

**Force Engineering & Testing**

19530 Ramblewood Drive  
Humble, Texas 77338  
Phone: (281) 540-6603 FAX: (281) 540-9966  
Website: [www.forceengineeringtesting.com](http://www.forceengineeringtesting.com)

**Product Evaluation Report**  
**SUNSHINE METAL SUPPLY, INC.**

***1 1/2" Mechanical Lock, 0.032" Aluminum 16" Wide Roof Panel over Plywood***

**Florida Product Approval # 27705.1 R1**

Florida Building Code 2020  
Per Rule 61G20-3  
Method: 1 –D

Category: Roofing  
Subcategory: Metal Roofing  
Compliance Method: 61G20-3.005(1)(d)  
NON HVHZ

**Product Manufacturer:**  
**Sunshine Metal Supply, Inc.**  
**719 Cattleman Road**  
**Sarasota, Florida 34232**

**Engineer Evaluator:**  
**Johnathan Green, P.E. #88223**  
**Florida Evaluation ANE ID: 12901**

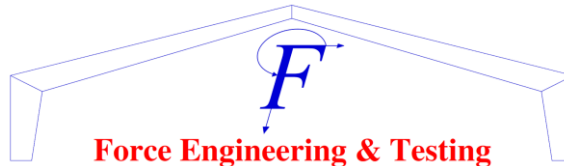
**Validator:**  
**Brian Jaks P.E. #70159**

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**Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2.

**Product Description:** 1-1/2" Mechanical Lock Standing Seam Roof Panel, 0.032" Aluminum, 16" Wide, Roof Panel restrained with fixed clips into APA Plywood decking. Non-structural Application.

**Panel Material/Standards:** Material: 0.032" Aluminum, ASTM B209 3105-H25 conforming to Florida Building Code 2020 Section 1507.4.3. Paint finish optional.  
 Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3.

**Panel Dimension(s):** Thickness: 0.032"  
 Width: 16" max coverage  
 Rib Height: 1-1/2"  
 Panel Seam: 180° Seam, Double Lock w/ mechanical seamer

**Roof Panel Clips:** Type: One Piece Fixed Clip  
 Description: 24 Ga. 304 Stainless Steel, 3" long  
 Corrosion Resistance: Per Florida Building Code 2020 Section 1506.7

**Roof Clip Fastener:** (2) #12 x 1" Pancake SS XLP 304 Stainless or approved equal.  
 1/4" minimum penetration through plywood.  
 Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.

**Substrate Description:** Min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C. Design of plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2020.

**Allowable Design Uplift Pressures:**

Table "A"

<b>Maximum Total Uplift Design Pressure:</b>	86.0 psf	98.5 psf	111.0 psf	123.5 psf
<b>Clip Spacing:</b>	24" O.C.	18" O.C.	12" O.C.	6" O.C.
<b># Fasteners per Clip:</b>	2	2	2	2

\*Design Pressure includes a Safety Factor = 2.0.



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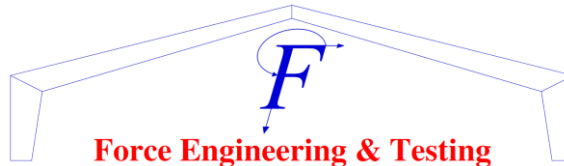


- Code Compliance:** The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2.
- Evaluation Report Scope:** The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.
- Performance Standards:** The product described herein has demonstrated compliance with:
- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
  - UL 1897-2012 - Uplift Test for Roof Covering Systems
- Reference Data:**
1. UL 580-06 / 1897-12 Uplift Test  
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)  
Report No. 596-0140T-18
  2. Certificate of Independence  
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing  
(FBC Organization # ANE ID: 12901)
- Quality Assurance Entity:** The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.
- Minimum Slope Range:** Minimum Slope shall comply with Florida Building Code 2020, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps
- Installation:** Install per manufacturer's recommended details.
- Underlayment:** Per Florida Building Code 2020, Section 1507.1 and manufacturer's installation guidelines.
- Roof Panel Fire Classification:** Fire classification is not part of this acceptance.
- Shear Diaphragm:** Shear diaphragm values are outside the scope of this report.



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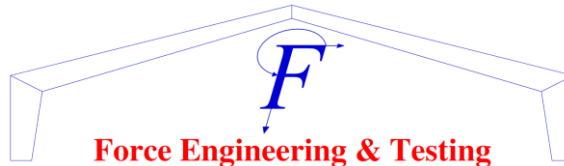
**Design Procedure:**

Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2020 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



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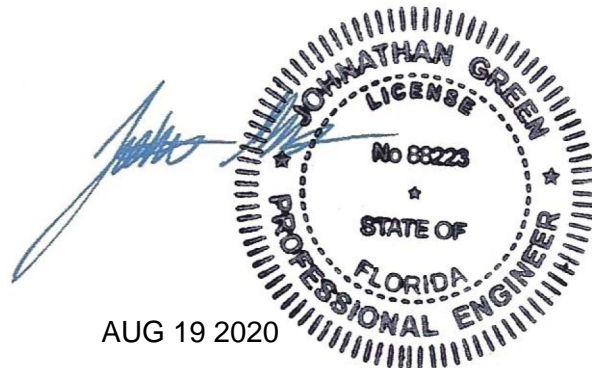
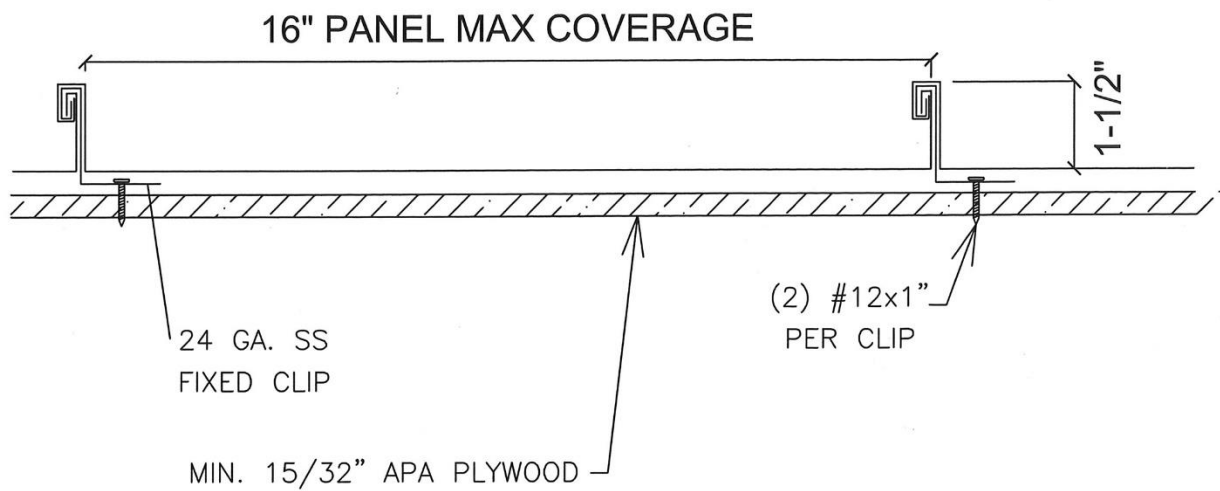
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# 1 1/2" MECHANICAL LOCK 0.032" ALUMINUM PANEL



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