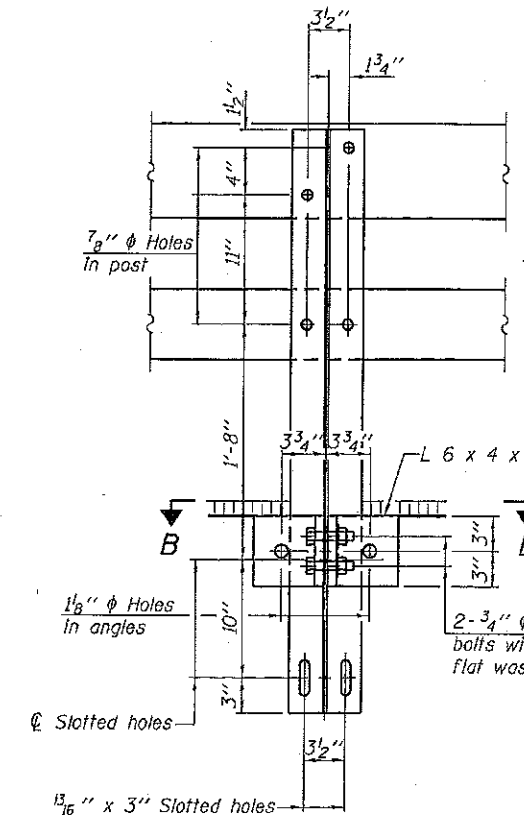
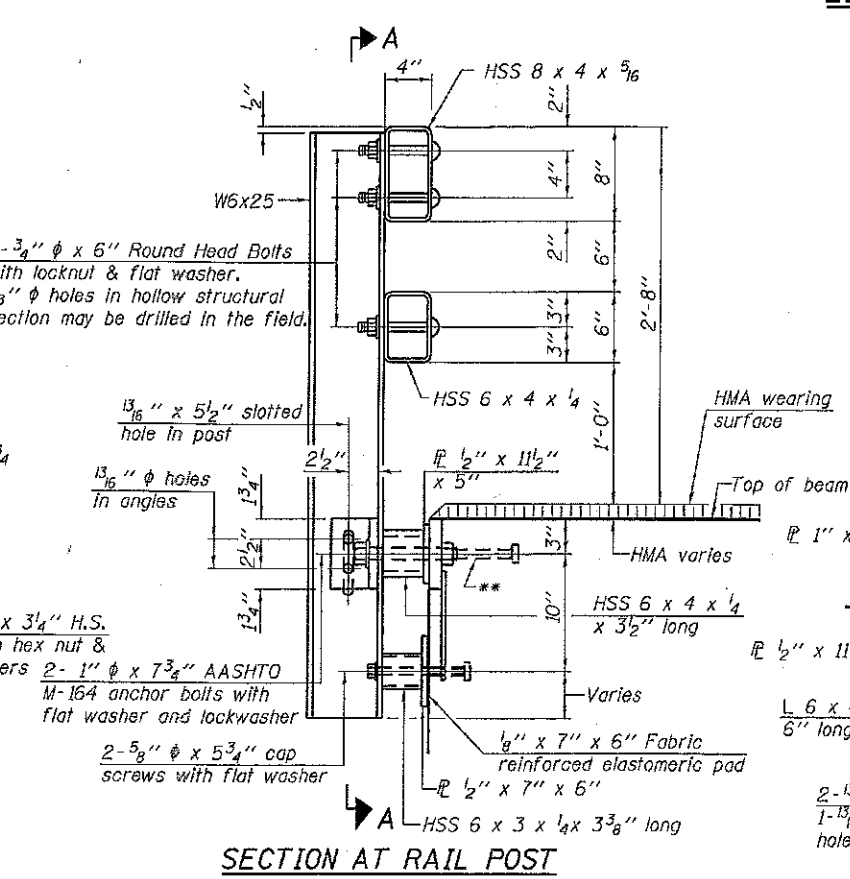


**ELEVATION VIEW**

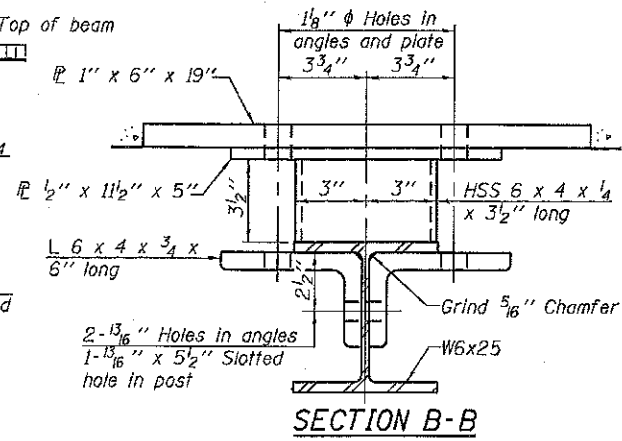
South Rail shown,  
North Rail similar



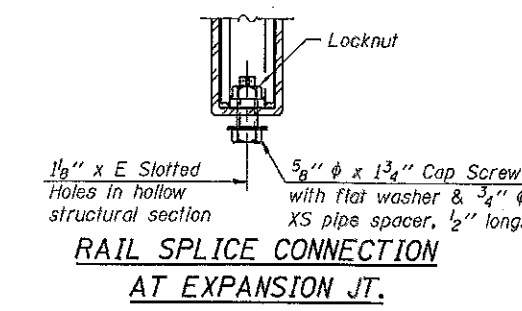
**SECTION A-A**



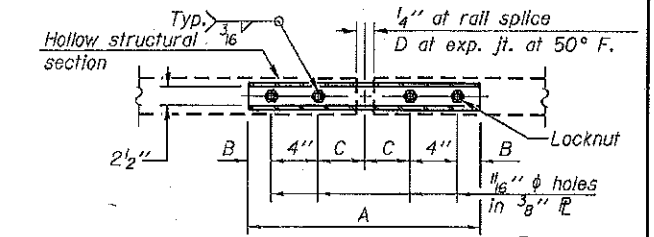
**SECTION AT RAIL POST**



**SECTION B-B**



**RAIL SPLICE CONNECTION AT EXPANSION JT.**

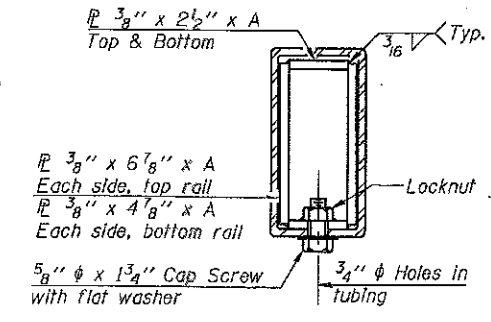


**PLAN-BOTT. SPLICE TYPICAL**

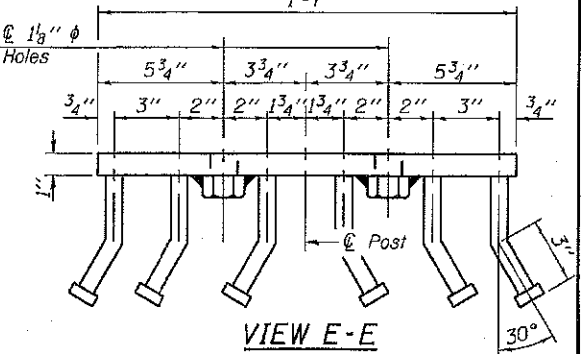
**SPLICE DIMENSIONS**

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"
Roll Splice	1/4"	1'-8"	2"	4"	

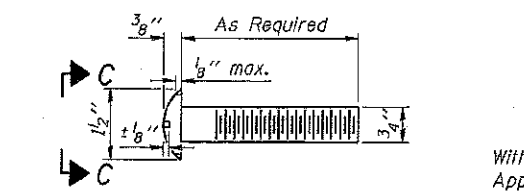
T = Total movement at expansion joint as shown on the design plans.



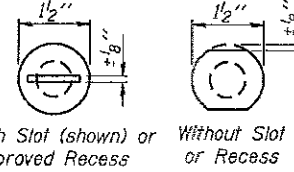
**SECTION AT RAIL SPLICE**



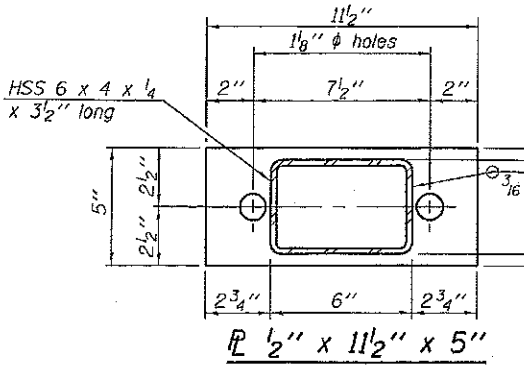
**VIEW E-E**



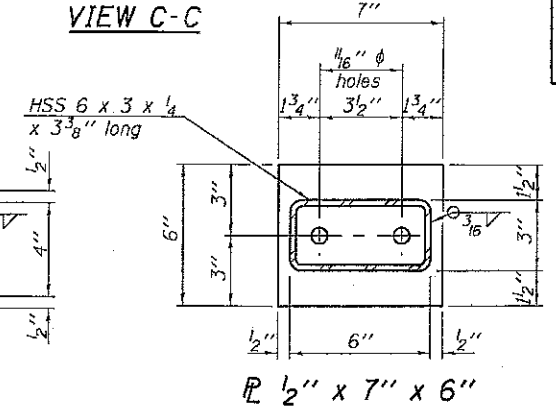
**DETAIL OF 3/4" φ ROUND HEAD BOLT**



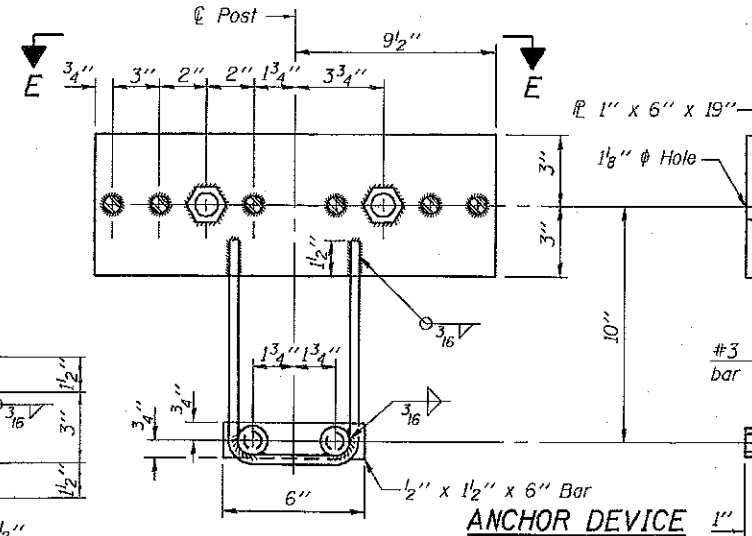
**VIEW C-C**



**ANCHOR DEVICE 1**



**ANCHOR DEVICE 2**



**ANCHOR DEVICE 3**

**NOTES:**

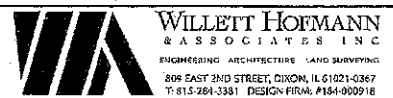
- For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
- All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
- \*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.
- \*\*\* Cost of Curled End Sections to be included with Steel Railing, Type SM.

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type SM	Foot	394

\*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

FILE # SANPROJECTS\2018\05\08\DESIGN\STRUCT\2018\SM RAILING\050818.DWG



DESIGNED - IPN	REVISED - 4/2/2018 EEL
CHECKED - MAC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - EEL	REVISED -

**JO DAVIESS COUNTY**  
CH 1 (W COUNCIL HILL RD) OVER GALENA RIVER  
STATION 22+08.93

**STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE**  
STRUCTURE NO. 043-3024

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1	15-00151-00-BR	JO DAVIESS	38	24
	WHA# 1319D15		CONTRACT NO. 05653	

STRUCTURAL SHEET NO. 13 OF 21 SHEETS

ILLINOIS FED. AID PROJECT BH05-00850508