

3/1.1 NASLOVNA STRAN S KLJUČNIMI PODATKI O NAČRTU**3 – NAČRT GRADBENIH KONSTRUKCIJ**

INVESTITOR: **OBČINA AJDOVŠČINA,**
Cesta 5. maja 6a, 5270 AJDOVŠČINA

OBJEKT: **UREDITEV VAŠKEGA JEDRA V KRAJEVNI SKUPNOSTI**
CESTA (VEČNAMENSKI OBJEKT IN PARKIRIŠČE)

VRSTA
PROJEKTNE DOKUMENTACIJE: **PROJEKT ZA PRIDOBITEV GRADBENEGA DOVOLJENJA - PGD**

ZA GRADNJO: **NOVA GRADNJA**

PROJEKTANT: **STATICON IB, d.o.o.**
Lokarjev drevored 1, 5270 Ajdovščina

Odgovorna oseba projektanta: **BOGOMIR IPAVEC, univ.dipl.inž.grad.**

.....
podpis:

žig podjetja.

ODGOVORNI PROJEKTANT: **BOGOMIR IPAVEC, univ.dipl.inž.grad.**
G – 0250

.....
podpis:

osebni žig.

ŠTEVILKA NAČRTA: **77/2013**

KRAJ IN DATUM IZDELAVE : **AJDOVŠČINA, november 2013**

ODGOVORNI VODJA PROJEKTA: **MAJA AMBROŽIČ FUČKA, univ.dipl.inž.arh.**
ZAPS 1397 A

.....
podpis:

osebni žig.

ŠT. IZVODA	1	2	3	4	5	6	A
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3/1.2 KAZALO VSEBINE NAČRTA št. 77/2013

1.	Naslovna stran načrta
2.	Kazalo vsebine načrta
3	Izjava odgovornega projektanta načrta
4.	Tehnični del 1. Tehnično poročilo 2. Statični račun
5.	Risbe – pozicijski načrti

**3/1.3 IZJAVA ODGOVORNEGA PROJEKTANTA NAČRTA V PROJEKTU ZA PRIDOBITEV
GRADBENEGA DOVOLJENJA**

Odgovorni projektant

Bogomir IPAVEC, univ. dipl. inž. grad.

(ime in priimek)

IZJAVLJAM,

1. da je **NAČRT GRADBENIH KONSTRUKCIJ** skladen s prostorskim aktom,
2. da je ta načrt skladen z gradbenimi predpisi,
3. da je ta načrt skladen s projektnimi pogoji oziroma soglasji za priključitev,
4. da so bile pri izdelavi načrta upoštevane vse ustrezne bistvene zahteve in da je načrt izdelan tako, da bo gradnja, izvedena v skladu z njim, zanesljiva,
5. da so v načrtu upoštevane zahteve elaboratov.

77/2013

(št. načrta)

Bogomir IPAVEC, univ. dipl. inž. grad.**G-0250****Ajdovščina, november 2013**

(kraj in datum)

.....
(ime in priimek, osebni žig, podpis)

3/1.4 TEHNIČNI DEL

3/1.4.1 TEHNIČNO POROČILO

TEHNI NO PORO ILO

1 SPLOŰNI OPIS

Projektna dokumentacija obravnava ureditev va-kega jedra v naselju Cesta, ki zajema novogradnjo ve namenskega objekta in parkiri- a ter ureditev otro-kega igri- a (enostavni gradbeno-inflenirski objekt v javni rabi).

Predvidena je fazna gradnja. Gradnja ve namenskega objekta je mofna v dveh fazah. V prvi fazi se zgradi ve namenski objekt brez balini- a, z zunanjo ureditvijo in parkiri- e. V drugi fazi pa se zgradi balini- e. Faznost gradnje je skladna s 67. lenom ZGO-ja, ki pravi, da se gradbeno dovoljenje lahko izda za celoten objekt ali pa za njegov del, ki pomeni tehni no, tehnolo-ko ali funkcionalno celoto in se ga da samostojno uporabljati. V na-em primeru je balini- e tehni no(samostojna nosilna konstrukcija, samostojna streha, samostojni dostopi), tehnolo-ko(izvedba objekta je mofna samostojno in asovno zamaknjeno brez negativnega vpliva na izvedbo preostalega dela objekta) celota, lo ena tudi funkciji. Balini- e je po funkciji namenjeno balinanju, preostali del objekta pa je namenjen ostalim razli nim kulturnim in razvedrilnim dejavnostim brez balinanja.

Konstrukcijsko celoten objekt sestavljajata dve dilatacijski enoti:

- Balini- e ó objekt A
- Ve namenski ó objekt B

2 NOSILNA KONSTRUKCIJA

Temelji:

Objekt bo temeljen s pasovnimi armirano betonskimi temelji enotnih vi-in in razli nih presekov in to kovnimi temelji pod stebri.

Minimalna globina spodnjega roba temeljev bo pod mejo zmrzovanja tal oz. bo skladna s pogoji geolo-ko geomehanskega poro ila.

Zgornji rob temeljev je fino zalikan za kasnej-o izdelavo hidroizolacije.

Izvede se drenafo temeljev s PVC cevmi ustreznega premera.

Zidovi:

Nosilna konstrukcija ve namenskega objekta bo grajena iz AB betona debeline $d=30\text{cm}$ in mestoma debeline $d=20\text{cm}$. Tudi S stena balini- a bo v celoti AB debeline $d=30\text{cm}$. Preostali del balini- a pa bo zasnovan kot okvirna konstrukcija, ki jo tvorijo vertikalni jekleni HEA 280 nosilci v naklonu 7° oz. 12% od navpi ne lege.

Strop:

Medetafna konstrukcija bo AB plo- a debeline $d=18\text{cm}$.

Stopnice:

Za vertikalno komunikacijo se bo izvedlo AB dvoramne stopnice, ki bodo povezovale pritli je z nadstropjem. Nosilna AB plo- a stopnic bo debela 16cm . Stopni- no vreteno je pozidano z AB zidom $d=20\text{cm}$, ki se zaklju i z leseno vezano plo- o. Na zid se montira dviflno plo- ad za invalide, ki je parkirana pod stopni- no ramo ob vhodu v ve ji ve namenski prostor.

Streha:

Stre-na konstrukcija nad dvoetafnim oz. enoetafnim delom objekta bo samonosna trapezna plo evina. Prostore med rebri se zapolni s toplotno izolacijo z voalom, na kar se raztegne parno zaporo. Nad parno zaporo se polofli sloj toplotne izolacije $d=30\text{cm}$. Kot zaklju ni sloj se bo izvedlo to kovno pritrjeno membransko kritino v temno sivi barvi. Nad vhodnim nadstre-kom se montira 3 kupole cevastega svetlobnega sistema (npr. SOLATUBE SOLAMASTER - 330 DS), z ustreznimi stre-nimi obrobami, kar nam zagotavlja naravno osvetlitev pokritih zunanjih prostorov.

Fasada:

Na manj-em delu objekta se izvede kompaktno fasado (na dvoetafnem delu objekta brez S fasade). Na preostalem delu objekta (enoetafnem delu objekta in S fasadi dvoetafnega dela objekta) pa se na nosilno konstrukcijo pritrdi toplotno izolirane fasadne panele.

Stavbno

Karakteristike uporabljenih materialov:

element		beton	armatura
AB stebri	Vsi stebri	C 35/45 XC1, Cl 0.2, D _{max} =16 mm	S 500B
AB nosilci	Vsi nosilci	C 35/45 XC1; Cl 0.2, D _{max} =16 mm	S 500B
AB medetafne plo- e	Vse plo- e	C 30/37 XC1; Cl 0.2, D _{max} =16 mm	S 500B
AB zidovi	Obodni zidovi	C 25/30 XC1; Cl 0.2, D _{max} =16 mm	S 500B ali MA 500/560
	Zidovi stopni- a in dvigala	C 25/30 XC1; Cl 0.2, D _{max} =16 mm	S 500B ali MA 500/560
AB plo- e	podesti in stopnice	C 25/30 XC1; Cl 0.2, D _{max} =16 mm	S 500B ali MA 500/560
AB temelji	Vsi temelji	C 25/30 XC1; Cl 0.2, D _{max} =16 mm	S 500B

3 ANALIZA ZUNANJIH VPLIVOV

1 Vpliv lastne teže

Za vse konstrukcijske elemente je lastna teža v izra unu upo-tevana avtomatsko (ra unalni-ki program *Tower*) s prostorninsko težo armiranega betona $\gamma_{bet} = 25 \text{ kN/m}^3$.

2 Vpliv stalne teže

1.1 Strezna ploz a . nepohodna ravna streha na baliniz u

Za- itni sloj ó bitumenska folija	= 0.20 kN/m ²
toplotna izolacija - XPS 10 cm	= 0.18 kN/m ²
toplotna izolacija - EPS 10 cm	= 0.18 kN/m ²
paroizena evalni sloj in parna zapora 0.5 cm	
nosilna plo evina (<i>lastna teža konstr. je ra unana posebej</i>)	= 0.20 kN/m ²
In-talacije in spu- en strop	= 0.10 kN/m ²
g = 0.86 kN/m²	

1.2 Strezna ploz a . nepohodna ravna streha na dvorani

Za- itni sloj ó bitumenska folija	= 0.20 kN/m ²
toplotna izolacija - XPS 10 cm	= 0.18 kN/m ²
toplotna izolacija - EPS 10 cm	= 0.18 kN/m ²
paroizena evalni sloj in parna zapora 0.5 cm	
nosilna plo evina (<i>lastna teřla konstr. je ra unana posebej</i>)	= 0.20 kN/m ²
In-talacije in spu- en strop	= 0.10 kN/m ²
g = 0.86 kN/m²	

1.3 Strezna ploz a . nepohodna ravna streha na nadstrezku

Prane plo- e	= 1.25 kN/m ²
toplotna izolacija - XPS 5 cm	= 0.09kN/m ²
AB plo- a (<i>lastna teřla konstr. je ra unana posebej</i>)	
naklonski beton	= 2.50kN/m ²
In-talacije in spu- en strop	= 0.10 kN/m ²
g = 3.94 kN/m²	

1.4 Eta0a . pisarnizki del

predelne stene	= 0.50 kN/m ²
finalni tlak (keramika 15 mm , guma í) 1.5-2 cm	= 0.40 kN/m ²
lepilo in izravnalna masa	
armiran cementni estrih 7 cm	= 1.75 kN/m ²
akusti na folija 1 cm	= 0.10 kN/m ²
AB plo- a	
In-talacije in spu- en strop	= 0.30 kN/m ²
g = 3.05 kN/m²	

1.5 Stopnice in podesti

a.) stopnice	
betonska stopnica	= 2.00 kN/m ²
g = 2.0 kN/m²	
b.) podesti	
predelne stene	= 0.50 kN/m ²
finalni tlak (keramika 15 mm , parket 20 mm) 1.5-2 cm	= 0.40 kN/m ²
lepilo in izravnalna masa	
armiran cementni estrih 8 cm	= 1.90 kN/m ²
PE folija	
penjeni polietilen 5 cm	= 0.20 kN/m ²
AB plo- a 20 cm (<i>lastna teřla konstr. je ra unana posebej</i>)	
in-talacije	= 0.50 kN/m ²
g = 3.5 kN/m²	

1.6 Fasada - monta0na

Kovinski izolirani paneli na podkonstrukciji	
g = 0.45 kN/m²	

3 Spremenljivi vplivi (koristna obteřba)

1.7 Strezna ploz a

nepohodna streha (kategorija H) **q = 0.60 kN/m²**

1.8 Tipi na eta0na ploz a

Pisarne $q = 4.0 \text{ kN/m}^2$
 avla, glavni vhod, glavne stopnice s podesti (kategorija C3) $q = 4.0 \text{ kN/m}^2$

1.9 Stopnice in podesti

$q = 3.5 \text{ kN/m}^2$

4 Vplivi snega



Slika 1: Regije za določitev obtežbe zaradi snega

Cesta ó cona: A1, nadmorska višina: $A=120 \text{ m}$, $s_k = 0.651[1+(A/728)^2]$

Blago po-evna streha $i = 1.0$,

koef. izpostavljenosti: $C_e = 0.80$

toplotni koeficient: $C_t = 1.0$,

$s_k = 0.651 [1+(120/728)^2] = 0.668 \text{ kN/m}^2$

$q_s = i \times C_e \times C_t \times s_k = 1.0 \times 1.0 \times 0.80 \times 1.41 = 0.53 \text{ kN/m}^2$

5 Vplivi vetra



Slika 2: Cone za doloĉitev obteębe zaradi vetra

$$q_w = q_{ref} \times c_d \times c_e(z_e) \times c_{pe} = 0.562 \times 1.0 \times 2.04 \times c_{pe} = 1.15 \times c_{pe},$$

$$q_{ref} = 0.5 \times \rho \times v_{ref}^2 = 0.5 \times 1.25 \times 30^2 = \mathbf{0.562 \text{ kN/m}^2}$$

$$= 1.25 \text{ kg/m}^3$$

$$v_{ref} = c_{DIR} \times c_{TEM} \times c_{ALT} \times v_{ref,0} = 30 \text{ m/s}$$

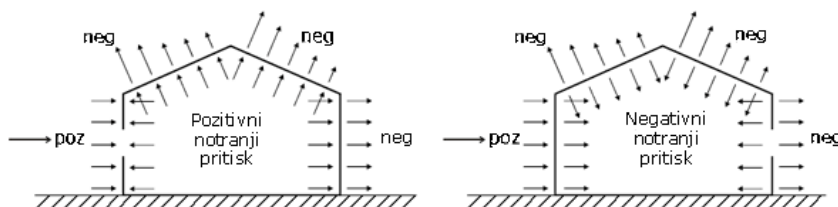
$$c_{DIR} = c_{TEM} = c_{ALT} = 1.0$$

$$v_{ref,0} = 30 \text{ m/s (cona 3, Cesta)}$$

$$c_e(z_e \acute{e} 6 \text{ m, II. kategorija terena}) \acute{e} 2.04$$

$$c_d = 1.0 \text{ (dinami ni koeficient)}$$

$$\mu = 0.75 \text{ (razmerje med površinami odprtini ó enakomerna razporeditev)}$$



1.10 Horizontalna

a.) koeficienti pritiskov za privetrno stran objekta

$$\text{zunanji pritisk: } c_{pe} = +0.8$$

$$\text{notranji pritisk: } c_{pi} (\mu=0.75) = -0.25$$

$$\text{najbolj neugodna komb.: } c_{p,net} = 0.8 + 0.25 = 1.05 \quad q_{w,a} = 1.15 \times 1.05 = \mathbf{1.20 \text{ kN/m}^2} \text{ (tlak)}$$

b.) koeficienti pritiskov za zavetrno stran objekta

$$\text{zunanji pritisk: } c_{pe} = -0.3$$

$$\text{notranji pritisk: } c_{pi} (\mu=0.75) = -0.25$$

$$\text{neugodna komb.: } c_{p,net} = (-0.3) + (-0.25) = -0.55 \quad q_{w,b} = 1.15 \times (-0.55) = \mathbf{-0.632 \text{ kN/m}^2} \text{ (srk)}$$

c.) koeficienti pritiskov na steno objekta, ki lefi v ravnini vzporedno s smerjo delovanja vetra:

$$\text{zunanji pritisk: } c_{pe} = -0.8$$

$$q_{w,c} = 1.15 \times (-0.8) = \mathbf{-0.920 \text{ kN/m}^2} \text{ (srk)}$$

1.11 Vertikalna

a.) ravna streha (parapet/atika, $h_p/h = 0.03$)

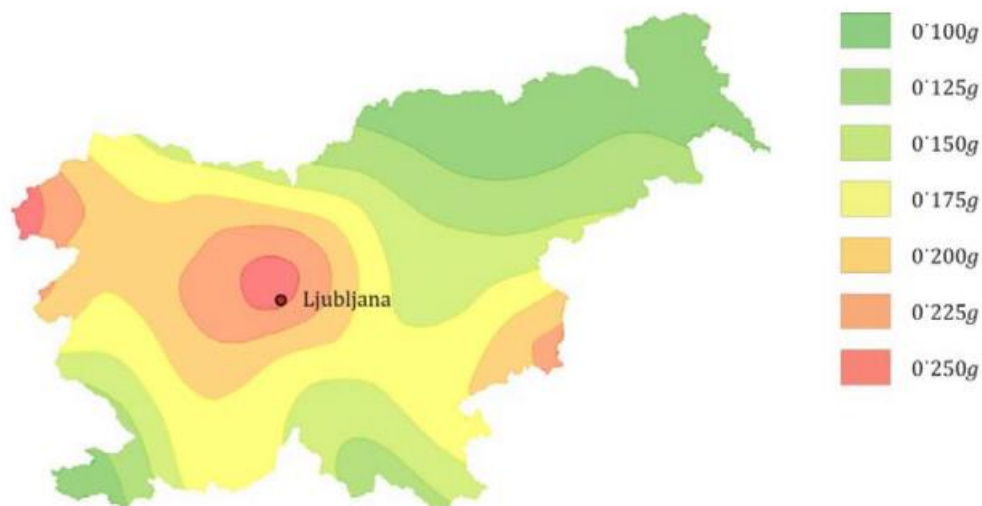
$$c_{pe} = -0.5$$

$$q_{w,v} = 1.15 \times (-0.5) = \mathbf{-0.575 \text{ kN/m}^2} \text{ (srk)}$$

$$q_{w,v} = 0.602 \times (-0.80) = -0.301 \text{ kN/m}^2 \text{ (srk)}$$

6 Potresni vplivi

Ra un u inkov potresnih vplivov na konstrukcijo je izveden s pomo jo modalne analize s projektnim spektrom odziva (projektni spekter tipa 1 po EC8) v obeh horizontalnih smereh. Vplivi razli nih nihajnih oblik so kombinirani s pomo jo CQC metode, pri emer vsota efektivnih modalnih mas zna-a ve kot 90% celotne mase konstrukcije (upo-tevanih je bilo do 21 nihajnih). U inki potresnih vplivov zaradi kombinacije horizontalnih komponent potresne obremenitve so bili izra unani po principu $E_{Edx} + 0.3E_{Edy}$ oz. $0.3E_{Edx} + E_{Edy}$. Masa, ki je bila upo-tevana v modalni analizi, je bila dolo ena po principu: $1.0 \times G_{lastna} + 1.0 \times G_{stalna} + 0.30 \times Q_{koristna, streha} + 0.15 \times Q_{koristna, ostale etafe}$. V primeru ra una globalnega modela z modalno analizo s projektnim spektrom odziva je bila upo-tevana polovi na upogibna togost za vse vertikalne elemente modela (stebri, stene) in glavne nosilce. Upo-tevan je bil tudi vpliv slu ajne torzije skladno s standardom EC8.



Slika 3: Karta projektnih pospeřkov temeljnih tal za povratno dobo 475 let

Stavba se nahaja v Poljubinju. Temeljna so gleda na na SIST EN 1998-1 lahko razvrstimo v kategorijo C. Projektni pospe-ek temeljnih tal zna-a 0.200g. Upo-tevana je kategorije pomembnosti stavbe ($\gamma_1 = 1.0$)

Glede na lastnosti konstrukcije je bil za obe smeri delovanja potresne obteflbe dolo en redukcijski faktor $q = 3.00$. Predpostavljen razred duktilnosti je DCM.

Lastnosti projektnega spektra po EC8:

- proj. pospe-ek tem. tal (cesta): **0.175 g**
- kvaliteta temeljnih tal: **C**
- faktor obna-anja konstrukcije (DCM): **$q = 3.00$**

4 ZAKLJU NE OPOMBE

V stati nih izra unih je bila obteřba upo-tevana po slovenskih standardih SIST EN 1991-1-X:2004/2005 (EC1) in SIST EN 1998-1:2005 (EC8). Dimenzioniranje AB elementov je izvedeno skladno s slovensko-evropskimi standardi: SIST EN 1992-1-1:2005 (EC2) in SIST EN 1998-1:2005 (EC8) za armiranobetonske elemente. V stati nem izra unu so bili upo-tevani naslednji vplivi: vpliv lastne in stalne teře, spremenljivi vplivi (koristna obteřba), vpliv snega (cona: A2, nadmorska vi-ina: 220 m ó Poljubinj), vplivi vetra, potresni vplivi. Za potresno analizo (modalna analiza s projektnim spektrom odziva) je bil uporabljen projektni spekter tipa 1 po EC8, kvaliteta tem. tal B, projektnim pospe-kom temeljnih tal 0.200 g in faktorjem obna-anja $q = 3.50$ (okvirna montařna konstrukcija, DCM). Za stati no analizo z obteřbo vetra so bile upo-tevane naslednje karakteristike po SIST EN 1991-1-4: temeljna vrednost osnovne hitrosti vetra $v_{b,0} = 30$ m/s (cona 3) in II kategorija terena.


Investitor je med gradnjo objekta dolfan zagotoviti strokovni nadzor in kontrolo izdelave z vsemi ustreznimi meritvami vgrajenega materiala po veljavnih predpisih in standardih.

Ne glede na fle izvedene predhodne terenske raziskave, mora po izkopu gradbene jame temeljna tla pregledati strokovnjak, ki bo podal mnenje o ustreznosti projektne re-itev. V primeru bistvenih odstopanj je o tem treba obvestiti projektanta, ki bo podal ustrezno re-itev.


Pred izvedbo posameznih elementov objekta je treba obvezno uskladiti gradbene in instalacijske na rte, da se izdela vse potrebne odprtine in preboje.

V primeru kakr-nih koli odstopanj, ki so navedene v tem projektu. se je potrebno predhodno posvetovati z odgovornim projektantom gradbenih konstrukcij.


3/1.4.2 STATIČNI RAČUN

 STATICON IB	PROJEKT: PGD Ě NA RT GRADBENIH KONSTRUKCIJ	číslo a řada: 48/2013
	OBJEKT: PROIZVODNO SKLADIŠŤ NA HALA	

BALINIŠČE

 STATICON IB	PROJEKT: PGD Ě NA RT GRADBENIH KONSTRUKCIJ	číslo a řada: 48/2013
	OBJEKT: PROIZVODNO SKLADIŠŤ NA HALA	

VEČNAMENSKI OBJEKT

	Objekt: VE NAMENSKI OBJEKT
	Pozicija: VE NAMENSKI OBJEKT
Vsebina	

Osnovni podatki o modelu	2
Vhodni podatki	
Vhodni podatki - Konstrukcija	3
Vhodni podatki - Obte0ba	10
Rezultati	
Modalna analiza	20
Seizmi ni prera un	21
Stati ni prera un	24
Dimenzioniranje (beton)	40
Dimenzioniranje (jeklo)	53
Dimenzioniranje (les)	57



Objekt: **VE NAMENSKI OBJEKT**

Pozicija: **VE NAMENSKI OBJEKT**

Osnovni podatki o modelu

Datoteka: prizidek.twp
Datum prera una: 28.11.2013

Na in prera una: 3D model

- ☒ Teorija I-ga reda ☒ Modalna analiza ☐ Stabilnost
☐ Teorija II-ga reda ☒ Seizmi ni prera un ☐ Faze gradnje
☐ Nelinearen prera un

Velikost modela

tevrilo vozli : 10416
tevrilo ploskovnih elementov: 9950
tevrilo grednih elementov 7
tevrilo robnih elementov 10536
tevrilo osnovnih obte0nih primerov: 9
tevrilo kombinacij obte0b: 284

Enote mer

Dol0ina: m [cm,mm]
Sila: kN
Temperatura: Celsius

Vhodni podatki - Konstrukcija
Schema nivojev

Naziv	z [m]	h [m]
	8.10	1.35
	6.75	2.85

Naziv	z [m]	h [m]
	3.90	3.90
	0.00	

Koordinate vozliž

No	X [m]	Y [m]	Z [m]
1	-9.6250	-0.8500	0.0000
25	-8.6500	0.0000	0.0000
28	-7.6250	-0.8500	0.0000
54	-9.6250	1.9500	0.0000
63	-8.6500	1.2000	0.0000
112	-7.6250	1.9500	0.0000
128	-8.6500	0.0000	3.9000
148	-8.6500	0.0000	4.7000
159	-8.6500	1.2000	3.9000
230	-9.9000	8.1700	0.0000
284	-0.4000	-0.4000	0.0000
342	-9.9000	9.7700	0.0000
353	-8.2000	8.1700	0.0000
357	0.0000	0.0000	0.0000
410	-8.6500	9.1500	0.0000
426	-7.8500	8.6000	0.0000
442	0.4000	0.4000	0.0000
510	4.0500	-2.6800	0.0000
530	-2.4000	0.0000	3.9000
537	-7.4431	8.9907	0.0000
542	-8.2000	9.7700	0.0000
635	0.0000	1.2500	0.9000
641	4.4500	-2.2800	0.0000
671	-2.4000	0.0000	4.7000
676	-7.0500	9.4000	0.0000
823	4.8500	-1.8800	0.0000
972	-1.0750	0.0000	4.5500
1019	4.0500	-0.4000	0.0000
1085	-7.4431	10.341	0.9000
1108	0.0000	0.0000	3.9000
1294	-8.6500	9.1500	3.9000
1311	4.0500	0.4000	0.0000
1313	4.4500	0.0000	0.0000
1358	0.0000	1.2500	3.4000
1426	-8.8500	13.620	0.0000
1468	0.0000	4.0500	0.9000
1562	-8.8500	14.020	0.0000
1616	-7.4431	11.841	0.9000
1684	-7.4431	8.9907	3.9000
1720	-8.8500	14.420	0.0000
1792	-1.0750	0.0000	6.7500
1800	-2.4000	0.0000	8.1000
1819	-7.8500	13.620	0.0000
1827	6.6350	-2.2800	1.4500
1930	0.4000	5.6000	0.0000
1939	0.0000	6.0037	0.0000
2066	-7.4431	10.341	3.4000
2189	-7.0500	13.620	0.0000
2198	-7.4431	14.020	0.0000
2204	-2.4000	8.9907	0.0000
2208	-2.8000	9.4000	0.0000
2285	0.4000	6.4000	0.0000
2355	0.0000	6.0037	0.9000
2592	-2.0000	9.4000	0.0000
2620	0.0000	4.0500	3.4000
2687	-2.4000	6.0700	3.9000
2742	3.1250	0.0000	4.5500
2809	-7.4431	11.841	3.4000
3014	-0.4000	8.6000	0.0000
3101	4.4500	0.0000	3.9000
3167	-2.4000	6.9700	3.9000
3263	4.4500	3.2972	0.9000
3449	0.0000	8.9907	0.0000
3458	0.4000	8.6000	0.0000
3598	-8.6500	14.020	3.9000
3680	7.0299	-2.2800	4.6661
3748	4.4500	4.1972	0.9000
3809	4.0500	5.6000	0.0000
3922	3.1250	0.0000	6.7500
3929	0.0000	8.9907	0.9000
3941	-0.0000	6.0037	3.9000
4026	-2.4000	6.0700	6.4000
4028	-8.6500	14.020	4.7000
4034	-6.6600	14.020	2.7221
4080	1.1861	8.9907	0.0000
4095	0.8000	9.4000	0.0000

No	X [m]	Y [m]	Z [m]
4140	4.4500	-2.2800	8.1000
4223	4.0500	6.4000	0.0000
4229	4.4500	6.0037	0.0000
4240	-7.4431	14.020	3.9000
4247	-2.4000	8.9907	3.9000
4425	-2.8000	13.620	0.0000
4466	-6.6600	14.020	3.5221
4511	-2.4000	6.9700	6.4000
4530	1.6000	9.4000	0.0000
4585	-8.8500	14.020	5.9500
4598	4.4500	3.2972	3.4000
4669	-2.4000	9.7700	3.9000
4865	-2.0000	13.620	0.0000
4866	-2.4000	14.020	0.0000
4965	2.8250	8.9907	0.0000
5003	12.720	-2.2800	1.4500
5021	2.5250	9.4000	0.0000
5026	4.4500	6.5972	0.9000
5075	4.4500	4.1972	3.4000
5326	3.1250	9.4000	0.0000
5334	4.4500	0.0000	8.1000
5364	8.1333	-2.2800	6.7500
5392	4.0500	8.6000	0.0000
5602	-2.4000	11.570	3.9000
5605	-3.6600	14.020	2.7221
5773	15.700	-2.2800	0.0000
5774	16.100	-2.6800	0.0000
5785	4.0500	9.4000	0.0000
5898	15.550	-1.8800	0.0000
5927	4.4500	8.3972	0.9000
5935	-2.4000	9.7700	6.4000
5996	14.850	-0.9800	0.0000
6006	-3.6600	14.020	3.5221
6044	15.850	-1.8800	0.0000
6182	16.100	-1.8800	0.0000
6214	15.700	-2.2800	0.9000
6222	4.4500	8.9907	0.9000
6225	4.4500	6.0037	3.9000
6248	12.720	-2.2800	3.9675
6262	0.8000	13.620	0.0000
6284	4.4500	6.5972	3.4000
6332	2.5250	12.020	0.0000
6345	15.550	-0.9800	0.0000
6384	-2.4000	8.9907	8.1000
6490	15.850	-0.9800	0.0000
6588	1.1861	9.9907	3.9000
6622	3.1250	12.020	0.0000
6639	1.1861	14.020	0.0000
6647	1.6000	13.620	0.0000
6710	-1.4000	14.020	2.7221
6800	16.550	-0.9800	0.0000
6801	14.850	0.7200	0.0000
6802	-2.4000	11.570	6.4000
6873	2.8250	8.9907	3.9000
6994	1.1861	10.891	3.9000
6999	3.1033	8.9907	3.9000
7056	-1.4000	14.020	3.5221
7107	4.4500	8.3972	3.4000
7117	15.550	0.7200	0.0000
7155	1.1861	11.294	3.9000
7156	11.917	-2.2800	6.7500
7193	15.700	-0.1300	0.9000
7238	15.850	0.7200	0.0000
7359	4.0033	8.9907	3.9000
7373	0.2000	14.020	2.7221
7415	2.8250	10.307	3.9000
7496	16.550	0.7200	0.0000
7500	1.1861	9.9907	6.1000
7533	4.4500	8.9907	3.9000
7606	-2.4000	14.020	5.9500
7642	4.0500	13.620	0.0000
7664	0.2000	14.020	3.5221
7710	14.850	3.0200	0.0000
7758	2.8250	11.294	3.9000
7814	1.1861	10.891	6.1000
7820	3.1033	8.9907	6.1000

No	X [m]	Y [m]	Z [m]
7839	1.1861	8.9907	8.1000
7893	1.6874	14.020	2.7221
7907	4.8500	13.620	0.0000
7908	4.4500	14.020	0.0000
7931	15.550	3.0200	0.0000
7960	4.4500	10.307	3.9000
8020	15.850	3.0200	0.0000
8093	4.0033	8.9907	6.1000
8095	1.1861	14.020	3.9000
8170	4.4500	14.020	0.9000
8206	16.550	3.0200	0.0000
8209	14.850	4.7200	0.0000
8254	-2.4000	14.020	8.1000
8359	15.700	-2.2800	6.7500
8381	15.550	4.7200	0.0000
8416	3.6874	14.020	2.7221
8429	15.700	3.8700	0.9000
8445	15.850	4.7200	0.0000
8556	4.4500	12.220	4.4000
8591	16.550	4.7200	0.0000
8638	15.700	-2.2800	8.1000
8641	4.4500	8.9907	8.1000
8702	14.850	7.0200	0.0000
8789	15.700	-0.1300	6.7500
8793	4.4500	14.020	3.9000
8796	1.6874	14.020	6.6821
8833	15.550	7.0200	0.0000
8883	15.850	7.0200	0.0000
8884	4.4500	14.020	4.4000
8946	1.1861	14.020	8.1000
8972	4.4500	12.220	6.7500
8990	16.550	7.0200	0.0000
8992	14.850	8.7200	0.0000
9044	3.2011	14.020	6.6821
9108	15.550	8.7200	0.0000
9135	15.700	7.8700	0.9000
9158	15.850	8.7200	0.0000
9226	5.3000	14.020	5.6821
9255	4.4500	14.020	6.7500
9268	16.550	8.7200	0.0000
9357	14.850	11.020	0.0000
9373	5.3000	14.020	6.6821
9417	15.700	3.8700	6.7500
9450	15.550	11.020	0.0000
9451	4.4500	14.020	8.1000
9493	15.850	11.020	0.0000
9567	7.7000	14.020	5.6821
9586	16.550	11.020	0.0000
9588	14.850	12.720	0.0000
9695	15.550	12.720	0.0000
9708	8.7000	14.020	5.6821
9709	7.7000	14.020	6.6821
9720	15.700	11.870	0.9000
9740	15.850	12.720	0.0000
9790	8.1333	14.020	6.7500
9829	15.550	13.620	0.0000
9834	16.550	12.720	0.0000
9854	8.7000	14.020	6.6821
9868	15.850	13.620	0.0000
9892	15.700	14.020	0.0000
9893	16.100	13.620	0.0000
9961	15.700	7.8700	6.7500
9980	16.100	14.420	0.0000
9991	15.700	14.020	0.9000
10038	11.450	14.020	5.6821
10132	12.450	14.020	5.6821
10133	11.450	14.020	6.6821
10176	11.917	14.020	6.7500
10211	12.450	14.020	6.6821
10283	15.700	11.870	6.7500
10293	14.850	14.020	5.6821
10348	14.850	14.020	6.6821
10391	15.700	14.020	6.7500
10416	15.700	14.020	8.1000

Tabele materialov

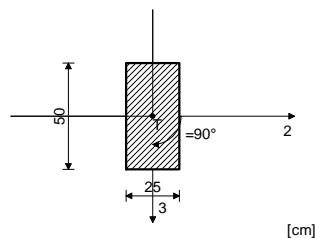
No	Naziv materiala	E[kN/m2]	μ	γ[kN/m3]	α[1/C]	Em[kN/m2]	μm
1	C 25/30	3.100e+7	0.20	25.00	1.000e-5	3.100e+7	0.20
2	C 30/37	3.300e+7	0.20	25.00	1.000e-5	3.300e+7	0.20
3	Jeklo	2.100e+8	0.30	78.50	1.000e-5	2.100e+8	0.30
4	Les-Iglavci-Lamelirani	1.100e+7	0.20	5.00	1.000e-5	1.100e+7	0.20

Seti ploz

No	d[m]	e[m]	Material	Tip prera una	Ortotropija	E2[kN/m2]	G[kN/m2]	α
<1>	0.600	0.300	1	Tanka ploz a	Izotropna			
<2>	0.300	0.150	1	Tanka ploz a	Izotropna			
<3>	0.200	0.100	1	Tanka ploz a	Izotropna			
<4>	0.250	0.125	1	Tanka ploz a	Izotropna			
<5>	0.180	0.090	2	Tanka ploz a	Izotropna			

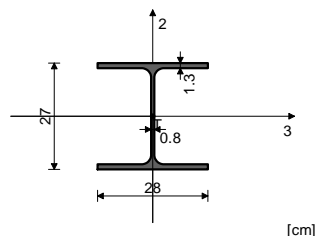
Seti gred

Set: 1 Prerez: b/d=25/50, Fiktivna ekscentri nost



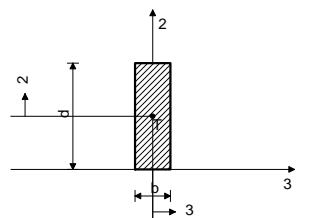
Mat.	A1	A2	A3	I1	I2	I3
2 - C 30/37	1.250e-1	1.042e-1	1.042e-1	1.788e-3	2.604e-3	6.510e-4

Set: 2 Prerez: IPBI 280, Fiktivna ekscentri nost



Mat.	A1	A2	A3	I1	I2	I3
3 - Jeklo	9.730e-3	3.178e-3	6.552e-3	6.240e-7	4.760e-5	1.367e-4

Set: 3 Prerez: Spremenljiv, Fiktivna ekscentri nost



Mat.		Tip spremembe			
4 - Les-Iglavci-Lamel...		Relativna linearna sprememba.			
No	dL	$\Delta 3$ [cm]	$\Delta 2$ [cm]	b [cm]	d [cm]
S	0	0.00	30.00	20.00	60.00
1	0.5	0.00	50.00	20.00	100.00
E	1	0.00	30.00	20.00	60.00

Seti povrinskih podpor

Set	K,R1	K,R2	K,R3
1	4.000e+4	4.000e+4	7.000e+4

Konture ploz

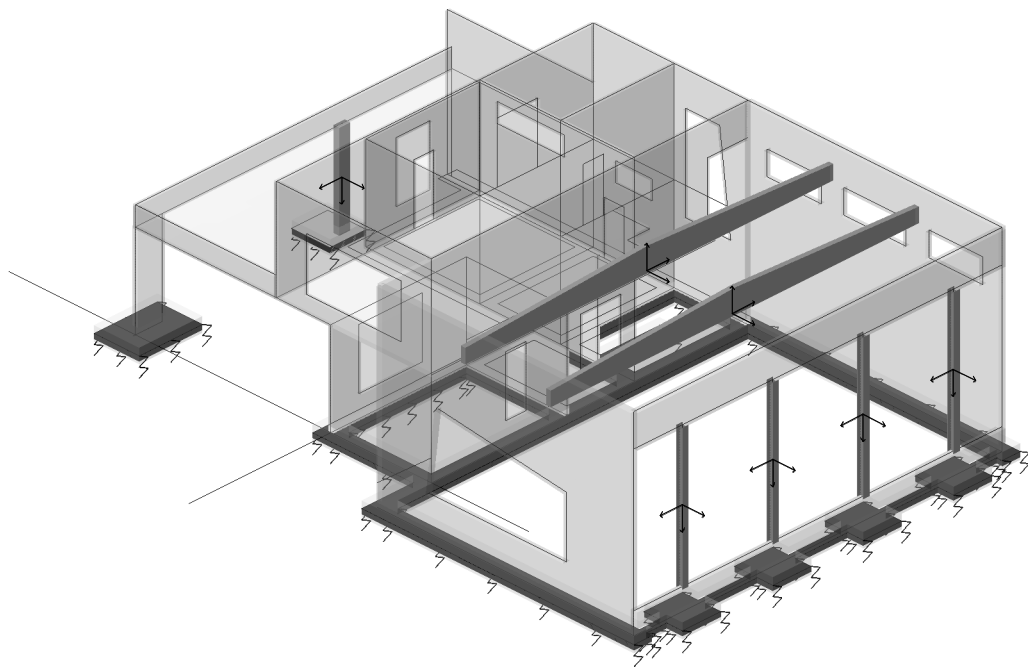
No	Konturna vozli z a	Sklop	Set
1	54-112-28-1-54	Nivo: [0.00 m]	1
2	230-342-542-353-230	Nivo: [0.00 m]	1
3	1720-9980-9893-9868-9740-9834-9586-9493-9158-9268-8993-8883-8445-8591-8206-8020-7238-7496-6800-6490-6044-6182-5774-510-1019-284-3014-426-1819-1426-1720 (2189-4425-2208-676-2189) (4865-6262-4095-2592-4865) (3458-5392-4223-2285-3458) (1930-3809-1311-442-1930) (6647-7642-5785-5326-6622-6332-5021-4530-6647) (7907-9829-9695-9588-9357-9450-9108-8992-8702-8833-8381-8209-7710-7931-7117-6801-5996-6345-5898-823-7907)	Nivo: [0.00 m]	1
4	128-1294-3598-8095-7155-7758-7415-7960-3101-128	Nivo: [3.90 m]	5
5	641-4140-8638-5773-641 (3680-6248-5003-1827-3680)	Okvir: H_1	2
6	128-148-671-530-128	Okvir: H_2	3
7	530-1800-5334-1313-357-1108-530 (1792-3922-2742-972-1792)	Okvir: H_2	3
8	4585-7606-8254-9451-7908-1562-4585 (8796-9044-8416-7893-8796) (7056-7664-7373-6710-7056) (4466-6006-5605-4034-4466)	Okvir: H_3	3
9	9451-10416-9892-7908-9451 (9373-9709-9567-9226-9373) (9854-10133-10038-9708-9854) (10211-10348-10293-10132-10211)	Okvir: H_3	2
10	1939-3941-6225-4229-1939	Okvir: H_4	3

Konture ploz

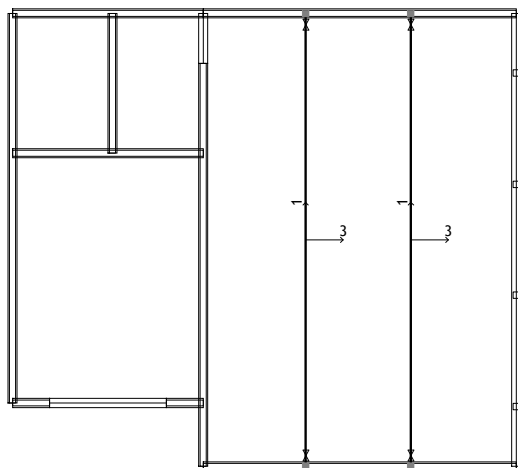
No	Konturna vozliž a	Sklop	Set
11	537-1684-4247-6384-8641-7533-7359-8093-7820-6999-6873-4965-537	Okvir: H_5	3
12	128-148-4028-3598-128	Okvir: V_1	3
13	25-128-159-63-25	Okvir: V_1	4
14	537-1684-4240-2198-537 (2066-2809-1616-1085-2066)	Okvir: V_2	3
15	4247-3167-4511-4026-2687-530-1800-8254-4866-2204-4247 (5602-4669-5935-6802-5602)	Okvir: V_3	3
16	5773-6214-9991-9892-5773	Okvir: V_4	2
17	10391-8359-8638-10416-10391	Okvir: V_4	2
18	1108-3941-2355-3929-3449-357-1108 (1358-2620-1468-635-1358)	Okvir: V_5	3
19	7839-8946-6639-4080-7839 (7500-7814-6994-6588-7500)	Okvir: V_6	3
20	4140-9451-9255-8972-8556-8884-8793-7533-6222-8170-7908-641-4140 (4598-5075-3748-3263-4598) (6284-7107-5927-5026-6284)	Okvir: V_7	3

Konture povrzijskih podpor

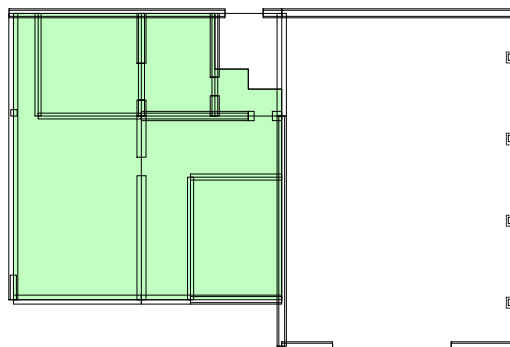
No	Konturna vozliž a	Sklop	Set
1	230-342-542-353-230	Nivo: [0.00 m]	1
2	54-112-28-1-54	Nivo: [0.00 m]	1
3	1720-9980-9893-9868-9740-9834-9586-9493-9158-9268-8990-8883-8445-8591-8206-8020-7238-7496-6800-6490-6044-6182-5774-510-1019-284-3014-426-1819-1426-1720 (7907-9829-9695-9588-9357-9450-9108-8992-8702-8833-8381-8209-7710-7931-7117-6801-5996-6345-5898-823-7907) (1930-3809-1311-442-1930) (2189-4425-2208-676-2189) (4865-6262-4095-2592-4865) (6647-7642-5785-5326-6622-6332-5021-4530-6647) (3458-5392-4223-2285-3458)	Nivo: [0.00 m]	1



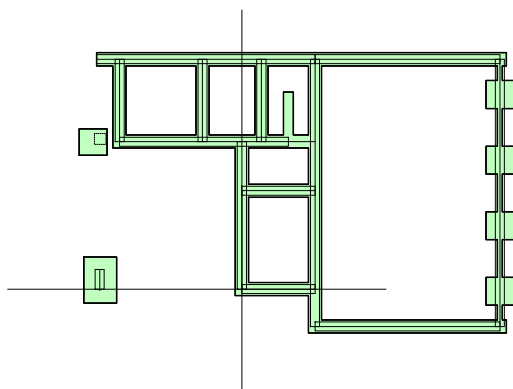
Izometrija



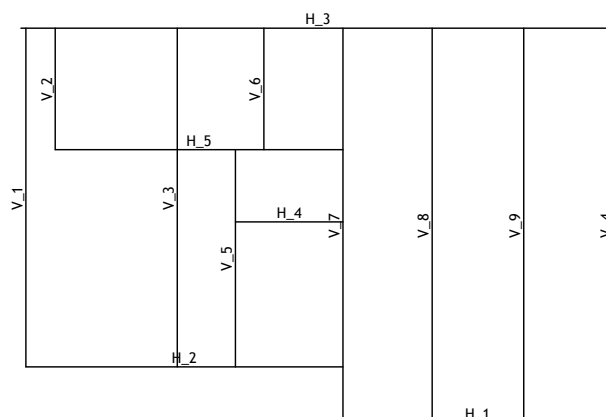
Nivo: [6.75 m]



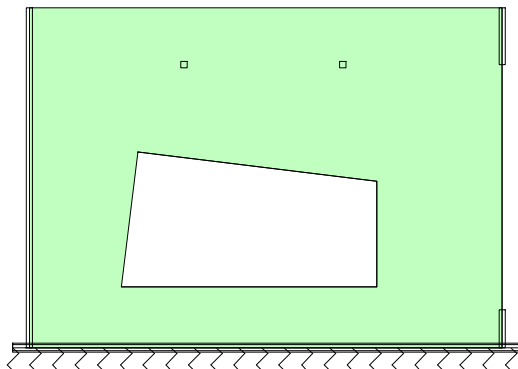
Nivo: [3.90 m]



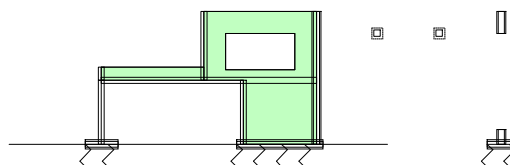
Nivo: [0.00 m]



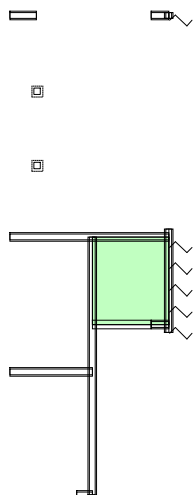
Dispozicija okvirjev



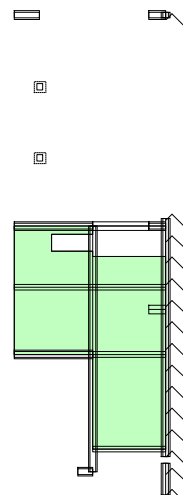
Okvir: H_1



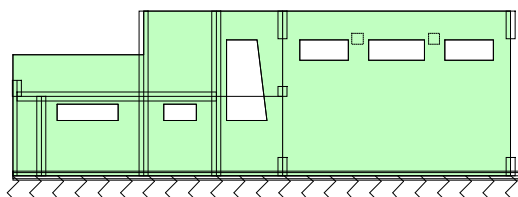
Okvir: H_2



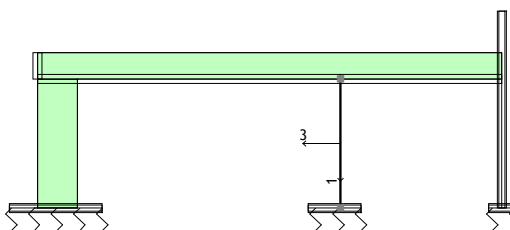
Okvir: H_4



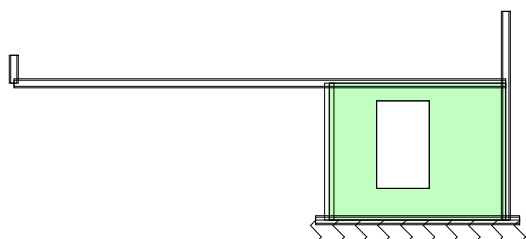
Okvir: H_5



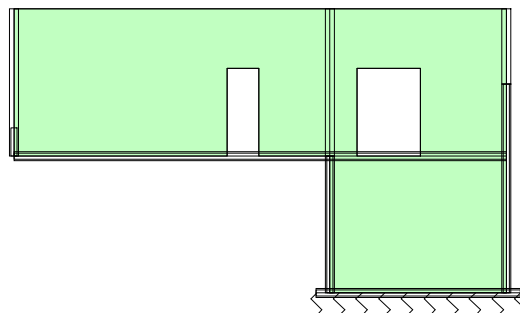
Okvir: H_3



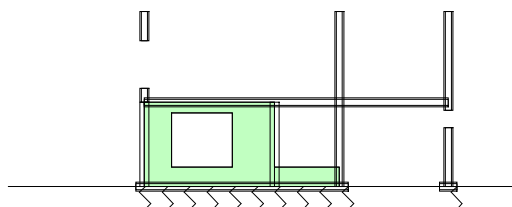
Okvir: V_1



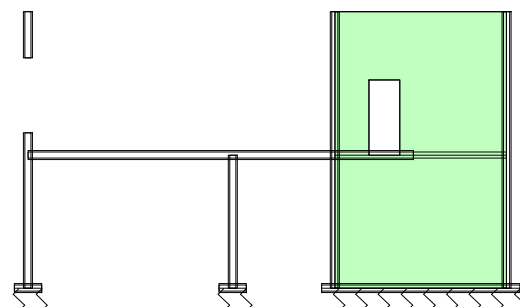
Okvir: V_2



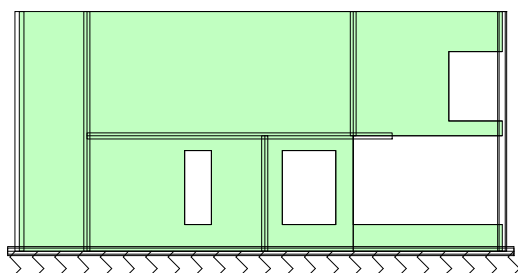
Okvir: V_3



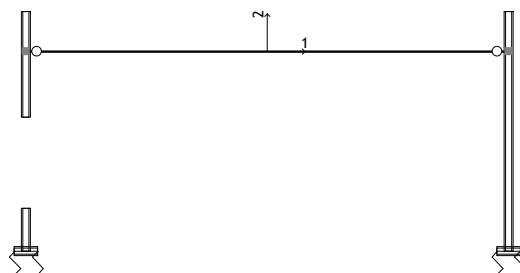
Okvir: V_5



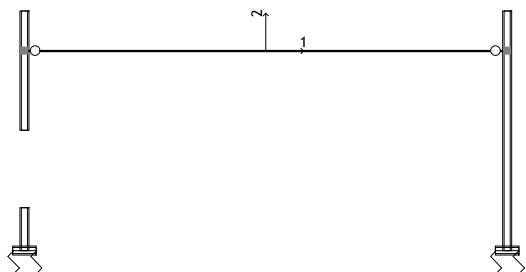
Okvir: V_6



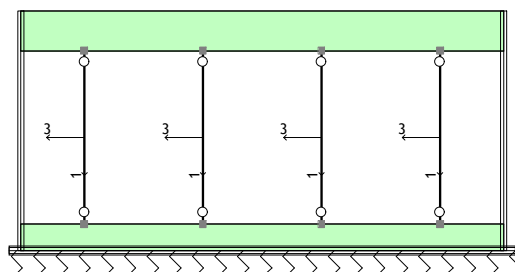
Okvir: V_7



Okvir: V_8



Okvir: V_9



Okvir: V_4

Vhodni podatki - Obtežba
Lista obtežnih primerov

No	Naziv	pX [kN]	pY [kN]	pZ [kN]
1	lastna + stalna (g)	0.00	0.00	-7016.21
2	koristna	0.00	0.00	-692.65
3	koristna na strehi	0.00	0.00	-167.65
4	sneg	0.00	0.00	-194.53
5	pritisk vetra	0.00	0.00	-125.74
6	veter smer X	-186.03	85.21	106.36
7	veter smer y	101.37	-273.28	106.36
8	potres X			
9	potres Y			
10	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-10787.98
11	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.75xIV+0.9xVI+0.9xVII	-76.20	-169.26	-10405.09
12	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.75xIV+0.9xVI-0.9xVII	-258.66	322.64	-10596.53
13	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-10596.53
14	Komb.: I+1.05xII+1.5xIII+ 0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-8332.30
15	Komb.: I+1.05xII+1.5xIII+ 0.75xIV+0.9xVI-0.9xVII	-258.66	322.64	-8140.86
16	Komb.: I+1.05xII+1.5xIII+ 0.75xIV+0.9xVI+0.9xVII	-76.20	-169.26	-7949.42
17	Komb.: I+1.05xII+1.5xIII+ 0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-8140.86
18	Komb.: 1.35xI+1.05xII+ +1.5xIII-0.9xVI+0.9xVII	258.66	-322.64	-10450.64
19	Komb.: 1.35xI+1.05xII+1.5xIV+ +0.9xVI-0.9xVII	-258.66	322.64	-10490.96
20	Komb.: 1.35xI+1.05xII+1.5xIV+ +0.9xVI+0.9xVII	-76.20	-169.26	-10299.52
21	Komb.: 1.35xI+1.05xII+1.5xIV- 0.9xVI+0.9xVII	258.66	-322.64	-10490.96
22	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.9xVI+0.9xVII	-76.20	-169.26	-10259.19
23	Komb.: 1.35xI+1.05xII+1.5xIV- 0.9xVI-0.9xVII	76.20	169.26	-10682.40
24	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.9xVI-0.9xVII	-258.66	322.64	-10450.64
25	Komb.: 1.35xI+1.05xII+ +1.5xIII-0.9xVI-0.9xVII	76.20	169.26	-10642.08
26	Komb.: 1.35xI+1.05xII+0.75xIV- 1.5xVI+0.9xVII	370.28	-373.77	-10408.88
27	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.75xIV-0.9xVII	-91.23	245.95	-10692.26
28	Komb.: 1.35xI+1.05xII+1.5xIII+ +0.75xIV+0.9xVII	91.23	-245.95	-10500.81
29	Komb.: 1.35xI+1.05xII+0.75xIV+ 1.5xVI+0.9xVII	-187.82	-118.13	-10089.81
30	Komb.: 1.35xI+1.05xII+1.5xIII+ 0.75xIV+0.9xVII	0.00	0.00	-10709.70
31	Komb.: 1.35xI+1.05xII+0.75xIV+ 1.5xVI-0.9xVII	-370.28	373.77	-10281.25
32	Komb.: 1.35xI+1.05xII+0.75xIV- 1.5xVI-0.9xVII	187.82	118.13	-10600.32
33	Komb.: 1.35xI+1.05xII+0.75xIV- 0.9xVI-1.5xVII	15.38	333.23	-10600.32
34	Komb.: 1.35xI+1.05xII+0.75xIV+ 0.9xVI+1.5xVII	319.48	-486.61	-10281.25
35	Komb.: 1.35xI+1.05xII+0.75xIV+ 0.9xVI+1.5xVII	-15.38	-333.23	-10089.81
36	Komb.: 1.35xI+1.05xII+0.75xIV+ 0.9xVI-1.5xVII	-319.48	486.61	-10408.88
37	Komb.: 1.35xI+1.5xIII+0.75xIV+ 0.9xVI-0.9xVII	-258.66	322.64	-9869.26
38	Komb.: 1.35xI+1.5xIII+0.75xIV+ 0.9xVI+0.9xVII	-76.20	-169.26	-9677.81
39	Komb.: 1.35xI+1.5xIII+ +0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-10848.20
40	Komb.: 1.35xI+1.5xIII+ +0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-10656.75
41	Komb.: 1.35xI+1.5xIII+0.75xIV+ +0.9xVI-0.9xVII	-258.66	322.64	-10656.75
42	Komb.: 1.35xI+1.5xIII+0.75xIV+ +0.9xVI+0.9xVII	-76.20	-169.26	-10465.31
43	Komb.: 1.35xI+1.5xIII+0.75xIV- 0.9xVI+0.9xVII	258.66	-322.64	-9869.26
44	Komb.: 1.35xI+1.5xIII+0.75xIV- 0.9xVI-0.9xVII	76.20	169.26	-10060.70
45	Komb.: I+1.05xII+1.5xIII- 0.9xVI-0.9xVII	76.20	169.26	-8226.73
46	Komb.: I+1.05xII+ +1.5xIV+0.9xVI+0.9xVII	-76.20	-169.26	-7843.84
47	Komb.: I+1.05xII+ +1.5xIV+0.9xVI-0.9xVII	-258.66	322.64	-8035.29
48	Komb.: I+1.05xII+1.5xIII- 0.9xVI+0.9xVII	258.66	-322.64	-8035.29
49	Komb.: I+1.05xII+1.5xIII+ 0.9xVI+0.9xVII	-76.20	-169.26	-7803.52

No	Naziv	pX [kN]	pY [kN]	pZ [kN]
50	Komb.: I+1.05xII+1.5xIII+ 0.9xVI-0.9xVII	-258.66	322.64	-7994.96
51	Komb.: I+1.05xII+1.5xIII- 0.9xVI+0.9xVII	258.66	-322.64	-7994.96
52	Komb.: I+1.05xII+1.5xIII- 0.9xVI-0.9xVII	76.20	169.26	-8186.41
53	Komb.: I+1.05xII+1.5xIII+ 0.75xIV-0.9xVII	-91.23	245.95	-8236.58
54	Komb.: I+1.05xII+1.5xIII+ 0.75xIV+0.9xVII	91.23	-245.95	-8045.14
55	Komb.: I+1.05xII+ +0.75xIV-1.5xVI-0.9xVII	187.82	118.13	-8144.65
56	Komb.: I+1.05xII+1.5xIII+ +0.75xIV+0.9xVII	0.00	0.00	-8254.02
57	Komb.: I+1.05xII+0.75xIV+ +1.5xVI+0.9xVII	-187.82	-118.13	-7634.13
58	Komb.: I+1.05xII+0.75xIV+ +1.5xVI-0.9xVII	-370.28	373.77	-7825.57
59	Komb.: I+1.05xII+ +0.75xIV-1.5xVI+0.9xVII	370.28	-373.77	-7953.20
60	Komb.: I+1.05xII+0.75xIV+ +0.9xVI+1.5xVII	-15.38	-333.23	-7634.13
61	Komb.: I+1.05xII+0.75xIV+ +0.9xVI-1.5xVII	-319.48	486.61	-7953.20
62	Komb.: I+1.05xII+ +0.75xIV-0.9xVI+1.5xVII	319.48	-486.61	-7825.57
63	Komb.: I+1.05xII+ +0.75xIV-0.9xVI-1.5xVII	15.38	333.23	-8144.65
64	Komb.: I+1.5xIII+0.75xIV+ +0.9xVI-0.9xVII	-258.66	322.64	-7413.58
65	Komb.: I+1.5xIII+0.75xIV+ +0.9xVI+0.9xVII	-76.20	-169.26	-7222.14
66	Komb.: I+1.5xIII+ +0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-7605.02
67	Komb.: I+1.5xIII+ +0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-7413.58
68	Komb.: I+1.5xIII+0.75xIV- 0.9xVI-0.9xVII	76.20	169.26	-8392.52
69	Komb.: I+1.5xIII+0.75xIV- 0.9xVI+0.9xVII	258.66	-322.64	-8201.08
70	Komb.: I+1.5xIII+0.75xIV+ 0.9xVI-0.9xVII	-258.66	322.64	-8201.08
71	Komb.: I+1.5xIII+0.75xIV+ 0.9xVI+0.9xVII	-76.20	-169.26	-8009.64
72	Komb.: 1.35xI+1.05xII+0.75xIV- 0.9xVI+0.9xVII	258.66	-322.64	-10345.06
73	Komb.: 1.35xI+1.05xII+0.75xIV+ 0.9xVI-0.9xVII	-258.66	322.64	-10345.06
74	Komb.: 1.35xI+1.05xII+0.75xIV+ 0.9xVI+0.9xVII	-76.20	-169.26	-10153.62
75	Komb.: 1.35xI+1.05xII+0.75xIV- 0.9xVI-0.9xVII	76.20	169.26	-10536.51
76	Komb.: 1.35xI+1.05xII+ +1.5xIV-0.9xVII	-91.23	245.95	-10586.68
77	Komb.: 1.35xI+1.05xII+ +1.5xIV+0.9xVII	0.00	0.00	-10563.80
78	Komb.: 1.35xI+1.05xII+ +1.5xIV+0.9xVII	-187.82	-118.13	-9943.91
79	Komb.: 1.35xI+1.05xII+ +1.5xVI-0.9xVII	-370.28	373.77	-10135.35
80	Komb.: 1.35xI+ +1.05xII-1.5xVI+0.9xVII	370.28	-373.77	-10262.98
81	Komb.: 1.35xI+ +1.05xII-1.5xVI-0.9xVII	187.82	118.13	-10454.42
82	Komb.: 1.35xI+1.05xII+1.5xIII+ 0.9xVII	91.23	-245.95	-10354.92
83	Komb.: 1.35xI+1.05xII+1.5xIII- 0.9xVII	-91.23	245.95	-10546.36
84	Komb.: 1.35xI+1.05xII+ +1.5xIV+0.9xVII	91.23	-245.95	-10395.24
85	Komb.: 1.35xI+1.05xII+1.5xIII+ 0.9xVII	0.00	0.00	-10604.12
86	Komb.: 1.35xI+ +1.05xII-0.9xVI+1.5xVII	319.48	-486.61	-10135.35
87	Komb.: 1.35xI+ +1.05xII-0.9xVI-1.5xVII	15.38	333.23	-10454.42
88	Komb.: 1.35xI+1.05xII+ +0.9xVI+1.5xVII	-15.38	-333.23	-9943.91
89	Komb.: 1.35xI+1.05xII+ +0.9xVI-1.5xVII	-319.48	486.61	-10262.98
90	Komb.: 1.35xI+1.5xIII+0.9xVI+ +0.9xVII	-76.20	-169.26	-10319.41
91	Komb.: 1.35xI+ +1.5xIII+0.9xVI-0.9xVII	-258.66	322.64	-10510.86
92	Komb.: 1.35xI+1.5xIII- 0.9xVI-0.9xVII	76.20	169.26	-9914.80
93	Komb.: 1.35xI+1.5xIII+0.9xVI+ +0.9xVII	-76.20	-169.26	-9572.24
94	Komb.: 1.35xI+ +1.5xIII+0.9xVI-0.9xVII	-258.66	322.64	-9763.68

Lista obte0nih primerov

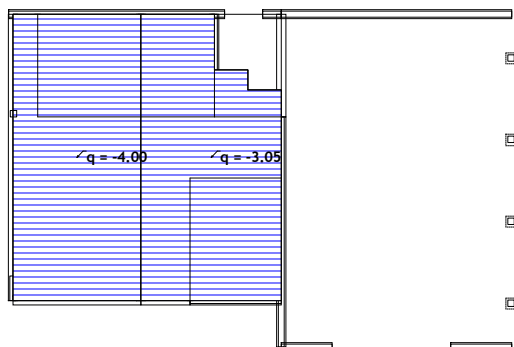
No	Naziv	pX [kN]	pY [kN]	pZ [kN]
95	Komb.: 1.35xI+1.5xIV-0.9xVI+0.9xVII	258.66	-322.64	-9763.68
96	Komb.: 1.35xI+1.05xII+0.75xIV-1.5xVII	-152.05	409.92	-10504.60
97	Komb.: 1.35xI+1.05xII+0.75xIV+1.5xV	0.00	0.00	-10533.67
98	Komb.: 1.35xI+1.5xIII+0.9xVI+0.9xVII	-76.20	-169.26	-9531.92
99	Komb.: 1.35xI+1.5xII-0.9xVI+0.9xVII	258.66	-322.64	-10510.86
100	Komb.: 1.35xI+1.5xII-0.9xVI-0.9xVII	76.20	169.26	-10702.30
101	Komb.: 1.35xI+1.05xII+0.75xIV+1.5xVII	152.05	-409.92	-10185.53
102	Komb.: 1.35xI+1.5xIII+0.9xVI-0.9xVII	-258.66	322.64	-9723.36
103	Komb.: 1.35xI+1.05xII+1.5xIII+0.75xIV	0.00	0.00	-10596.53
104	Komb.: 1.35xI+1.5xIV-0.9xVI-0.9xVII	76.20	169.26	-9955.13
105	Komb.: 1.35xI+1.5xIII-0.9xVI+0.9xVII	258.66	-322.64	-9723.36
106	Komb.: I+1.05xII+0.75xIV+0.9xVI+0.9xVII	-76.20	-169.26	-7697.95
107	Komb.: I+1.05xII+0.75xIV+0.9xVI-0.9xVII	-258.66	322.64	-7889.39
108	Komb.: I+1.05xII+0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-7889.39
109	Komb.: I+1.05xII+0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-8080.83
110	Komb.: 1.35xI+0.75xIV+1.5xVI+0.9xVII	-187.82	-118.13	-9362.53
111	Komb.: 1.35xI+0.75xIV+1.5xVI-0.9xVII	-370.28	373.77	-9553.97
112	Komb.: 1.35xI+0.75xIV-1.5xVI+0.9xVII	370.28	-373.77	-9681.60
113	Komb.: 1.35xI+1.5xIII+0.75xIV+0.9xV	0.00	0.00	-9982.42
114	Komb.: 1.35xI+1.5xIII+0.75xIV+0.9xVII	91.23	-245.95	-9773.53
115	Komb.: 1.35xI+0.75xIV+0.9xVI+1.5xVII	-15.38	-333.23	-9362.53
116	Komb.: 1.35xI+0.75xIV+0.9xVI-1.5xVII	-319.48	486.61	-9681.60
117	Komb.: 1.35xI+0.75xIV-0.9xVI+1.5xVII	319.48	-486.61	-9553.97
118	Komb.: 1.35xI+0.75xIV-0.9xVI-1.5xVII	15.38	333.23	-9873.04
119	Komb.: 1.35xI+1.5xII+0.75xIV+0.9xV	0.00	0.00	-10769.92
120	Komb.: 1.35xI+1.5xII+0.75xIV-0.9xVII	-91.23	245.95	-9964.98
121	Komb.: 1.35xI+1.5xII+0.75xIV-0.9xVII	-91.23	245.95	-10752.48
122	Komb.: 1.35xI+1.5xII+0.75xIV+0.9xVII	91.23	-245.95	-10561.03
123	Komb.: 1.35xI+0.75xIV-1.5xVI-0.9xVII	187.82	118.13	-9873.04
124	Komb.: I+1.05xII+1.5xIII-0.9xVII	-91.23	245.95	-8090.68
125	Komb.: I+1.05xII+1.5xIV+0.9xV	0.00	0.00	-8148.45
126	Komb.: I+1.05xII+1.5xIII+0.9xVII	91.23	-245.95	-7899.24
127	Komb.: I+1.05xII+0.9xVI+1.5xVII	-15.38	-333.23	-7488.23
128	Komb.: I+1.05xII+0.9xVI-1.5xVII	-319.48	486.61	-7807.31
129	Komb.: I+1.05xII-0.9xVI+1.5xVII	319.48	-486.61	-7679.68
130	Komb.: I+1.05xII-0.9xVI-1.5xVII	15.38	333.23	-7998.75
131	Komb.: I+1.05xII+1.5xIV-0.9xVII	-91.23	245.95	-8131.01
132	Komb.: I+1.05xII+1.5xIV+0.9xVII	91.23	-245.95	-7939.56
133	Komb.: I+1.05xII-1.5xVI-0.9xVII	187.82	118.13	-7998.75
134	Komb.: I+1.05xII-1.5xVI+0.9xVII	370.28	-373.77	-7807.31
135	Komb.: I+1.05xII+1.5xVI-0.9xVII	-370.28	373.77	-7679.68
136	Komb.: I+1.05xII+1.5xVI+0.9xVII	-187.82	-118.13	-7488.23
137	Komb.: I+1.05xII+1.5xIII+0.9xV	0.00	0.00	-8108.12
138	Komb.: I+1.5xIII-0.9xVI-0.9xVII	76.20	169.26	-7459.13

No	Naziv	pX [kN]	pY [kN]	pZ [kN]
139	Komb.: I+1.05xII+0.75xIV-1.5xVII	-152.05	409.92	-8048.92
140	Komb.: I+1.05xII+0.75xIV+1.5xVII	152.05	-409.92	-7729.85
141	Komb.: I+1.5xII-0.9xVI-0.9xVII	76.20	169.26	-8246.63
142	Komb.: I+1.05xII+1.5xIII+0.75xIV	0.00	0.00	-8140.86
143	Komb.: I+1.5xIII-0.9xVI+0.9xVII	258.66	-322.64	-7267.68
144	Komb.: I+1.5xIV+0.9xVI+0.9xVII	-76.20	-169.26	-7116.56
145	Komb.: I+1.05xII+0.75xIV+1.5xV	0.00	0.00	-8077.99
146	Komb.: I+1.5xIV-0.9xVI-0.9xVII	76.20	169.26	-7499.45
147	Komb.: I+1.5xIV-0.9xVI+0.9xVII	258.66	-322.64	-7308.01
148	Komb.: I+1.5xIV+0.9xVI-0.9xVII	-258.66	322.64	-7308.01
149	Komb.: I+1.5xIII+0.9xVI-0.9xVII	-258.66	322.64	-7267.68
150	Komb.: I+1.5xII-0.9xVI+0.9xVII	258.66	-322.64	-8055.18
151	Komb.: I+1.5xII+0.9xVI-0.9xVII	-258.66	322.64	-8055.18
152	Komb.: I+1.5xII+0.9xVI+0.9xVII	-76.20	-169.26	-7863.74
153	Komb.: I+1.5xIII+0.9xVI+0.9xVII	-76.20	-169.26	-7076.24
154	Komb.: 1.35xI+1.05xII+0.9xVI+0.9xVII	-76.20	-169.26	-10007.72
155	Komb.: 1.35xI+1.05xII+0.9xVI-0.9xVII	-258.66	322.64	-10199.17
156	Komb.: 1.35xI+1.05xII-0.9xVI-0.9xVII	76.20	169.26	-10390.61
157	Komb.: 1.35xI+1.05xII-0.9xVI+0.9xVII	258.66	-322.64	-10199.17
158	Komb.: I+1.5xII+0.75xIV-0.9xVII	-91.23	245.95	-8296.80
159	Komb.: I+1.5xII+0.75xIV+0.9xVII	91.23	-245.95	-8105.36
160	Komb.: I+1.5xIII+0.75xIV-0.9xVII	-91.23	245.95	-7509.30
161	Komb.: I+1.5xIII+0.75xIV+0.9xVII	91.23	-245.95	-7317.86
162	Komb.: I+0.75xIV-0.9xVI-1.5xVII	15.38	333.23	-7417.37
163	Komb.: I+0.75xIV-0.9xVI+1.5xVII	319.48	-486.61	-7098.30
164	Komb.: I+0.75xIV+0.9xVI-1.5xVII	-319.48	486.61	-7225.92
165	Komb.: I+0.75xIV+0.9xVI+1.5xVII	-15.38	-333.23	-6906.85
166	Komb.: I+1.5xII+0.75xIV+0.9xV	0.00	0.00	-8314.24
167	Komb.: I+0.75xIV+1.5xVI+0.9xVII	-187.82	-118.13	-6906.85
168	Komb.: I+0.75xIV-1.5xVI-0.9xVII	187.82	118.13	-7417.37
169	Komb.: I+1.5xIII+0.75xIV+0.9xV	0.00	0.00	-7526.74
170	Komb.: I+0.75xIV-1.5xVI+0.9xVII	370.28	-373.77	-7225.92
171	Komb.: I+0.75xIV+1.5xVI-0.9xVII	-370.28	373.77	-7098.30
172	Komb.: 1.35xI+1.05xII+0.75xIV+0.9xVII	91.23	-245.95	-10249.34
173	Komb.: 1.35xI+1.05xII+0.75xIV-0.9xVII	-91.23	245.95	-10440.79
174	Komb.: 1.35xI+1.05xII+0.75xIV+0.9xV	0.00	0.00	-10458.23
175	Komb.: 1.35xI+0.75xIV+0.9xVI-0.9xVII	-258.66	322.64	-9617.79
176	Komb.: 1.35xI+0.75xIV+0.9xVI+0.9xVII	-76.20	-169.26	-9426.34
177	Komb.: 1.35xI+0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-9809.23
178	Komb.: 1.35xI+0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-9617.79
179	Komb.: 1.35xI+1.05xII+1.5xIV	0.00	0.00	-10490.96
180	Komb.: 1.35xI+1.05xII+1.5xIII	0.00	0.00	-10450.64
181	Komb.: 1.35xI+1.05xII+1.5xV	0.00	0.00	-10387.77
182	Komb.: 1.35xI+1.05xII-1.5xVII	-152.05	409.92	-10358.70
183	Komb.: 1.35xI+1.05xII+1.5xVII	152.05	-409.92	-10039.63

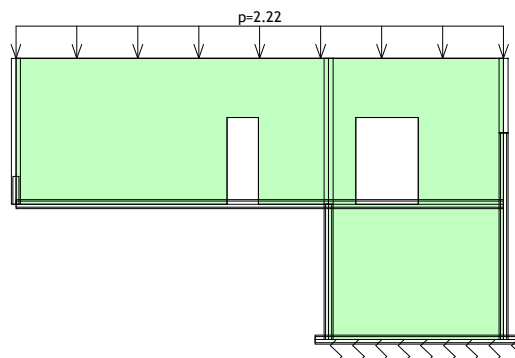
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No	Naziv	pX [kN]	pY [kN]	pZ [kN]	No	Naziv	pX [kN]	pY [kN]	pZ [kN]
184	Komb.: I+1.05xII-0.9xVI+0.9xVII	258.66	-322.64	-7743.49	230	Komb.: I+1.5xVI+0.9xVII	-187.82	-118.13	-6760.96
185	Komb.: I+1.05xII-0.9xVI-0.9xVII	76.20	169.26	-7934.93	231	Komb.: I+0.9xVI+1.5xVII	-15.38	-333.23	-6760.96
186	Komb.: I+1.05xII+0.9xVI-0.9xVII	-258.66	322.64	-7743.49	232	Komb.: I+0.9xVI-1.5xVII	-319.48	486.61	-7080.03
187	Komb.: I+1.05xII+0.9xVI+0.9xVII	-76.20	-169.26	-7552.05	233	Komb.: I+1.5xII-0.9xVII	-91.23	245.95	-8150.90
188	Komb.: 1.35xI+1.5xII+0.9xV	0.00	0.00	-10624.02	234	Komb.: I+1.5xII+0.9xVII	91.23	-245.95	-7959.46
189	Komb.: 1.35xI+1.5xIV+0.9xV	0.00	0.00	-9876.84	235	Komb.: I+1.5xVI-0.9xVII	-370.28	373.77	-6952.40
190	Komb.: 1.35xI+1.5xIII+0.9xV	0.00	0.00	-9836.52	236	Komb.: I+1.5xIV+0.9xV	0.00	0.00	-7421.17
191	Komb.: 1.35xI-1.5xVI+0.9xVII	370.28	-373.77	-9535.70	237	Komb.: I-0.9xVI+1.5xVII	319.48	-486.61	-6952.40
192	Komb.: 1.35xI-1.5xVI-0.9xVII	187.82	118.13	-9727.15	238	Komb.: I-0.9xVI-1.5xVII	15.38	333.23	-7271.47
193	Komb.: 1.35xI+1.5xII+0.9xVII	91.23	-245.95	-10415.13	239	Komb.: 1.35xI+1.05xII+0.9xV	0.00	0.00	-10312.33
194	Komb.: 1.35xI-0.9xVI+1.5xVII	319.48	-486.61	-9408.07	240	Komb.: 1.35xI+1.05xII+0.9xVII	91.23	-245.95	-10103.44
195	Komb.: 1.35xI+1.5xII-0.9xVII	-91.23	245.95	-10606.58	241	Komb.: 1.35xI+1.05xII-0.9xVII	-91.23	245.95	-10294.89
196	Komb.: 1.35xI+0.9xVI-1.5xVII	-319.48	486.61	-9535.70	242	Komb.: I+1.5xIII+0.75xIV	0.00	0.00	-7413.58
197	Komb.: 1.35xI+0.9xVI+1.5xVII	-15.38	-333.23	-9216.63	243	Komb.: I+0.75xIV+1.5xVII	152.05	-409.92	-7002.57
198	Komb.: 1.35xI+1.5xVI-0.9xVII	-370.28	373.77	-9408.07	244	Komb.: I+0.75xIV+1.5xV	0.00	0.00	-7350.71
199	Komb.: 1.35xI+1.5xVI+0.9xVII	-187.82	-118.13	-9216.63	245	Komb.: I+1.5xII+0.75xIV	0.00	0.00	-8201.08
200	Komb.: 1.35xI+1.5xIV+0.9xVII	91.23	-245.95	-9667.96	246	Komb.: I+0.75xIV-1.5xVII	-152.05	409.92	-7321.65
201	Komb.: 1.35xI+1.5xIV-0.9xVII	-91.23	245.95	-9859.40	247	Komb.: 1.35xI+0.9xVI-0.9xVII	-258.66	322.64	-9471.89
202	Komb.: 1.35xI-0.9xVI-1.5xVII	15.38	333.23	-9727.15	248	Komb.: 1.35xI+0.9xVI+0.9xVII	-76.20	-169.26	-9280.44
203	Komb.: 1.35xI+1.5xIII+1.5xII-0.9xVII	-91.23	245.95	-9819.08	249	Komb.: 1.35xI-0.9xVI-0.9xVII	76.20	169.26	-9663.33
204	Komb.: 1.35xI+1.5xIII+0.9xVII	91.23	-245.95	-9627.64	250	Komb.: 1.35xI-0.9xVI+0.9xVII	258.66	-322.64	-9471.89
205	Komb.: I+1.05xII+0.75xIV+0.9xV	0.00	0.00	-8002.55	251	Komb.: 1.35xI+1.05xII+0.75xIV	0.00	0.00	-10345.06
206	Komb.: I+1.05xII+0.75xIV+0.9xVII	91.23	-245.95	-7793.67	252	Komb.: 1.35xI+0.75xIV-0.9xVII	-91.23	245.95	-9713.51
207	Komb.: I+1.05xII+0.75xIV-0.9xVII	-91.23	245.95	-7985.11	253	Komb.: 1.35xI+0.75xIV+0.9xV	0.00	0.00	-9730.95
208	Komb.: 1.35xI+1.5xIII+0.75xIV	0.00	0.00	-9869.26	254	Komb.: 1.35xI+0.75xIV+0.9xVII	91.23	-245.95	-9522.06
209	Komb.: 1.35xI+0.75xIV+1.5xVII	152.05	-409.92	-9458.25	255	Komb.: I+1.05xII-0.9xVII	-91.23	245.95	-7839.21
210	Komb.: 1.35xI+0.75xIV-1.5xVII	-152.05	409.92	-9777.32	256	Komb.: I+1.05xII+0.9xV	0.00	0.00	-7856.65
211	Komb.: 1.35xI+1.5xII+0.75xIV	0.00	0.00	-10656.75	257	Komb.: I+1.05xII+0.9xVII	91.23	-245.95	-7647.77
212	Komb.: 1.35xI+0.75xIV+1.5xV	0.00	0.00	-9806.39	258	Komb.: 1.35xI+1.5xIV	0.00	0.00	-9763.68
213	Komb.: I+0.75xIV-0.9xVI-0.9xVII	76.20	169.26	-7353.55	259	Komb.: 1.35xI+1.5xII	0.00	0.00	-10510.86
214	Komb.: I+0.75xIV-0.9xVI+0.9xVII	258.66	-322.64	-7162.11	260	Komb.: 1.35xI+1.5xIII	0.00	0.00	-9723.36
215	Komb.: I+0.75xIV+0.9xVI+0.9xVII	-76.20	-169.26	-6970.67	261	Komb.: 1.35xI+1.5xVII	152.05	-409.92	-9312.35
216	Komb.: I+0.75xIV+0.9xVI-0.9xVII	-258.66	322.64	-7162.11	262	Komb.: 1.35xI-1.5xVII	-152.05	409.92	-9631.42
217	Komb.: I+1.05xII-1.5xVII	-152.05	409.92	-7903.03	263	Komb.: 1.35xI+1.5xV	0.00	0.00	-9660.49
218	Komb.: I+1.05xII+1.5xVII	152.05	-409.92	-7583.96	264	Komb.: I+0.9xVI-0.9xVII	-258.66	322.64	-7016.21
219	Komb.: I+1.05xII+1.5xIII	0.00	0.00	-7994.96	265	Komb.: I+0.9xVI+0.9xVII	-76.20	-169.26	-6824.77
220	Komb.: I+1.05xII+1.5xV	0.00	0.00	-7932.09	266	Komb.: I-0.9xVI+0.9xVII	258.66	-322.64	-7016.21
221	Komb.: I+1.05xII+1.5xIV	0.00	0.00	-8035.29	267	Komb.: I+1.05xII+0.75xIV	0.00	0.00	-7889.39
222	Komb.: I+1.5xIII+0.9xV	0.00	0.00	-7380.85	268	Komb.: I-0.9xVI-0.9xVII	76.20	169.26	-7207.66
223	Komb.: I-1.5xVI+0.9xVII	370.28	-373.77	-7080.03	269	Komb.: I+0.75xIV+0.9xVII	91.23	-245.95	-7066.39
224	Komb.: I+1.5xIV+0.9xVII	91.23	-245.95	-7212.29	270	Komb.: I+0.75xIV-0.9xVII	-91.23	245.95	-7257.83
225	Komb.: I+1.5xIV-0.9xVII	-91.23	245.95	-7403.73	271	Komb.: I+0.75xIV+0.9xV	0.00	0.00	-7275.27
226	Komb.: I+1.5xII+0.9xVII	91.23	-245.95	-7171.96	272	Komb.: I+1.5xII	0.00	0.00	-8055.18
227	Komb.: I-1.5xVI-0.9xVII	187.82	118.13	-7271.47	273	Komb.: I+1.5xIII	0.00	0.00	-7267.68
228	Komb.: I+1.5xIII-0.9xVII	-91.23	245.95	-7363.41	274	Komb.: I+1.5xVII	152.05	-409.92	-6856.68
229	Komb.: I+1.5xII+0.9xV	0.00	0.00	-8168.34	275	Komb.: I+1.5xIV	0.00	0.00	-7308.01
					276	Komb.: I+1.5xV	0.00	0.00	-7204.82
					277	Komb.: I-1.5xVII	-152.05	409.92	-7175.75
					278	Komb.: 1.35xI+1.05xII	0.00	0.00	-10199.17
					279	Komb.: 1.35xI+0.9xV	0.00	0.00	-9585.05
					280	Komb.: 1.35xI-0.9xVII	-91.23	245.95	-9567.61
					281	Komb.: 1.35xI+0.9xVII	91.23	-245.95	-9376.17
					282	Komb.: 1.35xI+0.75xIV	0.00	0.00	-9617.79
					283	Komb.: I+1.05xII	0.00	0.00	-7743.49
					284	Komb.: I+IX			
					285	Komb.: I-1xIX			
					286	Komb.: I-1xVIII			
					287	Komb.: I+VIII			
					288	Komb.: I+0.9xV	0.00	0.00	-7129.38
					289	Komb.: I+0.9xVII	91.23	-245.95	-6920.49
					290	Komb.: I-0.9xVII	-91.23	245.95	-7111.93
					291	Komb.: I+0.75xIV	0.00	0.00	-7162.11
					292	Komb.: 1.35xI	0.00	0.00	-9471.89
					293	Komb.: I	0.00	0.00	-7016.21

Obt. 1: lastna + stalna (g)

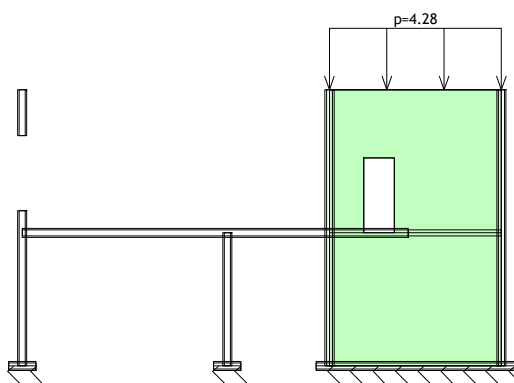


Obt. 1: lastna + stalna (g)



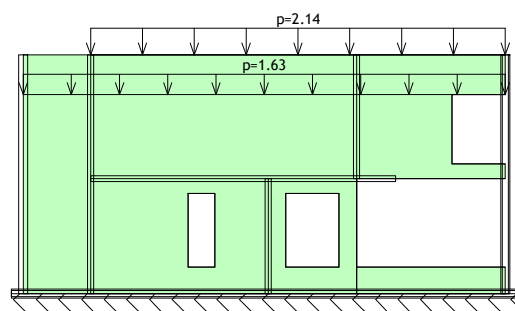
Nivo: [3.90 m]

Obt. 1: lastna + stalna (g)



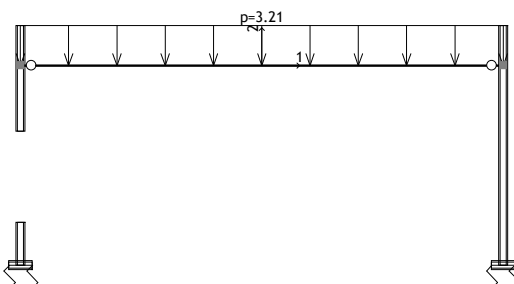
Okvir: V_3

Obt. 1: lastna + stalna (g)



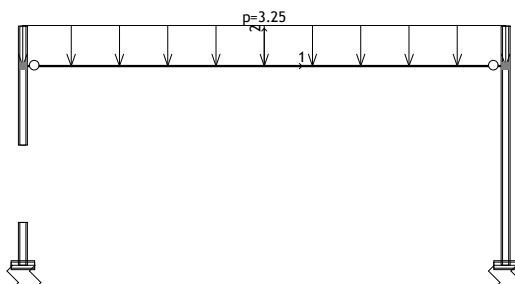
Okvir: V_6

Obt. 1: lastna + stalna (g)



Okvir: V_7

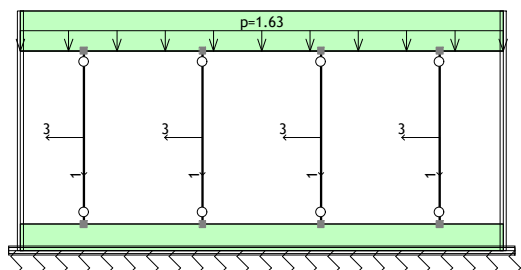
Obt. 1: lastna + stalna (g)



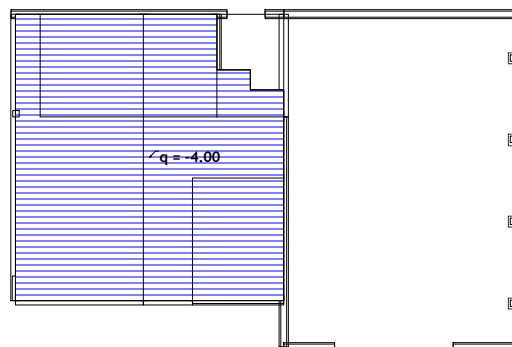
Okvir: V_8

Okvir: V_9

Obt. 1: lastna + stalna (g)

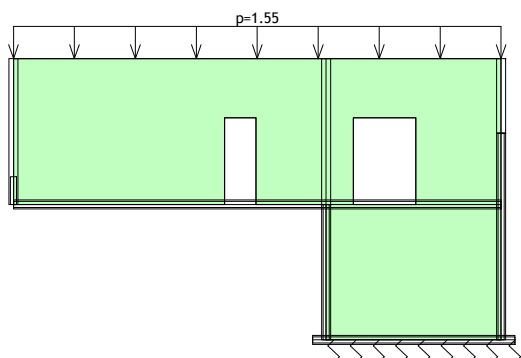


Obt. 2: korisna



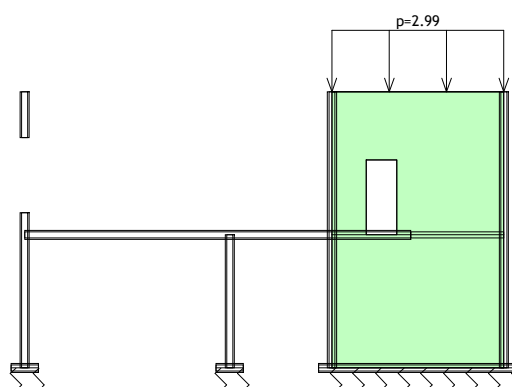
Okvir: V_4

Obt. 3: korisna na strehi



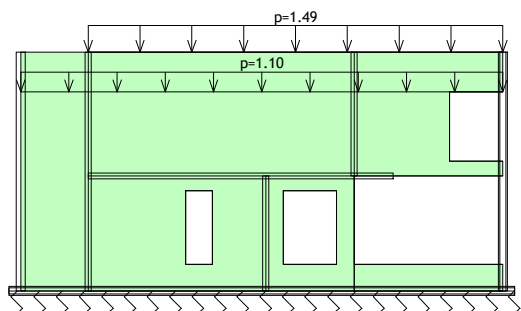
Nivo: [3.90 m]

Obt. 3: korisna na strehi



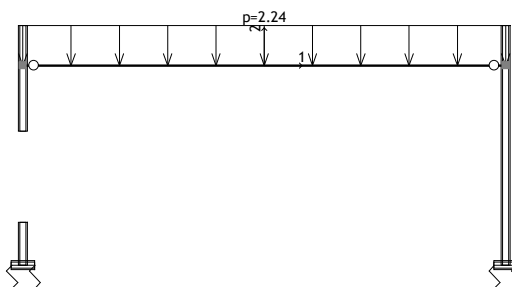
Okvir: V_3

Obt. 3: korisna na strehi



Okvir: V_6

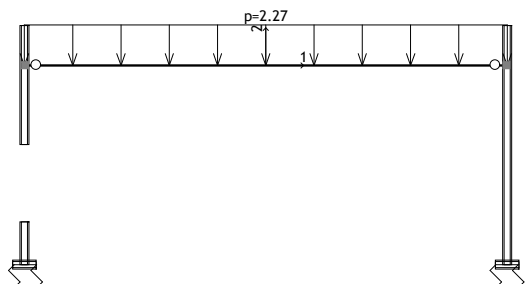
Obt. 3: korisna na strehi



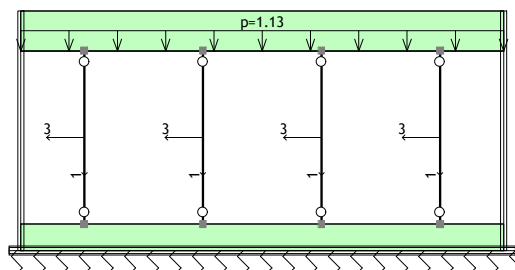
Okvir: V_7

Okvir: V_8

Obt. 3: korisna na strehi

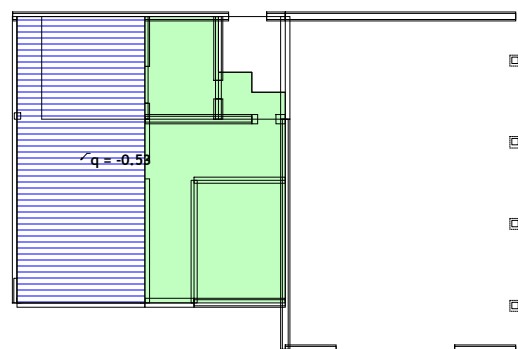


Obt. 3: korisna na strehi



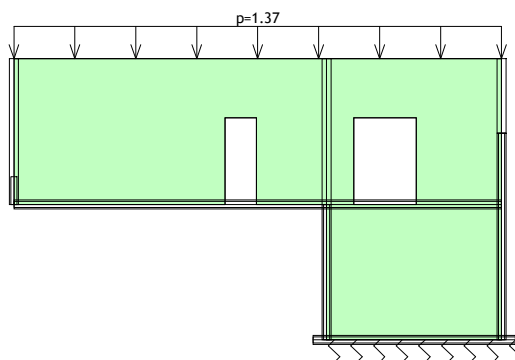
Okvir: V_9

Obt. 4: sneg



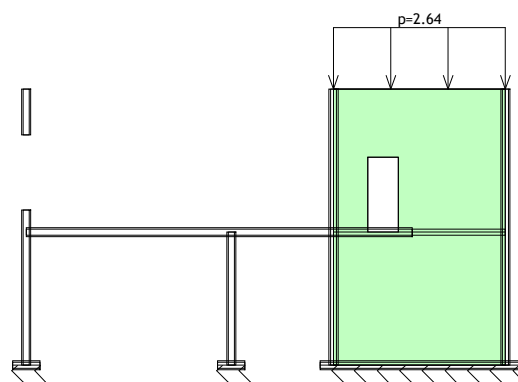
Okvir: V_4

Obt. 4: sneg



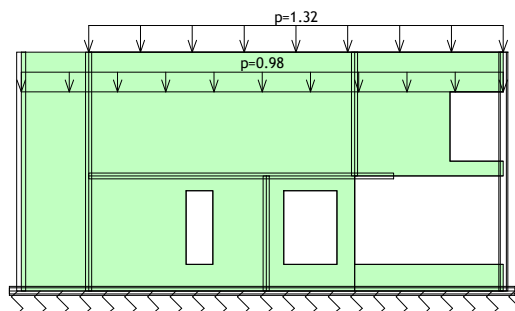
Nivo: [3.90 m]

Obt. 4: sneg



Okvir: V_3

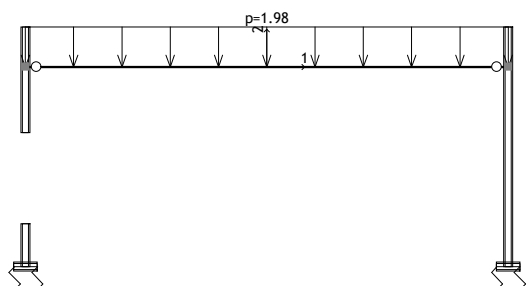
Obt. 4: sneg



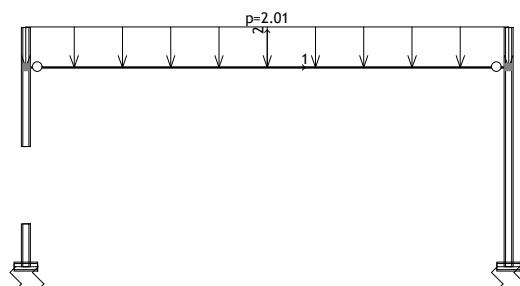
Okvir: V_6

Okvir: V_7

Obt. 4: sneg

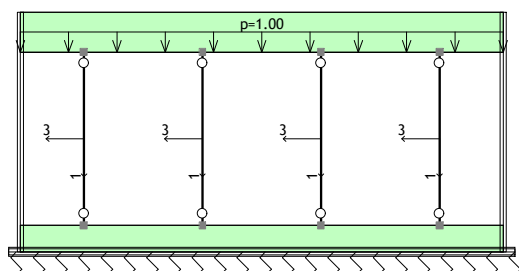


Obt. 4: sneg



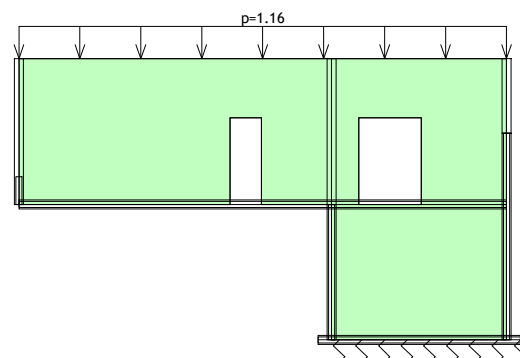
Okvir: V_8

Obt. 4: sneg



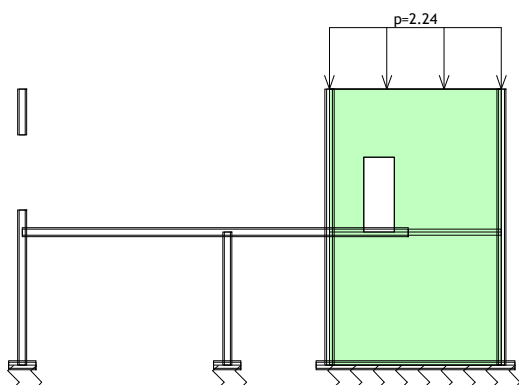
Okvir: V_9

Obt. 5: pritisk vetra



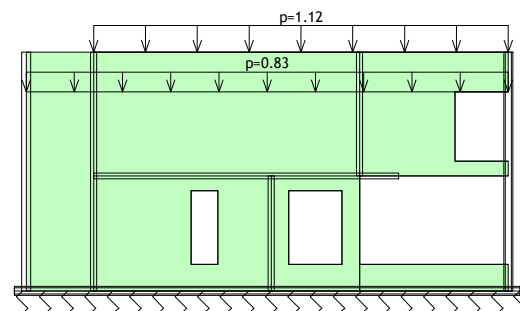
Okvir: V_4

Obt. 5: pritisk vetra



Okvir: V_3

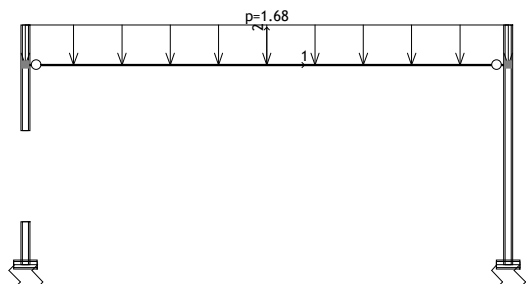
Obt. 5: pritisk vetra



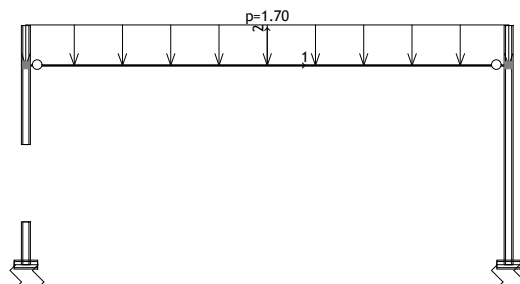
Okvir: V_6

Okvir: V_7

Obt. 5: pritisk vetra

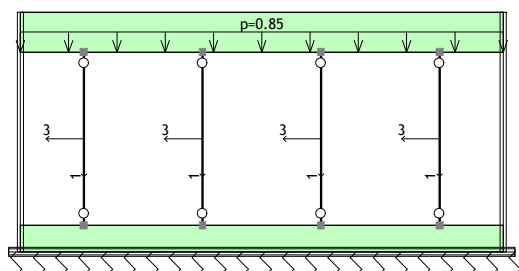


Obt. 5: pritisk vetra



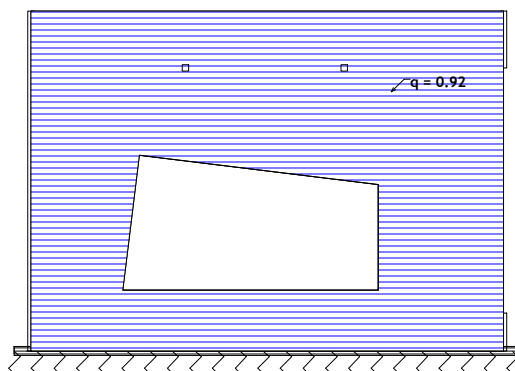
Okvir: V_8

Obt. 5: pritisk vetra



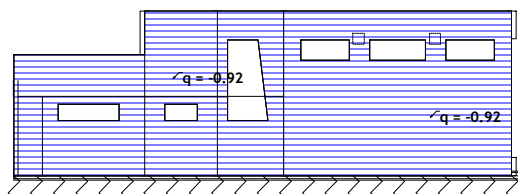
Okvir: V_9

Obt. 6: veter smer X



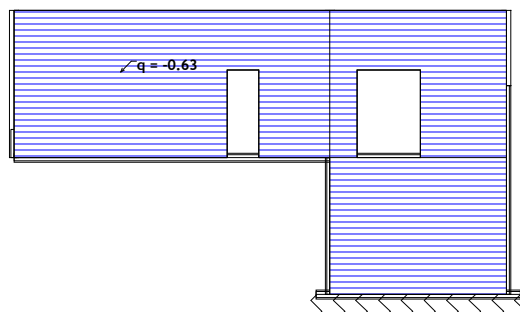
Okvir: V_4

Obt. 6: veter smer X



Okvir: H_1

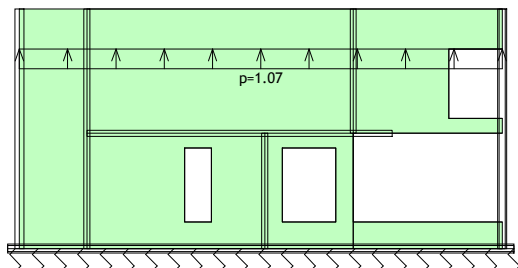
Obt. 6: veter smer X



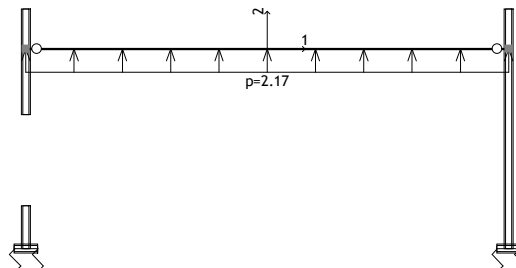
Okvir: H_3

Okvir: V_3

Obt. 6: vater smer X

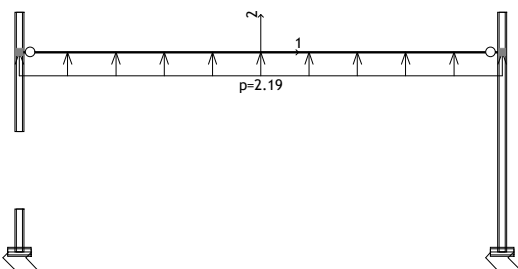


Obt. 6: vater smer X



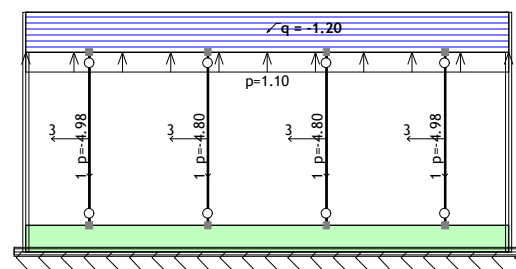
Okvir: V_7

Obt. 6: vater smer X



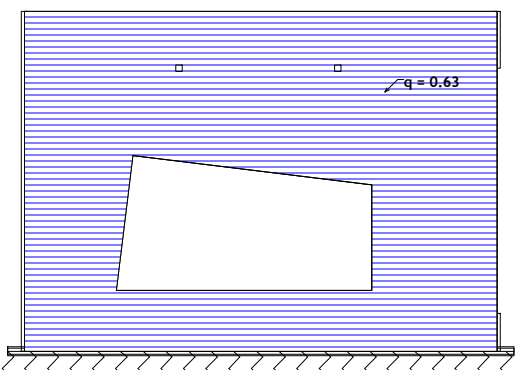
Okvir: V_8

Obt. 6: vater smer X



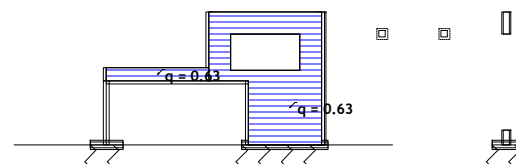
Okvir: V_9

Obt. 7: vater smer y



Okvir: V_4

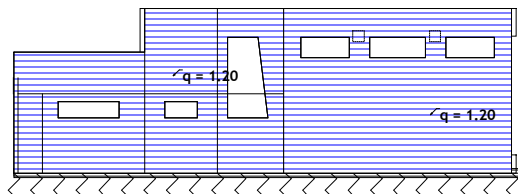
Obt. 7: vater smer y



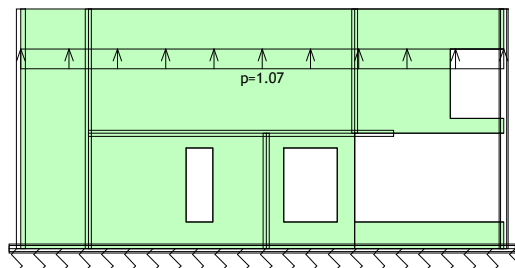
Okvir: H_1

Okvir: H_2

Obt. 7: veter smer y

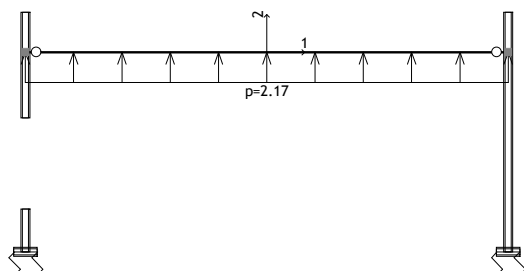


Obt. 7: veter smer y



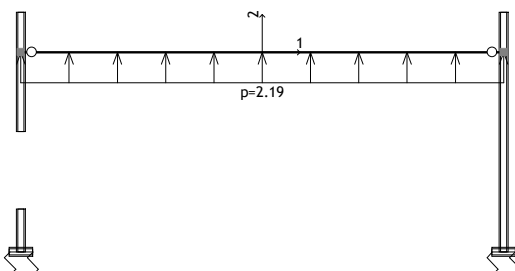
Okvir: H_3

Obt. 7: veter smer y



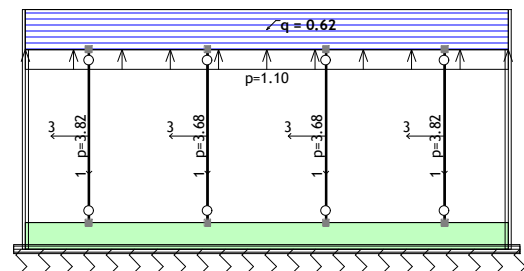
Okvir: V_7

Obt. 7: veter smer y



Okvir: V_8

Obt. 7: veter smer y



Okvir: V_9

Okvir: V_4

Modalna analiza

Napredne opcije seizmi nega prera una:

Ploz e - redukcija togosti na upogib: 0.500
 Grede - redukcija togosti na upogib: 0.500
 Zidovi - redukcija togosti na upogib: 0.500
 Zidovi - redukcija osne togosti: 0.500
 Prepre eno nihanje v Z smeri

Faktorji obteob za prera un mas

No	Naziv	Koeficient
1	lastna + stalna (g)	1.00
2	koristna	0.00
3	koristna na strehi	0.00
4	sneg	0.00

No	Naziv	Koeficient
5	pritisak vetra	0.00
6	veter smer X	0.00
7	veter smer y	0.00

Razporeditev mas po vizini objekta

Nivo	Z [m]	X [m]	Y [m]	Masa [T]	T/m2
	8.10	5.78	6.89	48.42	
	6.75	6.07	6.45	113.22	
	3.90	0.03	7.18	292.05	1.69
	0.00	3.83	7.31	261.77	2.65
Skupno:	3.21	2.77	7.09	715.45	

Poloaj centra togosti po vizini objekta

Nivo	Z [m]	X [m]	Y [m]
	8.10	8.37	6.20
	6.75	6.33	6.55
	3.90	-1.87	12.59
	0.00	10.06	8.67

Ekscentriciteta po vizini objekta

Nivo	Z [m]	eox [m]	eoy [m]
	8.10	2.60	0.69
	6.75	0.26	0.11
	3.90	1.90	5.41
	0.00	6.24	1.36

Nihajne dobe konstrukcije

No	T [s]	f [Hz]	No	T [s]	f [Hz]	No	T [s]	f [Hz]
1	0.4962	2.0155	8	0.1133	8.8231	15	0.0794	12.5922
2	0.4483	2.2307	9	0.1025	9.7586	16	0.0764	13.0933
3	0.2223	4.4989	10	0.0979	10.2137	17	0.0714	14.0036
4	0.1648	6.0693	11	0.0934	10.7097	18	0.0688	14.5317
5	0.1558	6.4200	12	0.0887	11.2790	19	0.0641	15.6010
6	0.1529	6.5384	13	0.0881	11.3509	20	0.0623	16.0504
7	0.1240	8.0632	14	0.0799	12.5140	21	0.0616	16.2208

Seizmi ni prera un

Seizmi ni prera un: EC8 SLO

Kategorija tal: C
Kategorija pomena: II (=1.0)
Razmerje ag/g: 0.17
Faktor obnazenja: 3
Koeeficient duzenja: 0.05
S: 1
Tb: 0.15
Tc: 0.4
Td: 2

Faktorji smeri potresa:

Naziv	Kx	Ky	Kz
potres X	1.000	0.300	0.000
potres Y	0.300	1.000	0.000

potres X

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]
	8.10	0.12	7.74	-0.01	8.46	-0.20	-0.01	0.06	0.44	0.00
	6.75	0.19	17.61	0.01	12.37	-0.33	-0.02	0.42	5.74	0.02
	3.90	-0.05	6.28	-0.08	0.49	-0.02	0.09	-0.14	5.24	0.05
	0.00	0.01	0.89	-0.01	0.32	-0.01	-0.00	0.05	1.11	-0.00
	Σ =	0.26	32.51	-0.08	21.65	-0.56	0.06	0.39	12.53	0.06

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]
	8.10	35.92	2.93	0.40	0.41	0.89	0.00	0.21	0.59	-0.01
	6.75	46.43	5.42	-0.29	0.77	5.06	0.01	1.17	-0.18	-0.07
	3.90	60.15	0.06	20.31	1.53	7.29	0.23	3.17	-1.56	-0.22
	0.00	17.62	1.50	-0.29	0.40	2.16	-0.02	0.65	-0.23	-0.01
	Σ =	160.12	9.92	20.13	3.11	15.41	0.22	5.20	-1.38	-0.31

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]
	8.10	4.21	22.32	1.09	8.39	4.39	-0.90	13.33	-7.43	-1.39
	6.75	11.95	37.53	2.06	46.06	5.19	-3.57	23.54	-13.36	-4.34
	3.90	17.93	132.95	13.77	145.79	-53.17	10.93	117.40	2.59	5.75
	0.00	9.08	45.24	-0.35	59.81	-12.00	-0.31	58.06	-5.12	-0.90
	Σ =	43.18	238.04	16.57	260.05	-55.59	6.16	212.33	-23.31	-0.89

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]
	8.10	9.97	-6.99	-0.85	0.08	0.25	0.01	1.85	0.32	-0.17
	6.75	25.71	-7.37	-2.07	0.18	0.24	0.02	3.78	-1.21	-0.39
	3.90	16.41	10.59	-2.40	0.10	-1.27	0.05	-1.64	-5.81	-1.01
	0.00	23.00	-2.38	-0.13	0.18	-0.70	0.01	2.42	-3.86	-0.02
	Σ =	75.09	-6.15	-5.45	0.54	-1.48	0.10	6.41	-10.56	-1.59

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]
	8.10	0.61	-2.11	0.06	-0.06	0.30	0.00	0.05	-1.74	-0.21
	6.75	2.02	-1.62	0.08	-0.05	0.16	-0.01	2.33	-1.61	-0.48
	3.90	-1.06	6.03	0.34	0.25	-0.57	0.05	4.67	1.46	-1.18
	0.00	1.01	2.74	-0.00	0.13	-0.39	-0.00	6.05	-0.27	0.01
	Σ =	2.57	5.05	0.48	0.27	-0.50	0.05	13.11	-2.16	-1.86

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]
	8.10	0.04	0.06	0.05	-0.15	0.05	-0.04	-4.85	-0.23	-0.34
	6.75	0.85	-0.25	0.04	-0.42	0.16	-0.04	-2.76	0.15	-0.49
	3.90	-0.46	-0.13	0.42	1.10	-0.48	-0.26	11.71	1.02	-3.45
	0.00	0.48	-0.41	-0.02	0.65	-0.27	0.01	5.81	1.22	0.06
	Σ =	0.91	-0.74	0.49	1.18	-0.54	-0.33	9.91	2.15	-4.22

Nivo	Z [m]	Ton 19			Ton 20			Ton 21		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
	8.10	-5.57	-0.81	0.36	-0.61	0.02	0.07	-0.01	0.01	0.00
	6.75	-1.39	-0.19	0.50	0.42	-0.46	0.07	-0.00	0.00	0.00
	3.90	12.43	0.84	2.29	0.85	-0.39	0.20	0.02	0.00	0.00
	0.00	11.98	-0.95	-0.16	1.67	-1.13	-0.02	-0.00	0.02	0.00
	Σ =	17.45	-1.11	3.00	2.33	-1.96	0.32	-0.01	0.03	0.01

Nivo	Z [m]	Vsi toni		
		Px [kN]	Py [kN]	Pz [kN]
	8.10	72.47	20.79	-1.89
	6.75	173.56	50.68	-8.94
	3.90	390.64	110.99	45.89
	0.00	199.38	27.16	-2.14
	Σ =	836.04	209.62	32.92

potres Y

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]
	8.10	0.39	25.18	-0.03	2.34	-0.05	-0.00	0.19	1.34	0.01
	6.75	0.61	57.28	0.04	3.42	-0.09	-0.01	1.27	17.48	0.05
	3.90	-0.17	20.45	-0.24	0.14	-0.01	0.03	-0.42	15.97	0.14
	0.00	0.03	2.88	-0.03	0.09	-0.00	-0.00	0.16	3.37	-0.00
	Σ =	0.86	105.79	-0.27	5.98	-0.16	0.02	1.20	38.17	0.19

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]
	8.10	12.76	1.04	0.14	0.87	1.88	0.01	0.01	0.02	-0.00
	6.75	16.50	1.93	-0.10	1.62	10.70	0.02	0.04	-0.01	-0.00
	3.90	21.37	0.02	7.22	3.24	15.42	0.48	0.12	-0.06	-0.01
	0.00	6.26	0.53	-0.10	0.85	4.57	-0.04	0.02	-0.01	-0.00
	$\Sigma=$	56.90	3.52	7.15	6.57	32.57	0.46	0.20	-0.05	-0.01

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]
	8.10	9.23	48.89	2.39	0.77	0.40	-0.08	2.62	-1.46	-0.27
	6.75	26.18	82.20	4.52	4.25	0.48	-0.33	4.63	-2.63	-0.85
	3.90	39.27	291.21	30.15	13.44	-4.90	1.01	23.09	0.51	1.13
	0.00	19.89	99.09	-0.76	5.51	-1.11	-0.03	11.42	-1.01	-0.18
	$\Sigma=$	94.57	521.40	36.29	23.97	-5.12	0.57	41.76	-4.59	-0.17

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]
	8.10	2.23	-1.56	-0.19	-1.06	-3.27	-0.12	-4.93	-0.85	0.46
	6.75	5.75	-1.65	-0.46	-2.45	-3.19	-0.31	-10.09	3.22	1.05
	3.90	3.67	2.37	-0.54	-1.37	16.81	-0.72	4.38	15.49	2.69
	0.00	5.14	-0.53	-0.03	-2.33	9.29	-0.16	-6.45	10.30	0.05
	$\Sigma=$	16.79	-1.38	-1.22	-7.21	19.64	-1.30	-17.08	28.15	4.25

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]
	8.10	0.86	-3.01	0.09	0.23	-1.07	-0.01	0.01	-0.25	-0.03
	6.75	2.87	-2.30	0.12	0.18	-0.59	0.02	0.33	-0.23	-0.07
	3.90	-1.51	8.59	0.49	-0.91	2.03	-0.18	0.66	0.21	-0.17
	0.00	1.44	3.90	-0.01	-0.46	1.41	0.00	0.86	-0.04	0.00
	$\Sigma=$	3.66	7.19	0.69	-0.95	1.79	-0.17	1.86	-0.31	-0.26

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]
	8.10	-0.03	-0.04	-0.03	0.03	-0.01	0.01	-2.35	-0.11	-0.17
	6.75	-0.58	0.17	-0.03	0.08	-0.03	0.01	-1.34	0.07	-0.24
	3.90	0.31	0.09	-0.29	-0.20	0.08	0.05	5.69	0.49	-1.68
	0.00	-0.32	0.28	0.01	-0.12	0.05	-0.00	2.82	0.59	0.03
	$\Sigma=$	-0.62	0.50	-0.34	-0.21	0.10	0.06	4.81	1.05	-2.05

Nivo	Z [m]	Ton 19			Ton 20			Ton 21		
		Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]	Px [kN]	Py [kN]	Pz [kN]
	8.10	-1.34	-0.19	0.09	0.44	-0.01	-0.05	-0.12	0.07	0.00
	6.75	-0.33	-0.05	0.12	-0.30	0.33	-0.05	-0.03	0.03	0.02
	3.90	3.00	0.20	0.55	-0.61	0.28	-0.14	0.14	0.00	0.02
	0.00	2.89	-0.23	-0.04	-1.21	0.81	0.01	-0.03	0.14	0.00
	$\Sigma=$	4.21	-0.27	0.72	-1.68	1.41	-0.23	-0.04	0.24	0.05

Nivo	Z [m]	Vsi toni		
		Px [kN]	Py [kN]	Pz [kN]
	8.10	23.14	66.94	2.21
	6.75	52.59	163.14	3.51
	3.90	113.33	385.26	39.98
	0.00	46.48	134.30	-1.27
	$\Sigma=$	235.53	749.65	44.43

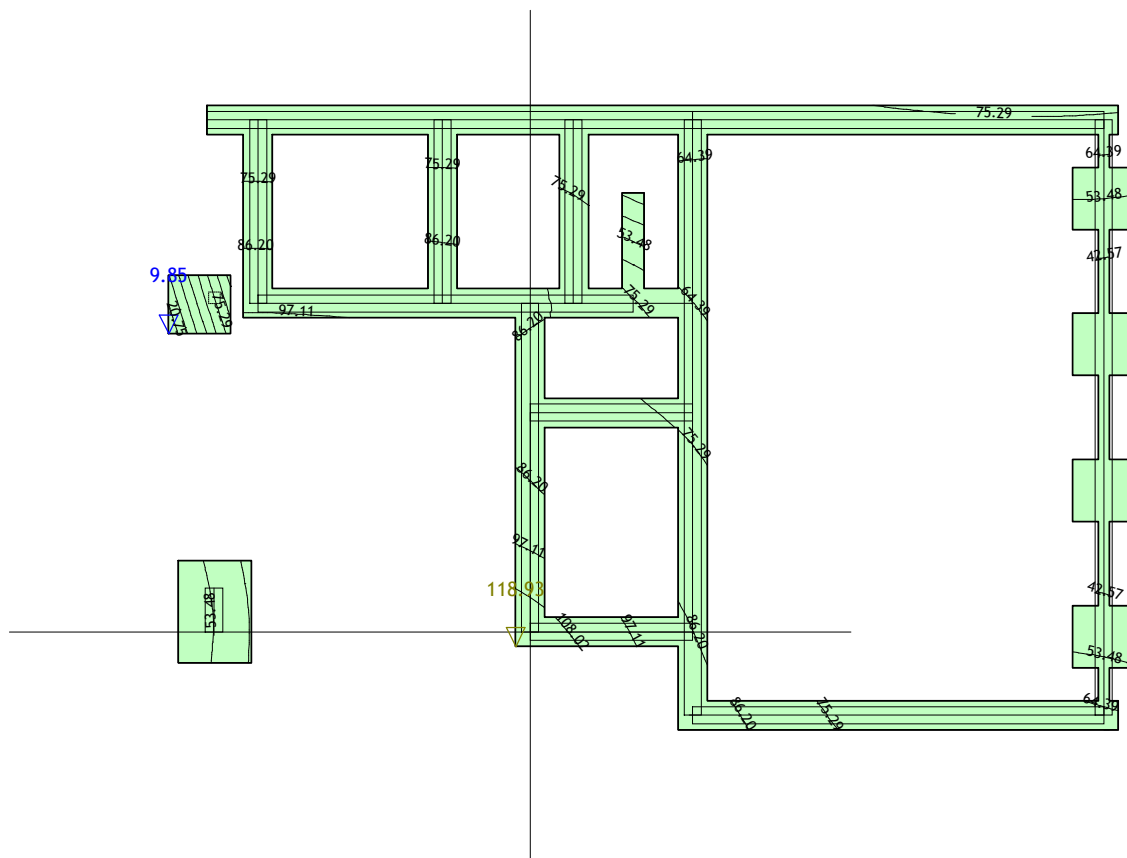
Faktorji participacije - relativno sodelovanje		
Ton \ Naziv	1. potres X	2. potres Y
1	0.011	0.129
2	0.024	0.002
3	0.005	0.047
4	0.181	0.025
5	0.009	0.042
6	0.005	0.000
7	0.127	0.670
8	0.271	0.003
9	0.228	0.010
10	0.081	0.004
11	0.000	0.021
12	0.004	0.028
13	0.005	0.010
14	0.000	0.002
15	0.014	0.000
16	0.001	0.000
17	0.001	0.000
18	0.012	0.003
19	0.019	0.001
20	0.002	0.001
21	0.000	0.000

Faktorji participacije - angažiranje mase						
Ton	UX (%)	UY (%)	UZ (%)	UX (%)	UY (%)	UZ (%)
1	0.00	12.79	0.00	0.00	12.79	0.00
2	2.39	0.00	0.00	2.39	12.80	0.00
3	0.00	3.70	0.00	2.39	16.49	0.00
4	15.36	0.06	0.24	17.76	16.55	0.24
5	0.12	3.00	0.00	17.88	19.55	0.24
6	0.55	0.04	0.00	18.43	19.59	0.25
7	1.65	50.06	0.24	20.08	69.65	0.49
8	28.55	1.30	0.02	48.63	70.96	0.50
9	22.91	0.28	0.00	71.54	71.23	0.50

10	8.09	0.05	0.04	79.63	71.29	0.55
11	0.31	2.33	0.01	79.94	73.62	0.56
12	1.35	3.66	0.08	81.29	77.28	0.64
13	0.17	0.66	0.01	81.46	77.95	0.65
14	0.07	0.23	0.00	81.53	78.18	0.65
15	1.49	0.04	0.03	83.01	78.22	0.68
16	0.13	0.09	0.04	83.14	78.30	0.72
17	0.15	0.03	0.01	83.29	78.33	0.73
18	1.02	0.05	0.18	84.31	78.38	0.91
19	1.96	0.01	0.06	86.28	78.39	0.97
20	0.35	0.24	0.01	86.62	78.63	0.98
21	0.00	0.03	0.00	86.62	78.66	0.98

Stati ni prera un

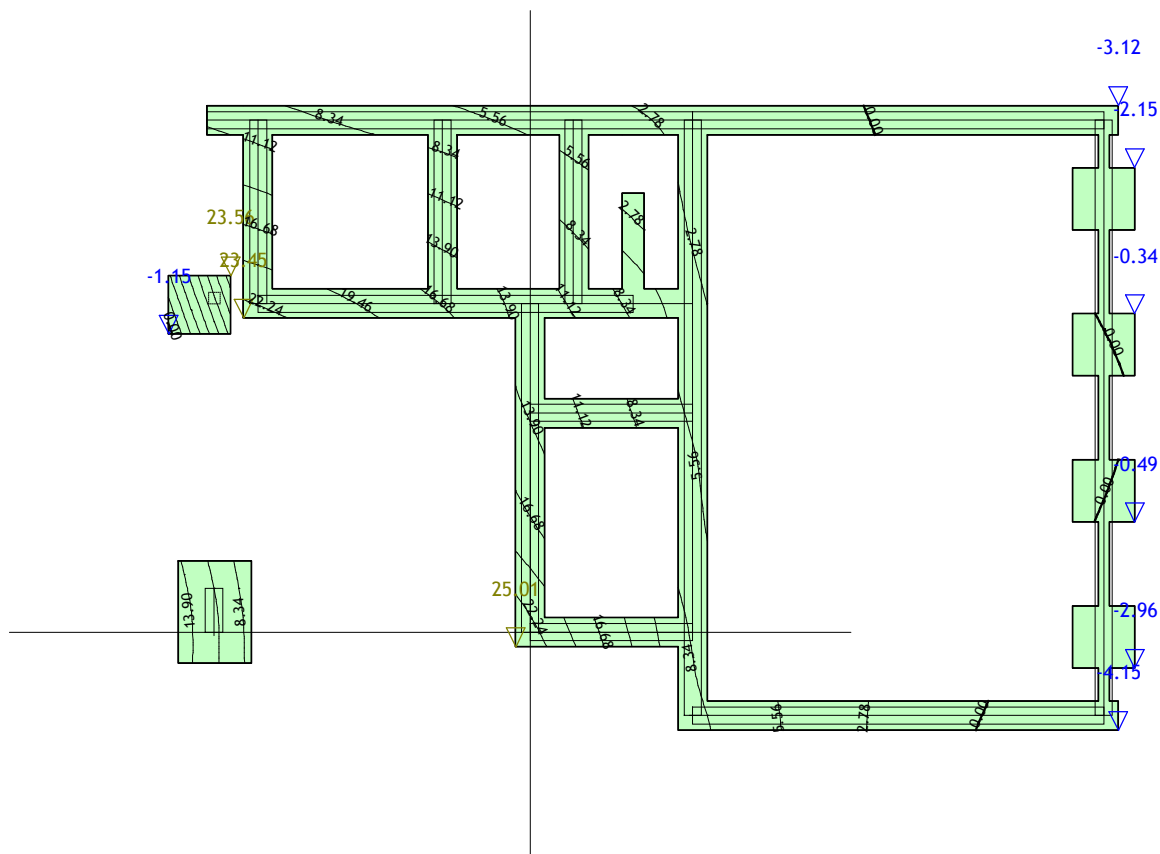
Obt. 1: lastna + stalna (g)



Nivo: [0.00 m]

Vplivi v pov.podpori: max ,tal= 118.93 / min ,tal= 9.85 kN/m²

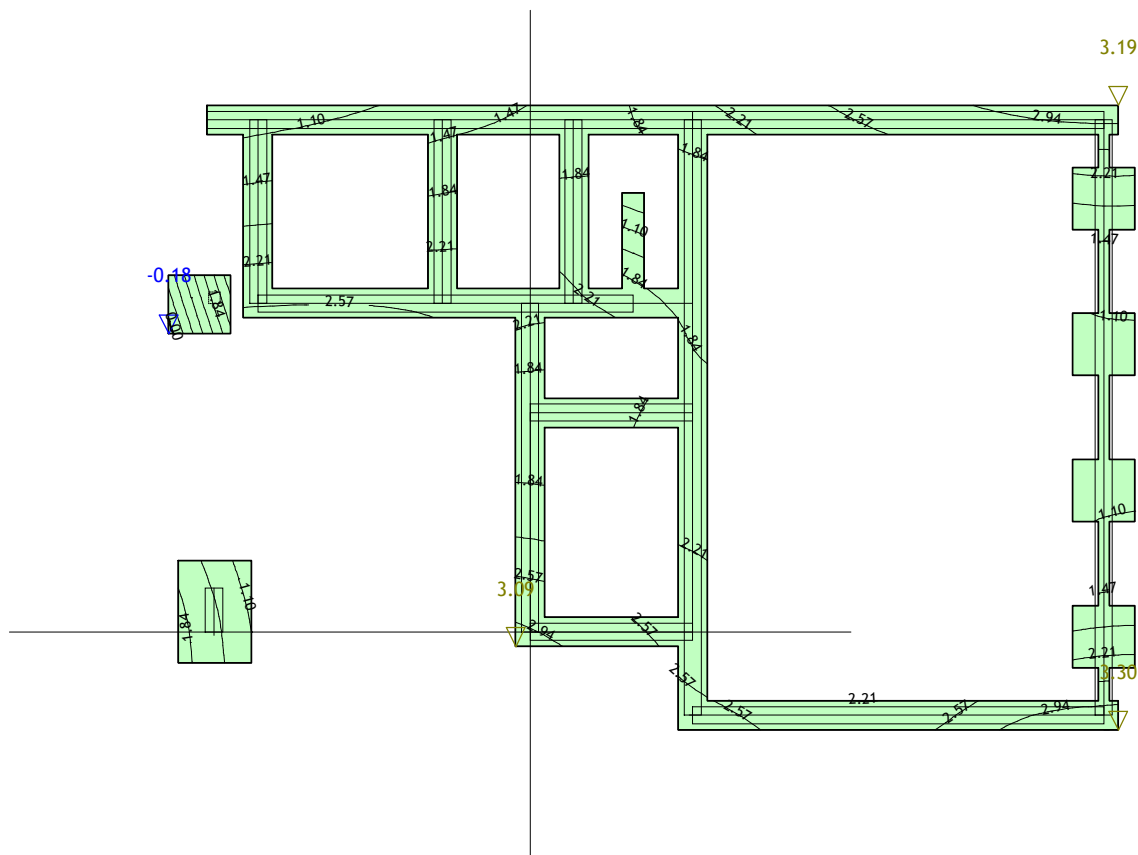
Obt. 2: koristna



Nivo: [0.00 m]

Vplivi v pov.podpori: max ,tal= 25.01 / min ,tal= -4.15 kN/m²

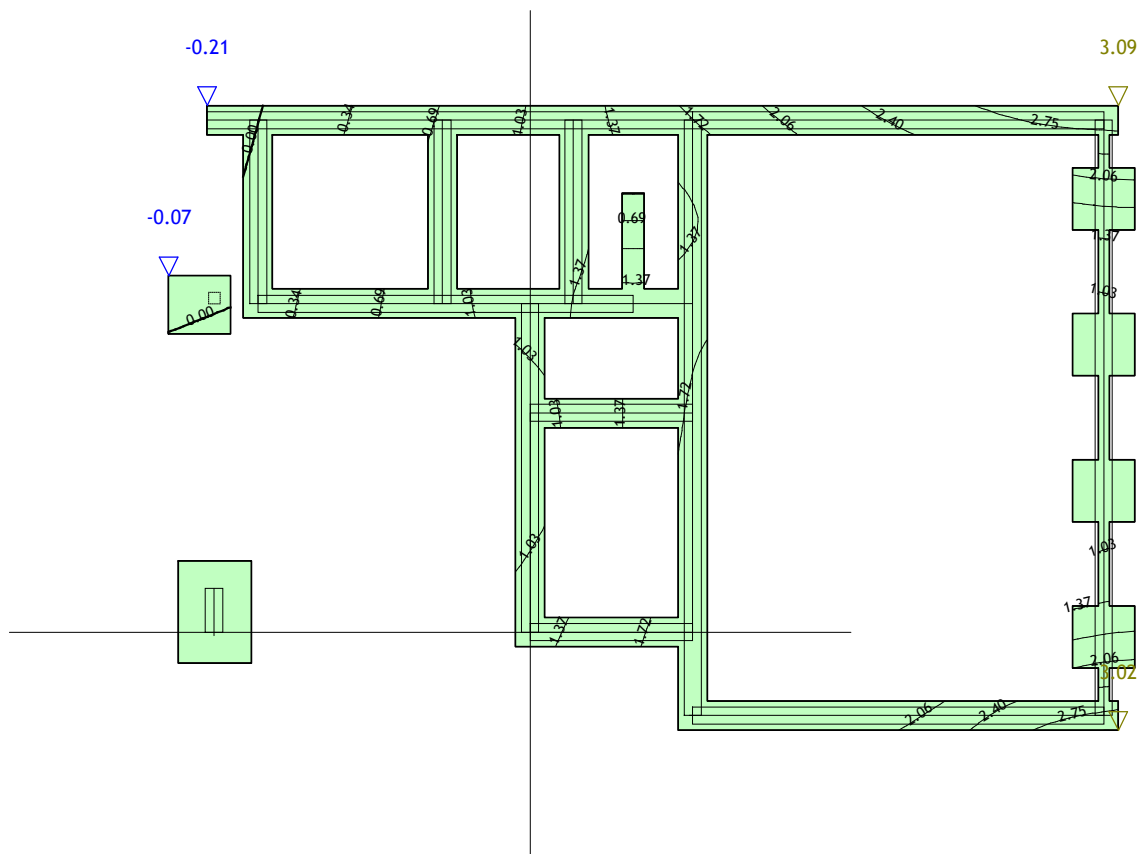
Obt. 4: sneg



Nivo: [0.00 m]

Vplivi v pov.podpori: max ,tal= 3.30 / min ,tal= -0.18 kN/m²

Obt. 5: pritisak vetra

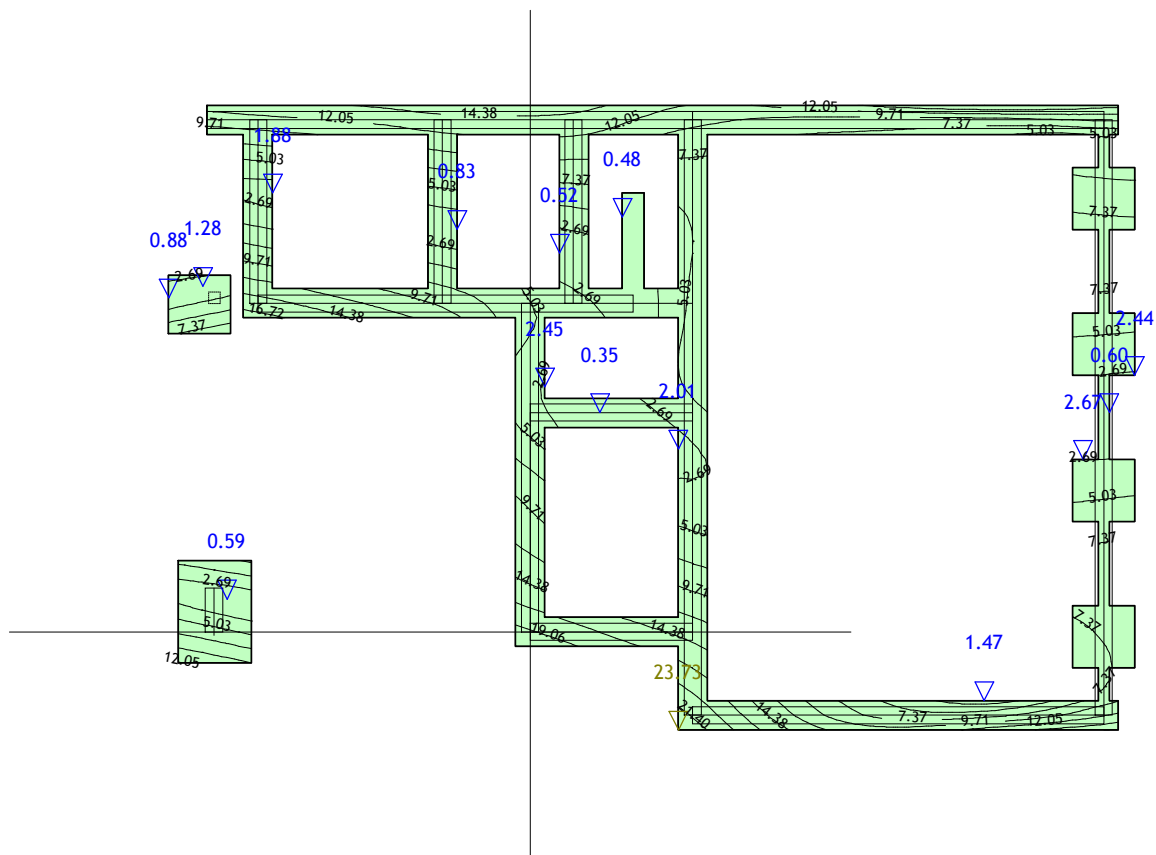


Nivo: [0.00 m]

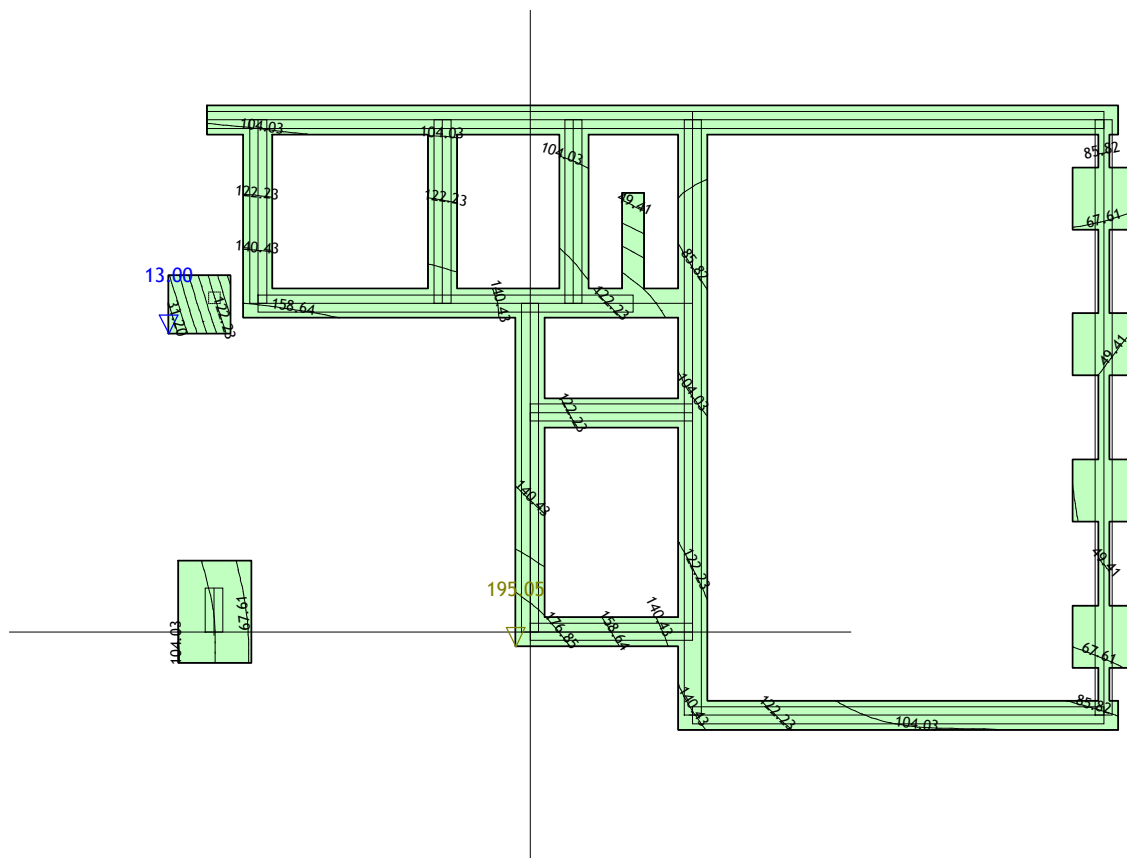
Vplivi v pov.podpori: max ,tal= 3.09 / min ,tal= -0.21 kN/m²

Vplivi v pov. podpori: max ,tal= 24.96 / min ,tal= 0.62 kN/m2

Obt. 9: potres Y



Obt. 11: 1.35xI+1.05xII+1.5xIII+0.75xIV+0.9xVI+0.9xVII

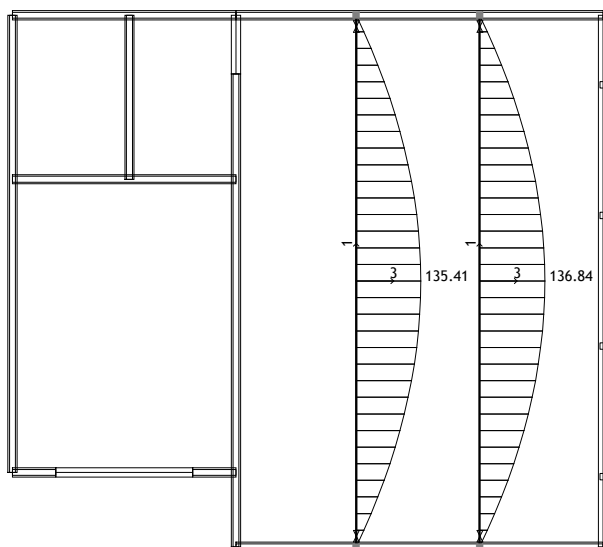


Nivo: [0.00 m]

Vplivi v pov.podpori: max ,tal= 195.05 / min ,tal= 13.00 kN/m2

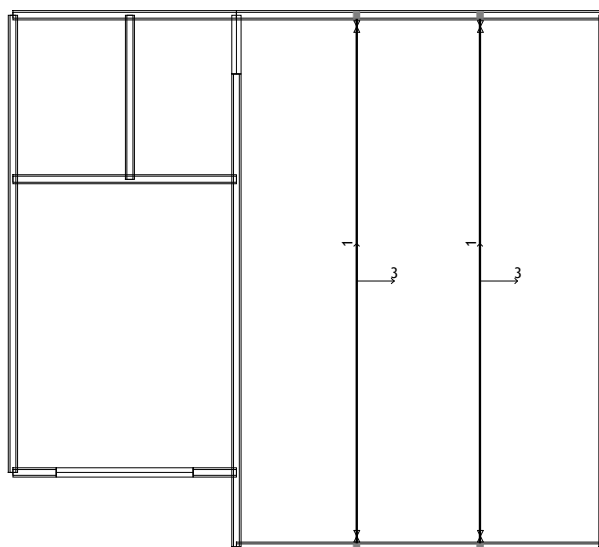
Obt. 1: lastna + stalna (g)

Obt. 2: koristna



Nivo: [6.75 m]

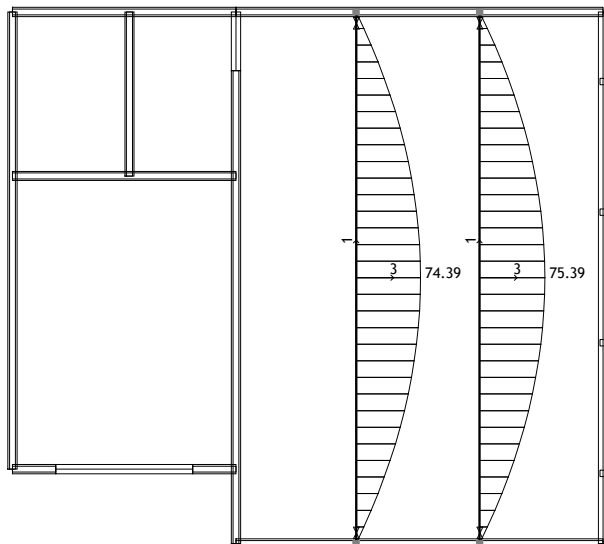
Vplivi v gredi: max M3= 136.84 / min M3= 0.00 kNm



Nivo: [6.75 m]

Vplivi v gredi: max M3= 0.00 / min M3= 0.00 kNm

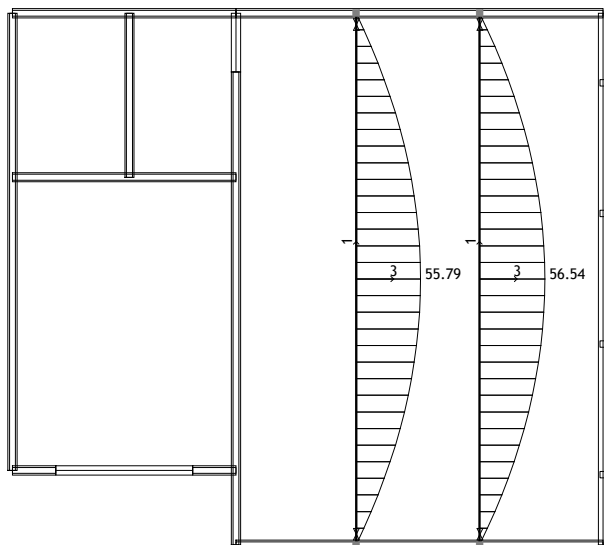
Obt. 3: korisna na strehi



Nivo: [6.75 m]

Vplivi v gredi: max M3= 75.39 / min M3= 0.00 kNm

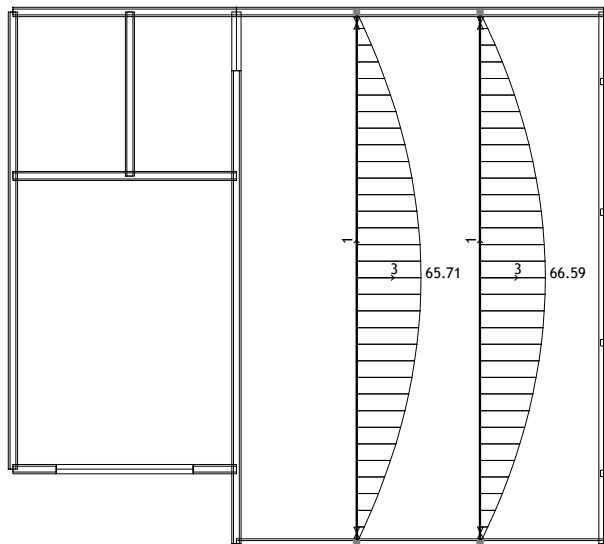
Obt. 5: pritisk vetra



Nivo: [6.75 m]

Vplivi v gredi: max M3= 56.54 / min M3= 0.00 kNm

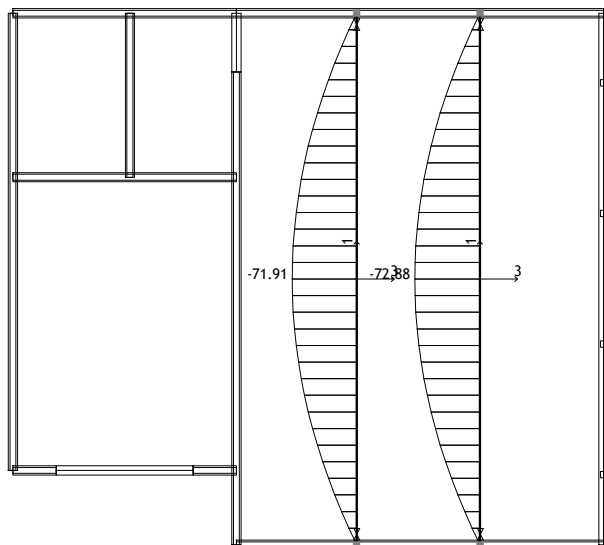
Obt. 4: sneg



Nivo: [6.75 m]

Vplivi v gredi: max M3= 66.59 / min M3= 0.00 kNm

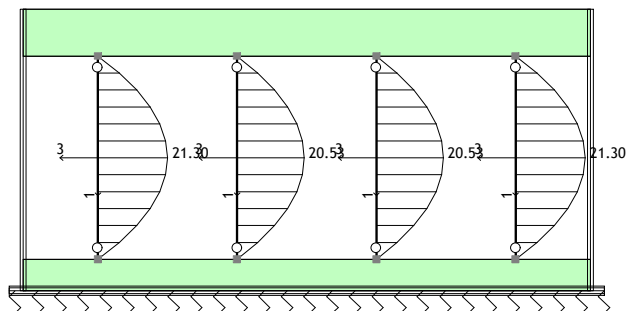
Obt. 6: veter smer X



Nivo: [6.75 m]

Vplivi v gredi: max M3= 0.00 / min M3= -72.88 kNm

Obt. 6: veter smer X

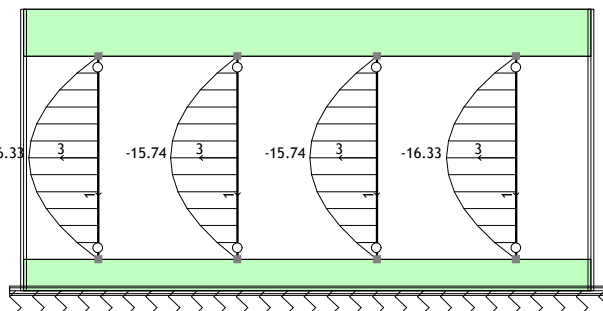


Okvir: V_4

Vplivi v gredi: max M3= 21.30 / min M3= 0.00 kNm

Obt. 1: lastna + stalna (g)

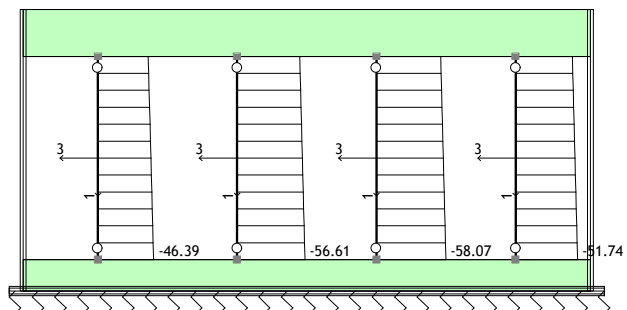
Obt. 7: veter smer y



Okvir: V_4

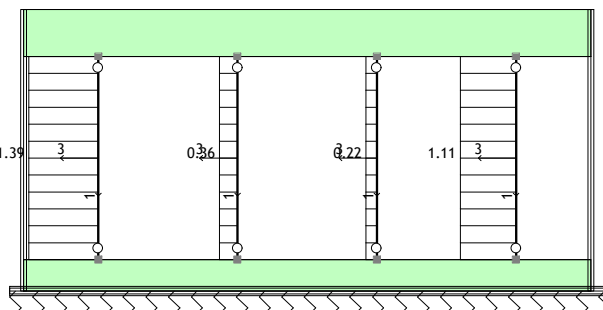
Vplivi v gredi: max M3= 0.00 / min M3= -16.33 kNm

Obt. 2: koristna



Okvir: V_4

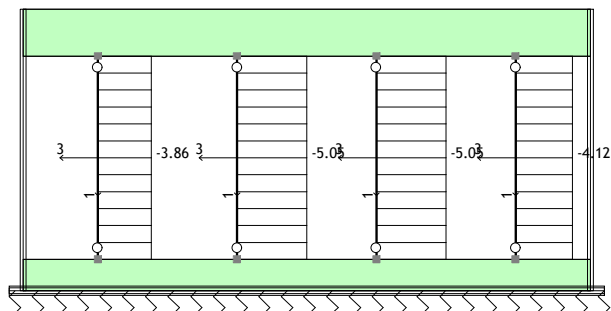
Vplivi v gredi: max N1= -41.93 / min N1= -58.07 kN



Okvir: V_4

Vplivi v gredi: max N1= 1.39 / min N1= 0.22 kN

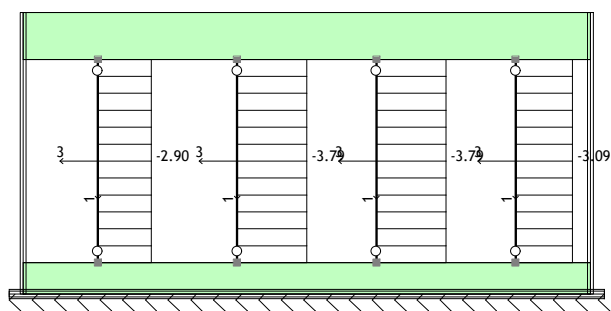
Obt. 3: korisna na strehi



Okvir: V_4

Vplivi v gredi: max N1= -3.86 / min N1= -5.05 kN

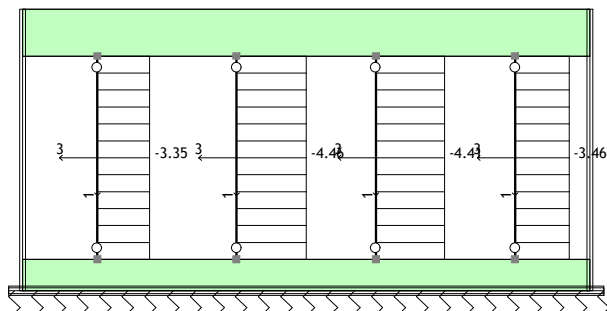
Obt. 5: pritisk vetra



Okvir: V_4

Vplivi v gredi: max N1= -2.90 / min N1= -3.79 kN

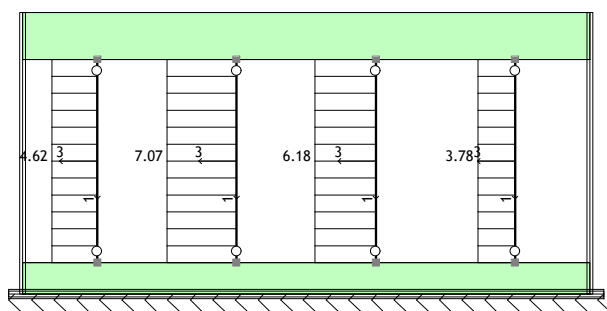
Obt. 4: sneg



Okvir: V_4

Vplivi v gredi: max N1= -3.35 / min N1= -4.46 kN

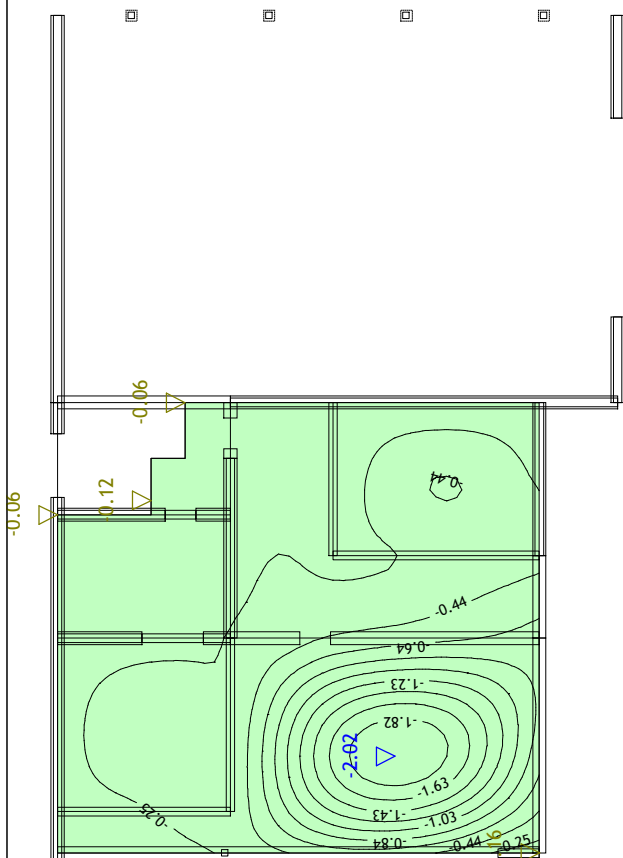
Obt. 6: veter smer X



Okvir: V_4

Vplivi v gredi: max N1= 7.07 / min N1= 3.78 kN

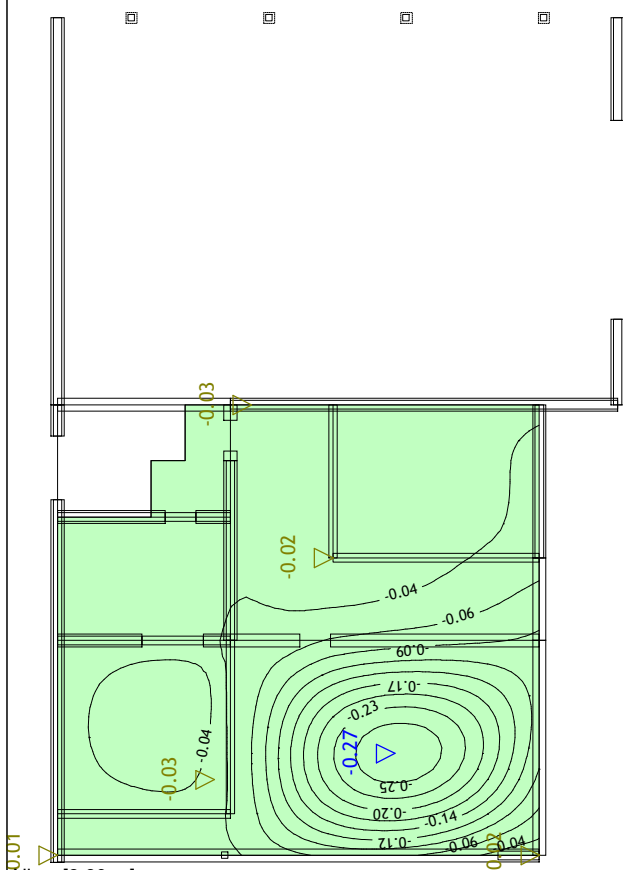
Obt. 2: koristna



Nivo: [3.90 m]

Vplivi v ploz i: max $Z_p = -0.06$ / min $Z_p = -2.02$ m / 1000

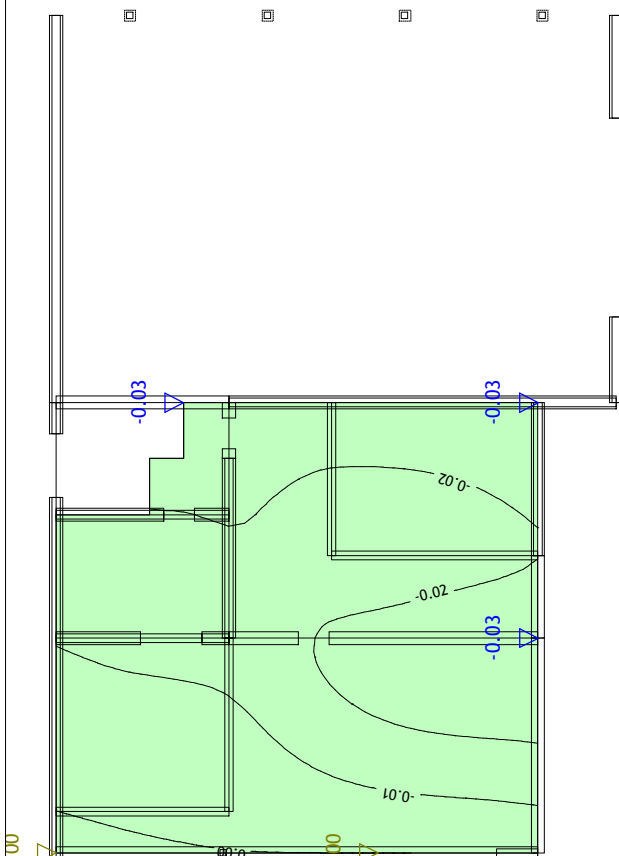
Obt. 4: sneg	
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Nivo: [3.90 m]

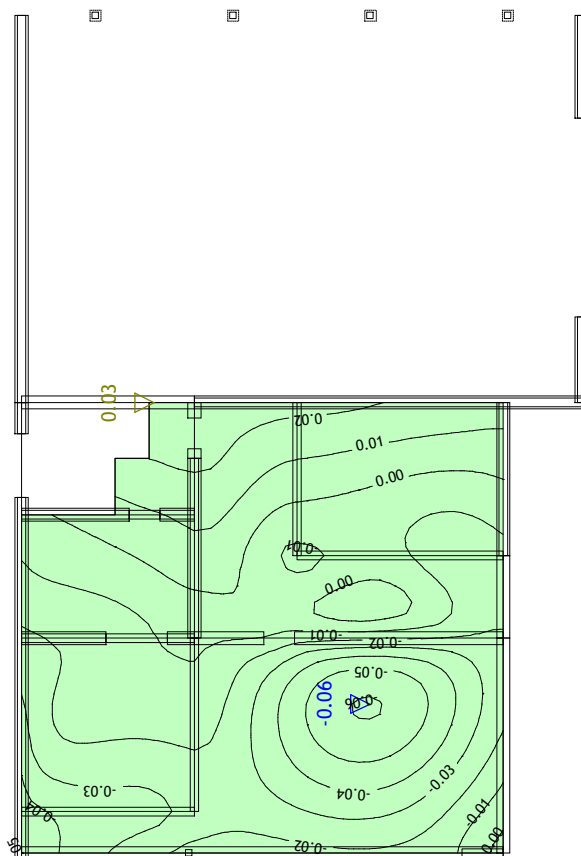
Vplivi v ploz i: max $Z_p = -0.01$ / min $Z_p = -0.27$ m / 1000

Obt. 5: pritisak vetra

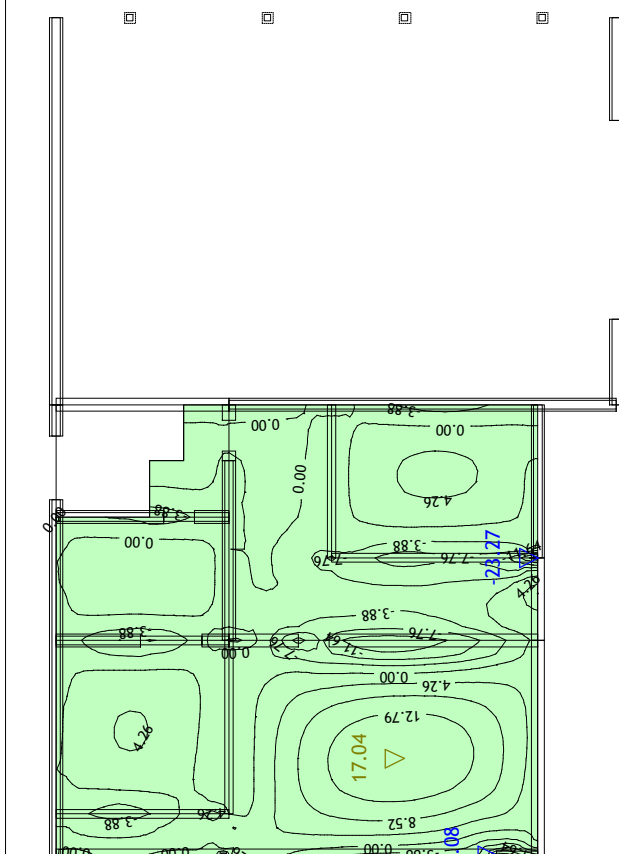


Nivo: [3.90 m]
Vplivi v ploz i: max $Z_p = 0.00$ / min $Z_p = -0.03$ m / 1000
Obt. 1: lastna + stalna (g)

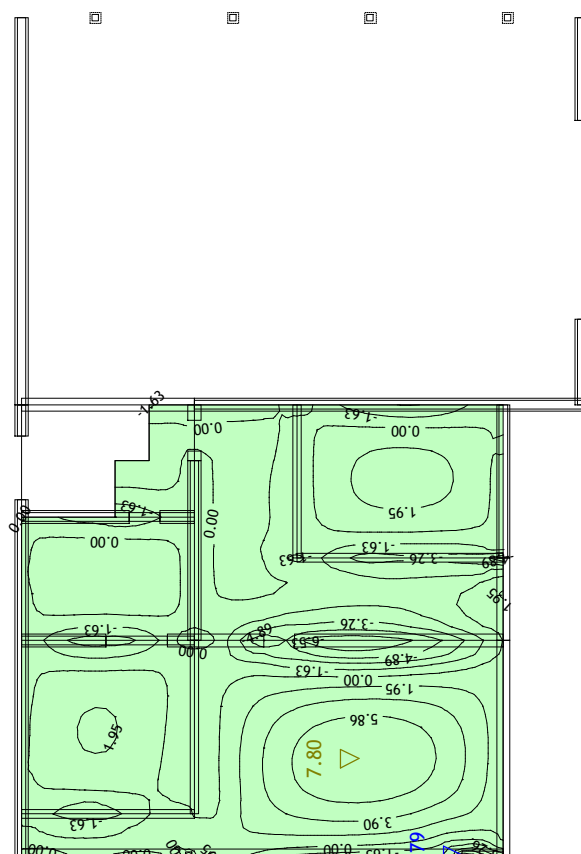
Obt. 6: veter smer X



Nivo: [3.90 m]
Vplivi v ploz i: max $Z_p = 0.03$ / min $Z_p = -0.06$ m / 1000
Obt. 2: koristna

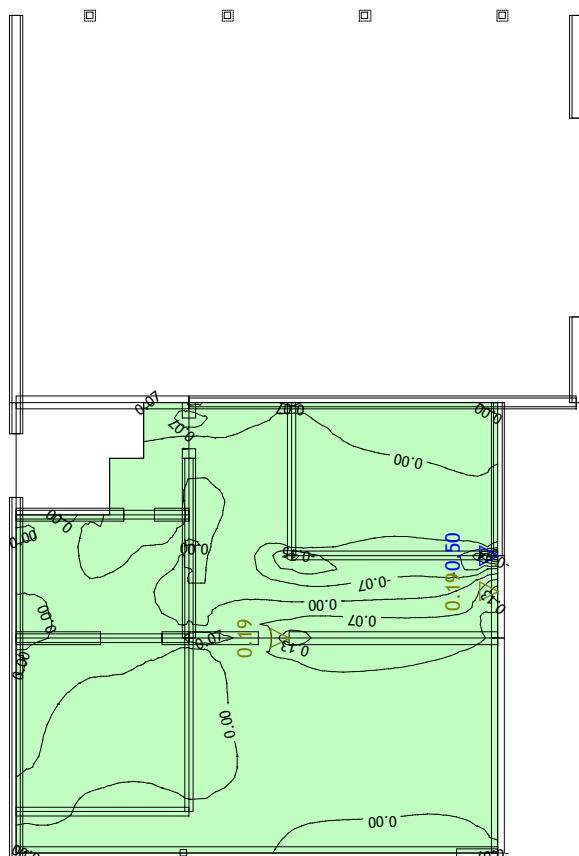


Nivo: [3.90 m]
Vplivi v ploz i: max $M_x = 17.04$ / min $M_x = -23.27$ kNm/m



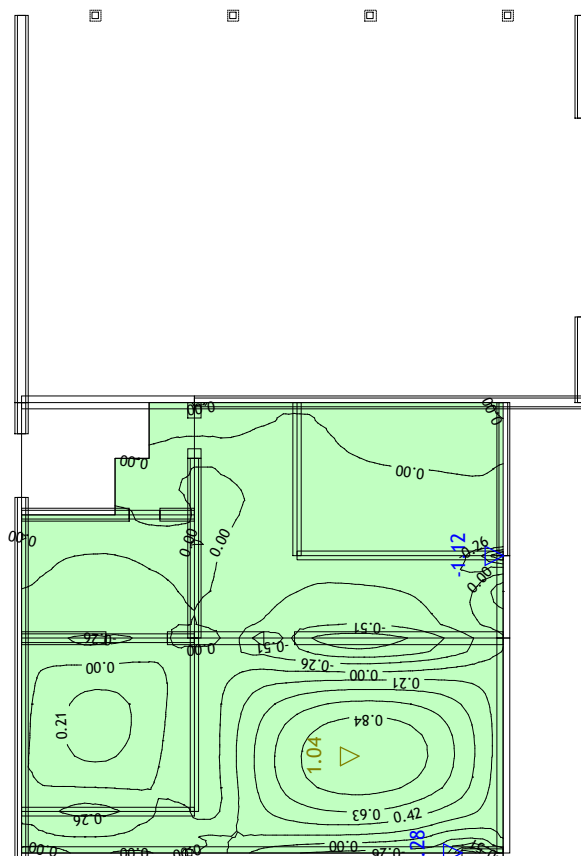
Nivo: [3.90 m]
Vplivi v ploz i: max $M_x = 7.80$ / min $M_x = -9.79$ kNm/m

Obt. 3: korisna na strehi

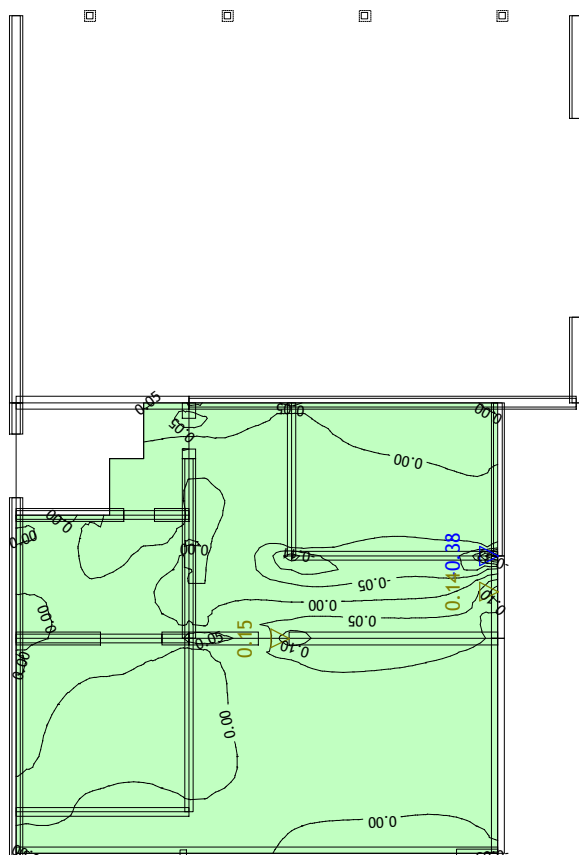


Nivo: [3.90 m]
Vplivi v ploz i: max Mx= 0.19 / min Mx= -0.50 kNm/m
Obt. 5: pritisk vetra

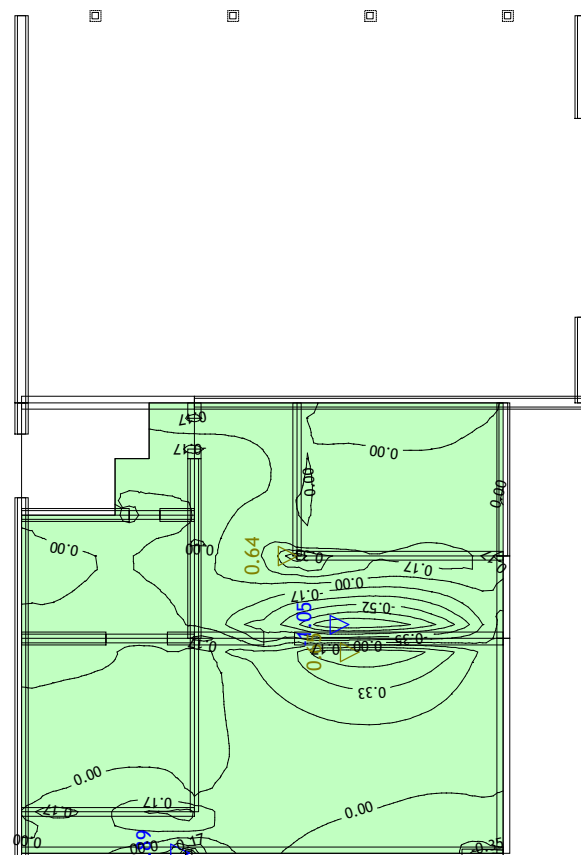
Obt. 4: sneg



Nivo: [3.90 m]
Vplivi v ploz i: max Mx= 1.04 / min Mx= -1.28 kNm/m
Obt. 6: veter smer X

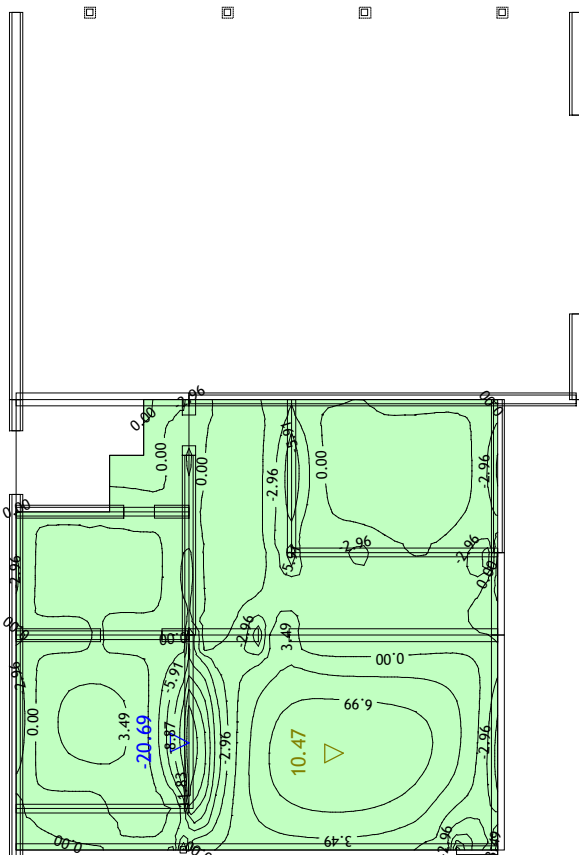


Nivo: [3.90 m]
Vplivi v ploz i: max Mx= 0.15 / min Mx= -0.38 kNm/m



Nivo: [3.90 m]
Vplivi v ploz i: max Mx= 0.65 / min Mx= -1.05 kNm/m

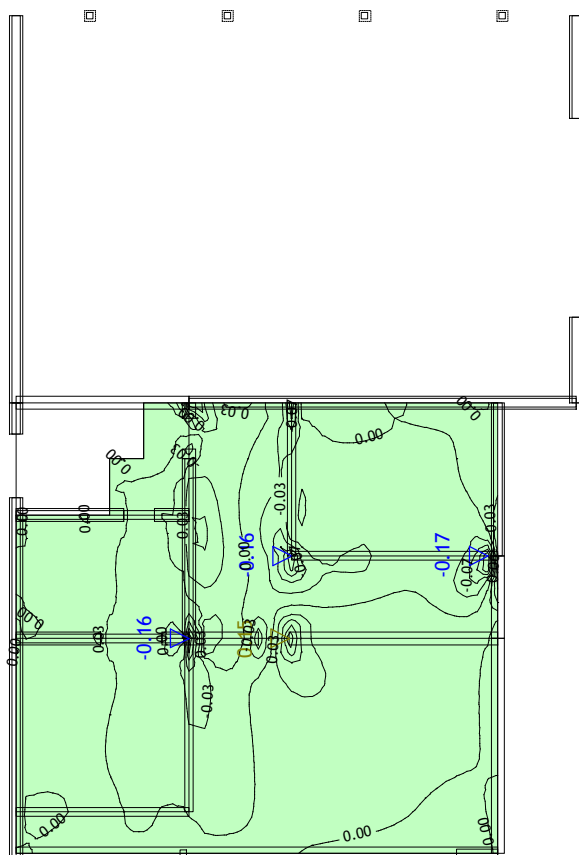
Obt. 1: lastna + stalna (g)



Nivo: [3.90 m]

Vplivi v ploz i: max $M_y = 10.47$ / min $M_y = -20.69$ kNm/m

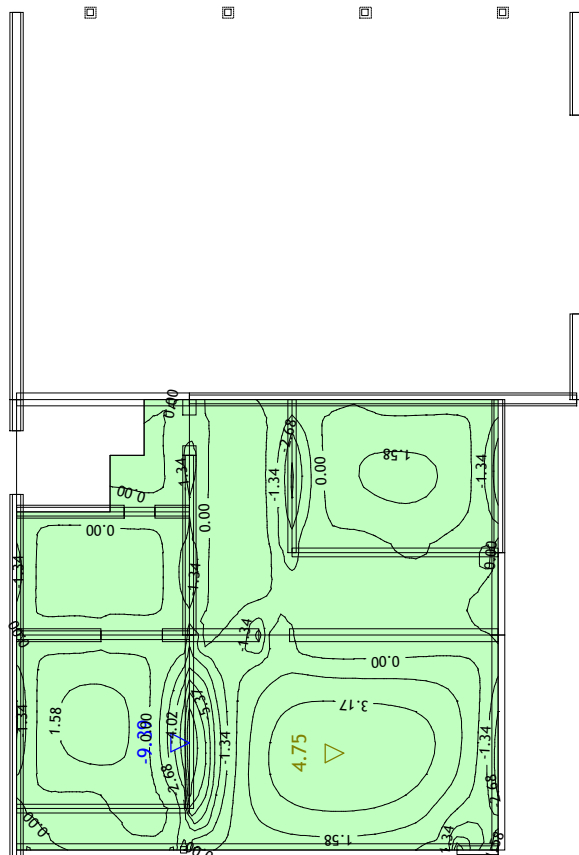
Obt. 3: korisna na strehi



Nivo: [3.90 m]

Vplivi v ploz i: max $M_y = 0.15$ / min $M_y = -0.17$ kNm/m

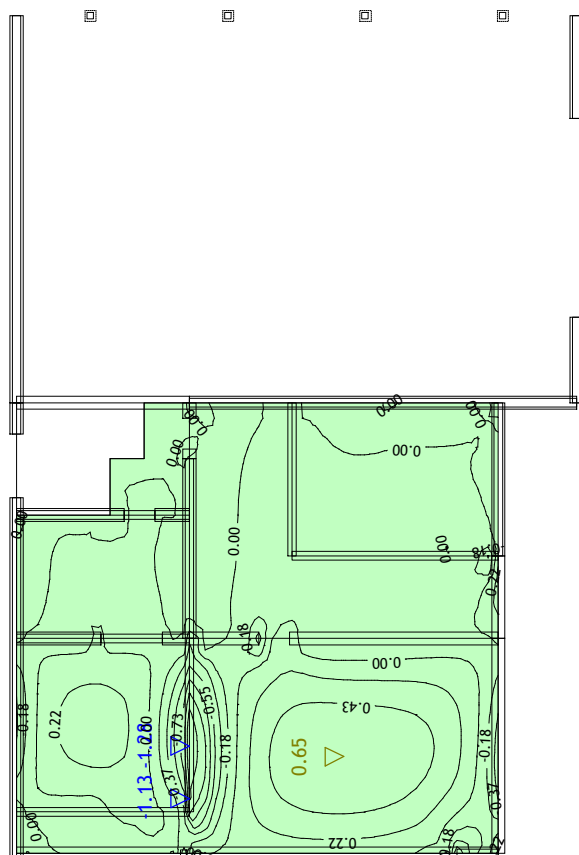
Obt. 2: korisna



Nivo: [3.90 m]

Vplivi v ploz i: max $M_y = 4.75$ / min $M_y = -9.39$ kNm/m

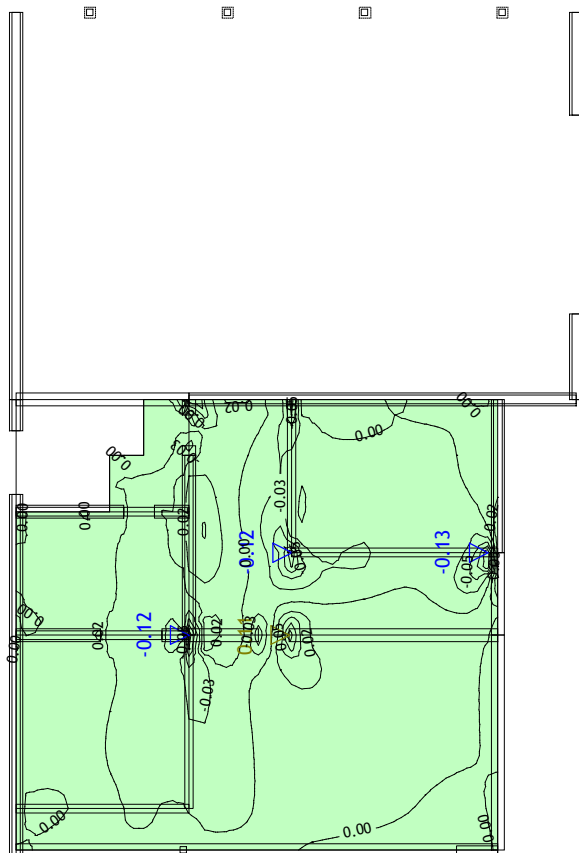
Obt. 4: sneg



Nivo: [3.90 m]

Vplivi v ploz i: max $M_y = 0.65$ / min $M_y = -1.28$ kNm/m

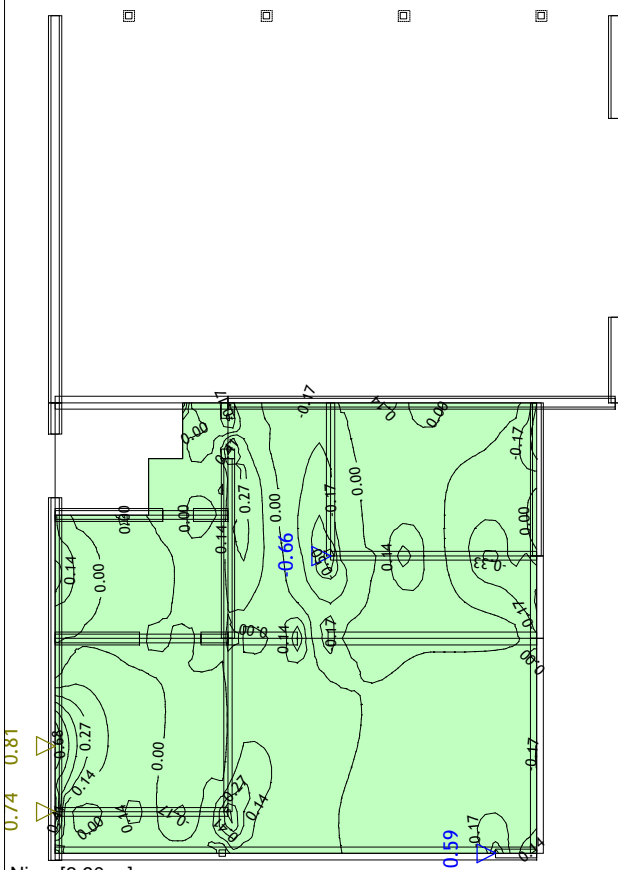
Obt. 5: pritisak vetra



Nivo: [3.90 m]

Vplivi v ploz i: max My= 0.11 / min My= -0.13 kNm/m

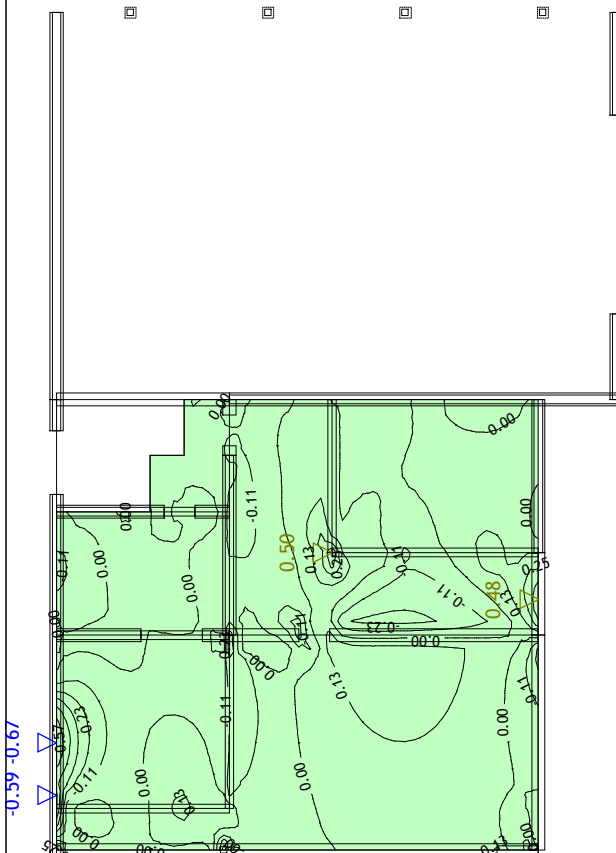
Obt. 7: veter smer y



Nivo: [3.90 m]

Vplivi v ploz i: max My= 0.81 / min My= -0.66 kNm/m

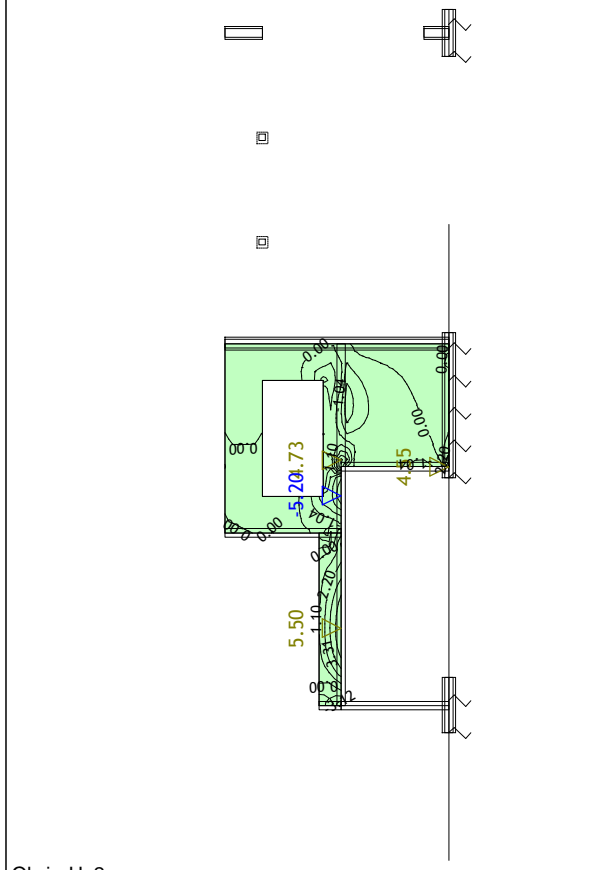
Obt. 6: veter smer X



Nivo: [3.90 m]

Vplivi v ploz i: max My= 0.50 / min My= -0.67 kNm/m

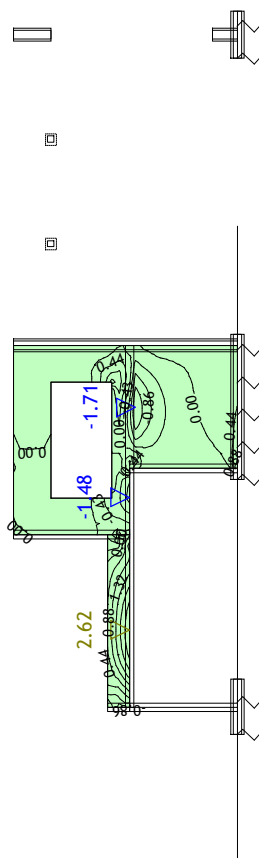
Obt. 1: lastna + stalna (g)



Okvir: H_2

Vplivi v ploz i: max My= 5.50 / min My= -5.20 kNm/m

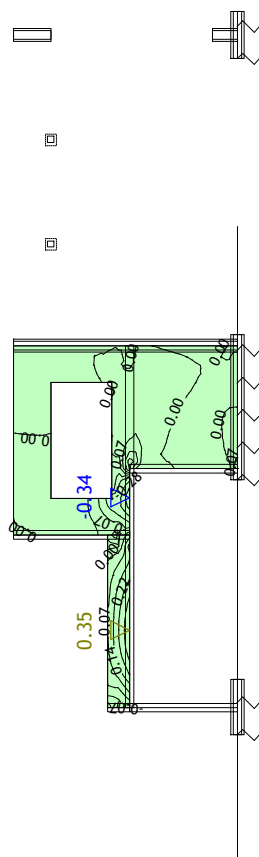
Obt. 2: korisna



Okvir: H_2

Vplivi v ploz i: max $M_y = 2.62$ / min $M_y = -1.71$ kNm/m

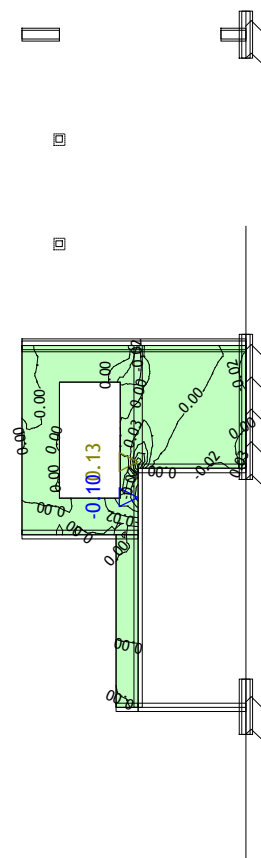
Obt. 4: sneg



Okvir: H_2

Vplivi v ploz i: max $M_y = 0.35$ / min $M_y = -0.34$ kNm/m

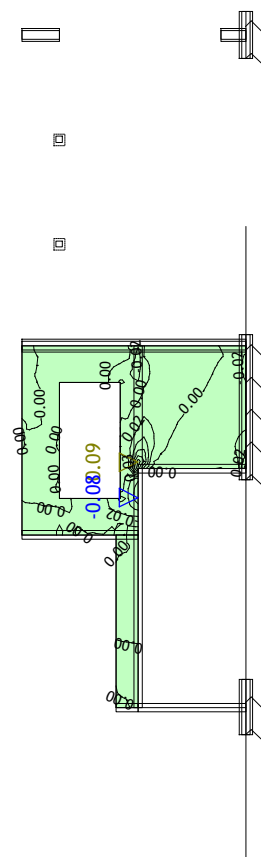
Obt. 3: korisna na strehi



Okvir: H_2

Vplivi v ploz i: max $M_y = 0.13$ / min $M_y = -0.10$ kNm/m

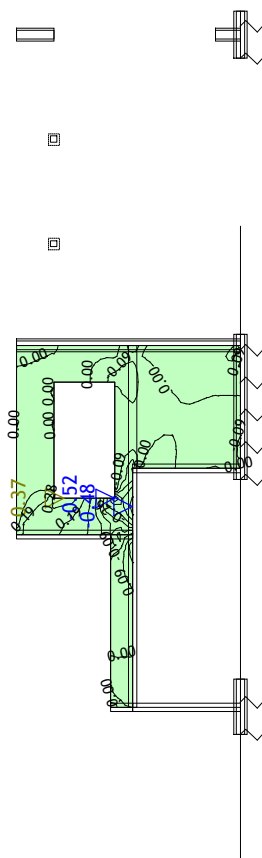
Obt. 5: pritisak vetra



Okvir: H_2

Vplivi v ploz i: max $M_y = 0.09$ / min $M_y = -0.08$ kNm/m

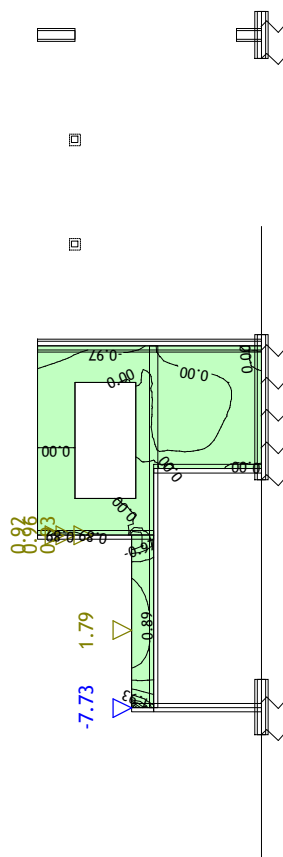
Obt. 6: veter smer X



Okvir: H_2

Vplivi v ploz i: max My= 0.37 / min My= -0.52 kNm/m

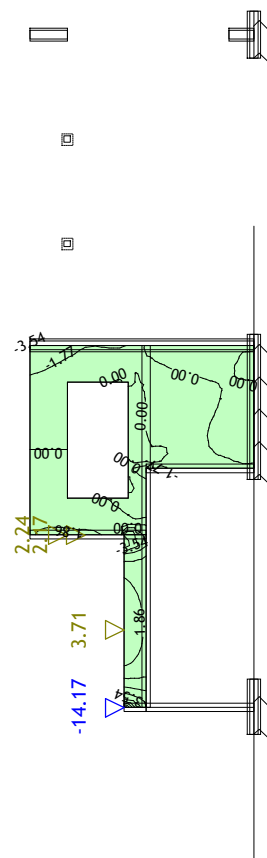
Obt. 2: koristna



Okvir: H_2

Vplivi v ploz i: max Mx= 1.79 / min Mx= -7.73 kNm/m

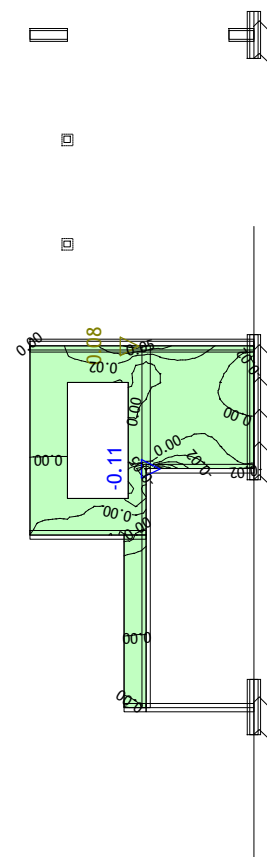
Obt. 1: lastna + stalna (g)



Okvir: H_2

Vplivi v ploz i: max Mx= 3.71 / min Mx= -14.17 kNm/m

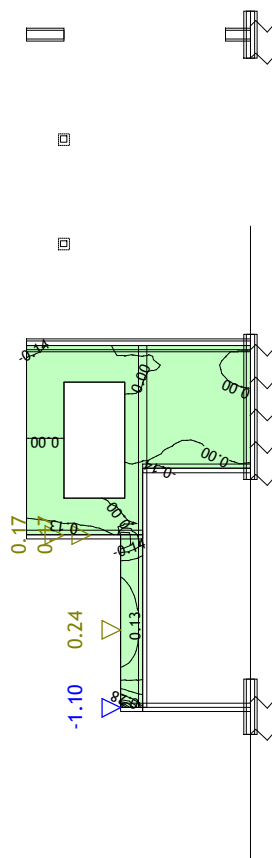
Obt. 3: koristna na strehi



Okvir: H_2

Vplivi v ploz i: max Mx= 0.08 / min Mx= -0.11 kNm/m

Obt. 4: sneg

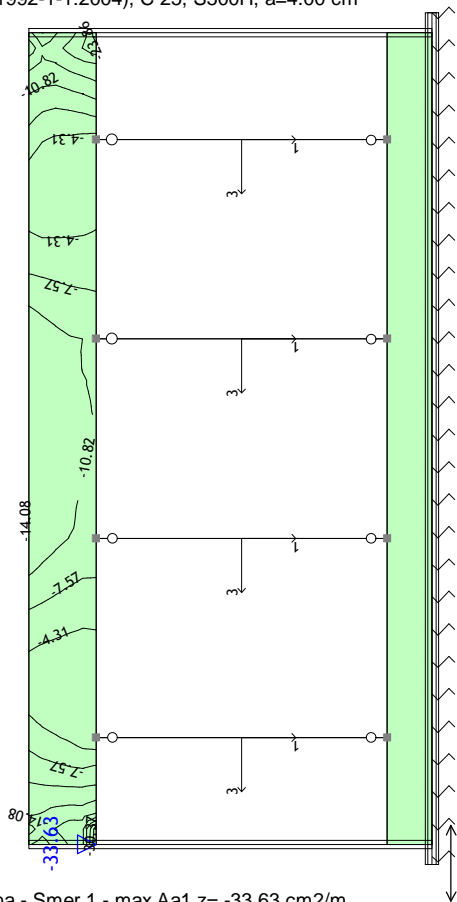


Okvir: H_2

Vplivi v ploz i: max $M_x = 0.24$ / min $M_x = -1.10$ kNm/m

Dimenzioniranje (beton)

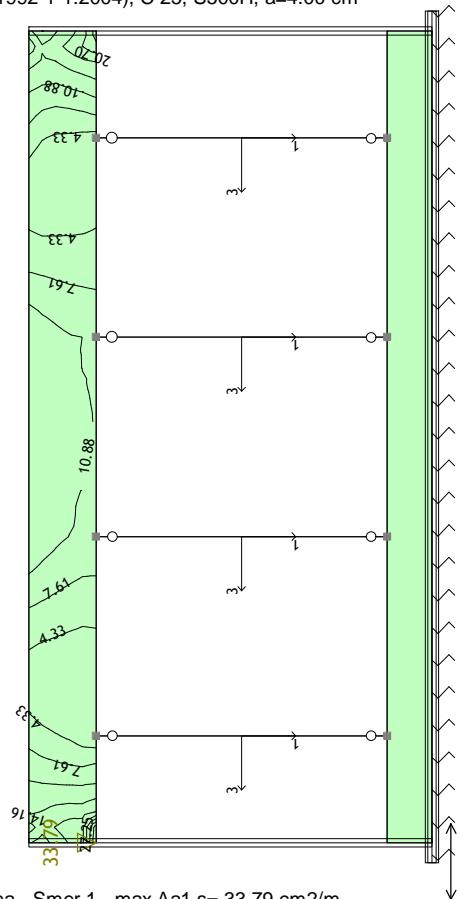
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_4

Aa - zg.cona - Smer 1 - max Aa1,z= -33.63 cm2/m

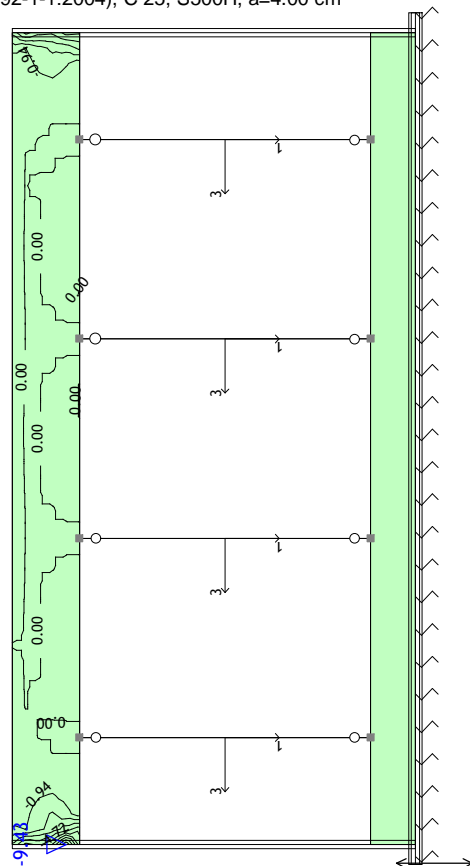
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_4

Aa - sp.cona - Smer 1 - max Aa1,s= 33.79 cm2/m

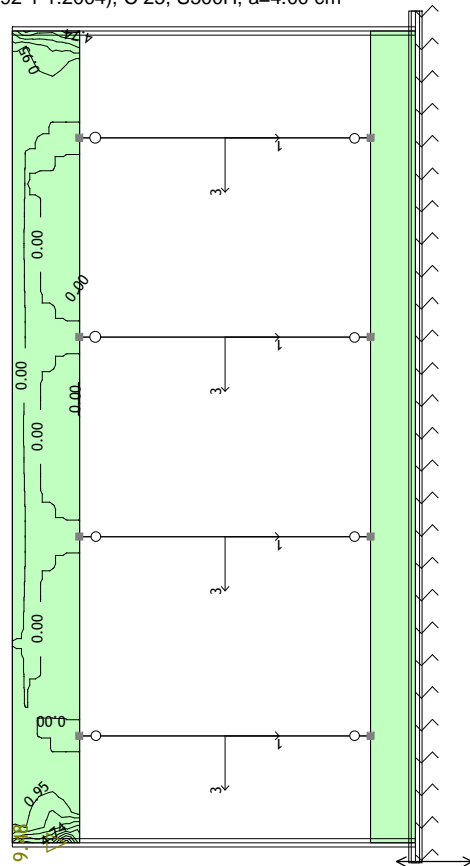
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_4

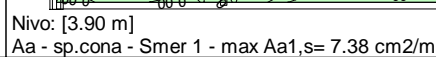
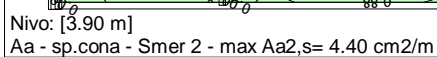
Aa - zg.cona - Smer 2 - max Aa2,z= -9.43 cm2/m

Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm

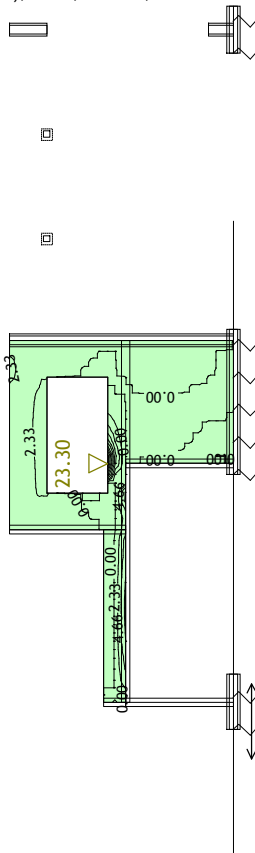


Okvir: V_4

Aa - sp.cona - Smer 2 - max Aa2,s= 9.48 cm2/m



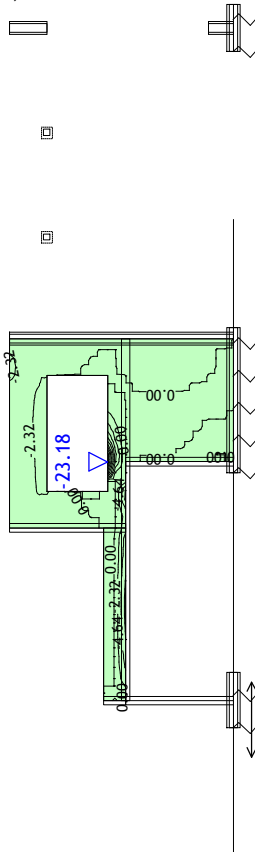
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_2

Aa - sp.cona - Smer 1 - max Aa1,s= 23.30 cm²/m

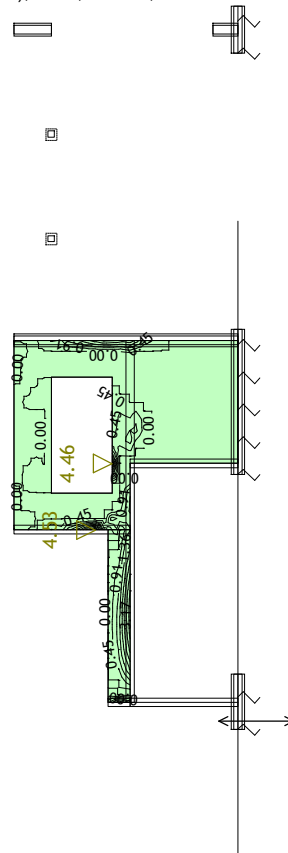
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_2

Aa - zg.cona - Smer 1 - max Aa1,z= -23.18 cm²/m

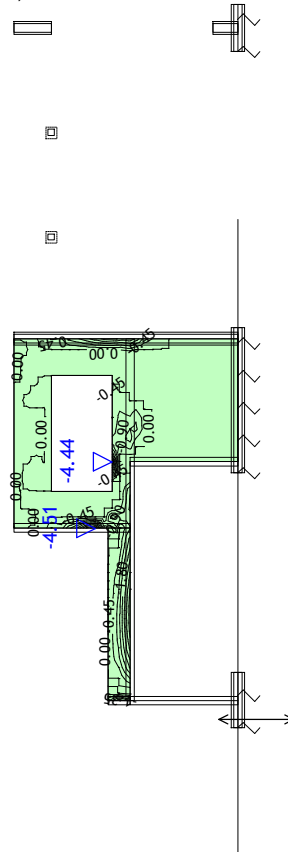
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_2

Aa - sp.cona - Smer 2 - max Aa2,s= 4.53 cm²/m

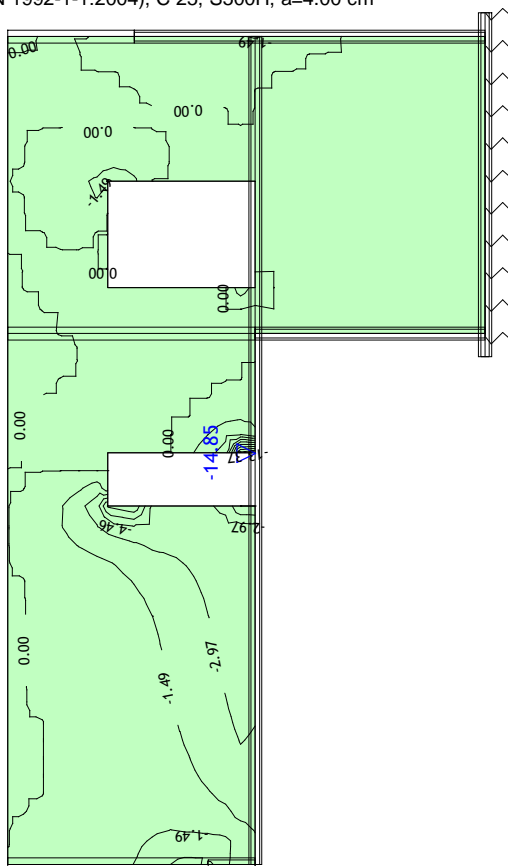
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_2

Aa - zg.cona - Smer 2 - max Aa2,z= -4.51 cm²/m

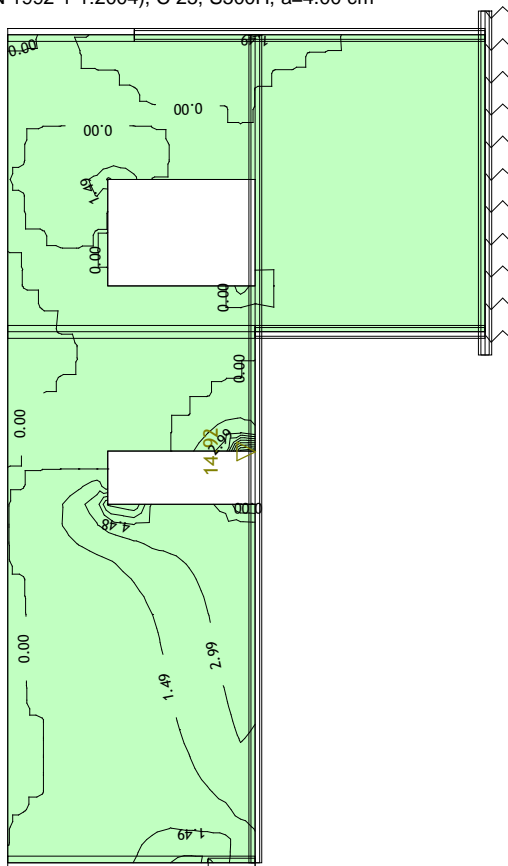
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_3

Aa - zg.cona - Smer 2 - max Aa2,z= -14.85 cm2/m

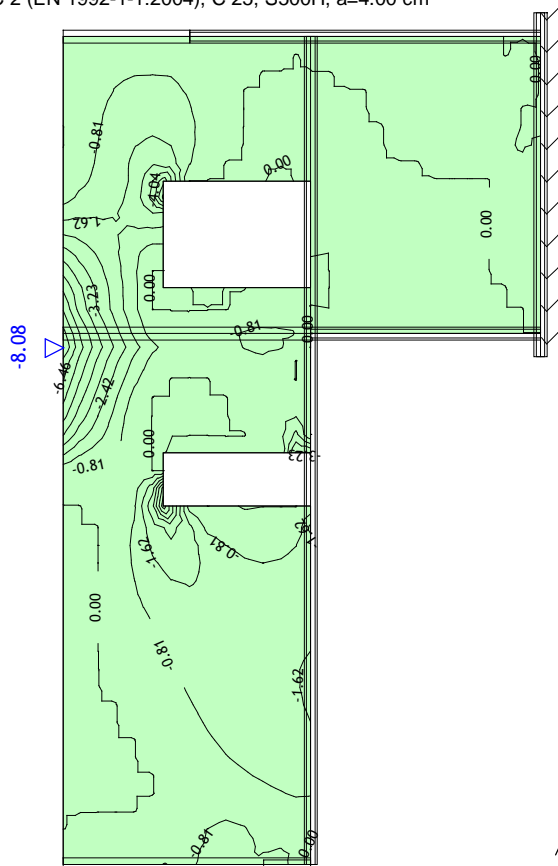
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_3

Aa - sp.cona - Smer 2 - max Aa2,s= 14.92 cm2/m

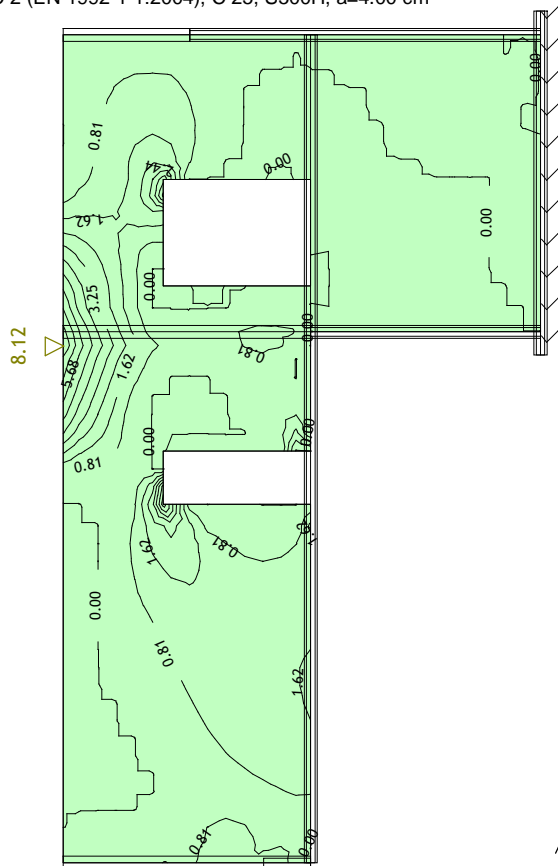
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_3

Aa - zg.cona - Smer 1 - max Aa1,z= -8.08 cm2/m

Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



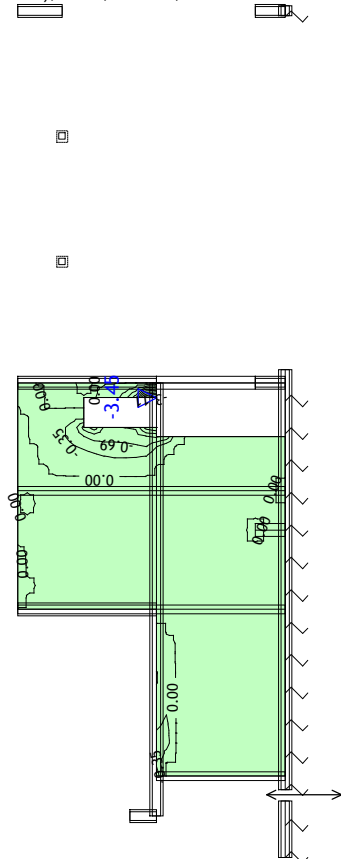
Okvir: V_3

Aa - sp.cona - Smer 1 - max Aa1,s= 8.12 cm2/m

Aa - zg.cona - Smer 1 - max Aa1,z= -12.03 cm2/m

Aa - zg.cona - Smer 2 - max Aa2,z= -11.75 cm2/m

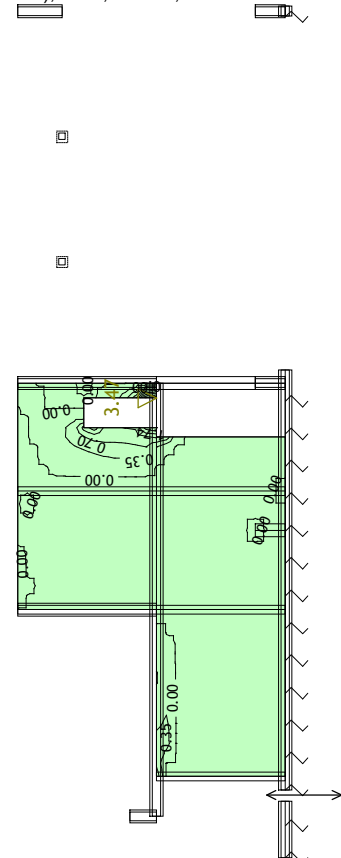
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_5

Aa - zg.cona - Smer 2 - max Aa2,z= -3.45 cm2/m

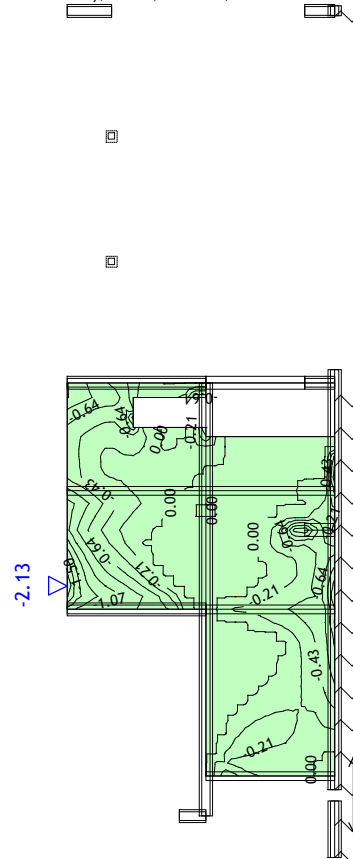
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_5

Aa - sp.cona - Smer 2 - max Aa2,s= 3.47 cm2/m

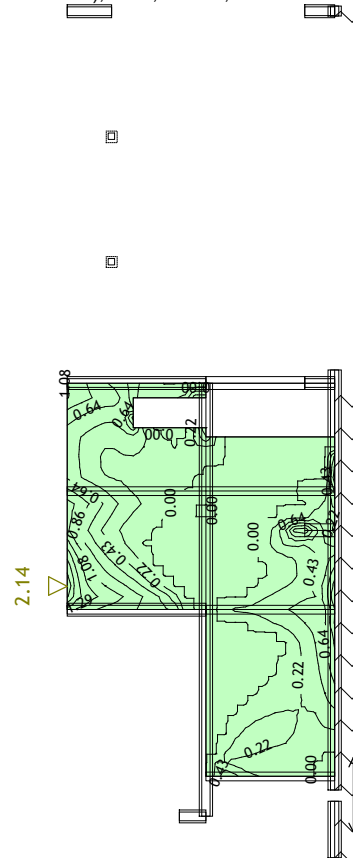
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_5

Aa - zg.cona - Smer 1 - max Aa1,z= -2.13 cm2/m

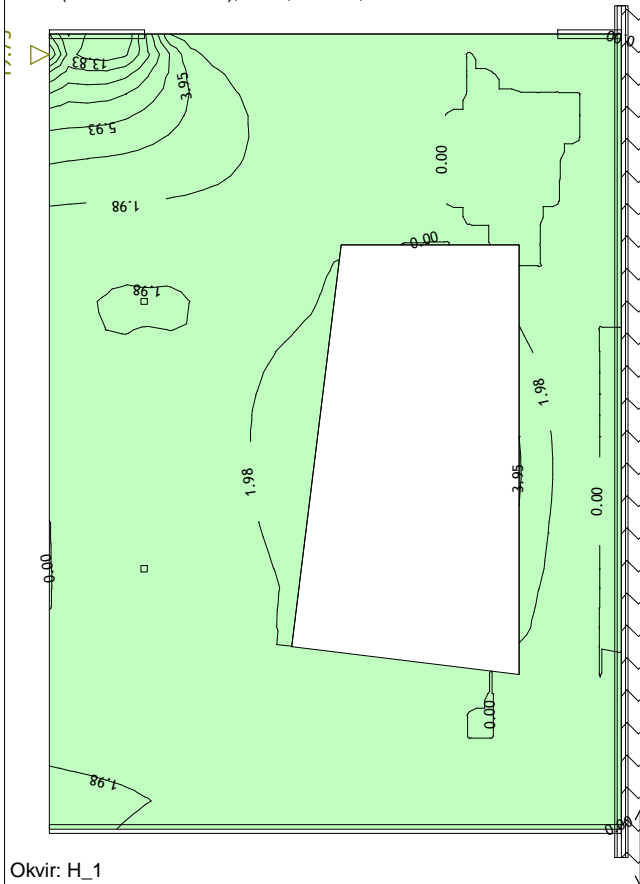
Merodajna opteoba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_5

Aa - sp.cona - Smer 1 - max Aa1,s= 2.14 cm2/m

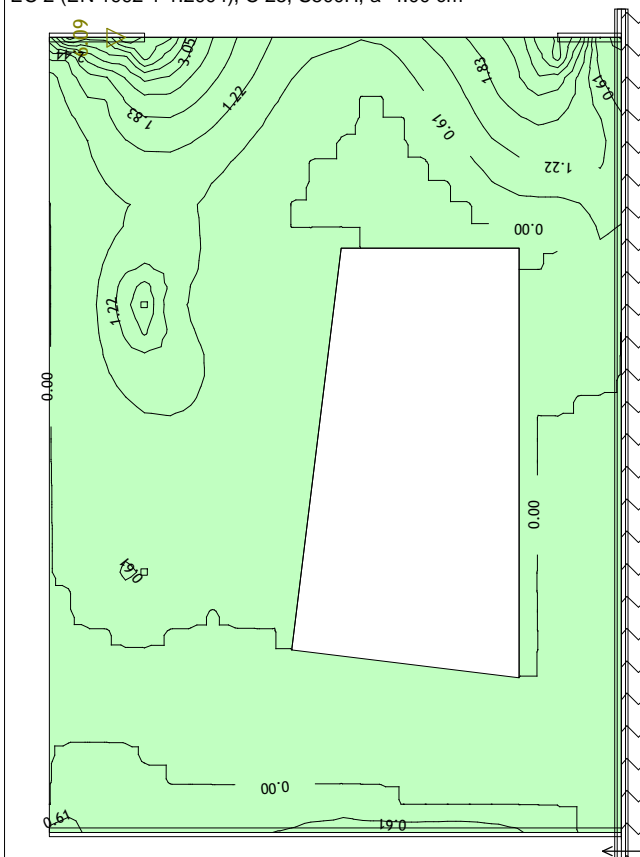
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_1

Aa - sp.cona - Smer 1 - max Aa1,s= 19.75 cm²/m

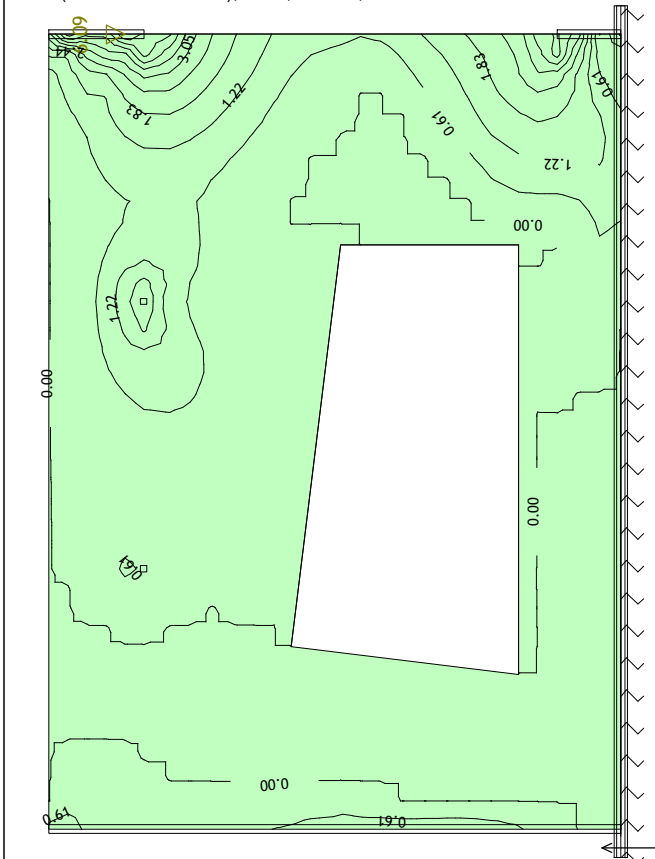
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_1

Aa - sp.cona - Smer 2 - max Aa2,s= 6.09 cm²/m

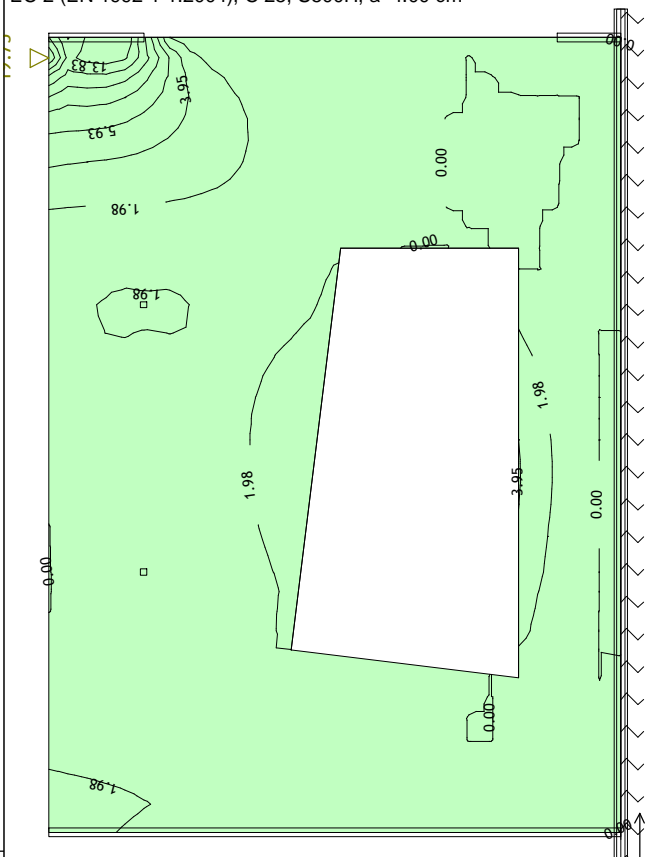
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_1

Aa - sp.cona - Smer 2 - max Aa2,s= 6.09 cm²/m

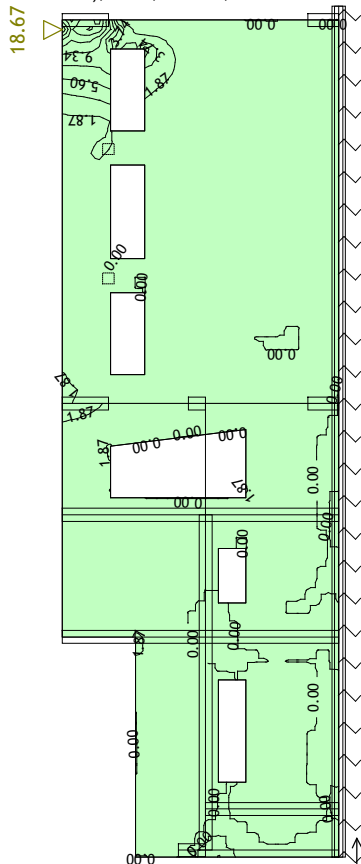
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_1

Aa - sp.cona - Smer 1 - max Aa1,s= 19.75 cm²/m

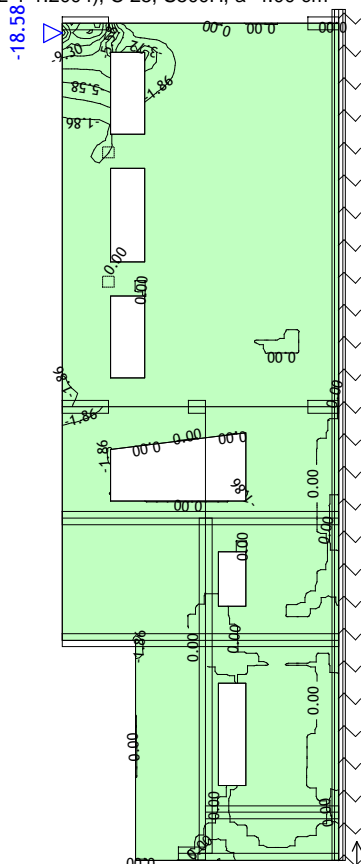
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_3

Aa - sp.cona - Smer 1 - max Aa1,s= 18.67 cm²/m

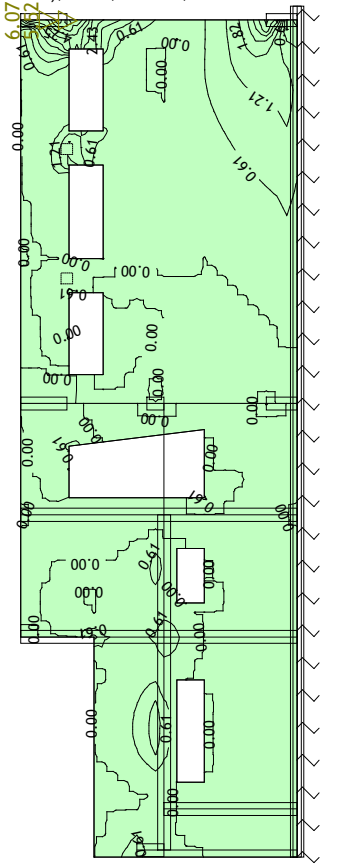
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_3

Aa - zg.cona - Smer 1 - max Aa1,z= -18.58 cm²/m

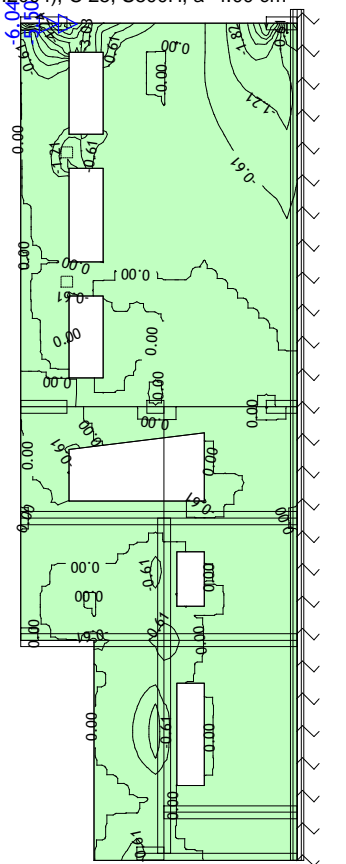
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_3

Aa - sp.cona - Smer 2 - max Aa2,s= 6.07 cm²/m

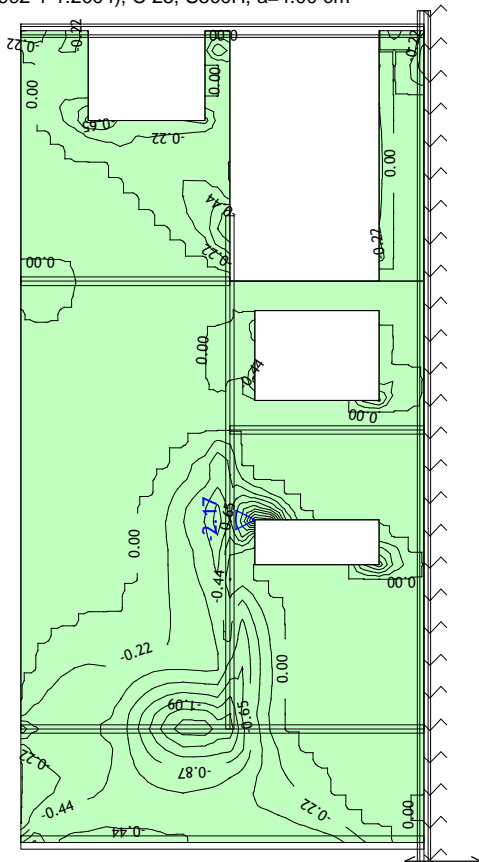
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: H_3

Aa - zg.cona - Smer 2 - max Aa2,z= -6.04 cm²/m

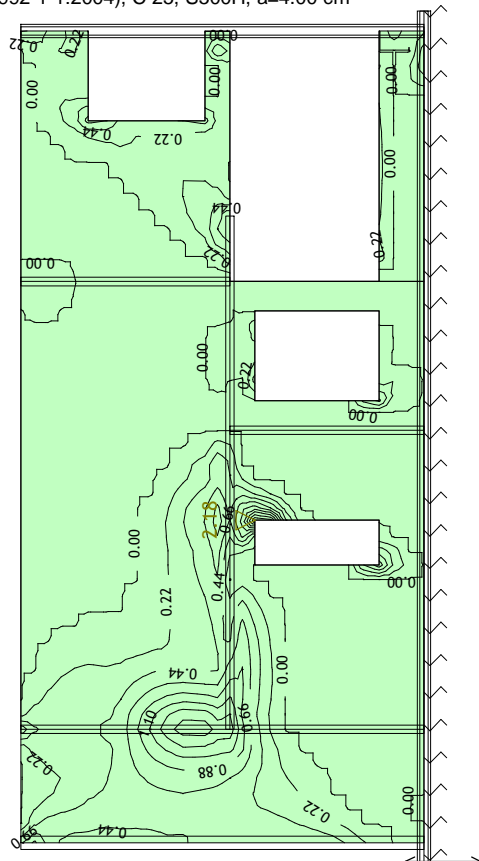
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_7

Aa - zg.cona - Smer 2 - max Aa2,z= -2.17 cm2/m

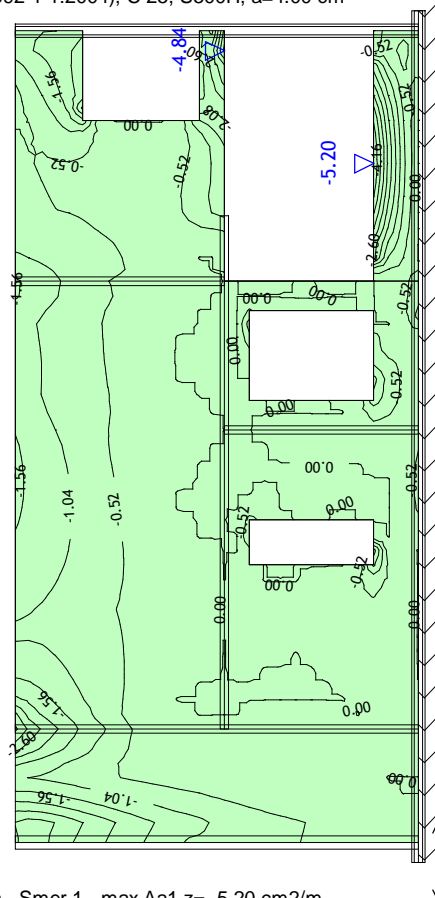
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_7

Aa - sp.cona - Smer 2 - max Aa2,s= 2.18 cm2/m

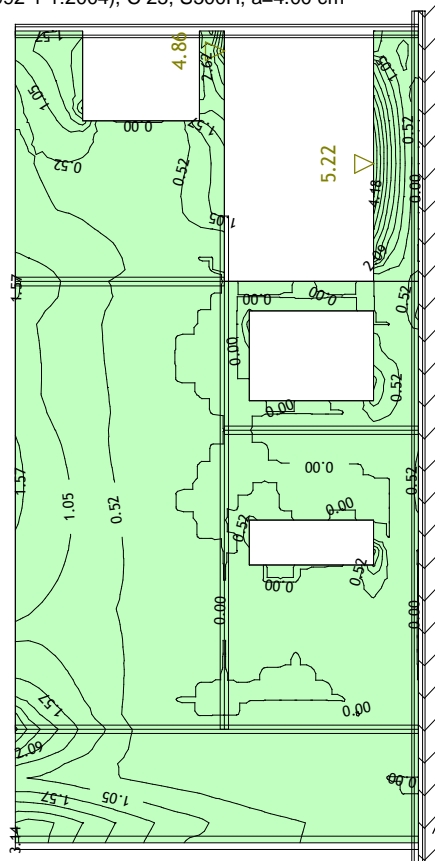
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_7

Aa - zg.cona - Smer 1 - max Aa1,z= -5.20 cm2/m

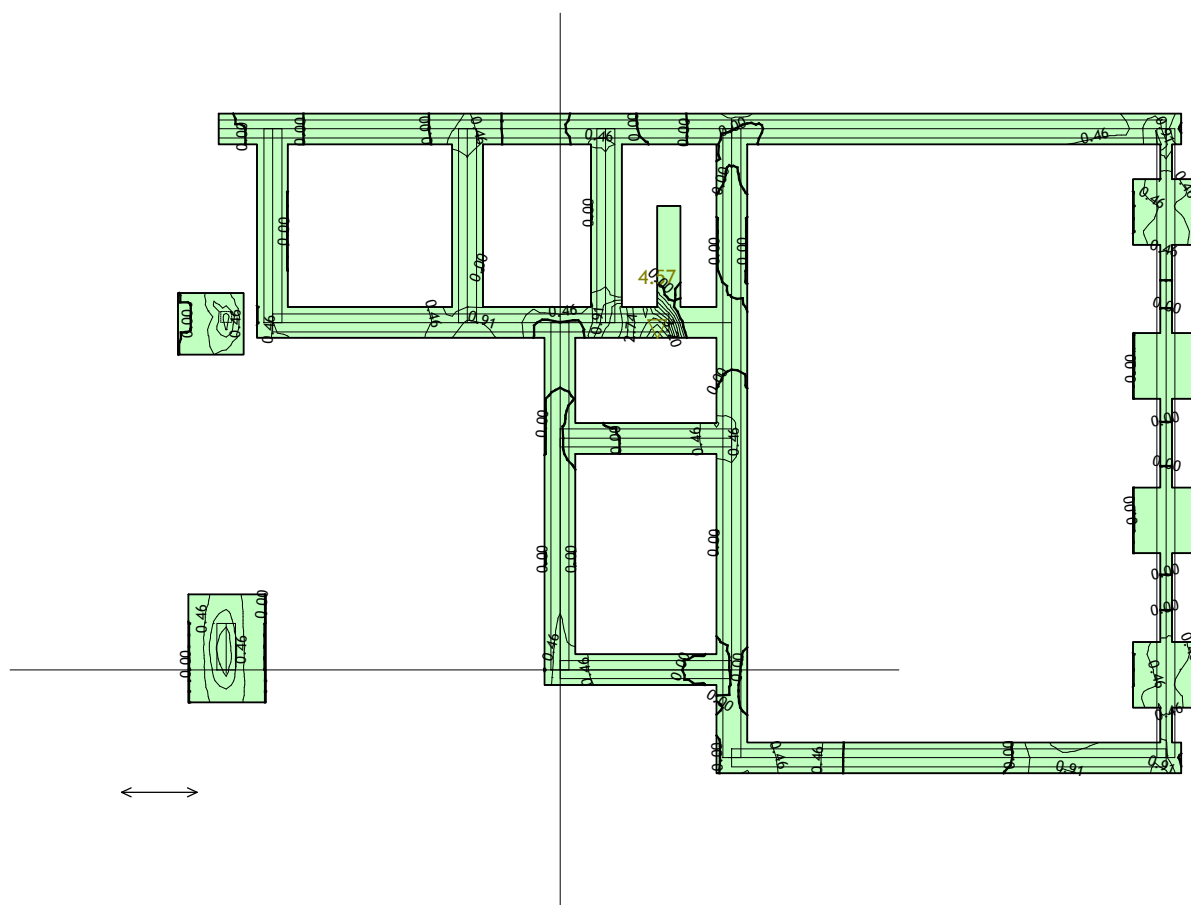
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Okvir: V_7

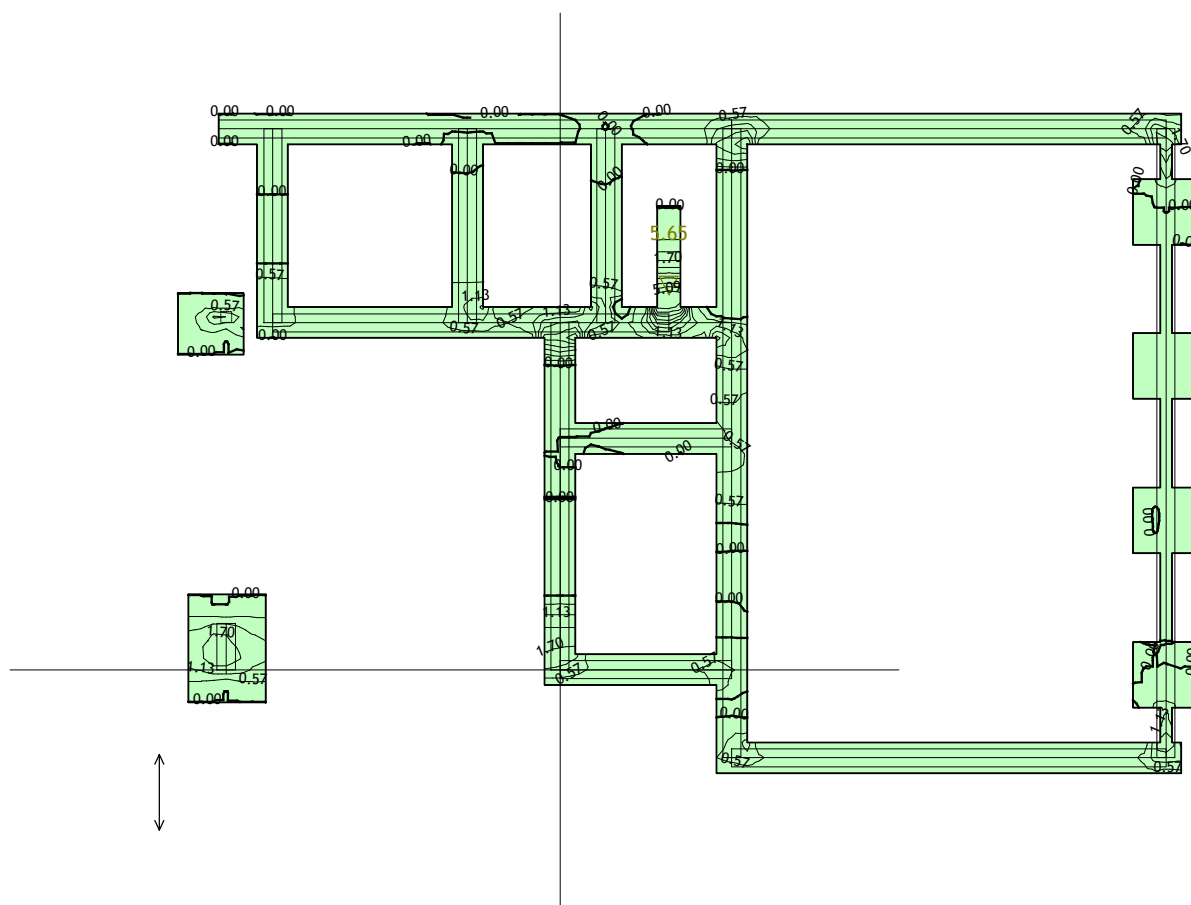
Aa - sp.cona - Smer 1 - max Aa1,s= 5.22 cm2/m

Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



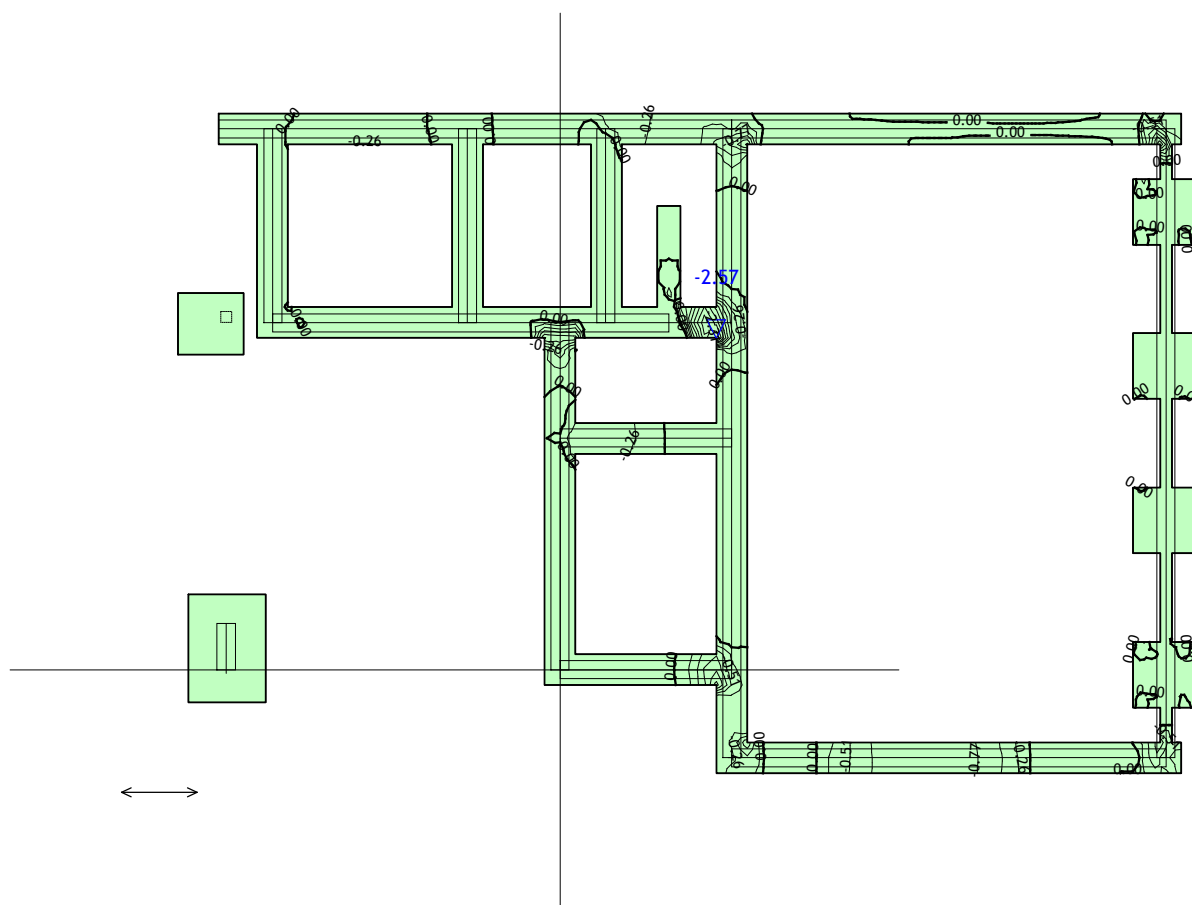
Nivo: [0.00 m]
Aa - sp.cona - Smer 1 - max Aa1,s= 4.57 cm2/m

Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



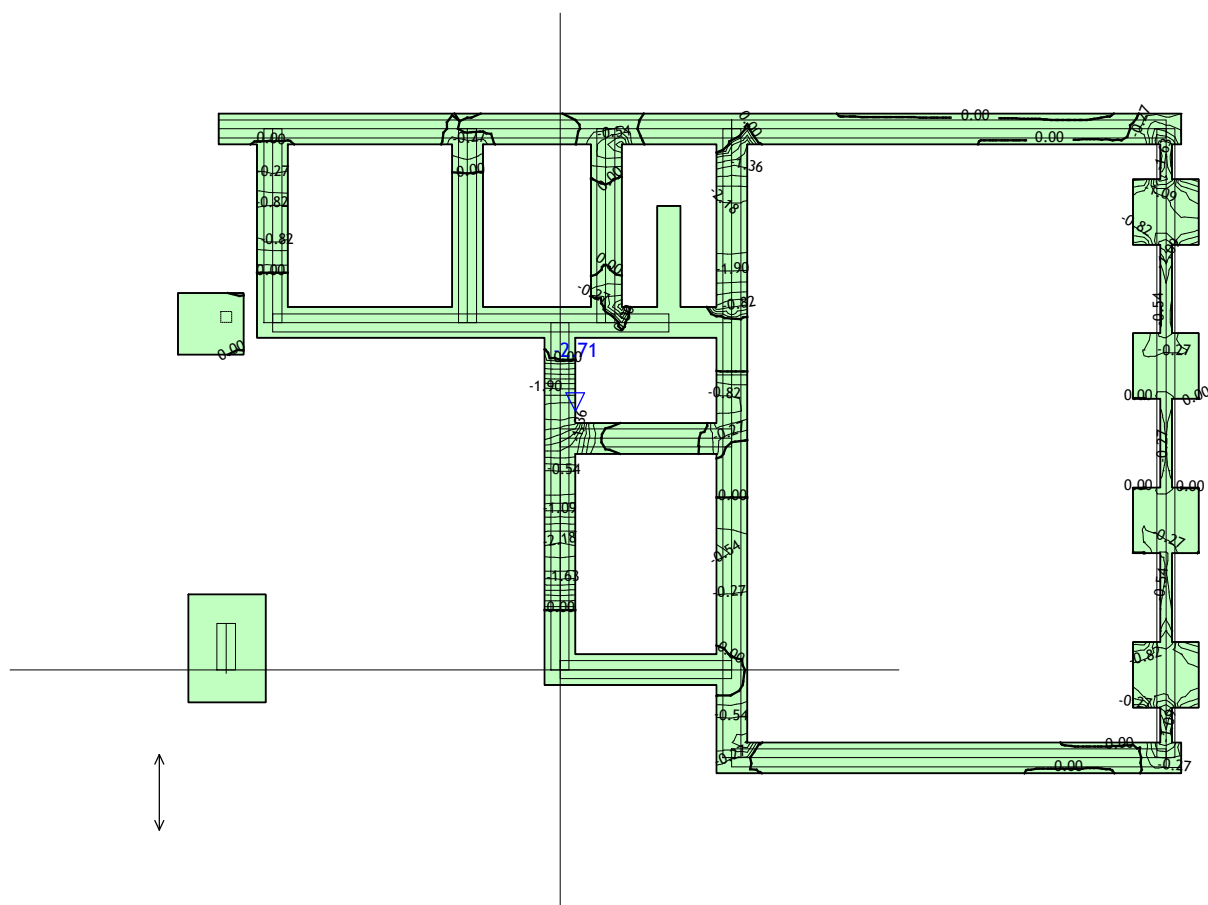
Nivo: [0.00 m]
Aa - sp.cona - Smer 2 - max Aa2,s= 5.65 cm2/m

Merodajna opterećenja: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Nivo: [0.00 m]
Aa - zg.cona - Smer 1 - max Aa1,z= -2.57 cm2/m

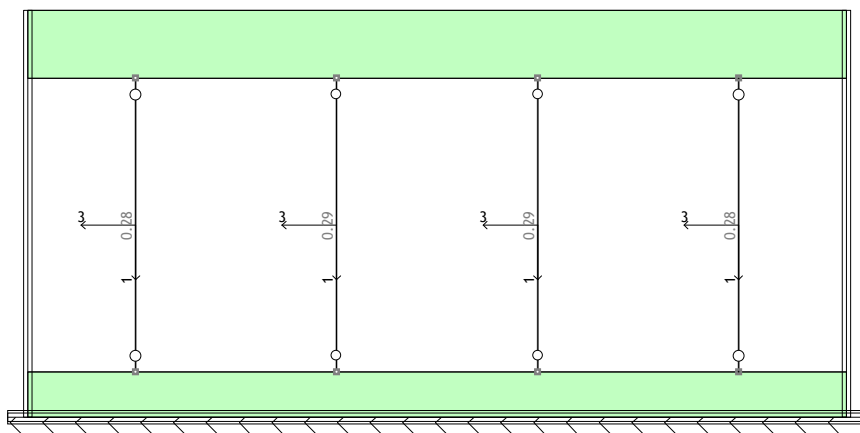
Merodajna obte0ba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=4.00 cm



Nivo: [0.00 m]
Aa - zg.cona - Smer 2 - max Aa2,z= -2.71 cm2/m

Dimenzioniranje (jeklo)

Okrvir: V_4
Kontrola stabilnosti

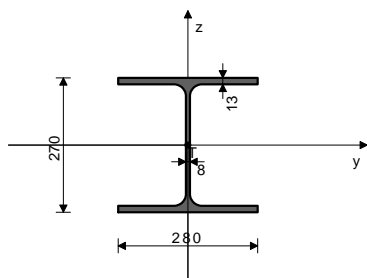


PALICA 8429-9417

PRE NI PREREZ: IPBI 280 [S 235]

EUROCODE 3 (ENV)

GEOMETRIJSKE KARAKTERISTIKE prereza



$A_x =$	97.300 cm ²
$A_y =$	65.520 cm ²
$A_z =$	31.780 cm ²
$I_x =$	62.400 cm ⁴
$I_y =$	13670 cm ⁴
$I_z =$	4760.0 cm ⁴
$W_y =$	1012.6 cm ³
$W_z =$	340.00 cm ³
$W_{y,pl} =$	1088.1 cm ³
$W_{z,pl} =$	509.60 cm ³
$\gamma_{M0} =$	1.100
$\gamma_{M1} =$	1.100
$\gamma_{M2} =$	1.250
$A_{net}/A =$	0.900

[m.m]

($f_y = 23.5 \text{ kN/cm}^2$, $f_u = 36.0 \text{ kN/cm}^2$)

FAKTORJI IZKORIŠĆENOSTI PO KOMBINACIJAH OBTEŽB

112. =0.28	26. =0.28	80. =0.28
191. =0.28	31. =0.28	111. =0.28
198. =0.27	79. =0.27	59. =0.27
170. =0.27	134. =0.27	116. =0.27
223. =0.27	36. =0.27	117. =0.27
34. =0.27	89. =0.26	196. =0.26
194. =0.26	86. =0.26	171. =0.26
58. =0.26	135. =0.26	235. =0.26
61. =0.25	164. =0.25	163. =0.25
62. =0.25	232. =0.25	128. =0.25
237. =0.25	129. =0.25	43. =0.23
13. =0.23	105. =0.22	37. =0.22
18. =0.22	12. =0.22	21. =0.22
95. =0.22	178. =0.22	102. =0.22
24. =0.22	19. =0.22	72. =0.22
40. =0.22	94. =0.22	175. =0.22
73. =0.22	99. =0.22	41. =0.22
157. =0.22	250. =0.22	91. =0.22
247. =0.22	155. =0.22	17. =0.21
67. =0.21	143. =0.21	147. =0.21
15. =0.21	51. =0.21	64. =0.21
48. =0.21	149. =0.21	47. =0.21
148. =0.21	69. =0.21	108. =0.21
50. =0.21	214. =0.21	266. =0.20
184. =0.20	150. =0.20	216. =0.20
107. =0.20	70. =0.20	264. =0.20
151. =0.20	186. =0.20	210. =0.18
96. =0.18	182. =0.18	262. =0.18
101. =0.17	209. =0.17	261. =0.17
139. =0.17	183. =0.17	246. =0.17
217. =0.16	277. =0.16	140. =0.15
243. =0.15	32. =0.15	218. =0.15
274. =0.15	123. =0.15	192. =0.15
81. =0.15	120. =0.14	27. =0.14
168. =0.14	55. =0.14	201. =0.14
227. =0.14	203. =0.14	83. =0.14
133. =0.14	76. =0.13	121. =0.13
173. =0.13	252. =0.13	114. =0.13
28. =0.13	241. =0.13	29. =0.13
110. =0.13	195. =0.13	280. =0.13
82. =0.13	200. =0.13	204. =0.13
84. =0.13	78. =0.13	199. =0.13
122. =0.13	254. =0.13	172. =0.13
160. =0.12	53. =0.12	193. =0.12

240. =0.12	281. =0.12	228. =0.12
124. =0.12	131. =0.12	225. =0.12
158. =0.12	270. =0.12	207. =0.12
54. =0.12	161. =0.12	290. =0.12
226. =0.11	233. =0.11	57. =0.11
167. =0.11	255. =0.11	126. =0.11
132. =0.11	224. =0.11	230. =0.11
136. =0.11	118. =0.11	49. =0.11
33. =0.11	185. =0.11	11. =0.11
187. =0.11	52. =0.11	35. =0.11
25. =0.11	127. =0.11	14. =0.11
38. =0.11	197. =0.11	130. =0.11
39. =0.11	87. =0.11	88. =0.11
202. =0.11	10. =0.11	90. =0.11
206. =0.11	60. =0.11	138. =0.11
92. =0.11	213. =0.11	93. =0.11
215. =0.11	141. =0.11	20. =0.11
144. =0.11	146. =0.11	42. =0.11
63. =0.11	98. =0.11	16. =0.11
100. =0.11	152. =0.11	231. =0.11
153. =0.11	154. =0.11	234. =0.11
65. =0.11	156. =0.11	238. =0.11
66. =0.11	104. =0.11	159. =0.11
44. =0.11	106. =0.11	248. =0.11
249. =0.11	162. =0.11	68. =0.11
45. =0.11	165. =0.11	257. =0.11
109. =0.11	46. =0.11	71. =0.11
265. =0.11	22. =0.11	268. =0.11
269. =0.11	23. =0.11	115. =0.11
74. =0.11	176. =0.11	177. =0.11
289. =0.11	75. =0.11	113. =0.07
30. =0.07	77. =0.07	190. =0.07
103. =0.07	208. =0.07	85. =0.07
189. =0.07	97. =0.07	212. =0.07
258. =0.07	260. =0.07	253. =0.07
180. =0.07	119. =0.07	174. =0.07
179. =0.07	263. =0.07	181. =0.06
251. =0.06	282. =0.06	279. =0.06
239. =0.06	211. =0.06	188. =0.06
259. =0.06	278. =0.06	292. =0.06
169. =0.06	56. =0.06	137. =0.05
242. =0.05	222. =0.05	142. =0.05
236. =0.05	125. =0.05	244. =0.05
145. =0.05	275. =0.05	205. =0.05
285. =0.05	271. =0.05	273. =0.05
219. =0.05	166. =0.05	276. =0.05
220. =0.05	221. =0.05	229. =0.05
286. =0.05	288. =0.05	267. =0.05
245. =0.05	291. =0.05	256. =0.05
283. =0.04	272. =0.04	293. =0.04
287. =0.04	284. =0.04	

PALICA IZPOSTAVLJENA PRITISKU IN UPOGIBU
(obtežni primer 112, na 302.6 cm od za etka palice)

Ra unska osna sila	Nsd = -82.946 kN
Pre na sila v z smeri	Vsd_z = -1.060 kN
Upogibni moment okoli y osi	Msd_y = -44.710 kNm
Sistemska dolžina palice	L = 585.00 cm

5.3 KLASIFIKACIJA PRE NIH PREREZOV
Razred prereza 2

5.4 NOSILNOST PRE NIH PREREZOV

5.4.4 Tlak

Plasti na ra unska nosilnost	Npl.Rd = 2078.7 kN
Ra unska nosilnost na tlak	Nc.Rd = 2078.7 kN

Pogoj 5.16: Nsd <= Nc.Rd (82.95 <= 2078.68)

5.4.5 Upogib y-y

Ra unski plasti ni moment	Mpl.Rd = 232.45 kNm
Ra unska nos.na lokalno izbo itev	Mo.Rd = 216.33 kNm
Ra unski elasti ni moment	Mel.Rd = 216.33 kNm
Ra unska nosilnost na upogib	Mc.Rd = 232.45 kNm

Pogoj 5.17: Msd_y <= Mc.Rd_y (44.71 <= 232.45)

5.4.6 Strig

Ra unska plast.nos.na strig z-z	Vpl.Rd = 240.77 kN
---------------------------------	--------------------

Pogoj 5.20: Vsd_z <= Vpl.Rd_z (1.06 <= 240.77)

5.4.9 Upogib z osno in pre no silo

Ni potrebno zmanjšanje upogibne nosilnosti

Pogoj: Vsd_z <= 50%Vpl.Rd_z

5.4.8 Upogib in osna sila

Razmerje Nsd / Npl.Rd	0.040
Razmerje Msd_y / Mpl.Rd_y	0.192

Pogoj 5.36: (0.23 <= 1)

5.5 NOSILNOST ELEMENTOV

5.5.1 Uklonska nosilnost

Uklonska dolžina y-y $I_y = 585.00 \text{ cm}$
 Vztrajnostni radij y-y $i_y = 11.853 \text{ cm}$
 Vitkost y-y $\lambda_y = 49.355$
 Relativna vitkost y-y $\lambda_{_y} = 0.509$
 Uklonska krivulja za os y-y: B $\alpha = 0.340$
 Koeficient nepopolnosti $\chi_y = 0.880$
 Koeficient efektivnega prereza $\beta_A = 0.937$
 Ra unska uklonska nosilnost $Nb.Rd_y = 1715.1 \text{ kN}$
Pogoj 5.45: Nsd <= Nb.Rd_y (82.95 <= 1715.12)

Uklonska dolžina z-z $I_z = 585.00 \text{ cm}$
 Vztrajnostni radij z-z $i_z = 6.994 \text{ cm}$
 Vitkost z-z $\lambda_z = 83.639$
 Relativna vitkost z-z $\lambda_{_z} = 0.862$
 Uklonska krivulja za os z-z: C $\alpha = 0.490$
 Koeficient nepopolnosti $\chi_z = 0.623$
 Koeficient efektivnega prereza $\beta_A = 0.937$
 Ra unska uklonska nosilnost $Nb.Rd_z = 1214.1 \text{ kN}$
Pogoj 5.45: Nsd <= Nb.Rd_z (82.95 <= 1214.09)

5.5.2 Bo na zvrnitev upogibnih nosilcev
 Koeficient $C1 = 1.132$
 Koeficient $C2 = 0.459$
 Koeficient $C3 = 0.525$
 Koef. ukl. dolžine za uklon $k = 1.000$
 Koef. ukl. dolžine za vbo enje $kw = 1.000$
 Koordinata $zg = 0.000 \text{ cm}$
 Koordinata $zj = 0.000 \text{ cm}$
 Razmak med bo nima podporami $L = 585.00 \text{ cm}$
 Sektorski vztrajnostni moment $I_w = 7.85e+5 \text{ cm}^6$
 Krit. moment bo ne zvrnitve $Mcr = 601.57 \text{ kNm}$
 Koeficient $\beta_w = 1.000$
 Koeficient imperf. $\alpha_{LT} = 0.210$
 Brezdimenz. vitkost $\lambda_{LT} = 0.652$
 Koeficient zmanjšanja $\chi_{LT} = 0.869$
 Ra unska uklonska nosilnost $Mb.Rd = 202.04 \text{ kNm}$
Pogoj 5.48: Msd_y <= Mb.Rd (44.71 <= 202.04)

5.5.4 Upogib in tlak
 Koeficient nepopolnosti $\chi_{min} = 0.623$
 Nsd / ... 0.064
 Koeficient oblike momenta $\beta_y = 1.300$
 Koeficient $\mu_y = -0.638$
 Koeficient $ky = 1.026$
 $ky * My / ... = 0.197$
Pogoj 5.51: (0.26 <= 1)

Koeficient nepopolnosti $\chi_z = 0.623$
 Nsd / ... 0.064
 Koeficient nepopolnosti $\chi_{LT} = 0.869$
 Koef. obl. mom. za bo no zvrnitev $\beta_{M.LT} = 1.300$
 Koeficient $\mu_{LT} = 0.018$
 Koeficient $k_{LT} = 0.999$
 $k_{LT} * My / ... = 0.221$
Pogoj 5.52: (0.29 <= 1)

5.6 LOKALNO IZBO ENJE ZARADI STRIGA

za strig v ravnini z-z
 Vizina stojine $d = 24.400 \text{ cm}$
 Debelina stojine $tw = 0.800 \text{ cm}$
 Ni pre nih oja itev v sredini $k_{\tau} = 5.340$
 Koeficient izbo enja pri strigu
 Ni potrebna kontrola izbo enja zaradi striga
Pogoj: d / tw <= 69 ε (30.50 <= 69.00)

5.6.7 Interakcija pre ne sile, upogiba in osne sile

za strig v ravnini z-z
 Ra unski plasti ni moment pasnic $Mf.Rd = 196.47 \text{ kNm}$
Pogoji 5.66a in 5.66b so izpolnjeni

5.7 VNOS KONCENTRIRANIH SIL V STOJINO

5.7.7 Uklon pasnice v smeri stojine
 Koeficient (razred pasnice 2) $k = 0.400$
 Povrzina stojine $Aw = 21.600 \text{ cm}^2$
 Povrzina tla .pasnice $Afc = 36.400 \text{ cm}^2$
 Prepre en je uklon pasnice v smeri stojine
Pogoj 5.80: (30.50 <= 275.35)

KONTROLA STRIŽNE NOSILNOSTI

(obtežni primer 112, na 20.2 cm od za etka palice)

Ra unska osna sila $Nsd = -80.034 \text{ kN}$
 Pre na sila v z smeri $Vsd_z = 28.627 \text{ kN}$
 Upogibni moment okoli y osi $Msd_y = -5.686 \text{ kNm}$
 Sistemska dolžina palice $L = 585.00 \text{ cm}$

5.4 NOSILNOST PRE NIH PREREZOV

5.4.6 Strig
 Ra unska plast.nos.na strig z-z $Vpl.Rd = 240.77 \text{ kN}$

Pogoj 5.20: $Vsd_z \leq Vpl.Rd_z$ (28.63 \leq 240.77)

5.6 LOKALNO IZBO ENJE ZARADI STRIGA
za strig v ravlini z-z

Vizina stojine

d = 24.400 cm

Debelina stojine

tw = 0.800 cm

Ni pre nih oja itev v sredini

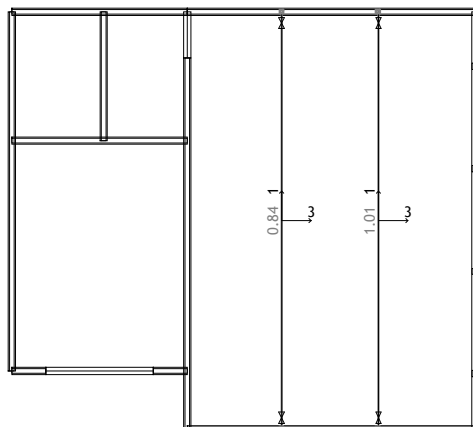
Koeficient izbo enja pri strigu

k_τ = 5.340

Ni potrebna kontrola izbo enja zaradi striga

Pogoj: $d / tw \leq 69$ ε (30.50 \leq 69.00)

Dimenzioniranje (les)



Nivo: [6.75 m]
Kontrola stabilnosti

PALICA 5364-9790

Lepljen lameliran les - GL32h
v smeri zgornjega roba palice
Debelina lamele 2.00 cm
Eksploatacijski razred 1
EUROCODE

PALICA SPREMENLJIVEGA PRE NEGA PREREZA

Tip spremembe Relativna linearna sprememba.

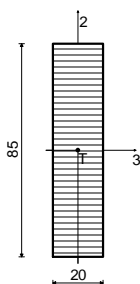
No	dL	$\Delta 3$ [cm]	$\Delta 2$ [cm]	b [cm]	d [cm]
S	0	0.00	30.00	20.00	60.00
1	0.5	0.00	50.00	20.00	100.00
E	1	0.00	30.00	20.00	60.00

FAKTORJI IZKORIŠĆENOSTI PO KOMBINACIJAH OBTEŽB

10. =0.84	44. =0.84	14. =0.76
66. =0.76	25. =0.76	92. =0.76
23. =0.73	104. =0.73	27. =0.73
32. =0.72	120. =0.72	123. =0.72
33. =0.72	118. =0.72	113. =0.70
30. =0.70	103. =0.69	208. =0.69
138. =0.67	52. =0.67	146. =0.65
45. =0.65	39. =0.65	177. =0.65
75. =0.65	160. =0.64	55. =0.64
53. =0.64	168. =0.64	63. =0.64
81. =0.64	83. =0.64	162. =0.64
203. =0.64	192. =0.64	87. =0.64
202. =0.64	13. =0.62	43. =0.61
76. =0.61	169. =0.61	56. =0.61
201. =0.61	12. =0.61	37. =0.61
77. =0.61	190. =0.61	210. =0.60
96. =0.60	142. =0.59	242. =0.59
85. =0.59	180. =0.59	189. =0.59
260. =0.59	179. =0.56	68. =0.56
258. =0.56	109. =0.56	213. =0.56
97. =0.56	212. =0.56	100. =0.56
156. =0.56	249. =0.56	124. =0.55
228. =0.55	133. =0.55	227. =0.55
130. =0.55	238. =0.55	17. =0.53
131. =0.53	225. =0.53	67. =0.53
15. =0.53	64. =0.53	18. =0.53
105. =0.53	137. =0.53	173. =0.53
121. =0.53	222. =0.53	252. =0.53
102. =0.53	24. =0.53	139. =0.52
246. =0.52	182. =0.52	262. =0.52
95. =0.51	125. =0.51	21. =0.51
236. =0.50	19. =0.50	119. =0.50
94. =0.50	253. =0.50	174. =0.50
114. =0.50	26. =0.50	28. =0.50
112. =0.50	116. =0.49	219. =0.49
273. =0.49	36. =0.49	292. =0.49
145. =0.48	244. =0.48	141. =0.47
185. =0.47	268. =0.47	263. =0.47
181. =0.47	221. =0.47	275. =0.47
211. =0.46	251. =0.46	282. =0.46
158. =0.44	143. =0.44	51. =0.44
207. =0.44	270. =0.44	149. =0.44
50. =0.44	241. =0.44	195. =0.44
280. =0.44	277. =0.43	217. =0.43
147. =0.42	48. =0.42	148. =0.42
72. =0.42	80. =0.42	278. =0.42
40. =0.42	259. =0.42	47. =0.42
166. =0.42	59. =0.42	271. =0.42
178. =0.42	205. =0.42	175. =0.41
239. =0.41	188. =0.41	73. =0.41

41. =0.41	161. =0.41	54. =0.41
279. =0.41	170. =0.41	82. =0.41
164. =0.41	61. =0.41	204. =0.41
191. =0.41	196. =0.41	89. =0.41
220. =0.39	276. =0.39	84. =0.39
200. =0.39	11. =0.38	38. =0.38
245. =0.37	267. =0.37	291. =0.37
293. =0.36	290. =0.36	255. =0.36
134. =0.36	233. =0.36	34. =0.35
223. =0.35	117. =0.34	31. =0.34
111. =0.34	69. =0.33	108. =0.33
214. =0.33	70. =0.33	107. =0.33
99. =0.33	216. =0.33	250. =0.33
157. =0.33	256. =0.33	229. =0.33
288. =0.33	247. =0.33	155. =0.33
91. =0.33	126. =0.33	226. =0.33
232. =0.32	128. =0.32	272. =0.31
283. =0.31	132. =0.30	224. =0.30
254. =0.30	172. =0.30	122. =0.30
65. =0.30	16. =0.30	98. =0.29
22. =0.29	86. =0.29	62. =0.28
194. =0.28	163. =0.28	93. =0.27
20. =0.27	150. =0.27	184. =0.26
171. =0.26	58. =0.26	266. =0.25
198. =0.25	79. =0.25	264. =0.24
151. =0.24	186. =0.24	101. =0.22
129. =0.22	209. =0.22	269. =0.22
206. =0.22	159. =0.22	237. =0.21
240. =0.21	193. =0.21	281. =0.21
153. =0.21	49. =0.21	144. =0.19
46. =0.19	176. =0.18	42. =0.18
74. =0.18	235. =0.17	135. =0.17
285. =0.16	286. =0.16	284. =0.16
287. =0.16	183. =0.15	140. =0.15
243. =0.14	261. =0.14	234. =0.13
257. =0.13	289. =0.13	29. =0.11
110. =0.11	115. =0.11	35. =0.11
106. =0.10	71. =0.10	215. =0.10
90. =0.10	248. =0.10	154. =0.10
218. =0.09	274. =0.08	230. =0.07
136. =0.06	231. =0.06	127. =0.06
167. =0.03	57. =0.02	60. =0.02
165. =0.02	199. =0.02	78. =0.02
197. =0.02	88. =0.02	265. =0.01
152. =0.01	187. =0.01	

KONTROLA NORMALNIH NAPETOSTI (obtežni primer 10, na 509.4 cm od za etka palice)



[cm]

Ra unska osna sila	N = -10.618 kN
Pre na sila v smeri osi 2	T2 = -43.780 kN
Pre na sila v smeri osi 3	T3 = -0.098 kN
Moment torzije	M1 = 0.020 kNm
Upogibni moment okoli osi 2	M2 = -0.303 kNm
Upogibni moment okoli osi 3	M3 = -406.07 kNm

KONTROLA NAPETOSTI - TLAK IN UPOGIB

Vrsta obtežbe: @1 @osnovno - kratkotrajno

Korekcijski koeficient

Kmod = 0.900

Parcialni koef. za karakteristike materiala

m = 1.250

Dodatek za elemente z malimi dimenzijami - os 2

Kh_2 = 1.100

Dodatek za elemente z malimi dimenzijami - os 3

Kh_3 = 1.000

Faktor oblik (za pravokotni prerez)

km = 0.700

Karakteristi na tla na trdnost

fc,0,k = 29.000 MPa

Ra unska tla na trdnost

fc,0,d = 20.880 MPa

Karakteristi na upogibna trdnost

fm,k = 32.000 MPa

Ra unska upogibna trdnost - os 2

fm,2,d = 25.344 MPa

Ra unska upogibna trdnost navzgor - os 3

fm,3,d = 23.040 MPa

Ra unska upogibna trdnost navzdol - os 3

fm, ,d = 20.098 MPa

Relativna vitkost

rel,2 = 4.593

Relativna vitkost

rel,3 = 4.593

Normalne tla ne napetosti

c,0,d = 0.062 MPa

Odpornostni moment

W2 = 5666.7 cm3

Normalna upogibna napetost okoli osi 2

m2,d = 0.053 MPa

Odpornostni moment	W3 =	24083 cm ³
Normalna upogibna napetost okoli osi 3	m _{3,d} =	16.861 MPa
TLAK IN UPOGIB - VELIKA VITKOST		
Za etna imperfekcija	=	0.100
Koeficient	k ₃ =	1.123
Koeficient	k ₂ =	11.264
Koeficient	kc ₃ =	0.700
Koeficient	kc ₂ =	0.046
Zgornji rob:		

$$\left(\frac{c_{0,d}}{kc_2 \times f_{c,0,d}} \right) + km \times \left(\frac{m_{3,d}}{f_{m,3,d}} \right) + \frac{m_{2,d}}{f_{m,2,d}} \leq 1 \quad (0.579 \leq 1)$$

Izkoriz enost prereza je 57.9%

$$\left(\frac{c_{0,d}}{kc_3 \times f_{c,0,d}} \right) + \frac{m_{3,d}}{f_{m,3,d}} + km \times \left(\frac{m_{2,d}}{f_{m,2,d}} \right) \leq 1 \quad (0.738 \leq 1)$$

Izkoriz enost prereza je 73.8%

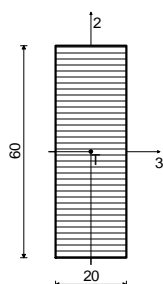
Spodnji rob:

$$\left(\frac{c_{0,d}}{kc_2 \times f_{c,0,d}} \right) + km \times \left(\frac{m_{3,d}}{f_{m,3,d}} \right) + \frac{m_{2,d}}{f_{m,2,d}} \leq 1 \quad (0.654 \leq 1)$$

Izkoriz enost prereza je 65.4%

$$\left(\frac{c_{0,d}}{kc_3 \times f_{c,0,d}} \right) + \frac{m_{3,d}}{f_{m,3,d}} + km \times \left(\frac{m_{2,d}}{f_{m,2,d}} \right) \leq 1 \quad (0.845 \leq 1)$$

Izkoriz enost prereza je 84.5%

KONTROLA STRIŽNIH NAPETOSTI
(obtežni primer 10, za etek palice)


[cm]

Pre na sila v smeri osi 2	T2 =	-115.37 kN
Pre na sila v smeri osi 3	T3 =	-0.098 kN
Moment torzije	M1 =	0.020 kNm

KONTROLA NAPETOSTI - STRIG

Vrsta obtežbe: @1 @osnovno - kratkotrajno

Korekcijski koeficient	Kmod =	0.900
Parcialni koef. za karakteristike materiala	m =	1.250
Karakteristi na strižna napetost	f _{v,k} =	3.800 MPa
Ra unska strižna trdnost	f _{v,d} =	2.736 MPa
Povrzina pre nega prereza	A =	1200.0 cm ²
Dejanska strižna napetost(os 2)	2 _d =	1.442 MPa
Dejanska strižna napetost(os 3)	3 _d =	0.001 MPa
Superponirana strižna napetost	s =	1.442 MPa

$$s \leq f_{v,d} \quad (1.442 \leq 2.736)$$

Izkoriz enost prereza je 52.7%

KONTROLA NAPETOSTI - TORZIJA

Karakteristi na strižna trdnost	f _{v,k} =	3.800 MPa
Ra unska strižna trdnost	f _{v,d} =	2.736 MPa
Torzijski odpornostni moment	Wp ₂ =	6267.5 cm ³
Dejanska strižna napetost(os 2)	tor _{2,d} =	0.003 MPa

$$tor_{2,d} \leq f_{v,d} \quad (0.003 \leq 2.736)$$

Izkoriz enost prereza je 0.1%

Torzijski odpornostni moment	Wp ₃ =	4712.4 cm ³
Dejanska strižna napetost(os 3)	tor _{3,d} =	0.004 MPa

$$tor_{3,d} \leq f_{v,d} \quad (0.004 \leq 2.736)$$

Izkoriz enost prereza je 0.2%

Superpozicija vplivov pre ne sile in torzijskega momenta
(os 2)

$$\text{tor}, 3, d + 2, d \leq f_v, d \quad (1.446 \leq 2.736)$$

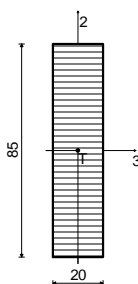
Izkoriz enost prereza je 52.9%

Superpozicija vplivov pre ne sile in torzijskega momenta
(os 3)

$$\text{tor}, 2, d + 3, d \leq f_v, d \quad (0.004 \leq 2.736)$$

Izkoriz enost prereza je 0.2%

DOKAZ STABILNOSTI ELEMENTA
(obtežni primer 10, na 1120.6 cm od za etka palice)



[cm]

Ra unska osna sila	N = -10.618 kN
Pre na sila v smeri osi 2	T2 = 43.780 kN
Pre na sila v smeri osi 3	T3 = -0.098 kN
Moment torzije	M1 = 0.020 kNm
Upogibni moment okoli osi 2	M2 = 0.295 kNm
Upogibni moment okoli osi 3	M3 = -406.07 kNm

DOKAZ BO NE STABILNOSTI

Vrsta obtežbe: @1 @osnovno - kratkotrajno

Korekcijski koeficient

Kmod = 0.900

Parcialni koef. za karakteristike materiala

m = 1.250

Razmak pridržanih to k pravokotno na smer osi 2

5% fraktil modula E paralelno z vlakni	lef = 326.00 cm
5% fraktil strižnega modula G	E0.05 = 11100 MPa
Torzijski vztrajnostni moment	G0.05 = 570.00 MPa
Vztrajnostni moment	I _{tor} = 1.94e+5 cm ⁴
Odpornostni moment	I ₂ = 56667 cm ⁴
Kriti na napetost uklona	W3 = 24083 cm ³
Relativna vitkost za uklon	m _{crit} = 105.66 MPa
Koeficient	rel = 0.550
Normalna upogibna napetost okoli osi 3	k _{krit} = 1.000
	m _{3,d} = 16.861 MPa

$$m, 3, d \leq k_{krit} \times f_m, 3, d \quad (16.861 \leq 23.040)$$

Izkoriz enost prereza je 73.2%

3/1.5 RISBE