



Product Evaluation Report
RPS METAL ROOFING & SIDING, INC.

Min. 26 Ga. Super Pro PBR Roof Panel over 15/32" Plywood

Florida Product Approval # 6095.5 R5

Florida Building Code 2017
Per Rule 61G20-3
Method: 1-D

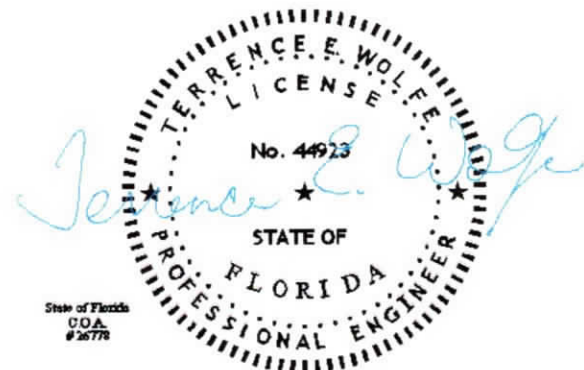
Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
RPS Metal Roofing & Siding, Inc.
302 4th Ave.
Welaka, FL 32193

Engineer Evaluator:
Terrence E. Wolfe, P.E. # 44923
Florida Evaluation ANE ID: 1920

Validator:
Brian Jaks, P.E. #70159

Contents:
Evaluation Report Pages 1 – 4





Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2017, Sections 1504.3.2.

Product Description: Super Pro PBR Roof Panel, Min. 26 Ga. Steel, 36" coverage, through fastened roof panel over minimum 15/32" APA Plywood decking. Non-structural Application.

Panel Material/Standards: Material: 26 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2017 Section 1507.4.3.
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2017, Section 1507.4.3.

Panel Dimension(s): Thickness: 0.0185" min.
Width: 36" maximum coverage
Rib Height: 1 1/4" major rib at 12" O.C.

Panel Fastener: #10 x 1 1/2" Kwikseal MB Woodbinder HWH w/ sealing washing or approved equal.
1/4"-14 x 7/8" Steelbinder HWH Stitch with sealing washer through panel side laps at 20" O.C.
Corrosion Resistance: Per Florida Building Code 2017, Section 1507.4.4.

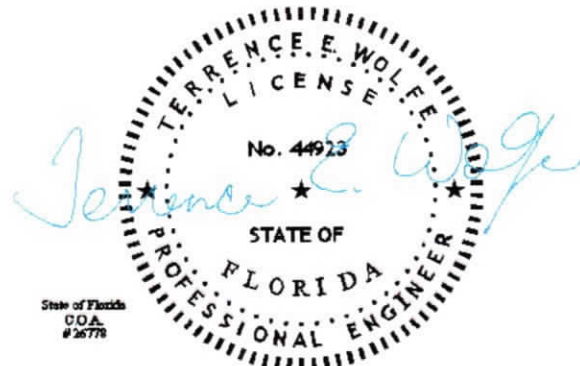
Substrate Description: Min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C.
Design of plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2017.

Allowable Design Uplift Pressures:

Table "A"

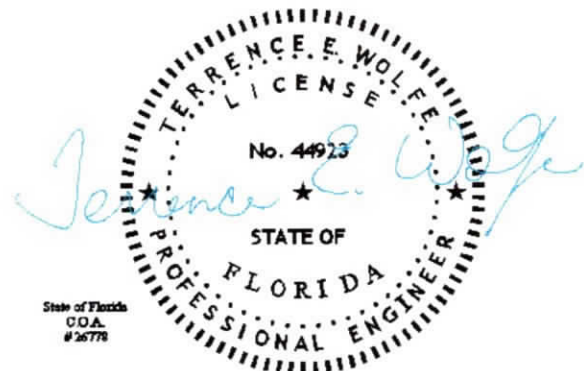
Maximum Total Uplift Design Pressure:	63.5 psf	176.0 psf
Fastener Pattern:	12"-12"-12"	7"-5"-7"-5"-7"
Fastener Spacing:	24" O.C.	12" O.C.

*Design Pressure includes a Safety Factor = 2.0.





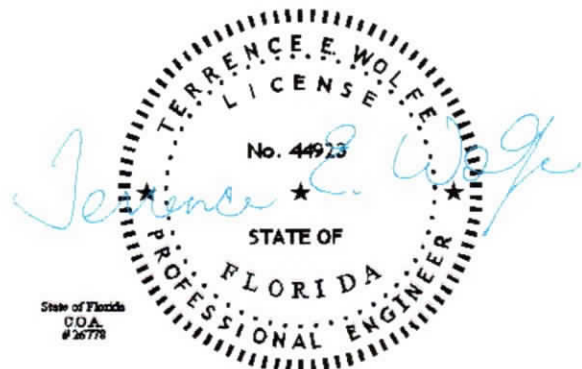
Code Compliance:	The product described herein has demonstrated compliance with The Florida Building Code 2017, Section 1504.3.2.
Evaluation Report Scope:	The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2017, as relates to Rule 61G20-3.
Performance Standards:	The product described herein has demonstrated compliance with: <ul style="list-style-type: none">▪ UL 580-06 - Test for Uplift Resistance of Roof Assemblies▪ UL 1897-2012 - Uplift Test for Roof Covering Systems
Reference Data:	<ol style="list-style-type: none">1. UL 580-06 / 1897-12 Uplift Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 118-0037T-19A, B2. Certificate of Independence By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc. (FBC Organization # ANE ID: 1920)
Quality Assurance Entity:	The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.
Minimum Slope Range:	Minimum Slope shall comply with Florida Building Code 2017, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.
Installation:	Install per manufacturer's recommended details.
Underlayment:	Per Florida Building Code 2017, Section 1507.1.1 and manufacturer's installation guidelines.
Roof Panel Fire Classification:	Fire classification is not part of this acceptance.
Shear Diaphragm:	Shear diaphragm values are outside the scope of this report.



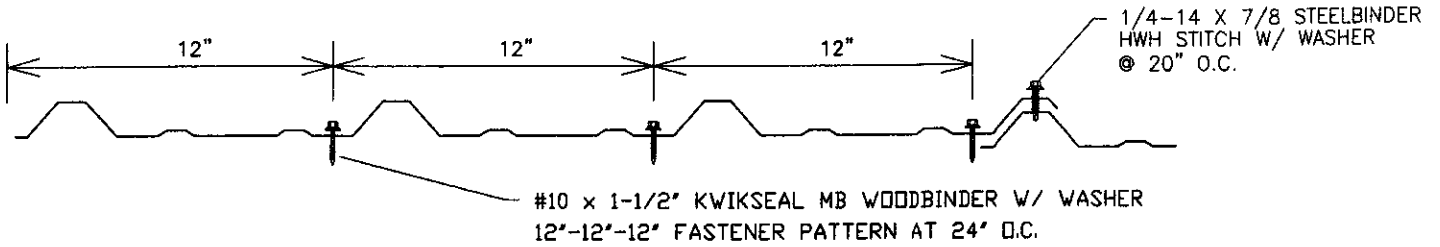


Design Procedure:

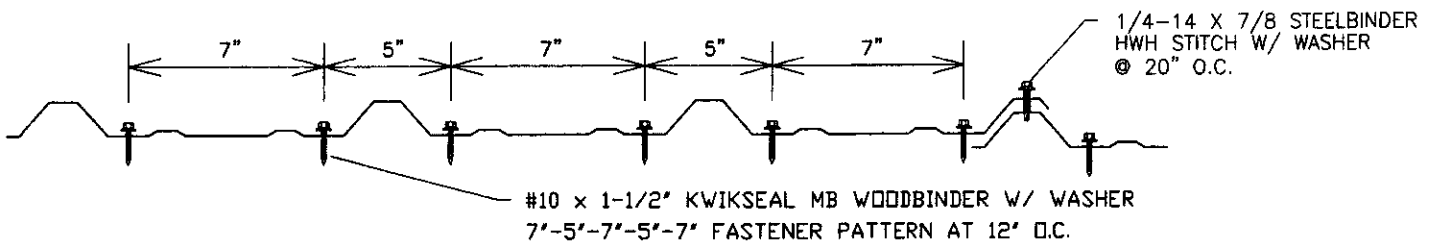
Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2017 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate 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 Florida Building Code 2017 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



12"-12"-12" FASTENER PATTERN AT 24" O.C.



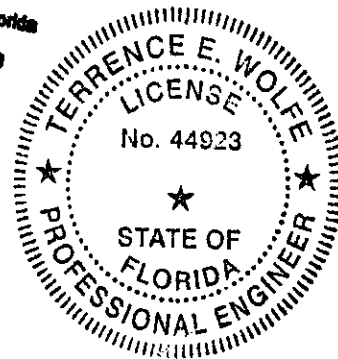
7"-5"-7"-5"-7" FASTENER PATTERN AT 12" O.C.



State of Florida
C.O.A.
25778

APR 16 2019

Terrence E. Wolfe





Force Engineering & Testing, Inc.

19530 Ramblewood Drive
Humble, Texas 77338
Phone: (281) 540-6603
Fax: (281) 540-9966
www.forceengineeringtesting.com

Project Number: 118-0037T-19A, B

Test Report Date: April 2, 2019

Test Report

Expiration Date: April 2, 2029

Test Material: 26 Ga. Super Pro PBR Panel 36" Coverage


Test Procedure: The test was conducted in accordance with
TAS 125-03
UL 580-06 / UL 1897-2012

Test Location: Force Engineering & Testing Inc.
19530 Ramblewood Drive
Humble, Texas 77338


26 Ga. Super Pro PBR Panel

(Over 15/32" Plywood)

Report Prepared by:


Brandon Jasek, P.E.
Lab Manager

Report Reviewed by:


Terrence E. Wolfe, P.E.
Director of Operations



ACCREDITED
LABORATORY



TEXAS DEPARTMENT
OF INSURANCE
ACCREDITED LABORATORY

Project Number: 118-0037T-19A, B

GENERAL:

The subject of this report is a through fastened metal roof panel attaching to plywood.

The object of this investigation was to establish by test, the max uplift pressure for the roof panel described in this report. The test assembly and test were completed under the observation of a licensed professional.

TEST DATES:

March 18 & 20, 2019

TEST ASSEMBLY:

Client/Manu.: RPS Metal Roofing & Siding, Inc.
710 3rd Avenue
PO Box 397
Welaka, Florida 32193

Panel: 26 Ga. Super Pro PBR Panel, 36" coverage, 26 Ga. ASTM A792
Grade 80 Steel, 1 ¼" tall major ribs at 12" O.C.

Panel Properties: Fy = 96 ksi Steel, 0.018" coated thickness per ASTM E 8 (See
Appendix)

Panel Rollformer: Metal Rollforming Systems

Panel Fastener: #10 x 1 ½" Kwikseal MB Woodbinder w/ washer by Sealtite

Panel Side Lap: (1) ¼-14 x 7/8" HWH Stitch Steel binder w/ washer by Sealtite
at 20" O.C along the side lap.

Fastener Pattern: Test A: 12"-12"-12" at 24" O.C.
Test B: 7"-5"-7"-5"-7" at 12" O.C.

Panel Length: 9'-11"

Substrate: 15/32" 4-Ply B-C Group 1 Exterior Plywood. The plywood was
attached to the #2 SYP 2x10 wood framing @ 6" O.C.
interior/exterior with (1) 8D x 2-1/2" Hot Galv. Ring Shank
Patio/Deck Nails. 2x10 wood framing spaced at 24" O.C.

TESTING APPARATUS:

UL 580 Chamber
FET-008, FET-009 & FET-015
Equipment Calibration Date: March 2019

Project Number: 118-0037T-19A, B

PROCEDURE:

1. The roof assembly was subjected to all five phases of the Class 30, Class 60 & Class 90. At the end of each phase the test specimen was inspected.
2. Throughout the test, observations were made of the control of positive and negative pressures and of the condition of the top surface and the under side of the test assembly.
3. The action of the roof assembly during the application of the steady pressures in Phases I, II, IV, and V was a bowing up between screw attachments, with the joists and plywood substrate following the same pattern.
4. The action of the test assembly during the oscillating phase of each test (Phase III) was a rising and settling of the members.
5. After the Class 90 phase, the positive pressure was set at 9.3 inches of water and remained constant; the negative pressure was increased by increments of 15 psf until the panel assembly failed.

RESULTS/CONCLUSIONS:

Test A

The maximum sustained combined test pressure was 127.0 psf. The ultimate combined failure test pressure was 133.0 psf. The failure mode was the panel fasteners pulled out of the plywood.

Test B

The maximum sustained combined test pressure was 352.0 psf. The ultimate combined failure test pressure was 365.0 psf. The failure mode was the plywood substrate failed.

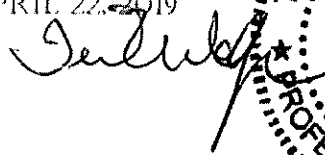
Note: During this test, tape and plastic were used to seal against air leakage. The tape and plastic had no restrictive influence on the test.

STATEMENT OF INDEPENDENCE:

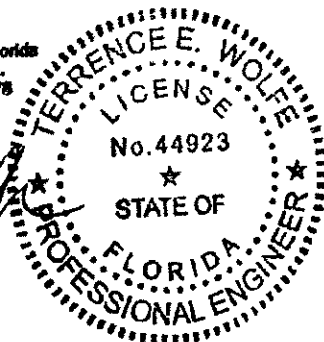
Force Engineering & Testing, Inc. or any persons employed by them do not have any financial interest in RPS Metal Roofing & Siding, Inc.

Force Engineering & Testing, Inc. is not owned, operated or controlled by RPS Metal Roofing & Siding, Inc.

APRIL 22, 2019

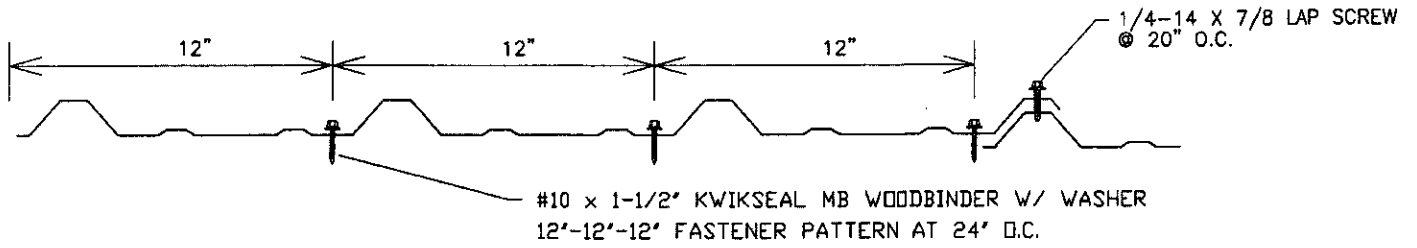


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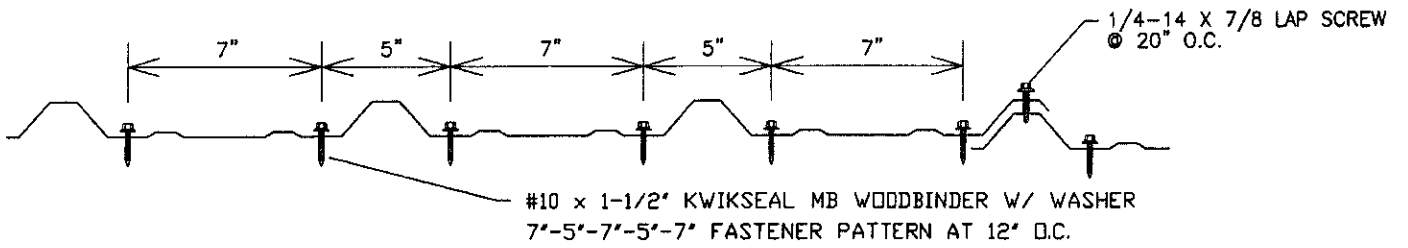


Appendix

TEST A FASTENER PATTERN, 12"-12"-12"



TEST B FASTENER PATTERN, 7"-5"-7"-5"-7"



UL 580 DEFLECTION READINGS

Test Date: 3/18/2019
Project Number: 118-0037T-19A
Panel Description: 26 Ga. Super Pro PBR
Panel Fasteners: (1) #10 x 1 1/2" Kwikseal MB Woodbinder w/ washer @ 12"-12"-12" at 24" O.C.
Panel Clip: 1/4-14 x 7/8" HWH Stitch at 20" O.C. panel side laps
Substrate: 15/32" 4-ply Plywood

Static Pressure Inches Of H ₂ O (Neg./Pos.)	Deflection (inches)			
	D-1: Pan Mid	D-2: Pan Fas	D-3: Rib Mid	D-4: Rib Fas
CLASS 30				
0	0.0000	0.0000	0.0000	0.0000
-3.1 / +0	0.2500	0.3125	0.1250	0.1250
-3.1 / +2.7	0.3750	0.5000	0.2500	0.1875
-5.3 / +2.7	0.5000	0.6875	0.3125	0.1875
-4.7 / +0	0.3750	0.5000	0.2500	0.1250
-4.7 / +4.0	0.5000	0.6875	0.3125	0.1875
0	0.0625	0.0625	0.0000	0.0625
CLASS 60				
0	0.0000	0.0000	0.0000	0.0000
-6.2 / +0	0.3750	0.5000	0.2500	0.1250
-6.2 / +5.3	0.5625	0.8125	0.3750	0.1250
-10.7 / +5.3	0.7500	1.0000	0.4375	0.1250
-7.8 / +0	0.5000	0.6875	0.3750	0.1250
-7.8 / +6.7	0.6875	0.9375	0.4375	0.0625
0	0.0625	0.0625	0.0000	0.0625
CLASS 90				
0	0.0000	0.0000	0.0000	0.0000
-9.3 / +0	0.5000	0.7500	0.3125	0.0625
-9.3 / +8.0	0.7500	1.0625	0.3750	0.1250
-9.3 / +8.0	0.7500	1.0625	0.3750	0.1250
-10.9 / +0	0.6250	0.8750	0.3125	0.1250
-10.9 / +9.3	0.8750	1.1875	0.4375	0.1875
0	0.0625	0.0625	0.0000	0.0625

UL 580 DEFLECTION READINGS

Test Date: 3/20/2019
Project Number: 118-0037T-19B
Panel Description: 26 Ga. Super Pro PBR
Panel Fasteners: (1) #10 x 1 1/2" Kwikseal MB Woodbinder w/ washer @ 7"-5"-7"-5"-7" at 12" O.C.
Panel Clip: 1/4-14 x 7/8" HWH Stitch at 20" O.C. panel side laps
Substrate: 15/32" 4-ply Plywood

Static Pressure Inches Of H ₂ O (Neg./Pos.)	Deflection (inches)			
	D-1: Pan Mid	D-2: Pan Fas	D-3: Rib Mid	D-4: Rib Fas
CLASS 30				
0	0.0000	0.0000	0.0000	0.0000
-3.1 / +0	0.0625	0.0625	0.0625	0.0625
-3.1 / +2.7	0.1250	0.1250	0.0625	0.1250
-5.3 / +2.7	0.1875	0.1875	0.1250	0.1875
-4.7 / +0	0.1250	0.1250	0.0625	0.1250
-4.7 / +4.0	0.1875	0.2500	0.1250	0.1875
0	0.0000	0.0625	0.0000	0.0625
CLASS 60				
0	0.0000	0.0000	0.0000	0.0000
-6.2 / +0	0.1250	0.1250	0.1250	0.0625
-6.2 / +5.3	0.2500	0.2500	0.1875	0.1875
-10.7 / +5.3	0.3750	0.4375	0.3125	0.3125
-7.8 / +0	0.2500	0.2500	0.1875	0.1875
-7.8 / +6.7	0.3750	0.3750	0.2500	0.3125
0	0.0625	0.0625	0.0625	0.0625
CLASS 90				
0	0.0000	0.0000	0.0000	0.0000
-9.3 / +0	0.1875	0.1875	0.1250	0.1250
-9.3 / +8.0	0.3750	0.4375	0.2500	0.3125
-9.3 / +8.0	0.4375	0.4375	0.3125	0.3125
-10.9 / +0	0.3125	0.3125	0.1875	0.1875
-10.9 / +9.3	1.2500	0.5000	0.3750	0.3750
0	0.0625	0.0000	0.0625	0.0000

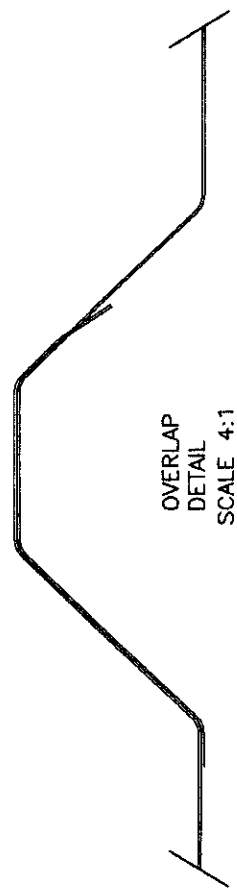
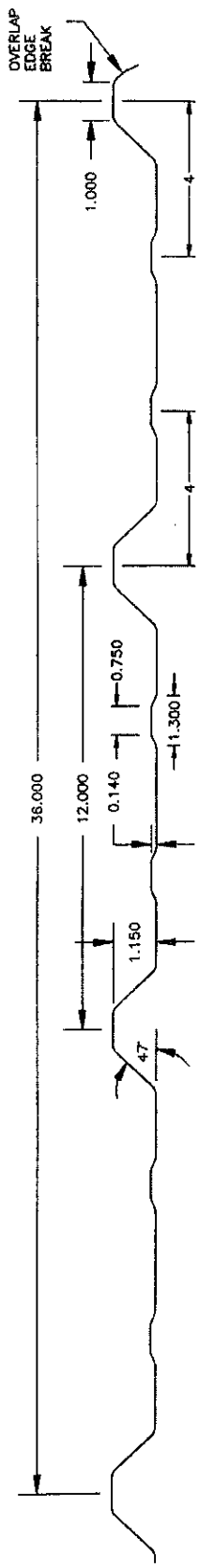
UL 1897

Static Pressure Inches Of H ₂ O (Neg./Pos.)	Deflection (inches)			
	D-1	D-2	D-3	D-4
-2.9	0.0000	0.0625	0.0000	0.0625
-5.8	0.0625	0.1250	0.0625	0.1250
-8.7	0.1875	0.2500	0.1250	0.1875
-11.5	0.2500	0.3125	0.1250	0.1875
-14.4	0.3125	0.3750	0.1875	0.2500
-17.3	0.3750	0.4375	0.2500	0.3125
-20.2	0.4375	0.5000	0.3125	0.3750
-12.2 / +9.3	0.5000	0.5625	0.3125	0.4375
-15.1 / +9.3	0.5625	0.6250	0.3750	0.5000
-17.9 / +9.3	0.6250	0.7500	0.4375	0.5625
-20.8 / +9.3	0.6875	0.8125	0.5018	0.6250
-23.7 / +9.3	0.7500	0.8750	0.5625	0.6875
-26.6 / +9.3	0.8125	0.9375	0.6250	0.7500
-29.5 / +9.3	0.8750	1.0625	0.6875	0.8750
-32.4 / +9.3	0.9375	1.1250	0.7500	0.9375
-35.2 / +9.3	1.0000	1.1875	0.8125	1.0000
-38.1 / +9.3	1.1250	1.2500	0.8750	1.0625
-41.0 / +9.3	1.1875	1.3750	0.9375	1.1250
-43.9 / +9.3	1.2500	1.4375	1.0000	1.2500
-46.7 / +9.3	1.3750	1.5625	1.0625	1.3125
-49.6 / +9.3	1.4375	1.6250	1.1250	1.3750
-52.5 / +9.3	1.5625	1.6875	1.2500	1.4375
-55.4 / +9.3	1.6250	1.8125	1.3125	1.5625
-58.3 / +9.3	1.7500	1.8750	1.3750	1.6250
-61.2 / +9.3	FAILED			

FAILURE MODE: plywood substrate failed

MAX PRESSURE: 352 psf

R-PANEL
STRIP WIDTH = 43"



- NOTES:
- * ALL FORMING RADI ARE .125 UDN
 - 1. MATERIAL: 80 KSI YIELD 24 & 26 GAUGE
 - 2. CALCULATED STRIP WIDTH SHOWN, ACTUAL MAY VARY AND WILL BE DETERMINED DURING TESTING PHASE.
 - 3. PART IS FORMED PAINT UP UNLESS NOTED
 - 4. TOLERANCES
 - a. ANGLES: $\pm 2^\circ$
 - b. RADIUS: $\pm .02$
 - c. CAMBER: $\pm 1/8"$ IN 10'
 - d. SKI: $\pm 1/8"$ IN 10'
 - e. DIVE: $\pm 1/8"$ IN 10'
 - f. FLARE: $\pm 1/32"$ IN 10' OF ENDS OF PART
 - 5. TOLERANCES MEASURED IN 10' LENGTHS WITH PART LAYING FLAT ON IT'S BACK.

APPROVAL DRAWING
THIS DRAWING HAS BEEN APPROVED & ACCEPTED
 AS NOTED AS IS
BY: _____ DATE: _____

ITEM	PART NO.	DESCRIPTION	MATERIAL	CITY
1		This Drawing contains proprietary information of Metal Reforming Systems Inc. which may not be utilized in any manner without the written thereof.	MRS Metal Reforming Systems	
		TITLE: R-PANEL PROFILE		
		NAME: DOE	SIZE: A	PART #:
		DATE: 12/10/2014		
				SCALE: 1:1 SHEET 1 OF 1