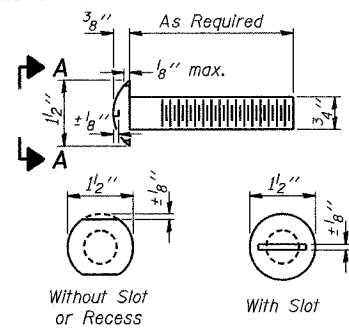
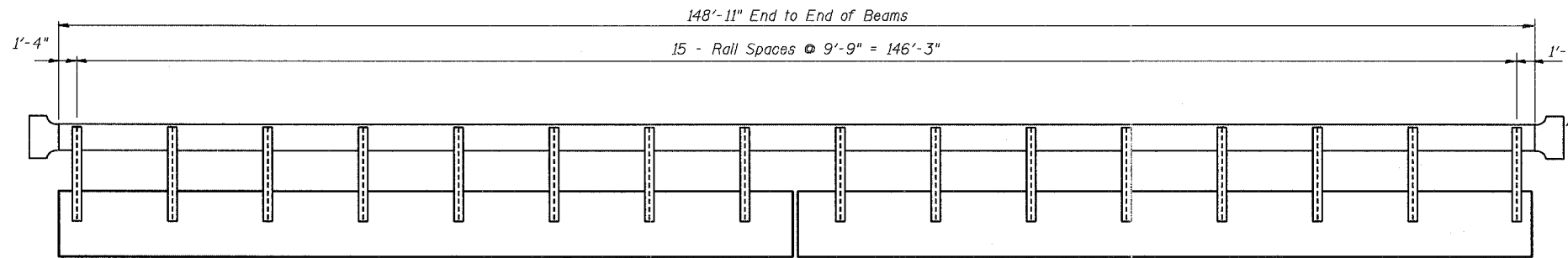


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	DATE
T.R. 132	*	MERCER	23	18
FED. ROAD DIST. NO. 7	ILLINOIS	BR-05-131(44)		
97-06118-00-BR			89250	



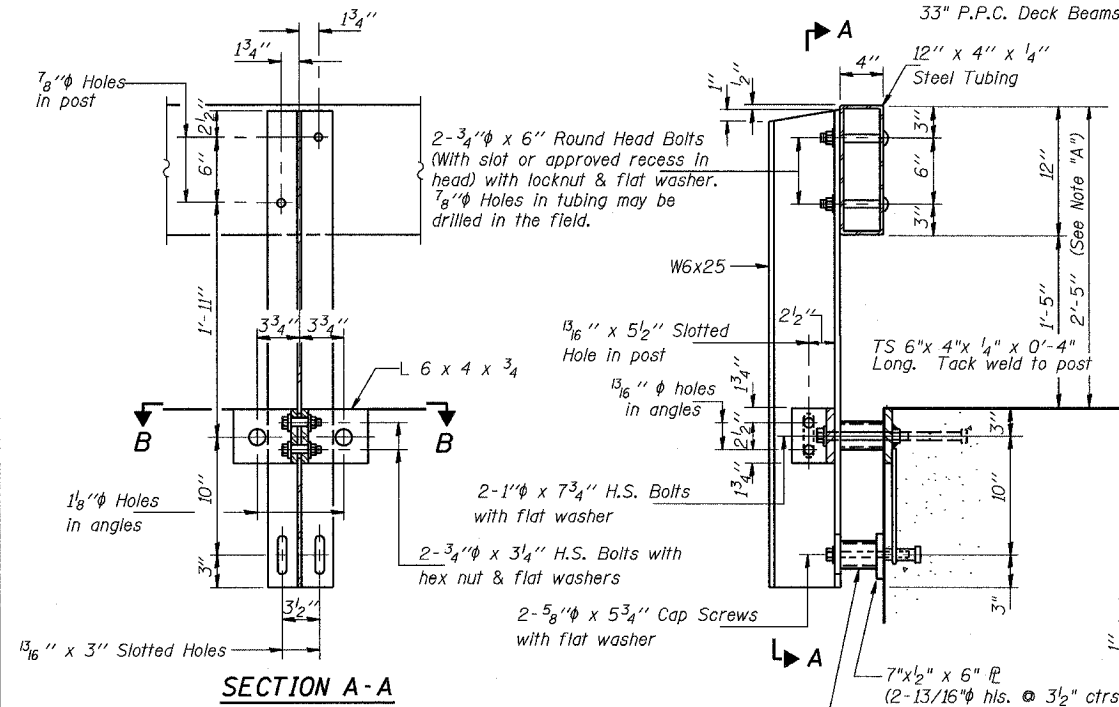
VIEW A-A
ROUND HEAD BOLT



ELEVATION

NOTES

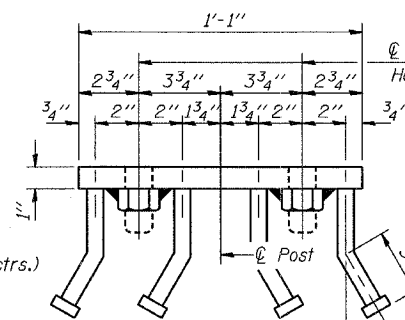
Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
 All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.
 Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.
 All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
 All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
 Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL RAILING, TYPE S-1.
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8 inch fabric bearing pad between the post and concrete.
 The 3/4 inch high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(3) of the Standard Specifications. The 1 inch high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 5/8 inch cap screws in bottom of posts shall be tightened to a snug fit only.
 For multi-span bridges, sufficient 1/4 inch x 6 inch x 1'-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S-1.



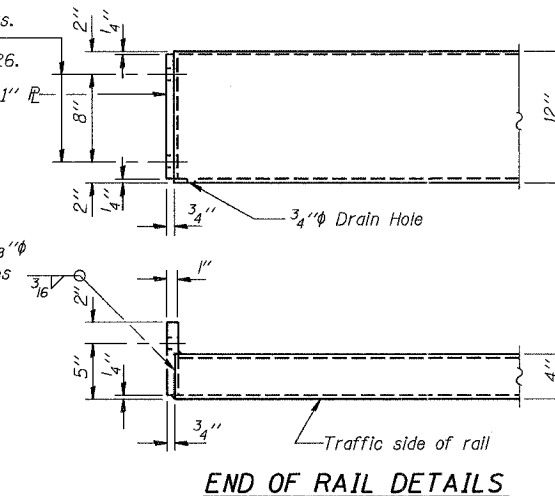
SECTION A-A

Note "A":
Where no overlay is to be provided adjust top of rail to lay parallel to grade 2'-5" max. above top of beam.

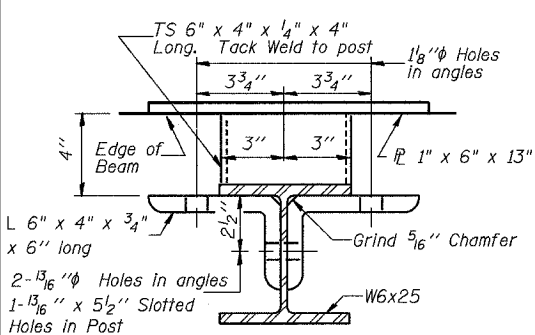
1/8 inch Holes for 1 inch diameter Round Head Bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Std. 631026.



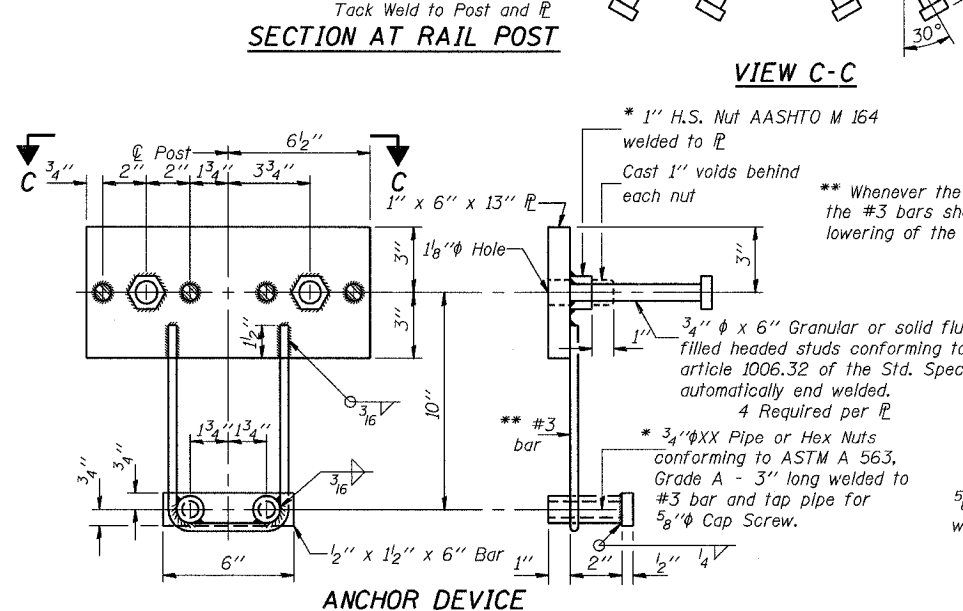
VIEW C-C



END OF RAIL DETAILS

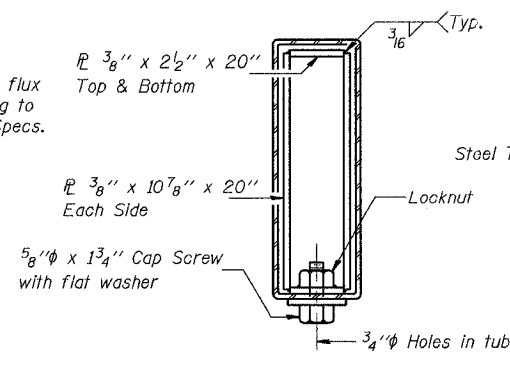


SECTION B-B

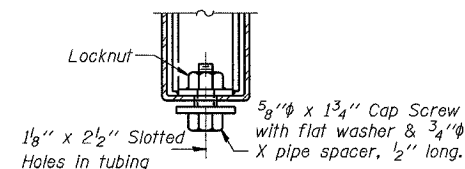


SECTION AT RAIL POST

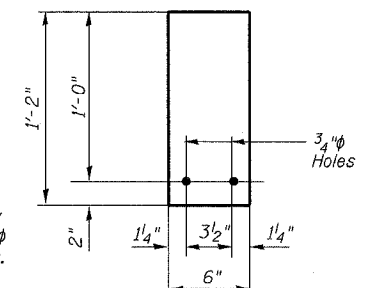
* 1 inch H.S. Nut AASHTO M 164 welded to plate
 Cast 1 inch voids behind each nut
 ** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.
 3/4 inch diameter XX Pipe or Hex Nuts conforming to ASTM A 563, Grade A - 3 inch long welded to #3 bar and tap pipe for 5/8 inch diameter Cap Screw.
 4 Required per plate



SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



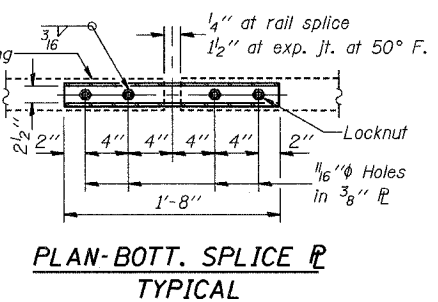
1/4" SHIM PLATE

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing Type S-1	Foot	298

TYPE S-1
STEEL RAILING DETAILS

SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY
S.N. 066-4817



PLAN-BOTT. SPLICE AT TYPICAL

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

(10'-9" Maximum Post Spacing)

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