



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

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

October 22, 2010

In Reply Refer To:
HSSI/WZ-250A

Mr. John M. Pasakarnis
Dicke Safety Products
1201 Warren Avenue
Downers Grove, IL 60515

Dear Mr. Pasakarnis:

This is in response to your February 10 correspondence requesting the Federal Highway Administration's (FHWA) acceptance of your company's DL1000L, DL1000W, SDL1000L and SDL1000W sign stands as crashworthy traffic control devices for use in work zones and elsewhere on the National Highway System (NHS). Accompanying your letter was the FHWA Office of Safety Design form explaining the differences between these stands and previously accepted stands was the material (steel v aluminum) and the length (22 inches v 30 inches) of the legs. You also noted that all changes to the stands are below the bumper line of an impacting vehicle. You requested that we find these devices acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

This letter is the acknowledgement of the FHWA's acceptance of your request. The original completed form has been modified by the addition of the FHWA acceptance letter number and the date of our review. The form, of which a copy is enclosed for reference, will be posted on our Web site in the near future.

Sincerely yours,

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

Enclosure





DICK'S SAFETY PRODUCTS

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

February 10, 2010

Mr. Matt Lupes, P.E.
Highway Engineer
Federal Highway Administration
Office of Safety Design - Room E71-107
1200 New Jersey Avenue, SE
Washington, DC 20590

Matt,

This enquiry is in regards to a request that should have been made in conjunction with our WZ-250 submittal. During this submittal a large number of aluminum legged stands were approved with the substitution of steel legs. Two of these revised models were the SDL1003W and SDL1003L which we requested approval of, even though we did not manufacture them. This is where we erred because instead of getting these steel legged versions approved, we should have pursued the stands in this family that actually fill this product need. These products are the DL1000W and DL1000L, which are nearly identical to the DL1003W and DL1003L. The sole difference being the length of their extended legs and the slight dimensional changes this causes.

The following product specification chart and the attached drawings should confirm this comparison:

Stand:	Weight:	Base Width:	Base Length:	Sign Ht:	Deployed Ht:
DL1003L	14 lbs	54 inches	91 inches	14 inches	83 inches
DL1000L	13 lbs	44 inches	71 inches	13.5 inches	81.5 inches
SDL1000L	19 lbs	43 inches	69 inches	13.5 inches	81.5 inches
DL1003W	17 lbs	54 inches	91 inches	14 inches	83 inches
DL1000W	15 lbs	44 inches	71 inches	13.5 inches	81.5 inches
SDL1000W	20 lbs	43 inches	69 inches	13.5 inches	81.5 inches

Request #1:

Based on the enclosed information and previous test data, we are seeking modification of our acceptance to include these stands:

- 1) DL1000L and SDL1000L
- 2) DL1000W and SDL1000W

We believe this to be a reasonable request because the design differences all occur below the height of the vehicle bumper. As such, we contend that they will have 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 x28
john@dickeool.com
www.dickeool.com

Page 1	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN	Letter Number WZ-250A
	Category 2 Work Zone Device Acceptance Letter	Date 10/20/10
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. Parafianis</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 type="checkbox"/>	I have evaluated the requested modifications to these devices previously found acceptable by the FHWA in Acceptance Letter WZ-___, 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		
Telephone #		
Email Address		
Keywords:	DL1000L, SDL1000L, DL1000W, SDL1000W	
	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		
Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates, Foundation, Aux. Features, Ballast, etc.	(May be attached on separate page(s) See attached submittal letter.	

Page 2	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter		Letter Number
			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 Drawing (PDF)	
		Drawing #:	
	Attach. #2c	Drawing Title: Catalog Sheet (PDF)	
		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 OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number
		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”:

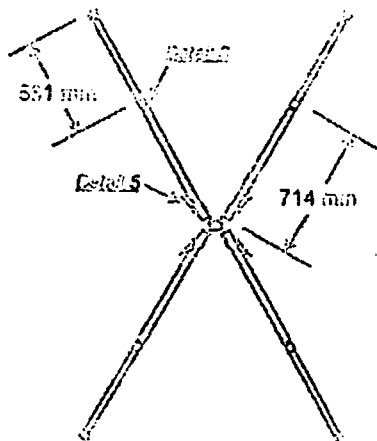
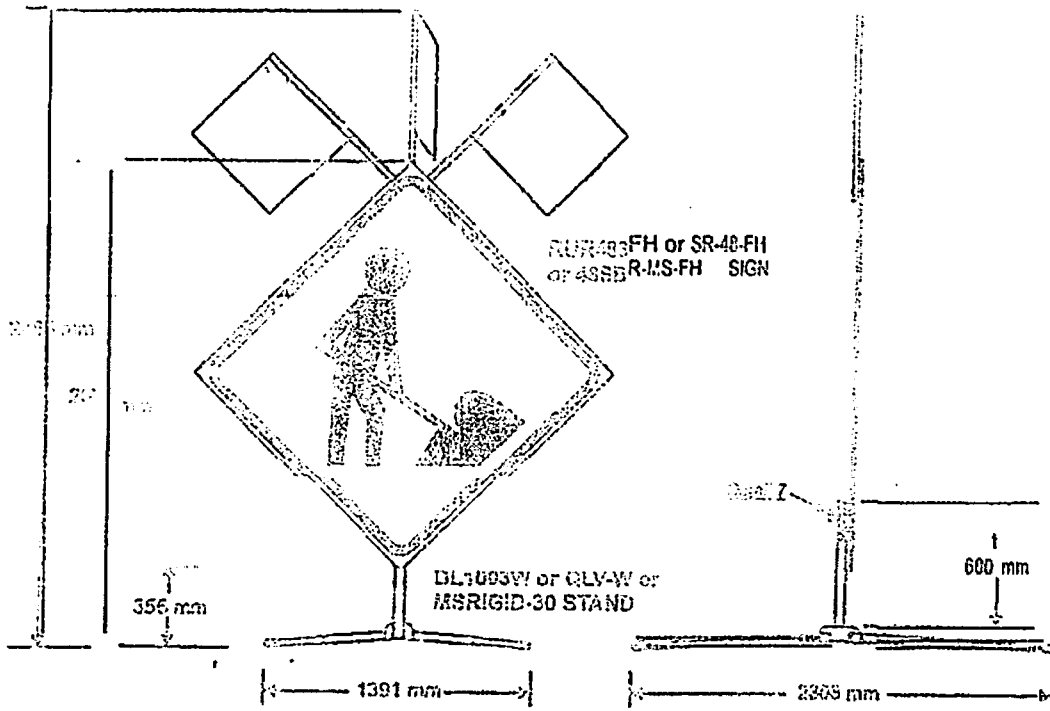
The distance to the lowest point on the sign is:

- 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 OFFICE OF SAFETY DESIGN		Letter Number
	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.



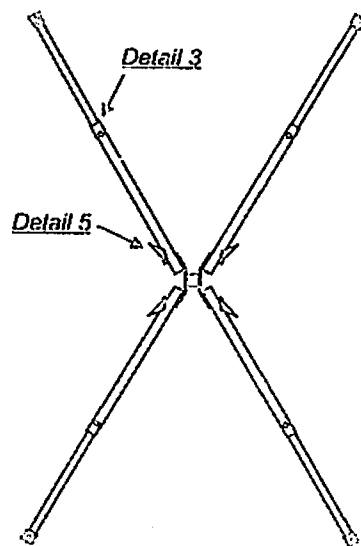
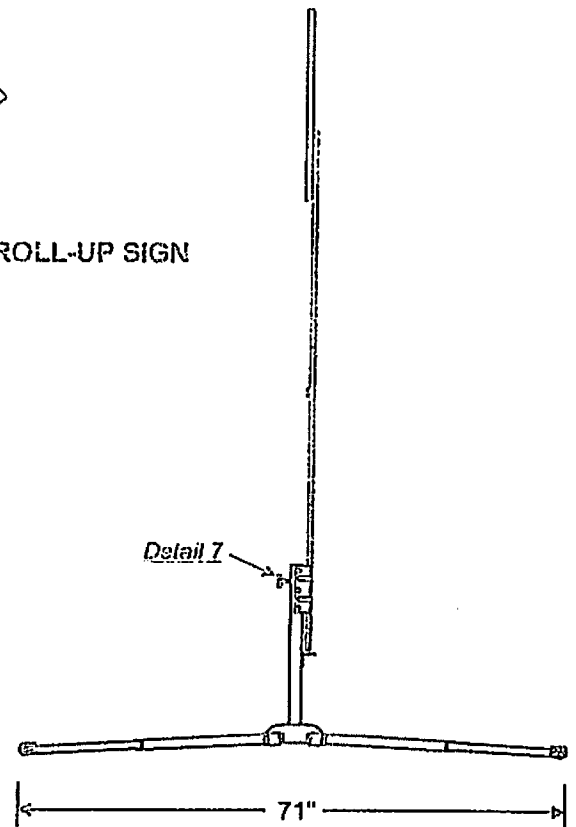
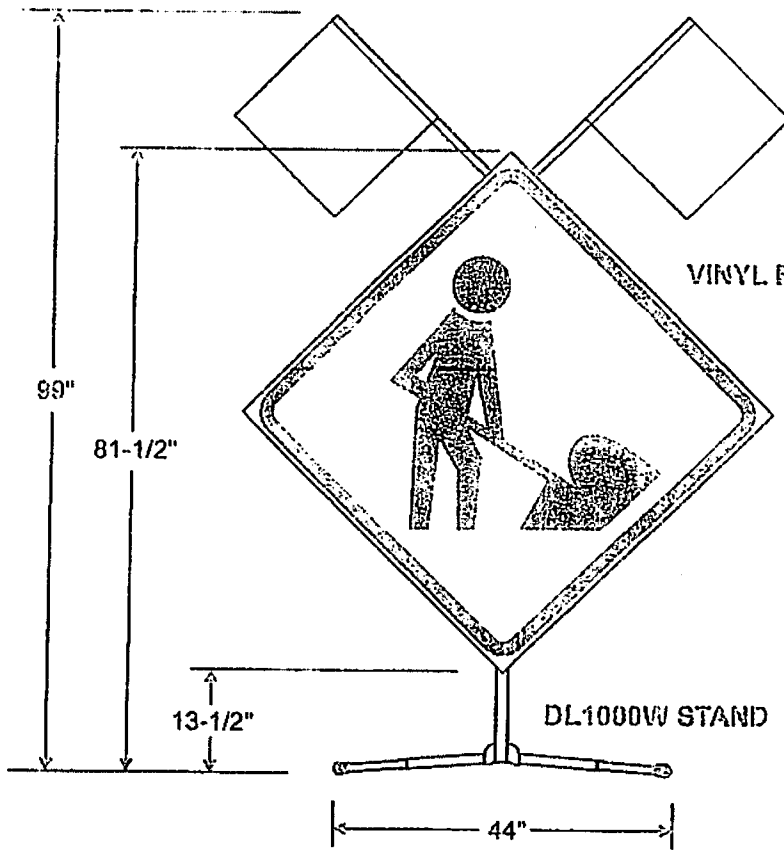
DL1003W or QLV-W or MSRIGID-30 STAND

- Base- 35.10 mm sq. steel tube with 4.76 mm steel lap flanges
- Legs- Telescopic 31.75 mm and 25.40 mm sq. aluminum tubing with 2.54 mm wall thickness

RUR483-FH or SR-48-FH or 48SBR-MS-FH SIGN

- Reflexite -super bright
- Panel-Reflective vinyl 1219 mm x 1219 mm
- Crossbrace-Vertical member is 6.35 mm th. x 31.75mmwx 1708 mm long fiberglass
- Crossbrace- Horizontal member is 4.76 mm th. x 28.53 mm wx 1708 mm long fiberglass
- 3 Flags- 451 mm x 464 mm vinyl with 611 mm long (19.05 mm dia.) wood staff

Figure 7. System Nos. 5 and 6 Sign Support Details, Test D-3



DL1000W STAND

- ⊙ Base- 1-1/2" sq. steel tube with 3/16" steel leg flanges
- ⊙ Legs- Telescopic 1-1/4" and 1" sq. aluminum tubing with .100" wall thickness

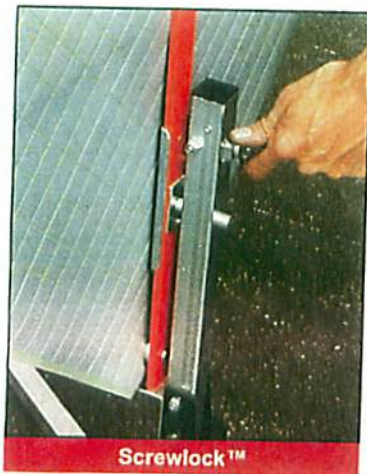
VINYL ROLL-UP SIGN

- ⊙ Panel- Reflective vinyl, 48" x 48"
- ⊙ Crossbrace- Vertical member is 1/4" th. x 1-1/4" x 66-1/4" long fiberglass
- ⊙ Crossbrace- Horizontal member is 1/4" th. x 1-1/4" w x 66-1/4" long fiberglass
- ⊙ Flags- 18" x 18" vinyl with 30" staff



Sign Holders

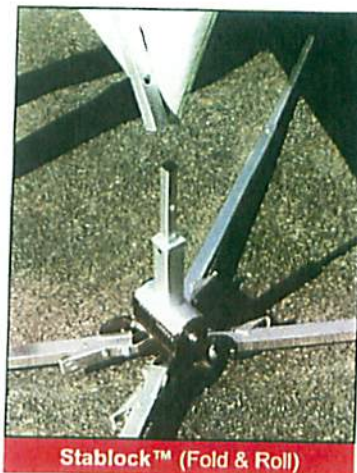
Roll-Up Sign Holders - Dicke Safety Products offers several different methods of mounting roll-up signs to sign stands, all are made from zinc plated steel and/or aircraft quality aluminum. All sign holders have been designed with durability and ease of use in mind.



Screwlock™

“W”

Our most universal roll-up sign holder will accept all standard 1-1/4" width fiberglass cross braces. Internal lever actuated clamp grips firmly and quickly and prevents damage from over tightening.



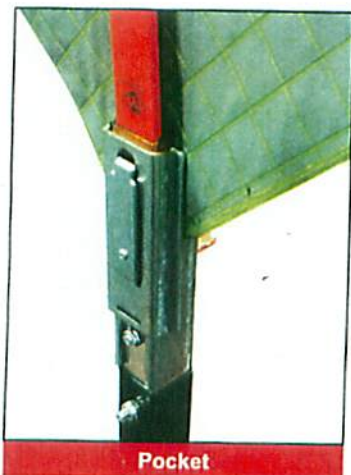
Stablock™ (Fold & Roll)

Stablock sign holder is used to hold our popular Fold & Roll™ Sign Panel. Vertical aluminum tubing slides down over small diameter base fitting. Locks in place with a spring button. This option provides the fastest set-up and most compact storage dimensions available.

The RUB3315 roll-up bracket holds all 36" and 48" roll-up signs with horizontal fiberglass ribs up to 1/4" thick. Used with stands that incorporate an aluminum two or three piece mast design. Roll-up bracket also allows for a quick switch from rigid signs to roll-up signs. Used with Dicke's RUNR and RUR series signs with fiberglass rib supports.



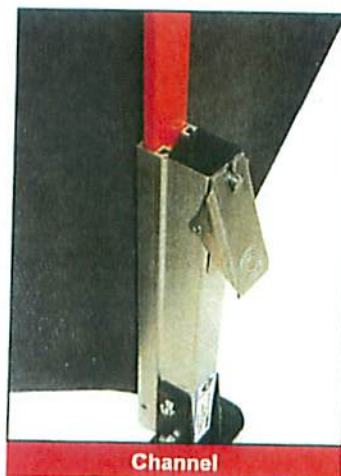
Roll-Up Bracket (RUB3315)



Pocket

“L”

Clamps the roll-up sign to the stand utilizing bottom rectangular plastic pocket on roll-up sign panel. Spring loaded catch automatically locks sign into base, a lift of the lever releases to sign.



Channel

The channel style panel holder locks the roll-up sign to the stand with a lever actuated pin. The roll-up sign's vertical fiberglass rib, with pre-drilled locking hole, slides down into channel opening and engages a locking pin. Used with Dicke roll-up signs attached to 400 series ribs.