

Force Engineering & Testing

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

Product Evaluation Report
SUNSHINE METAL SUPPLY, INC.

5V Crimp 26 Ga. Roof Panel over 15/32" or 19/32" Plywood

Florida Product Approval # 40317.2 R1

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

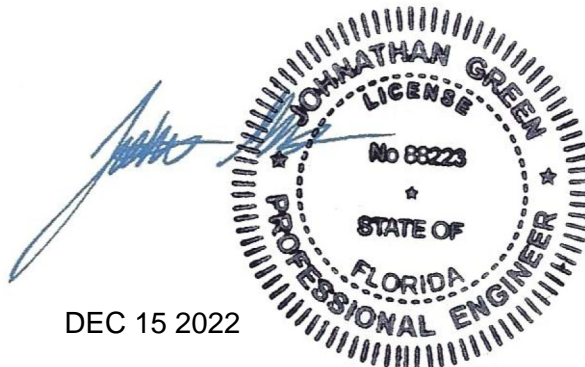
Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

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:
Steven Urich, P.E. #57795

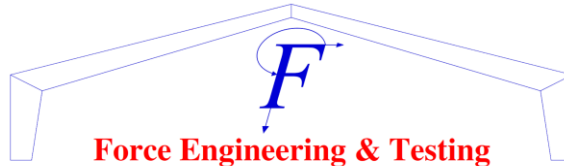
Contents:
Evaluation Report Pages 1 - 6



DEC 15 2022

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

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

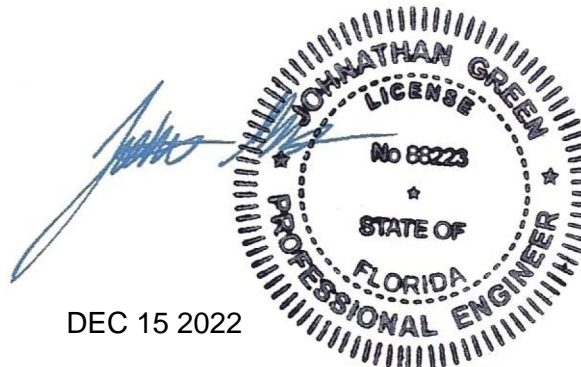


Force Engineering & Testing

19530 Ramblewood Drive
Humble, Texas 77338

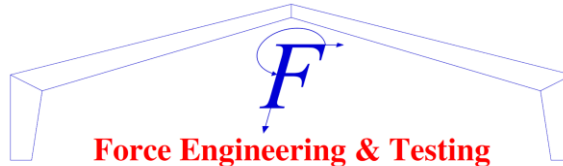
Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

- Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2.
- Product Description:** 5V Crimp Roof Panel, 26 Ga. Steel, 24" Coverage, Roof Panel attaching to minimum 15/32" or 19/32" APA Plywood decking. Non-structural Application.
- Panel Material/Standards:** Material: 26 Ga. Steel 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: 0.018" min.
Width: 24" Maximum Coverage
Rib Height: ½" tall ribs
Panel Rollformer: Metal Rollforming Systems
- Panel Fastener:** (1) #12 x 1-1/2" Woodzip SCAMP SSC head HILO TP-17 with sealing washing or approved equal through panel rib.
(1) #10 x 1-1/2" HWH Woodgrip HILO no washing or approved equal at panel side lap underlap at 24" O.C. offset from #12 fastener. **Panel Assembly C ONLY.**
¼" minimum penetration through plywood.
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.
- Substrate Description:** Minimum 15/32" or 19/32" thick, APA Rated plywood over supports at maximum 24" O.C. Solid ¾" thick wood planking may be substituted for plywood if the wood planking has a fastener pull out value equal to or greater than 15/32" or 19/32" thick APA rated plywood. Design of plywood/wood planking and supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2020.



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

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



Force Engineering & Testing

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

Allowable Design Uplift Pressures:

Panel Assembly "A" over Min. 15/32" Plywood

Maximum Total Uplift Design Pressure:	71.0 psf	107.0 psf	143.0 psf	161.0 psf
Fastener Pattern:	Panel Rib	Panel Rib	Panel Rib	Panel Rib
Fastener Spacing:	16" O.C.	12" O.C.	8" O.C.	6" O.C.

Panel Assembly "B" over Min. 19/32" Plywood

Maximum Total Uplift Design Pressure:	93.5 psf	133.4 psf	173.4 psf	200.0 psf
Fastener Pattern:	Panel Rib	Panel Rib	Panel Rib	Panel Rib
Fastener Spacing:	24" O.C.	18" O.C.	12" O.C.	8" O.C.

Panel Assembly "C" over 15/32" Min. Plywood

Maximum Total Uplift Design Pressure:	93.5 psf
Fastener Pattern:	Panel Rib & Panel Underlap
Fastener Spacing:	24" O.C.

*All Design Pressures Above 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.

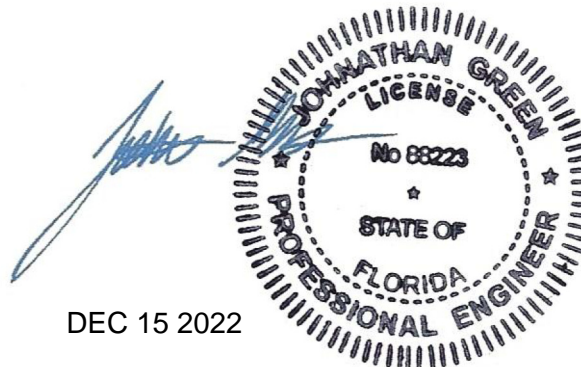
Evaluation Report Scope:

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:

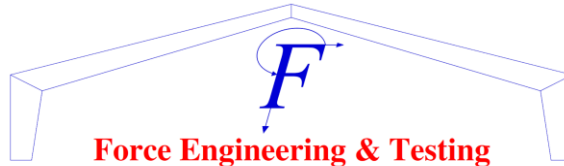
The product described herein has demonstrated compliance with:

- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems



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

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



Force Engineering & Testing

19530 Ramblewood Drive
Humble, Texas 77338

Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

Reference Data:

1. UL 580-06 / 1897-12 Uplift Test
Force Engineering & Testing (FBC Organization # TST-5328)
Report No. 596-0103T-21 & 596-0080-22T
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 Manufacturer's recommendations. For slopes less than 3:12, Lap sealant must be applied in the panel side laps per Section 1507.4.2.

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:

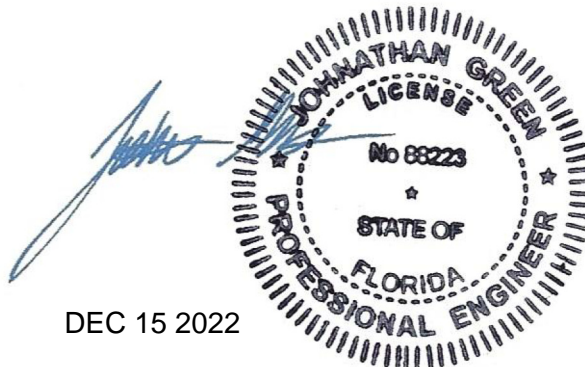
Fire classification is not part of this acceptance.

Shear Diaphragm:

Shear diaphragm values are outside the scope of this report.

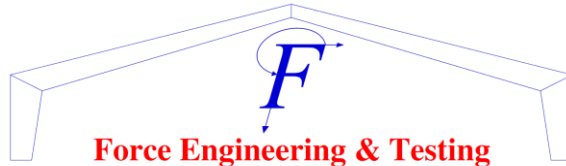
Design Procedure:

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.



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

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

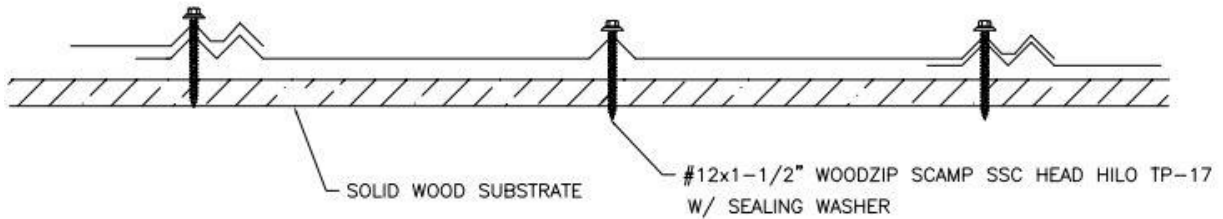


Force Engineering & Testing

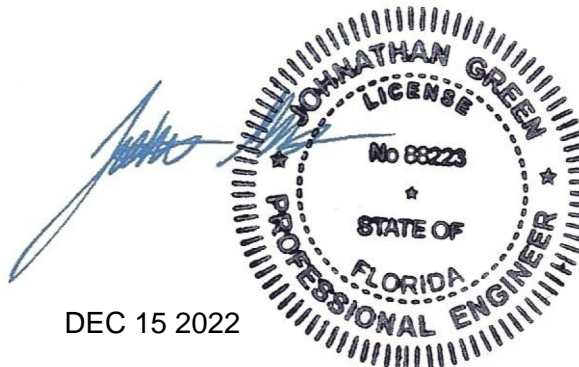
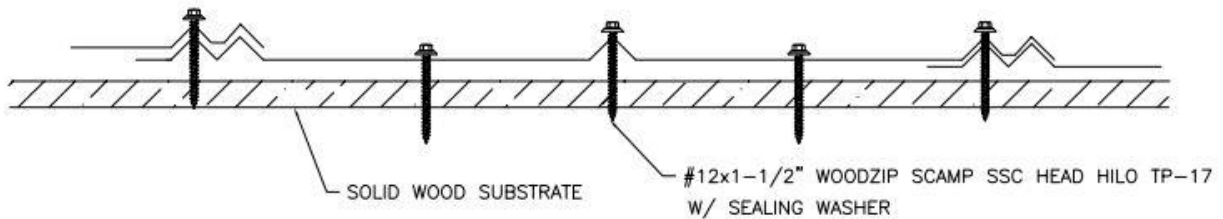
19530 Ramblewood Drive
Humble, Texas 77338

Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

PANEL ASSEMBLY "A" & "B"
PANEL FASTENER PATTERN INTERIOR PANEL
SEE EVALUATION REPORT FOR SPACINGS



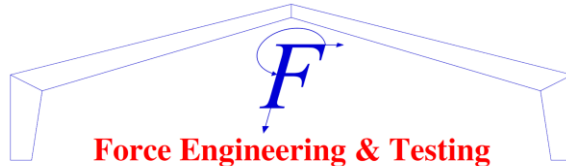
PANEL FASTENER PATTERN AT ENDS OF PANEL ONLY



DEC 15 2022

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

PRINTED COPIES OF THIS
DOCUMENT ARE NOT
CONSIDERED SIGNED AND
SEALED AND THE
SIGNATURE MUST BE
VERIFIED ON ANY
ELECTRONIC COPIES.

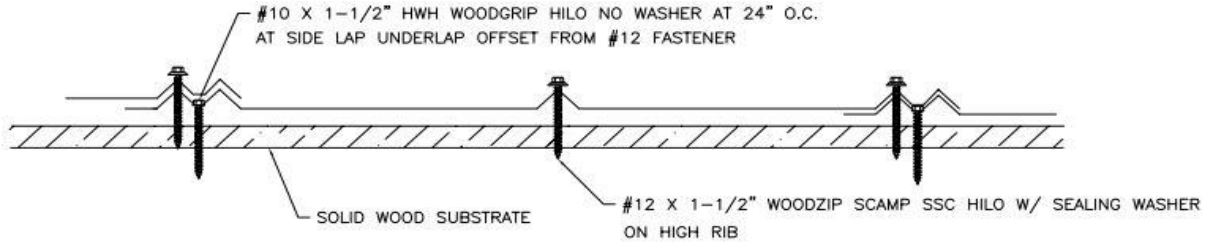


Force Engineering & Testing

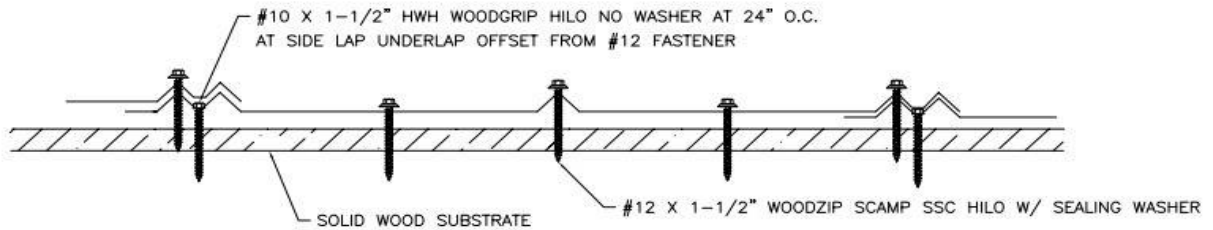
19530 Ramblewood Drive
Humble, Texas 77338

Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

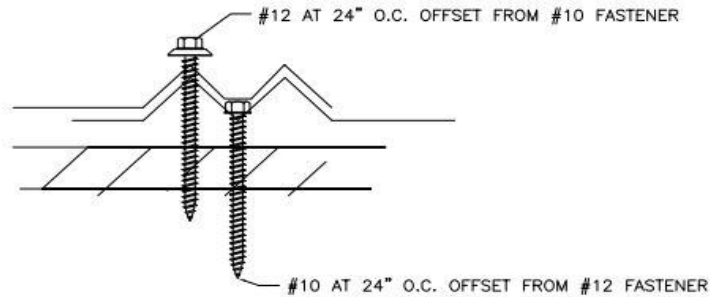
PANEL ASSEMBLY "C"
PANEL FASTENER PATTERN INTERIOR PANEL



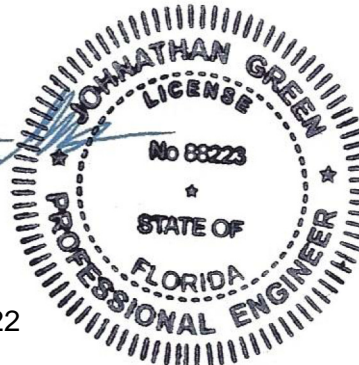
PANEL FASTENER PATTERN AT ENDS OF PANEL ONLY



SIDE LAP FASTENER DETAIL



DEC 15 2022



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

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.