

Force Engineering & Testing

19530 Ramblewood Drive
Humble, Texas 77338
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Product Evaluation Report
WHIRLWIND STEEL BUILDINGS, INC.

24 Ga. Super Seam-Plus Roof Panel over open framing

Florida Product Approval # FL 17700.4 R4

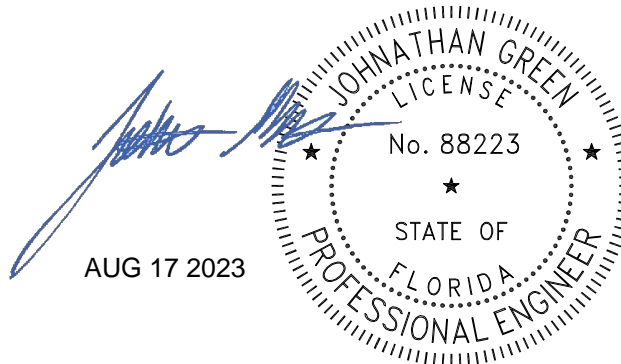
Florida Building Code 2023
Per Rule 61G20-3
Method: 1 -D

Category: Structural Components
Subcategory: Roof Deck
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Whirlwind Steel Buildings, Inc.
8234 Hansen Road
Houston, TX 77075

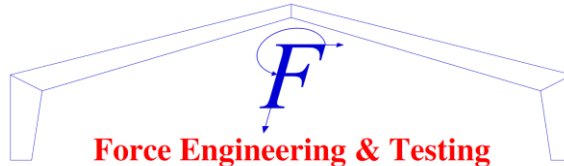
Engineer Evaluator:
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Contents:
Evaluation Report: Page 1 - 4
Installation Detail: Page 5



THIS DOCUMENT 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 2023, Sections 1504.3.2, 1504.7.
- Product Description:** Super Seam-Plus Roof Panel, Minimum 24 Ga. Steel, 24" Wide, 3" tall trapezoidal standing seam structural roof panel. Structural Application.
- Panel Material/Standards:** Material: 24 Ga. Steel. ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2023 Section 1507.4.3. Paint finish optional.
Yield Strength: Min. 50.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2023, Section 1507.4.3.
- Panel Dimension(s):** Thickness: 0.0235"
Width: 24" Maximum Coverage
Rib: 3" tall trapezoidal rib
Panel Seam: Double Lock with mechanical seamer
- Roof Panel Clips:** Product Name: HW-3140 Low Sliding Clip
Seam Clamp: S5 DL wind Clip HW-569 at every Panel Clip (See Table B)
Corrosion Resistance: Per Florida Building Code 2023 Section 1506.7
- Panel Fastener:** (2) ¼-14 x 1-1/4" HWH SD per clip or approved equal.
Corrosion Resistance: Per Florida Building Code 2023, Section 1507.4.4.
- Substrate Description:** Min. 16 Ga. Steel Framing. Framing must be designed in accordance w/ Florida Building Code 2023.

Allowable Design Uplift Pressures:

Table "A"

Maximum Uplift Design Pressure:	-30.0 psf	-85.0 psf
Clip Spacing:	5'-0" O.C.	1'-0" O.C.

Table "B" (S5 Wind Clamps at every Panel Clip)

Maximum Uplift Design Pressure:	-48.3 psf	-160.0 psf
Clip Spacing:	5'-0" O.C.	1'-0" O.C.

*Design Pressures includes a Safety Factor = 2.0.



Code Compliance:	The product described herein has demonstrated compliance with The Florida Building Code 2023, 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 2023, as relates to Rule 61G20-3.
Performance Standards:	The product described herein has demonstrated compliance with: <ul style="list-style-type: none">▪ ASTM E 1592-05(2017) 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:	<ol style="list-style-type: none">1. ASTM E 1592-01 Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 14-0122T-07A-H.2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 14-0284T-14F.3. Certificate of Independence By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing (FBC Organization # ANE ID: 12901)
Test Standard Equivalency:	<ol style="list-style-type: none">1. The ASTM E 1592-01 test standard is equivalent to the ASTM E 1592-05 (2017) test standard.2. The FM 4471-10, Foot Traffic Resistance test standard is equivalent to the FM 4471-92, Foot Traffic Resistance test standard.
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 2023, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.
Installation:	Install per manufacturer's recommended details.
Insulation:	Manufacturer's approved product (Optional).



Roof Panel Fire Classification:

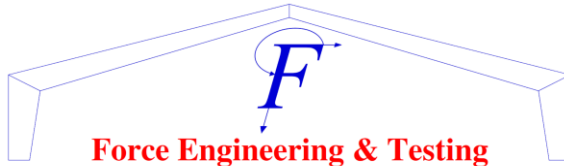
Fire classification is not part of this acceptance.

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 2023 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 2023 Chapter 22 for steel, and Chapter 16 for structural loading.



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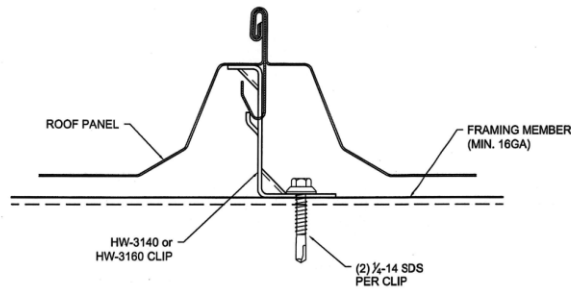
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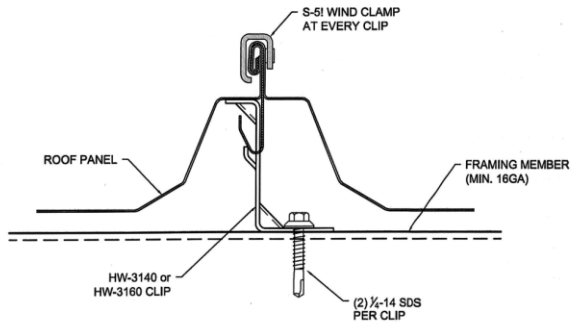
Engineering & Drafting Manual

Standing Seam Roof - Super Seam-Plus

Super Seam-Plus Panel Seam Details



Double Lock Seam



**Double Lock Seam
w/ S-51™ Wind Clamp**

Issue Date: 4/27/2015
By: SW Chk: SW

SSR-001