

# *ROOF HUGGER*

## **PRODUCT EVALUATION REPORT** *24 Ga. PBR-Panel over Roof Hugger Re-roofing System*

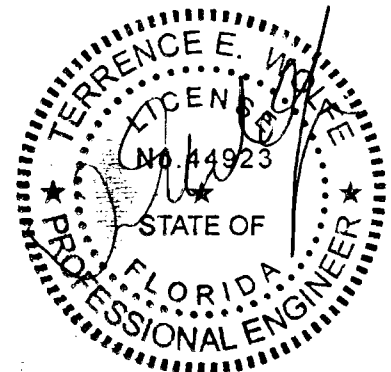
Engineer Evaluator:

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Validator:

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State of Florida  
C.O.A.  
# 26778



SEP 10 2007

**Reference: 9B-72.070(4), F.A.C.**

**MANUFACTURER:**

Roof Hugger Re-roofing Manufacturer  
Roof Hugger  
P.O. Box 1027  
Odessa, FL 33556

PBR-Panel Manufacturer  
MBCI  
14031 West Hardy  
Houston, TX 77060

**SUBJECT:**

Retro Sub-purlin System for the purpose of re-roofing over an existing roof with out removing the existing panels.

**SYSTEM DESCRIPTION:**

**System 1:** 24 Ga. PBR Panel, 36" wide, 1 1/4" Tall Rib, 12"-12"-12" Fastener pattern over Roof Huggers @ 5'-0" O.C.

**System 2:** 24 Ga. PBR Panel, 36" wide, 1 1/4" Tall Rib, 7"-5"-7"-5"-7" Fastener pattern over Roof Huggers @ 5'-0" O.C.

**System 3:** 24 Ga. PBR Panel, 36" wide, 1 1/4" Tall Rib, 7"-5"-7"-5"-7" Fastener pattern over Roof Huggers @ 2'-6" O.C. over 16 ga. hats @ 24" O.C. over 26 Ga. PBR Panel over 16 Ga. Purlins @ 5'-0" O.C.

**System 4:** 24 Ga. PBR Panel, 36" wide, 1 1/4" Tall Rib, 7"-5"-7"-5"-7" Fastener pattern over Roof Huggers @ 2'-6" O.C. over 16 ga. hats @ 12" O.C. over 26 Ga. PBR Panel over 16 Ga. Purlins @ 5'-0" O.C.

**PBR Panel Minimum Properties:**

SECTION PROPERTIES								
			NEGATIVE MOMENT			POSITIVE MOMENT		
PANEL	Fy	WEIGHT	Ixe	Sxe	Maxo	Ixe	Sxe	Maxo
GAUGE	(KSI)	(PSF)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)
26 (0.0185")	80	0.94	0.0305	0.0510	1.6297	0.0375	0.0376	1.3500
24 (0.023")	50	1.14	0.0407	0.0733	1.7114	0.0515	0.0527	1.5778

**CODE CRITERIA:**

Florida Building Code 2004:  
Chapter 15: Roof Assemblies and Rooftop Structures  
Chapter 16: Structural Loads  
Chapter 22: Steel

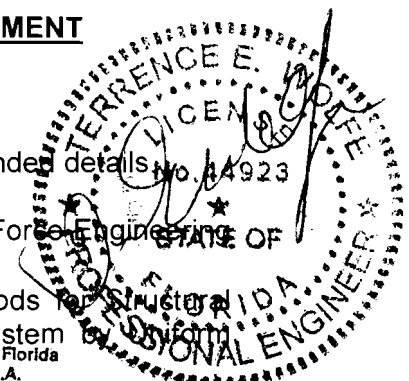
**TECHNICAL DOCUMENTATION SUPPORTING COMPLIANCE STATEMENT**

**A. DRAWINGS**

1. Erection Drawings
2. Install Roof Panels according to the manufacturers recommended details.

**B. TESTS**

1. Test report numbers 193-0192T-06 B-E dated 4-30-07 by Force Engineering & Testing, Inc. for
  - a) ASTM E 1592-01, per FBC, Standard Test Methods for Structural Performance of Sheet Metal Roof and Siding System Static Air Pressure Difference



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**INSTALLATION REQUIREMENTS:** See uploaded erection drawing.

**LIMITATIONS AND CONDITIONS OF USE FOR NON-HVHZ:**

**Maximum Roof Component Uplift Pressures:**

	MAXIMUM ALLOWABLE PRESSURES (PSF)			
	ALLOWABLE TEST VALUE	BASED ON PANEL DEFLECTIONS		
		L / 120	L / 180	L / 240
SYSTEM 1	35.00	35.00	31.44	26.42
SYSTEM 2	60.00	60.00	60.00	58.14
SYSTEM 3	116.00	116.00	111.77	85.14
SYSTEM 4	145.00	145.00	120.41	92.24

**Minimum Roof Slope limitations:** 1/2:12

**Existing Purlin Spacing:** Min. 16ga designed by a Florida P.E. @ 5'-0" O.C.  
Max

**Substrate Attachment:** Designed by Florida P.E.

**Fire Barrier:** Class B fire exposure rating in accordance with FBC Section 1505.3.

**Underlayment:** Vinyl or reflective foil faced fiberglass batt insulations that have a flame spread rating of no more than 25 and a smoke development rating of not more than 450.

**Shear Diaphragm:** Shear diaphragm values are outside the scope of this report.

**DESIGN PROCEDURE:**

Based on the dimensions of the structure, appropriate loads are determined using Chapter 16 of the FBC for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable negative/positive pressures listed in the load table. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with FBC Chapter 22 for steel, and Chapter 16 for structural loading.

**CERTIFICATE OF INDEPENDENCE:** See upload attachments

**AUTHORIZED REPRESENTATIVE:**

Terrence E. Wolfe, P.E. #44923

