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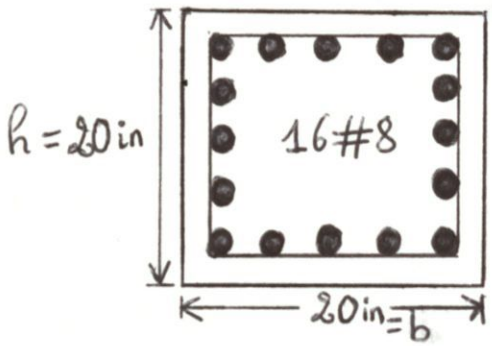

$f'_c = 3{,}000\,psi = 3\,ksi$

$f_y = 60{,}000\,psi = 60\,ksi$

Gross Area: $A_g = bh = (20\,in)(20\,in) = 400\,in^2$

Area of Steel: $A_{st} = (16)(0.79\,in^2) = 12.64\,in^2$

Nominal axial load, P_N

$$P_N = 0.80\left[0.85 f'_c (A_g - A_{st}) + A_{st} f_y\right]$$

$$= 0.80\left[0.85(3{,}000\,psi)(400\,in^2 - 12.64\,in^2) + (12.64\,in^2)(60{,}000\,psi)\right]$$

$$P_N = 1{,}396{,}934.4\,lbs = 1{,}397\,kips$$

Uptimate axial load, ϕP_N; $\phi = 0.65$ (Tied Column)

$$\phi P_N = 0.65\,(1{,}397\,kips) = 908\,kips$$