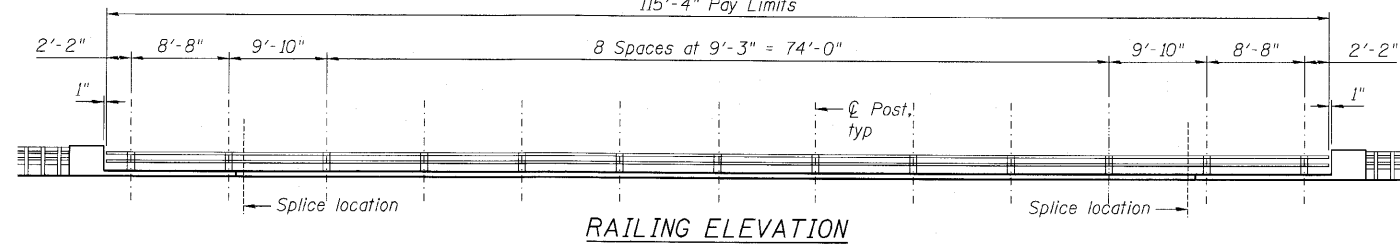
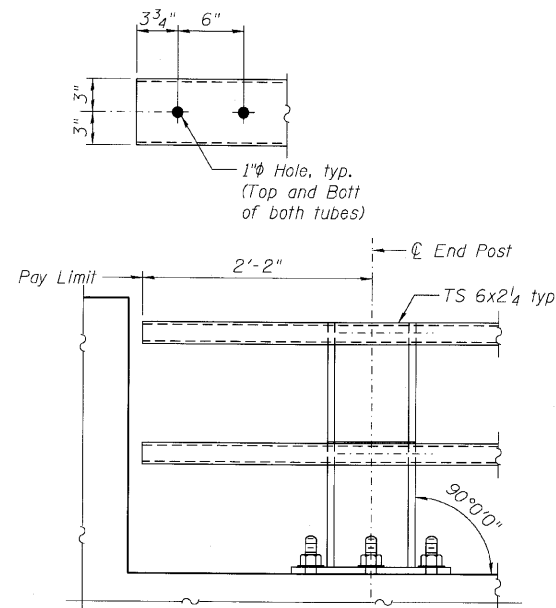


McHENRY COUNTY
DIVISION OF TRANSPORTATION

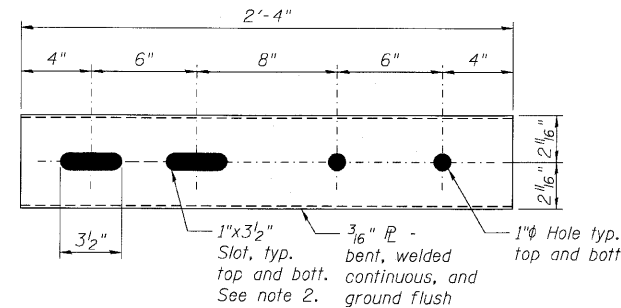
115'-4" Pay Limits



RAILING ELEVATION

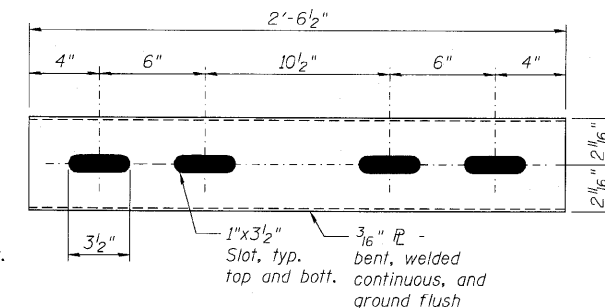


ELEVATION AT TERMINAL



STANDARD SLEEVE

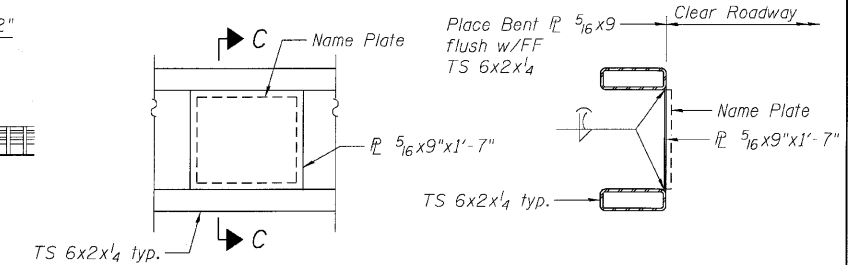
SLEEVE DETAILS



EXPANSION SLEEVE

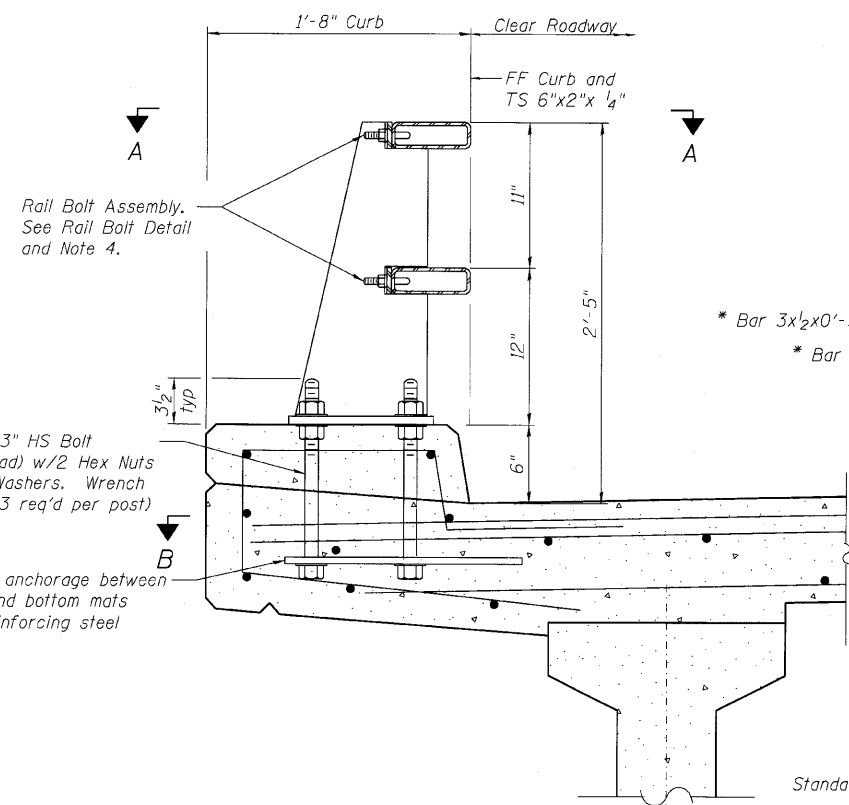
END VIEW

1/2" x 10 x 1'-10 3/8" (2 each)



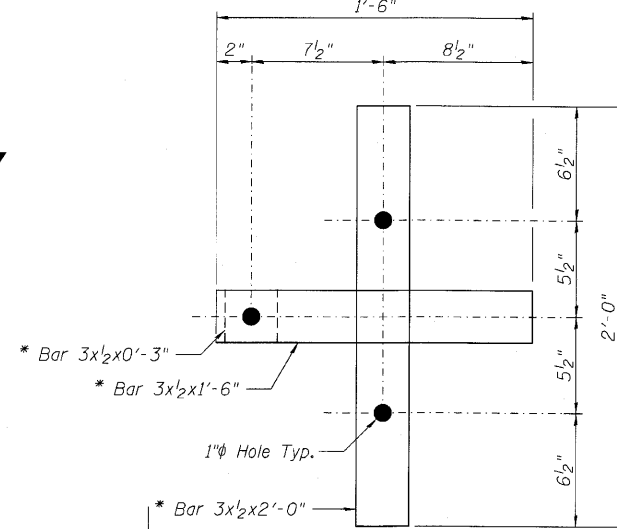
DETAIL AT NAME PLATE LOCATION

SECTION C-C



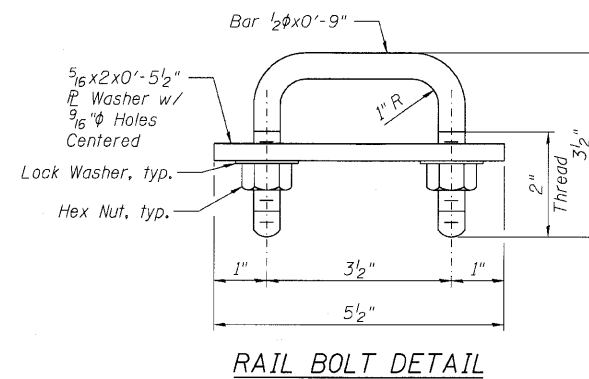
ASSEMBLY DETAIL

(Show near ϕ Post)
(Bridge slab shown, approach slab similar)

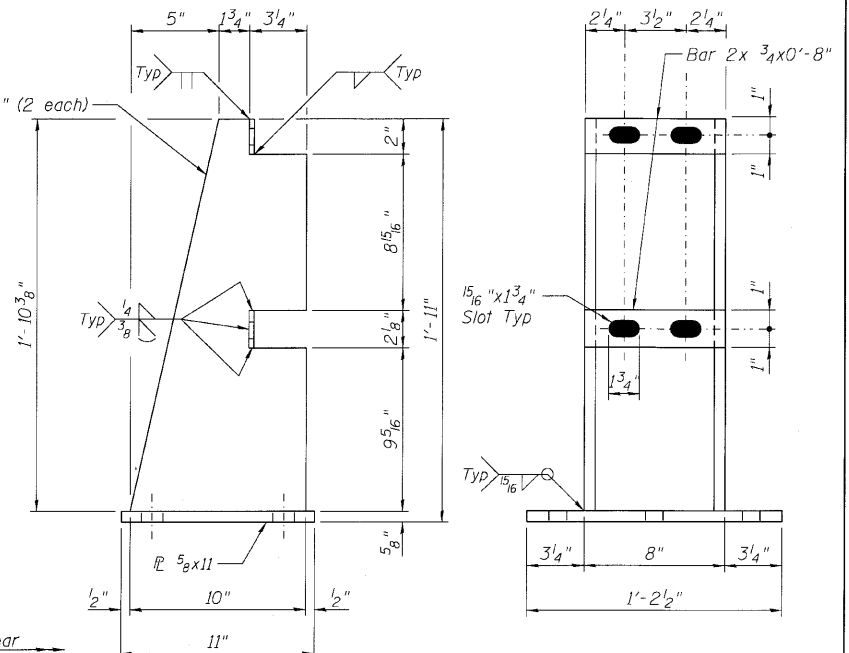


SECTION B-B

(* Not galvanized)
(Anchor bolts and slab not shown)



RAIL BOLT DETAIL



SIDE VIEW

POST DETAILS

FRONT VIEW

(See View A-A for anchor bolt hole spacing)

NOTES:

1. Slots may be omitted in standard sleeves where bolts are required on one side of splice only.
2. Anchor bolts may be tack welded to anchorage (shop or field).
3. At post locations, drill two 1/8" holes in the rails to receive rail bolts (shop or field). See Post Details for hole spacing.
4. Before installing rails, paint cut, drilled, or otherwise damaged surface areas of the railing components with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
5. After installing the rails, paint exposed bolt threads with two coats of zinc rich paint conforming to the requirements of ASTM A 780.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Steel Railing (Special)	Foot	231

STEEL RAILING DETAILS
STRUCTURE NO. 056-3179

SHEET NO.	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-11	1233	06-00321-00-BR	McHENRY	48	29
S-21 SHEETS			CONTRACT NO. 63516		
ILLINOIS FED. AID PROJECT					

DESIGNED - AMK
CHECKED - EKM
DRAWN - RD
CHECKED - EKM



Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com

SPLICE DETAIL

VIEW A-A
(Anchor bolts, rails, and rail bolts not shown)

8/2/2010 rdanley