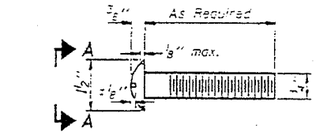
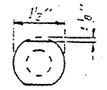


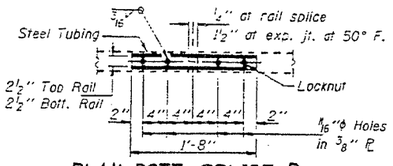
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



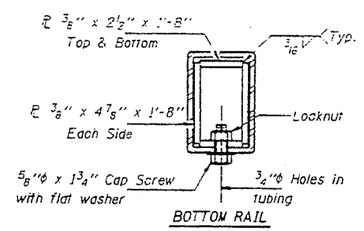
Without Slot or Recess

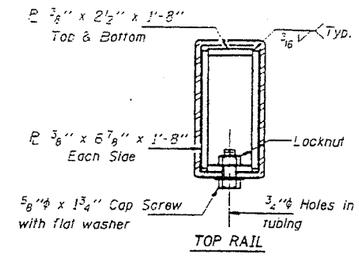
With Slot

VIEW A-A

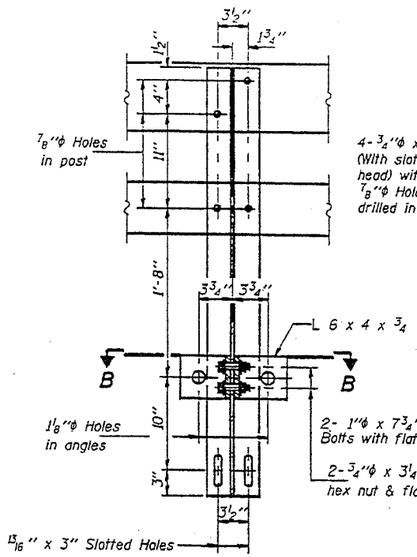


PLAN-BOTT. SPLICE ℄ TYPICAL

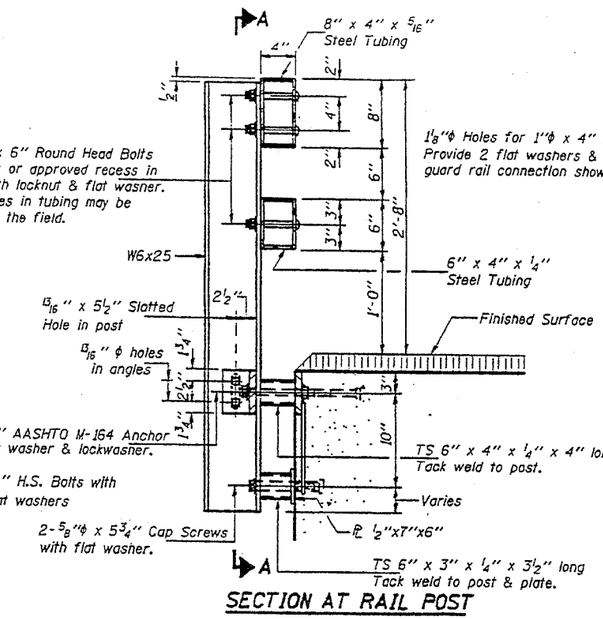




SECTIONS AT RAIL SPLICE

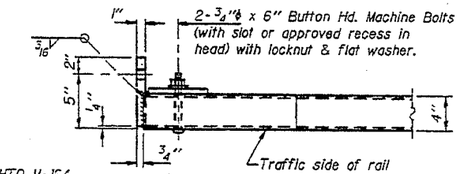


SECTION A-A



SECTION AT RAIL POST

1'-6"
1/4
1/4" Typ.
1"
5" 3"
5" 2" 1'-3" 5"
8"
3/8" ℄
1" ℄
7"
6"
3"
5"
2"
1"
3/4"
8" 6" 6"
7/8"ϕ Holes in Tube
1"ϕ Holes in ℄
3/4"ϕ Drain Hole



END OF RAIL DETAILS

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 requirement 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 in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

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 incidental to STEEL BRIDGE RAIL, TYPE SM.

The 3/4"ϕ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 505.04(f)(3) of the Standard Specifications. The 1"ϕ 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"ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

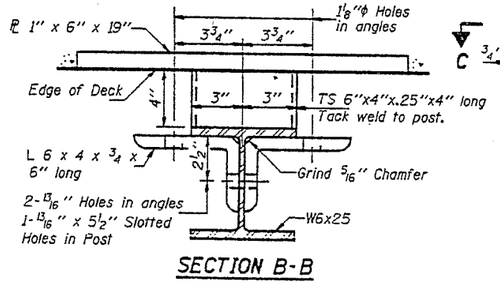
The 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 760.07 Type II or place 1/8" fabric bearing pads between the plates and concrete.

The maximum allowable rail post spacing shall be 6'-3".

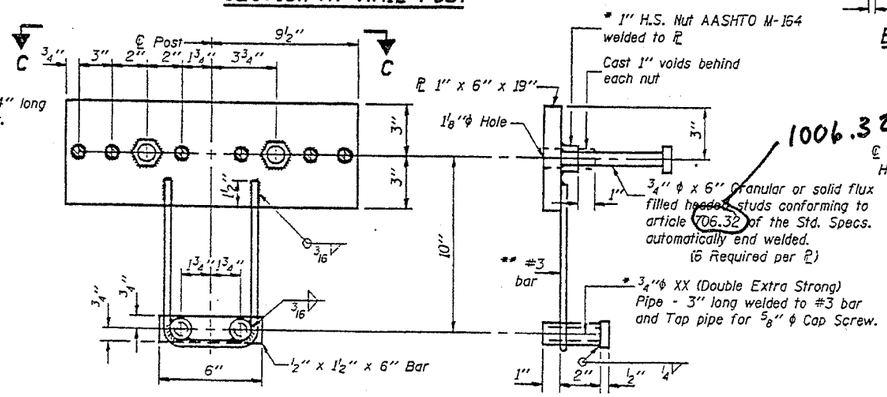
631026

1006.32

1060.07



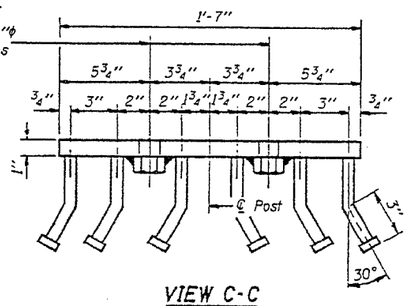
SECTION B-B



ANCHOR DEVICE

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

** 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".



VIEW C-C

Illinois Department of Transportation

PASSED November 1, 1995
Engineer of Bridge Design

APPROVED November 1, 1995
Engineer of Bridges and Structures

ISSUED 7-1-95

STEEL BRIDGE RAIL, TYPE SM

STANDARD CR-TSM