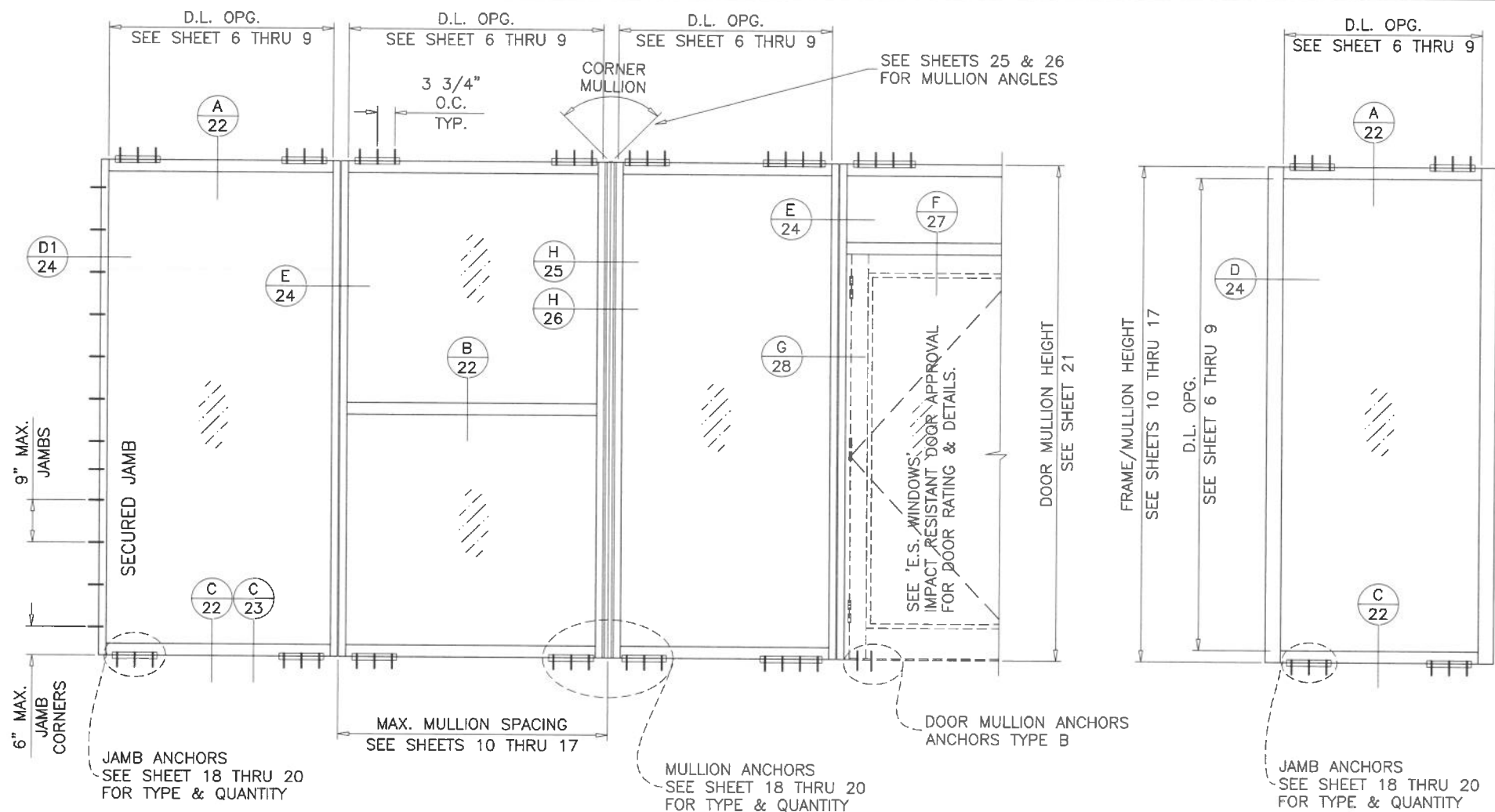
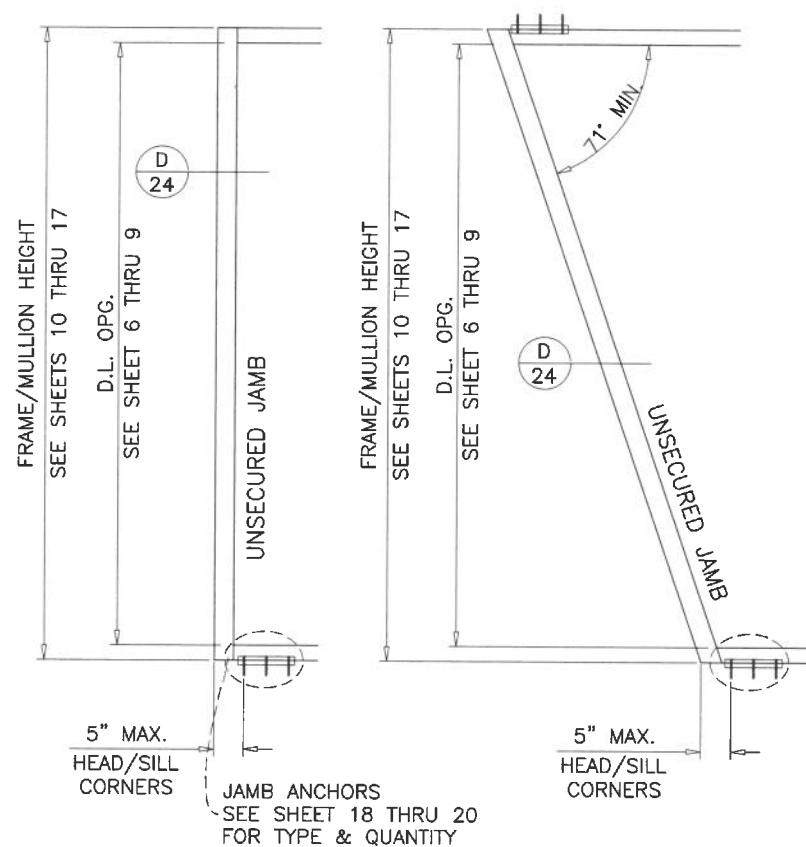




TYPICAL ELEVATIONS

SERIES 7100 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) 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 HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2023 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 SHEETS 6 THRU 9 FOR GLASS DESIGN LOAD CAPACITY.
- STEP 3** CHECK MULLION DESIGN LOAD CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 10 THRU 17 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEETS 18 THRU 20 SELECT ANCHOR OPTION WITH DESIGN LOAD CAPACITY MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** FOR SECURED JAMB OPTION CHECK JAMB ANCHOR CAPACITY USING CHART ON SHEET 24.
- STEP 6** THE LOWEST VALUE RESULTING FROM STEPS 2, 3, 4 AND 5 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.
- STEP 7** FOR SYSTEMS WITH UNANCHORED JAMBS, USING SHEETS 30 & 31, DETERMINE THE MIN. & MAX. GAP DIMENSIONS.
- STEP 8** WHEN USING THIS SYSTEM WITH DOORS, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE DOOR SHALL APPLY.

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.

LAMINATED GLASS
INSUL. LAM. GLASS
SMALL MISSILE IMPACT

Sealed: 9/4/2026

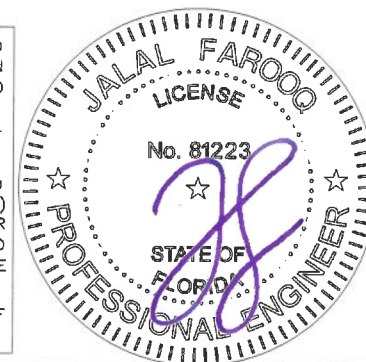
FL #22244

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.



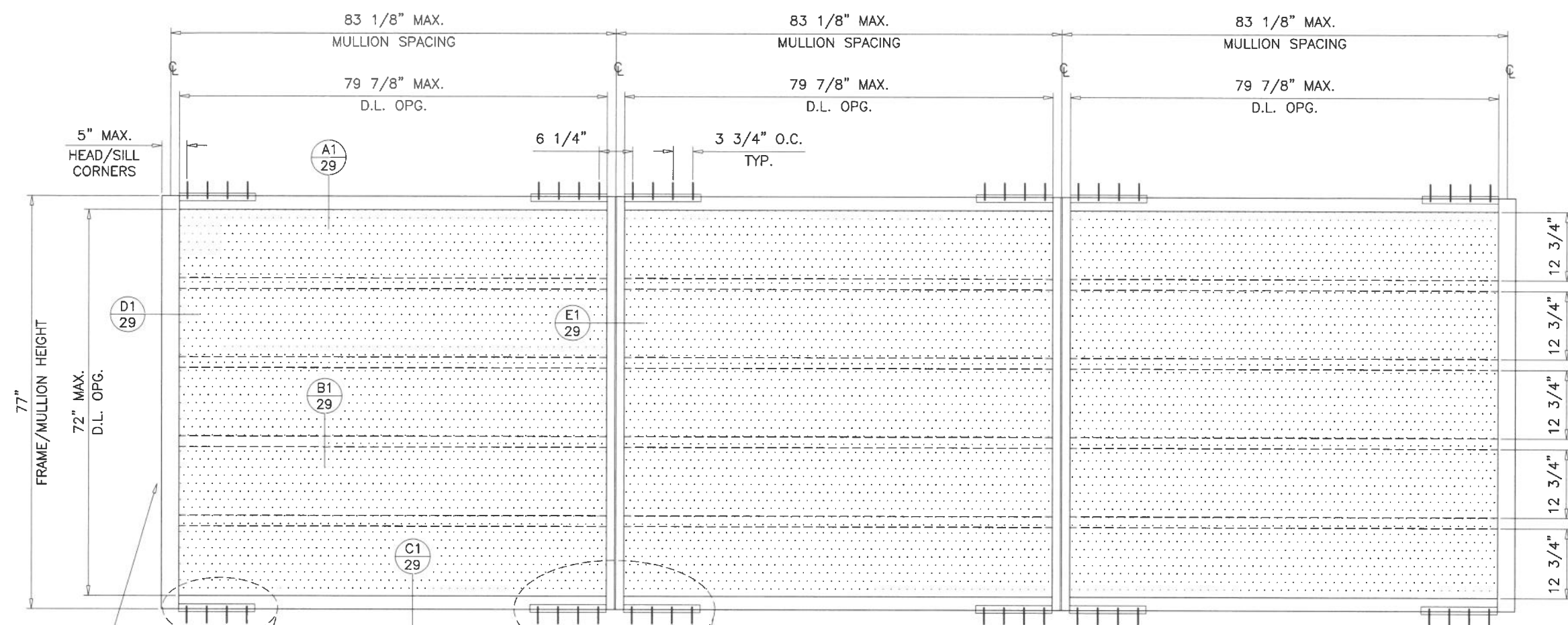
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 262-6978
FAX. (305) 262-6978
STORE \W17-40ES

SERIES 7100 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	description	by
	E	08.10.20	UPDATED TO 2020 FBC	
	F	02.22.21	NEW TEST ADDED	
	G	04.14.21	GLASS TYPE 'G' ADDED	
	H	07.25.23	UPDATED TO 2023 FBC	
	I	01.05.26	CORNER MULLIONS ADDED.	

date: 04-07-17
scale: 3/8"=1'-0"
dr. by: TARIQ
chk. by:

drawing no.
W17-40
sheet 1 of 35



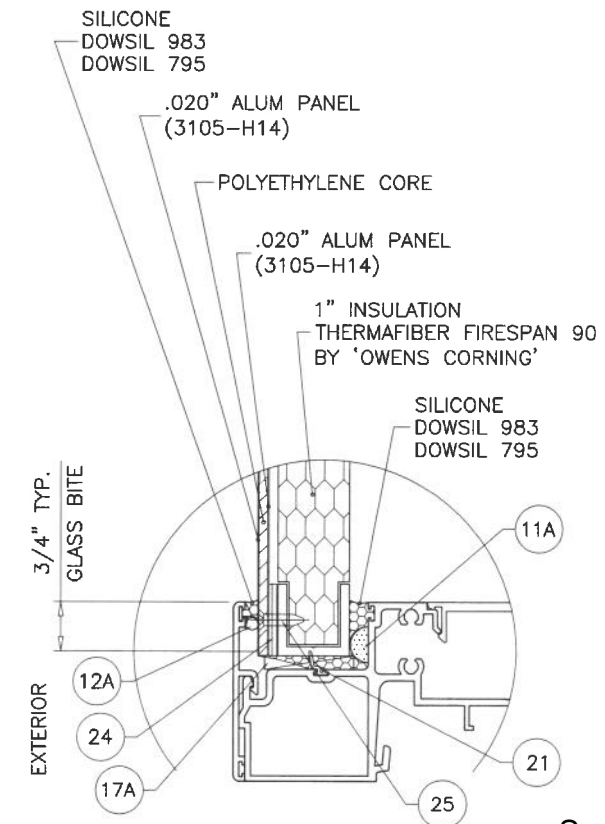
HEAD/SILL ANCHORS
(6) TYPE 'A' & 'D'
(5) TYPE 'B'
(4) TYPE 'E'
AT EACH JAMB

HEAD/SILL ANCHORS
(6) TYPE 'A' & 'D'
(5) TYPE 'B'
(4) TYPE 'E'
AT EACH SIDE OF MULL

3/4" SILICONE GAP
DOWSIL 790
(100% STRETCH)

**MAXIMUM DESIGN LOAD RATING = +122.0 PSF
-122.0 PSF**

FOR SIZES AND CONFIGURATIONS SHOWN ABOVE
LIMITED ONLY TO
GLAZING TYPE 'OPAQUE PANEL'
JAMBS TYPE 'J2i' (SEE SHEET 15)
MULLION TYPE 'M2i' (SEE SHEET 15)
NOT RATED FOR ANSI Z97.1



'ALPOLIC' METAL PANELS
5/32" OVERALL THICK
BY 'MITSUBISHI PLASTICS COMPOSITES AMERICA INC.'

Sealed: 9/4/2026



FL #22244

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

af c

STORE/W17-40ES

SERIES 7100 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

date: 04-07-17

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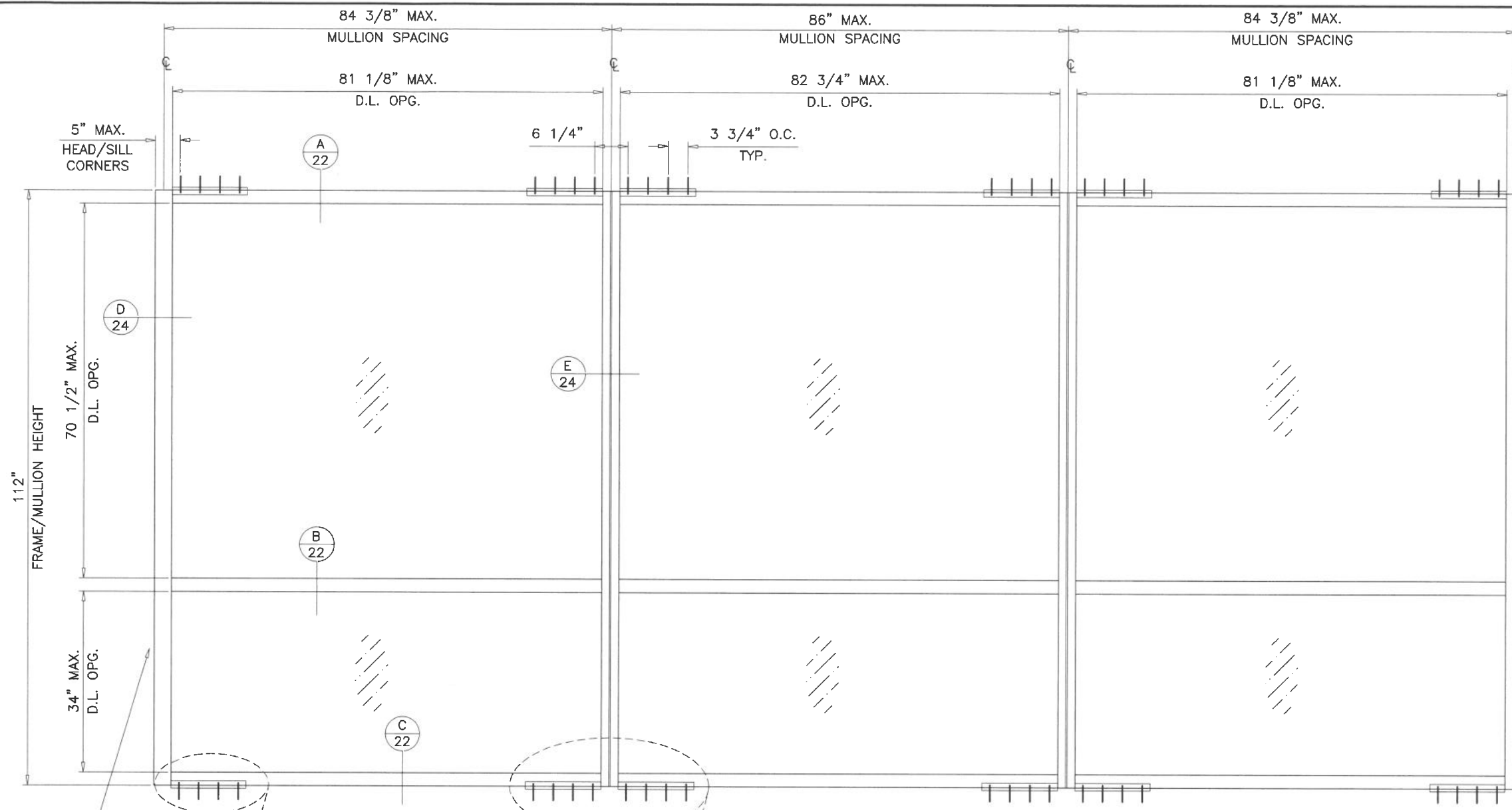
dr. by: TARIQ

chk. by:

drawing no.

W17-40

sheet 4 of 35

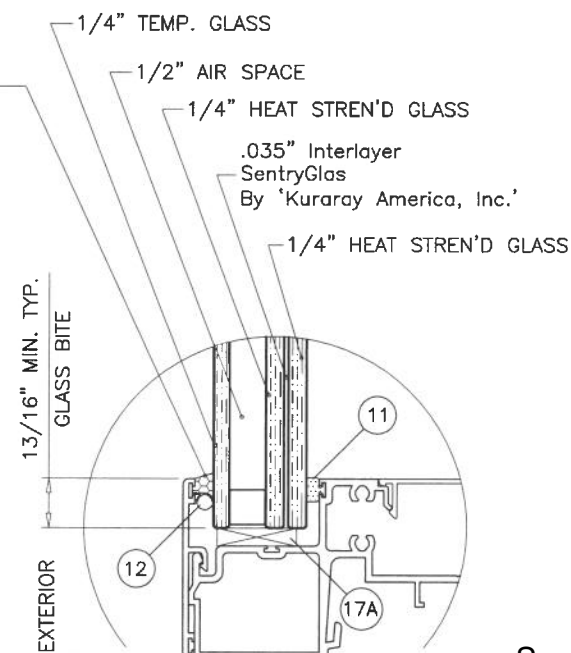


HEAD/SILL ANCHORS
(5) TYPE 'E'
(4) TYPE 'F'
AT EACH JAMB

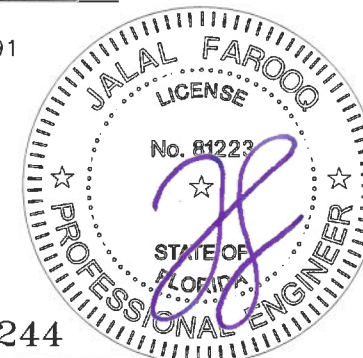
3/4" SILICONE GAP
DOWSIL 790
(100% STRETCH)

HEAD/SILL ANCHORS
(5) TYPE 'E'
(4) TYPE 'F'
AT EACH SIDE OF MULL

SILICONE
DOWSIL 791



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



**MAXIMUM DESIGN LOAD RATING = +134.0 PSF
-134.0 PSF**

FOR SIZES AND CONFIGURATIONS SHOWN ABOVE
 LIMITED ONLY TO
 GLASS TYPE 'G'
 JAMBS TYPE 'J2i' (SEE SHEET 15)
 MULLION TYPE 'M4i' (SEE SHEET 15)

TYPE 'E'

5/16" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)
 INTO METAL STRUCTURES
 (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
 ALUMINUM: 1/4" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/4" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1" MIN.

TYPE 'F'

3/8" SCREW BOLT+ BY 'DEWALT'
 DIRECTLY INTO CONCRETE (3000 PSI MIN.)
 WITH 3-1/4" MIN. EMBED INTO CONC.

ANCHOR EDGE DISTANCES

INTO CONCRETE = 3-1/2" MIN.

GLASS TYPE 'G'

1-5/16" OVERALL NOMINAL THK.

Sealed: 9/4/2026

FL #22244

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978
 STORE/W17-40ES

SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)

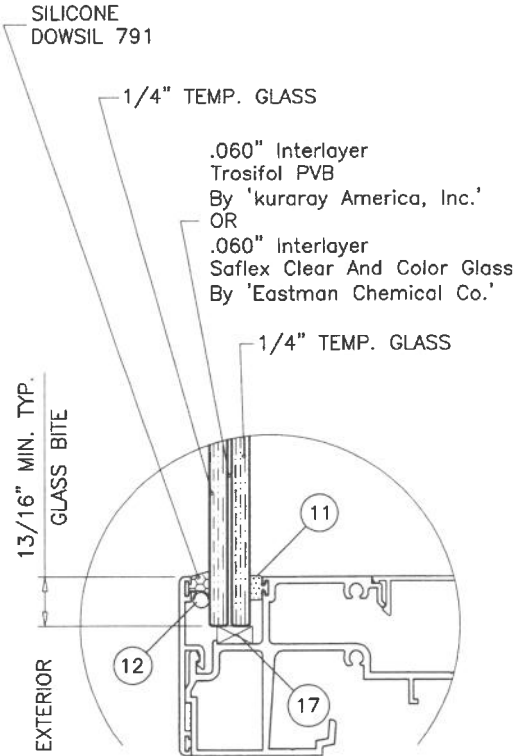
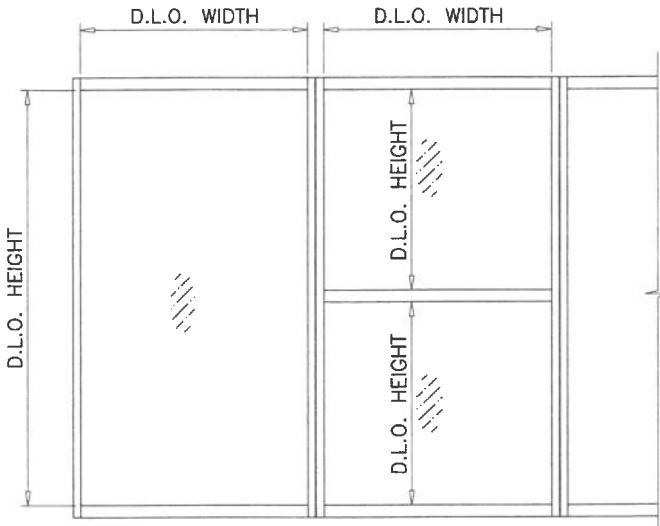
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:
 no date by description

date: 04-07-17
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:

drawing no.
W17-40
 sheet 5 of 35

GLASS DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'E'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+)	INT. (-)
36"	88"	160.0	190.0
39"		160.0	190.0
42"		160.0	190.0
44 3/4"		160.0	190.0
45 1/2"		157.4	186.9
48"		149.2	177.1
51"		140.4	166.7
54"		132.6	157.5
36"	96"	160.0	190.0
39"		160.0	190.0
42"		160.0	190.0
44 3/4"		160.0	190.0
45 1/2"		157.4	186.9
48"		149.2	177.1
51"		140.4	166.7
36"	100"	160.0	190.0
39"		160.0	190.0
42"		160.0	190.0
44 3/4"		160.0	190.0
45 1/2"		157.4	186.9
48"		149.2	177.1
51"		140.4	166.7
36"	108"	160.0	190.0
39"		160.0	190.0
42"		160.0	190.0
44 3/4"		160.0	190.0
45 1/2"		157.4	186.9
48"		149.2	177.1
51"		140.4	166.7
36"	111"	160.0	190.0
39"		160.0	190.0
42"		160.0	190.0
44 3/4"		160.0	190.0



GLASS TYPE 'E'
9/16" OVERALL NOMINAL THK.

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS).

Sealed: 9/4/2026

FL #22244



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)

SERIES 7100 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

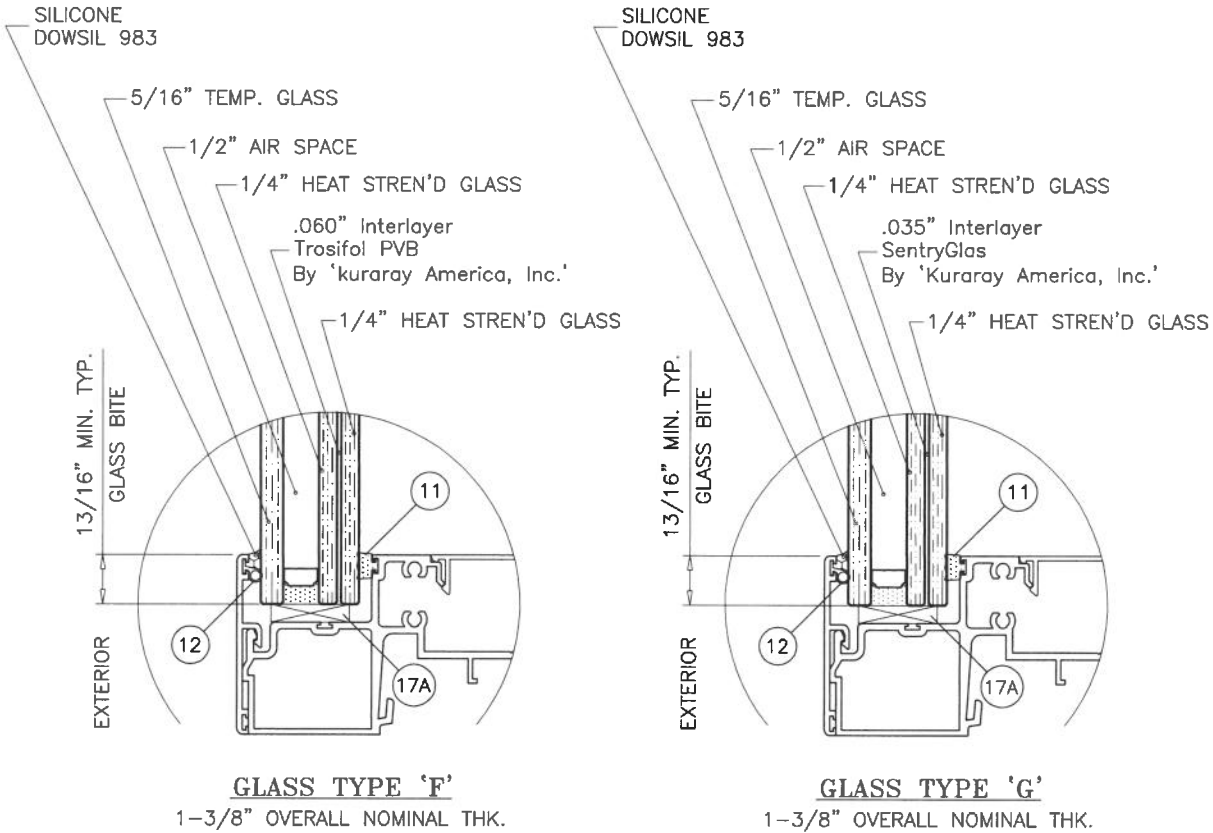
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drawing no.	W17-40
sheet	8 of 35

STORE\W17-40ES

GLASS DESIGN LOAD CAPACITY – PSF				GLASS DESIGN LOAD CAPACITY – PSF			
NOMINAL DIMS.		GLASS TYPE 'F'	GLASS TYPE 'G'	NOMINAL DIMS.		GLASS TYPE 'F'	GLASS TYPE 'G'
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)	D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
36"	92"	105.0	105.0	36"	120"	105.0	105.0
39"		105.0	105.0	39"		105.0	105.0
42"		105.0	105.0	42"		105.0	105.0
45 1/2"		105.0	105.0	45 1/2"		105.0	105.0
48"		105.0	105.0	48"		105.0	105.0
51"		105.0	105.0	51"		105.0	105.0
54"		105.0	105.0	54"		105.0	105.0
57 1/2"		105.0	105.0	57 1/2"		105.0	105.0
62"	96"	105.0	105.0	62"	128"	80.0	105.0
69"		94.3	94.3	69"		71.9	94.3
75"		86.8	86.8	36"		105.0	105.0
36"		105.0	105.0	39"		105.0	105.0
39"		105.0	105.0	42"		105.0	105.0
42"		105.0	105.0	45 1/2"		105.0	105.0
45 1/2"		105.0	105.0	48"		105.0	105.0
48"		105.0	105.0	51"		105.0	105.0
51"	100"	105.0	105.0	54"	136"	105.0	105.0
54"		105.0	105.0	57 1/2"		80.0	105.0
57 1/2"		105.0	105.0	62"		80.0	105.0
62"		105.0	105.0	36"		105.0	105.0
69"		94.3	94.3	39"		105.0	105.0
75"		–	86.8	42"		105.0	105.0
36"	113–5/8"	105.0	105.0	45 1/2"		105.0	105.0
39"		105.0	105.0	48"		105.0	105.0
42"		105.0	105.0	51"		105.0	105.0
45 1/2"		105.0	105.0	54"		80.0	105.0
48"		105.0	105.0	57 1/2"		80.0	105.0
51"		105.0	105.0	62"		80.0	105.0
54"		105.0	105.0	36"	139"	105.0	105.0
57 1/2"		105.0	105.0	39"		105.0	105.0
62"	113–5/8"	105.0	105.0	42"		105.0	105.0
69"		71.9	94.3	45 1/2"		105.0	105.0
75"		66.1	86.8	48"		105.0	105.0
				51"		80.0	105.0
				54"		80.0	105.0
				57 1/2"		80.0	105.0
				62"		80.0	105.0

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300–09 (3 SEC. GUSTS).



GLAZING OPTIONS

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

Sealed: 9/4/2026



FL #22244

af c

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

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SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
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revisions:	no	date	by	description

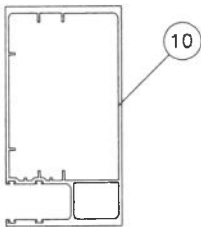
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drawing no.	W17–40
sheet	9 of 35

STORE\W17–40ES

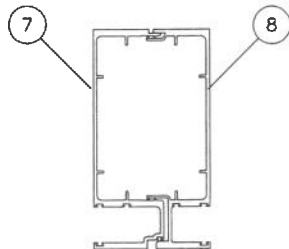
MULLION DESIGN LOAD CAPACITY - PSF
CHART FOR LAMINATED GLASS MULLIONS
WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J1L'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	96"	150.0	150.0
36"		150.0	150.0
42"		150.0	150.0
48"		150.0	150.0
54"		150.0	150.0
60"		125.0	125.0
30"	102"	150.0	150.0
36"		150.0	150.0
42"		150.0	150.0
48"		150.0	150.0
54"		125.0	125.0
60"		125.0	125.0
30"	108"	150.0	150.0
36"		150.0	150.0
42"		150.0	150.0
48"		145.8	145.8
54"		125.0	125.0
60"		116.7	116.7
30"	114"	125.0	125.0
36"		125.0	125.0
42"		125.0	125.0
48"		125.0	125.0
54"		115.4	115.4
60"		103.9	103.9
30"	120"	125.0	125.0
36"		125.0	125.0
42"		125.0	125.0
48"		115.1	115.1
54"		102.3	102.3
60"		92.1	92.1
30"	126"	125.0	125.0
36"		125.0	125.0
42"		113.6	113.6
48"		99.4	99.4
54"		88.4	88.4
57"		83.7	83.7
30"	132"	125.0	125.0
36"		115.3	115.3
42"		98.8	98.8
48"		86.5	86.5
54"		76.9	76.9
60"		121.1	121.1
30"	138"	100.9	100.9
36"		86.5	86.5
42"		75.7	75.7
48"		69.9	69.9
52"		106.6	106.6
60"		88.8	88.8
30"	144"	76.1	76.1
36"		66.6	66.6
42"			
48"			



JAMB 'J1L'

Ix IN^4	Sx IN^3
14.6111	4.6414

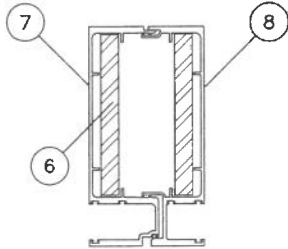


MULLION 'M1L'

Ix IN^4	Sx IN^3
15.385	4.546

MULLION DESIGN LOAD CAPACITY - PSF
CHART FOR LAMINATED GLASS MULLIONS
WITHOUT INTERMEDIATE HORIZONTALS

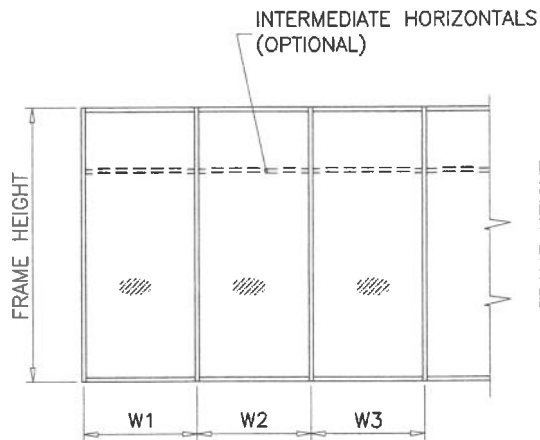
NOMINAL DIMS.		JAMB 'J1L'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	96"	160.0	190.0
36"		160.0	190.0
42"		160.0	190.0
48"		160.0	190.0
54"		160.0	190.0
58"		160.0	190.0
30"	102"	160.0	190.0
36"		160.0	190.0
42"		160.0	190.0
48"		160.0	190.0
54"		160.0	190.0
60"		160.0	190.0
30"	116"	160.0	190.0
36"		160.0	190.0
42"		160.0	190.0
48"		160.0	190.0
54"		160.0	190.0
60"		160.0	190.0



MULLION 'M3L'

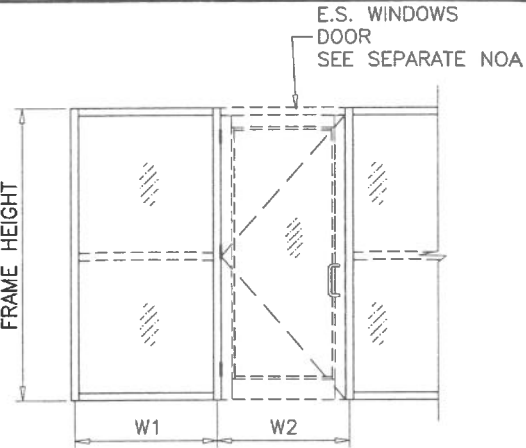
	Ix IN^4	Sx IN^3
ALUMINUM	15.385	4.546
STEEL	7.594	3.375
TOTAL	37.407	
Ix ALUM + Ix STL X 2.9		

MALE AND FEMALE MULLION ORIENTATION
SHOWN (MALE LEFT & FEMALE RIGHT)
CAN BE REVERSED (FEMALE LEFT & MALE RIGHT)
WITHOUT AFFECTING STRUCTURAL FUNCTIONALITY
OF THE SYSTEM.

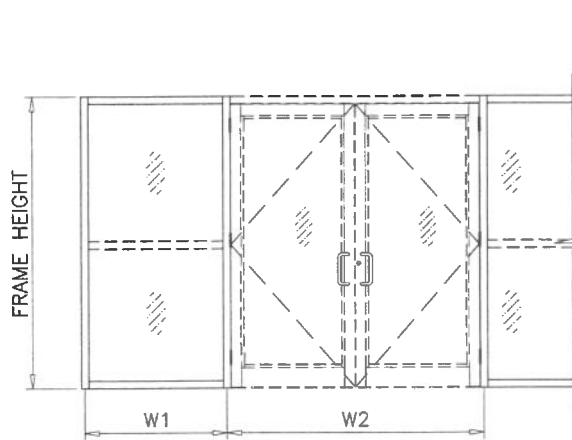


WIDTH (W) = W1
AT JAMB

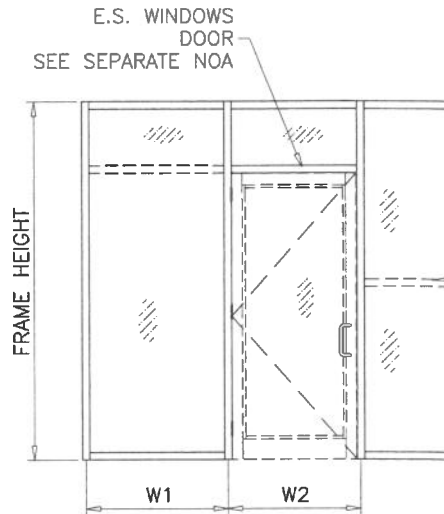
WIDTH (W) = $\frac{W2 + W3}{2}$
AT MULLION



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



WIDTH (W) = $\frac{W1}{2} + \frac{W2}{4}$
AT MULLION



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

MAX. DOOR HEIGHTS FOR WINDOW WALL WITH DOORS
TO BE LIMITED TO THE MAX. APPROVED DOOR HEIGHTS.

Sealed: 9/4/2026

LAM. GLASS MULLION

FL #22244



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE W17-40ES

SERIES 7100 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

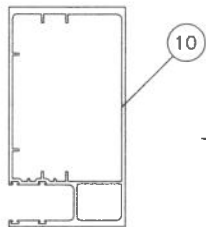
revisions:		no	date	by	description
		1	04-07-17	scale: 3/8" = 1"	
		2		dr. by: TARIQ	
		3		chk. by:	
drawing no. W17-40					
sheet 10 of 35					

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

MULLION DESIGN LOAD CAPACITY - PSF CHART FOR LAMINATED GLASS MULLIONS WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J2L' MULL 'M2L'		JAMB 'J3L' MULL 'M3L'		JAMB 'J4L' MULL 'M3L'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	96"	180.0	180.0	180.0	180.0	132.0	132.0
36"		180.0	180.0	180.0	180.0	132.0	132.0
42"		180.0	180.0	180.0	180.0	132.0	132.0
48"		180.0	180.0	180.0	180.0	132.0	132.0
54"		180.0	180.0	180.0	180.0	132.0	132.0
56"		180.0	180.0	180.0	180.0	132.0	132.0
60"		180.0	180.0	180.0	180.0	132.0	132.0
30"	102"	180.0	180.0	180.0	180.0	132.0	132.0
36"		180.0	180.0	180.0	180.0	132.0	132.0
42"		180.0	180.0	180.0	180.0	132.0	132.0
48"		180.0	180.0	180.0	180.0	132.0	132.0
54"		180.0	180.0	180.0	180.0	132.0	132.0
55"		176.9	176.9	180.0	180.0	132.0	132.0
60"		140.0	140.0	125.0	160.0	132.0	132.0
30"	108"	180.0	180.0	180.0	180.0	132.0	132.0
36"		180.0	180.0	180.0	180.0	132.0	132.0
42"		180.0	180.0	180.0	180.0	132.0	132.0
48"		180.0	180.0	180.0	180.0	132.0	132.0
52"		166.9	166.9	180.0	180.0	132.0	132.0
54"		140.0	140.0	125.0	160.0	132.0	132.0
60"		140.0	140.0	125.0	160.0	132.0	132.0
30"	114"	180.0	180.0	180.0	180.0	132.0	132.0
36"		180.0	180.0	180.0	180.0	132.0	132.0
42"		180.0	180.0	180.0	180.0	132.0	132.0
48"		162.3	162.3	125.0	160.0	132.0	132.0
49"		158.9	158.9	125.0	160.0	132.0	132.0
54"		140.0	140.0	125.0	160.0	132.0	132.0
60"		129.8	129.8	125.0	160.0	132.0	132.0
30"	120"	180.0	180.0	180.0	180.0	132.0	132.0
36"		180.0	180.0	180.0	180.0	132.0	132.0
42"		167.4	167.4	180.0	180.0	132.0	132.0
47"		149.6	149.6	125.0	160.0	132.0	132.0
48"		146.4	146.4	125.0	160.0	132.0	132.0
54"		130.2	130.2	125.0	160.0	132.0	132.0
57"		123.3	123.3	125.0	160.0	132.0	132.0
60"		117.1	117.1	-	-	132.0	132.0
30"	126"	150.0	150.0	125.0	160.0	132.0	132.0
36"		150.0	150.0	125.0	160.0	132.0	132.0
42"		150.0	150.0	125.0	160.0	132.0	132.0
44"		144.9	144.9	125.0	160.0	132.0	132.0
48"		132.8	132.8	125.0	160.0	132.0	132.0
54"		118.1	118.1	125.0	160.0	132.0	132.0
59"		85.0	85.0	-	-	132.0	132.0
30"	132"	150.0	150.0	125.0	160.0	132.0	132.0
36"		150.0	150.0	125.0	160.0	132.0	132.0
42"		138.3	138.3	125.0	160.0	132.0	132.0
48"		121.0	121.0	125.0	160.0	132.0	132.0
52"		111.7	111.7	125.0	158.1	132.0	132.0
56"		85.0	85.0	-	-	132.0	132.0
30"	138"	150.0	150.0	125.0	160.0	132.0	132.0
36"		147.6	147.6	125.0	160.0	132.0	132.0
40"		132.9	132.9	125.0	160.0	132.0	132.0
42"		126.5	126.5	125.0	160.0	132.0	132.0
48"		110.7	110.7	125.0	156.7	132.0	132.0
50"		106.3	106.3	125.0	150.4	132.0	132.0
54"		85.0	85.0	-	-	132.0	132.0

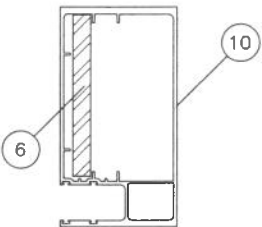
NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

MULLION DESIGN LOAD CAPACITY - PSF CHART FOR LAMINATED GLASS MULLIONS WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J2L' MULL 'M2L'		JAMB 'J3L' MULL 'M3L'		JAMB 'J4L' MULL 'M3L'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	144"	150.0	150.0	125.0	160.0	132.0	132.0
36"		135.6	135.6	125.0	160.0	132.0	132.0
39"		125.2	125.2	125.0	160.0	132.0	132.0
42"		116.2	116.2	125.0	160.0	132.0	132.0
48"		101.7	101.7	125.0	143.9	132.0	132.0
52"		85.0	85.0	-	-	132.0	132.0
30"	150"	85.0	85.0	-	-	132.0	132.0
36"		85.0	85.0	-	-	132.0	132.0
39"		85.0	85.0	-	-	132.0	132.0
42"		85.0	85.0	-	-	132.0	132.0
48"		85.0	85.0	-	-	129.9	129.9
49"		85.0	85.0	-	-	129.9	129.9
30"	156"	85.0	85.0	-	-	132.0	132.0
36"		85.0	85.0	-	-	132.0	132.0
39"		85.0	85.0	-	-	132.0	132.0
42"		85.0	85.0	-	-	132.0	132.0
48"		85.0	85.0	-	-	122.6	122.6



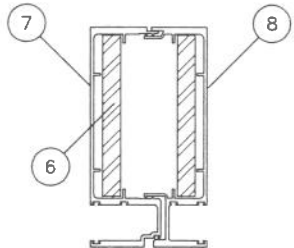
JAMB 'J2L'

Ix IN^4	Sx IN^3
14.6111	4.6414



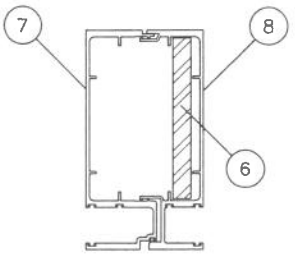
JAMB 'J3L'

	Ix IN^4	Sx IN^3
ALUMINUM	14.6111	4.6414
STEEL	3.797	1.687
TOTAL		
Ix ALUM + Ix STL X 2.9	25.622	



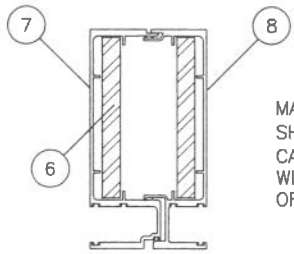
JAMB 'J4L'

	I_x IN ⁴	S_x IN ³
ALUMINUM	15.385	4.546
STEEL	7.594	3.375
TOTAL		
I_x ALUM + I_x STL X 2.9	37.407	



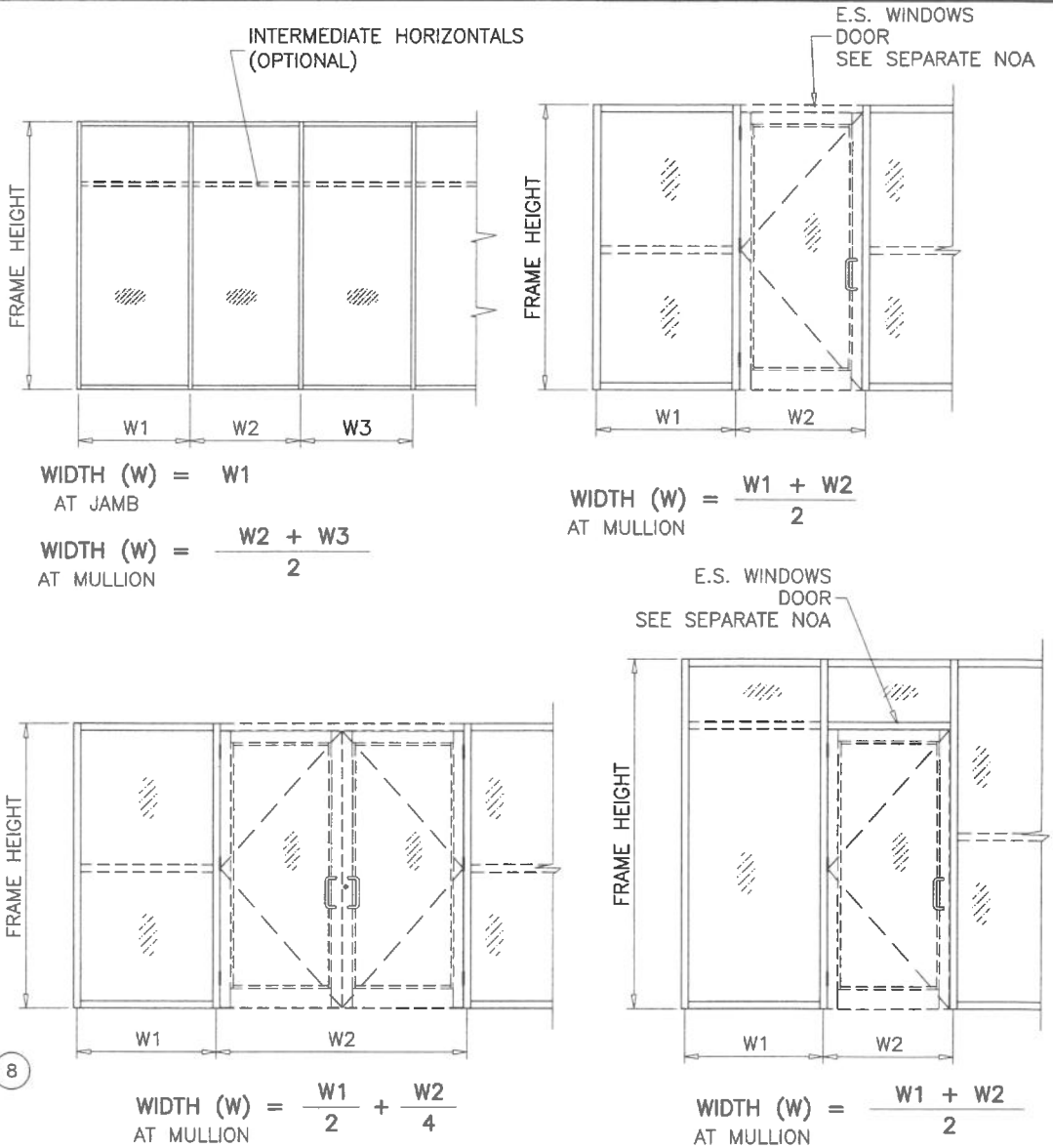
MULLION 'M2L'

	Ix IN^4	Sx IN^3
ALUMINUM	15.385	4.546
STEEL	3.797	1.6875
TOTAL Ix ALUM + Ix STL X 2.9	26.396	



MULLION 'M3L'

	Ix IN^4	Sx IN^3
ALUMINUM	15.385	4.546
STEEL	7.594	3.375
TOTAL Ix ALUM + Ix STL X 2.9	37.407	



MAX. DOOR HEIGHTS FOR WINDOW WALL WITH DOORS
TO BE LIMITED TO THE MAX. APPROVED DOOR HEIGHTS.

Sealed: 9/4/2026

LAM. GLASS MULLION

FL #22244



af c
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
STORE\W17-40ES

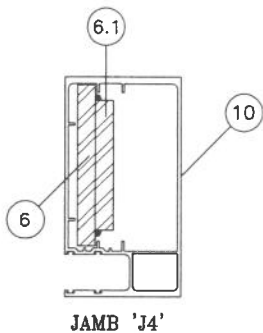
SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
date:	04-07-17	scale:	3/8" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	W17-40	sheet	11 of 35	

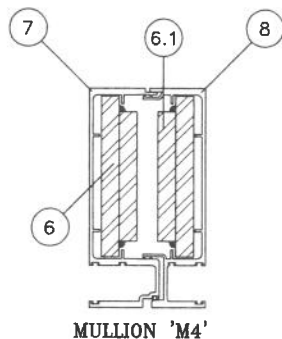
MULLION DESIGN LOAD CAPACITY - PSF
CHART FOR LAMINATED GLASS MULLIONS

NOMINAL DIMS.		JAMB 'J4' MULL 'M4'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	120"	180.0	180.0
36"		180.0	180.0
42"		180.0	180.0
47"		180.0	180.0
48"		180.0	180.0
54"		180.0	180.0
60"		180.0	180.0
30"	126"	180.0	180.0
36"		180.0	180.0
42"		180.0	180.0
44"		180.0	180.0
48"		180.0	180.0
59"		180.0	180.0
30"	132"	180.0	180.0
36"		180.0	180.0
42"		180.0	180.0
48"		180.0	180.0
56"		180.0	180.0
60"		180.0	180.0
30"	138"	180.0	180.0
36"		180.0	180.0
40"		180.0	180.0
42"		180.0	180.0
48"		180.0	180.0
54"		180.0	180.0
30"	144"	180.0	180.0
36"		180.0	180.0
39"		180.0	180.0
42"		180.0	180.0
48"		180.0	180.0
52"		173.5	173.5
30"	150"	180.0	180.0
36"		180.0	180.0
39"		180.0	180.0
42"		180.0	180.0
48"		173.2	173.2
49"		169.7	169.7
30"	151"	180.0	180.0
36"		180.0	180.0
39"		180.0	180.0
42"		180.0	180.0
48"		170.9	170.9
48"		170.9	170.9

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

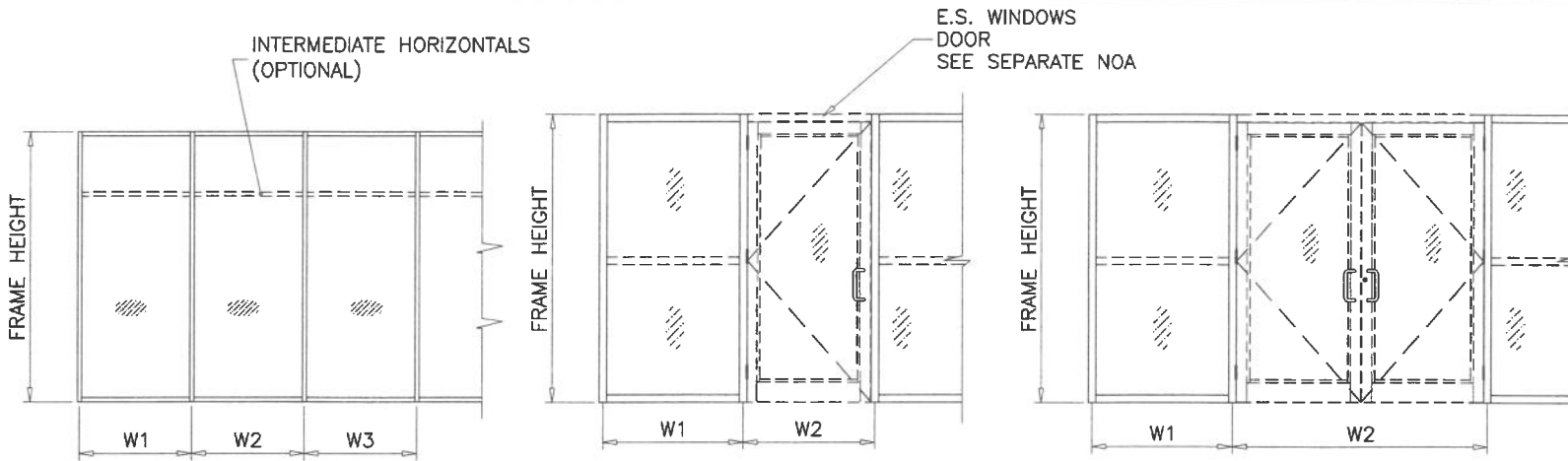


	Ix IN^4	Sx IN^3
ALUMINUM	14.6111	4.6414
STEEL	5.782	2.569
TOTAL		
Ix ALUM + Ix STL X 2.9	31.207	



	Ix IN^4	Sx IN^3
ALUMINUM	15.385	4.546
STEEL	11.560	5.137
TOTAL		
Ix ALUM + Ix STL X 2.9	48.577	

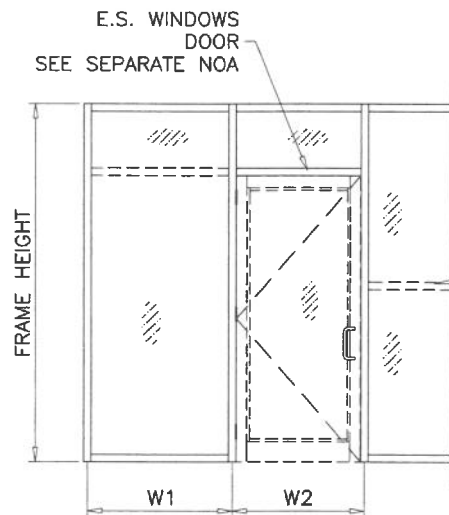
MALE AND FEMALE MULLION ORIENTATION
SHOWN (MALE LEFT & FEMALE RIGHT)
CAN BE REVERSED (FEMALE LEFT & MALE RIGHT)
WITHOUT AFFECTING STRUCTURAL FUNCTIONALITY
OF THE SYSTEM.



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

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

$$\text{WIDTH (W) AT MULLION} = \frac{W1}{2} + \frac{W2}{4}$$



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

Sealed: 9/4/2026

LAM. GLASS MULLION

FL #22244



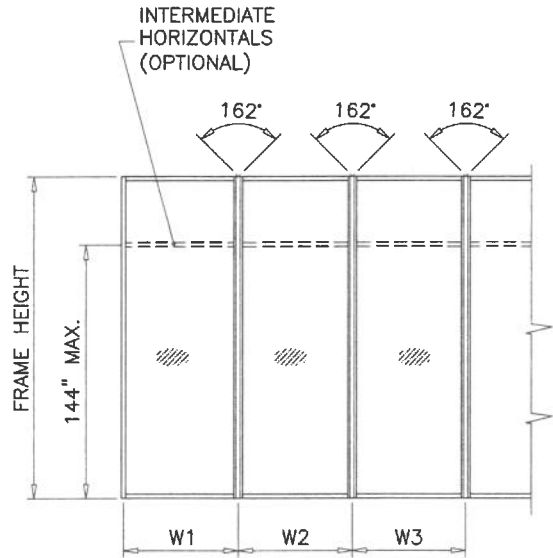
af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE \ W17 - 40ES

SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)
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3550 N.W. 49 STREET
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revisions:	no	date	by	description
date:	04-07-17	scale:	3/8" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	W17-40	sheet	12 of 35	

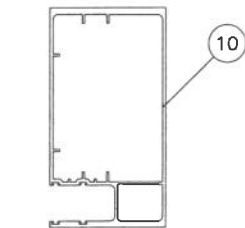
MULLION DESIGN LOAD CAPACITY - PSF CHART FOR LAMINATED GLASS MULLIONS WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1L' MULL 'M4'		JAMB 'J2L' MULL 'M5'		JAMB 'J5L' MULL 'M5'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36"	96"	150.0	150.0	180.0	180.0	132.0	132.0
42"		150.0	150.0	180.0	180.0	132.0	132.0
44"		150.0	150.0	180.0	180.0	132.0	132.0
47"		150.0	150.0	180.0	180.0	132.0	132.0
50"		150.0	150.0	180.0	180.0	132.0	132.0
54"		150.0	150.0	180.0	180.0	132.0	132.0
56"		-	-	180.0	180.0	132.0	132.0
60"		-	-	180.0	180.0	132.0	132.0
36"	102"	150.0	150.0	180.0	180.0	132.0	132.0
42"		150.0	150.0	180.0	180.0	132.0	132.0
44"		150.0	150.0	180.0	180.0	132.0	132.0
47"		150.0	150.0	180.0	180.0	132.0	132.0
50"		148.1	148.1	180.0	180.0	132.0	132.0
54"		-	-	180.0	180.0	132.0	132.0
56"		-	-	180.0	180.0	132.0	132.0
60"		-	-	-	-	132.0	132.0
36"	108"	150.0	150.0	180.0	180.0	132.0	132.0
42"		150.0	150.0	180.0	180.0	132.0	132.0
44"		148.3	148.3	180.0	180.0	132.0	132.0
47"		138.8	138.8	180.0	180.0	132.0	132.0
48"		135.9	135.9	180.0	180.0	132.0	132.0
50"		-	-	180.0	180.0	132.0	132.0
53"		-	-	180.0	180.0	132.0	132.0
60"		-	-	-	-	132.0	132.0
36"	114"	-	-	180.0	180.0	132.0	132.0
42"		-	-	180.0	180.0	132.0	132.0
44"		-	-	180.0	180.0	132.0	132.0
47"		-	-	180.0	180.0	132.0	132.0
50"		-	-	180.0	180.0	132.0	132.0
60"		-	-	-	-	132.0	132.0
36"	120"	-	-	180.0	180.0	132.0	132.0
42"		-	-	180.0	180.0	132.0	132.0
44"		-	-	180.0	180.0	132.0	132.0
47"		-	-	180.0	180.0	132.0	132.0
48"		-	-	180.0	180.0	132.0	132.0
60"		-	-	-	-	132.0	132.0
44"	126"	-	-	-	-	132.0	132.0
48"		-	-	-	-	132.0	132.0
44"	132"	-	-	-	-	132.0	132.0
48"		-	-	-	-	132.0	132.0
44"	138"	-	-	-	-	132.0	132.0
48"		-	-	-	-	132.0	132.0
44"	144"	-	-	-	-	132.0	132.0
48"		-	-	-	-	132.0	132.0
44"	150"	-	-	-	-	132.0	132.0
48"		-	-	-	-	130.2	130.2
49"		-	-	-	-	127.5	127.5
44"		-	-	-	-	131.3	131.3
48"	156"	-	-	-	-	120.4	120.4
48"		-	-	-	-	120.4	120.4

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



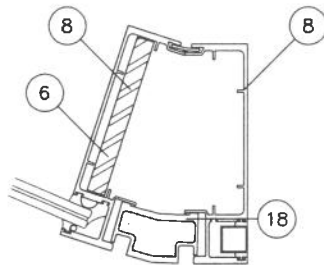
WIDTH (W) = W1
AT JAMB

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



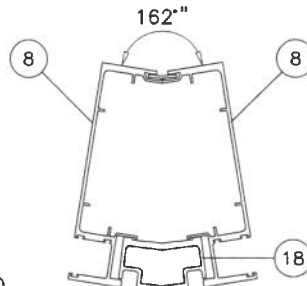
JAMB 'J1L' & 'J2L'

Ix IN^4	Sx IN^3
14.6111	4.6414



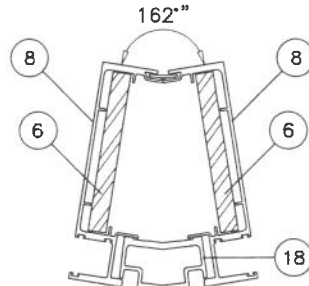
JAMB 'J5L'

	Ix IN^4	Sx IN^3
ALUMINUM	14.7036	4.52
STEEL	3.797	1.6875
TOTAL		
Ix ALUM + Ix STL X 2.9	25.7149	



MULLION 'M4'

Ix IN^4	Sx IN^3
14.7036	4.52



MULLION 'M5'

	Ix IN^4	Sx IN^3
ALUMINUM	14.7036	4.52
STEEL	3.797	1.6875
TOTAL		
Ix ALUM + Ix STL X 2.9	25.7149	

Sealed: 9/4/2026

LAM. GLASS CURVED MULLION

FL #22244



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 262-6978
FAX. (305) 262-6978
STORE \ W17-40ES

SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)

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3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
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revisions:
no date by description

date: 04-07-17

scale: 3/8" = 1"

dr. by: TARIQ

chk. by:

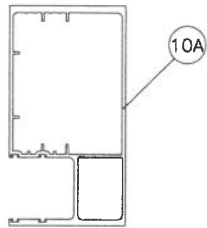
drawing no.

W17-40

sheet 13 of 35

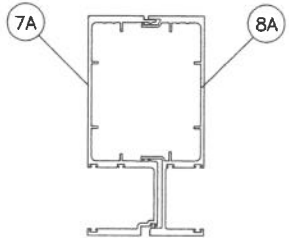
MULLION DESIGN LOAD CAPACITY - PSF
CHART FOR INSUL. LAM. GLASS MULLIONS
WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J1i' MULL 'M1i'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	108"	100.0	110.0
36"		100.0	110.0
42"		100.0	110.0
48"		100.0	110.0
54"		100.0	110.0
60"		100.0	110.0
30"	114"	100.0	110.0
36"		100.0	110.0
42"		100.0	110.0
48"		100.0	110.0
54"		100.0	110.0
60"		100.0	100.6
30"	120"	100.0	110.0
36"		100.0	110.0
42"		100.0	110.0
48"		100.0	107.8
54"		95.9	95.9
57"		90.8	90.8
30"	126"	100.0	110.0
36"		100.0	110.0
42"		100.0	106.5
48"		93.2	93.2
54"		82.8	82.8
60"			
30"	132"	100.0	110.0
36"		100.0	108.0
42"		92.6	92.6
48"		81.0	81.0
52"		74.8	74.8
60"			
30"	138"	100.0	110.0
36"		94.5	94.5
42"		81.0	81.0
48"		70.9	70.9
50"		68.1	68.1
60"			
30"	144"	99.9	99.9
36"		83.2	83.2
42"		71.3	71.3
48"		62.4	62.4
50"			
60"			



JAMB 'J1i'

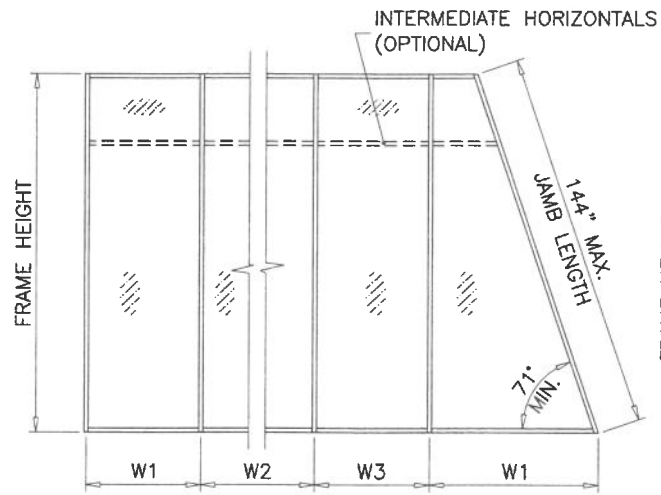
Ix IN ⁴	Sx IN ³
14.1989	4.5744



MULLION 'M1i'

Ix IN ⁴	Sx IN ³
14.414	4.488

MALE AND FEMALE MULLION ORIENTATION
SHOWN (MALE LEFT & FEMALE RIGHT)
CAN BE REVERSED (FEMALE LEFT & MALE RIGHT)
WITHOUT AFFECTING STRUCTURAL FUNCTIONALITY
OF THE SYSTEM.

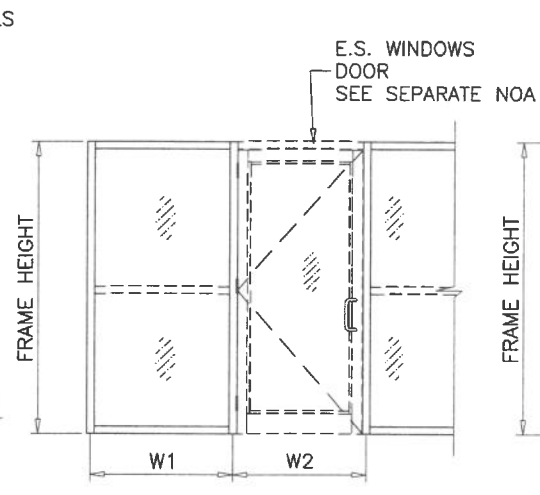


$$\text{WIDTH (W)} = W1$$

AT JAMB

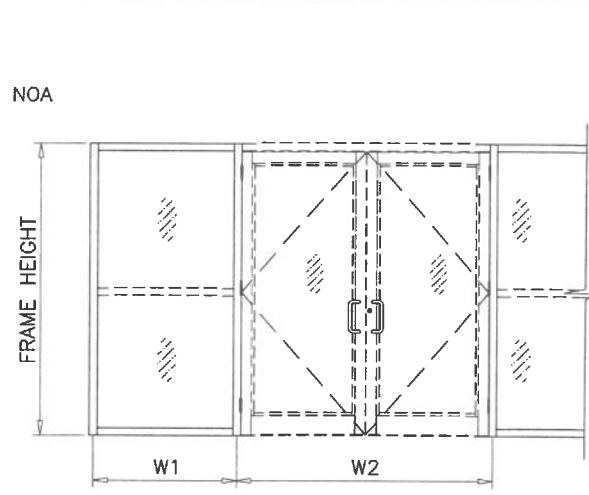
$$\text{WIDTH (W)} = \frac{W2 + W3}{2}$$

AT MULLION



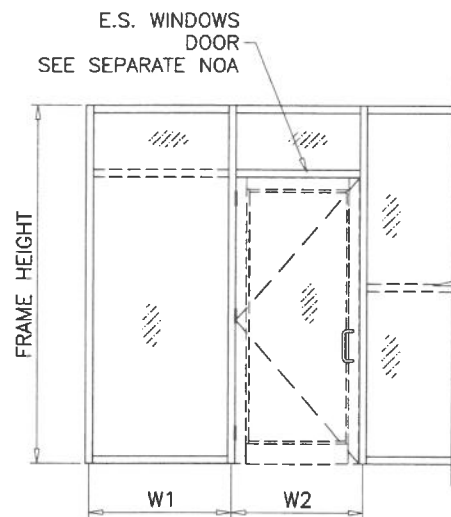
$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

AT MULLION



$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4}$$

AT MULLION



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

AT MULLION

MAX. DOOR HEIGHTS FOR WINDOW WALL WITH DOORS
TO BE LIMITED TO THE MAX. APPROVED DOOR HEIGHTS.

Sealed: 9/4/2026

INSUL. LAM. GLASS MULLION



NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

FL #22244

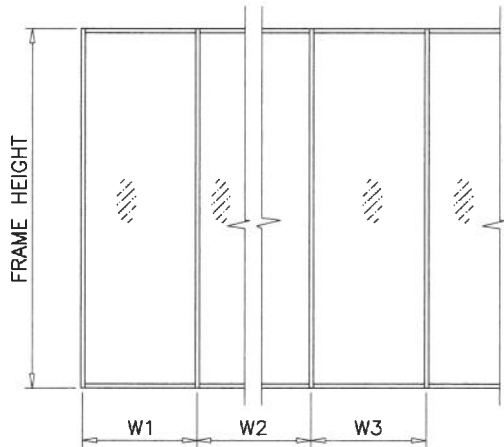
af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 262-6978 FAX. (305) 262-6978
STORE W17-40ES

SERIES 7100 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	
date:	04-07-17	scale:	3/8" = 1"
dr. by:	TARIQ	chk. by:	
drawing no.	W17-40	sheet	14 of 29

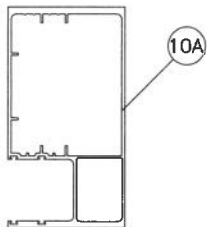
JAMB AND MULLION DESIGN LOAD CAPACITY - PSF CHART FOR INSUL. LAM. GLASS MULLIONS WITHOUT INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1i'		JAMB 'J3i'		MULL 'M3i'		MULL 'M4i'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
60"	114"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"	120"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"	126"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
54"	132"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
54"	138"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		104.9	104.9	105.0	105.0	-	-	-	-
54"	144"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0	100.3	100.3	105.0	105.0
65-1/4"		99.0	99.0	105.0	105.0	93.4	93.4	105.0	105.0
67-1/4"		96.6	96.6	105.0	105.0	91.1	91.1	105.0	105.0
70-11/16"		92.8	92.8	105.0	105.0	-	-	-	-

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



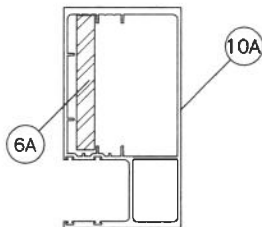
WIDTH (W) = W1
AT JAMB

WIDTH (W) = (W2 + W3) / 2
AT MULLION



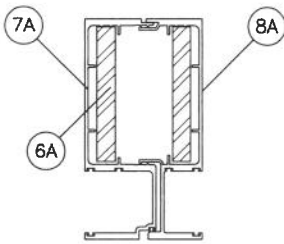
JAMB 'J1i'

Ix IN^4	Sx IN^3
14.1989	4.5744



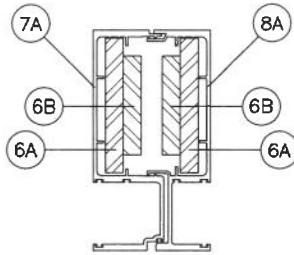
JAMB 'J3i'

Ix IN^4	Sx IN^3
ALUMINUM	14.1989
STEEL	2.197
TOTAL	20.571
Ix ALUM + Ix STL X 2.9	



MULLION 'M3i'

Ix IN^4	Sx IN^3
ALUMINUM	14.414
STEEL	4.394
TOTAL	27.158
Ix ALUM + Ix STL X 2.9	

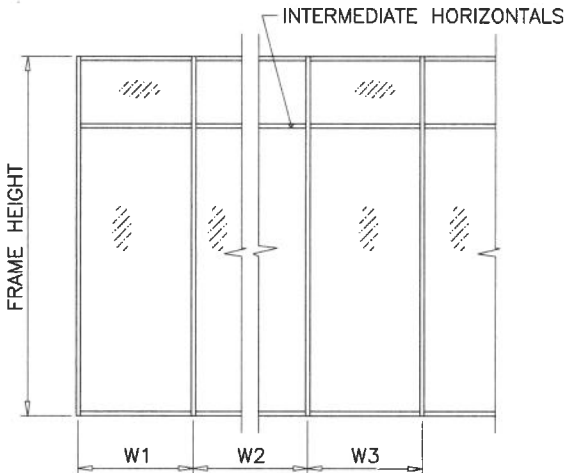


MULLION 'M4i'

Ix IN^4	Sx IN^3
ALUMINUM	14.414
STEEL	6.128
TOTAL	32.185
Ix ALUM + Ix STL X 2.9	

JAMB AND MULLION DESIGN LOAD CAPACITY - PSF CHART FOR INSUL. LAM. GLASS MULLIONS WITH INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1i'		JAMB 'J3i'		MULL 'M3i'		MULL 'M4i'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
60"	120"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"	126"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0	-	-	-	-
54"	132"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0	99.6	99.6	105.0	105.0
54"	138"	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
66"		102.4	102.4	105.0	105.0	96.7	96.7	105.0	105.0
72"		93.9	93.9	105.0	105.0	-	-	-	-
54"	144"	105.0	105.0	105.0	105.0	104.0	104.0	105.0	105.0
60"		99.2	99.2	105.0	105.0	93.6	93.6	105.0	105.0
65-1/4"		91.2	91.2	105.0	105.0	86.1	86.1	101.9	101.9
67-1/4"		88.5	88.5	105.0	105.0	83.5	83.5	98.9	98.9
70-11/16"		84.2	84.2	105.0	105.0	-	-	-	-

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



WIDTH (W) = W1
AT JAMB

WIDTH (W) = (W2 + W3) / 2
AT MULLION

INSUL. LAM. GLASS MULLION

Sealed: 9/4/2026

FL #22244



MALE AND FEMALE MULLION ORIENTATION
SHOWN (MALE LEFT & FEMALE RIGHT)
CAN BE REVERSED (FEMALE LEFT & MALE RIGHT)
WITHOUT AFFECTING STRUCTURAL FUNCTIONALITY
OF THE SYSTEM.

afcc

AL-FAROOQ CORPORATION

ENGINEERS & PRODUCT DEVELOPMENT

9360 SUNSET DRIVE, SUITE 220

MIAMI, FLORIDA 33173

TEL. (305) 264-8100

FAX. (305) 262-6978

STORE\W17-40ES

SERIES 7100 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

date: 04-07-17

scale: 3/8" = 1"

dr. by: TARIQ

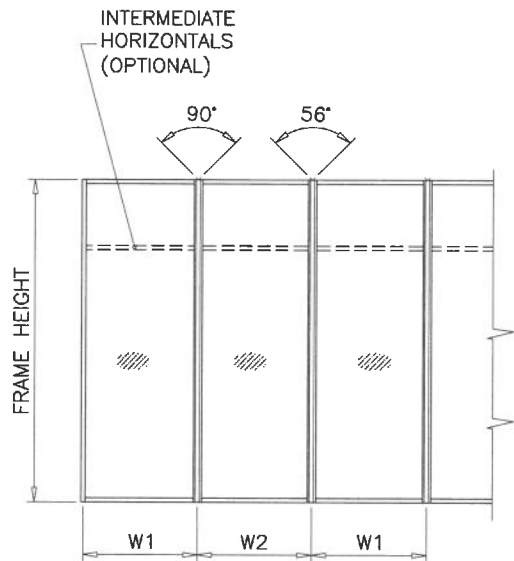
chk. by:

drawing no.

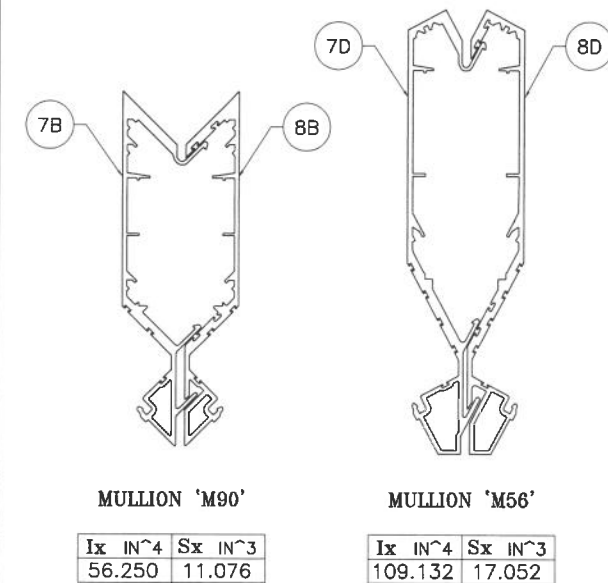
W17-40

sheet 16 of 35

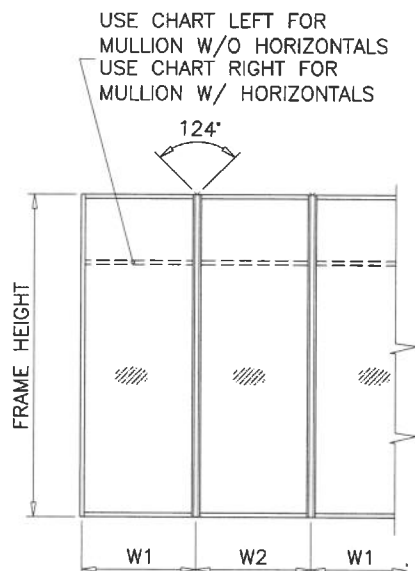
MULLION DESIGN LOAD CAPACITY - PSF CHART FOR INSUL. LAM. GLASS MULLIONS WITH OR WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		MULL 'M90'		MULL 'M56'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
48"	120"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0
48"	126"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		-	-	105.0	105.0
48"	132"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		-	-	105.0	105.0
48"	138"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		-	-	105.0	105.0
48"	144"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		-	-	105.0	105.0



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

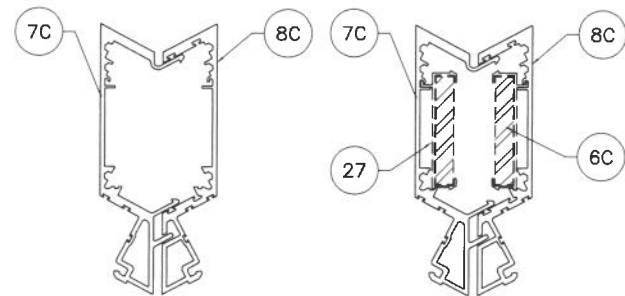


MULLION DESIGN LOAD CAPACITY - PSF CHART FOR INSUL. LAM. GLASS MULLIONS WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULL 'M124'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
48"	120"	105.0	105.0
54"		105.0	105.0
58"		105.0	105.0
60"		105.0	105.0
66"		105.0	105.0
72"		105.0	105.0
78"		105.0	105.0
48"	126"	105.0	105.0
54"		105.0	105.0
58"		105.0	105.0
60"		105.0	105.0
66"		105.0	105.0
72"		105.0	105.0
78"		105.0	105.0
48"	132"	105.0	105.0
54"		105.0	105.0
58"		105.0	105.0
60"		105.0	105.0
66"		105.0	105.0
72"		105.0	105.0
78"		105.0	105.0
48"	138"	105.0	105.0
54"		105.0	105.0
58"		105.0	105.0
60"		105.0	105.0
66"		105.0	105.0
72"		105.0	105.0
78"		105.0	105.0
48"	144"	105.0	105.0
54"		105.0	105.0
58"		105.0	105.0
60"		105.0	105.0
66"		105.0	105.0
72"		105.0	105.0
78"		105.0	105.0



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

MULLION DESIGN LOAD CAPACITY - PSF CHART FOR INSUL. LAM. GLASS MULLIONS WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		MULL 'M124'		MULL 'M124R'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
48"	120"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0
48"	126"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0
48"	132"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0
48"	138"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0
48"	144"	105.0	105.0	105.0	105.0
54"		105.0	105.0	105.0	105.0
58"		105.0	105.0	105.0	105.0
60"		105.0	105.0	105.0	105.0
66"		105.0	105.0	105.0	105.0
72"		105.0	105.0	105.0	105.0
78"		105.0	105.0	105.0	105.0



MULLION 'M124'	
Ix IN^4	Sx IN^3
27.633	7.286

	Ix IN^4	Sx IN^3
ALUMINUM	27.633	7.286
STEEL	2.250	1.500
TOTAL	34.093	
Ix ALUM + Ix STL X 2.9		

Sealed: 9/4/2026

INSUL. LAM. GLASS CORNER MULLION

FL #22244



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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STORE\W17-40ES

SERIES 7100 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

date: 04-07-17

scale: 3/8" = 1"

dr. by: TARIQ

chk. by:

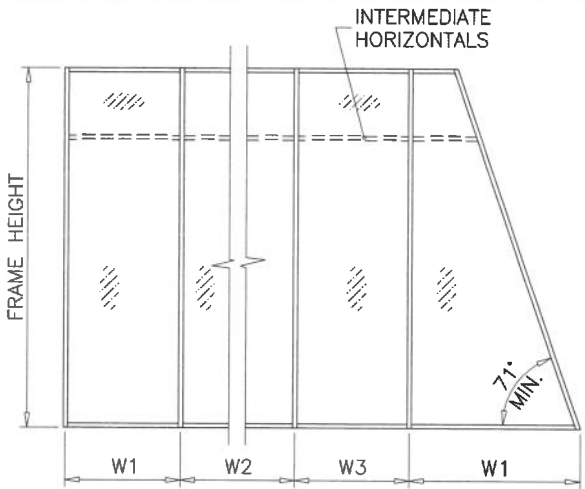
drawing no.

W17-40

sheet 17 of 35

HEAD/SILL ANCHOR DESIGN LOAD CAPACITY – PSF EXT.(+) & INT.(–)																				
NOMINAL DIMS.		TYPE 'A'				TYPE 'B'				TYPE 'C'				TYPE 'D'				TYPE 'E'		
WIDTH (W)	FRAME HEIGHT	A3	A4	A5	A6	B3	B4	B5	B6	C3	C4	C5	C6	D3	D4	D5	D6	E3	E4	E5
30"	90"	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	120.0	160.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
36"		163.0	180.0	180.0	180.0	173.0	180.0	180.0	180.0	100.0	134.0	167.0	180.0	165.0	180.0	180.0	180.0	180.0	180.0	180.0
42"		140.0	180.0	180.0	180.0	149.0	180.0	180.0	180.0	86.0	115.0	143.0	172.0	142.0	180.0	180.0	180.0	180.0	180.0	180.0
48"		122.0	163.0	180.0	180.0	130.0	173.0	180.0	180.0	75.0	100.0	125.0	150.0	124.0	165.0	180.0	180.0	180.0	180.0	180.0
54"		109.0	145.0	180.0	180.0	116.0	154.0	180.0	180.0	67.0	89.0	111.0	134.0	110.0	147.0	180.0	180.0	177.0	180.0	180.0
60"		98.0	131.0	163.0	180.0	104.0	139.0	173.0	180.0	60.0	80.0	100.0	120.0	99.0	132.0	165.0	180.0	159.0	180.0	180.0
66"		–	–	–	–	80.0	105.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
72"		–	–	–	–	80.0	105.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
78"		–	–	–	–	79.9	105.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
30"	96"	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	113.0	150.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
36"		153.0	180.0	180.0	180.0	163.0	180.0	180.0	180.0	94.0	125.0	157.0	180.0	155.0	180.0	180.0	180.0	180.0	180.0	180.0
42"		131.0	175.0	180.0	180.0	139.0	180.0	180.0	180.0	81.0	107.0	134.0	161.0	133.0	177.0	180.0	180.0	180.0	180.0	180.0
48"		115.0	153.0	180.0	180.0	122.0	163.0	180.0	180.0	71.0	94.0	118.0	141.0	116.0	155.0	180.0	180.0	180.0	180.0	180.0
54"		102.0	136.0	170.0	180.0	108.0	144.0	180.0	180.0	63.0	84.0	104.0	125.0	103.0	138.0	172.0	180.0	166.0	180.0	180.0
60"		92.0	122.0	153.0	180.0	98.0	130.0	163.0	180.0	56.0	75.0	94.0	113.0	93.0	124.0	155.0	180.0	149.0	180.0	180.0
66"		–	–	–	–	80.0	105.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
72"		–	–	–	–	80.0	105.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
78"		–	–	–	–	74.9	99.9	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
30"	102"	173.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0	106.0	142.0	177.0	180.0	175.0	180.0	180.0	180.0	180.0	180.0	180.0
36"		144.0	180.0	180.0	180.0	153.0	180.0	180.0	180.0	88.0	118.0	147.0	177.0	146.0	180.0	180.0	180.0	180.0	180.0	180.0
42"		123.0	165.0	180.0	180.0	131.0	175.0	180.0	180.0	76.0	101.0	126.0	152.0	125.0	167.0	180.0	180.0	180.0	180.0	180.0
48"		108.0	144.0	180.0	180.0	115.0	153.0	180.0	180.0	66.0	88.0	111.0	133.0	109.0	146.0	180.0	180.0	175.0	180.0	180.0
54"		96.0	128.0	160.0	180.0	102.0	136.0	170.0	180.0	59.0	79.0	98.0	118.0	97.0	130.0	162.0	180.0	156.0	180.0	180.0
60"		86.0	115.0	144.0	173.0	92.0	122.0	153.0	180.0	53.0	71.0	88.0	106.0	88.0	117.0	146.0	175.0	140.0	180.0	180.0
66"		–	–	–	–	80.0	105.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
72"		–	–	–	–	76.4	101.8	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
78"		–	–	–	–	70.5	94.0	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
30"	108"	163.0	180.0	180.0	180.0	173.0	180.0	180.0	180.0	100.0	134.0	167.0	180.0	165.0	180.0	180.0	180.0	180.0	180.0	180.0
36"		136.0	180.0	180.0	180.0	144.0	180.0	180.0	180.0	84.0	111.0	139.0	167.0	138.0	180.0	180.0	180.0	180.0	180.0	180.0
42"		117.0	155.0	180.0	180.0	124.0	165.0	180.0	180.0	72.0	95.0	119.0	143.0	118.0	157.0	180.0	180.0	180.0	180.0	180.0
48"		102.0	136.0	170.0	180.0	108.0	144.0	180.0	180.0	63.0	84.0	104.0	125.0	103.0	138.0	172.0	180.0	166.0	180.0	180.0
54"		91.0	121.0	151.0	180.0	96.0	128.0	160.0	180.0	56.0	74.0	93.0	111.0	92.0	122.0	153.0	180.0	147.0	180.0	180.0
60"		82.0	109.0	136.0	163.0	87.0	116.0	144.0	173.0	50.0	67.0	84.0	100.0	83.0	110.0	138.0	165.0	133.0	177.0	180.0
66"		–	–	–	–	78.7	104.9	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
72"		–	–	–	–	72.1	96.2	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
78"		–	–	–	–	66.6	88.8	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
30"	114"	155.0	180.0	180.0	180.0	164.0	180.0	180.0	180.0	95.0	127.0	158.0	180.0	157.0	180.0	180.0	180.0	180.0	180.0	180.0
36"		129.0	172.0	180.0	180.0	137.0	180.0	180.0	180.0	79.0	106.0	132.0	158.0	131.0	174.0	180.0	180.0	180.0	180.0	180.0
42"		110.0	147.0	180.0	180.0	117.0	156.0	180.0	180.0	68.0	90.0	113.0	136.0	112.0	149.0	180.0	180.0	179.0	180.0	180.0
48"		97.0	129.0	161.0	180.0	103.0	137.0	171.0	180.0	59.0	79.0	99.0	119.0	98.0	131.0	163.0	180.0	157.0	180.0	180.0
54"		86.0	114.0	143.0	172.0	91.0	122.0	152.0	180.0	53.0	70.0	88.0	106.0	87.0	116.0	145.0	174.0	140.0	180.0	180.0
60"		77.0	103.0	129.0	155.0	82.0	109.0	137.0	164.0	47.0	63.0	79.0	95.0	78.0	104.0	131.0	157.0	126.0	167.0	180.0
66"		–	–	–	–	74.5	99.4	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
72"		–	–	–	–	68.3	91.1	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
78"		–	–	–	–	63.1	84.1	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
30"	120"	147.0	180.0	180.0	180.0	156.0	180.0	180.0	180.0	90.0	120.0	150.0	180.0	149.0	180.0	180.0	180.0	180.0	180.0	180.0
36"		122.0	163.0	180.0	180.0	130.0	173.0	180.0	180.0	75.0	100.0	125.0	150.0	124.0	165.0	180.0	180.0	180.0	180.0	180.0
42"		105.0	140.0	175.0	180.0	111.0	149.0	180.0	180.0	64.0	86.0	107.0	129.0	106.0	142.0	177.0	180.0	180.0	180.0	180.0
48"		92.0	122.0	153.0	180.0	98.0	130.0	163.0	180.0	56.0	75.0	94.0	113.0	93.0	124.0	155.0	180.0	149.0	180.0	180.0
54"		82.0	109.0	136.0	163.0	87.0	116.0	144.0	173.0	50.0	67.0	84.0	100.0	83.0	110.0	138.0	165.0	133.0	177.0	180.0
60"		73.0	98.0	122.0	147.0	78.0	104.0	130.0	156.0	45.0	60.0	75.0	90.0	74.0	99.0	124.0	149.0	119.0	159.0	180.0
66"		–	–	–	–	70.8	94.4	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
72"		–	–	–	–	64.9	86.6	105.0	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0
78"		–	–	–	–	59.9	79.9	99.9	105.0	–	–	–	–	–	–	–	–	80.0	105.0	105.0

CHART CONTINUE ON SHEET 19



WIDTH (W) = W1
AT FRAME JAMB

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

Sealed: 9/4/2026

FL #22244



ANCHORS

af c
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)

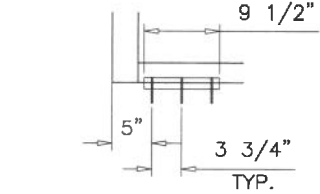
SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)

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

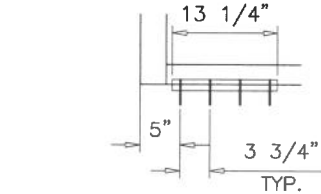
revisions:	no	date	by	description
date:	04-24-13	scale:	3/8" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	W17-40	sheet	18 of 35	

STORE\W17-40ES

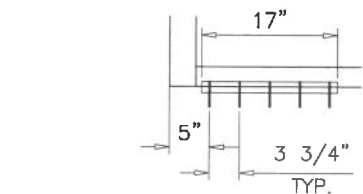
HEAD/SILL ANCHOR DESIGN LOAD CAPACITY - PSF							
EXT.(+) & INT.(-)							
NOMINAL DIMS.		TYPE 'B'				TYPE 'E'	
WIDTH (W)	FRAME HEIGHT	B3	B4	B5	B6	E3	E4
30"	96"	195.0	195.0	195.0	195.0	195.0	195.0
36"		163.0	195.0	195.0	195.0	195.0	195.0
42"		139.0	186.0	195.0	195.0	195.0	195.0
48"		122.0	163.0	195.0	195.0	186.0	195.0
54"		108.0	144.0	181.0	195.0	166.0	195.0
58"		101.0	134.0	168.0	195.0	154.0	195.0
30"	102"	184.0	195.0	195.0	195.0	195.0	195.0
36"		153.0	195.0	195.0	195.0	195.0	195.0
42"		131.0	175.0	195.0	195.0	195.0	195.0
48"		115.0	153.0	191.0	195.0	175.0	195.0
54"		102.0	136.0	170.0	195.0	156.0	195.0
58"		95.0	126.0	160.0	195.0	146.0	195.0
30"	116"	161.0	195.0	195.0	195.0	195.0	195.0
36"		134.0	179.0	195.0	195.0	195.0	195.0
42"		115.0	154.0	192.0	195.0	176.0	195.0
48"		101.0	134.0	168.0	195.0	154.0	195.0
54"		95.0	126.0	160.0	195.0	146.0	195.0



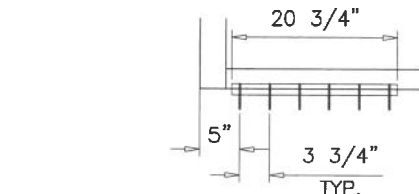
A3, B3, C3, D3, E3



A4, B4, C4, D4, E4



A5, B5, C5, D5, E5



A6, B6, C6, D6

SEE SHEETS 18 & 19 FOR ANCHORS LOAD CAPACITY CHARTS.

ANCHORS TYPES: SEE SHEET 22 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
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
D3 = (3) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
E3 = (3) ANCHORS TYPE 'E' 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
C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
D4 = (4) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
E4 = (4) ANCHORS TYPE 'E' AT EACH SIDE OF JAMB AND MULLION

A5 = (5) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B5 = (5) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
D5 = (5) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
E5 = (5) ANCHORS TYPE 'E' AT EACH SIDE OF JAMB AND MULLION

A6 = (6) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B6 = (6) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C6 = (6) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
D6 = (6) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

ANCHORS



Sealed: 9/4/2026

FL #22244

af c

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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STORE\W17-40ES

revisions:

no	date	by	description

date: 04-24-13

scale: 3/8" = 1"

dr. by: TARIQ

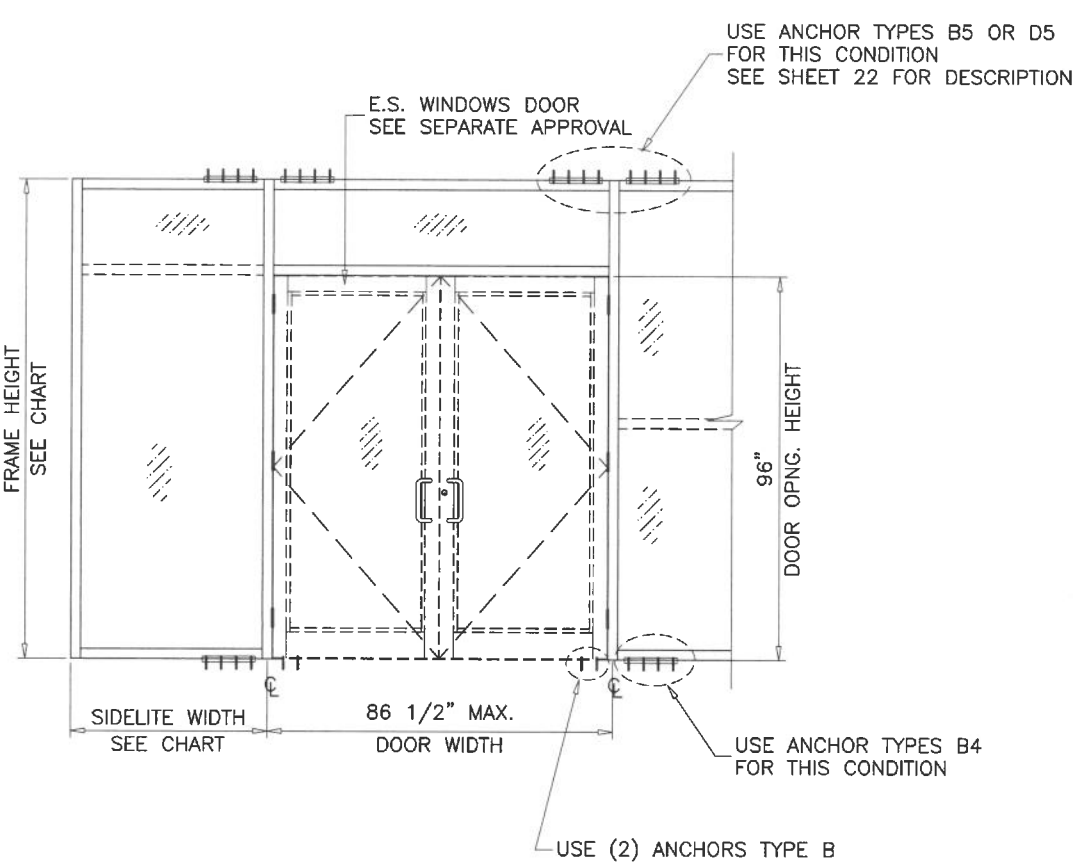
chk. by:

drawing no.

W17-40

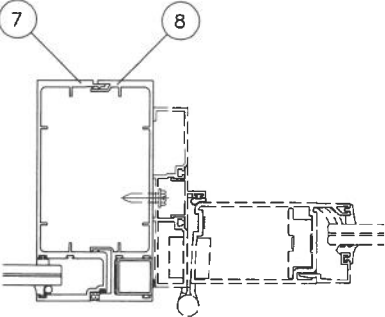
sheet 20 of 35

DOOR MULLION DESIGN LOAD CAPACITY-PSF				
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	MULL 'MD1' EXT. (+) INT. (-)	MULL 'MD2' EXT. (+) INT. (-)	MULL 'MD3' EXT. (+) INT. (-)
30	120	90.0	90.0	90.0
36		90.0	90.0	90.0
42		90.0	90.0	90.0
48		90.0	90.0	90.0
54		90.0	90.0	90.0
57		88.6	90.0	90.0
30	126	90.0	90.0	90.0
36		90.0	90.0	90.0
42		88.2	90.0	90.0
48		83.9	90.0	90.0
54		80.0	90.0	90.0
30	132	87.1	90.0	90.0
36		82.2	90.0	90.0
42		77.6	90.0	90.0
48		73.4	90.0	90.0
52		70.9	89.2	90.0
30	138	74.1	90.0	90.0
36		69.8	90.0	90.0
42		66.0	86.7	90.0
48		62.6	82.6	90.0
50		61.5	81.4	90.0
30	144	63.6	86.9	90.0
36		60.0	82.5	90.0
42		56.8	78.5	90.0
48		53.9	74.8	90.0



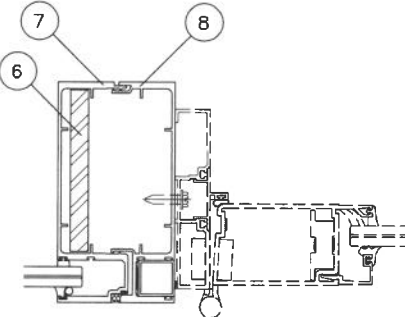
DOOR MULLION DESIGN LOAD CAPACITY-PSF				
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	MULL 'MD1' EXT. (+) INT. (-)	MULL 'MD2' EXT. (+) INT. (-)	MULL 'MD3' EXT. (+) INT. (-)
30	120	90.0	90.0	90.0
36		90.0	90.0	90.0
42		90.0	90.0	90.0
48		90.0	90.0	90.0
54		89.6	90.0	90.0
57		87.5	90.0	90.0
30	126	90.0	90.0	90.0
36		90.0	90.0	90.0
42		86.4	90.0	90.0
48		81.7	90.0	90.0
54		77.4	90.0	90.0
30	132	81.8	90.0	90.0
36		77.0	90.0	90.0
42		72.7	90.0	90.0
48		68.8	90.0	90.0
52		66.5	90.0	90.0
30	138	69.4	90.0	90.0
36		65.4	90.0	90.0
42		61.8	89.2	90.0
48		58.6	84.6	90.0
50		57.7	83.1	90.0
30	144	59.6	85.9	90.0
36		56.2	81.1	90.0
42		53.2	76.7	90.0
48		50.5	72.9	90.0

LAMINATED GLASS MULLIONS



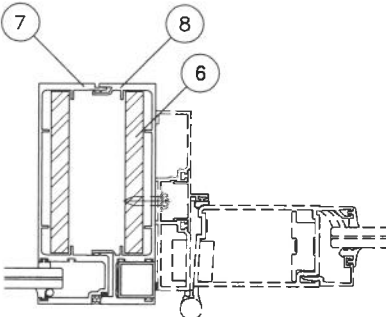
MULLION 'MD1'

Ix IN^4	Sx IN^3
15.385	4.546



MULLION 'MD2'

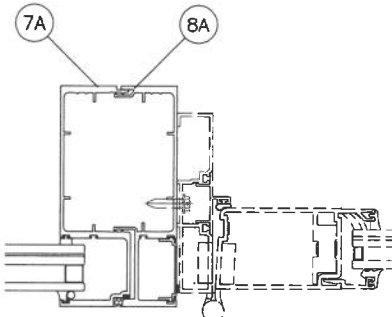
ALUMINUM	Ix IN^4	Sx IN^3
STEEL	3.797	1.6875
TOTAL	Ix ALUM + Ix STL X 2.9	26.396



MULLION 'MD3'

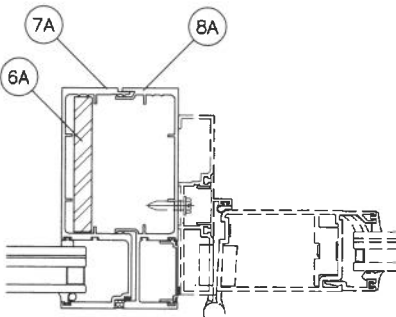
ALUMINUM	Ix IN^4	Sx IN^3
STEEL	7.594	3.375
TOTAL	Ix ALUM + Ix STL X 2.9	37.407

INSUL. LAM. GLASS MULLIONS



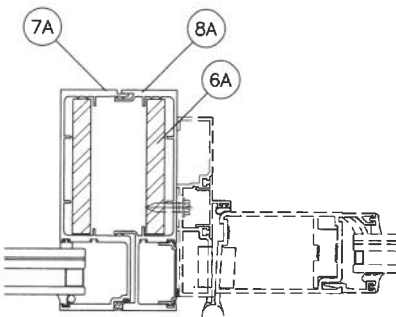
MULLION 'MD1'

Ix IN^4	Sx IN^3
14.414	4.488



MULLION 'MD2'

ALUMINUM	Ix IN^4	Sx IN^3
STEEL	2.197	1.172
TOTAL	Ix ALUM + Ix STL X 2.9	20.786



MULLION 'MD3'

ALUMINUM	Ix IN^4	Sx IN^3
STEEL	4.394	2.344
TOTAL	Ix ALUM + Ix STL X 2.9	27.158

MALE AND FEMALE MULLION ORIENTATION SHOWN (MALE LEFT & FEMALE RIGHT) CAN BE REVERSED (FEMALE LEFT & MALE RIGHT) WITHOUT AFFECTING STRUCTURAL FUNCTIONALITY OF THE SYSTEM.

DOOR MULLION

Sealed: 9/4/2026

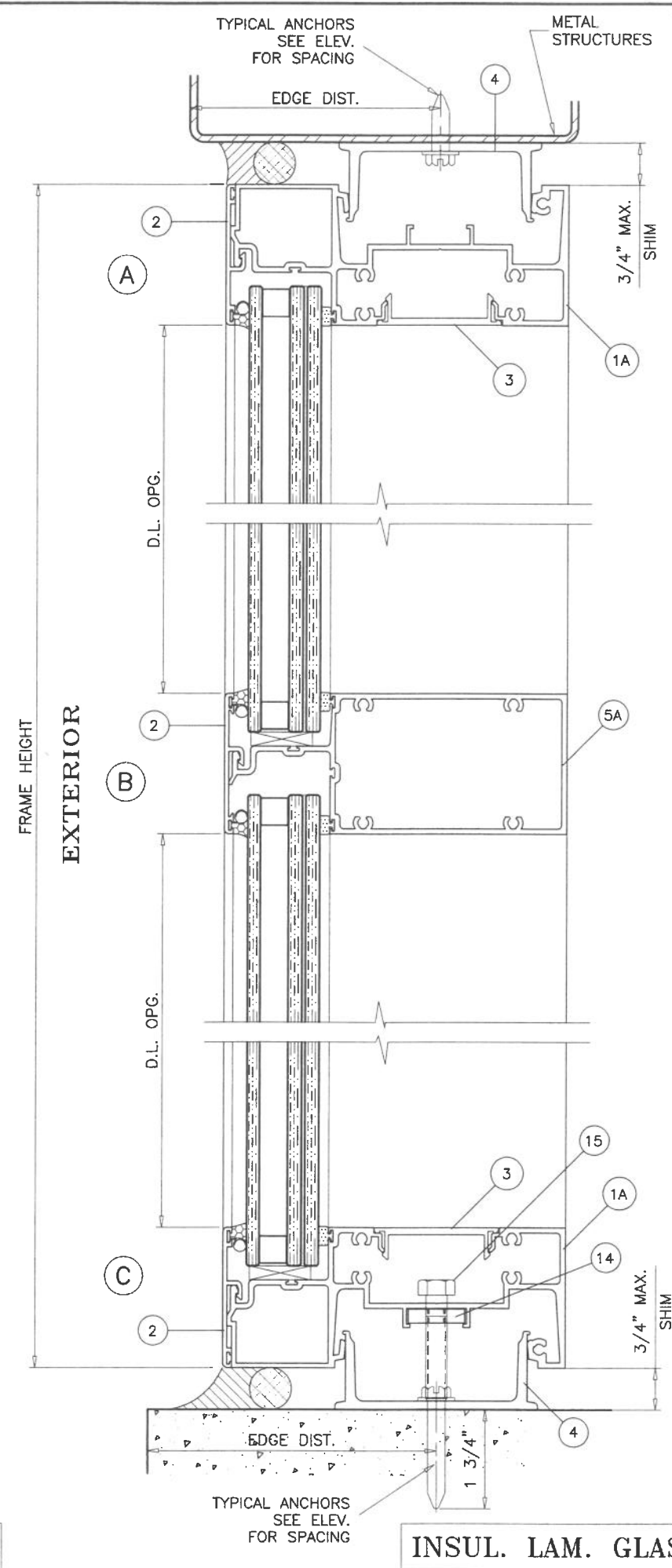
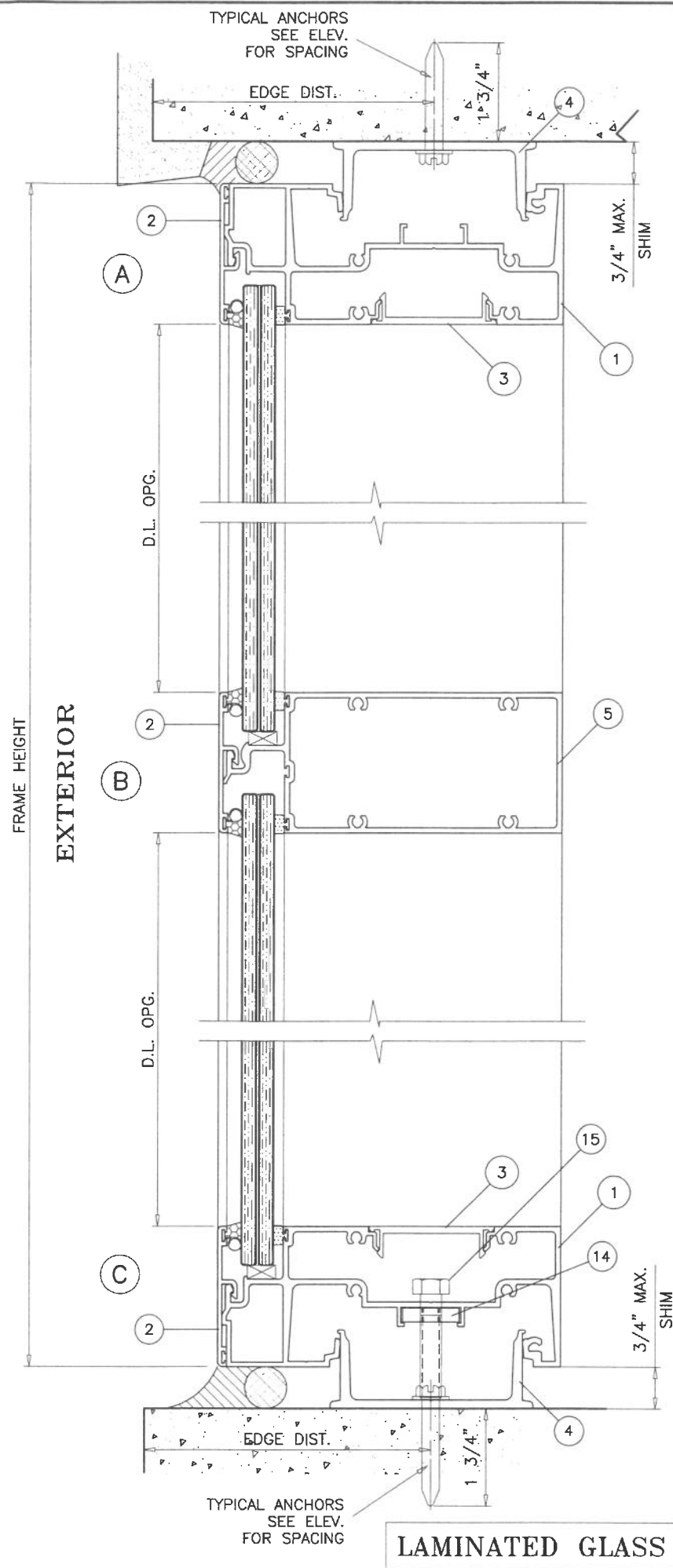
FL #22244



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revisions:	no	date	by	description
date:	04-07-17	scale:	3/8" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	W17-40	sheet	21 of 35	



METAL STRUCTURES NOT BY 'E.S. WDW.'
MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND
TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONCRETE (3000 PSI MIN.)
WITH 1-3/4" MIN. EMBED INTO CONC.

ANCHOR EDGE DISTANCES

INTO CONCRETE = 2-1/2" MIN.

TYPE 'B'

5/16" DIA ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)

DIRECTLY INTO CONCRETE (3000 PSI MIN.)
WITH 2" MIN. EMBED INTO CONC.

ANCHOR EDGE DISTANCES

INTO CONCRETE = 3-1/8" MIN.

TYPE 'C'

#14 SMS OR SELF DRILLING SCREWS ST/ST (Fu=100 KSI, Fy=65 KSI)

INTO METAL STRUCTURES
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
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)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1" MIN.

TYPE 'D'

#14 SMS OR SELF DRILLING SCREWS ST/ST (Fu=100 KSI, Fy=65 KSI)

INTO METAL STRUCTURES
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 1/4" THK. MIN. (6063-T5 MIN.)
STEEL: 1/4" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1" MIN.

TYPE 'E'

5/16" DIA. SELF DRILLING SCREWS (GRADE 5 CRS)

INTO METAL STRUCTURES
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 1/4" THK. MIN. (6063-T5 MIN.)
STEEL: 1/4" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1" MIN.

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FL #22244



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

STORE W17-40ES

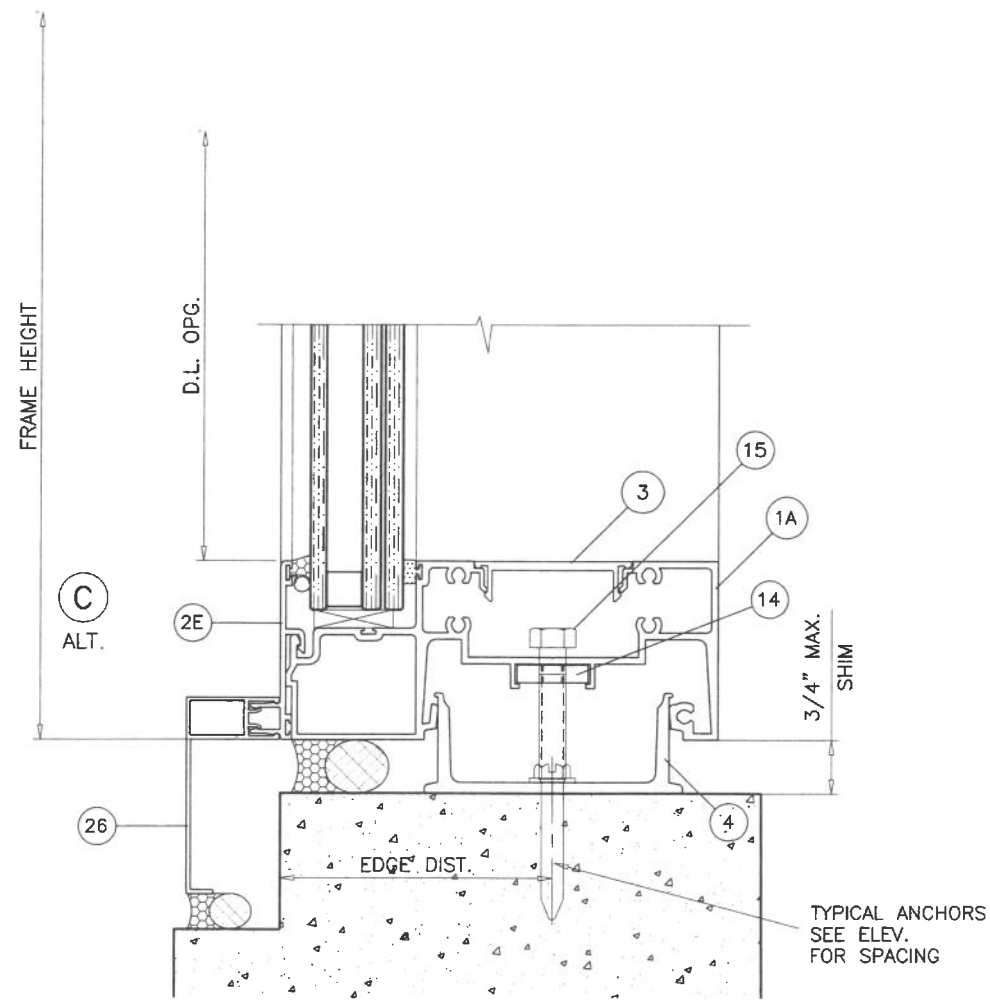
SERIES 7100 ALUM WINDOW WALL SYSTEM (S.M.I.)

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

date: 04-14-13 scale: 3/8" = 1" dr. by: TARIQ chk. by:
drawing no. **W17-40** sheet 22 of 35



INSUL. LAM. GLASS

Sealed: 9/4/2026

FL #22244

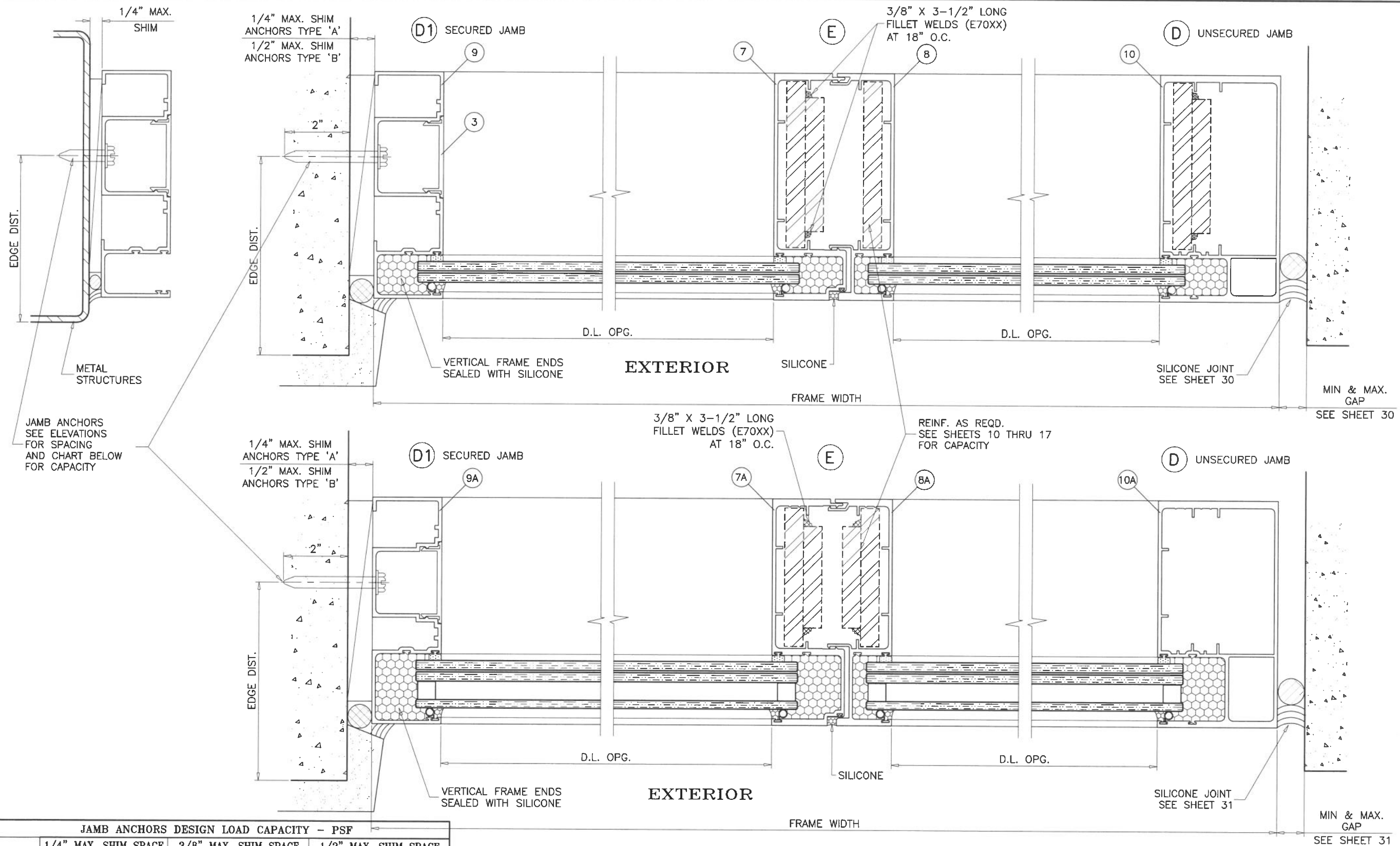


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dr. by: TARIQ	
chk. by:	
drawing no. W17-40	
sheet 23 of 35	

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STORE\W17-40ES



JAMB ANCHORS DESIGN LOAD CAPACITY – PSF					
WIDTH (W)	1/4" MAX. SHIM SPACE	3/8" MAX. SHIM SPACE	1/2" MAX. SHIM SPACE		
	ANCHORS 'A', 'B', 'C', 'D'	ANCHORS 'A'	ANCHORS 'B'	ANCHORS 'A'	ANCHORS 'B'
	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
	30"	190.0	190.0	190.0	152.1
36"	190.0	163.0	190.0	126.8	190.0
42"	190.0	139.7	190.0	108.6	190.0
48"	190.0	122.3	190.0	95.1	190.0
54"	190.0	108.7	190.0	84.5	190.0
60"	190.0	97.8	190.0	76.1	177.8
78"	–	–	80.0	–	80.0

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no	date	by	description

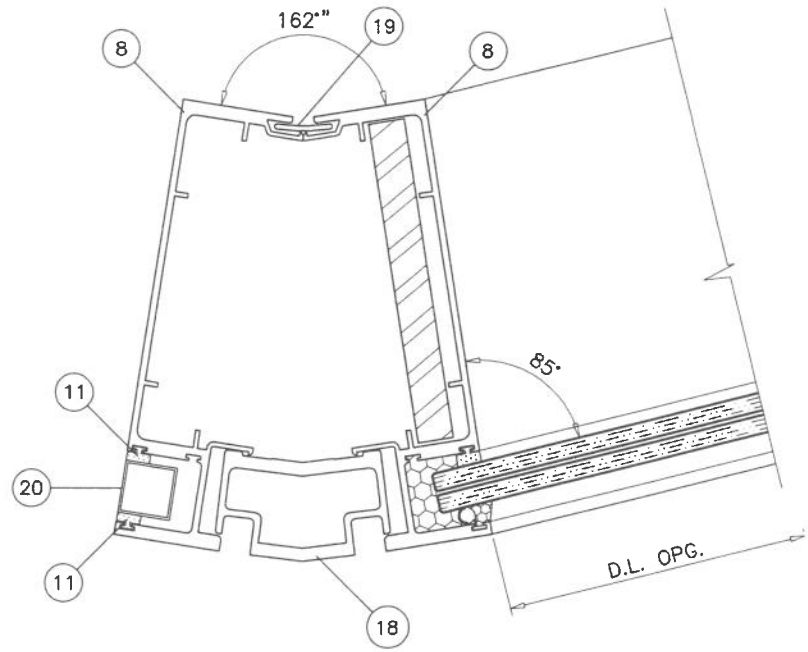
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drawing no.
W17-40

sheet **24** of **35**

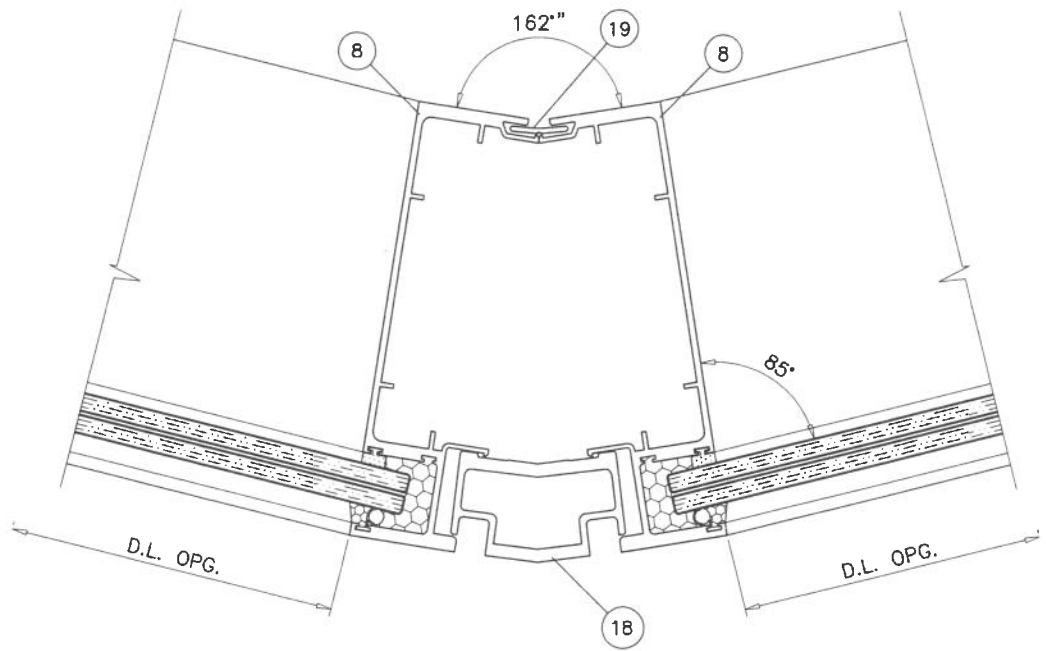
FL #22244

FRAME JAMB AT CURVED SYSTEM



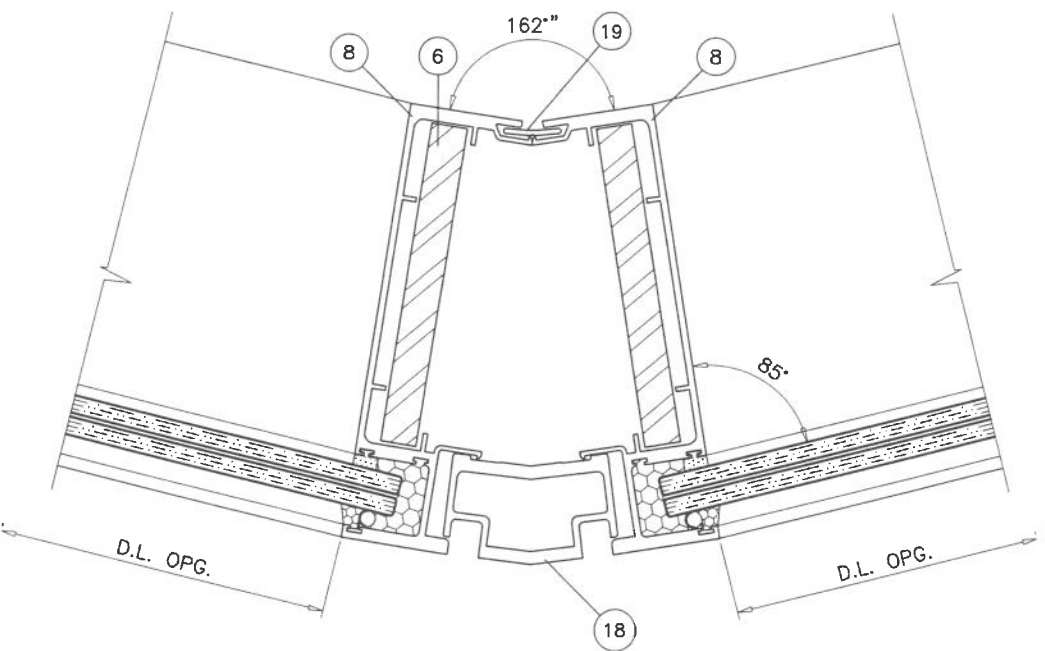
EXTERIOR

(H) CURVED SYSTEM WITHOUT REINFORCING



EXTERIOR

(H) CURVED SYSTEM WITH REINFORCING



EXTERIOR

Sealed: 9/4/2026

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revisions:	
no	date by description

date: 04-07-17

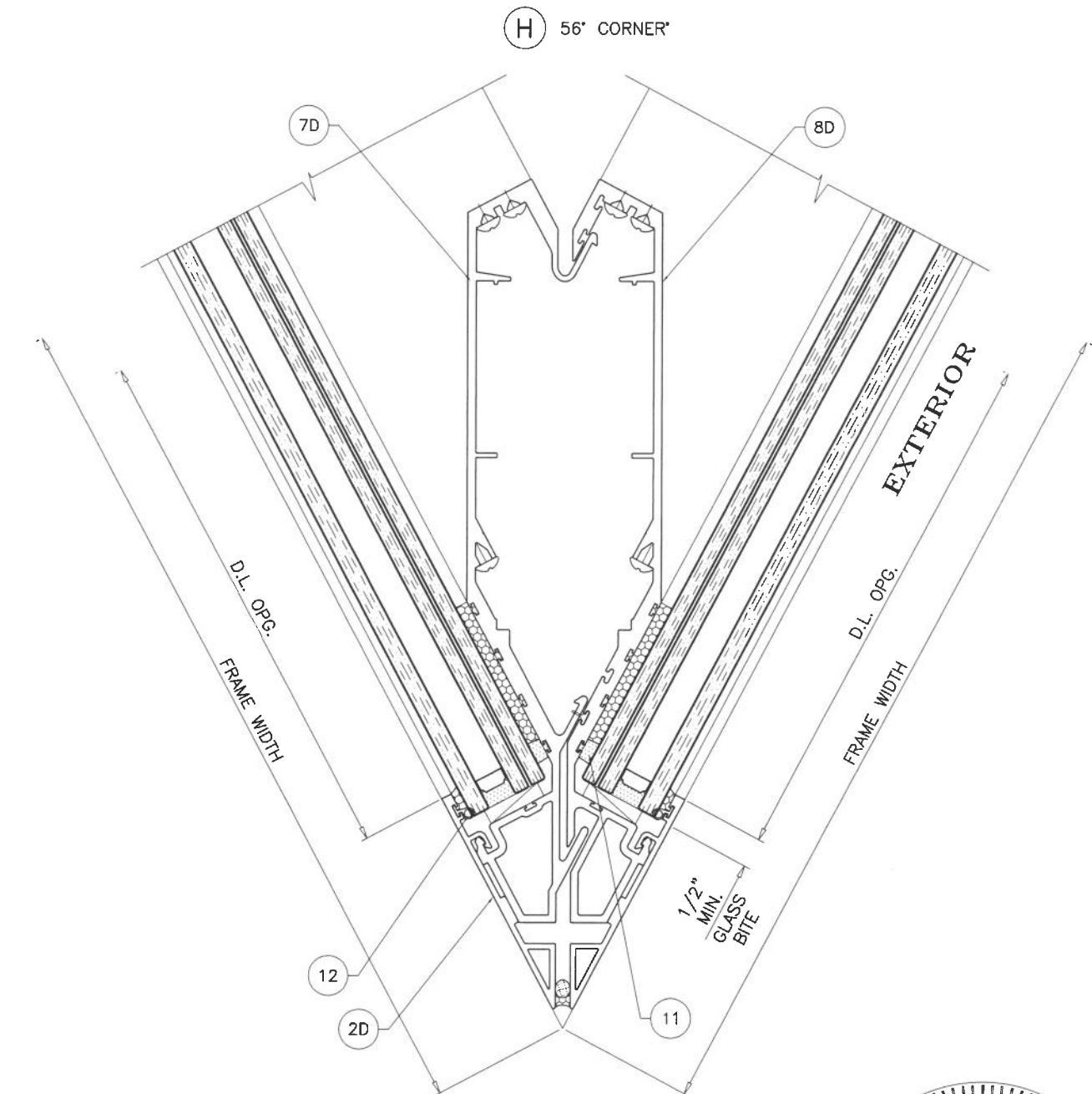
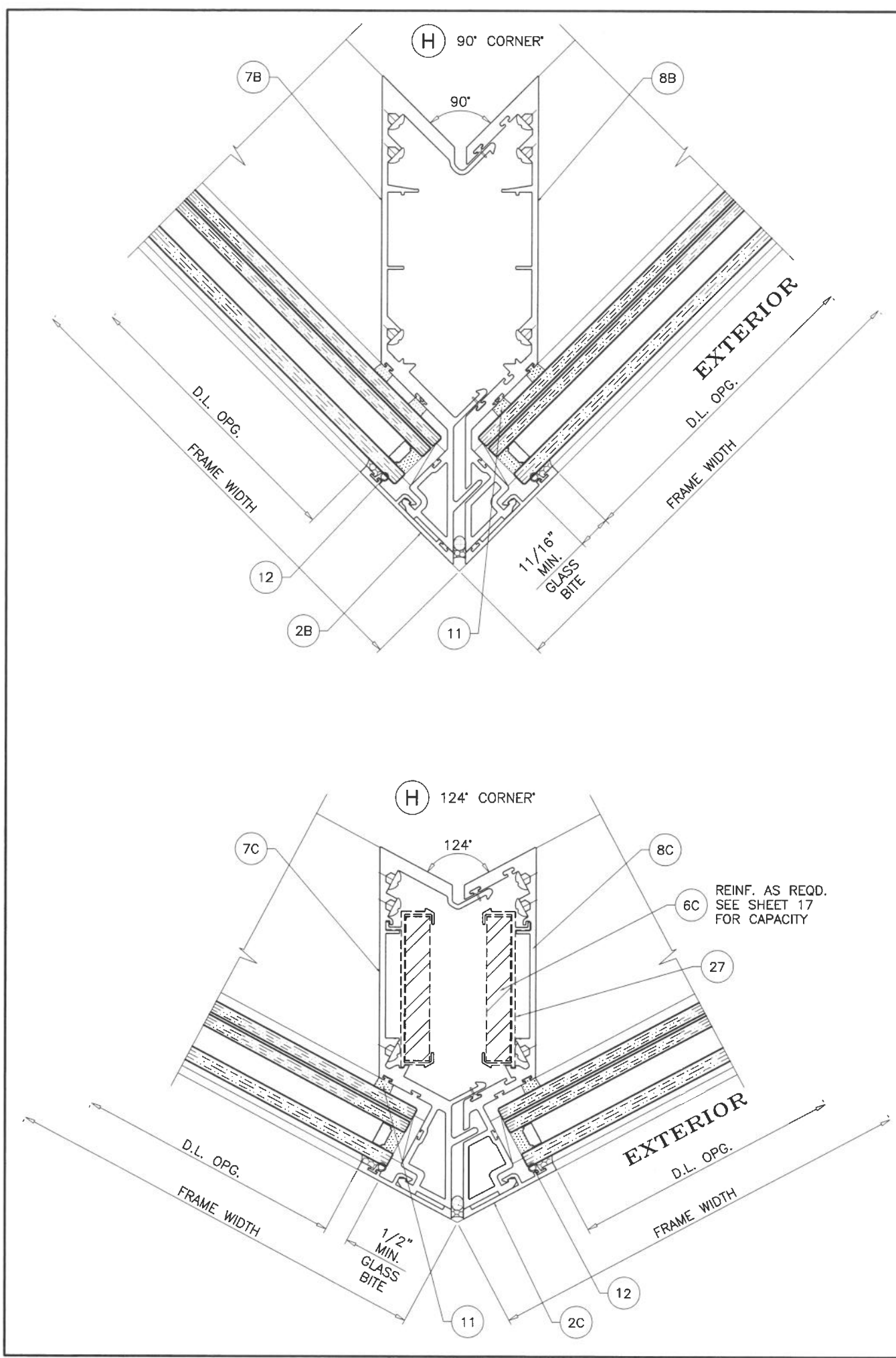
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dr. by: TARIQ

chk. by:

drawing no.
W17-40

sheet **25** of **35**



Sealed: 9/4/2026

FL #22244

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revisions:

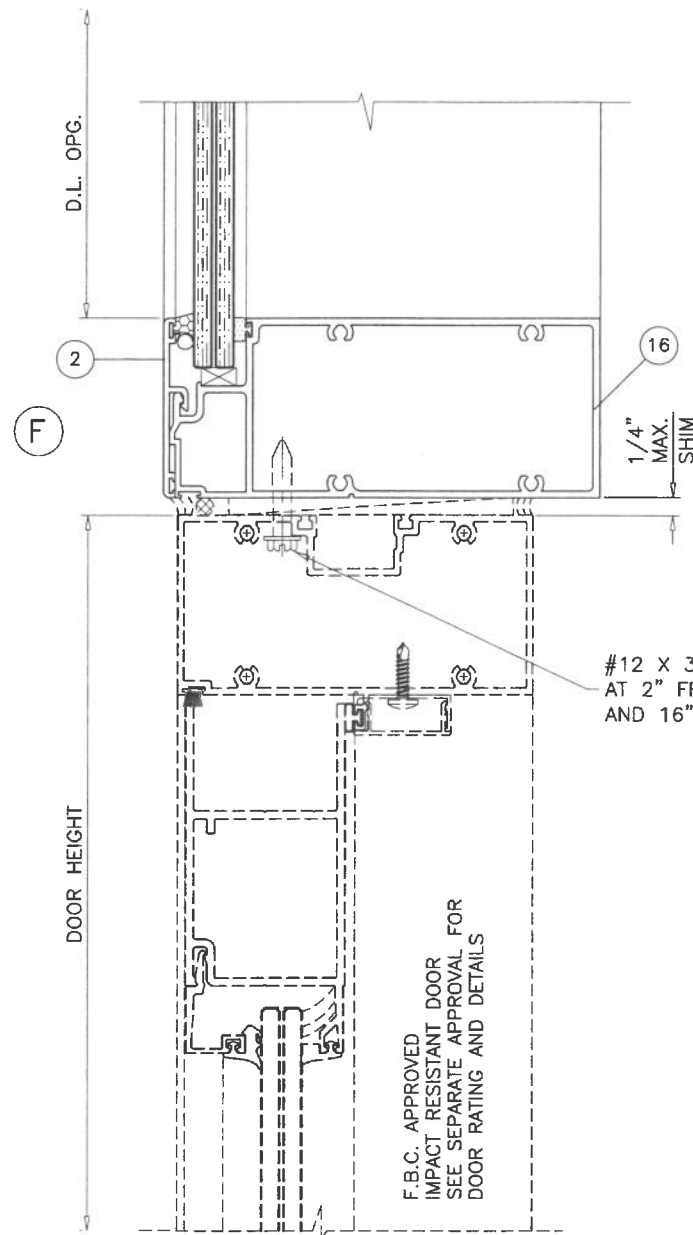
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drawing no.
W17-40

sheet 26 of 35

EXTERIOR

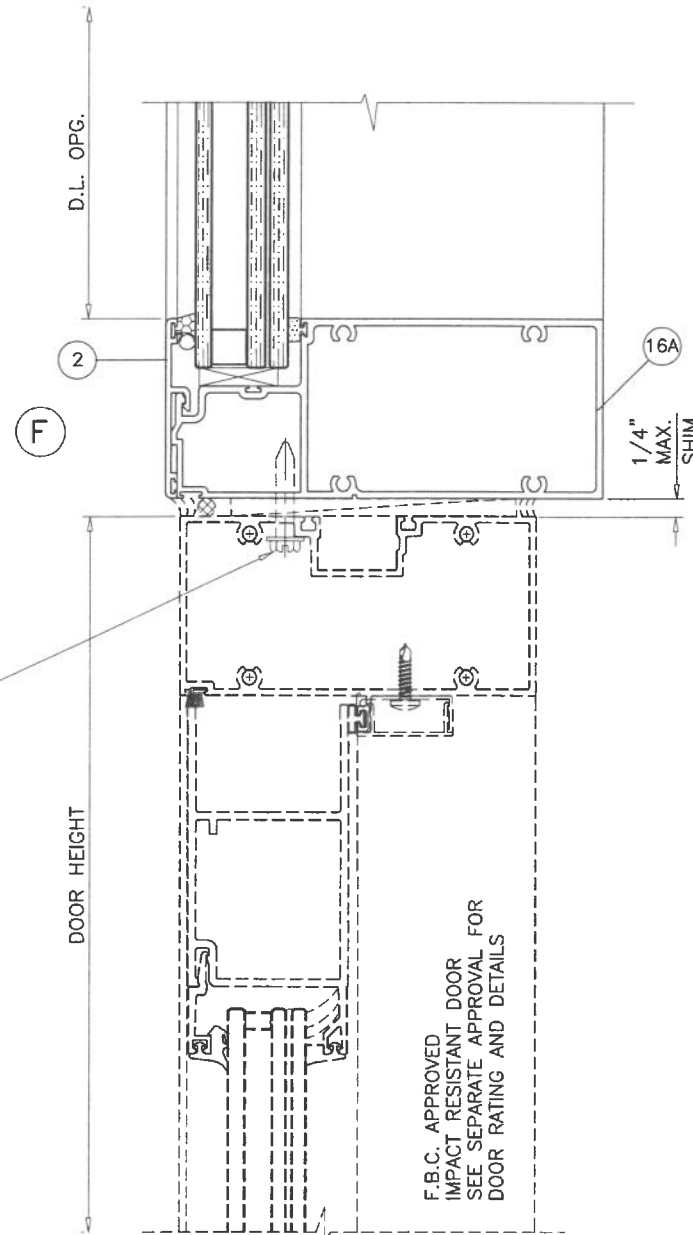


LAMINATED GLASS

#12 X 3/4" SMS
AT 2" FROM ENDS
AND 16" O.C. MAX.

F.B.C. APPROVED
IMPACT RESISTANT DOOR
SEE SEPARATE APPROVAL FOR
DOOR RATING AND DETAILS

EXTERIOR



INSUL. LAM. GLASS

F.B.C. APPROVED
IMPACT RESISTANT DOOR
SEE SEPARATE APPROVAL FOR
DOOR RATING AND DETAILS

SEE SEPARATE APPROVAL FOR DESIGN LOAD
CAPACITY OF DOORS AND DOOR ANCHORS.

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

Sealed: 9/4/2026

FL #22244

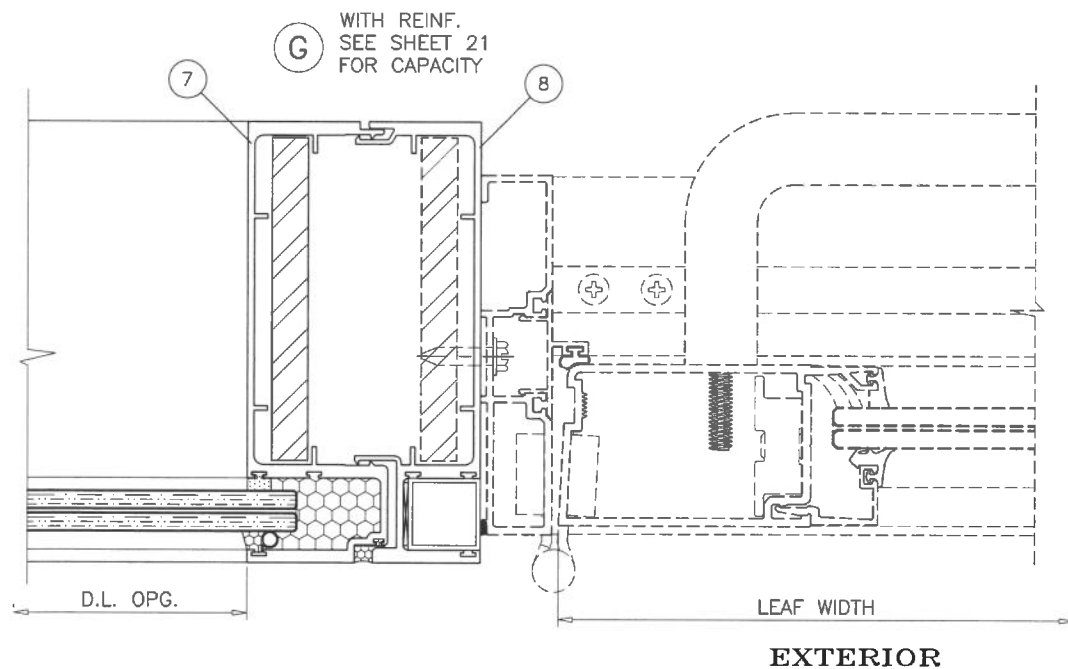
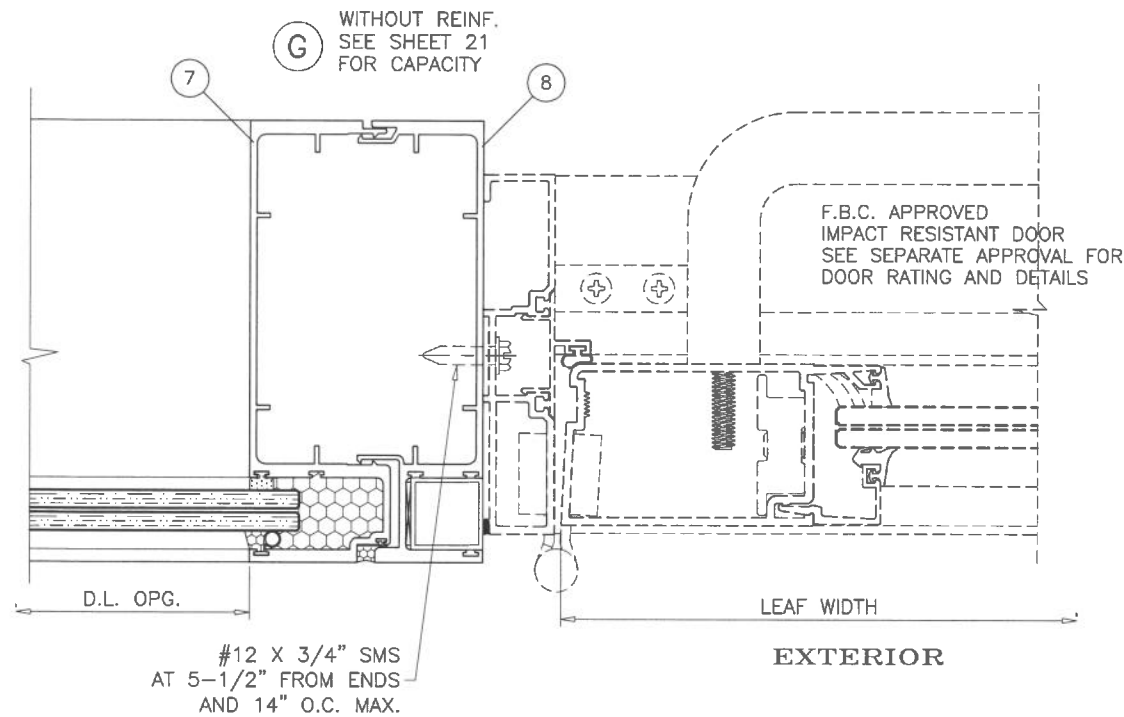


drawing no.		sheet 27 of 35	
W17-40			
date: 04-07-17	scale: 3/8" = 1"	dr. by: TARIQ	chk. by:
revisions:	no	date	by description

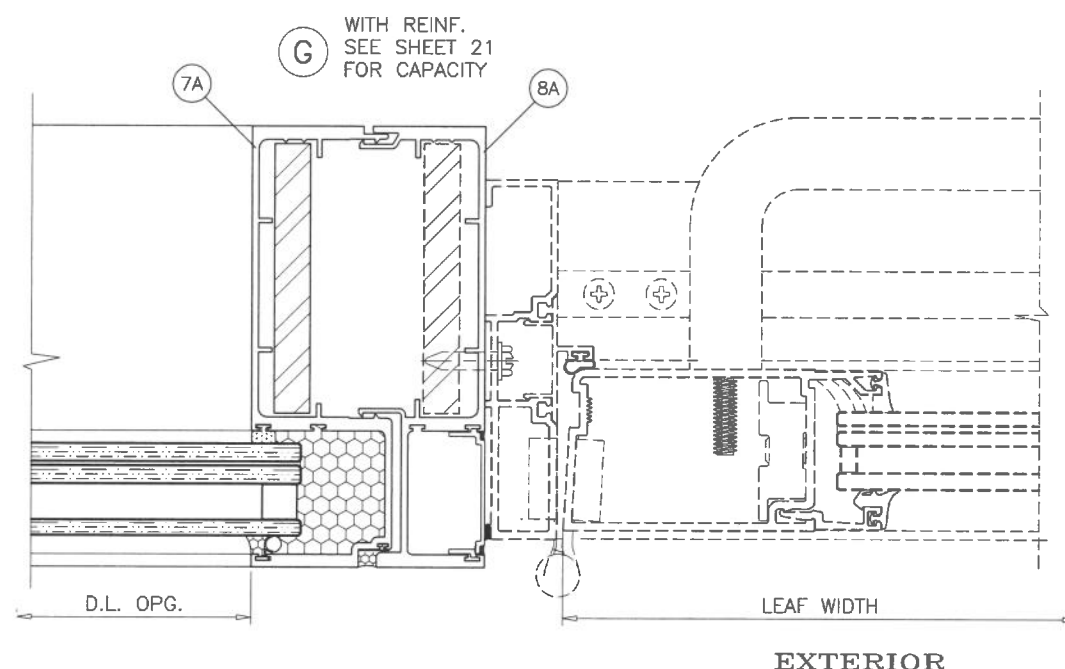
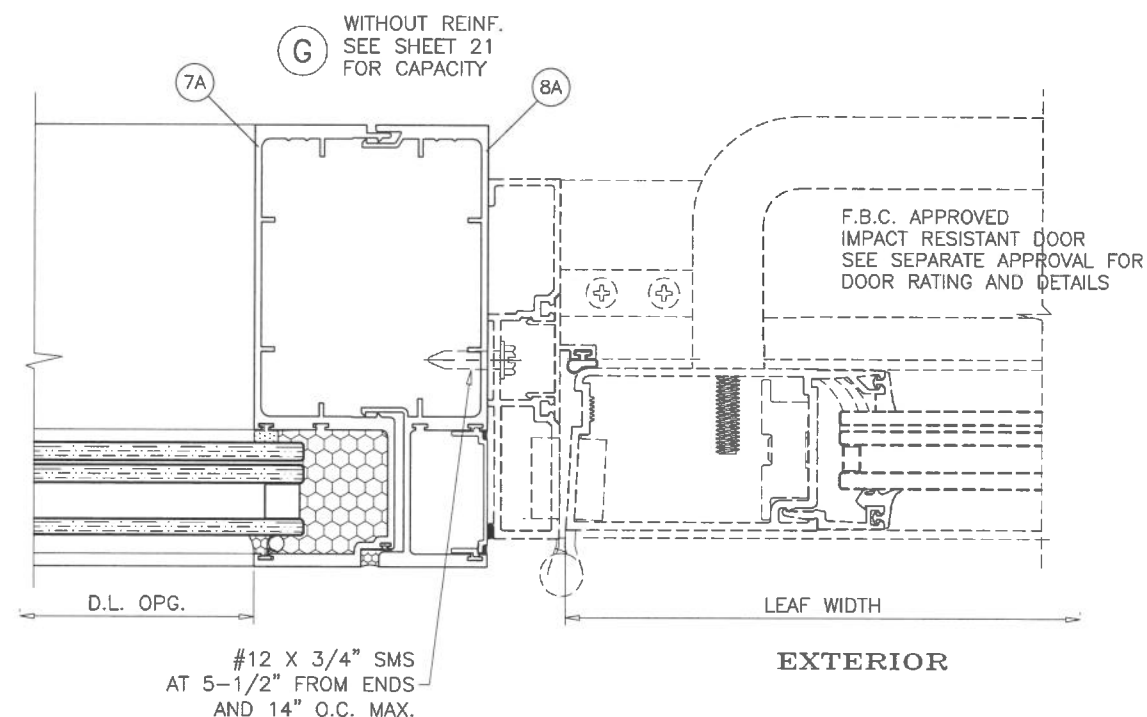
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STORE W17-40ES



LAMINATED GLASS



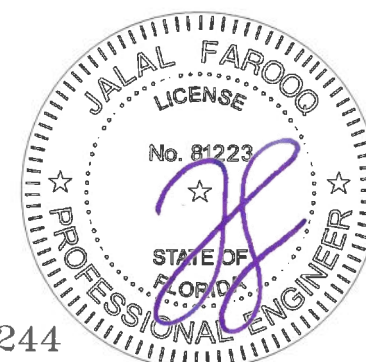
INSUL. LAM. GLASS

SEE SEPARATE APPROVAL FOR DESIGN LOAD
CAPACITY OF DOORS AND DOOR ANCHORS.

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

Sealed: 9/4/2026

FL #22244



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revisions:
no date by description

date: 04-07-17

scale: 3/8" = 1"

dr. by: TARIQ

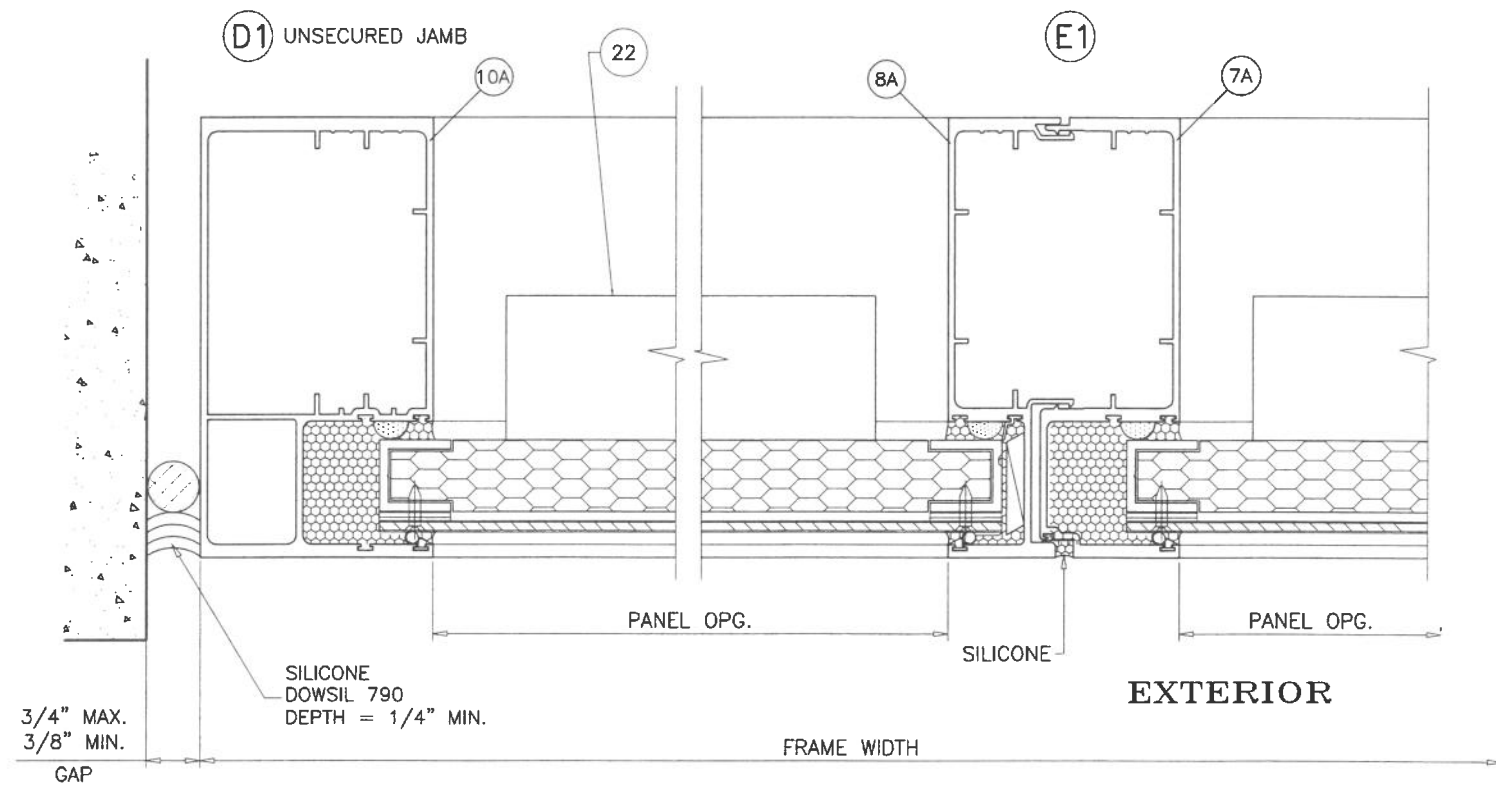
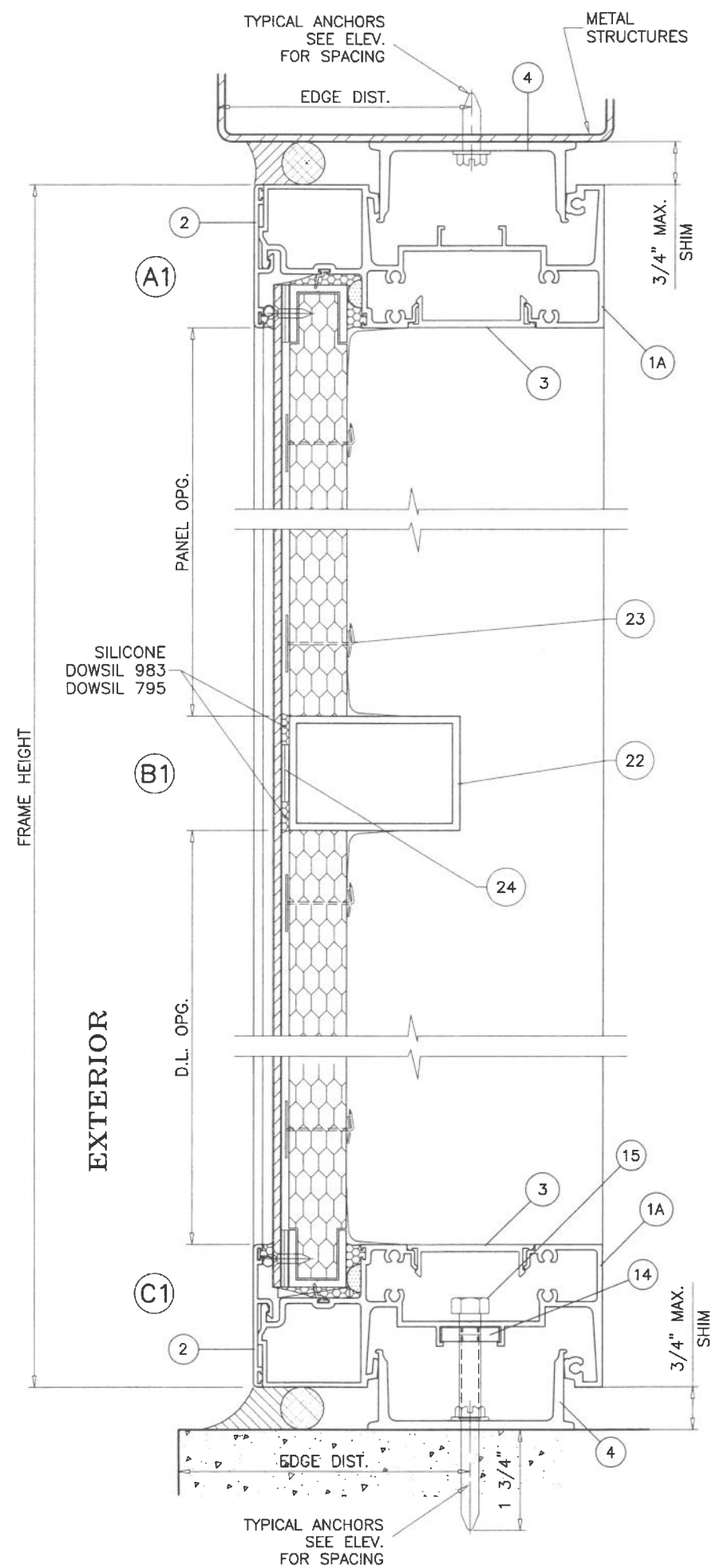
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drawing no.

W17-40

sheet 28 of 35

STORE W17-40ES



Sealed: 9/4/2026

FL #22244



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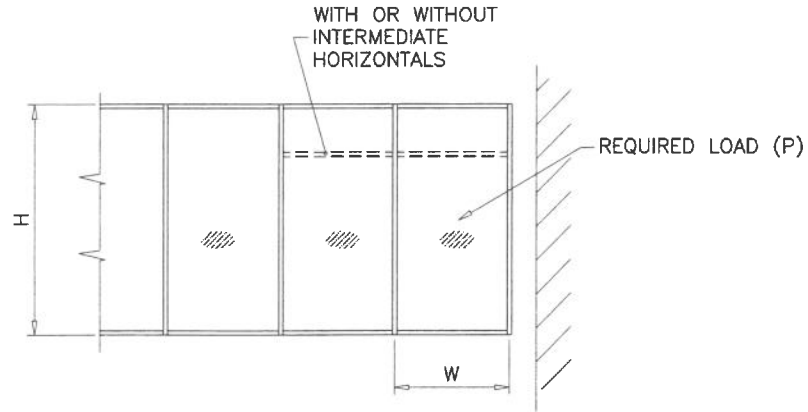
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[illegible]

UNANCHORED JAMB DEFLECTION AT 100 PSF DESIGN WIND PRESSURE DEFLECTION - IN. (CHART D100)					
NOMINAL DIMS.		JAMBS	JAMB	JAMB	JAMB
WIDTH (W)	FRAME HEIGHT	'J1L' & 'J2L'	'J3L'	'J4L'	'J5L'
30"	96"	.079	.045	.030	.062
36"		.095	.054	.037	.075
42"		.110	.063	.043	.087
48"		.126	.072	.049	.099
54"		.142	.081	.055	.112
60"		.158	.090	.061	.124
30"	102"	.100	.057	.039	.079
36"		.121	.069	.047	.095
42"		.141	.080	.054	.111
48"		.161	.092	.062	.127
54"		.181	.103	.070	.142
60"		.201	.115	.078	.158
30"	108"	.126	.072	.049	.099
36"		.152	.086	.059	.119
42"		.177	.101	.068	.139
48"		.202	.115	.078	.159
54"		.227	.130	.088	.179
60"		.253	.144	.098	.199
30"	114"	.157	.089	.061	.124
36"		.188	.107	.073	.148
42"		.220	.125	.085	.173
48"		.251	.143	.097	.198
54"		.282	.161	.109	.222
60"		.314	.179	.121	.247
30"	120"	.192	.110	.074	.152
36"		.231	.132	.089	.182
42"		.269	.154	.104	.212
48"		.308	.176	.119	.243
57"		.365	.198	.141	.288
30"	126"	.234	.133	.090	.184
36"		.281	.160	.109	.221
42"		.328	.187	.127	.258
48"		.374	.213	.145	.295
54"		.421	.240	.163	.332
30"	132"	.282	.161	.109	.222
36"		.338	.193	.131	.266
42"		.395	.225	.153	.311
48"		.451	.257	.174	.355
52"		.488	.278	.189	.385
30"	138"	.337	.192	.130	.265
36"		.404	.230	.156	.318
42"		.471	.269	.182	.371
48"		.539	.307	.208	.424
30"	144"	.399	.228	.154	.314
36"		.479	.273	.185	.377
42"		.559	.319	.216	.440
48"		.639	.364	.247	.503
30"	150"	.465	-	.182	.370
36"		.558	-	.218	.444
42"		.651	-	.254	.518
48"		.744	-	.291	.592
30"	156"	.544	-	.213	.433
36"		.653	-	.255	.520
42"		.762	-	.298	.606
48"		.871	-	.340	.693



UNANCHORED JAMBS MOVEMENT AND JOINT SEALANT DETERMINATION CHART D100 AT LEFT TO BE USED TO DETERMINE JAMB DEFLECTION AT 100 PSF DESIGN WIND PRESSURE FOR ANY OF THE POSSIBLE UNANCHORED CONDITIONS. THIS VALUE CAN BE USED TO DETERMINE THE ACTUAL PROJECT DEFLECTION USING INSTRUCTIONS SHOWN BELOW. USING GAP/DEFLECTION CHART DETERMINE THE MAX. DEFLECTION ALLOWED FOR THE GAPS SHOWN FOR TWO SEALANT TYPES.

- INSTRUCTIONS:** TO OBTAIN DEFLECTION AT PROJECT (Pd)
1. DETERMINE APPLICABLE JAMB (UNREINFORCED OR REINFORCED)
 2. OBTAIN REQUIRED DESIGN WIND PRESSURE.
 3. READ DEFLECTION AT 100 PSF (D100) FROM CHART AT LEFT.
 4. OBTAIN PROJECT DEFLECTION (PD)

$$PD = \frac{P}{100} \times D100$$

(PD MUST NOT EXCEED L/180)

5. FROM CHART BELOW DETERMINE MAX. DEFLECTION ALLOWABLE FOR A GIVEN PROJECT GAP AND SEALANT TYPE.

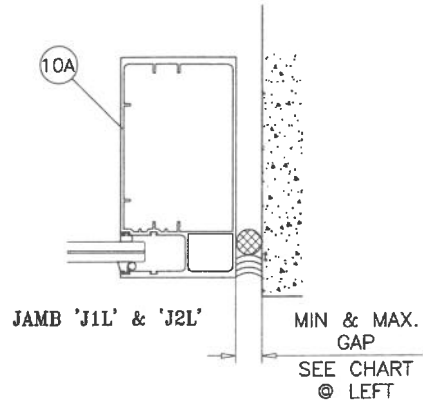
GAP/DEFL. CHART	
GAP, IN.	MAX. DEFL.
.250"	.433"
.375"	.649"
.500"	.800"
.625"	.800"
.750"	.800"
1.000"	.800"

MAXIMUM GAP = 1"
MINIMUM GAP = 1/4"

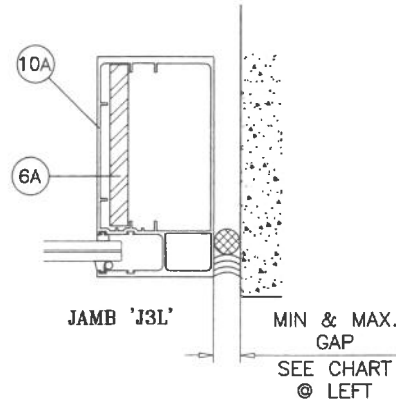
EXAMPLE:
FOR A GAP OF 1/2"
MAX. DEFLECTION ALLOWED = .800" FOR 100% STRETCH SEALANT

ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.

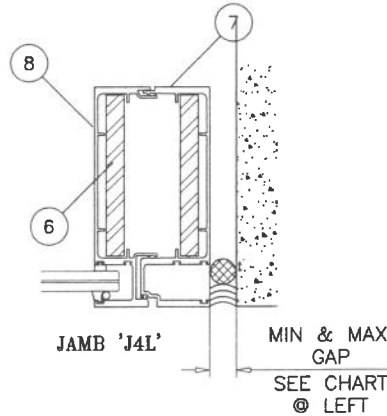
GAPS LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OF RECORD BY THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.



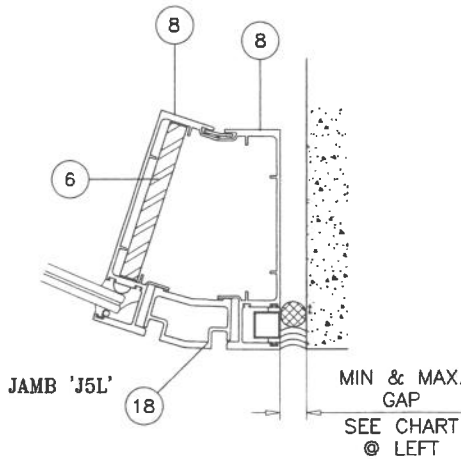
Ix IN^4	Sx IN^3
14.6111	4.6414



	Ix IN^4	Sx IN^3
ALUMINUM	14.6111	4.6414
STEEL	3.797	1.687
TOTAL Ix ALUM + Ix STL X 2.9	25.622	



	Ix IN^4	Sx IN^3
ALUMINUM	15.385	4.546
STEEL	7.594	3.375
TOTAL Ix ALUM + Ix STL X 2.9	37.407	



	Ix IN^4	Sx IN^3
ALUMINUM	14.7036	4.52
STEEL	3.797	1.6875
TOTAL Ix ALUM + Ix STL X 2.9	25.7149	

NOTE:
DATA IN THIS SHEET MAY BE USED TO QUALIFY SEALANT TO BE USED AT UNANCHORED JAMBS.
MAX. MOVEMENT CONSIDERED=100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOW WALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.

Sealed: 9/4/2026

LAMINATED GLASS



FL #22244

AL-FAROOQ CORPORATION
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revisions:
no date by description

date: 04-07-17

scale: NONE

dr. by: TARIQ

chk. by:

drawing no.

W17-40

sheet 30 of 35

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STORE\W17-40ES

UNANCHORED JAMB DEFLECTION AT 100 PSF DESIGN WIND PRESSURE
DEFLECTION - IN. (CHART D100)

NOMINAL DIMS.		JAMBS	JAMB	JAMB
WIDTH (W)	FRAME HEIGHT	'J1i' & 'J2i'	'J3i'	'J4i'
30"	96"	.081	.056	.049
36"		.097	.067	.059
42"		.114	.078	.069
48"		.130	.090	.078
54"		.146	.101	.088
60"		.162	.112	.098
66"		.175	.122	-
72"		.191	.133	-
78"		.207	.144	-
30"	102"	.103	.071	.062
36"		.124	.086	.075
42"		.145	.100	.087
48"		.165	.114	.100
54"		.186	.128	.112
60"		.207	.143	.125
66"		.223	.155	-
72"		.244	.169	-
78"		.264	.183	-
30"	108"	.130	.090	.078
36"		.156	.108	.094
42"		.182	.126	.110
48"		.208	.144	.125
54"		.234	.161	.141
60"		.260	.179	.157
66"		.281	.195	-
72"		.306	.213	-
78"		.332	.230	-
30"	114"	.161	.111	.097
36"		.194	.134	.117
42"		.226	.156	.136
48"		.258	.178	.156
54"		.290	.200	.175
60"		.323	.223	.195
66"		.349	.242	-
72"		.380	.264	-
78"		.412	.286	-
30"	120"	.198	.137	.120
36"		.238	.164	.143
42"		.277	.191	.167
48"		.317	.219	.191
57"		.376	.260	.227
66"		.428	.297	-
72"		.467	.324	-
78"		.506	.351	-
30"	126"	.241	.166	.145
36"		.289	.199	.174
42"		.337	.233	.203
48"		.385	.266	.232
54"		.433	.299	.261
66"		.520	.361	-
72"		.567	.394	-
78"		.615	.427	-

UNANCHORED JAMB DEFLECTION AT 100 PSF DESIGN WIND PRESSURE
DEFLECTION - IN. (CHART D100)

NOMINAL DIMS.		JAMBS	JAMB	JAMB
WIDTH (W)	FRAME HEIGHT	'J1i' & 'J2i'	'J3i'	'J4i'
30"	132"	.290	.200	.175
36"		.348	.240	.210
42"		.406	.280	.245
48"		.464	.320	.280
52"		.503	.347	.303
66"		.626	.435	-
72"		.683	.474	-
30"	138"	.346	.239	.209
36"		.416	.287	.251
42"		.485	.335	.293
48"		.554	.383	.334
66"		.748	.519	-
72"		.816	.567	-
30"	144"	.411	.284	.239
36"		.493	.340	.287
42"		.575	.397	.335
48"		.657	.454	.383
65-1/4"		.877	.609	-
66"		.887	.616	-
70-11/16"		.950	.660	-

INSTRUCTIONS: TO OBTAIN DEFLECTION AT PROJECT (Pd)

1. DETERMINE APPLICABLE JAMB (UNREINFORCED OR REINFORCED)
2. OBTAIN REQUIRED DESIGN WIND PRESSURE.
3. READ DEFLECTION AT 100 PSF (D100) FROM CHART AT LEFT.
4. OPTAIN PROJECT DEFLECTION (PD)

$$PD = \frac{P}{100} \times D100$$

(PD MUST NOT EXCEED L/180)

5. FROM CHART BELOW DETERMINE MAX. DEFLECTION ALLOWABLE FOR A GIVEN PROJECT GAP AND SEALANT TYPE.

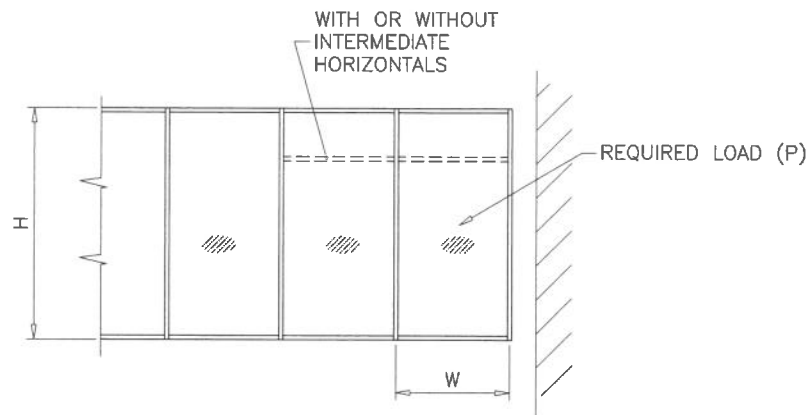
GAP/DEFL. CHART	
GAP. IN.	MAX. DEFL.
.250"	.433"
.375"	.649"
.500"	.800"
.625"	.800"
.750"	.800"
1.000"	.800"

MAXIMUM GAP = 1"
MINIMUM GAP = 1/4"

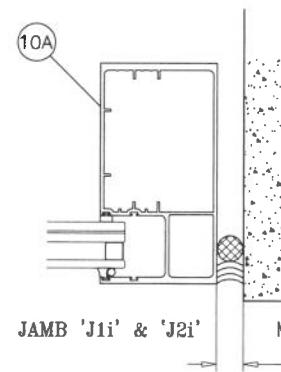
EXAMPLE:
FOR A GAP OF 1/2"
MAX. DEFLECTION ALLOWED = .800" FOR 100% STRETCH SEALANT

ALTERNATE SEALANTS AT JAMB GAPS CAN BE
DESIGNED BY ENGINEER OF RECORD
BASED ON MANUFACTURER GUIDE LINES.

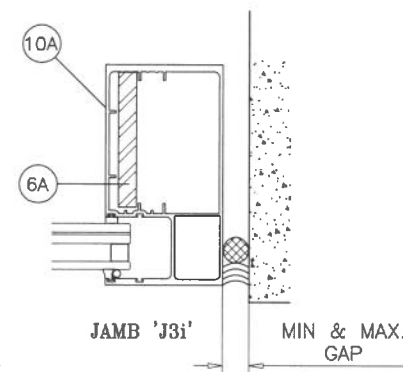
GAPS LESS THAN 1/4" MAY BE DESIGNED BY
ENGINEER OF RECORD BY THE USE OF BOND
BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.



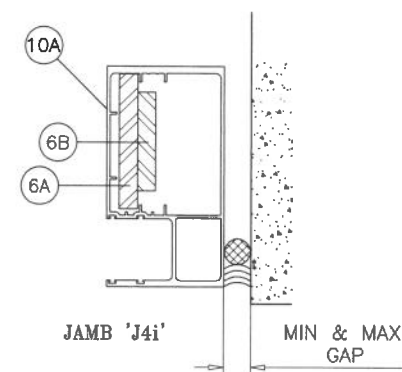
UNANCHORED JAMBS MOVEMENT AND JOINT SEALANT DETERMINATION
CHART D100 AT LEFT TO BE USED TO DETERMINE JAMB DEFLECTION
AT 100 PSF DESIGN WIND PRESSURE FOR ANY OF THE POSSIBLE
UNANCHORED CONDITIONS.
THIS VALUE CAN BE USED TO DETERMINE THE ACTUAL PROJECT DEFLECTION
USING INSTRUCTIONS SHOWN BELOW.
USING GAP/DEFLECTION CHART DETERMINE THE MAX. DEFLECTION ALLOWED
FOR THE GAPS SHOWN FOR TWO SEALANT TYPES.



Ix IN^4	Sx IN^3
14.1989	4.5744



	Ix IN^4	Sx IN^3
ALUMINUM	14.1989	4.5744
STEEL	2.197	1.172
TOTAL Ix ALUM + Ix STL X 2.9	20.571	



	Ix IN^4	Sx IN^3
ALUMINUM	14.1989	4.5744
STEEL	3.0164	1.172
TOTAL Ix ALUM + Ix STL X 2.9	23.30	

NOTE:
DATA IN THIS SHEET MAY BE USED TO QUALIFY SEALANT
TO BE USED AT UNANCHORED JAMBS.
MAX. MOVEMENT CONSIDERED=100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND
APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO
SUBSTRATE & WINDOW WALL MATERIAL/FINISH AND
COMPLIANCE FOR WARRANTY.

Sealed: 9/4/2026

INSUL. LAM. GLASS

FL #22244



SERIES 7100 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

date: 04-07-17
scale: NONE
dr. by: TARIQ
chk. by:

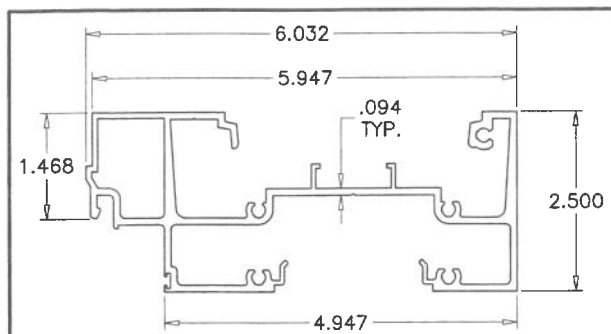
drawing no.

W17-40

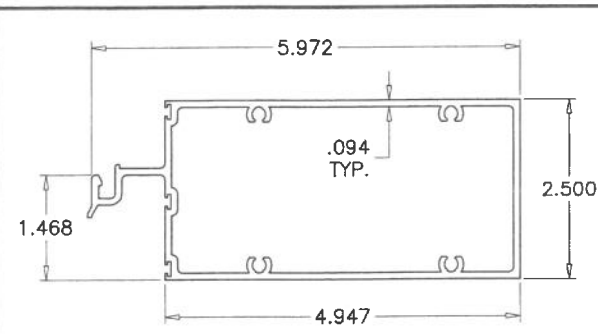
sheet 31 of 35

AL-FAROOQ CORPORATION
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(C.A.N. 3538)

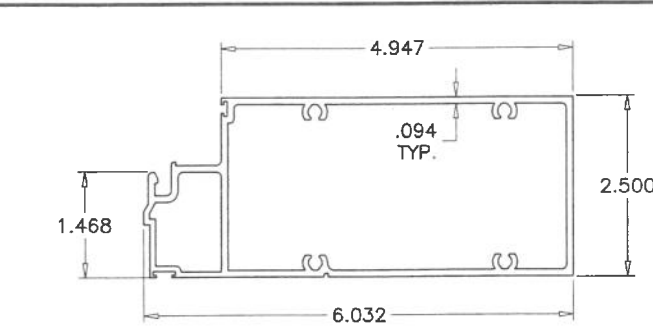
STORE\W17-40ES



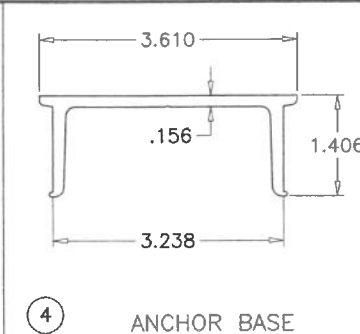
① FRAME HEAD/SILL (LAM. GLASS)



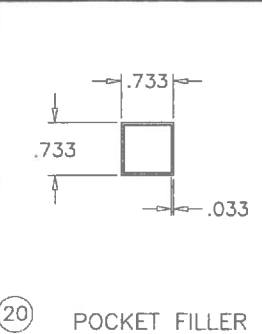
⑤ INTERMEDIATE HORIZONTAL (LAM. GLASS)



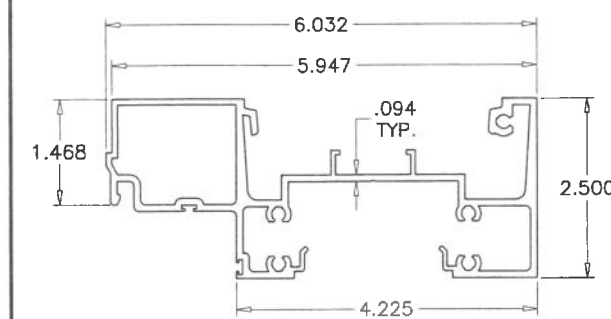
⑬ TRANSOM MULLION (LAM. GLASS)



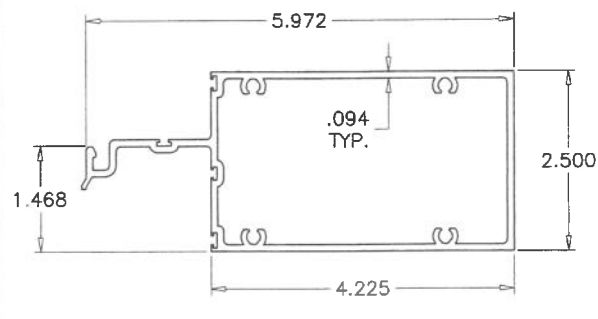
④ ANCHOR BASE



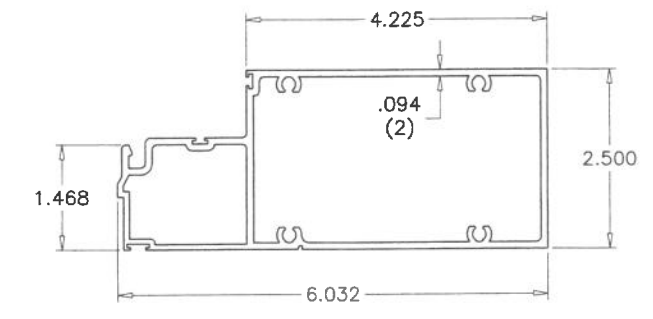
⑳ POCKET FILLER



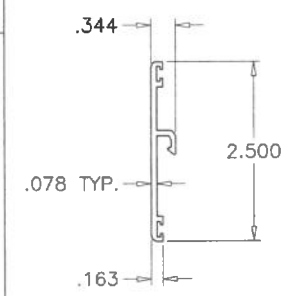
①A FRAME HEAD/SILL (LAM. INSUL. GLASS)



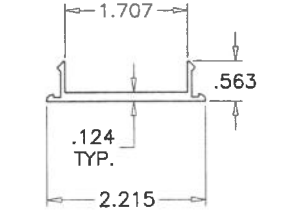
⑤A INTERMEDIATE HORIZONTAL (LAM. INSUL. GLASS)



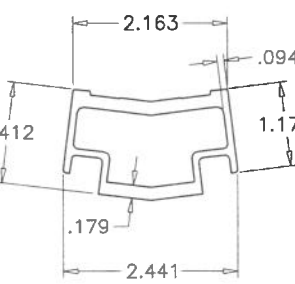
⑬A TRANSOM MULLION (LAM. INSUL. GLASS)



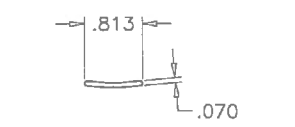
② GLAZING STOP



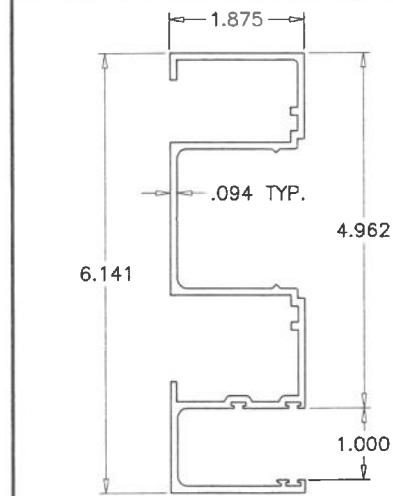
③ SNAP COVER



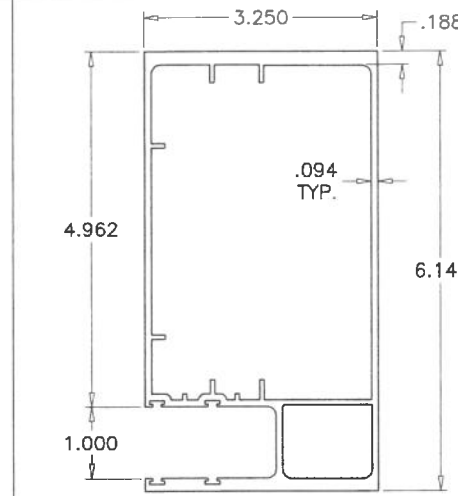
⑱ CORNER EXTERIOR



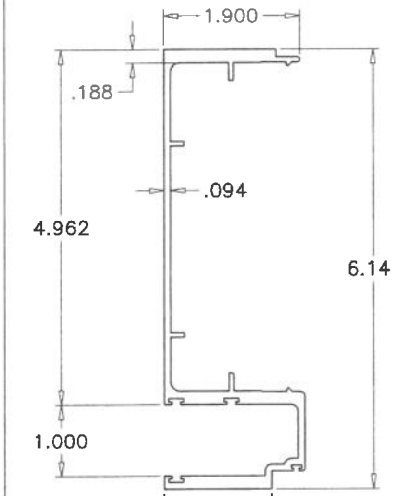
⑲ CORNER INTERIOR



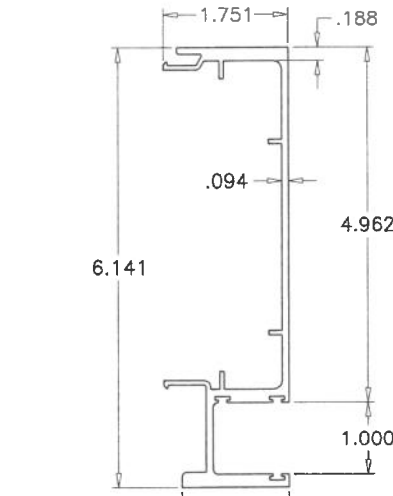
⑨ SECURED JAMB (LAM. GLASS)



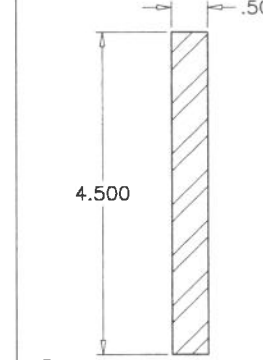
⑩ UNSECURED JAMB (LAM. GLASS)



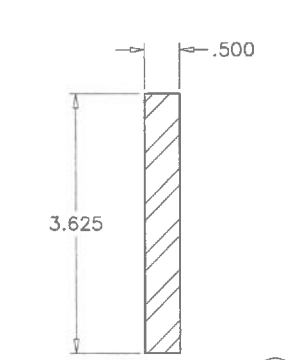
⑦ MALE MULLION (LAM. GLASS)



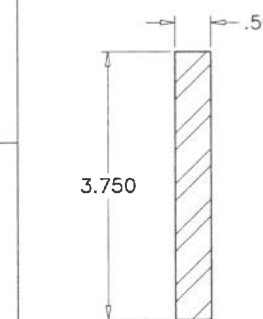
⑧ FEMALE MULLION (LAM. GLASS)



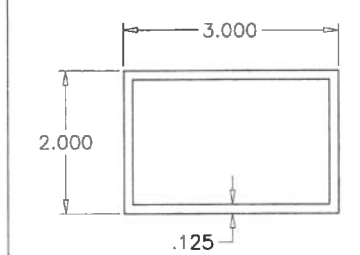
⑥ REINF. BARS (LAM. GLASS)



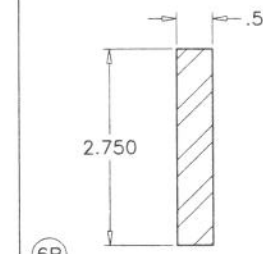
⑥.1 REINF. BAR (LAM. INSUL. GLASS)



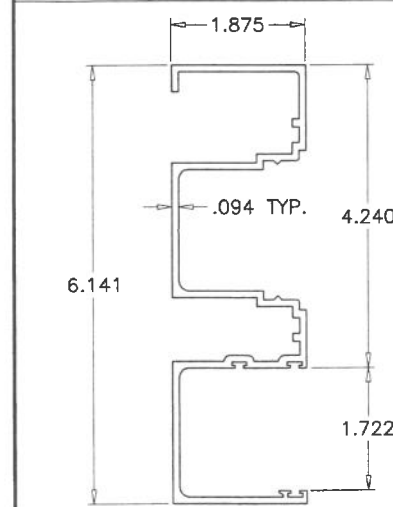
⑥A REINF. BAR (LAM. INSUL. GLASS)



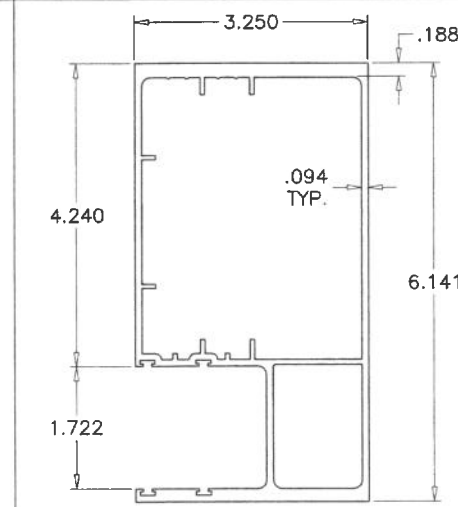
②② PANEL STIFFENER



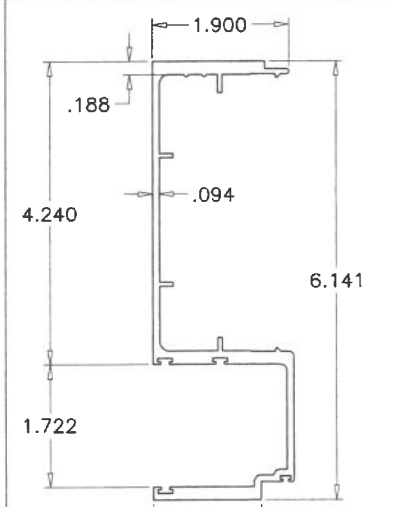
⑥B REINF. BAR (LAM. INSUL. GLASS)



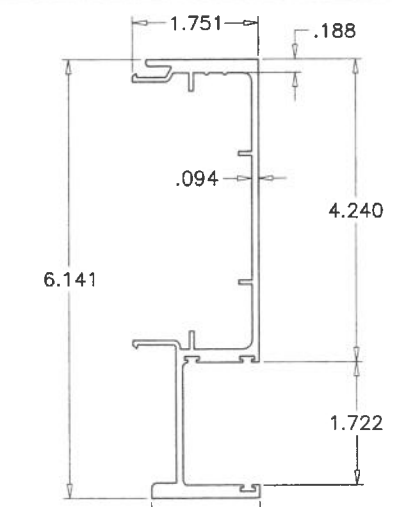
⑨A SECURED JAMB (LAM. INSUL. GL.)



⑩A UNSECURED JAMB (LAM. INSUL. GL.)



⑦A MALE MULLION (LAM. INSUL. GL.)



⑧A FEMALE MULLION (LAM. INSUL. GL.)



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FL #22244

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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MIAMI, FLORIDA 33173
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STORE W17-40ES

SERIES 7100 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

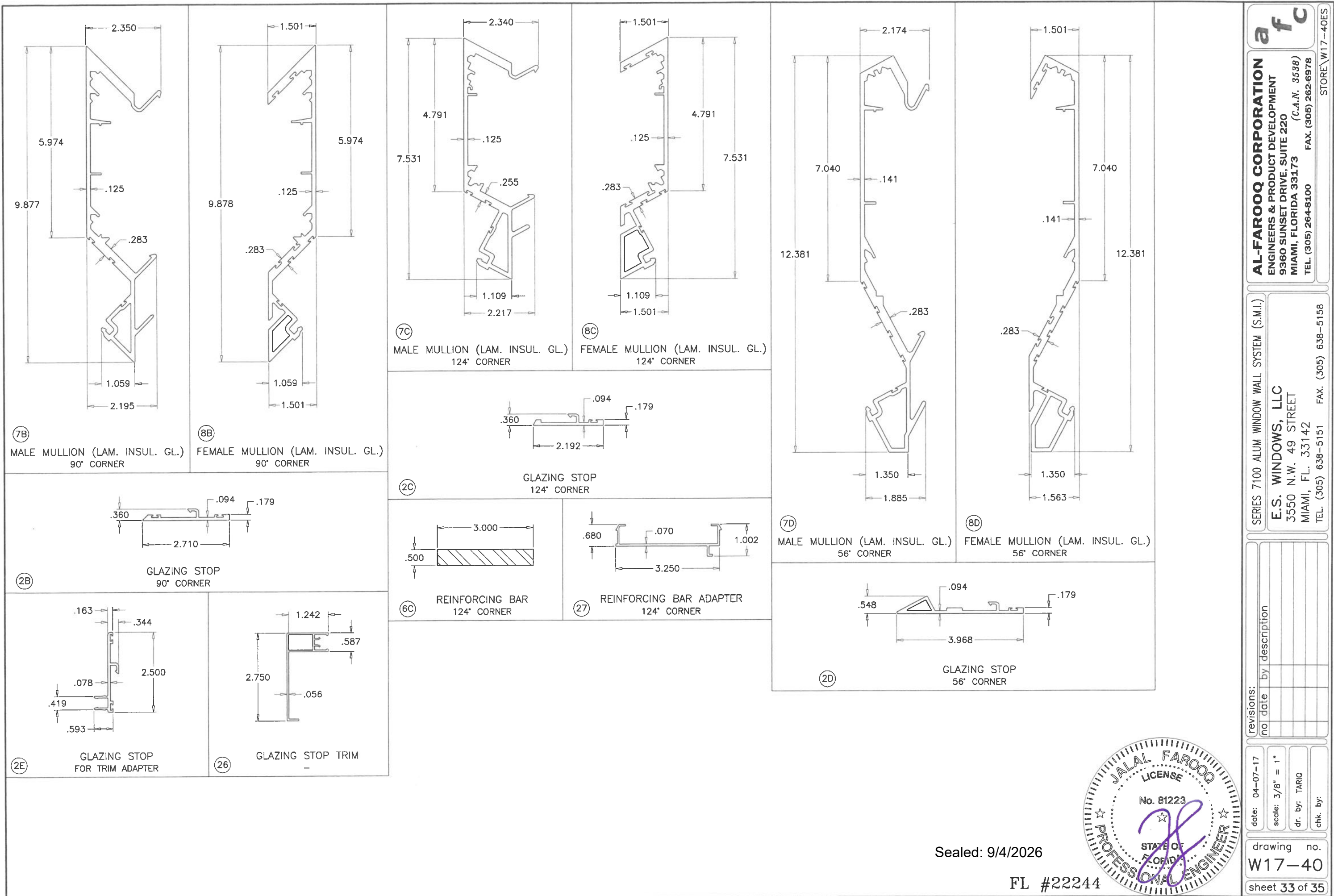
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drawing no. **W17-40**

sheet **32** of **35**



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FL #22244



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chk. by:

drawing no.
W17-40
sheet 33 of 35

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES-7001B	AS REQD.	FRAME HEAD/SILL (LAM. GLASS)	6005-T5	-
1A	ES-7021B	AS REQD.	FRAME HEAD/SILL (INSUL. LAM. GLASS)	6005-T5	-
2	ES-7006	AS REQD.	GLAZING STOP	6063-T6	-
2B	ES-7000-066	AS REQD.	GLAZING STOP 90° CORNER	6063-T6	-
2C	ES-7000-435	AS REQD.	GLAZING STOP 124° CORNER	6063-T6	-
2D	ES-7000-445	AS REQD.	GLAZING STOP 56° CORNER	6063-T6	-
2E	ES-7000-442	AS REQD.	GLAZING STOP FOR TRIM ADAPTER	6063-T6	-
3	ES-7003	AS REQD.	SNAP COVER	6063-T5	-
4	ES-7004	AS REQD.	ANCHOR BASE, LENGTH AS REQD.	6005-T5	-
5	ES-7005	AS REQD.	INTERMEDIATE HORIZONTAL (LAM. GLASS)	6005-T5	-
5A	ES-7022	AS REQD.	INTERMEDIATE HORIZONTAL (INSUL. LAM. GLASS)	6005-T5	-
6	-	AS REQD.	REINFORCING BAR (LAM. GLASS)	STEEL	A36, Fu MIN. = 58 KSI
6.1	-	AS REQD.	REINFORCING BAR (LAM. GLASS)	STEEL	A36, Fu MIN. = 58 KSI
6A	-	AS REQD.	REINFORCING BAR (INSUL. LAM. GLASS)	STEEL	A36, Fu MIN. = 58 KSI
6B	-	AS REQD.	REINFORCING BAR (INSUL. LAM. GLASS)	STEEL	A36, Fu MIN. = 58 KSI
6C	-	AS REQD.	REINFORCING BAR (124° CORNER MULLION)	STEEL	A36, Fu MIN. = 58 KSI
7	ES-7007	AS REQD.	MALE MULLION (LAM. GLASS)	6005-T5	-
7A	ES-7023	AS REQD.	MALE MULLION (INSUL. LAM. GLASS)	6005-T5	-
7B	ES-7000-064	AS REQD.	MALE MULLION (INSUL. LAM. GLASS) 90° CORNER	6005-T5	-
7C	ES-7000-433	AS REQD.	MALE MULLION (INSUL. LAM. GLASS) 124° CORNER	6005-T5	-
7D	ES-7000-437	AS REQD.	MALE MULLION (INSUL. LAM. GLASS) 56° CORNER	6005-T5	-
8	ES-7008	AS REQD.	FEMALE MULLION (LAM. GLASS)	6005-T5	-
8A	ES-7024	AS REQD.	FEMALE MULLION (INSUL. LAM. GLASS)	6005-T5	-
8B	ES-7000-065	AS REQD.	FEMALE MULLION (INSUL. LAM. GLASS) 90° CORNER	6005-T5	-
8C	ES-7000-434	AS REQD.	FEMALE MULLION (INSUL. LAM. GLASS) 124° CORNER	6005-T5	-
8D	ES-7000-439	AS REQD.	FEMALE MULLION (INSUL. LAM. GLASS) 56° CORNER	6005-T5	-
9	ES-7009	AS REQD.	SECURED JAMB (LAM. GLASS)	6063-T6	-
9A	ES-7025	AS REQD.	SECURED JAMB (INSUL. LAM. GLASS)	6063-T6	-
10	ES-7010A	AS REQD.	UNSECURED JAMB (LAM. GLASS)	6005-T5	-
10A	ES-7026A	AS REQD.	UNSECURED JAMB (INSUL. LAM. GLASS)	6005-T5	-
11	ES-7100-G01	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 60±5 SHORE A
11A	ES-7011	AS REQD.	BUMPON SPACER	SILICONE	DUROMETER 70±5 SHORE A
12	ES-7000-G01	AS REQD.	EXTERIOR GLASS SEAL	SILICONE	SILICONE DUROMETER 60±5 SHORE A
12A	ES-4018A	AS REQD.	EXTERIOR GLASS SEAL	SILICONE	SILICONE DUROMETER 60±5 SHORE A
13	#12 X 1"	AS REQD.	FRAME ASSEMBLY SCREWS	-	PH SMS
13A	#14 X 1"	AS REQD.	FRAME ASSEMBLY SCREWS	-	PH SMS
14	-	AS REQD.	1/4" X 1" BAR WITH 3/8" THREADED HOLE	ALUMINUM	6063-T5 MIN.
15	3/8" BOLT	AS REQD.	LEVELING SCREW	ST/ST	-
16	-	AS REQD.	TRANSOM MULLION (LAM. GLASS)	6005-T5	-
16A	-	AS REQD.	TRANSOM MULLION (INSUL. LAM. GLASS)	6005-T5	-
17	80-372A	2/ LITE	SETTING BLOCK (LAM. GLASS)	EPDM	DUROMETER 80±5 SHORE A
17A	ES-4520-B02A	2/ LITE	SETTING BLOCK (INSUL. LAM. GLASS)	EPDM	DUROMETER 80±5 SHORE A
18	ES-7000-402	AS REQD.	CORNER EXTERIOR	6005-T5	-
19	ES-7000-403	AS REQD.	CORNER INTERIOR	6005-T5	-
20	TGT-115	AS REQD.	POCKET FILLER	6063-T6	-
21	ES-7000-G02	AS REQD.	SILICONE DAM	SILICONE	DUROMETER 60±5 SHORE A
22	T-007	AS REQD.	PANEL STIFFENER	6063-T6	-
23	-	AS REQD.	1" RETAINER PIN	-	-
24	-	AS REQD.	1/8" X 1" DOUBLE FACE GLAZING TAPE	FOAM	-
25	#10 X 3/4"	AS REQD.	PANEL ASSEMBLY SCREWS AT 6" FROM ENDS & 12" O.C.	ST/ST	FH SMS
26	ES-7000-444	AS REQD.	DECORATIVE COVER	6063-T6	OPTIONAL
27	ES-7000-436	AS REQD.	REINFORCING BAR ADAPTER	6063-T6	-

SEALANTS:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.



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