

March 18, 2003

Refer to: HSA-10/B-64E

Mr. Larry W. Brown, Civil Engineer III
New York State Department of Transportation
Design Quality Assurance Bureau -Bldg 5, Rm 410
Washington Avenue
Albany, NY 12232-0751

Dear Mr. Brown:

In your March 6, 2003, letter, you requested formal acceptance of New York State's Corrugated Beam Median Barrier (weak post) for use on the National Highway System (NHS) as a test level 3 (TL-3) barrier. This design, with w-beam rail attached to both sides of S75 x 8 steel posts and mounted 835 mm (33 inches) above ground level, is currently shown in the 1995 AASHTO-ARTBA-AGC "Guide to Standardized Highway Barrier Hardware" and in the 2002 AASHTO Roadside Design Guide (RDG). It is currently classified as a TL-2 design in the latter publication.

You included with your letter a copy of a Texas Transportation Institute report dated February 2003, entitled "NCHRP Report 350 Test 3-11 of the New York DOT W-Beam on Light Post Median Barrier". As detailed in that report, your weak-post w-beam median barrier successfully contained and smoothly redirected a 2000-kg pickup truck impacting the rail at 101.5 km/h and at an impact angle of 24.8 degrees. The maximum dynamic deflection of the barrier was reported to be 1530 mm and all Report 350 evaluation criteria were met. Based on the results of test 3-11, the weak-post w-beam median barrier should be reclassified as a TL-3 design and it may be used on the NHS when selected by the appropriate highway authority. The classification change will be reflected in the next edition of the RDG.

Please note that Section 6.4.1.1 of the 2002 RDG emphasizes the need to use this barrier on relatively flat ground for optimum crash performance and that proper anchorage is required at each end of an installation. On the NHS, these end anchorages must be crashworthy terminals.

Sincerely yours,

(original signed by Harry W. Taylor)

for: Michael S. Griffith
Acting Director, Office of Safety Design
Office of Safety

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cc: HSA-10 (Reader, HSA-1; Chron File, HSA-10;
D.Powers, HSA-10)