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SHEFFIELD METALS
FLORIDA BUILDING CODE TEST REPORT

SCOPE OF WORK
TAS 100-23 TESTING ON SMI 1.5 MS 24GA 1.5" MECHANICAL SEAM

REPORT NUMBER
R7064.02-450-18 R0

TEST DATE(S)
11/14/24

ISSUE DATE
02/06/25

PAGES
11

DOCUMENT CONTROL NUMBER
RT-R-AMER-Test-7808 (07/12/22)
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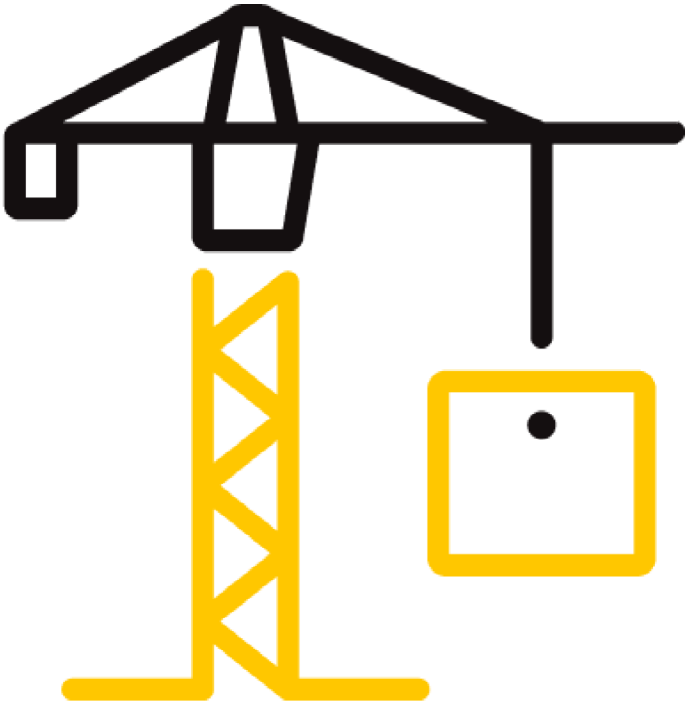

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TEST REPORT FOR SHEFFIELD METALS

Report No.: R7064.02-450-18 R0
Date: 02/06/25

REPORT ISSUED TO

SHEFFIELD METALS
5467 Evergreen Parkway
Sheffield Village, OH 44054

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company), dba Intertek Building & Construction (B&C) was contracted by Sheffield Metals to perform testing in accordance with TAS 100, *Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems* on SMI 1.5 MS 24GA 1.5" Mechanical Seam Roof Panels. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek B&C test facility in West Palm Beach, FL.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period. Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

SECTION 2

SUMMARY OF TEST RESULTS

The specimen tested met the performance requirements set forth in the protocols.

TANYA A. DOLBY
LICENSE
No. 93536
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

For INTERTEK B&C:

COMPLETED BY:	Melissa Nuttall, FMPC	**REVIEWED BY:**	Tanya Dolby, P.E.
TITLE:	Senior Project Manager	**TITLE:**	Engineering Manager – Engineering Services
SIGNATURE:	Digitally Signed by: Melissa Nuttall	**SIGNATURE:**	Digitally Signed by: Tanya Dolby Date: 2025.02.07 13:53:41 -05'00'
DATE:	02/06/25	**DATE:**	02/06/25

MMN:sar

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SECTION 3
TEST METHOD(S)

The specimen was evaluated in accordance with the following:

TAS 100-23, *Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems*

SECTION 4
MATERIAL SOURCE

Test sample materials were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

SECTION 5
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Seth Allen	Intertek B&C

SECTION 6
TEST PROCEDURE

This test evaluates whether a discontinuous roof system provides sufficient wind driven rain resistance to allow no water infiltration through the deck sheathing during a predetermined test period. One assembly was tested per TAS 100 at the wind speed intervals indicated below. (Reference Chart No. 1 for wind speed and duration.)

Interval No.	Wind Speed (mph)	Time (min)	Water Spray
1	35	15	On
2	0	10	Off
3	70	15	On
4	0	10	Off
5	90	15	On
6	0	10	Off
7	110	5	On
8	0	10	Off

Chart No. 1
TAS 100 Wind Speed Intervals

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SECTION 7
TEST SPECIMEN DESCRIPTION

Manufacturer: Sheffield Metals
Product Type: Metal Roof Panels
Series/Model: SMI 1.5 MS

Roof Deck Description: The 2:12 slope roof system test assembly incorporated a valley, eave, and one rake condition. The plywood test deck consisted of four-ply 5/8" thick plywood sheathing installed over 2x10 perimeter supports and 2x10 intermediate supports, spaced 24" on center. The valley condition was constructed into the test deck and located at the deck's front edge.

Conditioning: Not Applicable

Roof System:

COMPONENTS	DETAILS	ATTACHMENT METHOD
30# Asphalt saturated organic felt paper	A single layer was used with a 5" overlap between adjacent sheets	The felt was secured with #10 x 1" pancake head screws with 32 Ga tin caps at each corner.
Drip edge	The 4 1/4" wide x 2 1/4" high drip edge was constructed from 24 Ga Steel.	The drip edge was secured through the top using one row of #10 x 1" pancake head screws spaced 6" on center.
Valley	The 20" wide valley was constructed from 24 Ga Steel.	The valley was secured with a offset cleat on each side constructed from 24 Ga Steel. The offset cleats was secured with #10 x 1" pancake head screws spaced 4" on center. Butyl tape was used under the offset cleat and was located under the fasteners. The end of the valley peak was notched folded and sealed with sealant.
90° 1.5" Mechanical Seam	The panels were constructed from 24 Ga Steel and had a 12" coverage width.	The male leg of the panels were secured with clips spaced 6" on center. The female leg of the panels was placed over the male leg of the panel and mechanically seamed 90°.

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Roof System (Cont.):

COMPONENTS	DETAILS	ATTACHMENT METHOD
Edge Cap	The 4"W x 3 5/8"H edge cap stood 1-1/2" above the deck, had a 1" lip and was constructed from 24 Ga Steel.	The edge cap was used located on the whole perimeter the deck with the exception the windward side left of the valley and secured to the top of the z-channel with stainless steel pop rivets spaced 18" on center max and to the side of the deck with the same pop rivets spaced 18" on center max. There was a splice/seam on the leeward side of the deck.

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SECTION 8
TEST RESULTS

Protocol TAS 100-94, *Wind Driven Rain Resistance*

Test Date(s): 11/14/24
The temperature during testing was 82°F. The results are tabulated as follows:

WIND SPEED	OBSERVATIONS
35 mph	No water leakage
70 mph	No water leakage
90 mph	No water leakage
110 mph	No water leakage

Notes:
Reference Chart No. 1 for wind speeds and test stage durations.
Reference Section 10 for Photographs of the exterior and underside of the deck.

SECTION 9
CONCLUSION

The product tested per TAS 100-23 met the requirements of Section 1523.6.5 of the Florida Building Code – Building, 8th Edition (2023).

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SECTION 10
PHOTOGRAPHS

Photo No. 1
70 MPH Top Side

Photo No. 2
70 MPH Underside

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Photo No. 3
90 MPH Top side

Photo No. 4
90 MPH Underside

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Photo No. 5
110 MPH Top Side

Photo No. 6
110 MPH Underside

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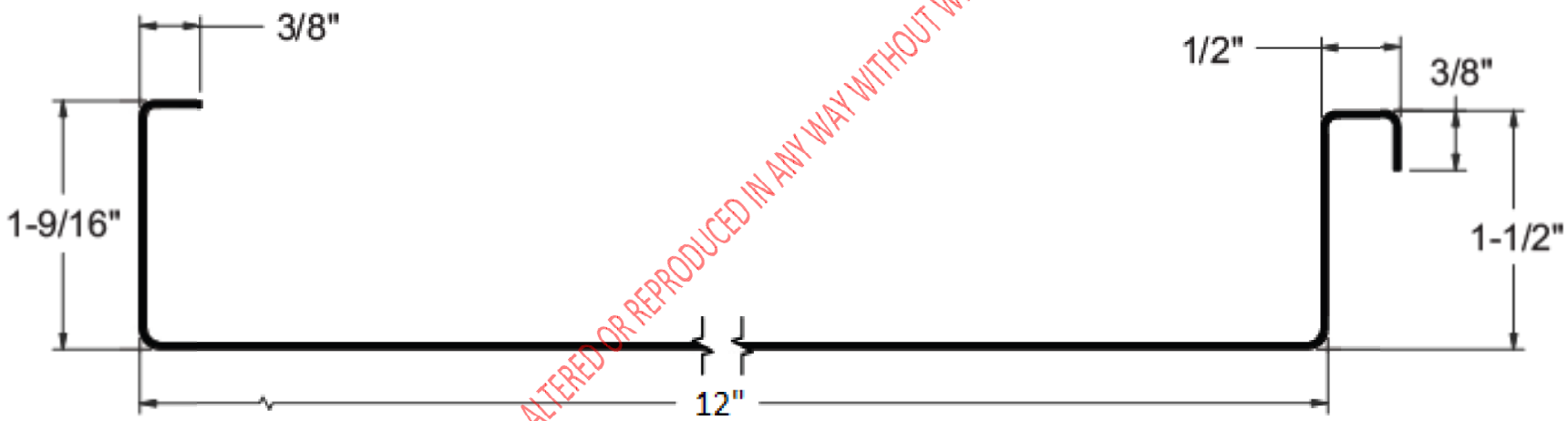
SECTION 11
DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.



Drawing No. 1
Panel Profile

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SECTION 12
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	02/06/25	N/A	Original Report Issue

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