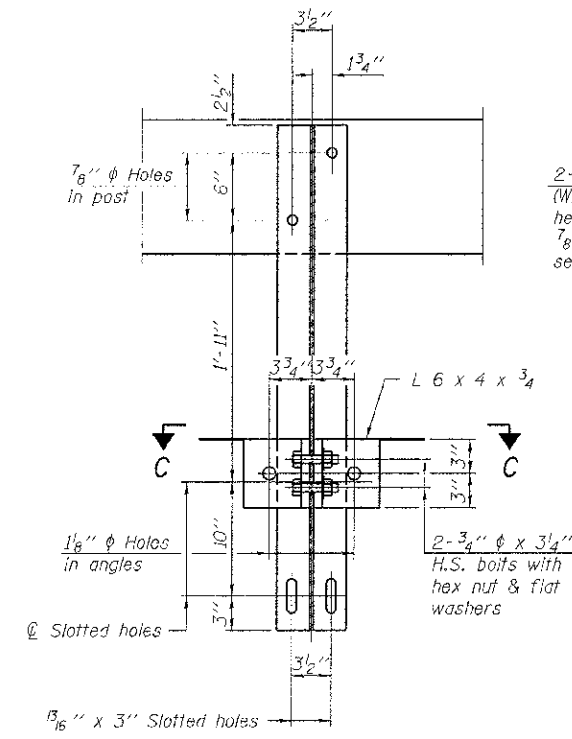
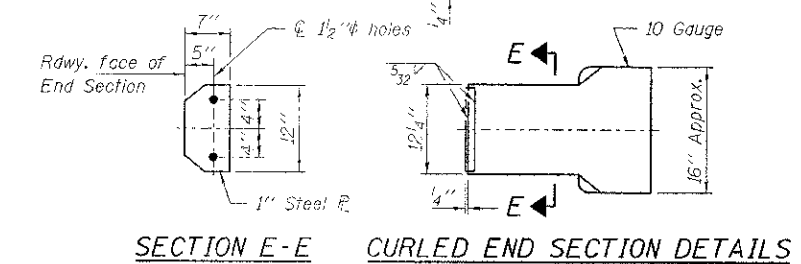
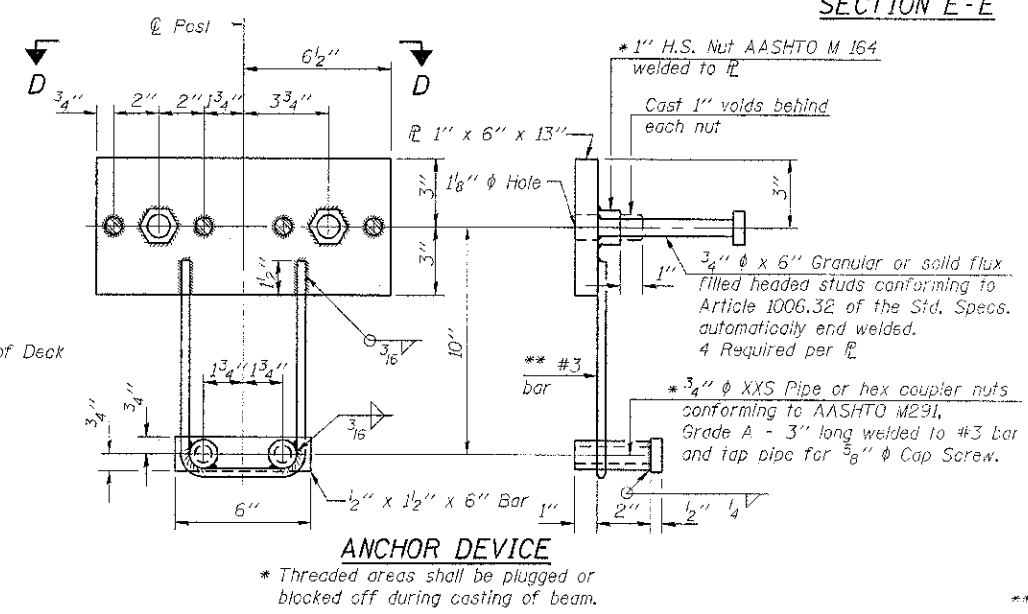
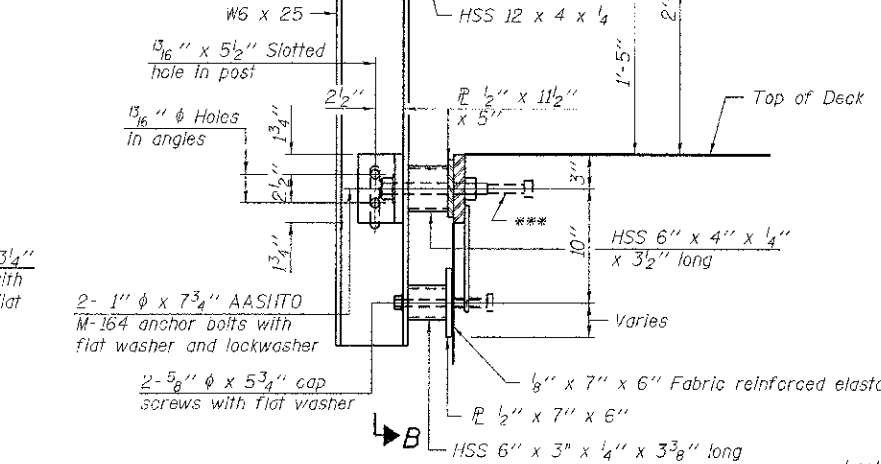


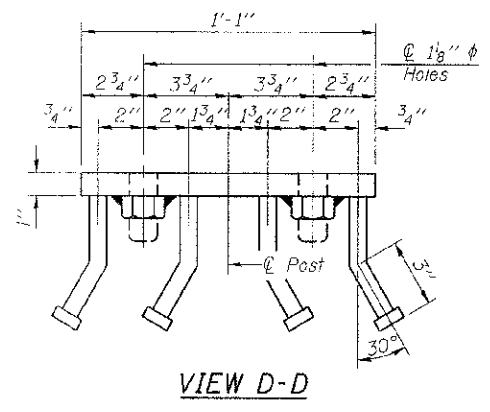
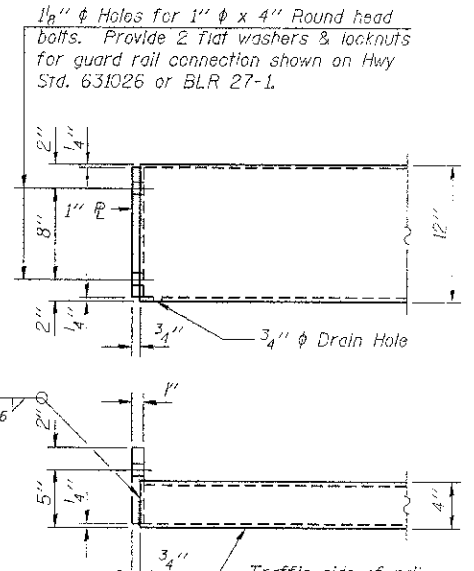
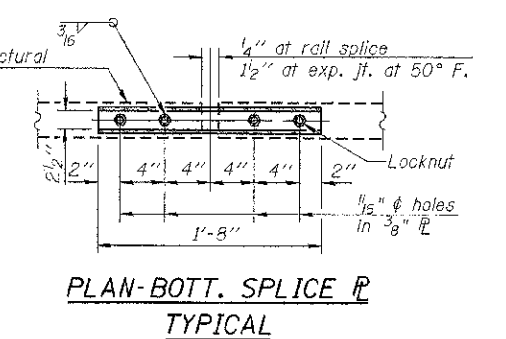
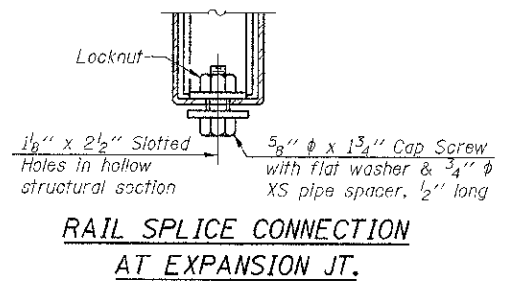
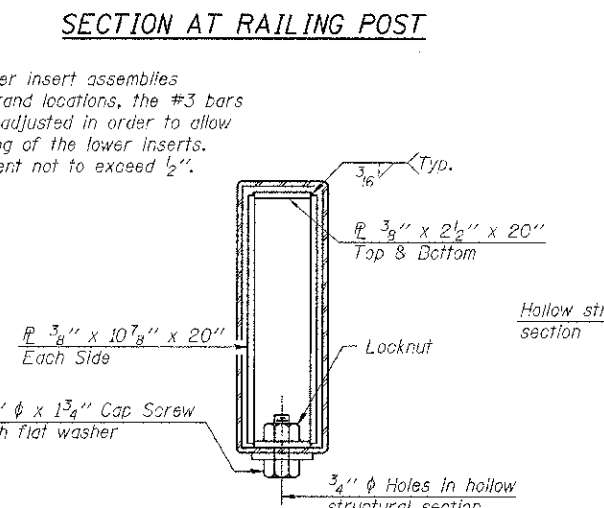
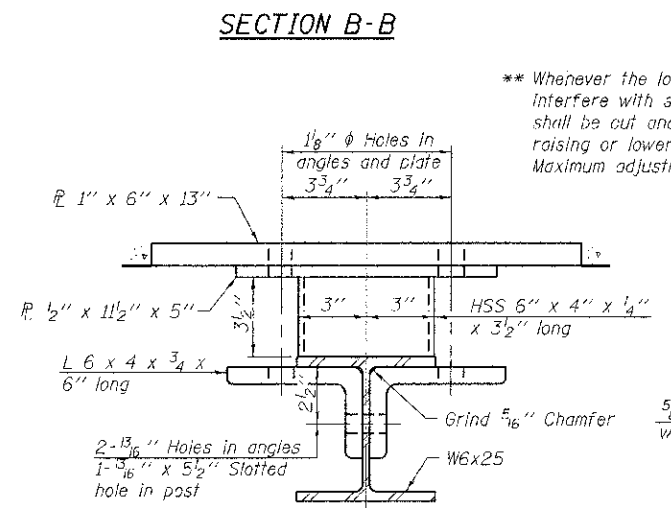
Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)



2-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.



Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	143

R-23A 7-1-10 (10'-9" Maximum Post Spacing)

FILE NAME # 110245	USER NAME #	DESIGNED - S.W.M.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - D.A.B.	REVISED -
3000 S. RIVINGTON DRIVE, SUITE 201		DRAWN - R.D.H.	REVISED -
SPRINGFIELD, ILL. 62761		CHECKED - D.A.B.	REVISED -
ILLINOIS PROFESSIONAL DESIGN #1101	PLOT SCALE #		
151 N. PULASKI	PLOT DATE # 12/28/2012		

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE S-1
STRUCTURE NO. 053-4202
SHEET NO. 5 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
248A	*	LIVINGSTON	19	14
FORREST / CHATSWORTH R.D.			CONTRACT NO. 87538	
ILLINOIS FED. AID PROJECT				