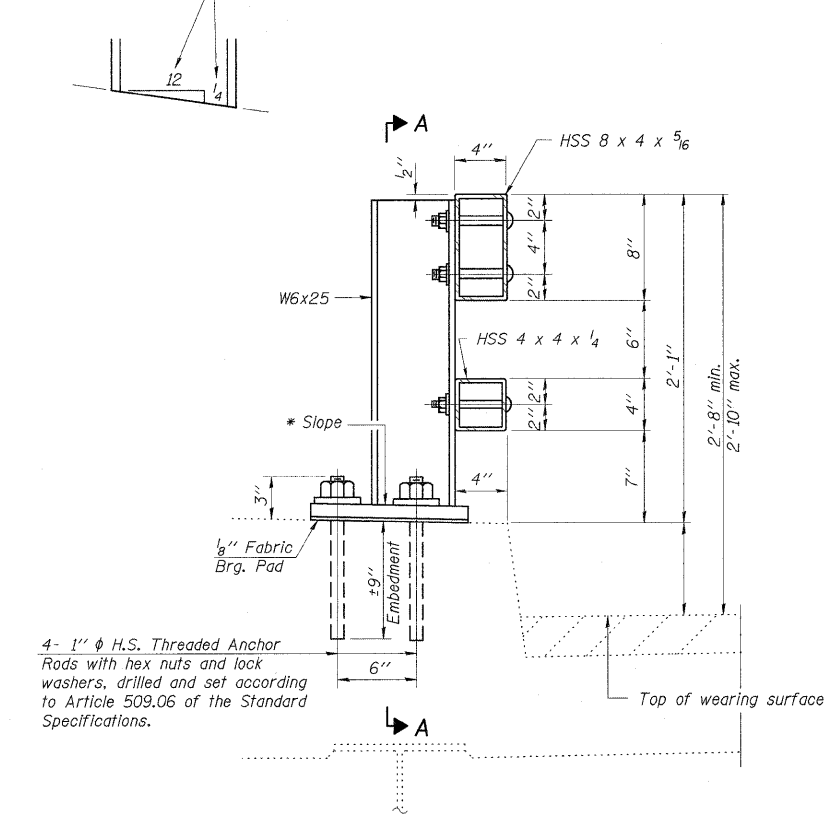
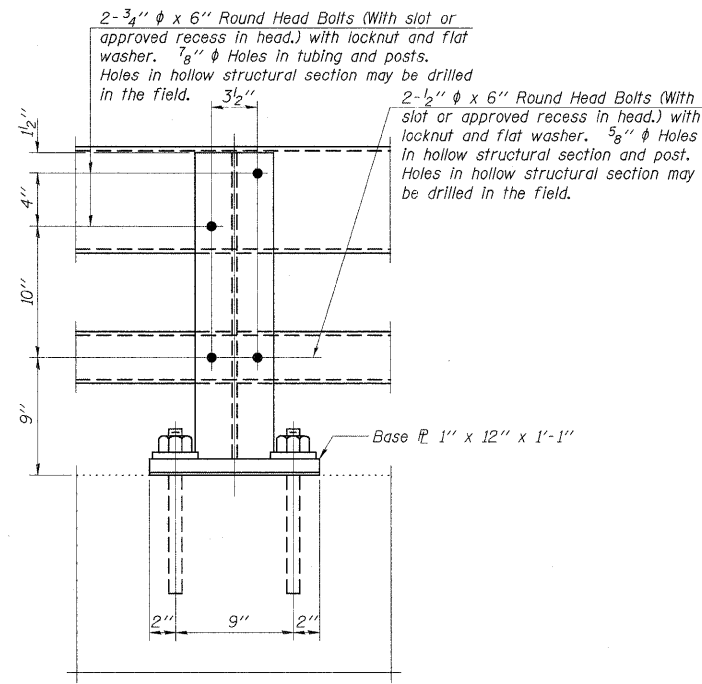


\* Cut bottom end of post to curb slope.

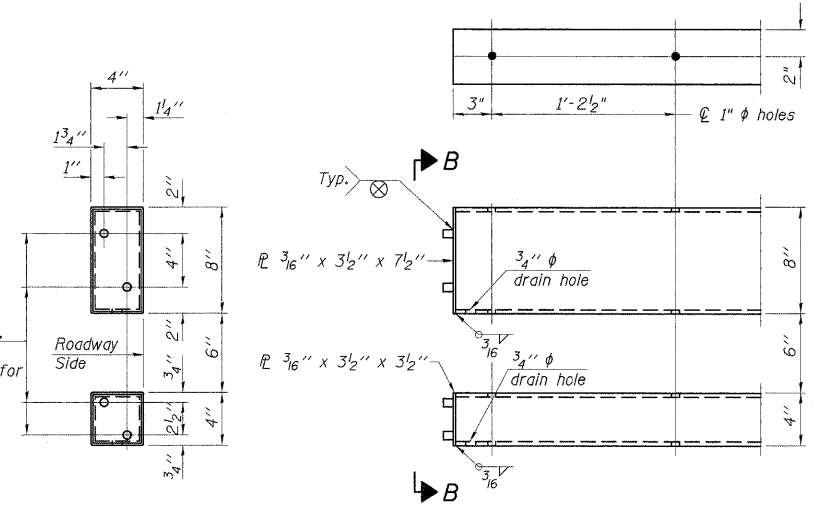


SECTION AT RAIL POST



SECTION A-A

④ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.

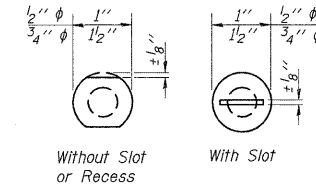


VIEW B-B

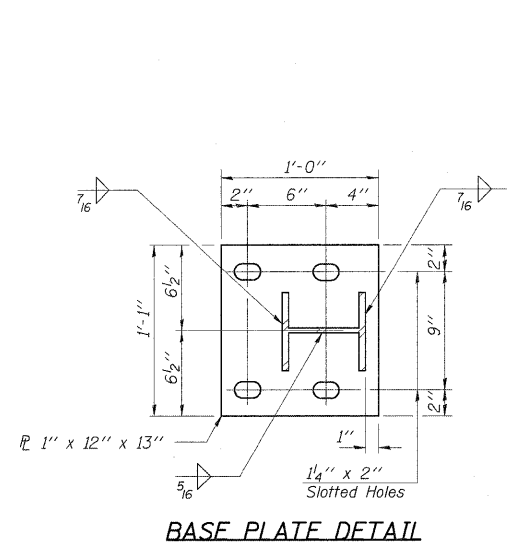
END OF RAIL DETAILS

Notes:

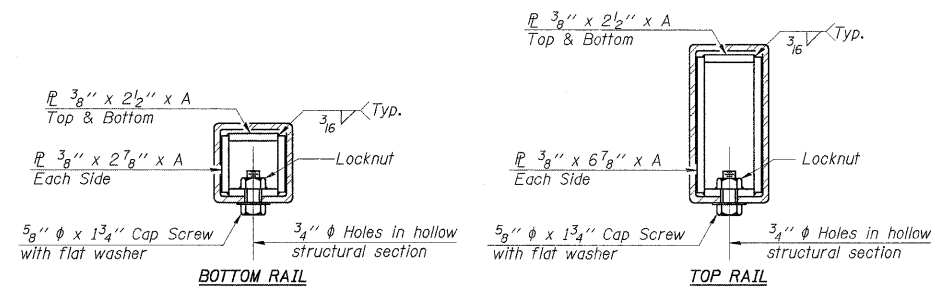
- All field drilled holes shall be coated with an approved zinc rich paint before erection.
- Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
- Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow ralling 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.



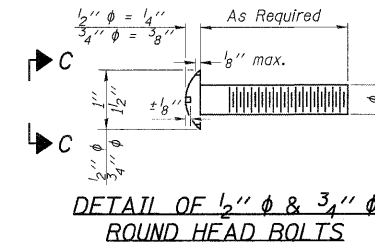
VIEW C-C



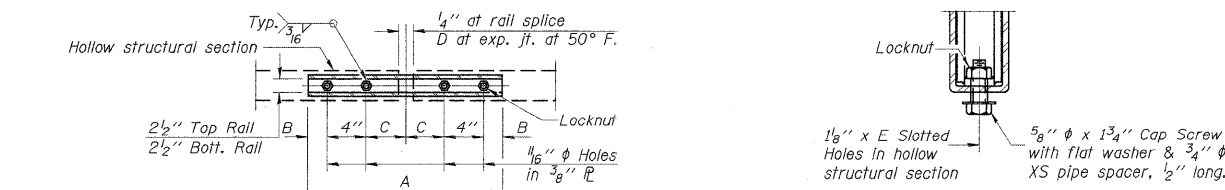
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



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



PLAN-BOTT. SPLICE TYPICAL

RAIL SPLICE CONNECTION AT EXPANSION JT.

(6'-3" Maximum Post Spacing)

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	29

STEEL RAILING, TYPE 2399  
IL 154 OVER CREEK  
FAP 329; SECTION 18B-1  
PERRY COUNTY  
STA 671+60.00  
STRUCTURE NO 073-7053

R-31

10-1-08

FILE NAME =	USER NAME = cornell1m	DESIGNED -	REVISED -
ai\pwork\PIWIDOT\CORNELL1M\dms49842\d	878259_sht_tumsc.dgn	DRAWN -	REVISED -
PLOT SCALE = 1.0000' / IN.	CHECKED -	REVISIED -	REVISIED -
PLOT DATE = 3/19/2009	DATE -	REVISIED -	REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE 2399  
SN 073-7053

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
881/329	35B-1/18B-1	JOHNSON/PERRY	26	23
CONTRACT NO. 78069				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			