LACLEDE STEEL COMPANY

D105- T 5 -Sheet 2

WORLD TRADE CENTER
FLOOR GRID TRUSSES
DESIGN DATA

TRUSS UNIT MARKED 2C32T5 Refer to drawings ST 101, 6.8.

Clearspan "L" = 34.83 ft. Spacing = 4 67 ft.

Applicable Total Moment = 1,920,000 inch pounds. [31' PARTIAL LOADING]

Based on 154 lbs./sq. ft. Total Load "w".

Applicable End Reaction = 18,000 pounds.

Based on 154 lbs./sq. ft. Total Load "W".

Applicable Total Constr. Moment = 585,000 inch pounds.

Based on 46 lbs./sq. ft. Construction Load.

Applicable Constr. End Reaction = 5470 pounds.

Based on 46 lbs./sq. ft. Construction Load.

"V" Shear at End Panel = 14,920 pounds. ED = 3.0 ft.

WEB MEMBER #1 Distance from End Panel = 0.0 ft.

Applicable Shear V_x = 14,920 lbs. f_y = 50,000 psi

Slope = 2.65 f_s = 30,000 psi

ℓ = — in. f_{sc} = — psi

Reqd. Area = 1.32 sq. in. Use 2-0.92" O.A. Area = 1.33 sq. in.

WEB MEMBER #2 Distance from End Panel = 0.0 ft.

Applicable Shear V_x = 14,920 lbs. f_y = 36,000 psi

Slope = 1.00 f_s = — psi

ℓ = 26.0 in. f_{sc} = 11,200 psi

Reqd. Area = 1.33 sq. in. Use 2-0.92" O.A. Area = 1.33 sq. in.

WEB MEMBER #3 Distance from End Panel = 4.87 ft.

Applicable Shear V_x = 9,920 lbs. f_y = 36,000 psi

Slope = 1.162 f_s = — psi

ℓ = 30.0 in. f_{sc} = 8,750 psi

Reqd. Area = 1.32 sq. in. Use 2-0.92" O.A. Area = 1.33 sq. in.