



U.S. Department
of Transportation
**Federal Highway
Administration**

1200 New Jersey Ave., SE
Washington, D.C. 20590

March 2, 2012

In Reply Refer To:
HSST/ WZ-312

Jeff Anderson
POCO Incorporated
42000 Van Born Road
Canton, Michigan 48188

Dear Jeff Anderson:

This letter is in response to your request for the Federal Highway Administration (FHWA) to review a roadside safety system for eligibility for reimbursement under the Federal-aid highway program.

Name of system:	POCO Sign Stands for 4x5 ft and 4x4 ft signs with lightweight rigid substrates
Type of system:	“H-Footprint” portable sign stands
Test Level:	NCHRP Report 350 Test Level 3
Testing conducted by:	N/A
Date of request:	February 4, 2011
Date initially acknowledged:	February 9, 2011

Based on a review of the analysis submitted by the manufacturer certifying the device described herein meets the crashworthiness criteria of the National Cooperative Highway Research Program (NCHRP) Report 350, the device is eligible for reimbursement under the Federal-aid highway program. Eligibility for reimbursement under the Federal-aid highway program does not establish approval or endorsement by the FHWA for any particular purpose or use.

The FHWA, the Department of Transportation, and the United States Government do not endorse products or services and the issuance of a reimbursement eligibility letter is not an endorsement of any product or service.

Decision:

The following devices are eligible, with details provided below:

- POCO Sign Stands for rectangular 4x5 ft and diamond 4x4 ft signs with lightweight rigid substrates.

Description

POCO 4x5 and 4x4 sign stands were crash tested under NCHRP Report 350 and covered in our letters WZ-208 dated May 25, 2005, and WZ-222 dated February 10, 2006, respectively. In those tests the stands, fabricated primarily from Cold Rolled Steel square tube and angle elements,

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cc: HSST NArtimovich

carried signs of 5/8-inch MDO plywood. The results ranged from 2 ½ inches of windshield deformation, to no contact with the windshield at all.

You requested the substitution of lightweight rigid substrates in lieu of the plywood on your company's stands, including aluminum laminates and corrugated plastic. We concur that the behavior of the stands that used 5/8" thick MDO for the full-scale crash testing would perform better by decreasing the weight in the top portion of the assembly. Substituting a lighter weight, rigid substrate, in combination with additional cross-bracing on the lower portion of the stand assembly to help compensate for the reduction in overall rigidity by switching away from the plywood, would perform as well as, or better than, the 5/8" MDO. Omitting the warning light from the corner of the sign is also acceptable in the interest of reducing the weight of the upper portion of the assembly

Requirements

Roadside safety devices should meet the guidelines contained in the NCHRP Report 350 or the American Association of State Highway and Transportation Officials' Manual for Assessing Safety Hardware (MASH). The FHWA Memorandum "Identifying Acceptable Highway Safety Features" of July 25, 1997 provides further guidance on crash testing requirements of longitudinal barriers.

Findings

As the substitution of lightweight rigid substrates for the as-tested 5/8-inch MDX plywood can be expected to improve the performance of the POCO signs system described in this letter, they are considered eligible for reimbursement on Federal-aid highway projects. The stands should be installed under the range of conditions tested, when such use is acceptable to a highway agency.

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

- This finding of eligibility is limited to the crashworthiness characteristics of the systems 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 system will require a new letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the system being marketed is significantly different from the version that was crash tested, we reserve the right to modify or revoke this letter.
- 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 review, and that it will meet the crashworthiness requirements of the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of eligibility is designated as number WZ-312 and shall not be reproduced except in full. This letter and the test documentation upon which it is based are public information. All such letters and documentation may be reviewed at our office upon request.
- This letter shall not be construed as authorization or consent by the FHWA to use,

manufacture, or sell any patented system for which the applicant is not the patent holder. The finding of eligibility is limited to the crashworthiness characteristics of the candidate system, 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.

- POCO sign stands are patented products and considered proprietary. If proprietary systems are specified by a highway agency for use on Federal-aid projects, except exempt, non-NHS projects, (a) they 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.

Sincerely yours,

Michael S. Griffith
Director, Office of Safety Technologies
Office of Safety



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