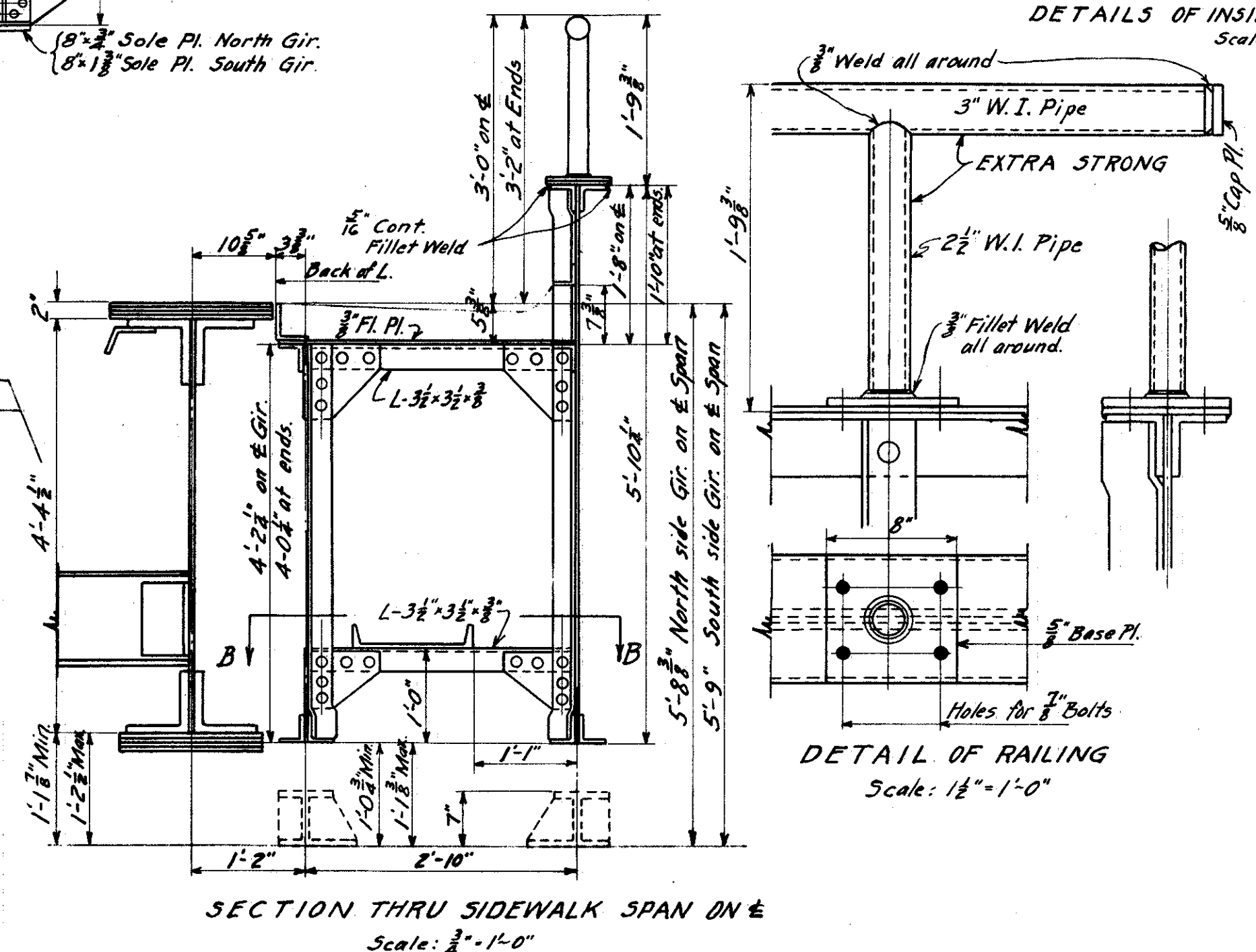
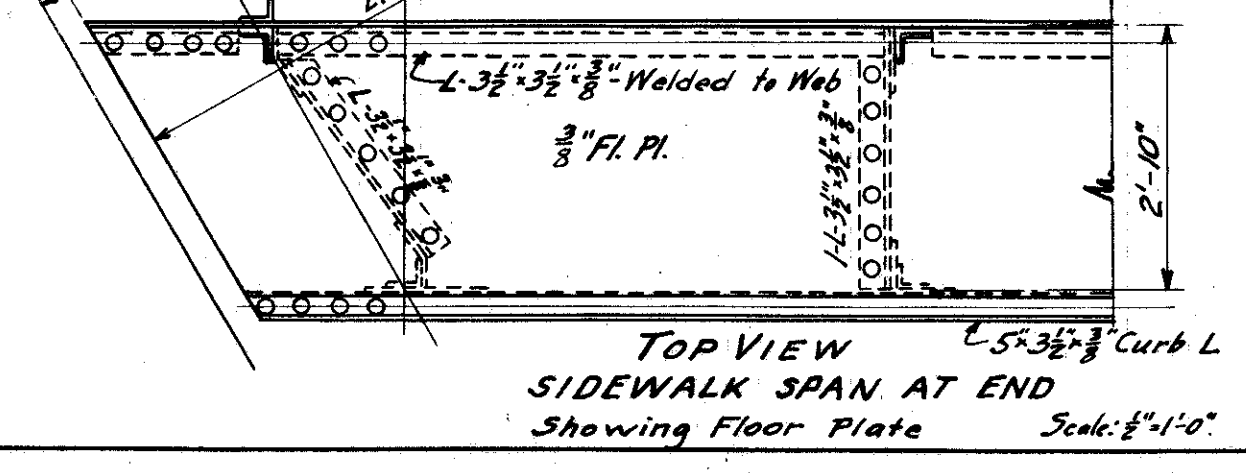


NOTE - SIDEWALK SPANS TO BE SHOP RIVETED FOR SHIPMENT. PROVIDE EXTRA TEMPORARY BRACING IF NECESSARY.



DETAIL OF RAILING Scale: 1/2 inch = 1'-0 inch



GENERAL NOTES, CONT.
 Painting - Do not paint top surfaces of floor, side and apron plates.
 Field paint shall conform to Sec. M9.6(b) white lead paint tinted to match color of concrete.
 Welding - Class A - and shall be done in conformity with the Construction and Material Specifications dated Mar. 1, 1939.
 Annealing - All material carrying stress and requiring bending shall be heated and bent while hot and then properly annealed in a furnace.
 Shop Assembly - All track girders, floor beams, end struts and brackets shall be assembled in shop, field connections reamed and match marked.
 A diagram showing match marking shall be furnished.
 Anchor Bolt Setting - Anchor bolts are to be set in concrete before concrete slab is poured using a templet to insure accuracy.
 The contractor for the steel shall furnish a plan showing the location of all the pedestals on the bridge seats with spacing for anchor bolts.
 Ends of girders - Mark properly for shipment.
 Trough to be sealed by welds to make watertight at all points.

ESTIMATED QUANTITIES

Item	Description	Amount
S107	Structural Steel Including Steel Castings	730,000 Lbs.
S8	Field Painting of Structural Steel and Steel Castings	730,000 Lbs.
S14	Bridge Railing, 3" W.I. Pipe - Extra Strong, including painting	118 Lin. Ft.

DESIGN DATA
 E-72 LOADING-AREA SPECIFICATIONS, 1938, WITH REVISIONS TO DATE

Dead Load per sq. ft.	Lbs	LIVE LOAD Spread laterally over 10'-0"
Track and Ballast	185	
Protection Concrete	65	
Steel Floor Pl. & Bms.	60	
Total	310	

Floor System	Moments	Shears	Kind	Unit Stresses
12'-50"W - 11'-3"lg.	D.L. 92 kips	3.3 kips	Tension	18000 psi / 17400 psi
1'-10 1/2 cts.	L.L. 42.4 "	13.5 "	Comp.	18000 psi / 17400 psi
S.M. Req'd.	62.6 "	13.5 "		
S.M. Used	64.7 "	30.3 "		
Total	94.0 "	30.3 "		

Girders 55'-5 cts. Section	Dead Load - Floor & Deck	1870* per lin. ft. of Gir.
Web 58" x 16"	" Girders 620* "	" " " " "
4 PL 15 8" x 13"	" Total 2490* "	" " " " "

Top Fl. Pls. 20 1/2" x 2"	D.L.	9850 kips	71.0 kips	Tension	18000 psi / 16900 psi
Both Fl. Pls. 18" x 24"	L.L.	2036.3 "	167.7 "	Comp.	17900 psi / 14400 psi
Gross I - 1081.00	I	1540.5 "	155.6 "	Shear	11600 psi / 10200 psi
Net I - 922.00	Total	4561.8 "	365.5 "		
S.M. Tens. - 3250					
S.M. Comp. - 3800					

GENERAL NOTES:
 Specifications - State of Ohio Construction and Material Spec. 5107 except as modified for design.
 Alignment - Tangent.
 Grade - Steel to be set level.
 Rivets - 3/4 dia. except as noted.
 Open Holes - 1/8 dia. except as noted.
 Wanted - Steelwork for 6 tracks and 2 Sidewalk spans.

Correct *[Signature]* Engineer of Structures
 Approved *[Signature]* Chief Engineer

Date	By	Description
3-12-41	State	Quan. (Items S-107, S-8)

BR. No. LA-283-170
 N.Y.C. System Office of Chief Engineer Chicago, Ill.
 BR. No. 100 3/4 ERIE DIVISION STA. 1481+76.1
 GRADE SEPARATION
 RICHMOND ST. PAINESVILLE, OHIO.
 STEEL DESIGN & STRESS SHEET
 Sheet 10 of 19
 NYC.R.R. West Erie Division Plan No. 1097
 Scale - as shown July 5, 1940 Val. Sec. 203 File No. 100-98