

April 29, 2003

Refer to: HSA-10/WZ-151

Mr. Peter Speer
Vice President, Sales
Davidson Traffic Control Products
Bunzel Extrusion Tacoma
3110 70th Avenue East
Tacoma, Washington 98424

Dear Mr. Speer:

This is in response to your letter of January 15, 2003, requesting Federal Highway Administration (FHWA) acceptance of your company's T3B™ Type III Barricade with the Yeti™ rubber foot as a crashworthy traffic control devices for use in work zones on the National Highway System (NHS). You requested that we find these devices acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

Introduction

The FHWA guidance on crash testing of work zone traffic control devices is contained in two memoranda. The first, dated July 25, 1997, titled "INFORMATION: Identifying Acceptable Highway Safety Features," established four categories of work zone devices: Category I devices were those lightweight devices which could be self-certified by the vendor, Category II devices were other lightweight devices which needed individual crash testing, Category III devices were barriers and other fixed or massive devices also needing crash testing, and Category IV devices were trailer mounted lighted signs, arrow panels, etc. The second guidance memorandum was issued on August 28, 1998, and is titled "INFORMATION: Crash Tested Work Zone Traffic Control Devices." This later memorandum lists devices that are acceptable under Categories I, II, and III.

A brief description of barricade components follows:

Component	Composition	Dimensions	Weight
Yeti Barricade Foot	Rubber and Steel	28 x 17 5/8 x 3 5/8 "	38 pounds
X-Tube upright	Thermoplastic	1 3/4 x 1 3/4 x 64"	3.5 pounds
T3B 8 - inch panel	Thermoplastic	3/4 x 8 1/4 x 96"	5.25 pounds
Hardware	Steel	Various	2.0 pounds

Testing and Findings

Your company's Type III barricade using steel legs was tested and found acceptable in FHWA Acceptance Letters WZ-39 (dated June 29, 2000) and WZ-63 (dated December 6, 2000). A similar rubber base unit was crash tested and accepted in a letter to Traffix Devices dated July 21, 2000 (WZ-46.) You have requested that the Bunzl Type III barricade be found acceptable when used with a rubber base unit. Ordinarily the successful performance of the barricade frame/rails on one type of base, and the successful performance of a barricade base similar to the one you wish to use with your barricade frame/rails would not be sufficient reason to find the "new" combination crashworthy. However, in this case, the Traffix Devices Type III barricade used your company's square "X-Tube" uprights. The rails used in the Traffix testing were also similar to the Bunzl extruded plastic rails. Therefore, believe we have enough successful test results on the components in various configurations and combinations to concur with your assertion that the Bunzl TB3™ Type III Barricade with the Yeti™ rubber foot will be acceptable for use on the NHS under the range of conditions that the original TB3™ was tested, when proposed by a State.

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

- Our acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, nor conformity with the Manual on Uniform Traffic Control Devices.
- 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 FHWA and NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-151 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 Bunzl TB3™ Type III Barricade with the Yeti™ rubber foot is a patented device and is considered "proprietary." The use of proprietary work zone traffic control devices in Federal-aid projects is generally of a temporary nature. They are selected by the contractor for use as needed and removed upon completion of the project. Under such conditions they can be presumed to meet requirement "a" given below for the use of proprietary products on Federal-aid projects. On the other hand, if proprietary devices are

specified 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 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, a copy of which is enclosed.

- This acceptance letter shall not be construed as authorization or consent by the FHWA on to use, manufacture, or sell any patented device. Patent issues are to be resolved by the applicant and the patent owner.

Sincerely yours,

/Original Signed by/
Michael S. Griffith
Acting Director, Office of Safety Design
Office of Safety

Enclosure

FHWA:HSA-10:NArtimovich:tb:x61331:4/23/03
File: h://directory folder/nartimovich/WZ151-BunzelFIN
cc: HSA-10 (Reader, HSA-1; Chron File, HSA-10;
N. Artimovich, HSA-10)