CHORD MEMBER #7 (CONTD.)

Applicable Moment = _____ in lbs. f_y = 36,000 psi

f_s = 22,000 psi

D_t = 33.00 in. f_{sc} = _____ psi

B_{eff} = 64.00 in.

t = 4.00 in. WITHOUT COVER PLATE

y_1 = 2.00 in. d_2 = 3.08 in.

y_2 = 4.46 in. d_3 = 25.00 in.

y_3 = 32.54 in. c_1 = 7.54 in.

d_1 = 5.54 in. c_2 = 25.46 in.

$$I_s = \sum [(I_c + A_c d_1^2) + (I_{TCA} + A_{TCA} d_2^2) + I_{BCA} + A_{BCA} d_3]$$

$$\bar{y} = \frac{\sum (A_c y_1 + A_{TCA} y_2 + A_{BCA} y_3)}{\sum (A_c + A_{TCA} + A_{BCA})}$$

$\bar{y}$ = 7.54 in.

I_s = 3,275 in.^{4} (2C52T2)

Resisting Moment = $f_s \times \frac{I_s}{c_2}$ = 2,830,000 in. lbs.

Use 4-2"x1½"x0.31" ∠'s Area = 4.30 sq. in.

Composite Design Top Chord Check

Total Load Design f_c = _____ psi

Applicable Moment = _____ in. lbs. f'_c = _____ psi

$$f'_{cn} = \frac{M c_1}{15 I_s} = \text{_____ psi}$$

CHORD MEMBER #8 Consists of _____ Angles

Area = _____ sq. in.

(SAME AS MEMBER 6)