# EVALUATION REPORT OF UNION CORRUGATING COMPANY 'NOM 0.04" THICK ALUMINUM ML200 PANEL'

# FLORIDA BUILDING CODE 7TH EDITION (2020) FLORIDA PRODUCT APPROVAL FL 32186.2-R1 ROOFING METAL ROOFING

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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. C2407-2 Date: 10.13.2020



Manufacturer: Union Corrugating Company

Product Name: ML200

Panel Description: Standing seam panel with max. 18" wide coverage with 2" high ribs and

double lock seam.

Materials: Nom. 0.04" thick (min.) 3105-H14 Alloy (ASTM B209) as per FBC

2020 Section 1507.4.3.

Deck Description: Min. 15/32" thick APA rated plywood or min. 3/4" thick wood plank (min

SG of 0.42) for new and existing constructions.

For HVHZ, min. 19/32" thick plywood for new constructions and min.

15/32" thick plywood for existing constructions. Designed by others and installed as per FBC 2020.

Underlayment: Minimum underlayment as per FBC 2020 Section 1507.4.5.1.

For HVHZ, minimum underlayment as per FBC 2020 Section 1518.2,

1518.3 and 1518.4.

Slope: 1/4:12 or greater in accordance with FBC 2020 Section 1507.4.2

For HVHZ, 2:12 or greater in accordance with FBC 2020 Section

1515.2.

Design Uplift Pressure: 45.0 psf at clip spacing of 24" o.c. (Factor of Safety = 2) 116.0 psf at clip spacing of 6" o.c.

Panel Attachment: 4.3" long ML200 sliding clip with (2) #10-12 x 1.5" long pancake head

wood screws per clip. Clips and fasteners are corrosion resistant as per

FBC 2020 Section 1506.7 and 1507.4.4, respectively.

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

Requirements for Metal Roofing Systems', TAS 100-95 'Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems' and TAS 110-00 'Testing Requirements for Physical Properties of Roof Membrane, Insulation, Coatings and Other Roofing

Components'.

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

2020 Section 1504.3, 1507.4, 1518.9 and 1523.6.5.2.4.

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

with FBC 2020 Section 1609, Section 1620 or ASCE 7-16 using allowable stress design. Maximum clip spacing listed herein shall not be exceeded. The design pressure for reduced clip spacing may be computed using rational analysis prepared by a Florida Professional

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Engineer or based on Union load span table. This evaluation report is 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: TAS 125 Test Report

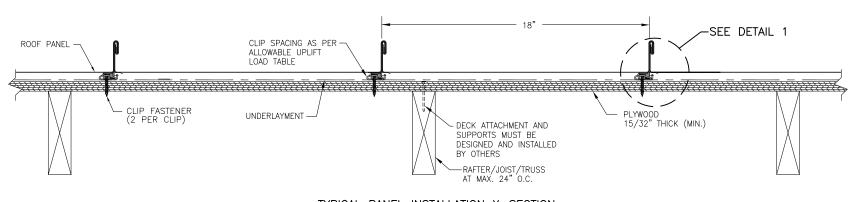
Farabaugh Engineering and Testing Inc. Project No. T147-20, Reporting Date 2/24/20

TAS 100-95 Test Report Farabaugh Engineering & Testing, Inc. Report No. T232-20, Reporting Date 5/31/2020

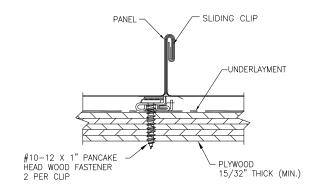
TAS 110-00 Test Report on Valspar Fluropon coated metal panels PRI Asphalt Technologies

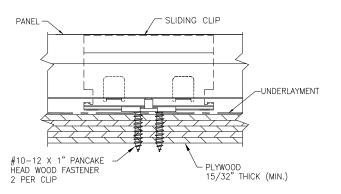
Percent No. VI S. 004-02-01. Percenting Pate 2/22/2012

Report No. VLS-004-02-01, Reporting Date 2/22/2013 Report No. VLS-005-02-01, Reporting Date 2/22/2013

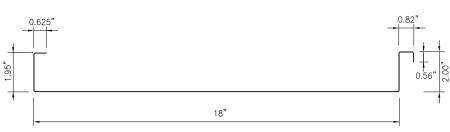


#### TYPICAL PANEL INSTALLATION X-SECTION





## DETAIL 1



PANEL SECTION (0.04" THICK ALUMINUM)

#### **GENERAL NOTES:**

- 1. ARCHITECTURAL STANDING SEAM ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).

  2. ROOF PANELS ARE SHALL BE NOM. 0.04" THICK (MIN.) ALUMINUM. EFFECTIVE
- COVERING WIDTH OF PANEL = 18".
- 3. THE 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 LOAD TABLE.

  5. CLIPS AND FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
- 6. DECK AND SUPPORTS MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

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CHECKED BY R.B.

COMPANY

ROOF

ALUMINUM UNION

SEAM P.E

STANDING

ML200

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### UNION CORRUGATING COMPANY

# ML200 Panel Uplift Loads

(Nom. 0.04" Aluminum)

Description	Clip Spacing	Allowable Uplift
	Along Panel Length	Load
	(in)	(psf)
Max Coverage width: 18"	6	116.0
Seam: 180°	8	108.1
ML200 sliding clip	10	100.2
4.3" long, 22 ga. clip tab	12	90.0
2" long, 16 ga. clip base	14	77.1
	16	67.5
	18	60.0
Clip Fasteners:	20	54.0
(2) #10-12 x 1.5" long pancake	22	49.1
head screws	24	45.0

#### 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 32186.2 and Union current installation procedure.

