

**AAMA/WDMA/CSA 101/LS.2/A440-05
TEST REPORT**

Rendered to:

INTERNATIONAL WINDOW CORPORATION

SERIES/MODEL: 5921SD

PRODUCT TYPE: Polyvinyl Chloride (PVC) XO Sliding Glass Door

Title	Summary of Results
Primary Product Designator	SD-R20 3047 x 2440 (120 x 96)
Design Pressure	±960 Pa (±20.05 psf)
Operating Force (in motion)	89 N (20.0 lbf)
Air Infiltration	0.97 L/s/m ² (0.19 cfm/ft ²)
Water Penetration Resistance Test Pressure	180 Pa (3.76 psf)
Uniform Load Structural Test Pressure	±1440 Pa (±30.08 psf)
Forced Entry Resistance	ASTM F 842 - Grade 10 CAWM 300

Test Completion Date: 03/13/09

Reference must be made to Report No. 78580.01-301-44, dated 04/03/09 for complete test specimen description and data.

AAMA/WDMA/CSA 101/I.S.2/A440-05 TEST REPORT

Rendered to:

INTERNATIONAL WINDOW CORPORATION
5625 East Firestone Boulevard
South Gate, California 90280

Report No.: 78580.01-301-44
Test Dates: 02/01/08
Through: 03/13/09
Report Date: 04/03/09
Expiration Date: 03/13/13

Project Summary: Architectural Testing, Inc. was contracted by International Window Corporation to perform and validate testing on a Series/Model 5921SD, Polyvinyl Chloride (PVC) XO Sliding Glass Door. The sample tested successfully met the performance requirements for an SD-R20 3047 x 2440 (120 x 96) rating. Test specimen description and results are reported herein. The sample was provided by the client.

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

AAMA/WDMA/CSA 101/I.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights.*

CAWM 300, *Forced Entry Resistance Tests for Sliding Glass Doors.*

Test Specimen Description:

Series/Model: 5921SD

Product Type: Polyvinyl Chloride (PVC) XO Sliding Glass Door

Overall Size: 3047 mm (119-15/16") wide by 2440 mm (96-1/16") high

Active Panel Size: 1531 mm (60-1/4") wide by 2385 mm (93-7/8") high

Fixed Panel Size: 1531 mm (60-1/4") wide by 2385 mm (93-7/8") high

Screen Size: 1528 mm (60-3/16") wide by 2401 mm (94-1/2") high

Overall Area: 7.43 m² (80.03 ft²)

Test Specimen Description: (Continued)

Finish: All PVC was white.

Frame Construction: All members were constructed of extruded PVC. The corners were mitered and fully welded. An aluminum fixed panel setting chair (part# 50349) was employed below the fixed panel. An aluminum snap-in roller track (part# 50191) was employed in the inner sill track. An aluminum threshold cap (part# 50350) was employed at the outer sill track adjacent to the fixed panel. A PVC snap-in screen track (part# RS1051) was employed in the screen track.

Panel Construction: All members were constructed of extruded PVC. The corners were mitered and fully welded. A snap-on interlock adapter (part# RS1503) was employed at the interlock of the fixed panel. An aluminum fixed interlock anchor (part# 50345) was employed on the meeting stile of the fixed panel secured with #8 x 1" Phillips flat head self drilling screws 7-1/4" from each end and 18" on center into the reinforcement.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.290" tall x 0.187" backed polypile with center fin	1 Row	All members of the frame.
0.290" tall x 0.187" backed polypile with center fin	1 Row	All members of the active panel.
0.290" tall x 0.187" backed polypile with center fin	1 Row	Interlock of the fixed panel.

Glazing Details: The window utilized 3/4" thick overall sealed insulating glass. The insulating glass was comprised of two 3/16" thick clear tempered sheets with a U-shaped coated steel dual seal (CU-D) spacer system. The glass was exterior glazed onto 1/2" wide x 1/16" thick glazing tape and secured with a snap-in extruded PVC glazing bead.

Test Specimen Description: (Continued)

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
5/8" x 3/16" weephole	4	4-7/8" and 55-3/4" from each end of the sill face through two layers of internal webbing.
1-1/8" x 1/4" oval weephole	4	5" and 55-7/8" from each jamb at the screen sill track, fixed panel sill track and the active panel sill track.
1/2" x 1/8" weephole	4	5-3/4" from each end of the top and bottom rails of the active panel through both layers.
3/16" round weephole	4	7-1/8" from each end of the top and bottom rails of the fixed panel through both layers.

The active panel roller track and screen tracks were held back 1/4" from each jamb.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Fixed interlock clip (part# 50346)	2	Head and sill at interlock of the fixed panel secured with two #8 x 1" Phillips pan head self drilling screws into the panel and two #10 x 3" Phillips pan head screws through the frame and into the test buck.
Lock and handle assembly (part# SP5910 / 50198)	1	39" from the active panel bottom rail of the lockstile, the handle was secured with two #8-32 x 2-1/4" Phillips oval head machine screws and the lock was secured to the mortise case with two #6-32 x 3/8" Phillips flat head machine screws.

Test Specimen Description: (Continued)

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Keeper (part # SP5910)	1	Opposite the lock in the jamb secured with four #10 x 2" Phillips pan head screws.
Roller assembly (part # SP3557)	2	2-5/8" from each end of the active panel bottom rail secured with one 14-20 x 3/4" Phillips pan head machine screw.

Reinforcement: Galvanized steel reinforcement (part# SP3551) was employed at the meeting stiles of each panel. Aluminum reinforcement (part# 50192) was employed at the lock stile of the active panel.

Screen Construction: All members were constructed of extruded aluminum. The corners were square cut and attached with metal corner keys. The fiberglass mesh cloth was held-in-place using a hollow vinyl spline. Four wheels and a pull handle were employed.

Installation: The door was installed into a 2 x 10 test buck constructed of Douglas Fir No. 2 lumber. The nailing fin was set against the test buck and secured using #6 x 1-5/8" drywall screws located 4" from each corner and 10" on center. The rough opening of the test buck was 1/4" wider and 3/8" taller than the frame. The nailing fin was sealed to the test buck with silicone.

Test Results: The temperature during testing was 33°C (91°F). The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.1	Operating Force per ASTM E 2068		
	Open		
	Initiate motion	70 N (15.7 lbf)	135 N (30.3 lbf)
	Maintain motion	83 N (18.7 lbf)	90 N (20.2 lbf)
	Locks	22 N (5.0 lbf)	100 N (22.5 lbf)
	Close		
	Initiate motion	67 N (15.0 lbf)	135 N (30.3 lbf)
	Maintain motion	89 N (20.0 lbf)	90 N (20.2 lbf)
	Locks	19 N (4.3 lbf)	100 N (22.5 lbf)

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.2.1	Air Leakage Resistance per ASTM E 283 75 Pa (1.57 psf)	0.97 L/s/m ² (0.19 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.

Note #1: *The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440-05 for air leakage resistance.*

5.3.3.2	Water Penetration Resistance per ASTM E 547		See Note #2
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Note #2: *The client opted to start at a pressure higher than the minimum required. Those results are listed under "Optional Performance".*

5.3.4.2	Uniform Load Deflection per ASTM E 330 (Deflections were taken on the exterior meeting stile) (Loads were held for 10 seconds)		
	720 Pa (15.04 psf) (positive)	35.0 mm (1.38")	See Note #3
	720 Pa (15.04 psf) (negative)	31.3 mm (1.23")	See Note #3

Note #3: *The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440-05 for this product designation. The deflection data is recorded in this report for special code compliance and information only.*

5.3.4.3	Uniform Load Structural per ASTM E 330 (Permanent sets were taken on the exterior meeting stile) (Loads were held for 10 seconds)		
	1080 Pa (22.56 psf) (positive)	1.5 mm (0.06")	9.4 mm (0.37") max.
	1080 Pa (22.56 psf) (negative)	1.0 mm (0.04")	9.4 mm (0.37") max.

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.5	Forced Entry Resistance per ASTM F 842 Type: A	Grade: 10	
	Disassembly Test	No entry	No entry
	Test A1	No entry	No entry
	Test A2	No entry	No entry
	Test A3	No entry	No entry
	Test A4	No entry	No entry
	Test A5	No entry	No entry
	Test A6	No entry	No entry
	Panel Manipulation Test	No entry	No entry
	Lock Hardware Manipulation Test	No entry	No entry
	Forced Entry Resistance per CAWM 300 Type: I		
	Disassembly Test	No entry	No entry
	Test A	No entry	No entry
	Test B	No entry	No entry
	Test C	No entry	No entry
	Test G	No entry	No entry
	Test D	No entry	No entry
	Test E	No entry	No entry
	Test F	No entry	No entry
	Test G	No entry	No entry
	Lock Hardware Manipulation Test	No entry	No entry
5.3.6.2	Thermoplastic Corner Weld Test	Meets as stated	Meets as stated
5.3.6.3	Deglazing Test In operating direction - 320 N (71.9 lbf)		
	Lock stile	2.8 mm (0.11")	11.4 mm (0.45")
	Meeting stile	3.0 mm (0.12")	11.4 mm (0.45")
	In remaining direction - 230 N (51.7 lbf)		
	Top rail	1.8 mm (0.07")	11.4 mm (0.45")
	Bottom rail	1.5 mm (0.06")	11.4 mm (0.45")

Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Optional Performance</u>			
4.4.2.6	Water Penetration Resistance per ASTM E 547 (with and without insect screen) 180 Pa (3.76 psf)	No leakage	No leakage
4.4.2.6	Uniform Load Deflection per ASTM E 330 (Deflections were taken on the exterior meeting stile) (Loads were held for 10 seconds) 960 Pa (20.05 psf) (positive) 960 Pa (20.05 psf) (negative)	54.8 mm (2.16") 46.5 mm (1.83")	See Note #3 See Note #3
4.4.2.6	Uniform Load Structural per ASTM E 330 (Permanent sets were taken on the exterior meeting stile) (Loads were held for 10 seconds) 1440 Pa (30.08 psf) (positive) 1440 Pa (30.08 psf) (negative)	5.5 mm (0.22") 8.3 mm (0.33")	9.4 mm (0.37") max. 9.4 mm (0.37") max.

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>
Kenny C. White	Architectural Testing, Inc.
Jeffrey T. Osugi	Architectural Testing, Inc.
Derek Spencer	Architectural Testing, Inc.
Mason Kelly	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. If test specimen contains glazing, 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.

Jeffrey T. Osugi
Technician

Leaton Kirk
Director – Regional Operations

JO:MS

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

- Appendix-A: Alteration Addendum (1)
- Appendix-B: Test Equipment (1)
- Appendix-D: Drawings (18)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	04/03/09	N/A	Original report issue

Appendix A

Alteration Addendum

Note: No alterations were required.

Appendix B
Test Equipment

Instrument	Manufacturer	Asset #
Operating force gauge	Chatillon	002322
Control panel	ATI	002213
Rain rack	ATI	004047
Linear Transducer	Celesco	004483
Linear Transducer	Celesco	004485
Linear Transducer	Celesco	004487
Linear Transducer	Celesco	005281
Linear Transducer	Celesco	003428-1
Linear Transducer	Celesco	004486
Deglazing apparatus	ATI	62031
Operating force gauge	Chatillon	004296
Load cell	Inteface	005135
Load cell	Inteface	005136
MULE	ATI	005137

Appendix D

Drawings

5920/5921/5960/5980 SGD XO

1/18/2007

Item #		Part Number	Description	Comments	Vendor	Vendor Part Number	Qty
F1	Frame	RS1535	1 3/8" offset nailfin	5920 or 5980 only	Royal	RS1535	4
		RS1504	1" offset nailfin	5921 only	Royal	RS1504	
		RS1536	Flush fin	5960 only	Royal	RS1536	
		50350	Sill threshold cap		Intex	50350	
		50191	Vent track		Intex	50191	
		RS1051	Screen track		Royal	RS1051	
F2		50349	Fixed panel setting chair		Intex	50349	1
F3		FT3515	Weatherstrip: 187 back 290 fin				A/R
F4		RS1055	Rail, top & bottom		Royal	RS1055	4
F5		RS1054	Interlock		Royal	RS1054	1
F6		RS1053	Vertical stile		Royal	RS1053	3
S1	Sash	RS1122	Glass stop for 3/4" glass		Royal	RS1122	A/R
S2		RS1503	Fixed interlock adapter		Royal	RS1503	1
S3		50345	Fixed interlock anchor		Intex	50345	1
S4		SP3551	Steel reinforcing for interlocks	under 8'0"	Northstar	NS1011-2	2
S5		SP3552	Aluminum reinforcing for lead stile	8'0" and above			
S6		50192	Weatherstrip: 187 back 290 fin		Intex	50192	1
S7		FT3515	1/16" x 1/2" Tape				A/R
S8		SP2280	Joint sealer	For set blocks/screw			A/R
S9		50389	Screen frame		Intex	50389	A/R
S10		50467	Screen door corner		Intex	50467	4
S11		FT2897	Screen cloth...30" fiberglass				A/R
SC1	FT2761	Screen cloth...36" fiberglass					
SC2	FT2762	Screen cloth...48" fiberglass					
SC3	FT2832	Screen cloth...60" fiberglass					
SC4	SP2711	Screen door latch hook				1	
SC5	5277	Screen strike				1	
SC6	VY2662	Screen spline				A/R	
SC7	SP2712	Screen door pull latch				1	
SC8	SP2716	Screen outside pull				1	
SC9	SP2713	Screen door strike adjuster				1	
SC10	SP2714	Screen door thumbslide				1	
SC11	SP2710	Screen roller assembly				4	
SC12	VY2709	Screen bug strip				A/R	
SC13							


Am... Testing, Inc
Test sample quantities with these details
Do not use for final

78580

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Reports
Tech *go*

SP1	Small Parts	SP3559	2" Bumper			1
SP2		RS1076	Anti-lift extrusion	5" long		1
SP3		50346	Fixed interlock clip			2
SP4		SP7511	Fixed panel anchor clip	Above 8'0"		2
SP5		SP8557	Roller assembly			2
SP6		SP3565	Anti-knockout plug			1
SP7		SP4000	AAMA permanent label			1
SP8		SP4001	NFRC temporary label			1
SP9		SP4002	Logo label with instructions			1
SP10		SP4003	Energy star labels			1
SP11		SP5800	5800/5900 installation instructions			1
G1	Glass		Insulated Glass			2
G2		VY3536	Setting Blocks (1/8" X 1/16" X 4")			4
FA1	Fasteners	FA3455	1/4-20 X 3/4" PH Round HD MS	Roller to sash		
FA2		FA3457	#6-32 X 3/8" PH Flat HD MS	Mortise lock to case		2
FA3		FA2409	#6 X 5/8" PH Round HD SMS B	Strike adjuster		2
FA4		FA2430	#6 X 1" PH Pan HD SMS	Pull latch		2
FA5		FA2390	#7 x 1/2" PH Flat HD SMS undercut	Outside pull		2
FA6		FA2411	#8 X 7/8" PH Pan HD A SMS	Thumbslide		1
FA7		FA3456	#8 X 1" PH Flat HD tek	Reinforcement screws		9
FA8		FA2459	#8 X 1" PH Pan Hd tek	Interlock clip		4
FA9		FA2540	#8 X 1 1/4" PH Pan HD tek	Anchor clip, for ht above 8'0"		4
FA10		FA2622	#8 X 2" PH Truss HD SMS A	Installation, strike, bumper, screen strike		18
FA11		FA3290	#8 X 3" PH Pan HD SMS	Interlock clip / anchor clip		8
FA12						
FA13						
H1	Hardware Packs	SP5910	Handle assembly			1
			Inside handle			1
			Outside pull			1
			Turnkey			1
			Keeper			1
			Mortise lock			1
			#8 X 1 15/16" PH Oval HD	Handle assembly		1
H2		30198	Mortise case			2
						1

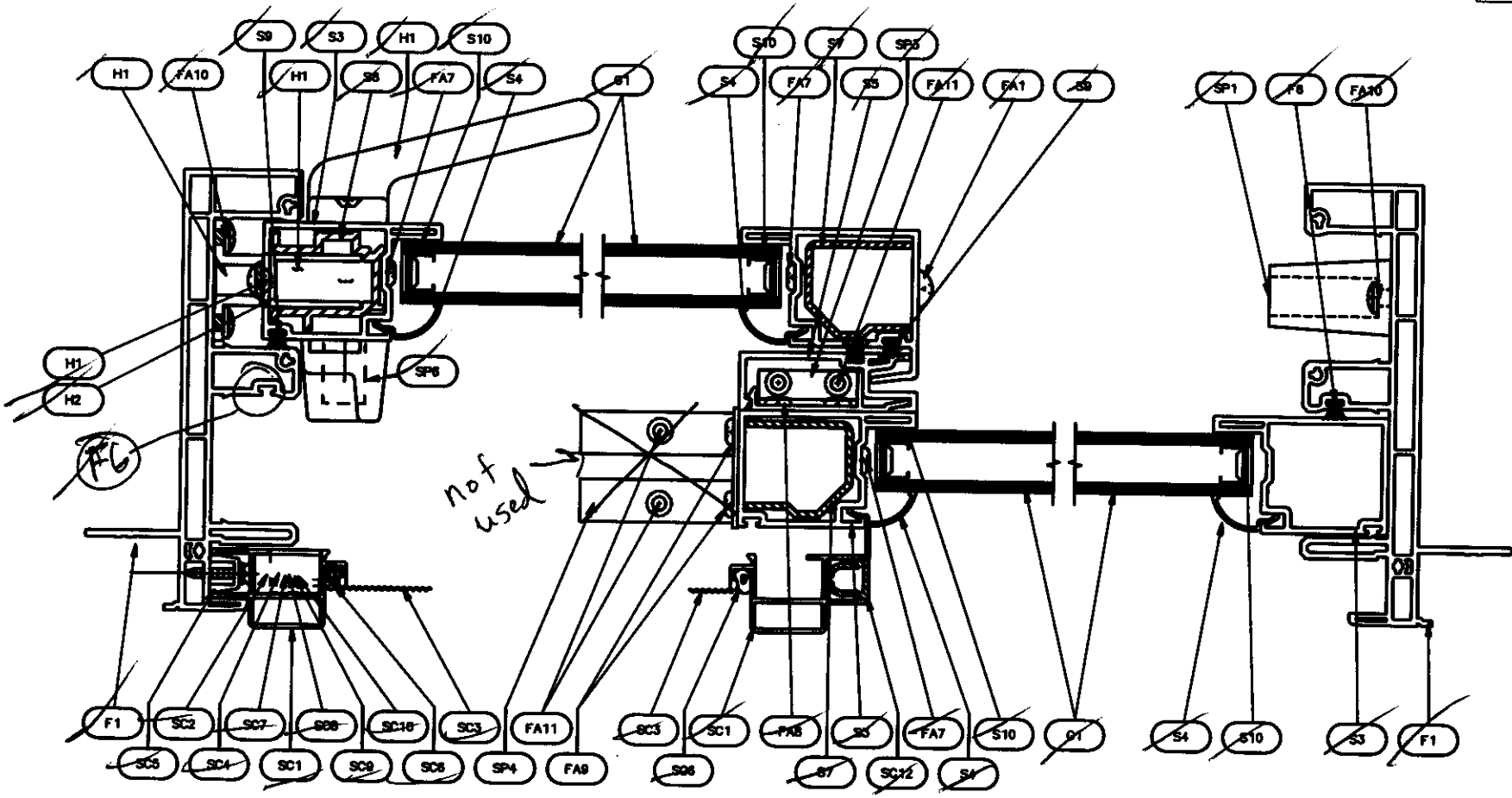

 Architectural Testing, Inc.
 Test sample complies with these details
 Deviations are noted.

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Reports

Tech *Jo*

MAR 31 2009



(C)

(D)

(E)



Architectural Testing, Inc
Test sample complies with these details
Deviations are noted.

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MAR 31 2009

Report#

Date

Tech

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				International Aluminum Corporation		QWB: BY
				DIVISION INTERNATIONAL WINDOW CORPORATION		
				QWB NO. LMF1	VINYL SLIDING DOOR	DWG NO.
				DATE 11/18/2000	1" OFFSET FRAME XO	5921-01
				SCALE FULL SIZE	SERIES 5921	SHEET 4 OF 4
REV	REVISION	DATE	BY			



Architectural Testing, Inc
Test sample complies with these details
Deviations are noted

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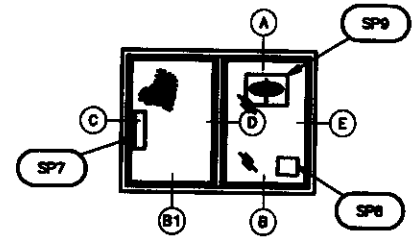
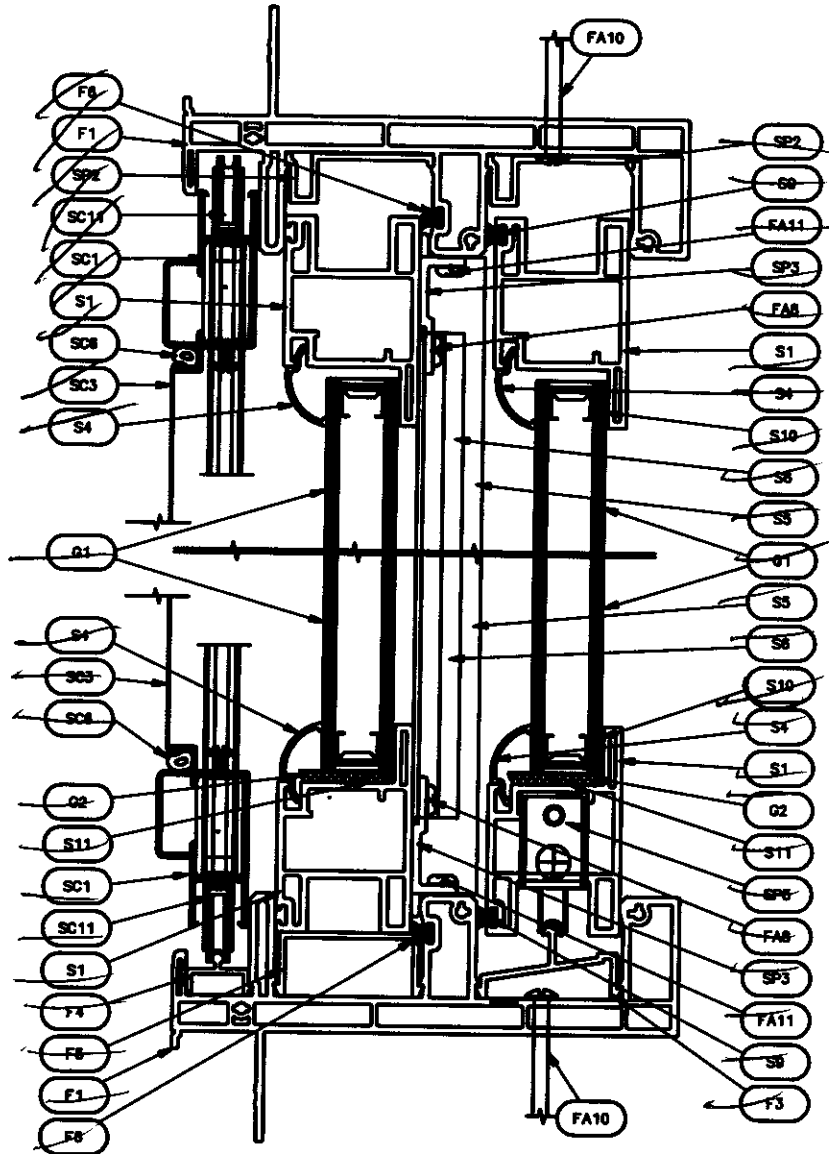
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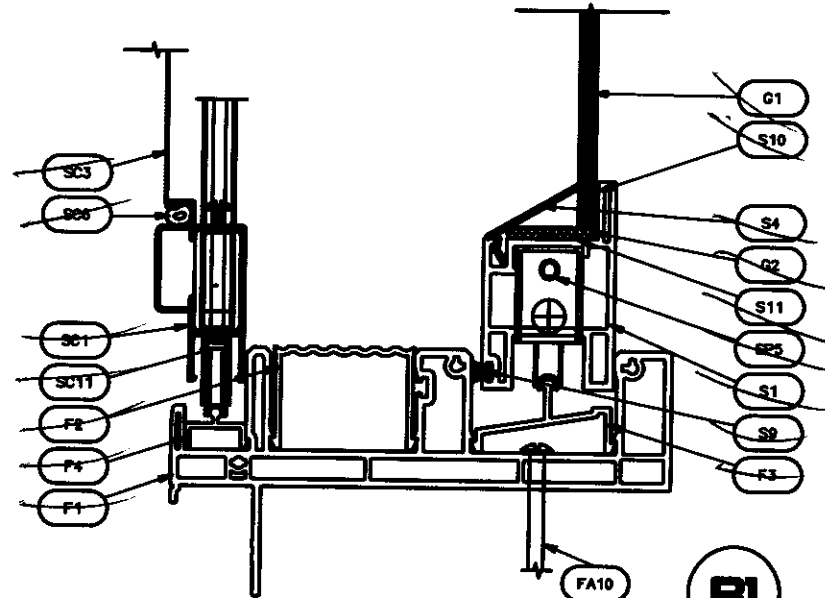
A



ELEVATION

(VIEWED FROM THE OUTSIDE)

B



SINGLE GLAZE

B1

				International Aluminum Corporation		DWD. BY
				DIVISION INTERNATIONAL WINDOW CORPORATION		
				DESIGN: JRF	VINYL SLIDING DOOR	DWG NO.
				DATE: 06/26/2003	1" OFFSET FRAME XO	5921-01
				SCALE: FULL SIZE	SERIES 5921	SHEET 3 OF 4
REV	REVISION	DATE	BY			



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MAR 31 2009

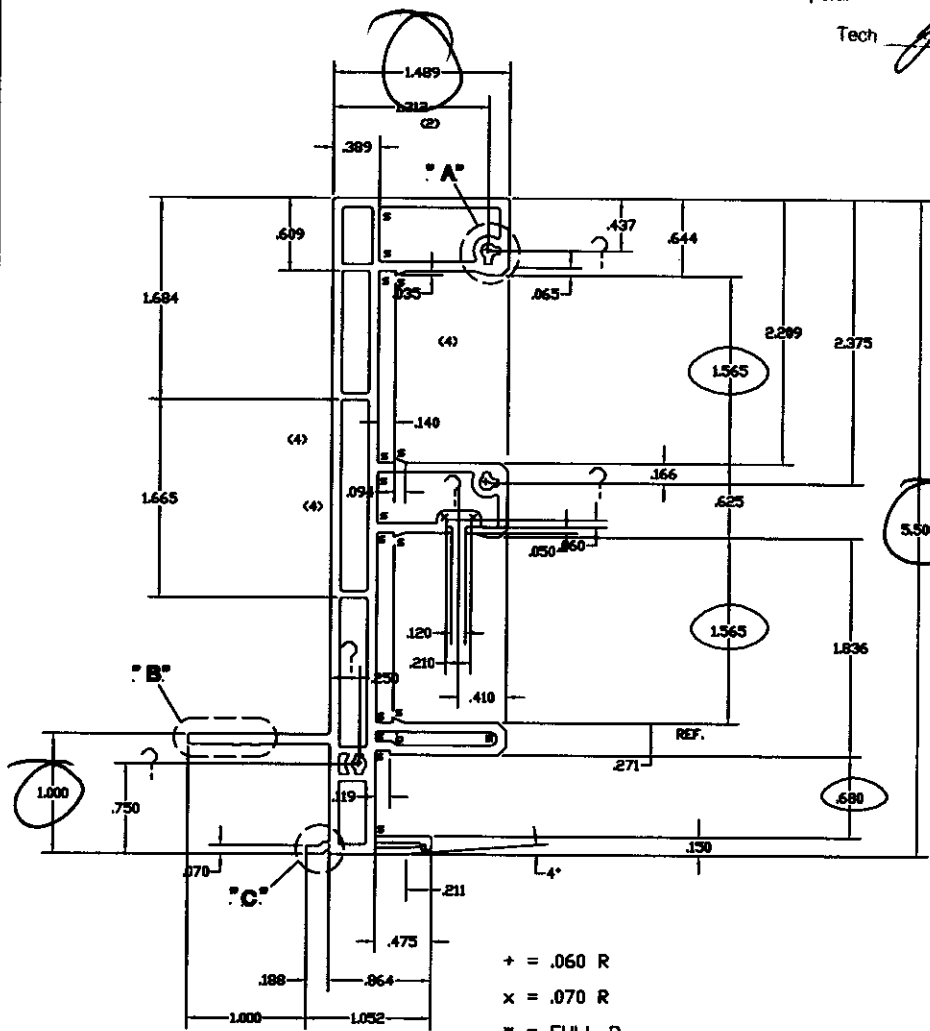
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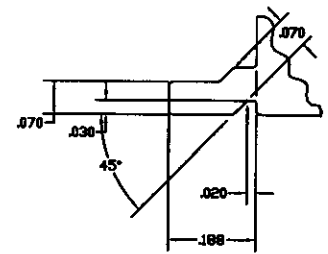
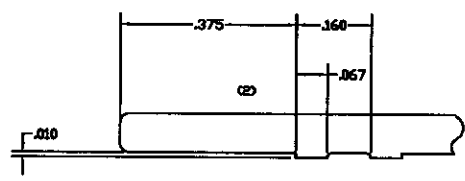
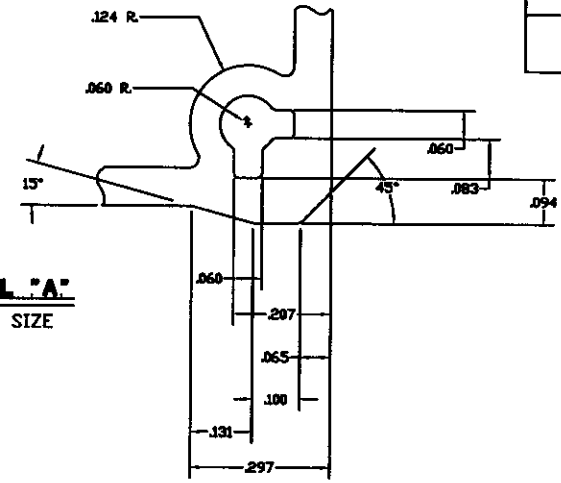
Tech *AD*

9700-004

RS-1504



- + = .060 R
- x = .070 R
- # = FULL R
- a = .062 R
- b = .090 R
- s = SHARP



- NOTES:**
1. EXTERNAL WALL THICKNESS: .080
 2. INTERNAL WALL THICKNESS: .056
 3. MATERIAL: VINYL
 4. AREA: 1.842
 5. UNSPECIFIED RADII TO BE .020
 6. WEIGHT PER FOOT = 1.153

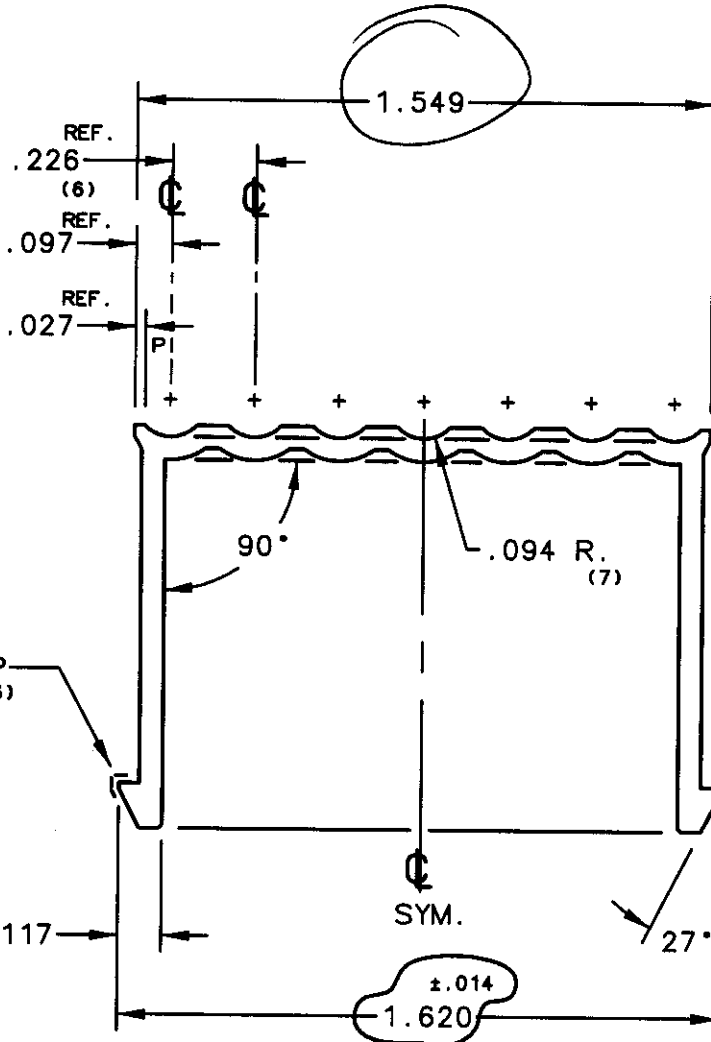
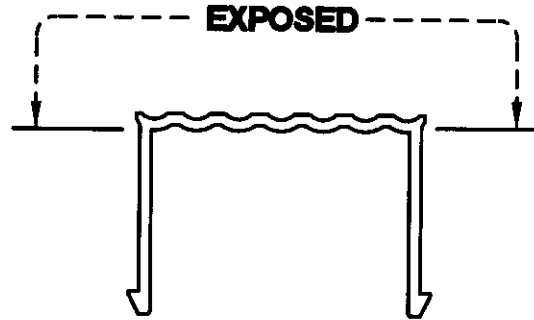
INTERNATIONAL WINDOW			
	TER MEER	5 1/2" FRAME SERIES 9700	9700-004
	3/23/00		
	FULL SIZE		

SYM		REVISION		BY	DATE	CUSTOMER INTERNATIONAL WINDOW CORP.		DIE NO. 50350	
						PART NAME THRESHOLD CAP SERIES 9700	DRAWN R. TER MEER	DATE 3/29/00	
						PART NO.	SCALE 2 X SIZE	CHKD.	APP.

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE

NOTES:

1. 6063-T5 ALLOY AND TEMPER.
2. MATES WITH C- : DIE #



Architectural Testing, Inc
sample complies with these details
ACTUAL SIZE

78580

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Report#

Date

Tech

DIE 8X1

- CA
- TX



International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 576-2424 AREA CODE: 626

UNLESS OTHERWISE NOTED,
ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .062

EST. AREA: .235	P-NO. C-232	PORTS 3 WP
EST. WT/FT: .282	CIRCLE SIZE 1.882 IN.	BACKER 8X7921
EST. PERI: 7.601	CLASS. SOLID	BOLSTER 3-6
FACTOR : 27	ER-7 58	DIE NO. 50350

SCALE: 4: 1

Architectural Testing, Inc
 Test sample complies with these details
 Dev. Data not noted.

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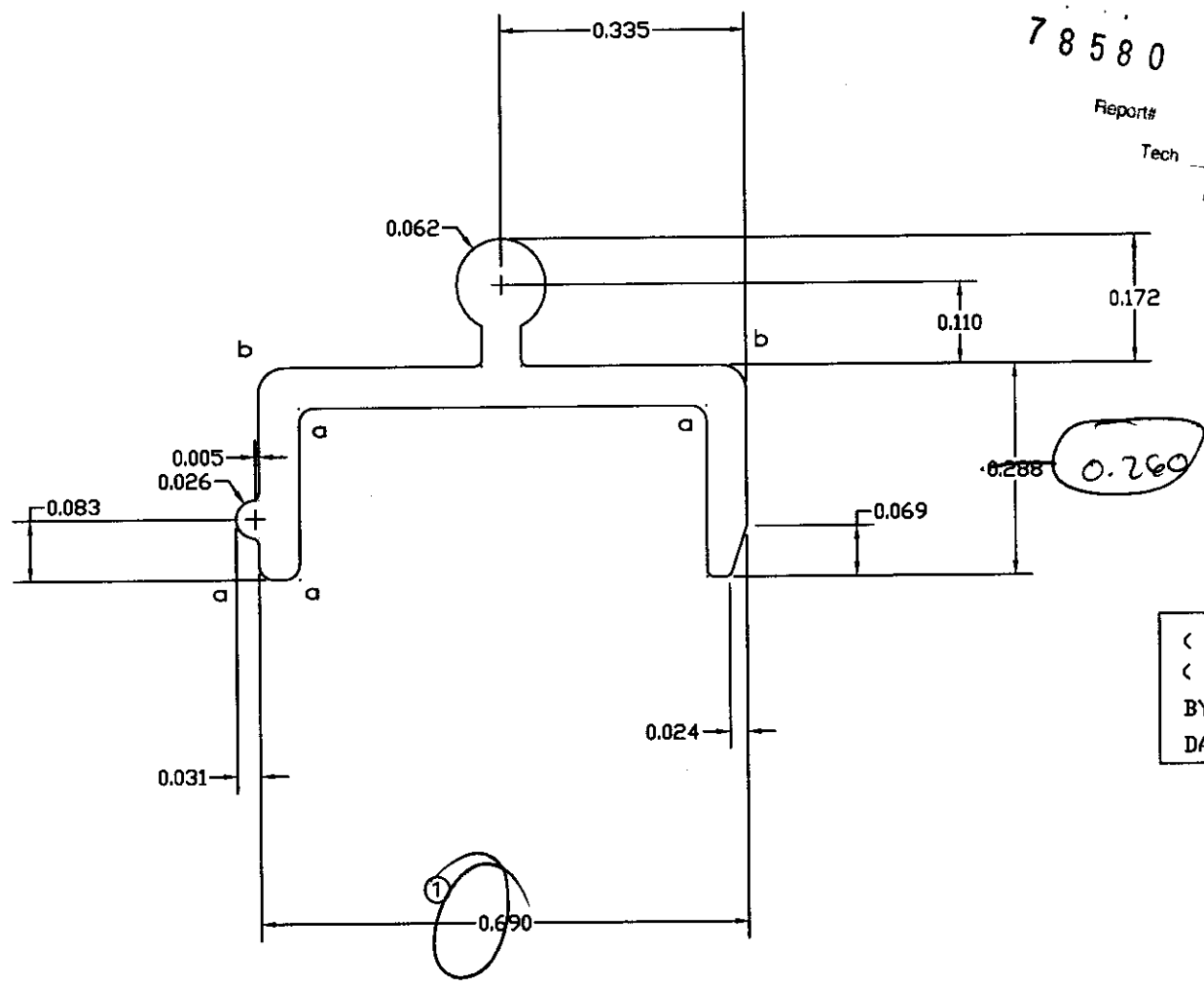
MAR 31 2009

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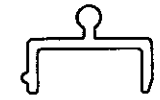
Tech

Date

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() CONTROLLED
 () UNCONTROLLED
 BY: _____
 DATE: _____



ACTUAL SIZE

a=0.020R
 b=0.035R
 s=SHARP

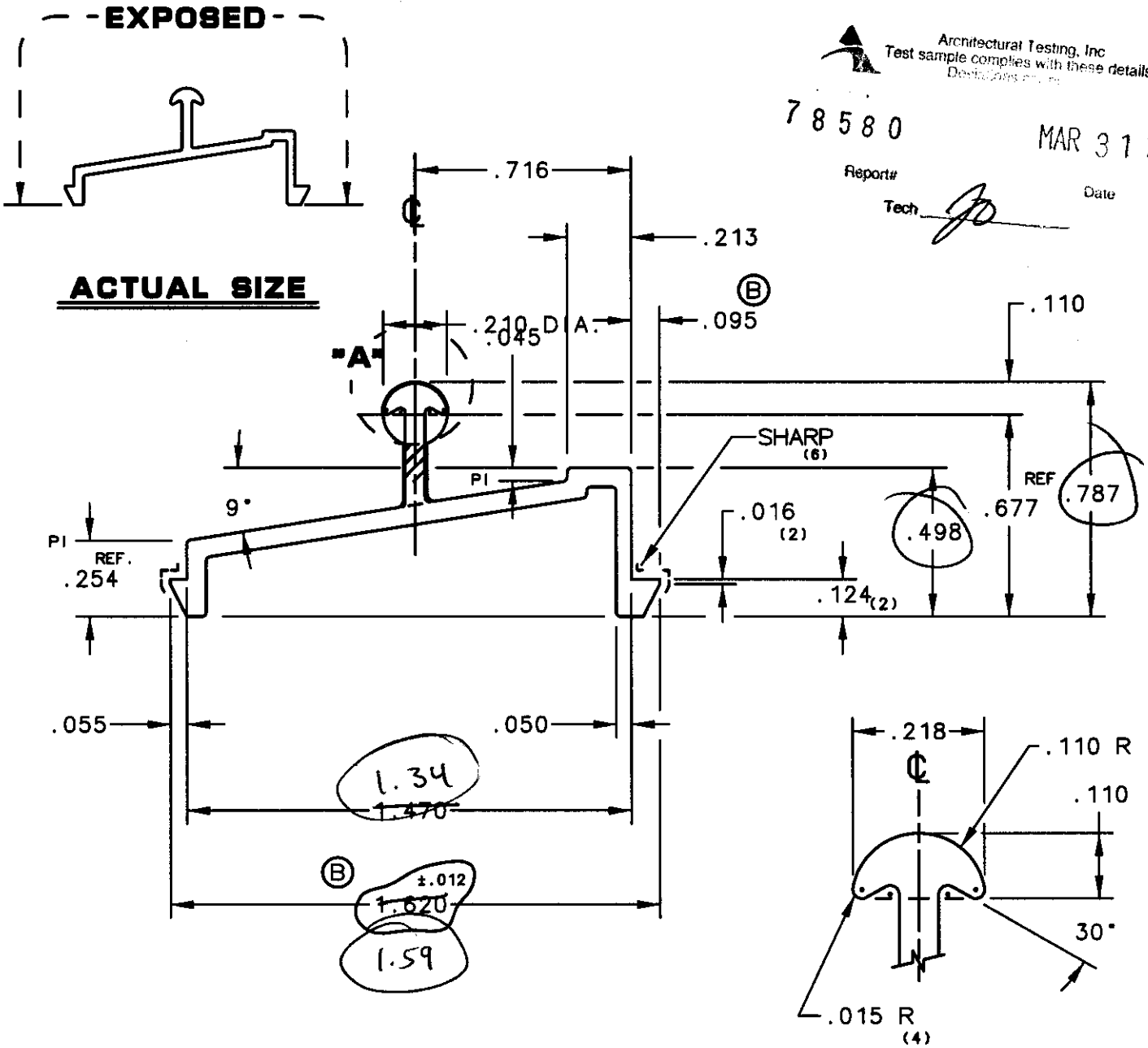
APPROVED
 10-AUG-95
CYCLOID DESIGNS

REV	DATE	REMARKS
1	12-14-95	NOTE ADDED

CYCLOID DESIGNS	DWG: 181-D20	DATE: 03-AUG-95	© 1995 COPYRIGHT KING EXTRUSIONS LTD WOODINVILLE, WASH ALL RIGHTS RESERVED	EXTERNAL WALL: 0.055 INTERNAL WALL: X.XXX CORNER TYP. 0.010R WEIGHT: 0.048 LB/FT
TITLE: TRACK FOR 181-D17 AND 181-D18			RS1051	

SYM	REVISION	BY	DATE	CUSTOMER	DIE NO.
B	1.620 ±.012, .095 WAS 1.580 ±.012, .055	LMH	7/16 96	INTERNATIONAL WINDOW CORP.	50191 B
				PART NAME PATIO DOOR VENT TRACK	DRAWN B. SEDHOM DATE 11/10/95
				PART NO.	SCALE 2 X SIZE CHKD. APP.

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE



DETAIL "A"
4 X SIZE

- CA
- TX

UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .065

International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 576-2424 AREA CODE: 626

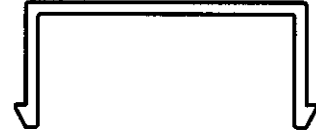
EST. AREA: .183 (B)	P-NO. P-25833	PORTS 4 WP
EST. WT/FT: .220 (B)	CIRCLE SIZE 1.620 (B)	BACKER 9 X 5897
EST. PERI: 5.649 (B)	CLASS. SOLID	BOLSTER. 4 - 88
FACTOR : 26	ER-7 = 57	DIE NO. 50191 B

SYM	REVISION	BY	DATE	CUSTOMER	DIE NO.
				INTERNATIONAL WINDOW CORP.	50349
				PART NAME SETTING CHAIR SERIES 9700	DRAWN R. TER MEER DATE 3/28/00
				PART NO.	SCALE 2 X SIZE C-NO. APP.

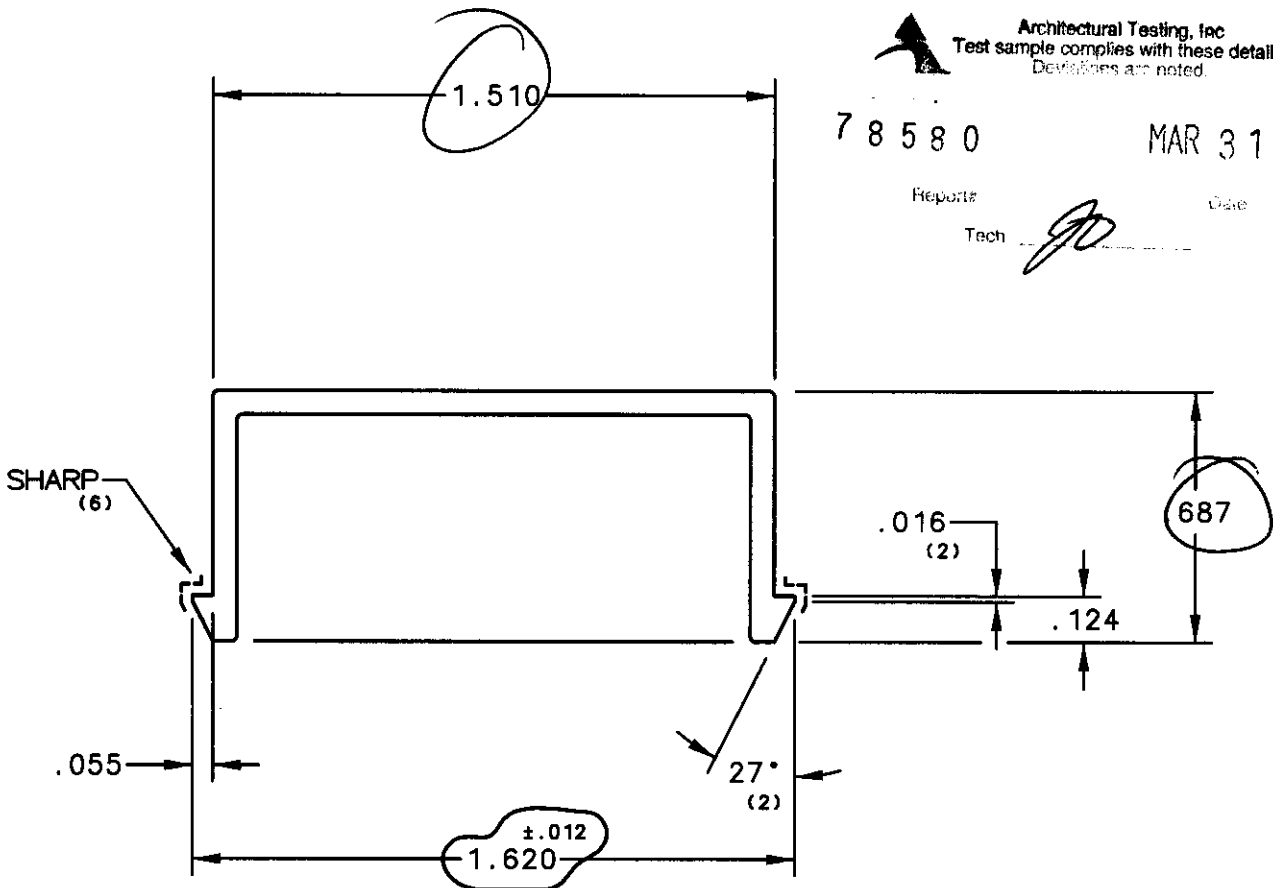
STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE

NOTES:

1. 6063-T5 ALLOY AND TEMPER.
2. NO EXPOSED SURFACES.



ACTUAL SIZE



DIE 9X1

- CA
- TX



International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 576-2424 AREA CODE: 626

UNLESS OTHERWISE NOTED,
ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .065

EST. AREA: .187	P-NO. C-231	PORTS WP
EST. WT/FT: .224	CIRCLE SIZE 1.672 IN.	BACKER 9X18096
EST. PERI: 5.735	CLASS. SOLID	BOLSTER. 3-6
FACTOR : 26	ER-7 = 73	DIE NO. 50349

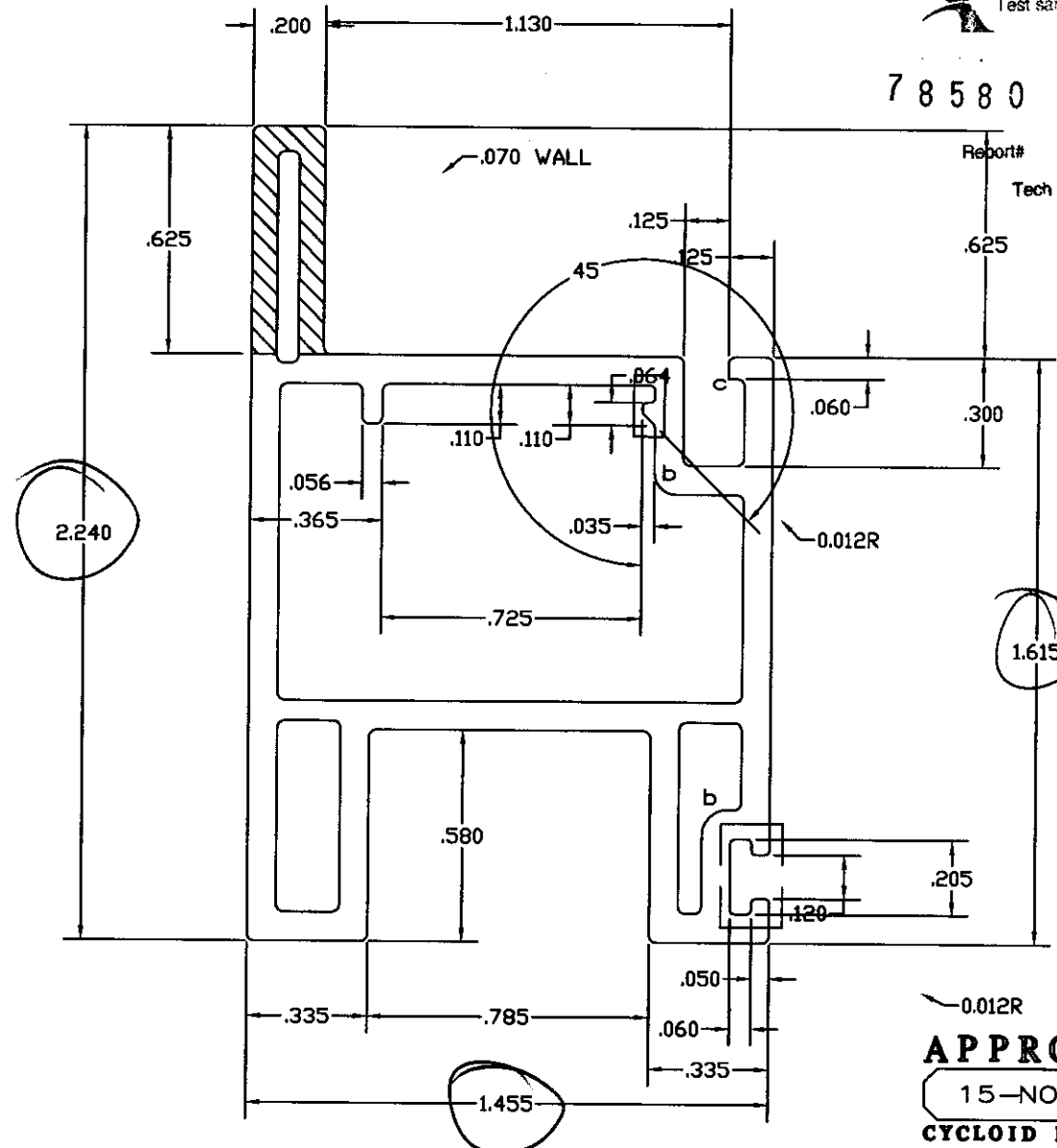
SCALE: 2:1

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Test sample complies with these details
Dr. [Signature]

a=0.012R
b=0.070R
s=SHARP
c=0.006R

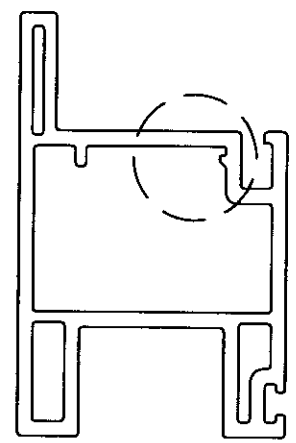
78580


MAR 31 2009



Report# 78580 Date MAR 31 2009
Tech [Signature]
BY: _____
DATE: _____
[] CONTROLLED
[] UNCONTROLLED

APPROVED
15-NOV-95
CYCLOID DESIGNS



CYCLOID DESIGNS 	DWG: 181-D4A	DATE: 07-NOV-95	© 1996 COPYRIGHT KING EXTRUSIONS LTD WOODINVILLE, WASH ALL RIGHTS RESERVED	EXTERNAL WALL: 0.080 INTERNAL WALL: 0.056 CORNER TYP. 0.020R WEIGHT: 0.447 LB/FT
TITLE: TOP/BOTTOM SASH RAIL		RS1055		

SCALE: 2:1

78580

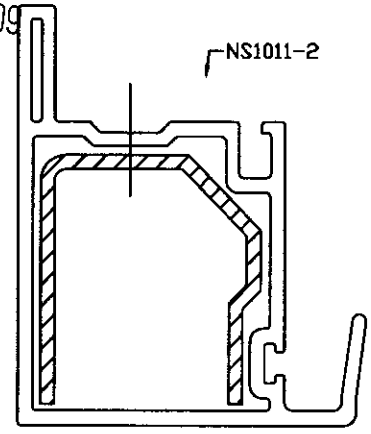
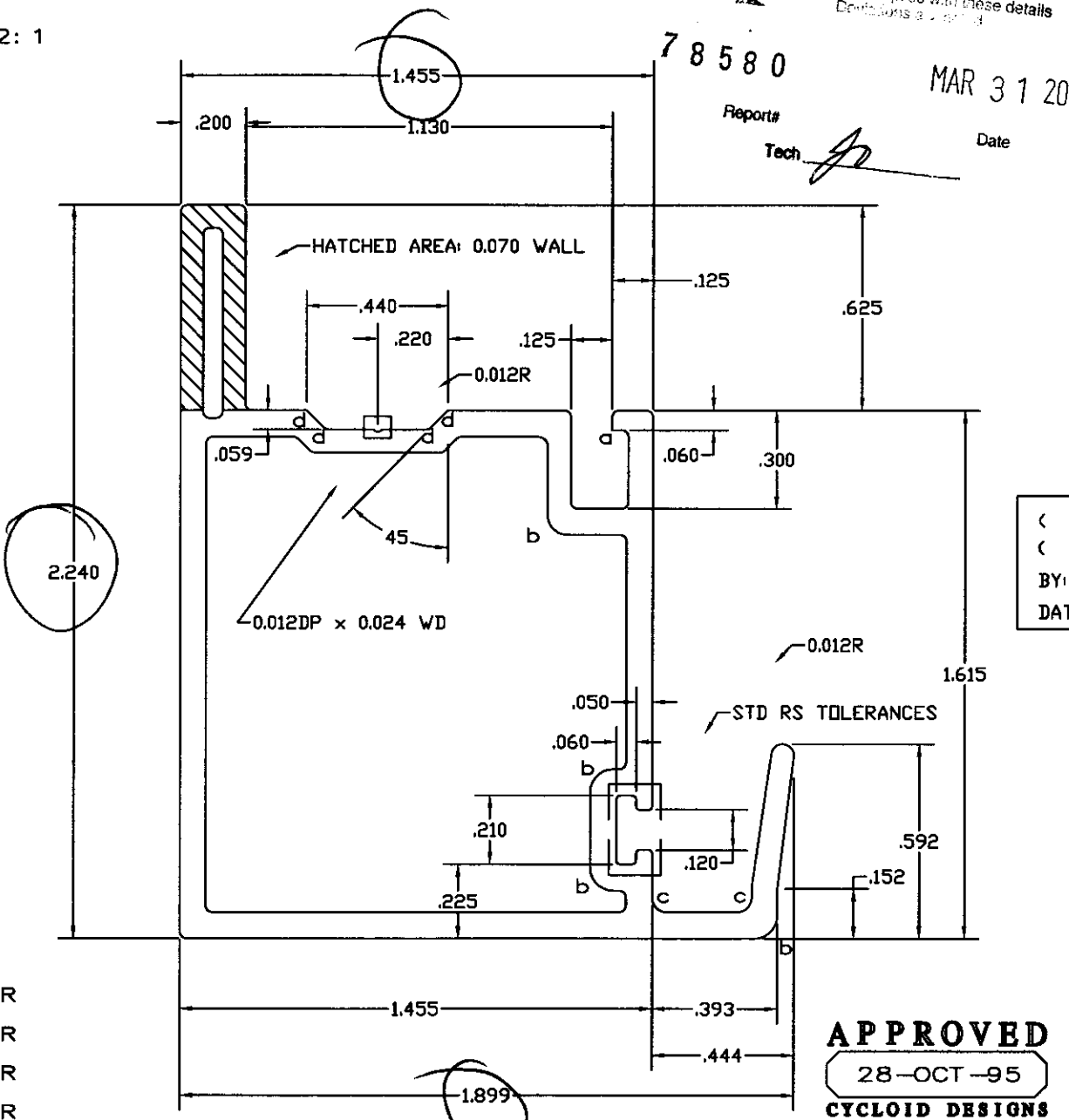
MAR 31 2009

Report#

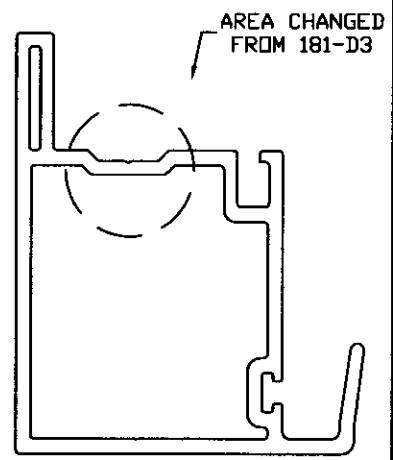
Tech

Date

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 ROYAL SIERRA EXTRUSIONS AND SHALL NOT BE REPRODUCED, COPIED, OR DISSEMINATED
 WITHOUT THE EXPRESSED AND WRITTEN PERMISSION OF KING EXTRUSIONS LTD




() CONTROLLED
 () UNCONTROLLED
 BY: _____
 DATE: _____



ACTUAL SIZE

a = 0.006R
 b = 0.070R
 c = 0.045R
 d = 0.012R

APPROVED
 28-OCT-95
CYCLOID DESIGNS

CYCLOID DESIGNS 	DWG: 181-D3A	DATE: 27-OCT-95	© 1995 COPYRIGHT ROYAL SIERRA INC SPARKS, NEVADA ALL RIGHTS RESERVED	EXTERNAL WALL: 0.080 INTERNAL WALL: 0.056 CORNER TYP. 0.020R WEIGHT: 0.419 LB/FT
TITLE: PATIO DOOR MEETING RAIL			RS1054	

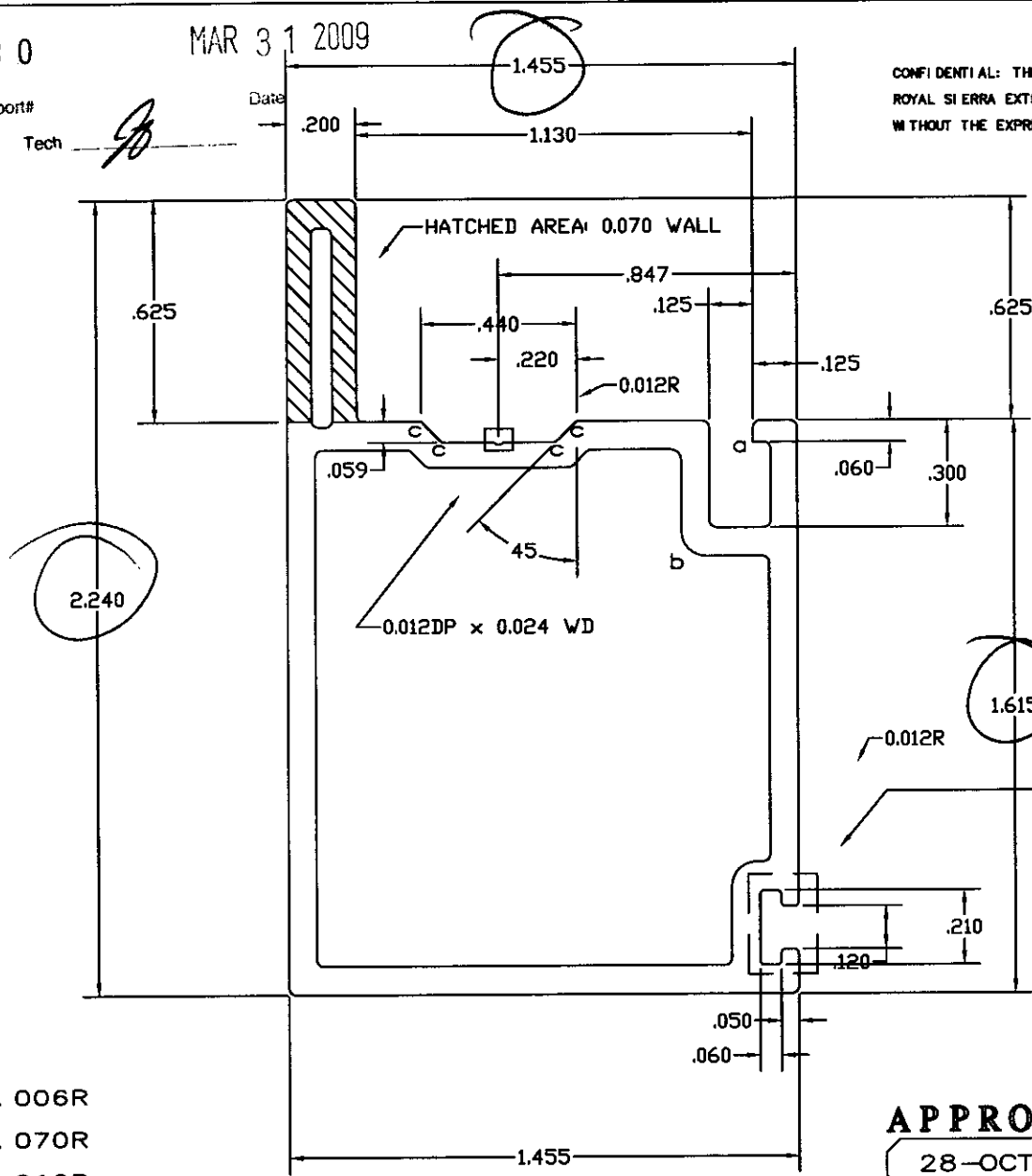
8580

MAR 31 2009

Report#
 Tech *SB*

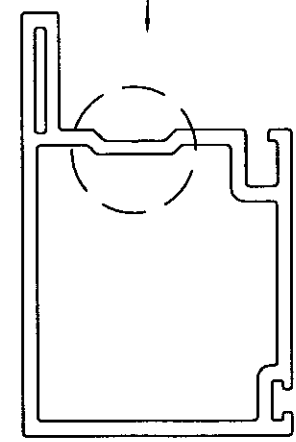
Date

CONFIDENTIAL: THIS MATERIAL IS PROPRIETARY AND CONFIDENTIAL TO ROYAL SIERRA EXTRUSIONS AND SHALL NOT BE REPRODUCED, COPIED, OR DISSEMINATED WITHOUT THE EXPRESSED AND WRITTEN PERMISSION OF KING EXTRUSIONS LTD



() CONTROLLED
 () UNCONTROLLED
 BY: _____
 DATE: _____


AREA CHANGED FROM 181-D2



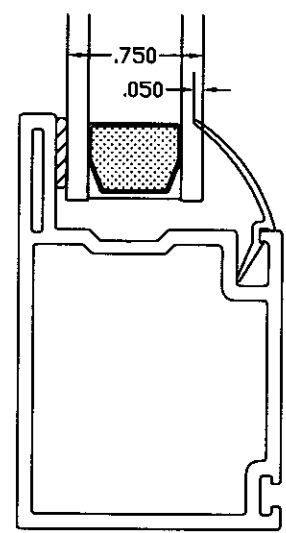
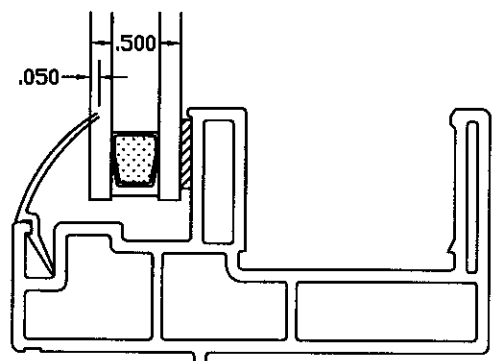
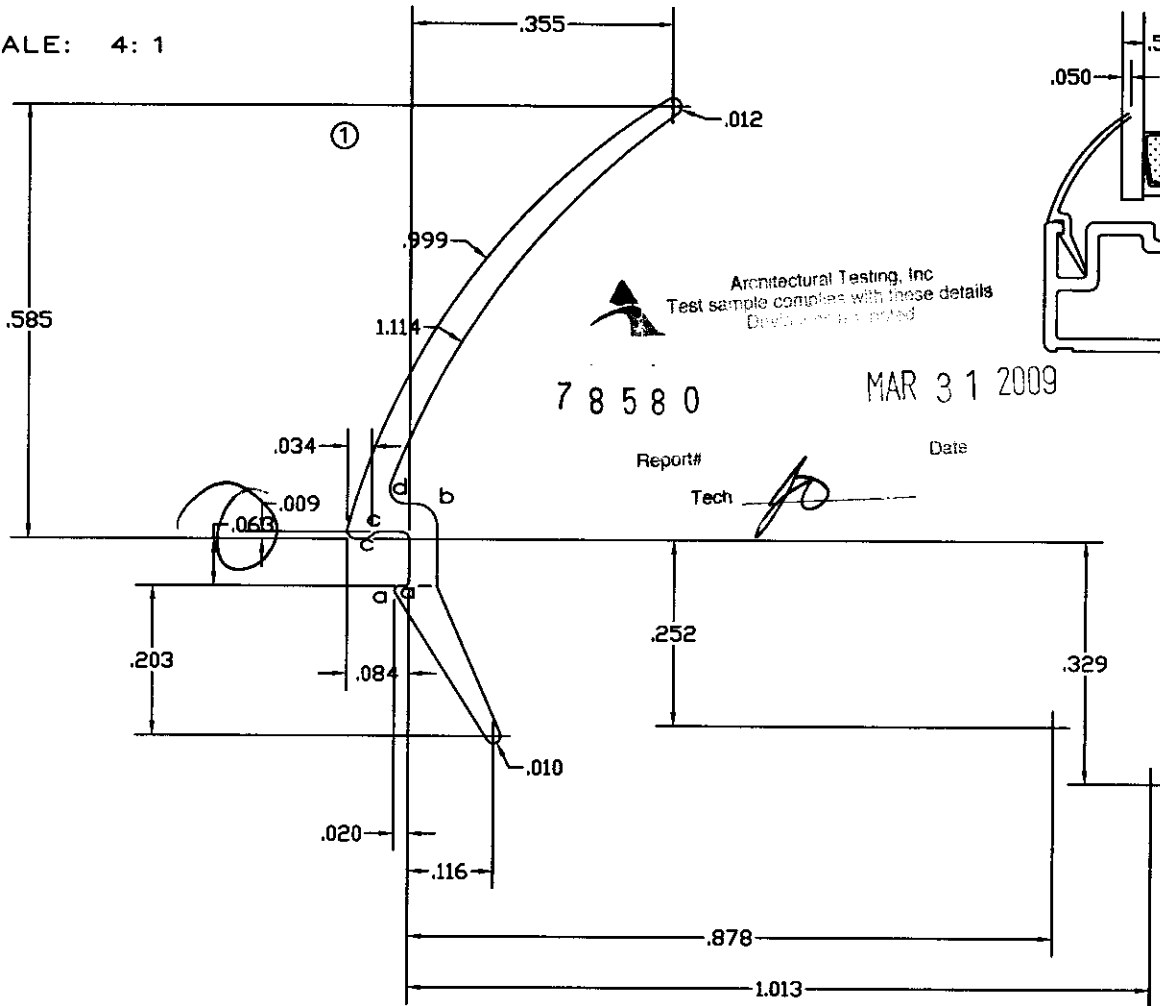
a=0.006R
 b=0.070R
 c=0.012R

APPROVED
 28-OCT-95
CYCLOID DESIGNS

ACTUAL SIZE

CYCLOID DESIGNS 	DWG: 181-D2A	DATE: 27-OCT-95	© 1995 COPYRIGHT ROYAL SIERRA INC SPARKS, NEVADA ALL RIGHTS RESERVED	EXTERNAL WALL: 0.080 INTERNAL WALL: 0.056 CORNER TYP. 0.020R WEIGHT: 0.372 LB/FT
TITLE: PATIO DOOR LEAD STILE			RS1053	

SCALE: 4: 1



Architectural Testing, Inc
 Test sample complies with these details
 Drawn by: [Signature]

7 8 5 8 0

MAR 31 2009

Report#
 Tech [Signature]

Date

- a=0.006R
- b=0.030R
- c=0.012R
- d=0.020R

() CONTROLLED
 () UNCONTROLLED
 BY: _____
 DATE: _____

APPROVED
 07-FEB-96
CYCLOID DESIGNS

ACTUAL SIZE

REV	DATE	REMARKS
1	02-07-96	RADI US CHANGE; WAS .772

CYCLOID DESIGNS

DWG: 154-D64

DATE: 07-FEB-96

© 1996 COPYRI GHT
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 SPARKS, NEVADA
 ALL RI GHTS RESERVED

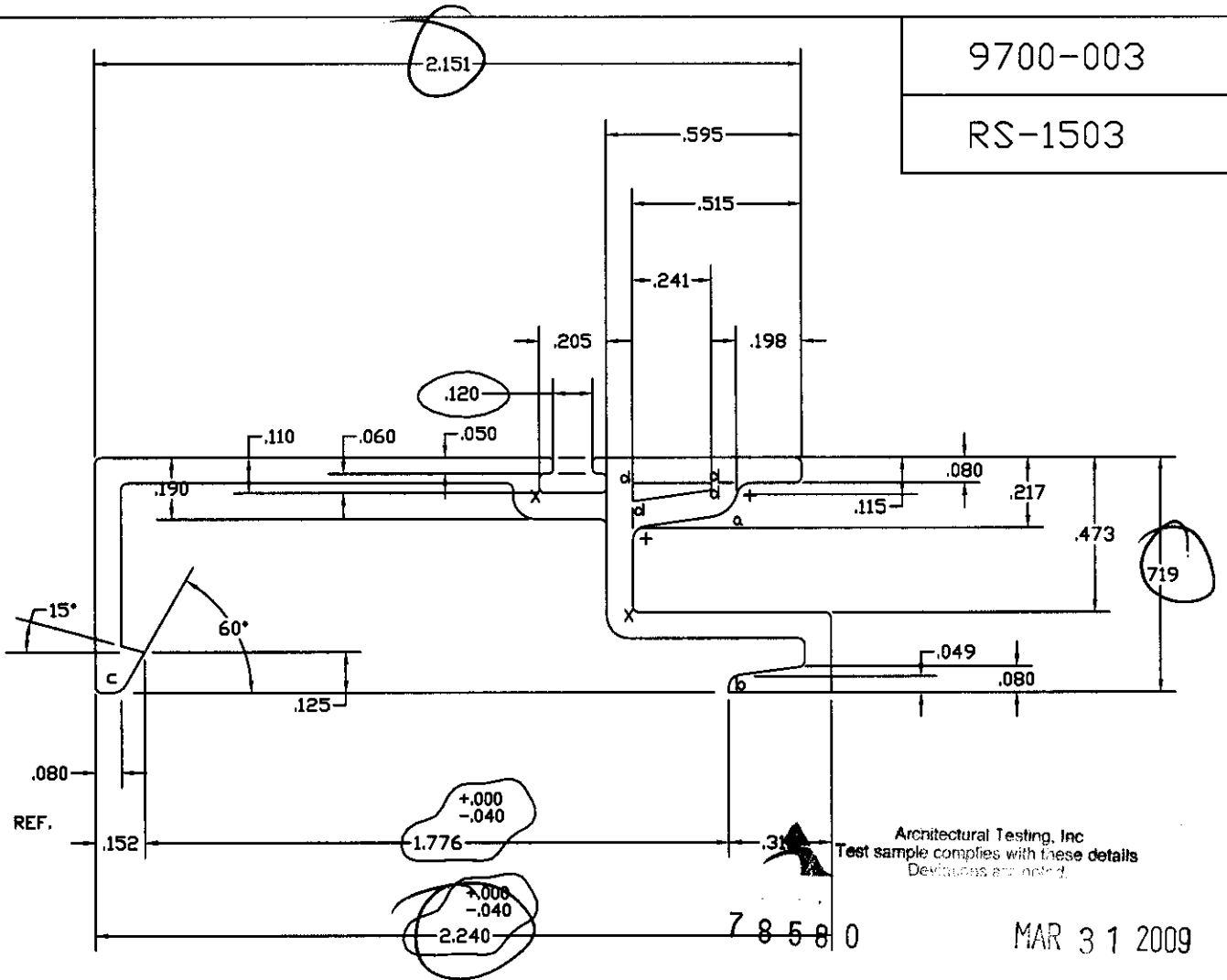
EXTERNAL WALL: 0.038
 INTERNAL WALL: X.XXX
 CORNER TYP. 0.012R
 WEI GHT: 0.026 LB/FT

TITLE: BEAD

RS1122

9700-003

RS-1503



Report#

Date

Tech

NOTES:

- 1. EXTERNAL WALL THICKNESS: .080
- 2. MATERIAL: VINYL
- 3. AREA: .380
- 4. UNSPECIFIED RADII TO BE .020 R.
- 5. WEIGHT PER FOOT = .238

x = .070 R

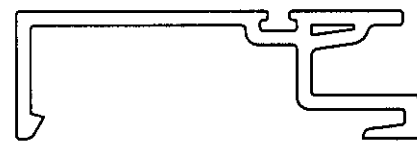
+ = .045 R

a = .090 R

b = .040 R

c = .050 R

d = .006 R



ACTUAL SIZE

INTERNATIONAL WINDOW

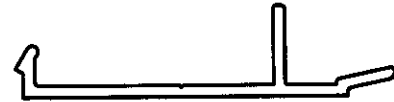
INTERNATIONAL WINDOW		
TER MEER	FIXED INTERLOCK	9700-003
3/15/00		
2 X SIZE		
SERIES 9700		


SYM	REVISION	BY	DATE	CUSTOMER INTERNATIONAL WINDOW CORP.	DIE NO. 50345
				PART NAME INTERLOCK ANCHOR SERIES 9700	DRAWN R. TER MEER
				PART NO.	DATE 3/27/00
				SCALE 2 X SIZE	CHKD. APP.

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE

NOTES:

1. 6063-T5 ALLOY AND TEMPER.
2. NO EXPOSED SURFACES.



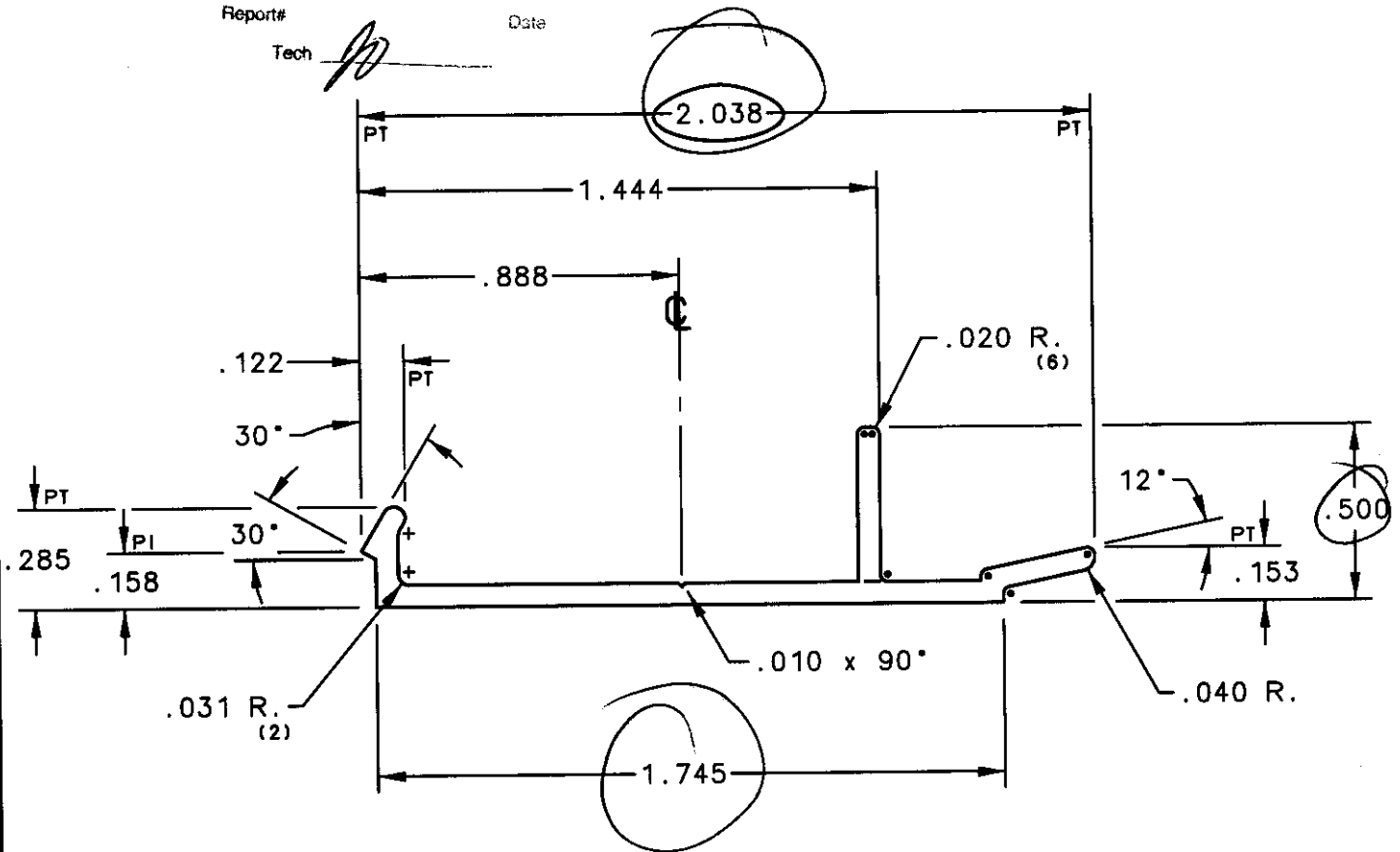
 Architectural Testing, Inc
Test sample complies with these details
Dimensions are in inches.

ACTUAL SIZE

78580

MAR 31 2009

Report#
Tech  Date



DIE 8X1

- CA
- TX

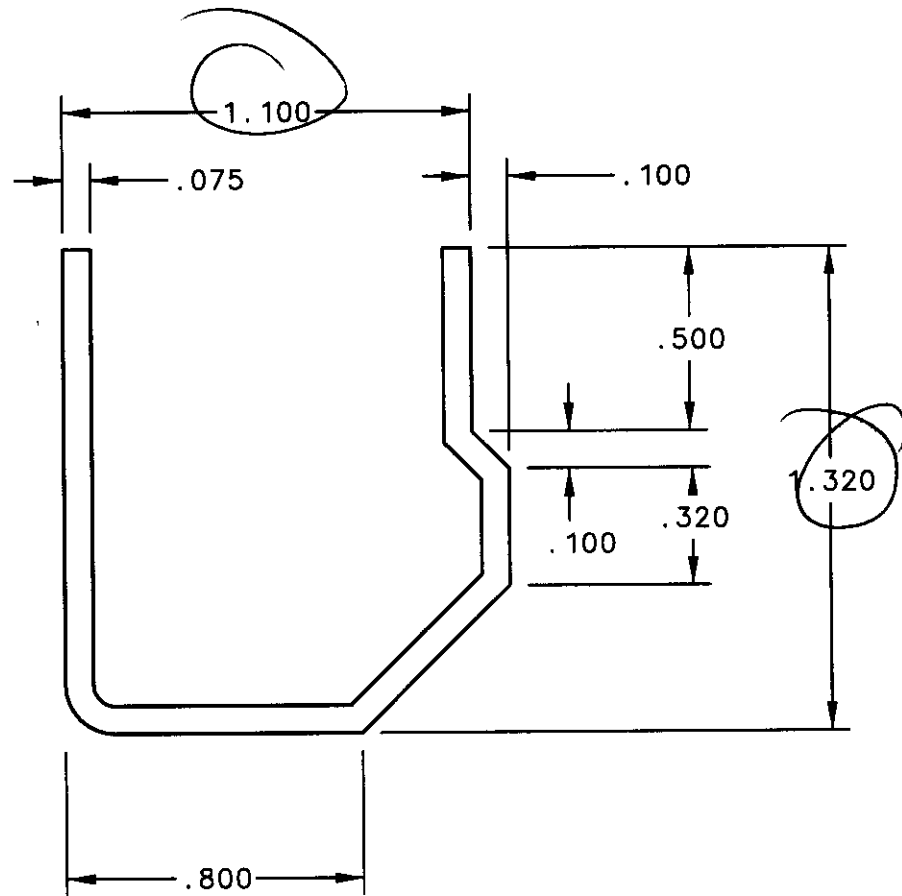


UNLESS OTHERWISE NOTED,
ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .062

International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 576-2424 AREA CODE: 626

EST. AREA: .169	P-NO. C-227	PORTS 3 WP
EST. WT/FT: .203	CIRCLE SIZE 2.072 IN.	BACKER 8X10629
EST. PERI: 5.477	CLASS. SOLID	BOLSTER. 3-6
FACTOR : 27	ER-7 80	DIE NO. 50345



Architectural Testing, Inc
 Test sample complies with these details
 Details as noted.

78580

MAR 31 2009

Report#

Date

Tech

NOTES:

1. MATERIAL: GALVANIZED STEEL.
2. SP3551

International Aluminum Corporation		
DIVISION INTERNATIONAL WINDOW		
DRAWN BY: LMH	STEEL INTERLOCK	DWG NO.
DATE: 1/26/96	(SERIES 5820)	5820-34
SCALE: 2 X SIZE		

SYM	REVISION	BY	DATE	CUSTOMER	DIE NO.
B	REVISED & REDRAWN	bjs	1/19/96	INTERNATIONAL WINDOW CORP.	50192 B
				PART NAME SERIES 5820 LEAD STILE STIFFENER	DRAWN B. SEDHOM
				PART NO.	SCALE 2 X SIZE
					DATE 11/7/95
					CHKD. APP.

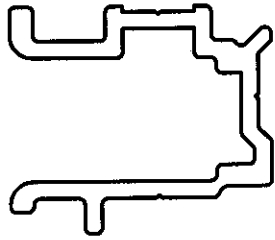
STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE

NO EXPOSED SURFACES

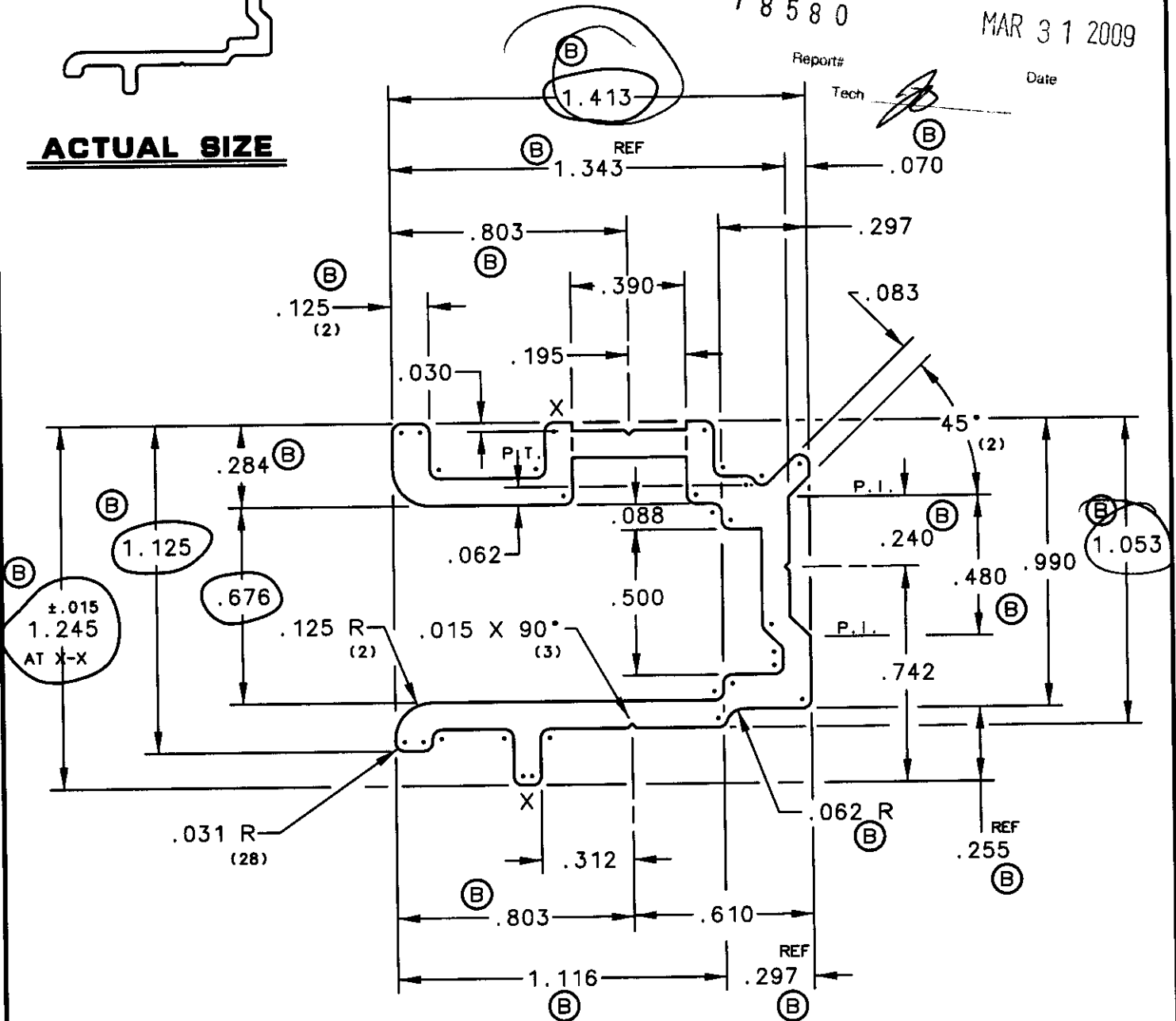
Architectural Testing, Inc
 Test sample complies with these details
 Deviations are noted.

78580

MAR 31 2009



ACTUAL SIZE



- CA
- TX



UNLESS OTHERWISE NOTED, ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .093

International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
 TEL. 576-2424 AREA CODE: 626

EST. AREA: .419	P-NO. P-25853	PORTS 2
EST. WT/FT: .503	CIRCLE SIZE 1.720	IN. BACKER 8 X 17078
EST. PERI: 8.590	CLASS. SOLID	BOLSTER. 2 - 7
FACTOR : 17	ER-8 = 66	DIE NO. 50192 B

SYM	REVISION	BY	DATE	CUSTOMER INTERNATIONAL WINDOW CORP.	DIE NO. 50346
				PART NAME FIXED PANEL CLIP SERIES 9700	DRAWN R. TER MEER
				PART NO.	DATE 3/28/00
				SCALE 2 X SIZE	CHKD. APP.

STANDARD TOLERANCES FOR EXTRUDED SHAPES APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE

NOTES:

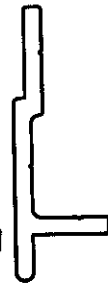
1. 6063-T5 ALLOY AND TEMPER.
2. NO EXPOSED SURFACES.



Architectural Testing, Inc.
Test sample complies with these details
Dimensions not noted

78580

MAR 31 2009



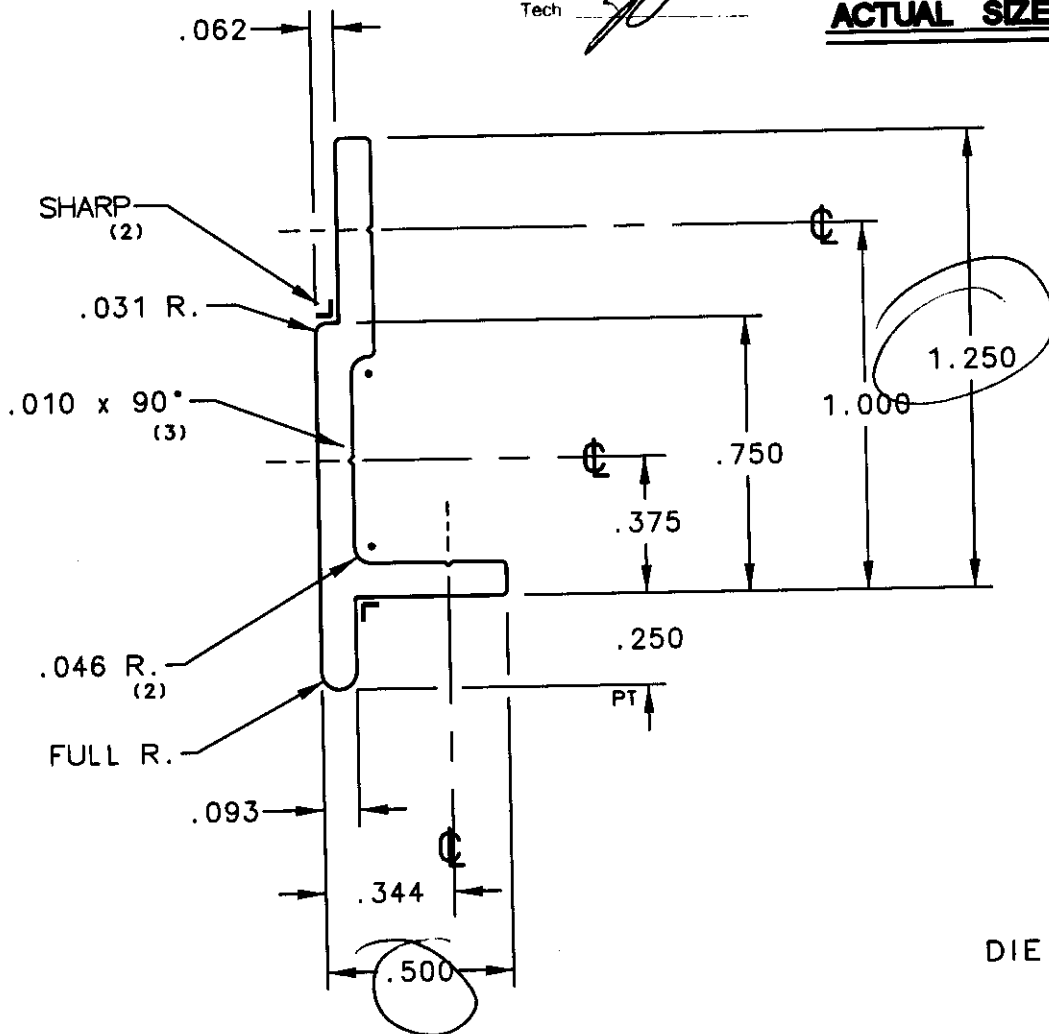
Report#

Date

Tech



ACTUAL SIZE



DIE 8X1

- CA
- TX



International Extrusion Corporation

1000 MERIDIAN ALHAMBRA, CALIF.
TEL. 576-2424 AREA CODE: 626

UNLESS OTHERWISE NOTED,
ALL CORNERS ARE .015 R, AND TYPICAL WALL THICKNESS IS .093

EST. AREA: .182	P-NO. C-228	PORTS 3	MP
EST. WT/FT: .218	CIRCLE SIZE 1.504 IN.	BACKER 8X10629	
EST. PERI: 4.024	CLASS. SOLID	BOLSTER. 3-6	
FACTOR : 18	ER-7 75	DIE NO. 50346	