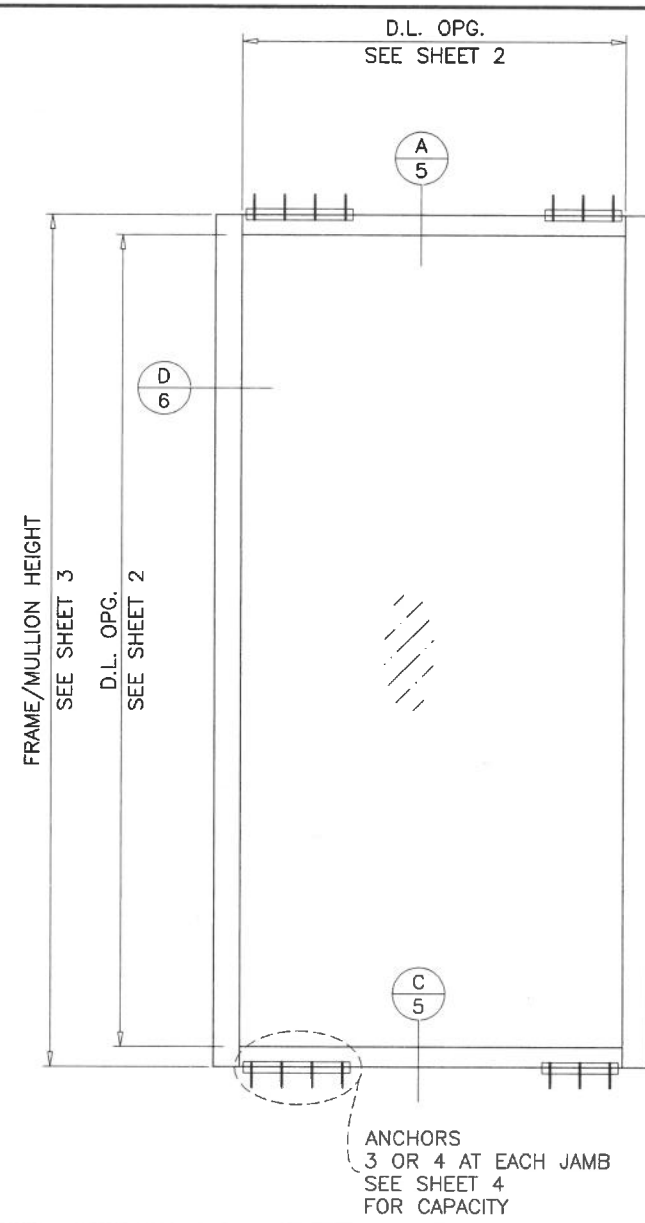
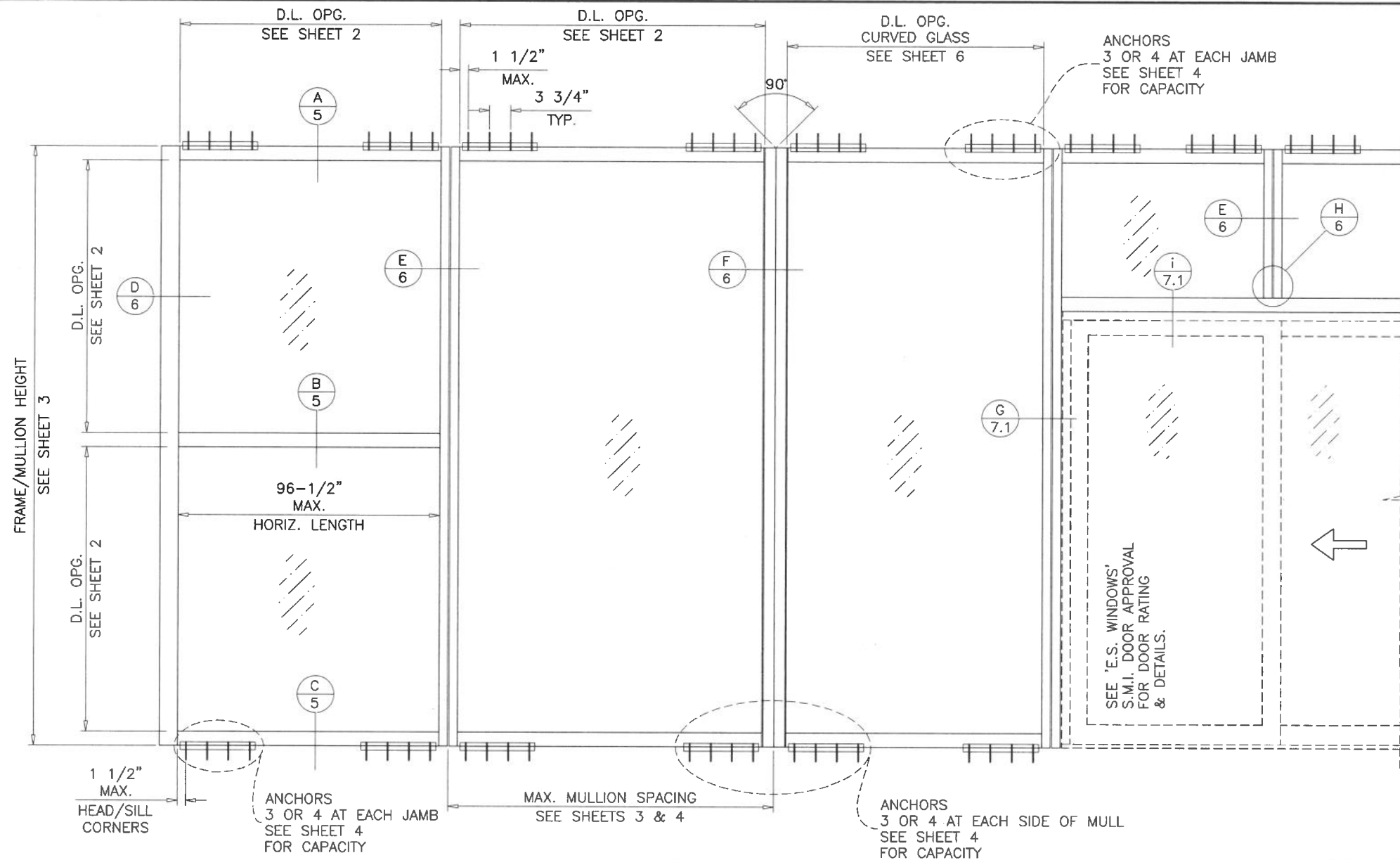




TYPICAL ELEVATIONS

ES-WW8701 ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM MAY BE USED IN CONJUNCTION WITH F.B.C. APPR'D SMALL MISSILE IMPACT RESISTANT DOORS. LOWER DESIGN PRESSURE FROM STOREFRONT OR DOOR APPROVAL 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).

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.

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.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND PRESSURE REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR GLASS DESIGN LOAD CAPACITY.
- STEP 3** CHECK MULLION DESIGN LOAD CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 4 SELECT ANCHOR OPTION WITH DESIGN LOAD CAPACITY MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.
- STEP 6** FOR UNANCHORED JAMBS, USING SHEET 6, DETERMINE THE MIN. & MAX. GAP DIMENSIONS.
- STEP 7** WHEN USING THIS SYSTEM WITH DOORS, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE DOOR SHALL APPLY.

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.

THIS SYSTEM IS RATED FOR SMALL MISSILE IMPACT. F.B.C. APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

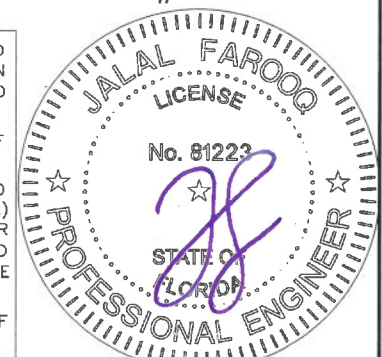
PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

INSUL. LAM. GLASS
SMALL MISSILE IMPACT

Sealed: 9/4/2026

FL #29069

- 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
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\19-08F-ES

ES-WW8701 ALUM WINDOW WALL SYSTEM (S.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
	A	12.04.20		UPDATED TO 2020 FBC
	B	09.27.23		UPDATED TO 2023 FBC
	C	02.16.26		GENERAL REVISION
	D	08.14.26		GENERAL REVISION

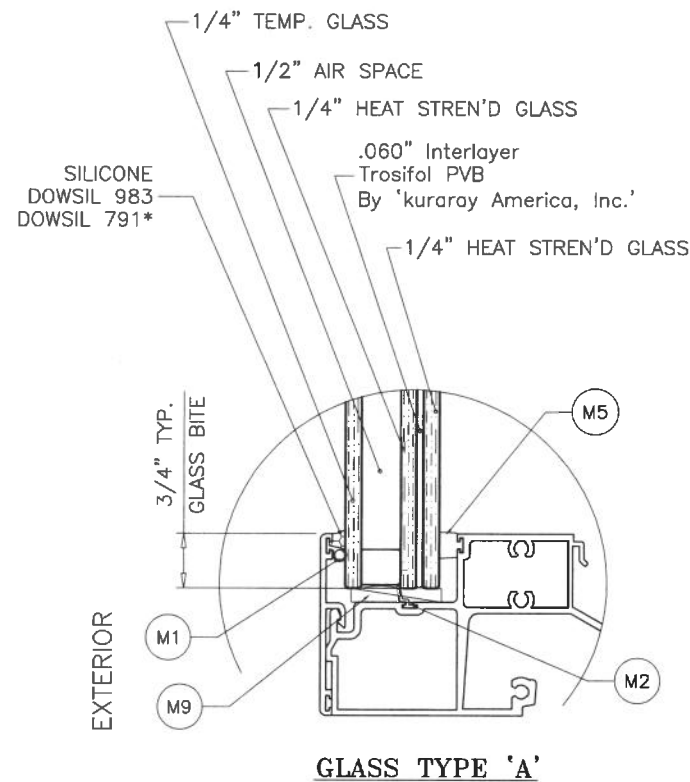
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drawing no. 19-08F

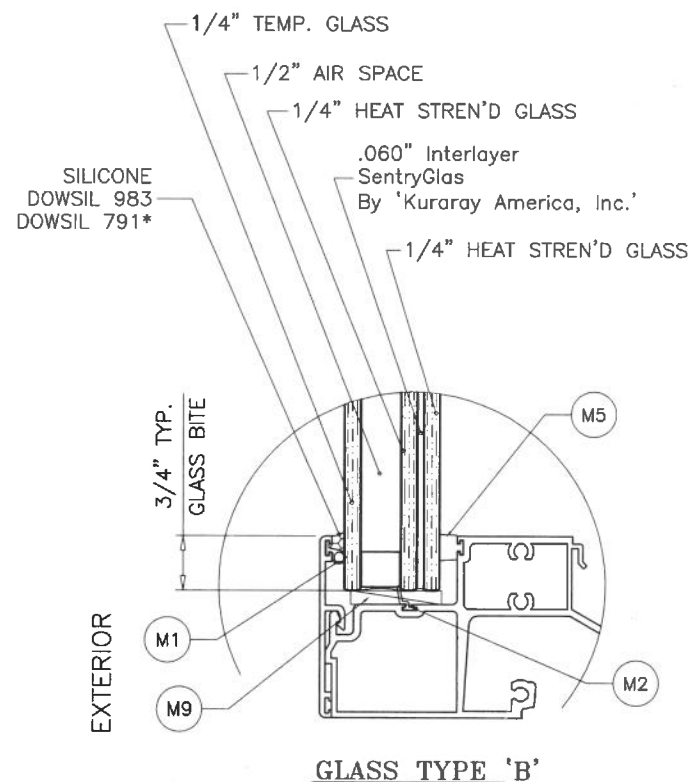
sheet 1 of 9

GLASS DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'A'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+)	INT. (-)
44-3/4"	91"	105.0	105.0
50-3/4"		105.0	105.0
56-3/4"		105.0	105.0
62-3/4"		95.5	95.5
68-3/4"		87.5	87.5
44-3/4"	103"	105.0	105.0
50-3/4"		105.0	105.0
56-3/4"		105.0	105.0
62-3/4"		95.5	95.5
68-3/4"		75.1	75.1
44-3/4"	109"	105.0	105.0
50-3/4"		105.0	105.0
56-3/4"		105.0	105.0
62-3/4"		82.3	82.3
65"		79.4	79.4
44-3/4"	115"	105.0	105.0
50-3/4"		105.0	105.0
56-3/4"		105.0	105.0
60-3/4"		85.0	85.0
44-3/4"	117-1/2"	85.0	85.0
50-3/4"		85.0	85.0
56-3/4"		85.0	85.0
60-3/4"		85.0	85.0
44-3/4"	121"	85.0	85.0
50-3/4"		85.0	85.0
56-3/4"		85.0	85.0
44-3/4"	137"	85.0	85.0
50-3/4"		85.0	85.0
44-3/4"	141"	85.0	85.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLASS TYPE 'A'



GLASS TYPE 'B'

GLAZING OPTIONS

*NOTE:
FOR DOWSIL 791 SILICONE LIMIT MAX. D.L.O AREA TO 55.96 SQ. FT.
FOR CURVED GLASS LIMIT MAX. D.L.O AREA TO 55.96 SQ. FT.

1/2" 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

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-16 (3 SEC. GUSTS).

GLASS DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'B'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+)	INT. (-)
50-3/4"	91"	125.0	125.0
56-3/4"		125.0	125.0
62-3/4"		113.6	113.6
68-3/4"		104.2	104.2
74-3/4"		85.0	85.0
80-3/4"		85.0	85.0
86-3/4"		85.0	85.0
92-3/4"		82.6	82.6
98-3/4"		82.6	82.6
50-3/4"	115"	125.0	125.0
56-3/4"		125.0	125.0
60-3/4"		113.6	113.6
62-3/4"		113.6	113.6
68-3/4"		104.2	104.2
74-3/4"		85.0	85.0
80-3/4"		85.0	85.0
86-3/4"		85.0	85.0
92-3/4"		81.0	81.0
98-3/4"		76.1	76.1
50-3/4"	133"	125.0	125.0
56-3/4"		125.0	125.0
62-3/4"		113.6	113.6
68-3/4"		85.0	85.0
74-3/4"		85.0	85.0
80-3/4"		85.0	85.0
86-3/4"		85.0	85.0
92-3/4"		81.0	81.0
50-3/4"	137"	125.0	125.0
56-3/4"		123.0	123.0
62-3/4"		85.0	85.0
68-3/4"		85.0	85.0
74-3/4"		85.0	85.0
80-3/4"		85.0	85.0
86-3/4"		85.0	85.0
92-3/4"		81.0	81.0
50-3/4"	141"	125.0	125.0
56-3/4"		123.0	123.0
62-3/4"		85.0	85.0
44-3/4"	142"	125.0	125.0
50-3/4"		125.0	125.0
56-3/4"		121.0	121.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



Sealed: 9/4/2026

FL #29069

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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(C.A.N. 3538)

ES-WW8701 ALUM WINDOW WALL SYSTEM (S.M.I.)

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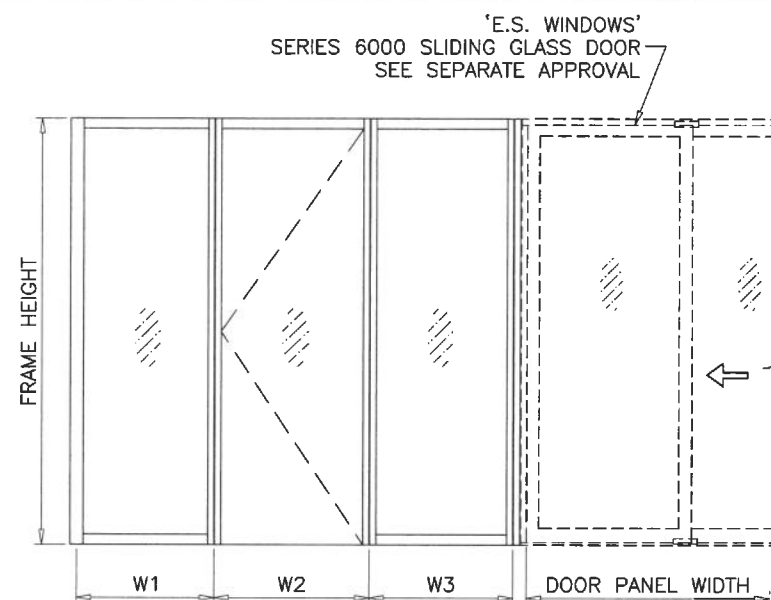
revisions:

no	date	by	description

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chk. by:

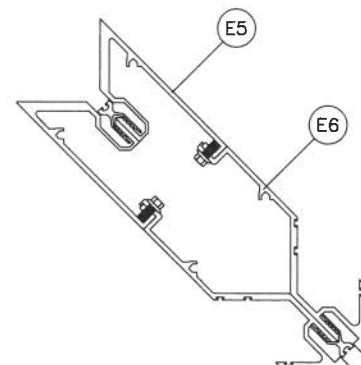
drawing no.
19-08F
sheet 2 of 9

MULLION DESIGN LOAD CAPACITY-PSF WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULL 'MC'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
48"	96"	125.0	125.0
54"		125.0	125.0
60"		125.0	125.0
66"		125.0	125.0
72"		125.0	125.0
48"	102"	125.0	125.0
54"		125.0	125.0
60"		125.0	125.0
66"		125.0	125.0
72"		125.0	125.0
48"	108"	125.0	125.0
54"		125.0	125.0
60"		125.0	125.0
66"		125.0	125.0
72"		125.0	125.0
48"	114"	125.0	125.0
54"		125.0	125.0
60"		125.0	125.0
66"		125.0	125.0
72"		125.0	125.0
48"	120"	125.0	125.0
54"		125.0	125.0
60"		125.0	125.0
66"		125.0	125.0
72"		125.0	125.0
48"	126"	125.0	125.0
54"		125.0	125.0
60"		125.0	125.0
66"		124.8	124.8
48"	132"	125.0	125.0
54"		125.0	125.0
60"		123.7	123.7
66"		113.3	113.3
48"	138"	125.0	125.0
54"		124.7	124.7
60"		112.9	112.9
48"	142"	125.0	125.0
54"		117.6	117.6
60"		106.4	106.4
48"	147"	122.7	122.7
54"		109.6	109.6
60"		99.1	99.1



WIDTH (W) = W1
AT JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT MULLION



$\sum x$	$\sum x^2$
21.3134	4.9211

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

Sealed: 9/4/2026

FL #29069



ES-WW8701 ALUM WINDOW WALL SYSTEM (S.M.I.)

E.S. WINDOWS, LLC

L.S. WINDOWS, LLC
3550 N.W. 49 STREET

MIAMI, FL. 33142

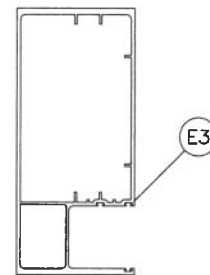
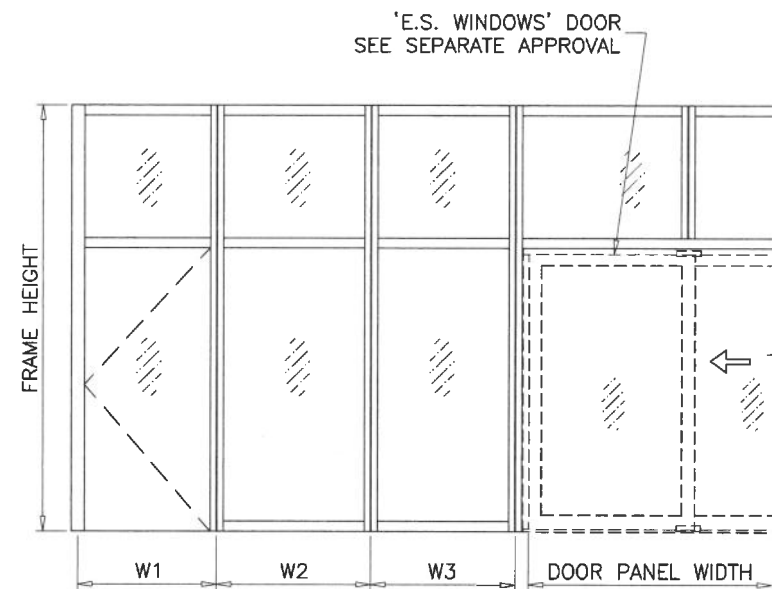
TEL. (305) 638-5151 FAX. (305) 638-5158

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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MIAMI, FLORIDA 33173 (C.A.N. 3538)
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COMP-ANL\19-08F-ES

JAMB & MULLION DESIGN LOAD CAPACITY – PSF WITH INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMBS		MULLIONS			
		JAMB 'J1'		MULL 'M1'		MULL 'M1A'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
48"	120"	85.0	85.0	85.0	85.0	85.0	85.0
54"		85.0	85.0	85.0	85.0	85.0	85.0
60"		85.0	85.0	85.0	85.0	85.0	85.0
66"		85.0	85.0	85.0	85.0	85.0	85.0
72"		85.0	85.0	85.0	85.0	85.0	85.0
48"	126"	85.0	85.0	85.0	85.0	85.0	85.0
54"		85.0	85.0	85.0	85.0	85.0	85.0
60"		85.0	85.0	85.0	85.0	85.0	85.0
66"		85.0	85.0	85.0	85.0	85.0	85.0
48"	132"	85.0	85.0	85.0	85.0	85.0	85.0
54"		85.0	85.0	85.0	85.0	85.0	85.0
60"		85.0	85.0	85.0	85.0	85.0	85.0
66"		85.0	85.0	82.9	82.9	85.0	85.0
48"	138"	85.0	85.0	85.0	85.0	85.0	85.0
54"		85.0	85.0	85.0	85.0	85.0	85.0
60"		85.0	85.0	80.1	80.1	85.0	85.0
66"		85.0	85.0	72.8	72.8	85.0	85.0
48"	142"	85.0	85.0	85.0	85.0	85.0	85.0
54"		85.0	85.0	83.5	83.5	85.0	85.0
60"		85.0	85.0	75.2	75.2	85.0	85.0
66"		85.0	85.0	68.3	68.3	85.0	85.0
48"	146"	85.0	85.0	85.0	85.0	85.0	85.0
54"		85.0	85.0	78.5	78.5	85.0	85.0
60"		85.0	85.0	70.6	70.6	85.0	85.0
64"		85.0	85.0	66.2	66.2	85.0	85.0

NOTE:
FOR ADDITIONAL SIZES, SEE LARGE MISSILE IMPACT APPROVAL
OF THIS PRODUCT.



$\sum x^4$	$\sum x^3$
21.1700	5.4968

	I_x IN ⁴	S_x IN ³
ALUMINUM	21.7597	5.4810
STEEL	5.2083	2.0833
TOTAL $I_x \text{ ALUM} + I_x \text{ STL} \times 2.9$	36.7142	

Sealed: 9/4/2026

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(C.A.N. 3538)
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HEAD/SILL ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHOR TYPE 'A'		ANCHOR TYPE 'B'		ANCHOR TYPE 'AA'			ANCHOR TYPE 'BB'	
WIDTH (W)	FRAME HEIGHT	'A3'	'A4'	'B3'	'B4'	'AA3'	'AA4'	'AA5'	'BB3'	'BB4'
48"	96"	122.8	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0
54"		109.2	125.0	125.0	125.0	122.5	125.0	125.0	125.0	125.0
60"		98.2	125.0	125.0	125.0	110.3	125.0	125.0	125.0	125.0
66"		89.3	119.1	125.0	125.0	100.2	125.0	125.0	125.0	125.0
72"		81.9	109.2	119.9	125.0	91.9	122.5	125.0	125.0	125.0
78"		75.6	85.0	85.0	85.0	84.8	85.0	85.0	85.0	85.0
84"		70.2	85.0	85.0	85.0	78.8	85.0	85.0	85.0	85.0
90"		65.5	85.0	85.0	85.0	73.5	85.0	85.0	85.0	85.0
96"		61.4	81.0	85.0	85.0	68.9	85.0	85.0	85.0	85.0
102"		57.8	77.0	84.6	85.0	64.9	85.0	85.0	85.0	85.0
48"	102"	115.6	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0
54"		102.7	125.0	125.0	125.0	115.3	125.0	125.0	125.0	125.0
60"		92.5	123.3	125.0	125.0	103.8	125.0	125.0	125.0	125.0
66"		84.1	112.1	123.1	125.0	94.3	125.0	125.0	125.0	125.0
72"		77.0	102.7	112.8	125.0	86.5	115.3	125.0	125.0	125.0
78"		71.1	85.0	85.0	85.0	79.8	85.0	85.0	85.0	85.0
84"		66.0	85.0	85.0	85.0	74.1	85.0	85.0	85.0	85.0
90"		61.6	85.0	85.0	85.0	69.2	85.0	85.0	85.0	85.0
96"		57.8	77.0	81.0	85.0	64.9	85.0	85.0	85.0	85.0
102"		54.4	72.5	79.6	85.0	61.0	85.0	85.0	85.0	85.0
48"	108"	109.2	125.0	125.0	125.0	122.5	125.0	125.0	125.0	125.0
54"		97.0	125.0	125.0	125.0	108.9	125.0	125.0	125.0	125.0
60"		87.3	116.4	125.0	125.0	98.0	125.0	125.0	125.0	125.0
66"		79.4	105.8	116.2	125.0	89.1	118.8	125.0	125.0	125.0
72"		72.8	97.0	106.5	125.0	81.7	108.9	125.0	125.0	125.0
78"		67.2	85.0	85.0	85.0	75.4	85.0	85.0	85.0	85.0
84"		62.4	83.2	85.0	85.0	70.0	85.0	85.0	85.0	85.0
90"		58.2	77.6	85.0	85.0	65.3	85.0	85.0	85.0	85.0
96"		54.6	72.8	79.9	85.0	61.3	81.7	85.0	85.0	85.0
102"		51.4	68.5	75.2	85.0	57.7	76.9	76.9	81.0	81.0
48"	114"	103.4	125.0	125.0	125.0	116.1	125.0	125.0	125.0	125.0
54"		91.9	122.6	125.0	125.0	103.2	125.0	125.0	125.0	125.0
60"		82.7	110.3	121.1	125.0	92.9	123.8	125.0	125.0	125.0
66"		75.2	100.3	110.1	125.0	84.4	112.6	125.0	125.0	125.0
72"		68.9	91.9	100.9	125.0	77.4	103.2	125.0	125.0	125.0
78"		63.6	84.8	85.0	85.0	71.4	85.0	85.0	85.0	85.0
84"		59.1	78.8	85.0	85.0	66.3	85.0	85.0	85.0	85.0
90"		55.2	73.5	80.7	85.0	61.9	82.5	82.5	85.0	85.0
96"		51.7	68.9	75.7	85.0	58.0	77.4	77.4	85.0	85.0
102"		48.7	64.9	71.2	85.0	54.6	72.8	72.8	85.0	85.0
48"	120"	98.2	125.0	125.0	125.0	110.3	125.0	125.0	125.0	125.0
54"		87.3	116.4	125.0	125.0	98.0	125.0	125.0	125.0	125.0
60"		78.6	104.8	115.1	125.0	88.2	117.6	125.0	125.0	125.0
66"		71.4	95.3	104.6	125.0	80.2	106.9	125.0	125.0	125.0
72"		65.5	87.3	95.9	125.0	73.5	98.0	122.5	125.0	125.0
78"		60.5	80.6	85.0	85.0	67.9	85.0	85.0	85.0	85.0
84"		56.1	74.8	82.2	85.0	63.0	84.0	85.0	85.0	85.0
90"		52.4	69.9	76.7	85.0	58.8	78.4	85.0	85.0	85.0
96"		49.1	65.5	71.9	85.0	55.1	73.5	85.0	85.0	85.0
102"		46.2	61.6	67.7	85.0	51.9	69.2	85.0	85.0	85.0
48"	126"	93.6	124.7	125.0	125.0	105.0	125.0	125.0	125.0	125.0
54"		83.2	110.9	121.8	125.0	93.3	124.5	125.0	125.0	125.0
60"		74.8	99.8	109.6	125.0	84.0	112.0	125.0	125.0	125.0
66"		68.0	90.7	99.6	125.0	76.4	101.8	125.0	125.0	125.0
72"		62.4	83.2	85.0	85.0	70.0	85.0	85.0	85.0	85.0
78"		57.6	76.8	84.3	85.0	64.6	85.0	85.0	85.0	85.0
84"		53.5	71.3	78.3	85.0	60.0	80.0	85.0	85.0	85.0
90"		49.9	66.5	73.1	85.0	56.0	74.7	85.0	85.0	85.0
96"		46.8	62.4	68.5	81.0	52.5	70.0	85.0	85.0	85.0
102"		44.0	58.7	64.5	81.0	49.4	65.9	82.4	85.0	85.0

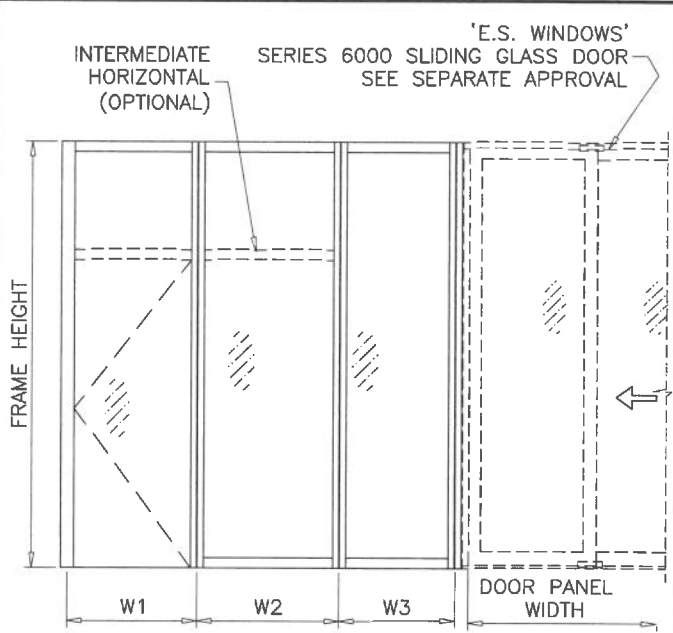
HEAD/SILL ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHOR TYPE 'A'		ANCHOR TYPE 'B'		ANCHOR TYPE 'AA'			ANCHOR TYPE 'BB'	
WIDTH (W)	FRAME HEIGHT	'A3'	'A4'	'B3'	'B4'	'AA3'	'AA4'	'AA5'	'BB3'	'BB4'
48"	132"	89.3	119.1	125.0	125.0	100.2	125.0	125.0	125.0	125.0
54"		79.4	105.8	116.2	125.0	89.1	118.8	125.0	125.0	125.0
60"		71.4	95.3	104.6	125.0	80.2	106.9	125.0	125.0	125.0
66"		65.0	86.6	95.1	125.0	72.9	97.2	121.5	125.0	125.0
72"		59.5	79.4	85.0	85.0	66.8	85.0	85.0	85.0	85.0
78"		55.0	73.3	80.5	85.0	61.7	82.3	85.0	85.0	85.0
84"		51.0	68.0	74.7	85.0	57.3	76.4	85.0	85.0	85.0
90"		47.6	63.5	69.7	85.0	53.5	71.3	85.0	85.0	85.0
96"		44.7	59.5	65.4	81.0	50.1	66.8	83.5	85.0	85.0
102"		42.0	56.0	61.5	81.0	47.2	62.9	78.6	85.0	85.0
48"	138"	85.4	113.9	125.0	125.0	95.9	125.0	125.0	125.0	125.0
54"		75.9	101.2	111.2	125.0	85.2	113.6	125.0	125.0	125.0
60"		68.3	91.1	100.1	125.0	76.7	102.3	125.0	125.0	125.0
66"		62.1	82.8	85.0	85.0	69.7	85.0	85.0	85.0	85.0
72"		56.9	75.9	83.4	85.0	63.9	85.0	85.0	85.0	85.0
78"		52.6	70.1	77.0	85.0	59.0	78.7	85.0	85.0	85.0
84"		48.8	65.1	71.5	85.0	54.8	73.1	85.0	85.0	85.0
90"		45.6	60.7	66.7	85.0	51.1	68.2	85.0	85.0	85.0
96"		42.7	56.9	62.5	81.0	47.1	63.9	79.9	85.0	85.0
102"		40.2	53.6	58.9	78.5	45.1	60.2	75.2	78.2	85.0
48"	142"	83.0	110.7	121.5	125.0	93.2	124.2	125.0	125.0	125.0
54"		73.8	98.4	108.0	125.0	82.8	110.4	125.0	125.0	125.0
60"		66.4	88.6	97.2	125.0	74.5	99.4	124.2	125.0	125.0
66"		60.4	80.5	85.0	85.0	67.8	85.0	85.0	85.0	85.0
72"		55.3	73.8	81.0	85.0	62.1	82.8	85.0	85.0	85.0
78"		51.1	68.1	74.8	85.0	57.3	76.5	85.0	85.0	85.0
84"		47.4	63.3	69.5	85.0	53.2	71.0	85.0	85.0	85.0
90"		44.3	59.0	64.8	85.0	49.7	66.3	82.8	85.0	85.0
96"		41.5	55.3	60.8	81.0	46.6	62.1	77.7	80.7	81.0
102"		38.7	51.6	57.1	77.5	43.5	58.4	74.2	77.7	81.0
48"	146"	80.2	106.9	117.4	125.0	90.0	120.0	125.0	125.0	125.0
54"		71.3	95.0	104.4	125.0	80.0	106.7	125.0	125.0	125.0
60"		64.2	85.5	93.9	125.0	72.0	96.0	120.8	125.0	125.0
66"		58.7	78.3	85.0	85.0	65.9	85.0	109.9	85.0	85.0
72"		53.8	71.3	78.3	85.0	60.0	80.0	100.7	85.0	85.0
78"		49.7	66.3	72.7	85.0	55.8	74.4	85.0	85.0	85.0
84"		46.1	61.5	67.6	85.0	51.8	69.1	85.0	85.0	85.0
90"		43.1	57.4	63.0	84.1	48.3	64.4	80.6	83.8	85.0
96"		40.4	53.8	59.1	78.8	45.3	60.4	75.5	78.5	81.0
102"		37.7	50.1	55.6	75.3	42.6	57.1	72.0	75.5	81.0
48"	147"	80.2	106.9	117.4	125.0	90.0	120.0	125.0	125.0	125.0
54"		71.3	95.0	104.4	125.0	80.0	106.7	125.0	125.0	125.0
60"		64.2	85.5	93.9	125.0	72.0	96.0	120.0	125.0	125.0

ANCHORS TYPES: SEE SHEET 5 FOR DESCRIPTION

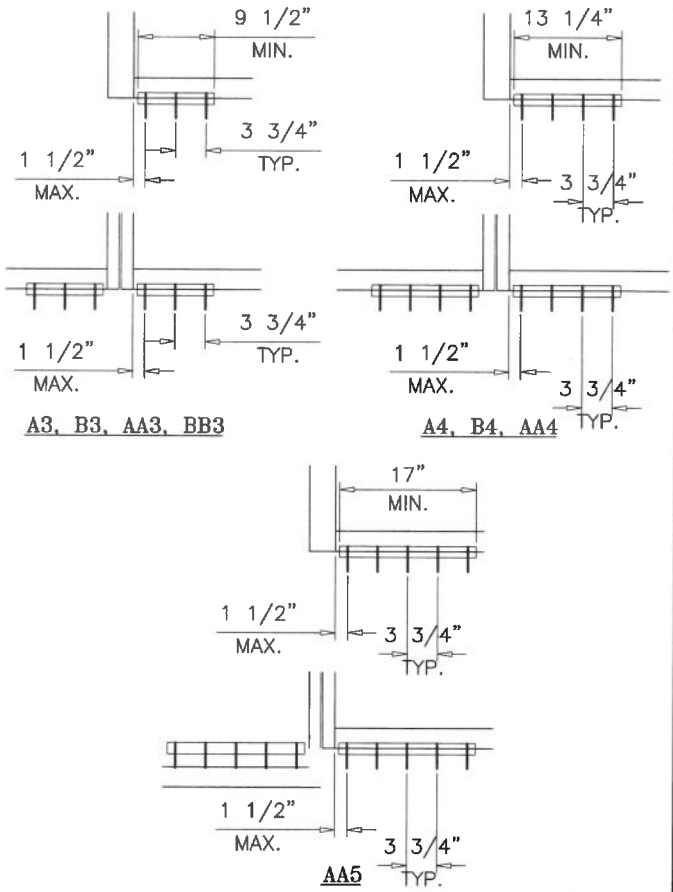
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 AA3 = (3) ANCHORS TYPE 'AA' AT EACH SIDE OF JAMB AND MULLION
 BB3 = (3) ANCHORS TYPE 'BB' AT EACH SIDE OF JAMB AND MULLION

A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 AA4 = (4) ANCHORS TYPE 'AA' AT EACH SIDE OF JAMB AND MULLION

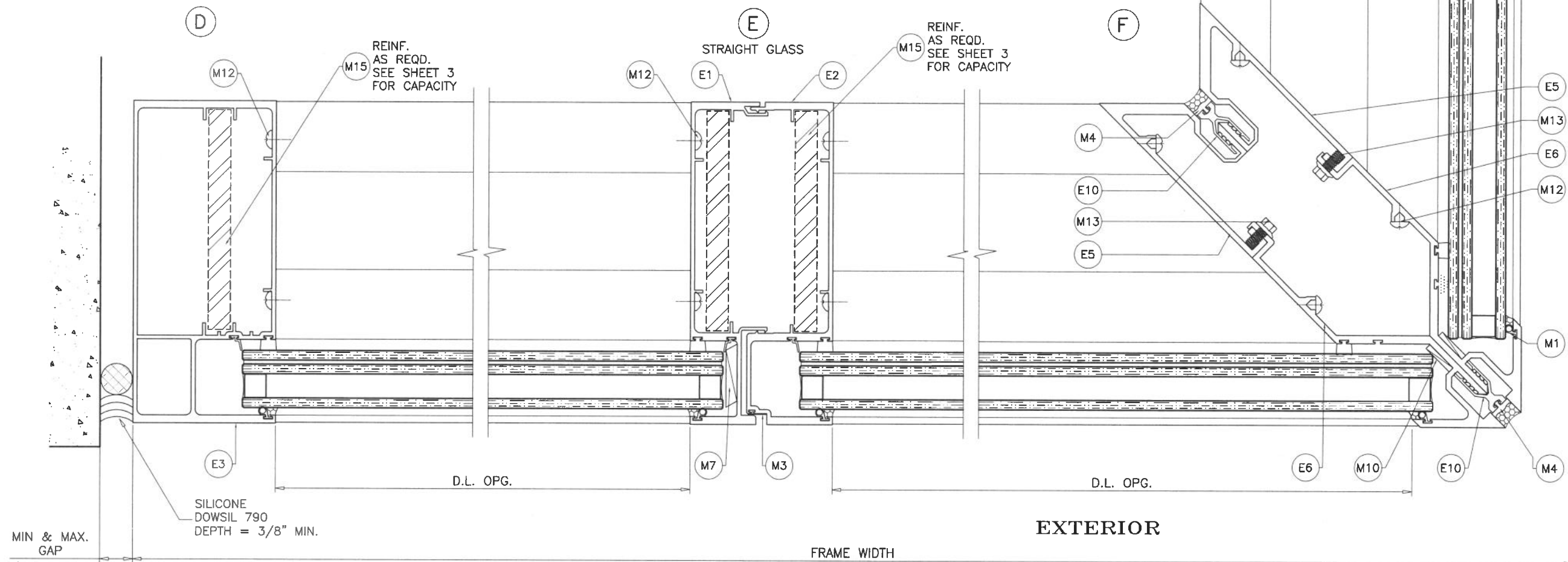
AA5 = (5) ANCHORS TYPE 'AA' AT EACH SIDE OF JAMB AND MULLION



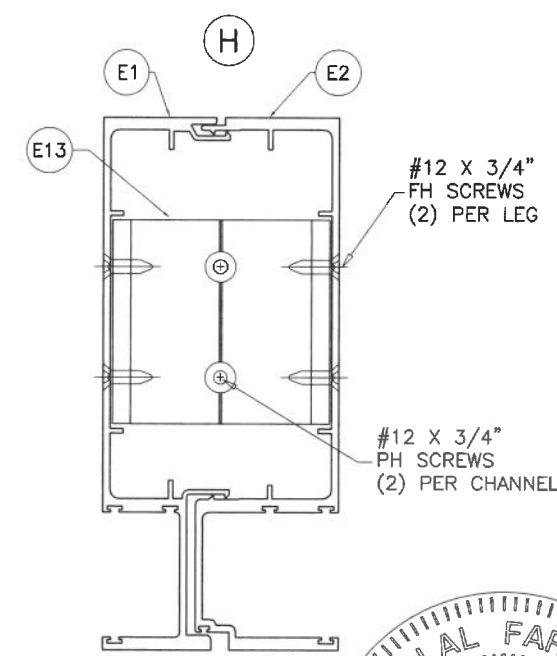
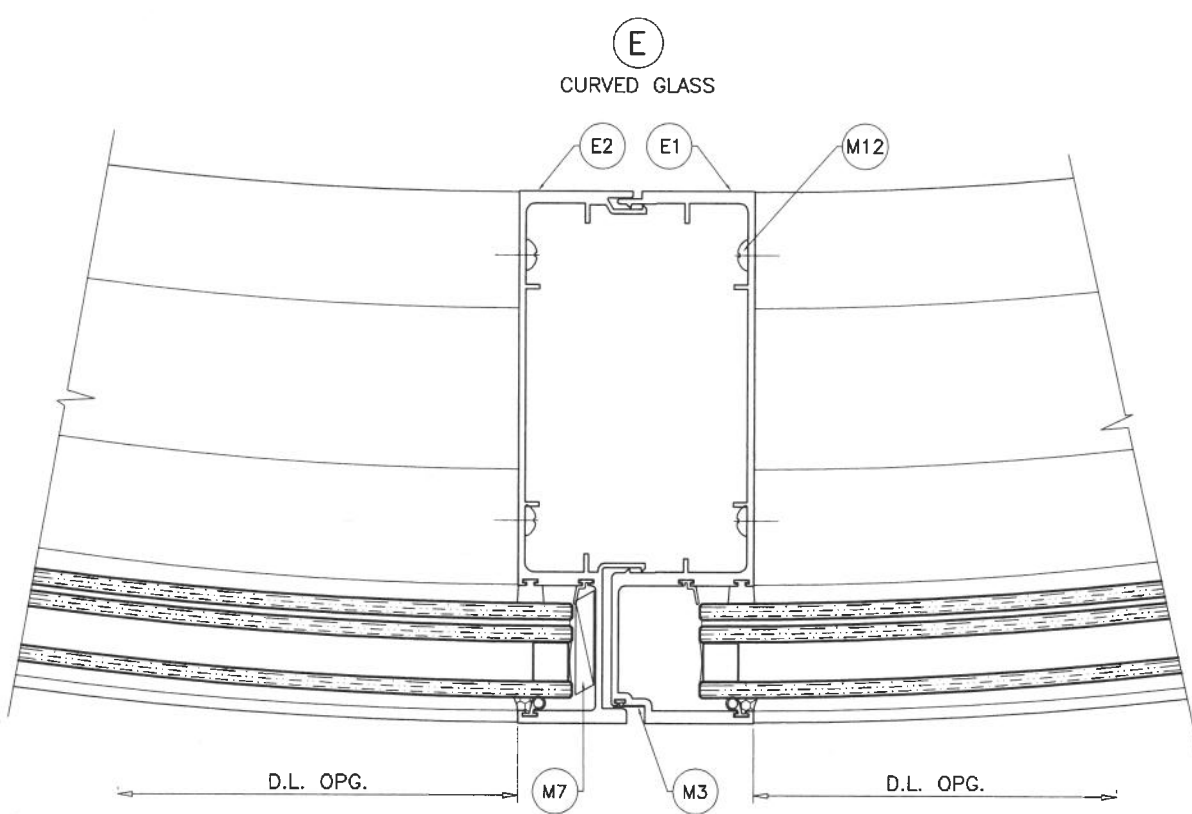
$$\text{WIDTH (W) AT JAMB} = W1 \quad \text{WIDTH (W) AT MULLION} = \frac{W2 + W3}{2}$$



revisions:		by description	
no	date		



EXTERIOR



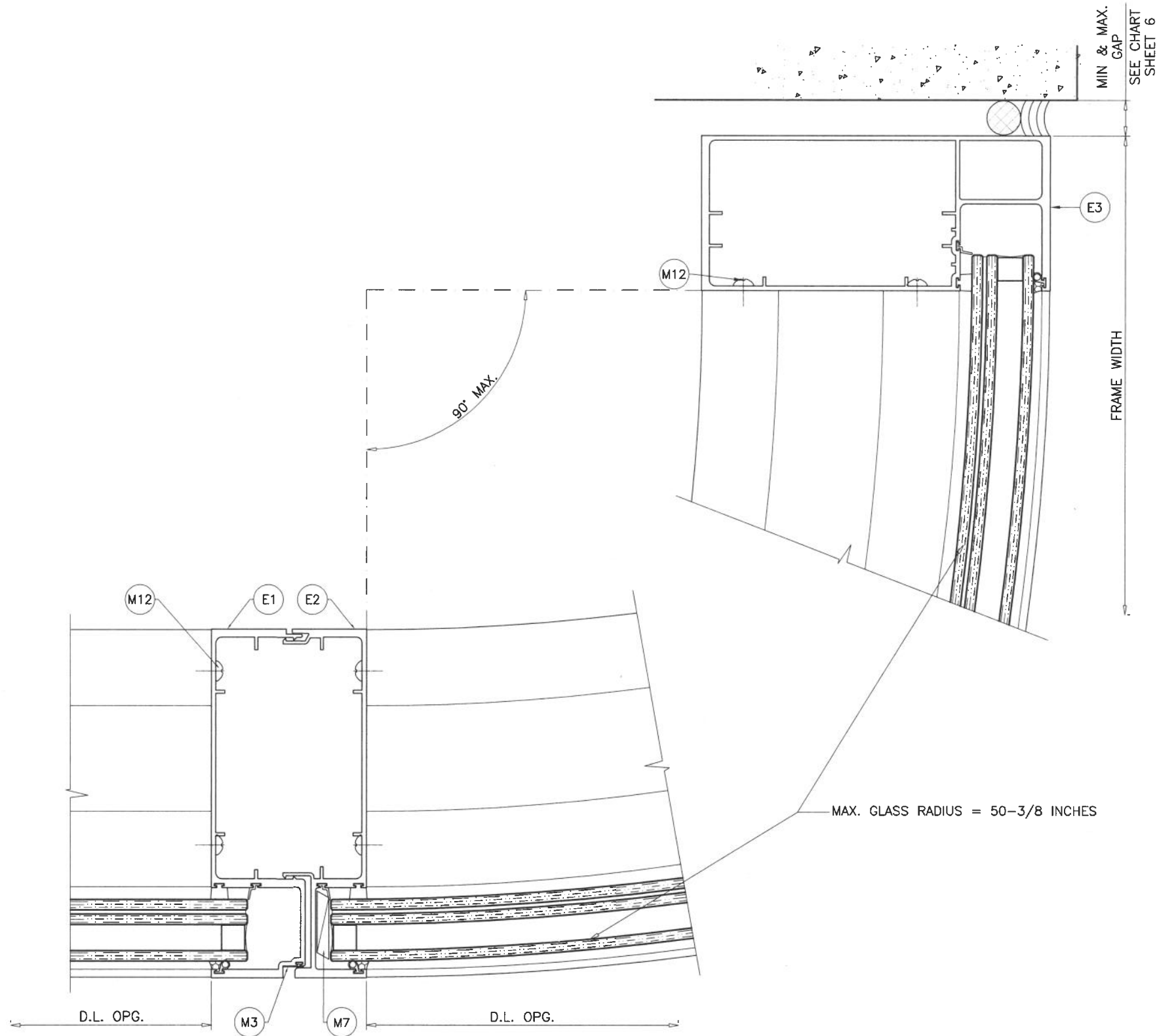
MAX. FRAME HEIGHT	GAP 100% STRETCH		GAP 50% STRETCH	
	MIN.	MAX.	MIN.	MAX.
96"	5/16"	3/4"	1/2"	3/4"
120"	7/16"	3/4"	5/8"	3/4"
146"	1/2"	3/4"	3/4"	3/4"
147"	1/2"	3/4"	-	-

NOTE:
 PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOW WALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
 REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.
 ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.
 GAPS LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OF RECORD BY THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.

Sealed: 9/4/2026

FL #29069





Sealed: 9/4/2026

FL #29069

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

ES-WW8701 ALUM WINDOW WALL SYSTEM (S.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

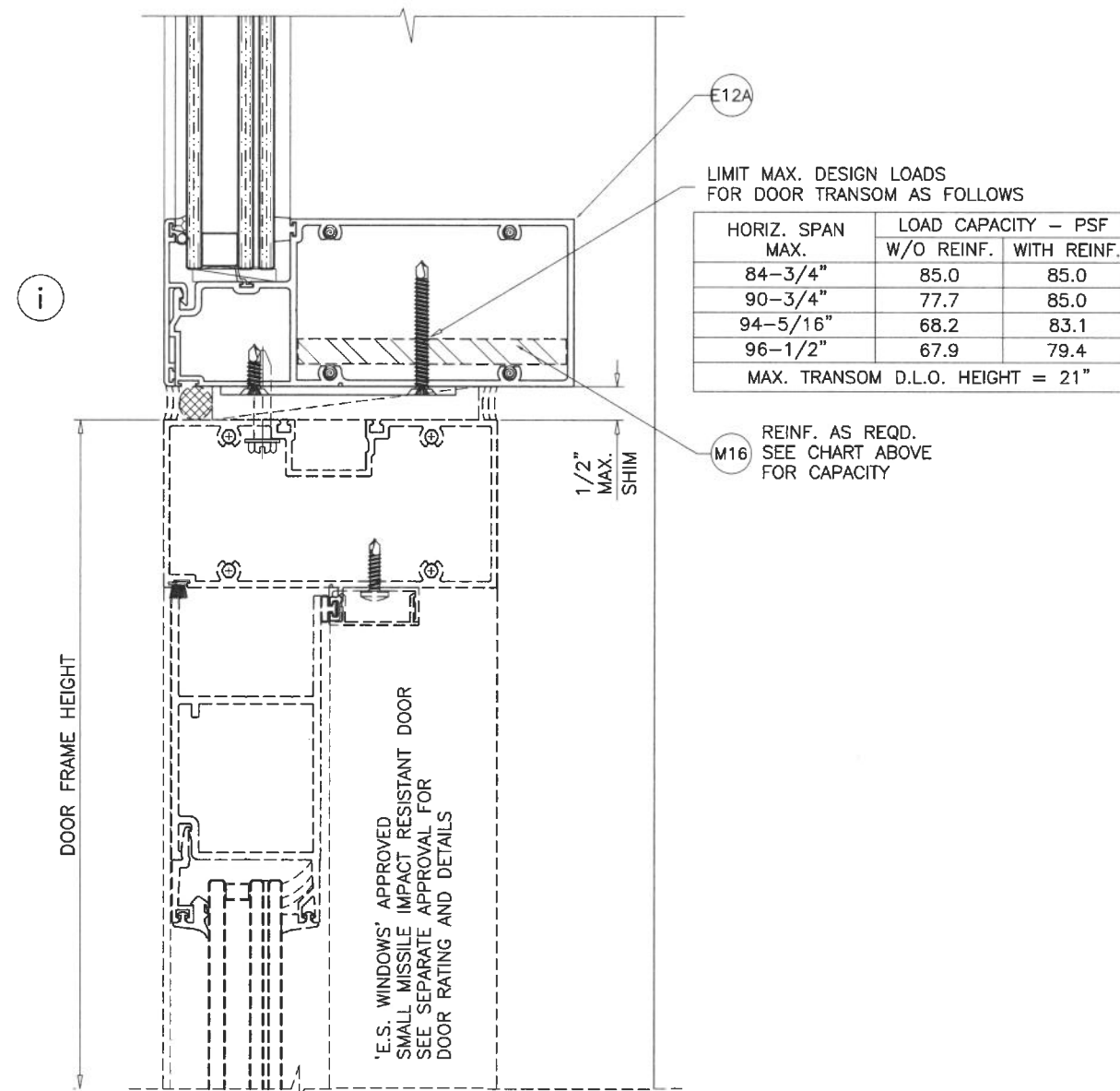
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dr. by: TARIQ	
chk. by:	

drawing no.

19-08F

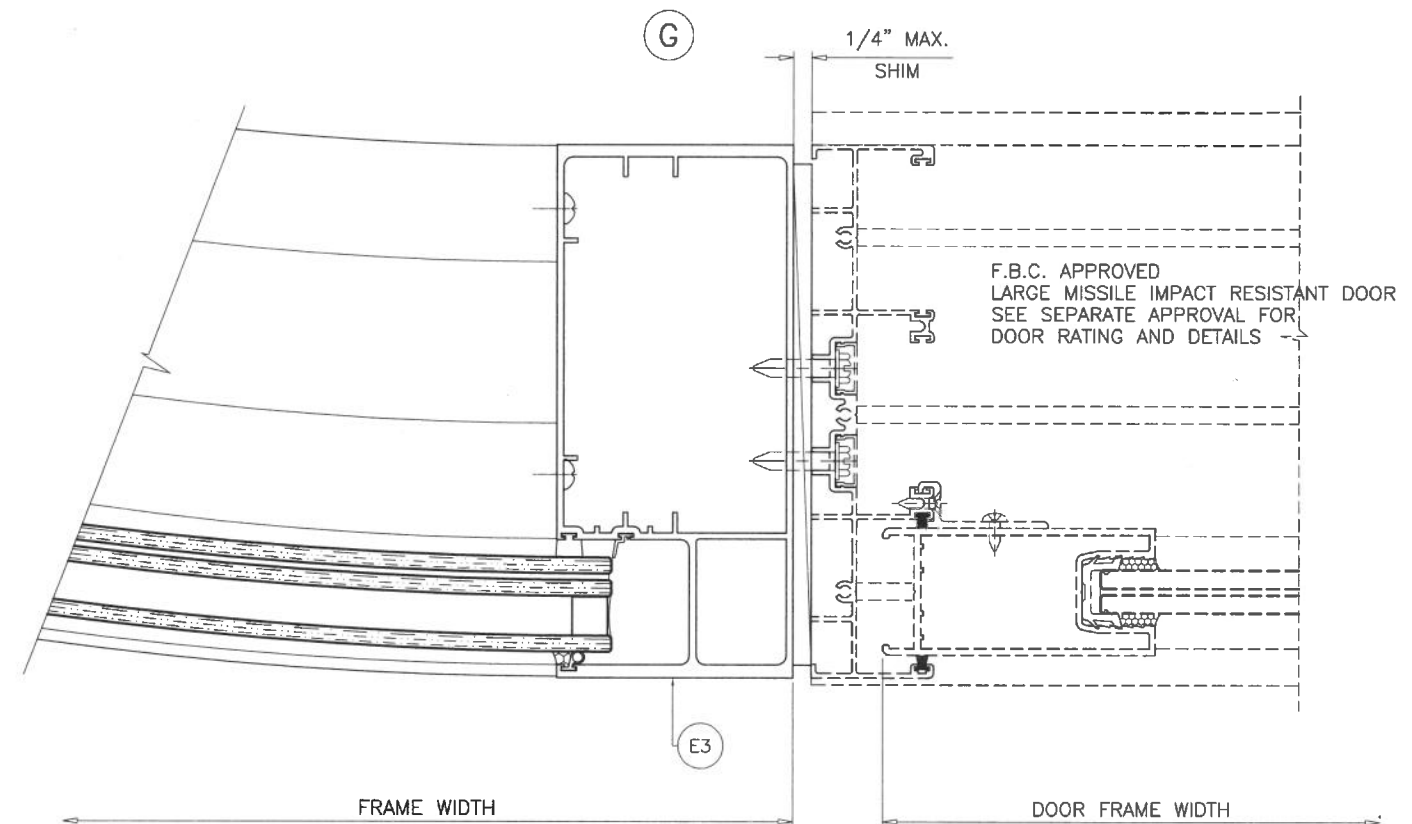
sheet 7 of 9

COMP-ANL\19-08F-ES



SEE SEPARATE APPROVAL FOR DESIGN LOAD CAPACITY OF
'E.S. WINDOWS' DOORS AND DOOR ANCHORS.

LOWER VALUES FROM DOORS APPROVAL OR WINDOWALL
SYSTEM CAPACITY CHARTS WILL APPLY TO ENTIRE SYSTEM.



Sealed: 9/4/2026

FL #29069

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dr. by: TARIQ		
chk. by:		

revisions:		
no	date	by description

drawing no. 19-08F	
sheet 7.1 of 9	

