



CBUCK Engineering

Specialty Structural Engineering

CBUCK, Inc. Florida Certificate of Authorization # 8064

Evaluation Report
of
Berridge Manufacturing Company
“Rustic Shake”
Metal Roof Assembly
for
Florida Product Approval
FL 11422.11
Florida Building Code 2007
Per Rule 9B-72

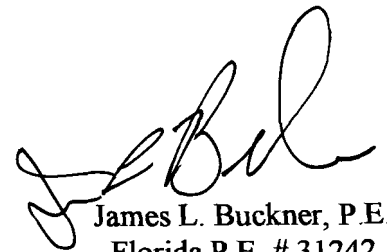
Method: 1 - D
Category: Roofing
Sub - Category: Metal Roofing

Product: “Rustic Shake” Shingle
Material: Steel
Panel Thickness: 24 Gauge
Support Type: Wood Deck

Prepared for:
Berridge Manufacturing Company
1720 Maury Road
Houston, TX 77026

Prepared by:
James L. Buckner, P.E.
Florida Professional Engineer # 31242
Florida Evaluation ANE ID: 1916
Project Manager: Diana Galloway
Report No. 08-136-RusticShake-S4W-ER
Date: 9 / 1 / 08

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9/17/08

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| | |
|--------------------------------------|---|
| Manufacturer: | Berridge Manufacturing Company |
| Product Name: | “Rustic Shake” |
| Product Category: | Roofing |
| Product Sub-Category | Metal Roofing |
| Compliance Method: | State Product Approval Rule 9B-72.070 (1) (d) |
| Product Description: | “Rustic Shake”, Steel Roof Shingle attached to Wood Deck. |
| Product Material / Standards: | Material: Steel Yield Strength: 40 ksi minimum Corrosion Resistance: Material shall comply with the Florida Building Code (FBC), 2007 Section 1507.5.4. |
| Product Dimension(s) | Thickness: 24 gauge minimum Net Coverage: 12” wide x 24” long |
| Support Type: | Wood Deck (Design of support system is not included in this evaluation) |
| Support Description: | <ul style="list-style-type: none">• 15/32” or greater plywood, or• Wood plank |
| Slope Range: | 3: 12 or greater |
| Underlayment: | Underlayment shall comply with FBC Section 1507.5.3 and per manufacturer’s guidelines as required in FBC Section 1507.5.2.1. |
| Fire Classification: | Fire Classification is outside the scope of Rule 9B-72, and is therefore not included in this evaluation. Additional approved substrates may be added for Fire Classification purposes. |

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Attachment Component Description:

Roof Shingle Clips

Product Name: Berridge "Anchor Clip"
Material: Steel
Type: One-piece Fixed Clip
Thickness: 24 Gauge minimum
Strength: 40 ksi minimum
Dimensions: 1-1/2" x 1-1/2" (nominal)
Corrosion Resistance: Per FBC Section 1506.7

Starter Strip

Product Name: Berridge "Starter Strip"
Material: Steel
Type: One-piece, continuous strip
Thickness: 24 Gauge minimum
Strength: 40 ksi minimum
Dimensions: 2" wide
Corrosion Resistance: Per FBC Section 1506.7

Fasteners

Clip Fasteners

Size: #10 x 1"

Type: Flat-head wood screws

Starter Strip Fasteners

Size: #10 – 12 x 1"

Type: Pancake-head wood screws

Corrosion Resistance: Per FBC Section 1506.6 and 1507.4.4

Standard: Per ANSI/ASME B18.6.1.

Installation:

Berridge "Rustic Shake" Shingle to Wood Deck:

1. Attach starter strip:
 - **Starter Strip Fastener Spacing: 12" o.c.**
(attached to wood deck, along the eave)
 - The bottom leg of the first shingle panel interlocks with the starter strip.
2. Attach shingle to wood deck per the following:
 - **Anchor Clip Spacing: 12" o.c.**
(Attached to top of shingles, interlocked with shingles top hem)
 - **Two** anchor clips per shingle
(Minimum of Two anchor clips for full or partial shingles)
 - **One** fastener per anchor clip

Minimum fastener penetration or embedment into deck, 3/16".

Install the system in compliance with the attached installation method.
Refer to manufacturer's installation instructions as a supplemental guide for attachment.

Design Uplift Pressure:

- 78.75 PSF (Safety Factor of 2 : 1)

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- Quality Assurance:** The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 9B-72.070 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Underwriter's Laboratories, Inc.** (FBC Organization #: QUA 1743)
- Performance Standards:** The product described herein has demonstrated compliance with:
- **TAS 125-03** – *Standard Requirements for Metal Roofing Systems*
 - **UL580-94** – *Test for Uplift Resistance of Roof Assemblies—with Revisions through February 1998*
 - **UL 1897-98** – *Uplift test for roof covering systems*
- Code Compliance:** The product described herein has demonstrated compliance with the Florida Building Code 2007, Section 1504.3.2
- Evaluation Report Scope:** This product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code, as related to Rule 9B-72.
- System Limitations:** The required design wind loads shall be determined for each project per FBC, 2007, Section 1609. Any rational analysis computations shall be prepared by a qualified design professional and in compliance with FBC 2007, Sections 104, 105, 106. This report does not evaluate use of this product in the High Velocity Hurricane Zone.
- Referenced Data:**
1. TAS 125 (Per UL580 & UL 1897)
By Hurricane Test Laboratory, Inc. (FBC Organization #TST ID: 1527)
Report # 0307-0804-05, Date: 12/19/05
 2. Quality Assurance
Underwriters Laboratories, Inc. (FBC Organization #QUA ID:1743)
 3. Certification of Independence
By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization# ANE ID: 1916)

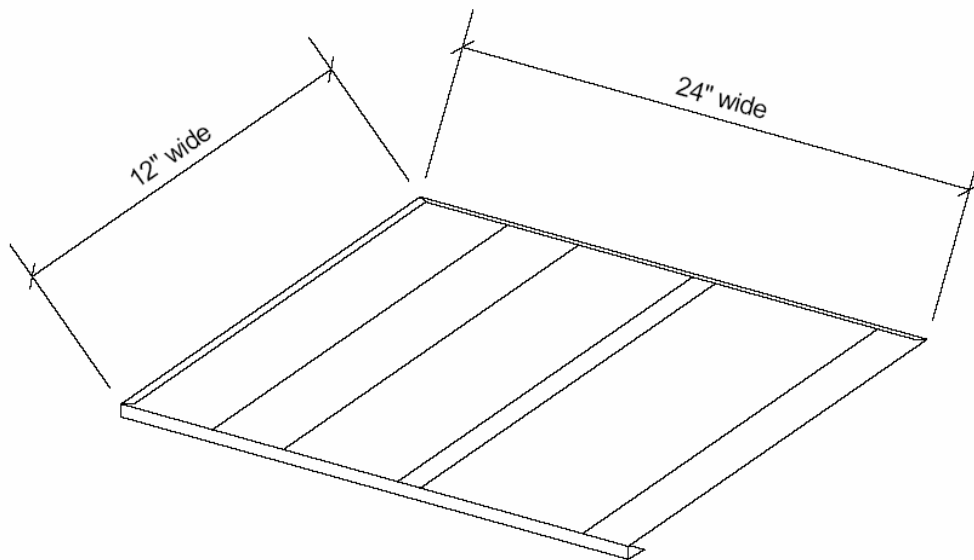
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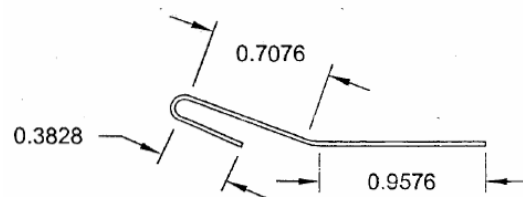
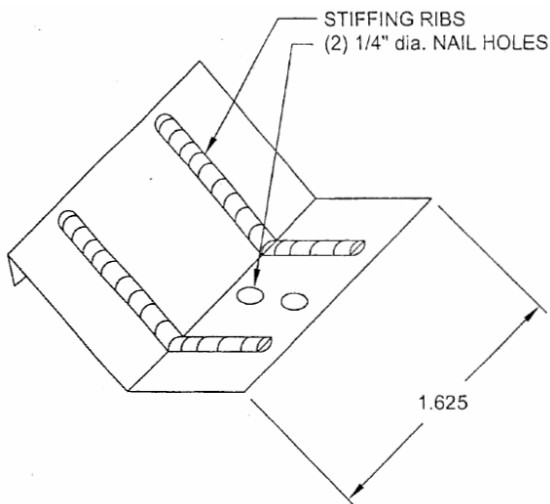
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Installation Method Berridge Manufacturing Company "Rustic Shake" Shingle Attached to Wood Deck

Profile Drawings



"Rustic Shake" Shingle



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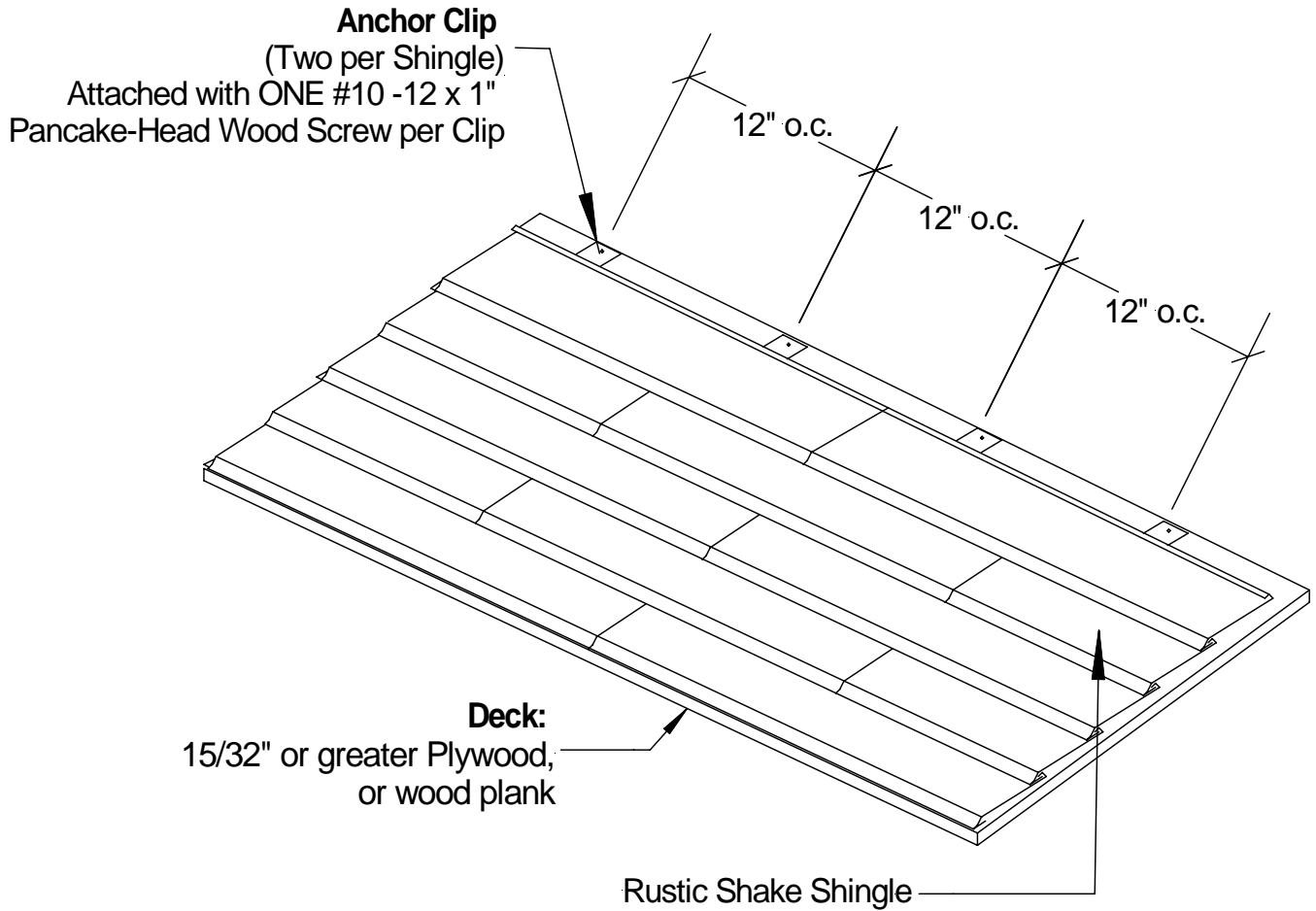
"Anchor Clip" Typical Clip Detail Installation Method

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Berridge Manufacturing Company "Rustic Shake" Shingle Attached to Wood Deck



**"Rustic Shake" Shingle
Typical Isometric Assembly View**