

## Evaluation Report "1-1/2" Slim Seam" Metal Roof Assembly

### Manufacturer:

**Fabral, Inc.**

3449 Hempland Road  
Lancaster, Pennsylvania 17601  
(800) 884-4484

*for*

### Florida Product Approval

**# FL 27459.2**

Florida Building Code 6th Edition (2017)

Method: 1 - D

Category: Roofing

Sub - Category: Metal Roofing

Product: "1-1/2" Slim Seam" Roof Panel

Material: Aluminum

Panel Thickness: 0.032" (min.)

Panel Width: 16" (max.)

Support: Wood Deck

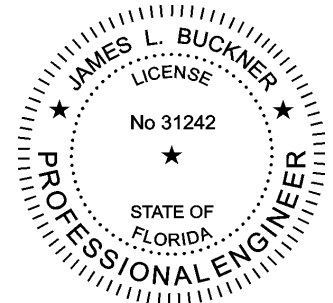
Facsimile of digital copy signed by  
James L. Buckner, P.E.  
Electronically signed and sealed documents shall  
comply with the provisions of FAC Rule 61G15-23.

### Prepared by:

James L. Buckner, P.E., S.E.C.B.  
Florida Professional Engineer # 31242  
Florida Evaluation ANE ID: 1916  
Project Manager: Diana Galloway  
Report No. 18-145-1.5SlimS-A3W-ER  
Date: 6 / 5 / 18

### Contents:

Evaluation Report                      Pages 1 – 8



A handwritten signature in blue ink, appearing to read "James L. Buckner".

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**CBUCK, Inc. dba CBUCK Engineering**

Phone: (561) 491-9927 · Email: [cbuck@cbuckinc.net](mailto:cbuck@cbuckinc.net) · Website: [www.cbuckinc.net](http://www.cbuckinc.net)

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<b>Manufacturer:</b>	<b>Fabral, Inc.</b> 3449 Hempland Road Lancaster, Pennsylvania 17601 (800) 884-4484 <a href="http://www.fabral.com/">http://www.fabral.com/</a>
<b>Product Name:</b>	<b>"1-1/2" Slim Seam"</b>
<b>Product Category:</b>	Roofing
<b>Product Sub-Category</b>	Metal Roofing
<b>Compliance Method:</b>	State Product Approval Rule 61G20-3.005 (1) (d)
<b>Product/System Description:</b>	<b>"1-1/2" Slim Seam"</b> 1.5" Rib Height, 16" wide, 0.032" Aluminum roof panel mechanically attached to Wood Deck with fixed panel clips and screws.
<b>Product Assembly as Evaluated:</b>	Refer to Page 4 of this report for product assembly components/materials & standards: <ol style="list-style-type: none"><li>1. Roof Panel:</li><li>2. Panel Clip</li><li>3. Fasteners:</li><li>4. Underlayment:</li><li>5. Insulation (Optional):</li><li>6. Barrier (Optional):</li></ol>
<b>Support:</b>	<b>Type:</b> Wood Deck (Design of support and its attachment to support framing is outside the scope of this evaluation.) <b>Description:</b> <ul style="list-style-type: none"><li>• 19/32" or greater Plywood , or</li><li>• Wood plank deck (based on minimum density/specific gravity of 0.42)</li></ul>
<b>Slope:</b>	Minimum slope shall be in compliance with FBC Chapter 15 Section 1507.4.2, applicable code sections and in accordance with manufacturer's recommendations.
<b>Performance:</b>	Wind Uplift Resistance: <ul style="list-style-type: none"><li>• Design Uplift Pressure: (Refer to "Table A" attachment details herein)</li></ul>

- Performance Standards:** The product described herein has demonstrated compliance with:
- UL580-06 – *Test for Uplift Resistance of Roof Assemblies*
  - UL 1897-12 – *Uplift test for roof covering systems*
- Code Compliance:** The product(s) described herein have demonstrated compliance with the performance standards listed above as referenced in the current Florida Building Code.
- Evaluation Report Scope:** This product evaluation is limited to compliance with the structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.
- Limitations and Conditions of Use:**
- Scope of “Limitations and Conditions of Use” for this evaluation:  
This evaluation report for “Optional Statewide Approval” contains technical documentation, specifications and installation method(s) which include “Limitations and Conditions of Use” throughout the report in accordance with Rule 61G20-3.005. Per Rule 61G20-3.004, the Florida Building Commission is the authority to approve products under “Optional Statewide Approval”.
  - Option for application outside “Limitations and Conditions of Use”  
Rule 61G20-3.005(1)(e) allows engineering analysis for “project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code”. Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
  - This report is a building code product evaluation per FLPE rule (FAC) 61G15-36 to comply with Florida product approval rule (FAC) 61G20-3. This evaluation report is part of the Florida Building Commission approval for the listed code related criteria. This report by James Buckner, P.E. and CBUCK Engineering is not a design certification of code compliance construction submittal documentation, per FBC section 107, for any individual structure, site specific or permit design.
  - All metal components and fasteners shall be corrosion resistant in accordance with applicable sections of FBC, including but limited to Sections 1504.3.2, 1506.6 and 1507.4.4.
  - Design of support system is outside the scope of this report.
  - Fire Classification is outside the scope of Rule 61G20-3, and is therefore not included in this evaluation.
  - This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties).
- Quality Assurance:** The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.0005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **UL, LLC** (FBC Organization ID# QUA 9625).

**Components/  
Materials & Standards  
(By Manufacturer):**

**Roof Panel:** "1-1/2" Slim Seam"  
Material: Aluminum  
Thickness: 0.032" (min.)  
Panel Width: 16" (max.) Coverage  
Rib Height: 1.5"  
Alloy Type: 3105 (in compliance with ASTM B 209)  
Corrosion Resistance: Per FBC Section 1507.4.3

**Fastener: (Panel to Deck)**

Type: Pancake Head "A" Point Wood Screw  
Size : #12-11 x 1"  
Corrosion Resistance: Per FBC Section 1506.6 and 1507.4.4  
Standard: Per FBC 1507.4.4 and ANSI/ASME B18.6.1

**Underlayment:**

Material and application shall be in compliance with FBC Section 1507.1.1 and in accordance with applicable code sections and manufacturer's recommendations.

**Components/  
Materials & Standards  
(By Others):**

**Insulation (Optional):**

Type: Rigid Insulation Board  
Thickness: 3" (max.)  
Properties:  
Density: 2.25 pcf (lbs/ft<sup>3</sup>) min.  
Or Compressive Strength: 20 psi min.

**Insulation Notes:**

- Rigid Insulation shall meet minimum density OR compressive strength.
- Insulation shall comply with FBC Section 1508. When insulation is incorporated, fastener length shall conform to penetrate thru bottom of support a minimum of 3/16".

**Barrier (Optional):**

Barrier Board: Approved Barrier, up to 1/2" thick

**Installation:**

**Installation Method:**

(Refer to details below and drawings at the end of this report.)

- Panel Clip spacing: **12" o.c.**  
(along the panel flange, in every other pre-drilled slot)
- Rib Interlock: Snap Lock  
(Panel ribs shall be fully engaged to form an integral interlock.)
- Minimum fastener penetration thru bottom of support, 3/16".
- For panel construction at the end of panels, refer to manufacturer's instructions and any site specific design.

<b>TABLE "A"</b>	
<b>ALLOWABLE LOADS</b>	
<b>Design Pressure:</b>	<b>- 108.5 PSF</b>
Panel Clip Spacing:	12" o.c.
# Fasteners per Clip:	2
Notes:	
• Allowable design pressure(s) for allowable stress design (ASD).	

Install the "1-1/2" Slim Seam" roof panel assembly in compliance with the installation method listed in this report and applicable code sections of FBC 6th Edition (2017). The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer's installation instructions as a supplemental guide for attachment.

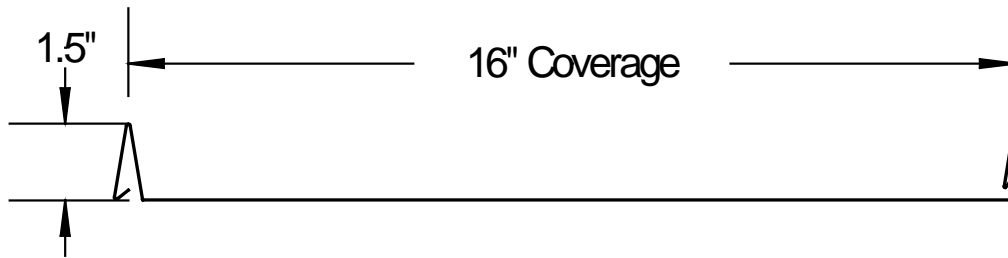
**Referenced Data:**

1. UL580-06 rev 2009/UL1897-12 Uplift Test  
By Farabaugh Engineering & Testing, Inc. (FBC Organization ID# TST 1654)  
Report #: T201-18, Report Date: 05 / 31 / 18
2. Quality Assurance  
UL, LLC (FBC Organization ID# QUA 9625)
3. Certification of Independence  
By James L. Buckner, P.E. @ CBUGK Engineering

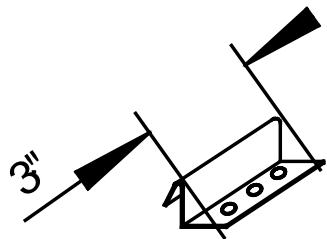
**Installation Method**

**Fabral, Inc.**

**“Slim Seam” (0.032” Aluminum) Roof Panel attached to Plywood Deck**



**Typical Panel Profile**



ISO VIEW

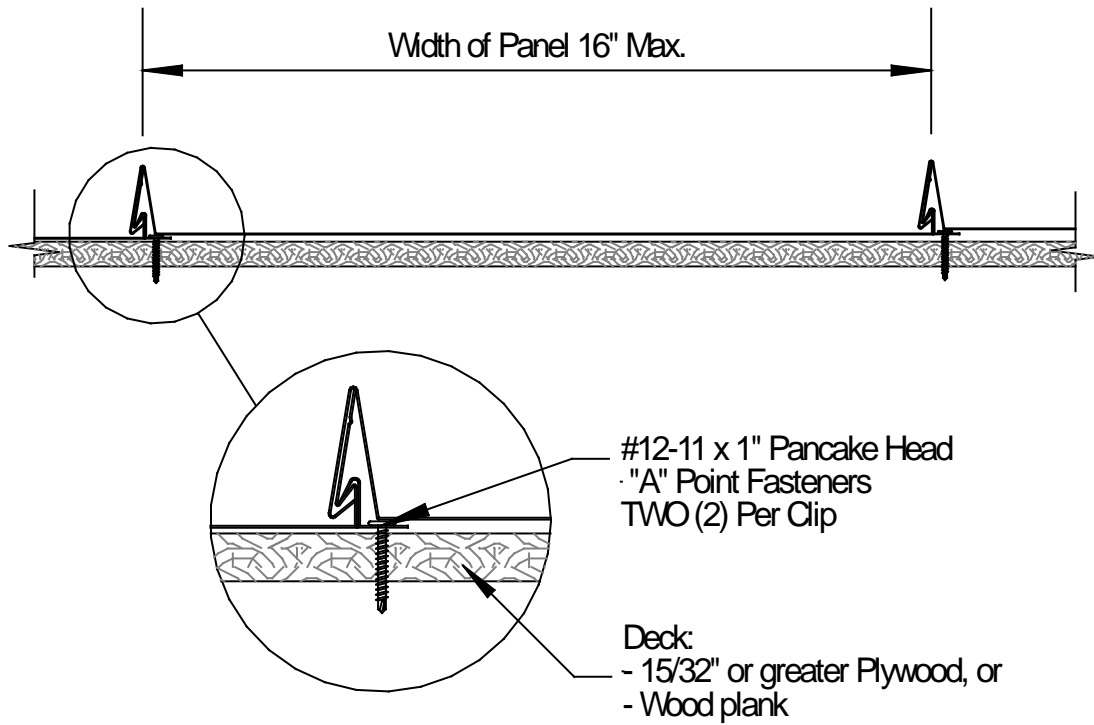


SECT. VIEW

**Panel Clip**

**Installation Method  
Fabral, Inc.**

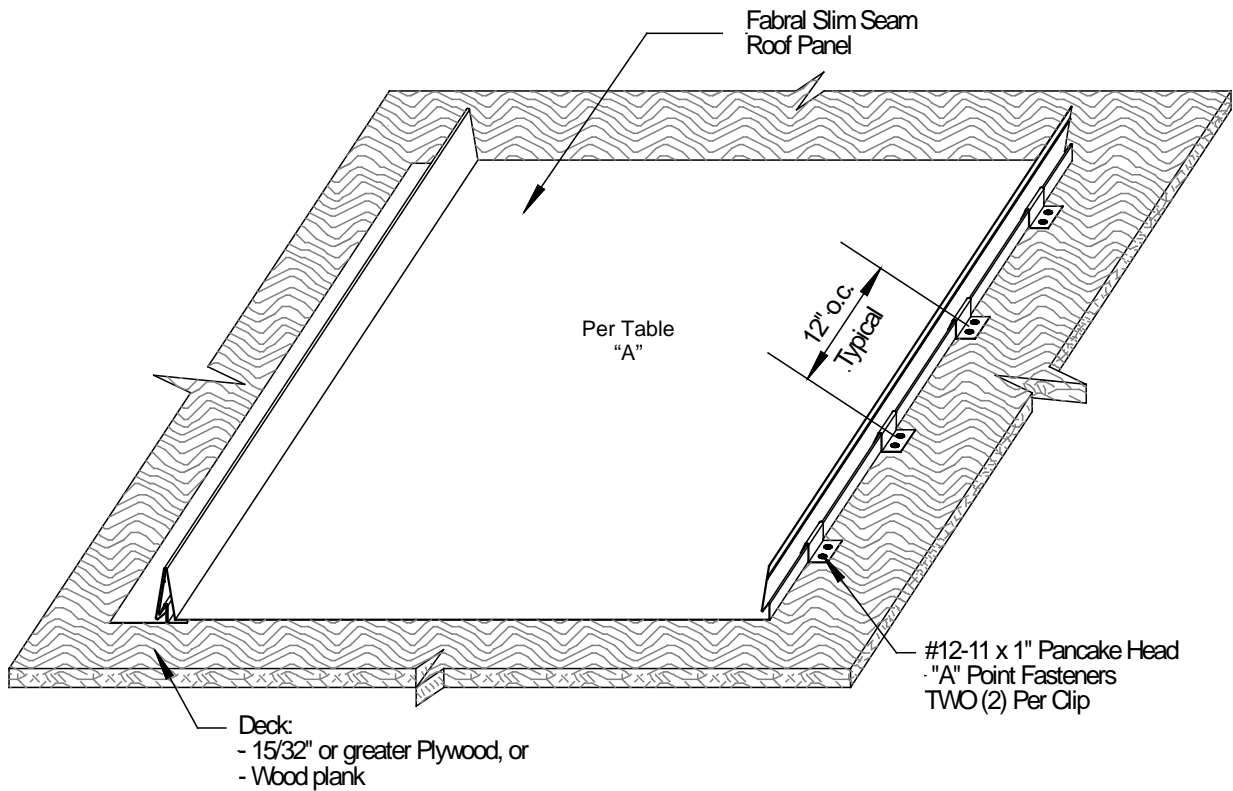
**"Slim Seam" (0.032" Aluminum) Roof Panel attached to Plywood Deck**



**Typical Panel Assembly  
Section View**

## Installation Method Fabral, Inc.

### "Slim Seam" (0.032" Aluminum) Roof Panel attached to Plywood Deck



**Typical Roof Assembly  
 Isometric View**

TABLE "A" ALLOWABLE LOADS	
Design Pressure:	- 108.5 PSF
Panel Clip Spacing:	12" o.c.
# Fasteners per Clip:	2
Notes:	
<ul style="list-style-type: none"> <li>• Allowable design pressure(s) for allowable stress design (ASD).</li> </ul>	