

**Product Evaluation Report**  
**REED'S METAL, INC.**

***29 Ga. Residential Roof Panel over 1x4 Wood Purlins over 15/32" Plywood***

**Florida Product Approval # 12725.5 R1**

Florida Building Code 2010  
Per Rule 9N-3  
Method: 1 -D

Category: Roofing  
Subcategory: Metal Roofing  
Compliance Method: 9N-3.005(1)(d)  
NON HVHZ

**Product Manufacturer:**

**Reed's Metals, Inc.**  
19 East Lincoln Drive NE  
Brookhaven, MS 39601

**Engineer Evaluator:**

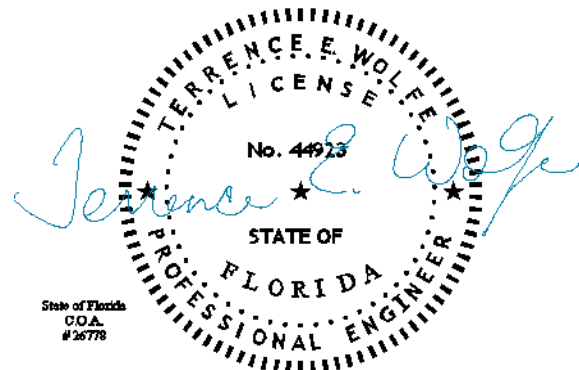
**Terrence E. Wolfe, P.E. # 44923**  
Florida Evaluation ANE ID: 1920

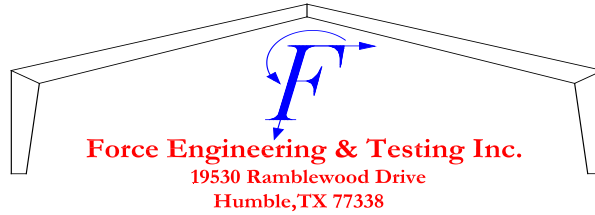
**Validator:**

**Locke Bowden, P.E., FL #49704**  
9450 Alysbery Place  
Montgomery, AL 36117

**Contents:**

**Evaluation Report    Pages 1 – 4**





**Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2010, Sections 1504.3.2, 1504.7.

**Product Description:** Residential Rib Roof Panel, Min. 29 Ga. Steel, 36" Wide, through fastened roof panel over 1x4 wood purlins over 15/32" Plywood decking. Non-Structural Application.

**Panel Material/Standards:** Material: Minimum 29 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2010 Section 1507.4.3. Paint finish optional.  
Yield Strength: Min. 80.0 ksi  
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2010, Section 1507.4.3.

**Panel Dimension(s):** Thickness: 0.0145" min.  
Width: 36"  
Rib Height: 3/4" major rib at 9" O.C.  
Panel Rollformer: MRS Metal Rollforming Systems

**Panel Fastener:** #9-15 x 1-1/2" HWH Woodgrip with sealing washing or approved equal  
3/4" minimum penetration through plywood  
Corrosion Resistance: Per Florida Building Code 2010, Section 1506.6, 1507.4.4

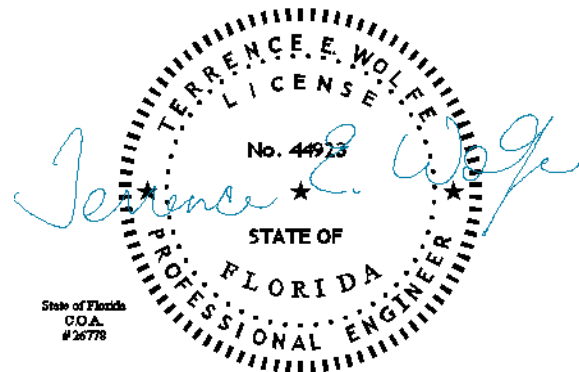
**Substrate Description:** Min. 1x4 No. 2 SYP wood purlins over min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C. The 1x4 wood purlins shall be fastened to the plywood with minimum 8Dx2 1/2" Ring Shank Nails at 4" O.C. Design of 1x4 wood purlins, plywood and plywood supports are outside the scope of this evaluation. Must be designed in accordance w/ Florida Building Code 2010.

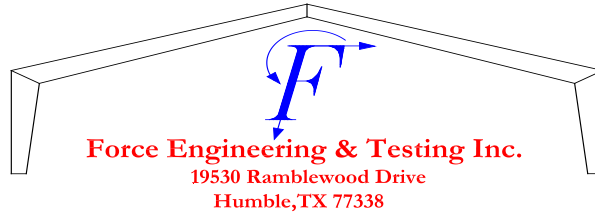
**Design Uplift Pressures:**

Table "A"

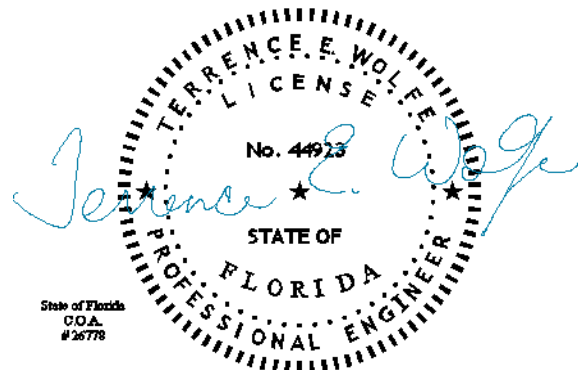
<b>Maximum Total Uplift Design Pressure:</b>	76.75 psf	123.5 psf
<b>Fastener Pattern:</b>	9"-9"-9"-9"	6.5"-2.5"-6.5"-2.5"-6.5"-2.5"-6.5"
<b>Fastener Spacing:</b>	24" O.C.	24" O.C.

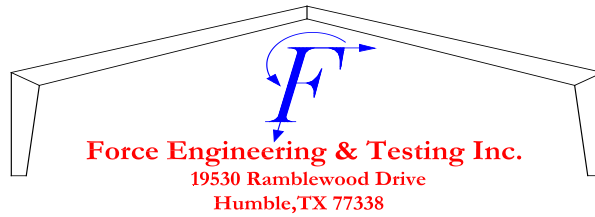
\*Design Pressure includes a Safety Factor = 2.0.





- Code Compliance:** The product described herein has demonstrated compliance with The Florida Building Code 2010, 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 2010, as relates to Rule 9N-3.
- Performance Standards:** The product described herein has demonstrated compliance with:
- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
  - UL 1897-04 - Uplift Test for Roof Covering Systems
  - FM 4471, Section 5.4 - Foot Traffic Resistance Test
- Reference Data:**
1. UL 580-94 / 1897-98 Uplift Test  
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)  
Report No. 101-0304T-05 & 101-0508T-08, Dated 05/05/05 & 11/04/08
  2. FM 4471-95, Section 5.4 Foot Traffic Resistance Test  
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)  
Report No. 101-0241T-09, Dated 07/06/2009
  3. Certificate of Independence  
By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc.  
(FBC Organization # ANE ID: 1920)
- 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 1897-04 test standard.
- Quality Assurance Entity:** The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 9N-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 2010, 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.
- Underlayment:** Per Manufacturer's installation guidelines per Florida Building Code 2010 Section 1507.4.5.





**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 2010 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 2010 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

