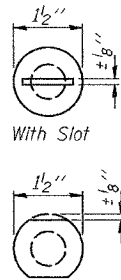
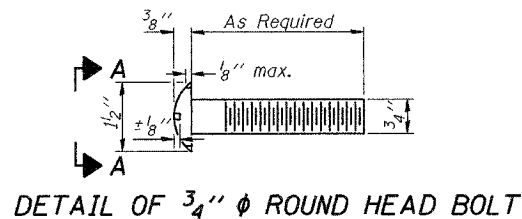


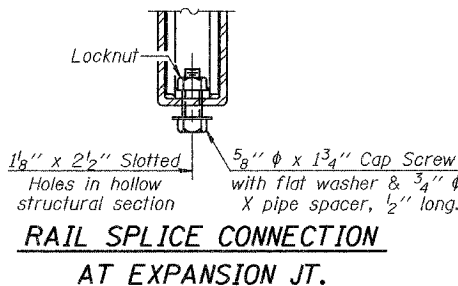
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.U. 9177	44-IBR	St. Clair	29	20
SHEET NO. 5				
10 SHEETS				

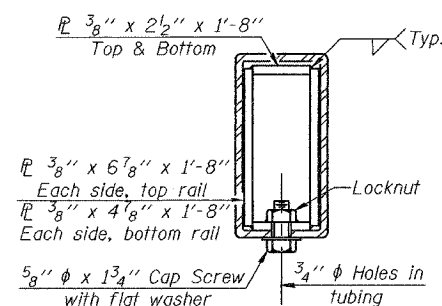
Contract #76566



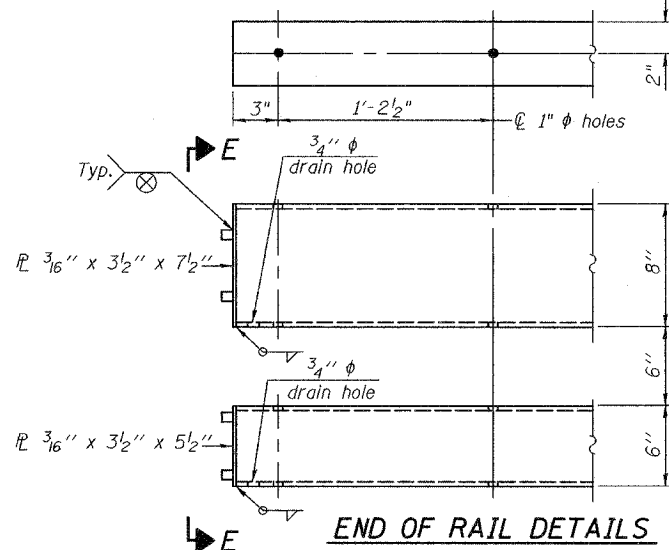
4-3/4"  $\phi$  x 6" Round Head Bolts  
(With slot or approved recess in head) with locknut & flat washer.  
7/8"  $\phi$  holes in hollow structural section may be drilled in the field.



RAIL SPLICE CONNECTION  
AT EXPANSION JT.



SECTION AT  
RAIL SPLICE



NOTES

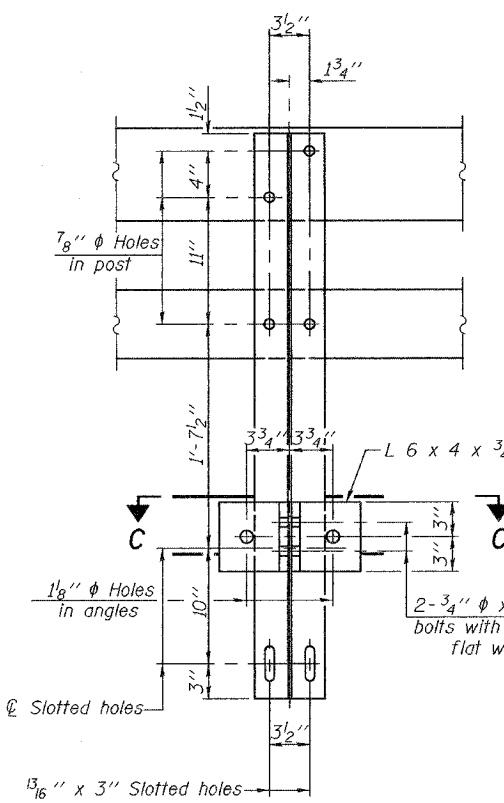
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.  
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and 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 SM.  
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 SM.  
The 3/4"  $\phi$  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)(2) of the Standard Specifications. The 1"  $\phi$  high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8"  $\phi$  cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

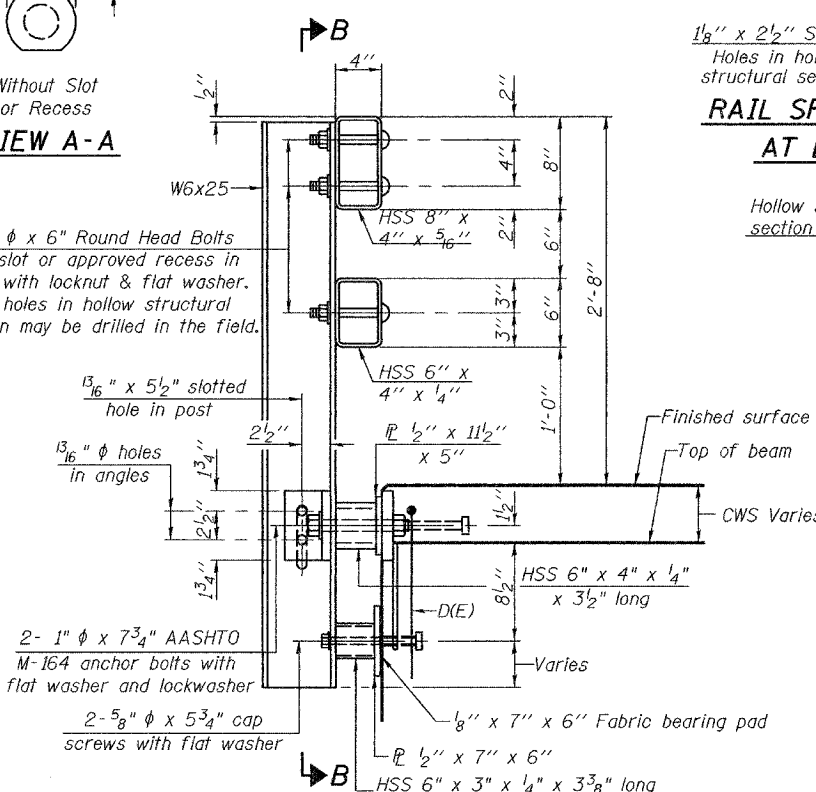
Item	Unit	Quantity
Steel Railing	Foot	63
Type SM		

TYPE SM

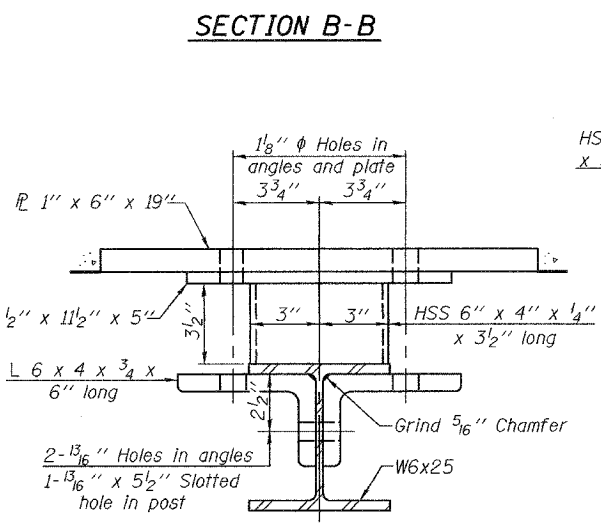
STEEL BRIDGE RAIL SIDE MOUNTED  
WITH CONCRETE WEARING SURFACE  
F.A.U. ROUTE 9177-SECTION 44-IBR  
ST. CLAIR COUNTY  
STATION 100+00.00 (NB)  
STATION 200+00.00 (SB)  
S.N. 082-0096 (NB) & 082-0097 (SB)



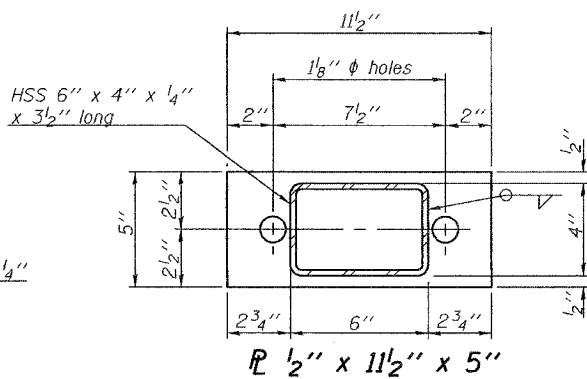
SECTION B-B



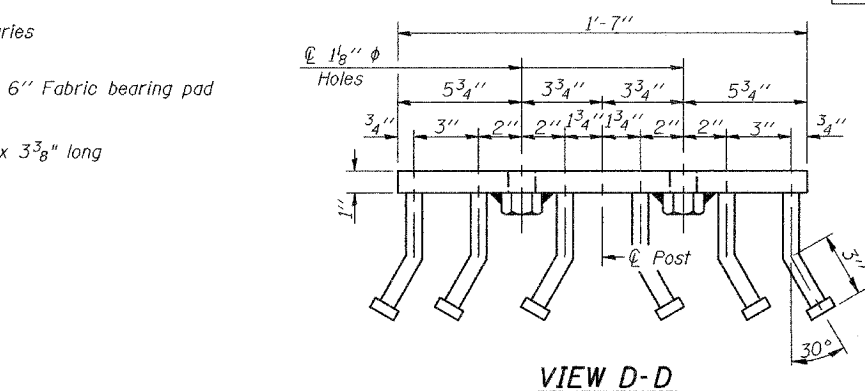
SECTION AT RAIL POST



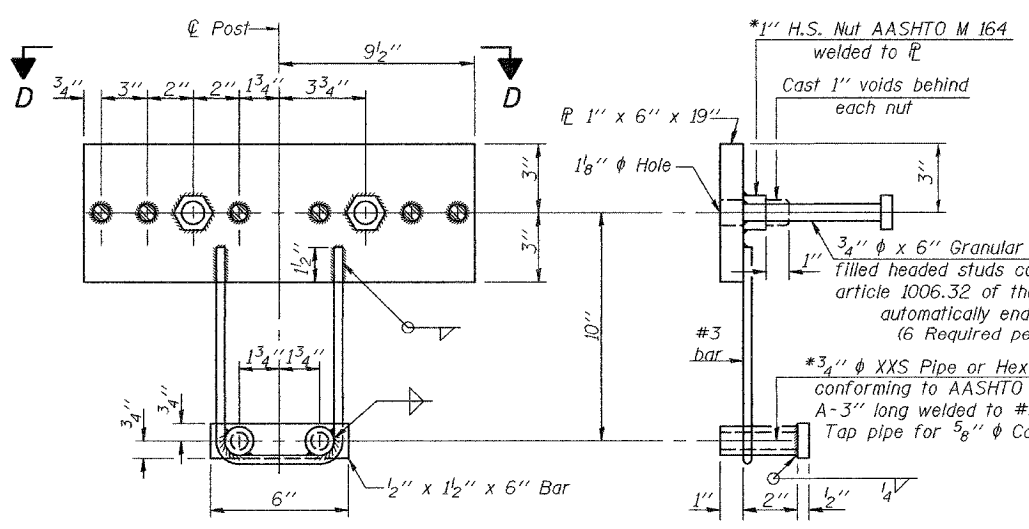
SECTION C-C



ANCHOR DEVICE



VIEW D-D



ANCHOR DEVICE

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

DESIGNED	Nicholas Barnett
CHECKED	Ray Ahanchi
DRAWN	R. Sommer
CHECKED	NRB/GRA

EXAMINED	December 7, 2006
PASSED	Thomas J. Demagala
	Ralph E. Carlson

(6'-3" Maximum Post Spacing) (5" minimum to 7/8" maximum CWS thickness)