Guardrail systems on NHS routes must meet the most current AASHTO Manual for Assessing Safety Hardware (MASH) crash testing criteria. Guardrails shall be secured to the block, post and other elements by 5/16" 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.

Guardrail shall be transitioned to block transitions per the standard details down to 28 1/2" height (the height of the CST). Construction tolerances for rail height is plus/minus 1". 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.

* 1'-6" C-C POST SPACING

Transitions in guardrail height should 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.
SLICE BOLT: Similar Except Length

Approx. 12-3/4" 24" 2-1/4" 30° Splice Bolt Slots, 29/32" x 1-1/8" 6-1/4"R 3" Min. Lap

TERMINAL SECTION BUFFER END

(for use only on unanchored ends and on special trailing end terminals)

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

STANDARD DETAIL

RAIL SPLICE - 31" HEIGHT OFF POST

3/4" x 2-1/2" Slots in Rail Element

29/32" x 1-1/8" Slotted Holes

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

STANDARD SHEET OR1
Double Face Transition

Double Median Transition

Single Face Transition

Elongated bolt holes do not apply to existing end posts that are not being reconstructed.

For additional dimensions, notes and details see Sheet 1 and 2.

For additional notes and details of the guardrail bolt pattern, see Standard Detail Sheet GR10.

Notes