



# Farabaugh Engineering and Testing Inc.

Project No. T260-15

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## PERFORMANCE TEST REPORT

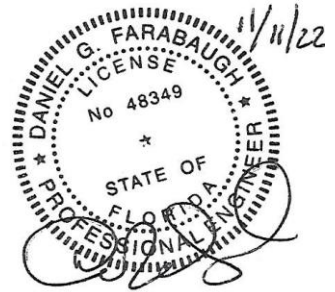
### ASTM E-283-04 AIR LEAKAGE TEST ASTM E331-00 WATER PENETRATION TEST

ON

### PRECISION SERIES – HIGHLINE & BOXRIB WALL PANELS

FOR

PETERSEN ALUMINUM CORP.  
10551 PAC ROAD  
TYLER, TX. 75707



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Project No. T260-15

### **Purpose**

The purpose of this test is to establish air and water infiltration rates on the test specimen mock-up in accordance with the referenced test standards and as provided herein.

### **Referenced Test Standards**

- ASTM E 283-04 “Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen”
- ASTM E 331-00 “Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference”

### **Test Specimen**

Manufacturer: Petersen Aluminum  
10551 PAC Rd.  
Tyler, TX. 75707

Panel Series: Precision Series – Highline & Box Rib Wall Panels

Panel Tested: HWP 12-B Wall Panel, 12”(nominal) Panel Width, 24 Ga. Steel

Panel Clip 20 ga. x 2.5" wide clip.

### **Test Specimen**

The test specimen consisted of a HWP Precision Series Panel (12" wide x 24ga.) mock-up. The mock-up measured 8'-0" wide x 8'-0" high which consisted of a 8 panel high system with support spacing of 1' - 4" o.c. The mock-up consisted of 18 ga. supports with 5/8" plywood, waterproof underlayment and 24 ga. panels. The 18 ga. supports were spaced at 1'-4" o.c. attached to a top and bottom 18 ga. support. The plywood was 5/8" thick plywood sheets attached with #14 - 13 X 2" long flat head self drilling fasteners into the 18 ga. supports. The fasteners for the plywood were at 6" o.c. on each vertical supports and horizontal supports. A layer of Grace Ice and Water Shield (waterproof underlayment) covered the plywood and the perimeter was sealed with silicone sealant. The 24 ga. panels were then installed horizontally using a 20 ga clips spaced at 2'-0" o.c.. The clip fasteners were (2) #14 - 13 x 2" long flat head concealor fasteners. The starter panel and final panel was attached with #10 - 14 x 1-1/2" long high low fasteners spaced at approximately 2'-0" o.c. The exposed screw heads were sealed with silicone sealant. The perimeter of the panels were sealed to the buck using silicone sealant. See attached drawing for specimen details.

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**HWP PRECISION SERIES**  
**HWP 12-B WALL PANEL MOCK-UP**  
**TEST RESULTS**

Date: 9/11/15

Ambient Temperature = 80 deg. F

Barometric Pressure = 29.88" Hg

**ASTM E-283-04**  
**AIR LEAKAGE TEST**

TEST PRESSURE (PSF)	TOTAL AIR LEAKAGE RATE (CFM)	AIR INFILTRATION RATE (CFM/SF)	AIR INFILTRATION RATE (CFM/LF)
1.57	0.000	0.000	0.000
6.24	0.000	0.000	0.000
20.00	0.0042	0.00006	0.00008

Based on 64 sq.ft. and 56 lineal feet

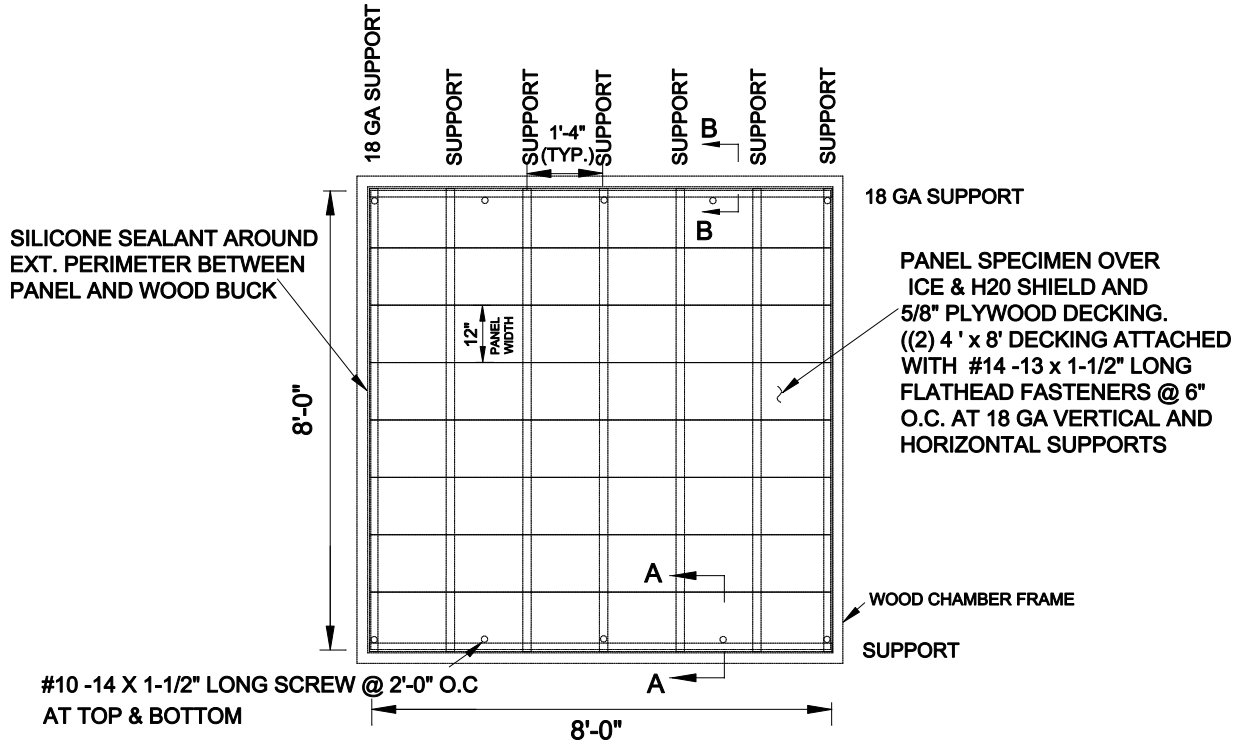
**ASTM E-331-00**  
**WATER PENETRATION TEST**

TEST PRESSURE (PSF)	WATER SPRAY RATE GAL/SF/HR	TEST DURATION (MIN)	RESULTS
6.24	5	15	PASS - NO VISIBLE LEAKAGE
12.00	5	15	PASS - NO VISIBLE LEAKAGE
20.00	5	15	PASS - NO VISIBLE LEAKAGE

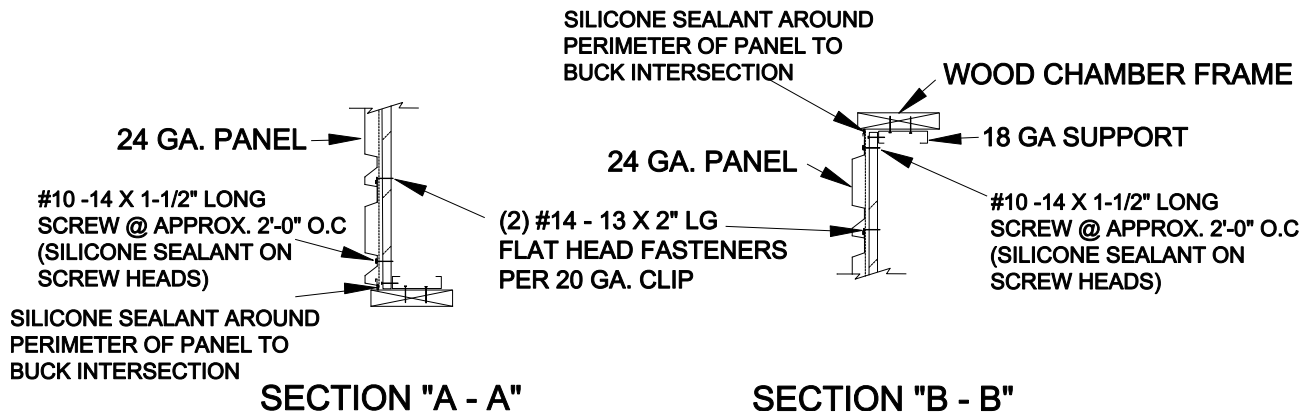
**NOTE: MOCK-UP WAS IN HORIZONTAL POSITION FOR THE PANELS.**

**Results**

Upon completion of the pressures noted above there were no noticeable failures of the specimen

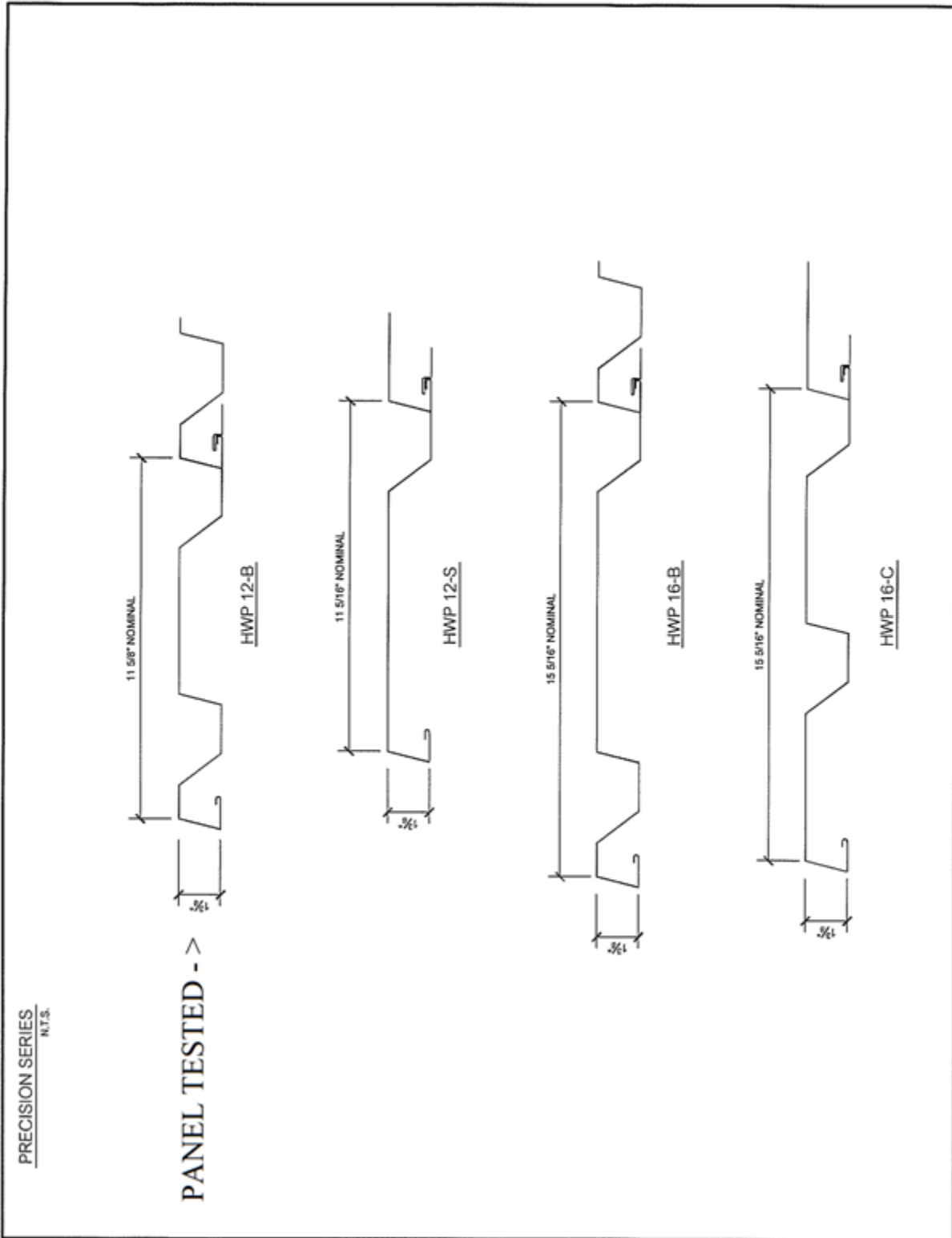


PLAN VIEW OF PANELS



SECTION "A - A"

SECTION "B - B"



# BOX RIB WALL PANELS

Box Rib 1



Box Rib 2



Box Rib 3

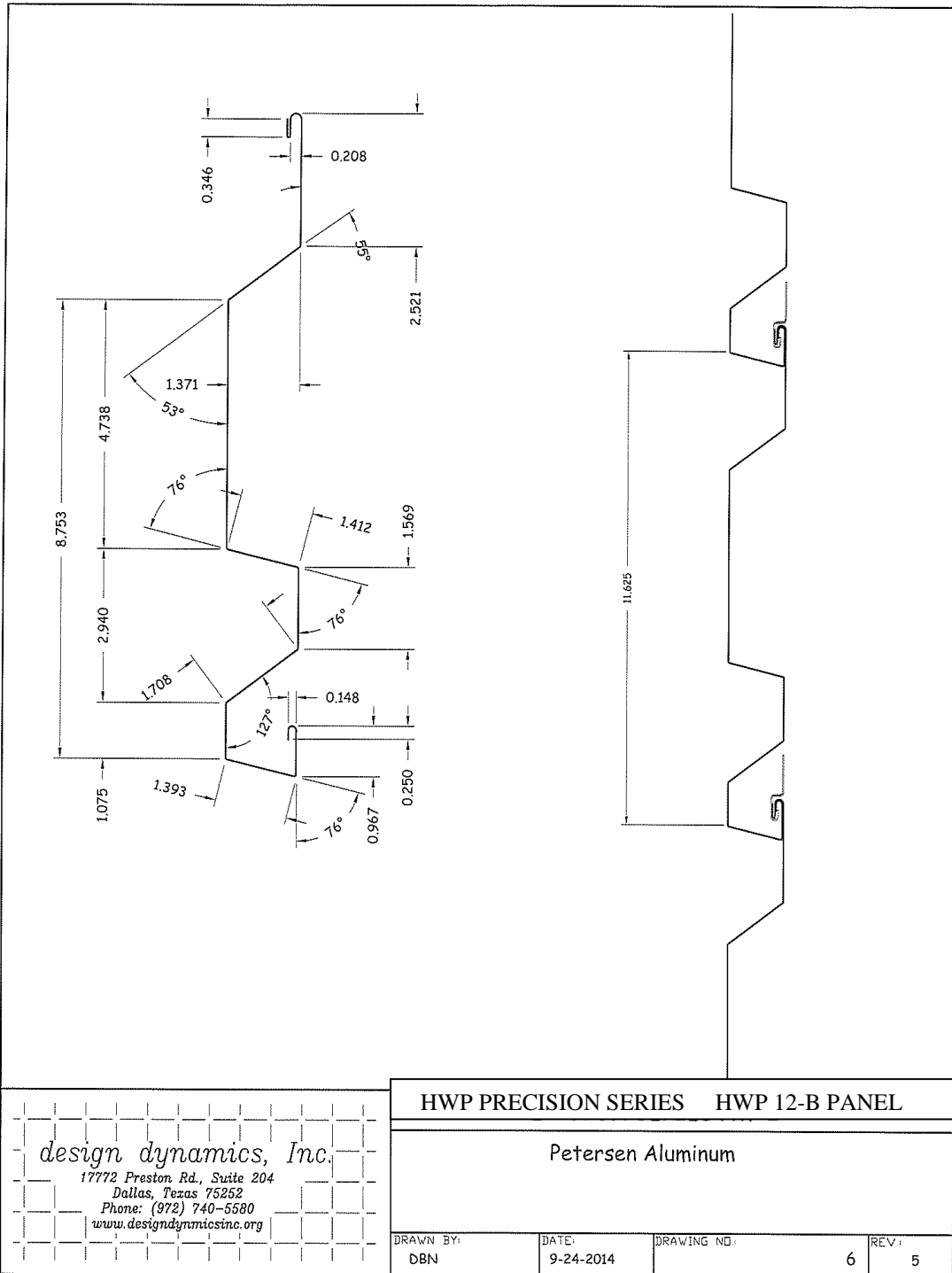


Box Rib 4



AVAILABLE WITH OR WITHOUT CLIP

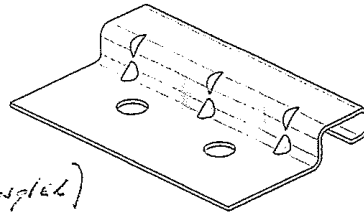




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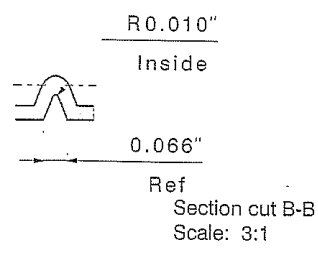
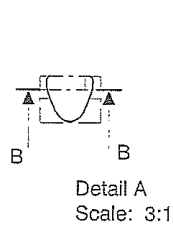
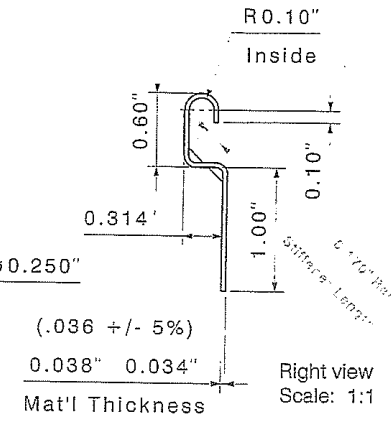
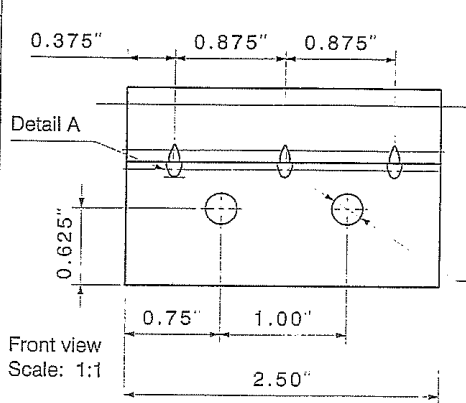
**CUSTOMER APPROVAL:**  
 My signature on this print indicates approval of all the information shown (or as amended hereon) and that items made to these specifications will be accepted

NAME: [Signature] (T. A. [Signature])  
 DATE: 4/12/11



Isometric view  
 Scale: 1:1

METRIC UNITS (mm) ±.10 ±.1 >120 ±.6 ±.25 ±.2 50-120 ±.3	
TOLERANCE (unless otherwise noted) Fractional ±.125 Angular .002 Decimal .010	ENGLISH UNITS (Inches) Fractional ±.125 Angular .002 Decimal .010
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Material: G-90 Gal Material Spec: Commercial Quality Surface Treatment: Performance: Scale: As Shown Above	 P.O. Box 6936 Wyoming, PA 19610 T. 610.376.5751 F. 610.376.0932	Description: Petersen Horizontal Wall Panel Clip Drawing No.: XP-1806 Drawn By: scda Date: 4/15/2011
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