

FLEETWOOD WINDOWS & DOORS TEST REPORT

SCOPE OF WORK

AAMA/WDMA/CSA 101/I.S.2/A440 TESTING ON THEIR SERIES 4070 – T SLIDING GLASS DOOR
– SLIDING DOOR

REPORT NUMBER

S0187.01-303-44 R2

TEST DATES

02/20/25 - 02/24/25

ISSUE DATE

02/24/25

REVISED DATE

03/06/25

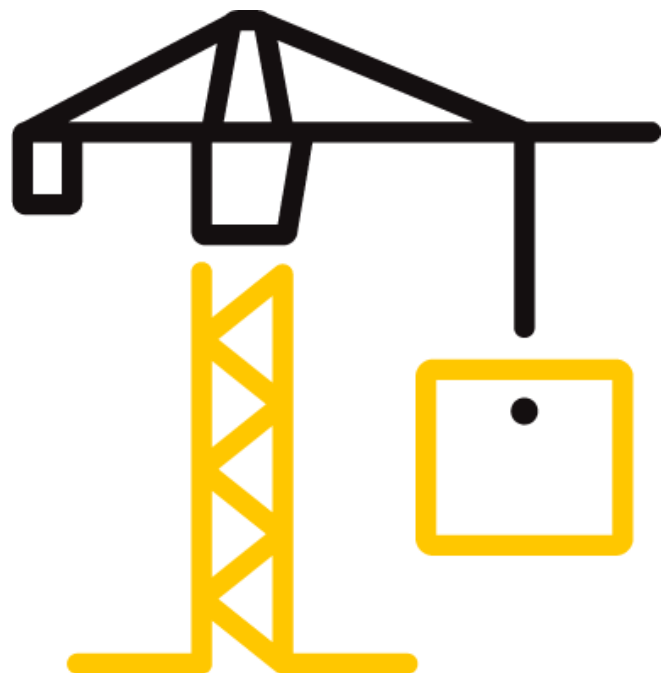
PAGES

16

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TEST REPORT FOR FLEETWOOD WINDOWS & DOORS

Report No.: S0187.01-303-44 R2

Date: 02/24/25

REPORT ISSUED TO

FLEETWOOD WINDOWS & DOORS

1 Fleetwood Way

Corona, CA 92879

SECTION 1

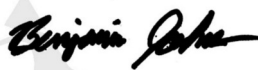
SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Fleetwood Windows & Doors – 1 Fleetwood Way Corona, CA 92879 to perform testing in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 on their Series 4070 – T Sliding Glass Door – Sliding Door. Results obtained are tested values and were secured by using the designated test methods. Testing was conducted at the Intertek Inc. test facility in Lake Forest, CA.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, or other pertinent project documentation, will be retained for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Benjamin Johns
TITLE:	Team Lead Building & Construction
SIGNATURE:	 Digitally Signed by: Benjamin Johns
DATE:	03/06/25

REVIEWED BY:	Tyler Westerling P. E.
TITLE:	Regional Manager Building & Construction
SIGNATURE:	 Digitally Signed by: Tyler Westerling
DATE:	03/06/25

BAJ

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SECTION 2

SUMMARY OF TEST RESULTS

TITLE	RESULTS
AAMA/WDMA/CSA 101/I.S.2/A440-22	Class R PG – 20 Size Tested: 5486 mm X 3708 mm (215.98" X 145.98")
Design Pressure	±960 Pa (±20.05 psf)
Negative Design Pressure	-960 Pa (-20.05 psf)
Air Infiltration	0.71 L/s/m ² (0.15 cfm/ft ²)
Air Exfiltration	0.99 L/s/m ² (0.21 cfm/ft ²)
Water Penetration Resistance Test Pressure	150 Pa (3.13 psf)

SECTION 3

TEST SPECIFICATIONS/METHODS

The specimens were evaluated in accordance with the following:

AAMA/WDMA/CSA 101/I.S.2/A440:22, *North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

The following test methods were used during testing:

ASTM E283/E283M-19, *Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*

ASTM E330/E330M-14(2021), *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

ASTM E547-00(2016), *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference*

ASTM E987-88(2017), *Standard Test Methods for Deglazing Force of Fenestration Products*

ASTM E2068-00(2022), *Standard Test Method for Determination of Operating Force of Sliding Windows and Doors*

ASTM F842-17, *Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact*

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SECTION 4

MATERIAL SOURCE/INSTALLATION

Test specimen was provided by the client. Representative samples of the test specimen will be retained by Intertek B&C for a minimum of two years from the test completion date.

The specimen was installed into a Douglas-Fir lined steel test buck. The rough opening allowed for a 1/4" shim space and the exterior perimeter of the specimen was sealed to the test buck. The installation of the tested product was performed by the client.

LOCATION	ANCHOR DESCRIPTION	ANCHOR SPACING
Through the frame	#8 X 2" SMS Screws	6 rows of screws 8" from the corners and 36" on center of the head and jambs.
Below the Sill	Sika Sill SG10	Sill pan is imbedded in the sealant to the test buck.

SECTION 5

EQUIPMENT

The following equipment was utilized to apply Forced Entry Resistance (FER) loading in accordance with ASTM F842:

EQUIPMENT	ASSET NUMBERS	CALIBRATION DUE DATE
Stopwatch	INT03845	5/8/25
Load Cells	63066	10/2/25
	63067	10/3/25
Force Gauge	005555	8/22/25

A FER tool kit containing the following tools was also utilized:

24 gauge 0.024" thick x 0.78" wide x 3.5" long stainless-steel spatula/putty knife/non-cutting tool, unwrapped

6" Phillips head screwdriver [unpowered, 6 in max]

6" standard slot-type pliers [max 6 to 7 in (150 to 175 mm) overall length]

Black annealed 16-gauge straight wire.

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SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Corey Jones	Fleetwood Windows & Doors
Benjamin Johns	Intertek B&C

SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Sliding Door

Series/Model: 4070 – T Sliding Glass Door

Product Size:

Test Specimen #1

OVERALL, AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
20.34 m ² (218.96 ft ²)				
Overall size	5486	215.98	3708	145.98
Exterior operable panel right side (outside view)	1861	73.27	3661	144.125
Middle Operable Panel	1845	72.64	3661	144.125
Interior operable panel left side (outside view)	1861	73.27	3661	144.125

Frame Construction:

MEMBER	MATERIAL	DESCRIPTION
Head	Aluminum	Extruded
Sill	Aluminum	Extruded
Jambs	Aluminum	Extruded

	JOINERY TYPE	DETAIL
All corners	Butt	Attached with screws

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Panel Construction:

MEMBER	MATERIAL	DESCRIPTION
Top rail	Aluminum	Extruded
Bottom rail	Aluminum	Extruded
Stiles	Aluminum	Extruded

	JOINERY TYPE	DETAIL
All corners	Butt	Attached with screws

Reinforcement: *No reinforcement was utilized.*

Weatherstripping:

DESCRIPTION	QUANTITY	LOCATION
Pile gasket	1	At the right meeting stile of the middle panel. (inside view)
Rubber gasket	1	At the right meeting stile of the middle panel.
Pile gasket	1	At the right interlock on the middle panel (outside view)
Pile gasket	1	At the right interlock of the left panel (inside view)
Rubber gasket	1	At the right meeting stile of the left panel. (inside view)
Pile gasket	1	At the right meeting stile of the left panel. (inside view)
Pile gasket	12 rows	On the sill of the frame.
Pile gasket	6 Rows	On the head of the frame
Q-lon bulb gasket	4	2 rows on both jambs of the frame.

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Glazing:

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1.25" IG	Cardinal black XL spacer	1/4" Tempered	1/4" Tempered	Dry glazed.

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		millimeters	inches	
All panels	3	1725 x 3495	67.91 x 137.60	9/16"

Drainage:

METHOD	SIZE	QUANTITY	LOCATION
Weep hole	1" wide by 3/16" high	4	1 @ 9" 1 @ 70" on center from the right jamb on the sill. 1 @ 9" 1 @ 70" on center from the left jamb on the sill.

Hardware:

DESCRIPTION	QUANTITY	LOCATION
Lock	2	1 @ 46" on center from the top of the sill on the left stile of the left panel. (inside view) 1 @ 46" on center from the top of the sill on the right stile of the right panel. (inside view)
Wheel assembly	6	2 on the bottom corners all 3 panels

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SECTION 8

TEST RESULTS

The temperature range during testing was (66 - 67°F). The results are tabulated as follows:

Test Specimen:

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Operating Force, per ASTM E2068	Initiate Motion: 80 N (18.0 lbf) Maintain Motion: 78 N (17.5 lbf) Locks: 37.81 N (8.50 lbf)	155 N (35.0 lbf) max 155 N (35.0 lbf) max Report only	
Air Leakage, Infiltration per ASTM E283 at 75 Pa (1.57 psf)	<0.71 L/s/m ² (<0.15 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1, 2
Air Leakage, Exfiltration per ASTM E283 at 75 Pa (1.57 psf)	<0.99 L/s/m ² (<0.21 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1, 2
Water Penetration, per ASTM E547 at 150 Pa (3.13 psf)	Pass	No leakage	3
Uniform Load Deflection, per ASTM E330 Deflections taken at the right meeting stile +960 Pa (+20.05 psf) -960 Pa (-20.05 psf)	32.51 mm (1.28") 33.78 mm (1.33")	Report only Report only	4,5,6,7
Uniform Load Structural, per ASTM E330 Permanent set taken at the right meeting stile +1440 Pa (+30.08 psf) -1440 Pa (-30.08 psf)	<0.26 mm (<0.01") 1.52 mm (0.06")	14.48 mm (0.57") max. 14.48 mm (0.57") max.	4,5,6,7
Forced Entry Resistance, per ASTM F842, Type: A - Grade: 10	Pass	No entry	
Deglazing, per ASTM E987 Operating direction, 320 N (70 lbf)	Pass	Meets as stated	

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Test Specimen:

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Remaining direction, 230 N (50 lbf)	Pass	Meets as stated	

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: Test Date 02/20/25 / Time: 2:00 PM (Air Note Only)

Note 3: Without an insect screen.

Note 4: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

Note 5: 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.

Note 6: Loads were held for 10 seconds.

Note 7: 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.

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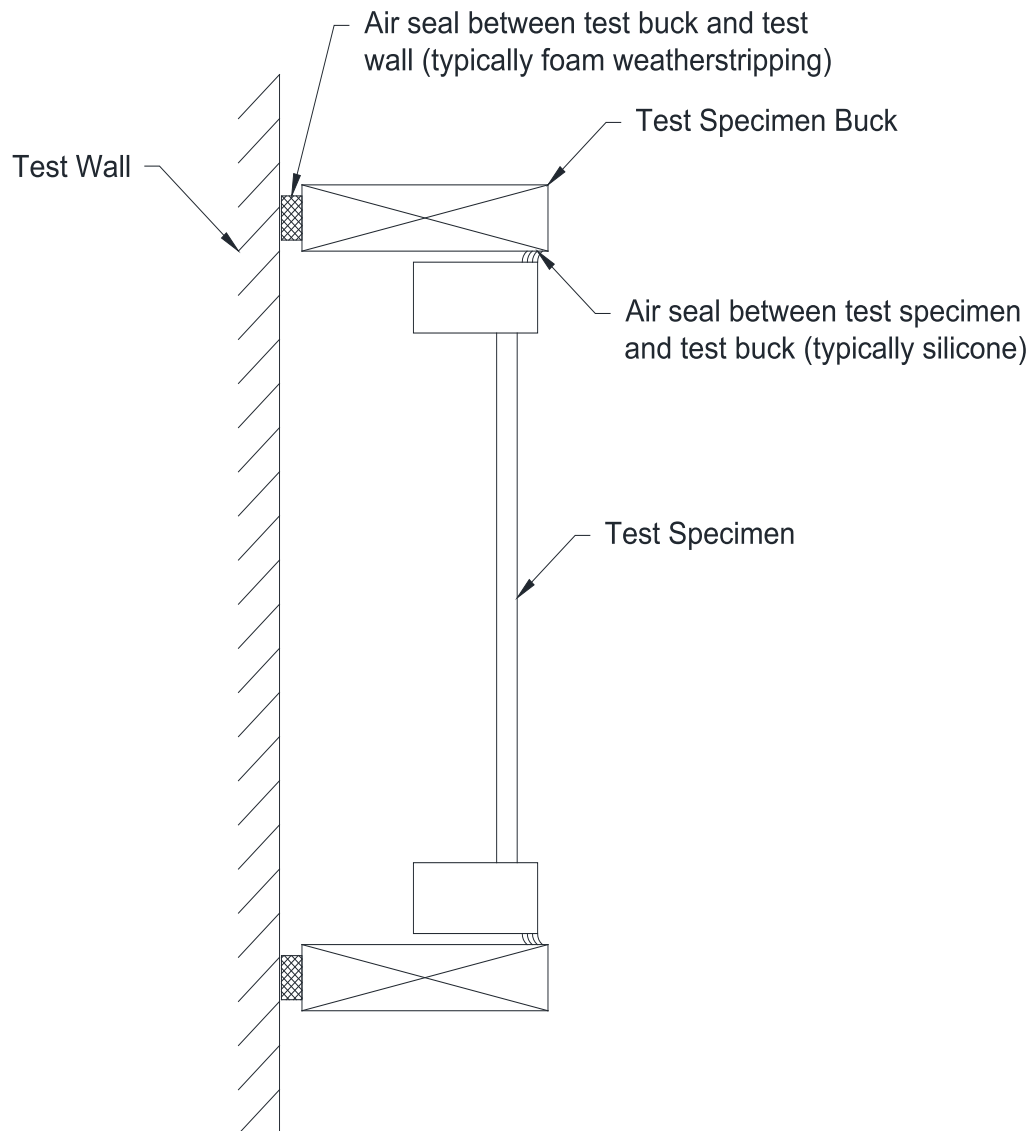
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SECTION 9

LOCATION OF AIR SEAL

The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.



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SECTION 10 CONCLUSION

The specimens tested successfully met the performance requirements for the following rating:

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1	AAMA/WDMA/CSA 101/I.S.2/A440:22	Class R PG – 20 Size Tested: 5486 mm X 3708 mm (215.98" X 145.98")

SECTION 11 DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

Note: Complete drawings packet on file with Intertek B&C.

TABLE OF CONTENTS

1. GENERAL NOTES, DESIGN LOADS, FRAME ANCHOR TABLE AND SPECIMEN ELEVATION
2. DETAILS
3. BILL OF MATERIALS

TEST SPECIMEN

1. SERIES / MODEL: 4070-T
2. PRODUCT TYPE: MULTI-SLIDE DOOR WITH 7/8" SILL

GENERAL NOTES

1. BUCKING OPENINGS & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER LOADS TO THE STRUCTURE AND TO BE REVIEWED BY BUILDING OFFICIAL.
2. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
3. FINISHING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AIAA AND BUILDING CODE. OTHER DISSIPABLE MATERIALS SHALL MEET THE REQUIREMENTS OF AIAA AND BUILDING CODE.

SPECIFICATIONS

1. INGS-22

CORNERS CONSTRUCTION

1. FRAME CORNER: THE JAMBS ARE BUTTED TO THE HEAD AND SILL AND THE CORNERS ARE BUTTED TO THE VERTICALS.
2. PANEL CORNER: THE JAMBS BALLS ARE BUTTED TO THE VERTICALS AND ATTACHED WITH #8 FHP SCREWS.

GLAZING

LITE 1: 1.25"; CLEAR 6MM-T, 0.75 AIR, CLEAR 6MM-T
 LITE 2: 1.25"; CLEAR 6MM-T, 0.75 AIR, CLEAR 6MM-T
 LITE 3: 1.25"; CLEAR 6MM-T, 0.75 AIR, CLEAR 6MM-T
 ALL GLAZING SEALANT SHALL BE 100% POLYSILOXANE
 3" X 3" X 12" BEAD FROM EACH CORNER OF INNER FLANGE OF PANEL
 FOR PANEL HEIGHTS OVER 8 FT, TALL RECOMMENDED AN ADDITIONAL 24" OF SEALANT HALFWAY UP PANEL.

SILLPAN DRAIN SPACING

8" FROM ENDS, 80" SPACING FROM LEFT, IF SPACING < 80" TAKE REMAINING SPACE AND USE 8" X 3/16", CUT ACROSS ENTIRE TRACK DEPTH.
 WEEP SIZE = 1" X 3/16"

***FRAME ANCHOR REQUIREMENTS TABLE**

OPENING TYPE (SUBSTRATE)	FRAME TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT EDGE DIST.	MINIMUM EMBEDMENT EDGE DIST.
2X WOOD FRAME OR BUCK	(1) NO. 8 SMS SCREW	1 1/2"	3/4"
MIN. 18 GA. 33 KSI STEEL STUD	(1) NO. 8 SMS SCREW	FULL	3/8"
CMU/CONCRETE	(3) 3/16" CONCRETE SCREWS	1 1/4"	2 5/8"

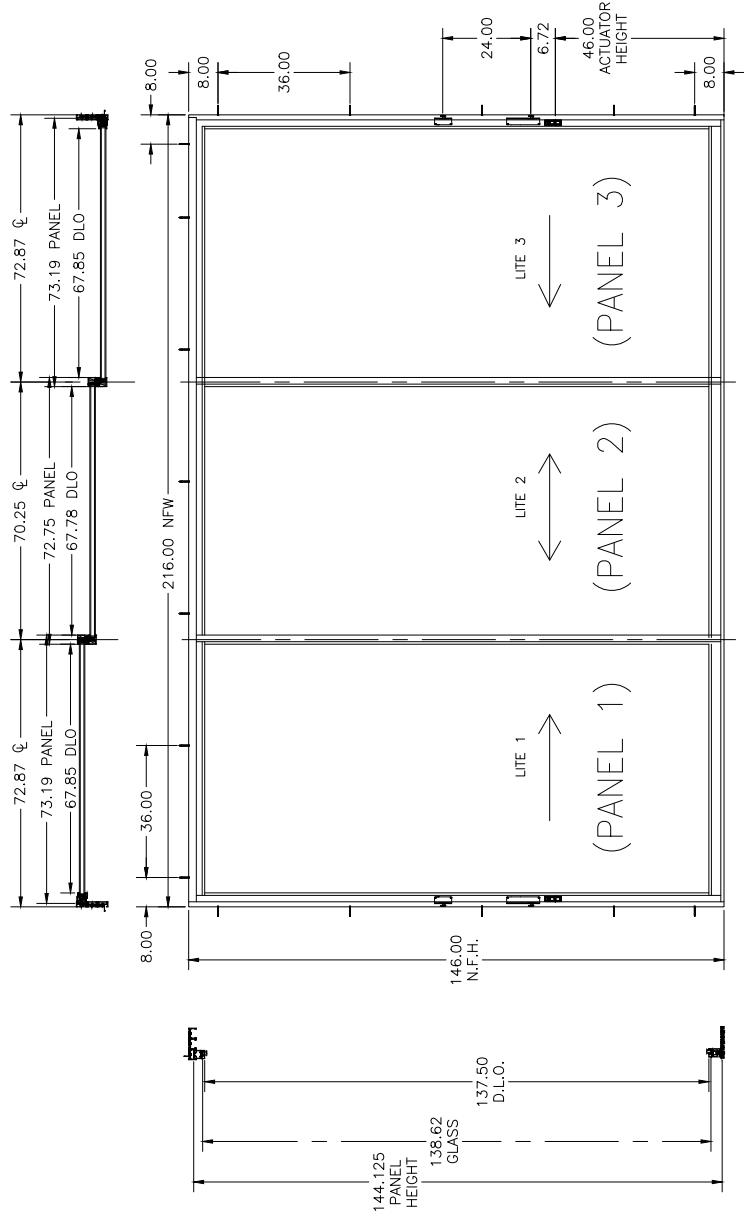
(1) SMS SCREWS
 (2) CONCRETE SCREWS SHALL BE 3/16" IMW TAPCON

ANCHORING

SCREW: MIN. EMBEDMENT OF 0.75", 2x PER TRACK ANCHOR LOCATION
 HEAD: 8" FROM ENDS, 36" O.C.
 JAMBS: 8" FROM ENDS, 36" O.C.
 SILL (OVER 45 PSF): 12" FROM ENDS, 80" O.C. USE #8X1.5" FHP

PANEL & PANEL DLO: WIDTH X HEIGHT

PANEL 1: 73.19" X 144.125" DLO 1: 67.88" X 137.75"
 PANEL 2: 72.75" X 144.125" DLO 2: 67.75" X 137.75"
 PANEL 3: 73.19" X 144.125" DLO 3: 67.88" X 137.75"



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 Total Quality. Assured.

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 Verified by: *Erin J. Peltz*

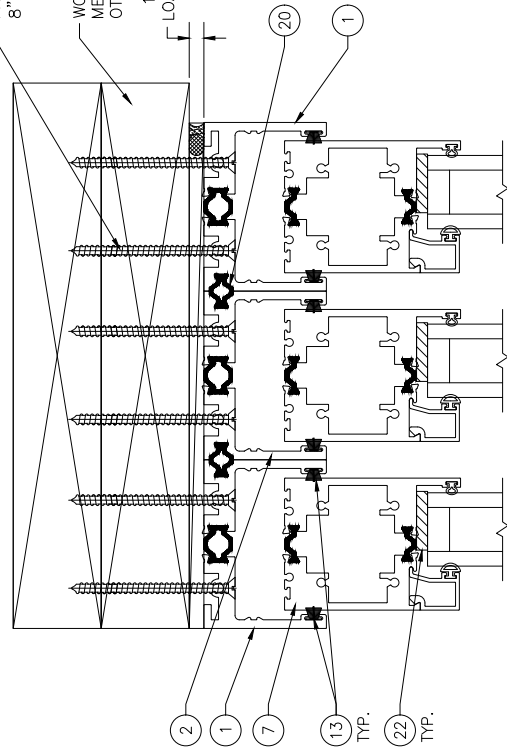
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 Verified by: *Erin Sola*



FRAME ANCHOR POSITIONS:
8" FROM ENDS AT 36" O.C.

WOOD, CONCRETE BLOCK OR
METAL STUD SUBSTRATE BY
OTHERS.

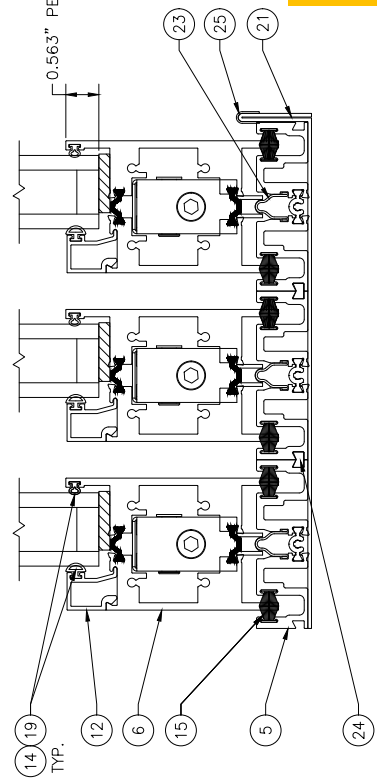
1/4" MAX.
LOAD BEARING
SHIM



1 4070-T HEAD
SCALE: FULL SIZE

EXTERIOR

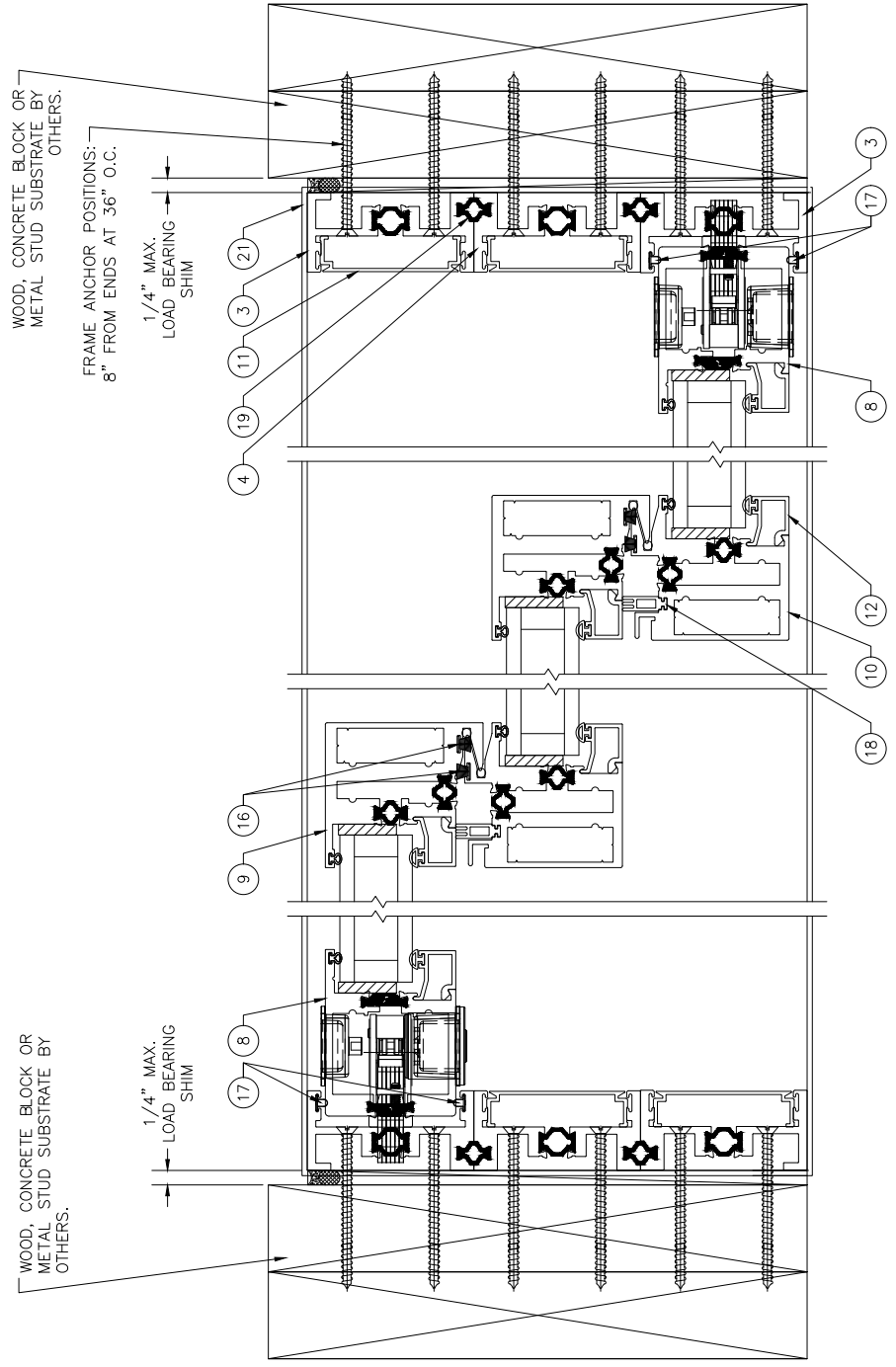
0.563" PENETRATION TYPICAL



2 4070-T SILL
SCALE: FULL SIZE

intertek
Total Quality Assured

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Date: 02/24/25
Verified by: *[Signature]*



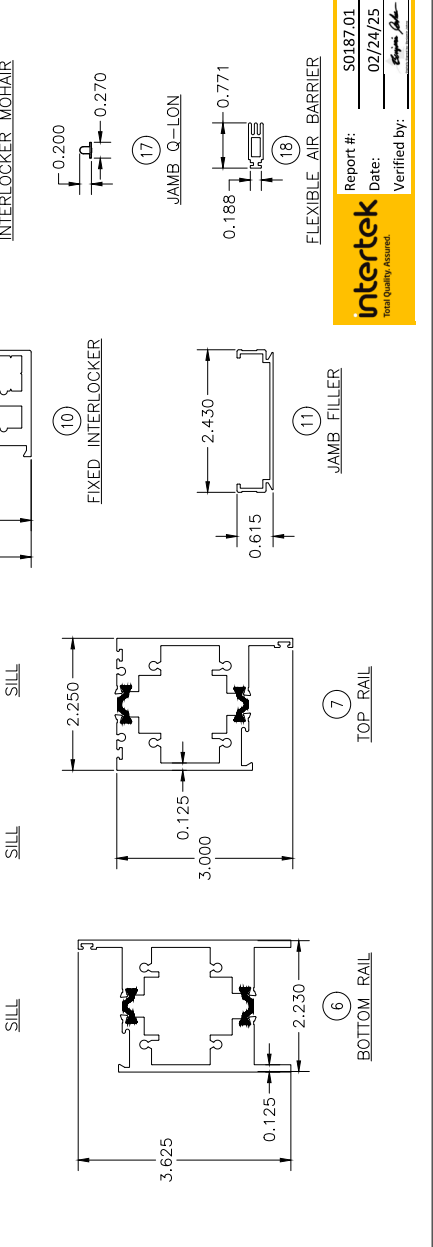
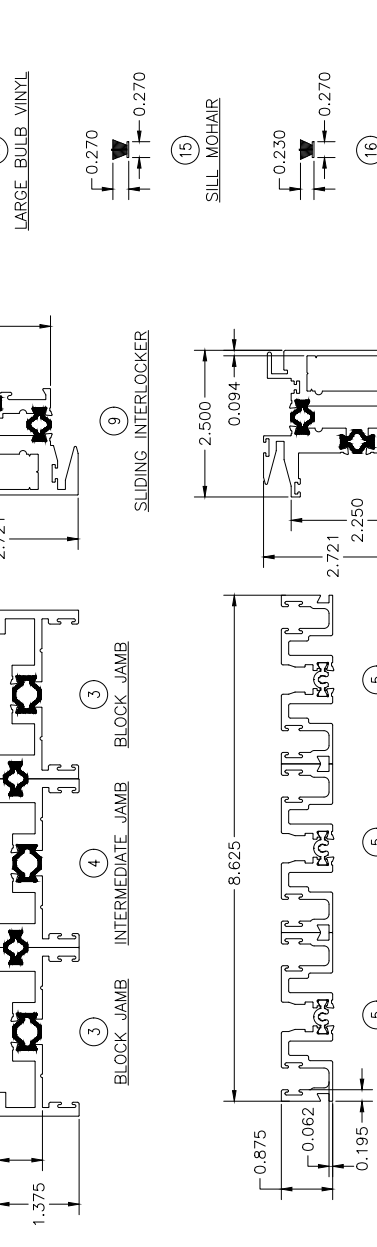
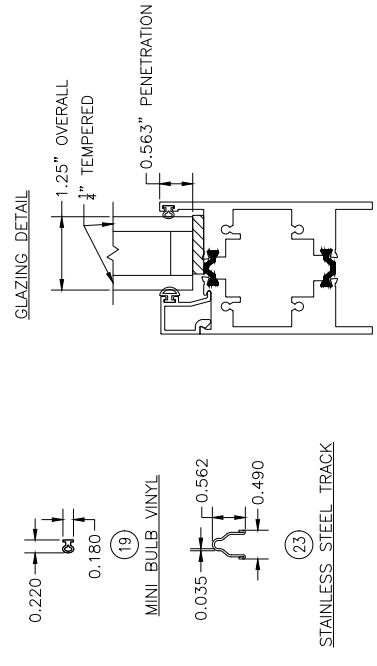
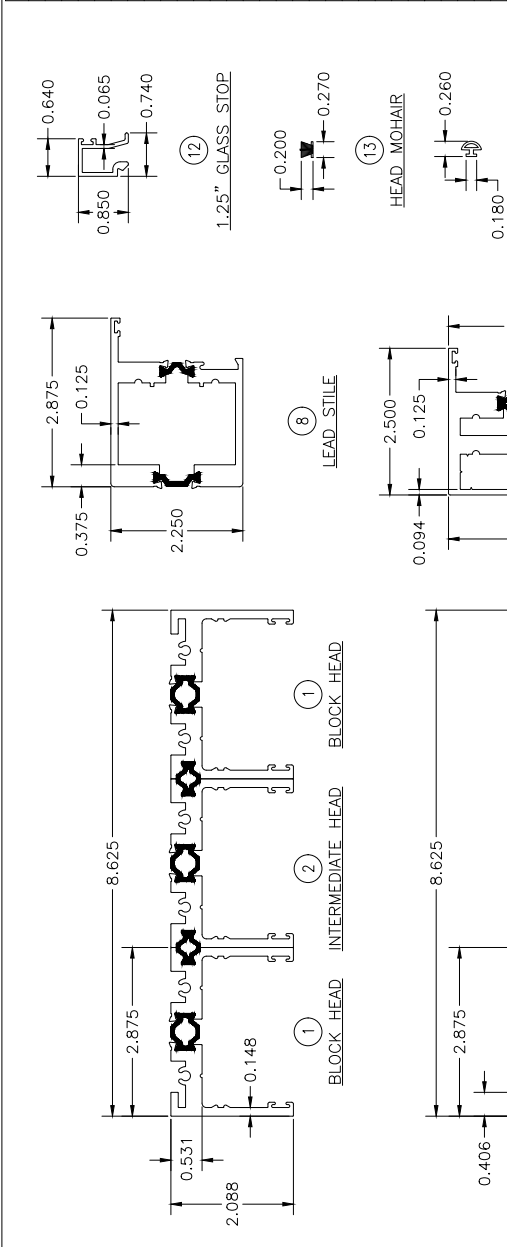
4070-T LOCK JAMB
SCALE: FULL SIZE

4070-T INTERLOCKERS
SCALE: FULL SIZE

4070-T INTERLOCKERS
SCALE: FULL SIZE

4070-T LOCK JAMB
SCALE: FULL SIZE

ITEM #	PART	ITEM DESCRIPTION	PARTS	MANUFACTURER/NOTES
1	4727	BLOCK HEAD	6063-T6 ALUMINUM EXTRUSION	
2	4702	INTERMEDIATE HEAD	6063-T6 ALUMINUM EXTRUSION	
3	4728	BLOCK JAMB	6063-T6 ALUMINUM EXTRUSION	
4	4704	INTERMEDIATE JAMB	6063-T6 ALUMINUM EXTRUSION	
5	4748	SILL	6063-T6 ALUMINUM EXTRUSION	
6	4750	7/8" SILL BOTTOM RAIL	6063-T6 ALUMINUM EXTRUSION	
7	4709	TOP RAIL	6063-T6 ALUMINUM EXTRUSION	
8	4742	LEAD STILE	6063-T6 ALUMINUM EXTRUSION	
9	4712	SLIDING INTERLOCKER	6063-T6 ALUMINUM EXTRUSION	
10	4711	FIXED INTERLOCKER	6063-T6 ALUMINUM EXTRUSION	
11	4705	JAMB FILLER	6063-T6 ALUMINUM EXTRUSION	
12	4735	1.25" GLASS STOP	6063-T6 ALUMINUM EXTRUSION	
13	25912	SMALL FIN SEAL .200	AMESBURY (20027045BKGB)	
14	25031	Bub Vinyl-Large (EPDM 70 Durometer, ASTM C884)	TREMCO, #TX19638E	
15	27538	MOHAIR 27027045BKGB	AMESBURY, 27027045BKGB	
16	19118	SMALL FIN SEAL .230	AMESBURY (23027045BKGB)	
17	25757	O-Lon Foam Seal	SCHLEGEL, O-Lon Q200T270	
18	26046	FLEXIBLE VINYL AIR BARRIER	RYKO	
19	25199	Mini Bub Vinyl (EPDM 70 Durometer, ASTM C884)	TREMCO, TX20801E	
20	25065	14.6mm X 10.2mm - I-STRUT	MISCELLANEOUS	
21	T80	SILLPAN	TECHNOFORM, 259900	
22	27313	4" X 3/16" X 1" SETTING BLOCK	ALUMINUM	
23	23006	STAINLESS STEEL TRACK 9/16" (BUILDING 00095) .305"	AS REQ'D	
24	23025	PVC TRACK JOINER	HAAG & ASSOCIATES, FW-1020	
25	23220	SILLPAN HEM COVER	RYKO, R10682	



MATERIAL: 4070-T78/ SILL	DATE: 1/8/25	REVISIONS:	DATE:
DRAWN BY:	CJ	DATE:	
JOB NUMBER: 581121			

FLEETWOOD
CORONA, CA 92879
www.fleetwoodusa.com

1 FLEETWOOD WAY
CORONA, CA 92879
www.fleetwoodusa.com

SCALE: 1"=1'

DRAWING NO.: 4

SHEET: 4 OF 4

Report #: S0187.01
Date: 02/24/25
Verified by: [Signature]

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SECTION 12

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	02/24/25	N/A	Original Report Issue
1	02/25/25	5 & 7	Change panel height and fix glass and weep hole details.
2	03/06/25	7	Change glass bite to 9/16" and change discretion on the roller assembly.