# **Business & Professional Regulation**



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Product Approval Menu > Product or Application Search > Application List > Application Detail

FL37319-R2 Application Type Revision Code Version 2023 **Application Status** Approved

Comments Archived

Product Manufacturer Mr-Glass Doors & Windows Manufacturing, LLC

Address/Phone/Email 8051 NW 79th Place Medley, FL 33166 (305) 470-8284

ulises@mrglasswindows.com

Authorized Signature Ulises Senaris

ulises@mrglasswindows.com

Technical Representative Augusto Arias Address/Phone/Email 8120 NW 84th St Medley, FL 33166

(305) 470-8284

aarias@mrglasswindows.com

Quality Assurance Representative

Address/Phone/Email

Category Windows Subcategory Fixed

Compliance Method Evaluation Report from a Florida Registered Architect or a Licensed Florida

Professional Engineer

Evaluation Report - Hardcopy Received

Florida Engineer or Architect Name who developed the

Evaluation Report Florida License

Quality Assurance Entity

Quality Assurance Contract Expiration Date

Referenced Standard and Year (of Standard)

Validated By

Jalal Farooq

PE-81223

Keystone Certifications, Inc.

08/27/2025 Abel Carrasco, PE

☑ Validation Checklist - Hardcopy Received

FL37319 R2 COI SS - Certificate of Independence.pdf Certificate of Independence

**Standard** <u>Year</u> TAS 201 1994 TAS 202 1994 TAS 203 1994

Equivalence of Product Standards

Certified By

Sections from the Code

Method 1 Option D Product Approval Method

Date Submitted 07/21/2023 Date Validated 07/22/2023 Date Pending FBC Approval 07/25/2023 10/18/2023 Date Approved

**Summary of Products** 

L # Model, Number or Name		Description				
37319.1	MRG-400 Aluminum Fixed Window	Large missile impact resistant aluminum fixed window.				
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +100/-100 Other: See drawings 21-02F for span vs load combination and installation details.		Installation Instructions FL37319 R2 II SS - MG-400 Fixed WDW (LMI) DWG 21-02F 2023.pdf Verified By: Jalal Farooq PE #81223 Created by Independent Third Party: Yes Evaluation Reports FL37319 R2 AE SS - MG400 FIXED (LMI) - PAE 2023.pdf Created by Independent Third Party: Yes				



Next

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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#### **Product Approval Accepts:**













## **AL-FAROOQ CORPORATION**

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

August 11, 2020

Product Approval Administrator
Building Codes & Standards Section
Department of Business & Professional Regulations
1940 North Monroe Street, Suite 90
Tallahassee, FL 32399-2100

To whom it may concern,

As the design engineer retained to prepare the product approval(s) associated with this letter as shown below on this same web page, I do hereby declare that I do not have and will not have any financial interest in any company manufacturing or distributing the referenced product(s), nor do I have or will have any financial interest with any other entity involved in the approval process of the referenced product(s).

Sincerely,

ONAL EN Sealed 8-11-2020

Jalal Farooq, P.E. CFO



### AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

### PRODUCT APPROVAL EVALUATION RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 37319

Date: 07/20/2023

**Detailed Product Description:** 

Manufacturer: MR-GLASS DOORS & WINDOWS MANUFACTURING LLC. Manufacturer Address: 8051 NW 79th PLACE, MEDLEY, FL 33166 Model Name: SERIES MRG-400 ALUMINUM FIXED WINDOW Maximum Load: +100 PSF, -100 PSF (Large Missile Impact)

Installation Drawings # 21-02F

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative analysis used X Yes No

Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT	TEST REPORT	Test Sealed by	
			DATE	#		
ASTM E283	Air Infiltration Leakage	Fenestration Testing Laboratory, Inc.	01/24/2017	FTL-9147	Idalmis Ortega, PE	
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Fenestration Testing Laboratory, Inc.	01/24/2017	FTL-9147	Idalmis Ortega, PE	
ASTM E330 & TAS 202	Uniform Static Air Press.	Fenestration Testing Laboratory, Inc.	01/24/2017	FTL-9147	Idalmis Ortega, PE	

#### Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

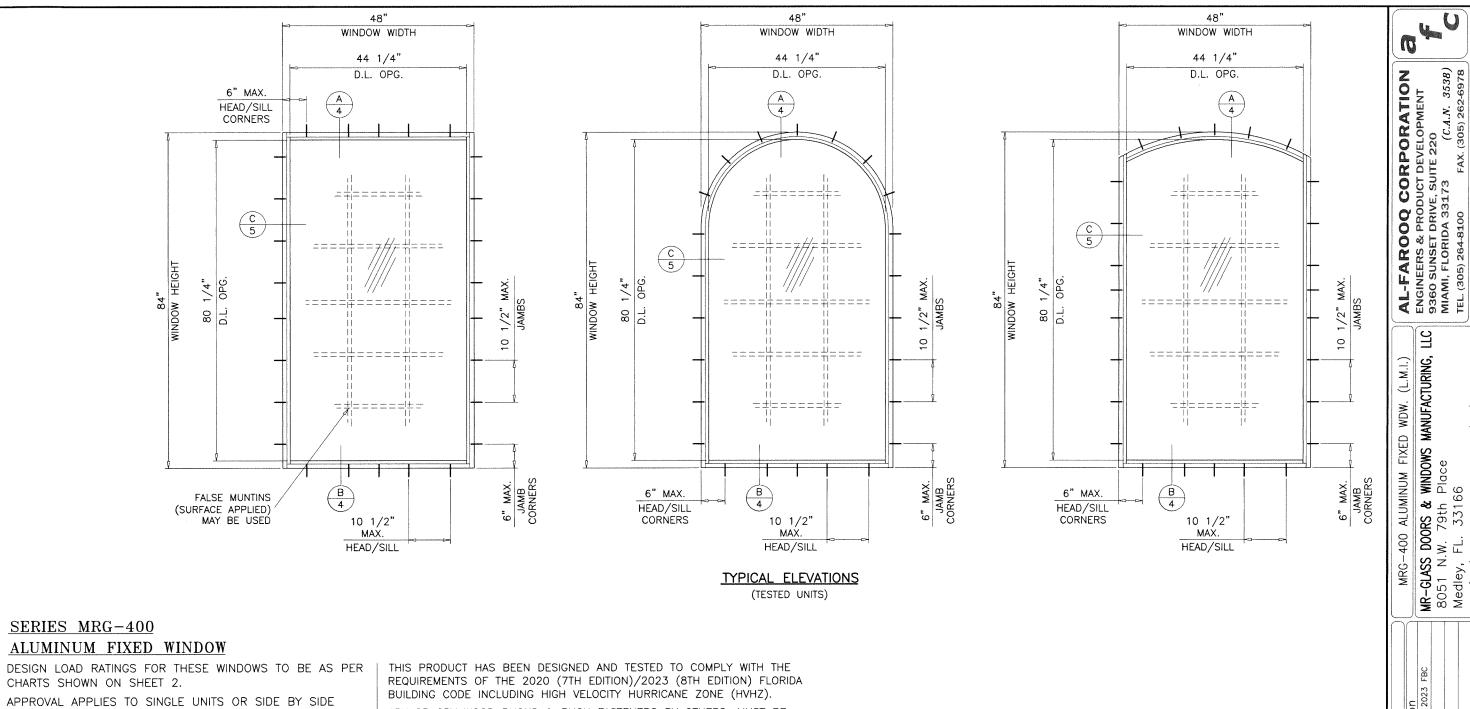
TEST	DESCRIPTION	TEST LOCATION	TEST REPORT	TEST REPORT	Test Sealed by
			DATE	#	
FBC 1626.2 TAS 201 & 203 ASTM E1886/1996 ANSI Z97.1	Large Missile Impact & Cyclic	Fenestration Testing Laboratory, Inc. Hurricane Engineering & Testing, Inc	01/24/2017 02/08/2022	FTL-9147  HETI-21-7149  HETI-21-7153  HETI-21-7155	Idalmis Ortega, PE Dr. Ram N. Tewari, PE

Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2023 Florida Building Code.

**Evaluation Report Engineer:** 

PE # 81223 Jalal Farooq Al-Faroog Corporation EB # 3538

Sealed: 7/21/2023



COMBINATIONS OF FIX./FIX. OR FIXED WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING F.B.C. APPROVED MULLIONS IN BETWEEN

LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

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.

WINDOWS WITH GLASS TYPE 'B' COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

### Sealed: 7/21/2023

- 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



description UPDATED TO 2023 FBC þ 1/2"=1

by: 유 남 no.

: 220 (C.A.N. 3538) X. (305) 262-6978

3

MANUFACTURING,

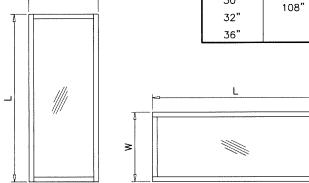
DOORS & WINDOWS N.W. 79th Place FL. 33166 764-3963 Fax.

MR-GLASS DC 8051 N.W. Medley, FL Tel. (305) 76

21-02F

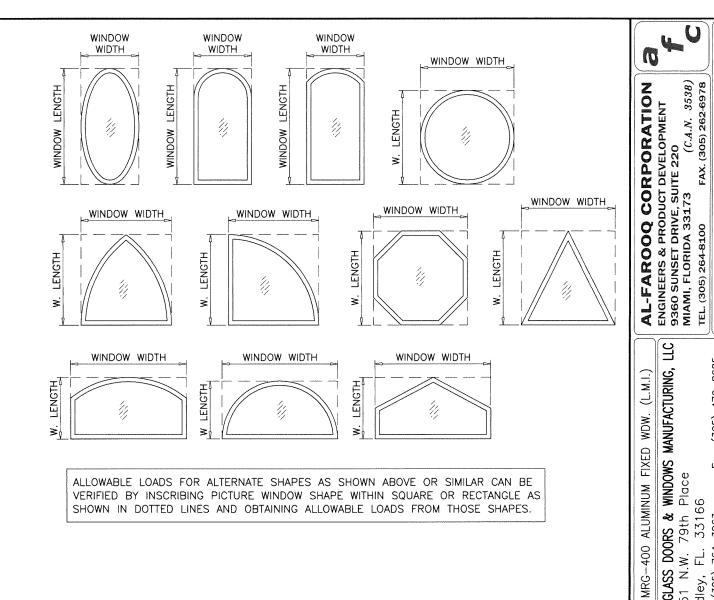
drawing sheet 1 of 7

PERION LOAD OLD COMM. DOT					DEGION TOTA CALICIAN DOE							
DESIGN LOAD CAPACITY - PSF				DESIGN LOAD CAPACITY - PSF								
FRAME DIMS.			GLASS TYPES 'A' & 'Ai'		GLASS TYPES 'B' & 'Bi'		FRAME DIMS.		GLASS TYPES 'A' & 'Ai'		GLASS TYPES 'B' & 'Bi'	
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)	WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)	
19-1/8"	26"	65.0	65.0	100.0	100.0	24"	48"	65.0	65.0	100.0	100.0	
26-1/2"		65.0	65.0	100.0	100.0	30"		65.0	65.0	100.0	100.0	
37"		65.0	65.0	100.0	100.0	32"		65.0	65.0	100.0	100.0	
53-1/8"		65.0	65.0	100.0	100.0	36"		65.0	65.0	100.0	100.0	
19-1/8"		65.0	65.0	100.0	100.0	42"		65.0	65.0	100.0	100.0	
26-1/2"	38-3/8"	65.0	65.0	100.0	100.0	48"		65.0	65.0	100.0	100.0	
37"	30 3/0	65.0	65.0	100.0	100.0	54"		65.0	65.0	100.0	100.0	
53-1/8"		65.0	65.0	100.0	100.0	24"		65.0	65.0	100.0	100.0	
19-1/8"		65.0	65.0	100.0	100.0	30"		65.0	65.0	100.0	100.0	
26-1/2"	50-5/8"	65.0	65.0	100.0	100.0	32"		65.0	65.0	100.0	100.0	
37"	30 3/0	65.0	65.0	100.0	100.0	36"	60"	65.0	65.0	100.0	100.0	
53-1/8"		65.0	65.0	94.8	94.8	42"		65.0	65.0	100.0	100.0	
19-1/8"		65.0	65.0	100.0	100.0	48"		65.0	65.0	100.0	100.0	
26-1/2"	56"	65.0	65.0	100.0	100.0	54"		65.0	65.0	88.9	88.9	
37"	36	65.0	65.0	100.0	100.0	24"		65.0	65.0	100.0	100.0	
53-1/8"		65.0	65.0	90.4	90.4	30"		65.0	65.0	100.0	100.0	
19-1/8"		65.0	65.0	100.0	100.0	32"		65.0	65.0	100.0	100.0	
26-1/2"	63"	65.0	65.0	100.0	100.0	36"	72"	65.0	65.0	100.0	100.0	
37"	63	65.0	65.0	100.0	100.0	42"		65.0	65.0	100.0	100.0	
53-1/8"		65.0	65.0	90.4	90.4	48"		65.0	65.0	100.0	100.0	
19-1/8"		65.0	65.0	100.0	100.0	54"		65.0	65.0	88.9	88.9	
26-1/2"	72"	65.0	65.0	100.0	100.0	24"		65.0	65.0	100.0	100.0	
37"	/2	65.0	65.0	100.0	100.0	30"	84"	65.0	65.0	100.0	100.0	
53-1/8"		65.0	65.0	90.4	90.4	32"		65.0	65.0	100.0	100.0	
19-1/8"		65.0	65.0	100.0	100.0	36"	04	65.0	65.0	100.0	100.0	
26-1/2"	76"	65.0	65.0	100.0	100.0	42"		65.0	65.0	100.0	100.0	
37"		65.0	65.0	100.0	100.0	48"		65.0	65.0	100.0	100.0	
						24"		65.0	65.0	100.0	100.0	
	. W .					30"	96"	65.0	65.0	100.0	100.0	
						32"		65.0	65.0	100.0	100.0	
						36"		65.0	65.0	100.0	100.0	
						42"		65.0	65.0	100.0	100.0	
						24"		65.0	65.0	100.0	100.0	
			71	0		30"	108"	65.0	65.0	100.0	100.0	
	<b>↓</b>					32"	100	65.0	65.0	100.0	100.0	
					36"		65.0	65.0	100.0	100.0		

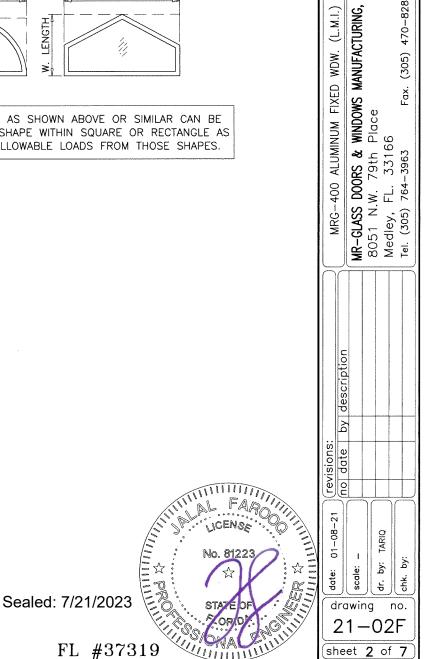


WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

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



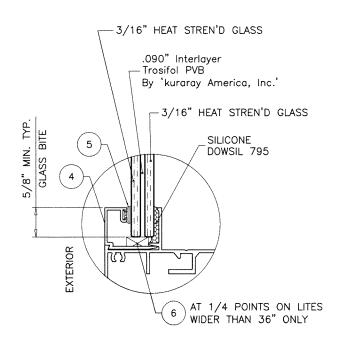
ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.



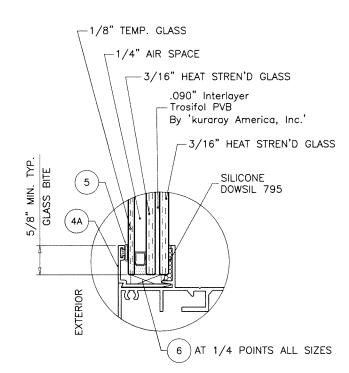
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(C.A.N. 3538) FAX. (305) 262-6978 COMP-ANI \

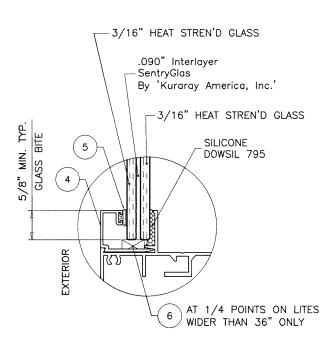
CC



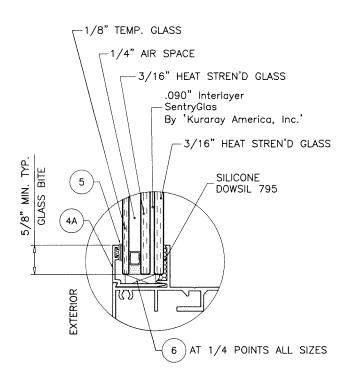
GLASS TYPE 'A' 7/16" OVERALL LAM. GLASS



GLASS TYPE 'Ai' 13/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'B' 7/16" OVERALL LAM. GLASS



GLASS TYPE 'Bi' 13/16" OVERALL INSUL. LAM. GLASS

1/4" AIR SPACE CONSISTING OF: SPACER: BY 'LINGERMANN GMBH' AROUND THE PERIMETER OF THE GLASS. PERIMETER SEALANT: SILICONE DOWSIL 791 GE 2000 OR 'DURASEAL' EDGE SEAL SYSTEM

'HELIMA' LOW PROFILE ALUMINUM SPACER

BY 'QUANEX'

Sealed: 7/21/2023

FL #37319

No. 81223

 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

3 H

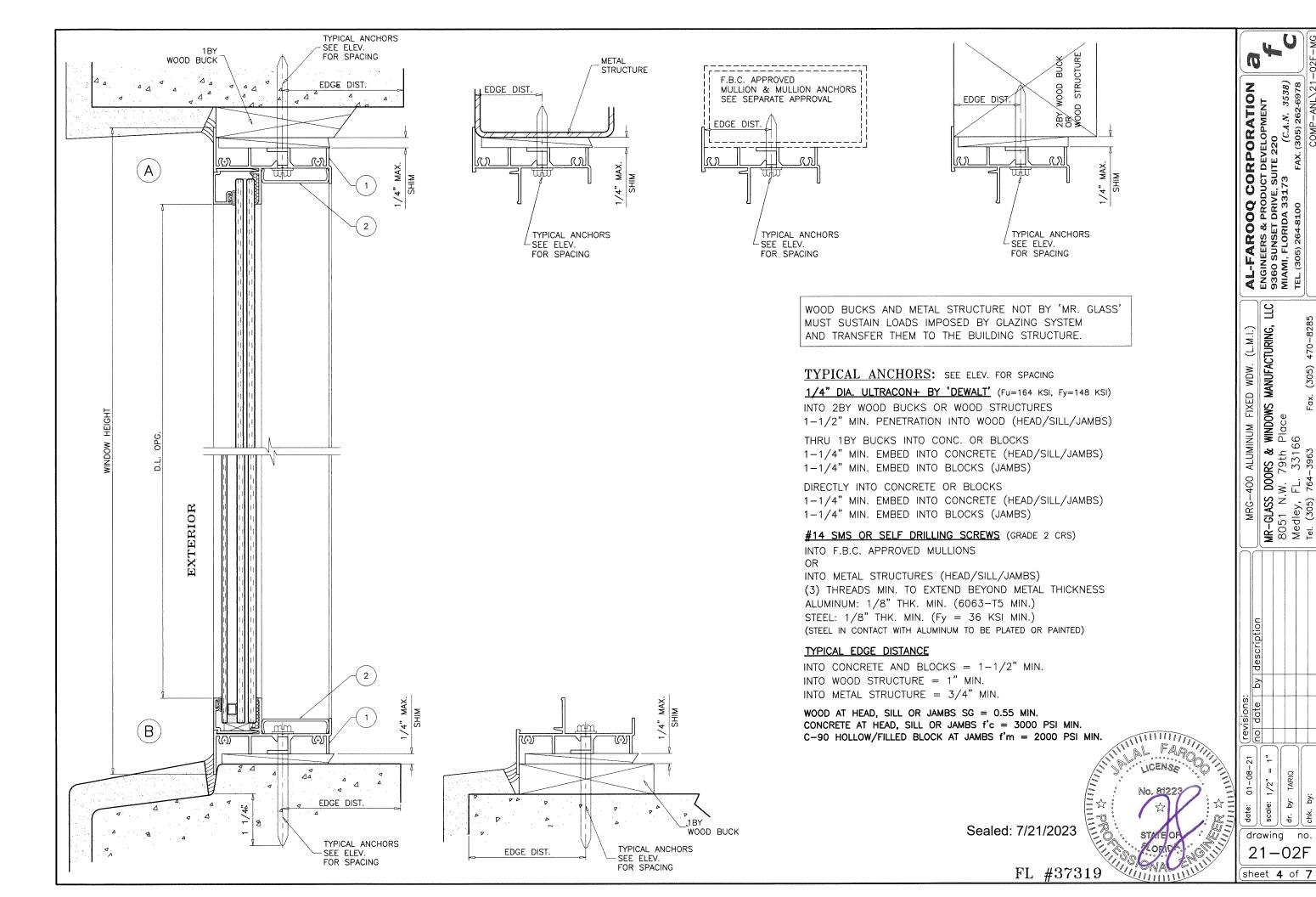
MR-GLASS DOORS & WINDOWS MANUFACTURING, 8051 N.W. 79th Place Medley, FL. 33166 Tel. (305) 764-3963 Fax. (305) 470-828

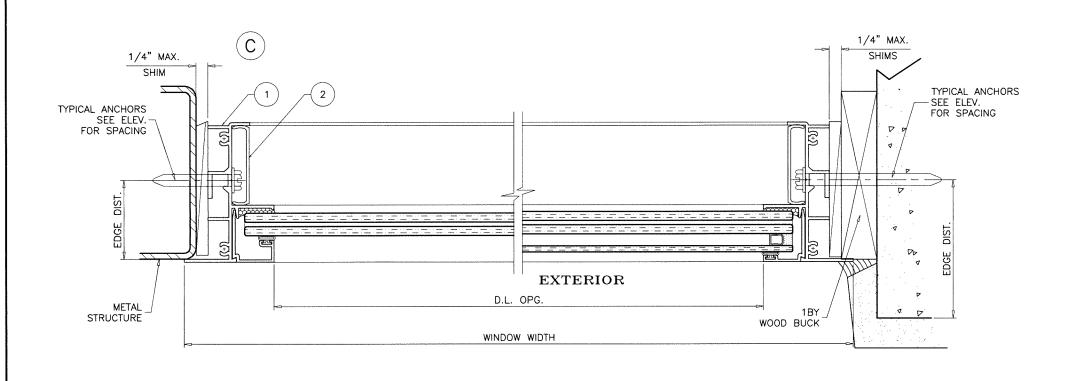
MRG-400 ALUMINUM FIXED WDW. (L.M.I.)

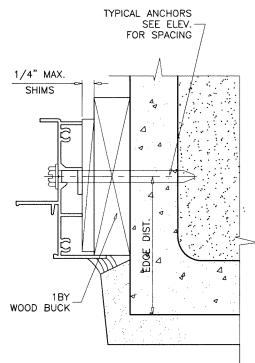
revisions: no date by description 01-08-21 dr. by:

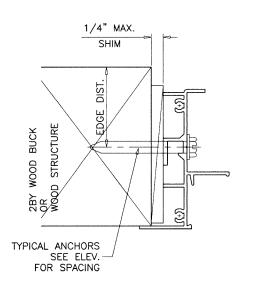
drawing no. 21-02F

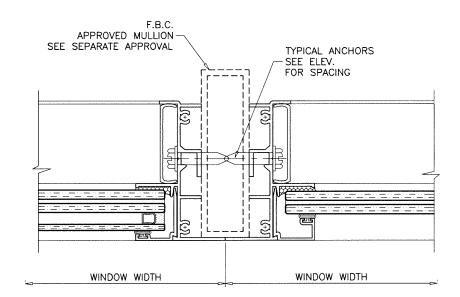
sheet **3** of **7** 











Sealed: 7/21/2023

FL #37319

MRG-400 ALUMINUM FIXED WDW. (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC

8051 N.W. 79th Place

Medley, FL. 33166

Tel. (305) 764-3963 Fax. (305) 470-8285 revisions: no date by description 01-08-21 scale: 1/2" = 1" . by by: [ 유 ] (송

(C.A.N. 3538) FAX. (305) 262-6978

 AL-FAROOQ CORPORATION

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21

drawing no. sheet 5 of 7

