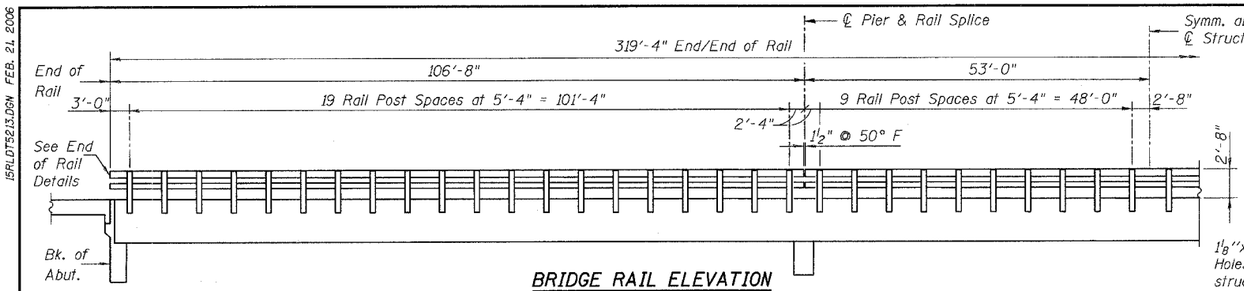
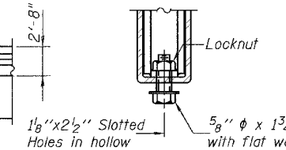
15RLDTS213.DGN FEB. 21, 2006

CONTRACT NO. 97276

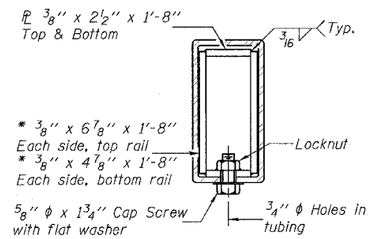
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 788 (C.H. 24/ C.H. 16)	03-00075-00-BR, WASH. 03-00082-00-BR, CLIN.	WASHINGTON CLINTON	22	15



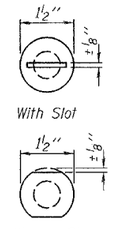
BRIDGE RAIL ELEVATION



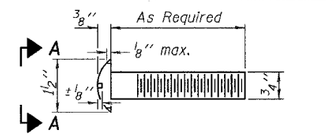
RAIL SPLICE CONNECTION AT EXPANSION JT.



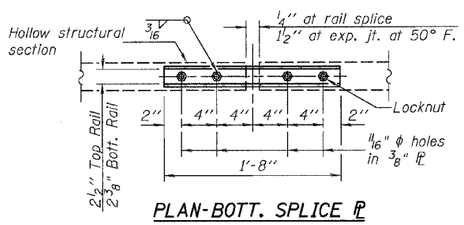
SECTION AT RAIL SPLICE



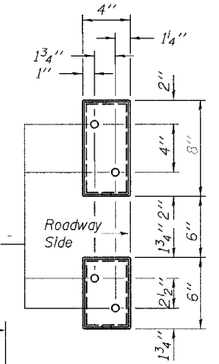
VIEW A-A



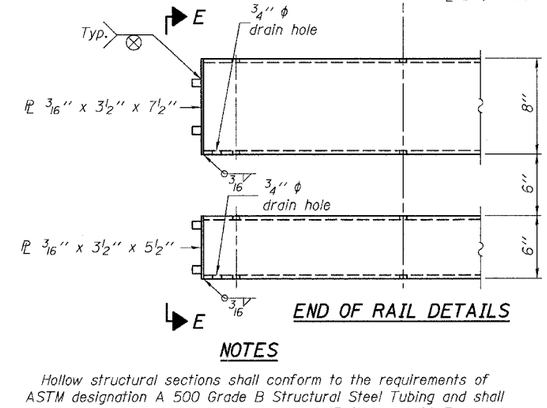
DETAIL OF ¾" ϕ ROUND HEAD BOLT



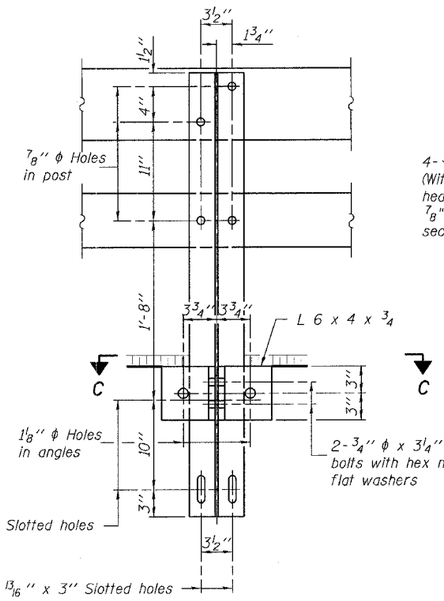
PLAN-BOTT. SPLICE ℄ TYPICAL



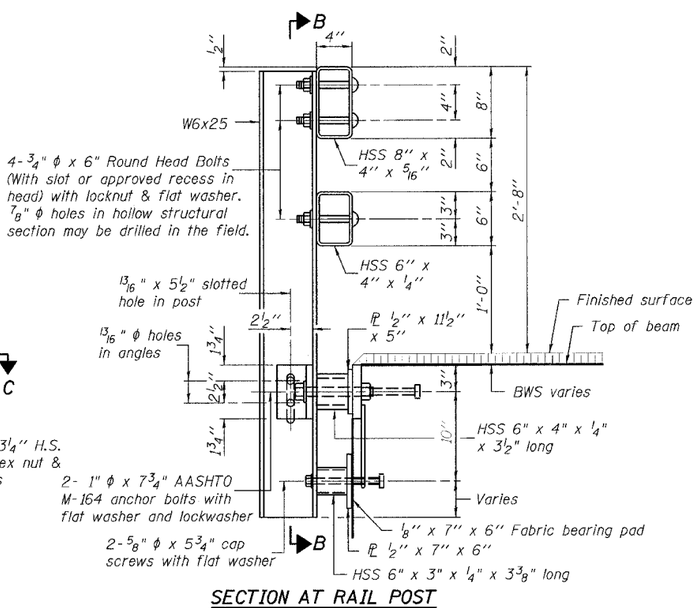
VIEW E-E



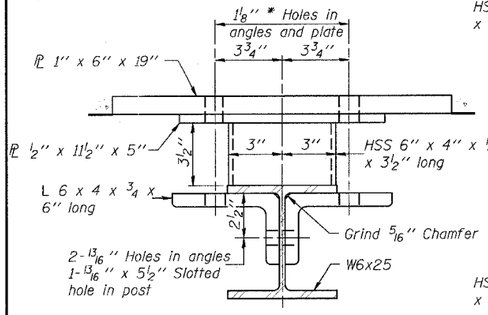
END OF RAIL DETAILS



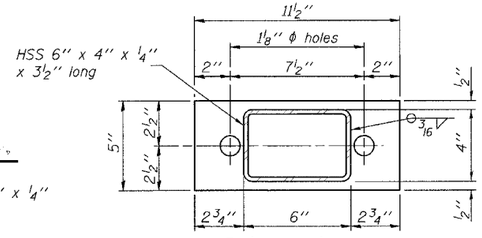
SECTION B-B

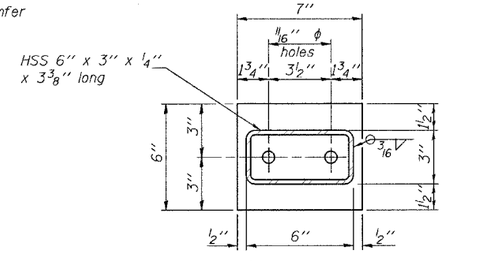


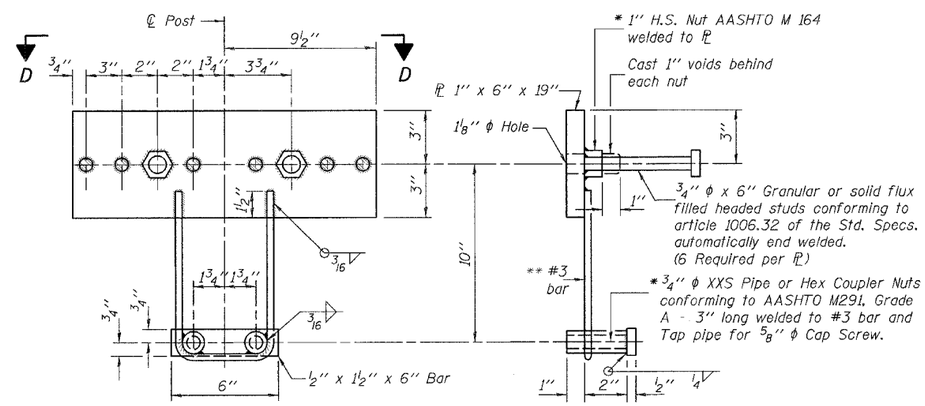
SECTION AT RAIL POST



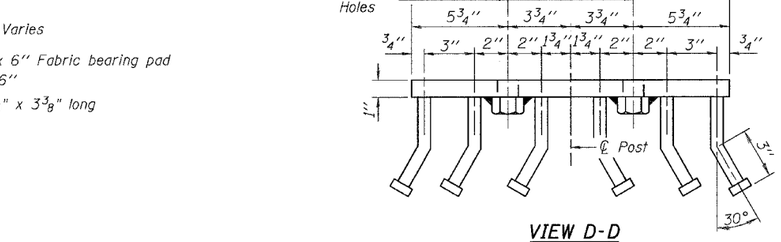
SECTION C-C







ANCHOR DEVICE



VIEW D-D

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 Bridge Rail, Type SM.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient ¼" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.

The ¾"ϕ high strength bolts used to connect the 6 x 4 x ¾ angles to the post shall be tightened according to Article 505.04(f)(2) 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 ⅛ turn. The ⅝"ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	640

DESIGNED:	L.D.G.
CHECKED:	B.G.H.
DRAWN:	K.H.L.
CHECKED:	L.D.G.

R-34BWS 10-28-05 (6'-3" Maximum Post Spacing) (1¼" minimum to 3⅛" maximum BWS thickness)

* 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 ½".

TYPE SM
STEEL BRIDGE RAIL SIDE MOUNTED WITH BITUMINOUS WEARING SURFACE

F.A.S. 788 (C.H. 24/C.H. 16)
OVER CROOKED CREEK
SECTION 03-00075-00-BR
WASHINGTON COUNTY
SECTION 03-00082-00-BR
CLINTON COUNTY