



U.S. Department
of Transportation

**Federal Highway
Administration**

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

September 6, 2017

In Reply Refer To:
HSST-1/ WZ-350

Henry A. Ross, Director
Government Relations
Plasticade
7700 N. Austin Avenue
Skokie, IL 60077

Dear Mr. Ross:

This letter is in response to your April 7, 2017 request for the Federal Highway Administration (FHWA) to review a roadside safety device, hardware, or system for eligibility for reimbursement under the Federal-aid highway program. This FHWA letter of eligibility is assigned FHWA control number WZ-350 and is valid until a subsequent letter is issued by FHWA that expressly references this device.

Decision

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

- Plasticade SS100/SS105 Sign Stand System with 48" x 48" x ⁵/₈" MDF Wood Sign Substrate

Scope of this Letter

To be found eligible for Federal-aid funding, new roadside safety devices should meet the crash test and evaluation criteria contained in the American Association of State Highway and Transportation Officials' (AASHTO) Manual for Assessing Safety Hardware (MASH). However, the FHWA, the Department of Transportation, and the United States Government do not regulate the manufacture of roadside safety devices. Eligibility for reimbursement under the Federal-aid highway program does not establish approval, certification or endorsement of the device for any particular purpose or use.

This letter is not a determination by the FHWA, the Department of Transportation, or the United States Government that a vehicle crash involving the device will result in any particular outcome, nor is it a guarantee of the in-service performance of this device. Proper manufacturing, installation, and maintenance are required in order for this device to function as tested.

This finding of eligibility is limited to the crashworthiness of the system and does not cover other structural features, nor conformity with the Manual on Uniform Traffic Control Devices.

Eligibility for Reimbursement

Based solely on a review of crash test results and certifications submitted by the manufacturer, and the crash test laboratory, FHWA agrees that the device described herein meets the crash test and evaluation criteria of the American Association of State Highway and Transportation Officials' Manual for Assessing Safety Hardware (MASH). Therefore, the device is eligible for reimbursement under the Federal-aid highway program if installed under the range of tested conditions.

Name of system: Plasticade SS100/SS105 Sign Stand System

Type of system: Work Zone Traffic Control Devices

Test Level: MASH Test Level 3

Testing conducted by: E-Tech

Date of request: April 7, 2017

Date of completed package: June 7, 2017

FHWA concurs with recommendation of the accredited crash testing laboratory as stated within the attached form on determination of eligibility for the sign substrate that was physically tested (48"x48" 5/8" MDF Wood). This determination of eligibility does not apply to the proposed lighter weight sign substrates not physically tested, but recommended by the laboratory. If an eligibility letter is requested on these other sign substrates, this will require successful physical crash testing as per 2016 AASHTO MASH.

Full Description of the Eligible Device

The device and supporting documentation, including reports of the crash tests or other testing done, videos of any crash testing, and/or drawings of the device, are described in the attached form.

Notice

This eligibility letter is issued for the subject device as tested. Modifications made to the device are not covered by this letter and will need to be tested in accordance with all recommended tests in AASHTO's MASH as part of a new and separate submittal.

You are expected to supply potential users with sufficient information on design, installation and maintenance 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 test and evaluation criteria of AASHTO's MASH.

Issuance of this letter does not convey property rights of any sort or any exclusive privilege. This letter is based on the premise that information and reports submitted by you are accurate and correct. We reserve the right to modify or revoke this letter if: (1) there are any inaccuracies in the information submitted in support of your request for this letter, (2) the qualification testing

was flawed, (3) in-service performance or other information reveals safety problems, (4) the system is significantly different from the version that was crash tested, or (5) any other information indicates that the letter was issued in error or otherwise does not reflect full and complete information about the crashworthiness of the system.

Standard Provisions

- To prevent misunderstanding by others, this letter of eligibility designated as FHWA control number WZ-350 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 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.
- If the subject device is a patented product it may be considered to be proprietary. If proprietary systems are specified by a highway agency for use on Federal-aid projects: (a) they must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with the 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.

Sincerely,



Robert Ritter
Acting Director, Office of Safety
Technologies
Office of Safety

Enclosures

Request for Federal Aid Reimbursement Eligibility of Highway Safety Hardware

Submitter	Date of Request:	February 16, 2017	<input checked="" type="radio"/> New <input type="radio"/> Resubmission
	Name:	Henry A. Ross	
	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.

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

!-!-!

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"/> Engineering Analysis	Plasticade SS100/SS105 Sign Stand System	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:	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"/>

Enter below all disclosures of financial interests as required by the FHWA 'Federal-Aid Reimbursement Eligibility Process for Safety Hardware Devices' document.

The Plasticade SS100/SS105 Sign Stand System is the commercial embodiment of intellectual property that is not protected by patents. Plasticade does not pay royalties for sales of the Plasticade SS100/SS105 Sign Stand System. The Plasticade SS100/SS105 Sign Stand System was designed and developed by engineers at Plasticade. Plasticade sponsored certain crash tests of the Plasticade SS100/SS105 Sign Stand System; such tests were conducted by E-Tech Testing Services, an independent, wholly-owned subsidiary of Trinity Highway. E-Tech Testing Services is an International Standards Organization (ISO) 17025 accredited laboratory with American Association for Laboratory Accreditation (A2LA) Mechanical Testing certificate 989.01. Full-scale crash testing on the Plasticade SS100/SS105 Sign Stand System was performed in accordance with testing criteria, as set forth by the Manual for Assessing Safety Hardware (MASH), 2009.

PRODUCT DESCRIPTION

- New Hardware or Significant Modification
 Modification to Existing Hardware

The Plasticade SS100/SS105 Sign Stand System is a work-zone traffic control device designed to regulate, warn, and advise road users to traverse a section of highway or street in the proper manner. The sign stand consists of a steel tripod frame with components specifically to secure industry standard 1.22 m x 1.22 m signs of various substrates. Crash tests were conducted with plywood signs; eligibility request is for plywood and additional lighter weight substrates. The fixed mounting height of the sign measures approximately 0.36 m above grade. The SS100 is powder coated while the SS105 is galvanized for corrosion resistance; the physical differences between the two sign stands are negligible. The test articles were fitted with three fabric flags with wooden handles using the supplied flag holder hardware. Test article weight without sign was 7 kg. The heaviest sign impacted was 17 kg. Detailed drawings are contained in Appendix A.

CRASH TESTING

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.

Engineer Name:	Paul Kruse	
Engineer Signature:	Paul Kruse	Digitally signed by Paul Kruse DN: cn=Paul Kruse, o=Trinity Highway, ou=E-TECH Testing Services, email=paul.kruse@etechtesting.com, c=US Date: 2013.02.27 06:01:52 -0800 Adobe Acrobat DC version: 2015.023.20056
Address:	3617B Cincinnati Ave, Rocklin, CA 95765	Same as Submitter <input type="checkbox"/>
Country:	United States	Same as Submitter <input type="checkbox"/>

A brief description of each crash test and its result:

Required Test Number	Narrative Description	Evaluation Results
3-70 (1100C)	Test 3-70 was omitted as MASH says it is optional for test articles that weigh less than 100 kg (220 lbs.)	Non-Critical, not conducted

Required Test Number	Narrative Description	Evaluation Results
3-71 (1100C)	<p>E-TECH Test 76-0438-001 was conducted using an 1100C vehicle at 100 km/hr. at 0 degrees. Vehicle final test inertial mass was 1100 kg. The center of the vehicle bumper was aligned with the vertical centerline of the test article. The vehicle impacted the front legs of the sign stand; the legs deformed and the sign contacted the hood. The sign detached from the stand and rotated towards the windshield and roof of the vehicle. The sign continued back across the roof and was no longer in contact with the vehicle. The vehicle hood released and interfered with the 90 degree test, which was then conducted separately. Damage to the vehicle bumper, hood, and roof was significant. The windshield was moderately damaged by direct contact with the sign. There was no penetration of the passenger compartment and no damage to any part of the undercarriage of the vehicle.</p> <p>E-TECH Test 76-0438-002 was conducted using an 1100C vehicle at 100 km/hr. at 90 degrees. Vehicle final test inertial mass was 1104 kg. The center of the vehicle bumper was aligned with the vertical centerline of the test article. The front bumper impacted the left leg of the sign stand and the lower left section of the sign. Both sign stand and sign rotated towards the vehicle; the sign released from the stand and impacted the hood. The sign elevated over the roof without contact; the sign stand lightly struck the roof and trunk. Both impacts showed negligible damage. Damage to the vehicle bumper, hood, and roof from the test was negligible. There was no windshield damage. There was no penetration of the passenger compartment and no damage to any part of the undercarriage of the vehicle.</p> <p>The device was judged to have successfully met all MASH evaluation criteria for Test 3-71 for work zone traffic control devices in both normal and perpendicular orientations.</p>	PASS

3-72 (2270P)	<p>E-TECH Test 76-0438-003 was conducted using a 2270P vehicle at 100 km/hr. at 0 degrees and at 90 degrees. Vehicle final test inertial mass was 2226 kg. The center of the vehicle bumper was aligned with the vertical centerline of the test article. For the 0 degree test, the front bumper impacted the front legs and base of the wood sign simultaneously; the wood sign flexed around the hood, fractured, and the upper section landed on the hood. The sign stand and lower section of the sign elevated above the vehicle without making direct contact. For the 90 degree test, the test article was impacted and the sign detached from the stand. Both components elevated in front of the vehicle's windshield and then pushed towards the driver's side and then came to rest.</p> <p>The vehicle sustained moderate damage to the bumper and hood. There was no damage to the windshield. There was no damage or penetration to the passenger compartment nor to the undercarriage components of the vehicle.</p> <p>The device was judged to have successfully met all MASH evaluation criteria for Test 3-72 for work zone traffic control devices in both normal and perpendicular orientations.</p>	PASS
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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:	E-Tech Testing Services, Inc.	
Laboratory Signature:	Paul Kruse	<small>Digitally signed by Paul Kruse DN: cn=Paul Kruse, o="Trotty Highway, ou=E-TECH Testing Services, email=paul.kruse@etechtesting.com, c=US Date: 2017.02.27.06:14:24 -0800 Adobe Acrobat DC version: 2015.023.20056</small>
Address:	3617B Cincinnati Avenue, Rocklin, CA 95765	Same as Submitter <input type="checkbox"/>
Country:	USA	Same as Submitter <input type="checkbox"/>
Accreditation Certificate Number and Dates of current Accreditation period :	ISO/IEC 17025-2005 Accredited Mechanical #0989-01 (Certification dated November 20, 2015 thru November 30, 2017)	

Submitter Signature*: Henry A. Ross

Digitally signed by Henry A. Ross
DN: cn=Henry A. Ross, o=Plasticade, ou=
email=hross@plasticade.com, c=US
Date: 2017.02.27 11:57:54 -0600'

Submit Form

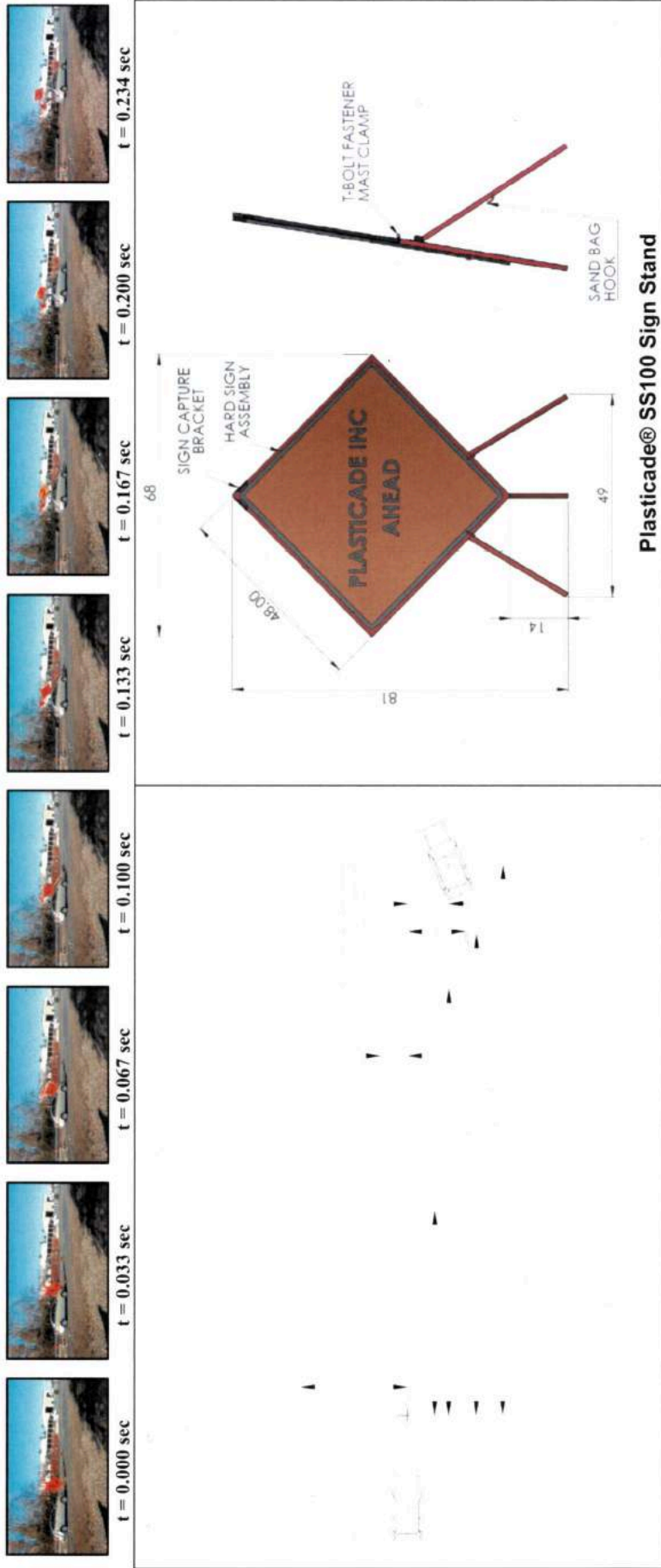
ATTACHMENTS

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



Plasticade® SS100 Sign Stand

General Information

Test Agency E-TECH Testing Services
 Test Designation MASH Test 3-71
 Test No. 76-0438-002
 Date 12/15/2015

Test Article

Type Plasticade
 Tripod Sign Holder, Powder Coated (SS100)
 Work-Zone Traffic Control Device
 Dimensions 206 cm OA Height x 173 cm Wide
 Installation Details Industry Standard 48"x48" 5/8" MDF Wood Sign
 356 mm Sign Height (Bottom of Sign to Grade)
 No Sandbag (Ballast)

Material and Key 7 kg Tripod Sign Holder, Powder Coated Steel
 Elements 15.0 kg MDF Sign Board
 Foundation Type Asphalt, clean and dry
 and Condition

Test Vehicle

Type
 Designation 1100C
 Model 2009 Hyundai Accent
 Curb 1101.0 kg
 Test Inertial 1104.0 kg
 Dummy N/A
 Gross Static 1104.0 kg

Impact Conditions

Speed 99.5 kph
 Angle (deg) 90
 Impact Severity 421.7 kJ

Exit Conditions

Speed 98.5 kph
 Angle (deg) 0

Vehicle Damage

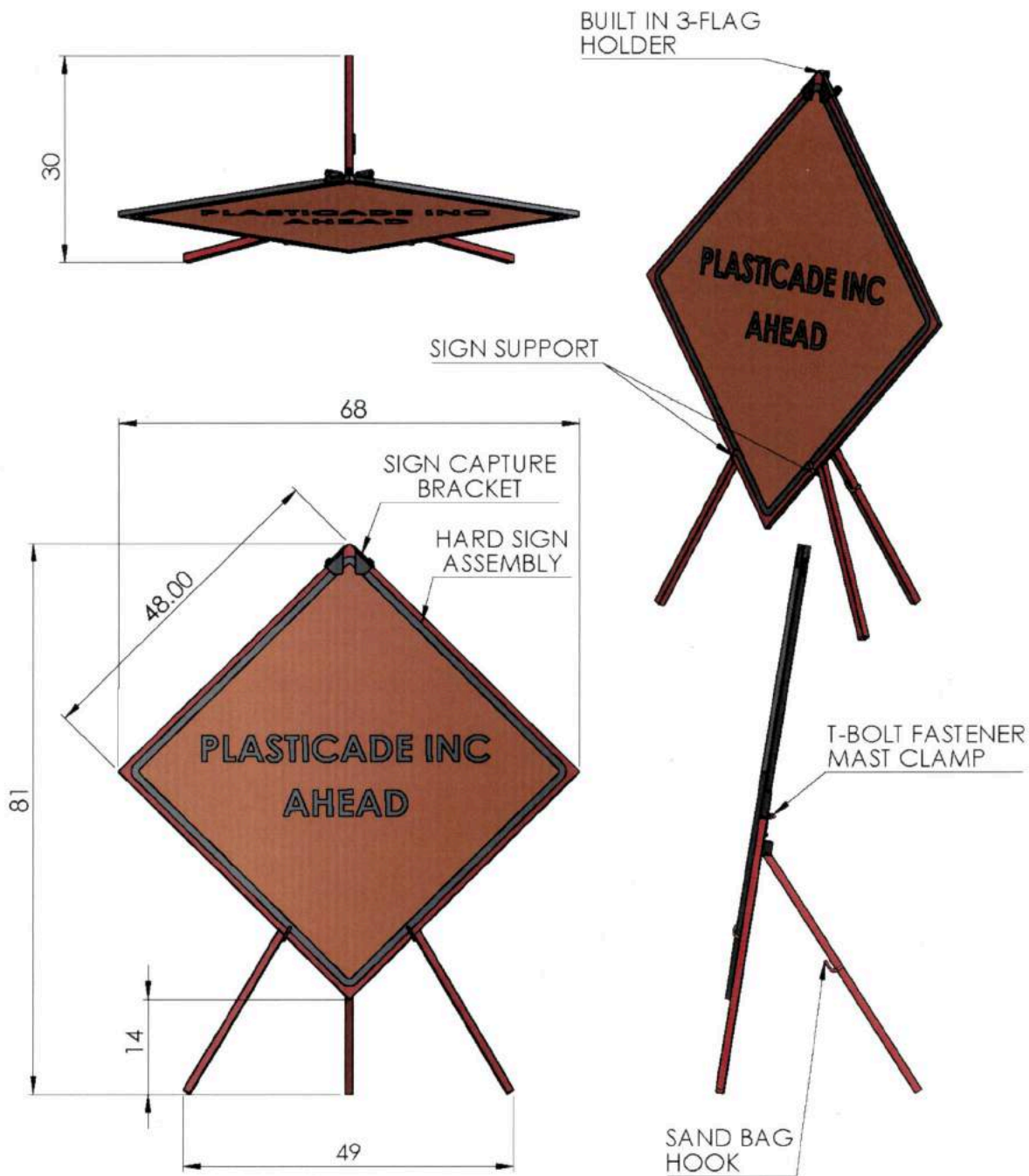
Exterior
 VDS FL-2 / FR-2
 CDC 12FDEW2
 Notable Deformation None
 Interior
 Maximum Deformation Negligible

Figure 6 - Summary of Results – Plasticade® SS100 Sign Stand Test 76-0438-002



APPENDICES

Appendix A - Details of Test Article



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 TRIPOD STAND
 POWDER COATED

SEE DWG. NO. SS100
 A

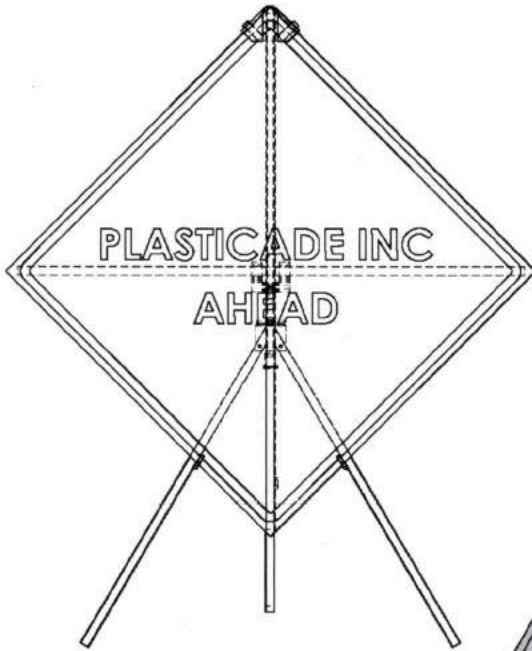
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REV: C
 SHEET 1 OF 3

Illustration 1 – Plasticade® SS100 Technical Drawing (Sheet 1 of 3)



ROLL-UP SIGN ASSEMBLY

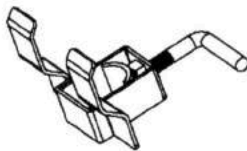


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ROLL-UP SIGN
AND ROLL-UP CLAMP



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**TRIPOD STAND
POWDER COAT**

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A

SS100

REV.
C

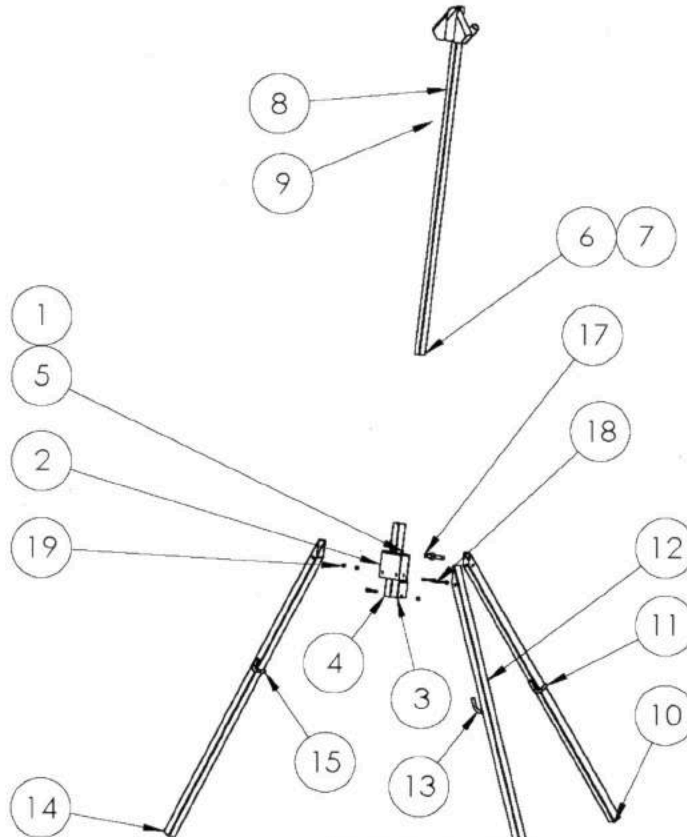
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SHEET 2 OF 3

Illustration 2 – Plasticade® SS100 Technical Drawing (Sheet 2 of 3)



SS100	10000	10000 STAND ASSEMBLY	RSM10000-150119			
ITEM	PART NUMBER	DESCRIPTION	DRAWING NUMBER	MATERIAL	FINISH	Quantity
1	TS-LFA-4-002	SQUARE TUBE ASSEMBLY	RSMT105-140331		POWDER COAT	1
2	TS-LFA-1	TRIPOD LEG FRAME	RSMT101-140331	STEEL Q235	POWDER COAT	1
3	TS-LFA-2	TRIPOD STAND FRAME-2	RSMT102-140331	STEEL Q235	POWDER COAT	1
4	TS-LFA-4	30MM O.D. SQUARE TUBE	RSMT103-140331	STEEL Q215	POWDER COAT	1
5	TS-NUT	TRIPOD STAND NUT	RSMT104-140331	STEEL	POWDER COAT	1
6	TS-SHA	TRIPOD STAND TOP PART	RSMT114-150119			
7	TS-SHA-1	28MM O.D. SQUARE TUBE	RSMT113-140331	STEEL Q215	POWDER COAT	1
8	TS-SHA-2	23MM O.D. TUBE	RSMT112-140331	STEEL Q215	POWDER COAT	1
9	TS-SHA-3	TRIPOD STAND TOP	RSMT111-140331	STEEL Q235	POWDER COAT	1
10	TS-LEGR	TRIPOD STAND REAR LEG	RSMT110-140515	STEEL Q215	POWDER COAT	1
11	TS-HOOK	TRIPOD STAND HOOK	RSMT109-140331	STEEL	POWDER COAT	1
12	TS-LEGF	TRIPOD STAND FRONT LEG	RSMT107-140331	STEEL Q215	POWDER COAT	1
13	TS-HOOK	TRIPOD STAND HOOK	RSMT109-140331	STEEL	POWDER COAT	1
14	TS-LEGF-02	TRIPOD FRONT LEG	RSMT108-140331	STEEL Q215	POWDER COAT	1
15	TS-HOOK	TRIPOD STAND HOOK	RSMT109-140331	STEEL	POWDER COAT	1
16	HARDWARE					
17	TS-LFA-3	TRIPOD STAND HANDLE BAR	RSMT106-140331	STEEL	ZINC PLATE	1
18	TS-BOLT	BOLT HEX CAP 1/4-20 X 1-3/4	BOLT/NUT SHEET	STEEL GRADE 5	ZINC PLATE	3
19	TS-NLN	NUT NYLON LOCK 1/4-20	BOLT/NUT SHEET	STEEL	ZINC PLATE	3



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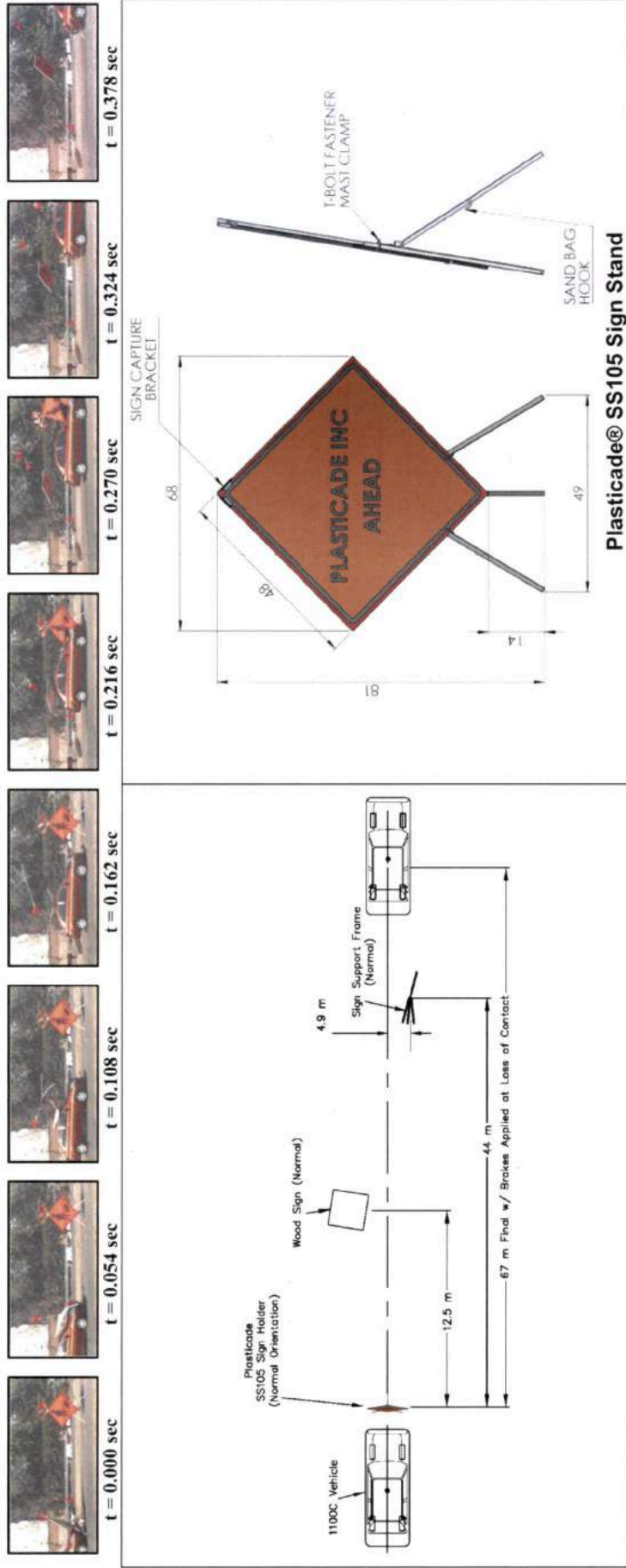
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**TRIPOD STAND
 POWDER COATED**

SIZE DWG. NO. SS100 REV. C
 SCALE: 1:12 WEIGHT: 15.0000 LBS FILE NAME: 10000.DWG

WEIGHT: 15 LBS

Illustration 3 – Plasticade® SS100 Technical Drawing (Sheet 3 of 3)



General Information

Test Agency E-TECH Testing Services
 Test Designation MASH Test 3-71
 Test No 76-0438-001
 Date 4/14/2015

Test Article

Type Plasticade
 Tripod Sign Holder, Galvanized (SS105)
 Work-Zone Traffic Control Device
 Dimensions 206 cm OA Height x 173 cm Wide
 Installation Details Industry Standard 48" x 48" x 5/8" MDF Wood Sign
 356 mm Sign Height (Bottom of Sign to Grade)
 15.9 kg Sandbag (Ballast) Hanging from
 Integrated Sand Bag Hook
 Material and Key Elements 7 kg Tripod Sign Holder, Galvanized Steel
 15.0 kg MDF Sign Board
 15.9 kg Sandbag (Ballast)
 Foundation Type Asphalt, clean and dry
 and Condition

Test Vehicle

Type Production Model
 Designation 1100C
 Model 2009 Kia Rio
 Curb 1111.0 kg
 Test Inertial 1100.0 kg
 Dummy N/A
 Gross Static 1100.0 kg

Impact Conditions

Speed 100.6 kph
 Angle (deg) 0
 Impact Severity 429.4 kJ

Exit Conditions

Speed 99.2 kph
 Angle (deg) 0

Vehicle Damage

Exterior
 VDS FC-4
 CDC 12FCEN1
 Notable Deformation 71 mm Roof/Windshield
 Interior
 Maximum Deformation Negligible

Figure 2 - Summary of Results - Plasticade® SS105 Sign Stand Test 76-0438-001

Normal (0 deg) Orientation



t = 0.000 sec



t = 0.059 sec



t = 0.118 sec



t = 0.177 sec

Perpendicular (90 deg) Orientation



t = 0.000 sec



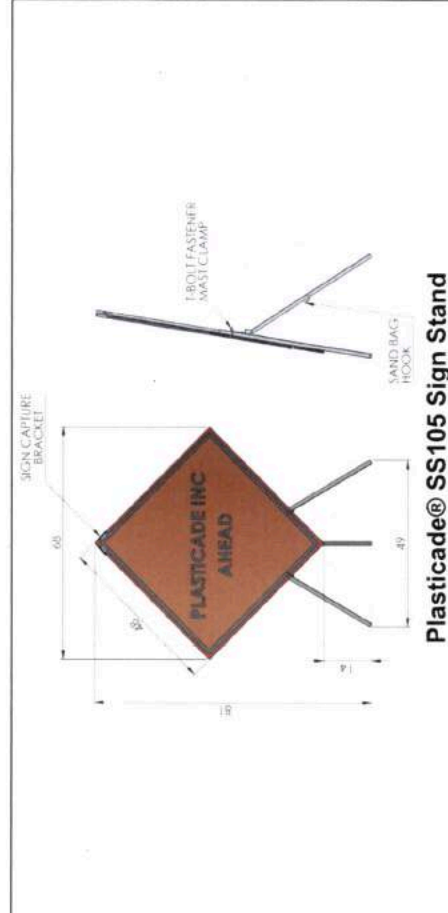
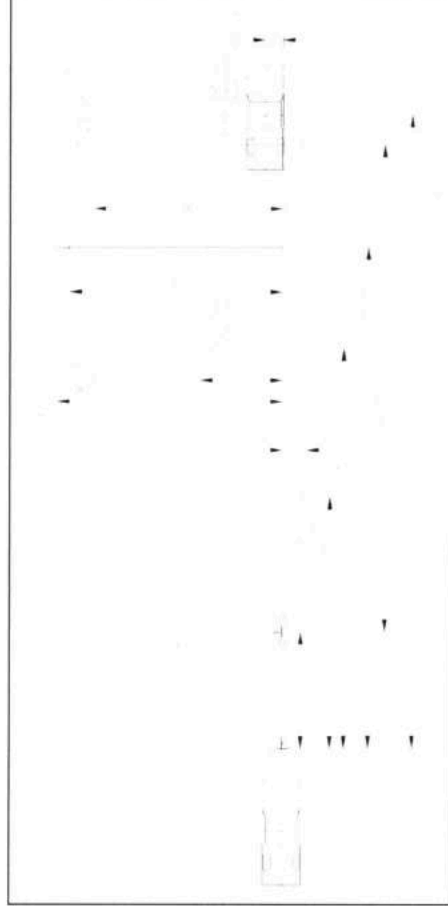
t = 0.049 sec



t = 0.098 sec



t = 0.171 sec



Plasticade® SS105 Sign Stand

General Information

Test Agency..... E-TECH Testing Services
 Test Designation..... MASH Test 3-72
 Test No..... 76-0438-003
 Date..... 11/15/2016

Test Article

Type..... Plasticade
 Tripod Sign Holder, Galvanized (SS105)
 Work-Zone Traffic Control Device
 Dimensions..... 206 cm OA Height x 173 cm Wide
 Installation Details..... Industry Standard 48" x 48" 3/4" MDF Wood Sign
 356 mm Sign Height (Bottom of Sign to Grade)
 No Sandbag (Ballast)
 Material and Key Elements..... 7 kg Tripod Sign Holder, Galvanized Steel
 17.0 kg MDF Sign Board
 Foundation Type..... Asphalt, clean and dry
 and Condition

Test Vehicle

Type..... Production Model
 Designation..... 2270P
 Model..... 2010 Dodge Ram
 Curb..... 2202.0 kg
 Test Inertial..... 2226.0 kg
 Dummy..... N/A
 Gross Static..... 2226.0 kg

Impact Conditions

Speed (Normal Orientation)..... 100.1 kph
 Speed (Perpendicular Orientation)..... 98.1 kph
 Angle (deg)..... 90
 Impact Severity (Normal Orientation)..... 860.5 kJ
 Impact Severity (Perp. Orientation)..... 826.5 kJ

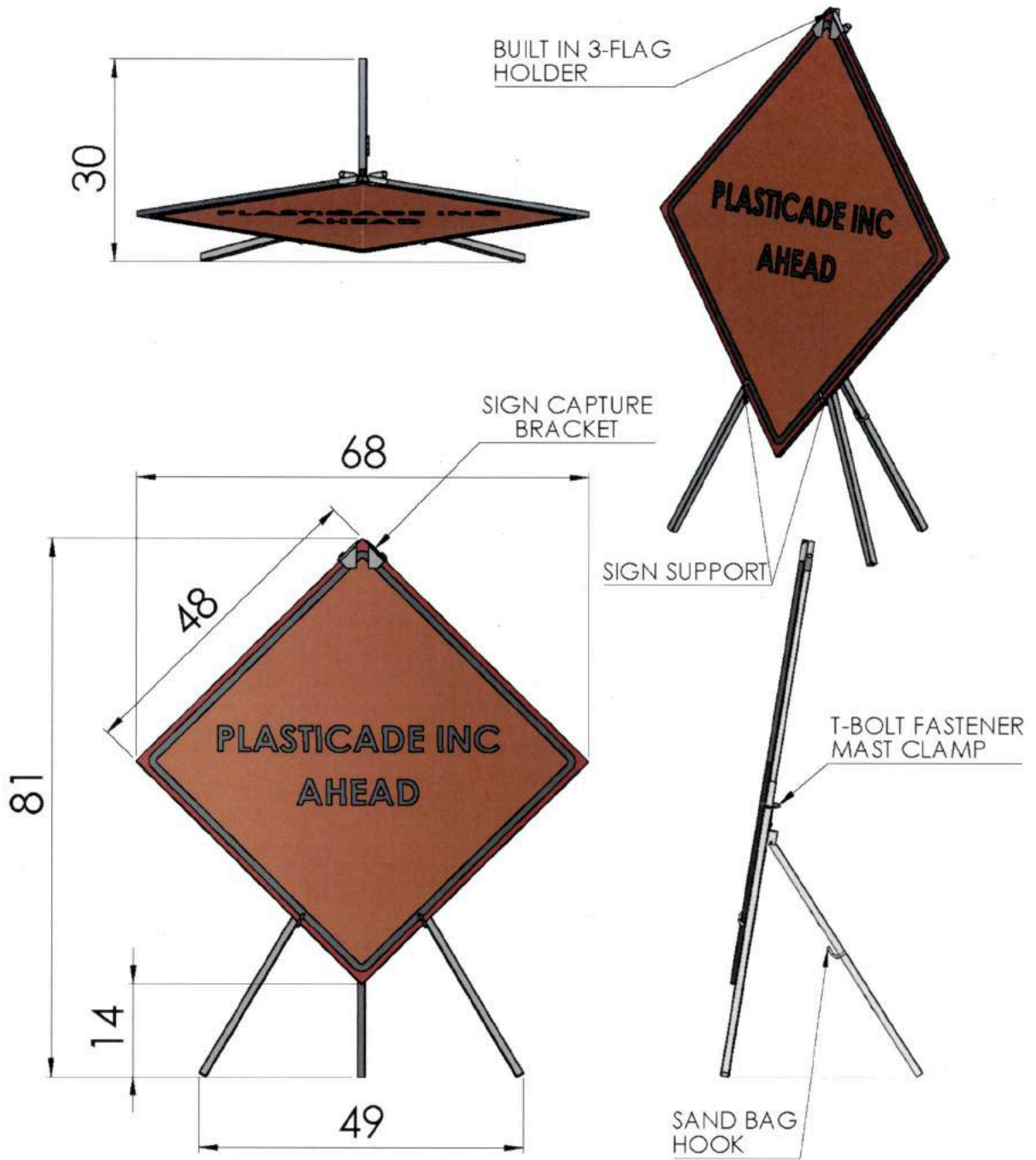
Exit Conditions

Speed (Normal Orientation)..... 98.1 kph
 Speed (Perpendicular Orientation)..... 96.1 kph
 Angle (deg)..... 0

Vehicle Damage

Exterior
 VDS..... FC-2
 CDC..... 12FCEN1
 Notable Deformation..... None
 Interior
 Maximum Deformation..... Negligible

Figure 10 - Summary of Results – Plasticade® SS105 Sign Stand Test 76-0438-003



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**TRIPOD STAND
 GALVANIZED**

SIZE DWG. NO.
A

SS105

REV. **C**

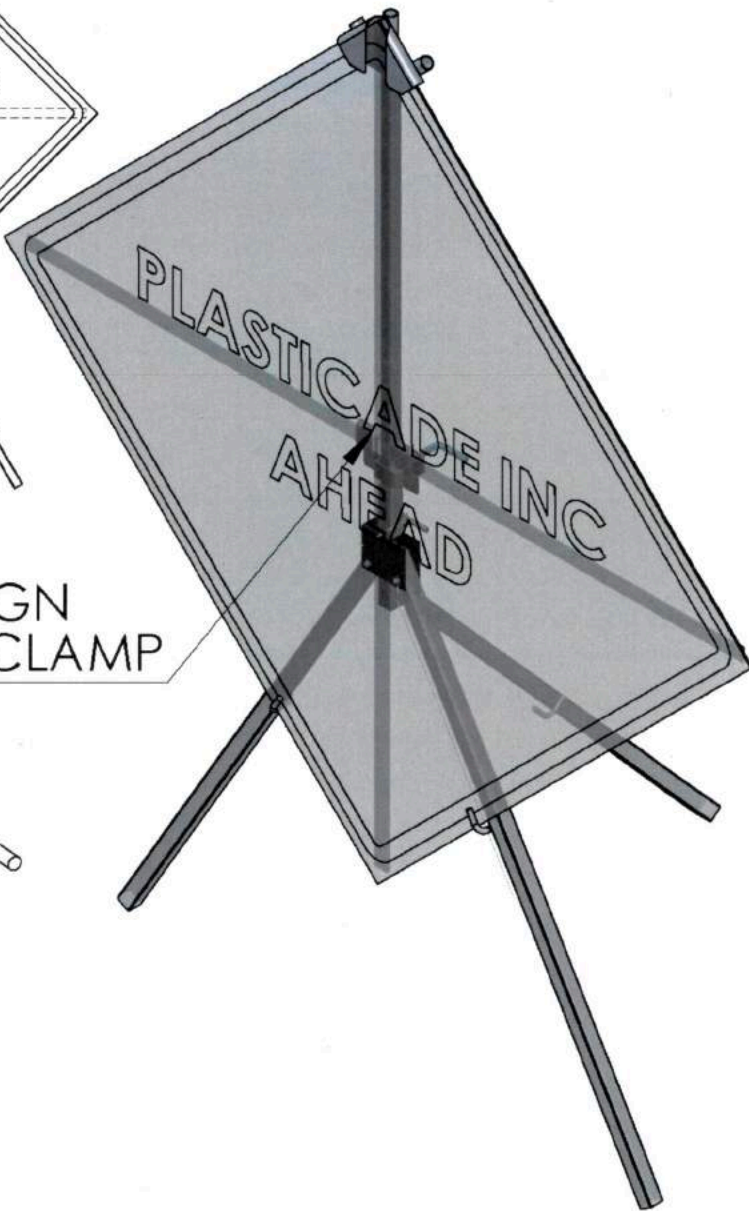
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SHEET 1 OF 3

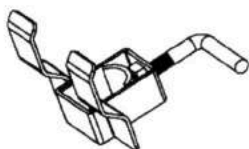
Illustration 4 – Plasticade® SS105 Technical Drawing (Sheet 1 of 3)



ROLL-UP SIGN ASSEMBLY



ROLL-UP SIGN AND ROLL UP CLAMP



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**TRIPOD STAND
GALVANIZED**

SIZE DWG. NO.
A SS105

REV.
C

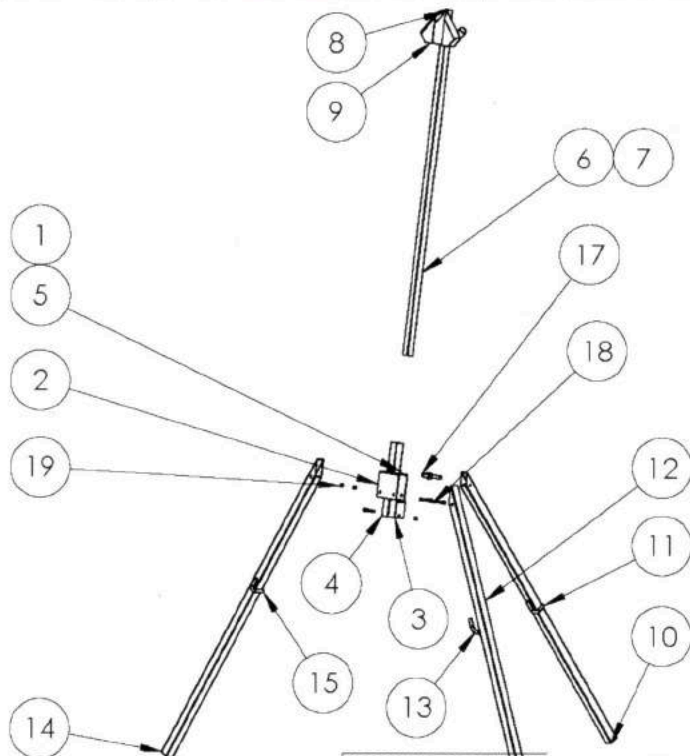
SCALE 1:8

SHEET 2 OF 3

Illustration 5 – Plasticade® SS105 Technical Drawing (Sheet 2 of 3)



SS105	10500	10500 STAND ASSEMBLY	RSM10500-150119			
ITEM	PART NUMBER	DESCRIPTION	DRAWING NUMBER	MATERIAL	FINISH	Quantity
1	TS-LFA-4-002	SQUARE TUBE ASSEMBLY	RSMT105-140331		GALVANIZED	1
2	TS-LFA-1	TRIPOD LEG FRAME	RSMT101-140331	STEEL Q235	GALVANIZED	1
3	TS-LFA-2	TRIPOD STAND FRAME-2	RSMT102-140331	STEEL Q235	GALVANIZED	1
4	TS-LFA-4	30MM O.D. SQUARE TUBE	RSMT103-140331	STEEL Q215	GALVANIZED	1
5	TS-NUT	TRIPOD STAND NUT	RSMT104-140331	STEEL	GALVANIZED	1
6	TS-SHA	TRIPOD STAND TOP PART	RSMT114-150119			
7	TS-SHA-1	28MM O.D. SQUARE TUBE	RSMT113-140331	STEEL Q215	GALVANIZED	1
8	TS-SHA-2	23MM O.D. TUBE	RSMT112-140331	STEEL Q215	GALVANIZED	1
9	TS-SHA-3	TRIPOD STAND TOP	RSMT111-140331	STEEL Q235	GALVANIZED	1
10	TS-LEGR	TRIPOD STAND REAR LEG	RSMT110-140515	STEEL Q215	GALVANIZED	1
11	TS-HOOK	TRIPOD STAND HOOK	RSMT109-140331	STEEL	GALVANIZED	1
12	TS-LEGF	TRIPOD STAND FRONT LEG	RSMT107-140331	STEEL Q215	GALVANIZED	1
13	TS-HOOK	TRIPOD STAND HOOK	RSMT109-140331	STEEL	GALVANIZED	1
14	TS-LEGF-02	TRIPOD FRONT LEG	RSMT108-140331	STEEL Q215	GALVANIZED	1
15	TS-HOOK	TRIPOD STAND HOOK	RSMT109-140331	STEEL	GALVANIZED	1
16	HARDWARE					
17	TS-LFA-3	TRIPOD STAND HANDLE BAR	RSMT106-140331	STEEL	ZINC PLATE	1
18	TS-BOLT	BOLT HEX CAP 1/4-20 X 1-3/4	BOLT/NUT SHEET	STEEL GRADE 5	ZINC PLATE	3
19	TS-NLN	NUT NYLON LOCK 1/4-20	BOLT/NUT SHEET	STEEL	ZINC PLATE	3



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 O.A.
 COMMENTS:

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 1-800-470-3300

**TRIPOD STAND
 GALVANIZED**

SIZE DWG. NO. SS105 REV. C
 SCALE: 1:12 SHEET 3 OF 3

WEIGHT: 15 LBS

Illustration 6 – Plasticade® SS105 Technical Drawing (Sheet 3 of 3)