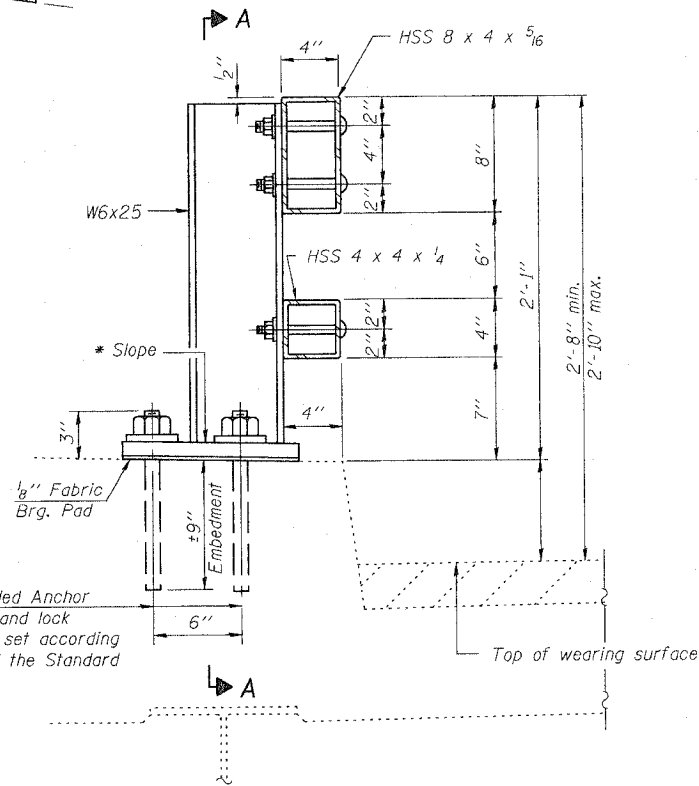


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

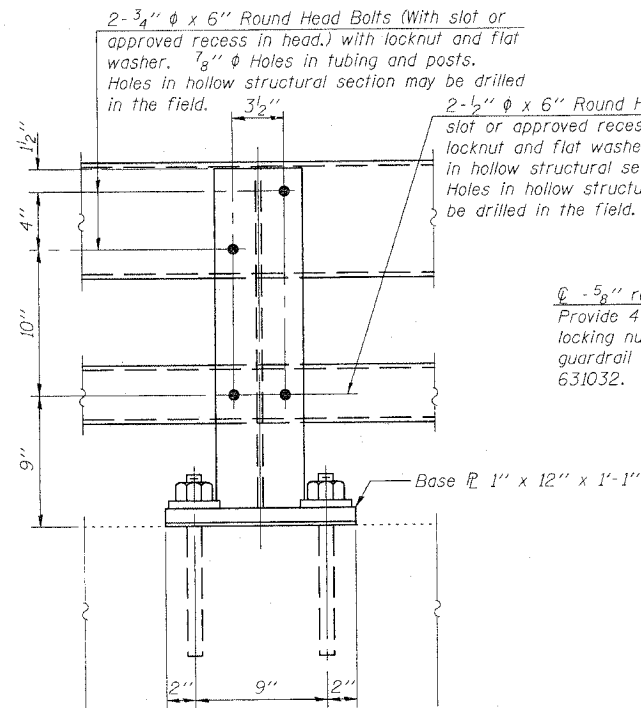
SHEET 4
OF 4

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10HB-2	MADISON	156	121
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT NO. 76857	

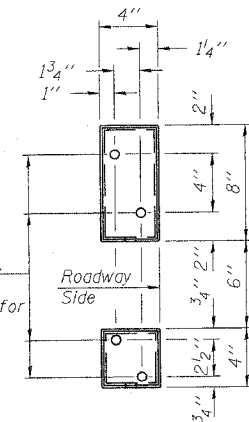
* Cut bottom end of post to curb slope.



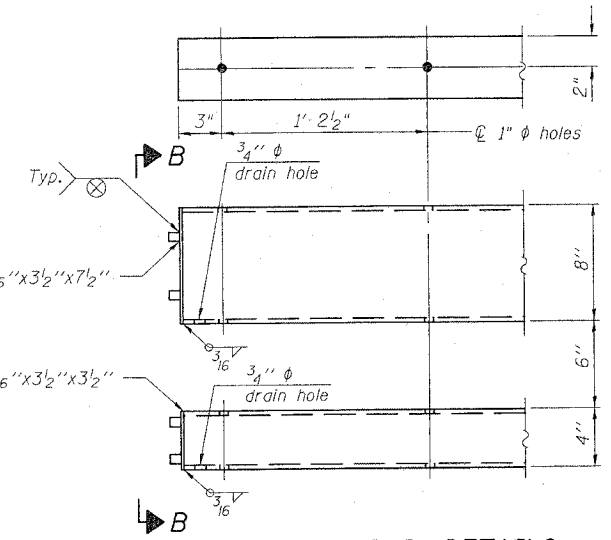
SECTION AT RAIL POST



SECTION A-A



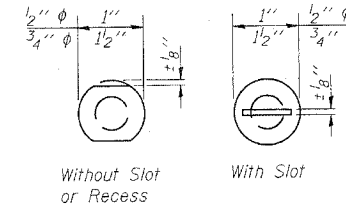
VIEW B-B



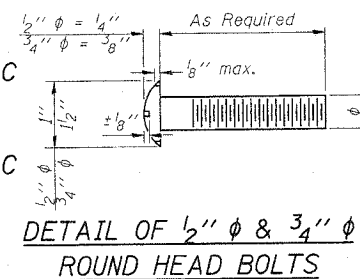
END OF RAIL DETAILS

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 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.



VIEW C-C



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

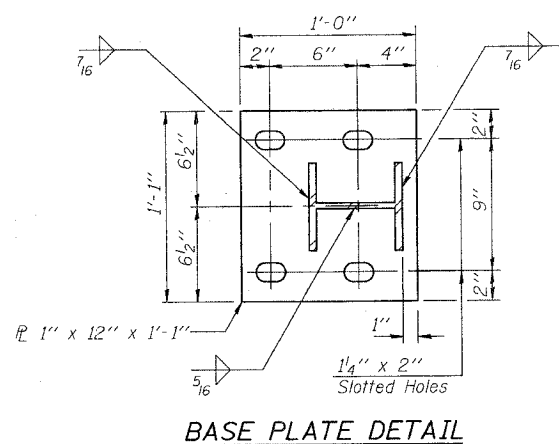
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	491

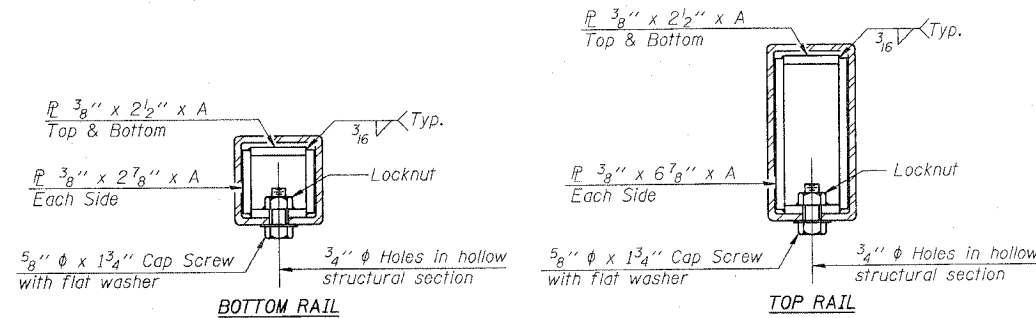
SPLICE DIMENSIONS

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

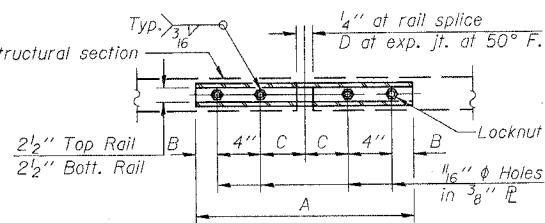
T = Total movement at expansion joint as shown on the design plans.



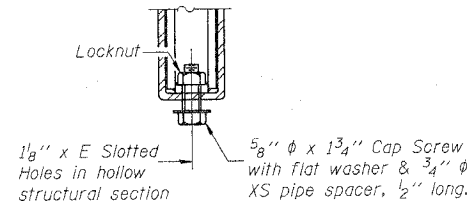
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

(6'-3" Maximum Post Spacing)

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: CDB	DRAWN: SJS
CHECKED: DCD	CHECKED: CDB/DCD

R-31

11-1-06

FILE: J:\DD\1042 IL-08VVV5 I-70 Bridge Repair\AS-SN060-0173 RiginRoad.Cas eeelbrtcdger.dgn USER: DCD DATE: 01/2/2007 11:29:51