

## Evaluation Report "Great American Shake" Metal Roof Assembly

### Manufacturer:

### Green American Home

(A division of Isaiah Industries)

8510 Industry Park Drive

Piqua, OH 45356

(800) 543-8938

for

### Florida Product Approval

### # FL 20735.1 R1

### Florida Building Code 6th Edition (2017)

Method: 1 - D

Category: Roofing

Sub - Category: Metal Roofing

Product: "Great American Shake"

Material: Aluminum

Support: Wood Deck

### Prepared by:

James L. Buckner, P.E., SECB

Florida Professional Engineer # 31242

Florida Evaluation ANE ID: 1916

Project Manager: Diana Galloway

Report No. 17-130-GAS-A19W-ER

(Revises 16-132-GAS-A19W-ER, FL20735.1 R1)

Date: 07/09/17

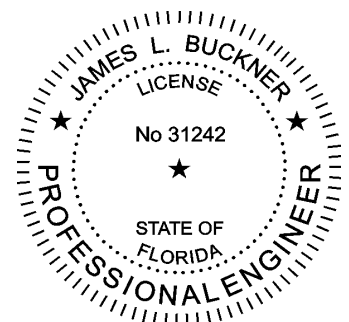
### Contents:

Evaluation Report

Pages 1 – 8

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



A handwritten signature in blue ink that appears to read "James L. Buckner".

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<b>Manufacturer:</b>	<b>Green American Home</b> (A division of Isaiah Industries) 8510 Industry Park Drive Piqua, OH 45356 (888) 705-5656 <a href="https://www.greenamericanhome.com/">https://www.greenamericanhome.com/</a>
<b>Product Name:</b>	<b>Great American Shake</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>	"Great American Shake" Aluminum roof panel, with a wood shake or slate appearance, attached to Wood Deck with nails, concealed clips and a four-way interlocking design.
<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 Clips</li><li>3. Fasteners</li><li>4. Underlayment</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>• 15/32" or greater plywood,</li><li>• or Wood plank (min. specific gravity of 0.42)</li></ul>
<b>Slope:</b>	Minimum slope shall be in compliance with FBC Chapter 15 based on the type of roof covering, 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: - 56 PSF (Refer to "Table A" attachment details herein)</li></ul>

- Performance Standards:** The product described herein has demonstrated compliance with:
- UL 580-06 – *Test for Uplift Resistance of Roof Assemblies*
  - UL 1897-12 – *Uplift test for roof covering systems*
- Standards Equivalency:** The UL 580-94 & UL 1897-98 standard version used to test the evaluated product assembly is equivalent with the prescribed standards in UL 580-06 & UL 1897-12 adopted by the Florida Building Code 6th Edition (2017).
- 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 building envelope product is evaluated for compliance with the structural wind load 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 Farabaugh Testing & Engineering (FBC Organization ID# QUA 7733).

**Components &  
Materials:  
(by Manufacturer)**

**Roof Panel:**  
Material: **Great American Shake**  
Aluminum  
Thickness: 0.019" (min.)  
Panel Width: 12" nominal (max.) Coverage  
Panel Length: 24" nominal  
Alloy Type: 3105-H26  
Corrosion Resistance: Per FBC Section 1507.4.3

**Roof Panel Clips:**  
Material: Aluminum  
Thickness: 0.031"  
Alloy Type: 3003 H14  
Dimensions: 1.75" (tall) x 2.25" (long) x 1.24" (base)  
Corrosion Resistance: Per FBC Section 1506.7

**Fastener:**  
Type: Annular Ring Shank Roofing Nails  
Size : 3/16" dia. (7/16" head dia.) x 1-3/4" long  
Corrosion Resistance: Per FBC Section 1506.5  
Standard: Per ASTM F 1667

**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.

**Installation:**

**Installation Method:**

(Refer to "TABLE A" below and drawings at the end of this evaluation report.)

1. **Eight** clips per shingle (See drawings at end of this report)
2. Clip spacing: Per Table A Below  
(along the length of the panel, along the top)
3. **One** nail per clip  
(through the guide hole of the clip)
4. Tuck bottom lock of succeeding layer of shingles into top lock of preceding layer of shingles to form an integral interlock.
5. Attach succeeding shingles in a staggered pattern per the following:  
Full Panel, 10-3/8", 14-1/4", 6", Repeat
6. Minimum fastener penetration thru bottom of support, 3/16".
7. For panel construction at the end of panels, refer to manufacturer's instructions and any site specific design.

<b>TABLE "A"</b> <b>"Great American Shake" (0.019" Alum.) attached to Wood Deck</b> <b>ALLOWABLE LOADS</b>	
<b>Design Pressure (ASD):</b>	<b>- 56 PSF</b>
Clip Spacing:	<b>4"</b>
# Fasteners per Clip:	<b>1</b>
# Clips per Shingle:	<b>8</b>
Notes:	
<ul style="list-style-type: none"> <li>• Allowable design pressure(s) for allowable stress design (ASD).</li> </ul>	

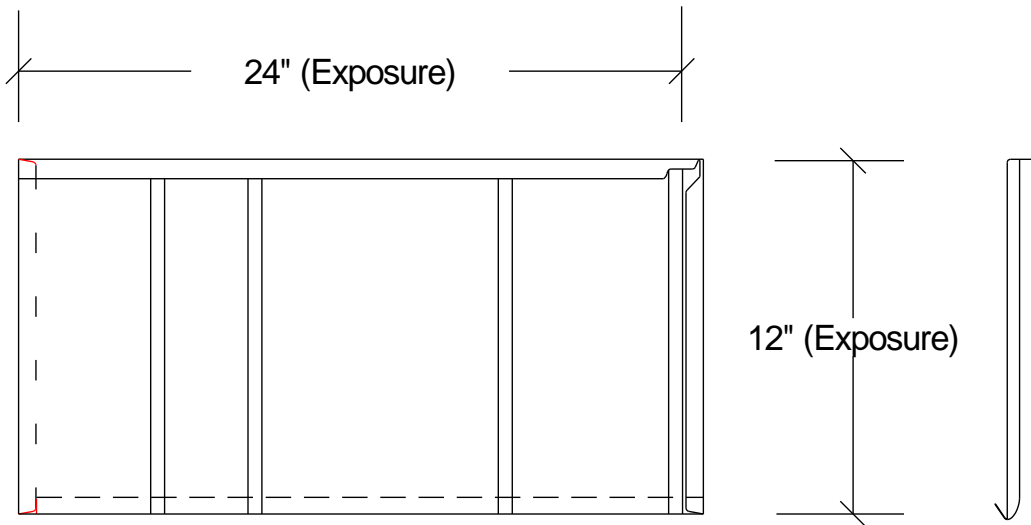
Install the "Great American Shake" roof panel assembly in compliance with the installation method listed in this report and applicable code sections of FBC 6th Edition (2017). The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer's installation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

**Referenced Data:**

1. UL 580 & UL 1897 Uplift Test  
By Farabaugh Testing & Engineering (FBC Organization #TST ID: 1654)  
Report #: T173-07, Report Date: 04/18/07
2. Equivalency of Test Standard Certification  
By James L. Buckner, P.E. @ CBUCK Engineering  
(FBC Organization # ANE 1916)
3. Quality Assurance  
By Farabaugh Testing & Engineering (FBC Organization ID# QUA 7733)
4. Certification of Independence  
By James L. Buckner, P.E. @ CBUCK Engineering  
(FBC Organization # ANE 1916)

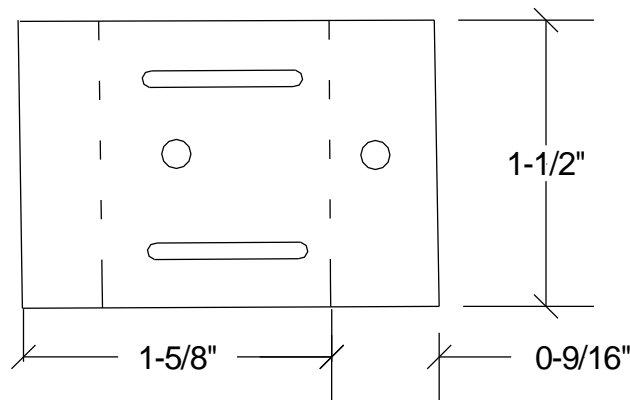
**Installation Method  
Green American Home  
"Great American Shake" (0.019" Aluminum) Roof Panel attached to Wood Deck**

Drawings



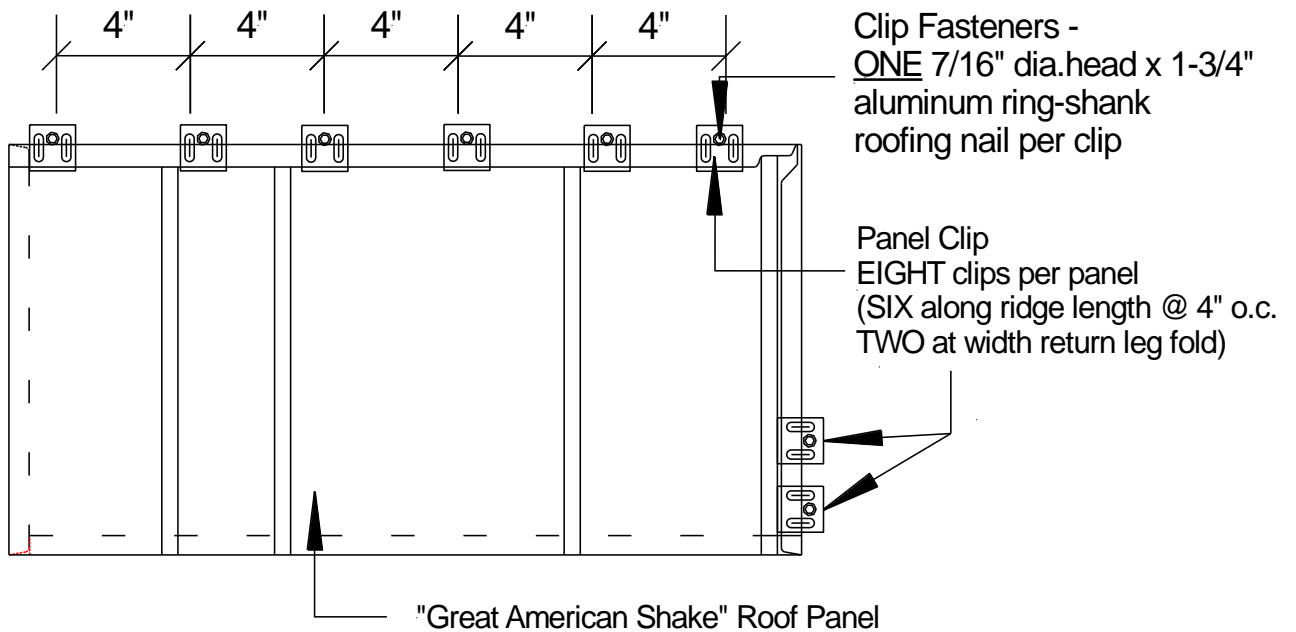
**Typical Panel Profile**

**Panel Side View**



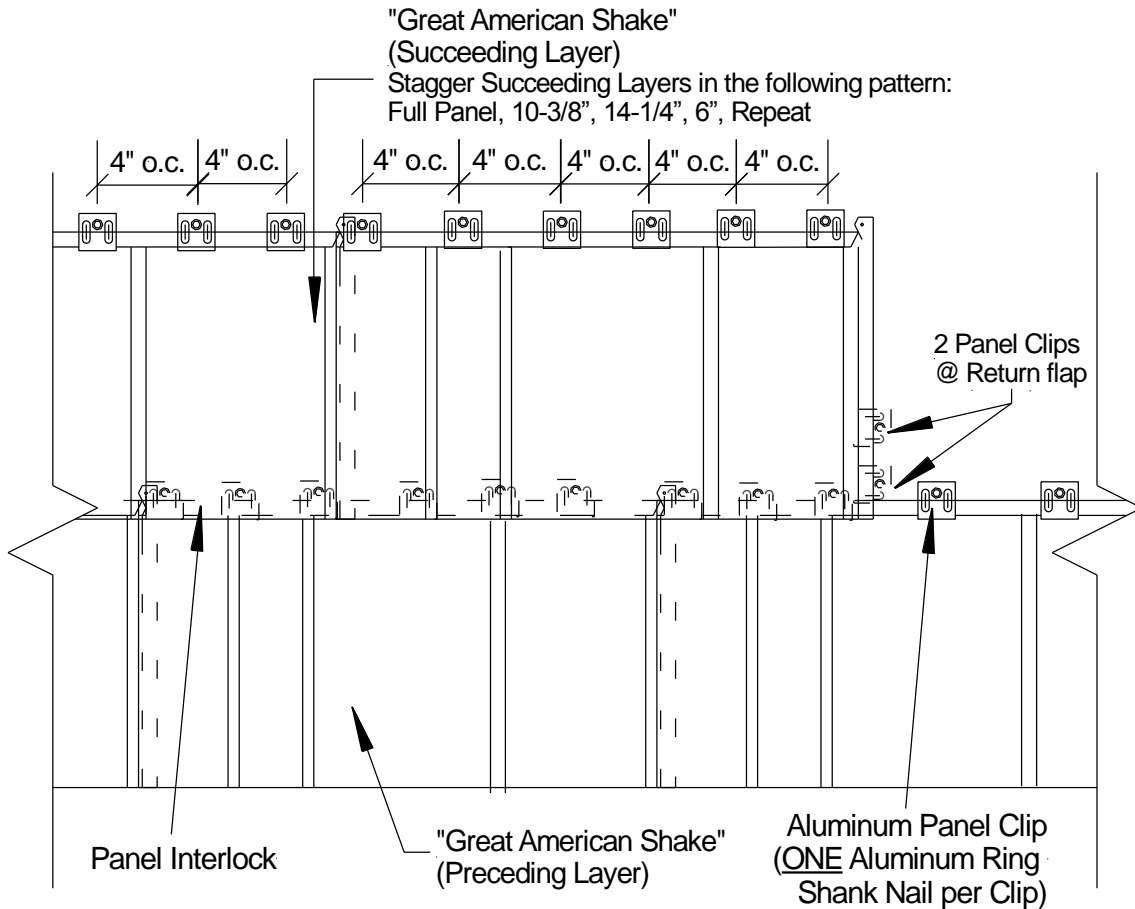
**Typical Panel Clip Profile**

**Installation Method**  
**Green American Home**  
**Great American Shake™ (0.019" Aluminum) Roof Panel attached to Wood Deck**



**Typical Clip Assembly**  
**Section Plan View**

## Installation Method Green American Home "Great American Shake" (0.019" Aluminum) Roof Panel attached to Wood Deck



**Typical Roof Assembly Plan View**

TABLE "A" "Great American Shake" (0.019" Alum.) attached to Wood Deck ALLOWABLE LOADS	
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