



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

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

May 14, 2013

In Reply Refer To:
HSST/WZ-323

Mr. John M. Pasakarnis
Dicke Safety Products
121 Warren Avenue
Downers Grove, Illinois 60515

Dear Mr. Pasakarnis

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: DF3003W stand with 60x60 rectangular signs
Type of system: X-Footprint Portable Sign Stand
Test Level: NCHRP Report 350 Test Level 3
Testing conducted by: N/A
Date of request: January 28, 2013

Decision

The following device is eligible, with details provided in the form which is attached as an integral part of this letter:

DF3003W portable sign stand with 60x60 rectangular signs

Based on a review of the analysis submitted by the manufacturer certifying the device described herein meets the crash test and evaluation 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.

Requirements

To be found eligible for Federal-aid funding, roadside safety devices should meet the crash test and evaluation criteria contained in the NCHRP Report 350 or the American Association of State Highway and Transportation Officials' Manual for Assessing Safety Hardware (MASH).

FHWA:HSST:NArtimovich:sf:x61331:4/12/13
File: s://directory folder/HSST/WZ323_Dicke60x60 (2).docx
cc: HSST: NArtimovich

Description

The device and supporting documentation are described in the attached form. This action permits the use of 60 x 60 inch rectangular signs to the crash tested stand listed above. Critical dimensions relating to impact location near the windshield are the same as the crash tested stand.

Summary and Standard Provisions

Therefore, the system described and detailed in the attached form is eligible for reimbursement and may be installed under the range of conditions tested.

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

- This finding of eligibility does not cover other structural features of the systems, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may influence system conformance with NCHRP Report 350 criteria will require a new reimbursement eligibility letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals safety problems, or that the system is significantly different from the version that was crash tested, we reserve the right to modify or revoke this letter.
- You are expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You are expected to certify to potential users that the hardware furnished has the same chemistry, mechanical properties, and geometry as that submitted for review, and that it will meet the crash test and evaluation criteria of the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of eligibility is designated as number WZ-323 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 FHWA does not become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

- Dicke Safety Products sign stands are patented products and considered proprietary. If proprietary systems are specified by a highway agency for use on Federal-aid 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

Enclosures



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May 14, 2013

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Mr. John M. Pasakarnis
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Dear Mr. Pasakarnis

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Type of system: X-Footprint Portable Sign Stand
Test Level: NCHRP Report 350 Test Level 3
Testing conducted by: N/A
Date of request: January 28, 2013

Decision

The following device is eligible, with details provided in the form which is attached as an integral part of this letter:

DF3003W portable sign stand with 60x60 rectangular signs

Based on a review of the analysis submitted by the manufacturer certifying the device described herein meets the crash test and evaluation 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.

Requirements

To be found eligible for Federal-aid funding, roadside safety devices should meet the crash test and evaluation criteria contained in the NCHRP Report 350 or the American Association of State Highway and Transportation Officials' Manual for Assessing Safety Hardware (MASH).

Description

The device and supporting documentation are described in the attached form. This action permits the use of 60 x 60 inch rectangular signs to the crash tested stand listed above. Critical dimensions relating to impact location near the windshield are the same as the crash tested stand.

Summary and Standard Provisions

Therefore, the system described and detailed in the attached form is eligible for reimbursement and may be installed under the range of conditions tested.

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

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- Any changes that may influence system conformance with NCHRP Report 350 criteria will require a new reimbursement eligibility letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals safety problems, or that the system is significantly different from the version that was crash tested, we reserve the right to modify or revoke this letter.
- You are expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You are expected to certify to potential users that the hardware furnished has the same chemistry, mechanical properties, and geometry as that submitted for review, and that it will meet the crash test and evaluation criteria of the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of eligibility is designated as number WZ-323 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 FHWA does not become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.
- Dicke Safety Products sign stands are patented products and considered proprietary. If proprietary systems are specified by a highway agency for use on Federal-aid 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

Enclosures

Request for Federal Aid Reimbursement Eligibility Of Highway Safety Hardware

Submitter	Date of Request:	April 23, 2013	<input checked="" type="radio"/> New <input type="radio"/> Resubmission
	Name:	John M. Pasakarnis	
	Company:	Dicke Tool Company	
	Address:	1201 Warren Avenue, Downers Grove, IL 60515	
	Country:	USA	
	To:	Michael S. Griffith, Director FHWA, Office of Safety Technologies	

I request the following devices be considered eligible for reimbursement under the Federal-aid highway program.

[Help](#)

System Type	Submission Type	Device Name / Variant	Testing Criterion	Test Level
'WZ': Crash Worthy Work Zor	<input checked="" type="radio"/> Physical Crash Testing <input type="radio"/> FEA & V&V Analysis	60x60 rectangular Sign to be mounted to DF3003W stand.	NCHRP Report 350	TL3

By submitting this request for review and evaluation by the Federal Highway Administration, I certify that the product(s) was (were) tested in conformity with the AASHTO Manual for Assessing Safety Hardware and that the evaluation results meet the appropriate evaluation criteria in the MASH.

Identification of the individual or organization responsible for the product:

Contact Name:	John M. Pasakarnis	Same as Submitter <input type="checkbox"/>
Company Name:	Dicke Tool Company	Same as Submitter <input type="checkbox"/>
Address:	1201 Warren Avenue, Downers Grove, IL 60515	Same as Submitter <input type="checkbox"/>
Country:	USA	Same as Submitter <input type="checkbox"/>

PRODUCT DESCRIPTION

Modification to Existing Hardware Non-Significant - Effect is positive or Inconsequential

CRASH TESTING

A brief description of each crash test and its result:

Required Test Number	Narrative Description	Evaluation Results
3-70 (820C)		WAIVER REQUES
S3-70 (700C)		WAIVER REQUES
3-71 (820C)		WAIVER REQUES
S3-71 (700C)		WAIVER REQUES

Full Scale Crash Testing was done in compliance with MASH by the following accredited crash test laboratory (cite the laboratory's accreditation status as noted in the crash test reports.):

Laboratory Name:		
Laboratory Contact:		Same as Submitter <input type="checkbox"/>
Address:		Same as Submitter <input type="checkbox"/>
Country:		Same as Submitter <input type="checkbox"/>
Accreditation Certificate Number and Date:		

ATTACHMENTS

Attach to this form:

- 1) A copy of the full test report, video, and a Test Data Summary Sheet for each test conducted in support of this request.
- 2) A drawing or drawings of the device(s) that conform to the Task Force-13 Drawing Specifications [[Hardware Guide Drawing Standards](#)]. For proprietary products, a single isometric line drawing is usually acceptable to illustrate the product, with detailed specifications, intended use, and contact information provided on the reverse. Additional drawings (not in TF-13 format) showing details that are key to understanding the performance of the device should also be submitted to facilitate our review.

FHWA Official Business Only:

Eligibility Letter		AASHTO TF13	
Number	Date	Designator	Key Words
WZ-323	May 8, 2013	N/A	X-Footprint Portable Sign Stand

Page 1	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN	Letter Number
	Category 2 Work Zone Device Acceptance Letter	Date
Contact Info	Petitioner / Developer Name and Address: Dicke Safety Products 1201 Warren Avenue Downers Grove, IL 60515	
	I hereby certify that the device(s) covered by this Acceptance Letter meet(s) the crash – worthiness test and evaluation requirements of the FHWA and NCHRP Report 350.	
Signature	<i>John M. Pauls</i>	
Telephone #	(630) 324-5209	
Email Address	john@dicketool.com	
	Laboratory / Engineer Name and Address	
<input type="checkbox"/>	I hereby certify that the testing that supports this Acceptance Letter was conducted in accordance with NCHRP Report 350 guidelines, that the device(s) tested is/are accurately described on this form, and that the test results indicate that the device meets all applicable NCHRP Report 350 evaluation criteria.	
<input checked="" type="checkbox"/>	I have evaluated the requested modifications to these devices previously found acceptable by the FHWA in Acceptance Letter WZ- 4 , and hereby certify that, in my opinion, the modifications do not adversely affect the crash performance of the devices. I also certify that these devices are accurately described on this form.	
Signature	<i>John M. Pauls</i>	
Telephone #	(630) 324-5209	
Email Address	john@dicketool.com	
Keywords:	DF3003W with 60x60 Roll-up Sign	
	Type of Device (See page 3) X-Footprint Sign Stand	
	Composition of Sign or Rail substrate (See Page 3) Roll-up / Fabric (with fiberglass spreaders – aluminum or steel spreaders are not allowed)	
	Thickness of substrate (inches):	
	Height of sign from the ground (inches), if applicable: (See Page 3) Low: 12 to 18 inches above the pavement	
	Flags and or lights present during test? Indicate number of each: # of flags: 2 # of lights: 0 Weight of lights: ea.	
Device Name	DF3003W	
Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates Foundation, Aux. Features Ballast, etc.	(May be attached on separate page(s) See attached submittal letter	

* WZ-17
and
WZ-25
NA Actual
5-13-13

Page 2	FEDERAL HIGHWAY ADMINISTRATION		Letter Number
	OFFICE OF SAFETY DESIGN		
	Category 2 Work Zone Device Acceptance Letter		Date
	Mandatory Attachments		
	Attachment # 1: Test data summary page(s)		
	Attach. #1a	Test #	
	Attach. #1b	Test #	
	Attach. #1c	Test #	
	Attach. #1d	Test #	
Alternative	Attachment # 1: Description and discussion of modification(s) to crash tested and/or accepted device.		
	Date:		
	Attachment # 2: PDF drawing(s) of device(s)		
	Attach. #2a	Drawing Title: WZ Submittal Letter (PDF)	
		Drawing #:	
	Attach. #2b	Drawing Title: Stand Comparisin Drawing (PDF)	
		Drawing #:	
	Attach. #2c	Drawing Title:	
		Drawing #:	
	Attach. #2d	Drawing Title:	
		Drawing #:	
	Attach. #2e	Drawing Title:	
		Drawing #:	
	Attach. #2f	Drawing Title:	
		Drawing #:	
	Attach. #2g	Drawing Title:	
		Drawing #:	

Page 3	FEDERAL HIGHWAY ADMINISTRATION	Letter Number
	OFFICE OF SAFETY DESIGN	
	Category 2 Work Zone Device Acceptance Letter	Date

Please select from the following Keywords for “Type of Device”:

Longitudinal Channelizing Barricade
 Curb (Curb channelizer system with or without road tubes or other channelizers)
 Drum
 H-Footprint Sign Stand
 X-Footprint Sign Stand
 Trailer Mounted Signs (Does not include arrow boards or variable message signs or other Category 4 trailer mounted devices.)
 Automated Flagger Device (not trailer mounted)
 Tripod Sign Stand
 Type I Barricade
 Type II Barricade
 Type III Barricade
 Vertical Panel
 Intrusion Detector
 Ballast (Action relates to ballast on one or more devices)
 Channelizer (Individual units unlike cones, road tubes, or drums)

Please select from the following Keywords for “Sign Substrate”:

Roll-up / Fabric (with fiberglass spreaders – aluminum or steel spreaders are not allowed.)
 Plywood
 Aluminum – Solid
 Aluminum – Laminate
 Corrugated Plastic
 Extruded Plastic
 Waffleboard Plastic
 Wood / Lumber

Please select from the following Keywords for “Height of Sign”:

The distance to the lowest point on the sign is:

Low 12 to 18 inches above the pavement
 Mid-A 20 to 24 inches above the pavement
 Mid-B 25 to 36 inches above the pavement
 Mid-C 37 to 59 inches above the pavement
 Tall 60 to 71 inches above the pavement
 Oversized 72 inches and taller

Page 4	FEDERAL HIGHWAY ADMINISTRATION		Letter Number
	OFFICE OF SAFETY DESIGN		
	Category 2 Work Zone Device Acceptance Letter		Date

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, or 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 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.
- If the subject of this letter is a patented device it 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 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. 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 Federal Highway Administration 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.



DICKE SAFETY PRODUCTS

1201 Warren Avenue • Downers Grove, IL 60515 • Ph: 877.891.0050 • Fax: 630.969.3973

January 28, 2013

Mr. Nick Artimovich, II
Highway Engineer
Federal Highway Administration
Office of Safety Design
1200 New Jersey Avenue, SE HSSD
Washington, DC 20590

Dear Mr. Artimovich,

This inquiry is a follow-up to WZ-294 regarding the impact 60x60 roll-up signs would have on previously accepted stands. Based on the clarification provided in WZ-85, various sizes of roll-up signs can be accepted without re-testing. One key criteria involved the finished sign height, specifically that the bottom of the sign be no closer than 12" to the ground. In this application the proposed 60x60 signs would only be mounted in a rectangular configuration. The stand / sign specifications may be found in Table #1 below and in the attached drawing.

Table #1 – Sign Height Comparison

Stand	Current WZ Letter(s)	48x48 Dia. Bottom/Top	60x60 Rect Bottom/Top	60x60 Dia. Bottom/Top
DF3003W	WZ-17 & 25	14" / 82"	22" / 82"	N/A
TF18	WZ-141rev & 294	18" / 86"	26" / 86"	N/A

Request #1:

Based on the enclosed information and previous test data, we are seeking acceptance of the DF3003W stand listed above for use with 60"x60" roll-up signs. We believe this to be a reasonable request because the key design features are almost identical to the previously accepted TF18 stand. As such, we contend that there will be no effect on the windshield impact data.

Should you need any further documentation, please let me know.

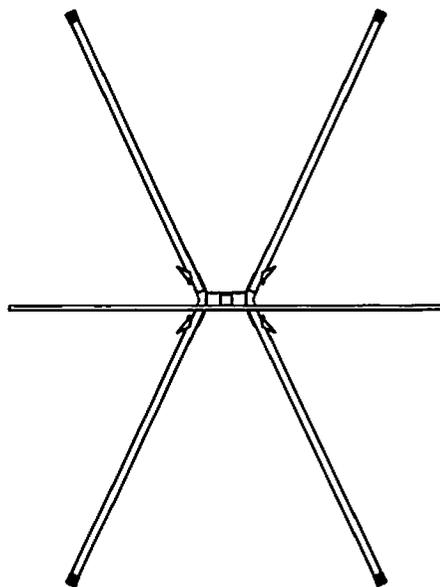
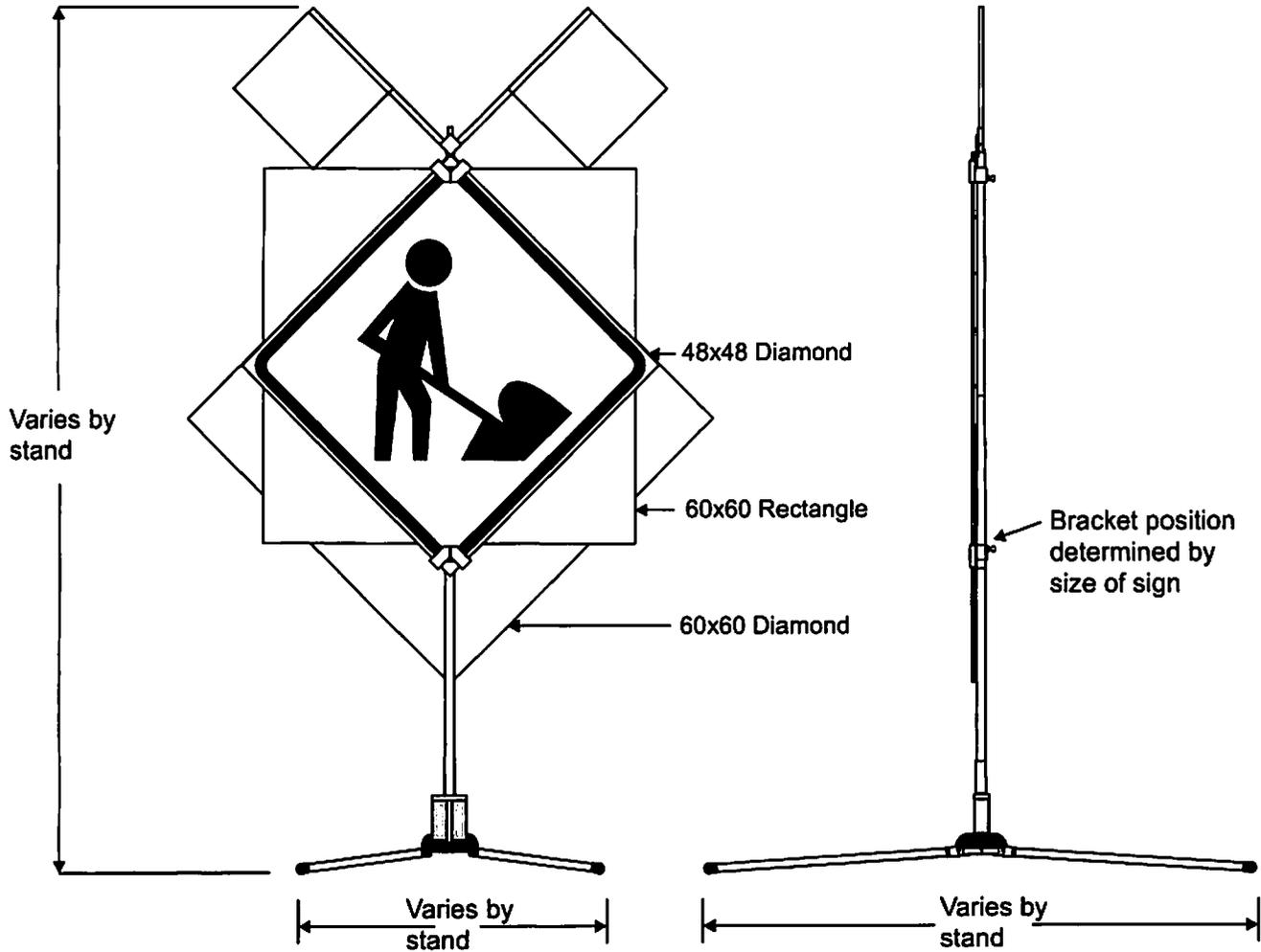
Sincerely,



John M. Pasakarnis
Dicke Tool Company
630-969-0050 x5209
john@dicketool.com
www.dicketool.com

TALL STANDS

for Roll-up Signs



SIGN STAND (Roll-up Signs)

- Base- Steel (some with heavy duty upright spring system)
- Mast- 1-1/4" and 1-1/2" sq. aluminum tubing
- Legs- sq. aluminum tubing
- Panel- Roll-up vinyl with fiber-glass stiffeners.
- Flags- 18" x 18" vinyl with 30" staff
- Weight- varies per stand

