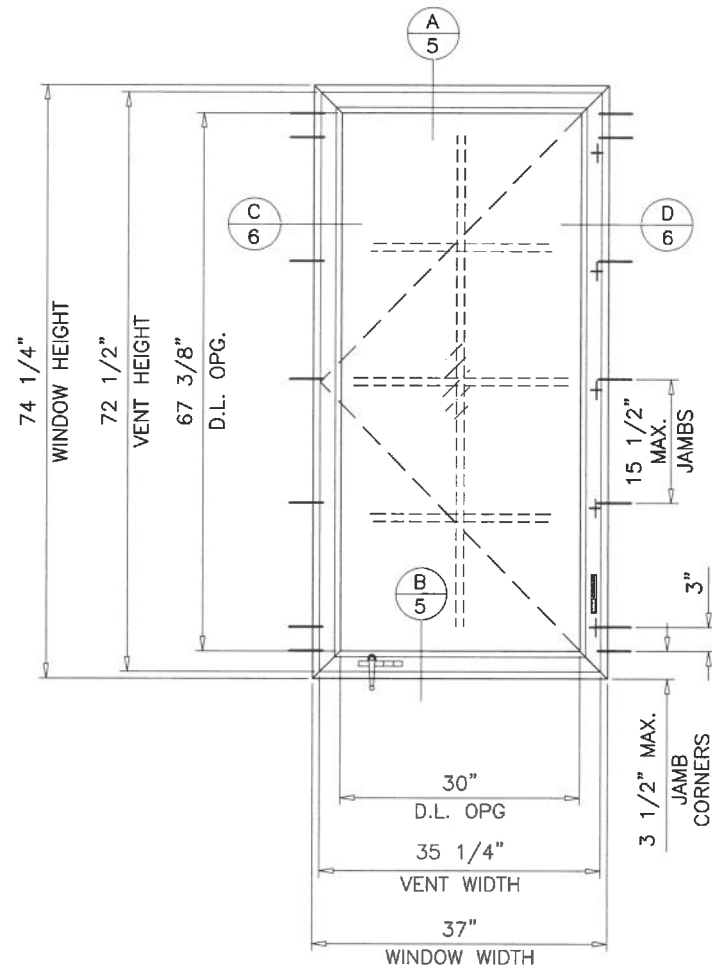
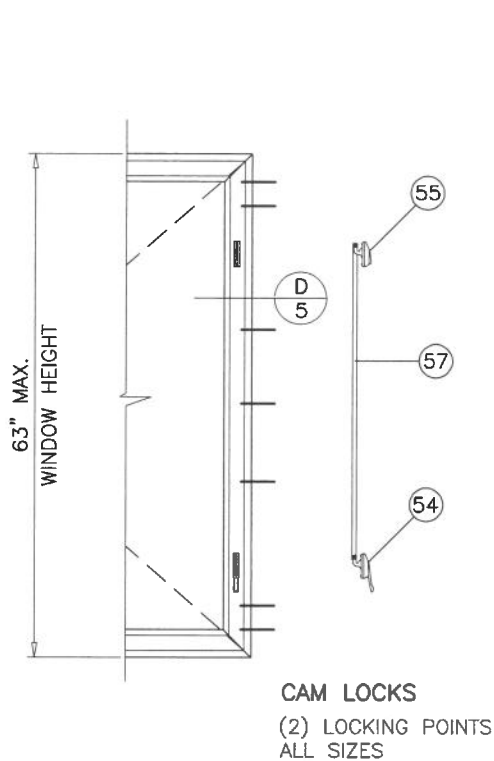


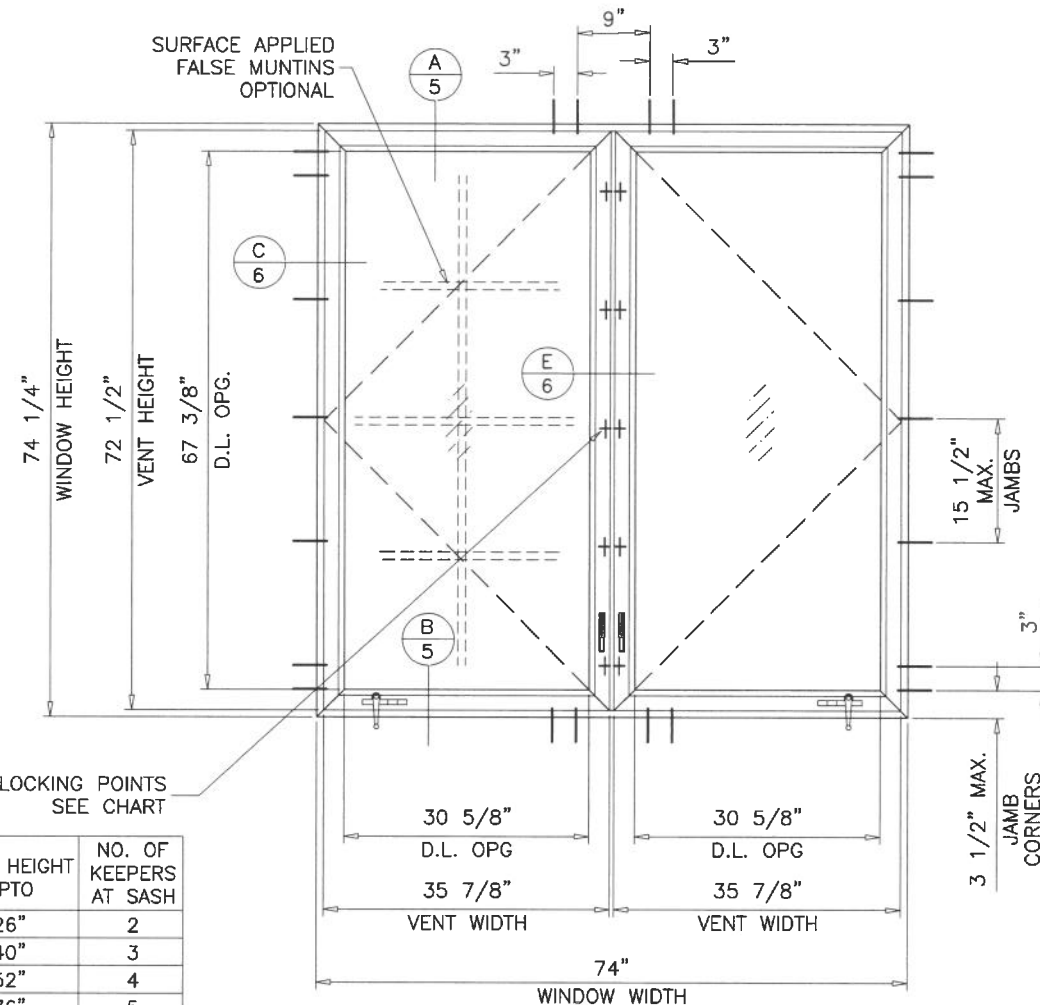


SINGLE (X)
FRAMES WITH OR W/O FLUSH ADAPTER



MULTI POINT LOCK

WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
40"	3
52"	4
76"	5



DOUBLE (XX)
FRAMES WITH OR W/O FLUSH ADAPTER

TYPICAL ELEVATIONS

SERIES 5000 ALUMINUM OUTSWING CASEMENT WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 3 AND 3.1.

APPROVAL APPLIES TO SINGLE OR DOUBLE WINDOWS OR SIDE BY SIDE COMBINATIONS OF CASMT/CASMT OR CASEMENT WITH SERIES 5100 FIXED WINDOWS USING MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM CASEMENT WINDOW, FIXED WINDOW OR MULLION CHART WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION)/2026 (9TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL OR OTHER RIGID MATERIALS).

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2023/2026 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

FASTENERS AND CONNECTORS (AS APPLICABLE) SHOWN IN THIS APPROVAL MAY NOT MEET CORROSION RESISTANCE REQUIREMENTS FOR COASTAL OR SALT WATER EXPOSURE ZONES. COMPLIANCE WITH THESE CONDITIONS TO BE CHECKED PER FBC 1711.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Scaled: 7/17/2026

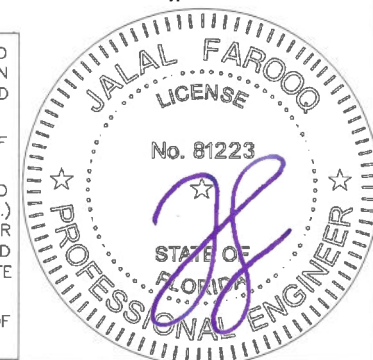
FL #41000

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

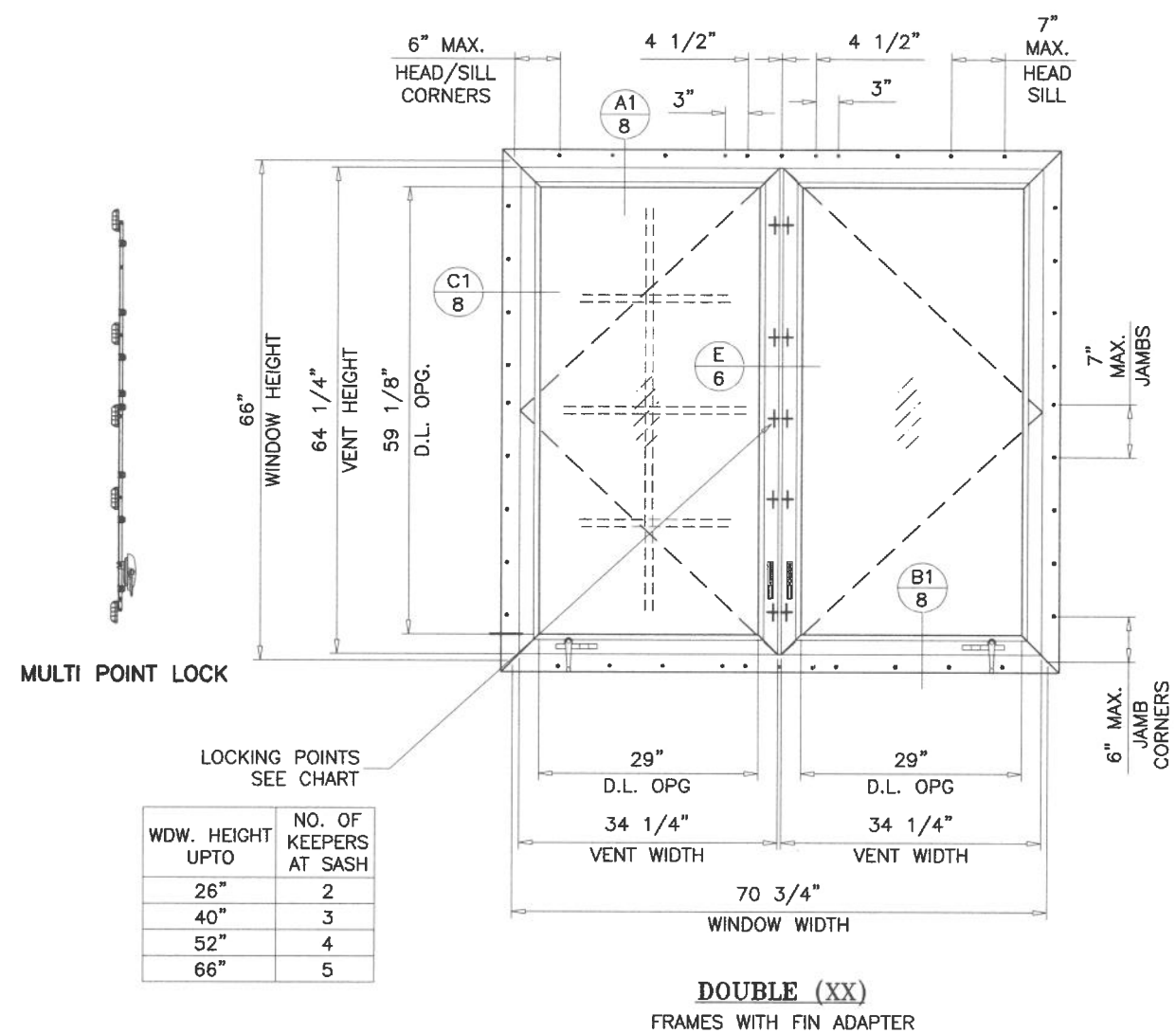
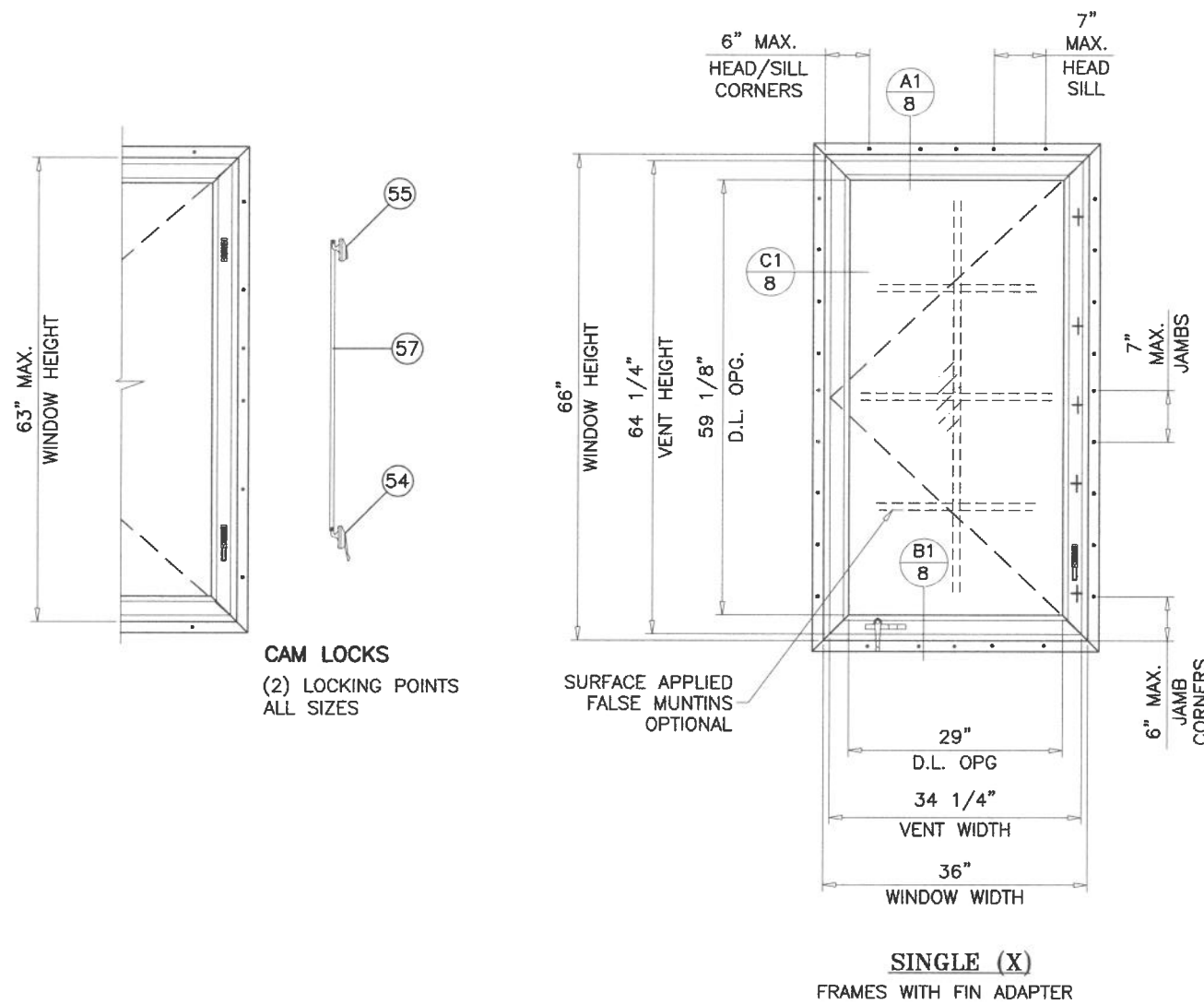


AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX (305) 262-6978
WWW.AFCENG.COM

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	description	by
	A	07.12.23	UPDATED TO 2023 FBC	
	B	07.13.26	UPDATED TO 2026 FBC	
date:	09-30-21			
scale:	1/2"=1'-0"			
dr. by:	TARIQ			
chk. by:				
drawing no.	21-68F			
sheet	1 of 12			

COMP-ANL\21-68F-ES



LOCKING POINTS
SEE CHART

WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
40"	3
52"	4
66"	5

TYPICAL ELEVATION

FOR WINDOWS WITH FIN FRAME ADAPTERS LIMIT MAX. DESIGN LOAD TO ± 70.0 PSF

Sealed: 7/17/2026



FL #41000

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
WWW.AFCENG.COM

COMP-ANL\21-68F-ES

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:

no	date	by	description

date: 09-30-21
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

drawing no.
21-68F

sheet 2 of 12

DESIGN LOAD CAPACITY - PSF FOR (X) SIZES															
WINDOW DIMS.		WITH CAM LOCKS				WINDOWS WITH MULTI POINT LOCK									
		GLASS TYPES A, B, C, D, E, F		GLASS TYPE 'H'		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPES 'C', 'D', 'E', 'F'		GLASS TYPE 'G'		GLASS TYPE 'H'	
WIDTH	HEIGHT	EXT.(+)	1NT.(−)	EXT.(+)	1NT.(−)	EXT.(+)	1NT.(−)	EXT.(+)	1NT.(−)	EXT.(+)	1NT.(−)	EXT.(+)	1NT.(−)	EXT.(+)	1NT.(−)
19-1/8"	26"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
26-1/2"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
37"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	102.8	70.0	70.0
42"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	90.6	70.0	70.0
19-1/8"	38-3/8"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
26-1/2"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
37"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	104.5	70.0	70.0
42"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	92.0	70.0	70.0
19-1/8"	50-5/8"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
26-1/2"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
37"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	105.6	70.0	70.0
42"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	93.0	70.0	70.0
19-1/8"	63"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
26-1/2"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
37"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	106.1	70.0	70.0
42"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	93.4	-	-
19-1/8"	74-1/4"	-	-	-	-	-	-	-	-	90.0	90.0	90.0	114.0	70.0	70.0
26-1/2"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	114.0	62.1	62.1
37"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	90.0	-	-
19-1/8"	76"	-	-	-	-	-	-	-	-	90.0	90.0	90.0	114.0	70.0	70.0
26-1/2"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	111.1	57.8	57.8
36"		-	-	-	-	-	-	-	-	85.4	85.4	85.4	85.4	-	-
24"	48"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
28"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
32"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
36"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
40"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	103.0	70.0	70.0
42"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	98.1	70.0	70.0
24"	54"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
28"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
32"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
36"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
40"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
42"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	109.0	70.0	70.0
24"	60"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
28"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
32"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
36"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
40"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	103.0	-	-
42"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	98.1	-	-
26-3/8"	60-3/4"	-	-	-	-	-	-	-	-	-	-	90.0	114.0	-	-
36"	60-3/4"	-	-	-	-	-	-	-	-	-	-	-	-	70.0	70.0
24"	66"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
28"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
32"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	114.0	70.0	70.0
36"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	104.1	70.0	70.0
40"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	93.7	-	-
24"	72"	-	-	-	-	-	-	-	-	90.0	90.0	90.0	114.0	70.0	70.0
28"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	114.0	65.1	65.1
32"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	107.3	58.1	58.1
36"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	95.4	-	-
24"	76"	-	-	-	-	-	-	-	-	90.0	90.0	90.0	114.0	63.2	63.2
28"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	105.7	55.0	55.0
32"		-	-	-	-	-	-	-	-	90.0	90.0	90.0	94.1	-	-
36"		-	-	-	-	-	-	-	-	85.4	85.4	85.4	85.4	-	-

FOR SINGLE (X) CASEMENT SIZES WITH FIN FRAME ADAPTERS
LIMIT MAX. DESIGN LOAD TO ±70.0 PSF
LIMIT MAX. WINDOW AREA TO 16.5 SQ. FT.

NOTE:
GLASS CAPACITIES ARE BASED ON
ASTM E1300-16 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

Sealed: 7/17/2026

FL #41000



**AL-FAROOQ CORPORATION**
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
FAX. (305) 262-6978
WWW.AFCENG.COM

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

revisions:
no date by description

date: 09-30-21
scale: -
dr. by: TARIQ
chk. by:

drawing no.
21-68F
sheet **3** of **12**

COMP-ANL\21-68F-ES

WWW.AFCENG.COM

DESIGN LOAD CAPACITY – PSF FOR (XX) SIZES													
WINDOW DIMS.		WITH CAM LOCKS				WINDOWS WITH MULTI POINT LOCK							
		GLASS TYPES A, B, C, D, E, F		GLASS TYPE 'H'		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPES 'C', 'D', 'E', 'F', 'G'		GLASS TYPE 'H'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
37"	26"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
53–1/8"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
37"	38–3/8"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
53–1/8"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
74"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
84"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
37"	50–5/8"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
53–1/8"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
74"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
84"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
37"	63"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
53–1/8"		79.6	79.6	70.0	70.0	79.6	79.6	79.6	79.6	79.6	79.6	70.0	70.0
74"		61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
84"		–	–	–	–	–	–	–	–	56.5	56.5	–	–
37"	74–1/4"	–	–	–	–	–	–	–	–	66.6	66.6	66.6	66.6
53–1/8"		–	–	–	–	–	–	–	–	47.6	47.6	47.6	47.6
74"		–	–	–	–	–	–	–	–	36.0	36.0	–	–
37"	76"	–	–	–	–	–	–	–	–	62.0	62.0	62.0	62.0
53–1/8"		–	–	–	–	–	–	–	–	44.3	44.3	44.3	44.3
74"		–	–	–	–	–	–	–	–	33.4	33.4	–	–
48"	48"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
56"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
64"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
72"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
80"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
84"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
48"	54"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
56"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
64"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
72"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
80"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
84"		85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
48"	60"	85.0	85.0	70.0	70.0	85.0	85.0	90.0	90.0	90.0	90.0	70.0	70.0
56"		85.0	85.0	70.0	70.0	85.0	85.0	88.9	88.9	88.9	88.9	70.0	70.0
64"		80.0	80.0	70.0	70.0	80.0	80.0	80.0	80.0	80.0	80.0	70.0	70.0
72"		73.5	73.5	70.0	70.0	73.5	73.5	73.5	73.5	73.5	73.5	70.0	70.0
80"		–	–	–	–	–	–	–	–	68.7	68.7	–	–
84"		–	–	–	–	–	–	–	–	66.8	66.8	–	–
48"	66"	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	70.0	70.0
56"		65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
64"		58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9
72"		–	–	–	–	–	–	–	–	53.8	53.8	53.8	53.8
80"		–	–	–	–	–	–	–	–	49.9	49.9	–	–
48"	72"	–	–	–	–	–	–	–	–	57.4	57.4	–	–
56"		–	–	–	–	–	–	–	–	50.0	50.0	–	–
64"		–	–	–	–	–	–	–	–	44.6	44.6	–	–
72"		–	–	–	–	–	–	–	–	40.6	40.6	–	–
48"	76"	–	–	–	–	–	–	–	–	48.6	48.6	–	–
56"		–	–	–	–	–	–	–	–	42.3	42.3	–	–
64"		–	–	–	–	–	–	–	–	37.6	37.6	–	–
72"		–	–	–	–	–	–	–	–	34.1	34.1	–	–

FOR DOUBLE (XX) CASEMENT SIZES WITH FIN FRAME ADAPTERS
LIMIT MAX. DESIGN LOAD TO ±70.0 PSF
LIMIT MAX. WINDOW AREA TO 32.4 SQ. FT.

NOTE:
GLASS CAPACITIES ARE BASED ON
ASTM E1300–16 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05–DEC–219

Sealed: 7/17/2026

FL #41000



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
FAX. (305) 262-6978
WWW.AFCENG.COM

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

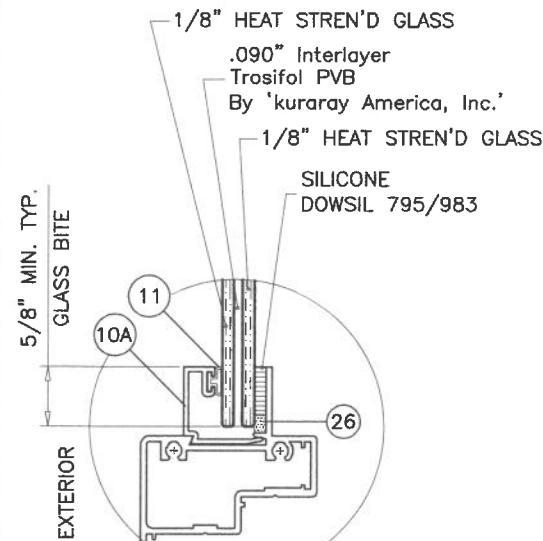
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638–5151
FAX. (305) 638–5158

revisions:
no date by description

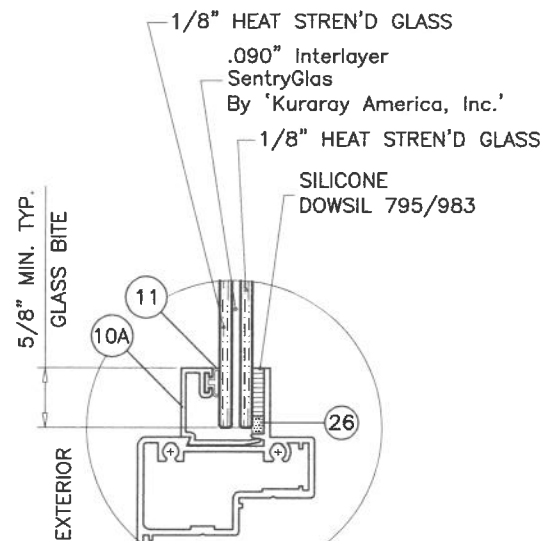
date: 09–30–21
scale: –
dr. by: TARIO
chk. by:

drawing no.
21–68F
sheet **3** of **12**

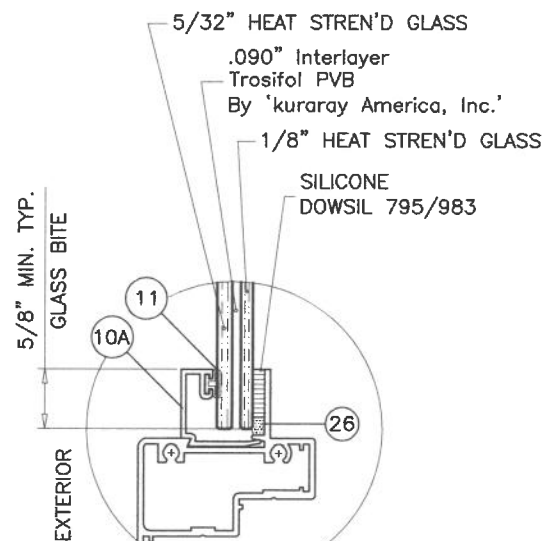
COMP–ANL\21–68F–ES



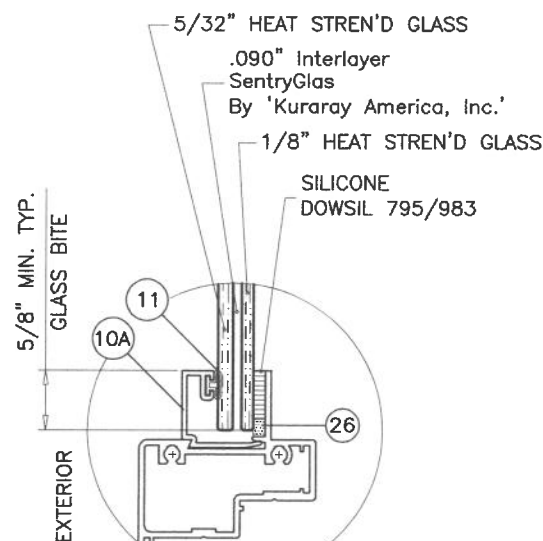
GLASS TYPE 'A'



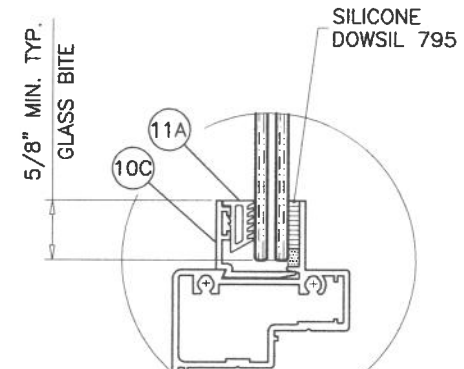
GLASS TYPE 'B'



GLASS TYPE 'C'

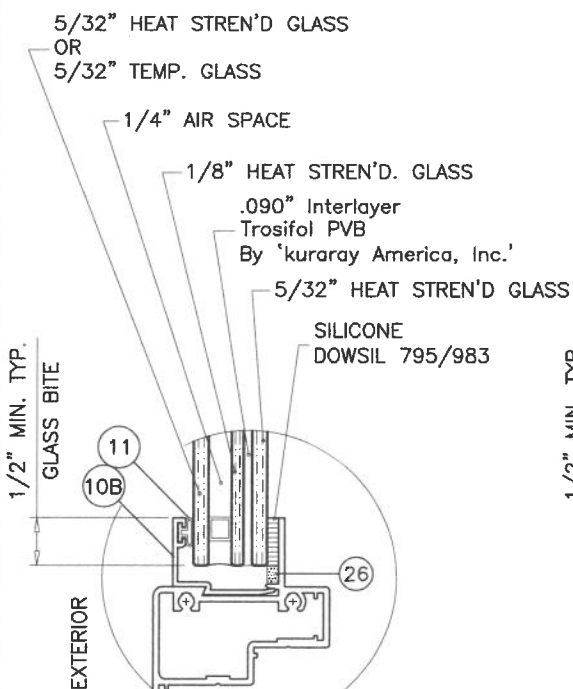


GLASS TYPE 'D'

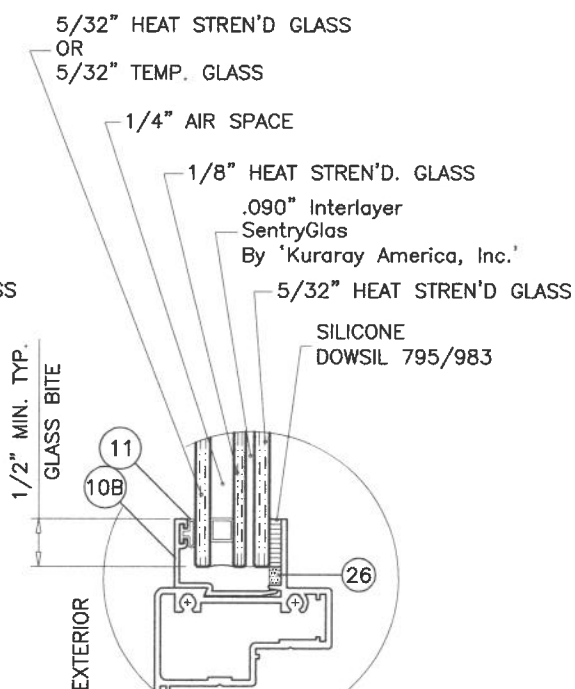


ALT. GLAZING OPTION

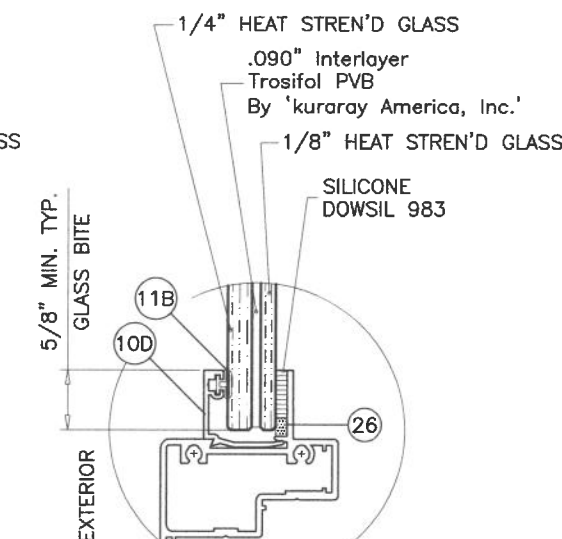
THESE GLAZING STOP CAN BE USED WITH GLASS TYPES 'A', 'B', 'C' & 'D'.



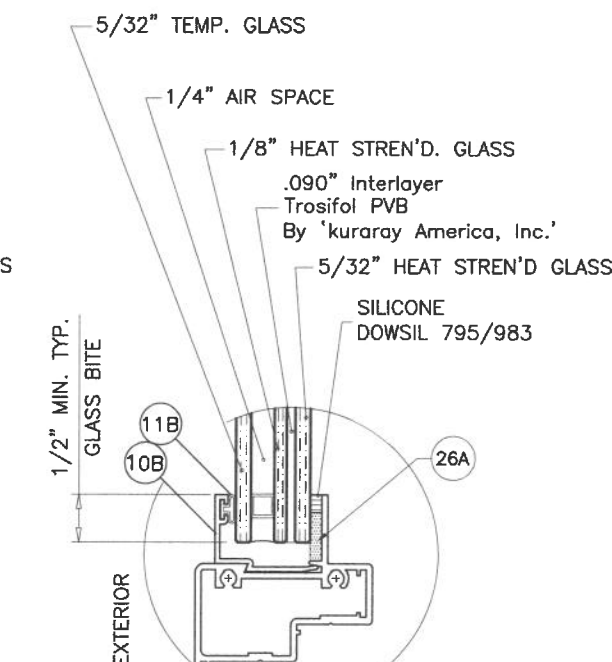
GLASS TYPE 'E'



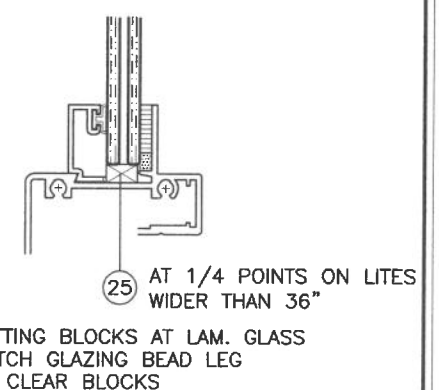
GLASS TYPE 'F'



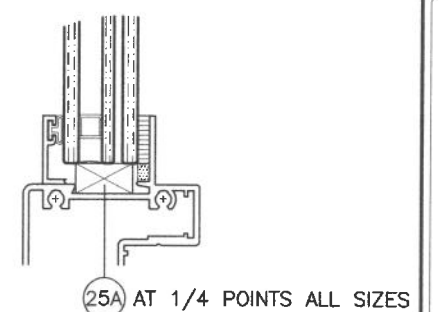
GLASS TYPE 'G'



GLASS TYPE 'H'



SETTING BLOCKS AT LAM. GLASS NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS



SETTING BLOCKS AT INSUL. LAM. GLASS NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS

NOTE:
TO QUALIFY FOR SMALL MISSILE IMPACT RATING
EXTERIOR PLY OF GLASS TYPES 'E' & 'F' MUST BE TEMPERED.

1/4" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000

Sealed: 7/17/2026

FL #41000



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
FAX. (305) 262-6978
WWW.AFCENG.COM

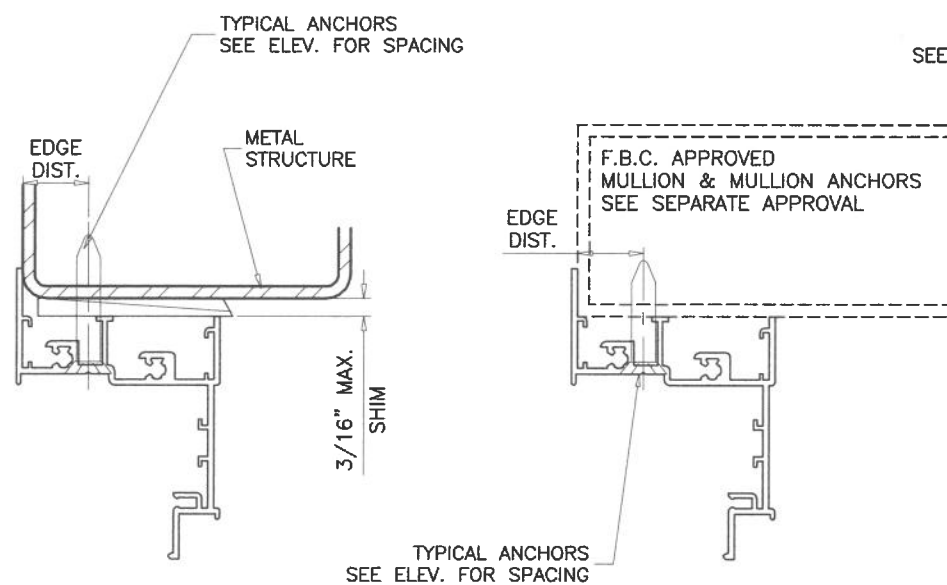
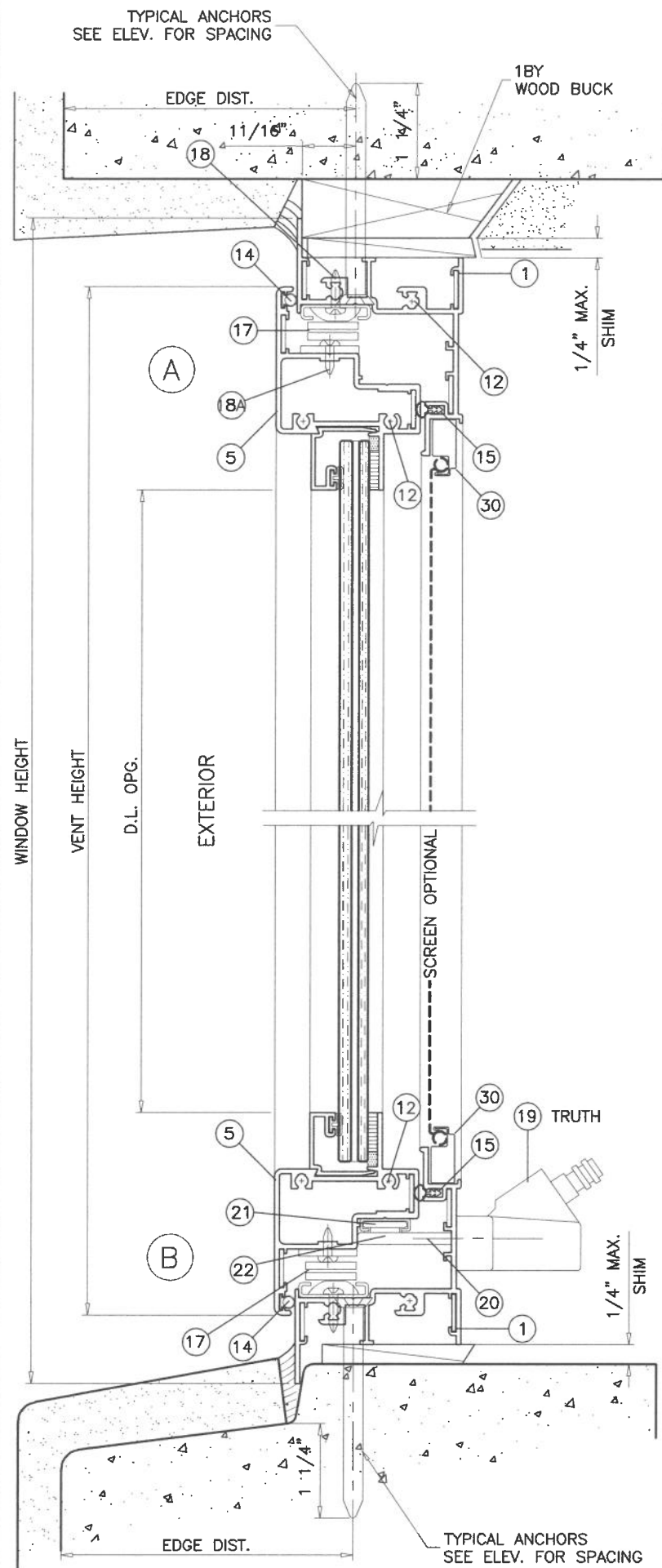
S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

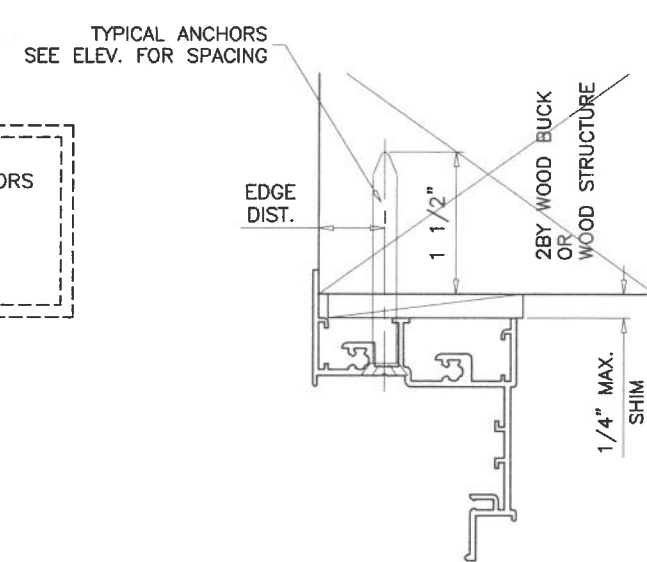
revisions:
no date by description

date: 08-30-21
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
21-68F
sheet 4 of 12



WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)
 1-3/4" MIN. EMBED INTO CONC. (FOR MULLION CLIPS ONLY)

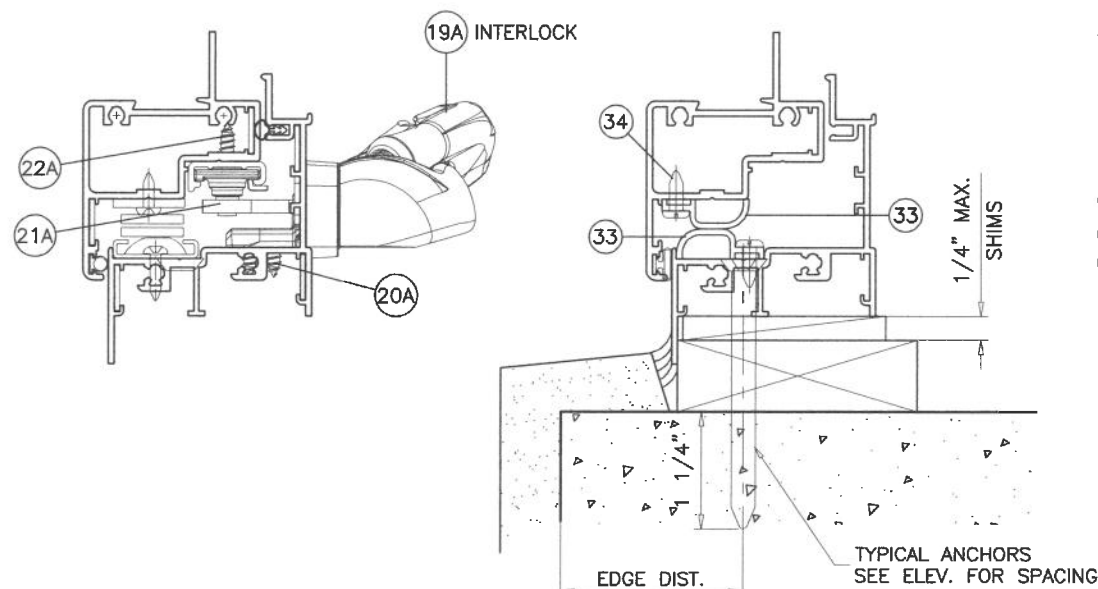
#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)

INTO F.B.C. APPROVED MULLIONS
 OR
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO CONCRETE = 1-1/2" MIN. (INTERIOR ANCHORS AT MULL CLIP)
 INTO WOOD STRUCTURE = 11/16" MIN.
 INTO METAL STRUCTURE = 11/16" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



Sealed: 7/17/2026

FL #41000



S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

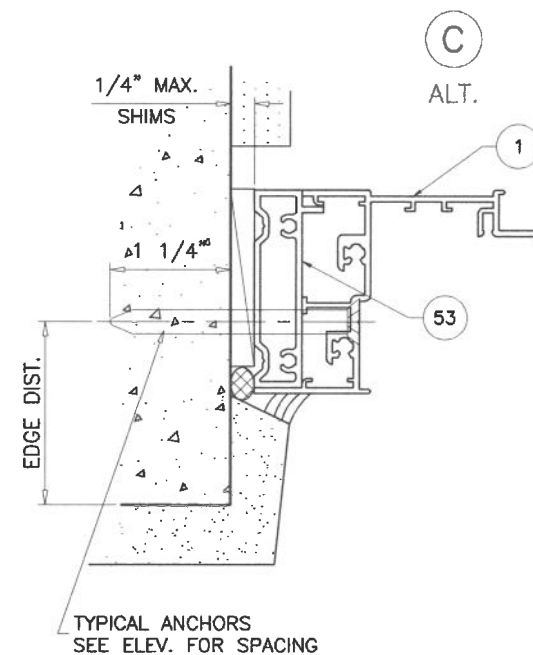
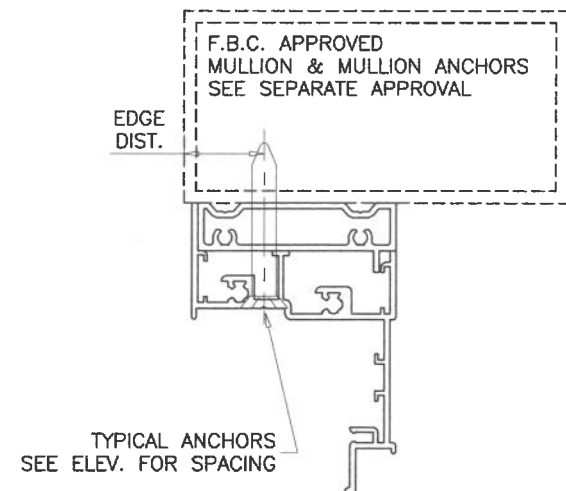
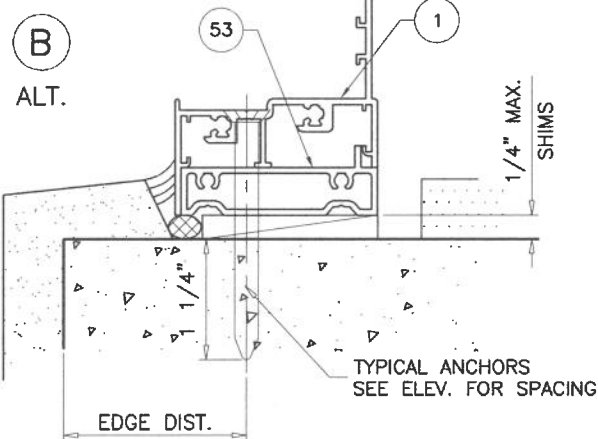
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:
 no date by description

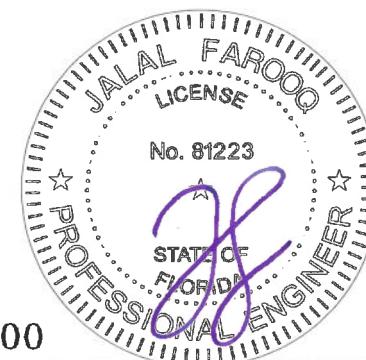
date: 09-30-21
 scale: 1/2" = 1"
 dr. by: TARIQ
 chk. by:

drawing no.
21-68F
 sheet 5 of 12

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978
 WWW.AFCENG.COM
 COMP-ANL\21-68F-ES



Sealed: 7/17/2026



FL #41000

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
(C.A.N. 3538)
TEL (305) 264-8100 FAX (305) 262-6978
WWW.AFCENG.COM

IEL (305) 264-8100
WWW.AFCENG.COM

FAX. (305) 638-5158

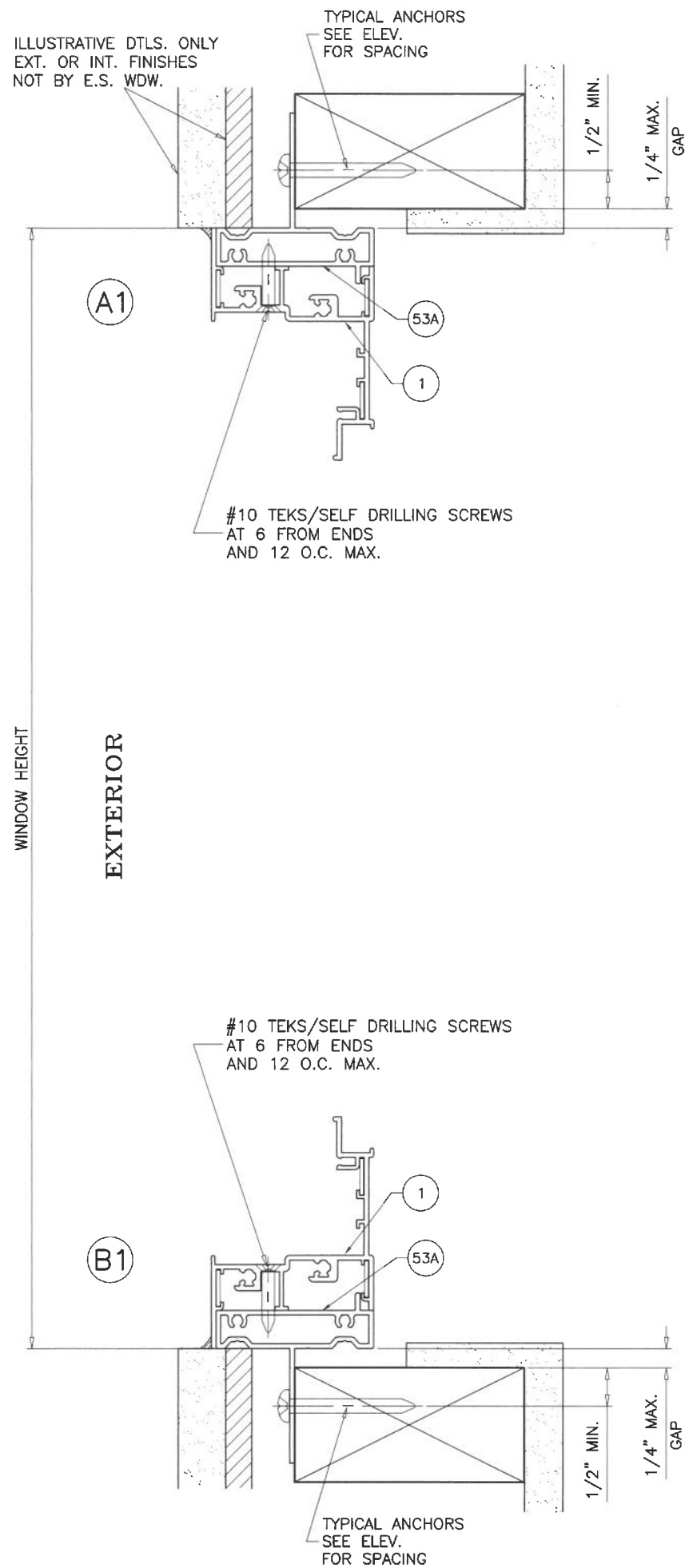
TEL. (305) 638-5151

305) 262-6978
COMP-ANI \ 21-68F-ES

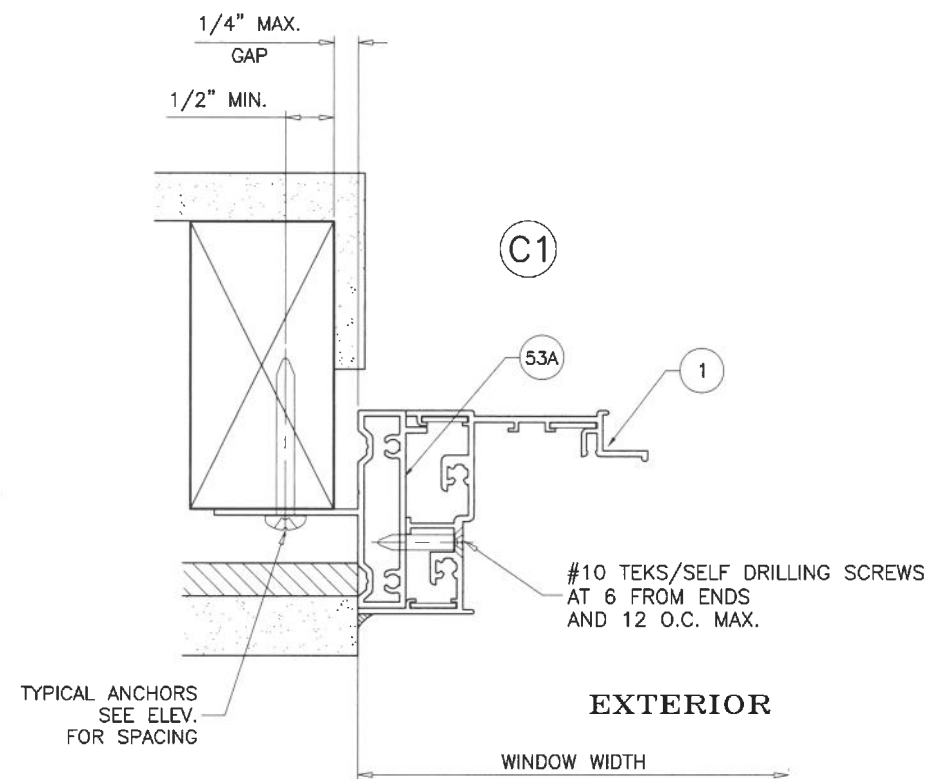
date: 09-30-21		revisions:	
scale: 1/2" = 1"		no.	description
dr. by: TARIQ			
chk. by:			

drawing no. **21-68F**

sheet 7 of 12



TYPICAL ANCHORS: SEE ELEV. FOR SPACING
#12 WOOD SCREWS (GRADE 2 CRS)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/4" MIN. PENETRATION INTO WOOD



INSTALLATION DETAILS WITH FIN FRAME ADAPTERS
 SEE SHEETS 5 & 6 FOR WINDOW DETAILS

Sealed: 7/17/2026



FL #41000

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978
 WWW.AFCENG.COM

COMP-ANL\21-68F-ES

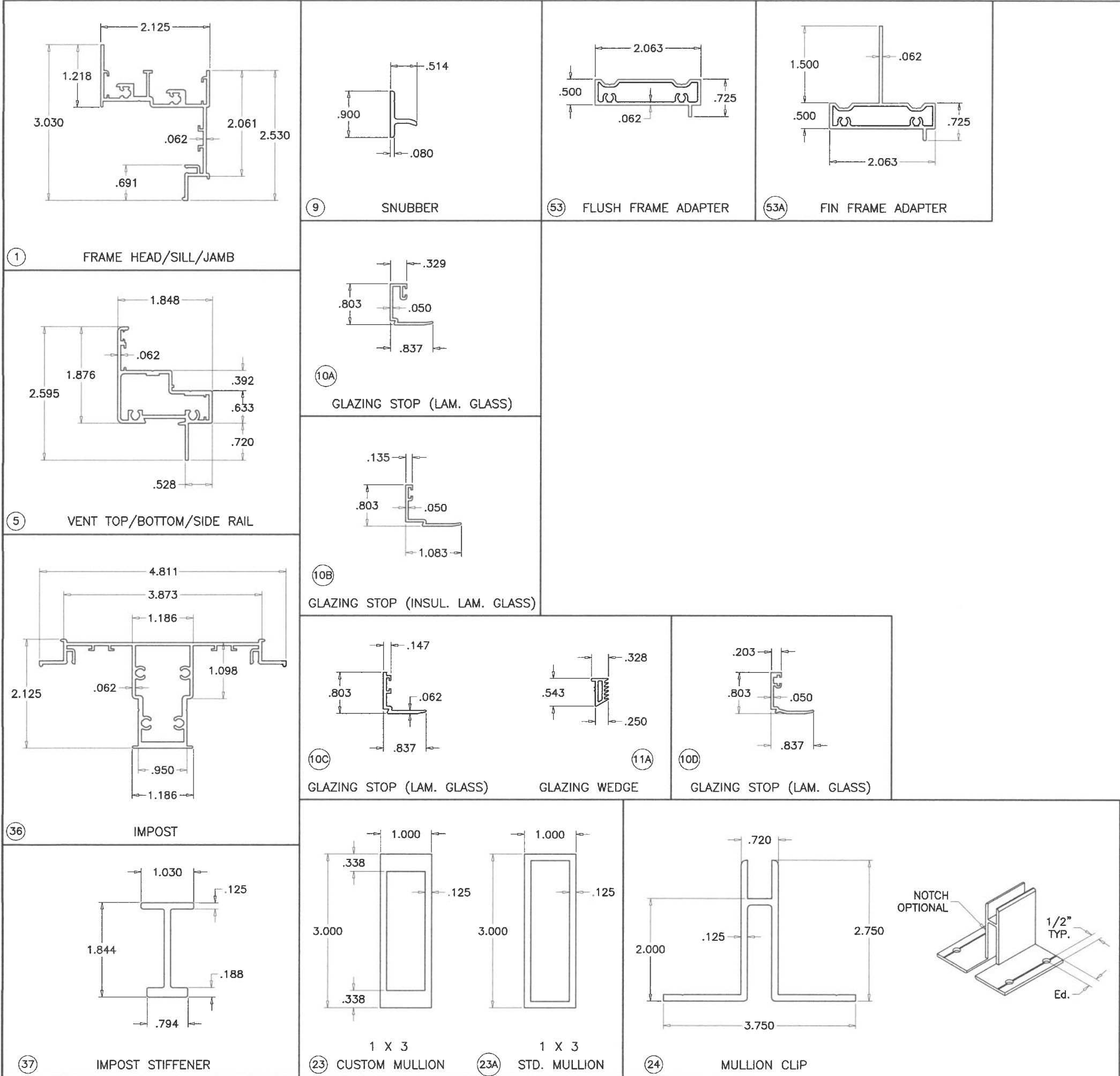
S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

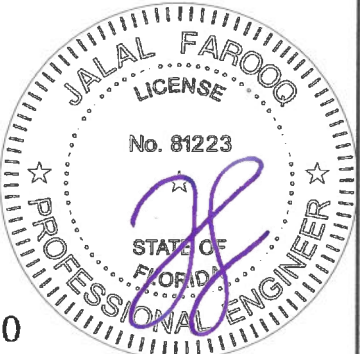
revisions:	
no	date by description

date: 09-30-21
 scale: 1/2" = 1"
 dr. by: TARIQ
 chk. by:

drawing no.
21-68F
 sheet 8 of 12



Sealed: 7/17/2026



FL #41000

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 262-6978
FAX. (305) 262-6978
WWW.AFCENG.COM

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

revisions:	
no	date by description

date: 09-30-21	scale: 1/2" = 1"	dr. by: TARIQ	chk. by:
drawing no. 21-68F		sheet 9 of 12	

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES5001	1	FRAME HEAD/SILL/JAMB	6063-T6	-
5	ES5002	1/ VENT	VENT TOP/BOTTOM/SIDE RAIL	6063-T6	-
9	ES5004	2/ VENT	SNUBBERS, 2-1/2" LONG	6063-T6	-
10A	ES1103	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T5	-
10B	-	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T5	-
10C	ES1008	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T6	-
10D	ES-1017	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T6	-
11	27-425	AS REQD.	GLAZING GASKET	EPDM	DUROMETER 60±5 SHORE 'A'
11A	ES1010	AS REQD.	GLAZING WEDGE	SOFT PVC	DUROMETER 65±5 SHORE 'A'
11B	5008A	AS REQD.	GLAZING WEDGE	SILICONE	DUROMETER 65±5 SHORE 'A'
12	-	AS REQD.	FRAME & VENT ASSEMBLY SCREWS	-	#10 X 1-1/2" PH SMS
12A	-	AS REQD.	FLUSH/FIN ADAPTER ASSEMBLY SCREWS	-	#10 X 1" PH SMS
13	-	2/ SNUBBER	SNUBBER INSTALLATION SCREWS	-	#8 X 1/2" PH SMS
14	E202	AS REQD.	OUTER WEATHERSTRIPPING (POLYPROPYLENE BASE, TPE BULB)	-	DUROMETER 65 SHORE 'A'
15	ES5005	AS REQD.	INNER WEATHERSTRIPPING	EPDM	DUROMETER 60 SHORE 'A'
16	PJS40-SS	AS REQD.	CORNER LOCK	ST. STEEL	SULLIVAN & ASSOCIATES
17	301SS	2/ VENT	4 BAR HINGES-HEAVY DUTY	-	TRUTH HARDWARE
18	-	3/ HINGE	HINGE MOUNTING SCREWS AT FRAME	-	#10 X 1/2" PH SMS
18A	-	4/ HINGE	HINGE MOUNTING SCREWS AT VENT	-	#10 X 1/2" PH SMS
19	23 SERIES	1/ VENT	SINGLE ARM OPERATOR (AT 8-1/2" FROM ENDS)	-	TRUTH HARDWARE
19A	NOVA	1/ VENT	SINGLE ARM OPERATOR (AT 8-1/2" FROM ENDS)	-	INTERLOCK
20	-	4/ OPER.	OPERATOR MOUNTING SCREWS	-	#10-24 X 3/8" PH SMS
20A	-	8/ OPER.	OPERATOR MOUNTING SCREWS	-	#8 X 1/2" FH SMS
21	30175	1/ OPER.	13-3/4" LONG TRACK	ST. STEEL	TRUTH HARDWARE
21A	-	1/ OPER.	OPERATOR TRACK	ST. STEEL	INTERLOCK
22	-	2/ TRACK	TRACK MOUNTING SCREWS	-	#10 X 3/8" PH SS SMS
22A	-	3/ TRACK	TRACK MOUNTING SCREWS	-	#8 X 1/2" FH SMS
23	-	AS REQD.	1X3 CUSTOM MULLION	6063-T6	-
23A	-	AS REQD.	1X3 STANDARD MULLION	6063-T6	-
24	-	AS REQD.	MULLION CLIP	6063-T6	-
25	27-372	2/ LITE	SETTING BLOCK, 7/16" X 3/16" X 3-1/2" LONG	EPDM	AT 6" FROM EACH END, DUROMETER 75±5 SHORE A
25A	NS-25-B04A S	2/ LITE	SETTING BLOCK, 5/16" X 5/8" X 4" LONG	EPDM	AT 6" FROM EACH END, DUROMETER 75±5 SHORE A
26	-	8/ LITE	TAPE SPACER (1/4" X 1/2")	FOAM	AT 6" FROM GLASS ENDS
26A	-	AS REQD.	GLAZING TAPE (3/16" X 1/2")	POLYURETHANE	-
30	-	OPTIONAL	5/16" BOX SCREEN	-	-
33	ES5009	2/ VENT	ANTI SAG SKATE, 2" LONG	NYLON/CELCON	M&M PLASTICS
34	-	2/ SKATE	SKATE MOUNTING SCREWS	-	#6 x 1/2" PHSMS
36	ES5003	1	IMPOST	6063-T6	
37	ES5010	AS RQD.	IMPOST STIFFENER	6063-T6	
45	CL01-0500	-	MULTI-POINT LOCK MECHANISM		INTERLOCK
46	-	-	LOCK FASTENER PLATE		-
47	-	2/ LOCK	LOCK FASTENER SCREWS		THREAD FORMING
48	CL01-2250-XXX	-	SNAP ON COVER		-
49	CL01-1050-XXX	-	SNAP ON HANDLE		-
50	-	-	GUIDE (ACETAL)		-
51	-	-	KEEPER (ACETAL)		-
52	-	-	LOCK BAR (304 ST/ST)		-
53	ES-5017	AS REQD.	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL
53A	ES-5023	AS REQD.	FIN FRAME ADAPTER	6063-T6	OPTIONAL
54	-	1/ VENT	LOCKING HANDLE	-	SULLIVAN & ASSOC.
55	-	2/ VENT	LOCKING CAM (AT 11-1/2" & 50-1/2" FROM BOTTOM)	-	SULLICAN & ASSOC.
56	-	2/ LOCK	LOCK MOUNTING SCREWS	-	#6-32 x 1/2 PH MS
57	ES5013	1/VENT	LOCK HANDLE/CAM CONNECTOR	-	1/4" x 1/2" ALUM. BAR
58	ES5011	2/ BAR	CONNECTOR SCREWS	-	CUSTOM
59	CS-200K-SS	2/ VENT	KEEPERS (AT 12" & 51" FROM BOTTOM)	ST STEEL	SULLIVAN & ASSOC.
60	-	2/ KEEPER	KEEPER MOUNTING SCREWS	-	#10 X 3/8" PH SMS

SEALANTS:

ALL FRAME AND VENT CORNERS AND INSTALLATION SCREWS SEALED WITH CLEAR/ALUMINUM COLORED SEALANT.



Sealed: 7/17/2026

FL #41000

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL (305) 264-8100
FAX (305) 262-6978
WWW.AFCENG.COM

COMP-ANL\21-68F-ES

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

revisions:

no	date	by	description

date: 09-30-21

scale: 1/2" = 1"

dr. by: TARIQ

chk. by:

drawing no.

21-68F

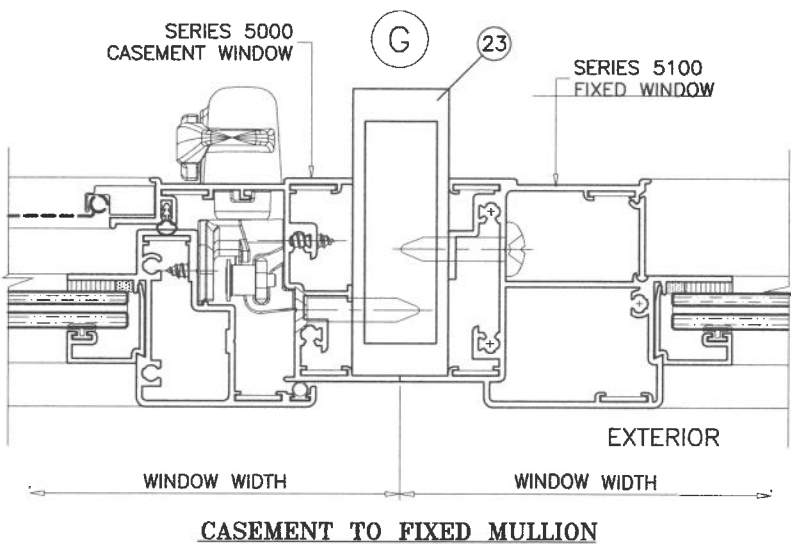
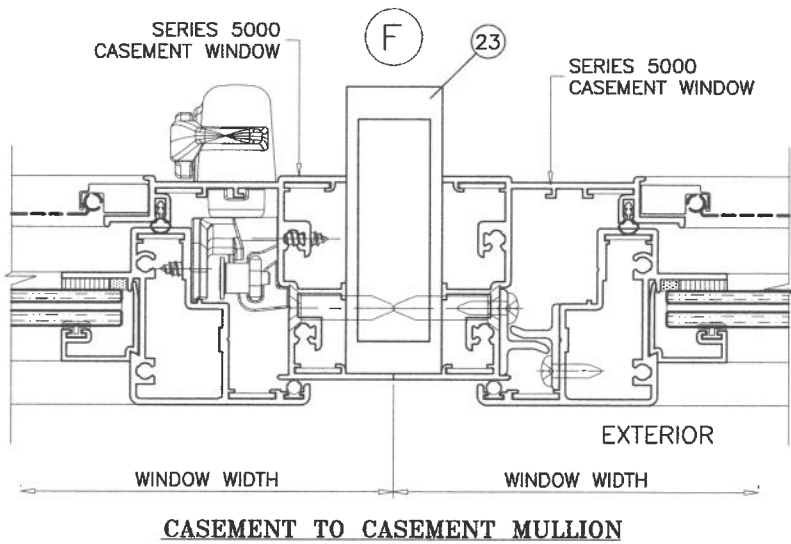
sheet 10 of 12

MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		1 X 3 STD. MULL	1 X 3 CUSTOM MULL
WIDTH (W)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
26-1/2"	58"	90.0	90.0
37"		90.0	90.0
42"		90.0	90.0
45"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
26-1/2"	63"	90.0	90.0
37"		90.0	90.0
42"		90.0	90.0
45"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
26-1/2"	74-1/4"	90.0	90.0
37"		90.0	90.0
42"		83.3	90.0
45"		79.4	90.0
48"		76.1	90.0
53-1/8"		71.7	90.0
62"		90.0	90.0
26-1/2"	76"	90.0	90.0
37"		85.0	90.0
42"		77.2	90.0
45"		73.5	90.0
48"		70.4	88.3
51"		67.8	85.0

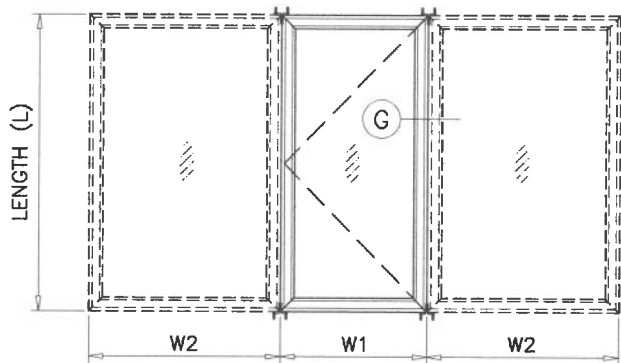
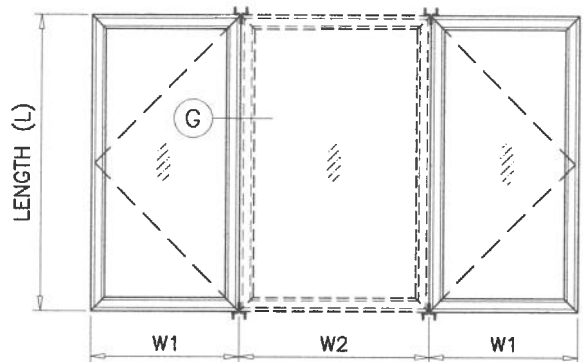
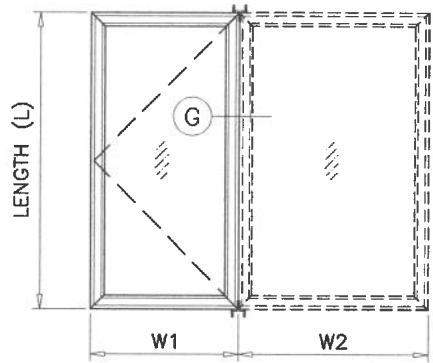
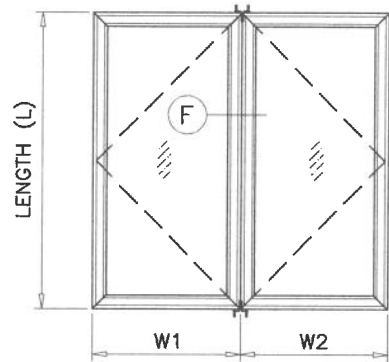
MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		1 X 3 STD. MULL	1 X 3 CUSTOM MULL
WIDTH (W)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
30"	54"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
60"		90.0	90.0
62"		90.0	90.0
30"	60"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
60"		90.0	90.0
62"		90.0	90.0
30"	66"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
59"		90.0	90.0
30"	72"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		84.5	90.0
54"		79.2	90.0
62"		90.0	90.0
30"	76"	90.0	90.0
36"		86.9	90.0
42"		77.2	90.0
48"		70.4	88.3
51"		67.8	85.0
62"		90.0	90.0

NOTES:

1. USE CHART ON THIS SHEET FOR SIDE BY SIDE CONNECTION CAPACITY OF WINDOW MULLION.
2. FOR CASEMENT WINDOW CAPACITY SEE SHEET 3 OF 12.
3. FOR FIXED WINDOW CAPACITY SEE SEPARATE APPROVAL.
4. LOWER VALUES FROM STEPS 1, 2 OR 3 WILL APPLY TO ENTIRE SYSTEM.



CLIPPED MULLIONS



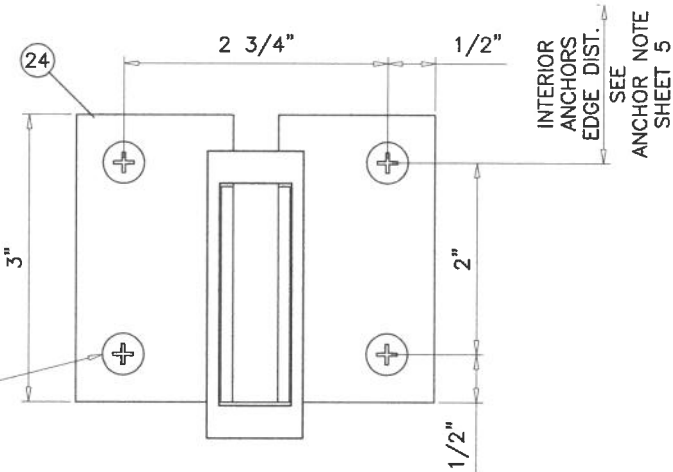
TYPICAL ELEVATIONS

SIDE BY SIDE WINDOWS

SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

TYPICAL ANCHORS
4 PER CLIP
SEE SHEET 4
FOR DESCRIPTION



Sealed: 7/17/2026



FL #41000

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

E.S. WINDOWS, LLC

3550 N.W. 49 STREET
MIAMI, FL. 33142

TEL. (305) 638-5151

FAX. (305) 638-5158

AL-FAROOQ CORPORATION

ENGINEERS & PRODUCT DEVELOPMENT

9360 SUNSET DRIVE, SUITE 220

MIAMI, FLORIDA 33173

TEL. (305) 264-8100

WWW.AFCENG.COM

af c

COMP-ANL\21-68F-ES

revisions:
no date by description

date: 09-30-21

scale: 1/2" = 1"

dr. by: TARIQ

chk. by:

drawing no.

21-68F

sheet 12 of 12