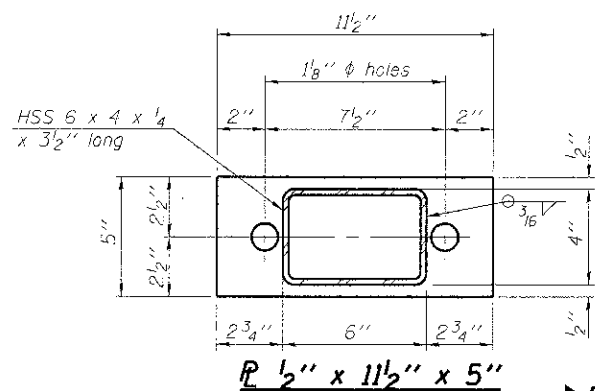
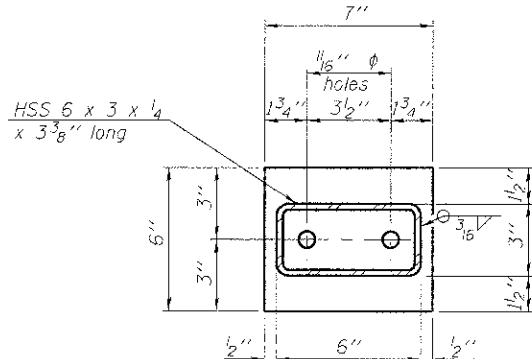


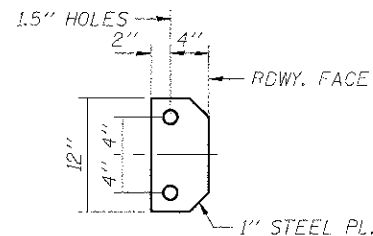
**VIEW A-A
ROUND HEAD BOLT**



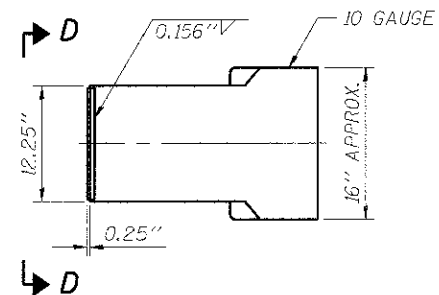
R 1/2" x 11 1/2" x 5"



R 1/2" x 7" x 6"

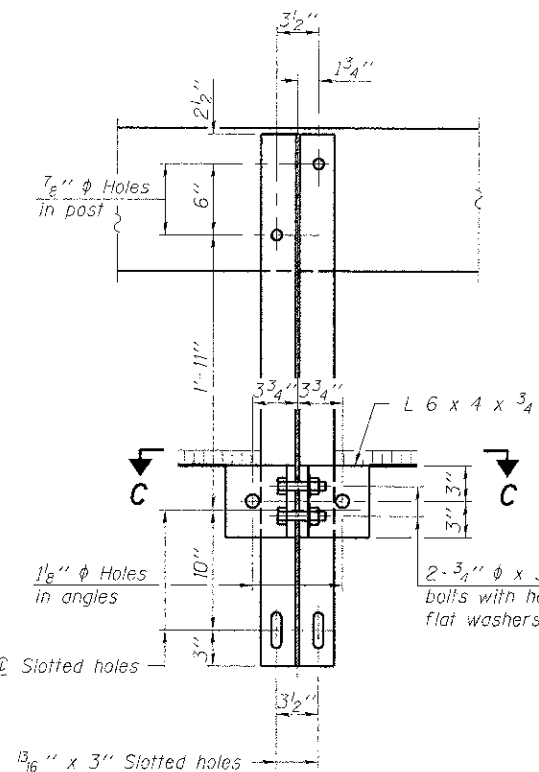
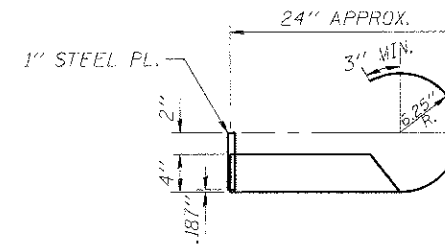


VIEW D-D



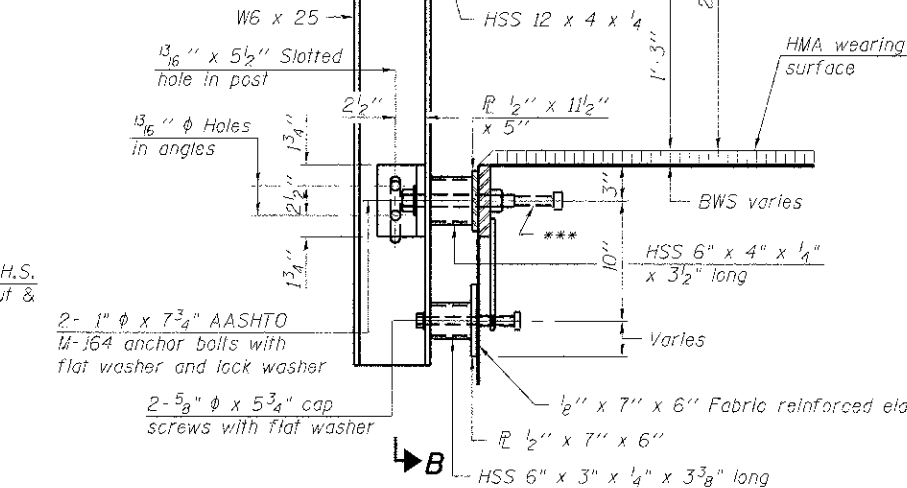
CURLLED END SECTION DETAILS

4 REQUIRED - COST INCLUDED IN "STEEL RAILING, TYPE S-1"

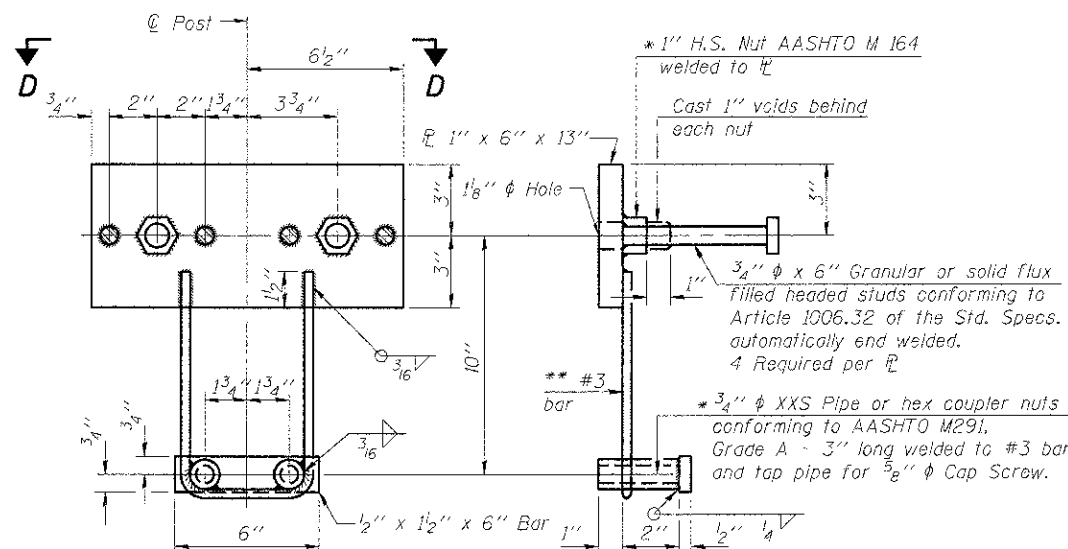


SECTION B-B

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.



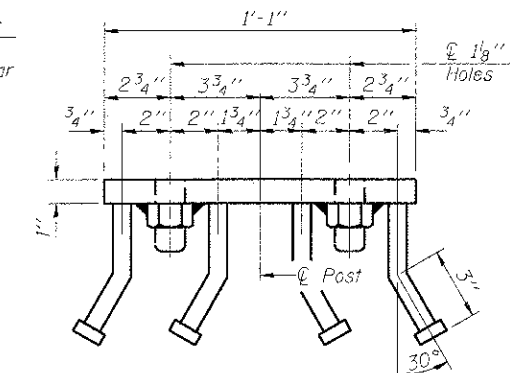
SECTION AT RAILING POST



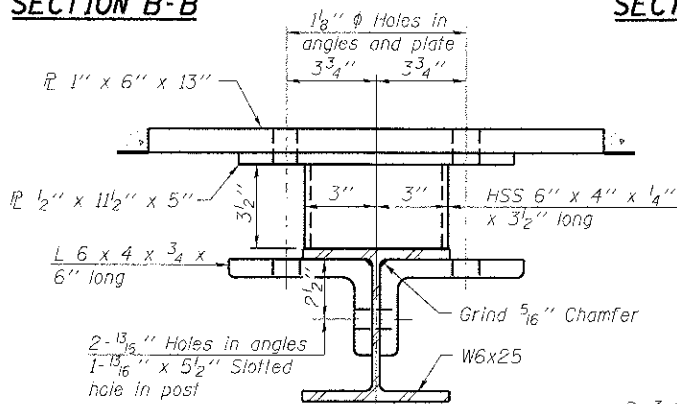
ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.

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.

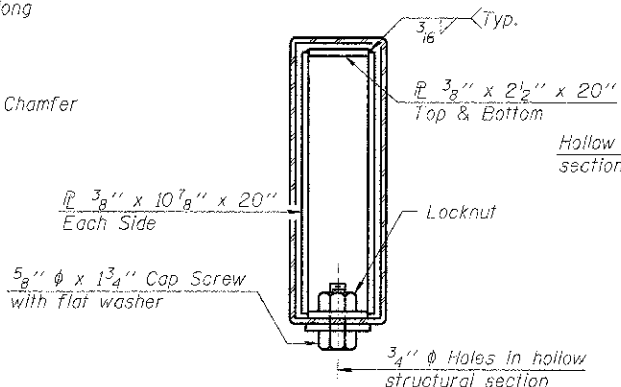


VIEW D-D

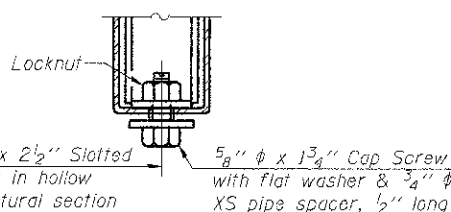


SECTION C-C

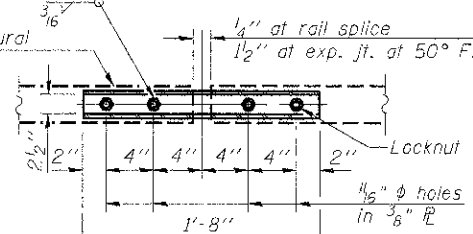
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



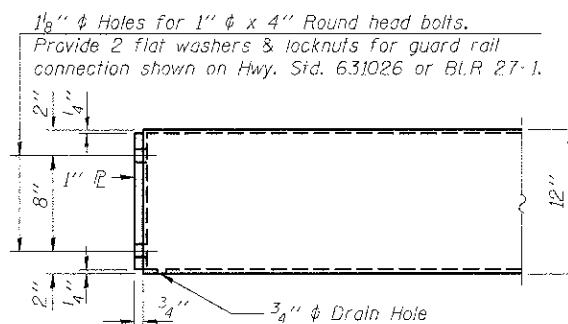
SECTIONS AT RAIL SPLICE



**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE R
TYPICAL**



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	109

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 015-3425**

DATE: 02-18-2013 DRAWN BY: AUC/JEF CHECKED BY: DF

SHEET NO. 4 OF 7 SHEETS	CNTY HWY 7	SECTION 07-00142-00-BR	COUNTY COLES	TOTAL SHEETS 18	SHEET NO. 9
CONTRACT NO. 95643					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					