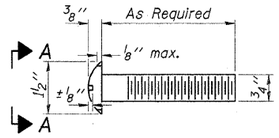
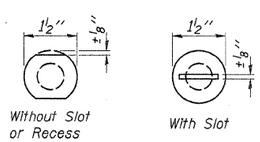
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 330	16BR	KANKAKEE	37	24
	ILLINOIS			

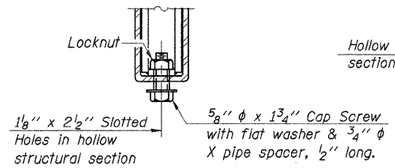
CONTRACT NO. 66365
Sheet 7 of 18



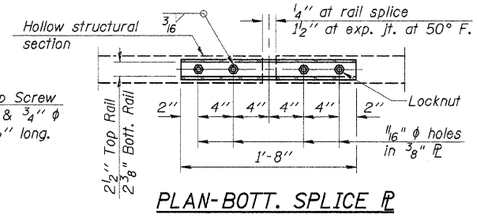
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



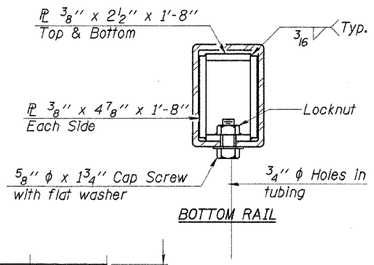
VIEW A-A

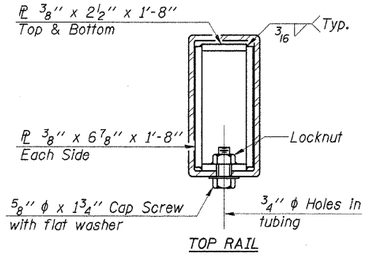


RAIL SPLICE CONNECTION AT EXPANSION JT.

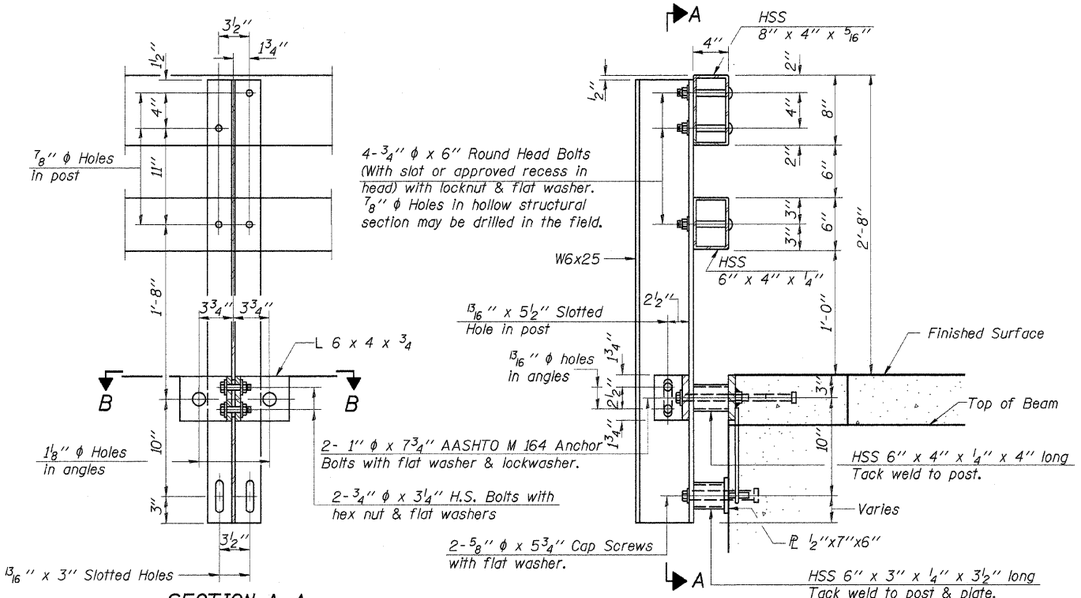


PLAN-BOTT. SPLICE PL TYPICAL



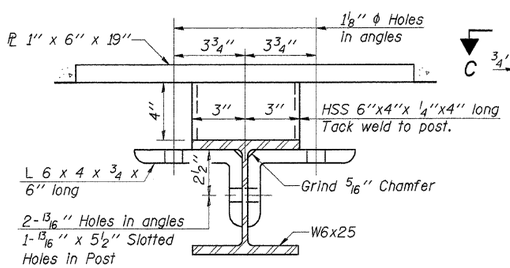


SECTIONS AT RAIL SPLICE

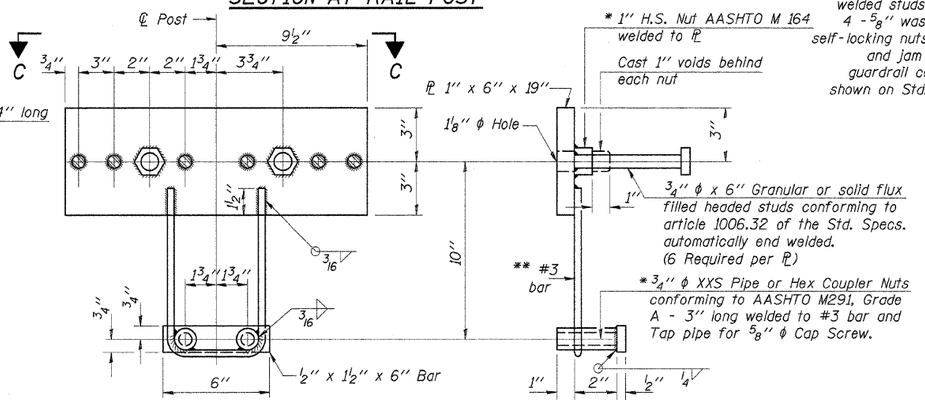


SECTION A-A

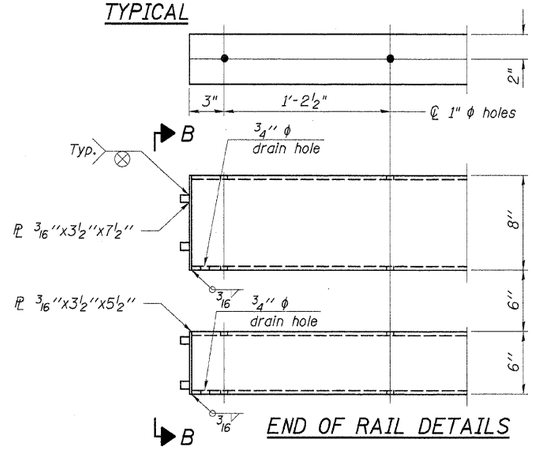
SECTION AT RAIL POST



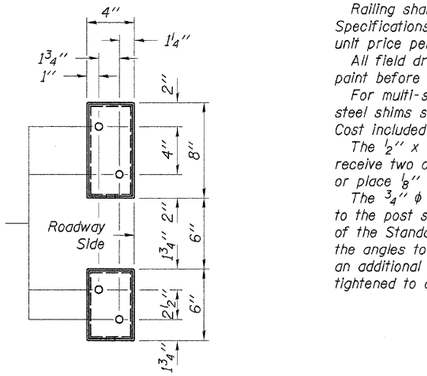
SECTION B-B



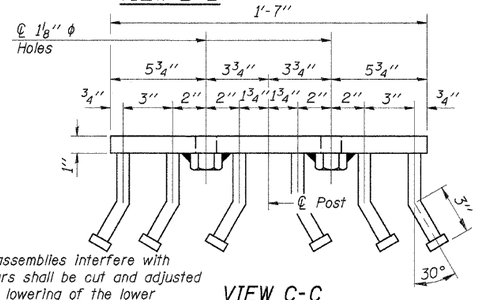
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



END OF RAIL DETAILS



VIEW B-B



VIEW C-C

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 1/4" 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 1/2" x 7" x 6" plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8" fabric bearing pads between the plates and concrete.

The 3/4" ϕ 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" 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.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	228

Note: See Sheet 2 of 18 for Rail Elevation and Post Spacing.

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".

Rehabilitation Project

DESIGNED	A.R.K.
CHECKED	P.S.L. & F.J.S.
DRAWN	S.A.P., K.T.R. & J.P.S.
CHECKED	A.R.K. & F.J.S.

(6'-3" Maximum Post Spacing)

STEEL BRIDGE RAIL, TYPE SM

U.S. RTE. 45/52 OVER
SOUTH BRANCH ROCK CREEK
F.A.P. RTE. 330 - SECTION 16BR
KANKAKEE COUNTY
STA. 356+17.50 - STR. NO. 046-0047

4440 ASH GROVE
SPRINGFIELD, IL. 62707
(217) 793-8600
oasinc@famvid.com

OZYURT AND STONE, INC.
CONSULTING ENGINEERS

JOB NO.: 0306.3
FILE: RAILSM.DGN
DATE: 08-04-04