# EVALUATION REPORT OF
# METALMAX ROOFING AND SIDING
# 'PBR PANEL'

**F FLORIDA BUILDING CODE 7TH EDITION (2020)**
**FLORIDA PRODUCT APPROVAL**
**FL 41914.1**
**STRUCTURAL COMPONENTS**
**ROOF DECK**

**Prepared For:**
**MetalMax Roofing and Siding**
**900 Cpt Joe Fulghum Drive**
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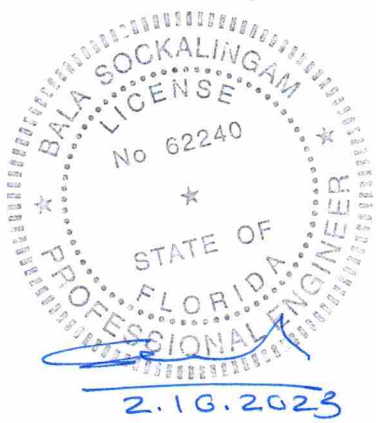
**This report consists of**
**Evaluation Report (3 Pages including cover)**
**Installation Details (1 Page)**
**Load Span Table (1 Page)**




**Report No. C2615-1**
**Date: 2.10.2023**

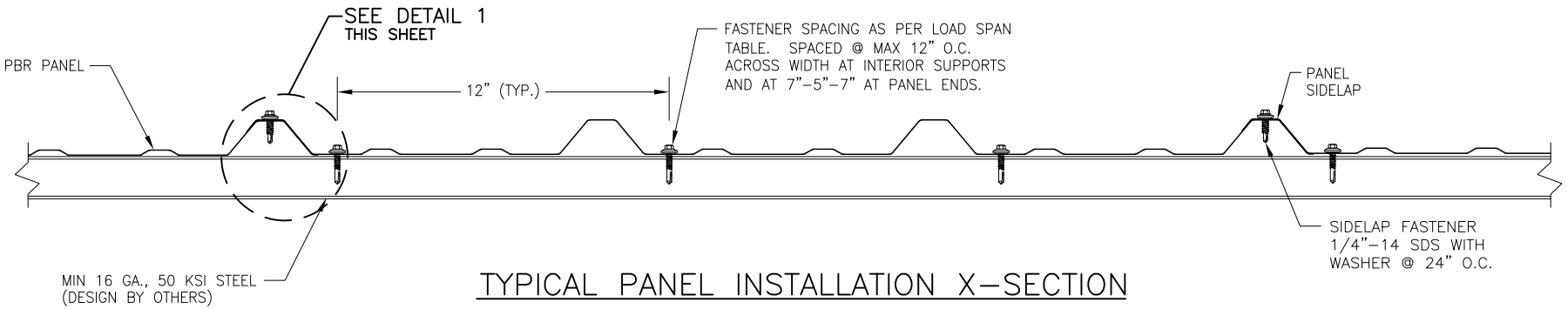
| | |
|---|---|
| Manufacturer: | MetalMax Roofing and Siding |
| Product Name: | PBR Panel |
| Panel Description: | 36" wide coverage with (4) 1-1/4" high ribs |
| Materials: | Min. 26 ga., 80 ksi steel or min. 24 ga., 50 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755). Corrosion resistant as per FBC 2020 Section 1507.4.3. |
| Support Description: | Min. 16 ga., 50 ksi steel section. (Must be designed by others) |
| Slope: | 1/2:12 or greater in accordance with FBC 2020 Section 1507.4.2 |
| Design Uplift Pressure:<br>(Factor of Safety = 2)<br>(2 or more spans) | -44.2 psf at support spacing of 60 o.c.<br>-119.2 psf at support spacing of 24 o.c. |
| Design Inward Pressure: | The inward loads shown on the load span table were determined in accordance with FBC 2020 Section 1504.3.2 and 2210.1 and AISI S100-16. Secondary supports, frames and support connections must be designed to resist all loads. |
| Panel Attachment: | #12-14 x 1-1/4" long self-drilling screws with washer. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4. |
| At panel ends | at 7"-5"-7" o.c. across panel width |
| At interior supports | at 12" o.c. across panel width |
| Sidelap Attachment: | ¼"-14 x 7/8" long self-drilling screws with washer at 24" o.c. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4. |
| Test Standards: | Roof assembly tested in accordance with ASTM E1592-05 (2017) 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference' and FM 4470 Section 4.6 'Resistance to Foot Traffic'. |
| Test Equivalency: | The test procedures in ASTM E1592-05(2017) comply with test procedures prescribed in ASTM E1592-05(2012). |
| Code Compliance: | The product described herein has demonstrated compliance with FBC 2020 Section 1507.4 |
| Product Limitations: | Design wind loads shall be determined for each project in accordance with FBC 2020 Section 1609 or ASCE 7-16 using |

allowable stress design. The design pressure for support spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on MetalMax load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2020 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.

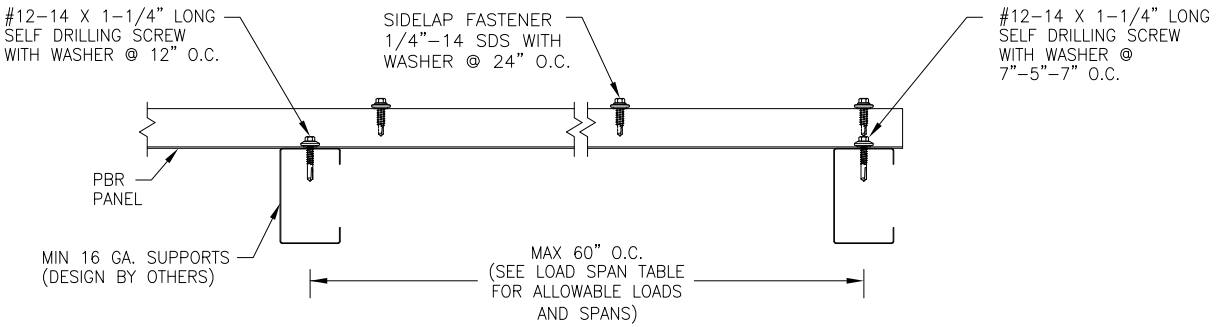
Supporting Documents:

ASTM E1592 Test Report
ENCON Technology Inc.
C2613-1, Reporting Date 2/9/2023

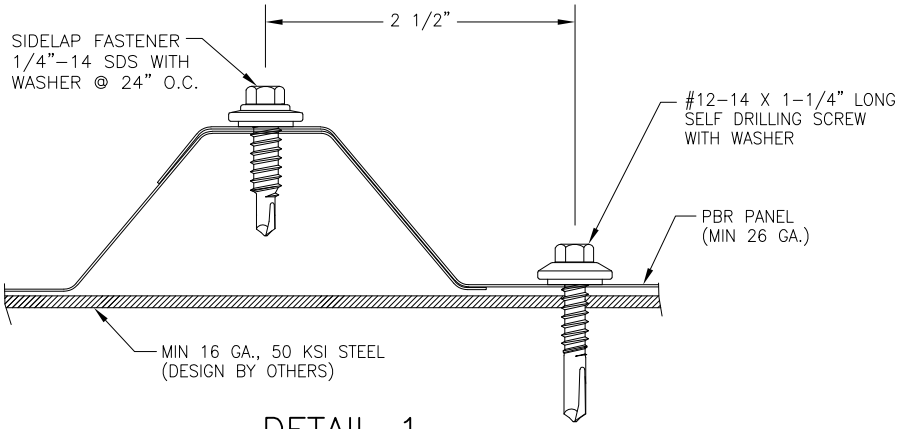
FM 4470 Test Report
ENCON Technology Inc.
C2614-1, Reporting Date 2/8/2023




## TYPICAL PANEL INSTALLATION X-SECTION




## SECTION VIEW




## DETAIL 1

**GENERAL NOTES:**

1. STRUCTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. PANELS SHALL BE MIN. 26 GA. (t = 0.017"). EFFECTIVE COVERING WIDTH OF PANEL = 36".
3. ROOF PANELS SHALL BE INSTALLED OVER STRUCTURE AS SPECIFIED ON THIS DRAWING.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOADS SPECIFIED ON THIS DRAWING.
5. ALL FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & THE FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. PURLINS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

| DRAWN BY: B.S. | CHECKED BY: R.B. |
|---|---|
| PLOT: | DATE: 2/9/2023 |

| NO. | REVISION DESCRIPTION | BY | DATE |
|---|---|---|---|

DRAWING TITLE: PBR ROOF PANEL

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DRAWING NO. 2615-1 REV.

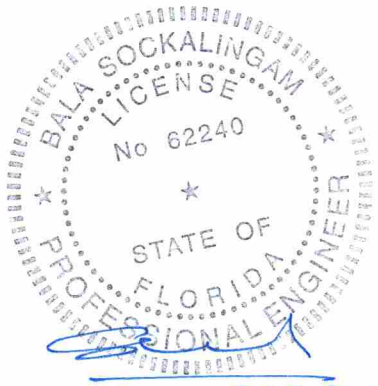
PAGE NO. 1 OF 1

**METALMAX ROOFING AND SIDING'S**
**PBR Roof Panel**
**Allowable Design Loads**

| Support Spacing (in) | Allowable Design Loads (psf) | |
|---|---|---|
| | Live or Inward | Uplift |
| 24 | 126.9 | -119.2 |
| 27 | 112.8 | -105.3 |
| 30 | 101.5 | -94.2 |
| 33 | 92.3 | -85.1 |
| 36 | 84.6 | -77.5 |
| 39 | 78.1 | -71.1 |
| 42 | 72.5 | -65.6 |
| 45 | 67.7 | -60.9 |
| 48 | 63.4 | -56.7 |
| 51 | 59.7 | -53.0 |
| 54 | 56.4 | -49.8 |
| 57 | 53.4 | -46.8 |
| 60 | 50.7 | -44.2 |

**Notes:**

1. Allowable load is the lowest value of panel strength, web crippling (live load), connection strength & deflection limit of L/180.
2. Allowable load is applicable to two or more spans conditions.
3. Panels must be installed as per Evaluation Report FL 41914.1 and MetalMax current installation procedure.
4. The structural capacity of support beams are not considered and must be examined independently.
5. Minimum support thickness is 16 ga.

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