WEB MEMBER #4 Distance from End Panel = 3.04 ft.

Applicable Shear V_x = 20,340 lbs. f_y = 50,000 psi

Slope = 1.162 f_s = — psi

ℓ = 29.5 in. f_{sc} = 13,850 psi

Reqd. Area = 1.71 sq. in. Use 2 - 1.14" O.A Area = 2.04 sq. in.

WEB MEMBER #5 Distance from End Panel = 0.0 ft.

Applicable Shear V_x = 22,940 lbs. f_y = 50,000 psi

Slope = 2.20 f_s = 30,000 psi

ℓ = — in. f_{sc} = — psi

Reqd. Area = 1.68 sq. in. Use 2 - 1.14" O.A Area = 2.04 sq. in.

CHORD MEMBER #6 Consists of 4 - 2" x 1½" x 0.25" Angles

Construction Load Design Area = 3.60 sq. in.

Applicable Moment = 1,740,000 in. lbs. f_y = 50,000 psi

ℓ = 33.375 in. f_s = — psi

r_x = 0.44 in. f_{sc} = 19,380 psi

r_z = 0.31 in. (with fillers in middle 60% of span)

$\frac{\ell}{r_x}$ = 75.8

$\frac{\ell}{2r_z}$ = 53.8

$\frac{f_a}{F_a} + \frac{f_b C_m}{F_b\left(1 - \frac{f_a}{F'_e}\right)}$ = 0.949 less than 1

f_a = 17,250 psi

F_a = 19,380 psi

f_b = 810 psi

F_b = 30,000 psi

F'_e = 25,950 psi

Use 4 - 2" x 1½" x 0.25" 4's Area = 3.60 sq. in.

CHORD MEMBER #7 Consists of 4 - 3" x 2" x 0.37" Angles

Total Load Design Area = 7.32 sq. in.