

**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**  
**TRI COUNTY METALS**

***2" Mechanical Lock, 24 Ga. 16" Wide Roof Panel over open framing***

**Florida Product Approval # 9903.1 R5**

Florida Building Code 2020

Per Rule 61G20-3

Method: 1 -D

Category: Structural Components

Subcategory: Roof Deck

Compliance Method: 61G20-3.005(1)(d)

NON HVHZ

**Product Manufacturer:**

**Tri County Metals**  
**301 S. E. 16th Street**  
**Trenton, Florida 32693**

**Engineer Evaluator:**

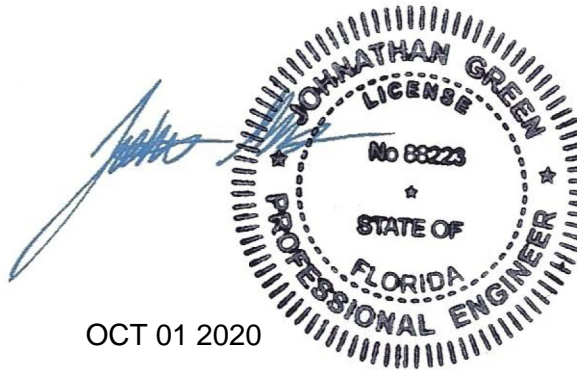
**Johnathan Green, P.E. #88223**  
**Florida Evaluation ANE ID: 12901**

**Validator:**

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

**Contents:**

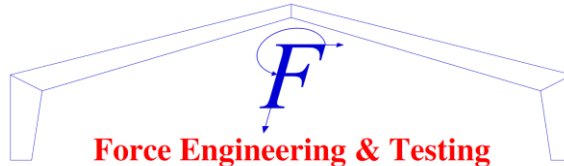
**Evaluation Report    Pages 1 – 4**



OCT 01 2020

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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, 1504.7.

**Product Description:** 2" Mechanical Lock Standing Seam Roof Panel, 24 Ga. Steel, 16" Wide. Structural Application.

**Panel Material/Standards:** Material: 24 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2020 Section 1507.4.3.  
Yield Strength: Min. 50.0 ksi  
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3.

**Panel Dimension(s):** Thickness: 0.023" min.  
Width: 16" max coverage  
Rib Height: 2"  
Panel Seam: 180° Seam, Double Lock w/ mechanical seamer

**Roof Panel Clips:** Product Name: 2000SNS, Sliding Clip Assembly  
Type: Two Piece Slider  
Top: 22 Ga. Galvanized Steel  
Base: 16 Ga. Galvanized Steel  
Corrosion Resistance: Per Florida Building Code 2020 Section 1506.7

**Clip Fastener:** (2) ¼-14 HWH Self Driller per clip.  
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.

**Substrate Description:** Min. 16 Ga. Steel Framing. Framing must be designed in accordance w/ Florida Building Code 2020.

**Allowable Design Uplift Pressures:**

Table "A"

<b>Maximum Design Pressure:</b>	-36.0 psf	-83.8 psf
<b>Clip Spacing:</b>	5'-0" O.C.	2'-0" O.C.

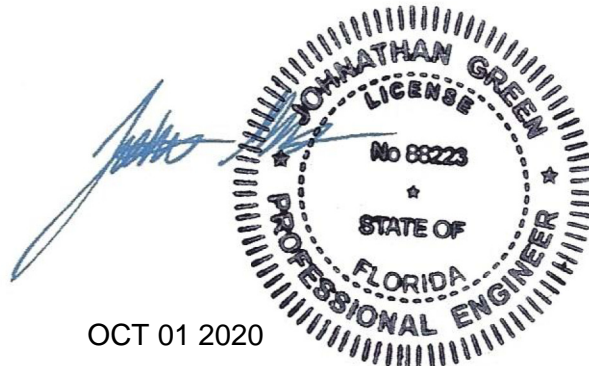
\*Design Pressure includes a Safety Factor = 2.0.



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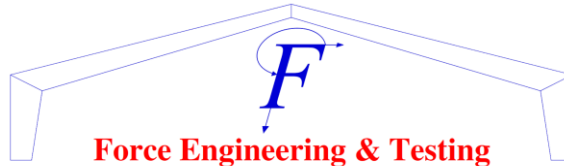


- Code Compliance:** The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2, 1504.7.
- Evaluation Report Scope:** The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.
- Performance Standards:** The product described herein has demonstrated compliance with:
- ASTM E 1592-05 (2012) Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
  - FM 4471-92 - Foot Traffic Resistance Test.
- Reference Data:**
1. ASTM E 1592-01  
Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)  
Report No. T234-02\*, Dated 08/25/2002
  2. FM 4471-95, Section 5.4 Foot Traffic Resistance Test  
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)  
Report No. 261-0251T-11A, Dated 11/18/2011
  3. Certificate of Independence  
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing  
(FBC Organization # ANE ID: 12901)
- Test Standard Equivalency:** The ASTM E 1592-01 test standard is equivalent to the ASTM E 1592-05 (2012) test standard.
- The FM 4471-95 test standard is equivalent to the FM 4471-92 test standard.
- Quality Assurance Entity:** The manufacturer has established compliance of roof panel products in accordance with the Florida Product 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.
- Installation:** Install per manufacturer's recommended details.
- Insulation:** Manufacturer's approved product (Optional)



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**Roof Panel Fire Classification:**

Fire classification is not part of this acceptance.

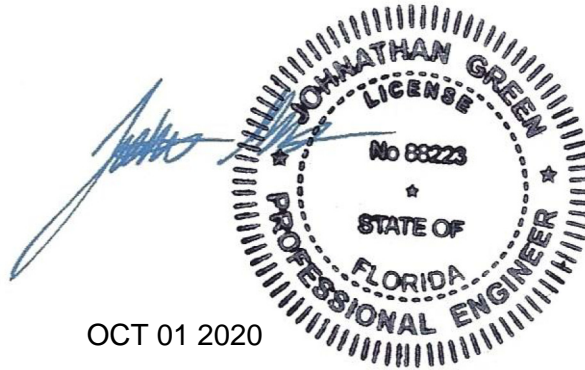
**Shear Diaphragm:**

Shear diaphragm values are outside the scope of this report.

**Design Procedure:**

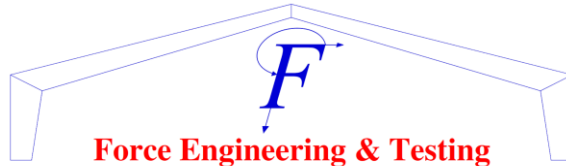
Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate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

\*The Test Reports are owned by Metalforming, Inc. Metalforming, Inc. gives the above manufacturer permission to use these test reports.



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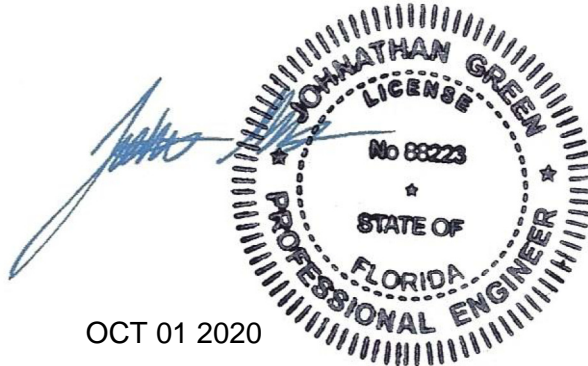
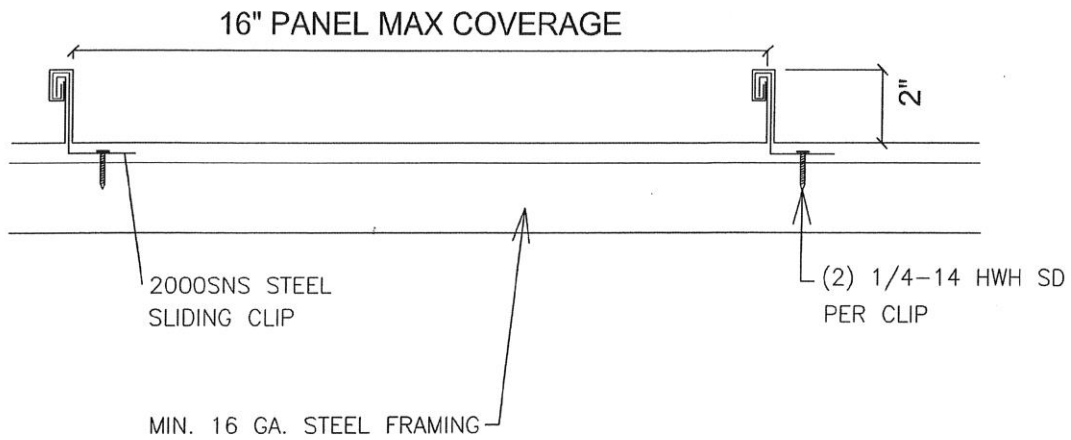


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## 2" Mechanical Lock, 24 Ga. Steel SSR Panel



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