

**EVALUATION REPORT OF
CENTRAL STATES MANUFACTURING, INC.
'R-LOC PANEL'**

**FLORIDA BUILDING CODE 7TH EDITION (2020)
FLORIDA PRODUCT APPROVAL
FL 14026.6-R5
ROOFING
METAL ROOFING**

**Prepared For:
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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. C2399-6
Date: 9.30.2020**



Manufacturer: Central States Manufacturing, Inc.

Product Name: R-Loc 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.

Deck Description: Min. 7/16" thick OSB or min. 15/32" thick APA rated plywood or min. 3/4" thick wood plank (min SG of 0.42) for new and existing constructions. Designed by others and installed as per FBC 2020.

Underlayment: Minimum underlayment as per FBC 2020 Section 1507.4.5.1.

Slope: 1/2:12 or greater in accordance with FBC 2020 Section 1507.4.2. Requires applied lap sealant for roof slopes less than 3:12.

Design Uplift Pressure:
(Factor of Safety = 2) 25.0 psf at fastener spacing of 42" o.c. in 7/16" thick OSB
74.0 psf at fastener spacing of 12" o.c. in 7/16" thick OSB
105.5 psf at fastener spacing of 12" o.c. in 15/32" thick plywood

Panel Attachment:
Type: #10 x 1.5" long Kwikseal MB Woodbinder screws. Fastener shall be of sufficient length to penetrate through the deck a minimum of 3/8". Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4.
At panel ends 7"-5"-7" o.c. across panel width
At intermediate 12" o.c. across panel width

Sidelap Attachment: 1/4"-14 x 7/8" long SDS with washer at 24" o.c. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4.

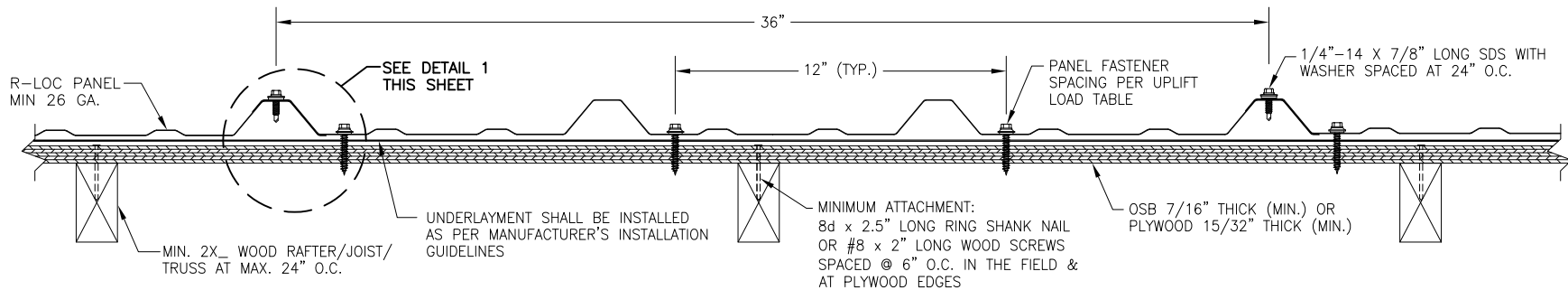
Test Standards: Roof assembly tested in accordance with ASTM E1592-05(2012) 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference'.

Code Compliance: The product described herein has demonstrated compliance with FBC 2020 Section 1507.4.

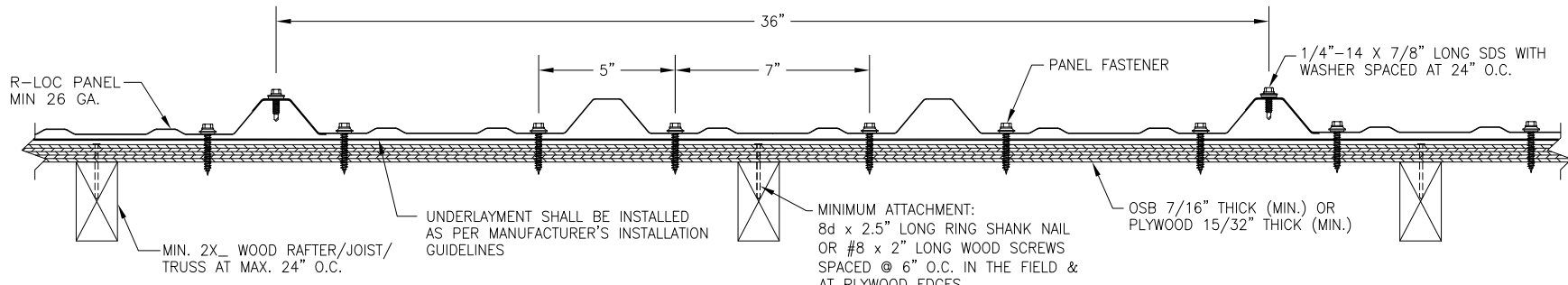
Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2020 Section 1609 or ASCE 7-16 using allowable stress design. The maximum fastener spacing listed herein shall not be exceeded. The design pressure for reduced fastener spacing may be computed using rational analysis prepared by a Florida Professional

Engineer or based on Central States load span table. This product is not approved for use in the 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 Reports
ENCON Technology Inc.
Project No. C2054-1, Reporting Date 8/7/17

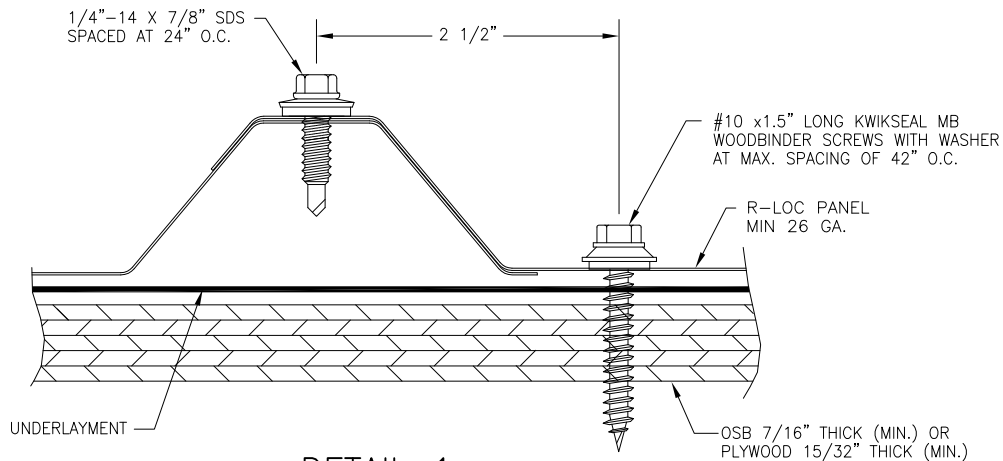


FASTENER PATTERN AT INTERMEDIATE LOCATIONS



FASTENER PATTERN AT PANEL ENDS

TYPICAL PANEL INSTALLATION X-SECTION



DETAIL 1

GENERAL NOTES:

1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE MIN. 26 GA. (t = 0.017"). EFFECTIVE COVERING WIDTH OF PANEL = 36".
3. THE ROOF PANELS SHALL BE INSTALLED OVER SHEATHING & 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 LOAD TABLE.
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. RAFTERS/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: A.H.
PLOT:	DATE: 9/19/17
NO.	REVISION DESCRIPTION
BY	DATE
DRAWING TITLE: R-LOC PANEL	
CONSULTANTS: BALA SOCKALINGAM, PH.D., P.E.	
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DRAWING NO. 2399-6	REV.
PAGE NO. 1	OF 1

Central States Manufacturing, Inc.
R-Loc Panel

Table 1: Attachment of Minimum 26-gauge R-Loc Metal Panels to Min 7/16" OSB
Panel Fastener: #10 x 1.5" long Kwikseal MB Woodbinder screws
Fastener Pattern: 12" On Center Across Panel Width

Attachment of Panel to OSB (Minimum 7/16" thick)	Design Wind Pressure (psf)
42" on center	25.0
36" on center	34.8
30" on center	44.6
24" on center	54.4
18" on center	64.2
12" on center	74.0

Table 2: Attachment of Minimum 26-gauge R-Loc Metal Panels to Min 15/32" Plywood
Panel Fastener: #10 x 1.5" long Kwikseal MB Woodbinder screws
Fastener Pattern: 12" On Center Across Panel Width

Attachment of Panel to Plywood (Minimum 15/32" thick)	Design Wind Pressure (psf)
42" on center	25.0
36" on center	41.1
30" on center	57.2
24" on center	73.3
18" on center	89.4
12" on center	105.5

Notes:

1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
2. Panels must be installed as per Evaluation Report FL 14026.6 and Central States current installation procedure.
3. Three or more spans condition.

