U.S. Department of Transportation
Federal Highway Administration

1200 New Jersey Avenue, SE.
Washington, DC 20590

In Reply Refer To:
HSSD/WZ-280

Mr. John Reynolds
Chief Engineer
Work Zone Safety Products
14817 Rosetown Ave.
Fontana, CA 92336

Dear Mr. Reynolds:

In your letter of April 10, 2009, you requested the Federal Highway Administration (FHWA) acceptance of the WZ Deluxe Tri-Pod temporary sign stand as a crashworthy traffic control device for use in work zones on the National Highway System (NHS). You requested acceptance of the temporary sign stand for use with the following sign substrate material: 1/2 inch thick plywood, 0.125 inch thick aluminum, 2 mm and 3 mm aluminum laminate, corrugated plastic, and roll-up material. Your request for acceptance is based on the performance of the generic tri-pod sign stand accepted in FHWA letters WZ-240 and a similar tri-pod stand in WZ-207. Accompanying your letter were the FHWA Office of Safety Design forms that included a drawing and a detailed description of the WZ Deluxe Tri-Pod. Drawings of the WZ Deluxe Tri-Pod are enclosed for reference. You requested that we find the WZ Deluxe Tri-Pod acceptable for use as a Test Level 3 device 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 acknowledges FHWA's acceptance of your request. The original completed forms have been modified by the addition of the FHWA acceptance letter number and the date of our review. The forms will be posted on our Web site in the near future.

Sincerely yours,

George E. Rice, Jr.

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

Enclosures

MOVING THE AMERICAN ECONOMY

Attachment 1

Page 1	**FEDERAL HIGHWAY ADMINISTRATION** **OFFICE OF SAFETY DESIGN** **Category 2 Work Zone Device Acceptance Letter**	Letter Number WZ-280 Date 4/7/2009
Contact Info	Petitioner / Developer Name and Address: Work Zone Safety Products Inc. 14817 Rosetown Ave. Fontana, California 92336	
	I herby 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	John Reynolds	
Telephone #	(909) 266-1453	
Email Address	john@workzonesafetyproducts.com	
	Laboratory / Engineer Name and Address John Reynolds 14817 Rosetown Ave. Fontana, California 92336	
☐	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.	
☑	I have evaluated the requested modifications to these devices previously found acceptable by the FHWA in Acceptance Letter WZ-240 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	John Reynolds	
Telephone #	(909) 587-8942	
Email Address	john@workzonesafetyproducts.com	
Keywords:		
	Type of Device (See page 3) Tripod 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): 0.5	
	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: 0 # of lights: 0 Weight of lights: ea.	
Device Name	Deluxe Tripod Sign Stand	
Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates Foundation, Aux. Features Ballast, etc.	(May be attached on separate page(s) The "Deluxe Tri-Pod" is a "triangular footprint" of a "tri-pod portable sign stand with a steel upright support measuring 1.25 inches square with a wall thickness of 0.070 inches. A 1" inch steel inner mast extends out to a total height of 73 inches supporting a 48" x 48" diamond sign at approximately 13 inches above the pavement. The mast is supported on three 1.25 inch square steel folding legs which form from an upper joining "heart plate" which is attached to the telescoping inner mast.	

Page 2	**FEDERAL HIGHWAY ADMINISTRATION** **OFFICE OF SAFETY DESIGN** **Category 2 Work Zone Device Acceptance Letter**	Letter Number WZ-280 Date 4/7/2009
	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: 04/09/2009	
	Attachment # 2: PDF drawing(s) of device(s)	
	Attach. #2a — Drawing Title: Deluxe Tripod Stand	
	Drawing #: 2200-00	
	Attach. #2b — Drawing Title: Heart Plate Assy	
	Drawing #: 93100	
	Attach. #2c — Drawing Title: Mast	
	Drawing #: 93220	
	Attach. #2d — Drawing Title: Mast Assy	
	Drawing #: 93200	
	Attach. #2e — Drawing Title: Front Leg	
	Drawing #: 93X10	
	Attach. #2f — Drawing Title: Back Leg	
	Drawing #: 93310	
	Attach. #2g — Drawing Title:	
	Drawing #: 93310	

Page 3	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-280 Date 4/7/2009

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":

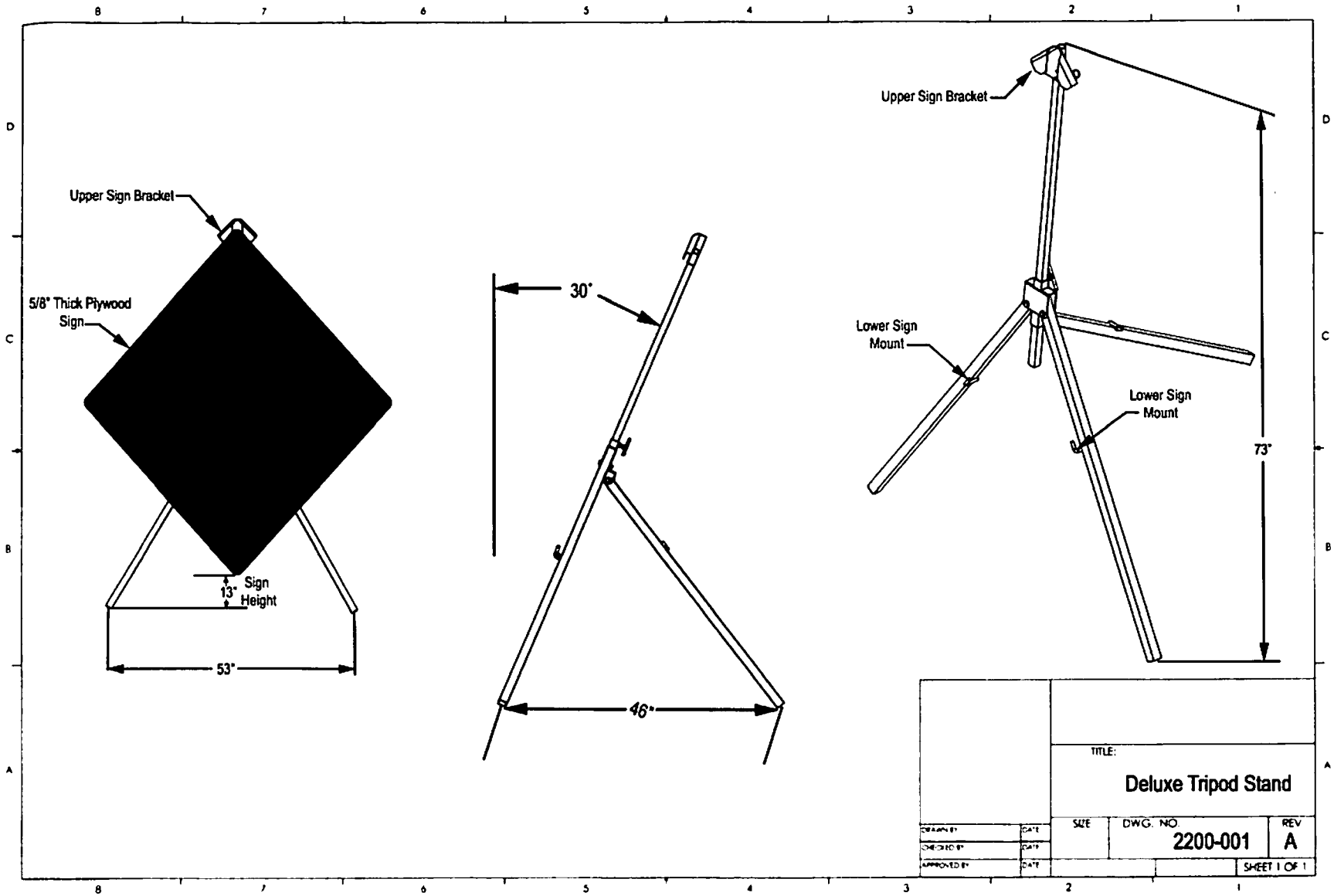
The distance to the lowest point on the sign is:

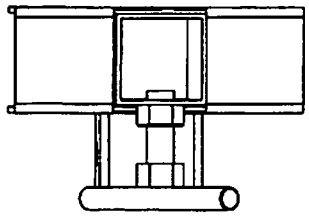
Low	12 to 18 inches above the pavement
Mid-A	20 to 24 inches above the pavement
Mid-B	25 to 36 inches above the pavement
Mid-C	37 to 59 inches above the pavement
Tall	60 to 71 inches above the pavement
Oversized	72 inches and taller

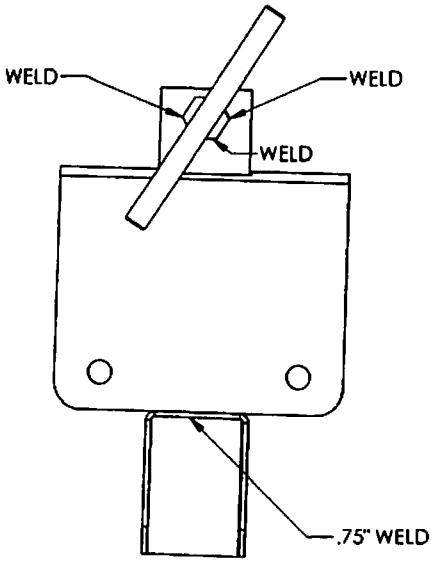
Page 4	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-230 Date 4/7/2009

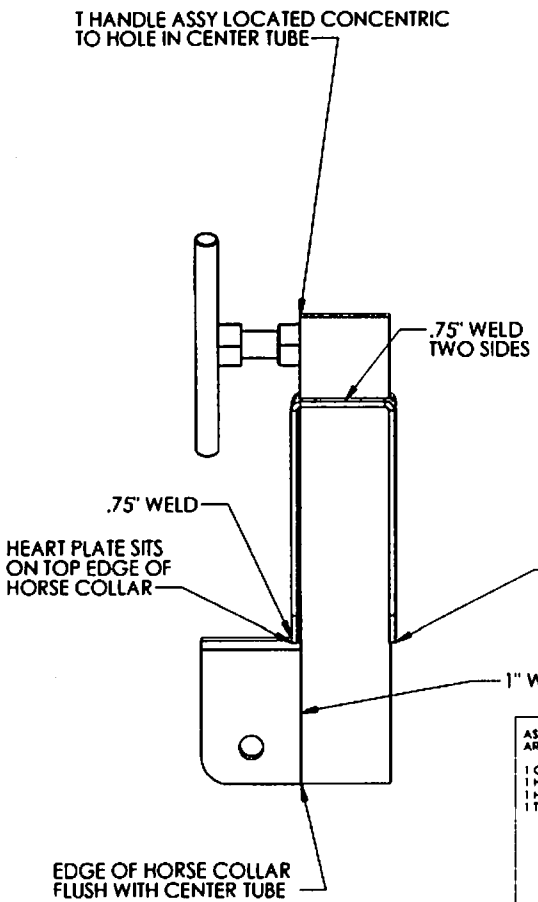
Please note the following standard provisions that apply to FHWA letters of acceptance:

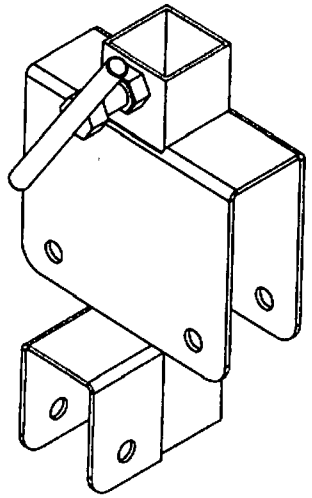
- Our acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, or conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance 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.


Upper Sign Bracket
5/8" Thick Plywood Sign
Sign Height
13"
53"
30"
46"
Upper Sign Bracket
Lower Sign Mount
Lower Sign Mount
73"
TITLE:
Deluxe Tripod Stand
SIZE
DWG. NO.
2200-001
REV
A
SHEET 1 OF 1









ASSEMBLY COMPONENTS ARE

1 CENTER TUBE
1 HEART PLATE
1 HORSE COLLAR
1 T HANDLE BOLT ASSY

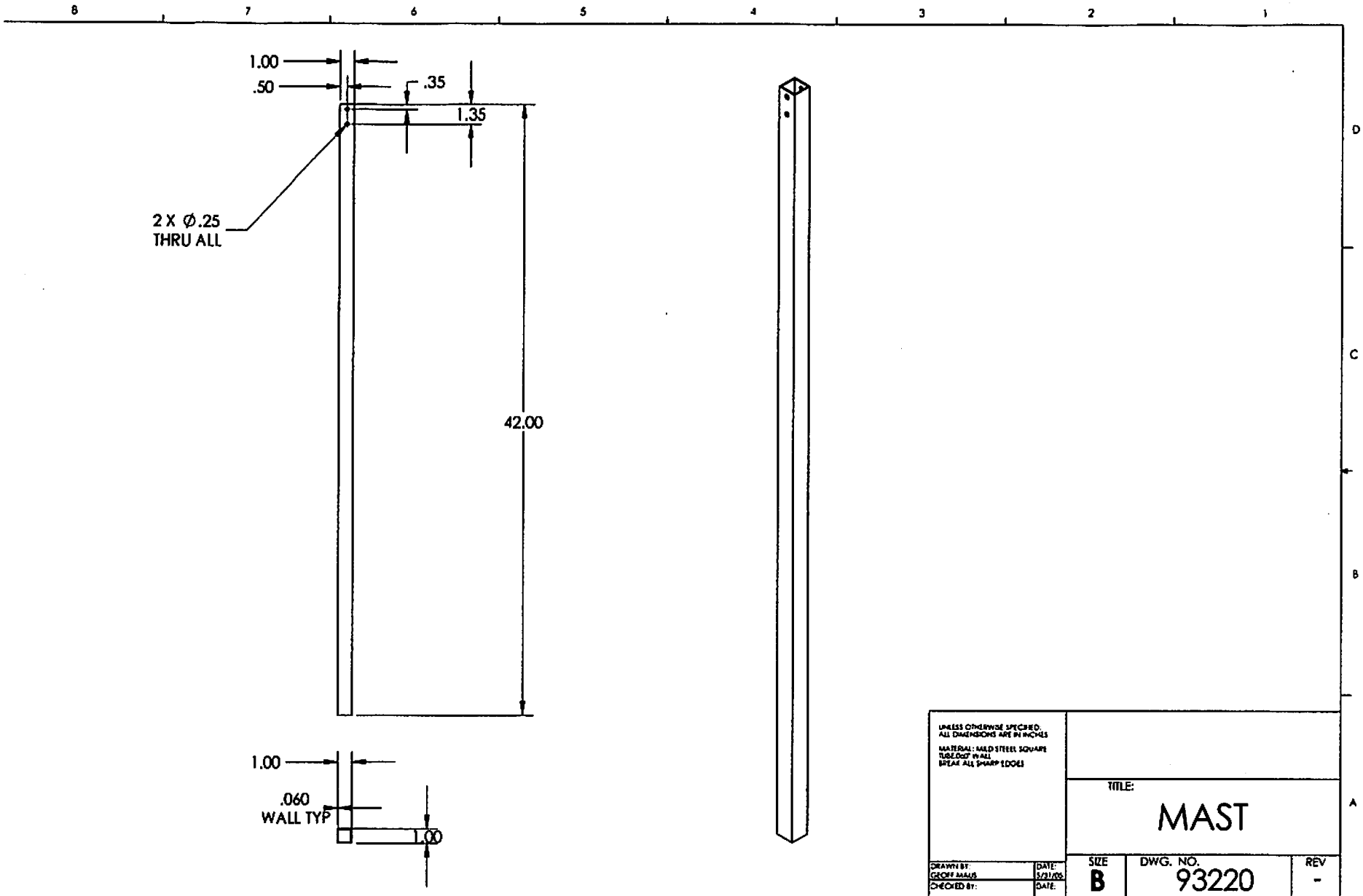
TITLE:

HEART PLATE ASSY

DRAWN BY:	DATE:
GEOFF MAUS	6/1/05
CHECKED BY:	DATE:
APPROVED BY:	DATE:

SIZE	DWG. NO.	REV
B	93100	-

SHEET 1 OF 1

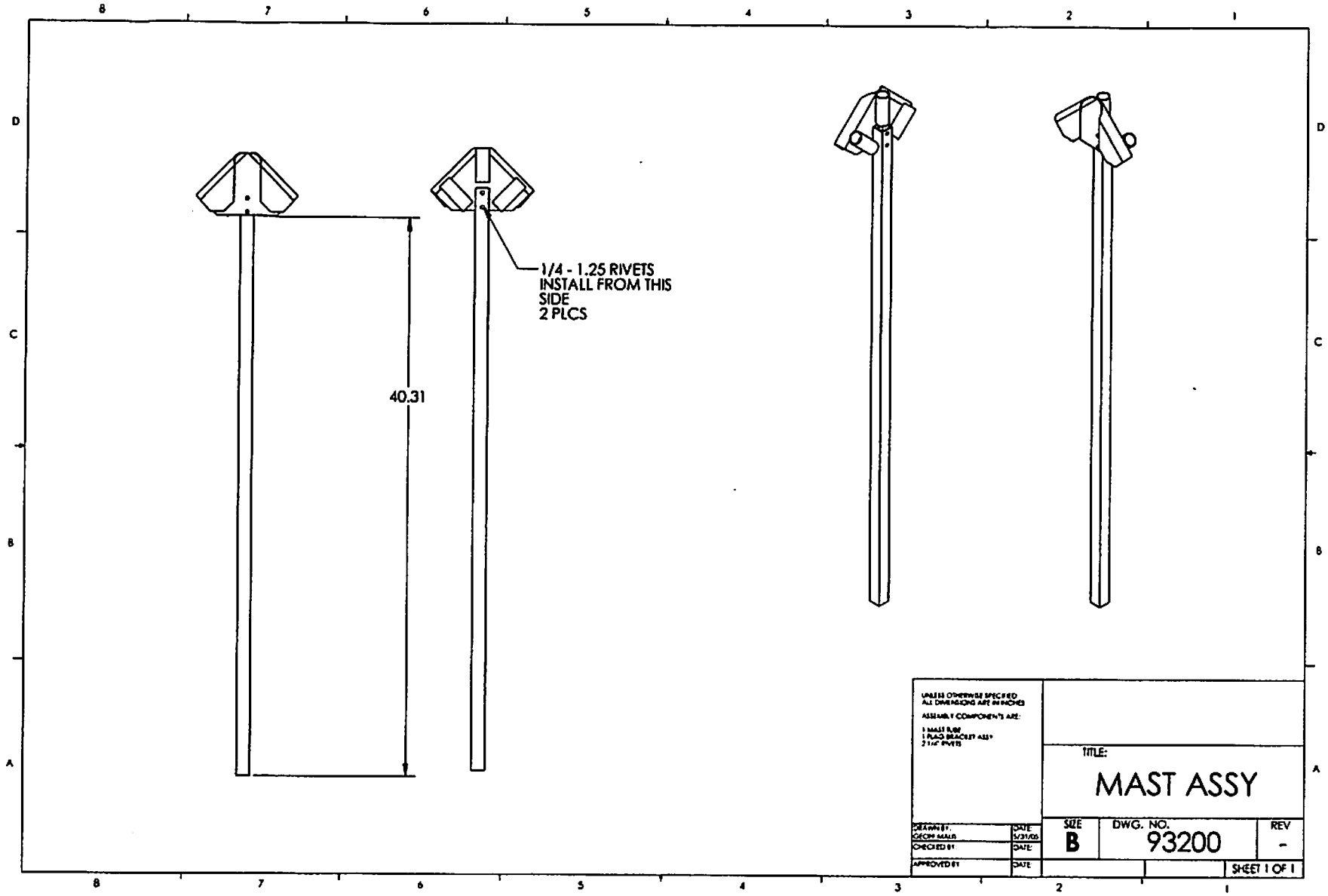


UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
MATERIAL: MILD STEEL SQUARE TUBE .060" IN ALL
BREAK ALL SHARP EDGES

TITLE:

MAST

DRAWN BY: GEOFF MAUS	DATE: 5/31/05	SIZE B	DWG. NO. 93220	REV -
CHECKED BY:	DATE:			
APPROVED BY:	DATE:			SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES

ASSEMBLY COMPONENTS ARE:

1 MAST ASSY
1 PLAQ BRACKET ASSY
2 1/4" RIVETS

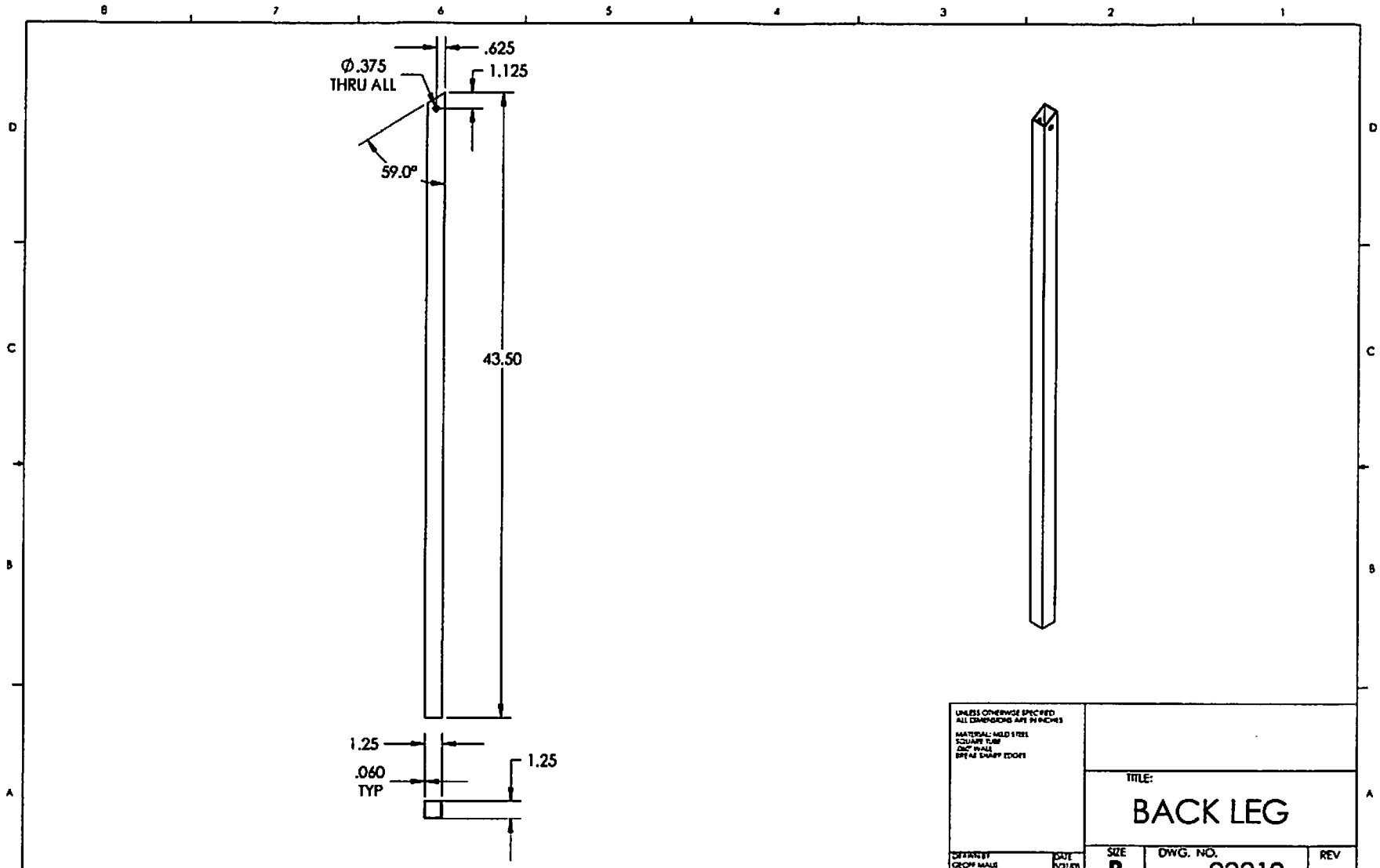
DRAWN BY: GEOFF MILLS	DATE: 5/31/05	
CHECKED BY	DATE:	
APPROVED BY	DATE:	

TITLE:

MAST ASSY

SIZE	DWG. NO.	REV
B	93200	-

SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
MATERIAL: MILD STEEL
SQUARE TUBE
.065" WALL
BREAK SHARP EDGES

DRAWN BY: GEOFF MAUS	DATE: 7/21/11	
CHECKED BY:	DATE:	
APPROVED BY:	DATE:	

TITLE:

BACK LEG

SIZE	DWG. NO.	REV
B	93310	-

SHEET 1 OF 1