

**EVALUATION REPORT OF
UNION CORRUGATING COMPANY
'NOM 0.032" THICK ALUMINUM ADVANTAGE-LOK II'**

**FLORIDA BUILDING CODE 5TH EDITION (2014)
FLORIDA PRODUCT APPROVAL
FL 18716.1
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)**

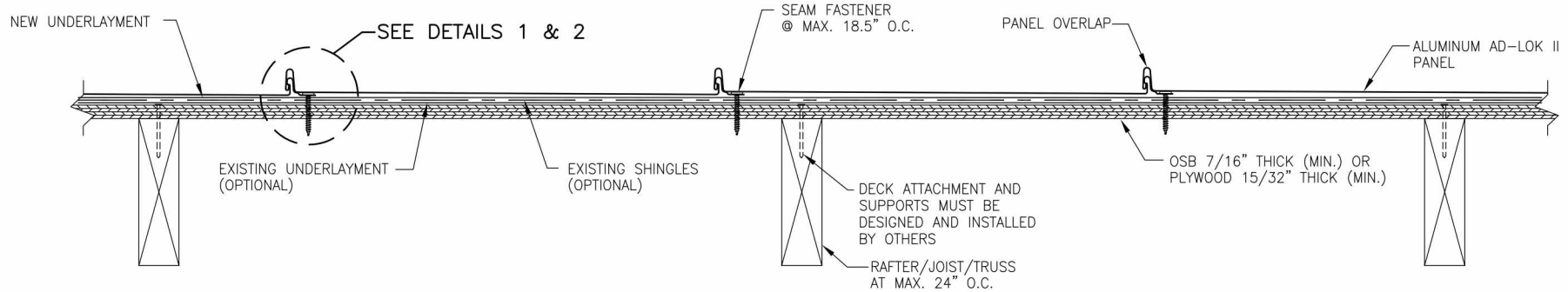
**Report No. C2059-1
Date: 10.26.15**



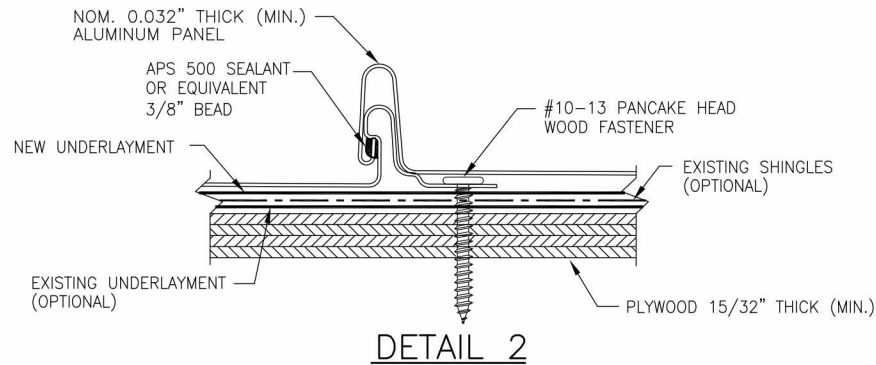
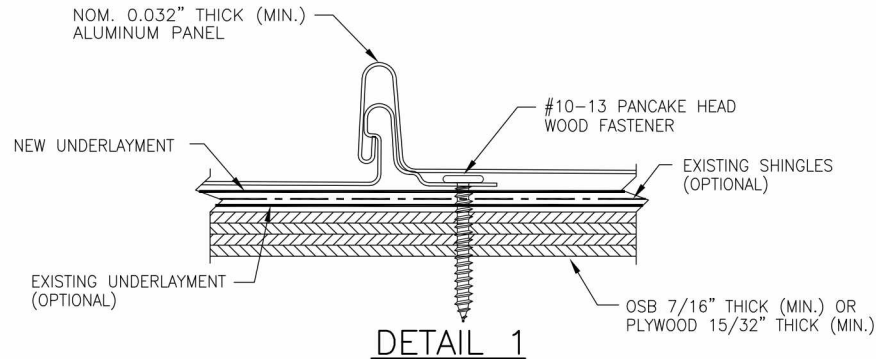
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|---|--|
| Manufacturer: | Union Corrugating Company |
| Product Name: | Aluminum Advantage-Lok II Panel |
| Panel Description: | Max. 16.375" wide coverage with 1" high ribs |
| Materials: | Nom. 0.032" thick (min.) 3004-H14 or 3105-H24 Alloy (ASTM B209). |
| 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 2014. |
| New Underlayment: | Minimum underlayment as per FBC 2014 Section 1507.4.5.1. Required for new construction. |
| Existing Underlayment: (Optional) | One layer of asphalt shingles over one layer of #30 felt. For reroofing construction only. |
| Slope: | 1/4:12 or greater in accordance with FBC 2014 Section 1507.4.2 |
| Design Uplift Pressure: (Factor of Safety = 2) | 22.5 psf at seam fastener spacing of 18.5" o.c. along seam 86.0 psf at seam fastener spacing of 4.63" o.c. along seam 93.5 psf at seam fastener spacing of 4.63" o.c. along seam with 3/8" diameter continuous bead sealant in panel seam in min. 15/32" thick APA rated plywood |
| Seam Fastener: | #10-13 pancake head wood screws along panel seam. Fastener shall be of sufficient length to penetrate through the deck a minimum of 1/4". Fasteners can be located in fastener slots or through solid portion of fastening flange. |
| Seam Sealant: | Advanced Polymer Sealant APS 500. In lieu of APS 500, adhesive/sealant with greater or equal tensile properties may be used. |
| Test Standards: | Roof assembly tested in accordance with UL580-06 'Uplift Resistance of Roof Assemblies' & UL1897-04 'Uplift Tests for Roof Covering Systems'. |
| Code Compliance: | The product described herein has demonstrated compliance with FBC 2014 Section 1507.4 |
| Product Limitations: | Design wind loads shall be determined for each project in accordance with FBC 2014 Section 1609 or ASCE 7-10 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 Union 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 2014 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: UL580 & UL1897 Test Reports
Farabaugh Engineering and Testing Inc
Project No. T274-15, Reporting Date 9/30/15
Project No. T284-15, Reporting Date 10/16/15



TYPICAL PANEL INSTALLATION X-SECTION



ALLOWABLE UPLIFT PRESSURE

| FASTENER SPACING ALONG RIB (IN) | SEAM SEALANT DIAMETER (IN) | PRESSURE (PSF) |
|---------------------------------|----------------------------|----------------|
| 18.5 | NONE | 22.5 |
| 4.63 | NONE | 86.0 |
| 4.63 | 3/8 | 93.5 |

GENERAL NOTES:

1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS ARE SHALL BE NOM. 0.032" THICK (MIN.) ALUMINUM. EFFECTIVE COVERING WIDTH OF PANEL = 16.375".
3. 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: J.S. | |
| PLOT: | | DATE: 10/24/15 | |
| DATE | BY | REVISION | DESCRIPTION |
| | | | |
| | | | |
| | | | |
| | | | |
| DRAWING TITLE: ALUMINUM ADVANTAGELOK II PANEL | | | |
| CONSULTANTS: BALA SOCKALINGAM, PH.D., P.E. | | MANUFACTURER: UNION CORRUGATING CO. | |
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| DRAWING NO. C2059-1 | | REV. | |
| SHEET NO. 1 | | OF 1 | |

Union Corrugating Company
Aluminum Advantage Lok II Panel Uplift Loads
(Nom. 0.032" Thick)

| Description | Fastener Spacing along panel length (in) | Uplift Design Load (psf) |
|-------------------------|--|--------------------------------|
| Coverage width: 16.375" | 4.63 | 86.0 |
| | 6.94 | 60.0 |
| | 9.25 | 45.0 |
| | 11.56 | 36.0 |
| | 13.88 | 30.0 |
| | 16.19 | 25.7 |
| | 18.50 | 22.5 |

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 18716.1 and Union current installation procedure.



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