



**Farabaugh Engineering and Testing Inc.**

---

Project No. T197-06

Report Date: 7-17-06

No. of Pages: 5

PERFORMANCE TEST REPORT

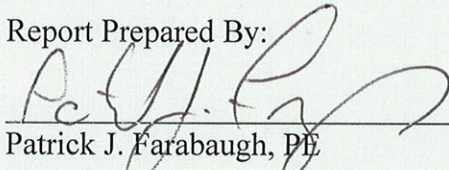
ASTM E330 UNIFORM LOAD TEST

FLUSH PANEL  
12" WIDE X 24 GA STEEL

FOR

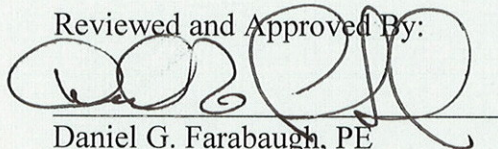
PETERSEN ALUMINUM CORP.  
1005 TONNE RD.  
ELK GROVE VILLAGE, IL 60007

Report Prepared By:


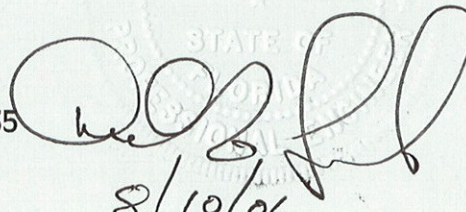
  
Patrick J. Farabaugh, PE

DANIEL G. FARABAUGH, P.E.  
255 Saunders Station Rd.  
Trafford, PA 15085  
(412) 373-9238

Reviewed and Approved By:

  
Daniel G. Farabaugh, PE

401 Wide Drive • McKeesport, PA 15135  
(412) 751-4001 • FAX (412) 751-4003

  
  
8/10/06

Project No. T197-06

**SUBJECT:**

Petersen Aluminum Corp. Flush Panel, 24 ga (nominal) steel, 12" wide

**INTRODUCTION:**

Uniform load tests were conducted on the subject panels on July 3, 2006 at the test facility of Farabaugh Engineering and Testing, Inc. A description of the tests and summary of results are contained herein.

**OBJECTIVE:**

The purpose of the tests was to determine the uniform load capacity at specified test pressures on the test specimen mock-up.

**TEST SPECIMENS:**

The specimen mock-up was comprised of Flush Panel, 24 ga steel (measured 0.023" thick), 12" wide. The sidejoints were reinforced with #14 x 7/8" lap fasteners located at 12" oc.

**TEST ASSEMBLY:**

The Flush Panel assembly was as shown on the attached drawings.

**TEST PROCEDURE:**

The structural test was per ASTM E330-02 "Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference" and as provided in this report. A controlled blower provided a vacuum to uniformly load the specimen mock-up. A manometer was used to measure the pressure. Uniform load was applied in the positive and negative direction. A plastic barrier was placed between the panel specimen and the substrate.

**RESULTS:**

The results of the structural tests are shown on the attached tabulation of results.

Project No. T197-06

## Summary of Test Results

Test Date: 7-3-06

Specimen: Petersen Aluminum Flush Panel , 24 ga steel, 12" wide

Span Condition: 10 Spans @ 1' oc

Uniform Load: Negative ( Design Load = 48.5 psf, Proof Load = 72.8 psf)

Deflections (in)

Test Pressure (psf)	D1	D2	D3	D4	D5	D6
48.5	0.061	0.254	0.122	0.293	0.072	0.218
72.8	0.081	0.300	0.154	0.377	0.078	0.279
0 (Perm. Set)	0.010	0.074	0.053	0.087	0.008	0.064

Uniform Load: Positive ( Design Load = 48.5 psf, Proof Load = 72.8 psf)

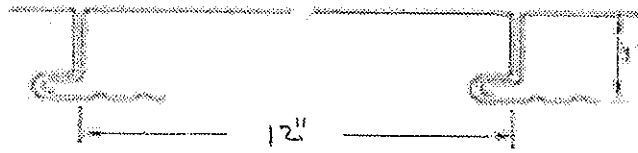
Deflections (in)

Test Pressure (psf)	D1	D2	D3	D4	D5	D6
48.5	0.150	0.900	0.182	0.932	0.186	0.919
72.8	0.159	0.908	0.196	0.961	0.193	0.931
0 (Perm. Set)	0.002	0.005	0.005	0.012	0.001	0.005

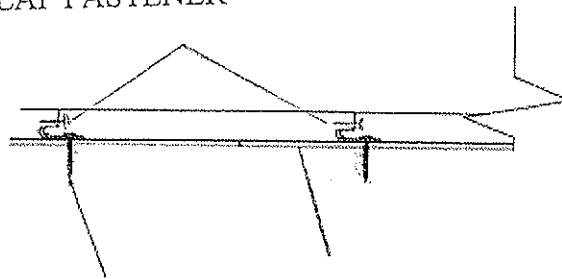
### Results:

Upon completion of the loading sequence of the panel specimen, there were no component failures.

Project No. T197-06

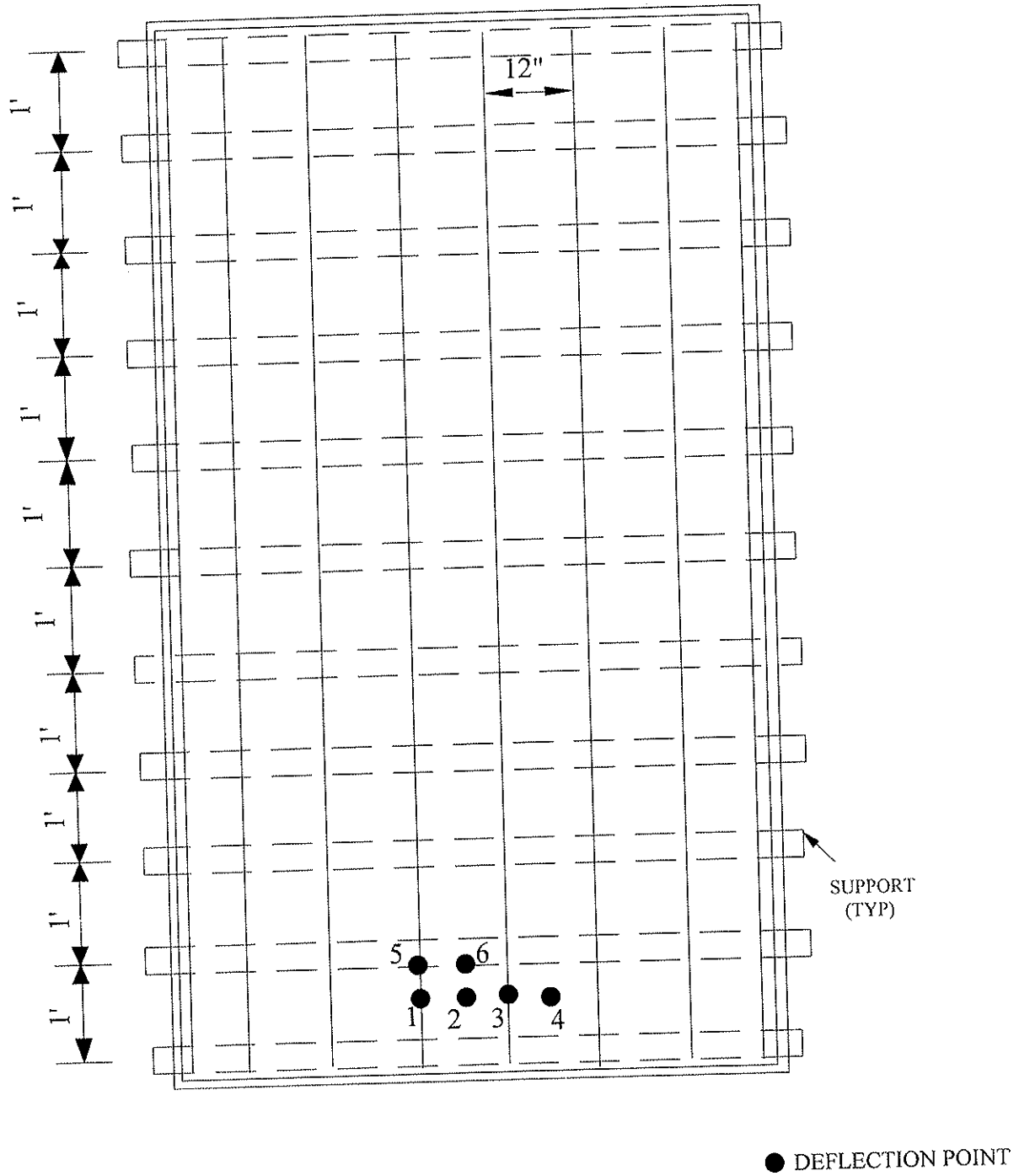


#14 x 7/8" LAP FASTENER  
(12" OC)



#10 PANCAKE HEAD FASTENER  
(AT EACH SUPPORT 12" OC)

16 GA SUPPORT MEMBER



# SPECIMEN MOCK-UP