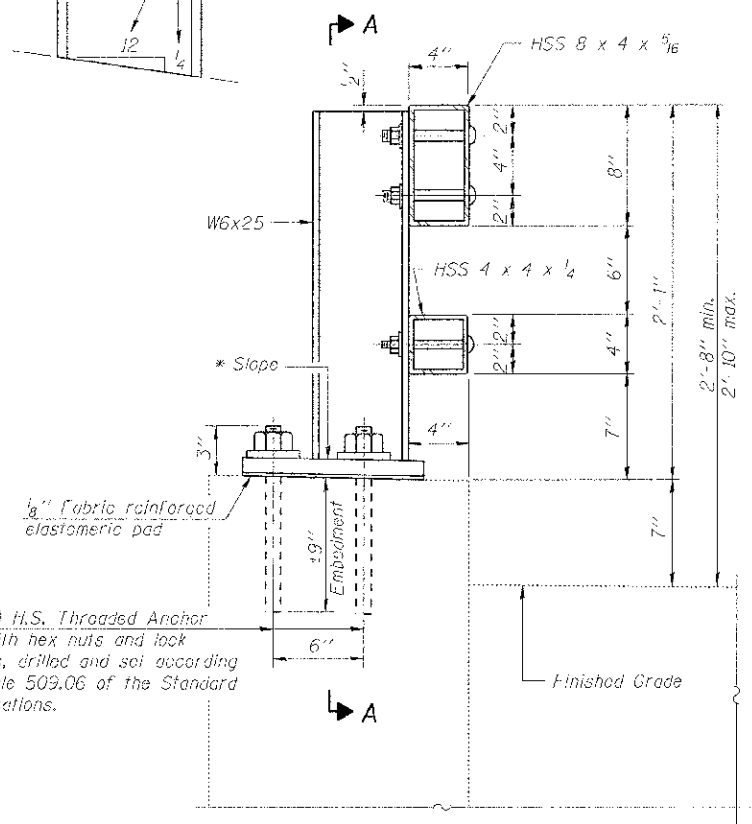
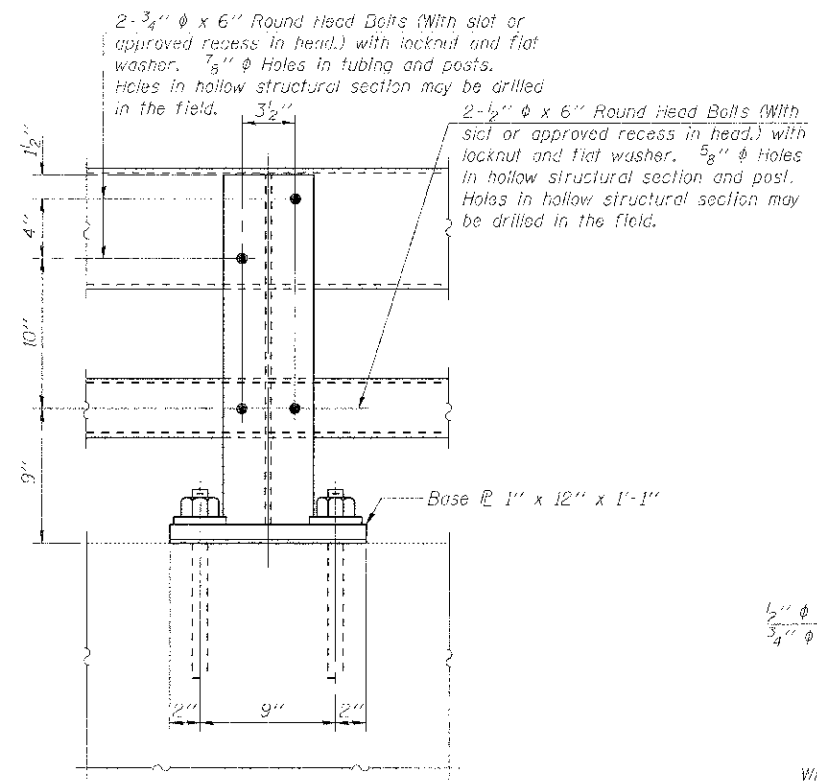


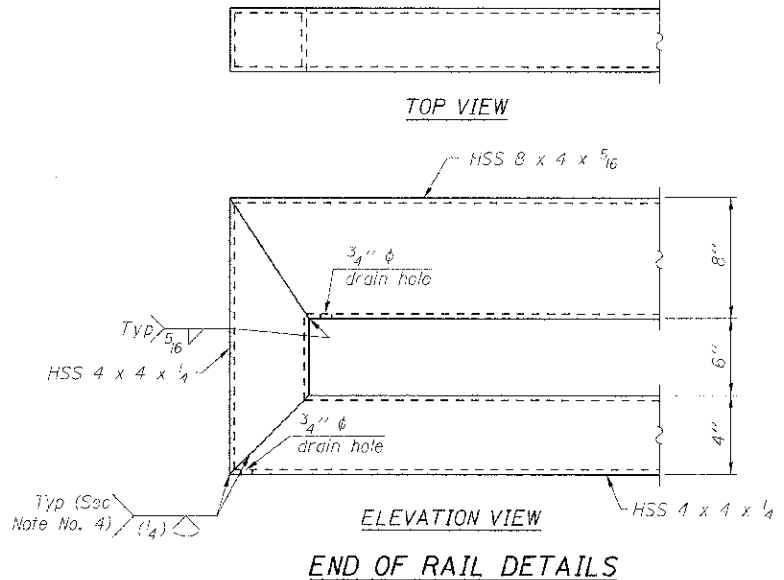
* Cut bottom end of post to curb slope.



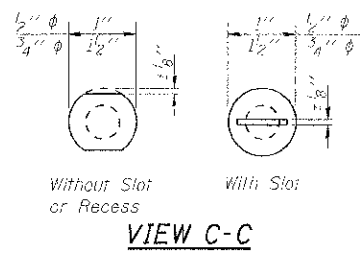
SECTION AT RAIL POST



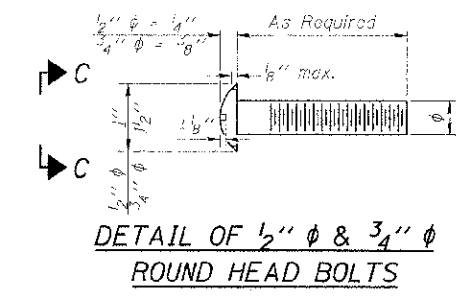
SECTION A-A



END OF RAIL DETAILS



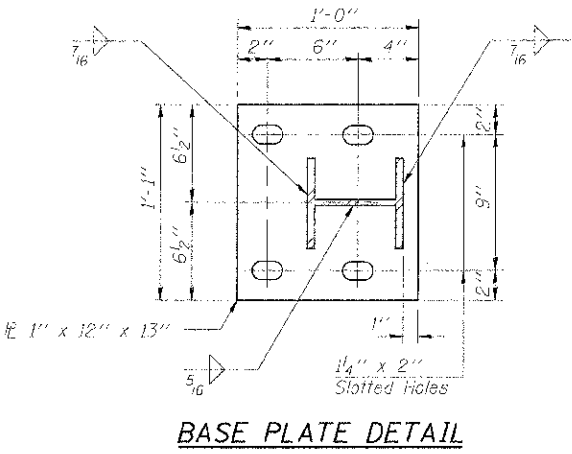
VIEW C-C



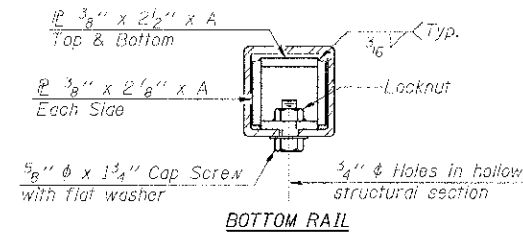
DETAIL OF 1/2" ϕ & 3/4" ϕ ROUND HEAD BOLTS

4- 1" ϕ H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

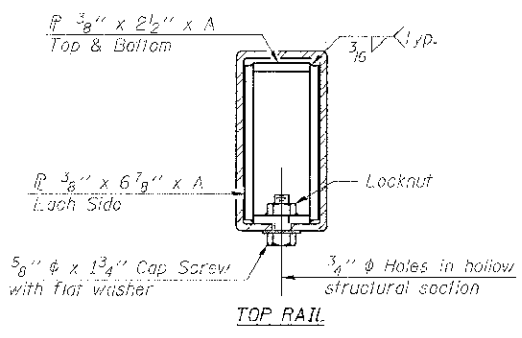
Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion 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.



BASE PLATE DETAIL

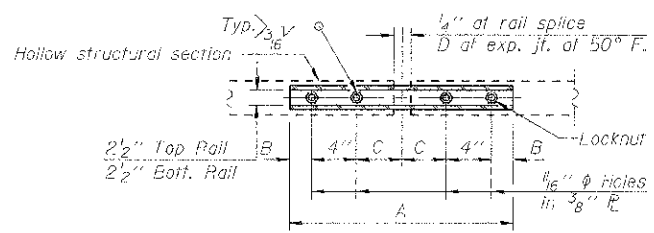


BOTTOM RAIL

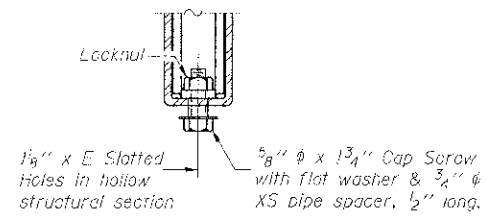


TOP RAIL

SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6"	3 1/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6" ≤ 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	76

(6'-3" Maximum Post Spacing)

CONSULT: DR. R. H. BARTER & ASSOCIATES, INC.
 1100 N. W. 11th St., Ft. Lauderdale, FL 33304
 LICENSE NO. 18-00271, EXP. 12/31/2012
 11/19/2012 9:55:53 PM



USER NAME =
 FLU SCALE =
 PLOT DATE = 10/12/12

DESIGNED - BCD
 CHECKED - BLB
 DRAWN - BLB
 CHECKED - BAS

REVISED
 REVISED
 REVISED
 REVISED

VILLAGE OF PARK FOREST, ILLINOIS
 THORN CREEK DRIVE BRIDGE OVER
 THORN CREEK

STEEL RAILING, TYPE 2399
 STRUCTURE NO. 099-6753
 SHEET NO. 6 OF 9 SHEETS

MUN ST	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1045	08-00093-00-BR	WILL	41	23

FED. ROAD DIST. NO. : ILLINOIS FED. AID PROJECT CONTRACT NO. 63765 BRM-9003103