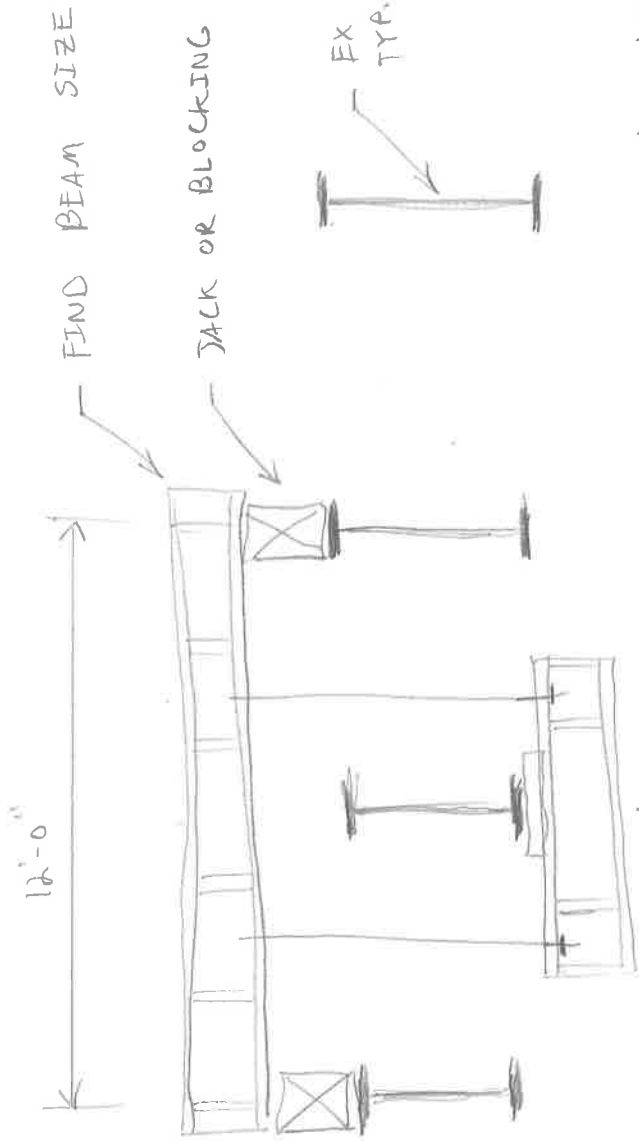




$$M_a = \frac{40^k \times 12'}{4} = 120 \text{ kip-ft}$$

DEAD LOAD REACTION
FROM GIRDER SELF WEIGHT

AISC TABLE 3-10
w/ $L_b = 12'$

SELECT $W16 \times 40$ $M_n/\phi = 139 \text{ kip-ft}$

$$L_b = 12'$$

AISC TABLE 3-10
w/ $L_b = 14'$

SELECT $W16 \times 40$ $M_n/\phi = 125 \text{ kip-ft}$

$$\begin{aligned} L_b &= 12' + 1.20 \\ &= 12' + 1.2(1.33') \\ &= 13.60' \end{aligned}$$