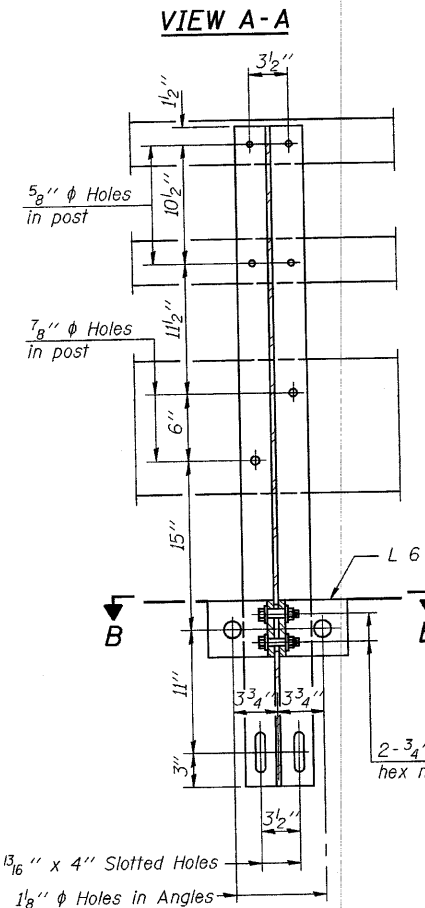
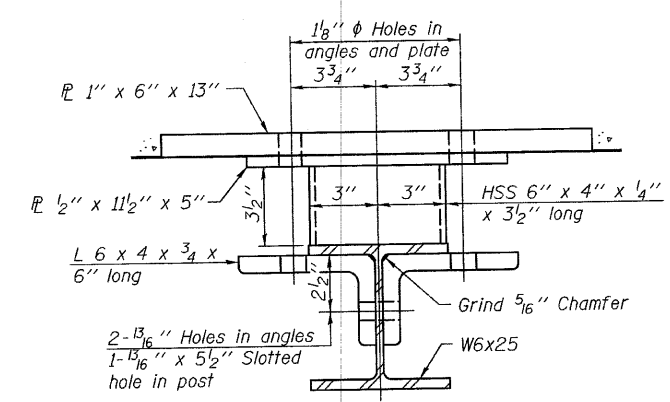


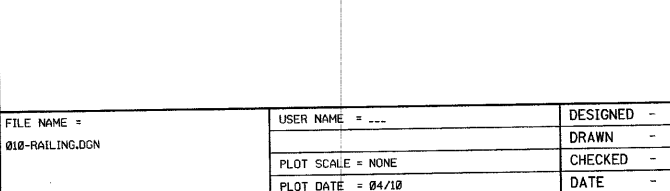
**DETAIL OF 1/2"  $\phi$  & 3/4"  $\phi$  ROUND HEAD BOLTS**



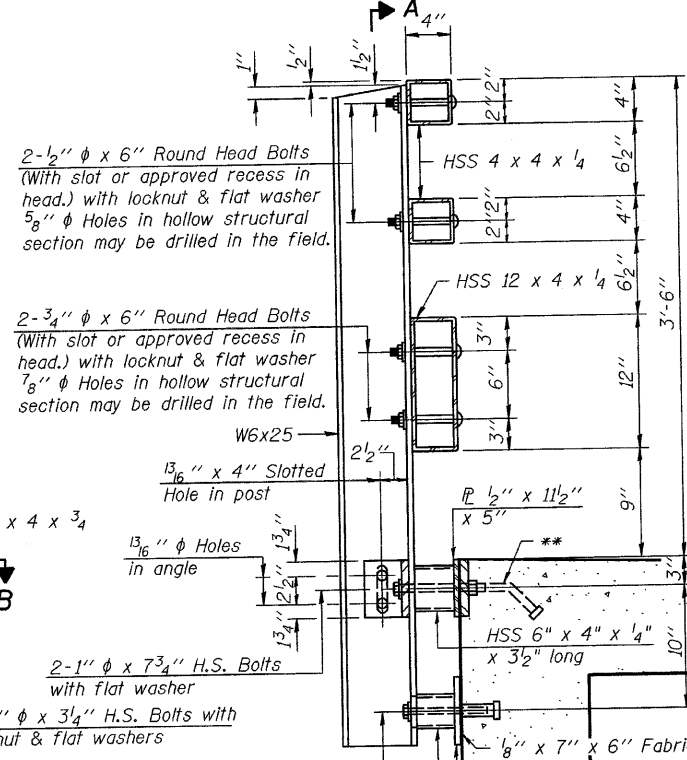
**VIEW A-A**



**SECTION A-A**



**SECTION B-B**



**SECTION AT RAIL POST**

1/8"  $\phi$  Holes for 1"  $\phi$  x 4" Round Head Bolts 2 flat washers & locknuts for guard rail connection shown on Std. 631026

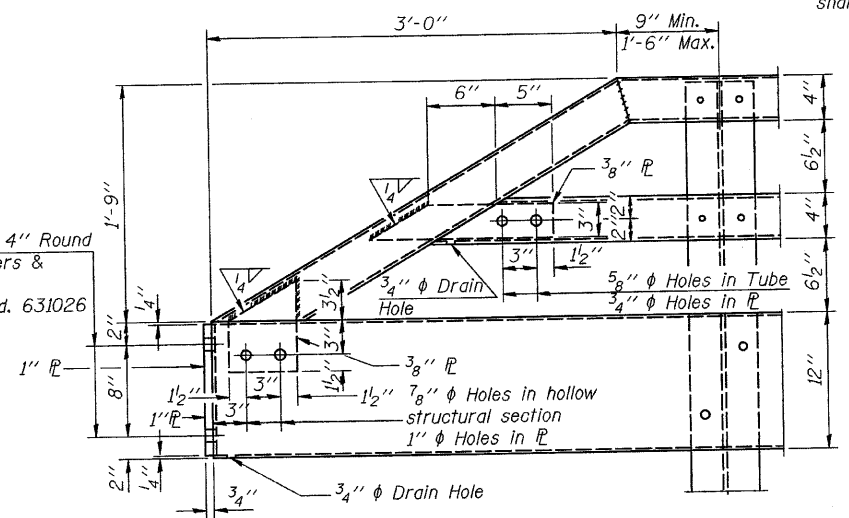
2-1/2"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head.) with locknut & flat washer 5/8"  $\phi$  Holes in hollow structural section may be drilled in the field.

2-3/4"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head.) with locknut & flat washer 7/8"  $\phi$  Holes in hollow structural section may be drilled in the field.

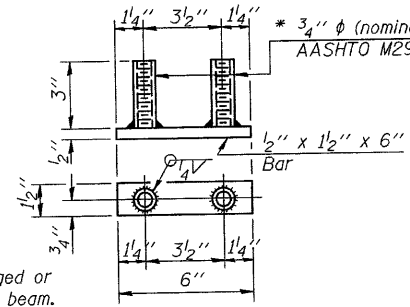
2-1"  $\phi$  x 7 3/4" H.S. Bolts with flat washer  
2-3/4"  $\phi$  x 3 1/4" H.S. Bolts with hex nut & flat washers

2-5/8"  $\phi$  x 5 3/4" Cap Screws with flat washer

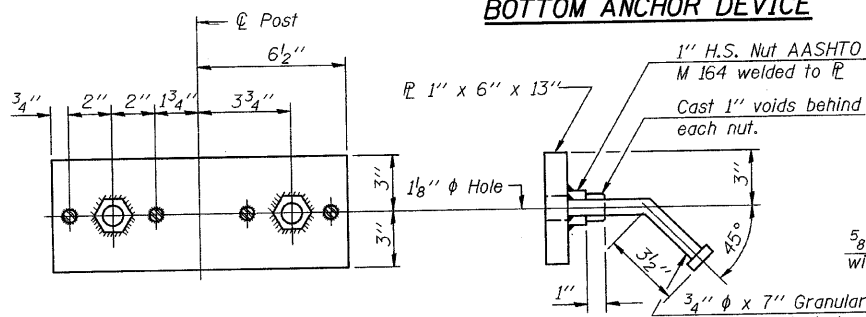
\* Threaded areas shall be plugged or blocked off during casting of beam.



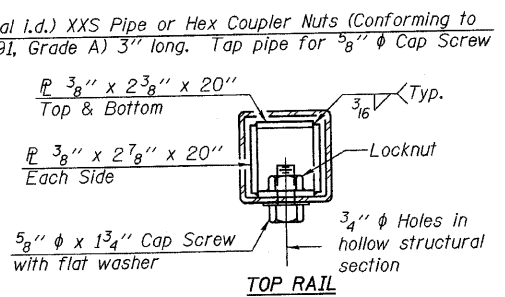
**END OF RAIL DETAILS**



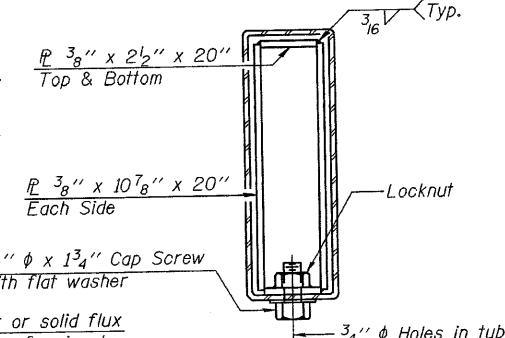
**BOTTOM ANCHOR DEVICE**



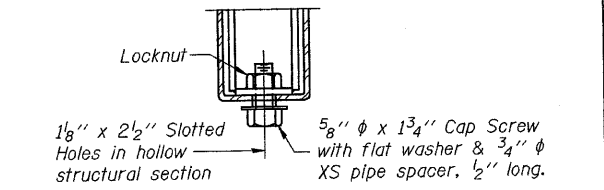
**TOP ANCHOR DEVICE**



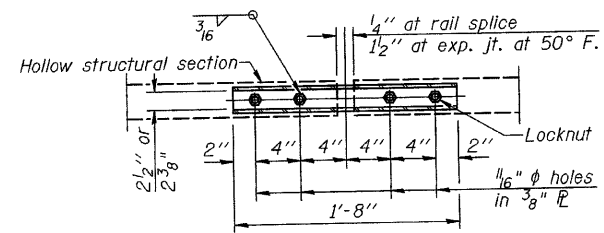
**TOP RAIL**



**SECTIONS AT RAIL SPLICE**



**RAIL SPLICE CONNECTION AT EXPANSION JT.**



**PLAN-BOTT. SPLICE AT TYPICAL**

All field drilled holes shall be coated with an approved zinc rich paint before erection.  
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 TP-1	Foot	228

**STEEL RAILING, TYPE TP-1  
STRUCTURE NO. 032-7006**

FILE NAME = 010-RAILING.DGN	USER NAME = ---	DESIGNED - J.K.C.	REVISED -
		DRAWN - L.A.G.	REVISED -
	PLOT SCALE = NONE	CHECKED - J.K.C.	REVISED -
	PLOT DATE = 04/10	DATE - 04/10	REVISED -

**FAU 5958 (OTTAWA AVENUE)  
SECTION 07-00137-00-BR  
GRUNDY COUNTY**

<b>RAILING DETAILS</b>			
SCALE: NONE	SHEET NO. 10 OF 11 SHEETS	STA.	TO STA.

F.A.U. RTE. 5958	SECTION 07-00137-00-BR	COUNTY GRUNDY	TOTAL SHEETS 11	SHEET NO. 10
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 87463	