

This policy shall apply to all Maine Department of Transportation projects except routine maintenance and repair operations and projects on local roads. Such exceptions are governed by their own respective policies. Guardrail and guardrail terminal application shall be based on the highway system designation as set forth in the following sections.

National Highway System

Guardrail

All new guardrail installed on Bridge or Highway projects shall be National Cooperative Highway Research Program *Report* 350 (NCHRP 350) compliant. Guardrail Type 3d- Single Rail shall be used on the interstate and Guardrail Type 3c- Single Rail off the interstate.

All existing guardrail not NCHRP 350 compliant (i.e. guardrail having steel offset brackets) shall be upgraded according to the following conditions:

- On Highway Improvement or Reconstruction projects, guardrail must be upgraded to NCHRP 350 compliance regardless of condition.
- On Pavement Preventive Maintenance (PPM), Level 2 Overlay, and Pavement Rehabilitation projects, NCHRP 230 compliant guardrail needing no work or in need of height adjustment only may stay in place and any extension may be done in kind (i.e. if the existing guardrail is Type 3b then extensions may be done with Type 3b). This shall apply even if there is other guardrail work included in the project scope. Guardrail on these projects shall otherwise be upgraded to NCHRP 350 compliance.
- On Bridge projects which require guardrail replacement or relocation, guardrail must be upgraded to NCHRP 350 compliance.
- On Bridge projects which require no guardrail work, guardrail may stay in place as long as it is NCHRP 230 compliant and is adjusted to the proper height.

Consideration shall always be given to the potential safety and economic benefits of upgrading the guardrail to be NCHRP 350 compliant.

Guardrail Terminals

All new guardrail terminals installed on Bridge or Highway projects shall be NCHRP 350 compliant. The Buried in Backslope and the Flared End terminals are the preferred methods of terminating barrier. The Department currently has three accepted NCHRP 350 compliant flared end terminals: The Fleet 350 (FLared Energy Absorbing Terminal), the SRT 350 (Slotted Rail Terminal), and the Regent. Other NCHRP 350 compliant terminals may be used if they meet the Department's requirements. Each of these systems must be installed with a 1220 mm (4 ft) flare offset. Tangential End terminals shall only be used where adequate vehicle recovery area or adequate space behind the terminal can not be provided. Among others, the ET-2000 and the CAT (Crash Cushion Attenuating Terminal) are NCHRP 350 compliant Tangential End terminals approved by the Department.

All existing guardrail end terminals on Bridge or Highway projects not NCHRP 350 compliant shall be upgraded to NCHRP 350 compliance.

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- On Bridge projects which require guardrail replacement or relocation, guardrail must be upgraded to NCHRP 350 compliance
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Consideration shall always be given to the potential safety and economic benefits of upgrading the guardrail to be NCHRP 350 compliant

Guardrail Terminals

All new guardrail terminals on Bridge or Highway projects shall be installed according to the following condition

- If A A D T is less than 500, terminals may be Low Volume Guardrail Ends
- If A A D T is 500 or more, terminals shall be NCHRP 350 compliant

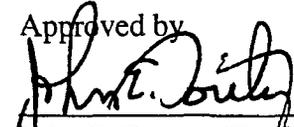
The Buried in Backslope and the Flared End terminals are the preferred methods of terminating barrier. Tangential End terminals shall only be used where adequate vehicle recovery area or adequate space behind the terminal can not be provided. Acceptable terminals are listed in the National Highway System section above

All existing guardrail terminals on Bridge or Highway projects shall be upgraded to NCHRP 350 compliance with the following exceptions

- If A A D T is less than 500, terminals may be Low Volume Guardrail Ends
- Existing BCTs on all projects on collector highways with no other guardrail work included in the scope may be left in place if the BCT has not been hit and if there are no crashes recorded at that location
- All existing MELTs in good condition may be left in place

If significant repair or replacement is necessary, the replacement shall be NCHRP 350 compliant

Approved by


John E. Dority, Chief Engineer
Department of Transportation