

In Reply Refer To: HSSD/B-169

January 24, 2008

Mr. Brian Stock
Easi-Set Industries
5119 Catlett Road
PO Box 400
Midland, Virginia 22728

Dear Mr. Stock:

Thank you for your letter of September 25, 2007, requesting the Federal Highway Administration's (FHWA) acceptance of a J-J Hooks Connection with the 20-foot long Kentucky Precast Barrier. You requested that we find this barrier acceptable for use on the National Highway System (NHS) under the provisions of the National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features" based on similarity to another 32-inch tall crash tested design.

Introduction

The FHWA guidance on crash testing of roadside safety hardware is contained in a memorandum dated July 25, 1997, titled "INFORMATION: Identifying Acceptable Highway Safety Features."

You enclosed a drawing of the pin-and-loop Kentucky design which was based on the successfully tested Ohio Precast Concrete Barrier. The Ohio barrier was accepted via FHWA Acceptance Letter B-93 dated January 8, 2002. The Kentucky design is 3 inches wider, therefore heavier, but uses ¾ inch steel bar pin-and-loop connection details that are comparable to the Ohio barrier.

Your request was for acceptance of the Kentucky barrier details, but using the J-J Hooks connection in lieu of the ¾ inch pin-and-loop connector. The J-J "hooks" are formed from 10-mm thick steel plates connected through the barrier by three No.16 ASTM A706 Grade 60 reinforcing bars. This connection design was accepted in FHWA letter B-52 dated March 26, 1999. As the performance of concrete barriers using the J-J hooks connection was better than that of the Ohio pin-and-loop connection we concur in your request.

Findings

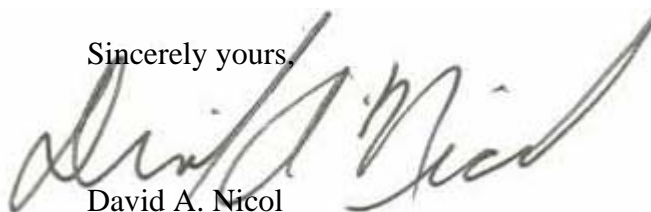
The Kentucky precast concrete barrier using the J-J hooks connection detail is acceptable for use on the NHS when requested by a highway agency.

Please note the following standard provisions that apply to FHWA letters of acceptance:

This acceptance is limited to the crashworthiness characteristics of the device(s).

- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the device being marketed is significantly different from the version that was crash tested, it reserves the right to modify or revoke its acceptance.
- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that they will meet the crashworthiness requirements of the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number B-169 shall not be reproduced except in full. This letter, and the test documentation upon which this letter is based, is public information. All such letters and documentation may be reviewed at our office upon request.
- The JJ-Hooks concrete barrier connection is a patented product and considered proprietary. If proprietary devices are specified by a highway agency for use on Federal-aid projects, except exempt, non-NHS projects, they: (a) must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with the existing highway facilities or that no equally suitable alternative exists; or (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411.
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented device for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate device, and the FHWA is neither prepared nor required to become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

Sincerely yours,



David A. Nicol
Director, Office of Safety Design
Office of Safety