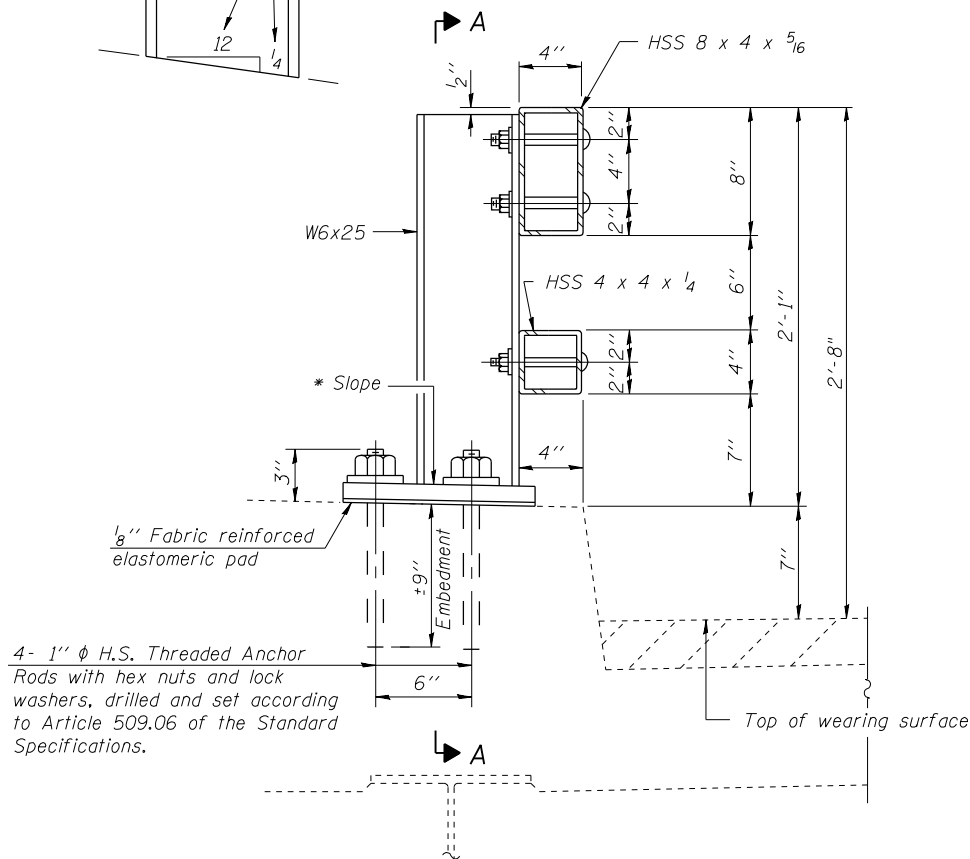
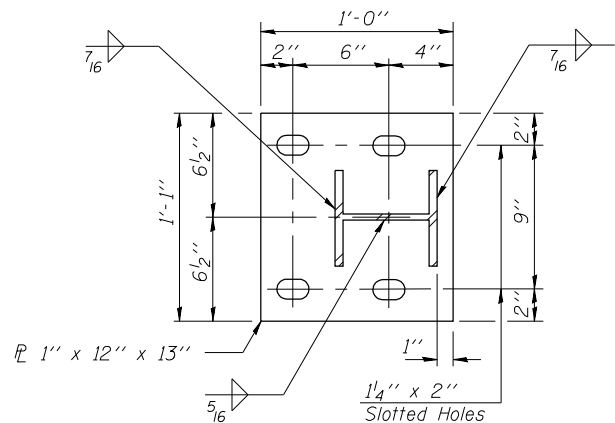


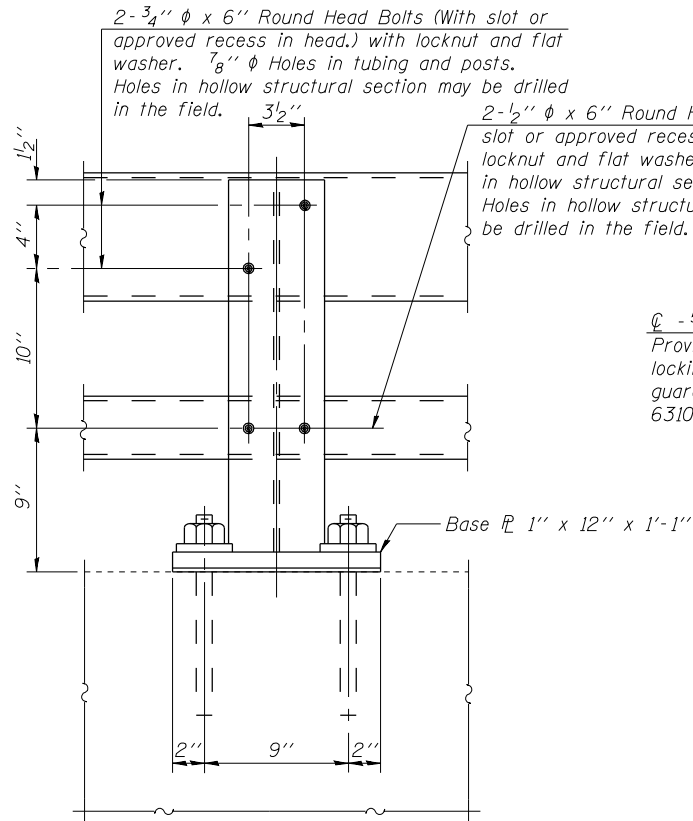
\* Cut bottom end of post to curb slope.



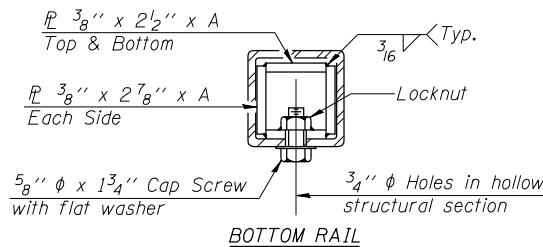
SECTION AT RAIL POST



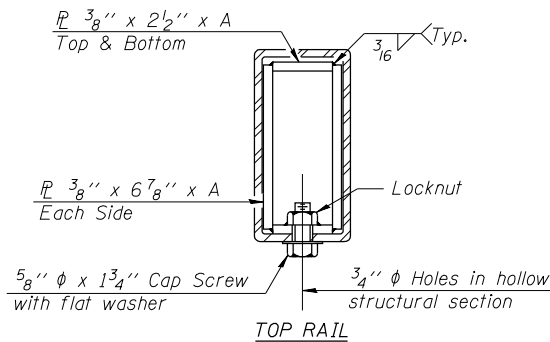
BASE PLATE DETAIL



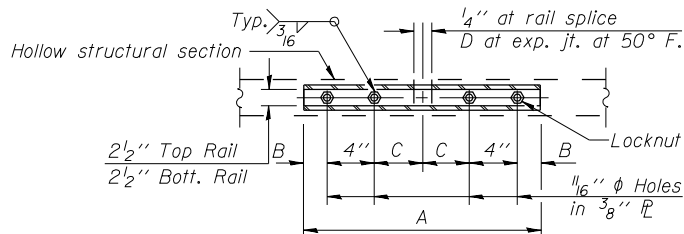
SECTION A-A



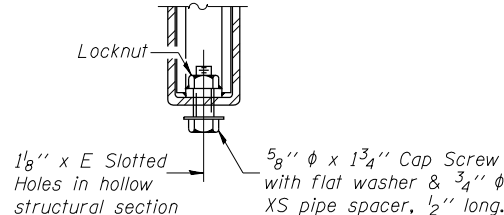
BOTTOM RAIL



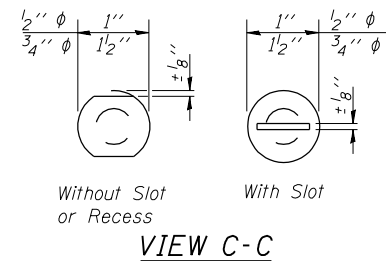
TOP RAIL



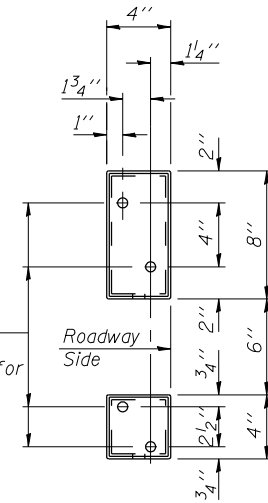
PLAN-BOTT. SPLICE TYPICAL



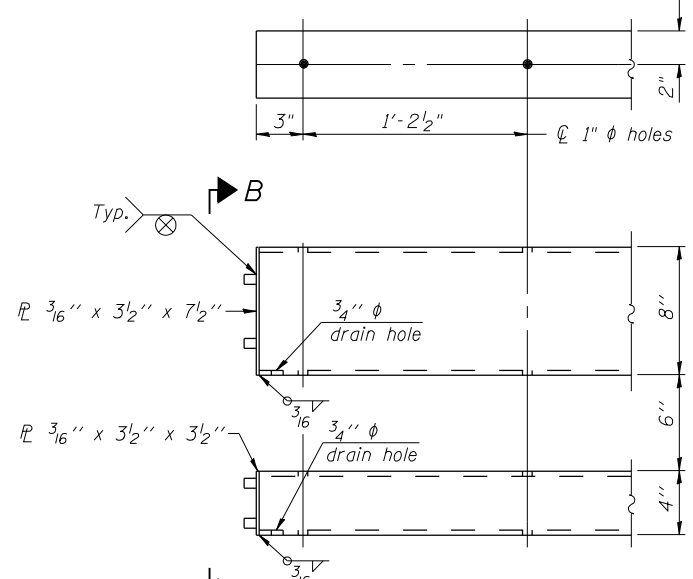
RAIL SPLICE CONNECTION AT EXPANSION JT.



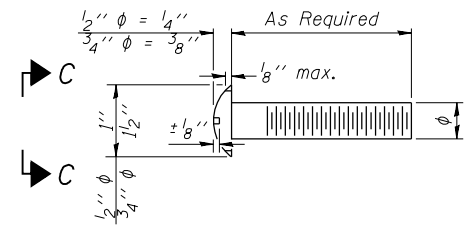
VIEW C-C



VIEW B-B



END OF RAIL DETAILS



DETAIL OF 1/2' & 3/4' ROUND HEAD BOLTS

Notes:  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.  
Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.  
Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4"≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2"≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9"≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	59

R-31

7-1-10

(6'-3" Maximum Post Spacing)



USER NAME = RJT  
ESCA PROJECT NO. 988.08  
PLOT SCALE = 1/4" = 1' IN.  
PLOT DATE = 11/16/2011 9:54:23 AM

DESIGNED - RDP 09/11  
CHECKED - JAF 09/11  
DRAWN - DWH 11/11  
CHECKED - RDP 11/11

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE 2399  
STRUCTURE NO. 039-2029

SHEET NO. 7 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	30
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				