EVALUATION REPORT OF METAL SALES MANUFACTURING CORPORATION '2.5" CORRUGATED PANEL'

FLORIDA BUILDING CODE 6TH EDITION (2017) FLORIDA PRODUCT APPROVAL FL 14645.1-R3 ROOFING METAL ROOFING

Prepared For:
Metal Sales Manufacturing Corporation
545 South 3rd Street, Suite 200
Louisville, KY 40202
Telephone: (502) 855-4300
Fax: (502) 855-4200

Prepared By:
Bala Sockalingam, Ph.D., P.E.
Florida Professional Engineer #62240
1216 N Lansing Ave., Suite C
Tulsa, OK 74106
Telephone: (918) 492-5992
FAX: (866) 366-1543

This report consists of Evaluation Report (3 Pages including cover) Installation Details (1 Page)

> Report No. C2182-1 Date: 9.9.17

Manufacturer: Metal Sales Manufacturing Corporation

Product Name: 2.5" Corrugated

Panel Description: 21.33" wide coverage with (10) 1/2" high ribs spaced at approximately

2-5/8" o.c.

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).

Deck Description: Min. 19/32" 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 2017.

Deck Attachment:

(Minimum)

8d x 2.5" long ring shank nails or #8 x 2" long wood screws @ 6" o.c.

in the field and edges. Designed as per FBC 2017.

Underlayment: Minimum underlayment as per FBC 2017 Section 1507.4.5.1.

Substrate (optional): Min 1" x 4" No. 2 SYP wood purlins over min. 19/32" thick plywood

deck fastened to supports at maximum 24" o.c. Wood purlins shall be fastened to wood rafters with (2) #9 x 3" long wood screws. The wood purlins will be spaced same as panel fastener spacing along panel length. The wood purlin, purlin to the rafter connection and rafters must be designed by others to the carry the load imposed on the panels

and installed as per FBC 2017.

Slope: 1/2:12 or greater in accordance with FBC 2017 Section 1507.4.2.

Requires applied lap sealant for roof slopes less than 3:12.

Design Uplift Pressure: 82.3 psf @ fastener spacing of 36" o.c. (Factor of Safety = 2) 86.0 psf @ fastener spacing of 12" o.c.

Fastener Pattern:

Type: #9-16 or #10-14 hex head wood screws with sealed washer. Fastener

shall be of sufficient length to penetrate through the deck a minimum

of 3/8".

At panel ends and

intermediate locations

@ 5.33" o.c. across panel width (every other valley)

Sidelap Attachment: $\frac{1}{4}$ "-14 x 7/8" long SDS with washer @ 18" o.c.

Test Standards: Roof assembly tested in accordance with TAS 125-03 'Standard

Requirements for Metal Roofing Systems'.

FL 14645.1-R3 C2182-1 9.9.17 Page 3 of 3

Code Compliance: The product described herein has demonstrated compliance with FBC

2017 Section 1507.4.

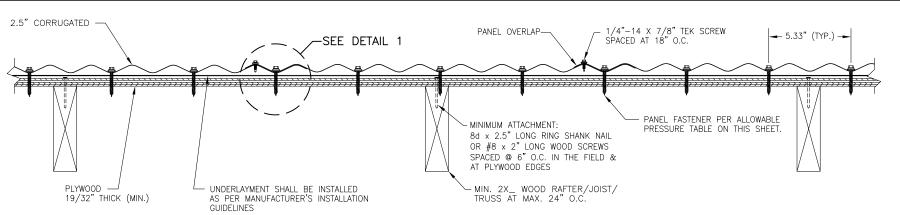
Product Limitations: Design wind loads shall be determined for each project in accordance

with FBC 2017 Section 1609 or ASCE 7-10 using allowable stress design. The maximum fastener spacing listed herein shall not be exceeded. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within scope of this Evaluation Report. Refer to FBC 2017 Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report

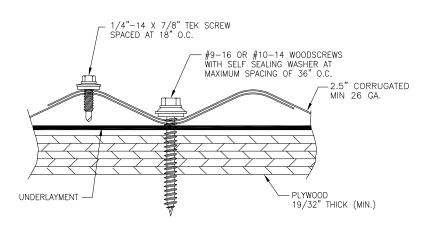
from an accredited laboratory for fire ratings of this product.

Supporting Documents: TAS 125 Test Reports

Farabaugh Engineering and Testing Inc. Project No. T215-05, Reporting Date 11/4/05



TYPICAL PANEL INSTALLATION X-SECTION



DETAIL 1

ALLOWABLE UPLIFT PRESSURE

| FASTENER SPACING (IN) | PRESSURE (PSF) |
|-----------------------------|-------------------|
| 36 | 82.3 |
| 12 | 86.0 |

GENERAL NOTES:

- 1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
- 2. ALL ROOF PANELS ARE STATE BE 26 GA. (t = 0.0162"). EFFECTIVE COVERING
- WIDTH OF PANEL = 21.66".

 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 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. RAFTERS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

| DRAWING TITLE | | NO. | REVISION DESCRIPTION | ВУ | DATE | PLC |
|--|---------------------------------|-----|----------------------|----|------|-----------------|
| Z.5 CORRUGATED PANEL | ANEL | | | | | B.S T: 1= |
| CONSULTANTS | ₹ | | | | | 1 |
| BALA SOCKALINGAM, PH.D., P.E. | METAL SALES MANUFACTURING CORP. | | | | | + |
| | | | | | | DATE: |
| 1216 N LANSING AVE, SUITE C TULSA, OK 74106 | LOUISVILLE, KY, 40202 | | | | | D.S. 25/ |
| PHONE: 918-492-5992 FAX: 866-366-1543 | | | | | | 15 |
| | | | | | | l |

DRAWING NO. REV.
2182-1
SHEET NO.
1 OF 1