

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.

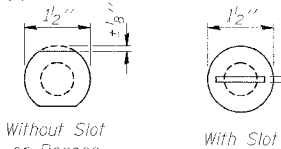
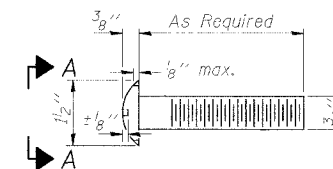
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pad between the post and concrete.

The 3/4" 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" 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" cap screws in bottom of posts shall be tightened to a snug fit only.

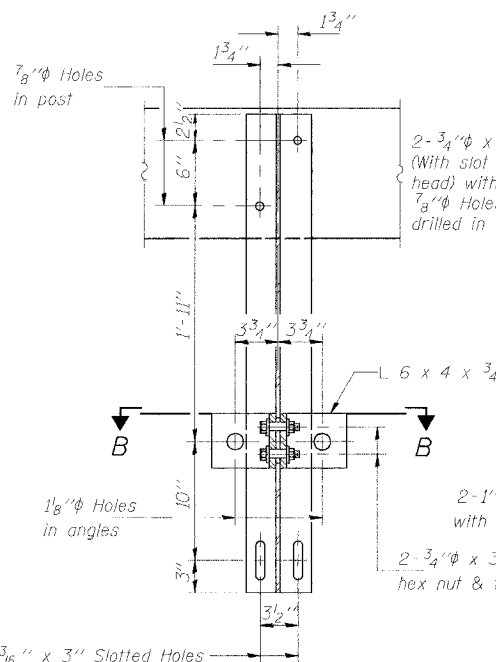
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with SIFEL RAILING, TYPE S-1.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MASSEY LANE	*	MORGAN	15	7
FED. RD. DIST. NO.	ILLINOIS	FED. AID PROJECT		

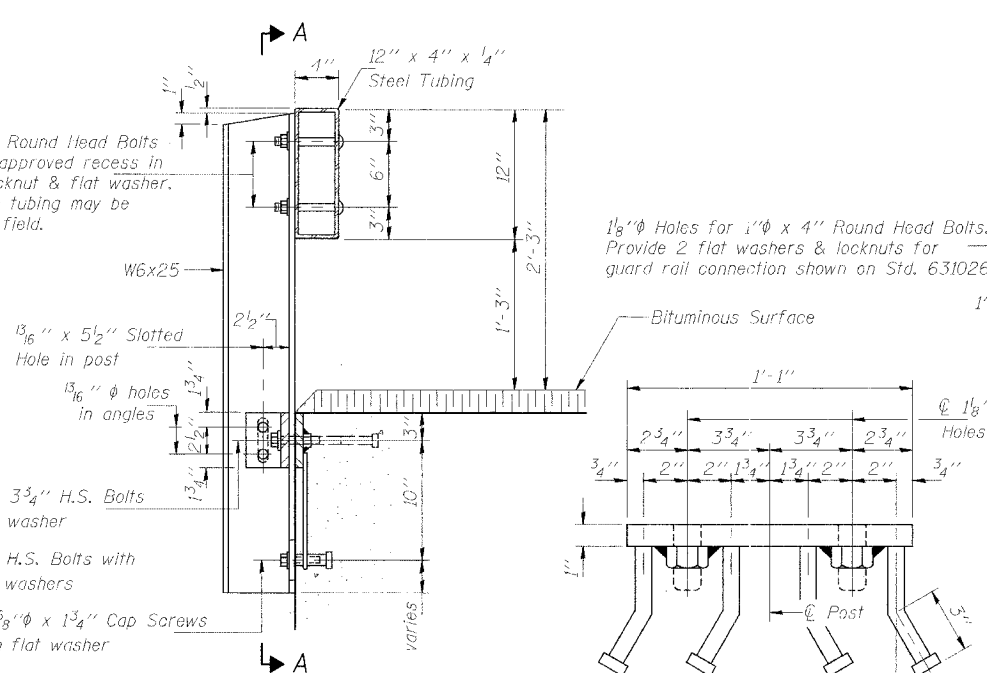
* 03-06118-00-BR



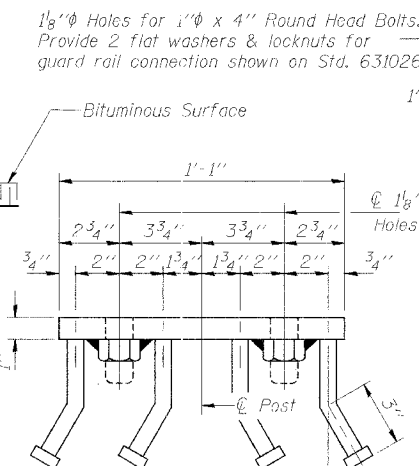
VIEW A-A
ROUND HEAD BOLT



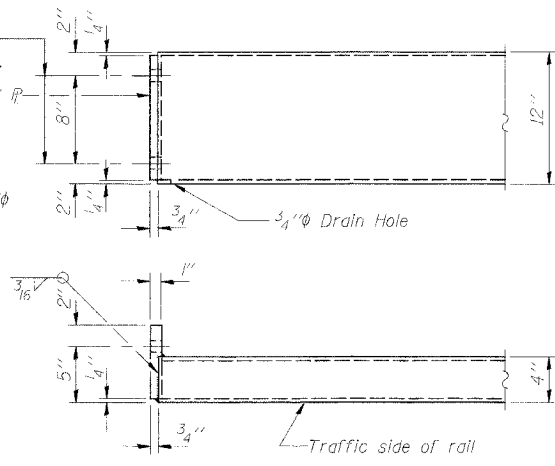
SECTION A-A



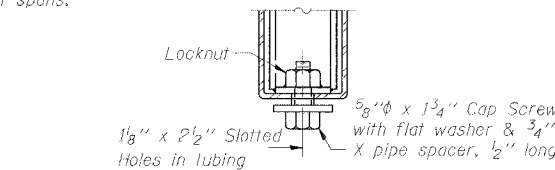
SECTION AT RAIL POST



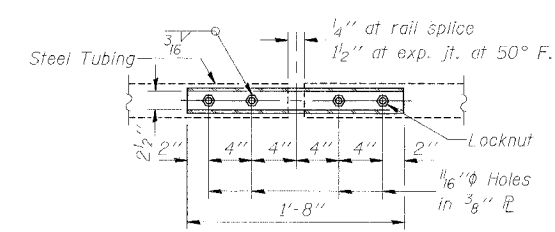
VIEW C-C



END OF RAIL DETAILS



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE \bar{P} TYPICAL

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	200.0

TYPE S1 STEEL RAILING

TYPE S1 STEEL RAILING
MASSEY LANE OVER SANDY CREEK
SEC 03-06118-00-BR STA. 12+25.00

MORGAN COUNTY, ILLINOIS

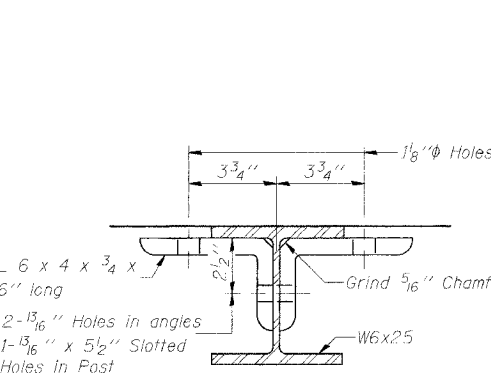
Benton & Associates, Inc.
Consulting Engineers / Land Surveyors
1970 West Lafayette Avenue Jacksonville, Illinois 62650
Phone : 217-245-4146 Fax : 217-245-4149
IL Design Firm Registration No. 184-000852

DRAWN BY: MKC
CHECKED BY: LEL
APPROVED BY: REG
DATE: MARCH, 2005

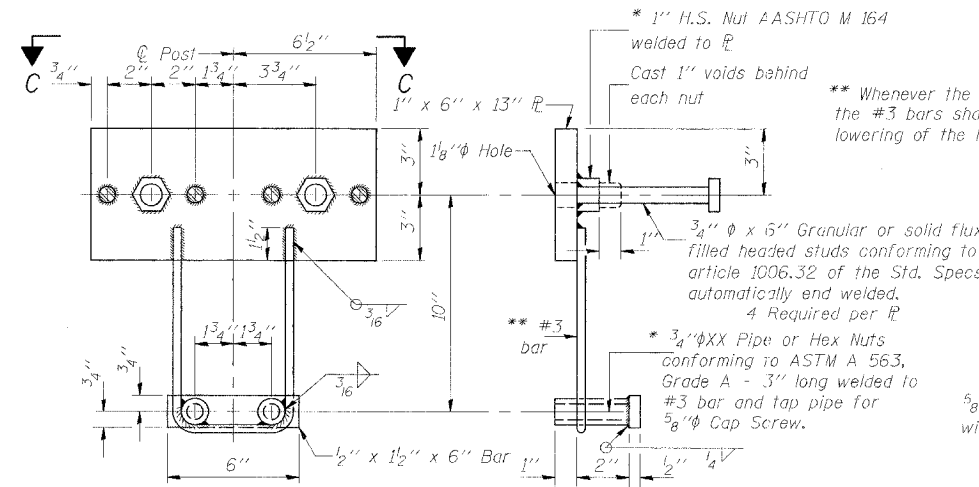
REVISIONS:

DATE	BY

FIELD BOOK: SCALE: N.T.S. JOB NO. 02E1314 SHEET 7 OF 15

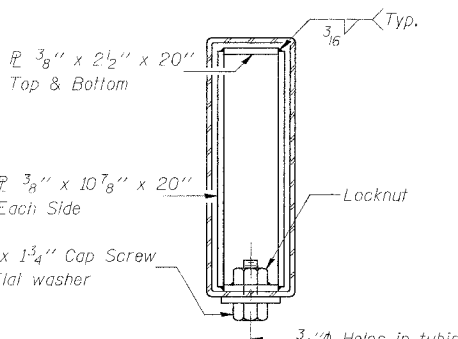


SECTION B-B



ANCHOR DEVICE

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



SECTIONS AT RAIL SPLICE