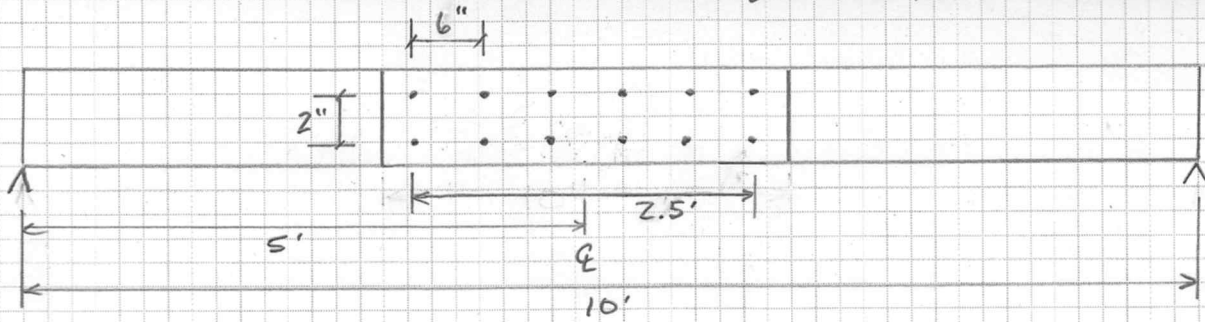


$$W = 80 \text{ PLF}$$



$$M = \frac{80 \text{ PLF} (10')^2}{8} \times 12 \frac{\text{in}}{\text{ft}} = 12000 \text{ IN-LB}$$

$$I_x = 2(3)^2 + 2(9)^2 + 2(15)^2 = 630 \text{ IN}^2$$

$$I_y = 2(1)^2 = 2 \text{ IN}^2 \rightarrow (\Sigma? \therefore 2 \times 3 = 6?)$$

$$I_p = 630 + 2 = 632 \text{ IN}^2$$

$$I_y = n \cdot d^2$$

$$= 2 \cdot 6 \cdot 1 \text{ in}^2 = 12 \text{ in}^2$$

6 nails top at 1" from CL and  
6 nails bottom 1" from CL

$$\Gamma_{my} = \frac{12000 \text{ IN-LB} (15'')}{632 \text{ IN}^2} = 285 \text{ LB}$$

$$P = 80 \text{ PLF} (10') = 800 \text{ LB}$$

$$\Gamma_{py} = \frac{P}{n} = \frac{800 \text{ LB}}{12 \text{ NAILS}} = 67 \text{ LB}$$

12, yes. Also I think P should actually be V (shear) at the center of the bolt group, however it appears the P you are using is conservative.

$$\Gamma_{mx} = \frac{12000 (1)}{632} = 19 \text{ LB}$$

$$\Gamma = \sqrt{(285 + 67)^2 + 19} = 352 \text{ LB}$$