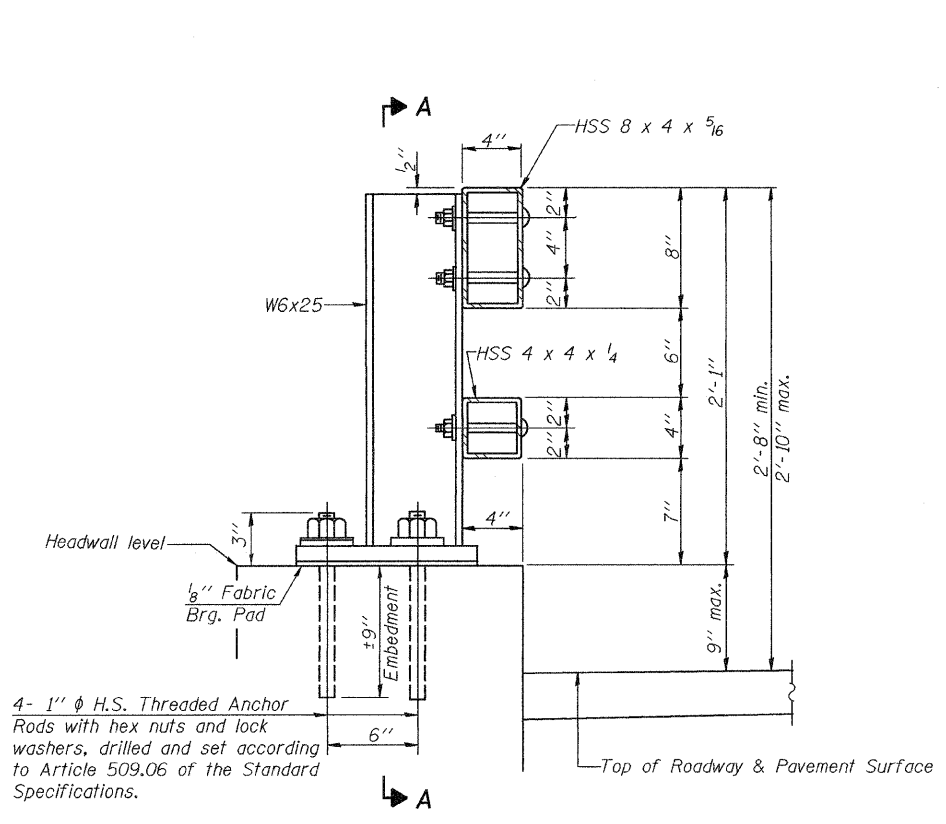


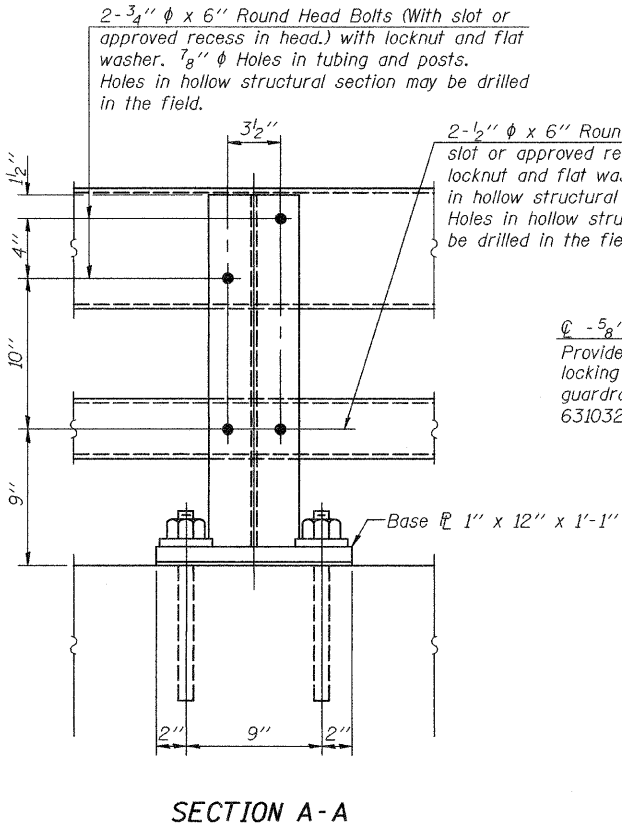
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9 11 SHEETS
FAP 330	104B-3-BR	WILL	42	28	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

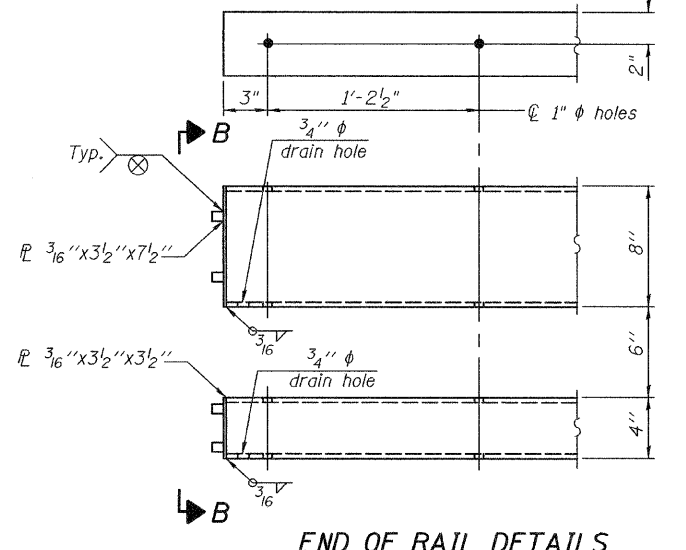
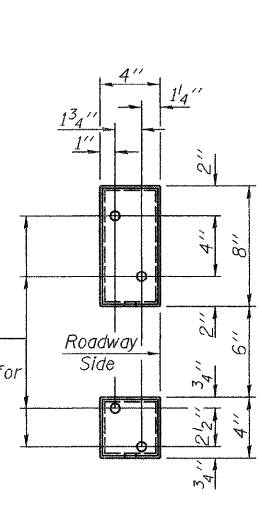
Contract No. 60B80



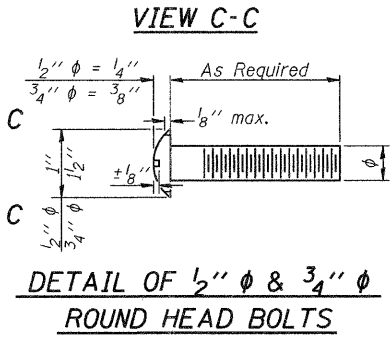
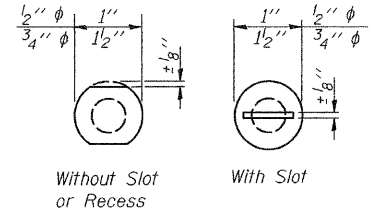
SECTION AT RAIL POST



SECTION A-A



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.



BILL OF MATERIAL

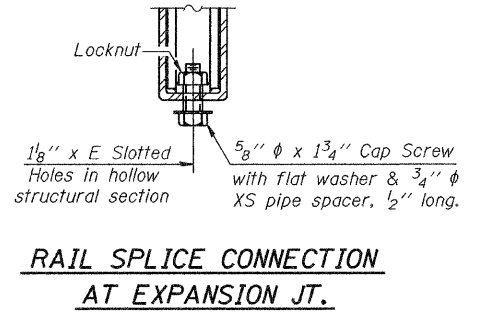
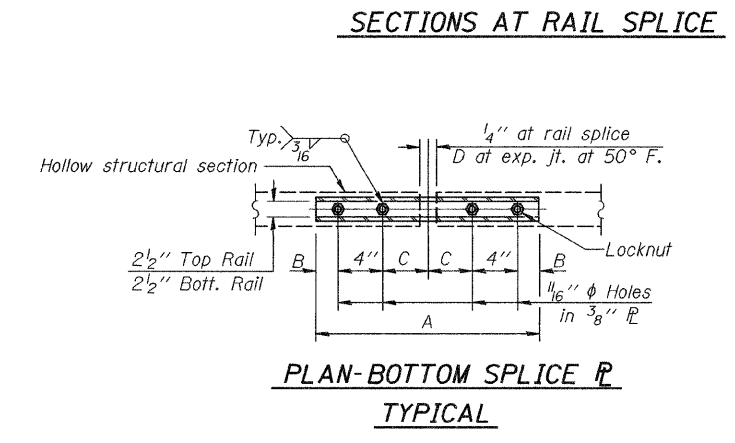
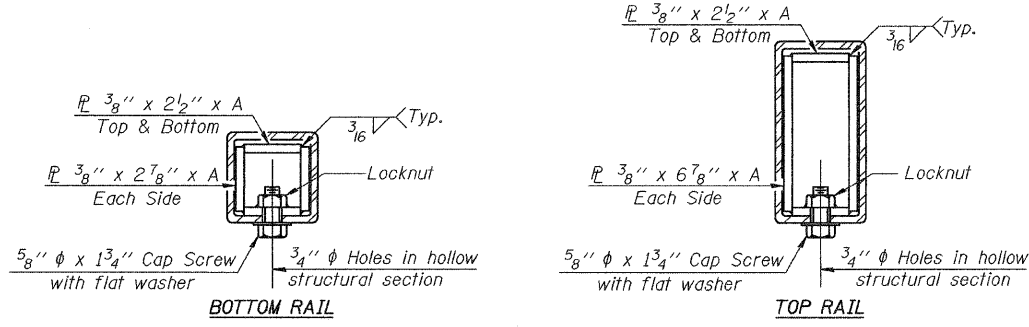
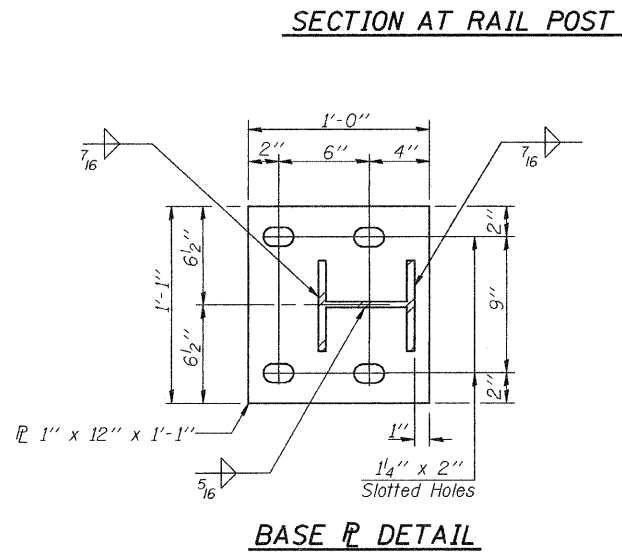
Item	Unit	Quantity
Steel Railing, Type 2399	Foot	70

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.

STEEL RAILING, TYPE 2399
F.A.P. RT. 330 SEC. 104B-3-BR
WILL COUNTY
STATION 149+06.00
STRUCTURE NO. 099-4649



DESIGNED	Dhruv P. Nariefwala
CHECKED	Stephen M. Ryan
DRAWN	h.t. duong
CHECKED	DPN/SMR

November 20, 2007
EXAMINED *Thomas J. Donagale*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

(6'-3" Maximum Post Spacing)