1205.6	3078.3	5.38
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	2049.4	2003.0	-0.98	3382.7	2966.06	265.88	3430.6	7333.6	-480.61

Nivo	Z [m]	Ton 16			Ton 17			Ton 18		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-317.21	20.26	1.38	-363.92	338.15	-4.66	-173.84	-286.71	-8.30
P 1300	49.35	-230.24	16.13	6.02	-291.49	59.62	48.40	-106.93	-15.35	-22.10
P 1200	45.85	82.57	-80.85	29.12	31.89	-398.99	96.41	86.71	420.80	-73.65
P 1100	42.35	482.58	58.79	25.47	489.85	-766.69	57.42	334.32	176.70	-57.32
P 1000	38.15	634.39	158.71	5.16	703.11	-525.80	-30.95	217.97	-292.15	-31.47
P 900	34.65	324.99	49.24	17.60	419.99	233.30	-119.52	63.64	-209.86	-17.38
P 800	31.15	-177.96	-18.85	1.17	191.04	139.22	-47.51	-99.23	-77.94	-7.01
P 700	27.65	-599.80	-55.54	6.68	-566.88	660.16	-71.80	-245.16	113.36	-1.55
P 600	24.15	-530.31	-177.80	9.20	-995.91	671.37	-82.00	-270.83	212.02	6.68
P 500	20.65	-382.38	-61.06	4.89	1305.22	537.84	-92.37	-228.08	179.71	8.13
P 400	17.15	143.13	-127.17	8.35	-891.57	343.12	-66.33	3.11	153.90	8.51
P 300	13.65	456.68	4.81	-11.38	733.63	-244.11	-60.82	249.71	-74.96	4.54
P 200	6.75	381.81	288.96	7.44	5670.0	1932.88	-26.68	508.10	-698.82	-9.79
P 100	3.30	157.95	108.63	0.53	2736.2	-829.03	-7.18	248.46	-369.57	-2.35
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	208.12	222.57	-3.66	3838.1	1901.28	14.22	324.64	-765.83	-10.29
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	634.33	406.84	107.97	10399	3616.02	-393.36	912.59	1534.70	-213.35

sy (+e)

Konstrukcija neregularna po visini, Duktilni sistemi nepovezanih zidova, Klasa duktilnosti DCM:

qo=3.0

Okvirni i dvojni dominantno okvirni sistem: αo=2.00, kw=1.00.

Faktor ponašanja: q=0.8-qo-kw=2.40

Nivo	Z [m]	Ton 1			Ton 2			Ton 3		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-1.43	-0.15	-0.00	-773.20	3519.1	-56.05	197.14	866.03	-10.90
P 1300	49.35	-2.21	-0.24	-0.00	-1191.83	5546.6	-78.61	303.12	1265.1	-13.91
P 1200	45.85	-2.71	-0.29	-0.01	-1361.59	6712.9	-79.36	288.69	1584.8	-8.84
P 1100	42.35	-3.48	-0.44	-0.01	-1487.44	9196.7	-100.88	149.41	1252.4	21.06
P 1000	38.15	-3.80	-0.55	-0.01	-1363.91	10890	1.14	-64.57	400.76	16.84
P 900	34.65	-3.30	-0.44	-0.02	-1136.46	9060.3	30.44	-106.51	560.93	12.08
P 800	31.15	-2.48	-0.35	-0.01	-758.81	7081.4	52.25	-169.34	70.74	12.73
P 700	27.65	-2.48	-0.35	-0.02	-784.20	7004.1	41.96	-144.36	136.18	12.17
P 600	24.15	-1.85	-0.26	-0.01	-537.82	5307.7	45.42	-149.36	-1.82	11.29
P 500	20.65	-1.67	-0.23	-0.01	-505.20	4743.7	27.11	-110.68	32.75	9.90
P 400	17.15	-1.17	-0.17	-0.01	-336.61	3417.8	35.16	-97.90	-38.45	10.59
P 300	13.65	-1.18	-0.16	-0.02	-374.21	3424.0	19.33	-73.29	-1.11	2.73
P 200	6.75	-0.63	-0.09	-0.01	-196.27	2039.1	9.27	-12.40	-69.16	-7.80
P 100	3.30	-0.18	-0.03	-0.00	-64.88	641.39	7.59	0.01	-20.94	-6.83
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	-0.14	-0.02	-0.01	-55.15	709.08	14.70	-4.69	54.35	0.18
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	-28.71	-3.77	-0.18	0927.60	79294	-30.53	5.27	6092.5	61.28

Nivo	Z [m]	Ton 4			Ton 5			Ton 6			
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	
P 1400	52.85	743.14	-116.29	19.69	-300.67	3960.92	94.57	170.82	-21.32	-1.24	
P 1300	49.35	961.86	-135.45	21.25	-366.55	4978.15	114.88	201.76	-36.63	-4.75	
P 1200	45.85	893.85	-113.18	19.67	-571.30	3435.37	84.65	142.89	-7.78	-6.17	
P 1100	42.35	733.05	-3.38	30.09	-731.84	-920.70	127.89	27.50	35.29	-2.46	
P 1000	38.15	253.03	111.20	17.18	-147.00	1497.9	-3.29	-106.95	33.00	-2.48	
P 900	34.65	-198.97	105.17	31.33	209.88	2755.1	22.29	-162.00	9.89	-0.86	
P 800	31.15	-626.47	61.82	5.45	391.46	2998.4	-13.91	-142.78	33.81	2.52	
P 700	27.65	1141.53	114.96	6.87	749.09	4390.8	3.01	-187.33	-9.86	2.63	
P 600	24.15	1336.63	59.01	4.14	692.20	4029.1	6.01	-121.17	16.95	1.13	
P 500	20.65	1550.79	107.35	4.33	924.55	4680.6	15.06	-150.33	-28.31	1.01	
P 400	17.15	1415.41	41.55	1.76	747.22	3778.9	17.69	-89.06	8.88	-0.24	
P 300	13.65	1635.74	87.80	0.76	940.48	4520.6	9.74	-125.25	-22.32	0.87	
P 200	6.75	1010.97	55.70	-5.52	749.38	3337.8	44.32	-124.30	-8.07	0.26	
P 100	3.30	-315.33	9.33	-2.83	240.64	1128.3	6.37	-44.81	5.87	0.35	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P 000	-0.15	-276.34	33.74	-0.95	230.88	1545.2	-16.01	-46.66	-3.31	0.88	
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Σ=	5923.25	419.33	153.23	3758.4	21368	513.28	-757.68	6.08	-8.55

Nivo	Z [m]	Ton 7			Ton 8			Ton 9			
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	
P 1400	52.85	83.87	624.62	-3.33	530.44	-518.20	76.68	22.90	-14.43	0.22	
P 1300	49.35	102.01	590.95	4.40	616.14	-180.68	143.99	24.22	-8.51	-0.07	
P 1200	45.85	69.98	253.91	22.67	774.80	1386.01	168.10	13.41	0.68	-0.34	
P 1100	42.35	-22.31	-404.57	51.57	489.41	3695.35	62.64	-6.44	6.54	-1.48	
P 1000	38.15	-131.57	-925.40	34.59	-635.41	4214.89	-4.68	-35.19	12.92	-0.76	
P 900	34.65	-139.75	-729.88	15.13	-889.95	1752.81	-127.31	-40.65	18.45	-0.98	
P 800	31.15	-115.93	-484.91	9.49	-881.53	469.97	-119.53	-28.63	-4.19	0.23	
P 700	27.65	-68.14	-265.10	6.86	-923.57	2463.8	-111.67	-18.41	9.73	0.08	
P 600	24.15	-14.86	6.27	3.61	-411.63	4275.3	-81.09	0.21	-9.29	0.08	
P 500	20.65	78.17	248.98	0.90	-220.30	5627.4	-63.60	17.54	5.11	-0.24	
P 400	17.15	133.53	371.26	-1.07	254.54	6061.7	-35.08	32.09	-10.65	-0.08	
P 300	13.65	214.67	558.76	-0.36	504.01	7776.9	-1.93	42.47	-0.67	-0.11	
P 200	6.75	201.91	648.46	14.95	282.04	6506.3	104.31	21.02	3.74	-0.02	
P 100	3.30	70.77	227.91	6.22	66.58	2495.4	24.52	6.00	0.02	-0.26	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P 000	-0.15	101.33	170.05	0.62	-44.31	4223.3	35.83	5.24	2.94	-0.39	
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Σ=	563.69	891.29	166.26	-488.74	28152	71.17	55.79	12.38	-4.15

Nivo	Z [m]	Ton 10			Ton 11			Ton 12			
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	
P 1400	52.85	1002.24	160.58	-44.37	-212.04	62.67	3.21	701.78	1634.7	-38.52	
P 1300	49.35	1020.95	165.22	-66.32	-217.93	20.43	15.98	624.87	737.10	-58.39	
P 1200	45.85	-439.56	-40.22	-63.95	-111.43	-9.66	24.89	80.68	-597.75	-28.31	
P 1100	42.35	492.09	-427.46	-110.51	71.28	-9.85	29.80	-772.97	1184.38	-54.60	
P 1000	38.15	1404.8	-485.40	-85.15	306.96	-14.34	15.71	1071.17	1115.85	-66.50	
P 900	34.65	1527.4	-193.88	-68.32	335.74	-43.39	-2.02	-875.57	1117.76	-69.49	
P 800	31.15	1253.3	-127.64	-28.56	284.98	-2.08	5.75	-233.87	-208.39	-32.55	
P 700	27.65	925.67	346.31	-19.88	175.89	-108.52	1.62	168.43	12.98	-37.19	
P 600	24.15	102.76	172.04	-12.76	13.17	4.06	-3.30	475.09	330.42	-29.73	
P 500	20.65	-800.33	599.79	6.16	-195.18	-54.84	-8.72	592.20	856.92	-18.31	
P 400	17.15	1523.42	259.41	2.26	-286.30	56.66	-9.51	466.55	716.32	-10.04	
P 300	13.65	2560.40	459.50	17.50	-477.05	102.22	-8.82	558.91	1302.2	-1.71	
P 200	6.75	2385.26	594.14	-18.41	-540.06	59.97	4.42	359.83	1274.0	-18.30	
P 100	3.30	-875.08	228.68	-11.36	-201.55	13.37	0.57	113.52	437.50	-12.57	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P 000	-0.15	-916.86	445.98	-14.53	-220.87	38.53	-4.83	113.82	1246.7	-13.38	
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Σ=	5818.10	2157.0	-518.20	1274.37	115.22	64.74	1302.1	4324.6	-489.58

Nivo	Z [m]	Ton 13			Ton 14			Ton 15			
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	
P 1400	52.85	-440.28	651.99	-0.62	130.88	345.76	12.39	-191.85	1756.14	-25.88	
P 1300	49.35	-346.26	133.67	-0.36	56.24	-5.96	31.55	-191.94	-482.04	-64.43	
P 1200	45.85	41.30	-351.38	-3.11	-129.95	159.67	-34.14	-90.20	2113.8	-229.58	
P 1100	42.35	674.00	-510.71	0.62	-157.82	-87.17	-19.39	381.26	3156.0	-194.20	
P 1000	38.15	936.63	-317.27	-8.35	-521.82	-380.77	-13.15	375.76	1542.1	-90.17	
P 900	34.65	540.48	-235.04	8.97	-266.30	-257.19	-48.35	224.01	-530.94	-55.35	
P 800	31.15	-210.28	-38.07	-17.51	239.97	-655.52	-48.26	42.07	1766.57	12.92	
P 700	27.65	-696.27	69.77	-12.16	572.85	-198.12	-37.74	-294.63	2969.33	3.65	
P 600	24.15	-873.72	179.91	-9.86	839.46	-148.57	-39.07	-587.86	2332.71	-8.94	
P 500	20.65	-537.54	222.02	-2.22	400.70	320.15	-30.76	-562.73	1344.96	-2.91	
P 400	17.15	-4.98	295.65	-3.16	-40.25	485.53	-22.46	-263.29	245.24	-9.47	
P 300	13.65	559.33	377.08	3.75	-920.30	873.79	-37.69	676.46	2382.1	-42.05	
P 200	6.75	1008.6	371.00	12.18	2027.61	1186.9	7.52	2717.7	5788.7	-43.51	
P 100	3.30	421.60	211.41	4.06	-877.67	522.05	-5.22	1248.5	2616.3	-10.89	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P 000	-0.15	462.91	440.81	27.02	1154.99	1221.1	-18.35	1887.3	4819.0	8.42	
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Σ=	1535.6	1500.8	-0.73	3856.60	3381.6	-303.13	5370.5	11480	-752.37

Nivo	Z [m]	Ton 16			Ton 17			Ton 18		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-149.10	9.53	0.65	182.83	-169.88	2.34	404.88	667.74	19.33
P 1300	49.35	-108.22	7.58	2.83	146.44	-29.95	-24.31	249.04	35.76	51.47
P 1200	45.85	38.81	-38.00	13.69	-16.02	200.45	-48.43	-201.95	-980.05	171.54
P 1100	42.35	226.83	27.63	11.97	-246.09	385.17	-28.85	-778.64	-411.53	133.51
P 1000	38.15	298.18	74.60	2.43	-353.23	264.15	15.55	-507.66	680.43	73.29
P 900	34.65	152.75	23.15	8.27	-210.99	-117.20	60.04	-148.21	488.76	40.47
P 800	31.15	-83.65	-8.86	0.55	-95.98	-69.94	23.87	231.10	181.53	16.34
P 700	27.65	-281.93	-26.11	3.14	284.79	-331.65	36.07	570.98	-264.03	3.61
P 600	24.15	-249.26	-83.57	4.33	500.33	-337.28	41.19	630.77	-493.79	-15.57
P 500	20.65	-179.73	-28.70	2.30	655.72	-270.20	46.40	531.19	-418.54	-18.95
P 400	17.15	67.28	-59.77	3.93	447.91	-172.38	33.32	-7.23	-358.43	-19.82
P 300	13.65	214.65	2.26	-5.35	-368.56	122.64	30.56	-581.57	174.59	-10.56
P 200	6.75	179.46	135.82	3.50	2848.52	971.05	13.40	1183.37	1627.6	22.79
P 100	3.30	74.24	51.06	0.25	1374.62	416.49	3.61	-578.67	860.72	5.48
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	97.82	104.62	-1.72	1928.23	955.18	-7.15	-756.07	1783.6	23.97
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	298.15	191.23	50.75	5224.22	1816.6	197.62	2125.42	3574.3	496.89

sy (-e)

Konstrukcija neregularna po visini, Duktilni sistemi nepovezanih zidova, Klasa duktilnosti DCM:

qo=3.0

Okrvni i dvojni dominantno okvirni sistem: αo=2.00, kw=1.00.

Faktor ponašanja: q=0.8 qo kw=2.40

Nivo	Z [m]	Ton 1			Ton 2			Ton 3		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-1.43	-0.15	-0.00	-773.20	3519.1	-56.05	197.14	866.03	-10.90
P 1300	49.35	-2.21	-0.24	-0.00	1191.83	5546.6	-78.61	303.12	1265.1	-13.91
P 1200	45.85	-2.71	-0.29	-0.01	1361.59	6712.9	-79.36	288.69	1584.8	-8.84
P 1100	42.35	-3.48	-0.44	-0.01	1487.44	9196.7	-100.88	149.41	1252.4	21.06
P 1000	38.15	-3.80	-0.55	-0.01	1363.91	10890	1.14	-64.57	400.76	16.84
P 900	34.65	-3.30	-0.44	-0.02	1136.46	9060.3	30.44	-106.51	560.93	12.08
P 800	31.15	-2.48	-0.35	-0.01	-758.81	7081.4	52.25	-169.34	70.74	12.73
P 700	27.65	-2.48	-0.35	-0.02	-784.20	7004.1	41.96	-144.36	136.18	12.17
P 600	24.15	-1.85	-0.26	-0.01	-537.82	5307.7	45.42	-149.36	-1.82	11.29
P 500	20.65	-1.67	-0.23	-0.01	-505.20	4743.7	27.11	-110.68	32.75	9.90
P 400	17.15	-1.17	-0.17	-0.01	-336.61	3417.8	35.16	-97.90	-38.45	10.59
P 300	13.65	-1.18	-0.16	-0.02	-374.21	3424.0	19.33	-73.29	-1.11	2.73
P 200	6.75	-0.63	-0.09	-0.01	-196.27	2039.1	9.27	-12.40	-69.16	-7.80
P 100	3.30	-0.18	-0.03	-0.00	-64.88	641.39	7.59	0.01	-20.94	-6.83
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	-0.14	-0.02	-0.01	-55.15	709.08	14.70	-4.69	54.35	0.18
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	-28.71	-3.77	-0.16	0927.60	79294	-30.53	5.27	6092.5	61.28

Nivo	Z [m]	Ton 4			Ton 5			Ton 6		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	743.14	-116.29	19.69	-300.67	3960.92	94.57	170.82	-21.32	-1.24
P 1300	49.35	961.86	-135.45	21.25	-366.55	4978.15	114.88	201.76	-36.63	-4.75
P 1200	45.85	893.85	-113.18	19.67	-571.30	3435.37	84.65	142.89	-7.78	-6.17
P 1100	42.35	733.05	-3.38	30.09	-731.84	-920.70	127.89	27.50	35.29	-2.46
P 1000	38.15	253.03	111.20	17.18	-147.00	1497.9	-3.29	-106.95	33.00	-2.48
P 900	34.65	-198.97	105.17	31.33	209.88	2755.1	22.29	-162.00	9.89	-0.86
P 800	31.15	-626.47	61.82	5.45	391.46	2998.4	-13.91	-142.78	33.81	2.52
P 700	27.65	1141.53	114.96	6.87	749.09	4390.8	3.01	-187.33	-9.86	2.63
P 600	24.15	1336.63	59.01	4.14	692.20	4029.1	6.01	-121.17	16.95	1.13
P 500	20.65	1550.79	107.35	4.33	924.55	4680.6	15.06	-150.33	-28.31	1.01
P 400	17.15	1415.41	41.55	1.76	747.22	3778.9	17.69	-89.06	8.88	-0.24
P 300	13.65	1635.74	87.80	0.76	940.48	4520.6	9.74	-125.25	-22.32	0.87
P 200	6.75	1010.97	55.70	-5.52	749.38	3337.8	44.32	-124.30	-8.07	0.26
P 100	3.30	-315.33	9.33	-2.83	240.64	1128.3	6.37	-44.81	5.87	0.35
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	-276.34	33.74	-0.95	230.88	1545.2	-16.01	-46.66	-3.31	0.88
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	5923.25	419.33	153.23	3758.4	21368	513.28	-757.68	6.08	-8.55

Nivo	Z [m]	Ton 7			Ton 8			Ton 9		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	83.87	624.62	-3.33	530.44	-518.20	76.68	22.90	-14.43	0.22
P 1300	49.35	102.01	590.95	4.40	616.14	-180.68	143.99	24.22	-8.51	-0.07
P 1200	45.85	69.98	253.91	22.67	774.80	1386.01	168.10	13.41	0.68	-0.34
P 1100	42.35	-22.31	-404.57	51.57	489.41	3695.35	62.64	-6.44	6.54	-1.48
P 1000	38.15	-131.57	-925.40	34.59	-635.41	4214.89	-4.68	-35.19	12.92	-0.76
P 900	34.65	-139.75	-729.88	15.13	-889.95	1752.81	-127.31	-40.65	18.45	-0.98
P 800	31.15	-115.93	-484.91	9.49	-881.53	469.97	-119.53	-28.63	-4.19	0.23
P 700	27.65	-68.14	-265.10	6.86	-923.57	2463.8	-111.67	-18.41	9.73	0.08
P 600	24.15	-14.86	6.27	3.61	-411.63	4275.3	-81.09	0.21	-9.29	0.08
P 500	20.65	78.17	248.98	0.90	-220.30	5627.4	-63.60	17.54	5.11	-0.24
P 400	17.15	133.53	371.26	-1.07	254.54	6061.7	-35.08	32.09	-10.65	-0.08
P 300	13.65	214.67	558.76	-0.36	504.01	7776.9	-1.93	42.47	-0.67	-0.11
P 200	6.75	201.91	648.46	14.95	282.04	6506.3	104.31	21.02	3.74	-0.02

P 100	3.30	70.77	227.91	6.22	66.58	2495.4	24.52	6.00	0.02	-0.26
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	101.33	170.05	0.62	-44.31	4223.3	35.83	5.24	2.94	-0.39
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	563.69	891.29	166.26	-488.74	28152	71.17	55.79	12.38	-4.15

Nivo	Z [m]	Ton 10			Ton 11			Ton 12		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	1002.24	160.58	-44.37	-212.04	62.67	3.21	701.78	1634.7	-38.52
P 1300	49.35	1020.95	165.22	-66.32	-217.93	20.43	15.98	624.87	737.10	-58.39
P 1200	45.85	-439.56	-40.22	-63.95	-111.43	-9.66	24.89	80.68	-597.75	-28.31
P 1100	42.35	492.09	-427.46	-110.51	71.28	-9.85	29.80	-772.97	1184.38	-54.60
P 1000	38.15	1404.8	-485.40	-85.15	306.96	-14.34	15.71	1071.17	1115.85	-66.50
P 900	34.65	1527.4	-193.88	-68.32	335.74	-43.39	-2.02	-875.57	1117.76	-69.49
P 800	31.15	1253.3	-127.64	-28.56	284.98	-2.08	5.75	-233.87	-208.39	-32.55
P 700	27.65	925.67	346.31	-19.88	175.89	-108.52	1.62	168.43	12.98	-37.19
P 600	24.15	102.76	172.04	-12.76	13.17	4.06	-3.30	475.09	330.42	-29.73
P 500	20.65	-800.33	599.79	6.16	-195.18	-54.84	-8.72	592.20	856.92	-18.31
P 400	17.15	1523.42	259.41	2.26	-286.30	56.66	-9.51	466.55	716.32	-10.04
P 300	13.65	2560.40	459.50	17.50	-477.05	102.22	-8.82	558.91	1302.2	-1.71
P 200	6.75	2385.26	594.14	-18.41	-540.06	59.97	4.42	359.83	1274.0	-18.30
P 100	3.30	-875.08	228.68	-11.36	-201.55	13.37	0.57	113.52	437.50	-12.57
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	-916.86	445.98	-14.53	-220.87	38.53	-4.83	113.82	1246.7	-13.38
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	5818.10	2157.0	-518.20	1274.37	115.22	64.74	1302.1	4324.6	-489.58

Nivo	Z [m]	Ton 13			Ton 14			Ton 15		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-440.28	651.99	-0.62	130.88	345.76	12.39	-191.85	1756.14	-25.88
P 1300	49.35	-346.26	133.67	-0.36	56.24	-5.96	31.55	-191.94	-482.04	-64.43
P 1200	45.85	41.30	-351.38	-3.11	-129.95	159.67	-34.14	-90.20	2113.8	-229.58
P 1100	42.35	674.00	-510.71	0.62	-157.82	-87.17	-19.39	381.26	3156.0	-194.20
P 1000	38.15	936.63	-317.27	-8.35	-521.82	-380.77	-13.15	375.76	1542.1	-90.17
P 900	34.65	540.48	-235.04	8.97	-266.30	-257.19	-48.35	224.01	-530.94	-55.35
P 800	31.15	-210.28	-38.07	-17.51	239.97	-655.52	-48.26	42.07	1766.57	12.92
P 700	27.65	-696.27	69.77	-12.16	572.85	-198.12	-37.74	-294.63	2969.33	3.65
P 600	24.15	-873.72	179.91	-9.86	839.46	-148.57	-39.07	-587.86	2332.71	-8.94
P 500	20.65	-537.54	222.02	-2.22	400.70	320.15	-30.76	-562.73	1344.96	-2.91
P 400	17.15	-4.98	295.65	-3.16	-40.25	485.53	-22.46	-263.29	245.24	-9.47
P 300	13.65	559.33	377.08	3.75	-920.30	873.79	-37.69	676.46	2382.1	-42.05
P 200	6.75	1008.6	371.00	12.18	2027.61	1186.9	7.52	2717.7	5788.7	-43.51
P 100	3.30	421.60	211.41	4.06	-877.67	522.05	-5.22	1248.5	2616.3	-10.89
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	462.91	440.81	27.02	1154.99	1221.1	-18.35	1887.3	4819.0	8.42
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	1535.6	1500.8	-0.73	3856.60	3381.6	-303.13	5370.5	11480	-752.37

Nivo	Z [m]	Ton 16			Ton 17			Ton 18		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
P 1400	52.85	-149.10	9.53	0.65	182.83	-169.88	2.34	404.88	667.74	19.33
P 1300	49.35	-108.22	7.58	2.83	146.44	-29.95	-24.31	249.04	35.76	51.47
P 1200	45.85	38.81	-38.00	13.69	-16.02	200.45	-48.43	-201.95	-980.05	171.54
P 1100	42.35	226.83	27.63	11.97	-246.09	385.17	-28.85	-778.64	-411.53	133.51
P 1000	38.15	298.18	74.60	2.43	-353.23	264.15	15.55	-507.66	680.43	73.29
P 900	34.65	152.75	23.15	8.27	-210.99	-117.20	60.04	-148.21	488.76	40.47
P 800	31.15	-83.65	-8.86	0.55	-95.98	-69.94	23.87	231.10	181.53	16.34
P 700	27.65	-281.93	-26.11	3.14	284.79	-331.65	36.07	570.98	-264.03	3.61
P 600	24.15	-249.26	-83.57	4.33	500.33	-337.28	41.19	630.77	-493.79	-15.57
P 500	20.65	-179.73	-28.70	2.30	655.72	-270.20	46.40	531.19	-418.54	-18.95
P 400	17.15	67.28	-59.77	3.93	447.91	-172.38	33.32	-7.23	-358.43	-19.82
P 300	13.65	214.65	2.26	-5.35	-368.56	122.64	30.56	-581.57	174.59	-10.56
P 200	6.75	179.46	135.82	3.50	2848.52	971.05	13.40	1183.37	1627.6	22.79
P 100	3.30	74.24	51.06	0.25	1374.62	416.49	3.61	-578.67	860.72	5.48
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P 000	-0.15	97.82	104.62	-1.72	1928.23	955.18	-7.15	-756.07	1783.6	23.97
	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P -100	-5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Σ=	298.15	191.23	50.75	5224.22	1816.6	197.62	2125.42	3574.3	496.89

### Faktori participacije - relativno učešće

Ton \ Naziv	1. sx (+e)	2. sx (-e)	3. sy (+e)	4. sy (-e)
1	0.474	0.474	0.000	0.000
2	0.000	0.000	0.481	0.481
3	0.001	0.001	0.036	0.036
4	0.199	0.199	0.007	0.007
5	0.014	0.014	0.124	0.124
6	0.038	0.038	0.001	0.001
7	0.004	0.004	0.005	0.005
8	0.003	0.003	0.168	0.168
9	0.005	0.005	0.000	0.000
10	0.073	0.073	0.017	0.017
11	0.039	0.039	0.002	0.002

**Faktori participacije - relativno učešće**

Ton \ Naziv	1. sx (+e)	2. sx (-e)	3. sy (+e)	4. sy (-e)
12	0.006	0.006	0.025	0.025
13	0.016	0.016	0.008	0.008
14	0.021	0.021	0.023	0.023
15	0.031	0.031	0.064	0.064
16	0.005	0.005	0.001	0.001
17	0.069	0.069	0.015	0.015
18	0.005	0.005	0.023	0.023

**Faktori participacije - angažovanje mase**

Ton	U [ $\alpha=7^\circ$ ]	U [ $\alpha=97^\circ$ ]
U obzir se uzima samo masa iznad kote temelja		
Kota temelja:	0.00 m	
Ukupna masa iznad temelja:	57449.34 T	
Ukupna masa celog objekta	89771.52 T	
1	70.44	0.00
2	0.00	66.04
3	0.07	4.02
4	11.14	0.45
5	0.78	7.75
6	2.03	0.04
7	0.17	0.23
8	0.11	9.00
9	0.23	0.00
10	3.24	0.82
11	1.66	0.07
12	0.28	0.94
13	0.55	0.31
14	0.73	0.79
15	0.93	1.88
16	0.14	0.01
17	2.06	0.34
18	0.17	0.53
$\Sigma U$ (%)	94.74	93.24

**Poprečne sile u osnovi**

Slučaj opterećenja	Ugao $\alpha$ [°]	VtB [kN] (Modalno)
sx	7	74803.42
sy	98	86441.85

## Opšti podaci konstrukcije za EC8 (Capacity design)

EC 2 (EN 1992-1-1:2004)  
 Klasa duktilnosti DCM  
 Duktilni nenoseći elementi

### Koeficijent osetljivosti - 4. sx (+e) (7.5°)

Nivo	Z[m]	Visina[m]	Težina[kN]	Seiz.s.[kN]	Δs[mm]	θ
P 1400	52.85	3.50	13213.11	6037.70	20.53	0.013
P 1300	49.35	3.50	34960.65	13870.84	20.87	0.015
P 1200	45.85	3.50	63385.46	21551.22	20.15	0.017
P 1100	42.35	4.20	102524.25	29539.04	23.00	0.019
P 1000	38.15	3.50	149153.63	37161.38	20.33	0.023
P 900	34.65	3.50	192942.37	43641.30	23.79	0.030
P 800	31.15	3.50	229470.18	48251.82	28.77	0.039
P 700	27.65	3.50	271615.79	52879.38	27.69	0.041
P 600	24.15	3.50	308597.01	56706.84	29.95	0.047
P 500	20.65	3.50	349730.86	60833.00	27.98	0.046
P 400	17.15	3.50	386871.73	64504.14	27.83	0.048
P 300	13.65	6.90	438671.82	69490.01	46.03	0.042
P 200	6.75	3.45	513437.10	74039.83	15.59	0.031
P 100	3.30	3.45	563384.26	76173.49	10.55	0.023

Duktilni sistemi nepovezanih zidova

Faktor ponašanja = 2.40

Najveći koeficijent osetljivosti  $\theta = 0.048$  (P 400, Z = 17.15 m)

Utjecaji drugoga reda se ne uzimaju u obzir.

### Koeficijent osetljivosti - 5. sx (-e) (7.5°)

Nivo	Z[m]	Visina[m]	Težina[kN]	Seiz.s.[kN]	Δs[mm]	θ
P 1400	52.85	3.50	13213.11	6037.70	20.67	0.013
P 1300	49.35	3.50	34960.65	13870.84	21.41	0.015
P 1200	45.85	3.50	63385.46	21551.22	21.61	0.018
P 1100	42.35	4.20	102524.25	29539.04	24.17	0.020
P 1000	38.15	3.50	149153.63	37161.38	20.17	0.023
P 900	34.65	3.50	192942.37	43641.30	24.20	0.031
P 800	31.15	3.50	229470.18	48251.82	28.23	0.038
P 700	27.65	3.50	271615.79	52879.38	27.64	0.041
P 600	24.15	3.50	308597.01	56706.84	29.40	0.046
P 500	20.65	3.50	349730.86	60833.00	27.80	0.046
P 400	17.15	3.50	386871.73	64504.14	27.30	0.047
P 300	13.65	6.90	438671.82	69490.01	45.41	0.042
P 200	6.75	3.45	513437.10	74039.83	15.42	0.031
P 100	3.30	3.45	563384.26	76173.49	10.46	0.022

Duktilni sistemi nepovezanih zidova

Faktor ponašanja = 2.40

Najveći koeficijent osetljivosti  $\theta = 0.048$  (P 400, Z = 17.15 m)

Utjecaji drugoga reda se ne uzimaju u obzir.

### Koeficijent osetljivosti - 6. sy (+e) (97.5°)

Nivo	Z[m]	Visina[m]	Težina[kN]	Seiz.s.[kN]	Δs[mm]	θ
P 1400	52.85	3.50	13213.11	5966.77	12.13	0.008
P 1300	49.35	3.50	34960.65	13653.00	20.19	0.015
P 1200	45.85	3.50	63385.46	21261.94	15.40	0.013
P 1100	42.35	4.20	102524.25	30466.67	12.99	0.010
P 1000	38.15	3.50	149153.63	41071.29	24.84	0.026
P 900	34.65	3.50	192942.37	49589.11	12.23	0.014
P 800	31.15	3.50	229470.18	55828.68	24.87	0.029
P 700	27.65	3.50	271615.79	61946.20	19.98	0.025
P 600	24.15	3.50	308597.01	66813.10	24.99	0.033
P 500	20.65	3.50	349730.86	71727.83	20.39	0.028
P 400	17.15	3.50	386871.73	75907.98	22.88	0.033
P 300	13.65	6.90	438671.82	81229.49	34.14	0.027
P 200	6.75	3.45	513437.10	86080.09	12.91	0.022
P 100	3.30	3.45	563384.26	88262.40	9.66	0.018

Duktilni sistemi nepovezanih zidova

Faktor ponašanja = 2.40

Najveći koeficijent osetljivosti  $\theta = 0.033$  (P 400, Z = 17.15 m)

Utjecaji drugoga reda se ne uzimaju u obzir.

### Koeficijent osetljivosti - 7. sy (-e) (97.5°)

Nivo	Z[m]	Visina[m]	Težina[kN]	Seiz.s.[kN]	Δs[mm]	θ
P 1400	52.85	3.50	13213.11	5966.77	13.81	0.009
P 1300	49.35	3.50	34960.65	13653.00	18.44	0.013
P 1200	45.85	3.50	63385.46	21261.94	17.35	0.015
P 1100	42.35	4.20	102524.25	30466.67	16.22	0.013
P 1000	38.15	3.50	149153.63	41071.29	20.35	0.021
P 900	34.65	3.50	192942.37	49589.11	15.81	0.018
P 800	31.15	3.50	229470.18	55828.68	21.92	0.026
P 700	27.65	3.50	271615.79	61946.20	19.75	0.025
P 600	24.15	3.50	308597.01	66813.10	22.45	0.030
P 500	20.65	3.50	349730.86	71727.83	19.65	0.027
P 400	17.15	3.50	386871.73	75907.98	20.61	0.030
P 300	13.65	6.90	438671.82	81229.49	32.27	0.025
P 200	6.75	3.45	513437.10	86080.09	11.80	0.020
P 100	3.30	3.45	563384.26	88262.40	8.67	0.016

Duktilni sistemi nepovezanih zidova

Faktor ponašanja = 2.40

Najveći koeficijent osetljivosti  $\theta = 0.033$  (P 400, Z = 17.15 m)

Utjecaji drugoga reda se ne uzimaju u obzir.

Međuspratna pomeranja - 8. SRSS: MAX(IV,V)+MAX(VI,VII)

Nivo	Z[m]	Visina[m]	d <sub>r</sub> (7.5°)[mm]	d <sub>r</sub> (97.5°)[mm]	d <sub>r,k</sub> [mm]	d <sub>lim</sub> [mm]
P 1400	52.85	3.50	20.67	13.81	24.86	52.50
P 1300	49.35	3.50	21.41	20.19	29.43	52.50
P 1200	45.85	3.50	21.61	17.35	27.71	52.50
P 1100	42.35	4.20	24.17	16.22	29.11	63.00
P 1000	38.15	3.50	20.33	24.84	32.10	52.50
P 900	34.65	3.50	24.20	15.81	28.90	52.50
P 800	31.15	3.50	28.77	24.87	38.03	52.50
P 700	27.65	3.50	27.69	19.98	34.14	52.50
P 600	24.15	3.50	29.95	24.99	39.01	52.50
P 500	20.65	3.50	27.98	20.39	34.62	52.50
P 400	17.15	3.50	27.83	22.88	36.03	52.50
P 300	13.65	6.90	46.03	34.14	57.30	103.50
P 200	6.75	3.45	15.59	12.91	20.24	51.75
P 100	3.30	3.45	10.55	9.66	14.30	51.75

Uslov ograničenja međuspratnog pomeranja je ispunjen.

## Merodavno opterećenje - EC 2 (EN 1992-1-1:2004)

### Slučajevi opterećenja

- I G (g) - <Stalno>(dugotrajno)
- II P - <Korisno - B>(kratkotrajno)
- III P ( voda - dinamičko ) - <Korisno - G>  
(+/-)(kratkotrajno)
- IV  $s_x$  (+e) - <Nedefinisano opterećenje>
- V  $s_x$  (-e) - <Nedefinisano opterećenje>
- VI  $s_y$  (+e) - <Nedefinisano opterećenje>
- VII  $s_y$  (-e) - <Nedefinisano opterećenje>
- VIII SRSS:  $\text{MAX}(IV,V)+\text{MAX}(VI,VII)$  - <Seizmičko> (+/-)

### Materijalni koeficijenti sigurnosti

[SP] Stalne i prolazne kombinacije:  $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$

[SE] Seizmičke kombinacije:  $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$

[IN] Incidentne kombinacije:  $\gamma_C = 1.20$ ,  $\gamma_S = 1.00$

### Kombinacije opterećenja iz šeme kombinovanja

- 01. [SP]  $1.35 \times I + 1.50 \times 0.70 \times II - 1.50 \times III$
- 02. [SP]  $1.35 \times I + 1.50 \times 0.70 \times II + 1.50 \times III$
- 03. [SP]  $1.35 \times I + 1.50 \times II - 1.50 \times 0.70 \times III$
- 04. [SP]  $1.35 \times I + 1.50 \times II + 1.50 \times 0.70 \times III$
- 05. [SP]  $I + 1.50 \times 0.70 \times II - 1.50 \times III$
- 06. [SP]  $I + 1.50 \times 0.70 \times II + 1.50 \times III$
- 07. [SP]  $I + 1.50 \times II - 1.50 \times 0.70 \times III$
- 08. [SP]  $I + 1.50 \times II + 1.50 \times 0.70 \times III$
- 09. [SP]  $1.35 \times I - 1.50 \times III$
- 10. [SP]  $1.35 \times I + 1.50 \times III$
- 11. [SP]  $1.35 \times I + 1.50 \times II$
- 12. [SE]  $I + 0.30 \times II - 0.30 \times III - VIII$
- 13. [SE]  $I + 0.30 \times II - 0.30 \times III + VIII$
- 14. [SE]  $I + 0.30 \times II + 0.30 \times III - VIII$
- 15. [SE]  $I + 0.30 \times II + 0.30 \times III + VIII$
- 16. [SP]  $I - 1.50 \times III$
- 17. [SP]  $I + 1.50 \times III$
- 18. [SP]  $I + 1.50 \times II$
- 19. [SE]  $I - 0.30 \times III - VIII$
- 20. [SE]  $I - 0.30 \times III + VIII$
- 21. [SE]  $I + 0.30 \times III - VIII$
- 22. [SE]  $I + 0.30 \times III + VIII$
- 23. [SE]  $I + 0.30 \times II - VIII$
- 24. [SE]  $I + 0.30 \times II + VIII$
- 25. [SE]  $I - VIII$
- 26. [SE]  $I + VIII$
- 27. [SP]  $1.35 \times I$
- 28. [SP]  $I$

### Korisnički definisane kombinacije opterećenja

- 01. [SP]  $1.35 \times I + 1.05 \times II - 1.50 \times III$
- 02. [SP]  $1.35 \times I + 1.05 \times II + 1.50 \times III$
- 03. [SP]  $1.35 \times I + 1.50 \times II - 1.05 \times III$
- 04. [SP]  $1.35 \times I + 1.50 \times II + 1.05 \times III$
- 05. [SP]  $I + 1.05 \times II - 1.50 \times III$
- 06. [SP]  $I + 1.05 \times II + 1.50 \times III$
- 07. [SP]  $I + 1.50 \times II - 1.05 \times III$
- 08. [SP]  $I + 1.50 \times II + 1.05 \times III$
- 09. [SP]  $1.35 \times I - 1.50 \times III$
- 10. [SP]  $1.35 \times I + 1.50 \times III$
- 11. [SP]  $1.35 \times I + 1.50 \times II$
- 12. [SE]  $I + 0.30 \times II - 0.30 \times III - VIII$
- 13. [SE]  $I + 0.30 \times II - 0.30 \times III + VIII$
- 14. [SE]  $I + 0.30 \times II + 0.30 \times III - VIII$
- 15. [SE]  $I + 0.30 \times II + 0.30 \times III + VIII$
- 16. [SP]  $I - 1.50 \times III$
- 17. [SP]  $I + 1.50 \times III$
- 18. [SP]  $I + 1.50 \times II$
- 19. [SE]  $I - 0.30 \times III - VIII$
- 20. [SE]  $I - 0.30 \times III + VIII$
- 21. [SE]  $I + 0.30 \times III - VIII$
- 22. [SE]  $I + 0.30 \times III + VIII$
- 23. [SE]  $I + 0.30 \times II - VIII$
- 24. [SE]  $I + 0.30 \times II + VIII$
- 25. [SE]  $I - VIII$
- 26. [SE]  $I + VIII$
- 27. [SP]  $1.35 \times I$
- 28. [SP]  $I$

## KONTROLA DUKTILNOSTI ZIDOVA (KLASA DUKTILNOSTI DCM)

Prema EN 1998-1:2004 5.4.3.4.1 (3), u primarnim seizmičkim zidovima, maksimalna normalizovana aksijalna sila u zidu  $v_d$  jednaka je:

$$v_d = N_{Ed} / (A_c \cdot f_{cd}) \quad \text{čija vrednost ne sme biti veća od } 0.40$$

Klasa čvrstoće betona: C35/45 ( MB45)

40 MPa

	kota	$f_{ck} =$ MPa	$f_{cd} =$ MPa	$N_{Ed}$ kN	$P$ cm <sup>2</sup>	$v_d =$	iskorištenost %	
T1	-5.00	35	23.33	5005.00	13750.0	0.156	< 0.4	39
T2	-5.00	35	23.33	7064.00	13750.0	0.220	< 0.4	55
T3	-5.00	35	23.33	7513.00	16150.0	0.199	< 0.4	50
T4	-5.00	35	23.33	10226.00	21073.0	0.208	< 0.4	52
T5	-5.00	35	23.33	5414.00	12850.0	0.181	< 0.4	45
T6	-5.00	35	23.33	6894.00	12850.0	0.230	< 0.4	57
T7	-5.00	35	23.33	2492.00	5600.0	0.191	< 0.4	48
T8	-5.00	35	23.33	3246.00	5600.0	0.248	< 0.4	62
T9	-5.00	35	23.33	13814.00	23700.0	0.250	< 0.4	62
T10	-5.00	35	23.33	13381.00	23700.0	0.242	< 0.4	60
T11	-5.00	35	23.33	11298.00	23700.0	0.204	< 0.4	51
T12	-5.00	35	23.33	8895.00	23700.0	0.161	< 0.4	40
T13	-5.00	35	23.33	10191.00	23700.0	0.184	< 0.4	46
T14	-5.00	35	23.33	12695.00	23700.0	0.230	< 0.4	57
T15	-5.00	35	23.33	3720.00	5600.0	0.285	< 0.4	71
T16	-5.00	35	23.33	4089.56	5600.0	0.313	< 0.4	78
L1	-5.00	35	23.33	6696.36	13750.0	0.209	< 0.4	52
L2	-5.00	35	23.33	8763.00	20173.0	0.186	< 0.4	47
L3	-5.00	35	23.33	5438.10	10607.0	0.220	< 0.4	55
L4	-5.00	35	23.33	6082.00	7700.0	0.339	< 0.4	85
L5	-5.00	35	23.33	16059.00	41550.0	0.166	< 0.4	41
L6	-5.00	35	23.33	14399.00	34152.0	0.181	< 0.4	45 P
L7	-5.00	35	23.33	6997.00	15000.0	0.200	< 0.4	50
Sje1	-5.00	35	23.33	19796.00	70700.0	0.120	< 0.4	30
Sje2	-5.00	35	23.33	9653.37	38100.0	0.109	< 0.4	27
Sje3	-5.00	35	23.33	12592.12	55894.0	0.097	< 0.4	24
Sje4	-5.00	35	23.33	19386.00	48200.0	0.172	< 0.4	43
Sje5	-5.00	35	23.33	4997.00	8535.0	0.251	< 0.4	63
Sje6	-5.00	35	23.33	9596.00	42200.0	0.097	< 0.4	24
Sje7	-5.00	35	23.33	15969.00	60890.0	0.112	< 0.4	28
Sje8	-5.00	35	23.33	9753.00	23357.0	0.179	< 0.4	45

	kota	fck = MPa	fcd = MPa	NEd kN	P cm2	Vd=	iskorištenost %	
T1	0.00	35	23.33	6753.00	13750.0	0.210	< 0.4	53
T2	0.00	35	23.33	9439.00	13750.0	0.294	< 0.4	74
T3	0.00	35	23.33	9987.00	16150.0	0.265	< 0.4	66
T4	0.00	35	23.33	10967.00	21073.0	0.223	< 0.4	56
T5	0.00	35	23.33	8910.00	12850.0	0.297	< 0.4	74
T6	0.00	35	23.33	8687.00	12850.0	0.290	< 0.4	72
T7	0.00	35	23.33	2031.00	5600.0	0.155	< 0.4	39
T8	0.00	35	23.33	2156.00	5600.0	0.165	< 0.4	41
T9	0.00	35	23.33	11590.00	23700.0	0.210	< 0.4	52
T10	0.00	35	23.33	11854.00	23700.0	0.214	< 0.4	54
T11	0.00	35	23.33	11581.00	23700.0	0.209	< 0.4	52
T12	0.00	35	23.33	8103.00	23700.0	0.147	< 0.4	37
T13	0.00	35	23.33	11696.00	23700.0	0.212	< 0.4	53
T14	0.00	35	23.33	11560.00	23700.0	0.209	< 0.4	52
T15	0.00	35	23.33	2137.00	5600.0	0.164	< 0.4	41
T16	0.00	35	23.33	1997.00	5600.0	0.153	< 0.4	38
L1	0.00	35	23.33	9279.00	13750.0	0.289	< 0.4	72
L2	0.00	35	23.33	10142.00	20173.0	0.215	< 0.4	54
L3	0.00	35	23.33	5438.10	10607.0	0.220	< 0.4	55
L4	0.00	35	23.33	4221.00	7700.0	0.235	< 0.4	59
L5	0.00	35	23.33	16059.00	41550.0	0.166	< 0.4	41
L6	0.00	35	23.33	16357.00	34152.0	0.205	< 0.4	51
L7	0.00	35	23.33	9837.00	15000.0	0.281	< 0.4	70
Sje1	0.00	35	23.33	19365.00	70700.0	0.117	< 0.4	29
Sje2	0.00	35	23.33	11156.00	38100.0	0.125	< 0.4	31
Sje3	0.00	35	23.33	15286.00	55894.0	0.117	< 0.4	29
Sje4	0.00	35	23.33	16782.00	48200.0	0.149	< 0.4	37
Sje5	0.00	35	23.33	4163.00	8535.0	0.209	< 0.4	52
Sje6	0.00	35	23.33	11690.00	42200.0	0.119	< 0.4	30
Sje7	0.00	35	23.33	18937.00	60890.0	0.133	< 0.4	33
Sje8	0.00	35	23.33	9753.00	23357.0	0.179	< 0.4	45

## KONTROLA DUKTILNOSTI ZIDOVA (KLASA DUKTILNOSTI DCM)

Prema EN 1998-1:2004 5.4.3.4.1 (3), u primarnim seizmičkim zidovima, maksimalna normalizovana aksijalna sila u zidu  $v_d$  jednaka je:

$$v_d = N_{Ed} / (A_c \cdot f_{cd}) \quad \text{čija vrednost ne sme biti veća od } 0.40$$

Klasa čvrstoće betona: C35/45 ( MB45)

$$f_{ck} = 40 \text{ MPa}$$

$$f_{cd} = f_{ck} / 1.5$$

	kota	$f_{ck} =$ MPa	$f_{cd} =$ MPa	$N_{Ed}$ kN	$l =$ cm	$d =$ cm	$v_d =$		iskorišteno st % osa
SZ1	-5.00	35	23.33	3460.00	360.0	30.0	0.137	< 0.4	34 A
SZ2	-5.00	35	23.33	4485.00	360.0	30.0	0.178	< 0.4	44 B
SZ3	-5.00	35	23.33	3796.00	185.0	30.0	0.293	< 0.4	73 C
SZ4	-5.00	35	23.33	5706.00	310.0	30.0	0.263	< 0.4	66 D
SZ5	-5.00	35	23.33	13191.00	375.0	40.0	0.377	< 0.4	94 E
SZ6	-5.00	35	23.33	4852.00	200.0	30.0	0.347	< 0.4	87 F
SZ7	-5.00	35	23.33	3914.00	185.0	25.0	0.363	< 0.4	91 G
SZ8	-5.00	35	23.33	3768.00	200.0	30.0	0.269	< 0.4	67 H
SZ9	-5.00	35	23.33	3893.31	185.0	25.0	0.361	< 0.4	90 I
SZ10	-5.00	35	23.33	0.00	300.0	50.0	0.000	< 0.4	0 J
SZ11	-5.00	35	23.33	9105.00	650.0	25.0	0.240	< 0.4	60 K
SZ12	-5.00	35	23.33	9290.00	440.0	25.0	0.362	< 0.4	90 L
SZ13	-5.00	35	23.33	5341.00	440.0	25.0	0.208	< 0.4	52 M
SZ14	-5.00	35	23.33	5142.00	180.0	40.0	0.306	< 0.4	77 N
SZ1	0.00	35	23.33	5108.00	360.0	25.0	0.243	< 0.4	61
SZ2	0.00	35	23.33	6022.00	360.0	25.0	0.287	< 0.4	72
SZ3	0.00	35	23.33	3253.00	185.0	25.0	0.301	< 0.4	75
SZ4	0.00	35	23.33	7887.41	310.0	30.0	0.363	< 0.4	91
SZ5	0.00	35	23.33	9892.00	375.0	40.0	0.283	< 0.4	71
SZ6	0.00	35	23.33	4547.00	200.0	30.0	0.325	< 0.4	81
SZ7	0.00	35	23.33	3369.00	185.0	25.0	0.312	< 0.4	78
SZ8	0.00	35	23.33	4785.40	200.0	30.0	0.342	< 0.4	85
SZ9	0.00	35	23.33	3396.00	185.0	25.0	0.315	< 0.4	79
SZ10	0.00	35	23.33	7111.00	300.0	40.0	0.254	< 0.4	63
SZ11	0.00	35	23.33	8745.00	650.0	25.0	0.231	< 0.4	58
SZ12	0.00	35	23.33	7199.00	440.0	25.0	0.280	< 0.4	70
SZ13	0.00	35	23.33	6894.73	440.0	25.0	0.269	< 0.4	67
SZ14	0.00	35	23.33	5751.73	180.0	40.0	0.342	< 0.4	86

## KONTROLA DUKTILNOSTI STUBOVA (KLASA DUKTILNOSTI DCM)

Prema EN 1998-1:2004 5.4.3.2.1 (3), u primarnim seizmičkim stubovima, vrednost maksimalne normalizovane aksijalne sile  $v_d$  jednaka je :

$$v_d = N_{Ed} / (A_c \cdot f_{cd}) \quad \text{čija vrednost ne sme biti veća od } 0.65$$

Klasa čvrstoće betona: C35/45 ( MB45 )

$f_{ck} = 40.00$  MPa

$f_{cd} = f_{ck} / 1.5$

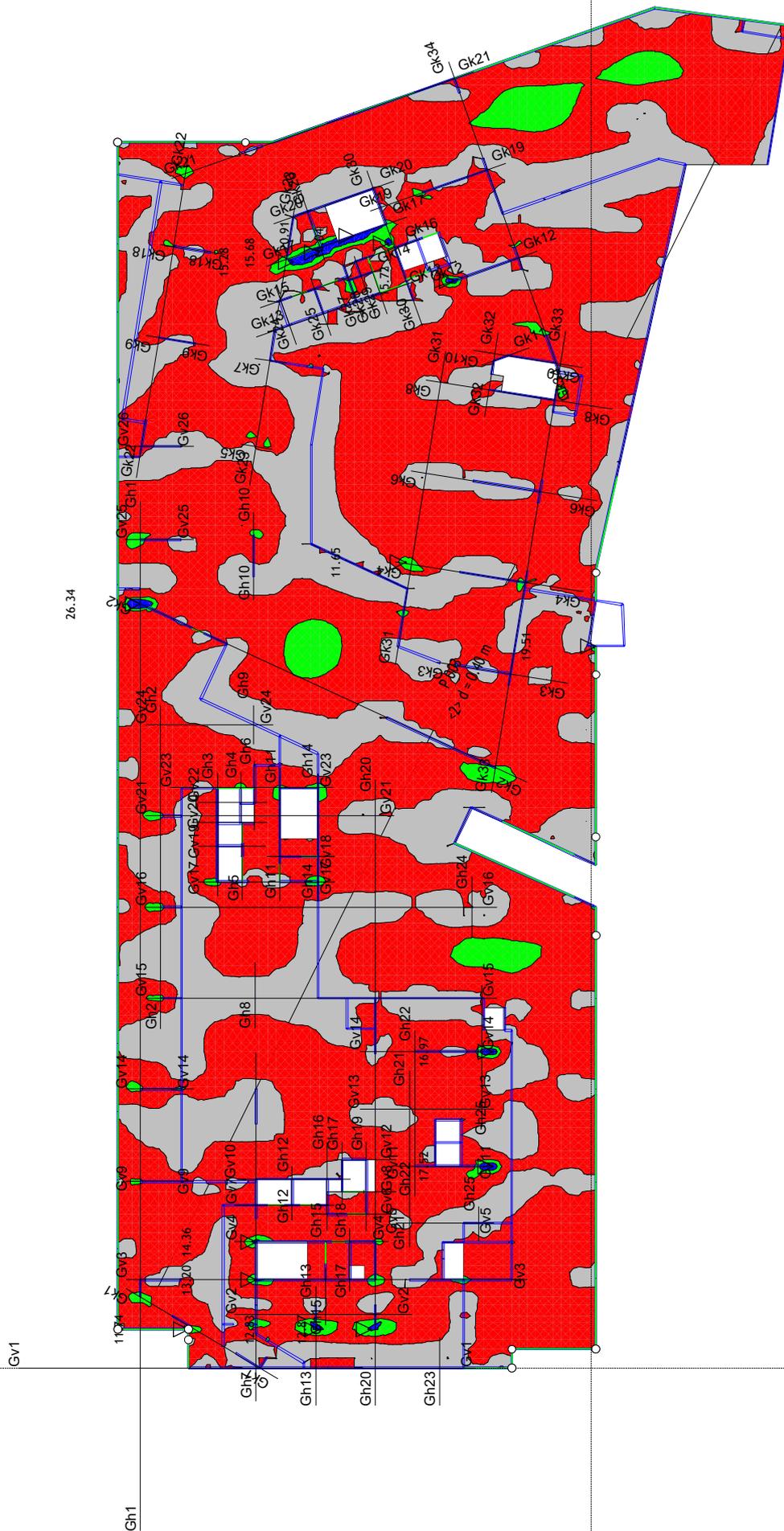
	kota	$f_{ck} =$ MPa	$f_{cd} =$ MPa	$N_{Ed}$ kN	$b =$ cm	$d =$ cm	$v_d =$	iskorištenost % set	krutost
S1	-5.00	35.00	23.33	5036.00	0.0	100.0	0.275	< 0.65	42
S2	-5.00	35.00	23.33	4862.00	0.0	100.0	0.265	< 0.65	41
S3	-5.00	35.00	23.33	4465.00	0.0	100.0	0.244	< 0.65	38
S4	-5.00	35.00	23.33	5445.00	0.0	100.0	0.297	< 0.65	46
S5	-5.00	35.00	23.33	6392.00	0.0	100.0	0.349	< 0.65	54
S6	-5.00	35.00	23.33	4247.00	0.0	100.0	0.232	< 0.65	36
S7	-5.00	35.00	23.33	6369.00	0.0	100.0	0.348	< 0.65	53
S8	-5.00	35.00	23.33	6541.00	120.0	40.0	0.584	< 0.65	90
S9	-5.00	35.00	23.33	4355.00	120.0	40.0	0.389	< 0.65	60
S10	-5.00	35.00	23.33	3792.00	120.0	40.0	0.339	< 0.65	52
S11	-5.00	35.00	23.33	6211.00	0.0	100.0	0.339	< 0.65	52
S12	-5.00	35.00	23.33	6148.00	0.0	100.0	0.336	< 0.65	52
S13	-5.00	35.00	23.33	5034.00	120.0	40.0	0.449	< 0.65	69
S14	-5.00	35.00	23.33	5152.00	120.0	40.0	0.460	< 0.65	71
S15	-5.00	35.00	23.33	4728.00	120.0	40.0	0.422	< 0.65	65
S16	-5.00	35.00	23.33	3621.00	80.0	40.0	0.485	< 0.65	75
S17	-5.00	35.00	23.33	2443.00	80.0	40.0	0.327	< 0.65	50
S18	-5.00	35.00	23.33	3456.00	80.0	40.0	0.463	< 0.65	71
S19	-5.00	35.00	23.33	1806.00	80.0	40.0	0.242	< 0.65	37
S20	-5.00	35.00	23.33	2422.00	80.0	40.0	0.324	< 0.65	50
S21	-5.00	35.00	23.33	4483.00	80.0	40.0	0.600	< 0.65	92
S22	-5.00	35.00	23.33	3715.00	80.0	40.0	0.498	< 0.65	77
S23	-5.00	35.00	23.33	3867.00	80.0	40.0	0.518	< 0.65	80
S24	-5.00	35.00	23.33	5407.00	0.0	100.0	0.295	< 0.65	45

	kota	fck = MPa	fcd = MPa	NEd kN	b= cm	d= cm	vd=	iskorištenost % set	krutost
S1	0.00	35.00	23.33	4848.00	0.0	100.0	0.265	< 0.65	41
S2	0.00	35.00	23.33	4612.00	0.0	100.0	0.252	< 0.65	39
S3	0.00	35.00	23.33	4695.00	0.0	100.0	0.256	< 0.65	39
S4	0.00	35.00	23.33	5592.00	0.0	100.0	0.305	< 0.65	47
S5	0.00	35.00	23.33	5323.00	0.0	100.0	0.291	< 0.65	45
S6	0.00	35.00	23.33	2963.00	0.0	100.0	0.162	< 0.65	25
S7	0.00	35.00	23.33	5385.37	0.0	100.0	0.294	< 0.65	45
S8	0.00	35.00	23.33	5390.00	160.0	40.0	0.361	< 0.65	56
S9	0.00	35.00	23.33	3351.00	120.0	40.0	0.299	< 0.65	46
S10	0.00	35.00	23.33	3088.00	140.0	40.0	0.236	< 0.65	36
S11	0.00	35.00	23.33	5140.00	0.0	100.0	0.281	< 0.65	43
S12	0.00	35.00	23.33	5022.00	0.0	100.0	0.274	< 0.65	42
S13	0.00	35.00	23.33	3920.00	160.0	40.0	0.263	< 0.65	40
S14	0.00	35.00	23.33	3798.00	120.0	40.0	0.339	< 0.65	52
S15	0.00	35.00	23.33	3512.00	120.0	40.0	0.314	< 0.65	48
S16	0.00	35.00	23.33	2877.00	140.0	40.0	0.220	< 0.65	34
S17	0.00	35.00	23.33	2252.00	160.0	40.0	0.151	< 0.65	23
S18	0.00	35.00	23.33	3097.00	140.0	40.0	0.237	< 0.65	36
S19	0.00	35.00	23.33	1560.00	120.0	40.0	0.139	< 0.65	21
S20	0.00	35.00	23.33	1725.00	80.0	30.0	0.308	< 0.65	47
S21	0.00	35.00	23.33	4598.00	160.0	40.0	0.308	< 0.65	47
S22	0.00	35.00	23.33	3542.00	140.0	40.0	0.271	< 0.65	42
S23	0.00	35.00	23.33	3669.00	140.0	40.0	0.281	< 0.65	43
S24	0.00	35.00	23.33	4702.00	0.0	100.0	0.257	< 0.65	39

# Dimenzionisanje (beton)

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	Red
5.65 (R12/20)	Green
11.30 (R12/10)	Blue
26.34	Grey



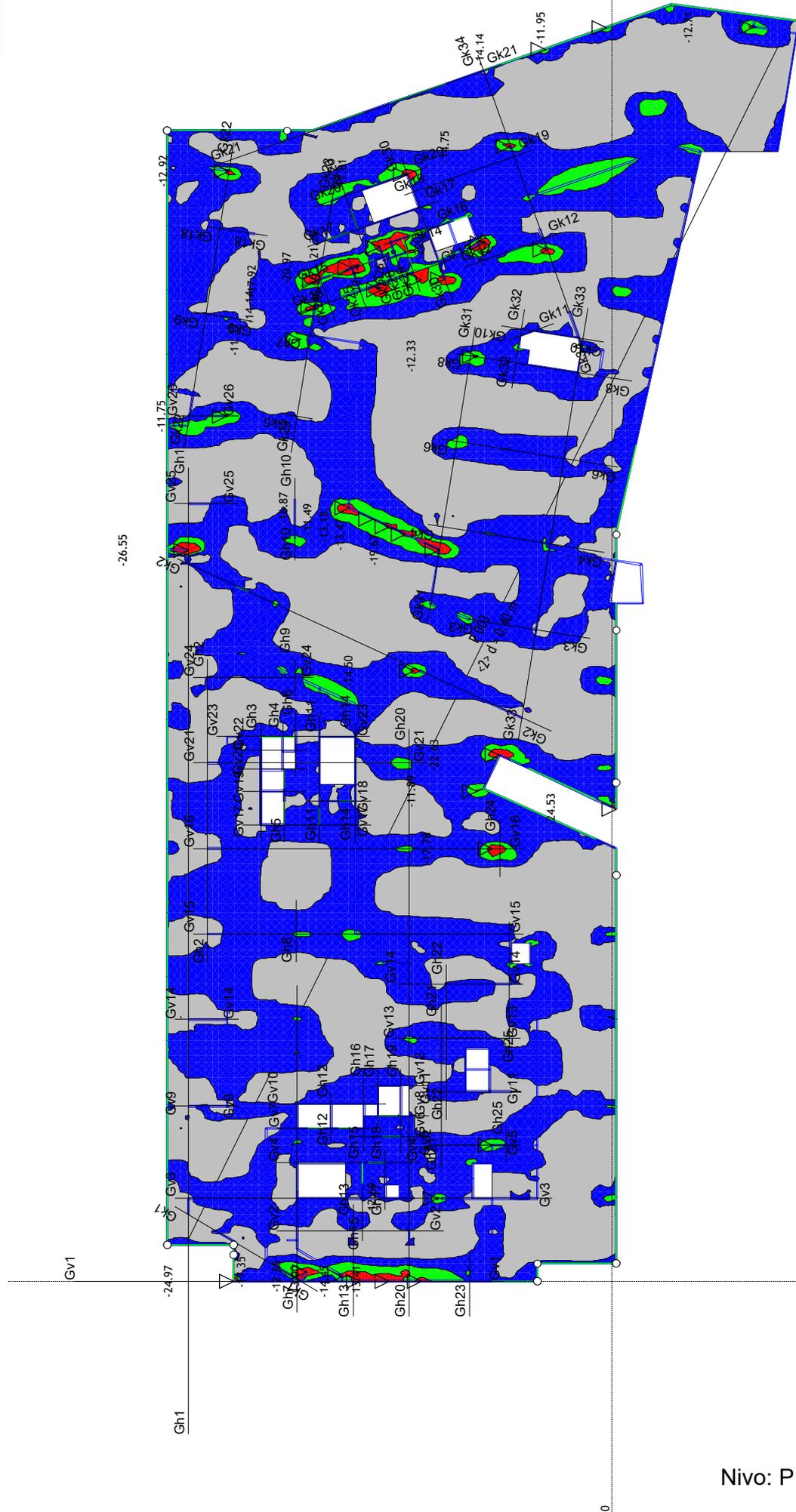
Nivo: P 000 [-0.15 m]  
Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	Red
5.65 (R12/20)	Green
11.30 (R12/10)	Blue
33.04	Grey



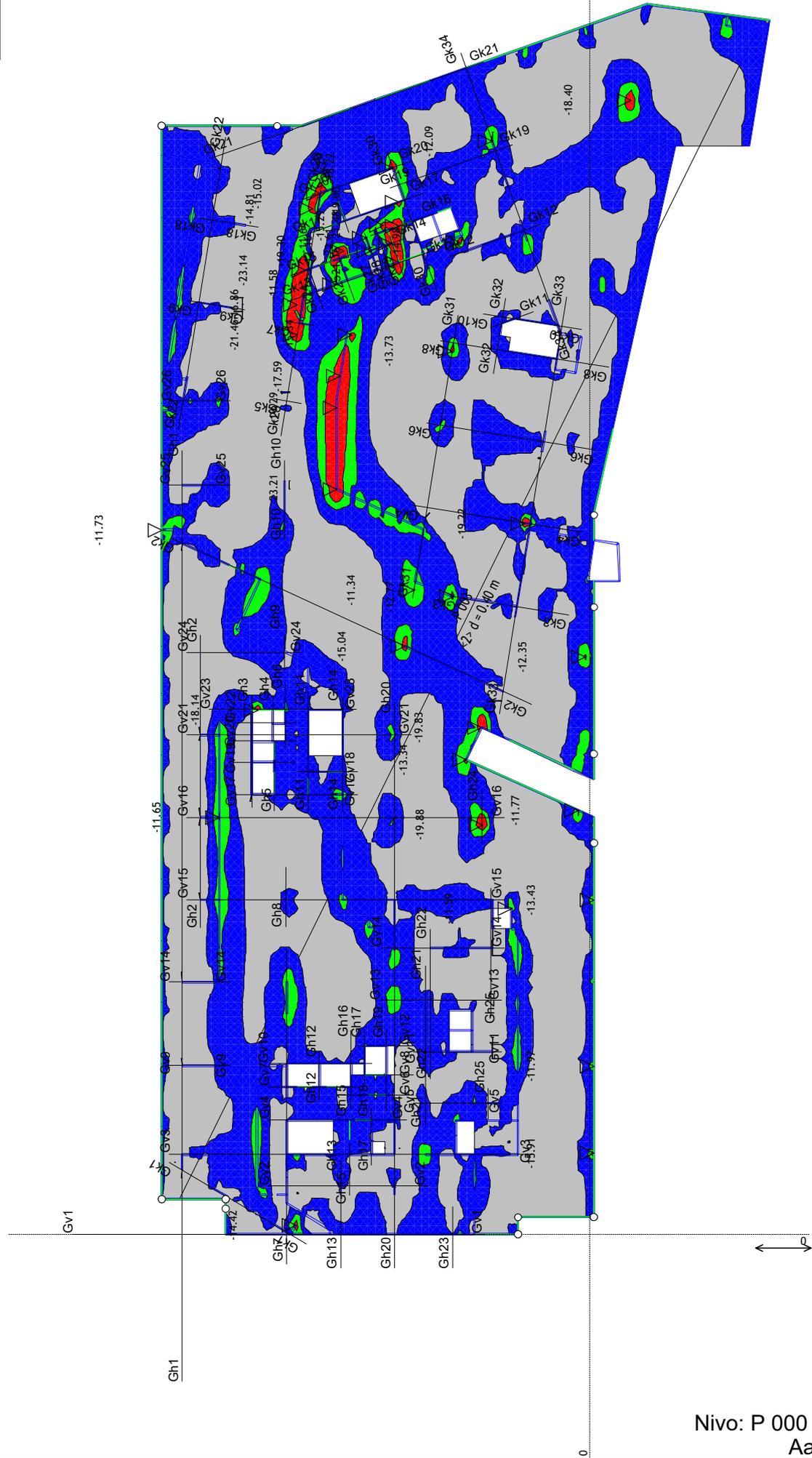
Nivo: P 000 [-0.15 m]  
 Aa - d.zona

Aa - g.zona [cm<sup>2</sup>/m]  
 -26.55  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00



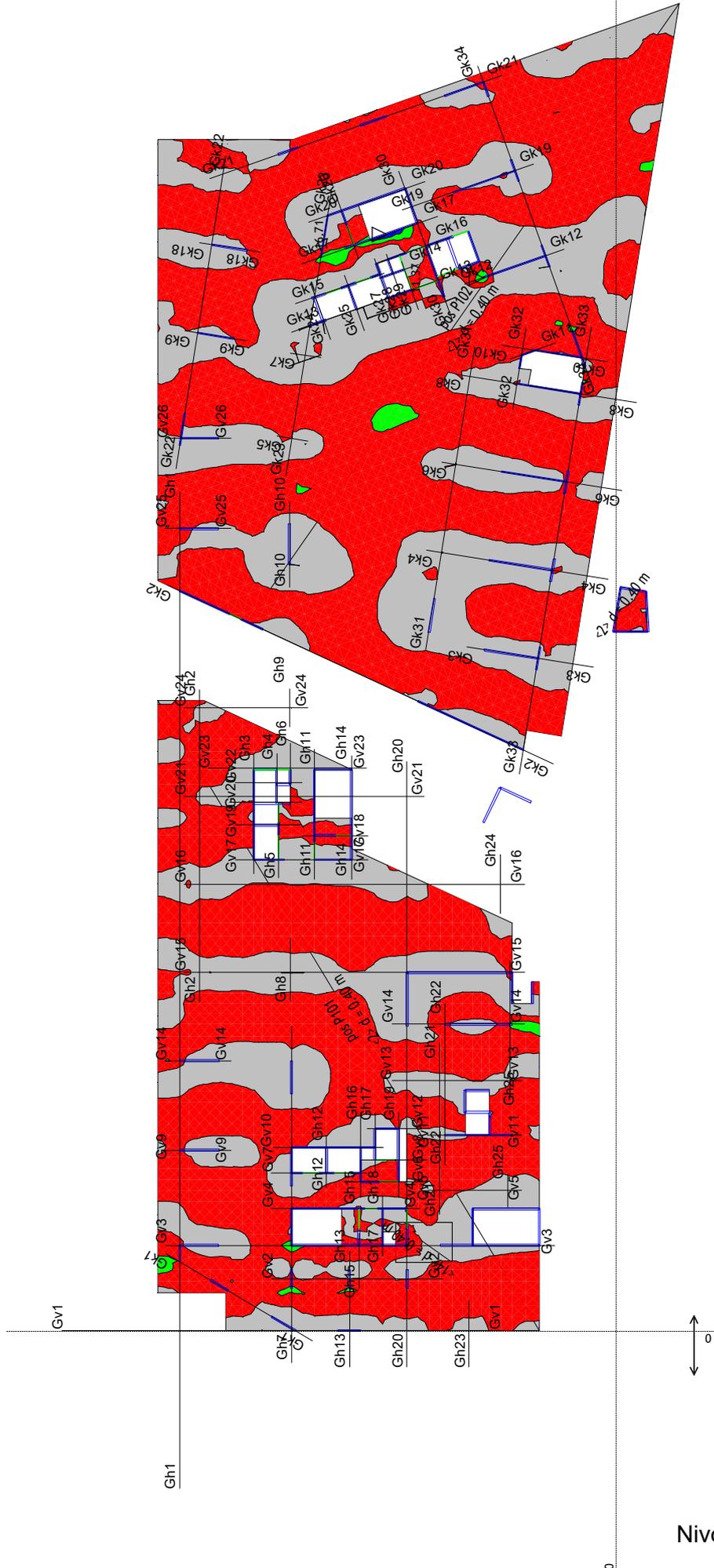
Nivo: P 000 [-0.15 m]  
 Aa - g.zona

Aa - g.zona [cm <sup>2</sup> /m]
-23.21
-11.30 (R12/10)
-5.65 (R12/20)
-0.00



Nivo: P 000 [-0.15 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	Red
5.65 (R12/20)	Green
11.30 (R12/10)	Blue
16.71	Grey



Nivo: P 100 [3.30 m]  
 Aa - d.zona

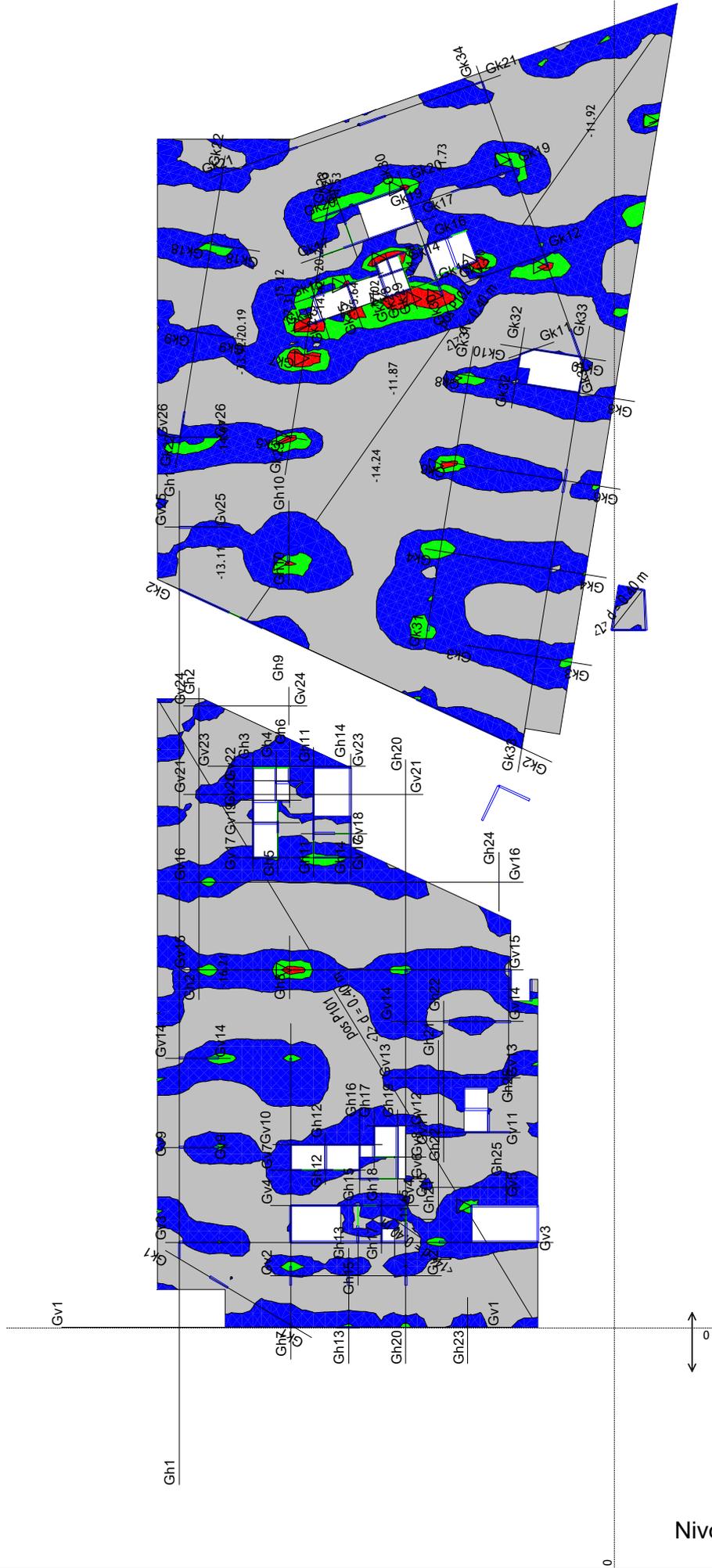
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	Red
5.65 (R12/20)	Green
11.30 (R12/10)	Blue
19.05	Grey



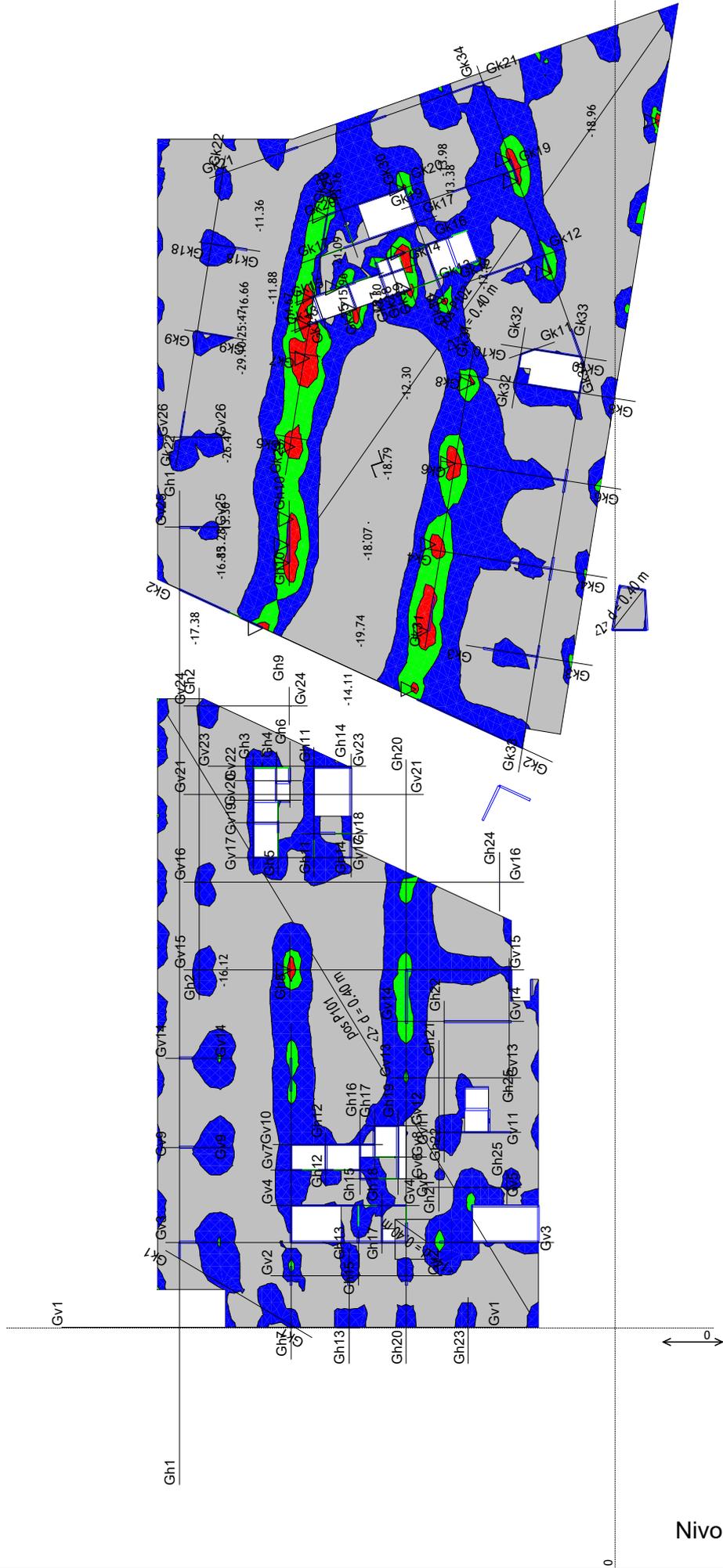
Nivo: P 100 [3.30 m]  
 Aa - d.zona

Aa - g.zona [cm <sup>2</sup> /m]
-33.92
-11.30 (R12/10)
-5.65 (R12/20)
-0.00



Nivo: P 100 [3.30 m]  
 Aa - g.zona

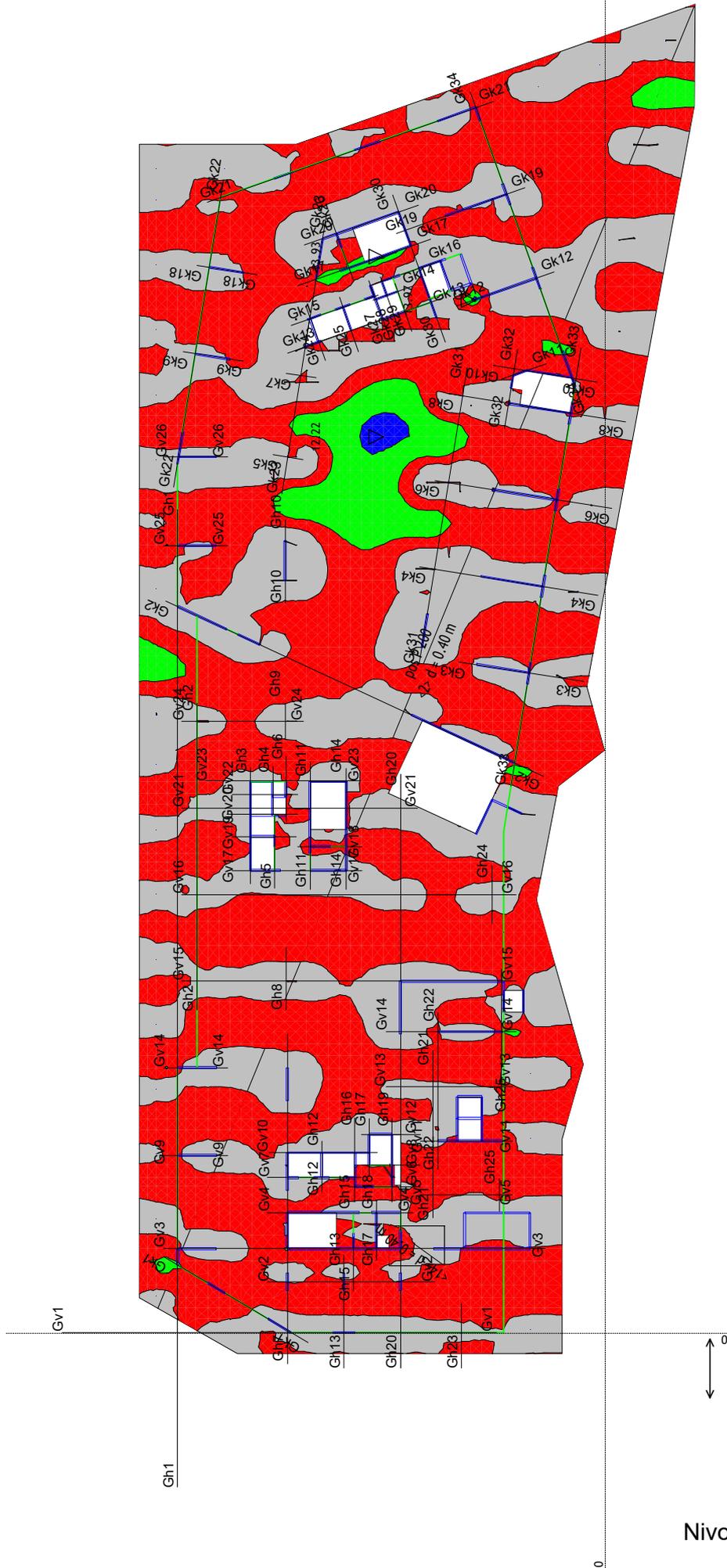
Aa - g.zona [cm <sup>2</sup> /m]	-29.10
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00



Nivo: P 100 [3.30 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	11.30 (R12/10)
	13.97

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 200 [6.75 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	Red
5.65 (R12/20)	Green
11.30 (R12/10)	Blue
26.00	Blue

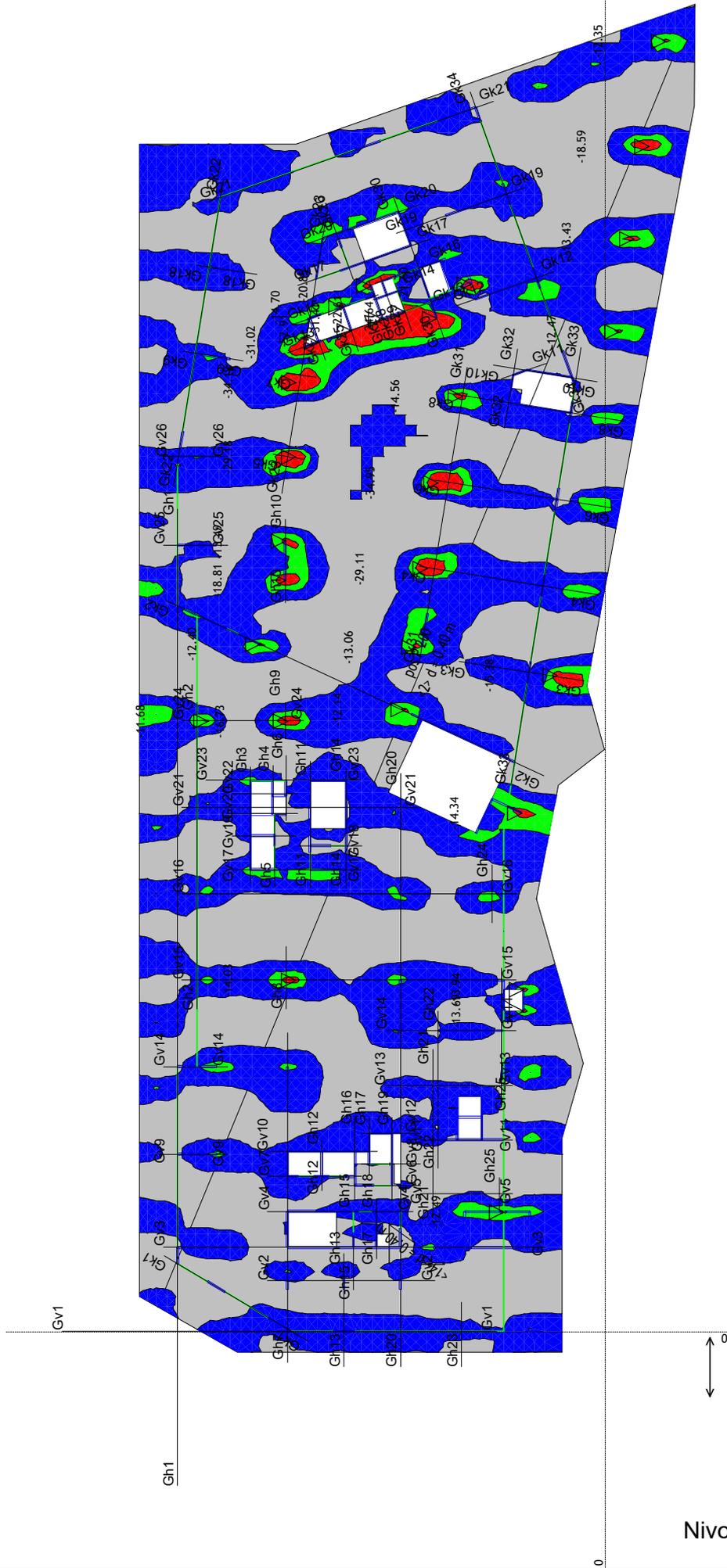
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 200 [6.75 m]  
 Aa - d.zona

Aa - g.zona [cm<sup>2</sup>/m]  
 -52.91  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00

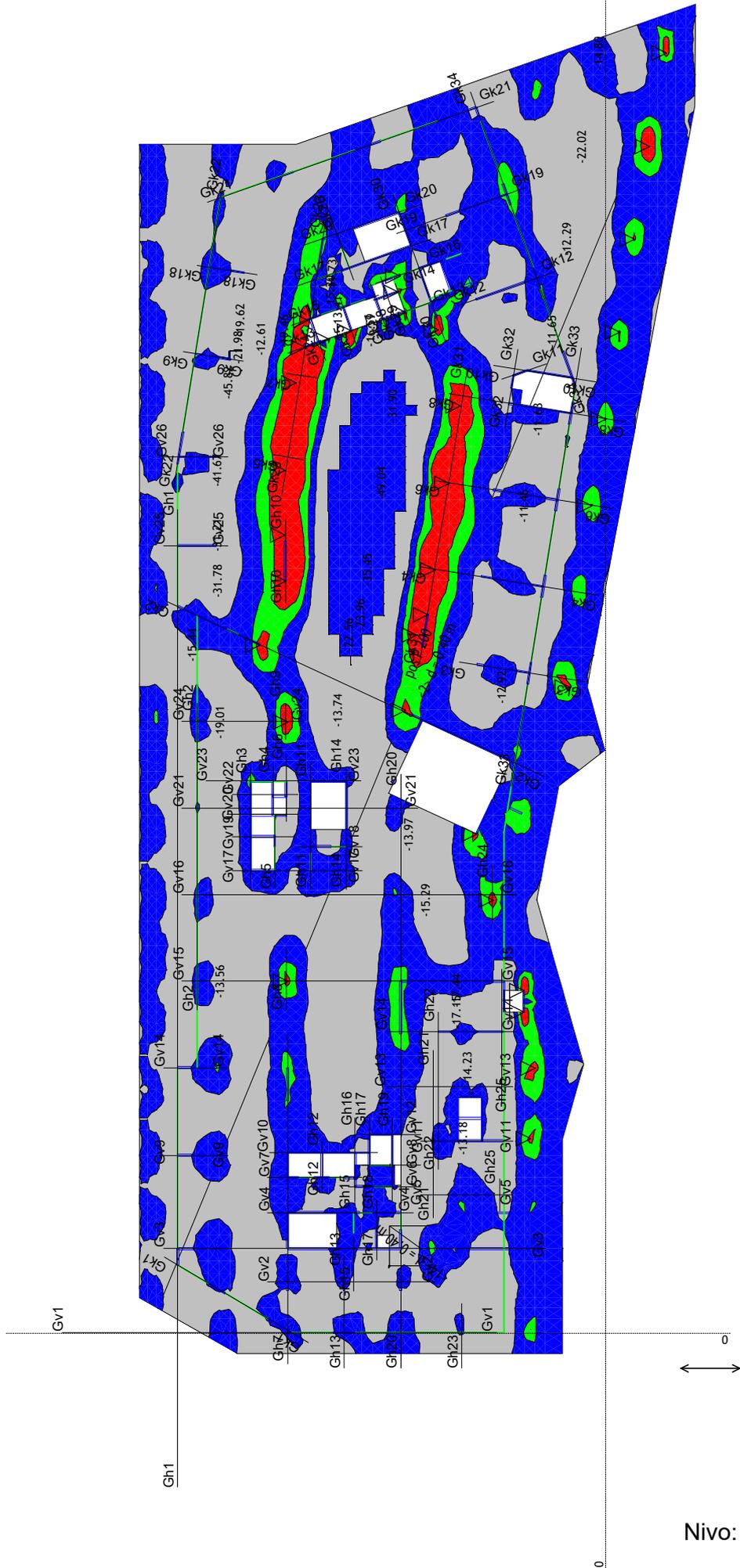
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 200 [6.75 m]  
 Aa - g.zona

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm

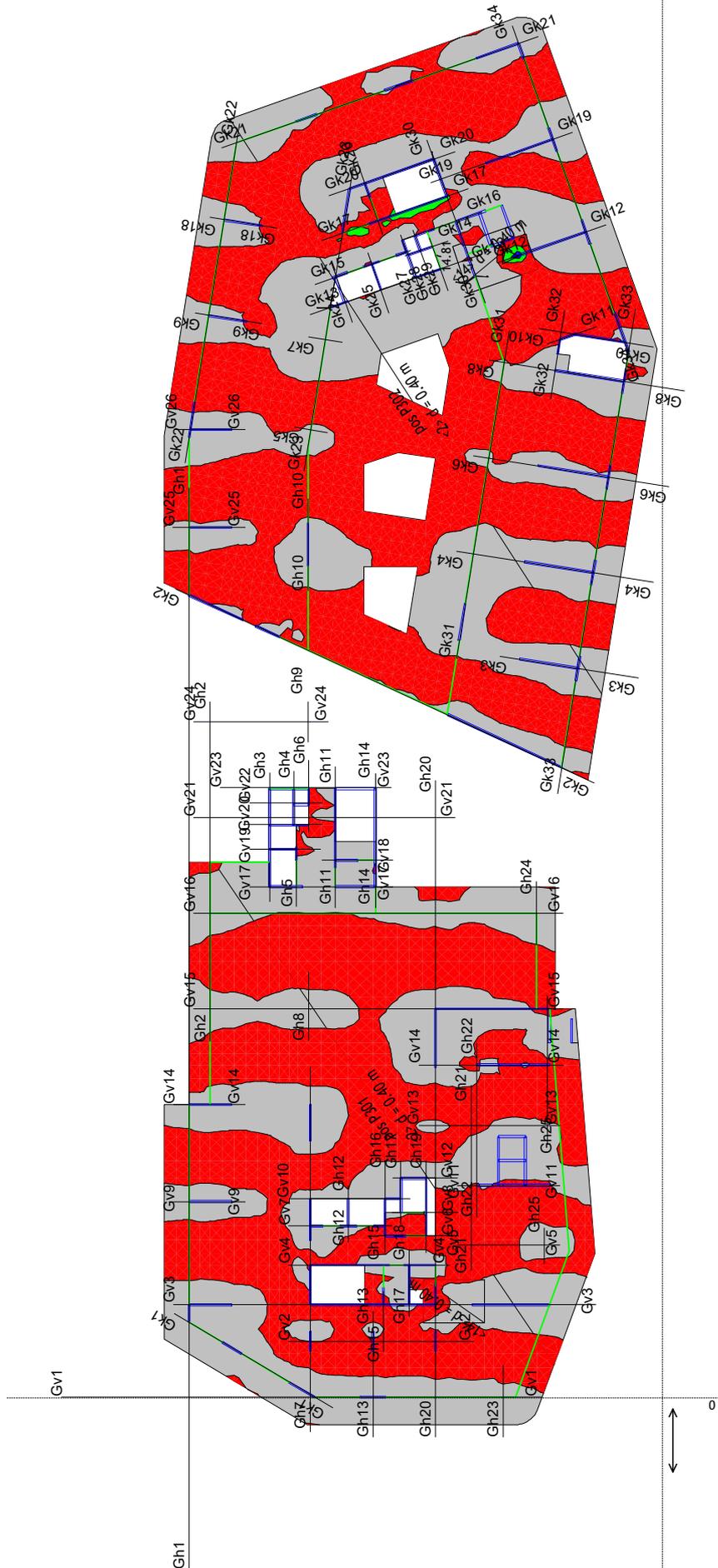
Aa - g.zona [cm <sup>2</sup> /m]	-49.04	■
	-11.30 (R12/10)	■
	-5.65 (R12/20)	■
	-0.00	■



Nivo: P 200 [6.75 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	11.30 (R12/10)
	14.81

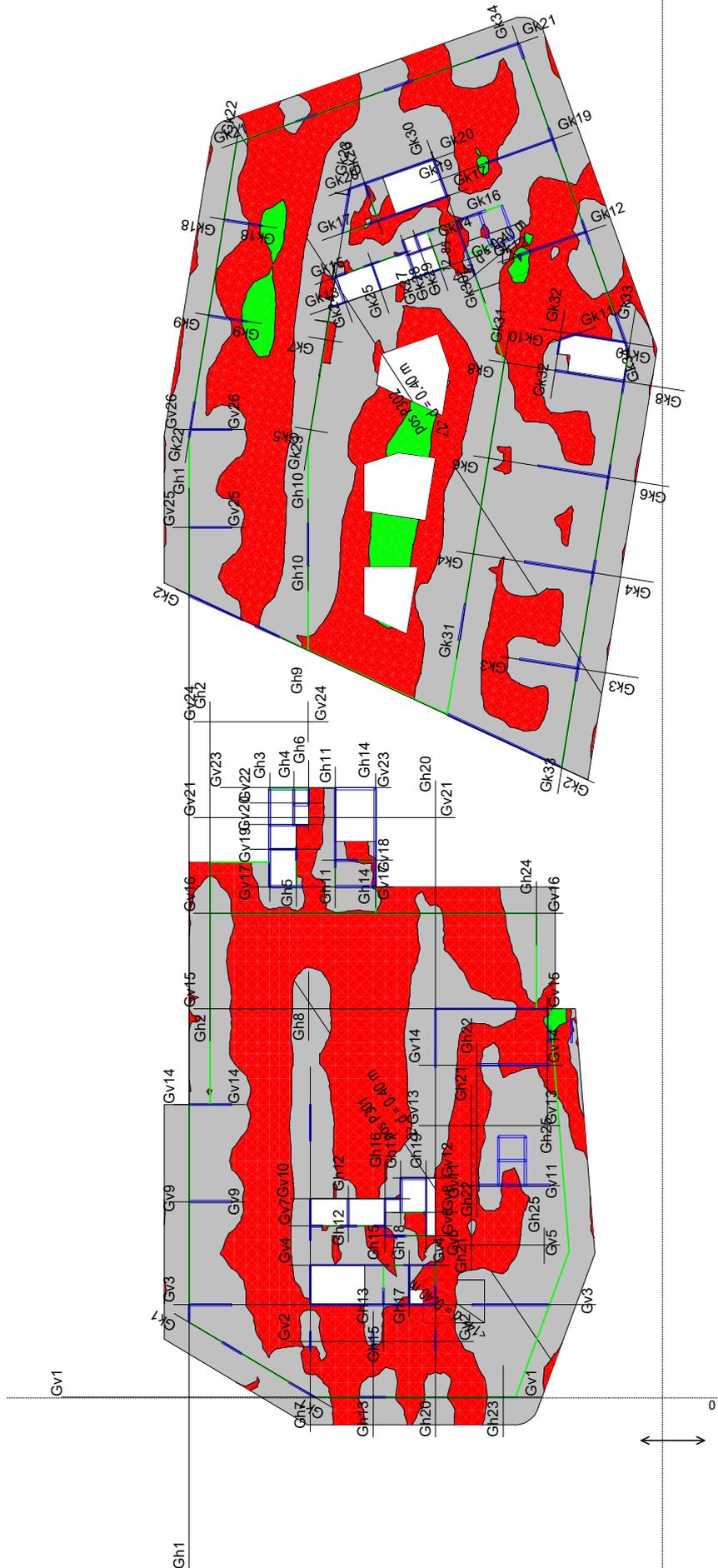
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 300 [13.65 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	11.30 (R12/10)
	12.85

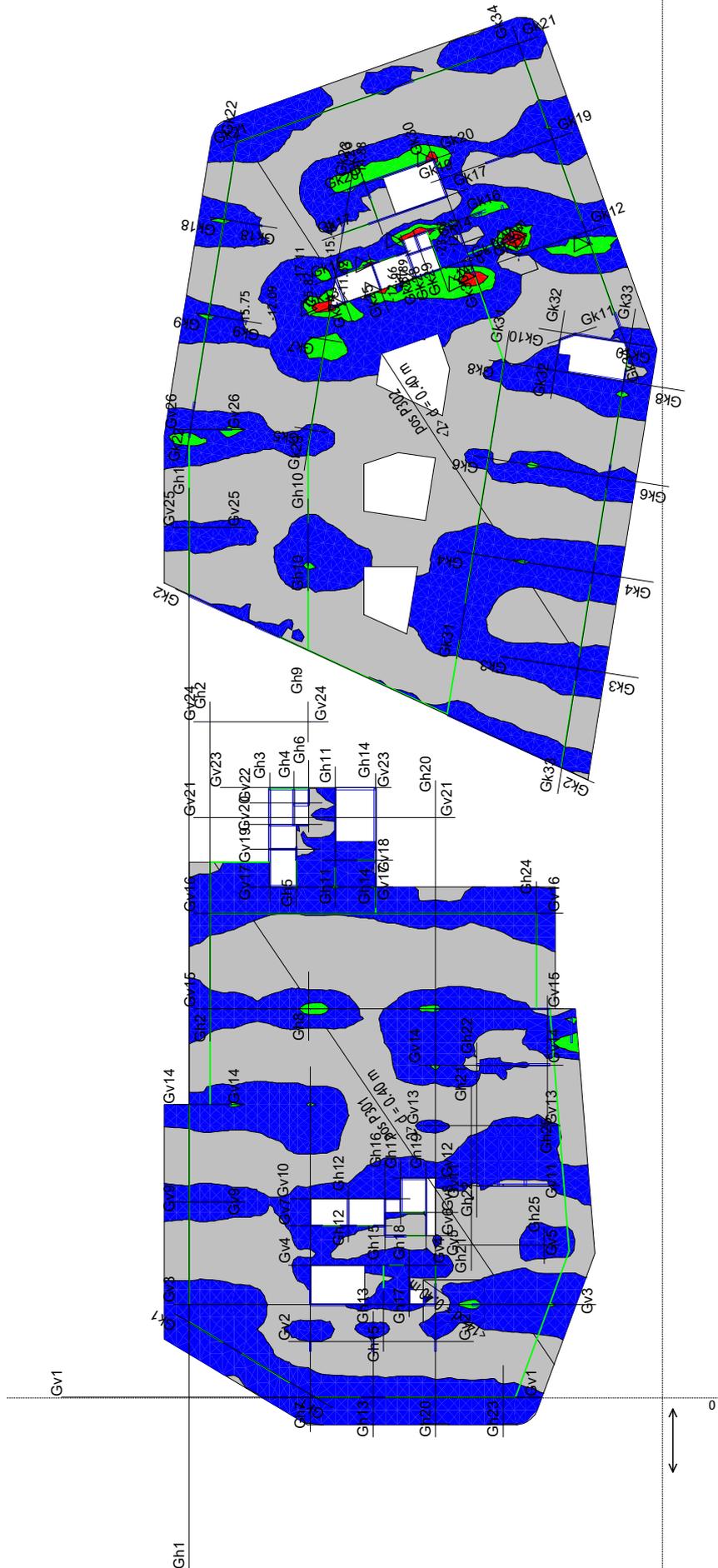
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 300 [13.65 m]  
 Aa - d.zona

Aa - g.zona [cm <sup>2</sup> /m]	-25.82
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00

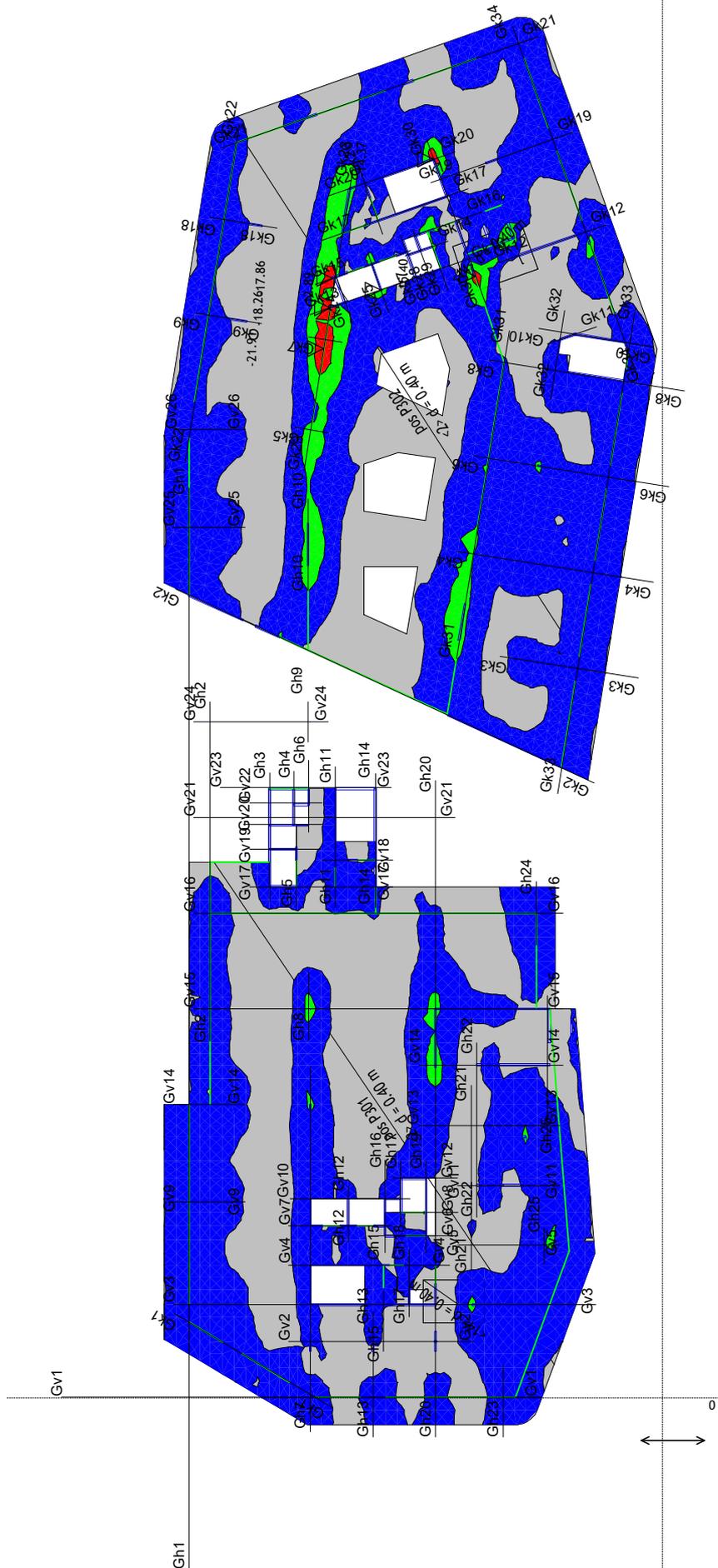
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 300 [13.65 m]  
 Aa - g.zona

Aa - g.zona [cm<sup>2</sup>/m]  
 -21.91  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00

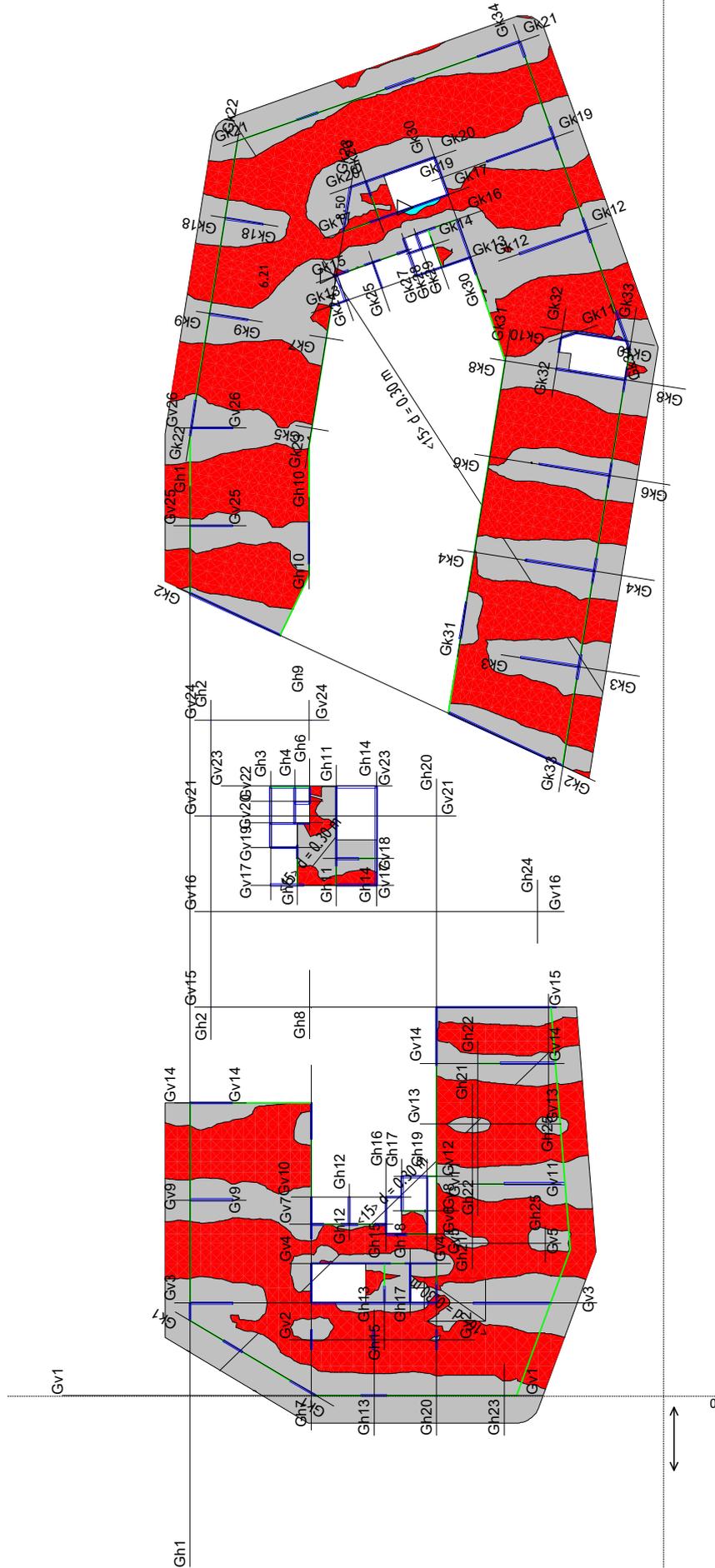
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 300 [13.65 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	8.50 (R12/10)

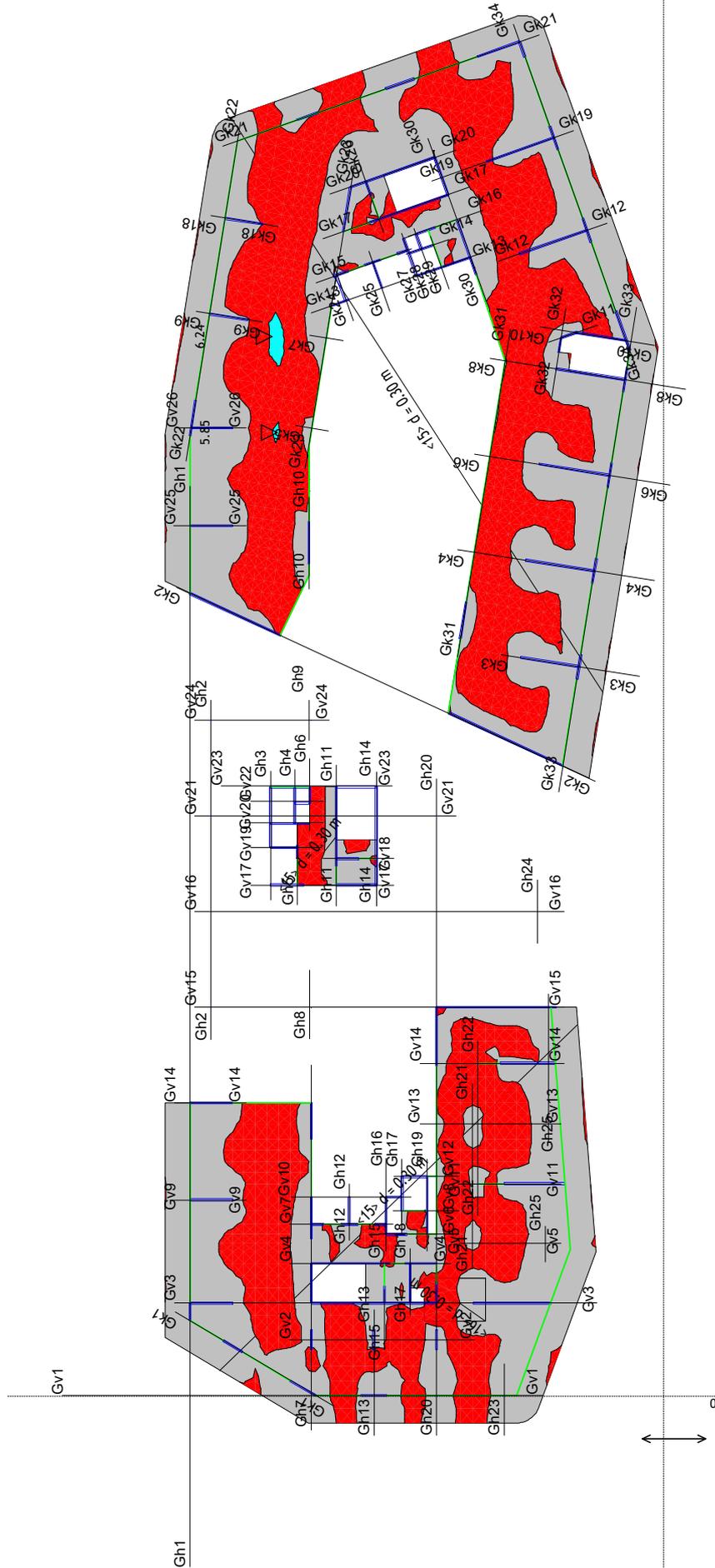
Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 400 [17.15 m]  
Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	6.24 (R12/10)

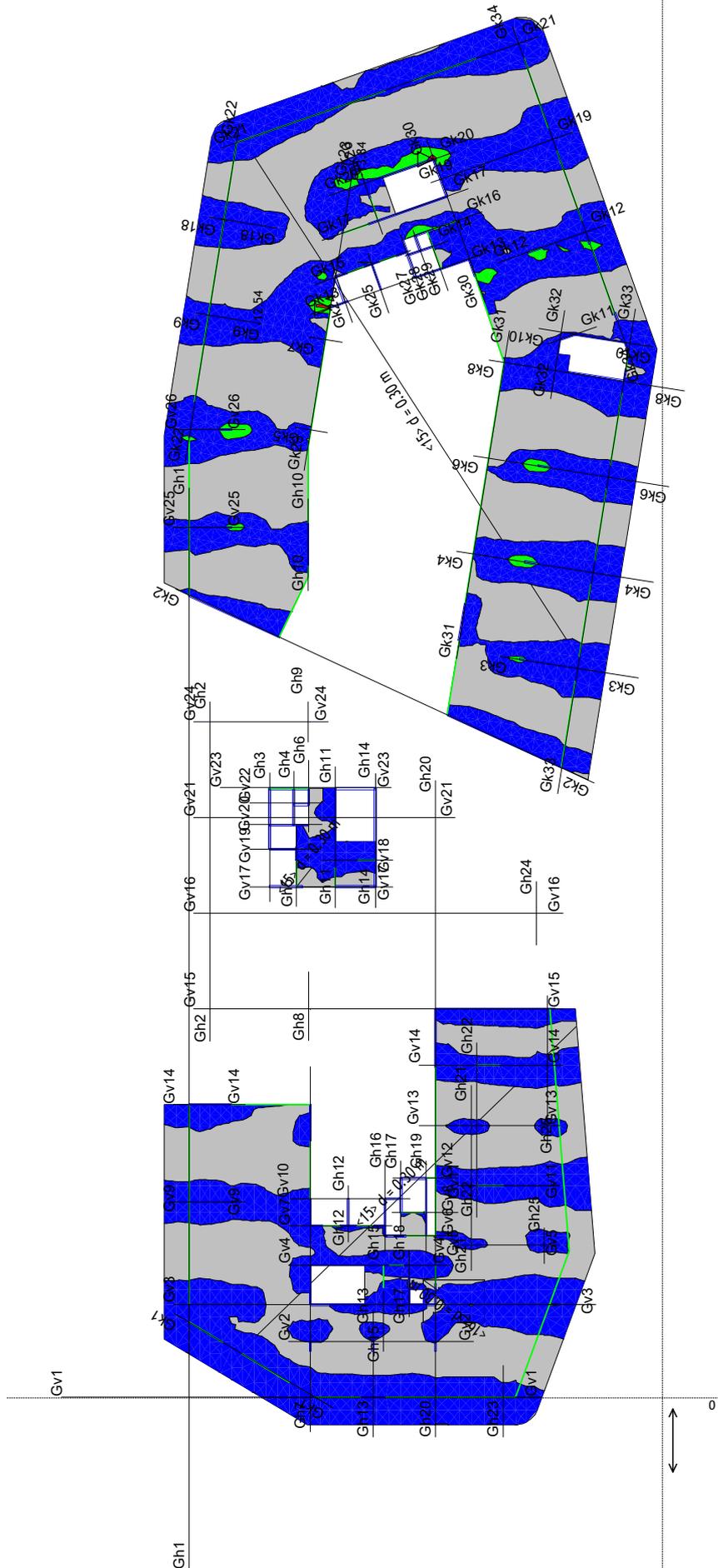
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 400 [17.15 m]  
 Aa - d.zona

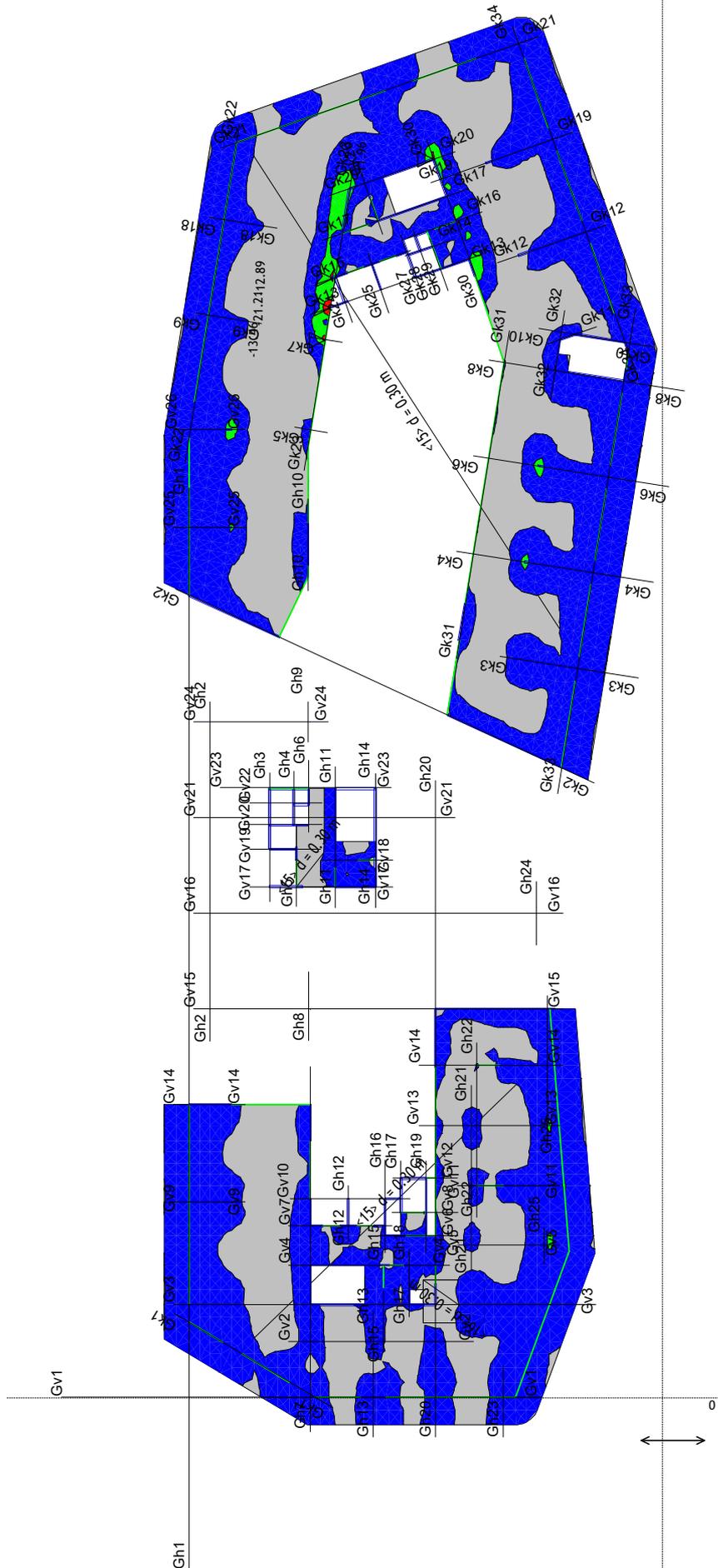
Aa - g.zona [cm <sup>2</sup> /m]	-13.84
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



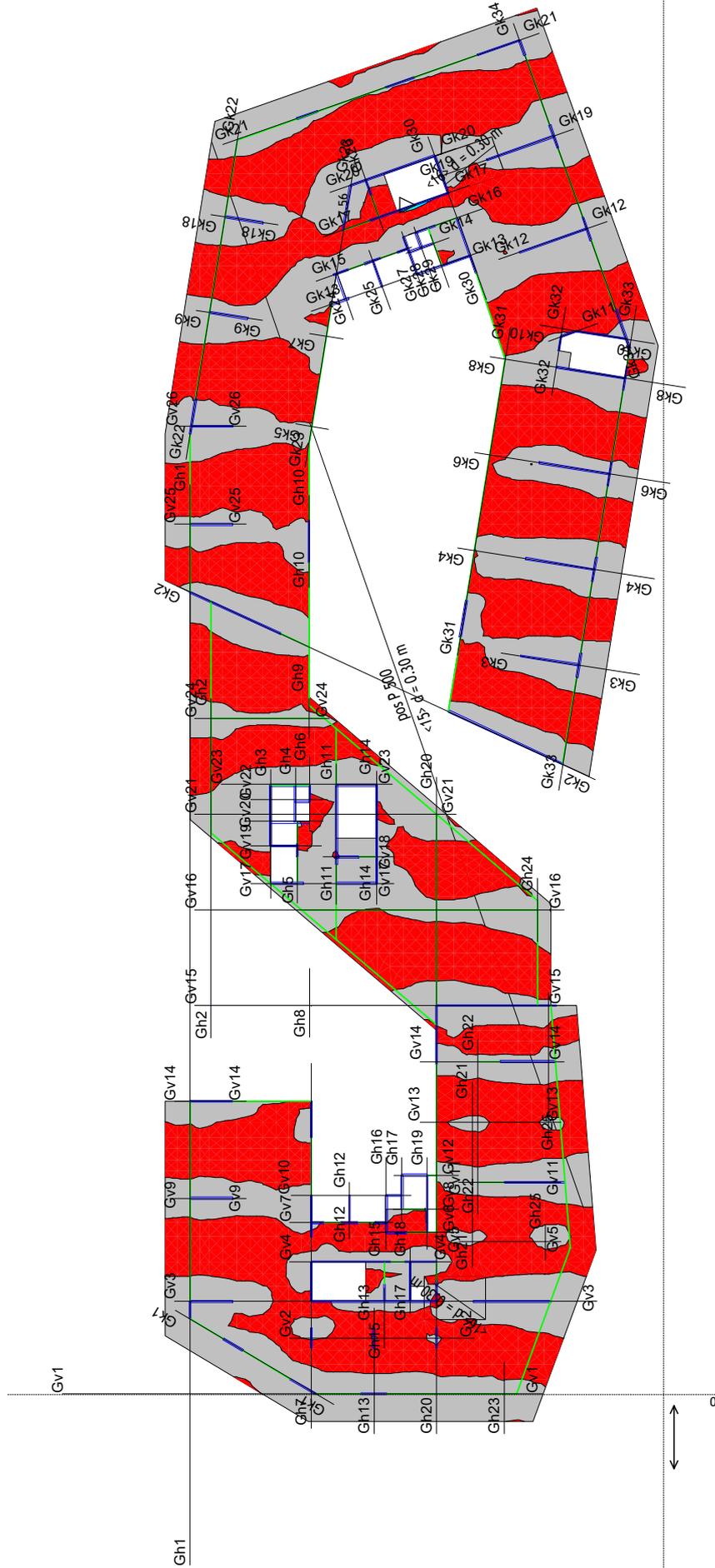
Nivo: P 400 [17.15 m]  
 Aa - g.zona

Aa - g.zona [cm <sup>2</sup> /m]	
-21.21	■
-11.30 (R12/10)	■
-5.65 (R12/20)	■
-0.00	■



Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	7.56 (R12/10)

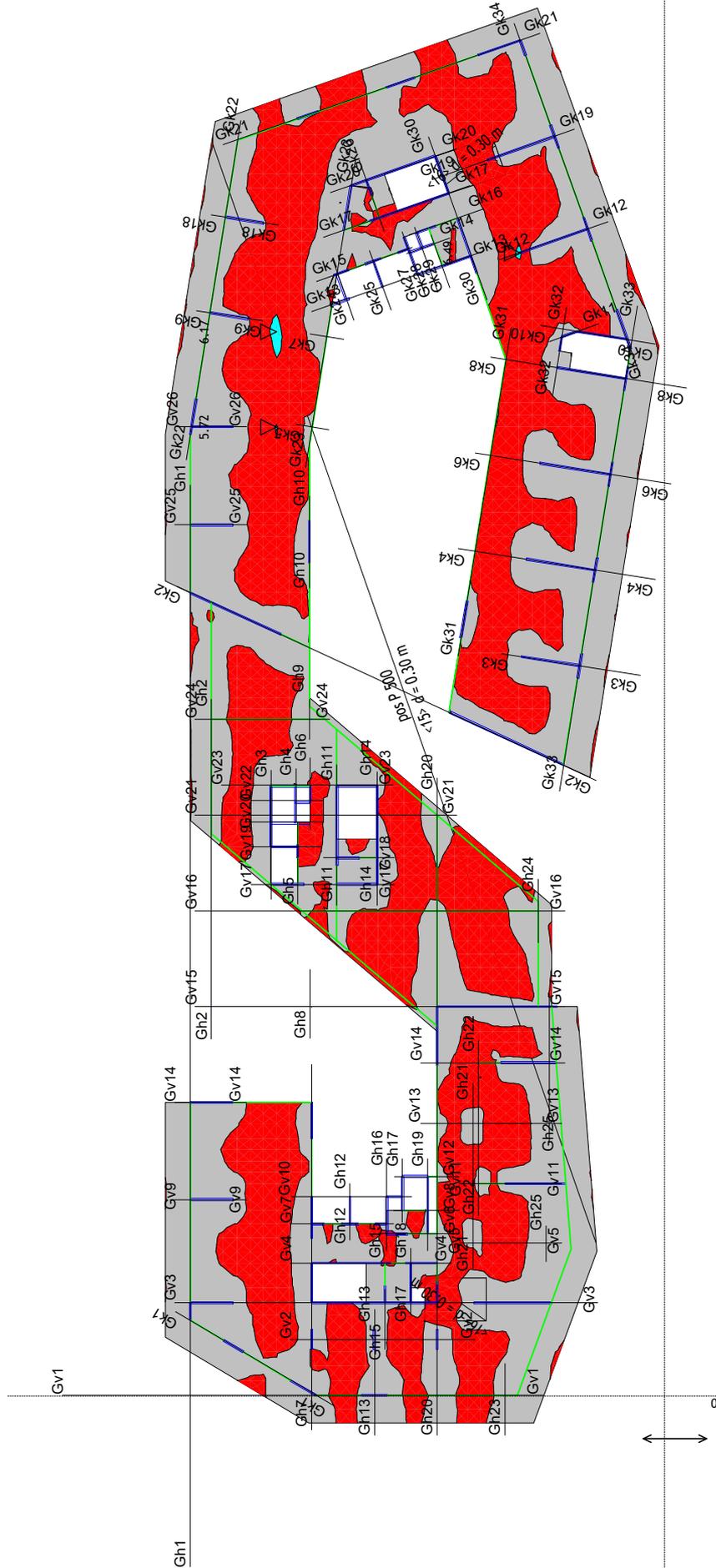
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 500 [20.65 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	0.00
	5.65 (R12/20)
	6.49 (R12/10)

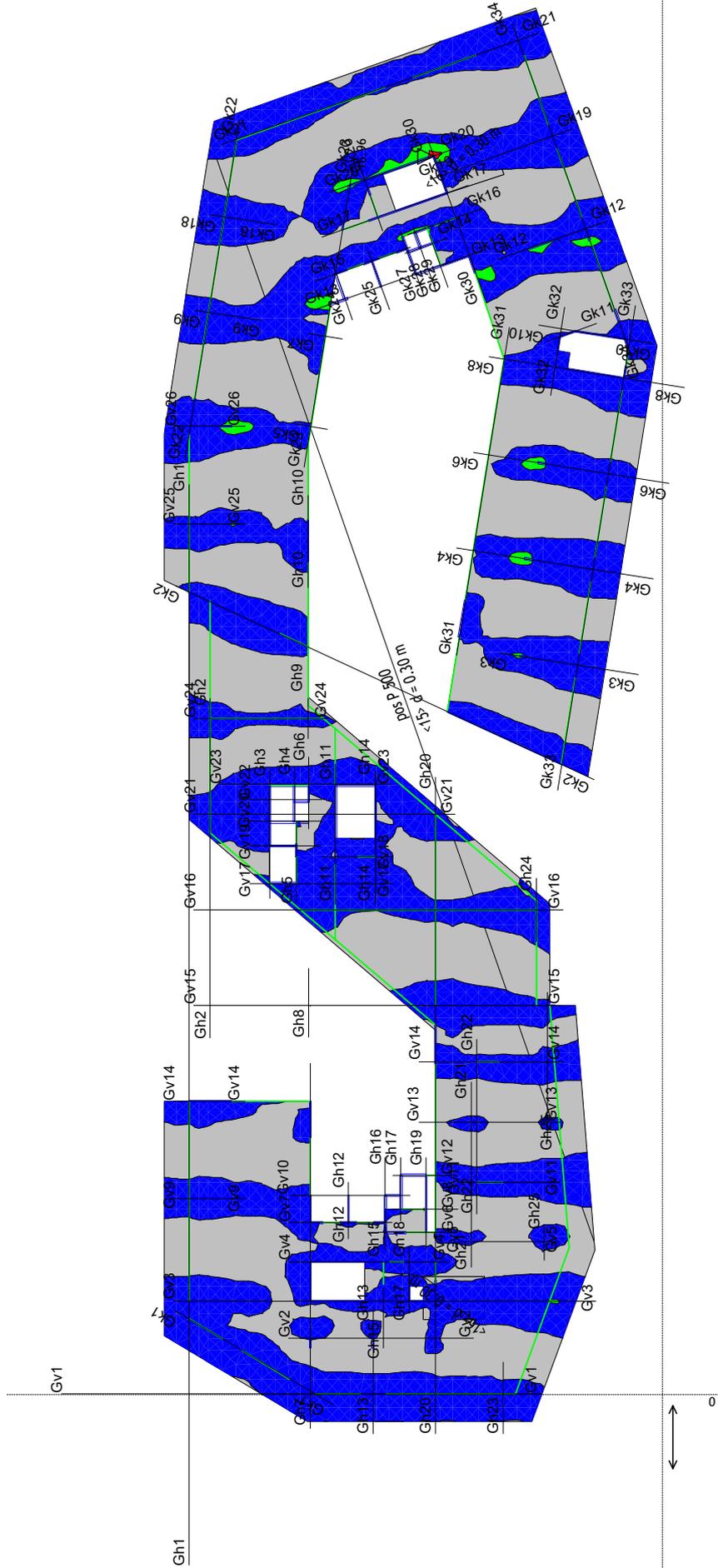
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 500 [20.65 m]  
 Aa - d.zona

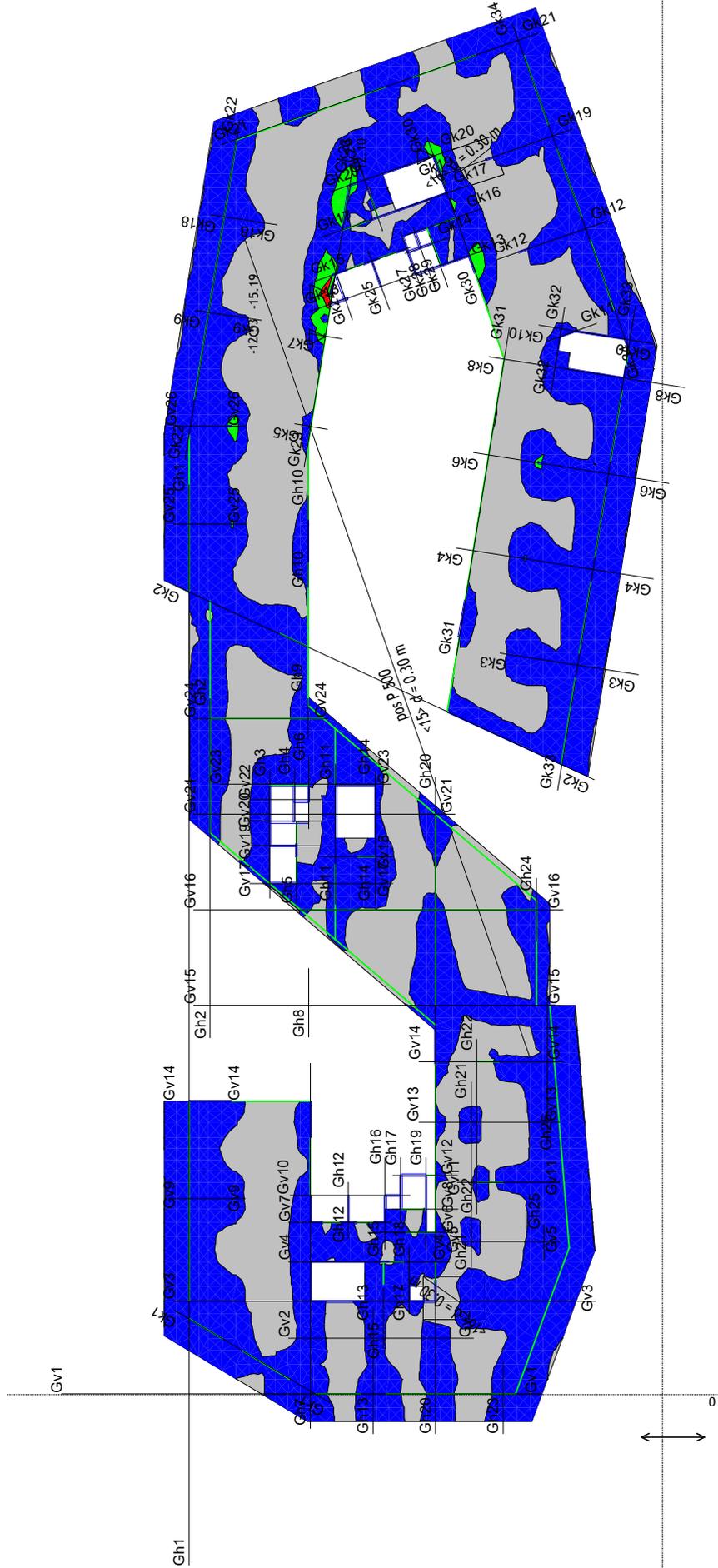
Aa - g.zona [cm <sup>2</sup> /m]	-16.96
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 500 [20.65 m]  
 Aa - g.zona

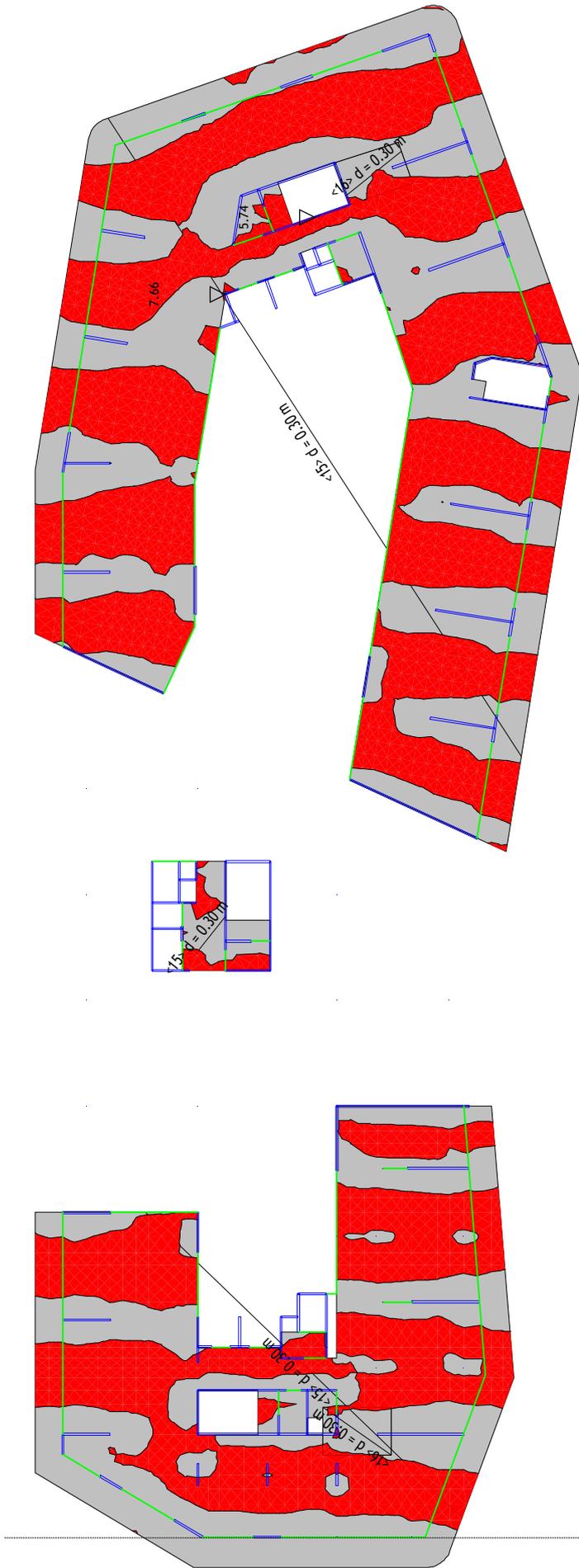
Aa - g.zona [cm <sup>2</sup> /m]	-15.19
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00



Nivo: P 500 [20.65 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
7.66 (R12/10)

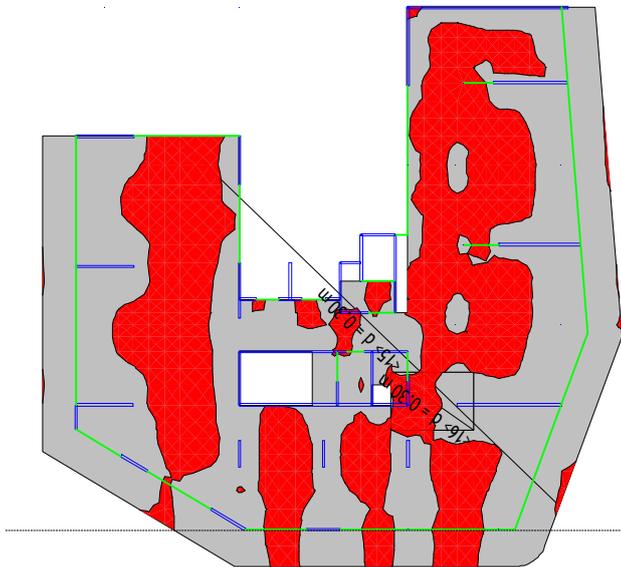
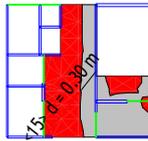
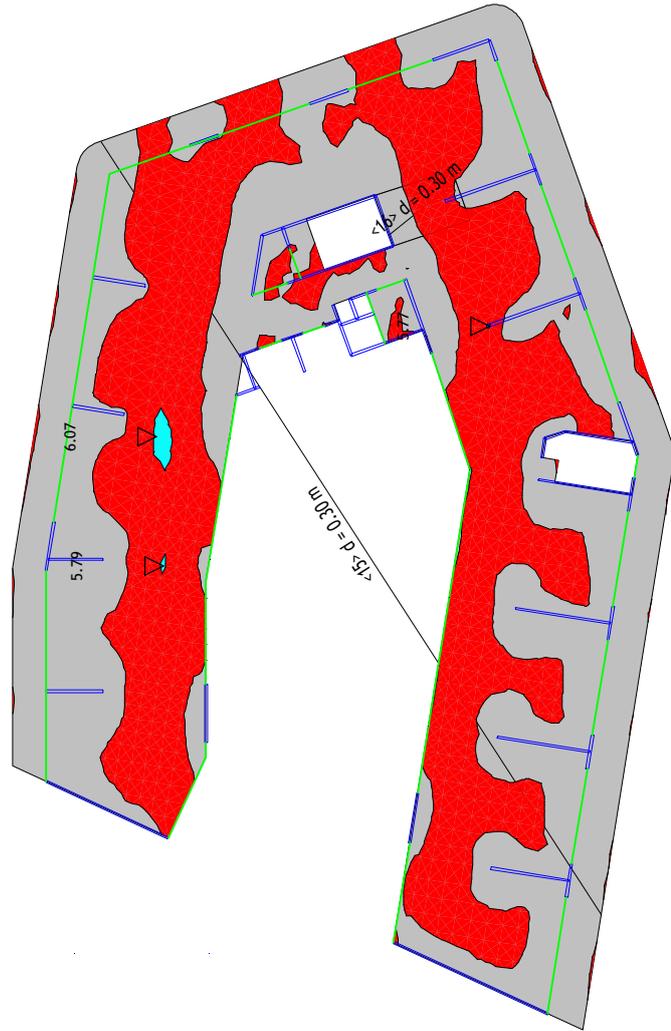
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 600 [24.15 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	White
5.65 (R12/20)	Red
6.07 (R12/10)	Cyan

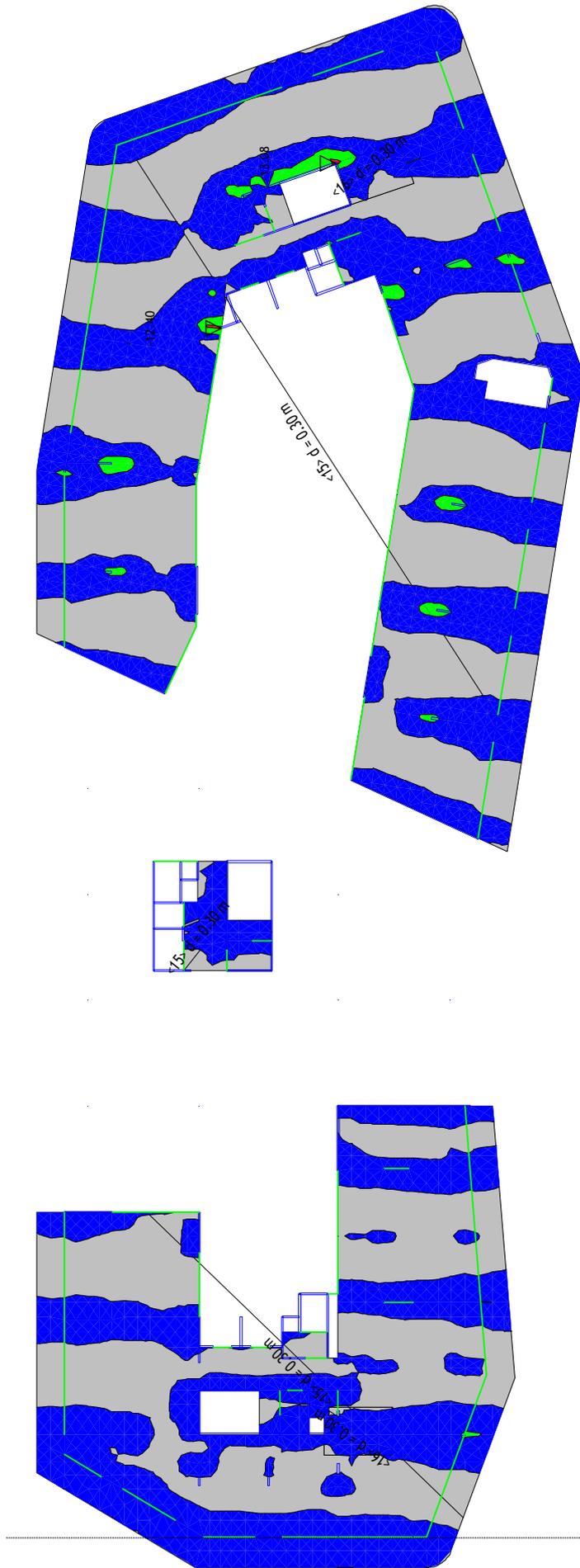
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



0  
 ← →  
 0

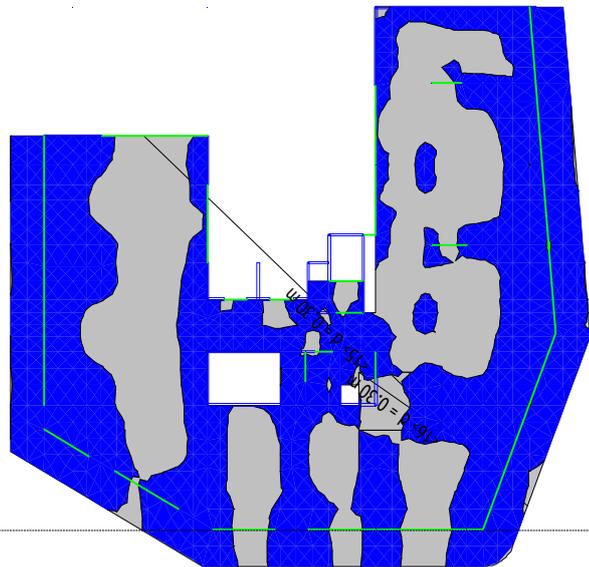
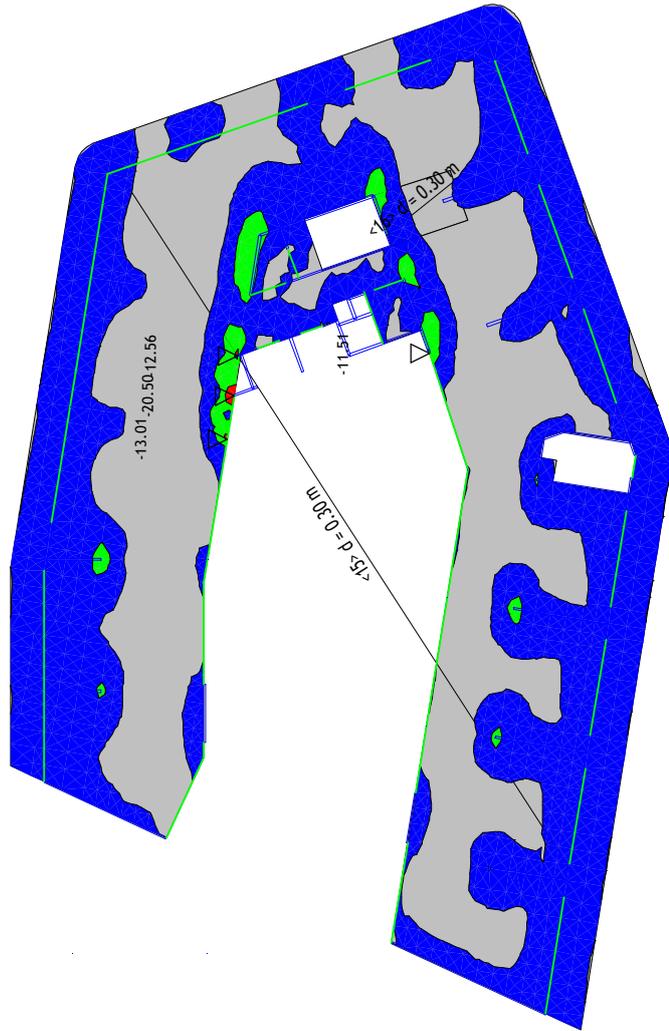
Nivo: P 600 [24.15 m]  
 Aa - d.zona

Aa - g.zona [cm <sup>2</sup> /m]	Color
-13.08	Red
-11.30 (R12/10)	Green
-5.65 (R12/20)	Blue
-0.00	Grey



Nivo: P 600 [24.15 m]  
 Aa - g.zona

Aa - g.zona [cm <sup>2</sup> /m]
-20.50
-11.30 (R12/10)
-5.65 (R12/20)
-0.00

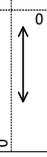
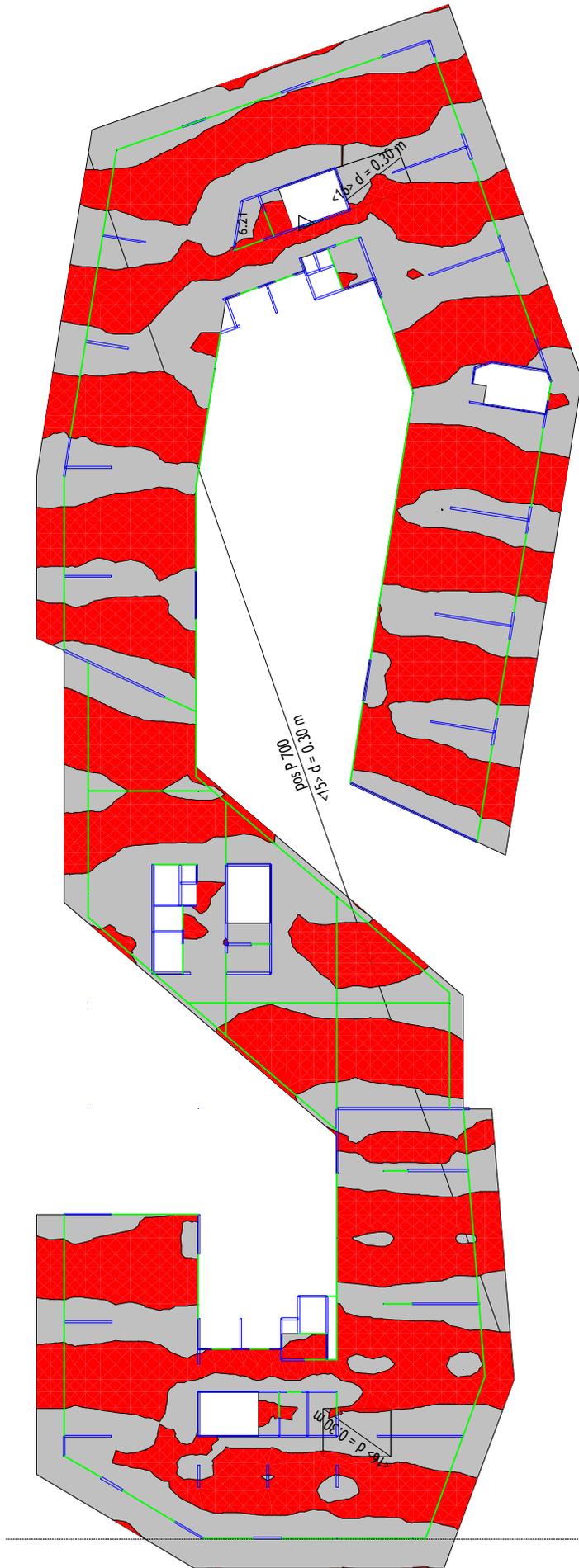


0  
 ← →  
 0

Nivo: P 600 [24.15 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	White
5.65 (R12/20)	Red
6.21 (R12/10)	Cyan

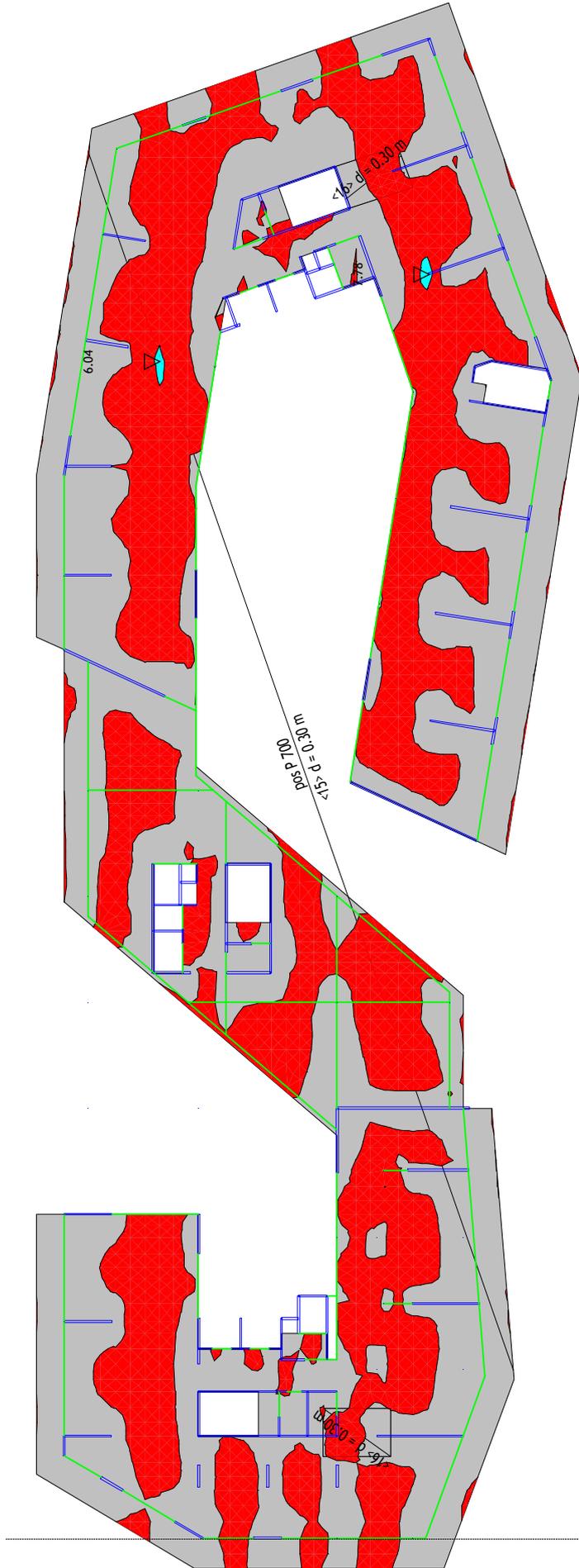
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 700 [27.65 m]  
 Aa - d.zona

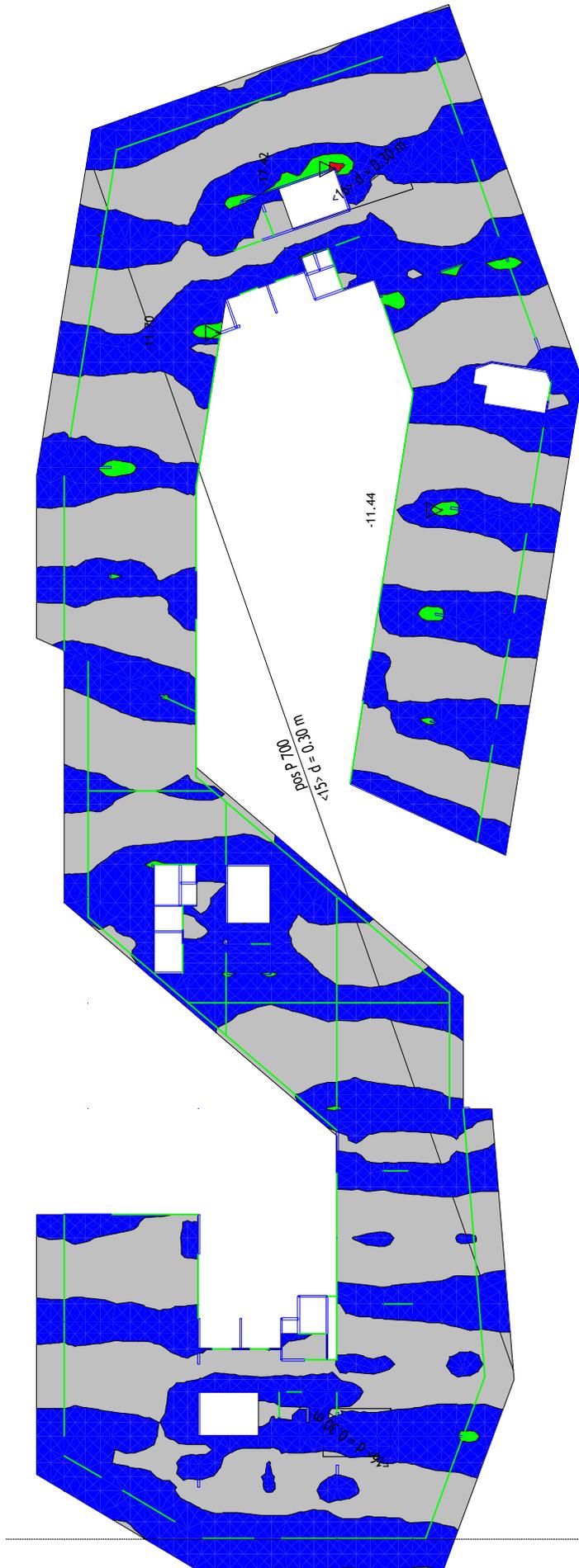
Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
7.78 (R12/10)

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 700 [27.65 m]  
 Aa - d.zona

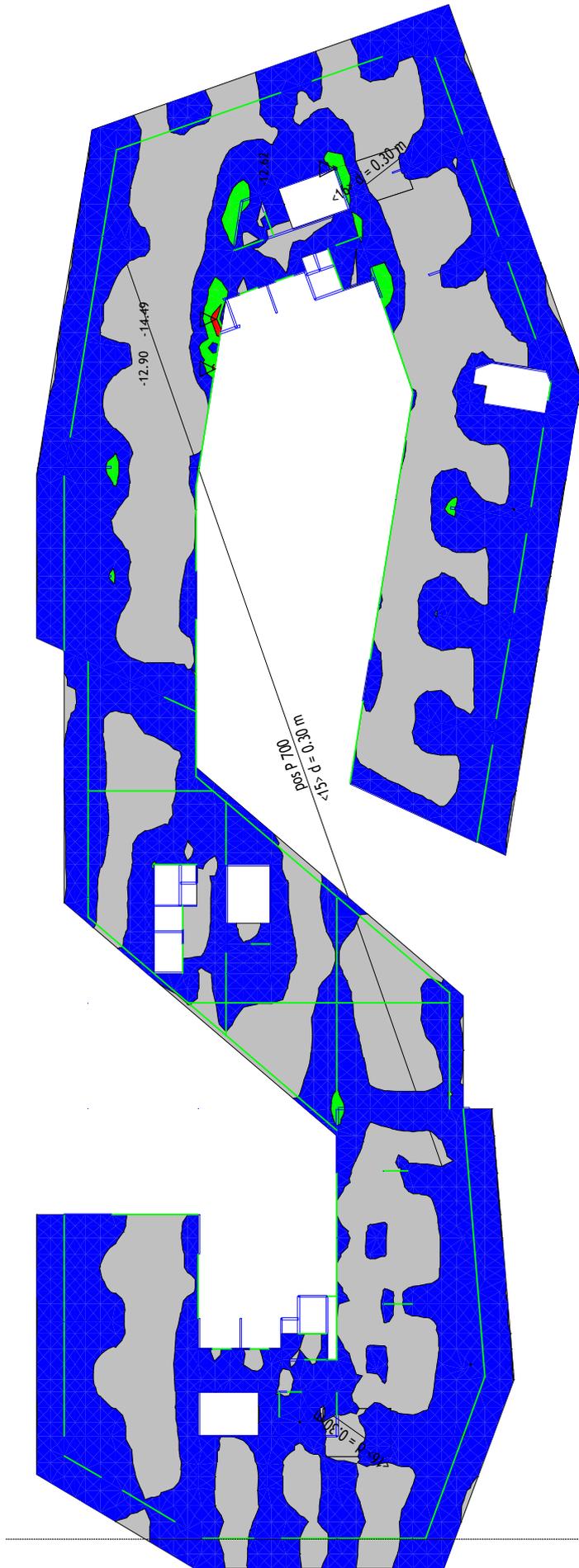
Aa - g.zona [cm <sup>2</sup> /m]	-17.42
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00



Nivo: P 700 [27.65 m]  
Aa - g.zona

Aa - g.zona [cm <sup>2</sup> /m]	-14.49
	-11.30 (R12/10)
	-5.65 (R12/20)
	-0.00

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm

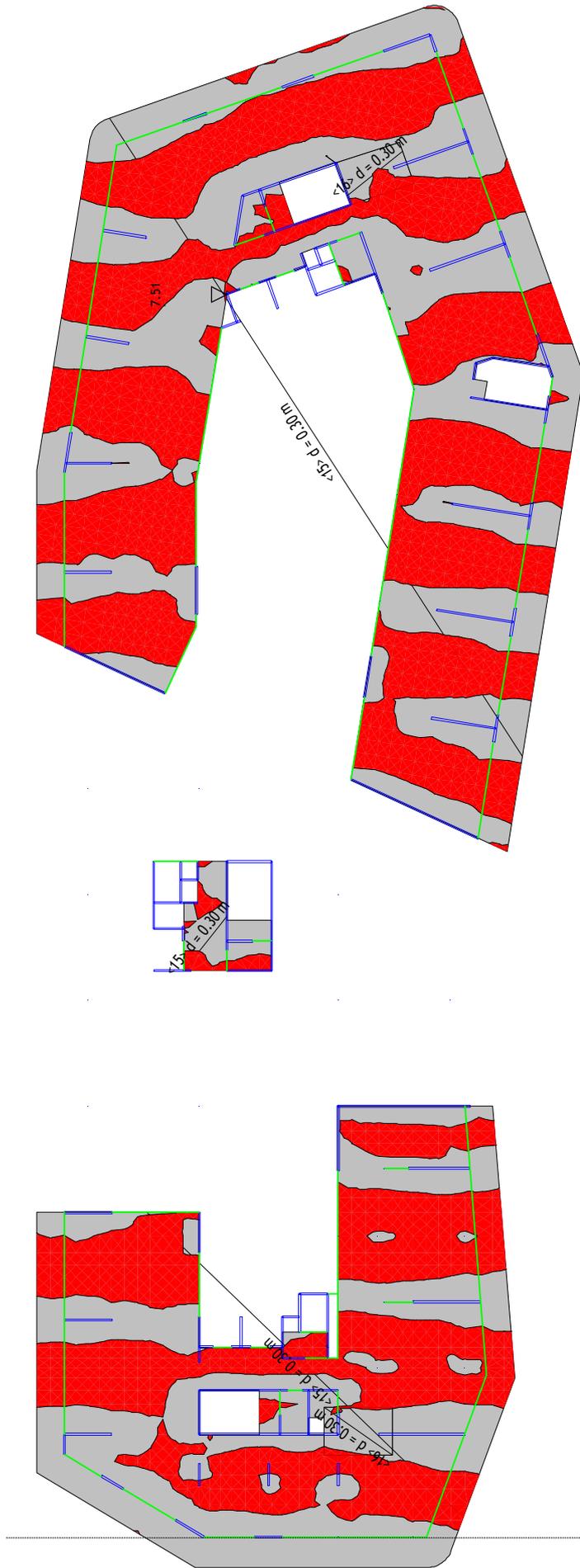


0  
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 0

Nivo: P 700 [27.65 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	White
5.65 (R12/20)	Red
7.51 (R12/10)	Cyan

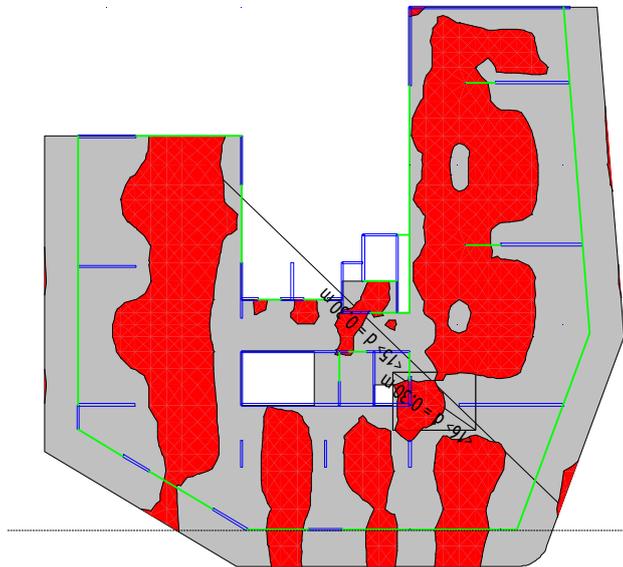
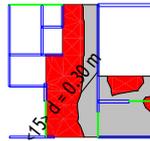
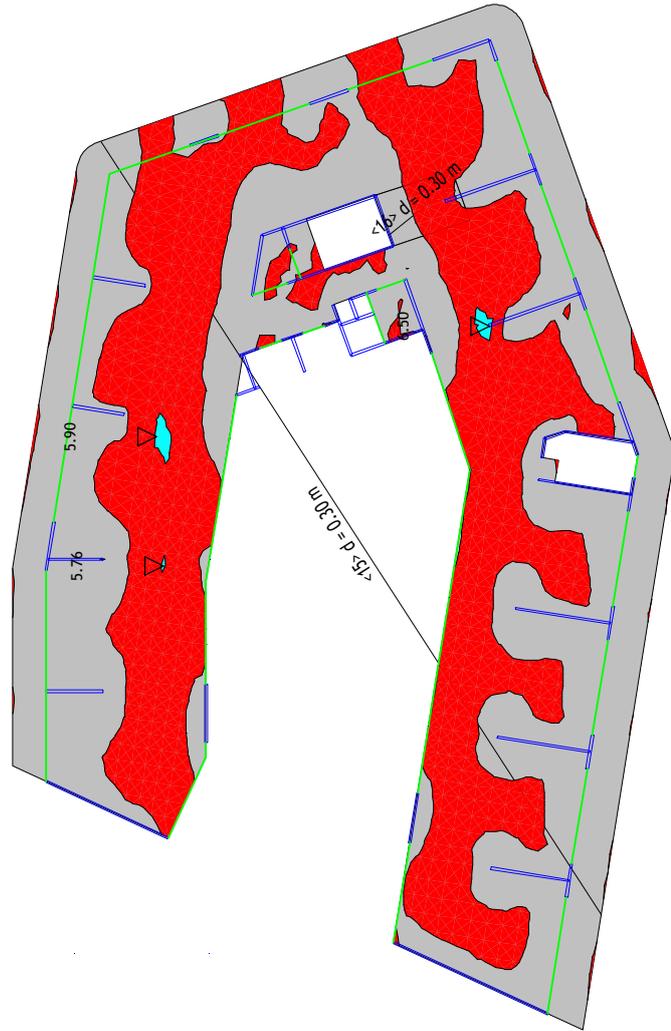
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 800 [31.15 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
6.50 (R12/10)

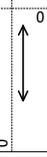
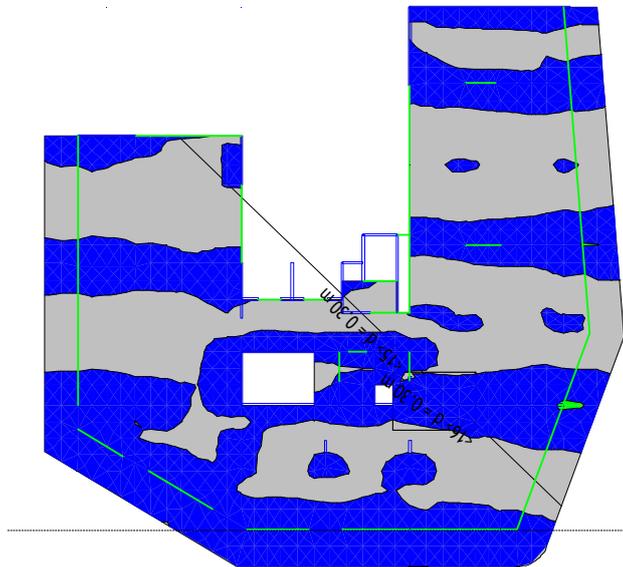
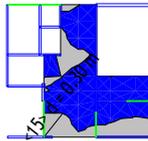
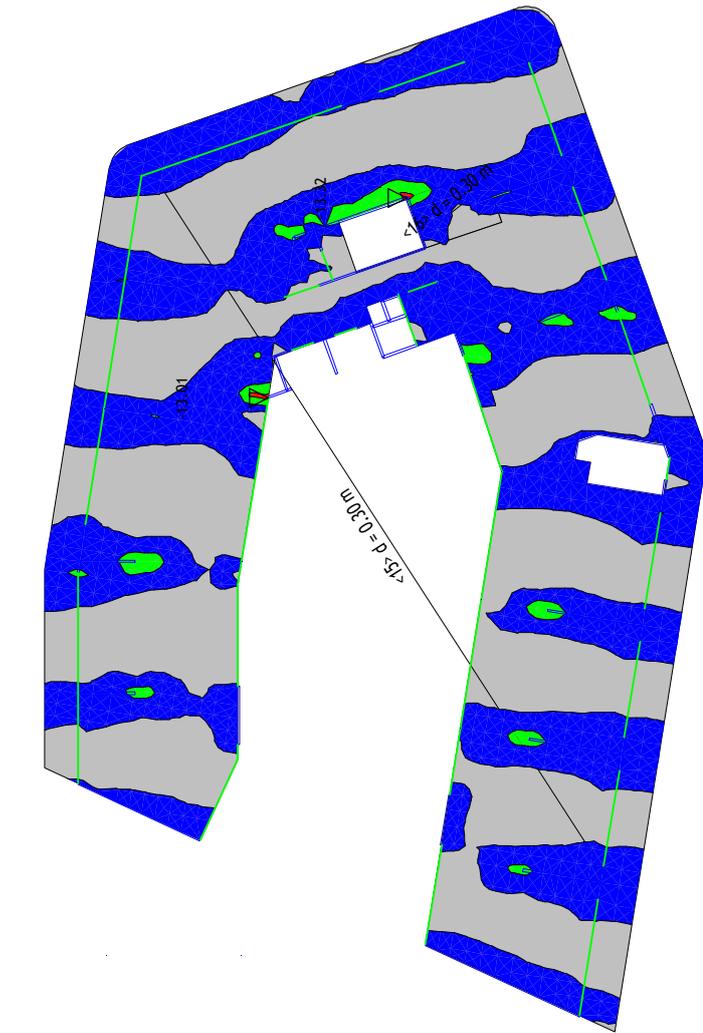
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



0  
 ← →  
 0

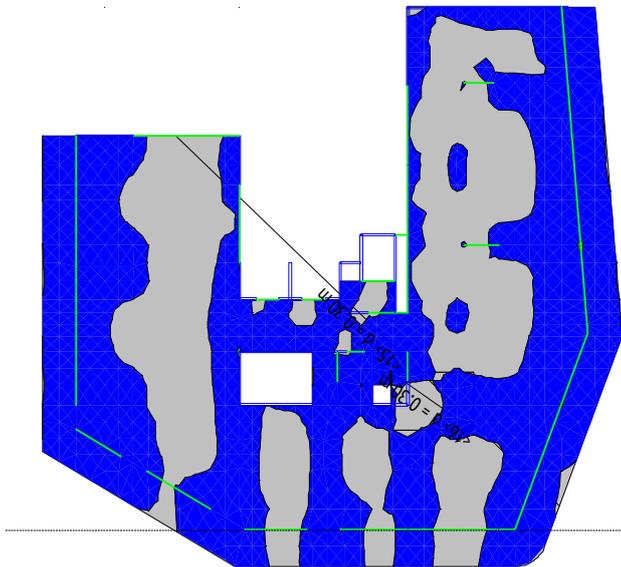
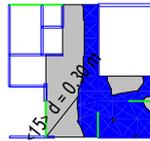
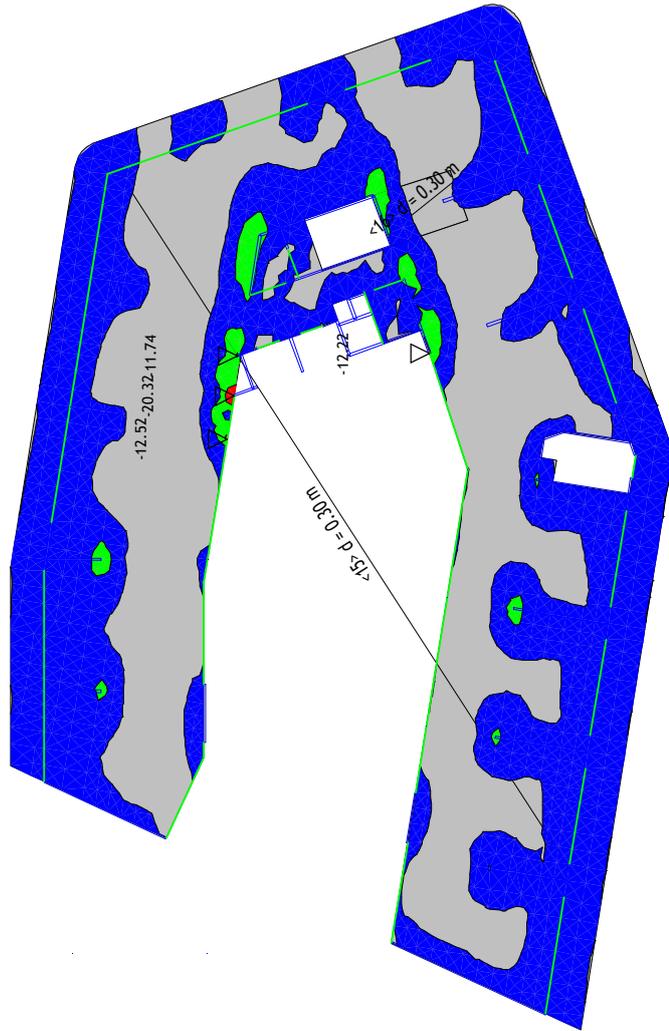
Nivo: P 800 [31.15 m]  
 Aa - d.zona

Aa - g.zona [cm <sup>2</sup> /m]
-13.32
-11.30 (R12/10)
-5.65 (R12/20)
-0.00



Nivo: P 800 [31.15 m]  
Aa - g.zona

Aa - g.zona [cm <sup>2</sup> /m]
-20.32
-11.30 (R12/10)
-5.65 (R12/20)
-0.00

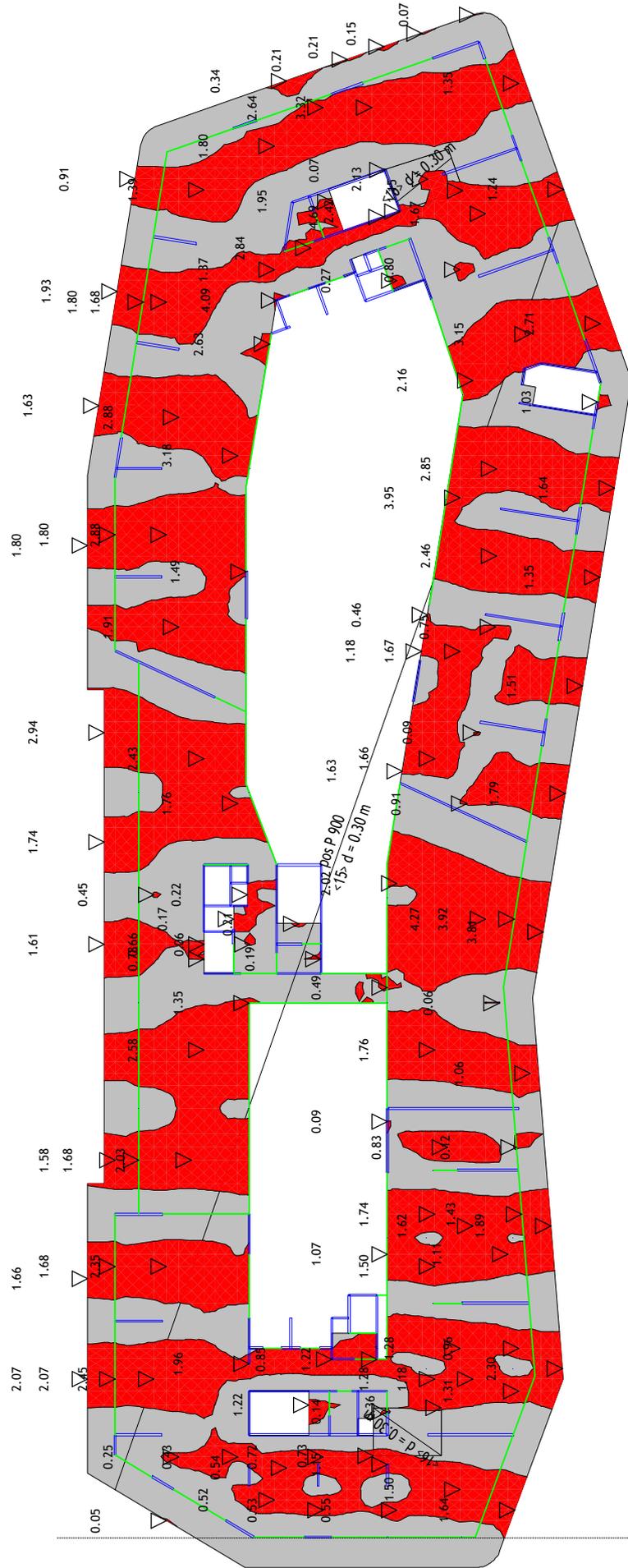


0  
 ← →  
 0

Nivo: P 800 [31.15 m]  
 Aa - g.zona

Aa - d.zona [cm<sup>2</sup>/m]  
 0.00  
 4.69 (R12/20)

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 900 [34.65 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
8.07 (R12/10)

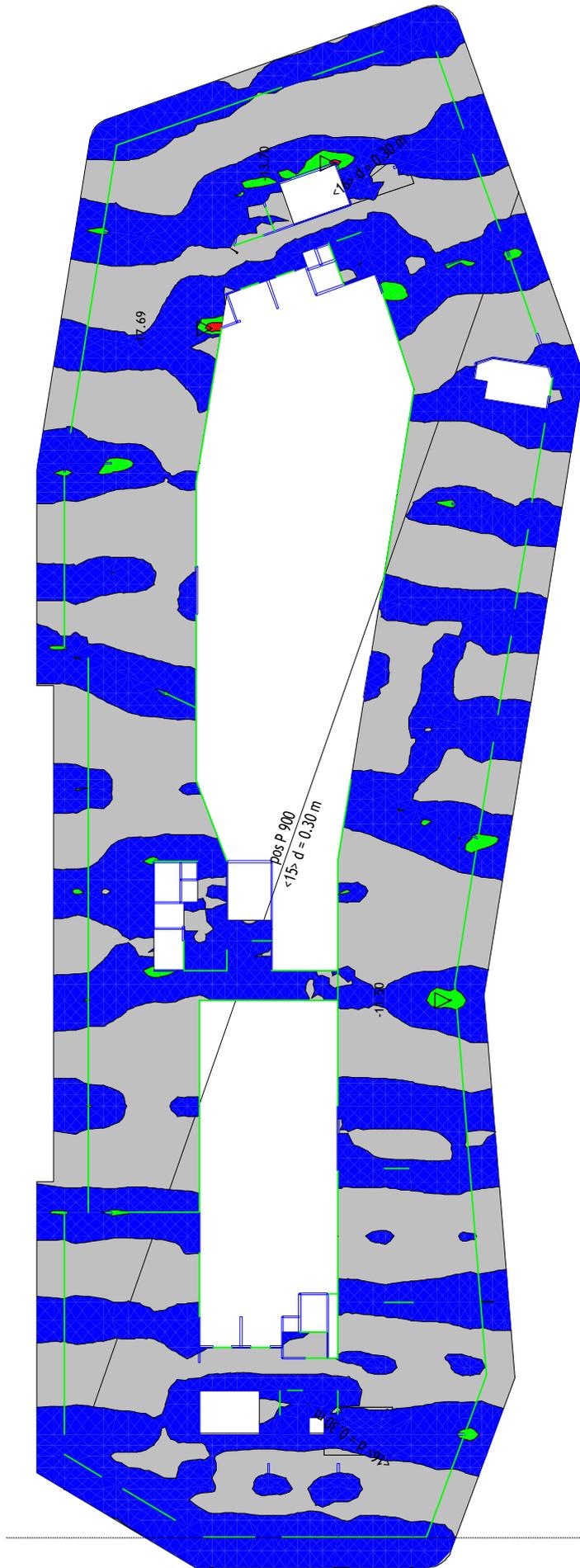
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 900 [34.65 m]  
 Aa - d.zona

Aa - g.zona [cm<sup>2</sup>/m]  
 -17.69  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00

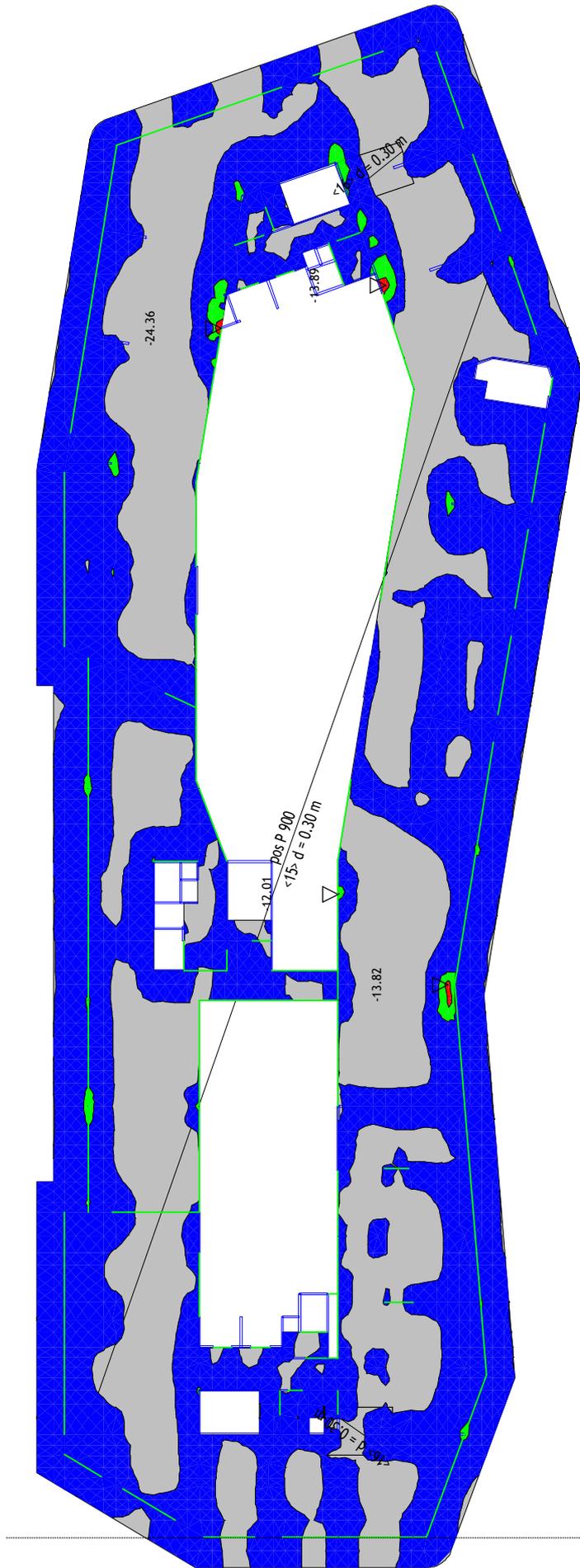
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 900 [34.65 m]  
 Aa - g.zona

Aa - g.zona [cm<sup>2</sup>/m]  
 -24.36  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm

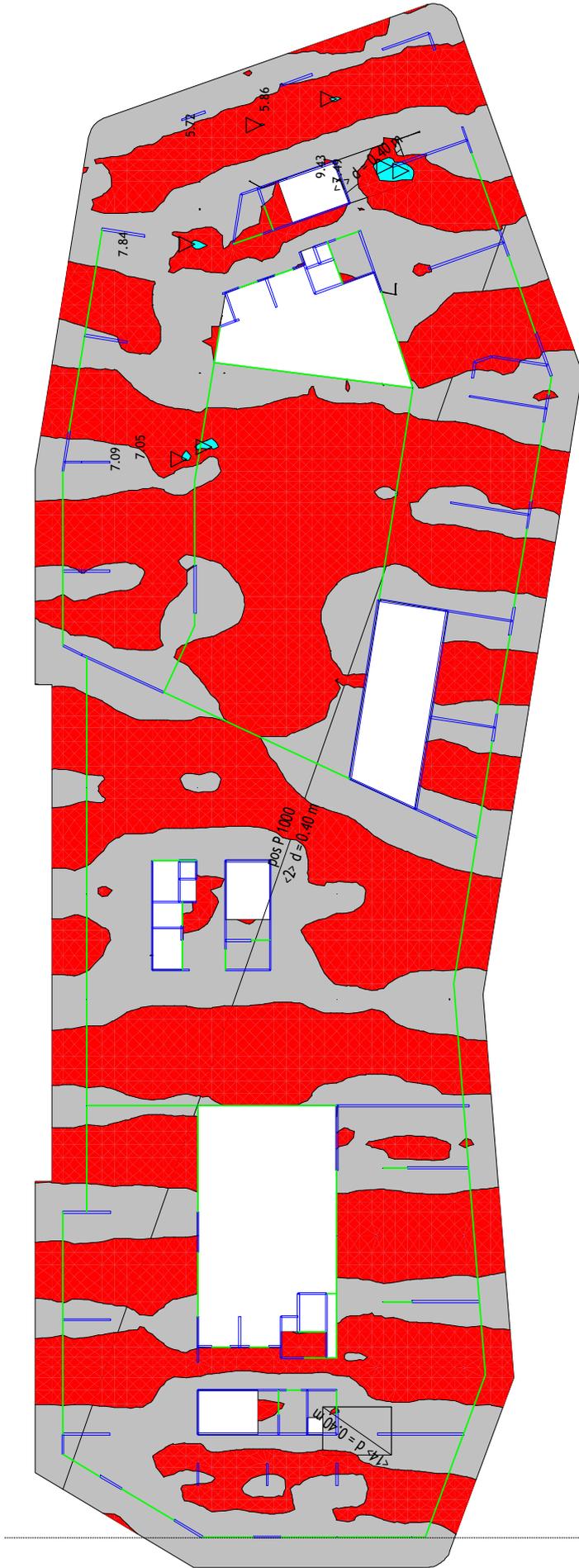


0  
 ← →  
 0

Nivo: P 900 [34.65 m]  
 Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]	
0.00	0.00
5.65 (R12/20)	5.65 (R12/20)
9.43 (R12/10)	9.43 (R12/10)

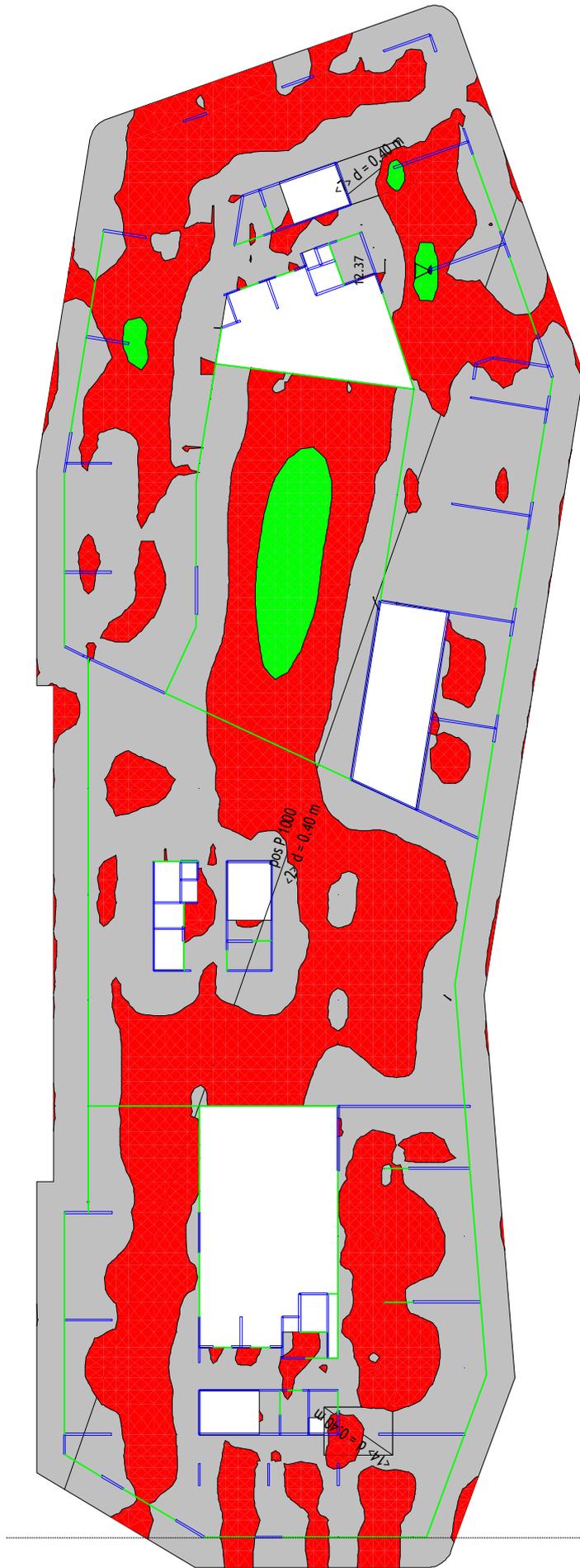
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



0  
 ↓  
 Nivo: P 1000 [38.15 m]  
 Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	Color
0.00	Red
5.65 (R12/20)	Green
11.30 (R12/10)	Blue
12.37	Blue

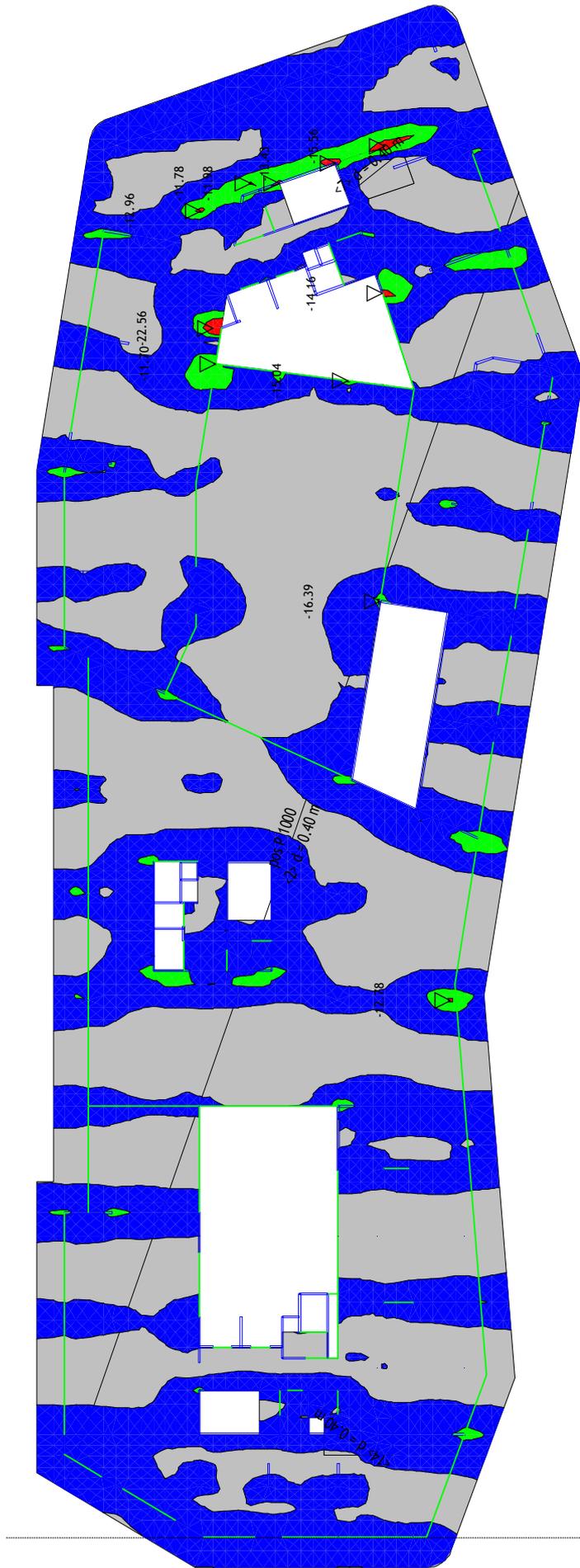
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



0  
 ← →  
 Nivo: P 1000 [38.15 m]  
 Aa - d.zona

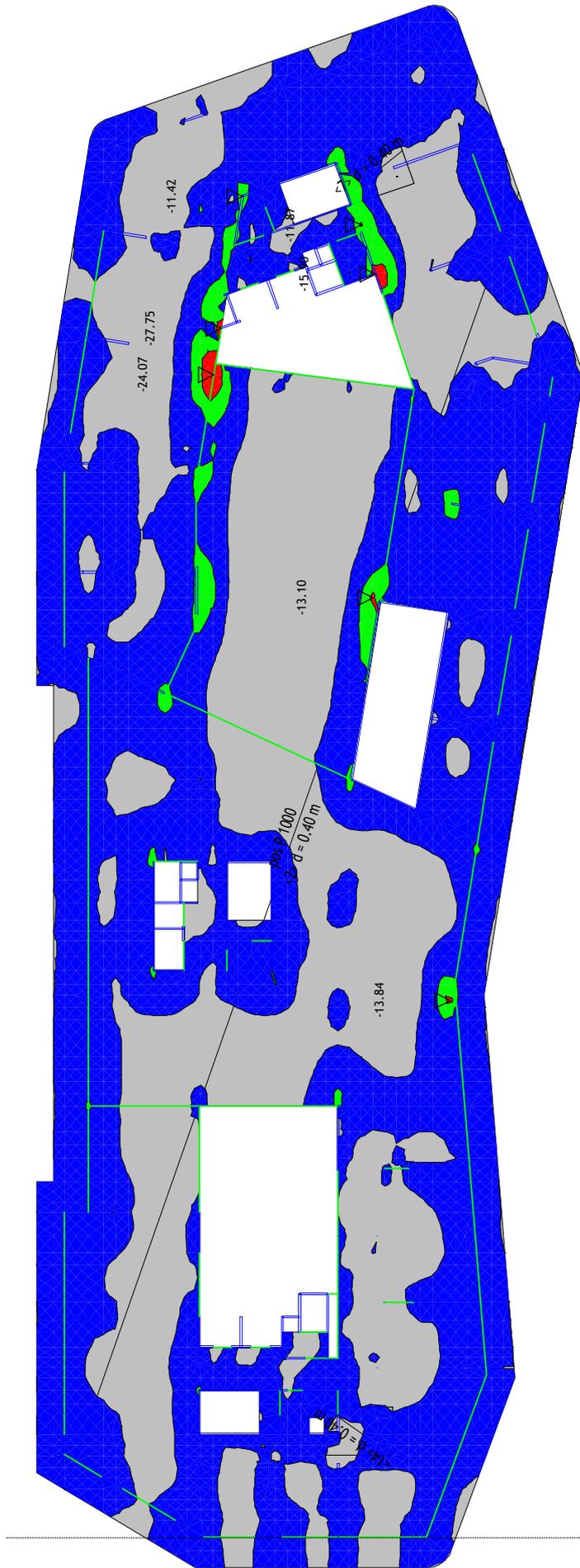
Aa - g.zona [cm<sup>2</sup>/m]  
 -22.56  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



0  
 ↓  
 Nivo: P 1000 [38.15 m]  
 Aa - g.zona

Aa - g.zona [cm <sup>2</sup> /m]
-27.75
-11.30 (R12/10)
-5.65 (R12/20)
-0.00

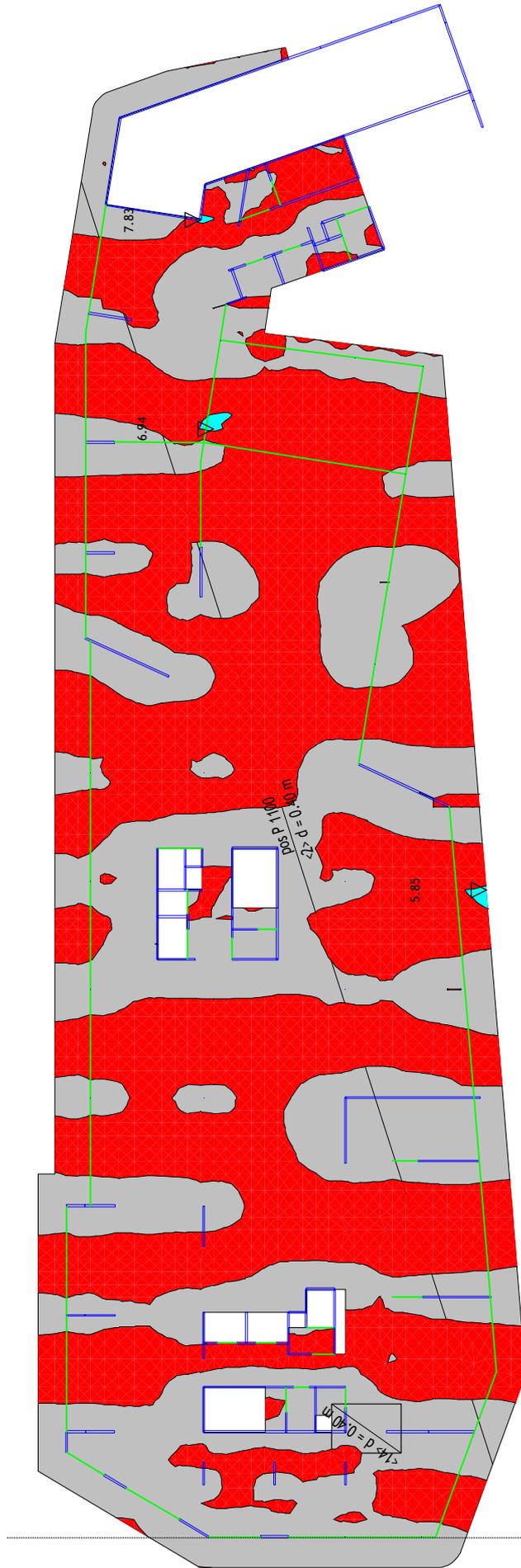


0  
← →  
0

Nivo: P 1000 [38.15 m]  
Aa - g.zona

Aa - d.zona [cm<sup>2</sup>/m]  
 0.00  
 5.65 (R12/20)  
 7.83 (R12/10)

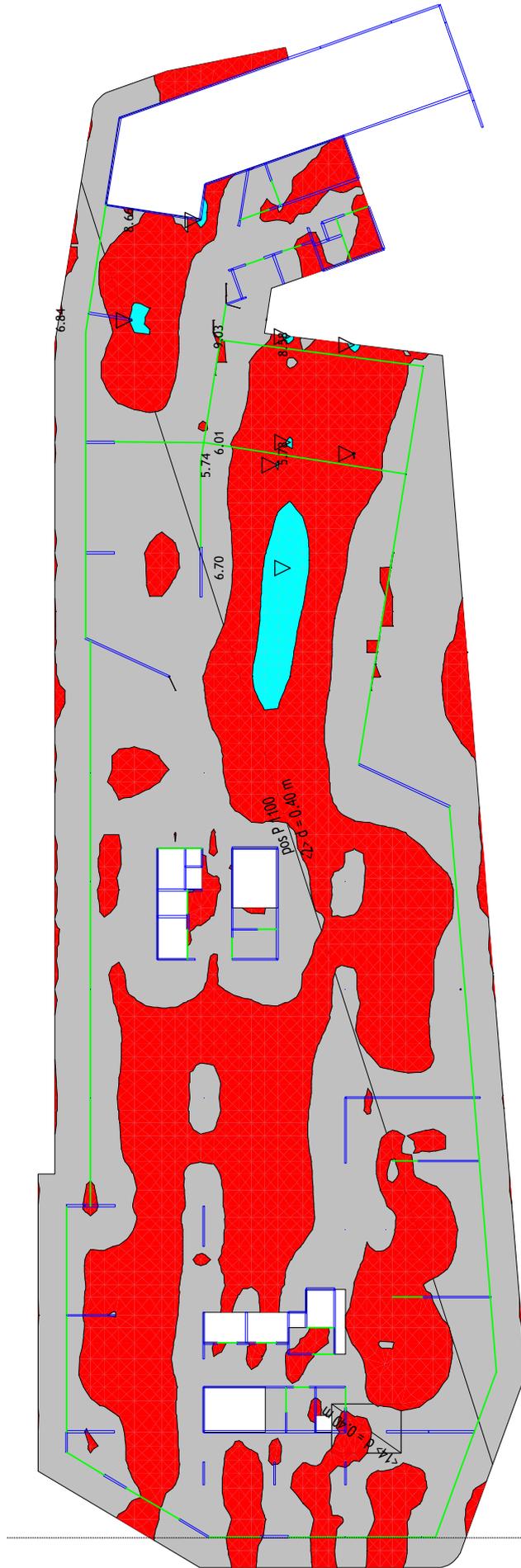
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 1100 [42.35 m]  
 Aa - d.zona

Aa - d.zona [cm<sup>2</sup>/m]  
 0.00  
 5.65 (R12/20)  
 9.03 (R12/10)

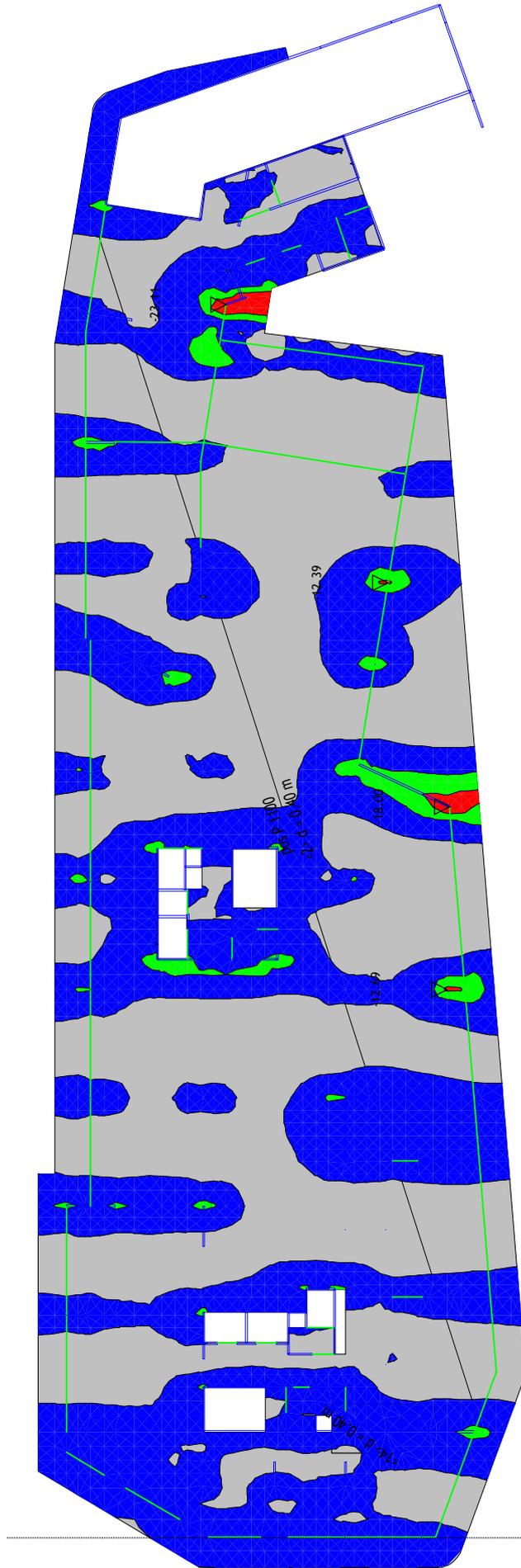
Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



Nivo: P 1100 [42.35 m]  
 Aa - d.zona

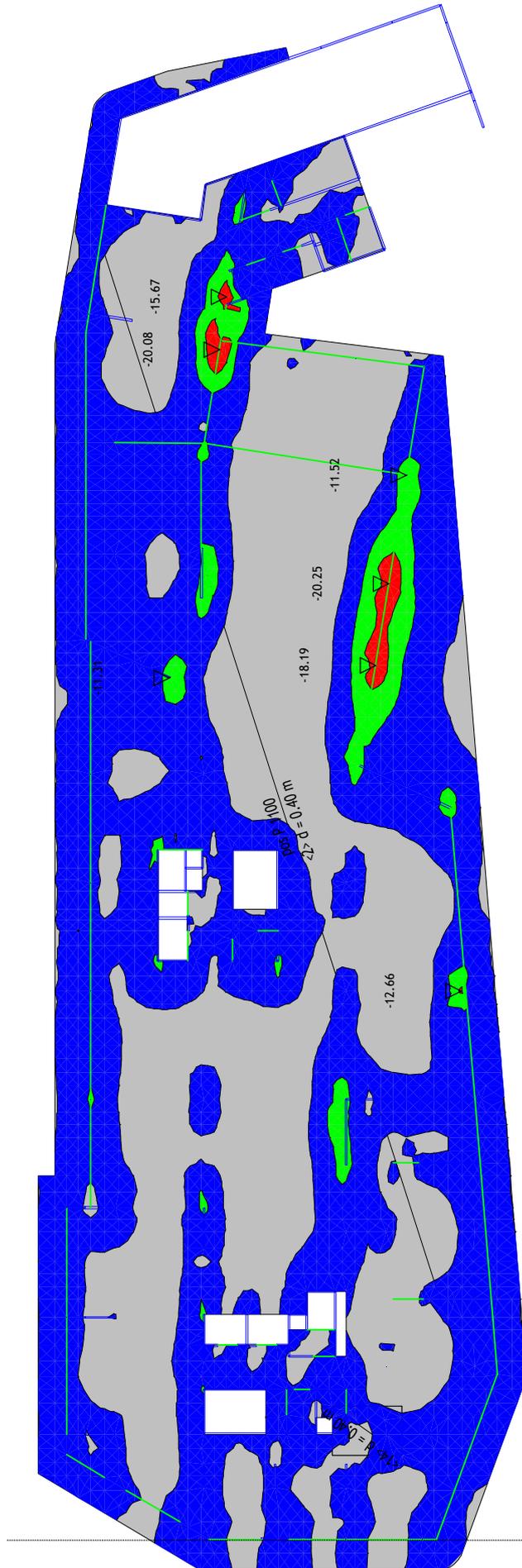
Aa - g.zona [cm<sup>2</sup>/m]  
 -23.11  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004), C30/37, S500H, a=2.00 cm



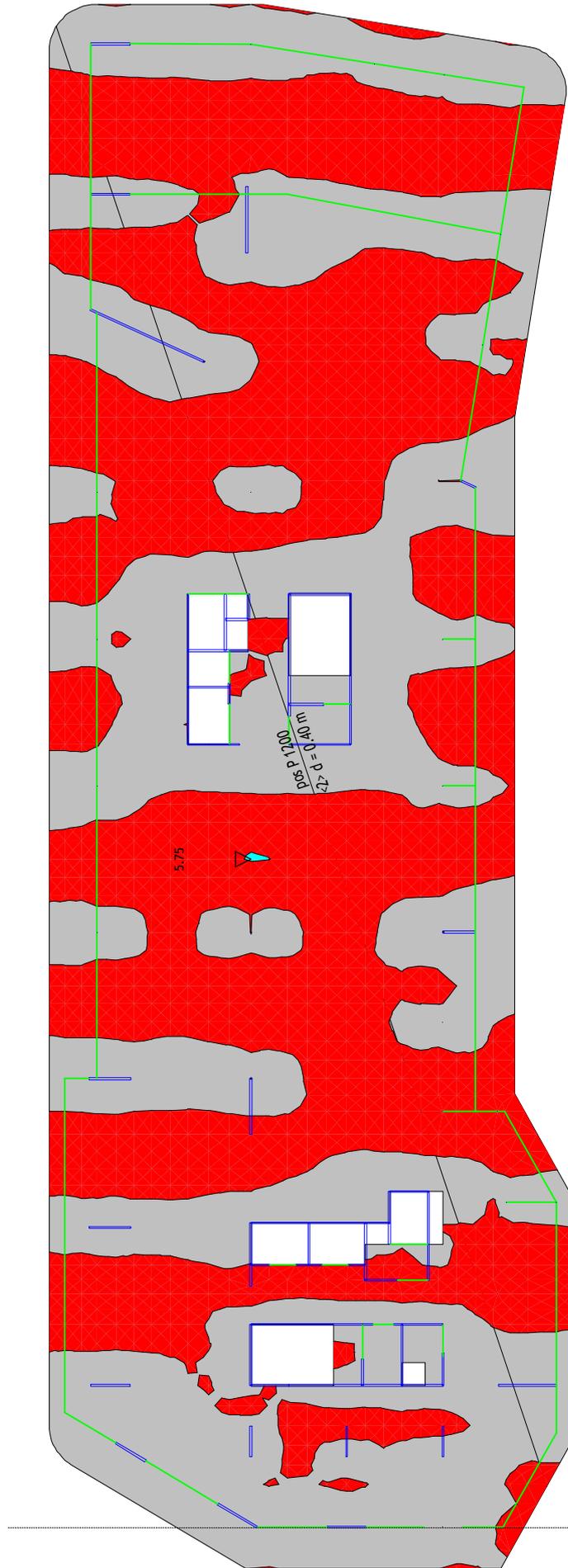
Nivo: P 1100 [42.35 m]  
 Aa - g.zona

Aa - g.zona [cm<sup>2</sup>/m]  
-20.25  
-11.30 (R12/10)  
-5.65 (R12/20)  
-0.00



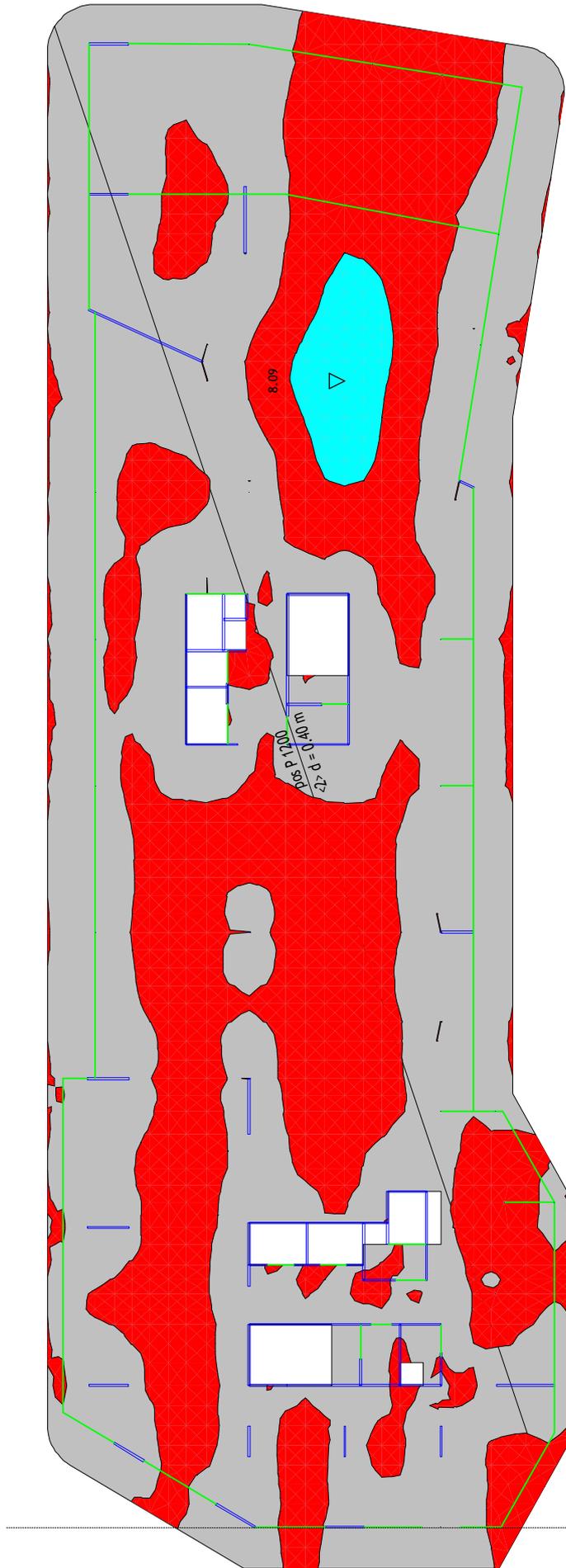
Nivo: P 1100 [42.35 m]  
Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
5.75 (R12/10)



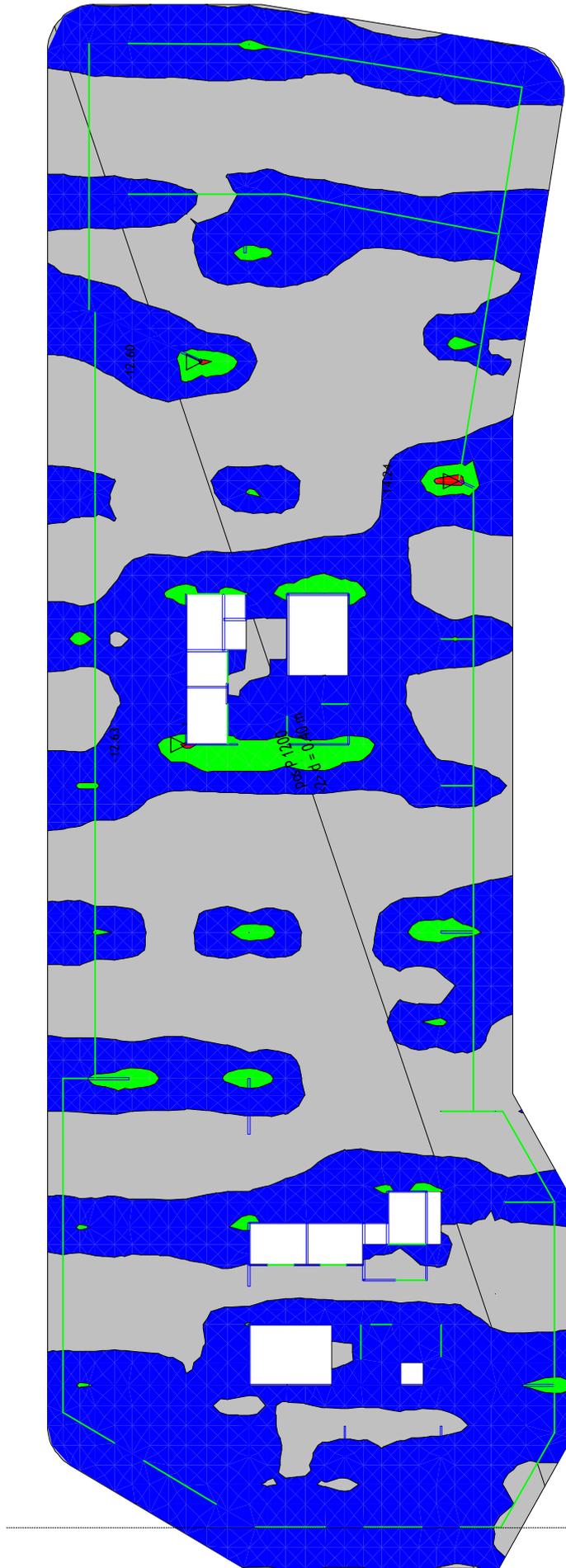
Nivo: P 1200 [45.85 m]  
Aa - d.zona

Aa - d.zona [cm <sup>2</sup> /m]	
0.00	0.00
5.65 (R12/20)	5.65 (R12/20)
8.09 (R12/10)	8.09 (R12/10)



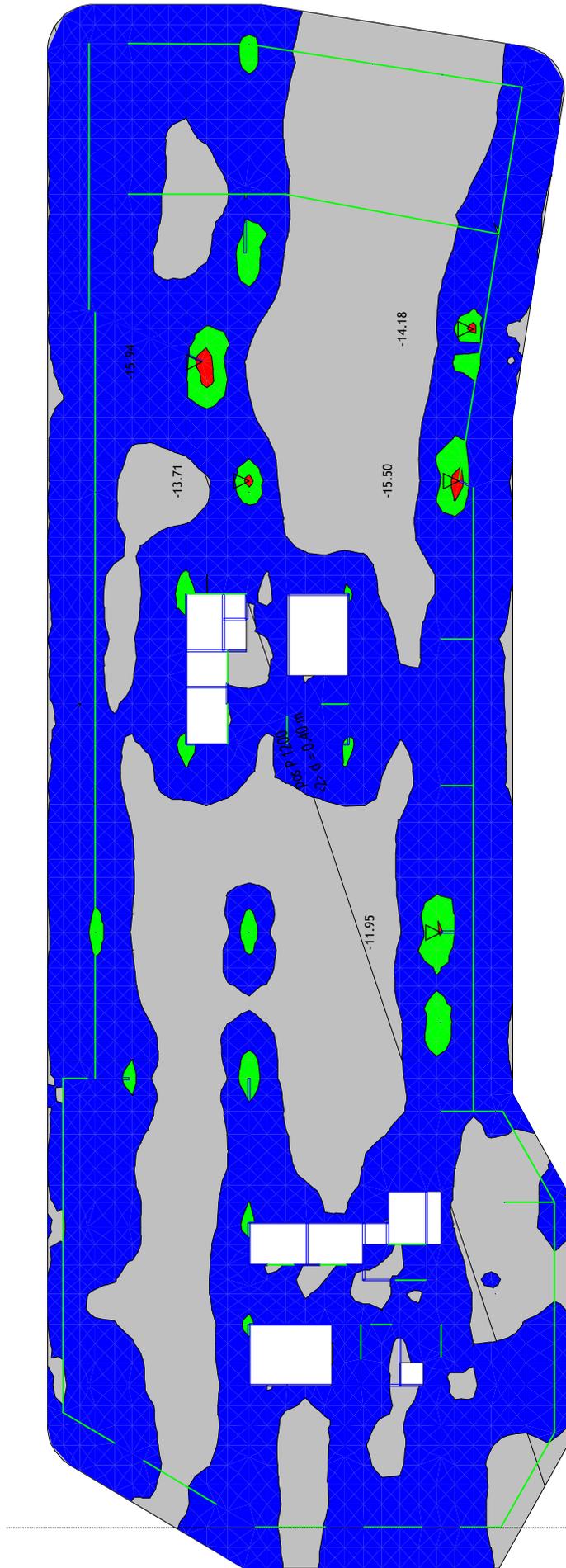
Nivo: P 1200 [45.85 m]  
Aa - d.zona

Aa - g.zona [cm <sup>2</sup> /m]	Color
-14.24	Red
-11.30 (R12/10)	Green
-5.65 (R12/20)	Blue
-0.00	Grey



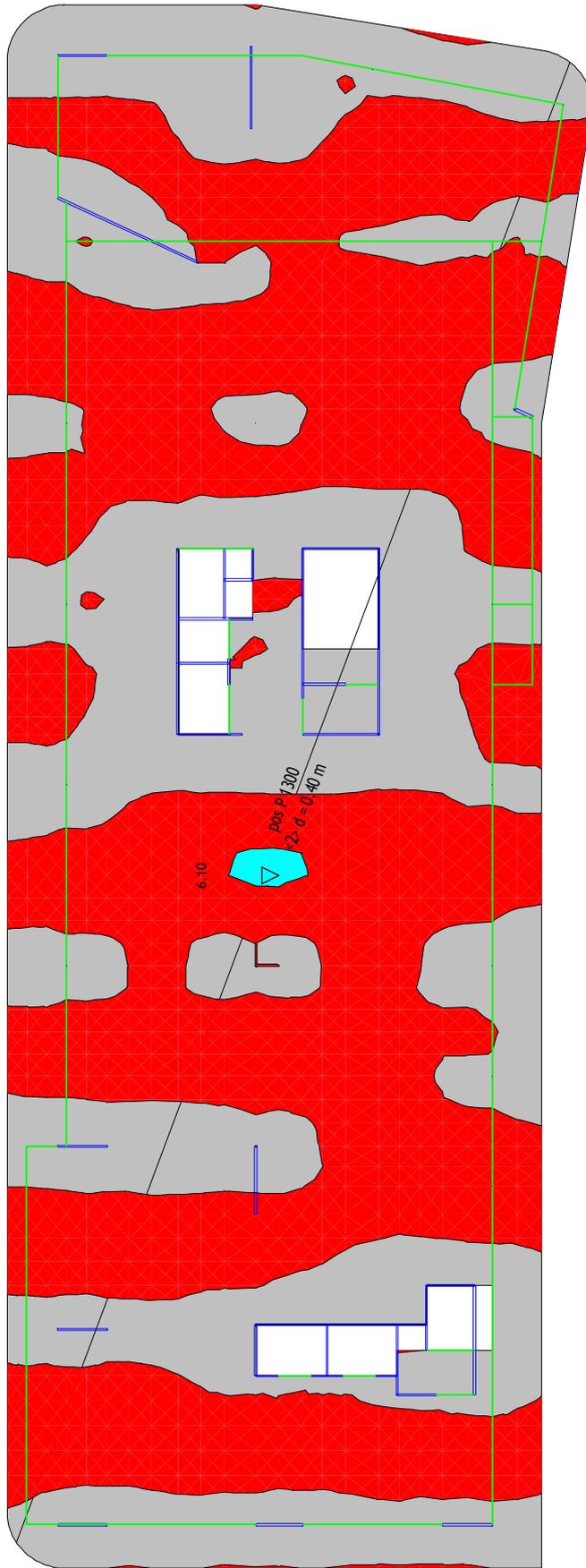
Nivo: P 1200 [45.85 m]  
 Aa - g.zona

Aa - g.zona [cm<sup>2</sup>/m]  
-15.94  
-11.30 (R12/10)  
-5.65 (R12/20)  
-0.00



Nivo: P 1200 [45.85 m]  
Aa - g.zona

Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
6.10 (R12/10)



0

Nivo: P 1300 [49.35 m]  
o Aa - d.zona

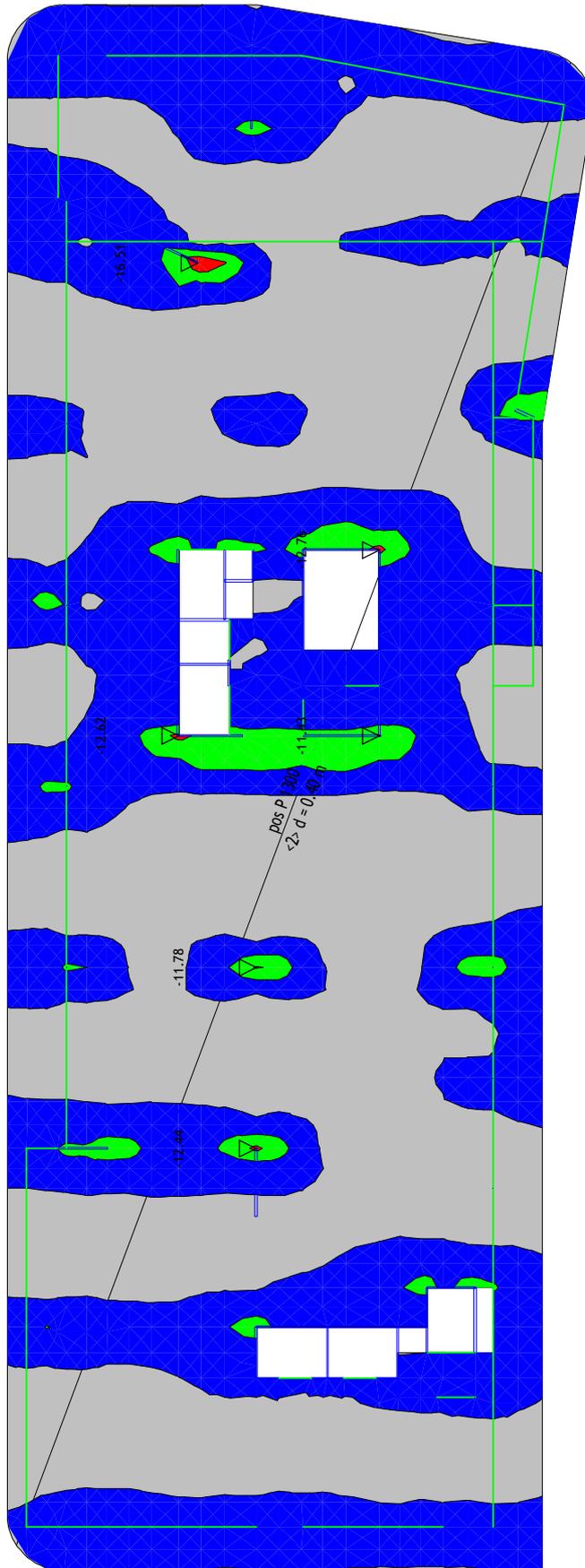
Aa - d.zona [cm <sup>2</sup> /m]
0.00
5.65 (R12/20)
6.76 (R12/10)



0

Nivo: P 1300 [49.35 m]  
o Aa - d.zona

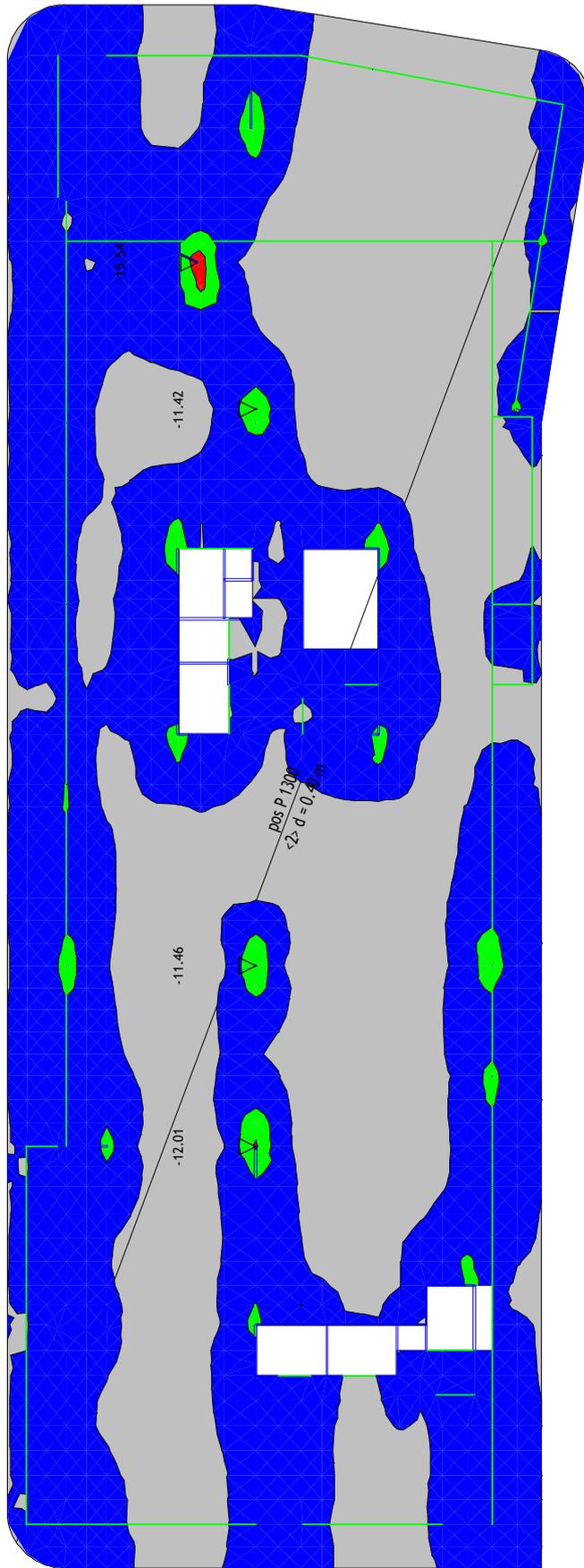
Aa - g.zona [cm<sup>2</sup>/m]  
 -16.51  
 -11.30 (R12/10)  
 -5.65 (R12/20)  
 -0.00



0

Nivo: P 1300 [49.35 m]  
 o Aa - g.zona

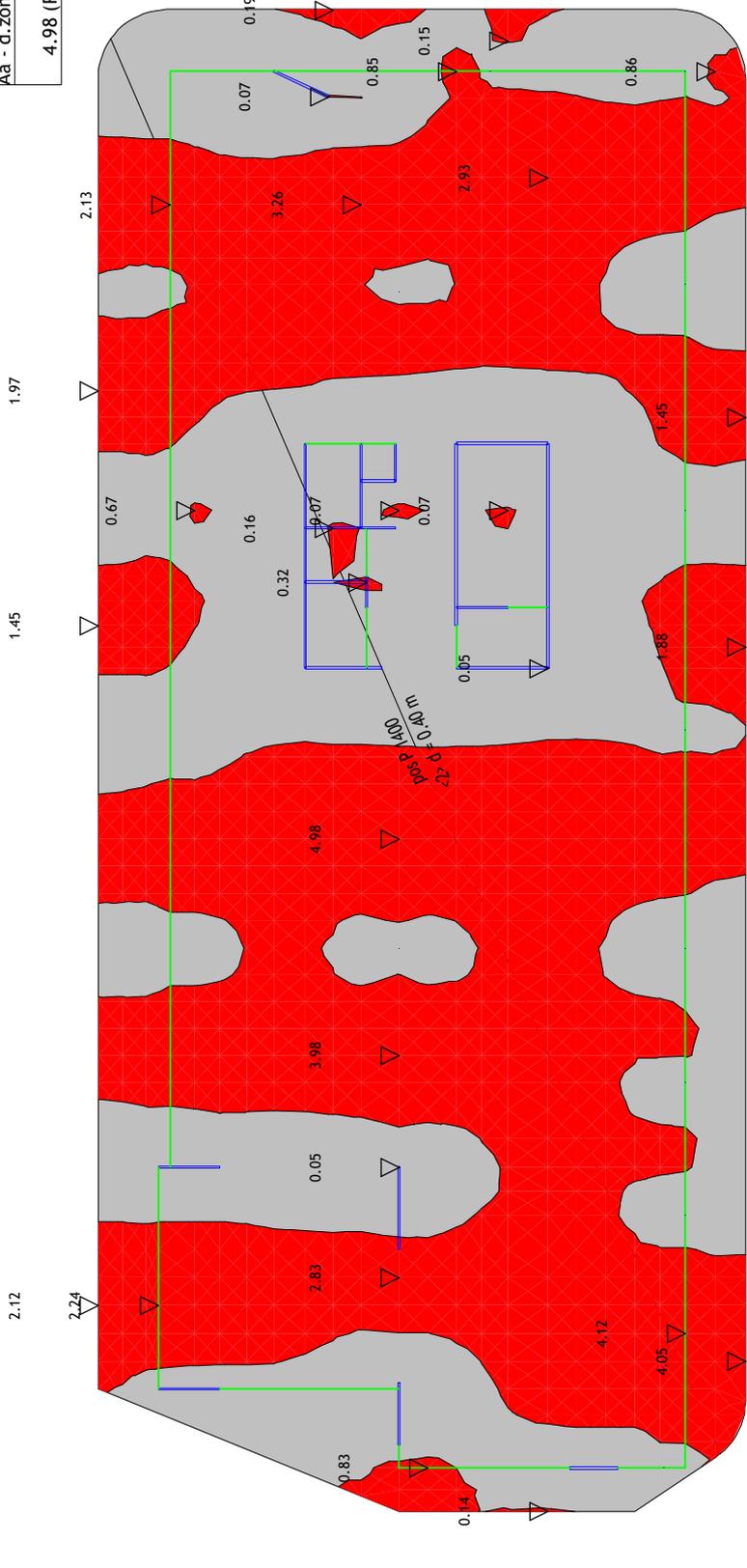
Aa - g.zona [cm <sup>2</sup> /m]	Color
-15.54	Red
-11.30 (R12/10)	Green
-5.65 (R12/20)	Blue
-0.00	Grey



0

Nivo: P 1300 [49.35 m]  
 o Aa - g.zona

Aa - d.zona [cm<sup>2</sup>/m]  
 0.00  
 4.98 (R12/20)



1.45 1.97 2.13

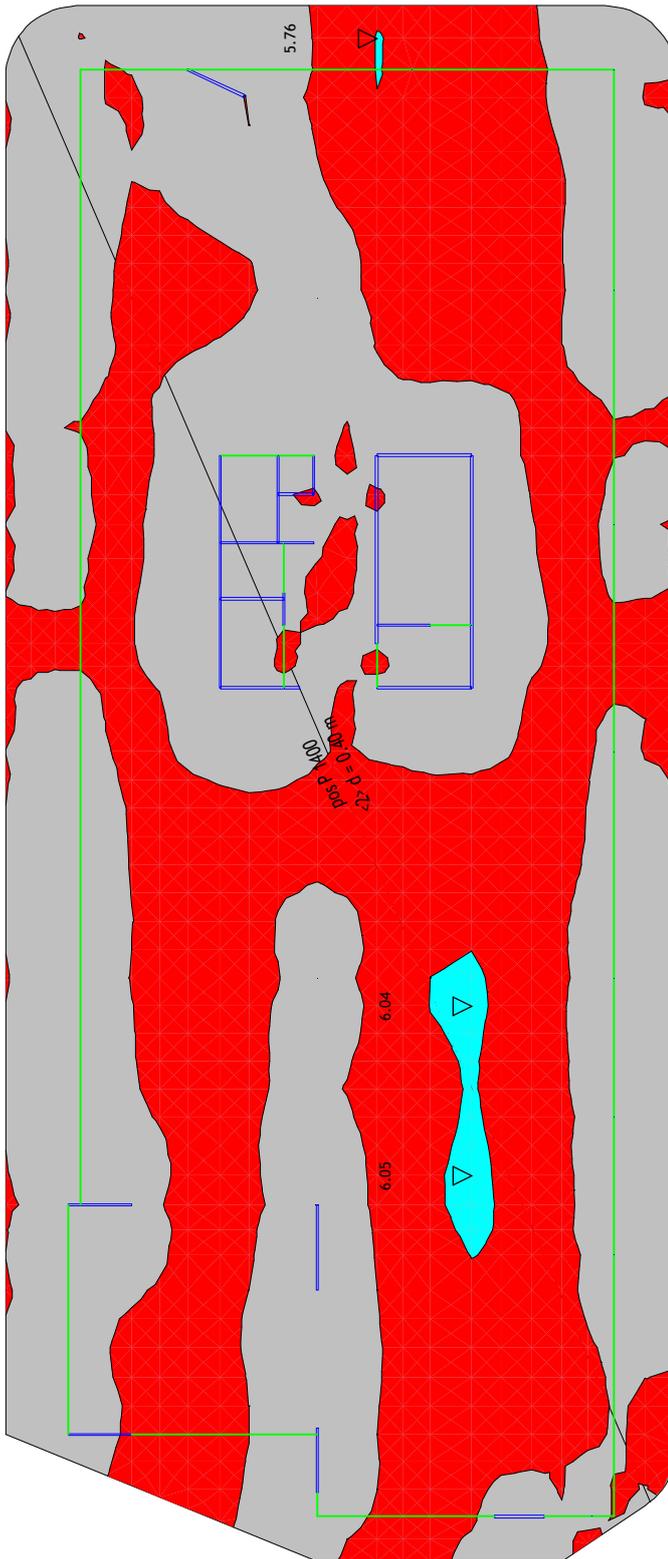
2.12

2.24

0

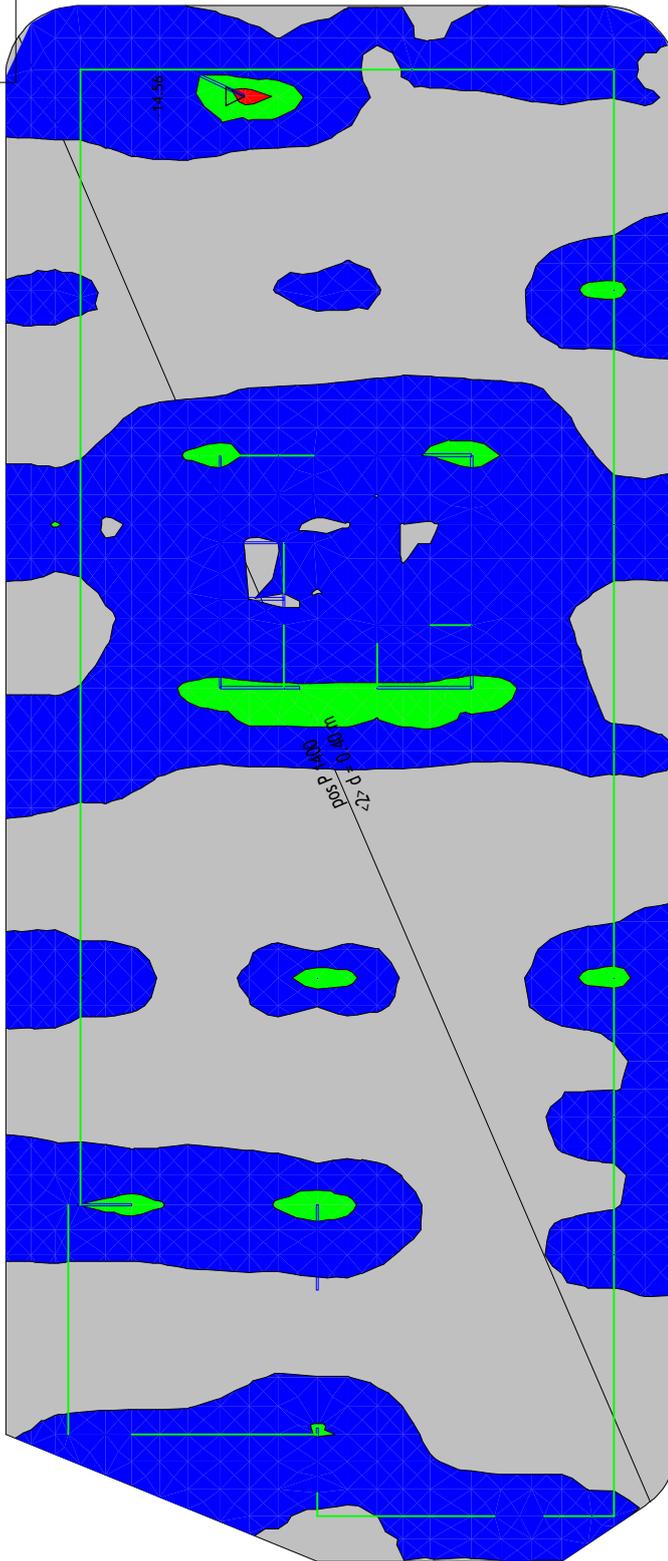
Nivo: P 1400 [52.85 m]  
 Aa - d.zona

Aa - d.zona [cm<sup>2</sup>/m]  
0.00  
5.65 (R12/20)  
6.05 (R12/10)



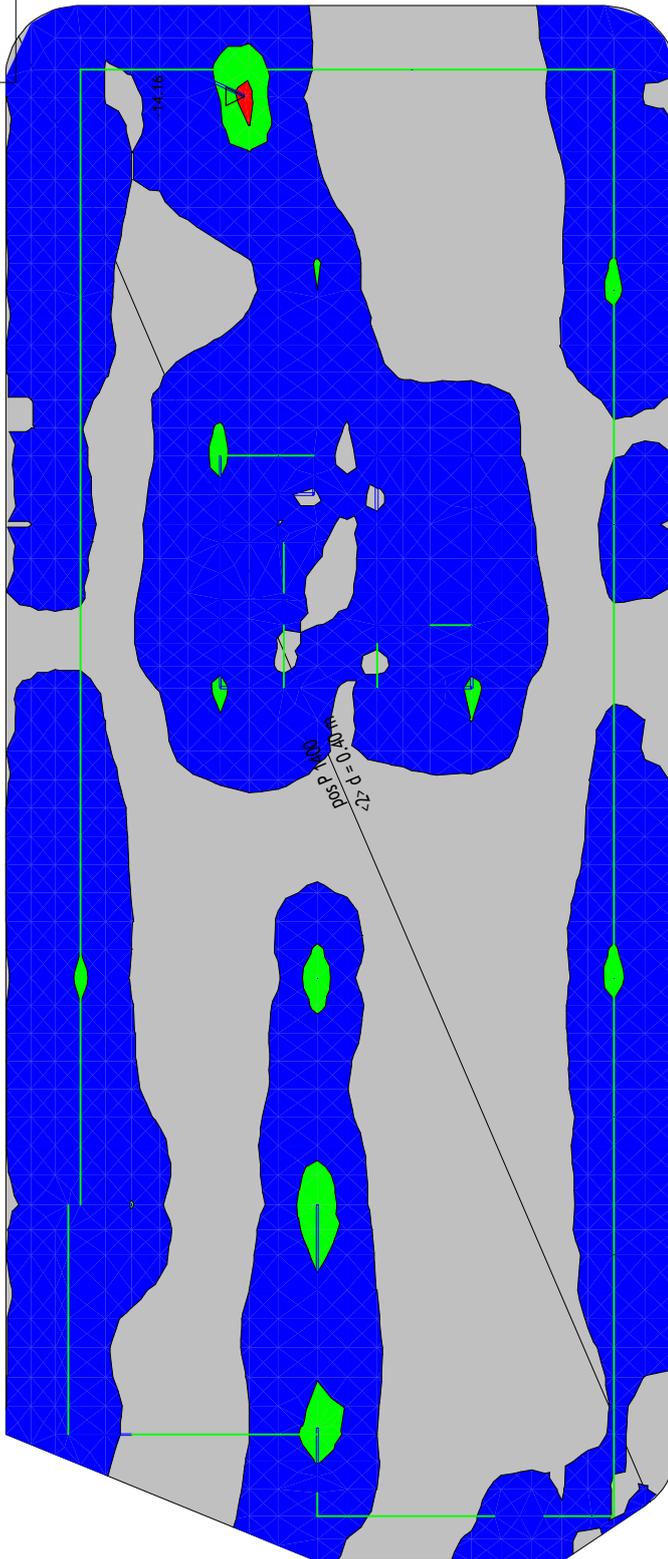
Nivo: P 1400 [52.85 m]  
Aa - d.zona

Aa - g.zona [cm<sup>2</sup>/m]  
-14.56  
-11.30 (R12/10)  
-5.65 (R12/20)  
-0.00



Nivo: P 1400 [52.85 m]  
Aa - g.zona

Aa - g.zona [cm<sup>2</sup>/m]  
-14.16  
-11.30 (R12/10)  
-5.65 (R12/20)  
-0.00



Nivo: P 1400 [52.85 m]  
Aa - g.zona



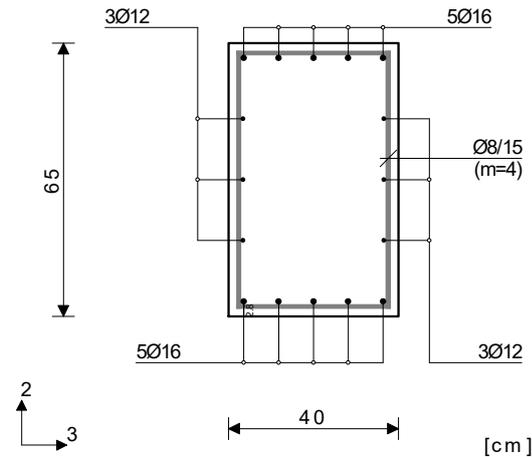
**G 002 (309-1750)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 1-1 x = 4.06m**

Merodavna kombinacija za savijanje: 1.35xI+1.50xII

N1ed = 45.23 kN

M2ed = 0.00 kNm

M3ed = 178.02 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xIII

+1.00xVIII

M1ed = 0.07 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+1.00xVIII

V2ed = 37.99 kN

V3ed = -1.18 kN

M1ed = 0.07 kNm

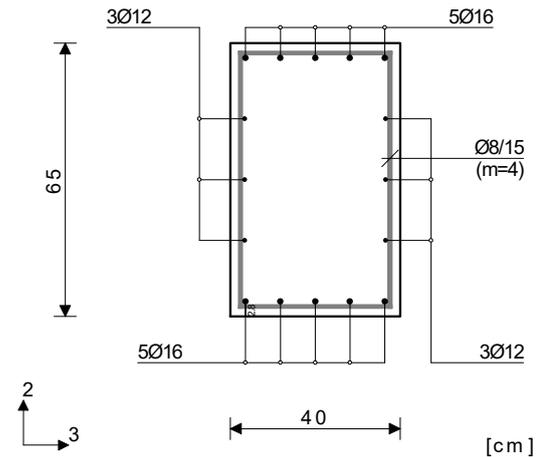
Vrd,max,2 = 1267.81 kN

Vrd,max,3 = 1267.81 kN

 $\epsilon_b/\epsilon_a = -2.125/25.000 \text{ ‰}$ Aa1 = 7.78 + 0.19" = 7.97 cm<sup>2</sup>Aa2 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.03%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 2-2 x = 18.73m**

Merodavna kombinacija za savijanje: 1.00xI

-1.00xVIII

N1ed = 117.28 kN

M2ed = 0.00 kNm

M3ed = 8.18 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.14 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII

V2ed = -132.23 kN

V3ed = 7.31 kN

M1ed = -0.03 kNm

Vrd,max,2 = 1267.81 kN

Vrd,max,3 = 1267.81 kN

 $\epsilon_b/\epsilon_a = -1.030/25.000 \text{ ‰}$ Aa1 = 1.48 + 2.00" = 3.48 cm<sup>2</sup>Aa2 = 3.90 + 2.17" = 6.07 cm<sup>2</sup>Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa,uz = 2.89 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.03%

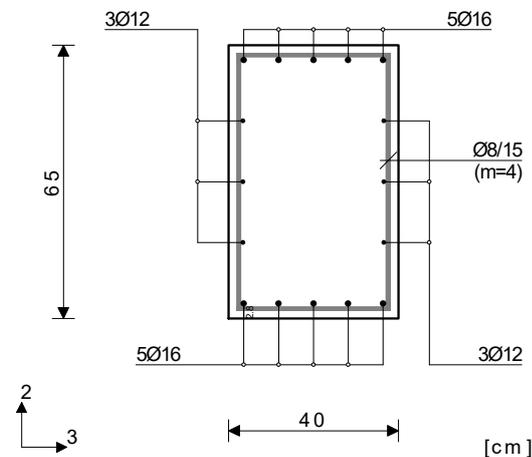
**G 001 (309-777)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 3-3 x = 4.26m**

Merodavna kombinacija za savijanje: 1.35xI+1.50xII

N1ed = 16.55 kN

M2ed = 0.00 kNm

M3ed = 127.42 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.21 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII+1.00xVIII

V2ed = 30.30 kN

V3ed = 2.18 kN

M1ed = 0.18 kNm

Vrd,max,2 = 1267.81 kN

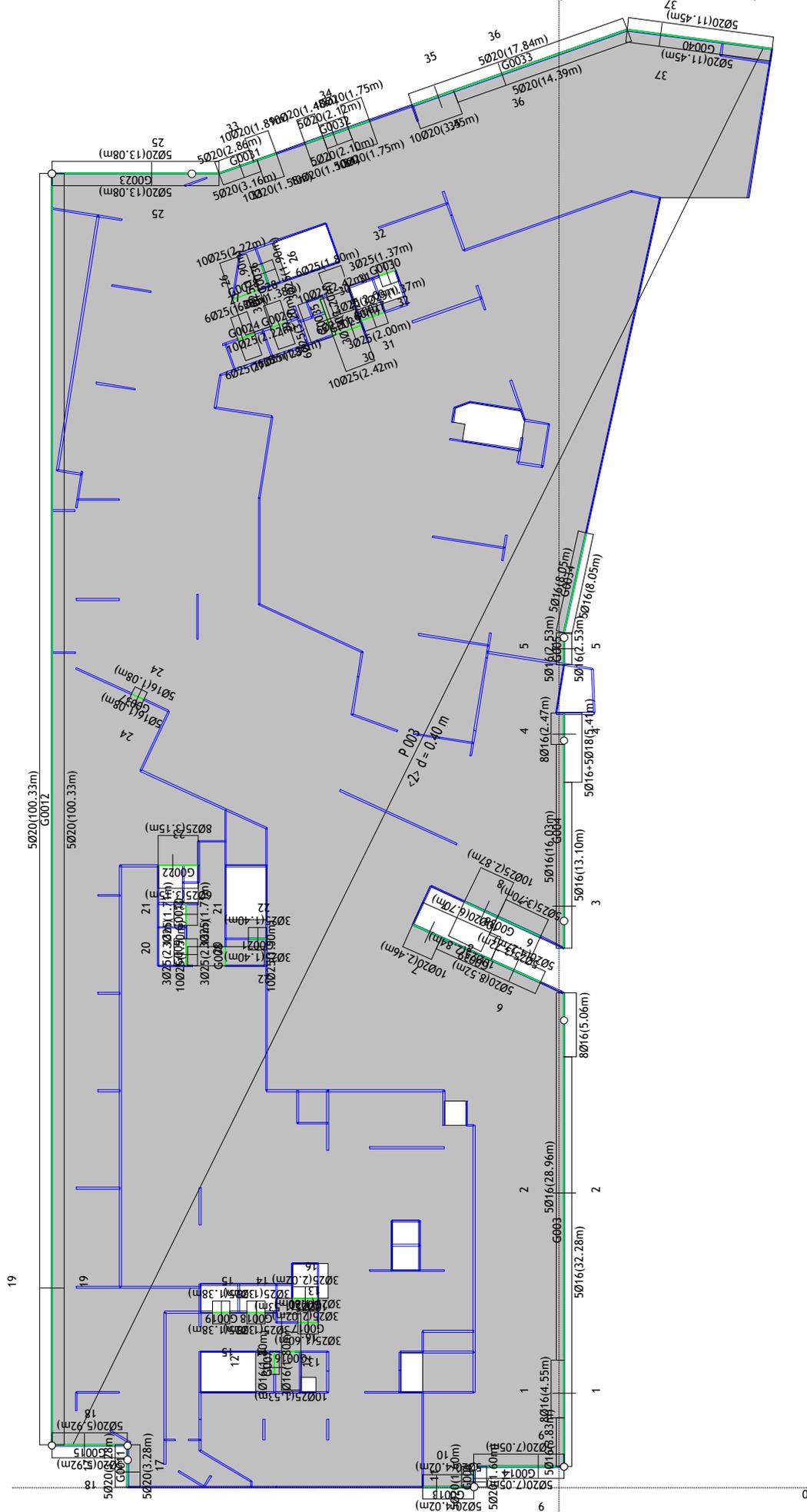
Vrd,max,3 = 1267.81 kN

 $\epsilon_b/\epsilon_a = -1.723/25.000 \text{ ‰}$ Aa1 = 5.34 + 0.15" = 5.49 cm<sup>2</sup>Aa2 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.03%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Nivo: P 000 [-0.15 m]  
Armatura u gredama (usvojena): Aa2/Aa1

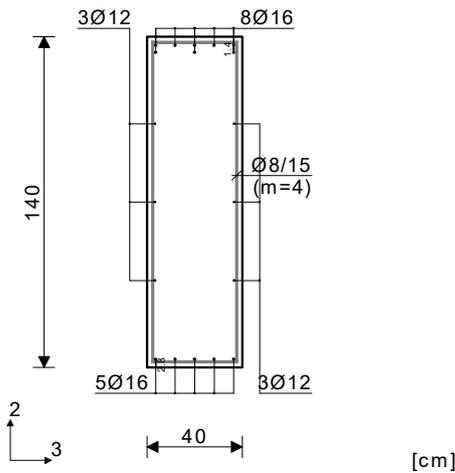
**G003 (826-7573)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 1-1 x = 6.00m**

Merodavna kombinacija za savijanje: 1.35xI+1.50xII

N1ed = 78.54 kN  
M2ed = 0.00 kNm  
M3ed = -663.01 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII+0.30xIII+1.00xVIII

M1ed = 0.63 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 129.78 kN  
V3ed = -16.82 kN  
M1ed = 0.63 kNm

Vrd,max,2 = 2730.67 kN

Vrd,max,3 = 2730.67 kN

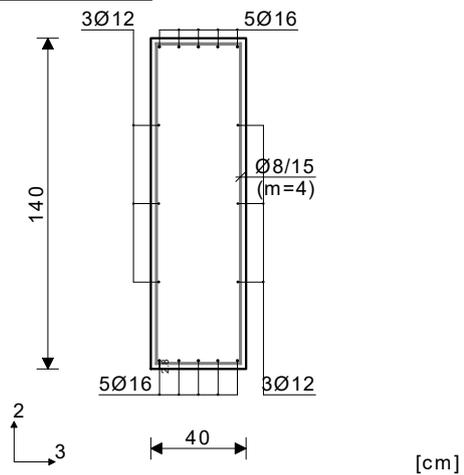
 $\epsilon_b/\epsilon_a = -1.819/25.000 \text{ ‰}$ 

Aa1 =	0.00	+	0.23"	=	0.23 cm <sup>2</sup>
Aa2 =	13.39	+	0.04"	=	13.43 cm <sup>2</sup>
Aa3 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa4 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa,uz =	1.32				cm <sup>2</sup> /m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

**Presek 2-2 x = 21.45m**

Merodavna kombinacija za savijanje: 1.35xI

+1.50xII+1.05xIII

N1ed = 92.68 kN  
M2ed = 0.00 kNm  
M3ed = -165.49 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII+0.30xIII+1.00xVIII

M1ed = 0.43 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII+1.00xVIII

V2ed = 83.24 kN  
V3ed = -5.25 kN  
M1ed = 0.43 kNm

Vrd,max,2 = 2730.67 kN

Vrd,max,3 = 2730.67 kN

 $\epsilon_b/\epsilon_a = -0.799/25.000 \text{ ‰}$ 

Aa1 =	0.94	+	2.03"	=	2.97 cm <sup>2</sup>
Aa2 =	4.14	+	1.56"	=	5.70 cm <sup>2</sup>
Aa3 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa4 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa,uz =	0.00				cm <sup>2</sup> /m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.48%

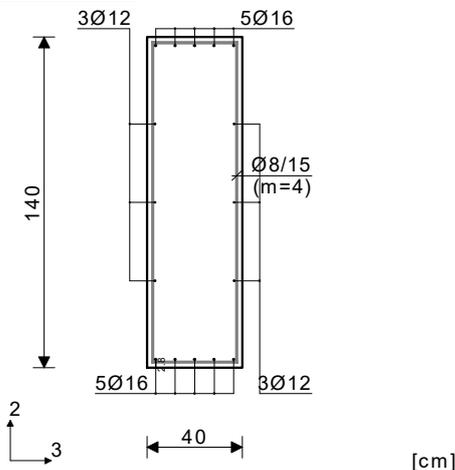
**G004 (9001-18439)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 3-3 x = 3.64m**

Merodavna kombinacija za torziju: 1.00xI+0.30xII+0.30xIII-1.00xVIII

M1ed = -0.30 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII-1.00xVIII

V2ed = -81.50 kN  
V3ed = 10.49 kN  
M1ed = -0.30 kNm

Vrd,max,2 = 2799.02 kN

Vrd,max,3 = 2799.02 kN

 $\epsilon_b/\epsilon_a = -2.294/25.000 \text{ ‰}$ 

Aa1 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa2 =	7.04	+	0.58"	=	7.62 cm <sup>2</sup>
Aa3 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa4 =	0.00	+	0.00"	=	0.00 cm <sup>2</sup>
Aa,uz =	0.00				cm <sup>2</sup> /m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

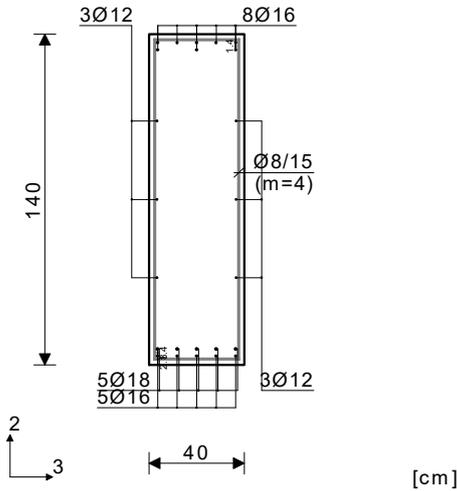
Procenat armiranja: 0.48%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

Merodavna kombinacija za savijanje: 1.35xI+1.50xII+1.05xIII

N1ed = -394.33 kN  
M2ed = 0.00 kNm  
M3ed = -633.37 kNm

Presek 4-4 x = 16.90m



Merodavna kombinacija za torziju: 1.00xI+0.30xII  
+0.30xIII+1.00xVIII  
M1ed = 0.73 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
+0.30xIII+1.00xVIII  
V2ed = 67.93 kN  
V3ed = 19.30 kN  
M1ed = 0.73 kNm

Vrd,max,2 = 2730.67 kN  
Vrd,max,3 = 2730.67 kN  
εb/εa = -0.771/25.000 ‰  
Aa1 = 16.51 + 6.17" = 22.68 cm<sup>2</sup>  
Aa2 = 6.26 + 3.85" = 10.11 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa,uz = 0.69 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.82%

Merodavna kombinacija za savijanje: 1.35xI+1.50xII

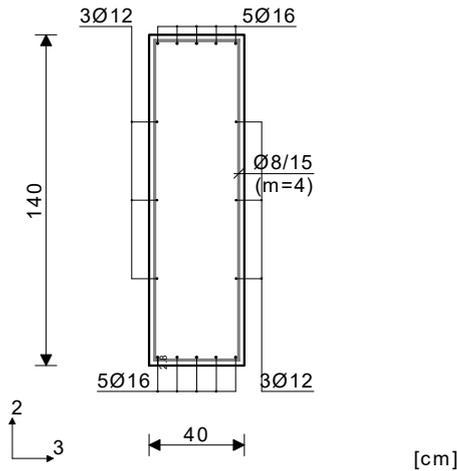
N1ed = 861.71 kN  
M2ed = 0.00 kNm  
M3ed = 336.49 kNm

**G005 (20781-22379)**

EC 2 (EN 1992-1-1:2004)  
C35/45 (γC = 1.50, γS = 1.15) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje: 1.00xI  
-1.00xVIII  
N1ed = -296.57 kN  
M2ed = 0.00 kNm  
M3ed = 244.87 kNm

Presek 5-5 x = 0.99m



Merodavna kombinacija za torziju: 1.00xI+0.30xII  
+0.30xIII-1.00xVIII  
M1ed = -1.10 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
-1.00xVIII  
V2ed = -161.48 kN  
V3ed = 48.87 kN  
M1ed = -1.10 kNm

Vrd,max,2 = 3067.05 kN  
Vrd,max,3 = 3067.05 kN  
εb/εa = -1.395/25.000 ‰  
Aa1 = 0.82 + 0.00" + 1.81" = 2.63 cm<sup>2</sup>  
Aa2 = 0.00 + 0.00" + 0.00" = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 + 0.04" + 0.00" = 0.04 cm<sup>2</sup>  
Aa4 = 0.00 + 0.04" + 0.00" = 0.04 cm<sup>2</sup>  
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.48%

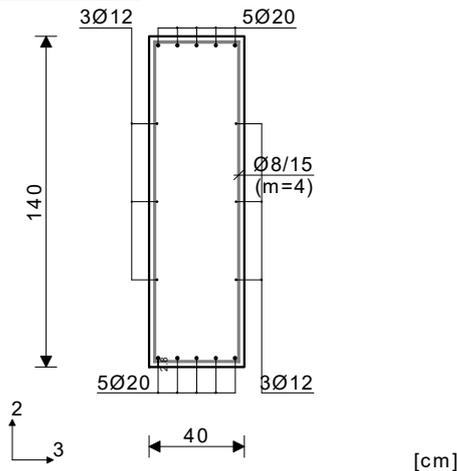
\*) - dodatna podužna armatura za prijem torzije.  
\*) - dodatna podužna armatura za prijem glavnih napona zatezanja.Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0039 (8654-15660)**

EC 2 (EN 1992-1-1:2004)  
C35/45 (γC = 1.50, γS = 1.15) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje: 1.00xI  
+0.30xII+0.30xIII-1.00xVIII  
N1ed = 116.29 kN  
M2ed = 0.00 kNm  
M3ed = 273.88 kNm

Presek 6-6 x = 1.93m



Merodavna kombinacija za torziju: 1.00xI+0.30xII  
+1.00xVIII  
M1ed = 0.76 kNm

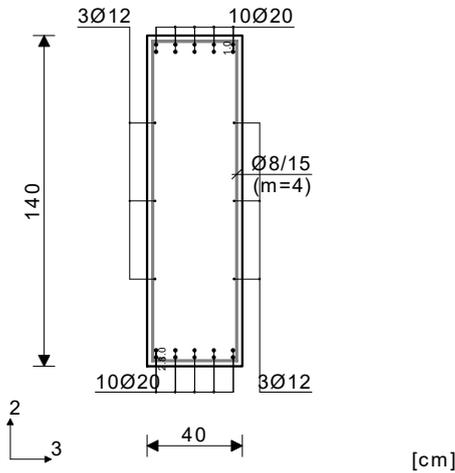
Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
+0.30xIII-1.00xVIII  
V2ed = -292.75 kN  
V3ed = 1.37 kN  
M1ed = -0.71 kNm

Vrd,max,2 = 2730.67 kN  
Vrd,max,3 = 2730.67 kN  
εb/εa = -1.008/25.000 ‰  
Aa1 = 6.48 + 2.74" = 9.22 cm<sup>2</sup>  
Aa2 = 0.68 + 3.08" = 3.76 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa,uz = 2.97 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja.Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 7-7 x = 9.29m



Merodavna kombinacija za torziju: 1.00xI+0.30xII  
+0.30xIII+1.00xVIII  
M1ed = 0.54 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
+0.30xIII+1.00xVIII  
V2ed = 283.86 kN  
V3ed = -6.60 kN  
M1ed = 0.54 kNm

Vrd,max,2 = 2730.67 kN  
Vrd,max,3 = 2730.67 kN  
εb/εa = -1.998/25.000 ‰  
Aa1 = 17.35 + 1.38" = 18.74 cm<sup>2</sup>  
Aa2 = 14.49 + 5.86" = 20.35 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa,uz = 2.88 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.24%

Merodavna kombinacija za savijanje: 1.00xI  
+0.30xIII-1.00xVIII

N1ed = 464.78 kN  
M2ed = 0.00 kNm  
M3ed = 645.80 kNm

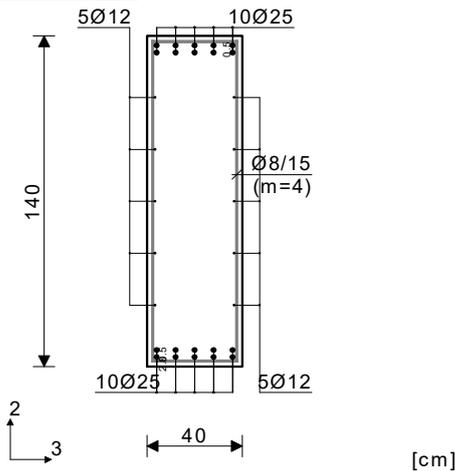
**G0038 (10176-14451)**

EC 2 (EN 1992-1-1:2004)  
C35/45 (γC = 1.50, γS = 1.15) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje: 1.00xI  
+0.30xII-1.00xVIII

N1ed = 579.37 kN  
M2ed = -10.12 kNm  
M3ed = 1207.27 kNm

Presek 8-8 x = 4.97m



Merodavna kombinacija za torziju: 1.00xI+0.30xII  
+0.30xIII+1.00xVIII  
M1ed = 1.34 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
-1.00xVIII  
V2ed = -310.48 kN  
V3ed = -22.29 kN  
M1ed = -1.30 kNm

Vrd,max,2 = 2969.78 kN  
Vrd,max,3 = 2878.40 kN  
εb/εa = -2.432/25.000 ‰  
Aa1 = 26.14 + 0.00" + 9.86" = 35.99 cm<sup>2</sup>  
Aa2 = 26.00 + 0.00" + 9.80" = 35.80 cm<sup>2</sup>  
Aa3 = 2.95 + 0.05" + 0.42" = 3.43 cm<sup>2</sup>  
Aa4 = 2.83 + 0.05" + 0.41" = 3.29 cm<sup>2</sup>  
Aa,uz = 3.06 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.96%

\*) - dodatna podužna armatura za prijem torzije.  
\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*ts.

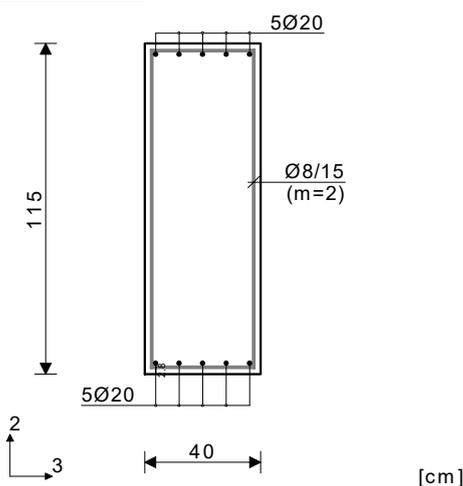
**G0014 (826-1326)**

EC 2 (EN 1992-1-1:2004)  
C35/45 (γC = 1.50, γS = 1.15) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje: 1.00xI  
+0.30xII+0.30xIII-1.00xVIII

N1ed = 202.32 kN  
M2ed = 0.00 kNm  
M3ed = 256.33 kNm

Presek 9-9 x = 2.17m



Merodavna kombinacija za torziju: 1.35xI+1.50xII  
+1.05xIII

M1ed = 0.10 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
+0.30xIII-1.00xVIII  
V2ed = -154.23 kN  
V3ed = -4.87 kN  
M1ed = 0.06 kNm

Vrd,max,2 = 2243.05 kN  
Vrd,max,3 = 2243.05 kN  
εb/εa = -1.118/25.000 ‰  
Aa1 = 8.27 + 2.08" = 10.35 cm<sup>2</sup>  
Aa2 = 0.87 + 2.41" = 3.28 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa,uz = 1.90 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*ts.

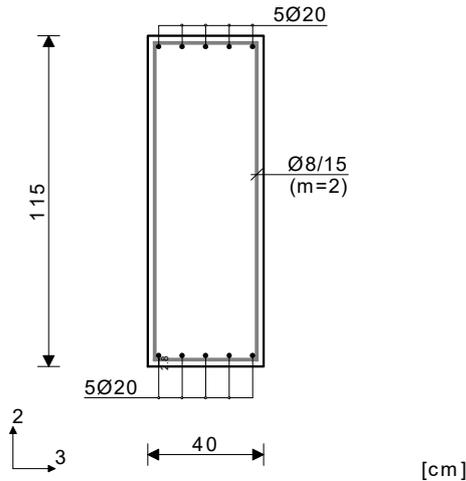
**G0013 (1195-1531)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 10-10  $x = 3.26m$ 

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII-1.00xVIII

N1ed = 66.19 kN

M2ed = 0.00 kNm

M3ed = 430.85 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII

M1ed = -0.08 kNm

Merodavna kombinacija za smicanje: 1.00xI

-1.00xVIII

V2ed = -150.18 kN

V3ed = 5.98 kN

M1ed = -0.05 kNm

Vrd,max,2 = 2243.05 kN

Vrd,max,3 = 2243.05 kN

 $\epsilon_b/\epsilon_a = -1.768/25.000 \text{ ‰}$ Aa1 = 10.64 + 1.79° = 12.43 cm<sup>2</sup>Aa2 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 1.85 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

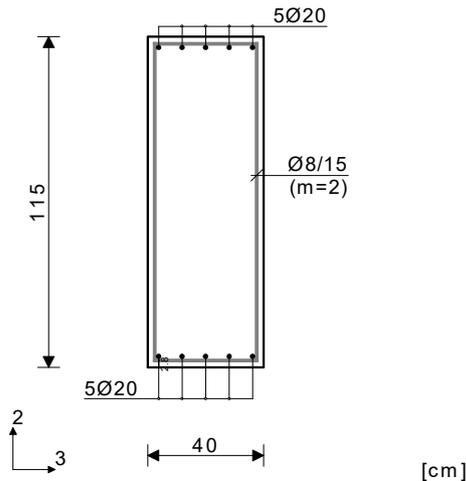
**G006 (1195-1326)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 11-11  $x = 0.25m$ 

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII-1.00xVIII

N1ed = 73.85 kN

M2ed = 0.00 kNm

M3ed = -135.43 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII

M1ed = 0.01 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII

V2ed = -131.09 kN

V3ed = 1.33 kN

M1ed = 0.01 kNm

Vrd,max,2 = 2282.28 kN

Vrd,max,3 = 2282.28 kN

 $\epsilon_b/\epsilon_a = -0.783/25.000 \text{ ‰}$ Aa1 = 0.00 + 3.10° = 3.10 cm<sup>2</sup>Aa2 = 3.97 + 0.00° = 3.97 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

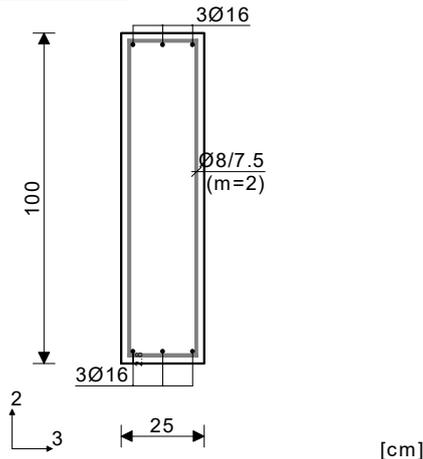
**G007 (5045-5600)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 12-12  $x = 0.42m$ 

Merodavna kombinacija za savijanje: 1.00xI

+0.30xIII-1.00xVIII

N1ed = -89.67 kN

M2ed = 0.00 kNm

M3ed = 49.10 kNm

Merodavna kombinacija za smicanje: 1.00xI

+0.30xIII-1.00xVIII

V2ed = -73.59 kN

V3ed = -8.24 kN

M1ed = -0.00 kNm

Vrd,max,2 = 1320.32 kN

Vrd,max,3 = 1320.32 kN

 $\epsilon_b/\epsilon_a = -1.077/25.000 \text{ ‰}$ Aa1 = 0.14 + 1.11° = 1.25 cm<sup>2</sup>Aa2 = 0.00 + 1.49° = 1.49 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.48%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

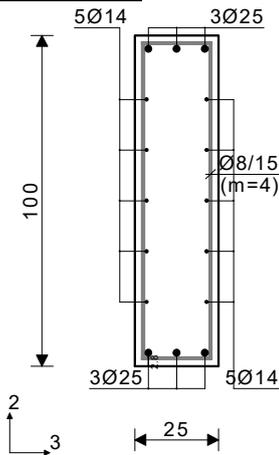
**G0017 (5248-5770)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 13-13  $x = 1.03m$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

-1.00xVIII

N1ed = -2.87 kN

M2ed = 0.00 kNm

M3ed = 35.31 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.04 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+1.00xVIII

V2ed = 88.39 kN

V3ed = 6.80 kN

M1ed = 0.04 kNm

Vrd,max,2 = 1220.12 kN

Vrd,max,3 = 1220.12 kN

 $\epsilon_b/\epsilon_a = -0.772/25.000 \%$ Aa1 = 0.84 + 1.52° = 2.37 cm<sup>2</sup>Aa2 = 0.32 + 1.31° = 1.63 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 1.26 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

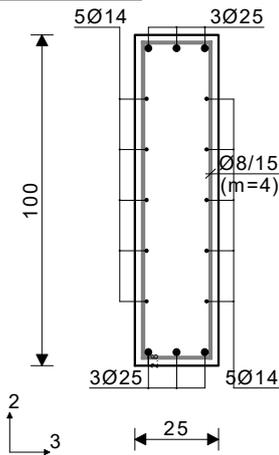
**G0018 (6945-7458)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 14-14  $x = 0.49m$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xIII-1.00xVIII

N1ed = 157.16 kN

M2ed = 0.00 kNm

M3ed = -28.73 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.02 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+1.00xVIII

V2ed = 162.20 kN

V3ed = -5.18 kN

M1ed = 0.02 kNm

Vrd,max,2 = 1219.05 kN

Vrd,max,3 = 1219.05 kN

 $\epsilon_b/\epsilon_a = -1.087/25.000 \%$ Aa1 = 4.16 + 2.81° = 6.97 cm<sup>2</sup>Aa2 = 2.39 + 0.72° = 3.11 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 2.30 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

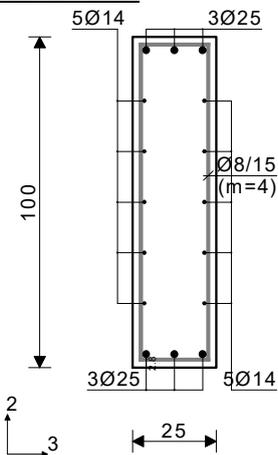
**G0019 (7976-8531)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 15-15  $x = 0.66m$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xIII-1.00xVIII

N1ed = 364.55 kN  
M2ed = 0.00 kNm  
M3ed = -27.97 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII+1.00xVIII

M1ed = 0.02 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII+1.00xVIII

V2ed = 168.56 kN  
V3ed = -1.76 kN  
M1ed = 0.02 kNm

Vrd,max,2 = 1219.05 kN

Vrd,max,3 = 1219.05 kN

$\epsilon_b/\epsilon_a = -0.912/25.000 \text{ ‰}$

Aa1 =	5.77	+	1.74°	=	7.50 cm <sup>2</sup>
Aa2 =	4.81	+	2.99°	=	7.80 cm <sup>2</sup>
Aa3 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa4 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa,uz =				2.39 cm <sup>2</sup> /m	(m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0020 (5873-6567)**

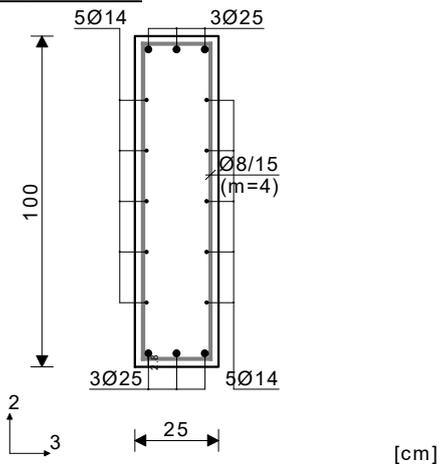
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 16-16 x = 1.03m



Merodavna kombinacija za savijanje: 1.00xI

+0.30xII+0.30xIII-1.00xVIII

N1ed = 65.15 kN  
M2ed = 0.00 kNm  
M3ed = -15.98 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+1.00xVIII

V2ed = 112.31 kN  
V3ed = 7.09 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1219.05 kN

Vrd,max,3 = 1219.05 kN

$\epsilon_b/\epsilon_a = -0.665/25.000 \text{ ‰}$

Aa1 =	1.32	+	1.68°	=	3.00 cm <sup>2</sup>
Aa2 =	1.10	+	1.80°	=	2.91 cm <sup>2</sup>
Aa3 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa4 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa,uz =				1.59 cm <sup>2</sup> /m	(m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0011 (5891-7035)**

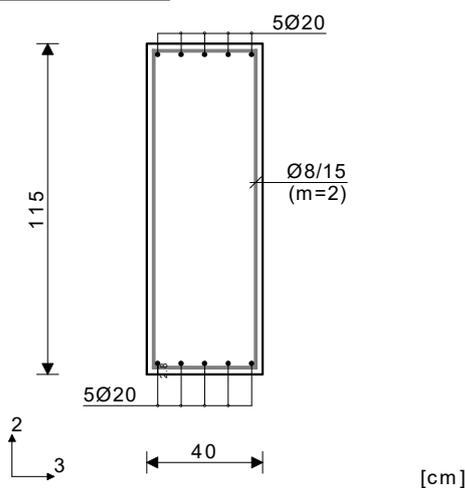
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 17-17 x = 0.82m



Merodavna kombinacija za savijanje: 1.00xI

+0.30xIII-1.00xVIII

N1ed = -181.35 kN  
M2ed = 0.00 kNm  
M3ed = -155.56 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII

M1ed = -0.05 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

-1.00xVIII

V2ed = -203.39 kN  
V3ed = -8.82 kN  
M1ed = -0.03 kNm

Vrd,max,2 = 2284.80 kN

Vrd,max,3 = 2284.80 kN

$\epsilon_b/\epsilon_a = -1.274/25.000 \text{ ‰}$

Aa1 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa2 =	1.23	+	1.21°	=	2.44 cm <sup>2</sup>
Aa3 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa4 =	0.00	+	0.00°	=	0.00 cm <sup>2</sup>
Aa,uz =				2.51 cm <sup>2</sup> /m	(m=2)

[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0015 (9371-7035)**

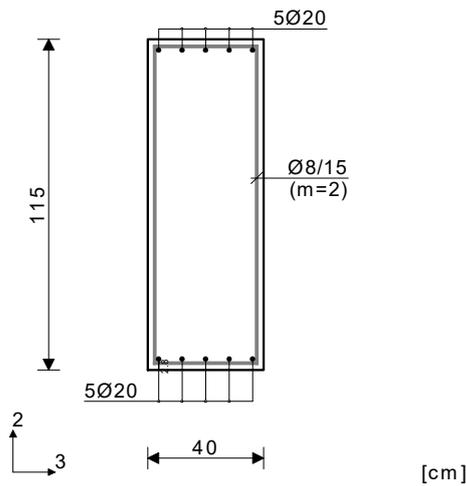
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 18-18 x = 2.64m



Merodavna kombinacija za savijanje: 1.35xI+1.50xII

N1ed = 143.53 kN  
M2ed = 0.00 kNm  
M3ed = 555.23 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII  
M1ed = 0.03 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

-1.00xVIII  
V2ed = -103.46 kN  
V3ed = -5.70 kN  
M1ed = 0.02 kNm

Vrd,max,2 = 2249.81 kN

Vrd,max,3 = 2249.81 kN

$\epsilon_b/\epsilon_a = -2.031/25.000 ‰$

Aa1 = 14.48 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

G0012 (9371-74041)

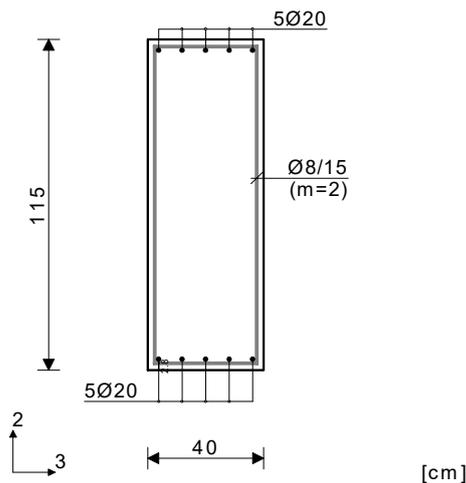
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 19-19 x = 12.62m



Merodavna kombinacija za savijanje: 1.35xI

+1.05xII+1.50xIII

N1ed = -700.38 kN

M2ed = 0.00 kNm

M3ed = 119.14 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII

M1ed = -0.05 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII+1.00xVIII

V2ed = 129.26 kN

V3ed = 15.02 kN

M1ed = -0.03 kNm

Vrd,max,2 = 2333.08 kN

Vrd,max,3 = 2333.08 kN

Aa1 = 0.00 + 1.71<sup>°</sup> = 1.71 cm<sup>2</sup>

Aa2 = 0.00 + 0.00<sup>°</sup> = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00<sup>°</sup> = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00<sup>°</sup> = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

<sup>°</sup>) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

G009 (24487-25857)

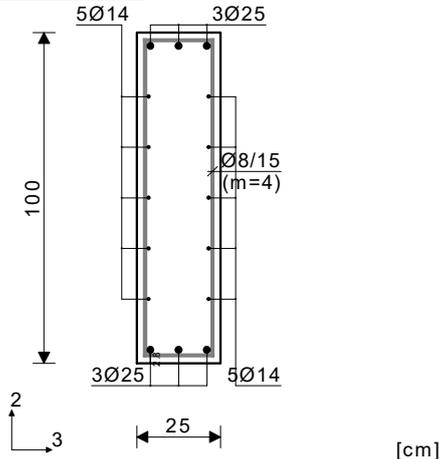
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 20-20 x = 0.71m



Merodavna kombinacija za savijanje: 1.00xI

+0.30xII+0.30xIII-1.00xVIII

N1ed = 30.51 kN

M2ed = 0.00 kNm

M3ed = -84.71 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.01 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII

+1.05xIII

V2ed = -81.50 kN

V3ed = -2.01 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1262.66 kN

Vrd,max,3 = 1262.66 kN

$\epsilon_b/\epsilon_a = -0.986/25.000 ‰$

Aa1 = 0.00 + 1.04<sup>°</sup> = 1.04 cm<sup>2</sup>

Aa2 = 2.58 + 2.96<sup>°</sup> = 5.54 cm<sup>2</sup>

Aa3 = 0.00 + 0.00<sup>°</sup> = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00<sup>°</sup> = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

<sup>°</sup>) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

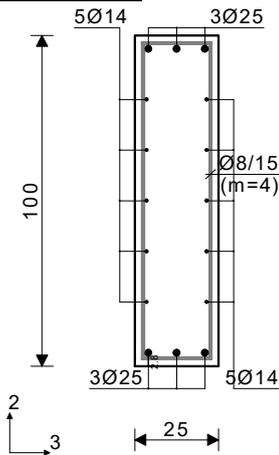
**G0010 (26602-27713)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 21-21  $x = 1.16m$ 

[cm]

Merodavna kombinacija za savijanje: 1.35xI

+1.05xII+1.50xIII

N1ed = -278.96 kN

M2ed = 0.00 kNm

M3ed = 7.67 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.01 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+1.00xVIII

V2ed = 98.31 kN

V3ed = 9.07 kN

M1ed = 0.01 kNm

Vrd,max,2 = 1247.86 kN

Vrd,max,3 = 1247.86 kN

Aa1 = 0.00 + 0.74° = 0.74 cm<sup>2</sup>Aa2 = 0.00 + 1.28° = 1.28 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

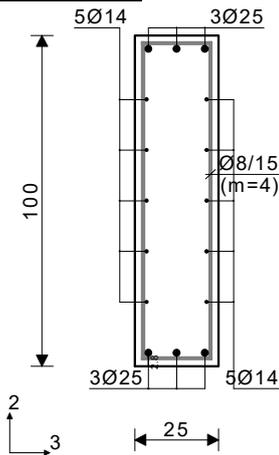
**G0021 (22686-21813)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 22-22  $x = 0.79m$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII-1.00xVIII

N1ed = 205.64 kN

M2ed = 0.00 kNm

M3ed = -129.81 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII

+1.05xIII

V2ed = 122.53 kN

V3ed = -7.17 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1219.05 kN

Vrd,max,3 = 1219.05 kN

εb/εa = -1.383/25.000 ‰

Aa1 = 3.30 + 0.90° = 4.21 cm<sup>2</sup>Aa2 = 5.75 + 0.08° = 5.82 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 1.74 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

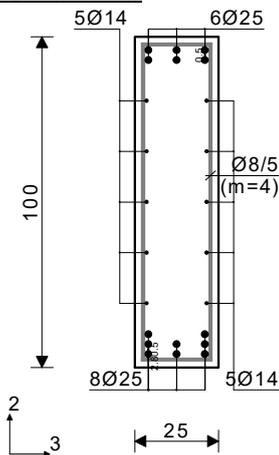
**G0022 (30970-28998)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 23-23  $x = 1.33m$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII+0.30xIII-1.00xVIII

N1ed = 130.33 kN

M2ed = 0.00 kNm

M3ed = 614.43 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII+1.00xVIII

M1ed = 0.04 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

-1.00xVIII

V2ed = -78.22 kN

V3ed = 6.34 kN

M1ed = -0.04 kNm

Vrd,max,2 = 1219.05 kN

Vrd,max,3 = 1219.05 kN

εb/εa = -3.500/21.130 ‰

Aa1 = 18.35 + 0.05° = 18.40 cm<sup>2</sup>Aa2 = 4.17 + 2.43° = 6.59 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 1.11 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/5(m=4) = 20.11 cm<sup>2</sup>/m]

Procenat armiranja: 3.36%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

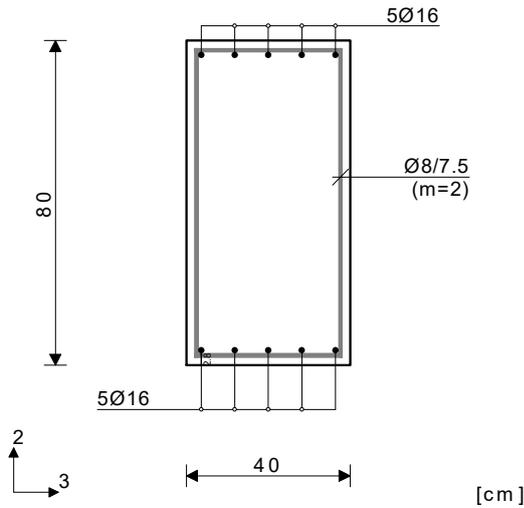
**G0037 (40461-41477)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 24-24  $x = 0.51m$ 

Merodavna kombinacija za savijanje: 1.00xI

-1.00xVIII

N1ed = -108.12 kN

M2ed = 0.00 kNm

M3ed = 177.15 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

M1ed = -0.06 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

-1.00xVIII

V2ed = -133.84 kN

V3ed = -15.00 kN

M1ed = -0.06 kNm

Vrd,max,2 = 1586.33 kN

Vrd,max,3 = 1586.33 kN

 $\epsilon_b/\epsilon_a = -1.876/25.000 \%$ Aa1 = 4.46 + 2.32° = 6.78 cm<sup>2</sup>Aa2 = 0.00 + 6.80° = 6.80 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 2.38 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.63%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

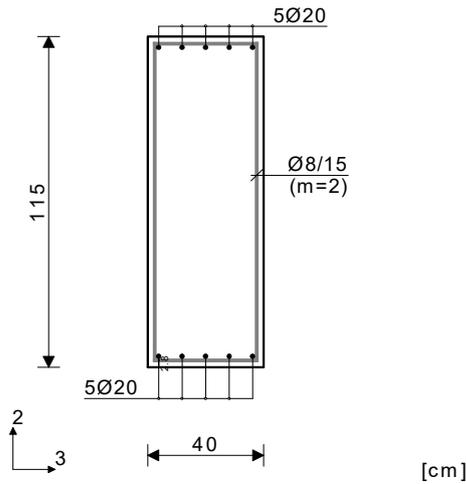
**G0023 (66535-74041)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 25-25  $x = 5.60m$ 

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII+0.30xIII-1.00xVIII

N1ed = 322.76 kN

M2ed = 0.00 kNm

M3ed = 194.74 kNm

Merodavna kombinacija za torziju: 1.35xI+1.05xII

+1.50xIII

M1ed = -0.03 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

V2ed = -201.14 kN

V3ed = -4.31 kN

M1ed = -0.03 kNm

Vrd,max,2 = 2243.05 kN

Vrd,max,3 = 2243.05 kN

 $\epsilon_b/\epsilon_a = -0.690/25.000 \%$ Aa1 = 8.37 + 2.36° = 10.73 cm<sup>2</sup>Aa2 = 0.88 + 3.19° = 4.07 cm<sup>2</sup>Aa3 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00° = 0.00 cm<sup>2</sup>Aa,uz = 2.48 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

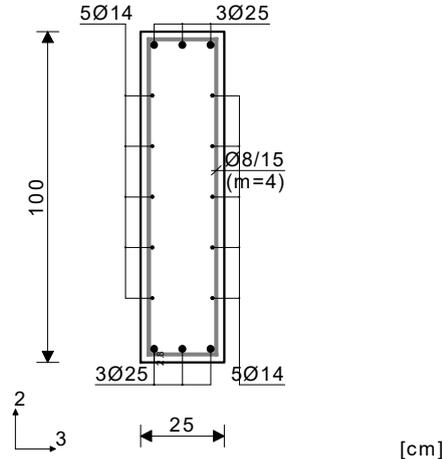
**G0036 (57675-59450)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 26-26  $x = 1.23m$ 

Merodavna kombinacija za savijanje: 1.00xI  
 +0.30xII+0.30xIII-1.00xVIII  
 N1ed = 394.09 kN  
 M2ed = 0.00 kNm  
 M3ed = 79.71 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
 +0.30xIII-1.00xVIII  
 V2ed = -182.58 kN  
 V3ed = -0.58 kN  
 M1ed = -0.00 kNm

Vrd,max,2 = 1219.05 kN  
 Vrd,max,3 = 1219.05 kN

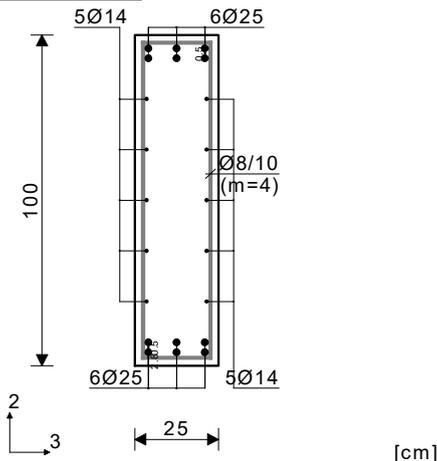
$\epsilon_b/\epsilon_a = -1.327/25.000 \text{ ‰}$   
 Aa1 = 6.49 + 2.34" = 8.84 cm<sup>2</sup>  
 Aa2 = 7.78 + 2.37" = 10.15 cm<sup>2</sup>  
 Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
 Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
 Aa,uz = 2.59 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz =  $\varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.79%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0024 (55709-56350)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 27-27 x = 1.38m



Merodavna kombinacija za savijanje: 1.00xI  
 +0.30xII+0.30xIII-1.00xVIII  
 N1ed = 410.58 kN  
 M2ed = 0.00 kNm  
 M3ed = 442.12 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII  
 +0.30xIII-1.00xVIII  
 M1ed = -0.02 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII  
 +1.05xIII  
 V2ed = -516.08 kN  
 V3ed = -24.28 kN  
 M1ed = -0.01 kNm

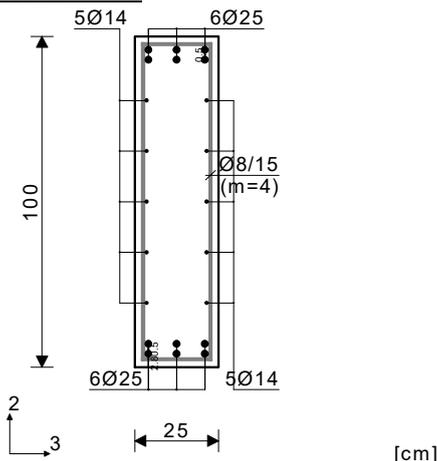
Vrd,max,2 = 1224.53 kN  
 Vrd,max,3 = 1224.53 kN  
 $\epsilon_b/\epsilon_a = -2.335/25.000 \text{ ‰}$   
 Aa1 = 16.78 + 0.00" = 16.78 cm<sup>2</sup>  
 Aa2 = 0.00 + 4.01" = 4.01 cm<sup>2</sup>  
 Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
 Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
 Aa,uz = 7.33 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz =  $\varnothing 8/10(m=4) = 10.05 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.97%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0026 (54434-55085)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 28-28 x = 0.85m



Merodavna kombinacija za savijanje: 1.00xI  
 +0.30xII+0.30xIII-1.00xVIII  
 N1ed = 621.09 kN  
 M2ed = 0.00 kNm  
 M3ed = -29.26 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII  
 +0.30xIII+1.00xVIII  
 M1ed = 0.03 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII  
 V2ed = 380.73 kN  
 V3ed = -27.79 kN  
 M1ed = 0.02 kNm

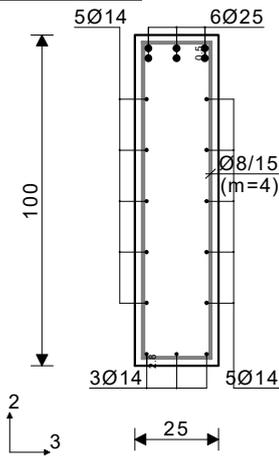
Vrd,max,2 = 1219.05 kN  
 Vrd,max,3 = 1219.05 kN  
 $\epsilon_b/\epsilon_a = -1.328/25.000 \text{ ‰}$   
 Aa1 = 13.31 + 5.77" = 19.09 cm<sup>2</sup>  
 Aa2 = 7.65 + 9.99" = 17.65 cm<sup>2</sup>  
 Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
 Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
 Aa,uz = 5.41 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz =  $\varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.97%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0035 (50817-54005)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 29-29 x = 1.16m



[cm]

Merodavna kombinacija za torziju: 1.00xI+0.30xII  
+0.30xIII-1.00xVIII  
M1ed = -0.05 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII  
V2ed = 188.08 kN  
V3ed = 56.17 kN  
M1ed = -0.04 kNm

Vrd,max,2 = 1219.05 kN  
Vrd,max,3 = 1219.05 kN  
εb/εa = -3.329/25.000 ‰  
Aa1 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa2 = 17.85 + 3.71" = 21.55 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa,uz = 2.67 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.98%

⌋ - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

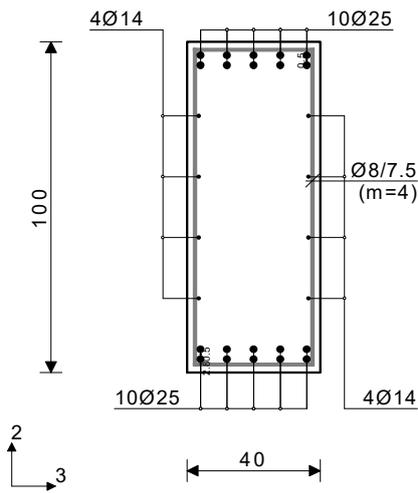
Merodavna kombinacija za savijanje: 1.35xI  
+1.50xII+1.05xIII

N1ed = 282.18 kN  
M2ed = 0.00 kNm  
M3ed = -535.73 kNm

**G0025 (49679-50817)**

EC 2 (EN 1992-1-1:2004)  
C35/45 (γC = 1.50, γS = 1.15) [SP]  
S500H  
Kompletna šema opterećenja

Presek 30-30 x = 0.93m



[cm]

Merodavna kombinacija za savijanje: 1.00xI  
+0.30xII-1.00xVIII

N1ed = -188.86 kN  
M2ed = -25.38 kNm  
M3ed = 494.25 kNm

Merodavna kombinacija za smicanje: 1.35xI+1.50xII  
+1.05xIII

V2ed = 473.61 kN  
V3ed = -80.89 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 2104.13 kN  
Vrd,max,3 = 1979.69 kN  
εb/εa = -3.361/25.000 ‰  
Aa1 = 9.47 + 7.60" = 17.08 cm<sup>2</sup>  
Aa2 = 9.42 + 7.56" = 16.98 cm<sup>2</sup>  
Aa3 = 1.07 + 0.32" = 1.39 cm<sup>2</sup>  
Aa4 = 1.03 + 0.31" = 1.34 cm<sup>2</sup>  
Aa,uz = 6.51 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=4) = 13.40 cm<sup>2</sup>/m]

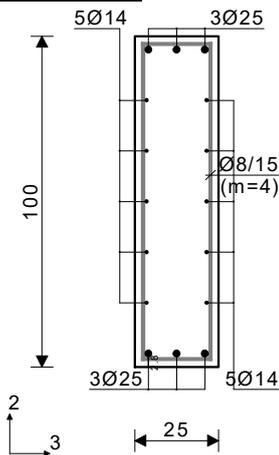
Procenat armiranja: 2.76%

⌋ - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G0027 (49130-50045)**

EC 2 (EN 1992-1-1:2004)  
C35/45 (γC = 1.50, γS = 1.15) [SP]  
S500H  
Kompletna šema opterećenja

Presek 31-31 x = 1.31m



[cm]

Merodavna kombinacija za savijanje: 1.35xI+1.50xII

N1ed = -257.69 kN  
M2ed = 0.00 kNm  
M3ed = 288.99 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII  
+0.30xIII+1.00xVIII

V2ed = 212.02 kN  
V3ed = -5.43 kN  
M1ed = 0.01 kNm

Vrd,max,2 = 1247.39 kN  
Vrd,max,3 = 1247.39 kN  
εb/εa = -3.109/25.000 ‰  
Aa1 = 4.57 + 3.35" = 7.91 cm<sup>2</sup>  
Aa2 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>  
Aa,uz = 3.01 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

⌋ - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

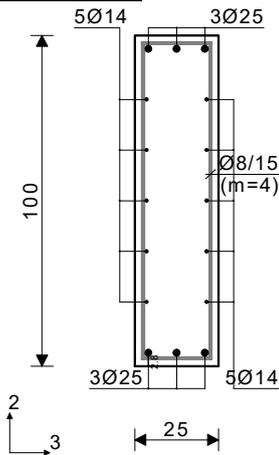
**G0030 (51655-50991)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 32-32  $x = 0.65\text{m}$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII-1.00xVIII

N1ed = 405.03 kN

M2ed = 0.00 kNm

M3ed = -155.01 kNm

Merodavna kombinacija za torziju: 1.00xI+0.30xII

+0.30xIII+1.00xVIII

M1ed = 0.07 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

-1.00xVIII

V2ed = -216.33 kN

V3ed = -12.49 kN

M1ed = -0.03 kNm

Vrd,max,2 = 1219.05 kN

Vrd,max,3 = 1219.05 kN

 $\epsilon_b/\epsilon_a = -1.333/25.000 \text{ ‰}$ Aa1 = 5.05 + 1.21" = 6.26 cm<sup>2</sup>Aa2 = 8.78 + 5.39" = 14.17 cm<sup>2</sup>Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa,uz = 3.07 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.79%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

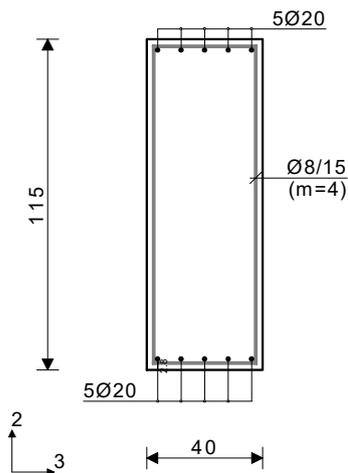
**G0031 (64699-66535)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 33-33  $x = 2.98\text{m}$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xIII-1.00xVIII

N1ed = 355.32 kN

M2ed = 0.00 kNm

M3ed = -32.76 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

V2ed = -374.24 kN

V3ed = -1.56 kN

M1ed = -0.00 kNm

Vrd,max,2 = 2317.39 kN

Vrd,max,3 = 2317.39 kN

 $\epsilon_b/\epsilon_a = -0.964/25.000 \text{ ‰}$ Aa1 = 7.89 + 2.17" = 10.06 cm<sup>2</sup>Aa2 = 4.54 + 3.09" = 7.63 cm<sup>2</sup>Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>Aa,uz = 4.62 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

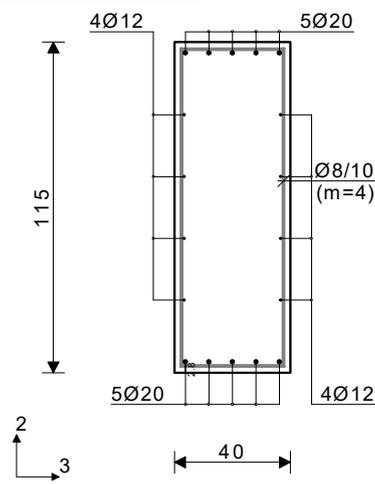
**G0032 (61483-63721)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 34-34  $x = 3.03\text{m}$ 

[cm]

Merodavna kombinacija za savijanje: 1.00xI

-1.00xVIII  
N1ed = -271.21 kN  
M2ed = 2.02 kNm  
M3ed = 215.50 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII  
M1ed = 0.05 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII-1.00xVIII  
V2ed = -513.71 kN  
V3ed = 3.13 kN  
M1ed = 0.03 kNm

Vrd,max,2 = 2456.60 kN

Vrd,max,3 = 2365.19 kN

$\epsilon_b/\epsilon_a = -1.663/25.000 \text{ ‰}$

Aa1 = 1.28 + 6.50" = 7.78 cm<sup>2</sup>

Aa2 = 1.28 + 6.46" = 7.74 cm<sup>2</sup>

Aa3 = 0.14 + 0.22" = 0.37 cm<sup>2</sup>

Aa4 = 0.14 + 0.21" = 0.35 cm<sup>2</sup>

Aa,uz = 6.11 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz =  $\varnothing 8/10(m=4) = 10.05 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 0.88%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G0033 (51660-59913)

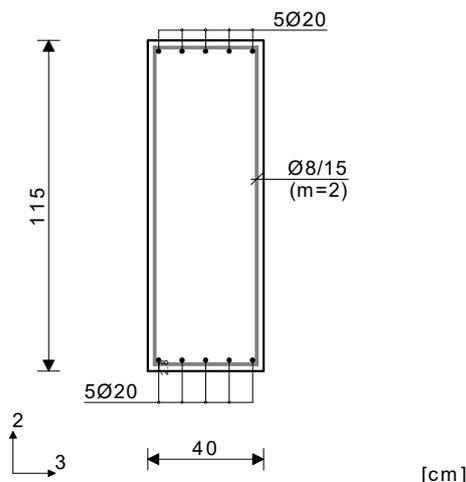
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 36-36 x = 10.58m



Merodavna kombinacija za savijanje: 1.00xI

-1.00xVIII  
N1ed = 183.65 kN  
M2ed = 0.00 kNm  
M3ed = -4.21 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII  
M1ed = 0.03 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+1.00xVIII  
V2ed = 131.94 kN  
V3ed = 12.33 kN  
M1ed = 0.02 kNm

Vrd,max,2 = 2243.05 kN

Vrd,max,3 = 2243.05 kN

$\epsilon_b/\epsilon_a = -0.491/25.000 \text{ ‰}$

Aa1 = 1.89 + 2.48" = 4.38 cm<sup>2</sup>

Aa2 = 3.29 + 3.58" = 6.87 cm<sup>2</sup>

Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>

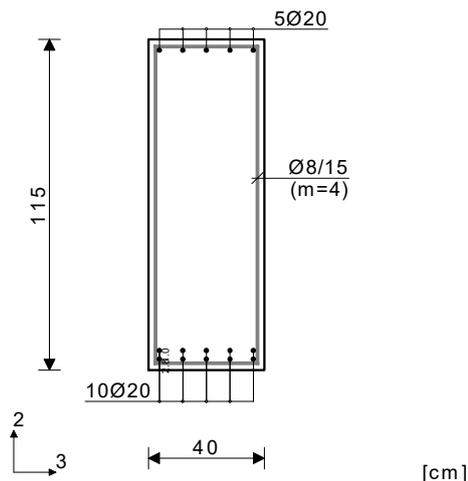
Aa,uz = 1.63 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz =  $\varnothing 8/15(m=2) = 3.35 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 0.68%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 35-35 x = 16.17m



Merodavna kombinacija za savijanje: 1.00xI

+0.30xII+0.30xIII-1.00xVIII

N1ed = 566.60 kN

M2ed = 0.00 kNm

M3ed = 553.67 kNm

Merodavna kombinacija za torziju: 1.35xI+1.50xII

+1.05xIII  
M1ed = 0.09 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII-1.00xVIII

V2ed = -296.03 kN

V3ed = 9.88 kN

M1ed = 0.05 kNm

Vrd,max,2 = 2398.98 kN

Vrd,max,3 = 2398.98 kN

$\epsilon_b/\epsilon_a = -1.598/25.000 \text{ ‰}$

Aa1 = 19.57 + 6.08" = 25.65 cm<sup>2</sup>

Aa2 = 2.05 + 4.67" = 6.72 cm<sup>2</sup>

Aa3 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00" = 0.00 cm<sup>2</sup>

Aa,uz = 3.66 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz =  $\varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.02%

### G0040 (51660-42010)

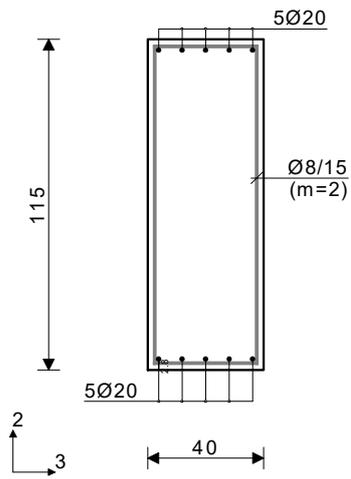
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 37-37 x = 2.61m



[cm]

Merodavna kombinacija za savijanje: 1.00xI

+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 48.36 kN  
 M2ed = 0.00 kNm  
 M3ed = 270.44 kNm

Merodavna kombinacija za smicanje: 1.00xI+0.30xII

+0.30xIII+1.00xVIII  
 V2ed = 84.86 kN  
 V3ed = 6.37 kN  
 M1ed = 0.01 kNm

Vrd,max,2 = 2243.05 kN

Vrd,max,3 = 2243.05 kN

$\epsilon_b/\epsilon_a = -1.306/25.000 \text{ ‰}$

Aa1 = 6.72 + 1.59<sup>\*)</sup> = 8.31 cm<sup>2</sup>

Aa2 = 0.00 + 0.00<sup>\*)</sup> = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00<sup>\*)</sup> = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00<sup>\*)</sup> = 0.00 cm<sup>2</sup>

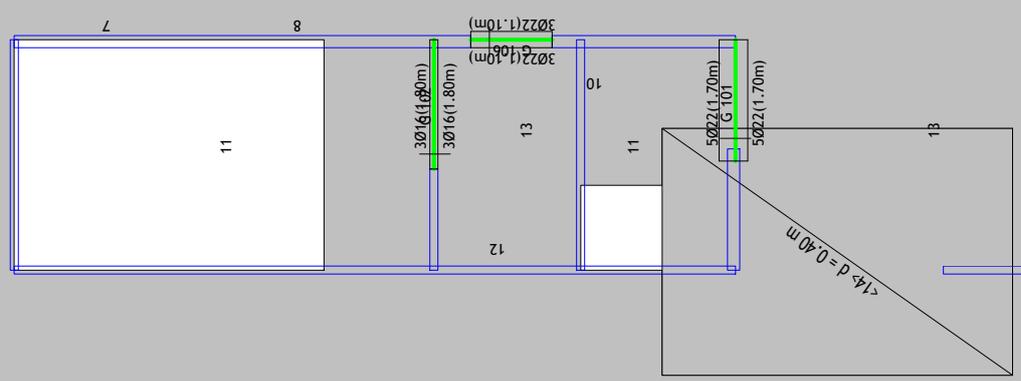
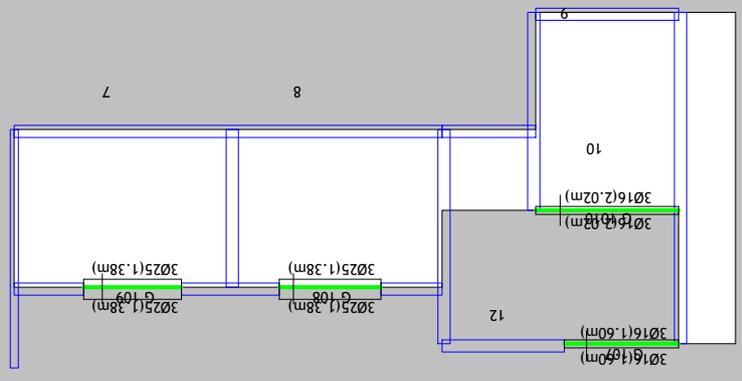
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

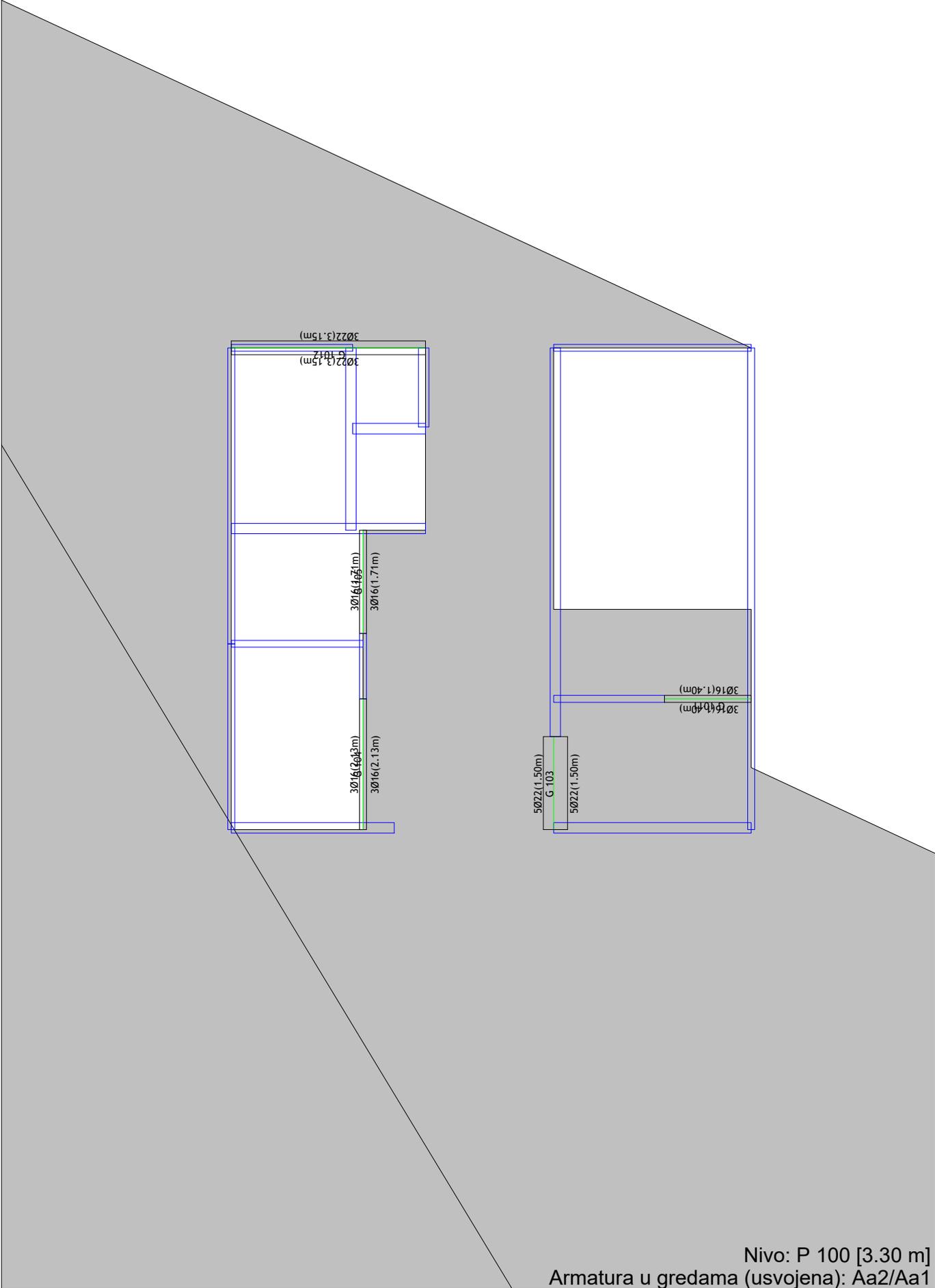
[Usvojeno Aa,uz = Ø8/15(m=2) = 3.35 cm<sup>2</sup>/m]

Procenat armiranja: 0.68%

<sup>\*)</sup> - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Dr 0 - P - 17  
Pis 101





Nivo: P 100 [3.30 m]  
Armatura u gredama (usvojena): Aa2/Aa1



Nivo: P 100 [3.30 m]  
Armatura u gredama (usvojena): Aa2/Aa1

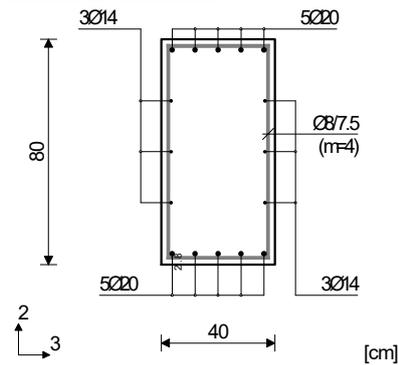
**G 1022 (42934-44003)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 1-1  $x = 1.08\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

N1ed = -90.23 kN

M2ed = 0.00 kNm

M3ed = -234.56 kNm

Aa1 = 7.79 + 1.20 = 9.00 cm<sup>2</sup>Aa2 = 6.51 + 2.86 = 9.37 cm<sup>2</sup>Aa3 = 0.00 + 0.00 = 0.00 cm<sup>2</sup>Aa4 = 0.00 + 0.00 = 0.00 cm<sup>2</sup>Aa,uz = 10.67 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/5(m=4) = 13.40 cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII

M1ed = -0.03 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -601.26 kN

V3ed = 1.33 kN

M1ed = -0.03 kNm

Vrd,max,2 = 1672.76 kN

Vrd,max,3 = 1672.76 kN

 $\epsilon_b/\epsilon_a = -2.532/25.000 \%$ 

Procenat armiranja: 1.27%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

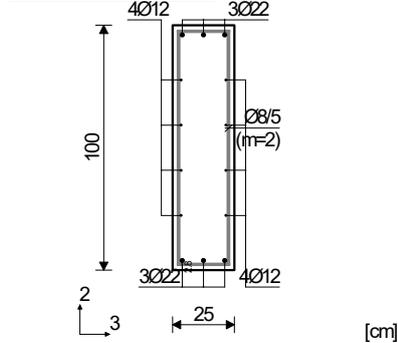
**G 1012 (33187-31178)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 2-2  $x = 0.00\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 407.00 kN

M2ed = -0.75 kNm

M3ed = -178.49 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -486.54 kN

V3ed = 2.44 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1318.71 kN

Vrd,max,3 = 1276.17 kN

 $\epsilon_b/\epsilon_a = -1.392/25.000 \%$ Aa1 = 8.19 + 1.53 = 9.72 cm<sup>2</sup>Aa2 = 8.14 + 1.52 = 9.66 cm<sup>2</sup>Aa3 = 1.13 + 0.05 = 1.18 cm<sup>2</sup>Aa4 = 1.09 + 0.05 = 1.14 cm<sup>2</sup>Aa,uz = 6.68 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 1.27%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

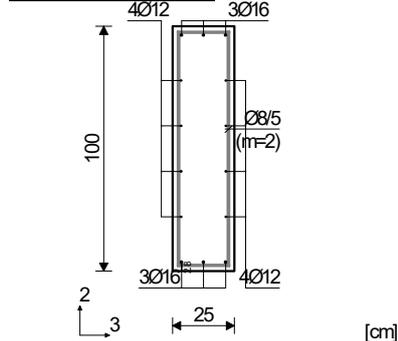
**G 105 (28834-29908)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 3-3  $x = 0.00\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

N1ed = -63.74 kN

M2ed = 0.30 kNm

M3ed = 87.60 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 29.06 kN

V3ed = 1.20 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1274.21 kN

Vrd,max,3 = 1233.10 kN

 $\epsilon_b/\epsilon_a = -1.397/25.000 \%$ Aa1 = 1.24 cm<sup>2</sup>Aa2 = 1.23 cm<sup>2</sup>Aa3 = 0.17 cm<sup>2</sup>Aa4 = 0.16 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 0.84%

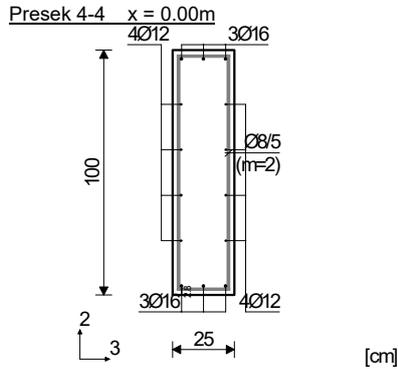
**G 104 (26742-28115)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 $N1_{ed} = 0.56 \text{ kN}$   
 $M2_{ed} = 0.76 \text{ kNm}$   
 $M3_{ed} = -81.87 \text{ kNm}$

$Aa1 = 1.78 \text{ cm}^2$   
 $Aa2 = 1.77 \text{ cm}^2$   
 $Aa3 = 0.25 \text{ cm}^2$   
 $Aa4 = 0.24 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/5(m=2) = 10.05 \text{ cm}^2/\text{m}$ ]

(m=2)

Merodavna kombinacija za smicanje:

1.00xI-1.00xVIII  
 $V2_{ed} = -36.66 \text{ kN}$   
 $V3_{ed} = -0.98 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

Procenat armiranja: 0.84%

$Vrd,max,2 = 1290.36 \text{ kN}$   
 $Vrd,max,3 = 1248.73 \text{ kN}$   
 $eb/\epsilon_a = -1.323/25.000 \text{ ‰}$

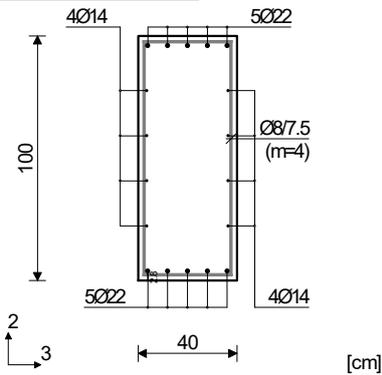
**G 103 (25666-24701)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = -132.02 \text{ kN}$   
 $M2_{ed} = 7.18 \text{ kNm}$   
 $M3_{ed} = -667.17 \text{ kNm}$

Presek 5-5  $x = 1.50\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 774.56 \text{ kN}$   
 $V3_{ed} = 9.17 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1978.07 \text{ kN}$   
 $Vrd,max,3 = 1978.07 \text{ kN}$   
 $eb/\epsilon_a = -3.500/23.693 \text{ ‰}$

$Aa1 = 14.83 \text{ cm}^2$   
 $Aa2 = 14.75 \text{ cm}^2$   
 $Aa3 = 1.67 \text{ cm}^2$   
 $Aa4 = 1.61 \text{ cm}^2$   
 $Aa,uz = 11.00 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/7.5(m=4) = 13.40 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.26%

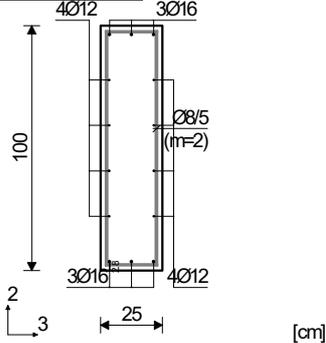
**G 1011 (24905-24001)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 4.59 \text{ kN}$   
 $M2_{ed} = 0.63 \text{ kNm}$   
 $M3_{ed} = 88.31 \text{ kNm}$

Presek 6-6  $x = 0.00\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 $V2_{ed} = 134.50 \text{ kN}$   
 $V3_{ed} = -1.09 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1259.69 \text{ kN}$   
 $Vrd,max,3 = 1219.05 \text{ kN}$   
 $eb/\epsilon_a = -1.339/25.000 \text{ ‰}$

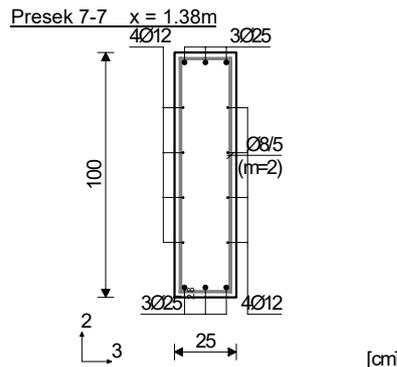
$Aa1 = 1.96 + 0.21^* = 2.17 \text{ cm}^2$   
 $Aa2 = 1.95 + 0.20^* = 2.15 \text{ cm}^2$   
 $Aa3 = 0.27 + 0.00^* = 0.27 \text{ cm}^2$   
 $Aa4 = 0.26 + 0.00^* = 0.26 \text{ cm}^2$   
 $Aa,uz = 1.85 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/5(m=2) = 10.05 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 0.84%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*ts.

**G 109 (9370-9965)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 197.40 \text{ kN}$   
 $M2_{ed} = -0.85 \text{ kNm}$   
 $M3_{ed} = -204.84 \text{ kNm}$

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 216.40 \text{ kN}$   
 $V3_{ed} = -0.84 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1259.69 \text{ kN}$   
 $Vrd,max,3 = 1219.05 \text{ kN}$   
 $eb/\epsilon_a = -1.729/25.000 \text{ ‰}$

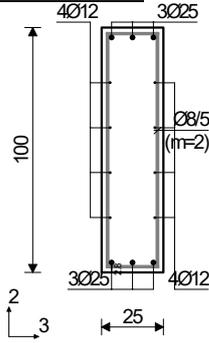
$Aa1 = 6.62 \text{ cm}^2$   
 $Aa2 = 6.58 \text{ cm}^2$   
 $Aa3 = 0.91 \text{ cm}^2$   
 $Aa4 = 0.88 \text{ cm}^2$   
 $Aa,uz = 2.97 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/5(m=2) = 10.05 \text{ cm}^2/\text{m}$ ]

(m=2)

**G 108 (8264-8819)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 8-8  $x = 1.38\text{m}$



[cm]

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
N1ed = 29.92 kN  
M2ed = -0.55 kNm  
M3ed = -94.93 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 177.69 kN  
V3ed = -0.90 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1259.69 kN  
Vrd,max,3 = 1219.05 kN  
 $\epsilon_b/\epsilon_a = -1.344/25.000 \%$   
Aa1 = 2.38 + 0.55" = 2.94 cm<sup>2</sup>  
Aa2 = 2.37 + 0.55" = 2.92 cm<sup>2</sup>  
Aa3 = 0.33 + 0.00" = 0.33 cm<sup>2</sup>  
Aa4 = 0.32 + 0.00" = 0.32 cm<sup>2</sup>  
Aa,uz = 2.44 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

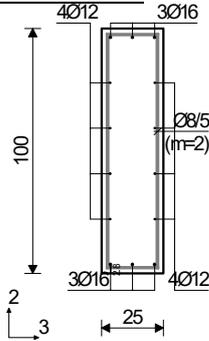
Procenat armiranja: 1.54%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1010 (7069-7841)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 9-9  $x = 1.37\text{m}$



[cm]

Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = 86.47 kN  
M2ed = 2.21 kNm  
M3ed = -67.67 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 76.73 kN  
V3ed = -9.33 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1259.69 kN  
Vrd,max,3 = 1219.05 kN  
 $\epsilon_b/\epsilon_a = -1.278/25.000 \%$   
Aa1 = 2.36 + 1.14" = 3.50 cm<sup>2</sup>  
Aa2 = 2.35 + 1.13" = 3.48 cm<sup>2</sup>  
Aa3 = 0.33 + 0.04" = 0.37 cm<sup>2</sup>  
Aa4 = 0.32 + 0.04" = 0.35 cm<sup>2</sup>  
Aa,uz = 1.05 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

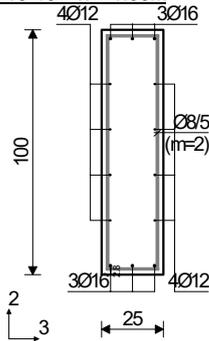
Procenat armiranja: 0.84%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 107 (6387-6975)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 10-10  $x = 1.60\text{m}$



[cm]

Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = -15.35 kN  
M2ed = 0.04 kNm  
M3ed = -64.31 kNm

Merodavna kombinacija za smicanje:

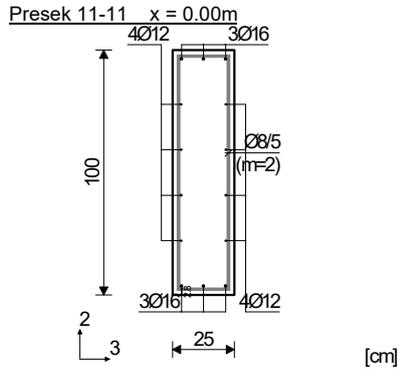
1.00xI+0.30xII+1.00xVIII  
V2ed = 126.92 kN  
V3ed = -0.34 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1263.39 kN  
Vrd,max,3 = 1222.63 kN  
 $\epsilon_b/\epsilon_a = -1.117/25.000 \%$   
Aa1 = 1.23 cm<sup>2</sup>  
Aa2 = 1.22 cm<sup>2</sup>  
Aa3 = 0.17 cm<sup>2</sup>  
Aa4 = 0.16 cm<sup>2</sup>  
Aa,uz = 1.74 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 0.84%

**G 102 (6148-6763)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 26.30 \text{ kN}$   
 $M2ed = -0.37 \text{ kNm}$   
 $M3ed = -161.17 \text{ kNm}$

$Aa1 = 3.85 \text{ cm}^2$   
 $Aa2 = 3.82 \text{ cm}^2$   
 $Aa3 = 0.53 \text{ cm}^2$   
 $Aa4 = 0.51 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/5(m=2) = 10.05 \text{ cm}^2/m$ ]

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -58.89 \text{ kN}$   
 $V3ed = 0.28 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

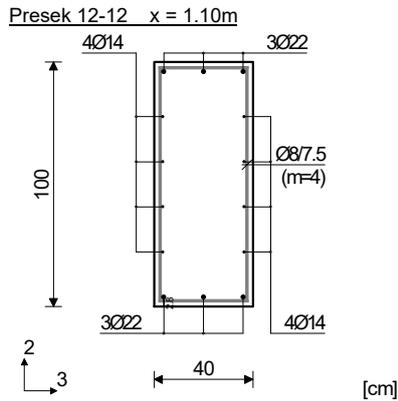
Procenat armiranja: 0.84%

$Vrd,max,2 = 1291.56 \text{ kN}$   
 $Vrd,max,3 = 1249.90 \text{ kN}$   
 $eb/\epsilon_a = -1.727/25.000 \text{ ‰}$

**G 106 (6225-6598)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1ed = 33.37 \text{ kN}$   
 $M2ed = -0.13 \text{ kNm}$   
 $M3ed = -330.37 \text{ kNm}$



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 518.05 \text{ kN}$   
 $V3ed = 1.28 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

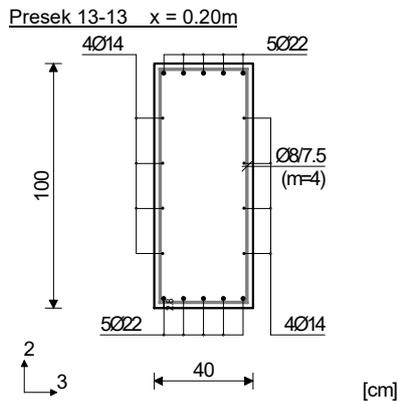
$Vrd,max,2 = 1950.48 \text{ kN}$   
 $Vrd,max,3 = 1950.48 \text{ kN}$   
 $eb/\epsilon_a = -2.316/25.000 \text{ ‰}$   
 $Aa1 = 8.02 \text{ cm}^2$   
 $Aa2 = 7.97 \text{ cm}^2$   
 $Aa3 = 0.91 \text{ cm}^2$   
 $Aa4 = 0.87 \text{ cm}^2$   
 $Aa,uz = 7.36 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/7.5(m=4) = 13.40 \text{ cm}^2/m$ ]

Procenat armiranja: 0.88%

**G 101 (4862-5372)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 64.09 \text{ kN}$   
 $M2ed = -1.57 \text{ kNm}$   
 $M3ed = -464.66 \text{ kNm}$



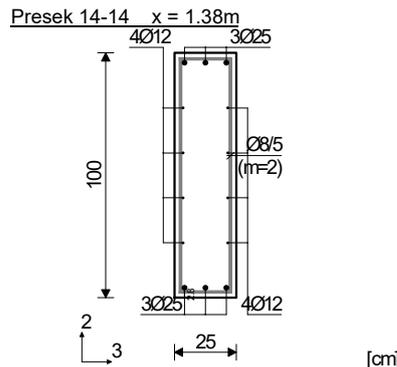
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = -1.92 \text{ kN}$   
 $V3ed = 20.79 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1950.48 \text{ kN}$   
 $Vrd,max,3 = 1950.48 \text{ kN}$   
 $eb/\epsilon_a = -2.781/25.000 \text{ ‰}$   
 $Aa1 = 11.70 \text{ cm}^2$   
 $Aa2 = 11.64 \text{ cm}^2$   
 $Aa3 = 1.32 \text{ cm}^2$   
 $Aa4 = 1.27 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/7.5(m=4) = 13.40 \text{ cm}^2/m$ ]

Procenat armiranja: 1.26%

**G 1013 (58339-58949)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 109.02 \text{ kN}$   
 $M2ed = -0.70 \text{ kNm}$   
 $M3ed = 401.89 \text{ kNm}$

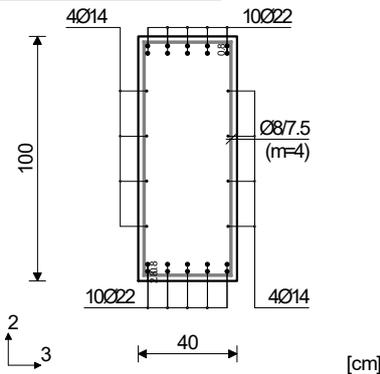
Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2ed = -396.68 \text{ kN}$   
 $V3ed = -5.89 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1259.69 \text{ kN}$   
 $Vrd,max,3 = 1219.05 \text{ kN}$   
 $eb/\epsilon_a = -2.547/25.000 \text{ ‰}$   
 $Aa1 = 10.26 \text{ cm}^2$   
 $Aa2 = 10.20 \text{ cm}^2$   
 $Aa3 = 1.42 \text{ cm}^2$   
 $Aa4 = 1.37 \text{ cm}^2$   
 $Aa,uz = 5.45 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/5(m=2) = 10.05 \text{ cm}^2/m$ ]

**G 1017 (60548-61536)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 15-15  $x = 2.22m$



Merodavna kombinacija za savijanje:  
1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = 194.76 kN  
M2ed = -11.39 kNm  
M3ed = 1243.59 kNm

Merodavna kombinacija za smicanje:  
1.00xI+0.30xII-1.00xVIII  
V2ed = -769.84 kN  
V3ed = -19.33 kN  
M1ed = 0.00 kNm

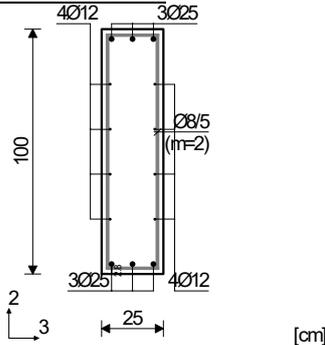
Vrd,max,2 = 1973.36 kN  
Vrd,max,3 = 1973.36 kN  
 $\epsilon_b/\epsilon_a = -3.500/19.245 \%$   
Aa1 = 33.10 cm<sup>2</sup>  
Aa2 = 32.93 cm<sup>2</sup>  
Aa3 = 3.74 cm<sup>2</sup>  
Aa4 = 3.59 cm<sup>2</sup>  
Aa,uz = 10.93 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=4) = 13.40 cm<sup>2</sup>/m]

Procenat armiranja: 2.21%

**G 1015 (57078-57722)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 16-16  $x = 1.38m$



Merodavna kombinacija za savijanje:  
1.00xI+0.30xII-1.00xVIII  
N1ed = -0.90 kN  
M2ed = 0.06 kNm  
M3ed = -284.98 kNm

Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+1.00xVIII  
V2ed = 479.64 kN  
V3ed = -1.33 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1259.88 kN  
Vrd,max,3 = 1219.24 kN  
 $\epsilon_b/\epsilon_a = -2.292/25.000 \%$   
Aa1 = 6.43 + 1.01" = 7.44 cm<sup>2</sup>  
Aa2 = 6.40 + 1.00" = 7.40 cm<sup>2</sup>  
Aa3 = 0.89 + 0.03" = 0.92 cm<sup>2</sup>  
Aa4 = 0.86 + 0.03" = 0.89 cm<sup>2</sup>  
Aa,uz = 6.59 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

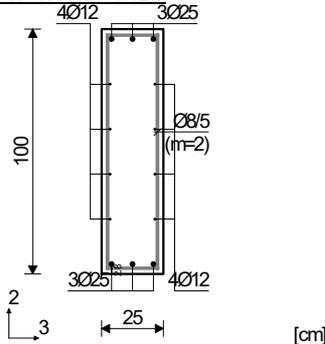
Procenat armiranja: 1.54%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1021 (60198-61918)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 17-17  $x = 1.42m$



Merodavna kombinacija za savijanje:  
1.00xI+0.30xII-1.00xVIII  
N1ed = 42.65 kN  
M2ed = -0.60 kNm  
M3ed = 238.01 kNm

Merodavna kombinacija za smicanje:  
1.00xI+0.30xII-1.00xVIII  
V2ed = -39.92 kN  
V3ed = 1.21 kN  
M1ed = 0.00 kNm

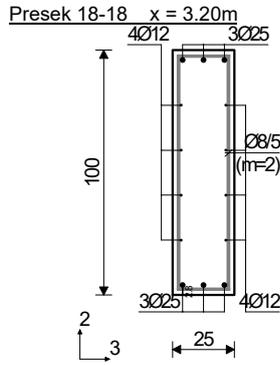
Vrd,max,2 = 1278.29 kN  
Vrd,max,3 = 1237.05 kN  
 $\epsilon_b/\epsilon_a = -2.070/25.000 \%$   
Aa1 = 5.76 + 0.42" = 6.18 cm<sup>2</sup>  
Aa2 = 5.72 + 0.42" = 6.14 cm<sup>2</sup>  
Aa3 = 0.80 + 0.02" = 0.82 cm<sup>2</sup>  
Aa4 = 0.77 + 0.00" = 0.77 cm<sup>2</sup>  
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 1.54%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1020 (53502-56666)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.35xI+1.50xII \\ N1ed &= 56.45 \text{ kN} \\ M2ed &= -4.10 \text{ kNm} \\ M3ed &= -388.85 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Aa1 &= 9.46 + 1.06'' = 10.52 \text{ cm}^2 \\ Aa2 &= 9.41 + 1.05'' = 10.46 \text{ cm}^2 \\ Aa3 &= 1.31 + 0.04'' = 1.34 \text{ cm}^2 \\ Aa4 &= 1.26 + 0.03'' = 1.30 \text{ cm}^2 \\ Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/5(m=2) = 10.05 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII-1.00xVIII \\ V2ed &= -59.18 \text{ kN} \\ V3ed &= -4.66 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

Procenat armiranja: 1.54%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

$$\begin{aligned} Vrd,max,2 &= 1263.88 \text{ kN} \\ Vrd,max,3 &= 1223.11 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.824/25.000 \% \end{aligned}$$

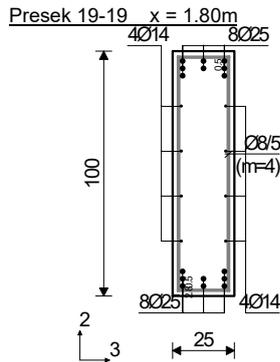
[cm]

**G 1018 (55531-56378)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 101.82 \text{ kN} \\ M2ed &= 1.48 \text{ kNm} \\ M3ed &= -697.11 \text{ kNm} \end{aligned}$$



Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.35xI+1.50xII \\ V2ed &= 921.68 \text{ kN} \\ V3ed &= 5.35 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1274.42 \text{ kN} \\ Vrd,max,3 &= 1233.31 \text{ kN} \\ \epsilon_b/\epsilon_a &= -3.236/25.000 \% \\ Aa1 &= 17.24 \text{ cm}^2 \\ Aa2 &= 17.14 \text{ cm}^2 \\ Aa3 &= 2.38 \text{ cm}^2 \\ Aa4 &= 2.30 \text{ cm}^2 \\ Aa,uz &= 12.66 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/5(m=4) = 20.11 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 3.63%

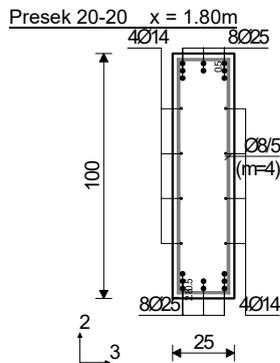
[cm]

**G 1014 (52361-53502)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.35xI+1.50xII \\ N1ed &= -105.08 \text{ kN} \\ M2ed &= -3.13 \text{ kNm} \\ M3ed &= -552.69 \text{ kNm} \end{aligned}$$



Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.35xI+1.50xII \\ V2ed &= 595.57 \text{ kN} \\ V3ed &= -6.82 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1278.63 \text{ kN} \\ Vrd,max,3 &= 1237.38 \text{ kN} \\ \epsilon_b/\epsilon_a &= -3.381/25.000 \% \\ Aa1 &= 11.72 + 19.37'' = 31.09 \text{ cm}^2 \\ Aa2 &= 11.66 + 19.26'' = 30.92 \text{ cm}^2 \\ Aa3 &= 1.62 + 2.08'' = 3.70 \text{ cm}^2 \\ Aa4 &= 1.56 + 2.01'' = 3.57 \text{ cm}^2 \\ Aa,uz &= 8.18 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/5(m=4) = 20.11 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 3.63%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

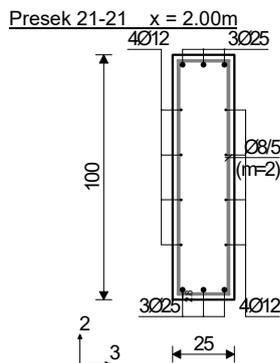
[cm]

**G 1016 (51757-52726)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= -78.79 \text{ kN} \\ M2ed &= -3.84 \text{ kNm} \\ M3ed &= -168.45 \text{ kNm} \end{aligned}$$



Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.35xI+1.50xII \\ V2ed &= 304.02 \text{ kN} \\ V3ed &= -9.33 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1320.08 \text{ kN} \\ Vrd,max,3 &= 1277.50 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.244/25.000 \% \\ Aa1 &= 2.92 \text{ cm}^2 \\ Aa2 &= 2.91 \text{ cm}^2 \\ Aa3 &= 0.40 \text{ cm}^2 \\ Aa4 &= 0.39 \text{ cm}^2 \\ Aa,uz &= 4.18 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/5(m=2) = 10.05 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.54%

[cm]

**G 1019 (54340-53694)**

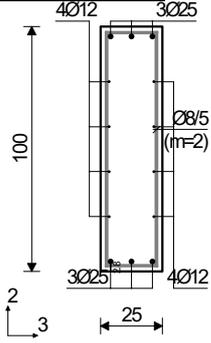
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 22-22 x = 0.00m



[cm]

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 153.61 kN

M2ed = -0.53 kNm

M3ed = -328.74 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -251.89 kN

V3ed = -1.16 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1390.99 kN

Vrd,max,3 = 1346.12 kN

$\epsilon_b/\epsilon_a = -2.257/25.000$  ‰

Aa1 = 9.05 cm<sup>2</sup>

Aa2 = 9.00 cm<sup>2</sup>

Aa3 = 1.25 cm<sup>2</sup>

Aa4 = 1.21 cm<sup>2</sup>

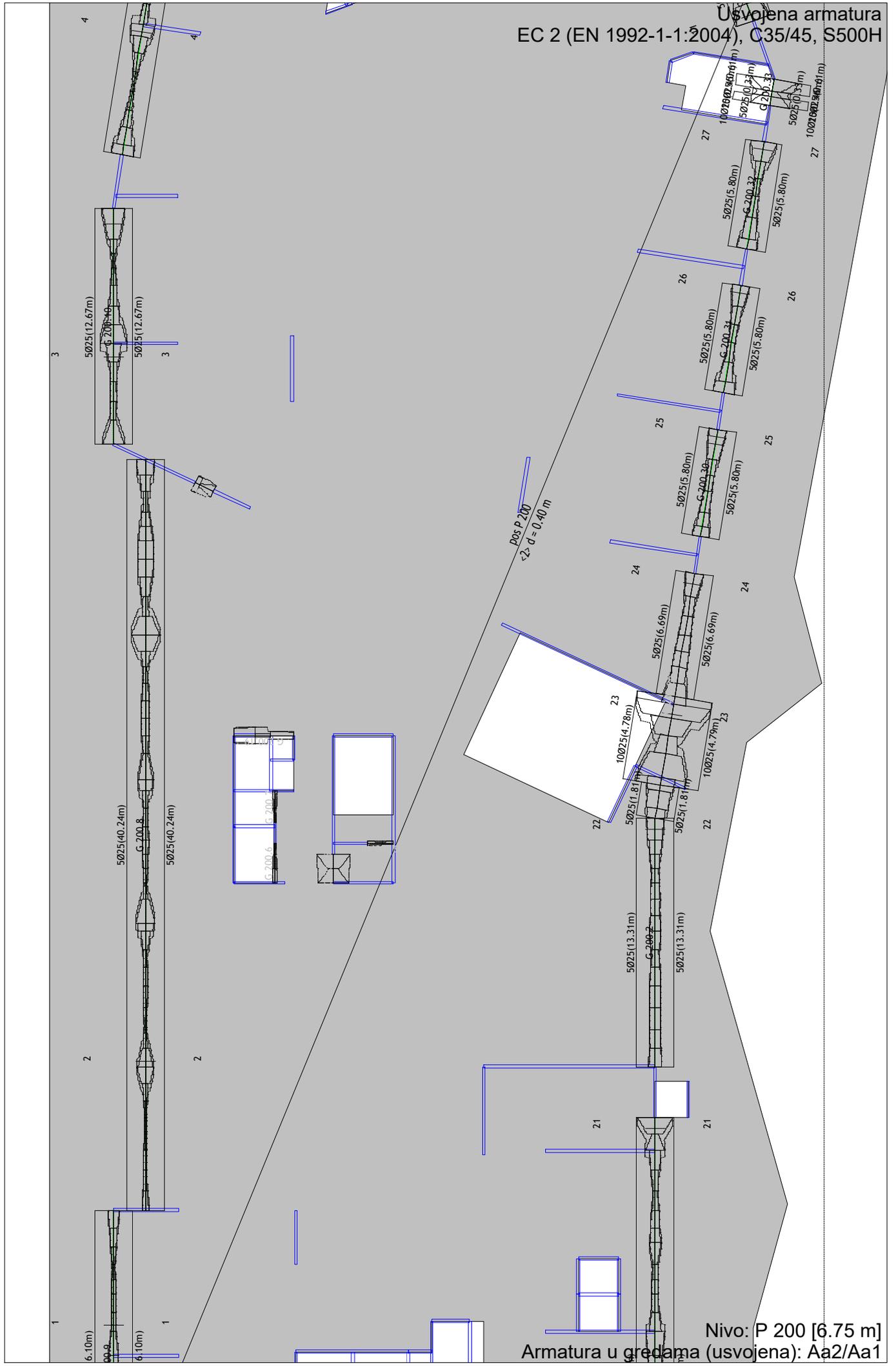
Aa,uz = 3.46 cm<sup>2</sup>/m (m=2)

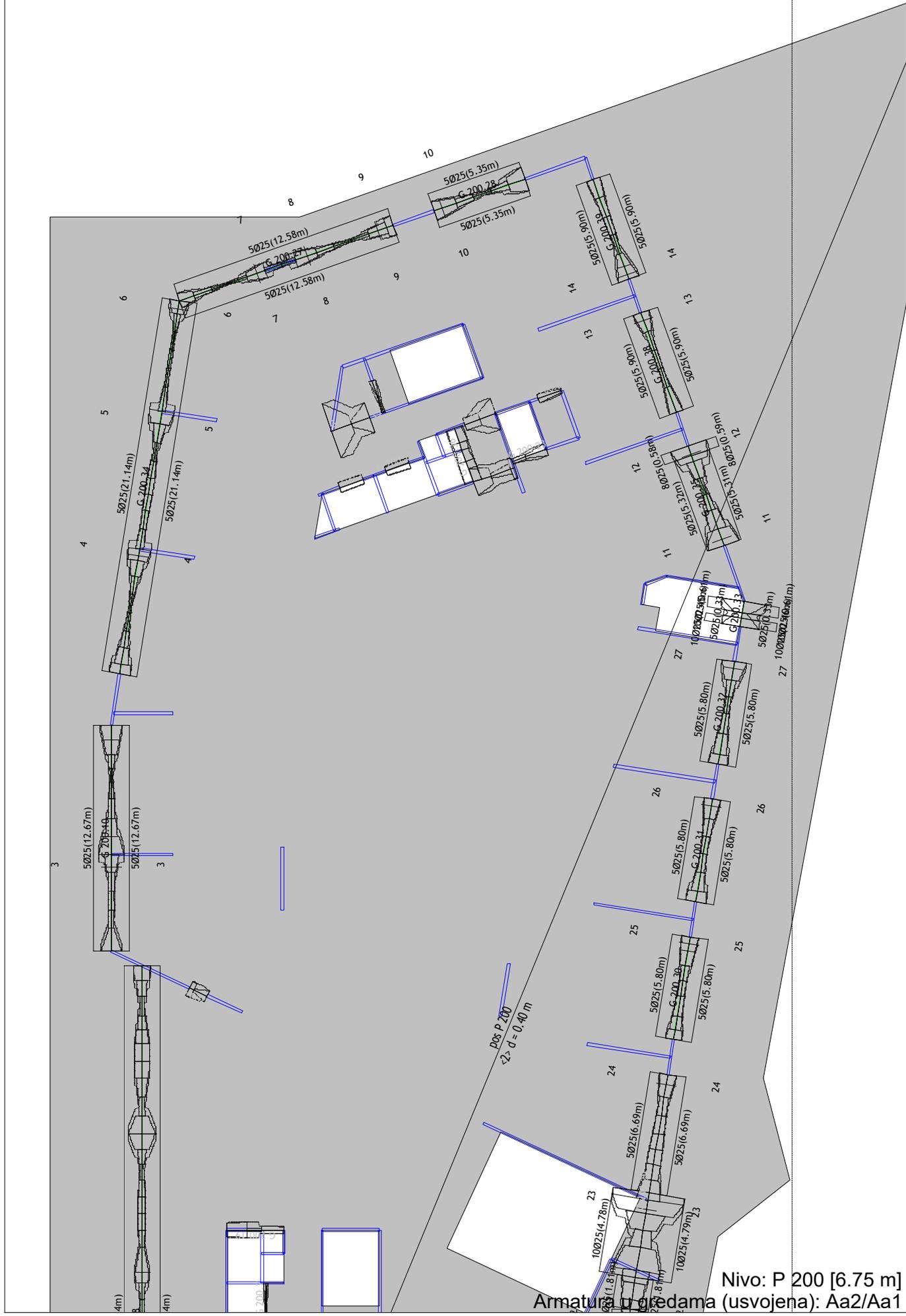
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 1.54%



Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H





Nivo: P 200 [6.75 m]

Armatura u predama (usvojena): Aa2/Aa1

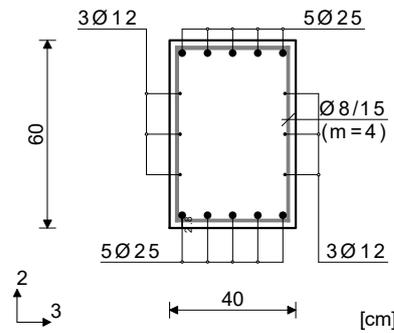
**G 200.9 (23164-13737)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 1-1  $x = 6.50\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

N1ed = 27.18 kN

M2ed = -0.01 kNm

M3ed = 59.36 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

V2ed = 45.20 kN

V3ed = 0.49 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1184.42 kN

Vrd,max,3 = 1184.42 kN

eb/εa = -1.578/25.000 ‰

Aa1 = 2.48 + 1.27'' = 3.75 cm<sup>2</sup>Aa2 = 2.47 + 1.27'' = 3.73 cm<sup>2</sup>Aa3 = 0.28 + 0.11'' = 0.39 cm<sup>2</sup>Aa4 = 0.27 + 0.10'' = 0.37 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.33%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

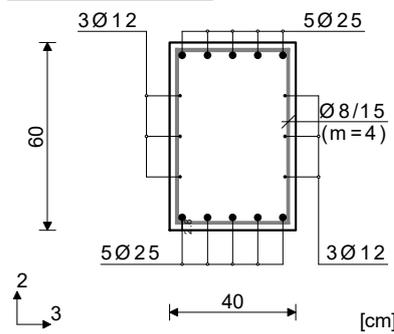
**G 200.8 (22094-49480)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 2-2  $x = 7.70\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 38.05 kN

M2ed = 1.93 kNm

M3ed = -227.22 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -123.92 kN

V3ed = -3.31 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1193.07 kN

Vrd,max,3 = 1193.07 kN

eb/εa = -3.284/25.000 ‰

Aa1 = 9.57 + 1.37'' = 10.93 cm<sup>2</sup>Aa2 = 9.51 + 1.36'' = 10.88 cm<sup>2</sup>Aa3 = 1.08 + 0.15'' = 1.24 cm<sup>2</sup>Aa4 = 1.04 + 0.15'' = 1.18 cm<sup>2</sup>Aa,uz = 2.93 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.33%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

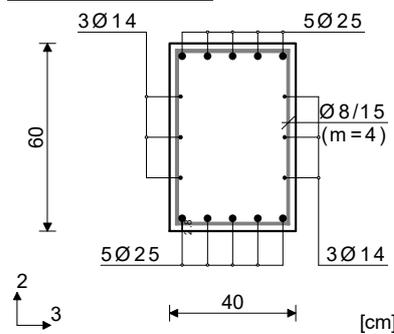
**G 200.10 (51402-60988)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 3-3  $x = 4.41\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 59.27 kN

M2ed = 1.40 kNm

M3ed = -134.58 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 98.02 kN

V3ed = -3.56 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

eb/εa = -2.516/25.000 ‰

Aa1 = 5.88 + 1.66'' = 7.53 cm<sup>2</sup>Aa2 = 5.84 + 1.65'' = 7.49 cm<sup>2</sup>Aa3 = 0.66 + 0.12'' = 0.79 cm<sup>2</sup>Aa4 = 0.64 + 0.12'' = 0.76 cm<sup>2</sup>Aa,uz = 2.32 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.43%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

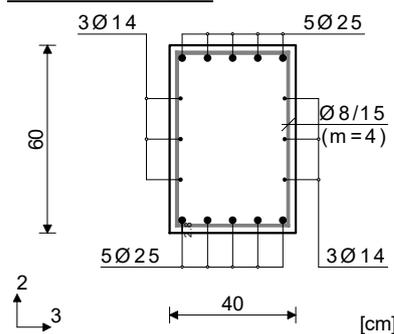
**G 200.34 (62681-73345)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 4-4  $x = 6.41\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 40.70 kN

M2ed = 1.42 kNm

M3ed = -294.81 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 118.75 kN

V3ed = -8.77 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

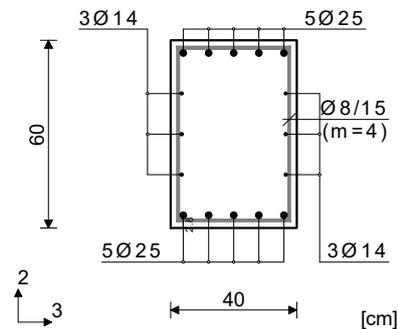
eb/εa = -3.500/23.770 ‰

$$\begin{aligned}
 Aa1 &= 12.51 + 2.10'' = 14.61 \text{ cm}^2 \\
 Aa2 &= 12.44 + 2.09'' = 14.53 \text{ cm}^2 \\
 Aa3 &= 1.41 + 0.16'' = 1.57 \text{ cm}^2 \\
 Aa4 &= 1.36 + 0.15'' = 1.51 \text{ cm}^2 \\
 Aa,uz &= 2.81 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.43%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 5-5  $x = 14.14\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.35xI + 1.50xII + 1.05xIII \\
 N1ed &= -18.31 \text{ kN} \\
 M2ed &= 2.00 \text{ kNm} \\
 M3ed &= -314.70 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 V2ed &= 135.28 \text{ kN} \\
 V3ed &= -4.58 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1170.29 kN

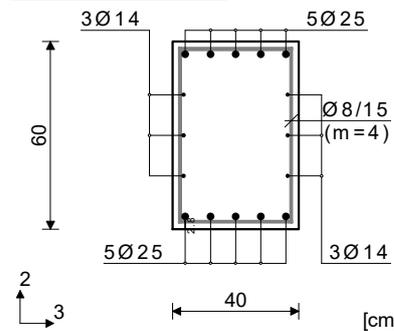
Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -3.500/22.299 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 12.75 + 2.28'' = 15.04 \text{ cm}^2 \\
 Aa2 &= 12.68 + 2.27'' = 14.96 \text{ cm}^2 \\
 Aa3 &= 1.44 + 0.17'' = 1.61 \text{ cm}^2 \\
 Aa4 &= 1.38 + 0.16'' = 1.55 \text{ cm}^2 \\
 Aa,uz &= 3.20 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.43%

Presek 6-6  $x = 20.39\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 N1ed &= 7.06 \text{ kN} \\
 M2ed &= 0.27 \text{ kNm} \\
 M3ed &= -192.89 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 V2ed &= 170.59 \text{ kN} \\
 V3ed &= 0.75 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -3.024/25.000 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 7.77 + 2.99'' = 10.77 \text{ cm}^2 \\
 Aa2 &= 7.73 + 2.98'' = 10.71 \text{ cm}^2 \\
 Aa3 &= 0.88 + 0.23'' = 1.10 \text{ cm}^2 \\
 Aa4 &= 0.84 + 0.22'' = 1.06 \text{ cm}^2 \\
 Aa,uz &= 4.04 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.43%

### G 200.27 (73345-68992)

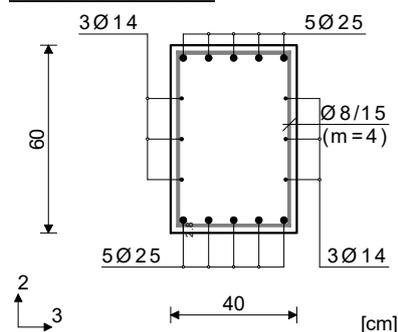
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 7-7  $x = 5.03\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 N1ed &= 19.14 \text{ kN} \\
 M2ed &= -0.04 \text{ kNm} \\
 M3ed &= -256.32 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 V2ed &= 116.13 \text{ kN} \\
 V3ed &= 0.22 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1170.29 kN

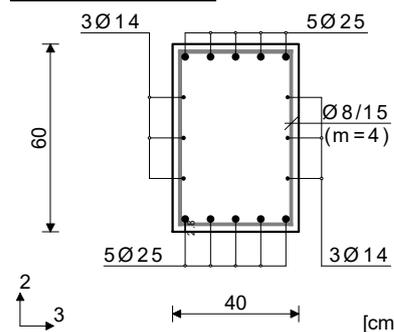
Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -3.405/25.000 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 10.62 \text{ cm}^2 \\
 Aa2 &= 10.57 \text{ cm}^2 \\
 Aa3 &= 1.20 \text{ cm}^2 \\
 Aa4 &= 1.15 \text{ cm}^2 \\
 Aa,uz &= 2.75 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.43%

Presek 8-8  $x = 8.06\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 N1ed &= 47.56 \text{ kN} \\
 M2ed &= -0.23 \text{ kNm} \\
 M3ed &= 150.17 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI + 0.30xIII + 1.00xVIII \\
 V2ed &= 82.86 \text{ kN} \\
 V3ed &= 0.62 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

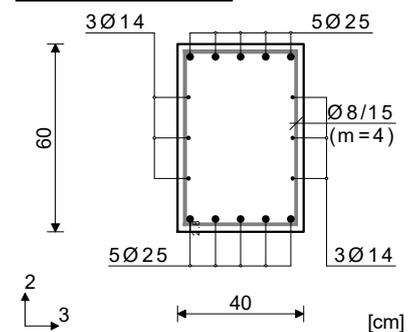
$\epsilon_b/\epsilon_a = -2.586/25.000 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 6.37 + 1.33'' = 7.70 \text{ cm}^2 \\
 Aa2 &= 6.33 + 1.32'' = 7.65 \text{ cm}^2 \\
 Aa3 &= 0.72 + 0.10'' = 0.82 \text{ cm}^2 \\
 Aa4 &= 0.69 + 0.10'' = 0.79 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.43%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 9-9  $x = 12.17\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 N1ed &= 34.60 \text{ kN} \\
 M2ed &= 1.43 \text{ kNm} \\
 M3ed &= -199.55 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI + 0.30xII + 0.30xIII + 1.00xVIII \\
 V2ed &= 64.97 \text{ kN} \\
 V3ed &= 2.34 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -3.090/25.000 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 8.35 + 5.58'' = 13.93 \text{ cm}^2 \\
 Aa2 &= 8.30 + 5.55'' = 13.85 \text{ cm}^2 \\
 Aa3 &= 0.94 + 0.58'' = 1.52 \text{ cm}^2 \\
 Aa4 &= 0.90 + 0.55'' = 1.46 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.43%

### G 200.28 (68103-66115)

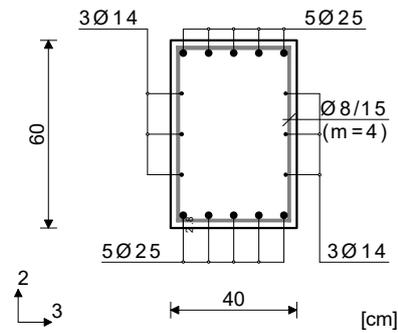
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 10-10 x = 0.00m**



**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 46.16 kN  
 M2ed = 0.19 kNm  
 M3ed = 314.68 kNm

Aa1 = 13.36 cm<sup>2</sup>  
 Aa2 = 13.29 cm<sup>2</sup>  
 Aa3 = 1.51 cm<sup>2</sup>  
 Aa4 = 1.45 cm<sup>2</sup>  
 Aa,uz = 2.36 cm<sup>2</sup>/m (m=2)

Procenat armiranja: 2.43%

**Merodavna kombinacija za smicanje:**

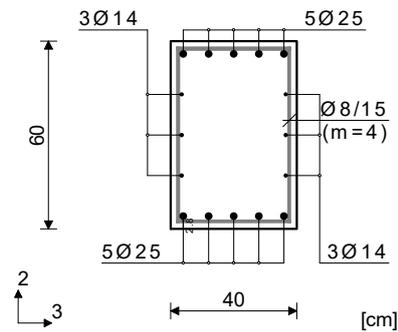
1.00xI+0.30xIII+1.00xVIII  
 V2ed = 99.90 kN  
 V3ed = 0.79 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 εb/εa = -3.500/23.377 ‰

**G 200.35 (48516-42901)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 12-12 x = 0.92m**



Vrd,max,2 = 1183.78 kN  
 Vrd,max,3 = 1183.78 kN  
 εb/εa = -3.500/19.945 ‰

Aa1 = 19.17 + 2.99<sup>\*</sup> = 22.15 cm<sup>2</sup>  
 Aa2 = 19.06 + 2.97<sup>\*</sup> = 22.03 cm<sup>2</sup>  
 Aa3 = 2.17 + 0.22<sup>\*</sup> = 2.39 cm<sup>2</sup>  
 Aa4 = 2.08 + 0.22<sup>\*</sup> = 2.29 cm<sup>2</sup>  
 Aa,uz = 3.95 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.43%

\* - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 87.45 kN  
 M2ed = 1.48 kNm  
 M3ed = 504.86 kNm

**Merodavna kombinacija za smicanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -141.76 kN  
 V3ed = 0.74 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1196.98 kN

Vrd,max,3 = 1196.98 kN

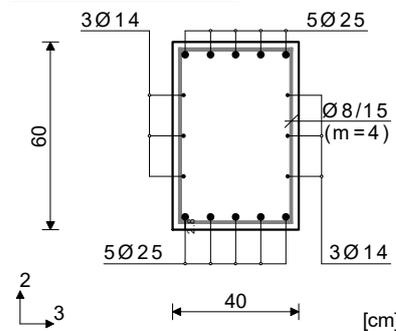
εb/εa = -3.500/18.753 ‰

Aa1 = 22.03 cm<sup>2</sup>  
 Aa2 = 21.91 cm<sup>2</sup>  
 Aa3 = 2.49 cm<sup>2</sup>  
 Aa4 = 2.39 cm<sup>2</sup>  
 Aa,uz = 3.35 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.43%

**Presek 11-11 x = 5.90m**



**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 58.69 kN  
 M2ed = 0.82 kNm  
 M3ed = -443.33 kNm

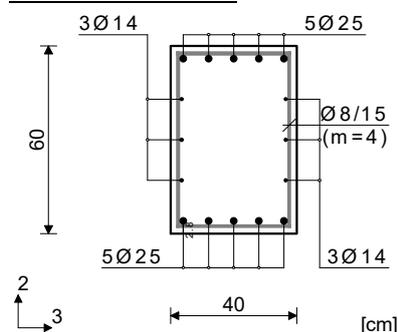
**Merodavna kombinacija za smicanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -166.84 kN  
 V3ed = 1.88 kN  
 M1ed = 0.00 kNm

**G 200.38 (56315-50462)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 13-13 x = 0.00m**



**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 73.68 kN  
 M2ed = 0.82 kNm  
 M3ed = -261.74 kNm

Procenat armiranja: 2.43%

**Merodavna kombinacija za smicanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -118.12 kN  
 V3ed = -1.30 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1184.94 kN

Vrd,max,3 = 1184.94 kN

εb/εa = -3.405/25.000 ‰

Aa1 = 11.42 cm<sup>2</sup>

Aa2 = 11.36 cm<sup>2</sup>

Aa3 = 1.29 cm<sup>2</sup>

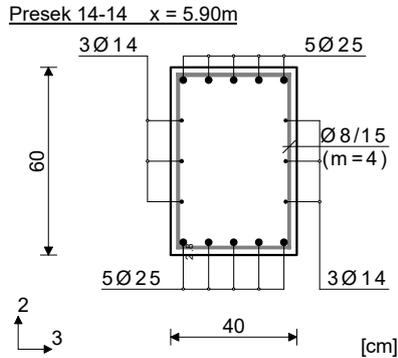
Aa4 = 1.24 cm<sup>2</sup>

Aa,uz = 2.79 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 200.39 (63608-58263)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 34.06 \text{ kN}$   
 $M_{2ed} = -0.56 \text{ kNm}$   
 $M_{3ed} = -349.44 \text{ kNm}$

$Aa_1 = 14.80 \text{ cm}^2$   
 $Aa_2 = 14.72 \text{ cm}^2$   
 $Aa_3 = 1.67 \text{ cm}^2$   
 $Aa_4 = 1.60 \text{ cm}^2$   
 $Aa,uz = 3.81 \text{ cm}^2/\text{m}$  (m=2)

Procenat armiranja: 2.43%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 161.04 \text{ kN}$   
 $V_{3ed} = -1.15 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/22.339 \%$

**G 200.41 (10900-12981)**

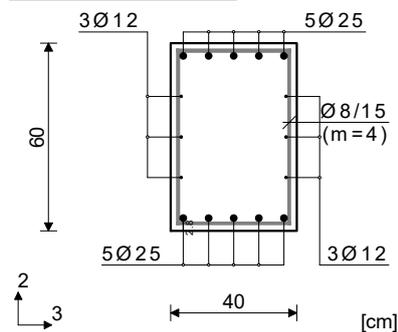
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = -15.37 \text{ kN}$   
 $M_{2ed} = -2.81 \text{ kNm}$   
 $M_{3ed} = 222.40 \text{ kNm}$

Procenat armiranja: 2.33%

**Presek 15-15**  $x = 3.12\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V_{2ed} = -120.84 \text{ kN}$   
 $V_{3ed} = -5.73 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

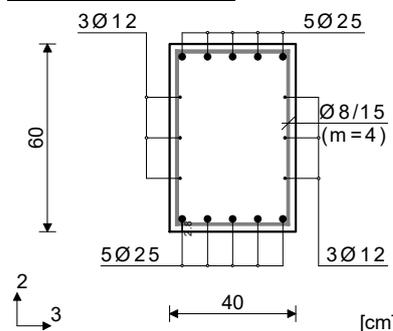
$V_{rd,max,2} = 1178.36 \text{ kN}$   
 $V_{rd,max,3} = 1178.36 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.346/25.000 \%$

$Aa_1 = 8.75 \text{ cm}^2$   
 $Aa_2 = 8.71 \text{ cm}^2$   
 $Aa_3 = 0.99 \text{ cm}^2$   
 $Aa_4 = 0.95 \text{ cm}^2$   
 $Aa,uz = 2.86 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 200.40 (7357-9800)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 16-16**  $x = 0.84\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $V_{2ed} = -78.55 \text{ kN}$   
 $V_{3ed} = -0.14 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1191.66 \text{ kN}$   
 $V_{rd,max,3} = 1191.66 \text{ kN}$

$\epsilon_b/\epsilon_a = -2.465/25.000 \%$   
 $Aa_1 = 5.40 + 1.38'' = 6.78 \text{ cm}^2$   
 $Aa_2 = 5.37 + 1.37'' = 6.74 \text{ cm}^2$   
 $Aa_3 = 0.61 + 0.10'' = 0.71 \text{ cm}^2$   
 $Aa_4 = 0.58 + 0.10'' = 0.68 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.33%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 19.09 \text{ kN}$   
 $M_{2ed} = -0.02 \text{ kNm}$   
 $M_{3ed} = -133.36 \text{ kNm}$

**G 200.12 (5019-6185)**

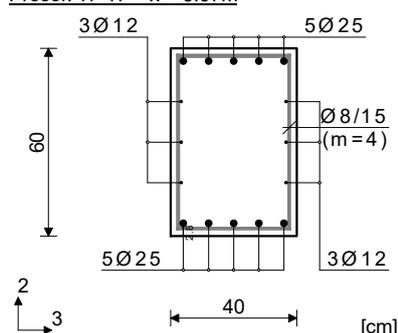
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 83.42 \text{ kN}$   
 $M_{2ed} = -1.24 \text{ kNm}$   
 $M_{3ed} = -164.80 \text{ kNm}$

Procenat armiranja: 2.33%

**Presek 17-17**  $x = 3.67\text{m}$



Merodavna kombinacija za smicanje:

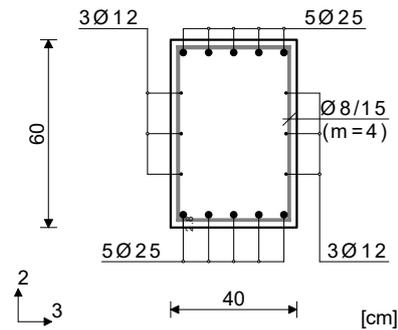
1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 108.27 \text{ kN}$   
 $V_{3ed} = -1.18 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.715/25.000 \%$

$Aa_1 = 7.39 \text{ cm}^2$   
 $Aa_2 = 7.35 \text{ cm}^2$   
 $Aa_3 = 0.84 \text{ cm}^2$   
 $Aa_4 = 0.80 \text{ cm}^2$   
 $Aa,uz = 2.56 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 200.11 (2451-4466)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 19-19  $x = 0.97m$** 

Merodavna kombinacija za savijanje:

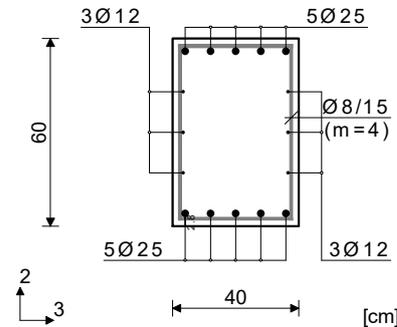
1.00xI+0.30xIII-1.00xVIII  
 $N1_{ed} = 101.47$  kN  
 $M2_{ed} = 0.10$  kNm  
 $M3_{ed} = 174.36$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 49.72$  kN  
 $V3_{ed} = 2.26$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1170.29$  kN  
 $Vrd,max,3 = 1170.29$  kN  
 $\epsilon_b/\epsilon_a = -2.741/25.000$  ‰  
 $Aa1 = 7.95$  cm<sup>2</sup>  
 $Aa2 = 7.90$  cm<sup>2</sup>  
 $Aa3 = 0.90$  cm<sup>2</sup>  
 $Aa4 = 0.86$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 2.33%

**Presek 18-18  $x = 9.84m$** 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 154.27$  kN  
 $M2_{ed} = -1.15$  kNm  
 $M3_{ed} = -108.99$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 41.27$  kN  
 $V3_{ed} = 5.72$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1170.29$  kN  
 $Vrd,max,3 = 1170.29$  kN

$\epsilon_b/\epsilon_a = -2.123/25.000$  ‰

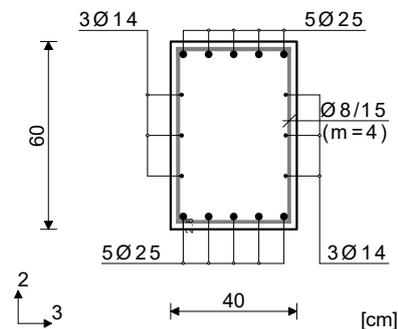
$Aa1 = 5.82 + 0.72'' = 6.54$  cm<sup>2</sup>  
 $Aa2 = 5.79 + 0.71'' = 6.50$  cm<sup>2</sup>  
 $Aa3 = 0.66 + 0.05'' = 0.71$  cm<sup>2</sup>  
 $Aa4 = 0.63 + 0.05'' = 0.68$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 2.33%

) - dodatna poduzna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatezućih sila iznosi 0.75xhs.

**G 200.1 (2069-10001)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 20-20  $x = 10.62m$** 

Merodavna kombinacija za savijanje:

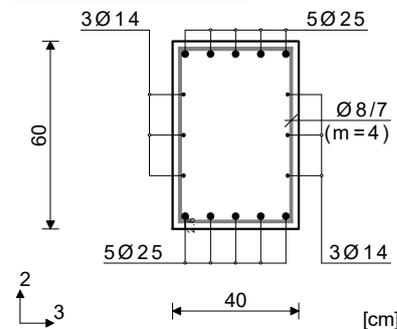
1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 313.57$  kN  
 $M2_{ed} = -7.35$  kNm  
 $M3_{ed} = -392.10$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -281.97$  kN  
 $V3_{ed} = 2.10$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1223.71$  kN  
 $Vrd,max,3 = 1223.71$  kN  
 $\epsilon_b/\epsilon_a = -3.500/22.223$  ‰  
 $Aa1 = 19.58$  cm<sup>2</sup>  
 $Aa2 = 19.48$  cm<sup>2</sup>  
 $Aa3 = 2.21$  cm<sup>2</sup>  
 $Aa4 = 2.12$  cm<sup>2</sup>  
 $Aa,uz = 6.67$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 2.43%

**Presek 21-21  $x = 27.64m$** 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 408.71$  kN  
 $M2_{ed} = -0.04$  kNm  
 $M3_{ed} = -156.42$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 $V2_{ed} = 338.49$  kN  
 $V3_{ed} = -0.01$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1170.29$  kN  
 $Vrd,max,3 = 1170.29$  kN

$\epsilon_b/\epsilon_a = -2.306/25.000$  ‰

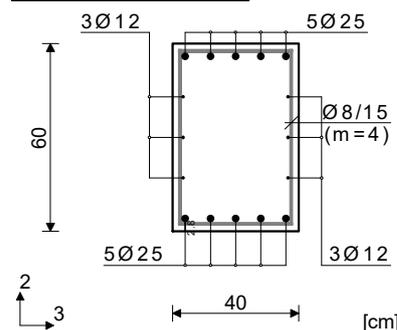
$Aa1 = 10.48 + 5.91'' = 16.39$  cm<sup>2</sup>  
 $Aa2 = 10.43 + 5.88'' = 16.30$  cm<sup>2</sup>  
 $Aa3 = 1.18 + 0.44'' = 1.63$  cm<sup>2</sup>  
 $Aa4 = 1.14 + 0.43'' = 1.56$  cm<sup>2</sup>  
 $Aa,uz = 8.01$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7(m=4) = 14.36$  cm<sup>2</sup>/m]

Procenat armiranja: 2.43%

) - dodatna poduzna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatezućih sila iznosi 0.75xhs.

**G 200.2 (11213-18352)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 22-22  $x = 13.31m$** 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 442.32$  kN  
 $M2_{ed} = -1.98$  kNm  
 $M3_{ed} = -166.25$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 $V2_{ed} = 39.20$  kN  
 $V3_{ed} = 1.65$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1179.41$  kN  
 $Vrd,max,3 = 1179.41$  kN

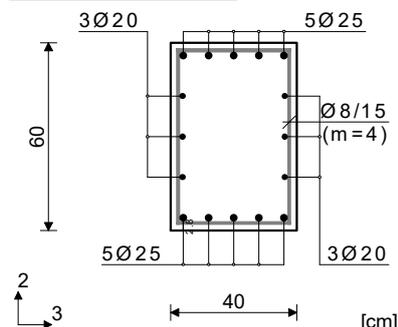
$\epsilon_b/\epsilon_a = -2.400/25.000$  ‰

$Aa1 = 11.25$  cm<sup>2</sup>  
 $Aa2 = 11.19$  cm<sup>2</sup>  
 $Aa3 = 1.27$  cm<sup>2</sup>  
 $Aa4 = 1.22$  cm<sup>2</sup>  
 $Aa,uz = 0.93$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

**G 200.29 (25227-18352)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 24-24  $x = 0.00m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = 403.96 kN  
M2ed = 0.56 kNm  
M3ed = -211.40 kNm

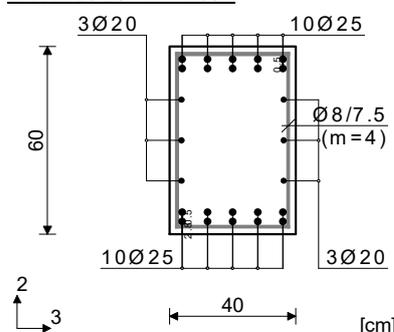
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -92.64 kN  
V3ed = -0.95 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -2.796/25.000 \%$   
Aa1 = 11.89 cm<sup>2</sup>  
Aa2 = 11.83 cm<sup>2</sup>  
Aa3 = 2.29 cm<sup>2</sup>  
Aa4 = 2.23 cm<sup>2</sup>  
Aa,uz = 2.19 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.83%

Presek 23-23  $x = 7.85m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
N1ed = 1037.72 kN  
M2ed = -3.98 kNm  
M3ed = 724.84 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 337.81 kN  
V3ed = 17.16 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.500/20.248 \%$   
Aa1 = 38.62 + 5.55'' = 44.17 cm<sup>2</sup>  
Aa2 = 38.40 + 5.52'' = 43.91 cm<sup>2</sup>  
Aa3 = 7.42 + 0.71'' = 8.13 cm<sup>2</sup>  
Aa4 = 7.23 + 0.69'' = 7.92 cm<sup>2</sup>  
Aa,uz = 7.99 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=4) = 13.40 cm<sup>2</sup>/m]

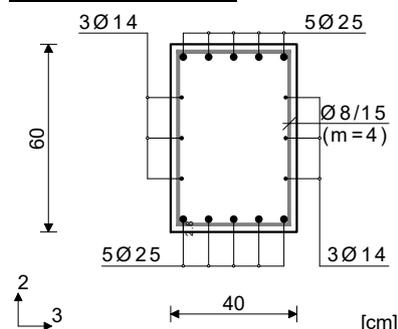
Procenat armiranja: 4.88%

]- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G 200.30 (29445-26315)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 25-25  $x = 0.00m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = 307.41 kN  
M2ed = 0.25 kNm  
M3ed = -211.07 kNm

Procenat armiranja: 2.43%

Merodavna kombinacija za smicanje:

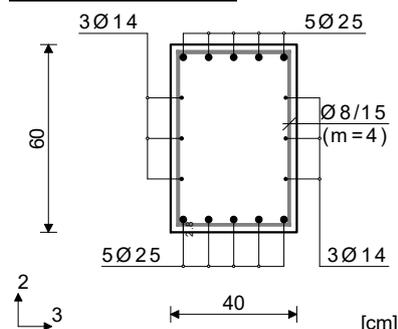
1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -67.06 kN  
V3ed = 0.14 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -2.800/25.000 \%$   
Aa1 = 11.71 cm<sup>2</sup>  
Aa2 = 11.65 cm<sup>2</sup>  
Aa3 = 1.32 cm<sup>2</sup>  
Aa4 = 1.27 cm<sup>2</sup>  
Aa,uz = 1.59 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 200.31 (33594-30509)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 26-26  $x = 0.00m$



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = 233.44 kN  
M2ed = -0.92 kNm  
M3ed = 223.39 kNm

Procenat armiranja: 2.43%

Merodavna kombinacija za smicanje:

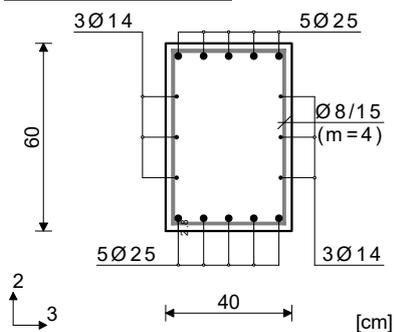
1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -102.94 kN  
V3ed = 0.42 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -2.952/25.000 \%$   
Aa1 = 11.41 cm<sup>2</sup>  
Aa2 = 11.34 cm<sup>2</sup>  
Aa3 = 1.29 cm<sup>2</sup>  
Aa4 = 1.24 cm<sup>2</sup>  
Aa,uz = 2.44 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 200.32 (37925-34713)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 27-27 x = 0.00m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 175.08 kN

M2ed = -0.52 kNm

M3ed = -370.41 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -163.23 kN

V3ed = -0.18 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1213.49 kN

Vrd,max,3 = 1213.49 kN

εb/εa = -3.500/23.049 ‰

Aa1 = 17.18 cm<sup>2</sup>

Aa2 = 17.09 cm<sup>2</sup>

Aa3 = 1.94 cm<sup>2</sup>

Aa4 = 1.86 cm<sup>2</sup>

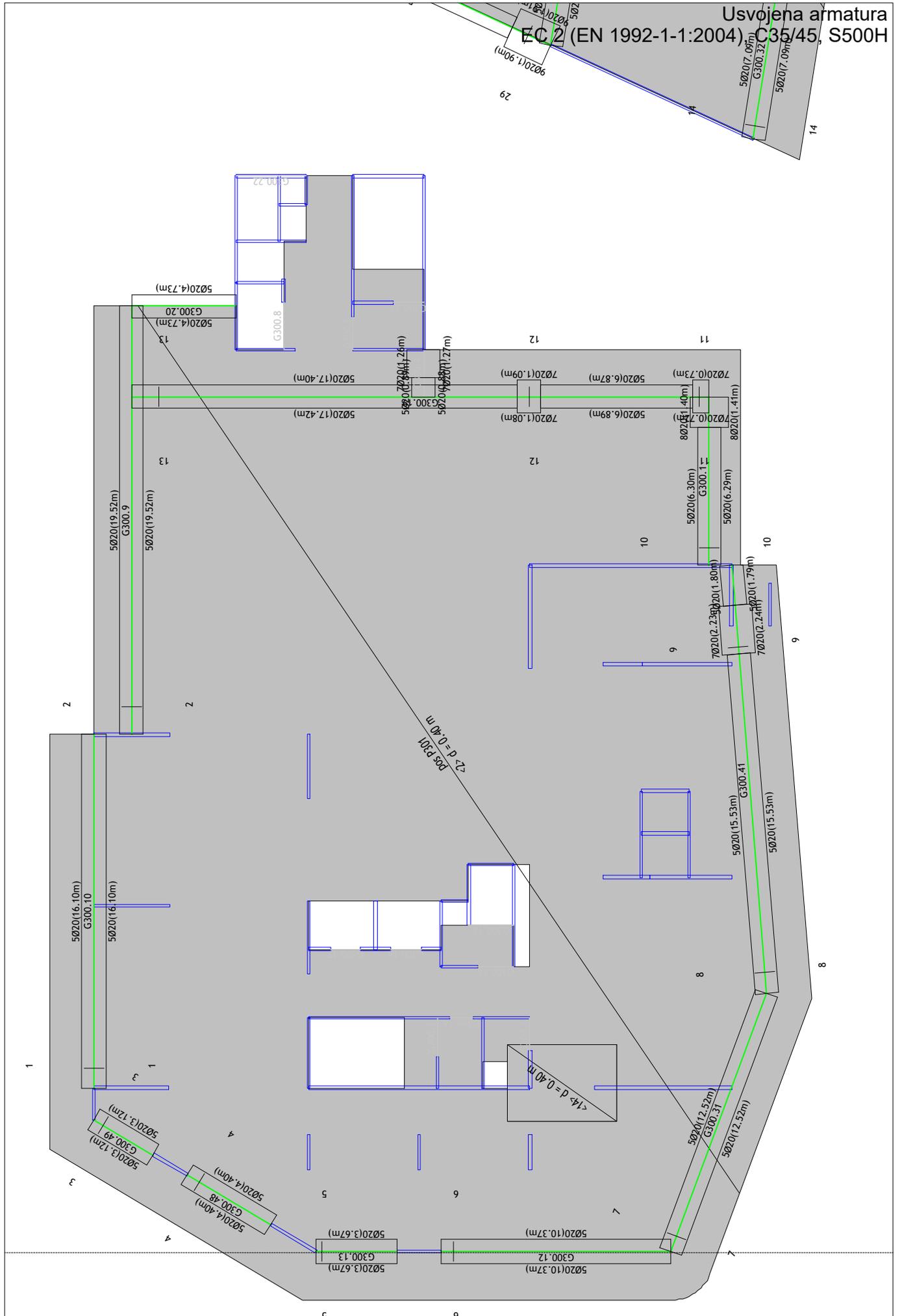
Aa,uz = 3.86 cm<sup>2</sup>/m

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

(m=2)

Procenat armiranja: 2.43%

Usvojena armatura  
 EC 2 (EN 1992-1-1:2004) C35/45, S500H

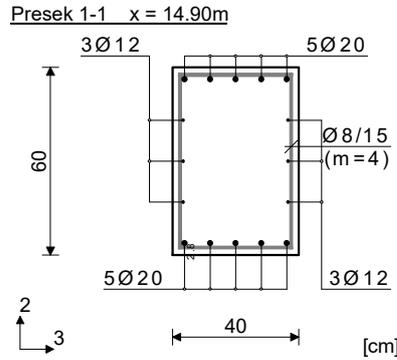


Nivo: P 300 [13.65 m]  
 Armatura u gredama (usvojena): Aa2/Aa1



**G300.10 (27647-17520)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 111.49 \text{ kN}$   
 $V3_{ed} = 3.71 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd_{,max,2} = 1170.29 \text{ kN}$   
 $Vrd_{,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.829/25.000 \text{ ‰}$   
 $Aa1 = 7.57 + 2.00 = 9.57 \text{ cm}^2$   
 $Aa2 = 7.53 + 1.99 = 9.52 \text{ cm}^2$   
 $Aa3 = 0.86 + 0.15 = 1.01 \text{ cm}^2$   
 $Aa4 = 0.82 + 0.14 = 0.96 \text{ cm}^2$   
 $Aa_{,uz} = 2.64 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa_{,uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 1.59%

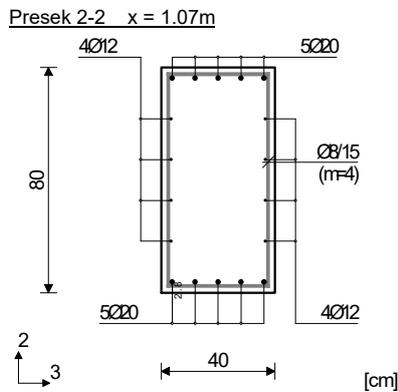
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 66.79 \text{ kN}$   
 $M2_{ed} = -1.70 \text{ kNm}$   
 $M3_{ed} = -173.20 \text{ kNm}$

**G300.9 (26535-39339)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 238.38 \text{ kN}$   
 $M2_{ed} = -0.64 \text{ kNm}$   
 $M3_{ed} = -141.49 \text{ kNm}$

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -67.45 \text{ kN}$   
 $V3_{ed} = -2.16 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

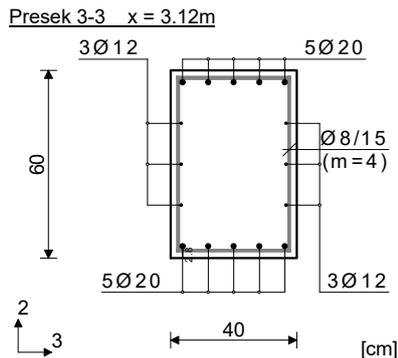
$Vrd_{,max,2} = 1615.41 \text{ kN}$   
 $Vrd_{,max,3} = 1615.41 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -1.780/25.000 \text{ ‰}$   
 $Aa1 = 5.94 + 0.96 = 6.91 \text{ cm}^2$   
 $Aa2 = 5.91 + 0.96 = 6.87 \text{ cm}^2$   
 $Aa3 = 1.31 + 0.16 = 1.48 \text{ cm}^2$   
 $Aa4 = 1.28 + 0.16 = 1.44 \text{ cm}^2$   
 $Aa_{,uz} = 0.00 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa_{,uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 1.26%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G300.49 (14340-16692)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 15.36 \text{ kN}$   
 $M2_{ed} = -1.46 \text{ kNm}$   
 $M3_{ed} = -182.26 \text{ kNm}$

Procenat armiranja: 1.59%

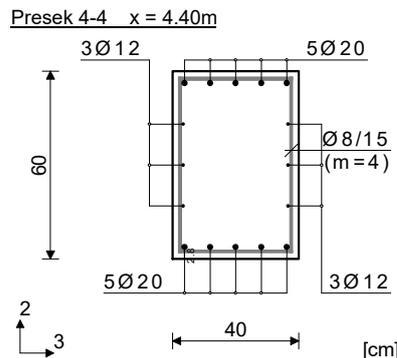
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 $V2_{ed} = 107.39 \text{ kN}$   
 $V3_{ed} = -2.74 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd_{,max,2} = 1170.29 \text{ kN}$   
 $Vrd_{,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.956/25.000 \text{ ‰}$   
 $Aa1 = 7.41 \text{ cm}^2$   
 $Aa2 = 7.37 \text{ cm}^2$   
 $Aa3 = 0.84 \text{ cm}^2$   
 $Aa4 = 0.80 \text{ cm}^2$   
 $Aa_{,uz} = 2.54 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa_{,uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

**G300.48 (10184-13047)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 $N1_{ed} = 4.06 \text{ kN}$   
 $M2_{ed} = 0.03 \text{ kNm}$   
 $M3_{ed} = -245.73 \text{ kNm}$

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 138.21 \text{ kN}$   
 $V3_{ed} = 0.33 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd_{,max,2} = 1170.29 \text{ kN}$   
 $Vrd_{,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.366/25.000 \text{ ‰}$

Aa1 = 10.00 cm<sup>2</sup>  
 Aa2 = 9.95 cm<sup>2</sup>  
 Aa3 = 1.13 cm<sup>2</sup>  
 Aa4 = 1.08 cm<sup>2</sup>  
 Aa,uz = 3.27 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

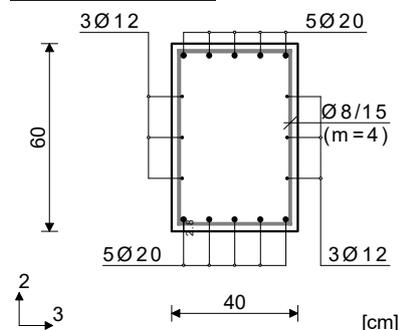
**G300.13 (7342-8799)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 3.40 kN  
 M2ed = -0.54 kNm  
 M3ed = -223.31 kNm

Procenat armiranja: 1.59%

**Presek 5-5 x = 3.67m**



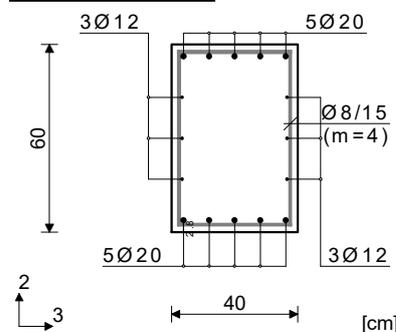
Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+1.00xVIII  
 V2ed = 124.39 kN  
 V3ed = -0.37 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.229/25.000 \text{ ‰}$   
 Aa1 = 9.03 cm<sup>2</sup>  
 Aa2 = 8.98 cm<sup>2</sup>  
 Aa3 = 1.02 cm<sup>2</sup>  
 Aa4 = 0.98 cm<sup>2</sup>  
 Aa,uz = 2.94 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G300.12 (3633-6626)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 6-6 x = 9.43m**



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 126.13 kN  
 V3ed = 1.49 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1172.38 kN  
 Vrd,max,3 = 1172.38 kN  
 $\epsilon_b/\epsilon_a = -2.167/25.000 \text{ ‰}$   
 Aa1 = 3.76 + 2.16'' = 5.92 cm<sup>2</sup>  
 Aa2 = 3.74 + 2.15'' = 5.89 cm<sup>2</sup>  
 Aa3 = 0.43 + 0.16'' = 0.59 cm<sup>2</sup>  
 Aa4 = 0.41 + 0.16'' = 0.56 cm<sup>2</sup>  
 Aa,uz = 2.98 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

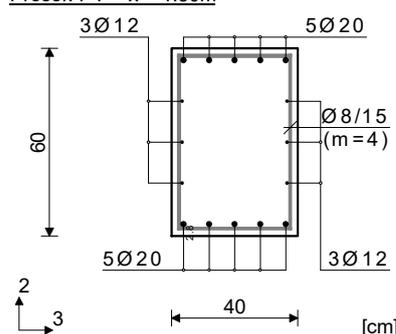
]- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = -10.01 kN  
 M2ed = -0.56 kNm  
 M3ed = -101.20 kNm

**G300.31 (3633-5622)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 7-7 x = 1.30m**



Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 V2ed = -51.04 kN  
 V3ed = 0.29 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -1.374/25.000 \text{ ‰}$   
 Aa1 = 1.93 + 1.05'' = 2.98 cm<sup>2</sup>  
 Aa2 = 1.92 + 1.05'' = 2.97 cm<sup>2</sup>  
 Aa3 = 0.22 + 0.11'' = 0.33 cm<sup>2</sup>  
 Aa4 = 0.21 + 0.10'' = 0.31 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

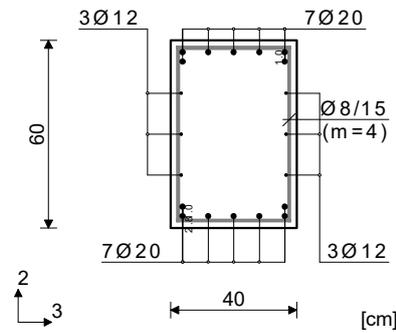
]- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 27.21 kN  
 M2ed = 0.22 kNm  
 M3ed = 45.03 kNm

**G300.41 (14709-5622)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 9-9 x = 3.62m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 242.40 kN  
 M2ed = 3.15 kNm  
 M3ed = -77.90 kNm

Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -218.33 kN  
 V3ed = -10.06 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1216.59 kN  
 Vrd,max,3 = 1216.59 kN  
 $\epsilon_b/\epsilon_a = -1.858/25.000 \%$   
 Aa1 = 5.51 + 13.22 = 18.73 cm<sup>2</sup>  
 Aa2 = 5.48 + 13.15 = 18.63 cm<sup>2</sup>  
 Aa3 = 0.62 + 1.45 = 2.08 cm<sup>2</sup>  
 Aa4 = 0.60 + 1.39 = 1.99 cm<sup>2</sup>  
 Aa,uz = 5.17 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

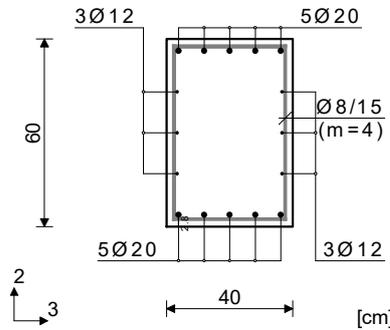
Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 65.15 kN  
 M2ed = -0.17 kNm  
 M3ed = -83.46 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 30.99 kN  
 V3ed = 0.29 kN  
 M1ed = 0.00 kNm

**Presek 8-8 x = 18.65m**



Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -1.862/25.000 \%$   
 Aa1 = 3.85 + 0.08 = 3.93 cm<sup>2</sup>  
 Aa2 = 3.82 + 0.08 = 3.91 cm<sup>2</sup>  
 Aa3 = 0.43 + 0.00 = 0.43 cm<sup>2</sup>  
 Aa4 = 0.42 + 0.00 = 0.42 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

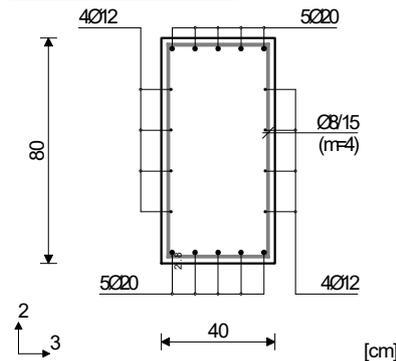
**G300.1 (19722-15250)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 N1ed = 298.20 kN  
 M2ed = 3.40 kNm  
 M3ed = 401.02 kNm

**Presek 10-10 x = 6.74m**



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 71.07 kN  
 V3ed = 5.14 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 $\epsilon_b/\epsilon_a = -3.130/25.000 \%$   
 Aa1 = 14.51 + 0.08 = 14.59 cm<sup>2</sup>  
 Aa2 = 14.43 + 0.08 = 14.51 cm<sup>2</sup>  
 Aa3 = 2.39 + 0.00 = 2.39 cm<sup>2</sup>  
 Aa4 = 2.32 + 0.00 = 2.32 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.26%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G300.19 (19722-36549)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

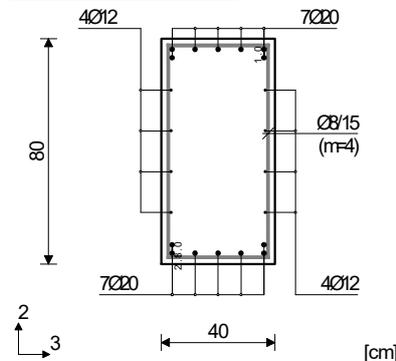
$\epsilon_b/\epsilon_a = -3.500/21.334 \%$   
 Aa1 = 16.96 cm<sup>2</sup>  
 Aa2 = 16.86 cm<sup>2</sup>  
 Aa3 = 3.75 cm<sup>2</sup>  
 Aa4 = 3.66 cm<sup>2</sup>  
 Aa,uz = 4.01 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.66%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -231.03 kN  
 V3ed = -2.42 kN  
 M1ed = 0.00 kNm

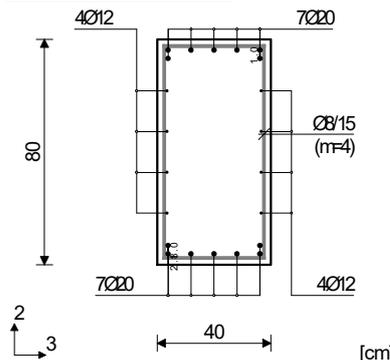
**Presek 11-11 x = 0.00m**



Merodavna kombinacija za savijanje:  
 1.35xI+1.50xII+1.05xIII  
 N1ed = 16.28 kN  
 M2ed = -0.01 kNm  
 M3ed = -595.10 kNm

Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 V2ed = -226.09 kN  
 V3ed = -0.09 kN  
 M1ed = 0.00 kNm

**Presek 12-12 x = 8.10m**



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 276.31 kN  
 M2ed = -1.27 kNm  
 M3ed = -482.93 kNm

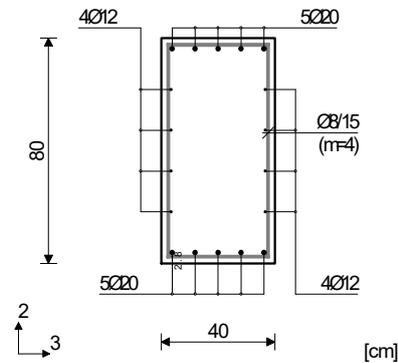
Vrd,max,2 = 1616.16 kN

Vrd,max,3 = 1616.16 kN

$\epsilon_b/\epsilon_a = -3.389/25.000 \%$   
 Aa1 = 16.10 cm<sup>2</sup>  
 Aa2 = 16.00 cm<sup>2</sup>  
 Aa3 = 3.56 cm<sup>2</sup>  
 Aa4 = 3.48 cm<sup>2</sup>  
 Aa,uz = 4.10 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.66%

Presek 13-13 x = 25.12m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 29.62 kN  
 M2ed = 1.48 kNm  
 M3ed = -179.81 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 118.10 kN  
 V3ed = 3.23 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 $\epsilon_b/\epsilon_a = -2.215/25.000 \%$

Aa1 = 4.97 + 5.55'' = 10.52 cm<sup>2</sup>  
 Aa2 = 4.95 + 5.52'' = 10.46 cm<sup>2</sup>  
 Aa3 = 1.10 + 0.85'' = 1.95 cm<sup>2</sup>  
 Aa4 = 1.07 + 0.83'' = 1.91 cm<sup>2</sup>  
 Aa,uz = 2.10 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

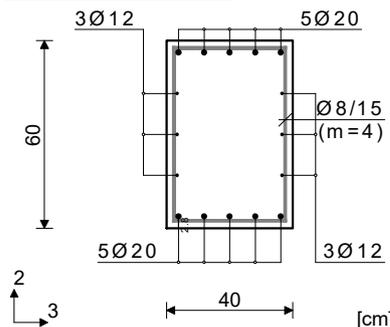
Procenat armiranja: 1.26%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G300.32 (29728-25895)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 14-14 x = 6.01m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 23.64 kN  
 M2ed = 4.52 kNm  
 M3ed = -178.90 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 120.11 kN  
 V3ed = -3.03 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.088/25.000 \%$   
 Aa1 = 7.35 + 2.15'' = 9.50 cm<sup>2</sup>  
 Aa2 = 7.31 + 2.13'' = 9.45 cm<sup>2</sup>  
 Aa3 = 0.83 + 0.16'' = 0.99 cm<sup>2</sup>  
 Aa4 = 0.80 + 0.15'' = 0.95 cm<sup>2</sup>  
 Aa,uz = 2.84 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

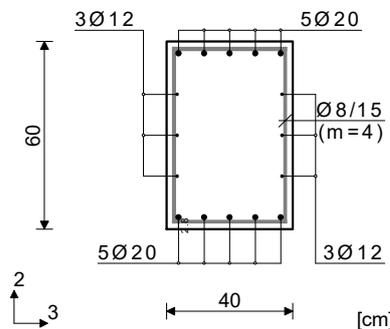
Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G300.34 (33887-30755)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 15-15 x = 4.93m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 16.85 kN  
 M2ed = 0.43 kNm  
 M3ed = -189.82 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 160.01 kN  
 V3ed = -0.18 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -2.996/25.000 \%$   
 Aa1 = 7.75 + 2.84'' = 10.58 cm<sup>2</sup>  
 Aa2 = 7.71 + 2.82'' = 10.53 cm<sup>2</sup>  
 Aa3 = 0.88 + 0.21'' = 1.09 cm<sup>2</sup>  
 Aa4 = 0.84 + 0.20'' = 1.04 cm<sup>2</sup>  
 Aa,uz = 3.79 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

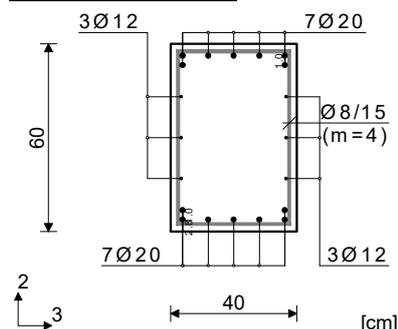
Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G300.35 (38207-34968)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 16-16 x = 5.80m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 15.44 kN  
 M2ed = -1.02 kNm  
 M3ed = -399.96 kNm

Procenat armiranja: 2.12%

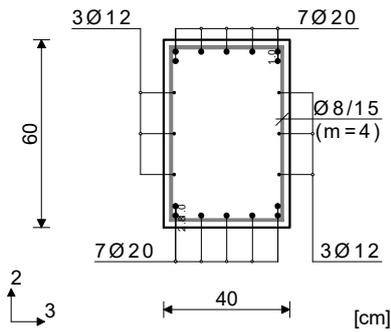
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 187.17 kN  
 V3ed = -0.71 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.500/20.573 \%$   
 Aa1 = 16.81 cm<sup>2</sup>  
 Aa2 = 16.72 cm<sup>2</sup>  
 Aa3 = 1.90 cm<sup>2</sup>  
 Aa4 = 1.82 cm<sup>2</sup>  
 Aa,uz = 4.43 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G300.37 (42783-39345)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 17-17  $x = 0.00m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = 93.44 kN  
M2ed = -0.67 kNm  
M3ed = -462.30 kNm

Procenat armiranja: 2.12%

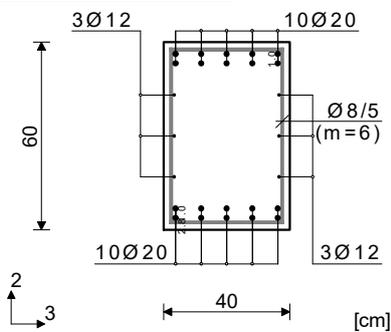
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -198.88 kN  
V3ed = -0.11 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1186.67 kN  
Vrd,max,3 = 1186.67 kN  
 $\epsilon_b/\epsilon_a = -3.500/20.066 \%$   
Aa1 = 20.33 cm<sup>2</sup>  
Aa2 = 20.23 cm<sup>2</sup>  
Aa3 = 2.30 cm<sup>2</sup>  
Aa4 = 2.20 cm<sup>2</sup>  
Aa,uz = 4.71 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G300.39 (44863-43998)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 18-18  $x = 0.00m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = 45.86 kN  
M2ed = -3.72 kNm  
M3ed = -683.20 kNm

Procenat armiranja: 2.90%

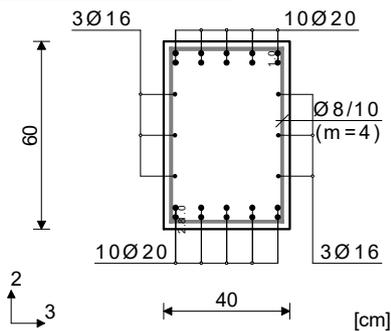
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -920.98 kN  
V3ed = 0.62 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1202.00 kN  
Vrd,max,3 = 1202.00 kN  
 $\epsilon_b/\epsilon_a = -3.500/16.005 \%$   
Aa1 = 29.54 cm<sup>2</sup>  
Aa2 = 29.39 cm<sup>2</sup>  
Aa3 = 3.34 cm<sup>2</sup>  
Aa4 = 3.20 cm<sup>2</sup>  
Aa,uz = 21.79 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=6) = 30.16 cm<sup>2</sup>/m]

**G300.43 (53873-48032)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 20-20  $x = 0.00m$ 

Vrd,max,2 = 1184.00 kN

Vrd,max,3 = 1184.00 kN

 $\epsilon_b/\epsilon_a = -3.500/15.162 \%$ Aa1 = 30.22 cm<sup>2</sup>Aa2 = 30.04 cm<sup>2</sup>Aa3 = 5.81 cm<sup>2</sup>Aa4 = 5.66 cm<sup>2</sup>Aa,uz = 7.70 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/10(m=4) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 3.12%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -127.96 kN

V3ed = -0.22 kN

M1ed = 0.00 kNm

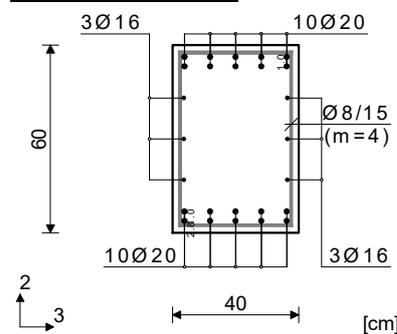
Vrd,max,2 = 1185.85 kN

Vrd,max,3 = 1185.85 kN

 $\epsilon_b/\epsilon_a = -3.500/19.397 \%$ Aa1 = 17.22 + 2.08'' = 19.29 cm<sup>2</sup>Aa2 = 17.12 + 2.06'' = 19.18 cm<sup>2</sup>Aa3 = 3.31 + 0.27'' = 3.58 cm<sup>2</sup>Aa4 = 3.22 + 0.26'' = 3.48 cm<sup>2</sup>Aa,uz = 3.03 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 3.12%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Presek 19-19  $x = 5.13m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 92.52 kN

M2ed = -0.29 kNm

M3ed = -734.85 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -325.51 kN

V3ed = 0.81 kN

M1ed = 0.00 kNm

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

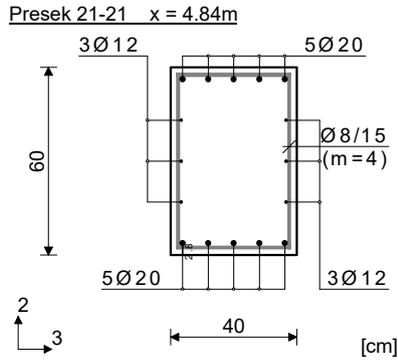
N1ed = 59.26 kN

M2ed = 0.03 kNm

M3ed = 428.28 kNm

**G300.46 (61396-55853)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 89.50 \text{ kN} \\ M2ed &= 0.00 \text{ kNm} \\ M3ed &= -150.66 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII+1.00xVIII \\ V2ed &= 148.51 \text{ kN} \\ V3ed &= 0.22 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.558/25.000 \text{ ‰} \end{aligned}$$

$$\begin{aligned} Aa1 &= 6.86 + 2.62'' = 9.49 \text{ cm}^2 \\ Aa2 &= 6.83 + 2.61'' = 9.44 \text{ cm}^2 \\ Aa3 &= 0.78 + 0.20'' = 0.97 \text{ cm}^2 \\ Aa4 &= 0.74 + 0.19'' = 0.93 \text{ cm}^2 \\ Aa,uz &= 3.51 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

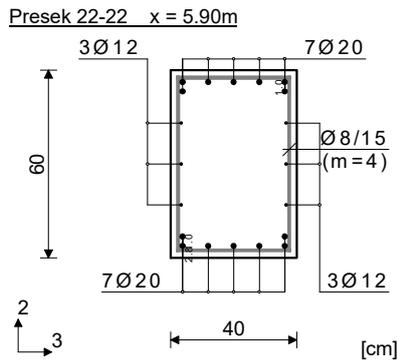
[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G300.47 (67997-63164)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 73.06 \text{ kN} \\ M2ed &= 0.31 \text{ kNm} \\ M3ed &= -450.02 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII+1.00xVIII \\ V2ed &= 216.21 \text{ kN} \\ V3ed &= -0.06 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

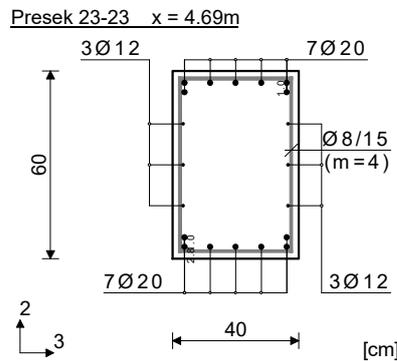
$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -3.500/20.011 \text{ ‰} \\ Aa1 &= 19.59 \text{ cm}^2 \\ Aa2 &= 19.48 \text{ cm}^2 \\ Aa3 &= 2.21 \text{ cm}^2 \\ Aa4 &= 2.12 \text{ cm}^2 \\ Aa,uz &= 5.12 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

**G300.30 (72154-70296)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII-1.00xVIII \\ N1ed &= 73.62 \text{ kN} \\ M2ed &= 1.56 \text{ kNm} \\ M3ed &= -368.67 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII+1.00xVIII \\ V2ed &= 105.89 \text{ kN} \\ V3ed &= -1.11 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -3.500/21.741 \text{ ‰} \\ Aa1 &= 16.06 + 1.89'' = 17.95 \text{ cm}^2 \\ Aa2 &= 15.97 + 1.88'' = 17.85 \text{ cm}^2 \\ Aa3 &= 1.81 + 0.14'' = 1.96 \text{ cm}^2 \\ Aa4 &= 1.74 + 0.14'' = 1.88 \text{ cm}^2 \\ Aa,uz &= 2.51 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

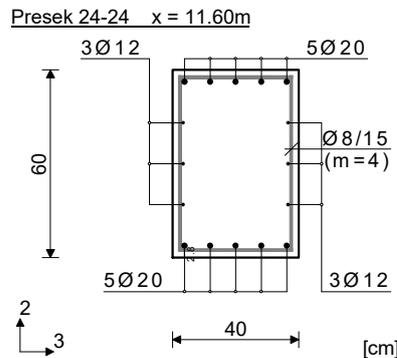
[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G300.29 (76519-72946)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII-1.00xVIII \\ N1ed &= 66.35 \text{ kN} \\ M2ed &= -0.79 \text{ kNm} \\ M3ed &= -187.77 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII+1.00xVIII \\ V2ed &= 161.95 \text{ kN} \\ V3ed &= 1.88 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.897/25.000 \text{ ‰} \\ Aa1 &= 8.18 + 2.88'' = 11.06 \text{ cm}^2 \\ Aa2 &= 8.14 + 2.86'' = 11.00 \text{ cm}^2 \\ Aa3 &= 0.92 + 0.22'' = 1.14 \text{ cm}^2 \\ Aa4 &= 0.89 + 0.21'' = 1.09 \text{ cm}^2 \\ Aa,uz &= 3.83 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

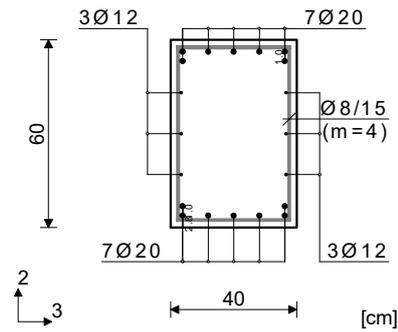
[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G300.40 (67187-76519)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 26-26 x = 7.05m**

Merodavna kombinacija za savijanje:

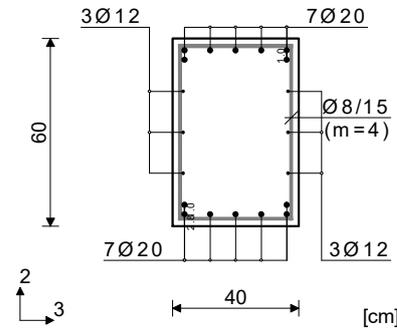
1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 67.64 kN  
 M2ed = -2.13 kNm  
 M3ed = -450.60 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 175.76 kN  
 V3ed = -3.18 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.500/19.785 \%$   
 Aa1 = 19.56 cm<sup>2</sup>  
 Aa2 = 19.45 cm<sup>2</sup>  
 Aa3 = 2.21 cm<sup>2</sup>  
 Aa4 = 2.12 cm<sup>2</sup>  
 Aa,uz = 4.16 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**Presek 25-25 x = 14.85m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 61.70 kN  
 M2ed = -2.57 kNm  
 M3ed = -396.39 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = 153.89 kN  
 V3ed = -4.48 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1171.32 kN

Vrd,max,3 = 1171.32 kN

$\epsilon_b/\epsilon_a = -3.500/20.871 \%$

Aa1 = 17.14 cm<sup>2</sup>

Aa2 = 17.05 cm<sup>2</sup>

Aa3 = 1.94 cm<sup>2</sup>

Aa4 = 1.86 cm<sup>2</sup>

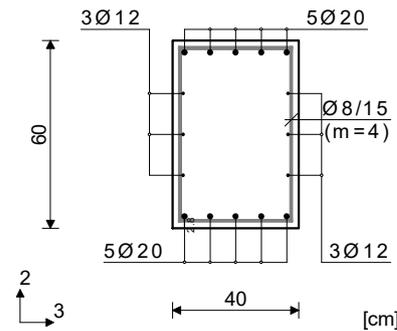
Aa,uz = 3.64 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**G300.11 (56756-65677)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 27-27 x = 11.63m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 48.77 kN  
 M2ed = 1.55 kNm  
 M3ed = -269.36 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 155.59 kN  
 V3ed = -2.27 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -3.500/24.846 \%$

Aa1 = 11.49 + 2.79" = 14.27 cm<sup>2</sup>

Aa2 = 11.42 + 2.77" = 14.20 cm<sup>2</sup>

Aa3 = 1.30 + 0.21" = 1.51 cm<sup>2</sup>

Aa4 = 1.24 + 0.20" = 1.45 cm<sup>2</sup>

Aa,uz = 3.68 cm<sup>2</sup>/m (m=2)

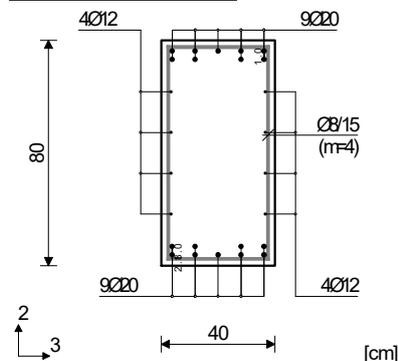
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G300.50 (34590-48548)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 29-29 x = 1.30m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 351.11 kN  
 M2ed = -0.65 kNm  
 M3ed = -457.91 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -121.16 kN  
 V3ed = -2.79 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.112/25.000 \%$

Aa1 = 17.65 + 2.19" = 19.84 cm<sup>2</sup>

Aa2 = 17.56 + 2.18" = 19.73 cm<sup>2</sup>

Aa3 = 1.99 + 0.12" = 2.12 cm<sup>2</sup>

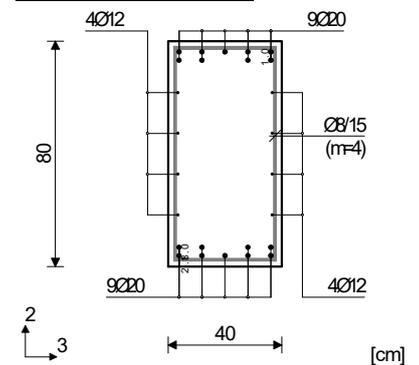
Aa4 = 1.91 + 0.12" = 2.03 cm<sup>2</sup>

Aa,uz = 2.15 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.05%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 28-28 x = 14.26m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 212.54 kN  
 M2ed = 4.33 kNm  
 M3ed = -423.42 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 V2ed = 224.09 kN  
 V3ed = 8.83 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1572.10 kN

Vrd,max,3 = 1572.10 kN

$\epsilon_b/\epsilon_a = -3.244/25.000 \%$

$$\begin{aligned} Aa1 &= 15.09 + 3.73'' = 18.82 \text{ cm}^2 \\ Aa2 &= 15.01 + 3.71'' = 18.72 \text{ cm}^2 \\ Aa3 &= 1.70 + 0.30'' = 2.01 \text{ cm}^2 \\ Aa4 &= 1.63 + 0.29'' = 1.92 \text{ cm}^2 \\ Aa,uz &= 3.98 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.05%

### G300.6 (46063-51164)

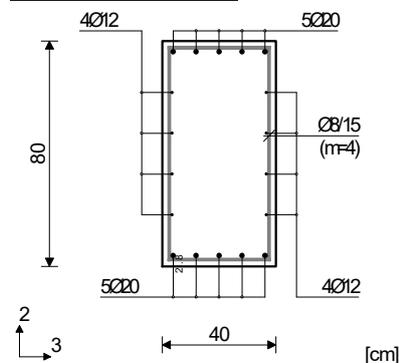
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 30-30  $x = 5.76\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 66.91 kN

M2ed = 0.31 kNm

M3ed = -306.02 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 222.85 kN

V3ed = 1.88 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -2.863/25.000 \%$

Aa1 = 8.92 + 3.59'' = 12.51 cm<sup>2</sup>

Aa2 = 8.87 + 3.57'' = 12.44 cm<sup>2</sup>

Aa3 = 1.97 + 0.40'' = 2.37 cm<sup>2</sup>

Aa4 = 1.93 + 0.39'' = 2.32 cm<sup>2</sup>

Aa,uz = 3.95 cm<sup>2</sup>/m (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.26%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G300.7 (53928-58553)

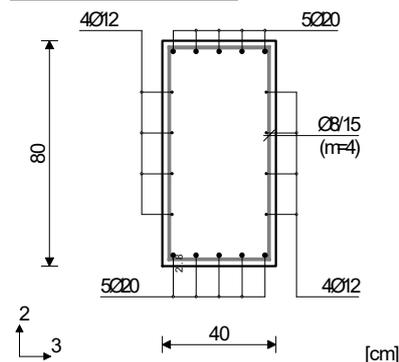
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 31-31  $x = 0.63\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = -1.09 kN

M2ed = 0.46 kNm

M3ed = 409.88 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -128.50 kN

V3ed = -1.03 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1570.96 kN

Vrd,max,3 = 1570.96 kN

$\epsilon_b/\epsilon_a = -3.407/25.000 \%$

Aa1 = 11.23 + 1.08'' = 12.31 cm<sup>2</sup>

Aa2 = 11.17 + 1.07'' = 12.24 cm<sup>2</sup>

Aa3 = 2.48 + 0.13'' = 2.61 cm<sup>2</sup>

Aa4 = 2.43 + 0.12'' = 2.55 cm<sup>2</sup>

Aa,uz = 2.28 cm<sup>2</sup>/m (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.26%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G300.38 (58553-65127)

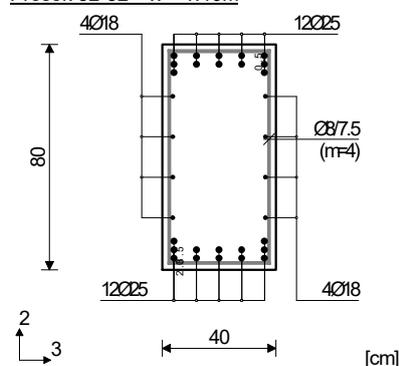
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 32-32  $x = 1.40\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 453.72 kN

V3ed = 4.95 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/18.269 \%$

Aa1 = 31.00 + 0.24'' = 31.25 cm<sup>2</sup>

Aa2 = 30.84 + 0.24'' = 31.08 cm<sup>2</sup>

Aa3 = 3.50 + 0.03'' = 3.53 cm<sup>2</sup>

Aa4 = 3.36 + 0.03'' = 3.38 cm<sup>2</sup>

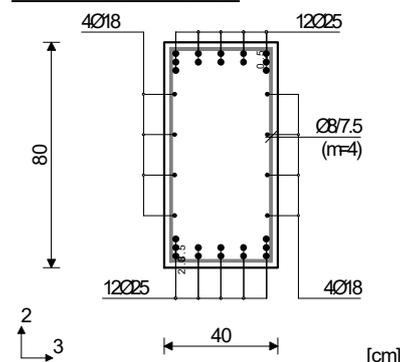
Aa,uz = 8.05 cm<sup>2</sup>/m (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/7.5(m=4) = 13.40 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 33-33  $x = 8.75\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 22.44 kN

M2ed = -0.77 kNm

M3ed = 1011.51 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 550.49 kN

V3ed = 0.74 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/17.578 \%$

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 103.07 kN

M2ed = 2.72 kNm

M3ed = -947.87 kNm

$$\begin{aligned}
 Aa1 &= 32.12 + 25.00'' = 57.11 \text{ cm}^2 \\
 Aa2 &= 31.95 + 24.86'' = 56.81 \text{ cm}^2 \\
 Aa3 &= 3.63 + 2.82'' = 6.45 \text{ cm}^2 \\
 Aa4 &= 3.48 + 2.71'' = 6.19 \text{ cm}^2 \\
 Aa,uz &= 9.77 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/7.5(m=4) = 13.40 \text{ cm}^2/\text{m}]
 \end{aligned}$$

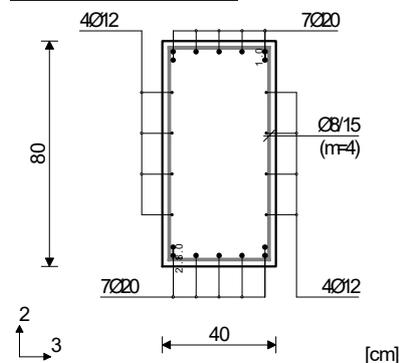
Procenat armiranja: 4.32%

### G300.33 (34590-37956)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = 32.16 kN  
M2ed = 0.44 kNm  
M3ed = -435.30 kNm

Presek 34-34 x = 5.29m



Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+0.30xIII+1.00xVIII  
V2ed = 242.07 kN  
V3ed = -2.55 kN  
M1ed = 0.00 kNm

$$\begin{aligned}
 Vrd,max,2 &= 1560.38 \text{ kN} \\
 Vrd,max,3 &= 1560.38 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -3.468/25.000 \% \\
 Aa1 &= 12.36 + 3.94'' = 16.30 \text{ cm}^2 \\
 Aa2 &= 12.29 + 3.91'' = 16.21 \text{ cm}^2 \\
 Aa3 &= 2.73 + 0.44'' = 3.17 \text{ cm}^2 \\
 Aa4 &= 2.67 + 0.43'' = 3.10 \text{ cm}^2 \\
 Aa,uz &= 4.30 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.66%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

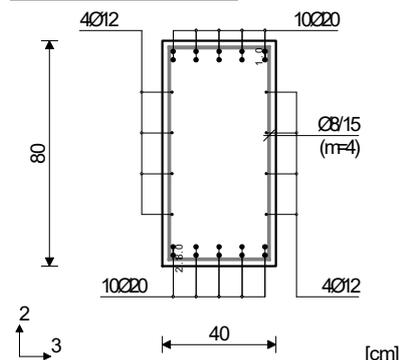
### G300.36 (39640-51733)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

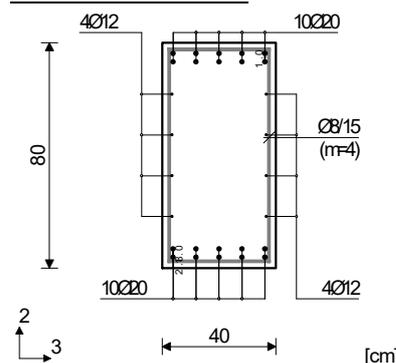
Procenat armiranja: 2.25%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

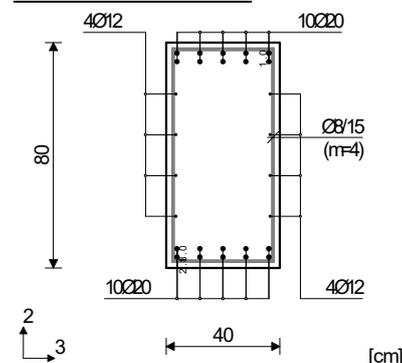
Presek 35-35 x = 5.05m



Presek 36-36 x = 11.85m



Presek 37-37 x = 18.50m



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 N1ed &= 122.35 \text{ kN} \\
 M2ed &= 0.65 \text{ kNm} \\
 M3ed &= -399.45 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 V2ed &= -357.77 \text{ kN} \\
 V3ed &= -0.83 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1578.90 \text{ kN} \\
 Vrd,max,3 &= 1578.90 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -3.140/25.000 \% \\
 Aa1 &= 13.36 + 6.33'' = 19.69 \text{ cm}^2 \\
 Aa2 &= 13.29 + 6.29'' = 19.59 \text{ cm}^2 \\
 Aa3 &= 1.51 + 0.36'' = 1.87 \text{ cm}^2 \\
 Aa4 &= 1.45 + 0.34'' = 1.79 \text{ cm}^2 \\
 Aa,uz &= 6.35 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 97.35 \text{ kN} \\
 M2ed &= -1.24 \text{ kNm} \\
 M3ed &= -578.31 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 V2ed &= 303.28 \text{ kN} \\
 V3ed &= 2.24 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1560.38 \text{ kN} \\
 Vrd,max,3 &= 1560.38 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -3.500/23.414 \% \\
 Aa1 &= 18.88 \text{ cm}^2 \\
 Aa2 &= 18.78 \text{ cm}^2 \\
 Aa3 &= 2.13 \text{ cm}^2 \\
 Aa4 &= 2.05 \text{ cm}^2 \\
 Aa,uz &= 5.38 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.25%

Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 134.61 \text{ kN} \\
 M2ed &= -0.37 \text{ kNm} \\
 M3ed &= -293.38 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.35xI+1.50xII+1.05xIII \\
 V2ed &= 178.57 \text{ kN} \\
 V3ed &= 0.86 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

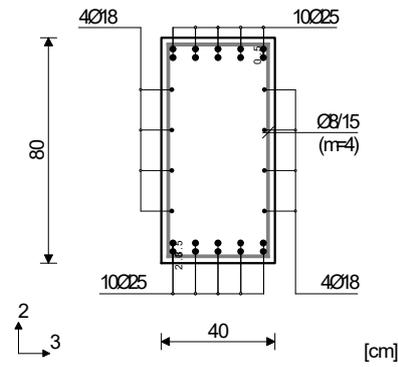
$$\begin{aligned}
 Vrd,max,2 &= 1560.38 \text{ kN} \\
 Vrd,max,3 &= 1560.38 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -2.653/25.000 \% \\
 Aa1 &= 10.12 + 11.32'' = 21.43 \text{ cm}^2 \\
 Aa2 &= 10.06 + 11.26'' = 21.32 \text{ cm}^2 \\
 Aa3 &= 1.14 + 0.89'' = 2.03 \text{ cm}^2 \\
 Aa4 &= 1.10 + 0.85'' = 1.95 \text{ cm}^2 \\
 Aa,uz &= 3.17 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.25%

### G300.42 (51733-58832)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 38-38 x = 1.13m



Merodavna kombinacija za savijanje:

$$1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$$

N1ed = 137.13 kN  
M2ed = -0.64 kNm  
M3ed = 824.11 kNm

Merodavna kombinacija za smicanje:

$$1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$$

V2ed = 323.09 kN  
V3ed = 1.63 kN  
M1ed = 0.00 kNm

$$Vrd,max,2 = 1560.38 \text{ kN}$$

$$Vrd,max,3 = 1560.38 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -3.500/18.770 \text{ ‰}$$

$$Aa1 = 24.82 + 5.09 = 29.92 \text{ cm}^2$$

$$Aa2 = 24.68 + 5.07 = 29.74 \text{ cm}^2$$

$$Aa3 = 5.49 + 0.56 = 6.05 \text{ cm}^2$$

$$Aa4 = 5.36 + 0.55 = 5.91 \text{ cm}^2$$

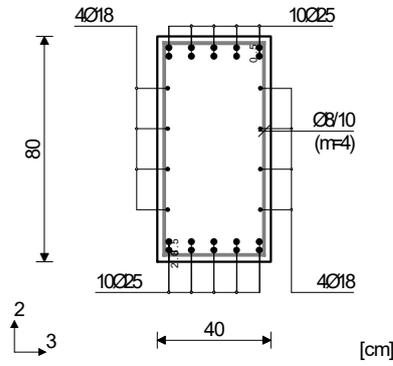
$$Aa,uz = 5.73 \text{ cm}^2/\text{m} \quad (m=2)$$

$$[\text{Usvojeno } Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]$$

Procenat armiranja: 3.70%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 39-39 x = 7.31m



Merodavna kombinacija za savijanje:

$$1.35xI + 1.50xII + 1.05xIII$$

N1ed = -47.01 kN  
M2ed = -3.94 kNm  
M3ed = -1345.99 kNm

Merodavna kombinacija za smicanje:

$$1.35xI + 1.50xII + 1.05xIII$$

V2ed = 457.87 kN  
V3ed = -6.47 kN  
M1ed = 0.00 kNm

$$Vrd,max,2 = 1566.71 \text{ kN}$$

$$Vrd,max,3 = 1566.71 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -3.500/13.657 \text{ ‰}$$

$$Aa1 = 39.02 \text{ cm}^2$$

$$Aa2 = 38.79 \text{ cm}^2$$

$$Aa3 = 8.63 \text{ cm}^2$$

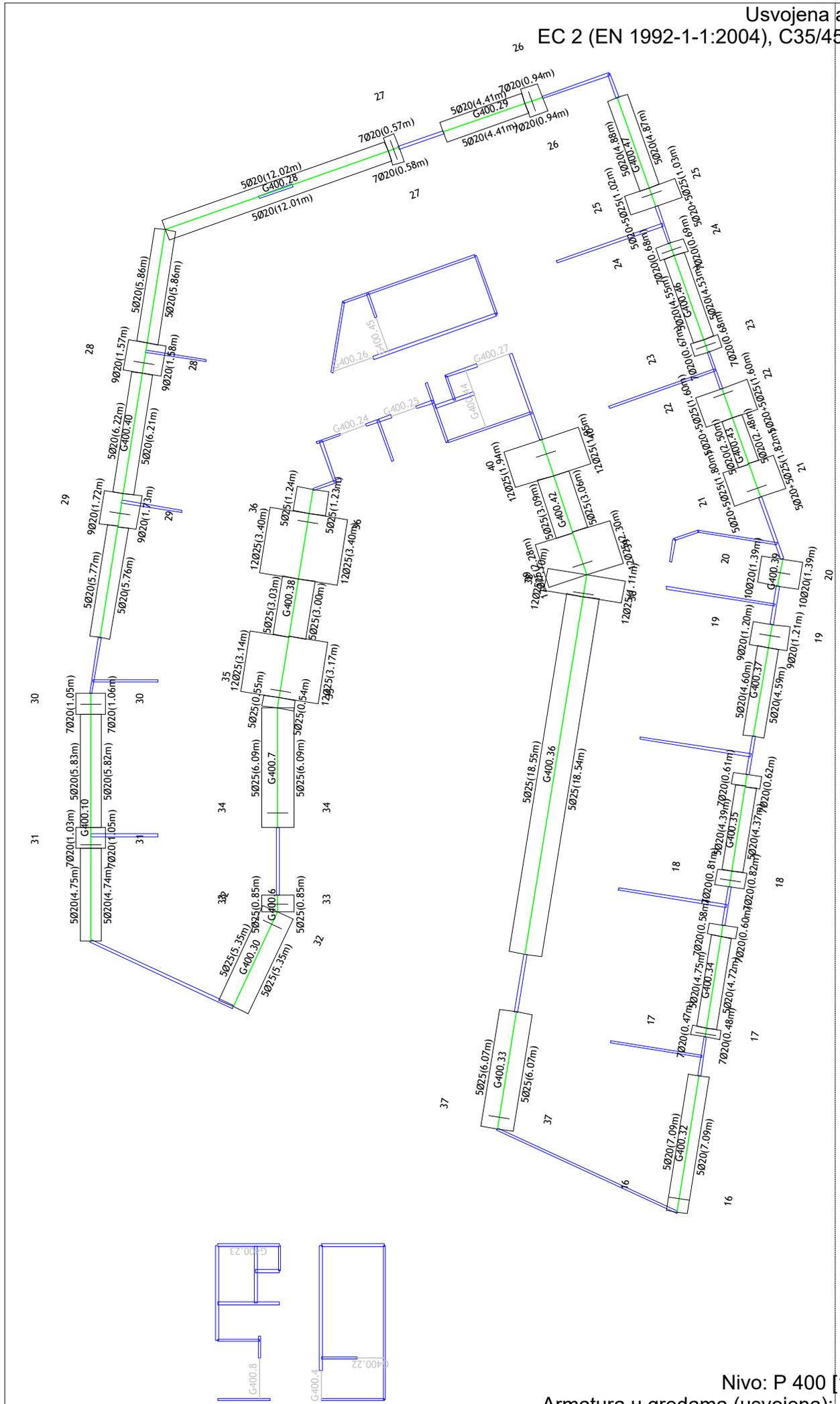
$$Aa4 = 8.43 \text{ cm}^2$$

$$Aa,uz = 8.13 \text{ cm}^2/\text{m} \quad (m=2)$$

$$[\text{Usvojeno } Aa,uz = \text{Ø}8/10(m=4) = 10.05 \text{ cm}^2/\text{m}]$$

Procenat armiranja: 3.70%

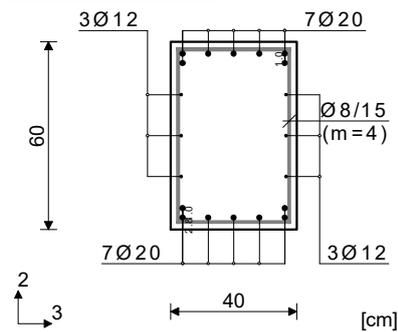




Nivo: P 400 [17.15 m]  
Armatura u gredama (usvojena): Aa2/Aa1

**G400.9 (29883-19605)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 2-2 x = 0.00m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

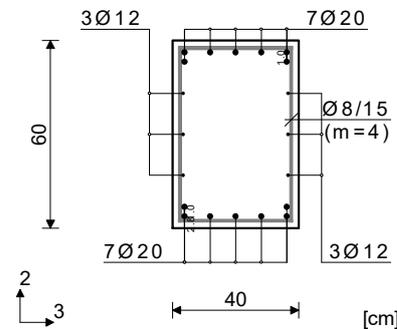
N1ed = 1.73 kN  
 M2ed = 0.54 kNm  
 M3ed = -416.28 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = -215.81 kN  
 V3ed = -9.33 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1173.28 kN  
 Vrd,max,3 = 1173.28 kN  
 $\epsilon_b/\epsilon_a = -3.500/20.033 \%$   
 Aa1 = 17.40 cm<sup>2</sup>  
 Aa2 = 17.30 cm<sup>2</sup>  
 Aa3 = 1.97 cm<sup>2</sup>  
 Aa4 = 1.88 cm<sup>2</sup>  
 Aa,uz = 5.11 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**Presek 1-1 x = 16.10m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 18.82 kN  
 M2ed = 3.42 kNm  
 M3ed = -398.27 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 V2ed = 182.75 kN  
 V3ed = 6.07 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1175.34 kN

Vrd,max,3 = 1175.34 kN

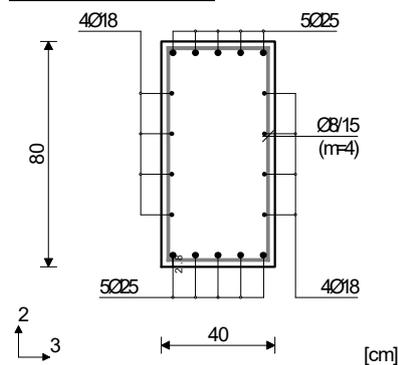
$\epsilon_b/\epsilon_a = -3.500/20.011 \%$

Aa1 = 16.78 cm<sup>2</sup>  
 Aa2 = 16.69 cm<sup>2</sup>  
 Aa3 = 1.90 cm<sup>2</sup>  
 Aa4 = 1.82 cm<sup>2</sup>  
 Aa,uz = 4.32 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**G400.20 (27678-23603)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 3-3 x = 0.87m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 25.39 kN  
 M2ed = 0.08 kNm  
 M3ed = -329.81 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -153.58 kN  
 V3ed = -6.85 kN  
 M1ed = 0.00 kNm

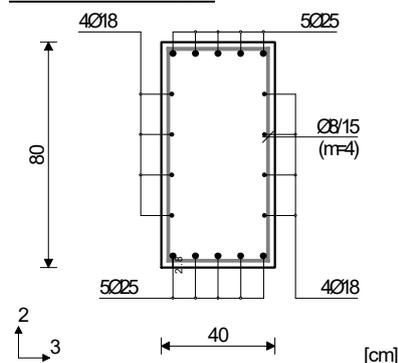
Vrd,max,2 = 1590.22 kN  
 Vrd,max,3 = 1590.22 kN  
 $\epsilon_b/\epsilon_a = -3.010/25.000 \%$   
 Aa1 = 9.21 + 2.48'' = 11.69 cm<sup>2</sup>  
 Aa2 = 9.16 + 2.47'' = 11.63 cm<sup>2</sup>  
 Aa3 = 2.04 + 0.27'' = 2.31 cm<sup>2</sup>  
 Aa4 = 1.99 + 0.27'' = 2.26 cm<sup>2</sup>  
 Aa,uz = 2.73 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G400.5 (18885-21770)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 4-4 x = 1.08m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 67.80 kN  
 M2ed = -0.29 kNm  
 M3ed = -452.10 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -321.34 kN  
 V3ed = 0.56 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1590.14 kN  
 Vrd,max,3 = 1590.14 kN  
 $\epsilon_b/\epsilon_a = -3.479/25.000 \%$   
 Aa1 = 13.20 + 5.24'' = 18.44 cm<sup>2</sup>  
 Aa2 = 13.12 + 5.21'' = 18.33 cm<sup>2</sup>  
 Aa3 = 2.92 + 0.58'' = 3.50 cm<sup>2</sup>  
 Aa4 = 2.85 + 0.57'' = 3.42 cm<sup>2</sup>  
 Aa,uz = 5.70 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

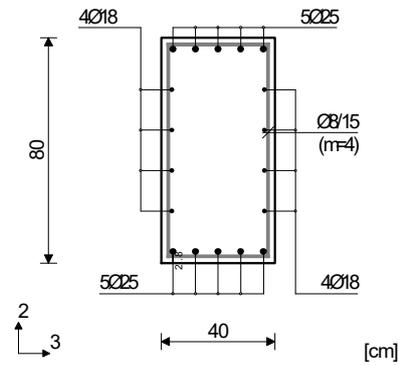
Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G400.2 (11824-19244)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 5-5 x = 0.77m



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 N1ed = 241.80 kN  
 M2ed = 2.35 kNm  
 M3ed = 102.12 kNm

Merodavna kombinacija za smicanje:

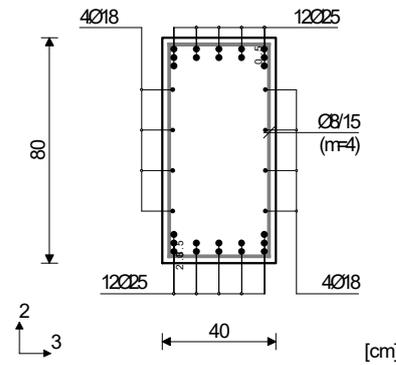
1.00xI+0.30xIII-1.00xVIII  
 V2ed = -66.83 kN  
 V3ed = -1.40 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1609.44 kN  
 Vrd,max,3 = 1609.44 kN  
 $\epsilon_b/\epsilon_a = -1.593/25.000 \text{ ‰}$   
 $Aa_1 = 4.90 + 0.49'' = 5.38 \text{ cm}^2$   
 $Aa_2 = 4.87 + 0.48'' = 5.35 \text{ cm}^2$   
 $Aa_3 = 1.08 + 0.05'' = 1.14 \text{ cm}^2$   
 $Aa_4 = 1.06 + 0.05'' = 1.11 \text{ cm}^2$   
 $Aa_{uz} = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Presek 6-6 x = 8.88m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 132.81 kN  
 M2ed = 1.24 kNm  
 M3ed = 850.67 kNm

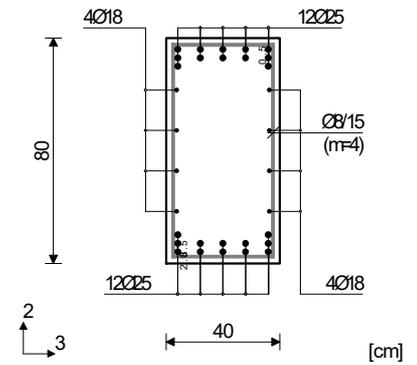
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 328.63 kN  
 V3ed = 1.93 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 $\epsilon_b/\epsilon_a = -3.500/18.115 \text{ ‰}$   
 $Aa_1 = 25.57 \text{ cm}^2$   
 $Aa_2 = 25.42 \text{ cm}^2$   
 $Aa_3 = 5.66 \text{ cm}^2$   
 $Aa_4 = 5.53 \text{ cm}^2$   
 $Aa_{uz} = 5.83 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

Presek 7-7 x = 12.71m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 276.33 kN  
 M2ed = 1.17 kNm  
 M3ed = -613.12 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 354.97 kN  
 V3ed = 6.10 kN  
 M1ed = 0.00 kNm

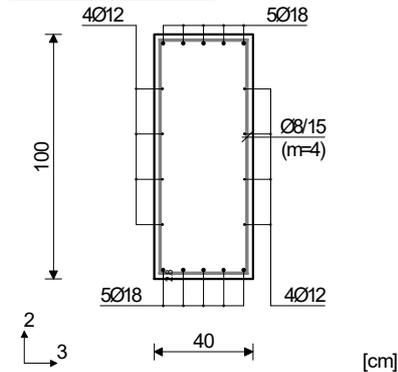
Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 $\epsilon_b/\epsilon_a = -3.500/22.658 \text{ ‰}$   
 $Aa_1 = 19.95 + 5.79'' = 25.74 \text{ cm}^2$   
 $Aa_2 = 19.84 + 5.75'' = 25.59 \text{ cm}^2$   
 $Aa_3 = 4.41 + 0.64'' = 5.05 \text{ cm}^2$   
 $Aa_4 = 4.31 + 0.63'' = 4.94 \text{ cm}^2$   
 $Aa_{uz} = 6.30 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

**G400.18 (11154-12194)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 8-8 x = 1.53m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 82.65 kN  
 M2ed = -1.01 kNm  
 M3ed = 223.07 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 295.68 kN  
 V3ed = 3.33 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1950.48 kN  
 Vrd,max,3 = 1950.48 kN  
 $\epsilon_b/\epsilon_a = -1.867/25.000 \text{ ‰}$   
 $Aa_1 = 5.90 + 3.91'' = 9.81 \text{ cm}^2$   
 $Aa_2 = 5.87 + 3.89'' = 9.76 \text{ cm}^2$   
 $Aa_3 = 0.67 + 0.20'' = 0.87 \text{ cm}^2$   
 $Aa_4 = 0.64 + 0.19'' = 0.83 \text{ cm}^2$   
 $Aa_{uz} = 4.20 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

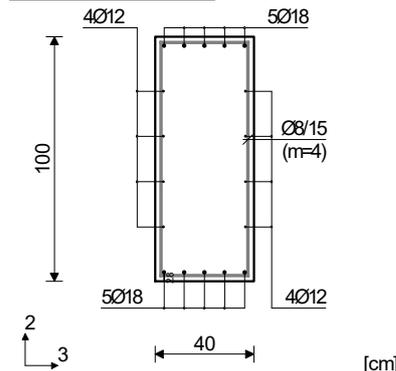
Procenat armiranja: 0.86%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G400.21 (16360-17387)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 9-9 x = 1.20m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 46.21 kN  
 M2ed = -0.35 kNm  
 M3ed = 136.09 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 232.66 kN  
 V3ed = 8.13 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1950.48 kN  
 Vrd,max,3 = 1950.48 kN  
 $\epsilon_b/\epsilon_a = -1.430/25.000 \text{ ‰}$   
 $Aa_1 = 3.48 + 2.66'' = 6.14 \text{ cm}^2$   
 $Aa_2 = 3.46 + 2.64'' = 6.10 \text{ cm}^2$   
 $Aa_3 = 0.39 + 0.14'' = 0.53 \text{ cm}^2$   
 $Aa_4 = 0.38 + 0.13'' = 0.51 \text{ cm}^2$   
 $Aa_{uz} = 3.30 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 0.86%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G400.49 (16234-18725)**

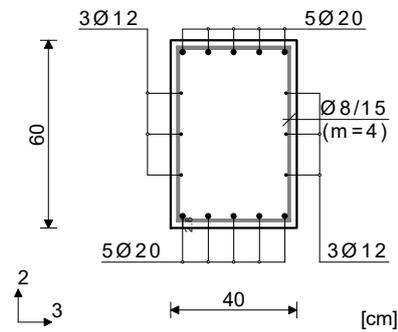
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 10-10  $x = 3.12m$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1_{ed} = 29.88 \text{ kN}$

$M2_{ed} = -2.21 \text{ kNm}$

$M3_{ed} = -231.21 \text{ kNm}$

Procenat armiranja: 1.59%

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII+1.00xVIII$

$V2_{ed} = 148.29 \text{ kN}$

$V3_{ed} = -2.09 \text{ kN}$

$M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$

$Vrd,max,3 = 1170.29 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.311/25.000 \text{ ‰}$

$Aa1 = 9.65 \text{ cm}^2$

$Aa2 = 9.59 \text{ cm}^2$

$Aa3 = 1.09 \text{ cm}^2$

$Aa4 = 1.04 \text{ cm}^2$

$Aa_{uz} = 3.51 \text{ cm}^2/m \quad (m=2)$

[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

**G400.48 (11804-14895)**

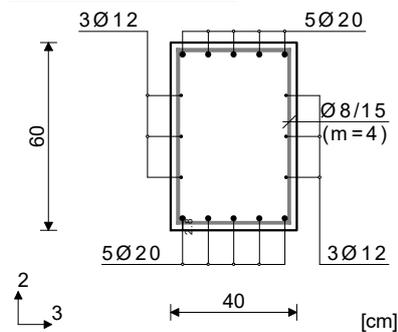
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 11-11  $x = 4.40m$



Merodavna kombinacija za savijanje:

$1.00xI-1.00xVIII$

$N1_{ed} = 21.04 \text{ kN}$

$M2_{ed} = -0.85 \text{ kNm}$

$M3_{ed} = -318.47 \text{ kNm}$

Procenat armiranja: 1.59%

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$

$V2_{ed} = 200.19 \text{ kN}$

$V3_{ed} = 0.29 \text{ kN}$

$M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$

$Vrd,max,3 = 1170.29 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/23.045 \text{ ‰}$

$Aa1 = 13.34 \text{ cm}^2$

$Aa2 = 13.26 \text{ cm}^2$

$Aa3 = 1.51 \text{ cm}^2$

$Aa4 = 1.44 \text{ cm}^2$

$Aa_{uz} = 4.74 \text{ cm}^2/m \quad (m=2)$

[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

**G400.12 (8723-10274)**

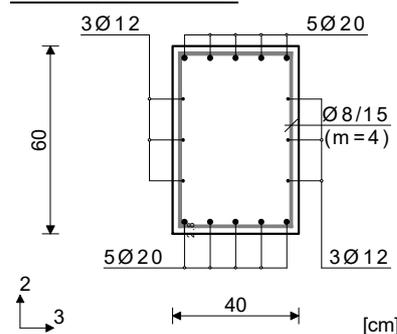
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 12-12  $x = 3.22m$



Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$

$V2_{ed} = 163.43 \text{ kN}$

$V3_{ed} = 0.67 \text{ kN}$

$M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$

$Vrd,max,3 = 1170.29 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.057/25.000 \text{ ‰}$

$Aa1 = 8.72 + 5.29'' = 14.02 \text{ cm}^2$

$Aa2 = 8.68 + 5.27'' = 13.94 \text{ cm}^2$

$Aa3 = 0.99 + 0.52'' = 1.50 \text{ cm}^2$

$Aa4 = 0.94 + 0.50'' = 1.44 \text{ cm}^2$

$Aa_{uz} = 3.87 \text{ cm}^2/m \quad (m=2)$

[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 1.59%

Merodavna kombinacija za savijanje:

$1.00xI+0.30xII-1.00xVIII$

$N1_{ed} = 39.31 \text{ kN}$

$M2_{ed} = -0.33 \text{ kNm}$

$M3_{ed} = -207.24 \text{ kNm}$

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

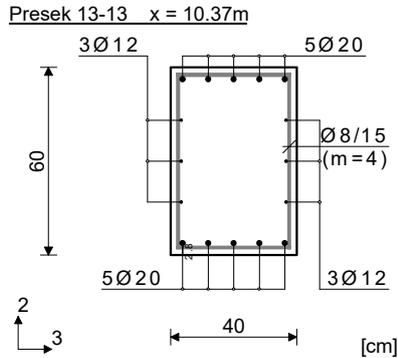
**G400.11 (4474-7924)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 54.01 \text{ kN}$   
 $M_{2ed} = 0.76 \text{ kNm}$   
 $M_{3ed} = -265.59 \text{ kNm}$

$Aa_1 = 11.38 \text{ cm}^2$   
 $Aa_2 = 11.32 \text{ cm}^2$   
 $Aa_3 = 1.29 \text{ cm}^2$   
 $Aa_4 = 1.23 \text{ cm}^2$   
 $Aa,uz = 3.87 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 163.67 \text{ kN}$   
 $V_{3ed} = 1.08 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

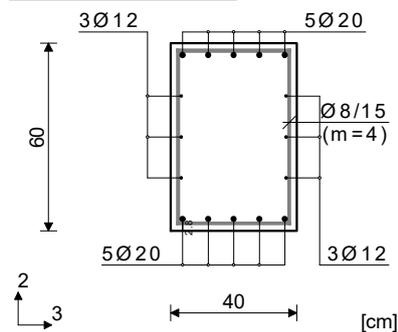
Procenat armiranja: 1.59%

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.449/25.000 \text{ ‰}$

**G400.31 (4474-6800)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 14-14  $x = 0.00\text{m}$



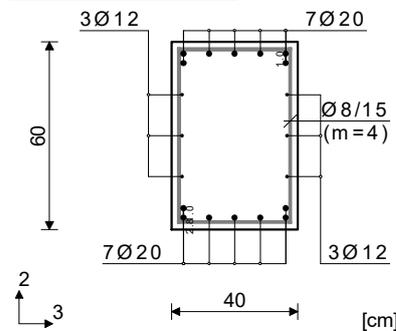
$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.045/25.000 \text{ ‰}$   
 $Aa_1 = 3.98 \text{ cm}^2$   
 $Aa_2 = 3.96 \text{ cm}^2$   
 $Aa_3 = 0.45 \text{ cm}^2$   
 $Aa_4 = 0.43 \text{ cm}^2$   
 $Aa,uz = 2.46 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za smicanje:

1.35xI  
 $V_{2ed} = 108.63 \text{ kN}$   
 $V_{3ed} = 6.84 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

Procenat armiranja: 1.59%

Presek 15-15  $x = 7.94\text{m}$



$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/20.482 \text{ ‰}$   
 $Aa_1 = 14.95 + 1.86'' = 16.81 \text{ cm}^2$   
 $Aa_2 = 14.87 + 1.85'' = 16.72 \text{ cm}^2$   
 $Aa_3 = 1.69 + 0.21'' = 1.90 \text{ cm}^2$   
 $Aa_4 = 1.62 + 0.20'' = 1.82 \text{ cm}^2$   
 $Aa,uz = 2.57 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 35.42 \text{ kN}$   
 $M_{2ed} = 0.34 \text{ kNm}$   
 $M_{3ed} = -94.48 \text{ kNm}$

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 $V_{2ed} = -103.76 \text{ kN}$   
 $V_{3ed} = -0.31 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

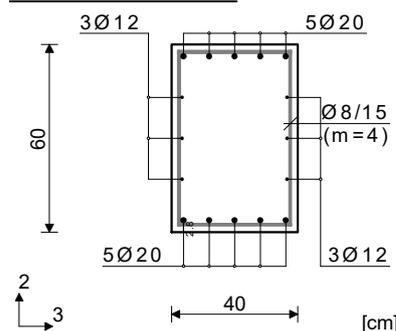
Merodavna kombinacija za savijanje:

1.35xI+1.50xII+1.05xIII  
 $N_{1ed} = 17.04 \text{ kN}$   
 $M_{2ed} = 5.38 \text{ kNm}$   
 $M_{3ed} = -356.35 \text{ kNm}$

**G400.32 (31945-28186)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 16-16  $x = 6.01\text{m}$



Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 $V_{2ed} = 178.52 \text{ kN}$   
 $V_{3ed} = -6.71 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.090/25.000 \text{ ‰}$   
 $Aa_1 = 8.20 + 2.80'' = 11.01 \text{ cm}^2$   
 $Aa_2 = 8.16 + 2.79'' = 10.95 \text{ cm}^2$   
 $Aa_3 = 0.93 + 0.21'' = 1.14 \text{ cm}^2$   
 $Aa_4 = 0.89 + 0.20'' = 1.09 \text{ cm}^2$   
 $Aa,uz = 4.22 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

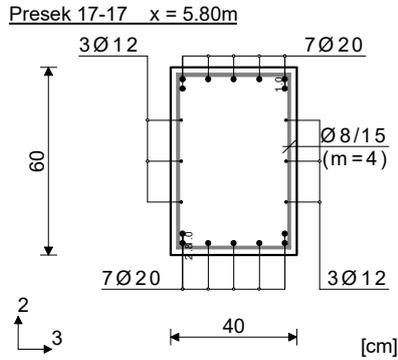
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 64.50 \text{ kN}$   
 $M_{2ed} = 4.04 \text{ kNm}$   
 $M_{3ed} = -188.59 \text{ kNm}$

**G400.34 (36208-33002)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 23.14 \text{ kN}$   
 $M2_{ed} = 0.14 \text{ kNm}$   
 $M3_{ed} = -388.01 \text{ kNm}$

$Aa1 = 16.38 \text{ cm}^2$   
 $Aa2 = 16.29 \text{ cm}^2$   
 $Aa3 = 1.85 \text{ cm}^2$   
 $Aa4 = 1.77 \text{ cm}^2$   
 $Aa,uz = 4.97 \text{ cm}^2/m$  (m=2)

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 209.92 \text{ kN}$   
 $V3_{ed} = -0.42 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/20.976 \text{ ‰}$

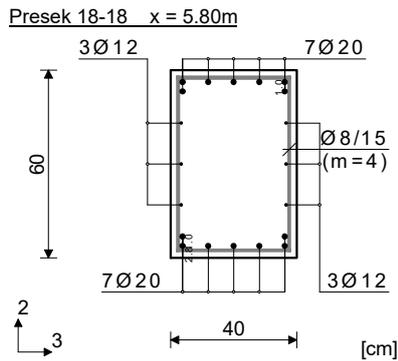
**G400.35 (40643-37323)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 27.08 \text{ kN}$   
 $M2_{ed} = -0.08 \text{ kNm}$   
 $M3_{ed} = -467.58 \text{ kNm}$

Procenat armiranja: 2.12%



Merodavna kombinacija za smicanje:

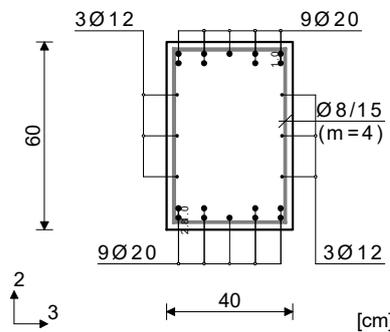
1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 235.95 \text{ kN}$   
 $V3_{ed} = -0.86 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/19.303 \text{ ‰}$   
 $Aa1 = 19.88 \text{ cm}^2$   
 $Aa2 = 19.78 \text{ cm}^2$   
 $Aa3 = 2.25 \text{ cm}^2$   
 $Aa4 = 2.15 \text{ cm}^2$   
 $Aa,uz = 5.58 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

**G400.37 (45355-41796)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 19-19**  $x = 0.97m$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $V2_{ed} = -267.62 \text{ kN}$   
 $V3_{ed} = -0.25 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1192.74 \text{ kN}$   
 $Vrd,max,3 = 1192.74 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/23.859 \text{ ‰}$   
 $Aa1 = 13.71 + 4.77'' = 18.49 \text{ cm}^2$   
 $Aa2 = 13.64 + 4.75'' = 18.39 \text{ cm}^2$   
 $Aa3 = 1.55 + 0.36'' = 1.91 \text{ cm}^2$   
 $Aa4 = 1.49 + 0.34'' = 1.83 \text{ cm}^2$   
 $Aa,uz = 6.33 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 97.47 \text{ kN}$   
 $M2_{ed} = 1.43 \text{ kNm}$   
 $M3_{ed} = -308.97 \text{ kNm}$

Procenat armiranja: 2.64%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

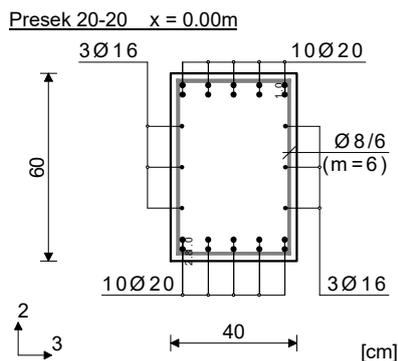
**G400.39 (47456-46592)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 222.37 \text{ kN}$   
 $M2_{ed} = -2.26 \text{ kNm}$   
 $M3_{ed} = -709.54 \text{ kNm}$

Procenat armiranja: 3.12%



Merodavna kombinacija za smicanje:

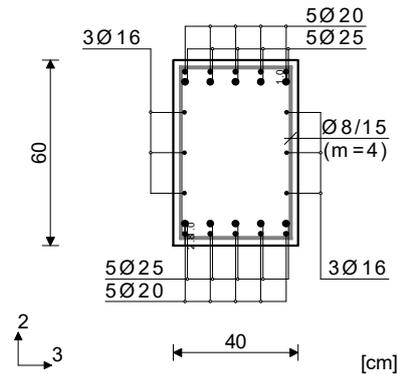
1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $V2_{ed} = -974.48 \text{ kN}$   
 $V3_{ed} = 0.08 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1209.37 \text{ kN}$   
 $Vrd,max,3 = 1209.37 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/16.416 \text{ ‰}$   
 $Aa1 = 31.09 \text{ cm}^2$   
 $Aa2 = 30.92 \text{ cm}^2$   
 $Aa3 = 5.12 \text{ cm}^2$   
 $Aa4 = 4.97 \text{ cm}^2$   
 $Aa,uz = 23.06 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/6(m=6) = 25.13 \text{ cm}^2/m$ ]

**G400.43 (56559-50724)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 22-22  $x = 0.00m$

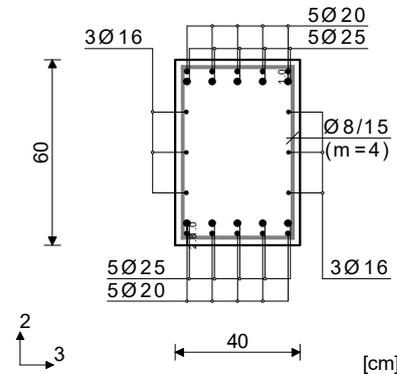


Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 133.67 \text{ kN}$   
 $M2ed = -0.21 \text{ kNm}$   
 $M3ed = -763.43 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -253.24 \text{ kN}$   
 $V3ed = 0.71 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1188.06 \text{ kN}$   
 $Vrd,max,3 = 1188.06 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/16.209 \%$   
 $Aa1 = 33.92 \text{ cm}^2$   
 $Aa2 = 33.74 \text{ cm}^2$   
 $Aa3 = 3.83 \text{ cm}^2$   
 $Aa4 = 3.67 \text{ cm}^2$   
 $Aa,uz = 5.99 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]  
 Procenat armiranja: 3.86%

Presek 21-21  $x = 4.98m$



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 114.68 \text{ kN}$   
 $M2ed = -0.46 \text{ kNm}$   
 $M3ed = 454.39 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -133.74 \text{ kN}$   
 $V3ed = -0.89 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

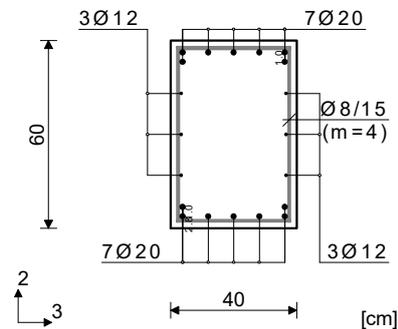
$Vrd,max,2 = 1198.17 \text{ kN}$   
 $Vrd,max,3 = 1198.17 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/20.346 \%$   
 $Aa1 = 20.11 + 2.31'' = 22.42 \text{ cm}^2$   
 $Aa2 = 20.00 + 2.30'' = 22.30 \text{ cm}^2$   
 $Aa3 = 2.27 + 0.17'' = 2.45 \text{ cm}^2$   
 $Aa4 = 2.18 + 0.17'' = 2.35 \text{ cm}^2$   
 $Aa,uz = 3.16 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]  
 Procenat armiranja: 3.86%

)- dodatna poduzna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatezućih sila iznosi 0.75xhs.

**G400.46 (63798-58468)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 24-24  $x = 0.00m$

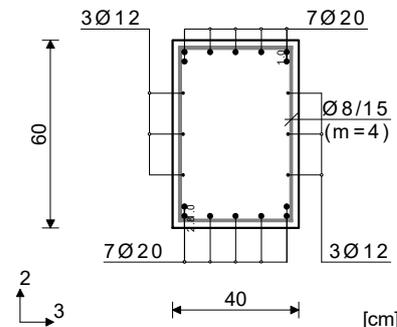


Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 91.22 \text{ kN}$   
 $M2ed = 0.84 \text{ kNm}$   
 $M3ed = -403.84 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -170.45 \text{ kN}$   
 $V3ed = -1.39 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1182.56 \text{ kN}$   
 $Vrd,max,3 = 1182.56 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/21.133 \%$   
 $Aa1 = 17.76 \text{ cm}^2$   
 $Aa2 = 17.67 \text{ cm}^2$   
 $Aa3 = 2.01 \text{ cm}^2$   
 $Aa4 = 1.92 \text{ cm}^2$   
 $Aa,uz = 4.03 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]  
 Procenat armiranja: 2.12%

Presek 23-23  $x = 5.90m$



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 176.51 \text{ kN}$   
 $M2ed = -1.60 \text{ kNm}$   
 $M3ed = -394.19 \text{ kNm}$

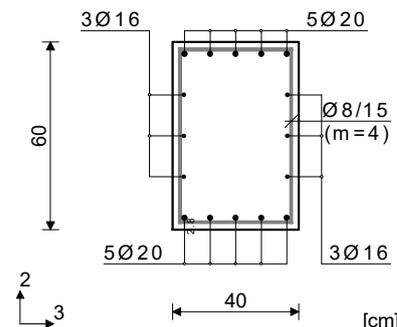
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 220.49 \text{ kN}$   
 $V3ed = -0.53 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/22.160 \%$   
 $Aa1 = 18.23 \text{ cm}^2$   
 $Aa2 = 18.13 \text{ cm}^2$   
 $Aa3 = 2.06 \text{ cm}^2$   
 $Aa4 = 1.97 \text{ cm}^2$   
 $Aa,uz = 5.22 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]  
 Procenat armiranja: 2.12%

**G400.47 (70105-65491)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 25-25  $x = 4.78m$



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 53.52 \text{ kN}$   
 $M2ed = 1.51 \text{ kNm}$   
 $M3ed = -245.46 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 237.49 \text{ kN}$   
 $V3ed = -0.49 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.366/25.000 \%$

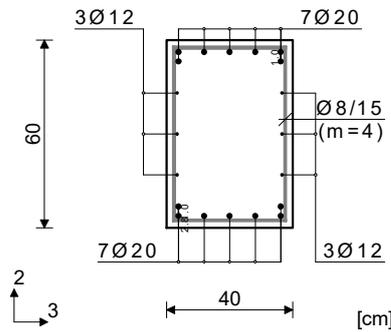
$$\begin{aligned}
 Aa1 &= 10.51 + 4.24'' = 14.74 \text{ cm}^2 \\
 Aa2 &= 10.45 + 4.22'' = 14.67 \text{ cm}^2 \\
 Aa3 &= 1.19 + 0.32'' = 1.51 \text{ cm}^2 \\
 Aa4 &= 1.14 + 0.31'' = 1.44 \text{ cm}^2 \\
 Aa,uz &= 5.62 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.81%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

#### G400.29 (73988-72300)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 26-26  $x = 4.83\text{m}$



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 199.27 \text{ kN}$   
 $V3ed = 0.82 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/23.214 \text{ ‰}$   
 $Aa1 = 13.20 + 6.48'' = 19.68 \text{ cm}^2$   
 $Aa2 = 13.13 + 6.44'' = 19.58 \text{ cm}^2$   
 $Aa3 = 1.49 + 0.67'' = 2.16 \text{ cm}^2$   
 $Aa4 = 1.43 + 0.64'' = 2.07 \text{ cm}^2$   
 $Aa,uz = 4.72 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 24.74 \text{ kN}$   
 $M2ed = -0.90 \text{ kNm}$   
 $M3ed = -314.60 \text{ kNm}$

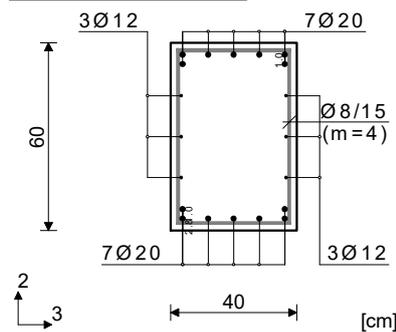
#### G400.28 (77808-74703)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 27.98 \text{ kN}$   
 $M2ed = -0.62 \text{ kNm}$   
 $M3ed = -408.25 \text{ kNm}$

Procenat armiranja: 2.12%

Presek 27-27  $x = 12.58\text{m}$



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 216.97 \text{ kN}$   
 $V3ed = 0.93 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/20.646 \text{ ‰}$   
 $Aa1 = 17.30 \text{ cm}^2$   
 $Aa2 = 17.21 \text{ cm}^2$   
 $Aa3 = 1.96 \text{ cm}^2$   
 $Aa4 = 1.87 \text{ cm}^2$   
 $Aa,uz = 5.13 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

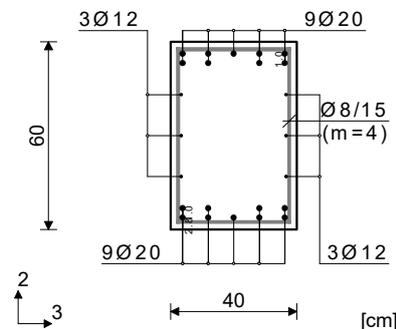
#### G400.40 (69302-77808)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

$Vrd,max,2 = 1173.16 \text{ kN}$   
 $Vrd,max,3 = 1173.16 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/23.506 \text{ ‰}$   
 $Aa1 = 14.69 + 3.73'' = 18.42 \text{ cm}^2$   
 $Aa2 = 14.61 + 3.71'' = 18.32 \text{ cm}^2$   
 $Aa3 = 1.66 + 0.28'' = 1.94 \text{ cm}^2$   
 $Aa4 = 1.59 + 0.27'' = 1.86 \text{ cm}^2$   
 $Aa,uz = 5.04 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 85.28 \text{ kN}$   
 $M2ed = 1.79 \text{ kNm}$   
 $M3ed = -353.70 \text{ kNm}$

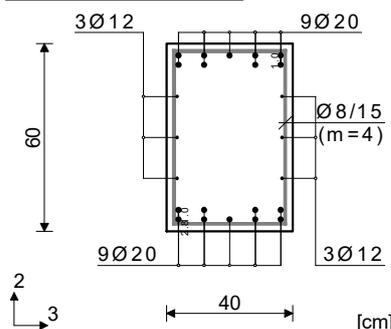
Presek 29-29  $x = 6.05\text{m}$



Procenat armiranja: 2.64%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2ed = 200.83 \text{ kN}$   
 $V3ed = -7.27 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

Presek 28-28  $x = 14.08\text{m}$



$Vrd,max,2 = 1171.65 \text{ kN}$   
 $Vrd,max,3 = 1171.65 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/22.233 \text{ ‰}$   
 $Aa1 = 15.53 + 3.30'' = 18.82 \text{ cm}^2$   
 $Aa2 = 15.44 + 3.28'' = 18.72 \text{ cm}^2$   
 $Aa3 = 1.75 + 0.25'' = 2.00 \text{ cm}^2$   
 $Aa4 = 1.68 + 0.24'' = 1.92 \text{ cm}^2$   
 $Aa,uz = 4.75 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.64%

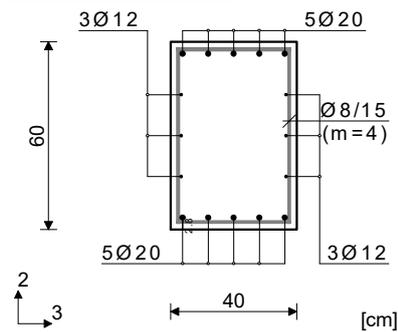
Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 119.01 \text{ kN}$   
 $M2ed = 1.33 \text{ kNm}$   
 $M3ed = -326.18 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2ed = 213.10 \text{ kN}$   
 $V3ed = -7.71 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

**G400.10 (59354-67860)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 31-31  $x = 4.63m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 57.86 kN  
 M2ed = 2.96 kNm  
 M3ed = -269.64 kNm

Merodavna kombinacija za smicanje:

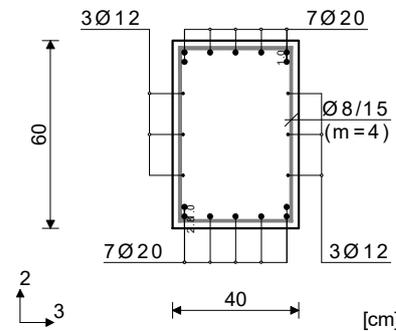
1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 179.28 kN  
 V3ed = -5.91 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.500/24.527 \%$   
 $Aa_1 = 11.60 + 3.20'' = 14.80 \text{ cm}^2$   
 $Aa_2 = 11.54 + 3.18'' = 14.72 \text{ cm}^2$   
 $Aa_3 = 1.31 + 0.24'' = 1.55 \text{ cm}^2$   
 $Aa_4 = 1.26 + 0.23'' = 1.49 \text{ cm}^2$   
 $Aa,uz = 4.24 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 1.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 30-30  $x = 12.67m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 94.78 kN  
 M2ed = -0.43 kNm  
 M3ed = -486.33 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = 225.97 kN  
 V3ed = -3.30 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1177.66 kN

Vrd,max,3 = 1177.66 kN

$\epsilon_b/\epsilon_a = -3.500/19.577 \%$

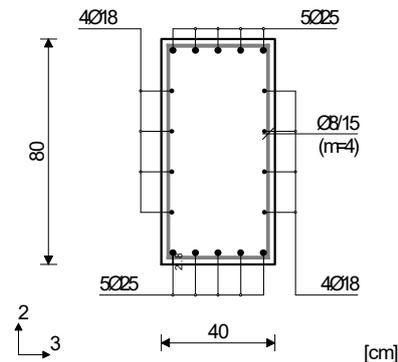
$Aa_1 = 21.40 \text{ cm}^2$   
 $Aa_2 = 21.29 \text{ cm}^2$   
 $Aa_3 = 2.42 \text{ cm}^2$   
 $Aa_4 = 2.32 \text{ cm}^2$   
 $Aa,uz = 5.35 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.12%

**G400.30 (51233-53230)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 32-32  $x = 4.32m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = -13.89 kN  
 M2ed = -2.04 kNm  
 M3ed = 177.47 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII+1.00xVIII  
 V2ed = 138.49 kN  
 V3ed = 2.77 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1562.31 kN

Vrd,max,3 = 1562.31 kN

$\epsilon_b/\epsilon_a = -2.240/25.000 \%$

$Aa_1 = 4.47 + 0.76'' = 5.23 \text{ cm}^2$   
 $Aa_2 = 4.44 + 0.76'' = 5.20 \text{ cm}^2$   
 $Aa_3 = 0.99 + 0.08'' = 1.07 \text{ cm}^2$   
 $Aa_4 = 0.97 + 0.08'' = 1.05 \text{ cm}^2$   
 $Aa,uz = 2.46 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

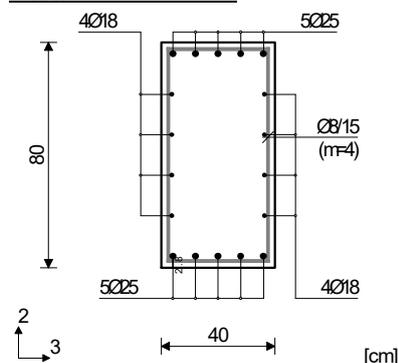
Procenat armiranja: 2.17%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G400.6 (53230-53927)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 33-33  $x = 0.85m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 N1ed = -11.30 kN  
 M2ed = -6.67 kNm  
 M3ed = -255.75 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = 110.35 kN  
 V3ed = -14.35 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1589.16 kN

Vrd,max,3 = 1589.16 kN

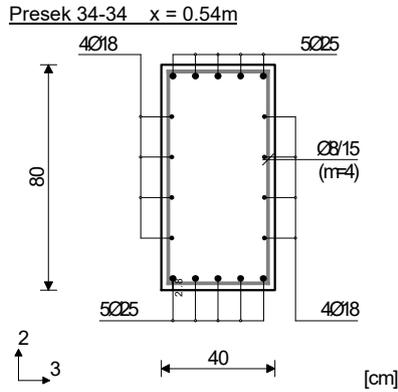
$\epsilon_b/\epsilon_a = -2.908/25.000 \%$

$Aa_1 = 6.72 \text{ cm}^2$   
 $Aa_2 = 6.68 \text{ cm}^2$   
 $Aa_3 = 1.49 \text{ cm}^2$   
 $Aa_4 = 1.45 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/m$  (m=2)  
 [Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.17%

**G400.7 (56618-61082)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 127.20 \text{ kN}$   
 $M2ed = -1.63 \text{ kNm}$   
 $M3ed = 457.15 \text{ kNm}$

$Aa1 = 13.85 + 0.85'' = 14.70 \text{ cm}^2$   
 $Aa2 = 13.77 + 0.84'' = 14.61 \text{ cm}^2$   
 $Aa3 = 3.06 + 0.11'' = 3.17 \text{ cm}^2$   
 $Aa4 = 2.99 + 0.11'' = 3.10 \text{ cm}^2$   
 $Aa,uz = 2.25 \text{ cm}^2/m \quad (m=2)$   
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

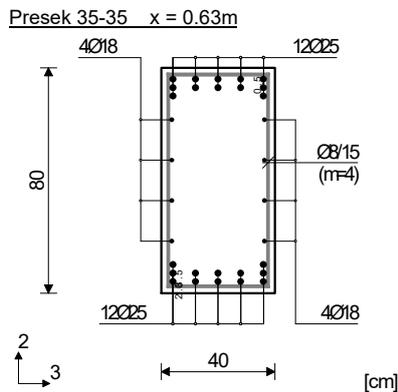
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -126.61 \text{ kN}$   
 $V3ed = 1.81 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

Procenat armiranja: 2.17%  
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

$Vrd,max,2 = 1560.38 \text{ kN}$   
 $Vrd,max,3 = 1560.38 \text{ kN}$   
 $\epsilon b/\epsilon a = -3.471/25.000 \%$

**G400.38 (61082-67340)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



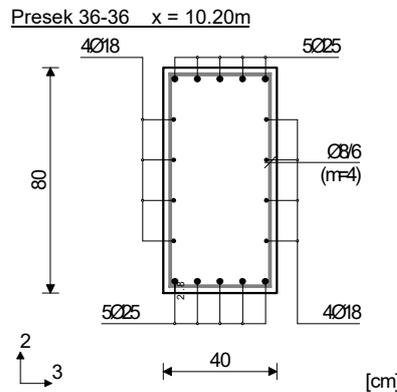
$Vrd,max,2 = 1560.38 \text{ kN}$   
 $Vrd,max,3 = 1560.38 \text{ kN}$   
 $\epsilon b/\epsilon a = -3.500/22.526 \%$   
 $Aa1 = 20.09 + 5.33'' = 25.42 \text{ cm}^2$   
 $Aa2 = 19.97 + 5.30'' = 25.27 \text{ cm}^2$   
 $Aa3 = 3.31 + 0.44'' = 3.74 \text{ cm}^2$   
 $Aa4 = 3.21 + 0.43'' = 3.63 \text{ cm}^2$   
 $Aa,uz = 5.61 \text{ cm}^2/m \quad (m=2)$   
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 169.02 \text{ kN}$   
 $M2ed = -0.36 \text{ kNm}$   
 $M3ed = 248.99 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 838.16 \text{ kN}$   
 $V3ed = -0.89 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

Procenat armiranja: 4.32%  
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

$Vrd,max,2 = 1560.38 \text{ kN}$   
 $Vrd,max,3 = 1560.38 \text{ kN}$   
 $\epsilon b/\epsilon a = -2.435/25.000 \%$   
 $Aa1 = 8.64 + 13.90'' = 22.54 \text{ cm}^2$   
 $Aa2 = 8.59 + 13.82'' = 22.41 \text{ cm}^2$   
 $Aa3 = 1.42 + 1.14'' = 2.57 \text{ cm}^2$   
 $Aa4 = 1.38 + 1.11'' = 2.49 \text{ cm}^2$   
 $Aa,uz = 14.87 \text{ cm}^2/m \quad (m=2)$   
[Usvojeno  $Aa,uz = \varnothing 8/6(m=4) = 16.76 \text{ cm}^2/m$ ]



Procenat armiranja: 2.17%

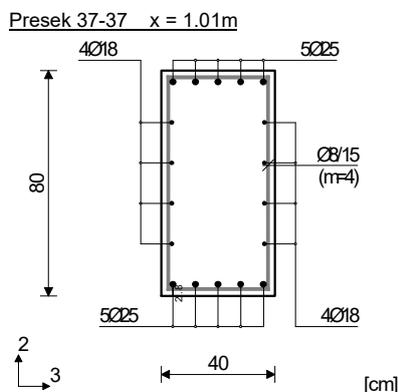
Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 166.29 \text{ kN}$   
 $M2ed = -1.36 \text{ kNm}$   
 $M3ed = -621.79 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 315.85 \text{ kN}$   
 $V3ed = 5.32 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

**G400.33 (36918-40342)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 50.25 \text{ kN}$   
 $M2ed = 4.36 \text{ kNm}$   
 $M3ed = -351.71 \text{ kNm}$



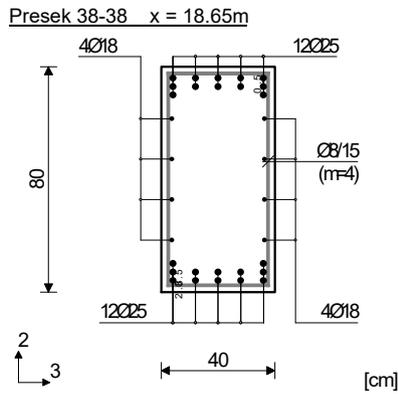
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -170.33 \text{ kN}$   
 $V3ed = 2.18 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1591.29 \text{ kN}$   
 $Vrd,max,3 = 1591.29 \text{ kN}$   
 $\epsilon b/\epsilon a = -3.235/25.000 \%$   
 $Aa1 = 10.08 + 2.90'' = 12.98 \text{ cm}^2$   
 $Aa2 = 10.02 + 2.88'' = 12.90 \text{ cm}^2$   
 $Aa3 = 2.23 + 0.32'' = 2.55 \text{ cm}^2$   
 $Aa4 = 2.18 + 0.31'' = 2.49 \text{ cm}^2$   
 $Aa,uz = 3.02 \text{ cm}^2/m \quad (m=2)$   
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.17%  
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G400.36 (42135-54493)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 413.69\text{ kN}$

$M2ed = 1.41\text{ kNm}$

$M3ed = -593.87\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII+1.00xVIII$

$V2ed = 304.56\text{ kN}$

$V3ed = 4.21\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1560.38\text{ kN}$

$Vrd,max,3 = 1560.38\text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/23.946\%$

$Aa1 = 20.68 + 4.86'' = 25.54\text{ cm}^2$

$Aa2 = 20.56 + 4.83'' = 25.40\text{ cm}^2$

$Aa3 = 4.57 + 0.54'' = 5.11\text{ cm}^2$

$Aa4 = 4.47 + 0.53'' = 4.99\text{ cm}^2$

$Aa,uz = 5.40\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

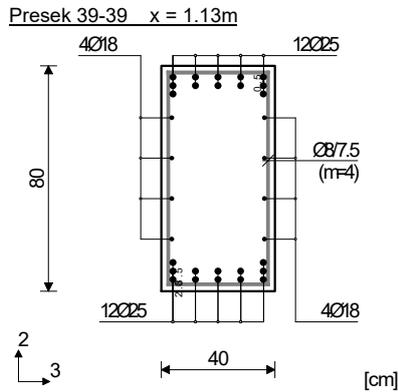
**G400.42 (54493-61349)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja



$Vrd,max,2 = 1560.38\text{ kN}$

$Vrd,max,3 = 1560.38\text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/18.382\%$

$Aa1 = 30.38 + 6.07'' = 36.45\text{ cm}^2$

$Aa2 = 30.20 + 6.04'' = 36.24\text{ cm}^2$

$Aa3 = 6.72 + 0.67'' = 7.39\text{ cm}^2$

$Aa4 = 6.56 + 0.66'' = 7.22\text{ cm}^2$

$Aa,uz = 6.95\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \text{Ø}8/7.5(m=4) = 13.40\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 342.69\text{ kN}$

$M2ed = -1.97\text{ kNm}$

$M3ed = -946.94\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.35xI+1.50xII+1.05xIII$

$V2ed = 391.52\text{ kN}$

$V3ed = 1.64\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1568.33\text{ kN}$

$Vrd,max,3 = 1568.33\text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/18.667\%$

$Aa1 = 30.57 + 6.18'' = 36.75\text{ cm}^2$

$Aa2 = 30.39 + 6.14'' = 36.53\text{ cm}^2$

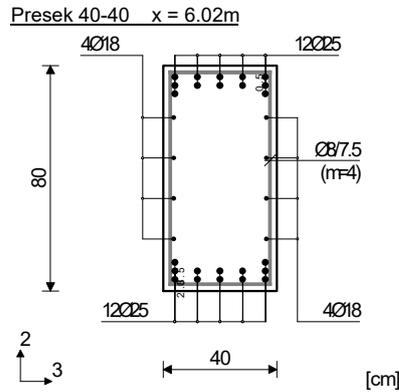
$Aa3 = 6.76 + 0.68'' = 7.45\text{ cm}^2$

$Aa4 = 6.61 + 0.67'' = 7.27\text{ cm}^2$

$Aa,uz = 6.95\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \text{Ø}8/7.5(m=4) = 13.40\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 356.30\text{ kN}$

$M2ed = 2.26\text{ kNm}$

$M3ed = 941.79\text{ kNm}$

Merodavna kombinacija za smicanje:

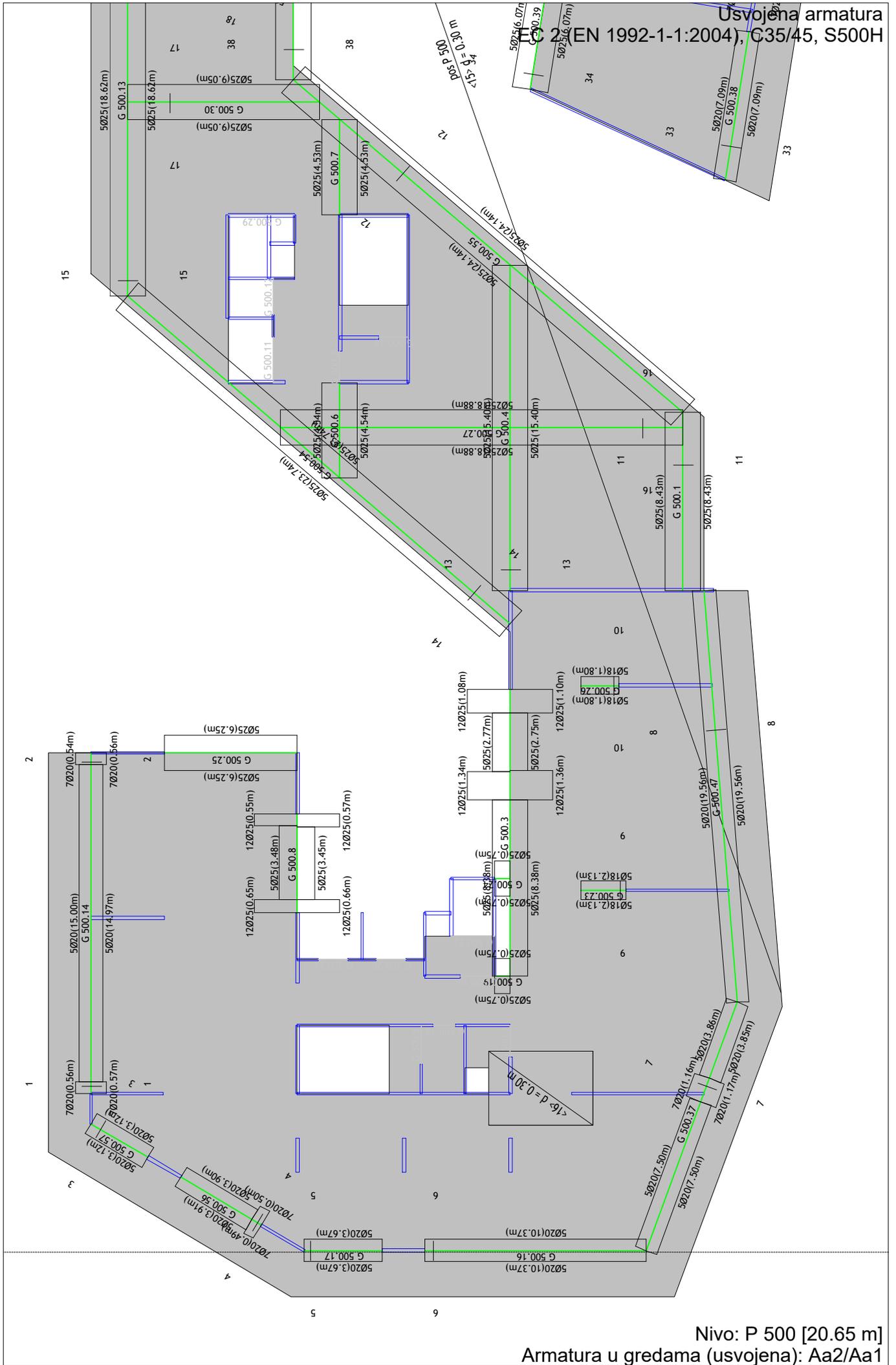
$1.00xI+0.30xII+0.30xIII+1.00xVIII$

$V2ed = 391.90\text{ kN}$

$V3ed = 5.60\text{ kN}$

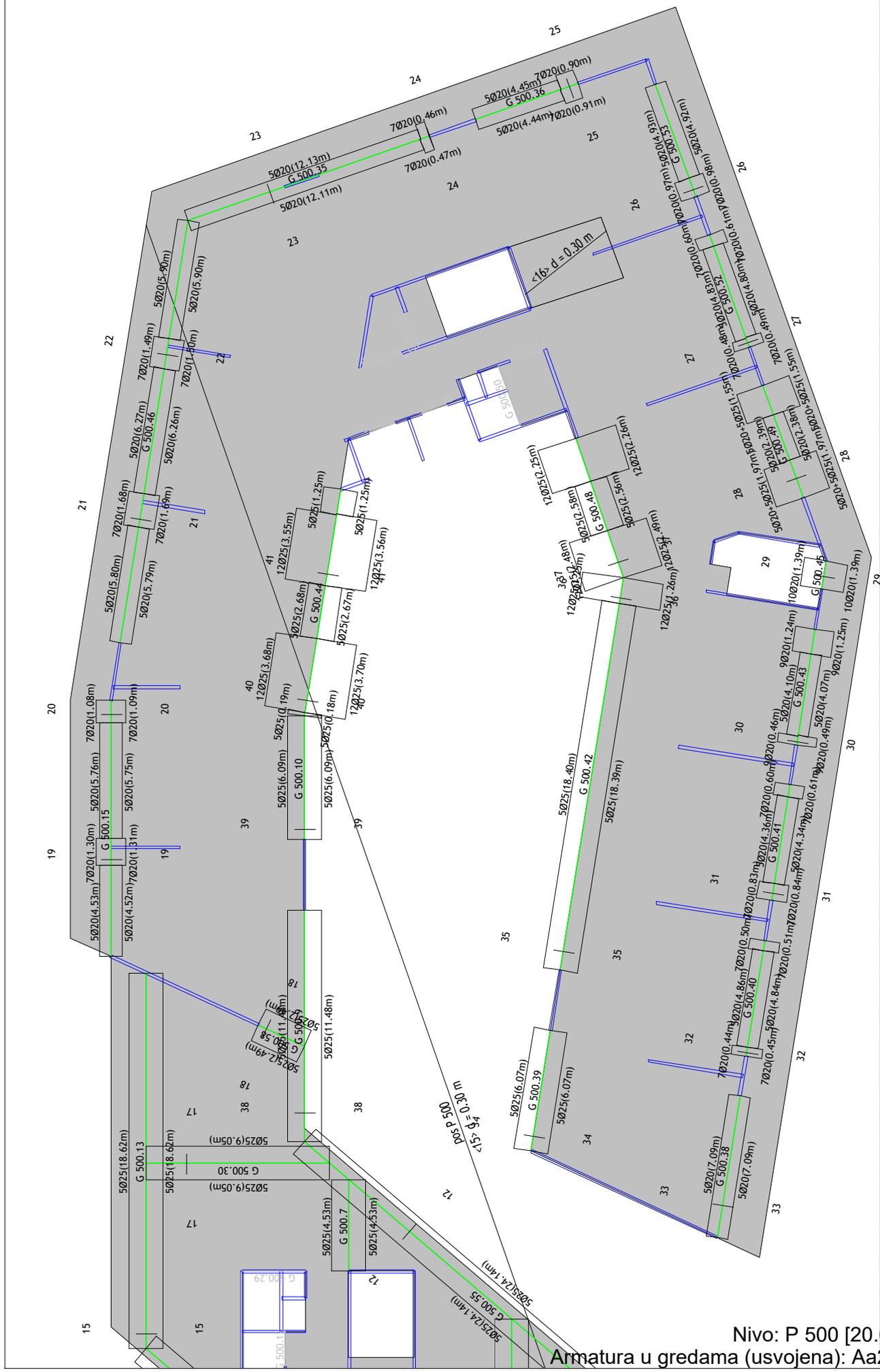
$M1ed = 0.00\text{ kNm}$

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



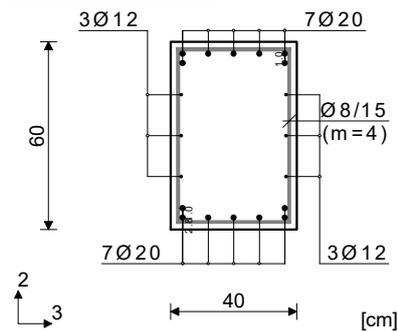
Nivo: P 500 [20.65 m]  
Armatura u gredama (usvojena): Aa2/Aa1





**G 500.14 (32108-21773)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 2-2 x = 0.00m**

Merodavna kombinacija za savijanje:

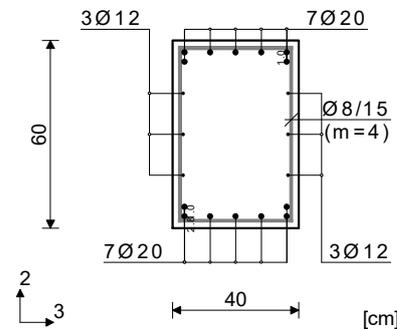
1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 9.09 kN  
 M2ed = 2.57 kNm  
 M3ed = -402.76 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = -191.93 kN  
 V3ed = -8.58 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1171.95 kN  
 Vrd,max,3 = 1171.95 kN  
 $\epsilon_b/\epsilon_a = -3.500/19.945 \%$   
 Aa1 = 16.87 cm<sup>2</sup>  
 Aa2 = 16.78 cm<sup>2</sup>  
 Aa3 = 1.91 cm<sup>2</sup>  
 Aa4 = 1.83 cm<sup>2</sup>  
 Aa,uz = 4.54 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**Presek 1-1 x = 16.10m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 31.92 kN  
 M2ed = 3.25 kNm  
 M3ed = -395.90 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 V2ed = 166.42 kN  
 V3ed = 5.54 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1174.79 kN

Vrd,max,3 = 1174.79 kN

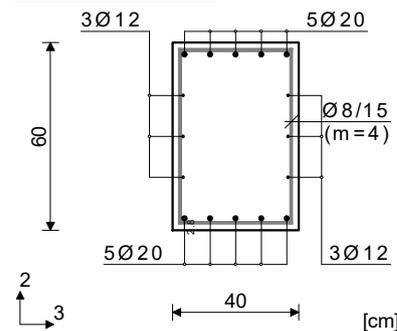
$\epsilon_b/\epsilon_a = -3.500/20.211 \%$

Aa1 = 16.81 cm<sup>2</sup>  
 Aa2 = 16.72 cm<sup>2</sup>  
 Aa3 = 1.90 cm<sup>2</sup>  
 Aa4 = 1.82 cm<sup>2</sup>  
 Aa,uz = 3.94 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**G 500.57 (18271-20876)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 3-3 x = 2.20m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 40.93 kN  
 M2ed = 1.77 kNm  
 M3ed = 108.18 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 143.58 kN  
 V3ed = -2.17 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -2.281/25.000 \%$

Aa1 = 4.57 + 2.29 = 6.86 cm<sup>2</sup>  
 Aa2 = 4.55 + 2.28 = 6.82 cm<sup>2</sup>  
 Aa3 = 0.52 + 0.17 = 0.69 cm<sup>2</sup>  
 Aa4 = 0.50 + 0.17 = 0.66 cm<sup>2</sup>  
 Aa,uz = 3.40 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

<sup>\*)</sup> - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

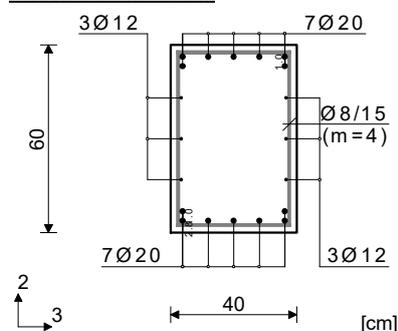
**G 500.56 (13549-16819)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 71.99 kN  
 M2ed = -0.02 kNm  
 M3ed = -378.06 kNm

Procenat armiranja: 2.12%

**Presek 4-4 x = 0.00m**

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -211.90 kN  
 V3ed = -0.75 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1192.22 kN

Vrd,max,3 = 1192.22 kN

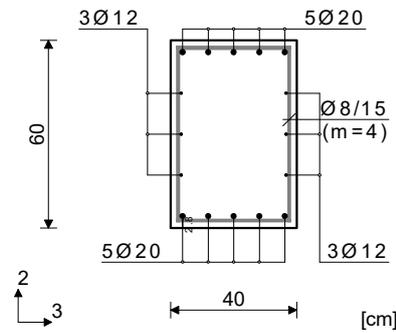
$\epsilon_b/\epsilon_a = -3.500/21.741 \%$

Aa1 = 16.46 cm<sup>2</sup>  
 Aa2 = 16.37 cm<sup>2</sup>  
 Aa3 = 1.86 cm<sup>2</sup>  
 Aa4 = 1.78 cm<sup>2</sup>  
 Aa,uz = 5.01 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 500.17 (10213-11930)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 5-5  $x = 3.67\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 58.33 \text{ kN}$   
 $M_{2ed} = -1.34 \text{ kNm}$   
 $M_{3ed} = -338.33 \text{ kNm}$

$Aa_1 = 14.57 \text{ cm}^2$   
 $Aa_2 = 14.50 \text{ cm}^2$   
 $Aa_3 = 1.65 \text{ cm}^2$   
 $Aa_4 = 1.58 \text{ cm}^2$   
 $Aa_{uz} = 4.96 \text{ cm}^2/\text{m}$  (m=2)

Procenat armiranja: 1.59%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 209.44 \text{ kN}$   
 $V_{3ed} = -0.39 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/22.682 \%$

**G 500.16 (5480-9341)**

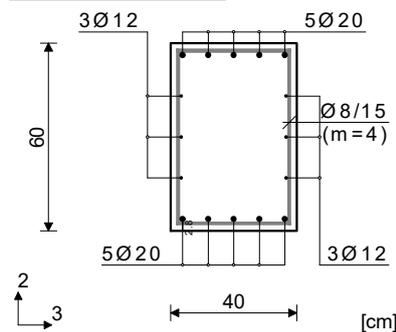
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 93.56 \text{ kN}$   
 $M_{2ed} = 0.55 \text{ kNm}$   
 $M_{3ed} = -282.26 \text{ kNm}$

Procenat armiranja: 1.59%

Presek 6-6  $x = 10.37\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 166.05 \text{ kN}$   
 $V_{3ed} = 0.75 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.477/25.000 \%$   
 $Aa_1 = 12.52 \text{ cm}^2$   
 $Aa_2 = 12.45 \text{ cm}^2$   
 $Aa_3 = 1.41 \text{ cm}^2$   
 $Aa_4 = 1.36 \text{ cm}^2$   
 $Aa_{uz} = 3.93 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 500.37 (5480-8149)**

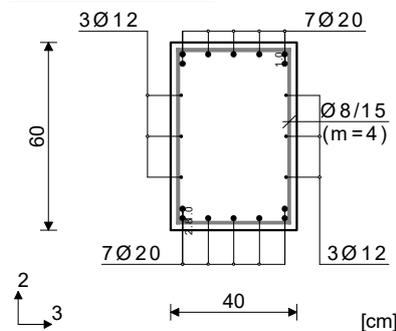
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 133.10 \text{ kN}$   
 $M_{2ed} = 1.45 \text{ kNm}$   
 $M_{3ed} = -400.71 \text{ kNm}$

Procenat armiranja: 2.12%

Presek 7-7  $x = 7.94\text{m}$



Merodavna kombinacija za smicanje:

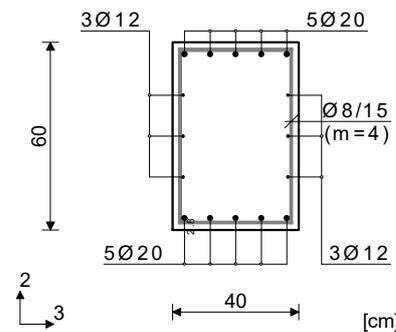
1.00xI+0.30xII-1.00xVIII  
 $V_{2ed} = -168.24 \text{ kN}$   
 $V_{3ed} = -4.12 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1200.64 \text{ kN}$   
 $V_{rd,max,3} = 1200.64 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/21.489 \%$   
 $Aa_1 = 18.08 \text{ cm}^2$   
 $Aa_2 = 17.98 \text{ cm}^2$   
 $Aa_3 = 2.04 \text{ cm}^2$   
 $Aa_4 = 1.96 \text{ cm}^2$   
 $Aa_{uz} = 3.98 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 500.47 (18679-8149)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 8-8  $x = 6.72\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $V_{2ed} = -88.22 \text{ kN}$   
 $V_{3ed} = -1.26 \text{ kN}$   
 $M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 1170.29 \text{ kN}$   
 $V_{rd,max,3} = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -1.710/25.000 \%$   
 $Aa_1 = 4.84 + 0.42'' = 5.26 \text{ cm}^2$   
 $Aa_2 = 4.81 + 0.42'' = 5.23 \text{ cm}^2$   
 $Aa_3 = 0.55 + 0.03'' = 0.58 \text{ cm}^2$   
 $Aa_4 = 0.52 + 0.03'' = 0.56 \text{ cm}^2$   
 $Aa_{uz} = 2.09 \text{ cm}^2/\text{m}$  (m=2)  
 [Usvojeno  $Aa_{uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

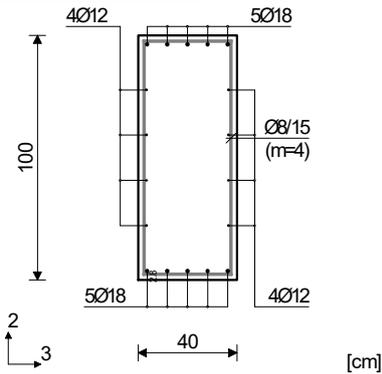
Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N_{1ed} = 183.95 \text{ kN}$   
 $M_{2ed} = -0.39 \text{ kNm}$   
 $M_{3ed} = 77.18 \text{ kNm}$

**G 500.23 (12894-13991)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 9-9  $x = 0.00m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 11.91 kN  
 M2ed = -2.13 kNm  
 M3ed = 428.81 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII  
 V2ed = -351.54 kN  
 V3ed = -3.73 kN  
 M1ed = 0.00 kNm

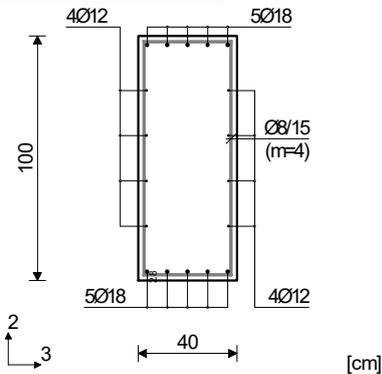
Vrd,max,2 = 1960.92 kN  
 Vrd,max,3 = 1960.92 kN  
 $\epsilon_b/\epsilon_a = -2.731/25.000 \%$   
 Aa1 = 10.20 cm<sup>2</sup>  
 Aa2 = 10.14 cm<sup>2</sup>  
 Aa3 = 1.15 cm<sup>2</sup>  
 Aa4 = 1.10 cm<sup>2</sup>  
 Aa,uz = 4.99 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.86%

**G 500.26 (18397-19476)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 10-10  $x = 0.00m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 N1ed = 57.18 kN  
 M2ed = 1.60 kNm  
 M3ed = 278.54 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -224.94 kN  
 V3ed = -4.44 kN  
 M1ed = 0.00 kNm

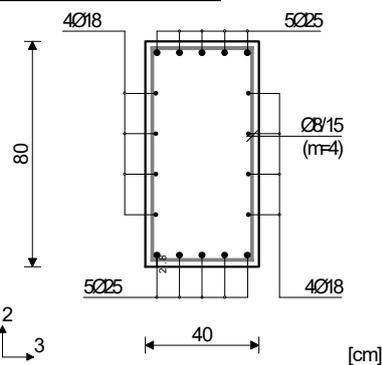
Vrd,max,2 = 1970.69 kN  
 Vrd,max,3 = 1970.69 kN  
 $\epsilon_b/\epsilon_a = -2.150/25.000 \%$   
 Aa1 = 6.96 cm<sup>2</sup>  
 Aa2 = 6.92 cm<sup>2</sup>  
 Aa3 = 0.79 cm<sup>2</sup>  
 Aa4 = 0.75 cm<sup>2</sup>  
 Aa,uz = 3.19 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 0.86%

**G 500.1 (24603-19291)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 11-11  $x = 1.93m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 229.46 kN  
 M2ed = 0.90 kNm  
 M3ed = -414.48 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -185.09 kN  
 V3ed = -1.30 kN  
 M1ed = 0.00 kNm

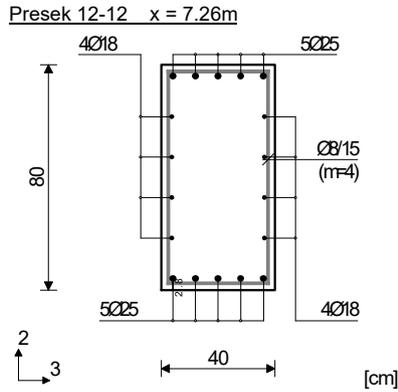
Vrd,max,2 = 1606.35 kN  
 Vrd,max,3 = 1606.35 kN  
 $\epsilon_b/\epsilon_a = -3.206/25.000 \%$   
 Aa1 = 13.63 + 5.19'' = 18.82 cm<sup>2</sup>  
 Aa2 = 13.55 + 5.15'' = 18.71 cm<sup>2</sup>  
 Aa3 = 3.01 + 0.72'' = 3.74 cm<sup>2</sup>  
 Aa4 = 2.95 + 0.71'' = 3.65 cm<sup>2</sup>  
 Aa,uz = 3.28 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 500.55 (47787-24603)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 N1ed = 551.17 kN  
 M2ed = -1.46 kNm  
 M3ed = 130.16 kNm

Aa1 = 8.61 cm<sup>2</sup>  
 Aa2 = 8.56 cm<sup>2</sup>  
 Aa3 = 1.90 cm<sup>2</sup>  
 Aa4 = 1.86 cm<sup>2</sup>  
 Aa,uz = 0.91 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

(m=2)

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 51.23 kN  
 V3ed = -0.57 kN  
 M1ed = 0.00 kNm

Procenat armiranja: 2.17%

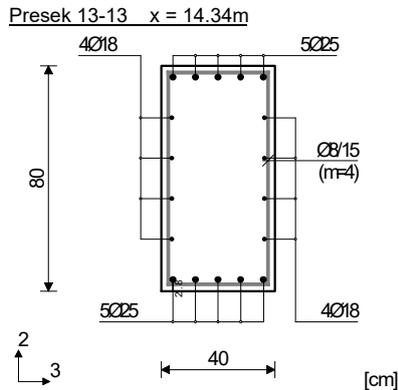
Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 εb/εa = -1.592/25.000 ‰

**G 500.4 (34336-24386)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 327.10 kN  
 M2ed = 0.07 kNm  
 M3ed = -439.23 kNm



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 248.01 kN  
 V3ed = 7.53 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 εb/εa = -3.197/25.000 ‰  
 Aa1 = 15.29 + 4.03" = 19.32 cm<sup>2</sup>  
 Aa2 = 15.20 + 4.01" = 19.21 cm<sup>2</sup>  
 Aa3 = 3.38 + 0.45" = 3.83 cm<sup>2</sup>  
 Aa4 = 3.30 + 0.44" = 3.74 cm<sup>2</sup>  
 Aa,uz = 4.40 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

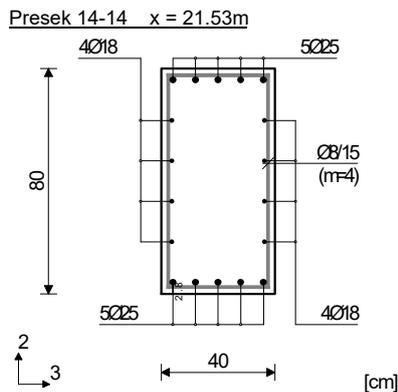
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 500.54 (45918-23369)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 447.94 kN  
 M2ed = 1.62 kNm  
 M3ed = -281.85 kNm



Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 V2ed = 121.41 kN  
 V3ed = 1.70 kN  
 M1ed = 0.00 kNm

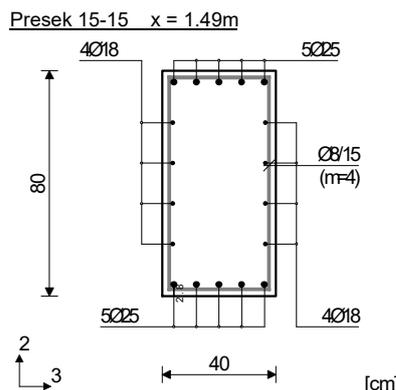
Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 εb/εa = -2.510/25.000 ‰  
 Aa1 = 11.90 + 3.18" = 15.08 cm<sup>2</sup>  
 Aa2 = 11.83 + 3.16" = 14.99 cm<sup>2</sup>  
 Aa3 = 2.63 + 0.59" = 3.22 cm<sup>2</sup>  
 Aa4 = 2.57 + 0.58" = 3.15 cm<sup>2</sup>  
 Aa,uz = 2.15 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 500.13 (45918-60070)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 178.66 kN  
 M2ed = -1.75 kNm  
 M3ed = -173.76 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 V2ed = 68.80 kN  
 V3ed = -0.81 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 εb/εa = -2.068/25.000 ‰

$$\begin{aligned}
 Aa1 &= 6.25 + 8.91'' = 15.17 \text{ cm}^2 \\
 Aa2 &= 6.22 + 8.86'' = 15.08 \text{ cm}^2 \\
 Aa3 &= 1.38 + 1.97'' = 3.36 \text{ cm}^2 \\
 Aa4 &= 1.35 + 1.93'' = 3.28 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 500.27 (24104-36380)

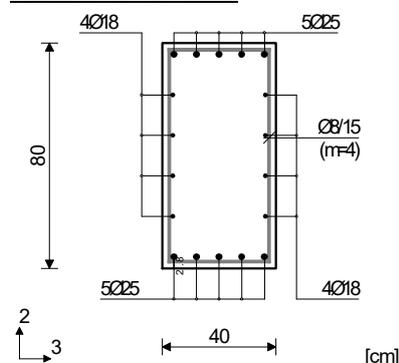
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 16-16  $x = 1.59\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 36.53 kN

M2ed = -1.27 kNm

M3ed = -208.65 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = -173.71 kN

V3ed = -0.07 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.67 kN

Vrd,max,3 = 1560.67 kN

$\epsilon_b/\epsilon_a = -2.371/25.000 \%$

Aa1 = 5.85 + 5.18'' = 11.03 cm<sup>2</sup>

Aa2 = 5.82 + 5.15'' = 10.96 cm<sup>2</sup>

Aa3 = 1.29 + 0.73'' = 2.03 cm<sup>2</sup>

Aa4 = 1.26 + 0.72'' = 1.98 cm<sup>2</sup>

Aa,uz = 3.08 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 500.30 (52934-46025)

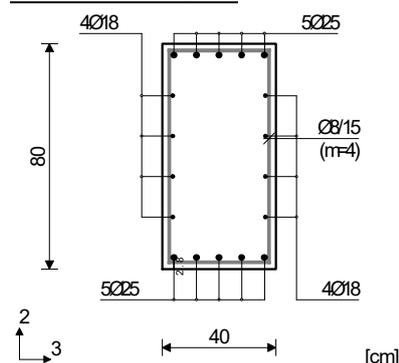
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 17-17  $x = 2.02\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 92.48 kN

M2ed = -1.14 kNm

M3ed = 142.29 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -107.26 kN

V3ed = -2.12 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -1.882/25.000 \%$

Aa1 = 4.53 + 0.43'' = 4.96 cm<sup>2</sup>

Aa2 = 4.51 + 0.43'' = 4.94 cm<sup>2</sup>

Aa3 = 1.00 + 0.06'' = 1.06 cm<sup>2</sup>

Aa4 = 0.98 + 0.06'' = 1.04 cm<sup>2</sup>

Aa,uz = 1.90 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 500.58 (51371-53972)

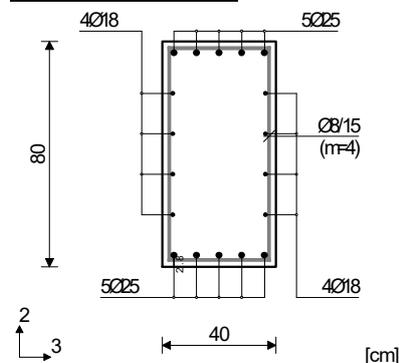
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 18-18  $x = 1.78\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 138.77 kN

M2ed = -3.27 kNm

M3ed = -339.48 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 203.79 kN

V3ed = 9.64 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.047/25.000 \%$

Aa1 = 10.58 + 3.22'' = 13.80 cm<sup>2</sup>

Aa2 = 10.52 + 3.20'' = 13.72 cm<sup>2</sup>

Aa3 = 2.34 + 0.36'' = 2.70 cm<sup>2</sup>

Aa4 = 2.29 + 0.35'' = 2.63 cm<sup>2</sup>

Aa,uz = 3.62 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 500.15 (61848-69952)

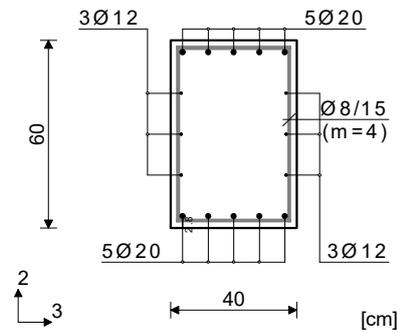
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 19-19 x = 4.51m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 248.45 kN  
 M2ed = 1.41 kNm  
 M3ed = -241.57 kNm

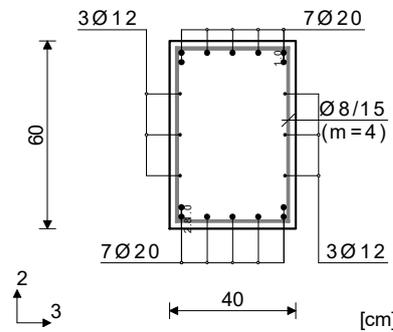
Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 182.75 kN  
 V3ed = -3.97 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 eb/ea = -3.090/25.000 ‰  
 Aa1 = 12.39 + 3.24'' = 15.63 cm<sup>2</sup>  
 Aa2 = 12.32 + 3.22'' = 15.55 cm<sup>2</sup>  
 Aa3 = 1.40 + 0.24'' = 1.64 cm<sup>2</sup>  
 Aa4 = 1.34 + 0.23'' = 1.58 cm<sup>2</sup>  
 Aa,uz = 4.32 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 20-20 x = 11.85m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 184.76 kN  
 M2ed = 0.06 kNm  
 M3ed = -311.09 kNm

Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 V2ed = 179.86 kN  
 V3ed = -0.96 kN  
 M1ed = 0.00 kNm

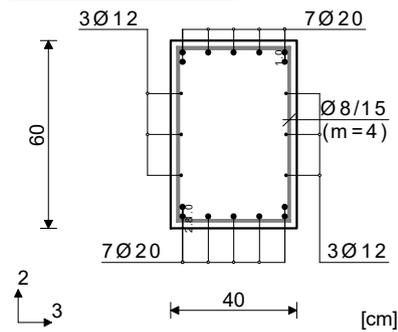
Vrd,max,2 = 1174.63 kN  
 Vrd,max,3 = 1174.63 kN  
 eb/ea = -3.486/25.000 ‰  
 Aa1 = 14.72 + 2.88'' = 17.60 cm<sup>2</sup>  
 Aa2 = 14.64 + 2.86'' = 17.51 cm<sup>2</sup>  
 Aa3 = 1.66 + 0.22'' = 1.88 cm<sup>2</sup>  
 Aa4 = 1.59 + 0.21'' = 1.80 cm<sup>2</sup>  
 Aa,uz = 4.26 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**G 500.46 (71364-78860)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 21-21 x = 6.29m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 160.02 kN  
 M2ed = -0.25 kNm  
 M3ed = -355.55 kNm

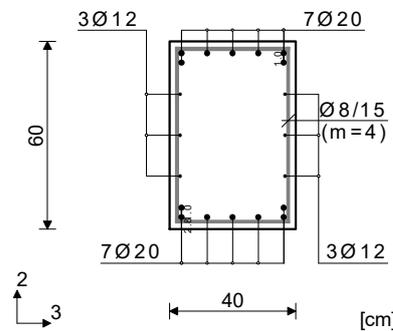
Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 V2ed = 170.39 kN  
 V3ed = -1.95 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1171.67 kN  
 Vrd,max,3 = 1171.67 kN  
 eb/ea = -3.500/23.304 ‰  
 Aa1 = 16.38 + 2.90'' = 19.28 cm<sup>2</sup>  
 Aa2 = 16.29 + 2.88'' = 19.18 cm<sup>2</sup>  
 Aa3 = 1.85 + 0.22'' = 2.07 cm<sup>2</sup>  
 Aa4 = 1.77 + 0.21'' = 1.98 cm<sup>2</sup>  
 Aa,uz = 4.03 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 22-22 x = 14.85m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 99.75 kN  
 M2ed = -0.76 kNm  
 M3ed = -481.96 kNm

Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 V2ed = 198.15 kN  
 V3ed = -3.62 kN  
 M1ed = 0.00 kNm

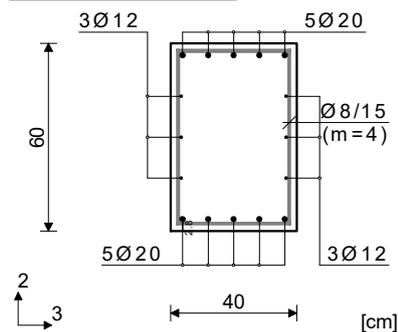
Vrd,max,2 = 1173.34 kN  
 Vrd,max,3 = 1173.34 kN  
 eb/ea = -3.500/19.749 ‰  
 Aa1 = 21.25 cm<sup>2</sup>  
 Aa2 = 21.13 cm<sup>2</sup>  
 Aa3 = 2.40 cm<sup>2</sup>  
 Aa4 = 2.30 cm<sup>2</sup>  
 Aa,uz = 4.69 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**G 500.35 (78860-76259)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 23-23 x = 4.35m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 52.73 kN  
 M2ed = -0.37 kNm  
 M3ed = 145.67 kNm

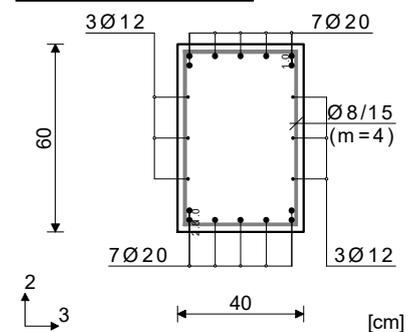
Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+1.00xVIII  
 V2ed = 86.01 kN  
 V3ed = 0.76 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 eb/ea = -2.539/25.000 ‰  
 Aa1 = 6.24 + 4.69'' = 10.93 cm<sup>2</sup>  
 Aa2 = 6.21 + 4.66'' = 10.87 cm<sup>2</sup>  
 Aa3 = 0.70 + 0.46'' = 1.17 cm<sup>2</sup>  
 Aa4 = 0.68 + 0.44'' = 1.12 cm<sup>2</sup>  
 Aa,uz = 2.04 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 24-24 x = 12.58m**



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 21.62 kN  
 M2ed = 0.36 kNm  
 M3ed = -381.23 kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 129.70 \text{ kN}$   
 $V3ed = 0.48 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$

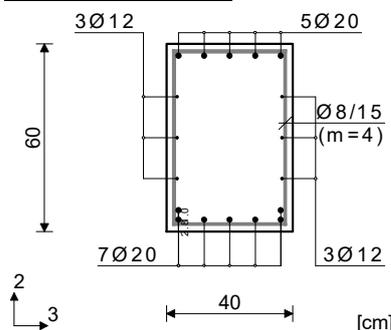
$\epsilon_b/\epsilon_a = -3.500/21.097 \%$   
 $Aa1 = 16.07 \text{ cm}^2$   
 $Aa2 = 15.98 \text{ cm}^2$   
 $Aa3 = 1.82 \text{ cm}^2$   
 $Aa4 = 1.74 \text{ cm}^2$   
 $Aa,uz = 3.07 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

**G 500.36 (75634-74098)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 25-25  $x = 4.44\text{m}$



Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 203.03 \text{ kN}$   
 $V3ed = 0.32 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/24.862 \%$   
 $Aa1 = 12.13 + 3.62'' = 15.75 \text{ cm}^2$   
 $Aa2 = 12.07 + 3.60'' = 15.67 \text{ cm}^2$   
 $Aa3 = 1.37 + 0.27'' = 1.64 \text{ cm}^2$   
 $Aa4 = 1.31 + 0.26'' = 1.58 \text{ cm}^2$   
 $Aa,uz = 4.80 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.85%

)- dodatna poduzna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatezuci sila iznosi  $0.75 \times h_s$ .

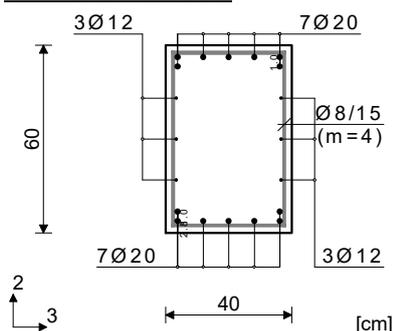
Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 48.13 \text{ kN}$   
 $M2ed = -0.19 \text{ kNm}$   
 $M3ed = -284.45 \text{ kNm}$

**G 500.53 (72095-67669)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 26-26  $x = 5.90\text{m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 39.65 \text{ kN}$   
 $M2ed = 0.09 \text{ kNm}$   
 $M3ed = -485.75 \text{ kNm}$

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

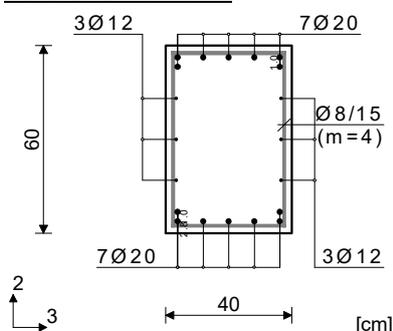
$1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 207.77 \text{ kN}$   
 $V3ed = -0.16 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/19.056 \%$   
 $Aa1 = 20.81 \text{ cm}^2$   
 $Aa2 = 20.70 \text{ cm}^2$   
 $Aa3 = 2.35 \text{ cm}^2$   
 $Aa4 = 2.25 \text{ cm}^2$   
 $Aa,uz = 4.92 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 500.52 (66104-61012)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 27-27  $x = 5.90\text{m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 131.74 \text{ kN}$   
 $M2ed = -1.15 \text{ kNm}$   
 $M3ed = -359.70 \text{ kNm}$

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

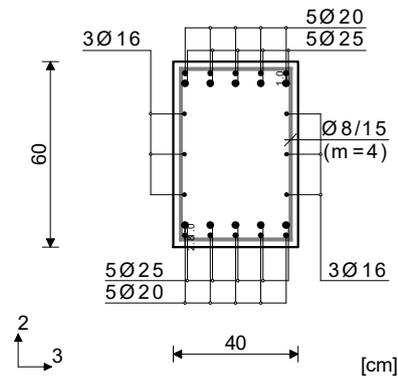
$1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 168.70 \text{ kN}$   
 $V3ed = -0.36 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/22.792 \%$   
 $Aa1 = 16.27 \text{ cm}^2$   
 $Aa2 = 16.19 \text{ cm}^2$   
 $Aa3 = 1.84 \text{ cm}^2$   
 $Aa4 = 1.76 \text{ cm}^2$   
 $Aa,uz = 3.99 \text{ cm}^2/\text{m}$  (m=2)  
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 500.49 (59166-53430)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

**Presek 28-28 x = 5.13m**



**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 199.19 kN  
 M2ed = -0.06 kNm  
 M3ed = 469.81 kNm

Aa1 = 21.66 + 2.03 = 23.69 cm<sup>2</sup>  
 Aa2 = 21.55 + 2.02 = 23.57 cm<sup>2</sup>  
 Aa3 = 2.45 + 0.15 = 2.60 cm<sup>2</sup>  
 Aa4 = 2.35 + 0.15 = 2.49 cm<sup>2</sup>  
 Aa,uz = 2.78 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**Merodavna kombinacija za smicanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -117.48 kN  
 V3ed = -0.48 kN  
 M1ed = 0.00 kNm

**Procenat armiranja: 3.86%**

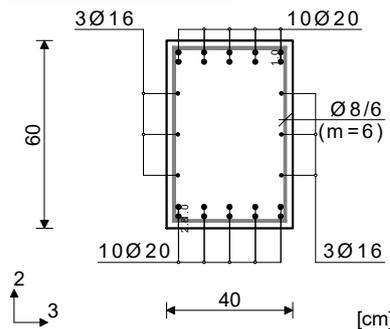
]- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Vrd,max,2 = 1210.11 kN  
 Vrd,max,3 = 1210.11 kN  
 εb/εa = -3.500/20.685 ‰

**G 500.45 (50126-49231)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 29-29 x = 0.73m**



**Merodavna kombinacija za smicanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -726.11 kN  
 V3ed = -0.38 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1240.07 kN  
 Vrd,max,3 = 1240.07 kN  
 εb/εa = -2.122/25.000 ‰  
 Aa1 = 7.68 + 12.71 = 20.40 cm<sup>2</sup>  
 Aa2 = 7.64 + 12.64 = 20.29 cm<sup>2</sup>  
 Aa3 = 0.87 + 0.96 = 1.83 cm<sup>2</sup>  
 Aa4 = 0.83 + 0.92 = 1.75 cm<sup>2</sup>  
 Aa,uz = 17.18 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/6(m=6) = 25.13 cm<sup>2</sup>/m]

**Procenat armiranja: 3.12%**

]- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 282.56 kN  
 M2ed = 0.55 kNm  
 M3ed = -121.15 kNm

**G 500.43 (47979-44359)**

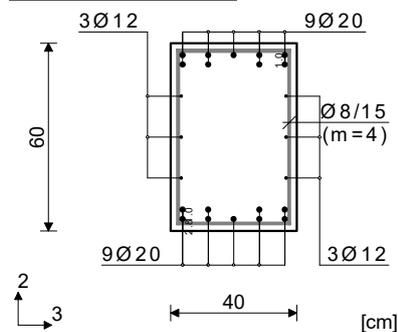
EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 89.09 kN  
 M2ed = 0.83 kNm  
 M3ed = 365.13 kNm

**Procenat armiranja: 2.64%**

**Presek 30-30 x = 5.80m**



**Merodavna kombinacija za smicanje:**

1.00xI+0.30xII+1.00xVIII  
 V2ed = 147.30 kN  
 V3ed = 0.93 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 εb/εa = -3.500/22.082 ‰  
 Aa1 = 16.00 cm<sup>2</sup>  
 Aa2 = 15.91 cm<sup>2</sup>  
 Aa3 = 1.81 cm<sup>2</sup>  
 Aa4 = 1.73 cm<sup>2</sup>  
 Aa,uz = 3.49 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 500.41 (43159-39686)**

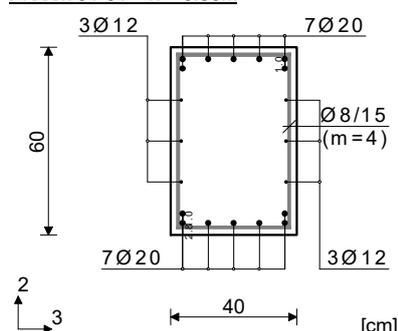
EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII-1.00xVIII  
 N1ed = 64.83 kN  
 M2ed = -1.05 kNm  
 M3ed = -459.25 kNm

**Procenat armiranja: 2.12%**

**Presek 31-31 x = 5.80m**



**Merodavna kombinacija za smicanje:**

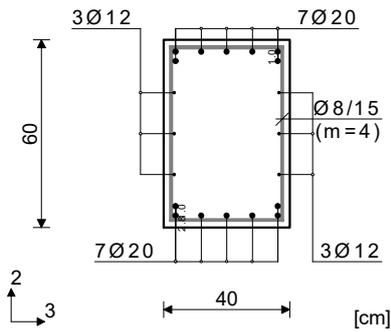
1.00xI+0.30xII+1.00xVIII  
 V2ed = 223.25 kN  
 V3ed = -0.07 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 εb/εa = -3.500/19.901 ‰  
 Aa1 = 19.91 cm<sup>2</sup>  
 Aa2 = 19.80 cm<sup>2</sup>  
 Aa3 = 2.25 cm<sup>2</sup>  
 Aa4 = 2.16 cm<sup>2</sup>  
 Aa,uz = 5.28 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 500.40 (38590-35324)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 32-32  $x = 5.80m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 49.26$  kN  
 $M2_{ed} = 0.22$  kNm  
 $M3_{ed} = -374.98$  kNm

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

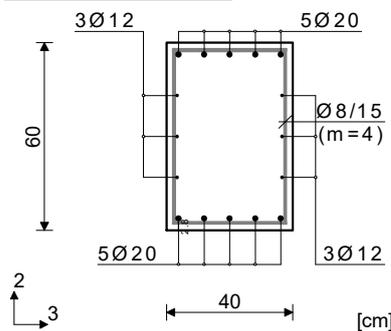
1.00xI+0.30xII+1.00xVIII  
 $V2_{ed} = 197.59$  kN  
 $V3_{ed} = 0.03$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1170.29$  kN  
 $Vrd,max,3 = 1170.29$  kN  
 $\epsilon_b/\epsilon_a = -3.500/21.564$  ‰  
 $Aa1 = 16.08$  cm<sup>2</sup>  
 $Aa2 = 15.99$  cm<sup>2</sup>  
 $Aa3 = 1.82$  cm<sup>2</sup>  
 $Aa4 = 1.74$  cm<sup>2</sup>  
 $Aa,uz = 4.68$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

**G 500.38 (34244-30425)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 33-33  $x = 5.23m$



Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 $V2_{ed} = 89.05$  kN  
 $V3_{ed} = -3.53$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1170.29$  kN  
 $Vrd,max,3 = 1170.29$  kN  
 $\epsilon_b/\epsilon_a = -1.920/25.000$  ‰  
 $Aa1 = 3.34 + 1.44'' = 4.79$  cm<sup>2</sup>  
 $Aa2 = 3.33 + 1.43'' = 4.76$  cm<sup>2</sup>  
 $Aa3 = 0.38 + 0.11'' = 0.49$  cm<sup>2</sup>  
 $Aa4 = 0.36 + 0.10'' = 0.47$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

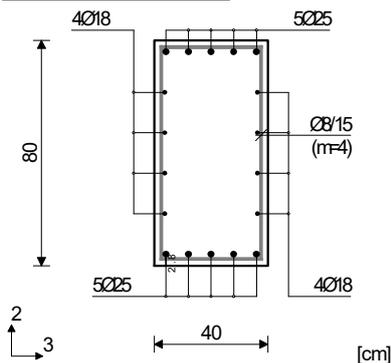
Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 $N1_{ed} = 29.74$  kN  
 $M2_{ed} = 0.97$  kNm  
 $M3_{ed} = -80.20$  kNm

**G 500.39 (39295-42866)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 34-34  $x = 1.16m$



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 $N1_{ed} = 33.87$  kN  
 $M2_{ed} = 1.74$  kNm  
 $M3_{ed} = 330.57$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -210.40$  kN  
 $V3_{ed} = 1.20$  kN  
 $M1_{ed} = 0.00$  kNm

$Vrd,max,2 = 1589.44$  kN  
 $Vrd,max,3 = 1589.44$  kN  
 $\epsilon_b/\epsilon_a = -3.063/25.000$  ‰  
 $Aa1 = 9.27 + 3.06'' = 12.33$  cm<sup>2</sup>  
 $Aa2 = 9.22 + 3.04'' = 12.26$  cm<sup>2</sup>  
 $Aa3 = 2.05 + 0.34'' = 2.39$  cm<sup>2</sup>  
 $Aa4 = 2.00 + 0.33'' = 2.33$  cm<sup>2</sup>  
 $Aa,uz = 3.73$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

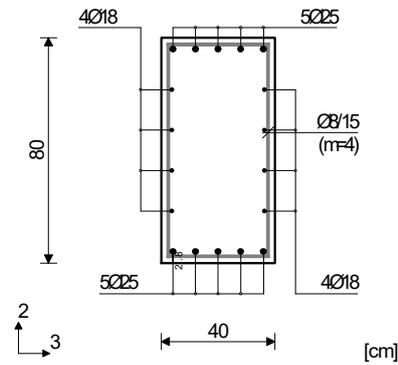
Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 500.42 (44722-57190)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 35-35 x = 0.75m**



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+1.00xVIII  
 N1ed = 126.23 kN  
 M2ed = 1.00 kNm  
 M3ed = -458.57 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = -351.44 kN  
 V3ed = -5.00 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1603.45 kN

Vrd,max,3 = 1603.45 kN

$\epsilon_b/\epsilon_a = -3.463/25.000 \text{ ‰}$

Aa1 = 13.95 + 7.30" = 21.25 cm<sup>2</sup>

Aa2 = 13.87 + 7.26" = 21.13 cm<sup>2</sup>

Aa3 = 3.09 + 0.99" = 4.08 cm<sup>2</sup>

Aa4 = 3.01 + 0.97" = 3.98 cm<sup>2</sup>

Aa,uz = 6.24 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

N1ed = 456.97 kN

M2ed = -1.56 kNm

M3ed = -607.29 kNm

Merodavna kombinacija za smicanje:

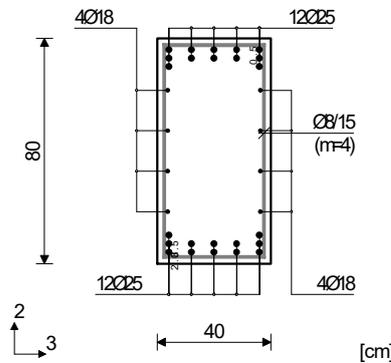
1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 250.90 kN

V3ed = 1.40 kN

M1ed = 0.00 kNm

**Presek 36-36 x = 18.83m**



Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/24.201 \text{ ‰}$

Aa1 = 21.48 + 6.86" = 28.34 cm<sup>2</sup>

Aa2 = 21.36 + 6.82" = 28.18 cm<sup>2</sup>

Aa3 = 4.75 + 1.01" = 5.76 cm<sup>2</sup>

Aa4 = 4.64 + 0.98" = 5.63 cm<sup>2</sup>

Aa,uz = 4.45 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.32%

**G 500.48 (57190-63770)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

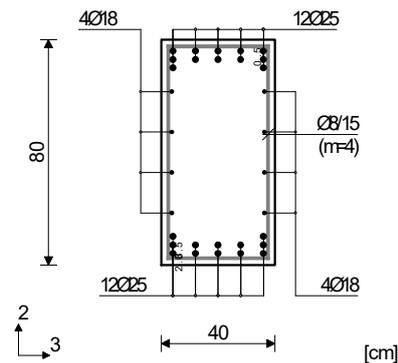
1.00xI+0.30xII+0.30xIII+1.00xVIII

N1ed = 513.41 kN

M2ed = 1.76 kNm

M3ed = 988.48 kNm

**Presek 37-37 x = 1.09m**



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 350.63 kN

V3ed = 4.25 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/18.755 \text{ ‰}$

Aa1 = 33.25 + 5.51" = 38.76 cm<sup>2</sup>

Aa2 = 33.05 + 5.48" = 38.53 cm<sup>2</sup>

Aa3 = 7.35 + 0.61" = 7.96 cm<sup>2</sup>

Aa4 = 7.18 + 0.60" = 7.78 cm<sup>2</sup>

Aa,uz = 6.22 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 500.9 (47787-56617)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

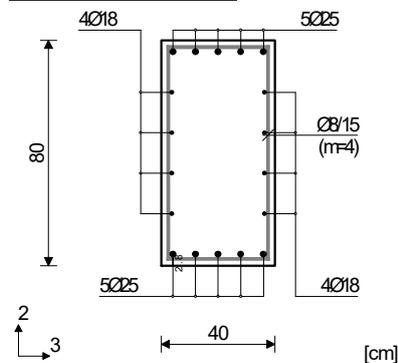
1.00xI+0.30xII+0.30xIII+1.00xVIII

N1ed = 1411.09 kN

M2ed = -2.23 kNm

M3ed = 72.01 kNm

**Presek 38-38 x = 1.46m**



Merodavna kombinacija za smicanje:

1.00xI+1.00xVIII

V2ed = -53.48 kN

V3ed = -5.41 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -1.067/25.000 \text{ ‰}$

Aa1 = 15.21 + 1.95" = 17.16 cm<sup>2</sup>

Aa2 = 15.13 + 1.94" = 17.06 cm<sup>2</sup>

Aa3 = 3.37 + 0.43" = 3.79 cm<sup>2</sup>

Aa4 = 3.29 + 0.42" = 3.70 cm<sup>2</sup>

Aa,uz = 0.95 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 500.10 (59223-63534)**

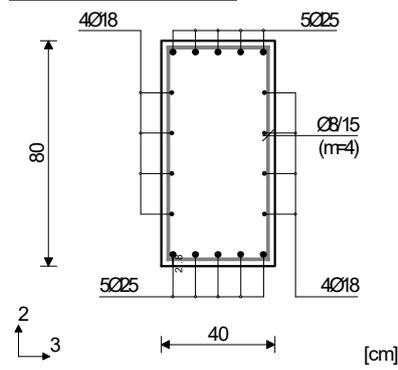
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 39-39 x = 0.63m**



**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 472.58 kN

M2ed = 0.43 kNm

M3ed = 459.84 kNm

**Merodavna kombinacija za smicanje:**

1.00xI-1.00xVIII

V2ed = -83.24 kN

V3ed = 7.39 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -3.157/25.000 ‰

Aa1 = 17.22 + 0.88'' = 18.09 cm<sup>2</sup>

Aa2 = 17.11 + 0.87'' = 17.99 cm<sup>2</sup>

Aa3 = 3.81 + 0.10'' = 3.91 cm<sup>2</sup>

Aa4 = 3.72 + 0.09'' = 3.82 cm<sup>2</sup>

Aa,uz = 1.48 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**Procenat armiranja: 2.17%**

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

**G 500.44 (63534-69459)**

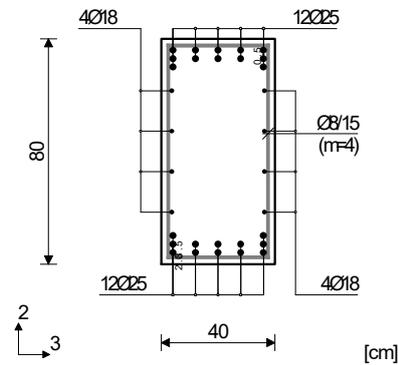
EC 2 (EN 1992-1-1:2004)

C35/45 (γC = 1.50, γS = 1.15) [SP]

S500H

Kompletna šema opterećenja

**Presek 40-40 x = 1.40m**



Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -3.500/21.871 ‰

Aa1 = 31.57 + 10.01'' = 41.58 cm<sup>2</sup>

Aa2 = 31.40 + 9.95'' = 41.35 cm<sup>2</sup>

Aa3 = 5.20 + 1.65'' = 6.84 cm<sup>2</sup>

Aa4 = 5.04 + 1.60'' = 6.64 cm<sup>2</sup>

Aa,uz = 6.07 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**Procenat armiranja: 4.32%**

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 423.16 kN

M2ed = 0.68 kNm

M3ed = -653.94 kNm

**Merodavna kombinacija za smicanje:**

1.35xI+1.50xII+1.05xIII

V2ed = 469.32 kN

V3ed = 0.51 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -3.500/23.716 ‰

Aa1 = 23.65 + 7.05'' = 30.71 cm<sup>2</sup>

Aa2 = 23.52 + 7.02'' = 30.53 cm<sup>2</sup>

Aa3 = 3.89 + 0.58'' = 4.47 cm<sup>2</sup>

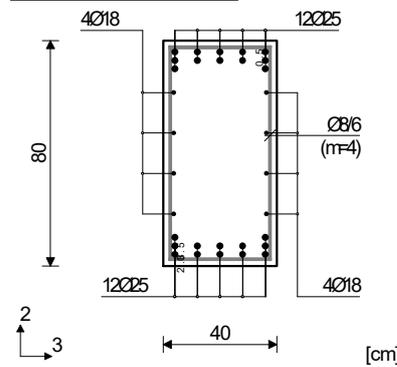
Aa4 = 3.78 + 0.56'' = 4.34 cm<sup>2</sup>

Aa,uz = 8.33 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/6(m=4) = 16.76 cm<sup>2</sup>/m]

**Procenat armiranja: 4.32%**

**Presek 41-41 x = 7.02m**



**Merodavna kombinacija za savijanje:**

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 595.30 kN

M2ed = -1.06 kNm

M3ed = -853.52 kNm

**Merodavna kombinacija za smicanje:**

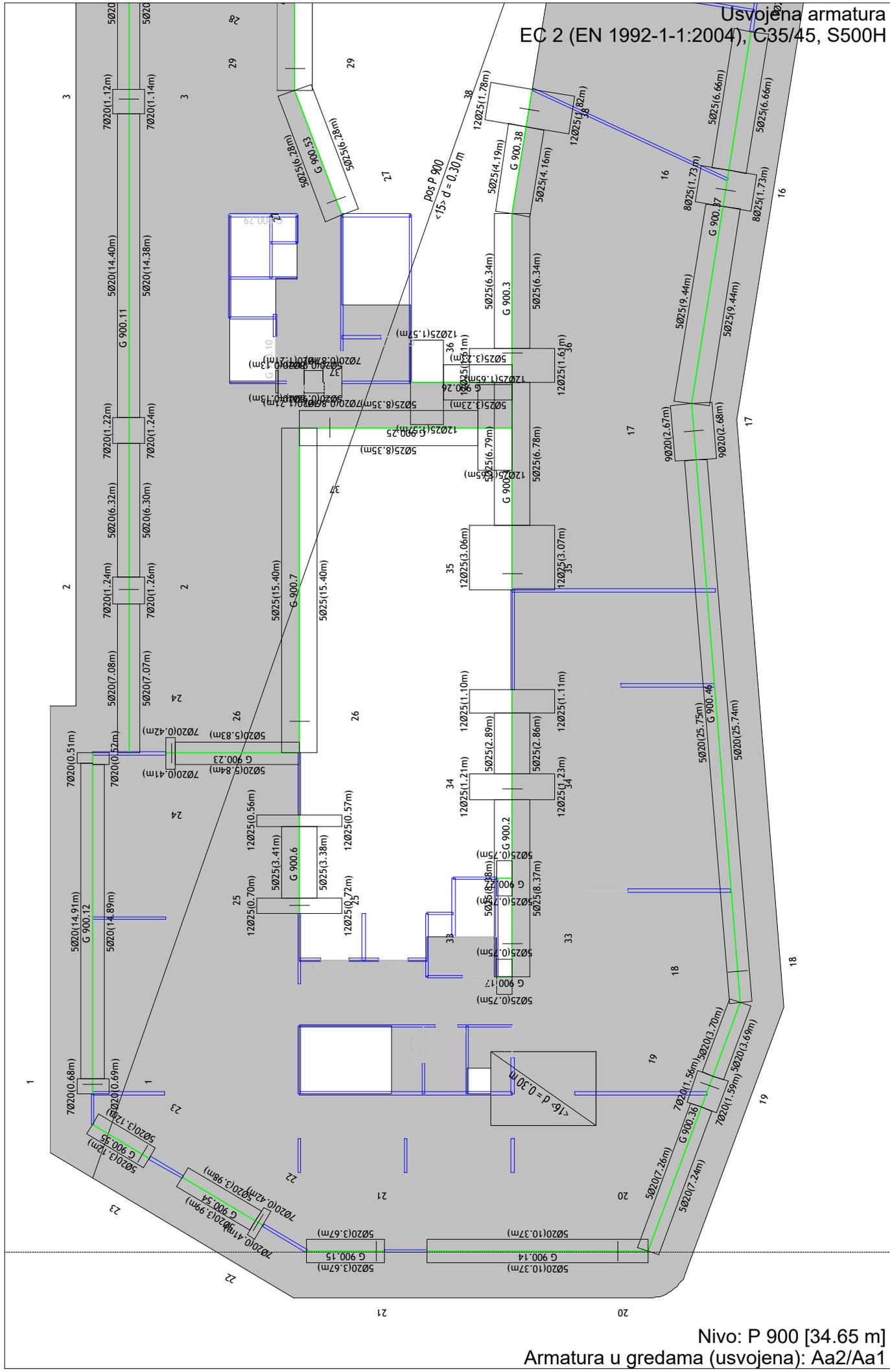
1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 341.97 kN

V3ed = 1.62 kN

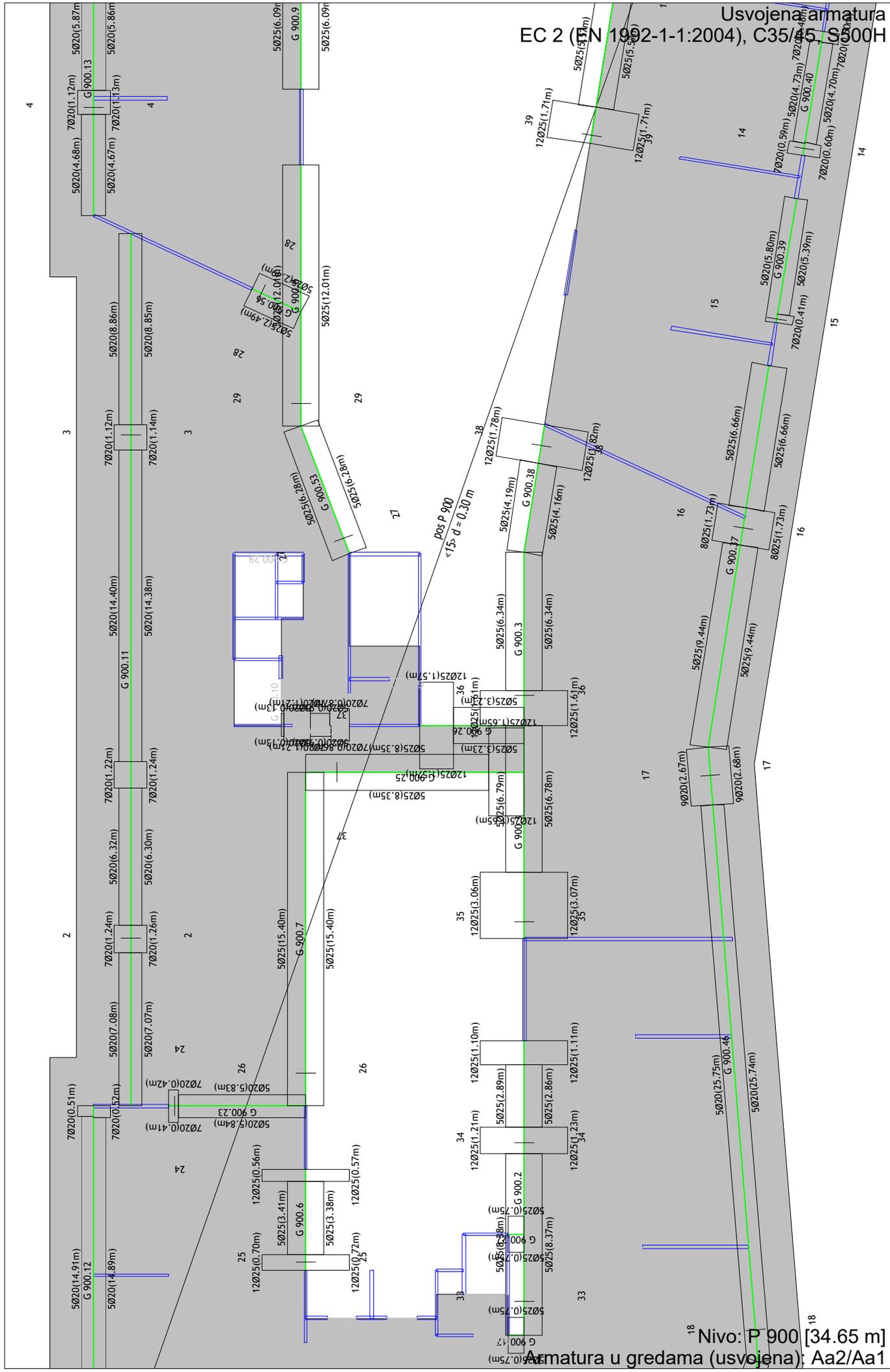
M1ed = 0.00 kNm

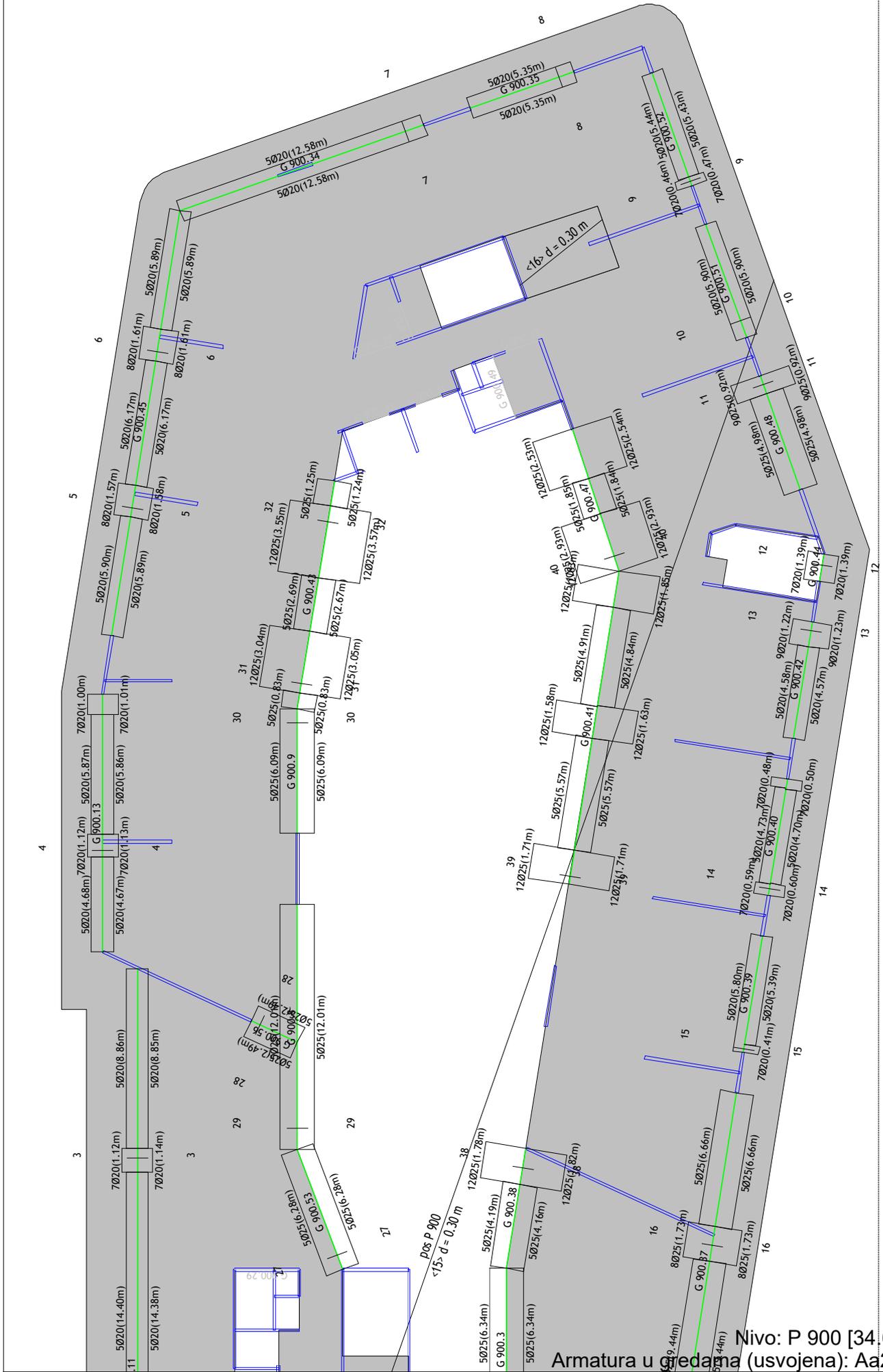
Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Nivo: P 900 [34.65 m]  
Armatura u gredama (usvojena): Aa2/Aa1

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/A5, S500H



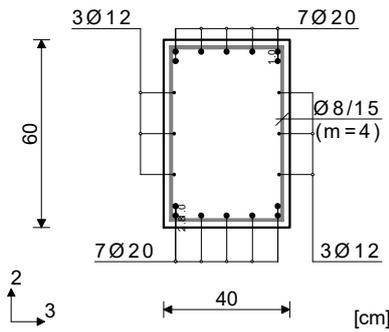


**G 900.12 (41566-30761)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 137.51 kN  
 M2ed = 1.70 kNm  
 M3ed = -388.42 kNm

Procenat armiranja: 2.12%

**Presek 1-1 x = 16.10m**

Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII  
 V2ed = 186.44 kN  
 V3ed = 2.78 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.83 kN  
 Vrd,max,3 = 1170.83 kN  
 $\epsilon_b/\epsilon_a = -3.500/21.804 \%$   
 Aa1 = 17.58 cm<sup>2</sup>  
 Aa2 = 17.48 cm<sup>2</sup>  
 Aa3 = 1.99 cm<sup>2</sup>  
 Aa4 = 1.90 cm<sup>2</sup>  
 Aa,uz = 4.41 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 900.11 (40358-69260)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Vrd,max,2 = 1206.89 kN  
 Vrd,max,3 = 1206.89 kN  
 $\epsilon_b/\epsilon_a = -3.500/23.276 \%$   
 Aa1 = 17.83 cm<sup>2</sup>  
 Aa2 = 17.73 cm<sup>2</sup>  
 Aa3 = 2.01 cm<sup>2</sup>  
 Aa4 = 1.93 cm<sup>2</sup>  
 Aa,uz = 5.10 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -195.18 kN  
 V3ed = -8.99 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1204.67 kN

Vrd,max,3 = 1204.67 kN

$\epsilon_b/\epsilon_a = -3.500/23.918 \%$

Aa1 = 17.23 cm<sup>2</sup>

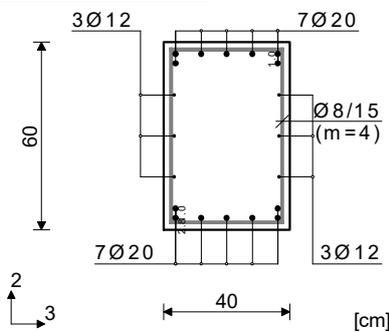
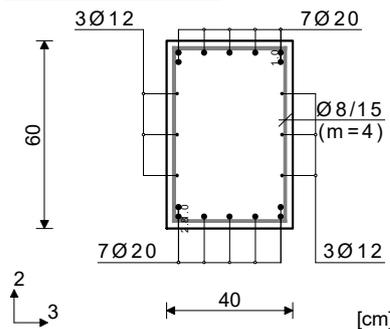
Aa2 = 17.14 cm<sup>2</sup>

Aa3 = 1.95 cm<sup>2</sup>

Aa4 = 1.87 cm<sup>2</sup>

Aa,uz = 4.62 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]  
 Procenat armiranja: 2.12%

**Presek 2-2 x = 7.70m****Presek 3-3 x = 30.80m**

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 238.44 kN  
 M2ed = 1.39 kNm  
 M3ed = -370.05 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -215.68 kN  
 V3ed = -1.70 kN  
 M1ed = 0.00 kNm

Merodavna kombinacija za savijanje:

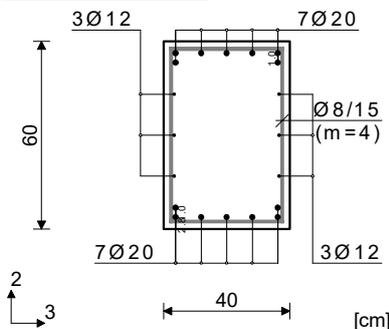
1.00xI+0.30xII-1.00xVIII  
 N1ed = 231.97 kN  
 M2ed = -0.28 kNm  
 M3ed = -357.83 kNm

**G 900.13 (70721-76928)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 196.26 kN  
 M2ed = -0.89 kNm  
 M3ed = -395.32 kNm

Procenat armiranja: 2.12%

**Presek 4-4 x = 5.42m**

Merodavna kombinacija za smicanje:

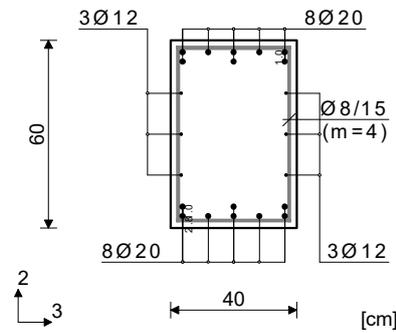
1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 186.29 kN  
 V3ed = -1.58 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 $\epsilon_b/\epsilon_a = -3.500/22.537 \%$   
 Aa1 = 18.48 cm<sup>2</sup>  
 Aa2 = 18.38 cm<sup>2</sup>  
 Aa3 = 2.09 cm<sup>2</sup>  
 Aa4 = 2.00 cm<sup>2</sup>  
 Aa,uz = 4.41 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

**G 900.45 (77792-80802)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 5-5 x = 6.25m**



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 135.96 \text{ kN}$   
 $M2ed = -0.12 \text{ kNm}$   
 $M3ed = -335.76 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2ed = 203.50 \text{ kN}$   
 $V3ed = 3.34 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

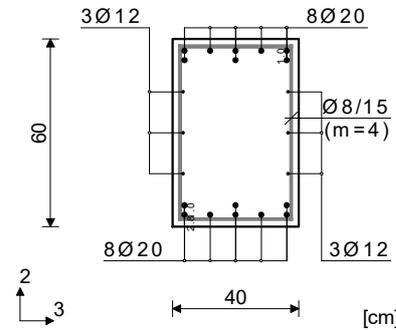
$Vrd,max,2 = 1178.87 \text{ kN}$   
 $Vrd,max,3 = 1178.87 \text{ kN}$   
 $eb/ea = -3.500/23.681 \text{ ‰}$   
 $Aa1 = 15.27 + 3.53'' = 18.80 \text{ cm}^2$   
 $Aa2 = 15.19 + 3.51'' = 18.70 \text{ cm}^2$   
 $Aa3 = 1.73 + 0.27'' = 1.99 \text{ cm}^2$   
 $Aa4 = 1.65 + 0.25'' = 1.91 \text{ cm}^2$   
 $Aa,uz = 4.82 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.38%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 163.32 \text{ kN}$   
 $M2ed = -4.35 \text{ kNm}$   
 $M3ed = -360.39 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2ed = 205.37 \text{ kN}$   
 $V3ed = 16.92 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

**Presek 6-6 x = 14.05m**



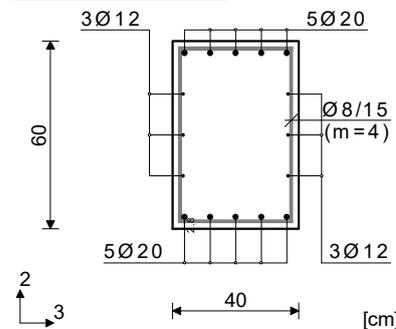
$Vrd,max,2 = 1188.96 \text{ kN}$   
 $Vrd,max,3 = 1188.96 \text{ kN}$   
 $eb/ea = -3.500/22.273 \text{ ‰}$   
 $Aa1 = 16.62 + 3.22'' = 19.84 \text{ cm}^2$   
 $Aa2 = 16.54 + 3.20'' = 19.73 \text{ cm}^2$   
 $Aa3 = 1.88 + 0.24'' = 2.12 \text{ cm}^2$   
 $Aa4 = 1.80 + 0.23'' = 2.03 \text{ cm}^2$   
 $Aa,uz = 4.86 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.38%

**G 900.34 (80802-80124)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 7-7 x = 11.95m**



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 109.62 \text{ kN}$   
 $V3ed = 2.35 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $eb/ea = -2.623/25.000 \text{ ‰}$   
 $Aa1 = 6.23 + 4.79'' = 11.02 \text{ cm}^2$   
 $Aa2 = 6.19 + 4.76'' = 10.96 \text{ cm}^2$   
 $Aa3 = 0.70 + 0.48'' = 1.18 \text{ cm}^2$   
 $Aa4 = 0.67 + 0.46'' = 1.13 \text{ cm}^2$   
 $Aa,uz = 2.59 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

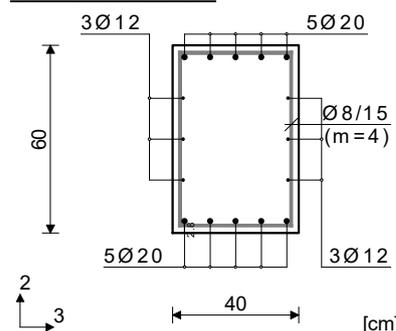
Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 43.83 \text{ kN}$   
 $M2ed = 0.95 \text{ kNm}$   
 $M3ed = -147.06 \text{ kNm}$

**G 900.35 (79898-79269)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 8-8 x = 4.57m**



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 136.62 \text{ kN}$   
 $V3ed = 2.77 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

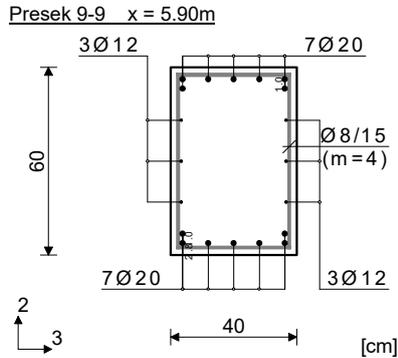
$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $eb/ea = -2.969/25.000 \text{ ‰}$   
 $Aa1 = 8.88 + 2.41'' = 11.30 \text{ cm}^2$   
 $Aa2 = 8.84 + 2.40'' = 11.24 \text{ cm}^2$   
 $Aa3 = 1.00 + 0.18'' = 1.19 \text{ cm}^2$   
 $Aa4 = 0.96 + 0.17'' = 1.14 \text{ cm}^2$   
 $Aa,uz = 3.23 \text{ cm}^2/m \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 89.61 \text{ kN}$   
 $M2ed = -1.22 \text{ kNm}$   
 $M3ed = -198.52 \text{ kNm}$

**G 900.52 (78218-75348)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 62.86\text{ kN}$   
 $M2ed = 1.61\text{ kNm}$   
 $M3ed = -373.42\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.35xI+1.50xII$   
 $V2ed = 178.52\text{ kN}$   
 $V3ed = 2.08\text{ kN}$   
 $M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1176.07\text{ kN}$

$Vrd,max,3 = 1176.07\text{ kN}$

$eb/\epsilon_a = -3.500/21.501\text{ ‰}$

$Aa1 = 16.15\text{ cm}^2$

$Aa2 = 16.06\text{ cm}^2$

$Aa3 = 1.82\text{ cm}^2$

$Aa4 = 1.75\text{ cm}^2$

$Aa,uz = 4.22\text{ cm}^2/\text{m}$  (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

**G 900.51 (74153-70023)**

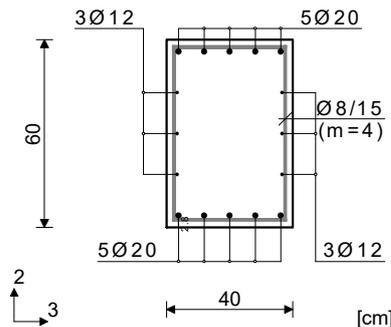
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 10-10  $x = 4.95\text{m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 132.59\text{ kN}$

$M2ed = 1.33\text{ kNm}$

$M3ed = 134.31\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$

$V2ed = 137.71\text{ kN}$

$V3ed = 0.99\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1170.29\text{ kN}$

$Vrd,max,3 = 1170.29\text{ kN}$

$eb/\epsilon_a = -2.419/25.000\text{ ‰}$

$Aa1 = 6.61 + 1.65'' = 8.26\text{ cm}^2$

$Aa2 = 6.57 + 1.64'' = 8.21\text{ cm}^2$

$Aa3 = 0.75 + 0.12'' = 0.87\text{ cm}^2$

$Aa4 = 0.72 + 0.12'' = 0.83\text{ cm}^2$

$Aa,uz = 3.26\text{ cm}^2/\text{m}$  (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.48 (68501-63726)**

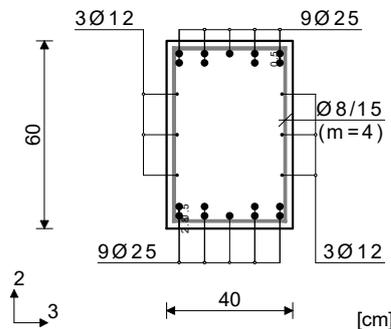
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 11-11  $x = 0.48\text{m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 215.17\text{ kN}$

$M2ed = -0.85\text{ kNm}$

$M3ed = -603.15\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$V2ed = -265.20\text{ kN}$

$V3ed = -4.69\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1201.47\text{ kN}$

$Vrd,max,3 = 1201.47\text{ kN}$

$eb/\epsilon_a = -3.500/19.354\text{ ‰}$

$Aa1 = 28.96 + 4.89'' = 33.85\text{ cm}^2$

$Aa2 = 28.81 + 4.87'' = 33.68\text{ cm}^2$

$Aa3 = 1.90 + 0.21'' = 2.12\text{ cm}^2$

$Aa4 = 1.78 + 0.20'' = 1.98\text{ cm}^2$

$Aa,uz = 6.28\text{ cm}^2/\text{m}$  (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 3.96%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.44 (60758-59920)**

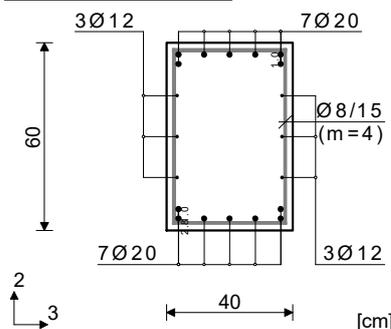
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 12-12  $x = 0.73\text{m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 856.50\text{ kN}$

$M2ed = 1.49\text{ kNm}$

$M3ed = -61.95\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$V2ed = -258.76\text{ kN}$

$V3ed = -6.71\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1359.70\text{ kN}$

$Vrd,max,3 = 1359.70\text{ kN}$

$eb/\epsilon_a = -1.338/25.000\text{ ‰}$

$Aa1 = 11.34 + 4.39'' = 15.73\text{ cm}^2$

$Aa2 = 11.27 + 4.37'' = 15.65\text{ cm}^2$

$Aa3 = 1.28 + 0.33'' = 1.61\text{ cm}^2$

$Aa4 = 1.23 + 0.32'' = 1.55\text{ cm}^2$

$Aa,uz = 6.12\text{ cm}^2/\text{m}$  (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

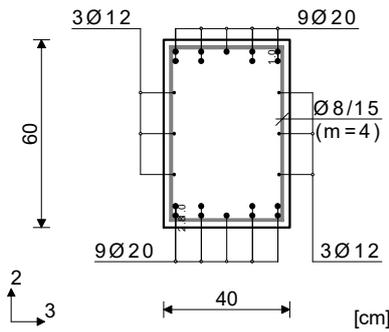
**G 900.42 (58709-55081)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 13-13  $x = 0.00\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 465.49 kN

M2ed = -1.72 kNm

M3ed = -429.27 kNm

Procenat armiranja: 2.64%

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = -205.98 kN

V3ed = -0.45 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1171.96 kN

Vrd,max,3 = 1171.96 kN

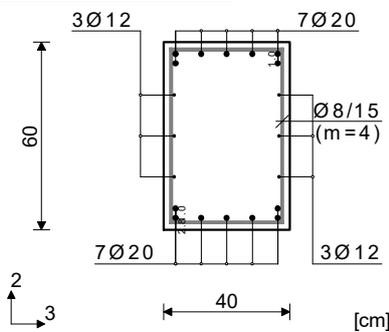
 $\epsilon_b/\epsilon_a = -3.500/23.750 \%$ Aa1 = 22.76 cm<sup>2</sup>Aa2 = 22.64 cm<sup>2</sup>Aa3 = 2.57 cm<sup>2</sup>Aa4 = 2.47 cm<sup>2</sup>Aa,uz = 4.87 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 900.40 (53796-50034)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 14-14  $x = 5.80\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 409.14 kN

M2ed = 1.30 kNm

M3ed = -310.99 kNm

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 165.59 kN

V3ed = 3.52 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

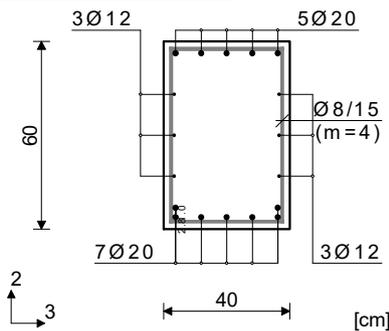
 $\epsilon_b/\epsilon_a = -3.277/25.000 \%$ Aa1 = 17.05 cm<sup>2</sup>Aa2 = 16.96 cm<sup>2</sup>Aa3 = 1.93 cm<sup>2</sup>Aa4 = 1.85 cm<sup>2</sup>Aa,uz = 3.92 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 900.39 (48758-45148)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 15-15  $x = 5.80\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 600.30 kN

M2ed = 2.26 kNm

M3ed = -233.07 kNm

Procenat armiranja: 1.85%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 123.95 kN

V3ed = 8.96 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

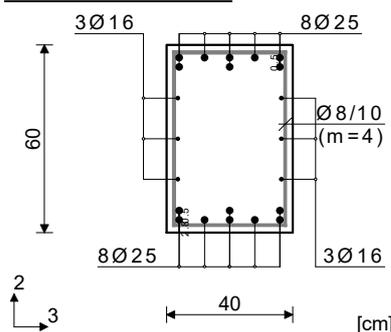
 $\epsilon_b/\epsilon_a = -2.740/25.000 \%$ Aa1 = 15.74 cm<sup>2</sup>Aa2 = 15.66 cm<sup>2</sup>Aa3 = 1.78 cm<sup>2</sup>Aa4 = 1.71 cm<sup>2</sup>Aa,uz = 2.93 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 900.37 (43932-33691)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 16-16  $x = 7.94\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 1093.97 kN

M2ed = 3.26 kNm

M3ed = -435.19 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = -283.68 kN

V3ed = 7.96 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $\epsilon_b/\epsilon_a = -3.323/25.000 \%$

$$\begin{aligned}
 Aa1 &= 28.25 + 3.51'' = 31.76 \text{ cm}^2 \\
 Aa2 &= 28.09 + 3.49'' = 31.58 \text{ cm}^2 \\
 Aa3 &= 4.65 + 0.39'' = 5.03 \text{ cm}^2 \\
 Aa4 &= 4.51 + 0.37'' = 4.89 \text{ cm}^2 \\
 Aa,uz &= 6.71 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/10(m=4) = 10.05 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 3.78%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 900.46 (33691-14671)

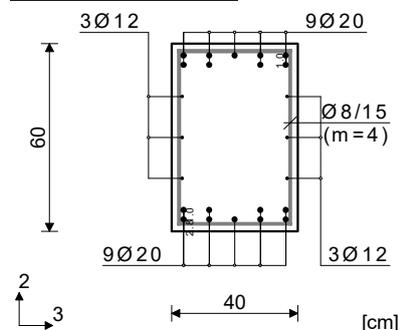
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 17-17  $x = 1.14\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

$$\begin{aligned}
 N1ed &= 707.00 \text{ kN} \\
 M2ed &= -1.89 \text{ kNm} \\
 M3ed &= -386.48 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

$$\begin{aligned}
 V2ed &= -204.11 \text{ kN} \\
 V3ed &= -1.79 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1181.47 kN

Vrd,max,3 = 1181.47 kN

$\epsilon_b/\epsilon_a = -3.296/25.000 \text{ ‰}$

$$Aa1 = 23.43 + 0.96'' = 24.39 \text{ cm}^2$$

$$Aa2 = 23.31 + 0.95'' = 24.26 \text{ cm}^2$$

$$Aa3 = 2.65 + 0.11'' = 2.76 \text{ cm}^2$$

$$Aa4 = 2.54 + 0.10'' = 2.64 \text{ cm}^2$$

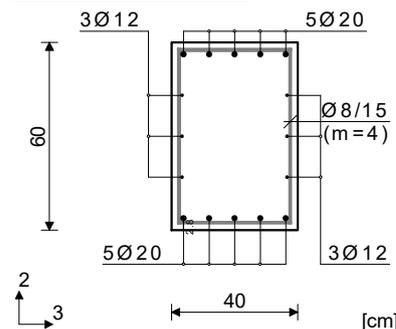
$$Aa,uz = 4.83 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.64%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 18-18  $x = 27.14\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

$$N1ed = 92.11 \text{ kN}$$

$$M2ed = 0.58 \text{ kNm}$$

$$M3ed = 116.22 \text{ kNm}$$

Merodavna kombinacija za smicanje:

1.00xI+1.00xVIII

$$V2ed = 27.37 \text{ kN}$$

$$V3ed = 1.26 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

$\epsilon_b/\epsilon_a = -2.245/25.000 \text{ ‰}$

$$Aa1 = 5.44 + 0.17'' = 5.61 \text{ cm}^2$$

$$Aa2 = 5.41 + 0.17'' = 5.58 \text{ cm}^2$$

$$Aa3 = 0.61 + 0.00'' = 0.61 \text{ cm}^2$$

$$Aa4 = 0.59 + 0.00'' = 0.59 \text{ cm}^2$$

$$Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

### G 900.36 (10950-14671)

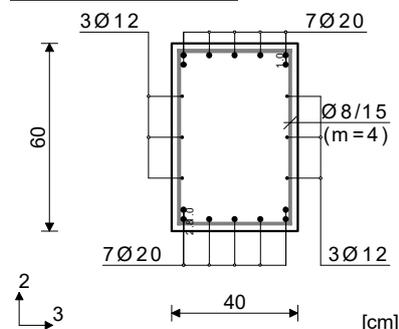
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 19-19  $x = 7.94\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

$$N1ed = 71.66 \text{ kN}$$

$$M2ed = 1.82 \text{ kNm}$$

$$M3ed = -445.67 \text{ kNm}$$

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

$$V2ed = -182.09 \text{ kN}$$

$$V3ed = -2.72 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

Vrd,max,2 = 1172.46 kN

Vrd,max,3 = 1172.46 kN

$\epsilon_b/\epsilon_a = -3.500/19.705 \text{ ‰}$

$$Aa1 = 19.40 \text{ cm}^2$$

$$Aa2 = 19.30 \text{ cm}^2$$

$$Aa3 = 2.19 \text{ cm}^2$$

$$Aa4 = 2.10 \text{ cm}^2$$

$$Aa,uz = 4.31 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

### G 900.14 (10950-16276)

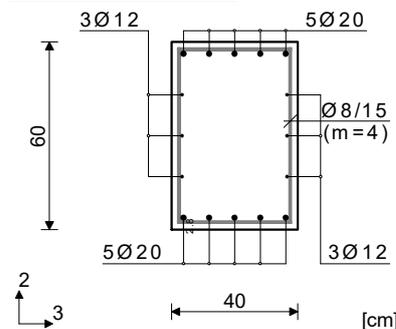
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 20-20  $x = 0.97\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

$$V2ed = -125.79 \text{ kN}$$

$$V3ed = -1.11 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

Vrd,max,2 = 1174.32 kN

Vrd,max,3 = 1174.32 kN

$\epsilon_b/\epsilon_a = -3.094/25.000 \text{ ‰}$

$$Aa1 = 8.56 + 5.26'' = 13.82 \text{ cm}^2$$

$$Aa2 = 8.52 + 5.23'' = 13.75 \text{ cm}^2$$

$$Aa3 = 0.97 + 0.59'' = 1.56 \text{ cm}^2$$

$$Aa4 = 0.93 + 0.57'' = 1.50 \text{ cm}^2$$

$$Aa,uz = 2.98 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

$$N1ed = 22.02 \text{ kN}$$

$$M2ed = -0.55 \text{ kNm}$$

$$M3ed = -207.61 \text{ kNm}$$

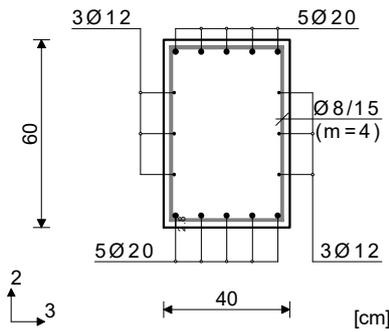
**G 900.15 (17426-19616)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 21-21  $x = 0.00m$ 

Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII

N1ed = 60.94 kN

M2ed = -0.15 kNm

M3ed = 260.48 kNm

Procenat armiranja: 1.59%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -147.78 kN

V3ed = -0.49 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1185.22 kN

Vrd,max,3 = 1185.22 kN

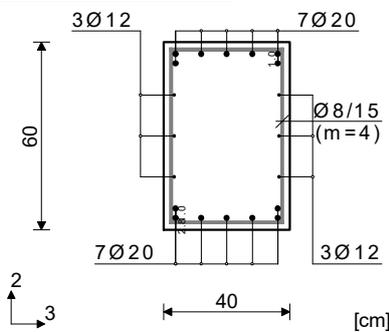
 $\epsilon_b/\epsilon_a = -3.367/25.000 \%$ Aa1 = 11.18 cm<sup>2</sup>Aa2 = 11.12 cm<sup>2</sup>Aa3 = 1.26 cm<sup>2</sup>Aa4 = 1.21 cm<sup>2</sup>Aa,uz = 3.50 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 900.54 (21640-25478)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 22-22  $x = 0.00m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 90.01 kN

M2ed = 0.43 kNm

M3ed = -361.19 kNm

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -210.50 kN

V3ed = -1.03 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1188.55 kN

Vrd,max,3 = 1188.55 kN

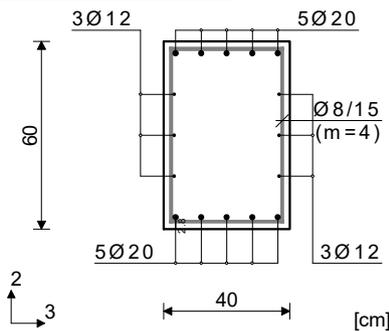
 $\epsilon_b/\epsilon_a = -3.500/22.312 \%$ Aa1 = 15.91 cm<sup>2</sup>Aa2 = 15.82 cm<sup>2</sup>Aa3 = 1.80 cm<sup>2</sup>Aa4 = 1.72 cm<sup>2</sup>Aa,uz = 4.98 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 900.55 (27116-29863)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 23-23  $x = 0.00m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 74.86 kN

M2ed = -0.68 kNm

M3ed = -244.71 kNm

Procenat armiranja: 1.59%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -175.52 kN

V3ed = -0.86 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1187.11 kN

Vrd,max,3 = 1187.11 kN

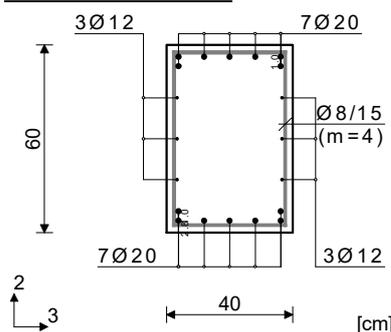
 $\epsilon_b/\epsilon_a = -3.271/25.000 \%$ Aa1 = 10.69 cm<sup>2</sup>Aa2 = 10.64 cm<sup>2</sup>Aa3 = 1.21 cm<sup>2</sup>Aa4 = 1.16 cm<sup>2</sup>Aa,uz = 4.15 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 900.23 (39144-34930)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 24-24  $x = 0.00m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 90.82 kN

M2ed = -0.57 kNm

M3ed = -358.52 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -190.67 kN

V3ed = -0.89 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1192.34 kN

Vrd,max,3 = 1192.34 kN

 $\epsilon_b/\epsilon_a = -3.500/22.635 \%$

Aa1 = 15.80 cm<sup>2</sup>  
 Aa2 = 15.72 cm<sup>2</sup>  
 Aa3 = 1.79 cm<sup>2</sup>  
 Aa4 = 1.71 cm<sup>2</sup>  
 Aa,uz = 4.51 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

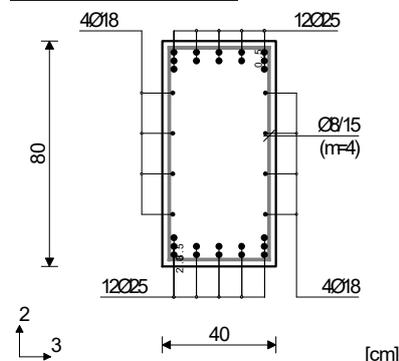
Procent armiranja: 2.12%

**G 900.6 (30025-33004)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 219.73 kN  
 M2ed = -1.46 kNm  
 M3ed = -845.04 kNm

Presek 25-25 x = 0.00m



Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII-1.00xVIII  
 V2ed = -339.56 kN  
 V3ed = -1.66 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1615.80 kN  
 Vrd,max,3 = 1615.80 kN  
 $\epsilon_b/\epsilon_a = -3.500/19.109 \%$   
 Aa1 = 26.33 cm<sup>2</sup>  
 Aa2 = 26.17 cm<sup>2</sup>  
 Aa3 = 5.82 cm<sup>2</sup>  
 Aa4 = 5.69 cm<sup>2</sup>  
 Aa,uz = 6.03 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

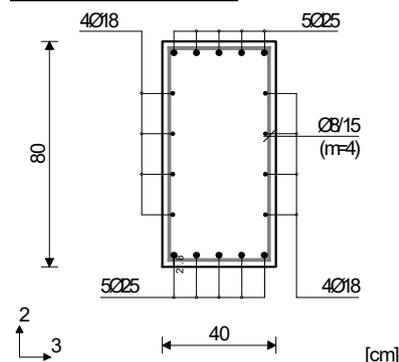
Procent armiranja: 4.32%

**G 900.7 (34930-45777)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 164.57 kN  
 M2ed = -1.81 kNm  
 M3ed = -251.93 kNm

Presek 26-26 x = 1.50m



Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII-1.00xVIII  
 V2ed = -167.80 kN  
 V3ed = -2.44 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1598.26 kN  
 Vrd,max,3 = 1598.26 kN  
 $\epsilon_b/\epsilon_a = -2.540/25.000 \%$   
 Aa1 = 8.31 + 3.56" = 11.88 cm<sup>2</sup>  
 Aa2 = 8.27 + 3.54" = 11.81 cm<sup>2</sup>  
 Aa3 = 1.84 + 0.46" = 2.30 cm<sup>2</sup>  
 Aa4 = 1.80 + 0.45" = 2.25 cm<sup>2</sup>  
 Aa,uz = 2.98 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procent armiranja: 2.17%

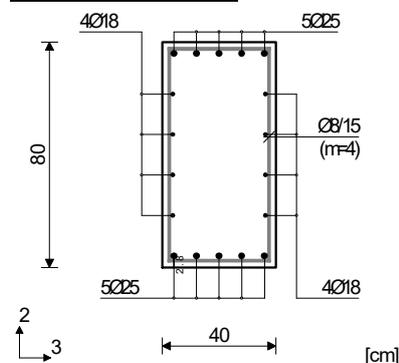
) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.53 (51858-58132)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 206.29 kN  
 M2ed = -1.74 kNm  
 M3ed = -456.03 kNm

Presek 27-27 x = 0.90m



Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII-1.00xVIII  
 V2ed = -197.16 kN  
 V3ed = -8.30 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1593.28 kN  
 Vrd,max,3 = 1593.28 kN  
 $\epsilon_b/\epsilon_a = -3.392/25.000 \%$   
 Aa1 = 14.64 + 3.21" = 17.85 cm<sup>2</sup>  
 Aa2 = 14.55 + 3.19" = 17.75 cm<sup>2</sup>  
 Aa3 = 3.24 + 0.36" = 3.59 cm<sup>2</sup>  
 Aa4 = 3.16 + 0.35" = 3.51 cm<sup>2</sup>  
 Aa,uz = 3.50 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

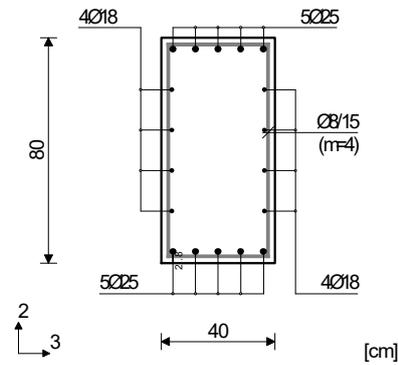
Procent armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.56 (61903-64182)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 28-28**  $x = 1.66\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 78.85 kN  
M2ed = -2.52 kNm  
M3ed = -411.96 kNm

Aa1 = 12.12 + 3.55 = 15.67 cm<sup>2</sup>

Aa2 = 12.05 + 3.53 = 15.58 cm<sup>2</sup>

Aa3 = 2.68 + 0.39 = 3.07 cm<sup>2</sup>

Aa4 = 2.62 + 0.38 = 3.00 cm<sup>2</sup>

Aa,uz = 3.87 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 218.02 kN  
V3ed = 5.46 kN  
M1ed = 0.00 kNm

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -3.367/25.000 ‰

**G 900.8 (58132-66395)**

EC 2 (EN 1992-1-1:2004)

C35/45 (γC = 1.50, γS = 1.15) [SP]

S500H

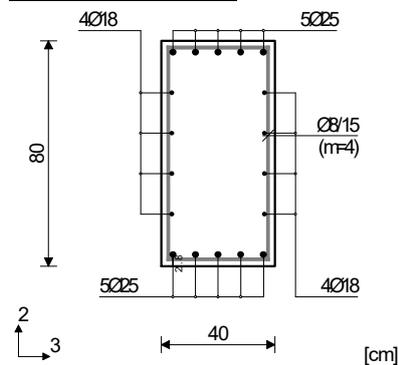
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 530.91 kN  
M2ed = 2.04 kNm  
M3ed = 244.37 kNm

**Presek 29-29**  $x = 0.98\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -135.66 kN  
V3ed = -4.99 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -2.278/25.000 ‰

Aa1 = 11.58 + 1.50 = 13.08 cm<sup>2</sup>

Aa2 = 11.51 + 1.49 = 13.00 cm<sup>2</sup>

Aa3 = 2.56 + 0.23 = 2.79 cm<sup>2</sup>

Aa4 = 2.50 + 0.23 = 2.73 cm<sup>2</sup>

Aa,uz = 2.41 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.9 (68557-72094)**

EC 2 (EN 1992-1-1:2004)

C35/45 (γC = 1.50, γS = 1.15) [SP]

S500H

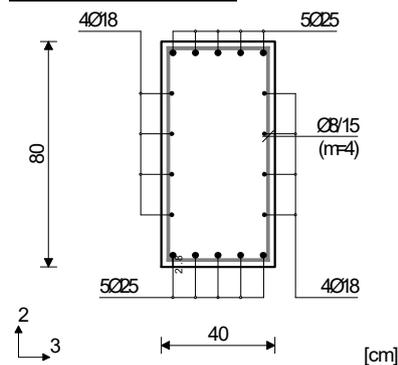
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 420.12 kN  
M2ed = 0.42 kNm  
M3ed = -179.81 kNm

**Presek 30-30**  $x = 5.46\text{m}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 151.34 kN  
V3ed = 4.06 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -1.940/25.000 ‰

Aa1 = 8.76 + 2.33 = 11.09 cm<sup>2</sup>

Aa2 = 8.70 + 2.32 = 11.02 cm<sup>2</sup>

Aa3 = 1.94 + 0.26 = 2.19 cm<sup>2</sup>

Aa4 = 1.89 + 0.25 = 2.14 cm<sup>2</sup>

Aa,uz = 2.69 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.43 (72094-76608)**

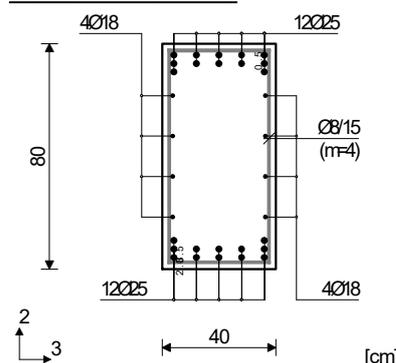
EC 2 (EN 1992-1-1:2004)

C35/45 (γC = 1.50, γS = 1.15) [SP]

S500H

Kompletna šema opterećenja

**Presek 31-31**  $x = 1.40\text{m}$



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 394.50 kN  
M2ed = -5.07 kNm  
M3ed = -690.04 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 278.79 kN  
V3ed = 3.25 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

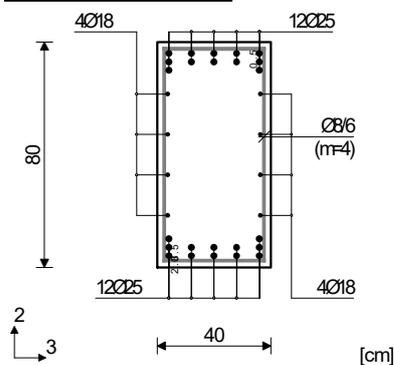
εb/εa = -3.500/22.327 ‰

$$\begin{aligned}
 Aa1 &= 24.49 + 18.43'' = 42.91 \text{ cm}^2 \\
 Aa2 &= 24.35 + 18.33'' = 42.68 \text{ cm}^2 \\
 Aa3 &= 4.03 + 3.03'' = 7.06 \text{ cm}^2 \\
 Aa4 &= 3.91 + 2.94'' = 6.85 \text{ cm}^2 \\
 Aa,uz &= 4.95 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Presek 32-32  $x = 9.91\text{m}$



Merodavna kombinacija za smicanje:

$$\begin{aligned}
 &1.35xI+1.50xII+1.05xIII \\
 V2ed &= 767.22 \text{ kN} \\
 V3ed &= 13.03 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1565.59 \text{ kN} \\
 Vrd,max,3 &= 1565.59 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -3.500/24.521 \text{ ‰} \\
 Aa1 &= 16.60 + 12.78'' = 29.38 \text{ cm}^2 \\
 Aa2 &= 16.50 + 12.71'' = 29.21 \text{ cm}^2 \\
 Aa3 &= 2.73 + 1.05'' = 3.78 \text{ cm}^2 \\
 Aa4 &= 2.65 + 1.02'' = 3.67 \text{ cm}^2 \\
 Aa,uz &= 13.62 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/6(m=4) = 16.76 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 4.32%

Merodavna kombinacija za savijanje:

$$\begin{aligned}
 &1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 208.54 \text{ kN} \\
 M2ed &= 4.26 \text{ kNm} \\
 M3ed &= 497.91 \text{ kNm}
 \end{aligned}$$

### G 900.2 (21655-30395)

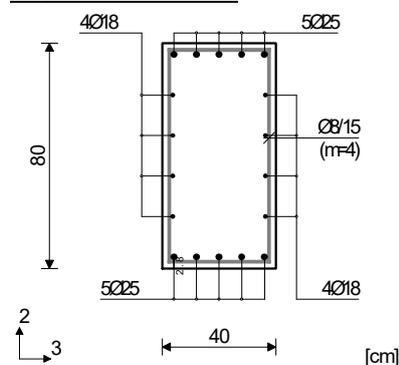
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 33-33  $x = 1.90\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 &1.00xI+0.30xIII-1.00xVIII \\
 N1ed &= 943.87 \text{ kN} \\
 M2ed &= -2.35 \text{ kNm} \\
 M3ed &= 31.82 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 &1.00xI+0.30xII+1.00xVIII \\
 V2ed &= 76.56 \text{ kN} \\
 V3ed &= 2.88 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$Vrd,max,2 = 1560.38 \text{ kN}$

$Vrd,max,3 = 1560.38 \text{ kN}$

$\epsilon_b/\epsilon_a = -0.868/25.000 \text{ ‰}$

$$Aa1 = 9.70 + 0.48'' = 10.19 \text{ cm}^2$$

$$Aa2 = 9.65 + 0.48'' = 10.13 \text{ cm}^2$$

$$Aa3 = 2.15 + 0.05'' = 2.20 \text{ cm}^2$$

$$Aa4 = 2.10 + 0.05'' = 2.15 \text{ cm}^2$$

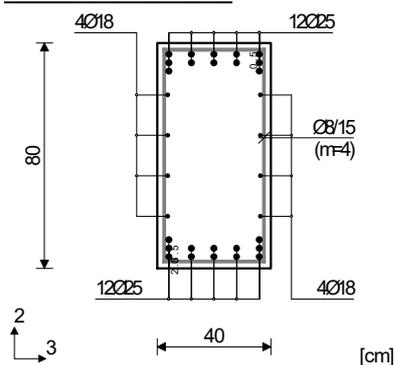
$$Aa,uz = 1.36 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.17%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Presek 34-34  $x = 8.88\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 &1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 256.88 \text{ kN} \\
 M2ed &= 2.42 \text{ kNm} \\
 M3ed &= 835.71 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 &1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 V2ed &= 314.75 \text{ kN} \\
 V3ed &= 4.08 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$Vrd,max,2 = 1560.38 \text{ kN}$

$Vrd,max,3 = 1560.38 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/18.956 \text{ ‰}$

$$Aa1 = 26.31 \text{ cm}^2$$

$$Aa2 = 26.15 \text{ cm}^2$$

$$Aa3 = 5.82 \text{ cm}^2$$

$$Aa4 = 5.68 \text{ cm}^2$$

$$Aa,uz = 5.59 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

### G 900.3 (40055-33427)

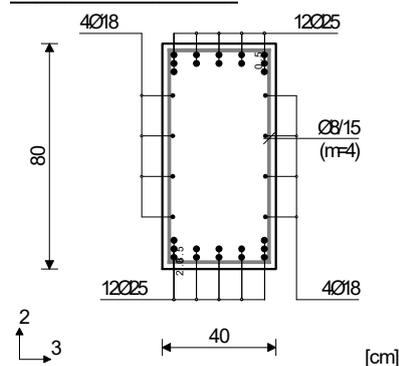
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 35-35  $x = 8.99\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 &1.00xI+0.30xII-1.00xVIII \\
 N1ed &= 2860.73 \text{ kN} \\
 M2ed &= 5.26 \text{ kNm} \\
 M3ed &= -489.06 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 &1.00xI+0.30xII+1.00xVIII \\
 V2ed &= 169.11 \text{ kN} \\
 V3ed &= 20.70 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$Vrd,max,2 = 1560.38 \text{ kN}$

$Vrd,max,3 = 1560.38 \text{ kN}$

$\epsilon_b/\epsilon_a = -2.285/25.000 \text{ ‰}$

$$Aa1 = 40.99 + 2.75'' = 43.73 \text{ cm}^2$$

$$Aa2 = 40.75 + 2.73'' = 43.48 \text{ cm}^2$$

$$Aa3 = 9.07 + 0.30'' = 9.37 \text{ cm}^2$$

$$Aa4 = 8.86 + 0.30'' = 9.15 \text{ cm}^2$$

$$Aa,uz = 3.00 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

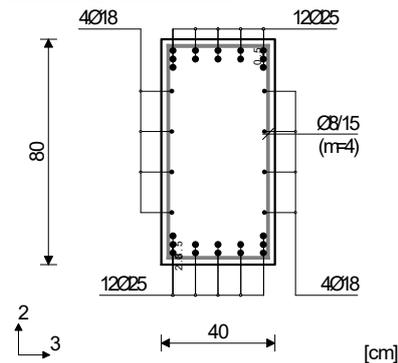
**G 900.3 (45828-40055)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 36-36  $x = 6.89m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 2046.41 kN

M2ed = 2.17 kNm

M3ed = 145.00 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -34.17 kN

V3ed = -5.14 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

 $\epsilon_b/\epsilon_a = -1.354/25.000 \%$ Aa1 = 23.26 + 7.77" = 31.03 cm<sup>2</sup>Aa2 = 23.12 + 7.73" = 30.85 cm<sup>2</sup>Aa3 = 5.15 + 1.69" = 6.83 cm<sup>2</sup>Aa4 = 5.03 + 1.65" = 6.68 cm<sup>2</sup>Aa,uz = 0.61 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.32%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

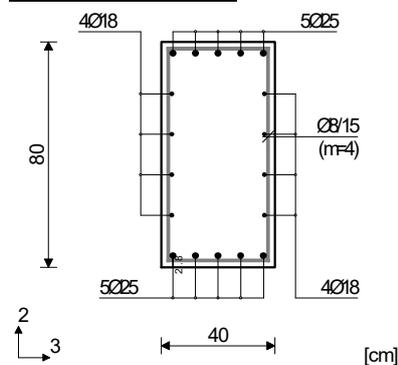
**G 900.25 (45777-38586)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 37-37  $x = 1.82m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 881.62 kN

M2ed = 2.88 kNm

M3ed = -82.03 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 50.30 kN

V3ed = 4.96 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

 $\epsilon_b/\epsilon_a = -1.290/25.000 \%$ Aa1 = 10.51 + 2.22" = 12.73 cm<sup>2</sup>Aa2 = 10.45 + 2.21" = 12.65 cm<sup>2</sup>Aa3 = 2.32 + 0.44" = 2.76 cm<sup>2</sup>Aa4 = 2.27 + 0.43" = 2.70 cm<sup>2</sup>Aa,uz = 0.89 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.17%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

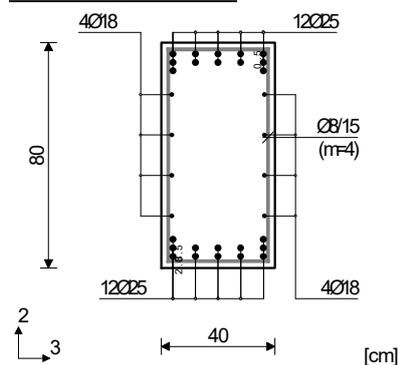
**G 900.38 (49558-45828)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 38-38  $x = 0.74m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 1548.51 kN

M2ed = -3.39 kNm

M3ed = -428.49 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -141.36 kN

V3ed = -9.15 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

 $\epsilon_b/\epsilon_a = -2.475/25.000 \%$ Aa1 = 26.68 + 3.65" = 30.33 cm<sup>2</sup>Aa2 = 26.53 + 3.62" = 30.15 cm<sup>2</sup>Aa3 = 5.90 + 0.61" = 6.51 cm<sup>2</sup>Aa4 = 5.77 + 0.59" = 6.36 cm<sup>2</sup>Aa,uz = 2.51 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.32%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 900.41 (57966-66844)**

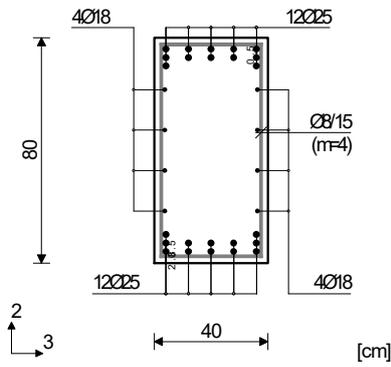
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 39-39 x = 0.00m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 1669.64 kN  
 M2ed = 14.45 kNm  
 M3ed = -535.22 kNm

Aa1 = 30.96 cm<sup>2</sup>  
 Aa2 = 30.78 cm<sup>2</sup>  
 Aa3 = 6.85 cm<sup>2</sup>  
 Aa4 = 6.69 cm<sup>2</sup>  
 Aa,uz = 2.78 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

(m=2)

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -156.64 kN  
 V3ed = -15.08 kN  
 M1ed = 0.00 kNm

Procenat armiranja: 4.32%

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 εb/εa = -2.989/25.000 ‰

**G 900.47 (66844-72322)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 1043.95 kN  
 M2ed = -3.68 kNm  
 M3ed = 978.83 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 350.49 kN  
 V3ed = 4.83 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN

εb/εa = -3.500/22.195 ‰

Aa1 = 39.75 + 5.75" = 45.50 cm<sup>2</sup>

Aa2 = 39.53 + 5.71" = 45.25 cm<sup>2</sup>

Aa3 = 6.54 + 0.47" = 7.02 cm<sup>2</sup>

Aa4 = 6.35 + 0.46" = 6.81 cm<sup>2</sup>

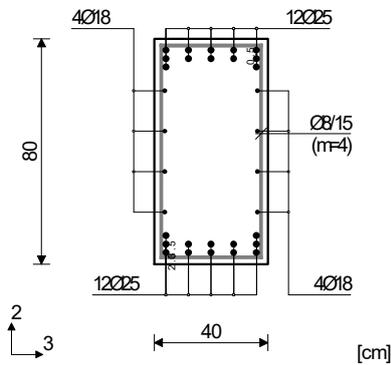
Aa,uz = 6.22 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

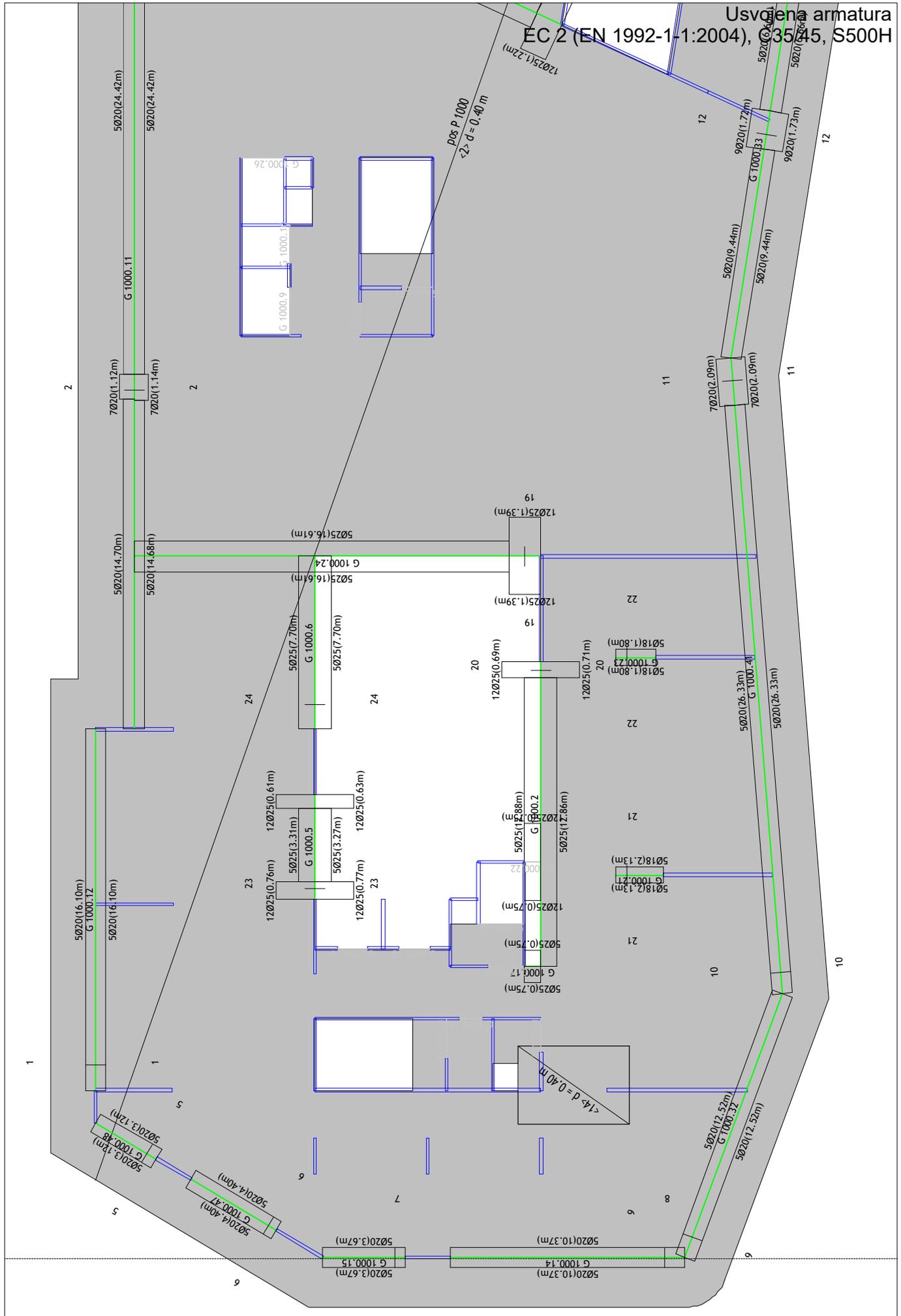
Procenat armiranja: 4.32%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 40-40 x = 1.09m



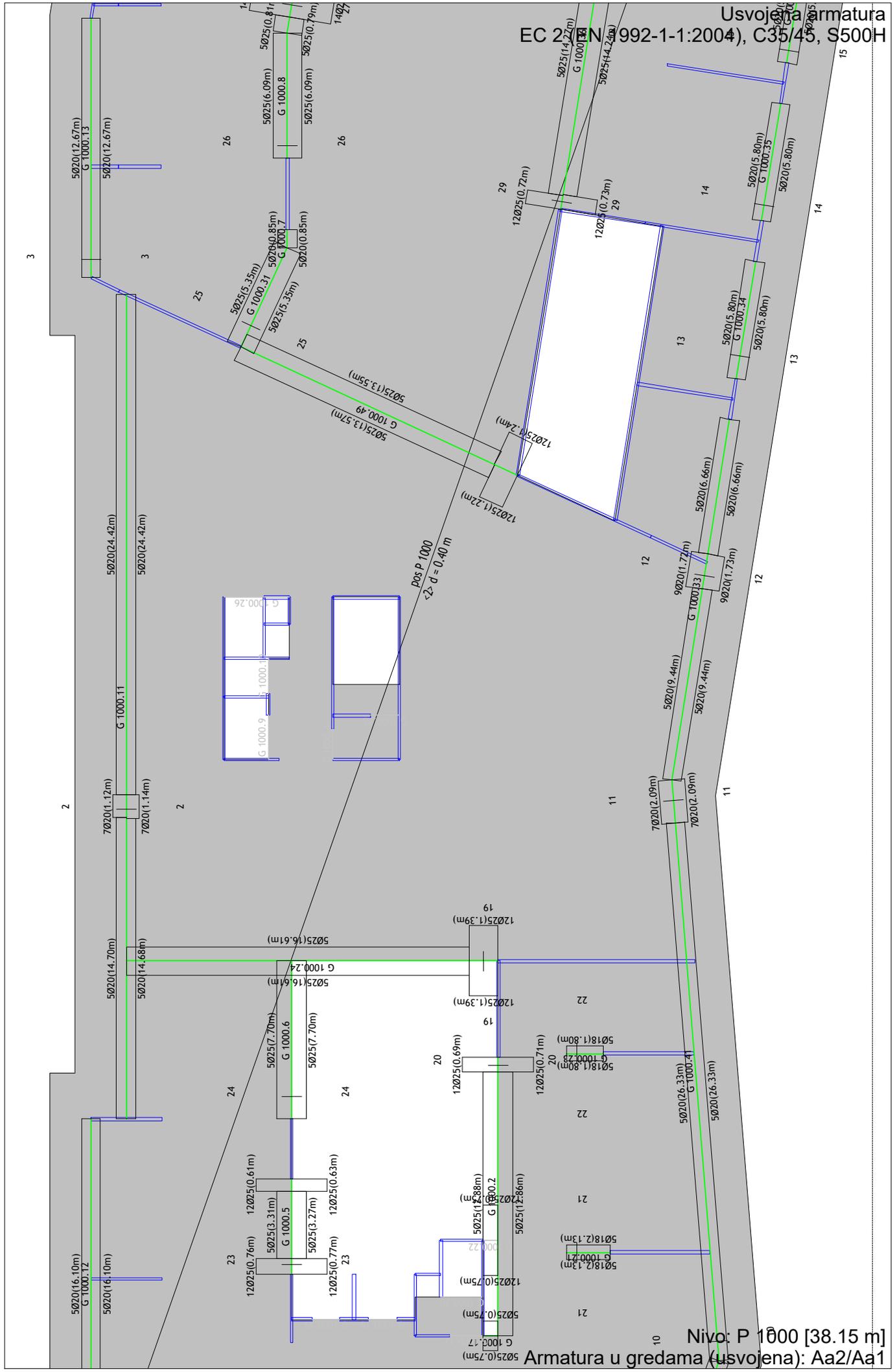
Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Nivo: P 1000 [38.15 m]

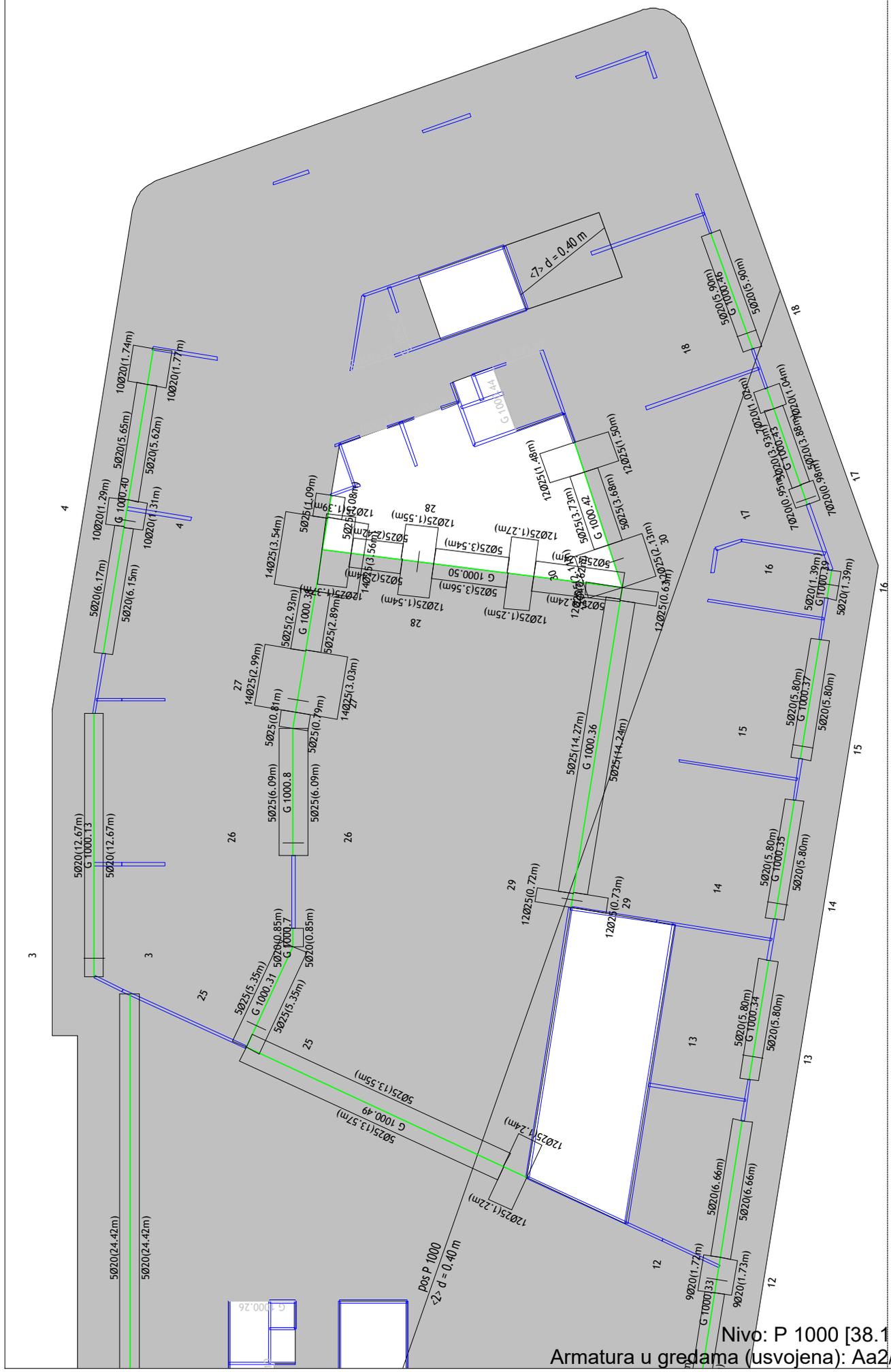
Armatura u gredama (usvojena): Aa2/Aa1

Usvojena armatura  
EC 2 (EN 992-1-1:2004), C35/45, S500H



Nivo: P 1000 [38.15 m]

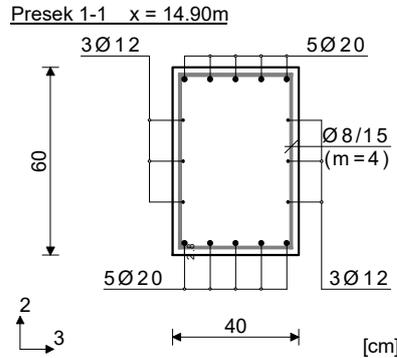
Armatura u gredama (usvojena): Aa2/Aa1



Nivo: P 1000 [38.15 m]  
Armatura u gredama (usvojena): Aa2/Aa1

**G 1000.12 (44144-33008)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1_{ed} = 80.77 \text{ kN}$   
 $M2_{ed} = -0.93 \text{ kNm}$   
 $M3_{ed} = -182.52 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$   
 $V2_{ed} = 101.49 \text{ kN}$   
 $V3_{ed} = 1.91 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

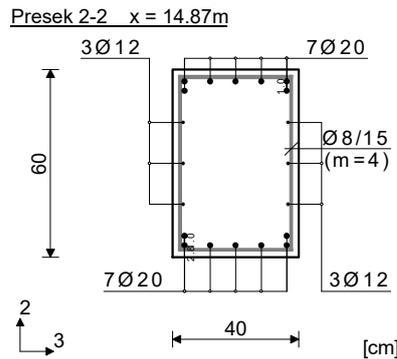
$Vrd_{,max,2} = 1170.29 \text{ kN}$   
 $Vrd_{,max,3} = 1170.29 \text{ kN}$   
 $eb/\epsilon_a = -2.845/25.000 \text{ ‰}$   
 $Aa1 = 8.11 + 1.83'' = 9.94 \text{ cm}^2$   
 $Aa2 = 8.07 + 1.82'' = 9.89 \text{ cm}^2$   
 $Aa3 = 0.92 + 0.14'' = 1.05 \text{ cm}^2$   
 $Aa4 = 0.88 + 0.13'' = 1.01 \text{ cm}^2$   
 $Aa_{,uz} = 2.40 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{,uz} = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G 1000.11 (42879-71323)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1_{ed} = 300.79 \text{ kN}$   
 $M2_{ed} = 0.57 \text{ kNm}$   
 $M3_{ed} = -283.62 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2_{ed} = 104.69 \text{ kN}$   
 $V3_{ed} = 2.35 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

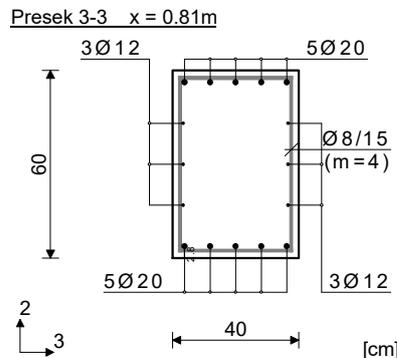
$Vrd_{,max,2} = 1170.29 \text{ kN}$   
 $Vrd_{,max,3} = 1170.29 \text{ kN}$   
 $eb/\epsilon_a = -3.240/25.000 \text{ ‰}$   
 $Aa1 = 14.75 + 1.84'' = 16.59 \text{ cm}^2$   
 $Aa2 = 14.68 + 1.83'' = 16.51 \text{ cm}^2$   
 $Aa3 = 1.67 + 0.14'' = 1.81 \text{ cm}^2$   
 $Aa4 = 1.60 + 0.13'' = 1.73 \text{ cm}^2$   
 $Aa_{,uz} = 2.48 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{,uz} = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G 1000.13 (72691-78143)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1_{ed} = 200.60 \text{ kN}$   
 $M2_{ed} = 0.14 \text{ kNm}$   
 $M3_{ed} = 105.58 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII-1.00xVIII$   
 $V2_{ed} = -48.80 \text{ kN}$   
 $V3_{ed} = -0.13 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

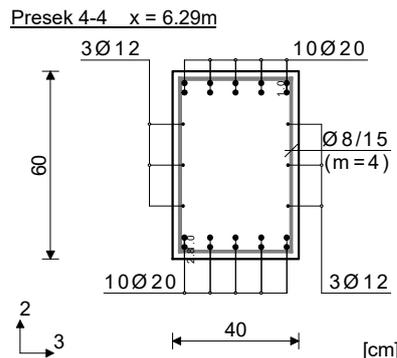
$Vrd_{,max,2} = 1201.06 \text{ kN}$   
 $Vrd_{,max,3} = 1201.06 \text{ kN}$   
 $eb/\epsilon_a = -2.014/25.000 \text{ ‰}$   
 $Aa1 = 6.15 + 2.44'' = 8.59 \text{ cm}^2$   
 $Aa2 = 6.12 + 2.43'' = 8.55 \text{ cm}^2$   
 $Aa3 = 0.69 + 0.22'' = 0.91 \text{ cm}^2$   
 $Aa4 = 0.67 + 0.21'' = 0.88 \text{ cm}^2$   
 $Aa_{,uz} = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa_{,uz} = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G 1000.40 (78850-80715)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1_{ed} = 411.32 \text{ kN}$   
 $M2_{ed} = 0.15 \text{ kNm}$   
 $M3_{ed} = -250.34 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2_{ed} = 105.23 \text{ kN}$   
 $V3_{ed} = 2.45 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd_{,max,2} = 1170.29 \text{ kN}$   
 $Vrd_{,max,3} = 1170.29 \text{ kN}$   
 $eb/\epsilon_a = -2.924/25.000 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 14.47 + 1.87'' = 16.34 \text{ cm}^2 \\
 Aa2 &= 14.39 + 1.86'' = 16.26 \text{ cm}^2 \\
 Aa3 &= 1.63 + 0.14'' = 1.78 \text{ cm}^2 \\
 Aa4 &= 1.57 + 0.14'' = 1.70 \text{ cm}^2 \\
 Aa,uz &= 2.49 \text{ cm}^2/\text{m} \quad (m=2)
 \end{aligned}$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.90%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

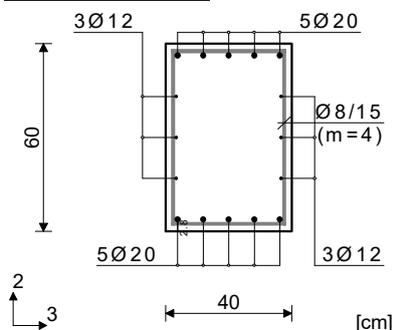
### G 1000.48 (29359-32073)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 45.99 \text{ kN}$   
 $M2ed = -0.51 \text{ kNm}$   
 $M3ed = -206.96 \text{ kNm}$

Procenat armiranja: 1.59%

#### Presek 5-5 $x = 0.00\text{m}$



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -148.29 \text{ kN}$   
 $V3ed = -0.59 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1178.05 \text{ kN}$   
 $Vrd,max,3 = 1178.05 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.055/25.000 \text{ ‰}$   
 $Aa1 = 8.79 \text{ cm}^2$   
 $Aa2 = 8.74 \text{ cm}^2$   
 $Aa3 = 0.99 \text{ cm}^2$   
 $Aa4 = 0.95 \text{ cm}^2$   
 $Aa,uz = 3.51 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

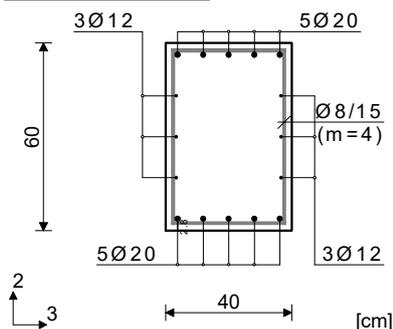
### G 1000.47 (23852-27777)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 54.93 \text{ kN}$   
 $M2ed = -0.50 \text{ kNm}$   
 $M3ed = -318.27 \text{ kNm}$

Procenat armiranja: 1.59%

#### Presek 6-6 $x = 0.00\text{m}$



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -169.44 \text{ kN}$   
 $V3ed = -0.84 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1179.89 \text{ kN}$   
 $Vrd,max,3 = 1179.89 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/23.622 \text{ ‰}$   
 $Aa1 = 13.67 \text{ cm}^2$   
 $Aa2 = 13.60 \text{ cm}^2$   
 $Aa3 = 1.54 \text{ cm}^2$   
 $Aa4 = 1.48 \text{ cm}^2$   
 $Aa,uz = 4.01 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

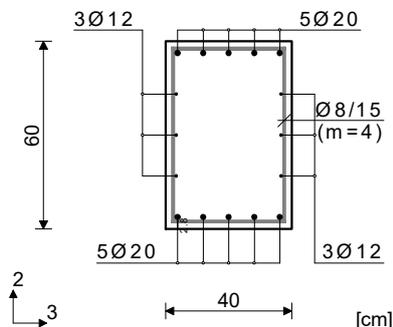
### G 1000.15 (19509-21784)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 39.43 \text{ kN}$   
 $M2ed = -0.38 \text{ kNm}$   
 $M3ed = 232.22 \text{ kNm}$

Procenat armiranja: 1.59%

#### Presek 7-7 $x = 0.00\text{m}$



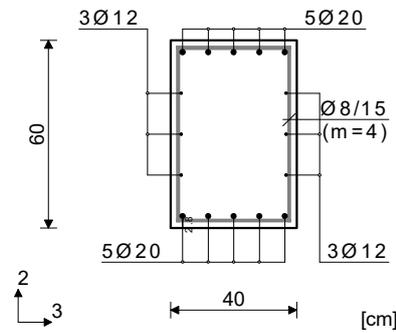
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -122.41 \text{ kN}$   
 $V3ed = -0.48 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1179.14 \text{ kN}$   
 $Vrd,max,3 = 1179.14 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.230/25.000 \text{ ‰}$   
 $Aa1 = 9.75 \text{ cm}^2$   
 $Aa2 = 9.70 \text{ cm}^2$   
 $Aa3 = 1.10 \text{ cm}^2$   
 $Aa4 = 1.06 \text{ cm}^2$   
 $Aa,uz = 2.90 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

### G 1000.14 (12638-18311)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 8-8 x = 0.97m**



Merodavna kombinacija za savijanje:

1.35xI+1.50xII  
 N1ed = 1.62 kN  
 M2ed = 0.04 kNm  
 M3ed = -216.92 kNm

Aa1 = 8.74 cm<sup>2</sup>  
 Aa2 = 8.69 cm<sup>2</sup>  
 Aa3 = 0.99 cm<sup>2</sup>  
 Aa4 = 0.95 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 64.18 kN  
 V3ed = 2.46 kN  
 M1ed = 0.00 kNm

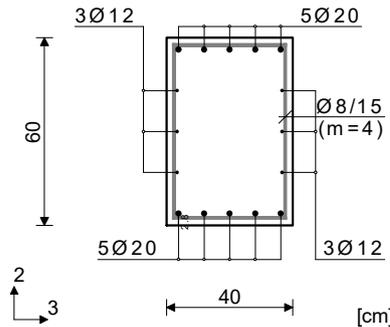
Procenat armiranja: 1.59%

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 εb/εa = -3.189/25.000 ‰

**G 1000.32 (12638-16602)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 9-9 x = 1.30m**



Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = -24.21 kN  
 V3ed = 0.06 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN  
 Vrd,max,3 = 1170.29 kN  
 εb/εa = -1.436/25.000 ‰  
 Aa1 = 2.31 + 0.57'' = 2.88 cm<sup>2</sup>  
 Aa2 = 2.29 + 0.57'' = 2.86 cm<sup>2</sup>  
 Aa3 = 0.26 + 0.06'' = 0.33 cm<sup>2</sup>  
 Aa4 = 0.25 + 0.06'' = 0.31 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

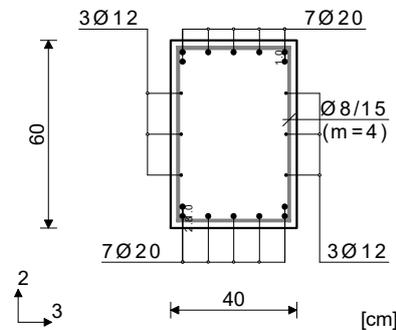
Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 43.39 kN  
 M2ed = -0.21 kNm  
 M3ed = 50.34 kNm

**G 1000.41 (36038-16602)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 11-11 x = 0.76m**



Vrd,max,2 = 1280.97 kN  
 Vrd,max,3 = 1280.97 kN  
 εb/εa = -3.333/25.000 ‰

Aa1 = 19.12 cm<sup>2</sup>  
 Aa2 = 19.02 cm<sup>2</sup>  
 Aa3 = 2.16 cm<sup>2</sup>  
 Aa4 = 2.07 cm<sup>2</sup>  
 Aa,uz = 5.35 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

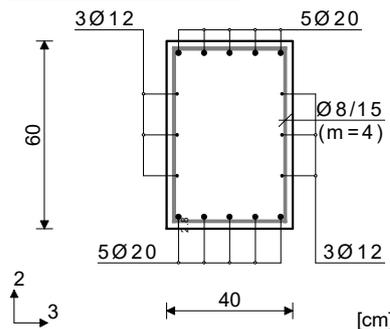
1.00xI+0.30xII-1.00xVIII  
 V2ed = -48.80 kN  
 V3ed = -0.68 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1185.79 kN  
 Vrd,max,3 = 1185.79 kN  
 εb/εa = -2.203/25.000 ‰  
 Aa1 = 5.24 + 0.04'' = 5.27 cm<sup>2</sup>  
 Aa2 = 5.21 + 0.03'' = 5.24 cm<sup>2</sup>  
 Aa3 = 0.59 + 0.00'' = 0.59 cm<sup>2</sup>  
 Aa4 = 0.57 + 0.00'' = 0.57 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

**Presek 10-10 x = 27.14m**



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 79.22 kN  
 M2ed = -0.35 kNm  
 M3ed = 114.64 kNm

Merodavna kombinacija za savijanje:

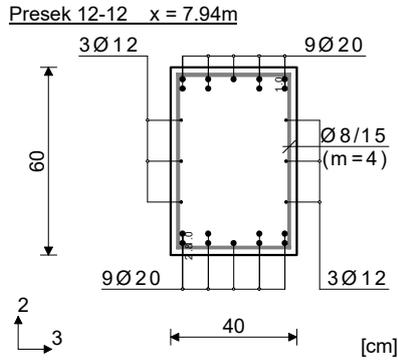
1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 488.61 kN  
 M2ed = 1.18 kNm  
 M3ed = -339.32 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -226.07 kN  
 V3ed = -3.07 kN  
 M1ed = 0.00 kNm

**G 1000.33 (46525-36038)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 535.54\text{ kN}$

$M2ed = 0.81\text{ kNm}$

$M3ed = -334.85\text{ kNm}$

Merodavna kombinacija za smicanje:

$1.35xI+1.50xII+1.05xIII$

$V2ed = -185.04\text{ kN}$

$V3ed = 9.82\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1181.41\text{ kN}$

$Vrd,max,3 = 1181.41\text{ kN}$

$eb/\epsilon_a = -3.246/25.000\text{ ‰}$

$Aa1 = 19.41 + 2.79'' = 22.20\text{ cm}^2$

$Aa2 = 19.30 + 2.78'' = 22.08\text{ cm}^2$

$Aa3 = 2.19 + 0.21'' = 2.40\text{ cm}^2$

$Aa4 = 2.10 + 0.20'' = 2.30\text{ cm}^2$

$Aa,uz = 4.38\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.64%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G 1000.34 (51458-47804)**

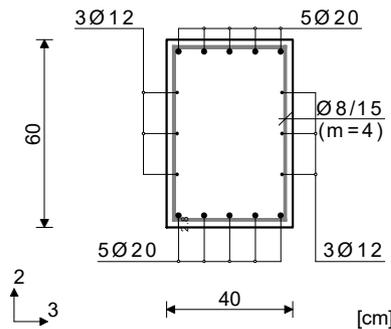
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 13-13  $x = 5.09\text{m}$



Merodavna kombinacija za smicanje:

$1.35xI+1.50xII$

$V2ed = 30.09\text{ kN}$

$V3ed = -7.04\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1182.04\text{ kN}$

$Vrd,max,3 = 1182.04\text{ kN}$

$eb/\epsilon_a = -1.220/25.000\text{ ‰}$

$Aa1 = 4.50 + 0.55'' = 5.05\text{ cm}^2$

$Aa2 = 4.48 + 0.55'' = 5.03\text{ cm}^2$

$Aa3 = 0.51 + 0.05'' = 0.55\text{ cm}^2$

$Aa4 = 0.49 + 0.04'' = 0.53\text{ cm}^2$

$Aa,uz = 0.00\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 312.39\text{ kN}$

$M2ed = -2.44\text{ kNm}$

$M3ed = 34.07\text{ kNm}$

**G 1000.35 (56481-52750)**

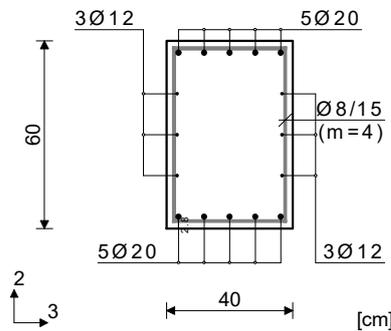
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 14-14  $x = 4.99\text{m}$



Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$

$V2ed = 61.02\text{ kN}$

$V3ed = 1.81\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1170.29\text{ kN}$

$Vrd,max,3 = 1170.29\text{ kN}$

$eb/\epsilon_a = -1.828/25.000\text{ ‰}$

$Aa1 = 6.15 + 1.03'' = 7.18\text{ cm}^2$

$Aa2 = 6.12 + 1.02'' = 7.14\text{ cm}^2$

$Aa3 = 0.70 + 0.08'' = 0.77\text{ cm}^2$

$Aa4 = 0.67 + 0.07'' = 0.74\text{ cm}^2$

$Aa,uz = 1.44\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

$1.00xI-1.00xVIII$

$N1ed = 252.13\text{ kN}$

$M2ed = -0.02\text{ kNm}$

$M3ed = -91.38\text{ kNm}$

**G 1000.37 (61238-57757)**

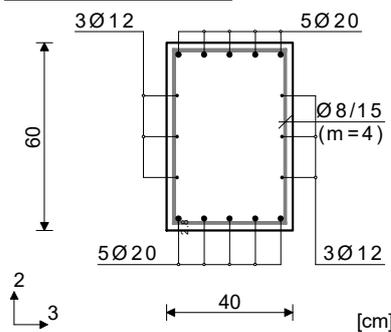
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 15-15  $x = 5.12\text{m}$



Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$

$V2ed = 45.99\text{ kN}$

$V3ed = 0.59\text{ kN}$

$M1ed = 0.00\text{ kNm}$

$Vrd,max,2 = 1170.29\text{ kN}$

$Vrd,max,3 = 1170.29\text{ kN}$

$eb/\epsilon_a = -2.159/25.000\text{ ‰}$

$Aa1 = 9.84 + 0.45'' = 10.29\text{ cm}^2$

$Aa2 = 9.79 + 0.45'' = 10.24\text{ cm}^2$

$Aa3 = 1.11 + 0.03'' = 1.15\text{ cm}^2$

$Aa4 = 1.07 + 0.03'' = 1.10\text{ cm}^2$

$Aa,uz = 1.09\text{ cm}^2/\text{m} \quad (m=2)$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70\text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$

$N1ed = 418.57\text{ kN}$

$M2ed = 0.03\text{ kNm}$

$M3ed = 139.45\text{ kNm}$

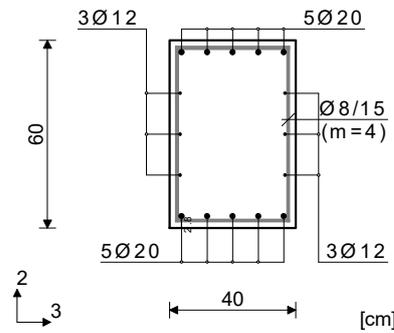
**G 1000.39 (63199-62408)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 16-16  $x = 0.84m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 331.63 kN

M2ed = 1.14 kNm

M3ed = -47.18 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -94.45 kN

V3ed = -2.93 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $\epsilon_b/\epsilon_a = -1.330/25.000 \text{ ‰}$ Aa1 = 5.23 + 1.55 = 6.79 cm<sup>2</sup>Aa2 = 5.21 + 1.54 = 6.75 cm<sup>2</sup>Aa3 = 0.59 + 0.12 = 0.71 cm<sup>2</sup>Aa4 = 0.57 + 0.11 = 0.68 cm<sup>2</sup>Aa,uz = 2.23 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

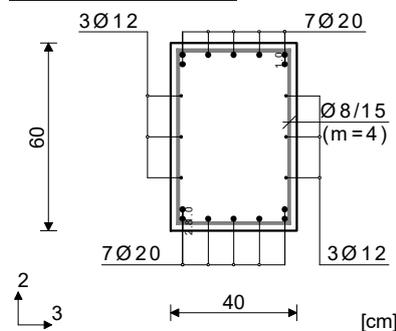
**G 1000.43 (70592-66018)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 17-17  $x = 5.90m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 304.62 kN

M2ed = -0.17 kNm

M3ed = 342.66 kNm

Procenat armiranja: 2.12%

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII

V2ed = -59.31 kN

V3ed = -0.17 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

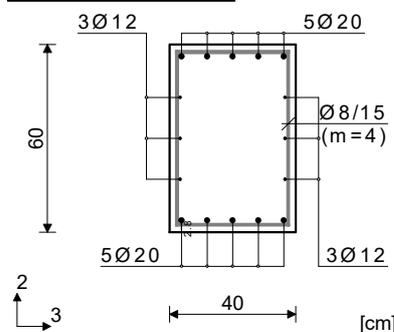
 $\epsilon_b/\epsilon_a = -3.482/25.000 \text{ ‰}$ Aa1 = 17.26 cm<sup>2</sup>Aa2 = 17.16 cm<sup>2</sup>Aa3 = 1.95 cm<sup>2</sup>Aa4 = 1.87 cm<sup>2</sup>Aa,uz = 1.40 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 1000.46 (75774-72036)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 18-18  $x = 5.40m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 234.63 kN

M2ed = -2.21 kNm

M3ed = 102.28 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 35.23 kN

V3ed = -1.21 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $\epsilon_b/\epsilon_a = -2.043/25.000 \text{ ‰}$ Aa1 = 6.37 + 0.88 = 7.25 cm<sup>2</sup>Aa2 = 6.34 + 0.87 = 7.21 cm<sup>2</sup>Aa3 = 0.72 + 0.09 = 0.81 cm<sup>2</sup>Aa4 = 0.69 + 0.08 = 0.77 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

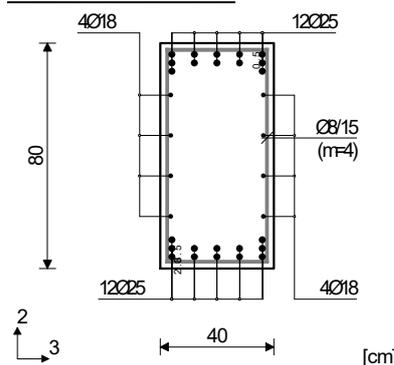
**G 1000.24 (35746-48610)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 19-19  $x = 0.90m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 958.60 kN

M2ed = 6.73 kNm

M3ed = -572.05 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = -184.82 kN

V3ed = -0.03 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

 $\epsilon_b/\epsilon_a = -3.297/25.000 \text{ ‰}$

$$\begin{aligned}
 Aa1 &= 25.24 + 2.65'' = 27.89 \text{ cm}^2 \\
 Aa2 &= 25.09 + 2.63'' = 27.72 \text{ cm}^2 \\
 Aa3 &= 5.58 + 0.29'' = 5.88 \text{ cm}^2 \\
 Aa4 &= 5.45 + 0.29'' = 5.74 \text{ cm}^2 \\
 Aa,uz &= 3.28 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

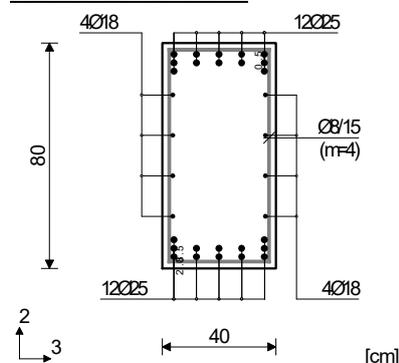
Procent armiranja: 4.32%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1000.2 (23881-32601)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 295.35 kN  
 M2ed = 3.28 kNm  
 M3ed = -811.58 kNm

Presek 20-20  $x = 13.58\text{m}$



Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 299.13 kN  
 V3ed = 6.90 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 $\epsilon_b/\epsilon_a = -3.500/19.484 \%$   
 $Aa1 = 26.04 \text{ cm}^2$   
 $Aa2 = 25.89 \text{ cm}^2$   
 $Aa3 = 5.76 \text{ cm}^2$   
 $Aa4 = 5.63 \text{ cm}^2$   
 $Aa,uz = 5.31 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

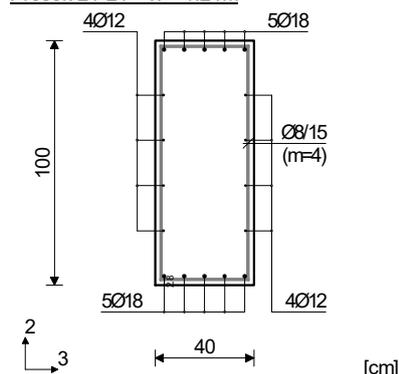
Procent armiranja: 4.32%

### G 1000.21 (23008-24385)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 58.48 kN  
 M2ed = 2.60 kNm  
 M3ed = 108.68 kNm

Presek 21-21  $x = 1.21\text{m}$



Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+1.00xVIII  
 V2ed = 390.57 kN  
 V3ed = 5.33 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1950.48 kN  
 Vrd,max,3 = 1950.48 kN  
 $\epsilon_b/\epsilon_a = -1.379/25.000 \%$   
 $Aa1 = 2.98 + 5.42'' = 8.41 \text{ cm}^2$   
 $Aa2 = 2.97 + 5.39'' = 8.36 \text{ cm}^2$   
 $Aa3 = 0.34 + 0.25'' = 0.58 \text{ cm}^2$   
 $Aa4 = 0.32 + 0.23'' = 0.56 \text{ cm}^2$   
 $Aa,uz = 5.55 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

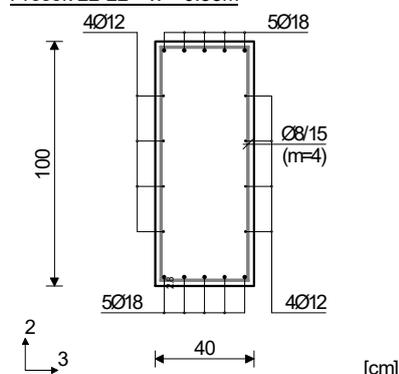
Procent armiranja: 0.86%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1000.23 (29505-30650)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 111.43 kN  
 M2ed = -3.36 kNm  
 M3ed = 48.41 kNm

Presek 22-22  $x = 0.88\text{m}$



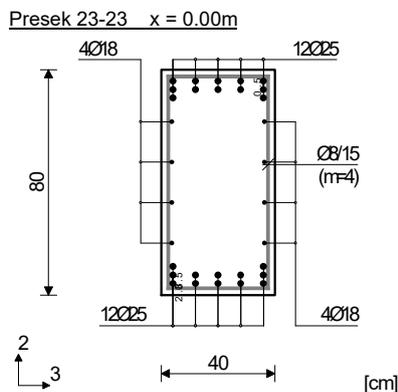
Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 215.23 kN  
 V3ed = 7.39 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1950.48 kN  
 Vrd,max,3 = 1950.48 kN  
 $\epsilon_b/\epsilon_a = -1.016/25.000 \%$   
 $Aa1 = 2.19 + 2.78'' = 4.97 \text{ cm}^2$   
 $Aa2 = 2.18 + 2.76'' = 4.94 \text{ cm}^2$   
 $Aa3 = 0.25 + 0.13'' = 0.38 \text{ cm}^2$   
 $Aa4 = 0.24 + 0.13'' = 0.37 \text{ cm}^2$   
 $Aa,uz = 3.06 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procent armiranja: 0.86%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1000.5 (32265-35330)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 330.53 \text{ kN}$   
 $M2_{ed} = 0.71 \text{ kNm}$   
 $M3_{ed} = -817.69 \text{ kNm}$

$Aa1 = 26.57 \text{ cm}^2$   
 $Aa2 = 26.42 \text{ cm}^2$   
 $Aa3 = 5.88 \text{ cm}^2$   
 $Aa4 = 5.74 \text{ cm}^2$   
 $Aa,uz = 5.26 \text{ cm}^2/m$  (m=2)  
[Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

(m=2)

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -296.27 \text{ kN}$   
 $V3_{ed} = -1.89 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

Procenat armiranja: 4.32%

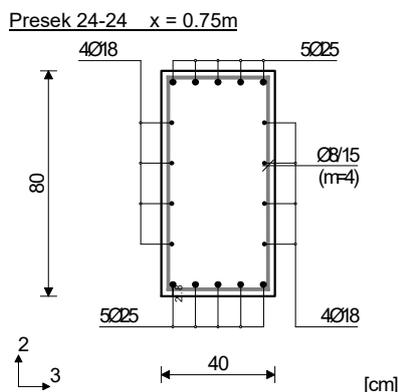
$Vrd,max,2 = 1630.38 \text{ kN}$   
 $Vrd,max,3 = 1630.38 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/20.003 \%$

**G 1000.6 (37286-42683)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 212.01 \text{ kN}$   
 $M2_{ed} = 0.05 \text{ kNm}$   
 $M3_{ed} = -405.00 \text{ kNm}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -165.99 \text{ kN}$   
 $V3_{ed} = -0.81 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1614.69 \text{ kN}$   
 $Vrd,max,3 = 1614.69 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.173/25.000 \%$   
 $Aa1 = 13.20 + 4.35'' = 17.55 \text{ cm}^2$   
 $Aa2 = 13.12 + 4.33'' = 17.45 \text{ cm}^2$   
 $Aa3 = 2.92 + 0.64'' = 3.56 \text{ cm}^2$   
 $Aa4 = 2.85 + 0.63'' = 3.48 \text{ cm}^2$   
 $Aa,uz = 2.95 \text{ cm}^2/m$  (m=2)  
[Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.17%

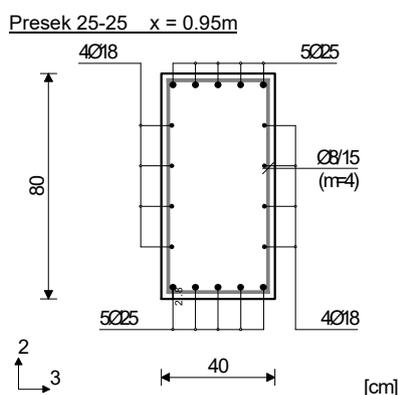
\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1000.31 (66421-68035)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 178.04 \text{ kN}$   
 $M2_{ed} = 2.02 \text{ kNm}$   
 $M3_{ed} = -158.17 \text{ kNm}$



Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -64.39 \text{ kN}$   
 $V3_{ed} = -4.57 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

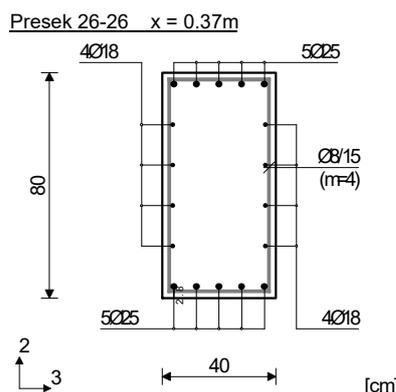
$Vrd,max,2 = 1600.74 \text{ kN}$   
 $Vrd,max,3 = 1600.74 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.006/25.000 \%$   
 $Aa1 = 5.82 + 3.77'' = 9.59 \text{ cm}^2$   
 $Aa2 = 5.79 + 3.74'' = 9.53 \text{ cm}^2$   
 $Aa3 = 1.29 + 0.65'' = 1.93 \text{ cm}^2$   
 $Aa4 = 1.26 + 0.63'' = 1.89 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/m$  (m=2)  
[Usvojeno  $Aa,uz = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/m$ ]

Procenat armiranja: 2.17%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1000.8 (70637-73944)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 219.16 \text{ kN}$   
 $M2_{ed} = 0.24 \text{ kNm}$   
 $M3_{ed} = 322.41 \text{ kNm}$

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -136.62 \text{ kN}$   
 $V3_{ed} = -0.04 \text{ kN}$   
 $M1_{ed} = 0.00 \text{ kNm}$

$Vrd,max,2 = 1560.38 \text{ kN}$   
 $Vrd,max,3 = 1560.38 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.803/25.000 \%$

Aa1 = 10.80 cm<sup>2</sup>  
 Aa2 = 10.74 cm<sup>2</sup>  
 Aa3 = 2.39 cm<sup>2</sup>  
 Aa4 = 2.33 cm<sup>2</sup>  
 Aa,uz = 2.42 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

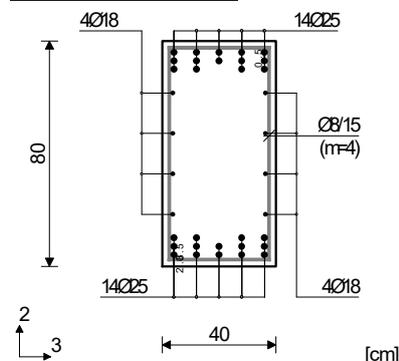
Procenat armiranja: 2.17%

**G 1000.38 (73944-77884)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.35xI+1.50xII+1.05xIII  
 N1ed = 28.15 kN  
 M2ed = -3.55 kNm  
 M3ed = 1261.68 kNm

Presek 27-27 x = 1.40m



Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 285.96 kN  
 V3ed = 7.15 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 $\epsilon_b/\epsilon_a = -3.500/15.363 \%$   
 Aa1 = 39.52 cm<sup>2</sup>  
 Aa2 = 39.31 cm<sup>2</sup>  
 Aa3 = 5.46 cm<sup>2</sup>  
 Aa4 = 5.27 cm<sup>2</sup>  
 Aa,uz = 5.07 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

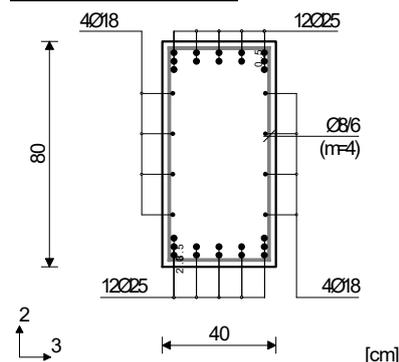
Procenat armiranja: 4.93%

**G 1000.50 (68989-77115)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.35xI+1.50xII  
 N1ed = -265.81 kN  
 M2ed = -5.51 kNm  
 M3ed = 1138.03 kNm

Presek 28-28 x = 9.61m



Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 V2ed = 483.43 kN  
 V3ed = 4.04 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1600.07 kN  
 Vrd,max,3 = 1600.07 kN  
 $\epsilon_b/\epsilon_a = -3.500/13.420 \%$   
 Aa1 = 30.62 cm<sup>2</sup>  
 Aa2 = 30.44 cm<sup>2</sup>  
 Aa3 = 6.77 cm<sup>2</sup>  
 Aa4 = 6.62 cm<sup>2</sup>  
 Aa,uz = 8.58 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/6(m=4) = 16.76 cm<sup>2</sup>/m]

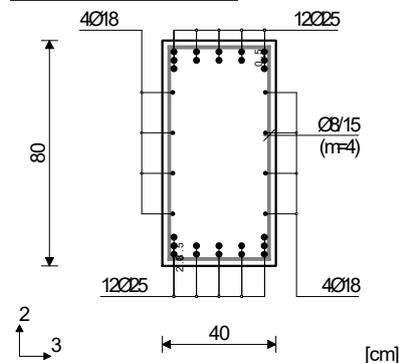
Procenat armiranja: 4.32%

**G 1000.36 (60506-68989)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = 275.95 kN  
 M2ed = -2.41 kNm  
 M3ed = -585.99 kNm

Presek 29-29 x = 0.27m



Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII  
 V2ed = -243.63 kN  
 V3ed = 25.98 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1609.07 kN  
 Vrd,max,3 = 1609.07 kN  
 $\epsilon_b/\epsilon_a = -3.500/23.154 \%$   
 Aa1 = 19.15 + 7.47° = 26.62 cm<sup>2</sup>  
 Aa2 = 19.04 + 7.43° = 26.46 cm<sup>2</sup>  
 Aa3 = 4.24 + 1.65° = 5.89 cm<sup>2</sup>  
 Aa4 = 4.14 + 1.61° = 5.75 cm<sup>2</sup>  
 Aa,uz = 4.32 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

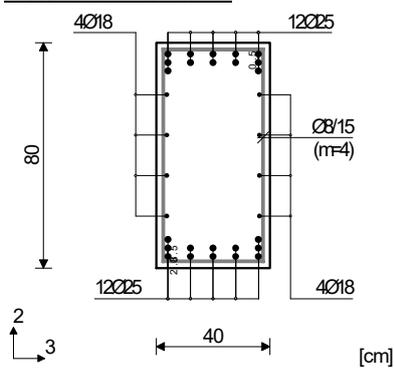
Procenat armiranja: 4.32%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1000.42 (68989-74126)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 30-30 x = 1.09m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 560.98 kN

M2ed = 0.22 kNm

M3ed = 765.65 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 164.71 kN

V3ed = 3.01 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

εb/εa = -3.500/22.093 ‰

Aa1 = 27.03 + 7.49 = 34.52 cm<sup>2</sup>

Aa2 = 26.87 + 7.45 = 34.32 cm<sup>2</sup>

Aa3 = 5.98 + 1.14 = 7.12 cm<sup>2</sup>

Aa4 = 5.84 + 1.11 = 6.95 cm<sup>2</sup>

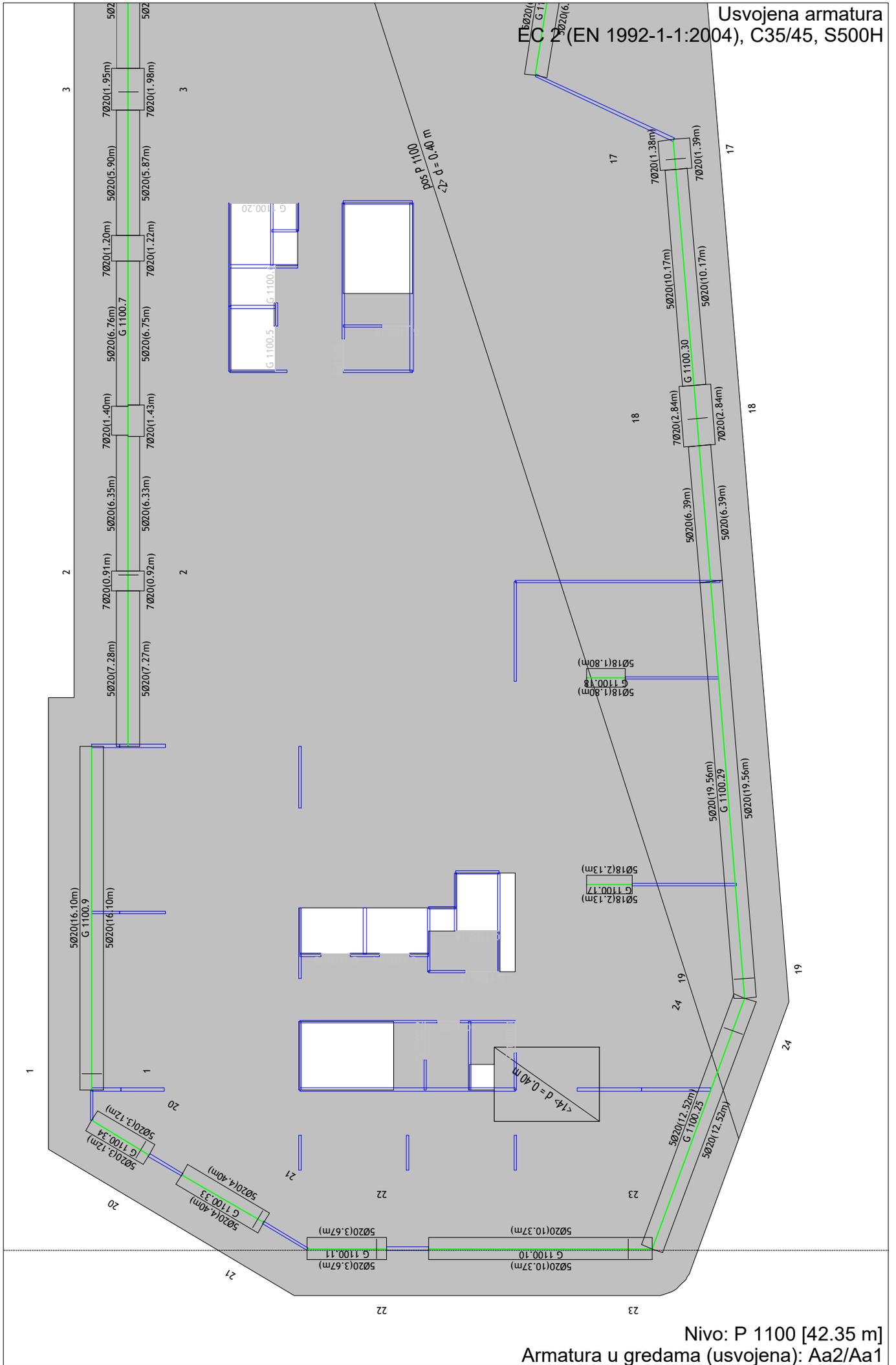
Aa,uz = 2.92 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

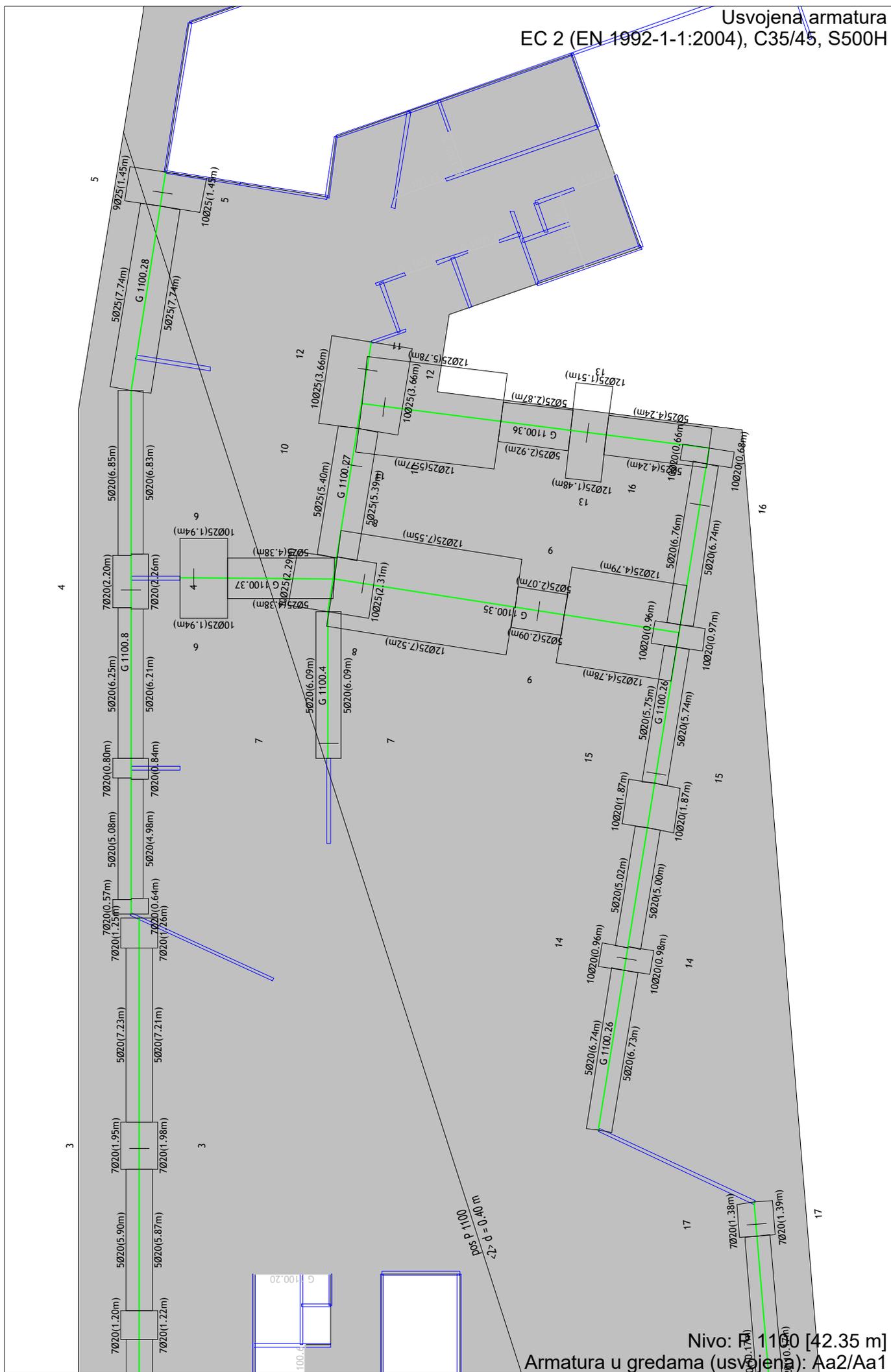
Procenat armiranja: 4.32%

⌋ - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75×hs.

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H

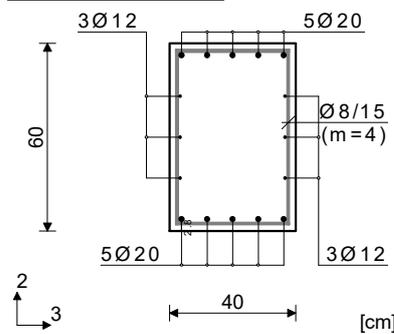






**G 1100.9 (47254-35816)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 1-1  $x = 14.90m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = -3.10$  kN  
 $M2_{ed} = -0.76$  kNm  
 $M3_{ed} = -163.00$  kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 $V2_{ed} = 82.82$  kN  
 $V3_{ed} = 1.87$  kN  
 $M1_{ed} = 0.00$  kNm

Vrd,max,2 = 1181.54 kN

Vrd,max,3 = 1181.54 kN

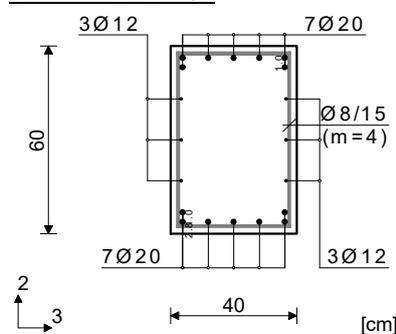
 $eb/\epsilon_a = -2.796/25.000$  ‰ $Aa1 = 6.40 + 1.48'' = 7.88$  cm<sup>2</sup> $Aa2 = 6.36 + 1.48'' = 7.84$  cm<sup>2</sup> $Aa3 = 0.72 + 0.11'' = 0.83$  cm<sup>2</sup> $Aa4 = 0.69 + 0.11'' = 0.80$  cm<sup>2</sup> $Aa_{uz} = 0.00$  cm<sup>2</sup>/m (m=2)[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G 1100.7 (45985-73574)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 2-2  $x = 7.70m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 $N1_{ed} = 391.65$  kN  
 $M2_{ed} = 1.13$  kNm  
 $M3_{ed} = -299.75$  kNm

Merodavna kombinacija za smicanje:

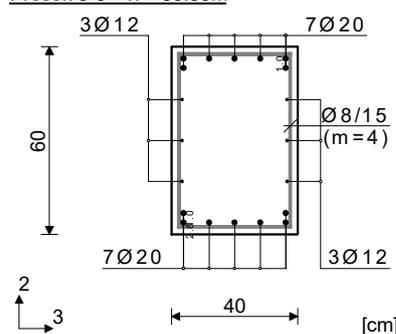
1.00xI+0.30xII-1.00xVIII  
 $V2_{ed} = -178.13$  kN  
 $V3_{ed} = -1.96$  kN  
 $M1_{ed} = 0.00$  kNm

Vrd,max,2 = 1248.85 kN

Vrd,max,3 = 1248.85 kN

 $eb/\epsilon_a = -3.240/25.000$  ‰ $Aa1 = 16.39$  cm<sup>2</sup> $Aa2 = 16.31$  cm<sup>2</sup> $Aa3 = 1.85$  cm<sup>2</sup> $Aa4 = 1.78$  cm<sup>2</sup> $Aa_{uz} = 4.22$  cm<sup>2</sup>/m (m=2)[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

Presek 3-3  $x = 30.80m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 724.58$  kN  
 $M2_{ed} = 1.80$  kNm  
 $M3_{ed} = -293.10$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 $V2_{ed} = 154.35$  kN  
 $V3_{ed} = 4.10$  kN  
 $M1_{ed} = 0.00$  kNm

Vrd,max,2 = 1170.29 kN

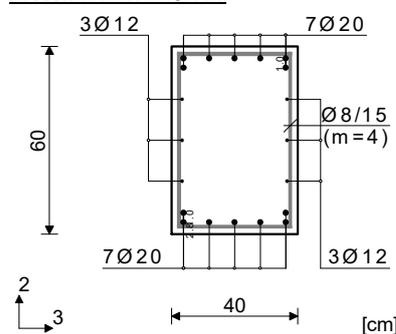
Vrd,max,3 = 1170.29 kN

 $eb/\epsilon_a = -2.927/25.000$  ‰ $Aa1 = 19.59$  cm<sup>2</sup> $Aa2 = 19.49$  cm<sup>2</sup> $Aa3 = 2.21$  cm<sup>2</sup> $Aa4 = 2.12$  cm<sup>2</sup> $Aa_{uz} = 3.65$  cm<sup>2</sup>/m (m=2)[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 2.12%

**G 1100.8 (73859-80446)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 4-4  $x = 13.14m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $N1_{ed} = 896.31$  kN  
 $M2_{ed} = -2.28$  kNm  
 $M3_{ed} = -235.10$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 $V2_{ed} = 85.45$  kN  
 $V3_{ed} = 8.21$  kN  
 $M1_{ed} = 0.00$  kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $eb/\epsilon_a = -2.505/25.000$  ‰ $Aa1 = 18.93 + 1.50'' = 20.43$  cm<sup>2</sup> $Aa2 = 18.83 + 1.49'' = 20.32$  cm<sup>2</sup> $Aa3 = 2.14 + 0.11'' = 2.25$  cm<sup>2</sup> $Aa4 = 2.05 + 0.11'' = 2.16$  cm<sup>2</sup> $Aa_{uz} = 2.02$  cm<sup>2</sup>/m (m=2)[Usvojeno  $Aa_{uz} = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

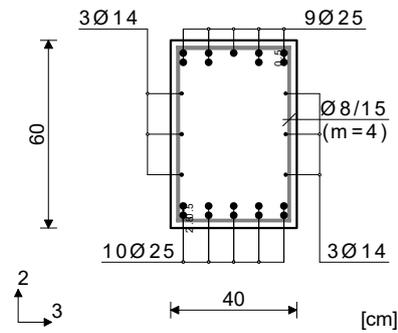
Procenat armiranja: 2.12%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G 1100.28 (80894-80446)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 5-5 x = 1.01m**



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII-1.00xVIII \\ N1ed &= 2421.91 \text{ kN} \\ M2ed &= -1.28 \text{ kNm} \\ M3ed &= -200.51 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ V2ed &= -96.17 \text{ kN} \\ V3ed &= -32.13 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -1.706/25.000 \% \end{aligned}$$

$$\begin{aligned} Aa1 &= 33.49 + 1.68'' = 35.17 \text{ cm}^2 \\ Aa2 &= 33.31 + 1.67'' = 34.98 \text{ cm}^2 \\ Aa3 &= 3.78 + 0.13'' = 3.91 \text{ cm}^2 \\ Aa4 &= 3.63 + 0.12'' = 3.75 \text{ cm}^2 \\ Aa,uz &= 2.28 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

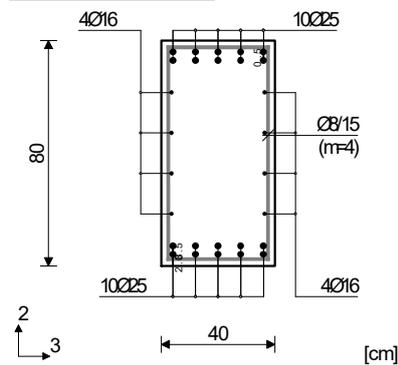
Procenat armiranja: 4.27%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G 1100.37 (78586-76379)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

**Presek 6-6 x = 0.00m**



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 489.04 \text{ kN} \\ M2ed &= 3.05 \text{ kNm} \\ M3ed &= -1058.57 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za torziju:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII+1.00xVIII \\ M1ed &= 0.16 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ V2ed &= -274.99 \text{ kN} \\ V3ed &= -4.16 \text{ kN} \\ M1ed &= -0.13 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1679.04 \text{ kN} \\ Vrd,max,3 &= 1679.04 \text{ kN} \\ \epsilon_b/\epsilon_a &= -3.500/19.060 \% \end{aligned}$$

$$\begin{aligned} Aa1 &= 37.77 \text{ cm}^2 \\ Aa2 &= 37.57 \text{ cm}^2 \\ Aa3 &= 5.22 \text{ cm}^2 \\ Aa4 &= 5.04 \text{ cm}^2 \\ Aa,uz &= 4.88 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

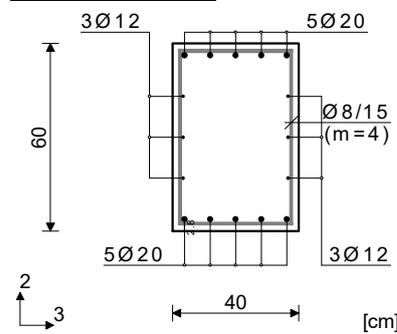
[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 3.57%

**G 1100.4 (72967-75895)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

**Presek 7-7 x = 0.50m**



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII-1.00xVIII \\ N1ed &= 448.85 \text{ kN} \\ M2ed &= 0.37 \text{ kNm} \\ M3ed &= 146.19 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ V2ed &= -72.19 \text{ kN} \\ V3ed &= -0.59 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.202/25.000 \% \end{aligned}$$

$$\begin{aligned} Aa1 &= 10.43 + 1.55'' = 11.98 \text{ cm}^2 \\ Aa2 &= 10.37 + 1.54'' = 11.92 \text{ cm}^2 \\ Aa3 &= 1.18 + 0.14'' = 1.31 \text{ cm}^2 \\ Aa4 &= 1.13 + 0.13'' = 1.26 \text{ cm}^2 \\ Aa,uz &= 1.71 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

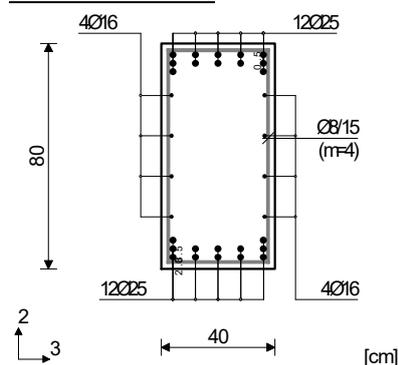
Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

**G 1100.35 (76379-67608)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

**Presek 8-8 x = 1.58m**



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 92.61 \text{ kN} \\ M2ed &= -5.36 \text{ kNm} \\ M3ed &= -515.68 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za torziju:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII+1.00xVIII \\ M1ed &= 0.13 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ V2ed &= -310.66 \text{ kN} \\ V3ed &= -11.64 \text{ kN} \\ M1ed &= -0.09 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1580.85 \text{ kN} \\ Vrd,max,3 &= 1580.85 \text{ kN} \\ \epsilon_b/\epsilon_a &= -3.500/23.491 \% \end{aligned}$$

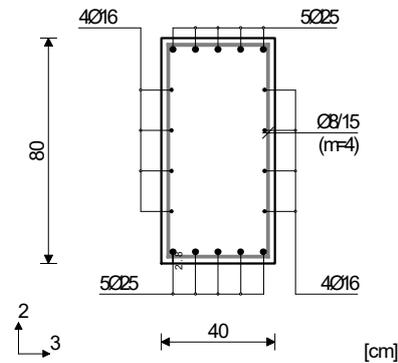
$$\begin{aligned} Aa1 &= 16.44 + 5.41'' = 21.86 \text{ cm}^2 \\ Aa2 &= 16.35 + 5.38'' = 21.74 \text{ cm}^2 \\ Aa3 &= 2.27 + 0.37'' = 2.65 \text{ cm}^2 \\ Aa4 &= 2.19 + 0.36'' = 2.56 \text{ cm}^2 \\ Aa,uz &= 5.51 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.18%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Presek 9-9 x = 8.90m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 151.78 kN  
 M2ed = 8.69 kNm  
 M3ed = 375.25 kNm

eb/ea = -3.306/25.000 ‰

Aa1 = 12.55 + 6.55'' = 19.10 cm<sup>2</sup>  
 Aa2 = 12.49 + 6.51'' = 19.00 cm<sup>2</sup>  
 Aa3 = 1.74 + 0.70'' = 2.44 cm<sup>2</sup>  
 Aa4 = 1.68 + 0.68'' = 2.35 cm<sup>2</sup>  
 Aa,uz = 4.04 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.04%

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 M1ed = -0.03 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 227.78 kN  
 V3ed = 18.92 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

**G 1100.27 (75895-79094)**

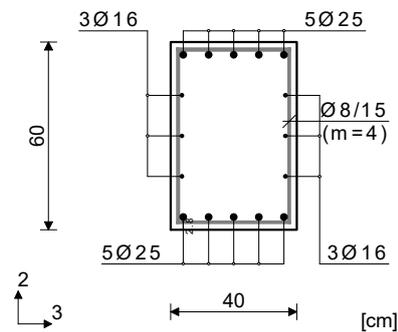
EC 2 (EN 1992-1-1:2004)

C35/45 (γC = 1.50, γS = 1.15) [SP]

S500H

Kompletna šema opterećenja

Presek 10-10 x = 6.22m



Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

eb/ea = -1.608/25.000 ‰

Aa1 = 8.14 + 0.61'' = 8.75 cm<sup>2</sup>  
 Aa2 = 8.09 + 0.61'' = 8.70 cm<sup>2</sup>  
 Aa3 = 0.92 + 0.05'' = 0.97 cm<sup>2</sup>  
 Aa4 = 0.88 + 0.04'' = 0.93 cm<sup>2</sup>  
 Aa,uz = 1.33 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.55%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 525.56 kN  
 M2ed = 10.80 kNm  
 M3ed = -103.22 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
 V2ed = 191.47 kN  
 V3ed = -15.41 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

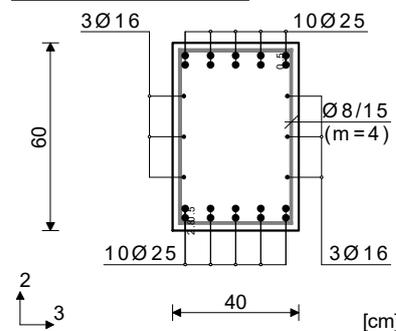
Vrd,max,3 = 1170.29 kN

eb/ea = -2.261/25.000 ‰

Aa1 = 9.53 + 2.93'' = 12.46 cm<sup>2</sup>  
 Aa2 = 9.48 + 2.92'' = 12.40 cm<sup>2</sup>  
 Aa3 = 1.08 + 0.22'' = 1.30 cm<sup>2</sup>  
 Aa4 = 1.03 + 0.21'' = 1.24 cm<sup>2</sup>  
 Aa,uz = 4.53 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.59%

Presek 12-12 x = 10.20m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 500.56 kN  
 M2ed = -2.12 kNm  
 M3ed = 76.44 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 56.20 kN  
 V3ed = 5.54 kN  
 M1ed = 0.00 kNm

**G 1100.36 (71461-78513)**

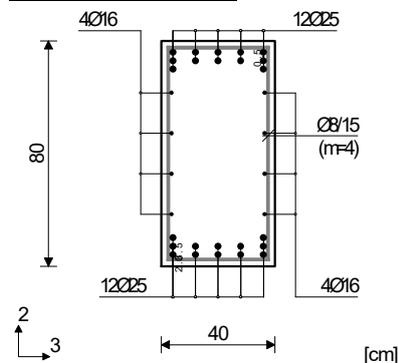
EC 2 (EN 1992-1-1:2004)

C35/45 (γC = 1.50, γS = 1.15) [SP]

S500H

Kompletna šema opterećenja

Presek 13-13 x = 4.80m



Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 137.90 kN  
 V3ed = 8.15 kN  
 M1ed = 0.08 kNm

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 983.98 kN  
 M2ed = -5.10 kNm  
 M3ed = -558.45 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 M1ed = 0.22 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 162.40 kN  
 V3ed = 10.82 kN  
 M1ed = 0.22 kNm

Vrd,max,2 = 1560.38 kN

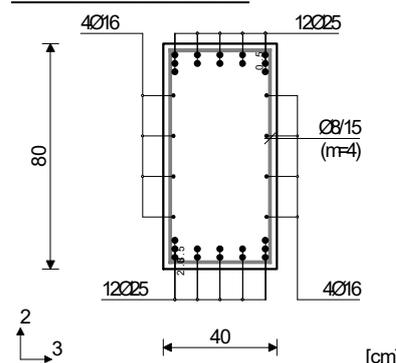
Vrd,max,3 = 1560.38 kN

eb/ea = -3.500/23.212 ‰

Aa1 = 26.38 cm<sup>2</sup>  
 Aa2 = 26.23 cm<sup>2</sup>  
 Aa3 = 3.65 cm<sup>2</sup>  
 Aa4 = 3.52 cm<sup>2</sup>  
 Aa,uz = 2.45 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.18%

Presek 11-11 x = 13.09m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 496.29 kN  
 M2ed = -4.88 kNm  
 M3ed = 703.10 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 M1ed = -0.18 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

eb/ea = -3.066/25.000 ‰

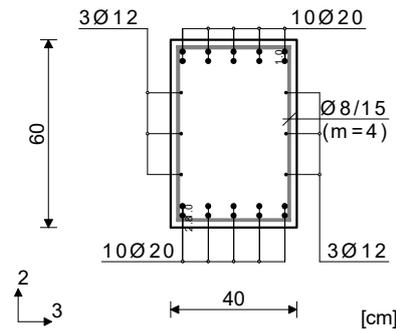
Aa1 = 26.91 + 2.65'' = 29.57 cm<sup>2</sup>  
 Aa2 = 26.77 + 2.64'' = 29.40 cm<sup>2</sup>  
 Aa3 = 3.72 + 0.18'' = 3.90 cm<sup>2</sup>  
 Aa4 = 3.59 + 0.18'' = 3.77 cm<sup>2</sup>  
 Aa,uz = 2.89 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.18%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**G 1100.26 (55548-60030)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 14-14 x = 7.24m**

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 384.53 \text{ kN}$   
 $M2ed = 1.68 \text{ kNm}$   
 $M3ed = -305.35 \text{ kNm}$

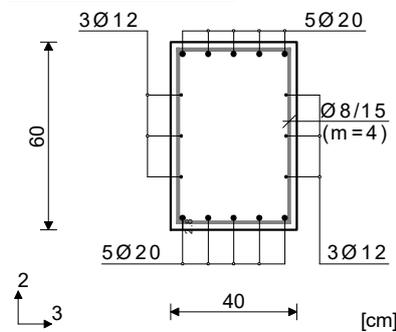
Procenat armiranja: 2.90%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 189.10 \text{ kN}$   
 $V3ed = 3.63 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.288/25.000 \text{ ‰}$   
 $Aa1 = 16.55 \text{ cm}^2$   
 $Aa2 = 16.47 \text{ cm}^2$   
 $Aa3 = 1.87 \text{ cm}^2$   
 $Aa4 = 1.79 \text{ cm}^2$   
 $Aa,uz = 4.47 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 1100.26 (60030-71461)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 15-15 x = 8.00m**

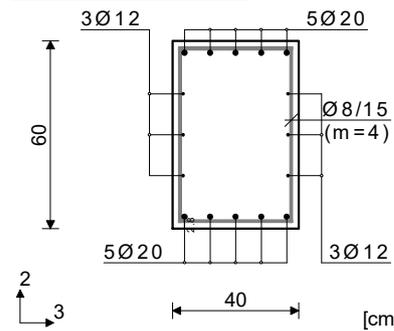
$Vrd,max,2 = 1174.33 \text{ kN}$   
 $Vrd,max,3 = 1174.33 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -1.591/25.000 \text{ ‰}$   
 $Aa1 = 6.57 + 1.37'' = 7.94 \text{ cm}^2$   
 $Aa2 = 6.53 + 1.36'' = 7.90 \text{ cm}^2$   
 $Aa3 = 0.74 + 0.14'' = 0.89 \text{ cm}^2$   
 $Aa4 = 0.71 + 0.14'' = 0.85 \text{ cm}^2$   
 $Aa,uz = 2.40 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 33.57 \text{ kN}$   
 $M2ed = 1.06 \text{ kNm}$   
 $M3ed = 68.92 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2ed = 67.35 \text{ kN}$   
 $V3ed = 0.18 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

Procenat armiranja: 1.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 16-16 x = 18.88m**

$Vrd,max,2 = 1181.17 \text{ kN}$   
 $Vrd,max,3 = 1181.17 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -1.768/25.000 \text{ ‰}$   
 $Aa1 = 2.92 + 1.88'' = 4.80 \text{ cm}^2$   
 $Aa2 = 2.91 + 1.87'' = 4.78 \text{ cm}^2$   
 $Aa3 = 0.33 + 0.19'' = 0.52 \text{ cm}^2$   
 $Aa4 = 0.32 + 0.18'' = 0.50 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

Merodavna kombinacija za savijanje:

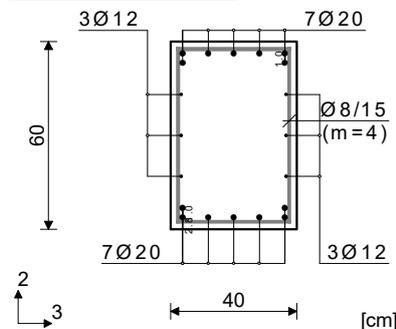
$1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 377.46 \text{ kN}$   
 $M2ed = 1.55 \text{ kNm}$   
 $M3ed = 69.45 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.35xI+1.50xII$   
 $V2ed = -101.62 \text{ kN}$   
 $V3ed = -0.63 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

**G 1100.30 (32486-48272)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 18-18 x = 7.73m**

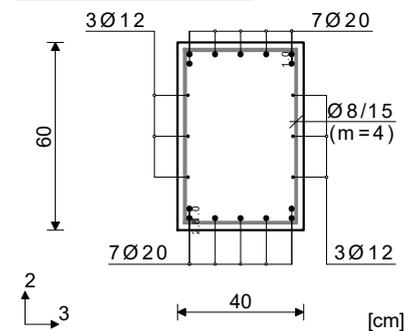
Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 158.24 \text{ kN}$   
 $V3ed = 0.20 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.011/25.000 \text{ ‰}$   
 $Aa1 = 17.03 + 1.07'' = 18.10 \text{ cm}^2$   
 $Aa2 = 16.94 + 1.07'' = 18.01 \text{ cm}^2$   
 $Aa3 = 1.92 + 0.08'' = 2.00 \text{ cm}^2$   
 $Aa4 = 1.85 + 0.07'' = 1.92 \text{ cm}^2$   
 $Aa,uz = 3.74 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 17-17 x = 19.79m**

Merodavna kombinacija za savijanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 525.02 \text{ kN}$   
 $M2ed = -1.56 \text{ kNm}$   
 $M3ed = -253.42 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 77.32 \text{ kN}$   
 $V3ed = 4.56 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -2.867/25.000 \text{ ‰}$

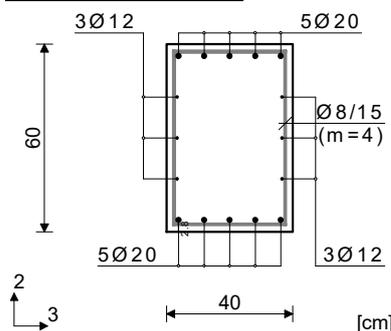
$$\begin{aligned}
 Aa1 &= 15.80 + 1.39'' = 17.19 \text{ cm}^2 \\
 Aa2 &= 15.72 + 1.38'' = 17.10 \text{ cm}^2 \\
 Aa3 &= 1.79 + 0.10'' = 1.89 \text{ cm}^2 \\
 Aa4 &= 1.71 + 0.10'' = 1.81 \text{ cm}^2 \\
 Aa,uz &= 1.83 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.12%

### G 1100.29 (32486-19061)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 19-19  $x = 18.65\text{m}$



Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII+1.00xVIII \\
 V2ed &= 16.58 \text{ kN} \\
 V3ed &= 1.41 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1170.29 \text{ kN} \\
 Vrd,max,3 &= 1170.29 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -2.175/25.000 \text{ ‰} \\
 Aa1 &= 5.06 + 0.06'' = 5.12 \text{ cm}^2 \\
 Aa2 &= 5.04 + 0.06'' = 5.09 \text{ cm}^2 \\
 Aa3 &= 0.57 + 0.00'' = 0.57 \text{ cm}^2 \\
 Aa4 &= 0.55 + 0.00'' = 0.55 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.59%

]- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 88.89 \text{ kN} \\
 M2ed &= 0.88 \text{ kNm} \\
 M3ed &= 107.84 \text{ kNm}
 \end{aligned}$$

### G 1100.34 (32027-34853)

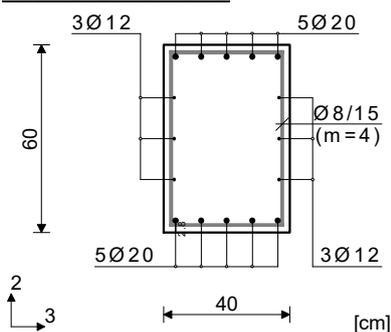
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 49.37 \text{ kN} \\
 M2ed &= -0.68 \text{ kNm} \\
 M3ed &= -178.24 \text{ kNm}
 \end{aligned}$$

Procenat armiranja: 1.59%

Presek 20-20  $x = 0.00\text{m}$



Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 V2ed &= -127.49 \text{ kN} \\
 V3ed &= -0.59 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1180.00 \text{ kN} \\
 Vrd,max,3 &= 1180.00 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -2.838/25.000 \text{ ‰} \\
 Aa1 &= 7.60 \text{ cm}^2 \\
 Aa2 &= 7.56 \text{ cm}^2 \\
 Aa3 &= 0.86 \text{ cm}^2 \\
 Aa4 &= 0.82 \text{ cm}^2 \\
 Aa,uz &= 3.02 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

### G 1100.33 (26589-30484)

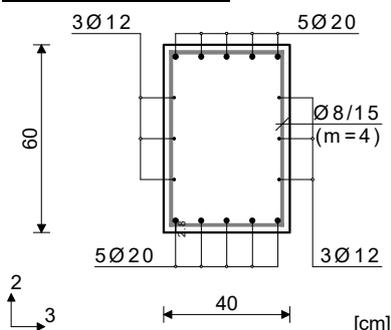
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 58.61 \text{ kN} \\
 M2ed &= -0.23 \text{ kNm} \\
 M3ed &= -273.47 \text{ kNm}
 \end{aligned}$$

Procenat armiranja: 1.59%

Presek 21-21  $x = 0.00\text{m}$



Merodavna kombinacija za smicanje:

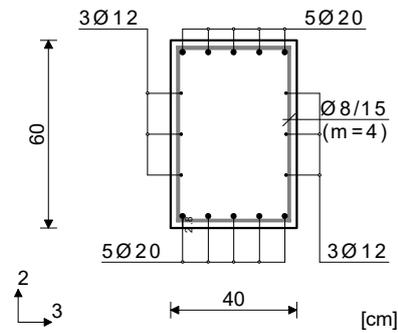
$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 V2ed &= -136.44 \text{ kN} \\
 V3ed &= -0.56 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1170.29 \text{ kN} \\
 Vrd,max,3 &= 1170.29 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -3.445/25.000 \text{ ‰} \\
 Aa1 &= 11.78 \text{ cm}^2 \\
 Aa2 &= 11.71 \text{ cm}^2 \\
 Aa3 &= 1.33 \text{ cm}^2 \\
 Aa4 &= 1.28 \text{ cm}^2 \\
 Aa,uz &= 3.23 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

### G 1100.11 (22132-24457)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 22-22**  $x = 0.61\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 50.69 \text{ kN} \\ M2ed &= -0.63 \text{ kNm} \\ M3ed &= 172.49 \text{ kNm} \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII+0.30xIII-1.00xVIII \\ V2ed &= -83.95 \text{ kN} \\ V3ed &= -2.29 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1181.20 \text{ kN} \\ Vrd,max,3 &= 1181.20 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.798/25.000 \text{ ‰} \end{aligned}$$

$$\begin{aligned} Aa1 &= 7.33 + 1.36'' = 8.69 \text{ cm}^2 \\ Aa2 &= 7.30 + 1.35'' = 8.65 \text{ cm}^2 \\ Aa3 &= 0.83 + 0.10'' = 0.93 \text{ cm}^2 \\ Aa4 &= 0.79 + 0.10'' = 0.89 \text{ cm}^2 \\ Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

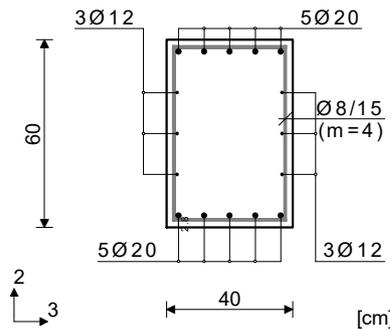
Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G 1100.10 (14825-20868)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

**Presek 23-23**  $x = 0.97\text{m}$



Merodavna kombinacija za smicanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ V2ed &= -88.93 \text{ kN} \\ V3ed &= -0.50 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1170.29 \text{ kN} \\ Vrd,max,3 &= 1170.29 \text{ kN} \\ \epsilon_b/\epsilon_a &= -2.731/25.000 \text{ ‰} \\ Aa1 &= 7.08 + 0.48'' = 7.56 \text{ cm}^2 \\ Aa2 &= 7.04 + 0.48'' = 7.52 \text{ cm}^2 \\ Aa3 &= 0.80 + 0.05'' = 0.85 \text{ cm}^2 \\ Aa4 &= 0.77 + 0.05'' = 0.82 \text{ cm}^2 \\ Aa,uz &= 2.10 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 54.90 \text{ kN} \\ M2ed &= 0.31 \text{ kNm} \\ M3ed &= -164.61 \text{ kNm} \end{aligned}$$

**G 1100.25 (14825-19061)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

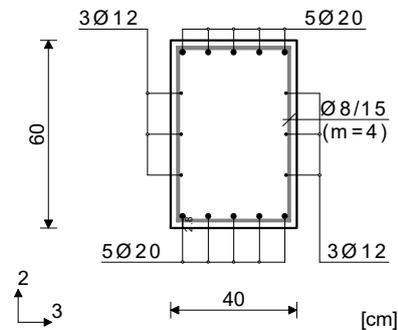
Merodavna kombinacija za savijanje:

$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ N1ed &= 58.77 \text{ kN} \\ M2ed &= -0.64 \text{ kNm} \\ M3ed &= 69.60 \text{ kNm} \end{aligned}$$

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**Presek 24-24**  $x = 11.34\text{m}$



Merodavna kombinacija za smicanje:

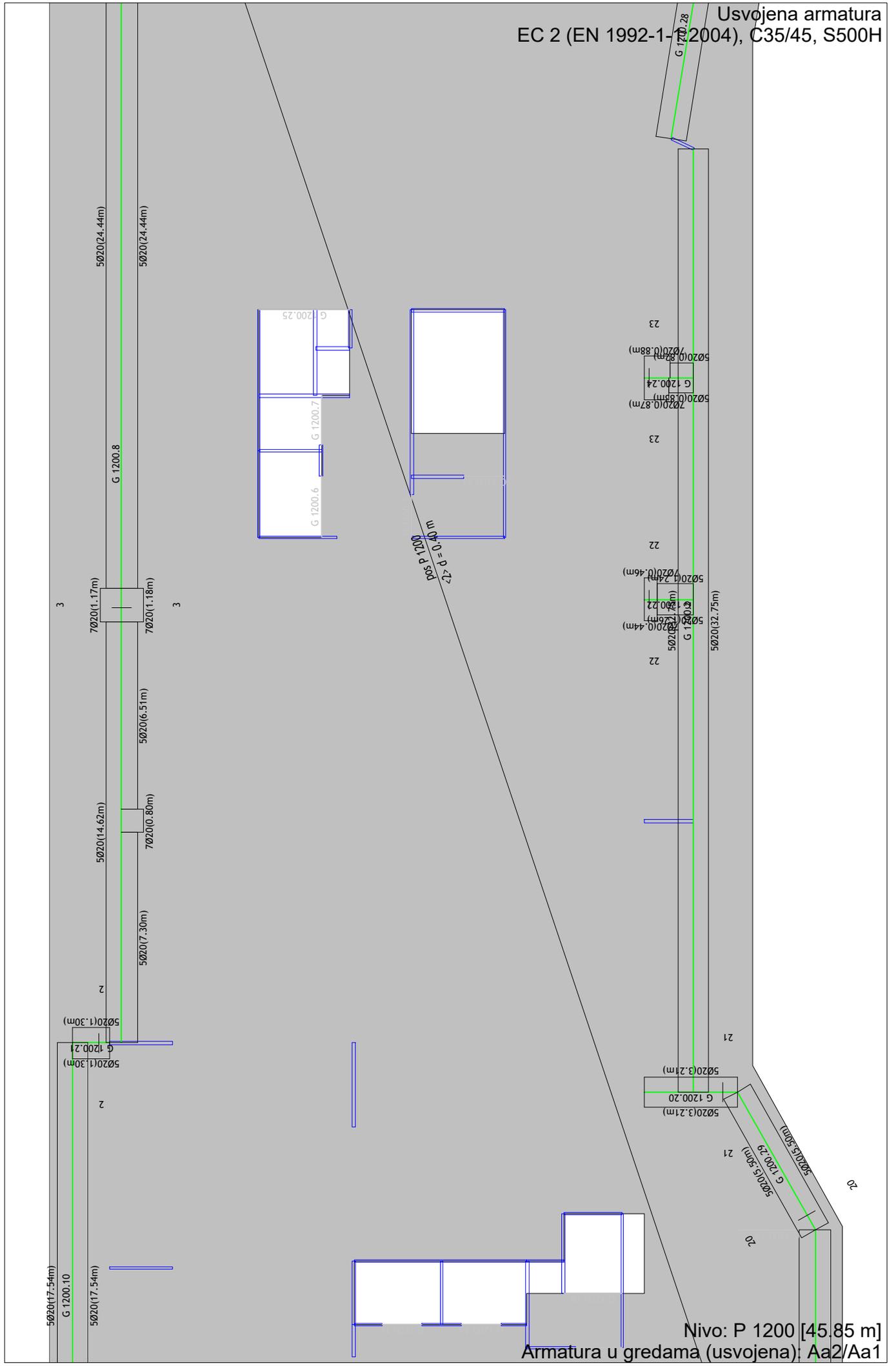
$$\begin{aligned} 1.00xI+0.30xII-1.00xVIII \\ V2ed &= -42.06 \text{ kN} \\ V3ed &= -1.05 \text{ kN} \\ M1ed &= 0.00 \text{ kNm} \end{aligned}$$

$$\begin{aligned} Vrd,max,2 &= 1181.74 \text{ kN} \\ Vrd,max,3 &= 1181.74 \text{ kN} \\ \epsilon_b/\epsilon_a &= -1.720/25.000 \text{ ‰} \\ Aa1 &= 3.21 + 1.32'' = 4.53 \text{ cm}^2 \\ Aa2 &= 3.20 + 1.31'' = 4.51 \text{ cm}^2 \\ Aa3 &= 0.36 + 0.14'' = 0.50 \text{ cm}^2 \\ Aa4 &= 0.35 + 0.13'' = 0.48 \text{ cm}^2 \\ Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \end{aligned}$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]



Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Nivo: P 1200 [45.85 m]

Armatura u gredama (usvojena): Aa2/Aa1



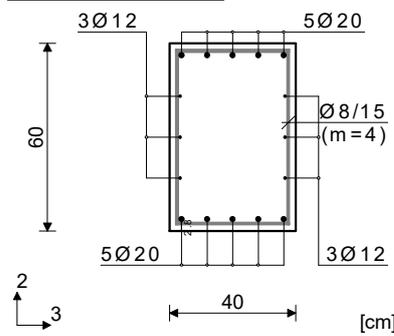
**G 1200.10 (49911-37198)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 1-1  $x = 16.10m$ 

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = 41.52 kN

V3ed = 0.13 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $\epsilon_b/\epsilon_a = -2.160/25.000 \text{ ‰}$ Aa1 = 5.17 + 0.06 = 5.22 cm<sup>2</sup>Aa2 = 5.14 + 0.06 = 5.20 cm<sup>2</sup>Aa3 = 0.58 + 0.00 = 0.58 cm<sup>2</sup>Aa4 = 0.56 + 0.00 = 0.56 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna poduzna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatezucih sila iznosi 0.75xhs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 89.71 kN

M2ed = 0.24 kNm

M3ed = -109.56 kNm

**G 1200.21 (48913-49911)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

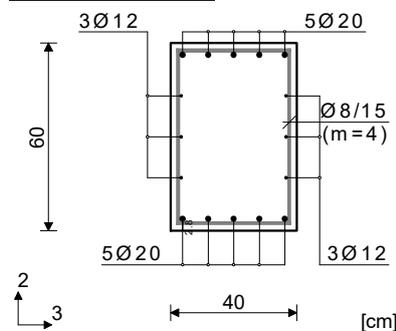
1.35xI+1.50xII

N1ed = -4.70 kN

M2ed = 0.21 kNm

M3ed = -115.14 kNm

Procenat armiranja: 1.59%

Presek 2-2  $x = 0.00m$ 

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

V2ed = -75.84 kN

V3ed = -0.27 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1171.20 kN

Vrd,max,3 = 1171.20 kN

 $\epsilon_b/\epsilon_a = -2.316/25.000 \text{ ‰}$ Aa1 = 4.39 cm<sup>2</sup>Aa2 = 4.37 cm<sup>2</sup>Aa3 = 0.50 cm<sup>2</sup>Aa4 = 0.48 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 1200.8 (48611-75273)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

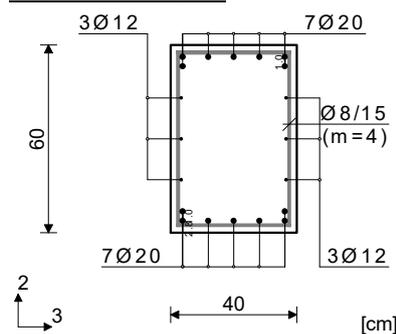
1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 276.55 kN

M2ed = -0.75 kNm

M3ed = -385.13 kNm

Procenat armiranja: 2.12%

Presek 3-3  $x = 15.40m$ 

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 196.88 kN

V3ed = 1.09 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

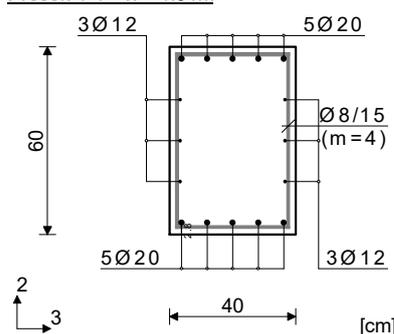
 $\epsilon_b/\epsilon_a = -3.500/23.579 \text{ ‰}$ Aa1 = 18.88 cm<sup>2</sup>Aa2 = 18.78 cm<sup>2</sup>Aa3 = 2.13 cm<sup>2</sup>Aa4 = 2.04 cm<sup>2</sup>Aa,uz = 4.66 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 1200.9 (75498-79842)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 4-4  $x = 1.91m$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 209.61 kN

M2ed = -0.12 kNm

M3ed = 62.38 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -28.78 kN

V3ed = -1.36 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1220.36 kN

Vrd,max,3 = 1220.36 kN

 $\epsilon_b/\epsilon_a = -1.500/25.000 \text{ ‰}$

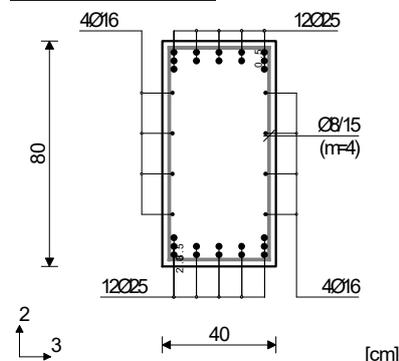
$$\begin{aligned}
 Aa1 &= 4.52 + 0.30'' = 4.83 \text{ cm}^2 \\
 Aa2 &= 4.50 + 0.30'' = 4.80 \text{ cm}^2 \\
 Aa3 &= 0.51 + 0.03'' = 0.54 \text{ cm}^2 \\
 Aa4 &= 0.49 + 0.03'' = 0.52 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1200.26 (77131-73483)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 5-5  $x = 0.00\text{m}$



Merodavna kombinacija za savijanje:  
 $1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$   
 $N1ed = 57.48 \text{ kN}$   
 $M2ed = 1.86 \text{ kNm}$   
 $M3ed = -1071.30 \text{ kNm}$

$Aa1 = 33.90 \text{ cm}^2$   
 $Aa2 = 33.71 \text{ cm}^2$   
 $Aa3 = 4.68 \text{ cm}^2$   
 $Aa4 = 4.52 \text{ cm}^2$   
 $Aa,uz = 6.23 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za torziju:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $M1ed = 0.15 \text{ kNm}$

Procenat armiranja: 4.18%

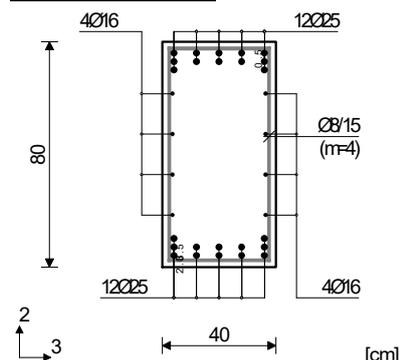
Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII - 1.00xVIII$   
 $V2ed = -351.15 \text{ kN}$   
 $V3ed = -2.82 \text{ kN}$   
 $M1ed = -0.14 \text{ kNm}$

$Vrd,max,2 = 1585.57 \text{ kN}$   
 $Vrd,max,3 = 1585.57 \text{ kN}$   
 $\epsilon b/\epsilon a = -3.500/16.732 \%$

### G 1200.34 (79458-77699)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 6-6  $x = 1.15\text{m}$



Merodavna kombinacija za savijanje:  
 $1.00xI + 0.30xII - 1.00xVIII$   
 $N1ed = 540.10 \text{ kN}$   
 $M2ed = 0.88 \text{ kNm}$   
 $M3ed = -784.27 \text{ kNm}$

$Aa1 = 29.53 + 3.99'' = 33.52 \text{ cm}^2$   
 $Aa2 = 29.37 + 3.97'' = 33.34 \text{ cm}^2$   
 $Aa3 = 4.08 + 0.28'' = 4.36 \text{ cm}^2$   
 $Aa4 = 3.94 + 0.27'' = 4.21 \text{ cm}^2$   
 $Aa,uz = 4.02 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za torziju:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $M1ed = 0.14 \text{ kNm}$

Procenat armiranja: 4.18%

Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII - 1.00xVIII$   
 $V2ed = -226.30 \text{ kN}$   
 $V3ed = -3.92 \text{ kN}$   
 $M1ed = -0.12 \text{ kNm}$

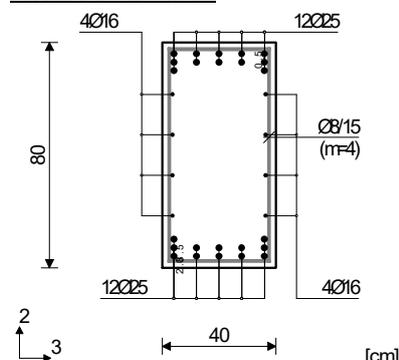
$Vrd,max,2 = 1685.02 \text{ kN}$   
 $Vrd,max,3 = 1685.02 \text{ kN}$   
 $\epsilon b/\epsilon a = -3.500/22.547 \%$

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1200.32 (73483-65751)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 7-7  $x = 1.04\text{m}$

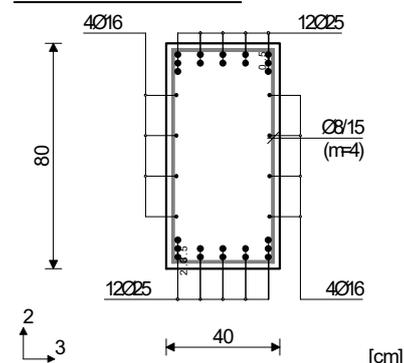


Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII - 1.00xVIII$   
 $V2ed = -272.04 \text{ kN}$   
 $V3ed = -4.26 \text{ kN}$   
 $M1ed = -0.04 \text{ kNm}$

$Vrd,max,2 = 1574.00 \text{ kN}$   
 $Vrd,max,3 = 1574.00 \text{ kN}$   
 $\epsilon b/\epsilon a = -2.078/25.000 \%$   
 $Aa1 = 4.77 + 9.15'' = 13.92 \text{ cm}^2$   
 $Aa2 = 4.74 + 9.10'' = 13.85 \text{ cm}^2$   
 $Aa3 = 0.66 + 0.95'' = 1.61 \text{ cm}^2$   
 $Aa4 = 0.64 + 0.91'' = 1.55 \text{ cm}^2$   
 $Aa,uz = 4.83 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.18%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 10-10  $x = 9.96\text{m}$



Merodavna kombinacija za savijanje:  
 $1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$   
 $N1ed = 38.39 \text{ kN}$   
 $M2ed = -1.62 \text{ kNm}$   
 $M3ed = -570.24 \text{ kNm}$

Merodavna kombinacija za torziju:  
 $1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$   
 $M1ed = -0.07 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII + 1.00xVIII$   
 $V2ed = 252.99 \text{ kN}$   
 $V3ed = 4.80 \text{ kN}$   
 $M1ed = 0.07 \text{ kNm}$

Merodavna kombinacija za savijanje:  
 $1.35xI + 1.50xII$   
 $N1ed = 23.77 \text{ kN}$   
 $M2ed = 1.30 \text{ kNm}$   
 $M3ed = 163.10 \text{ kNm}$

Merodavna kombinacija za torziju:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $M1ed = 0.05 \text{ kNm}$

Vrd,max,2 = 1560.38 kN  
 Vrd,max,3 = 1560.38 kN  
 eb/εa = -3.500/22.608 ‰

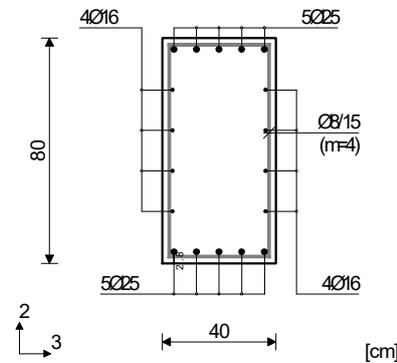
Aa1 = 17.63 + 13.07'' = 30.69 cm<sup>2</sup>  
 Aa2 = 17.53 + 13.00'' = 30.53 cm<sup>2</sup>  
 Aa3 = 2.44 + 1.32'' = 3.76 cm<sup>2</sup>  
 Aa4 = 2.35 + 1.28'' = 3.63 cm<sup>2</sup>  
 Aa,uz = 4.49 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.18%

**G 1200.33 (77699-69734)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 8-8 x = 1.92m



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 N1ed = 76.09 kN  
 M2ed = 1.60 kNm  
 M3ed = 37.23 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 M1ed = -0.06 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -227.72 kN  
 V3ed = -3.27 kN  
 M1ed = -0.06 kNm

Vrd,max,2 = 1587.27 kN

Vrd,max,3 = 1587.27 kN

εb/εa = -1.017/25.000 ‰

Aa1 = 1.75 + 9.80'' = 11.55 cm<sup>2</sup>

Aa2 = 1.74 + 9.75'' = 11.49 cm<sup>2</sup>

Aa3 = 0.24 + 1.04'' = 1.28 cm<sup>2</sup>

Aa4 = 0.23 + 1.01'' = 1.24 cm<sup>2</sup>

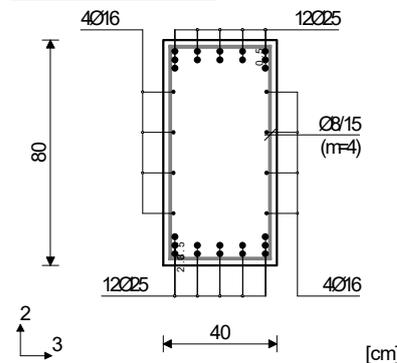
Aa,uz = 4.04 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.04%

] - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 9-9 x = 5.02m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = 102.70 kN  
 M2ed = -2.57 kNm  
 M3ed = 1025.12 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 M1ed = -0.12 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -254.81 kN  
 V3ed = -4.00 kN  
 M1ed = -0.12 kNm

Vrd,max,2 = 1587.40 kN

Vrd,max,3 = 1587.40 kN

εb/εa = -3.500/17.340 ‰

Aa1 = 32.68 + 4.34'' = 37.02 cm<sup>2</sup>

Aa2 = 32.50 + 4.31'' = 36.82 cm<sup>2</sup>

Aa3 = 4.52 + 0.30'' = 4.82 cm<sup>2</sup>

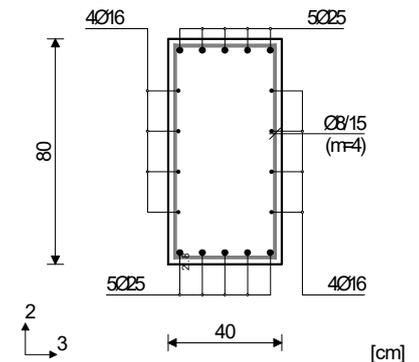
Aa4 = 4.36 + 0.29'' = 4.65 cm<sup>2</sup>

Aa,uz = 4.52 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.18%

Presek 11-11 x = 12.74m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = -10.28 kN  
 M2ed = 0.91 kNm  
 M3ed = 126.57 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 M1ed = 0.06 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 266.21 kN  
 V3ed = 2.73 kN  
 M1ed = 0.06 kNm

Vrd,max,2 = 1562.44 kN

Vrd,max,3 = 1562.44 kN

εb/εa = -1.816/25.000 ‰

Aa1 = 3.36 + 5.89'' = 9.24 cm<sup>2</sup>

Aa2 = 3.34 + 5.85'' = 9.19 cm<sup>2</sup>

Aa3 = 0.46 + 0.56'' = 1.02 cm<sup>2</sup>

Aa4 = 0.45 + 0.54'' = 0.99 cm<sup>2</sup>

Aa,uz = 4.73 cm<sup>2</sup>/m (m=2)

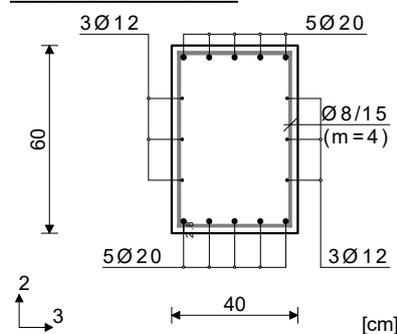
[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.04%

**G 1200.28 (62511-69734)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 12-12 x = 2.76m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 219.44 kN  
 M2ed = -0.91 kNm  
 M3ed = 45.01 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII  
 V2ed = -25.43 kN  
 V3ed = -1.63 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1210.49 kN

Vrd,max,3 = 1210.49 kN

εb/εa = -1.315/25.000 ‰

Aa1 = 3.95 cm<sup>2</sup>

Aa2 = 3.93 cm<sup>2</sup>

Aa3 = 0.45 cm<sup>2</sup>

Aa4 = 0.43 cm<sup>2</sup>

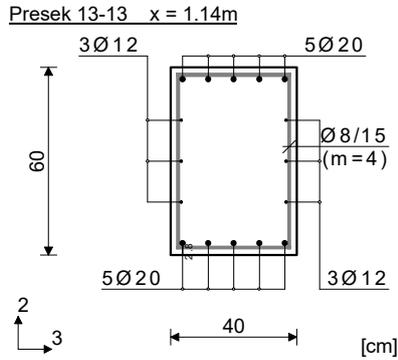
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

**G 1200.31 (34319-37198)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 (γC = 1.50, γS = 1.15) [SP]  
 S500H  
 Kompletna šema opterećenja



Merodavna kombinacija za savijanje:

$$1.00xI+0.30xII-1.00xVIII$$

$$N1ed = 82.68 \text{ kN}$$

$$M2ed = -0.19 \text{ kNm}$$

$$M3ed = -44.60 \text{ kNm}$$

$$Aa1 = 2.51 + 0.83'' = 3.34 \text{ cm}^2$$

$$Aa2 = 2.50 + 0.83'' = 3.33 \text{ cm}^2$$

$$Aa3 = 0.28 + 0.06'' = 0.35 \text{ cm}^2$$

$$Aa4 = 0.27 + 0.06'' = 0.33 \text{ cm}^2$$

$$Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Merodavna kombinacija za smicanje:

$$1.00xI+0.30xII+0.30xIII-1.00xVIII$$

$$V2ed = -49.38 \text{ kN}$$

$$V3ed = -0.50 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

$$Vrd,max,2 = 1188.47 \text{ kN}$$

$$Vrd,max,3 = 1188.47 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -1.328/25.000 \text{ ‰}$$

**G 1200.30 (28864-32694)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$1.00xI+0.30xII+0.30xIII-1.00xVIII$$

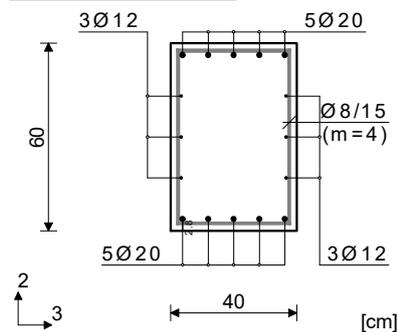
$$N1ed = 95.78 \text{ kN}$$

$$M2ed = 0.17 \text{ kNm}$$

$$M3ed = -185.89 \text{ kNm}$$

Procenat armiranja: 1.59%

Presek 14-14  $x = 0.00\text{m}$



Merodavna kombinacija za smicanje:

$$1.00xI+0.30xII+0.30xIII-1.00xVIII$$

$$V2ed = -84.87 \text{ kN}$$

$$V3ed = -0.11 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

$$Vrd,max,2 = 1170.29 \text{ kN}$$

$$Vrd,max,3 = 1170.29 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -2.853/25.000 \text{ ‰}$$

$$Aa1 = 8.41 \text{ cm}^2$$

$$Aa2 = 8.37 \text{ cm}^2$$

$$Aa3 = 0.95 \text{ cm}^2$$

$$Aa4 = 0.91 \text{ cm}^2$$

$$Aa,uz = 2.01 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 1200.13 (24352-26740)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

$$1.00xI+0.30xII-1.00xVIII$$

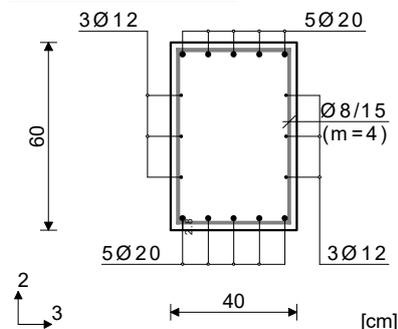
$$N1ed = 53.92 \text{ kN}$$

$$M2ed = 0.00 \text{ kNm}$$

$$M3ed = -176.72 \text{ kNm}$$

Procenat armiranja: 1.59%

Presek 15-15  $x = 3.67\text{m}$



Merodavna kombinacija za smicanje:

$$1.00xI+0.30xII+1.00xVIII$$

$$V2ed = 73.88 \text{ kN}$$

$$V3ed = 0.95 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

$$Vrd,max,2 = 1170.29 \text{ kN}$$

$$Vrd,max,3 = 1170.29 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -2.812/25.000 \text{ ‰}$$

$$Aa1 = 7.58 \text{ cm}^2$$

$$Aa2 = 7.54 \text{ cm}^2$$

$$Aa3 = 0.86 \text{ cm}^2$$

$$Aa4 = 0.82 \text{ cm}^2$$

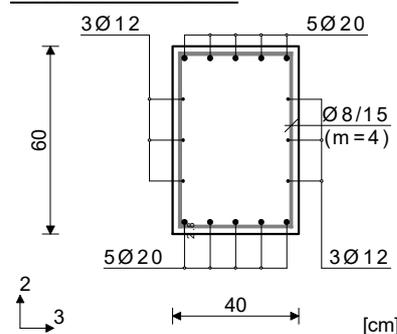
$$Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 1200.12 (21177-23079)**

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

Presek 16-16  $x = 2.09\text{m}$



Merodavna kombinacija za smicanje:

$$1.00xI+0.30xII+1.00xVIII$$

$$V2ed = 75.50 \text{ kN}$$

$$V3ed = 1.65 \text{ kN}$$

$$M1ed = 0.00 \text{ kNm}$$

$$Vrd,max,2 = 1170.29 \text{ kN}$$

$$Vrd,max,3 = 1170.29 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -1.996/25.000 \text{ ‰}$$

$$Aa1 = 4.02 + 1.29'' = 5.32 \text{ cm}^2$$

$$Aa2 = 4.00 + 1.29'' = 5.29 \text{ cm}^2$$

$$Aa3 = 0.45 + 0.10'' = 0.55 \text{ cm}^2$$

$$Aa4 = 0.44 + 0.09'' = 0.53 \text{ cm}^2$$

$$Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Merodavna kombinacija za savijanje:

$$1.00xI+0.30xII-1.00xVIII$$

$$N1ed = 45.86 \text{ kN}$$

$$M2ed = -0.03 \text{ kNm}$$

$$M3ed = -92.92 \text{ kNm}$$

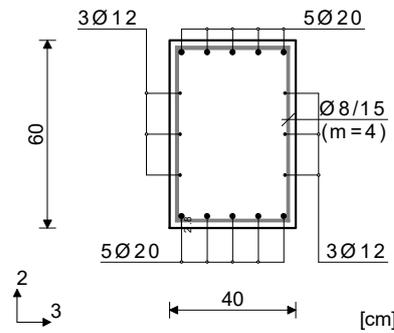
**G 1200.11 (18638-19931)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 17-17  $x = 1.43\text{m}$ 

Merodavna kombinacija za savijanje:

1.35xI+1.50xII+1.05xIII

N1ed = -6.80 kN

M2ed = 0.11 kNm

M3ed = -40.85 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII

V2ed = -1.70 kN

V3ed = -0.93 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1176.24 kN

Vrd,max,3 = 1176.24 kN

eb/εa = -1.317/25.000 ‰

Aa1 = 1.42 + 0.03'' = 1.45 cm<sup>2</sup>Aa2 = 1.41 + 0.03'' = 1.45 cm<sup>2</sup>Aa3 = 0.16 + 0.00'' = 0.16 cm<sup>2</sup>Aa4 = 0.15 + 0.00'' = 0.15 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

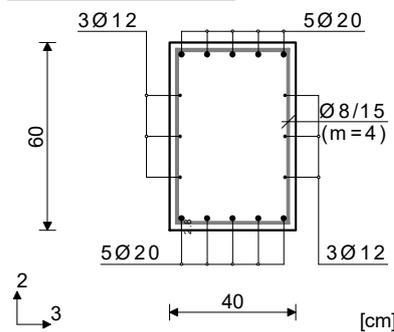
**G 1200.27 (18638-19967)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 18-18  $x = 4.95\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 47.75 kN

M2ed = -0.26 kNm

M3ed = 36.94 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

V2ed = 39.53 kN

V3ed = -0.12 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

eb/εa = -1.226/25.000 ‰

Aa1 = 1.84 + 0.41'' = 2.25 cm<sup>2</sup>Aa2 = 1.83 + 0.40'' = 2.23 cm<sup>2</sup>Aa3 = 0.21 + 0.03'' = 0.24 cm<sup>2</sup>Aa4 = 0.20 + 0.03'' = 0.23 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

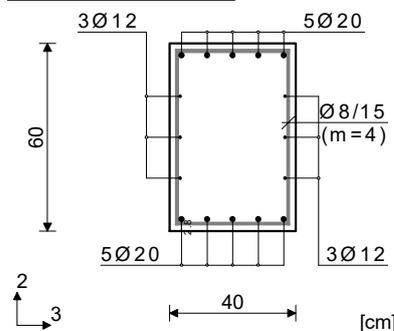
**G 1200.1 (19967-27716)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 19-19  $x = 1.46\text{m}$ 

Merodavna kombinacija za savijanje:

1.35xI+1.50xII+1.05xIII

N1ed = -0.36 kN

M2ed = -0.06 kNm

M3ed = -172.83 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

V2ed = 73.11 kN

V3ed = 0.23 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.38 kN

Vrd,max,3 = 1170.38 kN

eb/εa = -2.847/25.000 ‰

Aa1 = 6.84 + 3.62'' = 10.46 cm<sup>2</sup>Aa2 = 6.80 + 3.60'' = 10.40 cm<sup>2</sup>Aa3 = 0.77 + 0.36'' = 1.13 cm<sup>2</sup>Aa4 = 0.74 + 0.34'' = 1.08 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

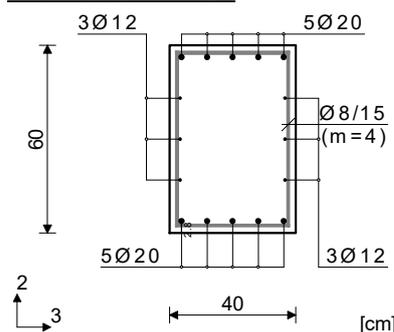
**G 1200.29 (27716-32477)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 20-20  $x = 1.03\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 49.53 kN

M2ed = -0.38 kNm

M3ed = -71.46 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -23.73 kN

V3ed = -0.87 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1181.20 kN

Vrd,max,3 = 1181.20 kN

eb/εa = -1.738/25.000 ‰

$$\begin{aligned}
 Aa1 &= 3.21 + 0.34'' = 3.55 \text{ cm}^2 \\
 Aa2 &= 3.19 + 0.34'' = 3.53 \text{ cm}^2 \\
 Aa3 &= 0.36 + 0.03'' = 0.39 \text{ cm}^2 \\
 Aa4 &= 0.35 + 0.02'' = 0.37 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2)
 \end{aligned}$$

[Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

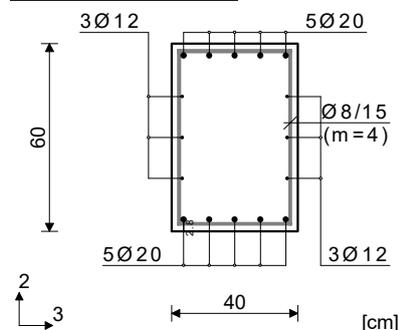
**G 1200.20 (34626-32477)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 19.01 \text{ kN}$   
 $M2ed = -0.44 \text{ kNm}$   
 $M3ed = -70.43 \text{ kNm}$

Procenat armiranja: 1.59%

**Presek 21-21  $x = 2.85\text{m}$**



Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII+1.00xVIII$   
 $V2ed = 38.64 \text{ kN}$   
 $V3ed = 0.43 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -1.756/25.000 \text{ ‰}$   
 $Aa1 = 2.84 \text{ cm}^2$   
 $Aa2 = 2.83 \text{ cm}^2$   
 $Aa3 = 0.32 \text{ cm}^2$   
 $Aa4 = 0.31 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

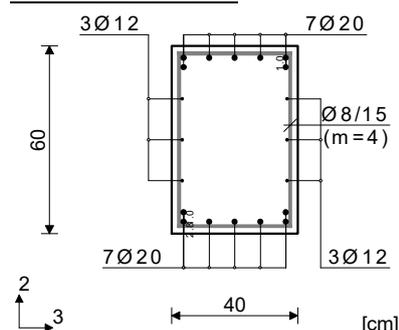
**G 1200.22 (46651-45398)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Merodavna kombinacija za savijanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $N1ed = -2.93 \text{ kN}$   
 $M2ed = 0.10 \text{ kNm}$   
 $M3ed = -386.20 \text{ kNm}$

Procenat armiranja: 2.12%

**Presek 22-22  $x = 0.00\text{m}$**



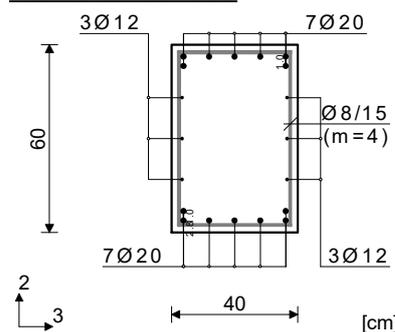
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2ed = -170.81 \text{ kN}$   
 $V3ed = -1.76 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1175.07 \text{ kN}$   
 $Vrd,max,3 = 1175.07 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/20.763 \text{ ‰}$   
 $Aa1 = 16.04 \text{ cm}^2$   
 $Aa2 = 15.95 \text{ cm}^2$   
 $Aa3 = 1.81 \text{ cm}^2$   
 $Aa4 = 1.74 \text{ cm}^2$   
 $Aa,uz = 4.04 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

**G 1200.24 (52528-51222)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 23-23  $x = 0.00\text{m}$**



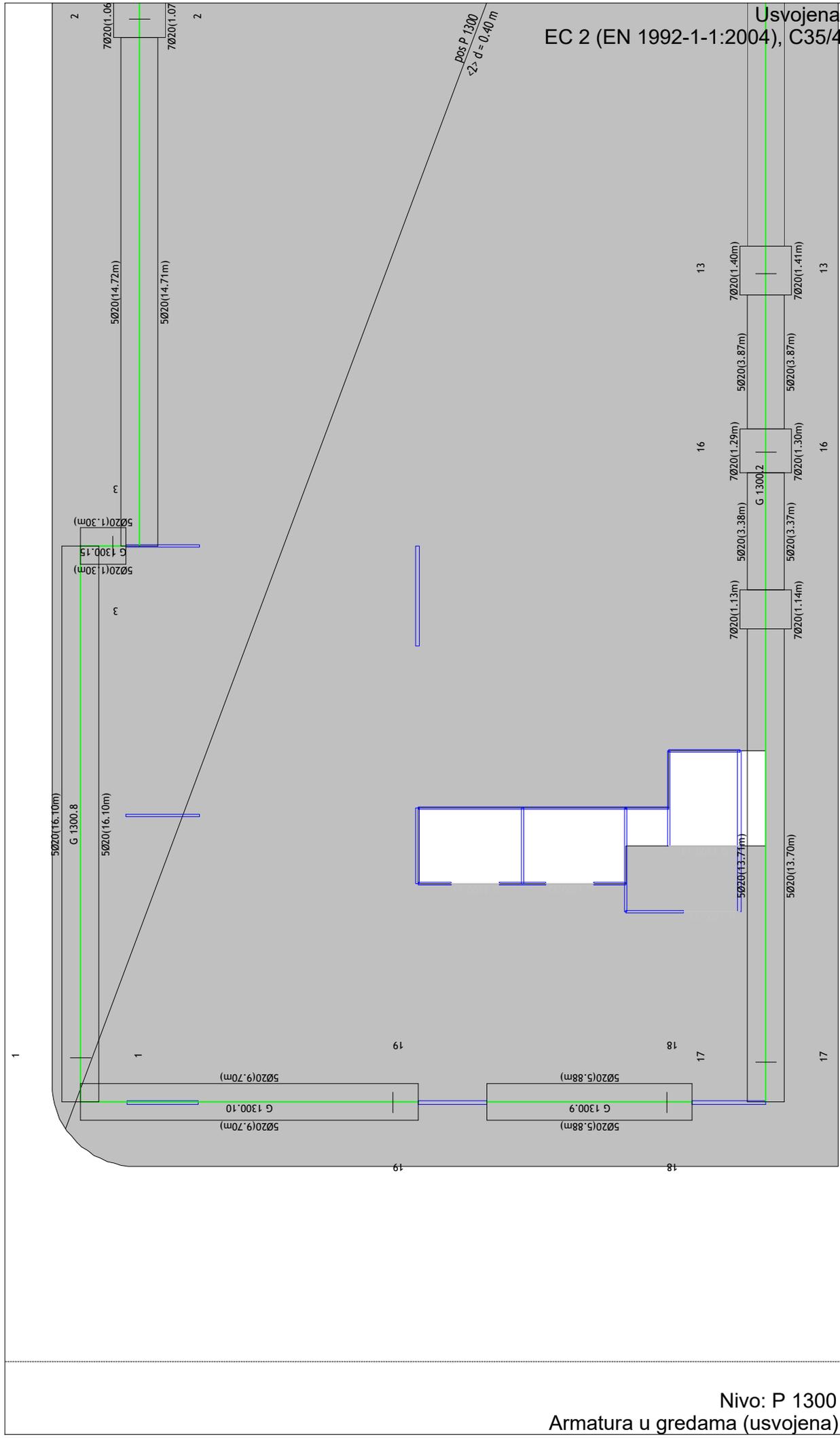
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -222.33 \text{ kN}$   
 $V3ed = -2.66 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1176.27 \text{ kN}$   
 $Vrd,max,3 = 1176.27 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/19.016 \text{ ‰}$   
 $Aa1 = 19.58 \text{ cm}^2$   
 $Aa2 = 19.48 \text{ cm}^2$   
 $Aa3 = 2.21 \text{ cm}^2$   
 $Aa4 = 2.12 \text{ cm}^2$   
 $Aa,uz = 5.26 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

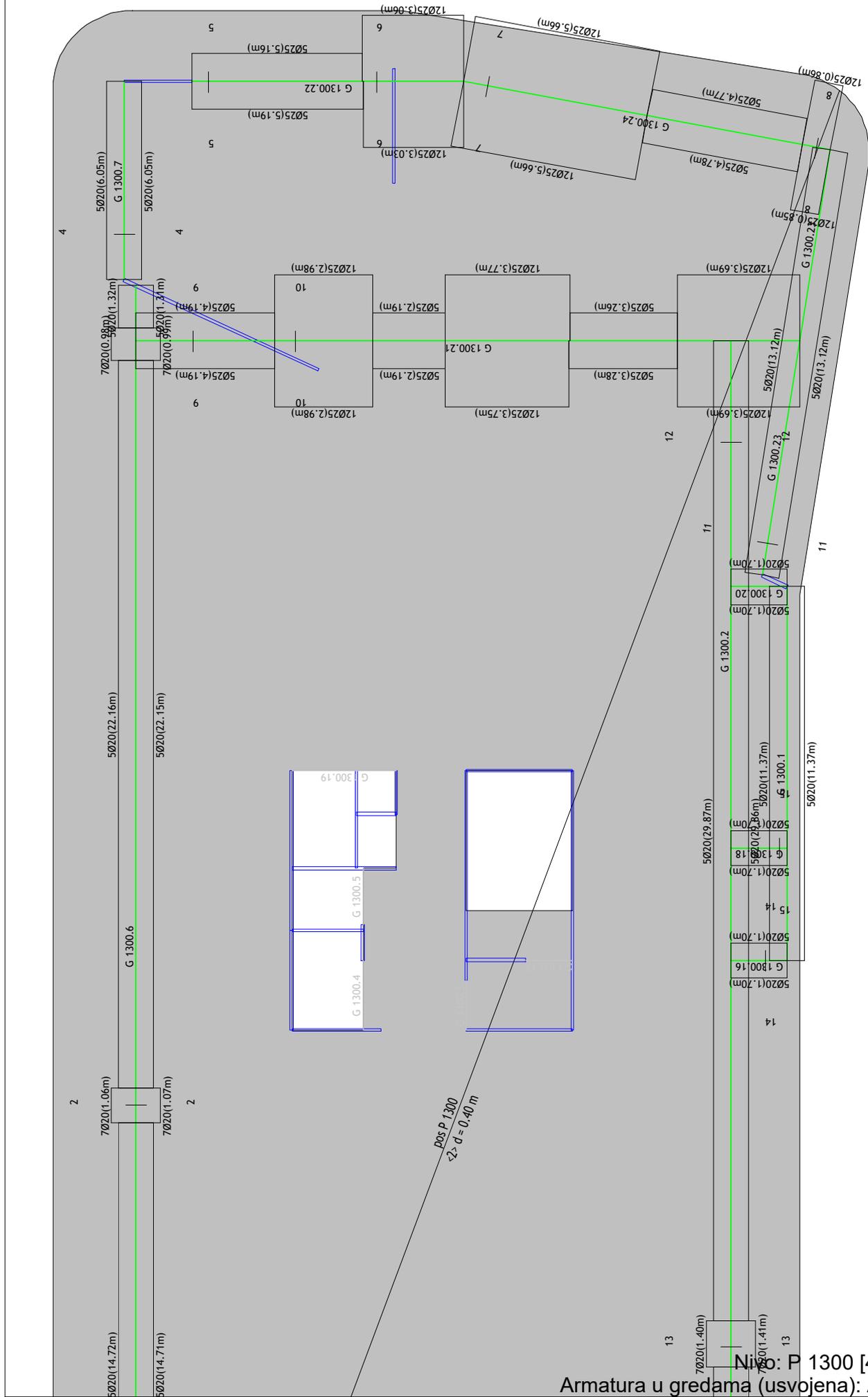
Merodavna kombinacija za savijanje:  
 $1.35xI+1.50xII$   
 $N1ed = 3.55 \text{ kN}$   
 $M2ed = 0.79 \text{ kNm}$   
 $M3ed = -465.88 \text{ kNm}$

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Nivo: P 1300 [49.35 m]  
Armatura u gredama (usvojena): Aa2/Aa1





Nivo: P 1300 [49.35 m]  
Armatura u gredama (usvojena): Aa2/Aa1

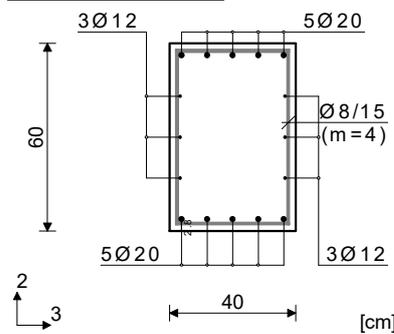
**G 1300.8 (52613-40582)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 1-1  $x = 15.07\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 11.14 kN

M2ed = 0.38 kNm

M3ed = 45.95 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = 29.23 kN

V3ed = 0.54 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1171.44 kN

Vrd,max,3 = 1171.44 kN

 $\epsilon_b/\epsilon_a = -1.409/25.000 \text{ ‰}$ Aa1 = 1.80 + 0.19 = 1.99 cm<sup>2</sup>Aa2 = 1.79 + 0.19 = 1.98 cm<sup>2</sup>Aa3 = 0.20 + 0.00 = 0.20 cm<sup>2</sup>Aa4 = 0.19 + 0.00 = 0.19 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna poduzna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatezućih sila iznosi 0.75xhs.

**G 1300.6 (51308-76753)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

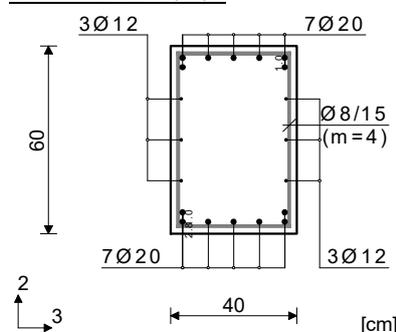
1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 176.35 kN

M2ed = -0.87 kNm

M3ed = -391.95 kNm

Procenat armiranja: 2.12%

Presek 2-2  $x = 15.40\text{m}$ 

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 201.01 kN

V3ed = 0.88 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $\epsilon_b/\epsilon_a = -3.500/22.443 \text{ ‰}$ Aa1 = 18.14 cm<sup>2</sup>Aa2 = 18.04 cm<sup>2</sup>Aa3 = 2.05 cm<sup>2</sup>Aa4 = 1.97 cm<sup>2</sup>Aa,uz = 4.76 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 1300.15 (51612-52613)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Merodavna kombinacija za savijanje:

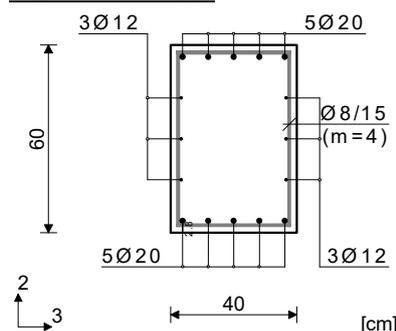
1.35xI+1.50xII

N1ed = -8.97 kN

M2ed = 0.26 kNm

M3ed = -123.38 kNm

Procenat armiranja: 1.59%

Presek 3-3  $x = 0.00\text{m}$ 

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

V2ed = -80.23 kN

V3ed = -0.37 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1172.02 kN

Vrd,max,3 = 1172.02 kN

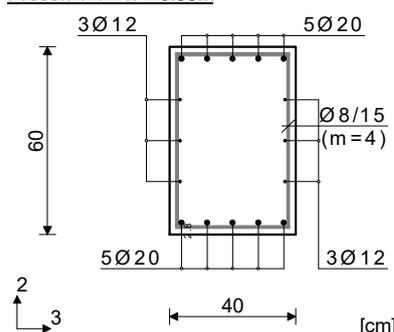
 $\epsilon_b/\epsilon_a = -2.407/25.000 \text{ ‰}$ Aa1 = 4.69 cm<sup>2</sup>Aa2 = 4.66 cm<sup>2</sup>Aa3 = 0.53 cm<sup>2</sup>Aa4 = 0.51 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 1300.7 (76953-78891)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 4-4  $x = 0.99\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 37.26 kN

M2ed = -0.67 kNm

M3ed = -68.30 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -41.10 kN

V3ed = 0.33 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1180.09 kN

Vrd,max,3 = 1180.09 kN

 $\epsilon_b/\epsilon_a = -1.726/25.000 \text{ ‰}$

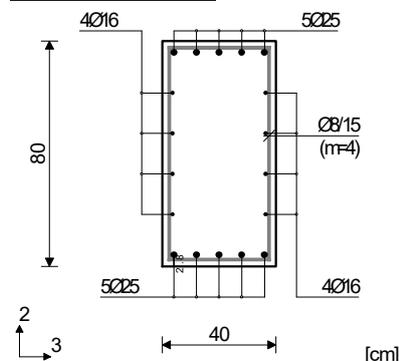
$$\begin{aligned}
 Aa1 &= 2.95 + 3.38'' = 6.33 \text{ cm}^2 \\
 Aa2 &= 2.93 + 3.37'' = 6.30 \text{ cm}^2 \\
 Aa3 &= 0.33 + 0.38'' = 0.71 \text{ cm}^2 \\
 Aa4 &= 0.32 + 0.36'' = 0.68 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1300.22 (78324-75177)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 5-5  $x = 0.96\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 N1ed &= 161.57 \text{ kN} \\
 M2ed &= 0.83 \text{ kNm} \\
 M3ed &= -525.12 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za torziju:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 M1ed &= -0.06 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 V2ed &= -210.27 \text{ kN} \\
 V3ed &= -3.39 \text{ kN} \\
 M1ed &= -0.06 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1597.66 kN

Vrd,max,3 = 1597.66 kN

$\epsilon_b/\epsilon_a = -3.500/24.729 \%$

$$Aa1 = 17.43 + 3.68'' = 21.11 \text{ cm}^2$$

$$Aa2 = 17.34 + 3.66'' = 21.00 \text{ cm}^2$$

$$Aa3 = 2.41 + 0.25'' = 2.66 \text{ cm}^2$$

$$Aa4 = 2.33 + 0.25'' = 2.57 \text{ cm}^2$$

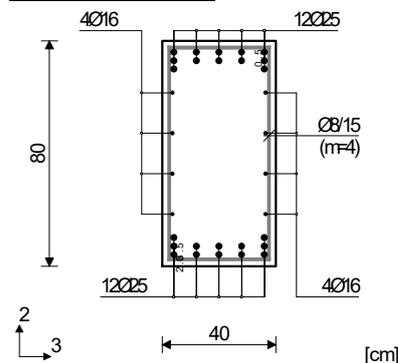
$$Aa,uz = 3.73 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.04%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 6-6  $x = 6.10\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII-1.00xVIII \\
 N1ed &= 191.08 \text{ kN} \\
 M2ed &= 0.47 \text{ kNm} \\
 M3ed &= -804.25 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za torziju:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 M1ed &= 0.04 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 V2ed &= 168.10 \text{ kN} \\
 V3ed &= 0.53 \text{ kN} \\
 M1ed &= 0.04 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/20.329 \%$

$$Aa1 = 26.62 + 10.01'' = 36.63 \text{ cm}^2$$

$$Aa2 = 26.47 + 9.96'' = 36.43 \text{ cm}^2$$

$$Aa3 = 3.68 + 1.38'' = 5.06 \text{ cm}^2$$

$$Aa4 = 3.55 + 1.34'' = 4.89 \text{ cm}^2$$

$$Aa,uz = 2.98 \text{ cm}^2/\text{m} \quad (m=2)$$

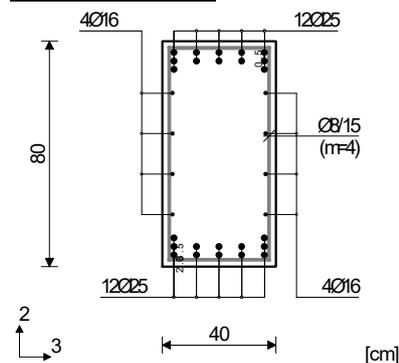
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.18%

### G 1300.24 (75177-67932)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 7-7  $x = 0.90\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 N1ed &= 1.87 \text{ kN} \\
 M2ed &= -1.02 \text{ kNm} \\
 M3ed &= 100.28 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za torziju:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 M1ed &= 0.03 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 V2ed &= -245.28 \text{ kN} \\
 V3ed &= -2.40 \text{ kN} \\
 M1ed &= -0.03 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1575.65 kN

Vrd,max,3 = 1575.65 kN

$\epsilon_b/\epsilon_a = -1.593/25.000 \%$

$$Aa1 = 2.73 + 7.95'' = 10.68 \text{ cm}^2$$

$$Aa2 = 2.72 + 7.90'' = 10.62 \text{ cm}^2$$

$$Aa3 = 0.38 + 0.79'' = 1.17 \text{ cm}^2$$

$$Aa4 = 0.36 + 0.76'' = 1.13 \text{ cm}^2$$

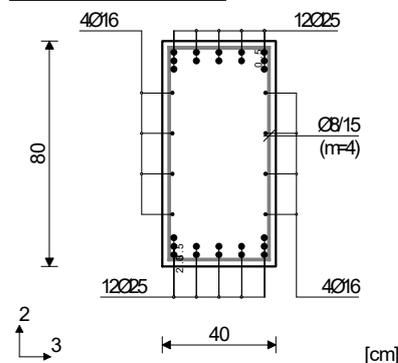
$$Aa,uz = 4.35 \text{ cm}^2/\text{m} \quad (m=2)$$

[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.18%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Presek 8-8  $x = 11.29\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI+0.30xII-1.00xVIII \\
 N1ed &= 27.81 \text{ kN} \\
 M2ed &= -2.40 \text{ kNm} \\
 M3ed &= -892.67 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za torziju:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 M1ed &= 0.18 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI+0.30xII+0.30xIII+1.00xVIII \\
 V2ed &= 320.47 \text{ kN} \\
 V3ed &= 0.67 \text{ kN} \\
 M1ed &= 0.18 \text{ kNm}
 \end{aligned}$$

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/18.107 \%$

$$Aa1 = 27.82 \text{ cm}^2$$

$$Aa2 = 27.67 \text{ cm}^2$$

$$Aa3 = 3.85 \text{ cm}^2$$

$$Aa4 = 3.71 \text{ cm}^2$$

$$Aa,uz = 5.69 \text{ cm}^2/\text{m} \quad (m=2)$$

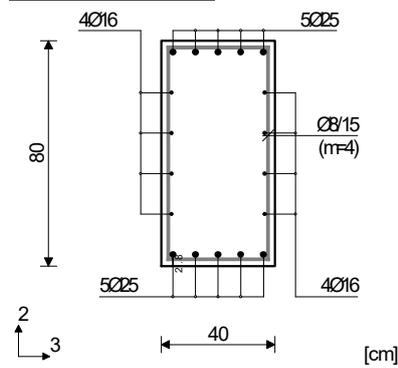
[Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 4.18%

### G 1300.21 (76063-64874)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

**Presek 9-9 x = 1.70m**



Merodavna kombinacija za savijanje:

1.35xI+1.50xII  
 N1ed = 9.26 kN  
 M2ed = -1.29 kNm  
 M3ed = -200.95 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 M1ed = -0.05 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 68.28 kN  
 V3ed = 5.86 kN  
 M1ed = 0.02 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -2.313/25.000 \text{ ‰}$

Aa1 = 5.76 + 0.93'' = 6.69 cm<sup>2</sup>

Aa2 = 5.73 + 0.92'' = 6.66 cm<sup>2</sup>

Aa3 = 0.80 + 0.06'' = 0.86 cm<sup>2</sup>

Aa4 = 0.77 + 0.06'' = 0.83 cm<sup>2</sup>

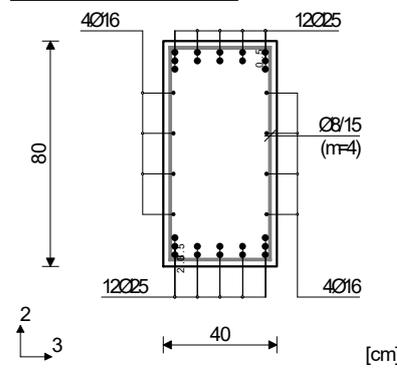
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.04%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

**Presek 10-10 x = 4.73m**



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 191.72 kN

M2ed = 2.03 kNm

M3ed = -805.45 kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII

M1ed = -0.20 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 182.96 kN

V3ed = 2.73 kN

M1ed = 0.15 kNm

Vrd,max,2 = 1560.38 kN

Vrd,max,3 = 1560.38 kN

$\epsilon_b/\epsilon_a = -3.500/19.949 \text{ ‰}$

Aa1 = 26.69 + 3.03'' = 29.73 cm<sup>2</sup>

Aa2 = 26.55 + 3.01'' = 29.56 cm<sup>2</sup>

Aa3 = 3.69 + 0.21'' = 3.90 cm<sup>2</sup>

Aa4 = 3.56 + 0.20'' = 3.76 cm<sup>2</sup>

Aa,uz = 3.25 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 4.18%

**G 1300.23 (60751-64874)**

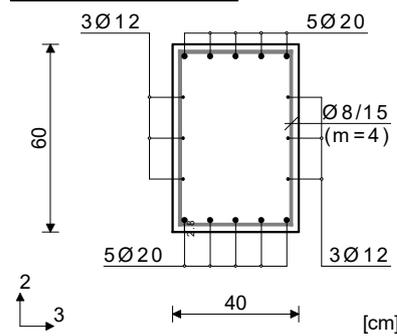
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 11-11 x = 1.05m**



Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = -64.54 kN

V3ed = 7.43 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1178.81 kN

Vrd,max,3 = 1178.81 kN

$\epsilon_b/\epsilon_a = -2.924/25.000 \text{ ‰}$

Aa1 = 8.63 + 0.89'' = 9.52 cm<sup>2</sup>

Aa2 = 8.58 + 0.89'' = 9.47 cm<sup>2</sup>

Aa3 = 0.97 + 0.07'' = 1.04 cm<sup>2</sup>

Aa4 = 0.93 + 0.06'' = 1.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 106.91 kN

M2ed = 1.81 kNm

M3ed = -188.10 kNm

**G 1300.2 (52588-66220)**

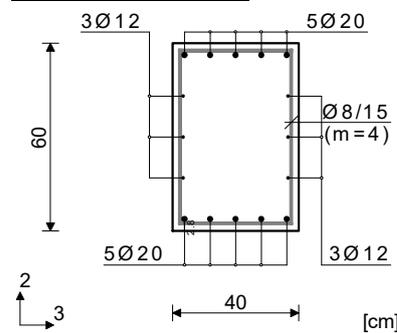
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

**Presek 12-12 x = 15.89m**



Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -12.96 kN

V3ed = 1.80 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1194.75 kN

Vrd,max,3 = 1194.75 kN

$\epsilon_b/\epsilon_a = -1.650/25.000 \text{ ‰}$

Aa1 = 3.15 + 0.28'' = 3.42 cm<sup>2</sup>

Aa2 = 3.13 + 0.28'' = 3.40 cm<sup>2</sup>

Aa3 = 0.36 + 0.03'' = 0.39 cm<sup>2</sup>

Aa4 = 0.34 + 0.03'' = 0.37 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

)- dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 86.83 kN

M2ed = 1.58 kNm

M3ed = 60.19 kNm

**G 1300.2 (27565-52588)**

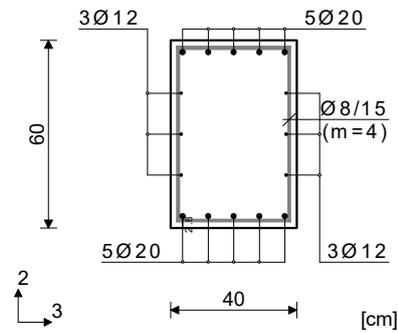
EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 17-17 x = 1.05m



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 17.77 \text{ kN}$   
 $M2ed = -0.41 \text{ kNm}$   
 $M3ed = 53.54 \text{ kNm}$

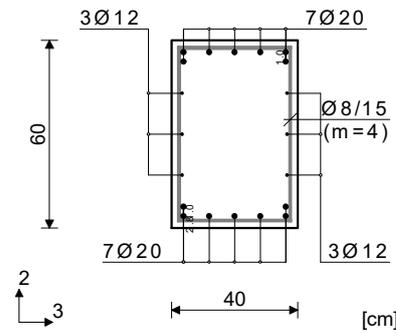
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -38.06 \text{ kN}$   
 $V3ed = -0.89 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1175.92 \text{ kN}$   
 $Vrd,max,3 = 1175.92 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -1.518/25.000 \text{ ‰}$   
 $Aa1 = 2.16 + 0.88'' = 3.04 \text{ cm}^2$   
 $Aa2 = 2.15 + 0.88'' = 3.02 \text{ cm}^2$   
 $Aa3 = 0.24 + 0.07'' = 0.32 \text{ cm}^2$   
 $Aa4 = 0.23 + 0.07'' = 0.31 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

Presek 16-16 x = 19.10m



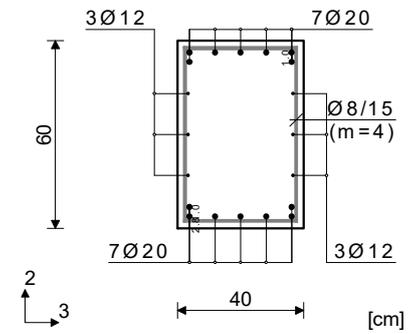
Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $N1ed = 218.24 \text{ kN}$   
 $M2ed = 1.04 \text{ kNm}$   
 $M3ed = -434.77 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 230.91 \text{ kN}$   
 $V3ed = 1.83 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/21.501 \text{ ‰}$   
 $Aa1 = 20.43 \text{ cm}^2$   
 $Aa2 = 20.32 \text{ cm}^2$   
 $Aa3 = 2.31 \text{ cm}^2$   
 $Aa4 = 2.21 \text{ cm}^2$   
 $Aa,uz = 5.46 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

Presek 13-13 x = 23.80m



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 203.40 \text{ kN}$   
 $M2ed = -0.15 \text{ kNm}$   
 $M3ed = -450.43 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -207.41 \text{ kN}$   
 $V3ed = -1.20 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

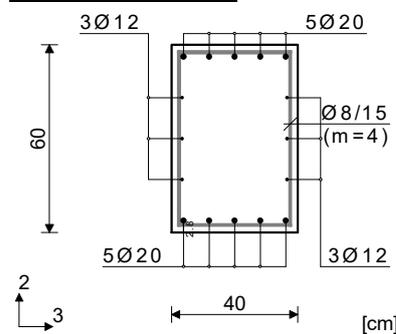
$Vrd,max,2 = 1221.51 \text{ kN}$   
 $Vrd,max,3 = 1221.51 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -3.500/21.193 \text{ ‰}$   
 $Aa1 = 20.96 \text{ cm}^2$   
 $Aa2 = 20.85 \text{ cm}^2$   
 $Aa3 = 2.37 \text{ cm}^2$   
 $Aa4 = 2.27 \text{ cm}^2$   
 $Aa,uz = 4.91 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 2.12%

**G 1300.16 (52588-51283)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 14-14 x = 1.05m



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 29.76 \text{ kN}$   
 $M2ed = -0.08 \text{ kNm}$   
 $M3ed = 19.69 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII$   
 $V2ed = 7.14 \text{ kN}$   
 $V3ed = 0.30 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1170.29 \text{ kN}$   
 $Vrd,max,3 = 1170.29 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -0.884/25.000 \text{ ‰}$   
 $Aa1 = 1.01 + 0.05'' = 1.06 \text{ cm}^2$   
 $Aa2 = 1.00 + 0.05'' = 1.05 \text{ cm}^2$   
 $Aa3 = 0.11 + 0.00'' = 0.11 \text{ cm}^2$   
 $Aa4 = 0.11 + 0.00'' = 0.11 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

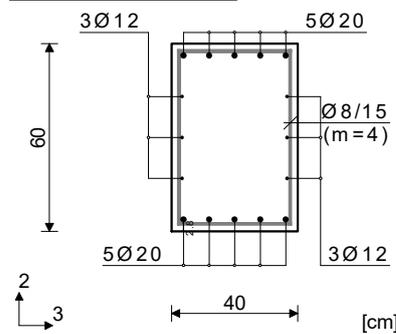
Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

**G 1300.18 (55274-53958)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Presek 15-15 x = 1.70m



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 22.13 \text{ kN}$   
 $M2ed = -0.22 \text{ kNm}$   
 $M3ed = -11.67 \text{ kNm}$

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -32.02 \text{ kN}$   
 $V3ed = -0.55 \text{ kN}$   
 $M1ed = 0.00 \text{ kNm}$

$Vrd,max,2 = 1174.05 \text{ kN}$   
 $Vrd,max,3 = 1174.05 \text{ kN}$   
 $\epsilon_b/\epsilon_a = -0.702/25.000 \text{ ‰}$   
 $Aa1 = 0.64 + 0.50'' = 1.14 \text{ cm}^2$   
 $Aa2 = 0.64 + 0.50'' = 1.14 \text{ cm}^2$   
 $Aa3 = 0.07 + 0.04'' = 0.11 \text{ cm}^2$   
 $Aa4 = 0.07 + 0.04'' = 0.11 \text{ cm}^2$   
 $Aa,uz = 0.00 \text{ cm}^2/\text{m} \quad (m=2)$   
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi  $0.75 \times h_s$ .

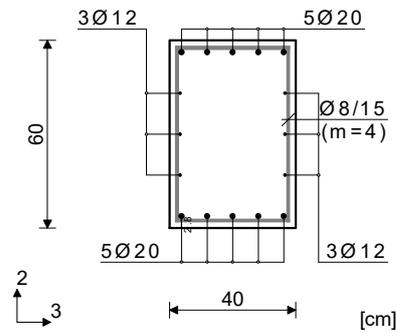
**G 1300.9 (32687-28966)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 18-18  $x = 4.98\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 124.05 kN

M2ed = -0.25 kNm

M3ed = 46.76 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 48.86 kN

V3ed = 0.69 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

 $\epsilon_b/\epsilon_a = -1.341/25.000 \text{ ‰}$ Aa1 = 3.02 + 0.39 = 3.40 cm<sup>2</sup>Aa2 = 3.00 + 0.38 = 3.39 cm<sup>2</sup>Aa3 = 0.34 + 0.03 = 0.37 cm<sup>2</sup>Aa4 = 0.33 + 0.03 = 0.35 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

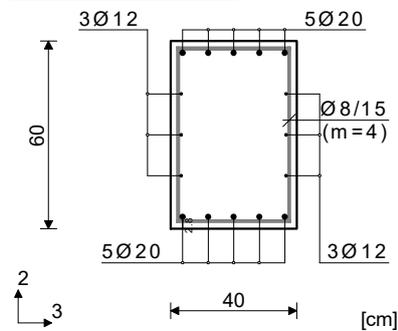
**G 1300.10 (34025-40582)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 19-19  $x = 1.32\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII

N1ed = 35.62 kN

M2ed = 0.40 kNm

M3ed = 56.21 kNm

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = -47.25 kN

V3ed = 0.15 kN

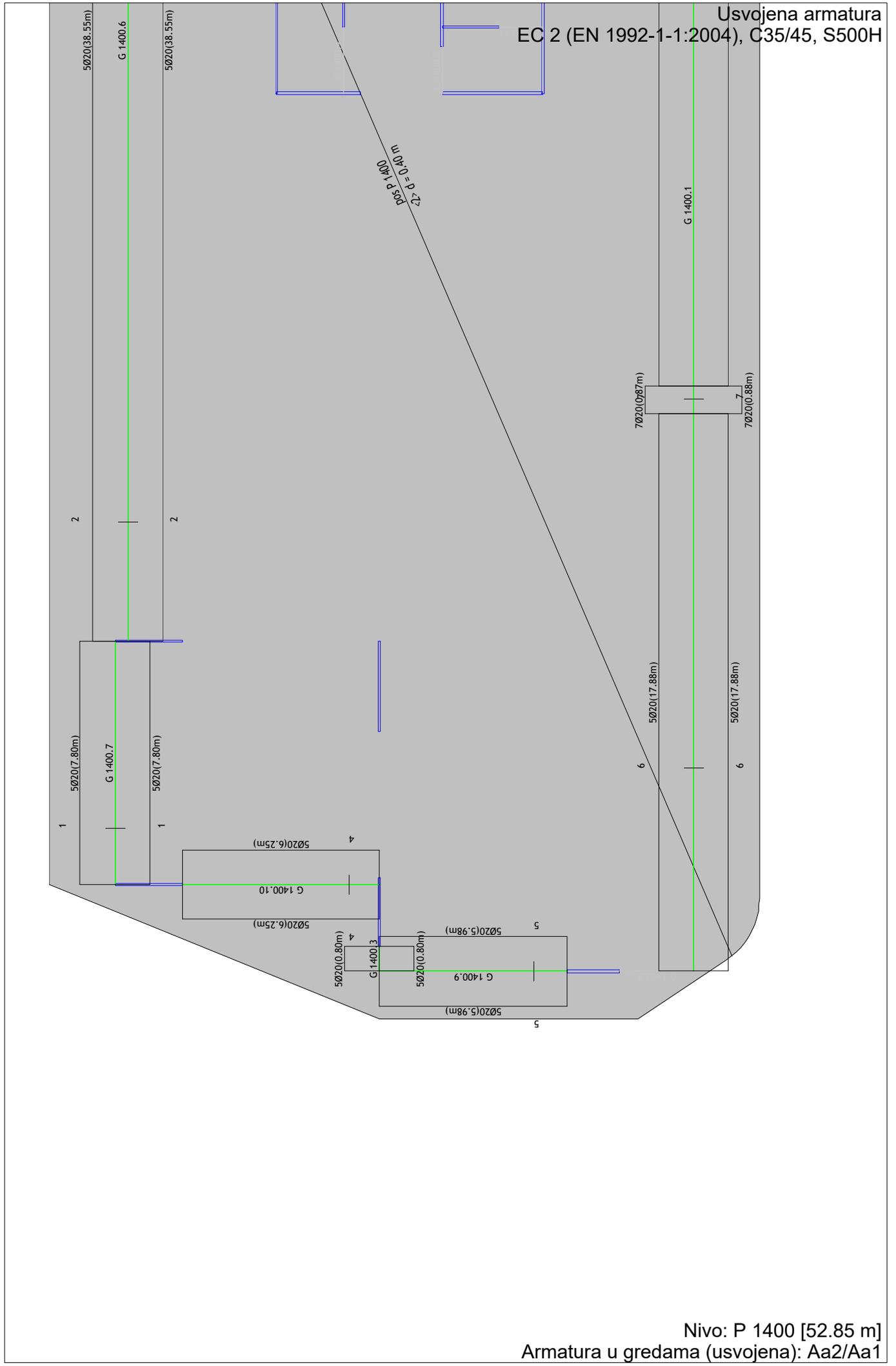
M1ed = 0.00 kNm

Vrd,max,2 = 1171.62 kN

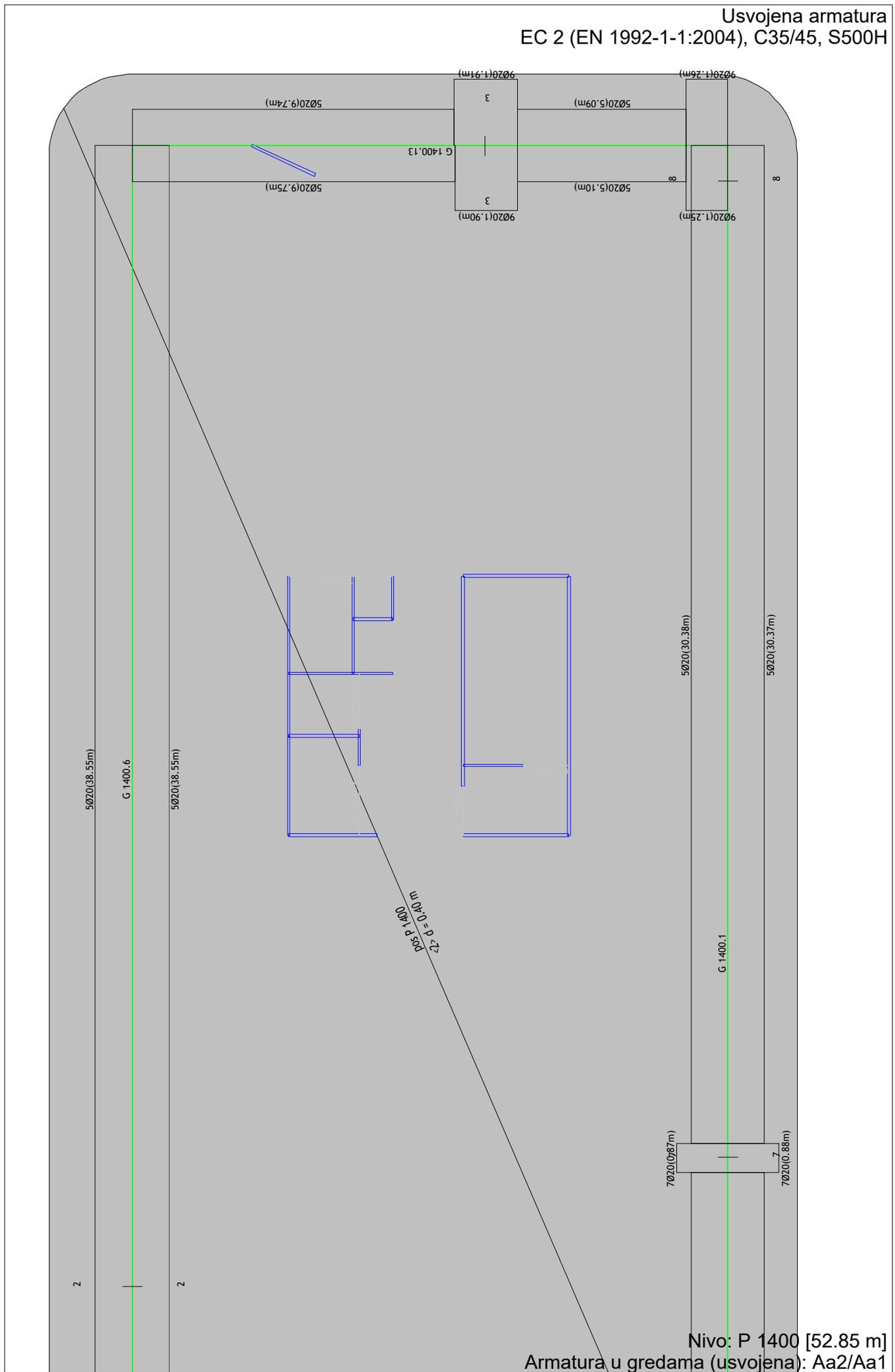
Vrd,max,3 = 1171.62 kN

 $\epsilon_b/\epsilon_a = -1.552/25.000 \text{ ‰}$ Aa1 = 2.45 + 0.43 = 2.88 cm<sup>2</sup>Aa2 = 2.44 + 0.43 = 2.87 cm<sup>2</sup>Aa3 = 0.28 + 0.03 = 0.31 cm<sup>2</sup>Aa4 = 0.27 + 0.03 = 0.30 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Nivo: P 1400 [52.85 m]  
Armatura u gredama (usvojena): Aa2/Aa1



Nivo: P 1400 [52.85 m]

Armatura u gredama (usvojena): Aa2/Aa1

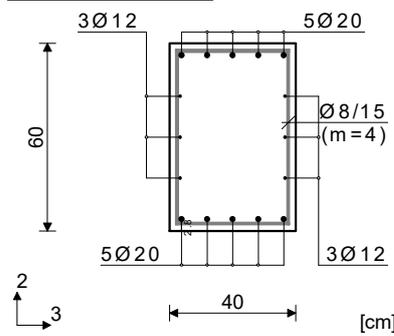
**G 1400.7 (54343-48323)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 1-1  $x = 5.84\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 13.95 kN

M2ed = -0.19 kNm

M3ed = 82.04 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII

V2ed = 27.42 kN

V3ed = 1.25 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1172.08 kN

Vrd,max,3 = 1172.08 kN

 $\epsilon_b/\epsilon_a = -1.894/25.000 \text{ ‰}$ Aa1 = 3.23 + 0.92 = 4.16 cm<sup>2</sup>Aa2 = 3.22 + 0.92 = 4.13 cm<sup>2</sup>Aa3 = 0.37 + 0.10 = 0.46 cm<sup>2</sup>Aa4 = 0.35 + 0.09 = 0.44 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

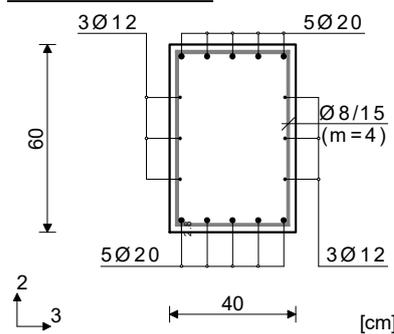
**G 1400.6 (54032-77427)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 2-2  $x = 3.94\text{m}$ 

Merodavna kombinacija za savijanje:

1.35xI+1.50xII+1.05xIII

N1ed = -27.50 kN

M2ed = 0.36 kNm

M3ed = 100.41 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII-1.00xVIII

V2ed = -15.42 kN

V3ed = -0.10 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1185.91 kN

Vrd,max,3 = 1185.91 kN

 $\epsilon_b/\epsilon_a = -2.174/25.000 \text{ ‰}$ Aa1 = 3.53 + 0.25 = 3.78 cm<sup>2</sup>Aa2 = 3.51 + 0.24 = 3.76 cm<sup>2</sup>Aa3 = 0.40 + 0.03 = 0.43 cm<sup>2</sup>Aa4 = 0.38 + 0.03 = 0.41 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.59%

) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75xhs.

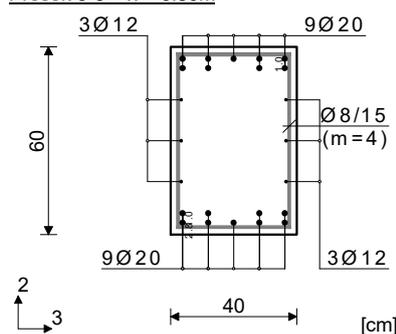
**G 1400.13 (68369-77427)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 3-3  $x = 6.80\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 152.43 kN

M2ed = -0.76 kNm

M3ed = 556.87 kNm

Procenat armiranja: 2.64%

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 199.37 kN

V3ed = 1.09 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1170.29 kN

Vrd,max,3 = 1170.29 kN

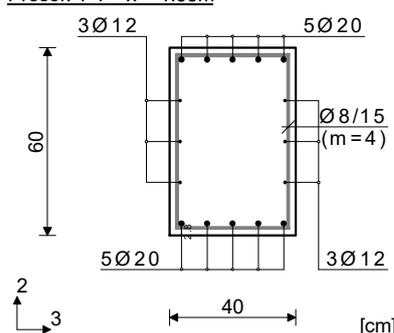
 $\epsilon_b/\epsilon_a = -3.500/18.813 \text{ ‰}$ Aa1 = 24.97 cm<sup>2</sup>Aa2 = 24.83 cm<sup>2</sup>Aa3 = 2.82 cm<sup>2</sup>Aa4 = 2.70 cm<sup>2</sup>Aa,uz = 4.72 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/15(m=4) = 6.70 cm<sup>2</sup>/m]**G 1400.10 (42078-46689)**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

Presek 4-4  $x = 1.33\text{m}$ 

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = 14.88 kN

M2ed = -1.37 kNm

M3ed = -181.92 kNm

Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = 14.88 kN

M2ed = -1.37 kNm

M3ed = -181.92 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = -22.25 kN

V3ed = -2.55 kN

M1ed = 0.00 kNm

Vrd,max,2 = 1177.30 kN

Vrd,max,3 = 1177.30 kN

 $\epsilon_b/\epsilon_a = -2.950/25.000 \text{ ‰}$

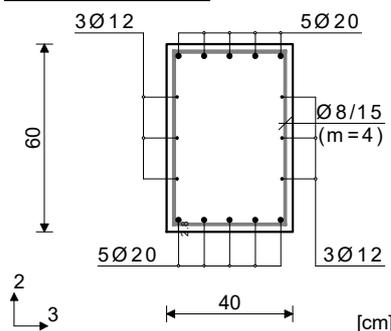
$$\begin{aligned}
 Aa1 &= 7.39 + 0.45'' = 7.84 \text{ cm}^2 \\
 Aa2 &= 7.35 + 0.45'' = 7.80 \text{ cm}^2 \\
 Aa3 &= 0.84 + 0.03'' = 0.87 \text{ cm}^2 \\
 Aa4 &= 0.80 + 0.03'' = 0.83 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.59%  
 \*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

### G 1400.9 (36048-40100)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

#### Presek 5-5 $x = 0.78\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII - 1.00xVIII \\
 N1ed &= 58.82 \text{ kN} \\
 M2ed &= -0.41 \text{ kNm} \\
 M3ed &= 59.89 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.35xI + 1.50xII + 1.05xIII \\
 V2ed &= -19.48 \text{ kN} \\
 V3ed &= 0.33 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1170.77 \text{ kN} \\
 Vrd,max,3 &= 1170.77 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -1.577/25.000 \text{ ‰} \\
 Aa1 &= 2.84 + 0.08'' = 2.92 \text{ cm}^2 \\
 Aa2 &= 2.82 + 0.08'' = 2.90 \text{ cm}^2 \\
 Aa3 &= 0.32 + 0.00'' = 0.32 \text{ cm}^2 \\
 Aa4 &= 0.31 + 0.00'' = 0.31 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

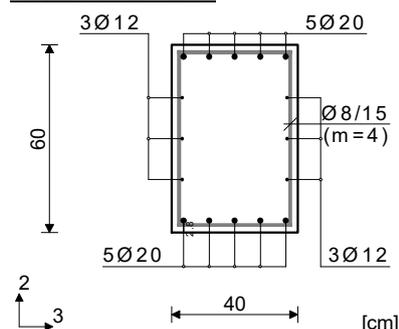
### G 1400.1 (33363-68369)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

Procenat armiranja: 1.59%

\*) - dodatna podužna armatura za prijem glavnih napona zatezanja. Pomeraj linije zatežućih sila iznosi 0.75\*hs.

#### Presek 6-6 $x = 6.70\text{m}$



Merodavna kombinacija za savijanje:

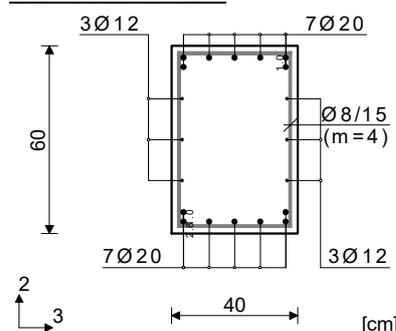
$$\begin{aligned}
 1.35xI + 1.50xII + 1.05xIII \\
 N1ed &= -15.30 \text{ kN} \\
 M2ed &= -0.08 \text{ kNm} \\
 M3ed &= 146.16 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.35xI + 1.50xII + 1.05xIII \\
 V2ed &= 38.69 \text{ kN} \\
 V3ed &= -0.19 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1173.21 \text{ kN} \\
 Vrd,max,3 &= 1173.21 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -2.624/25.000 \text{ ‰} \\
 Aa1 &= 5.54 + 0.59'' = 6.12 \text{ cm}^2 \\
 Aa2 &= 5.51 + 0.58'' = 6.09 \text{ cm}^2 \\
 Aa3 &= 0.63 + 0.04'' = 0.67 \text{ cm}^2 \\
 Aa4 &= 0.60 + 0.04'' = 0.64 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

#### Presek 7-7 $x = 18.28\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII - 1.00xVIII \\
 N1ed &= 55.77 \text{ kN} \\
 M2ed &= -1.34 \text{ kNm} \\
 M3ed &= -377.15 \text{ kNm}
 \end{aligned}$$

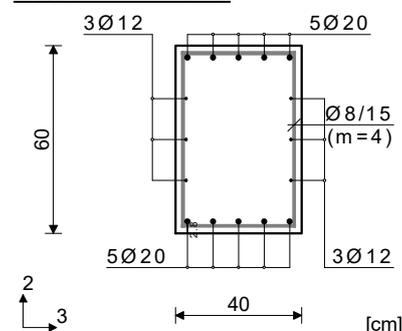
Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.00xI + 0.30xII - 1.00xVIII \\
 V2ed &= -167.60 \text{ kN} \\
 V3ed &= 1.28 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

$$\begin{aligned}
 Vrd,max,2 &= 1188.99 \text{ kN} \\
 Vrd,max,3 &= 1188.99 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -3.500/21.508 \text{ ‰} \\
 Aa1 &= 16.24 \text{ cm}^2 \\
 Aa2 &= 16.15 \text{ cm}^2 \\
 Aa3 &= 1.83 \text{ cm}^2 \\
 Aa4 &= 1.76 \text{ cm}^2 \\
 Aa,uz &= 3.97 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 2.12%

#### Presek 8-8 $x = 48.19\text{m}$



Merodavna kombinacija za savijanje:

$$\begin{aligned}
 1.00xI + 0.30xII - 1.00xVIII \\
 N1ed &= 38.02 \text{ kN} \\
 M2ed &= -0.33 \text{ kNm} \\
 M3ed &= 68.80 \text{ kNm}
 \end{aligned}$$

Merodavna kombinacija za smicanje:

$$\begin{aligned}
 1.35xI + 1.50xII + 1.05xIII \\
 V2ed &= 48.76 \text{ kN} \\
 V3ed &= -4.58 \text{ kN} \\
 M1ed &= 0.00 \text{ kNm}
 \end{aligned}$$

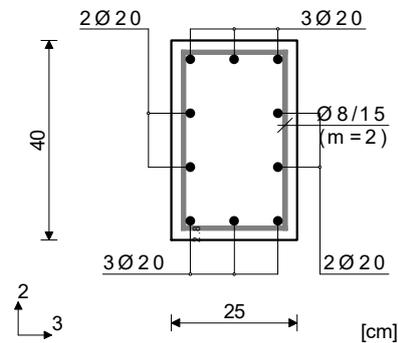
$$\begin{aligned}
 Vrd,max,2 &= 1170.29 \text{ kN} \\
 Vrd,max,3 &= 1170.29 \text{ kN} \\
 \epsilon_b/\epsilon_a &= -1.709/25.000 \text{ ‰} \\
 Aa1 &= 2.96 + 1.75'' = 4.71 \text{ cm}^2 \\
 Aa2 &= 2.95 + 1.74'' = 4.69 \text{ cm}^2 \\
 Aa3 &= 0.33 + 0.14'' = 0.48 \text{ cm}^2 \\
 Aa4 &= 0.32 + 0.14'' = 0.46 \text{ cm}^2 \\
 Aa,uz &= 0.00 \text{ cm}^2/\text{m} \quad (m=2) \\
 &[\text{Usvojeno } Aa,uz = \emptyset 8/15(m=4) = 6.70 \text{ cm}^2/\text{m}]
 \end{aligned}$$

Procenat armiranja: 1.59%



**Ss4 (27592-25201)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.45$  m ( $\lambda_2 = 47.80$ )  
 $l_{i,3} = 3.45$  m ( $\lambda_3 = 29.88$ )  
 Nepomerljiva konstrukcija

**Presek 1-1 x = 1.15m**

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -590.04$  kN  
 $M_{2ed} = 2.43$  kNm  
 $M_{3ed} = -21.73$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 2.0 \langle e_0 \rangle + 3.7 \langle e_{II} \rangle = 5.7$  cm  
 $|\Delta M_2| = 33.47$  kNm  
 $\Delta e_3 = 2.0 \langle e_0 \rangle + 0.0 \langle e_{II} \rangle = 2.0$  cm  
 $|\Delta M_3| = 11.80$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.01$  kNm

Merodavna kombinacija za smicanje:

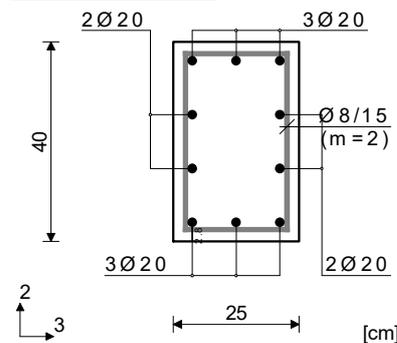
1.00xI+0.30xII-1.00xVIII  
 $V_{2ed} = -39.27$  kN  
 $V_{3ed} = -10.05$  kN  
 $M_{1ed} = -0.01$  kNm

$V_{rd,max,2} = 602.83$  kN  
 $V_{rd,max,3} = 602.83$  kN  
 Nije potrebna armatura.

**Ss4 (25201-22787)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

$l_{i,2} = 3.45$  m ( $\lambda_2 = 47.80$ )  
 $l_{i,3} = 3.45$  m ( $\lambda_3 = 29.88$ )  
 Nepomerljiva konstrukcija

**Presek 2-2 x = 2.30m**

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -941.23$  kN  
 $M_{2ed} = -3.57$  kNm  
 $M_{3ed} = 16.85$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 2.0 \langle e_0 \rangle + 3.7 \langle e_{II} \rangle = 5.7$  cm  
 $|\Delta M_2| = 53.89$  kNm  
 $\Delta e_3 = 2.0 \langle e_0 \rangle + 0.0 \langle e_{II} \rangle = 2.0$  cm  
 $|\Delta M_3| = 18.82$  kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 $V_{2ed} = -32.60$  kN  
 $V_{3ed} = -4.52$  kN  
 $M_{1ed} = -0.01$  kNm

$V_{rd,max,2} = 609.53$  kN  
 $V_{rd,max,3} = 609.53$  kN  
 Nije potrebna armatura.

**Ss4 (22286-19089)**

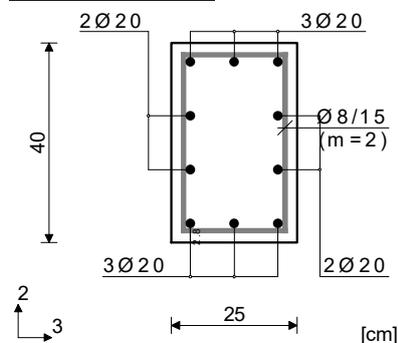
EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.80$  m ( $\lambda_2 = 66.51$ )  
 $l_{i,3} = 4.80$  m ( $\lambda_3 = 41.57$ )  
 Nepomerljiva konstrukcija

Merodavna kombinacija za savijanje:

1.35xI+1.50xII  
 $N_{1ed} = -1429.93$  kN  
 $M_{2ed} = -0.91$  kNm  
 $M_{3ed} = -24.24$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 2.0 \langle e_0 \rangle + 4.8 \langle e_{II} \rangle = 6.8$  cm  
 $|\Delta M_2| = 96.86$  kNm  
 $\Delta e_3 = 2.0 \langle e_0 \rangle + 0.0 \langle e_{II} \rangle = 2.0$  cm  
 $|\Delta M_3| = 28.60$  kNm

$A_{a1} = 4.34$  cm<sup>2</sup>  
 $A_{a2} = 4.30$  cm<sup>2</sup>  
 $A_{a3} = 4.33$  cm<sup>2</sup>  
 $A_{a4} = 4.29$  cm<sup>2</sup>  
 $A_{a,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $A_{a,uz} = \emptyset 8/15(m=2) = 3.35$  cm<sup>2</sup>/m]

Procenat armiranja: 3.14%

**Presek 3-3 x = 1.92m**

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = 0.02$  kNm

Merodavna kombinacija za smicanje:

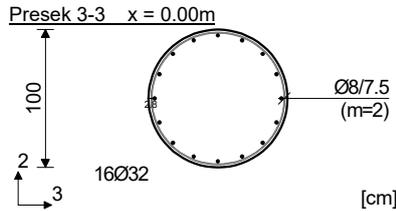
1.35xI+1.50xII  
 $V_{2ed} = -36.47$  kN  
 $V_{3ed} = 0.94$  kN  
 $M_{1ed} = 0.02$  kNm

$V_{rd,max,2} = 609.53$  kN  
 $V_{rd,max,3} = 609.53$  kN  
 $\epsilon_b/\epsilon_a = -3.500/1.482$  ‰



**S1 (66029-63147)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 14.00$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 14.00$ )  
 Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -1047.57$  kN  
 $M2_{ed} = 376.44$  kNm  
 $M3_{ed} = -165.83$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.2 <e0> + 0.0 <ell> = 3.2$  cm  
 $|\Delta M2| = 33.17$  kNm  
 $\Delta e3 = 3.2 <e0> + 0.0 <ell> = 3.2$  cm  
 $|\Delta M3| = 33.17$  kNm

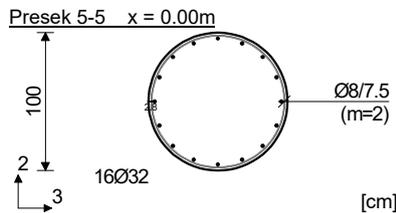
$Vrd_{,max,2} = 2399.35$  kN  
 $Vrd_{,max,3} = 2399.35$  kN  
 $eb/ea = -3.500/21.898$  ‰  
 $Aa1 = 0.02$  cm<sup>2</sup>  
 $Aa2 = 0.00$  cm<sup>2</sup>  
 $Aa3 = 0.00$  cm<sup>2</sup>  
 $Aa4 = 0.00$  cm<sup>2</sup>  
 $Aa_{,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.64%

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII$   
 $M1_{ed} = -0.51$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2_{ed} = -75.54$  kN  
 $V3_{ed} = -216.60$  kN  
 $M1_{ed} = -0.37$  kNm

**S1 (26951-23080)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_2 = 22.20$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 22.20$ )  
 Nepomerljiva konstrukcija



Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1_{ed} = -6.38$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2_{ed} = -125.69$  kN  
 $V3_{ed} = -137.63$  kN  
 $M1_{ed} = -3.69$  kNm

Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $N1_{ed} = -5359.82$  kN  
 $M2_{ed} = -91.68$  kNm  
 $M3_{ed} = 384.34$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.2 <e0> + 2.0 <ell> = 5.1$  cm  
 $|\Delta M2| = 275.03$  kNm  
 $\Delta e3 = 3.2 <e0> + 2.0 <ell> = 5.2$  cm  
 $|\Delta M3| = 278.65$  kNm

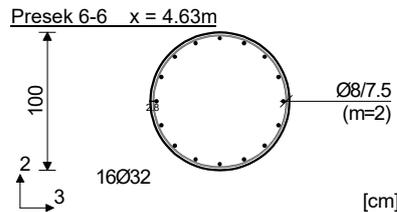
$Vrd_{,max,2} = 2804.46$  kN  
 $Vrd_{,max,3} = 2804.46$  kN  
 $Aa1 = 0.00 + 0.33' = 0.33$  cm<sup>2</sup>  
 $Aa2 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa3 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa4 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa_{,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.64%  
 \*) - dodatna podužna armatura za prijem torzije.

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1_{ed} = 4.73$  kNm

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII$   
 $V2_{ed} = -450.93$  kN  
 $V3_{ed} = -29.15$  kN  
 $M1_{ed} = 4.43$  kNm

Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$

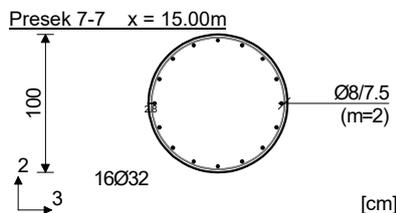
$N1_{ed} = -6297.35$  kN  
 $M2_{ed} = -17.11$  kNm  
 $M3_{ed} = 30.13$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.2 <e0> + 1.5 <ell> = 4.6$  cm  
 $|\Delta M2| = 292.21$  kNm  
 $\Delta e3 = 3.2 <e0> + 1.5 <ell> = 4.7$  cm  
 $|\Delta M3| = 295.40$  kNm



$Vrd_{,max,2} = 2804.46$  kN  
 $Vrd_{,max,3} = 2804.46$  kN  
 $Aa1 = 0.00 + 0.24' = 0.24$  cm<sup>2</sup>  
 $Aa2 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa3 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa4 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa_{,uz} = 6.10$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.64%

**S1 (53611-36868)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 21.00$  m ( $\lambda_2 = 84.00$ )  
 $l_{i,3} = 21.00$  m ( $\lambda_3 = 84.00$ )  
 Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $N1_{ed} = -6343.46$  kN  
 $M2_{ed} = -11.27$  kNm  
 $M3_{ed} = 31.10$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 5.2 <e0> + 26.1 <ell> = 31.3$  cm  
 $|\Delta M2| = 1986.07$  kNm  
 $\Delta e3 = 5.2 <e0> + 26.1 <ell> = 31.3$  cm  
 $|\Delta M3| = 1986.07$  kNm

$Vrd_{,max,2} = 2782.41$  kN  
 $Vrd_{,max,3} = 2782.41$  kN  
 $eb/ea = -3.500/3.509$  ‰  
 $Aa1 = 95.14$  cm<sup>2</sup>  
 $Aa2 = 0.00$  cm<sup>2</sup>  
 $Aa3 = 0.00$  cm<sup>2</sup>  
 $Aa4 = 0.00$  cm<sup>2</sup>  
 $Aa_{,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.64%

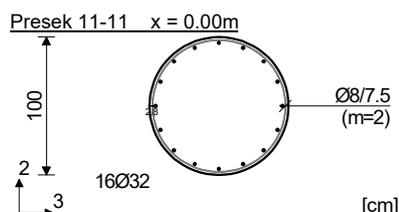
Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1_{ed} = -0.29$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2_{ed} = -10.72$  kN  
 $V3_{ed} = -25.06$  kN  
 $M1_{ed} = -0.22$  kNm

**S1 (68818-66029)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = -424.31 kN  
M2ed = -578.37 kNm  
M3ed = -268.60 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 13.44$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 13.44$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.34 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -138.86 kN  
V3ed = -240.28 kN  
M1ed = -0.27 kNm

Vrd,max,2 = 2306.07 kN

Vrd,max,3 = 2306.07 kN

eb/εa = -3.500/20.891 ‰

Aa1 = 25.55 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 3.73 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S2 (66595-63148)

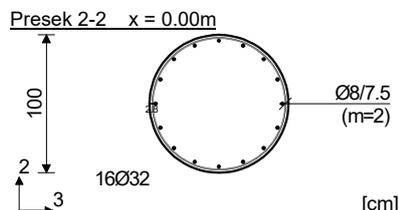
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 4.20 m ( $\lambda_2 = 16.80$ )

li,3 = 4.20 m ( $\lambda_3 = 16.80$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

N1ed = -1184.00 kN

M2ed = 340.47 kNm

M3ed = 348.55 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_2| = 37.49$  kNm

$\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_3| = 37.49$  kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII+1.00xVIII

M1ed = 0.06 kNm

Merodavna kombinacija za smicanje:

1.00xI+1.00xVIII

V2ed = 153.30 kN

V3ed = 118.32 kN

M1ed = 0.06 kNm

Vrd,max,2 = 2388.41 kN

Vrd,max,3 = 2388.41 kN

eb/εa = -3.500/19.221 ‰

Aa1 = 1.92 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S2 (69352-66595)

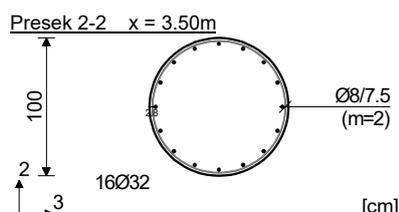
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )

li,3 = 3.50 m ( $\lambda_3 = 14.00$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

N1ed = -972.68 kN

M2ed = -504.69 kNm

M3ed = -275.52 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_2| = 30.80$  kNm

$\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_3| = 30.80$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII

M1ed = -0.37 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -78.21 kN

V3ed = -273.60 kN

M1ed = -0.28 kNm

Vrd,max,2 = 2369.90 kN

Vrd,max,3 = 2369.90 kN

eb/εa = -3.500/18.920 ‰

Aa1 = 11.12 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 3.83 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S2 (71979-69352)

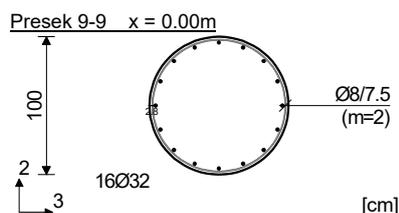
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )

li,3 = 3.50 m ( $\lambda_3 = 14.00$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII

N1ed = -548.80 kN

M2ed = 481.06 kNm

M3ed = 256.23 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_2| = 17.38$  kNm

$\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_3| = 17.38$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII

M1ed = -0.50 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -70.58 kN

V3ed = -279.33 kN

M1ed = -0.37 kNm

Vrd,max,2 = 2419.12 kN

Vrd,max,3 = 2419.12 kN

eb/εa = -3.500/22.056 ‰

Aa1 = 17.72 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 3.88 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

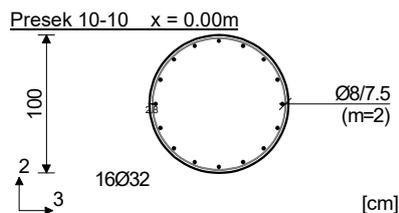
Procenat armiranja: 1.64%

### S2 (74418-71979)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:  
1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = -203.53 kN  
M2ed = 721.90 kNm  
M3ed = 424.14 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 <e_0> + 0.0 <e_{ll}> = 3.2$  cm  
 $|\Delta M_2| = 6.45$  kNm  
 $\Delta e_3 = 3.2 <e_0> + 0.0 <e_{ll}> = 3.2$  cm  
 $|\Delta M_3| = 6.45$  kNm

Merodavna kombinacija za torziju:  
1.35xI+1.50xII  
M1ed = -0.17 kNm

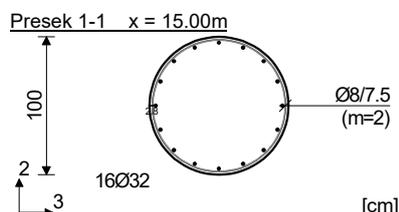
Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -102.00 kN  
V3ed = -331.27 kN  
M1ed = -0.16 kNm

Vrd,max,2 = 2313.92 kN  
Vrd,max,3 = 2313.92 kN  
eb/ea = -3.500/18.792 ‰  
Aa1 = 41.68 cm<sup>2</sup>  
Aa2 = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 cm<sup>2</sup>  
Aa,uz = 4.66 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S2 (60142-42706)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 21.00 m ( $\lambda_2 = 84.00$ )  
li,3 = 21.00 m ( $\lambda_3 = 84.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:  
1.35xI+1.50xII  
N1ed = -5462.27 kN  
M2ed = -0.76 kNm  
M3ed = 36.95 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 5.2 <e_0> + 0.0 <e_{ll}> = 5.2$  cm  
 $|\Delta M_2| = 286.77$  kNm  
 $\Delta e_3 = 5.2 <e_0> + 26.1 <e_{ll}> = 31.3$  cm  
 $|\Delta M_3| = 1710.18$  kNm

Merodavna kombinacija za torziju:  
1.35xI+1.50xII  
M1ed = -0.27 kNm

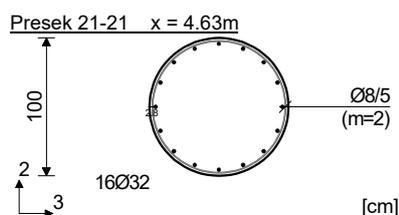
Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -17.28 kN  
V3ed = -22.57 kN  
M1ed = -0.20 kNm

Vrd,max,2 = 2804.46 kN  
Vrd,max,3 = 2804.46 kN  
eb/ea = -3.500/4.170 ‰  
Aa1 = 68.40 cm<sup>2</sup>  
Aa2 = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 cm<sup>2</sup>  
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S2 (32444-28446)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 5.55 m ( $\lambda_2 = 22.20$ )  
li,3 = 5.55 m ( $\lambda_3 = 22.20$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:  
1.35xI+1.05xII+1.50xIII  
N1ed = -6394.33 kN  
M2ed = 68.45 kNm  
M3ed = 488.60 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 <e_0> + 2.1 <e_{ll}> = 5.2$  cm  
 $|\Delta M_2| = 335.61$  kNm  
 $\Delta e_3 = 3.2 <e_0> + 2.0 <e_{ll}> = 5.2$  cm  
 $|\Delta M_3| = 332.79$  kNm

Merodavna kombinacija za torziju:  
1.35xI+1.50xII+1.05xIII  
M1ed = 2.55 kNm

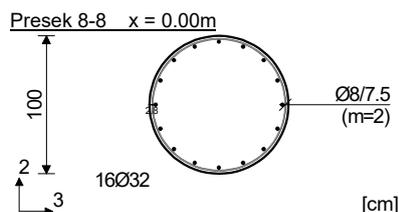
Merodavna kombinacija za smicanje:  
1.35xI+1.50xII  
V2ed = -607.82 kN  
V3ed = 18.89 kN  
M1ed = 2.25 kNm

Vrd,max,2 = 2804.46 kN  
Vrd,max,3 = 2804.46 kN  
Aa1 = 0.00 + 0.13' = 0.13 cm<sup>2</sup>  
Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>  
Aa,uz = 8.19 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%  
) - dodatna poduzna armatura za prijem torzije.

### S3 (72473-69353)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 4.20 m ( $\lambda_2 = 16.80$ )  
li,3 = 4.20 m ( $\lambda_3 = 16.80$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:  
1.00xI-1.00xVIII  
N1ed = -593.96 kN  
M2ed = -261.06 kNm  
M3ed = 394.71 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 <e_0> + 0.0 <e_{ll}> = 3.2$  cm  
 $|\Delta M_2| = 18.81$  kNm  
 $\Delta e_3 = 3.2 <e_0> + 0.0 <e_{ll}> = 3.2$  cm  
 $|\Delta M_3| = 18.81$  kNm

Merodavna kombinacija za torziju:  
1.35xI+1.50xIII  
M1ed = 0.06 kNm

Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+1.00xVIII  
V2ed = 182.50 kN  
V3ed = 120.26 kN  
M1ed = 0.04 kNm

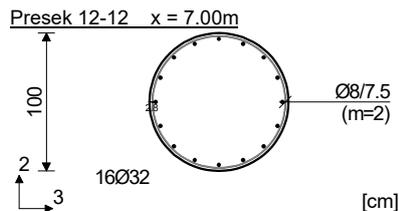
Vrd,max,2 = 2326.56 kN  
Vrd,max,3 = 2326.56 kN  
eb/ea = -3.500/23.525 ‰  
Aa1 = 12.73 cm<sup>2</sup>  
Aa2 = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 cm<sup>2</sup>  
Aa,uz = 2.94 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S3 (66596-57778)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

li,2 = 10.50 m ( $\lambda_2 = 42.00$ )  
li,3 = 10.50 m ( $\lambda_3 = 42.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
N1ed = -4438.82 kN  
M2ed = -129.77 kNm  
M3ed = 98.16 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 9.7 < e_{ll} > = 12.8$  cm  
 $|\Delta M_2| = 569.81$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 9.4 < e_{ll} > = 12.6$  cm  
 $|\Delta M_3| = 557.74$  kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII-1.00xVIII  
M1ed = -45.65 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 67.51 kN  
V3ed = 71.23 kN  
M1ed = 45.47 kNm

Vrd,max,2 = 2441.85 kN

Vrd,max,3 = 2441.85 kN

Aa1 = 0.00 + 2.33' = 2.33 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

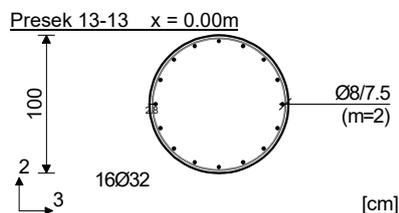
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna podužna armatura za prijem torzije.

### S3 (69353-66596)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = -777.88 kN  
M2ed = -275.28 kNm  
M3ed = 386.66 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 24.63$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 24.63$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
M1ed = -0.47 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 166.71 kN  
V3ed = 122.29 kN  
M1ed = -0.28 kNm

Vrd,max,2 = 2351.94 kN

Vrd,max,3 = 2351.94 kN

eb/ea = -3.500/22.175 %

Aa1 = 9.15 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

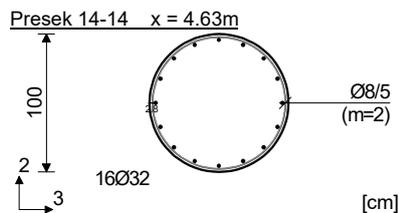
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S3 (38053-34041)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 5.55 m ( $\lambda_2 = 22.20$ )  
li,3 = 5.55 m ( $\lambda_3 = 22.20$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
N1ed = -7096.45 kN  
M2ed = 72.39 kNm  
M3ed = 571.40 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 2.0 < e_{ll} > = 5.2$  cm  
 $|\Delta M_2| = 369.03$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 2.0 < e_{ll} > = 5.2$  cm  
 $|\Delta M_3| = 369.37$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -3.96 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
V2ed = -731.06 kN  
V3ed = 45.10 kN  
M1ed = -3.96 kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Aa1 = 0.00 + 0.20' = 0.20 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 9.87 cm<sup>2</sup>/m (m=2)

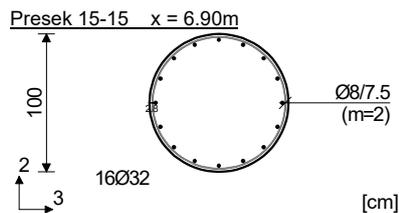
[Usvojeno Aa,uz = Ø8/5(m=2) = 10.05 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna podužna armatura za prijem torzije.

### S3 (43309-38053)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 6.90 m ( $\lambda_2 = 27.60$ )  
li,3 = 6.90 m ( $\lambda_3 = 27.60$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = -2792.19 kN  
M2ed = 781.97 kNm  
M3ed = -530.69 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 88.42$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 88.42$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
M1ed = -1.33 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII  
V2ed = -176.38 kN  
V3ed = -238.95 kN  
M1ed = -0.83 kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

eb/ea = -3.500/9.297 %

Aa1 = 2.03 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

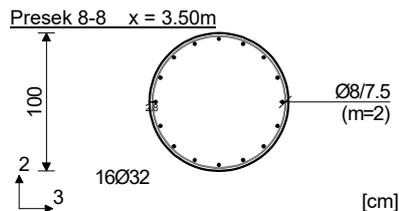
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S3 (74910-72473)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+1.00xVIII  
N1ed = -501.43 kN  
M2ed = 385.71 kNm  
M3ed = -451.99 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_2| = 15.88$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_3| = 15.88$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.42 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 249.05 kN  
V3ed = 197.28 kN  
M1ed = -0.19 kNm

Vrd,max,2 = 2312.56 kN

Vrd,max,3 = 2312.56 kN

eb/ea = -3.500/21.275 ‰

Aa1 = 21.56 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 4.27 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

### S3 (51808-43309)

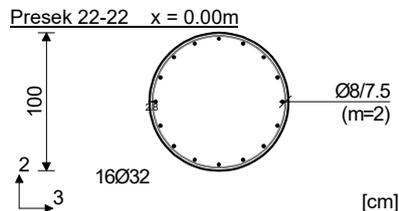
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 10.40 m ( $\lambda_2 = 41.60$ )

li,3 = 10.40 m ( $\lambda_3 = 41.60$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -5231.36 kN

M2ed = -16.43 kNm

M3ed = 19.38 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm

$|\Delta M_2| = 165.66$  kNm

$\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm

$|\Delta M_3| = 165.66$  kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII

M1ed = -51.65 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 19.03 kN

V3ed = 41.46 kN

M1ed = 51.18 kNm

Vrd,max,2 = 2497.57 kN

Vrd,max,3 = 2497.57 kN

Aa1 = 0.00 + 2.64' = 2.64 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna podužna armatura za prijem torzije.

### S3 (57778-51808)

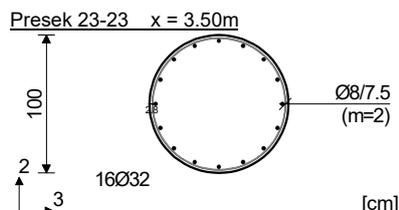
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 7.00 m ( $\lambda_2 = 28.00$ )

li,3 = 7.00 m ( $\lambda_3 = 28.00$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -5138.59 kN

M2ed = -27.43 kNm

M3ed = 6.85 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 4.6 < e_{II} > = 7.8$  cm

$|\Delta M_2| = 400.46$  kNm

$\Delta e_3 = 3.2 < e_0 > + 4.7 < e_{II} > = 7.9$  cm

$|\Delta M_3| = 404.85$  kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII

M1ed = -152.98 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 25.90 kN

V3ed = 36.33 kN

M1ed = 152.50 kNm

Vrd,max,2 = 2489.28 kN

Vrd,max,3 = 2489.28 kN

Aa1 = 0.00 + 7.82' = 7.82 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna podužna armatura za prijem torzije.

### S3 (79318-77166)

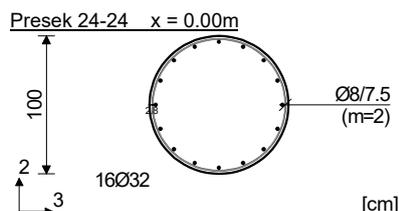
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )

li,3 = 3.50 m ( $\lambda_3 = 14.00$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII

N1ed = -72.52 kN

M2ed = -466.63 kNm

M3ed = 613.16 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm

$|\Delta M_2| = 2.30$  kNm

$\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm

$|\Delta M_3| = 2.30$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xIII

M1ed = 0.20 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 269.38 kN

V3ed = 221.31 kN

M1ed = 0.18 kNm

Vrd,max,2 = 2252.45 kN

Vrd,max,3 = 2252.45 kN

eb/ea = -3.500/20.413 ‰

Aa1 = 40.28 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 4.69 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

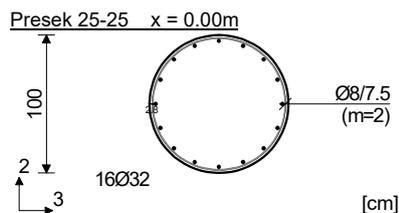
Procenat armiranja: 1.64%

### S3 (77166-74910)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = -241.94 kN  
M2ed = -281.39 kNm  
M3ed = 438.56 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 7.66$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 7.66$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.66 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 236.60 kN  
V3ed = 151.91 kN  
M1ed = -0.32 kNm

Vrd,max,2 = 2277.15 kN

Vrd,max,3 = 2277.15 kN

cb/ea = -3.500/24.715 ‰

Aa1 = 22.50 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 3.78 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

#### S4 (58374-49522)

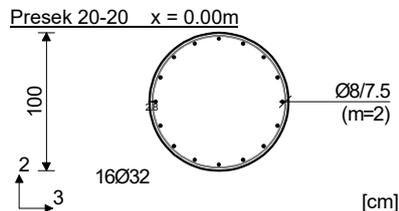
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 10.40 m ( $\lambda_2 = 41.60$ )

li,3 = 10.40 m ( $\lambda_3 = 41.60$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -6561.85 kN

M2ed = 26.90 kNm

M3ed = -7.09 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm

$|\Delta M_2| = 207.79$  kNm

$\Delta e_3 = 3.2 < e_0 > + 4.7 < e_{ll} > = 7.8$  cm

$|\Delta M_3| = 513.30$  kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII-1.00xVIII

M1ed = -53.00 kNm

Merodavna kombinacija za smicanje:

1.00xI-1.00xVIII

V2ed = -32.62 kN

V3ed = -53.02 kN

M1ed = -52.99 kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Aa1 = 0.00 + 2.71' = 2.71 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna podužna armatura za prijem torzije.

#### S4 (64319-58374)

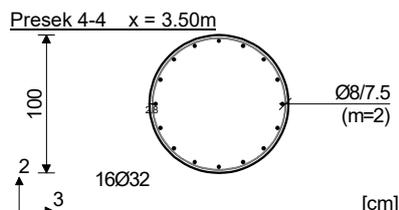
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 7.00 m ( $\lambda_2 = 28.00$ )

li,3 = 7.00 m ( $\lambda_3 = 28.00$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -6469.07 kN

M2ed = 35.95 kNm

M3ed = -51.44 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 4.3 < e_{ll} > = 7.5$  cm

$|\Delta M_2| = 482.44$  kNm

$\Delta e_3 = 3.2 < e_0 > + 4.3 < e_{ll} > = 7.4$  cm

$|\Delta M_3| = 480.08$  kNm

Merodavna kombinacija za torziju:

1.00xI+0.30xII-1.00xVIII

M1ed = -156.95 kNm

Merodavna kombinacija za smicanje:

1.00xI-1.00xVIII

V2ed = -37.29 kN

V3ed = -45.55 kN

M1ed = -156.94 kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Aa1 = 0.00 + 8.02' = 8.02 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna podužna armatura za prijem torzije.

#### S4 (72472-64319)

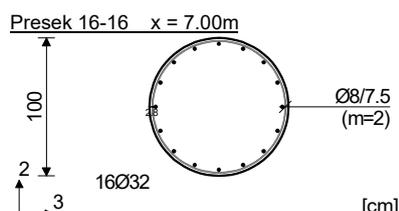
EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 10.50 m ( $\lambda_2 = 42.00$ )

li,3 = 10.50 m ( $\lambda_3 = 42.00$ )

Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -5575.01 kN

M2ed = 76.89 kNm

M3ed = -28.15 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 9.4 < e_{ll} > = 12.6$  cm

$|\Delta M_2| = 701.18$  kNm

$\Delta e_3 = 3.2 < e_0 > + 10.7 < e_{ll} > = 13.8$  cm

$|\Delta M_3| = 771.10$  kNm

Merodavna kombinacija za torziju:

1.00xI-1.00xVIII

M1ed = -46.94 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -61.90 kN

V3ed = -127.12 kN

M1ed = -46.93 kNm

Vrd,max,2 = 2780.62 kN

Vrd,max,3 = 2780.62 kN

Aa1 = 0.00 + 2.40' = 2.40 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

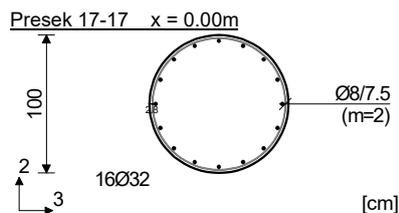
\*) - dodatna podužna armatura za prijem torzije.

#### S4 (83576-81756)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
 li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
 Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 N1ed = -169.99 kN  
 M2ed = 732.96 kNm  
 M3ed = 273.10 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_2| = 5.38$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_3| = 5.38$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 M1ed = 0.28 kNm

Merodavna kombinacija za smicanje:

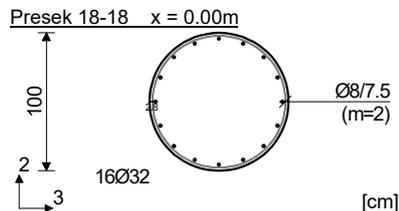
1.00xI+0.30xII+1.00xVIII  
 V2ed = 99.09 kN  
 V3ed = 331.55 kN  
 M1ed = 0.26 kNm

Vrd,max,2 = 2266.27 kN  
 Vrd,max,3 = 2266.27 kN  
 eb/εa = -3.500/19.755 ‰  
 Aa1 = 39.03 cm<sup>2</sup>  
 Aa2 = 0.00 cm<sup>2</sup>  
 Aa3 = 0.00 cm<sup>2</sup>  
 Aa4 = 0.00 cm<sup>2</sup>  
 Aa,uz = 4.66 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

**S4 (81756-79726)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
 li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
 Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
 N1ed = -568.95 kN  
 M2ed = 478.55 kNm  
 M3ed = 354.33 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_2| = 18.02$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_3| = 18.02$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 M1ed = -0.81 kNm

Merodavna kombinacija za smicanje:

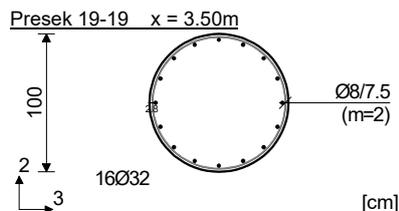
1.00xI+0.30xII+1.00xVIII  
 V2ed = 164.96 kN  
 V3ed = 207.72 kN  
 M1ed = -0.41 kNm

Vrd,max,2 = 2316.71 kN  
 Vrd,max,3 = 2316.71 kN  
 eb/εa = -3.500/20.851 ‰  
 Aa1 = 20.29 cm<sup>2</sup>  
 Aa2 = 0.00 cm<sup>2</sup>  
 Aa3 = 0.00 cm<sup>2</sup>  
 Aa4 = 0.00 cm<sup>2</sup>  
 Aa,uz = 3.57 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

**S4 (79726-77584)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
 li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
 Nepomerljiva konstrukcija



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 N1ed = -1050.50 kN  
 M2ed = 581.80 kNm  
 M3ed = -402.18 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_2| = 33.27$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_3| = 33.27$  kNm

Merodavna kombinacija za torziju:

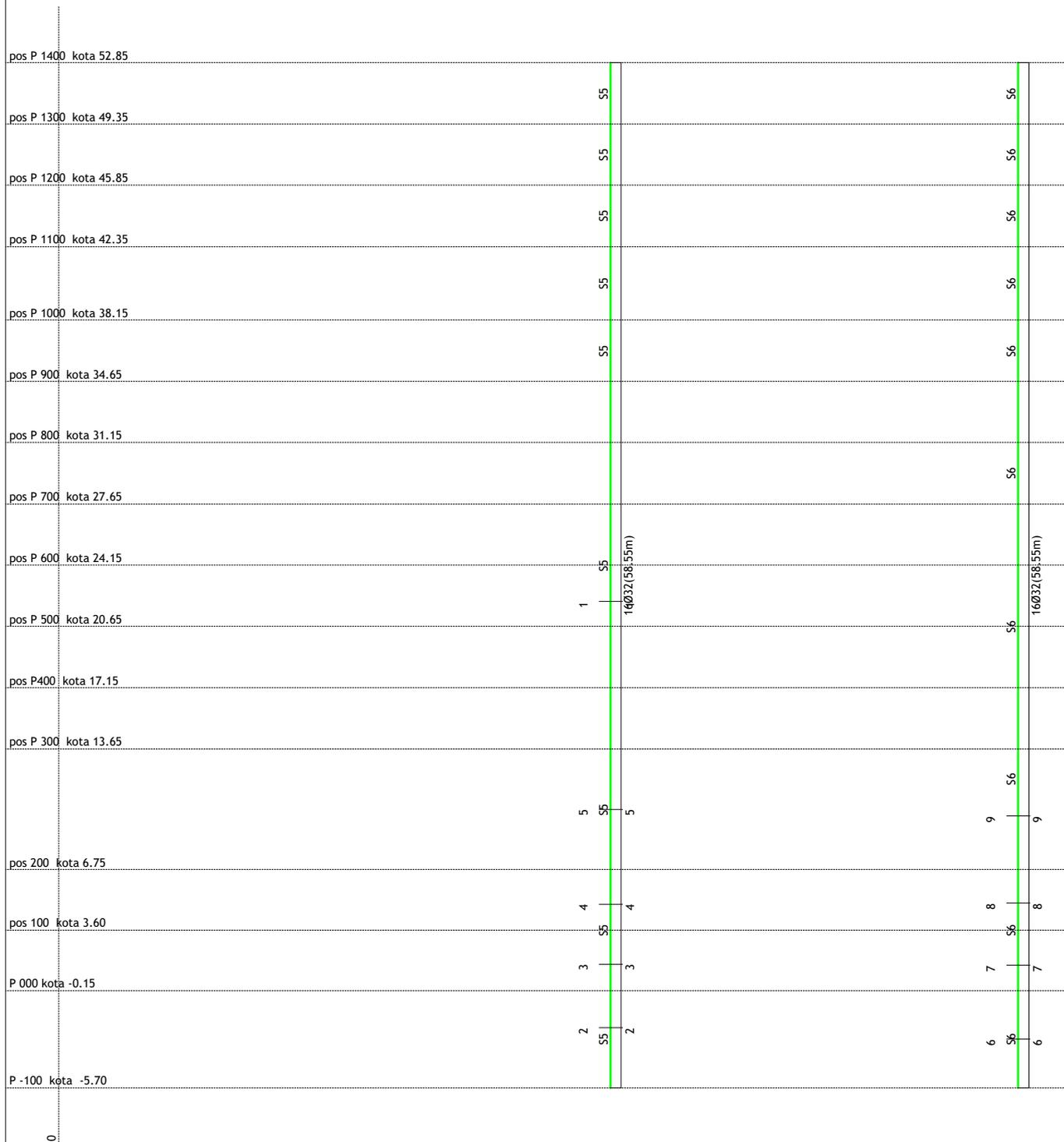
1.35xI+1.50xII  
 M1ed = -0.28 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 178.50 kN  
 V3ed = 305.90 kN  
 M1ed = -0.09 kNm

Vrd,max,2 = 2381.71 kN  
 Vrd,max,3 = 2381.71 kN  
 eb/εa = -3.500/16.619 ‰  
 Aa1 = 17.61 cm<sup>2</sup>  
 Aa2 = 0.00 cm<sup>2</sup>  
 Aa3 = 0.00 cm<sup>2</sup>  
 Aa4 = 0.00 cm<sup>2</sup>  
 Aa,uz = 4.76 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

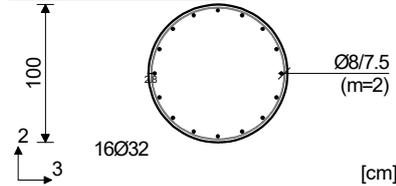


Ram: Gh7,8,9  
Armatura u gredama (usvojena): Aa2/Aa1

**S5 (46886-31059)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 21.00$  m ( $\lambda_2 = 84.00$ )  
 $l_{i,3} = 21.00$  m ( $\lambda_3 = 84.00$ )  
 Nepomerljiva konstrukcija

Presek 1-1 x = 13.00m



Merodavna kombinacija za savijanje:

1.35xI+1.50xII+1.05xIII  
 $N_{1ed} = -6016.09$  kN  
 $M_{2ed} = 3.47$  kNm  
 $M_{3ed} = 13.91$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 5.2 < e_0 > + 26.1 < e_{ll} > = 31.3$  cm  
 $|\Delta M_2| = 1883.58$  kNm  
 $\Delta e_3 = 5.2 < e_0 > + 26.1 < e_{ll} > = 31.3$  cm  
 $|\Delta M_3| = 1883.58$  kNm

Vrd,max,2 = 2717.83 kN

Vrd,max,3 = 2717.83 kN

eb/ea = -3.500/3.732 ‰

Aa1 = 83.33 cm<sup>2</sup>Aa2 = 0.00 cm<sup>2</sup>Aa3 = 0.00 cm<sup>2</sup>Aa4 = 0.00 cm<sup>2</sup>Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 $M_{1ed} = -0.29$  kNm

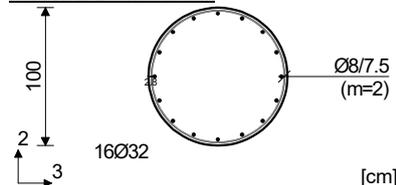
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 11.34$  kN  
 $V_{3ed} = 24.12$  kN  
 $M_{1ed} = -0.16$  kNm

**S5 (21417-17823)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_2 = 22.20$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 22.20$ )  
 Nepomerljiva konstrukcija

Presek 2-2 x = 1.85m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -10263.59$  kN  
 $M_{2ed} = 21.63$  kNm  
 $M_{3ed} = 12.34$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 2.6 < e_{ll} > = 5.7$  cm  
 $|\Delta M_2| = 588.65$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 2.6 < e_{ll} > = 5.7$  cm  
 $|\Delta M_3| = 590.15$  kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Nije potrebna armatura.

Merodavna kombinacija za torziju:

1.35xI+1.50xIII  
 $M_{1ed} = 0.08$  kNm

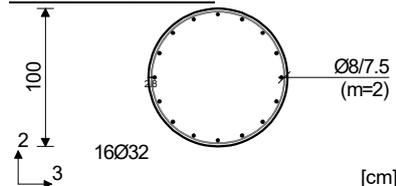
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 15.13$  kN  
 $V_{3ed} = 85.62$  kN  
 $M_{1ed} = 0.05$  kNm

**S5 (26181-21417)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 27.60$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 27.60$ )  
 Nepomerljiva konstrukcija

Presek 4-4 x = 2.30m

 $\Delta e_3 = 3.2 < e_0 > + 4.2 < e_{ll} > = 7.3$  cm $|\Delta M_3| = 604.20$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.54$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 17.45$  kN  
 $V_{3ed} = 122.21$  kN  
 $M_{1ed} = -0.33$  kNm

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

 $N_{1ed} = -9656.56$  kN $M_{2ed} = -64.68$  kNm $M_{3ed} = 10.12$  kNm

Uvećanje momenta savijanja usled izvijanja

 $\Delta e_2 = 3.2 < e_0 > + 2.6 < e_{ll} > = 5.7$  cm $|\Delta M_2| = 554.77$  kNm $\Delta e_3 = 3.2 < e_0 > + 2.8 < e_{ll} > = 5.9$  cm $|\Delta M_3| = 573.76$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII

 $M_{1ed} = -0.98$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

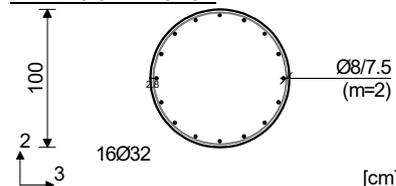
 $V_{2ed} = -118.37$  kN $V_{3ed} = -144.02$  kN $M_{1ed} = -0.67$  kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Nije potrebna armatura.

Presek 3-3 x = 5.75m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -8243.85$  kN  
 $M_{2ed} = 40.63$  kNm  
 $M_{3ed} = 25.49$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 < e_0 > + 3.9 < e_{ll} > = 7.0$  cm  
 $|\Delta M_2| = 579.89$  kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Nije potrebna armatura.

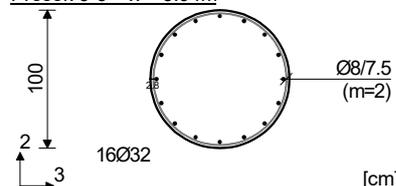
**S5 (31059-26181)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

 $l_{i,2} = 6.90$  m ( $\lambda_2 = 27.60$ ) $l_{i,3} = 6.90$  m ( $\lambda_3 = 27.60$ )

Nepomerljiva konstrukcija

Presek 5-5 x = 3.94m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

 $N_{1ed} = -6914.88$  kN $M_{2ed} = 2.97$  kNm $M_{3ed} = -1.77$  kNm

Uvećanje momenta savijanja usled izvijanja

 $\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm $|\Delta M_2| = 218.97$  kNm $\Delta e_3 = 3.2 < e_0 > + 4.5 < e_{ll} > = 7.7$  cm $|\Delta M_3| = 529.39$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII

 $M_{1ed} = -0.45$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -72.58 kN

V3ed = -85.07 kN

M1ed = -0.33 kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Nije potrebna armatura.

### S6 (37851-33784)

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

li,2 = 5.55 m ( $\lambda_2 = 22.20$ )

li,3 = 5.55 m ( $\lambda_3 = 22.20$ )

Nepomerljiva konstrukcija

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -3379.99 kN

M2ed = -137.85 kNm

M3ed = -203.72 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 \langle e_0 \rangle + 0.0 \langle e_{ll} \rangle = 3.2$  cm

$|\Delta M_2| = 107.03$  kNm

$\Delta e_3 = 3.2 \langle e_0 \rangle + 0.0 \langle e_{ll} \rangle = 3.2$  cm

$|\Delta M_3| = 107.03$  kNm

Vrd,max,2 = 2460.58 kN

Vrd,max,3 = 2460.58 kN

Aa1 = 0.00 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

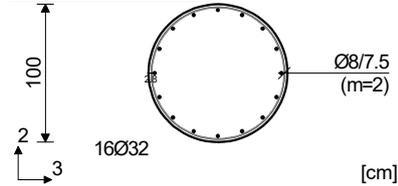
Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 4.36 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz =  $\varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

Presek 6-6 x = 2.55m



Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII

M1ed = 1.58 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

V2ed = -227.10 kN

V3ed = -231.03 kN

M1ed = 0.86 kNm

### S6 (43082-37851)

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

li,2 = 6.90 m ( $\lambda_2 = 27.60$ )

li,3 = 6.90 m ( $\lambda_3 = 27.60$ )

Nepomerljiva konstrukcija

$\Delta e_3 = 3.2 \langle e_0 \rangle + 4.6 \langle e_{ll} \rangle = 7.8$  cm

$|\Delta M_3| = 555.14$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII

M1ed = -0.41 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII

V2ed = -78.29 kN

V3ed = -111.99 kN

M1ed = -0.25 kNm

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -7261.10 kN

M2ed = 6.35 kNm

M3ed = 107.93 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 \langle e_0 \rangle + 0.9 \langle e_{ll} \rangle = 4.1$  cm

$|\Delta M_2| = 297.22$  kNm

$\Delta e_3 = 3.2 \langle e_0 \rangle + 2.6 \langle e_{ll} \rangle = 5.8$  cm

$|\Delta M_3| = 420.40$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII

M1ed = -0.41 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII

V2ed = -78.29 kN

V3ed = -111.99 kN

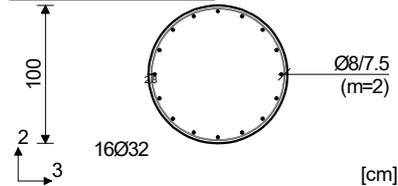
M1ed = -0.25 kNm

Vrd,max,2 = 2804.46 kN

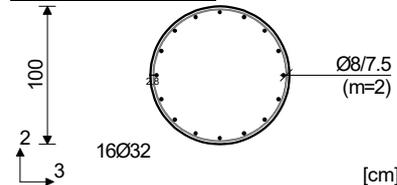
Vrd,max,3 = 2804.46 kN

Nije potrebna armatura.

Presek 8-8 x = 1.97m



Presek 7-7 x = 5.91m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -7156.59 kN

M2ed = -32.61 kNm

M3ed = 22.87 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 \langle e_0 \rangle + 4.3 \langle e_{ll} \rangle = 7.5$  cm

$|\Delta M_2| = 536.09$  kNm

Vrd,max,2 = 2804.46 kN

Vrd,max,3 = 2804.46 kN

Nije potrebna armatura.

### S6 (51583-43082)

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

Kompletna šema opterećenja

li,2 = 10.40 m ( $\lambda_2 = 41.60$ )

li,3 = 10.40 m ( $\lambda_3 = 41.60$ )

Nepomerljiva konstrukcija

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -5390.53 kN

M2ed = 33.60 kNm

M3ed = -30.75 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.2 \langle e_0 \rangle + 9.4 \langle e_{ll} \rangle = 12.5$  cm

$|\Delta M_2| = 676.02$  kNm

$\Delta e_3 = 3.2 \langle e_0 \rangle + 9.8 \langle e_{ll} \rangle = 12.9$  cm

$|\Delta M_3| = 697.67$  kNm

Vrd,max,2 = 2541.31 kN

Vrd,max,3 = 2541.31 kN

Aa1 = 0.00 + 2.73' = 2.73 cm<sup>2</sup>

Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>

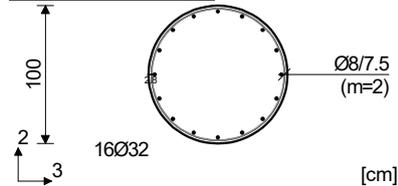
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz =  $\varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 1.64%

\*) - dodatna poduzna armatura za prijem torzije.

Presek 9-9 x = 7.28m



Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII

M1ed = -53.33 kNm

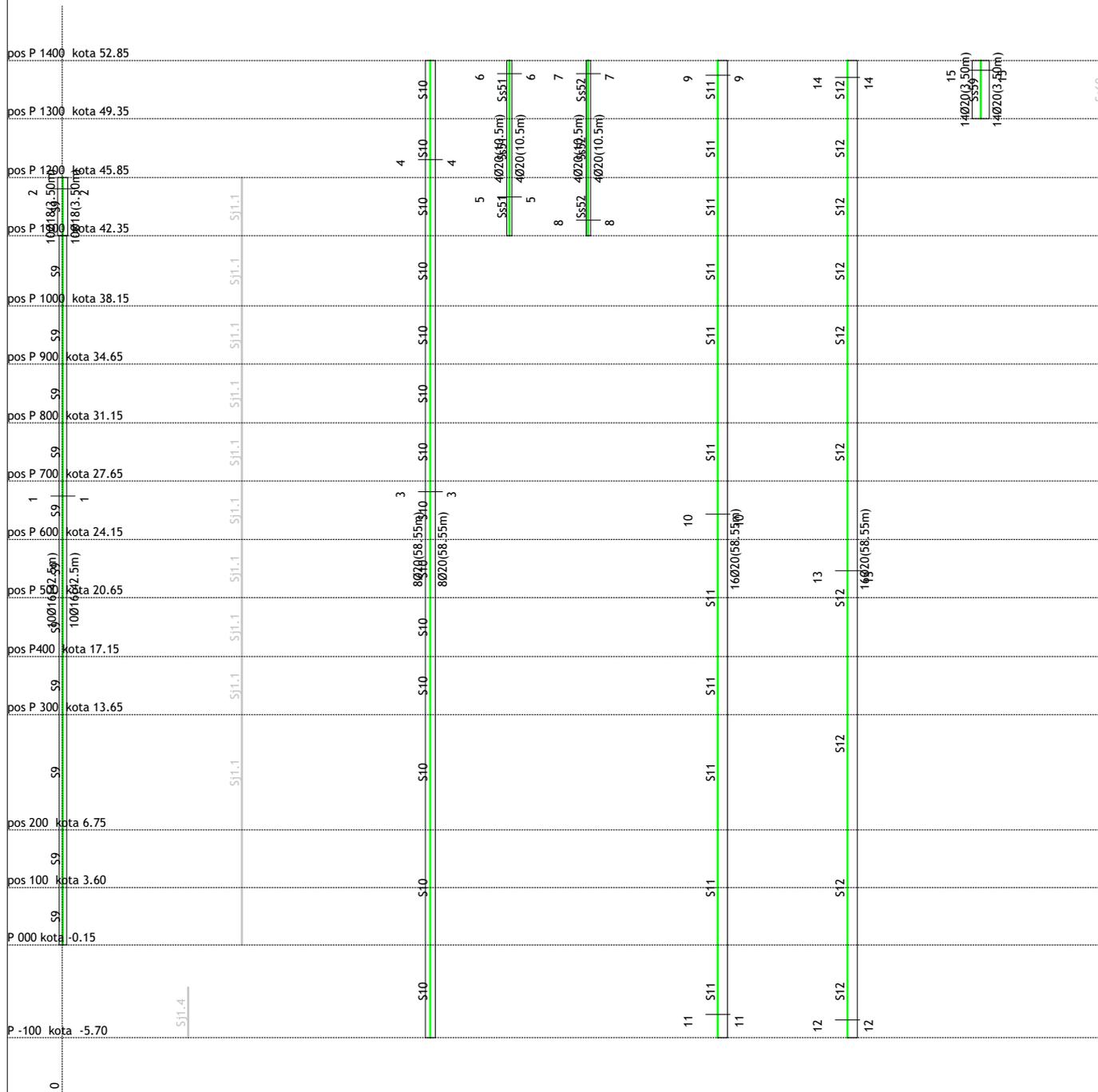
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII

V2ed = 30.08 kN

V3ed = 37.20 kN

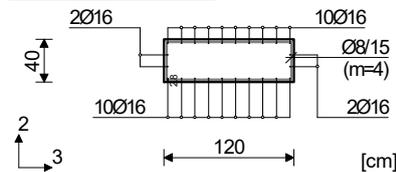
M1ed = 52.87 kNm



Ram: Gh20  
Armatura u gredama (usvojena): Aa2/Aa1

**S9 (13220-11401)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 1-1  $x = 0.88$ m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1ed = 51.79$  kN  
 $M2ed = -202.56$  kNm  
 $M3ed = -85.94$  kNm

$Aa1 = 5.10$  cm<sup>2</sup>  
 $Aa2 = 5.07$  cm<sup>2</sup>  
 $Aa3 = 1.28$  cm<sup>2</sup>  
 $Aa4 = 1.26$  cm<sup>2</sup>  
 $Aa,uz = 2.80$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII$   
 $M1ed = -0.04$  kNm

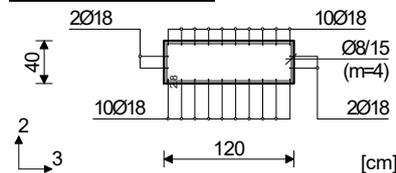
Procenat armiranja: 1.01%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 63.95$  kN  
 $V3ed = 236.25$  kN  
 $M1ed = -0.02$  kNm

$Vrd,max,2 = 2347.90$  kN  
 $Vrd,max,3 = 2347.90$  kN  
 $eb/ea = -3.500/17.945$  %

**S9 (24673-22266)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 2-2  $x = 0.88$ m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1ed = 79.88$  kN  
 $M2ed = -258.81$  kNm  
 $M3ed = -204.71$  kNm

$Aa1 = 12.48$  cm<sup>2</sup>  
 $Aa2 = 12.40$  cm<sup>2</sup>  
 $Aa3 = 2.40$  cm<sup>2</sup>  
 $Aa4 = 2.34$  cm<sup>2</sup>  
 $Aa,uz = 3.08$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/15(m=4) = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $M1ed = 0.02$  kNm

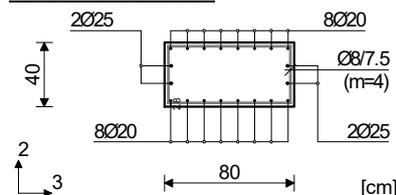
Procenat armiranja: 1.27%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 126.31$  kN  
 $V3ed = 260.59$  kN  
 $M1ed = 0.02$  kNm

$Vrd,max,2 = 2340.58$  kN  
 $Vrd,max,3 = 2340.58$  kN  
 $eb/ea = -3.500/16.263$  %

**S10 (27240-24785)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 3-3  $x = 0.88$ m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1ed = -97.49$  kN  
 $M2ed = 349.80$  kNm  
 $M3ed = -34.92$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.4 < e0 > + 0.0 < eII > = 2.4$  cm  
 $|\Delta M2| = 2.34$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < eII > = 2.0$  cm  
 $|\Delta M3| = 1.95$  kNm

$Vrd,max,2 = 1817.97$  kN  
 $Vrd,max,3 = 1817.97$  kN  
 $eb/ea = -3.500/14.688$  %  
 $Aa1 = 7.60$  cm<sup>2</sup>  
 $Aa2 = 7.55$  cm<sup>2</sup>  
 $Aa3 = 3.26$  cm<sup>2</sup>  
 $Aa4 = 3.22$  cm<sup>2</sup>  
 $Aa,uz = 6.93$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7.5(m=4) = 13.40$  cm<sup>2</sup>/m]

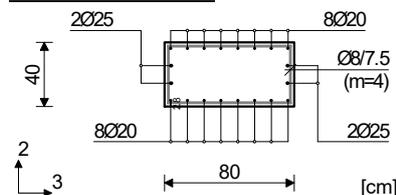
Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1ed = -0.03$  kNm

Procenat armiranja: 2.18%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $V2ed = -38.30$  kN  
 $V3ed = -390.73$  kN  
 $M1ed = -0.03$  kNm

**S10 (43173-40487)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 4-4  $x = 2.63$ m

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1ed = -371.09$  kN  
 $M2ed = 178.57$  kNm  
 $M3ed = -63.18$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.4 < e0 > + 0.0 < eII > = 2.4$  cm  
 $|\Delta M2| = 8.91$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < eII > = 2.0$  cm  
 $|\Delta M3| = 7.42$  kNm

$Vrd,max,2 = 1647.00$  kN  
 $Vrd,max,3 = 1647.00$  kN  
 $eb/ea = -3.500/11.409$  %  
 $Aa1 = 1.67$  cm<sup>2</sup>  
 $Aa2 = 1.66$  cm<sup>2</sup>  
 $Aa3 = 0.72$  cm<sup>2</sup>  
 $Aa4 = 0.71$  cm<sup>2</sup>  
 $Aa,uz = 4.80$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7.5(m=4) = 13.40$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII$   
 $M1ed = -0.06$  kNm

Procenat armiranja: 2.18%

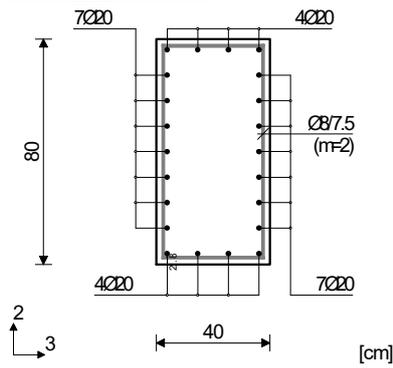
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 62.66$  kN  
 $V3ed = 270.38$  kN  
 $M1ed = -0.02$  kNm

**Ss51 (44103-41402)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 30.31$ )  
 li,3 = 3.50 m ( $\lambda_3 = 15.16$ )  
 Nepomerljiva konstrukcija

Presek 5-5 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 N1ed = -107.08 kN  
 M2ed = 58.50 kNm  
 M3ed = -90.75 kNm

Uvećanje momenta savijanja usled izvicanja

$\Delta e_2 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0$  cm  
 $|\Delta M_2| = 2.14$  kNm  
 $\Delta e_3 = 2.4 < e_0 > + 0.0 < e_{II} > = 2.4$  cm  
 $|\Delta M_3| = 2.57$  kNm

$\epsilon_b/\epsilon_a = -3.500/16.643$  ‰

Aa1 = 1.03 cm<sup>2</sup>  
 Aa2 = 1.01 cm<sup>2</sup>  
 Aa3 = 1.81 cm<sup>2</sup>  
 Aa4 = 1.80 cm<sup>2</sup>  
 Aa,uz = 5.18 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.16%

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 M1ed = -0.02 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -291.69 kN  
 V3ed = -64.79 kN  
 M1ed = -0.02 kNm

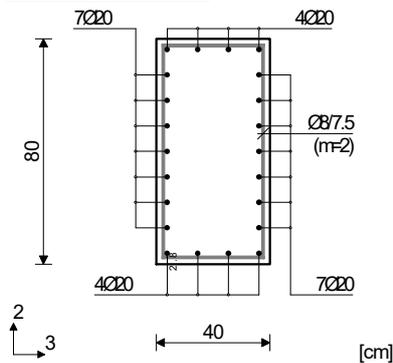
Vrd,max,2 = 1601.60 kN

Vrd,max,3 = 1601.60 kN

**Ss51 (49815-46885)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 3.50 m ( $\lambda_2 = 30.31$ )  
 li,3 = 3.50 m ( $\lambda_3 = 15.16$ )  
 Nepomerljiva konstrukcija

Presek 6-6 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = 68.25 kN  
 M2ed = 152.57 kNm  
 M3ed = -327.44 kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 M1ed = -0.06 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -318.03 kN  
 V3ed = -153.79 kN  
 M1ed = -0.04 kNm

Vrd,max,2 = 1699.78 kN

Vrd,max,3 = 1699.78 kN

$\epsilon_b/\epsilon_a = -3.500/8.499$  ‰

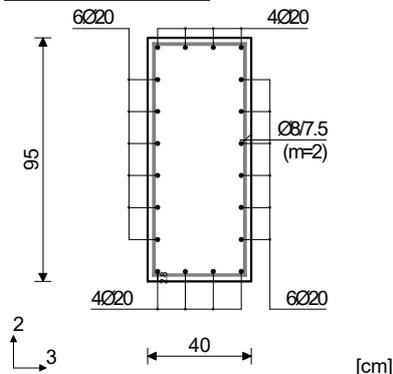
Aa1 = 5.39 cm<sup>2</sup>  
 Aa2 = 5.31 cm<sup>2</sup>  
 Aa3 = 9.53 cm<sup>2</sup>  
 Aa4 = 9.47 cm<sup>2</sup>  
 Aa,uz = 5.64 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 2.16%

**Ss52 (53814-50801)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 3.50 m ( $\lambda_2 = 30.31$ )  
 li,3 = 3.50 m ( $\lambda_3 = 12.76$ )  
 Nepomerljiva konstrukcija

Presek 7-7 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII-1.00xVIII  
 N1ed = -356.21 kN  
 M2ed = 171.08 kNm  
 M3ed = 268.50 kNm

Uvećanje momenta savijanja usled izvicanja

$\Delta e_2 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0$  cm  
 $|\Delta M_2| = 7.12$  kNm  
 $\Delta e_3 = 2.9 < e_0 > + 0.0 < e_{II} > = 2.9$  cm  
 $|\Delta M_3| = 10.15$  kNm

Aa1 = 2.72 cm<sup>2</sup>

Aa2 = 2.68 cm<sup>2</sup>

Aa3 = 6.42 cm<sup>2</sup>

Aa4 = 6.39 cm<sup>2</sup>

Aa,uz = 3.68 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Procenat armiranja: 1.65%

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 M1ed = -0.07 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 V2ed = 246.38 kN  
 V3ed = -12.30 kN  
 M1ed = -0.03 kNm

Vrd,max,2 = 1921.30 kN

Vrd,max,3 = 1921.30 kN

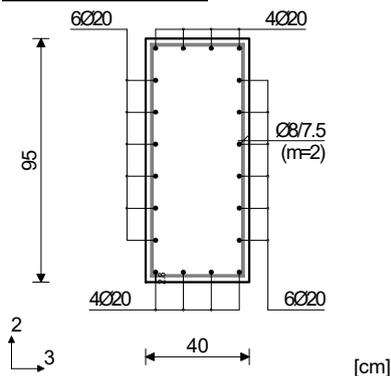
$\epsilon_b/\epsilon_a = -3.500/9.433$  ‰

**Ss52 (47865-45044)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 30.31$ )  
li,3 = 3.50 m ( $\lambda_3 = 12.76$ )  
Nepomerljiva konstrukcija

Presek 8-8 x = 2.63m



Merodavna kombinacija za savijanje:  
1.00xI-1.00xVIII  
N1ed = 171.01 kN  
M2ed = -51.82 kNm  
M3ed = -226.03 kNm

Aa1 = 2.45 cm<sup>2</sup>  
Aa2 = 2.41 cm<sup>2</sup>  
Aa3 = 5.78 cm<sup>2</sup>  
Aa4 = 5.75 cm<sup>2</sup>  
Aa,uz = 2.09 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
1.35xI+1.50xII  
M1ed = -0.78 kNm

Procenat armiranja: 1.65%

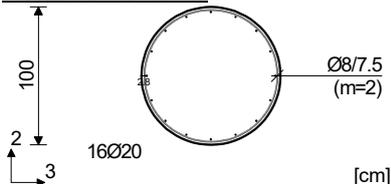
Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+1.00xVIII  
V2ed = 139.65 kN  
V3ed = 12.38 kN  
M1ed = -0.45 kNm

Vrd,max,2 = 1852.96 kN  
Vrd,max,3 = 1852.96 kN  
eb/ea = -3.500/19.503 %

### S11 (60330-57361)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 3.50 m ( $\lambda_2 = 14.00$ )  
li,3 = 3.50 m ( $\lambda_3 = 14.00$ )  
Nepomerljiva konstrukcija

Presek 9-9 x = 0.88m



Merodavna kombinacija za savijanje:  
1.00xI+0.30xIII-1.00xVIII  
N1ed = -139.78 kN  
M2ed = 410.70 kNm  
M3ed = -220.34 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_2| = 4.43$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_3| = 4.43$  kNm

Vrd,max,2 = 2292.56 kN  
Vrd,max,3 = 2292.56 kN  
eb/ea = -3.270/25.000 %  
Aa1 = 21.49 cm<sup>2</sup>  
Aa2 = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 cm<sup>2</sup>  
Aa,uz = 5.09 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
1.35xI+1.50xII  
M1ed = -0.25 kNm

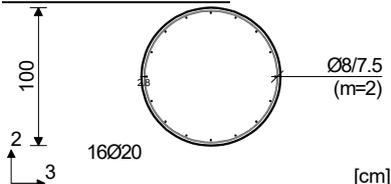
Procenat armiranja: 0.64%

Merodavna kombinacija za smicanje:  
1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -148.94 kN  
V3ed = -347.50 kN  
M1ed = -0.21 kNm

### S11 (45045-37031)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 10.50 m ( $\lambda_2 = 42.00$ )  
li,3 = 10.50 m ( $\lambda_3 = 42.00$ )  
Nepomerljiva konstrukcija

Presek 10-10 x = 8.75m



Merodavna kombinacija za savijanje:  
1.35xI+1.05xII+1.50xIII  
N1ed = -4394.10 kN  
M2ed = 41.43 kNm  
M3ed = 28.98 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 7.1 < e_{II} > = 10.3$  cm  
 $|\Delta M_2| = 451.56$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 5.7 < e_{II} > = 8.8$  cm  
 $|\Delta M_3| = 388.23$  kNm

Vrd,max,2 = 2490.83 kN  
Vrd,max,3 = 2490.83 kN  
Aa1 = 0.00 + 2.22' = 2.22 cm<sup>2</sup>  
Aa2 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>  
Aa3 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>  
Aa4 = 0.00 + 0.00' = 0.00 cm<sup>2</sup>  
Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
[Usvojeno Aa,uz = Ø8/7.5(m=2) = 6.70 cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
1.00xI+0.30xII-1.00xVIII  
M1ed = -43.35 kNm

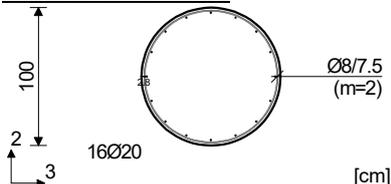
Procenat armiranja: 0.64%  
) - dodatna poduzna armatura za prijem torzije.

Merodavna kombinacija za smicanje:  
1.00xI+1.00xVIII  
V2ed = 105.95 kN  
V3ed = 101.65 kN  
M1ed = 43.07 kNm

### S11 (19889-16429)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H  
Kompletna šema opterećenja  
li,2 = 5.55 m ( $\lambda_2 = 22.20$ )  
li,3 = 5.55 m ( $\lambda_3 = 22.20$ )  
Nepomerljiva konstrukcija

Presek 11-11 x = 4.62m



Merodavna kombinacija za savijanje:  
1.35xI+1.05xII+1.50xIII  
N1ed = -8267.43 kN  
M2ed = -129.00 kNm  
M3ed = -624.16 kNm  
Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 1.9 < e_{II} > = 5.0$  cm  
 $|\Delta M_2| = 414.89$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{II} > = 3.2$  cm  
 $|\Delta M_3| = 261.80$  kNm

Vrd,max,2 = 2804.46 kN  
Vrd,max,3 = 2804.46 kN  
Nije potrebna armatura.

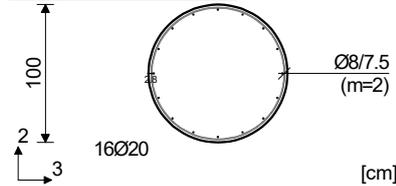
Merodavna kombinacija za torziju:  
1.35xI+1.50xII  
M1ed = -0.49 kNm

Merodavna kombinacija za smicanje:  
1.35xI+1.50xII+1.05xIII  
V2ed = 204.24 kN  
V3ed = -34.08 kN  
M1ed = -0.47 kNm

**S12 (25141-21326)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_2 = 22.20$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 22.20$ )  
 Nepomerljiva konstrukcija

Presek 12-12 x = 4.62m



Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $N1_{ed} = -7105.10$  kN  
 $M2_{ed} = 51.53$  kNm  
 $M3_{ed} = -769.83$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 <e_0> + 2.1 <e_{II}> = 5.3$  cm  
 $|\Delta M_2| = 375.77$  kNm  
 $\Delta e_3 = 3.2 <e_0> + 0.0 <e_{II}> = 3.2$  cm  
 $|\Delta M_3| = 224.99$  kNm

Vrd,max,2 = 2804.46 kN  
 Vrd,max,3 = 2804.46 kN  
 Nije potrebna armatura.

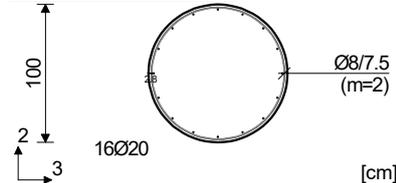
Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII$   
 $M1_{ed} = -0.38$  kNm

Merodavna kombinacija za smicanje:  
 $1.35xI+1.50xII+1.05xIII$   
 $V2_{ed} = 272.28$  kN  
 $V3_{ed} = 22.16$  kN  
 $M1_{ed} = -0.37$  kNm

**S12 (42855-37522)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 7.00$  m ( $\lambda_2 = 28.00$ )  
 $l_{i,3} = 7.00$  m ( $\lambda_3 = 28.00$ )  
 Nepomerljiva konstrukcija

Presek 13-13 x = 2.33m



Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $N1_{ed} = -4525.66$  kN  
 $M2_{ed} = -121.27$  kNm  
 $M3_{ed} = -39.69$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 <e_0> + 4.4 <e_{II}> = 7.6$  cm  
 $|\Delta M_2| = 343.90$  kNm  
 $\Delta e_3 = 3.2 <e_0> + 4.6 <e_{II}> = 7.8$  cm  
 $|\Delta M_3| = 352.61$  kNm

Vrd,max,2 = 2744.75 kN  
 Vrd,max,3 = 2744.75 kN  
 $Aa_1 = 0.00 + 2.28' = 2.28$  cm<sup>2</sup>  
 $Aa_2 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa_3 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa_4 = 0.00 + 0.00' = 0.00$  cm<sup>2</sup>  
 $Aa_{uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \text{Ø}8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 0.64%  
 \*) - dodatna poduzna armatura za prijem torzije.

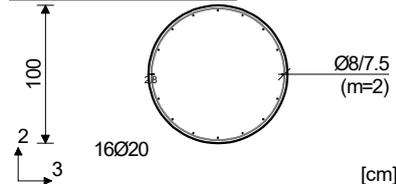
Merodavna kombinacija za torziju:  
 $1.00xI+0.30xII-1.00xVIII$   
 $M1_{ed} = -44.68$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2_{ed} = -91.99$  kN  
 $V3_{ed} = -93.69$  kN  
 $M1_{ed} = -44.68$  kNm

**S12 (66756-63889)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 14.00$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 14.00$ )  
 Nepomerljiva konstrukcija

Presek 14-14 x = 0.88m



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -98.96$  kN  
 $M2_{ed} = 267.18$  kNm  
 $M3_{ed} = -315.80$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 <e_0> + 0.0 <e_{II}> = 3.2$  cm  
 $|\Delta M_2| = 3.13$  kNm  
 $\Delta e_3 = 3.2 <e_0> + 0.0 <e_{II}> = 3.2$  cm  
 $|\Delta M_3| = 3.13$  kNm

Vrd,max,2 = 2255.68 kN  
 Vrd,max,3 = 2255.68 kN  
 $eb/ea = -3.056/25.000$  ‰  
 $Aa_1 = 19.44$  cm<sup>2</sup>  
 $Aa_2 = 0.00$  cm<sup>2</sup>  
 $Aa_3 = 0.00$  cm<sup>2</sup>  
 $Aa_4 = 0.00$  cm<sup>2</sup>  
 $Aa_{uz} = 4.87$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \text{Ø}8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 0.64%

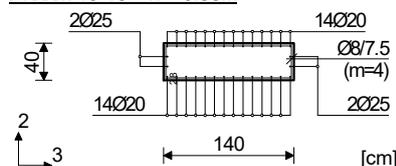
Merodavna kombinacija za torziju:  
 $1.00xI+0.30xIII+1.00xVIII$   
 $M1_{ed} = 0.14$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2_{ed} = -261.25$  kN  
 $V3_{ed} = -251.12$  kN  
 $M1_{ed} = -0.01$  kNm

**Ss59 (72810-70219)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 8.66$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 15-15 x = 0.88m



Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -329.64$  kN  
 $M2_{ed} = -393.00$  kNm  
 $M3_{ed} = 197.29$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 4.5 <e_0> + 0.0 <e_{II}> = 4.5$  cm  
 $|\Delta M_2| = 14.83$  kNm  
 $\Delta e_3 = 2.0 <e_0> + 0.0 <e_{II}> = 2.0$  cm  
 $|\Delta M_3| = 6.59$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2_{ed} = 337.38$  kN  
 $V3_{ed} = 395.93$  kN  
 $M1_{ed} = 0.06$  kNm

Vrd,max,2 = 2726.30 kN  
 Vrd,max,3 = 3004.49 kN  
 $eb/ea = -3.500/13.280$  ‰  
 $Aa_1 = 8.24$  cm<sup>2</sup>  
 $Aa_2 = 8.19$  cm<sup>2</sup>  
 $Aa_3 = 2.07$  cm<sup>2</sup>  
 $Aa_4 = 2.03$  cm<sup>2</sup>  
 $Aa_{uz} = 12.32$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \text{Ø}8/7.5(m=4) = 13.40$  cm<sup>2</sup>/m]

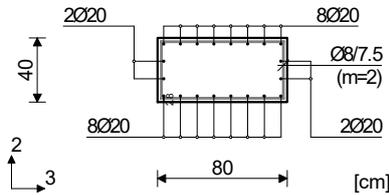
Procenat armiranja: 1.92%

Merodavna kombinacija za torziju:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $M1_{ed} = 0.06$  kNm



**S16 (31331-28802)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 1-1  $x = 0.88$  m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $N1ed = 153.40$  kN  
 $M2ed = -248.97$  kNm  
 $M3ed = -122.76$  kNm

$Aa1 = 9.65$  cm<sup>2</sup>  
 $Aa2 = 9.59$  cm<sup>2</sup>  
 $Aa3 = 2.43$  cm<sup>2</sup>  
 $Aa4 = 2.38$  cm<sup>2</sup>  
 $Aa,uz = 4.81$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1ed = 0.02$  kNm

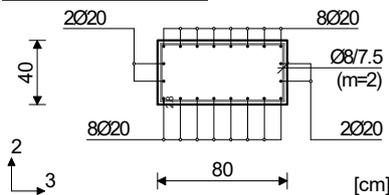
Procenat armiranja: 1.96%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII-1.00xVIII$   
 $V2ed = -131.86$  kN  
 $V3ed = -182.15$  kN  
 $M1ed = 0.01$  kNm

$Vrd,max,2 = 1517.04$  kN  
 $Vrd,max,3 = 1625.40$  kN  
 $eb/ea = -3.500/10.092$  %

**S16 (23412-21036)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 2-2  $x = 0.88$  m

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1ed = 373.97$  kN  
 $M2ed = -145.67$  kNm  
 $M3ed = -64.00$  kNm

$Aa1 = 7.58$  cm<sup>2</sup>  
 $Aa2 = 7.54$  cm<sup>2</sup>  
 $Aa3 = 1.91$  cm<sup>2</sup>  
 $Aa4 = 1.87$  cm<sup>2</sup>  
 $Aa,uz = 2.08$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII$   
 $M1ed = -0.03$  kNm

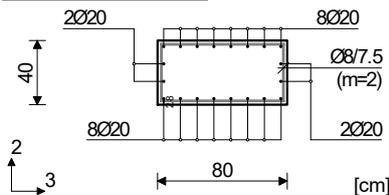
Procenat armiranja: 1.96%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 48.89$  kN  
 $V3ed = 122.34$  kN  
 $M1ed = -0.02$  kNm

$Vrd,max,2 = 1517.04$  kN  
 $Vrd,max,3 = 1625.40$  kN  
 $eb/ea = -3.500/15.550$  %

**S16 (10836-7833)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 29.88$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 3-3  $x = 2.96$  m

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1ed = 81.23$  kN  
 $M2ed = -23.82$  kNm  
 $M3ed = -15.28$  kNm

$Aa1 = 1.49$  cm<sup>2</sup>  
 $Aa2 = 1.48$  cm<sup>2</sup>  
 $Aa3 = 0.38$  cm<sup>2</sup>  
 $Aa4 = 0.37$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1ed = -0.04$  kNm

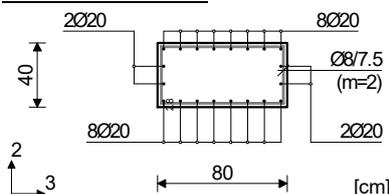
Procenat armiranja: 1.96%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2ed = 36.58$  kN  
 $V3ed = 90.48$  kN  
 $M1ed = -0.02$  kNm

$Vrd,max,2 = 1517.04$  kN  
 $Vrd,max,3 = 1625.40$  kN  
 $eb/ea = -2.137/25.000$  %

**S16 (5506-4149)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_2 = 24.03$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 48.06$ )  
 Nepomerljiva konstrukcija

Presek 4-4  $x = 4.62$  m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1ed = -184.94$  kN  
 $M2ed = 36.63$  kNm  
 $M3ed = -36.48$  kNm

$Vrd,max,2 = 1569.99$  kN  
 $Vrd,max,3 = 1682.13$  kN  
 $eb/ea = -2.817/25.000$  %  
 $Aa1 = 0.26$  cm<sup>2</sup>  
 $Aa2 = 0.25$  cm<sup>2</sup>  
 $Aa3 = 0.06$  cm<sup>2</sup>  
 $Aa4 = 0.06$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.5 < e0 > + 0.0 < eII > = 2.5$  cm  
 $|\Delta M2| = 4.62$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < eII > = 2.0$  cm  
 $|\Delta M3| = 3.70$  kNm

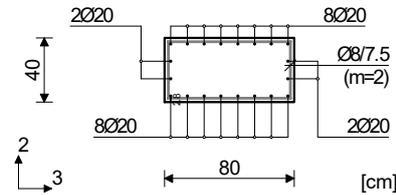
Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1ed = -0.05$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2ed = 19.24$  kN  
 $V3ed = 20.82$  kN  
 $M1ed = -0.03$  kNm

**S18 (38325-35758)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 5-5  $x = 0.88$ m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -4.92$  kN  
 $M2_{ed} = 194.69$  kNm  
 $M3_{ed} = -84.22$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.5 <e0> + 0.0 <ell> = 2.5$  cm  
 $|\Delta M2| = 0.12$  kNm  
 $\Delta e3 = 2.0 <e0> + 0.0 <ell> = 2.0$  cm  
 $|\Delta M3| = 0.10$  kNm

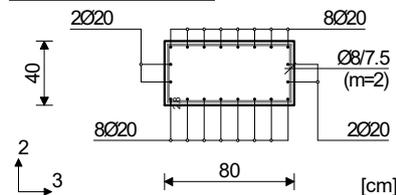
$Vrd_{,max,2} = 1567.83$  kN  
 $Vrd_{,max,3} = 1679.82$  kN  
 $eb/ea = -3.500/11.811$  ‰  
 $Aa1 = 5.77$  cm<sup>2</sup>  
 $Aa2 = 5.73$  cm<sup>2</sup>  
 $Aa3 = 1.45$  cm<sup>2</sup>  
 $Aa4 = 1.42$  cm<sup>2</sup>  
 $Aa_{,uz} = 2.95$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 $1.00xI+0.30xII-1.00xVIII$   
 $M1_{ed} = -0.01$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $V2_{ed} = -81.80$  kN  
 $V3_{ed} = -173.03$  kN  
 $M1_{ed} = -0.01$  kNm

**S18 (30160-27685)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 6-6  $x = 0.88$ m

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1_{ed} = -56.85$  kN  
 $M2_{ed} = -134.03$  kNm  
 $M3_{ed} = -44.58$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.5 <e0> + 0.0 <ell> = 2.5$  cm  
 $|\Delta M2| = 1.42$  kNm  
 $\Delta e3 = 2.0 <e0> + 0.0 <ell> = 2.0$  cm  
 $|\Delta M3| = 1.14$  kNm

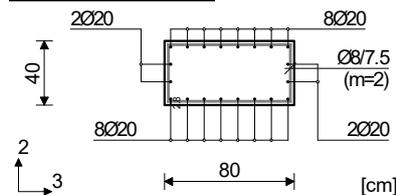
$Vrd_{,max,2} = 1697.26$  kN  
 $Vrd_{,max,3} = 1818.49$  kN  
 $eb/ea = -3.500/18.180$  ‰  
 $Aa1 = 3.03$  cm<sup>2</sup>  
 $Aa2 = 3.01$  cm<sup>2</sup>  
 $Aa3 = 0.76$  cm<sup>2</sup>  
 $Aa4 = 0.75$  cm<sup>2</sup>  
 $Aa_{,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII$   
 $M1_{ed} = -0.03$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $V2_{ed} = -51.21$  kN  
 $V3_{ed} = -98.08$  kN  
 $M1_{ed} = -0.02$  kNm

**S18 (16052-12208)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 29.88$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 7-7  $x = 1.97$ m

Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $N1_{ed} = -1521.25$  kN  
 $M2_{ed} = -10.55$  kNm  
 $M3_{ed} = 8.42$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.5 <e0> + 6.3 <ell> = 8.8$  cm  
 $|\Delta M2| = 134.03$  kNm  
 $\Delta e3 = 2.0 <e0> + 8.3 <ell> = 10.3$  cm  
 $|\Delta M3| = 157.40$  kNm

$Vrd_{,max,2} = 1610.47$  kN  
 $Vrd_{,max,3} = 1725.50$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1_{ed} = -0.05$  kNm

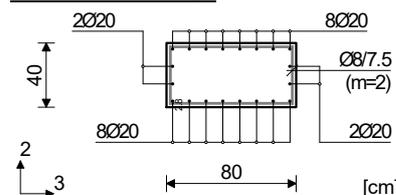
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2_{ed} = 32.63$  kN  
 $V3_{ed} = 58.82$  kN  
 $M1_{ed} = -0.03$  kNm

**S18 (8930-6786)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

$l_{i,2} = 5.55$  m ( $\lambda_2 = 24.03$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 48.06$ )  
 Nepomerljiva konstrukcija

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.5 <e0> + 0.0 <ell> = 2.5$  cm  
 $|\Delta M2| = 51.20$  kNm  
 $\Delta e3 = 2.0 <e0> + 0.0 <ell> = 2.0$  cm  
 $|\Delta M3| = 40.96$  kNm

Presek 8-8  $x = 4.62$ m

Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $N1_{ed} = -2047.81$  kN  
 $M2_{ed} = -85.12$  kNm  
 $M3_{ed} = 30.91$  kNm

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M1_{ed} = -0.06$  kNm

Merodavna kombinacija za smicanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $V2_{ed} = -14.64$  kN  
 $V3_{ed} = -31.63$  kN  
 $M1_{ed} = -0.05$  kNm

$Vrd_{,max,2} = 1896.30$  kN  
 $Vrd_{,max,3} = 2031.75$  kN  
 Nije potrebna armatura.

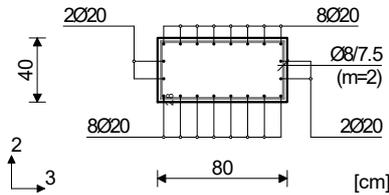
Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H

pos P 1400 kota 52.85			
pos P 1300 kota 49.35			
pos P 1200 kota 45.85			
pos P 1100 kota 42.35		1	1
pos P 1000 kota 38.15		1	3
pos P 900 kota 34.65		1	3
pos P 800 kota 31.15		1	3
pos P 700 kota 27.65	8020(32.2m)	1	3
pos P 600 kota 24.15	8020(28.7m)	1	3
pos P 500 kota 20.65	8020(32.2m)	2	4
pos P 400 kota 17.15		2	4
pos P 300 kota 13.65			
pos 200 kota 6.75			
pos 100 kota 3.60			
P 000 kota -0.15			
P -100 kota -5.70			

Ram: Gh22  
Armatura u gredama (usvojena): Aa2/Aa1

**S17 (31946-28922)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 18.19$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 1-1  $x = 1.05$ m

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N_{1ed} = 500.80$  kN  
 $M_{2ed} = -262.67$  kNm  
 $M_{3ed} = 59.20$  kNm

$Aa_1 = 11.61$  cm<sup>2</sup>  
 $Aa_2 = 11.54$  cm<sup>2</sup>  
 $Aa_3 = 2.92$  cm<sup>2</sup>  
 $Aa_4 = 2.86$  cm<sup>2</sup>  
 $Aa_{uz} = 3.99$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 $1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $M_{1ed} = -0.01$  kNm

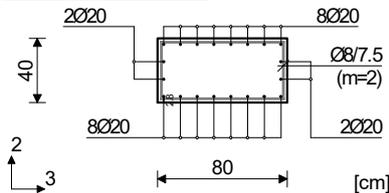
Procenat armiranja: 1.96%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V_{2ed} = 59.49$  kN  
 $V_{3ed} = 234.14$  kN  
 $M_{1ed} = -0.00$  kNm

$V_{rd,max,2} = 1517.04$  kN  
 $V_{rd,max,3} = 1625.40$  kN  
 $\epsilon_b/\epsilon_a = -3.500/17.286$  %

**S17 (19311-17124)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 2-2  $x = 1.75$ m

Merodavna kombinacija za savijanje:  
 $1.35xI+1.05xII+1.50xIII$   
 $N_{1ed} = -1279.40$  kN  
 $M_{2ed} = 0.38$  kNm  
 $M_{3ed} = -0.32$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 2.5 < e_0 > + 0.0 < e_{ll} > = 2.5$  cm  
 $|\Delta M_2| = 31.99$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 3.2 < e_{ll} > = 5.2$  cm  
 $|\Delta M_3| = 66.59$  kNm

$V_{rd,max,2} = 1572.61$  kN  
 $V_{rd,max,3} = 1684.94$  kN  
 $Aa_1 = 0.00$  cm<sup>2</sup>  
 $Aa_2 = 0.00$  cm<sup>2</sup>  
 $Aa_3 = 0.00$  cm<sup>2</sup>  
 $Aa_4 = 0.00$  cm<sup>2</sup>  
 $Aa_{uz} = 4.09$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

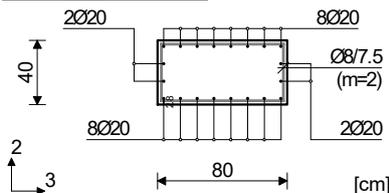
Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M_{1ed} = -0.03$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V_{2ed} = 56.02$  kN  
 $V_{3ed} = 240.28$  kN  
 $M_{1ed} = -0.02$  kNm

**S19 (39033-35934)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 18.19$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 3-3  $x = 1.05$ m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N_{1ed} = 171.47$  kN  
 $M_{2ed} = -142.43$  kNm  
 $M_{3ed} = -80.35$  kNm

$Aa_1 = 6.28$  cm<sup>2</sup>  
 $Aa_2 = 6.24$  cm<sup>2</sup>  
 $Aa_3 = 1.58$  cm<sup>2</sup>  
 $Aa_4 = 1.55$  cm<sup>2</sup>  
 $Aa_{uz} = 1.90$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 1.96%

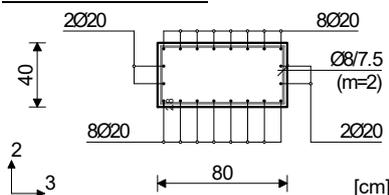
Merodavna kombinacija za torziju:  
 $1.35xI+1.05xII+1.50xIII$   
 $M_{1ed} = 0.03$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII+1.00xVIII$   
 $V_{2ed} = 37.45$  kN  
 $V_{3ed} = 111.49$  kN  
 $M_{1ed} = 0.02$  kNm

$V_{rd,max,2} = 1517.04$  kN  
 $V_{rd,max,3} = 1625.40$  kN  
 $\epsilon_b/\epsilon_a = -3.500/13.703$  %

**S19 (25900-23454)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 15.16$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 4-4  $x = 2.63$ m

Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N_{1ed} = 109.74$  kN  
 $M_{2ed} = 151.53$  kNm  
 $M_{3ed} = 48.94$  kNm

$Aa_1 = 5.02$  cm<sup>2</sup>  
 $Aa_2 = 4.99$  cm<sup>2</sup>  
 $Aa_3 = 1.26$  cm<sup>2</sup>  
 $Aa_4 = 1.24$  cm<sup>2</sup>  
 $Aa_{uz} = 2.66$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

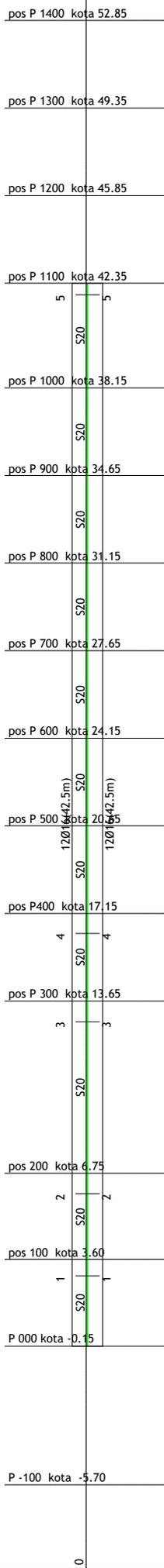
Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 $1.35xI+1.50xII+1.05xIII$   
 $M_{1ed} = -0.04$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII+1.00xVIII$   
 $V_{2ed} = 37.16$  kN  
 $V_{3ed} = 156.18$  kN  
 $M_{1ed} = -0.02$  kNm

$V_{rd,max,2} = 1517.04$  kN  
 $V_{rd,max,3} = 1625.40$  kN  
 $\epsilon_b/\epsilon_a = -3.500/18.445$  %

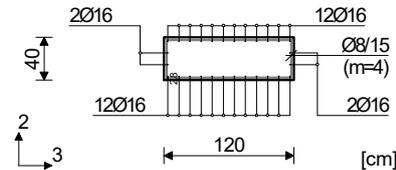
Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Ram: Gh23  
Armatura u gredama (usvojena): Aa2/Aa1

**S20 (3029-2508)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.45$  m ( $\lambda_2 = 9.96$ )  
 $l_{i,3} = 3.45$  m ( $\lambda_3 = 29.88$ )  
 Nepomerljiva konstrukcija

Presek 1-1  $x = 1.15$ m

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -6337.27$  kN  
 $M_{2ed} = 30.87$  kNm  
 $M_{3ed} = 59.08$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{II} > = 3.6$  cm  
 $|\Delta M_2| = 228.14$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 2.0 < e_{II} > = 4.0$  cm  
 $|\Delta M_3| = 255.88$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII  
 $V_{2ed} = -3.14$  kN  
 $V_{3ed} = -139.05$  kN  
 $M_{1ed} = -0.30$  kNm

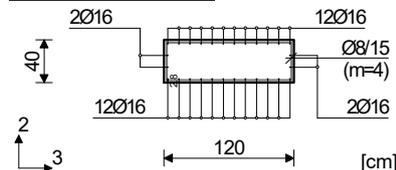
$V_{rd,max,2} = 2846.21$  kN  
 $V_{rd,max,3} = 2846.21$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 $M_{1ed} = -0.46$  kNm

**S20 (3682-3029)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.45$  m ( $\lambda_2 = 9.96$ )  
 $l_{i,3} = 3.45$  m ( $\lambda_3 = 29.88$ )  
 Nepomerljiva konstrukcija

Presek 2-2  $x = 1.15$ m

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -5995.69$  kN  
 $M_{2ed} = 103.08$  kNm  
 $M_{3ed} = 42.75$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{II} > = 3.6$  cm  
 $|\Delta M_2| = 215.84$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0$  cm  
 $|\Delta M_3| = 119.91$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 103.89$  kN  
 $V_{3ed} = 12.55$  kN  
 $M_{1ed} = -0.12$  kNm

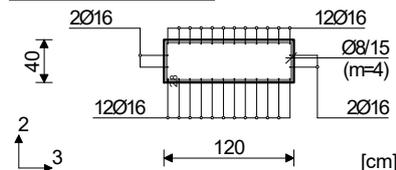
$V_{rd,max,2} = 2857.07$  kN  
 $V_{rd,max,3} = 2857.07$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
 $M_{1ed} = -0.18$  kNm

**S20 (5238-3682)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 3-3  $x = 0.99$ m

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -5504.90$  kN  
 $M_{2ed} = -44.97$  kNm  
 $M_{3ed} = 15.42$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 2.1 < e_{II} > = 5.7$  cm  
 $|\Delta M_2| = 315.69$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 1.5 < e_{II} > = 3.5$  cm  
 $|\Delta M_3| = 195.04$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xIII-1.00xVIII  
 $V_{2ed} = -27.03$  kN  
 $V_{3ed} = -91.22$  kN  
 $M_{1ed} = -0.06$  kNm

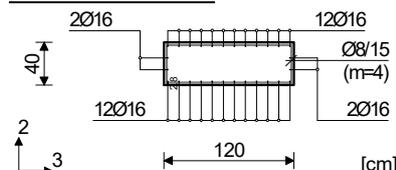
$V_{rd,max,2} = 2925.72$  kN  
 $V_{rd,max,3} = 2925.72$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.09$  kNm

**S20 (6276-5238)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 4-4  $x = 1.17$ m

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -4821.53$  kN  
 $M_{2ed} = -41.38$  kNm  
 $M_{3ed} = -1.32$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{II} > = 3.6$  cm  
 $|\Delta M_2| = 173.58$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 3.0 < e_{II} > = 5.0$  cm  
 $|\Delta M_3| = 240.84$  kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 94.93$  kN  
 $V_{3ed} = 137.45$  kN  
 $M_{1ed} = -0.03$  kNm

$V_{rd,max,2} = 2744.90$  kN  
 $V_{rd,max,3} = 2744.90$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:

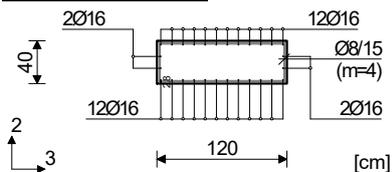
1.35xI+1.50xII  
 $M_{1ed} = -0.06$  kNm

**S20 (18701-16115)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

$l_{i,2} = 4.20 \text{ m}$  ( $\lambda_2 = 12.12$ )  
 $l_{i,3} = 4.20 \text{ m}$  ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 5-5  $x = 0.00 \text{ m}$



Merodavna kombinacija za savijanje:

$1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$

$N_{1ed} = -95.26 \text{ kN}$

$M_{2ed} = -471.13 \text{ kNm}$

$M_{3ed} = -280.98 \text{ kNm}$

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{II} > = 3.6 \text{ cm}$

$|\Delta M_2| = 3.43 \text{ kNm}$

$\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0 \text{ cm}$

$|\Delta M_3| = 1.91 \text{ kNm}$

Merodavna kombinacija za torziju:

$1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$

$M_{1ed} = -0.01 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$

$V_{2ed} = 80.78 \text{ kN}$

$V_{3ed} = 178.44 \text{ kN}$

$M_{1ed} = 0.00 \text{ kNm}$

$V_{rd,max,2} = 2360.48 \text{ kN}$

$V_{rd,max,3} = 2360.48 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/9.771 \text{ ‰}$

$A_{a1} = 15.72 \text{ cm}^2$

$A_{a2} = 15.63 \text{ cm}^2$

$A_{a3} = 3.96 \text{ cm}^2$

$A_{a4} = 3.87 \text{ cm}^2$

$A_{a,uz} = 2.11 \text{ cm}^2/\text{m}$  (m=2)

[Usvojeno  $A_{a,uz} = \text{Ø}8/15(m=4) = 6.70 \text{ cm}^2/\text{m}$ ]

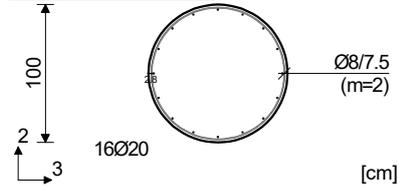
Procenat armiranja: 1.17%



**S23 (44702-41464)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 16.80$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 16.80$ )  
 Nepomerljiva konstrukcija

Presek 1-1 x = 1.05m



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
 $N_{1ed} = -647.16$  kN  
 $M_{2ed} = -310.76$  kNm  
 $M_{3ed} = 204.75$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 20.49$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 20.49$  kNm

$V_{rd,max,2} = 2330.27$  kN  
 $V_{rd,max,3} = 2330.27$  kN  
 $eb/ea = -3.354/25.000$  ‰  
 $Aa_1 = 5.96$  cm<sup>2</sup>  
 $Aa_2 = 0.00$  cm<sup>2</sup>  
 $Aa_3 = 0.00$  cm<sup>2</sup>  
 $Aa_4 = 0.00$  cm<sup>2</sup>  
 $Aa_{uz} = 4.82$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 0.64%

Merodavna kombinacija za torziju:

1.35xI+1.05xII+1.50xIII  
 $M_{1ed} = 0.20$  kNm

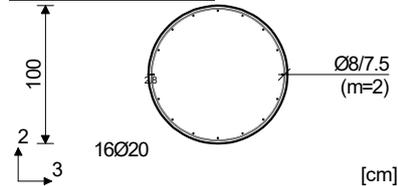
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 134.44$  kN  
 $V_{3ed} = 332.17$  kN  
 $M_{1ed} = 0.11$  kNm

**S23 (38796-31115)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 10.50$  m ( $\lambda_2 = 42.00$ )  
 $l_{i,3} = 10.50$  m ( $\lambda_3 = 42.00$ )  
 Nepomerljiva konstrukcija

Presek 2-2 x = 8.75m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -4928.24$  kN  
 $M_{2ed} = 69.53$  kNm  
 $M_{3ed} = 221.56$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 7.0 < e_{ll} > = 10.2$  cm  
 $|\Delta M_2| = 502.18$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 6.0 < e_{ll} > = 9.2$  cm  
 $|\Delta M_3| = 451.72$  kNm

$V_{rd,max,2} = 2582.27$  kN  
 $V_{rd,max,3} = 2582.27$  kN

$Aa_1 = 0.00 + 2.21 = 2.21$  cm<sup>2</sup>  
 $Aa_2 = 0.00 + 0.00 = 0.00$  cm<sup>2</sup>  
 $Aa_3 = 0.00 + 0.00 = 0.00$  cm<sup>2</sup>  
 $Aa_4 = 0.00 + 0.00 = 0.00$  cm<sup>2</sup>  
 $Aa_{uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \varnothing 8/7.5(m=2) = 6.70$  cm<sup>2</sup>/m]

Procenat armiranja: 0.64%

\*) - dodatna podužna armatura za prijem torzije.

Merodavna kombinacija za torziju:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $M_{1ed} = -43.32$  kNm

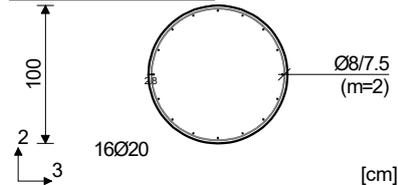
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 125.41$  kN  
 $V_{3ed} = 23.77$  kN  
 $M_{1ed} = 43.03$  kNm

**S23 (23734-19104)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 27.60$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 27.60$ )  
 Nepomerljiva konstrukcija

Presek 3-3 x = 0.99m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -6838.53$  kN  
 $M_{2ed} = 251.93$  kNm  
 $M_{3ed} = 245.82$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 216.55$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 216.55$  kNm

$V_{rd,max,2} = 2804.46$  kN  
 $V_{rd,max,3} = 2804.46$  kN

Nije potrebna armatura.

Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.41$  kNm

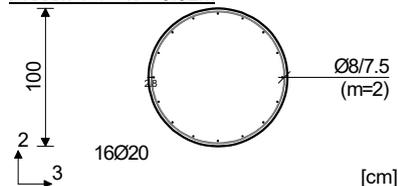
Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $V_{2ed} = 13.32$  kN  
 $V_{3ed} = -146.17$  kN  
 $M_{1ed} = -0.30$  kNm

**S23 (14915-11883)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_2 = 22.20$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 22.20$ )  
 Nepomerljiva konstrukcija

Presek 4-4 x = 0.92m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
 $N_{1ed} = -9310.82$  kN  
 $M_{2ed} = 291.53$  kNm  
 $M_{3ed} = 190.58$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_2| = 294.84$  kNm  
 $\Delta e_3 = 3.2 < e_0 > + 0.0 < e_{ll} > = 3.2$  cm  
 $|\Delta M_3| = 294.84$  kNm

$V_{rd,max,2} = 2804.46$  kN  
 $V_{rd,max,3} = 2804.46$  kN

Nije potrebna armatura.

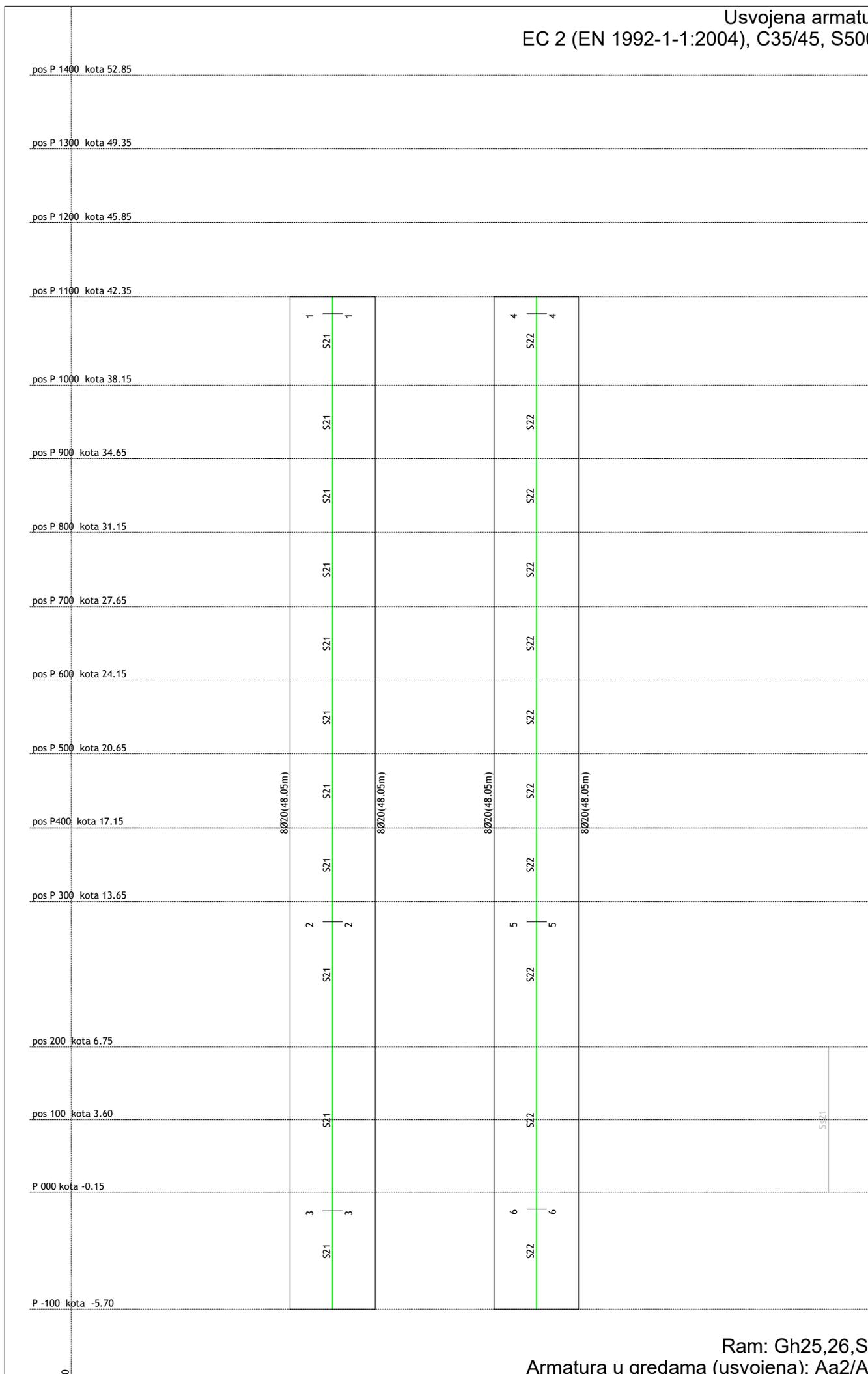
Merodavna kombinacija za torziju:

1.35xI  
 $M_{1ed} = -0.05$  kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII  
 $V_{2ed} = 221.50$  kN  
 $V_{3ed} = -188.96$  kN  
 $M_{1ed} = -0.04$  kNm

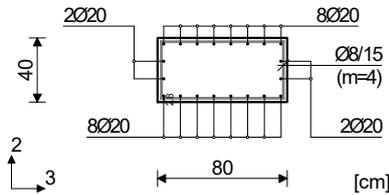
Usvojena armatura  
EC 2 (EN 1992-1-1:2004), C35/45, S500H



Ram: Gh25,26,Sh7  
Armatura u gredama (usvojena): Aa2/Aa1

**S21 (24435-21541)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 18.19$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 1-1  $x = 1.05$ m

Merodavna kombinacija za savijanje:  
 1.00xI-1.00xVIII  
 $N_{1ed} = 232.81$  kN  
 $M_{2ed} = -252.04$  kNm  
 $M_{3ed} = -32.16$  kNm

$Aa_1 = 8.64$  cm<sup>2</sup>  
 $Aa_2 = 8.59$  cm<sup>2</sup>  
 $Aa_3 = 2.17$  cm<sup>2</sup>  
 $Aa_4 = 2.13$  cm<sup>2</sup>  
 $Aa_{uz} = 3.40$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \frac{\phi 8/15}{m} = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 $M_{1ed} = -0.01$  kNm

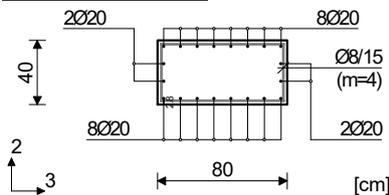
Procenat armiranja: 1.96%

Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = -0.04$  kN  
 $V_{3ed} = 199.67$  kN  
 $M_{1ed} = -0.00$  kNm

$V_{rd,max,2} = 1517.04$  kN  
 $V_{rd,max,3} = 1625.40$  kN  
 $e_b/e_a = -3.500/21.447$  %

**S21 (8096-5701)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 29.88$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 2-2  $x = 0.99$ m

Merodavna kombinacija za savijanje:  
 1.00xI-1.00xVIII  
 $N_{1ed} = 234.82$  kN  
 $M_{2ed} = -215.45$  kNm  
 $M_{3ed} = -18.42$  kNm

$Aa_1 = 7.60$  cm<sup>2</sup>  
 $Aa_2 = 7.56$  cm<sup>2</sup>  
 $Aa_3 = 1.91$  cm<sup>2</sup>  
 $Aa_4 = 1.87$  cm<sup>2</sup>  
 $Aa_{uz} = 2.11$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \frac{\phi 8/15}{m} = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.01$  kNm

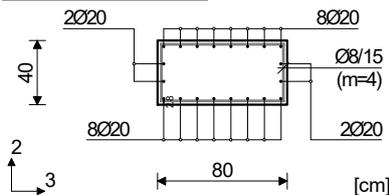
Procenat armiranja: 1.96%

Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 5.97$  kN  
 $V_{3ed} = 124.07$  kN  
 $M_{1ed} = -0.00$  kNm

$V_{rd,max,2} = 1517.04$  kN  
 $V_{rd,max,3} = 1625.40$  kN  
 $e_b/e_a = -3.161/25.000$  %

**S21 (4005-2961)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_2 = 24.03$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_3 = 48.06$ )  
 Nepomerljiva konstrukcija

Presek 3-3  $x = 0.85$ m

Merodavna kombinacija za savijanje:  
 1.00xI-1.00xVIII  
 $N_{1ed} = 23.76$  kN  
 $M_{2ed} = -15.00$  kNm  
 $M_{3ed} = 52.27$  kNm

$Aa_1 = 2.76 + 0.04 = 2.79$  cm<sup>2</sup>  
 $Aa_2 = 2.74 + 0.04 = 2.78$  cm<sup>2</sup>  
 $Aa_3 = 0.69 + 0.00 = 0.69$  cm<sup>2</sup>  
 $Aa_4 = 0.68 + 0.00 = 0.68$  cm<sup>2</sup>  
 $Aa_{uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \frac{\phi 8/15}{m} = 6.70$  cm<sup>2</sup>/m]

Merodavna kombinacija za torziju:  
 1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = 0.95$  kNm

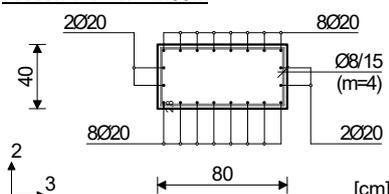
Procenat armiranja: 1.96%  
 \*) - dodatna podužna armatura za prijem torzije.

Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 $V_{2ed} = 126.94$  kN  
 $V_{3ed} = 15.39$  kN  
 $M_{1ed} = 0.95$  kNm

$V_{rd,max,2} = 1681.15$  kN  
 $V_{rd,max,3} = 1801.24$  kN  
 $e_b/e_a = -2.127/25.000$  %

**S22 (31200-28203)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 18.19$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 4-4  $x = 1.05$ m

Merodavna kombinacija za savijanje:  
 1.00xI+0.30xIII-1.00xVIII  
 $N_{1ed} = 89.84$  kN  
 $M_{2ed} = 184.58$  kNm  
 $M_{3ed} = -21.01$  kNm

$Aa_1 = 5.48$  cm<sup>2</sup>  
 $Aa_2 = 5.45$  cm<sup>2</sup>  
 $Aa_3 = 1.38$  cm<sup>2</sup>  
 $Aa_4 = 1.35$  cm<sup>2</sup>  
 $Aa_{uz} = 2.62$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{uz} = \frac{\phi 8/15}{m} = 6.70$  cm<sup>2</sup>/m]

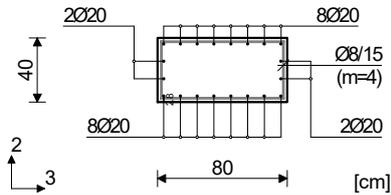
Merodavna kombinacija za smicanje:  
 1.00xI+0.30xIII-1.00xVIII  
 $V_{2ed} = -18.11$  kN  
 $V_{3ed} = -153.66$  kN  
 $M_{1ed} = -0.01$  kNm

Procenat armiranja: 1.96%

$V_{rd,max,2} = 1517.04$  kN  
 $V_{rd,max,3} = 1625.40$  kN  
 $e_b/e_a = -3.178/25.000$  %

**S22 (12549-9203)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_{2,2} = 29.88$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_{3,3} = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 5-5  $x = 0.99$ m

Merodavna kombinacija za savijanje:  
 1.00xI-1.00xVIII  
 $N_{1ed} = -69.50$  kN  
 $M_{2ed} = -131.54$  kNm  
 $M_{3ed} = -86.55$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 2.5 < e_0 > + 0.0 < e_{II} > = 2.5$  cm  
 $|\Delta M_2| = 1.74$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0$  cm  
 $|\Delta M_3| = 1.39$  kNm

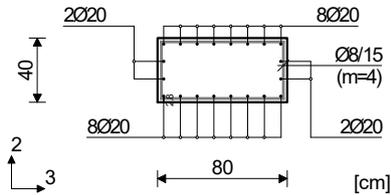
$V_{rd,max,2} = 1548.51$  kN  
 $V_{rd,max,3} = 1659.12$  kN  
 $\epsilon_b/\epsilon_a = -3.500/13.368$  ‰  
 $A_{a1} = 4.32$  cm<sup>2</sup>  
 $A_{a2} = 4.30$  cm<sup>2</sup>  
 $A_{a3} = 1.09$  cm<sup>2</sup>  
 $A_{a4} = 1.07$  cm<sup>2</sup>  
 $A_{a,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $A_{a,uz} = \text{Ø}8/15(m=4) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.03$  kNm

Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+1.00xVIII  
 $V_{2ed} = 23.07$  kN  
 $V_{3ed} = 66.95$  kN  
 $M_{1ed} = -0.01$  kNm

**S22 (6538-4924)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 5.55$  m ( $\lambda_{2,2} = 24.03$ )  
 $l_{i,3} = 5.55$  m ( $\lambda_{3,3} = 48.06$ )  
 Nepomerljiva konstrukcija

Presek 6-6  $x = 0.92$ m

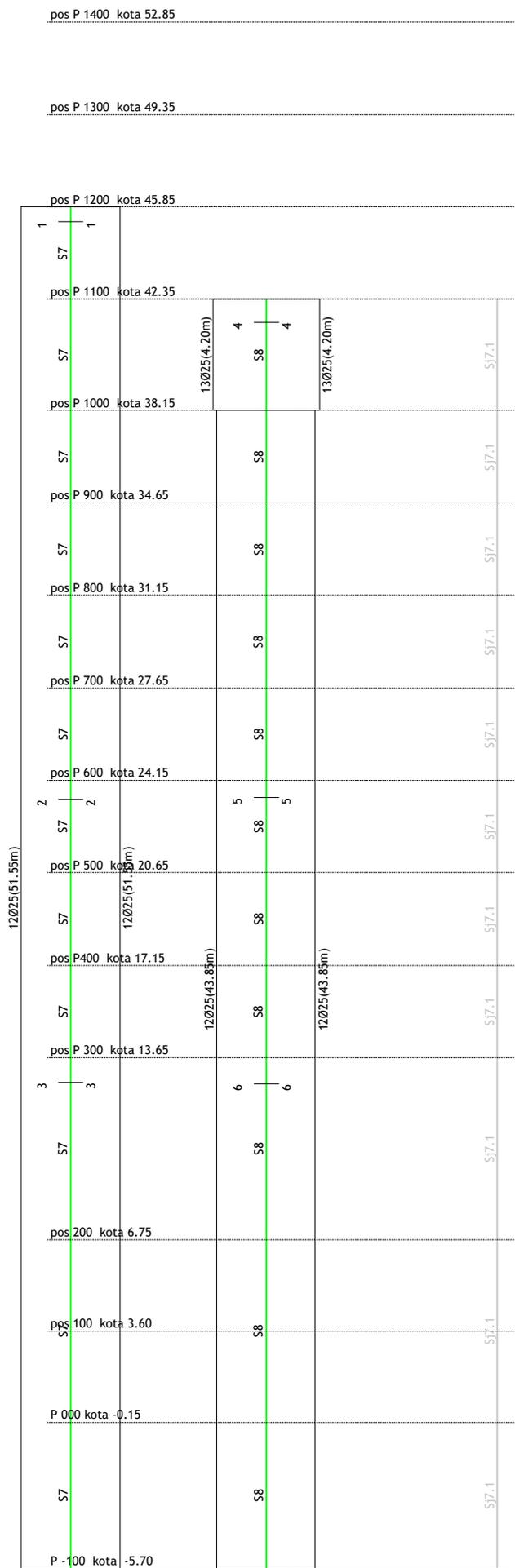
Merodavna kombinacija za savijanje:  
 1.00xI-1.00xVIII  
 $N_{1ed} = 558.95$  kN  
 $M_{2ed} = 68.69$  kNm  
 $M_{3ed} = 72.80$  kNm

$A_{a1} = 8.92$  cm<sup>2</sup>  
 $A_{a2} = 8.86$  cm<sup>2</sup>  
 $A_{a3} = 2.24$  cm<sup>2</sup>  
 $A_{a4} = 2.20$  cm<sup>2</sup>  
 $A_{a,uz} = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $A_{a,uz} = \text{Ø}8/15(m=4) = 6.70$  cm<sup>2</sup>/m]  
 Procenat armiranja: 1.96%

Merodavna kombinacija za torziju:  
 1.35xI+1.50xII+1.05xIII  
 $M_{1ed} = -0.07$  kNm

Merodavna kombinacija za smicanje:  
 1.35xI+1.50xII+1.05xIII  
 $V_{2ed} = 49.81$  kN  
 $V_{3ed} = -13.81$  kN  
 $M_{1ed} = -0.07$  kNm

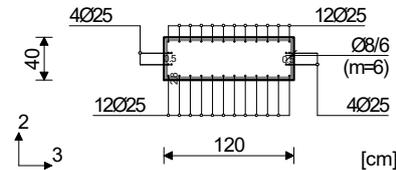
$V_{rd,max,2} = 1896.30$  kN  
 $V_{rd,max,3} = 2031.75$  kN  
 $\epsilon_b/\epsilon_a = -3.379/25.000$  ‰



Ram: Gk23  
Armatura u gredama (usvojena): Aa2/Aa1

**S7 (87171-85851)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 1-1  $x = 0.88$ m

Merodavna kombinacija za savijanje:

$1.00xI + 0.30xII - 1.00xVIII$   
 $N1_{ed} = -598.02$  kN  
 $M2_{ed} = 310.39$  kNm  
 $M3_{ed} = -490.66$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 21.53$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{ll} > = 2.0$  cm  
 $|\Delta M_3| = 11.96$  kNm

$Vrd_{,max,2} = 2532.60$  kN  
 $Vrd_{,max,3} = 2532.60$  kN  
 $eb/ea = -3.500/9.474$  ‰  
 $Aa_1 = 21.99$  cm<sup>2</sup>  
 $Aa_2 = 21.85$  cm<sup>2</sup>  
 $Aa_3 = 7.36$  cm<sup>2</sup>  
 $Aa_4 = 7.24$  cm<sup>2</sup>  
 $Aa_{,uz} = 21.63$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/6(m=6) = 25.13$  cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

Merodavna kombinacija za torziju:

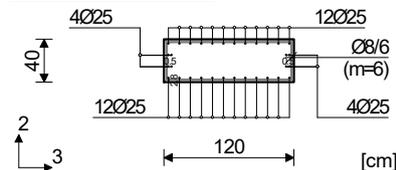
$1.35xI + 1.50xII + 1.05xIII$   
 $M1_{ed} = -0.07$  kNm

Merodavna kombinacija za smicanje:

$1.00xI + 0.30xII - 1.00xVIII$   
 $V2_{ed} = -609.23$  kN  
 $V3_{ed} = -373.05$  kN  
 $M1_{ed} = -0.06$  kNm

**S7 (75866-73546)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 2-2  $x = 0.88$ m

Merodavna kombinacija za savijanje:

$1.35xI + 1.05xII + 1.50xIII$   
 $N1_{ed} = -3520.00$  kN  
 $M2_{ed} = 514.19$  kNm  
 $M3_{ed} = 36.45$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 126.72$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{ll} > = 2.0$  cm  
 $|\Delta M_3| = 70.40$  kNm

$Vrd_{,max,2} = 2918.61$  kN  
 $Vrd_{,max,3} = 2918.61$  kN  
 $Aa_1 = 0.00$  cm<sup>2</sup>  
 $Aa_2 = 0.00$  cm<sup>2</sup>  
 $Aa_3 = 0.00$  cm<sup>2</sup>  
 $Aa_4 = 0.00$  cm<sup>2</sup>  
 $Aa_{,uz} = 7.41$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/6(m=6) = 25.13$  cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

Merodavna kombinacija za torziju:

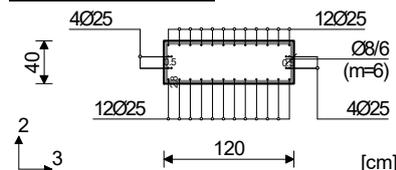
$1.35xI + 1.50xII$   
 $M1_{ed} = -0.16$  kNm

Merodavna kombinacija za smicanje:

$1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$   
 $V2_{ed} = -62.94$  kN  
 $V3_{ed} = -626.46$  kN  
 $M1_{ed} = -0.11$  kNm

**S7 (68356-62724)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 3-3  $x = 0.99$ m

Merodavna kombinacija za savijanje:

$1.35xI + 1.05xII + 1.50xIII$   
 $N1_{ed} = -4945.03$  kN  
 $M2_{ed} = 582.06$  kNm  
 $M3_{ed} = -148.08$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 178.02$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 1.6 < e_{ll} > = 3.6$  cm  
 $|\Delta M_3| = 180.26$  kNm

Merodavna kombinacija za smicanje:

$1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$   
 $V2_{ed} = -96.14$  kN  
 $V3_{ed} = -216.07$  kN  
 $M1_{ed} = -0.08$  kNm

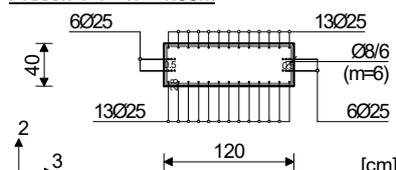
$Vrd_{,max,2} = 2925.72$  kN  
 $Vrd_{,max,3} = 2925.72$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:

$1.35xI + 1.50xII$   
 $M1_{ed} = -0.11$  kNm

**S8 (87985-86587)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 12.12$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 4-4  $x = 1.05$ m

Merodavna kombinacija za savijanje:

$1.35xI + 1.50xII + 1.05xIII$   
 $N1_{ed} = -1209.59$  kN  
 $M2_{ed} = 1331.40$  kNm  
 $M3_{ed} = -316.15$  kNm

Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 43.55$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{ll} > = 2.0$  cm  
 $|\Delta M_3| = 24.19$  kNm

$Vrd_{,max,2} = 2472.54$  kN  
 $Vrd_{,max,3} = 2543.18$  kN  
 $eb/ea = -3.500/4.949$  ‰  
 $Aa_1 = 22.42$  cm<sup>2</sup>  
 $Aa_2 = 22.26$  cm<sup>2</sup>  
 $Aa_3 = 9.63$  cm<sup>2</sup>  
 $Aa_4 = 9.50$  cm<sup>2</sup>  
 $Aa_{,uz} = 13.49$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa_{,uz} = \varnothing 8/6(m=6) = 25.13$  cm<sup>2</sup>/m]

Procenat armiranja: 3.89%

Merodavna kombinacija za torziju:

$1.35xI + 1.50xII + 1.05xIII$   
 $M1_{ed} = 0.33$  kNm

Merodavna kombinacija za smicanje:

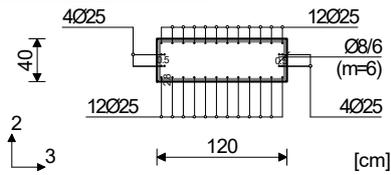
$1.35xI + 1.50xII + 1.05xIII$   
 $V2_{ed} = -281.29$  kN  
 $V3_{ed} = -1140.22$  kN  
 $M1_{ed} = 0.33$  kNm

**S8 (79669-77522)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

$l_{i,2} = 3.50 \text{ m}$  ( $\lambda_{2} = 10.10$ )  
 $l_{i,3} = 3.50 \text{ m}$  ( $\lambda_{3} = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 5-5  $x = 0.88 \text{ m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -851.54 \text{ kN}$   
 $M2_{ed} = 745.14 \text{ kNm}$   
 $M3_{ed} = 60.00 \text{ kNm}$

Uvećanje momenta savijanja usled izvijanja

$\Delta e2 = 3.6 < e0 > + 0.0 < eII > = 3.6 \text{ cm}$   
 $|\Delta M2| = 30.66 \text{ kNm}$   
 $\Delta e3 = 2.0 < e0 > + 0.0 < eII > = 2.0 \text{ cm}$   
 $|\Delta M3| = 17.03 \text{ kNm}$

Merodavna kombinacija za torziju:

$1.35xI+1.50xII$   
 $M1_{ed} = -0.15 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.35xI+1.50xII+1.05xIII$   
 $V2_{ed} = 99.76 \text{ kN}$   
 $V3_{ed} = -876.32 \text{ kN}$   
 $M1_{ed} = -0.15 \text{ kNm}$

$V_{rd,max,2} = 2925.72 \text{ kN}$

$V_{rd,max,3} = 2925.72 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/11.149 \text{ ‰}$

$Aa1 = 6.12 \text{ cm}^2$

$Aa2 = 6.08 \text{ cm}^2$

$Aa3 = 2.05 \text{ cm}^2$

$Aa4 = 2.02 \text{ cm}^2$

$Aa_{uz} = 10.37 \text{ cm}^2/\text{m}$  (m=2)

[Usvojeno  $Aa_{uz} = \text{Ø}8/6(m=6) = 25.13 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 3.27%

### S8 (72910-67721)

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

S500H

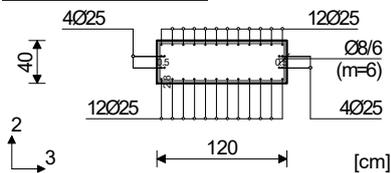
Kompletna šema opterećenja

$l_{i,2} = 6.90 \text{ m}$  ( $\lambda_{2} = 19.92$ )

$l_{i,3} = 6.90 \text{ m}$  ( $\lambda_{3} = 59.76$ )

Nepomerljiva konstrukcija

Presek 6-6  $x = 0.99 \text{ m}$



Merodavna kombinacija za savijanje:

$1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -635.76 \text{ kN}$   
 $M2_{ed} = 894.63 \text{ kNm}$   
 $M3_{ed} = -45.15 \text{ kNm}$

Uvećanje momenta savijanja usled izvijanja

$\Delta e2 = 3.6 < e0 > + 0.0 < eII > = 3.6 \text{ cm}$   
 $|\Delta M2| = 22.89 \text{ kNm}$   
 $\Delta e3 = 2.0 < e0 > + 0.0 < eII > = 2.0 \text{ cm}$   
 $|\Delta M3| = 12.72 \text{ kNm}$

Merodavna kombinacija za torziju:

$1.35xI+1.50xII$   
 $M1_{ed} = -0.13 \text{ kNm}$

Merodavna kombinacija za smicanje:

$1.00xI+0.30xII+0.30xIII-1.00xVIII$   
 $V2_{ed} = -66.06 \text{ kN}$   
 $V3_{ed} = -339.65 \text{ kN}$   
 $M1_{ed} = -0.09 \text{ kNm}$

$V_{rd,max,2} = 2501.02 \text{ kN}$

$V_{rd,max,3} = 2501.02 \text{ kN}$

$\epsilon_b/\epsilon_a = -3.500/11.836 \text{ ‰}$

$Aa1 = 10.51 \text{ cm}^2$

$Aa2 = 10.45 \text{ cm}^2$

$Aa3 = 3.52 \text{ cm}^2$

$Aa4 = 3.46 \text{ cm}^2$

$Aa_{uz} = 4.02 \text{ cm}^2/\text{m}$  (m=2)

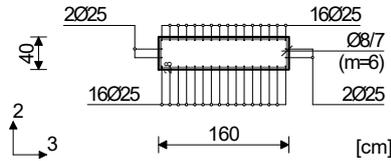
[Usvojeno  $Aa_{uz} = \text{Ø}8/6(m=6) = 25.13 \text{ cm}^2/\text{m}$ ]

Procenat armiranja: 3.27%



**Ss54 (74133-71648)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 7.58$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

**Presek 1-1 x = 0.88m**

Merodavna kombinacija za savijanje:

$1.00xI + 0.30xII + 0.30xIII - 1.00xVIII$   
 $N1ed = -701.21$  kN  
 $M2ed = -411.74$  kNm  
 $M3ed = 649.10$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e2 = 5.2 < e0 > + 0.0 < ell > = 5.2$  cm  
 $|\Delta M2| = 36.23$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < ell > = 2.0$  cm  
 $|\Delta M3| = 14.02$  kNm

Merodavna kombinacija za torziju:

$1.35xI + 1.50xII + 1.05xIII$   
 $M1ed = -0.30$  kNm

Merodavna kombinacija za smicanje:

$1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $V2ed = 552.08$  kN  
 $V3ed = 157.59$  kN  
 $M1ed = -0.15$  kNm

$Vrd,max,2 = 3149.91$  kN

$Vrd,max,3 = 3487.40$  kN

$eb/ea = -3.500/10.857$  ‰

$Aa1 = 35.97$  cm<sup>2</sup>

$Aa2 = 35.78$  cm<sup>2</sup>

$Aa3 = 4.06$  cm<sup>2</sup>

$Aa4 = 3.90$  cm<sup>2</sup>

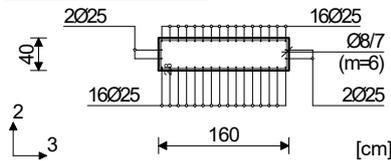
$Aa,uz = 20.17$  cm<sup>2</sup>/m (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/7(m=6) = 21.54$  cm<sup>2</sup>/m]

Procenat armiranja: 2.76%

**Ss54 (71648-69020)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 7.58$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

**Presek 2-2 x = 0.88m**

Merodavna kombinacija za savijanje:

$1.35xI + 1.05xII + 1.50xIII$   
 $N1ed = -2889.35$  kN  
 $M2ed = 14.93$  kNm  
 $M3ed = 120.67$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e2 = 4.8 < e0 > + 0.0 < ell > = 4.8$  cm  
 $|\Delta M2| = 138.69$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < ell > = 2.0$  cm  
 $|\Delta M3| = 57.79$  kNm

Merodavna kombinacija za torziju:

$1.00xI + 1.00xVIII$   
 $M1ed = 0.04$  kNm

Merodavna kombinacija za smicanje:

$1.00xI - 1.00xVIII$   
 $V2ed = -91.80$  kN  
 $V3ed = -233.15$  kN  
 $M1ed = -0.01$  kNm

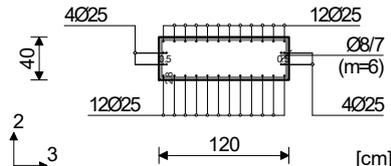
$Vrd,max,2 = 3381.35$  kN

$Vrd,max,3 = 3381.35$  kN

Nije potrebna armatura.

**S13 (77294-75044)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

**Presek 3-3 x = 0.88m**

Merodavna kombinacija za savijanje:

$1.00xI + 0.30xII - 1.00xVIII$   
 $N1ed = -189.64$  kN  
 $M2ed = -260.44$  kNm  
 $M3ed = 439.23$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e2 = 3.6 < e0 > + 0.0 < ell > = 3.6$  cm  
 $|\Delta M2| = 6.83$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < ell > = 2.0$  cm  
 $|\Delta M3| = 3.79$  kNm

Merodavna kombinacija za torziju:

$1.35xI + 1.50xII + 1.05xIII$   
 $M1ed = -0.22$  kNm

$Vrd,max,2 = 2373.02$  kN

$Vrd,max,3 = 2373.02$  kN

$eb/ea = -3.500/12.032$  ‰

$Aa1 = 21.62$  cm<sup>2</sup>

$Aa2 = 21.49$  cm<sup>2</sup>

$Aa3 = 7.24$  cm<sup>2</sup>

$Aa4 = 7.12$  cm<sup>2</sup>

$Aa,uz = 18.76$  cm<sup>2</sup>/m (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/7(m=6) = 21.54$  cm<sup>2</sup>/m]

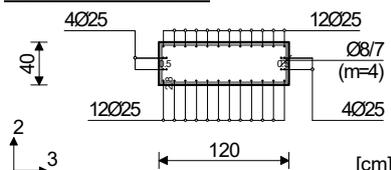
Procenat armiranja: 3.27%

Merodavna kombinacija za smicanje:

$1.00xI + 0.30xII + 1.00xVIII$   
 $V2ed = 528.19$  kN  
 $V3ed = 240.47$  kN  
 $M1ed = -0.11$  kNm

**S13 (69530-66790)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

**Presek 4-4 x = 0.88m**

Merodavna kombinacija za savijanje:

$1.35xI + 1.05xII + 1.50xIII$   
 $N1ed = -2200.48$  kN  
 $M2ed = -184.50$  kNm  
 $M3ed = 10.93$  kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e2 = 3.6 < e0 > + 0.0 < ell > = 3.6$  cm  
 $|\Delta M2| = 79.22$  kNm  
 $\Delta e3 = 2.0 < e0 > + 0.0 < ell > = 2.0$  cm  
 $|\Delta M3| = 44.01$  kNm

Merodavna kombinacija za torziju:

$1.35xI + 1.50xII + 1.05xIII$   
 $M1ed = -3.78$  kNm

Merodavna kombinacija za smicanje:

$1.35xI + 1.50xII$   
 $V2ed = 203.31$  kN  
 $V3ed = 224.37$  kN  
 $M1ed = -3.27$  kNm

$Vrd,max,2 = 2832.36$  kN

$Vrd,max,3 = 2832.36$  kN

$Aa1 = 0.00 + 0.14' = 0.14$  cm<sup>2</sup>

$Aa2 = 0.00 + 0.14' = 0.14$  cm<sup>2</sup>

$Aa3 = 0.00 + 0.05' = 0.05$  cm<sup>2</sup>

$Aa4 = 0.00 + 0.05' = 0.05$  cm<sup>2</sup>

$Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)

[Usvojeno  $Aa,uz = \varnothing 8/7(m=4) = 14.36$  cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

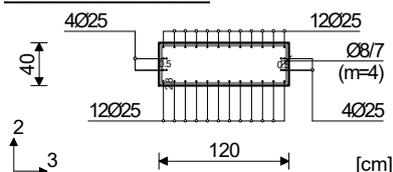
\*) - dodatna poduzna armatura za prijem torzije.

**S13 (57997-55008)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 10.10$ )  
li,3 = 3.50 m ( $\lambda_3 = 30.31$ )  
Nepomerljiva konstrukcija

Presek 5-5 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = 3860.10 kN  
M2ed = -405.30 kNm  
M3ed = 2.78 kNm

Vrd,max,2 = 2340.58 kN

Vrd,max,3 = 2340.58 kN

eb/ea = -1.927/25.000 ‰

Aa1 = 39.91 cm<sup>2</sup>

Aa2 = 39.65 cm<sup>2</sup>

Aa3 = 13.36 cm<sup>2</sup>

Aa4 = 13.14 cm<sup>2</sup>

Aa,uz = 5.04 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.05 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+1.00xVIII  
V2ed = 106.81 kN  
V3ed = 425.71 kN  
M1ed = -0.03 kNm

### S13 (43501-38221)

EC 2 (EN 1992-1-1:2004)  
C45/55 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

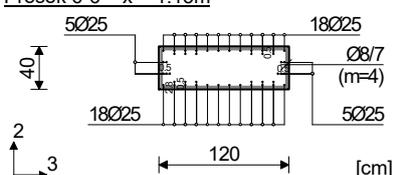
Kompletna šema opterećenja

li,2 = 6.90 m ( $\lambda_2 = 19.92$ )

li,3 = 6.90 m ( $\lambda_3 = 59.76$ )

Nepomerljiva konstrukcija

Presek 6-6 x = 1.15m



Merodavna kombinacija za savijanje:

1.00xI-1.00xVIII  
N1ed = 2389.76 kN  
M2ed = -191.09 kNm  
M3ed = 212.55 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII  
V2ed = 291.47 kN  
V3ed = 174.60 kN  
M1ed = 0.00 kNm

Vrd,max,2 = 2789.64 kN

Vrd,max,3 = 3055.32 kN

eb/ea = -3.168/25.000 ‰

Aa1 = 33.30 cm<sup>2</sup>

Aa2 = 33.10 cm<sup>2</sup>

Aa3 = 8.38 cm<sup>2</sup>

Aa4 = 8.20 cm<sup>2</sup>

Aa,uz = 10.64 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 4.70%

Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = -11117.09 kN

M2ed = 256.41 kNm

M3ed = 72.85 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.8 < e_0 > + 1.3 < e_{II} > = 5.2$  cm

$|\Delta M_2| = 574.02$  kNm

$\Delta e_3 = 2.0 < e_0 > + 3.5 < e_{II} > = 5.5$  cm

$|\Delta M_3| = 615.29$  kNm

Merodavna kombinacija za smicanje:

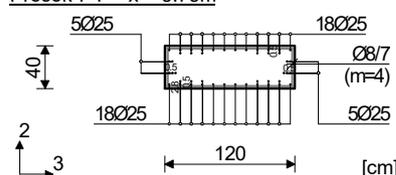
1.00xI-1.00xVIII

V2ed = -66.67 kN

V3ed = 15.42 kN

M1ed = 0.00 kNm

Presek 7-7 x = 5.75m



Vrd,max,2 = 2789.64 kN

Vrd,max,3 = 3055.32 kN

eb/ea = -3.500/0.623 ‰

Aa1 = 26.10 cm<sup>2</sup>

Aa2 = 25.94 cm<sup>2</sup>

Aa3 = 6.57 cm<sup>2</sup>

Aa4 = 6.43 cm<sup>2</sup>

Aa,uz = 2.43 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 4.70%

### S14 (79139-76962)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

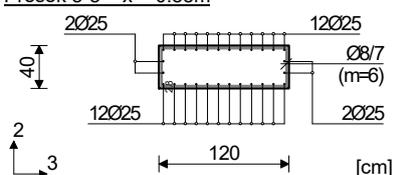
Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 10.10$ )

li,3 = 3.50 m ( $\lambda_3 = 30.31$ )

Nepomerljiva konstrukcija

Presek 8-8 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII

N1ed = -250.09 kN

M2ed = -335.95 kNm

M3ed = 303.56 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{II} > = 3.6$  cm

$|\Delta M_2| = 9.00$  kNm

$\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0$  cm

$|\Delta M_3| = 5.00$  kNm

Vrd,max,2 = 2386.33 kN

Vrd,max,3 = 2386.33 kN

eb/ea = -3.500/11.519 ‰

Aa1 = 15.01 cm<sup>2</sup>

Aa2 = 14.92 cm<sup>2</sup>

Aa3 = 3.78 cm<sup>2</sup>

Aa4 = 3.70 cm<sup>2</sup>

Aa,uz = 14.48 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=6) = 21.54 cm<sup>2</sup>/m]

Procenat armiranja: 2.86%

Merodavna kombinacija za torziju:

1.35xI+1.50xII

M1ed = 0.09 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII+1.00xVIII

V2ed = 407.73 kN

V3ed = 249.54 kN

M1ed = 0.08 kNm

### S14 (74231-71756)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

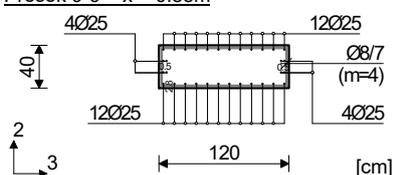
Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 10.10$ )

li,3 = 3.50 m ( $\lambda_3 = 30.31$ )

Nepomerljiva konstrukcija

Presek 9-9 x = 0.88m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

N1ed = -2786.31 kN

M2ed = 161.05 kNm

M3ed = 116.07 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{II} > = 3.6$  cm

$|\Delta M_2| = 100.31$  kNm

$\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{II} > = 2.0$  cm

$|\Delta M_3| = 55.73$  kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

V2ed = 81.14 kN

V3ed = -188.32 kN

M1ed = -0.35 kNm

Vrd,max,2 = 2925.72 kN

Vrd,max,3 = 2925.72 kN

Nije potrebna armatura.

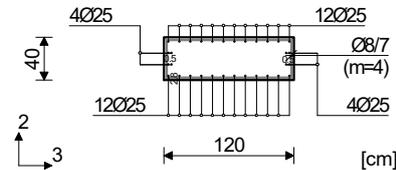
Merodavna kombinacija za torziju:

1.35xI+1.50xII+1.05xIII

M1ed = -0.35 kNm

**S14 (66368-63497)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 10-10  $x = 0.88$ m

Merodavna kombinacija za savijanje:  
 $1.35xI + 1.05xII + 1.50xIII$   
 $N1_{ed} = -3029.35$  kN  
 $M2_{ed} = 54.75$  kNm  
 $M3_{ed} = 20.69$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.6 <e0> + 0.0 <ell> = 3.6$  cm  
 $|\Delta M2| = 109.06$  kNm  
 $\Delta e3 = 2.0 <e0> + 2.6 <ell> = 4.6$  cm  
 $|\Delta M3| = 139.62$  kNm

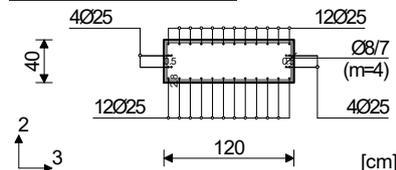
Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $V2_{ed} = -67.36$  kN  
 $V3_{ed} = -224.48$  kN  
 $M1_{ed} = -0.01$  kNm

$Vrd_{,max,2} = 2889.37$  kN  
 $Vrd_{,max,3} = 2889.37$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:  
 $1.00xI - 1.00xVIII$   
 $M1_{ed} = -0.01$  kNm

**S14 (57543-54591)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 3.50$  m ( $\lambda_2 = 10.10$ )  
 $l_{i,3} = 3.50$  m ( $\lambda_3 = 30.31$ )  
 Nepomerljiva konstrukcija

Presek 11-11  $x = 1.17$ m

Merodavna kombinacija za savijanje:  
 $1.35xI + 1.05xII + 1.50xIII$   
 $N1_{ed} = -3485.40$  kN  
 $M2_{ed} = 81.84$  kNm  
 $M3_{ed} = -9.38$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.6 <e0> + 0.0 <ell> = 3.6$  cm  
 $|\Delta M2| = 125.47$  kNm  
 $\Delta e3 = 2.0 <e0> + 0.0 <ell> = 2.0$  cm  
 $|\Delta M3| = 69.71$  kNm

$Vrd_{,max,2} = 2629.71$  kN  
 $Vrd_{,max,3} = 2629.71$  kN  
 $Aa1 = 0.00$  cm<sup>2</sup>  
 $Aa2 = 0.00$  cm<sup>2</sup>  
 $Aa3 = 0.00$  cm<sup>2</sup>  
 $Aa4 = 0.00$  cm<sup>2</sup>  
 $Aa_{,uz} = 4.55$  cm<sup>2</sup>/m (m=2)  
[Usvojeno  $Aa_{,uz} = \frac{\pi \cdot 8^2}{4} \cdot (m=4) = 14.36$  cm<sup>2</sup>/m]

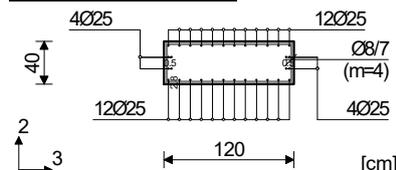
Procent armiranja: 3.27%

Merodavna kombinacija za torziju:  
 $1.35xI + 1.50xII$   
 $M1_{ed} = -0.08$  kNm

Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $V2_{ed} = -101.88$  kN  
 $V3_{ed} = -384.26$  kN  
 $M1_{ed} = -0.05$  kNm

**S14 (54591-48701)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 59.76$ )  
 Nepomerljiva konstrukcija

Presek 12-12  $x = 0.99$ m

Merodavna kombinacija za savijanje:  
 $1.35xI + 1.05xII + 1.50xIII$   
 $N1_{ed} = -4216.38$  kN  
 $M2_{ed} = 112.06$  kNm  
 $M3_{ed} = 144.37$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.6 <e0> + 2.3 <ell> = 5.9$  cm  
 $|\Delta M2| = 247.00$  kNm  
 $\Delta e3 = 2.0 <e0> + 1.7 <ell> = 3.7$  cm  
 $|\Delta M3| = 157.85$  kNm

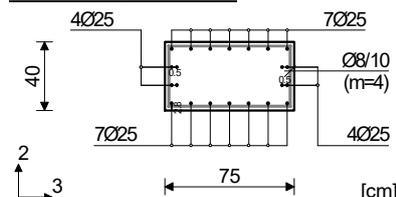
Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $V2_{ed} = 8.45$  kN  
 $V3_{ed} = -108.62$  kN  
 $M1_{ed} = -0.07$  kNm

$Vrd_{,max,2} = 2925.72$  kN  
 $Vrd_{,max,3} = 2925.72$  kN  
 Nije potrebna armatura.

Merodavna kombinacija za torziju:  
 $1.35xI + 1.50xII$   
 $M1_{ed} = -0.09$  kNm

**S15a (80894-78379)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 4.20$  m ( $\lambda_2 = 19.40$ )  
 $l_{i,3} = 4.20$  m ( $\lambda_3 = 36.37$ )  
 Nepomerljiva konstrukcija

Presek 13-13  $x = 1.05$ m

Merodavna kombinacija za savijanje:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $N1_{ed} = -271.31$  kN  
 $M2_{ed} = 400.77$  kNm  
 $M3_{ed} = -91.37$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 2.3 <e0> + 0.0 <ell> = 2.3$  cm  
 $|\Delta M2| = 6.10$  kNm  
 $\Delta e3 = 2.0 <e0> + 0.0 <ell> = 2.0$  cm  
 $|\Delta M3| = 5.43$  kNm

$Vrd_{,max,2} = 1588.51$  kN  
 $Vrd_{,max,3} = 1588.51$  kN  
 $eb/ea = -3.500/8.567$  ‰  
 $Aa1 = 8.69$  cm<sup>2</sup>  
 $Aa2 = 8.63$  cm<sup>2</sup>  
 $Aa3 = 4.64$  cm<sup>2</sup>  
 $Aa4 = 4.59$  cm<sup>2</sup>  
 $Aa_{,uz} = 7.66$  cm<sup>2</sup>/m (m=2)  
[Usvojeno  $Aa_{,uz} = \frac{\pi \cdot 8^2}{4} \cdot (m=4) = 10.05$  cm<sup>2</sup>/m]

Procent armiranja: 3.60%

Merodavna kombinacija za torziju:  
 $1.35xI + 1.50xII$   
 $M1_{ed} = 0.11$  kNm

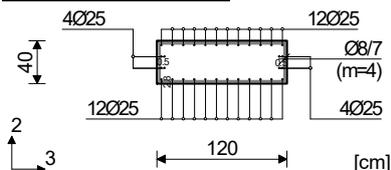
Merodavna kombinacija za smicanje:  
 $1.00xI + 0.30xII + 0.30xIII + 1.00xVIII$   
 $V2_{ed} = -142.79$  kN  
 $V3_{ed} = -404.36$  kN  
 $M1_{ed} = 0.06$  kNm

**S15 (78379-76174)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 10.10$ )  
li,3 = 3.50 m ( $\lambda_3 = 30.31$ )  
Nepomerljiva konstrukcija

Presek 14-14 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = -782.38 kN  
M2ed = 703.89 kNm  
M3ed = -166.10 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 28.17$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{ll} > = 2.0$  cm  
 $|\Delta M_3| = 15.65$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.31 kNm

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII  
V2ed = -140.96 kN  
V3ed = -803.98 kN  
M1ed = -0.28 kNm

Vrd,max,2 = 2613.68 kN

Vrd,max,3 = 2613.68 kN

eb/ea = -3.500/7.745 ‰

Aa1 = 8.00 cm<sup>2</sup>

Aa2 = 7.95 cm<sup>2</sup>

Aa3 = 2.68 cm<sup>2</sup>

Aa4 = 2.63 cm<sup>2</sup>

Aa,uz = 9.51 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

### S15 (71394-68751)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

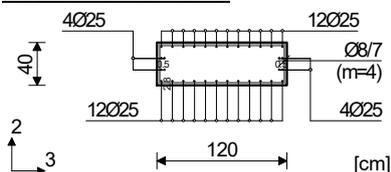
Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 10.10$ )

li,3 = 3.50 m ( $\lambda_3 = 30.31$ )

Nepomerljiva konstrukcija

Presek 15-15 x = 0.88m



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII  
N1ed = -1796.02 kN  
M2ed = 219.90 kNm  
M3ed = -66.79 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 64.66$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{ll} > = 2.0$  cm  
 $|\Delta M_3| = 35.92$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.06 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -191.02 kN  
V3ed = -459.44 kN  
M1ed = -0.05 kNm

Vrd,max,2 = 2658.35 kN

Vrd,max,3 = 2658.35 kN

Aa1 = 0.00 cm<sup>2</sup>

Aa2 = 0.00 cm<sup>2</sup>

Aa3 = 0.00 cm<sup>2</sup>

Aa4 = 0.00 cm<sup>2</sup>

Aa,uz = 5.44 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

### S15 (65950-63047)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

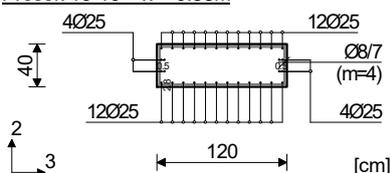
Kompletna šema opterećenja

li,2 = 3.50 m ( $\lambda_2 = 10.10$ )

li,3 = 3.50 m ( $\lambda_3 = 30.31$ )

Nepomerljiva konstrukcija

Presek 16-16 x = 0.88m



Merodavna kombinacija za savijanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
N1ed = -1057.85 kN  
M2ed = 574.84 kNm  
M3ed = -122.65 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 38.08$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 0.0 < e_{ll} > = 2.0$  cm  
 $|\Delta M_3| = 21.16$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.05 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -223.29 kN  
V3ed = -587.14 kN  
M1ed = -0.04 kNm

Vrd,max,2 = 2757.61 kN

Vrd,max,3 = 2757.61 kN

eb/ea = -3.500/8.237 ‰

Aa1 = 2.50 cm<sup>2</sup>

Aa2 = 2.48 cm<sup>2</sup>

Aa3 = 0.84 cm<sup>2</sup>

Aa4 = 0.82 cm<sup>2</sup>

Aa,uz = 6.95 cm<sup>2</sup>/m (m=2)

[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

### S15 (60049-54203)

EC 2 (EN 1992-1-1:2004)  
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
S500H

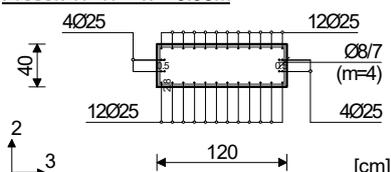
Kompletna šema opterećenja

li,2 = 6.90 m ( $\lambda_2 = 19.92$ )

li,3 = 6.90 m ( $\lambda_3 = 59.76$ )

Nepomerljiva konstrukcija

Presek 17-17 x = 0.99m



Merodavna kombinacija za savijanje:

1.00xI+0.30xIII-1.00xVIII  
N1ed = -1019.65 kN  
M2ed = 648.79 kNm  
M3ed = -90.23 kNm

Uvećanje momenta savijanja usled izvijanja

$\Delta e_2 = 3.6 < e_0 > + 0.0 < e_{ll} > = 3.6$  cm  
 $|\Delta M_2| = 36.71$  kNm  
 $\Delta e_3 = 2.0 < e_0 > + 4.3 < e_{ll} > = 6.3$  cm  
 $|\Delta M_3| = 63.73$  kNm

Merodavna kombinacija za torziju:

1.35xI+1.50xII  
M1ed = -0.08 kNm

Merodavna kombinacija za smicanje:

1.00xI+0.30xII+0.30xIII-1.00xVIII  
V2ed = -56.47 kN  
V3ed = -225.04 kN  
M1ed = -0.06 kNm

Vrd,max,2 = 2925.72 kN

Vrd,max,3 = 2925.72 kN

eb/ea = -3.500/7.974 ‰

Aa1 = 4.40 cm<sup>2</sup>

Aa2 = 4.38 cm<sup>2</sup>

Aa3 = 1.47 cm<sup>2</sup>

Aa4 = 1.45 cm<sup>2</sup>

Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)

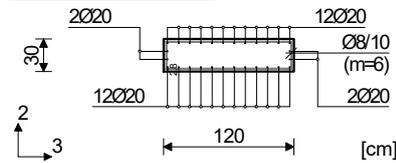
[Usvojeno Aa,uz = Ø8/7(m=4) = 14.36 cm<sup>2</sup>/m]

Procenat armiranja: 3.27%

pos. P. 1400 kota 52.85	12020(12.45m)	S540	1	1	12020(12.45m)
pos. P. 1300 kota 49.35	12020(12.45m)	S539	2	2	12020(12.45m)
pos. P. 1200 kota 45.85	12020(12.45m)	S538	3	3	12020(12.45m)
pos. P. 1100 kota 42.35	12020(12.45m)	S537	4	4	12020(12.45m)
pos. P. 1000 kota 38.15	12020(12.45m)	S536	5	5	12020(12.45m)
pos. P. 900 kota 34.65	12020(12.45m)	S535	6	6	12020(12.45m)
pos. P. 800 kota 31.15	12020(12.45m)	S534	7	7	12020(12.45m)
pos. P. 700 kota 27.65	12020(12.45m)	S533	8	8	12020(12.45m)
pos. P. 600 kota 24.15	12020(12.45m)	S532	9	9	12020(12.45m)
pos. P. 500 kota 20.65	12020(12.45m)	S531	10	10	12020(12.45m)
pos. P.400 kota 17.15	12020(12.45m)	S530	11	11	12020(12.45m)
pos. P.300 kota 13.65	12020(12.45m)	S529	12	12	12020(12.45m)
pos. 200 kota 6.75	12020(12.45m)	S528	13	13	12020(12.45m)
P. -100 kota -5.70	12020(12.45m)	S527	14	14	12020(12.45m)

**Ss33 (27971-23167)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 8-8  $x = 1.15$  m

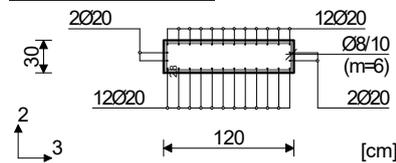
Merodavna kombinacija za savijanje:  
 $1.00xI+0.30xIII-1.00xVIII$   
 $N1_{ed} = -607.57$  kN  
 $M2_{ed} = 104.70$  kNm  
 $M3_{ed} = 72.20$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.8 <e0> + 0.0 <eII> = 3.8$  cm  
 $|\Delta M2| = 23.29$  kNm  
 $\Delta e3 = 2.0 <e0> + 6.2 <eII> = 8.2$  cm  
 $|\Delta M3| = 50.03$  kNm

$eb/ea = -3.500/12.787$  ‰  
 $Aa1 = 3.57$  cm<sup>2</sup>  
 $Aa2 = 3.55$  cm<sup>2</sup>  
 $Aa3 = 0.49$  cm<sup>2</sup>  
 $Aa4 = 0.48$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/10(m=6) = 15.08$  cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xIII+1.00xVIII$   
 $V2_{ed} = 143.20$  kN  
 $V3_{ed} = 17.34$  kN  
 $M1_{ed} = 0.00$  kNm  
 $Vrd,max,2 = 1738.25$  kN  
 $Vrd,max,3 = 1998.98$  kN

**Ss34 (32633-27680)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 7-7  $x = 1.15$  m

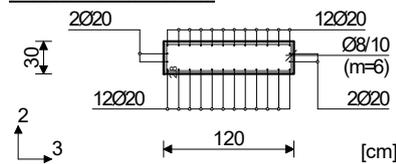
Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1_{ed} = -487.37$  kN  
 $M2_{ed} = -119.09$  kNm  
 $M3_{ed} = 93.26$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.8 <e0> + 0.0 <eII> = 3.8$  cm  
 $|\Delta M2| = 18.68$  kNm  
 $\Delta e3 = 2.0 <e0> + 6.2 <eII> = 8.2$  cm  
 $|\Delta M3| = 40.13$  kNm

$eb/ea = -3.500/12.583$  ‰  
 $Aa1 = 5.87$  cm<sup>2</sup>  
 $Aa2 = 5.84$  cm<sup>2</sup>  
 $Aa3 = 0.81$  cm<sup>2</sup>  
 $Aa4 = 0.78$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/10(m=6) = 15.08$  cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+0.30xIII+1.00xVIII$   
 $V2_{ed} = 160.74$  kN  
 $V3_{ed} = 89.34$  kN  
 $M1_{ed} = 0.00$  kNm  
 $Vrd,max,2 = 1723.55$  kN  
 $Vrd,max,3 = 1982.08$  kN

**Ss35 (37330-32326)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 6-6  $x = 1.15$  m

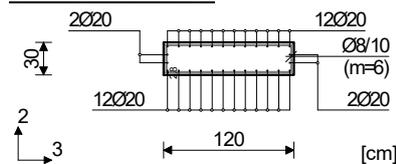
Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1_{ed} = -583.73$  kN  
 $M2_{ed} = -125.03$  kNm  
 $M3_{ed} = 92.90$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.8 <e0> + 0.0 <eII> = 3.8$  cm  
 $|\Delta M2| = 22.38$  kNm  
 $\Delta e3 = 2.0 <e0> + 6.2 <eII> = 8.2$  cm  
 $|\Delta M3| = 48.07$  kNm

$eb/ea = -3.500/11.690$  ‰  
 $Aa1 = 5.62$  cm<sup>2</sup>  
 $Aa2 = 5.59$  cm<sup>2</sup>  
 $Aa3 = 0.78$  cm<sup>2</sup>  
 $Aa4 = 0.75$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/10(m=6) = 15.08$  cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2_{ed} = 182.52$  kN  
 $V3_{ed} = 114.84$  kN  
 $M1_{ed} = 0.00$  kNm  
 $Vrd,max,2 = 1741.98$  kN  
 $Vrd,max,3 = 2003.28$  kN

**Ss36 (42219-37022)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 $l_{i,2} = 6.90$  m ( $\lambda_2 = 19.92$ )  
 $l_{i,3} = 6.90$  m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 5-5  $x = 1.15$  m

Merodavna kombinacija za savijanje:  
 $1.00xI-1.00xVIII$   
 $N1_{ed} = -373.31$  kN  
 $M2_{ed} = 153.95$  kNm  
 $M3_{ed} = 66.70$  kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e2 = 3.8 <e0> + 0.0 <eII> = 3.8$  cm  
 $|\Delta M2| = 14.31$  kNm  
 $\Delta e3 = 2.0 <e0> + 6.2 <eII> = 8.2$  cm  
 $|\Delta M3| = 30.74$  kNm

$eb/ea = -3.500/13.481$  ‰  
 $Aa1 = 3.97$  cm<sup>2</sup>  
 $Aa2 = 3.95$  cm<sup>2</sup>  
 $Aa3 = 0.55$  cm<sup>2</sup>  
 $Aa4 = 0.53$  cm<sup>2</sup>  
 $Aa,uz = 0.00$  cm<sup>2</sup>/m (m=2)  
 [Usvojeno  $Aa,uz = \varnothing 8/10(m=6) = 15.08$  cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

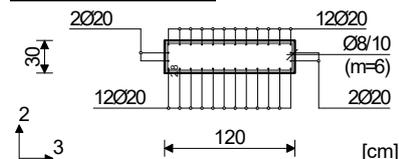
Merodavna kombinacija za smicanje:  
 $1.00xI+0.30xII+1.00xVIII$   
 $V2_{ed} = 165.37$  kN  
 $V3_{ed} = 119.97$  kN  
 $M1_{ed} = 0.00$  kNm  
 $Vrd,max,2 = 1703.97$  kN  
 $Vrd,max,3 = 1959.56$  kN

**Ss37 (47373-41922)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja

li,2 = 6.90 m ( $\lambda_2 = 19.92$ )  
 li,3 = 6.90 m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 4-4 x = 1.15m



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xIII-1.00xVIII  
 N1ed = -528.96 kN  
 M2ed = 266.38 kNm  
 M3ed = -47.52 kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.8 <e_0> + 0.0 <e_{ll}> = 3.8$  cm  
 $|\Delta M_2| = 20.28$  kNm  
 $\Delta e_3 = 2.0 <e_0> + 6.2 <e_{ll}> = 8.2$  cm  
 $|\Delta M_3| = 43.56$  kNm

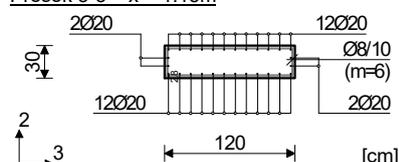
Vrd,max,2 = 1737.92 kN  
 Vrd,max,3 = 1998.61 kN  
 eb/ea = -3.500/9.401 ‰  
 Aa1 = 2.62 cm<sup>2</sup>  
 Aa2 = 2.61 cm<sup>2</sup>  
 Aa3 = 0.36 cm<sup>2</sup>  
 Aa4 = 0.35 cm<sup>2</sup>  
 Aa,uz = 2.59 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/10(m=6) = 15.08 cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -64.32 kN  
 V3ed = -233.41 kN  
 M1ed = -0.00 kNm

**Ss38 (53254-47428)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 6.90 m ( $\lambda_2 = 19.92$ )  
 li,3 = 6.90 m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 3-3 x = 1.15m



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = -600.32 kN  
 M2ed = 132.02 kNm  
 M3ed = 70.57 kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.8 <e_0> + 0.0 <e_{ll}> = 3.8$  cm  
 $|\Delta M_2| = 23.01$  kNm  
 $\Delta e_3 = 2.0 <e_0> + 6.2 <e_{ll}> = 8.2$  cm  
 $|\Delta M_3| = 49.43$  kNm

eb/ea = -3.500/12.058 ‰  
 Aa1 = 3.54 cm<sup>2</sup>  
 Aa2 = 3.52 cm<sup>2</sup>  
 Aa3 = 0.49 cm<sup>2</sup>  
 Aa4 = 0.47 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/10(m=6) = 15.08 cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

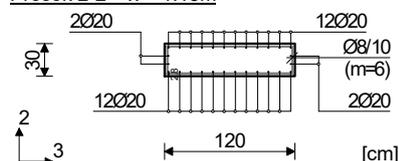
Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII+1.00xVIII  
 V2ed = 184.53 kN  
 V3ed = 163.76 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1736.93 kN  
 Vrd,max,3 = 1997.47 kN

**Ss39 (59122-53285)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 6.90 m ( $\lambda_2 = 19.92$ )  
 li,3 = 6.90 m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 2-2 x = 1.15m



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII-1.00xVIII  
 N1ed = -1017.37 kN  
 M2ed = -201.55 kNm  
 M3ed = 52.53 kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.8 <e_0> + 0.0 <e_{ll}> = 3.8$  cm  
 $|\Delta M_2| = 39.00$  kNm  
 $\Delta e_3 = 2.0 <e_0> + 6.2 <e_{ll}> = 8.2$  cm  
 $|\Delta M_3| = 83.78$  kNm

eb/ea = -3.500/8.152 ‰  
 Aa1 = 1.21 cm<sup>2</sup>  
 Aa2 = 1.20 cm<sup>2</sup>  
 Aa3 = 0.17 cm<sup>2</sup>  
 Aa4 = 0.16 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/10(m=6) = 15.08 cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

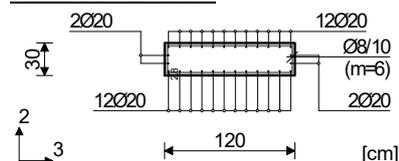
Merodavna kombinacija za smicanje:  
 1.00xI+1.00xVIII  
 V2ed = 157.90 kN  
 V3ed = 194.15 kN  
 M1ed = 0.00 kNm

Vrd,max,2 = 1804.23 kN  
 Vrd,max,3 = 2074.87 kN

**Ss40 (65736-59963)**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 S500H  
 Kompletna šema opterećenja  
 li,2 = 6.90 m ( $\lambda_2 = 19.92$ )  
 li,3 = 6.90 m ( $\lambda_3 = 79.67$ )  
 Nepomerljiva konstrukcija

Presek 1-1 x = 1.15m



Merodavna kombinacija za savijanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 N1ed = -699.49 kN  
 M2ed = 255.14 kNm  
 M3ed = -73.89 kNm  
 Uvećanje momenta savijanja usled izvijanja  
 $\Delta e_2 = 3.8 <e_0> + 0.0 <e_{ll}> = 3.8$  cm  
 $|\Delta M_2| = 26.81$  kNm  
 $\Delta e_3 = 2.0 <e_0> + 6.2 <e_{ll}> = 8.2$  cm  
 $|\Delta M_3| = 57.60$  kNm

eb/ea = -3.500/8.600 ‰  
 Aa1 = 4.30 cm<sup>2</sup>  
 Aa2 = 4.28 cm<sup>2</sup>  
 Aa3 = 0.59 cm<sup>2</sup>  
 Aa4 = 0.57 cm<sup>2</sup>  
 Aa,uz = 0.00 cm<sup>2</sup>/m (m=2)  
 [Usvojeno Aa,uz = Ø8/10(m=6) = 15.08 cm<sup>2</sup>/m]  
 Procenat armiranja: 2.44%

Merodavna kombinacija za smicanje:  
 1.00xI+0.30xII+0.30xIII-1.00xVIII  
 V2ed = -64.16 kN  
 V3ed = -185.82 kN  
 M1ed = -0.01 kNm

Vrd,max,2 = 1768.44 kN  
 Vrd,max,3 = 2033.71 kN

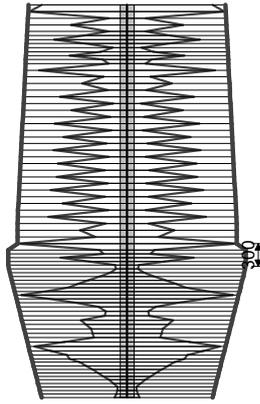
## Dimenzionisanje (beton)

### Proračunska anvelopa sila

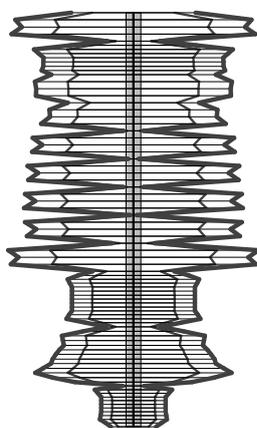
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

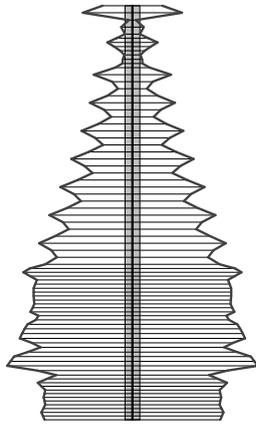
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-1169.18	1169.18	-1345.16	1345.16
44.98	-1333.77	1333.77	-1349.85	1349.85
44.10	-252.77	252.77	-1354.55	1354.55
43.23	-764.41	764.41	-1359.24	1359.24
42.35	-255.70	255.70	-1363.93	1363.93
41.83	-588.22	588.22	-1366.74	1366.74
41.30	-994.08	994.08	-1369.56	1369.56
40.77	-569.60	569.60	-1372.37	1372.37
40.25	-197.69	197.69	-1375.19	1375.19
39.73	-359.90	359.90	-1378.00	1378.00
39.20	-783.16	783.16	-1380.81	1380.81
38.67	-333.59	333.59	-1383.63	1383.63
38.15	-254.45	254.45	-1386.44	1386.44
37.27	-1200.49	1200.49	-1391.13	1391.13
36.40	-322.71	322.71	-1395.83	1395.83
35.52	-612.39	612.39	-1400.52	1400.52
34.65	-263.05	263.05	-1405.21	1405.21
33.77	-913.59	913.59	-1409.90	1409.90
32.90	-192.68	192.68	-1414.59	1414.59
32.02	-758.96	758.96	-1419.28	1419.28
31.15	-229.88	229.88	-1423.97	1423.97
30.27	-989.23	989.23	-1428.66	1428.66
29.40	-213.25	213.25	-1433.35	1433.35
28.52	-867.32	867.32	-1438.04	1438.04
27.65	-280.85	280.85	-1442.73	1442.73
26.77	-1003.65	1003.65	-1447.42	1447.42
25.90	-254.53	254.53	-1452.12	1452.12
25.02	-948.77	948.77	-1456.81	1456.81
24.15	-305.84	305.84	-1461.50	1461.50
23.27	-959.30	959.30	-1466.19	1466.19
22.40	-264.59	264.59	-1470.88	1470.88
21.52	-1042.44	1042.44	-1475.57	1475.57
20.65	-301.37	301.37	-1480.26	1480.26
19.77	-878.41	878.41	-1484.95	1484.95
18.90	-255.32	255.32	-1489.64	1489.64
18.02	-1077.37	1077.37	-1494.33	1494.33
17.15	-297.96	297.96	-1497.01	1497.01
16.27	-646.51	646.51	-1497.01	1497.01
15.40	-430.97	430.97	-1497.01	1497.01
14.52	-1497.01	1497.01	-1497.01	1497.01
13.65	-374.85	374.85	<b>-1624.40</b>	<b>1624.40</b>
13.16	-322.10	322.10	<b>-1624.40</b>	<b>1624.40</b>
12.66	-910.10	910.10	<b>-1624.40</b>	<b>1624.40</b>
12.17	-510.20	510.20	<b>-1624.40</b>	<b>1624.40</b>
11.68	-164.19	164.19	<b>-1624.40</b>	<b>1624.40</b>
11.19	-150.92	150.92	-1615.42	1615.42
10.69	-231.46	231.46	-1602.37	1602.37
10.20	-375.82	375.82	-1589.33	1589.33
9.71	-532.42	532.42	-1576.28	1576.28
9.21	-670.66	670.66	-1563.23	1563.23
8.72	-810.21	810.21	-1550.19	1550.19
8.23	-1126.17	1126.17	-1537.14	1537.14
7.74	-1444.68	1444.68	-1524.09	1524.09
7.24	-1061.85	1061.85	-1511.05	1511.05
6.75	-700.18	700.18	-1498.00	1498.00
6.17	-390.75	390.75	-1482.78	1482.78
5.60	-291.78	291.78	-1467.56	1467.56
5.02	-301.97	301.97	-1452.33	1452.33
4.45	-628.83	628.83	-1437.11	1437.11
3.87	-561.09	561.09	-1421.89	1421.89
3.30	-490.28	490.28	-1406.67	1406.67
2.72	-473.54	473.54	-1391.45	1391.45
2.15	-453.06	453.06	-1376.23	1376.23
1.58	-858.07	858.07	-1361.01	1361.01
1.00	-1266.37	1266.37	-1345.78	1345.78
0.42	-1045.69	1045.69	-1330.56	1330.56
-0.15	-818.56	818.56	-1315.34	1315.34
-0.61	-787.43	787.43	-1303.10	1303.10
-1.08	-648.86	648.86	-1290.85	1290.85
-1.54	-560.10	560.10	-1278.61	1278.61
-2.00	-472.25	472.25	-1266.37	1266.37
-2.46	-395.30	395.30	-1254.12	1254.12
-2.93	-319.73	319.73	-1241.88	1241.88
-3.39	-248.77	248.77	-1229.64	1229.64
-3.85	-183.39	183.39	-1217.39	1217.39
-4.31	-126.72	126.72	-1205.15	1205.15
-4.77	-131.58	131.58	-1192.91	1192.91
-5.24	-147.58	147.58	-1180.66	1180.66
-5.70	-171.69	171.69	-1168.42	1168.42



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
45.85	-303.70	303.70	-455.56	455.56
44.98	-576.59	576.59	-864.89	864.89
44.10	-546.39	546.39	-819.58	819.58
43.23	-596.03	596.03	-894.05	894.05
42.35	-130.34	130.34	-195.50	195.50
41.83	-306.61	306.61	-459.92	459.92
41.30	-485.64	485.64	-728.46	728.46
40.77	-463.00	463.00	-694.50	694.50
40.25	-440.36	440.36	-660.53	660.53
39.73	-440.70	440.70	-661.05	661.05
39.20	-441.07	441.07	-661.60	661.60
38.67	-448.36	448.36	-672.54	672.54
38.15	-402.30	402.30	-603.45	603.45
37.27	-481.30	481.30	-721.95	721.95
36.40	-475.81	475.81	-713.72	713.72
35.52	-476.23	476.23	-714.35	714.35
34.65	-322.05	322.05	-483.08	483.08
33.77	-410.27	410.27	-615.40	615.40
32.90	-407.85	407.85	-611.77	611.77
32.02	-452.18	452.18	-678.27	678.27
31.15	-47.71	47.71	-71.56	71.56
30.27	-491.79	491.79	-737.69	737.69
29.40	-444.95	444.95	-667.43	667.43
28.52	-496.78	496.78	-745.17	745.17
27.65	-26.79	26.79	-40.18	40.18
26.77	-518.91	518.91	-778.37	778.37
25.90	-465.75	465.75	-698.62	698.62
25.02	-514.77	514.77	-772.15	772.15
24.15	-49.48	49.48	-74.23	74.23
23.27	-530.75	530.75	-796.13	796.13
22.40	-480.82	480.82	-721.23	721.23
21.52	-535.30	535.30	-802.96	802.96
20.65	-16.01	16.01	-24.02	24.02
19.77	-529.48	529.48	-794.22	794.22
18.90	-475.41	475.41	-713.11	713.11
18.02	-522.06	522.06	-783.10	783.10
17.15	-104.18	104.18	-156.27	156.27
16.27	-612.43	612.43	<b>-918.65</b>	<b>918.65</b>
15.40	-562.16	562.16	-843.25	843.25
14.52	-598.91	598.91	-898.36	898.36
13.65	-200.45	200.45	-300.67	300.67
13.16	-270.03	270.03	-405.05	405.05
12.66	-321.48	321.48	-482.23	482.23
12.17	-310.85	310.85	-466.27	466.27
11.68	-300.23	300.23	-450.35	450.35
11.19	-300.62	300.62	-450.94	450.94
10.69	-301.02	301.02	-451.53	451.53
10.20	-300.95	300.95	-451.43	451.43
9.71	-300.89	300.89	-451.33	451.33
9.21	-300.84	300.84	-451.26	451.26
8.72	-300.80	300.80	-451.20	451.20
8.23	-314.11	314.11	-471.17	471.17
7.74	-327.43	327.43	-491.15	491.15
7.24	-232.23	232.23	-348.35	348.35
6.75	-132.48	132.48	-198.72	198.72
6.17	-244.83	244.83	-367.24	367.24
5.60	-349.01	349.01	-523.51	523.51
5.02	-344.43	344.43	-516.65	516.65
4.45	-339.87	339.87	-509.81	509.81
3.87	-362.15	362.15	-543.22	543.22
3.30	-378.72	378.72	-568.07	568.07
2.72	-395.98	395.98	-593.97	593.97
2.15	-403.06	403.06	-604.59	604.59
1.58	-442.00	442.00	-663.00	663.00
1.00	-480.98	480.98	-721.47	721.47
0.42	-394.54	394.54	-591.80	591.80
-0.15	-286.18	286.18	-429.28	429.28
-0.61	-53.05	53.05	-79.58	79.58
-1.08	-189.96	189.96	-284.93	284.93
-1.54	-173.98	173.98	-260.96	260.96
-2.00	-158.03	158.03	-237.04	237.04
-2.46	-157.70	157.70	-236.55	236.55
-2.93	-157.37	157.37	-236.06	236.06
-3.39	-157.41	157.41	-236.12	236.12
-3.85	-157.46	157.46	-236.18	236.18
-4.31	-160.84	160.84	-241.25	241.25
-4.77	-164.22	164.22	-246.33	246.33
-5.24	-136.59	136.59	-204.88	204.88
-5.70	-109.57	109.57	-164.35	164.35



Presek [m]	N,min [kN]	N,max [kN]
45.85	-412.86	412.86
44.98	-680.88	680.88
44.10	-50.65	50.65
43.23	-152.46	152.46
42.35	-100.00	100.00
41.83	-220.82	220.82
41.30	-344.87	344.87
40.77	-252.87	252.87
40.25	-166.93	166.93
39.73	-110.70	110.70
39.20	-130.98	130.98
38.67	-135.06	135.06
38.15	-237.73	237.73
37.27	-533.06	533.06
36.40	-278.72	278.72
35.52	-200.89	200.89
34.65	-347.33	347.33
33.77	-584.82	584.82
32.90	-388.76	388.76
32.02	-290.39	290.39
31.15	-463.99	463.99
30.27	-700.52	700.52
29.40	-514.64	514.64
28.52	-402.86	402.86
27.65	-600.07	600.07
26.77	-839.16	839.16
25.90	-657.68	657.68
25.02	-551.51	551.51
24.15	-750.18	750.18
23.27	-987.80	987.80
22.40	-804.04	804.04
21.52	-708.82	708.82
20.65	-902.79	902.79
19.77	-1142.19	1142.19
18.90	-954.93	954.93
18.02	-876.10	876.10
17.15	-1067.89	1067.89
16.27	-1282.88	1282.88
15.40	-1115.55	1115.55
14.52	-1039.96	1039.96
13.65	-1199.06	1199.06
13.16	-1409.06	1409.06
12.66	-1501.10	1501.10
12.17	-1407.17	1407.17
11.68	-1314.86	1314.86
11.19	-1335.68	1335.68
10.69	-1356.55	1356.55
10.20	-1356.39	1356.39
9.71	-1356.24	1356.24
9.21	-1352.55	1352.55
8.72	-1348.89	1348.89
8.23	-1372.59	1372.59
7.74	-1399.73	1399.73
7.24	-1292.52	1292.52
6.75	-1327.29	1327.29
6.17	-1441.17	1441.17
5.60	-1479.99	1479.99
5.02	-1513.86	1513.86
4.45	-1549.12	1549.12
3.87	-1385.05	1385.05
3.30	-1262.34	1262.34
2.72	-1442.10	1442.10
2.15	-1626.84	1626.84
1.58	-1673.26	1673.26
1.00	-1720.58	1720.58
0.42	-1307.72	1307.72
-0.15	-1049.16	1049.16
-0.61	-1177.43	1177.43
-1.08	-1300.95	1300.95
-1.54	-1250.09	1250.09
-2.00	-1199.93	1199.93
-2.46	-1210.17	1210.17
-2.93	-1220.41	1220.41
-3.39	-1208.95	1208.95
-3.85	-1197.48	1197.48
-4.31	-1224.47	1224.47
-4.77	-1251.46	1251.46
-5.24	-1230.96	1230.96
-5.70	-1207.30	1207.30

**Ram: Gk1**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

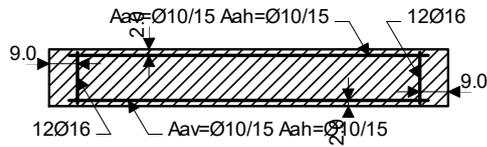
Ugaona armatura S500N

Podužna armatura S500N

Kompletna šema opterećenja

**SZ 1 Presek 1A - 1A (Z=44.98m)**

Merodavni presek za savijanje



$$b/d = 40/180 \text{ cm} \quad A_b = 7200 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

Med = -1402.07 kNm

Ned = 260.07 kN

Ved = 592.99 kN (Vrd,max = 3467.52 kN)

 $\epsilon_b/\epsilon_a = -1.998/25.000 \text{ ‰}$ Aa1 = 15.76 cm<sup>2</sup> (min:10.80) (usv:12Ø16)Aa2 = 15.76 cm<sup>2</sup> (min:10.80) (usv:12Ø16)Aav =  $\pm 4.19 \text{ cm}^2/\text{m}$  (min: $\pm 3.00$ ) (usv: $\pm \text{Ø}10/15$ )Aah =  $\pm 4.74 \text{ cm}^2/\text{m}$  (min: $\pm 4.00$ ) (usv: $\pm \text{Ø}10/15$ )**SZ 1 Presek 2A - 2A (Z=16.27m)**

Merodavni presek za smicanje

$$b/d = 40/180 \text{ cm} \quad A_b = 7200 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

Merodavna kombinacija za smicanje:

I+0.30xIII-1.00xVIII

Med = 29.74 kNm

Ned = -4413.30 kN

Ved = -621.82 kN (Vrd,max = 4334.40 kN)

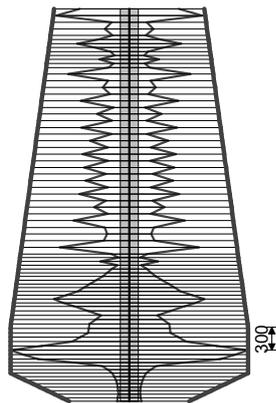
Aa1 = 0.00 cm<sup>2</sup> (min:10.80) (usv:12Ø16)Aa2 = 0.00 cm<sup>2</sup> (min:10.80) (usv:12Ø16)Aav =  $\pm 0.00 \text{ cm}^2/\text{m}$  (min: $\pm 3.00$ ) (usv: $\pm \text{Ø}10/15$ )Aah =  $\pm 4.97 \text{ cm}^2/\text{m}$  (min: $\pm 4.00$ ) (usv: $\pm \text{Ø}10/15$ )

### Proračunska anvelopa sila

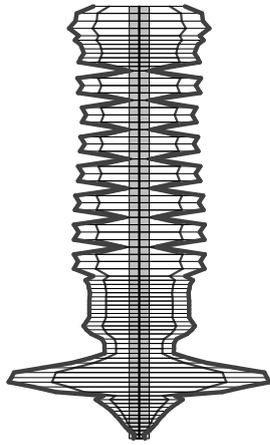
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

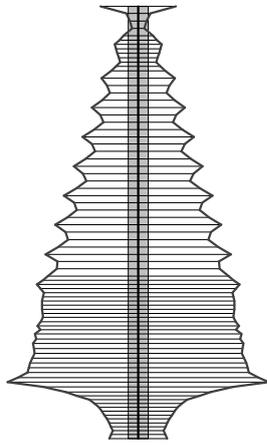
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-1674.00	1674.00	-2542.52	2542.52
44.98	-2467.29	2467.29	-2573.50	2573.50
44.10	-593.61	593.61	-2604.48	2604.48
43.23	-820.97	820.97	-2635.46	2635.46
42.35	-559.57	559.57	-2666.44	2666.44
41.83	-1059.56	1059.56	-2685.03	2685.03
41.30	-1759.11	1759.11	-2703.62	2703.62
40.77	-1165.38	1165.38	-2722.21	2722.21
40.25	-631.33	631.33	-2740.80	2740.80
39.73	-498.13	498.13	-2759.39	2759.39
39.20	-1008.74	1008.74	-2777.97	2777.97
38.68	-524.61	524.61	-2796.56	2796.56
38.15	-708.08	708.08	-2815.15	2815.15
37.27	-2069.77	2069.77	-2846.13	2846.13
36.40	-722.76	722.76	-2877.11	2877.11
35.52	-894.13	894.13	-2908.09	2908.09
34.65	-653.65	653.65	-2939.07	2939.07
33.77	-1652.75	1652.75	-2970.05	2970.05
32.90	-532.68	532.68	-3001.03	3001.03
32.02	-1093.94	1093.94	-3032.01	3032.01
31.15	-585.83	585.83	-3062.99	3062.99
30.27	-1622.46	1622.46	-3093.97	3093.97
29.40	-604.42	604.42	-3124.95	3124.95
28.53	-1326.91	1326.91	-3155.93	3155.93
27.65	-730.60	730.60	-3186.91	3186.91
26.77	-1583.31	1583.31	-3217.89	3217.89
25.90	-713.75	713.75	-3248.87	3248.87
25.03	-1524.76	1524.76	-3279.85	3279.85
24.15	-792.38	792.38	-3310.83	3310.83
23.27	-1487.06	1487.06	-3341.81	3341.81
22.40	-735.56	735.56	-3372.79	3372.79
21.53	-1689.52	1689.52	-3403.77	3403.77
20.65	-786.68	786.68	-3434.75	3434.75
19.77	-1185.64	1185.64	-3465.73	3465.73
18.90	-732.48	732.48	-3496.71	3496.71
18.03	-1882.02	1882.02	-3527.69	3527.69
17.15	-832.16	832.16	-3558.68	3558.68
16.27	-749.78	749.78	-3589.66	3589.66
15.40	-857.15	857.15	-3620.64	3620.64
14.53	-2355.93	2355.93	-3651.62	3651.62
13.65	-604.57	604.57	-3682.60	3682.60
13.16	-364.57	364.57	-3700.05	3700.05
12.66	-976.69	976.69	-3717.50	3717.50
12.17	-402.97	402.97	-3734.95	3734.95
11.68	-603.50	603.50	-3752.40	3752.40
11.19	-747.72	747.72	-3769.85	3769.85
10.69	-902.84	902.84	-3787.30	3787.30
10.20	-1119.51	1119.51	-3804.75	3804.75
9.71	-1341.21	1341.21	-3822.20	3822.20
9.21	-1537.71	1537.71	-3839.65	3839.65
8.72	-1735.76	1735.76	-3857.10	3857.10
8.23	-2138.49	2138.49	-3874.55	3874.55
7.74	-2543.17	2543.17	-3892.00	3892.00
7.24	-2252.01	2252.01	-3909.45	3909.45
6.75	-1855.14	1855.14	-3926.90	3926.90
6.17	-1407.63	1407.63	-3947.26	3947.26
5.60	-952.35	952.35	-3967.61	3967.61
5.03	-1131.80	1131.80	-3987.97	3987.97
4.45	-1354.89	1354.89	-4008.33	4008.33
3.88	-1370.10	1370.10	<b>-4024.26</b>	<b>4024.26</b>
3.30	-1397.77	1397.77	<b>-4024.26</b>	<b>4024.26</b>
2.73	-1657.21	1657.21	<b>-4024.26</b>	<b>4024.26</b>
2.15	-1922.09	1922.09	<b>-4024.26</b>	<b>4024.26</b>
1.58	-2971.30	2971.30	<b>-4024.26</b>	<b>4024.26</b>
1.00	-4024.26	4024.26	<b>-4024.26</b>	<b>4024.26</b>
0.43	-3597.34	3597.34	<b>-4024.26</b>	<b>4024.26</b>
-0.15	-3088.90	3088.90	<b>-4024.26</b>	<b>4024.26</b>
-0.61	-1852.64	1852.64	<b>-4024.26</b>	<b>4024.26</b>
-1.08	-912.76	912.76	<b>-4024.26</b>	<b>4024.26</b>
-1.54	-735.77	735.77	<b>-4024.26</b>	<b>4024.26</b>
-2.00	-575.99	575.99	<b>-4024.26</b>	<b>4024.26</b>
-2.46	-506.95	506.95	-3775.30	3775.30
-2.92	-446.43	446.43	-3526.33	3526.33
-3.39	-416.97	416.97	-3277.36	3277.36
-3.85	-389.58	389.58	-3028.39	3028.39
-4.31	-378.21	378.21	-2779.42	2779.42
-4.77	-367.78	367.78	-2530.46	2530.46
-5.24	-389.13	389.13	-2281.49	2281.49
-5.70	-417.59	417.59	-2032.52	2032.52



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
45.85	-419.12	419.12	-628.68	628.68
44.98	-575.24	575.24	-862.86	862.86
44.10	-585.32	585.32	-877.99	877.99
43.23	-644.46	644.46	-966.69	966.69
42.35	-556.93	556.93	-835.39	835.39
41.83	-590.60	590.60	-885.90	885.90
41.30	-539.12	539.12	-808.69	808.69
40.77	-523.89	523.89	-785.83	785.83
40.25	-508.70	508.70	-763.06	763.06
39.73	-532.73	532.73	-799.09	799.09
39.20	-556.76	556.76	-835.14	835.14
38.68	-315.51	315.51	-473.26	473.26
38.15	-92.41	92.41	-138.61	138.61
37.27	-565.40	565.40	-848.11	848.11
36.40	-518.98	518.98	-778.47	778.47
35.52	-561.32	561.32	-841.98	841.98
34.65	-95.55	95.55	-143.33	143.33
33.77	-525.67	525.67	-788.51	788.51
32.90	-485.44	485.44	-728.15	728.15
32.02	-524.92	524.92	-787.38	787.38
31.15	-113.81	113.81	-170.71	170.71
30.27	-542.64	542.64	-813.96	813.96
29.40	-500.85	500.85	-751.27	751.27
28.53	-544.61	544.61	-816.91	816.91
27.65	-110.83	110.83	-166.25	166.25
26.77	-562.49	562.49	-843.74	843.74
25.90	-517.51	517.51	-776.27	776.27
25.03	-560.87	560.87	-841.30	841.30
24.15	-117.11	117.11	-175.66	175.66
23.27	-588.92	588.92	-883.38	883.38
22.40	-545.24	545.24	-817.86	817.86
21.53	-591.02	591.02	-886.54	886.54
20.65	-141.45	141.45	-212.18	212.18
19.77	-600.19	600.19	-900.28	900.28
18.90	-556.09	556.09	-834.14	834.14
18.03	-598.40	598.40	-897.60	897.60
17.15	-159.95	159.95	-239.92	239.92
16.27	-601.17	601.17	-901.75	901.75
15.40	-560.15	560.15	-840.22	840.22
14.53	-599.24	599.24	-898.86	898.86
13.65	-422.88	422.88	-634.33	634.33
13.16	-493.61	493.61	-740.42	740.42
12.66	-468.05	468.05	-702.07	702.07
12.17	-460.16	460.16	-690.24	690.24
11.68	-452.29	452.29	-678.44	678.44
11.19	-455.42	455.42	-683.12	683.12
10.69	-458.54	458.54	-687.81	687.81
10.20	-458.38	458.38	-687.57	687.57
9.71	-458.22	458.22	-687.34	687.34
9.21	-457.50	457.50	-686.25	686.25
8.72	-456.78	456.78	-685.16	685.16
8.23	-483.58	483.58	-725.38	725.38
7.74	-510.46	510.46	-765.70	765.70
7.24	-484.29	484.29	-726.44	726.44
6.75	-438.17	438.17	-657.25	657.25
6.17	-343.03	343.03	-514.55	514.55
5.60	-320.95	320.95	-481.43	481.43
5.03	-318.66	318.66	-477.99	477.99
4.45	-316.55	316.55	-474.83	474.83
3.88	-453.60	453.60	-680.40	680.40
3.30	-623.49	623.49	-935.24	935.24
2.73	-883.15	883.15	-1324.73	1324.73
2.15	-1149.21	1149.21	-1723.81	1723.81
1.58	-1174.48	1174.48	-1761.72	1761.72
1.00	-1199.83	1199.83	<b>-1799.75</b>	<b>1799.75</b>
0.43	-968.00	968.00	-1451.99	1451.99
-0.15	-764.39	764.39	-1146.58	1146.58
-0.61	-328.86	328.86	-493.29	493.29
-1.08	-397.16	397.16	-595.75	595.75
-1.54	-347.15	347.15	-520.73	520.73
-2.00	-295.95	295.95	-443.93	443.93
-2.46	-253.45	253.45	-380.18	380.18
-2.92	-216.64	216.64	-324.96	324.96
-3.39	-186.95	186.95	-280.43	280.43
-3.85	-158.73	158.73	-238.10	238.10
-4.31	-126.31	126.31	-189.47	189.47
-4.77	-94.83	94.83	-142.25	142.25
-5.24	-43.16	43.16	-64.75	64.75
-5.70	-53.75	53.75	-80.63	80.63



Presek [m]	N,min [kN]	N,max [kN]
45.85	-1528.92	1528.92
44.98	-489.34	489.34
44.10	-335.46	335.46
43.23	-253.83	253.83
42.35	-600.93	600.93
41.83	-754.78	754.78
41.30	-950.72	950.72
40.77	-897.27	897.27
40.25	-844.09	844.09
39.73	-785.46	785.46
39.20	-727.15	727.15
38.68	-908.95	908.95
38.15	-1091.87	1091.87
37.27	-1480.94	1480.94
36.40	-1258.75	1258.75
35.52	-1152.67	1152.67
34.65	-1468.23	1468.23
33.77	-1877.69	1877.69
32.90	-1535.17	1535.17
32.02	-1414.54	1414.54
31.15	-1781.74	1781.74
30.27	-2249.49	2249.49
29.40	-1883.14	1883.14
28.53	-1742.14	1742.14
27.65	-2137.61	2137.61
26.77	-2603.53	2603.53
25.90	-2243.07	2243.07
25.03	-2097.61	2097.61
24.15	-2503.65	2503.65
23.27	-3008.97	3008.97
22.40	-2591.21	2591.21
21.53	-2490.81	2490.81
20.65	-2868.90	2868.90
19.77	-3361.00	3361.00
18.90	-2938.75	2938.75
18.03	-2839.60	2839.60
17.15	-3239.37	3239.37
16.27	-3744.83	3744.83
15.40	-3278.42	3278.42
14.53	-3294.50	3294.50
13.65	-3654.68	3654.68
13.16	-3855.56	3855.56
12.66	-4100.20	4100.20
12.17	-3957.53	3957.53
11.68	-3815.07	3815.07
11.19	-3853.06	3853.06
10.69	-3891.14	3891.14
10.20	-3893.00	3893.00
9.71	-3894.86	3894.86
9.21	-3876.56	3876.56
8.72	-3858.32	3858.32
8.23	-3941.24	3941.24
7.74	-4072.71	4072.71
7.24	-3960.51	3960.51
6.75	-4177.20	4177.20
6.17	-4135.23	4135.23
5.60	-4258.62	4258.62
5.03	-4223.92	4223.92
4.45	-4196.01	4196.01
3.88	-4283.29	4283.29
3.30	-4376.81	4376.81
2.73	-4432.98	4432.98
2.15	-4480.12	4480.12
1.58	-4867.11	4867.11
1.00	-5290.29	5290.29
0.43	-3845.42	3845.42
-0.15	-2950.01	2950.01
-0.61	-2489.77	2489.77
-1.08	-1977.90	1977.90
-1.54	-1776.06	1776.06
-2.00	-1579.78	1579.78
-2.46	-1470.62	1470.62
-2.92	-1361.94	1361.94
-3.39	-1269.13	1269.13
-3.85	-1176.33	1176.33
-4.31	-1104.34	1104.34
-4.77	-1032.50	1032.50
-5.24	-1090.79	1090.79
-5.70	-1165.32	1165.32

**Ram: Gk1**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura S500N

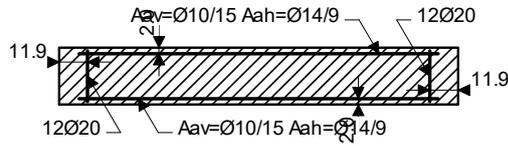
Podužna armatura S500N

Kompletna šema opterećenja

(Proračunska anvelopa sila)

**SZ 2 Presek 1B - 1B (Z=1.00m)**

Merodavni presek za savijanje



$$b/d = 40/237.383 \text{ cm} \quad A_b = 9495.33 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = 4736.89 kNm

Ned = -571.73 kN

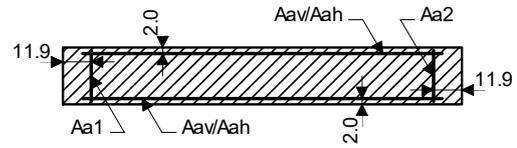
Ved = 2678.80 kN (Vrd,max = 4764.83 kN)

$$\epsilon_b/\epsilon_a = -2.968/25.000 \text{ ‰}$$

Aa1 =	35.20 cm <sup>2</sup>	(min:14.24)	(usv:12Ø20)
Aa2 =	35.20 cm <sup>2</sup>	(min:14.24)	(usv:12Ø20)
Aav =	±4.16 cm <sup>2</sup> /m	(min:±3.00)	(usv:±Ø10/15)
Aah =	±16.22 cm <sup>2</sup> /m	(min:±4.00)	(usv:±Ø14/9)

**SZ 2 Presek 2B - 2B (Z=-0.15m)**

Merodavni presek za smicanje



$$b/d = 40/237.383 \text{ cm} \quad A_b = 9495.33 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = 5071.42 kNm

Ned = -2954.72 kN

Ved = 2976.31 kN (Vrd,max = 5256.85 kN)

$$\epsilon_b/\epsilon_a = -3.500/14.896 \text{ ‰}$$

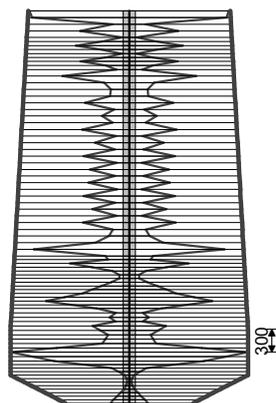
Aa1 = 18.31 cm<sup>2</sup> (min:14.24)Aa2 = 18.31 cm<sup>2</sup> (min:14.24)Aav = ±2.16 cm<sup>2</sup>/m (min:±3.00)Aah = ±18.02 cm<sup>2</sup>/m (min:±4.00)

### Proračunska anvelopa sila

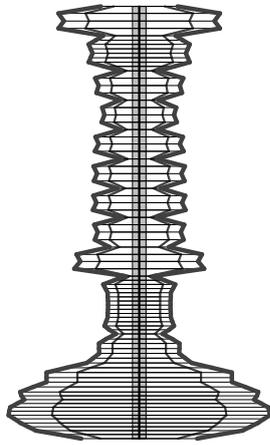
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

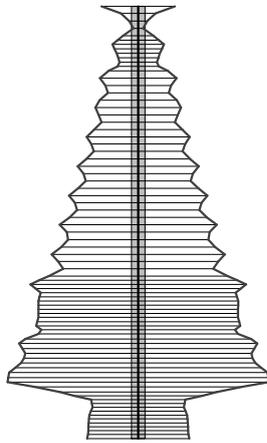
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-1722.49	1722.49	-1744.47	1744.47
44.98	-1678.78	1678.78	-1750.87	1750.87
44.10	-287.33	287.33	-1757.28	1757.28
43.23	-846.17	846.17	-1763.69	1763.69
42.35	-127.64	127.64	-1770.10	1770.10
41.83	-473.67	473.67	-1773.94	1773.94
41.30	-922.41	922.41	-1777.79	1777.79
40.77	-494.46	494.46	-1781.63	1781.63
40.25	-130.48	130.48	-1785.48	1785.48
39.73	-409.28	409.28	-1789.32	1789.32
39.20	-837.76	837.76	-1793.17	1793.17
38.68	-405.01	405.01	-1797.01	1797.01
38.15	-223.37	223.37	-1800.86	1800.86
37.27	-1157.71	1157.71	-1807.27	1807.27
36.40	-428.98	428.98	-1813.68	1813.68
35.52	-318.92	318.92	-1820.08	1820.08
34.65	-331.16	331.16	-1826.49	1826.49
33.77	-762.18	762.18	-1832.90	1832.90
32.90	-258.63	258.63	-1839.31	1839.31
32.03	-472.44	472.44	-1845.72	1845.72
31.15	-287.04	287.04	-1852.13	1852.13
30.27	-814.80	814.80	-1858.53	1858.53
29.40	-225.96	225.96	-1864.94	1864.94
28.52	-596.26	596.26	-1871.35	1871.35
27.65	-248.26	248.26	-1877.76	1877.76
26.77	-788.32	788.32	-1884.17	1884.17
25.90	-216.96	216.96	-1890.58	1890.58
25.03	-681.70	681.70	-1896.98	1896.98
24.15	-245.46	245.46	-1903.39	1903.39
23.27	-703.77	703.77	-1909.80	1909.80
22.40	-212.46	212.46	-1916.21	1916.21
21.52	-786.92	786.92	-1922.62	1922.62
20.65	-242.54	242.54	-1929.03	1929.03
19.78	-639.21	639.21	-1935.44	1935.44
18.90	-217.29	217.29	-1941.84	1941.84
18.02	-800.16	800.16	-1948.25	1948.25
17.15	-281.87	281.87	-1954.66	1954.66
16.28	-347.88	347.88	-1961.07	1961.07
15.40	-584.56	584.56	-1967.48	1967.48
14.52	-1647.45	1647.45	-1973.89	1973.89
13.65	-411.87	411.87	-1980.29	1980.29
13.16	-365.94	365.94	-1983.90	1983.90
12.66	-1021.73	1021.73	-1987.51	1987.51
12.17	-643.97	643.97	-1991.12	1991.12
11.68	-284.72	284.72	-1994.73	1994.73
11.19	-169.06	169.06	-1998.34	1998.34
10.69	-172.34	172.34	-2001.95	2001.95
10.20	-309.87	309.87	-2005.56	2005.56
9.71	-481.44	481.44	-2009.17	2009.17
9.21	-642.73	642.73	-2012.78	2012.78
8.72	-807.06	807.06	-2016.39	2016.39
8.23	-1121.11	1121.11	-2020.00	2020.00
7.74	-1436.96	1436.96	-2023.61	2023.61
7.24	-992.70	992.70	-2027.22	2027.22
6.75	-559.80	559.80	-2030.83	2030.83
6.18	-231.88	231.88	-2035.04	2035.04
5.60	-336.32	336.32	-2039.25	2039.25
5.03	-235.43	235.43	-2043.46	2043.46
4.45	-632.44	632.44	-2047.67	2047.67
3.88	-499.49	499.49	<b>-2050.97</b>	<b>2050.97</b>
3.30	-367.21	367.21	<b>-2050.97</b>	<b>2050.97</b>
2.73	-413.37	413.37	<b>-2050.97</b>	<b>2050.97</b>
2.15	-465.98	465.98	<b>-2050.97</b>	<b>2050.97</b>
1.58	-1253.31	1253.31	<b>-2050.97</b>	<b>2050.97</b>
1.00	-2050.97	2050.97	<b>-2050.97</b>	<b>2050.97</b>
0.43	-1671.63	1671.63	<b>-2050.97</b>	<b>2050.97</b>
-0.15	-1292.77	1292.77	<b>-2050.97</b>	<b>2050.97</b>
-0.61	-792.35	792.35	<b>-2050.97</b>	<b>2050.97</b>
-1.07	-297.40	297.40	<b>-2050.97</b>	<b>2050.97</b>
-1.54	-189.21	189.21	<b>-2050.97</b>	<b>2050.97</b>
-2.00	-83.68	83.68	<b>-2050.97</b>	<b>2050.97</b>
-2.46	-45.05	45.05	-1932.01	1932.01
-2.93	-33.49	33.49	-1813.05	1813.05
-3.39	-58.31	58.31	-1694.09	1694.09
-3.85	-88.12	88.12	-1575.14	1575.14
-4.31	-148.31	148.31	-1456.18	1456.18
-4.77	-208.75	208.75	-1337.22	1337.22
-5.24	-269.82	269.82	-1218.26	1218.26
-5.70	-327.68	327.68	-1099.30	1099.30



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
45.85	-406.44	406.44	-609.66	609.66
44.98	-859.26	859.26	-1288.90	1288.90
44.10	-800.45	800.45	-1200.67	1200.67
43.23	-856.89	856.89	-1285.34	1285.34
42.35	-385.45	385.45	-578.17	578.17
41.83	-460.40	460.40	-690.60	690.60
41.30	-536.37	536.37	-804.56	804.56
40.77	-516.11	516.11	-774.17	774.17
40.25	-495.85	495.85	-743.78	743.78
39.73	-516.66	516.66	-774.99	774.99
39.20	-537.46	537.46	-806.20	806.20
38.68	-375.48	375.48	-563.22	563.22
38.15	-203.74	203.74	-305.60	305.60
37.27	-467.64	467.64	-701.45	701.45
36.40	-431.90	431.90	-647.85	647.85
35.52	-452.88	452.88	-679.31	679.31
34.65	-204.82	204.82	-307.23	307.23
33.77	-393.48	393.48	-590.21	590.21
32.90	-371.05	371.05	-556.57	556.57
32.03	-401.35	401.35	-602.02	602.02
31.15	-199.81	199.81	-299.72	299.72
30.27	-465.93	465.93	-698.90	698.90
29.40	-432.16	432.16	-648.24	648.24
28.52	-469.29	469.29	-703.93	703.93
27.65	-186.84	186.84	-280.27	280.27
26.77	-485.23	485.23	-727.84	727.84
25.90	-447.36	447.36	-671.05	671.05
25.03	-482.70	482.70	-724.04	724.04
24.15	-228.10	228.10	-342.16	342.16
23.27	-488.82	488.82	-733.23	733.23
22.40	-453.41	453.41	-680.11	680.11
21.52	-492.29	492.29	-738.44	738.44
20.65	-188.38	188.38	-282.57	282.57
19.78	-480.20	480.20	-720.29	720.29
18.90	-442.19	442.19	-663.29	663.29
18.02	-472.15	472.15	-708.22	708.22
17.15	-316.24	316.24	-474.37	474.37
16.28	-666.28	666.28	-999.42	999.42
15.40	-627.41	627.41	-941.11	941.11
14.52	-691.85	691.85	-1037.77	1037.77
13.65	-152.64	152.64	-228.96	228.96
13.16	-267.08	267.08	-400.62	400.62
12.66	-382.60	382.60	-573.90	573.90
12.17	-358.13	358.13	-537.20	537.20
11.68	-333.67	333.67	-500.51	500.51
11.19	-333.60	333.60	-500.40	500.40
10.69	-333.53	333.53	-500.30	500.30
10.20	-333.48	333.48	-500.22	500.22
9.71	-333.43	333.43	-500.15	500.15
9.21	-333.68	333.68	-500.53	500.53
8.72	-333.93	333.93	-500.90	500.90
8.23	-350.67	350.67	-526.01	526.01
7.74	-367.42	367.42	-551.13	551.13
7.24	-317.94	317.94	-476.91	476.91
6.75	-248.04	248.04	-372.06	372.06
6.18	-351.60	351.60	-527.41	527.41
5.60	-428.40	428.40	-642.60	642.60
5.03	-426.57	426.57	-639.85	639.85
4.45	-424.75	424.75	-637.13	637.13
3.88	-488.06	488.06	-732.09	732.09
3.30	-555.23	555.23	-832.85	832.85
2.73	-771.57	771.57	-1157.36	1157.36
2.15	-984.68	984.68	-1477.01	1477.01
1.58	-984.51	984.51	-1476.77	1476.77
1.00	-984.44	984.44	-1476.67	1476.67
0.43	-1125.40	1125.40	-1688.10	1688.10
-0.15	-1263.07	1263.07	-1894.60	1894.60
-0.61	-1250.82	1250.82	-1876.22	1876.22
-1.07	-1220.00	1220.00	-1830.00	1830.00
-1.54	-1295.13	1295.13	-1942.70	1942.70
-2.00	-1370.61	1370.61	-2055.91	2055.91
-2.46	-1378.74	1378.74	-2068.12	2068.12
-2.93	-1388.32	1388.32	<b>-2082.48</b>	<b>2082.48</b>
-3.39	-1323.65	1323.65	-1985.48	1985.48
-3.85	-1260.72	1260.72	-1891.08	1891.08
-4.31	-1177.42	1177.42	-1766.13	1766.13
-4.77	-1096.12	1096.12	-1644.19	1644.19
-5.24	-857.95	857.95	-1286.93	1286.93
-5.70	-614.97	614.97	-922.45	922.45



Presek [m]	N,min [kN]	N,max [kN]
45.85	-1210.92	1210.92
44.98	-579.23	579.23
44.10	-299.48	299.48
43.23	-152.25	152.25
42.35	-494.15	494.15
41.83	-684.31	684.31
41.30	-849.59	849.59
40.77	-784.80	784.80
40.25	-720.32	720.32
39.73	-668.07	668.07
39.20	-617.00	617.00
38.68	-683.69	683.69
38.15	-973.97	973.97
37.27	-1266.45	1266.45
36.40	-1091.12	1091.12
35.52	-1005.49	1005.49
34.65	-1283.11	1283.11
33.77	-1411.11	1411.11
32.90	-1310.95	1310.95
32.03	-1214.38	1214.38
31.15	-1456.23	1456.23
30.27	-1712.98	1712.98
29.40	-1553.28	1553.28
28.52	-1463.43	1463.43
27.65	-1713.80	1713.80
26.77	-2003.50	2003.50
25.90	-1811.66	1811.66
25.03	-1733.13	1733.13
24.15	-1988.60	1988.60
23.27	-2297.81	2297.81
22.40	-2091.52	2091.52
21.52	-2020.29	2020.29
20.65	-2271.40	2271.40
19.78	-2596.35	2596.35
18.90	-2364.89	2364.89
18.02	-2322.84	2322.84
17.15	-2549.06	2549.06
16.28	-2867.29	2867.29
15.40	-2658.94	2658.94
14.52	-2485.04	2485.04
13.65	-2962.85	2962.85
13.16	-3283.49	3283.49
12.66	-3570.25	3570.25
12.17	-3398.57	3398.57
11.68	-3227.24	3227.24
11.19	-3268.71	3268.71
10.69	-3310.20	3310.20
10.20	-3307.73	3307.73
9.71	-3305.26	3305.26
9.21	-3304.61	3304.61
8.72	-3303.98	3303.98
8.23	-3343.58	3343.58
7.74	-3384.24	3384.24
7.24	-3209.13	3209.13
6.75	-3303.67	3303.67
6.18	-3739.47	3739.47
5.60	-3938.07	3938.07
5.03	-3843.32	3843.32
4.45	-3748.74	3748.74
3.88	-3781.65	3781.65
3.30	-3879.11	3879.11
2.73	-4069.61	4069.61
2.15	-4275.52	4275.52
1.58	-4302.19	4302.19
1.00	-4329.00	4329.00
0.43	-3434.52	3434.52
-0.15	-2605.87	2605.87
-0.61	-2120.65	2120.65
-1.07	-1554.35	1554.35
-1.54	-1530.21	1530.21
-2.00	-1508.50	1508.50
-2.46	-1564.40	1564.40
-2.93	-1621.08	1621.08
-3.39	-1631.00	1631.00
-3.85	-1642.15	1642.15
-4.31	-1647.30	1647.30
-4.77	-1654.56	1654.56
-5.24	-1668.29	1668.29
-5.70	-1695.34	1695.34

**Ram: Gh7.8.9**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

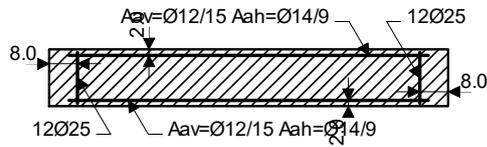
Ugaona armatura S500N

Podužna armatura S500N

Kompletna šema opterećenja

**SZ3 Presek 1C - 1C (Z=1.00m)**

Merodavni presek za savijanje



$$b/d = 40/160 \text{ cm} \quad A_b = 6400 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = 3011.57 kNm

Ned = 1653.94 kN

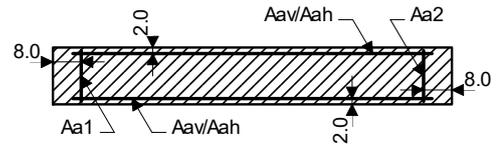
Ved = 1750.18 kN (Vrd,max = 3082.24 kN)

$$\epsilon_b/\epsilon_a = -2.279/25.000 \text{ ‰}$$

$$\begin{aligned} A_{a1} &= 53.31 \text{ cm}^2 & (\text{min:}9.60) & \quad (\text{usv:}12\text{Ø}25) \\ A_{a2} &= 53.31 \text{ cm}^2 & (\text{min:}9.60) & \quad (\text{usv:}12\text{Ø}25) \\ A_{av} &= \pm 9.34 \text{ cm}^2/\text{m} & (\text{min:}\pm 3.00) & \quad (\text{usv:}\pm \text{Ø}12/15) \\ A_{ah} &= \pm 15.72 \text{ cm}^2/\text{m} & (\text{min:}\pm 4.00) & \quad (\text{usv:}\pm \text{Ø}14/9) \end{aligned}$$

**SZ3 Presek 2C - 2C (Z=-2.93m)**

Merodavni presek za smicanje



$$b/d = 40/160 \text{ cm} \quad A_b = 6400 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = -65.98 kNm

Ned = 601.74 kN

Ved = 2888.52 kN (Vrd,max = 3082.24 kN)

$$\epsilon_b/\epsilon_a = 0.144/25.000 \text{ ‰}$$

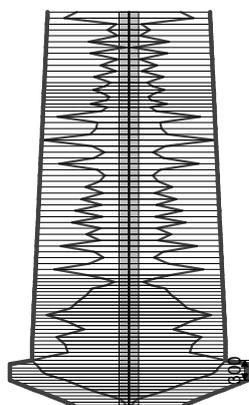
Aa1 = 6.40 cm<sup>2</sup> (min:9.60)Aa2 = 6.40 cm<sup>2</sup> (min:9.60)Aav = ±1.12 cm<sup>2</sup>/m (min:±3.00)Aah = ±25.95 cm<sup>2</sup>/m (min:±4.00)

**Proračunska anvelopa sila**

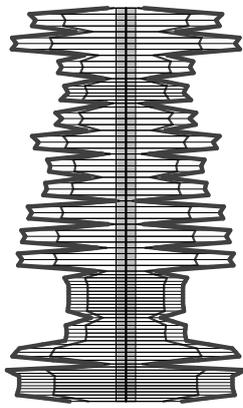
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

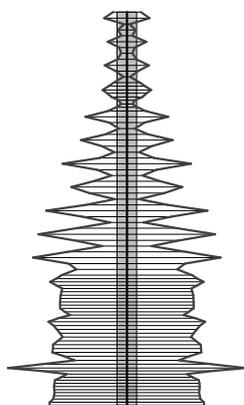
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
52.85	-2158.31	2158.31	-3356.22	3356.22
51.98	-2679.41	2679.41	-3367.67	3367.67
51.10	-529.42	529.42	-3379.11	3379.11
50.23	-877.97	877.97	-3390.56	3390.56
49.35	-465.49	465.49	-3402.01	3402.01
48.48	-1656.23	1656.23	-3413.46	3413.46
47.60	-185.19	185.19	-3424.90	3424.90
46.73	-1594.56	1594.56	-3436.35	3436.35
45.85	-460.38	460.38	-3447.80	3447.80
44.98	-1159.05	1159.05	-3459.24	3459.24
44.10	-534.67	534.67	-3470.69	3470.69
43.23	-1428.15	1428.15	-3482.14	3482.14
42.35	-747.52	747.52	-3493.58	3493.58
41.83	-984.00	984.00	-3500.45	3500.45
41.30	-1470.42	1470.42	-3507.32	3507.32
40.77	-1082.32	1082.32	-3514.19	3514.19
40.25	-809.71	809.71	-3521.06	3521.06
39.73	-925.05	925.05	-3527.92	3527.92
39.20	-1575.40	1575.40	-3534.79	3534.79
38.67	-900.90	900.90	-3541.66	3541.66
38.15	-1114.34	1114.34	-3548.53	3548.53
37.27	-2951.37	2951.37	-3559.98	3559.98
36.40	-1307.54	1307.54	-3571.42	3571.42
35.52	-1357.75	1357.75	-3582.87	3582.87
34.65	-1599.67	1599.67	-3594.32	3594.32
33.77	-3566.52	3566.52	-3605.76	3605.76
32.90	-1506.70	1506.70	-3617.21	3617.21
32.02	-1003.93	1003.93	-3628.66	3628.66
31.15	-1430.35	1430.35	-3640.10	3640.10
30.27	-2883.05	2883.05	-3651.55	3651.55
29.40	-1303.43	1303.43	-3663.00	3663.00
28.52	-995.95	995.95	-3674.45	3674.45
27.65	-1204.73	1204.73	-3685.89	3685.89
26.77	-1791.15	1791.15	-3697.34	3697.34
25.90	-1074.71	1074.71	-3708.79	3708.79
25.02	-1960.95	1960.95	-3720.23	3720.23
24.15	-1140.12	1140.12	-3731.68	3731.68
23.27	-2213.34	2213.34	-3743.13	3743.13
22.40	-1096.05	1096.05	-3754.57	3754.57
21.52	-2351.12	2351.12	-3766.02	3766.02
20.65	-1173.73	1173.73	-3777.47	3777.47
19.77	-1752.87	1752.87	-3788.91	3788.91
18.90	-1216.04	1216.04	-3800.36	3800.36
18.02	-2807.14	2807.14	-3811.81	3811.81
17.15	-1409.91	1409.91	-3823.26	3823.26
16.27	-1041.79	1041.79	-3834.70	3834.70
15.40	-1630.11	1630.11	-3846.15	3846.15
14.52	-3085.18	3085.18	-3857.60	3857.60
13.65	-1707.26	1707.26	-3869.04	3869.04
13.16	-1052.74	1052.74	-3875.49	3875.49
12.66	-602.52	602.52	-3881.94	3881.94
12.17	-944.83	944.83	-3888.39	3888.39
11.68	-1504.21	1504.21	-3894.83	3894.83
11.19	-1631.86	1631.86	-3901.28	3901.28
10.69	-1762.55	1762.55	-3907.73	3907.73
10.20	-1942.02	1942.02	-3914.18	3914.18
9.71	-2124.41	2124.41	-3920.62	3920.62
9.21	-2274.70	2274.70	-3927.07	3927.07
8.72	-2426.18	2426.18	-3933.52	3933.52
8.23	-2912.94	2912.94	-3939.97	3939.97
7.74	-3403.25	3403.25	-3946.41	3946.41
7.24	-2956.56	2956.56	-3952.86	3952.86
6.75	-2528.11	2528.11	-3959.31	3959.31
6.18	-2199.42	2199.42	-3966.83	3966.83
5.60	-1843.23	1843.23	-3974.35	3974.35
5.02	-2412.81	2412.81	-3981.88	3981.88
4.45	-2997.24	2997.24	-3989.40	3989.40
3.87	-2812.11	2812.11	-3995.29	3995.29
3.30	-2631.25	2631.25	-3995.29	3995.29
2.72	-2578.87	2578.87	-3995.29	3995.29
2.15	-2525.93	2525.93	-3995.29	3995.29
1.57	-3257.86	3257.86	-3995.29	3995.29
1.00	-3995.29	3995.29	-3995.29	3995.29
0.42	-3857.28	3857.28	<b>-4921.32</b>	<b>4921.32</b>
-0.15	-3698.70	3698.70	<b>-4921.32</b>	<b>4921.32</b>
-0.61	-3623.65	3623.65	<b>-4921.32</b>	<b>4921.32</b>
-1.08	-3433.54	3433.54	<b>-4921.32</b>	<b>4921.32</b>
-1.54	-3019.38	3019.38	<b>-4921.32</b>	<b>4921.32</b>
-2.00	-2605.40	2605.40	-4921.32	4921.32
-2.46	-2281.79	2281.79	-4589.70	4589.70
-2.93	-1958.30	1958.30	-4258.09	4258.09
-3.39	-1611.99	1611.99	-3926.48	3926.48
-3.85	-1265.98	1265.98	-3594.86	3594.86
-4.31	-812.52	812.52	-3263.25	3263.25
-4.77	-370.99	370.99	-2931.64	2931.64
-5.24	-205.25	205.25	-2600.02	2600.02
-5.70	-117.41	117.41	-2268.41	2268.41



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
52.85	-124.64	124.64	-186.96	186.96
51.98	-662.27	662.27	-993.40	993.40
51.10	-620.63	620.63	-930.94	930.94
50.23	-645.91	645.91	-968.87	968.87
49.35	-346.13	346.13	-519.19	519.19
48.48	-782.45	782.45	-1173.68	1173.68
47.60	-753.95	753.95	-1130.93	1130.93
46.73	-784.83	784.83	-1177.25	1177.25
45.85	-286.56	286.56	-429.84	429.84
44.98	-463.01	463.01	-694.51	694.51
44.10	-442.17	442.17	-663.26	663.26
43.23	-464.87	464.87	-697.30	697.30
42.35	-159.28	159.28	-238.92	238.92
41.83	-288.24	288.24	-432.36	432.36
41.30	-423.09	423.09	-634.63	634.63
40.77	-410.12	410.12	-615.18	615.18
40.25	-397.16	397.16	-595.74	595.74
39.73	-422.34	422.34	-633.52	633.52
39.20	-447.64	447.64	-671.47	671.47
38.67	-132.74	132.74	-199.10	199.10
38.15	-255.31	255.31	-382.97	382.97
37.27	-483.97	483.97	-725.96	725.96
36.40	-438.33	438.33	-657.50	657.50
35.52	-481.55	481.55	-722.32	722.32
34.65	-273.41	273.41	-410.11	410.11
33.77	-645.61	645.61	-968.42	968.42
32.90	-599.67	599.67	-899.50	899.50
32.02	-625.15	625.15	-937.72	937.72
31.15	-164.09	164.09	-246.13	246.13
30.27	-541.42	541.42	-812.13	812.13
29.40	-518.86	518.86	-778.29	778.29
28.52	-528.99	528.99	-793.49	793.49
27.65	-253.09	253.09	-379.63	379.63
26.77	-554.90	554.90	-832.35	832.35
25.90	-543.39	543.39	-815.09	815.09
25.02	-567.84	567.84	-851.75	851.75
24.15	-71.69	71.69	-107.54	107.54
23.27	-674.01	674.01	-1011.02	1011.02
22.40	-646.57	646.57	-969.85	969.85
21.52	-669.61	669.61	-1004.41	1004.41
20.65	-122.80	122.80	-184.20	184.20
19.77	-717.34	717.34	-1076.01	1076.01
18.90	-690.53	690.53	-1035.79	1035.79
18.02	-712.55	712.55	-1068.82	1068.82
17.15	-201.93	201.93	-302.89	302.89
16.27	-742.85	742.85	-1114.27	1114.27
15.40	-713.57	713.57	-1070.36	1070.36
14.52	-739.16	739.16	-1108.74	1108.74
13.65	-208.50	208.50	-312.74	312.74
13.16	-305.42	305.42	-458.13	458.13
12.66	-422.47	422.47	-633.71	633.71
12.17	-408.22	408.22	-612.33	612.33
11.68	-393.98	393.98	-590.97	590.97
11.19	-393.47	393.47	-590.21	590.21
10.69	-392.97	392.97	-589.45	589.45
10.20	-392.96	392.96	-589.43	589.43
9.71	-392.95	392.95	-589.42	589.42
9.21	-392.94	392.94	-589.41	589.41
8.72	-392.93	392.93	-589.40	589.40
8.23	-396.63	396.63	-594.95	594.95
7.74	-400.34	400.34	-600.51	600.51
7.24	-322.68	322.68	-484.02	484.02
6.75	-239.11	239.11	-358.67	358.67
6.18	-327.48	327.48	-491.22	491.22
5.60	-412.34	412.34	-618.51	618.51
5.02	-408.80	408.80	-613.21	613.21
4.45	-405.27	405.27	-607.91	607.91
3.87	-411.15	411.15	-616.73	616.73
3.30	-416.68	416.68	-625.02	625.02
2.72	-573.25	573.25	-859.88	859.88
2.15	-730.98	730.98	-1096.47	1096.47
1.57	-755.40	755.40	-1133.10	1133.10
1.00	-779.84	779.84	-1169.76	1169.76
0.42	-499.00	499.00	-748.50	748.50
-0.15	-172.14	172.14	-258.21	258.21
-0.61	-340.90	340.90	-511.35	511.35
-1.08	-817.44	817.44	<b>-1226.16</b>	<b>1226.16</b>
-1.54	-774.95	774.95	-1162.43	1162.43
-2.00	-732.47	732.47	-1098.70	1098.70
-2.46	-733.07	733.07	-1099.60	1099.60
-2.93	-733.66	733.66	-1100.49	1100.49
-3.39	-734.54	734.54	-1101.82	1101.82
-3.85	-735.43	735.43	-1103.14	1103.14
-4.31	-741.99	741.99	-1112.99	1112.99
-4.77	-748.56	748.56	-1122.84	1122.84
-5.24	-553.11	553.11	-829.67	829.67
-5.70	-386.22	386.22	-579.33	579.33



Presek [m]	N,min [kN]	N,max [kN]
52.85	-533.96	533.96
51.98	-864.86	864.86
51.10	-112.16	112.16
50.23	-344.00	344.00
49.35	-199.75	199.75
48.48	-741.56	741.56
47.60	-296.51	296.51
46.73	-207.24	207.24
45.85	-356.64	356.64
44.98	-849.91	849.91
44.10	-429.49	429.49
43.23	-131.69	131.69
42.35	-501.89	501.89
41.83	-697.70	697.70
41.30	-927.08	927.08
40.77	-757.94	757.94
40.25	-590.49	590.49
39.73	-318.15	318.15
39.20	-219.50	219.50
38.67	-400.19	400.19
38.15	-715.43	715.43
37.27	-1589.80	1589.80
36.40	-687.24	687.24
35.52	-303.83	303.83
34.65	-820.68	820.68
33.77	-1757.96	1757.96
32.90	-956.69	956.69
32.02	-478.09	478.09
31.15	-1041.00	1041.00
30.27	-2456.00	2456.00
29.40	-1144.59	1144.59
28.52	-593.55	593.55
27.65	-1296.86	1296.86
26.77	-2129.41	2129.41
25.90	-1436.50	1436.50
25.02	-471.44	471.44
24.15	-1575.57	1575.57
23.27	-3095.48	3095.48
22.40	-1702.81	1702.81
21.52	-639.39	639.39
20.65	-1924.98	1924.98
19.77	-3391.78	3391.78
18.90	-2029.97	2029.97
18.02	-947.08	947.08
17.15	-2263.24	2263.24
16.27	-3597.47	3597.47
15.40	-2226.96	2226.96
14.52	-1929.77	1929.77
13.65	-2505.89	2505.89
13.16	-2708.68	2708.68
12.66	-2948.25	2948.25
12.17	-2715.21	2715.21
11.68	-2484.38	2484.38
11.19	-2515.10	2515.10
10.69	-2545.86	2545.86
10.20	-2553.39	2553.39
9.71	-2560.92	2560.92
9.21	-2562.85	2562.85
8.72	-2564.81	2564.81
8.23	-2370.50	2370.50
7.74	-2179.45	2179.45
7.24	-2636.43	2636.43
6.75	-3014.53	3014.53
6.18	-2812.48	2812.48
5.60	-2683.54	2683.54
5.02	-2569.90	2569.90
4.45	-2458.76	2458.76
3.87	-2649.16	2649.16
3.30	-2833.05	2833.05
2.72	-2842.85	2842.85
2.15	-2855.73	2855.73
1.57	-2419.29	2419.29
1.00	-2000.60	2000.60
0.42	-3255.06	3255.06
-0.15	-4565.31	4565.31
-0.61	-3316.70	3316.70
-1.08	-2299.29	2299.29
-1.54	-2528.08	2528.08
-2.00	-2762.47	2762.47
-2.46	-2780.58	2780.58
-2.93	-2798.71	2798.71
-3.39	-2785.42	2785.42
-3.85	-2772.13	2772.13
-4.31	-2797.44	2797.44
-4.77	-2822.90	2822.90
-5.24	-2959.29	2959.29
-5.70	-2973.22	2973.22

**Ram: Gh7.8.9**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

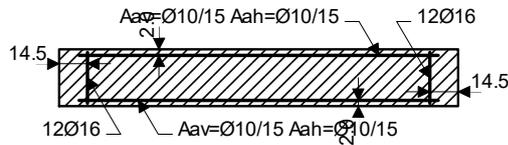
Ugaona armatura S500N

Podužna armatura S500N

Kompletna šema opterećenja

**SZ 4 Presek 1D - 1D (Z=51.98m)**

Merodavni presek za savijanje



$$b/d = 40/290 \text{ cm} \quad A_b = 11600 \text{ cm}^2$$

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

Med = -3456.43 kNm

Ned = -44.30 kN

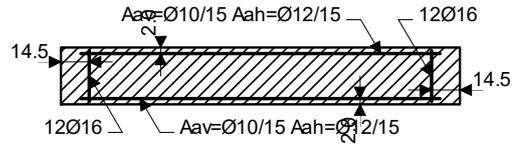
Ved = 1090.34 kN (Vrd,max = 5614.07 kN)

$$\epsilon_b/\epsilon_a = -1.994/25.000 \text{ ‰}$$

Aa1 =	23.43 cm <sup>2</sup>	(min:17.40)	(usv:12Ø16)
Aa2 =	23.43 cm <sup>2</sup>	(min:17.40)	(usv:12Ø16)
Aav =	±2.27 cm <sup>2</sup> /m	(min:±3.00)	(usv:±Ø10/15)
Aah =	±5.40 cm <sup>2</sup> /m	(min:±4.00)	(usv:±Ø10/15)

**SZ 4 Presek 2D - 2D (Z=-4.77m)**

Merodavni presek za smicanje



$$b/d = 40/290 \text{ cm} \quad A_b = 11600 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

Med = -4030.75 kNm

Ned = -12718.14 kN

Ved = -1549.12 kN (Vrd,max = 6983.20 kN)

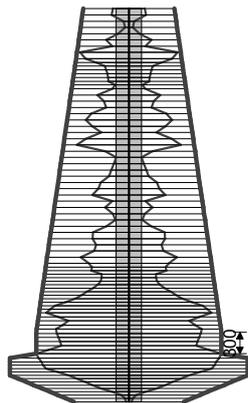
Aa1 = 0.00 cm<sup>2</sup> (min:17.40) (usv:12Ø16)Aa2 = 0.00 cm<sup>2</sup> (min:17.40) (usv:12Ø16)Aav = ±0.00 cm<sup>2</sup>/m (min:±3.00) (usv:±Ø10/15)Aah = ±7.68 cm<sup>2</sup>/m (min:±4.00) (usv:±Ø12/15)

### Proračunska anvelopa sila

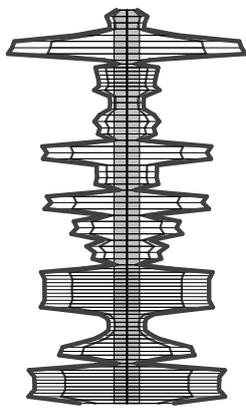
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

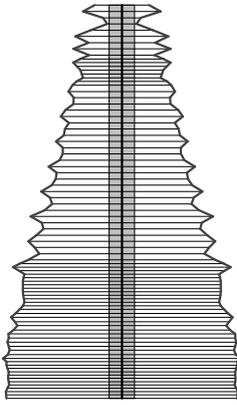
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
49.35	-1010.68	1010.68	-2867.41	2867.41
48.48	-1071.28	1071.28	-2924.72	2924.72
47.60	-330.75	330.75	-2982.03	2982.03
46.73	-243.82	243.82	-3039.33	3039.33
45.85	-683.46	683.46	-3096.64	3096.64
44.98	-1433.43	1433.43	-3153.95	3153.95
44.10	-1042.44	1042.44	-3211.26	3211.26
43.23	-3072.08	3072.08	-3268.57	3268.57
42.35	-2726.34	2726.34	-3325.88	3325.88
41.83	-2061.83	2061.83	-3360.26	3360.26
41.30	-1506.73	1506.73	-3394.65	3394.65
40.77	-1423.89	1423.89	-3429.03	3429.03
40.25	-1356.06	1356.06	-3463.42	3463.42
39.73	-1306.95	1306.95	-3497.80	3497.80
39.20	-1280.44	1280.44	-3532.19	3532.19
38.68	-858.94	858.94	-3566.57	3566.57
38.15	-1020.58	1020.58	-3600.96	3600.96
37.27	-1989.77	1989.77	-3658.27	3658.27
36.40	-1581.05	1581.05	-3715.58	3715.58
35.52	-1423.59	1423.59	-3772.89	3772.89
34.65	-2369.45	2369.45	-3830.19	3830.19
33.77	-2714.50	2714.50	-3887.50	3887.50
32.90	-2293.09	2293.09	-3944.81	3944.81
32.02	-1742.84	1742.84	-4002.12	4002.12
31.15	-2708.63	2708.63	-4059.43	4059.43
30.27	-3275.38	3275.38	-4116.74	4116.74
29.40	-1490.54	1490.54	-4174.05	4174.05
28.52	-808.54	808.54	-4231.36	4231.36
27.65	-929.59	929.59	-4288.66	4288.66
26.77	-1097.68	1097.68	-4345.97	4345.97
25.90	-1257.41	1257.41	-4403.28	4403.28
25.03	-1779.88	1779.88	-4460.59	4460.59
24.15	-1917.24	1917.24	-4517.90	4517.90
23.27	-2305.29	2305.29	-4575.21	4575.21
22.40	-1037.50	1037.50	-4632.52	4632.52
21.52	-1488.43	1488.43	-4689.83	4689.83
20.65	-1004.00	1004.00	-4747.13	4747.13
19.77	-839.62	839.62	-4804.44	4804.44
18.90	-1411.85	1411.85	-4861.75	4861.75
18.02	-2251.57	2251.57	-4919.06	4919.06
17.15	-2287.68	2287.68	-4976.37	4976.37
16.27	-2068.38	2068.38	-5033.68	5033.68
15.40	-2173.15	2173.15	-5090.99	5090.99
14.52	-3019.27	3019.27	-5148.30	5148.30
13.65	-2531.75	2531.75	-5205.60	5205.60
13.16	-2323.57	2323.57	-5237.88	5237.88
12.66	-2375.03	2375.03	-5270.16	5270.16
12.17	-1715.76	1715.76	-5302.44	5302.44
11.68	-1707.72	1707.72	-5334.72	5334.72
11.19	-1788.18	1788.18	-5367.00	5367.00
10.69	-1967.74	1967.74	-5399.28	5399.28
10.20	-2274.68	2274.68	-5431.56	5431.56
9.71	-2637.66	2637.66	-5463.84	5463.84
9.21	-2990.71	2990.71	-5496.12	5496.12
8.72	-3371.13	3371.13	-5528.40	5528.40
8.23	-4003.84	4003.84	-5560.68	5560.68
7.74	-4654.09	4654.09	-5592.96	5592.96
7.24	-4957.80	4957.80	-5625.24	5625.24
6.75	-5206.88	5206.88	-5657.52	5657.52
6.18	-4452.54	4452.54	-5695.18	5695.18
5.60	-3796.28	3796.28	-5732.84	5732.84
5.03	-4193.32	4193.32	-5770.50	5770.50
4.45	-4593.70	4593.70	-5808.16	5808.16
3.88	-4521.46	4521.46	-5837.64	5837.64
3.30	-4435.53	4435.53	-5837.64	5837.64
2.72	-4336.83	4336.83	-5837.64	5837.64
2.15	-4252.44	4252.44	-5837.64	5837.64
1.57	-5041.75	5041.75	-5837.64	5837.64
1.00	-5837.64	5837.64	-5837.64	5837.64
0.42	-5693.41	5693.41	<b>-7496.32</b>	<b>7496.32</b>
-0.15	-5505.83	5505.83	<b>-7496.32</b>	<b>7496.32</b>
-0.61	-5405.61	5405.61	<b>-7496.32</b>	<b>7496.32</b>
-1.07	-5232.03	5232.03	<b>-7496.32</b>	<b>7496.32</b>
-1.54	-4509.78	4509.78	<b>-7496.32</b>	<b>7496.32</b>
-2.00	-3787.64	3787.64	<b>-7496.32</b>	<b>7496.32</b>
-2.46	-3288.39	3288.39	-6991.63	6991.63
-2.93	-2789.42	2789.42	-6486.94	6486.94
-3.39	-2269.81	2269.81	-5982.25	5982.25
-3.85	-1750.95	1750.95	-5477.56	5477.56
-4.31	-1090.04	1090.04	-4972.87	4972.87
-4.77	-451.92	451.92	-4468.18	4468.18
-5.24	-252.88	252.88	-3963.49	3963.49
-5.70	-185.13	185.13	-3458.80	3458.80



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
49.35	-123.09	123.09	-184.64	184.64
48.48	-242.01	242.01	-363.02	363.02
47.60	-210.98	210.98	-316.47	316.47
46.73	-201.43	201.43	-302.14	302.14
45.85	-610.21	610.21	-915.32	915.32
44.98	-1341.42	1341.42	-2012.13	2012.13
44.10	-1367.85	1367.85	-2051.77	2051.77
43.23	-1417.34	1417.34	<b>-2126.01</b>	<b>2126.01</b>
42.35	-267.52	267.52	-401.29	401.29
41.83	-121.95	121.95	-182.93	182.93
41.30	-374.95	374.95	-562.43	562.43
40.77	-363.04	363.04	-544.56	544.56
40.25	-351.14	351.14	-526.71	526.71
39.73	-340.27	340.27	-510.41	510.41
39.20	-330.92	330.92	-496.39	496.39
38.68	-335.46	335.46	-503.19	503.19
38.15	-390.75	390.75	-586.12	586.12
37.27	-204.12	204.12	-306.17	306.17
36.40	-197.95	197.95	-296.93	296.93
35.52	-205.68	205.68	-308.51	308.51
34.65	-327.42	327.42	-491.13	491.13
33.77	-386.12	386.12	-579.18	579.18
32.90	-319.64	319.64	-479.46	479.46
32.02	-340.65	340.65	-510.98	510.98
31.15	-174.87	174.87	-262.30	262.30
30.27	-1004.93	1004.93	-1507.39	1507.39
29.40	-955.46	955.46	-1433.19	1433.19
28.52	-1002.14	1002.14	-1503.21	1503.21
27.65	-359.73	359.73	-539.60	539.60
26.77	-358.37	358.37	-537.55	537.55
25.90	-353.53	353.53	-530.29	530.29
25.03	-373.30	373.30	-559.96	559.96
24.15	-98.19	98.19	-147.28	147.28
23.27	-953.28	953.28	-1429.92	1429.92
22.40	-901.21	901.21	-1351.81	1351.81
21.52	-978.56	978.56	-1467.83	1467.83
20.65	-249.35	249.35	-374.02	374.02
19.77	-630.00	630.00	-945.00	945.00
18.90	-593.94	593.94	-890.91	890.91
18.02	-661.68	661.68	-992.53	992.53
17.15	-287.09	287.09	-430.63	430.63
16.27	-482.36	482.36	-723.54	723.54
15.40	-382.57	382.57	-573.86	573.86
14.52	-409.32	409.32	-613.99	613.99
13.65	-154.61	154.61	-231.91	231.91
13.16	-525.81	525.81	-788.72	788.72
12.66	-1023.80	1023.80	-1535.70	1535.70
12.17	-1001.35	1001.35	-1502.03	1502.03
11.68	-978.91	978.91	-1468.37	1468.37
11.19	-979.64	979.64	-1469.46	1469.46
10.69	-980.37	980.37	-1470.55	1470.55
10.20	-980.27	980.27	-1470.41	1470.41
9.71	-980.18	980.18	-1470.26	1470.26
9.21	-979.45	979.45	-1469.18	1469.18
8.72	-978.73	978.73	-1468.10	1468.10
8.23	-1002.88	1002.88	-1504.31	1504.31
7.74	-1027.03	1027.03	-1540.54	1540.54
7.24	-657.66	657.66	-986.50	986.50
6.75	-319.30	319.30	-478.95	478.95
6.18	-233.58	233.58	-350.37	350.37
5.60	-214.56	214.56	-321.84	321.84
5.03	-217.93	217.93	-326.89	326.89
4.45	-221.52	221.52	-332.27	332.27
3.88	-298.24	298.24	-447.36	447.36
3.30	-389.42	389.42	-584.13	584.13
2.72	-570.24	570.24	-855.35	855.35
2.15	-765.08	765.08	-1147.61	1147.61
1.57	-786.42	786.42	-1179.62	1179.62
1.00	-807.80	807.80	-1211.70	1211.70
0.42	-399.27	399.27	-598.91	598.91
-0.15	-122.07	122.07	-183.10	183.10
-0.61	-627.53	627.53	-941.29	941.29
-1.07	-1168.89	1168.89	-1753.34	1753.34
-1.54	-1135.56	1135.56	-1703.34	1703.34
-2.00	-1102.23	1102.23	-1653.35	1653.35
-2.46	-1101.67	1101.67	-1652.51	1652.51
-2.93	-1101.11	1101.11	-1651.66	1651.66
-3.39	-1100.49	1100.49	-1650.73	1650.73
-3.85	-1099.87	1099.87	-1649.80	1649.80
-4.31	-1136.45	1136.45	-1704.67	1704.67
-4.77	-1173.03	1173.03	-1759.54	1759.54
-5.24	-863.39	863.39	-1295.08	1295.08
-5.70	-562.99	562.99	-844.48	844.48

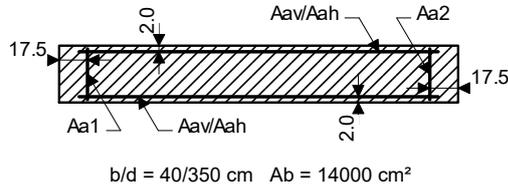


Presek [m]	N,min [kN]	N,max [kN]
49.35	-460.34	460.34
48.48	-664.23	664.23
47.60	-320.64	320.64
46.73	-249.74	249.74
45.85	-533.04	533.04
44.98	-792.66	792.66
44.10	-569.70	569.70
43.23	-829.15	829.15
42.35	-559.56	559.56
41.83	-710.92	710.92
41.30	-832.21	832.21
40.77	-767.39	767.39
40.25	-704.99	704.99
39.73	-682.18	682.18
39.20	-661.85	661.85
38.68	-772.96	772.96
38.15	-843.46	843.46
37.27	-908.21	908.21
36.40	-823.43	823.43
35.52	-828.02	828.02
34.65	-960.77	960.77
33.77	-1039.81	1039.81
32.90	-902.80	902.80
32.02	-967.88	967.88
31.15	-988.42	988.42
30.27	-1120.66	1120.66
29.40	-1004.97	1004.97
28.52	-1009.86	1009.86
27.65	-1066.63	1066.63
26.77	-1247.91	1247.91
25.90	-1114.26	1114.26
25.03	-1128.84	1128.84
24.15	-1197.31	1197.31
23.27	-1377.89	1377.89
22.40	-1230.10	1230.10
21.52	-1186.47	1186.47
20.65	-1318.00	1318.00
19.77	-1556.97	1556.97
18.90	-1363.90	1363.90
18.02	-1339.49	1339.49
17.15	-1458.51	1458.51
16.27	-1598.35	1598.35
15.40	-1490.90	1490.90
14.52	-1409.79	1409.79
13.65	-1597.64	1597.64
13.16	-1742.27	1742.27
12.66	-1855.84	1855.84
12.17	-1755.61	1755.61
11.68	-1663.28	1663.28
11.19	-1675.23	1675.23
10.69	-1687.21	1687.21
10.20	-1687.61	1687.61
9.71	-1688.02	1688.02
9.21	-1685.43	1685.43
8.72	-1682.86	1682.86
8.23	-1672.32	1672.32
7.74	-1662.11	1662.11
7.24	-1690.82	1690.82
6.75	-1746.73	1746.73
6.18	-1815.07	1815.07
5.60	-1890.98	1890.98
5.03	-1830.81	1830.81
4.45	-1780.87	1780.87
3.88	-1845.71	1845.71
3.30	-1935.89	1935.89
2.72	-1934.98	1934.98
2.15	-1955.73	1955.73
1.57	-1933.56	1933.56
1.00	-1916.02	1916.02
0.42	-1946.06	1946.06
-0.15	-2029.68	2029.68
-0.61	-1969.73	1969.73
-1.07	-1972.04	1972.04
-1.54	-1949.57	1949.57
-2.00	-1933.72	1933.72
-2.46	-1938.23	1938.23
-2.93	-1942.75	1942.75
-3.39	-1934.58	1934.58
-3.85	-1926.41	1926.41
-4.31	-1953.52	1953.52
-4.77	-1980.97	1980.97
-5.24	-1973.71	1973.71
-5.70	-1969.67	1969.67

**Ram: Gh10**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura S500N  
 Podužna armatura S500N  
 Kompletna šema opterećenja  
 (Proračunska anvelopa sila)

**SZ 5 Presek 1E - 1E (Z=46.73m)**  
 Merodavni presek za savijanje



Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

Med = -3119.46 kNm

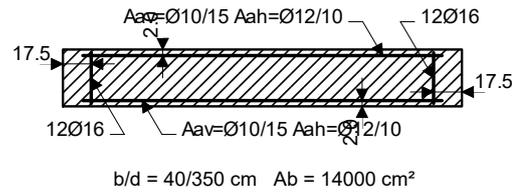
Ned = -268.62 kN

Ved = -569.36 kN (Vrd,max = 6904.79 kN)

$\epsilon_b/\epsilon_a = -1.658/25.000 \text{ ‰}$

Aa1 = 15.13 cm<sup>2</sup> (min:21.00)  
 Aa2 = 15.13 cm<sup>2</sup> (min:21.00)  
 Aav =  $\pm 1.21 \text{ cm}^2/\text{m}$  (min: $\pm 3.00$ )  
 Aah =  $\pm 2.34 \text{ cm}^2/\text{m}$  (min: $\pm 4.00$ )

**SZ 5 Presek 2E - 2E (Z=1.00m)**  
 Merodavni presek za smicanje



Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

Med = -3745.27 kNm

Ned = -17546.82 kN

Ved = -2494.04 kN (Vrd,max = 8428.00 kN)

Aa1 = 0.00 cm<sup>2</sup> (min:21.00) (usv:12Ø16)

Aa2 = 0.00 cm<sup>2</sup> (min:21.00) (usv:12Ø16)

Aav =  $\pm 0.00 \text{ cm}^2/\text{m}$  (min: $\pm 3.00$ ) (usv: $\pm \text{Ø}10/15$ )

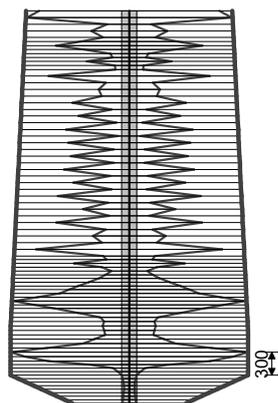
Aah =  $\pm 10.24 \text{ cm}^2/\text{m}$  (min: $\pm 4.00$ ) (usv: $\pm \text{Ø}12/10$ )

### Proračunska anvelopa sila

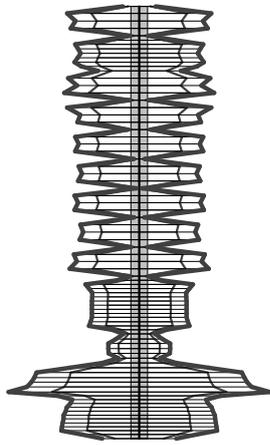
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

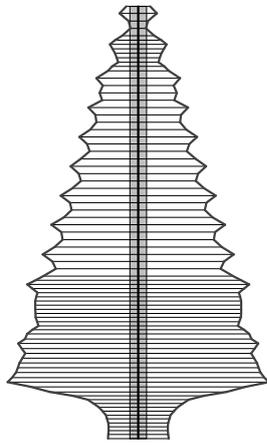
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-1426.49	1426.49	-1630.83	1630.83
44.98	-1618.23	1618.23	-1636.01	1636.01
44.10	-348.14	348.14	-1641.20	1641.20
43.23	-600.39	600.39	-1646.38	1646.38
42.35	-413.35	413.35	-1651.57	1651.57
41.83	-767.87	767.87	-1654.68	1654.68
41.30	-1160.10	1160.10	-1657.79	1657.79
40.77	-716.45	716.45	-1660.90	1660.90
40.25	-299.63	299.63	-1664.01	1664.01
39.73	-264.20	264.20	-1667.12	1667.12
39.20	-671.52	671.52	-1670.23	1670.23
38.68	-227.91	227.91	-1673.34	1673.34
38.15	-221.58	221.58	-1676.45	1676.45
37.27	-1275.48	1275.48	-1681.64	1681.64
36.40	-369.92	369.92	-1686.82	1686.82
35.52	-484.86	484.86	-1692.01	1692.01
34.65	-436.91	436.91	-1697.19	1697.19
33.77	-899.76	899.76	-1702.38	1702.38
32.90	-278.44	278.44	-1707.56	1707.56
32.03	-806.32	806.32	-1712.75	1712.75
31.15	-204.22	204.22	-1717.93	1717.93
30.27	-1002.88	1002.88	-1723.12	1723.12
29.40	-179.06	179.06	-1728.30	1728.30
28.52	-965.99	965.99	-1733.49	1733.49
27.65	-244.68	244.68	-1738.67	1738.67
26.77	-927.81	927.81	-1743.86	1743.86
25.90	-243.25	243.25	-1749.04	1749.04
25.03	-1029.80	1029.80	-1754.23	1754.23
24.15	-297.95	297.95	-1759.41	1759.41
23.27	-886.33	886.33	-1764.60	1764.60
22.40	-279.00	279.00	-1769.78	1769.78
21.52	-1128.33	1128.33	-1774.97	1774.97
20.65	-331.86	331.86	-1780.15	1780.15
19.78	-731.97	731.97	-1785.34	1785.34
18.90	-317.49	317.49	-1790.52	1790.52
18.02	-1153.61	1153.61	-1795.71	1795.71
17.15	-366.94	366.94	-1800.89	1800.89
16.28	-575.38	575.38	-1806.08	1806.08
15.40	-430.78	430.78	-1811.26	1811.26
14.52	-1473.56	1473.56	-1816.45	1816.45
13.65	-408.88	408.88	-1821.63	1821.63
13.16	-360.56	360.56	-1824.55	1824.55
12.66	-875.77	875.77	-1827.47	1827.47
12.17	-431.29	431.29	-1830.39	1830.39
11.68	-284.89	284.89	-1833.31	1833.31
11.19	-373.71	373.71	-1836.23	1836.23
10.69	-485.26	485.26	-1839.15	1839.15
10.20	-643.15	643.15	-1842.08	1842.08
9.71	-808.57	808.57	-1845.00	1845.00
9.21	-953.14	953.14	-1847.92	1847.92
8.72	-1099.36	1099.36	-1850.84	1850.84
8.23	-1455.79	1455.79	-1853.76	1853.76
7.74	-1820.87	1820.87	-1856.68	1856.68
7.24	-1498.98	1498.98	-1859.60	1859.60
6.75	-1181.43	1181.43	-1862.52	1862.52
6.18	-815.86	815.86	-1865.93	1865.93
5.60	-454.78	454.78	-1869.33	1869.33
5.02	-398.23	398.23	-1872.74	1872.74
4.45	-420.26	420.26	-1876.15	1876.15
3.88	-396.01	396.01	-1878.81	1878.81
3.30	-380.21	380.21	-1878.81	1878.81
2.73	-546.90	546.90	-1878.81	1878.81
2.15	-729.65	729.65	-1878.81	1878.81
1.58	-1303.04	1303.04	-1878.81	1878.81
1.00	-1878.81	1878.81	-1878.81	1878.81
0.43	-1648.23	1648.23	-1878.81	1878.81
-0.15	-1285.46	1285.46	-1878.81	1878.81
-0.61	-634.65	634.65	-1878.81	1878.81
-1.07	-251.69	251.69	-1878.81	1878.81
-1.54	-180.33	180.33	-1878.81	1878.81
-2.00	-119.13	119.13	-1878.81	1878.81
-2.46	-103.33	103.33	-1756.28	1756.28
-2.92	-88.68	88.68	-1633.74	1633.74
-3.39	-84.66	84.66	-1511.20	1511.20
-3.85	-80.81	80.81	-1388.66	1388.66
-4.31	-87.52	87.52	-1266.12	1266.12
-4.77	-94.36	94.36	-1143.58	1143.58
-5.24	-102.52	102.52	-1021.04	1021.04
-5.70	-103.66	103.66	-898.51	898.51



Presek [m]	Sračunati		Povećani	
	T,min [kN]	T,max [kN]	T,min [kN]	T,max [kN]
45.85	-116.29	116.29	-174.43	174.43
44.98	-508.72	508.72	-763.08	763.08
44.10	-448.64	448.64	-672.96	672.96
43.23	-484.01	484.01	-726.02	726.02
42.35	-62.55	62.55	-93.83	93.83
41.83	-257.21	257.21	-385.82	385.82
41.30	-451.79	451.79	-677.69	677.69
40.77	-432.09	432.09	-648.13	648.13
40.25	-412.39	412.39	-618.59	618.59
39.73	-433.48	433.48	-650.22	650.22
39.20	-454.58	454.58	-681.88	681.88
38.68	-408.00	408.00	-612.00	612.00
38.15	-291.74	291.74	-437.61	437.61
37.27	-500.93	500.93	-751.39	751.39
36.40	-437.22	437.22	-655.83	655.83
35.52	-529.24	529.24	-793.87	793.87
34.65	-68.06	68.06	-102.09	102.09
33.77	-506.67	506.67	-760.00	760.00
32.90	-414.12	414.12	-621.19	621.19
32.03	-435.49	435.49	-653.24	653.24
31.15	-79.39	79.39	-119.08	119.08
30.27	-450.60	450.60	-675.89	675.89
29.40	-425.11	425.11	-637.66	637.66
28.52	-449.79	449.79	-674.68	674.68
27.65	-38.90	38.90	-58.35	58.35
26.77	-426.69	426.69	-640.04	640.04
25.90	-403.32	403.32	-604.98	604.98
25.03	-429.19	429.19	-643.78	643.78
24.15	-18.01	18.01	-27.02	27.02
23.27	-454.40	454.40	-681.60	681.60
22.40	-429.67	429.67	-644.51	644.51
21.52	-456.37	456.37	-684.56	684.56
20.65	-36.40	36.40	-54.60	54.60
19.78	-415.40	415.40	-623.10	623.10
18.90	-394.38	394.38	-591.57	591.57
18.02	-419.97	419.97	-629.95	629.95
17.15	-58.71	58.71	-88.06	88.06
16.28	-461.25	461.25	-691.88	691.88
15.40	-438.51	438.51	-657.77	657.77
14.52	-488.87	488.87	-733.31	733.31
13.65	-68.63	68.63	-102.94	102.94
13.16	-157.33	157.33	-236.00	236.00
12.66	-377.44	377.44	-566.16	566.16
12.17	-353.92	353.92	-530.88	530.88
11.68	-330.41	330.41	-495.62	495.62
11.19	-331.25	331.25	-496.88	496.88
10.69	-332.09	332.09	-498.13	498.13
10.20	-332.03	332.03	-498.04	498.04
9.71	-331.97	331.97	-497.96	497.96
9.21	-331.82	331.82	-497.73	497.73
8.72	-331.66	331.66	-497.50	497.50
8.23	-341.85	341.85	-512.78	512.78
7.74	-352.14	352.14	-528.22	528.22
7.24	-194.33	194.33	-291.49	291.49
6.75	-110.02	110.02	-165.04	165.04
6.18	-161.39	161.39	-242.09	242.09
5.60	-217.44	217.44	-326.16	326.16
5.02	-216.60	216.60	-324.90	324.90
4.45	-215.78	215.78	-323.67	323.67
3.88	-146.16	146.16	-219.24	219.24
3.30	-261.37	261.37	-392.06	392.06
2.73	-487.91	487.91	-731.87	731.87
2.15	-721.89	721.89	-1082.83	1082.83
1.58	-739.91	739.91	-1109.86	1109.86
1.00	-758.05	758.05	-1137.08	1137.08
0.43	-792.55	792.55	-1188.82	1188.82
-0.15	-920.57	920.57	<b>-1380.85</b>	<b>1380.85</b>
-0.61	-573.56	573.56	-860.34	860.34
-1.07	-470.43	470.43	-705.64	705.64
-1.54	-484.75	484.75	-727.12	727.12
-2.00	-510.45	510.45	-765.67	765.67
-2.46	-517.70	517.70	-776.55	776.55
-2.92	-532.87	532.87	-799.31	799.31
-3.39	-534.43	534.43	-801.65	801.65
-3.85	-538.53	538.53	-807.80	807.80
-4.31	-542.92	542.92	-814.38	814.38
-4.77	-549.06	549.06	-823.59	823.59
-5.24	-405.94	405.94	-608.90	608.90
-5.70	-260.20	260.20	-390.30	390.30



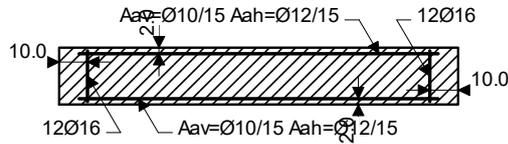
Presek [m]	N,min [kN]	N,max [kN]
45.85	-317.92	317.92
44.98	-490.85	490.85
44.10	-255.14	255.14
43.23	-200.93	200.93
42.35	-431.11	431.11
41.83	-612.54	612.54
41.30	-756.27	756.27
40.77	-686.86	686.86
40.25	-619.87	619.87
39.73	-575.78	575.78
39.20	-535.76	535.76
38.68	-687.85	687.85
38.15	-810.29	810.29
37.27	-1111.39	1111.39
36.40	-944.03	944.03
35.52	-1031.79	1031.79
34.65	-958.76	958.76
33.77	-1328.46	1328.46
32.90	-1142.99	1142.99
32.03	-1111.72	1111.72
31.15	-1279.04	1279.04
30.27	-1567.81	1567.81
29.40	-1359.56	1359.56
28.52	-1299.65	1299.65
27.65	-1535.69	1535.69
26.77	-1800.26	1800.26
25.90	-1589.32	1589.32
25.03	-1528.56	1528.56
24.15	-1758.00	1758.00
23.27	-2064.65	2064.65
22.40	-1816.93	1816.93
21.52	-1771.14	1771.14
20.65	-1982.13	1982.13
19.78	-2316.83	2316.83
18.90	-2045.63	2045.63
18.02	-2011.10	2011.10
17.15	-2227.87	2227.87
16.28	-2546.16	2546.16
15.40	-2292.34	2292.34
14.52	-2187.08	2187.08
13.65	-2527.28	2527.28
13.16	-2737.99	2737.99
12.66	-2956.58	2956.58
12.17	-2816.89	2816.89
11.68	-2678.92	2678.92
11.19	-2710.42	2710.42
10.69	-2741.96	2741.96
10.20	-2741.73	2741.73
9.71	-2741.51	2741.51
9.21	-2734.77	2734.77
8.72	-2728.07	2728.07
8.23	-2688.44	2688.44
7.74	-2654.53	2654.53
7.24	-2817.61	2817.61
6.75	-2952.22	2952.22
6.18	-3017.85	3017.85
5.60	-3195.97	3195.97
5.02	-3099.72	3099.72
4.45	-3004.75	3004.75
3.88	-3081.05	3081.05
3.30	-3157.60	3157.60
2.73	-3206.54	3206.54
2.15	-3255.63	3255.63
1.58	-3355.33	3355.33
1.00	-3479.12	3479.12
0.43	-2855.80	2855.80
-0.15	-2341.75	2341.75
-0.61	-1744.78	1744.78
-1.07	-1341.89	1341.89
-1.54	-1189.75	1189.75
-2.00	-1043.27	1043.27
-2.46	-950.19	950.19
-2.92	-857.59	857.59
-3.39	-826.37	826.37
-3.85	-795.31	795.31
-4.31	-793.80	793.80
-4.77	-793.22	793.22
-5.24	-797.78	797.78
-5.70	-810.79	810.79

**Ram: Gv1**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura S500N  
 Podužna armatura S500N  
 Kompletna šema opterećenja  
 (Proračunska anvelopa sila)

**SZ 6 Presek 1F - 1F (Z=35.52m)**

Merodavni presek za savijanje



$$b/d = 40/200 \text{ cm} \quad A_b = 8000 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII-1.00xVIII

Med = 2025.98 kNm

Ned = 127.05 kN

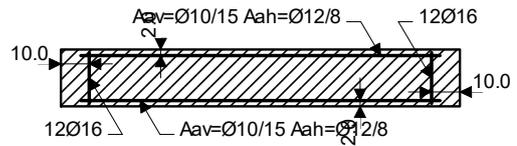
Ved = -901.02 kN (Vrd,max = 4262.61 kN)

$$\epsilon_b/\epsilon_a = -2.250/25.000 \text{ ‰}$$

$$\begin{aligned} A_{a1} &= 18.77 \text{ cm}^2 & (\text{min:}12.00) & (\text{usv:}12\text{Ø}16) \\ A_{a2} &= 18.77 \text{ cm}^2 & (\text{min:}12.00) & (\text{usv:}12\text{Ø}16) \\ A_{av} &= \pm 4.50 \text{ cm}^2/\text{m} & (\text{min:}\pm 3.00) & (\text{usv:}\pm\text{Ø}10/15) \\ A_{ah} &= \pm 6.48 \text{ cm}^2/\text{m} & (\text{min:}\pm 4.00) & (\text{usv:}\pm\text{Ø}12/15) \end{aligned}$$

**SZ 6 Presek 2F - 2F (Z=-2.00m)**

Merodavni presek za smicanje



$$b/d = 40/200 \text{ cm} \quad A_b = 8000 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = 2530.96 kNm

Ned = -2373.11 kN

Ved = 1819.71 kN (Vrd,max = 4387.12 kN)

$$\epsilon_b/\epsilon_a = -3.500/16.624 \text{ ‰}$$

Aa1 = 4.42 cm<sup>2</sup> (min:12.00) (usv:12Ø16)

Aa2 = 4.42 cm<sup>2</sup> (min:12.00) (usv:12Ø16)

Aav = ±1.06 cm<sup>2</sup>/m (min:±3.00) (usv:±Ø10/15)

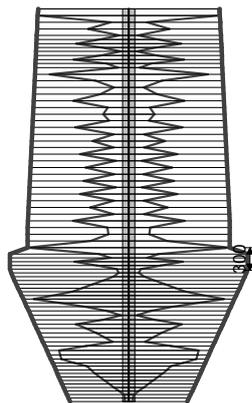
Aah = ±13.08 cm<sup>2</sup>/m (min:±4.00) (usv:±Ø12/8)

### Proračunska anvelopa sila

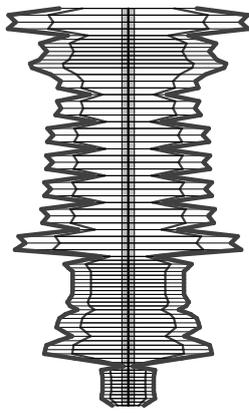
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

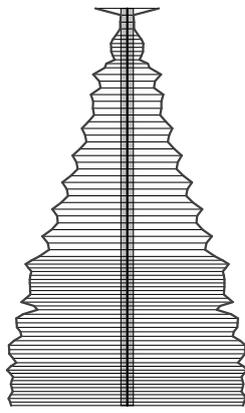
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-1107.55	1107.55	-1126.71	1126.71
44.98	-1117.15	1117.15	-1130.65	1130.65
44.10	-223.76	223.76	-1134.58	1134.58
43.23	-505.14	505.14	-1138.52	1138.52
42.35	-115.48	115.48	-1142.45	1142.45
41.83	-366.05	366.05	-1144.81	1144.81
41.30	-650.44	650.44	-1147.17	1147.17
40.77	-339.12	339.12	-1149.54	1149.54
40.25	-98.75	98.75	-1151.90	1151.90
39.73	-348.33	348.33	-1154.26	1154.26
39.20	-682.81	682.81	-1156.62	1156.62
38.68	-277.15	277.15	-1158.98	1158.98
38.15	-134.98	134.98	-1161.34	1161.34
37.27	-981.10	981.10	-1165.28	1165.28
36.40	-412.25	412.25	-1169.21	1169.21
35.52	-185.80	185.80	-1173.15	1173.15
34.65	-350.03	350.03	-1177.09	1177.09
33.77	-688.18	688.18	-1181.02	1181.02
32.90	-261.53	261.53	-1184.96	1184.96
32.03	-318.77	318.77	-1188.89	1188.89
31.15	-248.39	248.39	-1192.83	1192.83
30.27	-664.56	664.56	-1196.76	1196.76
29.40	-188.82	188.82	-1200.70	1200.70
28.52	-448.21	448.21	-1204.63	1204.63
27.65	-188.65	188.65	-1208.57	1208.57
26.77	-603.86	603.86	-1212.51	1212.51
25.90	-162.04	162.04	-1216.44	1216.44
25.03	-536.05	536.05	-1220.38	1220.38
24.15	-182.04	182.04	-1224.31	1224.31
23.27	-563.08	563.08	-1228.25	1228.25
22.40	-162.72	162.72	-1232.18	1232.18
21.52	-603.95	603.95	-1236.12	1236.12
20.65	-185.37	185.37	-1240.05	1240.05
19.78	-480.97	480.97	-1243.99	1243.99
18.90	-188.51	188.51	-1247.93	1247.93
18.02	-693.31	693.31	-1251.86	1251.86
17.15	-264.97	264.97	-1254.11	1254.11
16.28	-253.67	253.67	-1254.11	1254.11
15.40	-475.42	475.42	-1254.11	1254.11
14.52	-1254.11	1254.11	-1254.11	1254.11
13.65	-371.67	371.67	<b>-1475.05</b>	<b>1475.05</b>
13.16	-227.90	227.90	<b>-1475.05</b>	<b>1475.05</b>
12.66	-670.22	670.22	<b>-1475.05</b>	<b>1475.05</b>
12.17	-393.75	393.75	<b>-1475.05</b>	<b>1475.05</b>
11.68	-152.39	152.39	<b>-1475.05</b>	<b>1475.05</b>
11.19	-123.34	123.34	-1460.30	1460.30
10.69	-194.98	194.98	-1438.88	1438.88
10.20	-319.27	319.27	-1417.46	1417.46
9.71	-454.79	454.79	-1396.04	1396.04
9.21	-580.61	580.61	-1374.62	1374.62
8.72	-707.72	707.72	-1353.20	1353.20
8.23	-943.40	943.40	-1331.77	1331.77
7.74	-1179.96	1179.96	-1310.35	1310.35
7.24	-860.30	860.30	-1288.93	1288.93
6.75	-544.42	544.42	-1267.51	1267.51
6.18	-274.72	274.72	-1242.52	1242.52
5.60	-97.46	97.46	-1217.53	1217.53
5.02	-321.20	321.20	-1192.54	1192.54
4.45	-658.30	658.30	-1167.54	1167.54
3.88	-531.37	531.37	-1142.55	1142.55
3.30	-404.87	404.87	-1117.56	1117.56
2.73	-301.56	301.56	-1092.57	1092.57
2.15	-202.63	202.63	-1067.58	1067.58
1.58	-527.16	527.16	-1042.59	1042.59
1.00	-865.37	865.37	-1017.59	1017.59
0.43	-852.00	852.00	-992.60	992.60
-0.15	-837.22	837.22	-967.61	967.61
-0.61	-677.94	677.94	-947.51	947.51
-1.07	-520.08	520.08	-927.41	927.41
-1.54	-470.76	470.76	-907.31	907.31
-2.00	-421.80	421.80	-887.20	887.20
-2.46	-360.88	360.88	-867.10	867.10
-2.92	-300.10	300.10	-847.00	847.00
-3.39	-242.26	242.26	-826.90	826.90
-3.85	-185.65	185.65	-806.80	806.80
-4.31	-120.40	120.40	-786.69	786.69
-4.77	-64.41	64.41	-766.59	766.59
-5.24	-50.94	50.94	-746.49	746.49
-5.70	-53.39	53.39	-726.39	726.39



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
45.85	-314.04	314.04	-471.06	471.06
44.98	-545.31	545.31	-817.97	817.97
44.10	-512.07	512.07	-768.10	768.10
43.23	-547.65	547.65	<b>-821.47</b>	<b>821.47</b>
42.35	-275.12	275.12	-412.69	412.69
41.83	-337.83	337.83	-506.74	506.74
41.30	-400.61	400.61	-600.91	600.91
40.77	-385.73	385.73	-578.59	578.59
40.25	-370.85	370.85	-556.27	556.27
39.73	-387.38	387.38	-581.07	581.07
39.20	-403.92	403.92	-605.88	605.88
38.68	-447.17	447.17	-670.75	670.75
38.15	-437.72	437.72	-656.58	656.58
37.27	-352.85	352.85	-529.27	529.27
36.40	-307.00	307.00	-460.51	460.51
35.52	-320.02	320.02	-480.03	480.03
34.65	-176.34	176.34	-264.50	264.50
33.77	-322.70	322.70	-484.05	484.05
32.90	-305.57	305.57	-458.36	458.36
32.03	-330.38	330.38	-495.57	495.57
31.15	-152.96	152.96	-229.44	229.44
30.27	-367.86	367.86	-551.78	551.78
29.40	-340.99	340.99	-511.48	511.48
28.52	-369.22	369.22	-553.82	553.82
27.65	-154.47	154.47	-231.70	231.70
26.77	-372.76	372.76	-559.14	559.14
25.90	-344.40	344.40	-516.60	516.60
25.03	-373.11	373.11	-559.67	559.67
24.15	-159.46	159.46	-239.18	239.18
23.27	-382.32	382.32	-573.48	573.48
22.40	-353.28	353.28	-529.92	529.92
21.52	-382.52	382.52	-573.79	573.79
20.65	-163.30	163.30	-244.95	244.95
19.78	-394.92	394.92	-592.38	592.38
18.90	-365.32	365.32	-547.97	547.97
18.02	-391.38	391.38	-587.08	587.08
17.15	-227.63	227.63	-341.45	341.45
16.28	-499.36	499.36	-749.04	749.04
15.40	-468.40	468.40	-702.59	702.59
14.52	-514.84	514.84	-772.26	772.26
13.65	-126.99	126.99	-190.48	190.48
13.16	-207.95	207.95	-311.92	311.92
12.66	-289.19	289.19	-433.78	433.78
12.17	-271.66	271.66	-407.49	407.49
11.68	-254.14	254.14	-381.21	381.21
11.19	-254.10	254.10	-381.15	381.15
10.69	-254.06	254.06	-381.08	381.08
10.20	-254.02	254.02	-381.04	381.04
9.71	-253.99	253.99	-380.99	380.99
9.21	-254.14	254.14	-381.21	381.21
8.72	-254.28	254.28	-381.43	381.43
8.23	-265.26	265.26	-397.89	397.89
7.74	-276.24	276.24	-414.36	414.36
7.24	-264.89	264.89	-397.34	397.34
6.75	-231.04	231.04	-346.57	346.57
6.18	-285.98	285.98	-428.97	428.97
5.60	-313.52	313.52	-470.29	470.29
5.02	-319.85	319.85	-479.78	479.78
4.45	-326.20	326.20	-489.29	489.29
3.88	-291.79	291.79	-437.69	437.69
3.30	-255.85	255.85	-383.77	383.77
2.73	-317.48	317.48	-476.23	476.23
2.15	-372.10	372.10	-558.14	558.14
1.58	-377.01	377.01	-565.51	565.51
1.00	-381.92	381.92	-572.88	572.88
0.43	-246.52	246.52	-369.79	369.79
-0.15	-113.06	113.06	-169.59	169.59
-0.61	-22.96	22.96	-34.45	34.45
-1.07	-122.35	122.35	-183.53	183.53
-1.54	-119.75	119.75	-179.63	179.63
-2.00	-117.15	117.15	-175.73	175.73
-2.46	-117.08	117.08	-175.61	175.61
-2.92	-117.00	117.00	-175.50	175.50
-3.39	-117.04	117.04	-175.56	175.56
-3.85	-117.08	117.08	-175.62	175.62
-4.31	-119.37	119.37	-179.05	179.05
-4.77	-121.66	121.66	-182.49	182.49
-5.24	-95.27	95.27	-142.90	142.90
-5.70	-72.05	72.05	-108.08	108.08



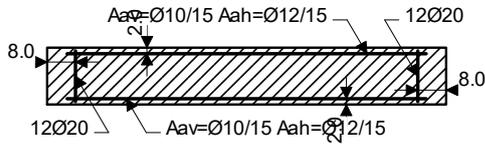
Presek [m]	N,min [kN]	N,max [kN]
45.85	-748.85	748.85
44.98	-143.49	143.49
44.10	-159.46	159.46
43.23	-161.07	161.07
42.35	-269.75	269.75
41.83	-332.57	332.57
41.30	-379.24	379.24
40.77	-377.45	377.45
40.25	-376.33	376.33
39.73	-331.95	331.95
39.20	-287.74	287.74
38.68	-488.40	488.40
38.15	-522.68	522.68
37.27	-792.93	792.93
36.40	-655.09	655.09
35.52	-627.13	627.13
34.65	-845.77	845.77
33.77	-799.91	799.91
32.90	-802.56	802.56
32.03	-769.34	769.34
31.15	-912.34	912.34
30.27	-1058.70	1058.70
29.40	-983.85	983.85
28.52	-953.38	953.38
27.65	-1105.92	1105.92
26.77	-1282.65	1282.65
25.90	-1187.12	1187.12
25.03	-1155.59	1155.59
24.15	-1320.93	1320.93
23.27	-1522.00	1522.00
22.40	-1411.46	1411.46
21.52	-1381.97	1381.97
20.65	-1547.09	1547.09
19.78	-1760.19	1760.19
18.90	-1637.34	1637.34
18.02	-1621.31	1621.31
17.15	-1767.71	1767.71
16.28	-1986.04	1986.04
15.40	-1861.40	1861.40
14.52	-1830.42	1830.42
13.65	-2059.85	2059.85
13.16	-2234.23	2234.23
12.66	-2381.32	2381.32
12.17	-2312.81	2312.81
11.68	-2244.50	2244.50
11.19	-2262.90	2262.90
10.69	-2281.30	2281.30
10.20	-2280.60	2280.60
9.71	-2279.89	2279.89
9.21	-2274.84	2274.84
8.72	-2269.79	2269.79
8.23	-2372.52	2372.52
7.74	-2475.33	2475.33
7.24	-2183.10	2183.10
6.75	-2099.29	2099.29
6.18	-2441.39	2441.39
5.60	-2593.62	2593.62
5.02	-2590.40	2590.40
4.45	-2587.29	2587.29
3.88	-2499.91	2499.91
3.30	-2474.52	2474.52
2.73	-2648.35	2648.35
2.15	-2768.55	2768.55
1.58	-2766.84	2766.84
1.00	-2765.16	2765.16
0.43	-2679.97	2679.97
-0.15	-2599.33	2599.33
-0.61	-2724.35	2724.35
-1.07	-2816.41	2816.41
-1.54	-2746.71	2746.71
-2.00	-2677.25	2677.25
-2.46	-2701.93	2701.93
-2.92	-2726.63	2726.63
-3.39	-2705.47	2705.47
-3.85	-2684.30	2684.30
-4.31	-2730.71	2730.71
-4.77	-2777.12	2777.12
-5.24	-2744.86	2744.86
-5.70	-2718.03	2718.03

**Ram: Gh13**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura S500N  
 Podužna armatura S500N  
 Kompletna šema opterećenja  
 (Proračunska anvelopa sila)

**SZ 7 Presek 1G - 1G (Z=5.60m)**

Merodavni presek za savijanje



$$b/d = 40/160 \text{ cm} \quad A_b = 6400 \text{ cm}^2$$

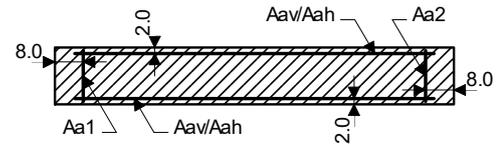
Merodavna kombinacija za savijanje: I-1.00xVIII  
 Merodavna kombinacija za smicanje: I+0.30xII+VIII  
 Med = 1457.90 kNm  
 Ned = 1052.93 kN  
 Ved = 685.18 kN (Vrd,max = 3082.24 kN)

$$\epsilon_b/\epsilon_a = -1.724/25.000 \text{ ‰}$$

Aa1 = 27.96 cm<sup>2</sup> (min:9.60) (usv:12Ø20)  
 Aa2 = 27.96 cm<sup>2</sup> (min:9.60) (usv:12Ø20)  
 Aav = ±4.90 cm<sup>2</sup>/m (min:±3.00) (usv:±Ø10/15)  
 Aah = ±6.16 cm<sup>2</sup>/m (min:±4.00) (usv:±Ø12/15)

**SZ 7 Presek 2G - 2G (Z=1.00m)**

Merodavni presek za smicanje



$$b/d = 40/160 \text{ cm} \quad A_b = 6400 \text{ cm}^2$$

Merodavna kombinacija za savijanje: I-1.00xVIII  
 Merodavna kombinacija za smicanje: I+0.30xII+VIII  
 Med = 1468.90 kNm  
 Ned = 736.29 kN  
 Ved = 1209.32 kN (Vrd,max = 3082.24 kN)

$$\epsilon_b/\epsilon_a = -1.880/25.000 \text{ ‰}$$

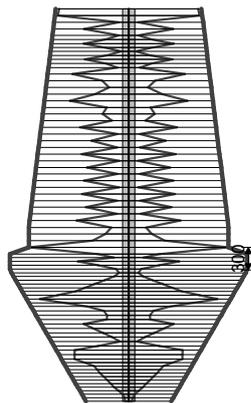
Aa1 = 25.18 cm<sup>2</sup> (min:9.60)  
 Aa2 = 25.18 cm<sup>2</sup> (min:9.60)  
 Aav = ±4.41 cm<sup>2</sup>/m (min:±3.00)  
 Aah = ±10.86 cm<sup>2</sup>/m (min:±4.00)

### Proračunska anvelopa sila

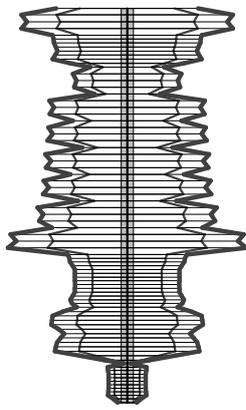
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

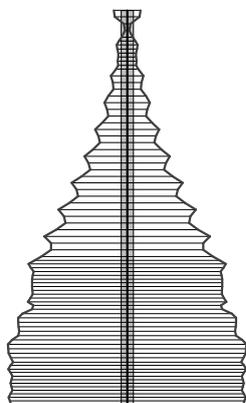
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-1014.39	1014.39	-1064.49	1064.49
44.98	-1035.05	1035.05	-1076.61	1076.61
44.10	-138.18	138.18	-1088.73	1088.73
43.23	-653.34	653.34	-1100.85	1100.85
42.35	-143.81	143.81	-1112.97	1112.97
41.83	-342.29	342.29	-1120.24	1120.24
41.30	-658.72	658.72	-1127.52	1127.52
40.77	-348.81	348.81	-1134.79	1134.79
40.25	-105.49	105.49	-1142.06	1142.06
39.73	-324.95	324.95	-1149.33	1149.33
39.20	-642.21	642.21	-1156.60	1156.60
38.68	-333.31	333.31	-1163.88	1163.88
38.15	-165.80	165.80	-1171.15	1171.15
37.27	-825.30	825.30	-1183.27	1183.27
36.40	-385.58	385.58	-1195.39	1195.39
35.52	-283.77	283.77	-1207.51	1207.51
34.65	-490.84	490.84	-1219.63	1219.63
33.77	-861.07	861.07	-1231.75	1231.75
32.90	-321.00	321.00	-1243.87	1243.87
32.03	-379.44	379.44	-1255.99	1255.99
31.15	-247.50	247.50	-1268.11	1268.11
30.27	-707.89	707.89	-1280.23	1280.23
29.40	-163.27	163.27	-1292.36	1292.36
28.52	-542.63	542.63	-1304.48	1304.48
27.65	-167.82	167.82	-1316.60	1316.60
26.77	-686.47	686.47	-1328.72	1328.72
25.90	-137.15	137.15	-1340.84	1340.84
25.03	-610.48	610.48	-1352.96	1352.96
24.15	-163.94	163.94	-1365.08	1365.08
23.27	-654.87	654.87	-1377.20	1377.20
22.40	-140.29	140.29	-1389.32	1389.32
21.52	-681.67	681.67	-1401.44	1401.44
20.65	-169.65	169.65	-1413.56	1413.56
19.78	-627.20	627.20	-1425.68	1425.68
18.90	-171.98	171.98	-1437.80	1437.80
18.02	-758.76	758.76	-1449.92	1449.92
17.15	-252.69	252.69	-1456.85	1456.85
16.28	-337.50	337.50	-1456.85	1456.85
15.40	-528.15	528.15	-1456.85	1456.85
14.52	-1456.85	1456.85	-1456.85	1456.85
13.65	-456.51	456.51	<b>-1735.61</b>	<b>1735.61</b>
13.16	-216.77	216.77	<b>-1735.61</b>	<b>1735.61</b>
12.66	-740.64	740.64	<b>-1735.61</b>	<b>1735.61</b>
12.17	-447.82	447.82	<b>-1735.61</b>	<b>1735.61</b>
11.68	-184.61	184.61	<b>-1735.61</b>	<b>1735.61</b>
11.19	-138.78	138.78	-1713.72	1713.72
10.69	-212.60	212.60	-1681.92	1681.92
10.20	-349.04	349.04	-1650.11	1650.11
9.71	-498.74	498.74	-1618.31	1618.31
9.21	-638.92	638.92	-1586.51	1586.51
8.72	-780.62	780.62	-1554.70	1554.70
8.23	-1038.22	1038.22	-1522.90	1522.90
7.74	-1297.51	1297.51	-1491.10	1491.10
7.24	-942.07	942.07	-1459.29	1459.29
6.75	-611.76	611.76	-1427.49	1427.49
6.18	-362.18	362.18	-1390.39	1390.39
5.60	-313.51	313.51	-1353.28	1353.28
5.03	-316.20	316.20	-1316.18	1316.18
4.45	-659.21	659.21	-1279.07	1279.07
3.88	-519.45	519.45	-1241.97	1241.97
3.30	-377.63	377.63	-1204.87	1204.87
2.73	-241.91	241.91	-1167.76	1167.76
2.15	-123.54	123.54	-1130.66	1130.66
1.58	-444.54	444.54	-1093.55	1093.55
1.00	-789.96	789.96	-1056.45	1056.45
0.43	-788.63	788.63	-1019.35	1019.35
-0.15	-788.66	788.66	-982.24	982.24
-0.61	-644.64	644.64	-952.40	952.40
-1.07	-502.33	502.33	-922.55	922.55
-1.54	-459.62	459.62	-892.71	892.71
-2.00	-417.12	417.12	-862.86	862.86
-2.46	-363.73	363.73	-833.02	833.02
-2.93	-310.39	310.39	-803.17	803.17
-3.39	-259.63	259.63	-773.33	773.33
-3.85	-209.01	209.01	-743.49	743.49
-4.31	-148.48	148.48	-713.64	713.64
-4.77	-89.39	89.39	-683.80	683.80
-5.24	-65.55	65.55	-653.95	653.95
-5.70	-44.15	44.15	-624.11	624.11



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
45.85	-387.44	387.44	-581.17	581.17
44.98	-577.78	577.78	-866.68	866.68
44.10	-548.55	548.55	-822.83	822.83
43.23	-578.52	578.52	-867.78	867.78
42.35	-406.79	406.79	-610.18	610.18
41.83	-402.53	402.53	-603.80	603.80
41.30	-400.36	400.36	-600.53	600.53
40.77	-390.14	390.14	-585.21	585.21
40.25	-379.93	379.93	-569.89	569.89
39.73	-393.20	393.20	-589.80	589.80
39.20	-406.47	406.47	-609.71	609.71
38.68	-311.54	311.54	-467.31	467.31
38.15	-201.45	201.45	-302.18	302.18
37.27	-296.13	296.13	-444.19	444.19
36.40	-275.98	275.98	-413.97	413.97
35.52	-289.42	289.42	-434.13	434.13
34.65	-178.35	178.35	-267.53	267.53
33.77	-424.51	424.51	-636.77	636.77
32.90	-399.99	399.99	-599.99	599.99
32.03	-423.00	423.00	-634.50	634.50
31.15	-296.99	296.99	-445.49	445.49
30.27	-430.45	430.45	-645.67	645.67
29.40	-406.64	406.64	-609.95	609.95
28.52	-436.02	436.02	-654.03	654.03
27.65	-246.10	246.10	-369.14	369.14
26.77	-447.04	447.04	-670.57	670.57
25.90	-417.19	417.19	-625.78	625.78
25.03	-443.19	443.19	-664.78	664.78
24.15	-310.65	310.65	-465.98	465.98
23.27	-455.76	455.76	-683.64	683.64
22.40	-429.26	429.26	-643.89	643.89
21.52	-460.22	460.22	-690.33	690.33
20.65	-268.48	268.48	-402.72	402.72
19.78	-489.90	489.90	-734.85	734.85
18.90	-457.76	457.76	-686.64	686.64
18.02	-481.33	481.33	-721.99	721.99
17.15	-411.09	411.09	-616.64	616.64
16.28	-637.56	637.56	-956.34	956.34
15.40	-606.90	606.90	-910.35	910.35
14.52	-651.94	651.94	<b>-977.90</b>	<b>977.90</b>
13.65	-325.27	325.27	-487.91	487.91
13.16	-316.65	316.65	-474.97	474.97
12.66	-311.98	311.98	-467.97	467.97
12.17	-298.47	298.47	-447.71	447.71
11.68	-284.97	284.97	-427.46	427.46
11.19	-284.93	284.93	-427.40	427.40
10.69	-284.89	284.89	-427.34	427.34
10.20	-284.85	284.85	-427.28	427.28
9.71	-284.82	284.82	-427.22	427.22
9.21	-284.98	284.98	-427.48	427.48
8.72	-285.15	285.15	-427.73	427.73
8.23	-298.08	298.08	-447.13	447.13
7.74	-311.02	311.02	-466.53	466.53
7.24	-301.57	301.57	-452.36	452.36
6.75	-275.80	275.80	-413.70	413.70
6.18	-352.70	352.70	-529.04	529.04
5.60	-407.63	407.63	-611.45	611.45
5.03	-411.08	411.08	-616.62	616.62
4.45	-414.58	414.58	-621.87	621.87
3.88	-374.66	374.66	-562.00	562.00
3.30	-343.00	343.00	-514.50	514.50
2.73	-363.51	363.51	-545.27	545.27
2.15	-383.10	383.10	-574.65	574.65
1.58	-389.05	389.05	-583.58	583.58
1.00	-395.02	395.02	-592.53	592.53
0.43	-258.39	258.39	-387.59	387.59
-0.15	-123.34	123.34	-185.01	185.01
-0.61	-18.36	18.36	-27.54	27.54
-1.07	-107.50	107.50	-161.25	161.25
-1.54	-104.72	104.72	-157.08	157.08
-2.00	-101.94	101.94	-152.92	152.92
-2.46	-101.86	101.86	-152.80	152.80
-2.93	-101.78	101.78	-152.68	152.68
-3.39	-101.82	101.82	-152.73	152.73
-3.85	-101.85	101.85	-152.78	152.78
-4.31	-103.50	103.50	-155.25	155.25
-4.77	-105.15	105.15	-157.73	157.73
-5.24	-76.67	76.67	-115.00	115.00
-5.70	-52.75	52.75	-79.13	79.13



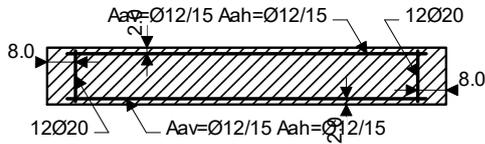
Presek [m]	N,min [kN]	N,max [kN]
45.85	-496.72	496.72
44.98	-458.98	458.98
44.10	-121.29	121.29
43.23	-78.32	78.32
42.35	-199.97	199.97
41.83	-297.17	297.17
41.30	-391.69	391.69
40.77	-357.07	357.07
40.25	-326.84	326.84
39.73	-330.47	330.47
39.20	-341.20	341.20
38.68	-328.82	328.82
38.15	-400.23	400.23
37.27	-594.60	594.60
36.40	-524.89	524.89
35.52	-499.65	499.65
34.65	-685.35	685.35
33.77	-826.08	826.08
32.90	-737.57	737.57
32.03	-697.16	697.16
31.15	-908.56	908.56
30.27	-1171.04	1171.04
29.40	-1053.62	1053.62
28.52	-1003.64	1003.64
27.65	-1255.52	1255.52
26.77	-1559.79	1559.79
25.90	-1418.70	1418.70
25.03	-1353.83	1353.83
24.15	-1666.40	1666.40
23.27	-2043.28	2043.28
22.40	-1860.50	1860.50
21.52	-1803.58	1803.58
20.65	-2123.88	2123.88
19.78	-2516.18	2516.18
18.90	-2312.50	2312.50
18.02	-2262.27	2262.27
17.15	-2597.91	2597.91
16.28	-3039.46	3039.46
15.40	-2792.78	2792.78
14.52	-2797.69	2797.69
13.65	-3136.41	3136.41
13.16	-3391.04	3391.04
12.66	-3617.49	3617.49
12.17	-3524.30	3524.30
11.68	-3431.75	3431.75
11.19	-3457.41	3457.41
10.69	-3483.09	3483.09
10.20	-3482.03	3482.03
9.71	-3480.97	3480.97
9.21	-3474.73	3474.73
8.72	-3468.51	3468.51
8.23	-3551.37	3551.37
7.74	-3636.44	3636.44
7.24	-3433.78	3433.78
6.75	-3480.93	3480.93
6.18	-3838.49	3838.49
5.60	-3999.71	3999.71
5.03	-3986.30	3986.30
4.45	-3973.24	3973.24
3.88	-3953.22	3953.22
3.30	-3991.53	3991.53
2.73	-4213.64	4213.64
2.15	-4368.96	4368.96
1.58	-4358.33	4358.33
1.00	-4347.91	4347.91
0.43	-4262.72	4262.72
-0.15	-4180.97	4180.97
-0.61	-4284.55	4284.55
-1.07	-4357.65	4357.65
-1.54	-4283.44	4283.44
-2.00	-4209.29	4209.29
-2.46	-4239.89	4239.89
-2.93	-4270.50	4270.50
-3.39	-4237.75	4237.75
-3.85	-4204.99	4204.99
-4.31	-4277.16	4277.16
-4.77	-4349.32	4349.32
-5.24	-4299.97	4299.97
-5.70	-4254.91	4254.91

**Ram: Gh20**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura S500N  
 Podužna armatura S500N  
 Kompletna šema opterećenja  
 (Proračunska anvelopa sila)

**SZ 8 Presek 1H - 1H (Z=12.66m)**

Merodavni presek za savijanje



$$b/d = 40/160 \text{ cm} \quad A_b = 6400 \text{ cm}^2$$

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+VIII

Med = 1690.34 kNm

Ned = 1944.79 kN

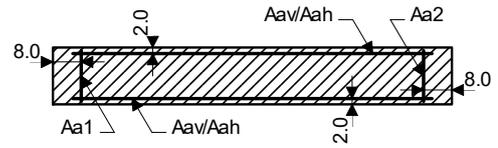
Ved = 541.90 kN (Vrd,max = 3082.24 kN)

$$\epsilon_b/\epsilon_a = -1.530/25.000 \text{ ‰}$$

$$\begin{aligned} A_{a1} &= 39.14 \text{ cm}^2 & (\text{min:}9.60) & \quad (\text{usv:}12\text{Ø}20) \\ A_{a2} &= 39.14 \text{ cm}^2 & (\text{min:}9.60) & \quad (\text{usv:}12\text{Ø}20) \\ A_{av} &= \pm 6.86 \text{ cm}^2/\text{m} & (\text{min:}\pm 3.00) & \quad (\text{usv:}\pm 12/15) \\ A_{ah} &= \pm 4.87 \text{ cm}^2/\text{m} & (\text{min:}\pm 4.00) & \quad (\text{usv:}\pm 12/15) \end{aligned}$$

**SZ 8 Presek 2H - 2H (Z=1.00m)**

Merodavni presek za smicanje



$$b/d = 40/160 \text{ cm} \quad A_b = 6400 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = 1363.69 kNm

Ned = 1998.73 kN

Ved = 1156.32 kN (Vrd,max = 3082.24 kN)

$$\epsilon_b/\epsilon_a = -1.293/25.000 \text{ ‰}$$

Aa1 = 35.51 cm<sup>2</sup> (min:9.60)

Aa2 = 35.51 cm<sup>2</sup> (min:9.60)

Aav = ±6.22 cm<sup>2</sup>/m (min:±3.00)

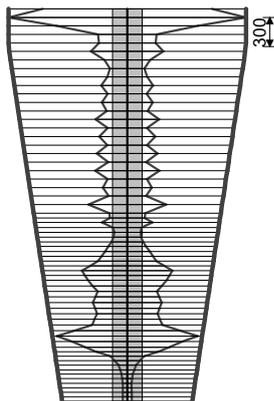
Aah = ±10.39 cm<sup>2</sup>/m (min:±4.00)

### Proračunska anvelopa sila

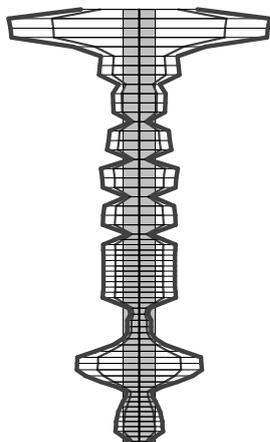
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

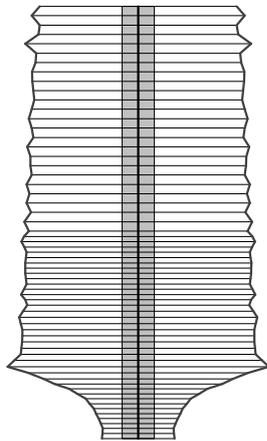
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
34.65	-9226.91	9226.91	<b>-12947.59</b>	<b>12947.59</b>
33.77	-12947.59	12947.59	<b>-12947.59</b>	<b>12947.59</b>
32.90	-7738.58	7738.58	<b>-12947.59</b>	<b>12947.59</b>
32.02	-3202.97	3202.97	<b>-12947.59</b>	<b>12947.59</b>
31.15	-3092.50	3092.50	<b>-12947.59</b>	<b>12947.59</b>
30.27	-3957.82	3957.82	-12867.32	12867.32
29.40	-2486.19	2486.19	-12726.84	12726.84
28.52	-1862.62	1862.62	-12586.37	12586.37
27.65	-2189.97	2189.97	-12445.90	12445.90
26.77	-2821.59	2821.59	-12305.43	12305.43
25.90	-2115.22	2115.22	-12164.95	12164.95
25.02	-2771.47	2771.47	-12024.48	12024.48
24.15	-2226.19	2226.19	-11884.01	11884.01
23.27	-3471.58	3471.58	-11743.54	11743.54
22.40	-2145.06	2145.06	-11603.06	11603.06
21.52	-3036.55	3036.55	-11462.59	11462.59
20.65	-2167.49	2167.49	-11322.12	11322.12
19.77	-3320.95	3320.95	-11181.64	11181.64
18.90	-2047.15	2047.15	-11041.17	11041.17
18.02	-3503.86	3503.86	-10900.70	10900.70
17.15	-2146.90	2146.90	-10760.23	10760.23
16.28	-2668.92	2668.92	-10619.75	10619.75
15.40	-2033.73	2033.73	-10479.28	10479.28
14.52	-4240.75	4240.75	-10338.81	10338.81
13.65	-1962.11	1962.11	-10198.33	10198.33
13.16	-1891.48	1891.48	-10119.21	10119.21
12.66	-2748.61	2748.61	-10040.09	10040.09
12.17	-1569.14	1569.14	-9960.96	9960.96
11.68	-1418.72	1418.72	-9881.84	9881.84
11.19	-1527.37	1527.37	-9802.72	9802.72
10.69	-1715.72	1715.72	-9723.59	9723.59
10.20	-2052.50	2052.50	-9644.47	9644.47
9.71	-2437.66	2437.66	-9565.35	9565.35
9.21	-2801.44	2801.44	-9486.22	9486.22
8.72	-3181.89	3181.89	-9407.10	9407.10
8.23	-4051.64	4051.64	-9327.98	9327.98
7.74	-4935.54	4935.54	-9248.85	9248.85
7.24	-4620.08	4620.08	-9169.73	9169.73
6.75	-4283.90	4283.90	-9090.61	9090.61
6.18	-3767.90	3767.90	-8998.30	8998.30
5.60	-3226.25	3226.25	-8905.99	8905.99
5.02	-3478.08	3478.08	-8813.67	8813.67
4.45	-3754.34	3754.34	-8721.36	8721.36
3.88	-3517.71	3517.71	-8629.05	8629.05
3.30	-3289.41	3289.41	-8536.74	8536.74
2.73	-3559.13	3559.13	-8444.43	8444.43
2.15	-3833.39	3833.39	-8352.12	8352.12
1.58	-5750.71	5750.71	-8259.81	8259.81
1.00	-7685.88	7685.88	-8167.50	8167.50
0.43	-6024.73	6024.73	-8075.19	8075.19
-0.15	-4558.32	4558.32	-7982.88	7982.88
-0.61	-3370.58	3370.58	-7908.63	7908.63
-1.08	-1832.44	1832.44	-7834.38	7834.38
-1.54	-1387.89	1387.89	-7760.13	7760.13
-2.00	-944.19	944.19	-7685.88	7685.88
-2.46	-775.60	775.60	-7611.63	7611.63
-2.92	-613.97	613.97	-7537.38	7537.38
-3.39	-539.57	539.57	-7463.13	7463.13
-3.85	-483.04	483.04	-7388.88	7388.88
-4.31	-476.89	476.89	-7314.63	7314.63
-4.77	-493.53	493.53	-7240.38	7240.38
-5.24	-501.83	501.83	-7166.13	7166.13
-5.70	-498.33	498.33	-7091.88	7091.88



Presek [m]	Sračunati		Povećani	
	T,min [kN]	T,max [kN]	T,min [kN]	T,max [kN]
34.65	-1570.85	1570.85	-2356.27	2356.27
33.77	-3515.80	3515.80	<b>-5273.70</b>	<b>5273.70</b>
32.90	-3460.55	3460.55	-5190.83	5190.83
32.02	-3436.46	3436.46	-5154.69	5154.69
31.15	-1787.54	1787.54	-2681.31	2681.31
30.27	-1026.35	1026.35	-1539.53	1539.53
29.40	-1055.96	1055.96	-1583.95	1583.95
28.52	-1085.02	1085.02	-1627.53	1627.53
27.65	-551.71	551.71	-827.57	827.57
26.77	-711.11	711.11	-1066.66	1066.66
25.90	-702.90	702.90	-1054.35	1054.35
25.02	-693.01	693.01	-1039.52	1039.52
24.15	-213.76	213.76	-320.64	320.64
23.27	-796.76	796.76	-1195.14	1195.14
22.40	-824.43	824.43	-1236.65	1236.65
21.52	-866.47	866.47	-1299.71	1299.71
20.65	-228.40	228.40	-342.59	342.59
19.77	-1034.59	1034.59	-1551.88	1551.88
18.90	-993.76	993.76	-1490.63	1490.63
18.02	-982.44	982.44	-1473.66	1473.66
17.15	-357.30	357.30	-535.96	535.96
16.28	-931.13	931.13	-1396.69	1396.69
15.40	-965.47	965.47	-1448.20	1448.20
14.52	-978.60	978.60	-1467.90	1467.90
13.65	-297.59	297.59	-446.39	446.39
13.16	-635.28	635.28	-952.92	952.92
12.66	-972.40	972.40	-1458.60	1458.60
12.17	-968.11	968.11	-1452.17	1452.17
11.68	-963.86	963.86	-1445.79	1445.79
11.19	-962.98	962.98	-1444.47	1444.47
10.69	-962.10	962.10	-1443.15	1443.15
10.20	-961.86	961.86	-1442.78	1442.78
9.71	-961.61	961.61	-1442.41	1442.41
9.21	-961.69	961.69	-1442.53	1442.53
8.72	-961.77	961.77	-1442.65	1442.65
8.23	-974.14	974.14	-1461.21	1461.21
7.74	-986.57	986.57	-1479.86	1479.86
7.24	-628.86	628.86	-943.29	943.29
6.75	-279.35	279.35	-419.03	419.03
6.18	-234.45	234.45	-351.67	351.67
5.60	-317.43	317.43	-476.15	476.15
5.02	-319.33	319.33	-478.99	478.99
4.45	-321.37	321.37	-482.05	482.05
3.88	-446.59	446.59	-669.88	669.88
3.30	-704.64	704.64	-1056.96	1056.96
2.73	-1175.52	1175.52	-1763.28	1763.28
2.15	-1660.00	1660.00	-2490.00	2490.00
1.58	-1672.89	1672.89	-2509.34	2509.34
1.00	-1685.80	1685.80	-2528.69	2528.69
0.43	-1441.80	1441.80	-2162.70	2162.70
-0.15	-1026.31	1026.31	-1539.47	1539.47
-0.61	-600.64	600.64	-900.96	900.96
-1.08	-340.81	340.81	-511.21	511.21
-1.54	-362.65	362.65	-543.98	543.98
-2.00	-436.72	436.72	-655.07	655.07
-2.46	-497.44	497.44	-746.15	746.15
-2.92	-564.87	564.87	-847.30	847.30
-3.39	-590.39	590.39	-885.59	885.59
-3.85	-616.52	616.52	-924.77	924.77
-4.31	-627.22	627.22	-940.83	940.83
-4.77	-638.61	638.61	-957.92	957.92
-5.24	-442.84	442.84	-664.26	664.26
-5.70	-266.82	266.82	-400.24	400.24



Presek [m]	N,min [kN]	N,max [kN]
34.65	-5169.24	5169.24
33.77	-5576.70	5576.70
32.90	-5160.80	5160.80
32.02	-5230.47	5230.47
31.15	-5920.07	5920.07
30.27	-5341.26	5341.26
29.40	-5389.08	5389.08
28.52	-5563.23	5563.23
27.65	-5548.16	5548.16
26.77	-5498.65	5498.65
25.90	-5449.35	5449.35
25.02	-5584.47	5584.47
24.15	-5735.40	5735.40
23.27	-5581.93	5581.93
22.40	-5511.26	5511.26
21.52	-5821.55	5821.55
20.65	-5662.20	5662.20
19.77	-5650.16	5650.16
18.90	-5570.53	5570.53
18.02	-5851.66	5851.66
17.15	-5691.77	5691.77
16.28	-5850.20	5850.20
15.40	-5624.25	5624.25
14.52	-5974.76	5974.76
13.65	-5730.27	5730.27
13.16	-5982.15	5982.15
12.66	-6109.96	6109.96
12.17	-5969.36	5969.36
11.68	-5843.78	5843.78
11.19	-5883.14	5883.14
10.69	-5922.59	5922.59
10.20	-5920.59	5920.59
9.71	-5918.61	5918.61
9.21	-5886.67	5886.67
8.72	-5854.75	5854.75
8.23	-5989.36	5989.36
7.74	-6137.99	6137.99
7.24	-5911.65	5911.65
6.75	-5820.16	5820.16
6.18	-6030.75	6030.75
5.60	-6236.54	6236.54
5.02	-6157.77	6157.77
4.45	-6079.51	6079.51
3.88	-6084.87	6084.87
3.30	-6093.95	6093.95
2.73	-6126.69	6126.69
2.15	-6162.49	6162.49
1.58	-6491.79	6491.79
1.00	-6850.01	6850.01
0.43	-5780.47	5780.47
-0.15	-4957.23	4957.23
-0.61	-4392.31	4392.31
-1.08	-3621.25	3621.25
-1.54	-3184.38	3184.38
-2.00	-2755.21	2755.21
-2.46	-2539.86	2539.86
-2.92	-2326.71	2326.71
-3.39	-2198.07	2198.07
-3.85	-2071.98	2071.98
-4.31	-1961.36	1961.36
-4.77	-1854.12	1854.12
-5.24	-1870.80	1870.80
-5.70	-1910.95	1910.95

**Ram: Gk31**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

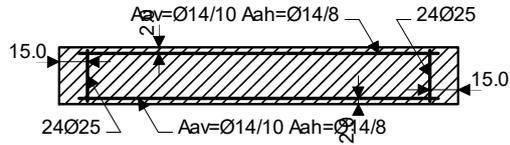
Ugaona armatura S500N

Podužna armatura S500N

Kompletna šema opterećenja

SZ9 Presek 1l - 1l (Z=33.77m)

Merodavni presek za savijanje i smicanje



$b/d = 40/300 \text{ cm}$   $A_b = 12000 \text{ cm}^2$

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

Med = -13988.83 kNm

Ned = 1822.68 kN

Ved = 3819.81 kN (Vrd,max = 5779.20 kN)

$\epsilon_b/\epsilon_a = -2.852/25.000 \text{ ‰}$

Aa1 = 112.14 cm<sup>2</sup> (min:18.00) (usv:24Ø25)

Aa2 = 112.14 cm<sup>2</sup> (min:18.00) (usv:24Ø25)

Aav = ±10.48 cm<sup>2</sup>/m (min:±3.00) (usv:±Ø14/10)

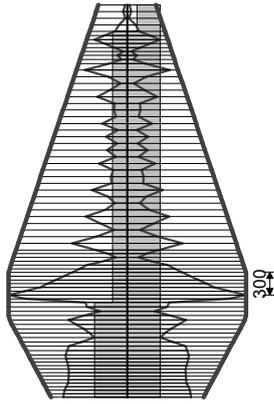
Aah = ±18.30 cm<sup>2</sup>/m (min:±4.00) (usv:±Ø14/8)

### Proračunska anvelopa sila

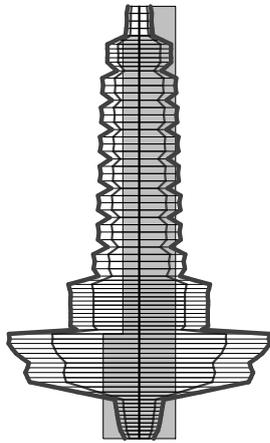
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

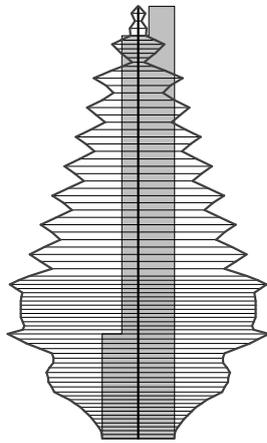
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
45.85	-871.17	871.17	-10554.51	10554.51
44.98	-1456.04	1456.04	-11375.27	11375.27
44.10	-599.80	599.80	-12196.04	12196.04
43.23	-3098.26	3098.26	-13016.80	13016.80
42.35	-4431.30	4431.30	-13837.56	13837.56
41.83	-8463.60	8463.60	-14330.02	14330.02
41.30	-12008.43	12008.43	-14822.48	14822.48
40.77	-8343.78	8343.78	-15314.94	15314.94
40.25	-4738.95	4738.95	-15807.40	15807.40
39.73	-1469.63	1469.63	-16299.86	16299.86
39.20	-3507.98	3507.98	-16792.31	16792.31
38.68	-2135.06	2135.06	-17284.77	17284.77
38.15	-6562.03	6562.03	-17777.23	17777.23
37.27	-15565.98	15565.98	-18598.00	18598.00
36.40	-6965.04	6965.04	-19418.76	19418.76
35.52	-2410.69	2410.69	-20239.52	20239.52
34.65	-6353.71	6353.71	-21060.29	21060.29
33.77	-10976.29	10976.29	-21881.05	21881.05
32.90	-4570.66	4570.66	-22701.82	22701.82
32.03	-4861.41	4861.41	-23522.58	23522.58
31.15	-4098.96	4098.96	-24343.34	24343.34
30.27	-9145.13	9145.13	-25164.11	25164.11
29.40	-3400.47	3400.47	-25984.87	25984.87
28.52	-7726.90	7726.90	-26805.64	26805.64
27.65	-3725.63	3725.63	-27626.40	27626.40
26.77	-7421.85	7421.85	-28447.16	28447.16
25.90	-4168.88	4168.88	-29267.93	29267.93
25.03	-10310.90	10310.90	-30088.69	30088.69
24.15	-5203.97	5203.97	-30909.46	30909.46
23.27	-5969.40	5969.40	-31730.22	31730.22
22.40	-5803.70	5803.70	-32550.98	32550.98
21.52	-12952.32	12952.32	-33371.75	33371.75
20.65	-6855.82	6855.82	-34192.51	34192.51
19.78	-4608.08	4608.08	-35013.28	35013.28
18.90	-8002.03	8002.03	-35834.04	35834.04
18.02	-15253.50	15253.50	-36654.80	36654.80
17.15	-9702.27	9702.27	-37475.57	37475.57
16.28	-4632.22	4632.22	-38296.33	38296.33
15.40	-11260.40	11260.40	-39117.10	39117.10
14.52	-20300.77	20300.77	-39937.86	39937.86
13.65	-11588.00	11588.00	-40758.62	40758.62
13.16	-7091.65	7091.65	-41220.93	41220.93
12.66	-4181.31	4181.31	-41683.24	41683.24
12.17	-8761.76	8761.76	-42145.55	42145.55
11.68	-14835.77	14835.77	-42607.85	42607.85
11.19	-17474.19	17474.19	-43070.16	43070.16
10.69	-20139.82	20139.82	<b>-43492.27</b>	<b>43492.27</b>
10.20	-23186.82	23186.82	<b>-43492.27</b>	<b>43492.27</b>
9.71	-26248.26	26248.26	<b>-43492.27</b>	<b>43492.27</b>
9.21	-29073.53	29073.53	<b>-43492.27</b>	<b>43492.27</b>
8.72	-31918.26	31918.26	<b>-43492.27</b>	<b>43492.27</b>
8.23	-37700.29	37700.29	<b>-43492.27</b>	<b>43492.27</b>
7.74	-43492.27	43492.27	<b>-43492.27</b>	<b>43492.27</b>
7.24	-36968.45	36968.45	<b>-43492.27</b>	<b>43492.27</b>
6.75	-15383.30	15383.30	<b>-43492.27</b>	<b>43492.27</b>
6.18	-14672.21	14672.21	<b>-43492.27</b>	<b>43492.27</b>
5.60	-9993.57	9993.57	<b>-43492.27</b>	<b>43492.27</b>
5.03	-15641.40	15641.40	<b>-43492.27</b>	<b>43492.27</b>
4.45	-21555.72	21555.72	-43065.53	43065.53
3.88	-18736.92	18736.92	-42206.71	42206.71
3.30	-15906.56	15906.56	-41347.90	41347.90
2.73	-13830.02	13830.02	-40489.08	40489.08
2.15	-12152.95	12152.95	-39630.26	39630.26
1.58	-16747.20	16747.20	-38771.45	38771.45
1.00	-21375.60	21375.60	-37912.63	37912.63
0.43	-21966.58	21966.58	-37053.82	37053.82
-0.15	-22589.05	22589.05	-36195.00	36195.00
-0.61	-22356.03	22356.03	-35504.21	35504.21
-1.07	-22070.02	22070.02	-34813.43	34813.43
-1.54	-21711.88	21711.88	-34122.64	34122.64
-2.00	-21367.38	21367.38	-33431.85	33431.85
-2.46	-21390.78	21390.78	-32741.07	32741.07
-2.93	-21440.35	21440.35	-32050.28	32050.28
-3.39	-21575.75	21575.75	-31359.49	31359.49
-3.85	-21724.74	21724.74	-30668.71	30668.71
-4.31	-22344.96	22344.96	-29977.92	29977.92
-4.77	-22980.74	22980.74	-29287.13	29287.13
-5.24	-23195.86	23195.86	-28596.35	28596.35
-5.70	-23424.78	23424.78	-27905.56	27905.56



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
45.85	-1032.36	1032.36	-1548.54	1548.54
44.98	-1119.02	1119.02	-1678.53	1678.53
44.10	-1113.03	1113.03	-1669.54	1669.54
43.23	-1176.16	1176.16	-1764.24	1764.24
42.35	-1244.12	1244.12	-1866.18	1866.18
41.83	-2090.63	2090.63	-3135.95	3135.95
41.30	-2879.38	2879.38	-4319.07	4319.07
40.77	-2853.36	2853.36	-4280.05	4280.05
40.25	-2827.37	2827.37	-4241.06	4241.06
39.73	-2847.44	2847.44	-4271.16	4271.16
39.20	-2867.51	2867.51	-4301.26	4301.26
38.68	-2468.07	2468.07	-3702.11	3702.11
38.15	-1983.73	1983.73	-2975.59	2975.59
37.27	-3330.70	3330.70	-4996.06	4996.06
36.40	-3234.54	3234.54	-4851.81	4851.81
35.52	-3317.93	3317.93	-4976.89	4976.89
34.65	-2481.52	2481.52	-3722.29	3722.29
33.77	-3438.34	3438.34	-5157.51	5157.51
32.90	-3322.23	3322.23	-4983.35	4983.35
32.03	-3422.52	3422.52	-5133.78	5133.78
31.15	-2468.83	2468.83	-3703.24	3703.24
30.27	-3540.55	3540.55	-5310.82	5310.82
29.40	-3420.97	3420.97	-5131.45	5131.45
28.52	-3525.47	3525.47	-5288.21	5288.21
27.65	-2565.77	2565.77	-3848.66	3848.66
26.77	-3568.84	3568.84	-5353.25	5353.25
25.90	-3455.14	3455.14	-5182.70	5182.70
25.03	-3558.39	3558.39	-5337.58	5337.58
24.15	-2542.62	2542.62	-3813.93	3813.93
23.27	-3718.33	3718.33	-5577.49	5577.49
22.40	-3584.35	3584.35	-5376.52	5376.52
21.52	-3696.10	3696.10	-5544.16	5544.16
20.65	-2658.11	2658.11	-3987.16	3987.16
19.78	-3738.30	3738.30	-5607.45	5607.45
18.90	-3618.67	3618.67	-5428.00	5428.00
18.02	-3711.15	3711.15	-5566.72	5566.72
17.15	-2842.03	2842.03	-4263.04	4263.04
16.28	-4148.99	4148.99	-6223.49	6223.49
15.40	-4003.88	4003.88	-6005.82	6005.82
14.52	-4113.39	4113.39	-6170.08	6170.08
13.65	-3687.21	3687.21	-5530.81	5530.81
13.16	-4969.43	4969.43	-7454.15	7454.15
12.66	-6378.85	6378.85	-9568.27	9568.27
12.17	-6277.97	6277.97	-9416.95	9416.95
11.68	-6177.09	6177.09	-9265.64	9265.64
11.19	-6182.12	6182.12	-9273.18	9273.18
10.69	-6187.15	6187.15	-9280.73	9280.73
10.20	-6185.15	6185.15	-9277.72	9277.72
9.71	-6183.14	6183.14	-9274.71	9274.71
9.21	-6169.81	6169.81	-9254.72	9254.72
8.72	-6156.48	6156.48	-9234.73	9234.73
8.23	-6174.71	6174.71	-9262.07	9262.07
7.74	-6192.95	6192.95	-9289.42	9289.42
7.24	-5660.20	5660.20	-8490.30	8490.30
6.75	-11723.72	11723.72	-17585.58	17585.58
6.18	-11673.30	11673.30	-17509.95	17509.95
5.60	-11761.40	11761.40	<b>-17642.09</b>	<b>17642.09</b>
5.03	-11429.41	11429.41	-17144.11	17144.11
4.45	-11097.75	11097.75	-16646.63	16646.63
3.88	-10539.08	10539.08	-15808.62	15808.62
3.30	-9933.63	9933.63	-14900.44	14900.44
2.73	-10027.47	10027.47	-15041.21	15041.21
2.15	-10232.29	10232.29	-15348.43	15348.43
1.58	-10045.51	10045.51	-15068.26	15068.26
1.00	-9859.17	9859.17	-14788.75	14788.75
0.43	-7743.08	7743.08	-11614.62	11614.62
-0.15	-5599.90	5599.90	-8399.85	8399.85
-0.61	-3874.20	3874.20	-5811.30	5811.30
-1.07	-2198.69	2198.69	-3298.03	3298.03
-1.54	-2150.15	2150.15	-3225.23	3225.23
-2.00	-2101.81	2101.81	-3152.72	3152.72
-2.46	-2038.82	2038.82	-3058.23	3058.23
-2.93	-1975.89	1975.89	-2963.84	2963.84
-3.39	-1909.46	1909.46	-2864.18	2864.18
-3.85	-1843.12	1843.12	-2764.68	2764.68
-4.31	-1762.33	1762.33	-2643.50	2643.50
-4.77	-1683.07	1683.07	-2524.60	2524.60
-5.24	-1478.23	1478.23	-2217.34	2217.34
-5.70	-1303.43	1303.43	-1955.14	1955.14



Presek [m]	N,min [kN]	N,max [kN]
45.85	-124.71	124.71
44.98	-1198.86	1198.86
44.10	-601.65	601.65
43.23	-1497.90	1497.90
42.35	-1378.97	1378.97
41.83	-3050.52	3050.52
41.30	-4569.18	4569.18
40.77	-3761.23	3761.23
40.25	-2953.48	2953.48
39.73	-1985.73	1985.73
39.20	-1037.30	1037.30
38.68	-2780.20	2780.20
38.15	-4780.66	4780.66
37.27	-7723.33	7723.33
36.40	-5614.72	5614.72
35.52	-4333.98	4333.98
34.65	-6329.30	6329.30
33.77	-8949.84	8949.84
32.90	-7322.12	7322.12
32.03	-5827.96	5827.96
31.15	-8267.16	8267.16
30.27	-10897.05	10897.05
29.40	-9152.23	9152.23
28.52	-7639.70	7639.70
27.65	-10222.35	10222.35
26.77	-12877.12	12877.12
25.90	-11090.27	11090.27
25.03	-9493.65	9493.65
24.15	-12255.15	12255.15
23.27	-14986.07	14986.07
22.40	-13101.41	13101.41
21.52	-11585.01	11585.01
20.65	-14232.31	14232.31
19.78	-17014.67	17014.67
18.90	-15091.16	15091.16
18.02	-13570.80	13570.80
17.15	-16375.90	16375.90
16.28	-18931.09	18931.09
15.40	-17046.17	17046.17
14.52	-15065.54	15065.54
13.65	-19038.43	19038.43
13.16	-20888.37	20888.37
12.66	-22448.41	22448.41
12.17	-21352.63	21352.63
11.68	-20258.57	20258.57
11.19	-20376.00	20376.00
10.69	-20493.45	20493.45
10.20	-20483.14	20483.14
9.71	-20472.83	20472.83
9.21	-20489.89	20489.89
8.72	-20506.97	20506.97
8.23	-20183.52	20183.52
7.74	-19861.17	19861.17
7.24	-20162.34	20162.34
6.75	-22822.40	22822.40
6.18	-21054.42	21054.42
5.60	-19488.69	19488.69
5.03	-17191.11	17191.11
4.45	-15068.12	15068.12
3.88	-14798.00	14798.00
3.30	-14849.18	14849.18
2.73	-15476.23	15476.23
2.15	-16008.28	16008.28
1.58	-15742.98	15742.98
1.00	-15685.73	15685.73
0.43	-15086.65	15086.65
-0.15	-14691.91	14691.91
-0.61	-13401.26	13401.26
-1.07	-12020.92	12020.92
-1.54	-11043.26	11043.26
-2.00	-10066.56	10066.56
-2.46	-9347.61	9347.61
-2.93	-8629.69	8629.69
-3.39	-8043.23	8043.23
-3.85	-7457.94	7457.94
-4.31	-6967.99	6967.99
-4.77	-6501.59	6501.59
-5.24	-6380.80	6380.80
-5.70	-6299.01	6299.01

**Ram: Gv3**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura S500N

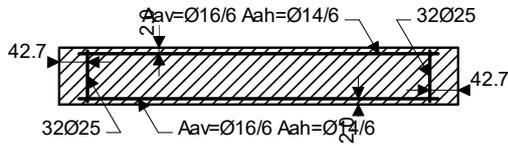
Podužna armatura S500N

Kompletna šema opterećenja

(Proračunska anvelopa sila)

**SZ10 Presek 1J - 1J (Z=12.66m)**

Merodavni presek za savijanje



$$b/d = 40/620.635 \text{ cm} \quad A_b = 24825.4 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

Med = 46508.32 kNm

Ned = 12147.66 kN

Ved = 7111.18 kN (Vrd,max = 11955.91 kN)

$$\epsilon_b/\epsilon_a = -2.349/25.000 \text{ ‰}$$

$$A_{a1} = 268.57 \text{ cm}^2 \quad (\text{min}:37.24) \quad (\text{usv}:32\text{Ø}25)$$

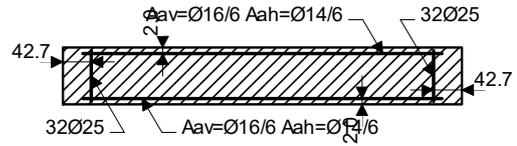
$$A_{a2} = 268.57 \text{ cm}^2 \quad (\text{min}:37.24) \quad (\text{usv}:32\text{Ø}25)$$

$$A_{av} = \pm 12.67 \text{ cm}^2/\text{m} \quad (\text{min}:\pm 3.00) \quad (\text{usv}:\pm \text{Ø}16/6)$$

$$A_{ah} = \pm 16.47 \text{ cm}^2/\text{m} \quad (\text{min}:\pm 4.00) \quad (\text{usv}:\pm \text{Ø}14/6)$$

**SZ10 Presek 2J - 2J (Z=5.60m)**

Merodavni presek za smicanje



$$b/d = 40/854.817 \text{ cm} \quad A_b = 34192.7 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

Med = 48612.84 kNm

Ned = 9343.11 kN

Ved = 14056.83 kN (Vrd,max = 16467.20 kN)

$$\epsilon_b/\epsilon_a = -1.607/25.000 \text{ ‰}$$

$$A_{a1} = 200.30 \text{ cm}^2 \quad (\text{min}:51.29) \quad (\text{usv}:32\text{Ø}25)$$

$$A_{a2} = 200.30 \text{ cm}^2 \quad (\text{min}:51.29) \quad (\text{usv}:32\text{Ø}25)$$

$$A_{av} = \pm 6.57 \text{ cm}^2/\text{m} \quad (\text{min}:\pm 3.00) \quad (\text{usv}:\pm \text{Ø}16/6)$$

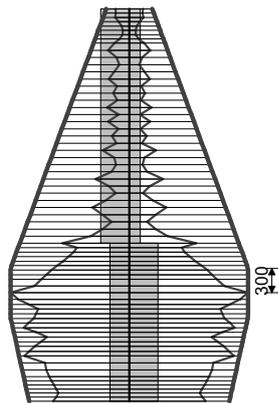
$$A_{ah} = \pm 23.64 \text{ cm}^2/\text{m} \quad (\text{min}:\pm 4.00) \quad (\text{usv}:\pm \text{Ø}14/6)$$

### Proračunska anvelopa sila

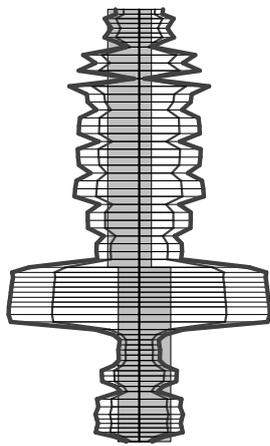
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

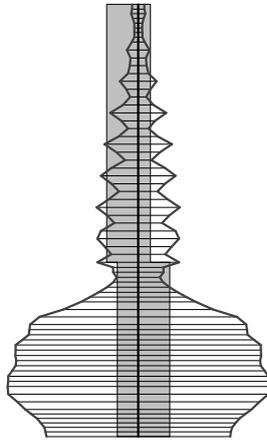
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
42.35	-1916.01	1916.01	-3158.65	3158.65
41.83	-1818.11	1818.11	-3376.11	3376.11
41.30	-1948.28	1948.28	-3593.57	3593.57
40.77	-1469.06	1469.06	-3811.03	3811.03
40.25	-1036.89	1036.89	-4028.49	4028.49
39.73	-871.08	871.08	-4245.96	4245.96
39.20	-903.24	903.24	-4463.42	4463.42
38.68	-1295.06	1295.06	-4680.88	4680.88
38.15	-2015.71	2015.71	-4898.34	4898.34
37.27	-2887.66	2887.66	-5260.77	5260.77
36.40	-1771.44	1771.44	-5623.21	5623.21
35.52	-1391.28	1391.28	-5985.65	5985.65
34.65	-2080.28	2080.28	-6348.08	6348.08
33.77	-2840.66	2840.66	-6710.52	6710.52
32.90	-1649.33	1649.33	-7072.95	7072.95
32.02	-2198.88	2198.88	-7435.39	7435.39
31.15	-1602.77	1602.77	-7797.82	7797.82
30.27	-3051.73	3051.73	-8160.26	8160.26
29.40	-1456.89	1456.89	-8522.69	8522.69
28.52	-2884.39	2884.39	-8885.13	8885.13
27.65	-1494.76	1494.76	-9247.56	9247.56
26.77	-2391.51	2391.51	-9610.00	9610.00
25.90	-1742.91	1742.91	-9972.43	9972.43
25.02	-3684.17	3684.17	-10334.87	10334.87
24.15	-2084.08	2084.08	-10697.31	10697.31
23.27	-1790.16	1790.16	-11059.74	11059.74
22.40	-2435.73	2435.73	-11422.18	11422.18
21.52	-4654.50	4654.50	-11784.61	11784.61
20.65	-2844.72	2844.72	-12147.05	12147.05
19.77	-1868.65	1868.65	-12509.48	12509.48
18.90	-3240.13	3240.13	-12871.92	12871.92
18.02	-5099.96	5099.96	-13234.35	13234.35
17.15	-3636.10	3636.10	-13596.79	13596.79
16.27	-2443.33	2443.33	-13959.22	13959.22
15.40	-3641.16	3641.16	-14321.66	14321.66
14.52	-5280.37	5280.37	-14684.10	14684.10
13.65	-9210.84	9210.84	-15046.53	15046.53
13.10	-7216.36	7216.36	-15274.35	15274.35
12.55	-7646.81	7646.81	-15502.16	15502.16
12.00	-8334.54	8334.54	-15729.98	15729.98
11.45	-9112.21	9112.21	-15957.80	15957.80
10.90	-9908.73	9908.73	-16185.61	16185.61
10.35	-10720.21	10720.21	<b>-16316.78</b>	<b>16316.78</b>
9.80	-11377.72	11377.72	<b>-16316.78</b>	<b>16316.78</b>
9.25	-12045.31	12045.31	<b>-16316.78</b>	<b>16316.78</b>
8.42	-13056.51	13056.51	<b>-16316.78</b>	<b>16316.78</b>
7.58	-16316.78	16316.78	<b>-16316.78</b>	<b>16316.78</b>
6.75	-15224.13	15224.13	<b>-16316.78</b>	<b>16316.78</b>
6.17	-13808.22	13808.22	<b>-16316.78</b>	<b>16316.78</b>
5.60	-12507.76	12507.76	<b>-16316.78</b>	<b>16316.78</b>
5.02	-12802.11	12802.11	<b>-16316.78</b>	<b>16316.78</b>
4.45	-13104.98	13104.98	-16283.59	16283.59
3.87	-13887.99	13887.99	-16140.46	16140.46
3.30	-14471.61	14471.61	-15997.33	15997.33
2.72	-12748.81	12748.81	-15854.20	15854.20
2.15	-11336.15	11336.15	-15711.07	15711.07
1.58	-12167.12	12167.12	-15567.94	15567.94
1.00	-13003.03	13003.03	-15424.81	15424.81
0.42	-13711.57	13711.57	-15281.68	15281.68
-0.15	-14391.78	14391.78	-15138.54	15138.54
-1.00	-11578.23	11578.23	-14926.96	14926.96
-1.85	-11378.52	11378.52	-14715.38	14715.38
-2.70	-10987.49	10987.49	-14503.79	14503.79
-3.20	-10671.15	10671.15	-14379.33	14379.33
-3.70	-10356.04	10356.04	-14254.87	14254.87
-4.20	-10006.95	10006.95	-14130.41	14130.41
-4.70	-9691.12	9691.12	-14005.94	14005.94
-5.20	-10045.33	10045.33	-13881.48	13881.48
-5.70	-10469.79	10469.79	-13757.02	13757.02



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
42.35	-341.63	341.63	-512.45	512.45
41.83	-335.32	335.32	-502.97	502.97
41.30	-496.81	496.81	-745.22	745.22
40.77	-448.31	448.31	-672.47	672.47
40.25	-404.83	404.83	-607.24	607.24
39.73	-449.14	449.14	-673.72	673.72
39.20	-498.57	498.57	-747.85	747.85
38.68	-321.19	321.19	-481.79	481.79
38.15	-196.26	196.26	-294.39	294.39
37.27	-807.20	807.20	-1210.80	1210.80
36.40	-631.93	631.93	-947.89	947.89
35.52	-869.28	869.28	-1303.92	1303.92
34.65	-74.87	74.87	-112.31	112.31
33.77	-1007.27	1007.27	-1510.90	1510.90
32.90	-757.49	757.49	-1136.24	1136.24
32.02	-739.37	739.37	-1109.06	1109.06
31.15	-613.50	613.50	-920.26	920.26
30.27	-853.99	853.99	-1280.98	1280.98
29.40	-864.74	864.74	-1297.12	1297.12
28.52	-870.94	870.94	-1306.41	1306.41
27.65	-582.00	582.00	-873.01	873.01
26.77	-885.23	885.23	-1327.85	1327.85
25.90	-878.32	878.32	-1317.49	1317.49
25.02	-865.33	865.33	-1297.99	1297.99
24.15	-701.35	701.35	-1052.03	1052.03
23.27	-903.88	903.88	-1355.82	1355.82
22.40	-919.19	919.19	-1378.78	1378.78
21.52	-928.96	928.96	-1393.44	1393.44
20.65	-573.13	573.13	-859.69	859.69
19.77	-739.99	739.99	-1109.99	1109.99
18.90	-738.42	738.42	-1107.63	1107.63
18.02	-737.68	737.68	-1106.53	1106.53
17.15	-508.65	508.65	-762.97	762.97
16.27	-611.85	611.85	-917.78	917.78
15.40	-617.38	617.38	-926.07	926.07
14.52	-602.10	602.10	-903.15	903.15
13.65	-1582.50	1582.50	-2373.75	2373.75
13.10	-1829.58	1829.58	-2744.37	2744.37
12.55	-1816.35	1816.35	-2724.52	2724.52
12.00	-1826.08	1826.08	-2739.12	2739.12
11.45	-1836.12	1836.12	-2754.18	2754.18
10.90	-1846.77	1846.77	-2770.16	2770.16
10.35	-1857.45	1857.45	-2786.17	2786.17
9.80	-1866.86	1866.86	-2800.30	2800.30
9.25	-1876.33	1876.33	-2814.49	2814.49
8.42	-1881.06	1881.06	<b>-2821.58</b>	<b>2821.58</b>
7.58	-1850.68	1850.68	-2776.02	2776.02
6.75	-634.79	634.79	-952.18	952.18
6.17	-376.72	376.72	-565.07	565.07
5.60	-282.60	282.60	-423.91	423.91
5.02	-286.89	286.89	-430.34	430.34
4.45	-301.50	301.50	-452.25	452.25
3.87	-295.86	295.86	-443.79	443.79
3.30	-294.52	294.52	-441.78	441.78
2.72	-370.69	370.69	-556.03	556.03
2.15	-543.79	543.79	-815.69	815.69
1.58	-536.21	536.21	-804.32	804.32
1.00	-530.50	530.50	-795.75	795.75
0.42	-344.21	344.21	-516.31	516.31
-0.15	-266.73	266.73	-400.10	400.10
-1.00	-603.66	603.66	-905.49	905.49
-1.85	-587.35	587.35	-881.02	881.02
-2.70	-630.12	630.12	-945.18	945.18
-3.20	-612.14	612.14	-918.20	918.20
-3.70	-596.30	596.30	-894.46	894.46
-4.20	-611.40	611.40	-917.11	917.11
-4.70	-627.39	627.39	-941.09	941.09
-5.20	-348.00	348.00	-522.00	522.00
-5.70	-182.30	182.30	-273.45	273.45



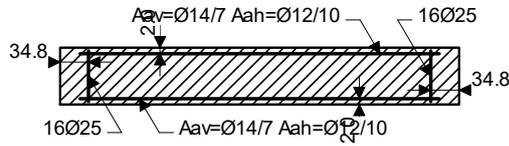
Presek [m]	N,min [kN]	N,max [kN]
42.35	-437.93	437.93
41.83	-445.59	445.59
41.30	-523.60	523.60
40.77	-396.91	396.91
40.25	-301.55	301.55
39.73	-272.35	272.35
39.20	-302.33	302.33
38.68	-297.29	297.29
38.15	-468.61	468.61
37.27	-844.52	844.52
36.40	-558.47	558.47
35.52	-604.31	604.31
34.65	-751.06	751.06
33.77	-1350.87	1350.87
32.90	-885.43	885.43
32.02	-597.57	597.57
31.15	-1101.18	1101.18
30.27	-2053.60	2053.60
29.40	-1230.36	1230.36
28.52	-750.00	750.00
27.65	-1449.11	1449.11
26.77	-2477.15	2477.15
25.90	-1610.99	1610.99
25.02	-974.17	974.17
24.15	-1979.31	1979.31
23.27	-2739.28	2739.28
22.40	-1974.49	1974.49
21.52	-1406.77	1406.77
20.65	-2164.83	2164.83
19.77	-3051.91	3051.91
18.90	-2292.73	2292.73
18.02	-1737.10	1737.10
17.15	-2735.19	2735.19
16.27	-2997.29	2997.29
15.40	-2467.26	2467.26
14.52	-1990.90	1990.90
13.65	-3005.10	3005.10
13.10	-1841.06	1841.06
12.55	-1846.27	1846.27
12.00	-1569.93	1569.93
11.45	-1828.88	1828.88
10.90	-2299.60	2299.60
10.35	-2908.07	2908.07
9.80	-3551.04	3551.04
9.25	-4208.85	4208.85
8.42	-5507.15	5507.15
7.58	-7255.30	7255.30
6.75	-7936.56	7936.56
6.17	-7977.16	7977.16
5.60	-8045.51	8045.51
5.02	-8503.73	8503.73
4.45	-8985.49	8985.49
3.87	-9001.59	9001.59
3.30	-9029.61	9029.61
2.72	-8963.43	8963.43
2.15	-8983.61	8983.61
1.58	-9261.48	9261.48
1.00	-9540.95	9540.95
0.42	-9554.03	9554.03
-0.15	-9592.09	9592.09
-1.00	-9522.24	9522.24
-1.85	-8895.43	8895.43
-2.70	-8302.24	8302.24
-3.20	-7867.02	7867.02
-3.70	-7432.40	7432.40
-4.20	-7159.60	7159.60
-4.70	-6887.59	6887.59
-5.20	-6797.34	6797.34
-5.70	-6749.50	6749.50

**Ram: Gv11**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura S500N  
 Podužna armatura S500N  
 Kompletna šema opterećenja  
 (Proračunska anvelopa sila)

**SZ11 Presek 1K - 1K (Z=8.42m)**

Merodavni presek za smicanje



$$b/d = 40/580.635 \text{ cm} \quad A_b = 23225.4 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII-1.00xVIII

Med = 18245.87 kNm

Ned = 111.21 kN

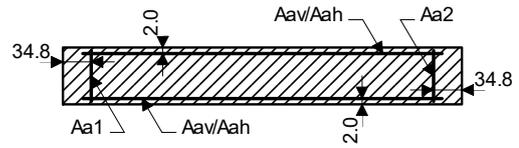
Ved = -3187.39 kN (Vrd,max = 13493.60 kN)

$$\epsilon_b/\epsilon_a = -2.384/25.000 \text{ ‰}$$

$$\begin{aligned} A_{a1} &= 64.75 \text{ cm}^2 & (\text{min:}34.84) & \quad (\text{usv:}16\text{Ø}25) \\ A_{a2} &= 64.75 \text{ cm}^2 & (\text{min:}34.84) & \quad (\text{usv:}16\text{Ø}25) \\ A_{av} &= \pm 3.20 \text{ cm}^2/\text{m} & (\text{min:}\pm 3.00) & \quad (\text{usv:}\pm\text{Ø}14/7) \\ A_{ah} &= \pm 7.89 \text{ cm}^2/\text{m} & (\text{min:}\pm 4.00) & \quad (\text{usv:}\pm\text{Ø}12/10) \end{aligned}$$

**SZ11 Presek 2K - 2K (Z=-1.00m)**

Merodavni presek za savijanje



$$b/d = 40/580.635 \text{ cm} \quad A_b = 23225.4 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

Med = 17450.25 kNm

Ned = 3873.99 kN

Ved = 2734.70 kN (Vrd,max = 11185.35 kN)

$$\epsilon_b/\epsilon_a = -1.802/25.000 \text{ ‰}$$

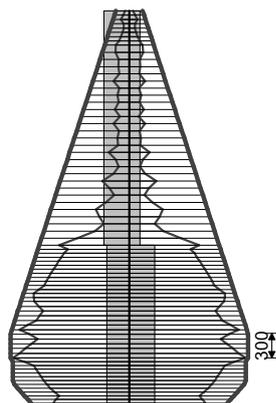
Aa1 = 96.65 cm<sup>2</sup> (min:34.84)Aa2 = 96.65 cm<sup>2</sup> (min:34.84)Aav = ±4.77 cm<sup>2</sup>/m (min:±3.00)Aah = ±6.77 cm<sup>2</sup>/m (min:±4.00)

### Proračunska anvelopa sila

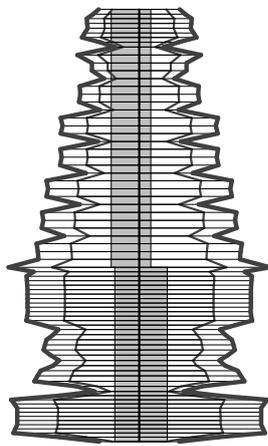
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

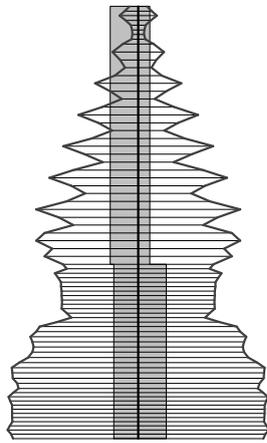
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
42.35	-533.24	533.24	-1784.43	1784.43
41.83	-798.82	798.82	-1971.62	1971.62
41.30	-1089.14	1089.14	-2158.81	2158.81
40.77	-785.72	785.72	-2346.01	2346.01
40.25	-726.36	726.36	-2533.20	2533.20
39.73	-896.71	896.71	-2720.39	2720.39
39.20	-1114.06	1114.06	-2907.59	2907.59
38.68	-1377.26	1377.26	-3094.78	3094.78
38.15	-1790.29	1790.29	-3281.97	3281.97
37.27	-1867.06	1867.06	-3593.96	3593.96
36.40	-1419.85	1419.85	-3905.95	3905.95
35.52	-1457.56	1457.56	-4217.94	4217.94
34.65	-1353.64	1353.64	-4529.92	4529.92
33.77	-2099.08	2099.08	-4841.91	4841.91
32.90	-1314.57	1314.57	-5153.90	5153.90
32.02	-1581.75	1581.75	-5465.89	5465.89
31.15	-1399.69	1399.69	-5777.88	5777.88
30.28	-1939.18	1939.18	-6089.87	6089.87
29.40	-1235.77	1235.77	-6401.85	6401.85
28.52	-2114.55	2114.55	-6713.84	6713.84
27.65	-1381.50	1381.50	-7025.83	7025.83
26.77	-1560.04	1560.04	-7337.82	7337.82
25.90	-1471.43	1471.43	-7649.81	7649.81
25.03	-2734.74	2734.74	-7961.80	7961.80
24.15	-1807.72	1807.72	-8273.78	8273.78
23.28	-1415.59	1415.59	-8585.77	8585.77
22.40	-2102.63	2102.63	-8897.76	8897.76
21.53	-3611.40	3611.40	-9209.75	9209.75
20.65	-2642.38	2642.38	-9521.74	9521.74
19.77	-2014.82	2014.82	-9833.73	9833.73
18.90	-3107.28	3107.28	-10145.71	10145.71
18.03	-4475.18	4475.18	-10457.70	10457.70
17.15	-4019.84	4019.84	-10769.69	10769.69
16.28	-3412.52	3412.52	-11081.68	11081.68
15.40	-4576.09	4576.09	-11393.67	11393.67
14.52	-6905.54	6905.54	-11705.66	11705.66
13.65	-9361.80	9361.80	-12017.64	12017.64
13.16	-8191.33	8191.33	-12193.38	12193.38
12.66	-8729.27	8729.27	-12369.11	12369.11
12.17	-9066.78	9066.78	-12544.84	12544.84
11.68	-9427.21	9427.21	-12720.57	12720.57
11.19	-9769.66	9769.66	-12896.31	12896.31
10.69	-10120.50	10120.50	-13072.04	13072.04
10.20	-10457.64	10457.64	-13247.77	13247.77
9.71	-10801.78	10801.78	-13423.50	13423.50
9.21	-11080.78	11080.78	-13599.23	13599.23
8.72	-11365.33	11365.33	-13774.97	13774.97
8.23	-12065.12	12065.12	-13950.70	13950.70
7.74	-12772.24	12772.24	-14126.43	14126.43
7.24	-12760.80	12760.80	-14302.16	14302.16
6.75	-12660.81	12660.81	-14477.90	14477.90
6.17	-12069.15	12069.15	-14682.92	14682.92
5.60	-11538.67	11538.67	-14887.94	14887.94
5.02	-11980.20	11980.20	-15092.96	15092.96
4.45	-12428.99	12428.99	-15297.98	15297.98
3.87	-13572.37	13572.37	-15503.00	15503.00
3.30	-14638.35	14638.35	-15708.02	15708.02
2.73	-13306.34	13306.34	<b>-15868.47</b>	<b>15868.47</b>
2.15	-12224.03	12224.03	<b>-15868.47</b>	<b>15868.47</b>
1.57	-13037.28	13037.28	<b>-15868.47</b>	<b>15868.47</b>
1.00	-13856.08	13856.08	<b>-15868.47</b>	<b>15868.47</b>
0.43	-14649.53	14649.53	<b>-15868.47</b>	<b>15868.47</b>
-0.15	-15574.01	15574.01	<b>-15868.47</b>	<b>15868.47</b>
-0.61	-14051.32	14051.32	-15574.01	15574.01
-1.08	-12786.08	12786.08	-15574.01	15574.01
-1.54	-12449.52	12449.52	-15574.01	15574.01
-2.00	-12114.86	12114.86	-15574.01	15574.01
-2.46	-11776.22	11776.22	-15574.01	15574.01
-2.92	-11440.77	11440.77	-15574.01	15574.01
-3.39	-10998.99	10998.99	-15343.68	15343.68
-3.85	-10560.27	10560.27	-14895.14	14895.14
-4.31	-9967.80	9967.80	-14446.60	14446.60
-4.78	-9391.64	9391.64	-13998.06	13998.06
-5.24	-9790.70	9790.70	-13549.53	13549.53
-5.70	-10191.55	10191.55	-13100.99	13100.99



Presek [m]	Sračunati		Povećani	
	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]	T <sub>,min</sub> [kN]	T <sub>,max</sub> [kN]
42.35	-314.73	314.73	-472.09	472.09
41.83	-359.21	359.21	-538.81	538.81
41.30	-409.56	409.56	-614.34	614.34
40.77	-405.66	405.66	-608.49	608.49
40.25	-401.79	401.79	-602.69	602.69
39.73	-422.27	422.27	-633.41	633.41
39.20	-446.12	446.12	-669.18	669.18
38.68	-303.96	303.96	-455.95	455.95
38.15	-189.48	189.48	-284.21	284.21
37.27	-481.62	481.62	-722.43	722.43
36.40	-368.21	368.21	-552.32	552.32
35.52	-368.13	368.13	-552.19	552.19
34.65	-272.73	272.73	-409.09	409.09
33.77	-463.74	463.74	-695.62	695.62
32.90	-458.60	458.60	-687.90	687.90
32.02	-468.22	468.22	-702.33	702.33
31.15	-304.14	304.14	-456.21	456.21
30.28	-612.54	612.54	-918.80	918.80
29.40	-597.81	597.81	-896.72	896.72
28.52	-610.45	610.45	-915.68	915.68
27.65	-322.66	322.66	-484.00	484.00
26.77	-614.78	614.78	-922.17	922.17
25.90	-603.34	603.34	-905.01	905.01
25.03	-615.79	615.79	-923.68	923.68
24.15	-416.16	416.16	-624.24	624.24
23.28	-723.24	723.24	-1084.85	1084.85
22.40	-708.25	708.25	-1062.37	1062.37
21.53	-721.72	721.72	-1082.57	1082.57
20.65	-463.90	463.90	-695.85	695.85
19.77	-756.87	756.87	-1135.31	1135.31
18.90	-746.55	746.55	-1119.83	1119.83
18.03	-759.12	759.12	-1138.68	1138.68
17.15	-582.92	582.92	-874.38	874.38
16.28	-798.42	798.42	-1197.63	1197.63
15.40	-789.23	789.23	-1183.84	1183.84
14.52	-785.65	785.65	-1178.47	1178.47
13.65	-1018.11	1018.11	<b>-1527.17</b>	<b>1527.17</b>
13.16	-821.85	821.85	-1232.78	1232.78
12.66	-877.08	877.08	-1315.62	1315.62
12.17	-874.23	874.23	-1311.35	1311.35
11.68	-871.50	871.50	-1307.25	1307.25
11.19	-870.95	870.95	-1306.42	1306.42
10.69	-870.40	870.40	-1305.60	1305.60
10.20	-870.19	870.19	-1305.29	1305.29
9.71	-869.99	869.99	-1304.98	1304.98
9.21	-868.42	868.42	-1302.62	1302.62
8.72	-866.84	866.84	-1300.26	1300.26
8.23	-873.05	873.05	-1309.58	1309.58
7.74	-879.28	879.28	-1318.92	1318.92
7.24	-748.43	748.43	-1122.65	1122.65
6.75	-630.21	630.21	-945.31	945.31
6.17	-671.05	671.05	-1006.58	1006.58
5.60	-723.14	723.14	-1084.70	1084.70
5.02	-734.21	734.21	-1101.32	1101.32
4.45	-745.41	745.41	-1118.12	1118.12
3.87	-691.85	691.85	-1037.78	1037.78
3.30	-625.61	625.61	-938.42	938.42
2.73	-669.45	669.45	-1004.17	1004.17
2.15	-765.84	765.84	-1148.77	1148.77
1.57	-791.62	791.62	-1187.43	1187.43
1.00	-817.64	817.64	-1226.46	1226.46
0.43	-488.22	488.22	-732.33	732.33
-0.15	-347.25	347.25	-520.88	520.88
-0.61	-618.33	618.33	-927.49	927.49
-1.08	-997.53	997.53	-1496.30	1496.30
-1.54	-973.26	973.26	-1459.90	1459.90
-2.00	-949.22	949.22	-1423.83	1423.83
-2.46	-949.30	949.30	-1423.95	1423.95
-2.92	-949.39	949.39	-1424.08	1424.08
-3.39	-949.48	949.48	-1424.23	1424.23
-3.85	-949.58	949.58	-1424.37	1424.37
-4.31	-964.46	964.46	-1446.70	1446.70
-4.78	-979.41	979.41	-1469.12	1469.12
-5.24	-619.39	619.39	-929.09	929.09
-5.70	-312.38	312.38	-468.57	468.57



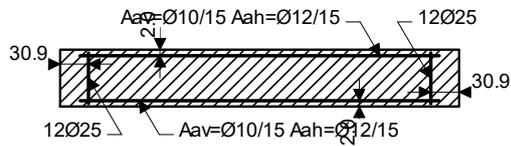
Presek [m]	N,min [kN]	N,max [kN]
42.35	-251.62	251.62
41.83	-389.43	389.43
41.30	-540.26	540.26
40.77	-366.38	366.38
40.25	-215.25	215.25
39.73	-179.29	179.29
39.20	-170.99	170.99
38.68	-199.38	199.38
38.15	-450.47	450.47
37.27	-753.90	753.90
36.40	-524.27	524.27
35.52	-386.61	386.61
34.65	-688.95	688.95
33.77	-1263.15	1263.15
32.90	-816.57	816.57
32.02	-482.19	482.19
31.15	-1047.72	1047.72
30.28	-1754.17	1754.17
29.40	-1172.05	1172.05
28.52	-763.11	763.11
27.65	-1363.99	1363.99
26.77	-2197.94	2197.94
25.90	-1576.68	1576.68
25.03	-1038.22	1038.22
24.15	-1904.31	1904.31
23.28	-2603.32	2603.32
22.40	-1957.42	1957.42
21.53	-1546.18	1546.18
20.65	-2095.12	2095.12
19.77	-2978.82	2978.82
18.90	-2328.90	2328.90
18.03	-1904.37	1904.37
17.15	-2740.90	2740.90
16.28	-2979.73	2979.73
15.40	-2513.39	2513.39
14.52	-2738.95	2738.95
13.65	-2204.98	2204.98
13.16	-2092.24	2092.24
12.66	-2435.44	2435.44
12.17	-2339.36	2339.36
11.68	-2261.70	2261.70
11.19	-2252.43	2252.43
10.69	-2243.22	2243.22
10.20	-2234.41	2234.41
9.71	-2225.59	2225.59
9.21	-2230.47	2230.47
8.72	-2235.41	2235.41
8.23	-2090.47	2090.47
7.74	-1954.57	1954.57
7.24	-2379.92	2379.92
6.75	-2878.16	2878.16
6.17	-2983.37	2983.37
5.60	-3156.90	3156.90
5.02	-3099.01	3099.01
4.45	-3056.59	3056.59
3.87	-3095.38	3095.38
3.30	-3224.08	3224.08
2.73	-3485.62	3485.62
2.15	-3696.10	3696.10
1.57	-3679.48	3679.48
1.00	-3663.97	3663.97
0.43	-3544.10	3544.10
-0.15	-3500.59	3500.59
-0.61	-3643.10	3643.10
-1.08	-3791.84	3791.84
-1.54	-3741.30	3741.30
-2.00	-3690.91	3690.91
-2.46	-3692.44	3692.44
-2.92	-3694.07	3694.07
-3.39	-3686.62	3686.62
-3.85	-3679.17	3679.17
-4.31	-3749.19	3749.19
-4.78	-3820.84	3820.84
-5.24	-3711.81	3711.81
-5.70	-3661.78	3661.78

**Ram: Gv15**

EC 2 (EN 1992-1-1:2004)  
 C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura S500N  
 Podužna armatura S500N  
 Kompletna šema opterećenja  
 (Proračunska anvelopa sila)

**SZ 12 Presek 1L - 1L (Z=-1.08m)**

Merodavni presek za savijanje i smicanje



$$b/d = 40/58.635 \text{ cm} \quad A_b = 23225.4 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

Med = -16151.57 kNm

Ned = -1516.25 kN

Ved = 2724.26 kN (Vrd,max = 11536.58 kN)

$\epsilon_b/\epsilon_a = -2.480/25.000 \text{ ‰}$

Aa1 = 42.11 cm<sup>2</sup> (min:34.84) (usv:12Ø25)

Aa2 = 42.11 cm<sup>2</sup> (min:34.84) (usv:12Ø25)

Aav = ±2.05 cm<sup>2</sup>/m (min:±3.00) (usv:±Ø10/15)

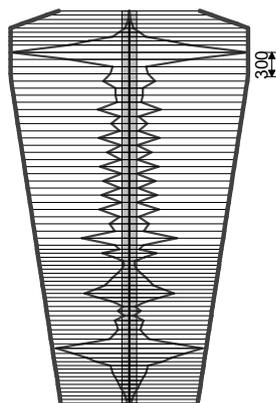
Aah = ±6.74 cm<sup>2</sup>/m (min:±4.00) (usv:±Ø12/15)

### Proračunska anvelopa sila

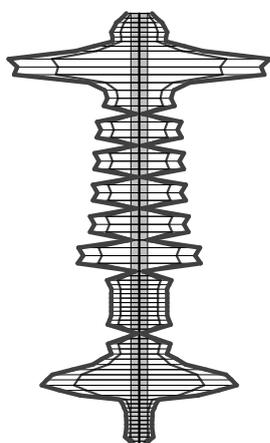
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

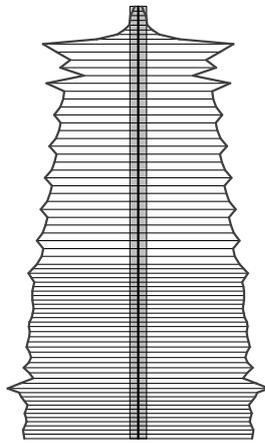
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
42.35	-10.89	10.89	-1899.33	1899.33
41.82	-16.56	16.56	-2229.81	2229.81
41.30	-25.27	25.27	-2560.29	2560.29
40.77	-67.99	67.99	-2890.76	2890.76
40.25	-111.57	111.57	<b>-3205.50</b>	<b>3205.50</b>
39.72	-278.43	278.43	<b>-3205.50</b>	<b>3205.50</b>
39.20	-446.09	446.09	<b>-3205.50</b>	<b>3205.50</b>
38.67	-1081.75	1081.75	<b>-3205.50</b>	<b>3205.50</b>
38.15	-1622.31	1622.31	<b>-3205.50</b>	<b>3205.50</b>
37.27	-3205.50	3205.50	<b>-3205.50</b>	<b>3205.50</b>
36.40	-1628.61	1628.61	<b>-3205.50</b>	<b>3205.50</b>
35.52	-449.92	449.92	<b>-3205.50</b>	<b>3205.50</b>
34.65	-508.78	508.78	<b>-3205.50</b>	<b>3205.50</b>
33.77	-699.03	699.03	-3188.51	3188.51
32.90	-370.13	370.13	-3158.77	3158.77
32.02	-368.13	368.13	-3129.03	3129.03
31.15	-326.74	326.74	-3099.29	3099.29
30.27	-849.95	849.95	-3069.55	3069.55
29.40	-250.13	250.13	-3039.81	3039.81
28.52	-487.60	487.60	-3010.07	3010.07
27.65	-255.09	255.09	-2980.33	2980.33
26.77	-820.74	820.74	-2950.59	2950.59
25.90	-210.61	210.61	-2920.85	2920.85
25.02	-602.81	602.81	-2891.10	2891.10
24.15	-222.01	222.01	-2861.36	2861.36
23.27	-792.76	792.76	-2831.62	2831.62
22.40	-204.48	204.48	-2801.88	2801.88
21.53	-701.87	701.87	-2772.14	2772.14
20.65	-240.85	240.85	-2742.40	2742.40
19.78	-749.01	749.01	-2712.66	2712.66
18.90	-210.97	210.97	-2682.92	2682.92
18.03	-801.40	801.40	-2653.18	2653.18
17.15	-253.34	253.34	-2623.44	2623.44
16.27	-529.29	529.29	-2593.70	2593.70
15.40	-390.99	390.99	-2563.96	2563.96
14.52	-1285.36	1285.36	-2534.22	2534.22
13.65	-379.54	379.54	-2504.48	2504.48
13.16	-268.77	268.77	-2487.73	2487.73
12.66	-729.27	729.27	-2470.97	2470.97
12.17	-407.74	407.74	-2454.22	2454.22
11.68	-151.59	151.59	-2437.47	2437.47
11.19	-147.51	147.51	-2420.72	2420.72
10.69	-205.74	205.74	-2403.97	2403.97
10.20	-316.66	316.66	-2387.22	2387.22
9.71	-440.12	440.12	-2370.46	2370.46
9.21	-546.08	546.08	-2353.71	2353.71
8.72	-653.54	653.54	-2336.96	2336.96
8.23	-930.35	930.35	-2320.21	2320.21
7.74	-1209.04	1209.04	-2303.46	2303.46
7.24	-835.16	835.16	-2286.70	2286.70
6.75	-467.37	467.37	-2269.95	2269.95
6.18	-161.07	161.07	-2250.41	2250.41
5.60	-301.52	301.52	-2230.87	2230.87
5.03	-133.17	133.17	-2211.32	2211.32
4.45	-384.94	384.94	-2191.78	2191.78
3.88	-338.14	338.14	-2172.23	2172.23
3.30	-297.26	297.26	-2152.69	2152.69
2.73	-403.10	403.10	-2133.15	2133.15
2.15	-527.53	527.53	-2113.60	2113.60
1.58	-1246.42	1246.42	-2094.06	2094.06
1.00	-1972.55	1972.55	-2074.52	2074.52
0.43	-1515.93	1515.93	-2054.97	2054.97
-0.15	-1133.81	1133.81	-2035.43	2035.43
-0.61	-896.39	896.39	-2019.71	2019.71
-1.07	-505.77	505.77	-2003.99	2003.99
-1.54	-479.46	479.46	-1988.27	1988.27
-2.00	-453.79	453.79	-1972.55	1972.55
-2.46	-393.38	393.38	-1956.83	1956.83
-2.92	-333.15	333.15	-1941.11	1941.11
-3.39	-278.99	278.99	-1925.39	1925.39
-3.85	-225.44	225.44	-1909.67	1909.67
-4.31	-166.40	166.40	-1893.95	1893.95
-4.77	-113.05	113.05	-1878.23	1878.23
-5.24	-75.69	75.69	-1862.51	1862.51
-5.70	-52.25	52.25	-1846.79	1846.79



Presek [m]	Sračunati		Povećani	
	T,min [kN]	T,max [kN]	T,min [kN]	T,max [kN]
42.35	-111.98	111.98	-167.98	167.98
41.82	-149.95	149.95	-224.92	224.92
41.30	-197.07	197.07	-295.60	295.60
40.77	-218.60	218.60	-327.90	327.90
40.25	-240.62	240.62	-360.93	360.93
39.72	-230.40	230.40	-345.60	345.60
39.20	-232.02	232.02	-348.03	348.03
38.67	-391.78	391.78	-587.68	587.68
38.15	-550.03	550.03	-825.04	825.04
37.27	-1128.63	1128.63	<b>-1692.94</b>	<b>1692.94</b>
36.40	-1051.76	1051.76	-1577.65	1577.65
35.52	-1080.98	1080.98	-1621.47	1621.47
34.65	-435.42	435.42	-653.13	653.13
33.77	-296.28	296.28	-444.42	444.42
32.90	-275.23	275.23	-412.84	412.84
32.02	-306.40	306.40	-459.59	459.59
31.15	-29.36	29.36	-44.03	44.03
30.27	-365.05	365.05	-547.58	547.58
29.40	-330.25	330.25	-495.37	495.37
28.52	-367.17	367.17	-550.76	550.76
27.65	-27.49	27.49	-41.23	41.23
26.77	-385.82	385.82	-578.72	578.72
25.90	-347.90	347.90	-521.86	521.86
25.02	-386.89	386.89	-580.34	580.34
24.15	-14.85	14.85	-22.28	22.28
23.27	-401.31	401.31	-601.97	601.97
22.40	-361.52	361.52	-542.28	542.28
21.53	-402.12	402.12	-603.18	603.18
20.65	-20.33	20.33	-30.49	30.49
19.78	-427.31	427.31	-640.97	640.97
18.90	-385.63	385.63	-578.44	578.44
18.03	-424.48	424.48	-636.72	636.72
17.15	-72.17	72.17	-108.26	108.26
16.27	-525.69	525.69	-788.53	788.53
15.40	-482.54	482.54	-723.81	723.81
14.52	-531.41	531.41	-797.12	797.12
13.65	-33.14	33.14	-49.71	49.71
13.16	-154.32	154.32	-231.48	231.48
12.66	-277.34	277.34	-416.01	416.01
12.17	-258.78	258.78	-388.17	388.17
11.68	-240.23	240.23	-360.35	360.35
11.19	-240.57	240.57	-360.86	360.86
10.69	-240.91	240.91	-361.37	361.37
10.20	-240.88	240.88	-361.32	361.32
9.71	-240.84	240.84	-361.26	361.26
9.21	-240.74	240.74	-361.11	361.11
8.72	-240.64	240.64	-360.96	360.96
8.23	-256.46	256.46	-384.69	384.69
7.74	-272.28	272.28	-408.42	408.42
7.24	-144.79	144.79	-217.18	217.18
6.75	-18.50	18.50	-27.75	27.75
6.18	-143.50	143.50	-215.24	215.24
5.60	-270.38	270.38	-405.58	405.58
5.03	-255.24	255.24	-382.86	382.86
4.45	-240.10	240.10	-360.15	360.15
3.88	-323.35	323.35	-485.03	485.03
3.30	-399.37	399.37	-599.05	599.05
2.73	-578.33	578.33	-867.50	867.50
2.15	-751.01	751.01	-1126.52	1126.52
1.58	-796.31	796.31	-1194.46	1194.46
1.00	-841.61	841.61	-1262.42	1262.42
0.43	-685.68	685.68	-1028.52	1028.52
-0.15	-509.39	509.39	-764.08	764.08
-0.61	-170.75	170.75	-256.13	256.13
-1.07	-143.93	143.93	-215.90	215.90
-1.54	-128.83	128.83	-193.24	193.24
-2.00	-113.77	113.77	-170.66	170.66
-2.46	-113.02	113.02	-169.53	169.53
-2.92	-112.26	112.26	-168.40	168.40
-3.39	-112.17	112.17	-168.26	168.26
-3.85	-112.08	112.08	-168.13	168.13
-4.31	-117.29	117.29	-175.93	175.93
-4.77	-122.49	122.49	-183.74	183.74
-5.24	-80.53	80.53	-120.80	120.80
-5.70	-42.26	42.26	-63.39	63.39



Presek [m]	N,min [kN]	N,max [kN]
42.35	-61.62	61.62
41.82	-94.87	94.87
41.30	-133.59	133.59
40.77	-140.07	140.07
40.25	-150.72	150.72
39.72	-240.12	240.12
39.20	-358.42	358.42
38.67	-700.35	700.35
38.15	-1619.37	1619.37
37.27	-1391.44	1391.44
36.40	-1155.12	1155.12
35.52	-1327.40	1327.40
34.65	-927.52	927.52
33.77	-1562.02	1562.02
32.90	-1258.24	1258.24
32.02	-1271.55	1271.55
31.15	-1325.03	1325.03
30.27	-1427.28	1427.28
29.40	-1317.12	1317.12
28.52	-1344.82	1344.82
27.65	-1399.15	1399.15
26.77	-1506.85	1506.85
25.90	-1392.18	1392.18
25.02	-1420.25	1420.25
24.15	-1475.72	1475.72
23.27	-1584.79	1584.79
22.40	-1466.00	1466.00
21.53	-1501.92	1501.92
20.65	-1550.99	1550.99
19.78	-1654.85	1654.85
18.90	-1541.62	1541.62
18.03	-1575.92	1575.92
17.15	-1624.18	1624.18
16.27	-1726.49	1726.49
15.40	-1615.09	1615.09
14.52	-1640.48	1640.48
13.65	-1725.04	1725.04
13.16	-1795.29	1795.29
12.66	-1865.99	1865.99
12.17	-1817.23	1817.23
11.68	-1768.62	1768.62
11.19	-1785.05	1785.05
10.69	-1801.49	1801.49
10.20	-1801.19	1801.19
9.71	-1800.90	1800.90
9.21	-1790.14	1790.14
8.72	-1779.38	1779.38
8.23	-1793.40	1793.40
7.74	-1807.52	1807.52
7.24	-1845.67	1845.67
6.75	-1856.31	1856.31
6.18	-1841.54	1841.54
5.60	-1853.48	1853.48
5.03	-1877.06	1877.06
4.45	-1901.67	1901.67
3.88	-1845.56	1845.56
3.30	-1820.95	1820.95
2.73	-1863.05	1863.05
2.15	-1945.99	1945.99
1.58	-1855.96	1855.96
1.00	-1782.96	1782.96
0.43	-2006.64	2006.64
-0.15	-2221.94	2221.94
-0.61	-2024.42	2024.42
-1.07	-1991.84	1991.84
-1.54	-1935.54	1935.54
-2.00	-1879.82	1879.82
-2.46	-1904.25	1904.25
-2.92	-1928.77	1928.77
-3.39	-1913.03	1913.03
-3.85	-1897.29	1897.29
-4.31	-1927.69	1927.69
-4.77	-1958.10	1958.10
-5.24	-1945.88	1945.88
-5.70	-1934.69	1934.69

**Ram: Gk21,Sk10**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura S500N

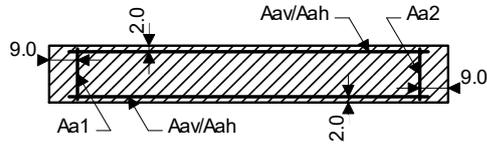
Podužna armatura S500N

Kompletna šema opterećenja

(Proračunska anvelopa sila)

**SZ 13 Presek 1M - 1M (Z=38.15m)**

Merodavni presek za savijanje



$$b/d = 40/180 \text{ cm} \quad A_b = 7200 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

Med = 3432.69 kNm

Ned = 1532.22 kN

Ved = -1004.86 kN (Vrd,max = 3773.50 kN)

$$\epsilon_b/\epsilon_a = -2.270/25.000 \text{ ‰}$$

$$A_{a1} = 52.66 \text{ cm}^2 \quad (\text{min: } 10.80)$$

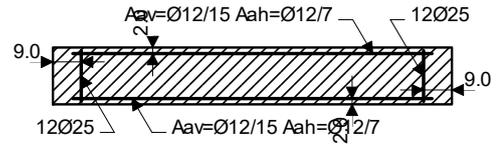
$$A_{a2} = 52.66 \text{ cm}^2 \quad (\text{min: } 10.80)$$

$$A_{av} = \pm 8.20 \text{ cm}^2/\text{m} \quad (\text{min: } \pm 3.00)$$

$$A_{ah} = \pm 8.02 \text{ cm}^2/\text{m} \quad (\text{min: } \pm 4.00)$$

**SZ 13 Presek 2M - 2M (Z=37.27m)**

Merodavni presek za smicanje



$$b/d = 40/180 \text{ cm} \quad A_b = 7200 \text{ cm}^2$$

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

Med = 3406.38 kNm

Ned = 1405.20 kN

Ved = -1902.26 kN (Vrd,max = 3760.80 kN)

$$\epsilon_b/\epsilon_a = -2.308/25.000 \text{ ‰}$$

$$A_{a1} = 51.19 \text{ cm}^2 \quad (\text{min: } 10.80) \quad (\text{usv: } 12\emptyset 25)$$

$$A_{a2} = 51.19 \text{ cm}^2 \quad (\text{min: } 10.80) \quad (\text{usv: } 12\emptyset 25)$$

$$A_{av} = \pm 7.98 \text{ cm}^2/\text{m} \quad (\text{min: } \pm 3.00) \quad (\text{usv: } \pm \emptyset 12/15)$$

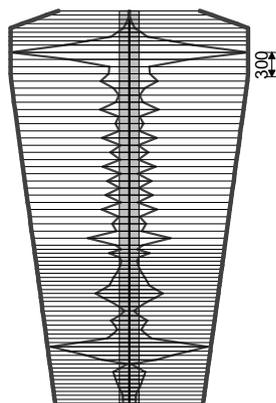
$$A_{ah} = \pm 15.19 \text{ cm}^2/\text{m} \quad (\text{min: } \pm 4.00) \quad (\text{usv: } \pm \emptyset 12/7)$$

### Proračunska anvelopa sila

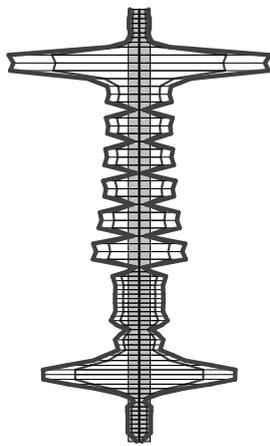
Slučaj opterećenja: VIII

Pomeraj dijagrama momenta: 300.0 cm

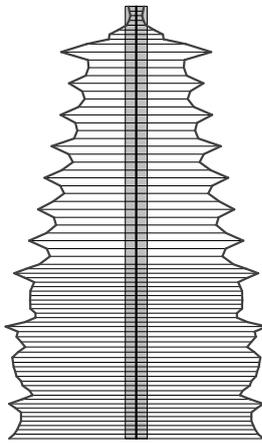
Množilac transverzalnih sila: 1.50



Presek [m]	Sračunati		Povećani	
	M,min [kNm]	M,max [kNm]	M,min [kNm]	M,max [kNm]
42.35	-50.85	50.85	-4116.25	4116.25
41.82	-30.40	30.40	-4827.70	4827.70
41.30	-72.84	72.84	-5539.14	5539.14
40.77	-198.19	198.19	-6250.59	6250.59
40.25	-324.61	324.61	<b>-6928.16</b>	<b>6928.16</b>
39.72	-692.83	692.83	<b>-6928.16</b>	<b>6928.16</b>
39.20	-1061.16	1061.16	<b>-6928.16</b>	<b>6928.16</b>
38.67	-2407.51	2407.51	<b>-6928.16</b>	<b>6928.16</b>
38.15	-3724.14	3724.14	<b>-6928.16</b>	<b>6928.16</b>
37.27	-6928.16	6928.16	<b>-6928.16</b>	<b>6928.16</b>
36.40	-3479.54	3479.54	<b>-6928.16</b>	<b>6928.16</b>
35.52	-1165.58	1165.58	<b>-6928.16</b>	<b>6928.16</b>
34.65	-1206.29	1206.29	<b>-6928.16</b>	<b>6928.16</b>
33.77	-1670.16	1670.16	-6895.45	6895.45
32.90	-905.88	905.88	-6838.22	6838.22
32.02	-598.46	598.46	-6780.98	6780.98
31.15	-783.48	783.48	-6723.75	6723.75
30.27	-1714.24	1714.24	-6666.51	6666.51
29.40	-615.51	615.51	-6609.28	6609.28
28.52	-817.61	817.61	-6552.04	6552.04
27.65	-586.40	586.40	-6494.81	6494.81
26.77	-1590.15	1590.15	-6437.58	6437.58
25.90	-510.39	510.39	-6380.34	6380.34
25.03	-1109.41	1109.41	-6323.11	6323.11
24.15	-528.68	528.68	-6265.87	6265.87
23.27	-1550.62	1550.62	-6208.64	6208.64
22.40	-488.11	488.11	-6151.40	6151.40
21.52	-1291.68	1291.68	-6094.17	6094.17
20.65	-541.45	541.45	-6036.93	6036.93
19.77	-1377.37	1377.37	-5979.70	5979.70
18.90	-494.94	494.94	-5922.47	5922.47
18.03	-1612.20	1612.20	-5865.23	5865.23
17.15	-595.53	595.53	-5808.00	5808.00
16.27	-987.39	987.39	-5750.76	5750.76
15.40	-740.61	740.61	-5693.53	5693.53
14.53	-2407.76	2407.76	-5636.29	5636.29
13.65	-785.15	785.15	-5579.06	5579.06
13.16	-483.64	483.64	-5546.82	5546.82
12.66	-1181.15	1181.15	-5514.58	5514.58
12.17	-556.21	556.21	-5482.34	5482.34
11.68	-460.44	460.44	-5450.11	5450.11
11.19	-528.17	528.17	-5417.87	5417.87
10.69	-611.31	611.31	-5385.63	5385.63
10.20	-752.74	752.74	-5353.39	5353.39
9.71	-904.75	904.75	-5321.15	5321.15
9.21	-1032.22	1032.22	-5288.91	5288.91
8.72	-1162.54	1162.54	-5256.68	5256.68
8.23	-1559.75	1559.75	-5224.44	5224.44
7.74	-1962.91	1962.91	-5192.20	5192.20
7.24	-1550.88	1550.88	-5159.96	5159.96
6.75	-1094.35	1094.35	-5127.72	5127.72
6.18	-597.46	597.46	-5090.11	5090.11
5.60	-279.58	279.58	-5052.50	5052.50
5.02	-582.81	582.81	-5014.89	5014.89
4.45	-1066.05	1066.05	-4977.28	4977.28
3.88	-856.21	856.21	-4939.67	4939.67
3.30	-693.87	693.87	-4902.06	4902.06
2.77	-959.73	959.73	-4867.72	4867.72
2.25	-1301.12	1301.12	-4833.37	4833.37
1.73	-2928.64	2928.64	-4799.03	4799.03
1.20	-4568.46	4568.46	-4764.69	4764.69
0.67	-3510.87	3510.87	-4730.35	4730.35
0.15	-2508.64	2508.64	-4696.01	4696.01
-0.38	-1582.85	1582.85	-4661.67	4661.67
-0.90	-128.99	128.99	-4627.33	4627.33
-1.38	-517.04	517.04	-4595.93	4595.93
-1.86	-943.21	943.21	-4564.54	4564.54
-2.34	-861.36	861.36	-4533.14	4533.14
-2.82	-779.95	779.95	-4501.74	4501.74
-3.30	-687.60	687.60	-4470.34	4470.34
-3.78	-595.56	595.56	-4438.95	4438.95
-4.26	-482.05	482.05	-4407.55	4407.55
-4.74	-370.75	370.75	-4376.15	4376.15
-5.22	-369.33	369.33	-4344.76	4344.76
-5.70	-366.74	366.74	-4313.36	4313.36



Presek [m]	Sračunati		Povećani	
	T,min [kN]	T,max [kN]	T,min [kN]	T,max [kN]
42.35	-134.50	134.50	-201.74	201.74
41.82	-133.00	133.00	-199.50	199.50
41.30	-145.42	145.42	-218.13	218.13
40.77	-145.45	145.45	-218.18	218.18
40.25	-145.61	145.61	-218.41	218.41
39.72	-129.29	129.29	-193.93	193.93
39.20	-144.79	144.79	-217.18	217.18
38.67	-188.47	188.47	-282.71	282.71
38.15	-434.62	434.62	-651.93	651.93
37.27	-1858.97	1858.97	<b>-2788.46</b>	<b>2788.46</b>
36.40	-1789.31	1789.31	-2683.96	2683.96
35.52	-1837.03	1837.03	-2755.54	2755.54
34.65	-736.82	736.82	-1105.23	1105.23
33.77	-450.44	450.44	-675.66	675.66
32.90	-430.08	430.08	-645.11	645.11
32.02	-463.12	463.12	-694.68	694.68
31.15	-63.80	63.80	-95.69	95.69
30.27	-473.22	473.22	-709.82	709.82
29.40	-437.92	437.92	-656.88	656.88
28.52	-454.64	454.64	-681.97	681.97
27.65	-95.79	95.79	-143.68	143.68
26.77	-480.15	480.15	-720.22	720.22
25.90	-456.43	456.43	-684.65	684.65
25.03	-495.87	495.87	-743.81	743.81
24.15	-39.85	39.85	-59.77	59.77
23.27	-514.65	514.65	-771.98	771.98
22.40	-473.40	473.40	-710.10	710.10
21.52	-494.32	494.32	-741.48	741.48
20.65	-95.95	95.95	-143.92	143.92
19.77	-557.41	557.41	-836.12	836.12
18.90	-533.68	533.68	-800.52	800.52
18.03	-573.97	573.97	-860.95	860.95
17.15	-92.34	92.34	-138.51	138.51
16.27	-655.31	655.31	-982.97	982.97
15.40	-613.57	613.57	-920.35	920.35
14.53	-662.05	662.05	-993.08	993.08
13.65	-57.90	57.90	-86.85	86.85
13.16	-176.63	176.63	-264.94	264.94
12.66	-379.94	379.94	-569.91	569.91
12.17	-359.31	359.31	-538.97	538.97
11.68	-338.70	338.70	-508.05	508.05
11.19	-340.62	340.62	-510.94	510.94
10.69	-342.55	342.55	-513.83	513.83
10.20	-342.56	342.56	-513.83	513.83
9.71	-342.56	342.56	-513.84	513.84
9.21	-341.73	341.73	-512.59	512.59
8.72	-340.89	340.89	-511.34	511.34
8.23	-373.04	373.04	-559.56	559.56
7.74	-405.28	405.28	-607.91	607.91
7.24	-321.29	321.29	-481.93	481.93
6.75	-182.50	182.50	-273.76	273.76
6.18	-275.90	275.90	-413.85	413.85
5.60	-344.44	344.44	-516.66	516.66
5.02	-320.26	320.26	-480.40	480.40
4.45	-296.11	296.11	-444.17	444.17
3.88	-473.19	473.19	-709.79	709.79
3.30	-653.06	653.06	-979.58	979.58
2.77	-1032.88	1032.88	-1549.32	1549.32
2.25	-1367.35	1367.35	-2051.03	2051.03
1.73	-1365.18	1365.18	-2047.77	2047.77
1.20	-1363.01	1363.01	-2044.51	2044.51
0.67	-1016.72	1016.72	-1525.07	1525.07
0.15	-622.79	622.79	-934.18	934.18
-0.38	-292.88	292.88	-439.32	439.32
-0.90	-125.51	125.51	-188.27	188.27
-1.38	-89.59	89.59	-134.38	134.38
-1.86	-170.00	170.00	-255.00	255.00
-2.34	-167.90	167.90	-251.85	251.85
-2.82	-165.80	165.80	-248.70	248.70
-3.30	-165.63	165.63	-248.44	248.44
-3.78	-165.46	165.46	-248.18	248.18
-4.26	-165.50	165.50	-248.25	248.25
-4.74	-165.56	165.56	-248.34	248.34
-5.22	-97.91	97.91	-146.86	146.86
-5.70	-37.99	37.99	-56.99	56.99



Presek [m]	N,min [kN]	N,max [kN]
42.35	-111.40	111.40
41.82	-94.23	94.23
41.30	-81.73	81.73
40.77	-102.85	102.85
40.25	-135.69	135.69
39.72	-254.45	254.45
39.20	-381.13	381.13
38.67	-390.75	390.75
38.15	-706.98	706.98
37.27	-1066.59	1066.59
36.40	-686.58	686.58
35.52	-676.44	676.44
34.65	-719.10	719.10
33.77	-955.71	955.71
32.90	-769.99	769.99
32.02	-732.44	732.44
31.15	-819.08	819.08
30.27	-1077.86	1077.86
29.40	-863.70	863.70
28.52	-838.87	838.87
27.65	-884.68	884.68
26.77	-1205.92	1205.92
25.90	-960.01	960.01
25.03	-898.96	898.96
24.15	-1059.49	1059.49
23.27	-1307.67	1307.67
22.40	-1080.34	1080.34
21.52	-1024.80	1024.80
20.65	-1180.09	1180.09
19.77	-1395.62	1395.62
18.90	-1169.87	1169.87
18.03	-1137.97	1137.97
17.15	-1275.69	1275.69
16.27	-1524.74	1524.74
15.40	-1271.86	1271.86
14.53	-1229.14	1229.14
13.65	-1379.23	1379.23
13.16	-1568.90	1568.90
12.66	-1731.88	1731.88
12.17	-1589.09	1589.09
11.68	-1454.84	1454.84
11.19	-1479.52	1479.52
10.69	-1504.27	1504.27
10.20	-1507.20	1507.20
9.71	-1510.13	1510.13
9.21	-1508.74	1508.74
8.72	-1507.43	1507.43
8.23	-1434.72	1434.72
7.74	-1430.43	1430.43
7.24	-1582.44	1582.44
6.75	-1859.71	1859.71
6.18	-1685.42	1685.42
5.60	-1703.86	1703.86
5.02	-1637.44	1637.44
4.45	-1579.07	1579.07
3.88	-1679.73	1679.73
3.30	-1764.37	1764.37
2.77	-1753.29	1753.29
2.25	-1743.10	1743.10
1.73	-1721.28	1721.28
1.20	-1702.35	1702.35
0.67	-1639.58	1639.58
0.15	-1616.73	1616.73
-0.38	-1512.86	1512.86
-0.90	-1473.23	1473.23
-1.38	-1626.55	1626.55
-1.86	-1805.08	1805.08
-2.34	-1722.10	1722.10
-2.82	-1639.86	1639.86
-3.30	-1638.71	1638.71
-3.78	-1637.57	1637.57
-4.26	-1665.89	1665.89
-4.74	-1695.28	1695.28
-5.22	-1736.49	1736.49
-5.70	-1806.00	1806.00

**Ram: Gk21,Sk10**

EC 2 (EN 1992-1-1:2004)

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura S500N

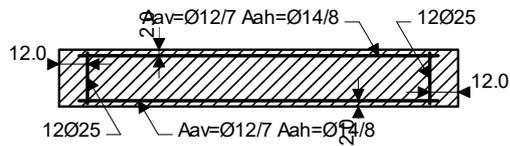
Podužna armatura S500N

Kompletna šema opterećenja

(Proračunska anvelopa sila)

**SZ 14 Presek 1N - 1N (Z=37.27m)**

Merodavni presek za savijanje i smicanje



$$b/d = 40/240 \text{ cm} \quad A_b = 9600 \text{ cm}^2$$

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

Med = -7181.05 kNm

Ned = 565.85 kN

Ved = 2874.08 kN (Vrd,max = 4623.36 kN)

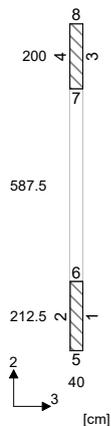
 $\epsilon_b/\epsilon_a = -2.890/25.000 \text{ ‰}$ Aa1 = 66.32 cm<sup>2</sup> (min:14.40) (usv:12Ø25)Aa2 = 66.32 cm<sup>2</sup> (min:14.40) (usv:12Ø25)Aav = ±7.75 cm<sup>2</sup>/m (min:±3.00) (usv:±Ø12/7)Aah = ±17.21 cm<sup>2</sup>/m (min:±4.00) (usv:±Ø14/8)

## Dimenzionisanje (beton)

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

### Segment reduktora 1

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	2.10m x 4.13	
2	2.10m x 4.13	
3	1.98m x 4.39	
4	1.98m x 4.39	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
5	8.70	
6	8.70	
7	8.70	
8	8.70	
<b>Σ [cm<sup>2</sup>]</b>	<b>69.61</b>	<b>0.00</b>

#### Položaj (Z=49.35m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-898.3	31.0	61.0	648.1	69.2
II	-258.9	3.6	21.2	136.9	12.8
III	-8.5	-1.2	-2.6	72.9	-1.8
IV	289.1	364.6	362.4	753.4	601.8
V	296.2	357.1	416.6	733.6	594.6
VI	58.0	70.4	726.0	1160.1	90.8
VII	73.7	68.5	685.2	1352.5	86.6
VIII	305.2	371.3	837.0	1548.2	608.6

Merodavna kombinacija za savijanje: I-1.00xVIII  
Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 2196.28 kNm  
M3ed = 677.77 kNm  
N1ed = -593.07 kN  
V2ed = 403.42 kN  
V3ed = 904.36 kN

$\epsilon_b/\epsilon_a = -2.543/25.000 \text{ ‰}$

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.10m x 4.13
2	2.10m x 4.13
3	1.98m x 4.39
4	1.98m x 4.39
	<b>Potrebna [cm<sup>2</sup>]</b>
5	8.70
6	8.70
7	8.70
8	8.70
<b>Σ [cm<sup>2</sup>]</b>	<b>69.61</b>

Poprečna armatura  
Aah\* = ±5.66 cm<sup>2</sup>/m

#### Položaj (Z=46.73m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-810.3	26.9	157.4	463.4	4.4
II	-178.2	2.7	50.2	177.1	5.4
III	0.9	-1.1	-8.5	-29.3	0.7
IV	196.2	331.2	527.6	1300.7	155.4
V	218.8	326.2	634.1	1448.3	147.9

VI	495.2	59.6	1066.7	1668.6	54.1
VII	619.5	57.2	1006.4	1651.4	60.1
VIII	657.0	336.5	1240.9	2209.5	166.6

Merodavna kombinacija za savijanje:  
I+0.30xIII-1.00xVIII  
Merodavna kombinacija za smicanje:  
I+0.30xII+VIII

M2ed = 2664.08 kNm  
M3ed = 171.23 kNm  
N1ed = -153.04 kN  
V2ed = 364.21 kN  
V3ed = 1413.39 kN

$\epsilon_b/\epsilon_a = -1.760/25.000 \text{ ‰}$

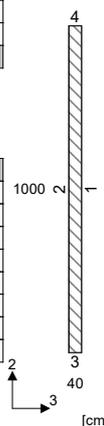
#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.10m x 1.02
2	2.10m x 1.02
3	1.98m x 1.08
4	1.98m x 1.08
	<b>Potrebna [cm<sup>2</sup>]</b>
5	2.14
6	2.14
7	2.14
8	2.14
<b>Σ [cm<sup>2</sup>]</b>	<b>17.12</b>

Poprečna armatura  
Aah\* = ±8.84 cm<sup>2</sup>/m

### Segment reduktora 2

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	9.98m x 1.17	
2	9.98m x 1.17	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
3	11.65	
4	11.65	
<b>Σ [cm<sup>2</sup>]</b>	<b>46.59</b>	<b>0.00</b>

#### Položaj (Z=45.85m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1007.3	-45.7	134.9	64.8	-65.4
II	-279.1	-20.7	45.9	18.2	-20.9
III	-18.4	-0.6	6.6	40.0	-1.2
IV	395.6	515.5	889.0	543.0	341.0
V	425.3	513.1	1014.1	312.9	337.8
VI	561.5	106.8	2287.6	1982.1	73.2
VII	749.8	101.0	2193.4	2740.5	69.8
VIII	862.0	526.4	2502.3	2793.8	348.8

Merodavna kombinacija za savijanje:  
I-1.00xVIII  
Merodavna kombinacija za smicanje:  
I+0.30xII+0.30xIII+VIII

M2ed = 2858.65 kNm  
M3ed = -414.25 kNm  
N1ed = -145.28 kN  
V2ed = 474.30 kN  
V3ed = 2652.96 kN

$\epsilon_b/\epsilon_a = -1.853/25.000 \text{ ‰}$

Podužna armatura

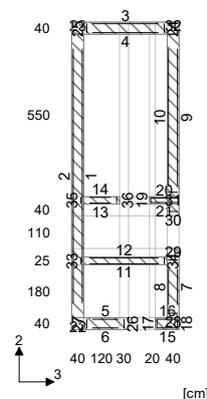
No	Potrebna [cm <sup>2</sup> /m]
1	9.98m x 1.17
2	9.98m x 1.17
Potrebna [cm <sup>2</sup> ]	
3	11.65
4	11.65
$\Sigma$ [cm <sup>2</sup> ]	46.59

Poprečna armatura

Aah\* =  $\pm 3.40 \text{ cm}^2/\text{m}$

Segment reduktora 3

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura greda i stubova S500N  
Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 8.60m x 27.82	(Ø14/5) 8.60m x 30.79
2	(P) 8.60m x 27.82	(Ø14/5) 8.60m x 30.79
3	(P) 2.20m x 27.78	(Ø14/5) 2.20m x 30.79
4	(P) 2.20m x 27.78	(Ø14/5) 2.20m x 30.79
5	(P) 0.85m x 27.69	(Ø14/5) 0.85m x 30.79
6	(P) 0.85m x 27.69	(Ø14/5) 0.85m x 30.79
7	(P) 1.20m x 18.45	(Ø14/7) 1.20m x 20.53
8	(P) 1.20m x 18.45	(Ø14/7) 1.20m x 20.53
9	(P) 4.65m x 27.81	(Ø14/5) 4.65m x 30.79
10	(P) 4.65m x 27.81	(Ø14/5) 4.65m x 30.79
11	(P) 2.30m x 13.86	(Ø14/10) 2.30m x 15.39
12	(P) 2.30m x 13.86	(Ø14/10) 2.30m x 15.39
13	(P) 0.70m x 13.92	(Ø14/10) 0.70m x 15.39
14	(P) 0.70m x 13.92	(Ø14/10) 0.70m x 15.39
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
15	(P) 28.28	(10Ø20) 31.42
16	(P) 28.28	(10Ø20) 31.42
17	(P) 11.36	(4Ø20) 12.57
18	(P) 11.36	(4Ø20) 12.57
19	(P) 8.96	(2Ø20) 6.28
20	(P) 11.36	(4Ø20) 12.57
21	(P) 11.36	(4Ø20) 12.57
22	(P) 90.77	(32Ø20) 100.53
23	(P) 90.77	(32Ø20) 100.53
24	(P) 22.60	(8Ø20) 25.13
25	(P) 22.60	(8Ø20) 25.13
26	(P) 22.60	(8Ø20) 25.13
27	(P) 22.60	(8Ø20) 25.13
28	(P) 33.96	(12Ø20) 37.70
29	(P) 68.05	(24Ø20) 75.40
30	(P) 33.96	(12Ø20) 37.70
31	(P) 11.36	(4Ø20) 12.57
32	(P) 90.77	(32Ø20) 100.53
33	(P) 56.68	(20Ø20) 62.83
34	(P) 11.36	(4Ø20) 12.57
35	(P) 56.68	(20Ø20) 62.83
36	(P) 11.36	(4Ø20) 12.57
$\Sigma$ [cm <sup>2</sup> ]	1791.13	1980.96

Položaj (Z=14.52m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17627.0	120.8	-250.2	-4536.7	191.7
II	-2524.9	-24.1	-64.5	-909.7	196.3
III	178.0	-141.9	-116.5	-1005.4	743.3
IV	3777.3	6154.6	964.6	9978.1	41259.9
V	2960.6	6250.0	1888.0	11839.9	41004.2
VI	8868.9	536.5	12479.4	165372.6	2962.2
VII	11648.1	586.4	17411.8	219014.6	3895.3
VIII	12245.3	6277.5	17513.8	219334.4	41443.3

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -224172.65 kNm

M3ed = 41858.02 kNm

N1ed = -5328.28 kN

V2ed = -6206.45 kN

V3ed = -17818.32 kN

$\epsilon_b/\epsilon_a = -3.500/13.271 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 8.60m x 16.07
2	(P) 8.60m x 16.07
3	(P) 2.20m x 16.04
4	(P) 2.20m x 16.04
5	(P) 0.85m x 15.99
6	(P) 0.85m x 15.99
7	(P) 1.20m x 10.66
8	(P) 1.20m x 10.66
9	(P) 4.65m x 16.06
10	(P) 4.65m x 16.06
11	(P) 2.30m x 8.01
12	(P) 2.30m x 8.01
13	(P) 0.70m x 8.04
14	(P) 0.70m x 8.04
	Potrebna [cm <sup>2</sup> ]
15	(P) 16.33
16	(P) 16.33
17	(P) 6.56
18	(P) 6.56
19	(P) 5.17
20	(P) 6.56
21	(P) 6.56
22	(P) 52.42
23	(P) 52.42
24	(P) 13.05
25	(P) 13.05
26	(P) 13.05
27	(P) 13.05
28	(P) 19.61
29	(P) 39.30
30	(P) 19.61
31	(P) 6.56
32	(P) 52.42
33	(P) 32.74
34	(P) 6.56
35	(P) 32.74
36	(P) 6.56
$\Sigma$ [cm <sup>2</sup> ]	1034.43

Poprečna armatura

Aah\* =  $\pm 201.89 \text{ cm}^2/\text{m}$

Položaj (Z=1.00m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-21792.0	2395.4	2619.5	12342.2	-7090.5
II	-3346.9	356.8	425.3	1904.8	-1028.7
III	264.5	-45.6	-36.1	-1326.8	958.1
IV	8794.3	5901.3	1264.2	10509.1	62375.0
V	7048.1	5850.8	1803.0	24187.9	61352.5
VI	17104.5	1456.4	3441.4	223057.0	11907.9
VII	22902.3	1601.3	5202.3	301865.5	15099.5
VIII	24532.8	6114.7	5505.9	302833.0	64176.5

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = 314777.22 kNm

M3ed = -70979.64 kNm

N1ed = 2820.14 kN

V2ed = 8617.12 kN

V3ed = 8252.97 kN

$\epsilon_b/\epsilon_a = -3.500/10.498 \text{ ‰}$

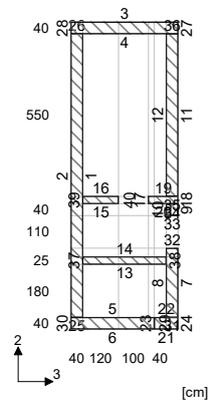
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 8.60m x 27.82
2	(P) 8.60m x 27.82
3	(P) 2.20m x 27.78
4	(P) 2.20m x 27.78
5	(P) 0.85m x 27.69
6	(P) 0.85m x 27.69
7	(P) 1.20m x 18.45
8	(P) 1.20m x 18.45
9	(P) 4.65m x 27.81
10	(P) 4.65m x 27.81
11	(P) 2.30m x 13.86
12	(P) 2.30m x 13.86
13	(P) 0.70m x 13.92
14	(P) 0.70m x 13.92
	<b>Potrebna [cm<sup>2</sup>]</b>
15	(P) 28.28
16	(P) 28.28
17	(P) 11.36
18	(P) 11.36
19	(P) 8.96
20	(P) 11.36
21	(P) 11.36
22	(P) 90.77
23	(P) 90.77
24	(P) 22.60
25	(P) 22.60
26	(P) 22.60
27	(P) 22.60
28	(P) 33.96
29	(P) 68.05
30	(P) 33.96
31	(P) 11.36
32	(P) 90.77
33	(P) 56.68
34	(P) 11.36
35	(P) 56.68
36	(P) 11.36
<b>Σ [cm<sup>2</sup>]</b>	<b>1791.13</b>

Poprečna armatura

Aah\* = ±139.82 cm<sup>2</sup>/m

Segment reduktora 4



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	9.58m x 5.56	
2	9.58m x 5.56	
3	3.58m x 14.87	
4	3.58m x 14.87	
5	2.78m x 19.15	
6	2.78m x 19.15	
7	2.33m x 22.85	
8	2.33m x 22.85	
9	0.38m x 140.12	
10	0.38m x 140.12	
11	5.48m x 9.72	
12	5.48m x 9.72	
13	2.78m x 19.15	
14	2.78m x 19.15	
15	1.18m x 45.12	
16	1.18m x 45.12	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
17	53.25	
18	53.25	
19	53.25	
20	53.25	
21	53.25	
22	53.25	
23	53.25	
<b>Σ [cm<sup>2</sup>]</b>	<b>2129.87</b>	

24	53.25	
25	53.25	
26	53.25	
27	53.25	
28	53.25	
29	53.25	
30	53.25	
31	53.25	
32	53.25	
33	53.25	
34	53.25	
35	53.25	
36	53.25	
37	53.25	
38	53.25	
39	53.25	
40	53.25	
<b>Σ [cm<sup>2</sup>]</b>	<b>2129.87</b>	<b>0.00</b>

Položaj (Z=-0.15m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-20956.6	1703.1	2280.7	9376.2	-6918.6
II	-3367.8	236.0	364.1	1187.4	-1028.5
III	169.1	68.0	-1.9	-1180.6	1002.6
IV	4242.1	2125.8	465.3	19274.2	66298.2
V	3369.0	2073.9	558.1	43644.7	64915.6
VI	9797.3	711.4	1477.3	229593.0	15122.5
VII	13336.6	863.3	2108.6	313510.6	19431.0
VIII	13995.1	2294.4	2181.2	316534.0	69087.0

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = -307512.04 kNm

M3ed = 62469.18 kNm

N1ed = -6910.78 kN

V2ed = 4068.26 kN

V3ed = 4571.12 kN

εb/εa = -3.500/12.015 ‰

Podužna armatura

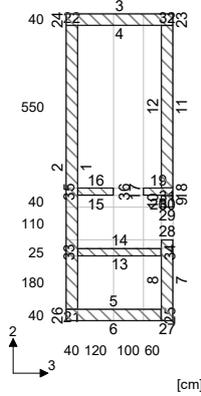
No	Potrebna [cm <sup>2</sup> /m]
1	9.58m x 5.56
2	9.58m x 5.56
3	3.58m x 14.87
4	3.58m x 14.87
5	2.78m x 19.15
6	2.78m x 19.15
7	2.33m x 22.85
8	2.33m x 22.85
9	0.38m x 140.12
10	0.38m x 140.12
11	5.48m x 9.72
12	5.48m x 9.72
13	2.78m x 19.15
14	2.78m x 19.15
15	1.18m x 45.12
16	1.18m x 45.12
	<b>Potrebna [cm<sup>2</sup>]</b>
17	53.25
18	53.25
19	53.25
20	53.25
21	53.25
22	53.25
23	53.25
24	53.25
25	53.25
26	53.25
27	53.25
28	53.25
29	53.25
30	53.25
31	53.25
32	53.25
33	53.25
34	53.25
35	53.25
36	53.25
37	53.25
38	53.25
39	53.25
40	53.25
<b>Σ [cm<sup>2</sup>]</b>	<b>2129.87</b>

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

**Segment reduktora 5**

C30/37 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]  
 Ugaona armatura ploča i zidova S500N  
 Podužna armatura ploča i zidova S500N  
 Podužna armatura greda i stubova S500N  
 Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	9.58m x 6.20	
2	9.58m x 6.20	
3	3.58m x 16.58	
4	3.58m x 16.58	
5	3.18m x 18.66	
6	3.18m x 18.66	
7	2.73m x 21.74	
8	2.73m x 21.74	
9	0.38m x 156.18	
10	0.38m x 156.18	
11	5.48m x 10.83	
12	5.48m x 10.83	
13	2.78m x 21.35	
14	2.78m x 21.35	
15	1.18m x 50.30	
16	1.18m x 50.30	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
17	59.35	
18	59.35	
19	59.35	
20	59.35	
21	59.35	
22	59.35	
23	59.35	
24	59.35	
25	59.35	
26	59.35	
27	59.35	
28	59.35	
29	59.35	
30	59.35	
31	59.35	
32	59.35	
33	59.35	
34	59.35	
35	59.35	
36	59.35	
<b>Σ [cm<sup>2</sup>]</b>	<b>2136.58</b>	<b>0.00</b>

**Položaji (Z=-0.15m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-20433.7	1651.5	2296.9	11840.6	-7717.0
II	-3304.5	227.5	365.0	1513.8	-1122.7
III	206.3	69.3	-1.2	-1021.0	945.8
IV	5447.5	2045.1	466.0	24259.6	63859.0
V	4236.2	1988.4	557.1	48091.3	63027.7
VI	12830.1	758.8	1470.4	215154.3	10215.6
VII	17439.1	930.5	2096.4	294017.5	12775.7
VIII	18270.1	2246.8	2169.2	297924.6	65124.5

**Merodavna kombinacija za savijanje:**

I+0.30xIII-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xIII+VIII

M2ed = -286390.29 kNm

M3ed = 57691.20 kNm

N1ed = -2101.65 kN

V2ed = 3919.13 kN

V3ed = 4465.67 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/10.286 ‰

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	9.58m x 6.20
2	9.58m x 6.20
3	3.58m x 16.58
4	3.58m x 16.58
5	3.18m x 18.66
6	3.18m x 18.66
7	2.73m x 21.74
8	2.73m x 21.74
9	0.38m x 156.18
10	0.38m x 156.18
11	5.48m x 10.83
12	5.48m x 10.83
13	2.78m x 21.35
14	2.78m x 21.35
15	1.18m x 50.30
16	1.18m x 50.30
	<b>Potrebna [cm<sup>2</sup>]</b>
17	59.35
18	59.35
19	59.35
20	59.35
21	59.35
22	59.35
23	59.35
24	59.35
25	59.35
26	59.35
27	59.35
28	59.35
29	59.35
30	59.35
31	59.35
32	59.35
33	59.35
34	59.35
35	59.35
36	59.35
<b>Σ [cm<sup>2</sup>]</b>	<b>2136.58</b>

**Poprečna armatura**

Aah\* = ±46.37 cm<sup>2</sup>/m

**Položaji (Z=-1.07m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-19103.1	354.8	2596.4	6688.3	-5951.6
II	-3214.5	9.3	416.9	679.8	-886.7
III	157.3	216.6	25.3	-809.7	759.6
IV	5215.4	3945.0	758.4	21390.3	55035.7
V	4001.5	4112.7	1002.4	43994.4	54229.3
VI	12724.1	979.0	2671.9	207431.2	8342.5
VII	17283.2	1505.2	3639.5	282857.8	10822.5
VIII	18053.0	4379.5	3775.0	286258.6	56089.7

**Merodavna kombinacija za savijanje:**

I+0.30xIII-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xII+0.30xIII+VIII

M2ed = -279813.28 kNm

M3ed = 50366.00 kNm

N1ed = -1002.97 kN

V2ed = 4802.16 kN

V3ed = 6504.08 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/10.730 ‰

**Podužna armatura**

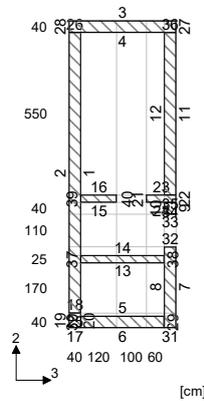
No	Potrebna [cm <sup>2</sup> /m]
1	9.58m x 5.92
2	9.58m x 5.92
3	3.58m x 15.83
4	3.58m x 15.83
5	3.18m x 17.82
6	3.18m x 17.82
7	2.73m x 20.76
8	2.73m x 20.76
9	0.38m x 149.16
10	0.38m x 149.16
11	5.48m x 10.34
12	5.48m x 10.34
13	2.78m x 20.39

14	2.78m x 20.39
15	1.18m x 48.04
16	1.18m x 48.04
	<b>Potrebna [cm<sup>2</sup>]</b>
17	56.68
18	56.68
19	56.68
20	56.68
21	56.68
22	56.68
23	56.68
24	56.68
25	56.68
26	56.68
27	56.68
28	56.68
29	56.68
30	56.68
31	56.68
32	56.68
33	56.68
34	56.68
35	56.68
36	56.68
<b>Σ [cm<sup>2</sup>]</b>	<b>2040.56</b>

Poprečna armatura

Aah\* = ±56.82 cm<sup>2</sup>/m

### Segment reduktora 6



### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	9.48m x 5.40	
2	9.48m x 5.40	
3	3.58m x 14.29	
4	3.58m x 14.29	
5	2.78m x 18.40	
6	2.78m x 18.40	
7	2.73m x 18.74	
8	2.73m x 18.74	
9	0.38m x 134.61	
10	0.38m x 134.61	
11	5.48m x 9.33	
12	5.48m x 9.33	
13	2.78m x 18.40	
14	2.78m x 18.40	
15	1.18m x 43.35	
16	1.18m x 43.35	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
17	51.15	
18	51.15	
19	51.15	
20	51.15	
21	51.15	
22	51.15	
23	51.15	
24	51.15	
25	51.15	
26	51.15	
27	51.15	
28	51.15	
29	51.15	
30	51.15	
31	51.15	
32	51.15	
33	51.15	
34	51.15	
35	51.15	
36	51.15	
37	51.15	

38	51.15	
39	51.15	
40	51.15	
<b>Σ [cm<sup>2</sup>]</b>	<b>2046.00</b>	<b>0.00</b>

### Položaj (Z=-2.70m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-18528.2	-213.2	2426.6	1589.6	-4546.3
II	-3061.6	-78.5	402.8	178.5	-652.4
III	162.3	215.3	24.1	-713.4	334.2
IV	6416.2	3055.7	742.4	32751.8	49373.2
V	5446.7	3202.1	964.3	55251.6	48973.8
VI	9334.9	959.0	2646.9	197202.0	4140.2
VII	12710.7	1424.7	3588.5	269601.9	5319.7
VIII	14238.3	3504.8	3715.8	275205.2	49658.9

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = -273829.63 kNm

M3ed = 45212.91 kNm

N1ed = -4241.18 kN

V2ed = 3332.64 kN

V3ed = 6270.44 kN

εb/εa = -3.500/10.959 ‰

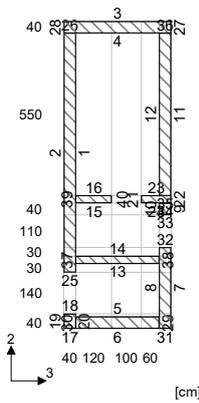
### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	9.48m x 5.40
2	9.48m x 5.40
3	3.58m x 14.29
4	3.58m x 14.29
5	2.78m x 18.40
6	2.78m x 18.40
7	2.73m x 18.74
8	2.73m x 18.74
9	0.38m x 134.61
10	0.38m x 134.61
11	5.48m x 9.33
12	5.48m x 9.33
13	2.78m x 18.40
14	2.78m x 18.40
15	1.18m x 43.35
16	1.18m x 43.35
	<b>Potrebna [cm<sup>2</sup>]</b>
17	51.15
18	51.15
19	51.15
20	51.15
21	51.15
22	51.15
23	51.15
24	51.15
25	51.15
26	51.15
27	51.15
28	51.15
29	51.15
30	51.15
31	51.15
32	51.15
33	51.15
34	51.15
35	51.15
36	51.15
37	51.15
38	51.15
39	51.15
40	51.15
<b>Σ [cm<sup>2</sup>]</b>	<b>2046.00</b>

Poprečna armatura

Aah\* = ±56.03 cm<sup>2</sup>/m

### Segment reduktora 7



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	8.08m x 5.80	
2	8.08m x 5.80	
3	3.58m x 13.10	
4	3.58m x 13.10	
5	2.78m x 16.87	
6	2.78m x 16.87	
7	2.73m x 17.18	
8	2.73m x 17.18	
9	0.38m x 123.42	
10	0.38m x 123.42	
11	5.48m x 8.56	
12	5.48m x 8.56	
13	2.78m x 16.87	
14	2.78m x 16.87	
15	1.18m x 39.74	
16	1.18m x 39.74	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
17	46.90	
18	46.90	
19	46.90	
20	46.90	
21	46.90	
22	46.90	
23	46.90	
24	46.90	
25	46.90	
26	46.90	
27	46.90	
28	46.90	
29	46.90	
30	46.90	
31	46.90	
32	46.90	
33	46.90	
34	46.90	
35	46.90	
36	46.90	
37	46.90	
38	46.90	
39	46.90	
40	46.90	
	<b>Σ [cm<sup>2</sup>]</b>	<b>0.00</b>

Položaj (Z=-2.92m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17689.7	-246.3	2769.7	1143.0	-4468.3
II	-2923.7	-84.0	441.6	94.1	-649.4
III	156.6	213.0	14.6	-695.4	295.2
IV	4730.7	2899.4	757.2	25419.6	46011.8
V	3729.2	3043.7	988.6	46124.9	45104.8
VI	11253.4	970.4	2540.2	184219.5	8055.2
VII	15384.6	1430.4	3450.4	251630.3	10866.4
VIII	16095.5	3363.1	3589.2	255822.8	47277.5

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = -254888.43 kNm  
M3ed = 42897.84 kNm  
N1ed = -1547.26 kN  
V2ed = 3155.51 kN  
V3ed = 6495.79 kN

εb/εa = -3.500/11.520 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	8.08m x 5.80
2	8.08m x 5.80
3	3.58m x 13.10
4	3.58m x 13.10
5	2.78m x 16.87
6	2.78m x 16.87
7	2.73m x 17.18
8	2.73m x 17.18
9	0.38m x 123.42
10	0.38m x 123.42
11	5.48m x 8.56
12	5.48m x 8.56
13	2.78m x 16.87
14	2.78m x 16.87
15	1.18m x 39.74
16	1.18m x 39.74
	<b>Potrebna [cm<sup>2</sup>]</b>
17	46.90
18	46.90
19	46.90
20	46.90
21	46.90
22	46.90
23	46.90
24	46.90
25	46.90
26	46.90
27	46.90
28	46.90
29	46.90
30	46.90
31	46.90
32	46.90
33	46.90
34	46.90
35	46.90
36	46.90
37	46.90
38	46.90
39	46.90
40	46.90
	<b>Σ [cm<sup>2</sup>]</b>
	1875.94

Poprečna armatura

Aah\* = ±62.10 cm<sup>2</sup>/m

Položaj (Z=-2.92m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17664.2	-246.1	2769.3	1163.7	-4499.0
II	-2919.4	-84.0	441.5	97.6	-654.8
III	157.2	213.0	14.6	-694.9	293.0
IV	4726.6	2899.8	757.6	25411.9	46015.8
V	3721.1	3044.2	989.1	46113.3	45117.6
VI	11304.9	970.3	2540.5	184177.6	7980.1
VII	15454.2	1430.4	3450.9	251573.4	10764.0
VIII	16160.9	3363.5	3589.8	255764.8	47258.0

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = -254809.62 kNm

M3ed = 42846.88 kNm

N1ed = -1456.18 kN

V2ed = 3156.07 kN

V3ed = 6496.04 kN

εb/εa = -3.500/11.543 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	8.08m x 5.80
2	8.08m x 5.80
3	3.58m x 13.09
4	3.58m x 13.09
5	2.78m x 16.86
6	2.78m x 16.86
7	2.73m x 17.17
8	2.73m x 17.17
9	0.38m x 123.34
10	0.38m x 123.34
11	5.48m x 8.55
12	5.48m x 8.55
13	2.78m x 16.86

14	2.78m x 16.86
15	1.18m x 39.72
16	1.18m x 39.72
	Potrebna [cm <sup>2</sup> ]
17	46.87
18	46.87
19	46.87
20	46.87
21	46.87
22	46.87
23	46.87
24	46.87
25	46.87
26	46.87
27	46.87
28	46.87

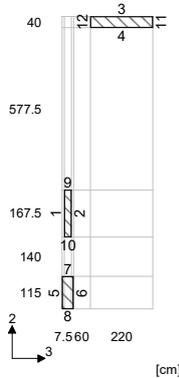
29	46.87
30	46.87
31	46.87
32	46.87
33	46.87
34	46.87
35	46.87
36	46.87
37	46.87
38	46.87
39	46.87
40	46.87
Σ [cm <sup>2</sup> ]	1874.73

Poprečna armatura  
Aah\* = ±62.10 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

**Segment reduktora 1**

C30/37 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.66m x 4.06	
2	1.66m x 4.06	
3	2.18m x 3.08	
4	2.18m x 3.08	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
5	6.72	
6	6.72	
7	6.72	
8	6.72	
9	6.72	
10	6.72	
11	6.72	
12	6.72	
<b>Σ [cm<sup>2</sup>]</b>	<b>80.69</b>	<b>0.00</b>

**Položaj (Z=50.22m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-965.1	249.4	18.0	369.4	-101.4
II	-269.1	69.8	-0.3	147.5	11.3
III	-1.0	-0.8	0.5	15.4	-5.6
IV	57.3	355.4	282.4	845.3	110.8
V	71.5	359.8	294.6	743.8	101.4
VI	116.5	42.4	921.1	2565.8	250.1
VII	144.0	42.9	1062.7	2803.9	301.0
VIII	160.8	362.3	1102.8	2928.5	320.8

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xIII+VIII

M2ed = 3302.56 kNm  
M3ed = -423.88 kNm  
N1ed = -804.61 kN  
V2ed = 611.51 kN  
V3ed = 1120.91 kN

$\epsilon_b/\epsilon_a = -2.193/25.000 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	1.66m x 0.64
2	1.66m x 0.64
3	2.18m x 0.49
4	2.18m x 0.49
	<b>Potrebna [cm<sup>2</sup>]</b>
5	1.06
6	1.06
7	1.06
8	1.06
9	1.06
10	1.06
11	1.06
12	1.06
<b>Σ [cm<sup>2</sup>]</b>	<b>12.77</b>

**Poprečna armatura**

Aah\* = ±13.58 cm<sup>2</sup>/m

**Segment reduktora 2**

**Položaj (Z=52.85m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1232.0	131.6	8.0	1648.5	1049.6
II	-381.7	37.6	-2.9	555.3	341.6
III	4.9	-0.9	0.4	-13.2	-17.5
IV	465.1	145.1	204.6	1700.2	1408.4
V	494.8	140.5	214.2	1912.0	1483.7
VI	261.5	64.8	669.2	1842.9	654.0
VII	348.0	75.3	775.2	2417.2	860.3
VIII	605.0	163.5	804.3	3082.0	1715.0

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xIII+VIII

M2ed = -1433.48 kNm  
M3ed = 2764.64 kNm  
N1ed = -627.03 kN  
V2ed = 294.75 kN  
V3ed = 812.37 kN

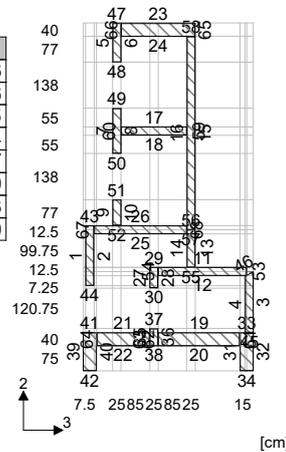
$\epsilon_b/\epsilon_a = -3.157/25.000 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.66m x 4.06	
2	1.66m x 4.06	
3	2.18m x 3.08	
4	2.18m x 3.08	
	<b>Potrebna [cm<sup>2</sup>]</b>	
5	6.72	
6	6.72	
7	6.72	
8	6.72	
9	6.72	
10	6.72	
11	6.72	
12	6.72	
<b>Σ [cm<sup>2</sup>]</b>	<b>80.69</b>	

**Poprečna armatura**

Aah\* = ±9.84 cm<sup>2</sup>/m



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.78m x 1.31	
2	1.78m x 1.31	
3	1.80m x 1.29	
4	1.68m x 1.39	
5	1.15m x 2.02	
6	1.15m x 2.02	
7	1.33m x 1.75	
8	1.33m x 1.75	
9	0.75m x 3.10	
10	0.75m x 3.10	
11	2.60m x 0.89	
12	2.60m x 0.89	
13	1.11m x 2.11	
14	1.11m x 2.11	
15	5.76m x 0.40	
16	5.76m x 0.40	
17	1.93m x 1.21	
18	1.93m x 1.21	
19	2.41m x 0.97	
20	2.41m x 0.97	
21	1.55m x 1.50	

22	1.55m x 1.50		17	1.93m x 0.00
23	2.18m x 1.07		18	1.93m x 0.00
24	2.18m x 1.07		19	2.41m x 0.00
25	2.73m x 0.85		20	2.41m x 0.00
26	2.73m x 0.85		21	1.55m x 0.00
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]	22	1.55m x 0.00
27	2.33		23	2.18m x 0.00
28	2.33		24	2.18m x 0.00
29	2.33		25	2.73m x 0.00
30	2.33		26	2.73m x 0.00
31	2.33			Potrebna [cm <sup>2</sup> ]
32	2.33		27	0.00
33	2.33		28	0.00
34	2.33		29	0.00
35	2.33		30	0.00
36	2.33		31	0.00
37	2.33		32	0.00
38	2.33		33	0.00
39	2.33		34	0.00
40	2.33		35	0.00
41	2.33		36	0.00
42	2.33		37	0.00
43	2.33		38	0.00
44	2.33		39	0.00
45	2.33		40	0.00
46	2.33		41	0.00
47	2.33		42	0.00
48	2.33		43	0.00
49	2.33		44	0.00
50	2.33		45	0.00
51	2.33		46	0.00
52	2.33		47	0.00
53	2.33		48	0.00
54	2.33		49	0.00
55	2.33		50	0.00
56	2.33		51	0.00
57	2.33		52	0.00
58	2.33		53	0.00
59	2.33		54	0.00
60	2.33		55	0.00
61	2.33		56	0.00
62	2.33		57	0.00
63	2.33		58	0.00
64	2.33		59	0.00
65	2.33		60	0.00
66	2.33		61	0.00
67	2.33		62	0.00
68	2.33		63	0.00
Σ [cm <sup>2</sup> ]	158.34	0.00	64	0.00
			65	0.00
			66	0.00
			67	0.00
			68	0.00
			Σ [cm <sup>2</sup> ]	0.00

Položaj (Z=48.47m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]	Σ [cm <sup>2</sup> ]
I	-4287.9	590.4	-218.5	5702.0	206.3	
II	-1046.6	111.6	-97.6	1508.2	-3.2	
III	53.9	-2.5	14.1	114.9	-182.1	
IV	1130.8	4173.9	1441.2	4001.1	1886.6	
V	1163.4	4063.0	1005.6	3322.5	1889.1	
VI	339.9	1304.5	4759.7	6986.9	730.1	
VII	443.1	1500.8	5894.9	7592.6	756.3	
VIII	1244.9	4435.5	6068.5	8582.3	2034.9	
						Σ [cm <sup>2</sup> ]
						0.00

Poprečna armatura

Aah\* = ±106.99 cm<sup>2</sup>/m

Položaj (Z=46.72m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-2720.6	592.1	-201.4	2786.1	-2860.6
II	-493.1	111.2	-93.8	737.6	-657.4
III	2.2	-4.9	12.9	72.2	-33.9
IV	861.1	4225.8	1368.4	3940.2	11272.5
V	897.0	4114.3	956.9	2995.8	10932.5
VI	424.0	1299.7	4689.7	12545.0	3900.1
VII	516.1	1494.0	5790.4	14962.0	4534.2
VIII	1034.9	4482.1	5949.9	15472.1	12150.2

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

Merodavna kombinacija za smicanje:

I+0.30xII-1.00xVIII

M2ed = 9453.72 kNm

M3ed = 1.98 kNm

N1ed = -6806.78 kN

V2ed = -3811.67 kN

V3ed = -6316.34 kN

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII-1.00xVIII

M2ed = 18279.93 kNm

M3ed = -15020.98 kNm

N1ed = -1685.02 kN

V2ed = -3856.69 kN

V3ed = -6179.46 kN

ε<sub>b</sub>/ε<sub>a</sub> = -1.685/25.000 %

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.78m x 1.31
2	1.78m x 1.31
3	1.80m x 1.29
4	1.68m x 1.39
5	1.15m x 2.02
6	1.15m x 2.02
7	1.33m x 1.75

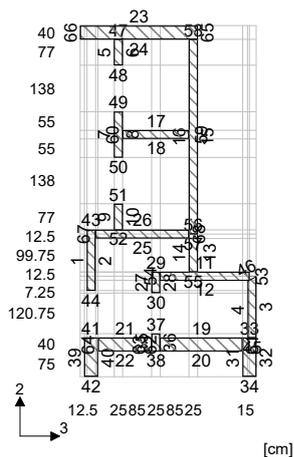
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.78m x 0.00
2	1.78m x 0.00
3	1.80m x 0.00
4	1.68m x 0.00
5	1.15m x 0.00
6	1.15m x 0.00
7	1.33m x 0.00
8	1.33m x 0.00
9	0.75m x 0.00
10	0.75m x 0.00
11	2.60m x 0.00
12	2.60m x 0.00
13	1.11m x 0.00
14	1.11m x 0.00
15	5.76m x 0.00
16	5.76m x 0.00

8	1.33m x 1.75
9	0.75m x 3.10
10	0.75m x 3.10
11	2.60m x 0.89
12	2.60m x 0.89
13	1.11m x 2.11
14	1.11m x 2.11
15	5.76m x 0.40
16	5.76m x 0.40
17	1.93m x 1.21
18	1.93m x 1.21
19	2.41m x 0.97
20	2.41m x 0.97
21	1.55m x 1.50
22	1.55m x 1.50
23	2.18m x 1.07
24	2.18m x 1.07
25	2.73m x 0.85
26	2.73m x 0.85
	<b>Potrebna [cm<sup>2</sup>]</b>
27	2.33
28	2.33
29	2.33
30	2.33
31	2.33
32	2.33
33	2.33
34	2.33
35	2.33
36	2.33
37	2.33
38	2.33
39	2.33
40	2.33
41	2.33
42	2.33
43	2.33
44	2.33
45	2.33
46	2.33
47	2.33
48	2.33
49	2.33
50	2.33
51	2.33
52	2.33
53	2.33
54	2.33
55	2.33
56	2.33
57	2.33
58	2.33
59	2.33
60	2.33
61	2.33
62	2.33
63	2.33
64	2.33
65	2.33
66	2.33
67	2.33
68	2.33
<b>Σ [cm<sup>2</sup>]</b>	<b>158.34</b>

Poprečna armatura  
Aah\* = ±104.67 cm<sup>2</sup>/m

### Segment reduktora 3



### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.78m x 9.29	
2	1.78m x 9.29	
3	1.80m x 9.17	
4	1.68m x 9.85	
5	0.75m x 22.04	
6	0.75m x 22.04	
7	1.33m x 12.43	
8	1.33m x 12.43	
9	0.75m x 22.04	
10	0.75m x 22.04	
11	2.60m x 6.35	
12	2.60m x 6.35	
13	1.11m x 14.96	
14	1.11m x 14.96	
15	5.76m x 2.87	
16	5.76m x 2.87	
17	1.93m x 8.57	
18	1.93m x 8.57	
19	2.41m x 6.87	
20	2.41m x 6.87	
21	1.55m x 10.63	
22	1.55m x 10.63	
23	3.43m x 4.82	
24	3.43m x 4.82	
25	2.73m x 6.06	
26	2.73m x 6.06	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
27	16.53	
28	16.53	
29	16.53	
30	16.53	
31	16.53	
32	16.53	
33	16.53	
34	16.53	
35	16.53	
36	16.53	
37	16.53	
38	16.53	
39	16.53	
40	16.53	
41	16.53	
42	16.53	
43	16.53	
44	16.53	
45	16.53	
46	16.53	
47	16.53	
48	16.53	
49	16.53	
50	16.53	
51	16.53	
52	16.53	
53	16.53	
54	16.53	
55	16.53	
56	16.53	
57	16.53	
58	16.53	
59	16.53	
60	16.53	
61	16.53	
62	16.53	
63	16.53	
64	16.53	
65	16.53	
66	16.53	
67	16.53	
68	16.53	
<b>Σ [cm<sup>2</sup>]</b>	<b>1124.23</b>	<b>0.00</b>

### Položaj (Z=2.15m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-20689.9	-220.4	2896.0	13688.6	-4207.1
II	-3280.1	62.4	289.5	2135.8	-455.0
III	-193.3	-61.9	-38.7	-724.9	948.8
IV	17682.2	4788.8	1175.7	14704.7	53204.4
V	17725.8	4783.5	692.9	7485.2	52131.1
VI	460.5	973.1	6354.5	102654.5	14485.5
VII	498.5	965.1	8103.7	133487.6	17853.6
VIII	17732.8	4886.7	8188.6	134295.1	56120.0

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = 147766.28 kNm  
M3ed = 52197.57 kNm  
N1ed = -3015.01 kN  
V2ed = 4685.02 kN  
V3ed = 11171.38 kN

$\epsilon_b/\epsilon_a = -3.500/10.885 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.78m x 7.88
2	1.78m x 7.88
3	1.80m x 7.77
4	1.68m x 8.35
5	0.75m x 18.69
6	0.75m x 18.69
7	1.33m x 10.54
8	1.33m x 10.54
9	0.75m x 18.69
10	0.75m x 18.69
11	2.60m x 5.38
12	2.60m x 5.38
13	1.11m x 12.69
14	1.11m x 12.69
15	5.76m x 2.44
16	5.76m x 2.44
17	1.93m x 7.26
18	1.93m x 7.26
19	2.41m x 5.83
20	2.41m x 5.83
21	1.55m x 9.02
22	1.55m x 9.02
23	3.43m x 4.09
24	3.43m x 4.09
25	2.73m x 5.14
26	2.73m x 5.14
	Potrebna [cm <sup>2</sup> ]
27	14.02
28	14.02
29	14.02
30	14.02
31	14.02
32	14.02
33	14.02
34	14.02
35	14.02
36	14.02
37	14.02
38	14.02
39	14.02
40	14.02
41	14.02
42	14.02
43	14.02
44	14.02
45	14.02
46	14.02
47	14.02
48	14.02
49	14.02
50	14.02
51	14.02
52	14.02
53	14.02
54	14.02
55	14.02
56	14.02
57	14.02
58	14.02
59	14.02
60	14.02
61	14.02
62	14.02
63	14.02
64	14.02
65	14.02
66	14.02
67	14.02
68	14.02
<b>Σ [cm<sup>2</sup>]</b>	<b>953.44</b>

Poprečna armatura  
Aah\* = ±189.45 cm<sup>2</sup>/m

Položaji (Z=1.00m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-20768.7	-96.2	2790.8	16615.7	-3982.4
II	-3117.3	84.1	276.5	2444.6	-742.1
III	-205.4	-66.6	-38.0	-835.8	1127.0
IV	15997.7	4996.1	1189.5	18268.5	63414.2
V	15995.8	4984.8	705.3	9381.6	62382.1

VI	564.4	1055.3	6284.2	111590.9	16129.0
VII	560.3	1062.2	8012.2	144377.3	19354.9
VIII	16007.7	5107.8	8100.1	145528.5	66302.1

Merodavna kombinacija za savijanje: I-1.00xVIII  
Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 162144.20 kNm  
M3ed = 62319.66 kNm  
N1ed = -4761.09 kN  
V2ed = 5036.85 kN  
V3ed = 10973.85 kN

$\epsilon_b/\epsilon_a = -3.500/9.791 \text{ ‰}$

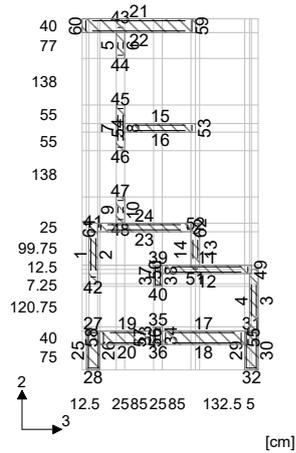
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.78m x 9.29
2	1.78m x 9.29
3	1.80m x 9.17
4	1.68m x 9.85
5	0.75m x 22.04
6	0.75m x 22.04
7	1.33m x 12.43
8	1.33m x 12.43
9	0.75m x 22.04
10	0.75m x 22.04
11	2.60m x 6.35
12	2.60m x 6.35
13	1.11m x 14.96
14	1.11m x 14.96
15	5.76m x 2.87
16	5.76m x 2.87
17	1.93m x 8.57
18	1.93m x 8.57
19	2.41m x 6.87
20	2.41m x 6.87
21	1.55m x 10.63
22	1.55m x 10.63
23	3.43m x 4.82
24	3.43m x 4.82
25	2.73m x 6.06
26	2.73m x 6.06
	Potrebna [cm <sup>2</sup> ]
27	16.53
28	16.53
29	16.53
30	16.53
31	16.53
32	16.53
33	16.53
34	16.53
35	16.53
36	16.53
37	16.53
38	16.53
39	16.53
40	16.53
41	16.53
42	16.53
43	16.53
44	16.53
45	16.53
46	16.53
47	16.53
48	16.53
49	16.53
50	16.53
51	16.53
52	16.53
53	16.53
54	16.53
55	16.53
56	16.53
57	16.53
58	16.53
59	16.53
60	16.53
61	16.53
62	16.53
63	16.53
64	16.53
65	16.53
66	16.53
67	16.53
68	16.53
<b>Σ [cm<sup>2</sup>]</b>	<b>1124.23</b>

Poprečna armatura  
Aah\* = ±186.10 cm<sup>2</sup>/m

Segment reduktora 4

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
 Ugaona armatura ploča i zidova S500N  
 Podužna armatura ploča i zidova S500N  
 Podužna armatura gređa i stubova S500N  
 Poprečna armatura S500N



60	(P) 23.55	(8Ø20) 25.13
61	(P) 11.77	(4Ø20) 12.57
62	(P) 11.77	(4Ø20) 12.57
$\Sigma$ [cm <sup>2</sup> ]	891.26	951.31

Položaj (Z=7.04m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17509.2	89.4	338.9	9868.7	-1714.0
II	-2520.0	27.1	29.4	1738.5	-306.1
III	-187.7	-101.2	-24.2	-529.3	1030.6
IV	14556.1	5105.2	900.2	6921.0	44117.7
V	14468.2	5047.0	760.9	7910.3	43035.1
VI	1398.1	1391.8	1449.4	74926.1	11614.6
VII	1655.1	1548.7	1887.7	97239.7	15026.2
VIII	14649.9	5334.9	2091.3	97560.9	46606.5

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 107429.57 kNm  
 M3ed = 44892.50 kNm  
 N1ed = -2859.32 kN  
 V2ed = 5432.40 kN  
 V3ed = 2439.05 kN

$\epsilon_b/\epsilon_a = -3.500/9.212 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 0.95m x 10.60	(Ø12/10) 0.95m x 11.31
2	(P) 0.95m x 10.60	(Ø12/10) 0.95m x 11.31
3	(P) 0.92m x 10.60	(Ø12/10) 0.92m x 11.31
4	(P) 0.92m x 10.60	(Ø12/10) 0.92m x 11.31
5	(P) 0.17m x 29.43	(Ø20/10) 0.17m x 31.42
6	(P) 0.17m x 29.43	(Ø20/10) 0.17m x 31.42
7	(P) 0.75m x 10.60	(Ø12/10) 0.75m x 11.31
8	(P) 0.75m x 10.60	(Ø12/10) 0.75m x 11.31
9	(P) 0.17m x 29.43	(Ø20/10) 0.17m x 31.42
10	(P) 0.17m x 29.43	(Ø20/10) 0.17m x 31.42
11	(P) 2.02m x 10.60	(Ø12/10) 2.02m x 11.31
12	(P) 2.02m x 10.60	(Ø12/10) 2.02m x 11.31
13	(P) 0.55m x 10.60	(Ø12/10) 0.55m x 11.31
14	(P) 0.55m x 10.60	(Ø12/10) 0.55m x 11.31
15	(P) 1.47m x 5.30	(Ø12/20) 1.47m x 5.65
16	(P) 1.47m x 5.30	(Ø12/20) 1.47m x 5.65
17	(P) 1.83m x 10.60	(Ø12/10) 1.83m x 11.31
18	(P) 1.83m x 10.60	(Ø12/10) 1.83m x 11.31
19	(P) 0.97m x 10.60	(Ø12/10) 0.97m x 11.31
20	(P) 0.97m x 10.60	(Ø12/10) 0.97m x 11.31
21	(P) 2.72m x 10.60	(Ø12/10) 2.72m x 11.31
22	(P) 2.72m x 10.60	(Ø12/10) 2.72m x 11.31
23	(P) 2.15m x 10.60	(Ø12/10) 2.15m x 11.31
24	(P) 2.15m x 10.60	(Ø12/10) 2.15m x 11.31
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
25	(P) 23.55	(8Ø20) 25.13
26	(P) 23.55	(8Ø20) 25.13
27	(P) 11.77	(4Ø20) 12.57
28	(P) 11.77	(4Ø20) 12.57
29	(P) 23.55	(8Ø20) 25.13
30	(P) 23.55	(8Ø20) 25.13
31	(P) 11.77	(4Ø20) 12.57
32	(P) 11.77	(4Ø20) 12.57
33	(P) 8.83	(3Ø20) 9.42
34	(P) 8.83	(3Ø20) 9.42
35	(P) 5.89	(2Ø20) 6.28
36	(P) 5.89	(2Ø20) 6.28
37	(P) 8.83	(3Ø20) 9.42
38	(P) 8.83	(3Ø20) 9.42
39	(P) 5.89	(2Ø20) 6.28
40	(P) 5.89	(2Ø20) 6.28
41	(P) 23.55	(8Ø20) 25.13
42	(P) 17.66	(6Ø20) 18.85
43	(P) 58.87	(20Ø20) 62.83
44	(P) 11.77	(4Ø20) 12.57
45	(P) 11.77	(4Ø20) 12.57
46	(P) 11.77	(4Ø20) 12.57
47	(P) 11.77	(4Ø20) 12.57
48	(P) 5.89	(2Ø20) 6.28
49	(P) 35.32	(12Ø20) 37.70
50	(P) 11.77	(4Ø20) 12.57
51	(P) 29.43	(10Ø20) 31.42
52	(P) 11.77	(4Ø20) 12.57
53	(P) 17.66	(6Ø20) 18.85
54	(P) 5.89	(2Ø20) 6.28
55	(P) 11.77	(4Ø20) 12.57
56	(P) 11.77	(4Ø20) 12.57
57	(P) 11.77	(4Ø20) 12.57
58	(P) 11.77	(4Ø20) 12.57
59	(P) 23.55	(8Ø20) 25.13

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 0.95m x 10.50
2	(P) 0.95m x 10.50
3	(P) 0.92m x 10.50
4	(P) 0.92m x 10.50
5	(P) 0.17m x 29.17
6	(P) 0.17m x 29.17
7	(P) 0.75m x 10.50
8	(P) 0.75m x 10.50
9	(P) 0.17m x 29.17
10	(P) 0.17m x 29.17
11	(P) 2.02m x 10.50
12	(P) 2.02m x 10.50
13	(P) 0.55m x 10.50
14	(P) 0.55m x 10.50
15	(P) 1.47m x 5.25
16	(P) 1.47m x 5.25
17	(P) 1.83m x 10.50
18	(P) 1.83m x 10.50
19	(P) 0.97m x 10.50
20	(P) 0.97m x 10.50
21	(P) 2.72m x 10.50
22	(P) 2.72m x 10.50
23	(P) 2.15m x 10.50
24	(P) 2.15m x 10.50
	<b>Potrebna [cm<sup>2</sup>]</b>
25	(P) 23.34
26	(P) 23.34
27	(P) 11.67
28	(P) 11.67
29	(P) 23.34
30	(P) 23.34
31	(P) 11.67
32	(P) 11.67
33	(P) 8.75
34	(P) 8.75
35	(P) 5.83
36	(P) 5.83
37	(P) 8.75
38	(P) 8.75
39	(P) 5.83
40	(P) 5.83
41	(P) 23.34
42	(P) 17.50
43	(P) 58.35
44	(P) 11.67
45	(P) 11.67
46	(P) 11.67
47	(P) 11.67
48	(P) 5.83
49	(P) 35.01
50	(P) 11.67
51	(P) 29.17
52	(P) 11.67
53	(P) 17.50
54	(P) 5.83
55	(P) 11.67
56	(P) 11.67
57	(P) 11.67
58	(P) 11.67
59	(P) 23.34

60	(P) 23.34
61	(P) 11.67
62	(P) 11.67
<b>Σ [cm<sup>2</sup>]</b>	<b>883.42</b>

Poprečna armatura  
Aah\* = ±116.17 cm<sup>2</sup>/m

Položaj (Z=6.75m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17482.9	35.6	366.9	9683.2	-1855.3
II	-2562.4	6.3	31.5	1802.1	-273.1
III	-187.1	-88.0	-21.3	-517.6	997.4
IV	14752.7	5103.5	1038.3	6789.1	43236.5
V	14616.3	5040.2	913.7	8194.9	42046.4
VI	2039.7	1456.2	1319.3	75816.2	12707.1
VII	2457.0	1626.2	1708.5	98477.9	16451.2
VIII	14955.9	5356.3	1999.3	98818.3	46260.5

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = 108346.27 kNm

M3ed = 44704.41 kNm

N1ed = -2583.13 kN

V2ed = 5393.78 kN

V3ed = 2375.63 kN

εb/εa = -3.500/9.199 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 0.95m x 10.60
2	(P) 0.95m x 10.60
3	(P) 0.92m x 10.60
4	(P) 0.92m x 10.60
5	(P) 0.17m x 29.43
6	(P) 0.17m x 29.43
7	(P) 0.75m x 10.60
8	(P) 0.75m x 10.60
9	(P) 0.17m x 29.43
10	(P) 0.17m x 29.43
11	(P) 2.02m x 10.60
12	(P) 2.02m x 10.60
13	(P) 0.55m x 10.60
14	(P) 0.55m x 10.60
15	(P) 1.47m x 5.30
16	(P) 1.47m x 5.30

17	(P) 1.83m x 10.60
18	(P) 1.83m x 10.60
19	(P) 0.97m x 10.60
20	(P) 0.97m x 10.60
21	(P) 2.72m x 10.60
22	(P) 2.72m x 10.60
23	(P) 2.15m x 10.60
24	(P) 2.15m x 10.60
	<b>Potrebna [cm<sup>2</sup>]</b>
25	(P) 23.55
26	(P) 23.55
27	(P) 11.77
28	(P) 11.77
29	(P) 23.55
30	(P) 23.55
31	(P) 11.77
32	(P) 11.77
33	(P) 8.83
34	(P) 8.83
35	(P) 5.89
36	(P) 5.89
37	(P) 8.83
38	(P) 8.83
39	(P) 5.89
40	(P) 5.89
41	(P) 23.55
42	(P) 17.66
43	(P) 58.87
44	(P) 11.77
45	(P) 11.77
46	(P) 11.77
47	(P) 11.77
48	(P) 5.89
49	(P) 35.32
50	(P) 11.77
51	(P) 29.43
52	(P) 11.77
53	(P) 17.66
54	(P) 5.89
55	(P) 11.77
56	(P) 11.77
57	(P) 11.77
58	(P) 11.77
59	(P) 23.55
60	(P) 23.55
61	(P) 11.77
62	(P) 11.77
<b>Σ [cm<sup>2</sup>]</b>	<b>891.26</b>

Poprečna armatura  
Aah\* = ±115.34 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

Segment reduktora 1

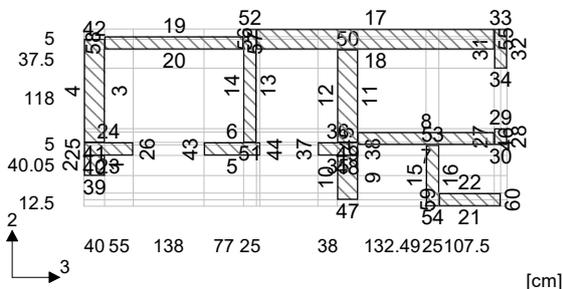
C35/45 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura greda i stubova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.38m x 14.17	
2	0.38m x 14.17	
3	2.00m x 2.69	
4	2.00m x 2.69	
5	1.07m x 5.04	
6	1.07m x 5.04	
7	2.63m x 2.05	
8	2.63m x 2.05	
9	0.86m x 6.31	
10	0.86m x 6.31	
11	1.80m x 2.99	
12	1.80m x 2.99	

13	2.20m x 2.45	
14	2.20m x 2.45	
15	1.18m x 4.57	
16	1.18m x 4.57	
17	4.60m x 1.17	
18	4.60m x 1.17	
19	2.68m x 2.01	
20	2.68m x 2.01	
21	1.18m x 4.57	
22	1.18m x 4.57	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
23	5.39	
24	5.39	
25	5.39	
26	5.39	
27	5.39	
28	5.39	
29	5.39	
30	5.39	
31	5.39	
32	5.39	
33	5.39	
34	5.39	
35	5.39	
36	5.39	
37	5.39	
38	5.39	
39	5.39	
40	5.39	
41	5.39	
42	5.39	
43	5.39	
44	5.39	
45	5.39	
46	5.39	
47	5.39	
48	5.39	
49	5.39	
50	5.39	



58	5.32		58	5.32
59	5.32		59	5.32
60	5.32		60	5.32
$\Sigma$ [cm <sup>2</sup> ]	319.42	0.00	$\Sigma$ [cm <sup>2</sup> ]	319.42

Poprečna armatura  
Aah\* = ±0.00 cm<sup>2</sup>/m

Položaji (Z=37.27m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-8988.2	-182.3	-340.3	1035.7	-343.8
II	-1540.6	-42.4	-46.4	72.1	-55.5
III	-46.9	-56.6	-25.9	254.9	-1237.2
IV	1805.7	1141.4	586.0	8329.9	28597.0
V	1767.3	1196.7	637.1	8789.1	29380.4
VI	7971.4	1445.9	1211.3	11301.7	8458.0
VII	7740.9	1110.6	1335.1	12224.2	7660.1
VIII	8173.3	1876.9	1479.4	15055.9	30573.6

Segment reduktora 3

C30/37 ( $\gamma_c = 1.50, \gamma_s = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -14020.19 kNm

M3ed = -30917.42 kNm

N1ed = -814.89 kN

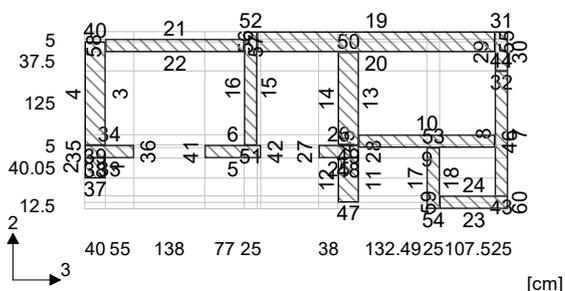
V2ed = -2088.85 kN

V3ed = -1841.39 kN

$\epsilon_b/\epsilon_a = -3.500/17.327 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 13.99
2	0.38m x 13.99
3	2.00m x 2.66
4	2.00m x 2.66
5	1.07m x 4.98
6	1.07m x 4.98
7	1.43m x 3.72
8	1.43m x 3.72
9	2.63m x 2.02
10	2.63m x 2.02
11	0.86m x 6.23
12	0.86m x 6.23
13	1.80m x 2.95
14	1.80m x 2.95
15	2.20m x 2.41
16	2.20m x 2.41
17	1.18m x 4.51
18	1.18m x 4.51
19	4.60m x 1.16
20	4.60m x 1.16
21	2.68m x 1.99
22	2.68m x 1.99
23	1.05m x 5.05
24	1.05m x 5.05
	Potrebna [cm <sup>2</sup> ]
25	5.32
26	5.32
27	5.32
28	5.32
29	5.32
30	5.32
31	5.32
32	5.32
33	5.32
34	5.32
35	5.32
36	5.32
37	5.32
38	5.32
39	5.32
40	5.32
41	5.32
42	5.32
43	5.32
44	5.32
45	5.32
46	5.32
47	5.32
48	5.32
49	5.32
50	5.32
51	5.32
52	5.32
53	5.32
54	5.32
55	5.32
56	5.32
57	5.32



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.38m x 10.49	
2	0.38m x 10.49	
3	2.00m x 1.99	
4	2.00m x 1.99	
5	1.07m x 3.73	
6	1.07m x 3.73	
7	2.43m x 1.64	
8	2.43m x 1.64	
9	2.63m x 1.52	
10	2.63m x 1.52	
11	0.86m x 4.67	
12	0.86m x 4.67	
13	1.80m x 2.21	
14	1.80m x 2.21	
15	2.20m x 1.81	
16	2.20m x 1.81	
17	1.18m x 3.38	
18	1.18m x 3.38	
19	4.60m x 0.87	
20	4.60m x 0.87	
21	2.68m x 1.49	
22	2.68m x 1.49	
23	1.30m x 3.06	
24	1.30m x 3.06	
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
25	3.99	
26	3.99	
27	3.99	
28	3.99	
29	3.99	
30	3.99	
31	3.99	
32	3.99	
33	3.99	
34	3.99	
35	3.99	
36	3.99	
37	3.99	
38	3.99	
39	3.99	
40	3.99	
41	3.99	
42	3.99	
43	3.99	
44	3.99	
45	3.99	
46	3.99	
47	3.99	
48	3.99	
49	3.99	
50	3.99	
51	3.99	
52	3.99	
53	3.99	
54	3.99	
55	3.99	
56	3.99	
57	3.99	

58	3.99		58	3.99
59	3.99		59	3.99
60	3.99		60	3.99
<b>Σ [cm²]</b>	<b>239.62</b>	<b>0.00</b>	<b>Σ [cm²]</b>	<b>239.62</b>

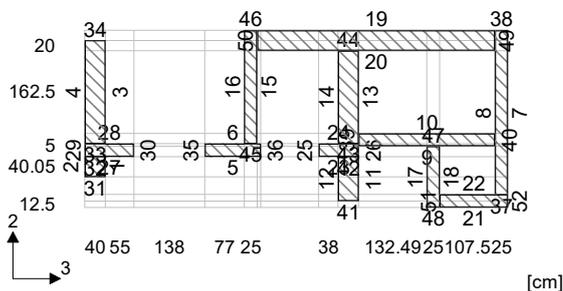
Poprečna armatura  
Aah\* = ±0.00 cm²/m

Položaj (Z=34.65m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-10017.5	-197.2	-301.3	797.2	-180.3
II	-1580.4	-53.1	-41.5	51.7	133.1
III	-30.0	-69.0	-25.4	190.9	-1174.2
IV	1476.7	1590.5	402.7	7522.0	32987.3
V	1392.2	1547.2	413.0	7822.0	34143.6
VI	7779.6	1335.7	1001.3	8971.0	8334.3
VII	7432.6	1122.4	1064.0	9580.4	8402.0
VIII	7918.5	2077.0	1141.4	12368.0	35162.2

Segment reduktora 4



Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -11570.82 kNm

M3ed = -35342.50 kNm

N1ed = -2098.93 kN

V2ed = -2310.75 kN

V3ed = -1462.72 kN

$\epsilon_b/\epsilon_a = -3.500/15.286 \text{ ‰}$

Podužna armatura

No	Potrebna [cm²/m]
1	0.38m x 10.49
2	0.38m x 10.49
3	2.00m x 1.99
4	2.00m x 1.99
5	1.07m x 3.73
6	1.07m x 3.73
7	2.43m x 1.64
8	2.43m x 1.64
9	2.63m x 1.52
10	2.63m x 1.52
11	0.86m x 4.67
12	0.86m x 4.67
13	1.80m x 2.21
14	1.80m x 2.21
15	2.20m x 1.81
16	2.20m x 1.81
17	1.18m x 3.38
18	1.18m x 3.38
19	4.60m x 0.87
20	4.60m x 0.87
21	2.68m x 1.49
22	2.68m x 1.49
23	1.30m x 3.06
24	1.30m x 3.06
	<b>Potrebna [cm²]</b>
25	3.99
26	3.99
27	3.99
28	3.99
29	3.99
30	3.99
31	3.99
32	3.99
33	3.99
34	3.99
35	3.99
36	3.99
37	3.99
38	3.99
39	3.99
40	3.99
41	3.99
42	3.99
43	3.99
44	3.99
45	3.99
46	3.99
47	3.99
48	3.99
49	3.99
50	3.99
51	3.99
52	3.99
53	3.99
54	3.99
55	3.99
56	3.99
57	3.99

Podužna armatura

No	Potrebna [cm²/m]	Usvojena [cm²/m]
1	0.38m x 33.52	
2	0.38m x 33.52	
3	2.00m x 6.36	
4	2.00m x 6.36	
5	1.07m x 11.92	
6	1.07m x 11.92	
7	3.20m x 3.98	
8	3.20m x 3.98	
9	2.63m x 4.85	
10	2.63m x 4.85	
11	0.86m x 14.92	
12	0.86m x 14.92	
13	1.80m x 7.07	
14	1.80m x 7.07	
15	2.20m x 5.78	
16	2.20m x 5.78	
17	1.18m x 10.81	
18	1.18m x 10.81	
19	4.60m x 2.77	
20	4.60m x 2.77	
21	1.30m x 9.77	
22	1.30m x 9.77	
	<b>Potrebna [cm²]</b>	<b>Usvojena [cm²]</b>
23	12.76	
24	12.76	
25	12.76	
26	12.76	
27	12.76	
28	12.76	
29	12.76	
30	12.76	
31	12.76	
32	12.76	
33	12.76	
34	12.76	
35	12.76	
36	12.76	
37	12.76	
38	12.76	
39	12.76	
40	12.76	
41	12.76	
42	12.76	
43	12.76	
44	12.76	
45	12.76	
46	12.76	
47	12.76	
48	12.76	
49	12.76	
50	12.76	
51	12.76	
52	12.76	
<b>Σ [cm²]</b>	<b>663.30</b>	<b>0.00</b>

Položaj (Z=19.77m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-14332.3	-144.3	-187.3	1261.0	-5884.2
II	-2267.3	-32.3	-8.7	167.2	-453.1
III	52.5	-108.0	-31.3	39.7	437.7
IV	1135.4	5106.0	371.4	3478.6	51793.9
V	1109.7	5138.2	372.3	3242.9	52282.8

VI	13294.4	916.7	2483.6	6630.6	5956.0
VII	13162.1	777.3	2536.0	6589.4	5561.3
VIII	13342.8	5219.4	2563.2	7487.7	52620.9

Merodavna kombinacija za smicanje:  
I+0.30xII+0.30xIII-1.00xVIII

Merodavna kombinacija za savijanje:  
I-1.00xVIII  
Merodavna kombinacija za smicanje:  
I+0.30xII+0.30xIII-1.00xVIII

M2ed = -17781.79 kNm  
M3ed = -84158.31 kNm  
N1ed = -3262.80 kN  
V2ed = -5080.55 kN  
V3ed = -2566.16 kN

M2ed = -6226.77 kNm  
M3ed = -58505.17 kNm  
N1ed = -989.46 kN  
V2ed = -5405.71 kN  
V3ed = -2762.39 kN

$\epsilon_b/\epsilon_a = -3.500/9.660 ‰$

$\epsilon_b/\epsilon_a = -3.500/14.293 ‰$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 15.88
2	0.38m x 15.88
3	2.00m x 3.01
4	2.00m x 3.01
5	1.07m x 5.65
6	1.07m x 5.65
7	3.20m x 1.89
8	3.20m x 1.89
9	2.63m x 2.30
10	2.63m x 2.30
11	0.86m x 7.07
12	0.86m x 7.07
13	1.80m x 3.35
14	1.80m x 3.35
15	2.20m x 2.74
16	2.20m x 2.74
17	1.18m x 5.12
18	1.18m x 5.12
19	4.60m x 1.31
20	4.60m x 1.31
21	1.30m x 4.63
22	1.30m x 4.63
	<b>Potrebna [cm<sup>2</sup>]</b>
23	6.04
24	6.04
25	6.04
26	6.04
27	6.04
28	6.04
29	6.04
30	6.04
31	6.04
32	6.04
33	6.04
34	6.04
35	6.04
36	6.04
37	6.04
38	6.04
39	6.04
40	6.04
41	6.04
42	6.04
43	6.04
44	6.04
45	6.04
46	6.04
47	6.04
48	6.04
49	6.04
50	6.04
51	6.04
52	6.04
<b>Σ [cm<sup>2</sup>]</b>	<b>314.27</b>

Poprečna armatura

Aah\* = ±90.10 cm<sup>2</sup>/m

Položaj (Z=14.52m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-15333.9	-4.3	-26.3	385.9	-5895.1
II	-2194.8	-14.3	13.8	86.9	-318.5
III	62.2	-105.6	-35.9	-161.2	1158.7
IV	1930.1	4877.1	359.3	1998.1	76377.8
V	1954.3	4915.8	352.9	1776.0	76893.3
VI	11911.8	1113.6	2473.8	17495.7	14579.3
VII	11854.5	978.4	2507.7	18057.5	13490.5
VIII	12071.1	5040.3	2533.3	18167.7	78263.2

Merodavna kombinacija za savijanje:  
I-1.00xVIII

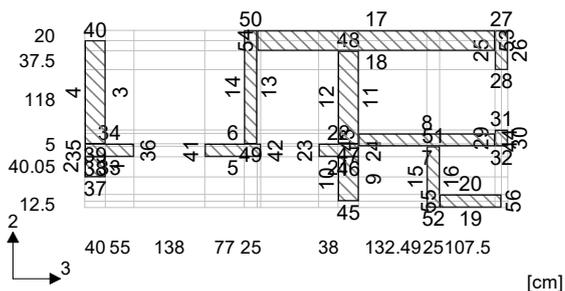
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 33.52
2	0.38m x 33.52
3	2.00m x 6.36
4	2.00m x 6.36
5	1.07m x 11.92
6	1.07m x 11.92
7	3.20m x 3.98
8	3.20m x 3.98
9	2.63m x 4.85
10	2.63m x 4.85
11	0.86m x 14.92
12	0.86m x 14.92
13	1.80m x 7.07
14	1.80m x 7.07
15	2.20m x 5.78
16	2.20m x 5.78
17	1.18m x 10.81
18	1.18m x 10.81
19	4.60m x 2.77
20	4.60m x 2.77
21	1.30m x 9.77
22	1.30m x 9.77
	<b>Potrebna [cm<sup>2</sup>]</b>
23	12.76
24	12.76
25	12.76
26	12.76
27	12.76
28	12.76
29	12.76
30	12.76
31	12.76
32	12.76
33	12.76
34	12.76
35	12.76
36	12.76
37	12.76
38	12.76
39	12.76
40	12.76
41	12.76
42	12.76
43	12.76
44	12.76
45	12.76
46	12.76
47	12.76
48	12.76
49	12.76
50	12.76
51	12.76
52	12.76
<b>Σ [cm<sup>2</sup>]</b>	<b>663.30</b>

Poprečna armatura

Aah\* = ±84.68 cm<sup>2</sup>/m

Segment reduktora 5



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.38m x 12.76	
2	0.38m x 12.76	
3	2.00m x 2.42	
4	2.00m x 2.42	
5	1.07m x 4.54	
6	1.07m x 4.54	
7	2.63m x 1.85	
8	2.63m x 1.85	
9	0.86m x 5.68	
10	0.86m x 5.68	
11	1.80m x 2.69	
12	1.80m x 2.69	
13	2.20m x 2.20	
14	2.20m x 2.20	
15	1.18m x 4.12	
16	1.18m x 4.12	
17	4.60m x 1.05	
18	4.60m x 1.05	
19	1.18m x 4.12	
20	1.18m x 4.12	
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
21	4.86	
22	4.86	
23	4.86	
24	4.86	
25	4.86	
26	4.86	
27	4.86	
28	4.86	
29	4.86	
30	4.86	
31	4.86	
32	4.86	
33	4.86	
34	4.86	
35	4.86	
36	4.86	
37	4.86	
38	4.86	
39	4.86	
40	4.86	
41	4.86	
42	4.86	
43	4.86	
44	4.86	
45	4.86	
46	4.86	
47	4.86	
48	4.86	
49	4.86	
50	4.86	
51	4.86	
52	4.86	
53	4.86	
54	4.86	
55	4.86	
56	4.86	
Σ [cm <sup>2</sup> ]	271.93	0.00

6	1.07m x 4.54
7	2.63m x 1.85
8	2.63m x 1.85
9	0.86m x 5.68
10	0.86m x 5.68
11	1.80m x 2.69
12	1.80m x 2.69
13	2.20m x 2.20
14	2.20m x 2.20
15	1.18m x 4.12
16	1.18m x 4.12
17	4.60m x 1.05
18	4.60m x 1.05
19	1.18m x 4.12
20	1.18m x 4.12
	Potrebna [cm <sup>2</sup> ]
21	4.86
22	4.86
23	4.86
24	4.86
25	4.86
26	4.86
27	4.86
28	4.86
29	4.86
30	4.86
31	4.86
32	4.86
33	4.86
34	4.86
35	4.86
36	4.86
37	4.86
38	4.86
39	4.86
40	4.86
41	4.86
42	4.86
43	4.86
44	4.86
45	4.86
46	4.86
47	4.86
48	4.86
49	4.86
50	4.86
51	4.86
52	4.86
53	4.86
54	4.86
55	4.86
56	4.86
Σ [cm <sup>2</sup> ]	271.93

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

Položaj (Z=27.65m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-11135.2	-60.6	-0.5	-163.4	-1189.7
II	-1718.7	-31.4	14.7	-62.3	-212.7
III	-12.0	-68.8	-17.5	23.8	-417.1
IV	2119.4	2364.3	570.1	8173.5	29154.2
V	2093.2	2405.5	601.4	8087.7	29864.5
VI	9788.6	361.8	1436.6	5008.4	5503.2
VII	9630.0	307.4	1532.0	4760.1	5546.2
VIII	10015.4	2432.5	1645.9	9586.0	30375.2

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xIII-1.00xVIII

Položaj (Z=30.27m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-10732.8	40.0	-110.1	129.9	-1044.5
II	-1667.4	9.1	-0.1	-58.8	-128.5
III	-10.8	-90.0	-29.2	81.6	-683.6
IV	1936.2	2144.2	401.0	8852.5	28230.6
V	1920.5	2195.1	434.7	8923.8	29111.8
VI	9824.3	548.4	1687.4	6325.9	5908.2
VII	9643.8	513.3	1845.8	6405.3	5776.7
VIII	10013.3	2262.6	1896.3	10984.6	29705.3

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = -10854.77 kNm  
M3ed = -30749.74 kNm  
N1ed = -719.47 kN  
V2ed = 2305.25 kN  
V3ed = 1786.14 kN

εb/εa = -3.500/17.269 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 12.76
2	0.38m x 12.76
3	2.00m x 2.42
4	2.00m x 2.42
5	1.07m x 4.54

M2ed = -9742.23 kNm  
M3ed = -31690.05 kNm  
N1ed = -1123.44 kN  
V2ed = -2513.73 kN  
V3ed = -1651.58 kN

εb/εa = -3.500/17.069 ‰

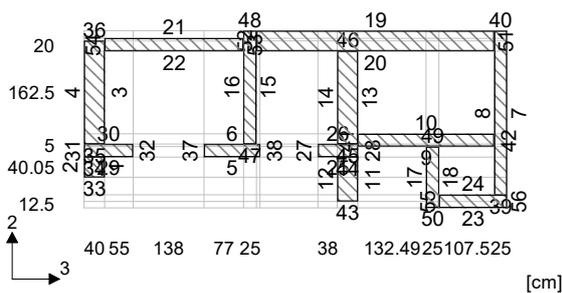
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 11.22
2	0.38m x 11.22
3	2.00m x 2.13
4	2.00m x 2.13
5	1.07m x 3.99
6	1.07m x 3.99
7	2.63m x 1.62
8	2.63m x 1.62

9	0.86m x 5.00
10	0.86m x 5.00
11	1.80m x 2.37
12	1.80m x 2.37
13	2.20m x 1.94
14	2.20m x 1.94
15	1.18m x 3.62
16	1.18m x 3.62
17	4.60m x 0.93
18	4.60m x 0.93
19	1.18m x 3.62
20	1.18m x 3.62
Potrebna [cm <sup>2</sup> ]	
21	4.27
22	4.27
23	4.27
24	4.27
25	4.27
26	4.27
27	4.27
28	4.27
29	4.27
30	4.27
31	4.27
32	4.27
33	4.27
34	4.27
35	4.27
36	4.27
37	4.27
38	4.27
39	4.27
40	4.27
41	4.27
42	4.27
43	4.27
44	4.27
45	4.27
46	4.27
47	4.27
48	4.27
49	4.27
50	4.27
51	4.27
52	4.27
53	4.27
54	4.27
55	4.27
56	4.27
Σ [cm <sup>2</sup> ]	239.22

Poprečna armatura  
Aah\* = ±42.22 cm<sup>2</sup>/m

#### Segment reduktora 6



#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.38m x 47.92	
2	0.38m x 47.92	
3	2.00m x 9.09	
4	2.00m x 9.09	
5	1.07m x 17.04	
6	1.07m x 17.04	
7	3.20m x 5.69	
8	3.20m x 5.69	
9	2.63m x 6.93	
10	2.63m x 6.93	
11	0.86m x 21.33	
12	0.86m x 21.33	
13	1.80m x 10.10	
14	1.80m x 10.10	
15	2.20m x 8.27	
16	2.20m x 8.27	
17	1.18m x 15.45	
18	1.18m x 15.45	
19	4.60m x 3.96	

20	4.60m x 3.96	
21	2.68m x 6.80	
22	2.68m x 6.80	
23	1.30m x 13.97	
24	1.30m x 13.97	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
25	18.24	
26	18.24	
27	18.24	
28	18.24	
29	18.24	
30	18.24	
31	18.24	
32	18.24	
33	18.24	
34	18.24	
35	18.24	
36	18.24	
37	18.24	
38	18.24	
39	18.24	
40	18.24	
41	18.24	
42	18.24	
43	18.24	
44	18.24	
45	18.24	
46	18.24	
47	18.24	
48	18.24	
49	18.24	
50	18.24	
51	18.24	
52	18.24	
53	18.24	
54	18.24	
55	18.24	
56	18.24	
Σ [cm <sup>2</sup> ]	1021.19	0.00

#### Položaj (Z=12.12m)

#### Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-15775.2	-98.6	35.7	-740.3	-3042.5
II	-2385.9	-71.4	29.3	-132.6	-434.0
III	52.2	-146.8	-36.9	-75.5	1241.2
IV	2887.0	7687.5	701.6	2384.7	85836.5
V	2894.6	7839.8	624.8	2236.0	86381.7
VI	13940.2	969.6	1824.7	13236.1	8820.6
VII	13910.6	685.6	1555.8	13472.9	7412.1
VIII	14237.6	7899.6	1954.9	13682.4	86830.9

#### Merodavna kombinacija za savijanje:

I-1.00xVIII

#### Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -14422.70 kNm

M3ed = -89873.33 kNm

N1ed = -1537.63 kN

V2ed = -8063.65 kN

V3ed = -1921.50 kN

εb/εa = -3.500/9.084 %

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 29.74
2	0.38m x 29.74
3	2.00m x 5.65
4	2.00m x 5.65
5	1.07m x 10.58
6	1.07m x 10.58
7	3.20m x 3.53
8	3.20m x 3.53
9	2.63m x 4.30
10	2.63m x 4.30
11	0.86m x 13.24
12	0.86m x 13.24
13	1.80m x 6.27
14	1.80m x 6.27
15	2.20m x 5.13
16	2.20m x 5.13
17	1.18m x 9.59
18	1.18m x 9.59
19	4.60m x 2.46
20	4.60m x 2.46
21	2.68m x 4.22

22	2.68m x 4.22
23	1.30m x 8.67
24	1.30m x 8.67
Potrebna [cm <sup>2</sup> ]	
25	11.32
26	11.32
27	11.32
28	11.32
29	11.32
30	11.32
31	11.32
32	11.32
33	11.32
34	11.32
35	11.32
36	11.32
37	11.32
38	11.32
39	11.32
40	11.32
41	11.32
42	11.32
43	11.32
44	11.32
45	11.32
46	11.32
47	11.32
48	11.32
49	11.32
50	11.32
51	11.32
52	11.32
53	11.32
54	11.32
55	11.32
56	11.32
Σ [cm <sup>2</sup> ]	633.87

Poprečna armatura

Aah\* = ±120.70 cm<sup>2</sup>/m

Položaj (Z=7.76m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-16407.8	-82.5	15.5	-1210.4	-2851.6
II	-2266.1	-62.9	25.6	-86.2	-8.9
III	46.5	-143.7	-35.9	-266.2	2028.4
IV	2800.0	7439.3	684.0	2347.0	117845.1
V	2817.2	7589.6	611.9	2098.9	118908.6
VI	13333.7	935.8	1800.8	20617.9	12808.6
VII	13309.1	660.7	1519.0	20261.9	9484.1
VIII	13628.1	7647.0	1926.4	20751.0	119596.4

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -21961.41 kNm

M3ed = -122448.02 kNm

N1ed = -2779.71 kN

V2ed = -7791.50 kN

V3ed = -1913.90 kN

εb/εa = -3.500/7.571 ‰

Podužna armatura

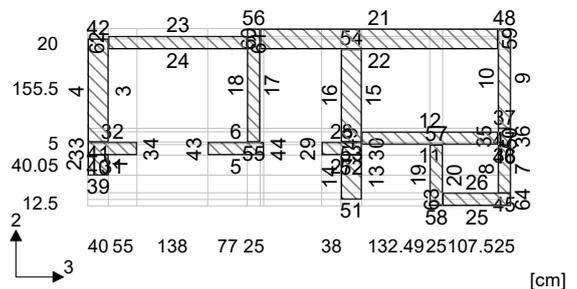
No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 47.92
2	0.38m x 47.92
3	2.00m x 9.09
4	2.00m x 9.09
5	1.07m x 17.04
6	1.07m x 17.04
7	3.20m x 5.69
8	3.20m x 5.69
9	2.63m x 6.93
10	2.63m x 6.93
11	0.86m x 21.33
12	0.86m x 21.33
13	1.80m x 10.10
14	1.80m x 10.10
15	2.20m x 8.27
16	2.20m x 8.27
17	1.18m x 15.45
18	1.18m x 15.45
19	4.60m x 3.96
20	4.60m x 3.96
21	2.68m x 6.80

22	2.68m x 6.80
23	1.30m x 13.97
24	1.30m x 13.97
Potrebna [cm <sup>2</sup> ]	
25	18.24
26	18.24
27	18.24
28	18.24
29	18.24
30	18.24
31	18.24
32	18.24
33	18.24
34	18.24
35	18.24
36	18.24
37	18.24
38	18.24
39	18.24
40	18.24
41	18.24
42	18.24
43	18.24
44	18.24
45	18.24
46	18.24
47	18.24
48	18.24
49	18.24
50	18.24
51	18.24
52	18.24
53	18.24
54	18.24
55	18.24
56	18.24
Σ [cm <sup>2</sup> ]	1021.19

Poprečna armatura

Aah\* = ±116.63 cm<sup>2</sup>/m

Segment reduktora 7



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.38m x 37.10	
2	0.38m x 37.10	
3	2.00m x 7.04	
4	2.00m x 7.04	
5	1.07m x 13.20	
6	1.07m x 13.20	
7	0.93m x 15.18	
8	0.93m x 15.18	
9	1.93m x 7.30	
10	1.93m x 7.30	
11	2.63m x 5.37	
12	2.63m x 5.37	
13	0.86m x 16.51	
14	0.86m x 16.51	
15	1.80m x 7.82	
16	1.80m x 7.82	
17	2.20m x 6.40	
18	2.20m x 6.40	
19	1.18m x 11.97	
20	1.18m x 11.97	
21	4.60m x 3.07	
22	4.60m x 3.07	
23	2.68m x 5.27	
24	2.68m x 5.27	
25	1.30m x 10.82	
26	1.30m x 10.82	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
27	14.12	
28	14.12	
29	14.12	
30	14.12	
31	14.12	

32	14.12		24	2.68m x 5.27
33	14.12		25	1.30m x 10.82
34	14.12		26	1.30m x 10.82
35	14.12			Potrebna [cm <sup>2</sup> ]
36	14.12		27	14.12
37	14.12		28	14.12
38	14.12		29	14.12
39	14.12		30	14.12
40	14.12		31	14.12
41	14.12		32	14.12
42	14.12		33	14.12
43	14.12		34	14.12
44	14.12		35	14.12
45	14.12		36	14.12
46	14.12		37	14.12
47	14.12		38	14.12
48	14.12		39	14.12
49	14.12		40	14.12
50	14.12		41	14.12
51	14.12		42	14.12
52	14.12		43	14.12
53	14.12		44	14.12
54	14.12		45	14.12
55	14.12		46	14.12
56	14.12		47	14.12
57	14.12		48	14.12
58	14.12		49	14.12
59	14.12		50	14.12
60	14.12		51	14.12
61	14.12		52	14.12
62	14.12		53	14.12
63	14.12		54	14.12
64	14.12		55	14.12
Σ [cm <sup>2</sup> ]	903.70	0.00	56	14.12
			57	14.12
			58	14.12
			59	14.12
			60	14.12
			61	14.12
			62	14.12
			63	14.12
			64	14.12
			Σ [cm <sup>2</sup> ]	903.70

Položaj (Z=6.75m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-18017.6	-192.7	98.6	-228.1	-1188.6
II	-2594.1	-85.6	25.4	7.5	-127.9
III	45.0	-99.5	-16.1	-257.8	2066.4
IV	3513.8	6669.6	1192.4	2292.4	123428.5
V	3527.9	6828.5	1210.9	2218.6	124562.6
VI	14847.7	1026.1	747.0	18578.0	12555.4
VII	14862.3	746.4	813.9	17995.1	9021.0
VIII	15275.3	6905.2	1459.0	18718.9	125193.8
Σ [cm <sup>2</sup> ]					903.70

Poprečna armatura

Aah\* = ±120.64 cm<sup>2</sup>/m

Segment reduktora 8

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -18947.01 kNm

M3ed = -126382.43 kNm

N1ed = -2742.33 kN

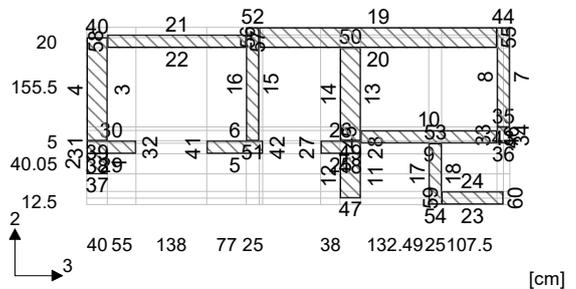
V2ed = -7153.47 kN

V3ed = -1357.54 kN

εb/εa = -3.500/7.391 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 37.10
2	0.38m x 37.10
3	2.00m x 7.04
4	2.00m x 7.04
5	1.07m x 13.20
6	1.07m x 13.20
7	0.93m x 15.18
8	0.93m x 15.18
9	1.93m x 7.30
10	1.93m x 7.30
11	2.63m x 5.37
12	2.63m x 5.37
13	0.86m x 16.51
14	0.86m x 16.51
15	1.80m x 7.82
16	1.80m x 7.82
17	2.20m x 6.40
18	2.20m x 6.40
19	1.18m x 11.97
20	1.18m x 11.97
21	4.60m x 3.07
22	4.60m x 3.07
23	2.68m x 5.27



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.38m x 51.42	
2	0.38m x 51.42	
3	2.00m x 9.76	
4	2.00m x 9.76	
5	1.07m x 18.29	
6	1.07m x 18.29	
7	1.93m x 10.11	
8	1.93m x 10.11	
9	2.63m x 7.44	
10	2.63m x 7.44	
11	0.86m x 22.89	
12	0.86m x 22.89	
13	1.80m x 10.84	
14	1.80m x 10.84	
15	2.20m x 8.87	
16	2.20m x 8.87	
17	1.18m x 16.58	
18	1.18m x 16.58	
19	4.60m x 4.25	
20	4.60m x 4.25	
21	2.68m x 7.30	

22	2.68m x 7.30		22	2.68m x 7.18
23	1.18m x 16.58		23	1.18m x 16.31
24	1.18m x 16.58		24	1.18m x 16.31
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]		Potrebna [cm <sup>2</sup> ]
25	19.57		25	19.24
26	19.57		26	19.24
27	19.57		27	19.24
28	19.57		28	19.24
29	19.57		29	19.24
30	19.57		30	19.24
31	19.57		31	19.24
32	19.57		32	19.24
33	19.57		33	19.24
34	19.57		34	19.24
35	19.57		35	19.24
36	19.57		36	19.24
37	19.57		37	19.24
38	19.57		38	19.24
39	19.57		39	19.24
40	19.57		40	19.24
41	19.57		41	19.24
42	19.57		42	19.24
43	19.57		43	19.24
44	19.57		44	19.24
45	19.57		45	19.24
46	19.57		46	19.24
47	19.57		47	19.24
48	19.57		48	19.24
49	19.57		49	19.24
50	19.57		50	19.24
51	19.57		51	19.24
52	19.57		52	19.24
53	19.57		53	19.24
54	19.57		54	19.24
55	19.57		55	19.24
56	19.57		56	19.24
57	19.57		57	19.24
58	19.57		58	19.24
59	19.57		59	19.24
60	19.57		60	19.24
Σ [cm <sup>2</sup> ]	1174.10	0.00	Σ [cm <sup>2</sup> ]	1154.40

Poprečna armatura  
Aah\* = ±144.35 cm<sup>2</sup>/m

**Položaj (Z=1.00m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-20861.4	-1391.9	927.5	2426.8	3182.7
II	-3003.2	-299.3	149.9	383.2	743.9
III	89.6	-106.6	-36.9	-258.0	2564.7
IV	3253.7	7491.5	390.6	2565.3	159699.5
V	3289.6	7672.9	328.1	2488.4	161702.4
VI	15537.0	1172.1	1952.2	22698.1	19917.5
VII	15603.6	925.0	2192.8	23020.8	13935.2
VIII	15946.6	7761.9	2227.3	23163.3	162924.5

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -20736.50 kNm

M3ed = -159741.80 kNm

N1ed = -4914.79 kN

V2ed = -9275.64 kN

V3ed = -1265.83 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/6.561 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 50.55
2	0.38m x 50.55
3	2.00m x 9.60
4	2.00m x 9.60
5	1.07m x 17.98
6	1.07m x 17.98
7	1.93m x 9.94
8	1.93m x 9.94
9	2.63m x 7.32
10	2.63m x 7.32
11	0.86m x 22.50
12	0.86m x 22.50
13	1.80m x 10.66
14	1.80m x 10.66
15	2.20m x 8.73
16	2.20m x 8.73
17	1.18m x 16.31
18	1.18m x 16.31
19	4.60m x 4.18
20	4.60m x 4.18
21	2.68m x 7.18

**Položaj (Z=0.13m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-20036.5	-1165.2	785.6	2010.0	3184.5
II	-2962.2	-214.0	126.8	314.9	549.9
III	79.3	23.4	-22.2	-226.4	2408.6
IV	3242.1	3424.0	1156.7	2490.8	159154.8
V	3258.3	3526.0	1126.4	2411.7	161204.2
VI	15753.5	536.2	363.0	22298.9	15855.2
VII	15787.3	547.4	499.8	22695.1	10030.6
VIII	16120.0	3568.3	1260.1	22831.4	161982.1

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = -20821.39 kNm

M3ed = -158797.61 kNm

N1ed = -3916.53 kN

V2ed = -4797.71 kN

V3ed = -436.39 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/6.658 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.38m x 51.42
2	0.38m x 51.42
3	2.00m x 9.76
4	2.00m x 9.76
5	1.07m x 18.29
6	1.07m x 18.29
7	1.93m x 10.11
8	1.93m x 10.11
9	2.63m x 7.44
10	2.63m x 7.44
11	0.86m x 22.89
12	0.86m x 22.89
13	1.80m x 10.84
14	1.80m x 10.84
15	2.20m x 8.87
16	2.20m x 8.87
17	1.18m x 16.58
18	1.18m x 16.58
19	4.60m x 4.25
20	4.60m x 4.25
21	2.68m x 7.30

22	2.68m x 7.30
23	1.18m x 16.58
24	1.18m x 16.58
	Potrebna [cm <sup>2</sup> ]
25	19.57
26	19.57
27	19.57
28	19.57
29	19.57
30	19.57
31	19.57
32	19.57
33	19.57
34	19.57
35	19.57
36	19.57
37	19.57
38	19.57
39	19.57
40	19.57
41	19.57
42	19.57
43	19.57
44	19.57
45	19.57
46	19.57
47	19.57
48	19.57
49	19.57
50	19.57
51	19.57
52	19.57
53	19.57
54	19.57
55	19.57
56	19.57
57	19.57
58	19.57
59	19.57
60	19.57
<b>Σ [cm<sup>2</sup>]</b>	<b>1174.10</b>

Poprečna armatura

Aah\* = ±74.66 cm<sup>2</sup>/m

#### Segment reduktora 9

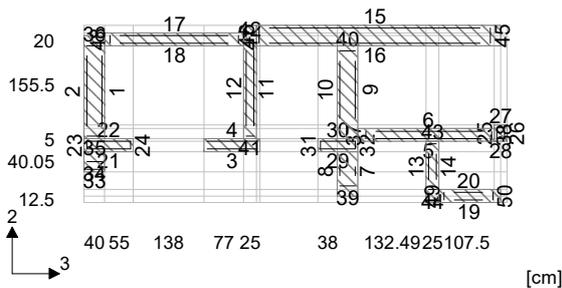
C35/45 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N



#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.37m x 21.37	(Ø12/5) 1.37m x 22.62
2	(P) 1.37m x 21.37	(Ø12/5) 1.37m x 22.62
3	(P) 0.97m x 23.71	(Ø20/12) 0.97m x 25.13
4	(P) 0.97m x 23.71	(Ø20/12) 0.97m x 25.13
5	(P) 2.05m x 21.41	(Ø12/5) 2.05m x 22.62
6	(P) 2.05m x 21.41	(Ø12/5) 2.05m x 22.62
7	(P) 0.18m x 30.78	(Ø20/10) 0.18m x 31.42
8	(P) 0.18m x 30.78	(Ø20/10) 0.18m x 31.42
9	(P) 1.12m x 21.35	(Ø12/5) 1.12m x 22.62
10	(P) 1.12m x 21.35	(Ø12/5) 1.12m x 22.62
11	(P) 1.47m x 10.64	(Ø12/10) 1.47m x 11.31
12	(P) 1.47m x 10.64	(Ø12/10) 1.47m x 11.31
13	(P) 0.50m x 10.77	(Ø12/10) 0.50m x 11.31
14	(P) 0.50m x 10.77	(Ø12/10) 0.50m x 11.31
15	(P) 4.10m x 21.45	(Ø12/5) 4.10m x 22.62
16	(P) 4.10m x 21.45	(Ø12/5) 4.10m x 22.62
17	(P) 2.10m x 21.41	(Ø12/5) 2.10m x 22.62

18	(P) 2.10m x 21.41	(Ø12/5) 2.10m x 22.62
19	(P) 0.55m x 21.20	(Ø12/5) 0.55m x 22.62
20	(P) 0.55m x 21.20	(Ø12/5) 0.55m x 22.62
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
21	(P) 17.75	(6Ø20) 18.85
22	(P) 17.75	(6Ø20) 18.85
23	(P) 5.97	(2Ø20) 6.28
24	(P) 5.97	(2Ø20) 6.28
25	(P) 5.39	(1Ø20) 3.14
26	(P) 5.39	(1Ø20) 3.14
27	(P) 5.97	(2Ø20) 6.28
28	(P) 5.97	(2Ø20) 6.28
29	(P) 14.77	(5Ø20) 15.71
30	(P) 14.77	(5Ø20) 15.71
31	(P) 5.97	(2Ø20) 6.28
32	(P) 5.97	(2Ø20) 6.28
33	(P) 47.59	(16Ø20) 50.27
34	(P) 11.78	(4Ø20) 12.57
35	(P) 11.78	(4Ø20) 12.57
36	(P) 47.59	(16Ø20) 50.27
37	(P) 17.75	(6Ø20) 18.85
38	(P) 5.97	(2Ø20) 6.28
39	(P) 47.59	(16Ø20) 50.27
40	(P) 23.72	(8Ø20) 25.13
41	(P) 5.97	(2Ø20) 6.28
42	(P) 29.69	(10Ø20) 31.42
43	(P) 5.97	(2Ø20) 6.28
44	(P) 23.72	(8Ø20) 25.13
45	(P) 47.59	(16Ø20) 50.27
46	(P) 8.95	(3Ø20) 9.42
47	(P) 5.97	(2Ø20) 6.28
48	(P) 11.78	(4Ø20) 12.57
49	(P) 11.78	(4Ø20) 12.57
50	(P) 17.75	(6Ø20) 18.85
<b>Σ [cm<sup>2</sup>]</b>	<b>1077.25</b>	<b>1133.99</b>

#### Položaj (Z=-0.15m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-18430.3	-926.0	388.1	1645.6	1633.3
II	-2779.6	-160.5	73.6	224.7	252.8
III	150.8	91.0	-19.7	-219.2	2060.7
IV	1018.3	1671.5	201.8	2618.2	144853.9
V	1012.3	1722.9	209.6	2531.4	146771.0
VI	14735.2	399.6	238.3	20471.2	15885.8
VII	14640.5	502.1	308.2	20842.9	10301.2
VIII	14770.4	1794.6	372.7	21006.7	147628.2

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII-1.00xVIII

M2ed = 22586.57 kNm

M3ed = 149879.74 kNm

N1ed = -3614.66 kN

V2ed = -2768.71 kN

V3ed = 37.45 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/9.234 ‰

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.37m x 21.37
2	(P) 1.37m x 21.37
3	(P) 0.97m x 23.71
4	(P) 0.97m x 23.71
5	(P) 2.05m x 21.41
6	(P) 2.05m x 21.41
7	(P) 0.18m x 30.78
8	(P) 0.18m x 30.78
9	(P) 1.12m x 21.35
10	(P) 1.12m x 21.35
11	(P) 1.47m x 10.64
12	(P) 1.47m x 10.64
13	(P) 0.50m x 10.77
14	(P) 0.50m x 10.77
15	(P) 4.10m x 21.45
16	(P) 4.10m x 21.45
17	(P) 2.10m x 21.41
18	(P) 2.10m x 21.41
19	(P) 0.55m x 21.20
20	(P) 0.55m x 21.20
	Potrebna [cm <sup>2</sup> ]
21	(P) 17.75
22	(P) 17.75
23	(P) 5.97
24	(P) 5.97
25	(P) 5.39
26	(P) 5.39
27	(P) 5.97

28	(P) 5.97
29	(P) 14.77
30	(P) 14.77
31	(P) 5.97
32	(P) 5.97
33	(P) 47.59
34	(P) 11.78
35	(P) 11.78
36	(P) 47.59
37	(P) 17.75
38	(P) 5.97
39	(P) 47.59
40	(P) 23.72
41	(P) 5.97
42	(P) 29.69
43	(P) 5.97
44	(P) 23.72
45	(P) 47.59
46	(P) 8.95
47	(P) 5.97
48	(P) 11.78
49	(P) 11.78
50	(P) 17.75
<b>Σ [cm²]</b>	<b>1077.25</b>

Poprečna armatura  
Aah\* = ±0.00 cm²/m

**Položaj (Z=-1.08m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-16789.3	-983.7	614.3	921.7	-472.8
II	-2673.3	-105.0	113.5	97.3	-253.5
III	135.0	282.7	-31.3	-152.1	1818.4
IV	4383.6	4218.0	506.4	4441.9	134718.9
V	4441.4	4252.3	506.3	4372.3	136463.0
VI	15422.5	884.4	1295.2	17746.9	16470.1
VII	15193.2	779.8	1294.8	18007.8	11335.1
VIII	16049.3	4343.3	1390.7	18547.5	137453.3

Merodavna kombinacija za savijanje:  
I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:  
I+0.30xII-1.00xVIII

M2ed = 19423.59 kNm  
M3ed = 137526.06 kNm  
N1ed = -699.56 kN  
V2ed = -5358.49 kN  
V3ed = -742.33 kN

εb/εa = -3.500/10.422 ‰

**Podužna armatura**

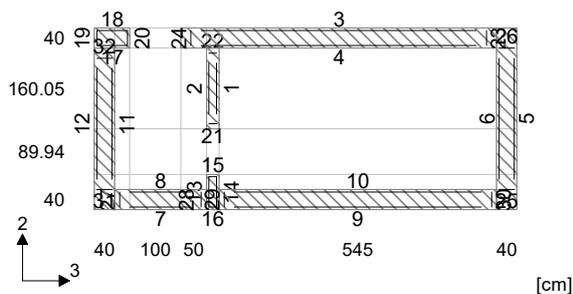
No	Potrebna [cm²/m]
1	(P) 1.37m x 19.90
2	(P) 1.37m x 19.90
3	(P) 0.97m x 22.08
4	(P) 0.97m x 22.08
5	(P) 2.05m x 19.94
6	(P) 2.05m x 19.94
7	(P) 0.18m x 28.66
8	(P) 0.18m x 28.66
9	(P) 1.12m x 19.88
10	(P) 1.12m x 19.88
11	(P) 1.47m x 9.91
12	(P) 1.47m x 9.91
13	(P) 0.50m x 10.03
14	(P) 0.50m x 10.03
15	(P) 4.10m x 19.97
16	(P) 4.10m x 19.97
17	(P) 2.10m x 19.94
18	(P) 2.10m x 19.94
19	(P) 0.55m x 19.74
20	(P) 0.55m x 19.74
<b>Potrebna [cm²]</b>	
21	(P) 16.53
22	(P) 16.53
23	(P) 5.56
24	(P) 5.56
25	(P) 5.02
26	(P) 5.02
27	(P) 5.56
28	(P) 5.56
29	(P) 13.75
30	(P) 13.75
31	(P) 5.56
32	(P) 5.56
33	(P) 44.32
34	(P) 10.97
35	(P) 10.97
36	(P) 44.32
37	(P) 16.53
38	(P) 5.56
39	(P) 44.32
40	(P) 22.09
41	(P) 5.56
42	(P) 27.64
43	(P) 5.56
44	(P) 22.09
45	(P) 44.32
46	(P) 8.34
47	(P) 5.56
48	(P) 10.97
49	(P) 10.97
50	(P) 16.53
<b>Σ [cm²]</b>	<b>1003.12</b>

Poprečna armatura  
Aah\* = ±91.94 cm²/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

**Segment reduktora 1**

C35/45 (γC = 1.50, γS = 1.15) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm²/m]	Usvojena [cm²/m]
1	(P) 1.00m x 10.52	(Ø12/10) 1.00m x 11.31
2	(P) 1.00m x 10.52	(Ø12/10) 1.00m x 11.31
3	(P) 5.40m x 19.09	(Ø14/7) 5.40m x 20.53
4	(P) 5.40m x 19.09	(Ø14/7) 5.40m x 20.53
5	(P) 2.40m x 19.09	(Ø14/7) 2.40m x 20.53
6	(P) 2.40m x 19.09	(Ø14/7) 2.40m x 20.53
7	(P) 1.20m x 19.09	(Ø14/7) 1.20m x 20.53

8	(P) 1.20m x 19.09	(Ø14/7) 1.20m x 20.53
9	(P) 4.85m x 19.09	(Ø14/7) 4.85m x 20.53
10	(P) 4.85m x 19.09	(Ø14/7) 4.85m x 20.53
11	(P) 2.20m x 19.09	(Ø14/7) 2.20m x 20.53
12	(P) 2.20m x 19.09	(Ø14/7) 2.20m x 20.53
<b>Potrebna [cm²]</b>		<b>Usvojena [cm²]</b>
13	(P) 13.70	(3Ø25) 14.73
14	(P) 13.70	(3Ø25) 14.73
15	(P) 9.13	(2Ø25) 9.82
16	(P) 9.13	(2Ø25) 9.82
17	(P) 73.05	(16Ø25) 78.54
18	(P) 73.05	(16Ø25) 78.54
19	(P) 18.26	(4Ø25) 19.63
20	(P) 18.26	(4Ø25) 19.63
21	(P) 27.40	(6Ø25) 29.45
22	(P) 9.13	(2Ø25) 9.82
23	(P) 73.05	(16Ø25) 78.54
24	(P) 36.53	(8Ø25) 39.27
25	(P) 109.58	(24Ø25) 117.81
26	(P) 109.58	(24Ø25) 117.81
27	(P) 73.05	(16Ø25) 78.54
28	(P) 18.26	(4Ø25) 19.63
29	(P) 18.26	(4Ø25) 19.63
30	(P) 73.05	(16Ø25) 78.54
31	(P) 109.58	(24Ø25) 117.81
32	(P) 36.53	(8Ø25) 39.27
<b>Σ [cm²]</b>	<b>1556.20</b>	<b>1673.05</b>

Položaj (Z=1.00m)  
Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-24721.1	-1313.1	-1401.3	-6855.0	-2038.6
II	-3754.5	-340.9	-151.0	-898.6	497.9
III	-73.2	-162.9	-35.8	-284.8	3946.9
IV	3473.7	11563.1	1295.3	5044.5	264939.8
V	3511.0	11632.5	1317.2	5224.5	265115.3
VI	12970.4	1386.9	3337.4	42470.7	17816.0
VII	13057.3	1333.0	3606.3	43778.1	17328.7
VIII	13521.1	11714.9	3839.3	44088.7	265713.3

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -50943.72 kNm

M3ed = -267751.87 kNm

N1ed = -11199.93 kN

V2ed = -13179.16 kN

V3ed = -5296.61 kN

$\epsilon_b/\epsilon_a = -3.500/11.352 \%$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.00m x 10.34
2	(P) 1.00m x 10.34
3	(P) 5.40m x 18.77
4	(P) 5.40m x 18.77
5	(P) 2.40m x 18.77
6	(P) 2.40m x 18.77
7	(P) 1.20m x 18.77
8	(P) 1.20m x 18.77
9	(P) 4.85m x 18.77
10	(P) 4.85m x 18.77
11	(P) 2.20m x 18.77
12	(P) 2.20m x 18.77
Potrebna [cm <sup>2</sup> ]	
13	(P) 13.46
14	(P) 13.46
15	(P) 8.98
16	(P) 8.98
17	(P) 71.81
18	(P) 71.81
19	(P) 17.95
20	(P) 17.95
21	(P) 26.93
22	(P) 8.98
23	(P) 71.81
24	(P) 35.90
25	(P) 107.71
26	(P) 107.71
27	(P) 71.81
28	(P) 17.95
29	(P) 17.95
30	(P) 71.81
31	(P) 107.71
32	(P) 35.90
$\Sigma$ [cm <sup>2</sup> ]	1529.64

Poprečna armatura

Aah\* = ±125.67 cm<sup>2</sup>/m

Položaji (Z=-0.15m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-23339.4	-489.2	-1773.3	-6692.0	-810.7
II	-3622.6	-147.4	-204.8	-946.6	537.5
III	-62.0	66.5	-1.9	-380.7	3664.2
IV	2509.1	5332.5	1267.4	2767.4	247417.3
V	2460.1	5361.0	1292.6	2562.3	247723.6
VI	19485.6	869.0	1858.2	37970.1	37723.2
VII	19593.5	859.9	2021.9	39341.6	36872.6
VIII	19753.5	5431.0	2399.8	39438.8	250579.4

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = -46130.77 kNm

M3ed = -251390.11 kNm

N1ed = -3585.96 kN

V2ed = -5964.46 kN

V3ed = -4234.46 kN

$\epsilon_b/\epsilon_a = -3.500/13.763 \%$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.00m x 10.52
2	(P) 1.00m x 10.52
3	(P) 5.40m x 19.09
4	(P) 5.40m x 19.09

5	(P) 2.40m x 19.09
6	(P) 2.40m x 19.09
7	(P) 1.20m x 19.09
8	(P) 1.20m x 19.09
9	(P) 4.85m x 19.09
10	(P) 4.85m x 19.09
11	(P) 2.20m x 19.09
12	(P) 2.20m x 19.09

Potrebna [cm <sup>2</sup> ]	
13	(P) 13.70
14	(P) 13.70
15	(P) 9.13
16	(P) 9.13
17	(P) 73.05
18	(P) 73.05
19	(P) 18.26
20	(P) 18.26
21	(P) 27.40
22	(P) 9.13
23	(P) 73.05
24	(P) 36.53
25	(P) 109.58
26	(P) 109.58
27	(P) 73.05
28	(P) 18.26
29	(P) 18.26
30	(P) 73.05
31	(P) 109.58
32	(P) 36.53
$\Sigma$ [cm <sup>2</sup> ]	1556.20

Poprečna armatura

Aah\* = ±67.63 cm<sup>2</sup>/m

Segment reduktora 2

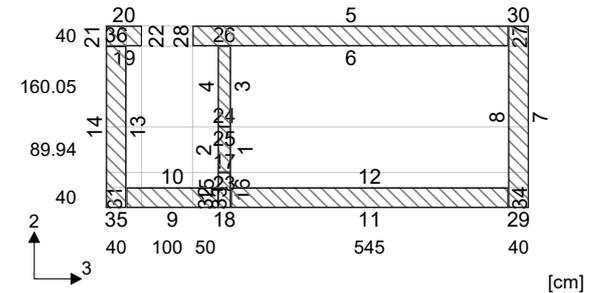
C30/37 ( $\gamma_c = 1.50$ ,  $\gamma_s = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N



Podužna armatura

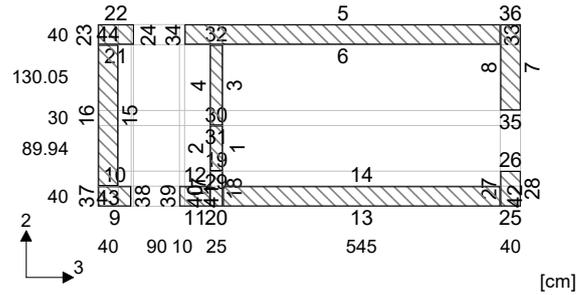
No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.88m x 87.32	
2	0.88m x 87.32	
3	1.58m x 48.59	
4	1.58m x 48.59	
5	6.18m x 12.43	
6	6.18m x 12.43	
7	3.58m x 21.45	
8	3.58m x 21.45	
9	1.78m x 43.14	
10	1.78m x 43.14	
11	5.43m x 14.14	
12	5.43m x 14.14	
13	3.18m x 24.15	
14	3.18m x 24.15	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
15	76.79	
16	76.79	
17	76.79	
18	76.79	
19	76.79	
20	76.79	
21	76.79	
22	76.79	
23	76.79	
24	76.79	
25	76.79	
26	76.79	
27	76.79	
28	76.79	
29	76.79	
30	76.79	
31	76.79	
32	76.79	
33	76.79	



21	42.65
22	42.65
23	42.65
24	42.65
25	42.65
26	42.65
27	42.65
28	42.65
29	42.65
30	42.65
31	42.65
32	42.65
33	42.65
34	42.65
35	42.65
36	42.65
37	42.65
38	42.65
39	42.65
40	42.65
<b>Σ [cm<sup>2</sup>]</b>	<b>2089.78</b>

Aah\* = ±73.45 cm<sup>2</sup>/m

Segment reduktora 4



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.88m x 42.78	
2	0.88m x 42.78	
3	1.58m x 23.80	
4	1.58m x 23.80	
5	6.18m x 6.09	
6	6.18m x 6.09	
7	1.68m x 22.38	
8	1.68m x 22.38	
9	0.63m x 59.71	
10	0.63m x 59.71	
11	0.58m x 64.86	
12	0.58m x 64.86	
13	5.43m x 6.93	
14	5.43m x 6.93	
15	2.78m x 13.53	
16	2.78m x 13.53	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
17	37.62	
18	37.62	
19	37.62	
20	37.62	
21	37.62	
22	37.62	
23	37.62	
24	37.62	
25	37.62	
26	37.62	
27	37.62	
28	37.62	
29	37.62	
30	37.62	
31	37.62	
32	37.62	
33	37.62	
34	37.62	
35	37.62	
36	37.62	
37	37.62	
38	37.62	
39	37.62	
40	37.62	
41	37.62	
42	37.62	
43	37.62	
44	37.62	
<b>Σ [cm<sup>2</sup>]</b>	<b>1655.18</b>	<b>0.00</b>

Položaji (Z=-2.70m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-16386.6	409.5	-4101.6	-8105.5	-6582.5
II	-2761.6	60.2	-423.2	-1013.9	-866.3
III	-0.7	362.6	2.4	-303.2	1689.1
IV	9039.0	3206.6	294.9	9912.6	182636.7
V	9097.3	3178.9	292.5	9569.0	182739.2
VI	13623.5	480.8	735.4	32639.8	24050.7
VII	13800.9	548.6	816.9	33745.6	23793.1
VIII	16529.6	3253.2	868.5	35171.4	184315.1

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = -43276.87 kNm

M3ed = -190897.59 kNm

N1ed = 143.01 kN

V2ed = -2825.61 kN

V3ed = -5097.04 kN

εb/εa = -3.500/11.940 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.88m x 48.50
2	0.88m x 48.50
3	1.58m x 26.98
4	1.58m x 26.98
5	6.18m x 6.90
6	6.18m x 6.90
7	2.88m x 14.81
8	2.88m x 14.81
9	1.78m x 23.96
10	1.78m x 23.96
11	5.43m x 7.85
12	5.43m x 7.85
13	3.18m x 13.41
14	3.18m x 13.41
Potrebna [cm <sup>2</sup> ]	
15	426.49
16	42.65
17	42.65
18	42.65
19	42.65
20	42.65
21	42.65
22	42.65
23	42.65
24	42.65
25	42.65
26	42.65
27	42.65
28	42.65
29	42.65
30	42.65
31	42.65
32	42.65
33	42.65
34	42.65
35	42.65
36	42.65
37	42.65
38	42.65
39	42.65
40	42.65
<b>Σ [cm<sup>2</sup>]</b>	<b>2089.78</b>

Poprečna armatura

Položaji (Z=-3.70m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-14328.4	-115.5	-3120.0	-7882.3	-5906.7
II	-2457.5	6.8	-296.6	-920.7	-822.2
III	8.6	336.1	29.8	-219.5	1202.0
IV	10540.1	2886.7	793.4	5157.8	163170.3
V	10589.6	2862.6	799.2	4828.3	163283.3
VI	11263.9	359.6	863.9	29751.6	19895.2
VII	11388.3	406.9	902.4	30828.6	19596.3
VIII	15551.0	2915.3	1205.4	31257.1	164490.9

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = -39139.34 kNm

M3ed = -170397.62 kNm

N1ed = 1222.56 kN

V2ed = -3028.79 kN

V3ed = -4414.37 kN

εb/εa = -3.500/12.209 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.88m x 42.78
2	0.88m x 42.78
3	1.58m x 23.80
4	1.58m x 23.80
5	6.18m x 6.09
6	6.18m x 6.09
7	1.68m x 22.38
8	1.68m x 22.38
9	0.63m x 59.71
10	0.63m x 59.71
11	0.58m x 64.86
12	0.58m x 64.86
13	5.43m x 6.93
14	5.43m x 6.93
15	2.78m x 13.53
16	2.78m x 13.53
	Potrebna [cm <sup>2</sup> ]
17	37.62
18	37.62
19	37.62
20	37.62
21	37.62
22	37.62
23	37.62
24	37.62
25	37.62
26	37.62
27	37.62
28	37.62
29	37.62
30	37.62
31	37.62
32	37.62
33	37.62
34	37.62
35	37.62
36	37.62
37	37.62
38	37.62
39	37.62
40	37.62
41	37.62
42	37.62
43	37.62
44	37.62
$\Sigma$ [cm <sup>2</sup> ]	1655.18

Poprečna armatura

Aah\* = ±72.31 cm<sup>2</sup>/m

Položaj (Z=-4.70m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-14096.8	247.5	-3203.0	-7324.8	-3831.0
II	-2429.0	69.8	-310.8	-721.3	-753.9
III	2.7	352.3	29.6	-203.7	679.8
IV	11264.4	2929.4	729.1	4322.5	153185.1
V	11296.8	2905.1	734.8	3977.2	153327.2
VI	9818.4	415.0	846.8	28488.0	17902.4
VII	9880.3	473.4	888.4	29605.2	17513.4
VIII	15008.0	2967.4	1152.9	29919.1	154368.8

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = -37243.89 kNm

M3ed = -158199.87 kNm

N1ed = 911.13 kN

V2ed = -2699.00 kN

V3ed = -4449.18 kN

εb/εa = -3.500/12.476 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.88m x 39.14
2	0.88m x 39.14
3	1.58m x 21.78
4	1.58m x 21.78
5	6.18m x 5.57
6	6.18m x 5.57
7	1.68m x 20.48
8	1.68m x 20.48
9	0.63m x 54.63
10	0.63m x 54.63
11	0.58m x 59.34
12	0.58m x 59.34
13	5.43m x 6.34
14	5.43m x 6.34
15	2.78m x 12.38
16	2.78m x 12.38
	Potrebna [cm <sup>2</sup> ]
17	34.42
18	34.42
19	34.42
20	34.42
21	34.42
22	34.42
23	34.42
24	34.42
25	34.42
26	34.42
27	34.42
28	34.42
29	34.42
30	34.42
31	34.42
32	34.42
33	34.42
34	34.42
35	34.42
36	34.42
37	34.42
38	34.42
39	34.42
40	34.42
41	34.42
42	34.42
43	34.42
44	34.42
$\Sigma$ [cm <sup>2</sup> ]	1514.39

Poprečna armatura

Aah\* = ±72.88 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

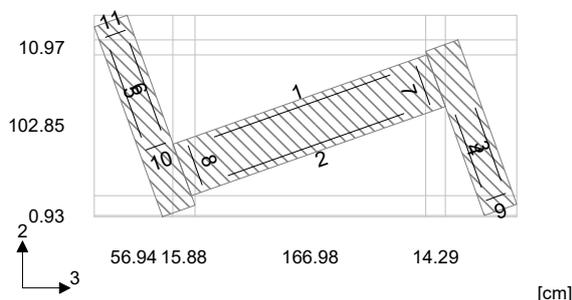
Segment reduktora 1

C35/45 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.35m x 50.75	(Ø18/5) 1.35m x 50.89
2	(P) 1.35m x 50.75	(Ø18/5) 1.35m x 50.89
3	(P) 0.56m x 50.75	(Ø18/5) 0.56m x 50.89
4	(P) 0.56m x 50.75	(Ø18/5) 0.56m x 50.89
5	(P) 0.67m x 25.37	(Ø18/10) 0.67m x 25.45
6	(P) 0.67m x 25.37	(Ø18/10) 0.67m x 25.45
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
7	(P) 78.31	(16Ø25) 78.54
8	(P) 78.31	(16Ø25) 78.54
9	(P) 19.58	(4Ø25) 19.63
10	(P) 19.58	(4Ø25) 19.63
11	(P) 19.58	(4Ø25) 19.63
$\Sigma$ [cm <sup>2</sup> ]	443.74	445.03

Položaj (Z=0.71m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-9102.3	-1058.6	-1034.2	-1564.8	2440.9
II	-1476.2	-222.4	-220.3	-336.2	518.4
III	165.2	-42.1	-13.5	-12.9	204.8
IV	3308.0	1228.3	72.7	1674.0	8387.8
V	3759.8	1270.2	46.6	1578.9	8393.7

VI	6612.4	432.0	607.0	1261.5	697.6
VII	5157.4	314.3	482.8	967.3	673.2
VIII	7606.6	1341.6	611.4	2096.1	8422.6

Merodavna kombinacija za savijanje:  
I+0.30xII+0.30xIII-1.00xVIII  
Merodavna kombinacija za smicanje:  
I+0.30xII+0.30xIII-1.00xVIII

M2ed = -3765.59 kNm  
M3ed = 11080.49 kNm  
N1ed = -1889.00 kN  
V2ed = -2479.55 kN  
V3ed = -1715.75 kN

eb/εa = -3.500/4.711 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.35m x 50.75
2	(P) 1.35m x 50.75
3	(P) 0.56m x 50.75
4	(P) 0.56m x 50.75
5	(P) 0.67m x 25.37
6	(P) 0.67m x 25.37
Potrebna [cm <sup>2</sup> ]	
7	(P) 78.31
8	(P) 78.31
9	(P) 19.58
10	(P) 19.58
11	(P) 19.58
Σ [cm <sup>2</sup> ]	443.74

Poprečna armatura

Aah\* = ±116.86 cm<sup>2</sup>/m

Položaj (Z=-4.78m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-6743.3	-1522.0	-3781.6	-2216.2	6348.0
II	-1225.3	-316.3	-748.8	-419.1	1191.7
III	84.7	15.8	-14.9	-1.0	-36.3
IV	1038.1	862.1	442.2	119.1	494.3
V	1321.2	825.3	454.7	115.2	475.9
VI	5466.7	472.8	201.7	82.0	332.9
VII	4254.2	358.8	164.0	69.9	258.3
VIII	5624.0	983.3	497.5	144.6	595.9

Merodavna kombinacija za savijanje:  
1.35xI+1.50xII

Merodavna kombinacija za smicanje:  
1.35xI+1.05xII+1.50xIII

M2ed = -3620.44 kNm  
M3ed = 10357.32 kNm  
N1ed = -10941.38 kN  
V2ed = -2363.00 kN  
V3ed = -5913.56 kN

eb/εa = -3.500/3.375 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.35m x 36.22
2	(P) 1.35m x 36.22
3	(P) 0.56m x 36.22
4	(P) 0.56m x 36.22
5	(P) 0.67m x 18.11
6	(P) 0.67m x 18.11
Potrebna [cm <sup>2</sup> ]	
7	(P) 55.90
8	(P) 55.90
9	(P) 13.98
10	(P) 13.98
11	(P) 13.98
Σ [cm <sup>2</sup> ]	316.75

Presek ne zadovoljava

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

Segment reduktora 1

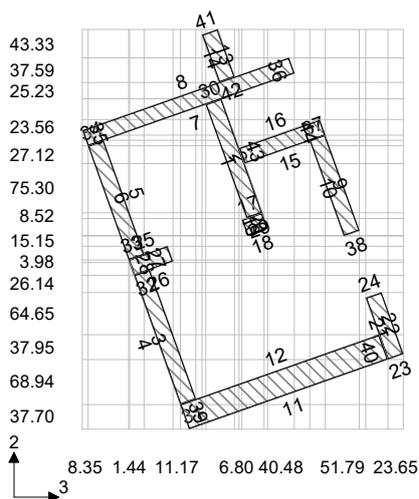
C30/37 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura greda i stubova S500N

Poprečna armatura S500N



[cm]

14	0.75m x 6.21	
15	1.28m x 3.64	
16	1.28m x 3.64	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
17	4.66	
18	4.66	
19	4.66	
20	4.66	
21	4.66	
22	4.66	
23	4.66	
24	4.66	
25	4.66	
26	4.66	
27	4.66	
28	4.66	
29	4.66	
30	4.66	
31	4.66	
32	4.66	
33	4.66	
34	4.66	
35	4.66	
36	4.66	
37	4.66	
38	4.66	
39	4.66	
40	4.66	
41	4.66	
42	4.66	
43	4.66	
44	4.66	
Σ [cm <sup>2</sup> ]	204.96	0.00

Položaj (Z=39.20m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-25.1	-247.3	1252.0	4442.2	1243.7
II	75.6	-112.4	262.9	1008.1	423.6
III	-19.2	44.1	-57.7	-162.1	-193.1
IV	138.4	490.9	435.2	1943.5	3248.0
V	113.4	487.8	316.2	1493.1	3118.9
VI	752.9	799.0	1669.5	6331.4	2576.3
VII	623.5	693.6	1237.6	4818.7	2183.4
VIII	765.5	937.7	1725.3	6623.0	4145.7

Merodavna kombinacija za savijanje: I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.83m x 2.55	
2	1.83m x 2.54	
3	2.08m x 2.24	
4	2.08m x 2.24	
5	1.83m x 2.54	
6	1.83m x 2.54	
7	3.30m x 1.41	
8	3.30m x 1.41	
9	1.53m x 3.04	
10	1.53m x 3.04	
11	3.18m x 1.47	
12	3.18m x 1.47	
13	0.75m x 6.21	

M2ed = 11367.60 kNm  
M3ed = 5516.53 kNm  
N1ed = 763.08 kN  
V2ed = 656.68 kN  
V3ed = 3056.08 kN

$\epsilon_b/\epsilon_a = -3.500/22.808 \%$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.83m x 2.12
2	1.83m x 2.12
3	2.08m x 1.86
4	2.08m x 1.87
5	1.83m x 2.12
6	1.83m x 2.12
7	3.30m x 1.17
8	3.30m x 1.17
9	1.53m x 2.53
10	1.53m x 2.53
11	3.18m x 1.22
12	3.18m x 1.22
13	0.75m x 5.17
14	0.75m x 5.17
15	1.28m x 3.03
16	1.28m x 3.03
Potrebna [cm <sup>2</sup> ]	
17	3.88
18	3.88
19	3.88
20	3.88
21	3.88
22	3.88
23	3.88
24	3.88
25	3.88
26	3.88
27	3.88
28	3.88
29	3.88
30	3.88
31	3.88
32	3.88
33	3.88
34	3.88
35	3.88
36	3.88
37	3.88
38	3.88
39	3.88
40	3.88
41	3.88
42	3.88
43	3.88
44	3.88
$\Sigma$ [cm <sup>2</sup> ]	170.57

Poprečna armatura

Aah\* = ±58.45 cm<sup>2</sup>/m

Položaj (Z=38.50m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-831.7	-26.0	810.8	4292.2	1937.0
II	-100.2	-41.2	167.0	925.1	608.5
III	3.3	13.7	-32.4	-132.4	-239.1
IV	1185.8	734.3	286.9	2170.4	4502.1
V	1111.4	723.0	213.7	1580.2	4328.1
VI	939.2	355.0	908.0	8024.2	3186.8
VII	701.4	279.3	658.7	5945.3	2673.6
VIII	1512.7	815.6	952.3	8312.5	5515.8

Merodavna kombinacija za savijanje: I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 12882.29 kNm  
M3ed = 7635.44 kNm  
N1ed = 650.89 kN  
V2ed = 777.24 kN  
V3ed = 1813.21 kN

$\epsilon_b/\epsilon_a = -3.500/21.872 \%$

Podužna armatura

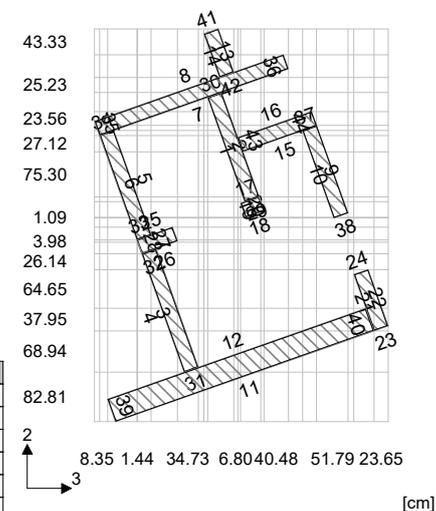
No	Potrebna [cm <sup>2</sup> /m]
1	1.83m x 2.55
2	1.83m x 2.54
3	2.08m x 2.24
4	2.08m x 2.24
5	1.83m x 2.54
6	1.83m x 2.54
7	3.30m x 1.41

8	3.30m x 1.41
9	1.53m x 3.04
10	1.53m x 3.04
11	3.18m x 1.47
12	3.18m x 1.47
13	0.75m x 6.21
14	0.75m x 6.21
15	1.28m x 3.64
16	1.28m x 3.64
Potrebna [cm <sup>2</sup> ]	
17	4.66
18	4.66
19	4.66
20	4.66
21	4.66
22	4.66
23	4.66
24	4.66
25	4.66
26	4.66
27	4.66
28	4.66
29	4.66
30	4.66
31	4.66
32	4.66
33	4.66
34	4.66
35	4.66
36	4.66
37	4.66
38	4.66
39	4.66
40	4.66
41	4.66
42	4.66
43	4.66
44	4.66
$\Sigma$ [cm <sup>2</sup> ]	204.96

Poprečna armatura

Aah\* = ±34.68 cm<sup>2</sup>/m

Segment reduktora 2



Podužna armatura

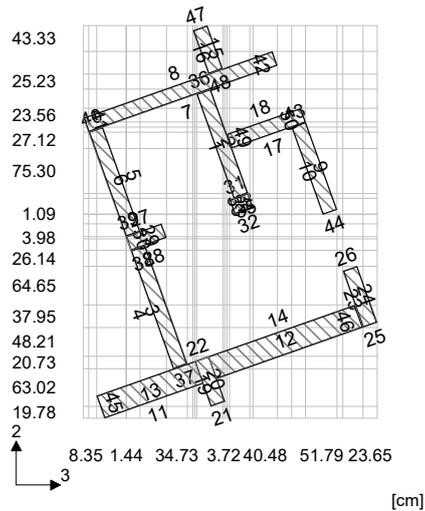
No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.83m x 7.63	
2	1.83m x 7.62	
3	2.08m x 6.71	
4	2.08m x 6.72	
5	1.83m x 7.62	
6	1.83m x 7.61	
7	3.30m x 4.22	
8	3.30m x 4.22	
9	1.53m x 9.12	
10	1.53m x 9.12	
11	4.53m x 3.08	
12	4.53m x 3.08	
13	0.75m x 18.61	

14	0.75m x 18.61	
15	1.28m x 10.90	
16	1.28m x 10.90	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
17	13.95	
18	13.95	
19	13.95	
20	13.95	
21	13.95	
22	13.95	
23	13.95	
24	13.95	
25	13.95	
26	13.95	
27	13.95	
28	13.95	
29	13.95	
30	13.95	
31	13.95	
32	13.95	
33	13.95	
34	13.95	
35	13.95	
36	13.95	
37	13.95	
38	13.95	
39	13.95	
40	13.95	
41	13.95	
42	13.95	
43	13.95	
44	13.95	
	<b>Σ [cm<sup>2</sup>]</b>	<b>613.98</b>

32	13.95	
33	13.95	
34	13.95	
35	13.95	
36	13.95	
37	13.95	
38	13.95	
39	13.95	
40	13.95	
41	13.95	
42	13.95	
43	13.95	
44	13.95	
	<b>Σ [cm<sup>2</sup>]</b>	<b>613.98</b>

Poprečna armatura  
Aah\* = ±148.03 cm<sup>2</sup>/m

Segment reduktora 3



Položaji (Z=14.53m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-11779.3	246.3	2485.7	17514.2	-3120.7
II	-1596.5	40.7	455.2	3347.4	-439.1
III	60.6	-78.6	-51.1	-341.1	336.7
IV	6878.2	4477.1	208.1	3322.2	16609.0
V	6278.3	4327.9	496.9	2630.4	16762.4
VI	6905.1	476.8	5422.1	32948.0	10364.1
VII	4926.0	830.2	4171.4	25391.3	8700.9
VIII	9746.3	4553.4	5444.8	33115.0	19707.7

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 50629.21 kNm  
M3ed = 16587.00 kNm  
N1ed = -2033.07 kN  
V2ed = 4811.93 kN  
V3ed = 8067.05 kN

εb/εa = -3.500/15.006 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.83m x 7.63
2	1.83m x 7.62
3	2.08m x 6.71
4	2.08m x 6.72
5	1.83m x 7.62
6	1.83m x 7.61
7	3.30m x 4.22
8	3.30m x 4.22
9	1.53m x 9.12
10	1.53m x 9.12
11	4.53m x 3.08
12	4.53m x 3.08
13	0.75m x 18.61
14	0.75m x 18.61
15	1.28m x 10.90
16	1.28m x 10.90
	<b>Potrebna [cm<sup>2</sup>]</b>
17	13.95
18	13.95
19	13.95
20	13.95
21	13.95
22	13.95
23	13.95
24	13.95
25	13.95
26	13.95
27	13.95
28	13.95
29	13.95
30	13.95
31	13.95

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.83m x 5.71	
2	1.83m x 5.70	
3	2.08m x 5.02	
4	2.08m x 5.03	
5	1.83m x 5.70	
6	1.83m x 5.70	
7	3.30m x 3.16	
8	3.30m x 3.16	
9	1.53m x 6.82	
10	1.53m x 6.82	
11	1.71m x 6.11	
12	2.55m x 4.09	
13	1.71m x 6.11	
14	2.55m x 4.09	
15	0.75m x 13.92	
16	0.75m x 13.92	
17	1.28m x 8.16	
18	1.28m x 8.16	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
19	10.44	
20	10.44	
21	10.44	
22	10.44	
23	10.44	
24	10.44	
25	10.44	
26	10.44	
27	10.44	
28	10.44	
29	10.44	
30	10.44	
31	10.44	
32	10.44	
33	10.44	
34	10.44	
35	10.44	
36	10.44	
37	10.44	
38	10.44	
39	10.44	
40	10.44	
41	10.44	
42	10.44	
43	10.44	
44	10.44	

45	10.44	
46	10.44	
47	10.44	
48	10.44	
49	10.44	
50	10.44	
<b>Σ [cm<sup>2</sup>]</b>	<b>521.95</b>	<b>0.00</b>

Aah\* = ±91.59 cm<sup>2</sup>/m

Segment reduktora 4

Položaji (Z=13.65m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-15025.9	848.7	1500.1	18404.9	-5273.1
II	-2296.9	184.3	249.1	3532.5	-923.2
III	100.0	-48.5	-37.0	-351.4	218.8
IV	8980.4	2692.6	705.9	5672.5	13657.9
V	8125.9	2690.1	534.8	6427.0	13748.5
VI	10488.8	1479.3	1776.5	32234.8	11643.1
VII	7621.3	1416.2	1266.2	25077.7	9289.7
VIII	13808.0	3072.2	1911.6	32869.3	18016.2

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = 51168.72 kNm

M3ed = -23223.63 kNm

N1ed = -1187.85 kN

V2ed = 3976.19 kN

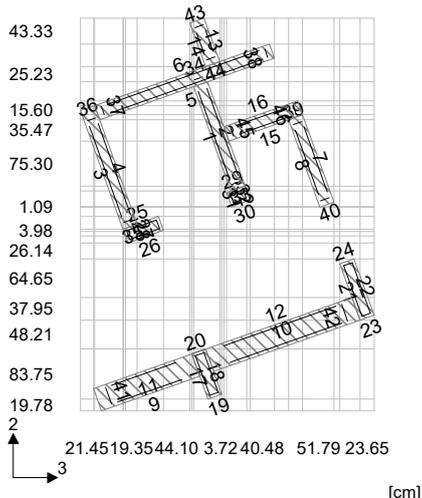
V3ed = 3486.44 kN

eb/ea = -3.500/16.069 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.83m x 5.71
2	1.83m x 5.70
3	2.08m x 5.02
4	2.08m x 5.03
5	1.83m x 5.70
6	1.83m x 5.70
7	3.30m x 3.16
8	3.30m x 3.16
9	1.53m x 6.82
10	1.53m x 6.82
11	1.71m x 6.11
12	2.55m x 4.09
13	1.71m x 6.11
14	2.55m x 4.09
15	0.75m x 13.92
16	0.75m x 13.92
17	1.28m x 8.16
18	1.28m x 8.16
	<b>Potrebna [cm<sup>2</sup>]</b>
19	10.44
20	10.44
21	10.44
22	10.44
23	10.44
24	10.44
25	10.44
26	10.44
27	10.44
28	10.44
29	10.44
30	10.44
31	10.44
32	10.44
33	10.44
34	10.44
35	10.44
36	10.44
37	10.44
38	10.44
39	10.44
40	10.44
41	10.44
42	10.44
43	10.44
44	10.44
45	10.44
46	10.44
47	10.44
48	10.44
49	10.44
50	10.44
<b>Σ [cm<sup>2</sup>]</b>	<b>521.95</b>

Poprečna armatura



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.55m x 6.14	(Ø12/15) 1.55m x 7.54
2	(P) 1.55m x 6.14	(Ø12/15) 1.55m x 7.54
3	(P) 1.60m x 6.14	(Ø12/15) 1.60m x 7.54
4	(P) 1.60m x 6.14	(Ø12/15) 1.60m x 7.54
5	(P) 2.67m x 6.14	(Ø12/15) 2.67m x 7.54
6	(P) 2.67m x 6.14	(Ø12/15) 2.67m x 7.54
7	(P) 1.15m x 6.14	(Ø12/15) 1.15m x 7.54
8	(P) 1.15m x 6.14	(Ø12/15) 1.15m x 7.54
9	(P) 1.13m x 9.21	(Ø12/10) 1.13m x 11.31
10	(P) 1.97m x 9.21	(Ø12/10) 1.97m x 11.31
11	(P) 1.13m x 9.21	(Ø12/10) 1.13m x 11.31
12	(P) 1.97m x 9.21	(Ø12/10) 1.97m x 11.31
13	(P) 0.37m x 6.57	(Ø12/15) 0.37m x 7.54
14	(P) 0.37m x 6.57	(Ø12/15) 0.37m x 7.54
15	(P) 0.90m x 6.13	(Ø12/15) 0.90m x 7.54
16	(P) 0.90m x 6.13	(Ø12/15) 0.90m x 7.54
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
17	(P) 17.91	(7Ø20) 21.99
18	(P) 17.91	(7Ø20) 21.99
19	(P) 5.11	(2Ø20) 6.28
20	(P) 5.11	(2Ø20) 6.28
21	(P) 17.91	(7Ø20) 21.99
22	(P) 17.91	(7Ø20) 21.99
23	(P) 5.11	(2Ø20) 6.28
24	(P) 5.11	(2Ø20) 6.28
25	(P) 7.67	(3Ø20) 9.42
26	(P) 7.67	(3Ø20) 9.42
27	(P) 5.11	(2Ø20) 6.28
28	(P) 5.11	(2Ø20) 6.28
29	(P) 2.56	(1Ø20) 3.14
30	(P) 2.56	(1Ø20) 3.14
31	(P) 5.11	(2Ø20) 6.28
32	(P) 5.11	(2Ø20) 6.28
33	(P) 5.11	(2Ø20) 6.28
34	(P) 25.58	(10Ø20) 31.42
35	(P) 5.11	(2Ø20) 6.28
36	(P) 20.47	(8Ø20) 25.13
37	(P) 10.23	(4Ø20) 12.57
38	(P) 10.23	(4Ø20) 12.57
39	(P) 10.23	(4Ø20) 12.57
40	(P) 10.23	(4Ø20) 12.57
41	(P) 40.94	(16Ø20) 50.27
42	(P) 20.47	(8Ø20) 25.13
43	(P) 10.23	(4Ø20) 12.57
44	(P) 5.11	(2Ø20) 6.28
45	(P) 10.23	(4Ø20) 12.57
46	(P) 10.23	(4Ø20) 12.57
<b>Σ [cm<sup>2</sup>]</b>	<b>485.97</b>	<b>596.58</b>

Položaji (Z=1.00m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-24360.3	1967.6	3470.6	31928.4	-8316.0
II	-4054.0	303.0	618.1	5676.0	-1260.1
III	293.2	-38.3	-26.5	-45.1	620.2
IV	12437.9	1830.6	222.0	8559.5	31416.0
V	12787.3	1935.2	305.4	6994.1	30755.6

VI	8095.3	1261.2	3616.9	18356.0	1747.0
VII	6933.4	913.7	2812.0	13462.4	3370.8
VIII	15134.4	2309.9	3629.8	20253.6	31596.3

Merodavna kombinacija za savijanje: I-1.00xVIII  
Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 52181.98 kNm  
M3ed = -39912.29 kNm  
N1ed = -9225.92 kN  
V2ed = 4368.37 kN  
V3ed = 7285.85 kN

$\epsilon_b/\epsilon_a = -3.500/8.463 \%$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.55m x 6.14
2	(P) 1.55m x 6.14
3	(P) 1.60m x 6.14
4	(P) 1.60m x 6.14
5	(P) 2.67m x 6.14
6	(P) 2.67m x 6.14
7	(P) 1.15m x 6.14
8	(P) 1.15m x 6.14
9	(P) 1.13m x 9.21
10	(P) 1.97m x 9.21
11	(P) 1.13m x 9.21
12	(P) 1.97m x 9.21
13	(P) 0.37m x 6.57
14	(P) 0.37m x 6.57
15	(P) 0.90m x 6.13
16	(P) 0.90m x 6.13
	Potrebna [cm <sup>2</sup> ]
17	(P) 17.91
18	(P) 17.91
19	(P) 5.11
20	(P) 5.11
21	(P) 17.91
22	(P) 17.91
23	(P) 5.11
24	(P) 5.11
25	(P) 7.67
26	(P) 7.67
27	(P) 5.11
28	(P) 5.11
29	(P) 2.56
30	(P) 2.56
31	(P) 5.11
32	(P) 5.11
33	(P) 5.11
34	(P) 25.58
35	(P) 5.11
36	(P) 20.47
37	(P) 10.23
38	(P) 10.23
39	(P) 10.23
40	(P) 10.23
41	(P) 40.94
42	(P) 20.47
43	(P) 10.23
44	(P) 5.11
45	(P) 10.23
46	(P) 10.23
<b>Σ [cm<sup>2</sup>]</b>	<b>485.97</b>

Poprečna armatura  
Aah\* = ±260.71 cm<sup>2</sup>/m

Položaji (Z=-5.70m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-30421.4	5619.5	12850.7	68991.0	-8329.2
II	-5421.9	991.5	2290.7	12258.5	-1506.9
III	87.7	79.3	-10.3	-121.2	-1.6
IV	10543.0	1345.8	223.1	4030.9	15708.6
V	10723.2	1313.9	259.3	3042.8	15076.1
VI	4876.9	68.4	656.7	13501.6	4886.2
VII	4257.5	115.6	541.3	10110.1	2960.4
VIII	11780.1	1350.7	706.0	14090.4	16451.0

Merodavna kombinacija za savijanje:  
I+0.30xII+0.30xIII-1.00xVIII  
Merodavna kombinacija za smicanje:  
1.35xI+1.50xII

M2ed = 86722.58 kNm  
M3ed = 7669.28 kNm  
N1ed = -20241.48 kN  
V2ed = 9073.52 kN  
V3ed = 20784.49 kN

$\epsilon_b/\epsilon_a = -3.500/8.504 \%$

Podužna armatura

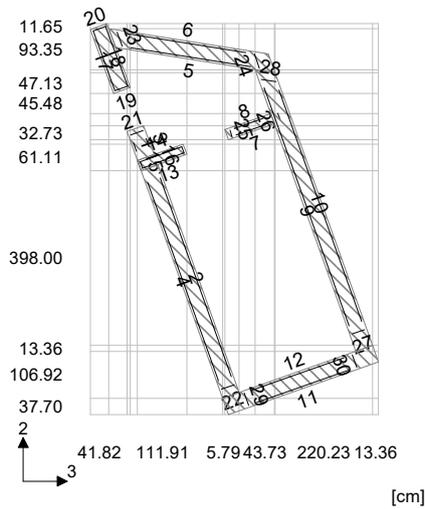
No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.55m x 5.81
2	(P) 1.55m x 5.81
3	(P) 1.60m x 5.81
4	(P) 1.60m x 5.81
5	(P) 2.67m x 5.81
6	(P) 2.67m x 5.81
7	(P) 1.15m x 5.81
8	(P) 1.15m x 5.81
9	(P) 1.13m x 8.71
10	(P) 1.97m x 8.71
11	(P) 1.13m x 8.71
12	(P) 1.97m x 8.71
13	(P) 0.37m x 6.21
14	(P) 0.37m x 6.21
15	(P) 0.90m x 5.80
16	(P) 0.90m x 5.80
	Potrebna [cm <sup>2</sup> ]
17	(P) 16.94
18	(P) 16.94
19	(P) 4.84
20	(P) 4.84
21	(P) 16.94
22	(P) 16.94
23	(P) 4.84
24	(P) 4.84
25	(P) 7.26
26	(P) 7.26
27	(P) 4.84
28	(P) 4.84
29	(P) 2.42
30	(P) 2.42
31	(P) 4.84
32	(P) 4.84
33	(P) 4.84
34	(P) 24.21
35	(P) 4.84
36	(P) 19.37
37	(P) 9.68
38	(P) 9.68
39	(P) 9.68
40	(P) 9.68
41	(P) 38.74
42	(P) 19.37
43	(P) 9.68
44	(P) 4.84
45	(P) 9.68
46	(P) 9.68
<b>Σ [cm<sup>2</sup>]</b>	<b>459.85</b>

Poprečna armatura  
Aah\* = ±743.74 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

Segment reduktora 1

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 0.20m x 52.33
2	(P) 4.80m x 38.13
3	(P) 0.20m x 52.99
4	(P) 4.80m x 38.13
5	(P) 2.74m x 38.09
6	(P) 2.74m x 38.09
7	(P) 0.70m x 37.82
8	(P) 0.70m x 37.82
9	(P) 5.59m x 38.14
10	(P) 5.75m x 38.14
11	(P) 2.20m x 38.07
12	(P) 2.20m x 38.07
Potrebna [cm <sup>2</sup> ]	
13	(P) 25.53
14	(P) 25.53
15	(P) 14.73
16	(P) 14.73
17	(P) 66.04
18	(P) 66.04
19	(P) 14.73
20	(P) 14.73
21	(P) 29.21
22	(P) 58.67
23	(P) 29.21
24	(P) 88.13
25	(P) 14.73
26	(P) 73.40
27	(P) 58.67
28	(P) 29.21
29	(P) 117.59
30	(P) 117.59
Σ [cm <sup>2</sup> ]	2107.20

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 0.20m x 69.91	(Ø18/5) 0.20m x 50.89
2	(P) 4.80m x 50.94	(Ø18/5) 4.80m x 50.89
3	(P) 0.20m x 70.80	(Ø18/5) 0.20m x 50.89
4	(P) 4.80m x 50.94	(Ø18/5) 4.80m x 50.89
5	(P) 2.74m x 50.89	(Ø18/5) 2.74m x 50.89
6	(P) 2.74m x 50.89	(Ø18/5) 2.74m x 50.89
7	(P) 0.70m x 50.53	(Ø18/5) 0.70m x 50.89
8	(P) 0.70m x 50.53	(Ø18/5) 0.70m x 50.89
9	(P) 5.59m x 50.95	(Ø18/5) 5.59m x 50.89
10	(P) 5.75m x 50.96	(Ø18/5) 5.75m x 50.89
11	(P) 2.20m x 50.86	(Ø18/5) 2.20m x 50.89
12	(P) 2.20m x 50.86	(Ø18/5) 2.20m x 50.89
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
13	(P) 34.11	(7Ø25) 34.36
14	(P) 34.11	(7Ø25) 34.36
15	(P) 19.68	(4Ø25) 19.63
16	(P) 19.68	(4Ø25) 19.63
17	(P) 88.23	(18Ø25) 88.36
18	(P) 88.23	(18Ø25) 88.36
19	(P) 19.68	(4Ø25) 19.63
20	(P) 19.68	(4Ø25) 19.63
21	(P) 39.03	(8Ø25) 39.27
22	(P) 78.39	(16Ø25) 78.54
23	(P) 39.03	(8Ø25) 39.27
24	(P) 117.75	(24Ø25) 117.81
25	(P) 19.68	(4Ø25) 19.63
26	(P) 98.07	(20Ø25) 98.17
27	(P) 78.39	(16Ø25) 78.54
28	(P) 39.03	(8Ø25) 39.27
29	(P) 157.12	(32Ø25) 157.08
30	(P) 157.12	(32Ø25) 157.08
Σ [cm <sup>2</sup> ]	2815.45	2808.78

Poprečna armatura

Aah\* = ±241.94 cm<sup>2</sup>/m

Položaj (Z=-0.15m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-22089.8	5116.3	2269.2	10466.0	-7066.4
II	-3967.4	992.2	334.5	1923.7	-1199.7
III	-139.8	85.9	78.3	-1626.9	1730.9
IV	12583.9	734.4	479.5	36943.4	77656.9
V	11580.0	798.6	696.6	53760.0	83632.1
VI	9774.2	1201.0	3010.8	213206.7	85113.8
VII	6585.0	798.5	2292.0	159535.2	66334.5
VIII	15933.9	1442.3	3090.3	219880.1	119326.0

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

M2ed = 230346.14 kNm

M3ed = 112259.64 kNm

N1ed = -6155.88 kN

V2ed = 8485.50 kN

V3ed = 3647.32 kN

εb/εa = -3.500/8.927 ‰

Položaj (Z=5.60m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-22006.6	1290.2	-1241.2	7971.5	-5383.8
II	-3980.4	300.1	-294.1	1723.8	-846.8
III	-135.5	-122.5	-72.1	-1614.6	1528.7
IV	11654.8	6208.4	1083.8	36761.6	62982.2
V	10590.3	6525.8	1933.6	49924.7	67203.4
VI	10259.0	4221.8	13321.0	169461.5	64796.9
VII	6870.8	3317.5	9723.0	127292.2	51299.1
VIII	15526.8	7772.4	13460.6	176662.6	93353.8

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = 184149.72 kNm

M3ed = 88428.62 kNm

N1ed = -6520.44 kN

V2ed = -6428.81 kN

V3ed = -14811.66 kN

εb/εa = -3.500/10.537 ‰

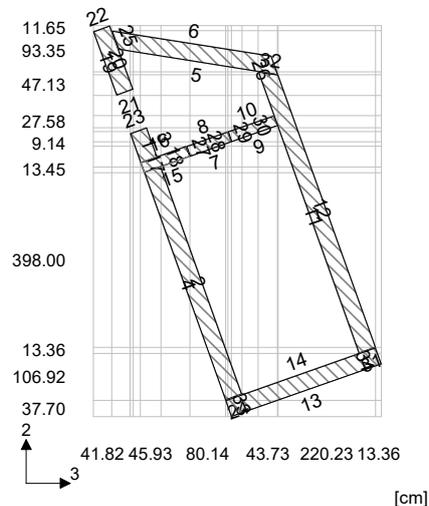
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 0.20m x 69.91
2	(P) 4.80m x 50.94
3	(P) 0.20m x 70.80
4	(P) 4.80m x 50.94
5	(P) 2.74m x 50.89
6	(P) 2.74m x 50.89
7	(P) 0.70m x 50.53
8	(P) 0.70m x 50.53
9	(P) 5.59m x 50.95
10	(P) 5.75m x 50.96
11	(P) 2.20m x 50.86
12	(P) 2.20m x 50.86
Potrebna [cm <sup>2</sup> ]	
13	(P) 34.11
14	(P) 34.11
15	(P) 19.68
16	(P) 19.68
17	(P) 88.23
18	(P) 88.23
19	(P) 19.68
20	(P) 19.68
21	(P) 39.03
22	(P) 78.39
23	(P) 39.03
24	(P) 117.75
25	(P) 19.68
26	(P) 98.07

27	(P) 78.39
28	(P) 39.03
29	(P) 157.12
30	(P) 157.12
<b>Σ [cm²]</b>	<b>2815.45</b>

Poprečna armatura  
Aah\* = ±160.65 cm²/m

### Segment reduktora 2



### Podužna armatura

No	Potrebna [cm²/m]	Usvojena [cm²/m]
1	0.68m x 151.48	
2	5.48m x 18.85	
3	0.68m x 152.19	
4	5.48m x 18.84	
5	3.63m x 28.48	
6	3.63m x 28.44	
7	0.98m x 105.60	
8	0.98m x 105.39	
9	1.08m x 95.61	
10	1.08m x 95.61	
11	6.58m x 15.70	
12	6.78m x 15.23	
13	3.58m x 28.84	
14	3.58m x 28.84	
	<b>Potrebna [cm²]</b>	<b>Usvojena [cm²]</b>
15	103.26	
16	103.26	
17	103.26	
18	103.26	
19	103.26	
20	103.26	
21	103.26	
22	103.26	
23	103.26	
24	103.26	
25	103.26	
26	103.26	
27	103.26	
28	103.26	
29	103.26	
30	103.26	
31	103.26	
32	103.26	
33	103.26	
34	103.26	
<b>Σ [cm²]</b>	<b>3510.83</b>	<b>0.00</b>

### Položaj (Z=-0.15m)

#### Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-22264.7	6807.6	1577.5	10108.7	-5053.9
II	-4027.7	1319.0	204.2	2015.8	-915.0
III	-132.5	116.3	77.9	-1608.2	1726.6
IV	11835.1	1024.7	461.8	37598.8	77874.8
V	10656.8	1055.0	642.4	54654.8	84035.8
VI	11992.8	566.7	2860.6	215904.0	87429.7
VII	8238.1	398.4	2191.9	161525.1	68081.7
VIII	16849.2	1197.6	2931.9	222714.3	121268.2

Merodavna kombinacija za savijanje:  
I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:  
1.35xI+1.50xII+1.05xIII

M2ed = 232340.61 kNm  
M3ed = 116732.25 kNm  
N1ed = -5455.19 kN  
V2ed = 11290.82 kN  
V3ed = 2517.76 kN

εb/εa = -3.500/7.252 ‰

### Podužna armatura

No	Potrebna [cm²/m]
1	0.68m x 151.48
2	5.48m x 18.85
3	0.68m x 152.19
4	5.48m x 18.84
5	3.63m x 28.48
6	3.63m x 28.44
7	0.98m x 105.60
8	0.98m x 105.39
9	1.08m x 95.61
10	1.08m x 95.61
11	6.58m x 15.70
12	6.78m x 15.23
13	3.58m x 28.84
14	3.58m x 28.84
	<b>Potrebna [cm²]</b>
15	103.26
16	103.26
17	103.26
18	103.26
19	103.26
20	103.26
21	103.26
22	103.26
23	103.26
24	103.26
25	103.26
26	103.26
27	103.26
28	103.26
29	103.26
30	103.26
31	103.26
32	103.26
33	103.26
34	103.26
<b>Σ [cm²]</b>	<b>3510.83</b>

### Poprečna armatura

Aah\* = ±149.46 cm²/m

### Položaj (Z=-2.70m)

#### Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-23025.2	13233.1	4451.2	14423.5	-33113.1
II	-4215.8	2557.0	707.9	2559.3	-6172.2
III	-154.3	288.0	216.5	-1161.7	1002.8
IV	12688.0	4105.4	354.1	39548.4	66973.1
V	11596.5	4217.1	252.1	55523.7	72662.7
VI	10768.2	2130.5	4756.3	203299.9	79576.4
VII	7301.7	1773.6	3438.1	152543.0	61728.1
VIII	16641.5	4724.8	4769.5	210745.6	107760.3

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

M2ed = -196322.11 kNm  
M3ed = -140873.35 kNm  
N1ed = -6383.65 kN  
V2ed = 22002.63 kN  
V3ed = 7298.33 kN

εb/εa = -3.500/15.116 ‰

### Podužna armatura

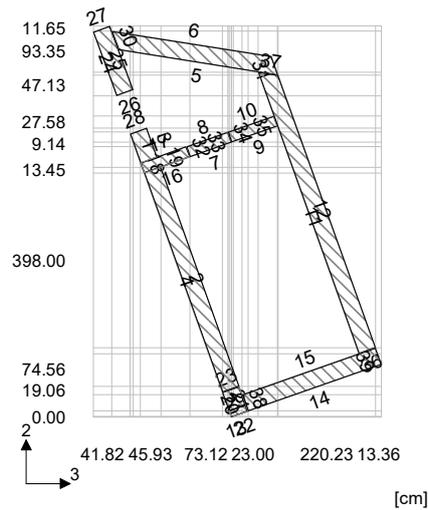
No	Potrebna [cm²/m]
1	0.68m x 144.03
2	5.48m x 17.92
3	0.68m x 144.71
4	5.48m x 17.91
5	3.63m x 27.08
6	3.63m x 27.05
7	0.98m x 100.41
8	0.98m x 100.21
9	1.08m x 90.91
10	1.08m x 90.91
11	6.58m x 14.93

12	6.78m x 14.48
13	3.58m x 27.43
14	3.58m x 27.43
	Potrebna [cm <sup>2</sup> ]
15	98.18
16	98.18
17	98.18
18	98.18
19	98.18
20	98.18
21	98.18
22	98.18
23	98.18
24	98.18
25	98.18
26	98.18
27	98.18
28	98.18
29	98.18
30	98.18
31	98.18
32	98.18
33	98.18
34	98.18
<b>Σ [cm<sup>2</sup>]</b>	<b>3338.27</b>

Poprečna armatura  
Aah\* = ±291.26 cm<sup>2</sup>/m

### Segment reduktora 3

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura greda i stubova S500N  
Poprečna armatura S500N



### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.68m x 133.16	
2	5.28m x 17.20	
3	0.68m x 133.79	
4	5.28m x 17.20	
5	3.63m x 25.03	
6	3.63m x 25.01	
7	0.98m x 92.83	
8	0.98m x 92.65	
9	1.08m x 84.05	
10	1.08m x 84.05	
11	6.58m x 13.81	
12	6.78m x 13.38	
13	0.00m x 76569.18	
14	3.18m x 28.56	
15	3.18m x 28.53	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
16	907.77	
17	90.78	
18	90.78	
19	90.78	
20	90.78	
21	90.78	
22	90.78	
23	90.78	
24	90.78	
25	90.78	
26	90.78	
27	90.78	
28	90.78	

29	90.78	
30	90.78	
31	90.78	
32	90.78	
33	90.78	
34	90.78	
35	90.78	
36	90.78	
37	90.78	
38	90.78	
39	90.78	
<b>Σ [cm<sup>2</sup>]</b>	<b>4357.30</b>	<b>0.00</b>

### Položaj (Z=-2.70m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-23454.5	13324.6	4507.6	14737.9	-33767.4
II	-4302.6	2575.0	719.1	2590.8	-6294.0
III	-164.3	289.2	217.2	-1176.4	993.6
IV	12595.2	4110.2	356.4	38600.0	66795.2
V	11698.5	4224.0	250.1	55357.1	72465.4
VI	8379.3	2156.8	4744.9	213516.0	79288.7
VII	5527.6	1793.6	3429.4	160117.6	61502.2
VIII	15127.8	4742.7	4758.3	220575.4	107414.7

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

M2ed = -205837.50 kNm

M3ed = -141182.11 kNm

N1ed = -8326.62 kN

V2ed = 22154.30 kN

V3ed = 7392.02 kN

εb/εa = -3.500/20.024 ‰

### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	0.68m x 133.16
2	5.28m x 17.20
3	0.68m x 133.79
4	5.28m x 17.20
5	3.63m x 25.03
6	3.63m x 25.01
7	0.98m x 92.83
8	0.98m x 92.65
9	1.08m x 84.05
10	1.08m x 84.05
11	6.58m x 13.81
12	6.78m x 13.38
13	0.00m x 76569.18
14	3.18m x 28.56
15	3.18m x 28.53
	<b>Potrebna [cm<sup>2</sup>]</b>
16	907.77
17	90.78
18	90.78
19	90.78
20	90.78
21	90.78
22	90.78
23	90.78
24	90.78
25	90.78
26	90.78
27	90.78
28	90.78
29	90.78
30	90.78
31	90.78
32	90.78
33	90.78
34	90.78
35	90.78
36	90.78
37	90.78
38	90.78
39	90.78
<b>Σ [cm<sup>2</sup>]</b>	<b>4357.30</b>

Poprečna armatura

Aah\* = ±356.17 cm<sup>2</sup>/m

### Segment reduktora 4

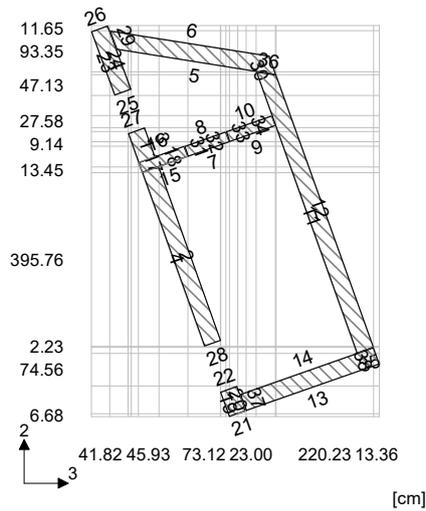
C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura greda i stubova S500N

Poprečna armatura S500N



M2ed = -166077.80 kNm  
M3ed = -167432.45 kNm  
N1ed = -8974.60 kN  
V2ed = 21938.83 kN  
V3ed = 6501.59 kN

$\epsilon_b/\epsilon_a = -3.500/19.171 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	0.68m x 149.73
2	4.18m x 24.43
3	0.68m x 150.43
4	4.18m x 24.41
5	3.63m x 28.15
6	3.63m x 28.12
7	0.98m x 104.38
8	0.98m x 104.18
9	1.08m x 94.51
10	1.08m x 94.51
11	6.58m x 15.52
12	6.78m x 15.05
13	3.18m x 32.11
14	3.18m x 32.08
<b>Potrebna [cm<sup>2</sup>]</b>	
15	102.07
16	102.07
17	102.07
18	102.07
19	102.07
20	102.07
21	102.07
22	102.07
23	102.07
24	102.07
25	102.07
26	102.07
27	102.07
28	102.07
29	102.07
30	102.07
31	102.07
32	102.07
33	102.07
34	102.07
35	102.07
36	102.07
37	102.07
38	102.07
<b>Σ [cm<sup>2</sup>]</b>	<b>3878.67</b>

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	0.68m x 159.15	
2	4.18m x 25.96	
3	0.68m x 159.89	
4	4.18m x 25.94	
5	3.63m x 29.92	
6	3.63m x 29.88	
7	0.98m x 110.94	
8	0.98m x 110.73	
9	1.08m x 100.45	
10	1.08m x 100.45	
11	6.58m x 16.50	
12	6.78m x 16.00	
13	3.18m x 34.13	
14	3.18m x 34.09	
<b>Potrebna [cm<sup>2</sup>]</b>		<b>Usvojena [cm<sup>2</sup>]</b>
15	108.49	
16	108.49	
17	108.49	
18	108.49	
19	108.49	
20	108.49	
21	108.49	
22	108.49	
23	108.49	
24	108.49	
25	108.49	
26	108.49	
27	108.49	
28	108.49	
29	108.49	
30	108.49	
31	108.49	
32	108.49	
33	108.49	
34	108.49	
35	108.49	
36	108.49	
37	108.49	
38	108.49	
<b>Σ [cm<sup>2</sup>]</b>	<b>4122.54</b>	<b>0.00</b>

**Poprečna armatura**

Aah\* = ±330.20 cm<sup>2</sup>/m

**Položaj (Z=-5.70m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-21416.9	6169.4	2424.2	24195.8	-69116.3
II	-3773.8	1187.6	378.1	4139.7	-13157.1
III	-117.3	176.2	136.7	-542.5	239.3
IV	12224.3	2564.4	797.6	44034.8	56068.5
V	11136.1	2645.5	598.4	58961.7	61803.6
VI	10838.4	1448.6	2181.7	191906.8	77963.8
VII	7377.9	1184.6	1543.9	144594.0	60008.4
VIII	16337.2	3016.2	2322.9	200760.4	99488.9

**Merodavna kombinacija za savijanje:**

I+0.30xII-1.00xVIII

**Merodavna kombinacija za smicanje:**

1.35xI+1.50xII+1.05xIII

M2ed = -175322.60 kNm  
M3ed = -172552.36 kNm  
N1ed = -6211.83 kN  
V2ed = 10295.19 kN  
V3ed = 3983.31 kN

$\epsilon_b/\epsilon_a = -3.500/18.952 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	0.68m x 159.15
2	4.18m x 25.96
3	0.68m x 159.89
4	4.18m x 25.94
5	3.63m x 29.92
6	3.63m x 29.88
7	0.98m x 110.94
8	0.98m x 110.73
9	1.08m x 100.45
10	1.08m x 100.45
11	6.58m x 16.50

**Položaj (Z=-4.77m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-23889.7	13201.5	3973.7	28387.1	-66709.0
II	-4193.2	2544.7	617.8	4774.3	-12633.3
III	-164.5	285.4	200.5	-674.5	393.9
IV	12585.6	4117.7	276.0	41662.1	55330.4
V	11541.8	4204.8	266.4	56260.8	60850.4
VI	10157.3	1847.8	4170.8	187644.4	75454.1
VII	6845.1	1567.8	3006.3	141330.0	58159.6
VIII	16173.0	4592.9	4179.9	195897.2	96933.5

**Merodavna kombinacija za savijanje:**

I+0.30xII-1.00xVIII

**Merodavna kombinacija za smicanje:**

1.35xI+1.50xII+1.05xIII

12	6.78m x 16.00
13	3.18m x 34.13
14	3.18m x 34.09
	Potrebna [cm <sup>2</sup> ]
15	108.49
16	108.49
17	108.49
18	108.49
19	108.49
20	108.49
21	108.49
22	108.49
23	108.49
24	108.49
25	108.49
26	108.49

27	108.49
28	108.49
29	108.49
30	108.49
31	108.49
32	108.49
33	108.49
34	108.49
35	108.49
36	108.49
37	108.49
38	108.49
Σ [cm <sup>2</sup> ]	4122.54

Poprečna armatura  
Aah\* = ±154.95 cm<sup>2</sup>/m

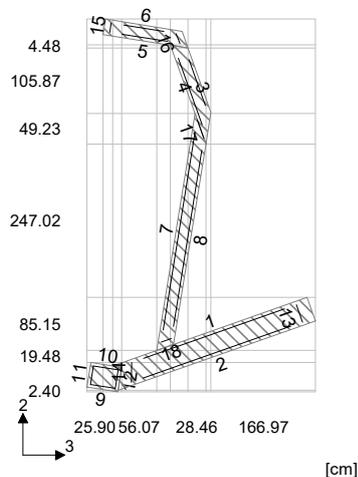
EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

### Segment reduktora 1

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N

M2ed = -22748.43 kNm  
M3ed = 3577.06 kNm  
N1ed = 123.68 kN  
V2ed = -3194.65 kN  
V3ed = -2429.06 kN

$\epsilon_b/\epsilon_a = -1.079/25.000 \%$



### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.39m x 10.45
2	(P) 2.51m x 10.45
3	(P) 1.14m x 12.29
4	(P) 0.79m x 12.29
5	(P) 0.73m x 12.29
6	(P) 0.65m x 12.29
7	(P) 3.23m x 12.29
8	(P) 2.87m x 12.29
	Potrebna [cm <sup>2</sup> ]
9	(P) 6.05
10	(P) 6.05
11	(P) 4.03
12	(P) 4.03
13	(P) 48.38
14	(P) 48.38
15	(P) 7.74
16	(P) 12.09
17	(P) 24.19
18	(P) 8.06
Σ [cm <sup>2</sup> ]	335.89

Poprečna armatura  
Aah\* = ±104.52 cm<sup>2</sup>/m

### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.39m x 24.56	(Ø18/10) 2.39m x 25.45
2	(P) 2.51m x 24.56	(Ø18/10) 2.51m x 25.45
3	(P) 1.14m x 28.89	(Ø18/8) 1.14m x 29.94
4	(P) 0.79m x 28.89	(Ø18/8) 0.79m x 29.94
5	(P) 0.73m x 28.89	(Ø18/8) 0.73m x 29.94
6	(P) 0.65m x 28.89	(Ø18/8) 0.65m x 29.94
7	(P) 3.23m x 28.89	(Ø18/8) 3.23m x 29.94
8	(P) 2.87m x 28.89	(Ø18/8) 2.87m x 29.94
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
9	(P) 14.21	(3Ø25) 14.73
10	(P) 14.21	(3Ø25) 14.73
11	(P) 9.47	(2Ø25) 9.82
12	(P) 9.47	(2Ø25) 9.82
13	(P) 113.69	(24Ø25) 117.81
14	(P) 113.69	(24Ø25) 117.81
15	(P) 18.19	(6Ø20) 18.85
16	(P) 28.42	(6Ø25) 29.45
17	(P) 56.85	(12Ø25) 58.90
18	(P) 18.95	(4Ø25) 19.63
Σ [cm <sup>2</sup> ]	789.42	817.99

### Položaj (Z=-0.15m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-9003.8	-291.3	-287.0	-2969.4	116.8
II	-1539.0	-34.5	-32.7	-414.6	3.5
III	-226.3	-2.1	4.4	-259.1	244.4
IV	10367.1	220.9	125.2	10939.2	9612.2
V	10042.7	202.7	132.4	7984.3	9058.7
VI	817.6	511.7	619.4	45592.0	2821.2
VII	1646.0	445.7	508.5	35986.8	1322.3
VIII	10496.9	557.3	633.3	46886.0	10017.6

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I-1.00xVIII

M2ed = -49855.35 kNm  
M3ed = 10134.44 kNm  
N1ed = 1493.12 kN  
V2ed = -848.64 kN  
V3ed = -920.35 kN

$\epsilon_b/\epsilon_a = -1.497/25.000 \%$

### Položaj (Z=12.66m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-6657.6	-387.0	-295.0	678.6	-969.4
II	-1048.5	-52.7	-61.4	235.5	-137.9
III	-143.1	-65.0	-6.3	-161.9	-97.7
IV	6130.6	2729.3	413.8	5773.5	4422.4
V	6067.3	2553.5	278.5	4481.9	4065.7
VI	2699.1	341.1	2072.9	22704.5	1054.8
VII	2898.6	486.8	1625.5	18300.1	954.4
VIII	6781.3	2772.3	2113.8	23427.0	4546.4

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.39m x 24.56
2	(P) 2.51m x 24.56
3	(P) 1.14m x 28.89
4	(P) 0.79m x 28.89
5	(P) 0.73m x 28.89
6	(P) 0.65m x 28.89
7	(P) 3.23m x 28.89
8	(P) 2.87m x 28.89
	Potrebna [cm <sup>2</sup> ]
9	(P) 14.21
10	(P) 14.21
11	(P) 9.47
12	(P) 9.47
13	(P) 113.69
14	(P) 113.69

15	(P) 18.19
16	(P) 28.42
17	(P) 56.85
18	(P) 18.95
<b>Σ [cm<sup>2</sup>]</b>	<b>789.42</b>

Poprečna armatura

$$A_{ah}^* = \pm 25.85 \text{ cm}^2/\text{m}$$

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

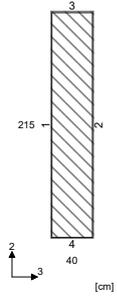
### Segment reduktora 1

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	2.13m x 5.30	
2	2.13m x 5.30	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
3	11.28	
4	11.28	
<b>Σ [cm<sup>2</sup>]</b>	<b>45.13</b>	<b>0.00</b>

Položaj (Z=51.98m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-416.9	34.5	-84.4	156.8	29.7
II	-125.7	9.0	-24.4	53.5	11.2
III	2.4	-2.0	-1.1	3.6	-1.4
IV	181.2	155.5	145.8	305.3	110.2
V	244.5	161.7	132.0	381.3	114.1
VI	846.2	38.8	597.1	819.2	25.3
VII	1067.1	31.9	730.2	1053.6	18.9
VIII	1094.8	166.3	744.6	1120.5	116.9

Merodavna kombinacija za savijanje:

$$I+0.30xIII-1.00xVIII$$

Merodavna kombinacija za smicanje:

$$I+0.30xII+0.30xIII-1.00xVIII$$

M2ed =	1278.38 kNm
M3ed =	146.18 kNm
N1ed =	678.55 kN
V2ed =	-129.73 kN
V3ed =	-836.70 kN

$$\epsilon_b/\epsilon_a = -3.500/22.247 \%$$

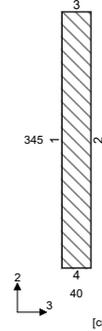
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.13m x 5.30
2	2.13m x 5.30
	<b>Potrebna [cm<sup>2</sup>]</b>
3	11.28
4	11.28
<b>Σ [cm<sup>2</sup>]</b>	<b>45.13</b>

Poprečna armatura

$$A_{ah}^* = \pm 5.02 \text{ cm}^2/\text{m}$$

### Segment reduktora 2



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	3.43m x 0.00	
2	3.43m x 0.00	
	<b>Potrebna [cm<sup>2</sup>]</b>	<b>Usvojena [cm<sup>2</sup>]</b>
3	0.00	
4	0.00	
<b>Σ [cm<sup>2</sup>]</b>	<b>0.00</b>	<b>0.00</b>

Položaj (Z=42.35m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-2134.3	3.9	153.3	-424.8	-0.2
II	-374.3	1.9	24.9	-56.4	-0.4
III	0.1	-4.3	0.6	11.4	-2.9
IV	162.0	149.6	79.8	178.2	71.1
V	188.4	153.4	87.8	133.4	72.2
VI	429.5	33.6	156.5	1171.6	15.5
VII	529.8	25.0	161.0	1437.4	12.8
VIII	562.3	157.0	183.4	1448.4	73.8

Merodavna kombinacija za savijanje:

$$1.35xI+1.05xII+1.50xIII$$

Merodavna kombinacija za smicanje:

$$I+0.30xII+0.30xIII+VIII$$

$$M2ed = -615.45 \text{ kNm}$$

$$M3ed = -5.05 \text{ kNm}$$

$$N1ed = -3274.11 \text{ kN}$$

$$V2ed = 160.16 \text{ kN}$$

$$V3ed = 344.38 \text{ kN}$$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	3.43m x 0.00
2	3.43m x 0.00
	<b>Potrebna [cm<sup>2</sup>]</b>
3	0.00
4	0.00
<b>Σ [cm<sup>2</sup>]</b>	<b>0.00</b>

Poprečna armatura

$$A_{ah}^* = \pm 0.00 \text{ cm}^2/\text{m}$$

### Segment reduktora 3

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

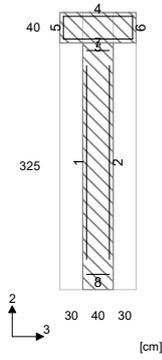
Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N

$$\epsilon_b/\epsilon_a = -3.500/20.268 \text{ ‰}$$



#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.55m x 0.93
2	(P) 2.55m x 0.93
Potrebna [cm <sup>2</sup> ]	
3	(P) 3.35
4	(P) 3.35
5	(P) 2.23
6	(P) 2.23
7	(P) 2.23
8	(P) 4.46
<b>Σ [cm<sup>2</sup>]</b>	<b>22.60</b>

#### Poprečna armatura

$$A_{ah}^* = \pm 5.15 \text{ cm}^2/\text{m}$$

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.55m x 0.93	(Ø8/15) 2.55m x 3.35
2	(P) 2.55m x 0.93	(Ø8/15) 2.55m x 3.35
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	(P) 3.35	(6Ø16) 12.06
4	(P) 3.35	(6Ø16) 12.06
5	(P) 2.23	(4Ø16) 8.04
6	(P) 2.23	(4Ø16) 8.04
7	(P) 2.23	(4Ø16) 8.04
8	(P) 4.46	(8Ø16) 16.08
<b>Σ [cm<sup>2</sup>]</b>	<b>22.60</b>	<b>81.43</b>

#### Položaj (Z=1.00m)

##### Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-9992.6	-60.5	450.6	188.1	64.9
II	-1901.3	-10.5	19.4	-142.2	17.0
III	8.5	-6.6	-19.0	-69.6	10.5
IV	229.2	136.4	128.3	793.8	329.4
V	300.7	140.1	186.1	1439.7	337.2
VI	1011.0	27.9	1055.4	7459.9	69.3
VII	1245.8	18.9	1378.4	9629.5	48.7
VIII	1281.5	142.9	1390.9	9736.6	344.2

#### Merodavna kombinacija za savijanje:

$$1.35\text{I} + 1.05\text{II} + 1.50\text{III}$$

#### Merodavna kombinacija za smicanje:

$$\text{I} + 0.30\text{II} + \text{VIII}$$

#### Položaj (Z=41.30m)

##### Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-2259.0	0.0	150.7	-780.1	-1.4
II	-422.8	0.6	19.6	-95.7	0.3
III	5.2	-6.9	-0.2	18.7	-11.0
IV	141.8	249.3	87.0	166.6	392.3
V	212.7	255.8	101.1	273.6	400.5
VI	888.1	60.2	399.1	1699.1	78.0
VII	1120.1	44.4	411.9	2188.0	57.3
VIII	1140.2	262.8	424.1	2205.0	408.1

$$M2_{ed} = 0.26 \text{ kNm}$$

$$M3_{ed} = 121.12 \text{ kNm}$$

$$N1_{ed} = -15473.66 \text{ kN}$$

$$V2_{ed} = 79.17 \text{ kN}$$

$$V3_{ed} = 1847.34 \text{ kN}$$

#### Merodavna kombinacija za savijanje:

$$\text{I} + 0.30\text{III} - 1.00\text{VIII}$$

#### Merodavna kombinacija za smicanje:

$$\text{I} + \text{VIII}$$

$$M2_{ed} = -2979.43 \text{ kNm}$$

$$M3_{ed} = -412.79 \text{ kNm}$$

$$N1_{ed} = -1117.24 \text{ kN}$$

$$V2_{ed} = 262.82 \text{ kN}$$

$$V3_{ed} = 574.79 \text{ kN}$$

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.55m x 0.00
2	(P) 2.55m x 0.00
Potrebna [cm <sup>2</sup> ]	
3	(P) 0.00
4	(P) 0.00
5	(P) 0.00
6	(P) 0.00
7	(P) 0.00
8	(P) 0.00
<b>Σ [cm<sup>2</sup>]</b>	<b>0.00</b>

#### Poprečna armatura

$$A_{ah}^* = \pm 16.56 \text{ cm}^2/\text{m}$$

#### EC 2 (EN 1992-1-1:2004)

#### Kompletna šema opterećenja

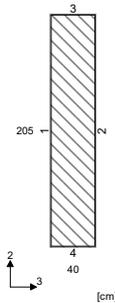
#### Segment reduktora 1

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



#### Položaj (Z=48.48m)

##### Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-871.0	-57.6	-36.5	-138.2	-36.0
II	-209.1	-11.2	-9.1	-36.5	-8.9
III	1.3	-5.7	-3.0	10.7	-3.5
IV	437.7	231.7	169.1	287.7	166.3
V	370.4	233.6	197.3	257.9	166.9
VI	1775.8	67.8	794.4	1764.2	69.3
VII	1487.5	71.4	641.5	1433.2	70.4
VIII	1828.9	244.3	818.5	1787.5	181.1

#### Merodavna kombinacija za savijanje:

$$\text{I} + 0.30\text{III} - 1.00\text{VIII}$$

#### Merodavna kombinacija za smicanje:

$$\text{I} + 0.30\text{II} + 0.30\text{III} - 1.00\text{VIII}$$

$$M2_{ed} = -1922.57 \text{ kNm}$$

$$M3_{ed} = -218.16 \text{ kNm}$$

$$N1_{ed} = 958.26 \text{ kN}$$

$$V2_{ed} = -306.92 \text{ kN}$$

$$V3_{ed} = -858.63 \text{ kN}$$

$$\epsilon_b/\epsilon_a = -3.500/16.972 \text{ ‰}$$

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	2.03m x 8.60	
2	2.03m x 8.60	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	17.45	
4	17.45	
<b>Σ [cm<sup>2</sup>]</b>	<b>69.80</b>	<b>0.00</b>

#### Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.03m x 8.60
2	2.03m x 8.60
Potrebna [cm <sup>2</sup> ]	
3	17.45
4	17.45
<b>Σ [cm<sup>2</sup>]</b>	<b>69.80</b>

#### Poprečna armatura

Aah\* = ±10.32 cm<sup>2</sup>/m

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/23.412 ‰

Položaj (Z=44.98m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1551.2	-43.1	68.9	-376.9	-26.1
II	-285.9	-3.9	24.1	-106.8	-1.1
III	6.0	-6.1	-5.2	11.1	-4.2
IV	401.4	287.6	177.6	414.4	169.2
V	346.4	297.6	154.6	404.0	173.5
VI	1996.3	72.5	873.9	1031.3	35.4
VII	1680.6	46.1	699.1	912.2	25.5
VIII	2036.3	306.3	891.8	1111.5	177.1

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	3.38m x 0.92
2	3.38m x 0.92
Potrebna [cm <sup>2</sup> ]	
3	3.11
4	3.11
Σ [cm <sup>2</sup> ]	12.44

Poprečna armatura

Aah\* = ±2.43 cm<sup>2</sup>/m

Segment reduktora 3

C35/45 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2<sub>ed</sub> = -1488.35 kNm

M3<sub>ed</sub> = -203.17 kNm

N1<sub>ed</sub> = 485.01 kN

V2<sub>ed</sub> = -352.41 kN

V3<sub>ed</sub> = -817.25 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/15.838 ‰

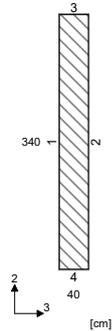
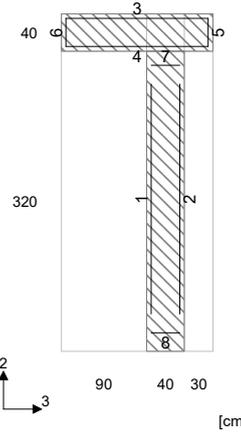
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.03m x 6.07
2	2.03m x 6.07
Potrebna [cm <sup>2</sup> ]	
3	12.32
4	12.32
Σ [cm <sup>2</sup> ]	49.26

Poprečna armatura

Aah\* = ±11.85 cm<sup>2</sup>/m

Segment reduktora 2



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.45m x 2.48	(Ø8/15) 2.45m x 3.35
2	(P) 2.45m x 2.48	(Ø8/15) 2.45m x 3.35
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	(P) 17.83	(12Ø16) 24.13
4	(P) 17.83	(12Ø16) 24.13
5	(P) 5.94	(4Ø16) 8.04
6	(P) 5.94	(4Ø16) 8.04
7	(P) 5.94	(4Ø16) 8.04
8	(P) 17.83	(12Ø16) 24.13
Σ [cm <sup>2</sup> ]	83.48	112.93

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	3.38m x 0.92	
2	3.38m x 0.92	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	3.11	
4	3.11	
Σ [cm <sup>2</sup> ]	12.44	0.00

Položaj (Z=1.00m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-8569.0	-120.0	639.8	1535.7	1030.6
II	-1492.8	-15.1	142.3	369.6	168.9
III	-13.3	-12.1	-9.0	-72.4	29.0
IV	255.2	241.8	247.8	1297.5	983.1
V	305.7	258.9	194.0	996.4	1003.3
VI	2369.0	91.4	992.4	9259.0	105.8
VII	2025.9	49.9	823.0	8206.3	105.3
VIII	2388.6	274.5	1022.9	9349.5	1008.9

Položaj (Z=38.15m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-2169.2	-42.6	313.1	-626.9	-18.2
II	-389.1	-5.7	65.1	-128.2	-2.0
III	-2.3	-8.2	2.4	25.6	-5.1
IV	298.7	144.1	65.0	496.4	107.5
V	298.4	143.1	61.3	468.9	111.3
VI	1684.2	68.5	301.3	778.3	32.0
VII	1442.5	66.3	267.2	641.5	21.0
VIII	1710.4	159.6	308.2	923.2	115.8

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2<sub>ed</sub> = 10885.17 kNm

M3<sub>ed</sub> = 2039.49 kNm

N1<sub>ed</sub> = -6180.42 kN

V2<sub>ed</sub> = 150.05 kN

V3<sub>ed</sub> = 1705.42 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/10.829 ‰

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2<sub>ed</sub> = -1550.08 kNm

M3<sub>ed</sub> = -133.98 kNm

N1<sub>ed</sub> = -458.77 kN

V2<sub>ed</sub> = 112.75 kN

V3<sub>ed</sub> = 641.55 kN

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.45m x 2.48
2	(P) 2.45m x 2.48
Potrebna [cm <sup>2</sup> ]	
3	(P) 17.83
4	(P) 17.83
5	(P) 5.94
6	(P) 5.94
7	(P) 5.94
8	(P) 17.83
Σ [cm <sup>2</sup> ]	83.48

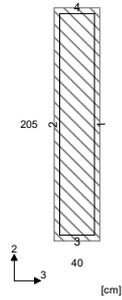
Poprečna armatura

Aah\* = ±15.85 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

Segment reduktora 1

C30/37 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.95m x 31.33	
2	1.95m x 31.33	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	61.09	
4	61.09	
Σ [cm <sup>2</sup> ]	244.38	0.00

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-846.6	-86.4	87.6	-135.4	42.6
II	-148.8	-13.4	18.8	-53.1	7.4
III	0.4	-5.8	-0.6	-4.2	0.7
IV	365.8	199.3	93.0	1411.7	185.0
V	368.0	204.4	90.7	1656.2	203.1
VI	2077.3	49.9	288.3	7783.4	212.2
VII	1643.1	36.6	240.3	6128.1	162.7
VIII	2109.7	210.4	302.9	7957.7	293.8

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -8093.09 kNm  
M3ed = 336.34 kNm  
N1ed = 1263.09 kN  
V2ed = -302.61 kN  
V3ed = -209.86 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/8.821 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	1.95m x 31.33
2	1.95m x 31.33
Potrebna [cm <sup>2</sup> ]	
3	61.09
4	61.09
Σ [cm <sup>2</sup> ]	244.38

Poprečna armatura

Aah\* = ±12.89 cm<sup>2</sup>/m

Položaj (Z=45.85m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-535.1	-137.9	37.7	-77.1	-230.5
II	-90.5	-22.5	1.3	-18.8	-41.8
III	-5.3	-7.5	-3.9	11.4	-11.2
IV	78.0	327.8	370.2	169.0	448.8
V	96.7	343.9	434.0	125.3	465.2
VI	266.8	175.0	2104.4	947.5	167.0
VII	213.6	130.4	1651.1	761.0	122.1
VIII	283.8	385.9	2148.7	962.5	494.3

Merodavna kombinacija za savijanje:

I+0.30xII+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -1041.80 kNm  
M3ed = -740.69 kNm  
N1ed = -280.04 kN  
V2ed = -532.80 kN  
V3ed = -2111.85 kN

ε<sub>b</sub>/ε<sub>a</sub> = -3.500/8.711 ‰

Podužna armatura

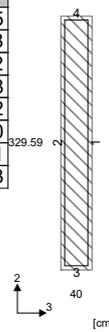
No	Potrebna [cm <sup>2</sup> /m]
1	1.95m x 13.62
2	1.95m x 13.62
Potrebna [cm <sup>2</sup> ]	
3	26.56
4	26.56
Σ [cm <sup>2</sup> ]	106.25

Poprečna armatura

Aah\* = ±22.69 cm<sup>2</sup>/m

Položaj (Z=42.35m)

Merodavni presek za savijanje



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	3.20m x 1.75	
2	3.20m x 1.75	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	5.59	
4	5.59	
Σ [cm <sup>2</sup> ]	22.37	0.00

Položaj (Z=38.15m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1815.0	-49.4	387.7	-444.5	-29.5
II	-339.3	-8.7	82.6	-94.5	-7.2
III	-9.0	-2.2	-0.5	17.5	-0.8
IV	226.1	19.4	111.8	789.8	47.5
V	225.4	17.8	151.4	713.9	52.3
VI	895.2	20.1	1083.8	2270.2	71.6
VII	747.9	16.5	825.7	1830.8	57.0
VIII	923.3	28.0	1094.4	2403.7	88.6

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = -2848.15 kNm  
M3ed = -118.19 kNm  
N1ed = -891.69 kN  
V2ed = -24.05 kN  
V3ed = 1506.81 kN

$\epsilon_b/\epsilon_a = -3.500/23.383 \%$

Podužna armatura

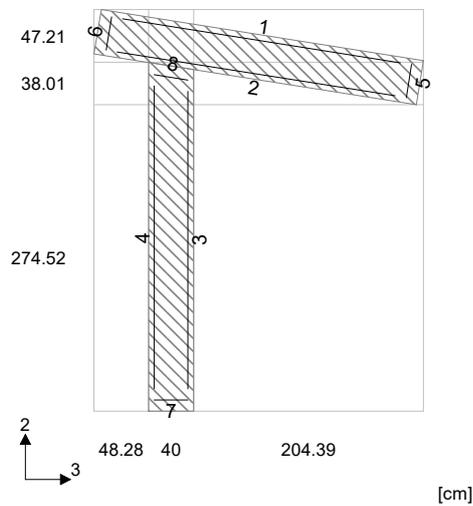
No	Potrebna [cm <sup>2</sup> /m]
1	3.20m x 1.75
2	3.20m x 1.75
Potrebna [cm <sup>2</sup> ]	
3	5.59
4	5.59
$\Sigma$ [cm <sup>2</sup> ]	22.37

Poprečna armatura

Aah\* = ±6.02 cm<sup>2</sup>/m

Segment reduktora 3

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.50m x 6.55	(Ø12/15) 2.50m x 7.54
2	(P) 2.50m x 6.55	(Ø12/15) 2.50m x 7.54
3	(P) 2.67m x 6.55	(Ø12/15) 2.67m x 7.54
4	(P) 2.72m x 6.55	(Ø12/15) 2.72m x 7.54
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 32.73	(12Ø20) 37.70
6	(P) 32.73	(12Ø20) 37.70
7	(P) 32.73	(12Ø20) 37.70
8	(P) 32.73	(12Ø20) 37.70
$\Sigma$ [cm <sup>2</sup> ]	198.88	229.09

Položaj (Z=1.00m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-11548.9	-1312.1	913.1	2995.0	2837.9
II	-2068.0	-216.3	215.9	709.5	488.1
III	2.3	-56.7	-10.8	-21.7	184.4
IV	445.6	1497.1	298.3	4274.1	6860.7
V	404.6	1580.5	204.1	3626.9	7008.6
VI	818.1	592.1	1749.7	13385.7	500.1
VII	684.5	357.5	1414.2	11301.3	517.4
VIII	931.6	1687.8	1774.9	14051.5	7027.7

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 17046.48 kNm  
M3ed = 9865.59 kNm  
N1ed = -10617.26 kN  
V2ed = 310.79 kN  
V3ed = 2752.76 kN

$\epsilon_b/\epsilon_a = -2.630/25.000 \%$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 6.55
2	(P) 2.50m x 6.55
3	(P) 2.67m x 6.55
4	(P) 2.72m x 6.55
Potrebna [cm <sup>2</sup> ]	
5	(P) 32.73
6	(P) 32.73
7	(P) 32.73
8	(P) 32.73
$\Sigma$ [cm <sup>2</sup> ]	198.88

Poprečna armatura

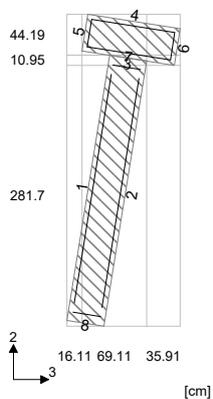
Aah\* = ±42.29 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

Segment reduktora 1

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.50m x 14.24	(Ø12/7) 2.50m x 15.08
2	(P) 2.50m x 14.24	(Ø12/7) 2.50m x 15.08
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	(P) 29.67	(10Ø20) 31.42
4	(P) 29.67	(10Ø20) 31.42
5	(P) 11.87	(4Ø20) 12.57
6	(P) 11.87	(4Ø20) 12.57
7	(P) 11.87	(4Ø20) 12.57
8	(P) 47.47	(16Ø20) 50.27
$\Sigma$ [cm <sup>2</sup> ]	213.62	226.19

Položaj (Z=1.00m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-7577.0	-167.0	31.3	750.0	384.7
II	-1370.8	-31.1	20.4	264.6	93.4
III	18.6	-5.3	-7.6	-16.0	10.9
IV	351.6	160.7	312.3	2812.2	830.6
V	299.5	157.5	248.4	2344.9	770.3
VI	859.3	102.5	980.1	7075.1	1001.3
VII	694.6	93.7	783.4	5597.6	810.9
VIII	928.4	190.6	1028.6	7613.5	1301.0

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = -6868.34 kNm  
M3ed = 1688.93 kNm  
N1ed = -6642.98 kN  
V2ed = 14.33 kN  
V3ed = 1066.04 kN

$\epsilon_b/\epsilon_a = -3.500/6.854 \%$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 14.24
2	(P) 2.50m x 14.24
Potrebna [cm <sup>2</sup> ]	
3	(P) 29.67
4	(P) 29.67
5	(P) 11.87
6	(P) 11.87
7	(P) 11.87
8	(P) 47.47
Σ [cm <sup>2</sup> ]	213.62

Poprečna armatura  
Aah\* = ±10.57 cm<sup>2</sup>/m

Položaj (Z=-4.77m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-9402.0	254.6	-1544.4	-8208.8	-1256.1
II	-1877.3	48.1	-298.9	-1706.7	-262.0
III	3.3	4.1	-23.7	-103.1	-13.6
IV	448.3	155.6	421.6	813.4	80.8
V	392.7	151.3	371.0	601.7	48.0
VI	933.0	99.0	788.0	3226.0	523.7
VII	758.1	84.6	627.9	2543.0	409.2
VIII	1035.1	184.5	893.7	3327.0	529.9

Merodavna kombinacija za savijanje:  
I+0.30xII+0.30xIII-1.00xVIII  
Merodavna kombinacija za smicanje:  
1.35xI+1.50xII+1.05xIII

M2ed = -12078.73 kNm  
M3ed = -808.92 kNm  
N1ed = -8929.15 kN  
V2ed = 420.29 kN  
V3ed = -2558.20 kN

εb/εa = -3.500/5.449 ‰

Podužna armatura

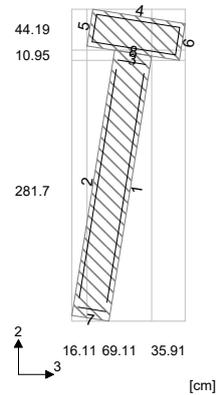
No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 5.92
2	(P) 2.50m x 5.92
Potrebna [cm <sup>2</sup> ]	
3	(P) 12.34
4	(P) 12.34
5	(P) 4.94
6	(P) 4.94
7	(P) 4.94
8	(P) 19.74
Σ [cm <sup>2</sup> ]	88.84

Poprečna armatura  
Aah\* = ±25.37 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

Segment reduktora 1

C30/37 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N



M2ed = 11609.66 kNm  
M3ed = -739.62 kNm  
N1ed = 5768.23 kN  
V2ed = -410.37 kN  
V3ed = -3700.38 kN

εb/εa = -3.500/6.888 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 47.44
2	(P) 2.50m x 47.44
Potrebna [cm <sup>2</sup> ]	
3	(P) 45.76
4	(P) 45.76
5	(P) 18.30
6	(P) 18.30
7	(P) 18.30
8	(P) 73.21
Σ [cm <sup>2</sup> ]	456.82

Poprečna armatura  
Aah\* = ±36.69 cm<sup>2</sup>/m

Položaj (Z=35.52m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	1676.0	137.1	-1249.2	1410.6	297.4
II	190.5	44.1	-259.0	316.1	59.0
III	123.2	-10.9	14.9	-67.4	-3.7
IV	1144.5	417.8	979.5	2727.0	397.8
V	1464.7	391.3	819.9	2717.7	397.2
VI	4372.7	397.2	2300.2	350.4	53.2
VII	3323.3	311.6	1774.4	288.3	42.5
VIII	4611.5	576.5	2500.1	2749.4	401.3

Merodavna kombinacija za savijanje:  
I+0.30xII+0.30xIII-1.00xVIII  
Merodavna kombinacija za smicanje:  
I+0.30xII-1.00xVIII

M2ed = 4234.64 kNm  
M3ed = 715.31 kNm  
N1ed = 6381.55 kN  
V2ed = -426.18 kN  
V3ed = -3826.99 kN

εb/εa = -1.543/25.000 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 27.10
2	(P) 2.50m x 27.10
Potrebna [cm <sup>2</sup> ]	
3	(P) 26.14
4	(P) 26.14
5	(P) 10.45
6	(P) 10.45
7	(P) 10.45
8	(P) 41.82
Σ [cm <sup>2</sup> ]	260.95

Poprečna armatura  
Aah\* = ±37.95 cm<sup>2</sup>/m

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.50m x 47.44	(Ø18/5) 2.50m x 50.89
2	(P) 2.50m x 47.44	(Ø18/5) 2.50m x 50.89
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	(P) 45.76	(10Ø25) 49.09
4	(P) 45.76	(10Ø25) 49.09
5	(P) 18.30	(4Ø25) 19.63
6	(P) 18.30	(4Ø25) 19.63
7	(P) 18.30	(4Ø25) 19.63
8	(P) 73.21	(16Ø25) 78.54
Σ [cm <sup>2</sup> ]	456.82	490.09

Položaj (Z=37.27m)

Merodavni presek za savijanje

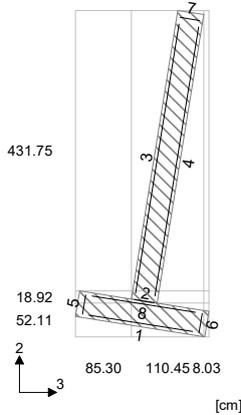
LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	1601.6	134.6	-1244.5	4449.1	653.5
II	168.2	41.9	-257.7	937.7	166.4
III	125.2	-11.1	16.1	-98.2	-27.1
IV	1302.2	407.5	914.2	4665.9	1165.9
V	1583.5	382.3	762.4	4325.0	1111.2
VI	3799.4	380.4	2195.9	5055.1	850.4
VII	2881.7	298.8	1695.2	3924.1	668.5
VIII	4116.1	557.5	2378.6	6879.3	1443.1

Merodavna kombinacija za savijanje: I+0.30xII-1.00xVIII  
Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

**Segment reduktora 1**

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.60m x 33.39	(Ø16/6) 1.60m x 33.51
2	(P) 1.60m x 33.39	(Ø16/6) 1.60m x 33.51
3	(P) 4.20m x 33.39	(Ø16/6) 4.20m x 33.51
4	(P) 4.20m x 33.39	(Ø16/6) 4.20m x 33.51
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 50.09	(16Ø20) 50.27
6	(P) 50.09	(16Ø20) 50.27
7	(P) 50.09	(16Ø20) 50.27
8	(P) 75.13	(24Ø20) 75.40
$\Sigma$ [cm <sup>2</sup> ]	612.76	614.91

**Položaj (Z=-0.15m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-9058.4	-253.5	-450.4	-964.6	43.3
II	-1699.6	-62.0	-108.5	-293.4	-7.9
III	6.0	-10.0	-6.5	-97.7	48.0
IV	3929.7	147.0	266.7	8932.9	3073.5
V	3755.4	134.2	228.4	8300.2	2941.2
VI	2674.5	403.4	418.6	28254.8	4262.2
VII	2349.5	398.3	372.6	26685.5	3851.8
VIII	4753.5	429.4	496.4	29633.3	5254.8

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = 28668.66 kNm  
M3ed = -5211.50 kNm  
N1ed = -4304.94 kN  
V2ed = -704.51 kN  
V3ed = -981.32 kN

$\epsilon_b/\epsilon_a = -3.500/8.373 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.60m x 33.39
2	(P) 1.60m x 33.39
3	(P) 4.20m x 33.39
4	(P) 4.20m x 33.39
Potrebna [cm <sup>2</sup> ]	
5	(P) 50.09
6	(P) 50.09
7	(P) 50.09
8	(P) 75.13
$\Sigma$ [cm <sup>2</sup> ]	612.76

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

**Položaj (Z=-1.08m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-8171.6	-461.5	-312.7	-1537.5	-473.0
II	-1662.1	-112.1	-93.5	-399.2	-149.3
III	9.6	8.6	0.8	-35.6	21.4
IV	5395.4	751.1	954.4	7235.5	2148.9
V	5139.2	718.8	905.0	6750.5	2046.1
VI	5893.0	909.2	2171.1	21254.9	3601.6
VII	5078.0	805.4	2046.9	19989.1	3288.7
VIII	7989.9	1179.3	2371.6	22452.7	4194.0

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII-1.00xVIII

M2ed = 20904.57 kNm  
M3ed = -4660.57 kNm  
N1ed = -178.87 kN  
V2ed = -1674.46 kN  
V3ed = -2712.38 kN

$\epsilon_b/\epsilon_a = -3.500/10.339 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.60m x 27.31
2	(P) 1.60m x 27.31
3	(P) 4.20m x 27.31
4	(P) 4.20m x 27.31
Potrebna [cm <sup>2</sup> ]	
5	(P) 40.97
6	(P) 40.97
7	(P) 40.97
8	(P) 61.46
$\Sigma$ [cm <sup>2</sup> ]	501.21

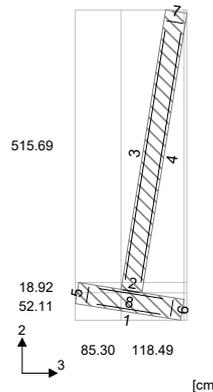
Poprečna armatura

Aah\* = ±38.82 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

**Segment reduktora 1**

C35/45 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.20m x 18.62	(Ø16/10) 1.20m x 20.11
2	(P) 1.20m x 18.62	(Ø16/10) 1.20m x 20.11
3	(P) 4.75m x 18.62	(Ø16/10) 4.75m x 20.11
4	(P) 4.75m x 18.62	(Ø16/10) 4.75m x 20.11
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
5	(P) 72.72	(16Ø25) 78.54
6	(P) 72.72	(16Ø25) 78.54
7	(P) 109.07	(24Ø25) 117.81
8	(P) 109.07	(24Ø25) 117.81
Σ [cm <sup>2</sup> ]	585.10	631.96

Merodavna kombinacija za savijanje:

I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = 19460.91 kNm

M3ed = -7386.80 kNm

N1ed = -6289.98 kN

V2ed = -478.64 kN

V3ed = -4359.20 kN

εb/εa = -3.500/5.734 ‰

Položaj (Z=1.00m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-12195.8	709.5	-1719.0	-5929.9	-1628.6
II	-2216.8	151.8	-386.6	-1296.4	-367.9
III	-53.3	-37.5	-24.7	-156.5	51.9
IV	2812.5	1020.3	616.1	6668.7	3436.9
V	2935.8	953.9	494.4	5678.7	3182.7
VI	5878.6	673.2	2440.3	24902.2	4481.7
VII	5145.9	488.1	2066.5	21999.2	3728.6
VIII	6570.9	1222.4	2516.8	25779.7	5647.8

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.20m x 18.62
2	(P) 1.20m x 18.62
3	(P) 4.75m x 18.62
4	(P) 4.75m x 18.62
	Potrebna [cm <sup>2</sup> ]
5	(P) 72.72
6	(P) 72.72
7	(P) 109.07
8	(P) 109.07
Σ [cm <sup>2</sup> ]	585.10

Poprečna armatura

Aah\* = ±54.47 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

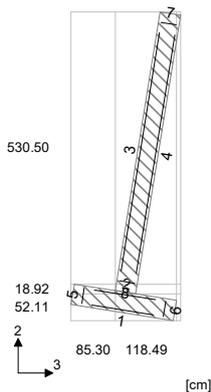
Segment reduktora 1

C30/37 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.20m x 15.43	(Ø14/10) 1.20m x 15.39
2	(P) 1.20m x 15.43	(Ø14/10) 1.20m x 15.39
3	(P) 4.70m x 15.43	(Ø14/10) 4.70m x 15.39
4	(P) 4.70m x 15.43	(Ø14/10) 4.70m x 15.39
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
5	(P) 78.74	(16Ø25) 78.54
6	(P) 78.74	(16Ø25) 78.54
7	(P) 118.10	(24Ø25) 117.81
8	(P) 118.10	(24Ø25) 117.81
Σ [cm <sup>2</sup> ]	575.78	574.35

Položaj (Z=1.00m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-10037.1	69.8	-698.7	-2123.4	-181.3
II	-1664.9	14.5	-163.7	-430.5	-40.6
III	-8.4	-33.5	-12.3	-113.2	49.5
IV	483.9	629.0	479.3	8322.7	3157.3
V	385.4	589.9	365.6	6898.0	2867.8
VI	1795.3	338.9	2022.6	27861.2	4422.6
VII	1497.9	229.9	1670.4	23595.8	3565.9
VIII	1859.4	714.5	2078.6	29077.7	5434.0

Merodavna kombinacija za savijanje:

I+0.30xII+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -31364.20 kNm

M3ed = 5255.28 kNm

N1ed = -12398.53 kN

V2ed = -650.41 kN

V3ed = -2830.20 kN

εb/εa = -3.500/1.922 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.20m x 15.43
2	(P) 1.20m x 15.43
3	(P) 4.70m x 15.43
4	(P) 4.70m x 15.43
	Potrebna [cm <sup>2</sup> ]
5	(P) 78.74
6	(P) 78.74
7	(P) 118.10
8	(P) 118.10
Σ [cm <sup>2</sup> ]	575.78

Poprečna armatura

Aah\* = ±28.84 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

Segment reduktora 1

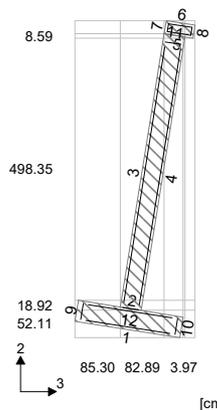
C35/45 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.60m x 52.31	(Ø18/5) 1.60m x 50.89
2	(P) 1.60m x 52.31	(Ø18/5) 1.60m x 50.89
3	(P) 4.91m x 52.31	(Ø18/5) 4.91m x 50.89
4	(P) 4.91m x 52.31	(Ø18/5) 4.91m x 50.89
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 10.09	(2Ø25) 9.82
6	(P) 10.09	(2Ø25) 9.82
7	(P) 10.09	(2Ø25) 9.82
8	(P) 10.09	(2Ø25) 9.82
9	(P) 80.72	(16Ø25) 78.54
10	(P) 80.72	(16Ø25) 78.54
11	(P) 121.09	(24Ø25) 117.81
12	(P) 201.81	(40Ø25) 196.35
Σ [cm <sup>2</sup> ]	1205.96	1173.32

Položaj (Z=14.52m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-4901.5	-367.9	-283.4	1345.8	875.6
II	-650.5	-76.4	-62.5	337.4	201.8
III	90.7	-43.9	-16.2	-38.7	89.9
IV	4642.2	1466.9	540.1	5864.3	3617.1
V	4474.8	1368.0	444.5	4873.9	3321.9
VI	727.3	443.1	1783.7	17233.1	2967.0
VII	532.9	223.1	1493.5	14229.1	2135.8
VIII	4698.9	1532.4	1863.7	18203.5	4678.3

Merodavna kombinacija za savijanje:

I+0.30xII+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -16768.12 kNm  
M3ed = 5641.39 kNm  
N1ed = -370.57 kN  
V2ed = -1936.46 kN  
V3ed = -2170.66 kN

εb/εa = -3.500/4.441 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.60m x 21.22
2	(P) 1.60m x 21.22
3	(P) 4.91m x 21.22
4	(P) 4.91m x 21.22
Potrebna [cm <sup>2</sup> ]	
5	(P) 4.09
6	(P) 4.09
7	(P) 4.09
8	(P) 4.09

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

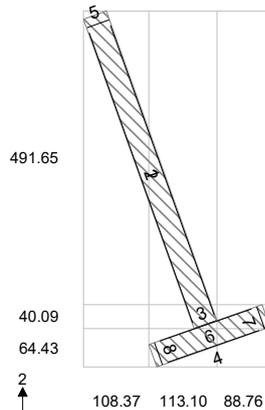
Segment reduktora 1

C35/45 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



[cm]

9	(P) 32.75
10	(P) 32.75
11	(P) 49.13
12	(P) 81.88
Σ [cm <sup>2</sup> ]	489.28

Poprečna armatura

Aah\* = ±48.72 cm<sup>2</sup>/m

Položaj (Z=1.00m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-6121.5	-291.9	-551.9	-2387.2	-9.7
II	-912.3	-71.3	-118.6	-458.2	29.2
III	157.2	-41.3	-4.0	-52.6	69.8
IV	8464.2	1089.9	545.9	12230.0	4592.9
V	8135.9	1023.6	420.3	9824.3	4086.3
VI	1366.5	517.9	1914.4	36574.4	6324.9
VII	713.3	337.8	1550.5	29388.0	4837.5
VIII	8573.8	1206.7	1990.7	38565.0	7816.6

Merodavna kombinacija za savijanje: I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = -41089.67 kNm  
M3ed = 7815.68 kNm  
N1ed = 2178.62 kN  
V2ed = -1520.02 kN  
V3ed = -2578.26 kN

εb/εa = -3.500/3.129 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.60m x 52.31
2	(P) 1.60m x 52.31
3	(P) 4.91m x 52.31
4	(P) 4.91m x 52.31
Potrebna [cm <sup>2</sup> ]	
5	(P) 10.09
6	(P) 10.09
7	(P) 10.09
8	(P) 10.09
9	(P) 80.72
10	(P) 80.72
11	(P) 121.09
12	(P) 201.81
Σ [cm <sup>2</sup> ]	1205.96

Poprečna armatura

Aah\* = ±38.25 cm<sup>2</sup>/m

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 5.15m x 51.33	(Ø18/5) 5.15m x 50.89
2	(P) 5.15m x 51.33	(Ø18/5) 5.15m x 50.89
3	(P) 1.60m x 51.33	(Ø18/5) 1.60m x 50.89
4	(P) 1.60m x 51.33	(Ø18/5) 1.60m x 50.89
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 118.82	(24Ø25) 117.81
6	(P) 158.43	(32Ø25) 157.08
7	(P) 79.22	(16Ø25) 78.54
8	(P) 79.22	(16Ø25) 78.54
Σ [cm <sup>2</sup> ]	1128.67	1119.04

Položaj (Z=14.52m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-6677.3	-193.3	941.7	7685.1	-1743.2
II	-1056.0	-26.5	193.8	1575.4	-380.7
III	-27.3	-33.8	-4.0	-79.0	99.9
IV	237.3	618.4	890.6	4311.8	1159.7
V	268.3	622.8	623.7	2782.9	1433.8
VI	1047.8	557.3	3762.9	23143.0	6590.9
VII	880.7	541.1	2944.2	18242.5	5397.0
VIII	1081.7	835.8	3866.8	23541.2	6745.1

Merodavna kombinacija za savijanje:

I+0.30xII+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = 31675.26 kNm  
M3ed = 4917.62 kNm  
N1ed = -5920.62 kN  
V2ed = 634.54 kN  
V3ed = 4866.65 kN

$\epsilon_b/\epsilon_a = -3.500/5.447 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 5.15m x 51.33
2	(P) 5.15m x 51.33
3	(P) 1.60m x 51.33
4	(P) 1.60m x 51.33
Potrebna [cm <sup>2</sup> ]	
5	(P) 118.82
6	(P) 158.43
7	(P) 79.22
8	(P) 79.22
$\Sigma$ [cm <sup>2</sup> ]	1128.67

**Poprečna armatura**

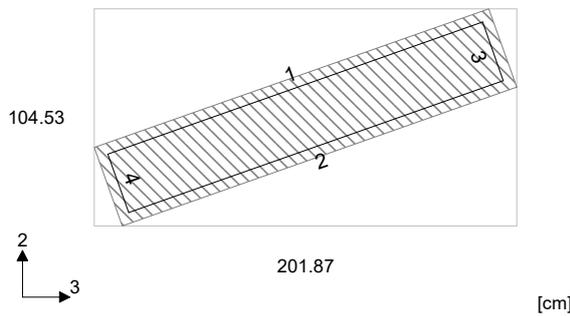
Aah\* = ±75.76 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

**Segment reduktora 1**

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	1.90m x 20.12	
2	1.90m x 20.12	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	38.23	
4	38.23	
$\Sigma$ [cm <sup>2</sup> ]	152.90	0.00

**Položaji (Z=39.20m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	586.8	-376.2	107.9	138.2	487.9
II	129.2	-86.0	26.8	41.9	137.6
III	9.5	-1.7	6.7	-0.4	-17.5
IV	637.9	624.2	148.6	74.2	505.2
V	718.3	665.2	160.0	69.7	525.4
VI	1207.6	698.8	153.4	10.1	414.2
VII	945.4	546.3	102.6	14.9	333.6
VIII	1405.1	964.7	221.7	75.7	669.0

Merodavna kombinacija za savijanje:

I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = 75.05 kNm  
M3ed = 1198.21 kNm  
N1ed = 2030.63 kN  
V2ed = 562.28 kN  
V3ed = 339.59 kN

$\epsilon_b/\epsilon_a = -3.500/13.627 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	1.90m x 12.55
2	1.90m x 12.55
Potrebna [cm <sup>2</sup> ]	
3	23.84
4	23.84
$\Sigma$ [cm <sup>2</sup> ]	95.34

**Poprečna armatura**

Aah\* = ±12.32 cm<sup>2</sup>/m

**Položaji (Z=38.15m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-290.3	-197.9	111.2	78.1	432.9
II	-134.2	-46.6	27.4	35.8	139.6
III	63.9	-20.8	8.3	-9.6	-49.6
IV	470.9	43.3	27.0	249.4	1239.5
V	367.2	65.4	37.8	223.4	1229.2
VI	1189.8	312.7	139.7	242.3	344.7
VII	889.5	222.8	100.5	190.4	319.2
VIII	1279.6	319.4	144.8	347.7	1286.6

Merodavna kombinacija za savijanje:

I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = -258.89 kNm  
M3ed = 1761.38 kNm  
N1ed = 949.10 kN  
V2ed = 101.28 kN  
V3ed = 266.62 kN

$\epsilon_b/\epsilon_a = -3.500/8.362 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	1.90m x 20.12
2	1.90m x 20.12
Potrebna [cm <sup>2</sup> ]	
3	38.23
4	38.23
$\Sigma$ [cm <sup>2</sup> ]	152.90

**Poprečna armatura**

Aah\* = ±9.68 cm<sup>2</sup>/m

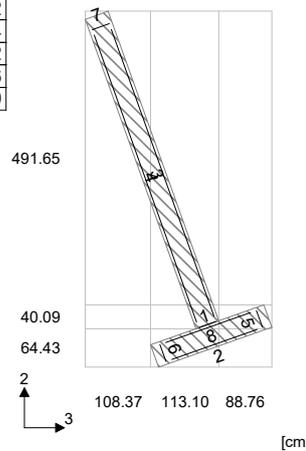
**Segment reduktora 2**

C35/45 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.50m x 34.80	(Ø18/7) 1.50m x 33.93
2	(P) 1.50m x 34.80	(Ø18/7) 1.50m x 33.93
3	(P) 5.10m x 34.80	(Ø18/7) 5.10m x 33.93
4	(P) 5.10m x 34.80	(Ø18/7) 5.10m x 33.93
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 80.56	(16Ø25) 78.54
6	(P) 80.56	(16Ø25) 78.54
7	(P) 120.85	(24Ø25) 117.81
8	(P) 161.13	(32Ø25) 157.08
$\Sigma$ [cm <sup>2</sup> ]	902.51	879.83

**Položaj (Z=1.00m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-8523.8	207.2	-924.8	-6085.9	1260.0
II	-1496.5	104.8	-87.6	-997.3	152.3
III	-175.7	-44.5	-76.4	-496.3	209.9
IV	818.2	697.0	121.9	685.3	2185.5
V	1402.5	652.2	72.9	1666.4	2463.1
VI	8730.8	411.1	1420.3	19702.4	4711.2
VII	6904.3	287.9	1093.5	15408.1	3844.0
VIII	8842.8	809.2	1425.5	19772.7	5316.3

Merodavna kombinacija za savijanje:

I+0.30xII+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -26306.68 kNm  
 M3ed = -3947.61 kNm  
 N1ed = -182.72 kN  
 V2ed = -583.89 kN  
 V3ed = -2399.44 kN

$\epsilon_b/\epsilon_a = -3.500/3.540 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.50m x 34.80
2	(P) 1.50m x 34.80
3	(P) 5.10m x 34.80
4	(P) 5.10m x 34.80
Potrebna [cm <sup>2</sup> ]	
5	(P) 80.56
6	(P) 80.56
7	(P) 120.85
8	(P) 161.13
<b>Σ [cm<sup>2</sup>]</b>	<b>902.51</b>

Poprečna armatura

Aah\* = ±38.77 cm<sup>2</sup>/m

**Položaj (Z=-1.08m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-7909.8	1164.9	671.2	-5784.6	2584.6
II	-1617.9	278.4	208.9	-1021.7	501.3
III	-169.4	31.6	9.4	-414.3	172.4
IV	1983.7	466.8	159.0	2598.9	1734.0
V	2317.2	521.5	164.0	3334.1	1962.2
VI	5526.1	1000.4	184.2	11056.0	3856.7
VII	4468.9	826.6	160.9	8828.9	3139.4
VIII	5992.2	1128.2	246.6	11547.8	4327.2

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = 5763.18 kNm  
 M3ed = 6911.81 kNm  
 N1ed = -1917.53 kN  
 V2ed = 2386.06 kN  
 V3ed = 983.31 kN

$\epsilon_b/\epsilon_a = -3.500/5.727 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.50m x 18.33
2	(P) 1.50m x 18.33
3	(P) 5.10m x 18.33
4	(P) 5.10m x 18.33
Potrebna [cm <sup>2</sup> ]	
5	(P) 42.42
6	(P) 42.42
7	(P) 63.63
8	(P) 84.84
<b>Σ [cm<sup>2</sup>]</b>	<b>475.23</b>

Poprečna armatura

Aah\* = ±60.49 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

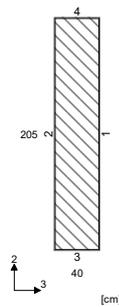
**Segment reduktora 1**

C30/37 ( $\gamma_C = 1.50$ ,  $\gamma_S = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	2.03m x 6.08	
2	2.03m x 6.08	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	12.34	
4	12.34	
<b>Σ [cm<sup>2</sup>]</b>	<b>49.36</b>	<b>0.00</b>

**Položaj (Z=49.35m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-597.0	90.3	32.5	79.8	135.4
II	-130.2	17.5	10.5	23.4	29.2
III	7.9	-1.9	-2.0	23.8	-3.5
IV	120.2	187.7	201.8	155.9	282.0
V	101.8	193.3	225.9	90.0	287.2
VI	180.7	53.6	390.3	565.3	86.9
VII	229.5	42.0	380.1	774.5	73.9
VIII	259.1	200.6	451.0	790.1	300.0

Merodavna kombinacija za savijanje: I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = 876.84 kNm  
 M3ed = 444.17 kNm  
 N1ed = -376.91 kN  
 V2ed = 296.05 kN  
 V3ed = 486.61 kN

$\epsilon_b/\epsilon_a = -3.500/14.337 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.03m x 6.08
2	2.03m x 6.08
Potrebna [cm <sup>2</sup> ]	
3	12.34
4	12.34
<b>Σ [cm<sup>2</sup>]</b>	<b>49.36</b>

Poprečna armatura

Aah\* = ±3.06 cm<sup>2</sup>/m

**Položaj (Z=46.73m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-133.6	83.6	-5.2	-64.9	-53.7
II	-54.5	16.0	2.3	5.3	-7.3
III	0.0	-1.7	-9.5	-7.3	0.5
IV	47.3	176.6	201.6	638.8	117.0
V	56.5	182.1	259.4	760.9	122.9
VI	72.3	50.1	491.0	1314.4	36.8
VII	96.9	39.3	497.2	1266.5	34.5
VIII	112.2	188.8	560.8	1518.7	128.3

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xIII-1.00xVIII

M2ed = -1585.85 kNm  
 M3ed = -181.89 kNm  
 N1ed = -21.45 kN  
 V2ed = -105.74 kN  
 V3ed = -568.90 kN

$\epsilon_b/\epsilon_a = -3.500/15.348 \text{ ‰}$

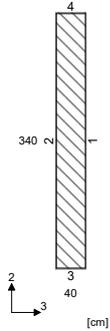
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	2.03m x 4.89
2	2.03m x 4.89
Potrebna [cm <sup>2</sup> ]	
3	9.92
4	9.92
Σ [cm <sup>2</sup> ]	39.69

Poprečna armatura

Aah\* = ±3.58 cm<sup>2</sup>/m

Segment reduktora 2



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	3.38m x 0.00	
2	3.38m x 0.00	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	0.00	
4	0.00	
Σ [cm <sup>2</sup> ]	0.00	0.00

Položaj (Z=42.35m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1665.6	81.9	85.1	-80.4	30.6
II	-285.9	15.6	6.9	10.6	7.8
III	29.7	-1.6	-3.7	6.0	-1.6
IV	152.1	85.8	99.8	227.4	39.5
V	150.5	90.3	109.6	198.2	39.3
VI	266.8	21.3	77.6	1381.2	12.4
VII	300.3	24.4	67.5	1707.7	13.0
VIII	336.6	93.5	134.3	1722.7	41.6

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = -88.45 kNm  
M3ed = 47.20 kNm  
N1ed = -2504.24 kN  
V2ed = 180.09 kN  
V3ed = 221.47 kN

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	3.38m x 0.00
2	3.38m x 0.00
Potrebna [cm <sup>2</sup> ]	
3	0.00
4	0.00
Σ [cm <sup>2</sup> ]	0.00

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

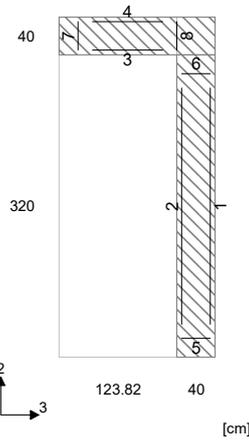
Segment reduktora 3

C35/45 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 2.50m x 34.28	(Ø18/7) 2.50m x 33.93
2	(P) 2.50m x 34.28	(Ø18/7) 2.50m x 33.93
3	(P) 0.74m x 34.28	(Ø18/7) 0.74m x 33.93
4	(P) 0.74m x 34.28	(Ø18/7) 0.74m x 33.93
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 79.35	(16Ø25) 78.54
6	(P) 19.84	(4Ø25) 19.63
7	(P) 79.35	(16Ø25) 78.54
8	(P) 99.18	(20Ø25) 98.17
Σ [cm <sup>2</sup> ]	499.72	494.63

Položaj (Z=-0.15m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-8823.8	172.1	658.8	406.4	-359.6
II	-1630.1	36.1	104.8	41.8	-54.4
III	85.7	-6.1	-15.0	-96.4	61.9
IV	2674.5	294.9	49.1	6312.4	6007.2
V	2500.9	305.7	47.6	5391.0	5985.3
VI	2814.2	87.1	89.7	8439.3	2787.3
VII	3528.3	66.4	125.0	11110.1	2917.6
VIII	4427.4	317.8	134.3	12778.2	6678.2

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: 1.35xI+1.50xII

M2ed = -12371.73 kNm  
M3ed = -7037.81 kNm  
N1ed = -4396.47 kN  
V2ed = 286.50 kN  
V3ed = 1046.53 kN

εb/εa = -3.500/5.247 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 34.28
2	(P) 2.50m x 34.28
3	(P) 0.74m x 34.28
4	(P) 0.74m x 34.28
Potrebna [cm <sup>2</sup> ]	
5	(P) 79.35
6	(P) 19.84
7	(P) 79.35
8	(P) 99.18
Σ [cm <sup>2</sup> ]	499.72

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

Položaj (Z=-4.78m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-10552.6	589.6	1178.8	6481.5	-1652.9
II	-1971.9	106.5	185.0	991.9	-277.0
III	70.4	0.1	-22.1	-177.4	33.2
IV	1457.3	765.0	300.9	3055.0	734.4
V	1867.9	795.8	395.3	2460.7	547.6
VI	2429.4	179.1	485.5	5212.7	1547.9
VII	3571.3	123.4	741.5	6950.0	2095.4
VIII	4030.3	815.7	840.3	7591.8	2220.4

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = 14073.28 kNm  
M3ed = 567.44 kNm  
N1ed = -6522.35 kN  
V2ed = 1437.19 kN  
V3ed = 2067.97 kN

$\epsilon_b/\epsilon_a = -3.500/10.296 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 2.50m x 9.84
2	(P) 2.50m x 9.84
3	(P) 0.74m x 9.84
4	(P) 0.74m x 9.84
<b>Potrebna [cm<sup>2</sup>]</b>	
5	(P) 22.78
6	(P) 5.69
7	(P) 22.78
8	(P) 28.47
<b>Σ [cm<sup>2</sup>]</b>	<b>143.44</b>

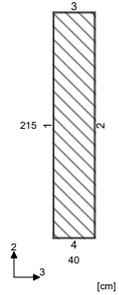
**Poprečna armatura**

Aah\* = ±35.37 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

**Segment reduktora 1**

C30/37 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	2.13m x 4.47	
2	2.13m x 4.47	
<b>Potrebna [cm<sup>2</sup>]</b>		<b>Usvojena [cm<sup>2</sup>]</b>
3	9.52	
4	9.52	
<b>Σ [cm<sup>2</sup>]</b>	<b>38.07</b>	<b>0.00</b>

**Položaji (Z=52.85m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-720.5	-6.8	1.3	-60.7	5.8
II	-216.9	-1.6	-0.3	-7.0	2.4
III	-0.4	-3.8	2.3	-6.2	-7.8
IV	81.8	180.8	70.1	269.1	354.6
V	93.0	186.7	67.3	293.3	366.7
VI	178.8	64.0	263.8	320.6	120.6
VII	203.0	56.7	302.7	385.5	106.7
VIII	223.3	197.4	310.7	484.4	386.0

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xIII+VIII

M2ed = -545.10 kNm  
M3ed = 391.77 kNm  
N1ed = -497.24 kN  
V2ed = 189.47 kN  
V3ed = 312.78 kN

$\epsilon_b/\epsilon_a = -3.500/19.249 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	2.13m x 4.47
2	2.13m x 4.47
<b>Potrebna [cm<sup>2</sup>]</b>	
3	9.52
4	9.52
<b>Σ [cm<sup>2</sup>]</b>	<b>38.07</b>

**Poprečna armatura**

Aah\* = ±0.00 cm<sup>2</sup>/m

**Položaji (Z=50.23m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-366.0	11.0	-32.3	11.9	-11.7
II	-126.3	3.4	-7.7	-2.6	-3.4
III	1.0	-4.6	3.4	4.1	3.5
IV	11.1	188.1	105.1	297.4	126.6

V	10.6	194.9	116.3	267.0	131.3
VI	50.2	63.3	419.2	996.6	45.2
VII	60.8	56.5	487.8	1123.1	41.1
VIII	61.8	204.9	501.5	1161.8	138.8

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = 1173.63 kNm  
M3ed = -150.59 kNm  
N1ed = -304.25 kN  
V2ed = -192.82 kN  
V3ed = -536.13 kN

$\epsilon_b/\epsilon_a = -3.500/16.367 \text{ ‰}$

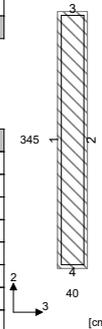
**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	2.13m x 2.54
2	2.13m x 2.54
<b>Potrebna [cm<sup>2</sup>]</b>	
3	5.40
4	5.40
<b>Σ [cm<sup>2</sup>]</b>	<b>21.61</b>

**Poprečna armatura**

Aah\* = ±3.22 cm<sup>2</sup>/m

**Segment reduktora 2**



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	3.35m x 0.00	
2	3.35m x 0.00	
<b>Potrebna [cm<sup>2</sup>]</b>		<b>Usvojena [cm<sup>2</sup>]</b>
3	0.00	
4	0.00	
<b>Σ [cm<sup>2</sup>]</b>	<b>0.00</b>	<b>0.00</b>

**Položaji (Z=42.35m)**

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-3349.8	-12.4	460.5	-537.1	-6.3
II	-642.5	-1.0	90.9	-90.3	-1.5
III	-3.5	-4.3	6.4	14.2	-1.7
IV	367.2	117.6	162.3	346.1	19.7
V	358.8	120.1	180.9	301.5	19.3
VI	464.1	33.7	211.1	1341.7	13.1
VII	538.9	27.9	305.4	1629.4	12.3
VIII	652.1	124.8	355.0	1665.7	23.7

Merodavna kombinacija za savijanje:

1.35xI+1.05xII+1.50xIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = -798.65 kNm  
M3ed = -12.65 kNm  
N1ed = -5202.16 kN  
V2ed = 110.84 kN  
V3ed = 844.69 kN

**Podužna armatura**

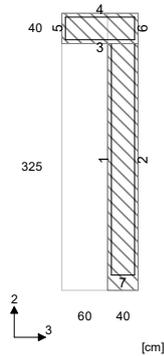
No	Potrebna [cm <sup>2</sup> /m]
1	3.35m x 0.00
2	3.35m x 0.00
Potrebna [cm <sup>2</sup> ]	
3	0.00
4	0.00
Σ [cm <sup>2</sup> ]	0.00

**Poprečna armatura**

Aah\* = ±3.22 cm<sup>2</sup>/m

**Segment reduktora 3**

C35/45 (γC = 1.50, γS = 1.15) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Podužna armatura gređa i stubova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 3.04m x 7.32	(Ø12/15) 3.04m x 7.54
2	(P) 3.04m x 7.32	(Ø12/15) 3.04m x 7.54
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	(P) 29.64	(12Ø18) 30.54
4	(P) 29.64	(12Ø18) 30.54
5	(P) 9.88	(4Ø18) 10.18
6	(P) 9.88	(4Ø18) 10.18
7	(P) 19.76	(8Ø18) 20.36
Σ [cm <sup>2</sup> ]	143.30	147.63

**Položaj (Z=41.30m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-3431.0	-15.3	469.8	-1430.6	229.7
II	-671.4	-0.6	91.6	-273.2	46.9
III	0.5	-8.2	8.1	18.1	-12.4
IV	259.3	208.1	204.0	477.2	285.0
V	284.5	213.3	250.3	593.6	289.5
VI	502.9	58.2	360.7	1574.3	97.1
VII	573.6	46.4	302.3	2101.8	84.3
VIII	640.3	221.1	439.1	2184.0	305.4

Merodavna kombinacija za savijanje:  
1.35xI+1.05xII+1.50xIII  
Merodavna kombinacija za smicanje:  
I+0.30xII+0.30xIII+VIII

M2ed = -2190.94 kNm  
M3ed = 340.65 kNm  
N1ed = -5336.05 kN  
V2ed = 203.21 kN  
V3ed = 938.80 kN

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 3.04m x 0.00
2	(P) 3.04m x 0.00
Potrebna [cm <sup>2</sup> ]	
3	(P) 0.00
4	(P) 0.00
5	(P) 0.00
6	(P) 0.00
7	(P) 0.00
Σ [cm <sup>2</sup> ]	0.00

**Poprečna armatura**

Aah\* = ±7.18 cm<sup>2</sup>/m

**Položaj (Z=-5.70m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-5878.9	-146.0	-246.0	5515.9	682.3
II	-1110.8	-19.2	-46.0	1024.3	116.1
III	18.3	-1.5	-8.3	-37.1	0.4
IV	764.4	44.3	70.4	500.7	65.0
V	931.1	45.8	59.1	629.3	55.2
VI	2703.1	13.1	162.2	3018.6	213.7
VII	3291.0	9.7	198.3	3663.7	247.5
VIII	3420.1	47.6	210.4	3717.3	255.9

Merodavna kombinacija za savijanje:  
I-1.00xVIII

Merodavna kombinacija za smicanje:  
I+0.30xII+0.30xIII-1.00xVIII

M2ed = 9233.22 kNm  
M3ed = 938.25 kNm  
N1ed = -2458.72 kN  
V2ed = -199.79 kN  
V3ed = -472.68 kN

εb/εa = -3.500/11.918 ‰

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 3.04m x 7.32
2	(P) 3.04m x 7.32
Potrebna [cm <sup>2</sup> ]	
3	(P) 29.64
4	(P) 29.64
5	(P) 9.88
6	(P) 9.88
7	(P) 19.76
Σ [cm <sup>2</sup> ]	143.30

**Poprečna armatura**

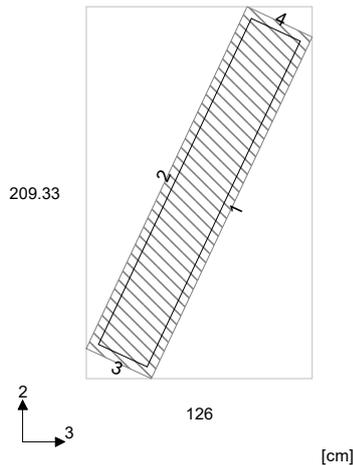
Aah\* = ±0.00 cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

**Segment reduktora 1**

C30/37 (γC = 1.50, γS = 1.15) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



M2ed = -1120.96 kNm  
M3ed = -95.46 kNm  
N1ed = -909.38 kN  
V2ed = -428.05 kN  
V3ed = 347.31 kN

$\epsilon_b/\epsilon_a = -3.500/9.796 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	2.02m x 4.40
2	2.02m x 4.40
Potrebna [cm <sup>2</sup> ]	
3	8.90
4	8.90
<b>Σ [cm<sup>2</sup>]</b>	<b>35.59</b>

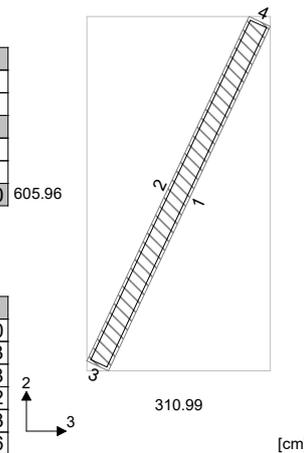
**Poprečna armatura**

Aah\* = ±9.38 cm<sup>2</sup>/m

**Segment reduktora 2**

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	2.02m x 7.68	
2	2.02m x 7.68	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	15.54	
4	15.54	
<b>Σ [cm<sup>2</sup>]</b>	<b>62.14</b>	<b>0.00</b>



**Položaj (Z=52.85m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-822.8	-179.6	438.5	-807.6	-332.0
II	-222.2	-36.8	102.5	-214.5	-84.3
III	-6.2	-8.3	1.5	-4.4	-13.8
IV	151.8	167.8	62.5	175.8	299.2
V	142.8	169.5	56.1	155.8	297.3
VI	226.8	27.0	185.9	414.6	33.6
VII	199.6	24.5	157.7	349.2	29.3
VIII	273.0	171.7	196.1	450.4	301.1

**Merodavna kombinacija za savijanje:**

I-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -1257.98 kNm  
M3ed = -30.91 kNm  
N1ed = -549.88 kN  
V2ed = -364.81 kN  
V3ed = 273.58 kN

$\epsilon_b/\epsilon_a = -3.500/9.495 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	2.02m x 7.68
2	2.02m x 7.68
Potrebna [cm <sup>2</sup> ]	
3	15.54
4	15.54
<b>Σ [cm<sup>2</sup>]</b>	<b>62.14</b>

**Poprečna armatura**

Aah\* = ±7.99 cm<sup>2</sup>/m

**Položaj (Z=51.98m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1428.8	-229.9	553.4	-719.5	-310.8
II	-376.0	-47.9	127.8	-199.7	-86.0
III	-13.8	-8.4	1.6	-6.5	-9.0
IV	290.2	180.6	93.2	187.1	198.6
V	271.4	180.6	83.6	167.8	193.1
VI	430.8	15.4	226.5	355.2	83.2
VII	375.9	15.0	192.0	298.9	69.5
VIII	519.4	181.3	244.9	401.5	215.3

**Merodavna kombinacija za savijanje:**

I-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xII+0.30xIII-1.00xVIII

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	6.40m x 15.09	
2	6.40m x 15.09	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	96.55	
4	96.55	
<b>Σ [cm<sup>2</sup>]</b>	<b>386.19</b>	<b>0.00</b>

**Položaj (Z=44.98m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-4813.0	-352.3	521.8	-2627.6	-1310.1
II	-931.4	-57.8	92.8	-639.1	-310.4
III	-16.4	-14.2	-0.6	-38.0	-30.2
IV	339.2	463.0	271.0	1312.3	876.6
V	322.3	456.7	228.5	1344.6	905.9
VI	716.5	176.5	781.2	2424.0	1096.0
VII	639.4	159.6	662.5	2228.1	1000.2
VIII	792.7	495.5	826.8	2771.9	1421.9

**Merodavna kombinacija za savijanje:**

I+0.30xIII-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xII+VIII

M2ed = 132.93 kNm  
M3ed = -2741.06 kNm  
N1ed = -4025.23 kN  
V2ed = 125.80 kN  
V3ed = 1376.43 kN

$\epsilon_b/\epsilon_a = -3.500/9.900 \text{ ‰}$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	6.40m x 11.24
2	6.40m x 11.24
Potrebna [cm <sup>2</sup> ]	
3	71.95
4	71.95
<b>Σ [cm<sup>2</sup>]</b>	<b>287.82</b>

**Poprečna armatura**

Aah\* = ±3.10 cm<sup>2</sup>/m

Položaj (Z=41.30m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-5932.0	-484.9	881.5	-21.7	-115.8
II	-1175.8	-100.7	193.5	-314.2	-160.0
III	-18.2	-25.8	35.3	-13.5	-21.0
IV	354.7	123.7	86.0	1396.4	820.1
V	340.8	127.4	80.6	1405.0	839.6
VI	718.0	105.6	298.7	3399.2	1501.9
VII	649.8	105.7	293.6	3039.9	1343.2
VIII	800.8	165.6	310.8	3678.1	1720.7

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

M2ed = 3652.35 kNm  
M3ed = -1842.72 kNm  
N1ed = -5136.64 kN  
V2ed = -832.77 kN  
V3ed = 1517.32 kN

$\epsilon_b/\epsilon_a = -3.500/7.661 \text{ ‰}$

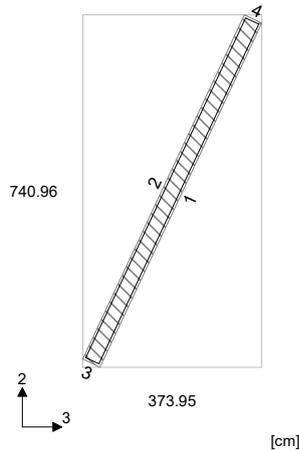
Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	6.40m x 15.09
2	6.40m x 15.09
Potrebna [cm <sup>2</sup> ]	
3	96.55
4	96.55
$\Sigma$ [cm <sup>2</sup> ]	386.19

Poprečna armatura

Aah\* =  $\pm 0.00 \text{ cm}^2/\text{m}$

Segment reduktora 3



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	7.89m x 10.63	
2	7.89m x 10.63	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	83.86	
4	83.86	
$\Sigma$ [cm <sup>2</sup> ]	335.43	0.00

Položaj (Z=38.15m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-6788.3	-467.3	656.3	-501.4	-328.7
II	-1290.6	-85.9	132.9	-359.2	-183.9
III	-23.9	-24.1	10.8	118.5	45.7
IV	219.5	311.3	31.1	2239.6	1204.6
V	226.4	316.7	32.2	2260.9	1218.1
VI	781.4	39.9	155.6	2702.7	1221.5
VII	705.5	44.9	145.8	2378.8	1079.3
VIII	813.6	319.9	158.9	3523.7	1725.0

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

M2ed = 3057.83 kNm  
M3ed = -2040.06 kNm  
N1ed = -5981.94 kN  
V2ed = -785.03 kN  
V3ed = 1096.61 kN

$\epsilon_b/\epsilon_a = -3.500/9.362 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	7.89m x 10.63
2	7.89m x 10.63
Potrebna [cm <sup>2</sup> ]	
3	83.86
4	83.86
$\Sigma$ [cm <sup>2</sup> ]	335.43

Poprečna armatura

Aah\* =  $\pm 0.00 \text{ cm}^2/\text{m}$

Segment reduktora 4

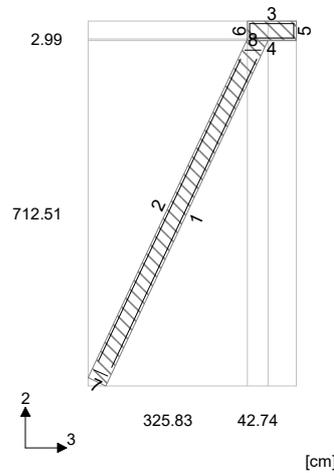
C30/37 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 7.02m x 15.32	(Ø14/7) 7.02m x 20.53
2	(P) 6.88m x 15.32	(Ø14/7) 6.88m x 20.53
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	(P) 23.45	(10Ø20) 31.42
4	(P) 23.45	(10Ø20) 31.42
5	(P) 9.38	(4Ø20) 12.57
6	(P) 9.38	(4Ø20) 12.57
7	(P) 87.94	(24Ø25) 117.81
8	(P) 29.31	(8Ø25) 39.27
$\Sigma$ [cm <sup>2</sup> ]	395.83	530.26

Položaj (Z=37.27m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-7543.4	-555.9	676.9	-5258.9	-2874.8
II	-1513.2	-104.0	148.9	-1302.5	-681.3
III	-9.0	-24.3	-9.8	34.9	-19.5
IV	324.1	473.8	252.3	3059.7	1797.3
V	311.7	482.0	265.4	3025.9	1788.9
VI	738.3	59.9	180.1	2904.7	1279.7
VII	666.3	50.9	148.9	2613.2	1156.3
VIII	806.4	485.7	320.7	4218.9	2206.3

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: 1.35xI+1.50xII

M2ed = -1039.94 kNm  
M3ed = -5081.19 kNm  
N1ed = -6736.99 kN  
V2ed = -906.57 kN  
V3ed = 1137.15 kN

$\epsilon_b/\epsilon_a = -3.500/9.213 \text{ ‰}$

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 7.02m x 15.32
2	(P) 6.88m x 15.32
Potrebna [cm <sup>2</sup> ]	
3	(P) 23.45
4	(P) 23.45
5	(P) 9.38
6	(P) 9.38
7	(P) 87.94
8	(P) 29.31
Σ [cm <sup>2</sup> ]	395.83

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

Segment reduktora 5

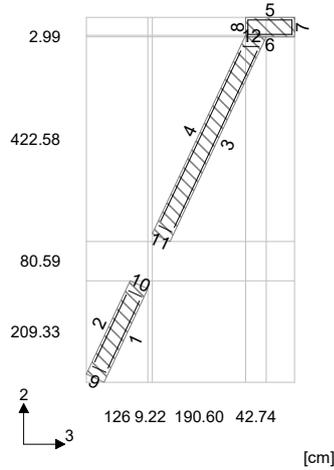
C35/45 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Podužna armatura gređa i stubova S500N

Poprečna armatura S500N



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.52m x 62.70	(Ø20/5) 1.52m x 62.83
2	(P) 1.52m x 62.70	(Ø20/5) 1.52m x 62.83
3	(P) 4.02m x 62.70	(Ø20/5) 4.02m x 62.83
4	(P) 3.88m x 62.70	(Ø20/5) 3.88m x 62.83
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 58.78	(12Ø25) 58.90
6	(P) 58.78	(12Ø25) 58.90
7	(P) 19.59	(4Ø25) 19.63
8	(P) 19.59	(4Ø25) 19.63

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

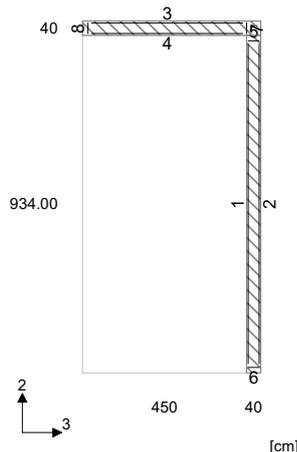
Segment reduktora 1

C35/45 (γC = 1.50, γS = 1.15) [SP]

Ugaona armatura ploča i zidova S500N

Podužna armatura ploča i zidova S500N

Poprečna armatura S500N



9	(P) 78.37	(16Ø25) 78.54
10	(P) 78.37	(16Ø25) 78.54
11	(P) 117.56	(24Ø25) 117.81
12	(P) 117.56	(24Ø25) 117.81
Σ [cm <sup>2</sup> ]	1234.83	1237.44

Položaj (Z=1.00m)

Merodavni presek za savijanje i smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-15823.7	-432.6	912.6	2380.3	921.9
II	-2763.5	-61.8	161.5	338.3	123.8
III	126.8	-31.0	37.8	369.8	198.0
IV	1169.2	344.0	483.4	5160.4	2653.5
V	1209.7	342.5	468.8	5030.8	2602.6
VI	894.3	289.1	727.5	5994.6	2664.2
VII	789.2	288.7	694.1	5689.8	2549.7
VIII	1504.4	449.3	873.5	7909.8	3760.1

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII+VIII

M2ed = -5418.54 kNm

M3ed = 4741.41 kNm

N1ed = -14281.19 kN

V2ed = -11.09 kN

V3ed = 1845.83 kN

εb/εa = -3.500/2.046 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.52m x 62.70
2	(P) 1.52m x 62.70
3	(P) 4.02m x 62.70
4	(P) 3.88m x 62.70
Potrebna [cm <sup>2</sup> ]	
5	(P) 58.78
6	(P) 58.78
7	(P) 19.59
8	(P) 19.59
9	(P) 78.37
10	(P) 78.37
11	(P) 117.56
12	(P) 117.56
Σ [cm <sup>2</sup> ]	1234.83

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 8.84m x 25.81	(Ø16/7) 8.84m x 26.81
2	(P) 8.84m x 25.81	(Ø16/7) 8.84m x 26.81
3	(P) 4.15m x 25.81	(Ø16/7) 4.15m x 26.81
4	(P) 4.15m x 25.81	(Ø16/7) 4.15m x 26.81
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 75.61	(16Ø25) 78.54
6	(P) 75.61	(16Ø25) 78.54
7	(P) 151.22	(32Ø25) 157.08
8	(P) 75.61	(16Ø25) 78.54
Σ [cm <sup>2</sup> ]	1048.57	1089.18

Položaj (Z=33.77m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-8724.6	-184.7	-526.3	5384.7	-1276.3
II	-1606.1	1.7	-98.9	809.9	-135.7
III	-45.7	-168.0	-57.3	546.8	-814.1
IV	1615.7	4531.1	1055.7	12173.3	28236.9
V	1589.8	4369.1	1024.7	11483.6	27408.7
VI	561.3	1734.4	3694.0	18883.1	5232.3
VII	607.7	2368.6	4349.9	19950.3	7046.5
VIII	1726.3	5112.8	4476.2	23371.0	29102.9

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xIII-1.00xVIII

M2ed = 28755.69 kNm  
M3ed = 27826.57 kNm  
N1ed = -6998.37 kN  
V2ed = -5347.89 kN  
V3ed = -5019.73 kN

$\epsilon_b/\epsilon_a = -2.230/25.000 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 8.84m x 14.01
2	(P) 8.84m x 14.01
3	(P) 4.15m x 14.01
4	(P) 4.15m x 14.01
Potrebna [cm <sup>2</sup> ]	
5	(P) 41.05
6	(P) 41.05
7	(P) 82.10
8	(P) 41.05
$\Sigma$ [cm <sup>2</sup> ]	569.28

**Poprečna armatura**

Aah\* =  $\pm 30.71$  cm<sup>2</sup>/m

**Položaj (Z=14.52m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-14227.8	-237.7	-529.1	-7049.2	1588.7
II	-2248.5	-23.2	-123.0	-1750.7	378.3
III	-146.7	-89.8	-69.2	-628.0	475.7
IV	4270.0	3571.3	926.9	12460.4	24794.3
V	4227.6	3450.4	907.6	12040.0	23457.6
VI	352.6	1111.8	9014.3	115425.1	25082.6
VII	356.3	1455.4	9948.1	128987.8	29392.1
VIII	4284.9	3856.4	9991.1	129588.3	38453.3

**Merodavna kombinacija za savijanje:**

I-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xII+0.30xIII-1.00xVIII

M2ed = 122539.10 kNm  
M3ed = 40042.00 kNm  
N1ed = -9942.97 kN  
V2ed = -4128.08 kN  
V3ed = -10577.89 kN

$\epsilon_b/\epsilon_a = -3.500/11.095 \%$

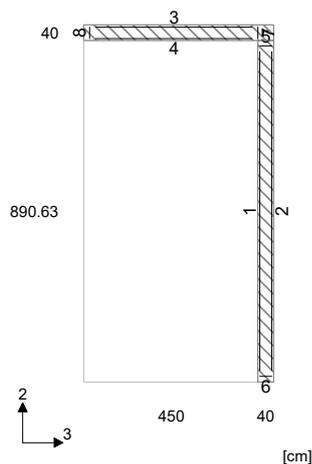
**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 8.84m x 25.81
2	(P) 8.84m x 25.81
3	(P) 4.15m x 25.81
4	(P) 4.15m x 25.81
Potrebna [cm <sup>2</sup> ]	
5	(P) 75.61
6	(P) 75.61
7	(P) 151.22
8	(P) 75.61
$\Sigma$ [cm <sup>2</sup> ]	1048.57

**Poprečna armatura**

Aah\* =  $\pm 29.58$  cm<sup>2</sup>/m

**Segment reduktora 2**



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 8.31m x 46.77	(Ø18/5) 8.31m x 46.27
2	(P) 8.31m x 46.77	(Ø18/5) 8.31m x 46.27
3	(P) 4.05m x 46.77	(Ø18/5) 4.05m x 46.27
4	(P) 4.05m x 46.77	(Ø18/5) 4.05m x 46.27
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 79.39	(16Ø25) 78.54
6	(P) 158.78	(32Ø25) 157.08
7	(P) 158.78	(32Ø25) 157.08
8	(P) 158.78	(32Ø25) 157.08
$\Sigma$ [cm <sup>2</sup> ]	1711.55	1693.16

**Položaj (Z=9.71m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-14602.7	-117.9	-760.5	102.0	-76.5
II	-2504.9	-21.2	-175.4	-92.4	38.8
III	-155.5	-58.7	-50.5	-675.3	442.1
IV	7361.7	2161.6	1656.9	25411.2	30082.4
V	7624.4	2152.8	1700.7	22025.3	28712.9
VI	11872.1	2325.3	10429.7	83132.0	24939.7
VII	12799.8	2412.6	11060.1	93830.4	29059.3
VIII	14898.6	3239.3	11190.1	97210.5	41825.8

**Merodavna kombinacija za savijanje:**

I-1.00xVIII

**Merodavna kombinacija za smicanje:**

I+0.30xII+0.30xIII-1.00xVIII

M2ed = -97108.43 kNm  
M3ed = -41902.26 kNm  
N1ed = 295.87 kN  
V2ed = -3381.14 kN  
V3ed = -12018.46 kN

$\epsilon_b/\epsilon_a = -3.500/11.511 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 8.31m x 31.26
2	(P) 8.31m x 31.26
3	(P) 4.05m x 31.26
4	(P) 4.05m x 31.26
Potrebna [cm <sup>2</sup> ]	
5	(P) 53.07
6	(P) 106.13
7	(P) 106.13
8	(P) 106.13
$\Sigma$ [cm <sup>2</sup> ]	1143.98

**Poprečna armatura**

Aah\* =  $\pm 35.69$  cm<sup>2</sup>/m

**Položaj (Z=1.00m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17335.7	-168.2	-220.1	6626.8	-2011.1
II	-3207.8	-32.7	-10.2	1699.1	-358.8
III	-226.1	-78.7	45.4	-845.6	742.2
IV	11036.3	2795.5	1757.2	42602.4	46302.3
V	11508.7	2766.9	1696.4	38440.4	44872.9
VI	21334.5	819.1	7488.0	103612.3	29443.4
VII	23026.0	894.9	8362.0	117056.3	33854.2
VIII	25741.9	2935.2	8544.7	124567.8	57358.6

**Merodavna kombinacija za savijanje:** I-1.00xVIII

**Merodavna kombinacija za smicanje:** I+0.30xII-1.00xVIII

M2ed = -117941.00 kNm  
M3ed = -59369.73 kNm  
N1ed = 8406.29 kN  
V2ed = -3113.27 kN  
V3ed = -8767.87 kN

$\epsilon_b/\epsilon_a = -3.500/10.192 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 8.31m x 46.77
2	(P) 8.31m x 46.77
3	(P) 4.05m x 46.77
4	(P) 4.05m x 46.77
Potrebna [cm <sup>2</sup> ]	
5	(P) 79.39
6	(P) 158.78
7	(P) 158.78
8	(P) 158.78
$\Sigma$ [cm <sup>2</sup> ]	1711.55

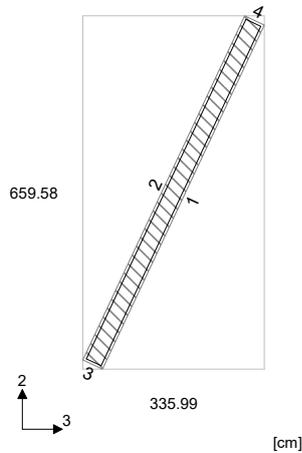
**Poprečna armatura**

Aah\* =  $\pm 26.04$  cm<sup>2</sup>/m

EC 2 (EN 1992-1-1:2004)  
Kompletna šema opterećenja

**Segment reduktora 1**

C30/37 ( $\gamma_C = 1.50, \gamma_S = 1.15$ ) [SP]  
Ugaona armatura ploča i zidova S500N  
Podužna armatura ploča i zidova S500N  
Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	6.99m x 27.28	
2	6.99m x 27.28	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	190.71	
4	190.71	
$\Sigma$ [cm <sup>2</sup> ]	762.85	0.00

**Položaj (Z=41.30m)**

**Merodavni presek za smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-5018.4	465.7	-1167.5	4062.4	1865.7
II	-1131.0	100.1	-245.0	340.3	161.6
III	-59.1	-42.5	46.9	142.3	43.9
IV	508.0	693.5	841.4	1471.2	408.5
V	529.6	667.2	761.4	1454.9	375.4
VI	906.4	647.0	1489.9	2339.3	899.5
VII	834.7	599.9	1418.3	1988.9	734.5
VIII	1049.8	948.4	1711.1	2763.5	987.9

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+VIII

M2ed = 6868.56 kNm

M3ed = 890.97 kNm

N1ed = -3986.27 kN

V2ed = 1444.18 kN

V3ed = 470.02 kN

$\epsilon_b/\epsilon_a = -3.500/9.864 \%$

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	6.99m x 7.66
2	6.99m x 7.66
Potrebna [cm <sup>2</sup> ]	
3	53.56
4	53.56
$\Sigma$ [cm <sup>2</sup> ]	214.26

**Poprečna armatura**

Aah\* =  $\pm 6.88$  cm<sup>2</sup>/m

**Položaj (Z=39.20m)**

**Merodavni presek za savijanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-3374.0	474.6	-1170.1	688.7	429.9
II	-686.3	103.8	-248.5	-204.3	-70.6
III	-19.2	-42.5	49.4	251.5	138.4
IV	352.6	677.5	847.9	3660.7	1976.3
V	374.4	650.3	764.8	3430.2	1889.1
VI	779.1	644.6	1478.1	4341.5	2002.6
VII	704.7	596.7	1403.8	3897.1	1780.7
VIII	864.4	935.1	1704.0	5678.9	2813.6

Merodavna kombinacija za savijanje: I-1.00xVIII  
Merodavna kombinacija za smicanje: I+0.30xII+VIII

M2ed = -4990.17 kNm

M3ed = 3243.50 kNm

N1ed = -2509.51 kN

V2ed = 1440.92 kN

V3ed = 459.37 kN

$\epsilon_b/\epsilon_a = -3.500/6.939 \%$

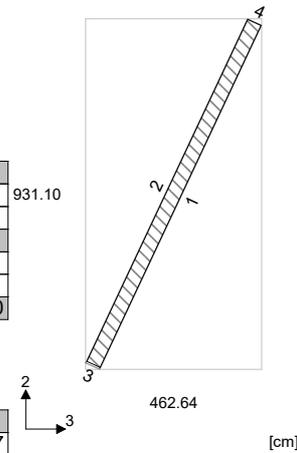
**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	6.99m x 27.28
2	6.99m x 27.28
Potrebna [cm <sup>2</sup> ]	
3	190.71
4	190.71
$\Sigma$ [cm <sup>2</sup> ]	762.85

**Poprečna armatura**

Aah\* =  $\pm 6.86$  cm<sup>2</sup>/m

**Segment reduktora 2**



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	10.03m x 11.23	
2	10.03m x 11.23	
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
3	112.62	
4	112.62	
$\Sigma$ [cm <sup>2</sup> ]	450.49	0.00

**Položaj (Z=38.15m)**

**Merodavni presek za savijanje i smicanje**

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-4481.3	-61.5	-438.3	4026.5	1668.1
II	-984.7	-18.4	-87.4	379.9	129.6
III	6.7	-52.2	92.7	362.8	181.3
IV	451.9	456.9	699.7	2326.2	1326.4
V	394.3	447.3	675.3	2009.7	1210.5
VI	776.8	323.8	767.5	3798.9	1816.0
VII	741.1	309.1	736.6	3255.1	1555.8
VIII	898.7	560.0	1038.6	4454.5	2248.9

Merodavna kombinacija za savijanje: I-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII-1.00xVIII

M2ed = 8480.96 kNm

M3ed = -580.72 kNm

N1ed = -3582.63 kN

V2ed = -627.04 kN

V3ed = -1503.10 kN

$\epsilon_b/\epsilon_a = -3.500/15.119 \%$

**Podužna armatura**

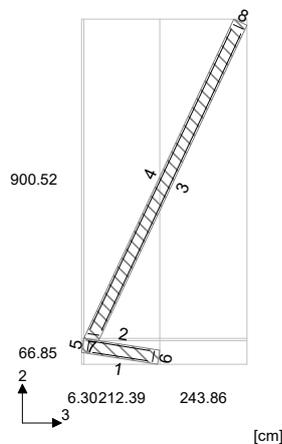
No	Potrebna [cm <sup>2</sup> /m]
1	10.03m x 11.23
2	10.03m x 11.23
Potrebna [cm <sup>2</sup> ]	
3	112.62
4	112.62
$\Sigma$ [cm <sup>2</sup> ]	450.49

**Poprečna armatura**

Aah\* = ±2.15 cm<sup>2</sup>/m

**Segment reduktora 3**

C35/45 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]  
 Ugaona armatura ploča i zidova S500N  
 Podužna armatura ploča i zidova S500N  
 Poprečna armatura S500N



**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.55m x 51.86	(Ø18/5) 1.55m x 50.89
2	(P) 1.55m x 51.86	(Ø18/5) 1.55m x 50.89
3	(P) 9.23m x 51.86	(Ø18/5) 9.23m x 50.89
4	(P) 9.32m x 43.22	(Ø18/6) 9.32m x 42.41
Potrebna [cm <sup>2</sup> ]		Usvojena [cm <sup>2</sup> ]
5	(P) 60.03	(12Ø25) 58.90
6	(P) 60.03	(12Ø25) 58.90
7	(P) 120.06	(24Ø25) 117.81
8	(P) 140.06	(28Ø25) 137.44
Σ [cm <sup>2</sup> ]	1422.44	1395.83

**Položaj (Z=14.82m)**

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-12858.7	477.1	-620.4	-1613.5	-997.4
II	-2135.7	99.6	-135.3	-392.5	-236.3
III	188.5	-9.4	-33.4	-8.3	39.5
IV	5548.2	761.0	1033.7	11761.3	4990.7
V	5497.9	781.8	1066.9	11251.0	4789.3
VI	944.1	478.5	1326.2	12588.7	4630.8
VII	987.0	540.3	1693.3	11484.3	4168.0
VIII	5635.3	950.3	2001.4	17228.0	6808.1

Merodavna kombinacija za savijanje:

I+0.30xIII-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

EC 2 (EN 1992-1-1:2004)

Kompletna šema opterećenja

**Segment reduktora 1**

C35/45 (γ<sub>C</sub> = 1.50, γ<sub>S</sub> = 1.15) [SP]  
 Ugaona armatura ploča i zidova S500N  
 Podužna armatura ploča i zidova S500N  
 Poprečna armatura S500N

M2ed = 15611.96 kNm  
 M3ed = -7793.67 kNm  
 N1ed = -7166.81 kN  
 V2ed = -446.16 kN  
 V3ed = -2672.35 kN

ε<sub>b</sub>/ε<sub>a</sub> = -2.268/25.000 ‰

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.55m x 30.46
2	(P) 1.55m x 30.46
3	(P) 9.23m x 30.46
4	(P) 9.32m x 25.39
Potrebna [cm <sup>2</sup> ]	
5	(P) 35.26
6	(P) 35.26
7	(P) 70.52
8	(P) 82.27
Σ [cm <sup>2</sup> ]	835.52

Poprečna armatura

Aah\* = ±15.50 cm<sup>2</sup>/m

**Položaj (Z=-0.15m)**

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-17139.8	633.7	-1070.2	-1198.7	-137.5
II	-3247.1	126.2	-207.7	-55.4	44.0
III	274.9	2.2	-38.5	99.1	124.3
IV	6879.2	109.0	170.2	19035.3	7721.2
V	6796.9	98.4	169.1	18593.1	7542.3
VI	774.1	78.8	210.2	21725.9	8055.5
VII	942.8	75.7	204.8	20907.9	7657.0
VIII	6943.5	134.5	270.5	28885.2	11158.4

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

1.35xI+1.50xII+1.05xIII

M2ed = 27686.54 kNm

M3ed = -11295.84 kNm

N1ed = -10196.28 kN

V2ed = 1047.08 kN

V3ed = -1796.78 kN

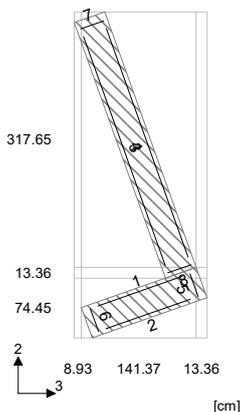
ε<sub>b</sub>/ε<sub>a</sub> = -2.788/25.000 ‰

**Podužna armatura**

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.55m x 51.86
2	(P) 1.55m x 51.86
3	(P) 9.23m x 51.86
4	(P) 9.32m x 43.22
Potrebna [cm <sup>2</sup> ]	
5	(P) 60.03
6	(P) 60.03
7	(P) 120.06
8	(P) 140.06
Σ [cm <sup>2</sup> ]	1422.44

Poprečna armatura

Aah\* = ±0.00 cm<sup>2</sup>/m



Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]	Usvojena [cm <sup>2</sup> /m]
1	(P) 1.10m x 47.52	(Ø18/5) 1.10m x 50.89
2	(P) 1.10m x 47.52	(Ø18/5) 1.10m x 50.89
3	(P) 3.02m x 47.52	(Ø18/5) 3.02m x 50.89
4	(P) 3.02m x 47.52	(Ø18/5) 3.02m x 50.89
	Potrebna [cm <sup>2</sup> ]	Usvojena [cm <sup>2</sup> ]
5	(P) 73.33	(16Ø25) 78.54
6	(P) 110.00	(24Ø25) 117.81
7	(P) 128.33	(28Ø25) 137.44
8	(P) 36.67	(8Ø25) 39.27
Σ [cm <sup>2</sup> ]	739.90	792.46

Aah\* = ±88.64 cm<sup>2</sup>/m

Položaj (Z=1.00m)

Merodavni presek za smicanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-7671.4	-532.1	-1396.2	-2903.0	1020.7
II	-1536.7	-119.6	-267.2	-512.7	224.3
III	-315.0	-26.8	-65.0	-153.5	65.3
IV	4660.7	421.5	326.0	1961.8	1306.9
V	5118.3	469.3	277.9	1405.5	1521.8
VI	7740.8	717.8	2974.0	18492.4	3003.3
VII	6376.9	580.2	2289.6	14103.0	2377.4
VIII	9279.9	857.6	2991.8	18596.2	3366.8

Položaj (Z=36.98m)

Merodavni presek za savijanje

LC	N1 [kN]	T2 [kN]	T3 [kN]	M2 [kNm]	M3 [kNm]
I	-1024.3	137.2	-272.4	1681.8	206.1
II	-400.2	17.8	-108.5	568.4	-7.3
III	-243.0	-21.4	-6.2	42.7	-8.0
IV	4451.9	1092.7	524.2	4180.3	2901.9
V	4790.2	1168.5	638.5	3274.7	3200.9
VI	5829.7	1293.4	1930.3	11614.5	4658.8
VII	4894.1	1064.0	1534.4	8929.4	3763.0
VIII	7545.3	1743.1	2033.1	12343.9	5652.5

Merodavna kombinacija za savijanje:

I-1.00xVIII

Merodavna kombinacija za smicanje:

I+0.30xII+0.30xIII-1.00xVIII

M2ed = 15693.24 kNm

M3ed = 4387.46 kNm

N1ed = 1608.45 kN

V2ed = -1433.63 kN

V3ed = -4487.67 kN

Merodavna kombinacija za savijanje: I+0.30xII-1.00xVIII

Merodavna kombinacija za smicanje: I+0.30xII+VIII

εb/εa = -3.207/25.000 ‰

M2ed = 14196.20 kNm  
 M3ed = 5856.33 kNm  
 N1ed = 6400.96 kN  
 V2ed = 1885.59 kN  
 V3ed = 1728.12 kN

εb/εa = -2.735/25.000 ‰

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.10m x 47.52
2	(P) 1.10m x 47.52
3	(P) 3.02m x 47.52
4	(P) 3.02m x 47.52
	Potrebna [cm <sup>2</sup> ]
5	(P) 73.33
6	(P) 110.00
7	(P) 128.33
8	(P) 36.67
Σ [cm <sup>2</sup> ]	739.90

Poprečna armatura

Podužna armatura

No	Potrebna [cm <sup>2</sup> /m]
1	(P) 1.10m x 38.71
2	(P) 1.10m x 38.71
3	(P) 3.02m x 38.71
4	(P) 3.02m x 38.71
	Potrebna [cm <sup>2</sup> ]
5	(P) 59.73
6	(P) 89.60
7	(P) 104.53
8	(P) 29.87
Σ [cm <sup>2</sup> ]	602.68

Poprečna armatura

Aah\* = ±102.95 cm<sup>2</sup>/m







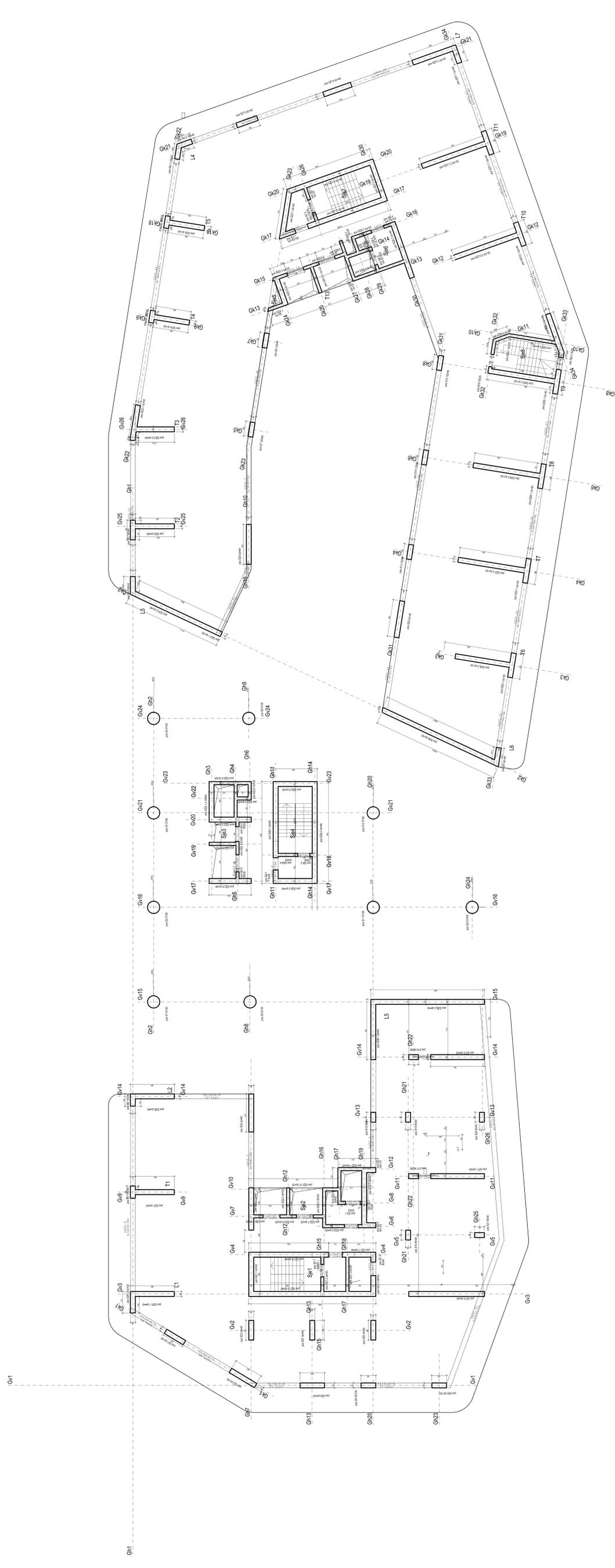


PLAN OPLATE  
OSNOVE II,IV,VI sprata  
pos 400,600,800

OSNOVNE OBLASTI  
 - Osnovna površina objekta u skladu sa projektnim podacima i zahtevima iz projekta.  
 - Osnovna površina objekta u skladu sa projektnim podacima i zahtevima iz projekta.  
 - Osnovna površina objekta u skladu sa projektnim podacima i zahtevima iz projekta.

PROJEKTOVANJE IZ OBLASTI GRAĐEVINARSTVA I PROMETA NEKRETNIM PRAVNIM PREDMETOM

PROJEKTOVANJE IZ OBLASTI GRAĐEVINARSTVA I PROMETA NEKRETNIM PRAVNIM PREDMETOM	PROJEKTOVANJE IZ OBLASTI GRAĐEVINARSTVA I PROMETA NEKRETNIM PRAVNIM PREDMETOM	PROJEKTOVANJE IZ OBLASTI GRAĐEVINARSTVA I PROMETA NEKRETNIM PRAVNIM PREDMETOM	PROJEKTOVANJE IZ OBLASTI GRAĐEVINARSTVA I PROMETA NEKRETNIM PRAVNIM PREDMETOM
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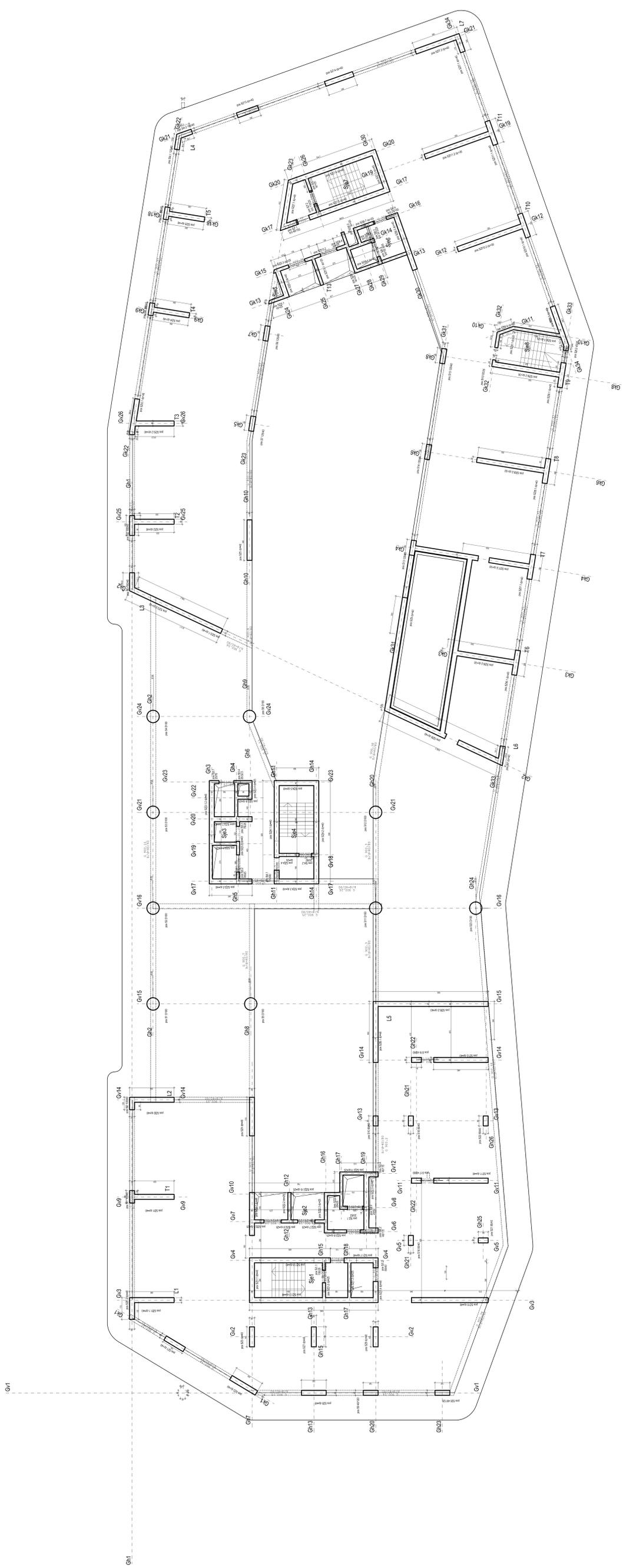
Investitor: **Prostor Plus MN d.o.o**  
 Projekat: **MASTER INŽENJERING 000**  
 Podgorica

Projekat: **HOTEL SR KOMPERS 5 - GP-PAN-1111-FAZ III**  
 Lokacija: **DUP BUDA CENTAR Opština Buda**

Projekat: **GLAVNI PROJEKT**  
 Datum: **19.09.2023**  
 Izradio: **PROJEKTOVANJE IZ OBLASTI GRAĐEVINARSTVA I PROMETA NEKRETNIM PRAVNIM PREDMETOM**  
 Datum: **19.09.2023**



PLAN OPLATE  
OSNOVE VII sprata  
pos 900



OSIETELNOST  
 - Osnovni inženjerski projekt, ki vsebuje vse potrebne dokumente za izvedbo gradnje.  
 - Osnovni inženjerski projekt, ki vsebuje vse potrebne dokumente za izvedbo gradnje.  
 - Osnovni inženjerski projekt, ki vsebuje vse potrebne dokumente za izvedbo gradnje.  
 - Osnovni inženjerski projekt, ki vsebuje vse potrebne dokumente za izvedbo gradnje.

PROJEKCIJSKI TIM: ZASTAVNIŠKO INŽENJERSKO IZOBRAŽILNO POKLADARSTVO  
 - Imen: CS04 (M 41) Proj. Grah. Zvez. Slogov. - Avtorji: AB, AS, AM, AN, AP, AR, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

Investitor: **Prostor Plus MN\* d.o.o.**  
 namen: **MASTER INŽENJERING 000**  
 mesto: **Podgorica**

Projektant: **PROJEKTIJSKO INŽENJERSKO IZOBRAŽILNO POKLADARSTVO**  
 Datum: **15.12.2023**

Skupni inženjerski projekt: **MASTER INŽENJERING 000**  
 Vrsta dokumenta: **OSNOVNI INŽENJERSKI PROJEKT**  
 Datum izdaje: **15.12.2023**  
 Vrsta dokumenta: **OSNOVNI INŽENJERSKI PROJEKT**  
 Datum izdaje: **15.12.2023**

Projektant: **PROJEKTIJSKO INŽENJERSKO IZOBRAŽILNO POKLADARSTVO**  
 Datum: **15.12.2023**









