

**PERFORMANCE TEST REPORT**

**Rendered to:**

**ALLIED METAL**

**SERIES/MODEL: ESTOLGA 2000**

**PRODUCT TYPE: Aluminum Composite Wall Panel System**

<b>Title</b>	<b>Summary of Results</b>
Air Infiltration	0.11 cfm/ft <sup>2</sup>
Water Resistance Test Pressure	12.12 psf
Uniform Load Deflection Test Pressure	±120.37 psf
Uniform Load Structural Test Pressure	±165.51 psf

Reference should be made to Architectural Testing, Inc. Report No. 73801.02-109-44 for complete test specimen description and data.

## PERFORMANCE TEST REPORT

Rendered to:

ALLIED METAL  
3114 Tonnelle Avenue  
North Bergen, New Jersey 07047

Report No.: 73801.02-109-44  
Revision 1: 12/08/08  
Test Date: 05/29/07  
And: 05/30/07  
Report Date: 07/10/07  
Expiration Date: 05/30/11

**Project Summary:** Architectural Testing, Inc. was contracted by Allied Metal to perform testing on a Series/Model ESTOLGA 2000, aluminum composite wall panel system. Test specimen description and results are reported herein. The sample was provided by the client.

**Test Methods:** The test specimen was evaluated in accordance with the following:

*ASTM E 283-04, Test Method for Determining Rate of Airflow Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen.*

*ASTM E 330-02, Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

*ASTM E 331-00, Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

### **Test Specimen Description:**

**Series/Model:** ESTOLGA 2000

**Product Type:** Aluminum Composite Wall Panel System

**Overall Size:** 47-1/4" wide by 71-1/4" high

**Panel Size (12):** 15-1/4" wide by 17-1/4" high

**Overall Area:** 23.37 ft<sup>2</sup>

**Finish:** All aluminum composite panels had a mill finish.

**Test Specimen Description:** (Continued)

**Wall Panel Construction:** The 15-1/4" by 17-1/4" composite panel was constructed from two sheets of 0.020" aluminum with a 0.120" thick polyethylene core. Continuous aluminum U-shaped spacer tracks were installed between all panels using #10 x 1" self-tapping screws into a continuous steel hat channel. A snap-in U-shaped, ribbed, hollow vinyl gasket was installed into the spacer tracks. Aluminum gusset plates were installed on all panel corners using two 1/8" pop rivets attached 1" from all corners.

**Wall Construction:** The frame was constructed of nominal 2x6, 16 gauge steel studs. Vertical steel studs, spaced 16" on center, were secured to the top and bottom plate using one #10 x 1" Tek screw. A 5/8" plywood sheathing was secured to the steel frame with #10 x 2-1/4" Tek screws. A 1/2" Densglass sheathing was secured to the exterior of the plywood with #10 x 1-1/4" Tek screws. A perforated weather barrier was adhered to the sheathing and a 7/8" wide, 18 gauge steel hat channel was secured to the sheathing using two #10 x 1-1/4" Tek screws.

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Aluminum gusset plates	1	Each corner on all panels
4-3/8" by 3" aluminum clips	1	Each horizontal panel intersection
3" by 7" aluminum clips	1	Each vertical panel intersection

**Test Results:** The temperature during testing was 76°F. The results are tabulated as follows:

<u>Test Method</u>	<u>Title of Test</u>	<u>Results</u>
ASTM E 283	Air Infiltration	
	1.60 psf	0.04 cfm/ft <sup>2</sup>
	4.0 psf	0.04 cfm/ft <sup>2</sup>
	6.24 psf	0.11 cfm/ft <sup>2</sup>
ASTM E 331	Water Resistance	
	(with and without screen)	
	12.12 psf	No leakage

**Test Results:** (Continued)

<u>Test Method</u>	<u>Title of Test</u>	<u>Results</u>
ASTM E 330	Uniform Load Deflection	
	(Deflections reported were taken on the panel)	
	(Loads were held for 10 seconds)	
	120.37 psf (positive)	0.01"
	120.37 psf (negative)	<0.01"
ASTM E 330	Uniform Load Structural	
	(Permanent sets reported were taken on the panel)	
	(Loads were held for 10 seconds)	
	165.51 psf (positive)	<0.01"
	165.51 psf (negative)	<0.01"

**General Note:** Upon completion of testing, the specimens met the requirements of the referenced standards.

Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

**Drawing Reference:** The test specimen drawings have been reviewed by Architectural Testing, and are representative of the test specimen reported herein.

**List of Official Observers:**

<u>Name</u>	<u>Company</u>
Henry Bilge	Allied Metal
Michael D. Stremmel, P.E.	Architectural Testing, Inc.
Eric M. Brennan	Architectural Testing, Inc.

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire.

Results obtained are tested values and were secured by using the designated test methods. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen can be made. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

---

Eric M. Brennan  
Technician

---

Michael D. Stremmel, P.E.  
Senior Project Engineer

EMB:vlm

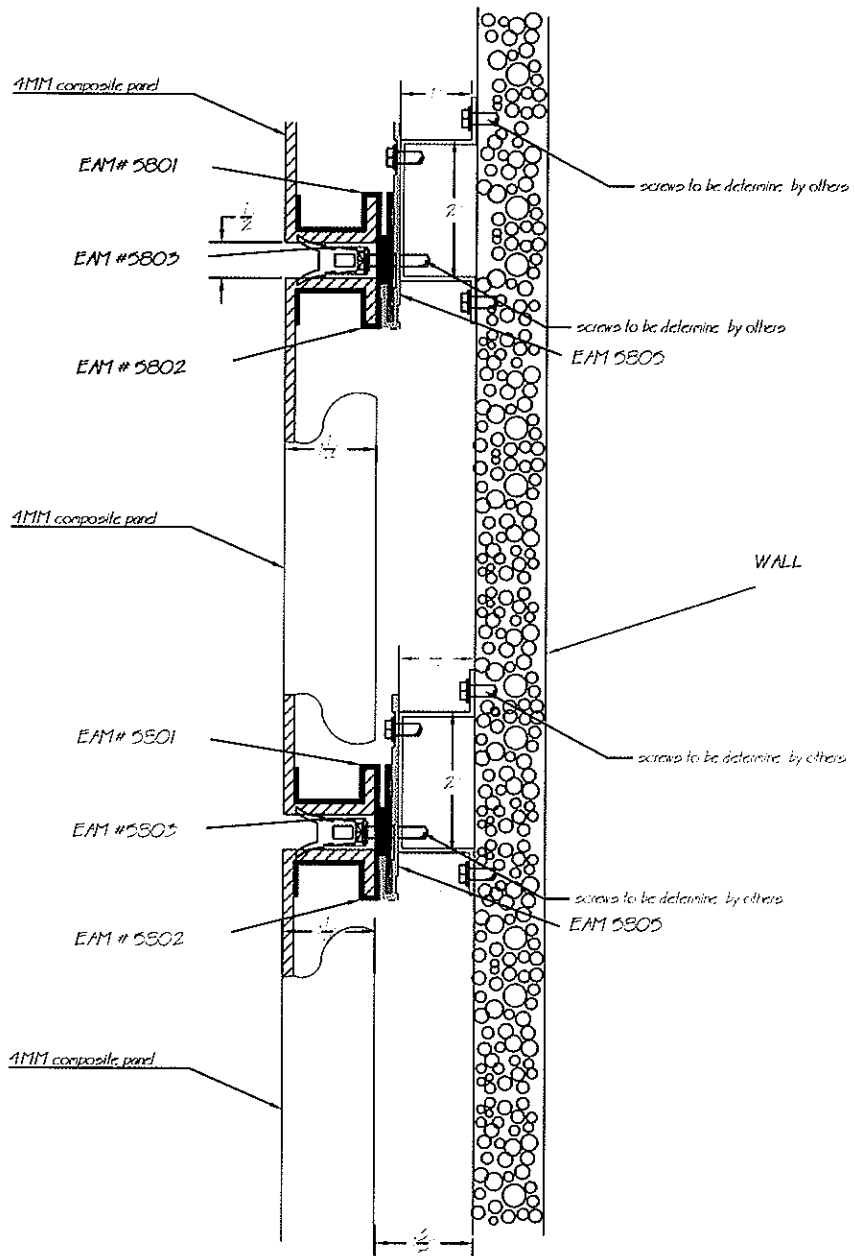
Attachments (pages): This report is complete only when all attachments listed are included.  
Appendix-A: Drawings (5)


### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	07/10/07	N/A	Original report issue
1	12/08/08	Summary Page and Page 1	Removed Wet Seal from Series/Model

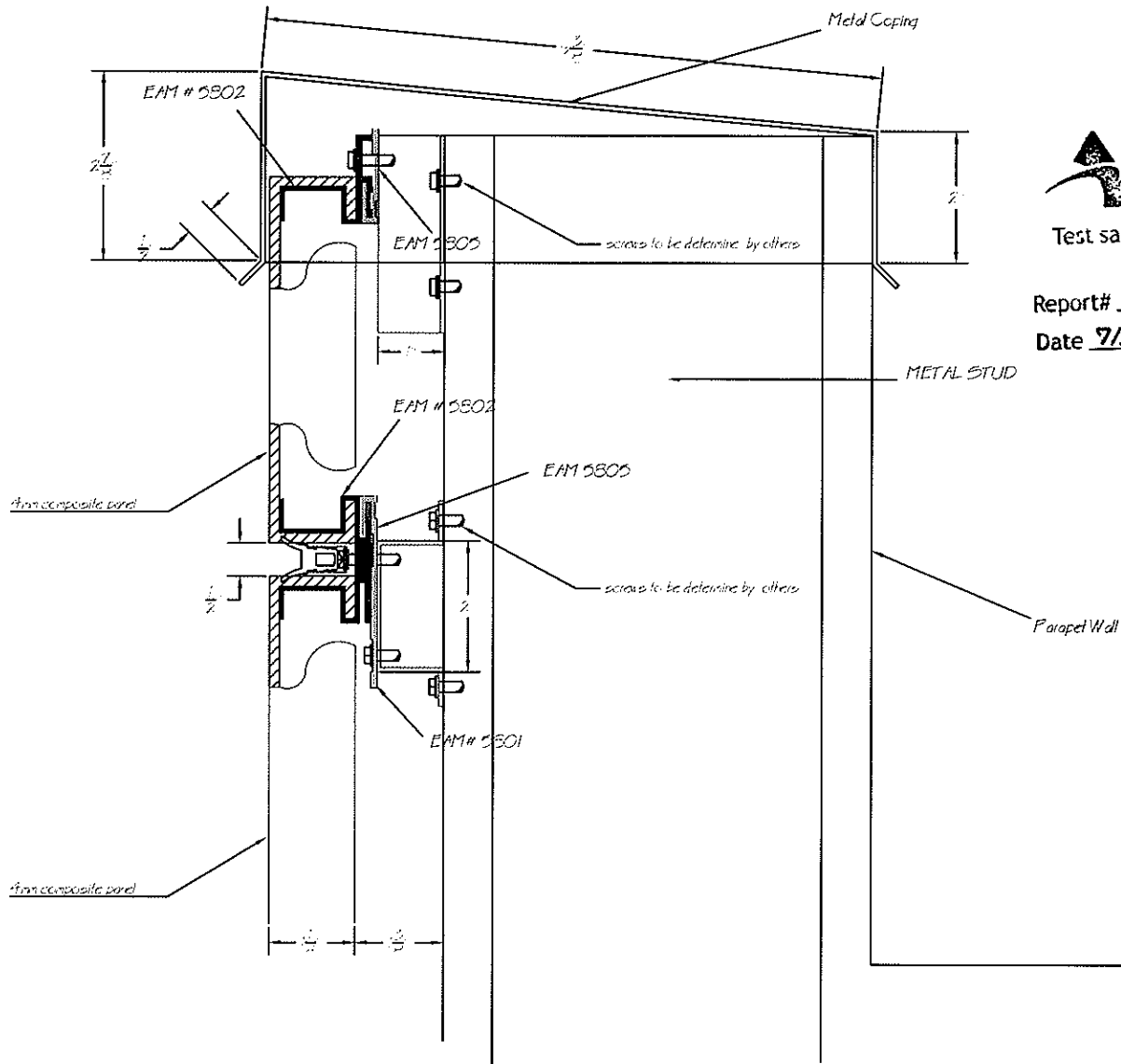
## **Appendix A**

### **Drawings**




**Architectural Testing**  
 Test sample complies with these details.  
 Deviations are noted.  
 Report# 73801.02-109-44  
 Date 9/5/07 Tech Brennan

<b>AlliedMetal</b> <b>"ESTOLGA 2000"</b> Wet Seal System 888-520-8800 www.alliedmetal.com	Date: 04.17.2007	Scale:	<b>Window Sill Detail</b>
	Project Name:	Project Address:	



### Architectural Testing

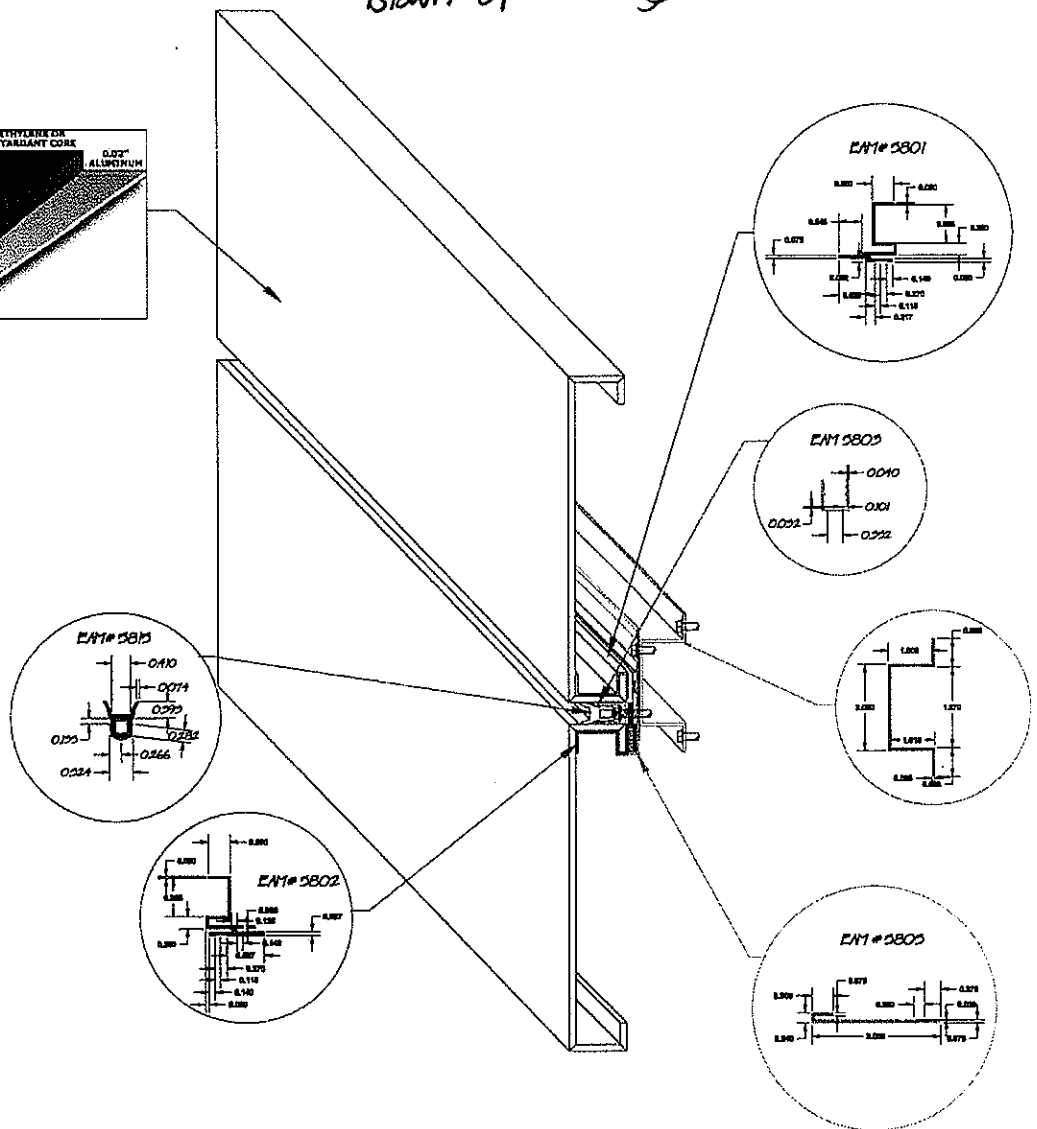
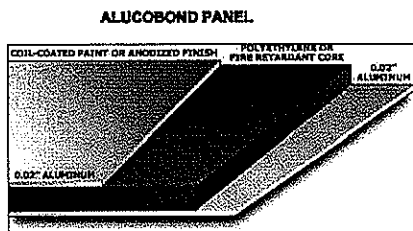
Test sample complies with these details.  
Deviations are noted.

Report# 73807.02-109-44  
Date 7/5/07 Tech Brennan

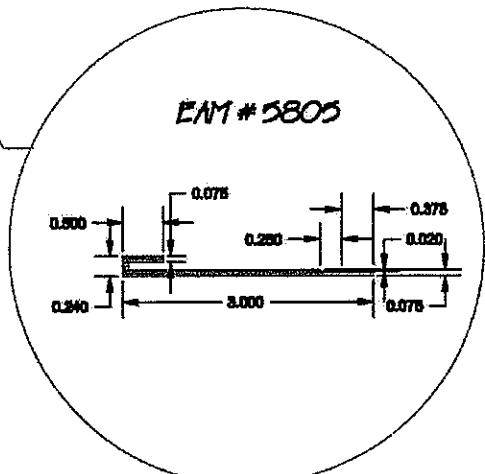
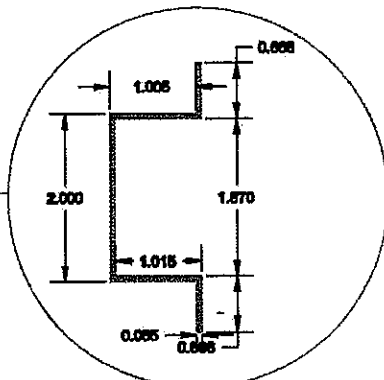
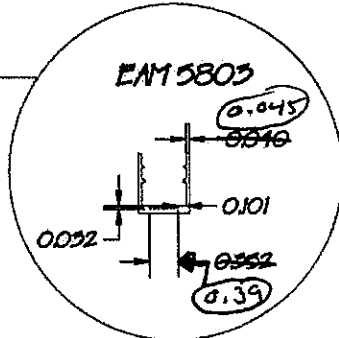
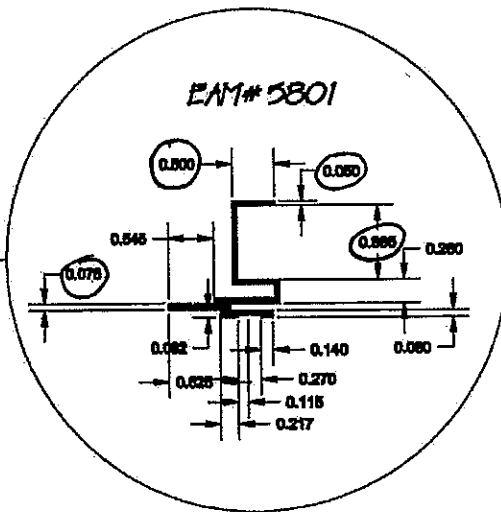
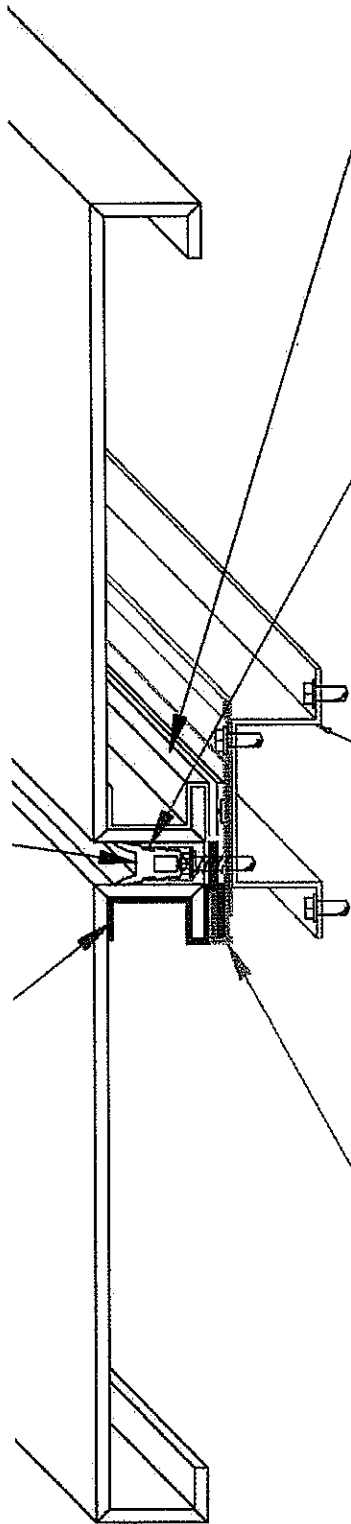
<b>AlliedMetal</b> <b>"ESTOLGA 2000"</b> Wet Seal System 888-520-8800 www.alliedmetal.com	Date: 04.17.2007	Scale:	<b>Coping Detail at Parapet Wall</b>
	Project Name:		Project Address:

# Estolga<sup>®</sup> 2000 Panels Columns

Next Page has  
Blown up drawings



2000



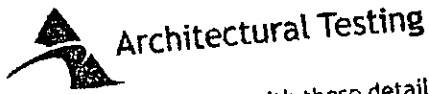
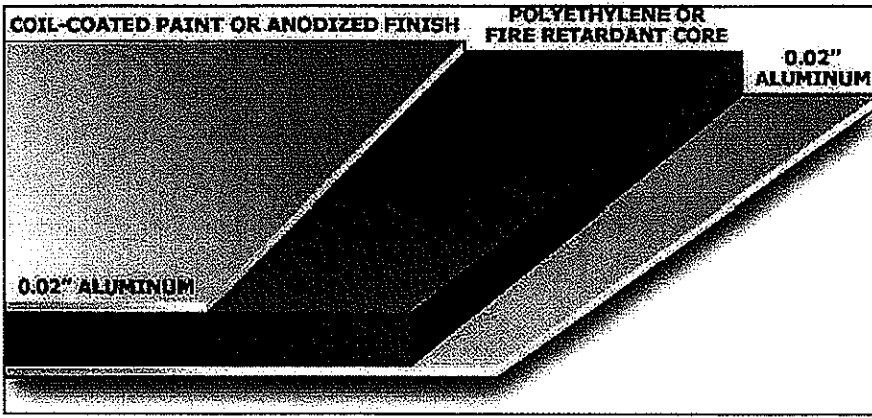
**Architectural Testing**

Test sample complies with these details.  
Deviations are noted.

Report# 93801.02-109-44

Date 7/5/7 Tech Brennan

# ALUCOBOND PANEL



**Architectural Testing**

Test sample complies with these details.  
Deviations are noted.

Report# 73801.02-109-44  
Date 7/5/79 Tech Brennan

