

Force Engineering & Testing
19530 Ramblewood Drive
Humble, Texas 77338
Phone: (281) 540-6603, Fax: (281) 540-9966
Website: forceengineeringtesting.com

Product Evaluation Report
SENTRIGARD METAL ROOFING SYSTEMS

Sentrigard ML 200 24 Ga. 18 7/8" Wide Roof Panel over open framing

Florida Product Approval # 9864.2 R6

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:
Sentrigard Metal Roofing Systems Association, Inc.,
an NB Handy Company
65 10th Street
Lynchburg, Virginia 24502

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

Validator:
Brian Jaks, P.E. #70159

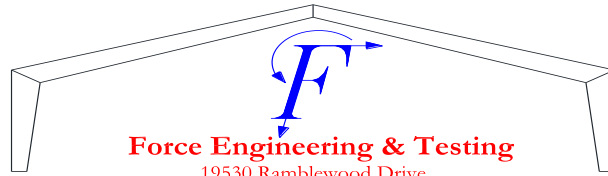
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SEP 24 2020

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JOHNATHAN GREEN ON THE DATE ADJACENT TO THE SEAL.

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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: Sentrigard ML 200, 2" Mechanical Lock Standing Seam Roof Panel, 24 Ga. Steel, 18 7/8" 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: 0.025" min.
 Width: 18 7/8" max coverage
 Rib Height: 2"
 Panel Seam: 180° Seam, Double Lock w/ mechanical seamer

Roof Panel Clips: Product Name: #122554 (200-ECZ-400-G) by AMSI
 Type: Two Piece Sliding Clip Assembly
 Top: 22 Ga. G90 Galvanized Steel
 Base: 18 Ga. G90 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"

Maximum Design Pressure:	-37.5 psf	-117.1 psf
Clip Spacing:	5'-0" O.C.	1'-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 1592-05
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 261-0177T-14A, B
 2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 261-0179T-14D
 3. Certificate of Independence
By Johnathan Green, P.E. #88223
- Test Standard Equivalency:** The ASTM E 1592-05 test standard is equivalent to the ASTM E 1592-05 (2012) test standard.
- The FM 4471-10 test standard is equivalent to the FM 4471-92 test standard.



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Quality Assurance Entity:

The Report Holder has demonstrated compliance with Florida Building Code and Rule 61G20-3.005 (3) for manufacturing locations audited by an approved quality assurance entity (Keystone Certifications, Inc – FBC OrgID QUA 1824). A listing of manufacturers authorized by the Report Holder to employ the Florida Product Approvals qualified by this report can be found at <http://www.keystonecerts.com/ga-assoc/sentrigard> or by scanning the following QR Code:



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)

Roof Panel Fire Classification:

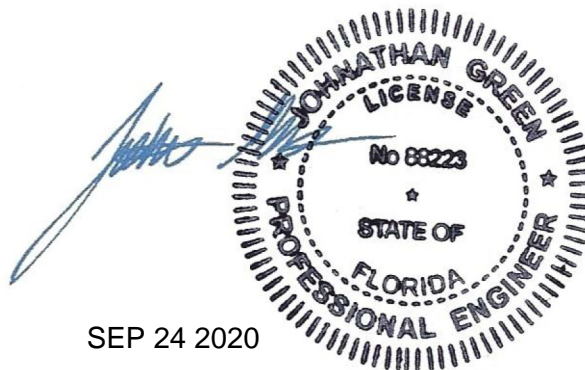
Fire classification is not part of this acceptance.

Shear Diaphragm:

Shear diaphragm values are outside the scope of this report.

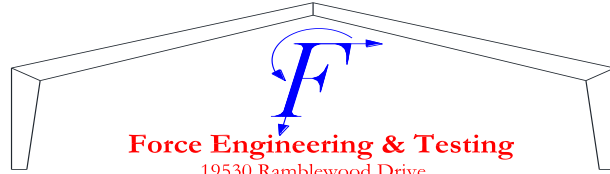
Design Procedure:

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.



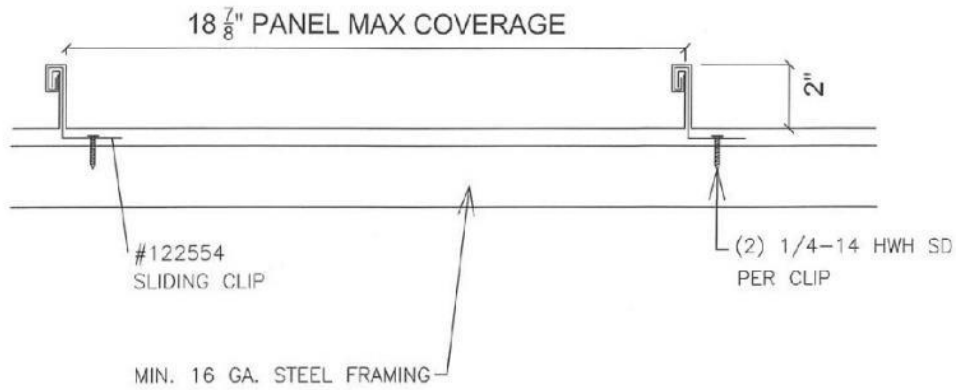
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SENTRIGARD ML 200 24 GA. STEEL SSR PANEL



SEP 24 2020

The seal is circular with a serrated outer edge. Inside the circle, the text reads: 'JOHNATHAN GREEN' at the top, 'LICENSE' below it, 'No 68223' in the center, 'STATE OF FLORIDA' below that, and 'PROFESSIONAL ENGINEER' at the bottom. There are two stars on either side of the 'STATE OF FLORIDA' text.

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