

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND PRESSURE REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 3.2 & 4.2 FOR GLASS DESIGN LOAD CAPACITY.
- STEP 3** FOR SSG SYSTEMS USING SHEETS 3, 3.1, 4 & 4.1 VERIFY MINIMUM SILICONE BITE REQD. FOR DESIGN LOADS.
- STEP 4** CHECK MULLION DESIGN LOAD CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 5 THRU 7.1 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 5** USING CHARTS ON SHEETS 8 THRU 9.1 SELECT ANCHOR OPTION WITH DESIGN LOAD CAPACITY MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- 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 UNANCHORED JAMBS, USING SHEET 11, DETERMINE THE MIN. & MAX. GAP DIMENSIONS.
- STEP 8** WHEN USING THIS SYSTEM WITH WINDOWS, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE WINDOW 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.

ES-8860
ALUMINUM WINDOW WALL SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/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 2020/2023 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.

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

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

LAMINATED GLASS
SMALL MISSILE IMPACT

Sealed: 8/1/2023 FL #22526

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

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

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

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



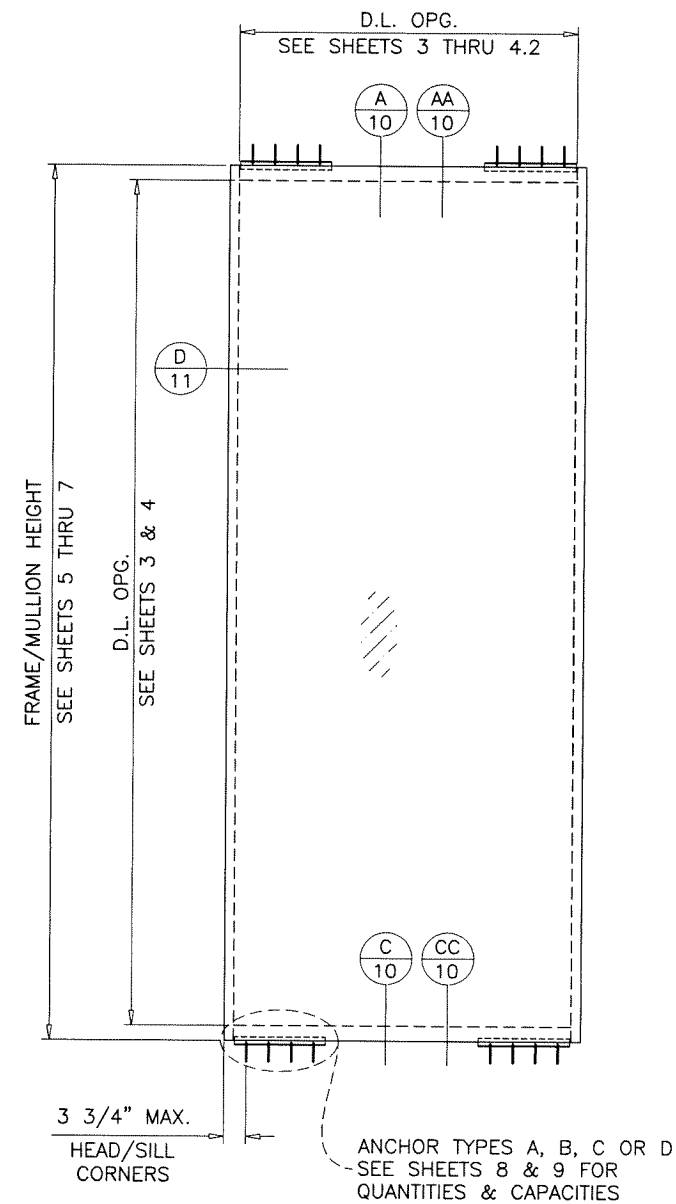
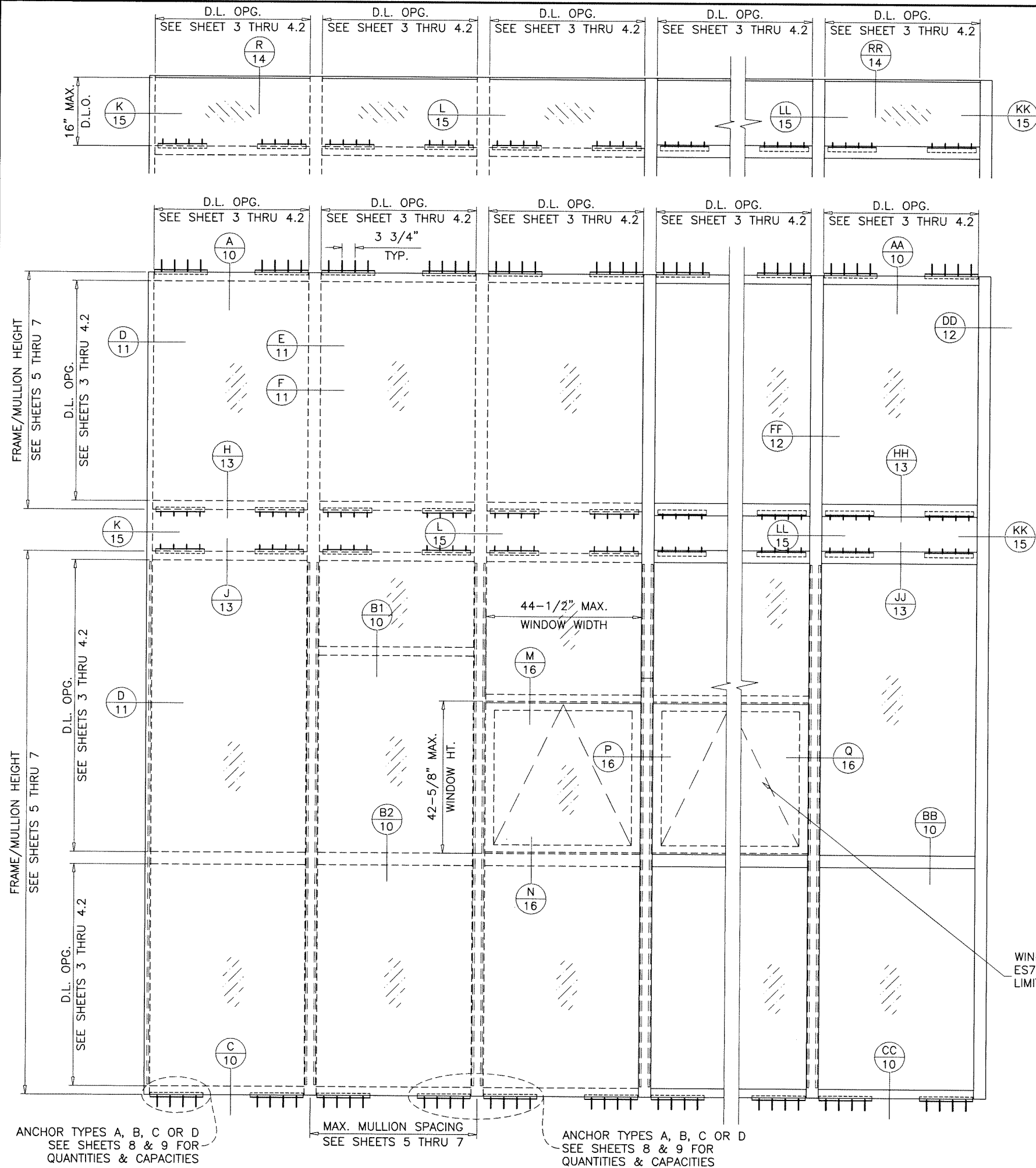
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
(C.A.N. 3538)

ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	A	01.30.19		GLASS TYPE B ADDED
	B	10.03.19		SLANTED OPTION ADDED
	C	10.23.20		GENERAL REVISION
	D	04.12.22		NEW TEST ADDED
	E	07.31.23		UPDATED TO 2023 FBC

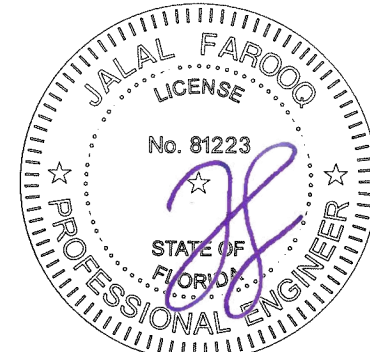
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sheet	1 of 20						

STORE\W17-57ES



WINDOW WALL SYSTEM WITH
ES7531 AWNING WINDOW INSERT OPTION
LIMIT MAX. DESIGN LOADS TO ± 114.0 PSF

Sealed: 8/1/2023 FL #22526



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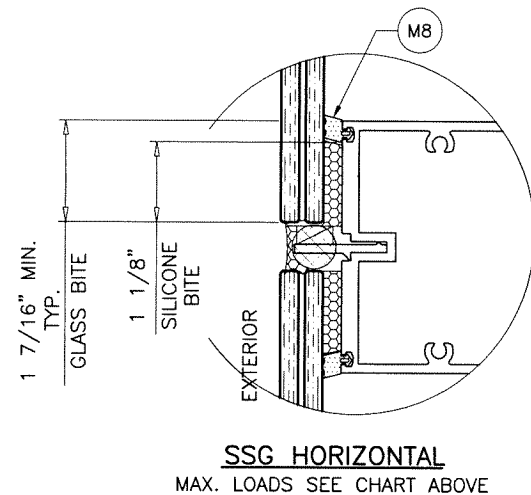
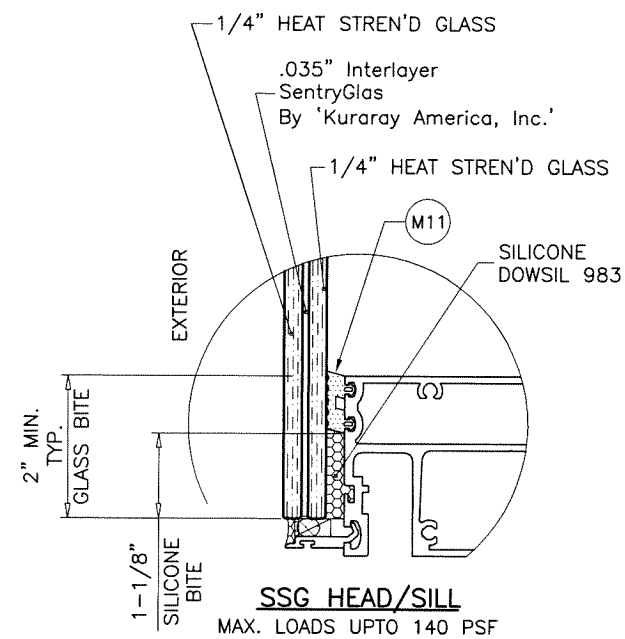
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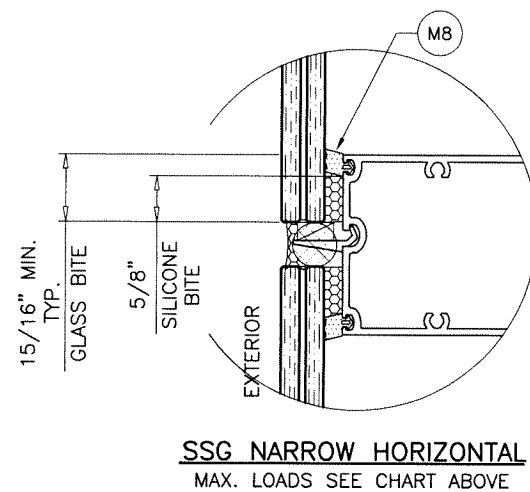
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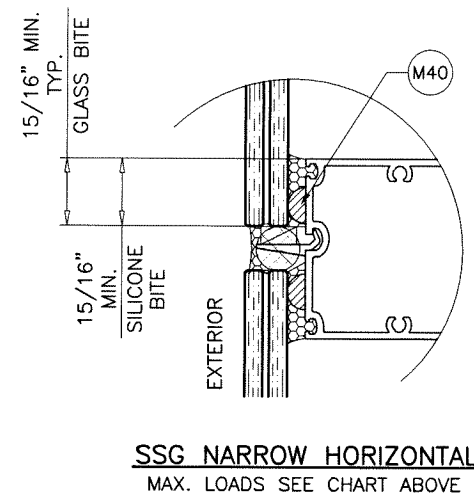
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sheet 2 of 20



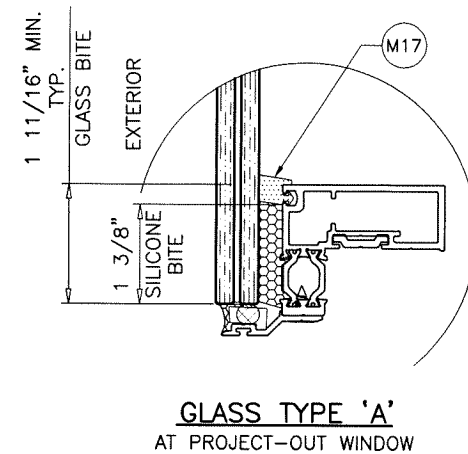
SSG LOAD CAPACITY 1-1/8" SILICONE BITE	
D.L.O. WIDTH	EXT.(+) INT.(-)
26-1/2"	140.0
32-1/2"	140.0
38-1/2"	140.0
44-1/2"	140.0
50-1/2"	140.0
56-1/2"	140.0
62-1/2"	140.0
68-1/2"	135.0



SSG LOAD CAPACITY 5/8" SILICONE BITE	
D.L.O. WIDTH	EXT.(+) INT.(-)
26-1/2"	140.0
32-1/2"	140.0
38-1/2"	128.6
44-1/2"	112.5
50-1/2"	100.0
56-1/2"	90.0
62-1/2"	81.8
68-1/2"	75.0



SSG LOAD CAPACITY 15/16" SILICONE BITE	
D.L.O. WIDTH	EXT.(+) INT.(-)
26-1/2"	140.0
32-1/2"	140.0
38-1/2"	140.0
44-1/2"	140.0
50-1/2"	140.0
56-1/2"	135.0
62-1/2"	122.7
68-1/2"	112.5

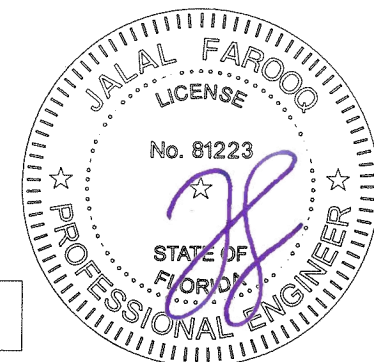


GLAZING DETAILS

Sealed: 8/1/2023 FL #22526

GLASS TYPE 'A'

UPRIGHT GLASS

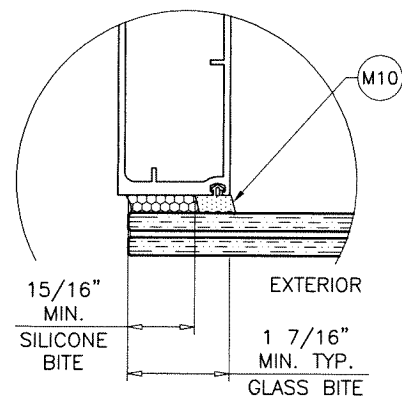


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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

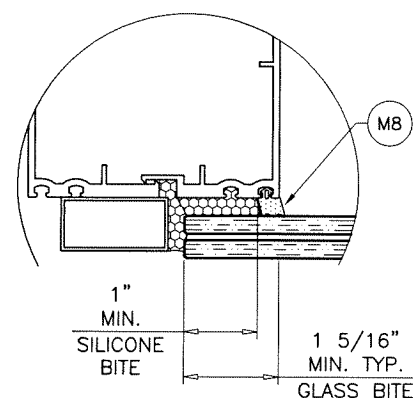
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
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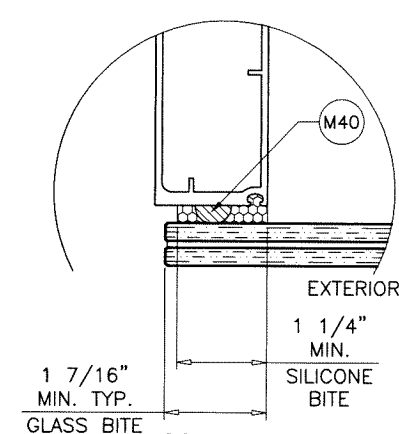
SSG JAMB

MAX. LOADS SEE CHART BELOW



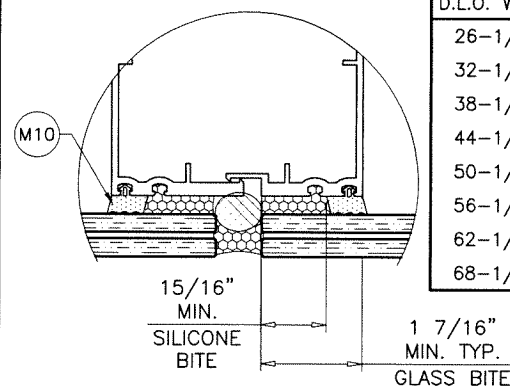
SSG JAMB

MAX. LOADS SEE CHART BELOW



SSG JAMB

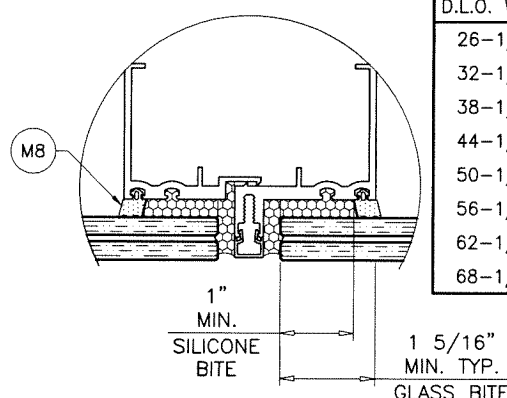
MAX. LOADS SEE CHART BELOW



SSG MULLION

MAX. LOADS SEE CHART ABOVE

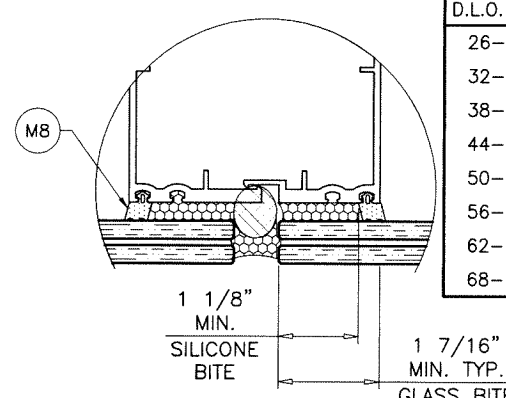
SSG LOAD CAPACITY 15/16" SILICONE BITE		
D.L.O. WIDTH	EXT.(+) INT.(-)	
26-1/2"	140.0	
32-1/2"	140.0	
38-1/2"	128.6	
44-1/2"	112.5	
50-1/2"	100.0	
56-1/2"	90.0	
62-1/2"	81.8	
68-1/2"	75.0	



SSG MULLION

MAX. LOADS SEE CHART ABOVE

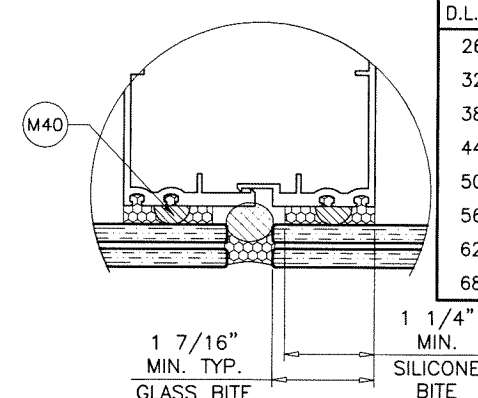
SSG LOAD CAPACITY 1" SILICONE BITE		
D.L.O. WIDTH	EXT.(+) INT.(-)	
26-1/2"	140.0	
32-1/2"	140.0	
38-1/2"	137.1	
44-1/2"	120.0	
50-1/2"	106.7	
56-1/2"	96.0	
62-1/2"	87.3	
68-1/2"	80.0	



SSG MULLION

MAX. LOADS SEE CHART ABOVE

SSG LOAD CAPACITY 1-1/8" SILICONE BITE		
D.L.O. WIDTH	EXT.(+) INT.(-)	
26-1/2"	140.0	
32-1/2"	140.0	
38-1/2"	140.0	
44-1/2"	135.0	
50-1/2"	120.0	
56-1/2"	108.0	
62-1/2"	98.2	
68-1/2"	90.0	



SSG MULLION

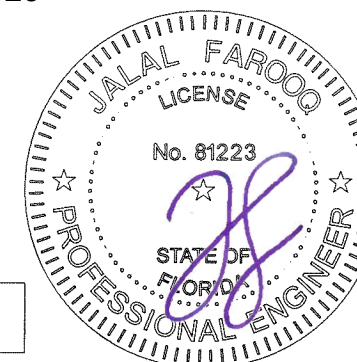
MAX. LOADS SEE CHART ABOVE

SSG LOAD CAPACITY 1-1/4" SILICONE BITE		
D.L.O. WIDTH	EXT.(+) INT.(-)	
26-1/2"	140.0	
32-1/2"	140.0	
38-1/2"	140.0	
44-1/2"	140.0	
50-1/2"	133.3	
56-1/2"	120.0	
62-1/2"	109.1	
68-1/2"	100.0	

GLAZING DETAILS

Sealed: 8/1/2023 FL #22526

GLASS TYPE 'A'
UPRIGHT GLASS



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revisions:

no	date	by	description

date: 06-09-17
scale: -
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chk. by: -

drawing no.
W17-57

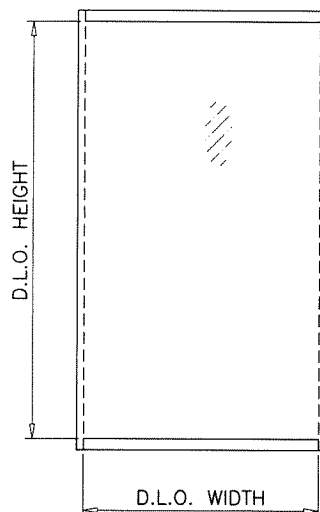
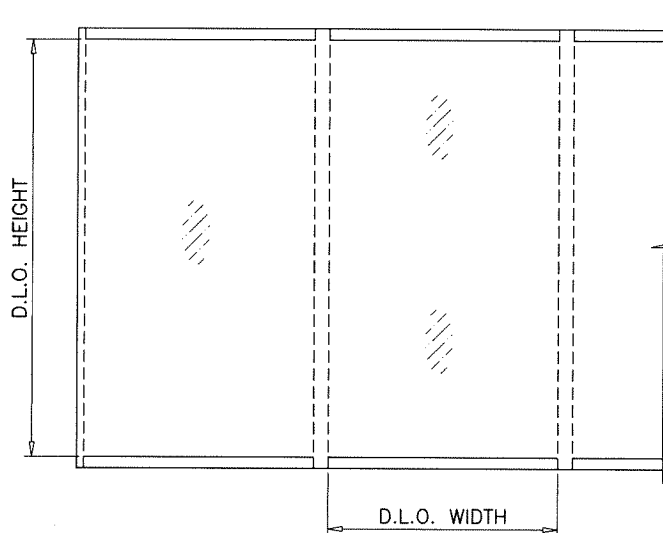
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DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'A'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	91"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		134.0	134.0
56-1/2"		119.8	119.8
62-1/2"		108.4	108.4
68-1/2"		85.0	85.0
26-1/2"	97"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		134.0	134.0
56-1/2"		119.8	119.8
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	103"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		134.0	134.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	109"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		134.0	134.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	115"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
48-1/2"	120"	140.0	140.0
26-1/2"	121"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0

DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'A'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	127"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
44-1/2"		140.0	140.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	133"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	138"	140.0	140.0
32-1/2"		140.0	140.0
38-1/2"		140.0	140.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	139"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	145"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
26-1/2"	151"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7

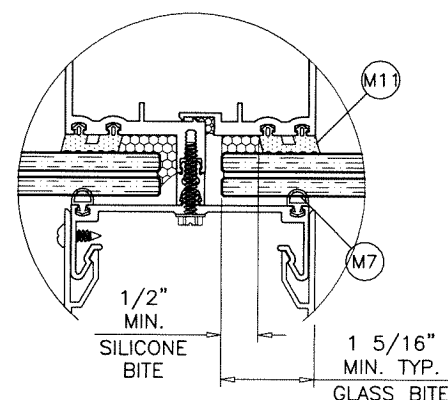
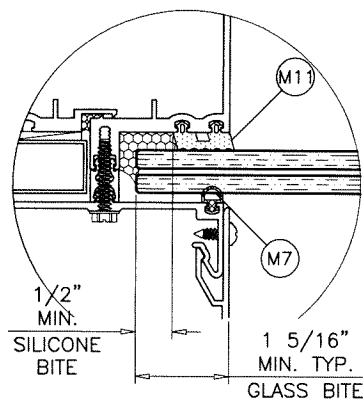
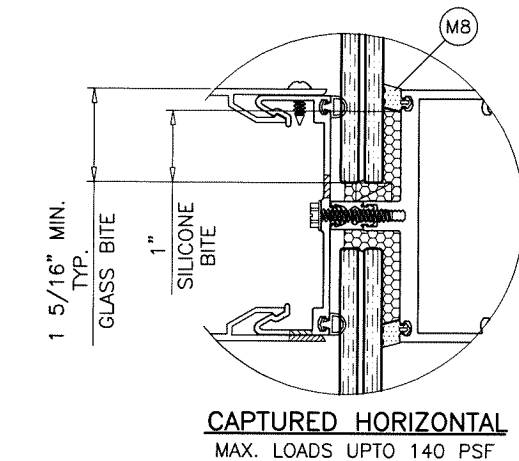
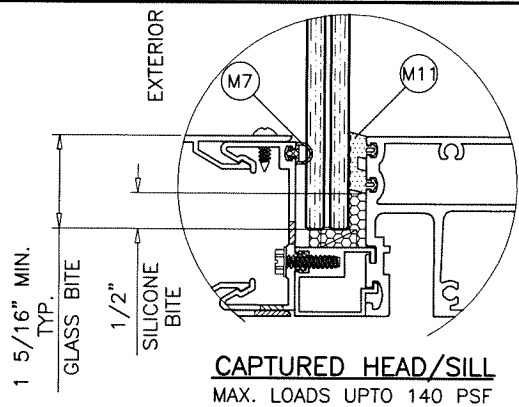
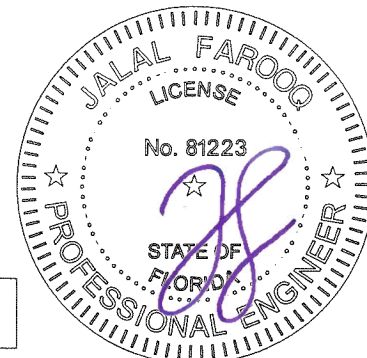
DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'A'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	157"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
68-1/2"		102.0	102.0
26-1/2"	163"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
68-1/2"		102.0	102.0
26-1/2"	168"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
68-1/2"		102.0	102.0
26-1/2"	169"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
68-1/2"		102.0	102.0
26-1/2"	175"	102.0	102.0
32-1/2"		102.0	102.0
38-1/2"		102.0	102.0
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
68-1/2"		102.0	102.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLASS TYPE 'A'
UPRIGHT GLASS

Sealed: 8/1/2023 FL #22526



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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

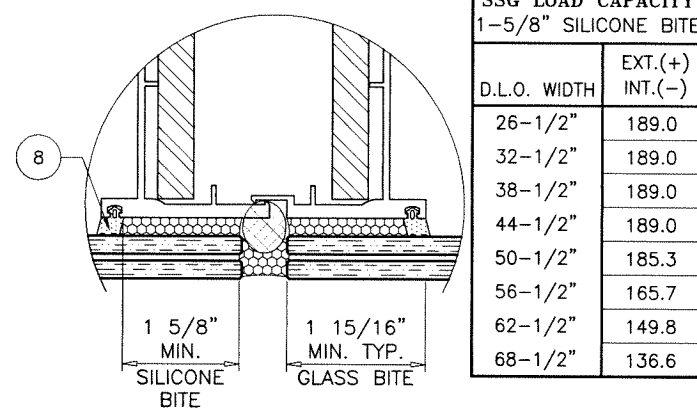
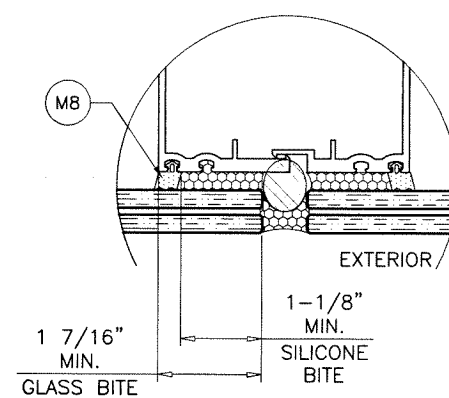
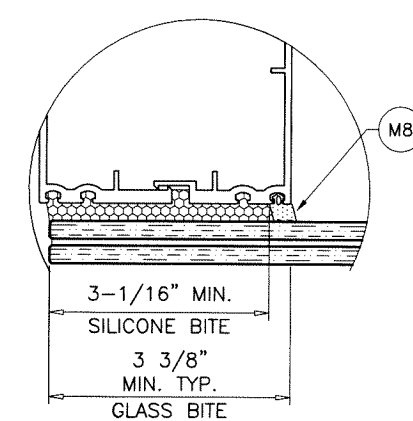
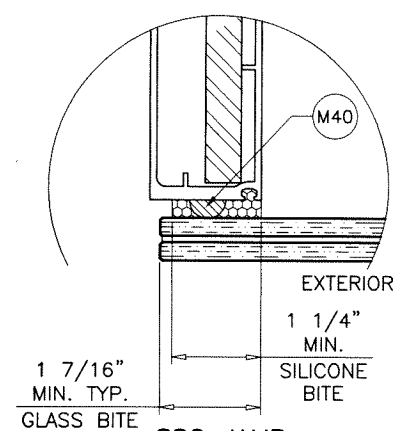
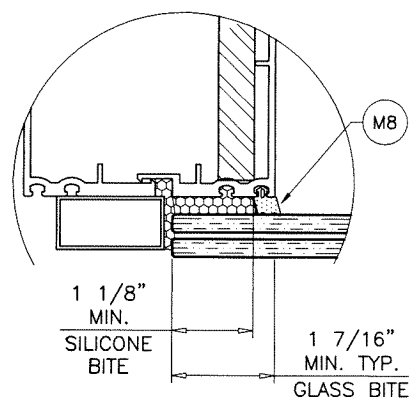
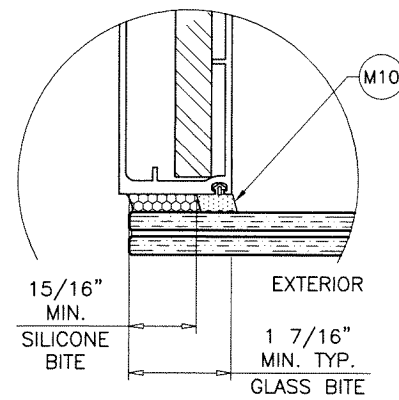
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:
no date by description

date: 06-09-17
scale: -
dr. by: TARIQ
chk. by:

drawing no.
W17-57
sheet 3.2 of 20

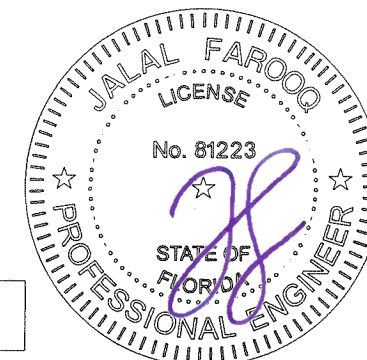
STORE\W17-57ES



Sealed: 8/1/2023 FL #22526

GLASS TYPE 'B'

UPRIGHT GLASS



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

ES-8860 ALUMINUM 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

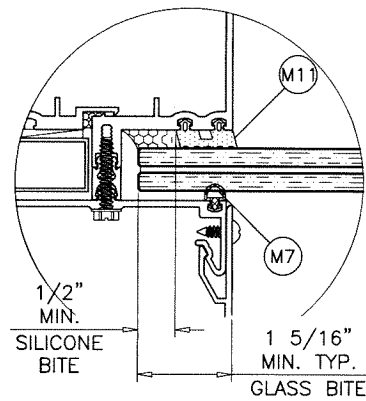
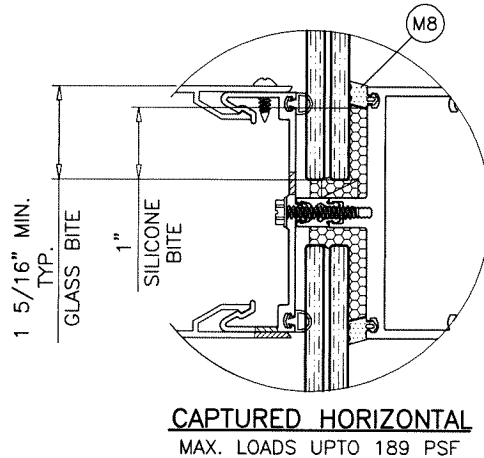
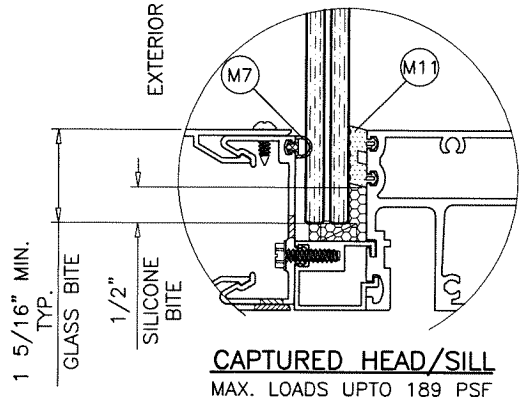
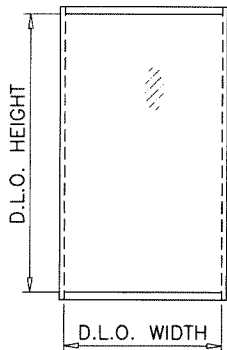
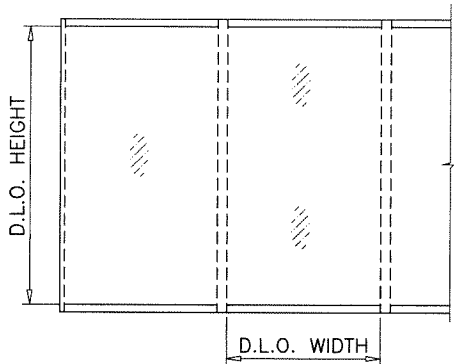
date: 06-09-17		revisions:	
scale: -	no	date	by description
dr. by: TARIQ			
chk. by:			

drawing no. **W17-57**

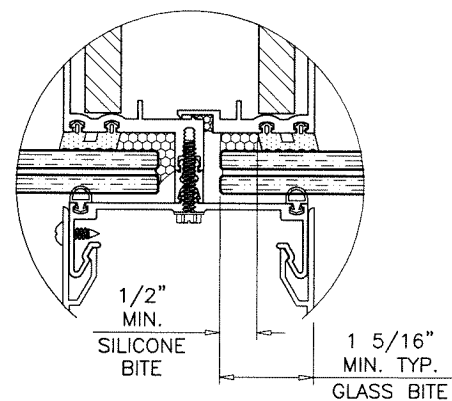
sheet **4.1** of **20**

DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'B'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	91"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		156.0	156.0
62-1/2"		141.1	141.1
68-1/2"		128.8	128.8
70-5/8"		121.7	121.7
26-1/2"	97"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		156.0	156.0
62-1/2"		141.1	141.1
68-1/2"		121.7	121.7
70-5/8"		121.7	121.7
26-1/2"	103"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		156.0	156.0
62-1/2"		141.1	141.1
68-1/2"		121.7	121.7
70-5/8"		121.7	121.7
26-1/2"	109"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		156.0	156.0
62-1/2"		121.7	121.7
68-1/2"		121.7	121.7
70-5/8"		121.7	121.7
26-1/2"	115"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		121.7	121.7
62-1/2"		121.7	121.7
68-1/2"		121.7	121.7
70-5/8"		121.7	121.7
26-1/2"	121"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		121.7	121.7
62-1/2"		121.7	121.7

DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPE 'B'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	127"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		174.5	174.5
56-1/2"		121.7	121.7
62-1/2"		121.7	121.7
26-1/2"	133"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
26-1/2"	138"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
26-1/2"	139"	189.0	189.0
32-1/2"		189.0	189.0
38-1/2"		189.0	189.0
44-1/2"		189.0	189.0
46-3/4"		189.0	189.0
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7



CAPTURED JAMB
MAX. LOADS UPTO 189 PSF

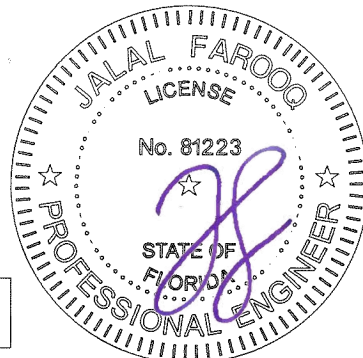


CAPTURED MULLION
MAX. LOADS UPTO 189 PSF

GLAZING DETAILS

Sealed: 8/1/2023 FL #22526

GLASS TYPE 'B'
UPRIGHT GLASS



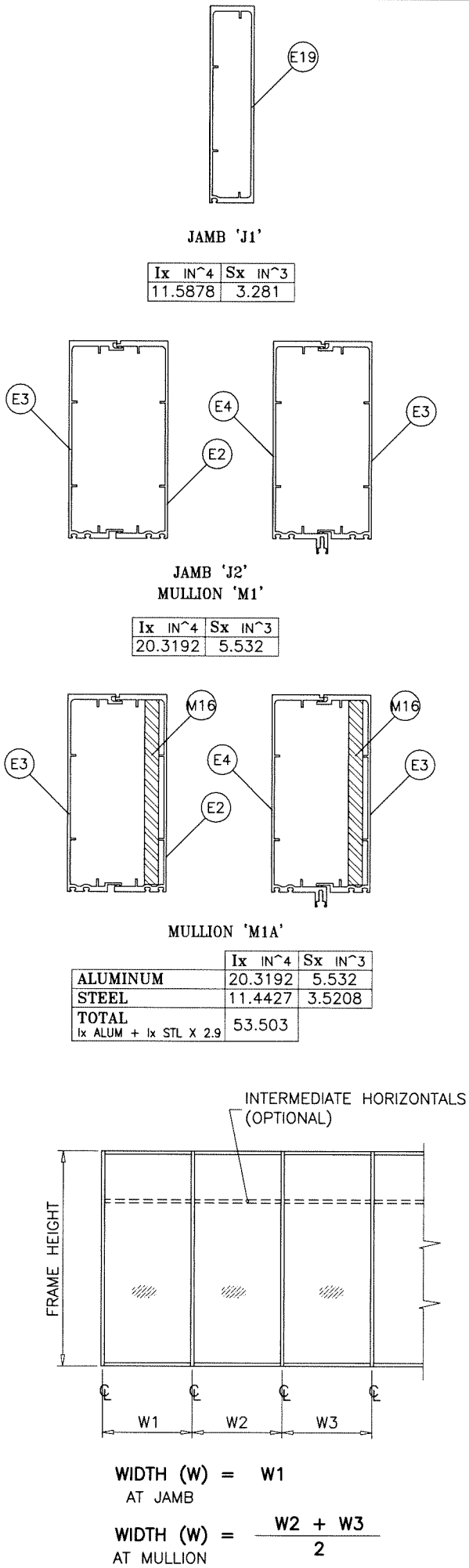
af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

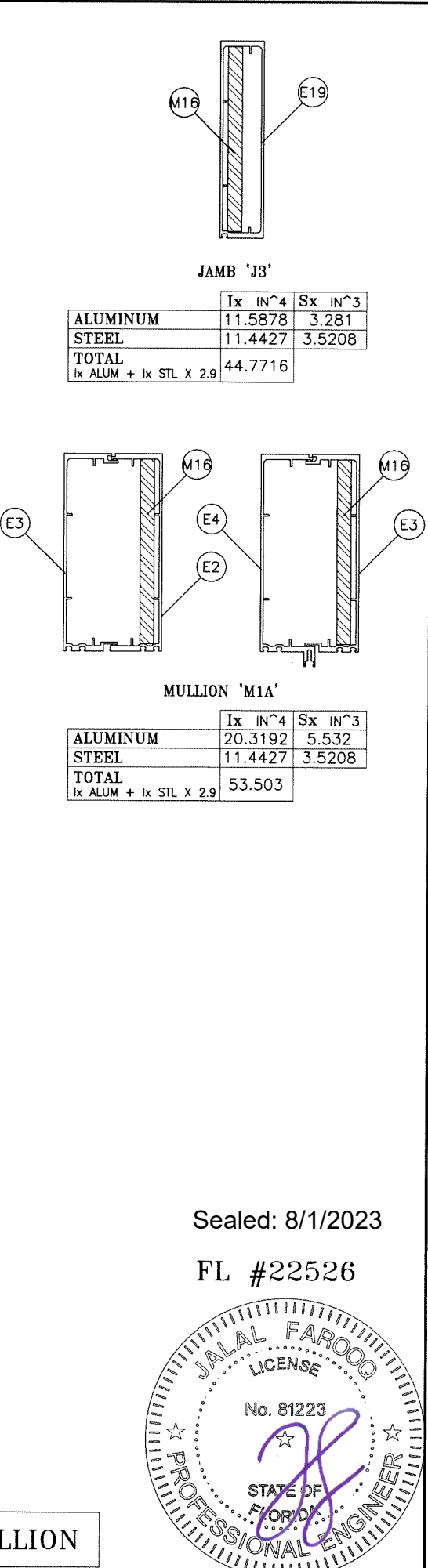
revisions:	no	date	by	description
date:	06-09-17	scale:	-	
dr. by:	TARIQ	chk. by:		
drawing no.	W17-57	sheet	4.2 of 20	

MULLION DESIGN LOAD CAPACITY – PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		MULLION 'M1'		MULLION 'M1A'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (–)	EXT. (+)	INT. (–)	EXT. (+)	INT. (–)	EXT. (+)	INT. (–)
30"	96"	140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
36"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
42"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
48"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
54"		134.8	134.8	121.7	121.7	134.8	134.8	134.8	134.8
60"		121.3	121.3	121.7	121.7	121.3	121.3	121.7	121.7
66"		110.3	110.3	121.7	121.7	110.3	110.3	121.7	121.7
72"	102"	–	–	121.7	121.7	–	–	121.7	121.7
74–1/8"		–	–	121.7	121.7	–	–	121.7	121.7
30"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
36"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
42"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
48"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
54"		134.8	134.8	121.7	121.7	134.8	134.8	134.8	134.8
60"		121.3	121.3	121.7	121.7	121.3	121.3	121.7	121.7
66"	108"	–	–	121.7	121.7	–	–	121.7	121.7
72"		–	–	121.7	121.7	–	–	121.7	121.7
74–1/8"		–	–	121.7	121.7	–	–	121.7	121.7
30"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
36"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
42"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
48"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
54"		134.8	134.8	121.7	121.7	134.8	134.8	134.8	134.8
60"		121.3	121.3	121.7	121.7	121.3	121.3	121.7	121.7
66"	114"	–	–	121.7	121.7	–	–	121.7	121.7
72"		–	–	121.7	121.7	–	–	121.7	121.7
74–1/8"		–	–	121.7	121.7	–	–	121.7	121.7
30"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
36"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
42"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
48"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
54"		134.8	134.8	121.7	121.7	134.8	134.8	134.8	134.8
60"		–	–	121.7	121.7	–	–	121.7	121.7
66"	120"	–	–	121.7	121.7	–	–	121.7	121.7
72"		–	–	121.7	121.7	–	–	121.7	121.7
74–1/8"		–	–	121.7	121.7	–	–	121.7	121.7
30"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
36"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
42"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
48"		140.0	140.0	121.7	121.7	140.0	140.0	140.0	140.0
54"		134.8	134.8	121.7	121.7	134.8	134.8	134.8	134.8
60"		–	–	121.7	121.7	–	–	121.7	121.7
66"	125"	–	–	121.7	121.7	–	–	121.7	121.7
72"		–	–	121.7	121.7	–	–	121.7	121.7
74–1/8"		–	–	121.7	121.7	–	–	121.7	121.7
30"		140.0	140.0	–	–	140.0	140.0	140.0	140.0
36"		140.0	140.0	–	–	140.0	140.0	140.0	140.0
42"		140.0	140.0	–	–	140.0	140.0	140.0	140.0
48"		140.0	140.0	–	–	139.1	139.1	139.1	139.1
52"		140.0	140.0	–	–	129.5	129.5	129.5	129.5

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



MULLION DESIGN LOAD CAPACITY – PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		JAMB 'J3'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (–)
30"	102"	140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"	108"	140.0	140.0
30"		140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"	114"	140.0	140.0
30"		140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
30"	120"	140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
30"	126"	140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
30"	132"	140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
30"	138"	140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
52"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
30"	143"	140.0	140.0
36"		140.0	140.0
42"		140.0	140.0
48"		140.0	140.0
52"		139.3	139.3
60"		139.3	139.3
66"		139.3	139.3



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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ES-8860 ALUMINUM 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

date: 06-09-17

scale: –

dr. by: TARIQ

chk. by: –

drawing no.
W17-57

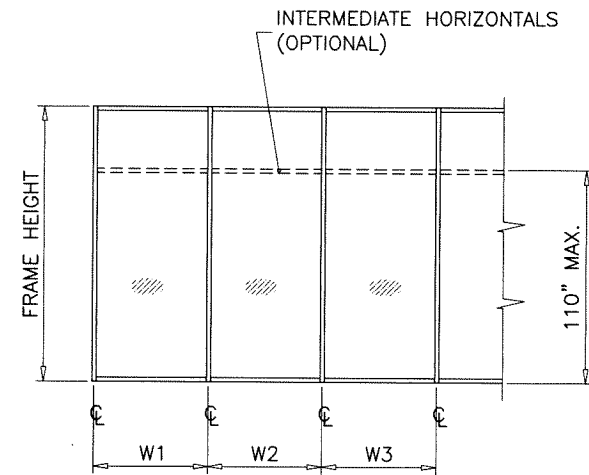
sheet 5 of 20

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J3'		JAMB 'J4'		MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	132"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	101.3	124.4
60"		92.0	112.0	102.0	112.0	92.0	112.0
66"		92.0	101.8	102.0	102.0	92.0	101.8
72"		92.0	93.3	102.0	102.0	92.0	93.3
30"	138"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	101.3	124.4
60"		92.0	112.0	102.0	112.0	92.0	112.0
66"		92.0	101.8	102.0	102.0	92.0	101.8
72"		92.0	92.0	102.0	102.0	92.0	102.0
30"	144"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	101.3	124.4
60"		92.0	112.0	102.0	112.0	92.0	112.0
66"		92.0	101.8	102.0	102.0	92.0	101.8
72"		92.0	92.0	102.0	102.0	92.0	92.0
30"	150"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	101.3	124.4
60"		92.0	112.0	102.0	112.0	92.0	112.0
66"		92.0	92.0	102.0	102.0	92.0	102.0
72"		92.0	92.0	102.0	102.0	92.0	102.0
30"	156"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	101.3	124.4
60"		92.0	112.0	102.0	112.0	92.0	112.0
66"		92.0	92.0	102.0	102.0	92.0	102.0
72"		92.0	92.0	102.0	102.0	92.0	102.0
30"	162"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	102.0	124.4
60"		92.0	112.0	102.0	112.0	92.0	112.0
66"		92.0	92.0	102.0	102.0	92.0	102.0
72"		92.0	92.0	102.0	102.0	92.0	102.0
30"	168"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	140.0	114.0	140.0	114.0	140.0
54"		101.3	124.4	102.0	124.4	102.0	124.4
60"		92.0	92.0	102.0	102.0	92.0	102.0
66"		92.0	92.0	102.0	102.0	92.0	102.0
72"		92.0	92.0	102.0	102.0	92.0	102.0
30"	173"	114.0	140.0	114.0	140.0	114.0	140.0
36"		114.0	140.0	114.0	140.0	114.0	140.0
42"		114.0	140.0	114.0	140.0	114.0	140.0
48"		114.0	136.8	114.0	136.8	114.0	136.8
54"		101.3	124.1	102.0	124.1	102.0	124.1
60"		92.0	92.0	102.0	102.0	92.0	102.0
66"		92.0	92.0	102.0	102.0	92.0	102.0

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J3'		MULLION 'M2'			
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)		
30"	174"	114.0	140.0	114.0	140.0		
36"		114.0	140.0	114.0	140.0		
42"		114.0	140.0	114.0	140.0		
48"		114.0	136.8	114.0	136.8		
54"		101.3	124.1	101.3	124.1		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	180"	114.0	140.0	114.0	140.0		
36"		114.0	140.0	114.0	140.0		
42"		114.0	140.0	114.0	140.0		
48"		114.0	131.5	114.0	131.5		
54"		101.3	119.2	101.3	119.2		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	186"	114.0	140.0	114.0	140.0		
36"		114.0	140.0	114.0	140.0		
42"		114.0	140.0	114.0	140.0		
48"		114.0	126.7	114.0	126.7		
53-1/2"		128.1	128.1	123.9	123.9		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
30"	192"	114.0	140.0	114.0	140.0		
36"		114.0	140.0	114.0	140.0		
42"		114.0	137.1	114.0	137.1		
48"		114.0	122.1	114.0	122.1		
53-1/2"		118.9	118.9	115.1	115.1		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
30"	193"	114.0	140.0	114.0	140.0		
36"		114.0	140.0	114.0	140.0		
42"		114.0	137.0	114.0	137.1		
48"		114.0	122.1	114.0	122.1		
53-1/2"		118.9	118.9	115.1	115.1		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
30"	198"	114.0	140.0	114.0	130.0		
36"		114.0	140.0	114.0	140.0		
42"		114.0	132.5	114.0	132.5		
48"		114.0	117.9	114.0	117.9		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	204"	114.0	130.0	114.0	130.0		
36"		114.0	130.0	114.0	130.0		
42"		114.0	128.1	114.0	128.1		
48"		114.0	114.0	114.0	114.0		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	91.9	91.9		
72"		92.0	92.0	91.9	91.9		

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J3'		MULLION 'M2'			
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)		
30"	210"	92.0	92.0	92.0	92.0		
36"		92.0	92.0	92.0	92.0		
42"		92.0	92.0	92.0	92.0		
48"		92.0	92.0	92.0	92.0		
54"		92.0	92.0	92.0	92.0		
60"		89.6	89.6	86.7	86.7		
72"		87.1	87.1	84.3	84.3		
30"	213"	92.0	92.0	92.0	92.0		
36"		92.0	92.0	92.0	92.0		
42"		92.0	92.0	92.0	92.0		
48"		92.0	92.0	92.0	92.0		
54"		92.0	92.0	92.0	92.0		
60"		87.1	87.1	84.3	84.3		
72"		87.1	87.1	84.3	84.3		

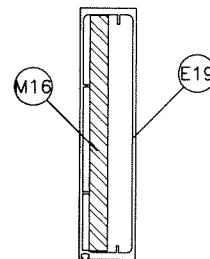


$$\text{WIDTH (W)} = W1$$

AT JAMB

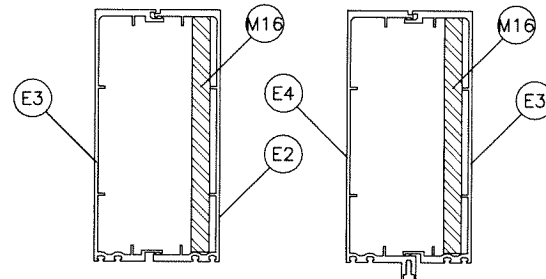
$$\text{WIDTH (W)} = \frac{W2 + W3}{2}$$

AT MULLION



JAMB 'J3'

	Ix IN ⁴	Sx IN ³
ALUMINUM	11.5878	3.281
STEEL	11.4427	3.5208
TOTAL	44.7716	
Ix ALUM + Ix STL X 2.9		



JAMB 'J4'

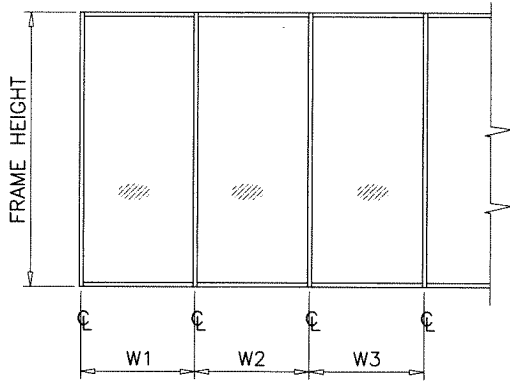
	$I_x \text{ IN}^4$	$S_x \text{ IN}^3$
ALUMINUM	20.3192	5.532
STEEL	11.4427	3.52
TOTAL $I_x \text{ ALUM} + I_x \text{ STL} \times 2.9$	53.503	

MULLION DESIGN LOAD CAPACITY - PSF
WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J3'/'J4' MULL 'M2'/'M2W'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	96"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0
72"		189.0	189.0
30"	102"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0
72"		189.0	189.0
30"	108"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0
30"	114"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0
30"	120"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0
30"	126"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0
30"	132"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
60"		189.0	189.0
66"		189.0	189.0

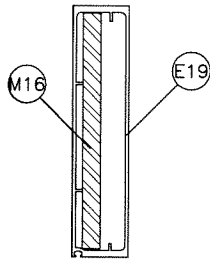
MULLION DESIGN LOAD CAPACITY - PSF
WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J3'/'J4' MULL 'M2'/'M2W'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	138"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
54"		189.0	189.0
30"	144"	189.0	189.0
36"		189.0	189.0
42"		189.0	189.0
48"		189.0	189.0
52"		189.0	189.0



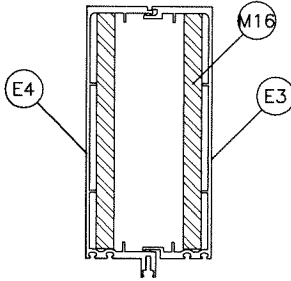
WIDTH (W) = W1
AT JAMB

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



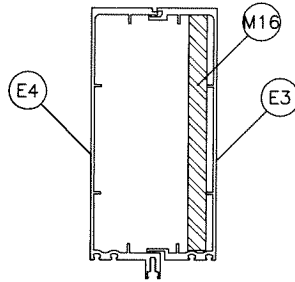
JAMB 'J3'

	Ix IN^4	Sx IN^3
ALUMINUM	11.5878	3.281
STEEL	11.4427	3.5208
TOTAL Ix ALUM + Ix STL X 2.9	44.7716	



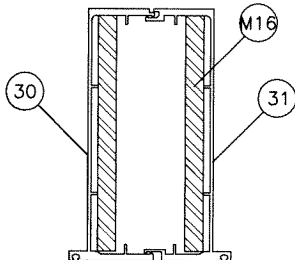
MULLION 'M2'

	Ix IN^4	Sx IN^3
ALUMINUM	20.3192	5.532
STEEL	22.8854	7.0417
TOTAL Ix ALUM + Ix STL X 2.9	86.6869	



JAMB 'J4'

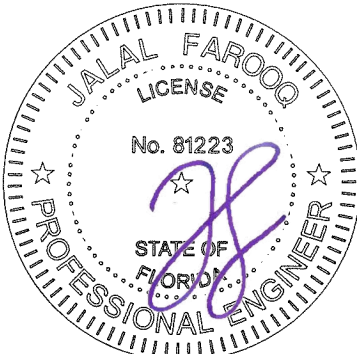
	Ix IN^4	Sx IN^3
ALUMINUM	20.3192	5.532
STEEL	11.4427	3.5208
TOTAL Ix ALUM + Ix STL X 2.9	53.5030	



MULLION 'M2W'

	Ix IN^4	Sx IN^3
ALUMINUM	20.3192	5.532
STEEL	22.8854	7.0417
TOTAL Ix ALUM + Ix STL X 2.9	86.6869	

Sealed: 8/1/2023 FL #22526



UPRIGHT JAMB & MULLION

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

afc

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

ES-8860 ALUMINUM 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: 06-09-17	scale: -	dr. by: TARIQ	chk. by:
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drawing no.

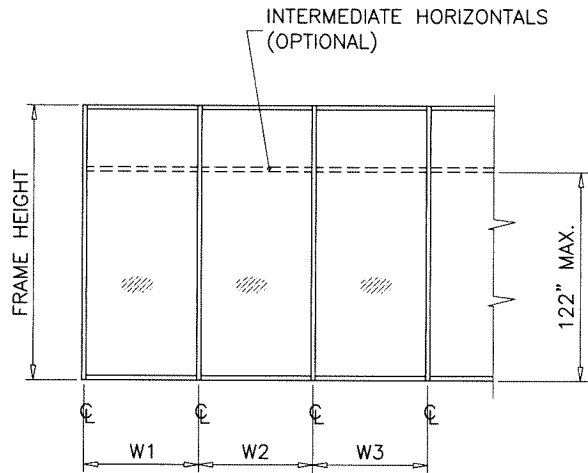
W17-57

sheet 7 of 20

STORE W17-57ES

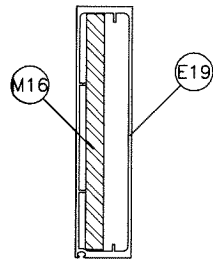
MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		JAMB 'J3' MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	108"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0
72"		96.0	126.0
30"	114"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0
30"	120"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0
30"	126"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0
30"	132"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0
30"	138"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0
30"	144"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
54"		96.0	126.0
60"		96.0	126.0
66"		96.0	126.0

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		JAMB 'J3' MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT. (+)	INT. (-)
30"	150"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
30"	156"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
30"	162"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
48"		96.0	126.0
30"	168-5/8"	96.0	126.0
36"		96.0	126.0
42"		96.0	126.0
47-13/16"		96.0	126.0



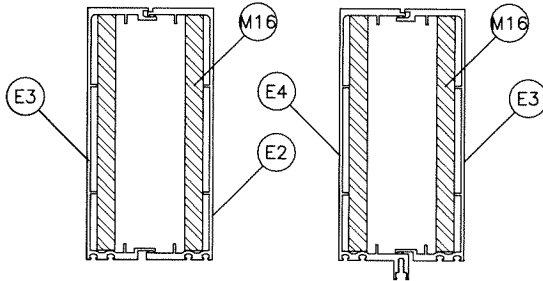
WIDTH (W) = W1
AT JAMB

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



JAMB 'J3'

	Ix IN ⁴	Sx IN ³
ALUMINUM	11.5878	3.281
STEEL	11.4427	3.5208
TOTAL	44.7716	
Ix ALUM + Ix STL X 2.9		



MULLION 'M2'

	Ix IN ⁴	Sx IN ³
ALUMINUM	20.3192	5.532
STEEL	22.8854	7.0417
TOTAL	86.6869	
Ix ALUM + Ix STL X 2.9		

Sealed: 8/1/2023 FL #22526



SLANTED JAMB & MULLION

NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

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MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:
no date by description

date: 06-09-17

scale: -

dr. by: TARIQ

chk. by:

drawing no.

W17-57

sheet 7.1 of 20

STORE \W17-57ES

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

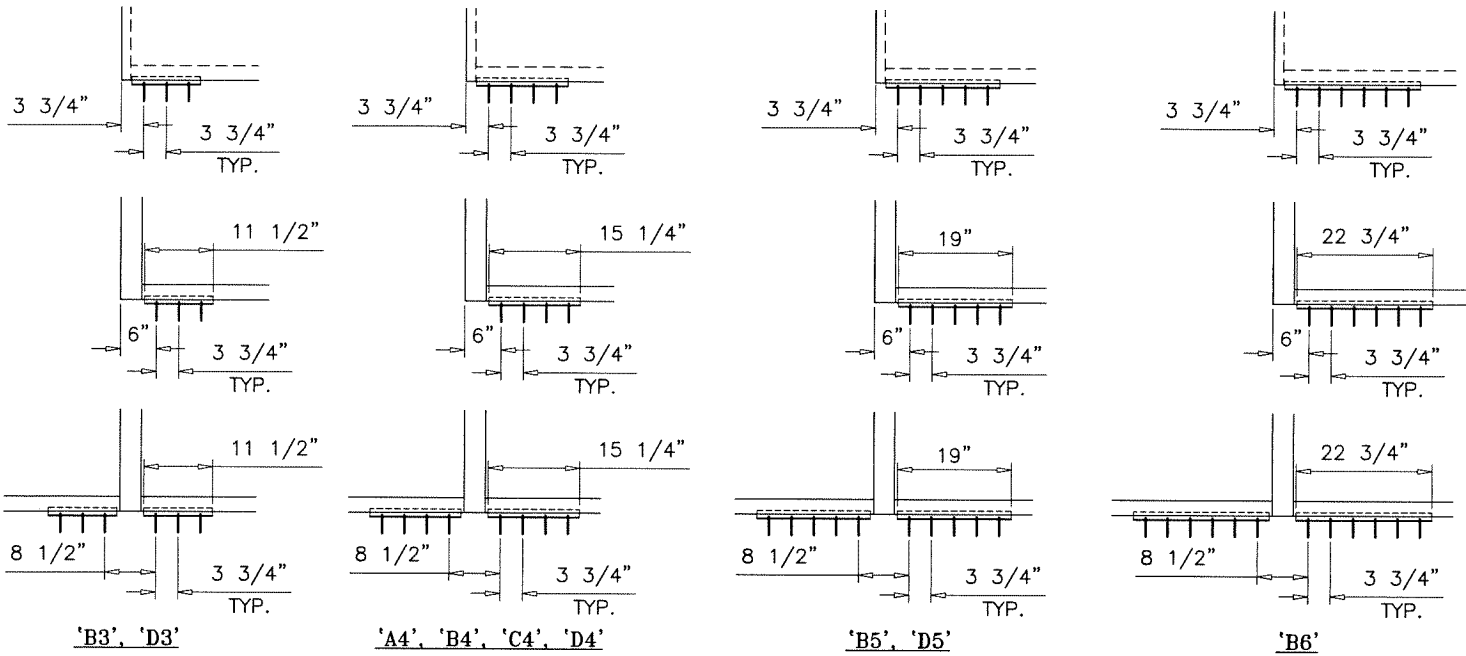
TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'
1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO 3000 PSI CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE
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 3500 PSI CONCRETE
2" MIN. EMBED INTO CONCRETE
ANCHOR EDGE DISTANCES
INTO CONCRETE = 3-1/8" MIN.

TYPE 'C'
1/4" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT' (GRADE 5 CRS)
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
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'
5/16" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT' (GRADE 5 CRS)
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
STEEL: 3/16" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 1" MIN.



ANCHORS TYPES:

- B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
D3 = (3) ANCHORS TYPE 'D' 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
B5 = (5) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
D5 = (5) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
B6 = (6) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION

Sealed: 8/1/2023 FL #22526

UPRIGHT
JAMB & MULLION ANCHORS



af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE\W17-57ES

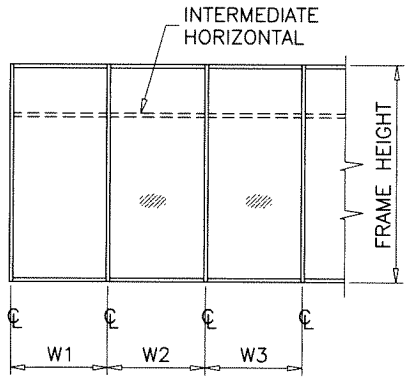
ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:		no date by description	
date:	06-09-17	scale:	-
dr. by:	TARIQ	chk. by:	
drawing no.		W17-57	
sheet		8 of 20	

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)						
NOMINAL DIMS.		ANCHOR TYPE 'B'			ANCHOR TYPE 'D'	
WIDTH (W)	FRAME HEIGHT	'B4'	'B5'	'B6'	'D4'	'D5'
30"	132"	140.0	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0	140.0
42"		140.0	140.0	140.0	140.0	140.0
48"		133.6	140.0	140.0	140.0	140.0
54"		118.8	140.0	140.0	140.0	140.0
60"		106.9	133.6	140.0	140.0	140.0
66"		97.2	121.5	140.0	140.0	140.0
72"		89.1	111.4	133.6	140.0	140.0
30"	138"	140.0	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0	140.0
42"		140.0	140.0	140.0	140.0	140.0
48"		127.8	140.0	140.0	140.0	140.0
54"		113.6	140.0	140.0	140.0	140.0
60"		102.3	127.8	140.0	140.0	140.0
66"		93.0	116.2	139.4	140.0	140.0
72"		85.2	106.5	127.8	136.4	140.0
30"	144"	140.0	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0	140.0
42"		140.0	140.0	140.0	140.0	140.0
48"		122.5	140.0	140.0	140.0	140.0
54"		108.9	136.1	140.0	140.0	140.0
60"		98.0	122.5	140.0	140.0	140.0
66"		89.1	111.4	133.6	140.0	140.0
72"		81.7	102.0	102.0	102.0	102.0
30"	150"	140.0	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0	140.0
42"		134.4	140.0	140.0	140.0	140.0
48"		117.6	140.0	140.0	140.0	140.0
54"		104.5	130.7	140.0	140.0	140.0
60"		94.1	117.6	140.0	140.0	140.0
66"		85.5	106.9	128.3	136.9	140.0
72"		78.4	92.0	92.0	92.0	92.0
30"	156"	140.0	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0	140.0
42"		129.2	140.0	140.0	140.0	140.0
48"		113.1	140.0	140.0	140.0	140.0
54"		100.5	125.6	140.0	140.0	140.0
60"		90.5	113.1	135.7	140.0	140.0
66"		82.2	102.8	123.4	131.6	140.0
72"		75.4	92.0	92.0	92.0	92.0
30"	162"	140.0	140.0	140.0	140.0	140.0
36"		145.2	140.0	140.0	140.0	140.0
42"		124.4	140.0	140.0	140.0	140.0
48"		108.9	136.1	140.0	140.0	140.0
54"		96.8	121.0	140.0	140.0	140.0
60"		87.1	108.9	130.7	139.4	140.0
66"		79.2	92.0	92.0	92.0	92.0
72"		72.6	90.7	92.0	92.0	92.0
30"	168"	140.0	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0	140.0
42"		120.0	140.0	140.0	140.0	140.0
48"		105.0	131.3	140.0	140.0	140.0
54"		93.3	116.7	140.0	140.0	140.0
60"		84.0	105.0	126.0	134.4	140.0
66"		76.4	92.0	92.0	92.0	92.0
72"		70.0	87.5	92.0	92.0	92.0

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)						
NOMINAL DIMS.		ANCHOR TYPE 'B'			ANCHOR TYPE 'D'	
WIDTH (W)	FRAME HEIGHT	'B4'	'B5'	'B6'	'D4'	'D5'
30"	174"	140.0	140.0	140.0	140.0	140.0
36"		135.2	140.0	140.0	140.0	140.0
42"		115.9	140.0	140.0	140.0	140.0
48"		101.4	126.7	140.0	140.0	140.0
54"		90.1	112.6	135.2	140.0	140.0
60"		81.1	92.0	92.0	92.0	92.0
66"		73.7	92.0	92.0	92.0	92.0
72"		67.6	84.5	92.0	92.0	92.0
30"	180"	140.0	140.0	140.0	140.0	140.0
36"		130.7	140.0	140.0	140.0	140.0
42"		112.0	140.0	140.0	140.0	140.0
48"		98.0	122.5	140.0	140.0	140.0
54"		87.1	108.9	130.7	139.4	140.0
60"		78.4	92.0	92.0	92.0	92.0
66"		71.3	89.1	92.0	92.0	92.0
30"	186"	140.0	140.0	140.0	140.0	140.0
36"		126.5	140.0	140.0	140.0	140.0
42"		108.4	135.5	140.0	140.0	140.0
48"		94.8	118.6	140.0	140.0	140.0
54"		84.3	105.4	126.5	134.9	140.0
60"		75.9	92.0	92.0	92.0	92.0
66"		69.0	86.2	92.0	92.0	92.0
30"	192"	140.0	140.0	140.0	140.0	140.0
36"		122.5	140.0	140.0	140.0	140.0
42"		105.0	131.3	140.0	140.0	140.0
48"		91.9	114.8	137.8	140.0	140.0
54"		81.7	92.0	92.0	92.0	92.0
60"		73.5	91.9	92.0	92.0	92.0
66"		66.8	83.5	92.0	92.0	92.0
30"	198"	130.0	130.0	130.0	130.0	130.0
36"		118.8	130.0	130.0	130.0	130.0
42"		101.8	127.3	130.0	130.0	130.0
48"		89.1	111.4	130.0	130.0	130.0
54"		79.2	92.0	92.0	92.0	92.0
60"		71.3	89.1	92.0	92.0	92.0
30"	204"	130.0	130.0	130.0	130.0	130.0
36"		115.3	130.0	130.0	130.0	130.0
42"		98.8	123.5	130.0	130.0	130.0
48"		86.5	108.1	129.7	130.0	130.0
54"		76.9	92.0	92.0	92.0	92.0
60"		69.2	86.5	92.0	92.0	92.0
30"	210"	92.0	92.0	92.0	92.0	92.0
36"		92.0	92.0	92.0	92.0	92.0
42"		92.0	92.0	92.0	92.0	92.0
48"		84.0	92.0	92.0	92.0	92.0
54"		74.7	92.0	92.0	92.0	92.0
60"		67.2	84.0	92.0	92.0	92.0
30"	213"	92.0	92.0	92.0	92.0	92.0
36"		92.0	92.0	92.0	92.0	92.0
42"		92.0	92.0	92.0	92.0	92.0
48"		82.8	92.0	92.0	92.0	92.0
54"		73.6	92.0	92.0	92.0	92.0
60"		66.3	82.8	92.0	92.0	92.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

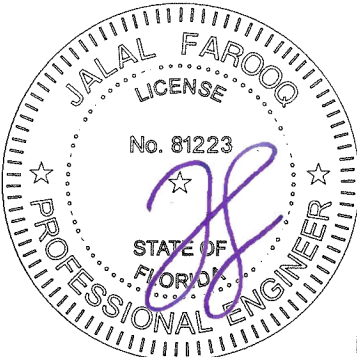


WIDTH (W) = W1
AT FRAME JAMB

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

UPRIGHT
JAMB & MULLION ANCHORS

Sealed: 8/1/2023 FL #22526



af c
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MIAMI, FLORIDA 33173 (C.A.N. 3538)
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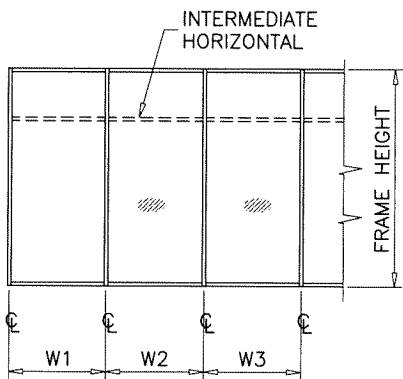
ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
date:	06-09-17			
scale:	-			
dr. by:	TARIQ			
chk. by:				
drawing no.	W17-57			
sheet	8.2 of 20			

STORE\W17-57ES

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)					
NOMINAL DIMS.		ANCHOR TYPE 'B'			ANCHOR TYPE 'D'
WIDTH (W)	FRAME HEIGHT	B4	B5	B6	D4
30"	96"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		126.0	126.0	126.0	126.0
48"		126.0	126.0	126.0	126.0
54"		118.2	126.0	126.0	126.0
60"		106.4	126.0	126.0	126.0
66"		96.7	120.9	126.0	126.0
72"		88.7	110.8	126.0	126.0
30"	102"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		126.0	126.0	126.0	126.0
48"		125.2	126.0	126.0	126.0
54"		111.2	126.0	126.0	126.0
60"		100.1	125.2	126.0	126.0
66"		91.0	113.8	126.0	126.0
72"		83.4	104.3	125.2	126.0
30"	108"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		126.0	126.0	126.0	126.0
48"		118.2	126.0	126.0	126.0
54"		105.1	126.0	126.0	126.0
60"		94.6	118.2	126.0	126.0
66"		86.0	107.5	126.0	126.0
72"		78.8	98.5	118.2	126.0
30"	114"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		126.0	126.0	126.0	126.0
48"		112.0	126.0	126.0	126.0
54"		99.5	124.4	126.0	126.0
60"		89.6	112.0	126.0	126.0
66"		81.4	101.8	122.2	126.0
30"	120"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		121.6	126.0	126.0	126.0
48"		106.4	126.0	126.0	126.0
54"		94.6	118.2	126.0	126.0
60"		85.1	106.4	126.0	126.0
66"		77.4	96.7	116.1	126.0
30"	126"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		115.8	126.0	126.0	126.0
48"		101.3	126.0	126.0	126.0
54"		90.1	112.6	126.0	126.0
60"		81.1	101.3	121.6	126.0
66"		77.4	96.7	116.1	126.0
30"	132"	126.0	126.0	126.0	126.0
36"		126.0	126.0	126.0	126.0
42"		110.5	126.0	126.0	126.0
48"		96.7	120.9	126.0	126.0
54"		86.0	107.5	126.0	126.0
60"		77.4	96.7	116.1	126.0
66"		77.4	96.7	116.1	126.0

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)					
NOMINAL DIMS.		ANCHOR TYPE 'B'			ANCHOR TYPE 'D'
WIDTH (W)	FRAME HEIGHT	B4	B5	B6	D4
30"	138"	126.0	126.0	126.0	126.0
36"		123.3	126.0	126.0	126.0
42"		105.7	126.0	126.0	126.0
48"		92.5	115.6	126.0	126.0
54"		82.2	102.8	123.3	126.0
30"	144"	126.0	126.0	126.0	126.0
36"		118.2	126.0	126.0	126.0
42"		101.3	126.0	126.0	126.0
48"		88.7	110.8	126.0	126.0
54"		78.8	98.5	118.2	126.0
30"	150"	126.0	126.0	126.0	126.0
36"		113.5	126.0	126.0	126.0
42"		97.3	121.6	126.0	126.0
48"		85.1	106.4	126.0	126.0
54"		78.8	98.5	118.2	126.0
30"	156"	126.0	126.0	126.0	126.0
36"		109.1	126.0	126.0	126.0
42"		93.5	116.9	126.0	126.0
48"		81.8	102.3	122.7	126.0
54"		78.8	98.5	118.2	126.0
30"	162"	126.0	126.0	126.0	126.0
36"		105.1	126.0	126.0	126.0
42"		90.1	112.6	126.0	126.0
48"		78.8	98.5	118.2	126.0
54"		78.8	98.5	118.2	126.0
30"	168-5/8"	121.1	126.0	126.0	126.0
36"		100.9	126.0	126.0	126.0
42"		86.5	108.1	126.0	126.0
48"		76.0	95.0	114.0	126.0
54"		76.0	95.0	114.0	126.0



WIDTH (W) = W1
AT FRAME JAMB

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

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 'B'

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

DIRECTLY INTO CONCRETE (3500 PSI MIN.)
2" MIN. EMBED INTO CONCRETE

ANCHOR EDGE DISTANCES

INTO CONCRETE = 3-1/8" MIN.

TYPE 'D'

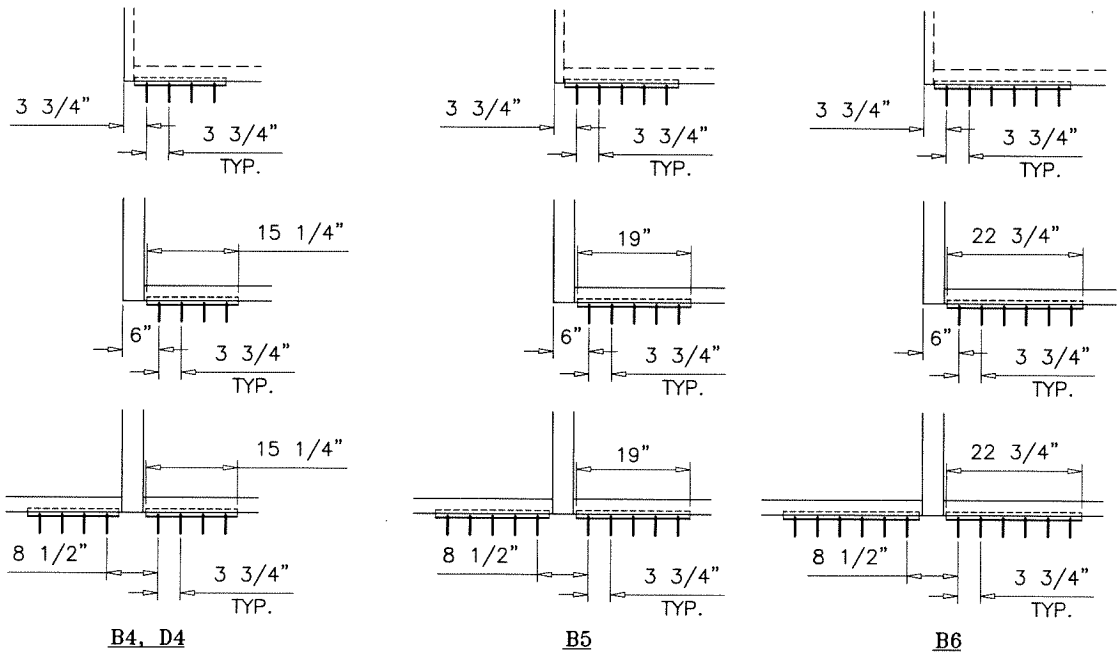
5/16" DIA. DRILL-FLEX SELF DRILLING SCREWS (GRADE 5 CRS)

INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
STEEL: 3/16" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1" MIN.

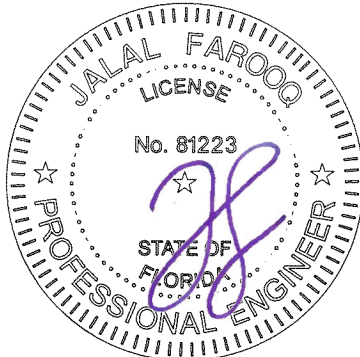
NOTE:
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS TYPES:

B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
D4 = (4) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
B5 = (5) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
B6 = (6) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION

SLANTED
JAMB & MULLION ANCHORS



Sealed: 8/1/2023 FL #22526

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

ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

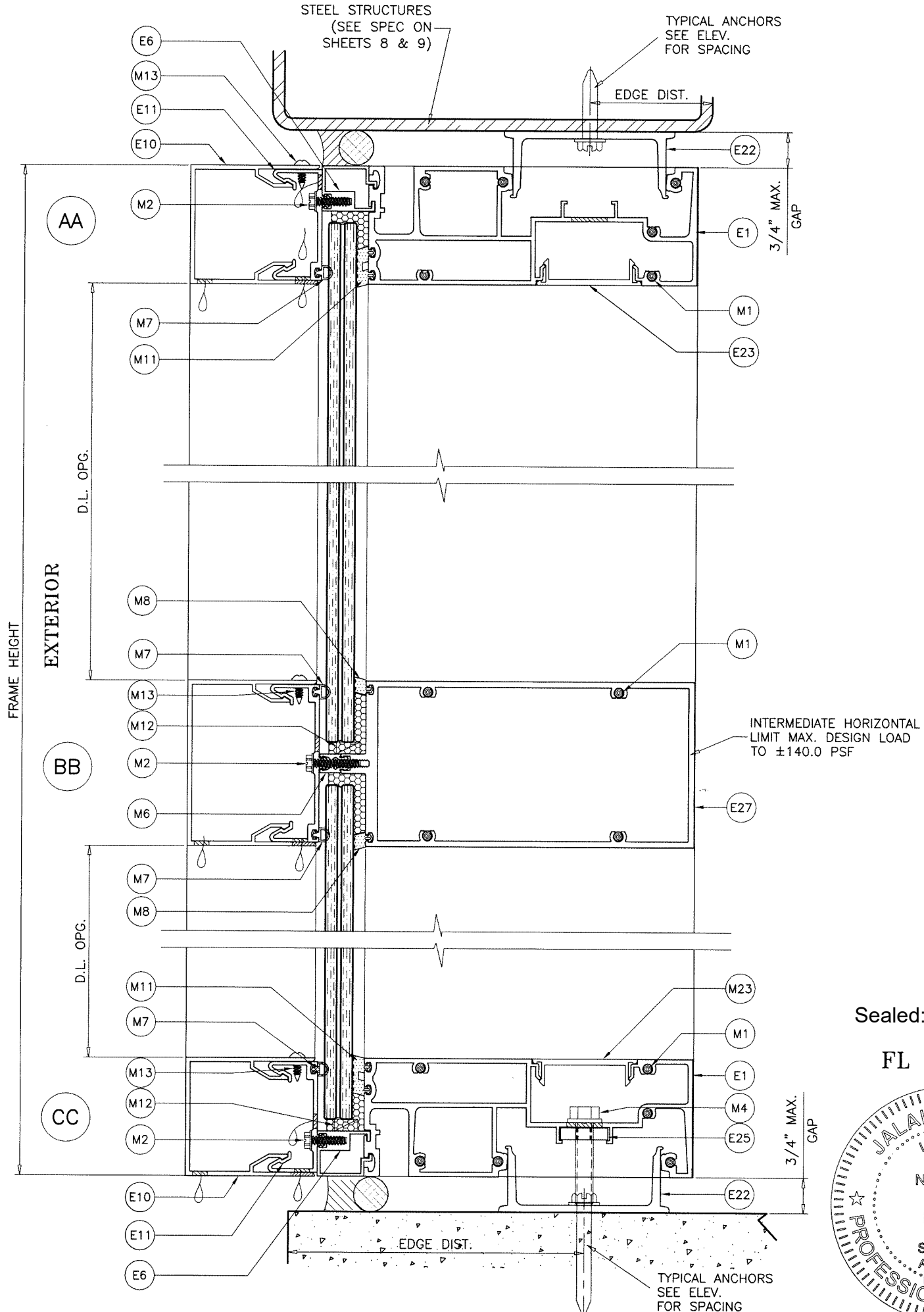
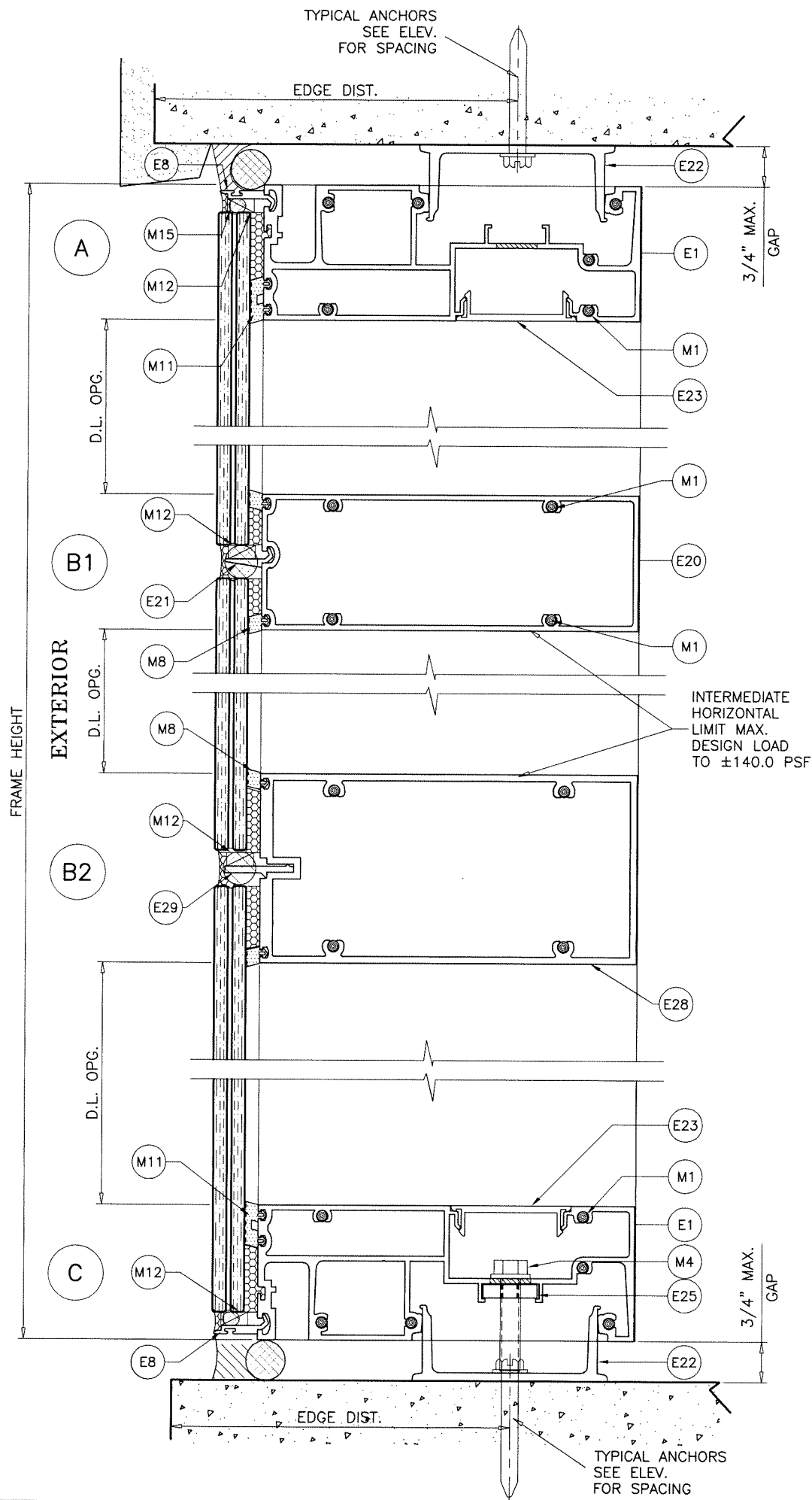
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
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revisions:	no	date	by	description
date:	06-09-17			
scale:	-			
dr. by:	TARIQ			
chk. by:				

drawing no.

W17-57

sheet 9.1 of 20



Sealed: 8/1/2023
FL #22526



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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

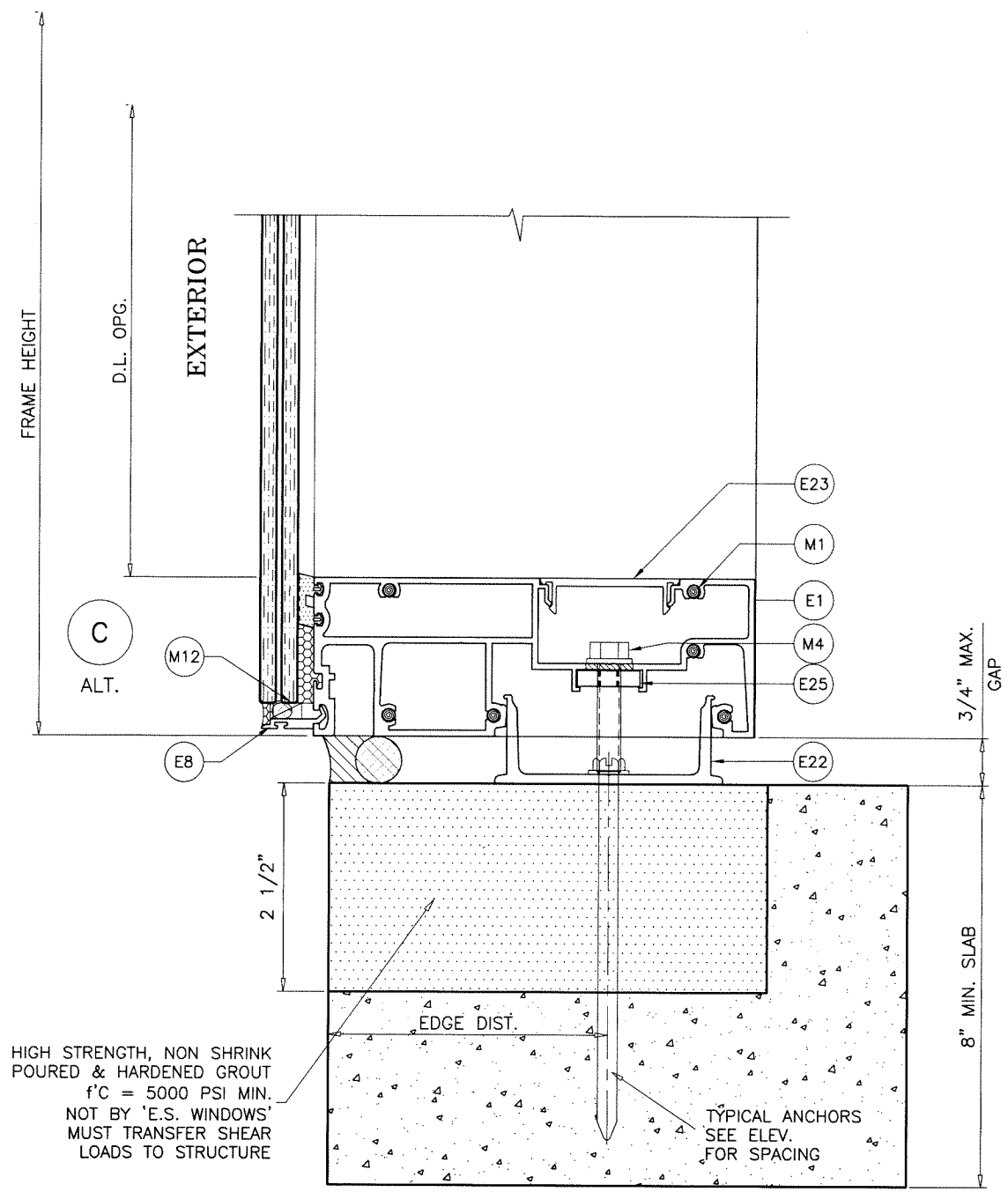
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revisions:

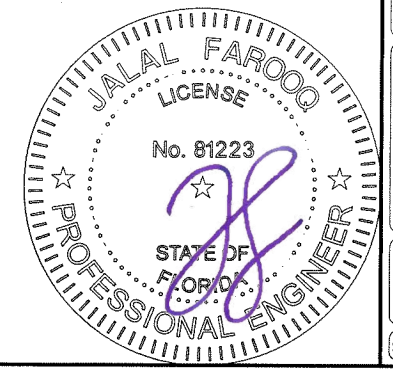
no	date	description

date: 06-09-17
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W17-57
sheet 10 of 20



Sealed: 8/1/2023 FL #22526



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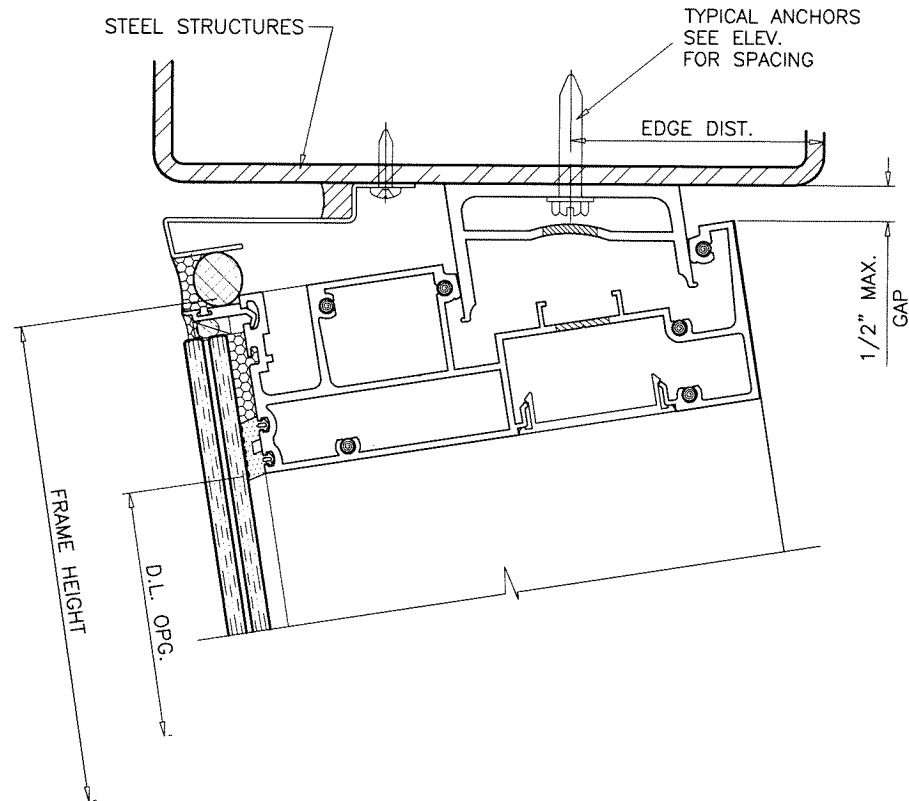
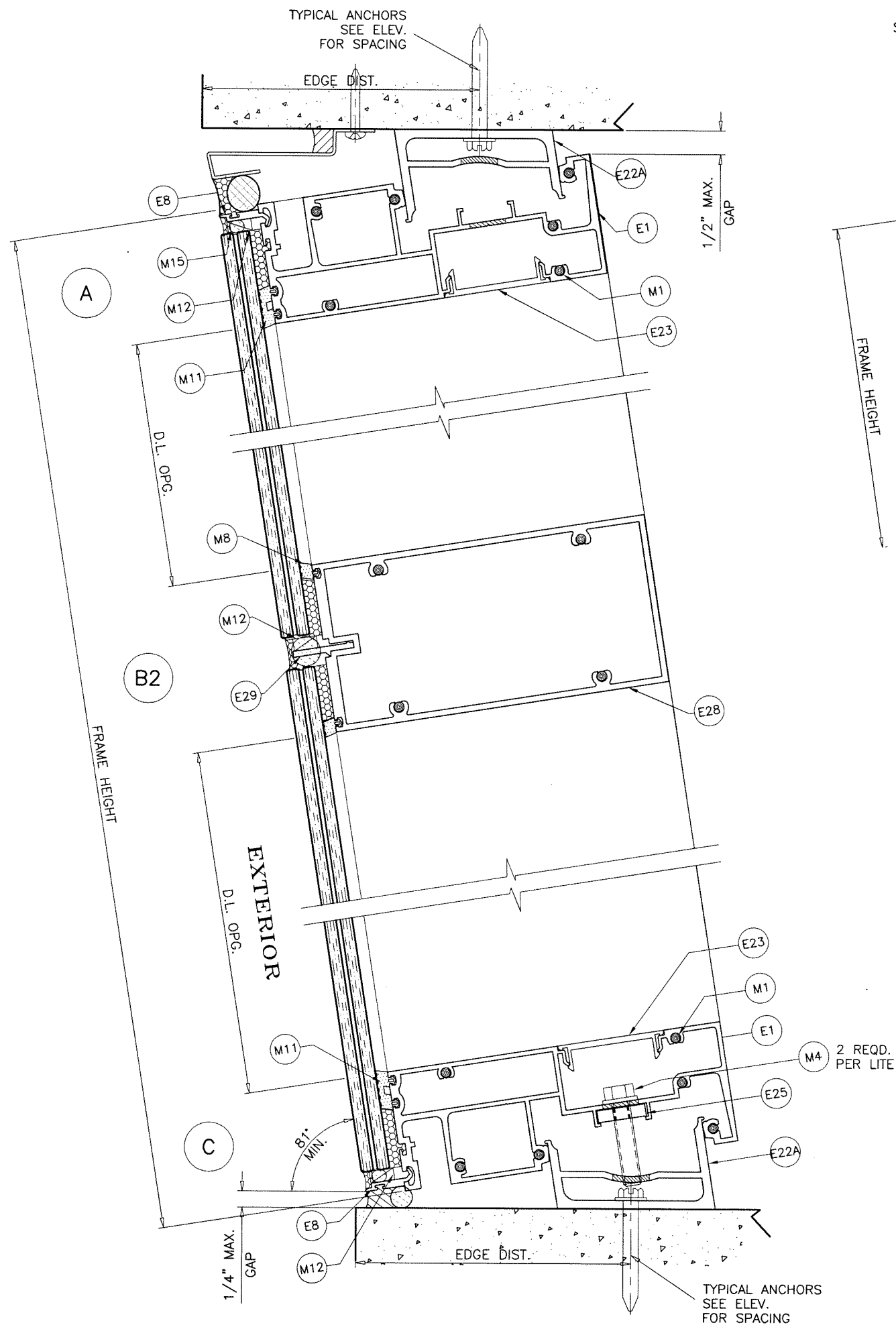
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revisions:		no date		by description	

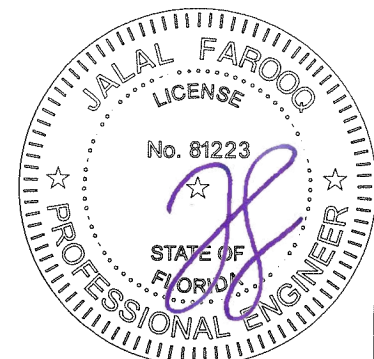
date: 06-09-17	scale: 3/8" = 1"	dr. by: TARIQ	chk. by:
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drawing no.	W17-57
sheet	10.1 of 20



SLANTED WINDOW WALL SYSTEM
 LAMINATED GLASS ONLY
 MAX. DESIGN LOAD NOT TO EXCEED +96.0, -126.0 PSF
 SLOPING ANGLE NOT TO EXCEED 9°

Sealed: 8/1/2023 FL #22526

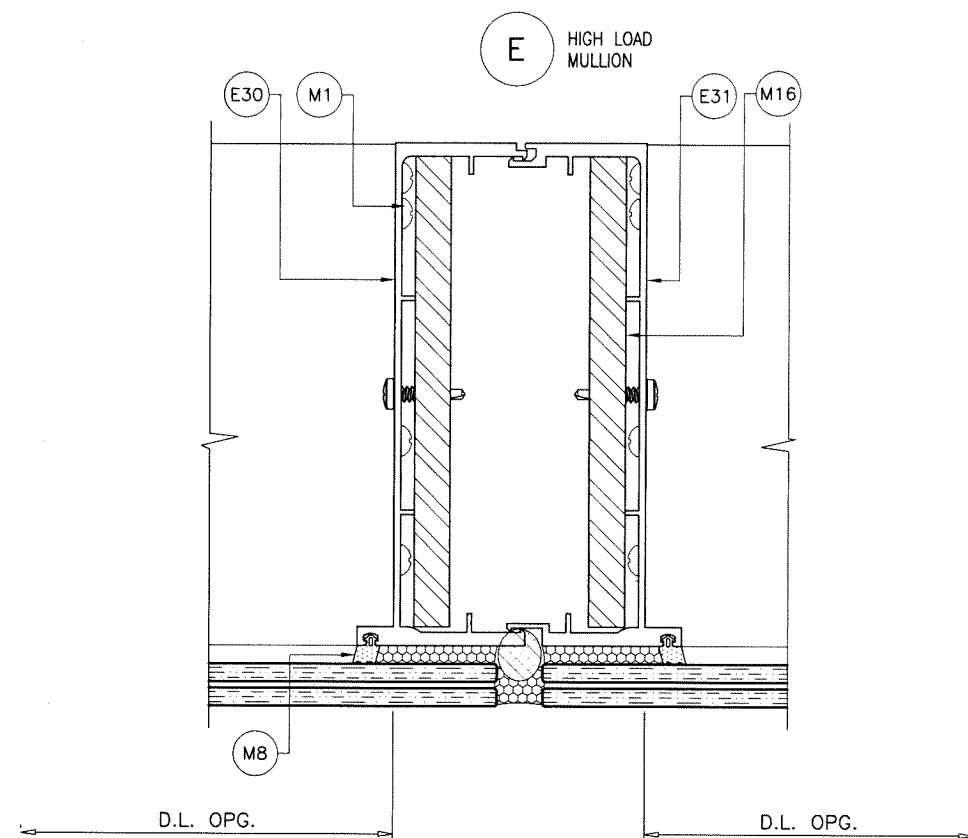
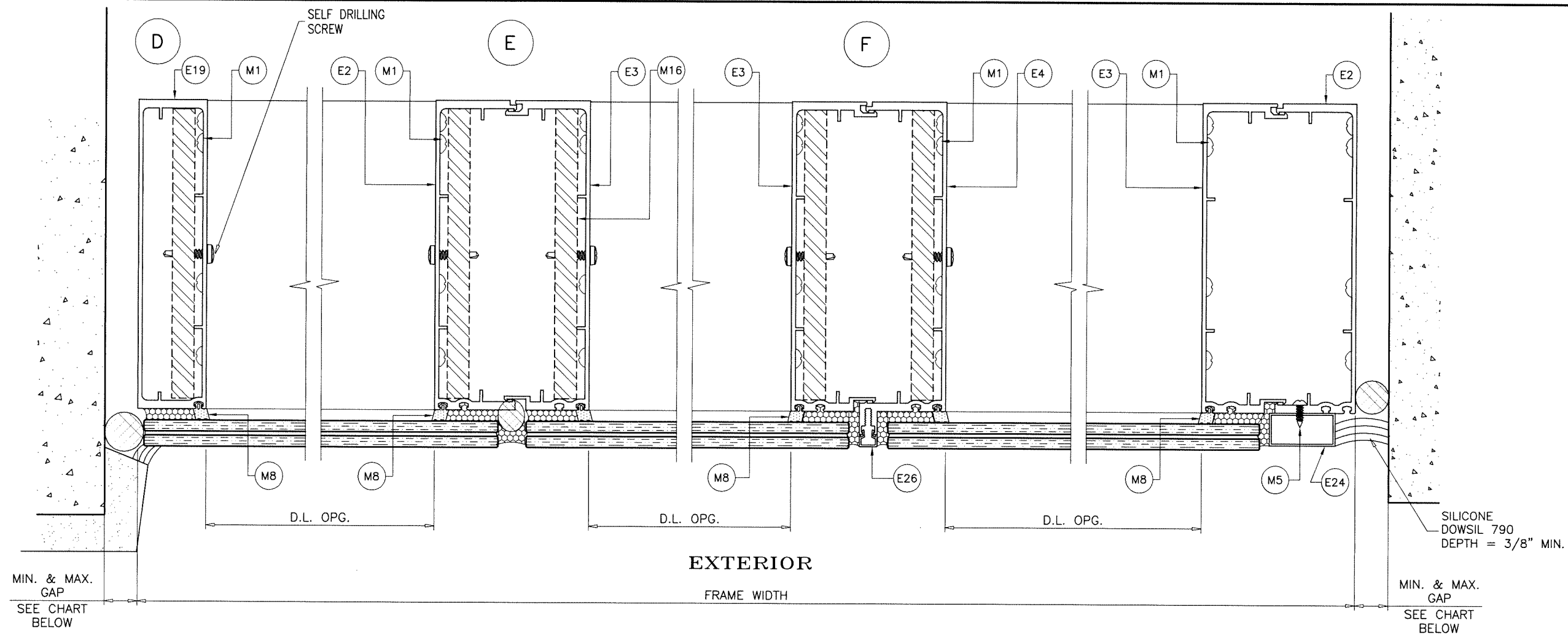


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revisions:		no date by description	
date:	06-09-17	no	date
scale:	3/8" = 1"	by	description
dr.	TARIQ		
chk.			
drawing no.		W17-57	
sheet 10.2 of 20			

STORE W17-57ES



MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
120"	7/16"	3/4"
168"	9/16"	3/4"
213"	11/16"	3/4"

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.

Sealed: 8/1/2023

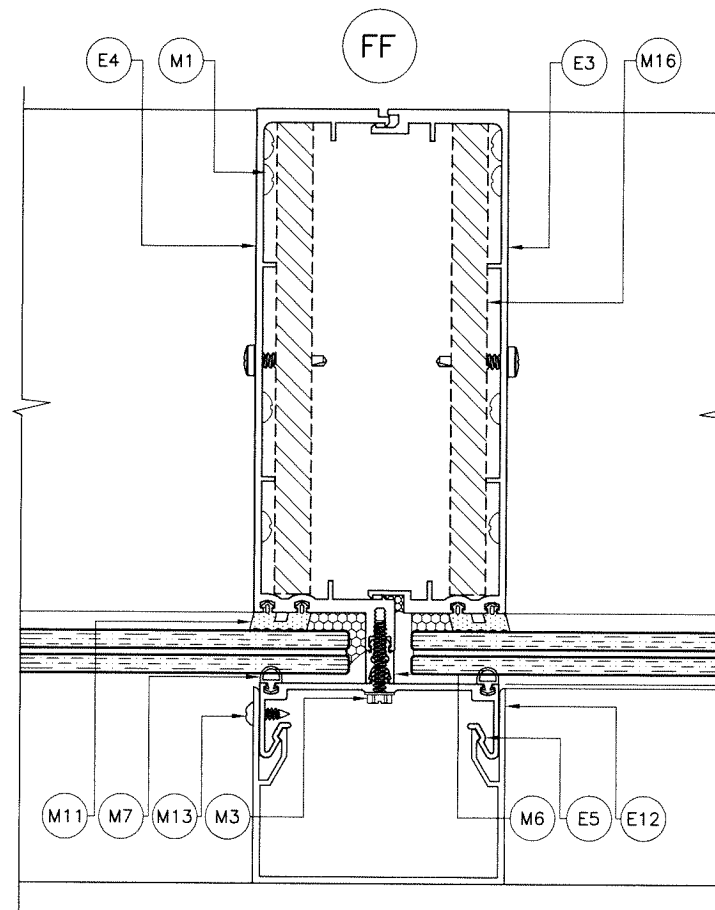


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revisions:	
no	description
date	by
06-09-17	
scale: 3/8" = 1"	
dr. by: TARIQ	
chk. by:	
drawing no. W17-57	
sheet 11 of 20	



The image shows a circular professional engineer seal for the State of Florida. The outer ring contains the text "JALAL FAROOQ" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 81223" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars. A large, stylized purple signature is written over the seal.

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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

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revisions:

no.	date	by description

date: 06-09-17

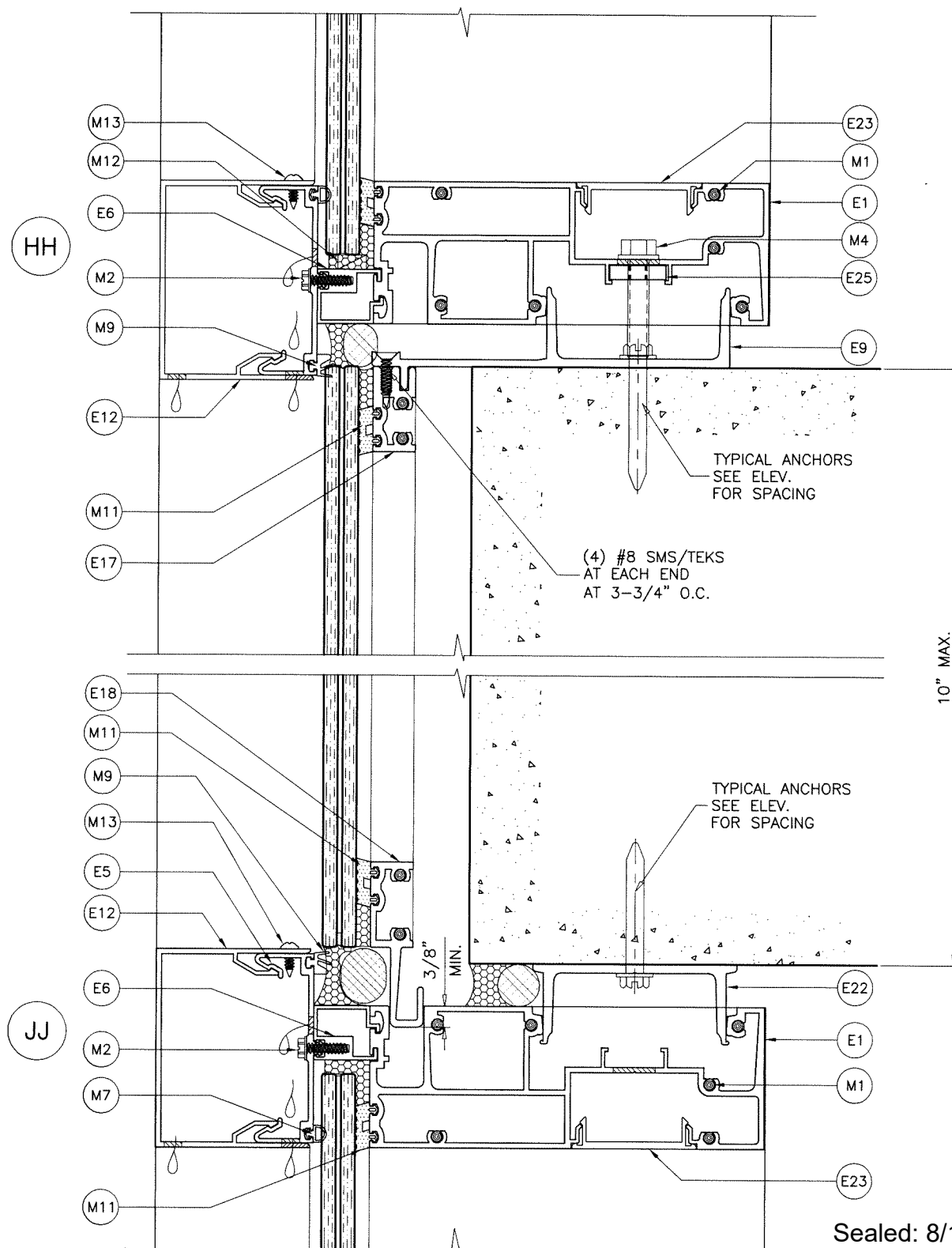
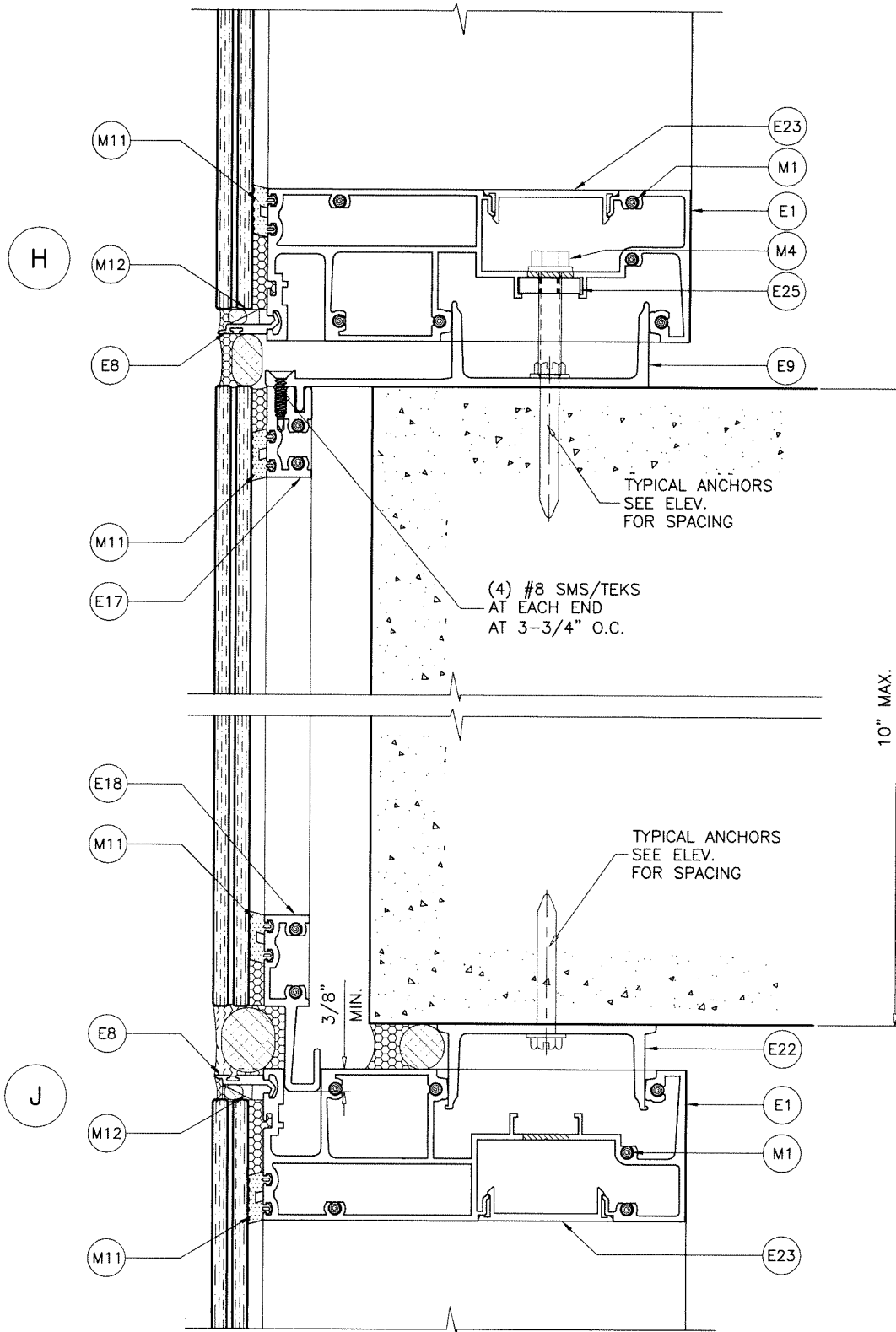
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dr. by: TARIQ

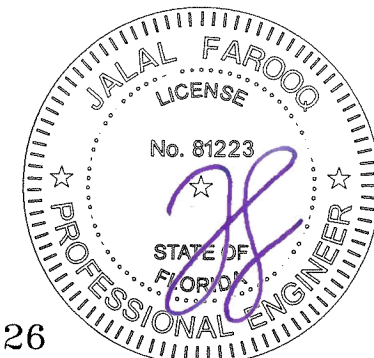
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sheet 12 of 20



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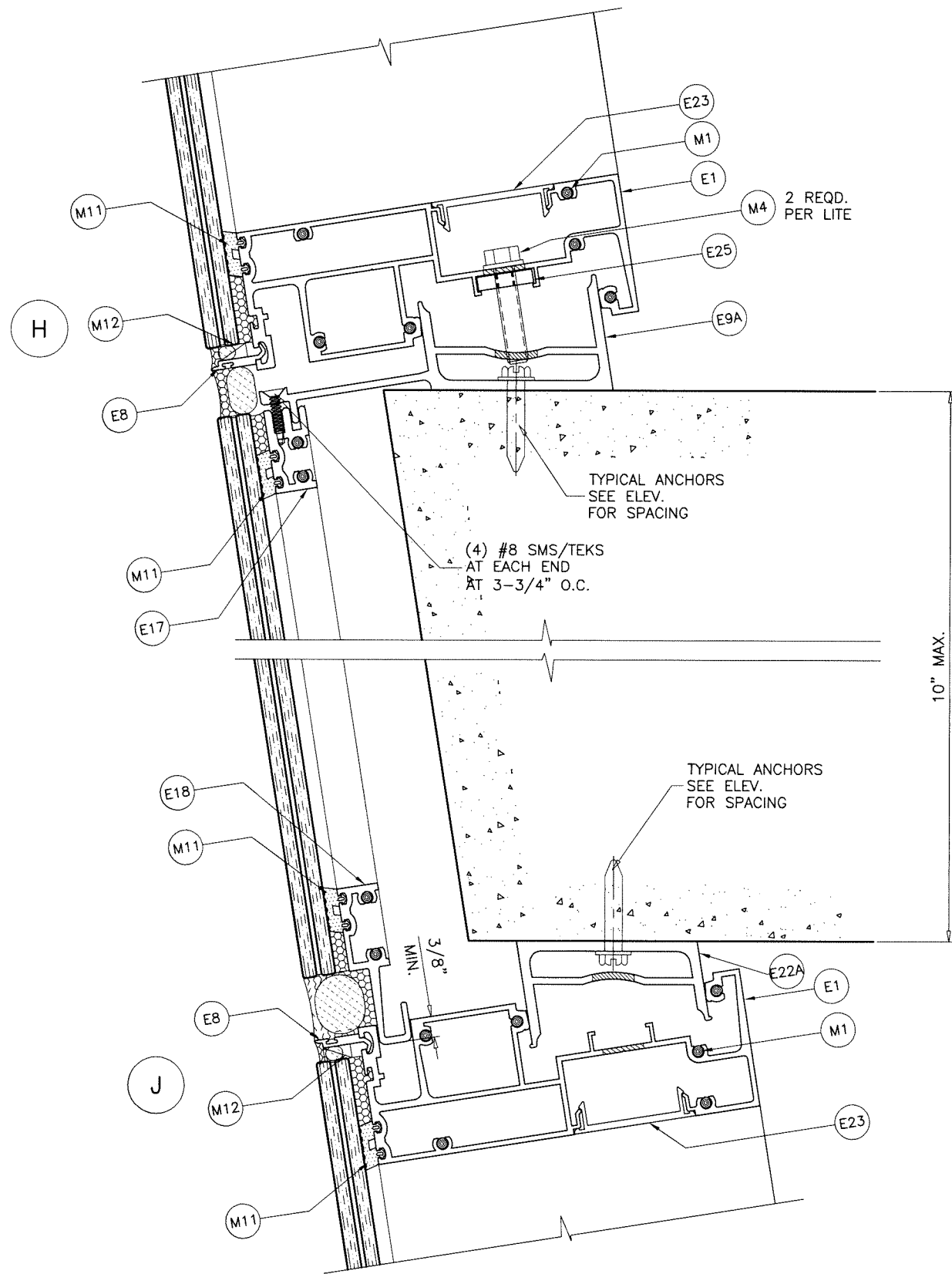


FL #22526

al-farooq
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978
 STORE W17-57ES

ES-8860 ALUMINUM 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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sheet	13 of 20		



SLANTED WINDOW WALL SYSTEM
 LAMINATED GLASS ONLY
 MAX. DESIGN LOAD NOT TO EXCEED +96.0, -126.0 PSF
 SLOPING ANGLE NOT TO EXCEED 9°

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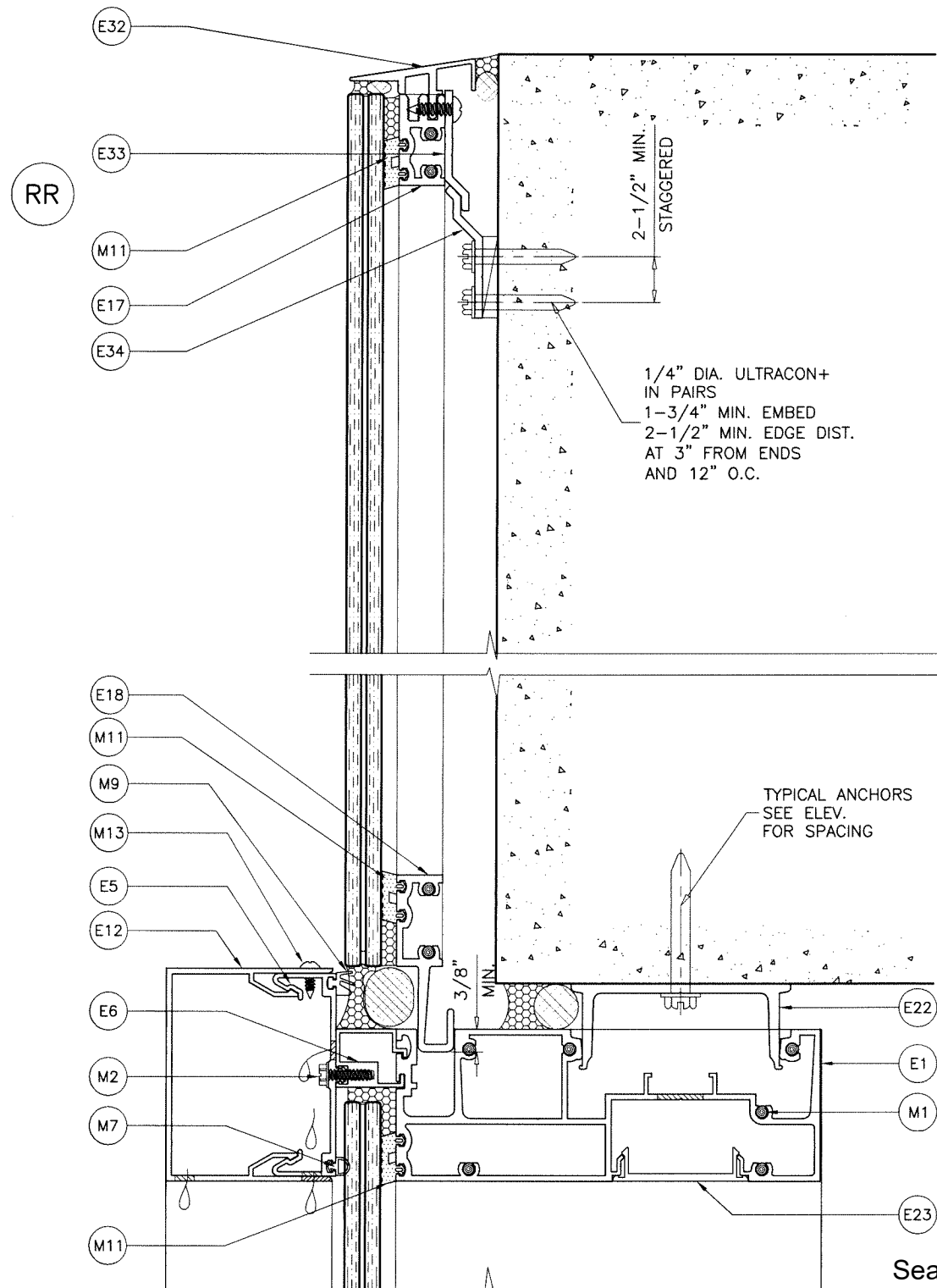
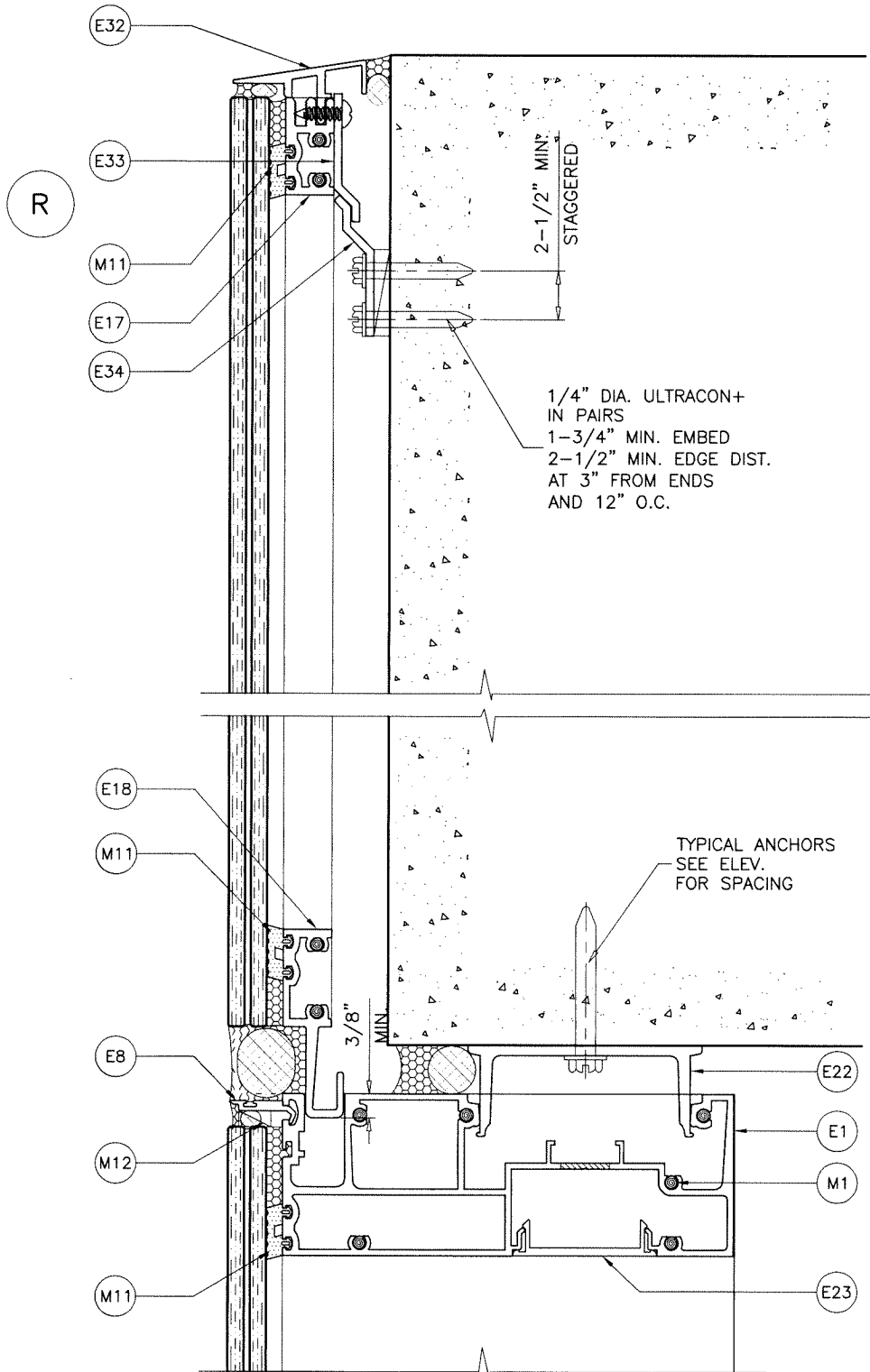


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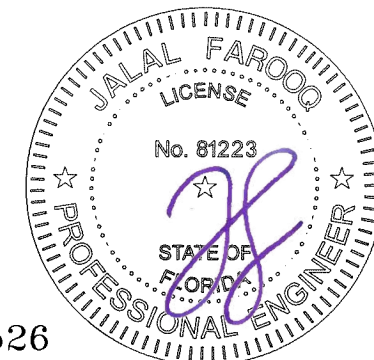
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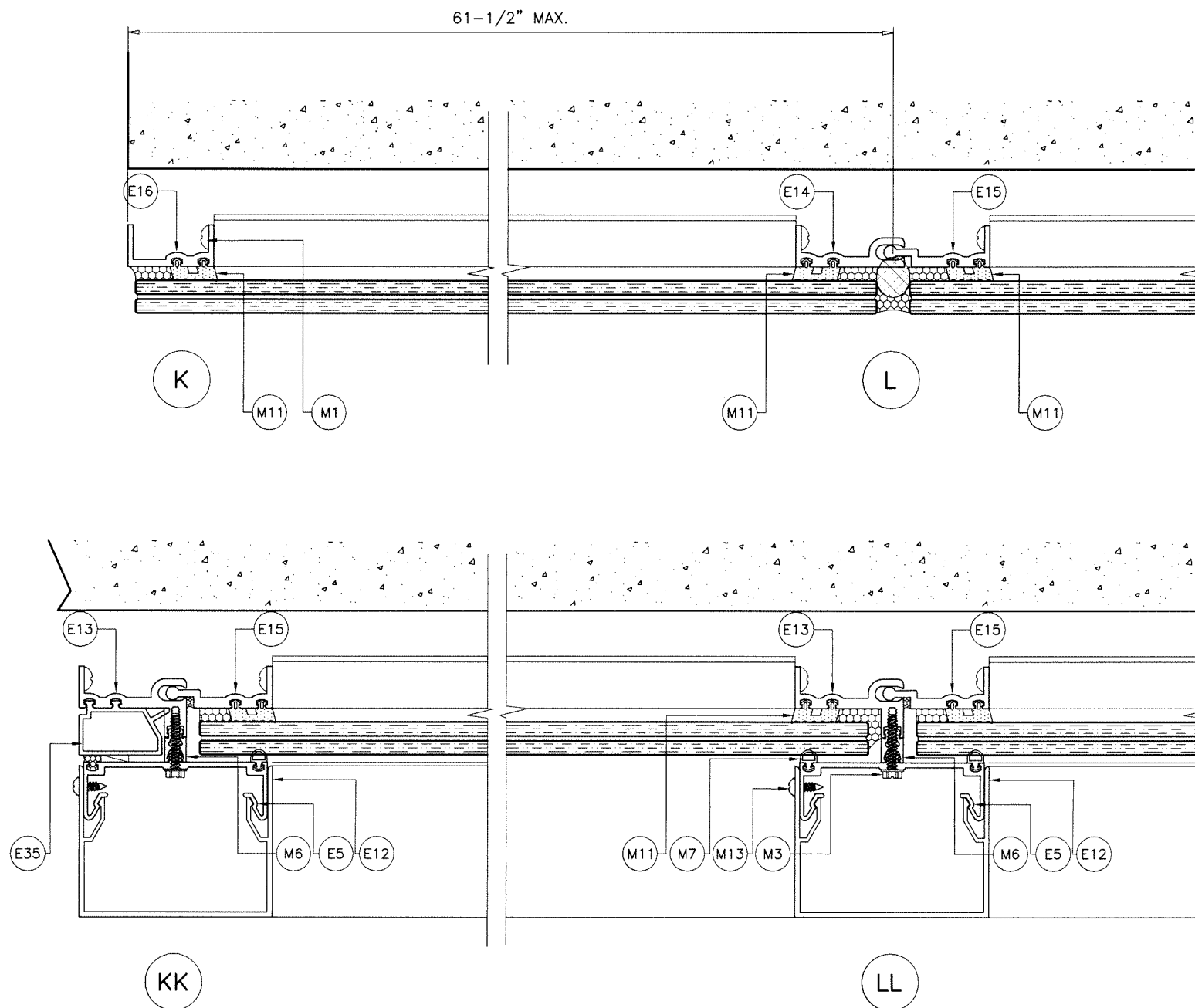
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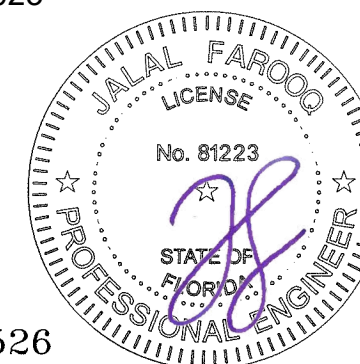
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W17-57
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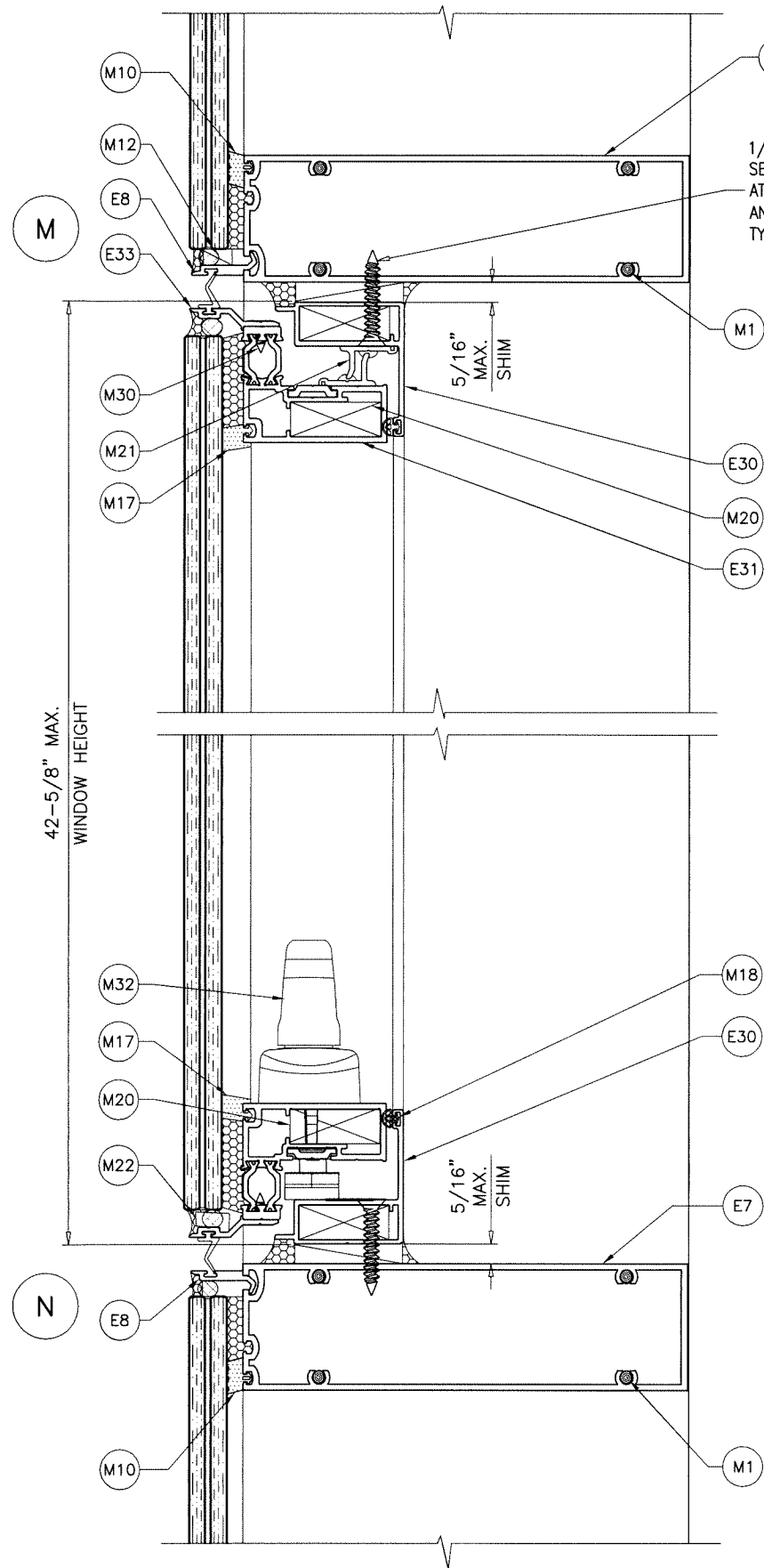


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FL #22526

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E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158	
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sheet 15 of 20	



E7 LIMIT MAX. LOADS
TO ± 114.0 PSF
FOR THESE HORIZONTALS

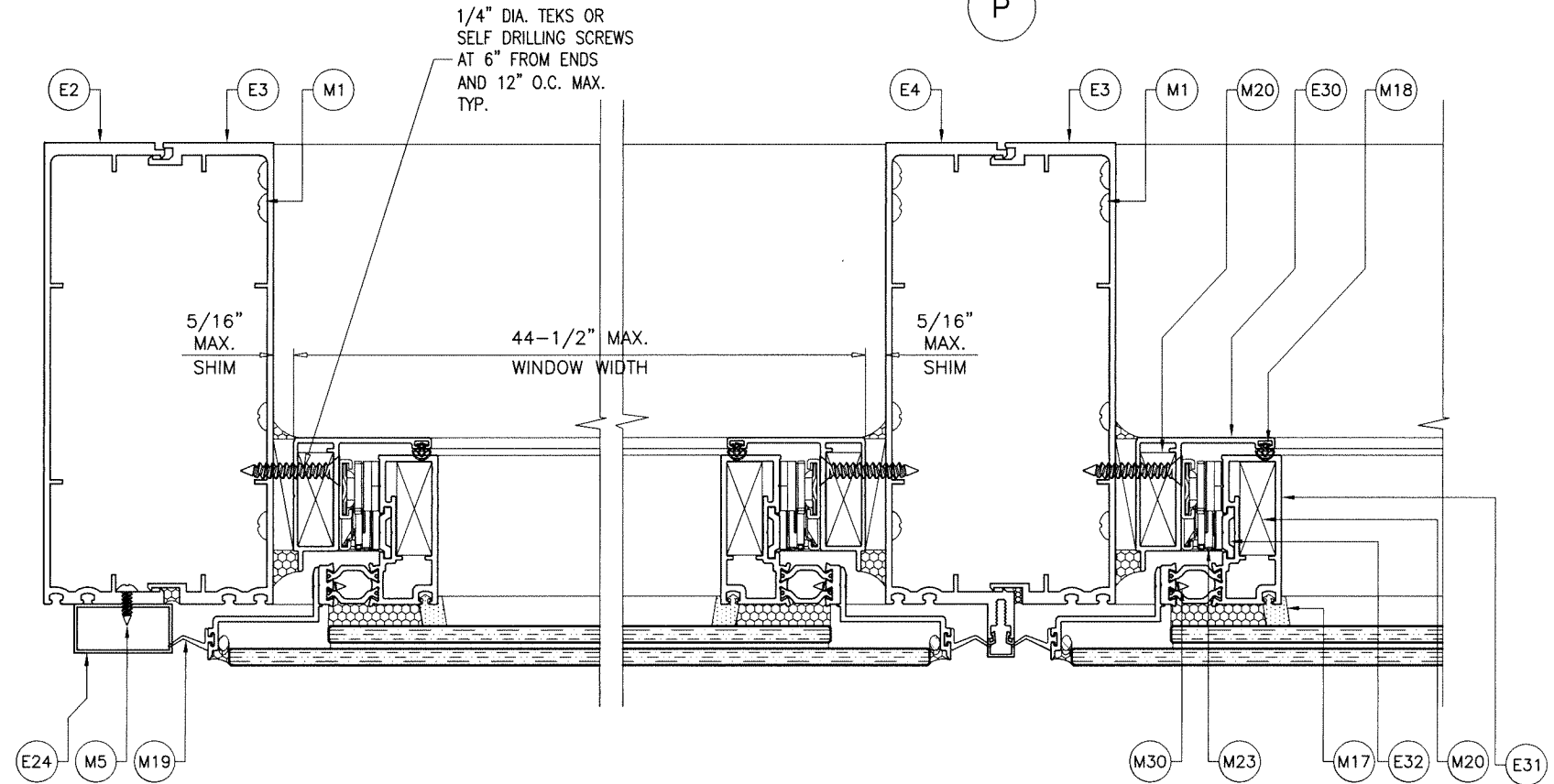
1/4" DIA. TEKS OR
SELF DRILLING SCREWS
AT 6" FROM ENDS
AND 12" O.C. MAX.
TYP.

5/16"
MAX.
SHIM

42-5/8" MAX.
WINDOW HEIGHT

5/16"
MAX.
SHIM

NOTE:
WINDOW WALL SYSTEM WITH
ES7531 AWNING TYPE WINDOW INSERTS
LIMIT MAX. DESIGN LOADS TO ± 114.0 PSF

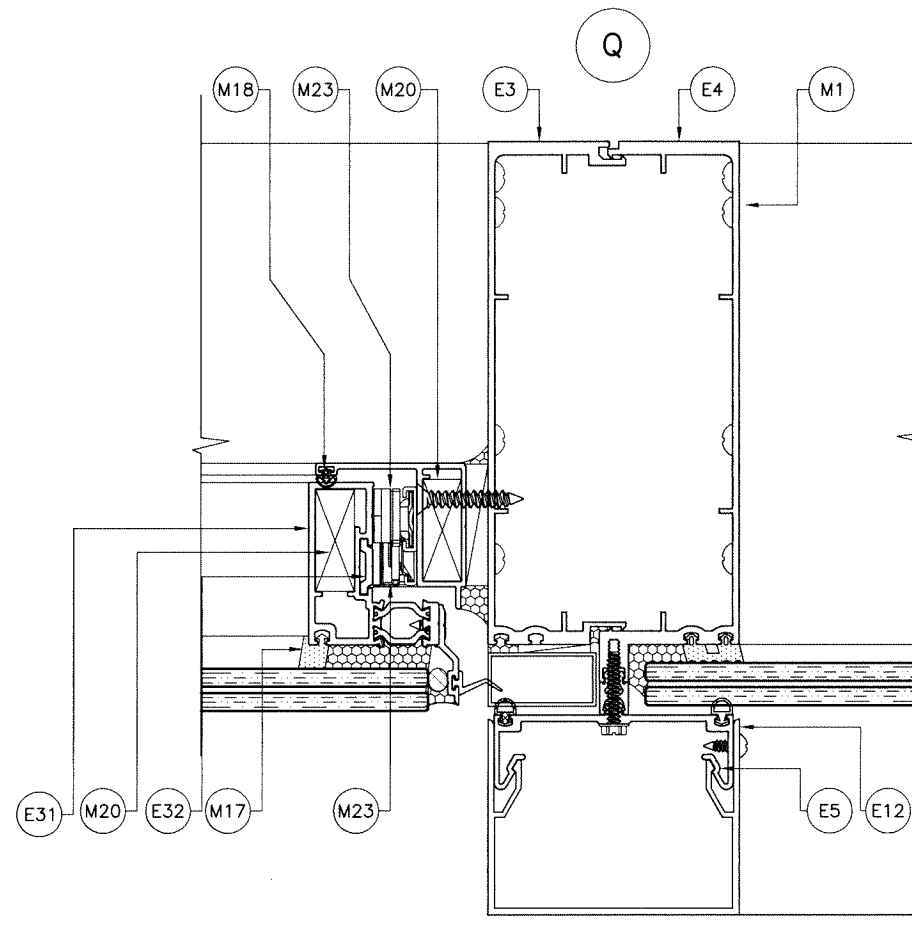


1/4" DIA. TEKS OR
SELF DRILLING SCREWS
AT 6" FROM ENDS
AND 12" O.C. MAX.
TYP.

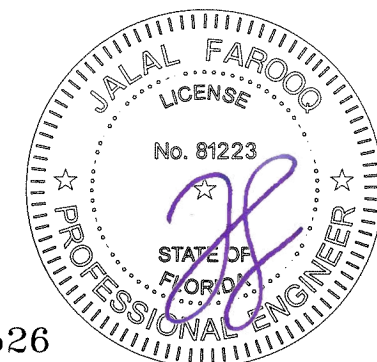
5/16"
MAX.
SHIM

44-1/2" MAX.
WINDOW WIDTH

5/16"
MAX.
SHIM



Sealed: 8/1/2023



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af c
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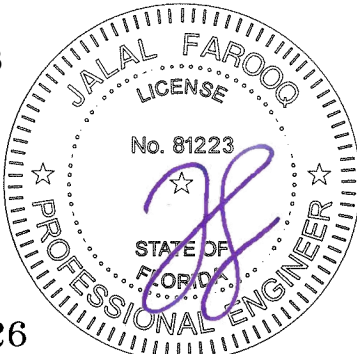
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ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-8860-007	AS REQD.	FRAME HEAD AND SILL	6063-T6	-
E2	ES-8860-008	AS REQD.	SSG FEMALE MULLION	6005-T5	-
E3	ES-8860-009	AS REQD.	SSG AND CAPTURED MALE MULLION	6005-T5	-
E4	ES-8860-010	AS REQD.	SSG AND CAPTURED MALE MULLION	6005-T5	-
E5	ES-8860-011	AS REQD.	PRESSURE PLATE	6063-T6	-
E6	ES-8860-012	AS REQD.	PRESSURE PLATE ADAPTER (HEAD/SILL)	6063-T6	-
E7	ES-8860-013	AS REQD.	INTERMEDIATE HORIZONTAL (OPERABLE VENT)	6063-T6	-
E8	ES-8860-014	AS REQD.	SETTING CHAIR	6063-T6	-
E9	ES-8860-015	AS REQD.	ANCHOR BASE	6063-T6	-
E9A	ES-8860-039	AS REQD.	ANCHOR BASE (SLANTED)	6063-T6	-
E10	ES-8860-016	AS REQD.	PRESSURE PLATE COVER (HEAD/SILL)	6063-T6	-
E11	ES-8860-017	AS REQD.	PRESSURE PLATE	6063-T6	-
E11A	ES-8860-011	AS REQD.	HORIZONTAL/VERTICAL PRESSURE PLATE	6063-T6	-
E12	ES-8860-018	AS REQD.	PRESSURE PLATE COVER	6063-T6	-
E12A	ES-8860-401	AS REQD.	PRESSURE PLATE COVER	6063-T6	-
E13	ES-8860-001	AS REQD.	SSG/CAPTURED MULLION SLAD COVER	6063-T6	-
E14	ES-8860-002	AS REQD.	SSG MULLION SLAD COVER	6063-T6	-
E15	ES-8860-003	AS REQD.	SSG MULLION SLAD COVER	6063-T6	-
E16	ES-8860-004	AS REQD.	JAMB SLAD COVER	6063-T6	-
E17	ES-8860-005	AS REQD.	HEAD SLAD COVER	6063-T6	-
E18	ES-8860-006	AS REQD.	SILL SLAD COVER	6063-T6	-
E19	ES-WW8832-104	AS REQD.	JAMB MULLION	6063-T6	-
E20	ES-WW8832-101	AS REQD.	NARROW HORIZONTAL MULLION	6005-T5	-
E21	ES-WW8832-107	AS REQD.	SETTING CHAIR (LAM. GLASS)	6005-T5	-
E22	ES-7004	AS REQD.	SLAD COVER ANCHOR	6005-T5	-
E22A	ES-8860-038	AS REQD.	SLAD COVER ANCHOR (SLANTED)	6005-T5	-
E23	ES-7003A	AS REQD.	SNAP COVER	6063-T5	-
E24	ES-T-097	AS REQD.	FILLER TUBE	6063-T6	-
E25	ALU-P-020	AS REQD.	SILL LEVELER	6063-T6	-
E26	ES-8860-021	AS REQD.	COVER	6063-T5	-
E27	ES-8860-022	AS REQD.	HORIZONTAL MULLION	6063-T6	-
E28	GW-7000-129	AS REQD.	HORIZONTAL MULLION SSG	6063-T6	-
E29	GW-5250-206	AS REQD.	STRUCTURAL GLAZING SHELF	6063-T6	-
E30	ES-8860-033	AS REQD.	HIGH LOAD FEMALE MULLION	6005-T5	-
E31	ES-8860-034	AS REQD.	HIGH LOAD MALE MULLION	6063-T5	-
E32	ES-8860-037	AS REQD.	SLAD COVER TOP	6063-T6	-
E33	ES-SD451-026	AS REQD.	FIXING FOR LEAF	6063-T6	-
E34	ES-EL400-023	AS REQD.	FIXING FOR FRAME	6063-T6	-
E35	-	AS REQD.	JAMB FILLER	6063-T6	-
M1	#12 X 1-1/2"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST/ST	PH SMS
M2	#10 X 3/4"	AS REQD.	HORIZONTAL PRESSURE PLATE FASTENERS	ST/ST	HWH SMS
M3	#10 X 1"	AS REQD.	VERTICAL PRESSURE PLATE FASTENERS	ST/ST	HWH SMS
M4	3/8-16 X 2"	AS REQD.	LEVELING SCREW	ST/ST	HWH TAP BOLT
M5	#8 X 1/2"	AS REQD.	FILLER TUBE FASTENERS	ST/ST	PH SMS
M6	W5250-301	AS REQD.	9/16" CW SPACER	-	-
M7	WW7000-NE003	AS REQD.	SPACER GASKET	SILICONE	DUROMETER 70±5 SHORE A
M8	WW5250-NS02	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 60±5 SHORE A
M8A	ES-8860-G01	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 60±5 SHORE A
M9	ES-W625-G03A	AS REQD.	EXTERIOR GASKET (CAPTURED VERT. MULLION)	SILICONE	DUROMETER 60±5 SHORE A
M10	ES-8860-G01	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 70±5 SHORE A
M11	ES-8860-G02	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 70±5 SHORE A
M12	80-378A	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (LAM. GLASS)	EPDM	DUROMETER 85±5 SHORE A
M13	#8 X 1/2"	AS REQD.	PRESSURE PLATE COVER FASTENERS	ST/ST	FH SMS
M14	-	AS REQD.	7/8" OPEN CELL FOAM BACKER ROD AT VERTICAL	POLYETHYLENE	-
M15	-	AS REQD.	3/8" OPEN CELL FOAM BACKER ROD AT HORIZONTAL	POLYETHYLENE	-
M16	-	AS REQD.	MULLION REINF. BAR (1/2" X 6-1/2")	STEEL	-
M40	-	AS REQD.	BUMPON SPACER, 4" LONG	SILICONE	DUROMETER 65±5 SHORE A

SEALANTS:

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

Sealed: 8/1/2023



FL #22526

af c

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ES-8860 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

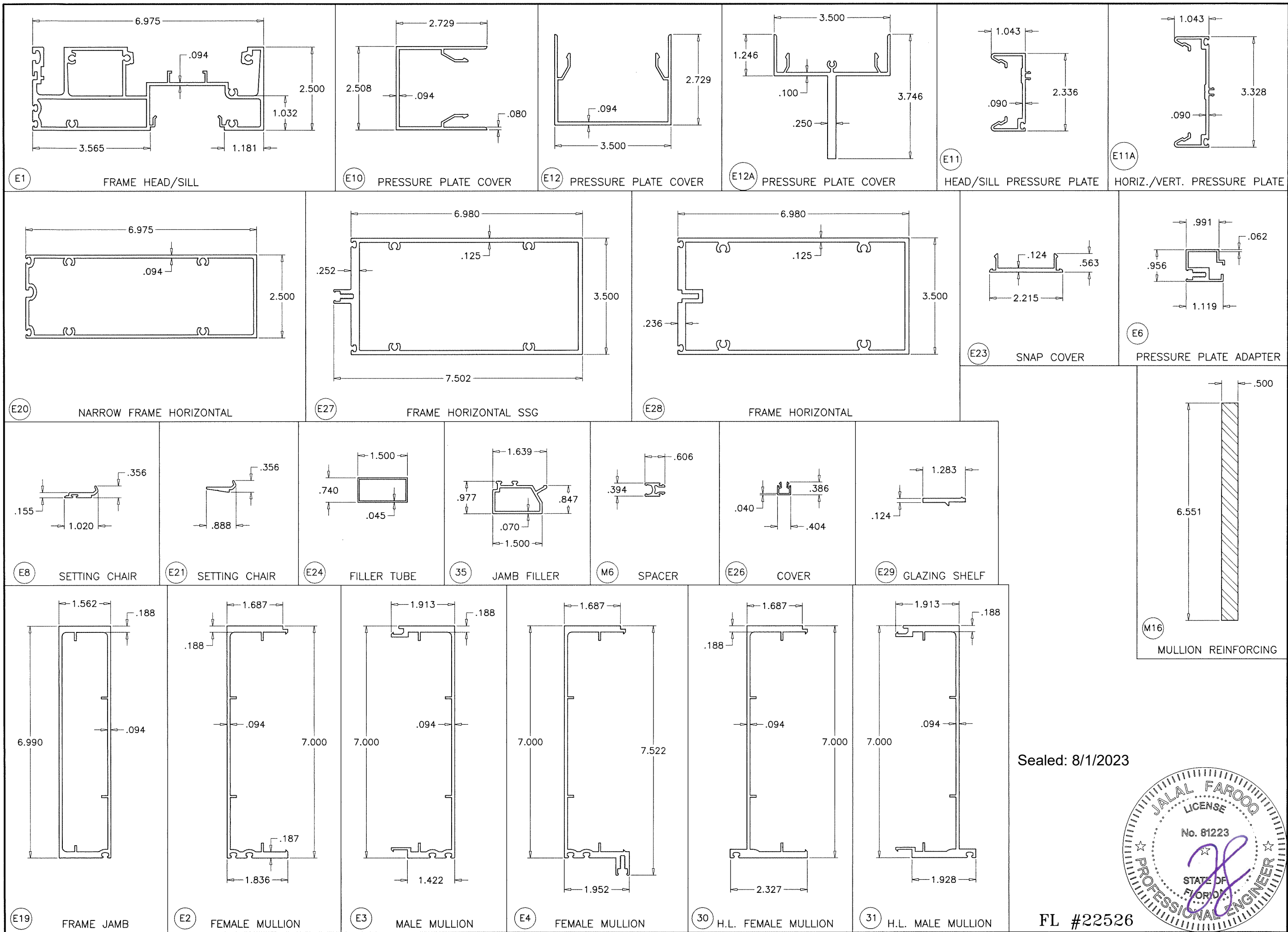
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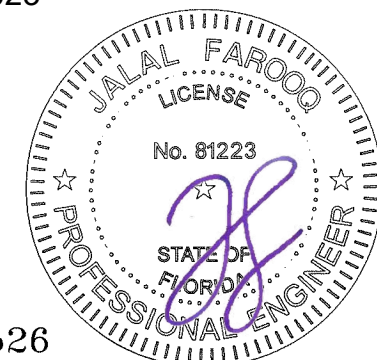
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sheet 17 of 20

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sheet 18 of 20

E9 SLAD COVER ANCHOR

E9A SLAD COVER ANCHOR (SLANTED)

E32 SLAD COVER TOP

E33 FIXING FOR LEAF

E34 FIXING FOR FRAME

E13 SSG SLAD COVER

E17 HEAD SLAD COVER

E14 MULLION SSG SLAD COVER

E18 SILL SLAD COVER

E15 MULLION SSG SLAD COVER

E16 JAMB SLAD COVER

E22 ANCHOR BASE

E22A ANCHOR BASE (SLANTED)

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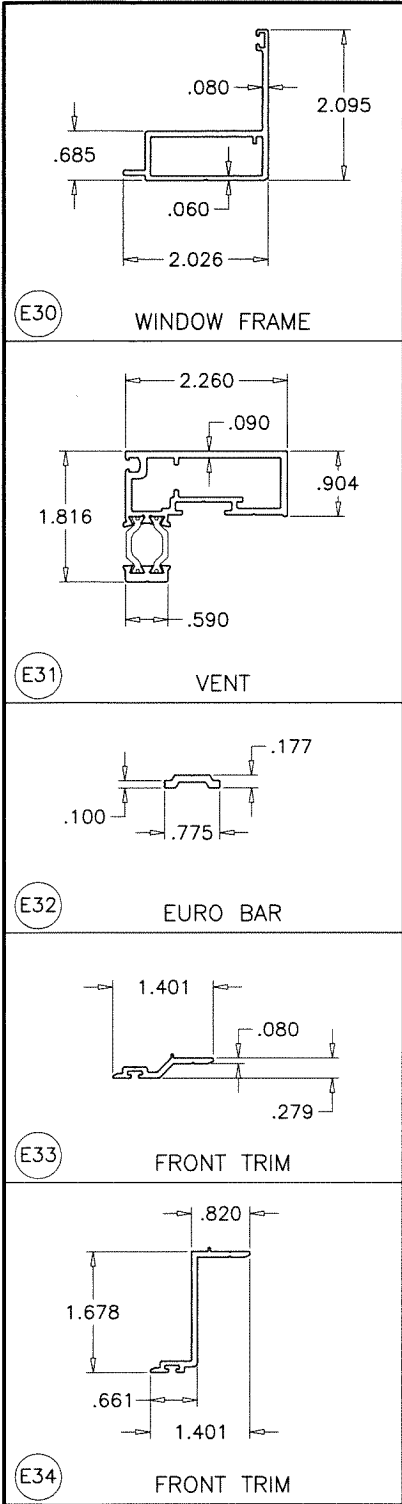
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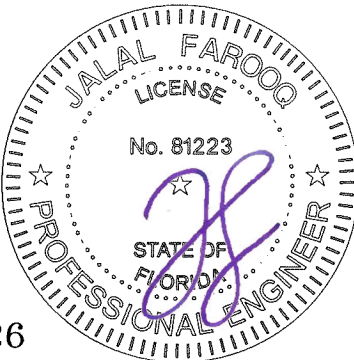
JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER



ES-P7531 PROJECT-OUT WINDOW

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E30	ES-07531-001	AS REQD.	WINDOW FRAME	6063-T6	-
E31	ES-07531-501	AS REQD.	VENT	6063-T6	-
E32	ES-EUR-001	AS REQD.	EORO BAR	6063-T6	-
E33	ES-07531-412	AS REQD.	FRONT TRIM	6063-T6	-
E34	ES-07531-416	AS REQD.	FRONT TRIM	6063-T6	-
M17	ES-7530-G08A	AS REQD.	INTERIOR SPACER SSG	SILICONE	-
M18	ES-P7531-G03	AS REQD.	INNER WATER SEAL	SILICONE	-
M19	ES-8860-G03	AS REQD.	WATER DEFLECTOR	SILICONE	-
M20	0334	AS REQD.	CORNER LOCK	ALUMINUM	-
M21	1549-3	AS REQD.	SNUBBER	ALUMINUM	-
M22	ES-P7531-B02	AS REQD.	SETTING BLOCK	SILICONE	-
M23	316C/320/324	AS REQD.	90° BAR HINGE	STEEL	-
M27	#8 X 1/2"	AS REQD.	SNUBBER & WINDOW RESTRICTOR FASTENERS	ST. STEEL	PH SMS
M28	#10 X 1/2"	AS REQD.	BAR HINGE FASTENERS	ST. STEEL	PH SMS
M29	#10 X 1/2"	AS REQD.	LOCK, HANDLE AND TRIM FASTENERS	ST. STEEL	FH SMS
M30	-	AS REQD.	20 MM INSULBAR	POLYAMIDE	-
M31	WPSA-N1	AS REQD.	3/4" X 3/4" X 2" RETICULATED OPEN CELL FOAM	-	30 PPI
M32	1249-OR	AS REQD.	OFFSET HANDLE	-	-
M33	1315-MC3	AS REQD.	LOCK PLATE	-	-
M34	1355	AS REQD.	KEEPER	-	-
M35	1356-062	AS REQD.	KEEPER SHIM	-	-
M36	8021-430	-	HANDLE CONNECTOR	-	-
M37	1409	-	FRICTION ADJUSTER	-	AMC
M38	8030-80	-	DRIVE ROD	-	AMC

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