



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

1200 New Jersey Avenue, SE.
Washington, DC 20590

May 14, 2008

In Reply Refer To: HSSD/WZ-271

Mr. Frank Dvoracek
Three D Traffic Works, Inc.
430 N. Varney Street
Burbank, CA 91502

Dear Mr. Dvoracek:

In your letters of February 29 and April 10 you requested Federal Highway Administration (FHWA) acceptance of the TD 6500 Universal Vertical Panel and TD 7500 Ring-Top Slim-line Channelizer as crashworthy traffic control devices for use in work zones on the National Highway System (NHS). Accompanying your letters was the FHWA Office of Safety Design forms that included a drawing and a detailed description of the devices, a test report, and videos of the crash tests. The drawings are enclosed with the acceptance form for the TD 6500 Universal Vertical Panel and TD 7500 Ring-Top Slim-line Channelizer. You requested that we find these devices acceptable for use on the NHS under the provisions of the 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 requests. The original completed forms have been modified by the addition of the FHWA acceptance letter number and the date of our review. The form will be posted on our Web site in the near future.

Sincerely yours,

David A. Nicol, P.E.
Director, Office of Safety Design
Office of Safety

Enclosures



Page 1	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-271
		Date 05/02/2008
Contact Info	Petitioner / Developer Name and Address:	
	Frank J. Dvoracek Three D Traffic Works 430 N. Varney St. Burbank, Ca 91502	
	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		
Telephone #	(877) 843-9757	
Email Address	sales@trafficwks.com	
	Laboratory / Engineer Name and Address	
	John F. LaTurner, P.E. E-Tech Testing Services, Inc 3617B Cincinnati Ave.	
<input checked="" 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 #	(916) 645-8188	
Email Address	john.lturner@quixotecorp.com	
Keywords:		
	Type of Device (See page 3) Vertical Panel	
	Composition of Sign or Rail substrate (See Page 3) Extruded Plastic	
	Thickness of substrate (inches): 0.14	
	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: 1 Weight of lights: 3.90 ea.	
Device Name	TD6500 Universal Vertical Panel	
Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates Foundation, Aux. Features Ballast, etc.	(May be attached on separate page(s) E-Tech Testing Report # 323 and literature	

Page 2	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter		Letter Number
			WZ-271
			Date
			05/02/2008
	Mandatory Attachments		
	Attachment # 1: Test data summary page(s)		
	Attach. #1a	Test #	323
	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: [Redacted]		
	Attachment # 2: PDF drawing(s) of device(s)		
	Attach. #2a	Drawing Title:	TD6500 U.V.P.
		Drawing #:	
	Attach. #2b	Drawing Title:	
		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 #:	

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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

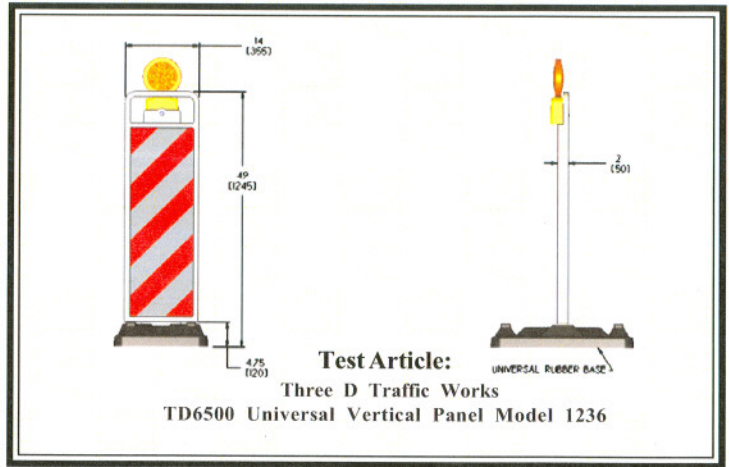
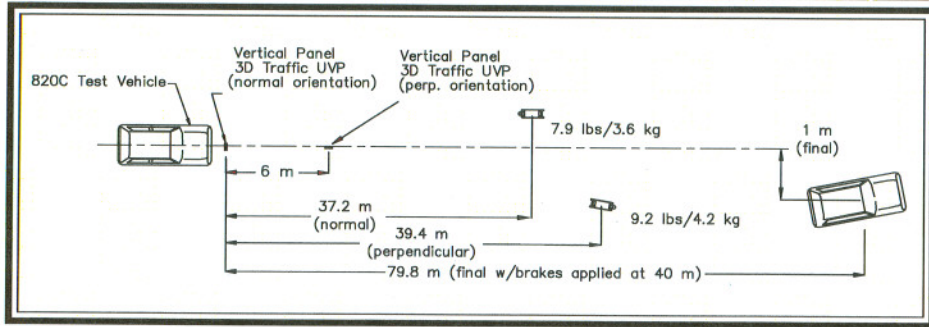
Page 4	FEDERAL HIGHWAY ADMINISTRATION		Letter Number
	OFFICE OF SAFETY DESIGN		WZ-271
	Category 2 Work Zone Device Acceptance Letter		Date
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Please note the following standard provisions that apply to FHWA letters of acceptance:

- 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.



E-TECH Testing Services, Inc.
 3617 B Cincinnati Avenue
 Rocklin, CA 95765
 PHONE (916) 645-8188
 FAX (916) 645-3653



Three D Traffic Works Universal Vertical Panel Test Results - 9 of 23

General Information

Test Agency E-TECH Testing Services, Inc.
 Test Designation NCHRP 350 Test 3-71
 Test No. 01-1301-001
 Date 1/31/08

Test Article

Type 3D Traffic Works TD6500
 Universal Vertical Panel
 Impact Orientation Normal and Perpendicular
 Size and/or dimension and material
 of key elements Upright: 48" tall x 14" wide
 by 2" thick
 (1219 x 355 x 50 mm)
 Polyolefin Plastic
 Panel: 12" wide x 36" tall
 by .044" thick
 (305 x 914 x 1.1 mm)
 Base: URB 1827
 (Universal Rubber Base)
 18" wide x 27" long x 4" height
 (457 x 685 x 102 mm)
 Mass: 47 lb (21.3 kg)
 (total with a 1.8 kg Type
 A & C LED warning light)

Test Vehicle

Type Production Model
 Designation 820C
 Model 1987 Ford Festiva
 Mass lb (kg)
 Curb 1676 (762)
 Test inertial 1769 (804)
 Dummy 165 (75)
 Gross Static 1934 (879)

Impact Conditions (Normal/Perpendicular)

Speed mi/hr (km/h) 64.2 (103.30) / 63.1 (101.5)
 Angle (deg) 0 / 0
 Impact Severity ft-kip (kJ) 247.7 (335.9) / 239.2 (324.3)

Exit conditions (Normal/Perpendicular)

Speed mi/hr (km/h) 63.1 (101.5) / 61.9 (99.7)
 Angle (deg) 0 / 0

Vehicle Damage (Normal/Perpendicular)

Exterior
 VDS FC-1 / FC-1
 CDC 12CEW1/12FCEN1
 Interior
 OCDI AS0000000/AS0000000
 Windshield
 per FHWA Pass: no windshield
 contact

Figure 1. Summary of Results - Three D Traffic Universal Vertical Panel Test 14-1301-001

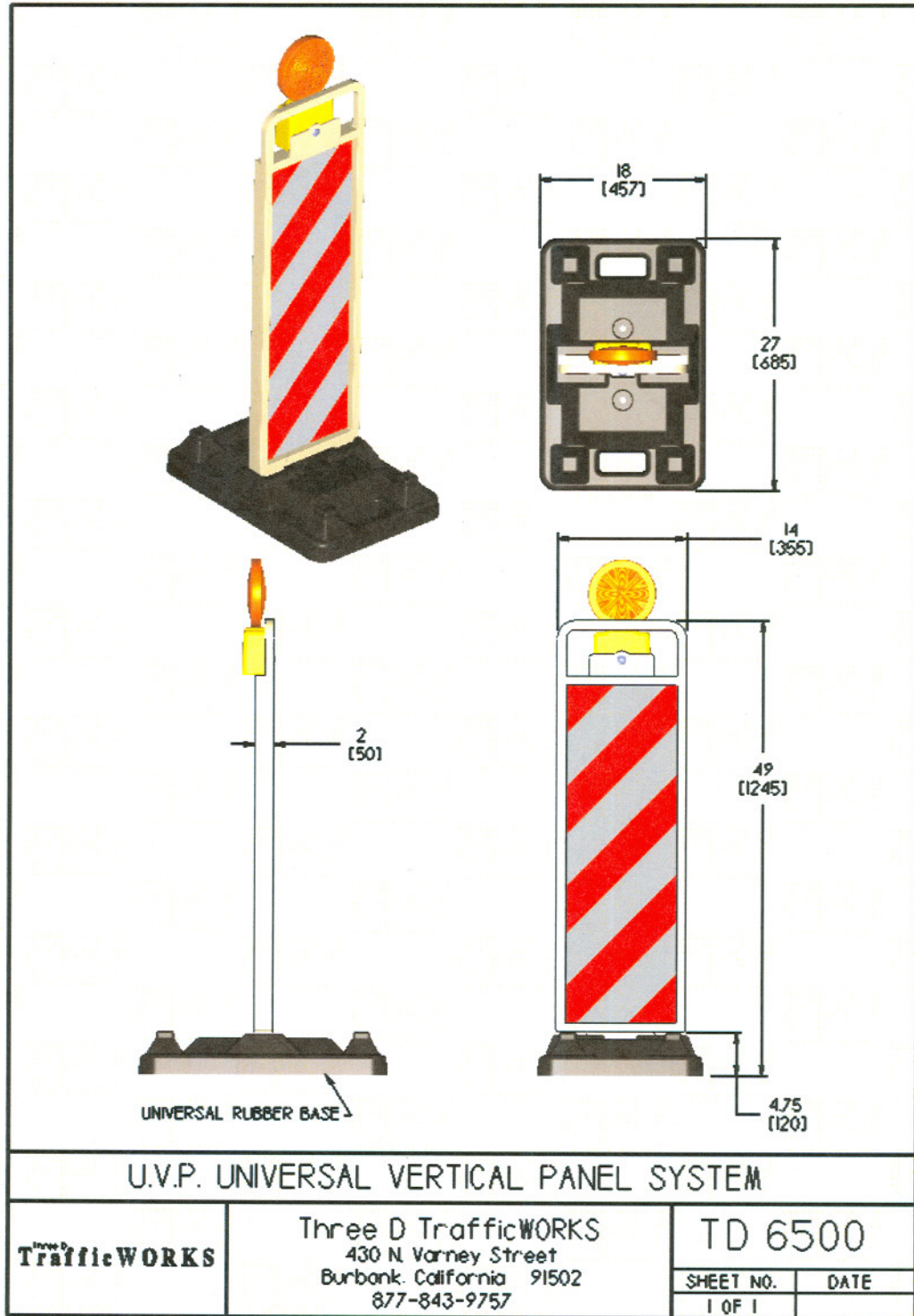
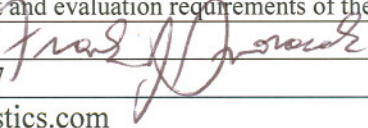
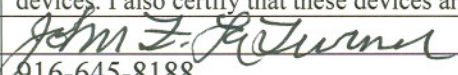


Illustration 1. Three D Traffic Works UVP Model TD6500 Drawing and Specification (3 of 3)

Page 1	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-271
		Date 4/22/08
Contact Info	Petitioner / Developer Name and Address: Mr. Frank Dvoracek Three D Traffic Works, Inc. 430 N. Varney Street Burbank, CA 91502	
	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		
Telephone #	877-843-9757	
Email Address	frank@3dplastics.com	
	Laboratory / Engineer Name and Address John F. LaTurner, P.E. E-TECH Testing Services, Inc. 3617 Cincinnati Ave Rocklin, CA 95765	
Check One:		
<input checked="" 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 #	916-645-8188	
Email Address	John.laturner@quixotecorp.com	
Keywords:		
	Type of Device (See page 3): Channelizer	
	Composition of Sign or Rail substrate (See Page 3): LDPE	
	Thickness of substrate (inches): N/A	
	Height of sign from the ground (inches), if applicable: (See Page 3): N/A	
	Flags and or lights present during test? Indicate number of each: 0 # of flags: 1 # of lights: Weight of lights: 4.0 lb ea.	
Device Name	TD7500 Ring-Top Channelizer	

Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates Foundation, Aux. Features Ballast, etc.	(May be attached on separate page(s): See E-TECH Report 325
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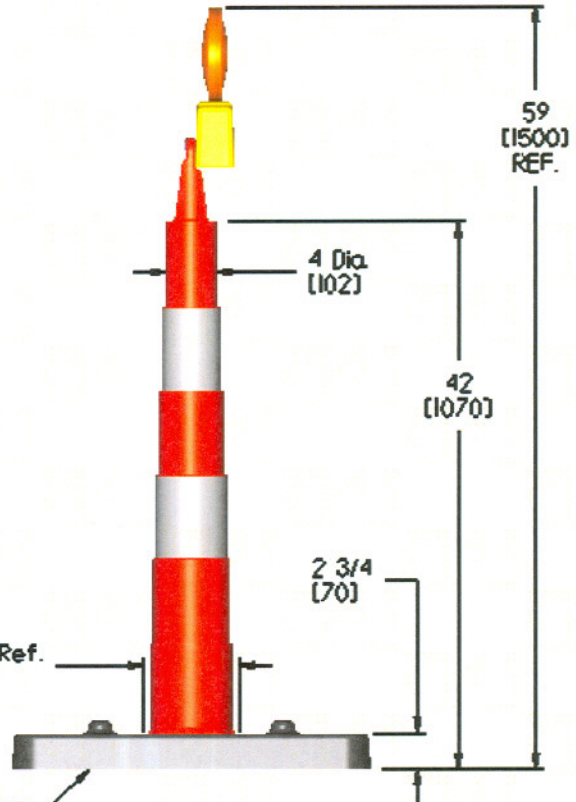
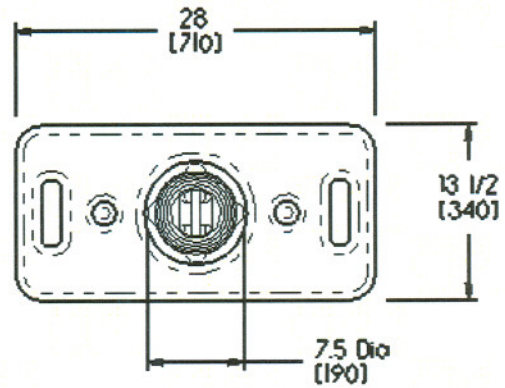
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PORTABLE BASE

RINGTOP SLIM-LINE CHANNELIZER

Three D TrafficWORKS

Three D TrafficWORKS
430 N. Varney Street
Burbank, California 91502
877-843-9757

TD 7500

SHEET NO.	DATE
1 OF 1	