



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

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

March 11, 2014

In Reply Refer To:
HSST/WZ-330

Mr. Henry A. Ross
Plasticade
7700 North Austin Avenue
Skokie, Illinois 60077

Dear Mr. Ross:

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:	Plasticade Angle Iron Type III Barricade
Type of system:	Generic / Non-Proprietary Type III Work Zone Barricade
Test Level:	NCHRP Report 350 Test Level 3
Testing conducted by:	N/A
Date of request:	November 4, 2013
Date of completed package:	February 6, 2014

Decision

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

- Plasticade Angle Iron Type III Generic Work Zone Barricade

Based on a review of crash testing of generic Type III barricades conducted by individual state DOTs, multi-state pooled fund efforts, or National Cooperative Highway Research Program (NCHRP) research projects, the manufacturer is certifying the devices described herein meet the crash test and evaluation criteria of the NCHRP Report 350, and that the devices are 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.

FHWA:HSST:NArtimovich:sf:x61331:2/20/14

File: s://directory folder/hsst/nartimovich/WZ330 Plasticade Angle Iron.docx

cc: HSST (Reader, HSA; Chron File, HSST; NArtimovich, HSST), BFouch, HSST

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.

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-330 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.

Sincerely yours,

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

Enclosures



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1200 New Jersey Ave., SE
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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:	November 4, 2013	<input checked="" type="checkbox"/> New <input type="checkbox"/> Resubmission
	Name:	Henry A. Ross	Signature: <i>Henry A. Ross</i>
	Company:	Plasticade	
	Address:	7700 N. Austin Avenue, Skokie, IL 60077	
	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 Zone Traffic Control Devices	<input type="checkbox"/> Physical Crash Testing <input type="checkbox"/> FEA & V&V Analysis	Plasticade Telespar Type III Barricade	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 NCHRP Report 350 (Report 350) and that the evaluation results meet the appropriate evaluation criteria in the Report 350.

Identification of the individual or organization responsible for the product:

Contact Name:	Henry A. Ross	Same as Submitter <input checked="" type="checkbox"/>
Company Name:	Plasticade	Same as Submitter <input checked="" type="checkbox"/>
Address:	7700 N. Austin Avenue, Skokie, IL 60077	Same as Submitter <input checked="" type="checkbox"/>
Country:	USA	Same as Submitter <input checked="" type="checkbox"/>

PRODUCT DESCRIPTION

<input checked="" type="checkbox"/> New Hardware	<input type="checkbox"/> Modification to Existing Hardware	
see attached description		

CRASH TESTING

A brief description of each crash test and its result:

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

FHWA Office of Safety Highway Safety Hardware

Form to Request Eligibility for Federal Aid Reimbursement Tutorial & Commentary

Welcome to the FHWA Office of Safety's Tutorial for the 'Form to Request Eligibility for Federal Aid Reimbursement' (Form). This Form is the standard for transmittal of all highway safety hardware to FHWA. The following steps serve to guide a successful completion of the Form.

Please contact Nick Artimovich (202-366-1331) or Will Longstreet (202-366-0087) of FHWA's Office of Safety with questions, comments or if experiencing difficulty. The Form requires Adobe® software (Full or Reader versions) to complete.

Essentials for getting started as follows:

1. Adobe® X Reader (minimum)
2. Active Outlook or a web-based email account
3. Copy FORM to your C-Drive before getting started
4. Save-As using the following convention in naming your file:
i.e.; Business Name_System Type_Name of Product_Submission date}
key: ' _ ' = underscore

Steps for successful completion of the 'Request for Federal Aid Reimbursement Eligibility of Highway Safety Hardware' as follows:

1. Enable Java Scripts
2. Use 'tab' button to proceed to each succeeding required field
3. All required fields are highlighted
4. Some required fields have prescribed choices (via clicking the down '▼' arrow located at right hand side of the field). 'Click' on desired choice & then tab to next available required highlighted field.
5. Spell out formal names, including safety hardware and devices. If an abbreviation (acronym) is desired and/or used, please indicate inside parenthesis after initial formal name.
6. 'Help' buttons are provided for additional description for content clarity
7. Product Description field shall be limited to total of 400 word count.
8. Crash Testing Narrative Description shall be limited to 400 word total count.
9. Upon completion of the FORM and is prepared to send, click 'SUBMIT' button located at the end of form. This will prompt pop-up box that will request to select one of 2 email preference (i.e., Outlook or other web based email.)
10. The default recipient of this email is the Office of Safety
11. Attach additional documents required for submission (10 megabyte max.)
12. If required attachment files exceed 10 megabyte max., forward to FHWA via mail carrier all excess files on compact disk or other memory access medium.
13. A signature is required, to be located at the 'Submitter' table, adjacent to 'Name' and to be forwarded via U.S. Mail or a private carrier to the FHWA Office of Safety, 1200 New Jersey Avenue S.E., Washington, D.C. 20590. A scanned copy (i.e., .pdf file) of an original signature is also acceptable.

end

Request for Federal Aid Reimbursement Eligibility Of Highway Safety Hardware

Submitter	Date of Request:	November 04, 2013	<input checked="" type="radio"/> New <input type="radio"/> Resubmission
	Name:	Henry A. Ross	Signature:
	Company:	Plasticade	
	Address:	7700 N. Austin Avenue, Skokie, IL 60077	
	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.

System Type	Submission Type	Device Name / Variant	Testing Criterion	Test Level
'WZ': Crash Worthy Work Zone Traffic Control Devices	<input checked="" type="radio"/> Physical Crash Testing <input type="radio"/> FEA & V&V Analysis	Plasticade Angle Iron Type III Barricade	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 NCHRP Report 350 (Report 350) and that the evaluation results meet the appropriate evaluation criteria in the Report 350.

Identification of the individual or organization responsible for the product:

Contact Name:	Henry A. Ross	Same as Submitter <input checked="" type="checkbox"/>
Company Name:	Plasticade	Same as Submitter <input checked="" type="checkbox"/>
Address:	7700 N. Austin Avenue, Skokie, IL 60077	Same as Submitter <input checked="" type="checkbox"/>
Country:	USA	Same as Submitter <input checked="" type="checkbox"/>

PRODUCT DESCRIPTION

New Hardware
<p>Uprights consist of 63" tall 1.5" x 1.5" 10 gauge galvanized angle iron. Posts are inserted into 6" tall risers made of 2.0" x 2.0" 14 gauge PSST galvanized post welded to a 60" x 1.5" x 1.5" 10 gauge A36 mill finish angle iron steel "foot". Barricade panels consist of nominal 1" x 8" hollow-core high density polyethylene in lengths of 4', 6', 8', 10' or 12'. Lateral spacing between uprights shall allow no more than 12 inches of panel overhang. Hardware for attaching barricade panels to PSST uprights consists of the following: 5/16" x 1.5" zinc plated fender washer, 5/16" x 1.5" zinc plated hex bolt, 5/16" zinc plated nut with nylon insert, 5/16" zinc plated washer. Barricade may be supplied with either one or two lightweight warning lights mounted above the top barricade panel.</p>

CRASH TESTING

A brief description of each crash test and its result:

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

Full Scale Crash Testing was done in compliance with Report 350 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

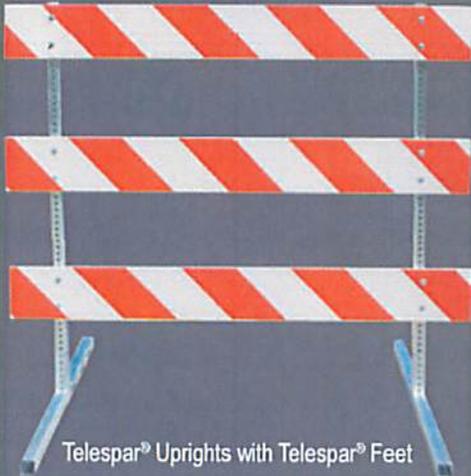


The following "generic" or public domain letters issued by Federal Highway Administration contain pertinent information that supports our requests for acceptance of the Plasticade Telespar Type III Barricade and the Plasticade Angle Iron Type III Barricade:

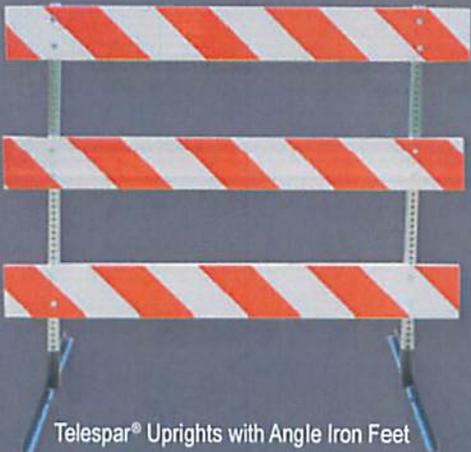
WZ-03 (a)	issued August 28, 1998
(b)	issued August 28, 1998
(c)	issued August 28, 1998
(d)	issued August 28, 1998
(e)	issued August 28, 1998
(f)	issued August 28, 1998
(g)	issued August 28, 1998
WZ-40	issued June 6, 2000
WZ-44	issued July 25, 2000 to PennDOT
WZ-54	issued September 15, 2000
WZ-55	issued December 18, 2000 to MN DOT
WZ-85	issued November 15, 2001
WZ-240	issued September 8, 2006

In addition, WZ-299 was issued to Plasticade on March 10, 2011, and WZ-302 was issued to Plasticade on March 11, 2011. Both of these letters are for Type III barricades.

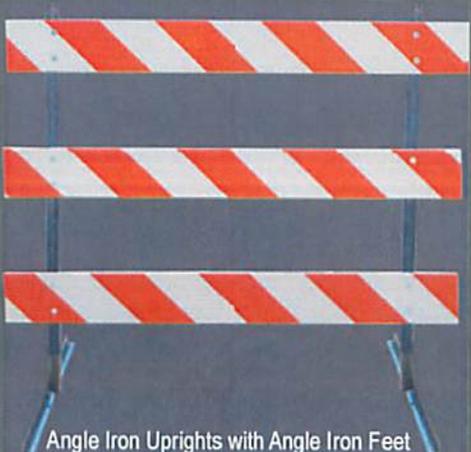
TELESPAR® & ANGLE IRON TYPE III BARRICADES



Telespar® Uprights with Telespar® Feet



Telespar® Uprights with Angle Iron Feet



Angle Iron Uprights with Angle Iron Feet

Three Options Available

- Telespar® uprights with Telespar® feet
 - Telespar® uprights with Angle Iron feet
 - Angle Iron uprights with Angle Iron feet
-
- **Telespar®**
 - Square shape provides superior wind load capabilities and inhibits warping
 - Uprights and feet - 14 gauge
 - Galvanized, hot rolled high carbon steel
 - Prepunched universal mounting holes - 7/16" dia.
 - **Angle Iron**
 - Uprights are 10 gauge, galvanized steel
 - Holes for boards - 11/32" dia., holes for lights 9/16" dia.
 - Feet are 10 gauge steel, mill finish
 - Plastic boards available in 4', 6', 8', 10', and 12' lengths
 - Reflective sheeting on one or both sides
 - Quick removal of uprights from feet
 - Allows for short term or permanent placement
 - Easy to assemble and replace parts if necessary
 - Accepts two flashing lights
 - NCHRP-350 Accepted, Meets MUTCD Standards

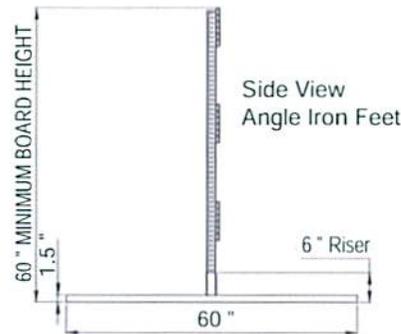
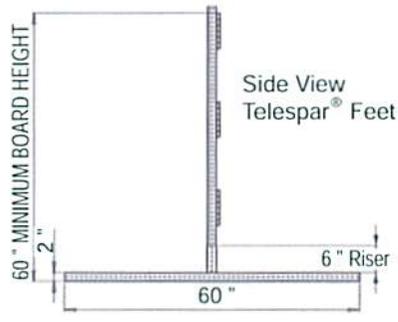
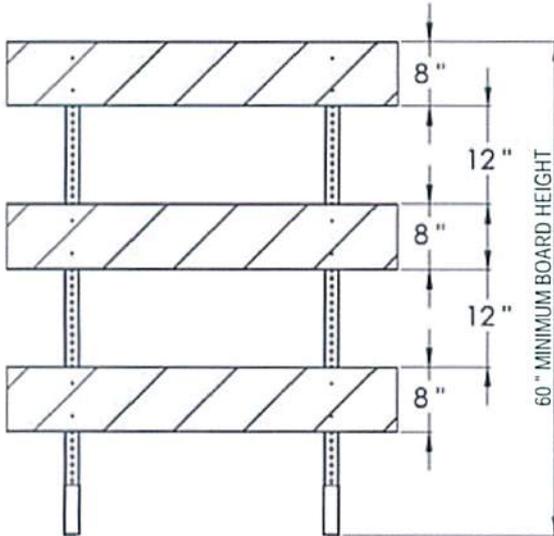
PLASTICADE®

www.plasticade.com

TF016 Rev. 3

TELESPAR® & ANGLE IRON TYPE III BARRICADES

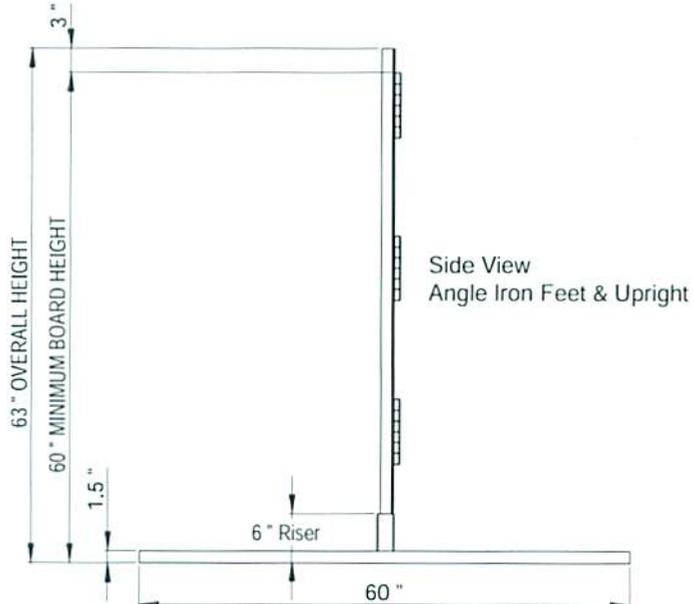
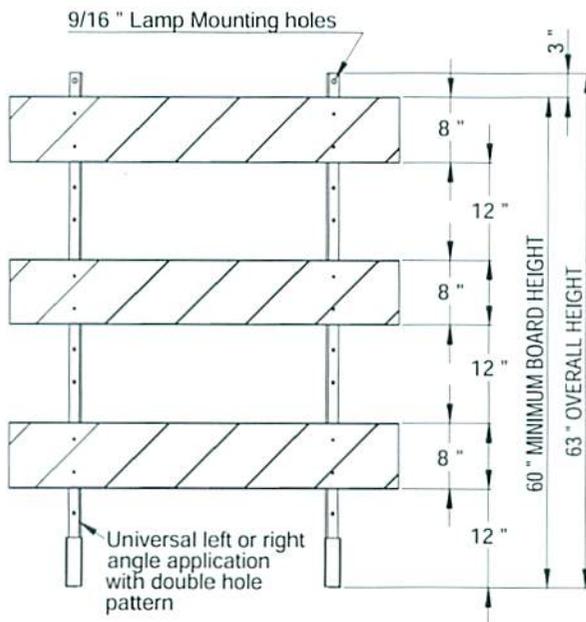
Telespar® Barricade



Specs

Telespar	14 gauge galvanized
Angle Iron Upright	10 gauge galvanized
Angle Iron Feet	10 gauge mill finish
Board Composition	High Density Polyethylene
Available Board Sizes	1" x 8" x 4' 1" x 8" x 6' 1" x 8" x 8' 1" x 8" x 10' 1" x 8" x 12'
Reflective Sheeting	Available in all grades - in left, right, or chevron stripes

Angle Iron Barricade



Telespar® & Angle Iron Barricades are sold in kits with three boards with your choice of sheeting. Sheeting can be on one side of the boards or both. All hardware needed for assembly is included in the kit.

PLASTICADE®

7700 N. Austin Avenue
Skokie, IL 60077
phone (800) 772-0355
fax (847) 966-8074
www.plasticade.com

MADE IN THE USA