

**TAS 201, TAS 202 AND TAS 203
TEST REPORT**

Rendered to:

EFCO, A PELLA COMPANY

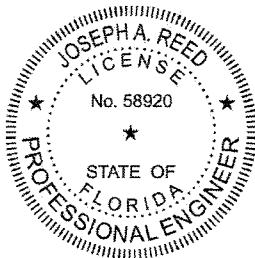
SERIES/MODEL: 6551

PRODUCT TYPE: Thermally Improved Aluminum Horizontal Sliding Window (XO)

This report contains in its entirety:

Cover Page: 1 page
Report Body: 14 pages
Test Equipment: 1 page
Sketch: 1 page
Drawings: 13 pages

Secure Electronic Seal
for Electronic Submittal



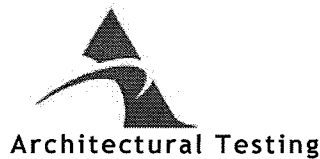
Joseph A. Reed

Digitally Signed by: Joseph A. Reed

Date: 2009.06.10 14:23:04 -04'00'

Report No.: 91471.01-801-18
Test Dates: 05/01/09
Through: 05/12/09
Report Date: 06/09/09

2865 Market Loop, Suite B
Southlake, Texas 76092
phone: 817-410-7202
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www.archtest.com



TAS 201, TAS 202 AND TAS 203 TEST REPORT

Rendered to:

EFCO, A PELLA COMPANY
1000 County Road
Monett, Missouri 65708

Report No.: 91471.01-801-18
Test Dates: 05/01/09
Through: 05/12/09
Report Date: 06/09/09

Project Summary: Architectural Testing, Inc. was contracted by EFCO, a Pella Company to perform testing per Florida Building Code, Test Protocols for High Velocity Hurricane Zone, Protocols TAS 201-94, TAS 202-94 and TAS 203-94 on four Series/Model 6551, thermally improved aluminum horizontal sliding windows. Test Specimens #1 through #3 when tested met the performance requirements set forth in the protocols for a ± 100.0 psf *Design Pressure* rating. Specimen #4 was tested for TAS 202-94 and met a ± 100.0 psf *Design Pressure* rating. Test specimen description and results are reported herein. The samples were provided by the client.

Test Procedures: The test specimens were evaluated in accordance with the following:

TAS 201-94, *Impact Test Procedures.*

TAS 202-94, *Criteria for Testing Impact and Non Impact Resistant Building Envelope Components Using Uniform Static Air Pressure Loading.*

TAS 203-94, *Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.*

Drawing Reference: The test specimen drawings have been reviewed and verified by Architectural Testing and are representative of the samples tested.

Test Specimen Description:

Series/Model: 6551

Product Type: Thermally Improved Aluminum Horizontal Sliding Window (XO)

Overall Size: 96" wide by 60" high

Rough Opening Size: 96-1/2" wide by 60-1/2" high

Sash Size: 47-3/4" wide by 54-3/4" high

Daylight Opening Size: 43" wide by 51-1/4" high

Overall Area: 40.00 ft²

Finish: White painted aluminum

Glazing Details: Units were glazed using insulating glass with 1-1/4" overall thickness and a steel reinforced spacer. There was 1/4" tempered glass at the exterior, 7/16" airspace, and at the interior was laminated glass with 0.077" thick Vanceva™ interlayer with one piece of 1/4" thick heat strengthened glass on each side. Each unit was interior glazed against a back bedding compound. An aluminum snap-in glazing bead with vinyl bulb was at the interior and secured with a sealant compound. All units were glazed with Bondaflex® SIL 295. Glazing bite on all units was 1".

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>	<u>Joinery</u>	<u>Method</u>
0.270" x 0.250" Q-LON	4 Rows	Interior face of frame sash opening	Kerf	Staked
0.270" x 0.125" Stiff vinyl	1 Row	Interior face of sash bottom rail	Kerf	Staked

Test Specimen Description: (Continued)

Frame Construction: All frame and retaining members were extruded aluminum members. The frame was thermally improved. Frame corners were milled and mechanically assembled. Top frame corners were secured using three #10 x 1" pan head Phillips screws. Bottom frame corners were secured using four pan head Phillips screws: two #8 x 1-1/4" and two #10 x 1". A frame gasket was at each frame corner. Sealant was applied over screw heads, screw bosses, and on interior/exterior corners. Sealant was applied over the thermal break at the interior of the sill. The fixed interlock was secured to the frame head and snap-in sill insert using two #10 x 1" pan head Phillips screws at each end. The snap-in sill insert was secured by two #10 x 3/4" flat head screws located at the bottom of the fixed interlock. The sash opening was lined with a vinyl weatherstrip adapter. The adapter was set into a sealant compound and secured to the frame using #8 x 5/8" pan head Phillips self-tapping screws. Screws were located at 3" from corners with one at midpoint at head and sill and at 4" from corners with 15" spacing thereafter at jamb and interlock. Sealant was applied to adapter corners. Weatherstrip adapter covers were snapped in over the adapters. Sealant compound was applied at corners where covers met. Jamb cams were located at sash opening jamb and were fastened with sealant and one #6 x 3/8" pan head Phillips screw. Cam location was 9", 31", and 53" from outer edge of sill. Anchor F-clips were secured to the frame with one #8 x 3/4" Phillips pan head self-tapping screw through the interior leg of the frame.

Sash Construction: All sash members were formed from thermally improved aluminum extrusions. Sash corners were milled and mechanically assembled and secured together with one #8 x 1" pan head Phillips screw at each corner. Screws at bottom sash corners also secured roller to sash. Interior/exterior of sash corners had sealant compound applied.

Hardware: Two sets of rollers were secured to the sash bottom rail. Each was fastened with one #8 x 1" pan head Phillips screw. A thumb lock keeper was attached to the fixed interlock with two #8 x 3/8" pan head Phillips screws. The auto thumb spring lock push bar and auto thumb spring lock latch were both secured to the sash meeting rail. Each was fastened with two #8 x 1/2" flat head Phillips screws.

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Sash roller	2	2-1/2" on center from each end of the sash bottom rail
Thumb lock keeper	1	Interior face of fixed interlock at midpoint
Auto thumb spring lock push bar	1	Side of sash meeting stile at midpoint
Auto thumb spring lock latch	1	Exterior face of sash meeting stile at midpoint

Test Specimen Description: (Continued)

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
11/16" x 3/16" notch	2	Screen retaining leg, at each end of the sill at sash opening
1" x 1/8" notch	2	Sash roller leg, at each end of the sill
1" x 1/4" rectangle punches	4	Sash track, at 4", 15", 33-1/2", and 44-1/2" from outer edge of jamb (measured from interior right jamb)
1" x 1/4" rectangle punches	2	Exterior sill face, 3" from outer jamb and 7/8" from bottom of sill, measured at 1/4" x 3/16"

Reinforcement: No reinforcement utilized.

Installation: The unit was installed into a Hem-Fir test buck using 2" by 4-1/4" aluminum anchor clips. Clip location at head and sill was 14", 30", 46", 50", 66" and 82" from outer edge of jambs. Clip location at jambs was 12", 28", and 44" from outer edge of sill. Each anchor clip was secured to the test buck with two 1/4" x 2-1/2" screws.

Test Results: The following results have been recorded:

Protocol TAS 202-94, *Static Air Pressure Tests*

Test Unit #4

Design Pressure: ± 100.0 psf

Title of Test	Results		
Air Infiltration			
1.57 psf (25 mph)	0.03 cfm/ft ²		
6.24 psf (50 mph)	0.05 cfm/ft ²		
Structural Loads	Indicator Readings (inch)		
	#1	#2	#3
50% of Test Pressure (+75.0 psf)			
Maximum Deflection	0.10	0.30	0.12
Permanent Set	0.03	0.05	0.02
Design Pressure (+100.0 psf)			
Maximum Deflection	0.14	0.41	0.18
Permanent Set	0.03	0.07	0.03
50% of Test Pressure (-75.0 psf)			
Maximum Deflection	0.17	0.35	0.19
Permanent Set	0.05	0.07	0.04
Design Pressure (-100.0 psf)			
Maximum Deflection	0.31	0.48	0.28
Permanent Set	0.08	0.12	0.07
Water Infiltration			
15% Positive Design Pressure (+15.0 psf)	No Penetration		
Test Pressure (+150.0 psf)			
Maximum Deflection	0.19	0.47	0.28
Permanent Set	0.06	0.12	0.06
Test Pressure (-150.0 psf)			
Maximum Deflection	0.28	0.51	0.31
Permanent Set	0.04	0.06	0.04
Forced Entry - ASTM F 588-97 Test	Pass		

Note: See Architectural Testing Sketch #1 for indicator locations.

Test Results: (Continued)

Protocol TAS 201-94, *Impact Test Procedures*

Missile Weight: 9.2 lbs

Muzzle Distance from Test Specimen: 16 ft.

Test Unit #1

Impact #1: Missile Velocity: 50.1 fps

Impact Area: Center of glass, operable sash

Observations: No rupture, no penetration

Results: Pass

Impact #2: Missile Velocity: 50.2 fps

Impact Area: Top right corner of glass, operable sash

Observations: No rupture, no penetration

Results: Pass

Note: Refer to Architectural Testing Sketch #1 for impact locations.

Test Results: (Continued)

Protocol TAS 203-94, Cyclic Wind Pressure Loading

Test Unit #1

Design Pressure: ± 100.0 psf

POSITIVE PRESSURE

Pressure Range (psf)	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
20 to 50	3500	1.37	0.06	0.20	0.14
0 to 60	300	1.77	0.08	0.28	0.16
50 to 80	600	1.20	0.11	0.39	0.20
30 to 100	100	2.26	0.13	0.46	0.24
			Permanent Set (inch)		
			0.02	0.02	0.01

NEGATIVE PRESSURE

Pressure Range (psf)	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
30 to 100	50	2.18	0.26	0.48	0.28
50 to 80	1050	1.05	0.22	0.46	0.25
0 to 60	50	2.21	0.14	0.31	0.17
20 to 50	3350	1.36	0.11	0.28	0.15
			Permanent Set (inch)		
			0.02	0.04	0.03

Observations: No rupture, no penetration

Result: Pass

Note: Refer to Architectural Testing Sketch #1 for indicator locations.

Test Results: (Continued)

Protocol TAS 201-94, *Impact Test Procedures*

Missile Weight: 9.2 lbs

Muzzle Distance from Test Specimen: 16 ft.

Test Unit #2

Impact #1: Missile Velocity: 50.3 fps

Impact Area: Bottom left corner of glass, operable sash

Observations: No rupture, no penetration

Results: Pass

Impact #2: Missile Velocity: 50.2 fps

Impact Area: Center of glass, operable sash

Observations: No rupture, no penetration

Results: Pass

Note: Refer to Architectural Testing Sketch #1 for impact locations.

Test Results: (Continued)

Protocol TAS 203-94, Cyclic Wind Pressure Loading

Test Unit #2

Design Pressure: ± 100.0 psf

POSITIVE PRESSURE

Pressure Range (psf)	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
20 to 50	3500	2.04	0.12	0.19	0.10
0 to 60	300	2.92	0.14	0.19	0.10
50 to 80	600	2.11	0.18	0.31	0.16
30 to 100	100	2.94	0.22	0.44	0.19
			Permanent Set (inch)		
			0.01	0.02	0.02

NEGATIVE PRESSURE

Pressure Range (psf)	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
30 to 100	50	2.74	0.28	0.52	0.25
50 to 80	1050	2.09	0.28	0.49	0.23
0 to 60	50	2.29	0.21	0.35	0.16
20 to 50	3350	1.57	0.18	0.27	0.13
			Permanent Set (inch)		
			0.02	0.03	0.02

Observations: No rupture, no penetration

Result: Pass

Note: Refer to Architectural Testing Sketch #1 for indicator locations.

Test Results: (Continued)

Protocol TAS 201-94, *Impact Test Procedures*

Missile Weight: 9.2 lbs

Muzzle Distance from Test Specimen: 16 ft.

Test Unit #3

Impact #1: Missile Velocity: 50.5 fps

Impact Area: Top right corner of glass, operable sash

Observations: No rupture, no penetration

Results: Pass

Impact #2: Missile Velocity: 50.5 fps

Impact Area: Interlock midpoint

Observations: No rupture, no penetration

Results: Pass

***Note:** Refer to Architectural Testing Sketch #1 for impact locations.*

Test Results: (Continued)

Protocol TAS 203-94, Cyclic Wind Pressure Loading

Test Unit #3

Design Pressure: ± 100.0 psf

POSITIVE PRESSURE

Pressure Range (psf)	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
20 to 50	3500	2.04	0.06	0.20	0.09
0 to 60	300	2.92	0.06	0.22	0.11
50 to 80	600	2.11	0.10	0.31	0.14
30 to 100	100	2.94	0.14	0.38	0.17
			Permanent Set (inch)		
			0.01	0.01	0.01

NEGATIVE PRESSURE

Pressure Range (psf)	Number of Cycles	Average Cycle Time (seconds)	Maximum Deflection at Indicator (inch)		
			#1	#2	#3
30 to 100	50	2.74	0.15	0.38	0.26
50 to 80	1050	2.09	0.11	0.31	0.20
0 to 60	50	2.29	0.05	0.24	0.12
20 to 50	3350	1.57	0.04	0.21	0.10
			Permanent Set (inch)		
			0.01	0.03	0.02

Observations: No rupture, no penetration

Result: Pass

Note: Refer to Architectural Testing Sketch #1 for indicator locations.

Test Equipment: (See Appendix A)

Cannon: Steel pipe barrel utilizing compressed air to propel the missile

Missile: 2x4 Southern Pine

Timing Device: Electronic Beam Type

Cycling Mechanism: Computer controlled centrifugal blower with electronic pressure measuring device

Deflection Measuring Device: Linear transducers

Laboratory Compliance Statements: The following are provided as required by the protocols for the testing reported herein.

Upon completion of testing, specimens tested for TAS 201-94 met the requirements of Section 1626 of the Florida Building Code.

Upon completion of testing, specimens tested for TAS 202-94 met the requirements of Section 1620 of the Florida Building Code.

Upon completion of testing, specimens tested for TAS 203-94 met the requirements of Section 1626 of the Florida Building Code.

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.

Testing was conducted at the Architectural Testing, Inc. laboratory located in Southlake, Texas.

List of Official Observers:

<u>Name</u>	<u>Company</u>
Andy Cost	Architectural Testing, Inc.
Joseph A. Reed, P.E.	Architectural Testing, Inc.
Tom Klein	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 ten 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.

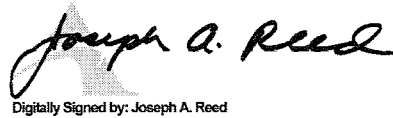
Results obtained are tested values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimens tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.



Digitally Signed by: Tom Klein

Tom Klein
Test Technician



Digitally Signed by: Joseph A. Reed

Joseph A. Reed, P.E.
Director - Engineering and Product Testing

TK:ac/cmd

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

Appendix-A: Test Equipment (1)

Appendix-B: Sketches (1)

Appendix-C: Drawings (13)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	06/09/09	N/A	Original report issue

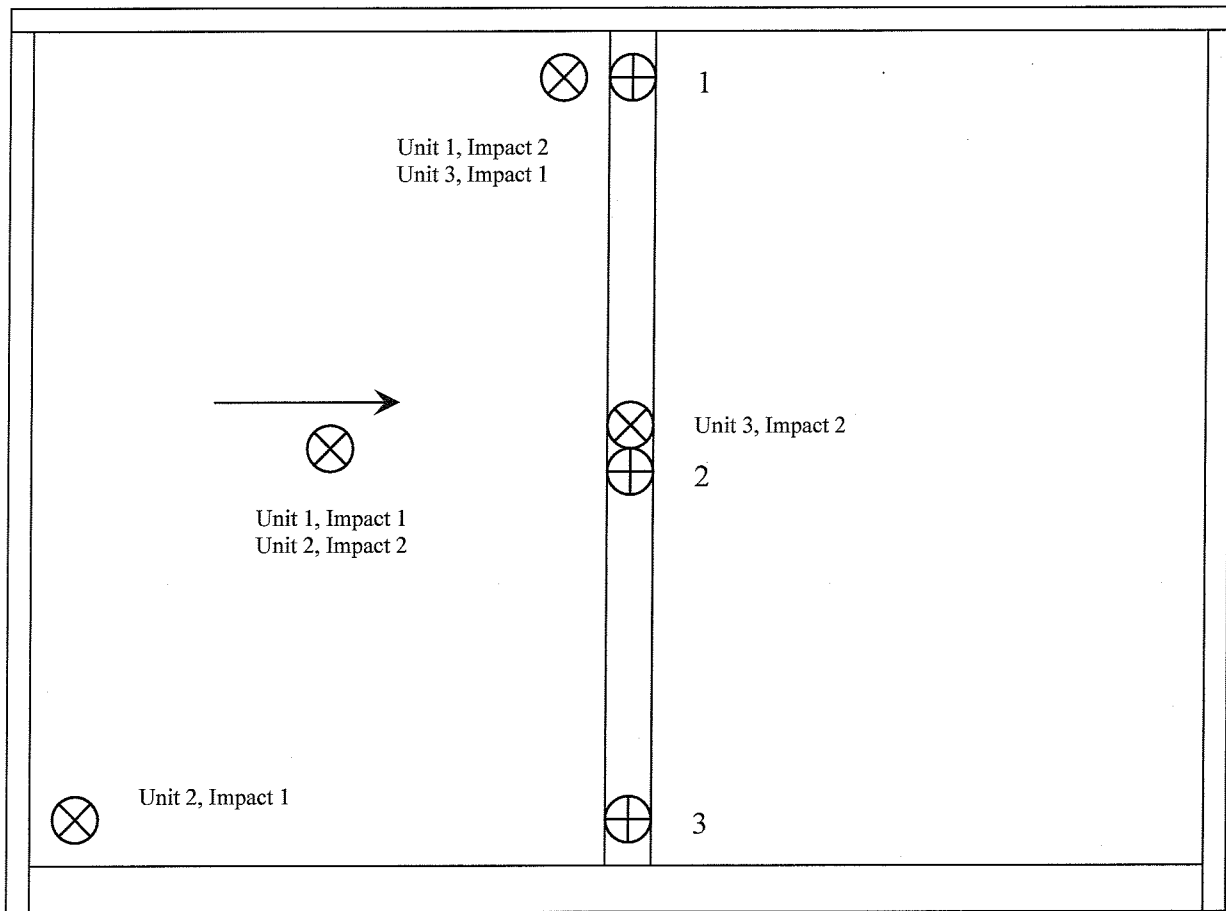
Appendix A

Test Equipment

Instrument	Manufacturer	Asset #
Linear Transducer	Celesco	3273
Linear Transducer	Celesco	62194
Linear Transducer	Celesco	3755
Linear Transducer	Celesco	5204
Linear Transducer	Celesco	3274
Linear Transducer	Celesco	3269
Linear Transducer	Celesco	3272
Linear Transducer	Celesco	62196
Control Panel	Architectural Testing, Inc.	4168
Control Panel	Architectural Testing, Inc.	5469
Control Panel	Architectural Testing, Inc.	Y001896
Cannon	Architectural Testing, Inc.	5469
Micro Mule	Architectural Testing, Inc.	5302
Spring Scale 220#	Taylor	62104
Spray Rack	Architectural Testing, Inc.	3233

Appendix B

Sketch



 = Linear Transducers  = Impacts

Sketch #1

Appendix C

Drawings

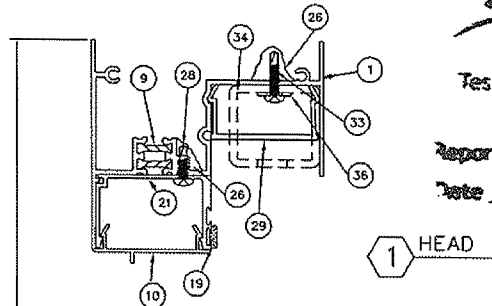
Architectural Testing

Test sample shown in these details
Dimensions are noted.

Report# 91471

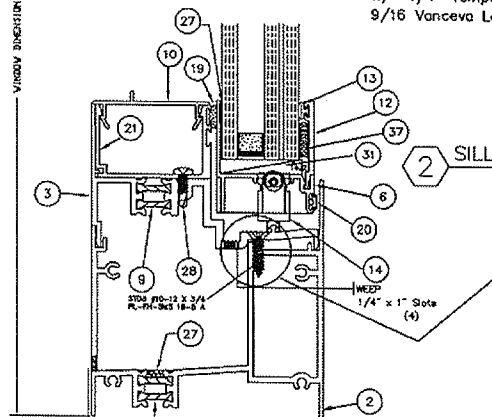
Date 5/27/09

Tech *th*

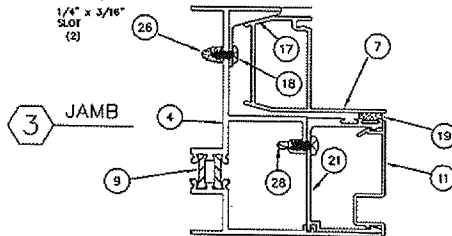


1 HEAD

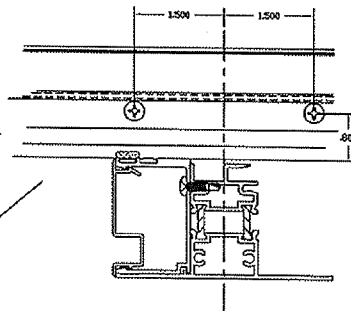
1 1/4" INSULATED 7/16" *th*
W/ 1/4" Tempered, 1/2" A.S.
9/16 Vancova Laminated Glass



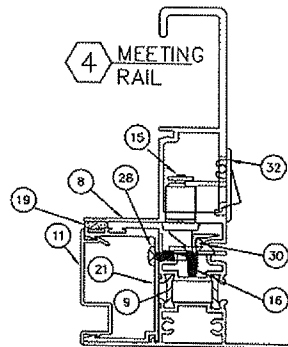
2 SILL



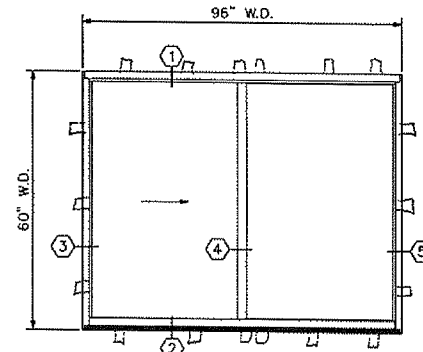
3 JAMB



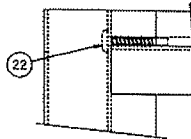
4 MEETING RAIL



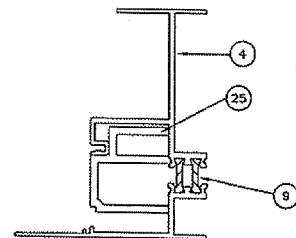
5 JAMB



ELEVATION



SASH CORNER ASSEMBLY - MILLED
AND MECHANICALLY ASSEMBLED.



FRAME CORNER ASSEMBLY - MILLED
AND MECHANICALLY ASSEMBLED.

ITEM	# REQD	PART #	DESCRIPTION
1	1	1J99	HEAD
2	1	1J68	TALL SILL (SHOWN)
3	1	2J02	SILL INLAY
4	2	2J01	JAMB
5	1	2J03	FRAME MEETING RAIL
6	2	20E7	SASH HZ. RAILS
7	1	20E5	SASH SIDE RAIL
8	1	20E6	SASH HANDLE RAIL
9	10	LAA3	Thermal STRUT
10	2	6699	WSTP. ADAPTOR COVER
11	2	6698	WSTP. ADAPTOR COVER
12	8	14J2	GLAZING BEAD
13	AS REQ'D	WAO9	GLAZING BEAD VINYL
14	2	HR27	FIXED ROLLER
15	1	HL05	AUTO-THUMB SPRING LOCK
16	4	MPD9	#8 x 1/2" PL-FH-SMS
17	3	HGD2	JAMB CAM
18	3	STC6	#6 x 3/8" PL-TH-SMS
19	AS REQ'D	WQ02	WEATHERSTRIP
20	2	LB32	GUIDE VINYL
21	4	LAB9	WSTP. ADAPTOR
22	4	SLQ2	#8 x 1" PL-PH-SMS
23	1 SET	HF00	FRAME GASKET (HEAD)
24	1 SET	HF01	FRAME GASKET (TALL SILL-SHOWN)
25	5	HB97	FIXED JAMB FILLER BLOCK
26	AS REQ'D	JJ44	SEAM SEALER
27	AS REQ'D	JJ66	SILICONE
28	AS REQ'D	STT6	#8 x 9/16" PL-PH-SMS ZC
29	2	LB92	ANTI RACK PVC CHANNEL
30	1	HK16	THUMB LOCK KEEPER
31	16	HN41	SETTING BLOCK
32	1	HL05/HL05	AUTO THUMB SPRING LOCK (CLEAR)
33	14	STK2	SASH STOP ATTACHMENT SCREW
34	1	HB53	SASH STOP @ HEAD
35	14	STK2	10-16 X 1 PL-PH-SMS
36	1	ILK6	SASH STOP WASHER
37	As Req'd	JJ61	Silicone Sealant

DRAWN BY	trh	CHECKED BY		SCALE	REV.
DATE	5-9-08	DATE		FULL	

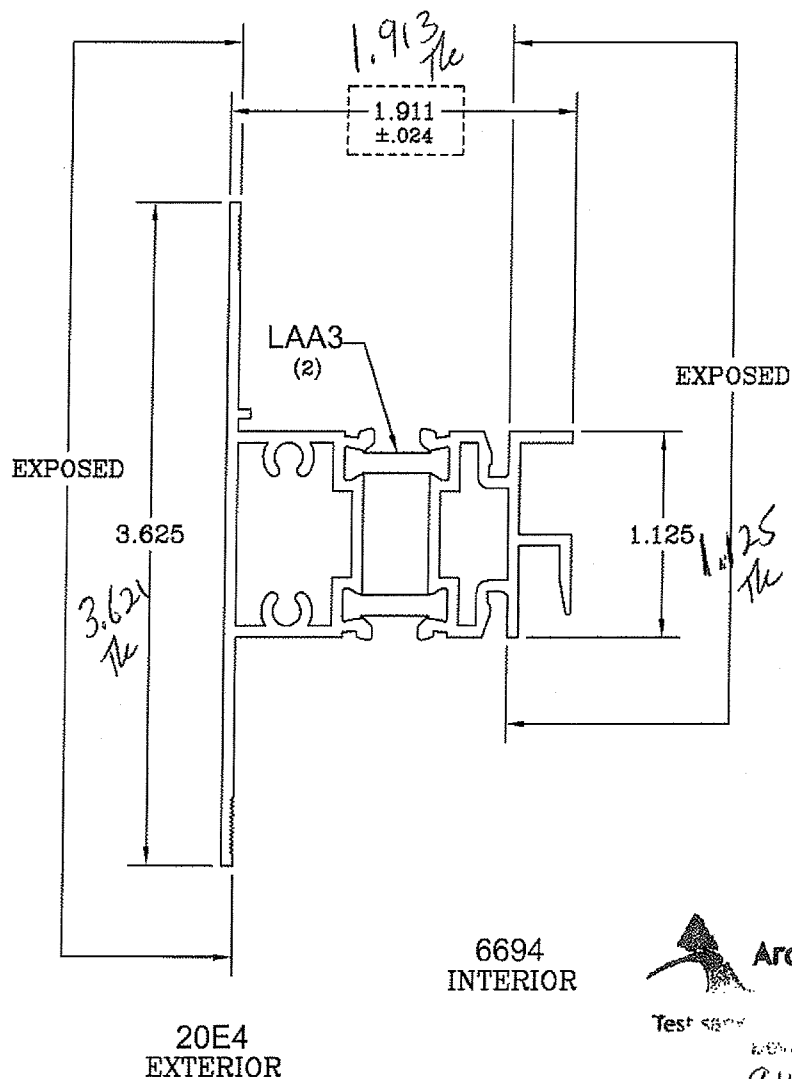
EFCO CORPORATION
1000 County Road - Monett, Missouri 65708

6551 X/O TALL SILL

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REPORT#	SHEET
XXXX	1 of 1

STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



Architectural Testing

Test samples shall conform with these details
unless otherwise noted.

Report# 91471

Date 5/27/09 Tech TH

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EFCO CORP.

1000 COUNTY ROAD
MONETT, MO. 65708

REVISIONS W/DATES:

DRAWN: TRH

APPROVED:

SCALE:

TITLE

NO.

DATE: 6-20-08

DATE:

FULL

MEETING RAIL

2J03

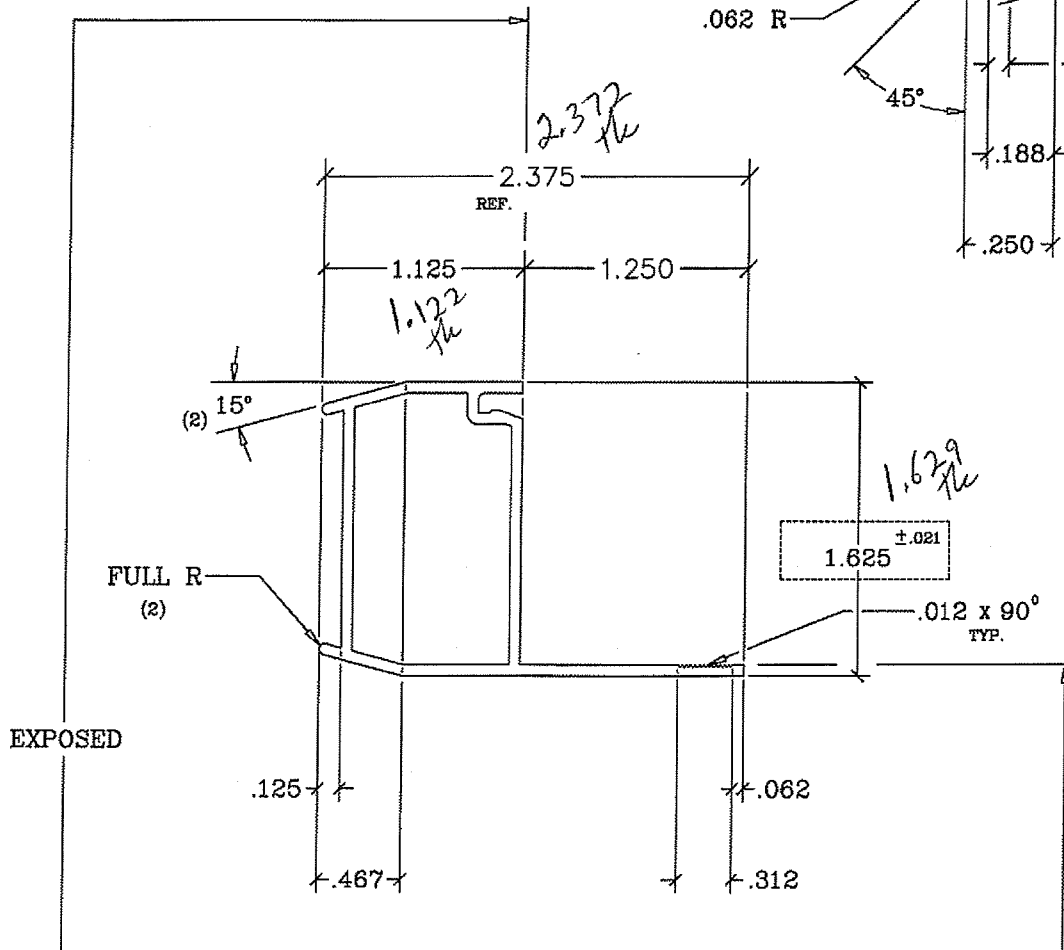
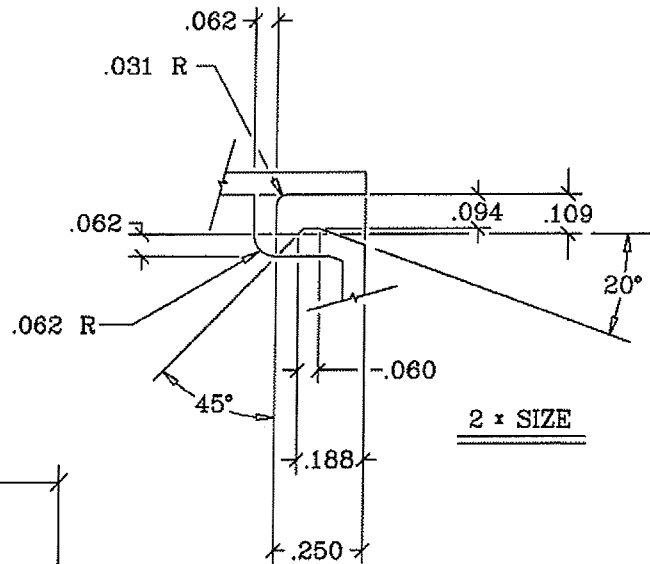
STD. EXTRUSION TOLERANCES AS DEFINED BY THE ALUMINUM ASSOCIATION UNLESS OTHERWISE STATED. CORNER RADII .015 EXCEPT AS NOTED.



Architectural Testing

Test Report: Details of details
and dimensions.

Report# 91471
Date 5/27/09 Tech TK



ACTUAL SIZE

DO NOT SCALE PRINT

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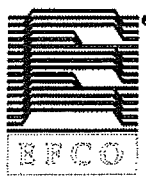
MATERIAL: 6063-T6 ALUM.

WALL THICKNESS: .062 & AS NOTED

TOTAL PERIMETER: 13.228 OS = 8.645
PAINTED PERIMETER: 5.234 IS = 4.583

AREA: .407 WT/FT: .488

FACTOR: 27



a Pella Company
1090 County Road
Monett, Missouri 65708
1-800-221-4169
FAX: 417-235-7313

DRAWN BY: TRH

DATE: 6-20-08

APPROVED: TRH

DATE: 6-20-08

SERIES: 6551

TITLE: Sash Side Rail

REVISIONS W/ DATES:

SCALE: AS NOTED

DIE CIRCLE: 3"

DWG NO. 20E5

[illegible]

Architectural Testing
Test software programs with these details
before they are coded.

Report# 91471
Date 5/27/09 Tech TK

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MATERIAL: 6063-T6 ALUM.		 <i>a Pella Company</i> 1000 County Road Monett, Missouri 65708 1-800-221-4169 FAX: 417-235-7313	DRAWN BY: TRH		REVISIONS W/ DATES:	
WALL THICKNESS: .125 & AS NOTED			DATE: 6-20-08			
TOTAL PERIMETER: 21.042 OS = 16.531 IS = 4.511			APPROVED: TRH			
PAINTED PERIMETER: 13.119			DATE: 6-20-08			
AREA: 1.122	WT/FT: 1.346		1000 County Road Monett, Missouri 65708 1-800-221-4169 FAX: 417-235-7313	SERIES: 6551	SCALE: AS NOTED	DIE CIRCLE: 5"
FACTOR: 16		TITLE: Sash Meeting Rail		DWG NO. 20E6		

STD. EXTRUSION TOLERANCES AS DEFINED BY THE ALUMINUM ASSOCIATION UNLESS OTHERWISE STATED. CORNER RADII .015 EXCEPT AS NOTED.



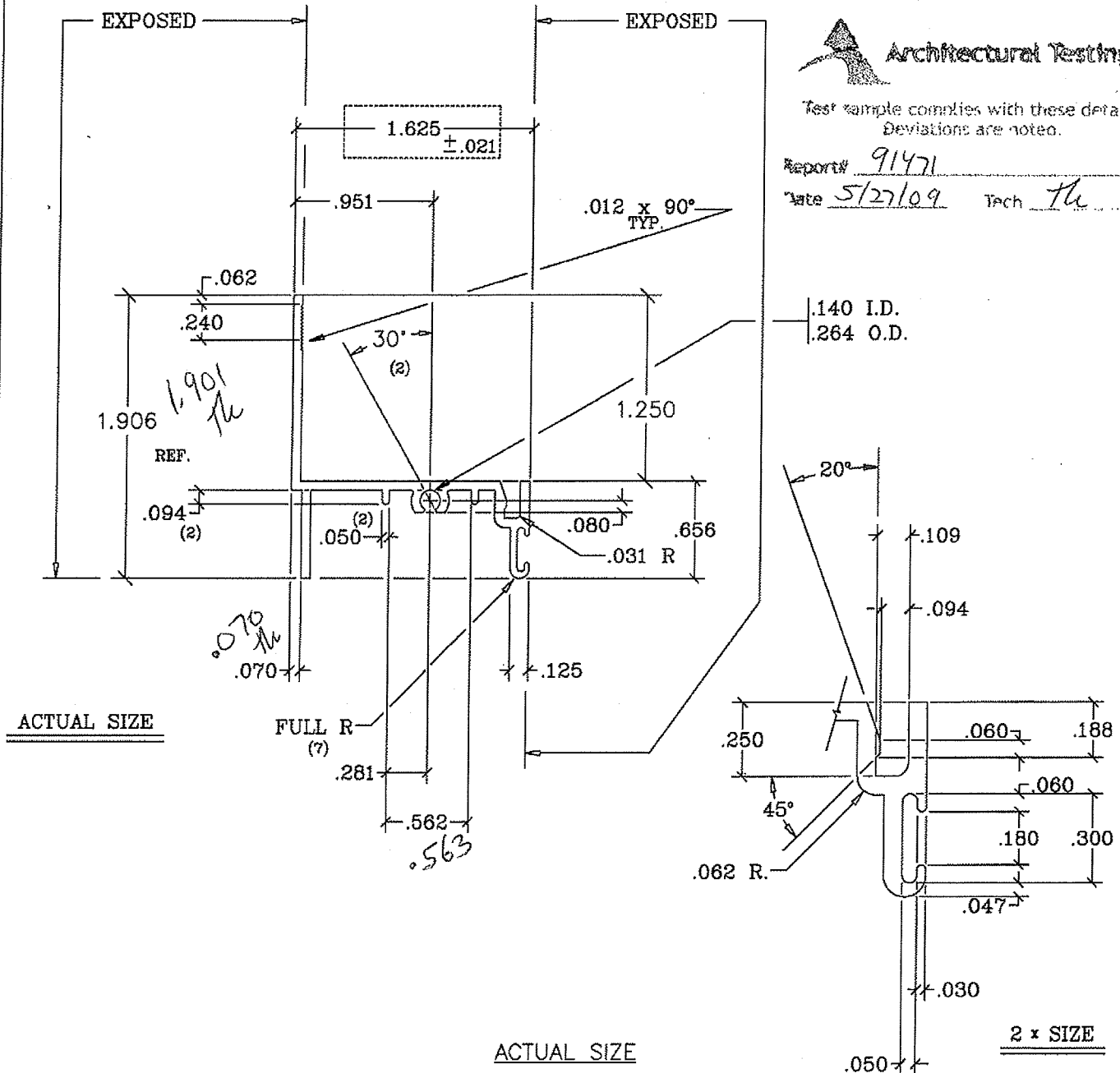
Architectural Testing

Test sample complies with these details
Deviations are noted.

Report# 91471

Date 5/27/09

Tech TH



DO NOT SCALE PRINT

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MATERIAL: 6063-T6 ALUM.

WALL THICKNESS: .062 & AS NOTED

TOTAL PERIMETER: 10.015

PAINTED PERIMETER: 3.055

AREA: .295 WT/FT: .354

FACTOR: 28



a Pella Company
1000 County Road
Monett, Missouri 65708
1-800-221-4169
FAX: 417-235-7313

DRAWN BY: TRH

DATE: 6-20-08

APPROVED: TRH

DATE: 6-20-08

SERIES: 6551

TITLE: Sash Top & Bot. Rail

REVISIONS W/ DATES:

SCALE: AS NOTED

DIE CIRCLE: 3"

DWG NO. 20E7

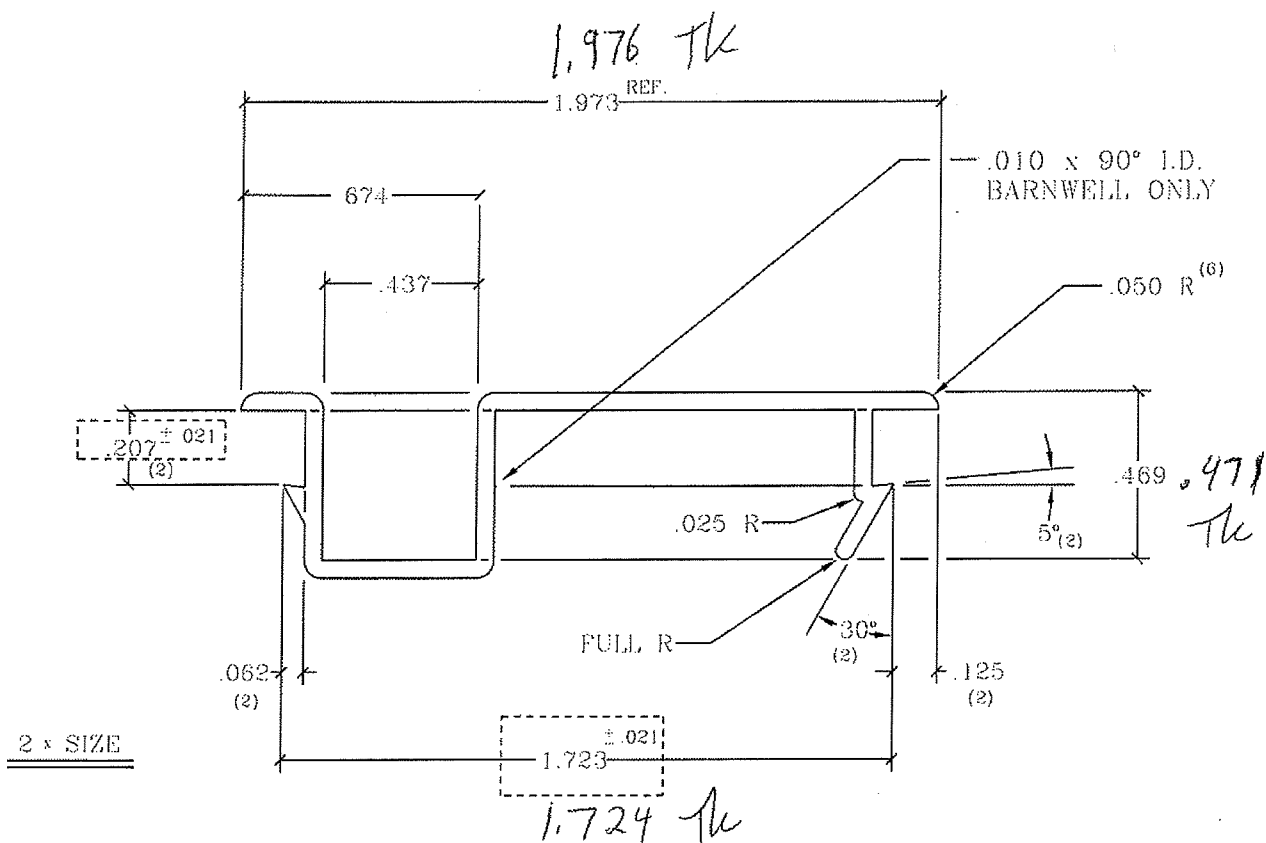
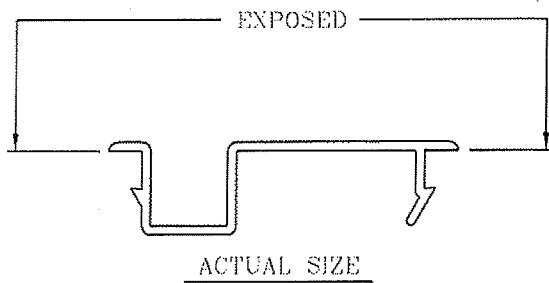
STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED CORNER RADII .015 EXCEPT AS NOTED



Architectural Testing

Test sample complies with these details
Deviations are noted.

Report# 91471
Date 5/27/09 Tech TK



.010 x 90° I.D. MARK TO BE INCORPORATED
INTO DIE @ EFCO BARNWELL ONLY. EFCO
MONETT IS NOT TO HAVE I.D. MARK.

JOB# 9-4488-00

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MATERIAL = 6063-T6		EFCO CORP.		1000 COUNTY ROAD MONETT, MO. 65708	
WALL THICKNESS = .050 UNSPEC.					
PERIMETER = 6.831	OS = IS =	DRAWN: SCC	REVISIONS W/DATES		
AREA = .169		DATE 06/10/99	A TYP WALL THICKNESS .050 WAS .062 7/7/99 SCC		
WT/FT = .203		APPROVED:			
FACTOR = 34		DATE	SCALE: AS NOTED	DIE CIRCLE =	
1/ = 1/2 =		TITLE SCREEN ADAPTER			NO 6698 REV. A

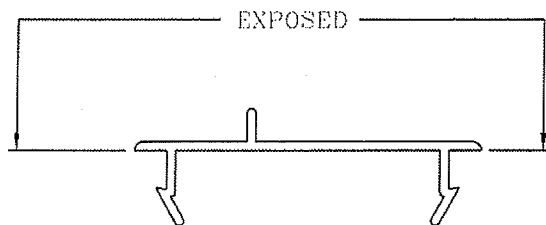
STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



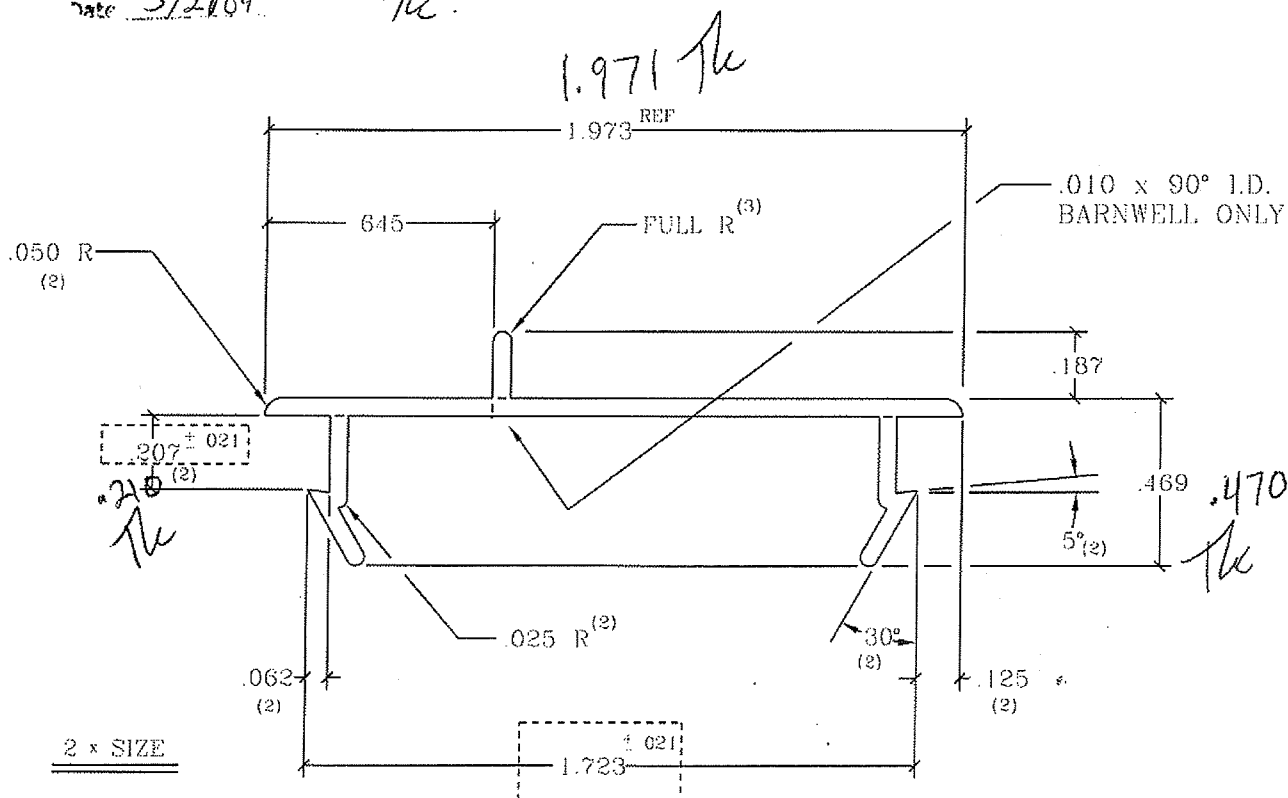
Architectural Testing

Test sample complies with these details
Deviations are noted.

Report# 91471
Date 5/21/09 *He*



ACTUAL SIZE



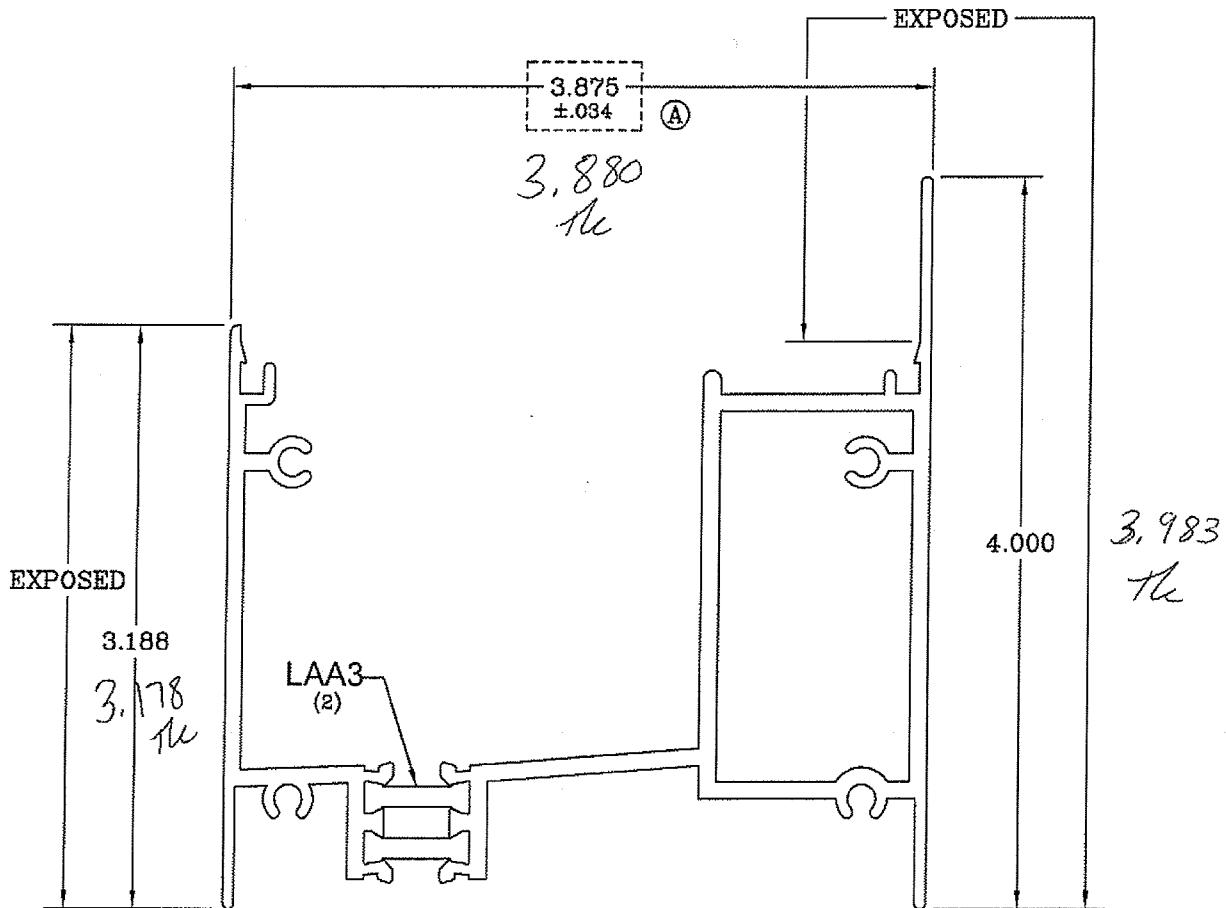
.010 x 90° I.D. MARK TO BE INCORPORATED
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MONETT IS NOT TO HAVE I.D. MARK.

JOB# 9-4488-00

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MATERIAL = 6063-T6		EFCO CORP.		1000 COUNTY ROAD MONETT, MO. 65705		
WALL THICKNESS = .050 UNSPEC.						
PER-METER = 6.258	OS = IS =	DRAWN: SCC	REVISIONS W/DATES			
AREA = .154		DATE: 06/10/99	A TYP WALL THICKNESS .050 WAS .062 7/7/99 SCC			
WT/FT = .185		APPROVED:				
FACTOR = 34		DATE	SCALE: AS NOTED	DIE CIRCLE =		
ix =		TITLE		NO	REV	
iy =		SCREEN ADAPTER		6699	A	

STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



6690
EXTERIOR

6689
INTERIOR



Architectural Testing

Test samples must comply with these details
unless otherwise noted.

Report# 91471
Date 5/27/09 Tech tlc

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EFCO CORP.

1000 COUNTY ROAD
MONETT, MO. 65708

REVISIONS W/DATES:

Ⓐ REMOVED BARNWELL I.D. INFO & ADD EXPOSURE 11/21/01 TAW

DRAWN: SCC

APPROVED: TAW

SCALE:

TITLE

NO.

DATE: 6/10/99

DATE: 11/21/01

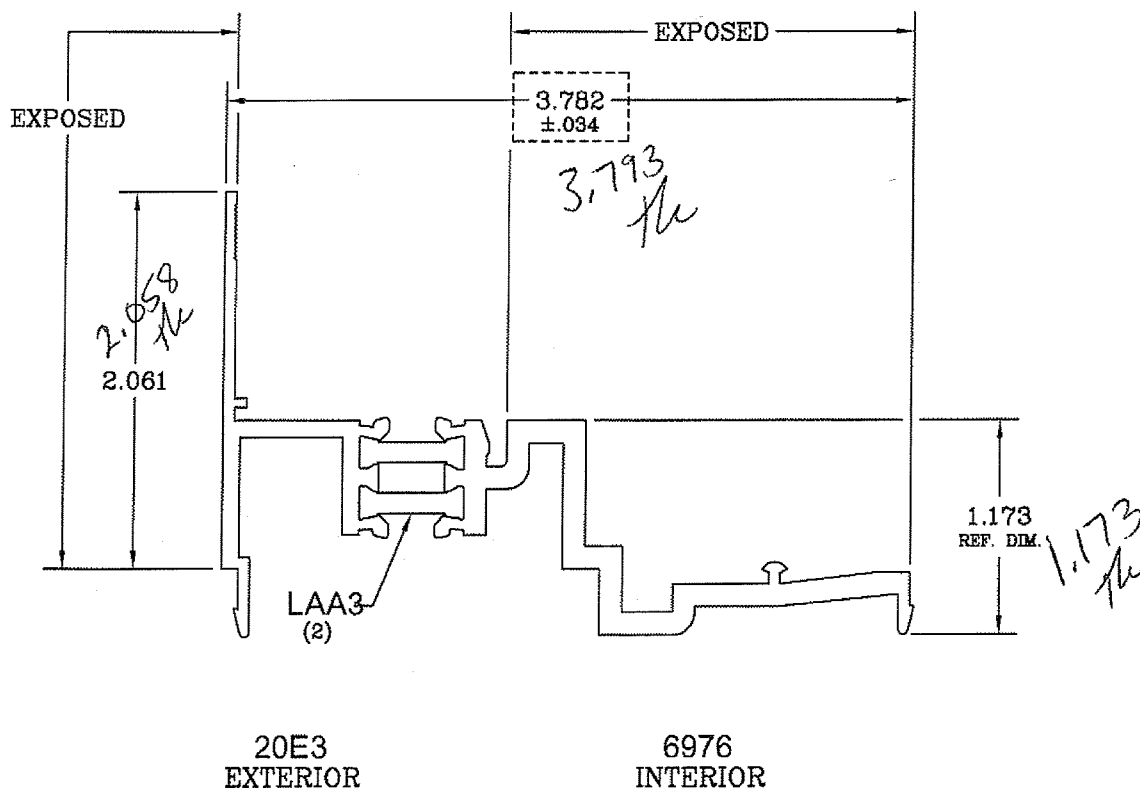
FULL

SILL

1J68

Ⓐ

STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



Architectural Testing

Test samples must be made with these details
dimensions are noted.

Report# 91471
Date 5/27/09 Tech JL

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EFCO CORP.

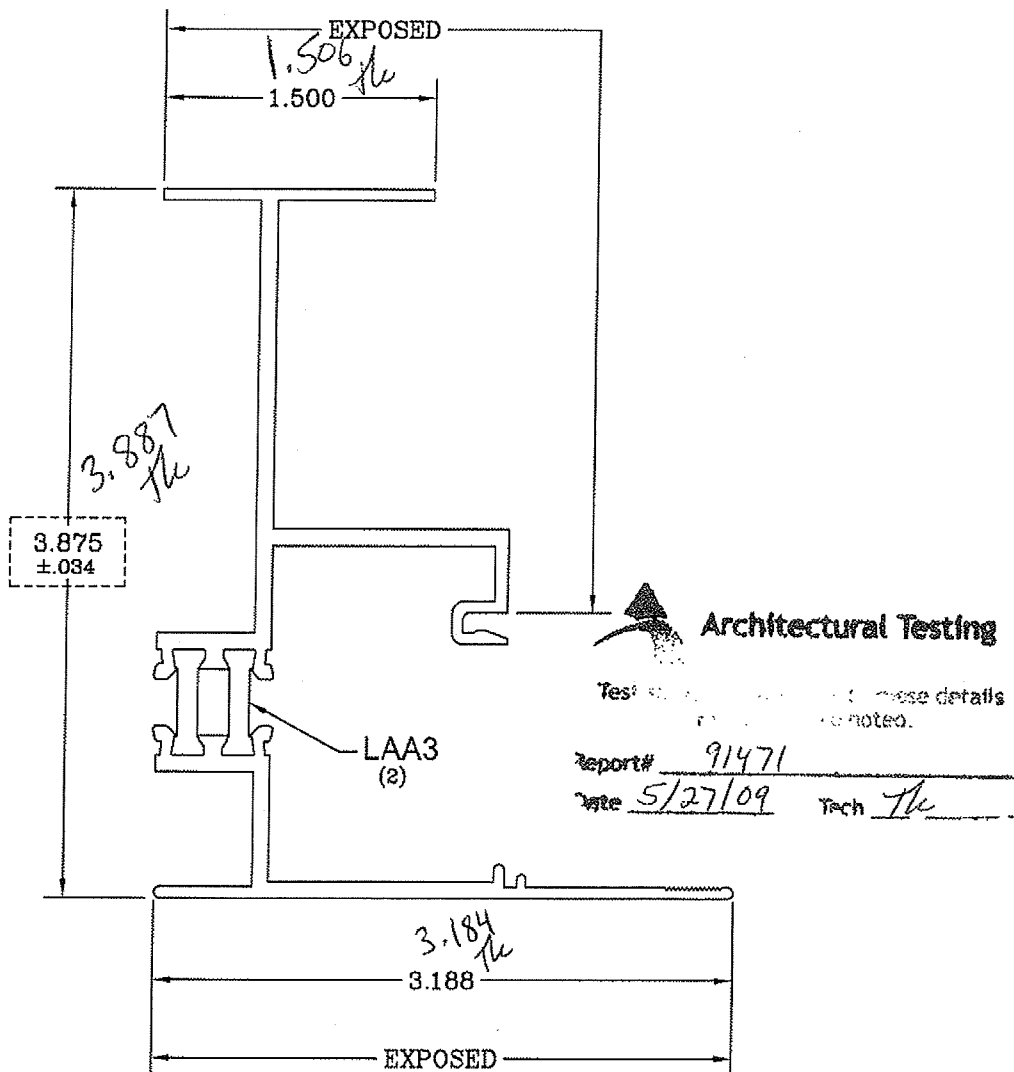
1000 COUNTY ROAD
MONETT, MO. 65708

REVISIONS W/DATES:

DRAWN: TRH	APPROVED:	SCALE: FULL	TITLE: SILL INLAY	NO. 2J02
DATE: 6-20-08	DATE:			

STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.

6685
INTERIOR



20E2
EXTERIOR

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EFCO CORP.

1000 COUNTY ROAD
MONETT, MO. 65708

REVISIONS W/DATES:

DRAWN: TRH	APPROVED:	SCALE: FULL	TITLE JAMB	NO. 2J01
DATE: 6-20-08	DATE:			

STD. EXTRUSION TOLERANCES AS DEFINED BY
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



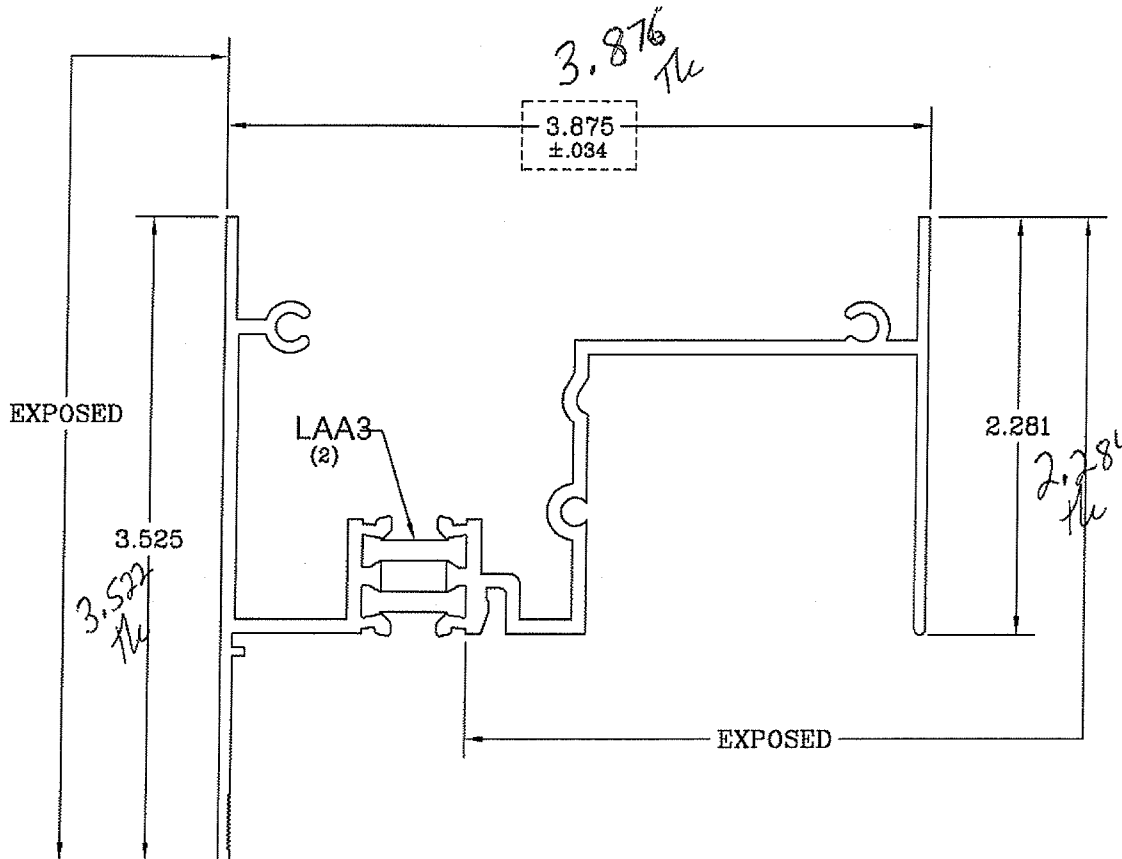
Architectural Testing

Test No. _____ Drawing details
noted.

Report# 91471

Date 5/27/09

Tech TL



20E1
EXTERIOR

6687
INTERIOR

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EFCO CORP.

1000 COUNTY ROAD
MONETT, MO. 65708

REVISIONS W/DATES:

DRAWN: TRH

APPROVED:

SCALE:

TITLE

NO.

DATE: 6-20-08

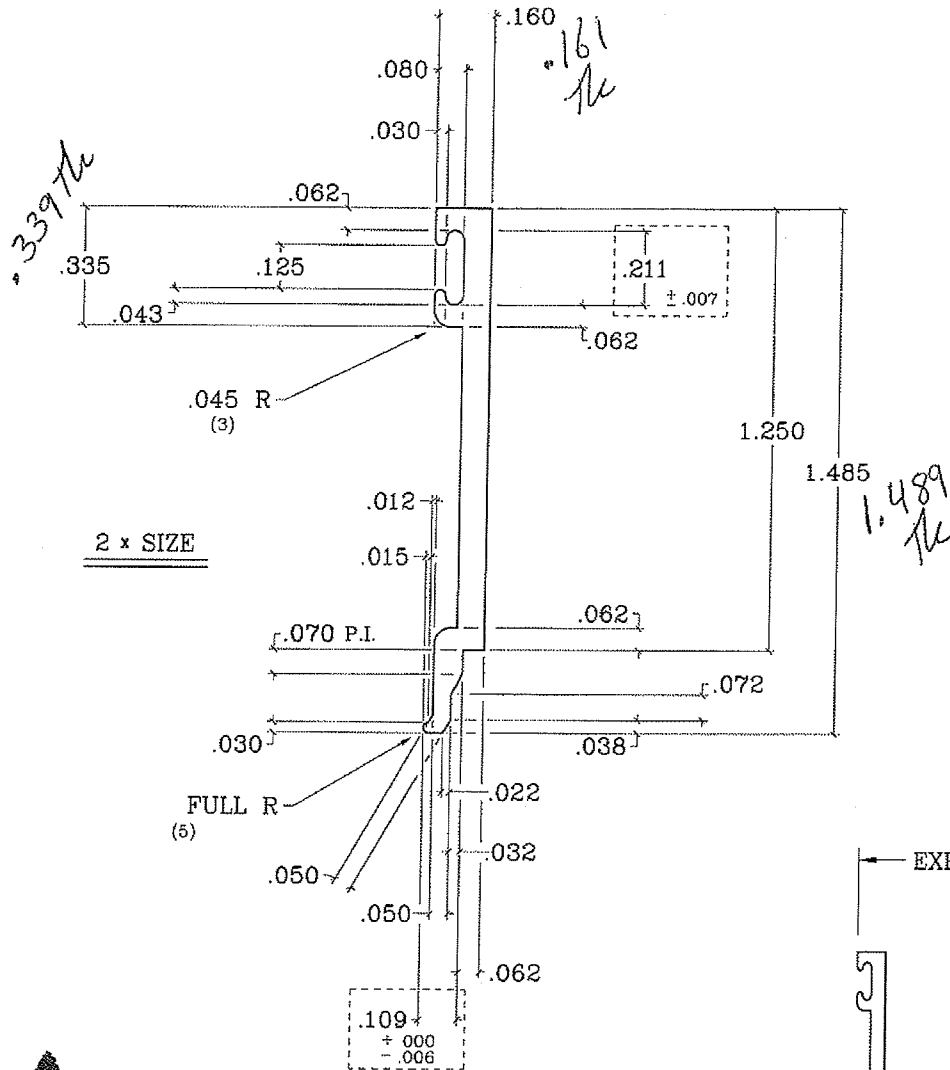
DATE:

FULL

HEAD

1J99

STD. EXTRUSION TOLERANCES AS DEFINED BY THE
ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



Test results are given in these details
as noted.

Report# 91471
Date 5/27/09 Tech the

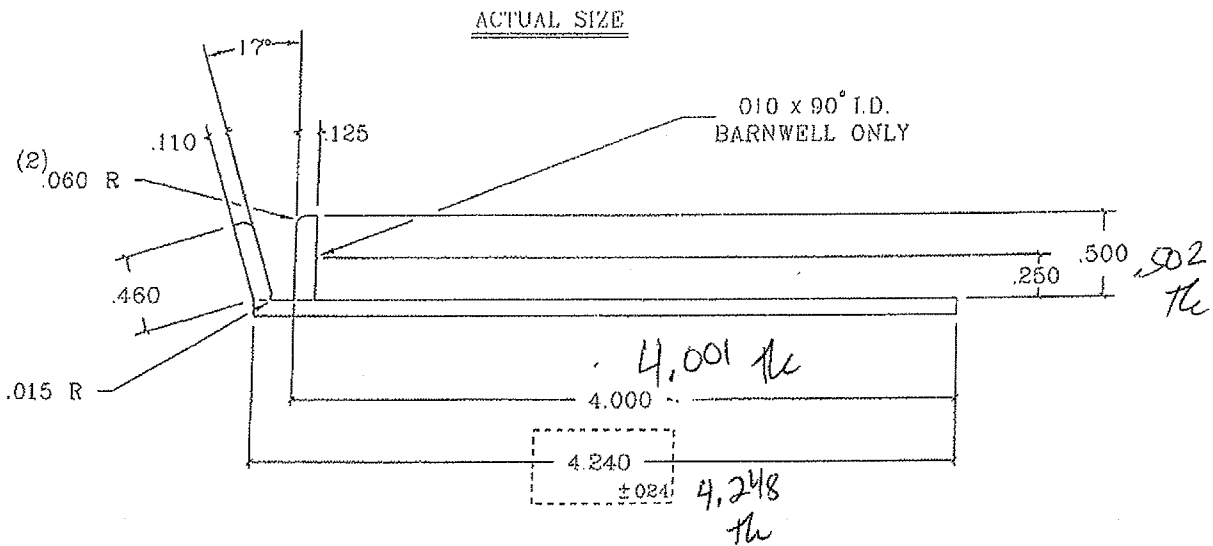
ACTUAL SIZE

DO NOT SCALE PRINT

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MATERIAL: 6063-T6 ALUM.		 EFCO CORPORATION 1000 County Road Monett, Missouri 65708 1-800-221-4169 Fax: 417-235-7313	DRAWN BY: KB	REVISIONS W/ DATES:	
WALL THICKNESS: .080 & AS NOTED			DATE: 4-13-06		
TOTAL PERIMETER: 3.635			APPROVED: KB		
PAINTED PERIMETER: 1.410			DATE: 4-13-06	JOB REF. NO.:	
AREA: .131	WT/FT: .157		SERIES: 663	SCALE: AS NOTED	DIE CIRCLE: 2"
FACTOR: 23			TITLE: 1.160 GLAZING BEAD		DWG NO. 14J2

STD. EXTRUSION TOLERANCES AS DEFINED BY A
THE ALUMINUM ASSOCIATION UNLESS OTHERWISE
STATED. CORNER RADII .015 EXCEPT AS NOTED.



NO EXPOSED SURFACES



Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 91471
Date 5/27/09 Tech th

DO NOT SCALE PRINT

.010 x 90° I.D. MARK TO BE INCORPORATED
INTO DIE @ EFCO BARNWELL ONLY. EFCO
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A

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MATERIAL: 6063-T1 ALUM.

WALL THICKNESS: .096 & AS NOTED

EFCO CORP.

1000 COUNTY ROAD
MONETT, MO. 65708

PERIMETER: 10.586

Ⓐ

K. BAKER

REVISIONS W/DATES:

AREA: .520

A

DATE: 7-29-00

A ADDED BARNWELL I.D. NOTES & TOLERANCES,
REDRAWN K. BAKER 7-29-00

WT/FT: .624

A

APPROVED:

ORIGINAL DWN BY JOK 2-3-92

FACTOR: 17

DATE:

SCALE: AS NOTED

DIE CIRCLE: 5"

TITLE

WINDOW CLIP

NO.

1880