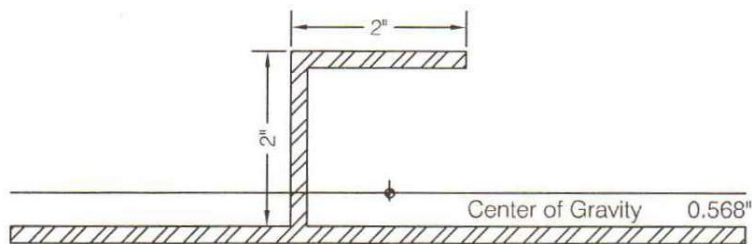


Moment of inertia (Angle and plate): 2.1631 sq in sq in

## 2x2x3/16 Angle



$$M = \frac{f_s \times I_{nr}}{c}$$

$$M = \frac{23,000 \times 2.16}{0.568} = 87,460 \text{ in-lb}$$

$$M = \frac{w \times \text{len}^2}{8} \quad w = \frac{8 \times M}{\text{len}^2}$$

$$w = \frac{87,460 \times 8}{32^2} = 688 \text{ lb/in}$$

$$\text{psi} = \frac{688}{8.4} = 82 \text{ psi}$$

$I_{nr}$  Moment of Inertia in<sup>4</sup>

len length of beam

$f_s$  bending strength of steel

w load per width of beam

c dist from edge to C.G.



EXPIRES 6-15-13