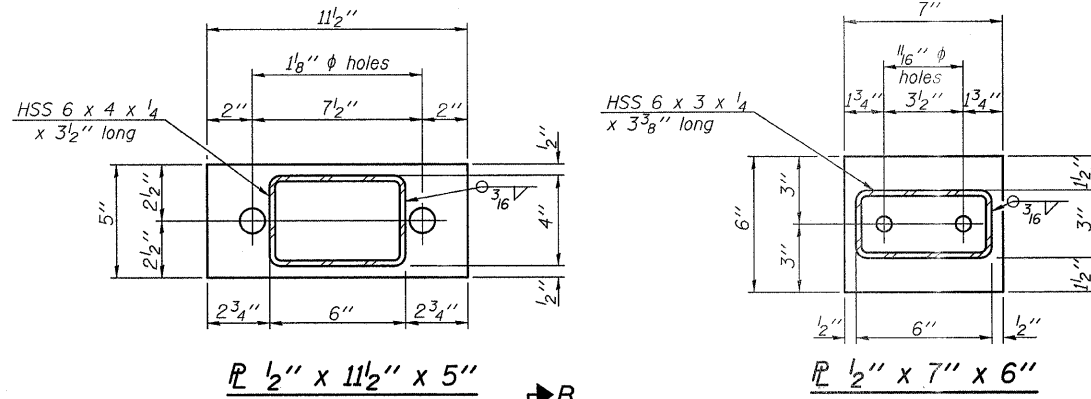
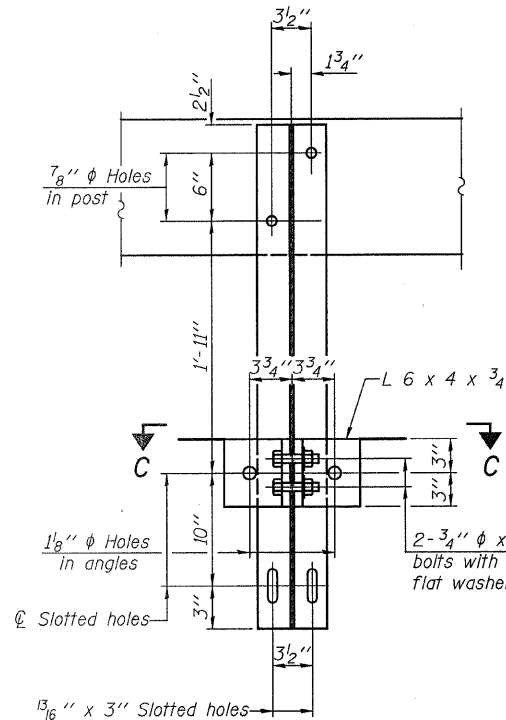


VIEW A-A ROUND HEAD BOLT

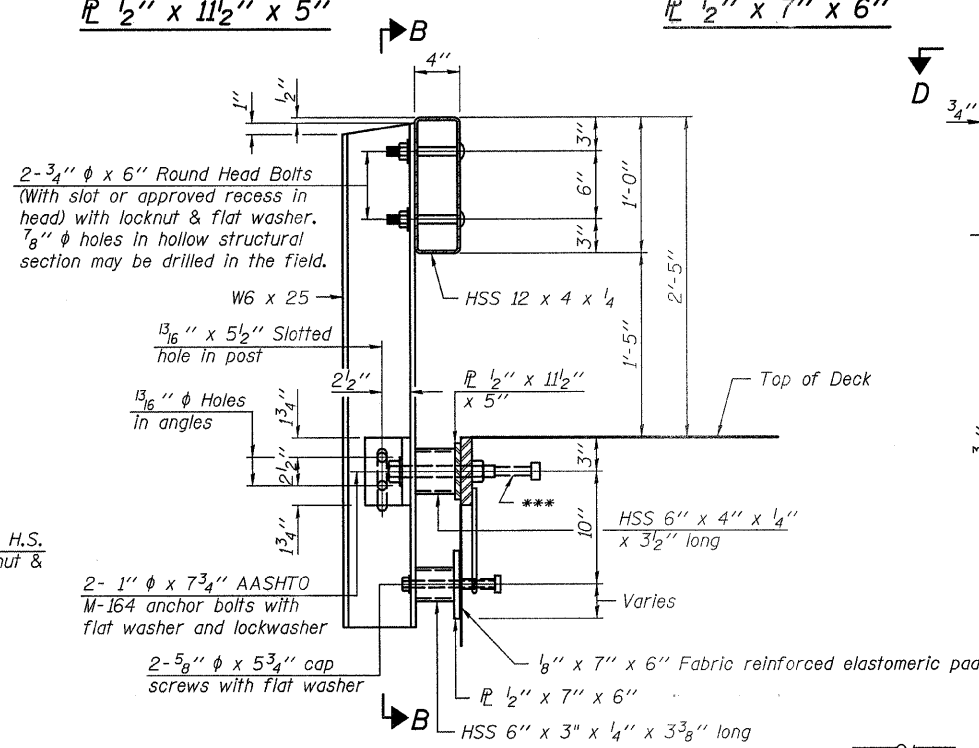


\bar{L} 1/2" x 11 1/2" x 5"

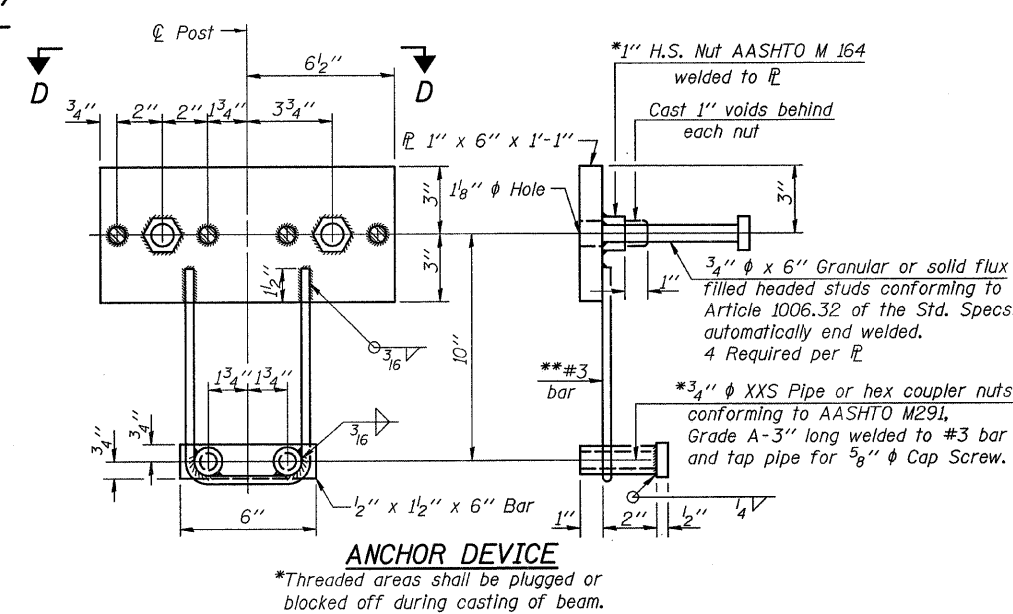
\bar{L} 1/2" x 7" x 6"



SECTION B-B

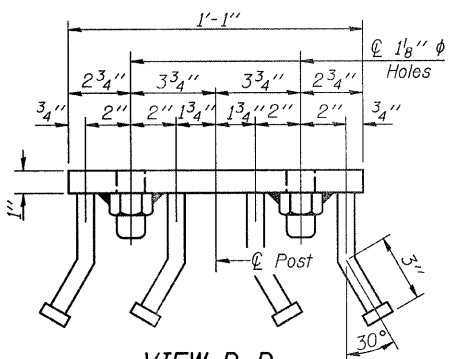


SECTION AT RAILING POST

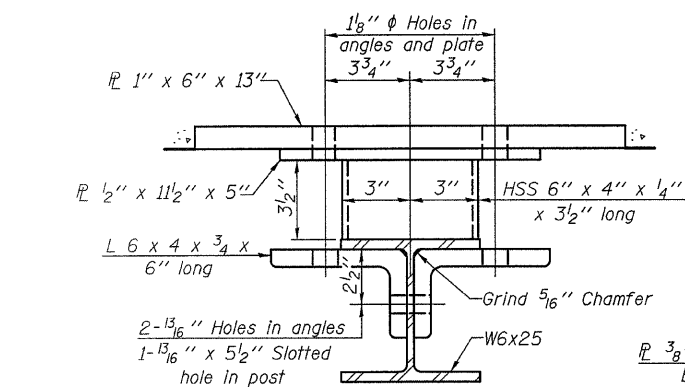


ANCHOR DEVICE

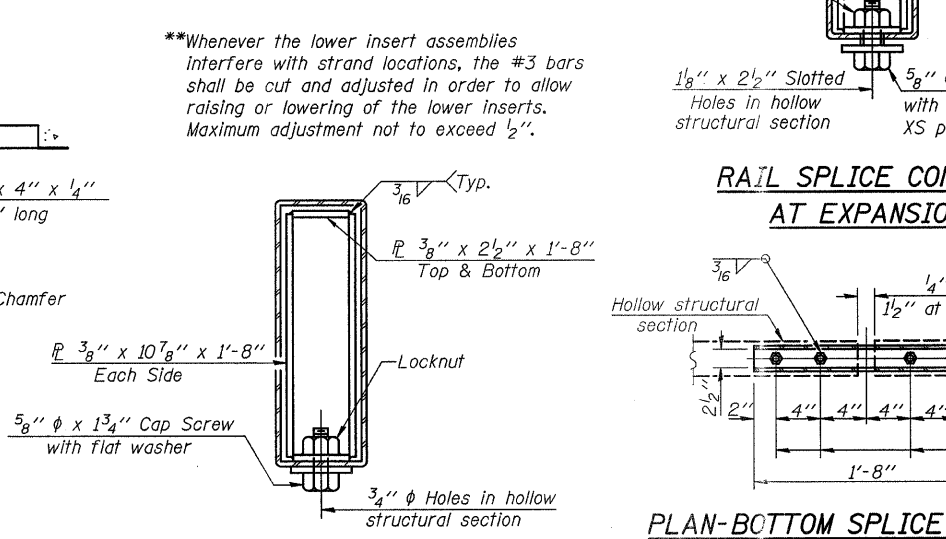
Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
 All steel rail elements shall 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.



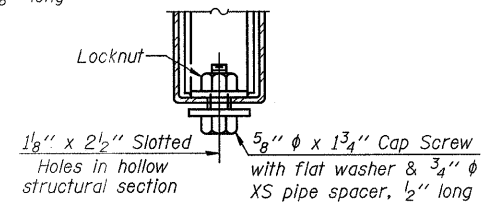
VIEW D-D



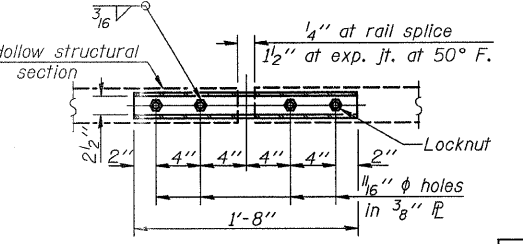
SECTION C-C



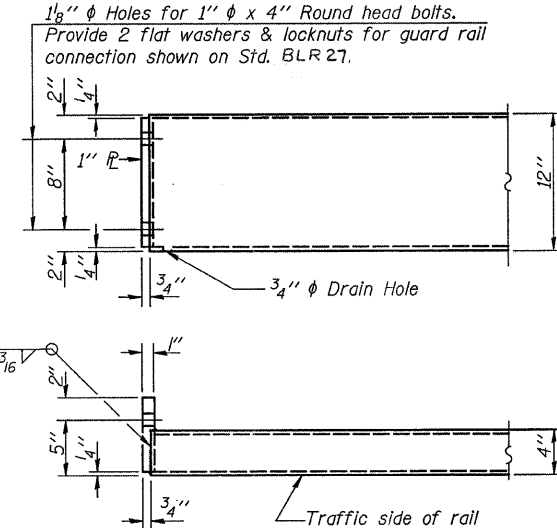
SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTTOM SPLICE TYPICAL



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	165

STEEL RAILING, TYPE S-1
 STRUCTURE NO. 084-3556

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	07-09101-02-BR	SANGAMON	16	13
COTTON HILL ROAD DISTRICT		CONTRACT NO. 93507		
ILLINOIS FED. AID PROJECT				

DESIGNED - S.M.S.
CHECKED - S.W.M.
DRAWN - D.A.B.
CHECKED - D.T.M.

R-23A 15-16-08 (10'-9" Maximum Post Spacing)

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
HLR
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 548-3400
 PROJECT NUMBER: 08.0042.130 DATE: 10/03/08