



Capacity W16x36 w/ $L_b = 12'$ = $1.0 \left[\frac{M_{px}}{\phi_b} - B F (L_b - L_p) \right] = 1.0 \left[160 \text{ k-ft} - 6.19 (12 \text{ ft} - 5.37 \text{ ft}) \right] = 118.96 \text{ k-ft}$

Capacity W16x31 w/ $L_b = 12'$ = $1.0 \left[135 - 6.76 (12 \text{ ft} - 4.13 \text{ ft}) \right] = 81.8 \text{ k-ft}$

Capacity W16x31 w/ $L_b = 22'$ = 32.1 k-ft