



Job Title ENSOLEIRAMENTO - SECCAO C

General

Design code: Eurocode 2
Analysis: Failure surface

Loads: N, Mx

N<0 is compression !

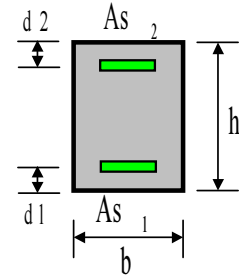
Section

Data [cm]

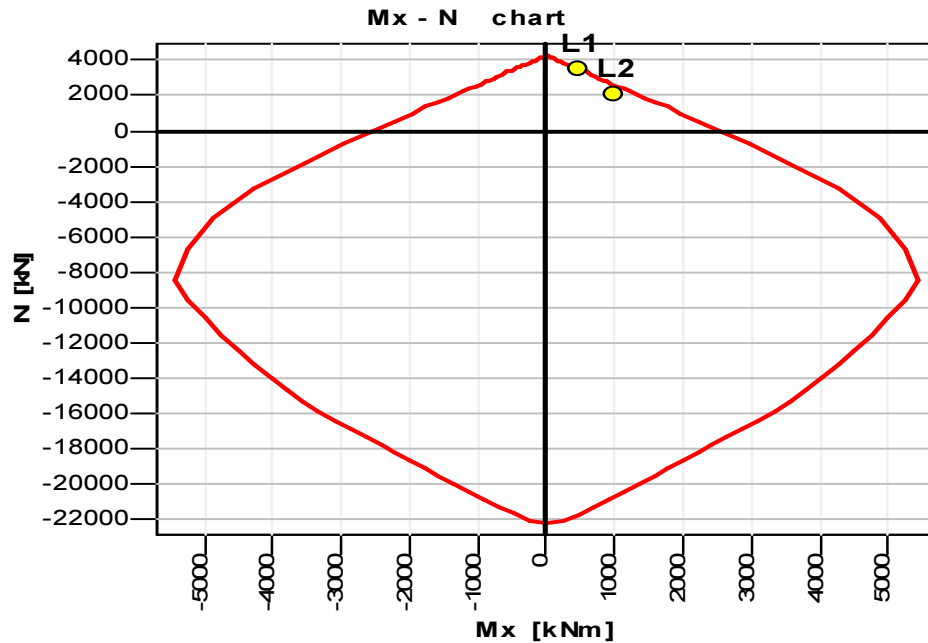


b =100
h =130

d1 =5
d2 =5



Results



Materials

Concrete: C25/30
SSR: Parabolic - linear

Reinforcing steel: S500
SSR: Standard

fck = 25.00 MPa
Ec = 30471.58 MPa
ec2u = -3.500 o/oo
ec2 = -2.000 o/oo
n = 2.00

fyk = 500.00 MPa
Es = 200000.00 MPa
esu = 10.000 o/oo



Factors

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

Reinforcement

Unsymmetric:

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

Solve data

II order moments: No

Section properties

Reinforcement :

$A_{s,tot} = 98.18 \text{ cm}^2$

Concrete section:

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

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

R/C section:

$A_{red} = 13546.22 \text{ cm}^2$

$I_{red,x} = 20274739.08 \text{ cm}^4$

$r_x = 38.69 \text{ cm}$