

**EVALUATION REPORT OF  
UNION CORRUGATING COMPANY  
'26 GA. ADVANTAGE-LOK II'**

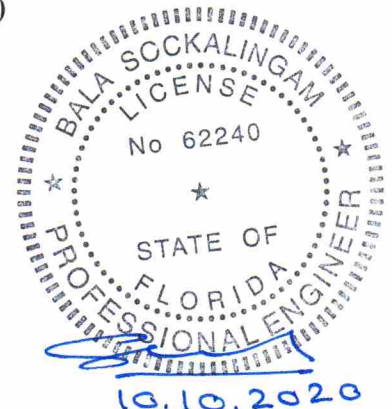
**FLORIDA BUILDING CODE 7TH EDITION (2020)  
FLORIDA PRODUCT APPROVAL  
FL 20484.2-R2  
ROOFING  
METAL ROOFING**

**Prepared For:  
Union Corrugating Company  
701 S. King St.  
Fayetteville, NC 28301  
Telephone: (910) 483-0479  
Fax: (910) 483-1091**

**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. C2401-2  
Date: 10.10.2020**



Manufacturer: Union Corrugating Company

Product Name: Advantage-Lok II Panel

Panel Description: Max. 16" wide coverage with 1" high ribs

Materials: Minimum 26 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.

New Underlayment: Minimum underlayment as per FBC 2020 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: 1/2:12 or greater in accordance with FBC 2020 Section 1507.4.2. Requires applied lap sealant for roof slopes less than 2:12.

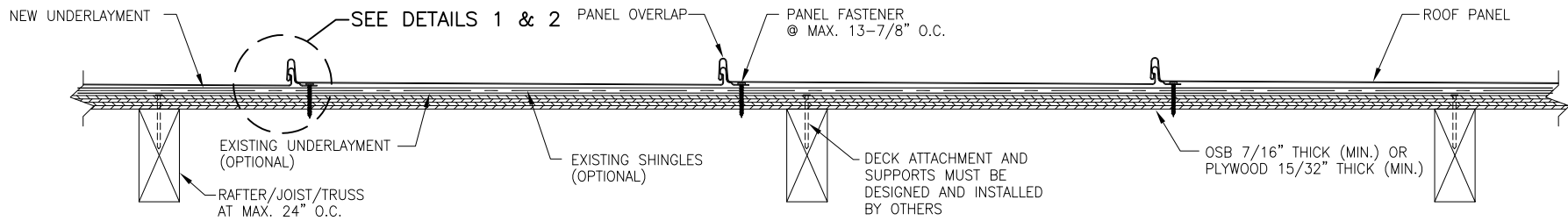
Design Uplift Pressure: (Factor of Safety = 2) 30.0 psf at panel fastener spacing of 13-7/8" o.c. along seam  
63.5 psf at panel fastener spacing of 9-1/4" o.c. along seam  
78.5 psf at panel fastener spacing of 4-5/8" o.c. along seam  
112.5 psf at seam fastener spacing of 4-5/8" o.c. along seam with 3/16" diameter bead adhesive in panel seam  
131.5 psf at seam fastener spacing of 4-5/8" o.c. along seam into min. 15/32" thick APA rated plywood with retainer strap

Panel Attachment: #10-12 pancake head wood screws along panel seam. Fasteners are corrosion resistant as per FBC 2020 Section 1507.4.4. Fastener shall be of sufficient length to penetrate through the deck a minimum of 3/8".

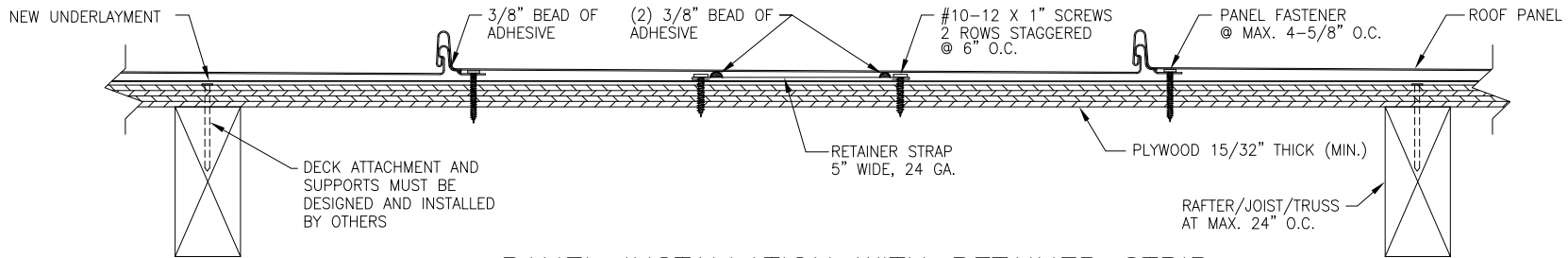
Retainer Strap: 5" wide, 24 ga., 50 ksi strap fastened to deck with 2 rows of #10-12 x 1" long pancake head screws at 12" o.c. spacing and 6" staggered. The strap is continuous over the entire corner or edge roof zones. Prior to the panel installation, two rows of 3/8" bead of adhesive are field applied along the length of the strap and a row of 3/8" bead of adhesive on the male leg of panel.

Seam Adhesive: Sikaflex-201 or APS 500 Advance Polymer Sealant. In lieu of Sikaflex or APS sealant, adhesive with greater or equal tensile properties may be used.

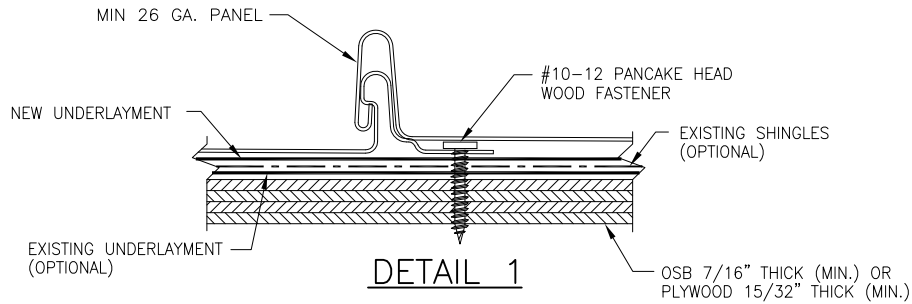
- Test Standards: Roof assembly tested in accordance with UL580-06 ‘Uplift Resistance of Roof Assemblies’ & UL1897-04 ‘Uplift Tests for Roof Covering Systems’ or TAS 125-03 ‘Standard Requirements for Metal Roofing Systems’.
- Test Equivalency: The test procedures in UL 1897-04 comply with test procedures prescribed in UL 1897-12.
- 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. This evaluation report is not applicable in High Velocity Hurricane Zone. Refer to current NOA for use of this product 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: UL580 & UL1897 Test Reports  
PRI Construction Materials Technologies  
UCC-006-02-1 Rev 1, Reporting Date 2/10/12
- TAS 125 Test Report  
Farabaugh Engineering and Testing Inc.  
Project No. T302-16, Reporting Date 11/16/16, Revised Date 1/18/17  
Project No. T303-16, Reporting Date 11/16/16, Revised Date 1/18/17  
Project No. T304-16, Reporting Date 11/16/16, Revised Date 1/18/17



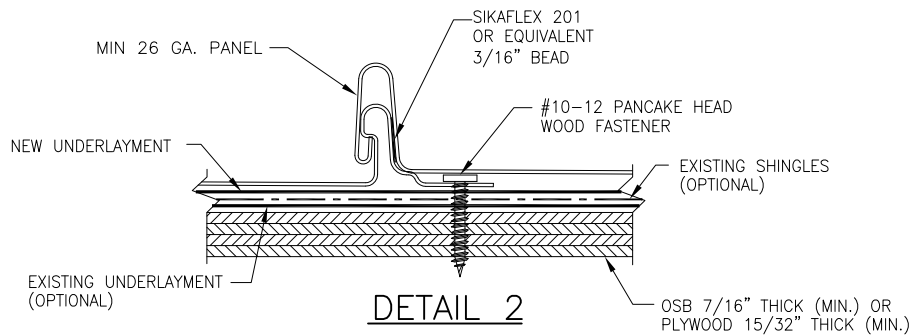
**TYPICAL PANEL INSTALLATION X-SECTION**



**PANEL INSTALLATION WITH RETAINER STRIP**



**DETAIL 1**



**DETAIL 2**

**ALLOWABLE UPLIFT PRESSURE**

FASTENER SPACING ALONG RIB	MINIMUM SUBSTRATE	SEAM ADHESIVE DIAMETER	RETAINER STRIP	PRESSURE (PSF)
13-7/8"	7/16" OSB	NONE	NONE	30.0
9-1/4"	7/16" OSB	NONE	NONE	63.5
4-5/8"	7/16" OSB	NONE	NONE	78.5
4-5/8"	7/16" OSB	3/16"	NONE	112.5
4-5/8"	15/32" PLY	3/8"	REQUIRED	131.5

**GENERAL NOTES:**

1. ARCHITECTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS ARE SHALL BE 26 GA. EFFECTIVE COVERING WIDTH OF OF PANEL = 16".
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:	J.S.
DATE:		DATE:	1/29/18
NO.	REVISION	DESCRIPTION	

**DRAWING TITLE**  
ADVANTAGELOK II PANEL

**CONSULTANTS**  
BALA SOCKALINGAM, PH.D., P.E.  
1216 N LANSING AVE, SUITE C  
TULSA, OK 74106  
PHONE: 918-492-5992 FAX: 866-366-1543

**MANUFACTURER**  
UNION CORRUGATING CO.  
701 S. KING STREET  
FAYETTEVILLE, NC 28301  
910-483-2195

DRAWING NO.	REV.
C2401-2	
SHEET NO.	
1	OF 1