



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

March 7, 2024

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

In Reply Refer To:  
HSST-1/B-375

Mathias Redlberger  
REBLOC GmbH  
Ziegelofen-Straße 736  
3571 Gars am Kamp  
Austria

Dear Mr. Redlberger:

We received your correspondence of August 10, 2022 requesting issuance of a reimbursement eligibility letter under the Federal-aid highway program for the roadside safety system, device, design, product, or hardware (collectively “device”) described below. This letter is assigned Federal Highway Administration (FHWA) control number B-375.

#### **ELIGIBILITY LETTERS**

The FHWA issues Federal-aid reimbursement eligibility letters for new roadside safety devices that are crash tested in accordance with the industry standard of the American Association of State Highway and Transportation Officials (AASHTO) Manual for Assessing Safety Hardware (MASH).

FHWA, the Department of Transportation, and the United States (government) do not regulate roadside safety devices, crash test facilities, or the manufacturing industry. Issuance of eligibility letters is discretionary and provided only as a service to the states. FHWA may, at its discretion, decline to issue, revise, or rescind an eligibility letter. Eligibility letters are only issued by the FHWA headquarters Office of Safety.

Eligibility letters are issued only as notice to the states that a device is eligible for reimbursement under the Federal-aid highway program. They do not establish approval or certification for any other purpose. Issuance of an eligibility letter is not a prerequisite or requirement for state transportation agencies seeking to use Federal-aid funds for roadside safety devices. State agencies may use a device for which an eligibility letter has not been issued and seek Federal-aid reimbursement.

#### **FEDERAL-AID REIMBURSEMENT**

The request for issuance of this letter certified the device was crash tested in accordance with the industry standard of AASHTO’s MASH. This eligibility letter is based on that certification and the material offered in support of its issuance. The device described below is eligible for reimbursement under the Federal-aid highway program.

Name of system: REBLOC 80SAH\_4  
Type of system: Longitudinal Barrier  
Test Level: Test Level 3  
Testing conducted by: Crashtest-serve.com GMBH  
Date of request: August 10, 2022

Information about the device, including material such as the eligibility request, crash test reports, drawings, or images are included in one or more attachment(s) to this letter.

Eligibility letter B-375 is inapplicable to devices, optional equipment, alternate materials, or other features that were not crash tested in accordance with AASHTO's MASH.

This letter is issued only for the subject device as crash tested under AASHTO's MASH. Later modification(s) of the device are not eligible for Federal-aid reimbursement under this letter. Notice of later modification(s) should be given to transportation agencies, facility owners, and operators (collectively "agencies").

Agencies should be provided appropriate information about the device's design, installation, maintenance, materials, and mechanical properties.

Issuance of this letter is discretionary, and it may be revised or rescinded at FHWA's discretion. This letter is not a determination of compliance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) or ownership of any intellectual property rights.

This eligibility letter is not a determination by the government that a crash involving the subject device will result in any particular outcome. It is limited to only the device's eligibility for Federal-aid reimbursement.

### **INTELLECTUAL PROPERTY**

Issuance of this eligibility letter does not convey property rights of any sort nor any exclusive privilege. This letter is not authorization or consent by the government for the use, manufacture, or sale of any patented or proprietary system, device, design, product, or hardware for which the requester is not the patent owner. Eligibility letters are not an expression of any view, position, or determination by the government as to the validity, scope, or ownership of any intellectual property rights to a specific device. These letters do not grant, impute, suggest, or otherwise establish any ownership, distribution, or licensing rights to the requester. The government expresses no opinion about the intellectual property rights relating to any device for which this or any other eligibility letter is issued.

### **PUBLIC DISCLOSURE**

To prevent any misunderstanding, and as discussed above, this eligibility letter is assigned FHWA control number B-375. It should only be reproduced in full with its attachment(s). This letter and the material offered by the requester supporting its issuance is public information. All eligibility letters and supporting material are subject to public disclosure under the Freedom of

Information Act (FOIA). Eligibility letters are available to the public at [https://safety.fhwa.dot.gov/roadway\\_dept/countermeasures/reduce\\_crash\\_severity/](https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/).

If you have any questions please contact Aimee Zhang at [Aimee.Zhang@dot.gov](mailto:Aimee.Zhang@dot.gov).

Sincerely,

A handwritten signature in blue ink that reads "Amy S. Fox". The signature is written in a cursive style with a large, stylized "A" and "F".

Amy S. Fox  
Acting Director, Office of Safety Technologies  
Office of Safety

Enclosures

## Request for Federal Aid Reimbursement Eligibility of Highway Safety Hardware

<b>Submitter</b>	Date of Request	August 10, 2022	<input checked="" type="radio"/> New	<input type="radio"/> Resubmission	
	Name:	Mathias Redlberger			
	Company:	REBLOC			
	Address:	Ziegelofen-Straße 736, 3571 Gars am Kamp			
	Country:	Austria			
	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.

**Device & Testing Criterion – Enter from right to left starting with Test Level** !-!-!

System Type	Submission Type	Device Name / Variant	Testing Criterion	Test Level
'B': Rigid/Semi-Rigid Barriers (Roadside, Median, Bridge Railings)	<input checked="" type="radio"/> Physical Crash Testing <input type="radio"/> Engineering Analysis	REBLOC 80SAH_4	AASHTO MASH	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.

**Individual or Organization responsible for the product:**

Contact Name:	Mathias Redlberger	Same as Submitter <input checked="" type="checkbox"/>
Company Name	REBLOC	Same As Submitter <input checked="" type="checkbox"/>
Address:	Ziegelofen-Straße 736, 3571 Gars am Kamp	Same as Submitter <input checked="" type="checkbox"/>
Country:	Austria	Same as Submitter <input checked="" type="checkbox"/>
Enter below all disclosures of financial interests as required by the FHWA 'Federal-Aid Reimbursement Eligibility Process for Safety Hardware Devices' document.		
Crashtest-service.com GmbH (CTS) was contracted by REBLOC GmbH to perform full-scale testing of the REBLOC 80SAH_4 barrier. There are no shared financial interests in the REBLOC 80SAH_4 barrier by CTS, or between REBLOC GmbH and CTS, other than costs involved in the actual crash tests and reports for this submission to FHWA.		

## PRODUCT DESCRIPTION

<input checked="" type="radio"/> New Hardware or Significant Modification	<input type="radio"/> Modification to Existing Hardware
<p>The vehicle restraint system with the system name REBLOC 80SAH_4 consists of factory produced precast elements. Each element is 4.033m (158,8 in) long, 0.3m (11.8 in) wide and 0.8m (31.5 in) high. The precast concrete elements have a cross section similar to an I-beam profile.</p> <p>The safety barriers are free standing. There is no anchorage to the ground, only the two terminal elements have to be anchored to the asphalt surface by using anchor bolts.</p> <p>The restraint function is achieved by connecting the individual elements to form a continuous chain. The connection between the elements is by the integrated tension bars, whose couplings, situation on the face side of each element, interlock. Steel shows which are an integrated part of the element, have mating projections and indentations that form a double tongue/groove system. The concrete barriers stand on two support feet with integrated elastomer pads on the underside. Situated at the top side of each element there are two galvanised lifting anchors.</p>	
<h3>CRASH TESTING</h3>	
<p>By signature below, the Engineer affiliated with the testing laboratory agrees in support of this submission that all of the critical and relevant crash tests for this device listed above were conducted to meet the MASH test criteria. The Engineer has determined that no other crash tests are necessary to determine the device meets the MASH criteria.</p>	
Engineer Name:	Dipl.-Ing. Ralf Buehrmann
Engineer Signature:	<b>Dipl.-Ing. Ralf Bührmann</b> <small>Digital unterschrieben von Dipl.-Ing. Ralf Bührmann Datum: 2022.08.17 14:34:52 +02'00'</small>
Address:	Amelunxenstraße 30, 48167 Muenster <span style="float: right;">Same as Submitter <input type="checkbox"/></span>
Country:	Germany <span style="float: right;">Same as Submitter <input type="checkbox"/></span>

A brief description of each crash test and its result:

Required Test Number	Narrative Description	Evaluation Results
3-10 (1100C)	<p>CTS test no.: 19811 Test report no.: 12184-4368-19811-EN performed 22-JUN-2022 by crashtest-service.com GmbH (Germany)</p> <p>The longitudinal concrete barrier contained and redirected the 1100C vehicle. The vehicle did not penetrate, underide, or override the installation. Maximum dynamic deflection during the test was 0.80 m (31.5 in). No significant parts separated neither from the vehicle nor the barrier. The occupant compartment deformation did not exceed limits. No intrusion occurred. The vehicle remained upright during and after the impact.</p>	PASS

Required Test Number	Narrative Description	Evaluation Results
3-11 (2270P)	CTS test no.:19810 Test report no.: 12184-4368-19810-EN  The longitudinal concrete barrier contained and redirected the 2270P vehicle. The vehicle did not penetrate, underride or override the installation. Maximum dynamic deflection during the test was 1.21 m (47.6 in). No significant parts separated neither from the vehicle nor the barrier. The occupant compartment deformation did not exceed limits. No intrusion occurred. The vehicle remained upright during and after the impact.	PASS
3-20 (1100C)	/.	Non-Relevant Test, not conducted
3-21 (2270P)	/.	Non-Relevant Test, not conducted

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:	crashtest-service.com GmbH	
Laboratory Signature:	<b>Dipl.-Ing. Ralf Bührmann</b> <small>Digital unterschrieben von Dipl.-Ing. Ralf Bührmann Datum: 2022.08.17 14:34:52 +02'00'</small>	
Address:	Amelunxenstraße 30, 48167 Muenster	Same as Submitter <input type="checkbox"/>
Country:	Germany	Same as Submitter <input type="checkbox"/>
Accreditation Certificate Number and Dates of current Accreditation period :	D-PL-17359-01 valid from: 10-FEB-2021	

Submitter Signature\*:


 Rebloc GmbH  
 2022.08.18 14:46:29  
 +02'00'

ATTACHMENTS

Attach to this form:

- 1) Additional disclosures of related financial interest as indicated above.
- 2) A copy of the full test report, video, and a Test Data Summary Sheet for each test conducted in support of this request.
- 3) 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 relevant to understanding the dimensions and performance of the device should also be submitted to facilitate our review.

FHWA Official Business Only:

Eligibility Letter		
Number	Date	Key Words