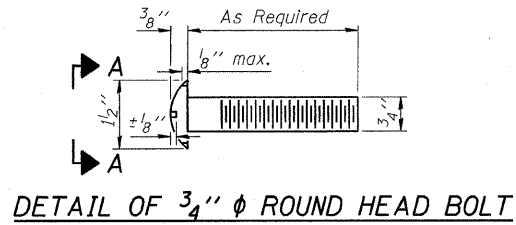


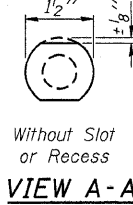
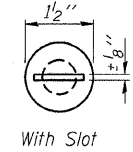
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 885	IIIBR-1	Johnson	94	70	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

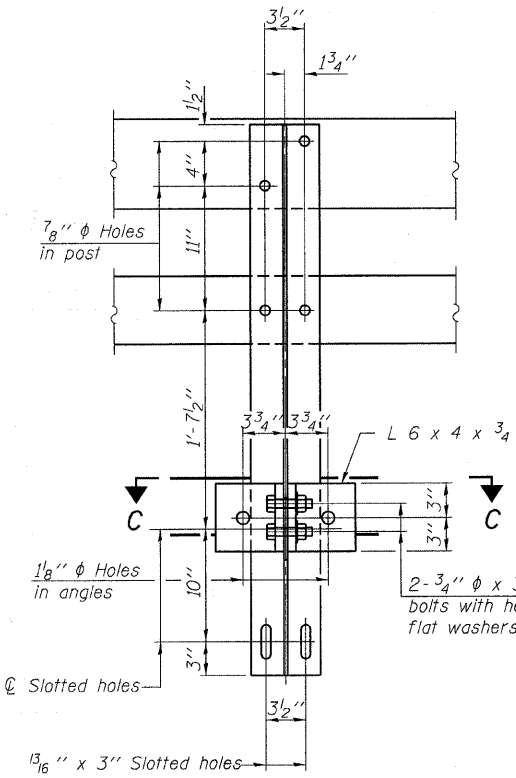
Contract #78030



DETAIL OF 3/4" ϕ ROUND HEAD BOLT



VIEW A-A

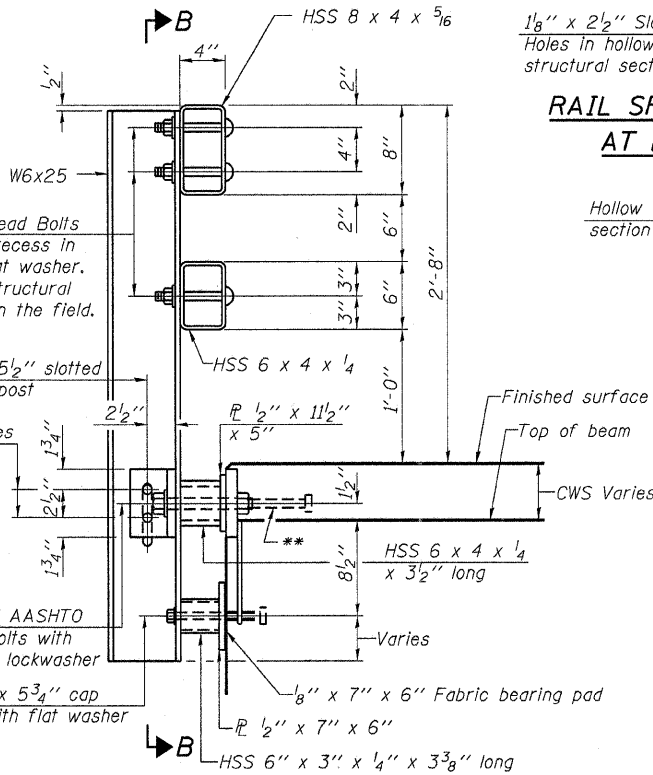


SECTION B-B

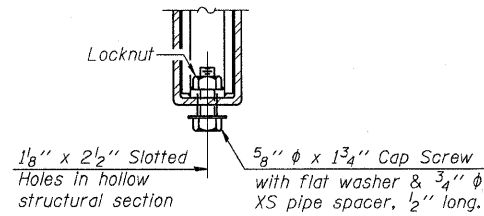
4- 3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" ϕ holes in hollow structural section may be drilled in the field.

2- 1" ϕ x 7 3/4" AASHTO M-164 anchor bolts with flat washer and lockwasher

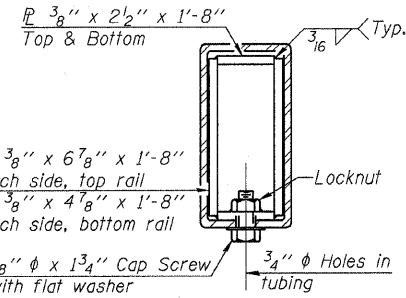
2- 5/8" ϕ x 5 3/4" cap screws with flat washer



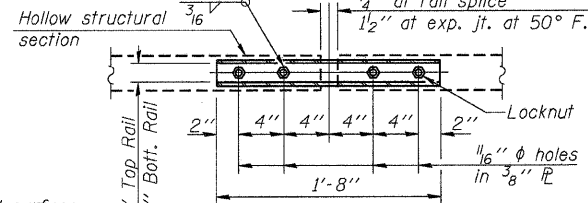
SECTION AT RAIL POST



RAIL SPLICE CONNECTION AT EXPANSION JT.

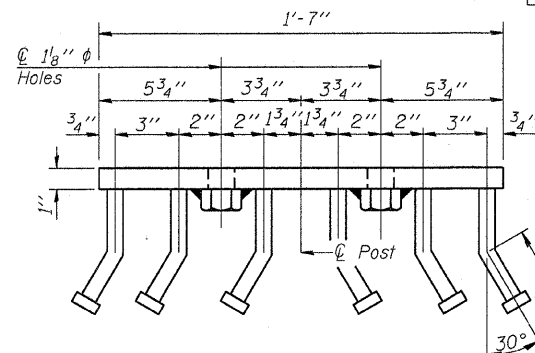


SECTION AT RAIL SPLICE



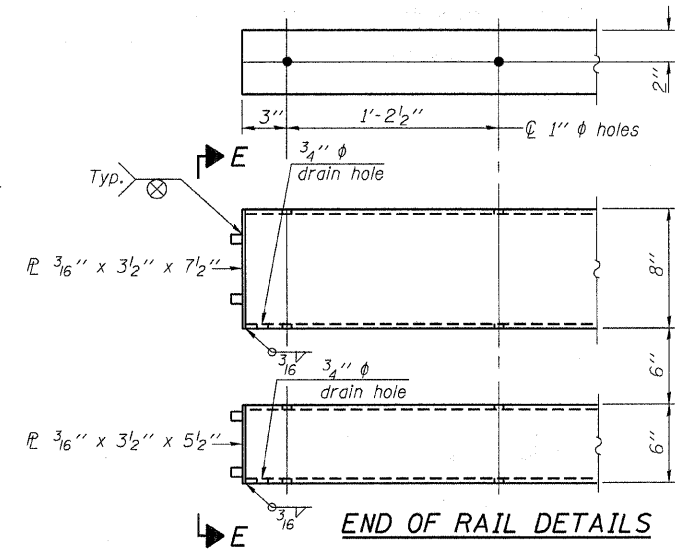
PLAN-BOTT. SPLICE R TYPICAL

1/4" at rail splice
1/2" at exp. jt. at 50° F.



VIEW D-D

VIEW E-E

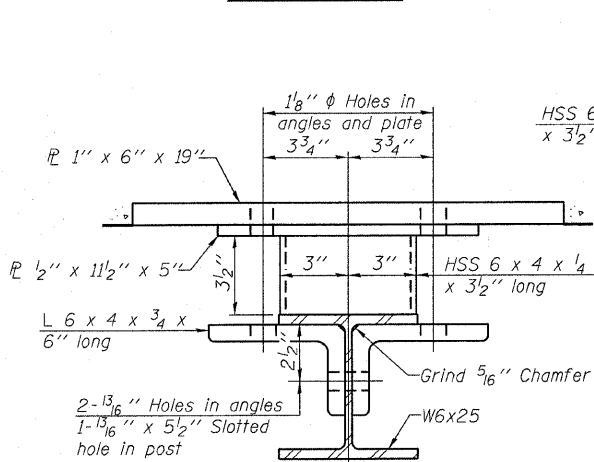


END OF RAIL DETAILS

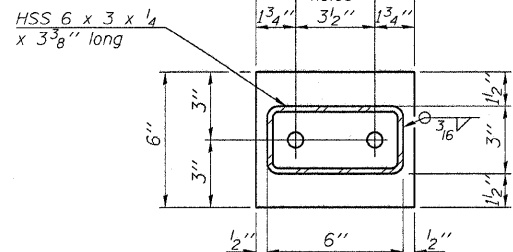
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
**The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

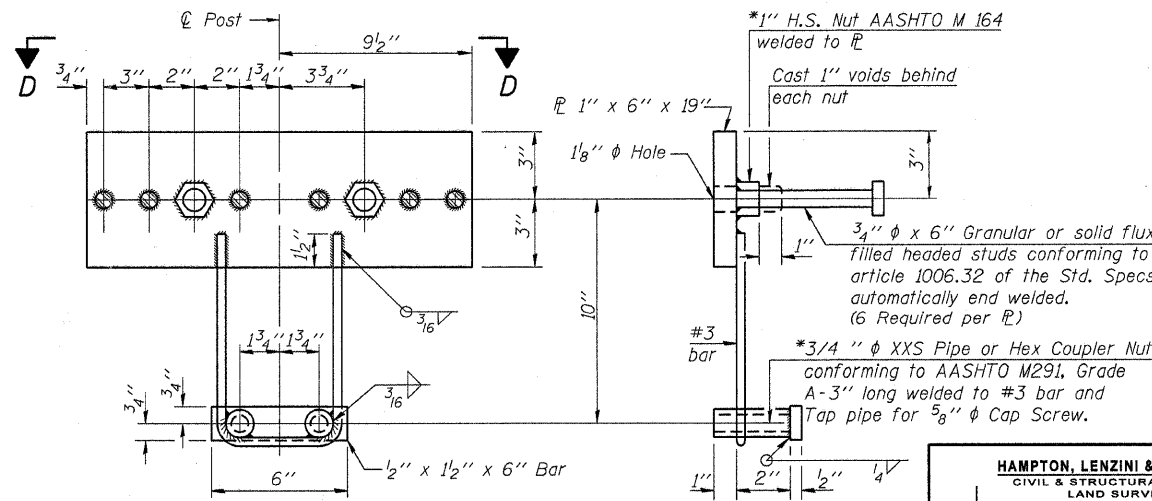
Item	Unit	Quantity
Steel Railing, Type SM	Foot	215



SECTION C-C



ANCHOR DEVICE



ANCHOR DEVICE

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

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-52-0007-1 DATE: 04/02/08
DESIGNED: P.S.L. CHECKED: M.D.C. DRAWN: D.T.M.

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
IL. ROUTE 146 OVER BELL POND
F.A.P. ROUTE 885 / SECTION IIIBR-1
JOHNSON COUNTY
STATION 513+00
STRUCTURE NO. 044-0022

R-34CWS

9-3-07

(6'-3" Maximum Post Spacing) (5" minimum to 7/8" maximum CWS thickness)