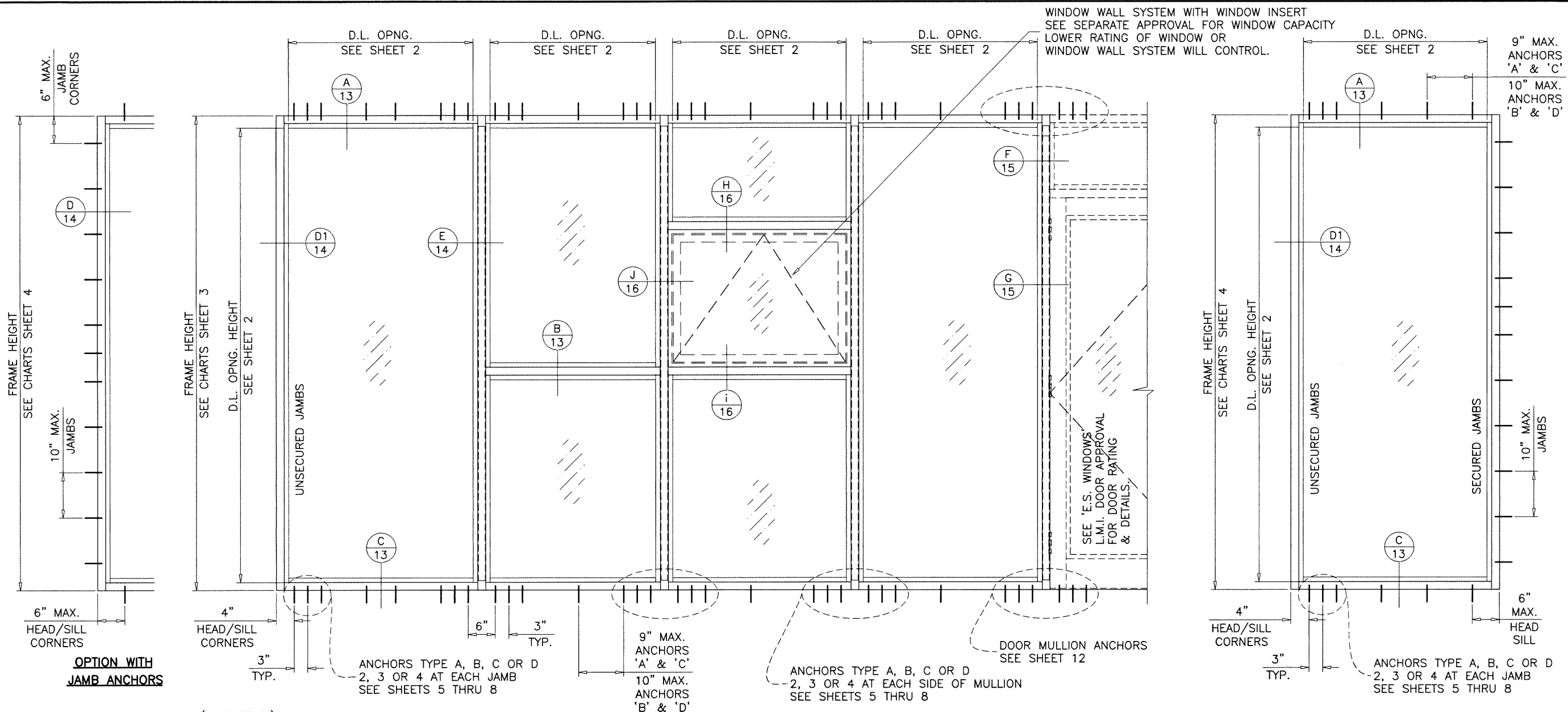




SERIES ES-8000T (JUMBO) ALUMINUM WINDOW WALL SYSTEM

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).

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

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

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

ALL SHIMS TO BE 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.

TYPICAL ELEVATIONS

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 3 FOR WINDOW WALL MULLION AND SHEETS 9 THRU 11 FOR DOOR MULLION THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** CHECK ANCHOR CAPACITY FOR WINDOW WALL SYSTEM USING CHARTS ON SHEETS 5 THRU 8 FOR DOOR MULLION ANCHOR CAPACITY SEE CHART ON SHEET 12. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

WINDOW WALL SYSTEM COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

Sealed: 4/15/2026

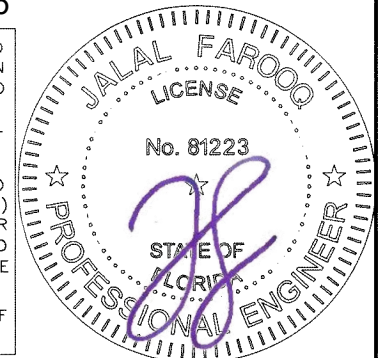
FL #17897

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

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

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

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



AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL\21-58FES

ES-8000T (JUMBO) ALUM WINDOW WALL SYS. (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

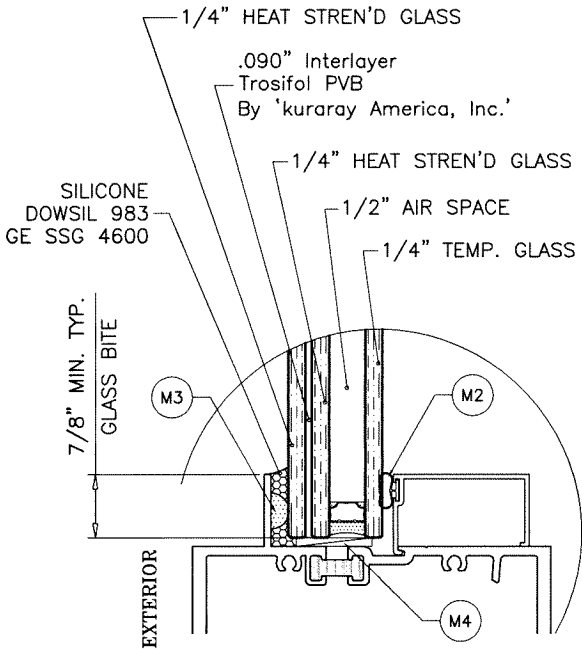
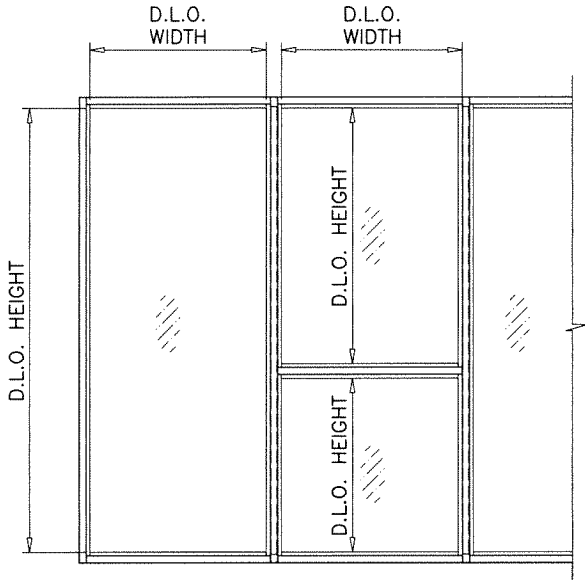
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	A	01.25.23	GLAZING SILICONE GE ADDED
	B	07.25.23	UPDATED TO 2023 FBC
	C	03.13.25	GLAZING GASKET MATERIAL REV.
	D	03.31.26	ALT. GLAZING BEAD ADDED

date:	07-29-21
scale:	1/2" = 1'-0"
dr. by:	TARIQ
chk. by:	

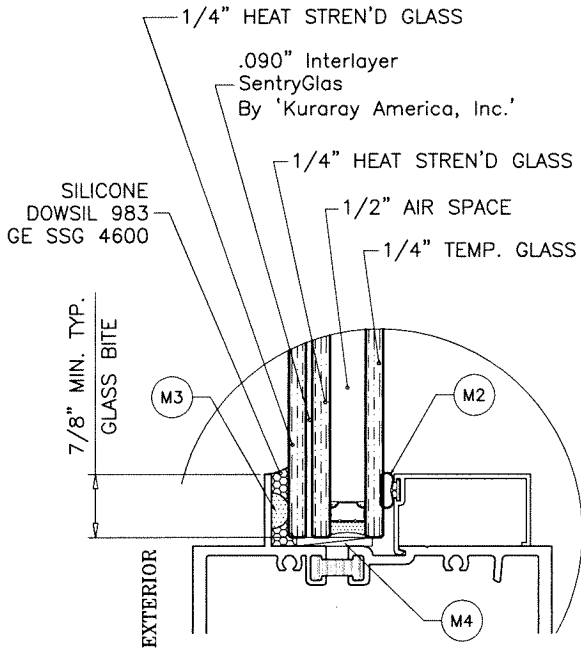
drawing no.	21-58F
sheet	1 of 18

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES			
		'GL1'		'GL2'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
60-1/2"	102-1/2"	70.0	70.0	70.0	70.0
66-1/2"		70.0	70.0	70.0	70.0
72-1/2"		70.0	70.0	70.0	70.0
78-1/2"		70.0	70.0	70.0	70.0
84-1/2"		70.0	70.0	70.0	70.0
90-1/2"		70.0	70.0	70.0	70.0
96-1/2"		70.0	70.0	70.0	70.0
102-1/2"		66.1	66.1	66.1	66.1
60-1/2"	114-1/2"	70.0	70.0	70.0	70.0
66-1/2"		70.0	70.0	70.0	70.0
72-1/2"		70.0	70.0	70.0	70.0
78-1/2"		70.0	70.0	70.0	70.0
84-1/2"		70.0	70.0	70.0	70.0
90-1/2"		70.0	70.0	70.0	70.0
96-1/2"		70.0	70.0	70.0	70.0
102-1/2"		-	-	54.4	54.4
60-1/2"	118-1/2"	70.0	70.0	70.0	70.0
66-1/2"		70.0	70.0	70.0	70.0
72-1/2"		70.0	70.0	70.0	70.0
78-1/2"		70.0	70.0	70.0	70.0
84-1/2"		70.0	70.0	70.0	70.0
90-1/2"		70.0	70.0	70.0	70.0
96-1/2"		70.0	70.0	70.0	70.0
102-1/2"		-	-	54.4	54.4
60-1/2"	126-1/2"	70.0	70.0	70.0	70.0
66-1/2"		70.0	70.0	70.0	70.0
72-1/2"		70.0	70.0	70.0	70.0
78-1/2"		70.0	70.0	70.0	70.0
84-1/2"		70.0	70.0	70.0	70.0
90-1/2"		-	-	61.3	61.3
96-1/2"		-	-	57.6	57.6
102-1/2"		-	-	54.4	54.4
60-1/2"	138-1/2"	70.0	70.0	70.0	70.0
66-1/2"		70.0	70.0	70.0	70.0
72-1/2"		70.0	70.0	70.0	70.0
78-1/2"		70.0	70.0	70.0	70.0
84-1/2"		-	-	65.3	65.3
90-1/2"		-	-	61.3	61.3
96-1/2"		-	-	57.6	57.6
60-1/2"	150-1/2"	70.0	70.0	70.0	70.0
66-1/2"		70.0	70.0	70.0	70.0
72-1/2"		70.0	70.0	70.0	70.0
78-1/2"		-	-	70.0	70.0
84-1/2"		-	-	65.3	65.3
90-1/2"		-	-	61.3	61.3
60-1/2"	162-1/2"	70.0	70.0	70.0	70.0
66-1/2"		69.1	69.1	70.0	70.0
72-1/2"		-	-	70.0	70.0
78-1/2"		-	-	70.0	70.0
84-1/2"		-	-	65.3	65.3
60-1/2"	174-1/2"	70.0	70.0	70.0	70.0
66-1/2"		-	-	70.0	70.0
72-1/2"		-	-	70.0	70.0
78-1/2"		-	-	70.0	70.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLASS TYPE 'GL1'
1-5/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'GL2'
1-5/16" OVERALL INSUL. LAM. GLASS

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 E1300-09 (3 SEC. GUSTS).

GLASS

Sealed: 4/15/2026
FL #17897





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COMP-ANL\21-58FES

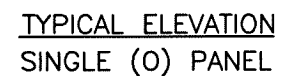
ES-8000T (JUMBO) ALUM WINDOW WALL SYS. (L.M.I.)

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

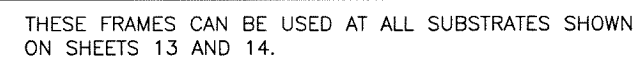
revisions:

no	date	by	description

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drawing no. 21-58F			
sheet 2 of 18			



THESE FRAMES CAN BE USED AT ALL SUBSTRATES SHOWN
ON SHEETS 13 AND 14.

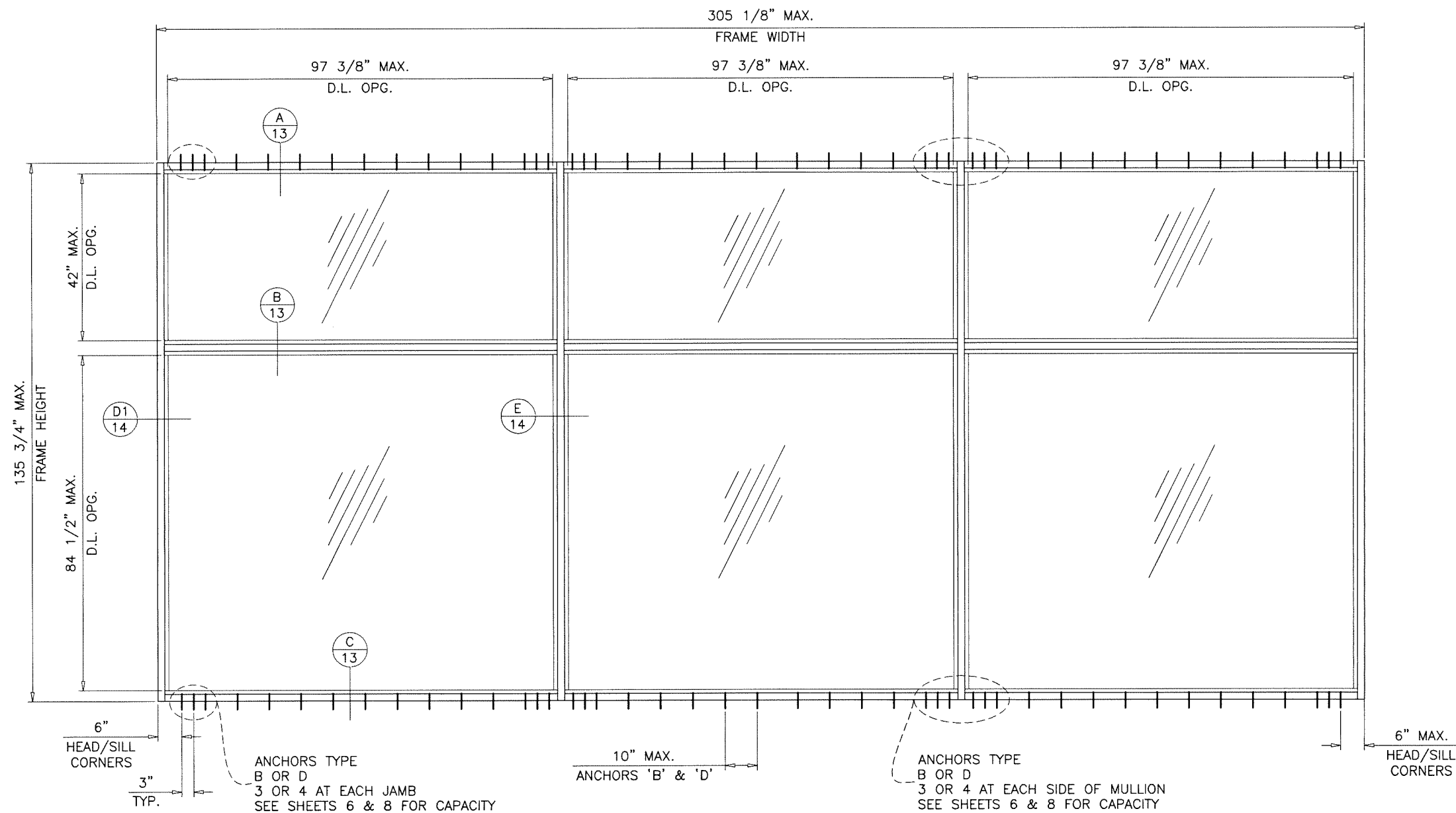


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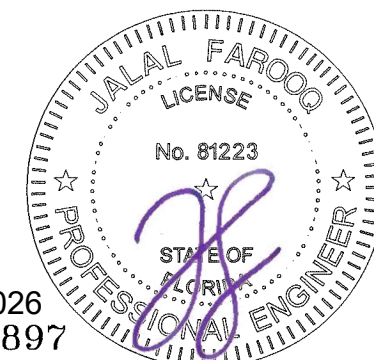
E.S. WINDOWS, LLC
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date: 07-29-21		revisions:	
scale: 3/8"=1'-0"	no	date	by description
dr. by: TARIQ			
chk. by:			



GLASS TYPES 'GL1' & 'GL2'
 MAXIMUM DESIGN LOAD RATING = + 66.9 PSF
 - 66.9 PSF
 (FOR SINGLE UNIT SHOWN ABOVE ONLY)

THESE FRAMES CAN BE USED AT ALL SUBSTRATES SHOWN
 ON SHEETS 13 AND 14.



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revisions:	
no	date by description

date: 07-29-21

scale: 3/8"=1'-0"

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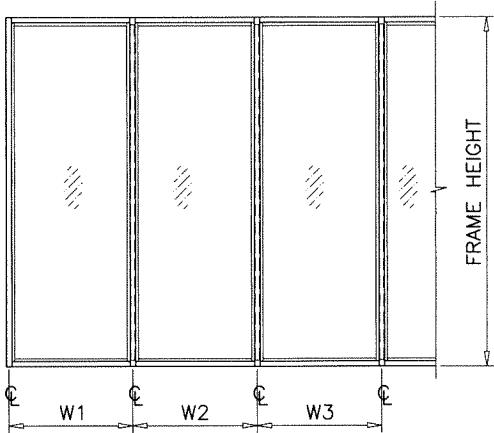
drawing no.

21-58F

sheet 3.1 of 18

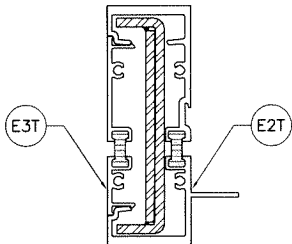
DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		JAMB 'J1'		MULLION 'M1'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
72"	108"	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	70.0
96"		70.0	70.0	70.0	70.0
108"		70.0	70.0	70.0	70.0
72"	120"	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	70.0
96"		70.0	70.0	70.0	70.0
108"		70.0	70.0	70.0	70.0
72"	132"	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	70.0
96"		70.0	70.0	70.0	70.0
102"		70.0	70.0	70.0	70.0
72"	135-3/4"	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	70.0
96"		70.0	70.0	70.0	70.0
101-1/8"		70.0	70.0	70.0	70.0

INTERPOLATION BETWEEN WIDTHS ALLOWED.

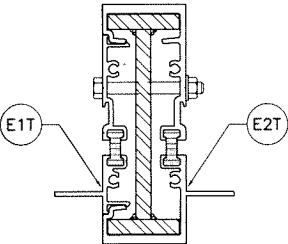


WIDTH (W) = W1
AT FRAME JAMB

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



JAMB 'J1'

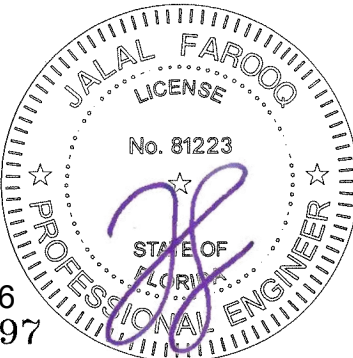


MULLION 'M1'

	Ix IN^4	Sx IN^3
ALUMINUM	6.7077	2.6264
STEEL	3.7533	1.6681
TOTAL Ix ALUM + Ix STL X 2.9	17.4845	

	Ix IN^4	Sx IN^3
ALUMINUM	6.8787	2.6933
STEEL	5.8308	2.5559
TOTAL Ix ALUM + Ix STL X 2.9	23.6206	

MULLIONS



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revisions:
no date by description

date: 07-29-21
scale: -
dr. by: TARIQ
chk. by:

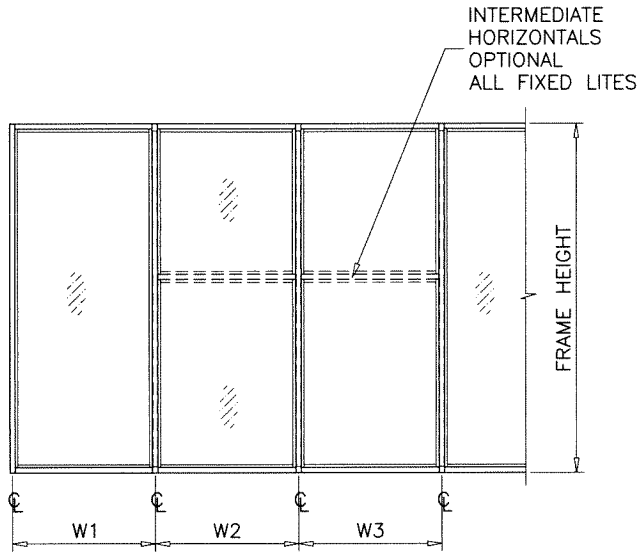
drawing no.
21-58F
sheet **4** of 18

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COMP-ANL\21-58FES

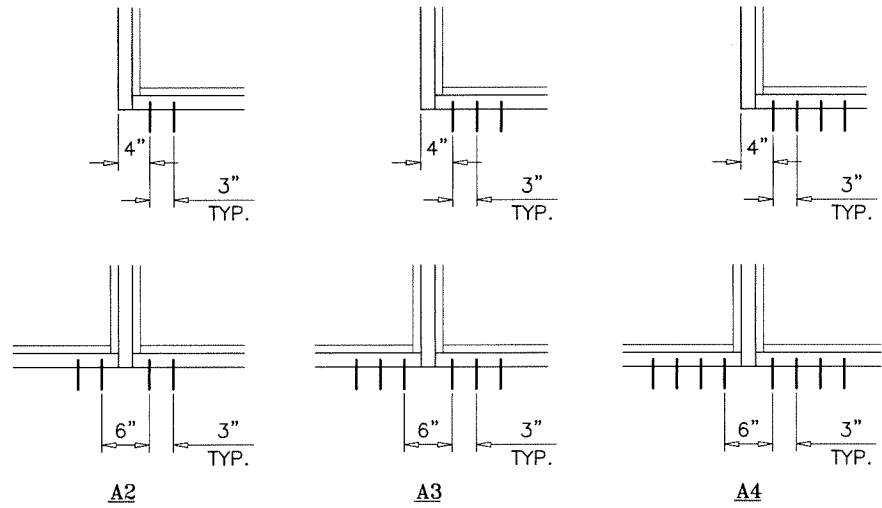
ANCHOR LOAD CAPACITY – PSF EXT.(+) & INT.(–)									
NOMINAL DIMS. WIDTH (W) FRAME HEIGHT		ANCHORS TYPE 'A'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
36"	84"	A2	A3	A4	A2	A3	A4	A3	A4
		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	68.6	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	65.2	70.0	70.0	70.0	70.0
36"	90"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	66.7	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	62.1	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	58.7	70.0	70.0	68.4	70.0
36"	96"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	67.1	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	61.1	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	56.7	70.0	70.0	66.1	70.0
60"		70.0	70.0	70.0	53.4	70.0	70.0	62.2	70.0
36"	102"	70.0	70.0	70.0	69.9	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	62.1	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	56.4	70.0	70.0	65.8	70.0
54"		70.0	70.0	70.0	52.2	70.0	70.0	60.8	70.0
60"		69.6	70.0	70.0	48.9	70.0	70.0	57.0	70.0
36"	108"	70.0	70.0	70.0	65.2	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	57.8	70.0	70.0	67.4	70.0
48"		70.0	70.0	70.0	52.4	70.0	70.0	61.1	70.0
54"		70.0	70.0	70.0	48.3	70.0	70.0	56.3	70.0
60"		68.7	70.0	70.0	45.1	67.7	70.0	52.7	70.0
36"	114"	70.0	70.0	70.0	61.1	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	54.1	70.0	70.0	63.1	70.0
48"		69.6	70.0	70.0	48.9	70.0	70.0	57.0	70.0
54"		64.0	70.0	70.0	45.0	67.5	70.0	52.5	69.9
60"		59.7	70.0	70.0	41.9	62.9	70.0	48.9	65.2
36"	120"	70.0	70.0	70.0	57.5	70.0	70.0	67.1	70.0
42"		70.0	70.0	70.0	50.8	70.0	70.0	59.3	70.0
48"		65.3	70.0	70.0	45.9	68.8	70.0	53.5	70.0
54"		59.9	70.0	70.0	42.1	63.1	70.0	49.1	65.4
60"		55.7	70.0	70.0	39.1	58.7	70.0	45.6	60.8

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

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



ANCHORS TYPES: SEE SHEET 13 FOR DESCRIPTION
A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION



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FL #17897

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revisions:
no date by description

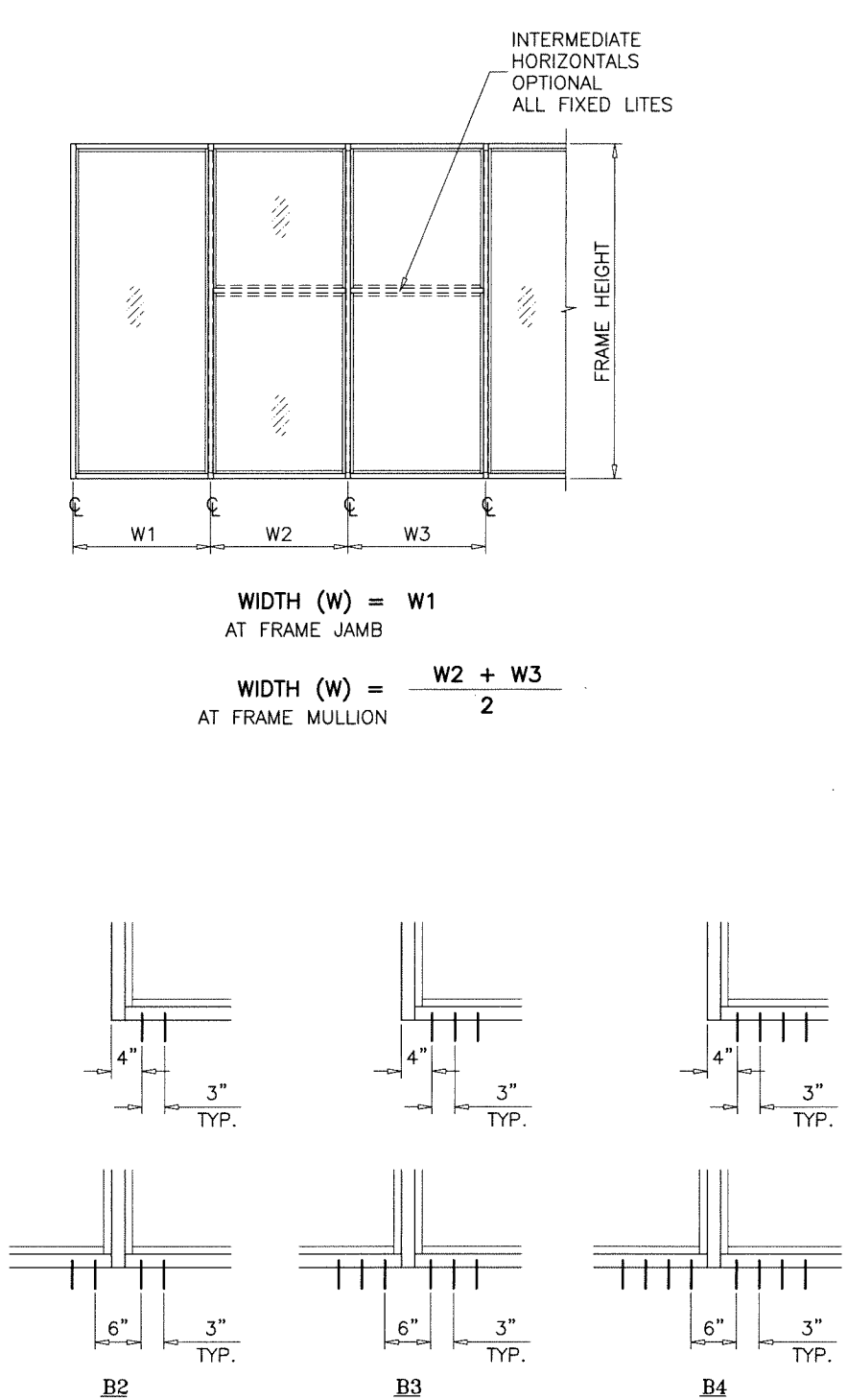
date: 07-29-21
scale: -
dr. by: TARIQ
chk. by:

drawing no.
21-58F
sheet **5** of **18**

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS. WIDTH (W) FRAME HEIGHT		ANCHORS TYPE 'B'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
		B2	B3	B4	B2	B3	B4	B3	B4
36"	90"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
66"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
72"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
78"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
90"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
96"	96"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
102"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
108"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
66"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
72"		70.0	70.0	70.0	69.6	70.0	70.0	70.0	70.0
78"		70.0	70.0	70.0	67.6	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	66.3	70.0	70.0	70.0	70.0
90"		70.0	70.0	70.0	65.5	70.0	70.0	70.0	70.0
96"		70.0	70.0	70.0	65.3	70.0	70.0	70.0	70.0
102"		70.0	70.0	70.0	65.3	70.0	70.0	70.0	70.0
108"		70.0	70.0	70.0	65.3	70.0	70.0	70.0	70.0
36"	102"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	69.6	70.0	70.0	70.0	70.0
66"		70.0	70.0	70.0	66.0	70.0	70.0	70.0	70.0
72"		70.0	70.0	70.0	63.3	70.0	70.0	70.0	70.0
78"		70.0	70.0	70.0	61.2	70.0	70.0	70.0	70.0
84"		70.0	70.0	70.0	59.7	70.0	70.0	70.0	70.0
90"		70.0	70.0	70.0	58.6	70.0	70.0	69.4	70.0
96"	108"	70.0	70.0	70.0	58.0	70.0	70.0	68.7	70.0
102"		70.0	70.0	70.0	57.8	70.0	70.0	68.4	70.0
108"		70.0	70.0	70.0	57.8	70.0	70.0	68.4	70.0
36"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	68.7	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	64.2	70.0	70.0	70.0	70.0
66"		70.0	70.0	70.0	60.7	70.0	70.0	70.0	70.0
72"		70.0	70.0	70.0	58.0	70.0	70.0	68.7	70.0
78"		70.0	70.0	70.0	55.9	70.0	70.0	66.1	70.0
84"		70.0	70.0	70.0	54.2	70.0	70.0	64.2	70.0
90"		69.3	70.0	70.0	53.0	70.0	70.0	62.8	70.0
96"		68.2	70.0	70.0	52.2	70.0	70.0	61.8	70.0
102"		67.6	70.0	70.0	51.7	70.0	70.0	61.2	70.0
108"		67.4	70.0	70.0	51.6	70.0	70.0	61.0	70.0

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS. WIDTH (W) FRAME HEIGHT		ANCHORS TYPE 'B'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
		B2	B3	B4	B2	B3	B4	B3	B4
36"	114"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	69.6	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	64.0	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	59.7	70.0	70.0	70.0	70.0
66"		70.0	70.0	70.0	56.2	70.0	70.0	66.6	70.0
72"		69.9	70.0	70.0	53.5	70.0	70.0	63.4	70.0
78"		67.2	70.0	70.0	51.4	70.0	70.0	60.8	70.0
84"		65.0	70.0	70.0	49.7	70.0	70.0	58.9	70.0
90"		63.3	70.0	70.0	48.4	70.0	70.0	57.3	70.0
96"	120"	62.0	70.0	70.0	47.5	70.0	70.0	56.2	70.0
102"		61.1	70.0	70.0	46.8	70.0	70.0	55.4	70.0
108"		60.6	70.0	70.0	46.4	69.6	70.0	54.9	70.0
36"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	65.3	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	59.9	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	55.7	70.0	70.0	65.9	70.0
66"		68.4	70.0	70.0	52.4	70.0	70.0	62.0	70.0
72"		65.0	70.0	70.0	49.7	70.0	70.0	58.9	70.0
78"		62.2	70.0	70.0	47.6	70.0	70.0	56.3	70.0
84"		60.0	70.0	70.0	45.9	68.8	70.0	54.3	70.0
90"		58.2	70.0	70.0	44.5	66.8	70.0	52.7	70.0
96"		-	70.0	70.0	-	65.3	70.0	51.5	68.7
102"		-	70.0	70.0	-	64.1	70.0	50.6	67.4
108"		-	70.0	70.0	-	63.3	70.0	49.9	66.6
36"	132"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	64.5	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	58.0	70.0	70.0	68.7	70.0
54"		69.3	70.0	70.0	53.0	70.0	70.0	62.8	70.0
60"		64.2	70.0	70.0	49.1	70.0	70.0	58.2	70.0
66"		60.1	70.0	70.0	46.0	69.0	70.0	54.5	70.0
72"		-	70.0	70.0	-	65.3	70.0	51.5	68.7
78"		-	70.0	70.0	-	62.2	70.0	49.1	65.4
84"		-	70.0	70.0	-	59.7	70.0	47.1	62.8
90"		-	70.0	70.0	-	57.6	70.0	45.5	60.6
96"	135-3/4"	-	70.0	70.0	-	55.9	70.0	44.1	58.9
102"		-	70.0	70.0	-	54.6	70.0	43.1	57.4
36"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	62.4	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	56.1	70.0	70.0	66.4	70.0
54"		66.9	70.0	70.0	51.2	70.0	70.0	60.6	70.0
60"		61.9	70.0	70.0	47.4	70.0	70.0	56.1	70.0
66"		57.9	70.0	70.0	44.3	66.5	70.0	52.5	70.0
72"		-	70.0	70.0	-	62.8	70.0	49.6	66.1
78"		-	70.0	70.0	-	59.8	70.0	47.2	62.9
84"	101-1/8"	-	70.0	70.0	-	57.3	70.0	45.2	60.3
90"		-	70.0	70.0	-	55.2	70.0	43.6	58.1
96"		-	69.9	70.0	-	53.5	70.0	42.3	56.3
102"		-	68.4	70.0	-	52.4	69.8	41.3	55.1

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS

Sealed: 4/15/2026
FL #17897



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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ES-8000T (JUMBO) ALUM WINDOW WALL SYS. (L.M.I.)

E.S. WINDOWS, LLC
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Revisions:

no	date	by	description

date: 07-29-21

scale: -

dr. by: TARIQ

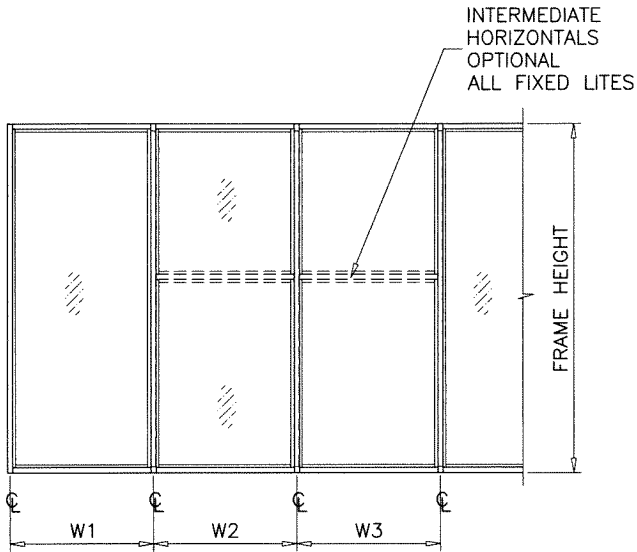
chk. by:

drawing no.
21-58F

sheet 6 of 18

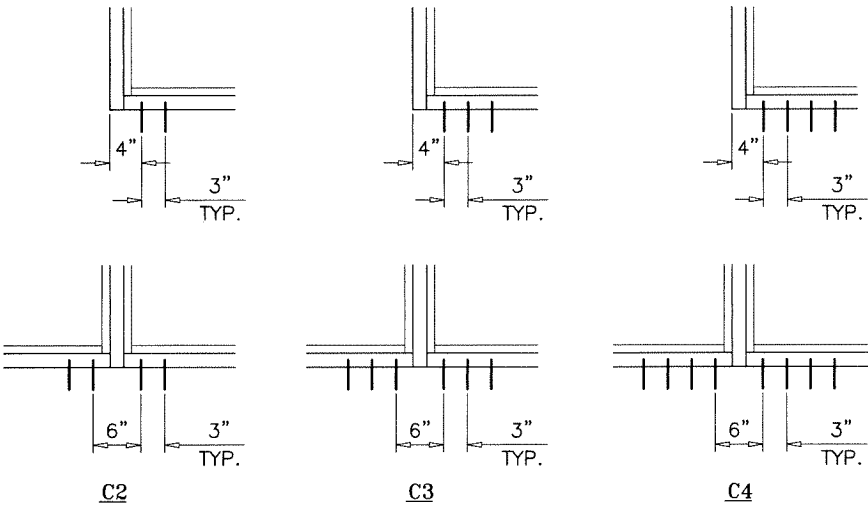
ANCHOR LOAD CAPACITY – PSF EXT.(+) & INT.(–)									
NOMINAL DIMS.		ANCHORS TYPE 'C'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	C2	C3	C4	C2	C3	C4	C3	C4
36"	84"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	69.6	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	66.1	70.0	70.0	70.0	70.0
36"	90"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	67.6	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	63.0	70.0	70.0	70.0	70.0
60"		70.0	70.0	70.0	59.5	70.0	70.0	70.0	70.0
36"	96"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	68.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	62.0	70.0	70.0	70.0	70.0
54"		70.0	70.0	70.0	57.5	70.0	70.0	68.2	70.0
60"		70.0	70.0	70.0	54.1	70.0	70.0	64.1	70.0
36"	102"	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	63.0	70.0	70.0	70.0	70.0
48"		70.0	70.0	70.0	57.2	70.0	70.0	67.8	70.0
54"		70.0	70.0	70.0	52.9	70.0	70.0	62.7	70.0
60"		70.0	70.0	70.0	49.6	70.0	70.0	58.8	70.0
36"	108"	70.0	70.0	70.0	66.1	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	58.6	70.0	70.0	69.5	70.0
48"		70.0	70.0	70.0	53.1	70.0	70.0	63.0	70.0
54"		70.0	70.0	70.0	49.0	70.0	70.0	58.1	70.0
60"		70.0	70.0	70.0	45.8	68.7	70.0	54.3	70.0
36"	114"	70.0	70.0	70.0	62.0	70.0	70.0	70.0	70.0
42"		70.0	70.0	70.0	54.9	70.0	70.0	65.0	70.0
48"		70.0	70.0	70.0	49.6	70.0	70.0	58.8	70.0
54"		70.0	70.0	70.0	45.6	68.4	70.0	54.1	70.0
60"		70.0	70.0	70.0	42.5	63.8	70.0	50.4	67.2
36"	120"	70.0	70.0	70.0	58.4	70.0	70.0	69.2	70.0
42"		70.0	70.0	70.0	51.5	70.0	70.0	61.1	70.0
48"		70.0	70.0	70.0	46.5	69.8	70.0	55.1	70.0
54"		70.0	70.0	70.0	42.7	64.0	70.0	50.6	67.4
60"		70.0	70.0	70.0	39.7	59.5	70.0	47.0	62.7

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

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



ANCHORS TYPES: SEE SHEET 13 FOR DESCRIPTION

- C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

ANCHORS

Sealed: 4/15/2026
FL #17897



af c

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

ES-8000T (JUMBO) ALUM WINDOW WALL SYS. (L.M.I.)

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revisions:

no	date	by	description

date: 07-29-21

scale: -

dr. by: TARIQ

chk. by:

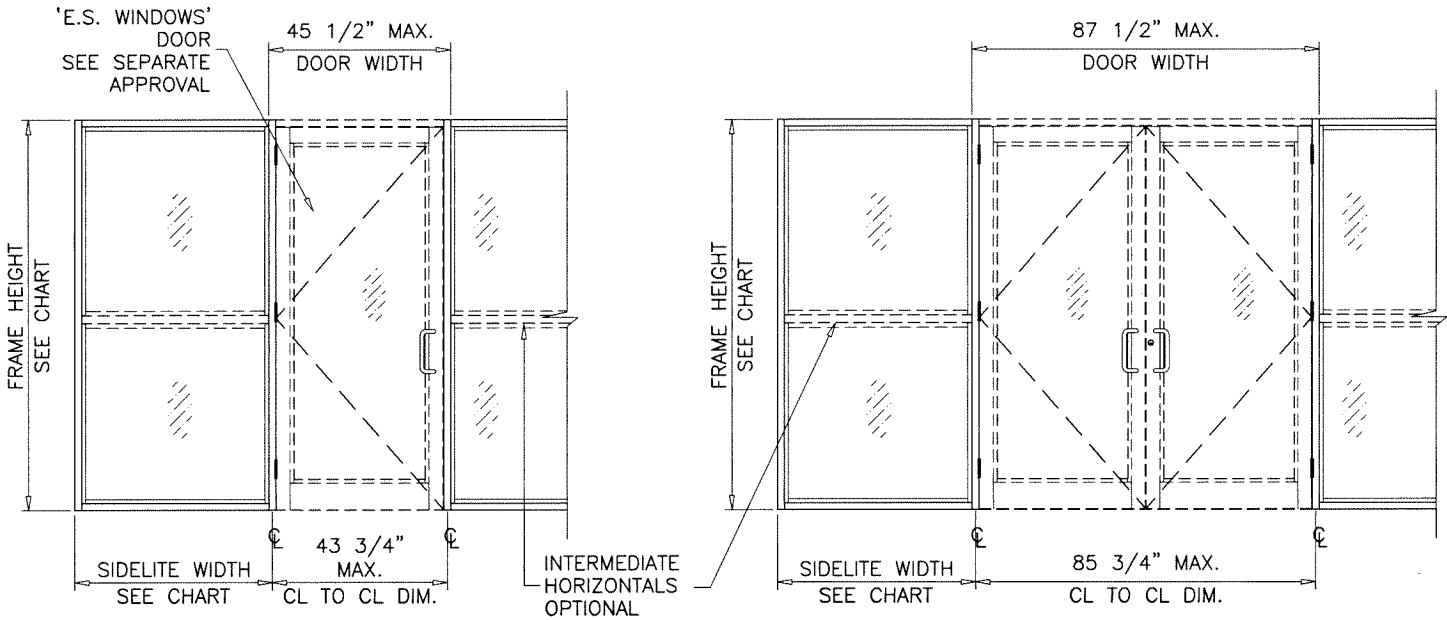
drawing no.

21-58F

sheet 7 of 18

DOOR MULLION LOAD CAPACITY-PSF											
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	MULL 'MD1'		MULL 'MD2'		MULL 'MD3'		MULL 'MD4'		MULL 'MD5'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
32	86-1/2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
32	98-1/2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
32	110-1/2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		66.1	66.1	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
32	120	-	-	-	-	-	-	-	-	70.0	70.0
36		-	-	-	-	-	-	-	-	70.0	70.0
42		-	-	-	-	-	-	-	-	70.0	70.0
48		-	-	-	-	-	-	-	-	70.0	70.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



MULLION 'MD1'		MULLION 'MD2'		MULLION 'MD3'		MULLION 'MD4'	
Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³
6.7517	2.6954	10.8394	4.4985	6.7517	2.6954	6.7517	2.6954
ALUMINUM		ALUMINUM		ALUMINUM		ALUMINUM	
STEEL		STEEL		STEEL		STEEL	
TOTAL		TOTAL		TOTAL		TOTAL	
Ix ALUM + Ix STL X 2.9		Ix ALUM + Ix STL X 2.9		Ix ALUM + Ix STL X 2.9		Ix ALUM + Ix STL X 2.9	
14.6495		17.5285					

DOOR-WINDOWALL
TRANSITION MULLION

Sealed: 4/15/2026
FL #17897



AL-FAROOQ CORPORATION
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9360 SUNSET DRIVE, SUITE 220
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Revisions:

no	date	by	description

date: 07-29-21

scale: -

dr. by: TARIQ

chk. by:

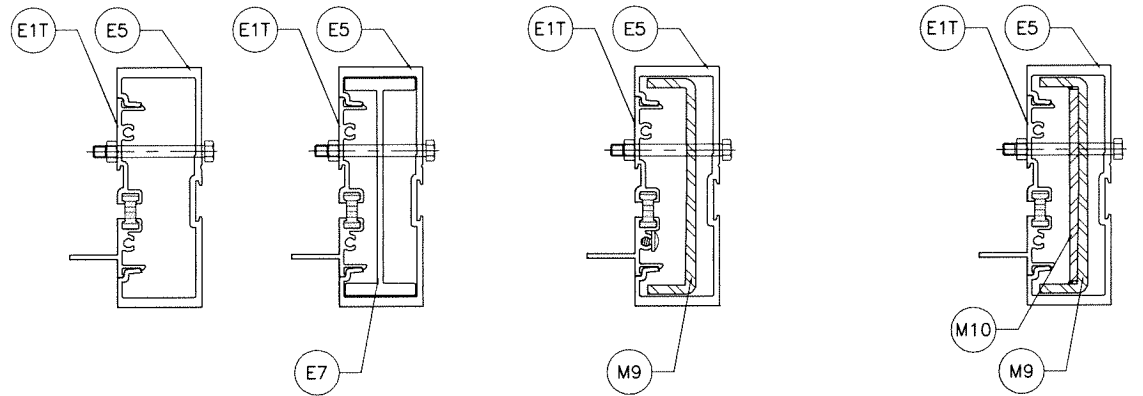
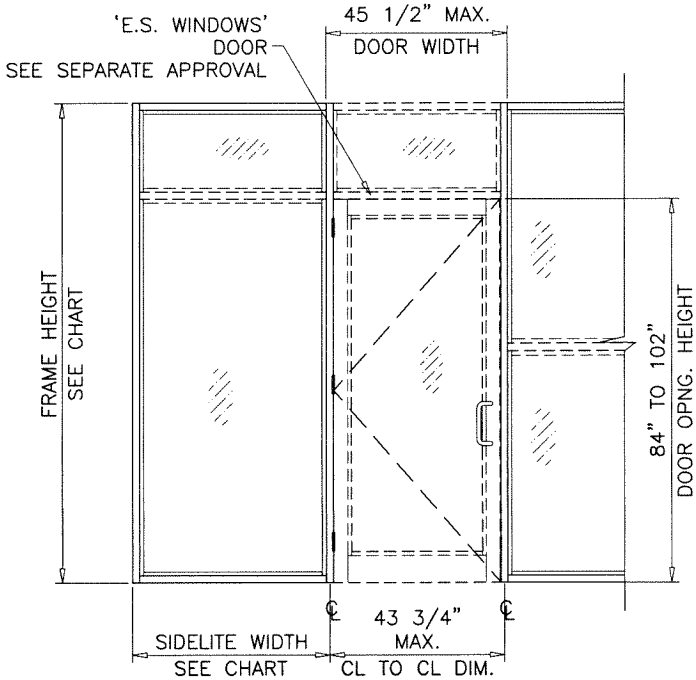
drawing no.

21-58F

sheet 9 of 18

DOOR MULLION LOAD CAPACITY-PSF											
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	MULL 'MD1'		MULL 'MD2'		MULL 'MD3'		MULL 'MD4'		MULL 'MD5'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
32	98-1/2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
32	110-1/2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		66.1	66.1	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
32	114	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		69.1	69.1	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		64.3	64.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		60.2	60.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
32	120	62.3	62.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36		59.2	59.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42		55.2	55.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48		51.6	51.6	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



MULLION 'MD1'

Ix IN^4	Sx IN^3
6.7517	2.6954

MULLION 'MD2'

Ix IN^4	Sx IN^3
10.8394	4.4985

MULLION 'MD3'

Ix IN^4	Sx IN^3
ALUMINUM	6.7517
STEEL	2.7506
TOTAL	
Ix ALUM + Ix STL X 2.9	14.6495

MULLION 'MD4'

Ix IN^4	Sx IN^3
ALUMINUM	6.7517
STEEL	3.7533
TOTAL	
Ix ALUM + Ix STL X 2.9	17.5285

DOOR-WINDOWALL
TRANSITION MULLION

Sealed: 4/15/2026
FL #17897



af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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ES-8000T (JUMBO) ALUM WINDOW WALL SYS. (L.M.I.)
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3550 N.W. 49 STREET
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revisions:
no date by description

date: 07-29-21
scale: --
dr. by: TARIQ
chk. by:

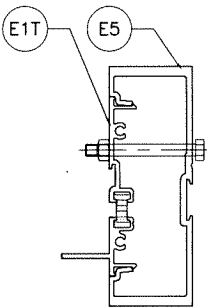
drawing no.
21-58F

sheet 10 of 18

DOOR MULLION LOAD CAPACITY - PSF														
NOMINAL DIMS.				MULL 'MD1'		MULL 'MD2'		MULL 'MD3'		MULL 'MD4'		MULL 'MD5'		
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
85-3/4	30	96	84	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	36			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	60			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	30	102		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	36			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	60			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	30	108		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	36			69.5	69.5	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	42			65.4	65.4	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	48			61.7	61.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	54			60.2	60.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	60			56.6	56.6	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	30	114		53.3	53.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	36			50.5	50.5	70.0	70.0	69.9	69.9	70.0	70.0	70.0	70.0	70.0
	42			49.7	49.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	48			46.8	46.8	70.0	70.0	68.1	68.1	70.0	70.0	70.0	70.0	70.0
	54			44.2	44.2	70.0	70.0	64.8	64.8	70.0	70.0	68.2	68.2	
	60			41.9	41.9	67.5	67.5	61.7	61.7	70.0	70.0	65.0	65.0	
85-3/4	30	102	90	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	36			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	60			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	30	108		70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	36			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			69.3	69.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			65.2	65.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			63.9	63.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	60			59.9	59.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	30	114		56.3	56.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	36			53.1	53.1	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			52.4	52.4	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			49.2	49.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			46.3	46.3	70.0	70.0	66.9	66.9	70.0	70.0	69.9	69.9	
	60			43.8	43.8	70.0	70.0	63.6	63.6	70.0	70.0	66.5	66.5	
85-3/4	30	108	96	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	36			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			68.8	68.8	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			68.2	68.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	60			63.5	63.5	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	30	114		59.5	59.5	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	36			56.0	56.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	42			55.5	55.5	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	48			51.9	51.9	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
	54			48.8	48.8	70.0	70.0	69.7	69.7	70.0	70.0	70.0	70.0	
	60			46.0	46.0	70.0	70.0	66.2	66.2	70.0	70.0	68.6	68.6	

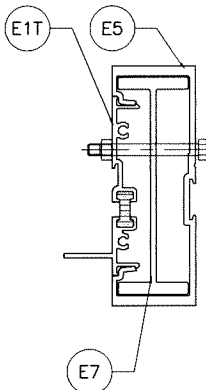
DOOR MULLION LOAD CAPACITY – PSF													
NOMINAL DIMS.				MULL ‘MD1’		MULL ‘MD2’		MULL ‘MD3’		MULL ‘MD4’		MULL ‘MD5’	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
85–3/4	30	114	102	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	36			67.2	67.2	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	42			62.7	62.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	48			58.8	58.8	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	30	120		59.0	59.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	36			55.0	55.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	42			51.5	51.5	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	48			48.4	48.4	70.0	70.0	69.4	69.4	70.0	70.0	70.0	70.0
85–3/4	30	120	110–1/2	63.7	63.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	36			59.0	59.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	42			55.0	55.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	48			51.5	51.5	70.0	70.0	70.0	70.0	70.0	70.0	77.0	70.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



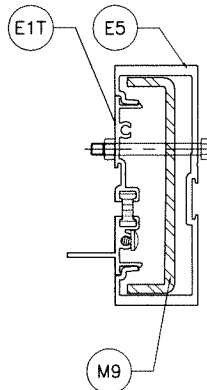
MULLION 'MD1'

Ix IN^4	Sx IN^3
6.7517	2.6954



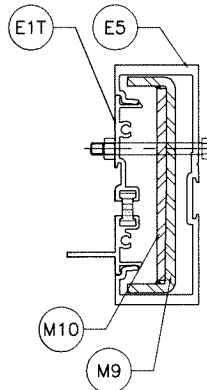
MULLION 'MD2'

Ix IN^4	Sx IN^3
10.8394	4.4985



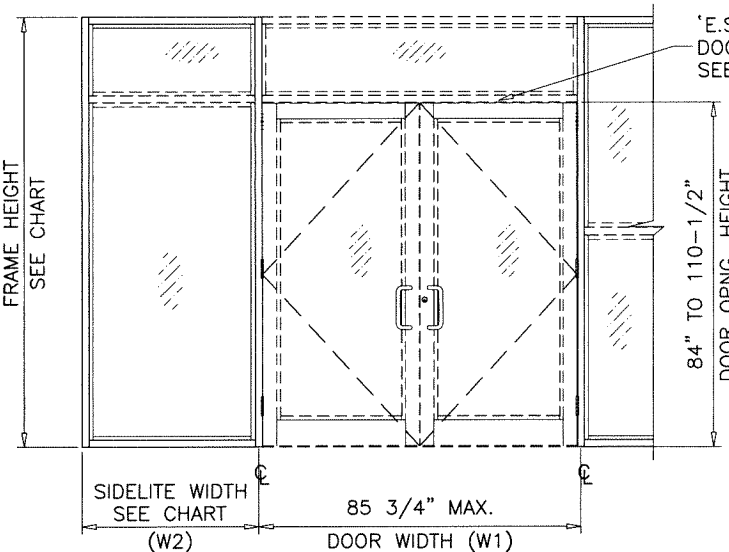
MULLION 'MD3'

ALUMINUM	Ix IN^4	Sx IN^3
STEEL	2.7506	1.2225
TOTAL		
Ix ALUM + Ix STL X 2.9		14.6495



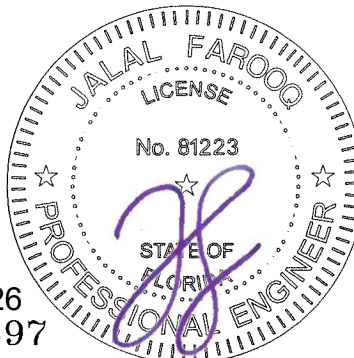
MULLION 'MD4'

ALUMINUM	Ix IN^4	Sx IN^3
STEEL	3.7533	1.6681
TOTAL		
Ix ALUM + Ix STL X 2.9		17.5285



'E.S. WINDOWS'
DOOR & TRANSOM
SEE SEPARATE APPROVAL

DOOR-WINDOWALL
TRANSITION MULLION



Sealed: 4/15/2026
FL #17897

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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Revisions:
no date by description

date: 07-29-21
scale: -
dr. by: TARIQ
chk. by:

drawing no.
21-58F

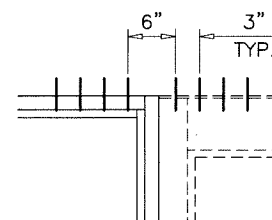
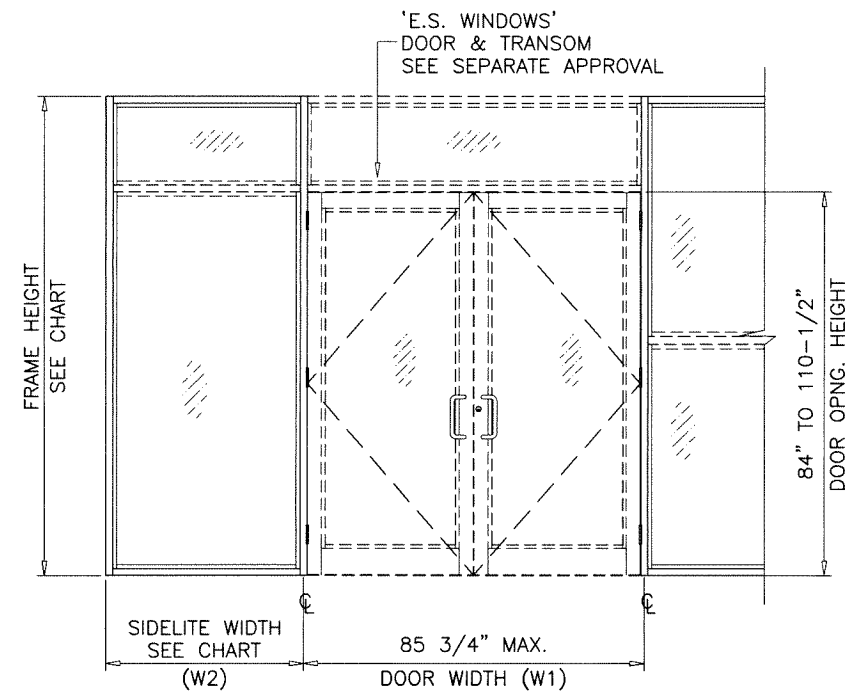
sheet 11 of 18

COMP-ANL 21-58FES

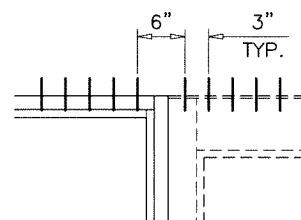
DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF					
NOMINAL DIMS.				'B4'/'C4'	'B5'/'C5'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)
85-3/4	30	96	84	70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			70.0	70.0
	54			70.0	70.0
	60			70.0	70.0
	30	102		70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			70.0	70.0
	54			70.0	70.0
	30	108		70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			70.0	70.0
	30	114		70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			68.0	70.0
	30	120		70.0	70.0
36	70.0		70.0		
42	68.9		70.0		
48	65.4		70.0		
85-3/4	30	102	90	70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			70.0	70.0
	54			69.1	70.0
	30	108		70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			69.4	70.0
	30	114		70.0	70.0
	36			70.0	70.0
	42			70.0	70.0
	48			66.8	70.0
	30	120		70.0	70.0
	36			70.0	70.0
	42			67.6	70.0
	48			64.3	70.0

DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF								
NOMINAL DIMS.				'B4'/'C4'	'B5'/'C5'			
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)			
85-3/4	30	108	96	70.0	70.0			
	36			70.0	70.0			
	42			70.0	70.0			
	48			68.1	70.0			
	30	114		70.0	70.0			
	36			70.0	70.0			
	42			68.8	70.0			
	48			65.6	70.0			
	30	120		70.0	70.0			
	36			69.9	70.0			
	42			66.4	70.0			
	48			63.2	70.0			
85-3/4	30	114	102	70.0	70.0			
	36			70.0	70.0			
	42			67.6	70.0			
	48			64.4	70.0			
	30	120		70.0	70.0			
	36			68.6	70.0			
	42			65.2	70.0			
	48			62.1	70.0			
	85-3/4			30	120	110-1/2	70.0	70.0
				36			66.8	70.0
42		63.6	70.0					
48		60.7	70.0					

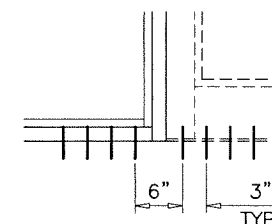
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



'B4', 'C4'



'B5', 'C5'



'B4' AT SILL ALL CASES

ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF DOOR MULLION

B5 = (5) ANCHORS TYPE 'B' AT EACH SIDE OF DOOR MULLION

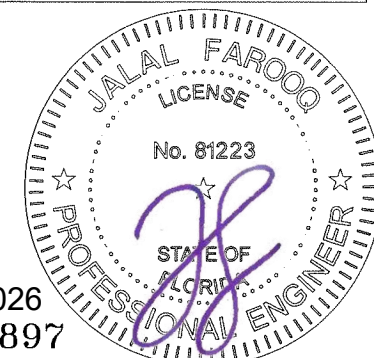
C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

SHIM SPACE FOR ANCHORS TYPE 'C' LIMITED TO 1/4" MAX.

TRANSITION MULLION ANCHORS



Sealed: 4/15/2026
FL #17897

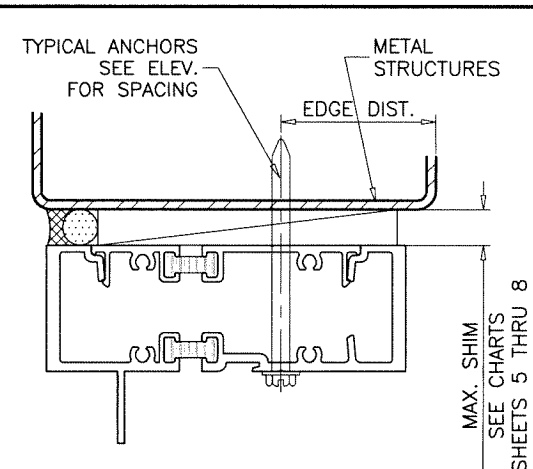
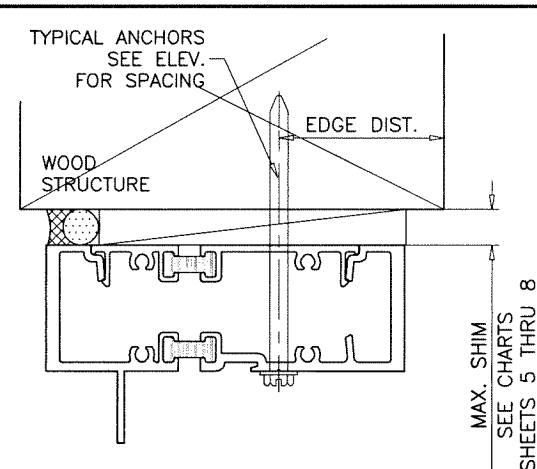
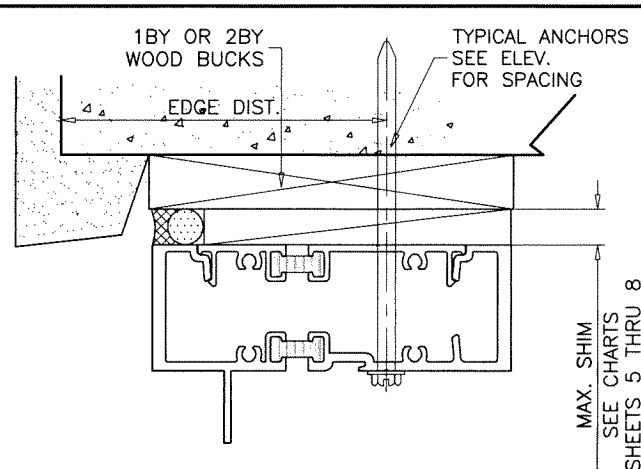
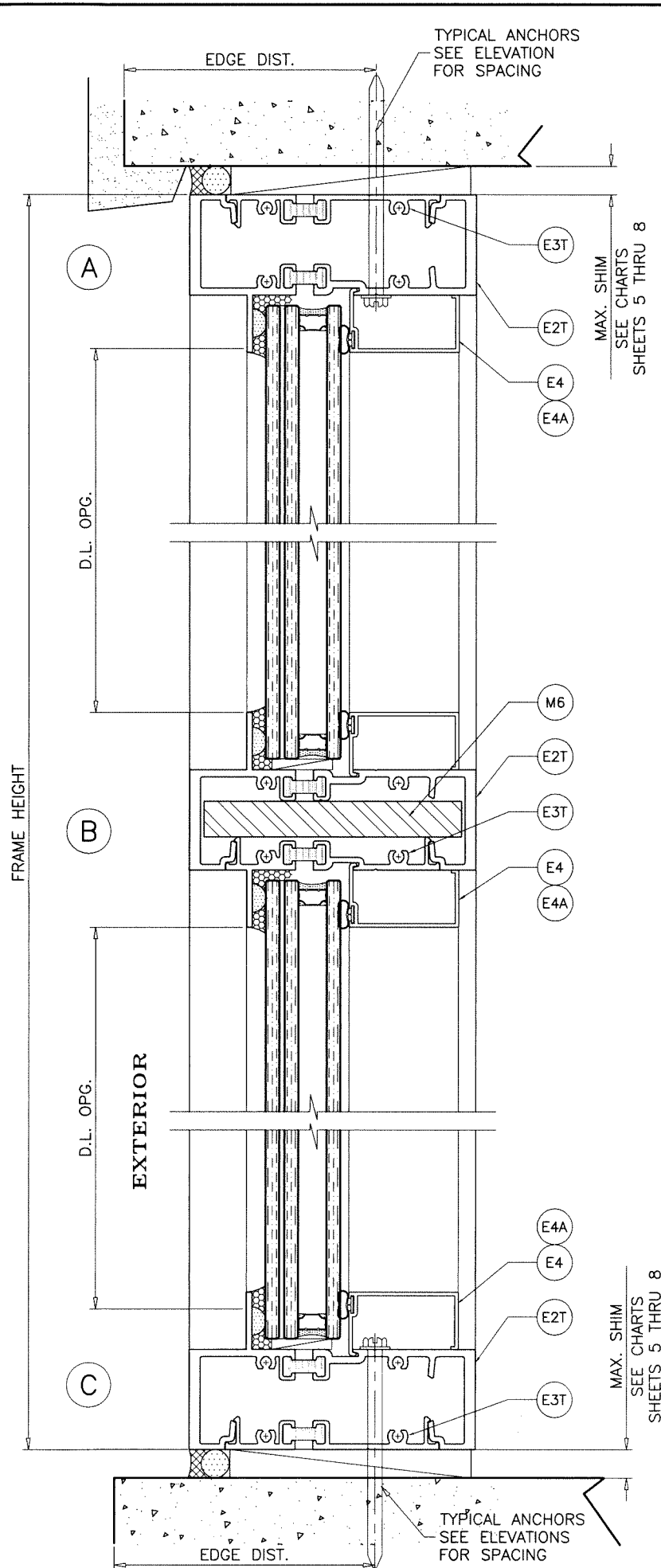
ES-8000T (JUMBO) ALUM WINDOW WALL SYS. (L.M.I.)

E.S. WINDOWS, LLC
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COMP-ANL\21-58FES



1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS'. MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A' - 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u=164$ KSI, $F_y=148$ KSI)
 INTO WOOD STRUCTURES
 2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY OR 2BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONC. OR BLOCKS
 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B' - 5/16" DIA. ULTRACON BY 'DEWALT' ($F_u=177$ KSI, $F_y=155$ KSI)
 INTO WOOD STRUCTURES
 2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY OR 2BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONC. OR BLOCKS
 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'_c = 3000 PSI MIN.
 C-90 GROUT-FILLED NORMAL WEIGHT BLOCK AT JAMBS f'_m = 2000 PSI MIN.

TYPE 'C' - 1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
 INTO F.B.C. APPROVED MULLIONS
 OR
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (F_y = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1/2" MIN.

TYPE 'D' - 5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
 INTO F.B.C. APPROVED MULLIONS
 OR
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (F_y = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

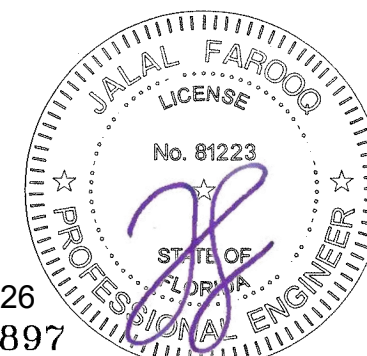
ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1/2" MIN.

SEALANTS:

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

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 FL #17897



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E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
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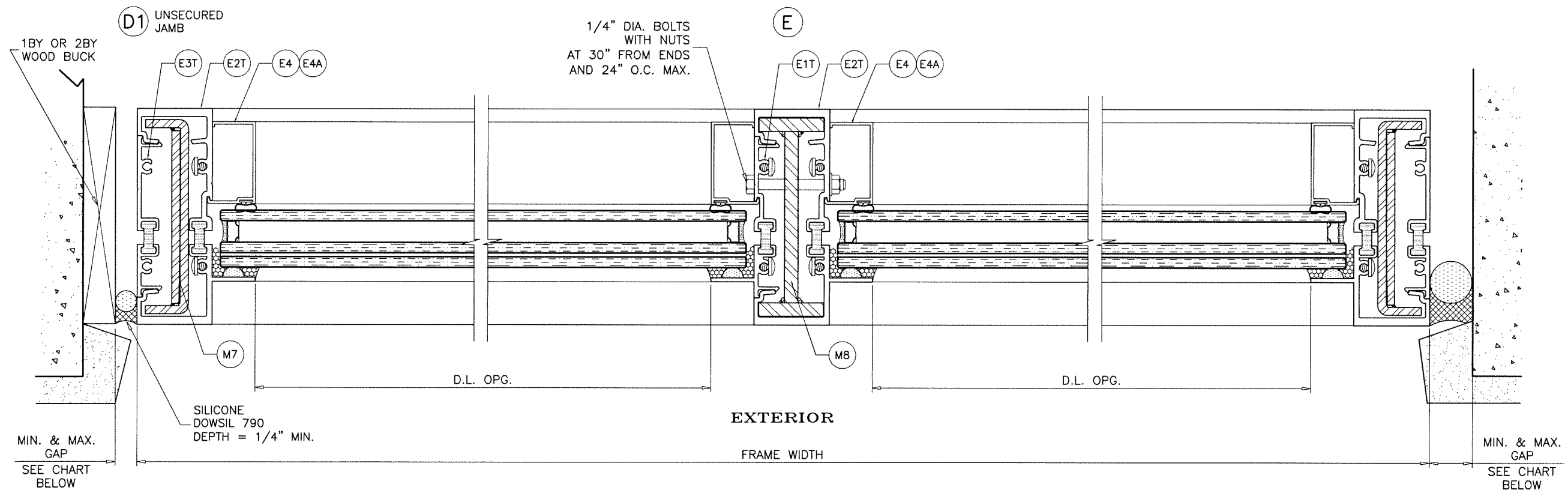
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21-58F

sheet 13 of 18

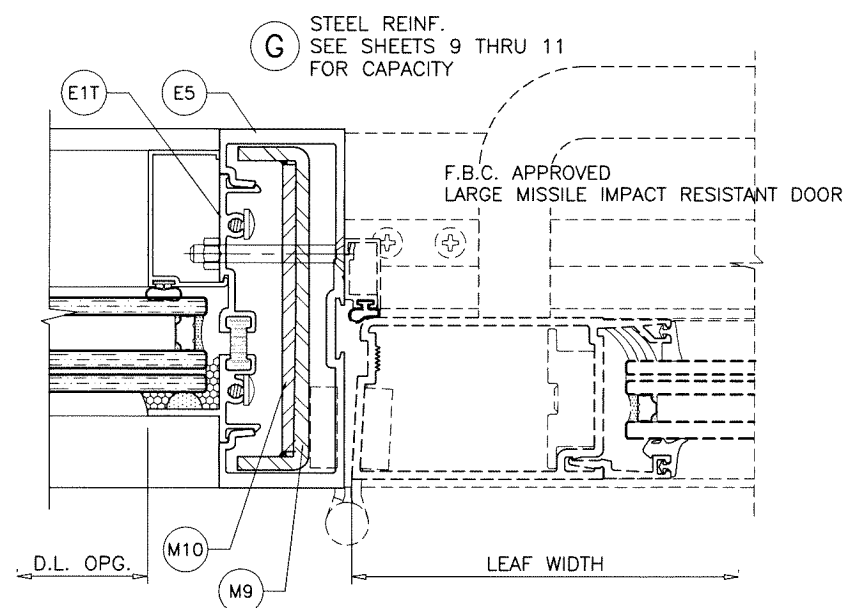
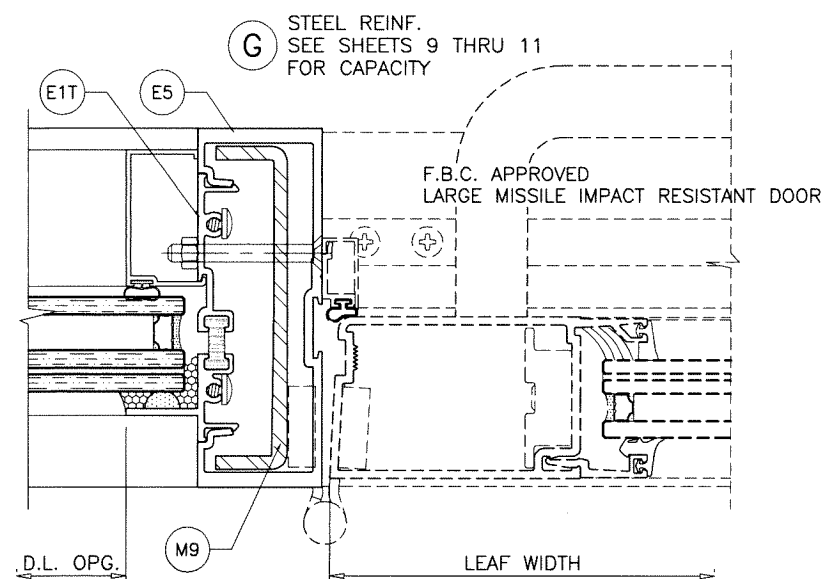
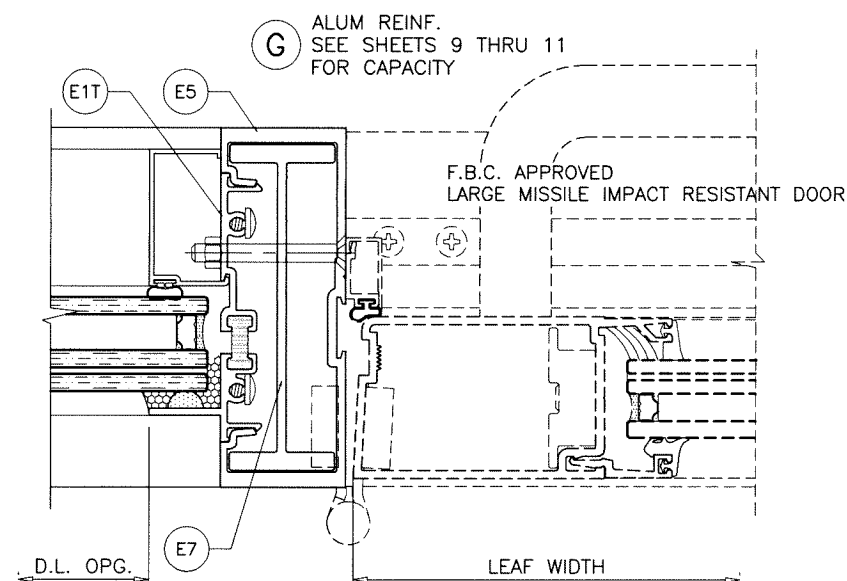
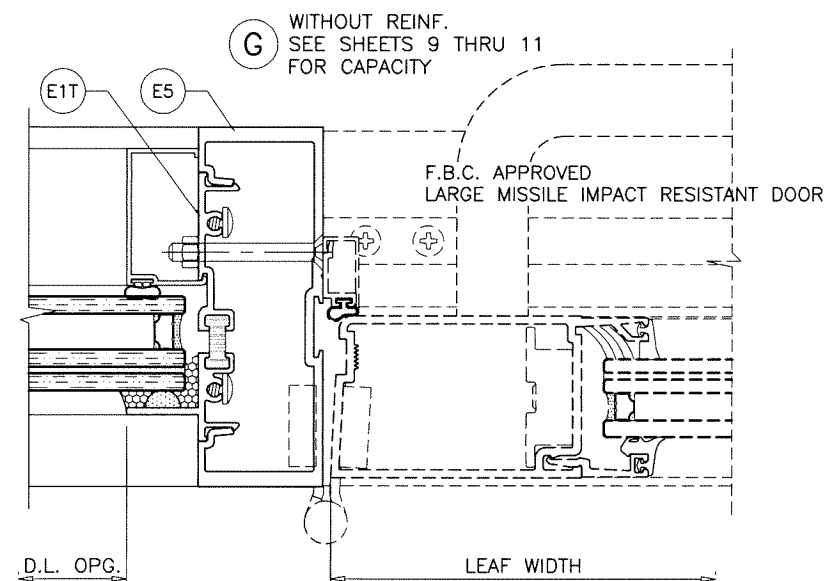
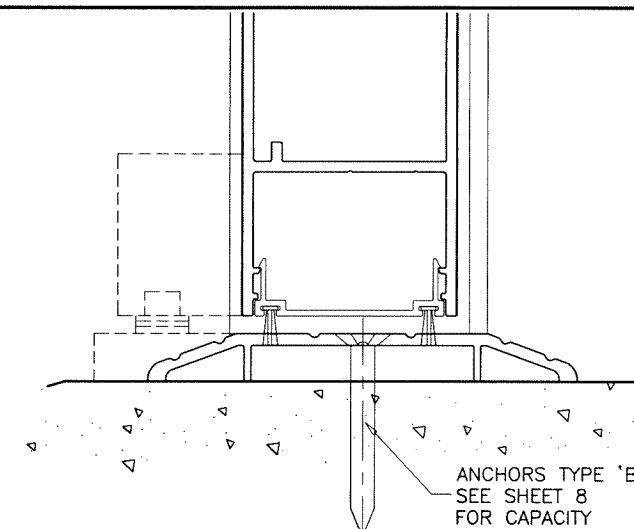
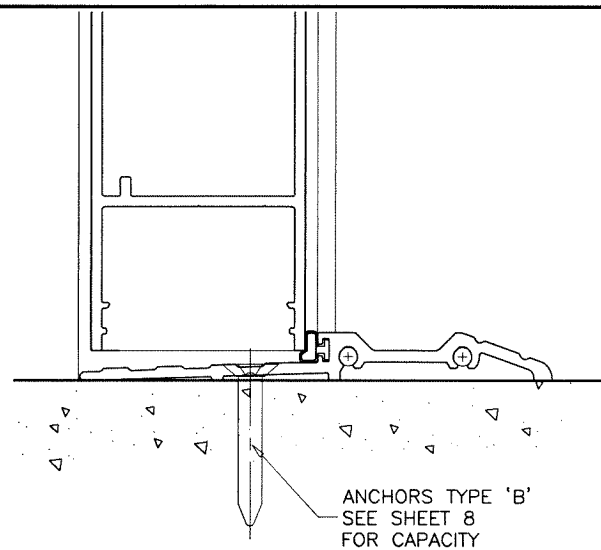
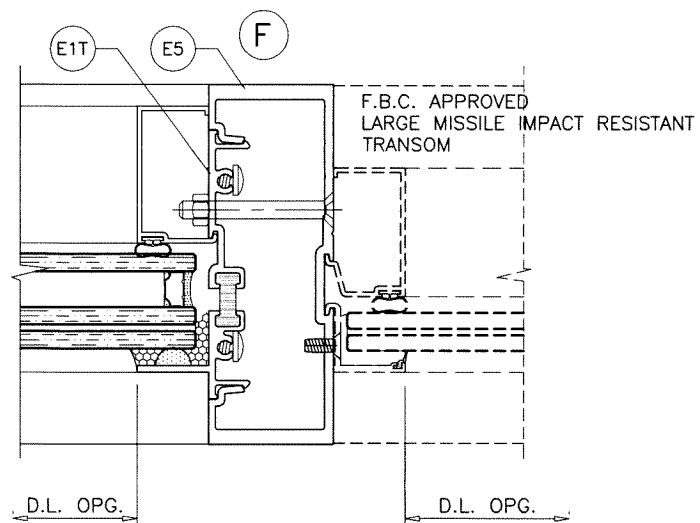


NOTE:
MAX. MOVEMENT CONSIDERED=100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION
MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOWALL
MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.

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.

[illegible]



SEE SEPARATE APPROVAL FOR DESIGN LOAD
CAPACITY OF DOORS AND DOOR ANCHORS.
LOWER VALUES FROM DOORS APPROVAL
OR STOREFRONT SYSTEM CAPACITY CHARTS
WILL APPLY TO ENTIRE SYSTEM.



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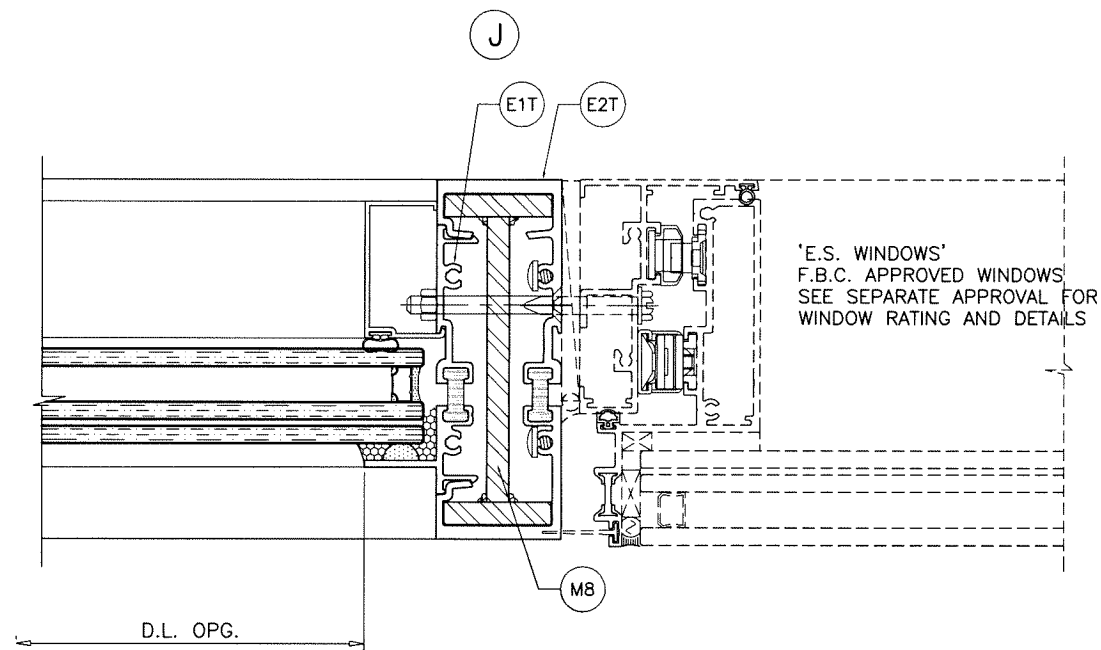
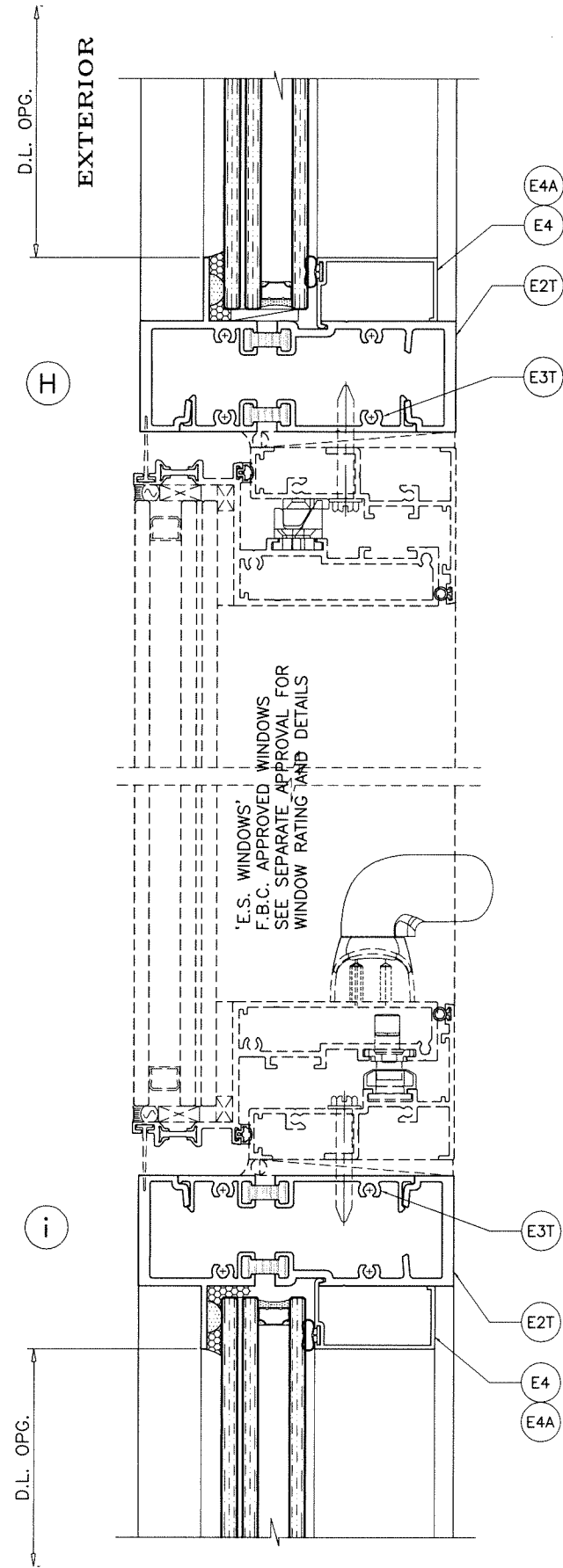
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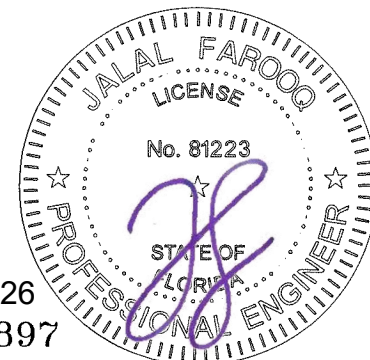
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drawing no.
21-58F
sheet 15 of 18



Sealed: 4/15/2026
FL #17897



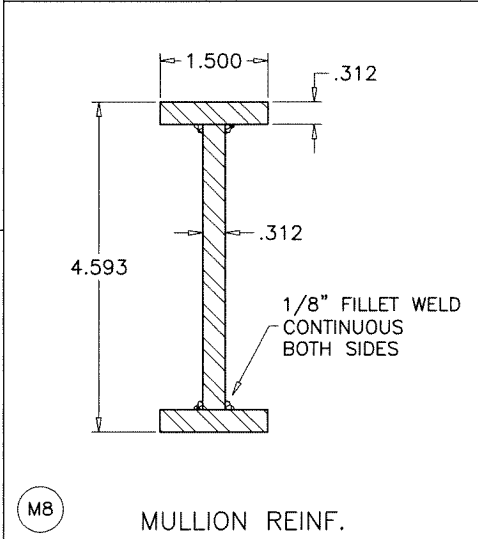
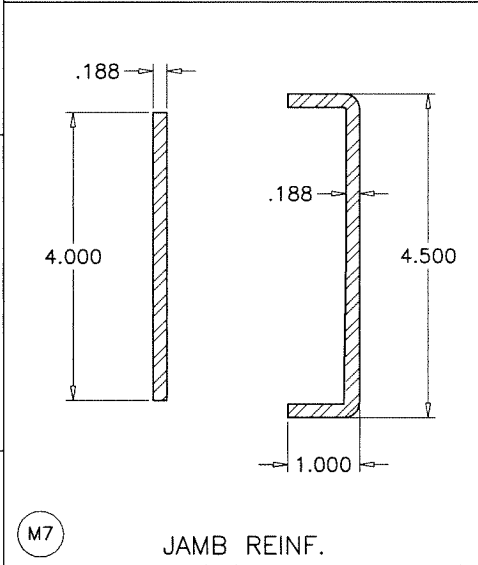
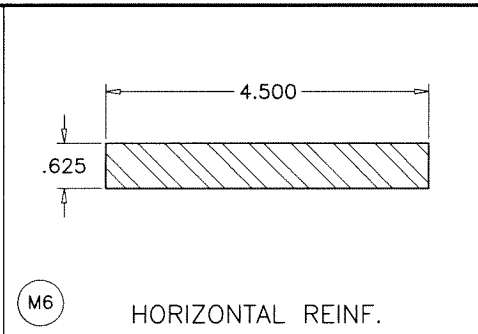
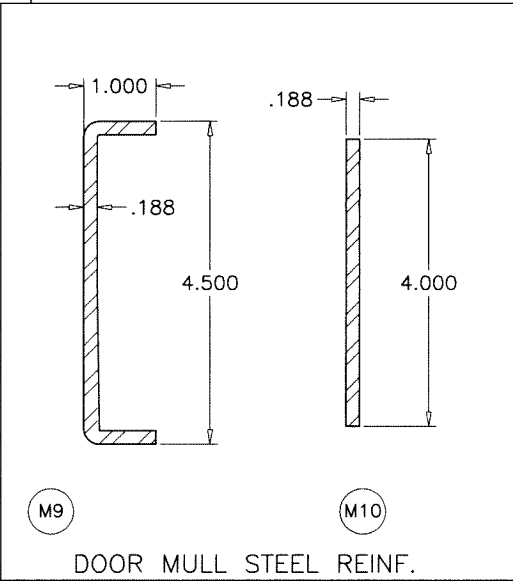
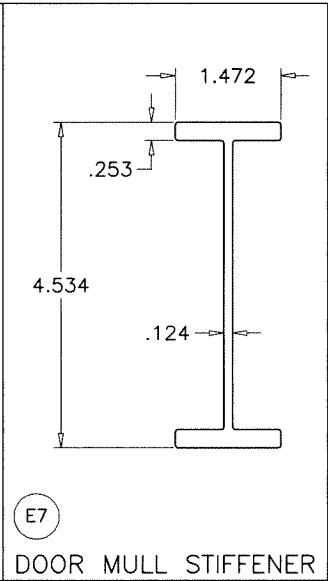
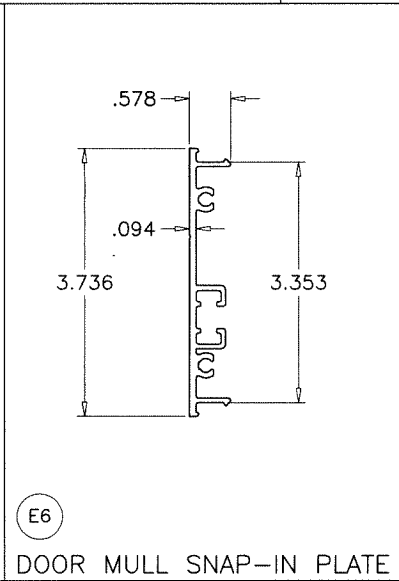
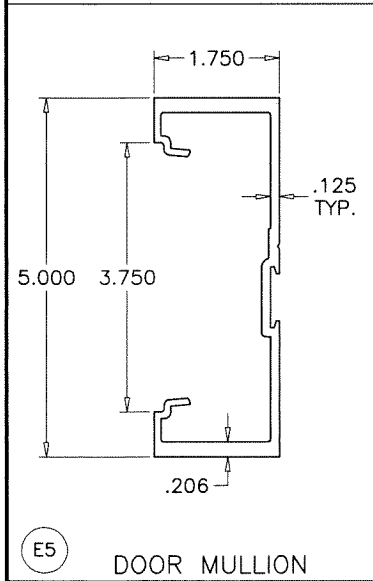
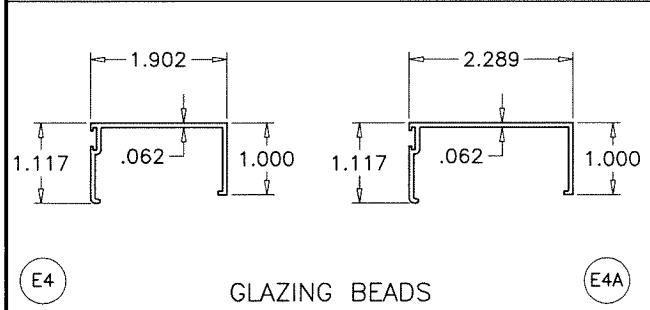
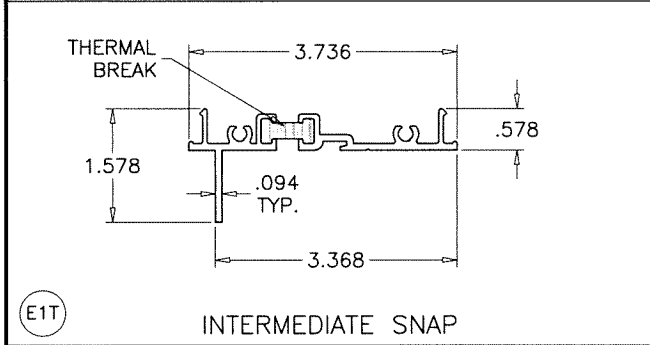
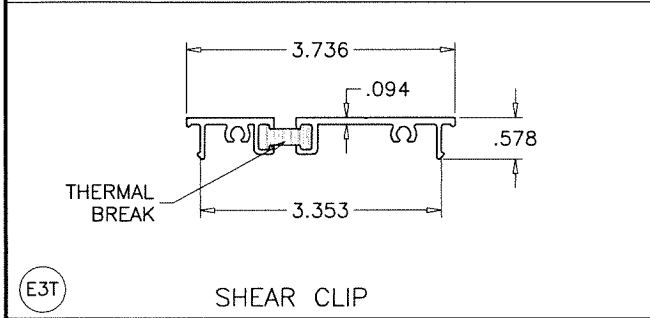
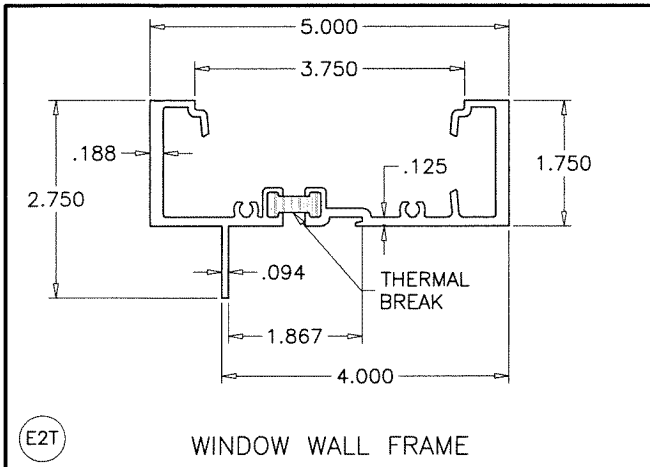
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sheet 16 of 18



ITEM #	PART #	REQ'D	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1T	ES-8000T-013T	AS REQD.	INTERMEDIATE SNAP	6005-T5	-
E2T	ES-8000T-008T	AS REQD.	WINDOW WALL FRAME	6063-T6	-
E3T	ES-8000T-003T	AS REQD.	SHEAR CLIP	6063-T6	-
E4	ES-8000T-005	AS REQD.	GLAZING BEAD	6005-T5	-
E4A	ES-8000T-019	AS REQD.	ALT. GLAZING BEAD	6005-T5	-
E5	-	AS REQD.	DOOR MULLION	6005-T5	-
E6	ES-8000T-003	AS REQD.	DOOR MULL SNAP-IN PLATE	6005-T5	-
E7	-	AS REQD.	DOOR MULLION STIFFENER	6005-T5	-
M1	#12 X 1-1/2"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M2	ES-8010A	AS REQD.	INTERIOR GLAZING GASKET	SILICONE	DUROMETER 70±3 SHORE A
M3	ES-8011A	AS REQD.	1/4" GLASS SPACER	SILICONE	DUROMETER 85±5 SHORE A
M4	ES-9550-B01A	2/ LITE	SETTING BLOCKS AT 1/4 POINTS	SILICONE	DUROMETER 80±5 SHORE A
M5	1/4" X 2-1/8"	AS REQD.	MULLION FASTENERS	ST. STEEL	BOLT WITH NUT
M6	-	AS REQD.	HORIZONTAL REINFORCING	STEEL	A36, Fu MIN. = 58 KSI
M7	-	AS REQD.	JAMB REINFORCING	STEEL	A36, Fu MIN. = 58 KSI
M8	-	AS REQD.	MULLION REINFORCING	STEEL	A36, Fu MIN. = 58 KSI
M9	-	AS REQD.	DOOR MULLION REINFORCING CHANNEL	STEEL	A36, Fu MIN. = 58 KSI
M10	-	AS REQD.	DOOR MULLION REINFORCING BAR	STEEL	A36, Fu MIN. = 58 KSI

THERMAL BREAK:
FRAME MEMBERS FILLED AND DEBRIDGED USING
'BAYDUR TB 100-30' MANUFACTURED BY
'BAYER MATERIALSCIENCE, LLC.

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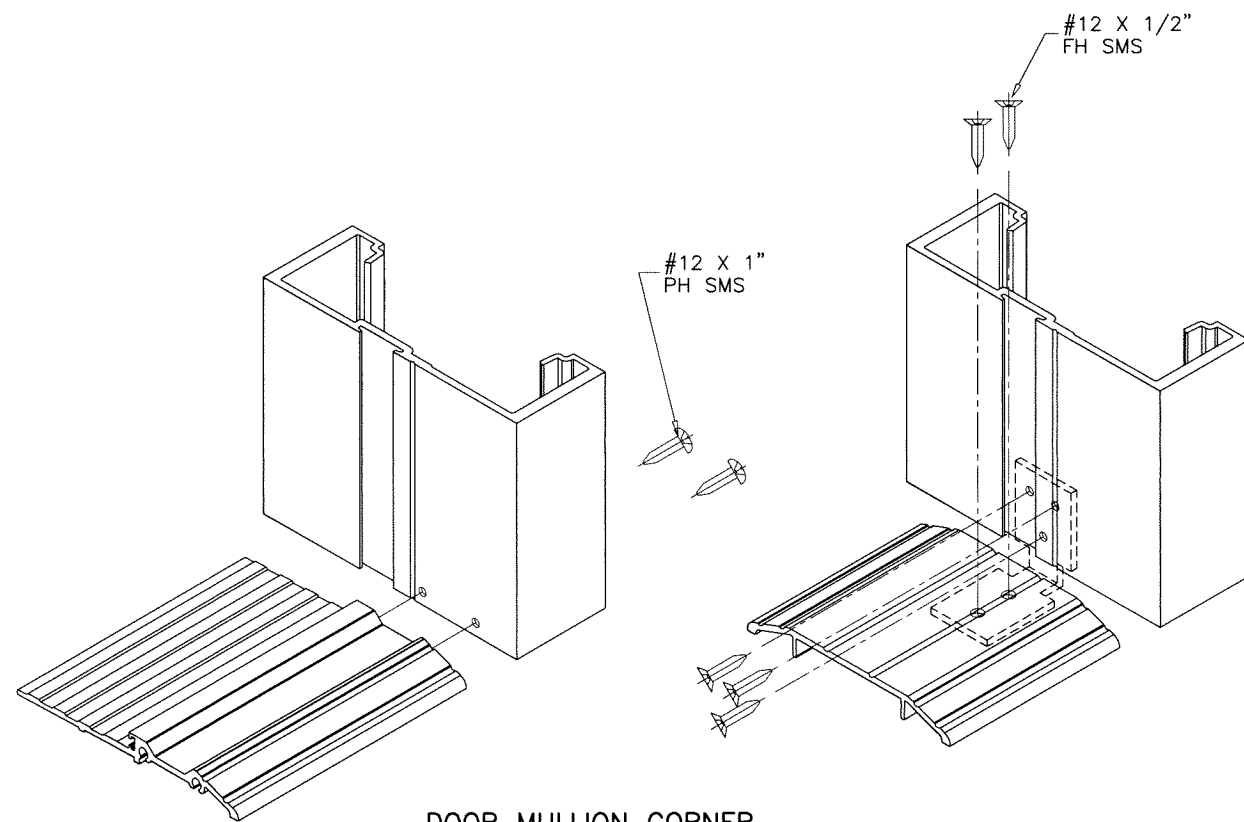
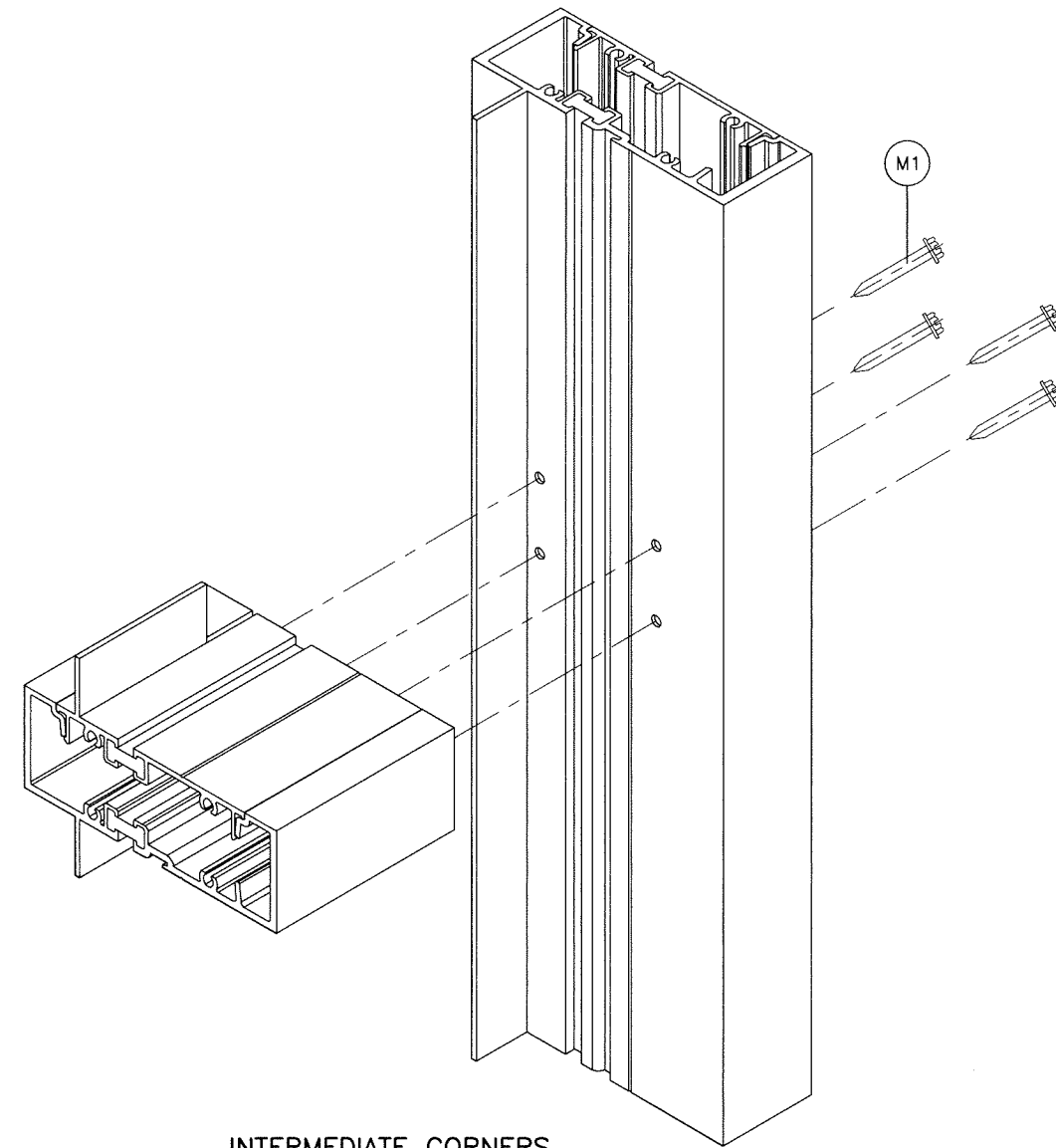
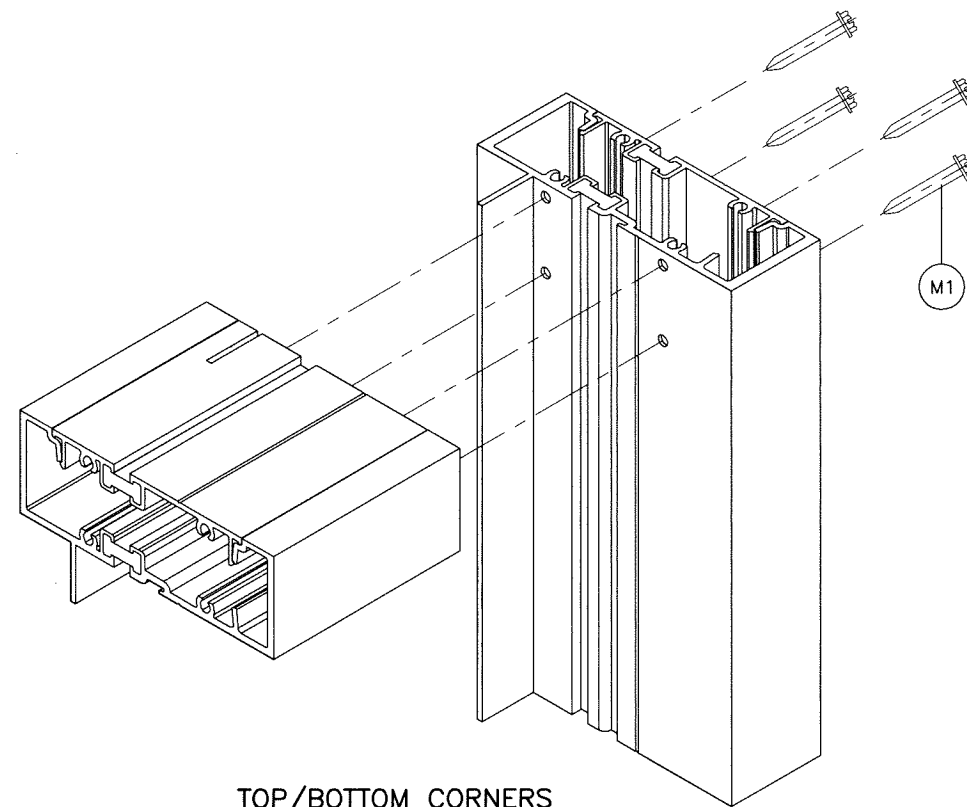
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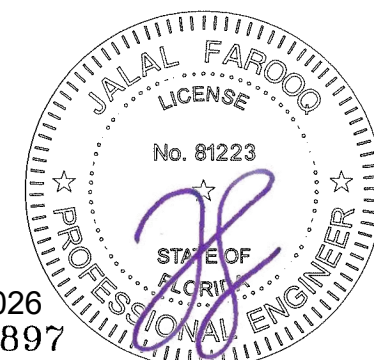
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21-58F
sheet 17 of 18



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sheet 18 of 18