

## EVALUATION REPORT

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|----------------------|---------------------------------------------------------------------|---------------------------|------------------------------------------------|
| <b>Title:</b>        | Aluminum Window Wall                                                |                           |                                                |
| <b>Report #:</b>     | SM2023-001R1                                                        |                           |                                                |
| <b>Manufacturer:</b> | Sun Metals Systems, Inc.<br>5008 Tampa West Blvd<br>Tampa, FL 33634 | <b>Technical Contact:</b> | Eric VanHorn, P.E.<br>VanHorn Engineering, LLC |
| <b>Prepared by:</b>  | Gordon Thomas, P.E.<br>Florida # 46718                              | <b>Date:</b>              | April 6, 2023<br>October 6, 2023 - revised     |

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### I. OVERVIEW / SCOPE

The following evaluation report provides a review of a revised FBC application to add new configurations for a Window Wall. The current configurations are listed under FL 24544 and approved for the 8<sup>th</sup> Edition (2023) FBC. This evaluation will review the testing completed for changes to the face cap design.

### II. REFERENCE MATERIAL

The following reference materials were provided in support of the product evaluation:

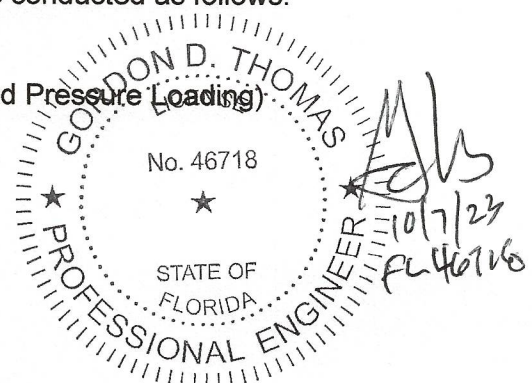
1. Florida Product Approval FL 24544
2. Sun Metals Dwg FL-24544.4. Dated 9/15/23.
3. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # G1314.01-401-18-r0, Signed and Sealed by Justin P. McDonald, P.E, Dated 7/11/17.
4. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # G1314.02-401-18-r0, Signed and Sealed by Justin P. McDonald, P.E, Dated 4/4/17.
5. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # G1325.01-401-18-r0, Signed and Sealed by Justin P. McDonald, P.E, Dated 7/11/17.
6. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # G1326.01-401-18-r0, Signed and Sealed by Justin P. McDonald, P.E, Dated 7/11/17.
7. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # G1326.02-401-18-r0, Signed and Sealed by Justin P. McDonald, P.E, Dated 4/4/17.
8. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # G1328.01-401-18-r0, Signed and Sealed by Justin P. McDonald, P.E, Dated 7/13/17.
9. Intertek - Architectural Testing Inc., 2658 Electronics Way, West Palm Beach FL 33407  
Test Report # M3921.02-450-18-r0. Dated 12/6/22, Signed and Sealed by Vinu Abraham, P.E.

### III. EVALUATION CRITERIA & LIMITATIONS OF USE

The product has been evaluated and is in compliance with the 8<sup>th</sup> Edition (2023) Florida Building Code structural requirements including the "High Velocity Hurricane Zone". The drawings cited below and as illustrated in Section 9 of the test report are an explicit part of this evaluation report. The text of this report cannot address all design details (fastener size, spacing) but relies upon the illustrations of these drawings.

All testing frame specimens listed in test reports referenced above were conducted as follows:

- TAS 201-94 & ASTM E1886/1996, (Impact Test Procedures)
- TAS 202-94 & ASTM E330, (Uniform Static Air Pressure)
- TAS 203-94, (Criteria for Testing Products Subject to Cyclic Wind Pressure Loading)
- ASTM E283-04 (2012), (Air Leakage)
- ASTM E331-00 (2009), (Water Penetration)
- Products listed meet the deflection recovery requirements.
- Products listed meet large missile impact ratings.
- Products listed meet static pressure air infiltration.

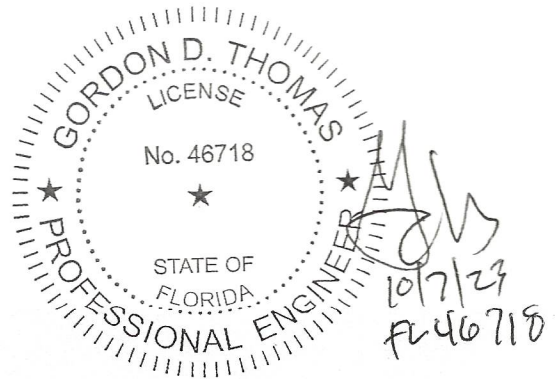


In Section 1709.8.4 of the Florida Building Code, it states "that window wall and storefront systems shall be tested in accordance with the requirements of this section and the laboratory test requirements of the American Architectural Manufacturers Association (AAMA) Standard 501, HVHZ shall comply with Section 2411.3.2.1.1." It has been determined that the results and tests conducted as listed in the test reports above meet the requirements for compliance with AAMA 501-15.

The following window walls were reviewed and approved:

| Product Name  | Product Type                                        | Size<br>(H x W) | Design<br>Pressures | Impact Rating | Dwg        |
|---------------|-----------------------------------------------------|-----------------|---------------------|---------------|------------|
| Series 650WST | Aluminum Window Wall<br>Captured/ Reinforced        | 143" x 48"      | +/- 100 PSF         | Large Missile | FL-24544.4 |
| Series 650WST | Aluminum Window Wall<br>Butt Glazed/ Reinforced     | 143" x 48"      | +/- 100 PSF         | Large Missile | FL-24544.4 |
| Series 650WST | Aluminum Window Wall<br>Captured/ Non-Reinforced    | 143" x 48"      | +/- 55 PSF          | Large Missile | FL-24544.4 |
| Series 650WST | Aluminum Window Wall<br>Butt Glazed/ Non-Reinforced | 143" x 48"      | +/- 50 PSF          | Large Missile | FL-24544.4 |

The product anchors were confirmed via calculations for both concrete and steel mounting. Steel anchors were checked against tested quantities.




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Certification of Independence of Evaluation Entity

I hereby certify that (1) I have no financial interest in Sun Metals Systems, LLC; (2) I am an independent licensed Professional Engineer in the State of Florida and; (3) I comply with the criteria of independence as stated in 9B-72.110 (3), F.A.C. and 9B-72.110(4), F.A.C.