

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

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FROM



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TO

Divisions of Engineering, Operations, Field Districts, and Construction, and Offices of Program Control, Program Delivery, Engineering Services, and Innovative Program Delivery

SUBJECT **31-inch Guardrail Standards (Implementation)**

In 1993, NCHRP Report 350 was adopted by FHWA as the national standard for safety performance evaluation criteria for guardrail and other roadside safety treatments. In 2009, NCHRP Project 22-14(02) updated Report 350 and published the AASHTO Manual on Assessing Safety Hardware (MASH). The MASH revised criteria for safety performance evaluation of all roadside safety features including testing with heavier pickup trucks/SUVs/vans, increasing the impact angle for most small cars, and requiring more stringent performance standards for roadside safety hardware.

In May 2010, FHWA sent a Memorandum to all states, with new guidance on height of guardrail for new installations. The previous standard W-Beam guardrail height was 27-inches. The new MASH standard guardrail height is 31-inches with a construction tolerance of plus or minus 1-inch. The Memorandum also says that:

- Highway safety hardware accepted prior to MASH using Report 350 may remain in place.
- Safety hardware accepted using Report 350 is not required to be retested with MASH.
- Any new safety hardware not previously evaluated shall utilize MASH for evaluation and testing.

Over the past year, the Office of Design Policy has been coordinating with the Division of Operations and Construction, and the guardrail manufacturing industry to develop new standard drawings for 31-inch W-Beam guardrail. The new drawings (GA Standards 4380 – 4391) were approved by the Georgia Division of FHWA on 10/11/11. They are posted on the R.O.A.D.S website at: http://standarddetails.dot.ga.gov/stds_dtls/

Therefore, effective July 1, 2012, the Georgia Department of Transportation adopts the 31-inch W-Beam guardrail height as the standard for new installations on state routes in Georgia. The following schedule has been established for implementation.

- 1) New construction or reconstruction projects Let to bid after July 1, 2012, will require 31-inch W-Beam guardrail and associated hardware. A decision to use or retain guardrail less than 31-inches in height will require the approval of a Design Variance from the GDOT Chief Engineer prior to incorporating into the plans.
- 2) Maintenance projects that involve the repair or replacement of more than 200-ft of guardrail in a single run should be accomplished with the 31-inch W-Beam guardrail and associated hardware.
- 3) Maintenance projects that do not involve the repair or replacement of guardrail may retain the existing guardrail.
- 4) Existing stockpiles of posts and W-Beam guardrail may be used to construct 31-inch guardrail with the exception of the old 8-inch offset blocks. A new 12-inch offset block will be required with 31-inch guardrail.
- 5) Intersection sight distance should be verified to ensure sight triangles are not compromised by the new 31-inch guardrail height and 12-inch offset blocks.

If you have any questions, feel free to contact the Office of Design Policy and Support at (404) 631-1978.

GMR:RRM:BAS