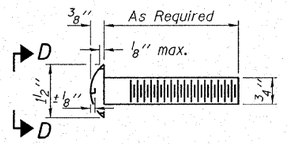
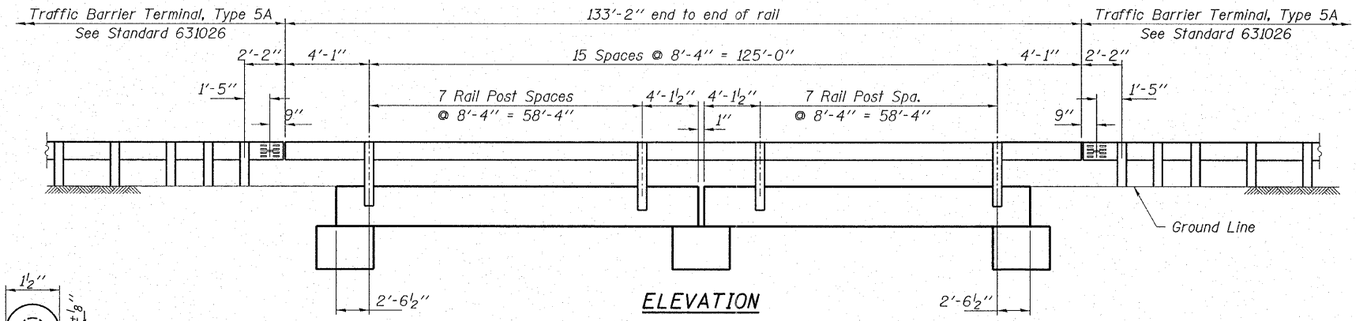
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 690	05-00261 -00-BR	CLARK	14	10
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

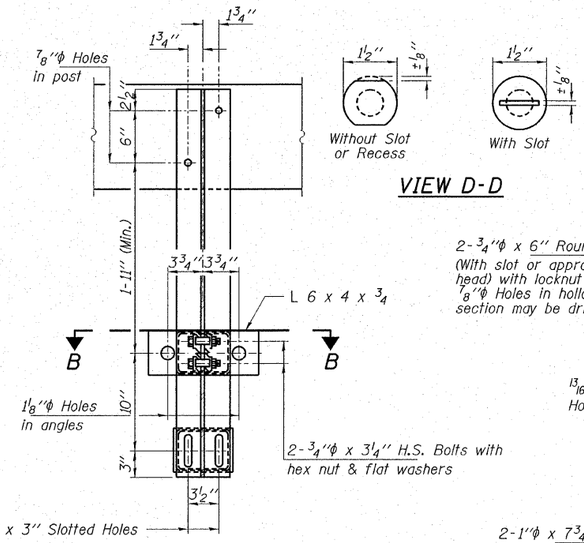
CONTRACT NO. 95480



ROUND HEAD BOLT

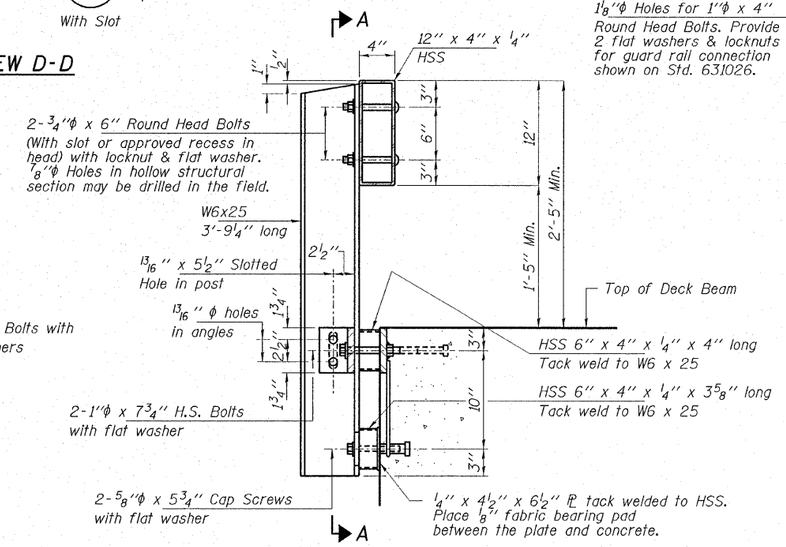


ELEVATION



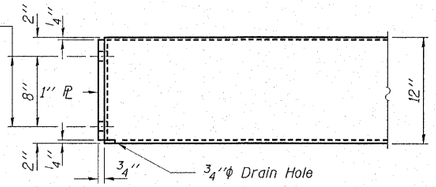
SECTION A-A

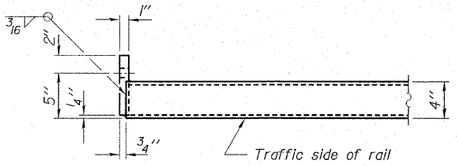
VIEW D-D



SECTION AT RAIL POST

** 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".





END OF RAIL DETAILS

NOTES

Hollow structural sections shall conform to the requirements of A.S.T.M. 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 A.A.S.H.T.O. designation M-270 Grade 36 except posts and angles shall conform to A.A.S.H.T.O. M-270 Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to A.A.S.H.T.O. designation M-164.

All bolts, nuts, cap screws, washers and lockwashers shall be galvanized in accordance with A.A.S.H.T.O. designation M-232.

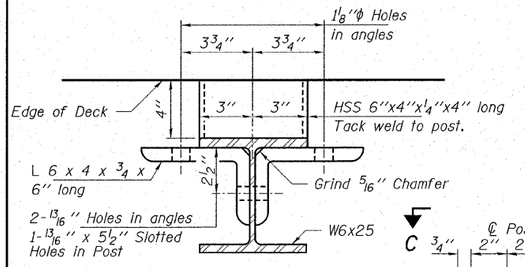
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with A.S.T.M. A-385 and A.A.S.H.T.O. M-111. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per foot for STEEL RAILING, TYPE S1.

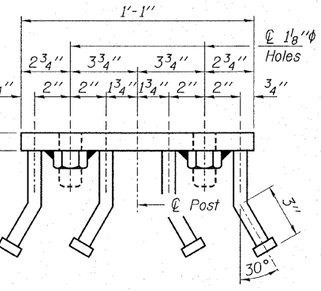
All field drilled holes shall be coated with an approved zinc rich paint before erection.

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 Art. 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.

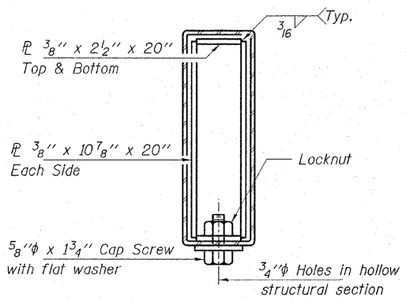
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S1.



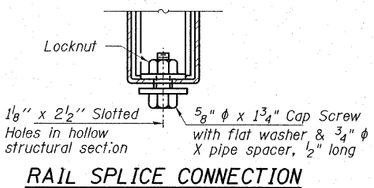
SECTION B-B



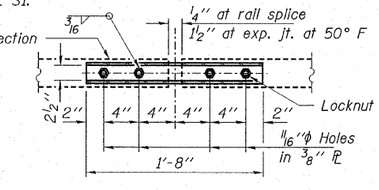
VIEW C-C



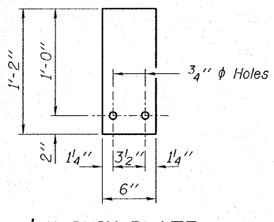
SECTION AT RAIL SPLICE



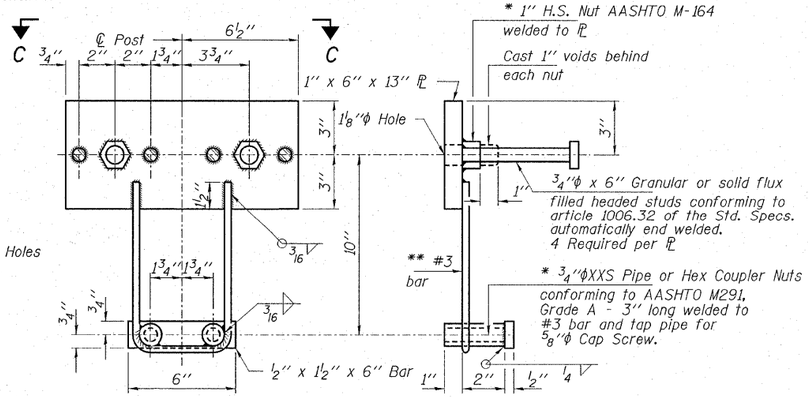
RAIL SPLICE CONNECTION
AT EXPANSION JT.



PLAN-BOTT. SPLICE PL
TYPICAL



1/4" SHIM PLATE



ANCHOR DEVICE

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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	266

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
ELGIN • SPRINGFIELD • DUQUOIN

PROJECT NUMBER: 12-23-0025-1	DATE: 05/10/06
DESIGNED: J.W.F.	CHECKED: S.W.M.
	DRAWN: D.T.M.

RAILING DETAILS

SECTION 05-00261-00-BR

F.A.S. 690 / C.H. 22 / FOX ROAD

CLARK COUNTY

STRUCTURE NO. 012-3333 / STATION 10+00