



**AAMA 507-07 THERMAL PERFORMANCE REPORT**

**Rendered to:**

**TUBELITE, INC.**

**SERIES/MODEL: Standard 1-3/4" Medium Stile Double Door**

**TYPE: Swinging Door - Double**

**Report No: B3772.16-116-45**  
**Report Date: 10/27/11**

## AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

TUBELITE, INC.  
4878 Mackinaw Trail  
Reed City, Michigan 49677

Report No: B3772.16-116-45  
Report Date: 10/27/11  
Simulation Date: 10/27/11

### Project Summary:

Architectural Testing, Inc. was contracted by Tubelite, Inc. to provide U-Factor and Solar Heat Gain Coefficient thermal performance ratings on the Standard 1-3/4" Medium Stile Double Door Swinging Door - Double. The thermal performance ratings were determined in accordance with AAMA 507-07, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Building.

### Reference Documents:

*AAMA 507-07, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Buildings*

*NFRC 100-2010, Procedure for Determining Fenestration Product U-Factors*

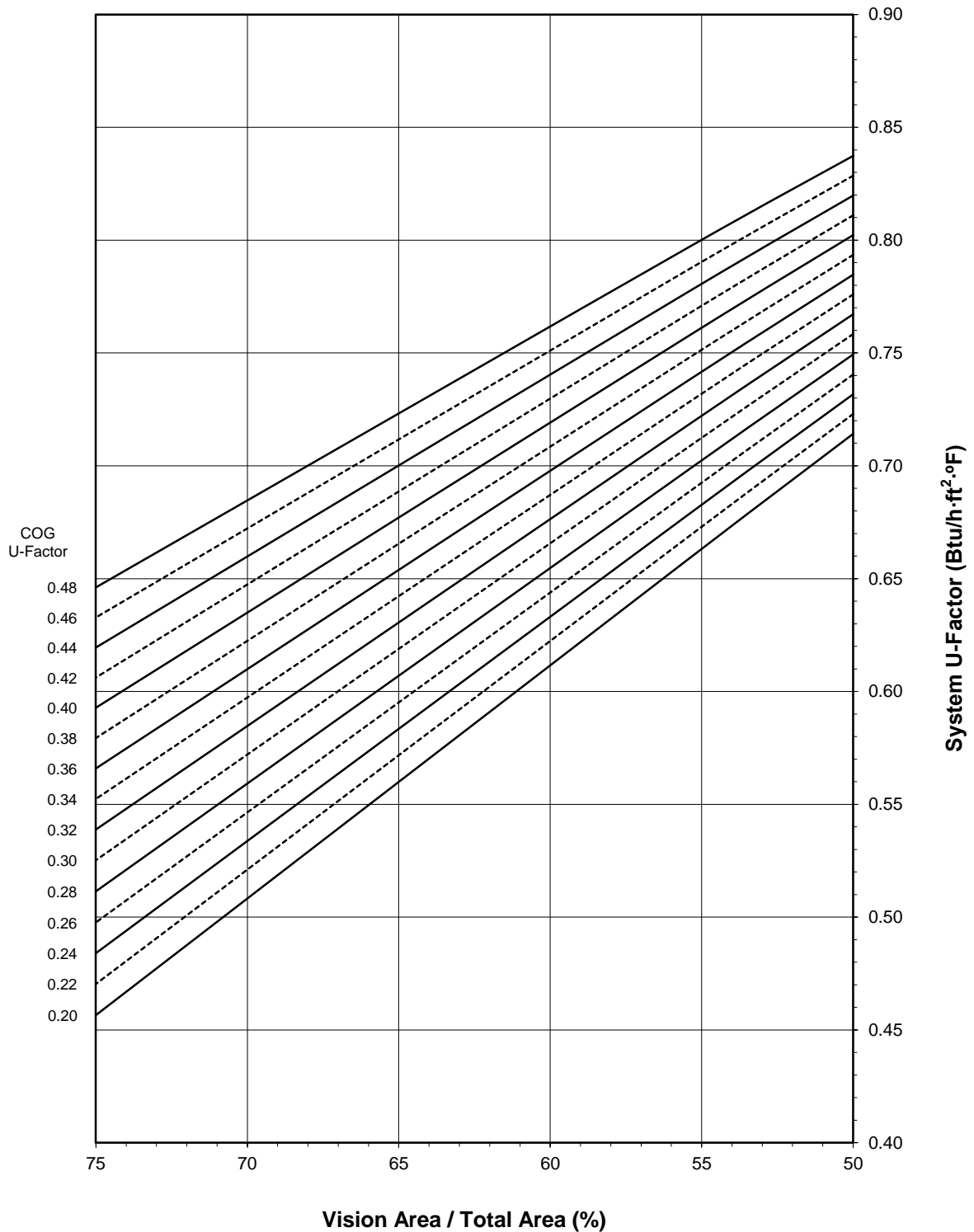
*NFRC 200-2010, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*

### Simulation Specimen Description:

**Series/Model:** Standard 1-3/4" Medium Stile Double Door  
**Product Groupings:** 1-3/4" Medium w/o sweep grouped with 1-3/4" Medium w/ sweep.  
**Type:** Swinging Door - Double  
**Frame Material:** Aluminum Framing System  
**Material Finish:** Painted Aluminum  
**Specimen Size:** 1920mm wide by 2090mm high (75-1/2" by 82-3/8")  
**Configuration:** Two vision lites separated by one intermediate vertical  
**Drawing Reference:** Tubelite Standard Doors - 1-3/4" Frame Details

**Tubelite, Inc.**  
**Standard 1-3/4" Medium Stile Double Door - Swinging Door - Double**

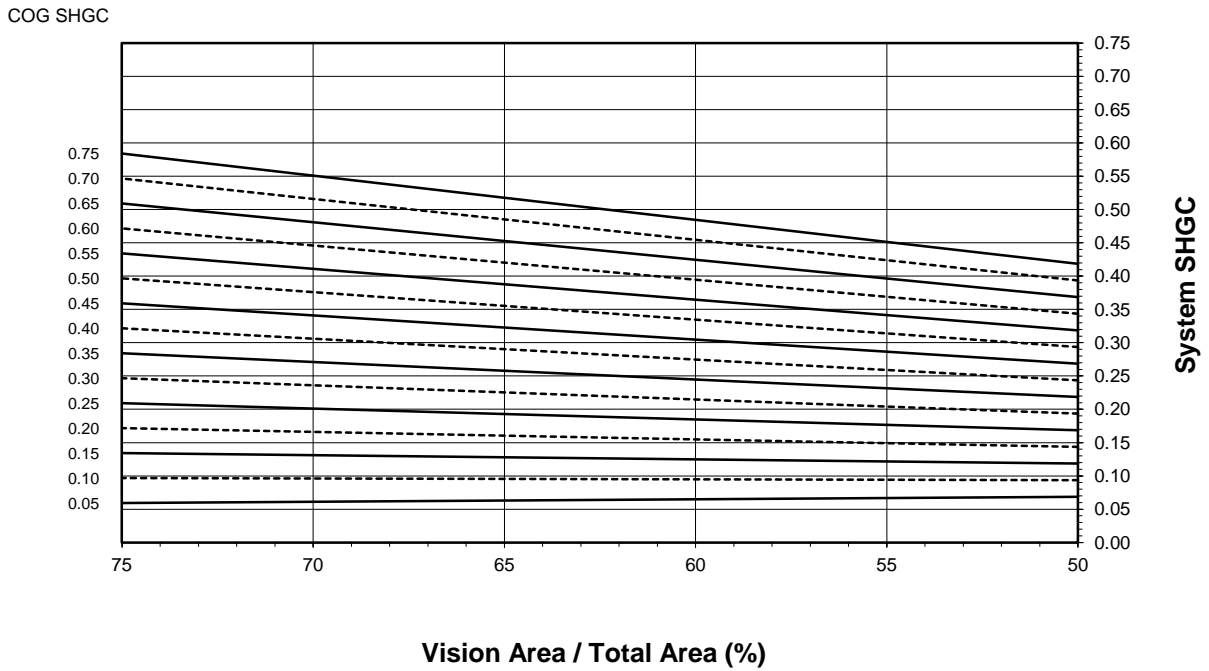
**System U-Factor vs. Percentage of Vision Area**



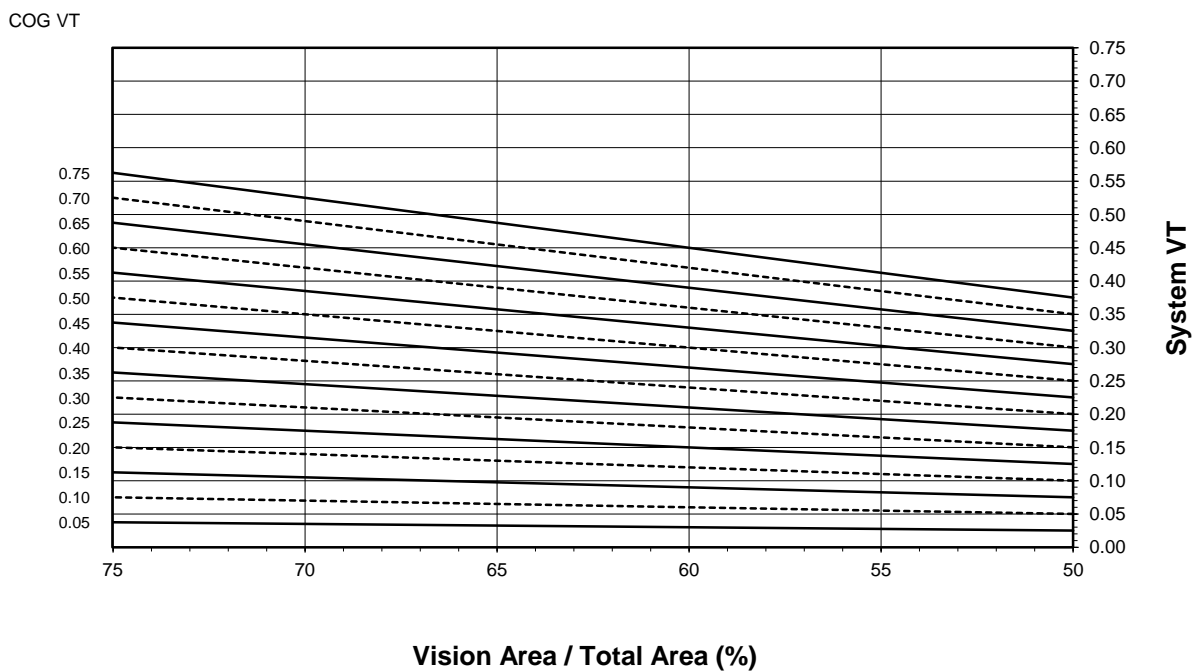
Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer

**Tubelite, Inc.**  
**Standard 1-3/4" Medium Stile Double Door - Swinging Door - Double**

**System SHGC vs. Percentage of Vision Area**



**System VT vs. Percentage of Vision Area**



**Tubelite, Inc.**  
**Standard 1-3/4" Medium Stile Double Door - Swinging Door - Double**

**Size Specific U-Factor Matrix\***

Glazing Option	Center of Glass U-Factor	Overall U-Factor
1	0.48	0.80
2	0.46	0.79
3	0.44	0.78
4	0.42	0.77
5	0.40	0.76
6	0.38	0.75
7	0.36	0.74
8	0.34	0.73
9	0.32	0.72
10	0.30	0.71
11	0.28	0.70
12	0.26	0.69
13	0.24	0.68
14	0.22	0.67
15	0.20	0.66

Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer

**Size Specific SHGC Matrix\***

Center of Glass SHGC	Overall SHGC
0.75	0.45
0.70	0.43
0.65	0.40
0.60	0.37
0.55	0.34
0.50	0.32
0.45	0.29
0.40	0.26
0.35	0.23
0.30	0.20
0.25	0.18
0.20	0.15
0.15	0.12
0.10	0.09
0.05	0.07

**Size Specific VT Matrix\***

Center of Glass VT	Overall VT
0.75	0.42
0.70	0.39
0.65	0.36
0.60	0.33
0.55	0.30
0.50	0.28
0.45	0.25
0.40	0.22
0.35	0.19
0.30	0.17
0.25	0.14
0.20	0.11
0.15	0.08
0.10	0.06
0.05	0.03

\*Size Specific U-Factor, SHGC, and VT Matrices are based on the standard Swinging Door - Double specimen size of 1920mm wide by 2090mm high (75-1/2" by 82-3/8"). This represents 55.4% Vision Area / Total Area.

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							50% Vision Area	NFRC 100-2010	75% Vision Area
							66.21" by 72.08"	75.59" by 82.28"	143.44" by 156.14"
1	0.48	43.7	Ext. Head	6.9645	1.2258	0.5752	0.8374	0.7974	0.6462
			Int. Head	6.9645	1.2258	0.5752			
			Ext. Jamb	6.9056	1.2160	0.5773			
			Int. Jamb	6.9056	1.2160	0.5773			
			Mtg. Rail	10.4191	1.0984	0.5818			
			Ext. Sill	8.2770	1.1346	0.5812			
			Int. Sill	8.2770	1.1346	0.5812			
2	0.46	44.8	Ext. Head	6.9645	1.2257	0.5616	0.8286	0.7876	0.6328
			Int. Head	6.9645	1.2257	0.5616			
			Ext. Jamb	6.9056	1.2159	0.5638			
			Int. Jamb	6.9056	1.2159	0.5638			
			Mtg. Rail	10.4191	1.0982	0.5682			
			Ext. Sill	8.2770	1.1344	0.5675			
			Int. Sill	8.2770	1.1344	0.5675			
3	0.44	45.8	Ext. Head	6.9645	1.2257	0.5481	0.8198	0.7778	0.6195
			Int. Head	6.9645	1.2257	0.5481			
			Ext. Jamb	6.9056	1.2159	0.5503			
			Int. Jamb	6.9056	1.2159	0.5503			
			Mtg. Rail	10.4191	1.0980	0.5546			
			Ext. Sill	8.2770	1.1343	0.5539			
			Int. Sill	8.2770	1.1343	0.5539			
4	0.42	46.8	Ext. Head	6.9645	1.2257	0.5347	0.8110	0.7680	0.6062
			Int. Head	6.9645	1.2257	0.5347			
			Ext. Jamb	6.9056	1.2158	0.5369			
			Int. Jamb	6.9056	1.2158	0.5369			
			Mtg. Rail	10.4191	1.0978	0.5412			
			Ext. Sill	8.2770	1.1342	0.5404			
			Int. Sill	8.2770	1.1342	0.5404			
5	0.40	47.9	Ext. Head	6.9645	1.2257	0.5214	0.8023	0.7582	0.5928
			Int. Head	6.9645	1.2257	0.5214			
			Ext. Jamb	6.9056	1.2158	0.5236			
			Int. Jamb	6.9056	1.2158	0.5236			
			Mtg. Rail	10.4191	1.0976	0.5278			
			Ext. Sill	8.2770	1.1341	0.5270			
			Int. Sill	8.2770	1.1341	0.5270			
6	0.38	48.9	Ext. Head	6.9645	1.2256	0.5082	0.7935	0.7484	0.5794
			Int. Head	6.9645	1.2256	0.5082			
			Ext. Jamb	6.9056	1.2158	0.5104			
			Int. Jamb	6.9056	1.2158	0.5104			
			Mtg. Rail	10.4191	1.0975	0.5146			
			Ext. Sill	8.2770	1.1340	0.5136			
			Int. Sill	8.2770	1.1340	0.5136			

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							50% Vision Area	NFRC 100-2010	75% Vision Area
							66.21" by 72.08"	75.59" by 82.28"	143.44" by 156.14"
7	0.36	50.0	Ext. Head	6.9645	1.2256	0.4950	0.7847	0.7385	0.5659
			Int. Head	6.9645	1.2256	0.4950			
			Ext. Jamb	6.9056	1.2158	0.4972			
			Int. Jamb	6.9056	1.2158	0.4972			
			Mtg. Rail	10.4191	1.0973	0.5013			
			Ext. Sill	8.2770	1.1338	0.5002			
			Int. Sill	8.2770	1.1338	0.5002			
8	0.34	51.0	Ext. Head	6.9645	1.2256	0.4820	0.7760	0.7287	0.5524
			Int. Head	6.9645	1.2256	0.4820			
			Ext. Jamb	6.9056	1.2158	0.4842			
			Int. Jamb	6.9056	1.2158	0.4842			
			Mtg. Rail	10.4191	1.0971	0.4882			
			Ext. Sill	8.2770	1.1337	0.4872			
			Int. Sill	8.2770	1.1337	0.4872			
9	0.32	52.0	Ext. Head	6.9645	1.2256	0.4688	0.7672	0.7189	0.5389
			Int. Head	6.9645	1.2256	0.4688			
			Ext. Jamb	6.9056	1.2158	0.4710			
			Int. Jamb	6.9056	1.2158	0.4710			
			Mtg. Rail	10.4191	1.0969	0.4750			
			Ext. Sill	8.2770	1.1336	0.4740			
			Int. Sill	8.2770	1.1336	0.4740			
10	0.30	53.1	Ext. Head	6.9645	1.2256	0.4559	0.7584	0.7091	0.5253
			Int. Head	6.9645	1.2256	0.4559			
			Ext. Jamb	6.9056	1.2157	0.4581			
			Int. Jamb	6.9056	1.2157	0.4581			
			Mtg. Rail	10.4191	1.0968	0.4621			
			Ext. Sill	8.2770	1.1335	0.4610			
			Int. Sill	8.2770	1.1335	0.4610			
11	0.28	54.2	Ext. Head	6.9645	1.2255	0.4429	0.7494	0.6990	0.5115
			Int. Head	6.9645	1.2255	0.4429			
			Ext. Jamb	6.9056	1.2157	0.4451			
			Int. Jamb	6.9056	1.2157	0.4451			
			Mtg. Rail	10.4191	1.0954	0.4474			
			Ext. Sill	8.2770	1.1334	0.4479			
			Int. Sill	8.2770	1.1334	0.4479			
12	0.26	55.2	Ext. Head	6.9645	1.2242	0.4298	0.7405	0.6890	0.4977
			Int. Head	6.9645	1.2242	0.4298			
			Ext. Jamb	6.9056	1.2157	0.4323			
			Int. Jamb	6.9056	1.2157	0.4323			
			Mtg. Rail	10.4191	1.0952	0.4344			
			Ext. Sill	8.2770	1.1333	0.4349			
			Int. Sill	8.2770	1.1333	0.4349			

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							50% Vision Area	NFRC 100-2010	75% Vision Area
							66.21" by 72.08"	75.59" by 82.28"	143.44" by 156.14"
13	0.24	56.3	Ext. Head	6.9645	1.2242	0.4170	0.7317	0.6792	0.4841
			Int. Head	6.9645	1.2242	0.4170			
			Ext. Jamb	6.9056	1.2157	0.4194			
			Int. Jamb	6.9056	1.2157	0.4194			
			Mtg. Rail	10.4191	1.0951	0.4215			
			Ext. Sill	8.2770	1.1332	0.4220			
			Int. Sill	8.2770	1.1332	0.4220			
14	0.22	57.3	Ext. Head	6.9645	1.2242	0.4043	0.7230	0.6694	0.4704
			Int. Head	6.9645	1.2242	0.4043			
			Ext. Jamb	6.9056	1.2157	0.4067			
			Int. Jamb	6.9056	1.2157	0.4067			
			Mtg. Rail	10.4191	1.0949	0.4087			
			Ext. Sill	8.2770	1.1331	0.4092			
			Int. Sill	8.2770	1.1331	0.4092			
15	0.20	58.4	Ext. Head	6.9645	1.2242	0.3914	0.7142	0.6595	0.4566
			Int. Head	6.9645	1.2242	0.3914			
			Ext. Jamb	6.9056	1.2158	0.3939			
			Int. Jamb	6.9056	1.2158	0.3939			
			Mtg. Rail	10.4191	1.0948	0.3958			
			Ext. Sill	8.2770	1.1331	0.3963			
			Int. Sill	8.2770	1.1331	0.3963			

Detailed drawings, datasheets, 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 by Architectural Testing will expire. Results obtained are simulated 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 named herein and relates only to the specimen(s) simulated. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.:

SIMULATED BY:

REVIEWED BY:

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Eric Barilar  
Simulation Technician

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Kevin S. Louder  
Project Engineer

EAB:EAB  
B3772.16-116-45

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

Appendix A: Drawings and Bills of Material (23)

### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01R0	10/27/2011	All	Original Report Issue

All drawings and Bills of Material used in simulating this product are enclosed in this Appendix.

## STANDARD PAIR DOOR BOM -1.75 Frame

**ATI**

**Report #** B3772-116-45

**Date** 10/20/2011

**Simulator** *Eric Barthele*

### FRAME:

Description	QTY	Length	Part number	Material
4500 Jamb 1.3/4" x 4 1/2"	2	82 3/8"	E4544	
Header 1 3/4" x 4 1/2"	1	34 1/4"	E45124	
	1	34 7/23" 80		
Header Door stops & Jambs	2	5/8"	E4531	
Fin Seal Weather pile	30 ft		P1098A	Vinyl
closure open back plate	2		E4543	

### DOOR:

Description	QTY		Narrow P/N	Medium P/N	Wide P/N	Material
Beveled Door Stiles	2	79 13/16"	<del>E0055 - 2 1/8"</del>	E0086- 4"	<del>E0416 - 5"</del>	
Inactive Stile		79 13/16"	<del>E0056 - 2 1/8"</del>	E0087 - 4"	<del>E0417 - 5"</del>	
Astragal Stile		79 13/16"	<del>E1149 - 2 1/8"</del>	E1150 - 4"	<del>E1151 - 5"</del>	
Adjustable Astragal	1	79 13/16"	<del>E1152</del>	E1152	<del>E1152</del>	
Stainless Steel Clip for Adj. Astragal	8		<del>P1539</del>	P1539	<del>P1539</del>	Stainless Steel
Adj. Astragal Pile	2		<del>P938</del>	P938	<del>P938</del>	Vinyl
Door Top Rail	1	29 13/16"	<del>E0255- 2 1/8"</del>	E0054- 4"	<del>E0318 - 5"</del>	
Top Rail Lug	2		<del>P168</del>	P031	<del>P339</del>	AL
Door Botom Rail	1	29 13/16"	<del>E0054- 4"</del>	E0419- 6 1/2"	<del>E0419- 6 1/2"</del>	
Bottom Rail Lug	2		<del>P031</del>	P341	<del>P341</del>	AL
Top Rail & Bottom Rail Tie Rods	2	33 1/4"	<del>P020B</del>	P020	<del>P020</del>	Steel
Washer for Tie Rods	4		<del>P852</del>	P853	<del>P853</del>	steel/AL
Hex nuts for Tie rods	4		<del>S071A</del>	S071A	<del>S071A</del>	Steel

Exterior Glass Stop 1" glass 4  
 Interior Glass Stop 1" glass 4  
 Gasket 35.42  
 Adjustable Wedge Setting Blck 2  
 Self Adhesive Setting Blck 3

Threshold 1  
 Threshold clip 2

~~E0927  
 E0928  
 P0017  
 P1911  
 P1912  
 E0019  
 P679~~

E0927  
 E0928  
 P0017  
 P1911  
 P1912

E0019  
 P679

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 P1912  
 E0019  
 P679~~

Vinyl  
 Polypropylene  
 EPDM

AL

**MATERIAL:**

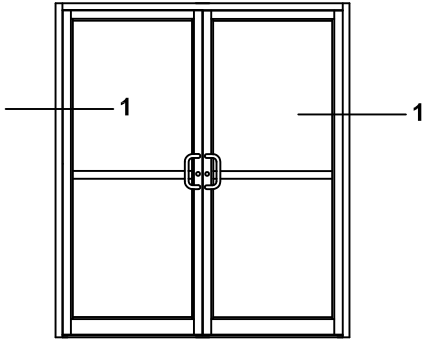
**E - All E part numbers are AL extrusions**

<b>ATI</b>	
<b>Report #</b>	<u>B3772-116-45</u>
<b>Date</b>	<u>10/20/2011</u>
<b>Simulator</b>	<u>Eric Bordeau</u>

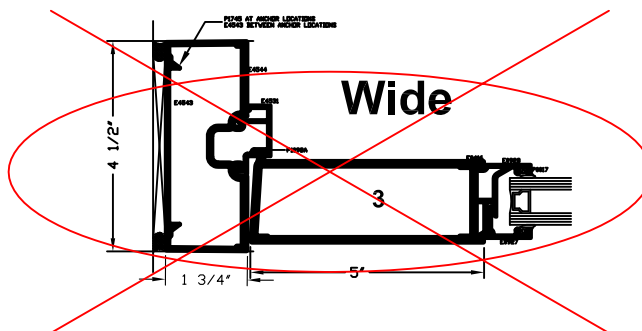
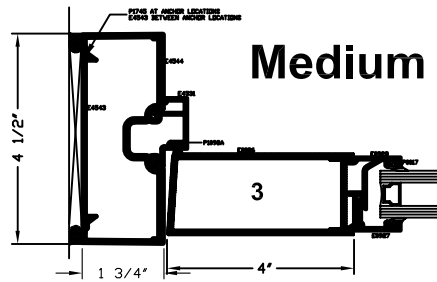
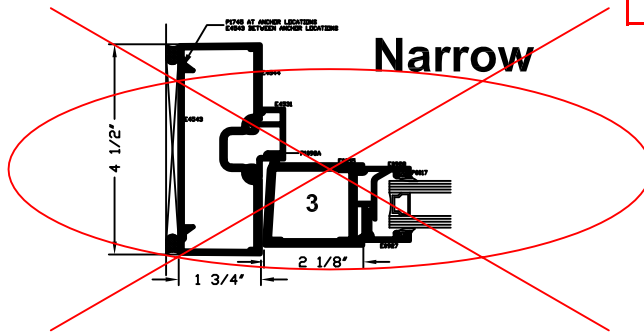
# Standard Doors - Pairs

## Jamb Detail -1 3/4" frame

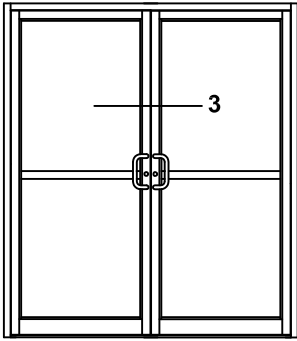
### Elevations & 1/4 Size Details



	<b>ATI</b>
Report #	<u>B3772-116-45</u>
Date	<u>10/20/2011</u>
Simulator	<u>Eric Barilko</u>



\*SEALANT, ROD, & ANCHORS NOT BY TUBELITE

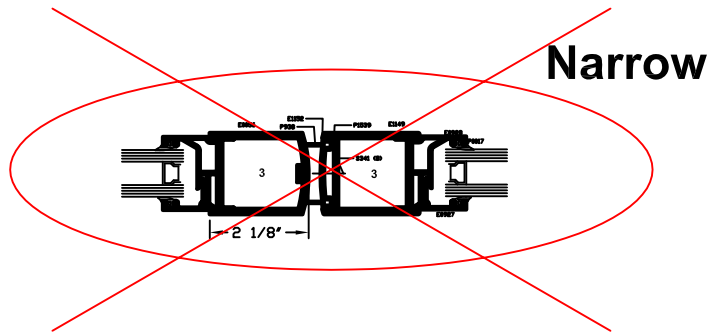
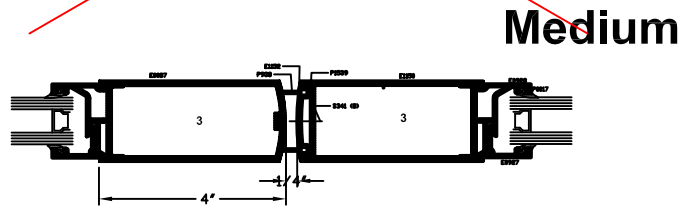
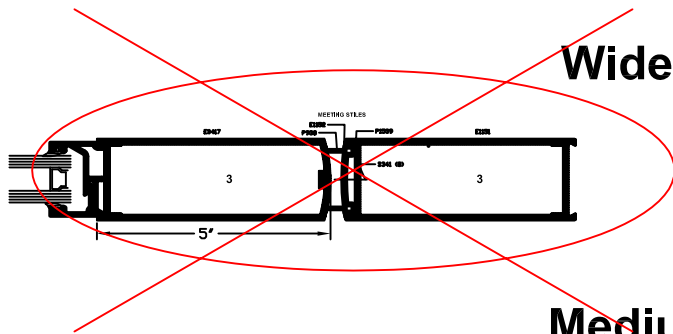


# Standard Doors - Pairs

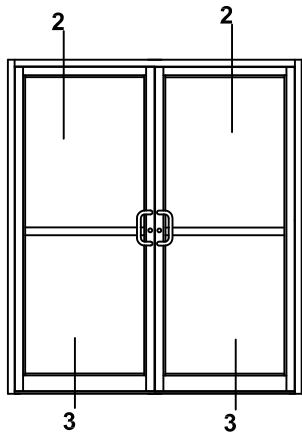
## Meeting Stile Detail - 1 3/4" Frame

### Elevations & 1/4 Size Details

	<b>ATI</b>
<b>Report #</b>	<u>B3772-116-45</u>
<b>Date</b>	<u>10/20/2011</u>
<b>Simulator</b>	<u><i>Eric Borillo</i></u>



\*SEALANT, ROD, & ANCHORS NOT BY TUBELITE



# Standard Doors - Pairs

## 1 3/4" Frame

### Elevations & 1/4 Size Details

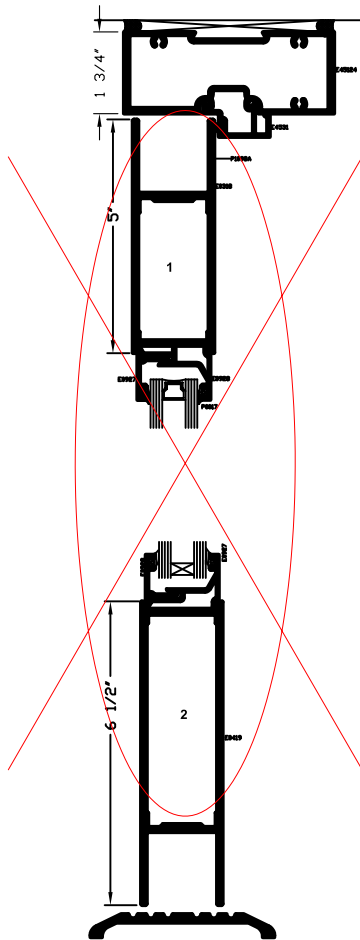
**ATI**

Report # B3772-116-45

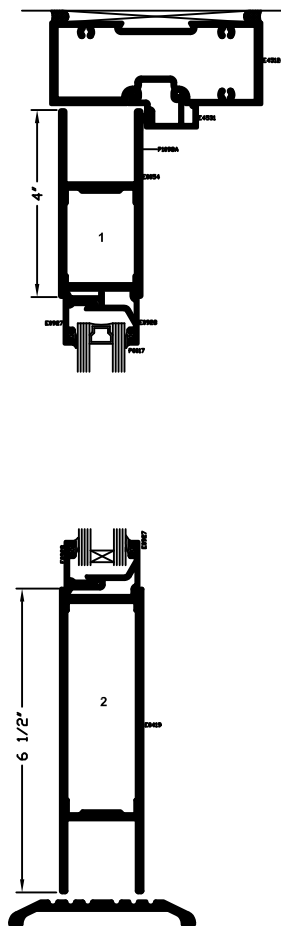
Date 10/20/2011

Simulator Eric Barilko

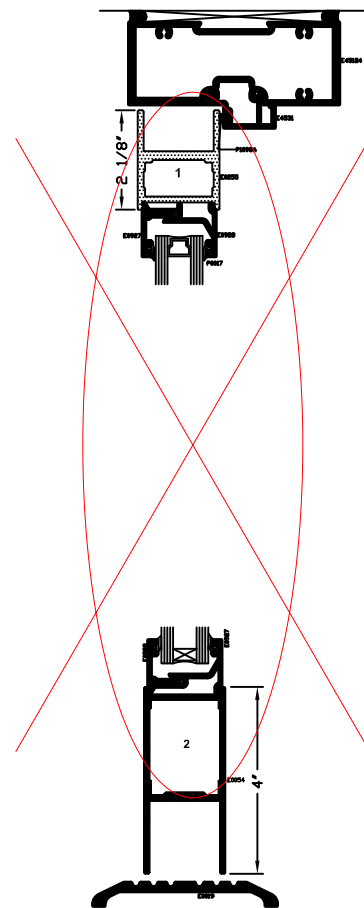
**Wide**



**Medium**



**Narrow**



\*SEALANT, ROD, & ANCHORS NOT BY TUBELITE

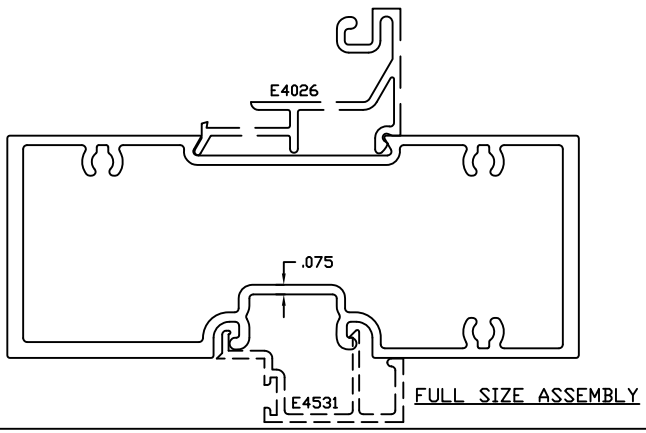
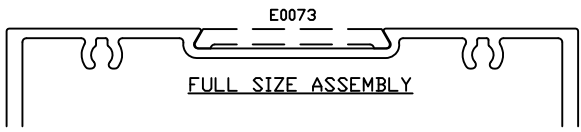
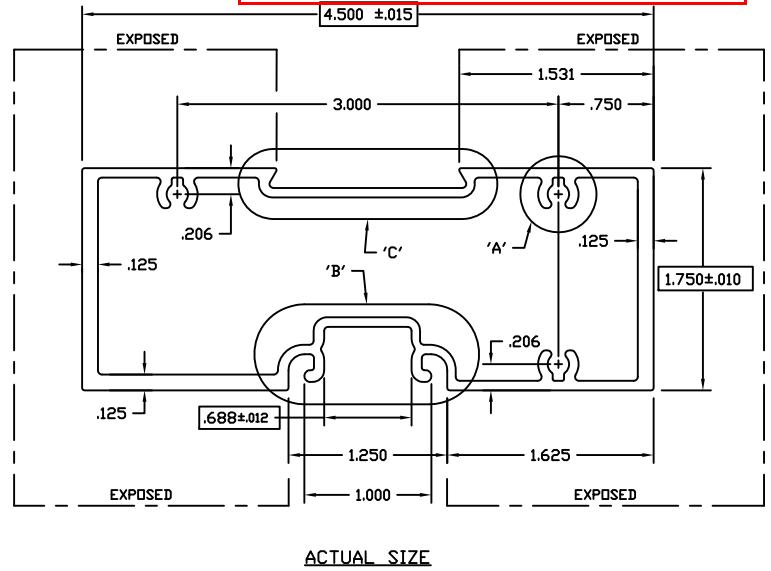
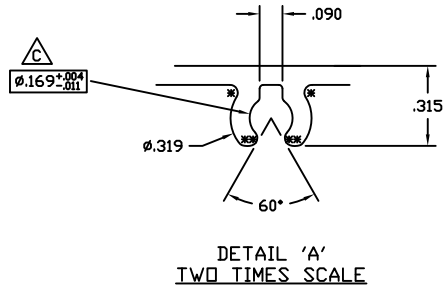
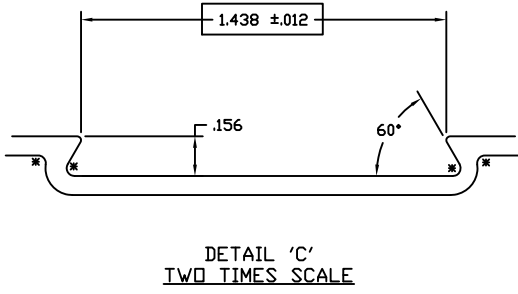
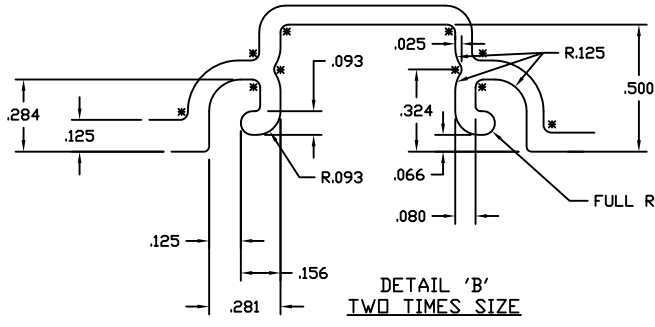


**ATI**

Report # B3772-116-45

Date 10/20/2011

Simulator Eric Bahille



INDICATES CRITICAL DIMENSION

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ALUMINUM ASSOCIATION STANDARD TOLERANCES APPLY UNLESS NOTED  
ALL UNSPECIFIED RADII .015  
\* INDICATES .031 RADIUS  
□ DENOTES CRITICAL DIMENSION  
ALL DIES PROPERTY OF TUBELITE

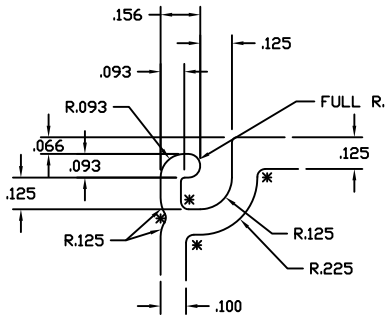
**TUBELITE**  
LEADER IN ECO-FRIENDLY OPERATIONAL CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
WALKER, MICHIGAN 49544

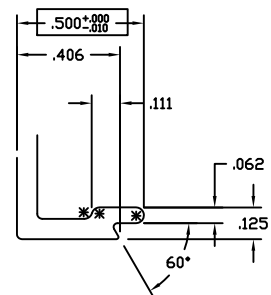
WALL THK	.075	SECTION CLASS	H	MAT'L	6063-T5	RATIO	40:1
PERIMETER DUT (TOTAL)	14.791(29.991)	AREA	1.392	WGT/FT	1.637		
FACTOR	19	CIRCLE SIZE	4.828	INT'L VOLUME	N/A		
RXX	1.589	SXX	1.539	IXX	3.516	CXX	2.285
RYY	.678	SYY	.701	IYY	.639	CYY	.913

DOOR HEADER 1 3/4" X 4 1/2"  
E4500 STOREFRONT

DRAWN BY	SRD	DRWG DATE	12/08/02	APP'Y'D BY		DATE APP'Y'D	
DWG SCALE	NOTED	PRODUCT CODE	160		E45124	REV	C



DETAIL 'A'  
TWO TIMES SIZE



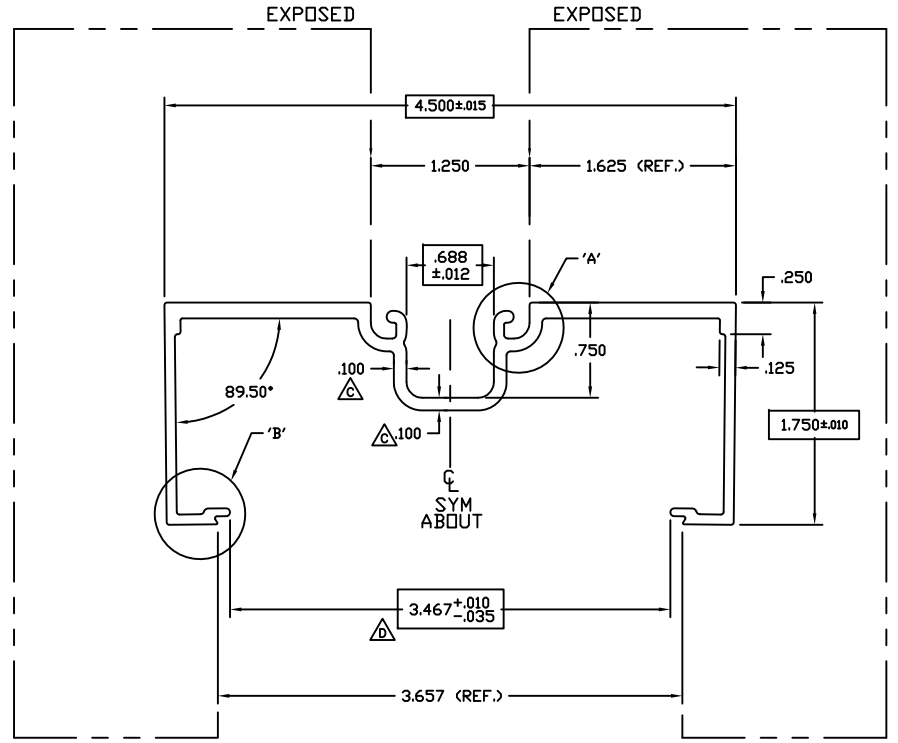
DETAIL 'B'  
TWO TIMES SIZE

**ATI**

Report # B3772-116-45

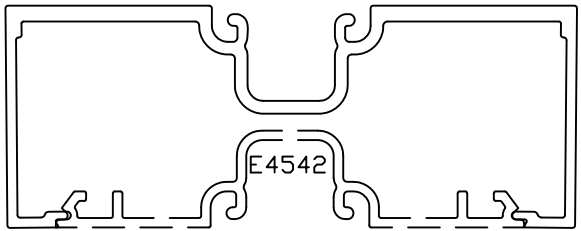
Date 10/20/2011

Simulator Eric Barilko



FULL SIZE

INDICATES CRITICAL DIMENSION



ASSEMBLY

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**TUBELITE**  
LEADING IN ECO-FRIENDLY EXTRUDED ALUMINUM WALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
WALKER, MICHIGAN 49544

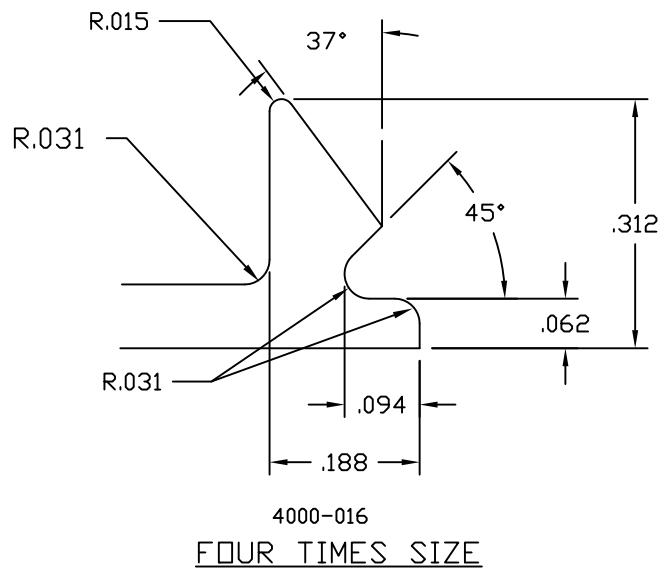
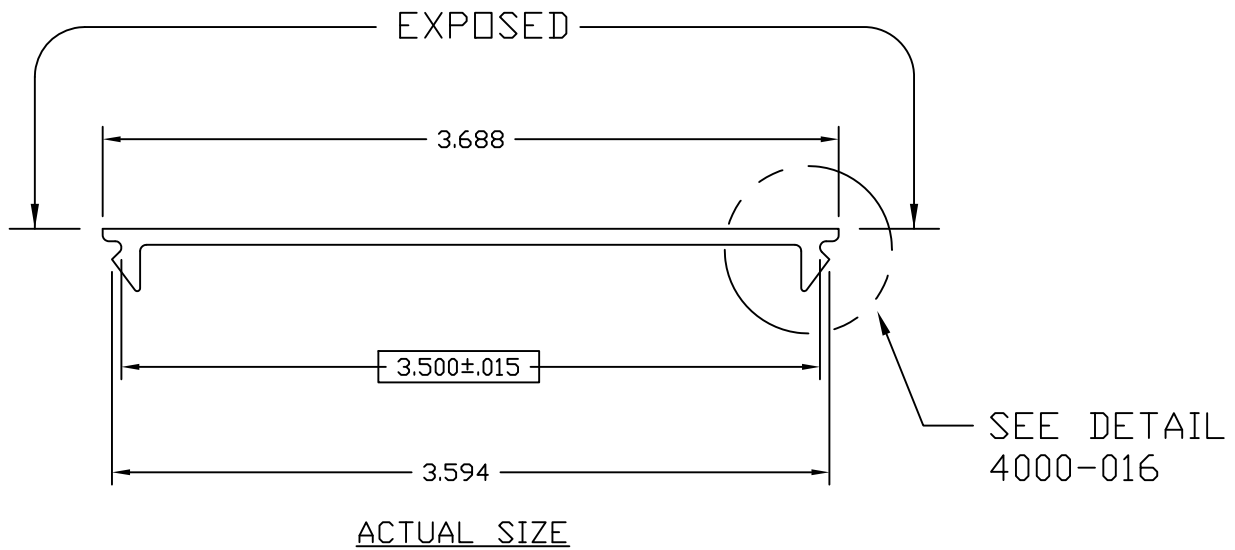
WALL THK	.080	SECTION CLASS	S	MAT'L	6063-T5	RATIO	53:1
PERIMETER (OUT TOTAL)	20.704	AREA	1.030	WGT/FT	1.211		
FACTOR	17	CIRCLE SIZE	4.802	INFTLL VOLUME	N/A		
RXX	1.577	SXX	1.139	IXX	2.562	CXX	2.250
RYY	.543	SYY	.245	IYY	.304	CYY	1.241

DENOTES CRITICAL DIMENSION  
ALL DIES PROPERTY OF TUBELITE

REV	DATE	DESCRIPTION	INTL
ED2933	6-26-97	REV. .125 WALL CONTINUOUS	SRK
A	03/07/03	REVISED GL POCKET AND REGLET - REDUCED WEIGHT	SRD
	03/07/03	RENAMED E912C14 - RELEASE FOR PRODUCTION	SRD
B	03/17/04	REVISED WALL THICKNESS IN POCKET AREA AND LEGS	CRH
C	04/08/04	REVISED WALL THICKNESS IN POCKET AREA	CRH
D	03/28-07	REDUCED OPENING FOR BETTER FIT	NIK

OPEN BACK FRAME 1 3/4" X 4 1/2"  
E4500 STOREFRONT

DRAWN BY	SRD	DRWG DATE	12/08/02	APPV'D BY		DATE APPV'D	
BWG SCALE	NOTED	PRODUCT CODE	160	E4544			



**ATI**

**Report #** B3772-116-45

**Date** 10/20/2011

**Simulator** Eric Barilla

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**TUBELITE**  
 DEPENDABLE  
 LEADERS IN ECO-EFFICIENT STOREFRONT,  
 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

DENOTES CRITICAL DIMENSION  
 ALL DIES PROPERTY OF TUBELITE

WALL THK.	.080	SECTION CLASS	S	MAT'L	6063-T5	RATIO	165:1
PERIMETER OUT (TOTAL)	8.341	AREA	.334	WGT/FT	.393		
FACTOR	21	CIRCLE SIZE	3.688	INFILL VOLUME	N/A		

RXX	1.156	SXX	.242	IXX	.447	CXX	1.844
RYY	.054	SYY	.004	IYY	.001	CYY	.255

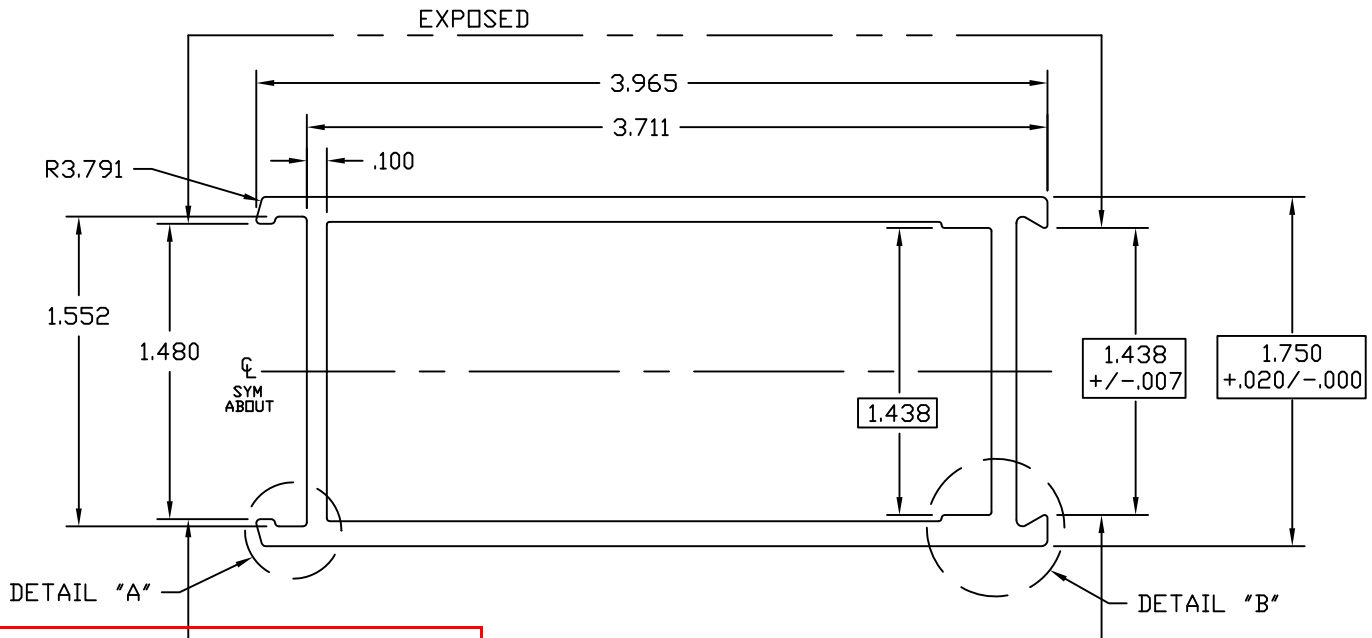
REV	DATE	DESCRIPTION	INTL
		RELEASE TO TOOLING	
	6/26/86	RELEASE TO PRODUCTION	

FLAT SNAP-IN FILLER  
 E4500 STOREFRONT

DRAWN BY	LS	DRWG DATE	10/22/85	APPV'D BY		DATE APPV'D	
DWG SCALE	FULL	PRODUCT CODE	160	E4543		REV	







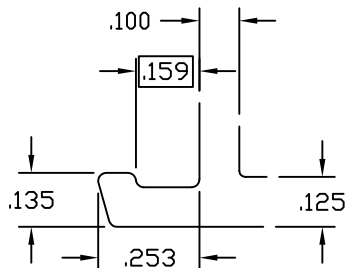
**ATI**

Report # B3772-116-45

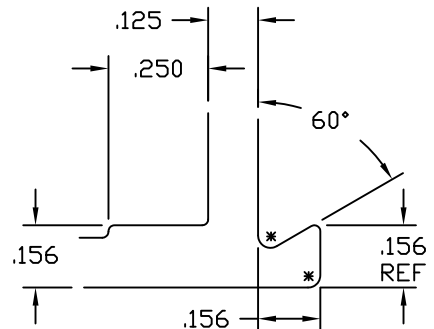
Date 10/20/2011

Simulator Eric Barilko

ACTUAL SIZE



DETAIL "A"  
TWO TIMES SIZE



DETAIL "B"  
TWO TIMES SIZE

DENOTES CRITICAL DIMENSION

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**TUBELITE**  
 LEADERS IN ECO-EFFICIENT STOREFRONT,  
 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

DENOTES CRITICAL DIMENSION  
 ALL DIES PROPERTY OF TUBELITE

WALL THK.	NOTED	SECTION CLASS	H	MAT'L	6063-T5	RATIO	42:1
PERIMETER OUT (TOTAL)	12.336(21.945)	AREA	1.334	WGT/FT	1.569		
FACTOR	14	CIRCLE SIZE	4.293	INFILL VOLUME	N/A		

RXX	.735	SXX	.824	IXX	.721	CXX	.875
RYY	1.313	SYX	1.215	IYY	2.298	CYY	2.073

ADJ. ASTRAGAL STILE 1 3/4" X 4"  
 STOCK DOORS

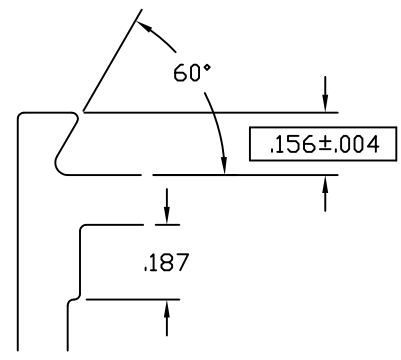
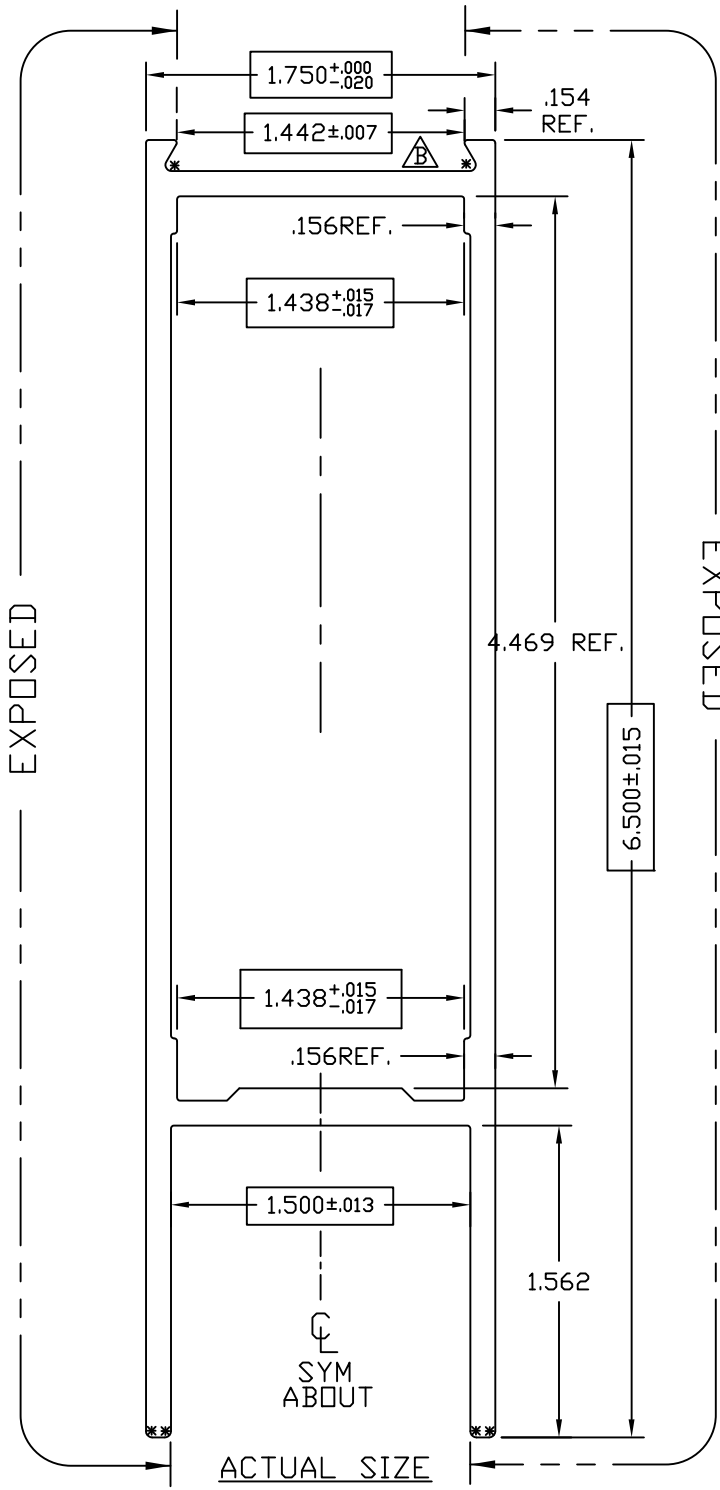
REV	DATE	DESCRIPTION	INTL
		RELEASED TO PRODUCTION - WAS E903H02 - ER-080702	LDD

DRAWN BY	LDD	DRWG DATE	03/13/07	APPV'D BY		DATE APPV'D	
DWG SCALE	NOTED	PRODUCT CODE	100	E1150			REV



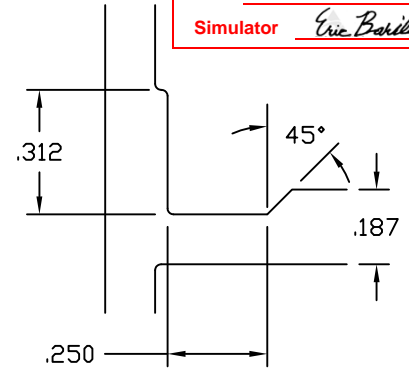


E0419  
B



TWO TIMES SCALE

ATI  
 Report # B3772-116-45  
 Date 10/20/2011  
 Simulator Eric Barille



TWO TIMES SCALE

$.125^{+.003}_{-.011}$  TYP WALL UNLESS NOTED

SNAP FIT W/E-0437

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**TUBELITE**  
 LEADERS IN ECO-EFFICIENT STOREFRONT,  
 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

WALL THK.	NOTED	SECTION CLASS	H	MAT'L	6063-T5	RATIO	26:1
PERIMETER OUT (TOTAL)	19.959(26.440)	AREA	2.084	WGT/FT	2.451		
FACTOR	11	CIRCLE SIZE	6.720	INFILL VOLUME	N/A		

RXX	.747	SXX	1.330	IXX	1.164	CXX	.875
RYY	1.980	SYX	2.447	IYY	8.175	CYY	3.340

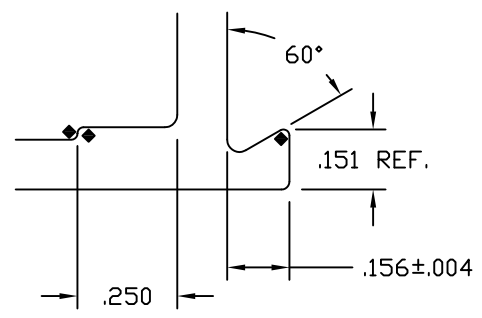
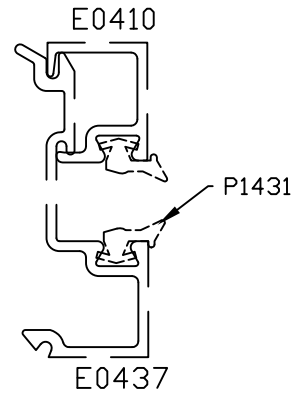
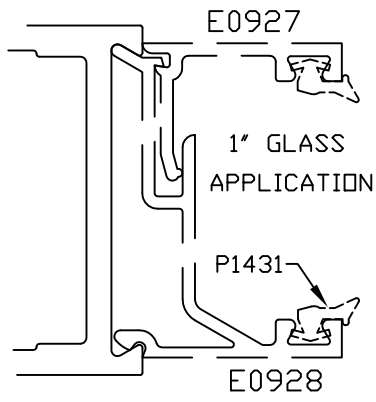
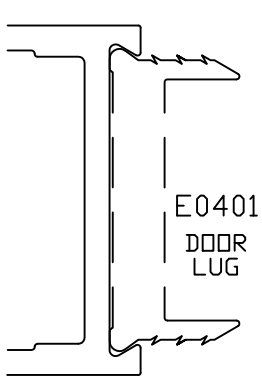
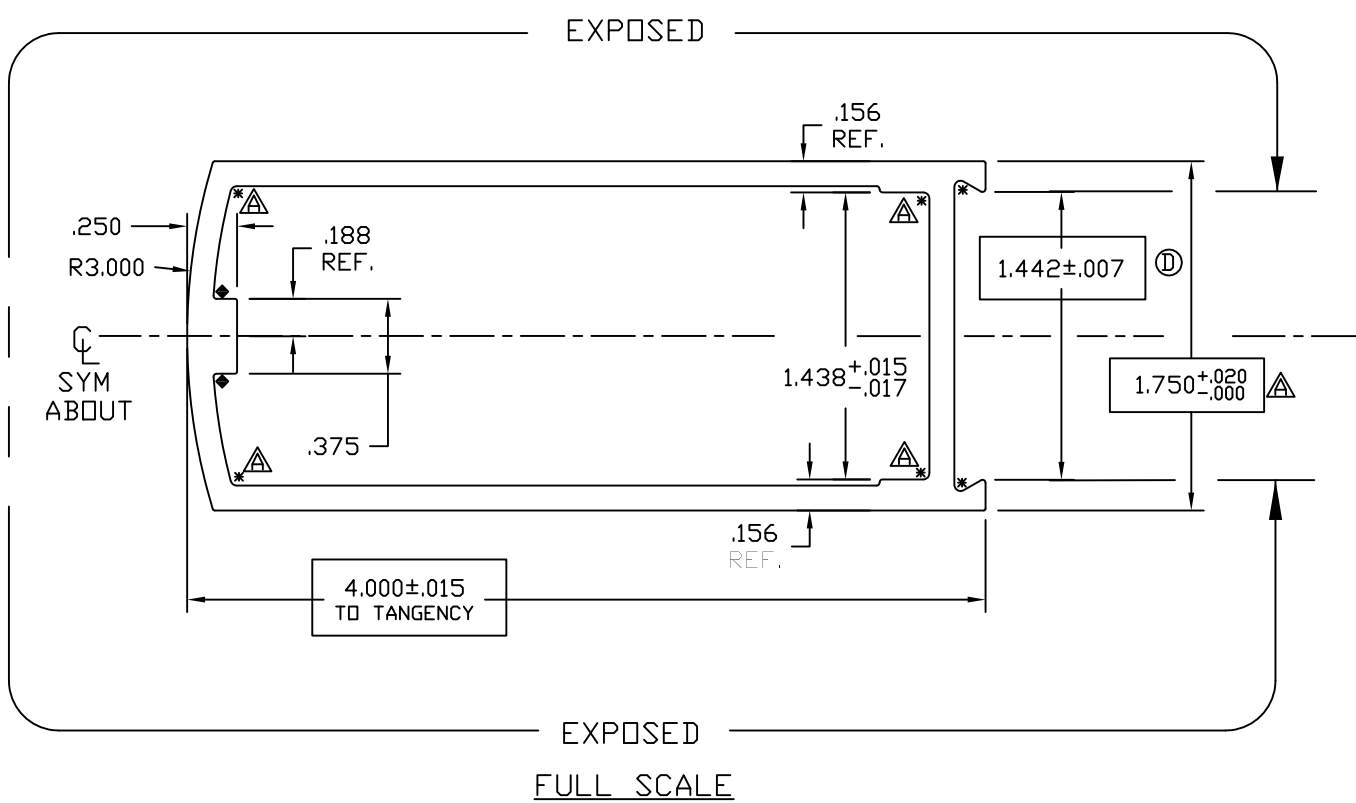
HORIZONTAL RAIL 6 1/2" X 1 3/4"  
 CUSTOM DOORS/FRAMES

DRAWN BY DH DRWG DATE 04/19/84 APPV'D BY CRH DATE APPV'D 12/08/00

DWG SCALE NOTED PRODUCT CODE 110 **E0419** REV **B**

REV	DATE	DESCRIPTION	INTL
A	11/16/00	1.449 WAS 1.438	CRH
B	07/08/03	1.449 +/-0.007 WAS 1.449 +0.000/-0.010	CRH

E0087  
D



TWO TIMES SCALE

**ATI**  
 Report # B3772-116-45  
 Date 10/20/2011  
 Simulator Eric Boriche

$.125 \begin{smallmatrix} +.003 \\ -.011 \end{smallmatrix}$  TYP WALL

INDICATES CRITICAL DIMENSION  
 SNAP FIT W/E0437(1/4"GLASS) AND E0928(1"GLASS)

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**TUBELITE**  
 DEPENDABLE  
 LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

WALL THK.	NOTED	SECTION CLASS	H	MAT'L	6063-T5	RATIO	39:1
PERIMETER OUT (TOTAL)	11.673(21.876)		AREA	1.409	WGT/FT	1.657	
FACTOR	13	CIRCLE SIZE	4.246	INFILL VOLUME	/A		

RXX	.716	SXX	.824	IXX	.722	CXX	.875
RYY	1.383	SYX	1.332	IYY	2.696	CYY	2.024

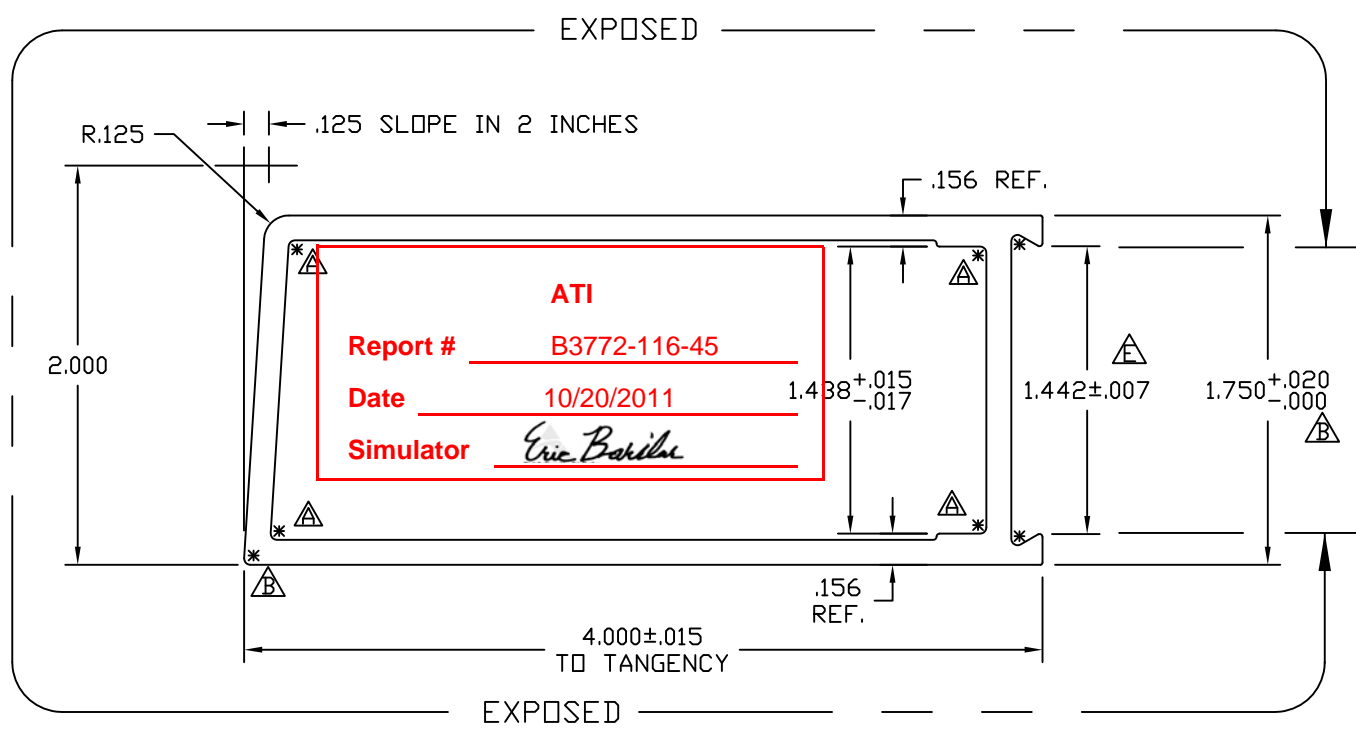
ROUND VERTICAL STILE 1 3/4" X 4"  
 CUSTOM DOOR/FRAMES

DRAWN BY	DH	DRWG DATE	04/04/84	APPV'D BY		DATE APPV'D	
DWG SCALE	NOTED	PRODUCT CODE	110	E0087		REV	D

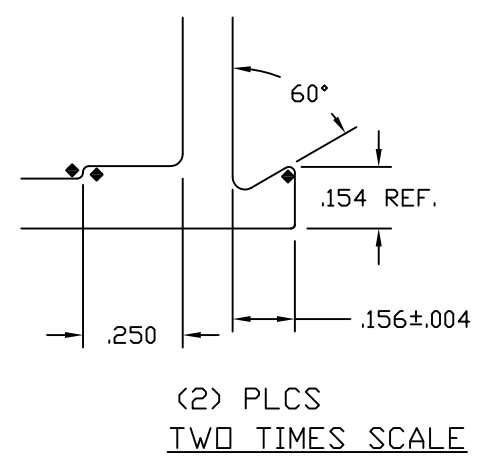
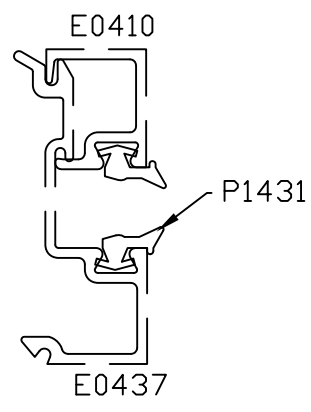
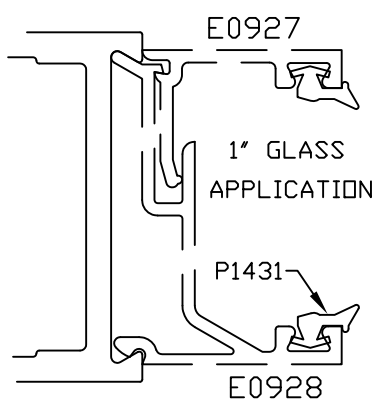
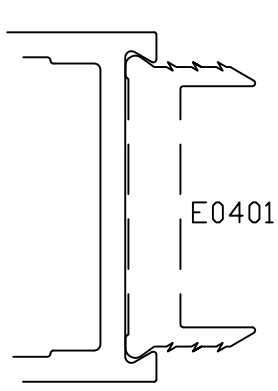
REV	DATE	DESCRIPTION	INTL
A	08/23/00	1.449 WAS 1.438, +.020/-0.000 WAS ±.010, ADDED .031R	CRH
B	09/29/00	+0.005/-0.010 WAS +.015/-0.000	CRH
C	12/01/00	+0.000/-0.010 WAS +.005/-0.010	CRH
D	04/18/03	±.007 WAS +.000/-0.010	CRH

E0086

E



FULL SCALE



SNAP FIT W/E0437(1/4"GLASS) AND E0928(1"GLASS)  
 .125 (+.003/-0.11) TYP WALL

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**TUBELITE**  
 DEPENDABLE  
 LEADERS IN ECO-EFFICIENT STOREFRONT, CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

WALL THK.	NOTED	SECTION CLASS	H	MAT'L	6063-T5	RATIO	40:1
PERIMETER OUT (TOTAL)	11.757(21.761)		AREA	1.374	WGT/FT	1.615	
FACTOR	13	CIRCLE SIZE	4.360	INFILL VOLUME	N/A		

RXX	.728	SXX	.824	IXX	.728	CXX	.884
RYY	1.368	SYX	1.270	IYY	2.571	CYY	2.024

BEVELED VERTICAL STILE 1 3/4" X 4"  
 CUSTOM DOORS/FRAMES

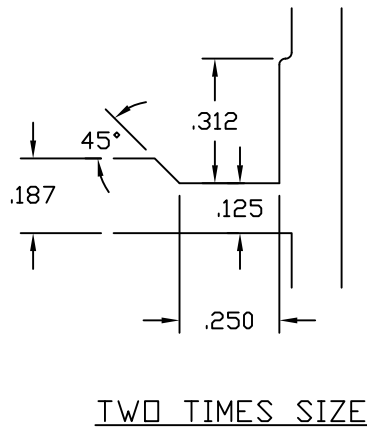
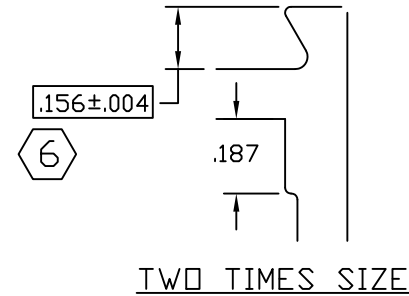
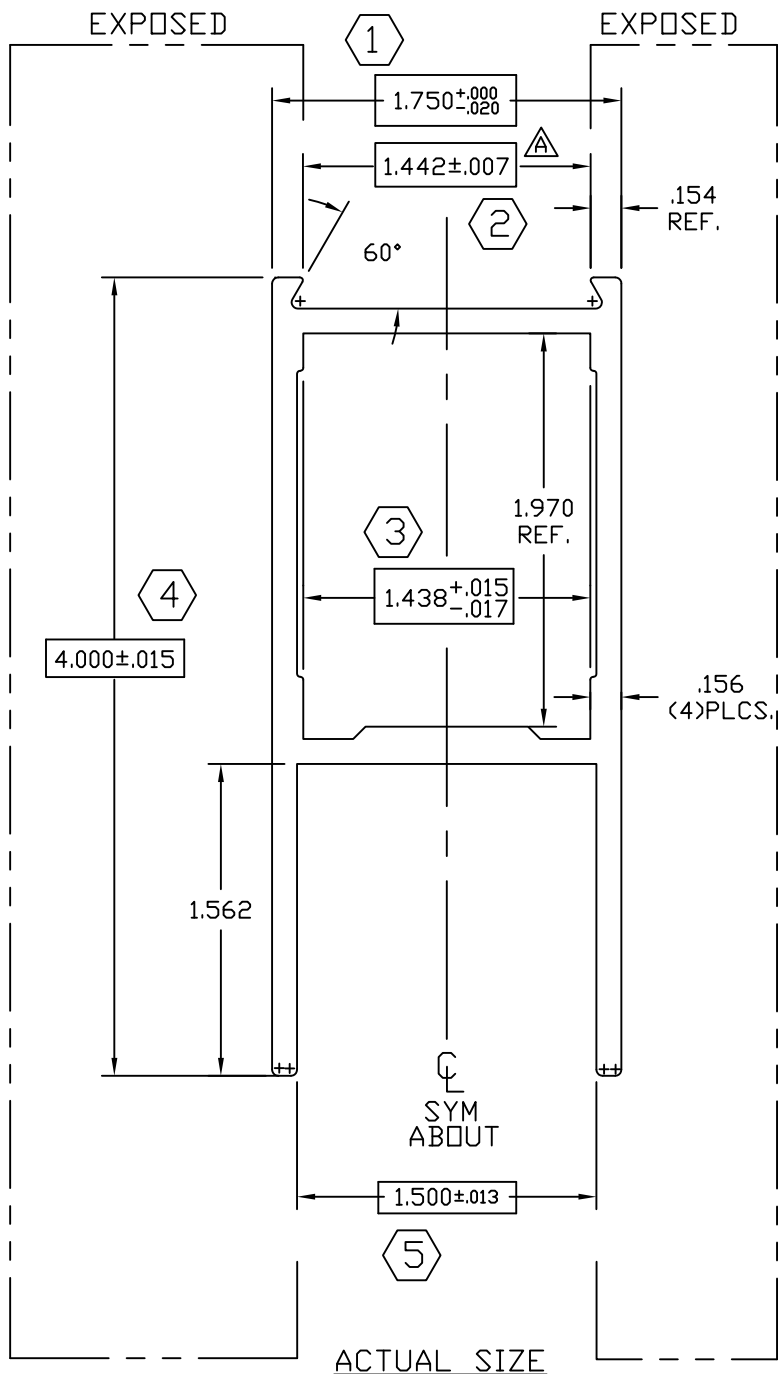
□ DENOTES CRITICAL DIMENSION  
 ALL DIES PROPERTY OF TUBELITE

REV	DATE	DESCRIPTION	INTL
A	7/7/00	1.449 WAS 1.438, REV. TOL ON 1.750	CRH
		REMOVED .156 X .250 PAD AREA AND ADDED .031 RADII	
B	08/23/00	1.750 +.020/-0.000 WAS +.000/-0.020, ADDED .031 R	CRH
C	09/29/00	+0.005/-0.010 WAS +.015/-0.000	CRH
D	12/1/00	+0.000/-0.010 WAS +.005/-0.010	CRH
E	01/22/02	1.442+/-0.007 WAS 1.449+0.000/-0.010	CRH

DRAWN BY	DLH	DRWG DATE	04/04/84	APPV'D BY		DATE APPV'D	
DWG SCALE	NOTED	PRODUCT CODE	110	E0086		REV	E

E0054  
C

**ATI**  
**Report #** B3772-116-45  
**Date** 10/20/2011  
**Simulator** Eric Barila



7 SNAP FIT WITH E-0437  
 $.125 \begin{smallmatrix} +.003 \\ -.011 \end{smallmatrix}$  TYP WALL UNLESS NOTED

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 \* INDICATES .031 RADIUS  
 □ DENOTES CRITICAL DIMENSION  
 ALL DIES PROPERTY OF TUBELITE

**TUBELITE**  
 DEPENDABLE  
 LEADERS IN ECO-EFFICIENT STOREFRONT,  
 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

WALL THK.	NOTED	SECTION CLASS	H	MAT'L	6063-T5	RATIO	38:1
PERIMETER OUT (TOTAL)	14.972	(22.036)	AREA	1.460	WGT/FT	1.715	
FACTOR	13	CIRCLE SIZE	4.352	INFILL VOLUME	N/A		

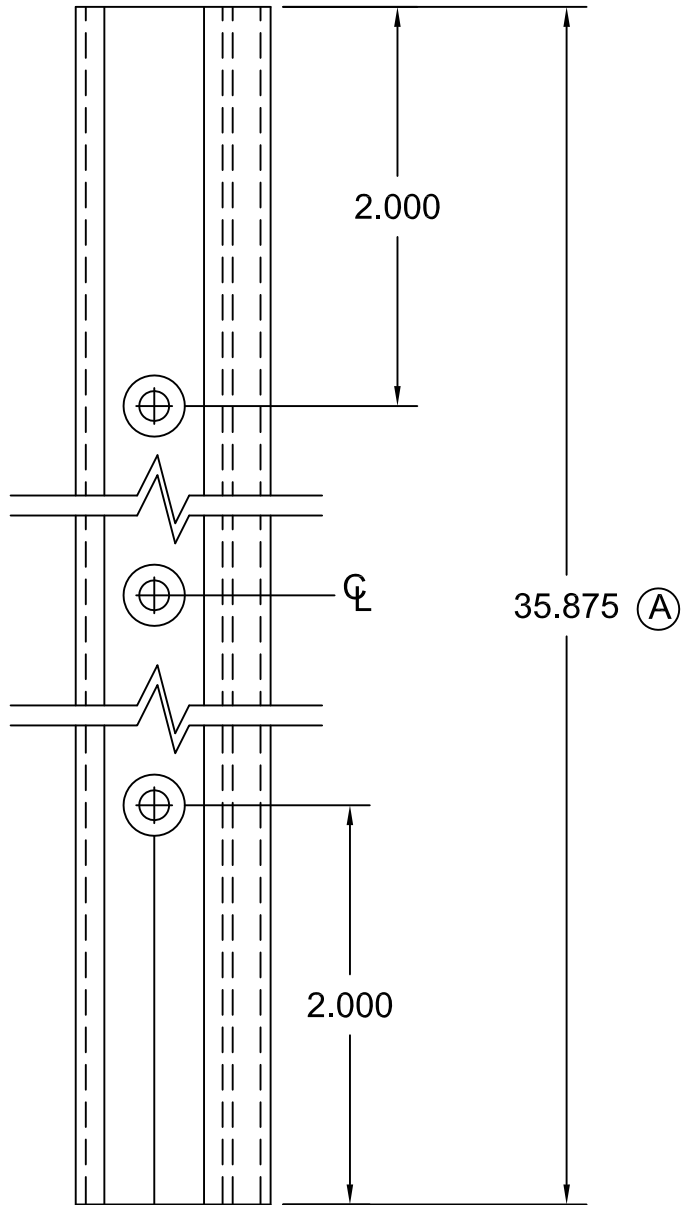
RXX	1.153	SXX	.890	IXX	1.941	CXX	2.182
RYY	.717	SYX	.858	IYY	.751	CYY	.875

HORIZONTAL RAIL 4" X 1 3/4"  
 STOCK DOORS

REV	DATE	DESCRIPTION	INTL
A	11/22/91	REVISED CALCULATIONS	KMH
B	12/10/91	REVISED CALCULATIONS	KMH
C	4/2/02	WAS 1.438 +.01/-0.013	CRH

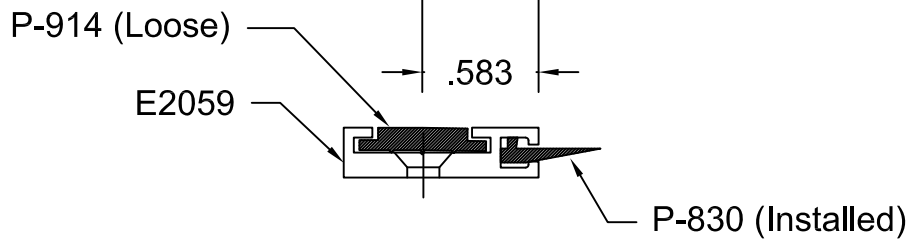
DRAWN BY	DAT	DRWG DATE	03/31/84	APPV'D BY	DATE APPV'D	REV	C
DWG SCALE	NOTED	PRODUCT CODE	100	E0054			

**ATI**  
**Report #** B3772-116-45  
**Date** 10/20/2011  
**Simulator** Eric Barilko



Operations:

1. Cut to length as required from E2059
2. Drill 3 holes with #25 Drl & Ctsk for S-064 (#6 FHCS)
3. Cut P-830 to length, Install, & Crimp ends
4. Cut P-914 to length, and install.
5. Paint ends as required
6. Ship with three (3) S064 Screws.



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 \* INDICATES .031 RADIUS  
 □ DENOTES CRITICAL DIMENSION

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 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

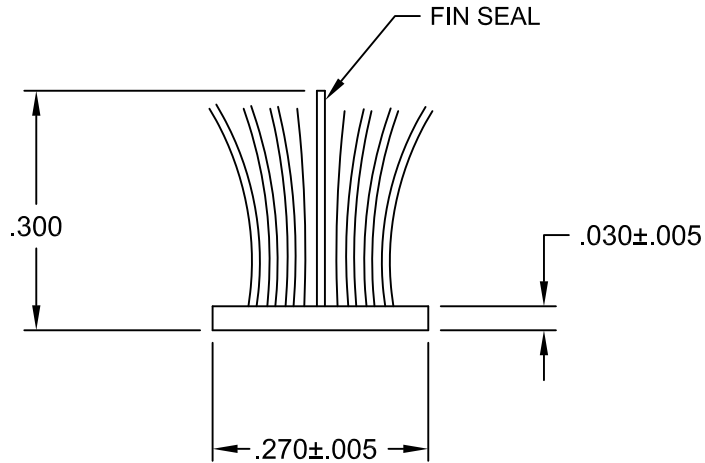
REV	DATE	DESCRIPTION	INTL
	7/29/83	Released Part per ED 128	PJ
A	05/17/90	ED #1222 Dim was 34.875	KMH
B	8/24/01	Redrawn for CAD	DMT
C	06/19/03	OUTSOURCE - ADD S064 SCREWS	SRD

Door Seal to use with  
 E2058 Threshold

DRAWN BY PJ	DRWG DATE 05/09/83	APPV,D BY	DATE APPV'D
DRWG SCALE Full	PRODUCT CODE 380	P1275	
			REV C

P1098A

B



Actual Size

**ATI**

**Report #** B3772-116-45

**Date** 10/20/2011

**Simulator** Eric Bakula

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ALL UNSPECIFIED RADII .015

\* INDICATES .031 RADIUS

□ DENOTES CRITICAL DIMENSION

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 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
WALKER, MICHIGAN 49544

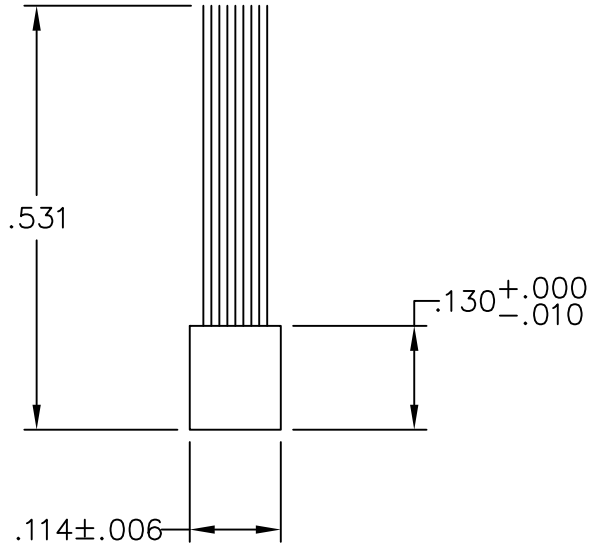
REV	DATE	DESCRIPTION	INTL
A	03/08/83	Release Part per ED 109	
B	05/29/02	Redrawn for CAD	DMT

**Poly Bond Fin-Seal Weathering**  
 use with Door Stop E1377

DRAWN BY <b>Don H</b>	DRWG DATE <b>06/03/83</b>	APPV,D BY	DATE APPV'D
DRWG SCALE <b>Noted</b>	PRODUCT CODE <b>380</b>	<b>P1098A</b>	
			<b>B</b>



Actual Size



Four Times Size

Purchased Part

Schlege Pile Weathering  
Part Number 364-1006-5101

<b>ATI</b>	
<b>Report #</b>	<u>B3772-116-45</u>
<b>Date</b>	<u>10/20/2011</u>
<b>Simulator</b>	<u>Eric Barilac</u>

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ALL UNSPECIFIED RADII .015

\* INDICATES .031 RADIUS

□ DENOTES CRITICAL DIMENSION

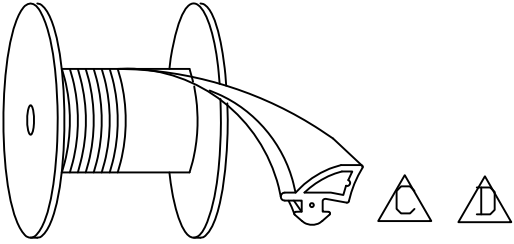


3056 WALKER RIDGE NW, SUITE G  
WALKER, MICHIGAN 49544

REV	DATE	DESCRIPTION	INTL
A	05/03/02	Redrawn for CAD	DMT

Pile Weathering to use with E1195 and E1152			
DRAWN BY PJ	DRWG DATE 10/03/75	APPV,D BY	DATE APPV'D
DRWG SCALE Noted	PRODUCT CODE 110	P938	
			REV A





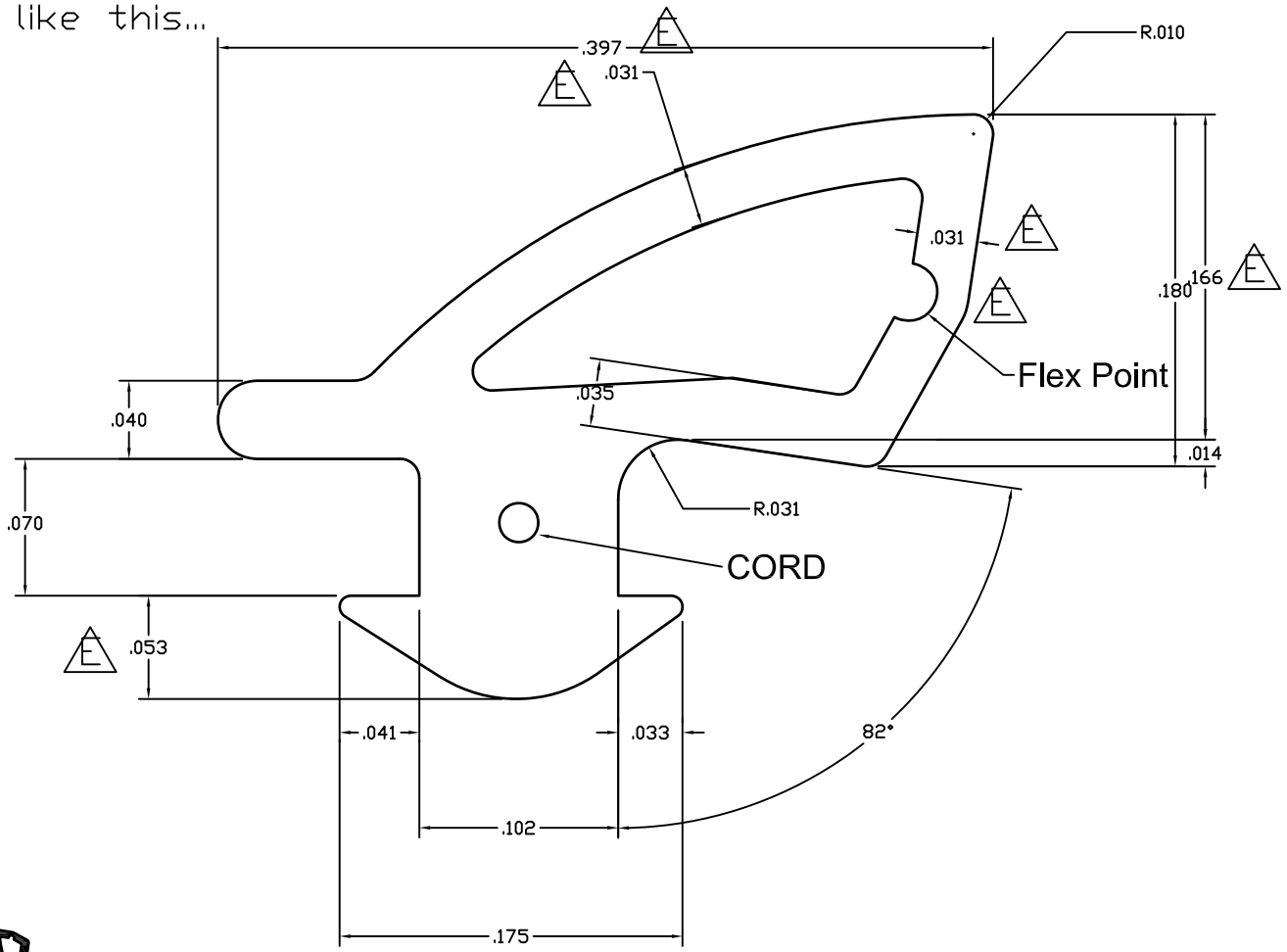
**ATI**

**Report #** B3772-116-45

**Date** 10/20/2011

**Simulator** Eric Baribe

Material must UNREEL like this...



ACTUAL SIZE

MATERIAL: EPDM 60 DUROMETER WITH CORD

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 ALL UNSPECIFIED RADII .015  
 \* INDICATES .031 RADIUS  
 □ DENDOTES CRITICAL DIMENSION

**TUBELITE®**  
 DEPENDABLE  
 LEADERS IN ECO-EFFICIENT STOREFRONT,  
 CURTAINWALL AND ENTRANCE SYSTEMS

3056 WALKER RIDGE NW, SUITE G  
 WALKER, MICHIGAN 49544

REV	DATE	DESCRIPTION	INTL
A	08/20/07	MODIFIED DART: .070 WAS .060 AND .051 WAS .061 ADDED CORD	NIK
B	10/16/08	ADDED MANUFACTURER'S TOLERANCES FOR REFERENCE	SRD
C	10/22/10	Modified gasket position of how the reel should roll	TT
D	12/16/10	Modified gasket position of how the reel should roll	TT
E	02/15/11	Rev flex pt, thickness was .032, .180 was .188	TT

1/4"-1" DOOR GLAZING GASKET  
 500' ROLLS

DRAWN BY NIK	DRWG DATE 4-17-07	APPV.D BY	DATE APPV'D	REV
DRWG SCALE 10X	PRODUCT CODE 100	P0017		E