


STATE OF NEW HAMPSHIRE
INTRA-DEPARTMENT COMMUNICATION

FROM: Michael D. Hazlett, PE
Final Design Section

DATE: August 25, 2015
AT (OFFICE): Highway Design Bureau

SUBJECT: Updated Standard Plans
Standard Sheets GR-1, GR-2, and GR-4
Guardrail Standard Sheets

THRU: James A. Marshall, PE 
Administrator, Bureau of Highway Design

TO: Project Development, Turnpikes, and Operations Bureau Administrators

MEMORANDUM

Please disseminate to all appropriate personnel.

Please be aware that the Standards noted above are being revised and one new sheet inserted. The following are revisions for the Standard Plans GR-2 and GR-2A (formerly GR-1), and are reflected on the New Standard Sheet GR-1, as appropriate:

- Deleted the detail for the Rectangular Plate Washer.
- Added the Clarification Detail related to the General Note on posts shorter than 7 feet.
- Changed the following on the Sample Guardrail Installation Layout
 - The symbol for the EAGRT impact head.
 - Removed the dimension of roadside barrier for the EAGRT to reflect additional terminal selections.
 - Changed the note regarding the EAGRT platform from referencing Standards to Referencing Special Details.
 - Removing the note regarding transition rail height.
 - Moving the G-2 to the downstream end of the rail as the rail splices were opposite the indicated position. Also modified the note regarding the G-2 unit, indicating that it is only an anchorage, not a crashworthy approach terminal unit.

- In the General Notes, revised the following:
 - Note 1 to clarify roadside barrier vs. gating portions of terminal and crash cushions.
 - Note 2 as latest Guide to Standardized Hardware is a work in process but users should go to the latest version, even if incomplete.
 - Note 3 is corrected regarding usage of plate washers.
 - Note 4 changes the minimum radius of curve requiring 12'-6" panels from 300' to 100', better reflecting field capabilities.
 - Note 5 combines the previous notes 5 and 6 as they both reflected setting guardrail height and directs an engineering study for situations other than as described.
 - Note 6 better states the circumstances under which posts shorter than 7' may be used.

For Standard Sheets 1 & 2, the additional modifications noted below were made:

- A note was added to clarify that the synthetic offset block indentation is to be placed against the face of the post.

For Standard Sheet 2A only, the additional modifications noted below were made:

- The use of the system is repair of existing runs where full or substantial replacement is not required.
- Table titled "5/8 Button Head Bolt and Recessed Nut"
 - Removed Post Bolt (Steel Posts) designated FBB02.

For Standard Sheet GR-1, the following additional modifications have been made that were not on the previous Detail Sheet:

- A note allowing the use of 9'-4" panels was included to accommodate the use of approved non-splice on post terminals, transition unit, and bridge approach rail, as well as horizontal tapers. The note was shown on:
 - Sample Guardrail Installation Layout
 - General Notes as Note number 6.
 - Plan and Elevation Views.
- As MASH is new a general note has been added to indicate that the system qualifies under MASH Test Level 3.
- The New and Revised Standards are posted on the website.
Please do not hesitate to contact me with any questions.

cc: W. Cass
W. Janelle
W. Oldenburg