October 12, 2004

Refer to: HSA-10/WZ-179

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

Dear Mr. Speer:

Thank you for your letter of March 19, 2004, requesting Federal Highway Administration (FHWA) acceptance of a revision to your company's T3B™ Type III Barricade as a crashworthy traffic control device for use in work zones on the National Highway System (NHS). You requested that we find the use of 2-inch "**Quik-Punch" barricade feet** or "skids" acceptable for use with this barricade 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 are those lightweight devices which are to be self-certified by the vendor, Category II devices are other lightweight devices which need individual crash testing but with reduced instrumentation, Category III devices are barriers and other fixed or heavy devices also needing crash testing with normal instrumentation, and Category IV devices are trailer mounted lighted signs, arrow panels, etc. for which crash testing requirements have not yet been established. 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 the devices follows:

The **T3B Barricade** is a plastic, lightweight, portable Type III barricade. The T3B 25.4mm x 210mm (1 inch x 8.25) hollow plastic barricade panels are made from a specially formulated polyolefin plastic, and the vertical uprights are 44.5-mm (1.75 inch) square thermoplastic tubing extrusions. The support legs or "skids" are 14 ga, 50.8-mm (2 inch) square perforated galvanized

mild steel tubing. One 150-mm (6-inch) tall PSST stub is welded to each support leg, and the vertical uprights are inserted into them. The T3B is available in heights between 1524 mm (60 inches) and 1829 mm (72 inches). Testing of your 2438-mm (8 foot) wide version of this barricade is detailed in the FHWA acceptance letter WZ-39 dated. June 29, 2000. The fasteners used were 7.94 mm (5/16") bolts with Nylock nuts and steel washers to attach panels to the uprights.

Your present request is to allow the substitution of **2 inch, 14-gauge Quik-Punch square tubes for the skids**. The mounting hardware to support the plastic uprights will be essentially the same as that which was crash tested. As this substitution should not have a significant affect on the crashworthy performance of the barricade we concur in your request. Therefore, the T3B™ Type III Barricade modified with the 2 inch Quik-Punch skids is acceptable for use on the NHS under the range of conditions tested (except as modified by the Quik Punch skid), when proposed by a State.

Component	Composition	Dimensions	Weight
Barricade foot	14 ga Qwik-punch	2 x 2 x 60 inch w/ PSST Stub	12 lb
Upright	1 ¾ inch 14 ga PSST	1 ¾ x 1 ¾ x 60 inch	5 lb
T3B 8-inch panels	Thermoplastic	¾ x 8 ¼ x 96 inch	5.25 lb
Hardware	Steel	Various	2.0 lb

Please note the following standard provisions that apply to the 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 the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-179 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.

- TheT3B™ Type III Barricade is a proprietary device. 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 by a highway agency* for use on Federal-aid 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. These provisions do not apply to exempt non-NHS projects. 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 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,

/***Original Signed by***/

John R. Baxter, P.E.
Director, Office of Safety Design
Office of Safety

Enclosures

FHWA:HSA-10:NArtimovich:tb:x61331:10/8/04
File: h://directory folder/nartimovich/WZ179-BunzlFIN
cc: HSA-10 (Reader, HSA-1; Chron File, HSA-10;
N. Artimovich, HSA-10)