



#### **TEST REPORT**

**Report No.**: E8390.01-301-44

### Rendered to:

FLEETWOOD WINDOWS AND DOORS Corona, California

**PRODUCT TYPE**: Sliding Door **SERIES/MODEL**: 3070-T Corner Door/Pocket Door

**SPECIFICATION(S)**: AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

AAMA/WDMA/CSA 101/I.S.2/A440-08, NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

 Test Start Date:
 07/16/15

 Test End Date:
 11/11/15

 Report Date:
 02/02/16

 Revision 4 Date:
 07/25/16

**Test Record Retention End Date**: 11/11/19





# **Summary of Results**

	Summary of Results		
Title	Test Specimen #1	Test Specimen #2	
	PXXXVXXXVXO 3070 T	PXXXVXXXVXO 3070 T	
	LC PG50 - SD	LC PG40 – SD	
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	12,190 mm x 3048mm (480" x 120")	12,190 mm x 3048mm (480" x 120")	
	non-pocket dimension	non-pocket dimension	
Design Pressure	+2400 Pa (+50.13 psf)	+2400 Pa (+50.13 psf)	
Negative Design Pressure	-2400 Pa (-50.13 psf)	-2400 Pa (-50.13 psf)	
Air Infiltration	$0.8 \mathrm{L/s/m^2}$	$0.8  \text{L/s/m}^2$	
All illilluation	$(0.15 \text{ cfm/ft}^2)$	$(0.15 \text{ cfm/ft}^2)$	
Canadian Air Infiltration/Exfiltration Level	A2	A2	
Water Penetration Resistance Test Pressure	440 Pa (9.19 psf)	290 Pa (6.06psf)	
water renetration resistance rest Pressure	(2-3/4" tall sill pan)	(2" tall sill pan)	

	Summary of Results	
Title	Test Specimen #3	Test Specimen #4
	PXXXVXXXVXO 3070 T	PXXXVXXXVXO 3070 T
	LC PG30 – SD	RPG20 – SD
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	12,190 mm x 3048mm	12,190 mm x 3048mm
AAMA/ WDMA/CSA 101/1.5.2/A440-06 aliu -11	(480" x 120")	(480" x 120")
	non-pocket dimension	non-pocket dimension
Design Pressure	+2400 Pa (+50.13 psf)	+2400 Pa (+50.13 psf)
Negative Design Pressure	-2400 Pa (-50.13 psf)	-2400 Pa (-50.13 psf)
Air Infiltration	$0.8 \mathrm{L/s/m^2}$	0.8 L/s/m <sup>2</sup>
All Illilitation	(0.15 cfm/ft²)	(0.15 cfm/ft²)
Canadian Air Infiltration/Exfiltration Level	A2	A2
Water Denetration Designation Test Processes	220 Pa (4.59psf)	150 Pa (3.13psf)
Water Penetration Resistance Test Pressure	(1-3/4" tall sill pan)	(1-1/2" tall sill pan)





	Summary of Results	
Title	Test Specimen #5	Test Specimen #6
	PXXXVXXXVXO 3070 T	PXXXVXXXVXO 3070 T
AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11	Does not meet minimum water required by AAMA. 12,190 mm x 3048mm (480" x 120") non-pocket dimension	Does not meet minimum water required by AAMA. 12,190 mm x 3048mm (480" x 120") non-pocket dimension
Design Pressure	+2400 Pa (+50.13 psf)	+2400 Pa (+50.13 psf)
Negative Design Pressure	-2400 Pa (-50.13 psf)	-2400 Pa (-50.13 psf)
Air Infiltration	0.8 L/s/m <sup>2</sup> (0.15 cfm/ft <sup>2</sup> )	0.8 L/s/m <sup>2</sup> (0.15 cfm/ft <sup>2</sup> )
Canadian Air Infiltration/Exfiltration Level	A2	A2
Water Penetration Resistance Test Pressure	50 Pa (1.0 psf) (1" tall sill pan)	0 Pa (0 psf) (3/4" tall sill pan)

**Test Completion Date**: 11/11/15

Reference must be made to Report No. E8390.01-301-44, dated 07/25/16 for complete test specimen description and detailed test results.





Page 1 of 19

#### **1.0 Client Identification**:

**1.1 Report Issued To**: Fleetwood Windows & Doors

1 Fleetwood Way

Corona, California 92879

**1.2 Contact Person**: Joe Zammit

2.0 Laboratory Identification:

2.1 Test Laboratory: Architectural Testing, Inc.,

an Intertek company ("Intertek-ATI")

2524 East Jensen Avenue Fresno, California 93706

**2.2 Phone Number**: (559) 233-8705

**3.0 Project Summary**:

3.1 Product Type: Sliding Door

3.2 Series/Model: 3070-T Corner Door/Pocket Door

**3.3 Compliance Statement**: Results obtained are tested values and were secured by using the designated test method(s). The specimens tested successfully met the performance requirements for the following ratings:

Test Specimen(s) Title		Summary of Results
	PXXXVXXVXO	3070 T
		LC PG50 – SD
Specimen #1	101/I.S.2/A440-08 and -11	12,190 mm x 3048 mm (480" x 120")
Specimen #1	101/1.3.2/A440-00 and -11	440 Pa (9.19 psf)
		(2-3/4" tall sill pan)
		LC PG40 – SD
Specimen #2	101/I.S.2/A440-08 and -11	12,190 mm x 3048 mm (480" x 120")
Specimen #2	101/1.3.2/A440-00 and -11	Water Test Pressure 290 Pa (6.06psf)
		(2" tall sill pan)
		LC PG30 – SD
Specimen #3	101/I.S.2/A440-08 and -11	12,190 mm x 3048 mm (480" x 120")
Specifien #3	101/1.5.2/A440-00 and -11	Water Test Pressure 220 Pa (4.59psf)
		(1-3/4" tall sill pan)
		RPG20 – SD
Specimen #4	Specimen #4 101/I.S.2/A440-08 and -11	12,190 mm x 3048 mm (480" x 120")
Specificii #4		Water Test Pressure 150 Pa (3.13psf)
		(1-1/2" tall sill pan)





Page 2 of 19

### **3.0 Project Summary**: (Continued)

**3.4 Compliance Statement**: (Continued)

Test Specimen(s) Title		Summary of Results
	PXXXVXXVXO	3070 T
Specimen #5 101/I.S.2/A440-08 and -11		Does not meet minimum water required by AAMA. 12,190 mm x 3048 mm (480" x 120") Water Test Pressure 50 Pa (1.0 psf) (1" tall sill pan)
Specimen #6	101/I.S.2/A440-08 and -11	Does not meet minimum water required by AAMA. 12,190 mm x 3048 mm (480" x 120") Water Test Pressure 0 Pa (0 psf) (3/4" tall sill pan)

**3.5 Test Dates**: 07/15/15 - 11/11/15

- **3.6 Test Record Retention End Date**: All test records for this report will be retained until November 11, 2019.
- **3.7 Test Location**: Architectural Testing, Inc. test facility in Fresno, California.
- **3.8 Test Specimen Source**: The test specimen(s) was provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of four years from the test completion date.
- **3.9 Drawing Reference**: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix B and C. Any deviations are documented herein or on the drawings.

#### 3.10 List of Official Observers:

<u>company</u>
Fleetwood
Intertek-ATI
Intertek-ATI





Page 3 of 19

### **4.0 Test Specifications:**

AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

AAMA/WDMA/CSA 101/I.S.2/A440-08, NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

### **5.0 Test Specimen Description:**

### 5.1 Product Sizes:

Overall Area: 22.8 m <sup>2</sup>	Width		Height	
(243 ft <sup>2</sup> )	millimeters	inches	millimeters	inches
MAX Pocket Wall Size	4,572	180	3,048	120
MAX 90 Degree Corner Wall Size	4,572	180	3,048	120
MAX 135 Degree Corner Wall Size	3,048	120	3,048	120
MAX Panel Size	1,588	62-1/16	2,997	118

The following descriptions apply to all specimens.





Page 4 of 19

# **5.0 Test Specimen Description**: (Continued)

### **5.2 Frame Construction:**

Frame Member	Material	Description
Sill	Thermally Broken Aluminum	Three piece sill
Sill pan	Aluminum	With a 3" tall interior leg
Sill filler	Aluminum	Snapped in place where panels do not slide
Jamb	Thermally Broken Aluminum	With snapped in jamb filler where panel is not engaged
Head	Thermally Broken Aluminum	With snapped in head filler where panel is not engaged

	Joinery Type	Detail
		Sealed with silicone and attached with six #10 x
All corners	Butt	1.5" Phillips pan head sheet metal screws in
		Head and three #8 x 2" Flat Head Phillips in sill.

### **5.3 Panel Construction:**

<b>Panel Member</b>	Material	Description
All	Thermally Broken Aluminum	See drawings for details.

	Joinery Type	Detail
All corners	Butt	Sealed with silicone. Top corners fastened with one #10 x 2" Phillips head screw each. Bottom corners fastened with one #10 x 2". Two 1/4-20 x 1" Phillips head screws were fastened into each roller.





Page 5 of 19

# **5.0 Test Specimen Description**: (Continued)

# **5.4 Weatherstripping**:

Description	Quantity	Location
0.230 polypile with center fin	4	In sill contracting interior and exterior of each panel leg
0.230 polypile with center fin	2	In head contracting interior and exterior of panel face
0.290 Polypile with center fin	1	In each pocket interlock extrusion
0.230 polypile with center fin	2	In interior and exterior meeting stile locking extrusion.
0.290 polypile with center fin	1	In each interlock extrusion
Q-lon foam seal	1	In interior and exterior of jamb extrusion
Panel corner air barrier	1	At each exposed panel bottom and top corner.

**5.5 Glazing**: No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.

Glass Type	Glazing	Glazing Method
IG	1/4" temp/air space/ lami ( 5/32" HS .090SGP 5/32: HS)	Channel glazed into frame. Dry glazed at all top and bottom rails and interlocks. Wet glazed at locking vertical stiles only

Location	Quantity	Daylight Opening		Glass Bite
Location	Quantity	millimeters	inches	Glass bite
All Lights	8	1435 x 2845	56-1/2 x 112	5/8

### 5.6 Drainage:

<b>Drainage Method</b>	Size	Quantity	Location
Weep Notch	1" wide by 3/16" tall	6	6" from the end of each sill member





Page 6 of 19

# **5.0 Test Specimen Description**: (Continued)

### 5.7 Hardware:

Description	Quantity	Location
Rollers, Tandem	2 tandem rollers each panel	Bottom panel rail
Archetype narrow Lock	2	Locking meeting panel
Archetype II lock	1	Locking meeting panel

### **5.8 Reinforcement:**

Drawing Number	Location	Material
37	All small interlock hallows	Aluminum
38	All small interlock hallows	Aluminum

**5.9 Screen Construction**: No screen was utilized.

#### **6.0 Installation**:

The specimen was installed into a Pine wood buck. The rough opening allowed for a 1/4" shim space. The exterior perimeter of the window was sealed with sealant. See drawing on sheet 8 of 12 for installation details.





Page 7 of 19

**7.0 Test Results**: The temperature during testing was  $21^{\circ}$ C ( $70^{\circ}$ F). The results are tabulated as follows:

Test Specimen #1 PXXXVXXXVXO 3070 T: LC PG50 - SD

Title of Test	Results	Allowed	Note
	Initiate motion:		
Operating Force,	68N (15 lbf)	135 N (30 lbf) max.	
per ASTM E 2068	Maintain motion:		
_	36 N (8 lbf)	90 N (20 lbf) max.	
Air Leakage,			
Infiltration per ASTM E 283	$0.8  \text{L/s/m}^2$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	(0.3 cfm/ft <sup>2</sup> ) max.	1
Air Leakage,			
Exfiltration per ASTM E 283	$0.8 \mathrm{L/s/m^2}$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Canadian Air			
Infiltration/Exfiltration Level	A2	N/A	
Water Penetration,		,	
per ASTM E 547 and ASTM E			
331 at 440 Pa (9.19 psf)			
(2-3/4" tall sill pan)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at Interlock			
+2400 Pa (+50.13 psf)	46 mm (1.80")	Report Only	
-2400 Pa (-50.13 psf)	35 mm (1.36")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at			
90 degree corner			
+2400 Pa (+50.13 psf)	10 mm (0.38")	Report Only	
-2400 Pa (-50.13 psf)	4 mm (0.16")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken			
at 135 degree corner			
+2400 Pa (+50.13 psf)	13 mm (0.52")	Report Only	
-2400 Pa (-50.13 psf)	9 mm (0.36")		2,3





Page 8 of 19

# 7.0 Test Results: (Continued)

**Test Specimen #1** PXXXVXXXVXO 3070 T: LC PG50 – SD (Continued)

Test Specimen #1 PXXXVXXXV	<u>XO 3070 T: LC PG50 – </u>	SD (Continued)	
Title of Test	Results	Allowed	Note
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at Interlock			
+3600 Pa (+75.19 psf)	5.0 mm (0.02")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	1.0 mm (0.04")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 90 degree corner			
+3600 Pa (+75.19 psf)	0.8 mm (0.03")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 135 degree corner			
+3600 Pa (+75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max	2,3
Forced Entry Resistance,			
per ASTM F 842	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,			
320 N (70 lbf)	Pass	Meets as stated	
Remaining direction,			
230 N (50 lbf)	Pass	Meets as stated	





Page 9 of 19

# **7.0 Test Results**: (Continued)

Test Specimen #2 PXXXVXXXVXO 3070 T: LC PG40 - SD

Title of Test	Results	Allowed	Note
	Initiate motion:	11110WCU	Note
Operating Force,	68N (15 lbf)	135 N (30 lbf) max.	
per ASTM E 2068	Maintain motion:	133 14 (30 151) 1114X.	
per 1151 11 2 2 0 0 0	36 N (8 lbf)	90 N (20 lbf) max.	
Air Leakage,			
Infiltration per ASTM E 283	$0.8  L/s/m^2$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Air Leakage,	, ,	, , ,	
Exfiltration per ASTM E 283	0.8 L/s/m <sup>2</sup>	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	$(0.15 \text{ cfm/ft}^2)$	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Canadian Air			
Infiltration/Exfiltration Level	A2	N/A	
Water Penetration,			
per ASTM E 547 and ASTM E			
331 at 290 Pa (6.06psf)			
(2" tall sill pan)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at Interlock			
+2400 Pa (+50.13 psf)	46 mm (1.80")	Report Only	
-2400 Pa (-50.13 psf)	35 mm (1.36")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at			
90 degree corner			
+2400 Pa (+50.13 psf)	10 mm (0.38")	Report Only	
-2400 Pa (-50.13 psf)	4 mm (0.16")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken			
at 135 degree corner			
+2400 Pa (+50.13 psf)	13 mm (0.52")	Report Only	
-2400 Pa (-50.13 psf)	9 mm (0.36")		2,3





Page 10 of 19

# 7.0 Test Results: (Continued)

**Test Specimen #2** PXXXVXXXVXO 3070 T: LC PG40 – SD (Continued)

Test Specimen #2 PXXXVXXXV			
Title of Test	Results	Allowed	Note
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at Interlock			
+3600 Pa (+75.19 psf)	5.0 mm (0.02")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	1.0 mm (0.04")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 90 degree corner			
+3600 Pa (+75.19 psf)	0.8 mm (0.03")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 135 degree corner			
+3600 Pa (+75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Forced Entry Resistance,			
per ASTM F 842	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,			
320 N (70 lbf)	Pass	Meets as stated	
Remaining direction,			
230 N (50 lbf)	Pass	Meets as stated	





Page 11 of 19

# 7.0 Test Results: (Continued)

Test Specimen #3 PXXXVXXXVXO 3070 T: LC PG30 - SD

Title of Test	Results	Allowed	Note
Title of Test	Initiate motion:	Allowed	Note
Operating Force,	68N (15 lbf)	135 N (30 lbf) max.	
per ASTM E 2068	Maintain motion:	133 N (30 IDI) IIIax.	
per ASTM E 2000	36 N (8 lbf)	90 N (20 lbf) max.	
Air Leakage,	30 N (0 101)	90 IN (20 IDI) IIIax.	
Infiltration per ASTM E 283	0.0 1./a/m²	1 F I /a/m?	
_	0.8 L/s/m <sup>2</sup>	1.5 L/s/m <sup>2</sup>	1
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	(0.3 cfm/ft <sup>2</sup> ) max.	1
Air Leakage,	0.01./-/2	1 5 1 /2 /22	
Exfiltration per ASTM E 283	0.8 L/s/m <sup>2</sup>	$1.5 \text{ L/s/m}^2$	4
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	(0.3 cfm/ft <sup>2</sup> ) max.	1
Canadian Air	4.0	N. / A	
Infiltration/Exfiltration Level	A2	N/A	
Water Penetration,			
per ASTM E 547 and ASTM E			
331 at 220 Pa (4.59psf)			
(1-3/4" tall sill pan)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at Interlock			
+2400 Pa (+50.13 psf)	46 mm (1.80")	Report Only	
-2400 Pa (-50.13 psf)	35 mm (1.36")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at			
90 degree corner			
+2400 Pa (+50.13 psf)	10 mm (0.38")	Report Only	
-2400 Pa (-50.13 psf)	4 mm (0.16")		2,3
Uniform Load Deflection,	, ,		,
per ASTM E 330			
Deflections taken			
at 135 degree corner			
+2400 Pa (+50.13 psf)	13 mm (0.52")	Report Only	
-2400 Pa (-50.13 psf)	9 mm (0.36")	noport only	2,3





Page 12 of 19

# 7.0 Test Results: (Continued)

Test Specimen #3 PXXXVXXXVXO 3070 T: LC PG30 - SD (Continued)

Test Specimen #3 PXXXVXXXV	XO 3070 T: LC PG30 -	SD (Continued)	
Title of Test	Results	Allowed	Note
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at Interlock			
+3600 Pa (+75.19 psf)	5.0 mm (0.02")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	1.0 mm (0.04")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 90 degree corner			
+3600 Pa (+75.19 psf)	0.8 mm (0.03")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 135 degree corner			
+3600 Pa (+75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Forced Entry Resistance,			
per ASTM F 842	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,			
320 N (70 lbf)	Pass	Meets as stated	
Remaining direction,			
230 N (50 lbf)	Pass	Meets as stated	





Page 13 of 19

# 7.0 Test Results: (Continued)

Test Specimen #4 PXXXVXXXVXO 3070 T: R PG20 - SD

Test Specimen #4 PXXXVXXXVXO 3070 T: R PG20 – SD			
Title of Test	Results	Allowed	Note
	Initiate motion:		
Operating Force,	68N (15 lbf)	135 N (30 lbf) max.	
per ASTM E 2068	Maintain motion:		
	36 N (8 lbf)	90 N (20 lbf) max.	
Air Leakage,			
Infiltration per ASTM E 283	0.8 L/s/m <sup>2</sup>	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	$(0.15 \text{ cfm/ft}^2)$	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Air Leakage,			
Exfiltration per ASTM E 283	0.8 L/s/m <sup>2</sup>	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	$(0.15 \text{ cfm/ft}^2)$	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Canadian Air			
Infiltration/Exfiltration Level	A2	N/A	
Water Penetration,			
per ASTM E 547 and ASTM E			
331 at 150 Pa (3.13psf)			
(1-1/2" tall sill pan)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at Interlock			
+2400 Pa (+50.13 psf)	46 mm (1.80")	Report Only	
-2400 Pa (-50.13 psf)	35 mm (1.36")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at			
90 degree corner			
+2400 Pa (+50.13 psf)	10 mm (0.38")	Report Only	
-2400 Pa (-50.13 psf)	4 mm (0.16")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken			
at 135 degree corner			
+2400 Pa (+50.13 psf)	13 mm (0.52")	Report Only	
-2400 Pa (-50.13 psf)	9 mm (0.36")		2,3





Page 14 of 19

# 7.0 Test Results: (Continued)

Test Specimen #43 PXXXVXXXVXO 3070 T: R PG20 – SD (Continued)

Test Specimen #43 PXXXVXXX	<u>VXO 3070 T: R PG20 – </u>	SD (Continued)	
Title of Test	Results	Allowed	Note
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at Interlock			
+3600 Pa (+75.19 psf)	5.0 mm (0.02")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	1.0 mm (0.04")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 90 degree corner			
+3600 Pa (+75.19 psf)	0.8 mm (0.03")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 135 degree corner			
+3600 Pa (+75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Forced Entry Resistance,			
per ASTM F 842	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,			
320 N (70 lbf)	Pass	Meets as stated	
Remaining direction,			
230 N (50 lbf)	Pass	Meets as stated	





Page 15 of 19

# 7.0 Test Results: (Continued)

**Test Specimen #5** PXXXVXXXVXO 3070 T: Does not meet minimum water required by AAMA.

Title of Test	Results	Allowed	Note
	Initiate motion:		
Operating Force,	68N (15 lbf)	135 N (30 lbf) max.	
per ASTM E 2068	Maintain motion:		
	36 N (8 lbf)	90 N (20 lbf) max.	
Air Leakage,			
Infiltration per ASTM E 283	$0.8 \mathrm{L/s/m^2}$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Air Leakage,			
Exfiltration per ASTM E 283	0.8 L/s/m <sup>2</sup>	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Canadian Air			
Infiltration/Exfiltration Level	A2	N/A	
Water Penetration,			
per ASTM E 547 and ASTM E			
331 at 50 Pa (1.0 psf)			
(1" tall sill pan)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at Interlock			
+2400 Pa (+50.13 psf)	46 mm (1.80")	Report Only	
-2400 Pa (-50.13 psf)	35 mm (1.36")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at			
90 degree corner			
+2400 Pa (+50.13 psf)	10 mm (0.38")	Report Only	
-2400 Pa (-50.13 psf)	4 mm (0.16")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken			
at 135 degree corner			
+2400 Pa (+50.13 psf)	13 mm (0.52")	Report Only	
-2400 Pa (-50.13 psf)	9 mm (0.36")		2,3





Page 16 of 19

# 7.0 Test Results: (Continued)

**Test Specimen #5** PXXXVXXXVXO 3070 T: Does not meet minimum water required by AAMA.

Title of Test	Results	Allowed	Note
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at Interlock			
+3600 Pa (+75.19 psf)	5.0 mm (0.02")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	1.0 mm (0.04")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 90 degree corner			
+3600 Pa (+75.19 psf)	0.8 mm (0.03")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 135 degree corner			
+3600 Pa (+75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Forced Entry Resistance,			
per ASTM F 842	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,			
320 N (70 lbf)	Pass Meets as stated		
Remaining direction,			
230 N (50 lbf)	Pass	Meets as stated	





Page 17 of 19

# 7.0 Test Results: (Continued)

# **Test Specimen #6** PXXXVXXXVXO 3070 T: Does not meet minimum water required by AAMA.

Title of Test	Results	Allowed	Note
	Initiate motion:		
Operating Force,	68N (15 lbf)	135 N (30 lbf) max.	
per ASTM E 2068	Maintain motion:		
-	36 N (8 lbf)	90 N (20 lbf) max.	
Air Leakage,			
Infiltration per ASTM E 283	$0.8 \text{ L/s/m}^2$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	(0.3 cfm/ft <sup>2</sup> ) max.	1
Air Leakage,			
Exfiltration per ASTM E 283	$0.8 \text{ L/s/m}^2$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 psf)	(0.15 cfm/ft <sup>2</sup> )	(0.3 cfm/ft <sup>2</sup> ) max.	1
Canadian Air			
Infiltration/Exfiltration Level	A2	N/A	
Water Penetration,			
per ASTM E 547 and ASTM E			
331 at 0 Pa (0 psf)			
(3/4" tall sill pan)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at Interlock			
+2400 Pa (+50.13 psf)	46 mm (1.80")	Report Only	
-2400 Pa (-50.13 psf)	35 mm (1.36")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken at			
90 degree corner			
+2400 Pa (+50.13 psf)	10 mm (0.38")	Report Only	
-2400 Pa (-50.13 psf)	4 mm (0.16")		2,3
Uniform Load Deflection,			
per ASTM E 330			
Deflections taken			
at 135 degree corner			
+2400 Pa (+50.13 psf)	13 mm (0.52")	Report Only	
-2400 Pa (-50.13 psf)	9 mm (0.36")		2,3





Page 18 of 19

# 7.0 Test Results: (Continued)

**Test Specimen #6** PXXXVXXXVXO 3070 T: Does not meet minimum water required by AAMA.

Title of Test	Results	Allowed	Note
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at Interlock			
+3600 Pa (+75.19 psf)	5.0 mm (0.02")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	1.0 mm (0.04")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 90 degree corner			
+3600 Pa (+75.19 psf)	0.8 mm (0.03")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Uniform Load Structural,			
per ASTM E 330			
Permanent sets taken			
at 135 degree corner			
+3600 Pa (+75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	
-3600 Pa (-75.19 psf)	0.3 mm (0.01")	17 mm (0.69") max.	2,3
Forced Entry Resistance,			
per ASTM F 842	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,			
320 N (70 lbf)	Pass	Meets as stated	
Remaining direction,			
230 N (50 lbf)	Pass	Meets as stated	





Page 19 of 19

### **7.0 Test Results**: (Continued)

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

Note 2: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

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

Architectural Testing will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by Architectural Testing, Inc. for the entire test record retention period.

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.

Tyler Westerling, P.E.
Senior Project Engineer

Attachments (pages): This report is complete only when all attachments listed are included. Appendix A: Drawings (12)

This report produced from controlled document template ATI 00651, revised 07/08/15.





### **Revision Log**

<u>Rev. #</u>	<u>Date</u>	Page(s)	Revision(s)
0	02/02/16	N/A	Original report issue.
1	02/09/16	Appendix A	Revised drawings.
2	04/01/16	4	Corrected panel corner detail.
2	04/01/16	3	Corrected installation details.
2	04/01/16	Appendix A	Updated drawing package.
3	07/13/16	Appendix A	Updated drawing package.
4	07/25/16	5	Revised glazing description.

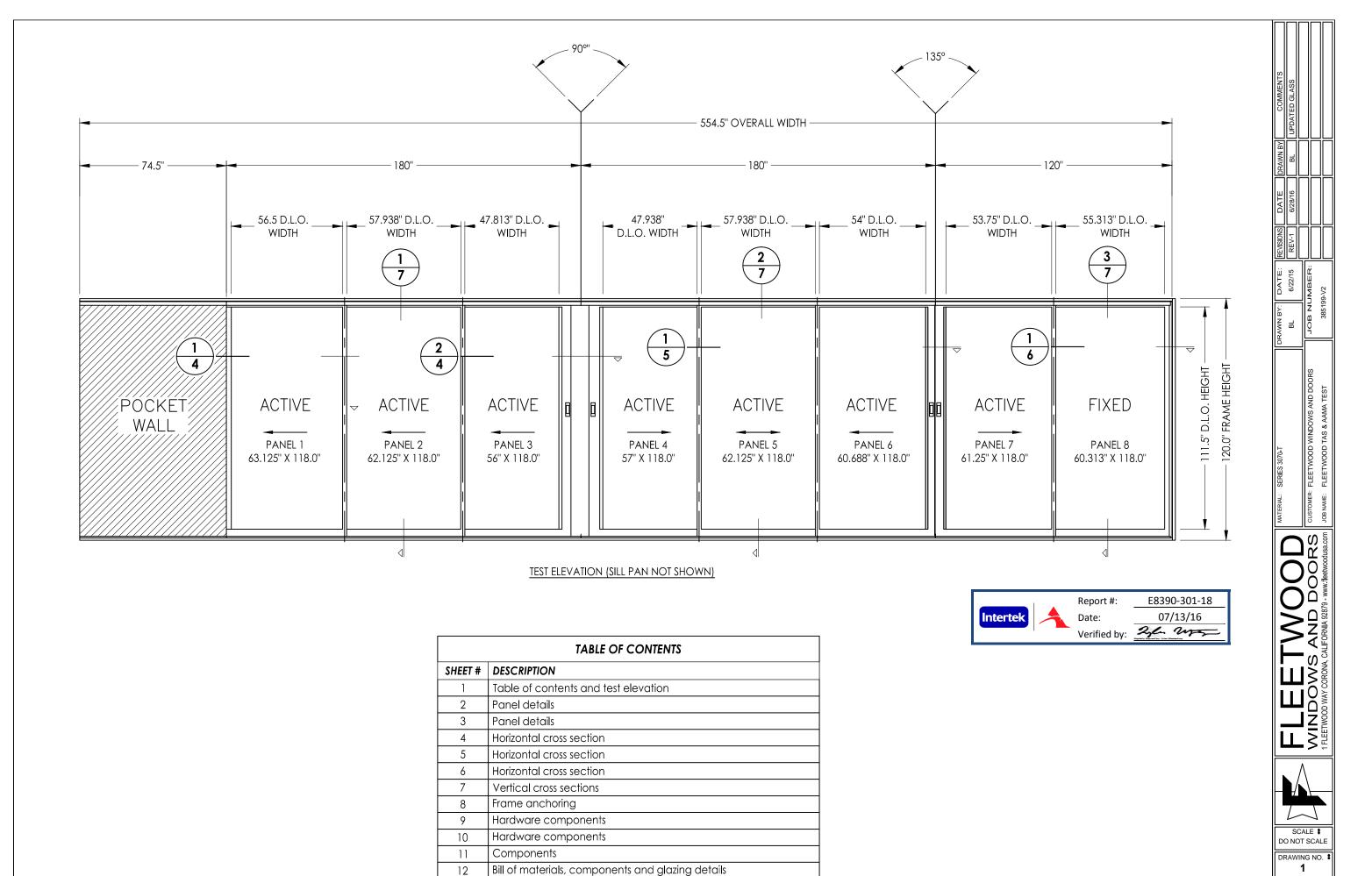
This report produced from controlled document template ATI 00651, revised 07/08/15.



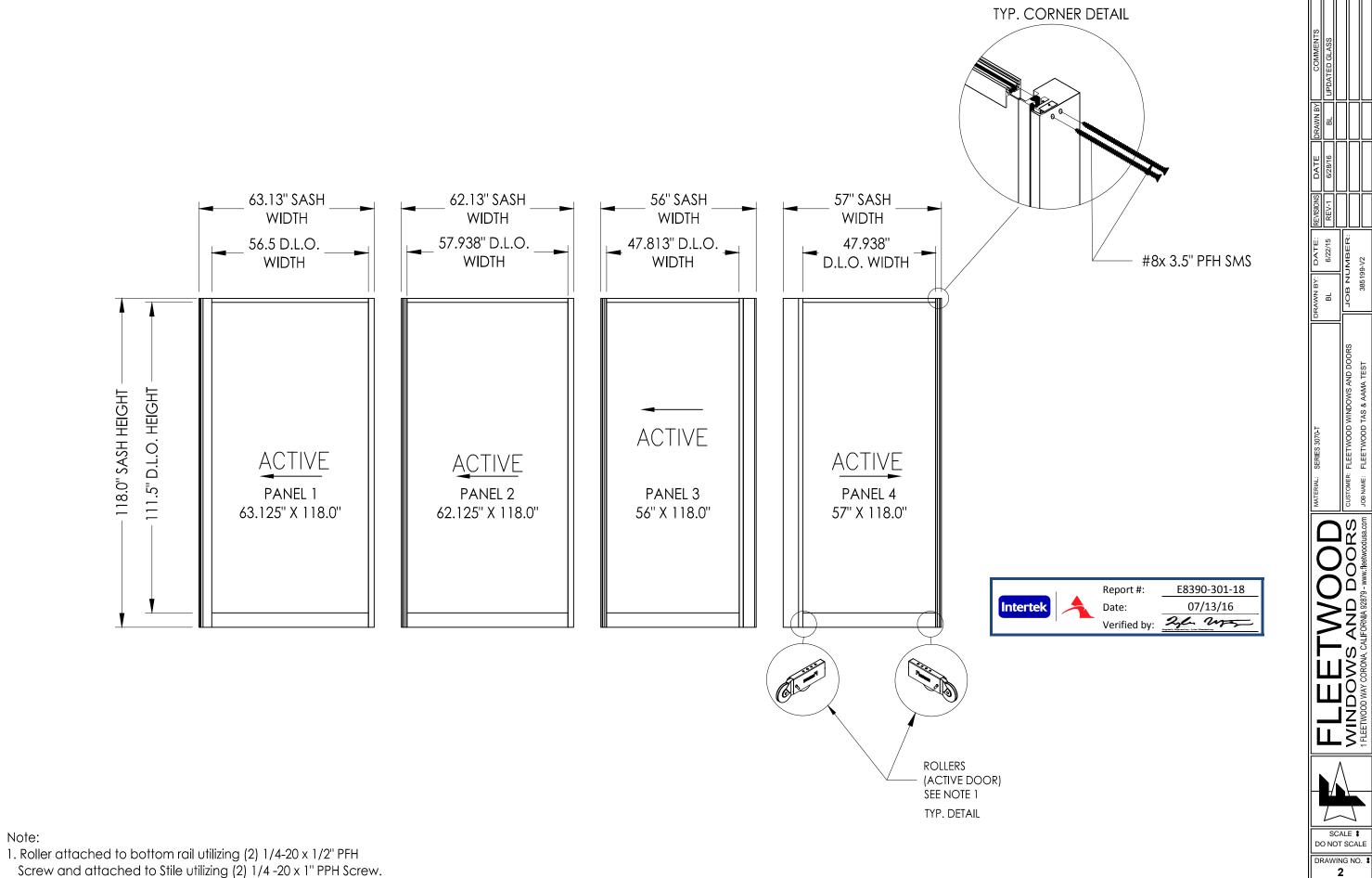


# Appendix A

**Drawings** 



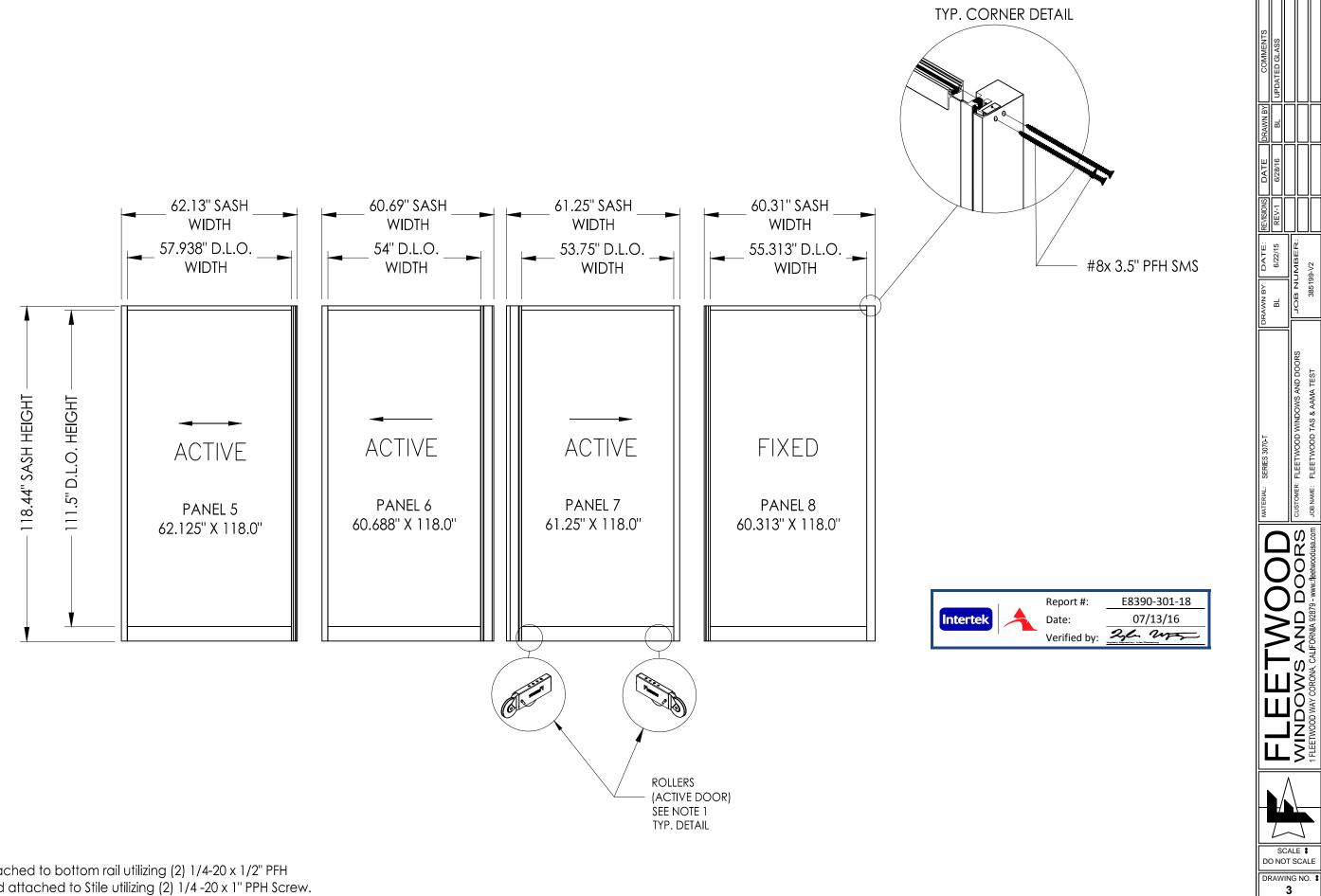
SHEET **\$**1 **0F** 12



SHEET \$ 2 **OF** 12

Note:

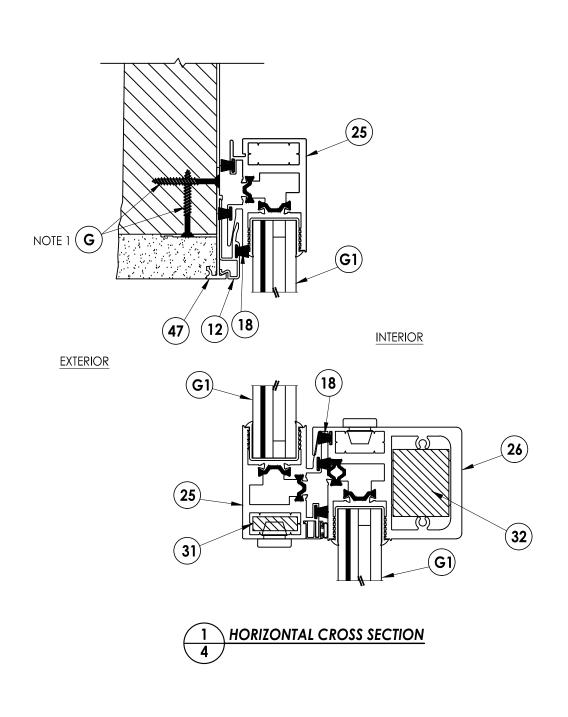
Screw and attached to Stile utilizing (2) 1/4-20 x 1" PPH Screw.

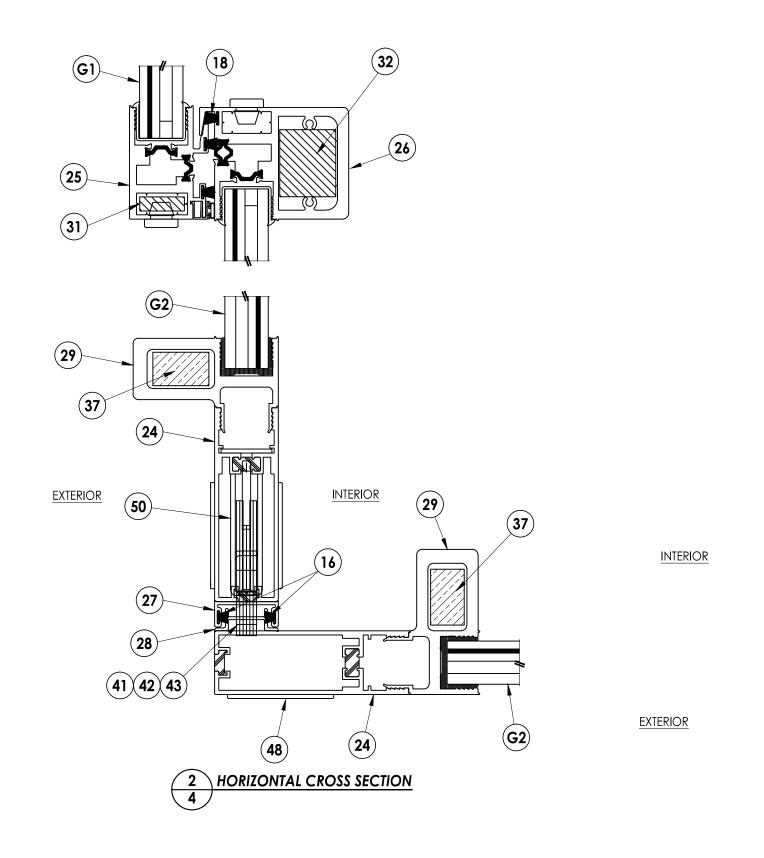


SHEET \$ 3 **OF** 12

Note:

1. Roller attached to bottom rail utilizing (2) 1/4-20 x 1/2" PFH Screw and attached to Stile utilizing (2) 1/4-20 x 1" PPH Screw.







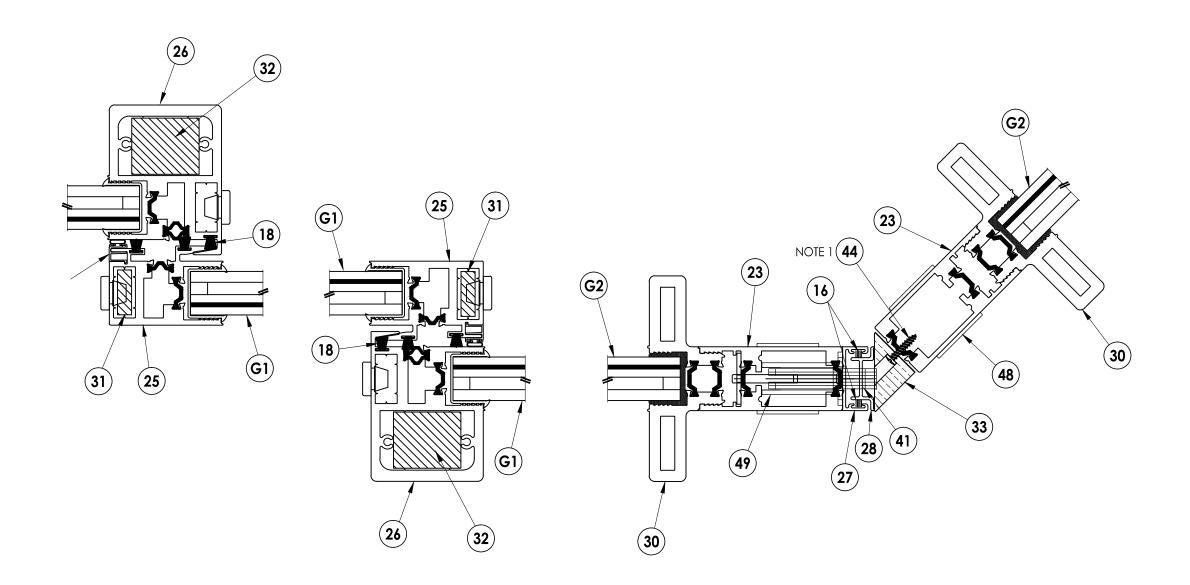
SCALE \$
DO NOT SCALE

DRAWING NO. \$

SHEET **\$**4 **OF** 12



1.8" from each end then 12" on center

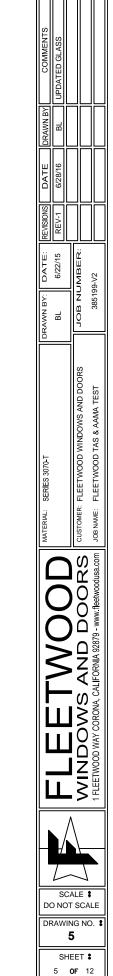


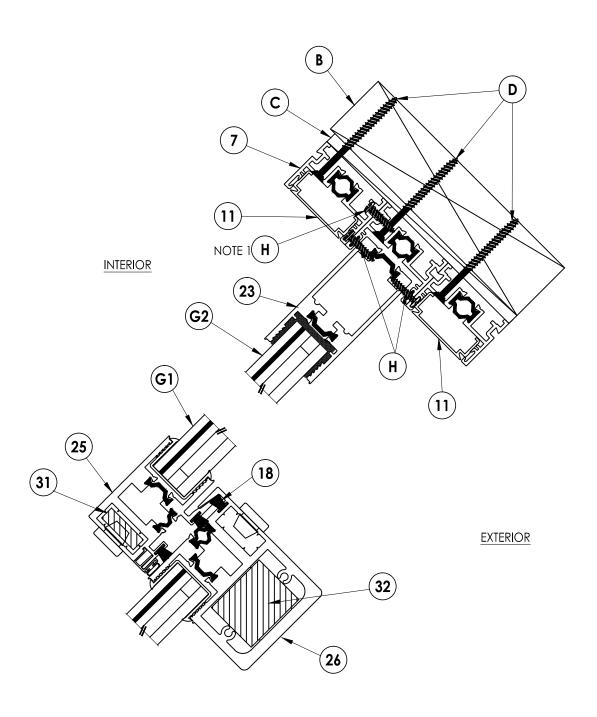
1 HORIZONTAL CROSS SECTION

NOTE:

1. 6" from each end then 18" on center





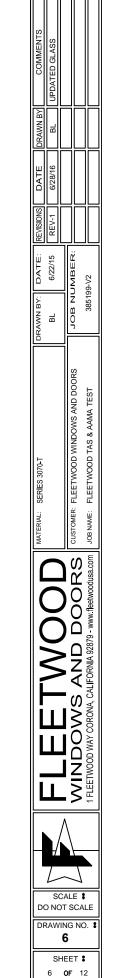


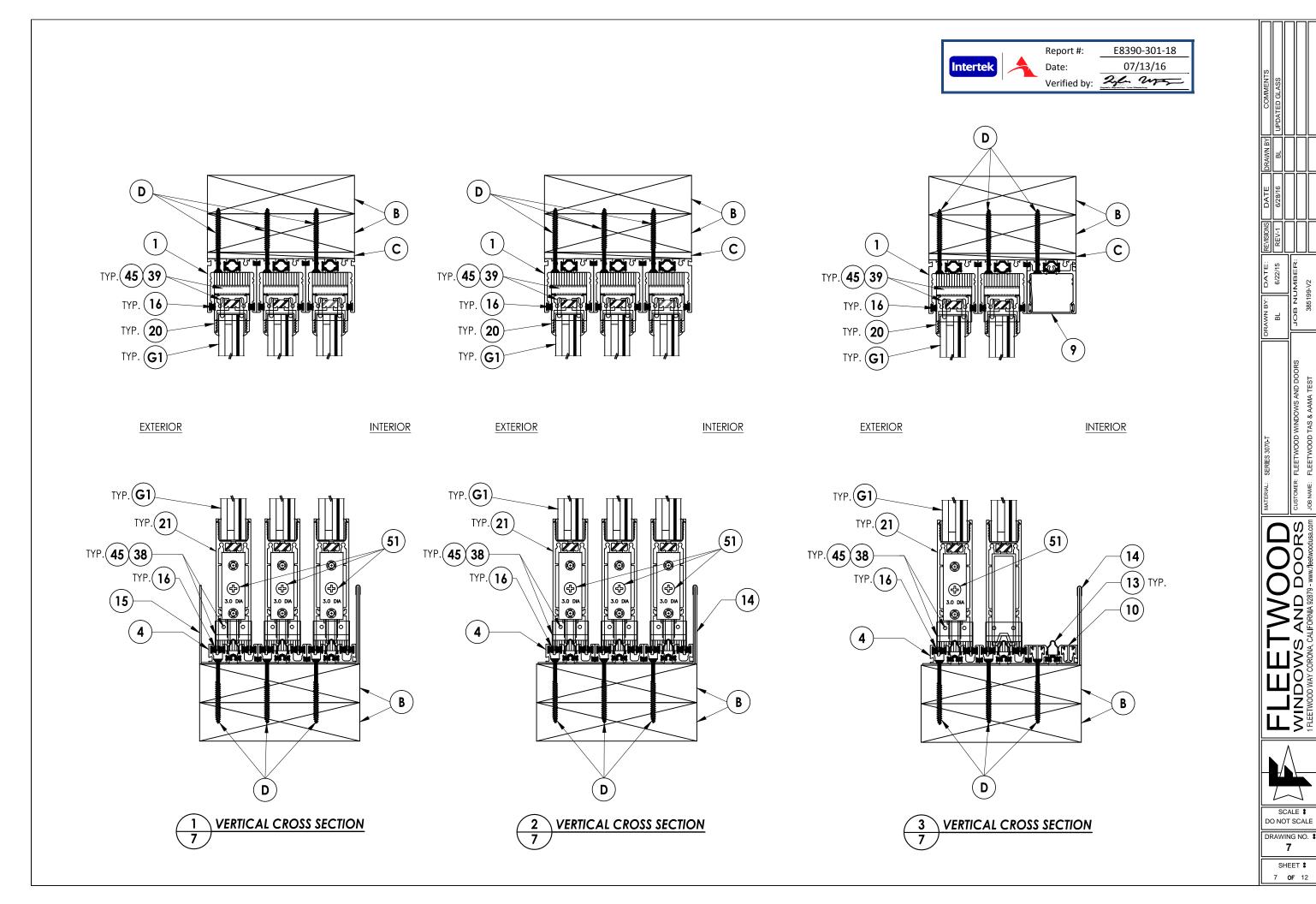
1 HORIZONTAL CROSS SECTION

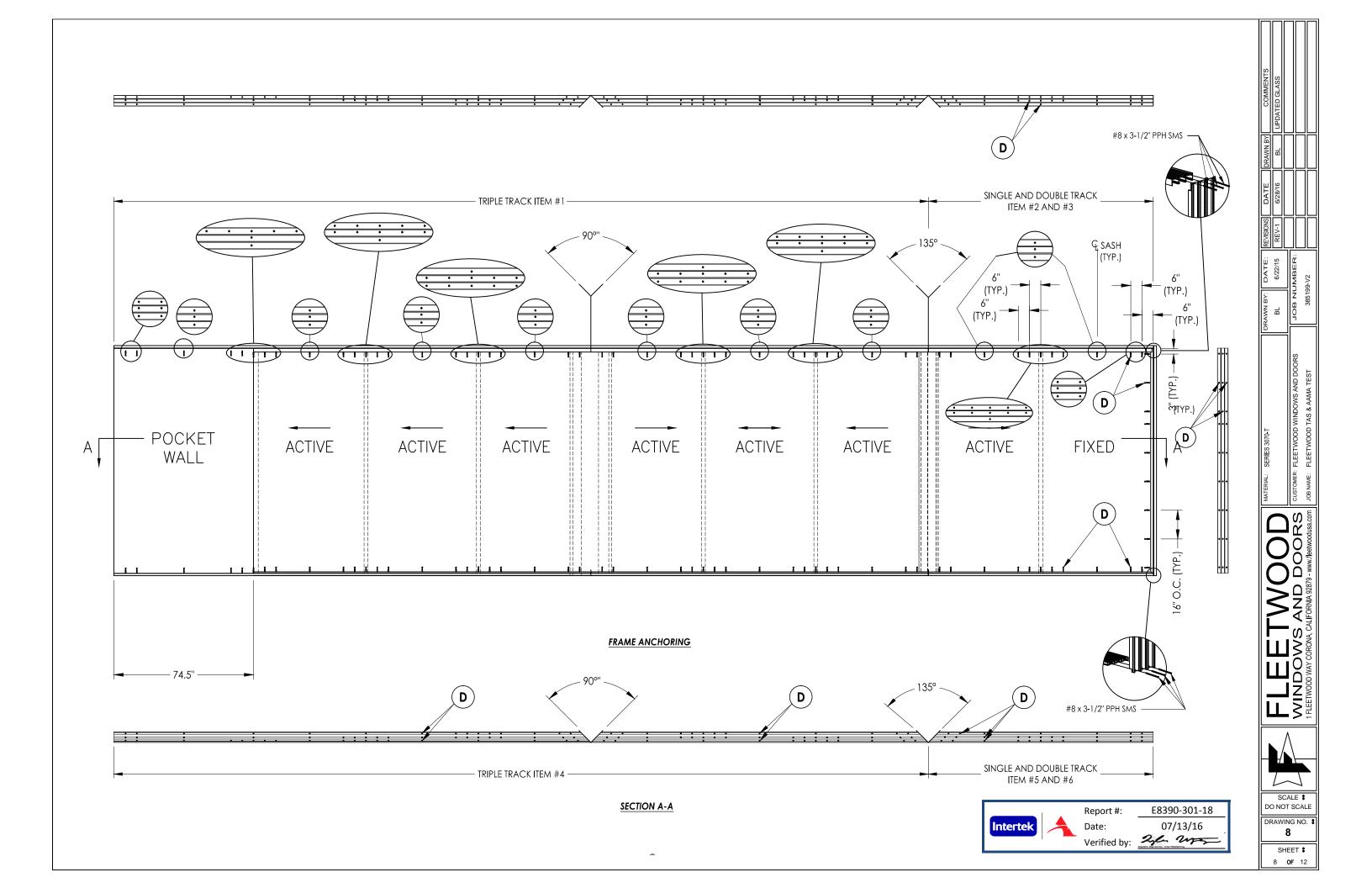
#### NOTE:

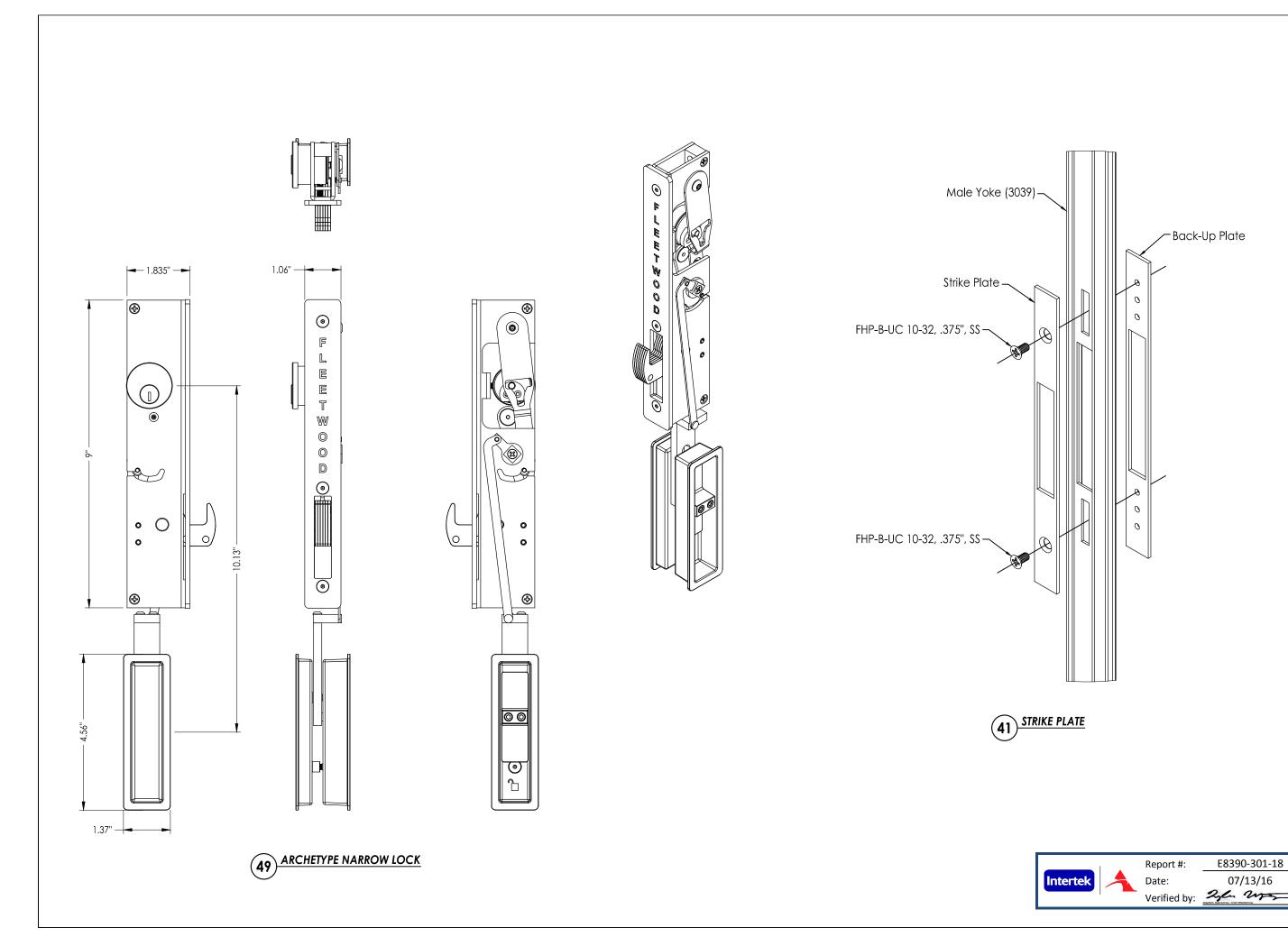
- 1. 1" from each end then 60" on center
- 2. Interior or exterior (gasket cut 2" from top rail and bottom rail on stile).

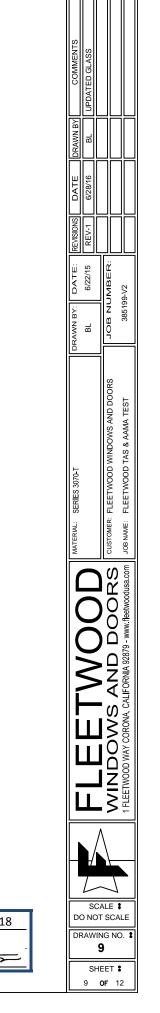


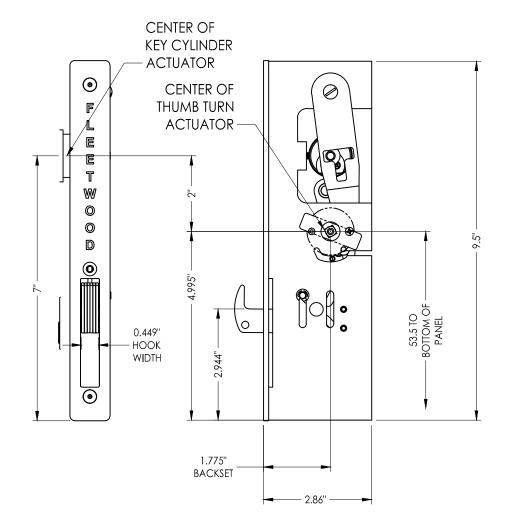


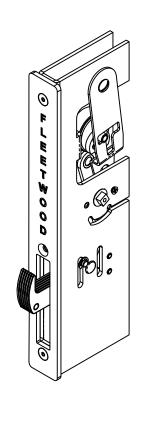


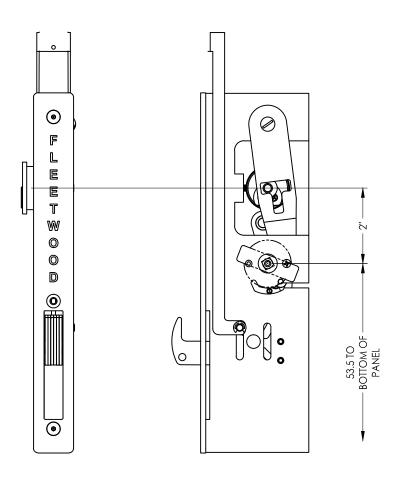


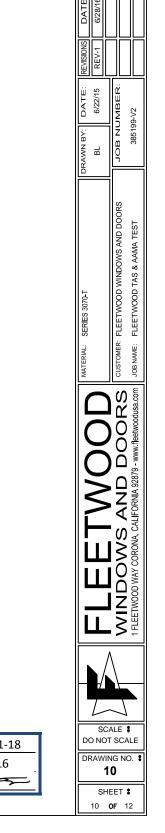


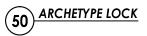




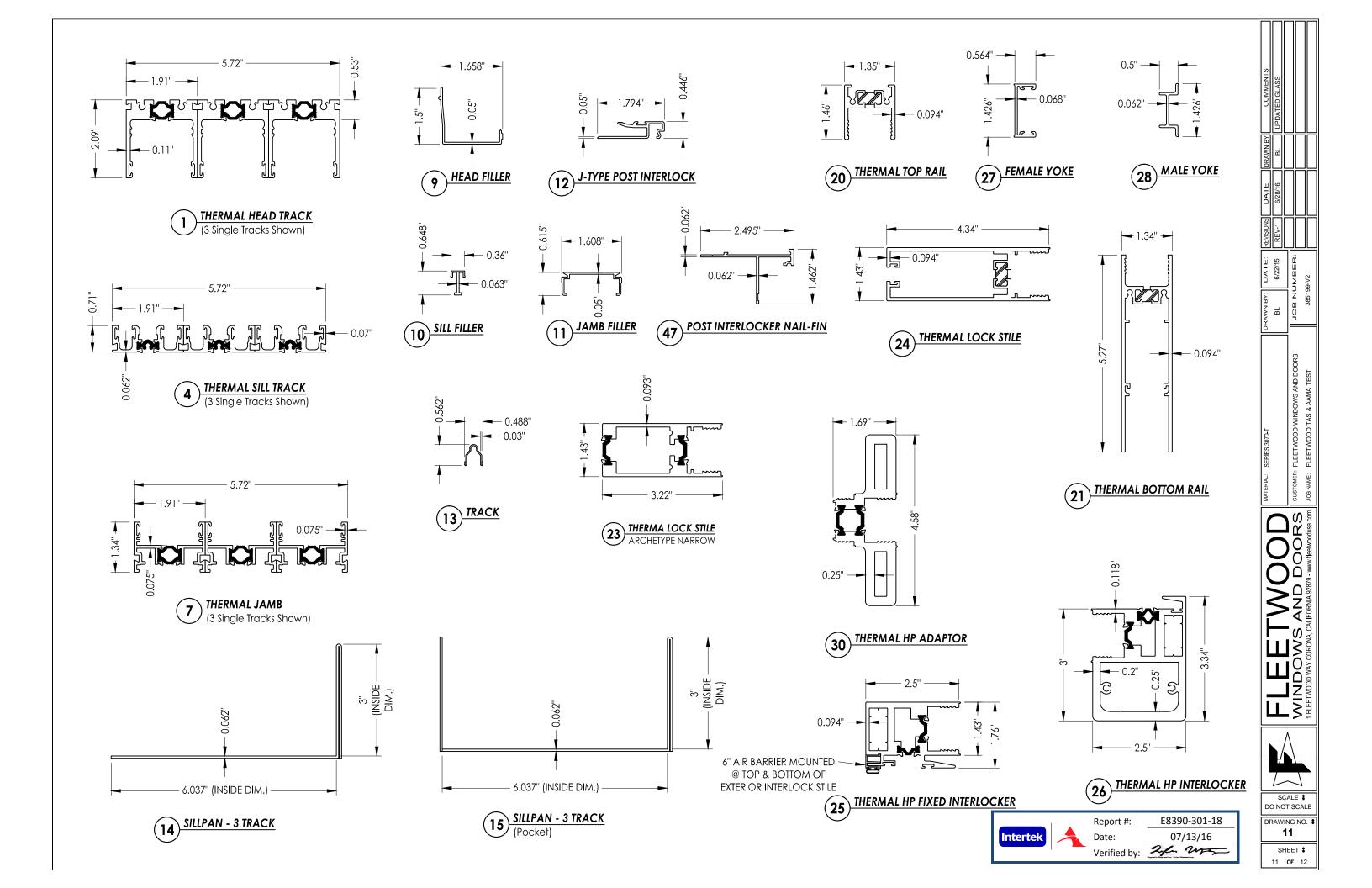




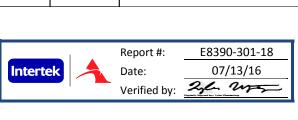


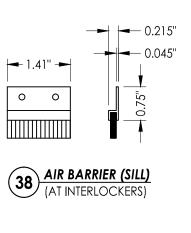


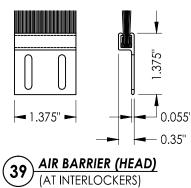


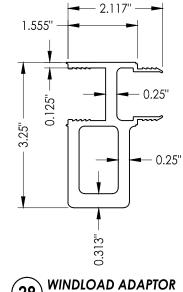


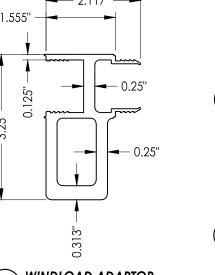
TEA4 #	BILL OF MA		AA ATERIAL
TEM #	DESCRIPTION	PART#	MATERIAL
В	2X BUCK SG >= 0.55	N/A	WOOD
<u>C</u>	1/4" MAX. SHIM SPACE	N/A	- CTEEL
D	#10 x 2-1/2" PFH WOOD SCREW	N/A	STEEL
F	#10 x 2" PPH WOOD SCREW	N/A	STEEL
G	#8 x 1-1/2" PFH WOOD SCREW #8 x 3/4" PPH SMS	N/A	STEEL
<u>H</u>	THERMAL HEAD (SINGLE TRACK)	N/A	STEEL
1	THERMAL SILL (SINGLE TRACK)	3700	6063-T6 ALUM
7	THERMAL SILL (SINGLE TRACK)	3749	6063-T6 ALUM
9	,	3711	6063-T6 ALUM
10	HEAD FILLER	3014 3747	STAINLESS STELL
	SILL FILLER		STAINLESS STELL
11	JAMB FILLER	3710	STAINLESS STELL
12	J-POST INTERLOCKER SNAP-IN	3755	STAINLESS STELL
13	S.S. TRACK	FW1020	
14	SILL PAN (3-TRACK)	3720-3	_
15	SILL PAN (3-TRACK) (POCKET)	3720-3	- /0/0 T/ Allin /
16	SMALL FIN SEAL .230 9/16" GLAZING VINYL (ASTM C864)	19118	6063-T6 ALUM
17	,	25033	6063-T6 ALUM
18	LARGE FIN SEAL .290	19117	6063-T6 ALUM
19	Q-LON (U5212)	19120	6063-T6 ALUM
20	THERMAL TOP RAIL	3004	6063-T6 ALUM
21	THERMAL BOTTOM RAIL	3027	6063-T6 ALUM
23	LOCK STILE (ARCHETYPE NARROW)	3773	6061-T6 ALUM
24	THERMAL LOCK STILE	3771	6061-T6 ALUM
25	HP THERMAL FIXED INTERLOCKER	3728	6061-T6 ALUM
26	HP THERMAL INTERLOCKER	3031	6061-T6 ALUM
27	FEMALE YOKE	3040	6061-T6 ALUM
28	MALE YOKE	3039	6061-T6 ALUM
29	WINDLOAD ADAPTOR	3715	6061-T6 ALUM
30	THERMAL HP ADAPTOR	3716	STAINLESS STEEL
31	0.31" X 1" SOLID ALUMINUM	N/A	6061-T6 ALUM
32	1.25" X 1.5" SOLID ALUMINUM	N/A	6061-T6 ALUM
33	135° SOLID YOKE BLOCK (ALUMINUM)	N/A	6061-T6 ALUM
37	0.75" X 1.25" SOLID ALUMINUM	N/A	6061-T6 ALUM
38	AIR BARRIER (SILL) AIR BARRIER (HEAD)	25383	
39	, ,	24097	-
40	6" AIR BARRIER FOR HP INTERLOCKER	25562	-
41	STRIKE PLATE	24980	STEEL
42	BACK UP PLATE	24981	STEEL
43	10-32 X .5" FHP	N/A	STEEL
44	#10 X 1" PHP	N/A	STEEL
45	#8 TEK X 1/2"	N/A	STEEL
46	DOW 995 SILICONE	N/A	- (O/1 T/ A1111 )
47	POST INTERLOCKER NAIL-FIN	3756	6061-T6 ALUM
48	FLUSH PULL	-	S.S.
49	ARCHETYPE NARROW LOCK	-	-
50	ARCHETYPE LOCK	-	-
51	ARCHETYPE ROLLERS	-	-

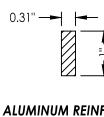


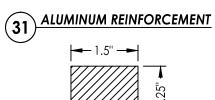




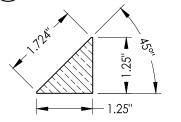




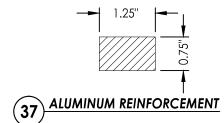


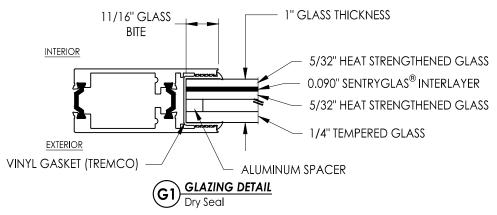


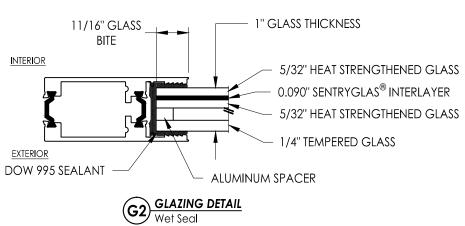
32 ALUMINUM REINFORCEMENT



33 135° ALUMINUM SOLID YOKE BLOCK









DRAWING NO. \$ 12 SHEET \$ 12 **OF** 12