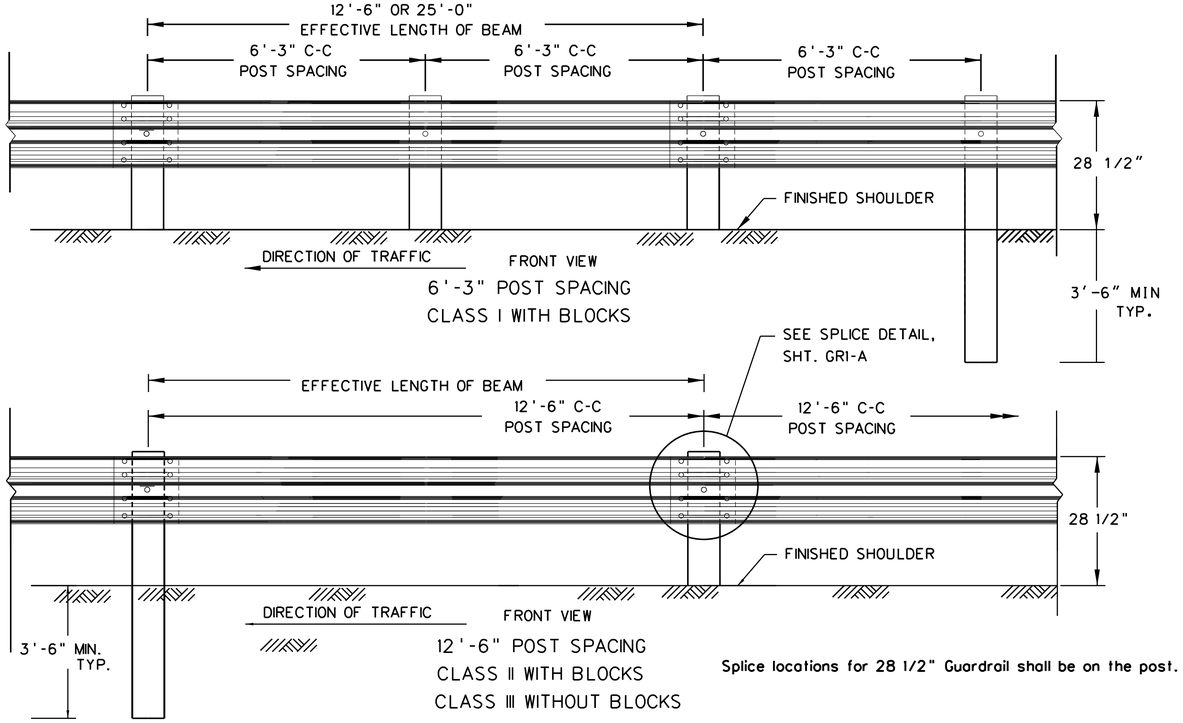
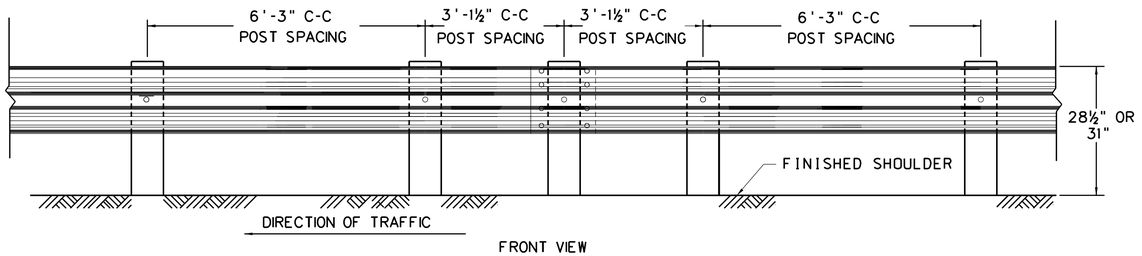
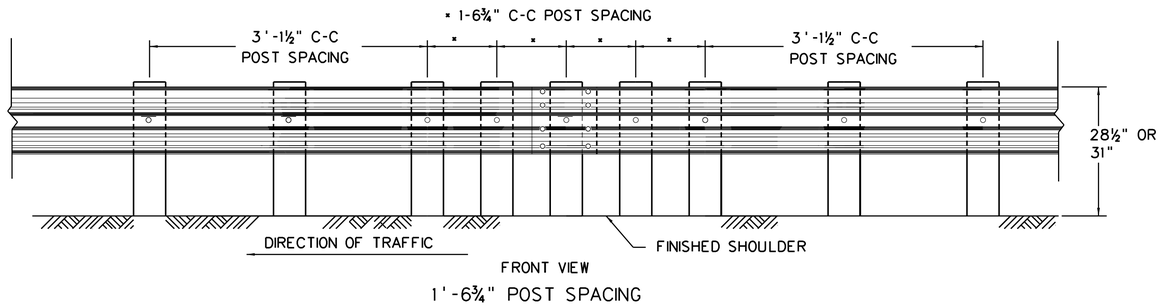


Splice locations for 28 1/2" Guardrail shall be on the post.

28-1/2" HEIGHT GUARDRAIL





NOTES

Guardrail systems on NHS routes must meet the most current AASHTO Manual for Assessing Safety Hardware (MASH) crash testing criteria.

Guardrail shall be secured to the blocks, post and other elements by 5/8" dia. bolts and nuts conforming to the details herein and to the requirements of 712.4 of the Standard Specifications. Nuts shall conform to ASTM A563, Grade A or better.

Approach and Trailing End Treatments shall be as shown or specified on the Plans or directed by the Engineer.

The pay quantity of guardrail will be the Linear Feet of guardrail measured along the face of the rail from center to center of end posts. Cost of the Terminal Section Buffer End shall be included in the cost of the Guardrail.

The approach slope to the face of all guardrail shall be 10:1 or flatter.

The Type, and Class of Guardrail shall be as shown in the Plans.

Lap Guardrail in Direction of Traffic.

GUARDRAIL HEIGHT

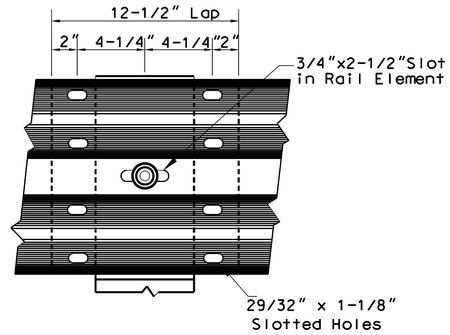
Transitions in guardrail height shall be accomplished at a rate of 1" vertical distance in 12.5' (one element) of horizontal distance. Height transitions shall end before end treatments or connections begin.

Height transitions between 28 1/2" and 31" require moving the splice on/off the post by placing one additional post at half the normal spacing.

Construction tolerances for rail height is plus/minus 1".

Guardrail that ties to Cut Slope Terminals (CST) must be transitioned per the standard details down to 28½" height (the height of the CST).

Thrie Beam transitions for 28-1/2" height guardrail shall be per Special Detail Sheet 2 of 3.



RAIL SPLICE - 28 1/2" HEIGHT ON POST

Eight (8) Splice Bolts are to be used at all Rail Splices

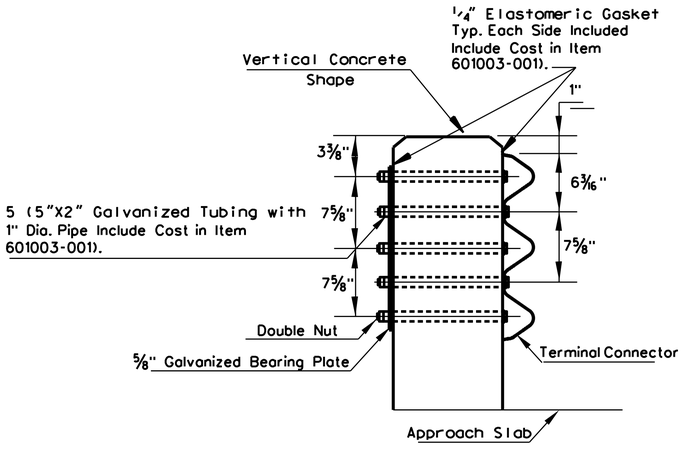
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SPECIAL DETAIL

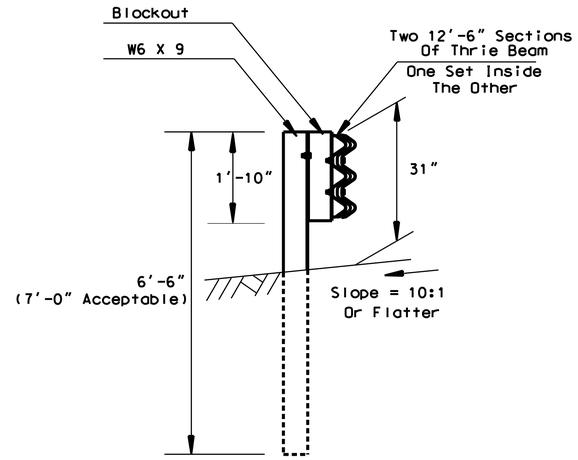
PREPARED 7-1-99

REVISION DATE
11-13-12
4-11-17

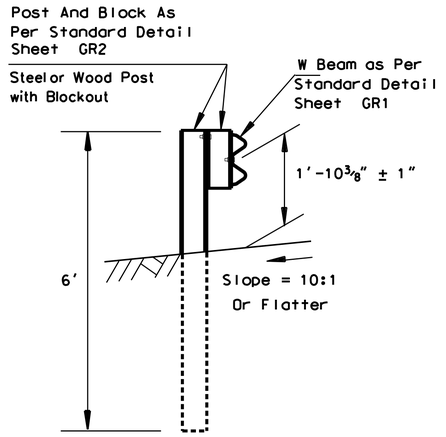
28-1/2" HEIGHT GUARDRAIL
SHEET 1 OF 3



SECTION A-A



SECTION B-B



SECTION C-C

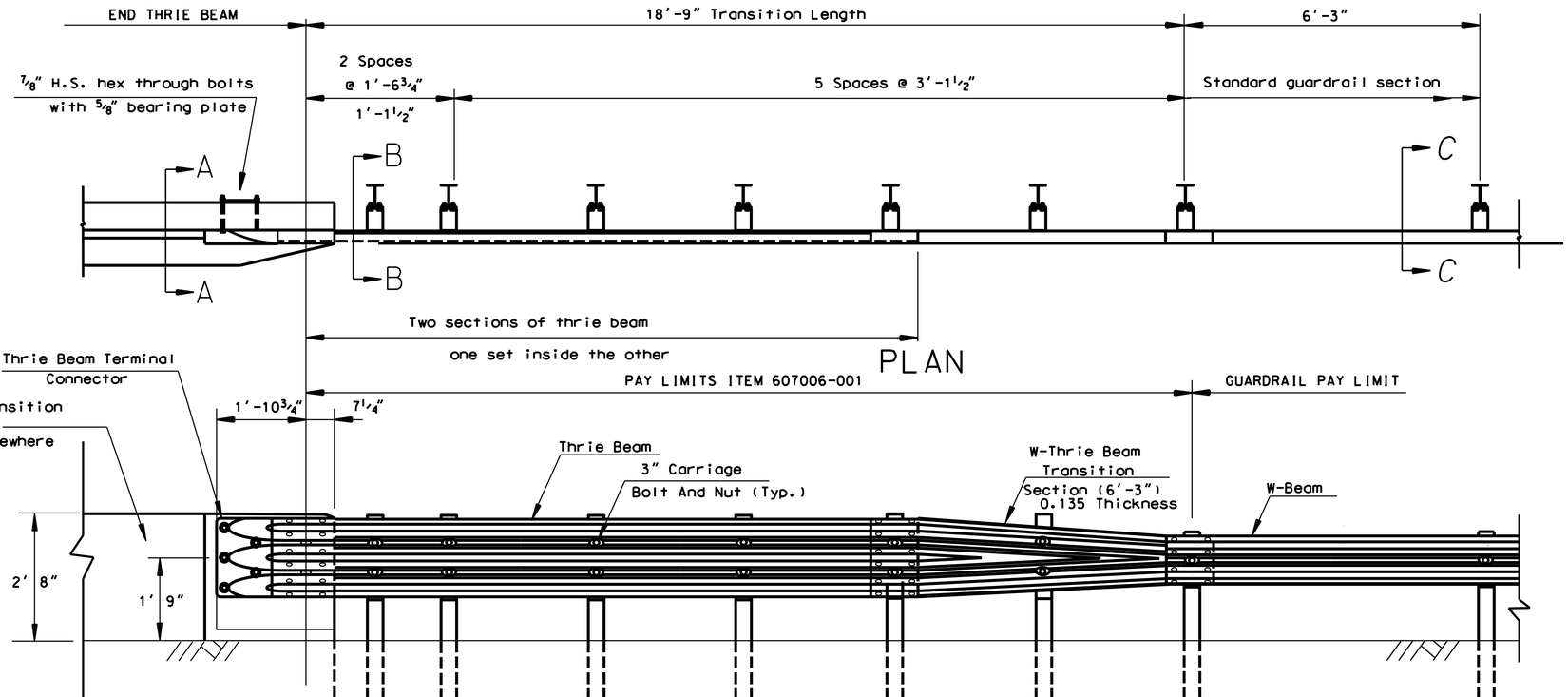
NOTES

This guardrail transition is appropriate for connection to a vertical concrete shape and should not be connected directly to a concrete safety shape. Concrete safety shape bridge rails or barriers shall be transitioned to a vertical shape at the guardrail connection in a manner detailed elsewhere in the Project Plans.

The two sections of 12'6" thrie beam require additional holes in order to mount the beam to the post nearest to the concrete wall.

See Sheet GR 11-C for details not shown on this sheet.

Guardrail systems must have met either the NCHRP 350 or the most current AASHTO Manual for Assessing Safety Hardware (MASH) crash testing criteria and have an FHWA eligibility letter to be used on WVDOH projects. Only FHWA approved guardrail systems utilizing wood or approved block-outs shown on the Division's "Approved Source/Product Listing" shall be used. Steel "W" Shapes shall not be used for block-outs. Only one type of block shall be used for blockout throughout any project, unless otherwise specified.



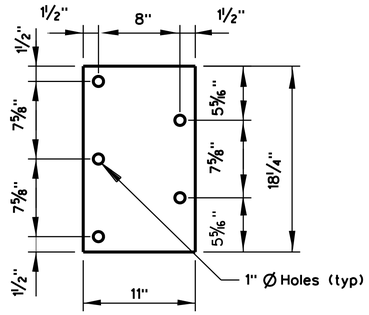
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SPECIAL DETAIL

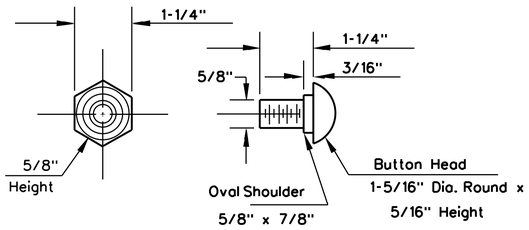
PREPARED 7-1-99

REVISION DATE
03-11-2010
11-13-12
4-11-17

28-1/2" HEIGHT GUARDRAIL THRIE BEAM BRIDGE TRANSITION AND CONNECTION

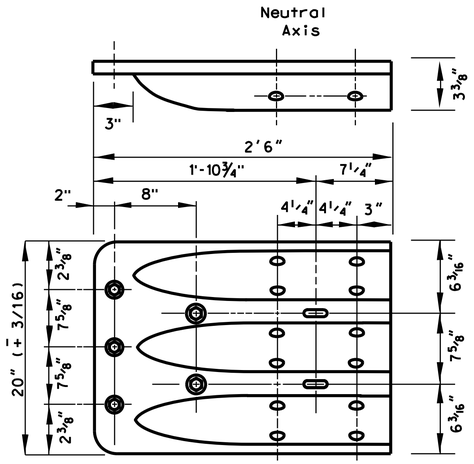


5/8" BEARING PLATE DETAIL

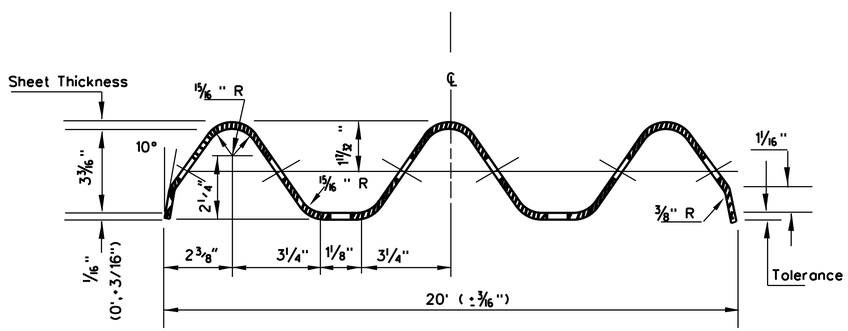


NUT SPLICE BOLT

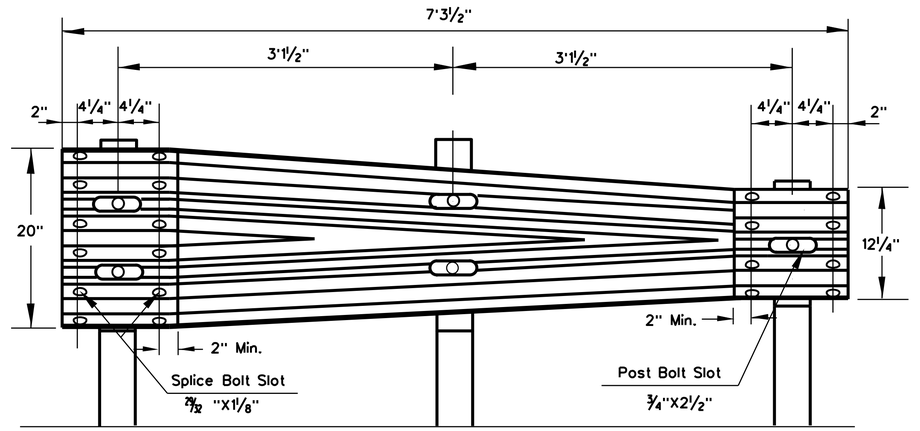
NUT AND SPLICE BOLT DETAIL
(POST BOLT: Similar Except Length)



THRIE BEAM TERMINAL
CONNECTOR DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT



TRANSITION SECTION DETAIL
(THRIE BEAM TO 28-1/2" W-BEAM)

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SPECIAL DETAIL

PREPARED 7-1-99

REVISION DATE
4-11-17

28-1/2" HEIGHT THRIE BEAM GUARDRAIL BRIDGE TRANSITION AND CONNECTION