

In some cases it may be necessary to extend the guardrail to better shield the hazard or to provide for a more suitable site that would not require grading.

The site preparation for all installations shall be in accordance with current Standards and manufacturers' requirements.

GR-3 LOW TENSION CABLE TERMINAL

If the introduction of cable guardrail is in close proximity to an adequate cut section, it should be extended and terminated in the back slope of the cut ditch. (Use 15:1 transition for Design Speeds of 70 MPH or 13:1 transition for design speeds of 60 MPH or less). GR-3 is terminated on both the run-on and run-off ends with an NCHRP 350 anchor assembly as detailed in Standard GR-3.

GR-6 W-BEAM BURIED IN THE CUT SLOPE TERMINAL

The Standard GR-6 terminal is used as a means of terminating run-on or run-off ends of GR-2 or GR-8 guardrail on divided or undivided roadways by burying the end of the guardrail into the cut slope. This terminal treatment requires enough right of way to extend the guardrail beyond the ditch line per the standards. The guardrail should terminate a minimum of 1' below the ground elevation of the backslope. The rail preceding the GR-6 terminal is to maintain a consistent height relative to roadway profile grade to prevent errant vehicles from impacting at an improper height. If more than a 200 foot extension of GR-2 is necessary to tie GR-6 terminal into the back slope, cost-effectiveness would justify use of a GR-9.

When terminating GR-8, a transition to GR-2 (In accordance with the current Road and Bridge Standards) must be used prior to rail flaring away from roadway.

Existing GR-6 installations that are not NCHRP 350 or MASH compliant shall be upgraded the current Standard per policy to ensure the following:

1. Proper Height per current standards. Where existing GR-6 terminals were installed with the height of rail following the ground line at a height of 27" to 28", this installation method caused the terminals to be low, both in front of and behind the ditch line. These low installations may allow an errant vehicle to vault over the top rail and go behind the guardrail, failing its intended protection from hazards.
2. The end anchorage is sufficiently buried in the slope with 1' min. cover.

GR-7 W-BEAM FLARED TERMINAL

When using the Standard GR-7 terminals on standard shoulders, the 4-foot flare as specified in the standard drawing or manufacturer's specifications must be provided for the installation to function as tested. This is considered essential to proper performance for end-on impacts to eliminate the potential of spearing.