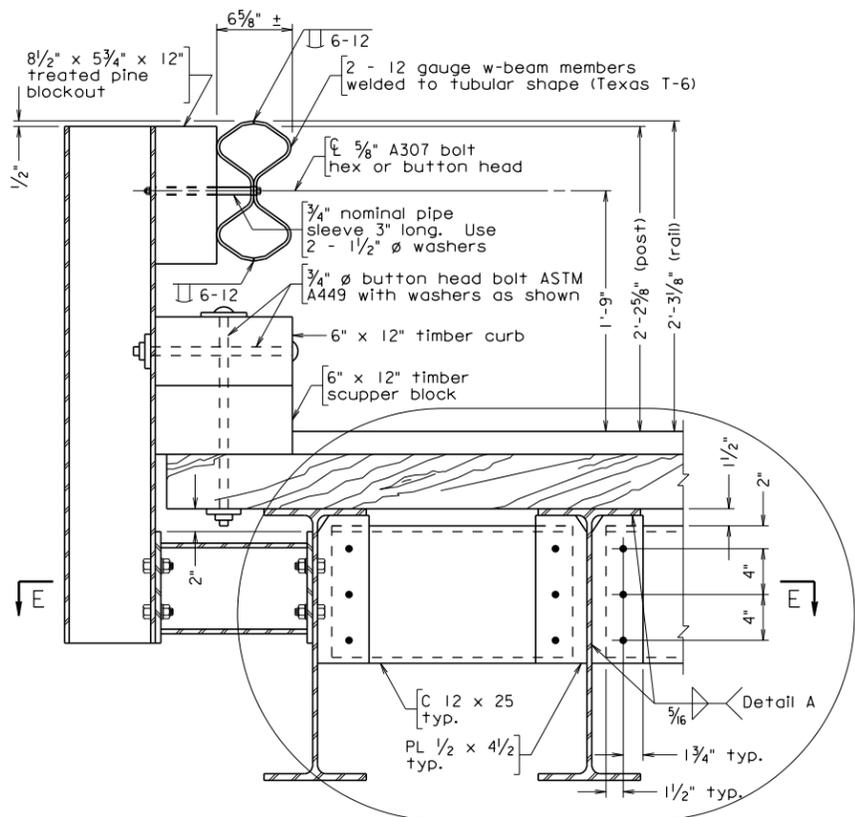
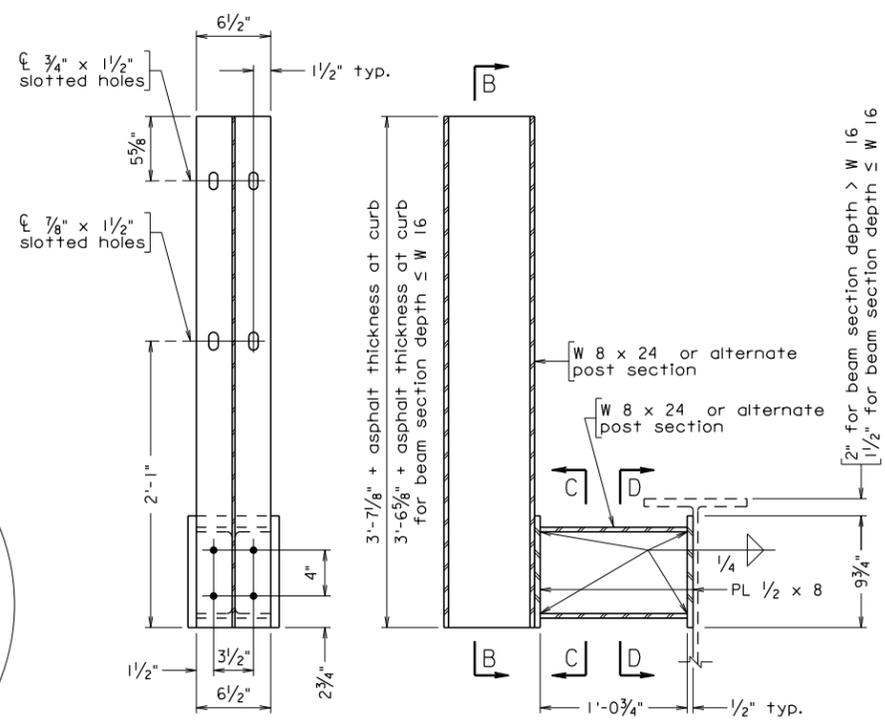


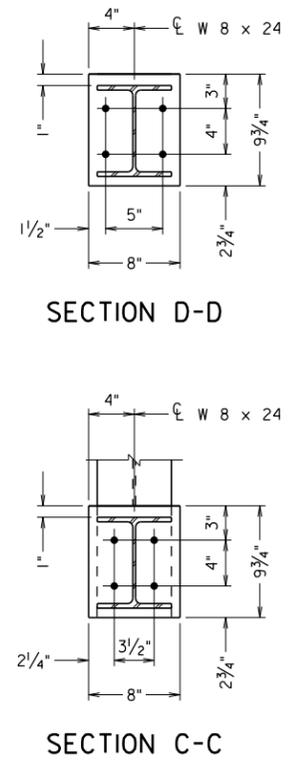
STATE	FEDERAL AID	STATE	SHEET
ROUTE	PROJECT	ROUTE	NO.
VA.			



**RAILING AND DIAPHRAGM CONNECTION DETAILS**  
 For beam section depths  $\leq$  W 16 or  $>$  W 24, see Alternate Diaphragm Detail.  
 Use PL  $1/2 \times 6$  on end diaphragms on bridges with skew angles greater than  $20^\circ$ .

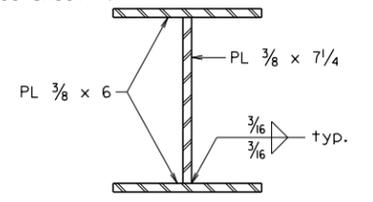


**SECTION B-B TRANSVERSE ELEVATION SECTION C-C**  
**RAILING SYSTEM DETAILS**

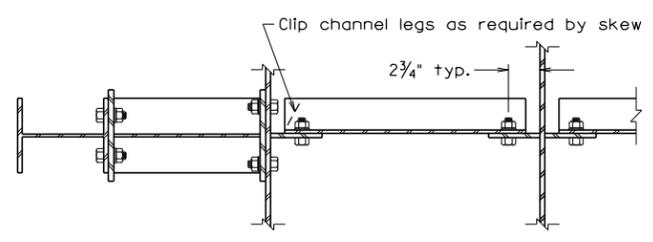


**SECTION D-D**

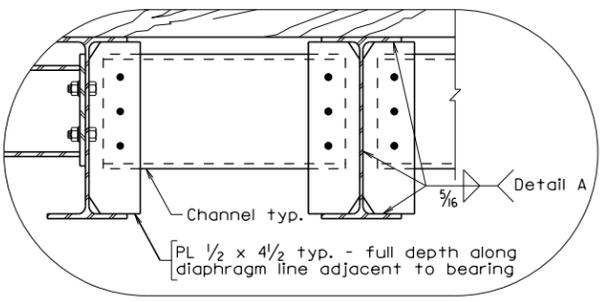
Notes:  
 All connections shall be made with  $7/8"$   $\phi$  high strength ASTM A325 bolts unless otherwise specified.  
 Tubular w-beam rail member is to be fabricated from standard 25' nominal w-beam sections. Top and bottom seams shall be butt welded 6" at 12" spacing. Continuous seam welding is also acceptable. Welds shall be chipped and cleaned and the complete 25' tubular member shall be galvanized after fabrication. For tubular rail splice additional post mounting slots are to be made in each member 1'-3" from the standard slots at 6'-3" centers.  
 8 -  $5/8"$  splice nuts shall be tack welded to a bent sheet metal positioner as shown. Other suitable positioning methods or devices may be substituted. The completed splice shall have 16 bolts. Each bolt will include a  $1 3/4" \times 3" \times 3/16"$  plate washer or a 2" diameter washer.  
 All connector PL's along diaphragm line immediately adjacent to each bearing shall be full depth and welded to bottom flange as shown.  
 For curb details, see sheet .



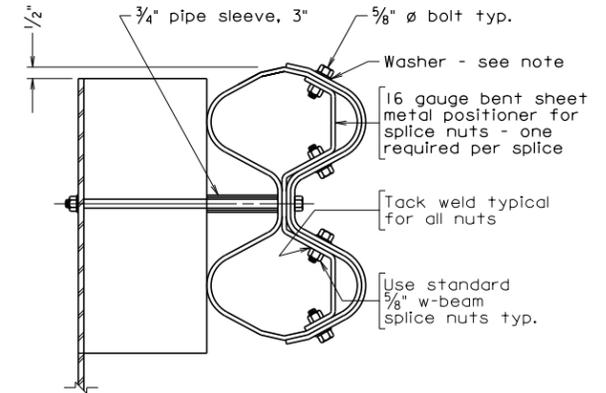
**ALTERNATE POST SECTION**



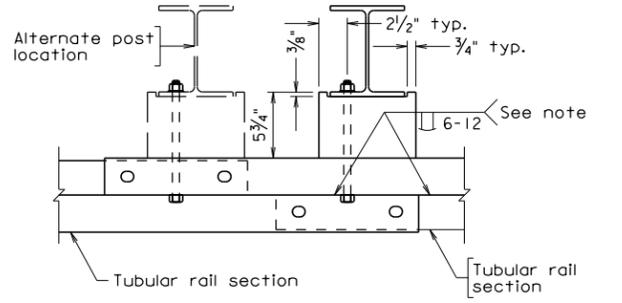
**SECTION E-E**



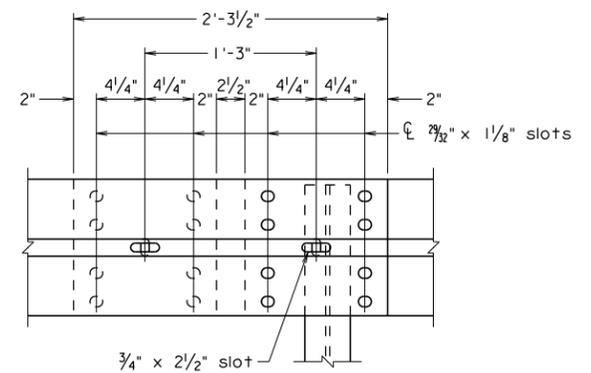
**DETAIL FOR DIAPHRAGM LINE ADJACENT TO BEARING**  
 Shown for beam depths = 16", generic to all depths. Use PL  $1/2 \times 6$  on end diaphragms on bridges with skew angles greater than  $20^\circ$ .



**SPlice DETAIL**

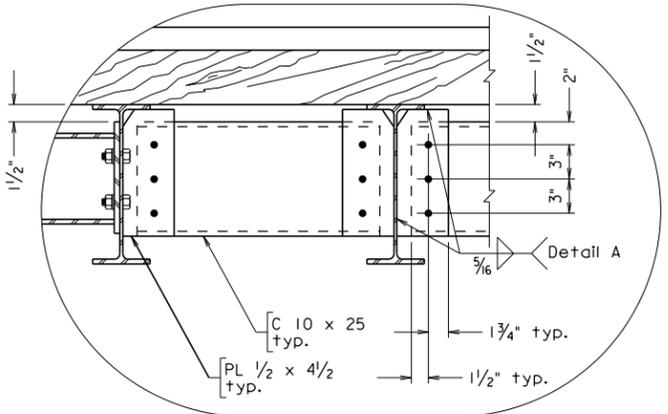


**PLAN**

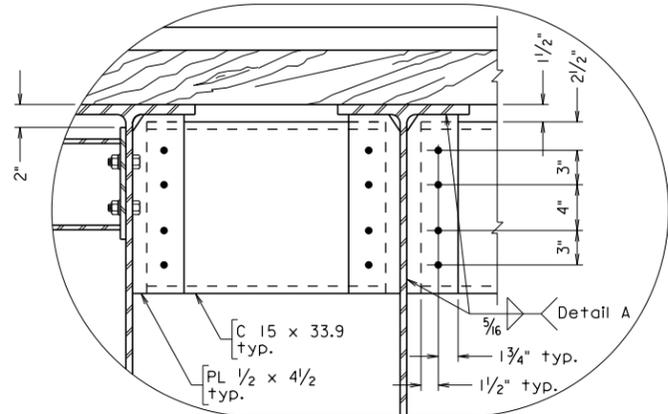


**ELEVATION**

**TUBULAR RAIL SPlice AND BLOCKOUT DETAILS**

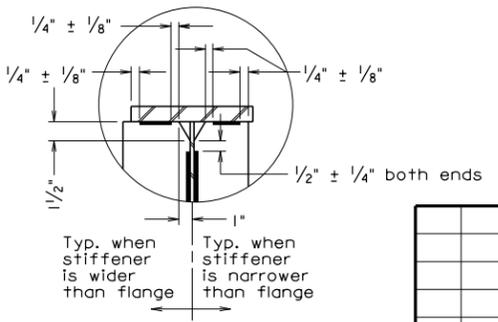


**DIAPHRAGM DETAIL FOR BEAM SECTION DEPTH  $\leq$  W 16**



**DIAPHRAGM DETAIL FOR BEAM SECTION DEPTH  $>$  W 24**

**ALTERNATE DIAPHRAGM DETAILS**



**DETAIL A**

Not to scale

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SS803A.dgn

03-10-2015

SS8-3A

Sealed and Signed by:  
 Prasad L. Nallaponteni  
 Lic. No. 033003  
 On the date of  
 March 10, 2015

A copy of the original  
 sealed and signed  
 standard drawing  
 is on file in the  
 Central Office.

VDOT S&B DIVISION  
 RICHMOND, VA  
 STRUCTURAL ENGINEER

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION				
STRUCTURE AND BRIDGE DIVISION				
STEEL BEAM WITH TIMBER DECK SUPERSTRUCTURE RAILING AND DIAPHRAGM DETAILS				
No.	Description	Date	Designed: S&B DIV	Plan No.
			Drawn: S&B DIV	SS8-3A
			Checked: S&B DIV	Sheet No.
Revisions				

**SS-8 STEEL BEAM WITH TIMBER DECK SUPERSTRUCTURE STANDARD  
RAILING AND DIAPHRAGM CONNECTION DETAILS (WITH CURB – WP)**

**NOTES TO DESIGNER:**

Use this standard when using railing with curb and welded plates connect the diaphragm channels to the beam webs.

Include standards SS8-1, SS8-2, SS8-4, SS8-5A and SS8-6A in the plans when using this standard. Include standard SS8-5C where skew is greater than 22° and end posts in obtuse corners would conflict with the abutment, backwall and/or lagging. Substitute standard SS8-6B for SS8-6A where beam flange width would interfere with curb attachment plates.

The designer shall ensure that the depth of the beam used is sufficient to make the railing and diaphragm connections. The railing connection to the beam web will fit between the flanges of some W12 sections.

**ADD THE FOLLOWING NOTES, DIMENSIONS, DETAILS, ETC. TO STANDARD:**

NOTES:

Add sheet number to "For curb details, see sheet ."

OTHER DETAILS REQUIRED:

Add the additional detail(s) described in File No. SS8-2-5 that will not fit on standard sheet SS8-2 by removing Diaphragm Detail(s) for beam depths not used. Follow the instructions found in File No. SS8INSTR-1 for a standard sheet modified by the designer. If there is insufficient space for all the additional details, leave this sheet unmodified and place the additional details on a separate sheet.