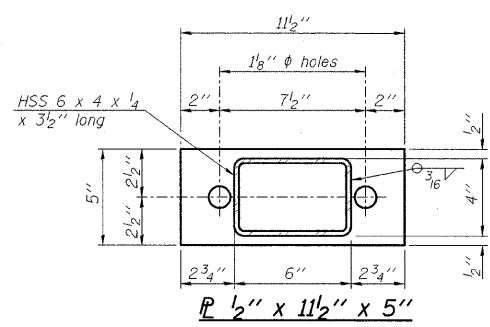
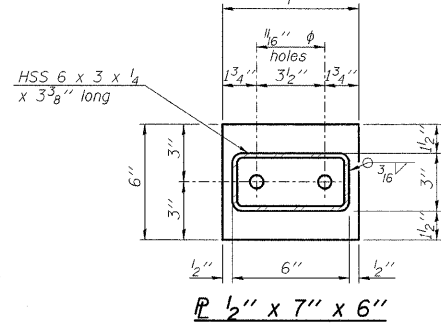


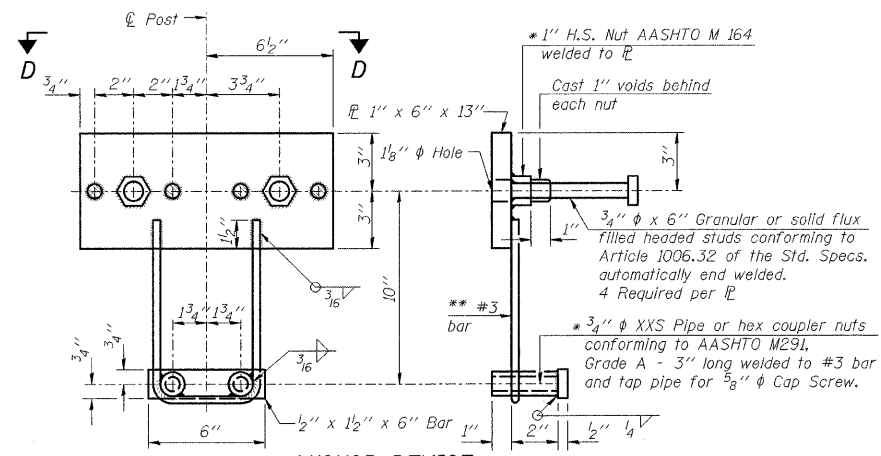
**VIEW A-A
ROUND HEAD BOLT**



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



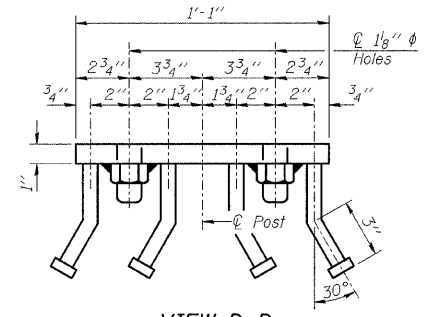
R 1/2" x 7" x 6"



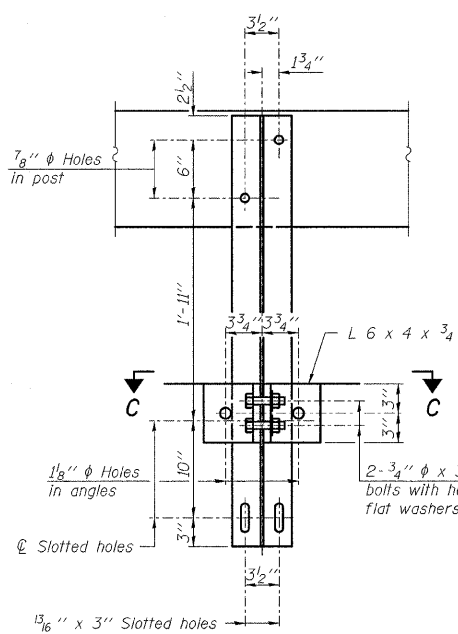
ANCHOR DEVICE

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

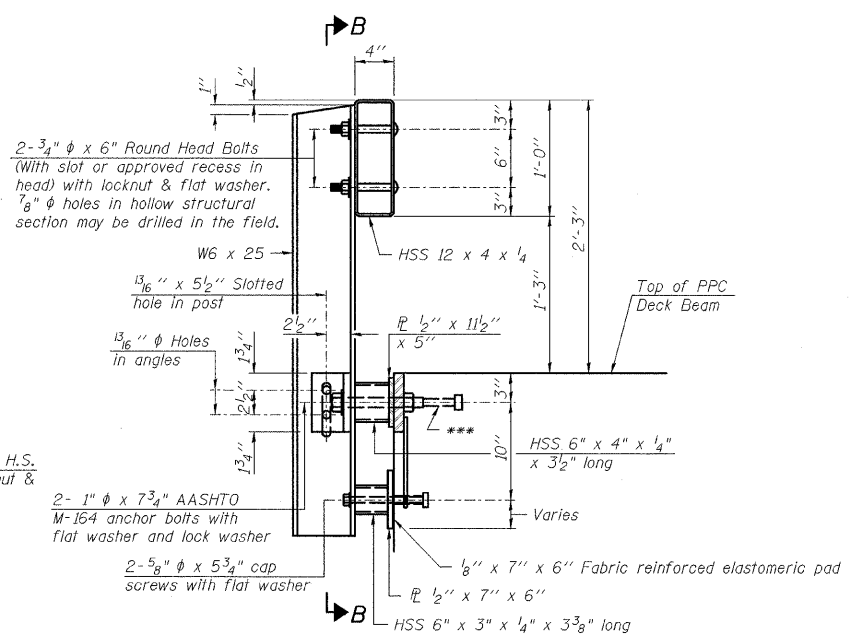
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
All steel rail elements shall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



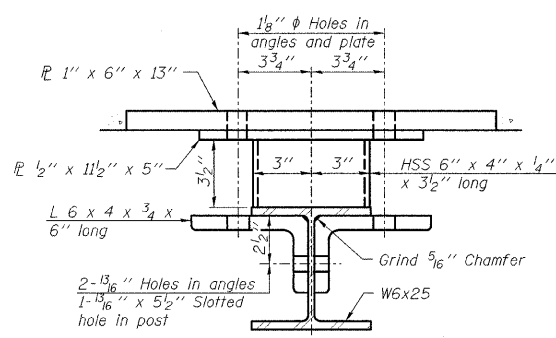
VIEW D-D



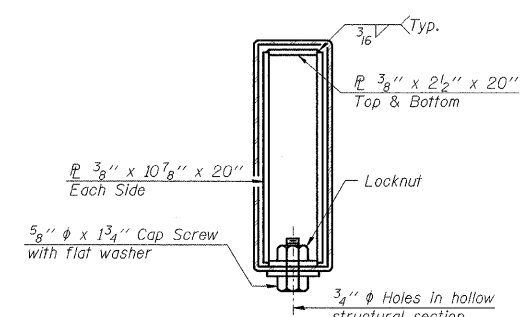
SECTION B-B



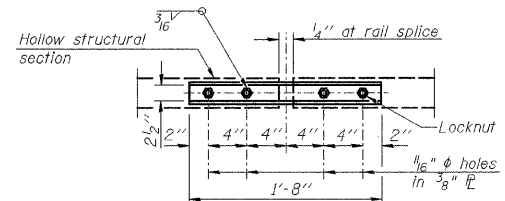
SECTION AT RAILING POST



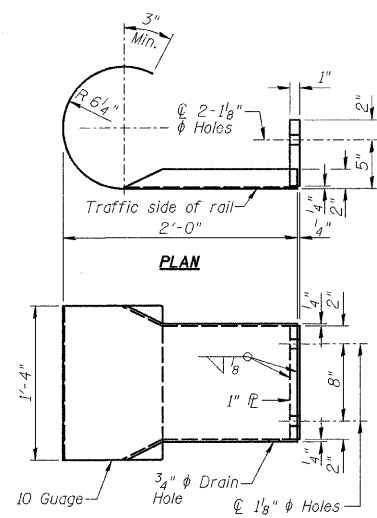
SECTION C-C



SECTIONS AT RAIL SPLICE

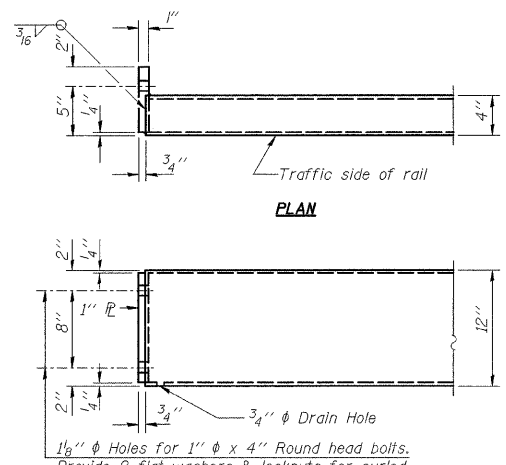


**PLAN-BOTT. SPLICE R
TYPICAL**



**ELEVATION
CURLED END SECTION**

NOTE:
The cost of the curled end sections shall be included in the cost of Steel Railing, Type S-1.



**ELEVATION
END OF RAIL DETAILS**

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	234

R-23A 10-1-08 (10'-9" Maximum Post Spacing)

DESIGNED - JML	REVISED -
DRAWN - DJM	REVISED -
CHECKED - MSW	REVISED -
DATE - 06/22/09	REVISED -

EFFINGHAM COUNTY DEPARTMENT OF HIGHWAYS

STEEL RAILING, TYPE S-1

**T.R. 68 OVER FULFER CREEK
SECTION 05-07106-00-BR
EFFINGHAM, COUNTY
STATION 9+96.25 STRUCTURE NO. 025-3318**

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	05-07106-00-BR	EFFINGHAM	25	16
				CONTRACT NO. 95593
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				