

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 ASSOCIATION, INC.,
an NB HANDY COMPANY

Sentrigard SL 175H, 24 Ga. 17 3/4" Wide Roof Panel over 22 Ga. Steel Deck

Florida Product Approval # 9860.9 R6

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

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

Contents:

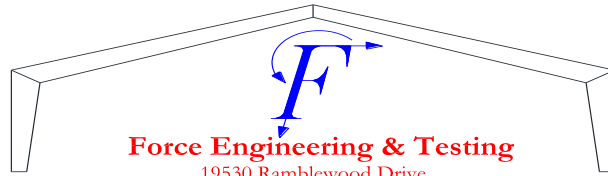
Evaluation Report Pages 1 - 4



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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, 1518.9, 1523.6.5.2.4.

Product Description: Sentrigard SL 175H, 1 3/4" Snap Lock Standing Seam Roof Panel, 24 Ga. Steel, 17 3/4" Wide, Roof Panel restrained with steel fixed clips into min. 22 Ga. steel decking. Non-structural Application.

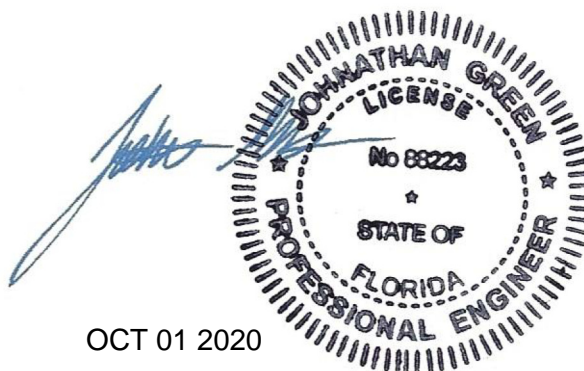
Panel Material/Standards: Material: 24 Ga. Steel, ASTM A792 unpainted or painted with Valspar Fluropon or ASTM A653 G90 conforming to Florida Building Code 2020 Section 1507.4.3. Yield Strength: Min. 50.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3

Panel Dimension(s): Thickness: 0.024"
Width: 17 3/4" max coverage
Rib Height: 1 3/4"
Panel Seam: Snap Lock

Roof Panel Clips: Product Name: Fixed Clip
Type: 20 Ga. Galvanized Steel, 2 1/4" long
Corrosion Resistance: Per Florida Building Code 2020 Section 1506.7

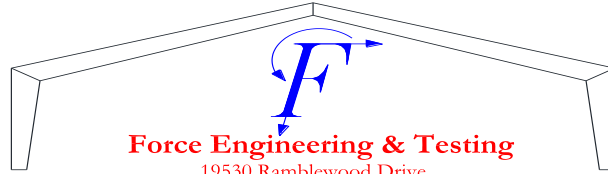
Roof Clip Fastener: (2) #14-13 Dek Fast per clip
3/4" minimum penetration through steel deck
Corrosion Resistance: Per Florida Building Code 2020, Section 1517.6.

Substrate Description: Min. 22 Ga. steel deck, Min. Fy = 33 ksi. Design of steel deck and steel deck supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2020.



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Allowable Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	71.0 psf	108.5 psf
Clip Spacing:	24" O.C.	6" O.C.
# Fasteners per Clip:	2	2

*Design Pressure includes a Safety Factor = 2.0.

Code Compliance:

The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2, 1518.9, 1523.6.5.2.4.

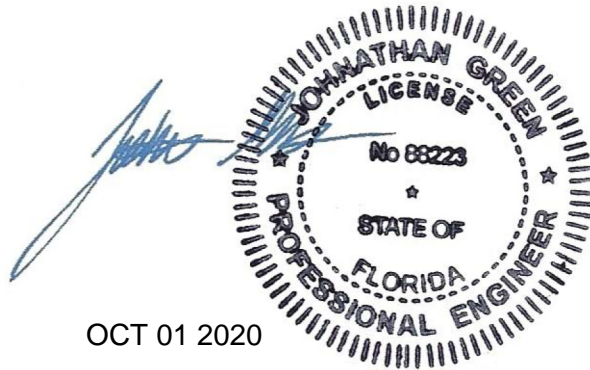
Evaluation Report Scope:

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:

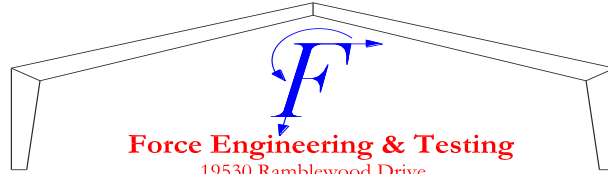
The product described herein has demonstrated compliance with:

- TAS 125-03
- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems
- TAS 100-95 - Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems
- TAS 110-00 - Accel. Weathering ASTM G 155 / Salt Spray ASTM B 117



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Reference Data:

1. TAS 125-03: UL 580-94 / 1897-98 Uplift Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 72-0271T-07*
2. TAS 100-95
Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)
Report No. T122-08*
3. TAS 110-00: Valspar Fluropon coated metal panel testing
A) ASTM G 155
B) ASTM B 117
4. Miami-Dade County
Dept. of Regulatory and Economic Resources Board and Code Admin. Div.
Notice of Acceptance (NOA) 19-0722.09; Expires 08/25/2025
Sentrigard Metal Roofing Systems Association, Inc.
5. Certificate of Independence
By Johnathan Green, P.E. #88223

Test Standard Equivalency:

1. The UL 580-94 test standard is equivalent to the UL 580-06 test standard.
2. The UL 1897-98 test standard is equivalent to the UL 1897-2012 test standard.

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 Org ID 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/qa-assoc/sentrigard> or by scanning the following QR Code:



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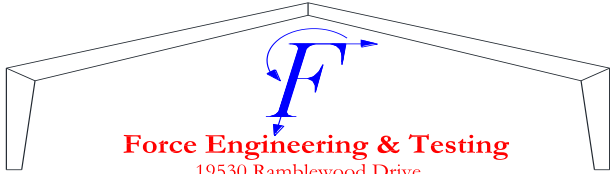
- Minimum Slope Range:** 2:12. Minimum Slope shall comply with Florida Building Code 2020, including Sections 1515.2.2 and in accordance with Manufacturers recommendations.
- Installation:** Install per manufacturer's recommended details and RAS 133.
- Underlayment:** Per Manufacturer's installation guidelines per Florida Building Code 2020 Section 1518.2, 1518.3, 1518.4.
- Fire Barrier:** ½" Georgia Pacific "Dens Deck" or manufacturer approved equal with current NOA.
- Insulation:** 1"-4" thick Polyiso rigid insulation, min. 20 psi compressive strength. Manufacturer approved with current NOA and conforming to Florida Building Code 2020.
- 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 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.

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

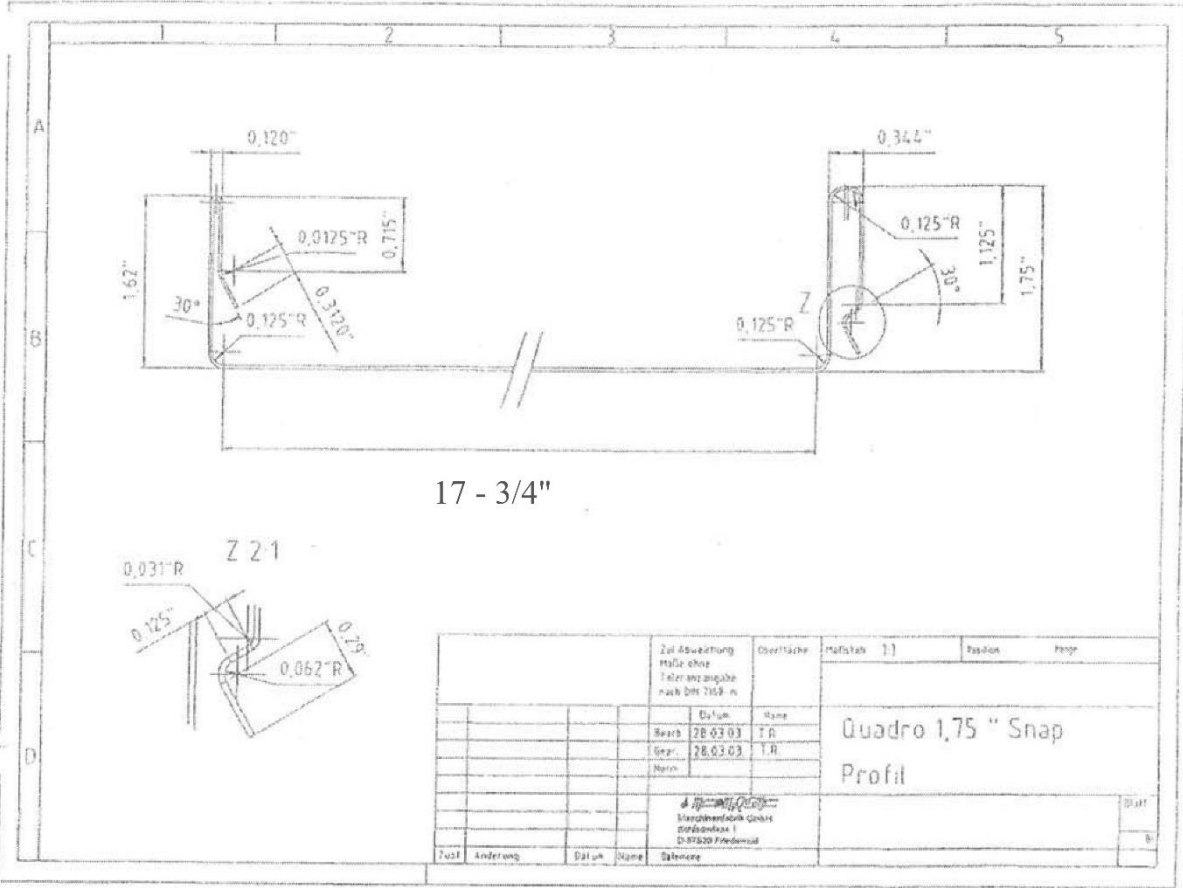


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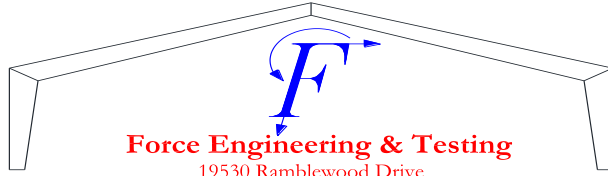
[Handwritten Signature]

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 No 88223
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

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SFS intec **Weather Gard®** **Panel Clips and Fasteners**

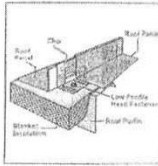
Standing Seam Clips **Engineered panel clips**
For standing seam panel applications

- Engineered panel clips are custom designed and manufactured for your panel system.
- Clips are supplied in galvanized steel, coated steel, stainless steel and other materials.
- Engineered fixed and float clip designs are available.
- Standard clips are available from stock without tooling cost to you.
- Sealant can be pre-applied to the clips to maintain the seal at the clip attachment.
- Clip design options are available for review and evaluation.

Application

Snap Lock Panel Design

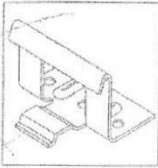
Configurations require very low profile clip bases with a base feature to hold the panel above the low profile fastener heads.



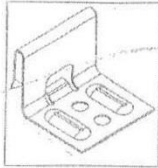
Fixed Clips are primarily used with these panels. Low profile head fasteners should be used with these panels to provide clearance for the panels over the fastener heads. These clips are manufactured from steel, stainless steel and other materials with various finishes to fit the needs of the panel application.

Selection

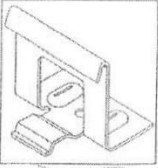
1-1/2" Snap Lock Clip
 G90 Galvanized: 18 ga. or 20 ga.
 Packaged 500 per carton



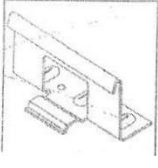
1-1/2" Snap Lock Clip
 G90 Galvanized: 24 ga.
 Packaged 1000 per carton



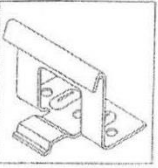
1-3/4" Snap Lock (1 hole) Clip
 G90 Galvanized: 18 ga.
 Packaged 500 per carton



1-3/4" Snap Lock (2 hole) Clip
 G90 Galvanized: 18 ga.
 Packaged 250 per carton



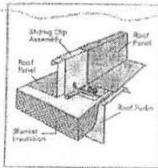
1-3/4" Snap Lock (3 hole) Clip
 G90 Galvanized: 20 ga.
 Packaged 500 per carton



Application

Architectural Panel Design

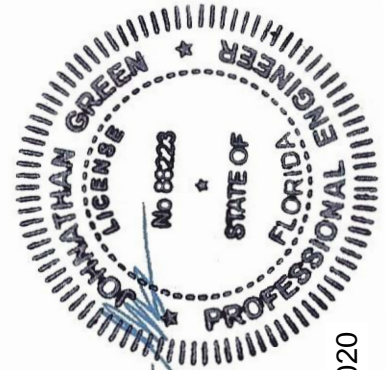
Configurations require low profile bases with clearance for the fastener head.



Fixed and Float Clips are used with these panels. The clips may have pre-applied sealant to maintain the panel seal at the clip attachment point. These clips are manufactured from steel, stainless steel and other materials with various finishes to fit the needs of the panel application.

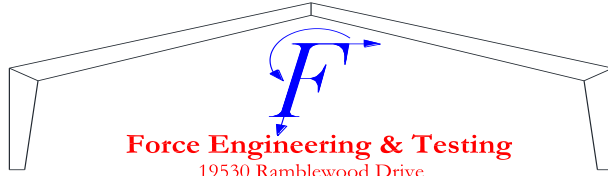
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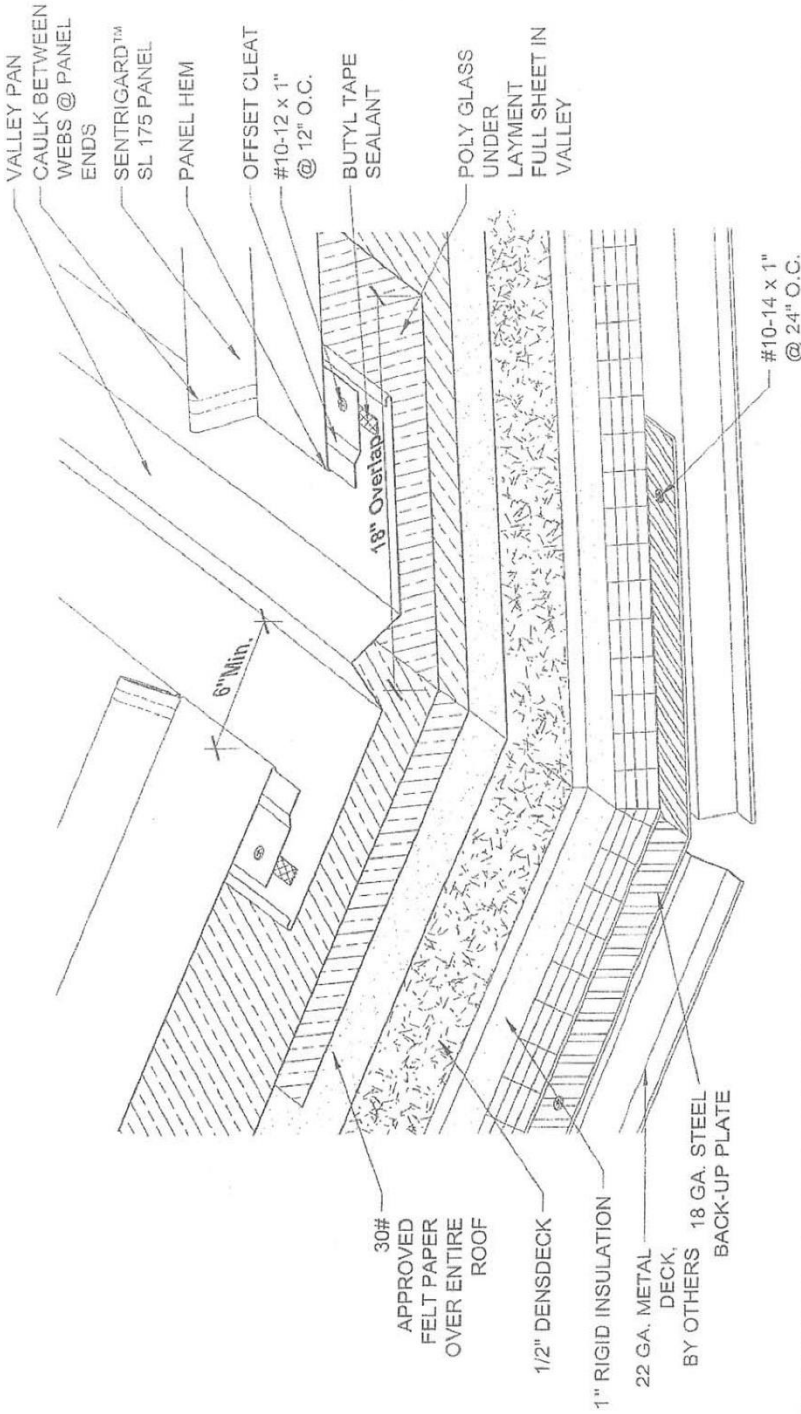


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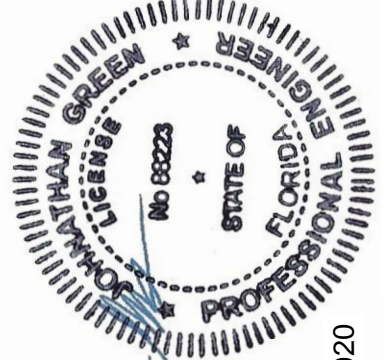
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	Contractor:	4625 Alexander Drive, Suite 135 Alpharetta, GA 30022-3737 Ph: (770) 667-0463	
Designer:	Date:	Scale:	SENTRIGARD SL 175 V-1

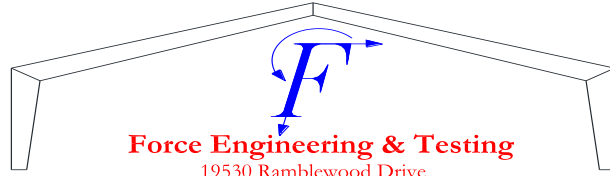
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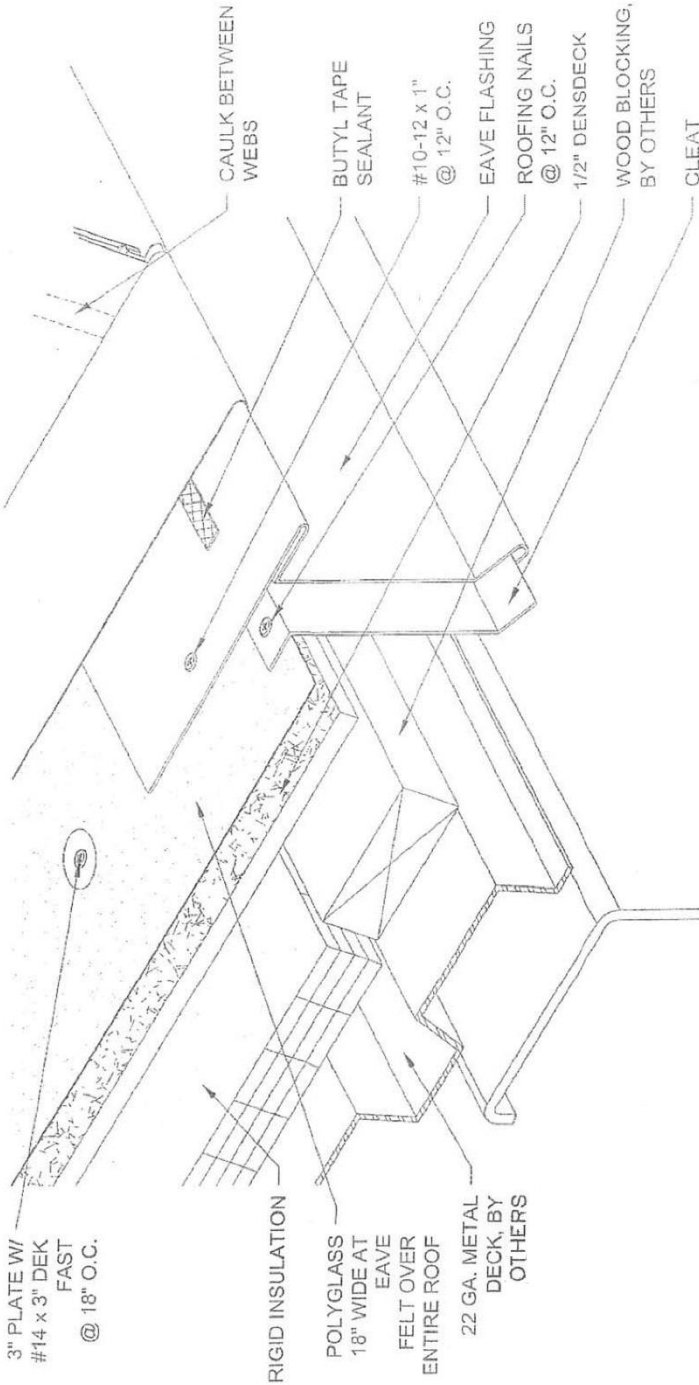


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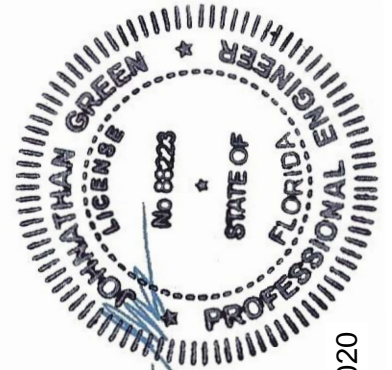
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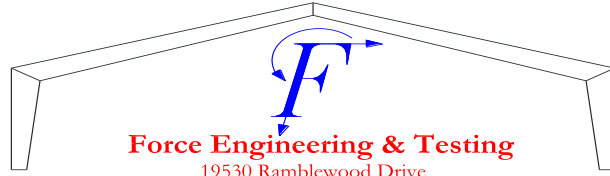
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Designer:	Date:	Scale:	SENTRIGARD SL 175 E-1

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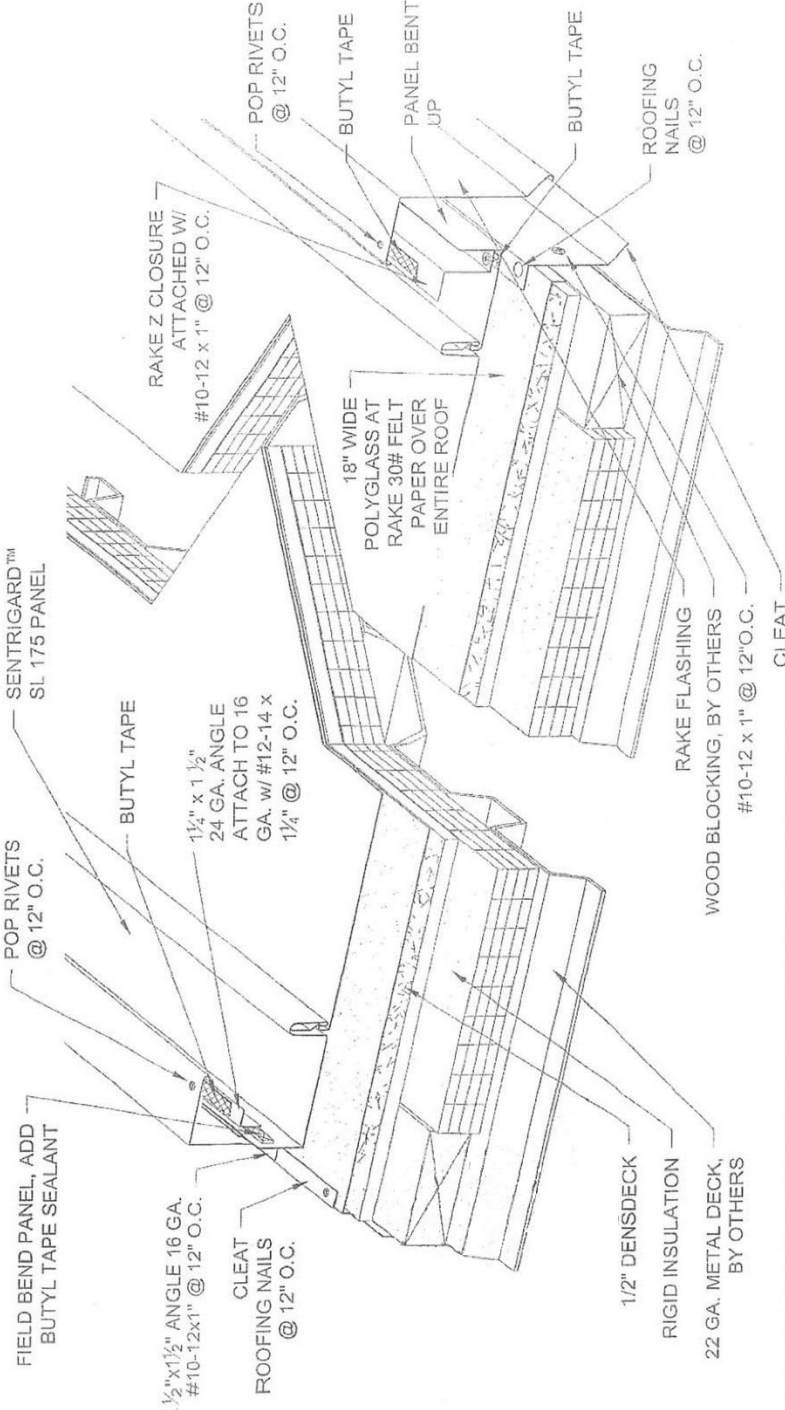
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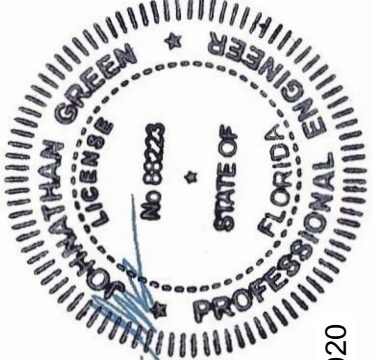


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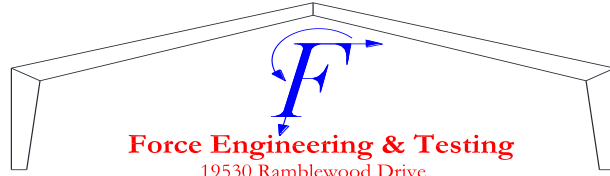
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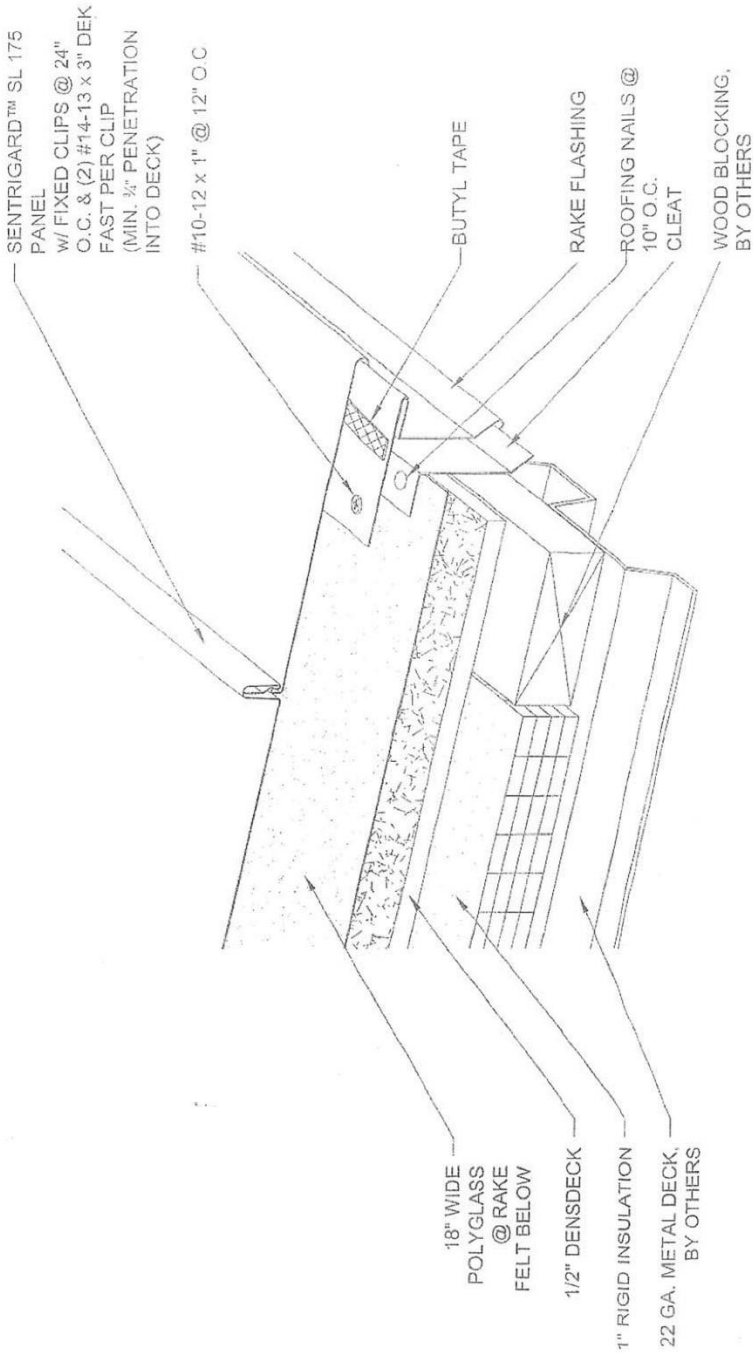



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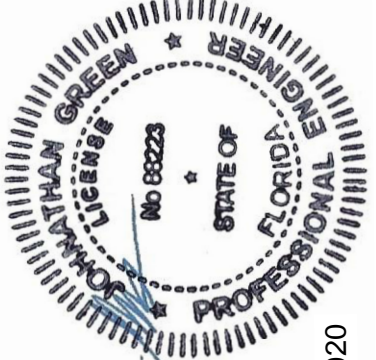
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Designer:	Date:	Scale:	SENTRIGARD SL 175 RK-3

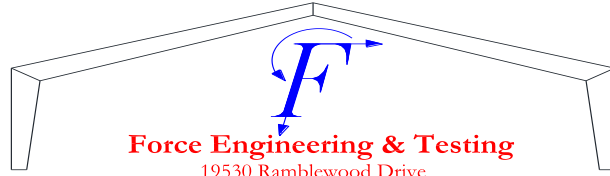
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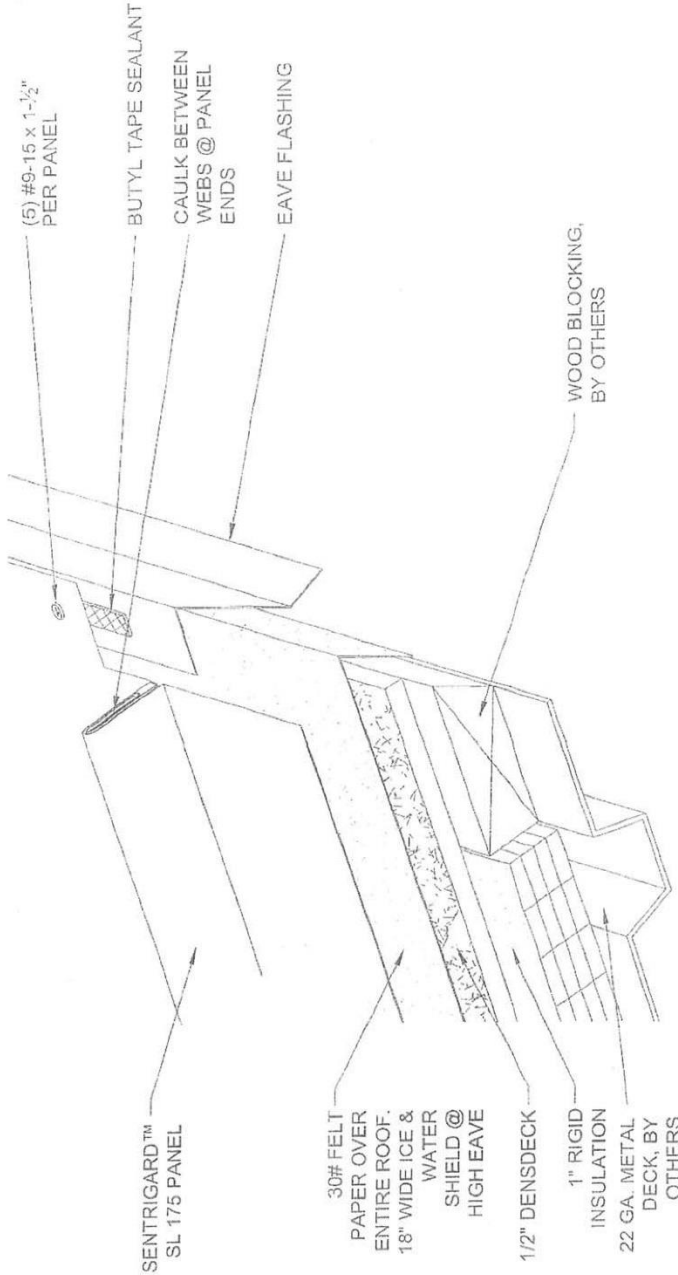


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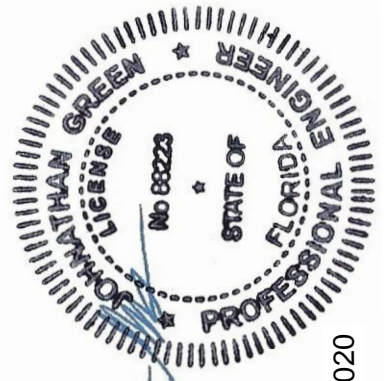


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