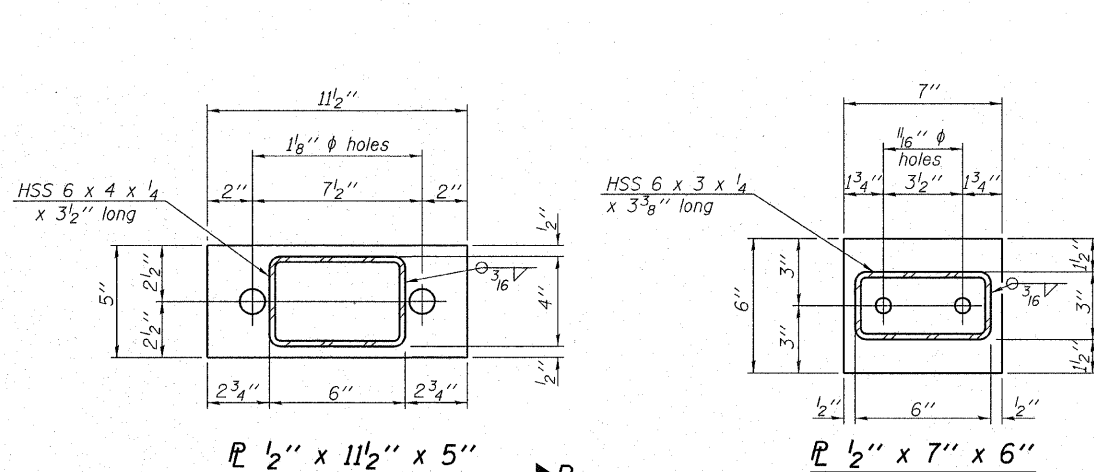
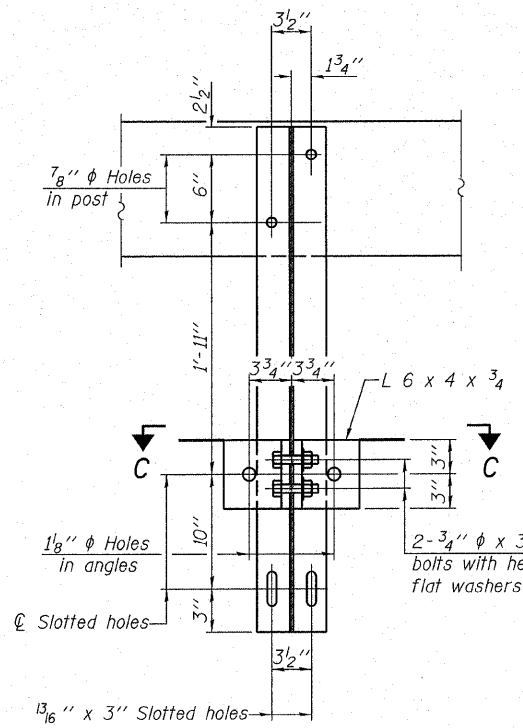


VIEW A-A ROUND HEAD BOLT

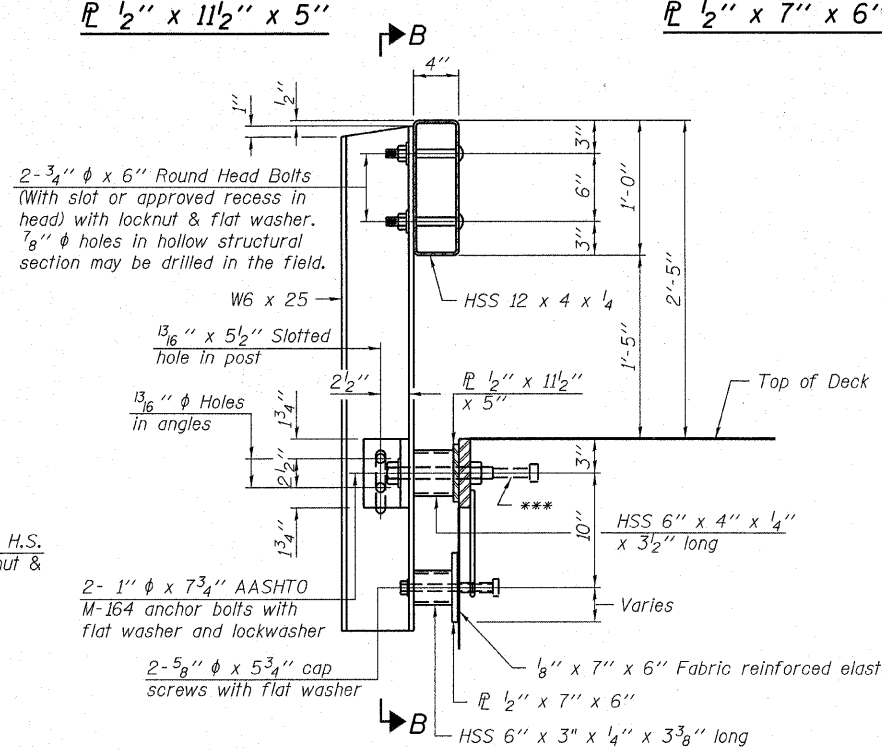


R 1/2" x 11 1/2" x 5"

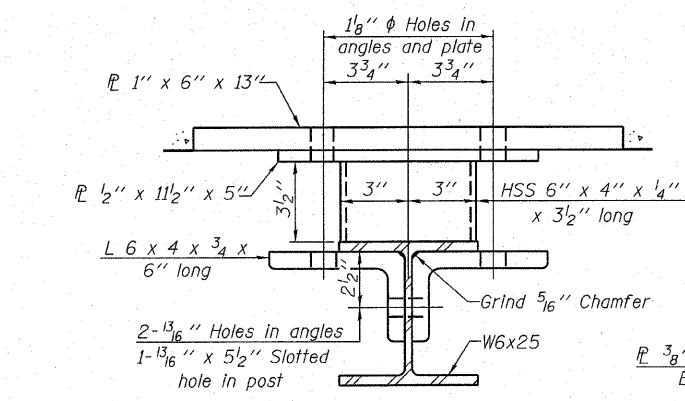
R 1/2" x 7" x 6"



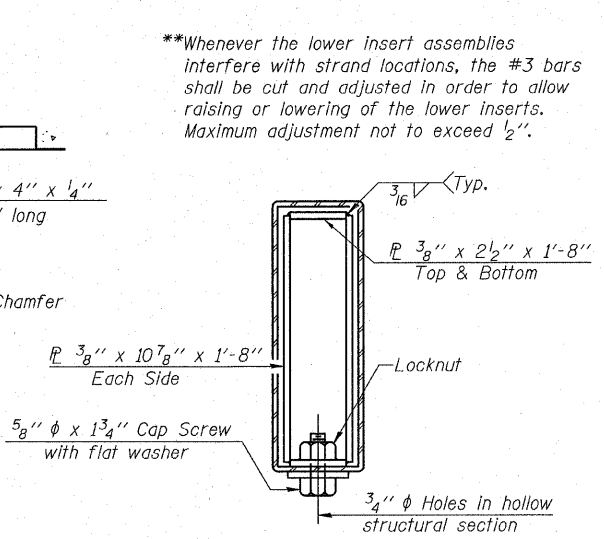
SECTION B-B



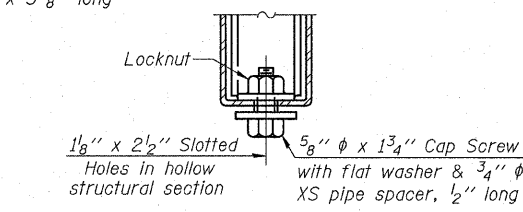
SECTION AT RAILING POST



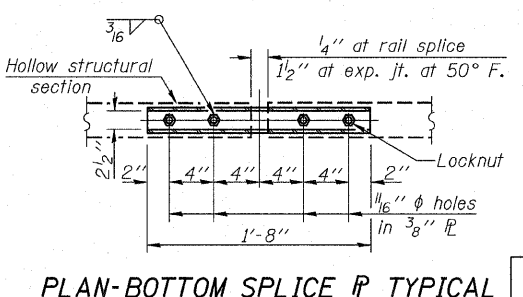
SECTION C-C



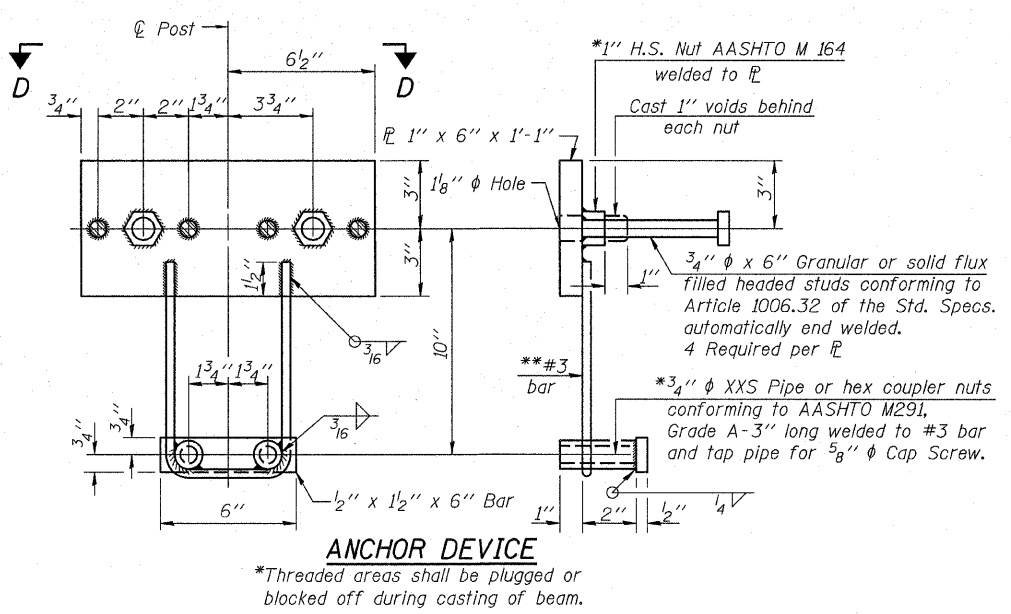
SECTIONS AT RAIL SPLICE



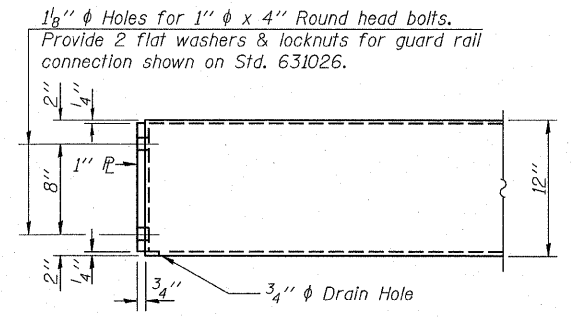
RAIL SPLICE CONNECTION AT EXPANSION JT.



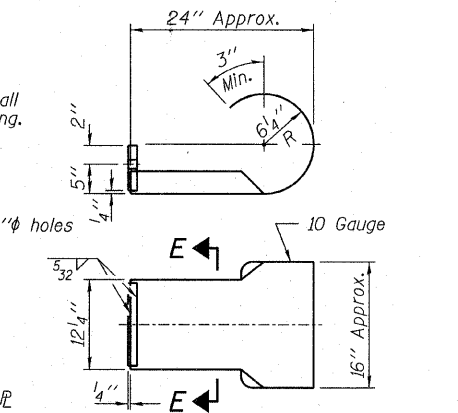
PLAN-BOTTOM SPLICE R TYPICAL



ANCHOR DEVICE

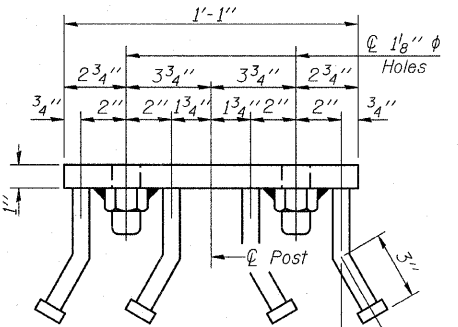


END OF RAIL DETAILS



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" 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	94

STEEL RAILING, TYPE S-1
 STRUCTURE NO. 070-4535

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

R-23A

5-16-08

(10'-9" Maximum Post Spacing)

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 08.0094.130 DATE: 10/29/08

SHEET NO. 5	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	146	08-05125-00-BR	MOULTRIE	15	12
8 SHEETS	LOWE ROAD DISTRICT		CONTRACT NO. 95565		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		