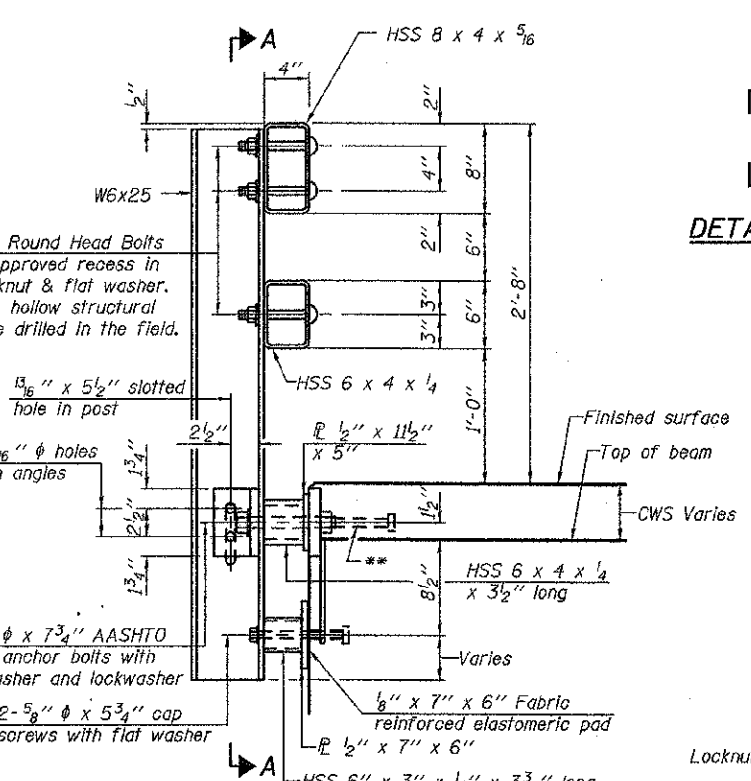
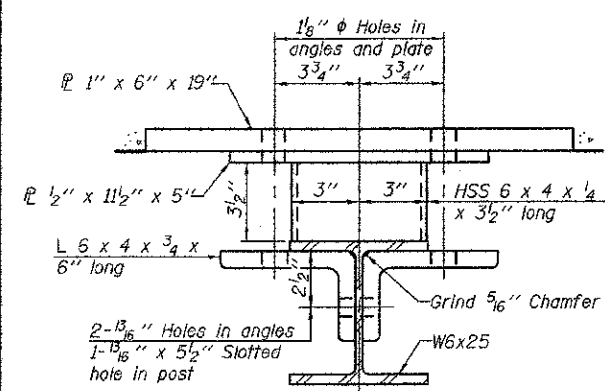


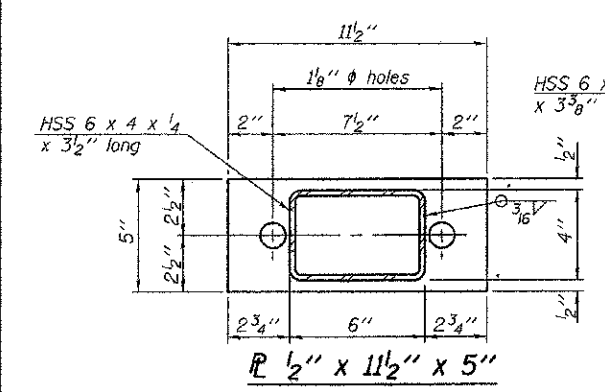
SECTION A-A



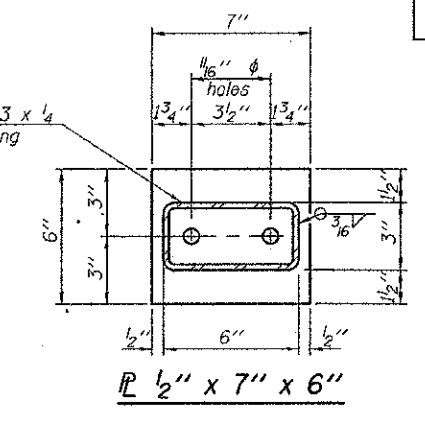
SECTION AT RAIL POST



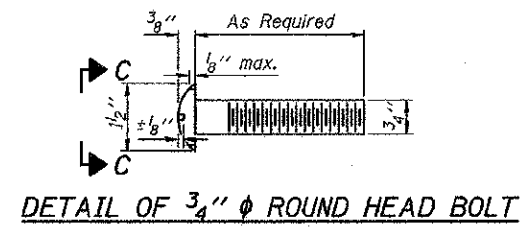
SECTION B-B



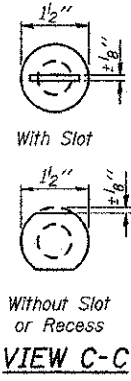
SECTION C-C



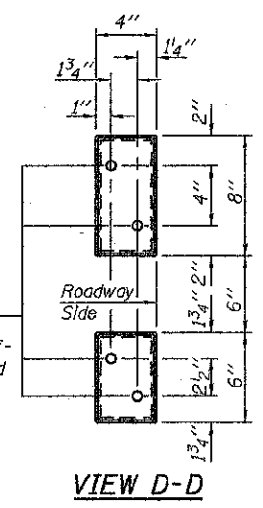
SECTION D-D



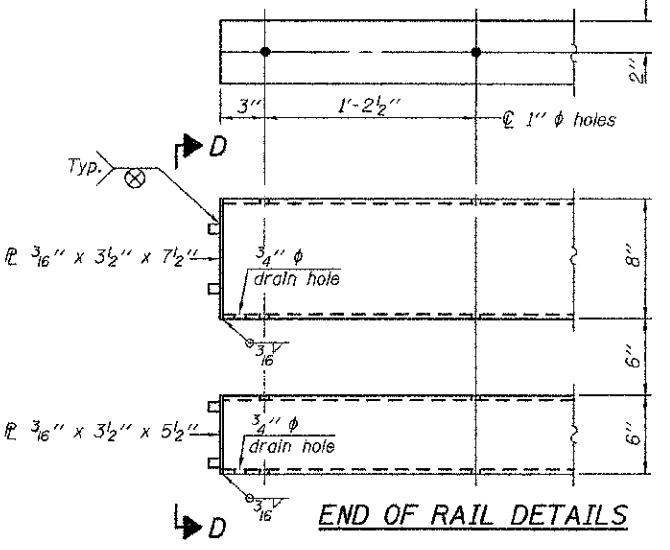
DETAIL OF 3/4" ROUND HEAD BOLT



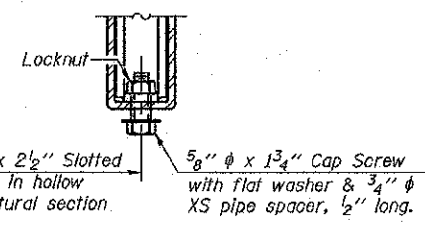
VIEW C-C



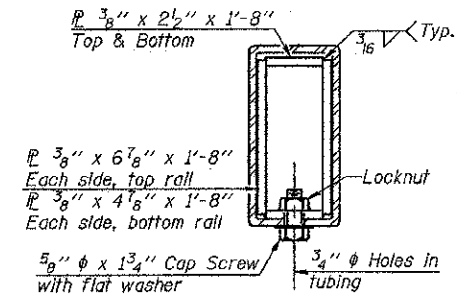
VIEW D-D



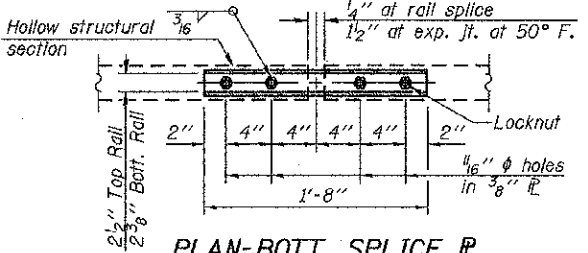
END OF RAIL DETAILS



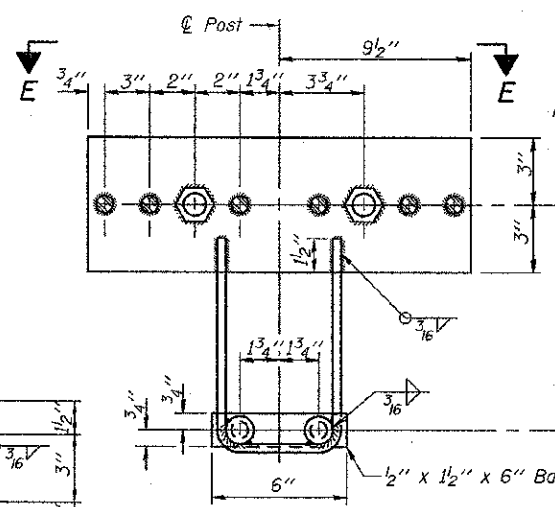
RAIL SPLICE CONNECTION AT EXPANSION JT.



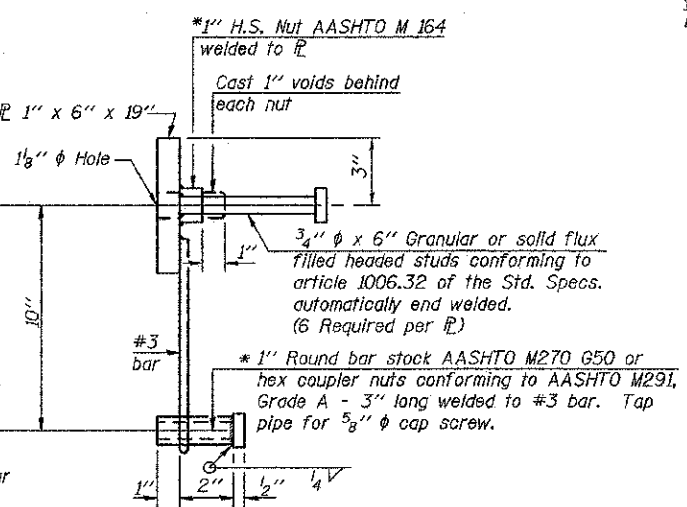
SECTION AT RAIL SPLICE



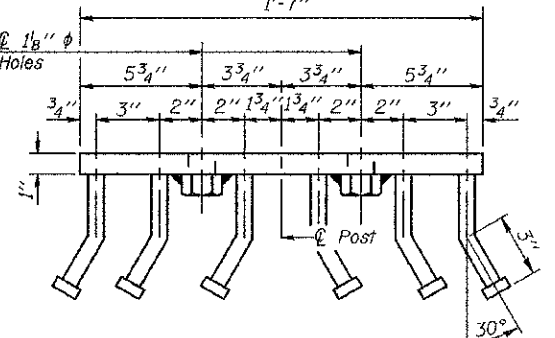
PLAN-BOTT. SPLICE P TYPICAL



ANCHOR DEVICE



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



VIEW E-E

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	344

R-34CWS

7-1-10 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

DESIGNED - Feas Teklehaimenot
 CHECKED - Stephen M. Ryan
 DRAWN - h.t. duong
 CHECKED - FT/SMR

EXAMINED - Thomas Donagallo
 ENGINEER OF BRIDGE DESIGN
 PASSED -
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - 4/19/2012
 REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
 STRUCTURE NO. 087-3555
 SHEET NO. 3 OF 12 SHEETS

F.A.S. SECTION COUNTY TOTAL SHEETS SHEET NO.
 RTE. 656 06-00265-00-BR SHELBY 29 20
 CONTRACT NO. 95701
 ILLINOIS FED. AID PROJECT