



Testing Evaluation Laboratories, Inc.

2002 Wood Court Suite 1 – Plant City, FL 33563

Phone: 813-754-9887

AAMA/WDMA/CSA/101/I.S.2/A440-08

AAMA/WDMA/CSA/101/I.S.2/A440-11

(A440S1-09)

TEST REPORT SUMMARY

Test Report Issued To:

Fleetwood Windows and Doors

1 Fleetwood Way

Corona, CA 92879

3900-T Aluminum Side Hinged Door - Outswing

Impact Rated

Title	Summary of Results
	Specimen 6 (OXO)
Primary Product Designator	Class LC-PG65 4293 x 3048 (169 x 120) – Type SHD
Design Pressure	+ 3112 Pa / - 3112 Pa (+ 65.0 psf / - 65.0 psf)
Air Infiltration	0..04 L/s/m ² (0.007 scfm/ft ²) @ 75 Pa (1.57 psf)
Air Infiltration/Exfiltration (A440S1-09)	Level A3: < .50 L/s•m ²
Water Resistance (Per ASTM E547-00)	467 Pa (9.75 psf)
Structural Test Pressure	+ 4668 Pa / - 4668 Pa (+ 97.5 psf / - 97.5 psf)
Forced Entry	No Entry

Reference should be made to Report No. TEL 01991348 for complete test specimen description and data.

For Testing Evaluation Laboratories, Inc.

Vivian K. Wright,
President



Testing Evaluation Laboratories, Inc.

2002 Wood Court Suite 1 – Plant City, FL 33563

Phone: 813-754-9887

AAMA/WDMA/CSA 101/I.S.2/A440-08 and A440-11 (A440S1-09)

Issued to:

Fleetwood Windows and Doors

1 Fleetwood Way

Corona, CA 92879

IAS Lab Certification Number TL-299

Report Number:

TEL 01991348

Test Date:

April 21, 2015

Report Date:

June 26, 2015

Project Summary: Testing Evaluation Laboratories, Inc. (TEL) was contracted to perform tests on a Fleetwood Windows and Doors 3900-T Aluminum Side Hinged Door at TEL's Plant City, FL test facility. The sample tested successfully met the performance requirements as follows:

Class LC-PG65 4293 x 3048 (169 x 120) – Type SHD – Specimen 6

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

AAMA/WDMA/CSA/101/I.S.2/A440-08 and A440-11 (A440S1-09)

Standard/Specification for Windows, Doors and Unit Skylights

Series / Model: 3900-T Aluminum Doors

Type: Impact Rated Outswing Glazed Door w/Sidelites (OXO)

Overall Size: 4293 mm (169.00") x 3048 mm (120.00")

Daylight Opening: 889 mm (35.00") x 2743 mm (108.00") – Door

1448 mm (57.00") x 2972 mm (117.00") – 3800-T Sidelite

1194 mm (47.00") x 2743 mm (108.00") – Wide Stile Sidelite

For complete product description, see attached drawing L-7349 for details.

Test Results: 4293 mm (169.00") x 3048 mm (120.00") - Impact Rated Outswing Glazed Door
Specimen 6 w/Sidelites (OXO)

The test results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test / Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.1.2.1	Force to Latch – Multipoint Locking Device	76N (17.0 lbf)	Report Only
5.3.2.1	Air Leakage Resistance (Infiltration) ASTM E283 Test conducted @ 75 Pa (1.57 psf)	0.04 L/s/m ² 0.007 scfm/ft ²	1.50 L/s/m ² 0.3 scfm/ft ²
5.3.3.1	Water Penetration Resistance ASTM E547 & ASTM E331 Test conducted @ 467 Pa (9.75 psf) (Std. Weatherstrip)	No Leakage	No Leakage
5.3.4.2	Uniform Load Deflection Test @ Design Pressure ASTM E330		(See Note #1)
5.3.4.3	Uniform Load Structural Test @ 150% of Design Pressure ASTM E330		(See Note #1)
<i>Note #1:</i>	<i>(Client opted to start at a pressure higher than the minimum required. Those results are listed under "Optional Performance".)</i>		
5.3.5	Forced Entry Resistance AAMA 1304 1330 N (300 lbf) point load		
	Top lock stile corner	No Entry	No Entry
	Bottom lock stile corner	No Entry	No Entry
	Above lock	No Entry	No Entry

Test Results
Spec. 6
Cont:

**4293 mm (169.00") x 3048 mm (120.00") - Impact Rated Outswing Glazed Door
w/Sidelites (OXO)**

Optional Performance

5.3.4.2 Uniform Load Deflection Test @ Design Pressure ASTM E330

Load Range	Time (Sec)	Load Pa (psf)	Loc	Deflection mm (inches)	Set mm (inches)	Allowable mm (inches)
Half Test Positive	10	1556 (32.50)				
Test Positive	10	3112 (65.00)	1	12.395 (0.488)	NA	(See Note #2)
Half Test Negative	10	1556 (32.50)				
Test Negative	10	3112 (65.00)	1	313.233 (0.521)	NA	(See Note #2)

Note #2: *The deflections reported are not limited by AAMA/WDMA/CSA101/I.S.2/A440-08 and A440-11(A440S1-09) 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 Test @ 150% of Design Pressure ASTM E330

Load Range	Time (Sec)	Load Pa (psf)	Loc	Deflection mm (inches)	Set mm (inches)	Allowable mm (inches)
Half Proof Positive	10	2334 (48.75)				
Proof Positive	10	4668 (97.50)	1	17.653 (0.695)	0.711 (0.028)	12.192 (0.480)
			2	1.753 (0.069)	0.076 (0.003)	5.283 (0.208)
Half Proof Negative	10	2334 (48.75)				
Proof Negative	10	4668 (97.50)	1	19.685 (0.775)	0.000 (0.000)	12.192 (0.480)
			2	8.890 (0.350)	0.483 (0.019)	5.283 (0.208)

Note #3: *Deflection / Set for Locations 1 measured at center of mullion.
Deflection/Set for Location 2 measured at center of bottom rail of door panel.*

<u>Paragraph</u>	<u>Title of Test / Test Method</u>	<u>Results</u>	<u>Allowed</u>
5.3.2.1	Air Leakage Resistance (Exfiltration) ASTM E283	0.06 L/s/m ²	
	Test conducted @ 75 Pa (1.57 psf)	0.012 scfm/ft ²	0.3 scfm/ft ²
	Air Leakage Resistance (Infiltration) ASTM E283	0.02 L/s/m ²	
	Test conducted @ 75 Pa (6.24 psf)	0.003 scfm/ft ²	0.3 scfm/ft ²
	Air Leakage Resistance (Exfiltration) ASTM E283	0.10 L/s/m ²	
	Test conducted @ 75 Pa (6.24 psf)	0.019 scfm/ft ²	0.3 scfm/ft ²

Conditions, Terms, and General Notes Regarding These Tests

The product tested Has Been compared to the detailed drawing, bill of materials and fabrication information supplied by the client so named herein. Our analysis, which includes dimensional and component description comparisons, indicate the tested product and engineering information supplied by the client "Are Equivalent".

The report and representative samples will be retained for four years from the date of initial test.

These test results were obtained by employing all requirements of the designated test methods with no Deviations unless explicitly noted in test report. The test results and specimen supplied for testing are in compliance with the reference.

The test results are specific to the product tested by this laboratory and of the sample supplied by the client named herein, and they relate to no other product either manufactured by the client, a fabricator of the client or of the client or of installed field performance.

This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.

Testing Evaluation Laboratories, Inc. makes no opinions or endorsements regarding this product and its performance. This report may not be reproduced or quoted in partial form without the expressed written approval of Testing Evaluation Laboratories, Inc.

Testing Evaluation Laboratories, Inc.'s letter, reports, its name or insignia or mark are for the exclusive use of the client so named herein and any other use is strictly prohibited. The report, letters and the name of Testing Evaluation Laboratories, Inc., its seal or mark shall not be used in any circumstance to the general public or in any advertising.

Limitation of liability: Due diligence was used in performing the tests and reporting the results. By acceptance of this report, this client agrees to hold harmless and indemnify Testing Evaluation Laboratories, Inc., its employees, sub-contractors and officers and owners against all claims and demands of any kind whatsoever, which arise out of or in any manner connected with the performance of work referred to herein.

Testing Evaluation Laboratories, Inc.


Vivian K. Wright,
President

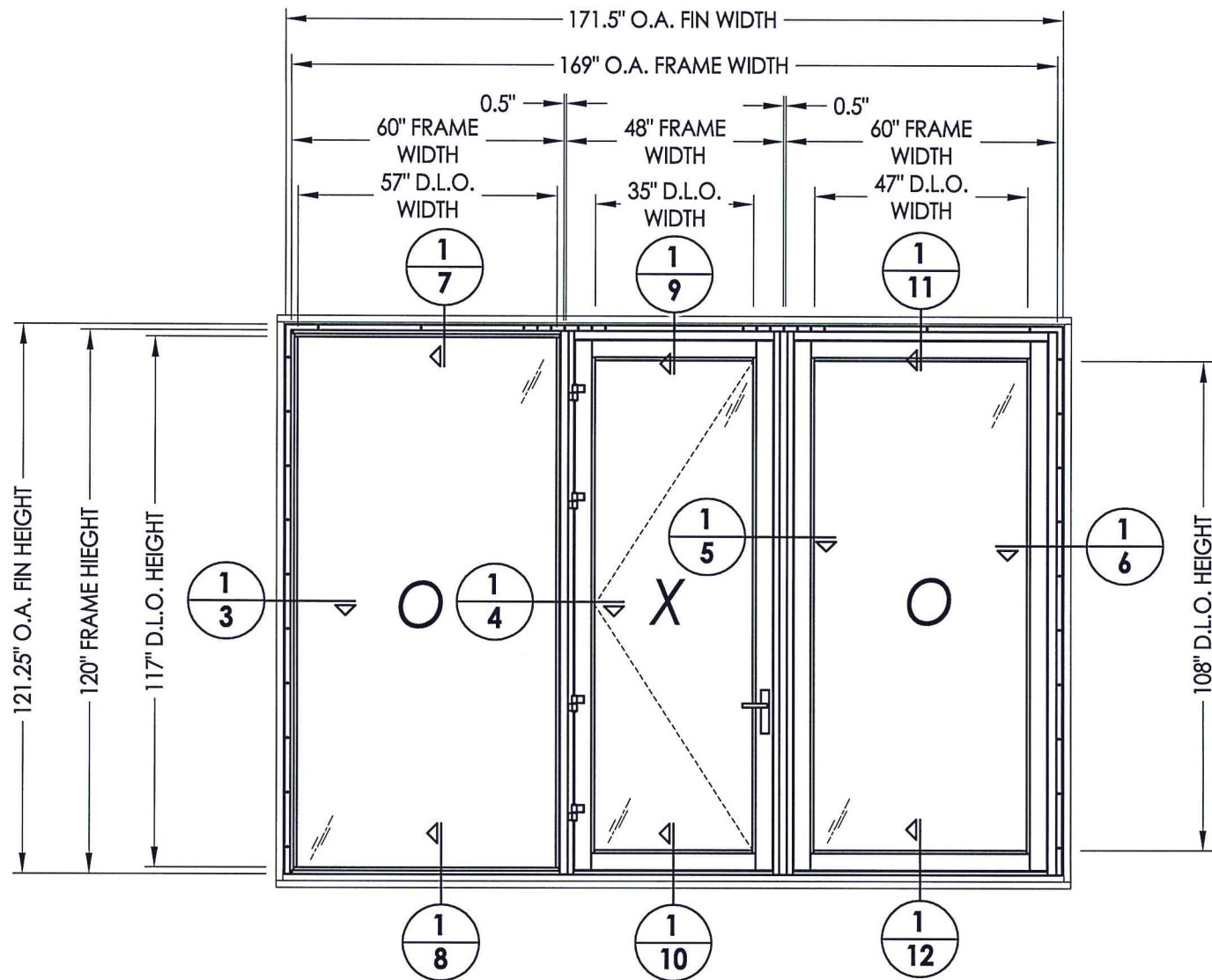
Revision Log

<u>Rev Number</u>	<u>Date</u>	<u>Pages</u>	<u>Revision(s)</u>
0	6/26/2015	NA	Original Report Issue

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Table of contents
2	Test elevation
3	Horizontal cross sections
4	Horizontal cross sections
5	Horizontal cross sections
6	Horizontal cross sections
7	Vertical cross sections
8	Vertical cross sections
9	Vertical cross sections
10	Vertical cross sections
11	Vertical cross sections
12	Vertical cross sections
13	Frame anchoring
14	Sidelite panel detail
15	Components and glazing detail
16	Components
17	Bill of materials

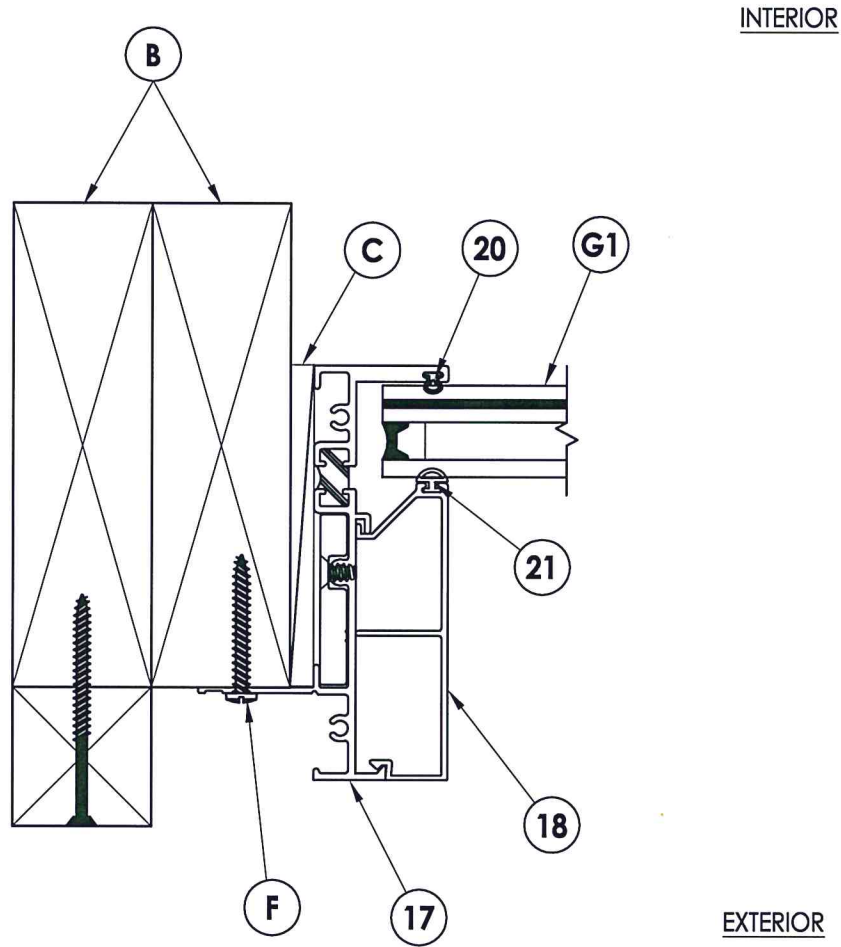
Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by *[Signature]*

[illegible]



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01991348
 Date 06/26/2015 Verified by JKW

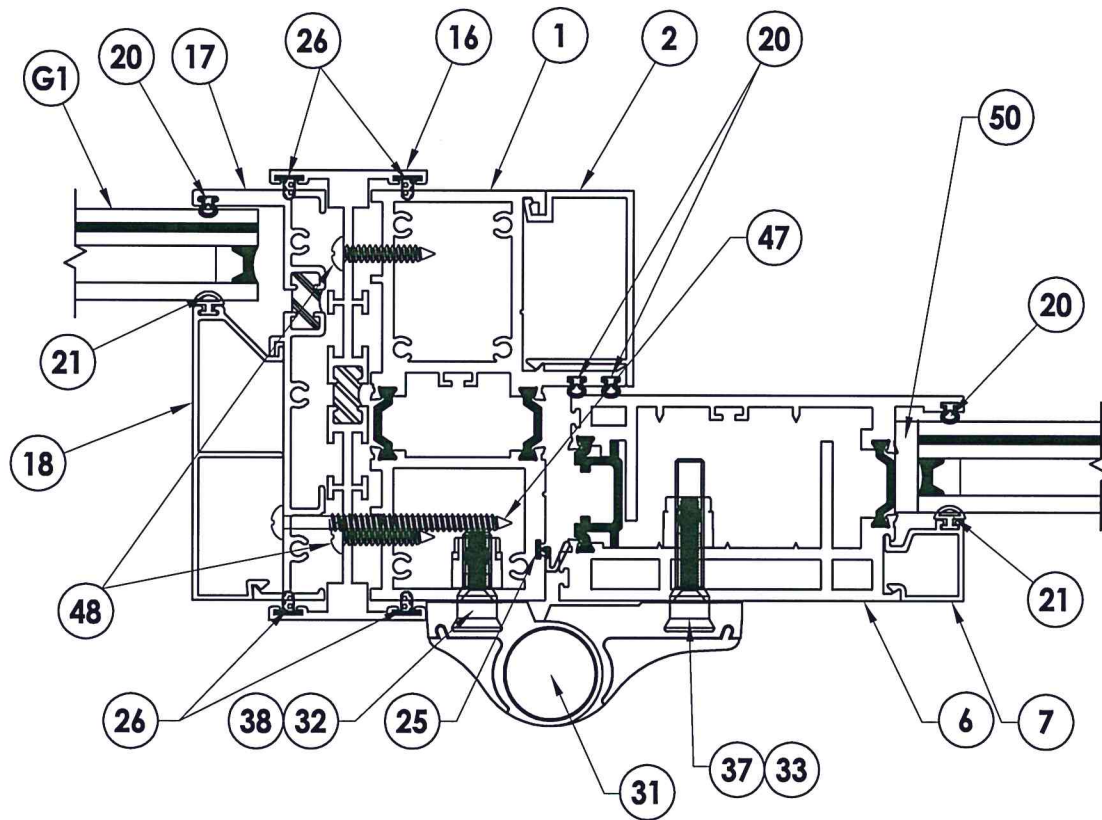
PRODUCT: FLEETWOOD SPEC. 6, 6A		PART OR ASSEMBLY: TEST ELEVATIONS	
		NO.	DATE
		BY	
		REVISIONS	
<div style="border: 1px solid black; padding: 5px;"> RW BUILDING CONSULTANTS, INC. 813.659.9197 </div>			
DATE: 4/4/15			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7349			
SHEET 2 OF 17			



Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by [Signature]

1 **HORIZONTAL CROSS SECTION**
3

[illegible]



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01991348
 Date 06/26/2015 Verified by *[Signature]*

1
4 **HORIZONTAL CROSS SECTION**

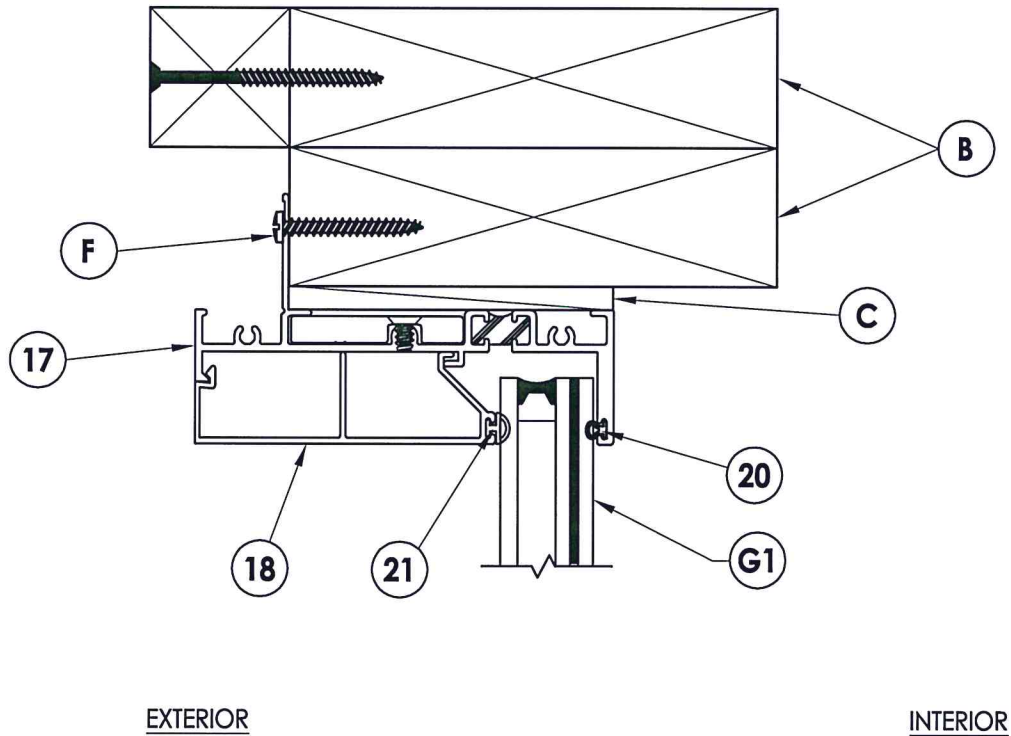
PRODUCT:		FLEETWOOD SPEC. 6, 6A	
PART OR ASSEMBLY:		HORIZONTAL CROSS SECTIONS	
NO.	DATE	REVISIONS	BY
<div style="border: 1px solid black; padding: 5px;"> RW BUILDING CONSULTANTS, INC. 813.659.9197 </div>			
DATE: 4/4/15			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: L-7349			
SHEET 4 OF 17			

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by *[Signature]*

© 2015 R.W. BUILDING CONSULTANTS INC.

1 **HORIZONTAL CROSS SECTION**

© 2015 R.W. BUILDING CONSULTANTS INC.



EXTERIOR

INTERIOR

1 **VERTICAL CROSS SECTION**
7

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by Ull

Date 06/26/2015 Verified by [Signature]

**RW BUILDING
CONSULTANTS, INC.**
813.659.9197

DATE: 4/4/15

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:
L-7349

SHEET 7 OF 17

PRODUCT:

FLEETWOOD
SPEC. 6, 6A

PART OR ASSEMBLY:

VERTICAL CROSS SECTIONS

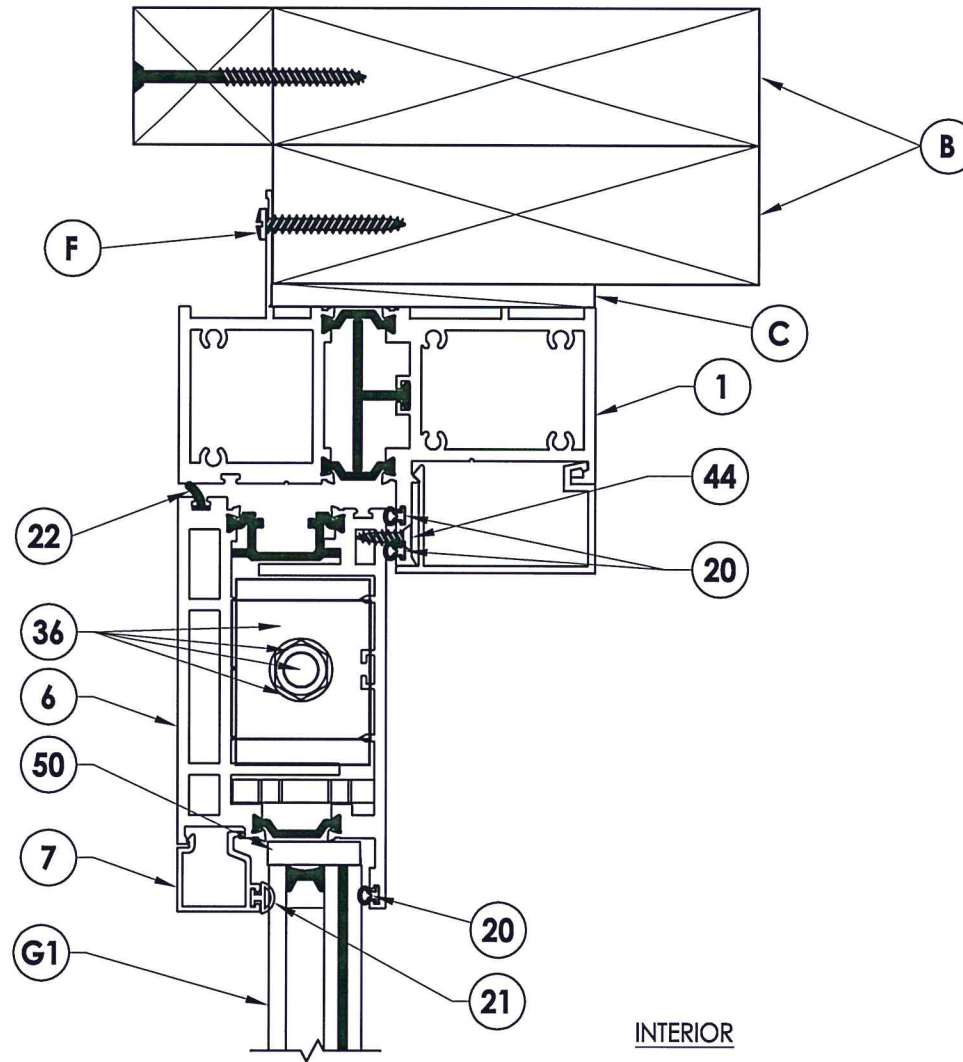
NO.	DATE	BY
REVISIONS		

© 2015 R.W. BUILDING CONSULTANTS INC.

1
10 **VERTICAL CROSS SECTION**

© 2015 R.W. BUILDING CONSULTANTS INC.

EXTERIOR

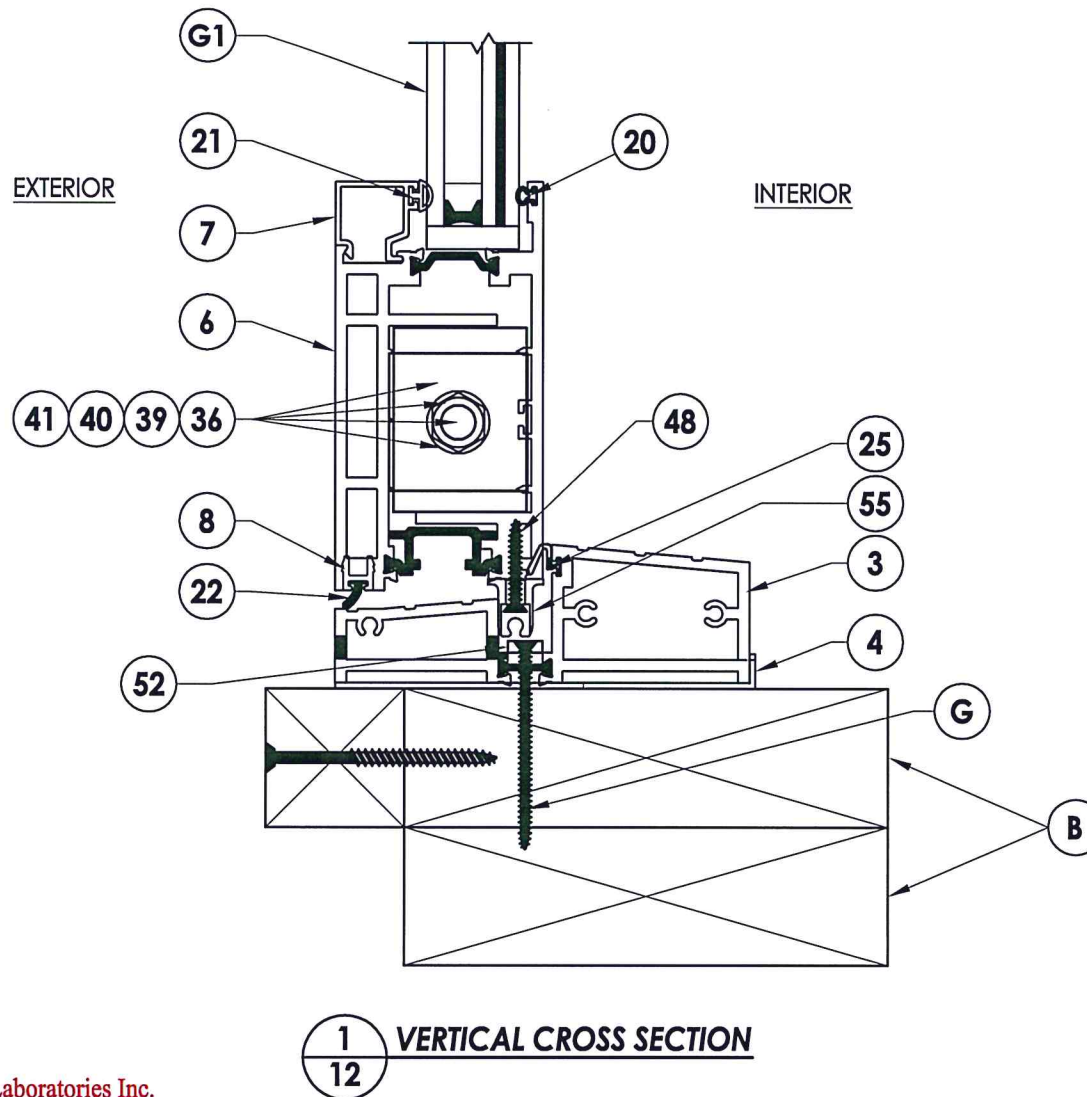


INTERIOR

1
11 **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by etw

<u>PRODUCT:</u>				<u>PART OR ASSEMBLY:</u>			
FLEETWOOD SPEC. 6, 6A				VERTICAL CROSS SECTIONS			



Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by [Signature]

[illegible]

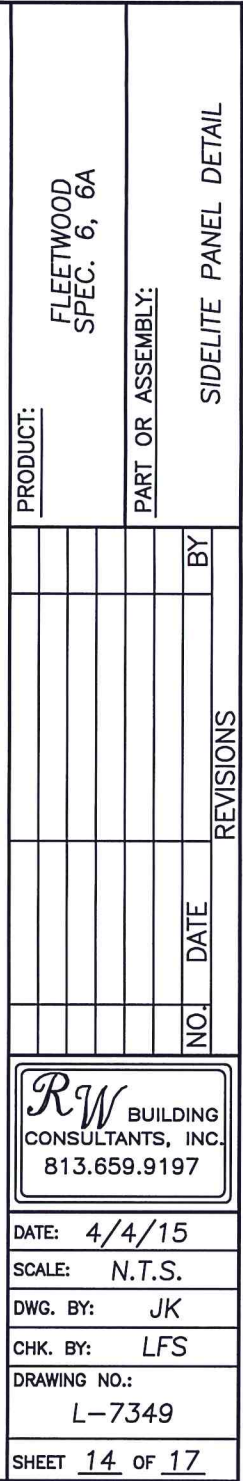
Technical drawing of a vertical bar with dimensions and callouts:

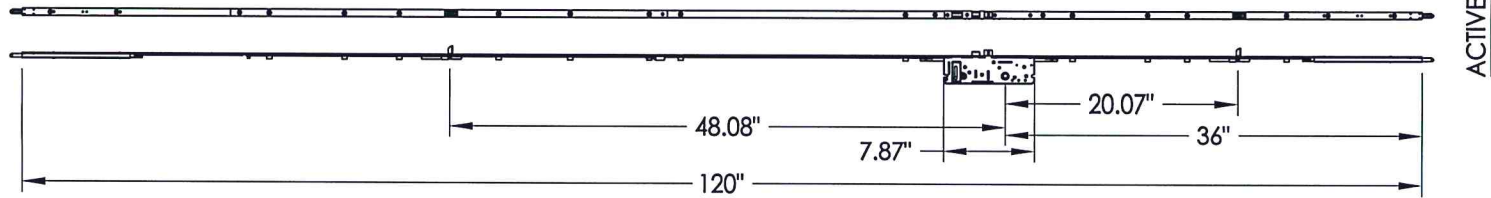
- Overall height: 102.25"
- Height of the upper section: 79.25"
- Height of the lower section: 35.75"
- Callout 57 points to the top of the bar.
- Callout 56 points to the middle of the bar.
- Callout 57 points to the bottom of the bar.

Diagram illustrating a shoot bolt strike on a door edge. The diagram shows a cross-section of a door edge with a bolt (labeled $\varnothing 0.5"$) striking the edge. The text "SHOOT BOLT STRIKE" is written below the diagram.

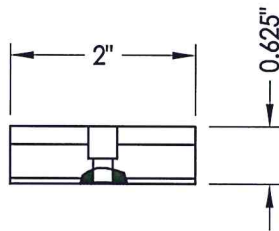
Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by *[Signature]*

 BUILDING CONSULTANTS, INC. 813.659.9197		DATE: 4/4/15 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-7349 SHEET 13 OF 17		NO. DATE BY REVISIONS		PRODUCT: FLEETWOOD SPEC. 6, 6A		PART OR ASSEMBLY: FRAME ANCHORING	
--	--	---	--	--------------------------	--	-----------------------------------	--	--------------------------------------	--

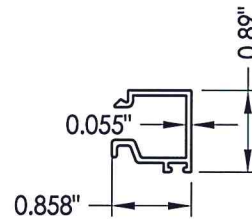




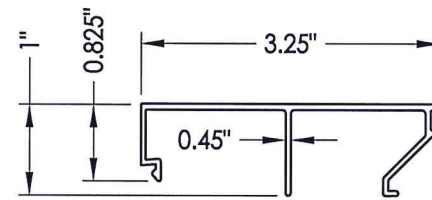
30 MULTI-POINT LOCK
TRUTH



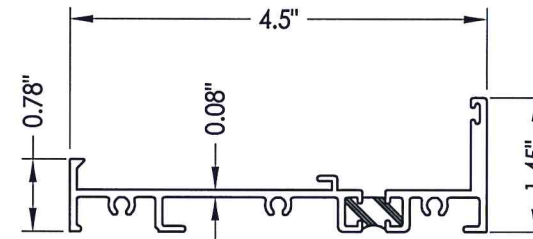
55 FIXED SILL BLOCK



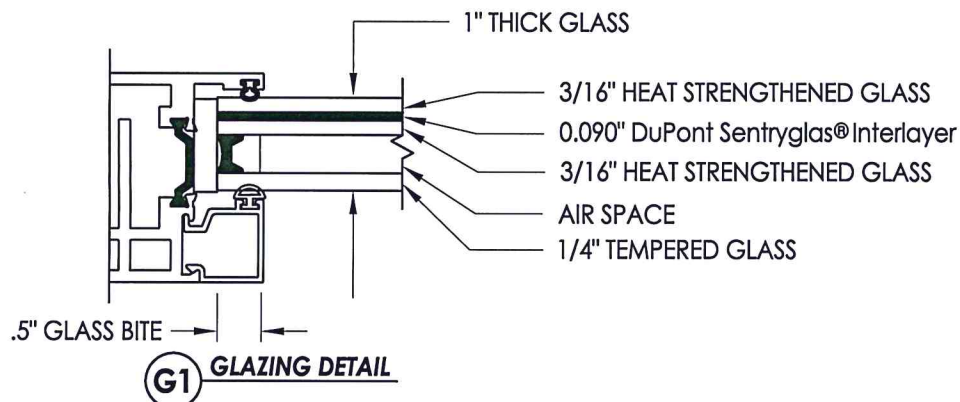
7 1" GLASS STOP



18 KONA 1" GLASS STOP



17 KONA FRAME



Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by *[Signature]*

PRODUCT: FLEETWOOD SPEC. 6, 6A		PART OR ASSEMBLY: COMPONENTS AND GLAZING DETAIL	
		NO.	DATE
		REVISIONS	BY
<div style="border: 1px solid black; padding: 5px; text-align: center;"> RW BUILDING CONSULTANTS, INC. 813.659.9197 </div>			
DATE: 4/4/15		SCALE: N.T.S.	
DWG. BY: JK		CHK. BY: LFS	
DRAWING NO.: L-7349		SHEET 15 OF 17	


Technical drawing of a window frame cross-section. The drawing shows a central window unit with a frame. Dimensions are indicated: a width of 4.5" for the top section, a height of 2.8" for the left section, a height of 1.91" for the bottom section, and a thickness of 0.125" for the right section.

Technical drawing of a component with the following dimensions:

- Width: 0.125"
- Length: 4.5"
- Thickness: 1/2"

Technical drawing of a cross-section of a window frame assembly. The drawing shows a vertical section with dimensions: 2.25" for the top width, 3.75" for the left height, 0.125" for the bottom thickness, and 4.31" for the right height. The assembly includes a window pane, a frame, and a sealant.

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01991348
Date 06/26/2015 Verified by *[Signature]*

<div style="border: 1px solid black; padding: 5px; text-align: center;">  BUILDING CONSULTANTS, INC. 813.659.9197 </div>		<div style="display: flex; justify-content: space-between;"> <div> DATE: 4/4/15 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-7349 SHEET 16 OF 17 </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> REVISIONS </div> </div>		
PRODUCT:	FLEETWOOD SPEC. 6, 6A		PART OR ASSEMBLY:	COMPONENTS
	NO.	DATE	BY	

BILL OF MATERIALS			
ITEM #	DESCRIPTION	PART#	MATERIAL
B	2X BUCK SG >= 0.55	-	WOOD
C	1/4" MAX. SHIM SPACE	-	-
F	#10 x 1-1/2" PFH WOOD SCREW	-	STEEL
G	#8 x 2" PFH WOOD SCREW	-	STEEL
H	#10 x 2" PFH WOOD SCREW	-	STEEL
1	FRAME	3911	6063-T6 ALUM
2	FRAME SNAP-IN	3912	6063-T6 ALUM
3	OUTSWING SILL	3202	6063-T6 ALUM
4	SILL PAN	-	SHEET METAL (ALUMINUM)
6	SASH	3902	6063-T6 ALUM
7	1" GLASS STOP	3907	6063-T6 ALUM
8	ATLANTIC SEAL CLIP	3916	6063-T6 ALUM
10	FRAME (FIN)	3911	6063-T6 ALUM
16	KONA I-MULLION	3082	6063-T6 ALUM
17	KONA FRAME	3805	6063-T6 ALUM
18	KONA 1" GLASS STOP	3801	6063-T6 ALUM
20	BULB VINYL - MINI (EPDM 70 Durometer)	25199	TREMCO, # TX20801E
21	BULB VINYL - LARGE (EPDM 70 Durometer)	25031	TREMCO, # TX19638E
22	FOAM SEAL	25196	EMESBURY, # 32390
23	Q-LON FOAM SEAL	25189	SCHLEGEL CORP., # Q225T190
24	Q-LON FOAM SEAL	25058	SCHLEGEL CORP., # Q375T190
25	Q-LON FOAM SEAL	25059	SCHLEGEL CORP., # QEZ 376
26	Q-LON FOAM SEAL	19120	SCHLEGEL CORP., # U 5212
30	LOCKING HARDWARE (5 point lock)	-	TRUTH
31	BUTT HINGE	-	SAVIO
32	BACK UP KIT	20535	SAVIO
33	HINGE BOLT, 8M X 48MM (FOR PANEL)	25026	SAVIO
36	BACK UP PLATE FOR CORNER BLOCK	25025	-
37	MACHINE SCREW NO 10-32, FHP 1.125"	25074	STAINLESS STEEL
38	MACHINE SCREW NO 10-32, FHP .75"	25073	STAINLESS STEEL
39	HEX HEAD CAP SCREW .375-16, 2.250"	25175	STAINLESS STEEL
40	.375-16 SS. HEX NUT	25023	STAINLESS STEEL
41	.375 SPLIT LOCK WASHER	25024	STAINLESS STEEL
44	#8 x 1/2" PFH SMS	-	STEEL
47	#10 x 2-1/2" PFH SMS	-	STEEL
48	#8 x 1" PFH SMS	-	STEEL
49	#10 x 3" PFH SMS	-	STEEL
50	4" LONG SETTING BLOCK	18620	-
52	ANCHOR BLOCK	-	6063-T6 ALUM
55	FIXED SILL BLOCK	-	6063-T6 ALUM
56	LATCH AND DEADBOLT STRIKE PLATE	-	-
57	STRIKE PLATE	-	-

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 0199.1348
Date 06/26/2015 Verified by *[Signature]*

[illegible]