



Job Title ENSOLEIRAMENTO - SECCAO B

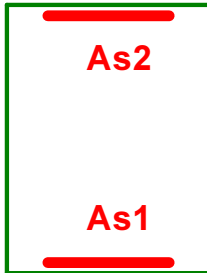
General

Design code: Eurocode 2
Analysis: Failure surface

Loads: N, Mx
N<0 is compression !

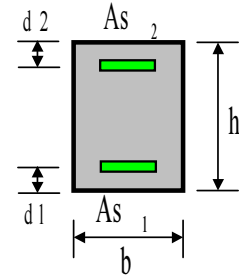
Section

Data [cm]

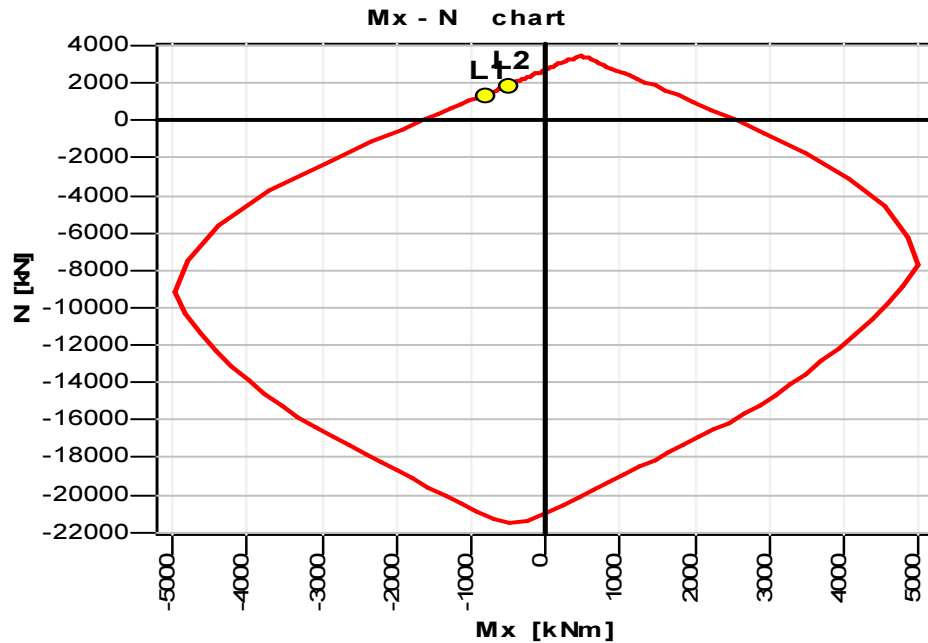


b =100
h =130

d1 =5
d2 =5



Results



Materials

Concrete: C25/30
SSR: Parabolic - linear

Reinforcing steel: S500
SSR: Standard

$f_{ck} = 25.00$ MPa
 $E_c = 30471.58$ MPa
 $ec2u = -3.500$ o/oo
 $ec2 = -2.000$ o/oo
 $n = 2.00$

$f_{yk} = 500.00$ MPa
 $E_s = 200000.00$ MPa
 $esu = 10.000$ o/oo



Factors

Concrete: $\gamma_c = 1.50$
Steel: $\gamma_s = 1.15$

Reinforcement

Unsymmetric:

$A_{s1} = 31.42 \text{ cm}^2$ $A_{s2} = 49.09 \text{ cm}^2$

Solve data

II order moments: No

Section properties

Reinforcement :

$A_{s,tot} = 80.51 \text{ cm}^2$

Concrete section:

$A_c = 13000.00 \text{ cm}^2$

$I_{c,x} = 18308333.33 \text{ cm}^4$

R/C section:

$A_{red} = 13447.92 \text{ cm}^2$

$I_{red,x} = 19920834.11 \text{ cm}^4$

$r_x = 38.49 \text{ cm}$