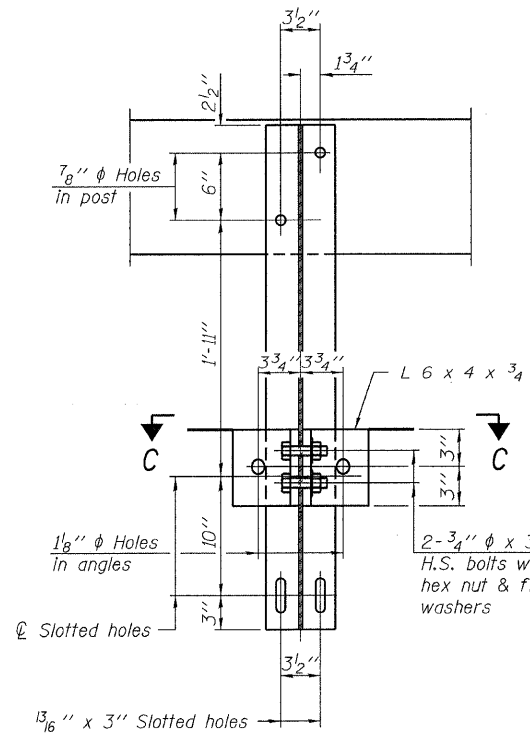
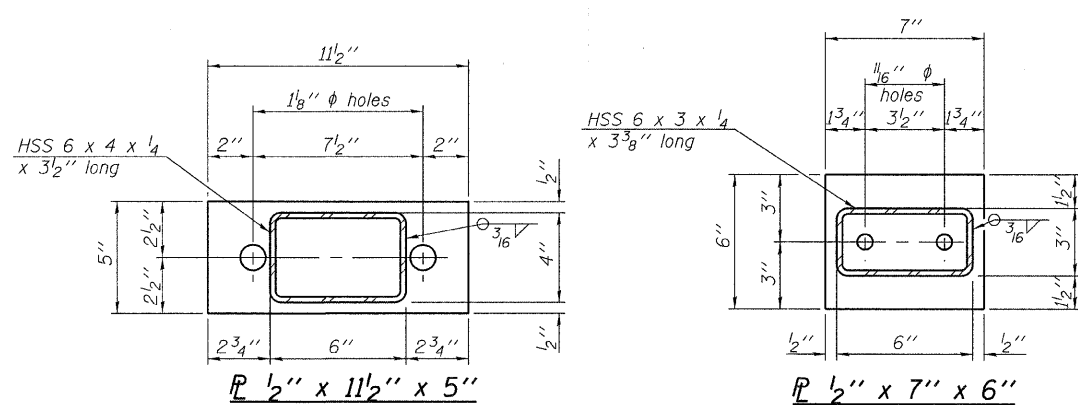
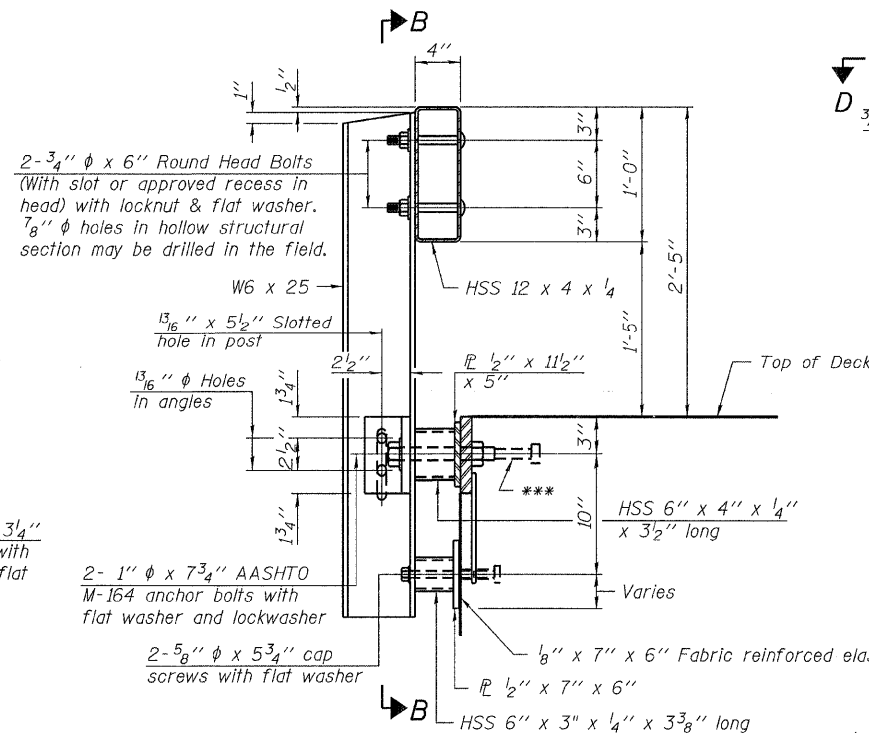


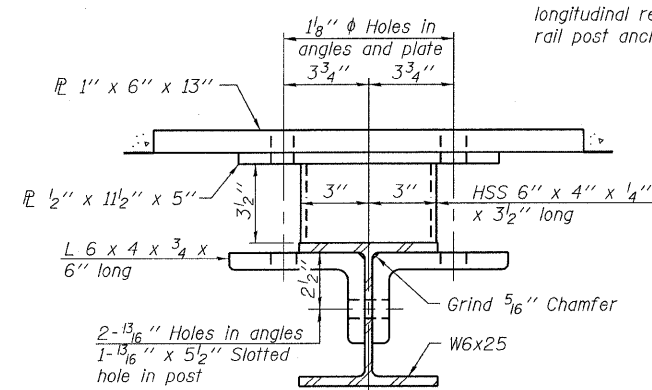
**VIEW A-A  
ROUND HEAD BOLT**



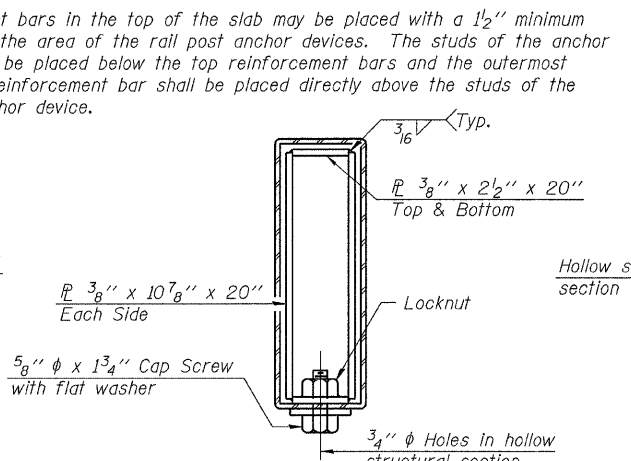
**SECTION B-B**



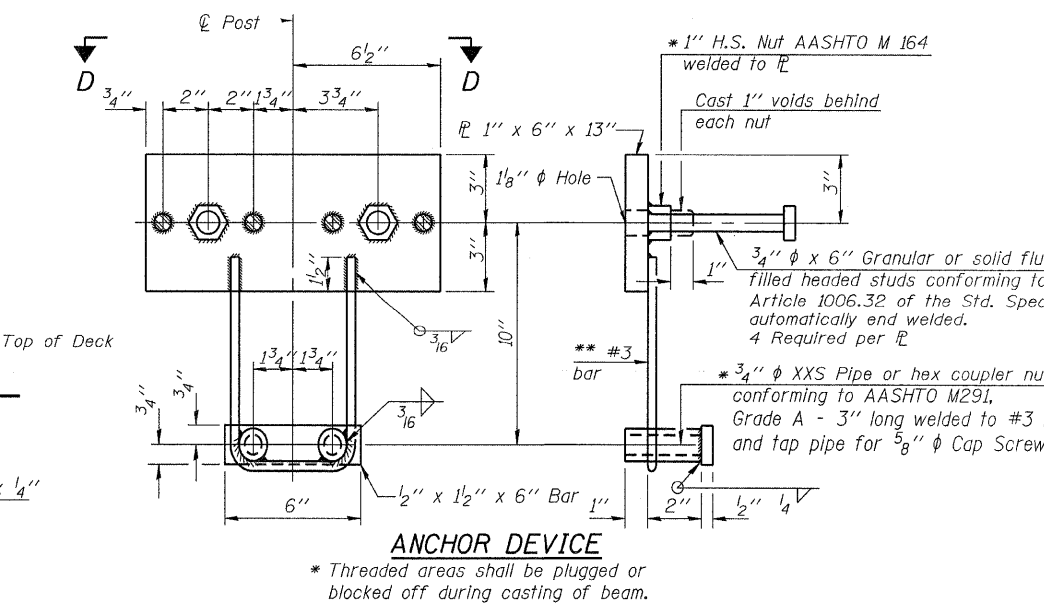
**SECTION AT RAILING POST**



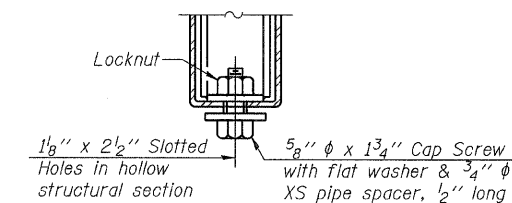
**SECTION C-C**



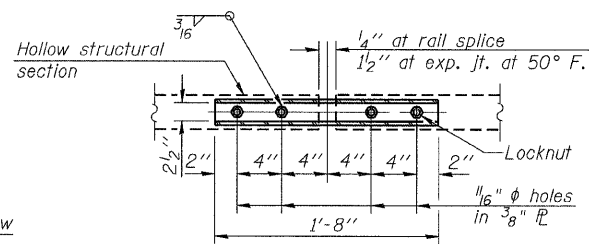
**SECTIONS AT RAIL SPLICE**



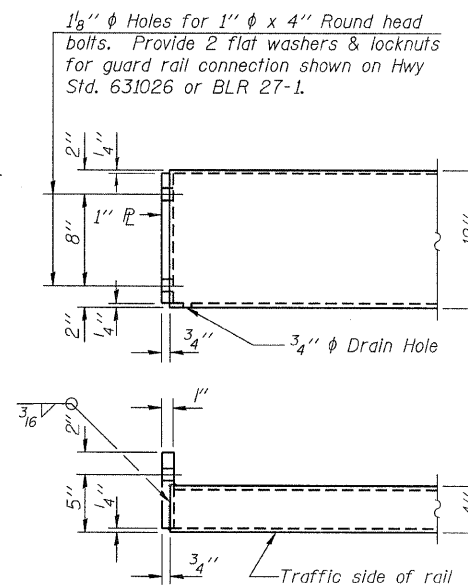
**ANCHOR DEVICE**



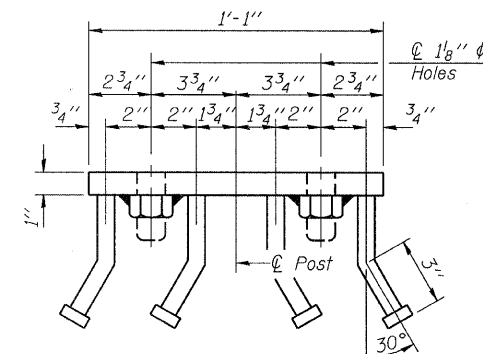
**RAIL SPLICE CONNECTION  
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE R  
TYPICAL**



**END OF RAIL DETAILS**



**VIEW D-D**

**Notes:**  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch 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 = 100031-shr-bridge.dgn	USER NAME =	DESIGNED - D.W.T.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3386 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62760	PLOT SCALE =	CHECKED - A.S.L.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184-000959	PLOT DATE = 2/2/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STEEL RAILING, TYPE S1  
STRUCTURE NO. 045-3104**

SHEET NO. 6 OF 15 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
193	07-03011-01-BR	KANE	29	15
HINCKLEY ROAD			CONTRACT NO. 63699	
[ILLINOIS] FED. AID PROJECT BROS-0089(138)				