EXTERIOR RESEARCH & DESIGN, LLC.
Certificate of Authorization #9503
353 Christian Street
Oxford, CT 06478
(203) 262-9245

EVALUATION REPORT

Firestone Building Products Company, LLC.
310 East 96th Street
Indianapolis, IN 44240
(317) 575-7017

Evaluation Report F11190.09.08-R4
FL13684-R3
Date of Issuance: 09/05/2008
Revision 4: 09/29/2017

SCOPE:
This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: UNA-CLAD™ Soffit

LABELING: Labeling shall be in accordance with requirements of the Accredited Quality Assurance Agency noted herein and the minimum provisions of **FBC 1709.10**.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

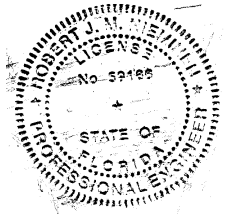
ADVERTISEMENT: The Evaluation Report number preceded by the words "Trinity | ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 4, plus a 1-page Appendix.

Prepared by:

Robert J.M. Nieminen, P.E.
Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 09/29/2017. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. Exterior Research & Design, LLC. d/b/a Trinity | ERD does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. Exterior Research & Design, LLC. d/b/a Trinity | ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

PANEL WALLS -SOFFIT EVALUATION:

1. SCOPE:

Product Category: Panel Walls
Sub-Category: Soffits
Compliance Statement: **UNA-CLAD™ Soffit**, as produced by **Firestone Building Products Company**, has demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Property	Standard	Year
1404.5.1	Wind	AAMA 1402	2009

3. REFERENCES:

Entity	Examination	Reference	Date
ATI (TST1558)	Wind Resistance	ATI-15336-N	05/01/1995
UL, LLC (QUA9625)	Quality Assurance	Service Confirmation	Exp. 09/11/2020

4. PRODUCT DESCRIPTION:

This Evaluation Report covers **UNA-CLAD™ UC-500 Soffit**, produced of min 0.032" thick aluminum (alloy 3105) or min. 24 ga. (0.025") painted steel (G90 grade) in 8" or 12" widths. The Firestone reported net free ventilation area is 2.75 in^2/ft on the 12-inch wide, UC-500 panels. See Appendix 1 for component drawings and installation methods.

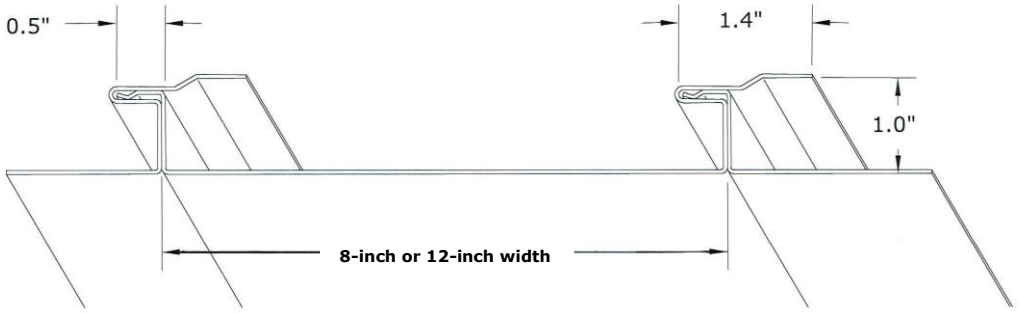


Figure 1: View of UNA-CLAD UC-500 Soffit Profile

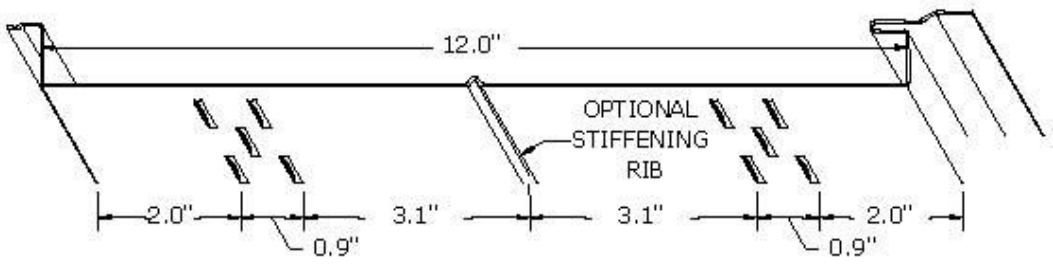


Figure 2: View of Optional Venting Patterns.

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use in FBC HVHZ jurisdictions.

5.3 Installations shall meet the minimum ventilation requirements of **FBC 1203.2**.

5.4 Limitations relating to design wind pressure resistance are provided in **Appendix 1**. Limitations relate to critical 'negative' (away from the soffit) wind load performance. Refer to **Table 1** for all positive and negative allowable design pressures.

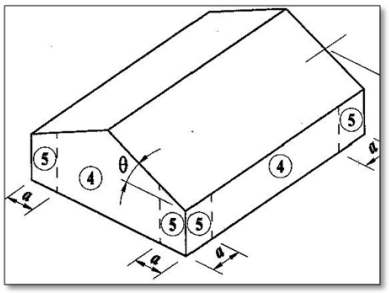
5.4.1 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to **FBC 1609** for determination of project-specific design wind pressures. The MDP for the selected soffit installation shall meet or exceed the design wind pressure requirement for the project for each pressure zone.

5.4.2 Tables are based on wall cladding design wind pressure requirements in accordance with **ASCE 7-10**, multiplied by 0.6 **(P_{asd})** for **allowable loads**.

5.4.3 Use of Appendix 1 is limited to enclosed buildings (GC_{pi} = ± 0.18), no load combinations (K_d = 1) and site conditions and location of the structure that do not meet all conditions specified in Section 26.8.1 of **ASCE 7-10** (K_{zt} = 1.0) at the stated maximum eave height. Analysis for buildings falling outside these constraints shall be on a project-by-project basis by a Florida Registered P.E.

5.4.4 Reference to "OK" indicates the system performance exceeds project requirements for that particular zone. Reference to "NO" indicates additional testing is required.

5.4.5 The dimension of Zones 4 and 5 (interior and end zones) shall be defined as 10% of the least horizontal plan-view dimension or 40% of the mean roof height, whichever is smaller, but not less than either 4% of the least horizontal plan-view dimension or 3 feet, as outlined in Figure 30.4-1 of **ASCE 7-10**.



5.5 For existing substrates, the Authority Having Jurisdiction may require fasteners be tested in the existing substrate for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system.

TABLE 1: ALLOWABLE DESIGN PRESSURES

Span (inch)	Product	Wall Side Attach	Eave Side Attach	MDP (psf)	
				Negative	Positive
24-inch	UC-500 Aluminum	12" o.c.	12" o.c.	-60	+60
	UC-500 Steel	12" o.c.	12" o.c.	-40	+40

5.6 All products in the wall assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3.**

6. INSTALLATION:

6.1 **UNA-CLAD™ Soffit** shall be installed in accordance with **Firestone Building Products Company** published requirements, subject to the Limitations / Conditions of Use noted below.

6.2 Fasteners for soffit attachment to min. 18 ga. steel channel shall be minimum 5/8" long, self-tapping sheet metal screws.

7. BUILDING PERMIT REQUIREMENTS:

7.1 As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

7.2 Labeling shall be in accordance with the minimum requirements set forth in **FBC 1709.10**.

8. MANUFACTURING PLANTS:

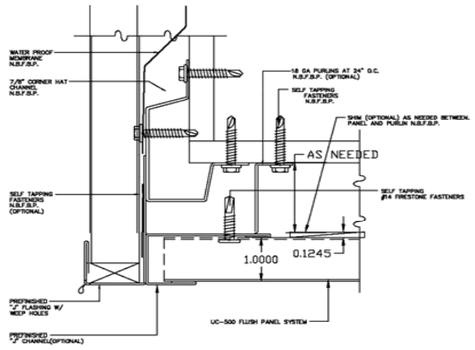
Anoka, MN

9. QUALITY ASSURANCE ENTITY:

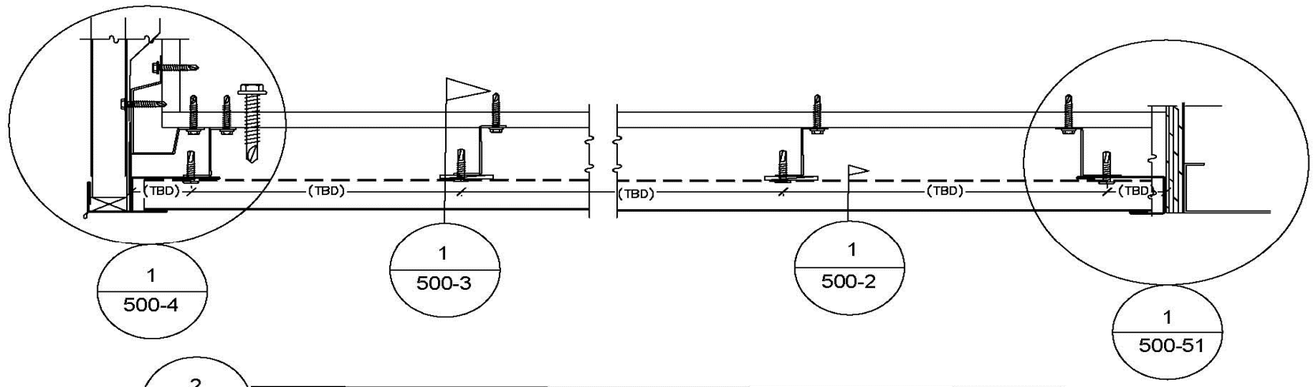
Underwriters Laboratories – QUA9625; (414) 248-6409; karen.buchmann@us.ul.com

- THE ONE (1) PAGE THAT FOLLOWS FORMS PART OF THIS EVALUATION REPORT -

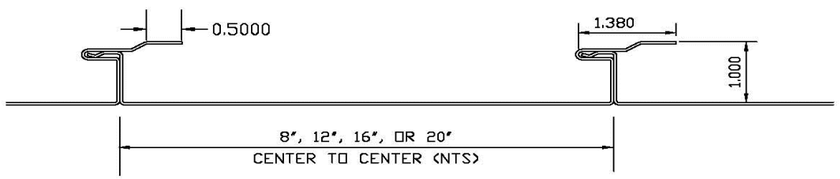
6TH EDITION (2017) FLORIDA WIND ZONE COMPLIANCE WORKSHEET, Eave Height (h) ≤ 30 ft, GCpi = + 0.18, Kd = 1, Kzt = 1																		
FBC Section 1609.1.1																		
UC-500 SOFFIT						Wind Speed - V_{ult} (mph) 3-second gust										Exposure	Zone
Product	Width	Span	Wall Side Attach	Eave Side Attach	MDP (psf)	110	120	130	140	150	160	170	180	190	200		
UC-500 Aluminum	Max. 12"	Max. 24"	12" o.c.	12" o.c.	60	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	B	Interior Zone 4
						OK	OK	OK	OK	OK	OK	OK	NO	NO	NO	C	
						OK	OK	OK	OK	OK	OK	NO	NO	NO	NO	D	
						OK	OK	OK	OK	OK	OK	OK	OK	NO	NO	B	End Zone 5
						OK	OK	OK	OK	OK	NO	NO	NO	NO	NO	C	
						OK	OK	OK	OK	NO	NO	NO	NO	NO	NO	D	
UC-500 Steel	Max. 12"	Max. 24"	12" o.c.	12" o.c.	40	OK	OK	OK	OK	OK	OK	OK	NO	NO	NO	B	Interior Zone 4
						OK	OK	OK	OK	NO	NO	NO	NO	NO	NO	C	
						OK	OK	OK	NO	NO	NO	NO	NO	NO	NO	D	
						OK	OK	OK	OK	OK	NO	NO	NO	NO	NO	B	End Zone 5
						OK	OK	NO	NO	NO	NO	NO	NO	NO	NO	C	
						OK	NO	NO	NO	NO	NO	NO	NO	NO	NO	D	



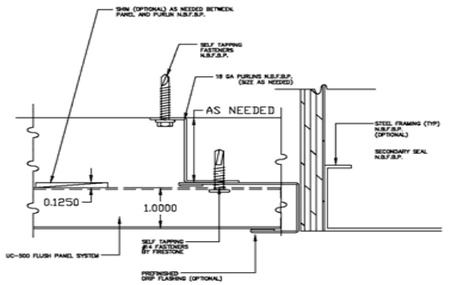
1 / 500-4 — *UC-500 FLUSH PANEL SYSTEM* **UC500-INFO**



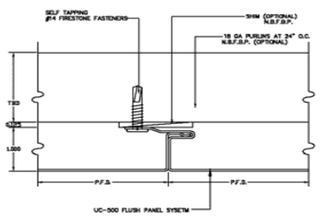
2 / 500-2 — *UC-500 FLUSH PANEL SYSTEM COMPONENT LOCATIONS* **UC500-INFO**



1 / 500-2 — *UC-500 FLUSH PANEL SYSTEM CORE DETAIL* **UC500-INFO**



1 / 500-SW-1 — *UC-500 FLUSH PANEL SYSTEM AT WALL TIE IN* **UC500-INFO**



1 / 500-3 — *UC-500 FLUSH PANEL SYSTEM* **UC500-INFO**