

Statični račun

- VODOVOD KRIŽE - PEČICE - ŠAPOLE; etapa 1

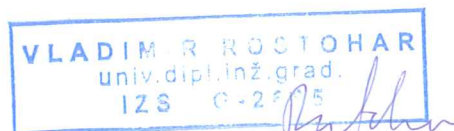
Vodohran Goli vrh
RAZTEŽILNIK Pečice
PREČRPALIŠČE Goli vrh – Pečice

OBČINA BREŽICE
Cesta prvih borcev 18, 8250 Brežice

Krško, marec 2022

Izdelal :

Vladimir Rostohar, univ.dipl.ing.gr.



Račun obremenitev konstrukcije – raztežilnik

Lastna teža

- teža elementov upošteva program sam	
- stalna (naklonski beton)	2,500 kN/m ²
	2,500 kN/m ²

Zemeljski pritiski in prometna obtežba:

Podatki:	Geom.:	Zemljina:
	H = 3,40 m	$\phi = 30,0$ stopinj
	G = 0 kN	$c' = 0,0$ kPa
	$b_1 = 0,32$ m	$\gamma = 19,0$ kN/m ³
	$b_2 = 0,22$ m	$\phi_m = 24,0$ stopinj
	d = 0,15 m	$F_i = 1,25$
	$b_1' = 0,47$ m	$F_c = 1,60$
	$b_2' = 0,37$ m	$k_s = 0,422$
	l = 2,00 m	$k_p = 2,37$
	e = 1,00 m	$\gamma_w = 10,0$ kN/m ³
	n = 4	
	$k_d = 1,354$	H = 0,80 m
	$k_{zav.} = 0,30$	H = 4,20 m
	a = 55,1 cm	
	$\gamma_{arm.betona} = 25$ kN/m ³	
		H=0,5 $p_{zem} = 11,04$ kN/m ²
		H=3,05 $p_{zem} = 57,95$ kN/m ²
		$M_{zem} = 111,7$ kNm/m
		Z = 0 kN
		$q_z = 0$ kNm/m
		$M_{zav.pojle} = 0$ kNm/m
		$M_{zav.vpajlje} = 0$ kNm/m
		$p_{prom} = 0,0$ kN/m ²
		$p_{H1} = 0,0$ kN/m ²
		$p_{H2} = 0,0$ kN/m ²
		$p_{H3} = 0,0$ kN/m ²
		$p_{H4} = 0,0$ kN/m ²
		$p_{H5} = 0,0$ kN/m ²
		$M_{prom} = 0,0$ kNm/m

$h_{1,2} =$	3,12
$h_{2,3} =$	2,57
$h_{3,4} =$	2,02
$h_{4,5} =$	1,47
$h_{5,99} =$	0,98

Pritisk vode:

	$\gamma = 10$ kN/m ³	- specifična teža vode
jašek:	$h_i = 1$ m	- globina bazena - višina, kjer se vklopi črpalka
jašek:	$P_{v,max} = 10,00$ kN/m ²	- maksimalna vrednost aktivnega tlaka na globini h_i

Račun obremenitev konstrukcije Vodohrana

Lastna teža:

- sončne celice	0,30 kN/m ²
- pesek (10cm)	2,20 kN/m ²
- toplotna izolacija 8 cm x 80 kg/m ³ =	0,06 kN/m ²
- naklonski beton (10cm)	2,45 kN/m ²
- lastna teža (upoštevana v programu)	0,00 kN/m ²
	5,01 kN/m ²

Lastna teža

- teža elementov upošteva program sam	
- stalna (naklonski beton)	2,500 kN/m ²
	2,500 kN/m ²

Koristna obtežba

- obtežba	2,00 kN/m ²
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Obtežba zemljine

- obtežba	Upoštevana v programu
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Obtežba snega

(SIST EN 1991-1-3:2005/oA101:2007, str. 5)

Cona A2	H = 572,08	m n.v.	podatek iz tabel MOPE
$s_k =$	3,130	kN/m ²	izbrana osnovna obremenitev
$\alpha =$	0	*	naklon površine (streha)
$\alpha =$	0	*	naklon površine (nižje strehe in konzol na severni strani objekta)
	DA		prisotnost snegolovov na strehi
$\mu_1 =$	0,8		korekcijski faktor naklona
$\mu_2 =$	0,8		korekcijski faktor naklona (balkon, nižji objekt)
$c_E =$	1,0		koef.izpostavljenosti
$c_T =$	1,0		toplotni koeficient
$s_1 =$	2,50	kN/m ²	računska obremenitev snega-streha (brez varn.faktorjev)
$s_2 =$	2,50	kN/m ²	računska obremenitev snega-balkon (brez varn.faktorjev)
$s_{izbrani} =$	2,50	kN/m ²	izbrana obremenitev snega

Osnovni podatki o modelu, Vhodni podatki - Konstrukcija

Datoteka: Vodohran Goli Vrh.twp
Datum preračuna: Marec 2022

Način preračuna: 3D model

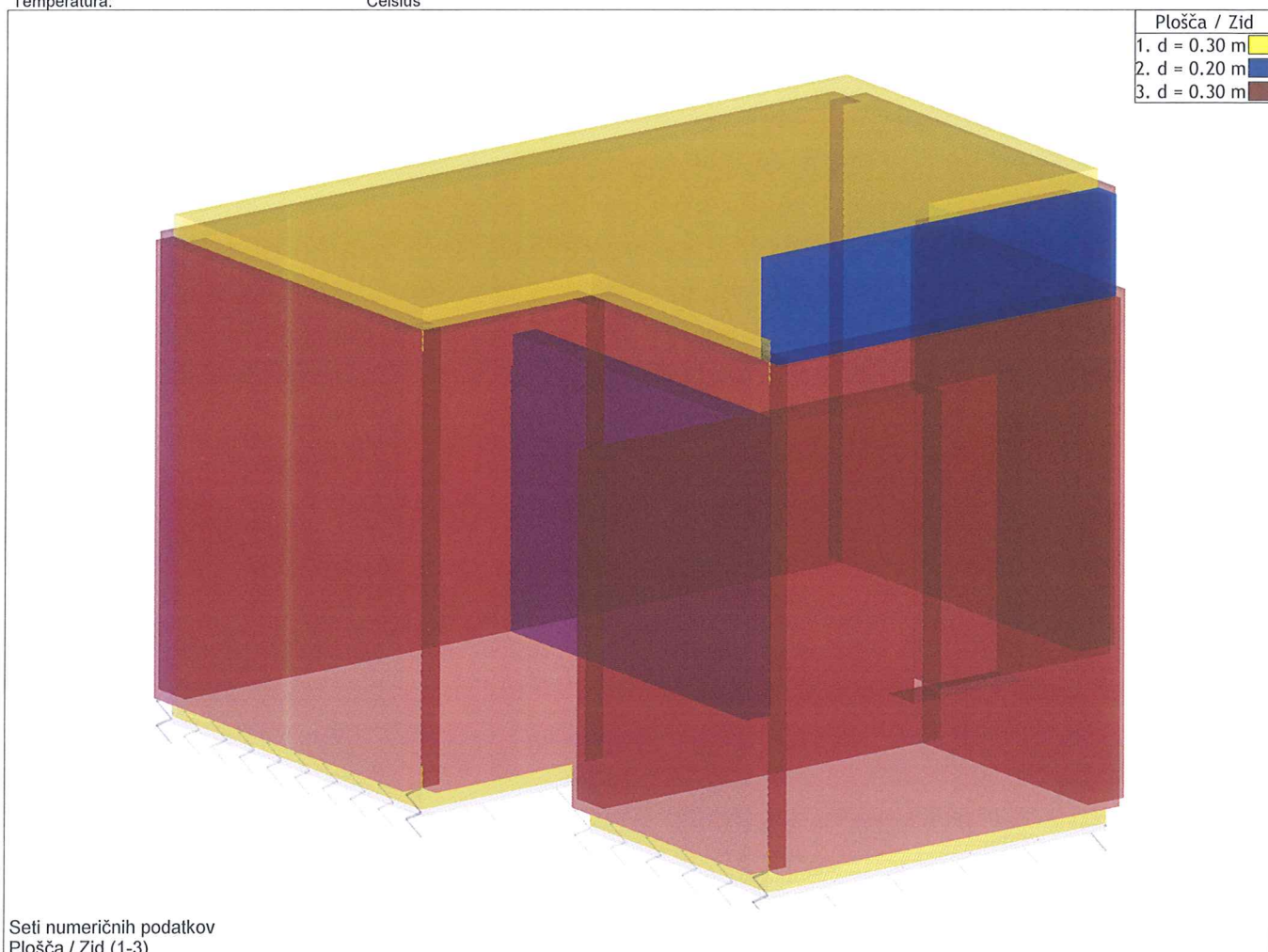
- ☒ Teorija I-ga reda ☐ Modalna analiza ☐ Stabilnost
☐ Teorija II-ga reda ☐ Seizmični preračun ☐ Faze gradnje
☐ Nelinearen preračun

Velikost modela

Število vozlišč: 1061
 Število ploskovnih elementov: 1332
 Število grednih elementov: 0
 Število robnih elementov: 2478
 Število osnovnih obtežnih primerov: 6
 Število kombinacij obtežb: 80

Enote mer

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



Tabele materialov

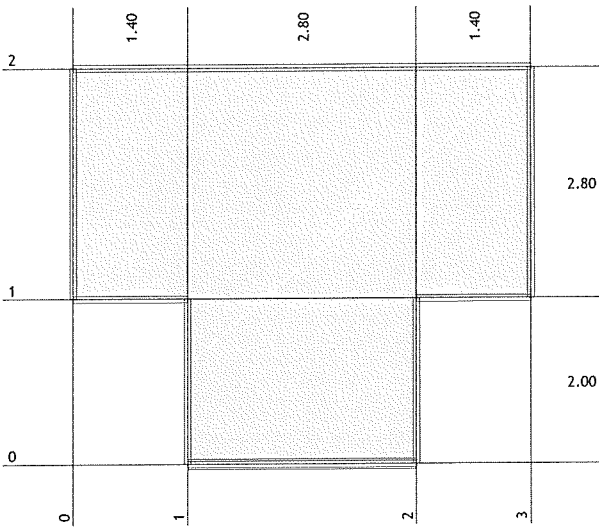
No	Naziv materiala	E[kN/m ²]	μ	γ [kN/m ³]	α [1/C]	Em[kN/m ²]	μ
1	Beton C 30	2.750e+7	0.20	25.00	1.000e-5	2.750e+7	0.20
2	Beton C 30 razpokan	1.375e+7	0.20	25.00	1.000e-5	1.375e+7	0.20

Seti plošč

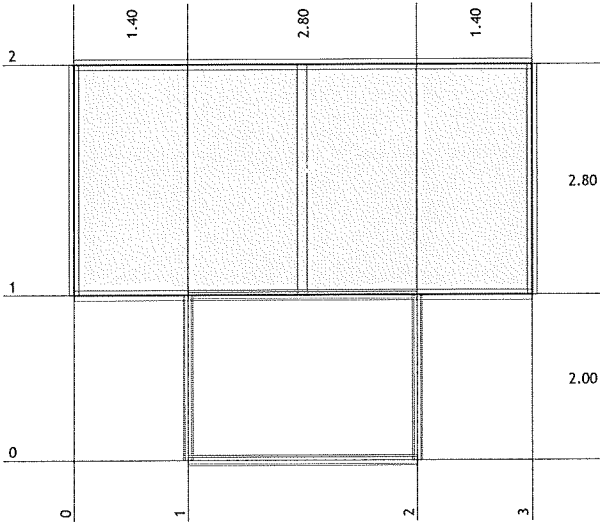
No	d[m]	e[m]	Material	Tip preračuna	Ortotropija	E2[kN/m ²]	G[kN/m ²]	α
<1>	0.300	0.150	1	Tanka plošča	Izotropna			
<2>	0.200	0.100	2	Tanka plošča	Izotropna			
<3>	0.300	0.150	2	Tanka plošča	Izotropna			

Seti površinskih podpor

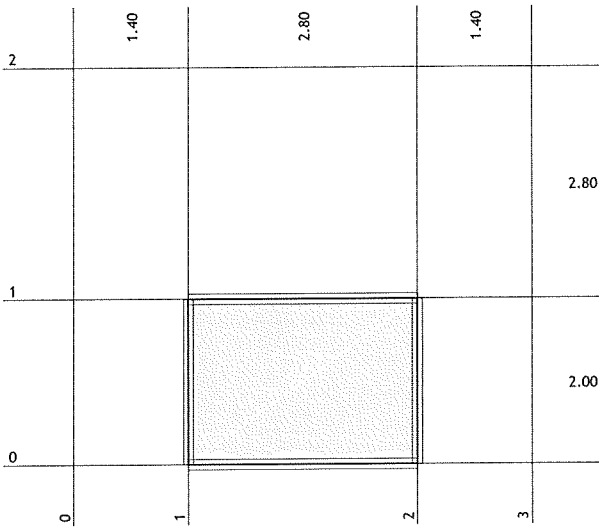
Set	K,R1	K,R2	K,R3
1	1.000e+4	1.000e+4	1.000e+4



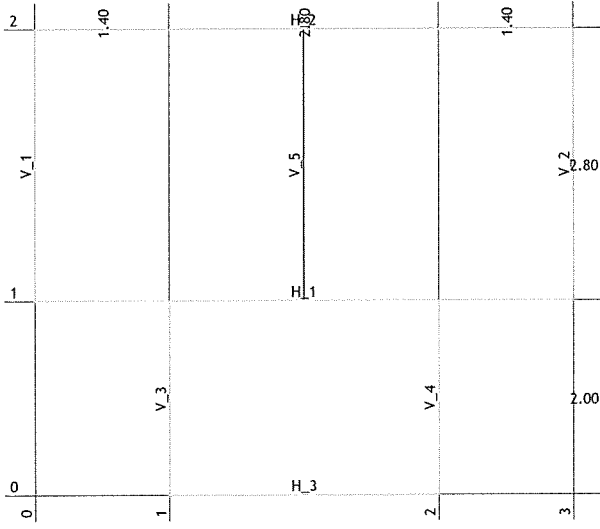
Nivo: [-0.70 m]



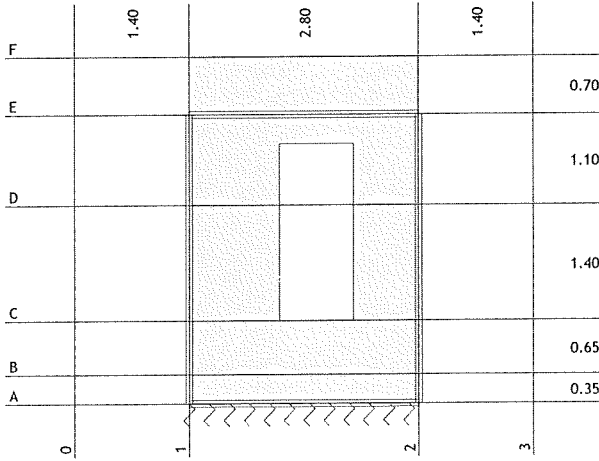
Nivo: [-3.85 m]



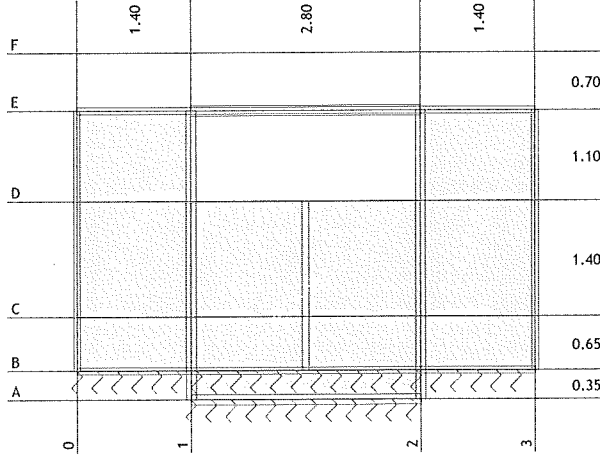
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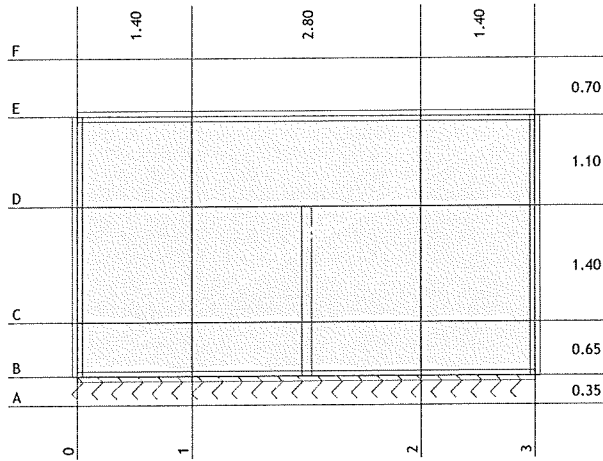
Dispozicija okvirjev



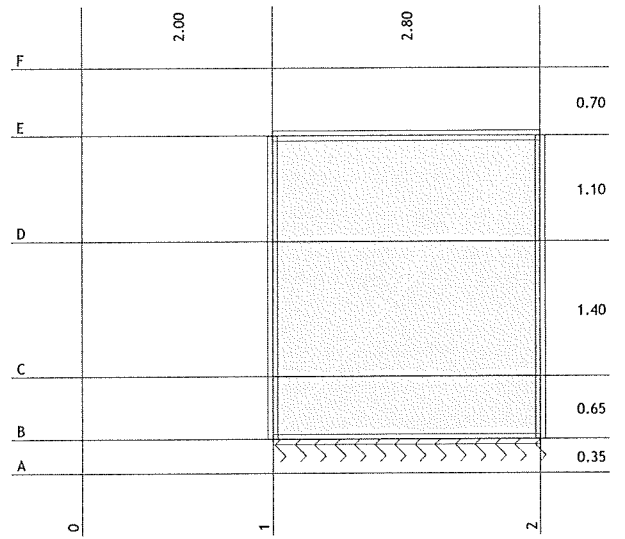
Okvir: H_3



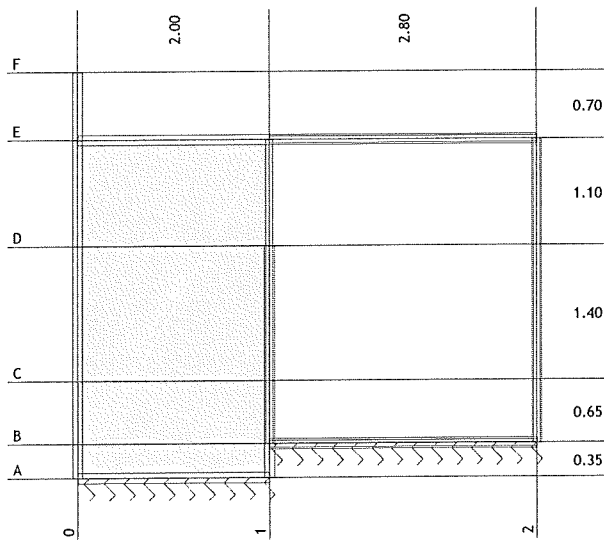
Okvir: H_1



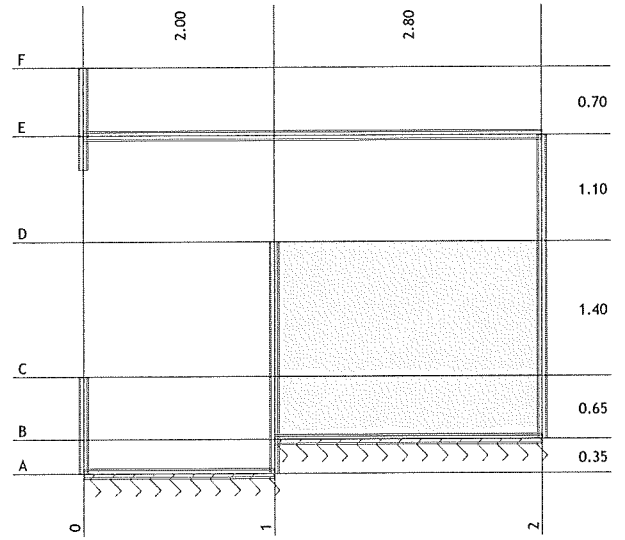
Okvir: H_2



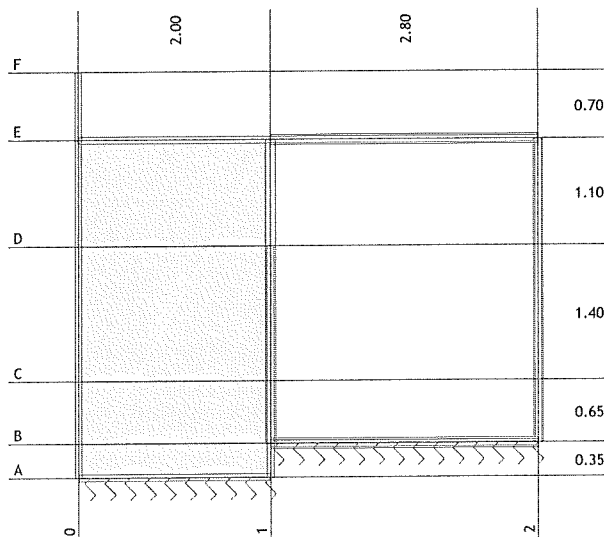
Okvir: V_1



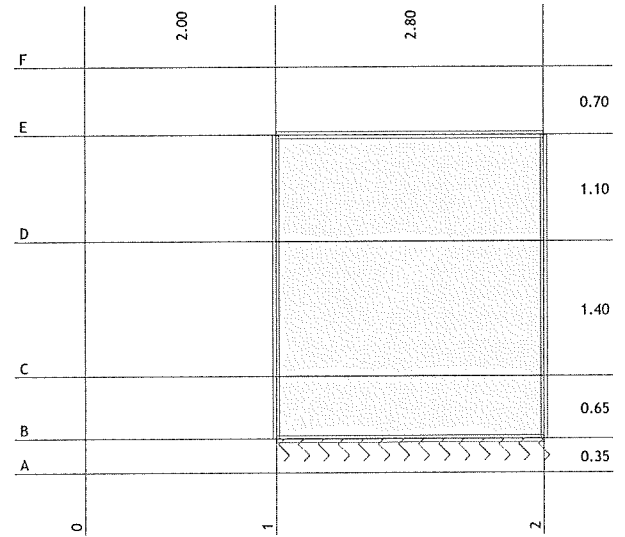
Okvir: V_3



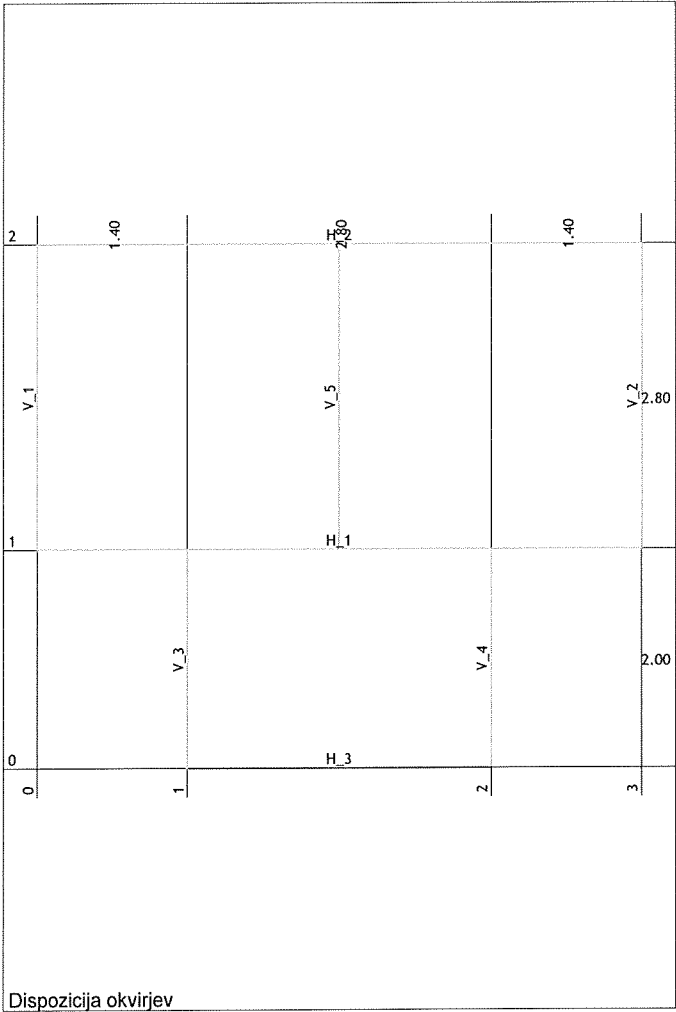
Okvir: V_5



Okvir: V_4



Okvir: V_2



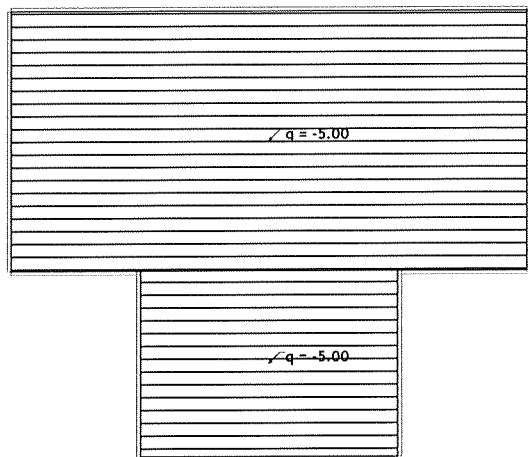
Vhodni podatki - Obtežba

Lista obtežnih primerov				
LC	Naziv	pX [kN]	pY [kN]	pZ [kN]
1	Lastna + Stalna (g)	0.00	0.00	-1021.67
2	Koristna	0.00	0.00	-11.20
3	Zemljina	-0.00	-252.65	-297.92
4	Voda	58.83	-0.00	-321.44
5	Voda v enem rezervoarju	-0.00	0.00	-160.72
6	Sneg	0.00	0.00	-53.20
7	Komb.: 1.35xI+1.05xII+1.35xIII+ +1.35xV+1.5xVI	-0.00	-341.08	-2089.98
8	Komb.: 1.35xI+1.05xII+1.35xIII+ +1.35xIV+1.5xVI	79.43	-341.08	-2306.95
9	Komb.: 1.35xI+1.5xII+1.35xIII+1.35xV+ +0.75xVI	-0.00	-341.08	-2055.12
10	Komb.: 1.35xI+1.5xII+ +1.35xIII+1.35xIV+0.75xVI	79.43	-341.08	-2272.09
11	Komb.: I+1.05xII+1.35xIII+1.35xV+ +1.5xVI	-0.00	-341.08	-1732.40
12	Komb.: I+1.05xII+ +1.35xIII+1.35xIV+1.5xVI	79.43	-341.08	-1949.37
13	Komb.: 1.35xI+1.05xII+III+1.35xV+ +1.5xVI	-0.00	-252.65	-1985.71
14	Komb.: 1.35xI+1.05xII+III+1.35xIV +1.5xVI	79.43	-252.65	-2202.68
15	Komb.: 1.35xI+1.05xII+1.35xIII+V+ +1.5xVI	-0.00	-341.08	-2033.73
16	Komb.: 1.35xI+1.05xII+1.35xIII+ +IV+1.5xVI	58.83	-341.08	-2194.45
17	Komb.: I+1.5xII+1.35xIII+ +1.35xV+0.75xVI	-0.00	-341.08	-1697.54
18	Komb.: I+1.5xII+1.35xIII+1.35xIV+ +0.75xVI	79.43	-341.08	-1914.51
19	Komb.: 1.35xI+1.5xII+III+ +1.35xV+0.75xVI	-0.00	-252.65	-1950.85
20	Komb.: 1.35xI+1.5xII+III+1.35xIV+ +0.75xVI	79.43	-252.65	-2167.82
21	Komb.: 1.35xI+1.5xII+ +1.35xIII+V+0.75xVI	-0.00	-341.08	-1998.87
22	Komb.: 1.35xI+1.5xII+1.35xIII+IV+ +0.75xVI	58.83	-341.08	-2159.59
23	Komb.: I+1.05xII+III+1.35xV+1.5xVI	-0.00	-252.65	-1628.12
24	Komb.: I+1.05xII+III+1.35xIV+1.5xVI	79.43	-252.65	-1845.10
25	Komb.: I+1.05xII+1.35xIII+V+1.5xVI	-0.00	-341.08	-1676.14
26	Komb.: I+1.05xII+1.35xIII+IV+1.5xVI	58.83	-341.08	-1836.86
27	Komb.: 1.35xI+1.05xII+III+V+1.5xVI	-0.00	-252.65	-1929.46
28	Komb.: 1.35xI+1.05xII+III+IV+1.5xVI	58.83	-252.65	-2090.18
29	Komb.: I+1.5xII+III+1.35xV+0.75xVI	-0.00	-252.65	-1593.26
30	Komb.: I+1.5xII+III+1.35xIV+0.75xVI	79.43	-252.65	-1810.24
31	Komb.: I+1.5xII+1.35xIII+V+0.75xVI	-0.00	-341.08	-1641.28
32	Komb.: I+1.5xII+1.35xIII+IV+0.75xVI	58.83	-341.08	-1802.00
33	Komb.: 1.35xI+1.5xII+III+V+0.75xVI	-0.00	-252.65	-1894.60
34	Komb.: 1.35xI+1.5xII+III+IV+0.75xVI	58.83	-252.65	-2055.32
35	Komb.: 1.35xI+1.35xIII+1.35xV+1.5xVI	-0.00	-341.08	-2078.22
36	Komb.: 1.35xI+ +1.35xIII+1.35xIV+1.5xVI	79.43	-341.08	-2295.19
37	Komb.: 1.35xI+1.5xII+1.35xIII+1.35xV	-0.00	-341.08	-2015.22
38	Komb.: 1.35xI+1.5xII+1.35xIII+1.35xIV	79.43	-341.08	-2232.19
39	Komb.: I+1.05xII+III+V+1.5xVI	-0.00	-252.65	-1571.87
40	Komb.: I+1.05xII+III+IV+1.5xVI	58.83	-252.65	-1732.59
41	Komb.: I+1.5xII+III+V+0.75xVI	-0.00	-252.65	-1537.01
42	Komb.: I+1.5xII+III+IV+0.75xVI	58.83	-252.65	-1697.73
43	Komb.: I+1.35xIII+1.35xV+1.5xVI	-0.00	-341.08	-1720.64
44	Komb.: I+1.35xIII+1.35xIV+1.5xVI	79.43	-341.08	-1937.61
45	Komb.: I+1.5xII+1.35xIII+1.35xV	-0.00	-341.08	-1657.64
46	Komb.: I+1.5xII+1.35xIII+1.35xIV	79.43	-341.08	-1874.61
47	Komb.: 1.35xI+III+1.35xV+1.5xVI	-0.00	-252.65	-1973.95
48	Komb.: 1.35xI+III+1.35xIV+1.5xVI	79.43	-252.65	-2190.92
49	Komb.: 1.35xI+1.35xIII+V+1.5xVI	-0.00	-341.08	-2021.97
50	Komb.: 1.35xI+1.35xIII+IV+1.5xVI	58.83	-341.08	-2182.69
51	Komb.: 1.35xI+1.5xII+III+1.35xV	-0.00	-252.65	-1910.95
52	Komb.: 1.35xI+1.5xII+III+1.35xIV	79.43	-252.65	-2127.92
53	Komb.: 1.35xI+1.5xII+1.35xIII+V	-0.00	-341.08	-1958.97
54	Komb.: 1.35xI+1.5xII+1.35xIII+IV	58.83	-341.08	-2119.69
55	Komb.: I+III+1.35xV+1.5xVI	-0.00	-252.65	-1616.36
56	Komb.: I+III+1.35xIV+1.5xVI	79.43	-252.65	-1833.34
57	Komb.: I+1.35xIII+V+1.5xVI	-0.00	-341.08	-1664.38
58	Komb.: I+1.35xIII+IV+1.5xVI	58.83	-341.08	-1825.10
59	Komb.: I+1.5xII+III+1.35xV	-0.00	-252.65	-1553.36
60	Komb.: I+1.5xII+III+1.35xIV	79.43	-252.65	-1770.34
61	Komb.: I+1.5xII+1.35xIII+V	-0.00	-341.08	-1601.38
62	Komb.: I+1.5xII+1.35xIII+IV	58.83	-341.08	-1762.10
63	Komb.: 1.35xI+III+V+1.5xVI	-0.00	-252.65	-1917.70
64	Komb.: 1.35xI+III+IV+1.5xVI	58.83	-252.65	-2078.42
65	Komb.: 1.35xI+1.5xII+III+V	-0.00	-252.65	-1854.70
66	Komb.: 1.35xI+1.5xII+III+IV	58.83	-252.65	-2015.42
67	Komb.: I+III+V+1.5xVI	-0.00	-252.65	-1560.11
68	Komb.: I+III+IV+1.5xVI	58.83	-252.65	-1720.83
69	Komb.: I+1.5xII+III+V	-0.00	-252.65	-1497.11
70	Komb.: I+1.5xII+III+IV	58.83	-252.65	-1657.83
71	Komb.: 1.35xI+1.35xIII+1.35xV	-0.00	-341.08	-1998.42
72	Komb.: 1.35xI+1.35xIII+1.35xIV	79.43	-341.08	-2215.39
73	Komb.: I+1.35xIII+1.35xV	-0.00	-341.08	-1640.84
74	Komb.: I+1.35xIII+1.35xIV	79.43	-341.08	-1857.81
75	Komb.: 1.35xI+III+1.35xV	-0.00	-252.65	-1894.15
76	Komb.: 1.35xI+III+1.35xIV	79.43	-252.65	-2111.12
77	Komb.: 1.35xI+1.35xIII+V	-0.00	-341.08	-1942.17
78	Komb.: 1.35xI+1.35xIII+IV	58.83	-341.08	-2102.89

Lista obtežnih primerov

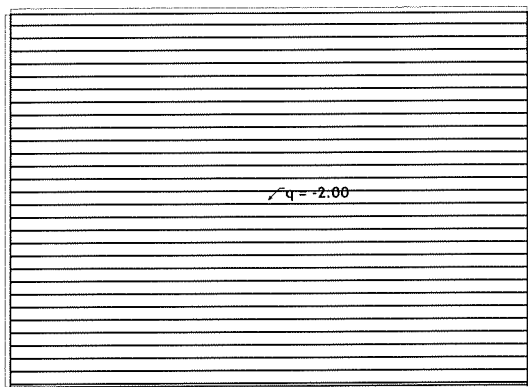
LC	Naziv	pX [kN]	pY [kN]	pZ [kN]
79	Komb.: I+III+1.35xV	-0.00	-252.65	-1536.56
80	Komb.: I+III+1.35xIV	79.43	-252.65	-1753.54
81	Komb.: I+1.35xIII+V	-0.00	-341.08	-1584.58
82	Komb.: I+1.35xIII+IV	58.83	-341.08	-1745.30
83	Komb.: 1.35xI+III+V	-0.00	-252.65	-1837.90
84	Komb.: 1.35xI+III+IV	58.83	-252.65	-1998.62
85	Komb.: I+III+V	-0.00	-252.65	-1480.31
86	Komb.: I+III+IV	58.83	-252.65	-1641.03

Obt. 1: Lastna + Stalna (g)



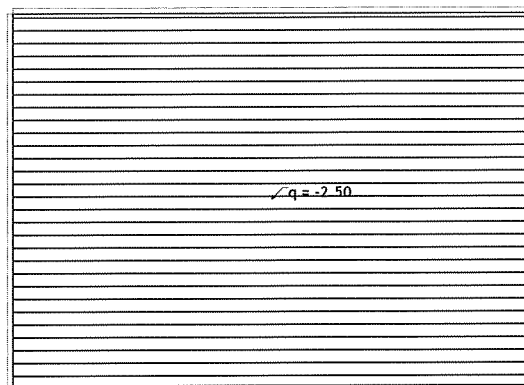
Nivo: [-0.70 m]

Obt. 2: Koristna



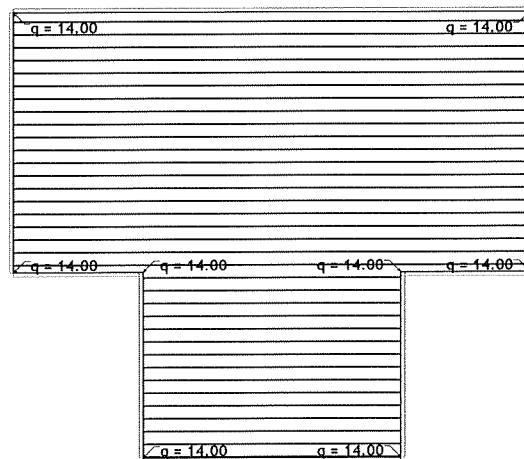
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Obt. 1: Lastna + Stalna (g)



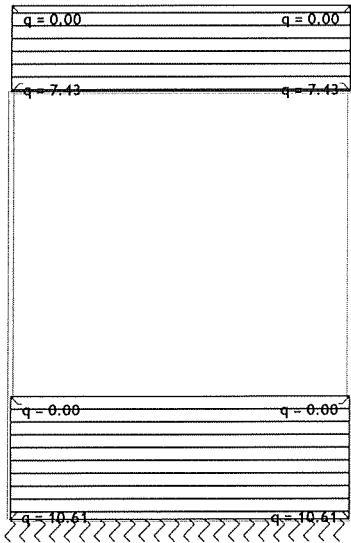
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Obt. 3: Zemljina

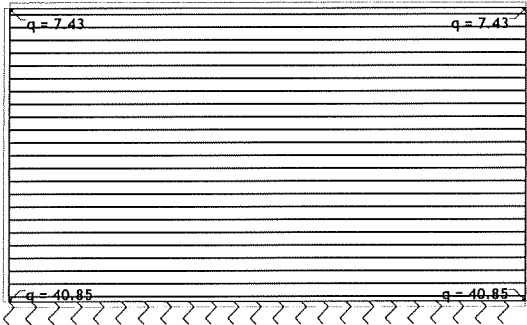


Nivo: [-0.70 m]

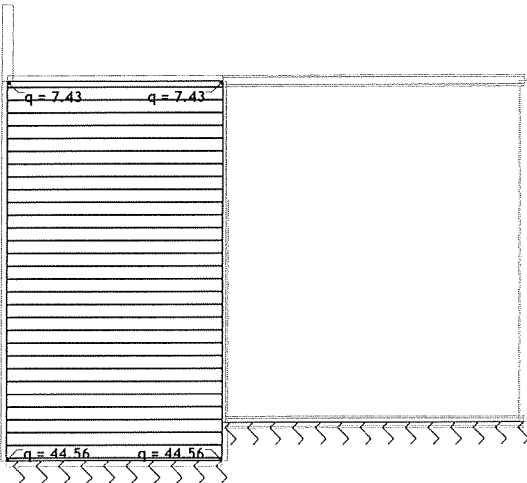
Obt. 3: Zemljina



Okvir: H_3
Obt. 3: Zemljina

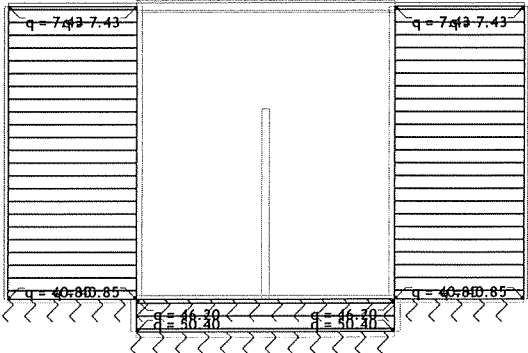


Okvir: H_2
Obt. 3: Zemljina

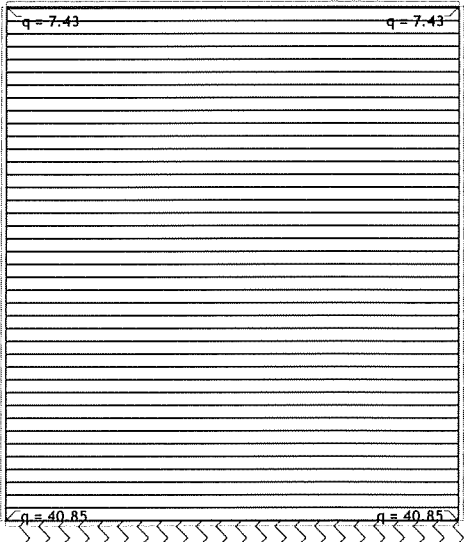


Okvir: V_3

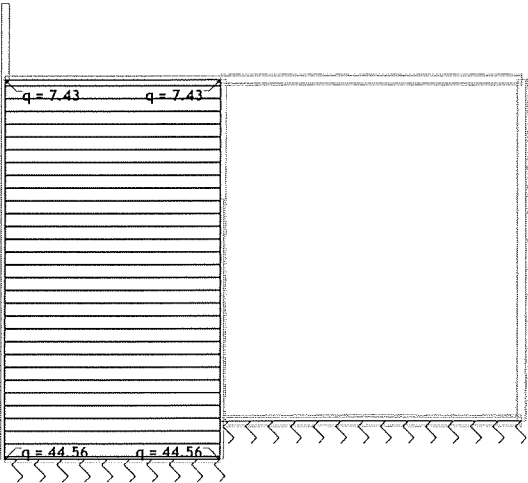
Obt. 3: Zemljina



Okvir: H_1
Obt. 3: Zemljina

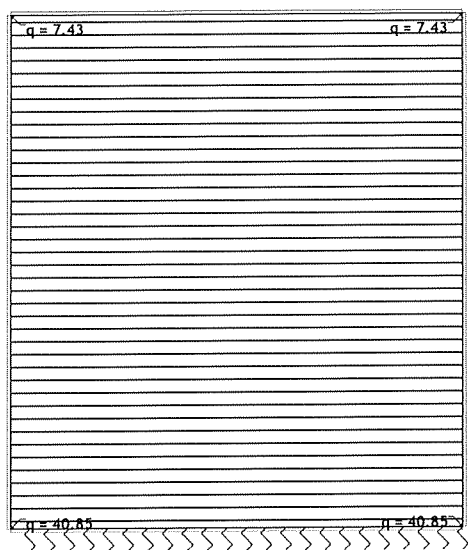


Okvir: V_1
Obt. 3: Zemljina



Okvir: V_4

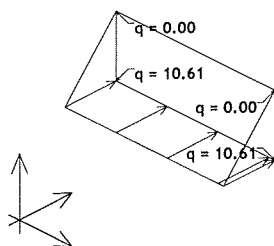
Obt. 3: Zemljina



Okvir: V_2

Površinska obtežba

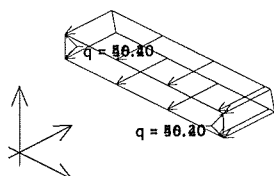
Obtežba 3: Zemljina



Čarovnik - Zemlja	
Parameter	Vrednost
h[m]	-3.20
γ[kN/m³]	20.00
φ[°]	28.00
Pritisk tal v stanju mirovanja	

Površinska obtežba

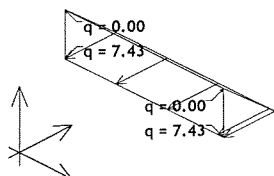
Obtežba 3: Zemljina



Čarovnik - Zemlja	
Parameter	Vrednost
h[m]	0.00
γ[kN/m³]	24.00
φ[°]	30.00
Pritisk tal v stanju mirovanja	

Površinska obtežba

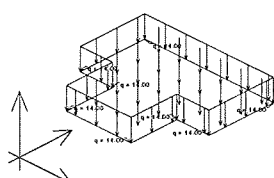
Obtežba 3: Zemljina



Čarovnik - Zemlja	
Parameter	Vrednost
h[m]	0.00
γ[kN/m³]	20.00
φ[°]	28.00
Pritisk tal v stanju mirovanja	

Površinska obtežba

Obtežba 3: Zemljina



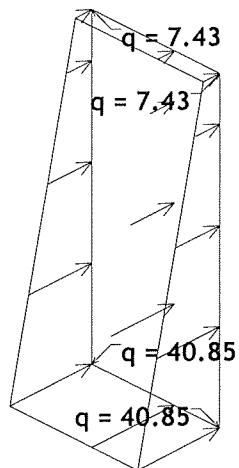
Čarovnik - Zemlja	
Parameter	Vrednost
h[m]	0.00
γ[kN/m³]	20.00
φ[°]	28.00
Pritisk tal v stanju mirovanja	

Površinska optežba

Optežba 3: Zemljina

Čarovník - Zemlja

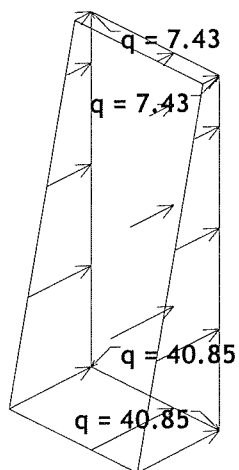
Parameter	Vrednost
$h[m]$	0.00
$\gamma[kN/m^3]$	20.00
$\varphi[^\circ]$	28.00
Pritisk tal v stanju mirovanja	

**Površinska optežba**

Optežba 3: Zemljina

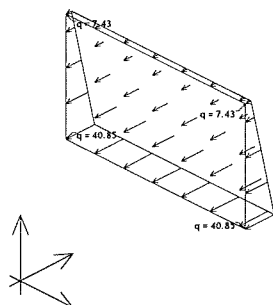
Čarovník - Zemlja

Parameter	Vrednost
$h[m]$	0.00
$\gamma[kN/m^3]$	20.00
$\varphi[^\circ]$	28.00
Pritisk tal v stanju mirovanja	



Površinska obtežba

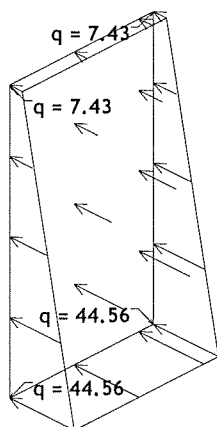
Obtežba 3: Zemljina



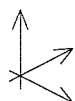
Čarovnik - Zemlja	
Parameter	Vrednost
$h[m]$	0.00
$\gamma[kN/m^3]$	20.00
$\varphi[^\circ]$	28.00
Pritisk tal v stanju mirovanja	

Površinska obtežba

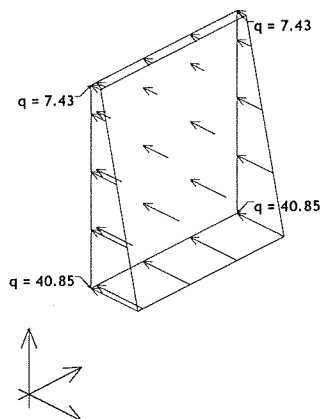
Obtežba 3: Zemljina



Čarovnik - Zemlja	
Parameter	Vrednost
$h[m]$	0.00
$\gamma[kN/m^3]$	20.00
$\varphi[^\circ]$	28.00
Pritisk tal v stanju mirovanja	

**Površinska obtežba**

Obtežba 3: Zemljina

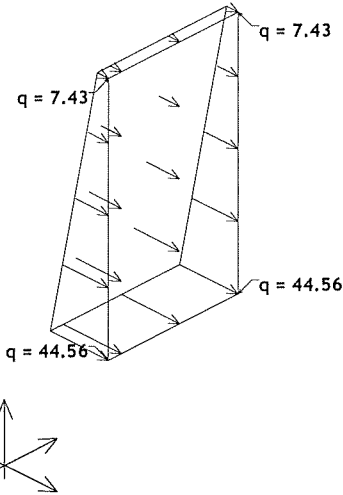


Čarovnik - Zemlja	
Parameter	Vrednost
$h[m]$	0.00
$\gamma[kN/m^3]$	20.00
$\varphi[^\circ]$	28.00
Pritisk tal v stanju mirovanja	

Površinska obtežba

Obtežba 3: Zemljina

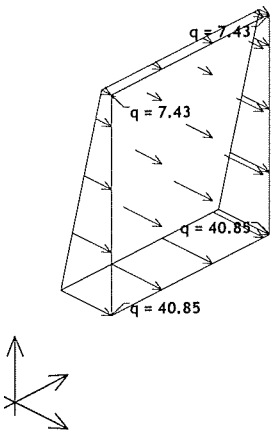
Čarovnik - Zemlja	
Parameter	Vrednost
h[m]	0.00
γ[kN/m³]	20.00
φ[°]	28.00
Pritisk tal v stanju mirovanja	



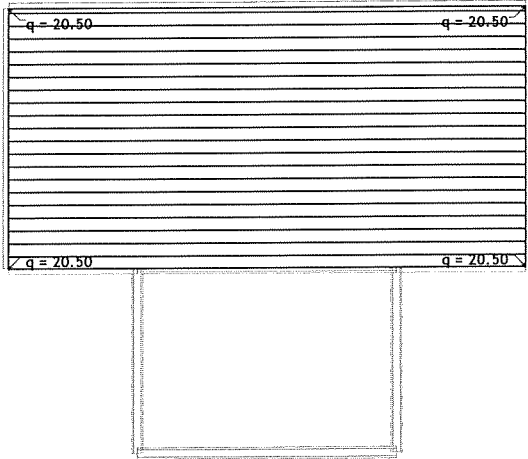
Površinska obtežba

Obtežba 3: Zemljina

Čarovnik - Zemlja	
Parameter	Vrednost
h[m]	0.00
γ[kN/m³]	20.00
φ[°]	28.00
Pritisk tal v stanju mirovanja	

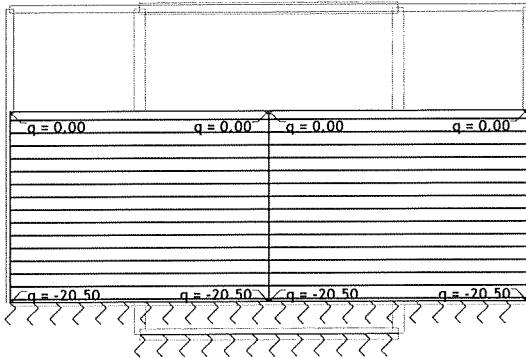


Obt. 4: Voda



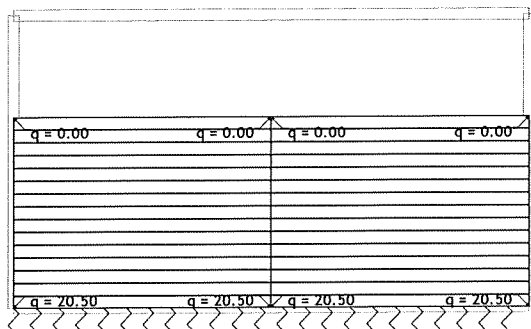
Nivo: [-3.85 m]

Obt. 4: Voda

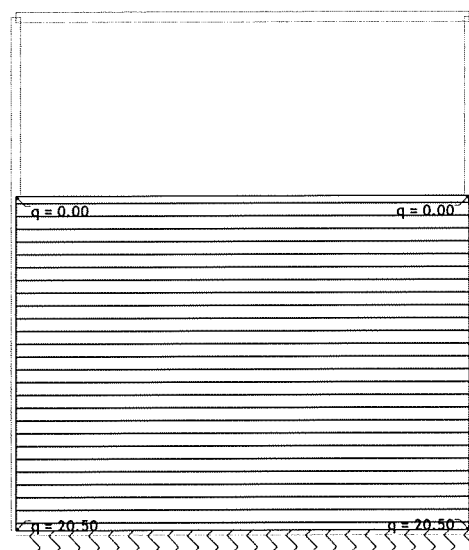


Okvir: H_1

Obt. 4: Voda

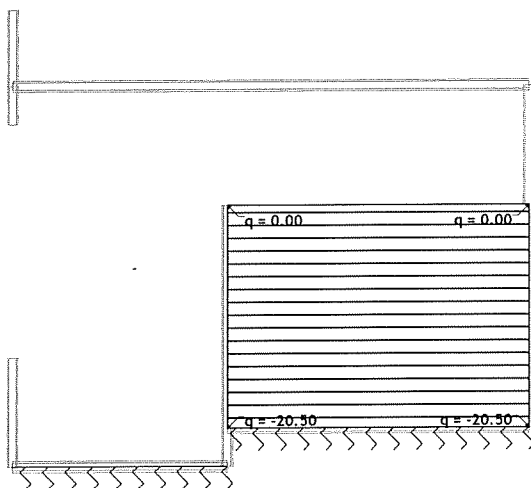


Obt. 4: Voda



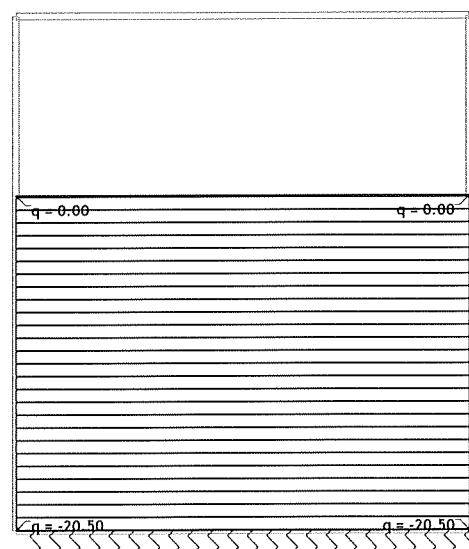
Okvir: H_2

Obt. 4: Voda



Okvir: V_1

Obt. 4: Voda



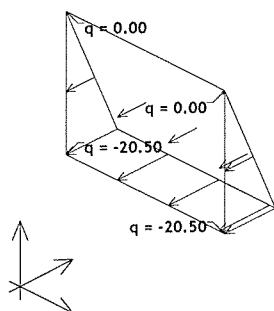
Okvir: V_5

Okvir: V_2

Površinska optežba

Obtežba 4: Voda

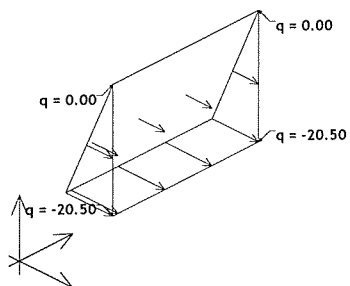
Čarovník - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00



Površinska optežba

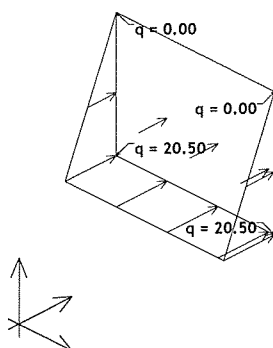
Obtežba 4: Voda

Čarovnik - Voda	
Parameter	Vrednost
h[m]	-1.80
γ[kN/m³]	10.00

**Površinska optežba**

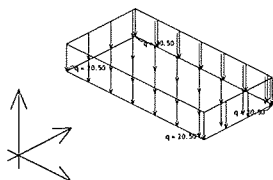
Obtežba 4: Voda

Čarovnik - Voda	
Parameter	Vrednost
h[m]	-1.80
γ[kN/m³]	10.00

**Površinska optežba**

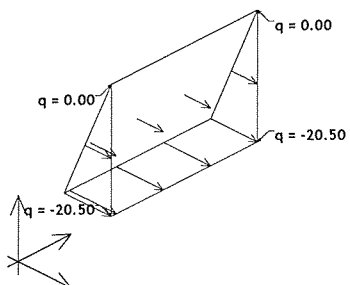
Obtežba 4: Voda

Čarovnik - Voda	
Parameter	Vrednost
h[m]	-1.80
γ[kN/m³]	10.00

**Površinska optežba**

Obtežba 4: Voda

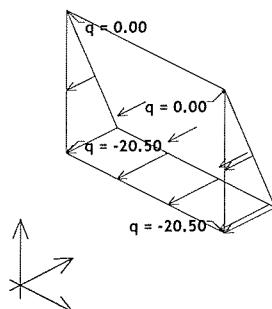
Čarovnik - Voda	
Parameter	Vrednost
h[m]	-1.80
γ[kN/m³]	10.00



Površinska optežba

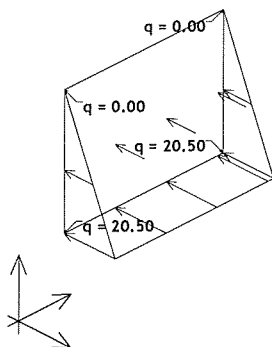
Obtežba 4: Voda

Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00

**Površinska optežba**

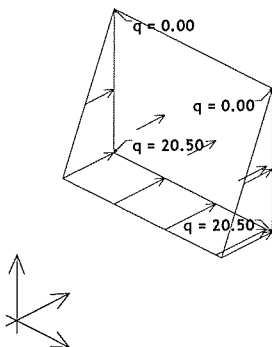
Obtežba 4: Voda

Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00

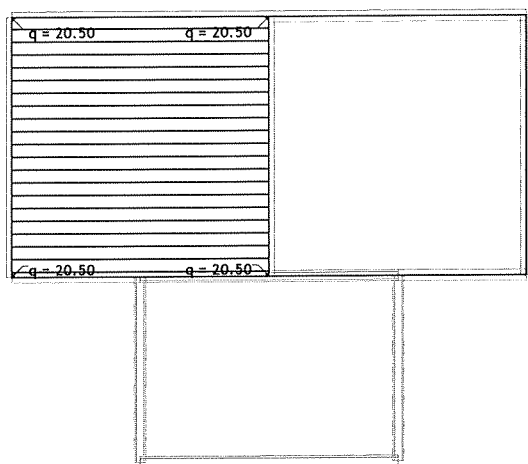
**Površinska optežba**

Obtežba 4: Voda

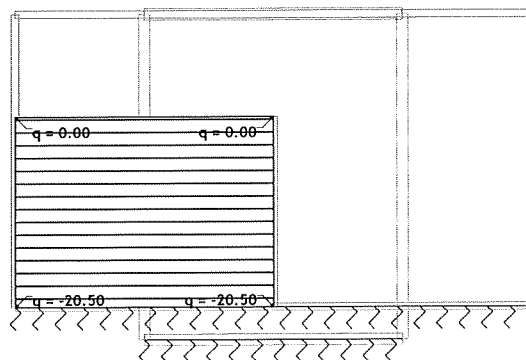
Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00



Obt. 5: Voda v enem rezervoarju

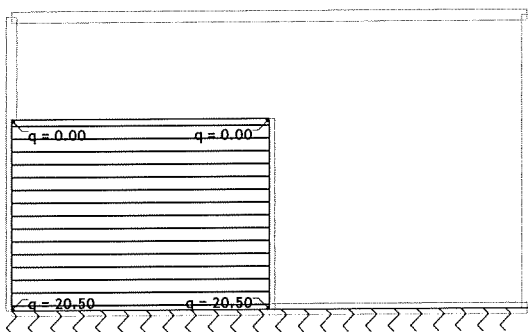


Obt. 5: Voda v enem rezervoarju



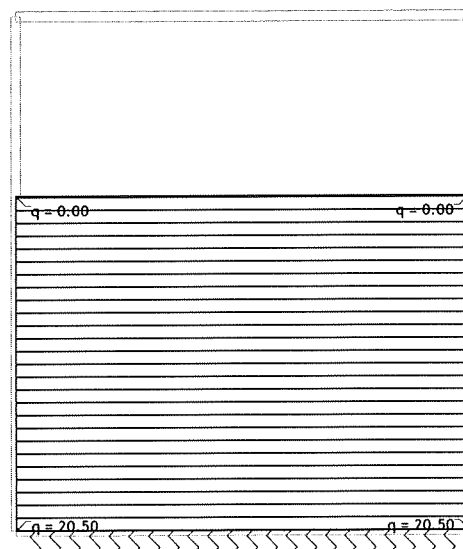
Nivo: [-3.85 m]

Obt. 5: Voda v enem rezervoarju



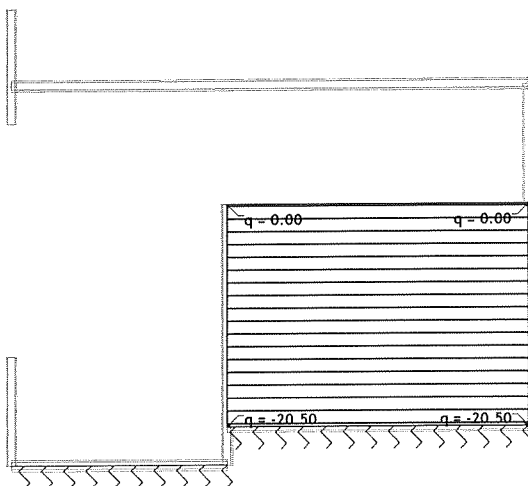
Okvir: H_1

Obt. 5: Voda v enem rezervoarju



Okvir: H_2

Obt. 5: Voda v enem rezervoarju

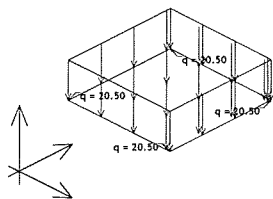


Okvir: V_1

Okvir: V_5

Površinska obtežba

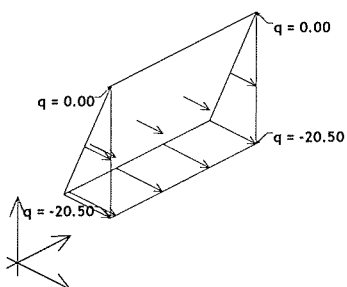
Obtežba 5: Voda v enem rezervoarju



Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00

Površinska obtežba

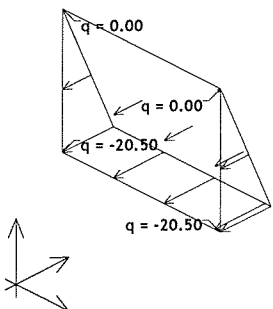
Obtežba 5: Voda v enem rezervoarju



Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00

Površinska obtežba

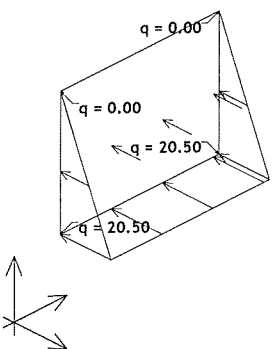
Obtežba 5: Voda v enem rezervoarju



Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00

Površinska obtežba

Obtežba 5: Voda v enem rezervoarju

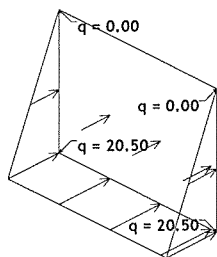


Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00

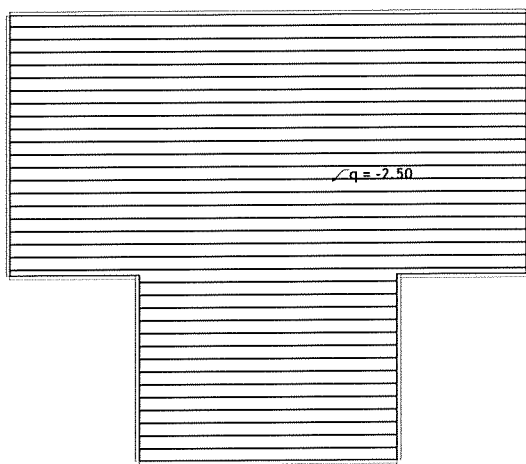
Površinska obtežba

Obtežba 5: Voda v enem rezervoarju

Čarovnik - Voda	
Parameter	Vrednost
$h[m]$	-1.80
$\gamma[kN/m^3]$	10.00



Obt. 6: Sneg

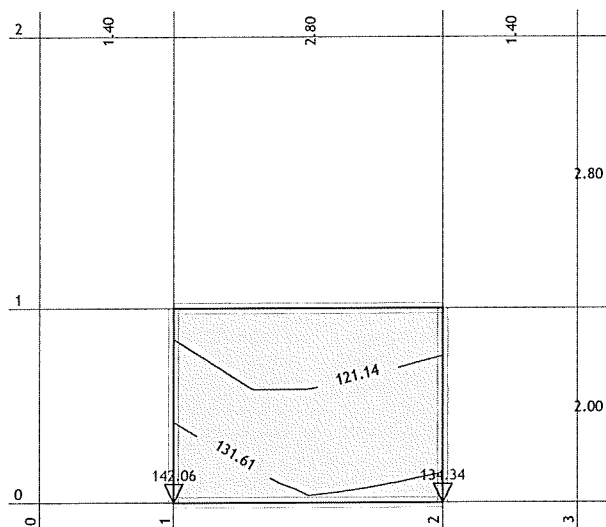


Nivo: [-0.70 m]

Statični preračun

PRIKAZ MERODAJNIH NAPETOSTI POD TEMELJNO PLOŠČO

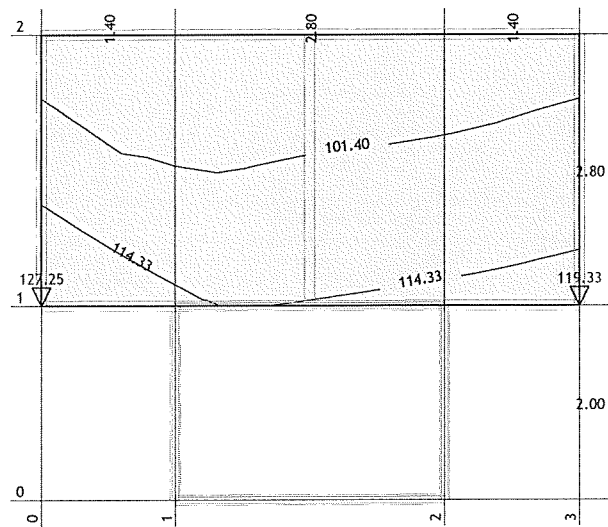
Obt. 87: [MSN] 7-86



Nivo: [-4.20 m]

 Vplivi v pov.podpori: max σ_{tal} = 142.06 / min σ_{tal} = 68.83 kN/m²

Obt. 87: [MSN] 7-86



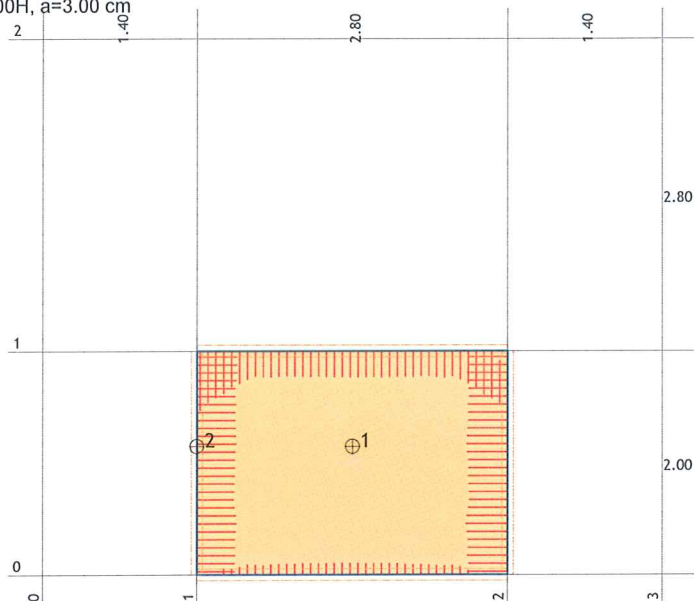
Nivo: [-3.85 m]

 Vplivi v pov.podpori: max σ_{tal} = 127.25 / min σ_{tal} = 36.74 kN/m²

Dimenzioniranje (beton)

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 30, S500H, $a=3.00$ cm

Aa - sp.cona [cm ² /m]
0.00
1.21

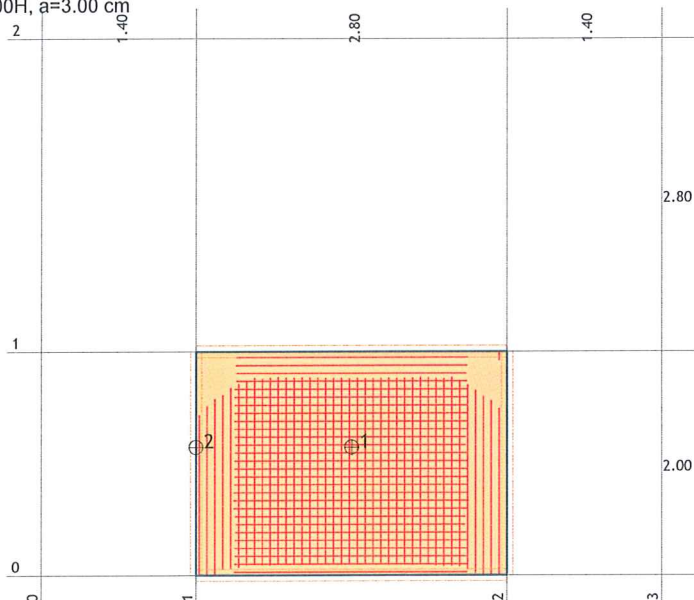


Nivo: [-4.20 m]

Aa - sp.cona - max Aa,s= 1.21 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 30, S500H, $a=3.00$ cm

Aa - zg.cona [cm ² /m]
-1.74
-0.00



Nivo: [-4.20 m]

Aa - zg.cona - max Aa,z= -1.74 cm²/m

Nivo: [-4.20 m]

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

d,pl=30.0 cm

C 30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$) [SP]

Zgornja cona: S500H ($a=3.0$ cm)

Spodnja cona: S500H ($a=3.0$ cm)

Kompletna obtežna shema

Točka 1

X=2.80 m; Y=1.14 m; Z=-4.20 m

Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:

1.35xI+1.35xIII+1.35xV+1.35xV

+1.50xVI

Mu = -14.62 kNm

Nu = 0.00 kN

$\epsilon_b/\epsilon_a = -0.776/25.000$ ‰

Az1 = 1.26 cm²/m

As1 = 0.00 cm²/m

Smer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:

1.35xI+1.35xIII+1.35xV+1.35xV

+1.50xVI

Mu = -20.21 kNm

Nu = 0.00 kN

$\epsilon_b/\epsilon_a = -0.930/25.000$ ‰

Az2 = 1.74 cm²/m

As2 = 0.00 cm²/m

Točka 2

X=1.40 m; Y=1.14 m; Z=-4.20 m

Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:

1.35xI+1.35xIII+1.35xV+1.35xV

+1.50xVI

Mu = 14.05 kNm

Nu = 0.00 kN

$\epsilon_b/\epsilon_a = -0.760/25.000$ ‰

Az1 = 0.00 cm²/m

As1 = 1.21 cm²/m

Smer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:

1.35xI+1.00xIII+1.35xV+1.35xV

+1.50xVI

Mu = -1.62 kNm

Nu = 0.00 kN

$\epsilon_b/\epsilon_a = -0.243/25.000$ ‰

Az2 = 0.14 cm²/m

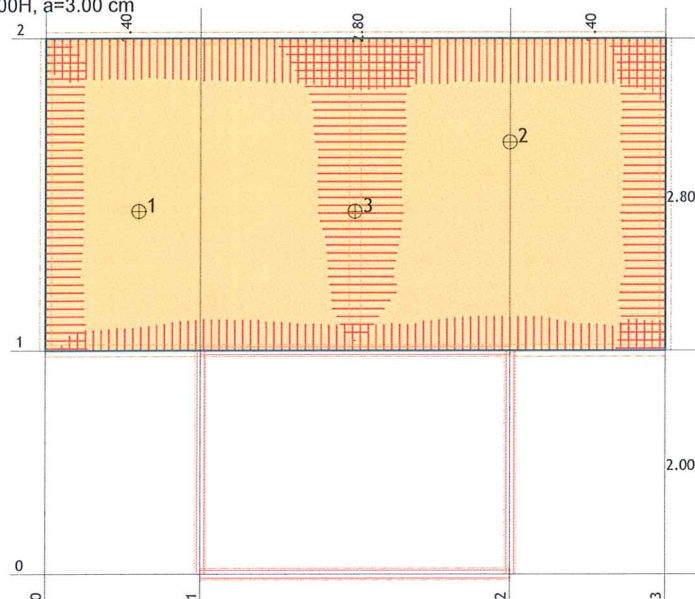
As2 = 0.00 cm²/m

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - sp.cona [cm²/m]

0.00

1.22



Nivo: [-3.85 m]

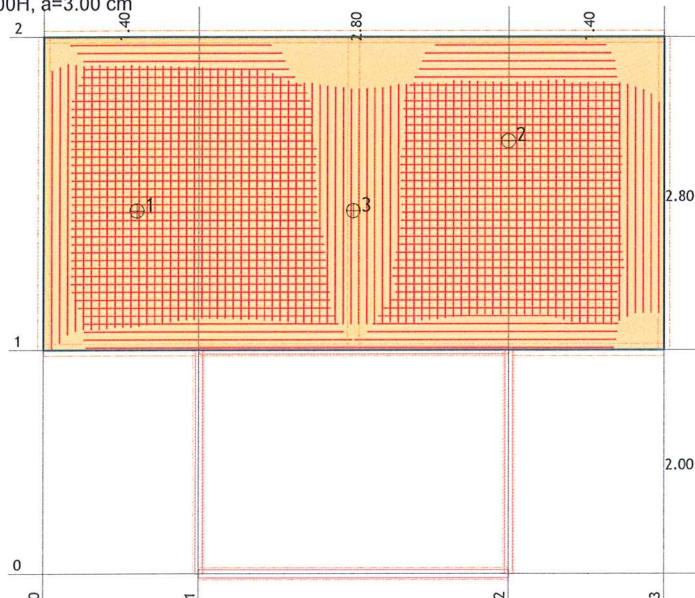
Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - zg.cona [cm²/m]

-1.26

-0.00



Nivo: [-3.85 m]

Aa - zg.cona

Točka 1

EC 2 (EN 1992-1-1:2004)
d,pl=30.0 cm
C 30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$) [SP]
Zgornja cona: S500H (a=3.0 cm)
Spodnja cona: S500H (a=3.0 cm)
Kompletna obtežna shema

Točka 1

X=0.84 m; Y=3.24 m; Z=-3.85 m
Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:
1.35xI+1.05xII+1.00xIII+1.35xIV
+1.35xV+1.50xVI
Mu = -11.94 kNm
Nu = 0.00 kN
 $\epsilon_b/\epsilon_a = -0.695/25.000 \text{ ‰}$
Az1 = 1.03 cm²/m
As1 = 0.00 cm²/m

Smer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:
1.35xI+1.05xII+1.35xIII+1.00xIV
+1.35xV+1.50xVI
Mu = -11.33 kNm
Nu = 0.00 kN
 $\epsilon_b/\epsilon_a = -0.675/25.000 \text{ ‰}$
Az2 = 0.97 cm²/m
As2 = 0.00 cm²/m

Točka 2

X=4.20 m; Y=3.87 m; Z=-3.85 m

Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:
1.35xI+1.05xII+1.00xIII+1.35xIV
+1.35xV+1.50xVI
Mu = -11.73 kNm
Nu = 0.00 kN
 $\epsilon_b/\epsilon_a = -0.688/25.000 \text{ ‰}$
Az1 = 1.01 cm²/m
As1 = 0.00 cm²/m

Smer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:
1.35xI+1.00xIII+1.35xIV+1.35xV
+1.50xVI
Mu = -14.62 kNm
Nu = 0.00 kN
 $\epsilon_b/\epsilon_a = -0.776/25.000 \text{ ‰}$
Az2 = 1.26 cm²/m
As2 = 0.00 cm²/m

Točka 3

X=2.80 m; Y=3.24 m; Z=-3.85 m

Smer 1: ($\alpha=0^\circ$)

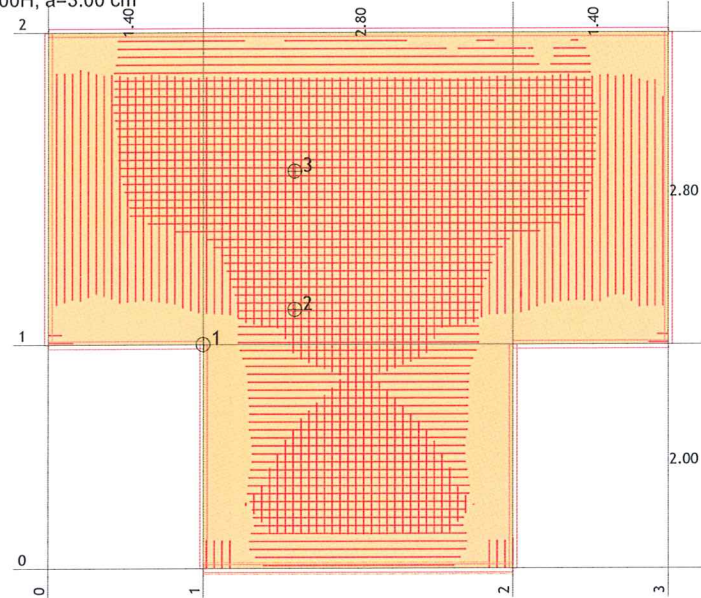
Merodajna kombinacija:
1.35xI+1.05xII+1.35xIII+1.00xIV
+1.00xV+1.50xVI
Mu = 14.14 kNm
Nu = 0.00 kN
 $\epsilon_b/\epsilon_a = -0.762/25.000 \text{ ‰}$
Az1 = 0.00 cm²/m
As1 = 1.22 cm²/m

Smer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:
1.35xI+1.05xII+1.35xIII+1.00xIV
+1.00xV+1.50xVI
Mu = -5.71 kNm
Nu = 0.00 kN
 $\epsilon_b/\epsilon_a = -0.468/25.000 \text{ ‰}$
Az2 = 0.49 cm²/m
As2 = 0.00 cm²/m

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

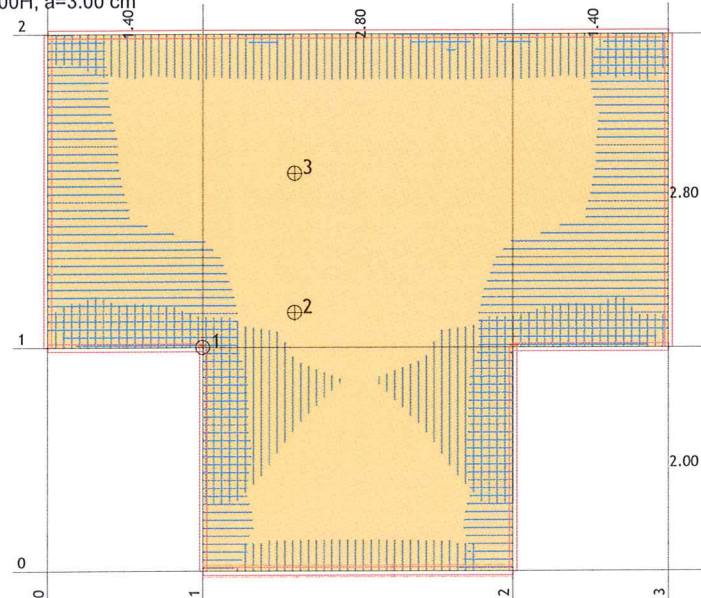
Aa - sp.cona [cm²/m]0.00
1.54

Nivo: [-0.70 m]

Aa - sp.cona

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - zg.cona [cm²/m]-2.24
-1.96
-0.00

Nivo: [-0.70 m]

Aa - zg.cona

Nivo: [-0.70 m]

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

d,pl=30.0 cm

C 30 ($\gamma_C = 1.50$, $\gamma_S = 1.15$) [SP]

Zgornja cona: S500H (a=3.0 cm)

Spodnja cona: S500H (a=3.0 cm)

Kompletna obtežna shema

Točka 1

X=1.40 m; Y=2.00 m; Z=-0.70 m

Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:

1.35xI+1.05xII+1.35xIII+1.35xIV

+1.35xV+1.50xVI

Mu = -25.89 kNm

Nu = 0.00 kN

 $\epsilon_b/\epsilon_a = -1.071/25.000 \text{ ‰}$ Az1 = 2.24 cm²/mAs1 = 0.00 cm²/mSmer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:

1.35xI+1.05xII+1.35xIII+1.35xIV

+1.35xV+1.50xVI

Mu = -20.61 kNm

Nu = 0.00 kN

 $\epsilon_b/\epsilon_a = -0.940/25.000 \text{ ‰}$ Az2 = 1.78 cm²/mAs2 = 0.00 cm²/m**Točka 2**

X=2.23 m; Y=2.31 m; Z=-0.70 m

Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:

1.35xI+1.05xII+1.35xIII+1.35xIV

+1.35xV+1.50xVI

Mu = 16.77 kNm

Nu = 0.00 kN

 $\epsilon_b/\epsilon_a = -0.838/25.000 \text{ ‰}$ Az1 = 0.00 cm²/mAs1 = 1.44 cm²/mSmer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:

1.35xI+1.35xIII+1.35xIV+1.35xV

+1.50xVI

Mu = 5.58 kNm

Nu = 0.00 kN

 $\epsilon_b/\epsilon_a = -0.462/25.000 \text{ ‰}$ Az2 = 0.00 cm²/mAs2 = 0.48 cm²/m**Točka 3**

X=2.23 m; Y=3.56 m; Z=-0.70 m

Smer 1: ($\alpha=0^\circ$)

Merodajna kombinacija:

1.35xI+1.05xII+1.35xIII+1.35xIV

+1.35xV+1.50xVI

Mu = 8.72 kNm

Nu = 0.00 kN

 $\epsilon_b/\epsilon_a = -0.586/25.000 \text{ ‰}$ Az1 = 0.00 cm²/mAs1 = 0.75 cm²/mSmer 2: ($\alpha=90^\circ$)

Merodajna kombinacija:

1.35xI+1.05xII+1.35xIII+1.35xIV

+1.35xV+1.50xVI

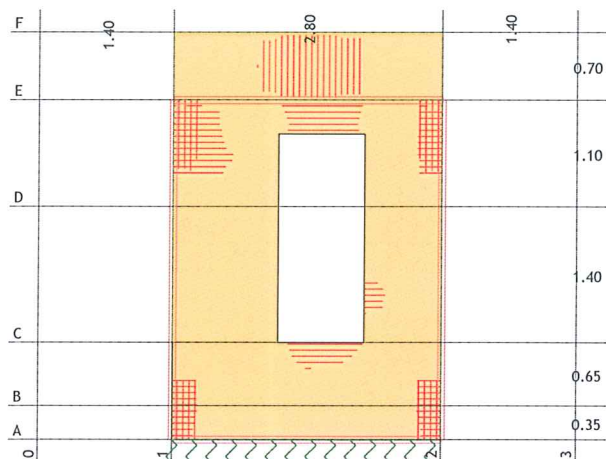
Mu = 17.88 kNm

Nu = 0.00 kN

 $\epsilon_b/\epsilon_a = -0.868/25.000 \text{ ‰}$ Az2 = 0.00 cm²/mAs2 = 1.54 cm²/m

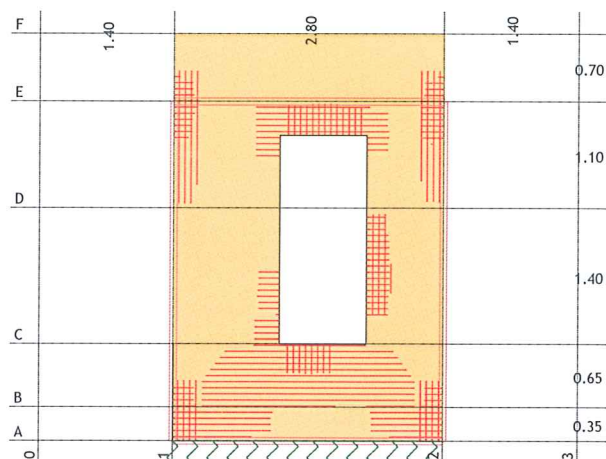
Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - sp.cona [cm²/m]
0.00
0.63



Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - zg.cona [cm²/m]
-1.06
-0.00

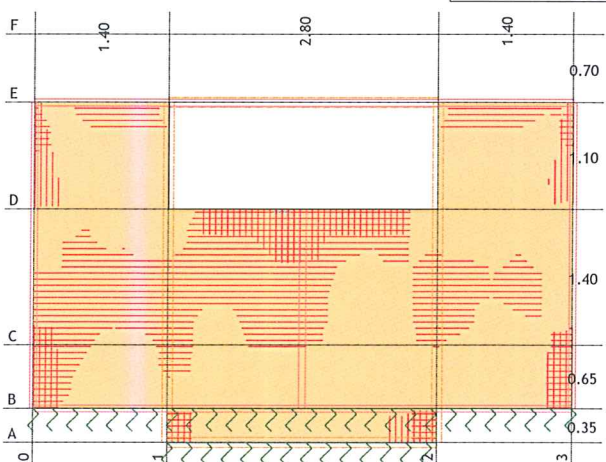


Okvir: H_3

Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - sp.cona [cm²/m]
0.00
1.96
2.08

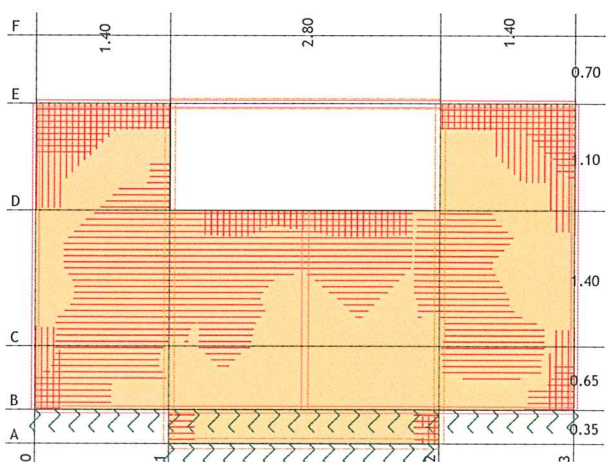


Okvir: H_3

Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - zg.cona [cm²/m]
-1.77
-0.00

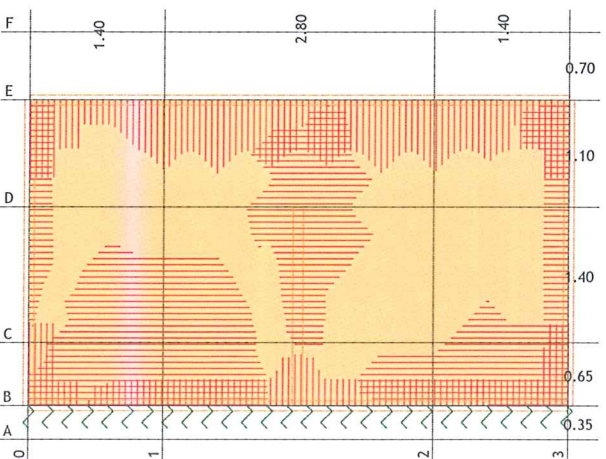


Okvir: H_1

Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - sp.cona [cm²/m]
0.00
0.70

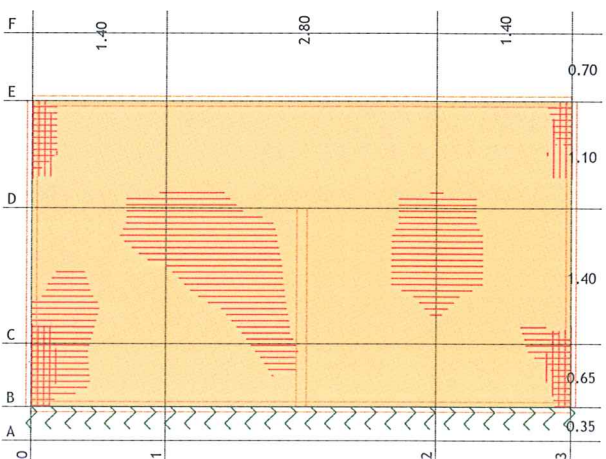


Okvir: H_1

Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

Aa - zg.cona [cm²/m]
-0.49
-0.00

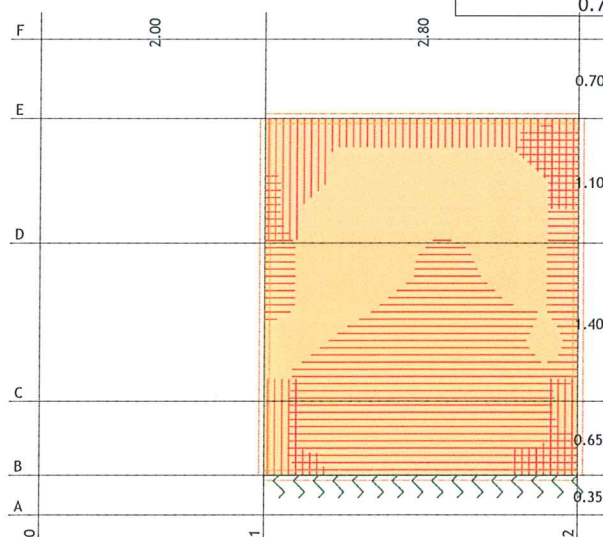


Okvir: H_2
Aa - sp.cona

Okvir: H_2
Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

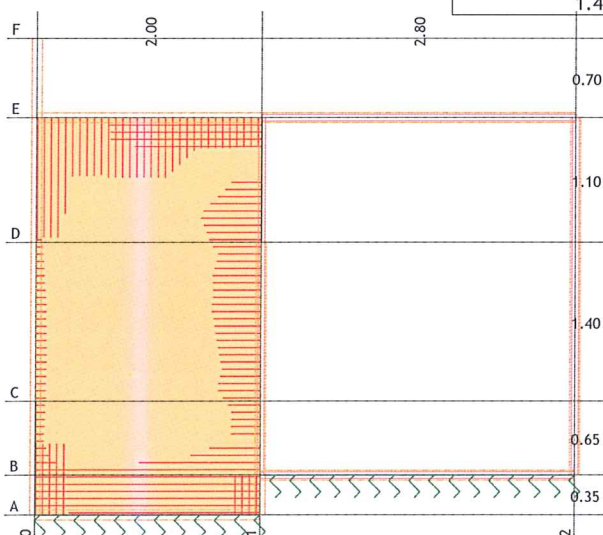
Aa - sp.cona [cm²/m]
0.00
0.70



Okvir: V_1
Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

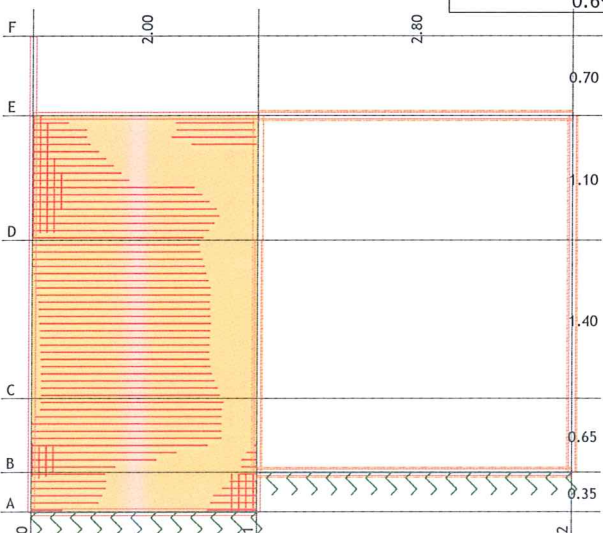
Aa - sp.cona [cm²/m]
0.00
1.48



Okvir: V_3
Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

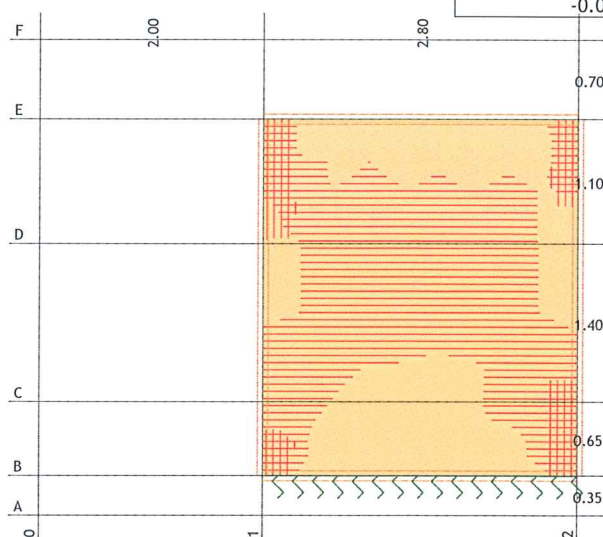
Aa - sp.cona [cm²/m]
0.00
0.69



Okvir: V_4
Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

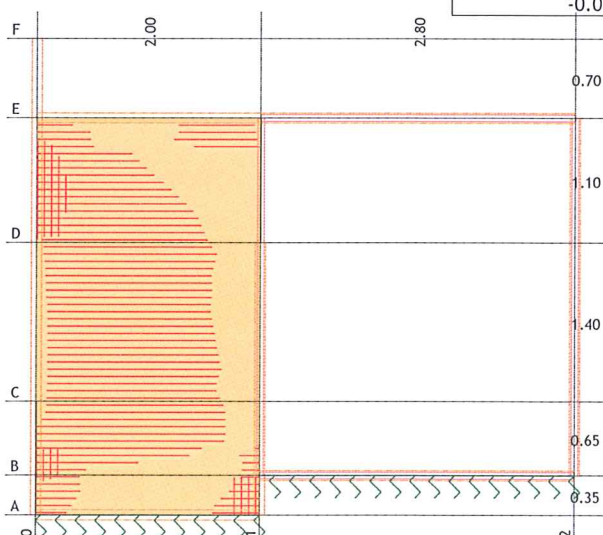
Aa - zg.cona [cm²/m]
-0.75
-0.00



Okvir: V_1
Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

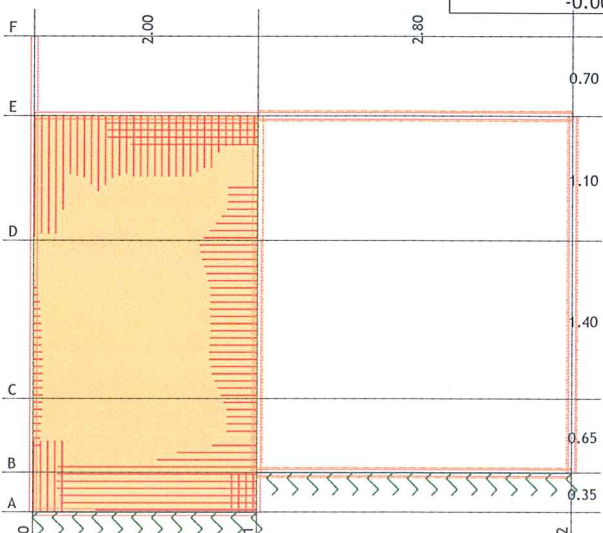
Aa - zg.cona [cm²/m]
-0.78
-0.00



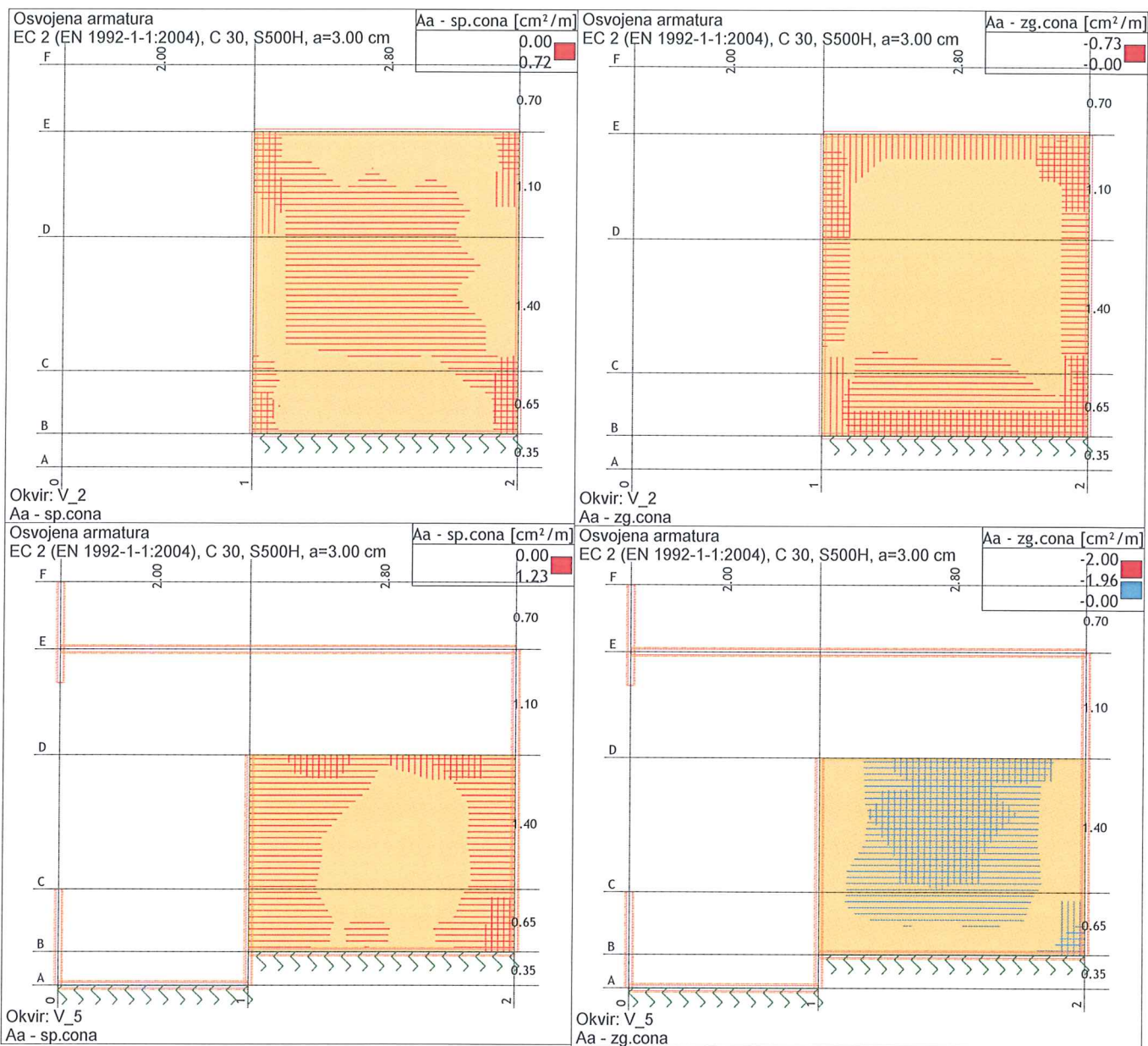
Okvir: V_3
Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 30, S500H, a=3.00 cm

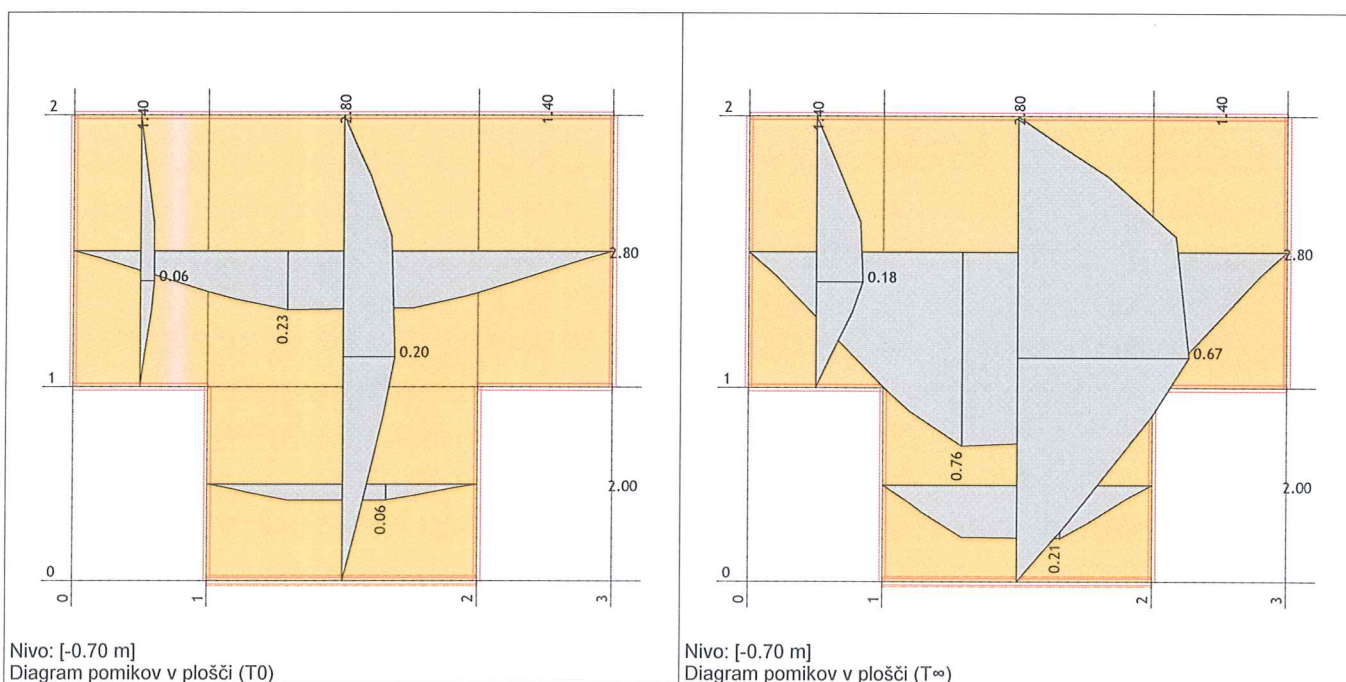
Aa - zg.cona [cm²/m]
-1.59
-0.00



Okvir: V_4
Aa - zg.cona



PRIKAZ MERODAJNIH POVESOV PLOŠČE



Osnovni podatki o modelu, Vhodni podatki - Konstrukcija

Datoteka: raztezilnik-koncni-CLENEK.twp
Datum preračuna: Marec 2022

Način preračuna: 3D model

- ☒ Teorija I-ga reda ☐ Modalna analiza ☐ Stabilitnost
☐ Teorija II-ga reda ☐ Seizmični preračun ☐ Faze gradnje
☐ Nelinearen preračun

Velikost modela

Število vozlišč: 1017
Število ploskovnih elementov: 1042
Število grednih elementov: 10
Število robnih elementov: 1770
Število osnovnih obtežnih primerov: 3
Število kombinacij obtežb: 8

Enote mer

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

Tabele materialov

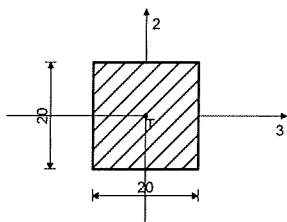
No	Naziv materiala	E[kN/m ²]	μ	γ [kN/m ³]	α [1/C]	Em[kN/m ²]	μ
1	Beton MB 30	3.150e+7	0.20	25.00	1.000e-5	3.150e+7	0.20
2	Beton MB 30 razpokan	1.600e+7	0.20	25.00	1.000e-5	1.500e+7	0.20

Seti plošč

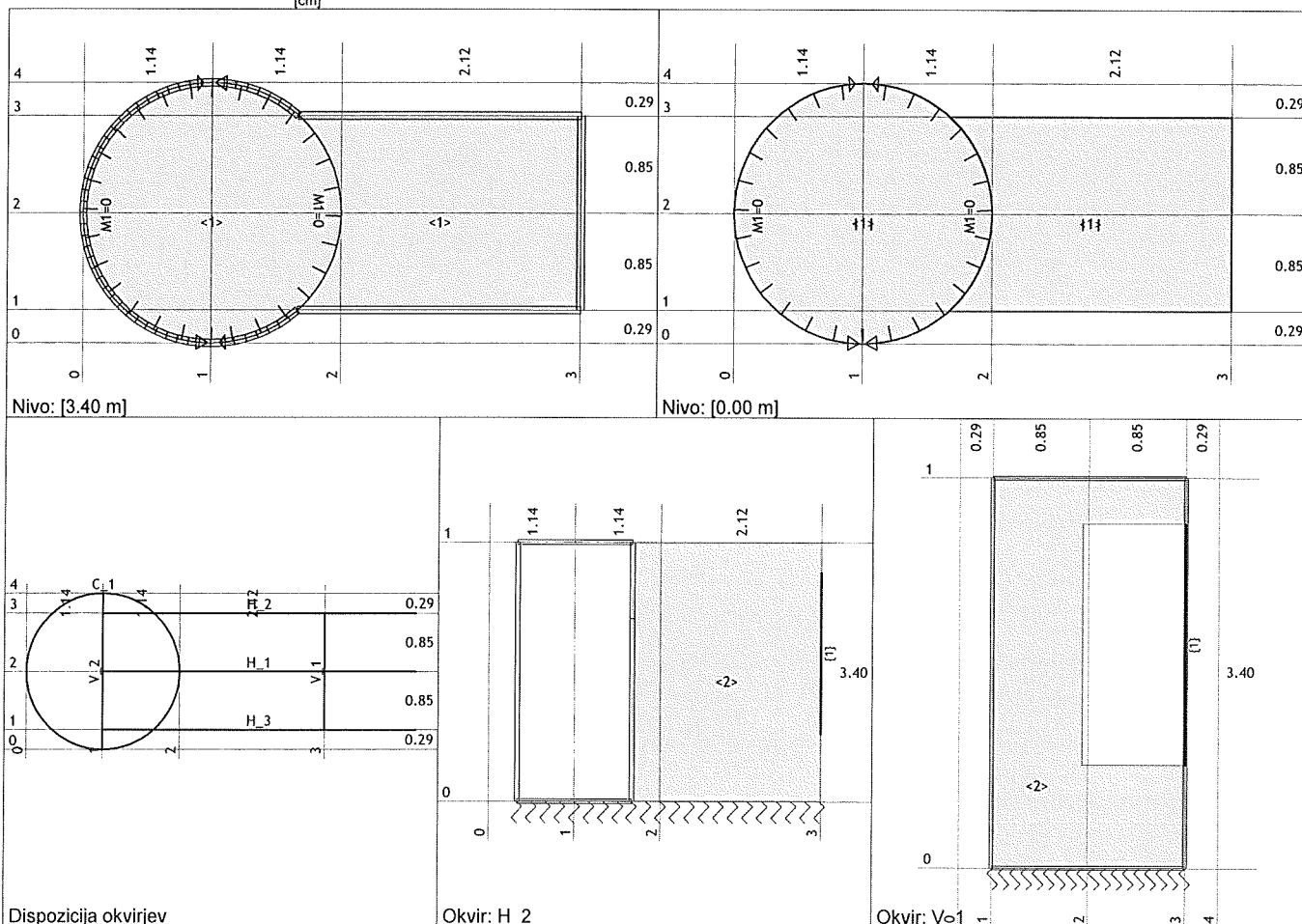
No	d[m]	e[m]	Material	Tip preračuna	Ortotropija	E2[kN/m ²]	G[kN/m ²]	α
<1>	0.200	0.100	1	Tanka plošča	Izotropna			
<2>	0.200	0.100	2	Tanka plošča	Izotropna			

Seti gred

Set: 1 Prerez: b/d=20/20, Fiktivna ekscentričnost



Mat.	A1	A2	A3	I1	I2	I3
2 - Beton MB 30 r...	4.000e-2	3.333e-2	3.333e-2	2.253e-4	1.333e-4	1.333e-4

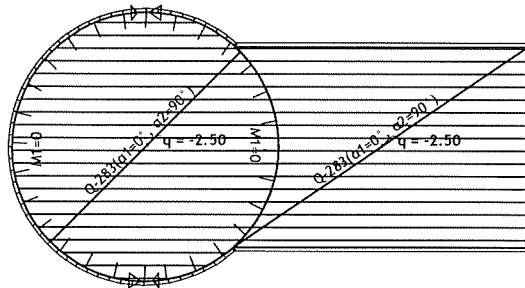


Vhodni podatki - Obtežba, Statični preračun

Lista obtežnih primerov

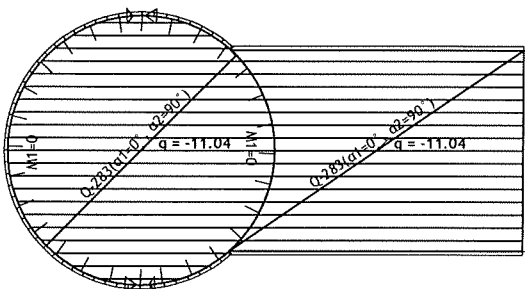
LC	Naziv	pX [kN]	pY [kN]	pZ [kN]
1	stalna (g)	0.00	0.00	-316.83
2	koristna	0.00	0.00	-39.26
3	zemljina	205.99	21.18	-86.69
4	Komb.: 1.35xI+1.5xII+1.35xIII	278.09	28.60	-603.65
5	Komb.: I+1.5xII+1.35xIII	278.09	28.60	-492.76
6	Komb.: 1.35xI+1.5xII+III	205.99	21.18	-573.31
7	Komb.: I+1.5xII+III	205.99	21.18	-462.41
8	Komb.: 1.35xI+1.35xIII	278.09	28.60	-544.75
9	Komb.: I+1.35xIII	278.09	28.60	-433.86
10	Komb.: 1.35xI+III	205.99	21.18	-514.41
11	Komb.: I+III	205.99	21.18	-403.52

Obt. 1: stalna (g)



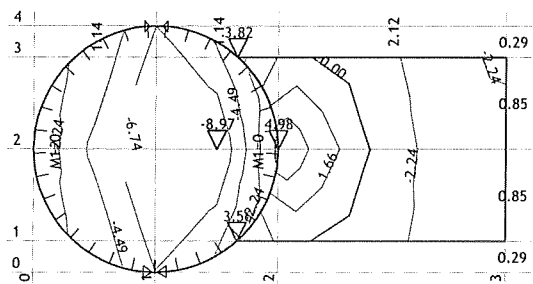
Nivo: [3.40 m]

Obt. 3: zemljina



Nivo: [3.40 m]

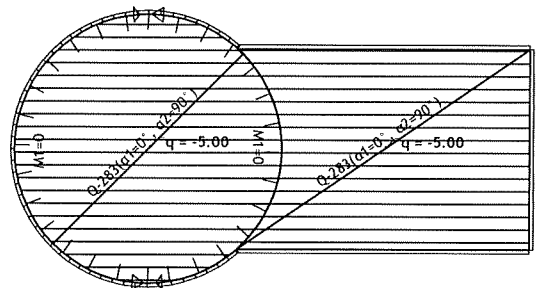
Obt. 4: 1.35xI+1.5xII+1.35xIII



Nivo: [0.00 m]

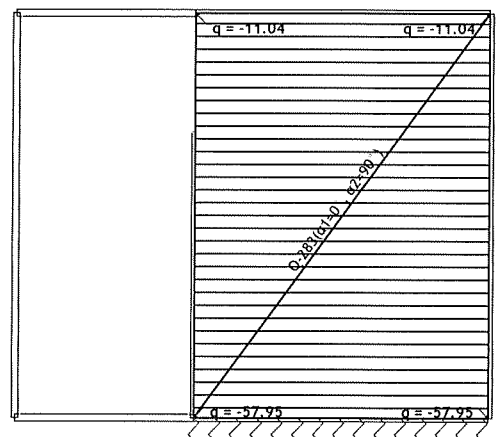
Vplivi v plošči: max Mx= 4.98 / min Mx= -8.97 kNm/m

Obt. 2: koristna



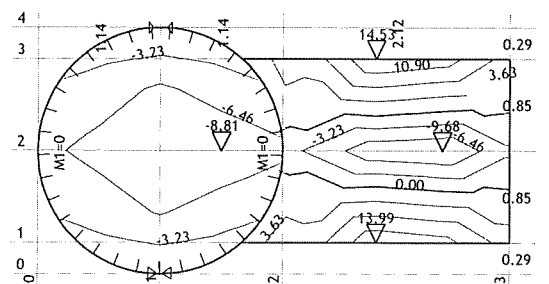
Nivo: [3.40 m]

Obt. 3: zemljina



Okvir: H. 3

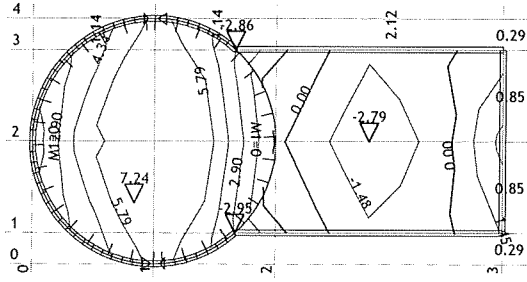
Obt. 4: 1.35xI+1.5xII+1.35xIII



Nivo: [0.00 m]

Vplivi v plošči: max My= 14.53 / min My= -9.68 kNm/m

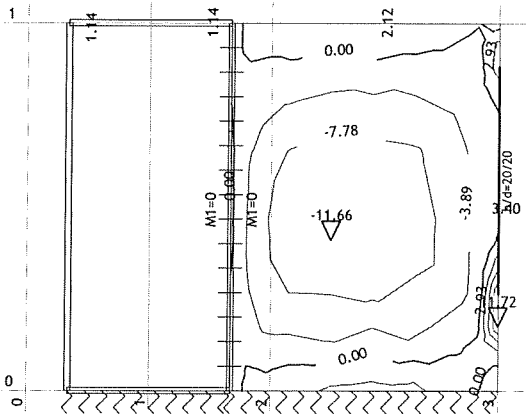
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Nivo: [3.40 m]

Vplivi v plošči: max $M_x = 7.24$ / min $M_x = -2.95$ kNm/m

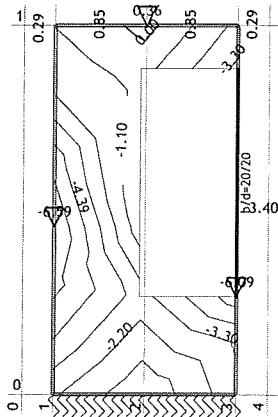
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Okvir: H_2

Vplivi v plošči: max $M_x = 11.72$ / min $M_x = -11.66$ kNm/m

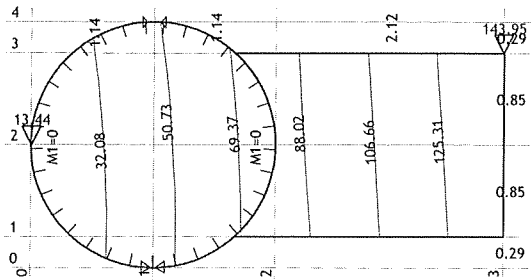
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Okvir: V_1

Vplivi v plošči: max $M_x = 0.36$ / min $M_x = -6.59$ kNm/m

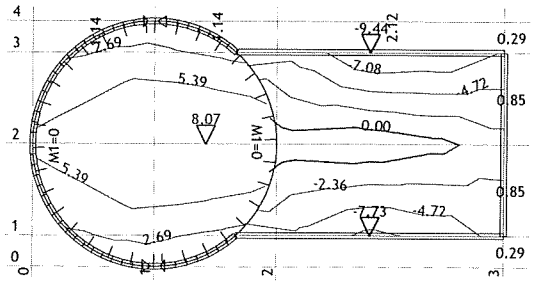
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Nivo: [0.00 m]

Vplivi v pov.podpori: $\max \sigma_{,tal} = 143.95$ / $\min \sigma_{,tal} = 13.44 \text{ kN/m}^2$

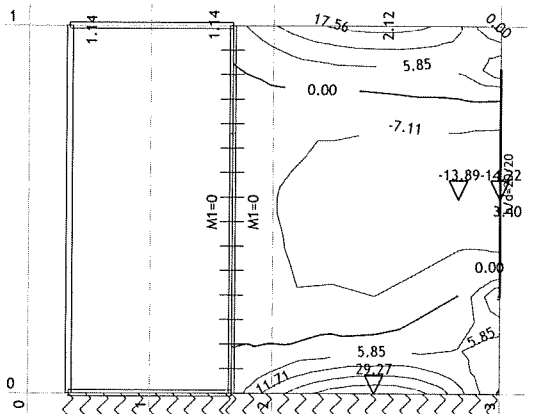
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Nivo: [3.40 m]

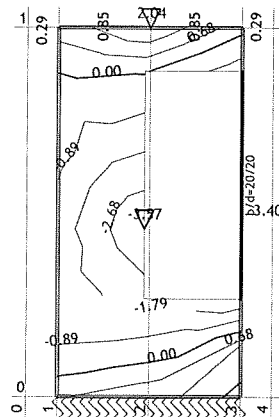
Vplivi v plošči: $\max M_y = 8.07$ / $\min M_y = -9.44$ kNm/m

Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Okvir: H_2

Vplivi v plošči: max $M_y = 29.27$ / min $M_y = -14.22$ kNm/m

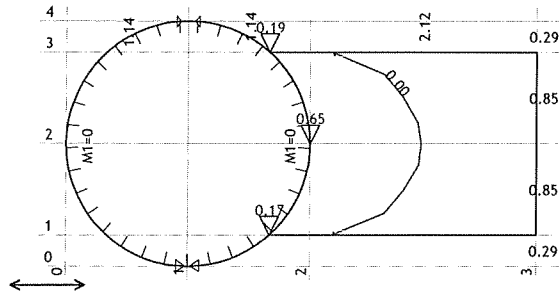
$$\text{Obt. 4: } 1.35x_I + 1.5x_{II} + 1.35x_{III}$$


Okvir: V_1

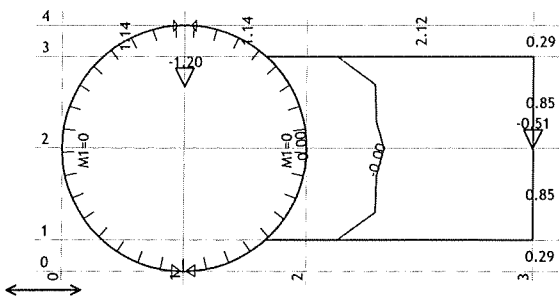
Vplivi v plošči: max $M_y = 2.04$ / min $M_y = -3.57$ kNm/m

Dimenzioniranje (beton)

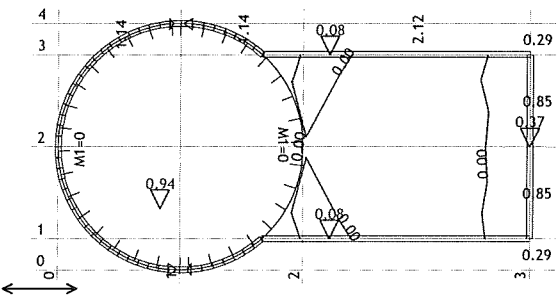
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



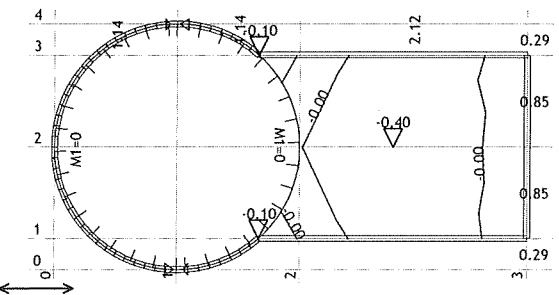
Nivo: [0.00 m]
Aa - sp.cona - Smer 1 - max Aa1,s= 0.65 cm²/m
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



Nivo: [0.00 m]
Aa - zg.cona - Smer 1 - max Aa1,z= -1.20 cm²/m
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

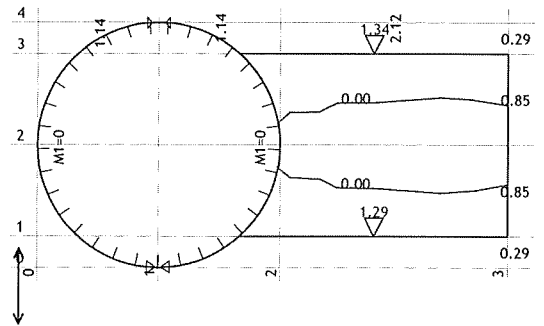


Nivo: [3.40 m]
Aa - sp.cona - Smer 1 - max Aa1,s= 0.94 cm²/m
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

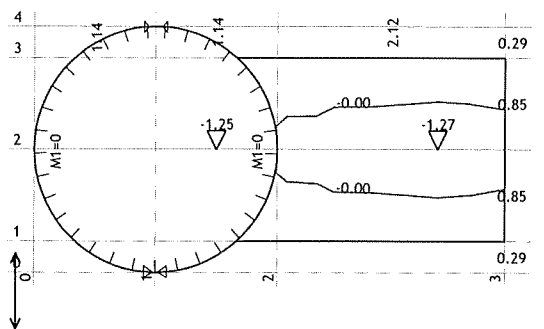


Nivo: [3.40 m]
Aa - zg.cona - Smer 1 - max Aa1,z= -0.40 cm²/m

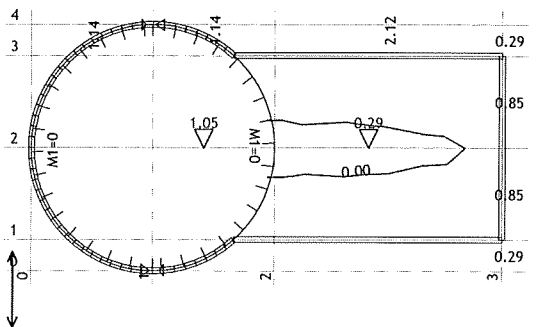
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



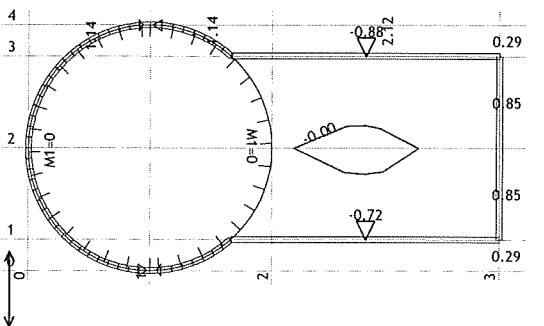
Nivo: [0.00 m]
Aa - sp.cona - Smer 2 - max Aa2,s= 1.34 cm²/m
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



Nivo: [0.00 m]
Aa - zg.cona - Smer 2 - max Aa2,z= -1.27 cm²/m
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



Nivo: [3.40 m]
Aa - sp.cona - Smer 2 - max Aa2,s= 1.05 cm²/m
Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

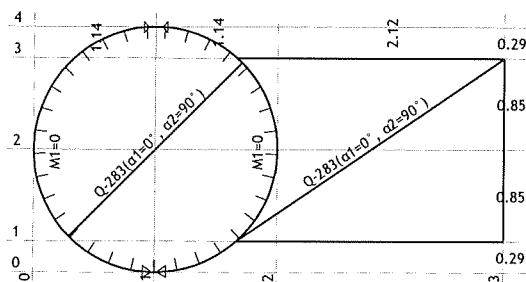


Nivo: [3.40 m]
Aa - zg.cona - Smer 2 - max Aa2,z= -0.88 cm²/m

Radimpex - www.radimpex.rs

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm ² /m]
0.00
1.34

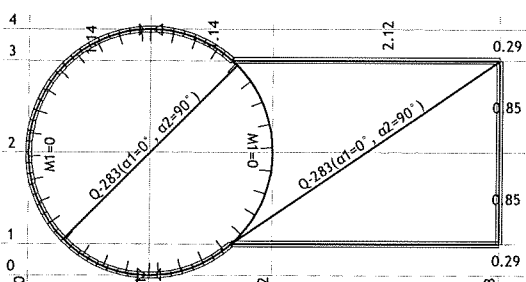


Nivo: [0.00 m]

Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm ² /m]
0.00
1.05

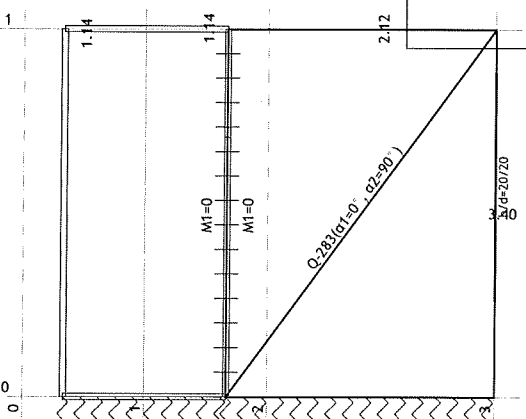


Nivo: [3.40 m]

Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm ² /m]
0.00
1.89
2.45

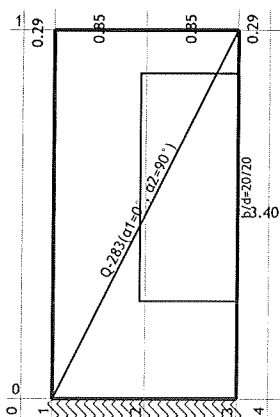


Okvir: H_2

Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm ² /m]
0.00
1.89
2.57
2.66

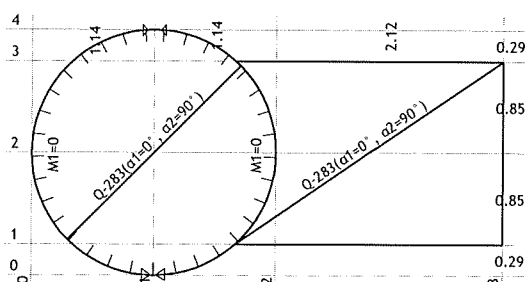


Okvir: V_1

Aa - sp.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm ² /m]
-1.27
-0.00

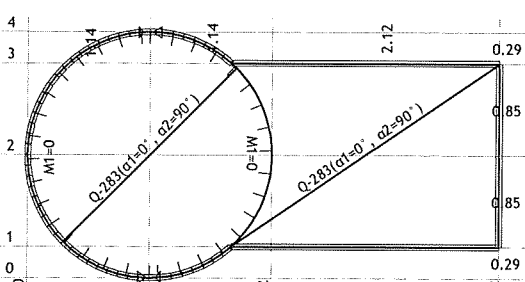


Nivo: [0.00 m]

Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm ² /m]
-0.88
-0.00

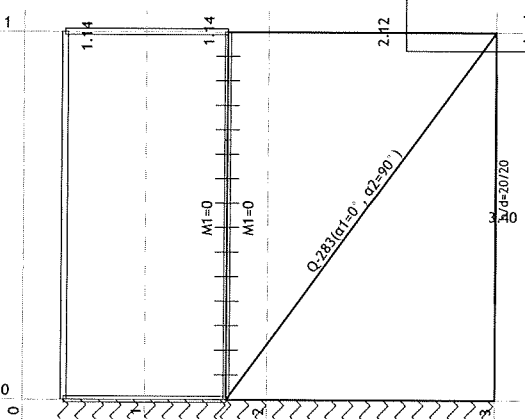


Nivo: [3.40 m]

Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm ² /m]
-2.44
-1.89
-0.00

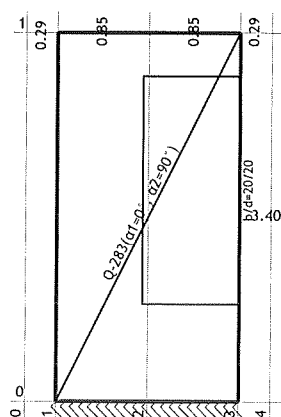


Okvir: H_2

Aa - zg.cona

Osvojena armatura
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm ² /m]
-2.65
-2.57
-1.89
-0.00



Okvir: V_1

Aa - zg.cona

Osnovni podatki o modelu, Vhodni podatki - Konstrukcija

Datoteka: precrpalisce.twp
Datum preračuna: Marec 2022

Način preračuna: 3D model

- ☒ Teorija I-ga reda ☐ Modalna analiza ☐ Stabilnost
☐ Teorija II-ga reda ☐ Seizmični preračun ☐ Faze gradnje
☐ Nelinearen preračun

Velikost modela

Število vozlišč: 488
Število ploskovnih elementov: 611
Število grednih elementov: 0
Število robnih elementov: 1080
Število osnovnih obtežnih primerov: 3
Število kombinacij obtežb: 8

Enote mer

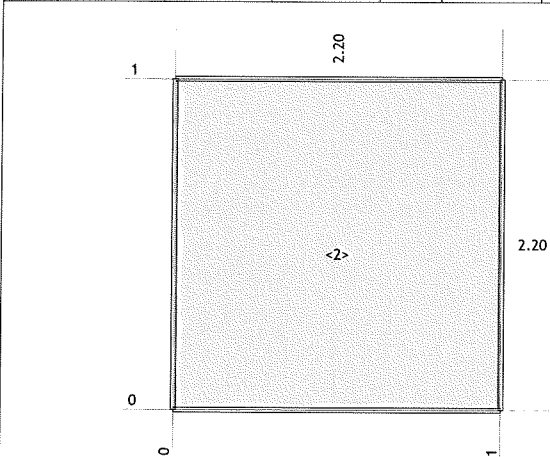
Dolžina: m [cm,mm]
Sila: kN
Temperatura: Celsius

Tabele materialov

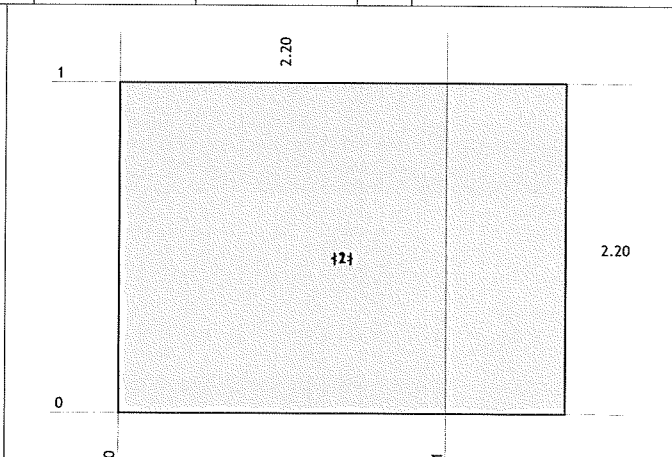
No	Naziv materiala	E[kN/m ²]	μ	γ [kN/m ³]	α [1/C]	Em[kN/m ²]	μ_m
1	Beton MB 30 razpokan	1.600e+7	0.20	25.00	1.000e-5	1.500e+7	0.20
2	Beton MB 30	3.150e+7	0.20	25.00	1.000e-5	3.150e+7	0.20

Seti plošč

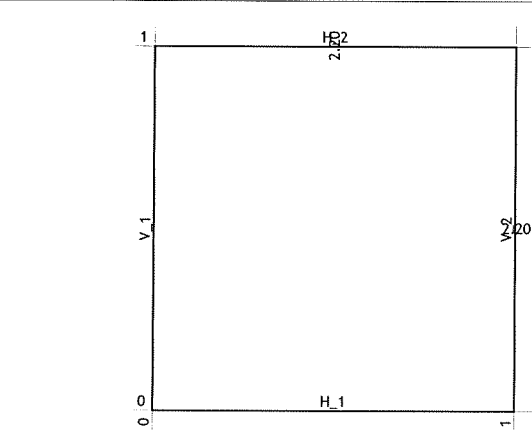
No	d[m]	e[m]	Material	Tip preračuna	Ortotropija	E2[kN/m ²]	G[kN/m ²]	α
<1>	0.200	0.100	1	Tanka plošča	Izotropna			
<2>	0.200	0.100	2	Tanka plošča	Izotropna			



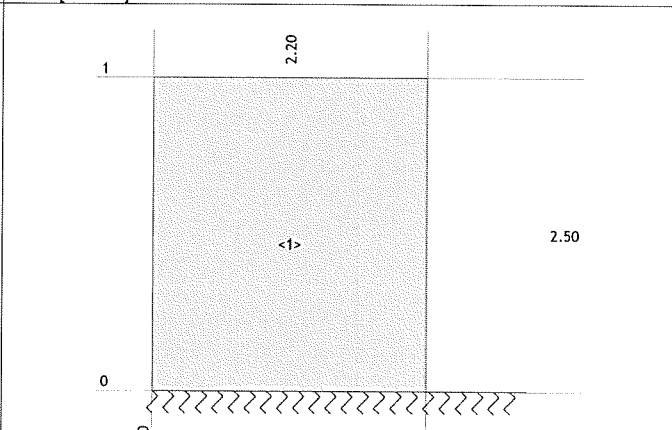
Nivo: [2.50 m]



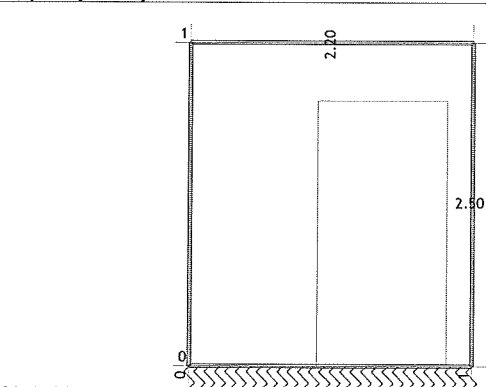
Nivo: [0.00 m]



Dispozicija okvirjev



Okvir: H_2



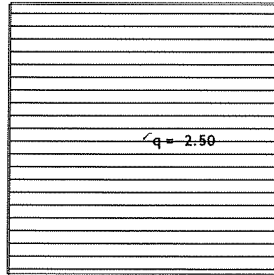
Okvir: V_2

Vhodni podatki - Obtežba

Lista obtežnih primerov

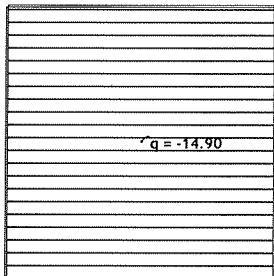
LC	Naziv	pX [kN]	pY [kN]	pZ [kN]
1	stalna (g)	0.00	0.00	-160.25
2	koristna	0.00	0.00	-24.20
3	zemljina	176.83	-0.00	-72.12
4	Komb.: 1.35xI+1.5xII+1.35xIII	238.72	-0.00	-349.99
5	Komb.: I+1.5xII+1.35xIII	238.72	-0.00	-293.91
6	Komb.: 1.35xI+1.5xII+III	176.83	-0.00	-324.75
7	Komb.: I+1.5xII+III	176.83	-0.00	-268.67
8	Komb.: 1.35xI+1.35xIII	238.72	-0.00	-313.69
9	Komb.: I+1.35xIII	238.72	-0.00	-257.61
10	Komb.: 1.35xI+III	176.83	-0.00	-288.45
11	Komb.: I+III	176.83	-0.00	-232.37

Obt. 1: stalna (g)



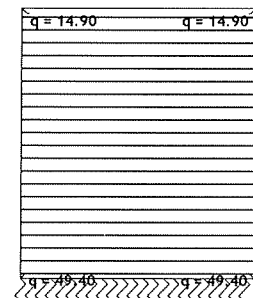
Nivo: [2.50 m]

Obt. 3: zemljina



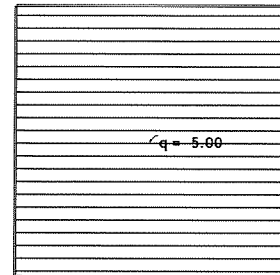
Nivo: [2.50 m]

Obt. 3: zemljina



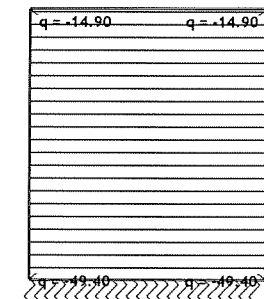
Okvir: H_2

Obt. 2: koristna



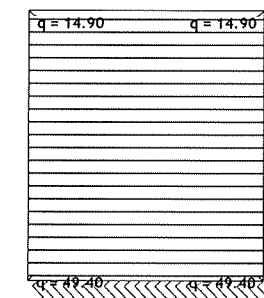
Nivo: [2.50 m]

Obt. 3: zemljina

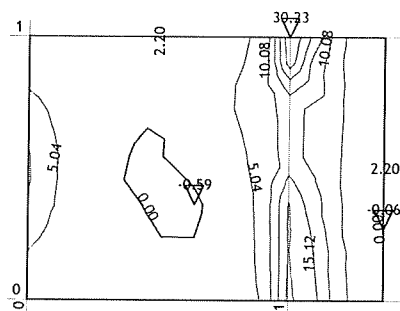
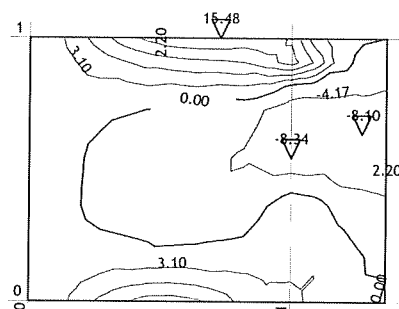


Okvir: H_1

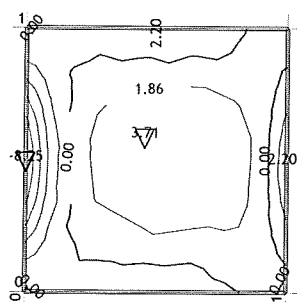
Obt. 3: zemljina



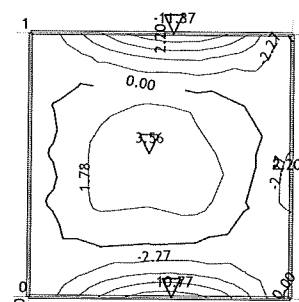
Okvir: V_1

$$\text{Obt. 4: } 1.35x_I + 1.5x_{II} + 1.35x_{III}$$

$$\text{Obt. 4: } 1.35x_I + 1.5x_{II} + 1.35x_{III}$$


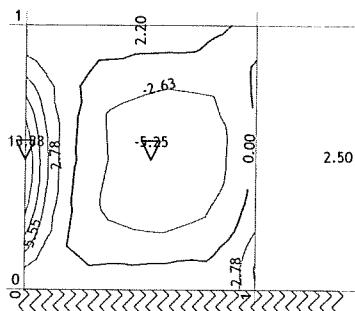
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



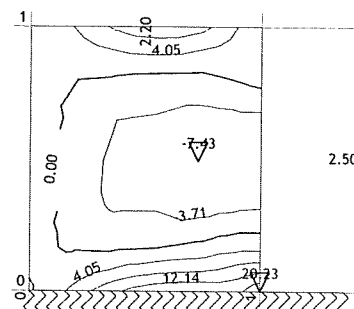
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



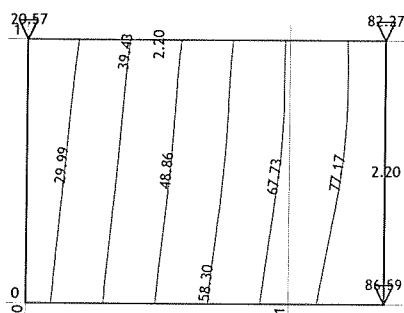
Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



Obt. 4: $1.35x_I + 1.5x_{II} + 1.35x_{III}$



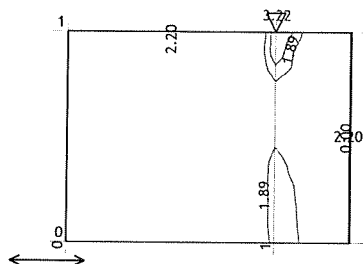
<p> $v_{\text{прив}} = \text{проект. макс. } M_y = 20.25 \text{ тмин } M_y = -7.45 \text{ кНм/м}$ </p>	
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Vplivi v pov. podpori: $\max \sigma_{tal} = 86.59 / \min \sigma_{tal} = 20.57 \text{ kN/m}^2$

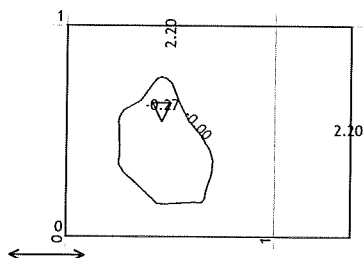
Dimenzioniranje (beton)

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



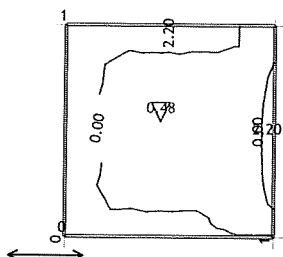
Nivo: [0.00 m]
Aa - sp.cona - Smer 1 - max Aa1,s= 3.22 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



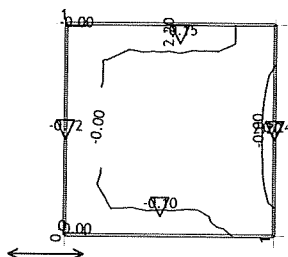
Nivo: [0.00 m]
Aa - zg.cona - Smer 1 - max Aa1,z= -0.27 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



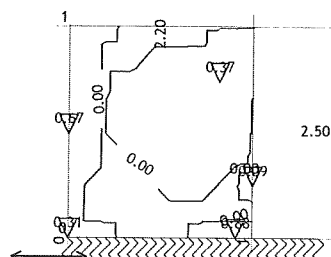
Nivo: [2.50 m]
Aa - sp.cona - Smer 1 - max Aa1,s= 0.48 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



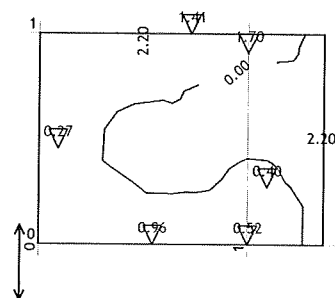
Nivo: [2.50 m]
Aa - zg.cona - Smer 1 - max Aa1,z= -0.72 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



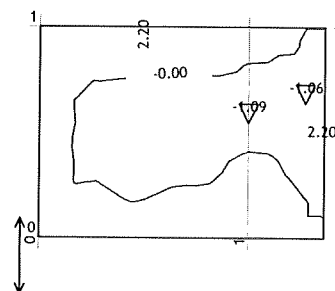
Okvir: H_2
Aa - sp.cona - Smer 1 - max Aa1,s= 0.88 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



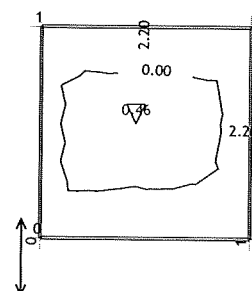
Nivo: [0.00 m]
Aa - sp.cona - Smer 2 - max Aa2,s= 1.70 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



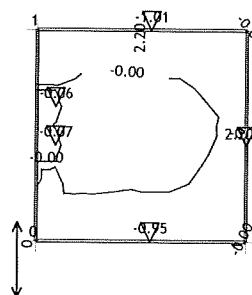
Nivo: [0.00 m]
Aa - zg.cona - Smer 2 - max Aa2,z= -1.09 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



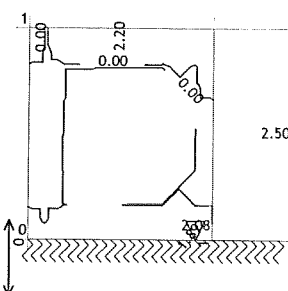
Nivo: [2.50 m]
Aa - sp.cona - Smer 2 - max Aa2,s= 0.46 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



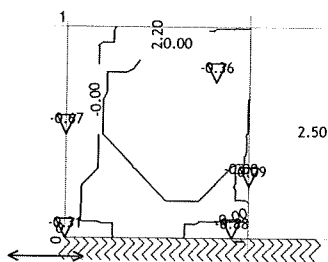
Nivo: [2.50 m]
Aa - zg.cona - Smer 2 - max Aa2,z= -1.01 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



Okvir: H_2
Aa - sp.cona - Smer 2 - max Aa2,s= 2.08 cm²/m

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



Okvir: H_2

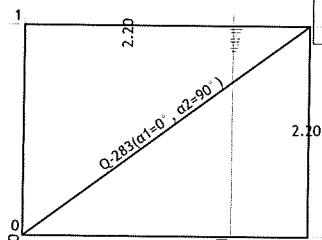
Aa - zg.cona - Smer 1 - max Aa1,z= -0.88 cm²/m

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm²/m]

0.00
1.89
2.57
3.22



Nivo: [0.00 m]

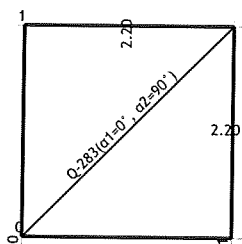
Aa - sp.cona

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm²/m]

0.00
0.48



Nivo: [2.50 m]

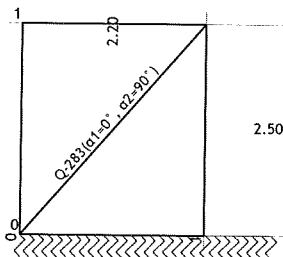
Aa - sp.cona

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - sp.cona [cm²/m]

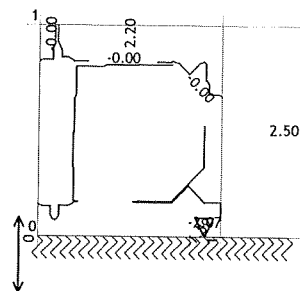
0.00
1.89
2.08



Okvir: H_2

Aa - sp.cona

Merodajna obtežba: Kompletna shema
EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm



Okvir: H_2

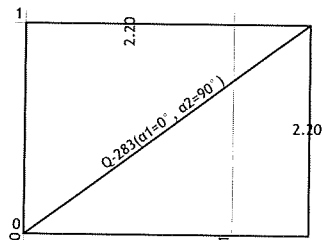
Aa - zg.cona - Smer 2 - max Aa2,z= -2.07 cm²/m

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm²/m]

-1.09
-0.00



Nivo: [0.00 m]

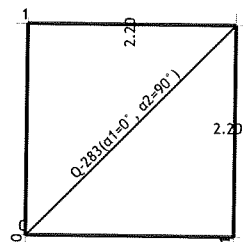
Aa - zg.cona

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm²/m]

-1.01
-0.00



Nivo: [2.50 m]

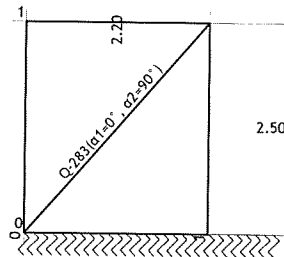
Aa - zg.cona

Osvojena armatura

EC 2 (EN 1992-1-1:2004), C 25, S500H, a=2.00 cm

Aa - zg.cona [cm²/m]

-2.07
-1.89
-0.00



Okvir: H_2

Aa - zg.cona