

af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL \W15-111SIW

Coastline Storefront 4-11/16 inch Frame IZ4
MARVIN
 PO Box 100, 401 State Ave. N.
 Warrroad, MN. 56763
 Tel. (218) 386-1430 Ext. 2143

Coastline Storefront 4-11/16 inch Frame IZ4

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).
 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 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.

TYPICAL ELEVATIONS

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

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 FOR GLASS DESIGN LOAD CAPACITY.
 - STEP 3** CHECK MULLION DESIGN LOAD CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 4 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
 - STEP 4** USING CHARTS ON SHEET 5 SELECT ANCHOR OPTION WITH DESIGN LOAD CAPACITY MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
 - STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.
 - STEP 6** FOR SYSTEMS WITH UNANCHORED JAMBS, USING SHEET 8, DETERMINE THE MIN. & MAX. GAP DIMENSIONS.

NOTE:
 STAND ALONE PANELS CAN BE WITH SECURED JAMBS OR UNSECURED JAMBS ON BOTH SIDES.
 SEE CHART ON SHEET 4 TO DETERMINE ALLOWABLE SIZES.

DAYLITE OPENINGS SINGLE 'O' PANEL:
 DLO WIDTH = FRAME WIDTH - 4.50"
 DLO HEIGHT = FRAME HEIGHT - 4.50"

THIS PRODUCT WITH GLASS TYPES 'A' & 'A1' COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

Sealed: 7/25/2023

FL #33676

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.

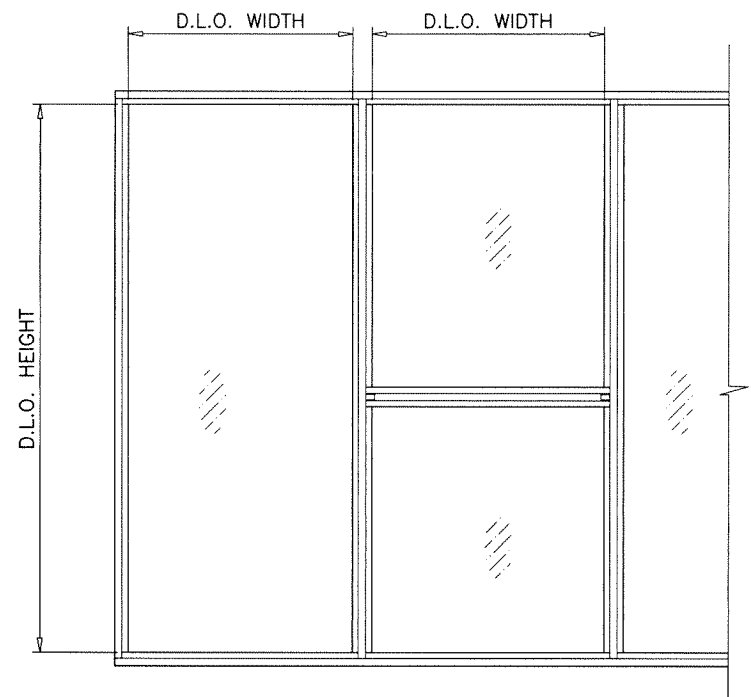


no	date	description
A	11.27.17	UPDATED TO 2017 FBC
B	12.10.18	COMPANY NAME REV.
C	09.28.20	UPDATED TO 2020 FBC
D	03.18.21	PRODUCT NAME REV.
E	07.25.23	UPDATED TO 2023 FBC

date: 12-17-15
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:
 drawing no.
W15-111
 sheet 1 of 12

GLASS LOAD CAPACITY - PSF										
NOMINAL DIMS.		GLASS TYPES								
		'A' & 'A1'		'B' & 'B1'		'C'		'CI'		
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
32-3/4"	79-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
50-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
54"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
56-3/4"		-	-	60.0	60.0	70.0	70.0	60.0	60.0	
32-3/4"	85-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
50-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
51"		100.0	110.0	60.0	60.0	-	-	-	-	
56-3/4"		-	-	60.0	60.0	-	-	-	-	
32-3/4"	91-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
47"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
50"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
50-3/4"		-	-	60.0	60.0	-	-	-	-	
56-3/4"		-	-	60.0	60.0	-	-	-	-	
32-3/4"	97-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
47"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
50-3/4"			-	-	60.0	60.0	-	-	-	-
56-3/4"		-	-	60.0	60.0	-	-	-	-	
32-3/4"	103-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
42"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
47-3/4"			-	-	60.0	60.0	-	-	-	-
50-3/4"		-	-	60.0	60.0	-	-	-	-	
32-3/4"	109-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
42"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
44-3/4"			-	-	60.0	60.0	-	-	-	-
50-3/4"			-	-	60.0	60.0	-	-	-	-
32-3/4"	115-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
37"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38-3/4"			-	-	60.0	60.0	70.0	70.0	60.0	60.0
40"			-	-	60.0	60.0	70.0	70.0	60.0	60.0
44-3/4"			-	-	60.0	60.0	-	-	-	-
49"		-	-	60.0	60.0	-	-	-	-	
32-3/4"	121-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
35"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
38"			-	-	60.0	60.0	70.0	70.0	60.0	60.0
38-3/4"			-	-	60.0	60.0	-	-	-	-
44-3/4"			-	-	60.0	60.0	-	-	-	-
46"		-	-	60.0	60.0	-	-	-	-	
32-3/4"	127-1/2"	100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
34"		100.0	110.0	60.0	60.0	70.0	70.0	60.0	60.0	
36"			-	-	60.0	60.0	70.0	70.0	60.0	60.0
38-3/4"			-	-	60.0	60.0	-	-	-	-
44-3/4"			-	-	60.0	60.0	-	-	-	-
44"		-	-	60.0	60.0	-	-	-	-	

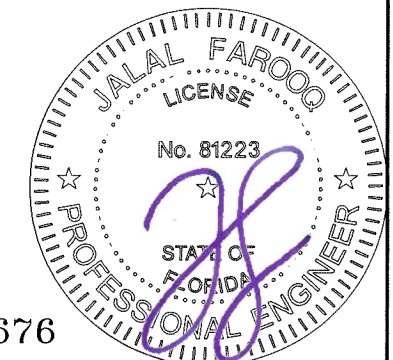
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.




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

Sealed: 7/25/2023


FL #33676





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revisions:	
no	date by description

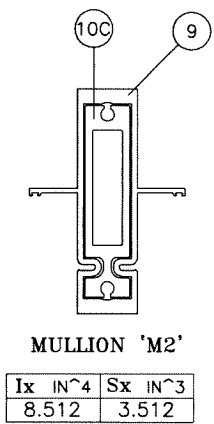
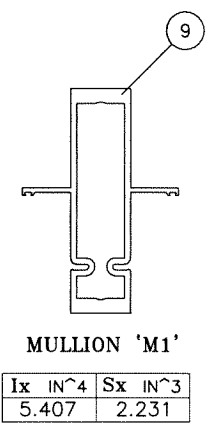
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drawing no. **W15-111**

sheet 3 of 12

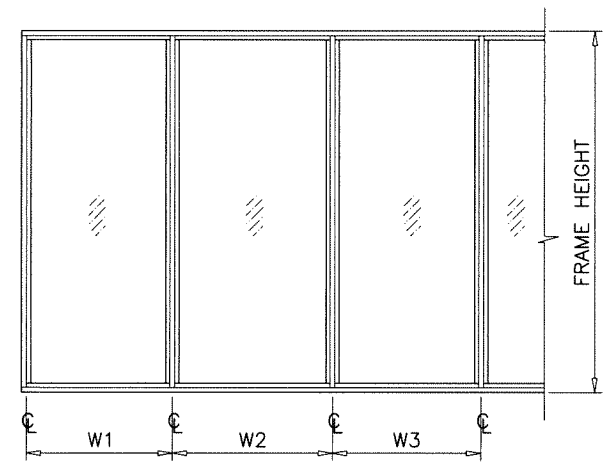
DESIGN LOAD CAPACITY - PSF MULLION WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULLION 'M1'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
36"	84"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		70.0	70.0
60"		70.0	70.0
36"	90"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		70.0	70.0
57"		70.0	70.0
36"	96"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		70.0	70.0
60"		70.0	70.0
36"	102"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
50"		70.0	70.0
60"		70.0	70.0
36"	108"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
60"		70.0	70.0

DESIGN LOAD CAPACITY - PSF MULLION WITHOUT INTERMEDIATE HORIZONTALS				
NOMINAL DIMS.		MULLION 'M2'		
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	
36"	84"	100.0	110.0	
42"		100.0	110.0	
48"		100.0	110.0	
54"		100.0	110.0	
60"		100.0	110.0	
58"	90"	60.0	60.0	
66"		60.0	60.0	
72"		60.0	60.0	
36"		96"	100.0	110.0
42"			100.0	110.0
48"	100.0		110.0	
54"	100.0		110.0	
60"	100.0		110.0	
66"	102"	60.0	60.0	
70"		60.0	60.0	
36"		108"	100.0	110.0
42"			100.0	110.0
48"			100.0	110.0
51"	100.0		110.0	
54"	60.0		60.0	
60"	114"	60.0	60.0	
66"		60.0	60.0	
36"		120"	60.0	60.0
42"			60.0	60.0
48"			60.0	60.0
54"	60.0		60.0	
55"	60.0		60.0	
36"	126"	60.0	60.0	
42"		60.0	60.0	
48"		57.6	57.6	
50"		55.6	55.6	
60"		132"	60.0	60.0
42"	56.3		56.3	
48"	49.9		49.9	



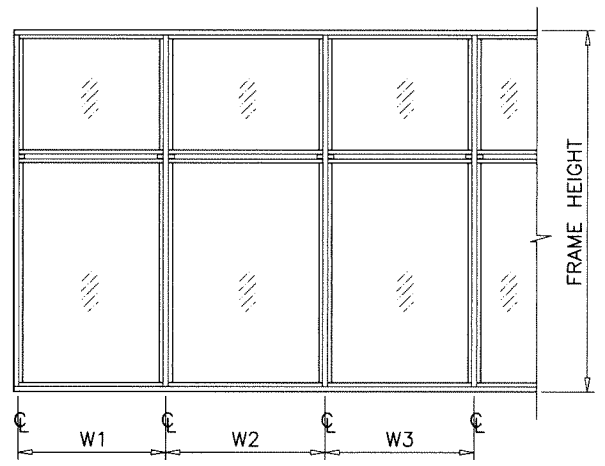
DESIGN LOAD CAPACITY - PSF MULLION WITH INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULLION 'M1'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
36"	84"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
36"	90"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
36"	96"	70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
36"	102"	70.0	70.0
42"		70.0	70.0
48"		65.2	65.2
36"	108"	70.0	70.0
42"		62.8	62.8
48"		54.9	54.9

DESIGN LOAD CAPACITY - PSF MULLION WITH INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
36"	84"	100.0	110.0
42"		100.0	110.0
48"		100.0	110.0
36"	90"	100.0	110.0
42"		100.0	110.0
48"		100.0	110.0
36"	96"	100.0	110.0
42"		100.0	110.0
48"		100.0	110.0
36"	102"	100.0	110.0
42"		100.0	110.0
48"		100.0	102.7
36"	108"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0
36"	114"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0
36"	120"	60.0	60.0
42"		60.0	60.0
48"		60.0	60.0
36"	126"	60.0	60.0
42"		60.0	60.0
48"		54.5	54.5
36"	132"	60.0	60.0
42"		54.1	54.1
48"		47.4	47.4



WIDTH (W) = W1
AT FRAME JAMB

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



WIDTH (W) = W1
AT FRAME JAMB

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

SEE SHEET 8 FOR UNANCHORED JAMB
REINFORCING LIMITS

MULLIONS



Sealed: 7/25/2023

FL #33676

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

af c

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revisions:	no	date	description
date:	12-17-15	scale:	-
dr. by:	TARIQ	chk. by:	
drawing no.	W15-111		
sheet	4 of 12		

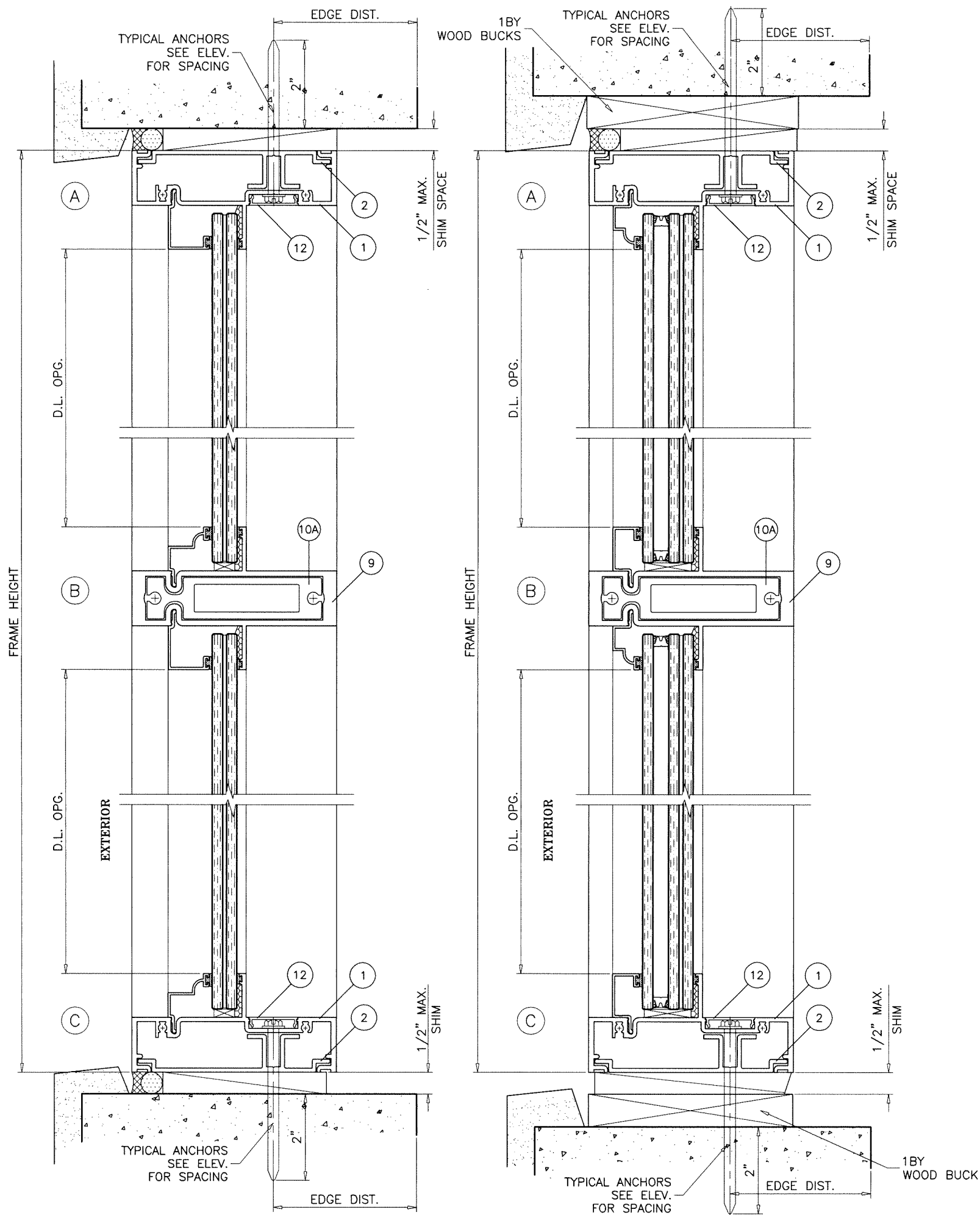
MULLION ANCHOR LOAD CAPACITY - PSF

ANCHOR TYPE		ANCHOR TYPE 'A'						ANCHOR TYPE 'B'						ANCHOR TYPE 'C'						ANCHOR TYPE 'D'		
SHIM SPACE		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		1/4" MAX. SHIM		
WIDTH (W)	LENGTH (L)	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	4 ANCHORS	6 ANCHORS	
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
36"	72"	110.0	110.0	108.7	110.0	84.5	110.0	110.0	110.0	108.7	110.0	84.5	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
42"		110.0	110.0	98.6	110.0	76.7	110.0	110.0	110.0	98.6	110.0	76.7	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
48"		110.0	110.0	91.7	110.0	71.3	107.0	110.0	110.0	91.7	110.0	71.3	107.0	110.0	110.0	110.0	110.0	103.0	110.0	110.0	110.0	110.0
54"		110.0	110.0	86.9	110.0	67.6	101.4	110.0	110.0	86.9	110.0	67.6	101.4	110.0	110.0	110.0	110.0	97.7	110.0	110.0	110.0	110.0
60"		110.0	110.0	83.8	110.0	65.2	97.8	110.0	110.0	83.8	110.0	65.2	97.8	110.0	110.0	110.0	110.0	94.2	110.0	110.0	110.0	110.0
66"		110.0	110.0	82.1	110.0	63.8	95.7	110.0	110.0	82.1	110.0	63.8	95.7	110.0	110.0	110.0	110.0	92.2	110.0	110.0	110.0	110.0
72"		70.0	70.0	70.0	70.0	63.4	70.0	70.0	70.0	70.0	70.0	63.4	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"	78"	110.0	110.0	97.8	110.0	76.1	110.0	110.0	110.0	97.8	110.0	76.1	110.0	110.0	110.0	110.0	110.0	109.9	110.0	110.0	110.0	
42"		110.0	110.0	88.3	110.0	68.6	102.9	110.0	110.0	88.3	110.0	68.6	102.9	110.0	110.0	110.0	110.0	99.1	110.0	110.0	110.0	
48"		110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	110.0	110.0	91.6	110.0	110.0	110.0	
54"		104.6	110.0	76.7	110.0	59.6	89.5	110.0	110.0	76.7	110.0	59.6	89.5	110.0	110.0	109.2	110.0	86.2	110.0	110.0	110.0	110.0
60"		100.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	104.4	110.0	82.4	110.0	110.0	110.0	110.0
66"		70.0	70.0	70.0	70.0	55.3	70.0	70.0	70.0	70.0	70.0	55.3	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
72"		60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36"	84"	110.0	110.0	88.9	110.0	69.1	103.7	110.0	110.0	88.9	110.0	69.1	103.7	110.0	110.0	110.0	110.0	99.9	110.0	110.0	110.0	
42"		108.8	110.0	79.8	110.0	62.1	93.1	110.0	110.0	79.8	110.0	62.1	93.1	110.0	110.0	110.0	110.0	89.7	110.0	110.0	110.0	
48"		100.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	73.4	110.0	57.0	85.6	110.0	110.0	104.4	110.0	82.4	110.0	110.0	110.0	
54"		93.6	110.0	68.6	103.0	53.4	80.1	110.0	110.0	68.6	103.0	53.4	80.1	110.0	110.0	97.7	110.0	77.1	110.0	110.0	110.0	
60"		70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
66"		60.0	60.0	60.0	60.0	48.8	60.0	60.0	60.0	60.0	60.0	48.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
72"		60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36"	90"	110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	81.5	110.0	63.4	95.1	110.0	110.0	110.0	110.0	91.6	110.0	110.0	110.0	
42"		99.4	110.0	72.9	109.4	56.7	85.0	110.0	110.0	72.9	109.4	56.7	85.0	110.0	110.0	103.8	110.0	81.9	110.0	110.0	110.0	
48"		90.9	110.0	66.7	100.0	51.9	77.8	110.0	110.0	66.7	100.0	51.9	77.8	110.0	110.0	94.9	110.0	74.9	110.0	110.0	110.0	
54"		84.7	110.0	62.1	93.2	48.3	72.4	110.0	110.0	62.1	93.2	48.3	72.4	110.0	110.0	88.4	110.0	69.8	104.6	110.0	110.0	
60"		60.0	60.0	58.7	60.0	45.6	60.0	60.0	60.0	58.7	60.0	45.6	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
66"		60.0	60.0	56.2	60.0	43.7	60.0	60.0	60.0	56.2	60.0	43.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36"	96"	102.6	110.0	75.2	110.0	58.5	87.8	110.0	110.0	75.2	110.0	58.5	87.8	110.0	110.0	107.1	110.0	84.5	110.0	110.0	110.0	
42"		91.4	110.0	67.1	100.6	52.2	78.2	110.0	110.0	67.1	100.6	52.2	78.2	110.0	110.0	95.5	110.0	75.3	110.0	110.0	110.0	
48"		83.3	110.0	61.1	91.7	47.5	71.3	110.0	110.0	61.1	91.7	47.5	71.3	110.0	110.0	87.0	110.0	68.7	103.0	110.0	110.0	
54"		70.0	70.0	56.7	70.0	44.1	66.1	70.0	70.0	56.7	70.0	44.1	66.1	70.0	70.0	70.0	70.0	63.7	70.0	70.0	70.0	
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66"		60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	60.0	60.0	57.1	60.0	60.0	60.0	60.0
36"	102"	95.2	110.0	69.9	104.8	54.3	81.5	110.0	110.0	69.9	104.8	54.3	81.5	110.0	110.0	99.4	110.0	78.5	110.0	110.0	110.0	
42"		84.7	110.0	62.1	93.2	48.3	72.4	110.0	110.0	62.1	93.2	48.3	72.4	110.0	110.0	88.4	110.0	69.8	104.6	110.0	110.0	
48"		76.9	110.0	56.4	84.6	43.9	65.8	110.0	110.0	56.4	84.6	43.9	65.8	110.0	110.0	80.3	110.0	63.4	95.1	110.0	110.0	
54"		60.0	60.0	52.2	60.0	40.6	60.0	60.0	60.0	52.2	60.0	40.6	60.0	60.0	60.0	60.0	60.0	58.6	60.0	60.0	60.0	
60"		60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	60.0	60.0	54.9	60.0	60.0	60.0	60.0
36"	108"	70.0	70.0	65.2	70.0	50.7	70.0	70.0	70.0	65.2	70.0	50.7	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	57.8	70.0	45.0	67.4	70.0	70.0	57.8	70.0	45.0	67.4	70.0	70.0	70.0	70.0	64.9	70.0	70.0	70.0	
48"		70.0	70.0	52.4	70.0	40.7	61.1	70.0	70.0	52.4	70.0	40.7	61.1	70.0	70.0	70.0	70.0	58.9	70.0	70.0	70.0	
54"		60.0	60.0	48.3	60.0	37.6	56.3	60.0	60.0	48.3	60.0	37.6	56.3	60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0	60.0
36"	114"	60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	47.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	54.1	60.0	42.1	60.0	60.0	60.0	54.1	60.0	42.1	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
48"		60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	48.9	60.0	38.0	57.0	60.0	60.0	60.0	60.0	54.9	60.0	60.0	60.0	60.0
54"		60.0	60.0	45.0	60.0	35.0	52.5	60.0	60.0	45.0	60.0	35.0	52.5	60.0	60.0	60.0	60.0	50.5	60.0	60.0	60.0	60.0
36"	120"	60.0	60.0	57.5	60.0	44.7	60.0	60.0	60.0	57.5	60.0	44.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	50.8	60.0	39.5	59.3	60.0	60.0	60.0	60.0	57.1	60.0	60.0	60.0	60.0
48"		60.0	60.0	45.9	60.0	35.7	53.5	60.0	60.0	45.9	60.0	35.7	53.5	60.0	60.0	60.0	60.0	51.5	60.0	60.0	60.0	60.0
36"	126"	60.0	60.0	54.3	60.0	42.3	60.0	60.0	60.0	54.3	60.0	42.3	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	47.9	60.0	37.3	55.9	60.0	60.0	47.9	60.0	37.3	55.9	60.0	60.0	60.0	60.0	53.8	60.0	60.0	60.0	60.0
48"		58.8	60.0	43.2	60.0	33.6	50.3	60.0	60.0	43.2	60.0	33.6	50.3	60.0	60.0	60.0	60.0	48.5	60.0	60.0	60.0	60.0
36"	132"	60.0	60.0	51.5	60.0	40.0	60.0	60.0	60.0	51.5	60.0	40.0	60.0	60.0	60.0	60.0	60.0	57.8	60.0	60.0	60.0	60.0
42"		60.0	60.0	45.3	60.0	35.2	52.9	60.0	60.0	45.3	60.0	35.2	52.9	60.0	60.0	60.0	60.0	50.9	60.0	60.0	60.0	60.0
48"		55.6	60.0	40.8	60.0	31.7	47.5	60.0	60.0	40.8	60.0	31.7	47.5	60.0	60.0	58.0	60.0	45.8	60.0	60.0	60.0	60.0

SEE SHEET 7 FOR ANCHOR DESCRIPTION

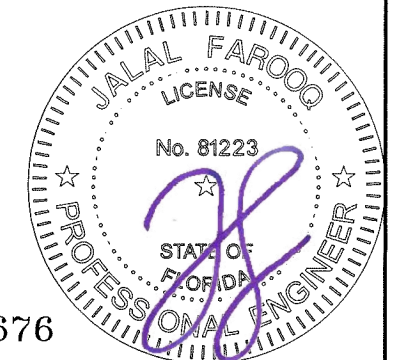
Sealed: 7/25/2023

ANCHORS



Sealed: 7/25/2023

FL #33676



date:	12-17-15	
scale:	3/8" = 1"	
dr. by:	TARIQ	
chk. by:		
revisions:		
no.	date	description

Coastline Storefront 4-11/16 inch Frame IZ4
MARVIN
 PO Box 100, 401 State Ave. N.
 Warrroad, MN. 56763
 Tel. (218) 386-1430 Ext. 2143

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\W15-111SIW

WOOD BUCKS AND METAL STRUCTURE NOT BY 'MARVIN'
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' (Fu=164 KSI, Fy=148 KSI)

- INTO WOOD STRUCTURES
- 2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
- THRU 1BY BUCKS INTO CONC. OR BLOCKS
- 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
- 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)
- DIRECTLY INTO BLOCKS
- 2" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

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

ANCHOR CL TO CL DISTANCE

- INTO CONCRETE AND BLOCKS = 3" MIN.

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

- DIRECTLY INTO CONCRETE
- 2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

ANCHOR EDGE DISTANCES

- INTO CONCRETE = 2-1/2" MIN.

ANCHOR CL TO CL DISTANCE

- INTO CONCRETE = 3" MIN.

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

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

ANCHOR EDGE DISTANCES

- INTO CONCRETE AND BLOCKS = 2-1/2" MIN.

ANCHOR CL TO CL DISTANCE

- INTO CONCRETE = 3" MIN.
- INTO FILLED BLOCKS = 5" MIN.

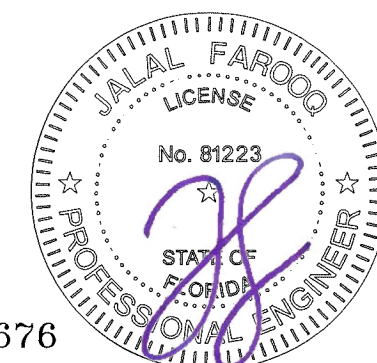
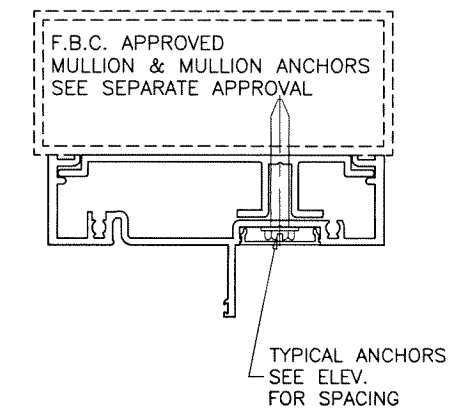
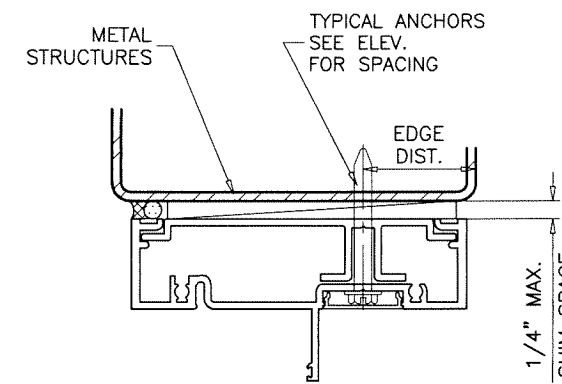
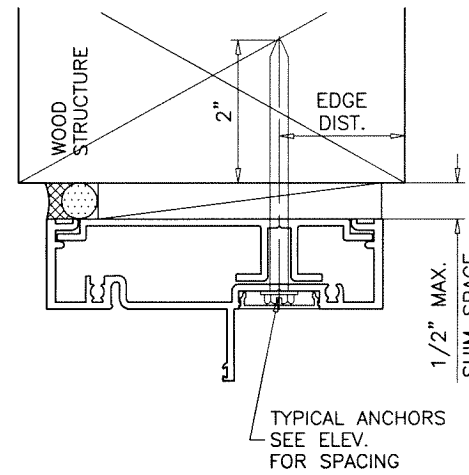
TYPE 'D' - #14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)

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

ANCHOR EDGE DISTANCES

- INTO METAL STRUCTURE = 1/2" 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 BLOCK AT JAMBS f'm = 2000 PSI MIN.



Sealed: 7/25/2023

FL #33676

afc

AL-FAROOQ CORPORATION
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9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W15-111SW

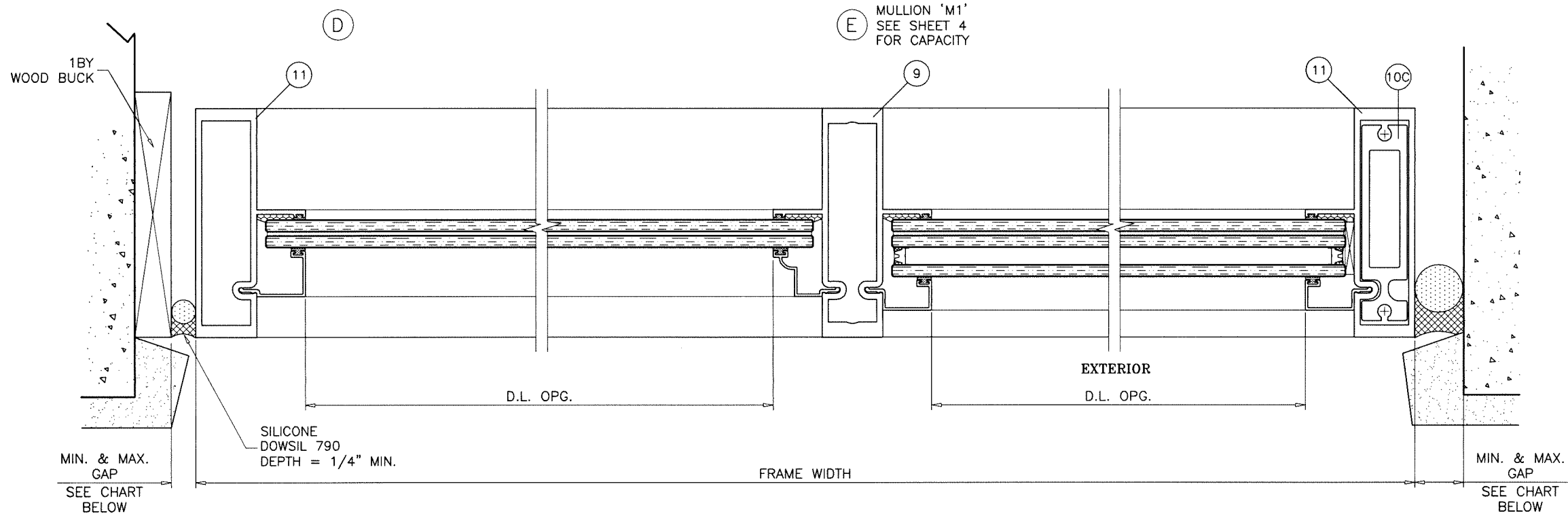
Coastline Storefront 4-11/16 inch Frame IZ4

MARVIN
PO Box 100, 401 State Ave. N.
Warroad, MN. 56763
Tel. (218) 386-1430 Ext. 2143

revisions:	no	date	description

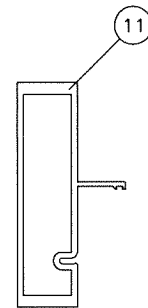
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scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W15-111
sheet 7 of 12



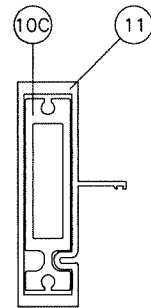
(E) MULLION 'M1'
SEE SHEET 4
FOR CAPACITY

(E) MULLION 'M2'
SEE SHEET 4
FOR CAPACITY



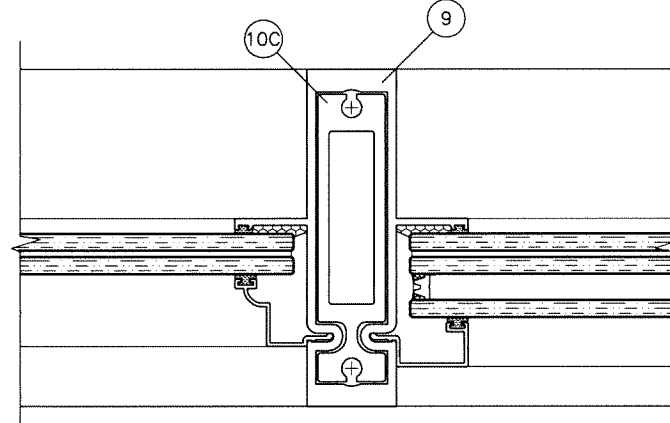
JAMB 'J1'

Ix IN ⁴	Sx IN ³
4.762	1.993



JAMB 'J2'

Ix IN ⁴	Sx IN ³
7.867	3.292



MAX. FRAME HEIGHT	MAX. GAPS FOR UNANCHORED JAMBS			
	JAMB 'J1'		JAMB 'J2'	
	MIN.	MAX.	MIN.	MAX.
96"	3/8"	3/4"	-	-
102"	3/8"	3/4"	-	-
108"	3/8"	3/4"	-	-
120"	-	-	3/8"	3/4"
132"	-	-	3/8"	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.

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FL #33676



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COMP-ANL\W15-111SW

Coastline Storefront 4-11/16 inch Frame IZ4

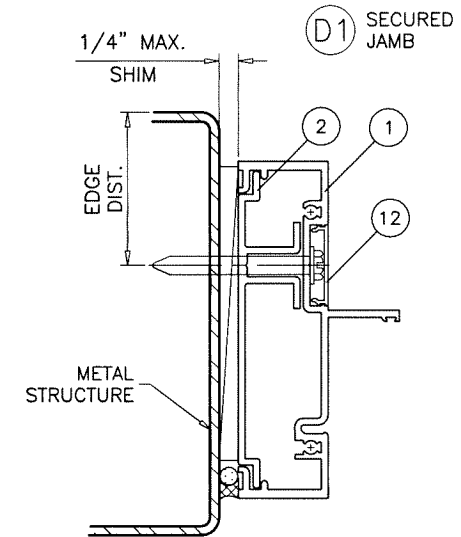
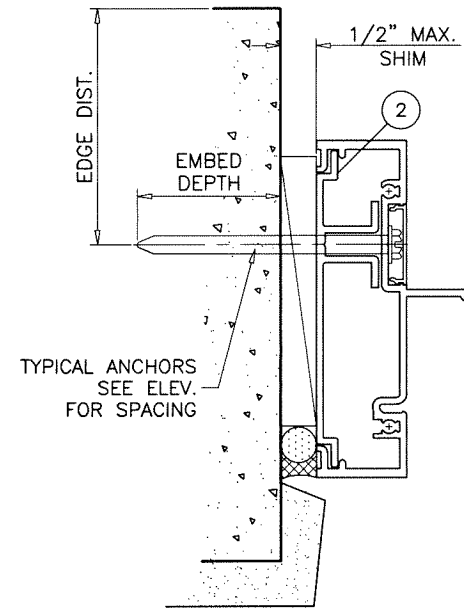
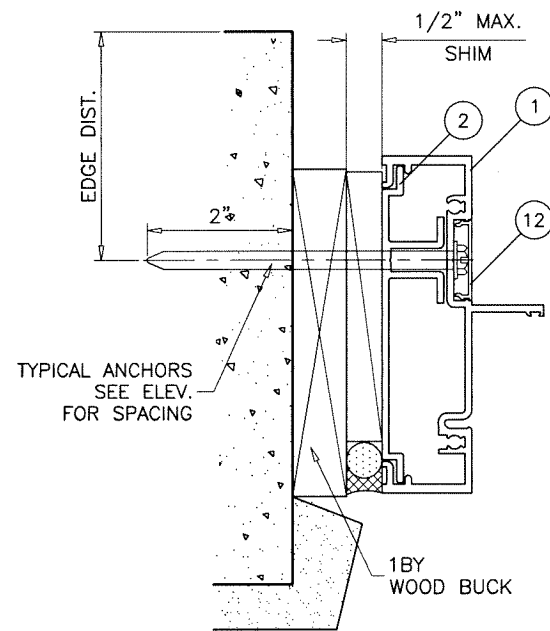
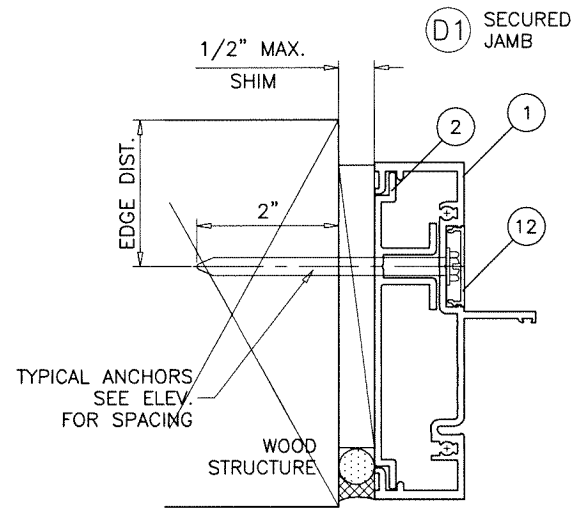


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drawing no.
W15-111
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Sealed: 7/25/2023

FL #33676

afc

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 COMP-ANL\W15-111SW

Coastline Storefront 4-11/16 inch Frame IZ4

MARVIN

PO Box 100, 401 State Ave. N.
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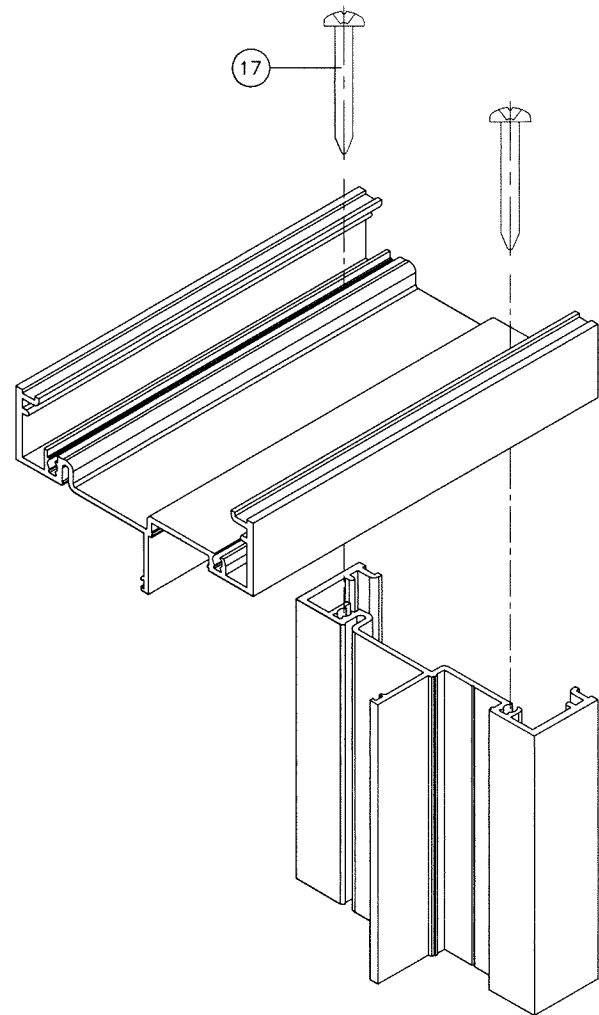
revisions:	no	date	by	description

date: 12-17-15
 scale: 3/8" = 1"
 dr. by: TARIQ
 chk. by:

drawing no.

W15-111

sheet 9 of 12



FRAME CORNER

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	SIW1004	AS REQD.	FRAME HEAD/SILL/JAMB	6063-T6	-
2	SIW1005	AS REQD.	ANCHOR CLIP	6063-T6	-
5	SIW1010	4/ LITE	GLAZING BEAD (9/16" LAM. GLASS)	6063-T6	-
5A	SIW1009	4/ LITE	ALT. GLAZING BEAD (9/16" LAM. GLASS)	6063-T6	-
6	SIW1008	4/ LITE	GLAZING BEAD (1-3/16" INSUL. LAM. GLASS)	6063-T6	-
6A	SIW1007	4/ LITE	ALT. GLAZING BEAD (1-3/16" INSUL. LAM. GLASS)	6063-T6	-
7	SIW1013	4/ LITE	GLAZING BEAD (7/16" LAM. GLASS)	6063-T6	-
7A	SIW1012	4/ LITE	ALT. GLAZING BEAD (7/16" LAM. GLASS)	6063-T6	-
8	SIW1017	4/ LITE	GLAZING BEAD (1-5/16" INSUL. LAM. GLASS)	6063-T6	-
9	SIW1001	AS REQD.	MULLION/HORIZONTAL	6063-T6	-
10A	SIW1002	AS REQD.	SHEAR BLOCK AT HORIZONTAL ENDS, 1-1/2" LONG	6063-T6	-
10B	SIW1002	AS REQD.	SHEAR BLOCK AT JAMB ENDS, 6" LONG	6063-T6	-
10C	SIW1002	AS REQD.	SHEAR BLOCK REINFORCING, FULL LENGTH	6063-T6	-
11	SIW1003	AS REQD.	FRAME JAMB	6063-T6	-
12	-	AS REQD.	ANCHOR COVER	6063-T6	-
13	E20218	4/ LITE	INTERIOR GLAZING SPACER (DUROMETER 70±5) SHORE A	TPE	ULTRAFAB
14	5530	4/ LITE	EXTERIOR GLAZING SPACER (DUROMETER 70±5) SHORE A	SANTOPRENE	CENTRAL PLASTICS
15	5532	2/ LITE	SETTING BLOCKS (1/4" X 1/2" X 2" LONG), AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
15A	5533	2/ LITE	SETTING BLOCKS (INSUL. LAM. GLASS), AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
17	#14 X 2"	AS REQD.	ASSEMBLY FASTENERS	-	PH SELF DRILLING
18	5/16 X 1-1/2"	2/ BLOCK	SHEAR BLOCK FASTENERS AT SILL	-	PH THREAD CUTTING
19	#14 X 2"	-	SHEAR BLOCK FASTENERS AT HORIZONTAL	-	PH SELF DRILLING
20	#10 X 3/4"	-	HORIZONTAL FASTENER	-	FH SELF DRILLING



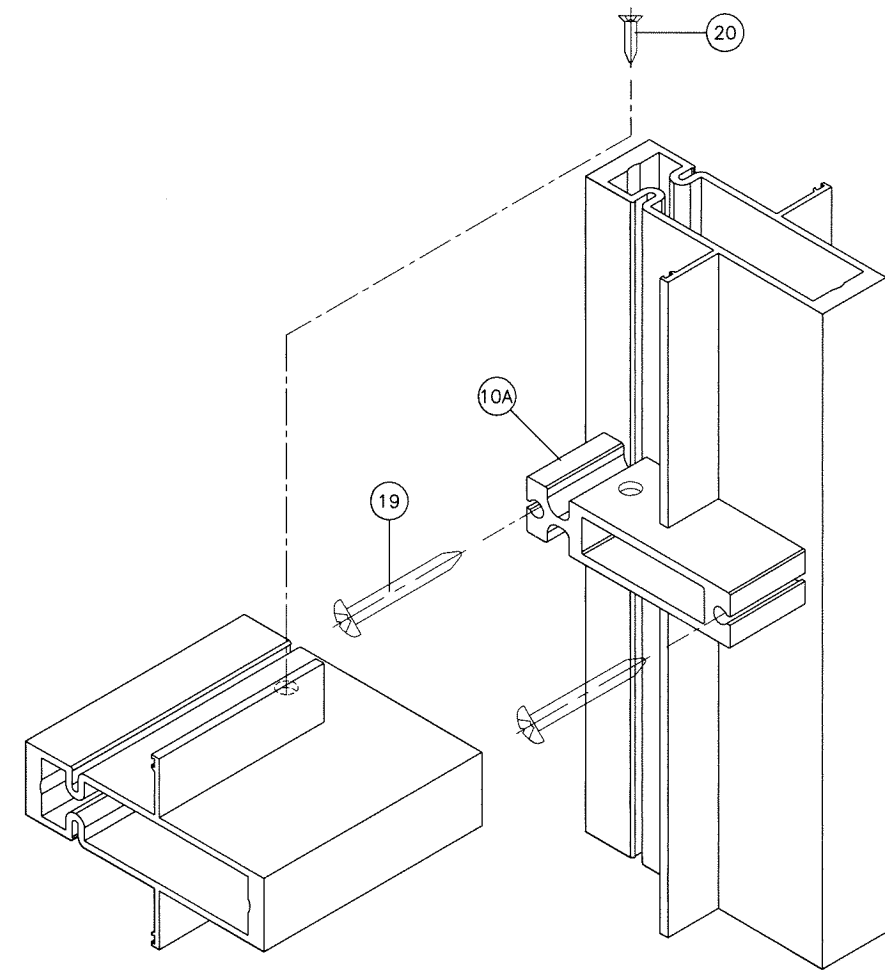
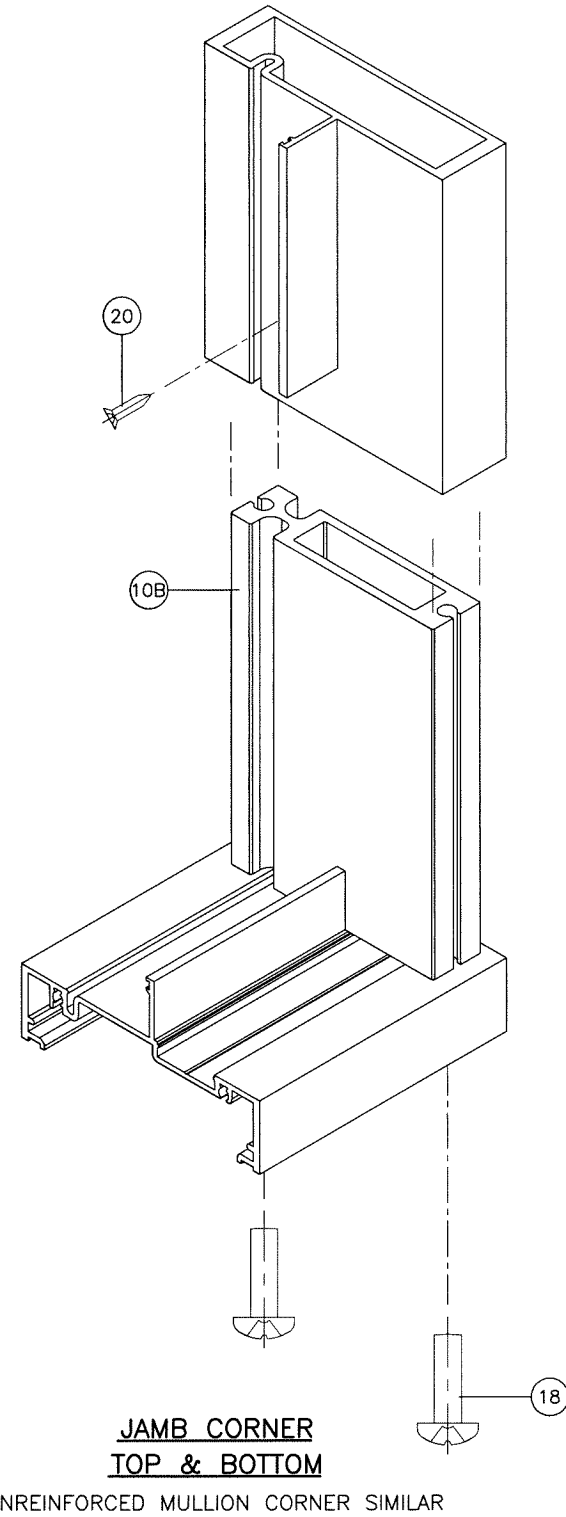
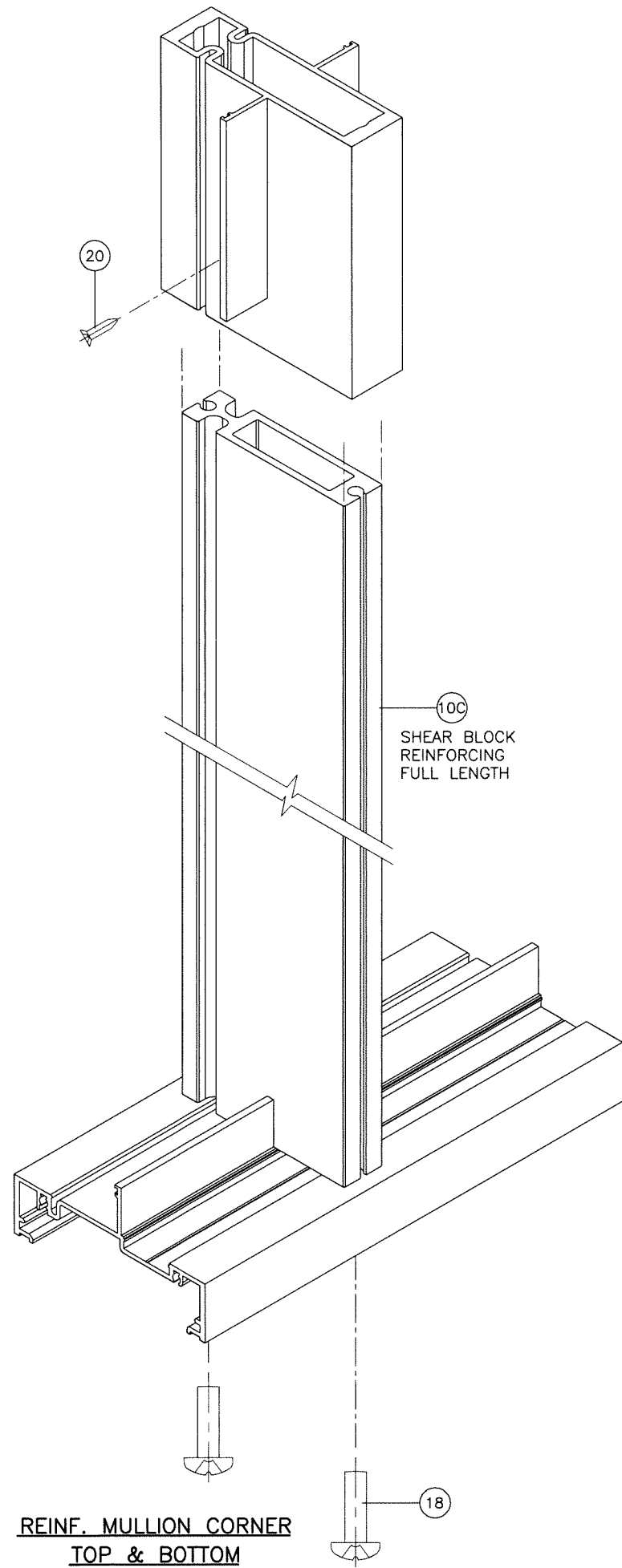
Sealed: 7/25/2023

FL #33676

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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\W15-111SIW

Coastline Storefront 4-11/16 inch Frame IZ4
MARVIN
 PO Box 100, 401 State Ave. N.
 Warrroad, MN. 56763
 Tel. (218) 386-1430 Ext. 2143

revisions:	no	date	by	description
date:	12-17-15	scale:	3/8" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	W15-111			
sheet	11 of 12			



**HORIZONTAL CORNER
JAMB & MULLION**

Sealed: 7/25/2023

FL #33676



revisions:	no	date	by	description

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dr. by: TARIQ
chk. by:

drawing no.
W15-111
sheet 12 of 12

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