



# CONSTRUCTION MATERIALS

## TECHNOLOGIES

### LABORATORY TEST REPORT

**Report for:** Sheffield Metals International  
5467 Evergreen Parkway  
Sheffield Village, OH 44054

**Attention:** Adam Mazzella

<b>Product Names:</b>	WAV panel	<b>Manufacturer:</b>	Sheffield Metals International
<b>Project No.:</b>	SHMI-006-02-01	<b>Source:</b>	Sheffield Metals International
<b>Date Received:</b>	Nov. 14 – Dec. 4, 2017	<b>Date Tested:</b>	Jan. 18 – 26, 2018

**Purpose:** Evaluate the assembly described herein for wind resistance in accordance with **ASTM E 330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.**

**Test Methods:** Testing was conducted in accordance with ASTM E 330-02(2010): *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.* Specimens were tested in accordance with Procedure B in both positive and negative differential pressures acting on the specimen. Test pressures were incremented in 15 psf intervals.

**Sampling:** WAV panels and fasteners were supplied by Sheffield Metals International. All other materials were provided by PRI Construction Materials Technologies LLC and purchased through local distribution.

SHMI-006-02-01A PRI-CMT Accreditations: AAMA; CRRC; IAS; LA-DBS; Miami-Dade; State of Florida; UL

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<b>Specimen #1:</b>	Supports:	2" wide, 18 ga. hat channel spaced 1-ft o.c.
	WAV panel:	WAV-16-4F With Flange; Min. 0.0236" ASTM A792 SS Grade 50 steel ( $F_y = 60$ ksi); 17" wide panel with 16" wide exposure; Profile drawing is contained in Appendix A.
	Fastening:	#10-16x1" fasteners installed through panel into each hat channel 1" from the return leg prior to adjoining panels.
<b>Specimen #2:</b>	Supports:	2" wide, 18 ga. hat channel spaced 4-ft o.c.
	WAV panel:	WAV-16-4F With Flange; Min. 0.0236" ASTM A792 SS Grade 50 steel ( $F_y = 60$ ksi); 17" wide panel with 16" wide exposure; Profile drawing is contained in Appendix A.
	Fastening:	#10-16x1" fasteners installed through panel into each hat channel 1" from the return leg prior to adjoining panels.

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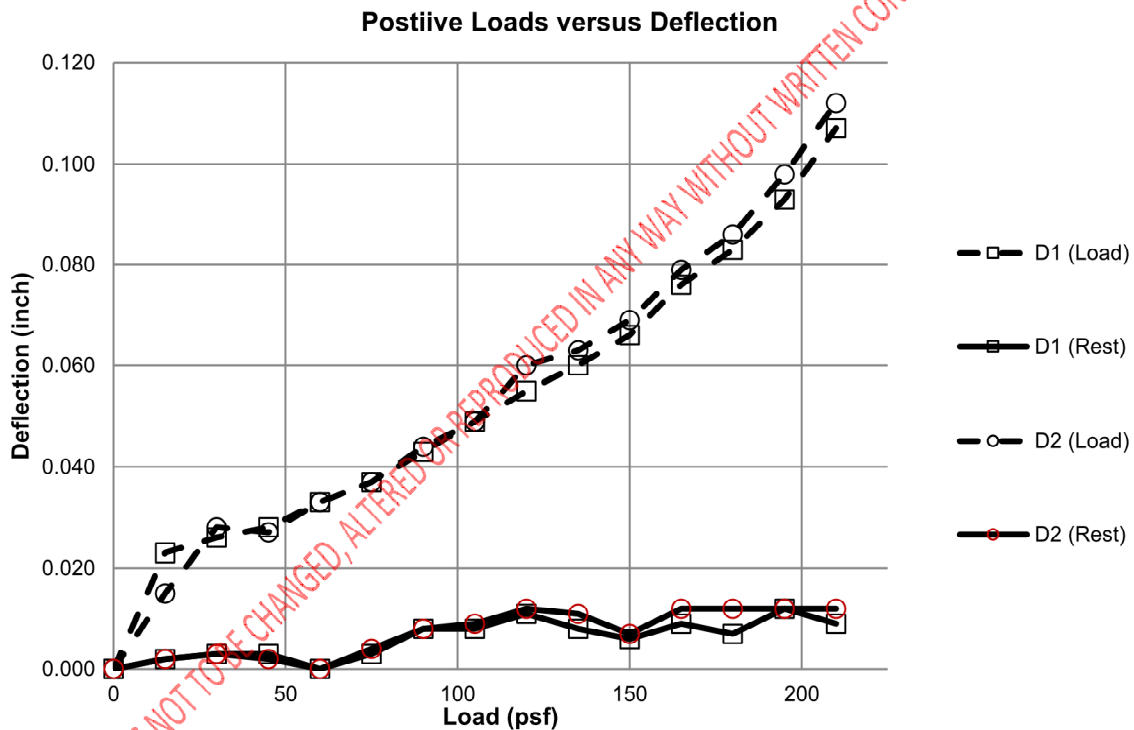
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**Results:** Results of testing are shown below. See Appendix B for location of deflection measurements.

**Table 1. Specimen #1 (WAV-16-4F With Flange @ 1-ft span)  
Highest Passing Pressure from ASTM E 330, Procedure B**

Pressure (psf)	Duration (s)	Result (Pass/Fail)
+210	10	Pass <sup>1</sup>
-135	10	Pass <sup>1</sup>

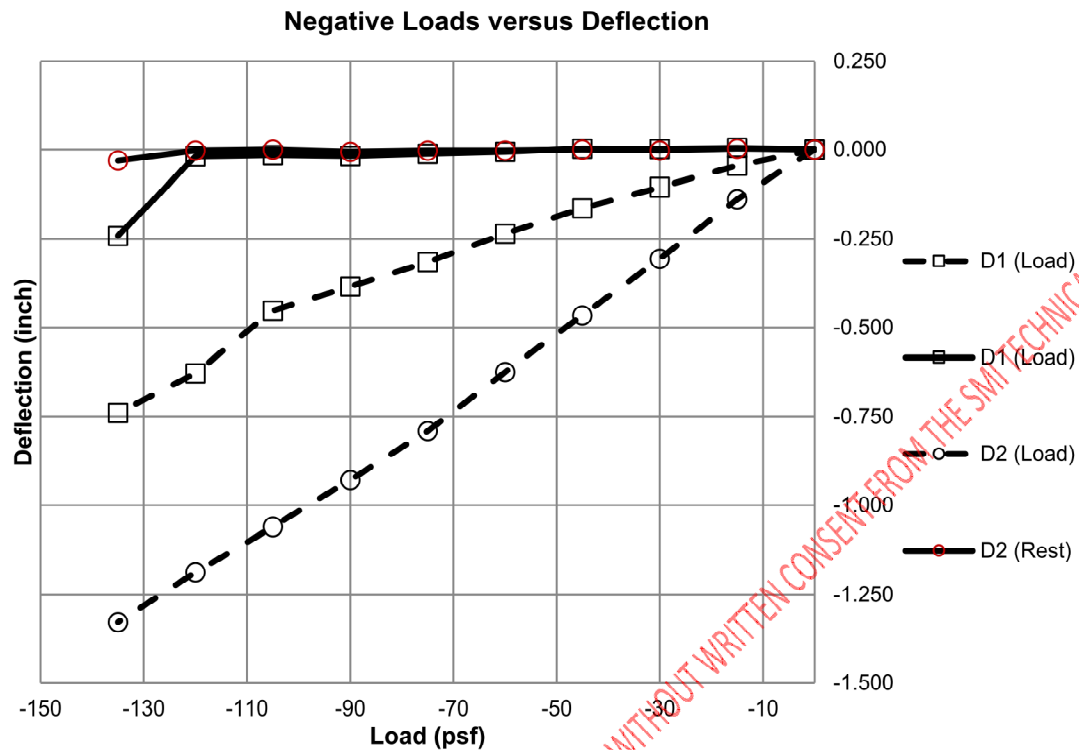
Note(s): 1) Passing pressure is based on confirmation of structural integrity and securement post-loading



**Figure 1A. Specimen #1 Deflection and Set under Positive Loads**

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**Figure 1B. Specimen #1 Deflection and Set under Negative Loads**

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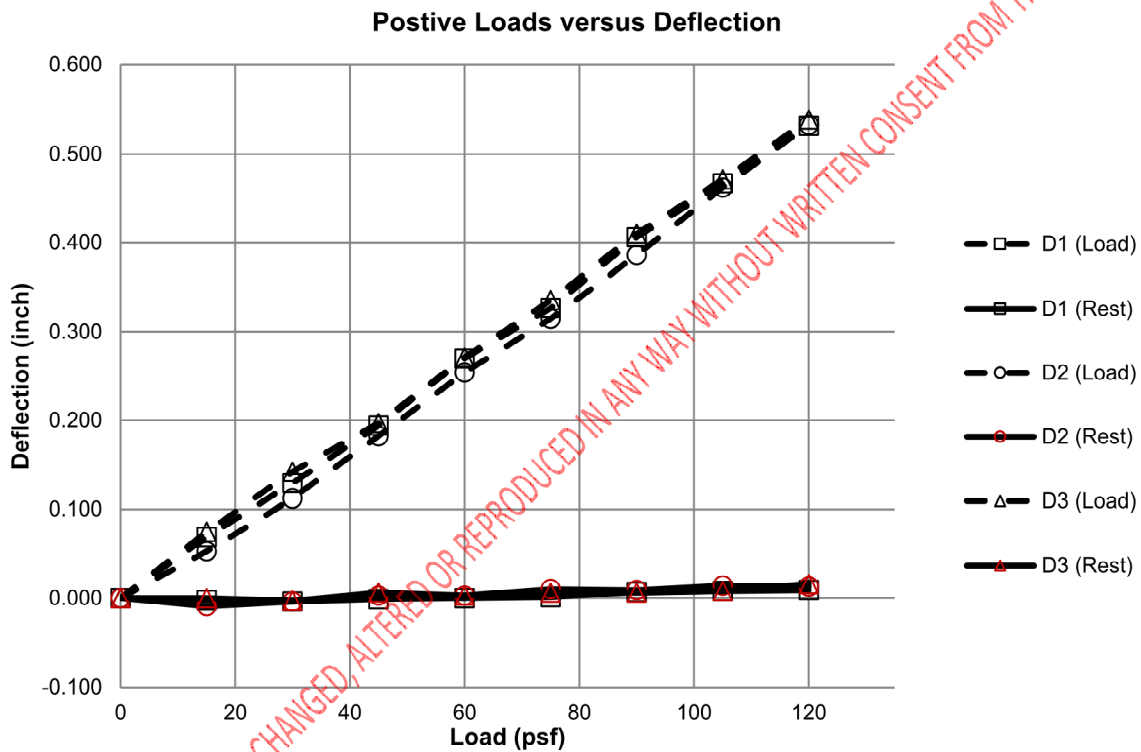
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**Table 2. Specimen #2 (WAV-16-4F With Flange @ 4-ft span)  
 Highest Passing Pressure from ASTM E 330, Procedure B**

Pressure (psf)	Duration (s)	Result (Pass/Fail)
+120	10	Pass <sup>1</sup>
-90	10	Pass <sup>1</sup>

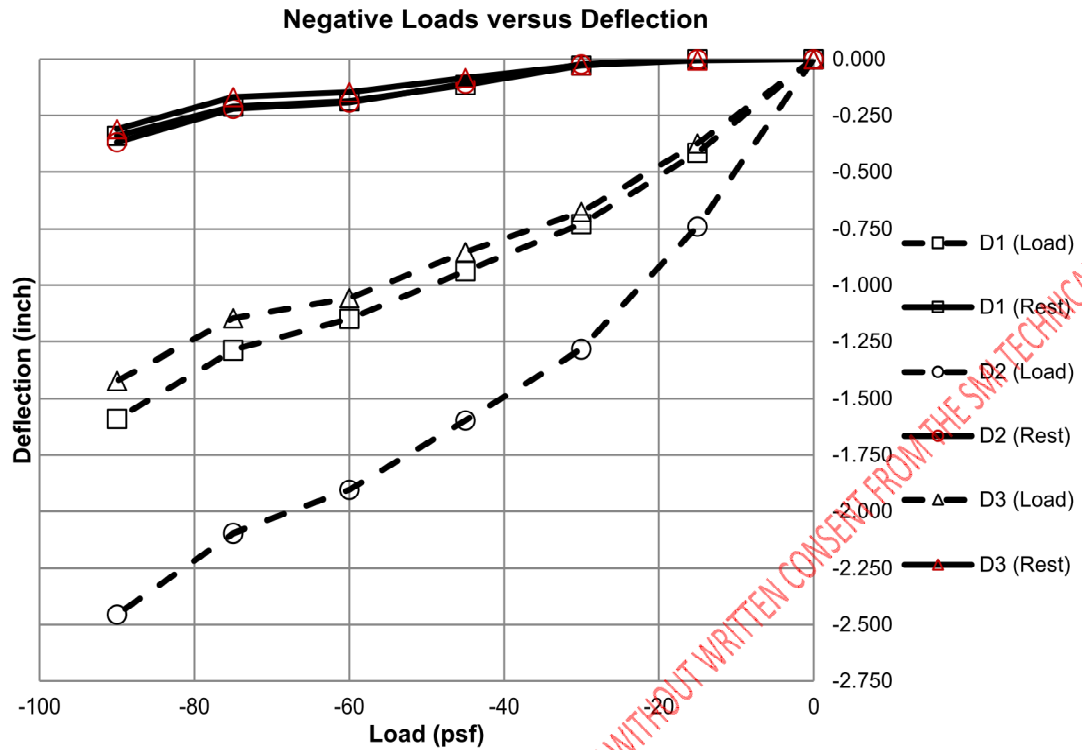
Note(s): 1) Passing pressure is based on confirmation of structural integrity and securement post-loading



**Figure 2A. Specimen #2 Deflection and Set under Positive Loads**

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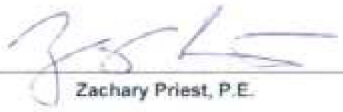
**Figure 2B. Specimen #2 Deflection and Set under Negative Loads**

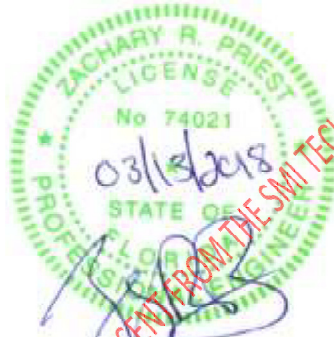
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**Statement of Attestation:**

The performance evaluation was conducted in accordance with ASTM E 330-02(2010): *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference* as described herein. The laboratory test results presented in this report are representative of the material supplied.

Signed:   
Zachary Priest, P.E.  
Director



**Report Issue History:**

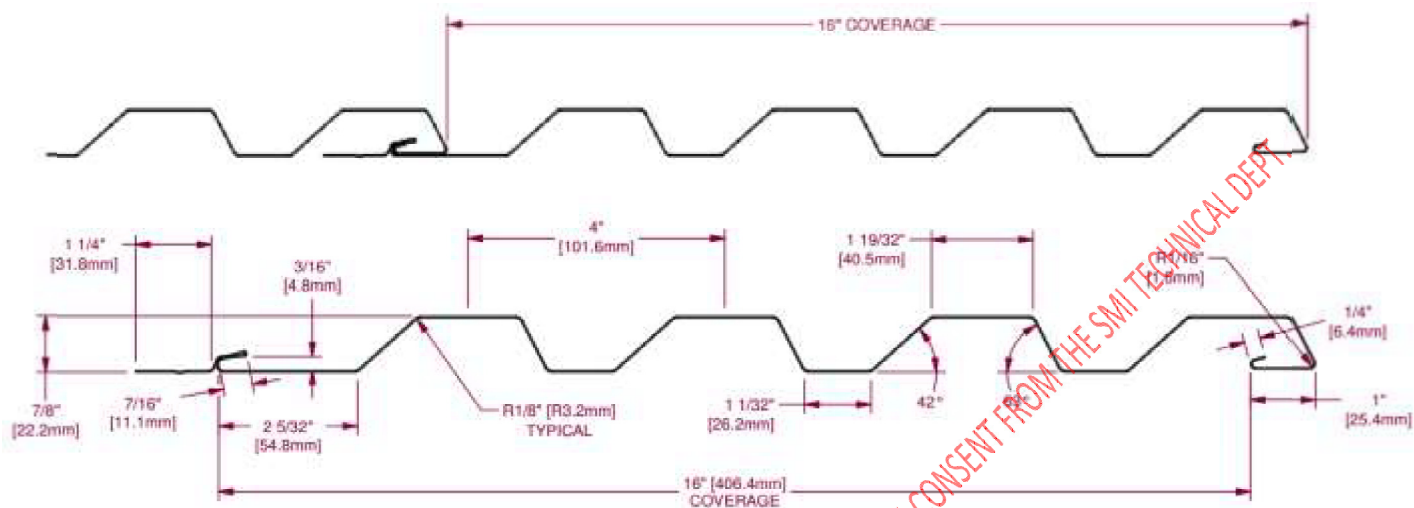
Issue #	Date	Pages	Revision Description (if applicable)
Original	03/06/2018	9	NA

**APPENDIX FOLLOWS**

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**WAV panel Profile (WAV-16-4F With Flange)**

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**Deflection Measurements Location Image**

		● D1		Panel Lap
		● D2		
		● D3		Panel Lap
	Support		Support	

**Deflections Measurement Location Diagram**

**END OF REPORT**

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