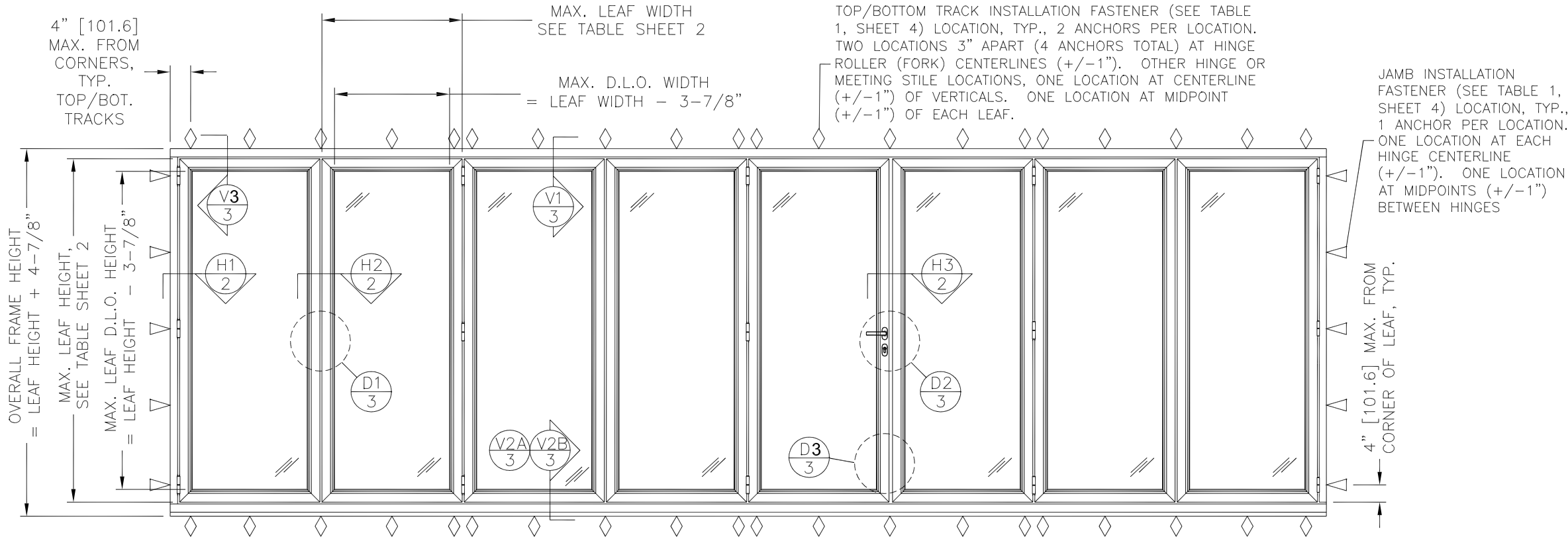


ORIGIN OB49 FOLDING / SWINGING DOOR

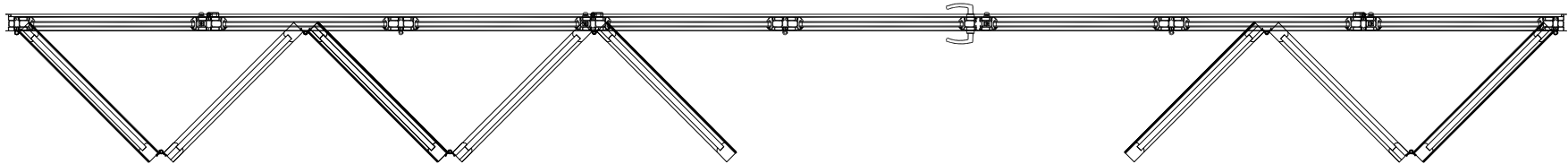
NON-IMPACT

DESIGN PRESSURE RATINGS	IMPACT RATING
SEE CHART, SHEET 2	NONE

SHEET	DESCRIPTION
1.....	ELEVATION, GEN. NOTES
2.....	HORIZ. SECTION DETAILS, DP CHART
3.....	VERT. SECT. DETAILS, GLAZING DETAILS
4.....	ANCHORAGE DETAILS, NOTES
5.....	B.O.M.



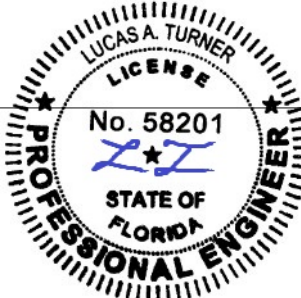
SAMPLE ELEVATION FOR SECTION CALLOUTS; SEE NOTE 3 BELOW FOR ALLOWABLE CONFIGURATIONS



GENERAL NOTES

1. THIS PRODUCT, FABRICATED AND ANCHORED AS DETAILED IN THIS DRAWING, IS NON-IMPACT AND REQUIRES THE USE OF IMPACT PROTECTIVE DEVICES (SHUTTERS) IN WINDBORNE DEBRIS REGIONS.
2. THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440, AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, 8TH EDITION (2023), FOR USE OUTSIDE THE HIGH VELOCITY HURRICANE ZONE. OUTSWING DOORS ARE FULLY TESTED FOR WATER INFILTRATION RESISTANCE WITH BOTH LOW-THRESHOLD SILL AND WITH SILL RISER. INSWING DOORS WITH LOW THRESHOLDS HAVE NOT BEEN TESTED FOR WATER INFILTRATION RESISTANCE THEREFORE THESE DOORS MUST BE INSTALLED UNDER AN OVERHANG WITH A HORIZONTAL LENGTH FROM THE WALL WHICH IS EQUAL TO OR GREATER THAN THE HEIGHT OF THE OVERHANG ABOVE THE BOTTOM OF THE DOOR (A 1:1 OVERHANG PER FBC 1709.5.1 EXCEPTION 2). INSWING DOORS WITH SILL RISERS HAVE BEEN TESTED FOR LIMITED WATER RESISTANCE, WITH FULL WATER SPRAY VOLUME PER ASTM E 331 BUT WITH ZERO PRESSURE DIFFERENTIAL, SO THESE DOORS MAY BE INSTALLED AS ALLOWED BY THE AUTHORITY HAVING JURISDICTION WHERE THE LIMITED WATER TESTING IS DEEMED TO COMPLY, OR WITH A 1:1 OVERHANG AS DESCRIBED ABOVE FOR ANY LOCATION.
3. ALLOWABLE CONFIGURATIONS: SINGLE OR DOUBLE-LEAF SWING DOORS, OR FOLDING DOORS WITH ANY NUMBER OF LEAVES. DOORS MAY BE IN ANY CONFIGURATION THAT CAN BE PRODUCED USING ONE LOCKING LOCATION (AT JAMB OR AT LOCKING MEETING STILES) PER DOOR. **DOOR PANELS AT HEIGHT 96" [2438] OR LESS MAY USE KEYED GEARBOX (L046) INSTEAD OF MULTIPOINT LOCK (L127)**
4. THE DESIGN PRESSURE RATINGS AS SHOWN ON THIS SHEET, ARE AS LIMITED BY ASTM E-1300 GLASS TABLES, AND TESTED WATER AND STRUCTURAL PRESSURES.
5. THE 4/3 ALLOWABLE STRESS INCREASE FACTOR (SHORT-TERM INCREASE FACTOR) HAS NOT BEEN USED IN THE ANCHOR ANALYSIS FOR THIS SYSTEM. THE 1.6 Cd FACTOR WAS USED IN THE ANALYSIS OF ANCHORAGE INTO WOOD SUBSTRATE.
6. INSTALLATION OF 1X OR 2X WOOD BUCKS TO THE SUBSTRATE TO BE ENGINEERED BY OTHERS OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION (A.H.J.). BUCKING, OPENINGS, & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED BY OTHERS IN ACCORDANCE WITH THE FBC TO TRANSFER SUPERIMPOSED LOADS TO THE STRUCTURE. ADEQUACY OF THE STRUCTURE TO RECEIVE THESE LOADS SHALL BE VERIFIED BY THE CONTRACTOR OR A.H.J.
7. DISSIMILAR MATERIALS THAT COME INTO CONTACT SHALL BE COATED OR OTHERWISE PROTECTED PER FBC CHAPTER 20 TO PREVENT GALVANIC REACTIONS. WOOD BUCKS, IF USED, SHALL BE PRESSURE TREATED, WITH EITHER A TREATMENT OR COATING COMPATIBLE WITH 6063-T5. ALL ANCHORS USED SHALL BE OF A MATERIAL OR HAVE A COATING COMPATIBLE WITH THE PRESSURE TREATED WOOD BUCKS AND ALL OTHER WINDOW MATERIALS.
8. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, OR AS APPROVED, SIGNED, AND SEALED BY A FLORIDA-REGISTERED PROFESSIONAL ENGINEER ON A SITE-SPECIFIC BASIS.
9. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER INFILTRATION RESISTANCE OF THE INSTALLED PRODUCT SHALL BE THE RESPONSIBILITY OF OTHERS AND IS NOT ADDRESSED BY THIS DOCUMENT.

Lucas Turner
2024.05.09
22:18:09 -05'00'



5/8/2024
LUCAS A. TURNER, P.E.
FL PE # 58201
TURNER ENGINEERING & CONSULTING, INC.
2428 OLD NATCHEZ TRC. TRL.
CAMDEN, TN 38320
PH. 941-380-1574

ORIGIN USA INC.
573 PAUL MORRIS DR.
ENGLEWOOD, FL 34223
Phone: 941-484-4861

ALUMINUM OB49
FOLDING/SWINGING DOOR
NON-IMPACT

DRAWN BY:
LAT

DATE:
5/7/2024

SCALE:
NTS

REVISION:

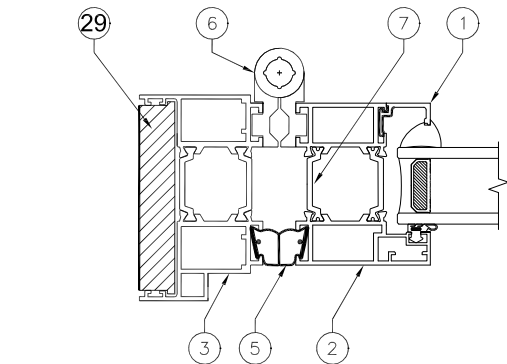
REVISION:

DRAWING #
FPA-OB49-NI

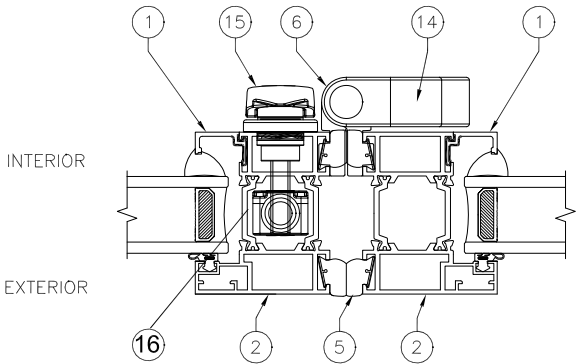
SHEET DESCRIPTION
NOTES,
ELEVATION

SHEET
1

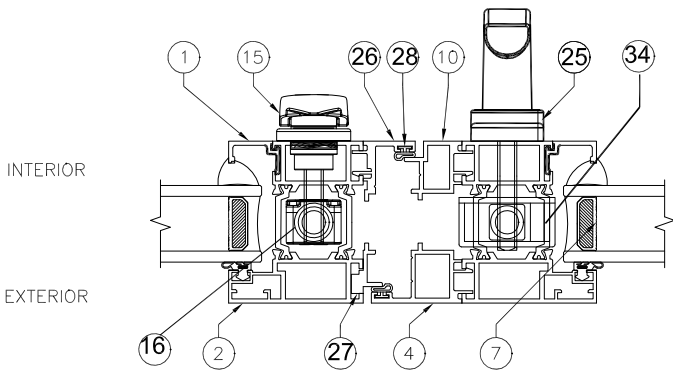
			Allowable Design Pressures (ASD, psf). Note: Additional sizes may be interpolated.																																	
			Leaf Height (in.)																																	
			80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110	112	114	116	118	120	122	124	126	128	130	132	134	136	138	140	142	144	
Leaf Width (in.)	24	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.3	+18.5	+17.7	+16.9	+16.2	
		-46.3	-44.9	-43.7	-42.5	-41.4	-40.3	-39.3	-38.4	-37.5	-36.6	-35.7	-35	-34.2	-33.5	-32.8	-32.1	-31.5	-30.8	-30.2	-29.7	-28.2	-26.8	-25.5	-24.3	-23.2	-22.1	-21.1	-20.2	-19.3	-18.5	-17.7	-16.9	-16.2		
	26	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.5	+18.7	+17.9	+17.1	+16.4	+15.7	+15
		-43.3	-42.1	-40.9	-39.8	-38.7	-37.7	-36.8	-35.9	-35	-34.2	-33.4	-32.6	-31.9	-31.2	-30.6	-29.9	-29.3	-28.8	-28.2	-27.5	-26.1	-24.8	-23.6	-22.5	-21.5	-20.5	-19.5	-18.7	-17.9	-17.1	-16.4	-15.7	-15		
	28	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.1	+18.2	+17.4	+16.6	+15.9	+15.2	+14.6	+14
		-40.9	-39.7	-38.5	-37.5	-36.4	-35.5	-34.6	-33.7	-32.9	-32.1	-31.4	-30.6	-30	-29.3	-28.7	-28.1	-27.5	-27	-26.4	-25.6	-24.3	-23.1	-22	-21	-20	-19.1	-18.2	-17.4	-16.6	-15.9	-15.2	-14.6	-14		
	30	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.6	+18.7	+17.8	+17	+16.3	+15.6	+14.9	+14.2	+13.6	+13.1
		-38.7	-37.6	-36.5	-35.4	-34.5	-33.6	-32.7	-31.9	-31.1	-30.3	-29.6	-28.9	-28.3	-27.7	-27.1	-26.5	-25.9	-25.4	-24.9	-24	-22.8	-21.7	-20.6	-19.6	-18.7	-17.8	-17	-16.3	-15.6	-14.9	-14.2	-13.6	-13.1		
	32	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.4	+18.5	+17.6	+16.8	+16	+15.3	+14.6	+14	+13.4	+12.8	NA	
		-36.9	-35.7	-34.7	-33.7	-32.8	-31.9	-31	-30.2	-29.5	-28.8	-28.1	-27.4	-26.8	-26.2	-25.6	-25.1	-24.6	-24.1	-23.6	-22.6	-21.4	-20.4	-19.4	-18.5	-17.6	-16.8	-16	-15.3	-14.6	-14	-13.4	-12.8			
	34	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.2	+18.3	+17.4	+16.6	+15.8	+15.1	+14.4	NA	NA	NA	NA	NA	
		-35.1	-34.2	-33.1	-32.2	-31.3	-30.4	-29.6	-28.8	-28.1	-27.4	-26.8	-26.1	-25.5	-25	-24.4	-23.9	-23.4	-22.9	-22.4	-21.3	-20.2	-19.2	-18.3	-17.4	-16.6	-15.8	-15.1	-14.4							
	36	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.2	+18.2	+17.4	+16.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		-31.3	-31.3	-31.3	-30.8	-30	-29.1	-28.3	-27.6	-26.9	-26.2	-25.6	-25	-24.4	-23.8	-23.3	-22.8	-22.3	-21.8	-21.3	-20.2	-19.2	-18.2	-17.4	-16.5											
	38	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+19.2	+18.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		-28.1	-28.1	-28.1	-28.1	-28.1	-28	-27.2	-26.5	-25.8	-25.2	-24.5	-23.9	-23.4	-22.8	-22.3	-21.8	-21.4	-20.9	-20.3	-19.2	-18.3														
40	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	-25.4	-25.4	-25.4	-25.4	-25.4	-25.4	-25.4	-25.4	-24.8	-24.2	-23.6	-23	-22.5	-21.9	-21.4	-21	-20.5	-20.1																		
42	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-22.8	-22.2	-21.7	-21.1	-20.7																				
44	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	+20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21																								
46	+18.4	+18.4	+18.4	+18.4	+18.4	+18.4	+18.4	+18.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4																												
48	+15.5	+15.5	+15.5	+15.5	+15.5	+15.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	-15.5	-15.5	-15.5	-15.5	-15.5	-15.5																														



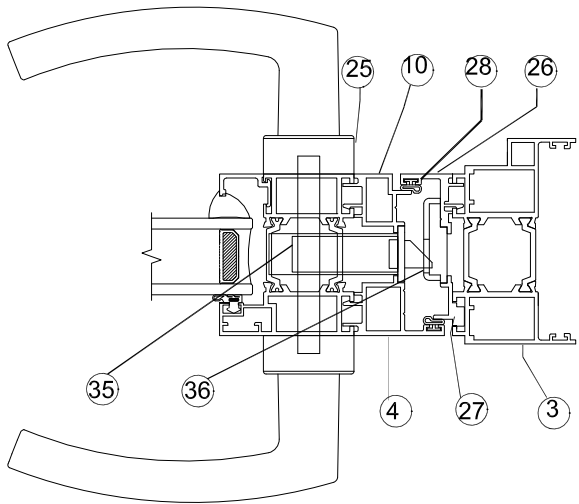
DETAIL H1. OPEN-IN HINGE JAMB, REVERSE HINGES (6) AND JAMB (3&4) FOR OPEN-OUT



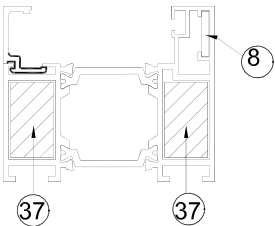
DETAIL H2. OPEN-OUT STILES, REVERSE HINGES FOR OPEN-IN



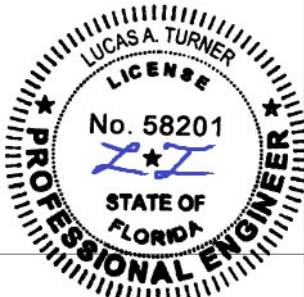
DETAIL H3. OPEN-OUT LOCKING MEETING STILES, REVERSE PARTS 26 AND 27 FOR OPEN-IN



OPEN OUT LOCKING JAMB, REVERSE PARTS 4; 10; 26 AND 27 FOR OPEN-IN



CLEAT AND CHEVRON DETAIL



5/8/2024
LUCAS A. TURNER, P.E.
FL PE # 58201
TURNER ENGINEERING & CONSULTING, INC.
2428 OLD NATCHEZ TRC. TRL.
CAMDEN, TN 38320
PH. 941-380-1574

ORIGIN USA INC.
573 PAUL MORRIS DR.
ENGLEWOOD, FL 34223
Phone: 941-484-4861

ALUMINUM OB49
FOLDING/SWINGING DOOR
NON-IMPACT

DRAWN BY: LAT

DATE: 5/7/2024

SCALE: NTS

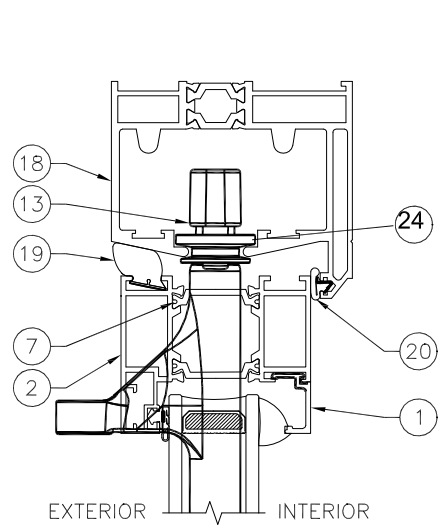
REVISION:

REVISION:

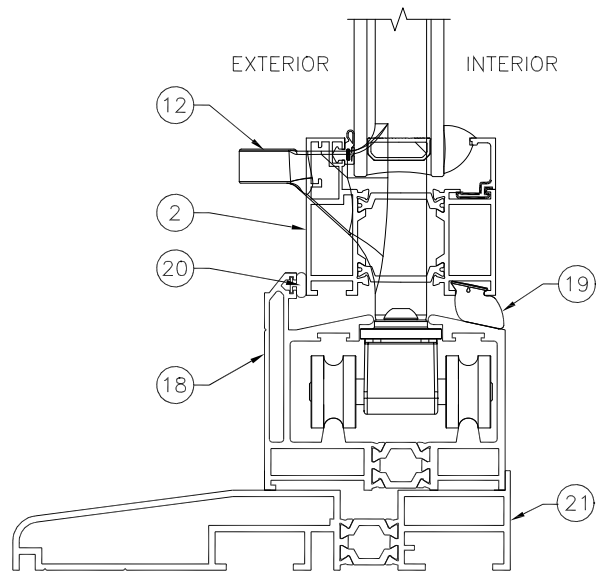
DRAWING # FPA-OB49-NI

SHEET DESCRIPTION DP CHART, HORIZONTAL SECT. DETAILS

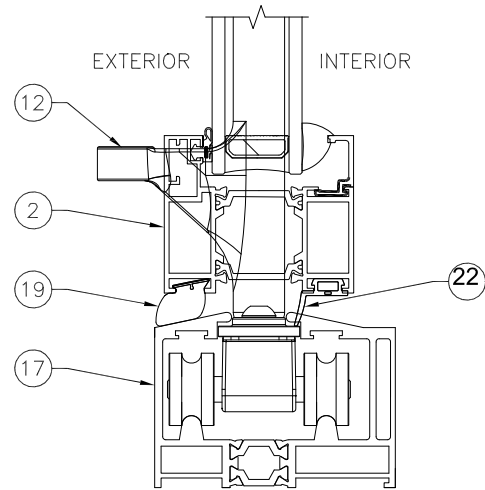
SHEET 2



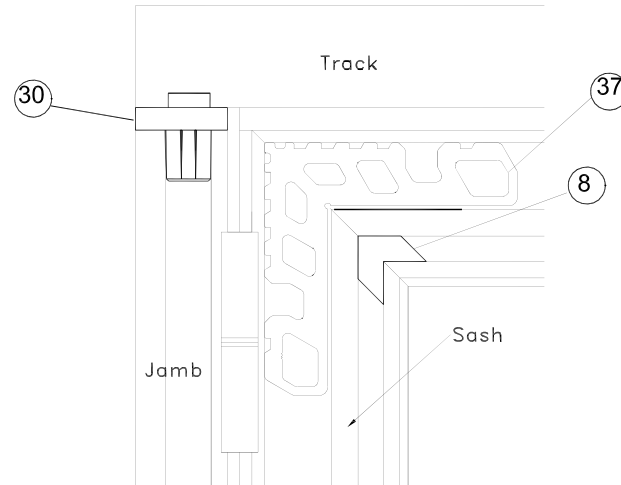
DETAIL V1. OPEN-OUT TOP
RACK, REVERSE TRACKS (17
AND 18) FOR OPEN-IN



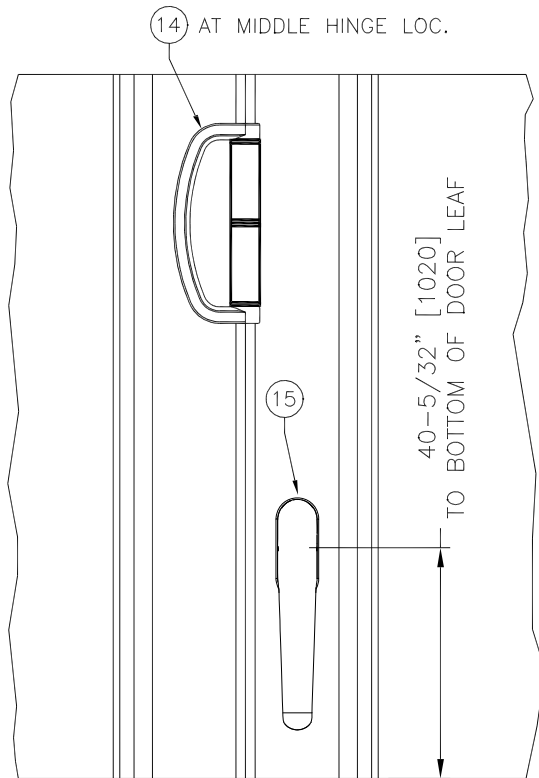
DETAIL V2A. OPEN-IN BOTTOM
TRACK, REVERSE TRACKS (17
AND 18) FOR OPEN-OUT



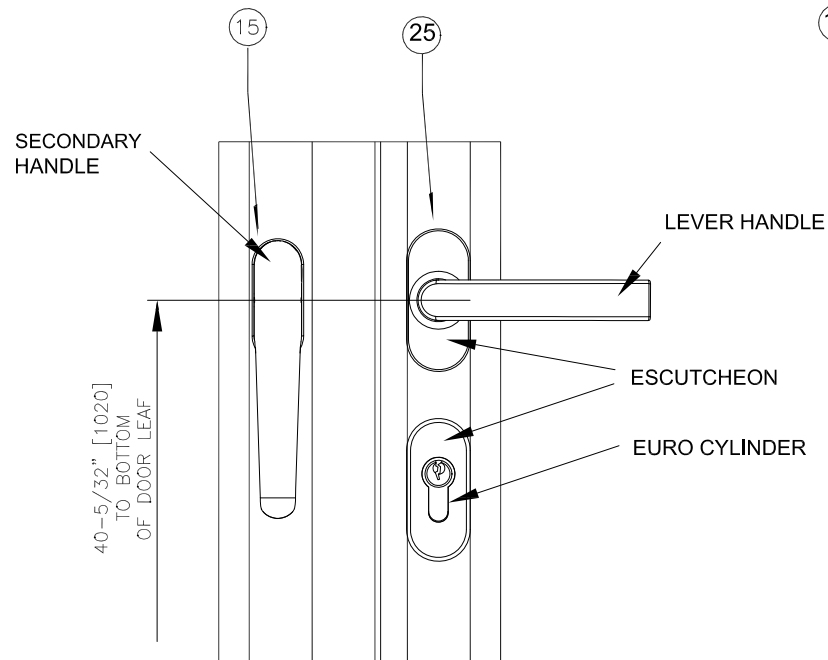
DETAIL V2B. OPEN-OUT LOW
THRESHOLD BOTTOM TRACK,
REVERSE TRACKS (17 AND 18)
FOR OPEN-IN



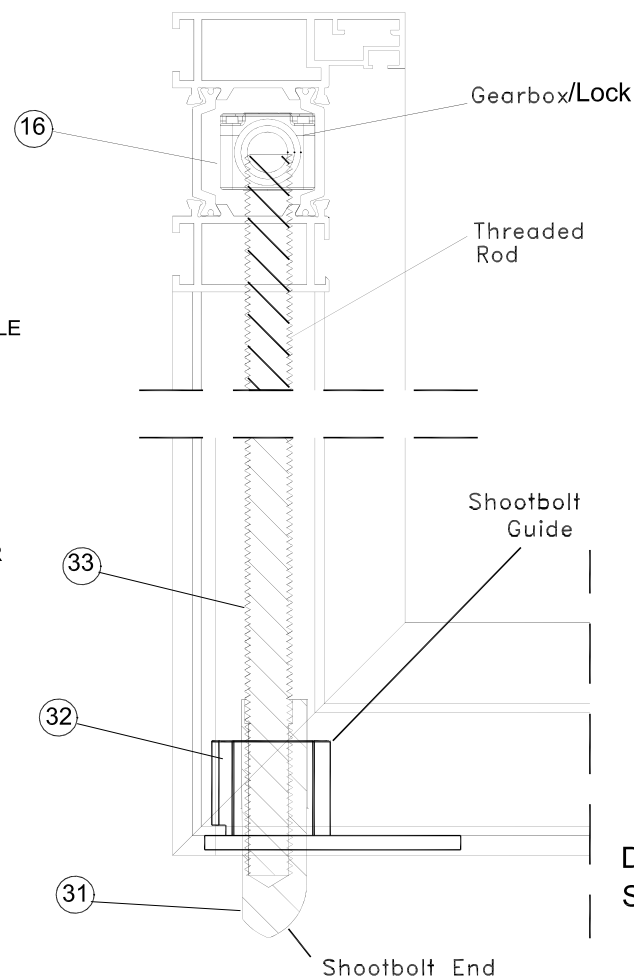
DETAIL V3. JAMB TO TRACK
CONNECTION DETAIL



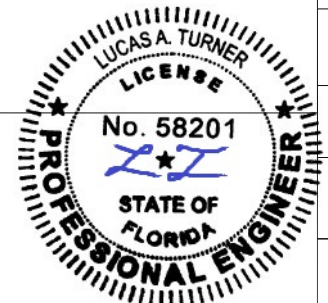
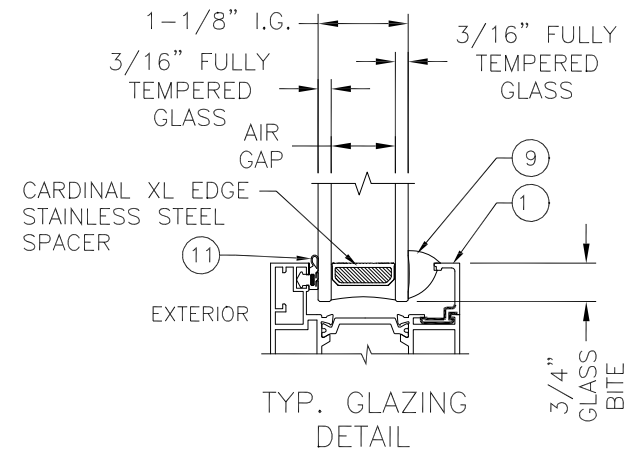
DETAIL D1. SECONDARY AND D-HANDLE
(VIEW FROM INTERIOR)



DETAIL D2. HANDLE AND LOCK
(VIEW FROM INTERIOR)



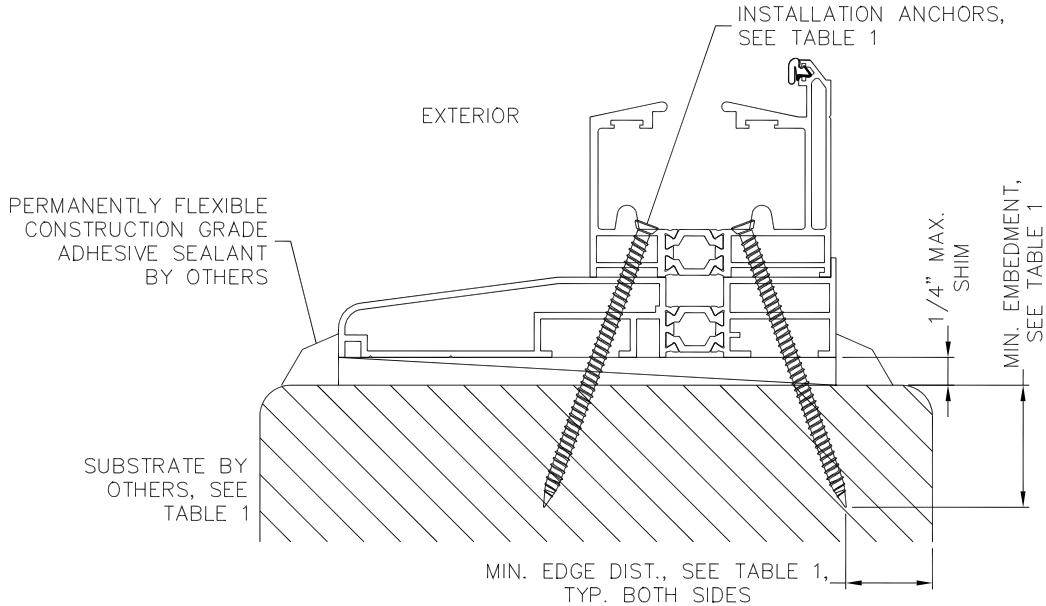
DETAIL D3.
SHOOTBOLT DETAIL



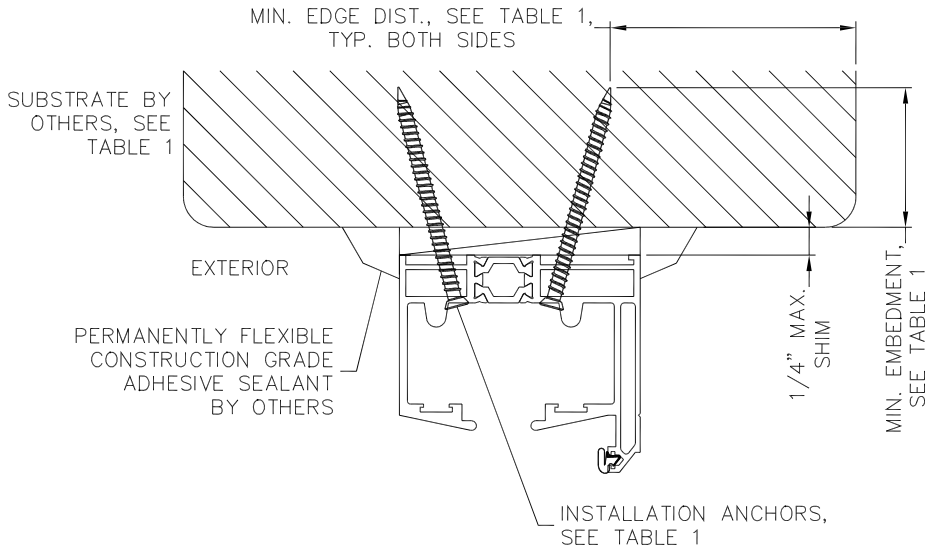
5/8/2024
LUCAS A. TURNER, P.E.
FL PE # 58201
TURNER ENGINEERING &
CONSULTING, INC.
2428 OLD NATCHEZ TRC. TRL.
CAMDEN, TN 38320
PH. 941-380-1574

GENERAL ANCHOR NOTES:

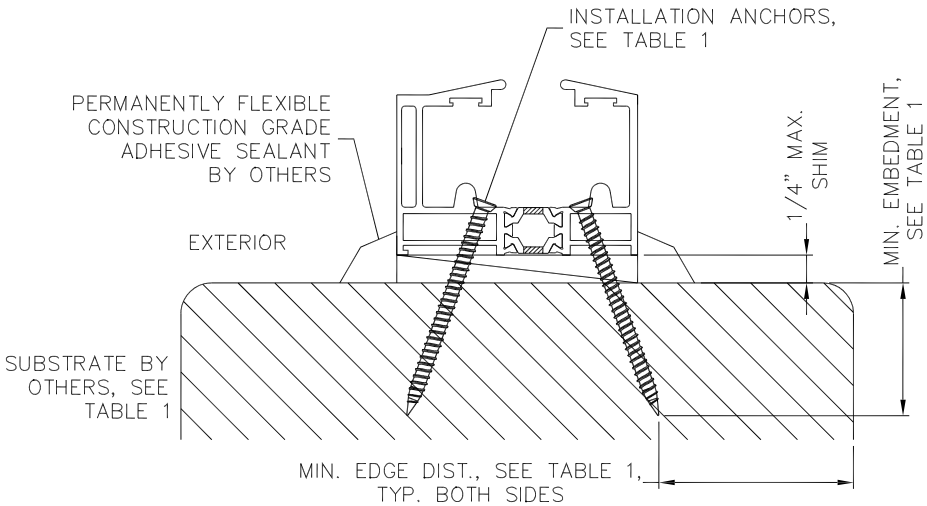
1. AT TOP AND BOTTOM TRACKS INSTALL TWO ANCHORS PER LOCATION AND AT JAMBS INSTALL ONE ANCHOR PER LOCATION, WITH LOCATIONS SHOWN IN THE ELEVATIONS ON SHEET 1 FOR PRODUCT PERIMETER. USE ANCHORS APPROPRIATE FOR SUBSTRATE TYPE (SEE TABLE 1).
2. INSTALL SHIMS AT EACH ANCHOR LOCATION WHERE A GAP OF 1/16" OR GREATER EXISTS BETWEEN PRODUCT FRAME AND SUBSTRATE.
3. SHIMS SHALL BE LOAD-BEARING (PLASTIC OR METALLIC) AND CAPABLE OF TRANSFERRING LOADS TO SUBSTRATE.
4. SPECIFIED ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL FINISH OR STUCCO.
5. FOR INSTALLATION TO METAL SUBSTRATES, ANCHORS SHALL BE LONG ENOUGH TO BE FULLY THREADED THROUGH THE METAL THICKNESS WITH AN ADDITIONAL 1/4" MIN. OF THREADS BEYOND.
6. A MINIMUM CENTER-TO-CENTER SPACING OF 3" SHALL BE MAINTAINED BETWEEN ALL CONCRETE OR CMU ANCHORS IN ANY DIRECTION. CONCRETE/MASONRY SUBSTRATES SHALL NOT BE CRACKED.



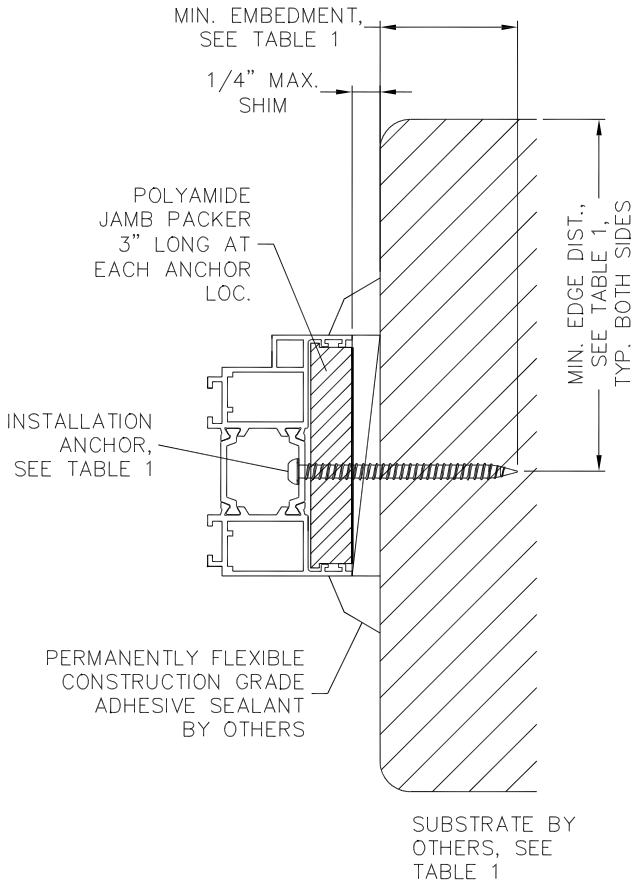
TYPICAL INSTALLATION STANDARD BOTTOM TRACK



TYPICAL INSTALLATION TOP TRACK



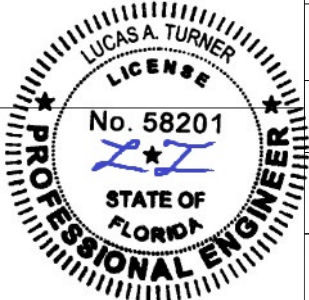
TYPICAL INSTALLATION LOW THRESHOLD BOTTOM TRACK



TYPICAL INSTALLATION JAMB

TABLE 1. QUALIFIED ANCHOR INFORMATION

LOCATION / HEAD TYPE	SUBSTRATE	ANCHOR	MIN. EMBEDMENT	MIN. EDGE DISTANCE
HEAD OR SILL: FLAT HEAD	SOLID CONCRETE (3050 PSI MIN)	1/4" DEWALT COATED CARBON STEEL ULTRA-CON+	1 3/4"	2 1/2"
	SOLID CONCRETE (2220 PSI MIN)	1/4" DEWALT AGGRE-GATOR 300 SS	1 3/4"	1 1/2"
	GROUT-FILLED CMU (ASTM C-90)	1/4" DEWALT AGGRE-GATOR 300 SS	2"	2"
	SOLID CONCRETE (3000 PSI MIN)	1/4" HILTI COATED CARBON STEEL OR STAINLESS STEEL KWIK-CON II	1"	2 1/2"
	2x MIN. SOUTHERN PINE WOOD (G=0.55 MIN)	#14 GRADE 5 WOOD SCREW	1 3/8"	1"
JAMB: PAN OR HEX HEAD	1/8" ALUM. 6063-T5 MIN. OR 1/8" STEEL 33 KSI YIELD MIN.	1/4" GRADE 5 SELF-TAPPING / DRILLING SCREW	FULL THREAD THRU 1/8" WALL	5/8"
JAMB ONLY: PAN OR HEX HEAD	HOLLOW OR GROUT-FILLED CMU (ASTM C-90)	1/4" DEWALT AGGRE-GATOR 300 SS	1 1/4"	2"
		1/4" HILTI COATED CARBON STEEL OR STAINLESS STEEL KWIK-CON II	1"	2 1/2"
		1/4" DEWALT CRETE-FLEX SS4	1 1/4"	2 1/2"



5/8/2024
LUCAS A. TURNER, P.E.
FL PE # 58201
TURNER ENGINEERING & CONSULTING, INC.
2428 OLD NATCHEZ TRC. TRL.
CAMDEN, TN 38320
PH. 941-380-1574

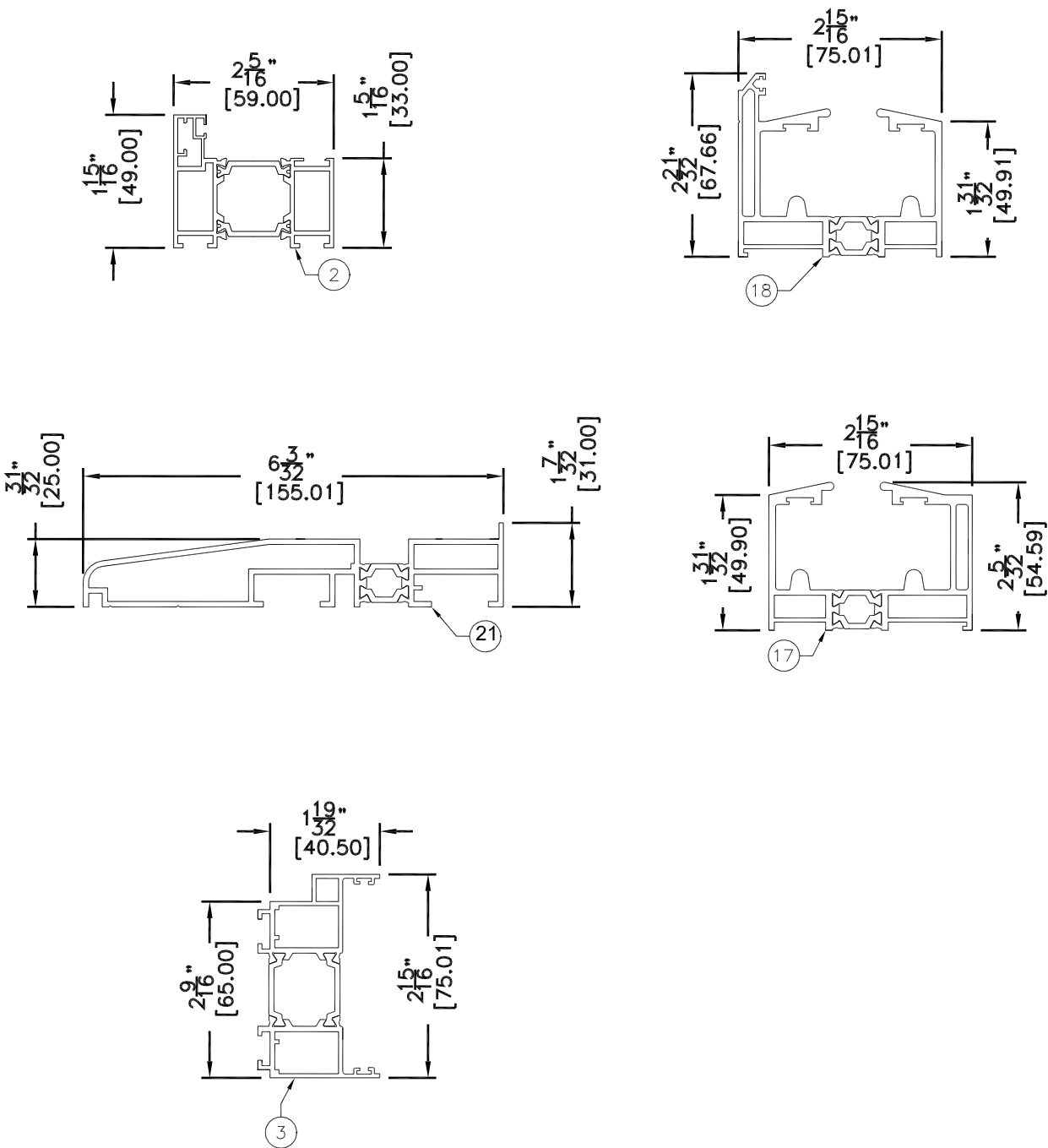
ORIGIN USA INC.
573 PAUL MORRIS DR.
ENGLEWOOD, FL 34223
Phone: 941-484-4861

ALUMINUM OB49
FOLDING/SWINGING DOOR
NON-IMPACT

DRAWN BY: LAT
DATE: 5/7/2024
SCALE: NTS
REVISION:
REVISION:
DRAWING # FPA-OB49-NI
SHEET DESCRIPTION ANCHORS, INSTALL DETAILS

BOM NO.	PART NO.	DESCRIPTION	REMARKS
1	P213	Slim Sash Bead	Powder Coated Aluminum
2	P932	Slim Sash	Powder Coated Aluminum
3	P992	Jamb	Powder Coated Aluminum
4	P210	Slim Sash Rebate	Powder Coated Aluminum
5	G00009	Hinge Gasket	Q-Lon 9135
6	V031/34/39/40	Hinge	Zinc ZL2
7	N/A	Polyamide strip	Polyamide
8	C00320	Pressed chevron	Aluminium
9	G00201	Wedge W474	Polypropylene
10	P212	Slim Sash Slam	Powder Coated Aluminum
11	G00004	E-gasket	Polypropylene
12	R013	Bottom Assembly	Zinc ZL2
13	R014	Top Assembly	Zinc ZL2
14	H002	D-Handle	Zinc ZL2
15	H112	Secondary handle	Zinc ZL2
16	L037	Gearbox	Zinc ZL2
17	P990	Non Weathered Thresh.	Powder Coated Aluminum
18	P991	Standard Treshold	Powder Coated Aluminum
19	G00022	Top/Bottom Gasket	Q-Lon 9141
20	G00029	Track gasket	Q- Lon 9257
21	OF24	155 Sill	Powder Coated Aluminum
22	G00120	Low Threshold Gasket	Polypropylene
23	V011	Hinge Bushes	Acetal
24	R017	Top Roller	Acetal
25	H013	Hafi Handle	Stainless Steel
26	P046	Rebate	Powder Coated Aluminum
27	P045	Slam	Powder Coated Aluminum
28	G00008	Rebate Gasket	Q-Lon 4636
29	C01512	Jamb Packer	Acetal
30	X016-X021	Jamb to Track connector	Black Nylon 6
31	L238	Shootbolt End	Acetal
32	L239	Shootbolt Guide	Acetal
33	C00202	Threaded Rod	Steel
34	L046	Keyed Gearbox	Zinc ZL2
35	L127	Multipoint Lock	Stainless Steel
36	L105;L106	Stronghold Keep	Stainless Steel
37	X239	Cleat	Aluminium
38			
39			
40			
41			

ALL ALUMINUM PARTS ARE 6063-T5 MINIMUM



5/8/2024
 LUCAS A. TURNER, P.E.
 FL PE # 58201
 TURNER ENGINEERING &
 CONSULTING, INC.
 2428 OLD NATCHEZ TRC. TR.L.
 CAMDEN, TN 38320
 PH. 941-380-1574

DRAWING #
 FPA-OB49-NI

SHEET DESCRIPTION
 BILL OF MATERIALS

SHEET
 5

ORIGIN USA INC.
 573 PAUL MORRIS DR.
 ENGLEWOOD, FL 34223
 Phone: 941-484-4861

ALUMINUM OB49
 FOLDING/SWINGING DOOR
 NON-IMPACT

DRAWN BY:
 LAT

DATE:
 5/7/2024

SCALE:
 NTS

REVISION:

REVISION: