Business & Professional Regulation



BCIS Home Log In User Registration Hot Topics Submit Surcharge Stats & Facts Publications Contact Us BCIS Site Map Links





<u>Product Approval Menu > Product or Application Search > Application List > Application Detail</u>

FL41890-R1 FL# Application Type Revision 2023 Code Version Approved **Application Status**

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 Horizontal Slider

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

Professional Engineer

Evaluation Report - Hardcopy Received

Jalal Farooq

Florida Engineer or Architect Name who developed

the Evaluation Report

Florida License PE-81223

Quality Assurance Entity Keystone Certifications, Inc.

Quality Assurance Contract Expiration Date

Referenced Standard and Year (of Standard)

Validated By

04/30/2035

Abel Carrasco, PE

✓ Validation Checklist - Hardcopy Received

Certificate of Independence FL41890 R1 COI SS - Certificate of Independence 2023.pdf

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

Equivalence of Product Standards

Certified By

Product Approval Method Method 1 Option D

Date Submitted 07/25/2023 Date Validated 07/25/2023 Date Pending FBC Approval 08/01/2023 Date Approved 10/18/2023

Summary of Products

FL # Model, Number or Name		Description		
41890.1 Series MG-350 Aluminum Horizontal Rolling Window		Large missile impact resistant aluminum horizontal rolling window		
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +65/-65 Other: See attached drawing 23-01F for span vs. load combination and installation details		Installation Instructions FL41890 R1 II SS - MG-350 HR (LMI) - DWG 23-01F 2023.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL41890 R1 AE SS - MG-350 HR (LMI) - PAE 2023.pdf Created by Independent Third Party: Yes		





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

The State of Florida is an AA/EEO employer. Copyright 2007-2013 State of Florida. :: Privacy Statement :: Accessibility Statement :: Refund Statement

Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click here .

Product Approval Accepts:















AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

January 23, 2023

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).

AL FAROON ALICENSE ON STATE OF STATE OF

Sincerely,

Jalal Farooq, P.E. CFO

Sealed: 1/23/2023



AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

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

FL 41890

Date: 07/21/2023

Detailed Product Description:

Manufacturer: MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC.

Manufacturer Address: 8051 NW 79th PLACE, MEDLEY, FL 33166

Model Name: SERIES MG-350 ALUMINUM HORIZONTAL ROLLING WINDOW

Maximum Load: +65 PSF, -65 PSF (Large Missile Impact)

Installation Drawings # 23-01F

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 DATE	TEST REPORT #	Test Sealed by
ASTM E283	Air Infiltration Leakage	Hurricane Engineering & Testing, Inc	11/10/2022 12/06/2022 11/10/2022	HETI-22-7228 HETI-22-7225 HETI-22-7213	Dr. Ram Tewari, PE.
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Hurricane Engineering & Testing, Inc	11/10/2022 12/06/2022 11/10/2022 11/09/2022	HETI-22-7228 HETI-22-7225 HETI-22-7213 HETI 22-7232	Dr. Ram Tewari, PE.
ASTM E330 & TAS 202	Uniform Static Air Press.	Hurricane Engineering & Testing, Inc	11/10/2022 12/06/2022 11/10/2022 11/09/2022 01/11/2023	HETI-22-7228 HETI-22-7225 HETI-22-7213 HETI 22-7232 HETI 23-8000	Dr. Ram Tewari, PE.
ASTM F 588	Forced Entry	Hurricane Engineering & Testing, Inc	11/10/2022 11/10/2022	HETI-22-7228 HETI-22-7213	Dr. Ram Tewari, PE.

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)					
TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
FBC 1626.2 (TAS 201 & 203) ASTME1886/1996	Large Missile Impact & Cyclic	Hurricane Engineering & Testing, Inc	11/10/2022 12/06/2022 11/10/2022 11/30/2022 11/09/2022 01/11/2023	HETI-22-7228 HETI-22-7225 HETI-22-7213 HETI-22-7215 HETI 22-7232 HETI 23-8000	Dr. Ram 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:

Jalal Farooq PE # 81223 Al-Farooq Corporation EB # 3538 No. 812237

No. 812237

No. 812237

STATE OF

FLORIDA

FL

Sealed: 7/21/2023

MG-350

ALUMINUM HORIZONTAL ROLLING WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 3 & 3.1.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF H.R./H.R. OR HORIZ. ROLLING 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.

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.

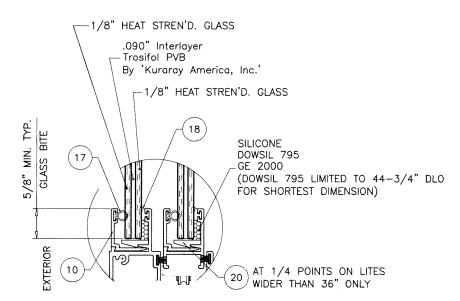
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

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.



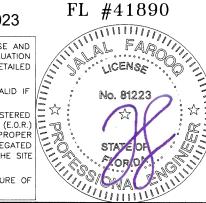
GLAZING DETAIL 5/16" OVERALL LAM. GLASS

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

Sealed: 7/21/2023

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

FL #41890



by description UPDATED TO 2023 P O 4 1/2"=1'-0" ъ. Б Ą. drawing

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

当

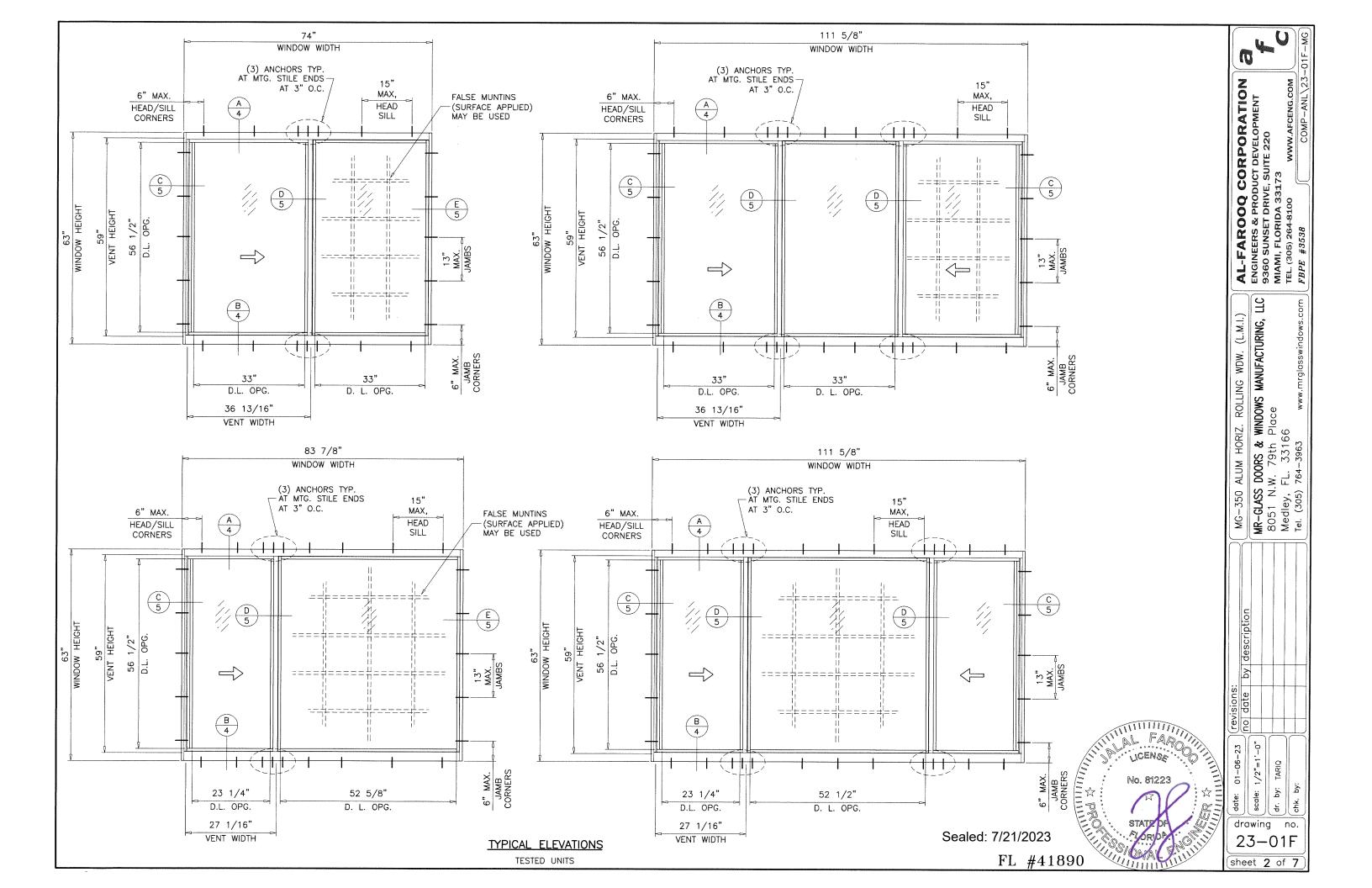
ROLLING WDW.

MG-350 ALUM HORIZ.

MR-GLASS DOORS & WINDOWS MANUFACTURING, 8051 N.W. 79th Place Medley, FL. 33166 Tel. (305) 764–3963 www.mrglasswindows.or

no. 23-01F

sheet 1 of 7



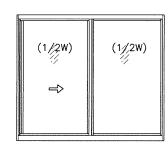
DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES)				
WINDO	W DIMS.	5/16" LAM. GLASS		
WIDTH	HEIGHT	EXT.(+)	INT.(-)	
26-1/2"		65.0	65.0	
37"		65.0	65.0	
53-1/8"	26"	65.0	65.0	
74"		65.0	65.0	
26-1/2"		65.0	65.0	
37"		65.0	65.0	
53-1/8"	38-3/8"	65.0	65.0	
74"		65.0	65.0	
26-1/2"		65.0	65.0	
37"		65.0	65.0	
53-1/8"	50-5/8"	65.0	65.0	
74"		65.0	65.0	
26-1/2"		65.0	65.0	
37"		65.0	65.0	
53-1/8"	56"	65.0	65.0	
74"		65.0	65.0	
26-1/2"		65.0	65.0	
37"	63"	65.0	65.0	
53-1/8"	0.5	65.0	65.0	
36"		65.0	65.0	
48"		65.0	65.0	
60"	24"	65.0	65.0	
72"		65.0	65.0	
76"		65.0	65.0	
36"		65.0	65.0	
48"		65.0	65.0	
60"		65.0	65.0	
72"		65.0	65.0	
76"	36"	65.0	65.0	
78"	36	65.0	65.0	
84"		65.0	65.0	
90"		65.0	65.0	
96"		65.0	65.0	
36"		65.0	65.0	
48"		65.0	65.0	
60"		65.0	65.0	
72"		65.0	65.0	
76"	48"	65.0	65.0	
76 78"	70	65.0	65.0	
84"		65.0	65.0	
90"		65.0	65.0	
96"		65.0	65.0	
36"		65.0	65.0	
48"		65.0	65.0	
60"	60"	65.0	65.0	
72"	30	65.0	65.0	
72 76"		65.0	65.0	
70	67"	05.0	05.0	

74"

63"

65.0

65.0



OPERATING VENTS TO BE 1/2 OF THE WINDOW WIDTH 'XO OR OX'

NOTE: GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

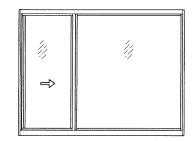
DESIGN LOAD CAPACITY - PSF (XO OR OX SIZES) 5/16" LAM. GLASS WINDOW DIMS. WIDTH HEIGHT EXT.(+)INT.(-)26-1/2" 65.0 65.0 37" 65.0 65.0 26" 53-1/8" 65.0 74" 65.0 65.0 26-1/2' 65.0 65.0 37" 65.0 65.0 38-3/8" 53-1/8' 65.0 65.0 74" 65.0 65.0 26-1/2' 65.0 65.0 37" 65.0 65.0 50-5/8" 53-1/8" 65.0 65.0 74" 65.0 65.0 26-1/2" 65.0 65.0 37" 65.0 65.0 56" 53-1/8' 65.0 65.0 74" 65.0 65.0 26-1/2" 65.0 65.0 37" 65.0 65.0 63" 53-1/8" 65.0 65.0 74" 65.0 65.0 48" 65.0 65.0 60" 65.0 65.0 72" 24" 65.0 65.0 78" 65.0 65.0 83-7/8" 65.0 65.0 48" 65.0 65.0 60" 65.0 65.0 72" 65.0 65.0 78" 65.0 65.0 83-7/8' 36" 65.0 65.0 65.0 90" 65.0 96" 65.0 65.0 65.0 102" 65.0 108 65.0 65.0 48" 65.0 65.0 60" 65.0 65.0 72" 65.0 65.0 78" 65.0 65.0 83-7/8" 48" 65.0 65.0 90" 65.0 65.0 65.0 65.0 96" 102" 65.0 65.0 65.0 108" 65.0 48" 65.0 65.0 65.0 65.0 60" 72" 60" 65.0 65.0 78" 65.0 65.0 83-7/8" 65.0 65.0

83-7/8"

63"

65.0

65.0



OPERATING VENTS TO BE 1/4 TO 1/3 OF THE WINDOW WIDTH 'XO OR OX'

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM
FBPE #3538 MG-350 ALUM HORIZ. ROLLING WDW. (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 www.mrglasswindows.com revisions: no date by description No. 81223

STATE OF S dr. by:

drawing

23-01F

sheet 3 of 7

no.

Sealed: 7/21/2023

FL #41890

DESIGN LOAD CAPACITY - PSF (XOX SIZES)				
WINDOV	V DIMS.	5/16" LAM. GLASS		
WIDTH	HEIGHT	EXT.(+)	INT.(-)	
74"	26"	65.0	65.0	
106-1/4"		65.0	65.0	
111"		65.0	65.0	
111" 74"		65.0	65.0	
106-1/4"	38-3/8"	65.0	65.0	
111" 74"		65.0	65.0	
74"		65.0	65.0	
106-1/4"	50-5/8"	65.0	65.0	
111"		65.0	65.0	
74"		65.0	65.0	
106-1/4"	56"	65.0	65.0	
111"		65.0	65.0	
74"		65.0	65.0	
106-1/4"	63"	65.0	65.0	
111"		65.0	65.0	
72"		65.0	65.0	
84"	24"	65.0	65.0	
96"	24	65.0	65.0	
108"		65.0	65.0	
72"		65.0	65.0	
84"	36"	65.0	65.0	
96"	30	65.0	65.0	
108"		65.0	65.0	
72"		65.0	65.0	
84"		65.0	65.0	
96"		65.0	65.0	
108"	48"	65.0	65.0	
114"	.5	65.0	65.0	
120"		65.0	65.0	
126"		65.0	65.0	
132"		65.0	65.0	
72"		65.0	65.0	
84"		65.0	65.0	
96"	60"	65.0	65.0	
108"		65.0	65.0	
1			25.0	

65.0

65.0

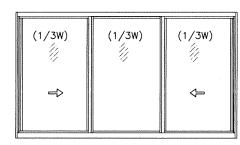
65.0

65.0

114"

111-5/8"

63"



OPERATING VENTS TO BE 1/3 OF THE WINDOW WIDTH 'XOX'

	(XOX SIZES)					
	WINDO	W DIMS.	5/16" LA	M. GLASS		
	WIDTH	HEIGHT	EXT.(+)	INT.(-)		
	74"		65.0	65.0		
	106-1/4"	26"	65.0	65.0		
	111"		65.0	65.0		
	74"		65.0	65.0		
	106-1/4"	38-3/8"	65.0	65.0		
	111"		65.0	65.0		
	74"		65.0	65.0		
	106-1/4"	50-5/8"	65.0	65.0		
	111" 74"		65.0	65.0		
	74"		65.0	65.0		
	106-1/4"	56"	65.0	65.0		
	111"		65.0	65.0		
	74"		65.0	65.0		
	106-1/4"	63"	65.0	65.0		
	111"		65.0	65.0		
	72"		65.0	65.0		
	84"	24"	65.0	65.0		
	96"		65.0	65.0		
	108"		65.0	65.0		
-	72"		65.0	65.0		
ļ	84"	36"	65.0	65.0		
	96"		65.0	65.0		
	108"		65.0	65.0		
	72"		65.0	65.0		
	84"		65.0	65.0		
	96"		65.0	65.0		
	108"	48"	65.0	65.0		
	114"		65.0	65.0		
	120"		65.0	65.0		
	126"		65.0	65.0		
	132"		65.0	65.0		
	72"		65.0	65.0		
	84"		65.0	65.0		
	96" 	60"	65.0	65.0		
-	108"		65.0	65.0		

65.0

65.0

65.0

65.0

Sealed: 7/21/2023

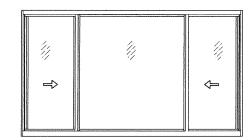
FL #41890

114"

111-5/8"

63"

DESIGN LOAD CAPACITY - PSF



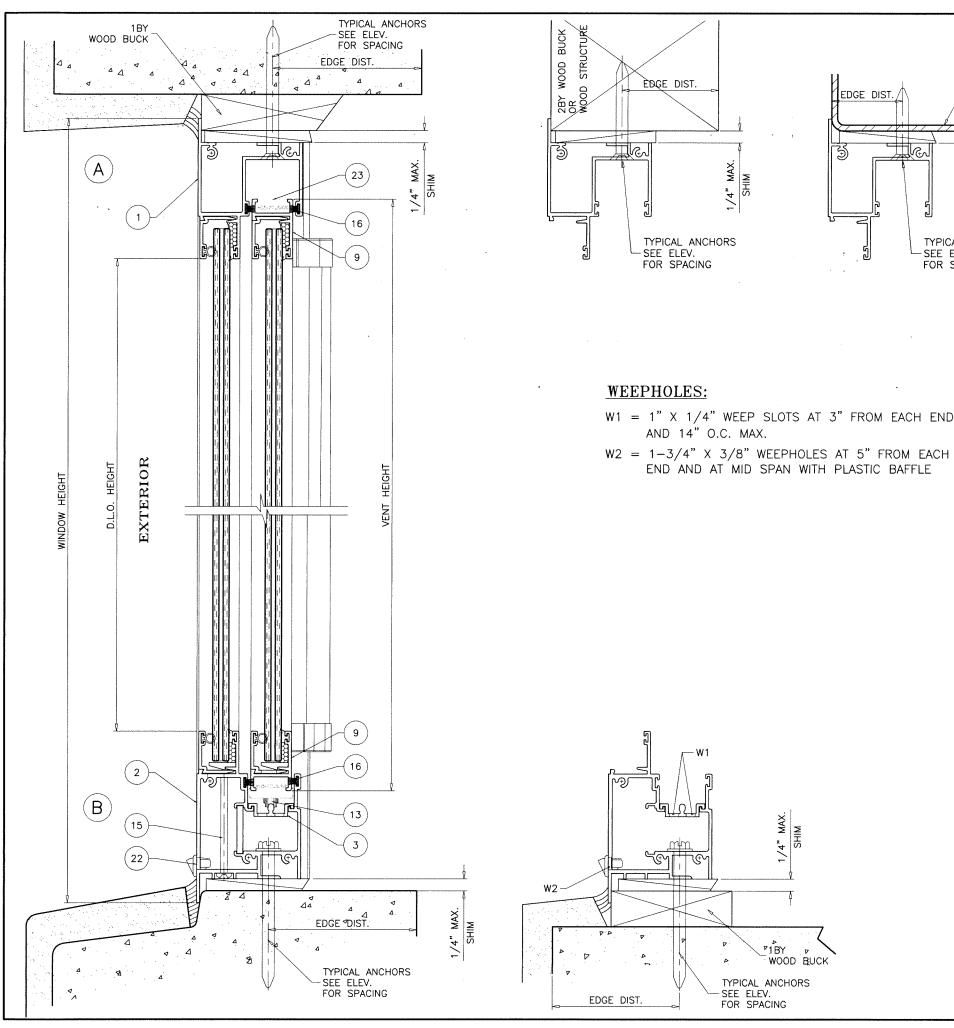
OPERATING VENTS TO BE 1/4 TO 1/3 OF THE WINDOW WIDTH 'XOX'

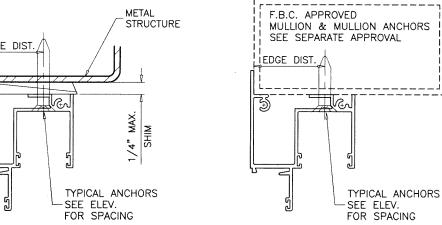
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
WWW.AFCENG.COM
FBPE #3538 MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC 8051 N.W. 79th Place Medley, FL. 33166
Tel. (305) 764-3963 www.mrglasswindows.com MG-350 ALUM HORIZ. ROLLING WDW. (L.M.I.) revisions:
no date by description by: ch dr. drawing no.

23-01F

sheet **3.1**of **7**

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219





WOOD BUCKS AND METAL STRUCTURE NOT BY 'MR-GLASS' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) INTO 2BY WOOD BUCKS OR WOOD STRUCTURES 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS) 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS) 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

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

INTO F.B.C. APPROVED MULLIONS OR

INTO METAL STRUCTURES (HEAD/SILL/JAMBS) (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.) STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.) (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

CRITICAL EDGE DISTANCE

INTO CONCRETE AND BLOCKS = 2-1/2" MIN. INTO WOOD STRUCTURE = 1" MIN. INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN. CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN. C-90 HOLLOW/FILLED BLOCK AT JAMBS I'm = 2000 PSI MIN.

<u>م</u> 1/2" ا هٔ ا | ÷ || 축

Sealed: 7/21/2023

FL #41890

C

ROLLING WDW. (L.M.I.) MR-GLASS DOORS & WINDOWS MANUFACTURING, 8051 N.W. 79th Place Medley, FL. 33166 Tel. (305) 764-3963 www.mrglasswindows. MG-350 ALUM HORIZ.

revisions: no date

drawing no. 23-01F

sheet 4 of 7

