

**AAMA 1503-09 THERMAL PERFORMANCE  
TEST REPORT**

**Rendered to:**

**CRAWFORD TRACEY CORPORATION**

**SERIES/MODEL: Pro-Tech 7 SG IG**

**TYPE: Glazed Wall System**

<b>Summary of Results</b>	
Thermal Transmittance (U-Factor)	0.35
Condensation Resistance Factor - Frame ( $CRF_f$ )	81
Condensation Resistance Factor - Glass ( $CRF_g$ )	74
Unit Size	78-3/4" x 78-3/4" (2000mm x 2000mm)
Layer 1	1/4" Viracon VE1-2M (e=0.040*, #2) Tempered
Gap 1	0.50" Gap, Aluminum Spacer (A1-D), Air-Filled*
Layer 2	1/2" (1/4" Clear / 0.060 PVB / 1/4" Clear) Laminated

Reference must be made to Report No. 99724.02-116-46, dated 04/23/10 for complete test specimen description and data.

**AAMA 1503-09 THERMAL PERFORMANCE TEST REPORT**

Rendered to:

CRAWFORD TRACEY CORPORATION  
3301 SW 13th Drive  
Deerfield Beach, Florida 33442

Report Number: 99724.02-116-46  
Test Date: 04/17/10  
Report Date: 04/23/10  
Expiration Date: 04/17/14

**Test Sample Identification:**

**Series/Model:** Pro-Tech 7 SG IG

**Type:** Glazed Wall System

**Test Sample Submitted by:** Client

**Test Procedure:** The condensation resistance factor (CRF) and thermal transmittance (U) were determined in accordance with AAMA 1503-09, *Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections*

- |   |         |
|---|---------|
| 1. Average warm side ambient temperature                  | 69.80 F |
| 2. Average cold side ambient temperature                  | -0.41 F |
| 3. 15 mph dynamic wind applied to test specimen exterior. |         |
| 4. 0.0" $\pm$ 0.04" static pressure drop across specimen. |         |

**Test Results Summary:**

- |   |      |
|---|------|
| 1. Condensation resistance factor - Frame (CRF <sub>f</sub> ) | 81   |
| Condensation resistance factor - Glass (CRF <sub>g</sub> )    | 74   |
| 2. Thermal transmittance due to conduction (U <sub>c</sub> )  | 0.35 |
| (U-factors expressed in Btu/hr·ft <sup>2</sup> ·F)            |      |

**Test Sample Description:**

<b>CONSTRUCTION</b>	<b>Frame</b>
Size (in.) Non-Standard	78-3/4" x 78-3/4"
Daylight Opening (in.)	35-5/8" x 74-3/4" (x2)
<b>CORNERS</b>	Butt
Fasteners	Screws
Sealant	No
<b>MATERIAL</b>	AT (0.25")
Color Exterior	Gray
Finish Exterior	Anodized
Color Interior	Gray
Finish Interior	Anodized
<b>GLAZING METHOD</b>	Exterior Structurally Glazed

**Glazing Information:**

<b>Layer 1</b>	1/4" Viracon VE1-2M (e=0.040*, #2) Tempered
<b>Gap 1</b>	0.50" Gap, Aluminum Spacer (A1-D), Air-Filled*
<b>Layer 2</b>	1/2" (1/4" Clear / 0.060 PVB / 1/4" Clear) Laminated
<b>Gas Fill Method</b>	N/A*
<b>Desiccant</b>	Yes

*\*Stated per Client/Manufacturer*

*NA Non-Applicable*

*See Description Table Abbreviations*

**Test Sample Description:** (Continued)

<b>COMPONENTS</b>		
<b>Type</b>	<b>Quantity</b>	<b>Location</b>
<b>WEATHERSTRIP</b>		
Foam gasket	2 rows	Exterior glazing perimeter
EPDM gasket	1 row	Interior glazing perimeter
<b>HARDWARE</b>		
End caps	6	Two per head and sill, one per jambs at exterior frame perimeter
Interior trim/insert	6	Two per interior head and sill, one per jambs
3-1/2" Applied trim	1	Exterior center mullion
1-5/8" Applied trim	6	Two per exterior head and sill, one per jambs
<b>DRAINAGE</b>		
No visible weeps		

**Test Duration:**

1. The environmental systems were started at 14:55 hours, 04/16/10.
2. The thermal performance test results were derived from 06:11 hours, 04/17/10 to 10:11 hours, 04/17/10.

**Condensation Resistance Factor (CRF):**

The following information, condensed from the test data, was used to determine the condensation resistance factor:

$T_h$	=	Warm side ambient air temperature	69.80 F
$T_c$	=	Cold side ambient air temperature	-0.41 F
$FT_p$	=	Average of pre-specified frame temperatures (14)	56.85 F
$FT_r$	=	Average of roving thermocouples (4)	52.13 F
$W$	=	$(FT_p - FT_r) / [FT_p - (T_c + 10)] \times 0.40$	0.040
$FT$	=	$FT_p(1-W) + W (FT_r) =$ Frame Temperature	56.66 F
$GT$	=	Glass Temperature	51.71 F
$CRF_g$	=	Condensation resistance factor – Glass	74
		$CRF_g = (GT - T_c) / (T_h - T_c) \times 100$	
$CRF_f$	=	Condensation resistance factor – Frame	81
		$CRF_f = (FT - T_c) / (T_h - T_c) \times 100$	

The CRF number was determined to be 74 (on the size as reported). When reviewing this test data, it should be noted that the glass temperature (GT) was colder than the frame temperature (FT) therefore controlling the CRF number. Refer to the 'CRF Report' page and the 'Thermocouple Location Diagram' page of this report.

**Thermal Transmittance ( $U_c$ ):**

$T_h$	= Average warm side ambient temperature	69.80 F
$T_c$	= Average cold side ambient temperature	-0.41 F
P	= Static pressure difference across test specimen 15 mph dynamic perpendicular wind at exterior	0.00 psf
	Nominal sample area	42.66 ft <sup>2</sup>
	Total measured input to calorimeter	1151.55 Btu/hr
	Calorimeter correction	106.33 Btu/hr
	Net specimen heat loss	1045.22 Btu/hr
$U_c$	= Thermal Transmittance	0.35 Btu/hr·ft <sup>2</sup> ·F

**Glazing Deflection (in.):**

	Left Glazing	Right Glazing
Edge Gap Width	0.50	0.50
Estimated center gap width upon receipt of specimen in laboratory (after stabilization)	0.56	0.38
Center gap width at laboratory ambient conditions on day of testing	0.56	0.38
Center gap width at test conditions	0.47	0.34

The sample was inspected for the formation of frost or condensation, which may influence the surface temperature measurements. The sample showed no evidence of condensation/frost at the conclusion of the test.

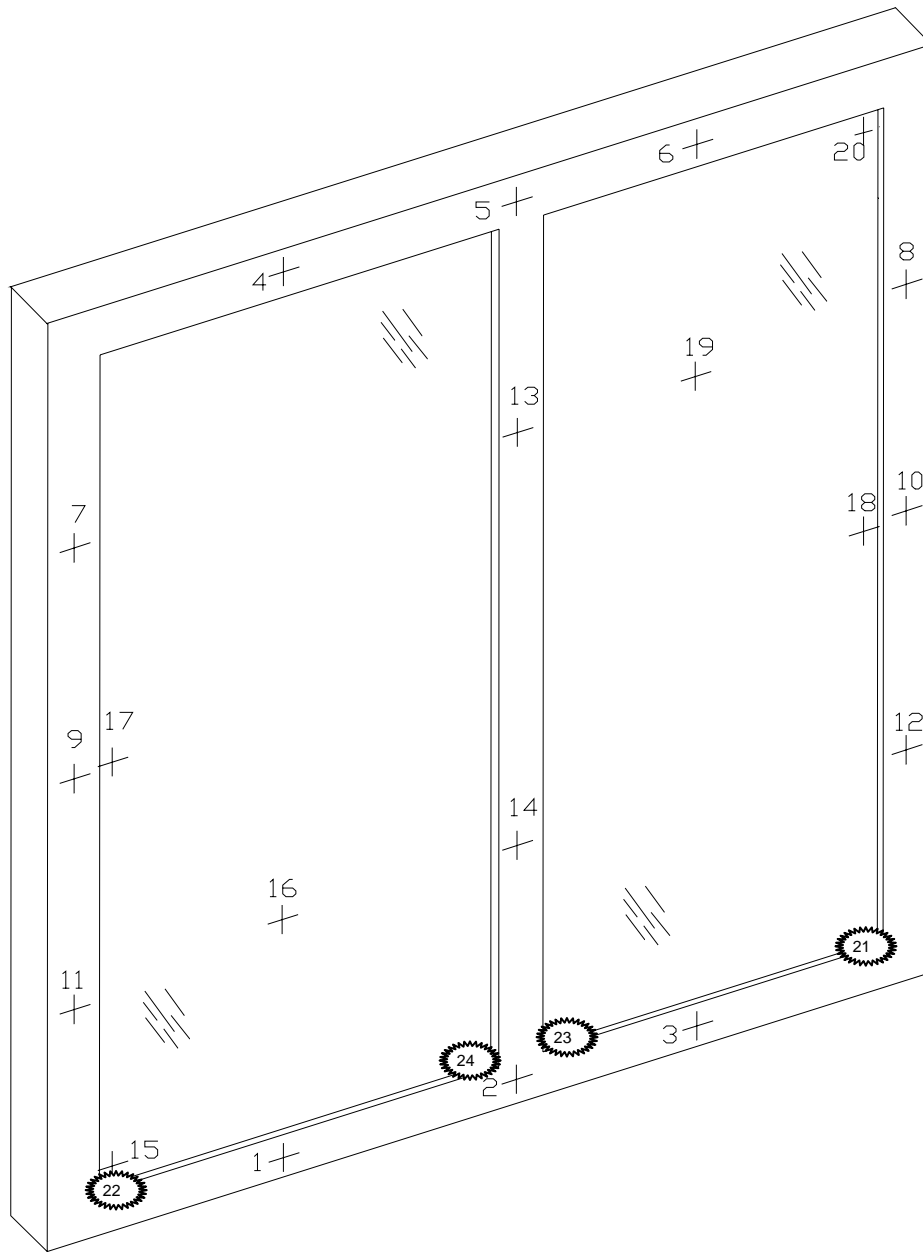
A calibration of the Architectural Testing Inc. 'thermal test chamber' (ICN 000001) in York, Pennsylvania was conducted in April 2009 in accordance with Architectural Testing Inc. calibration procedure.

Prior to testing the specimen was sealed with silicone on the interior side and checked for air infiltration per Section 9.3.4.





**CRF Report**

Time:	08:11	08:41	09:11	09:41	10:11	AVERAGE
<b>Pre-specified Thermocouples - Frame</b>						
1	53.40	53.39	53.41	53.42	53.41	53.41
2	54.57	54.57	54.57	54.57	54.55	54.57
3	53.56	53.55	53.55	53.55	53.55	53.55
4	59.87	59.86	59.87	59.86	59.88	59.87
5	59.17	59.19	59.19	59.19	59.18	59.18
6	59.91	59.92	59.92	59.93	59.92	59.92
7	58.14	58.17	58.15	58.15	58.16	58.15
8	58.80	58.81	58.80	58.80	58.80	58.80
9	56.69	56.71	56.69	56.69	56.69	56.69
10	57.17	57.17	57.18	57.17	57.18	57.18
11	55.11	55.10	55.11	55.10	55.10	55.10
12	54.97	54.99	55.00	54.99	55.00	54.99
13	55.68	55.68	55.67	55.67	55.68	55.68
14	58.79	58.79	58.78	58.79	58.80	58.79
FTP	56.84	56.85	56.85	56.85	56.85	56.85
<b>Pre-specified Thermocouples - Glass</b>						
15	45.75	45.76	45.78	45.75	45.75	45.76
16	54.04	54.04	54.09	54.08	54.07	54.06
17	51.33	51.33	51.33	51.36	51.33	51.34
18	51.58	51.60	51.60	51.60	51.61	51.60
19	54.16	54.17	54.18	54.17	54.16	54.17
20	53.31	53.33	53.33	53.34	53.34	53.33
GT	51.70	51.71	51.72	51.71	51.71	51.71
<b>Cold Point (Roving) Thermocouples</b>						
21	51.10	51.10	51.10	51.10	51.10	51.10
22	51.70	51.70	51.70	51.70	51.70	51.70
23	52.80	52.80	52.80	52.80	52.80	52.80
24	52.90	52.90	52.90	52.90	52.90	52.90
FT <sub>R</sub>	52.13	52.13	52.13	52.13	52.13	52.13
W	0.04	0.04	0.04	0.04	0.04	0.04
FT	56.66	56.66	56.66	56.66	56.66	56.66
<b>Warm Side - Room Ambient Air Temperature</b>						
	69.80	69.79	69.80	69.80	69.79	69.80
<b>Cold Side - Room Ambient Air Temperature</b>						
	-0.41	-0.33	-0.35	-0.38	-0.46	-0.39
CRF <sub>f</sub>	81	81	81	81	81	81
CRF <sub>g</sub>	74	74	74	74	74	74

### Thermocouple Location Diagram



#### Cold Point Locations

-  21. 51.10
-  22. 51.70
-  23. 52.80
-  24. 52.90



Detailed drawings, data sheets, representative samples of the test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. until 4/17/2014. At the end of this retention period such materials shall be discarded without notice and the service life of this report by Architectural Testing, Inc. will expire.

Results obtained are tested values and were secured by using the designated test methods. 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.

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Ryan P. Moser  
Technician

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Shon W. Einsig  
Senior Technician  
Individual-In-Responsible-Charge

RPM:kmm  
99724.02-116-46

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Description Table Abbreviations (1)

Appendix-B: Drawings (10)

### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.02R0	04/23/10	All	Original Report Issue. Work requested by Kevin Hansen of Crawford Tracey Corporation.

**Appendix A: Description Table Abbreviations**

CODE	Frame / Sash Types
AI	Aluminum w/ Vinyl Inserts (Caps)
AL	Aluminum
AP	Aluminum w/ Thermal Breaks - Partial
AS	Aluminum w/ Steel Reinforcement
AT	Aluminum w/ Thermal Breaks - All Members (> 0.21")
AU	Aluminum Thermally Improved - All Members (0.062" - 0.209")
AV	Aluminum / Vinyl Composite
AW	Aluminum-clad Wood
FG	Fiberglass
PA	ABS Plastic w/ All Members Reinforced
PC	ABS Plastic-clad Aluminum
PF	ABS Plastic w/ Foam-filled Insulation
PH	ABS Plastic w/ Horizontal Members Reinforced
PI	ABS Plastic w/ Reinforcement - Interlock
PL	ABS Plastic
PP	ABS Plastic w/ Reinforcement - Partial
PV	ABS Plastic w/ Vertical Members Reinforced
PW	ABS Plastic-clad Wood
ST	Steel
VA	Vinyl w/ All Members Reinforced
VC	Vinyl-clad Aluminum
VF	Vinyl w/ Foam-filled Insulation
VH	Vinyl w/ Horizontal Members Reinforced
VI	Vinyl w/ Reinforcement - Interlock
VP	Vinyl w/ Reinforcement - Partial
VV	Vinyl w/ Vertical Members Reinforced
VW	Vinyl-clad Wood
VY	Vinyl
WA	Aluminum / Wood composite
WD	Wood
WV	Vinyl / Wood composite
WF	Fiberglass/Wood Combination
WC	Composite/Wood Composite (Shaped vinyl/wood composite members)
CW	Copper Clad Wood
CO	Vinyl/Wood Composite Material

DOOR DETAILS	
N	Not Applicable
CODE	Door Type
EM	Embossed
FL	Flush
LF	Full Lite
LH	1/2 - Lite
LQ	1/4 - Lite
LT	3/4 - Lite
RP	Raised Panel
CODE	Skin
AL	Aluminum
FG	Fiberglass
GS	Galvanized Steel
ST	Steel
WD	Wood
VY	Vinyl
CODE	Panel
FG	Fiberglass
PL	Plastic
WP	Wood - Plywood
WS	Wood - Solid
CODE	Sub-Structure
GS	Galvanized Steel
ST	Steel
WD	Wood
VY	Vinyl
CODE	Core Fill
CH	Cellular - Honeycomb
EP	Expanded Polystyrene
PI	Polyisocyanurate
PU	Polyurethane
WP	Wood - Plywood
WS	Wood - Solid
XP	Extruded Polystyrene

CODE	Spacer Types (See sealant)
A1	Aluminum
A2	Aluminum (Thermally-broken)
A3	Aluminum-reinforced Polymer
A4	Aluminum / Wood
A5	Aluminum-reinforced Butyl (Swiggle)
A6	Aluminum / Foam / Aluminum
A7	Aluminum U-shaped
A8	Aluminum-Butyl (Corrugated) (Duraseal)
ER	EPDM Reinforced Butyl
FG	Fiberglass
GL	Glass
OF	Organic Foam
P1	Duralite
PU	Polyurethane Foam
SU	Stainless Steel, U-shaped
CU	Coated Steel, U-shaped (Intercept)
S2	Steel (Thermally-broken)
S3	Steel / Foam / Steel
S5	Steel-reinforced Butyl
S6	Steel U-channel w/ Thermal Cap
SS	Stainless Steel
CS	Coated Steel
TP	Thermo-plastic
WD	Wood
ZE	Elastomeric Silicone Foam
ZF	Silicone Foam
ZS	Silicone / Steel
N	Not Applicable
TS	Thermo-plastic w/ stainless steel substrate

CODE	Tint Codes
AZ	Azurlite
BL	Blue
BZ	Bronze
CL	Clear
EV	Evergreen
GD	Gold
GR	Green
GY	Gray
LE	Low 'e' Coating
OT	Other (use comment field)
RC	Solar or Reflective Coating
RG	Roller Shades between glazing
RS	Silver (reflective coating)
SF	Suspended Polyester Film
SR	Silver
BG	Blinds between the Glazing
DV	Dynamic Glazing-Variable
DY	Dynamic Glazing-NonVariable

CODE	Gap Fill Codes
AIR	Air
AR2	Argon/Krypton Mixture
AR3	Argon / Krypton / Air
ARG	Argon/Air
CO2	Carbon Dioxide
KRY	Krypton/Air
SF6	Sulfur Hexafluoride
XE2	Xenon/Krypton/Air
XE3	Xenon/Argon/Air
XEN	Xenon/Air
N	Not Applicable

CODE	Spacer Sealant
D	Dual Seal Spacer System
S	Single Seal Spacer System

CODE	Grid Description
N	No Muntins
G	Grids between glass
S	Simulated Divided Lites
T	True Muntins

CODE	Grid Size Codes
	Blank for no grids
0.75	Grids < 1"
1.5	Grids >= 1"

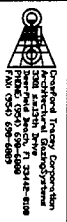
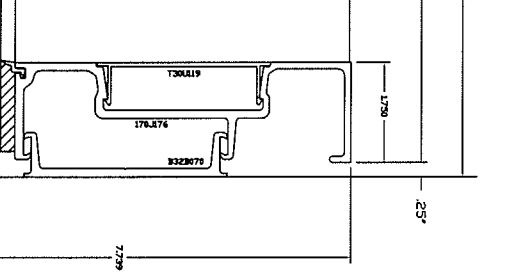
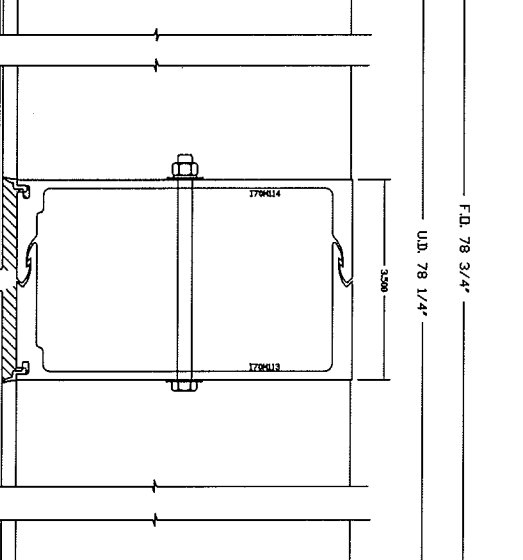
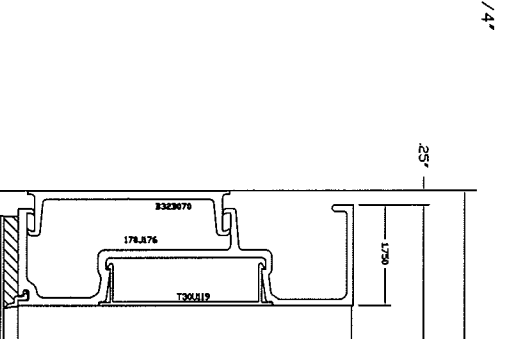
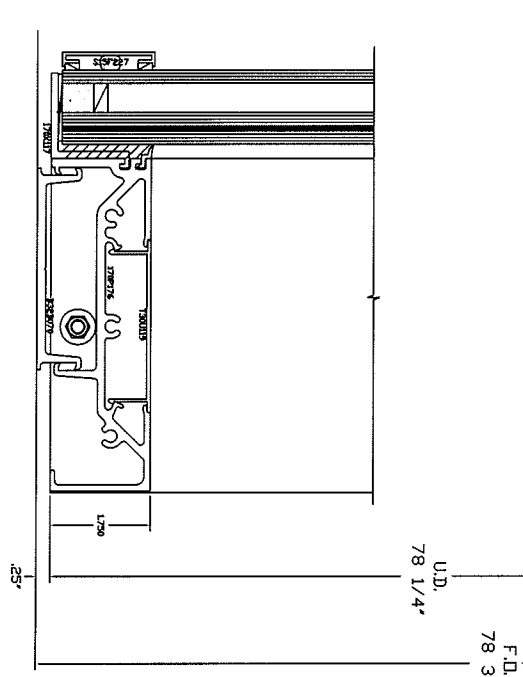
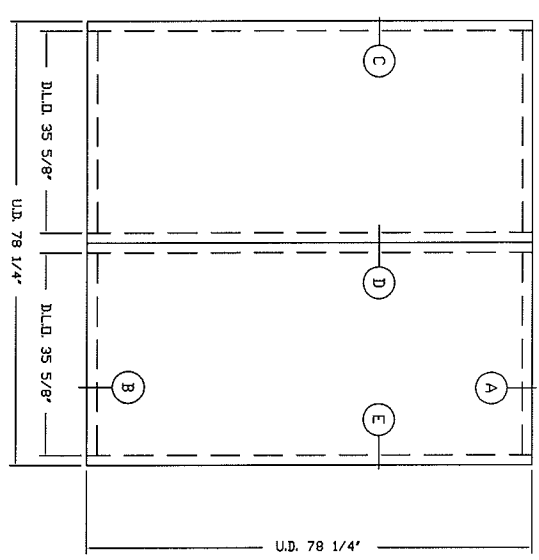
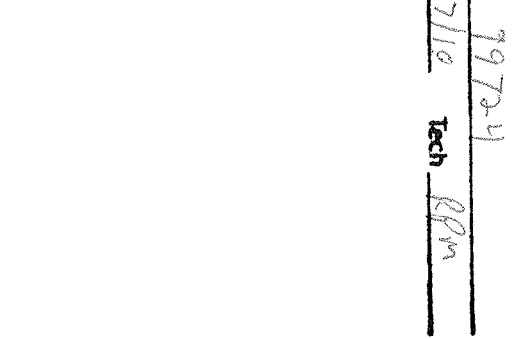
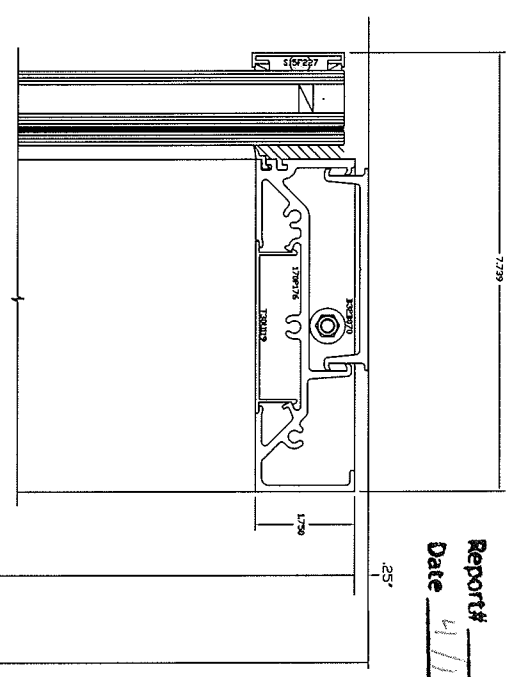
CODE	Thermal Breaks
F	Foam
U	Urethane
V	Vinyl
FB	Fiberglass
O	Other
AB	ABS
NE	Neoprene
AI	Air
N	Not Applicable
P	Polyamide

## **Appendix B: Drawings**

**Architectural Testing**

Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/17/10 Tech RPm



Prad Energy Corporation  
2000 South Street, Suite 200  
Princeton, NJ 08540-5108  
Tel: 609-682-6889  
Fax: 609-682-6889

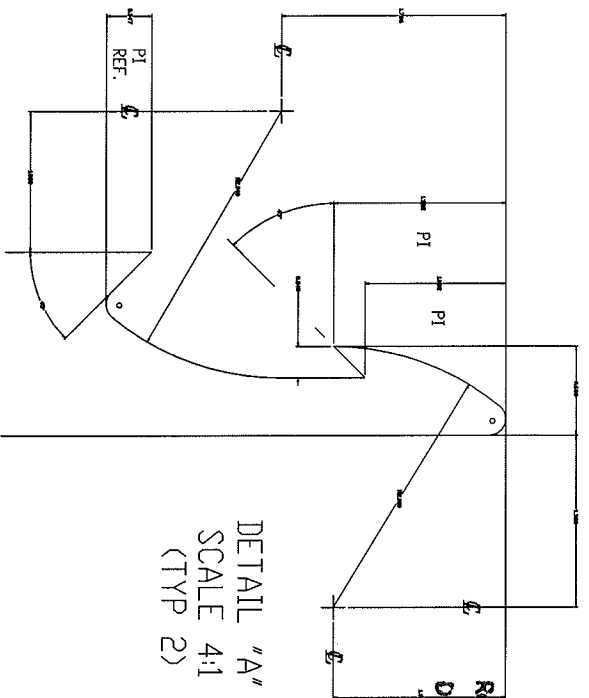
PRD-TECH 7 SG I.G.

# Architectural Testing

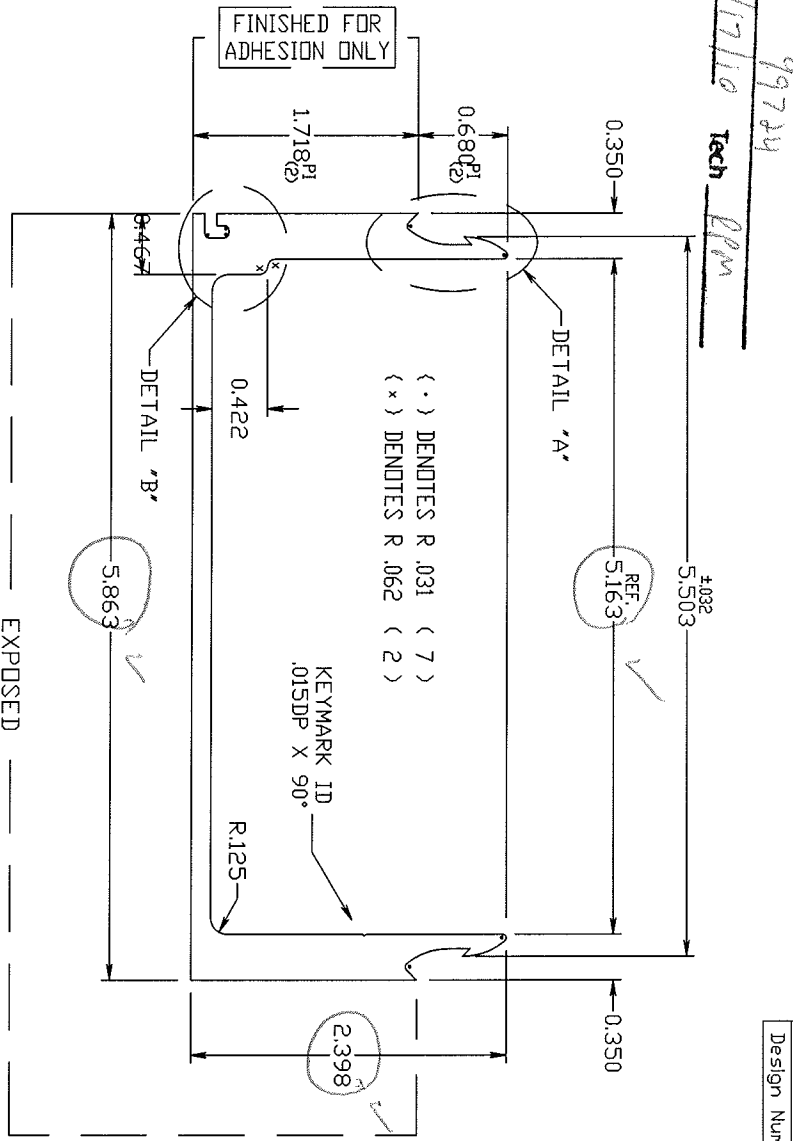
Test sample complies with these details.  
Deviations are noted.

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED  
PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-36300  
The Number  
Design Number

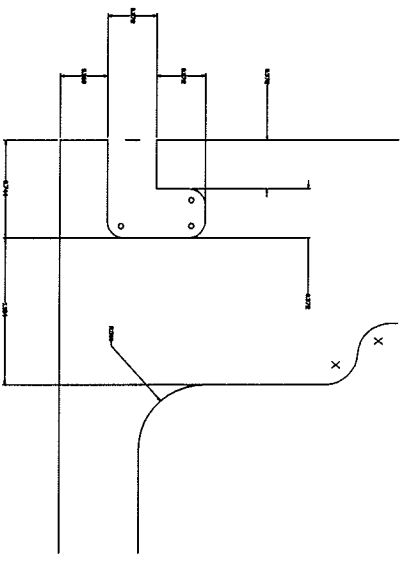


DETAIL "A"  
SCALE 4:1  
(TYP 2)



EXPOSED

DETAIL "B"  
SCALE 4:1



Estimated For Reference	Is =	Is =	Alodine	Type	Factor	Mill	Ano.	Drvr.	Drca.
SY =	SY =	SY =	<input type="checkbox"/>	00	8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**KEYMARK CORPORATION**  
FONDA, NEW YORK

FAX ENG (518) 853-3435 SALES (518) 853-3130  
TEL. (518) 853-3421 E-MAIL [engny@keymarkcorp.com](mailto:engny@keymarkcorp.com)

**PRINT CORRECTION**

Sym.	Revisions	Date

Unspecified	Break Ext. Corners	
Wall Thickness: .150	.015 Radius or as Noted	
Customer: GRAYBORD TRACY CORP.	Customer's Part Number: TPOM113	Scale: 1:1
Job Name: LEXUS OF KENDALL	Job Number: 05-28-04	Date: Drawn: JR
Part Title:	Part Number:	Checked:
Alloy: 6105	Est. Area: 2.160 In <sup>2</sup>	Est. Finish Perimeter: 9.817 In
Temper: T-5	Est. Wt./Ft.: 2.592 Lbs	Est. Perimeter: 21.690 In
Cavity Size:	Circle Size: 6.1	Est. Exterior Perimeter: 21.690 In

Customer signature on this print indicates approval of design and dimensions as shown, and customer agrees to accept all legal responsibilities for patent and or trade mark infringement related to this shape and hold (save) Keymark harmless from any claims, suits, actions or demands arising there from. This drawing is the property of Keymark Corporation and may not be redistributed without written consent.



# Architectural Testing

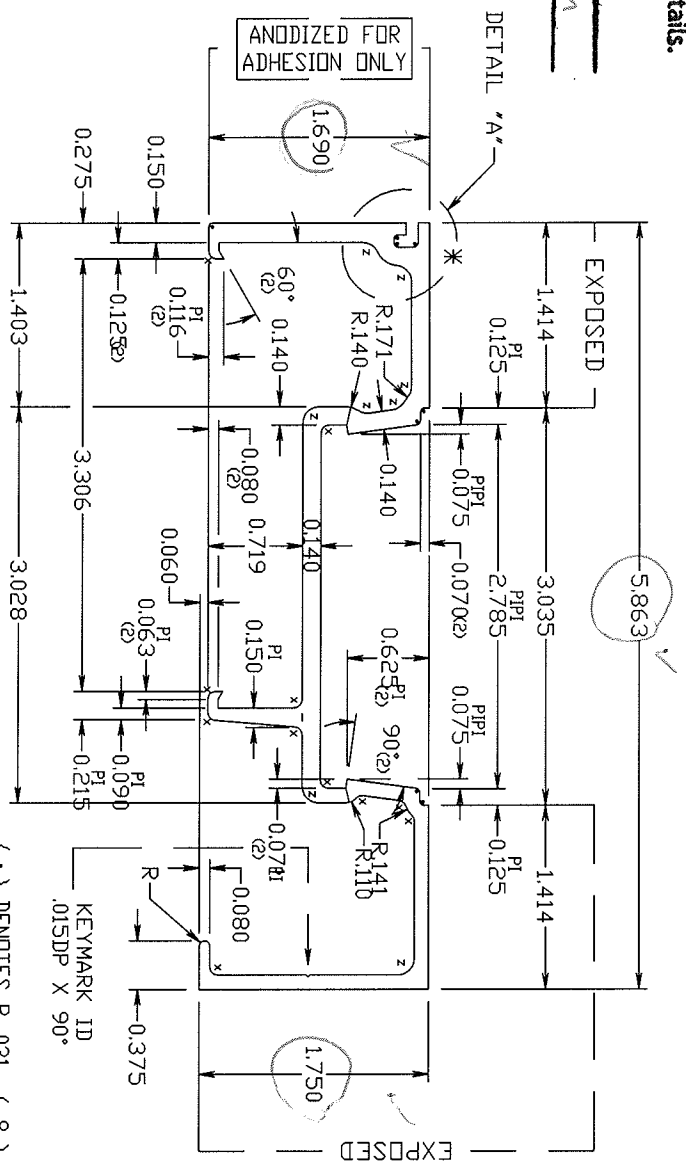
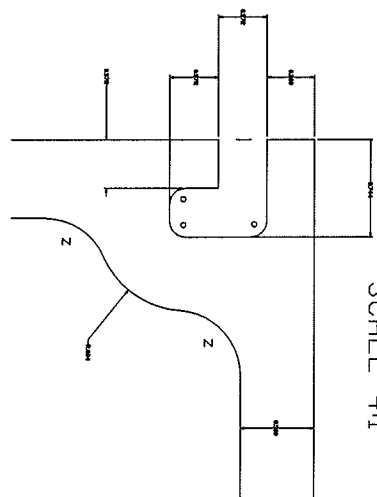
Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/12/10 Tech ROM

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-36301  
Die Number  
Design Number

DETAIL "A"  
SCALE 4:1



< . > DENOTES R .031 ( 8 )  
< x > DENOTES R .062 ( 11 )  
< z > DENOTES R .125 ( 8 )

KEYMARK ID  
.015DP X 90°

**KEYMARK CORPORATION**  
FONDA, NEW YORK

FAX ENG (518)853-3435 SALES(518)853-3130  
TEL. (518) 853-3421 E-MAIL engny@keymarkcorp.com

SYN	PRINT CORRECTION	Revisions	Date
Alloy	6105	Est. Area	1.552 In <sup>2</sup>
Temper	T-5	Est. Wt./Ft.	1.862 Lbs
Cavity Size		Est. Perimeter	24.180 In
		Est. Perimeter	24.180 In
		Est. Perimeter	24.180 In

Estimated for Reference  
Lx =  
Sy =

Altoline  Type 00  
Crmp  Factor 13

Mill  Ano.  Drmr.  Drca.

Solid  Semi-hollow  Class  Hollow  Class

Unspecified Wall Thickness: .110  
Break Ext. Corners Radii or as Noted .015

Customer's Part Number: 1700176  
Job Name: PRO-TECH 7 S/G  
Part Title: JAMB

Scale: 1:1  
Date: 05-28-04  
Drawn: JR  
Checked:

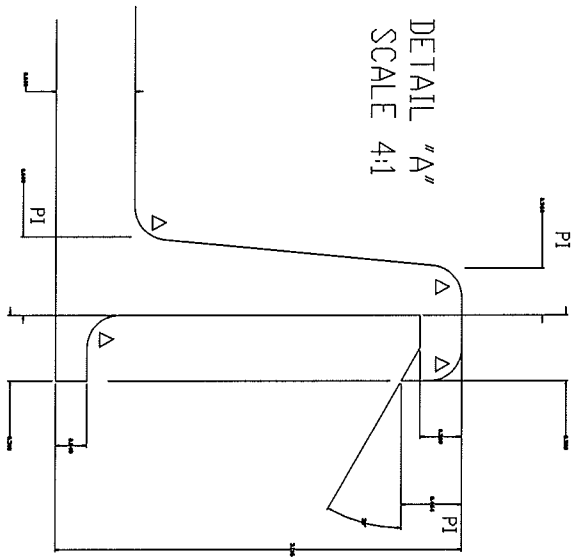
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# Architectural Testing

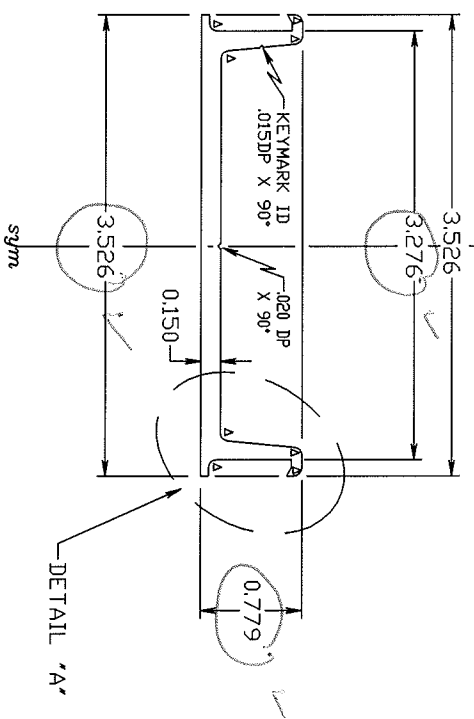
Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/17/10 Tech RRM



STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

ACTUAL SIZE  
ND EXPOSED SURFACES



Estimated For Reference Only	Ix =	Iy =	Factor	Mill	Ano.	Drnr.	Drch.
	Sx =	Sy =	12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Type Of Finish

Sym.	Revisions	Date
	PRINT CORRECTION	

**KEYMARK CORPORATION**  
FONDA, NEW YORK  
FAX ENG. (518) 853-3435 SALES (518) 853-3130  
TEL. (518) 853-3421 E-MAIL keyeng@keymarkcorp.com



Unspecified Wall Thickness: AS NOTED	Break All Corners .015 Radius or as Noted
Customer: CRAWFORD TRACEY CORP.	Customer's Part Number: B32B070
Job Name: WATERMAN	Scale: 1:1
Part Title:	Date: 06-09-01
Alloy: 6105	Est. Area: 0.682 In <sup>2</sup>
Temper: T-5	Est. Wt./Ft.: 0.818 Lbs
Cavity Size:	Est. Perimeter: 10.183 In
	Circle Size: 3-4 In
	Extor Perimeter: 10.183 In
	Checked:

S-31647  
Die Number





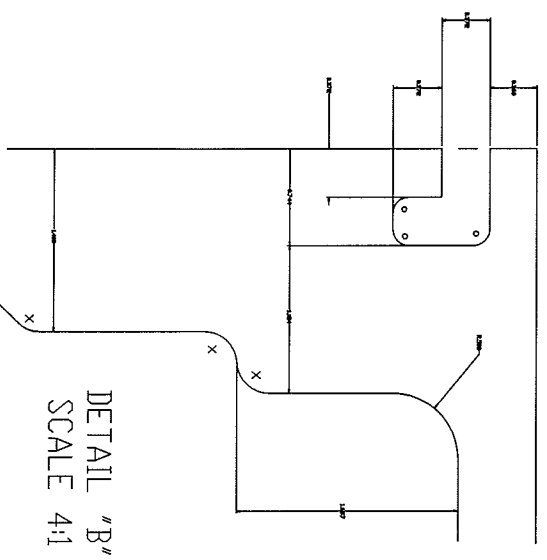
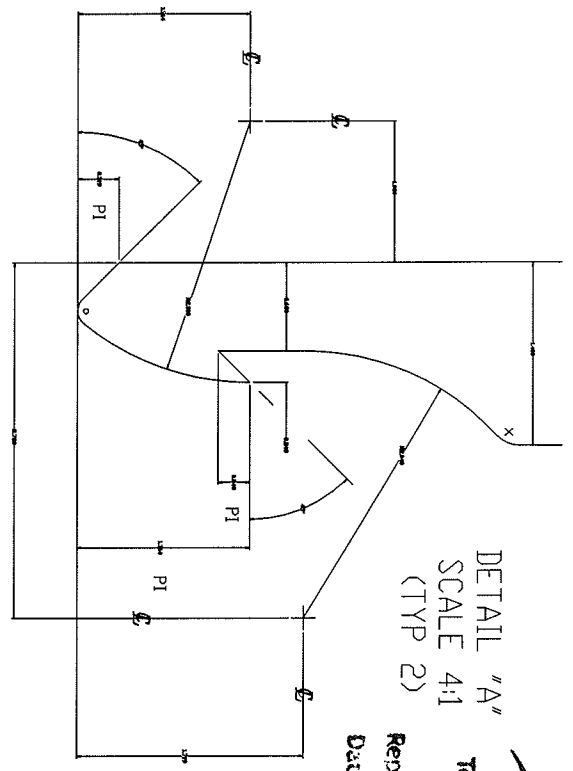
# Architectural Testing

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

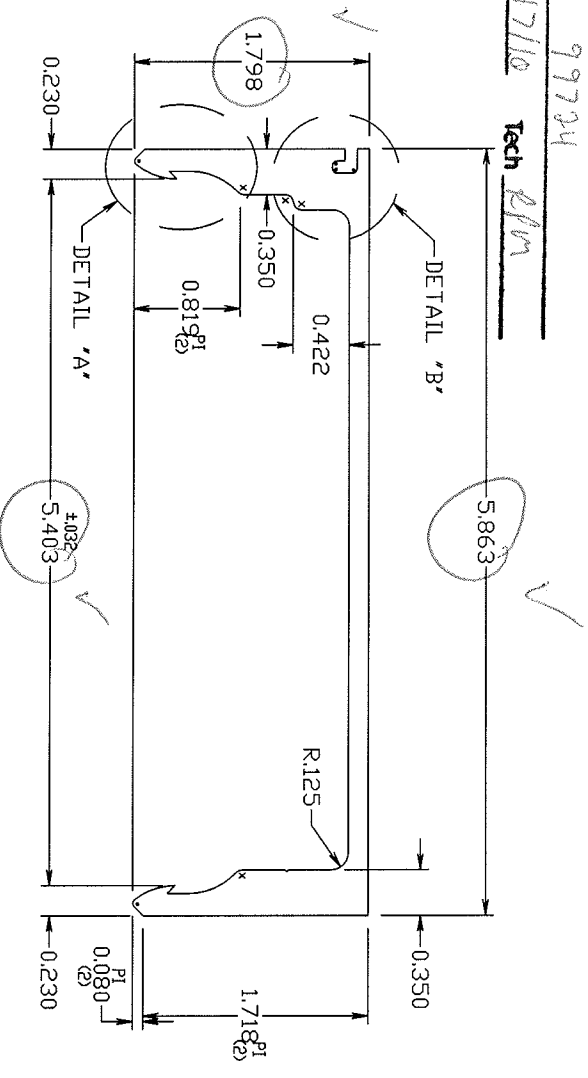
DETAIL "A"  
SCALE 4:1  
(TYP 2)

Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/17/10 Tech *efm*



DETAIL "B"  
SCALE 4:1



( . ) DENDTES R .031 ( 5 )  
( \* ) DENDTES R .062 ( 4 )

Customer signature on this print indicates approval of design and dimensions as shown, and customer agrees to accept all legal responsibilities for patent and or trade mark infringement related to this shape and hold (save) Keymark harmless from any claims, suits, actions or demands arising there from. This drawing is the property of Keymark Corporation and may not be redistributed without written consent

Estimated For Reference	Estimated	Altoline	Type	Factor	Mill	Anno	Drrn	Drcn	Solid	Semi-hollow	Class	Hollow	Class
Sx =	Sy =	<input type="checkbox"/>	00	9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

**KEYMARK CORPORATION**  
FONDA, NEW YORK

FAX ENG (518) 853-3435 SALES(518) 853-3130  
TEL. (518) 853-3421 E-MAIL engny@keymarkcorp.com

Sym	Revisions	Date	Part Title	Scale
PRINT CORRECTION				1:1

Unspecified	Job Name	Customer's Part Number	Break Ext. Corners Radii or .05 Noted
Customer	CRAMFORD TRACEY CORP.	170M114	
Customer	LEXUS OF KENDALL		

Alloy	Est. Area	Est. Perimeter	Est. Vt./ft.	Est. Perimeter	Date
6105	1.815 In <sup>2</sup>	9.941 In	2.178 Lbs	18.891 In	05-28-04
Temper					Drawn
1-5					JR
Cavity Size	Circle Size	Circle Size	Circle Size	Circle Size	Checked
	6.1 In				

S-36302  
 Die Number  
 Design Number

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# Architectural Testing

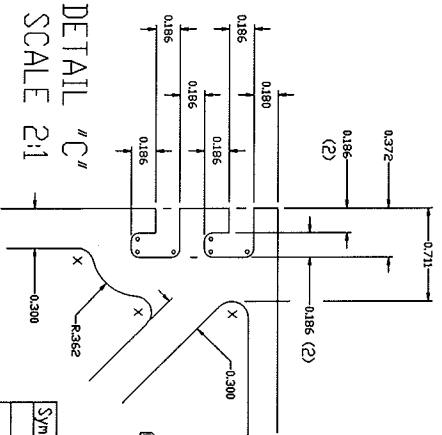
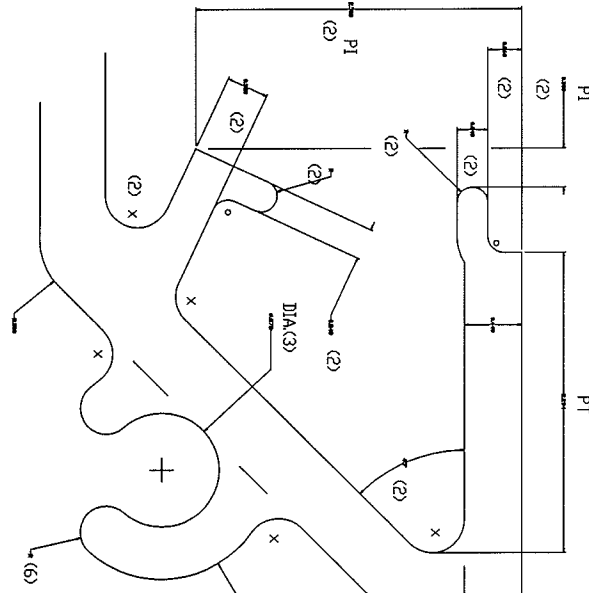
STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-36304
Die Number
Design Number

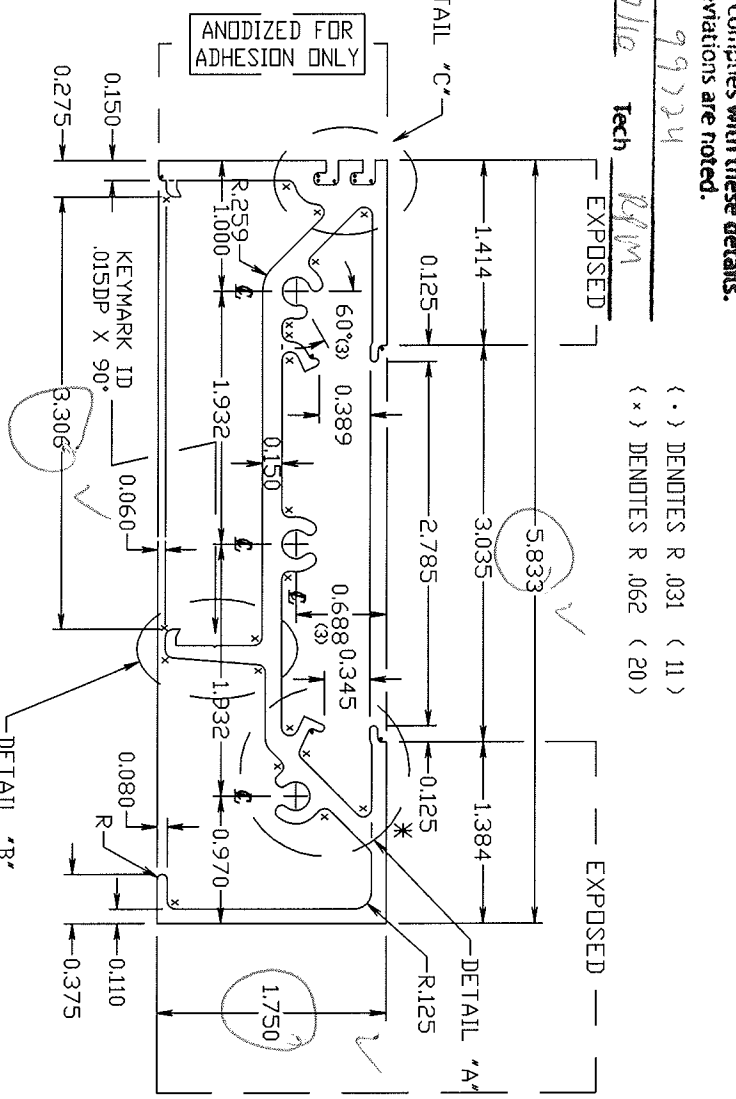
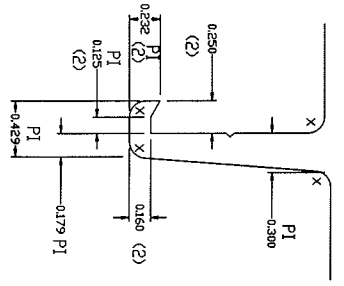
DETAIL "A"  
SCALE 4:1

Test sample complies with these details.  
Deviations are noted.

Revised 99224  
Date 4/17/10 Tech BMM



DETAIL "B"  
SCALE 2:1



(. .) DENDTES R .031 ( 11 )  
( \* ) DENDTES R .062 ( 20 )

Estimated For Reference	Ix =	Iy =	Alc/dline	Type
DWY	Sx =	Sy =	Crmp	00
			Factor	13

Mll	Ano.	Drnc.	Dr.cn.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Syn	Revisions	Date
<input checked="" type="checkbox"/>	PRINT CORRECTION	
<input type="checkbox"/>	Semi-hollow	
<input type="checkbox"/>	Class	
<input type="checkbox"/>	Hollow	
<input type="checkbox"/>	Class	

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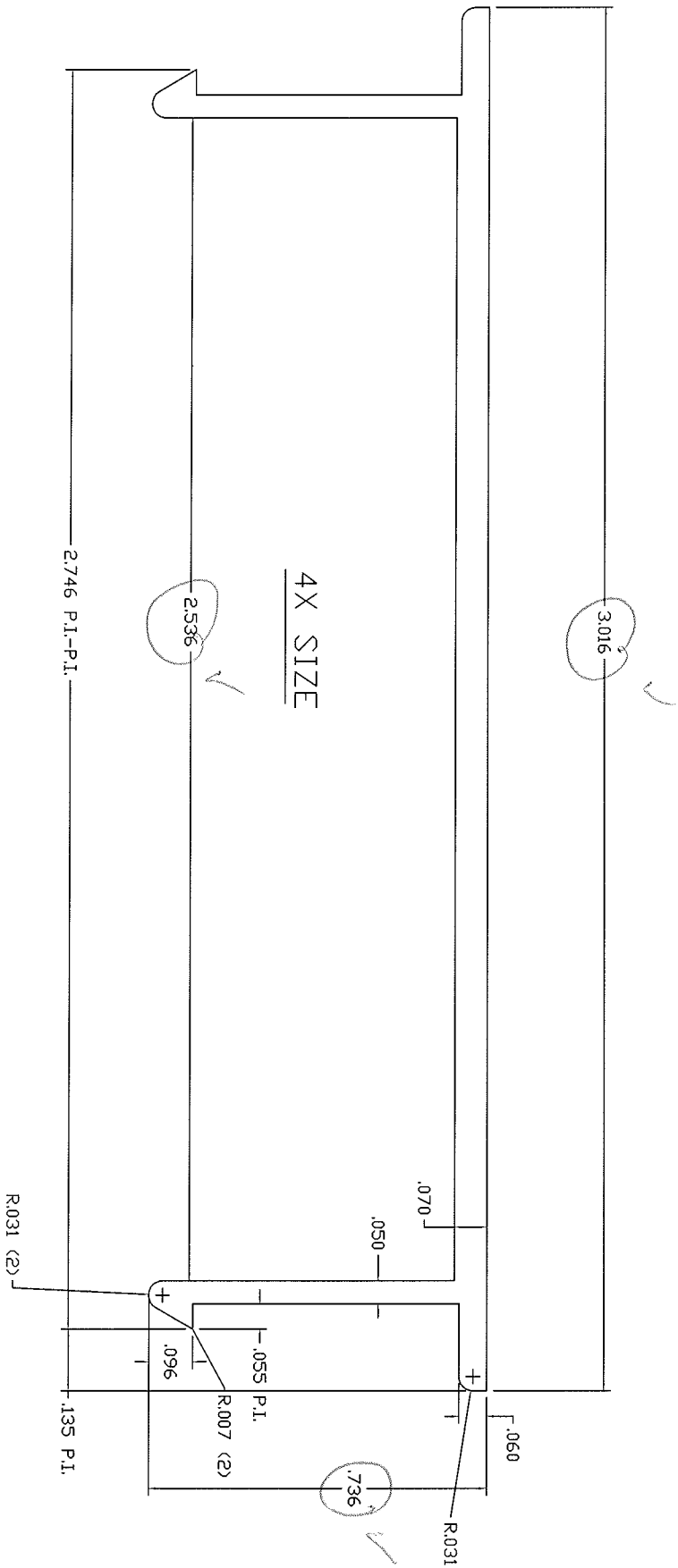
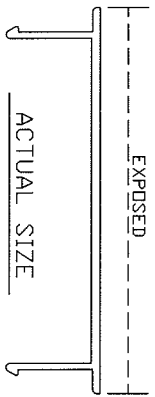
FAX ENG (518)853-3435 SALES(518)853-3130  
TEL. (518) 853-3421 E-MAIL engny@keymarkcorp.com

Unspecified Wall Thickness: .015	Break Ext. Corners Radius or .05 Noted
Customer: GRAYFORD TRACY CORP.	Customer's Part Number: TP0P176
Job Name: LEXUS OF KENDALL	Scale: 1:1
Part Title	Date: 06-01-04
Drawn: JR	Checked:
Temp: 7-5	Est. Vt./Ft. Lbs: 2,334
Cavity Size	Est. Perimeter: 29,945
Circle Size: 6.1	Est. Area: 1,945
	Est. Finish Perimeter: 7,334
	Est. Exterior Perimeter: 29,945



Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/17/10 Tech RPW



GENERAL NOTES

CUSTOMER PART NO: T30U119  
TYPICAL WALL: VARIES  
BREAK UNSPECIFIED CORNERS: .015  
ALLOY: 6063-T6  
FINISH: PAINT/ANODIZE

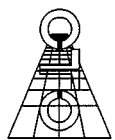
MATING PARTS:

LEGEND

- \* = .007 R.
- o = .031 R.
- x = .062 R.
- x = .125 R.
- ⊗ = .250 R.

PROPERTIES

Area = .2780 in<sup>2</sup>  
Perimeter = 8.8756



CRAWFORD TRACEY CORPORATION  
ARCHITECTURAL GLAZING SYSTEMS  
3301 S.W.13th DRIVE  
DEERFIELD BEACH, FL 33442-8108  
PHONE: (954) 698-6888  
FAX: (954) 698-6889

PAGE

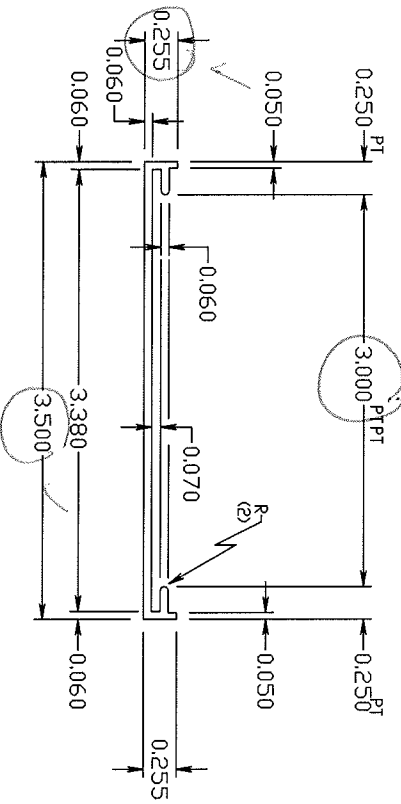
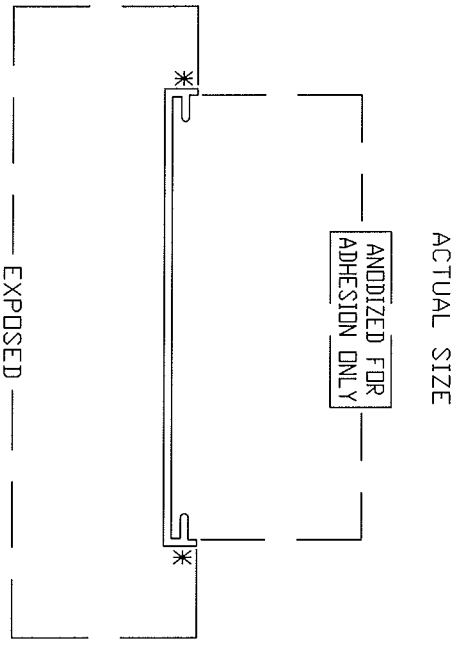
9 OF 10

DATE

11/09/98

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S-31587  
Die Number



Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/17/10 Tech PLM

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Sym.	Revisions	Date
	PRINT CORRECTION	

<input type="checkbox"/> Solid	<input type="checkbox"/> Semi-hollow	<input type="checkbox"/> Class	<input type="checkbox"/> Hollow	<input type="checkbox"/> Class
--------------------------------	--------------------------------------	--------------------------------	---------------------------------	--------------------------------

Unspecified Wall Thickness: .060 Break All Corners .015 Radius or as Noted  
Customer: CRAWFORD TRACEY CORP.  
Job Name: VARIOUS  
Part Title: 3 1/2" APPLIED TRM  
Alloy: 6063 Est. Area: 0.294 In<sup>2</sup> Finish Perimeter: 7.876 In Date: 06-08-01  
Temper: T-6 Est. Wt./Ft.: 0.305 Lbs Est. Perimeter: 8.610 In Drawn: M.P.W.  
Cavity Size: 3-4 In Exterior Perimeter: 8.610 In Checked:

Scale: 1:1  
Customer's Part Number: S34F227

Estimated For Reference Only	Ix =	Iy =	Factor	Type Of Finish
	Sx =	Sy =	28	Mill <input type="checkbox"/> Anod. <input type="checkbox"/> Dym. <input type="checkbox"/> Dycn. <input type="checkbox"/>

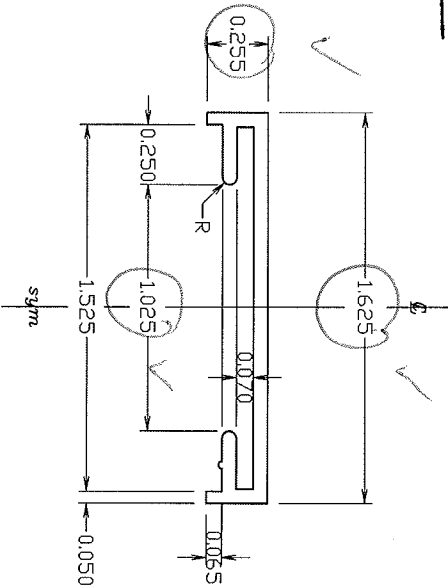
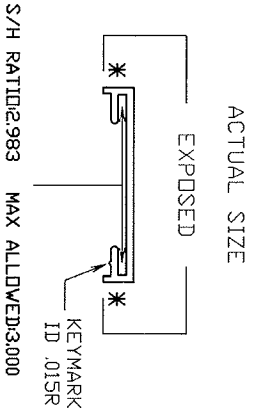
STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE



# Architectural Testing

Test sample complies with these details.  
Deviations are noted.

Report# 99724  
Date 4/17/10 Tech Rom



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Estimated For Reference Only	Ex =	Ly =	Alodine	Type
	Sx =	Sy =	<input type="checkbox"/>	00
			Chp	Factor 29

Hll	Avn	Drtr	Drch
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Syn	Sold	Seal-hollow	Class	Hollow	Class
	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	

PRINT CORRECTION	Date

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TEL: (518) 853-3421 E-MAIL: engny@keymarkcorp.com

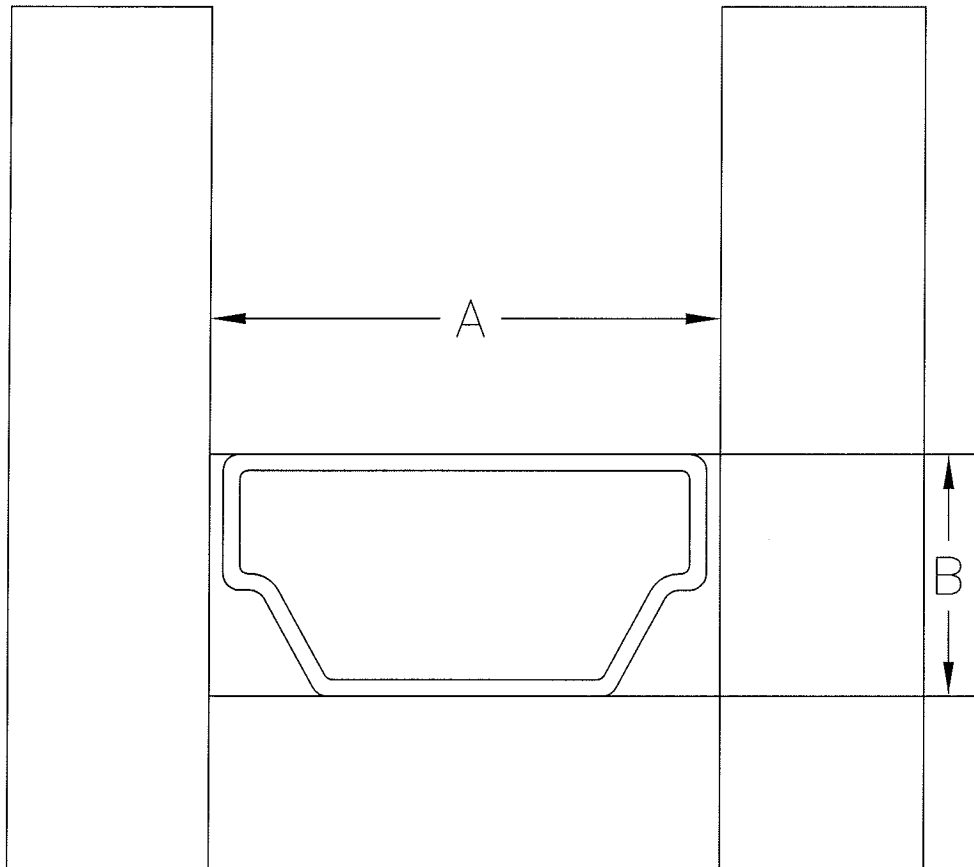
Unspecified	Break Ext. Corners
Wall Thickness .080	Radius or as Noted
Customer: GRAYFORD TRACEY CORP.	Customer's Part Number: S15P227
Job Name: FLORIDA HOSPITAL APOPPA	Scale: 2:1
Part Title:	Date: 10-14-05
Alloy: 6063	Est. Area: 0.148 In <sup>2</sup>
Temp: T-5	Est. Vt./ft: 0.178 Lbs
Cavity Size:	Est. Perimeter: 5.077 In
	Est. Perimeter: 5.077 In
	Checked:



Test sample complies with these details.  
Deviations are noted.

Report: 99724  
Date: 9/17/10 Tech: RLM

# Aluminum Spacer



Offset: None  
Primary Sealant: Butyl Rubber  
Secondary Sealant: Silicone  
Material: Aluminum  
Width (A): 0.500  
Height (B): 0.315  
Wall Thickness: 0.016