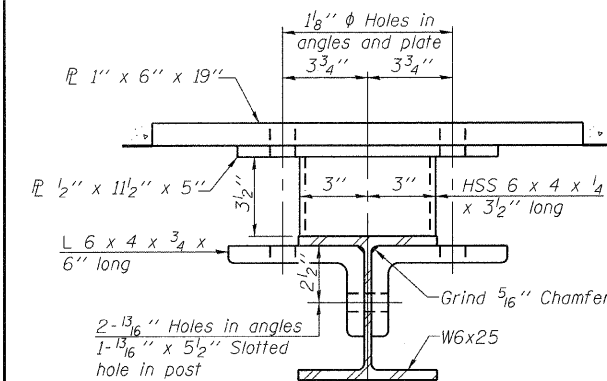
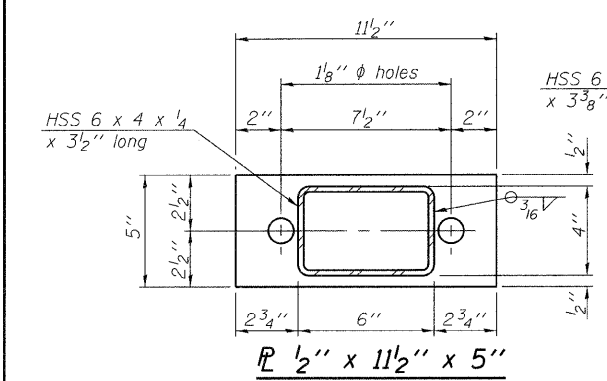


4-3/4" φ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" φ holes in hollow structural section may be drilled in the field.

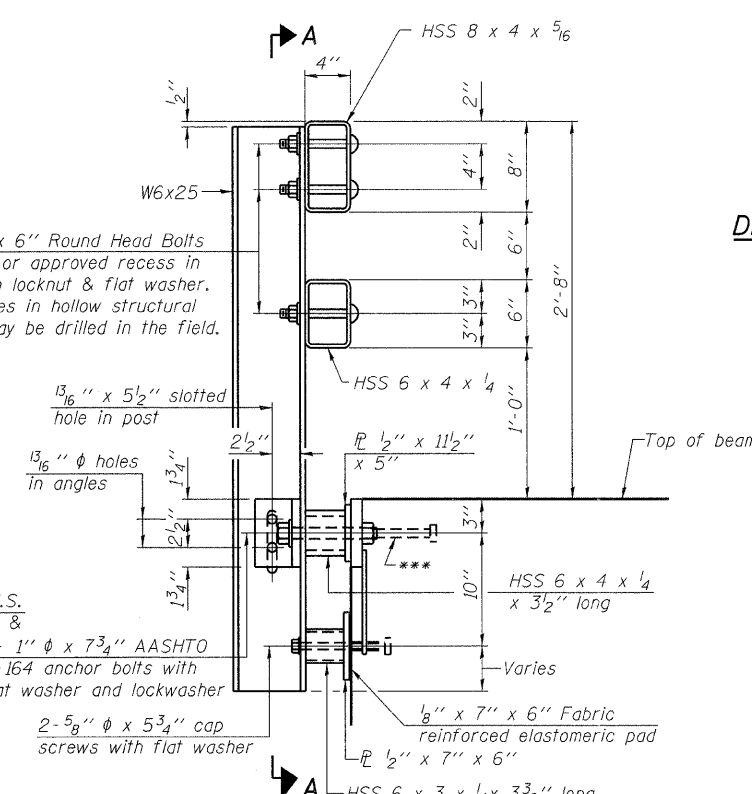
SECTION A-A



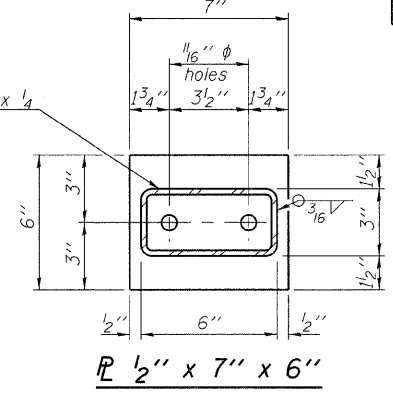
SECTION B-B



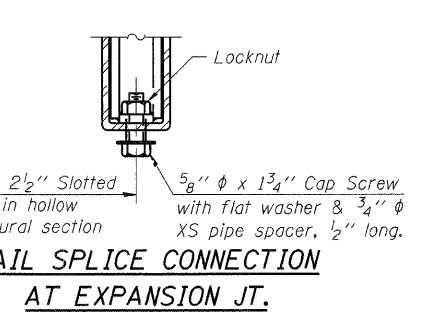
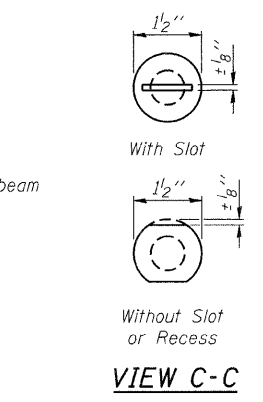
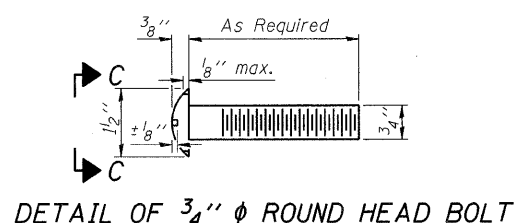
SECTION C-C



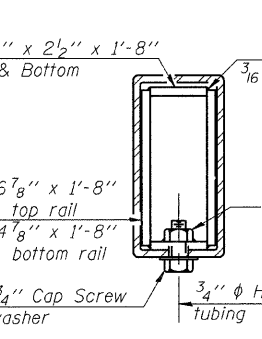
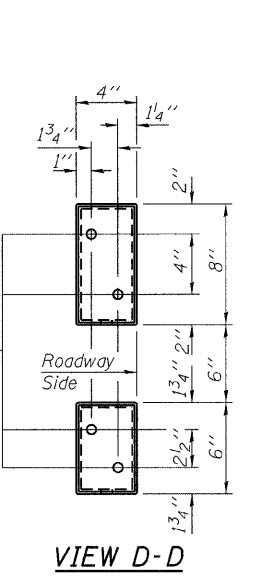
Reinforcement bars in the top of the slab may be placed with a 1/2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



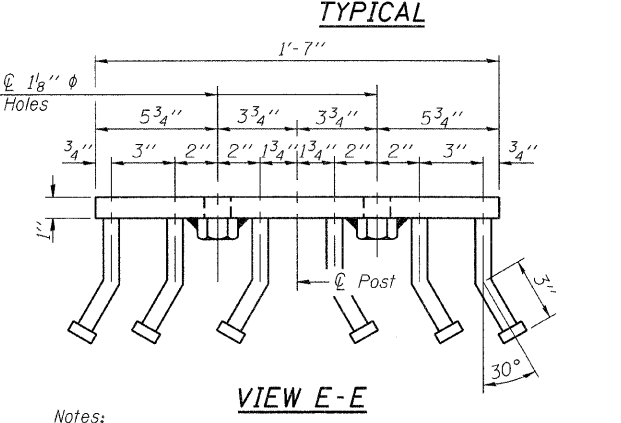
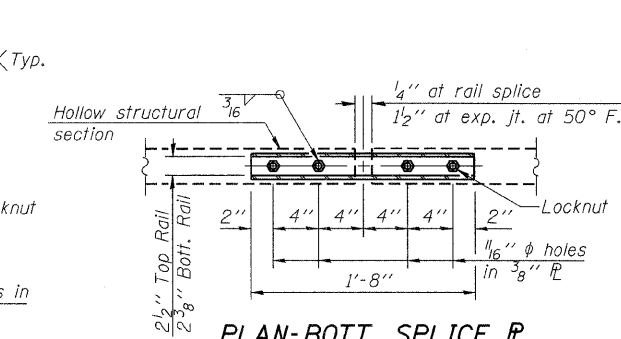
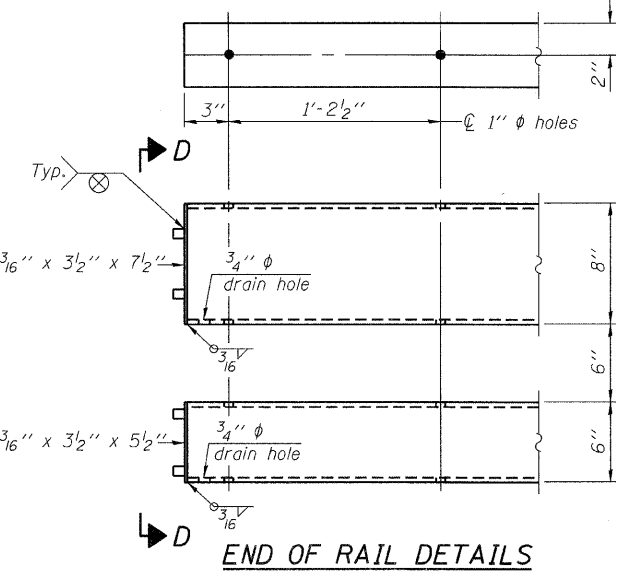
ANCHOR DEVICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



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.
 All steel rail members 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	273

R-34HMAWS 7-1-10 (6'-3" Maximum Post Spacing) (1/4" minimum to 3/8" maximum HMA thickness)

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

FILE NAME = 100108-sht-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62708	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P/E / S.E. CORP. 184.000099	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
VERMILION COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE SM
STRUCTURE NO. 092-0085
SHEET NO. 12 OF 33 SHEETS

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	45
				CONTRACT NO. 91449
ILLINOIS FED. AID PROJECT				