

Force Engineering & Testing

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

Product Evaluation Report
TRI COUNTY METALS

Mechanical-Seam Lok 2", 24 Ga. 18 7/8" Wide Roof Panel over 22 Ga. Steel Deck

Florida Product Approval # 4595.7 R5

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:

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

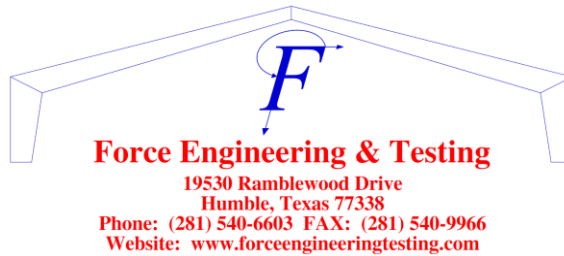
Contents:

Evaluation Report Pages 1 – 4



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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: Mechanical-Seam Lok 2" Standing Seam Roof Panel, 24 Ga. Steel, 18 7/8" Wide, Roof Panel restrained with steel slider 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: 18 7/8" 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.

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.

Allowable Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	54.3 psf	153.5 psf
Clip Spacing:	36" O.C.	6" O.C.
# Fasteners per Clip:	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, 1518.9, 1523.6.5.2.4.
- Valuation 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
- Reference Data:**
1. TAS 125-03: UL 580-94 / 1897-98 Uplift Test
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
Report No. 72-0272T-07*, Dated 02/04/2008
 2. TAS 100-95
Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)
Report No. T106-08*, Dated 01/14/2008
 3. TAS 110-00: Valspar Fluropon coated metal panel testing
A) ASTM G 155 by PRI Asphalt Technologies dated 10/31/2012
B) ASTM B 117 by PRI Asphalt Technologies dated 10/31/2012
 4. Certificate of Independence
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
(FBC Organization # ANE ID: 12901)
- Test Standard Equivalency:** The UL 580-94 test standard is equivalent to the UL 580-06 test standard.
The UL 1897-98 test standard is equivalent to the UL 1897-2012 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:** 2:12. Minimum Slope shall comply with Florida Building Code 2020, including Sections 1515.2.2 and in accordance with Manufacturers recommendations.



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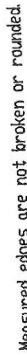
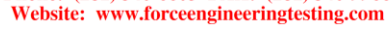
- Installation:** Install per manufacturer's recommended details and RAS 133.
- Underlayment:** Per Manufacturer's installation guidelines per Florida Building Code 2020 Section 1518.2, 1518.3, 1518.4.
- Fire Barrier:** ½" Georgia Pacific "Dens Deck" or manufacturer approved equal with current NOA.
- Insulation:** 1"-4" thick Polyiso rigid insulation, min. 20 psi compressive strength. Manufacturer approved with current NOA and conforming to Florida Building Code 2020 Section 1520.
- 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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CLIP TOP SECTION -
SEE DWG. P-1324B
(GALV) PART# M1198
(SS) PART# M1199

CLIP BASE SECTION
DWG. P-714B
PART# M0412

2.41
+0.025

1.94

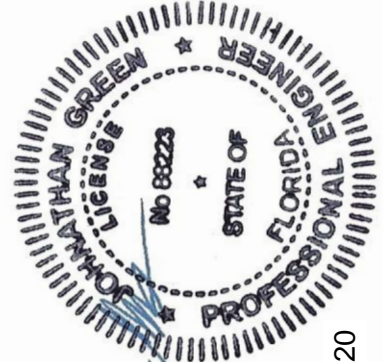
2.01

0.40

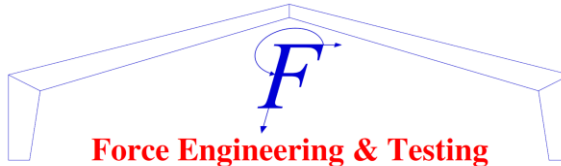
FL# 4595.7 R5

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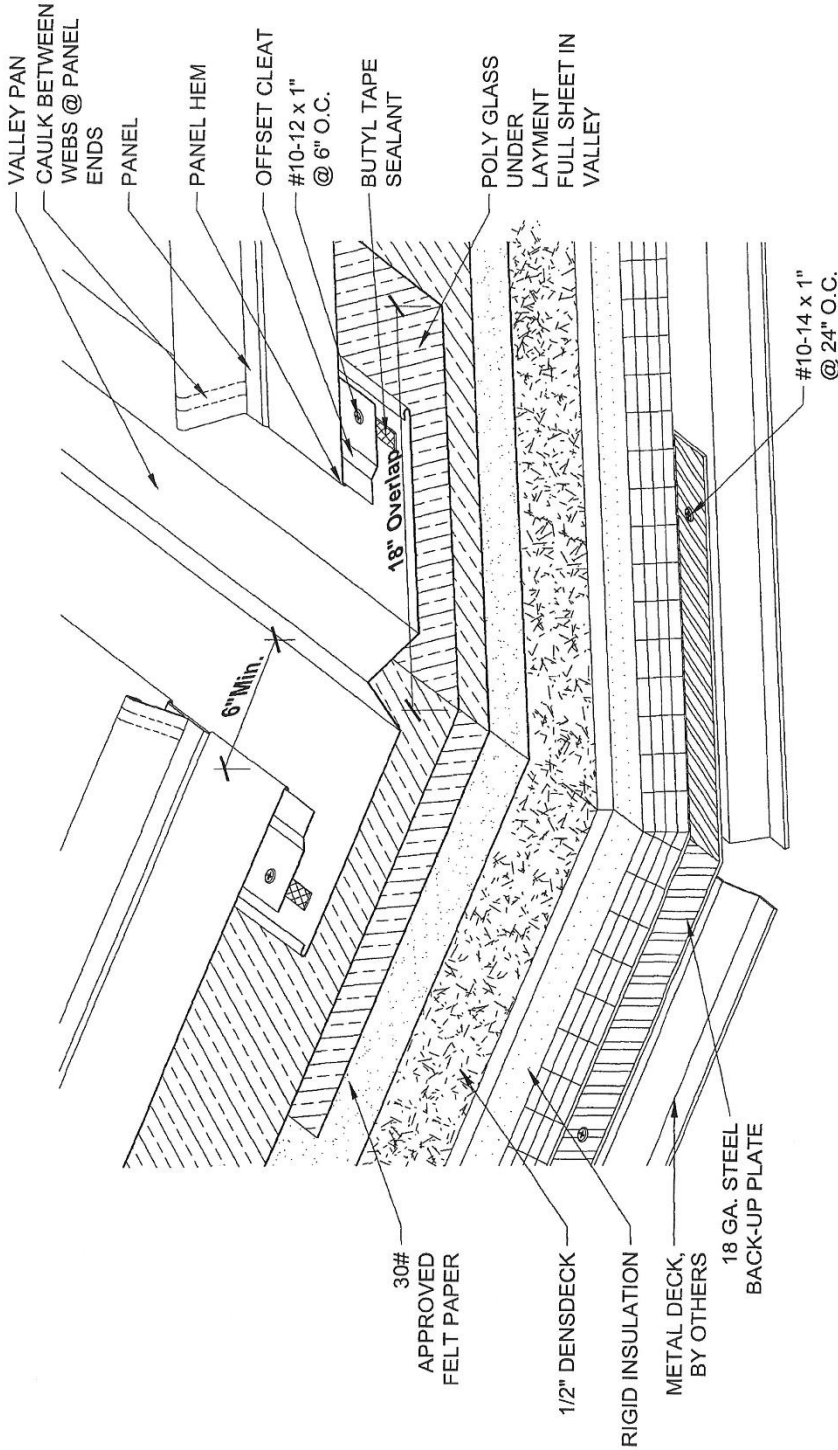
OCT 23 2020



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Project: METALFORMING, INC.
100 International Dr.
Peachtree City, GA 30269

Contractor:

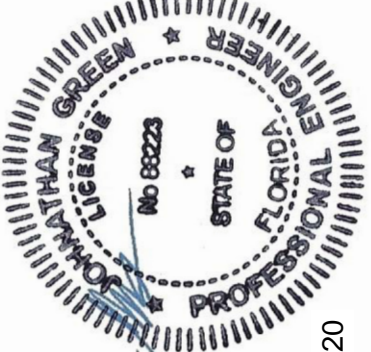
Designer:

Date:

Scale:

2" MECH LOCK

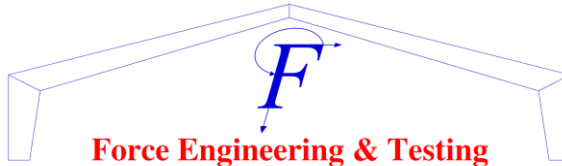
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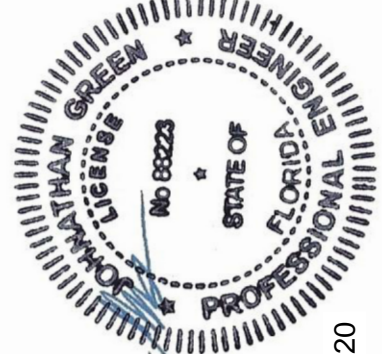
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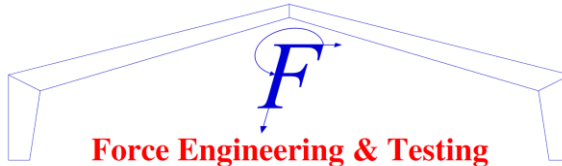
		METALFORMING, INC. 100 International Dr. Peachtree City, GA 30269		2" MECH LOCK	RK-2
Project:		Contractor:			
Designer:		Date:			

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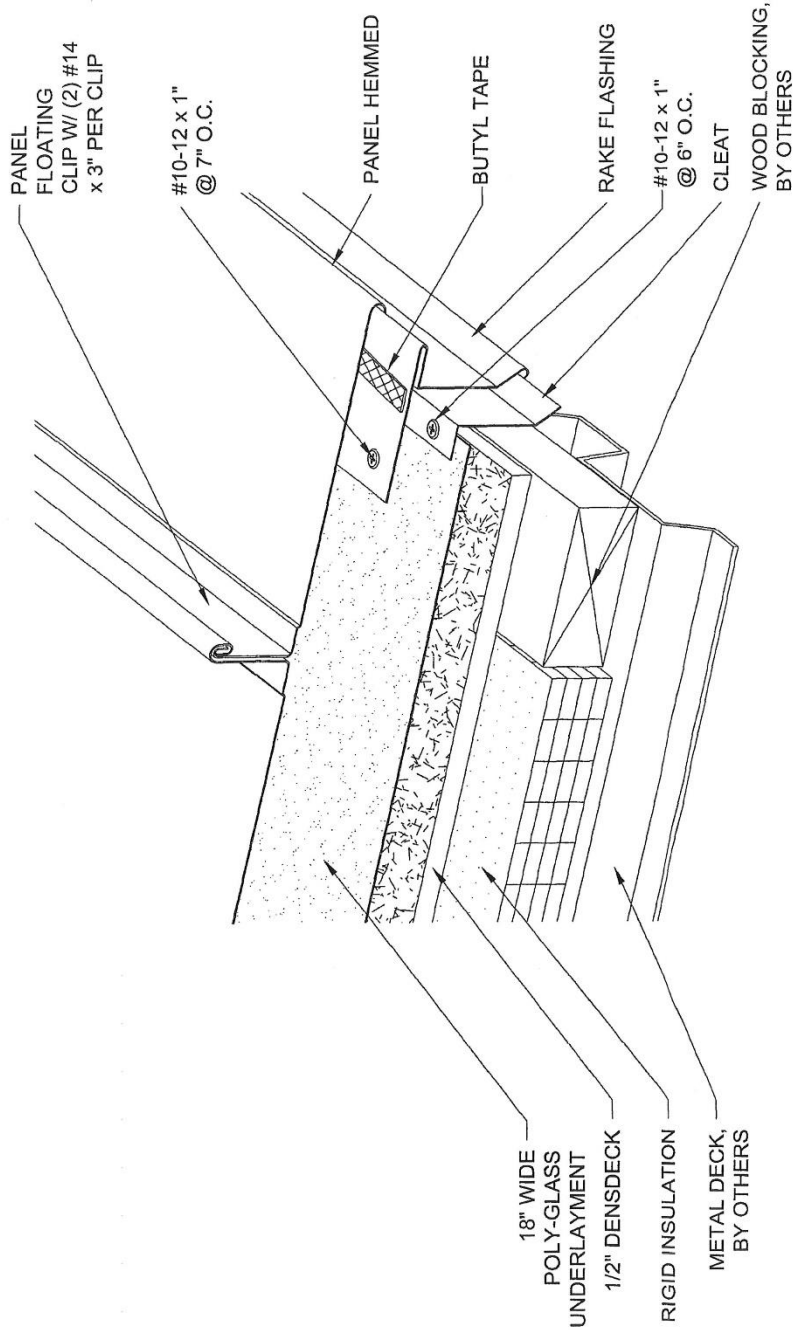
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Scale:

METALFORMING, INC.

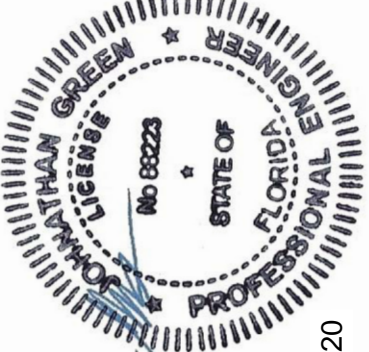
100 International Dr.
Peachtree City, GA 30289

2" MECH LOCK

RK-3



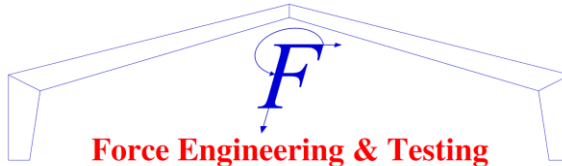
METALFORMING
Architectural Machines



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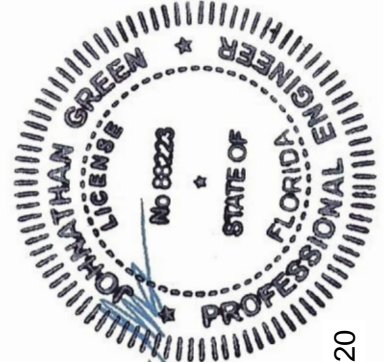
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<p>PANEL</p> <p>BUTYL CAULK BETWEEN WEBS</p> <p>BUTYL TAPE SEALANT</p> <p>#10-12 x 1" FASTENERS, 12" O.C.</p> <p>EAVE FLASHING</p> <p>#10-12 x 1" FASTENER, 12" O.C.</p> <p>1/2" DENSDECK</p> <p>WOOD BLOCKING, BY OTHERS</p> <p>CLEAT</p> <p>RIGID INSULATION</p> <p>APPROVED UNDERLAYMENT</p> <p>METAL DECK, BY OTHERS</p>	Project:		Contractor:		Designer:		Scale:		Date:		2" MECH LOCK		E-1	
	METALFORMING, INC.		100 International Dr.		Peachtree City, GA 30269									

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