Product Approval
USER: Public User

FL #	FL39859-R1
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	Panel Walls
Subcategory	Wall Louver
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	Jalal Farooq
Florida License	PE-81223
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	04/30/2035
Validated By	Abel Carrasco, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL39859_R1_COI_SS - Certificate of Independence 2023.pdf

Referenced Standard and Year (of Standard)

Standard	Year
TAS 201/203	1994
TAS 202	1994

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	07/21/2023
Date Validated	07/22/2023
Date Pending FBC Approval	07/28/2023
Date Approved	10/18/2023

Summary of Products

FL #	Model, Number or Name	Description
39859.1	Series MG450 Aluminum Louver System	Large Missile Impact Resistant Aluminum Louver System.
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +80/-80 **Other:** See attached drawing 21-64F for installation instructions. Missile Impact Level D.		**Installation Instructions** FL39859_R1_II_SS - MG-450 Louvers (LMI)- DWG 21-64F 2023.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL39859_R1_AE_SS - MG450 LOUVERS (LMI) - PAE 2023.pdf Created by Independent Third Party: Yes

Back Next

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Product Approval Accepts:

Credit Card Safe securityMETRICS

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

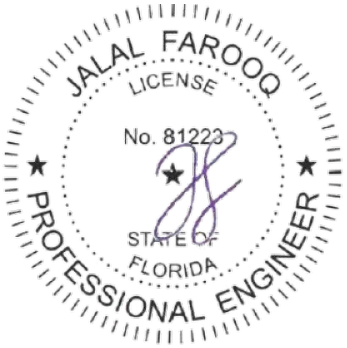
January 23, 2023

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).

Sincerely,



Jalal Farooq, P.E.
CFO

Sealed: 1/23/2023

9360 Sunset Drive, Suite 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfarooq@afceng.com

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

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

FL 39859

Detailed Product Description: **Date: 07/20/2023**

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

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

Model Name: SERIES MG450 ALUMINUM LOUVER SYSTEM

Maximum Load: +80 PSF, -80 PSF (Large Missile Impact)

Installation Drawings # 21-64F

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 TAS 202)

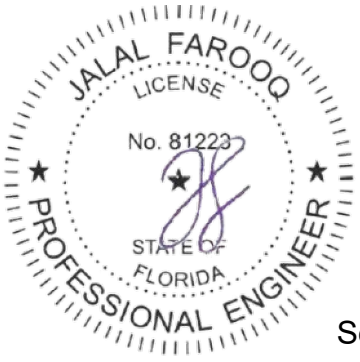
Test	Description	Test Location	Test Report Date	Test Report #	Test Sealed By
ASTM E330 & TAS 202	Uniform Static Air Pressure	Hurricane Engineering & Testing Inc.	8/4/2021	HETI-21-7054	Rafael E. Droz-Seda,PE

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.	8/4/2021	HETI-21-7054	Rafael E. Droz-Seda,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.

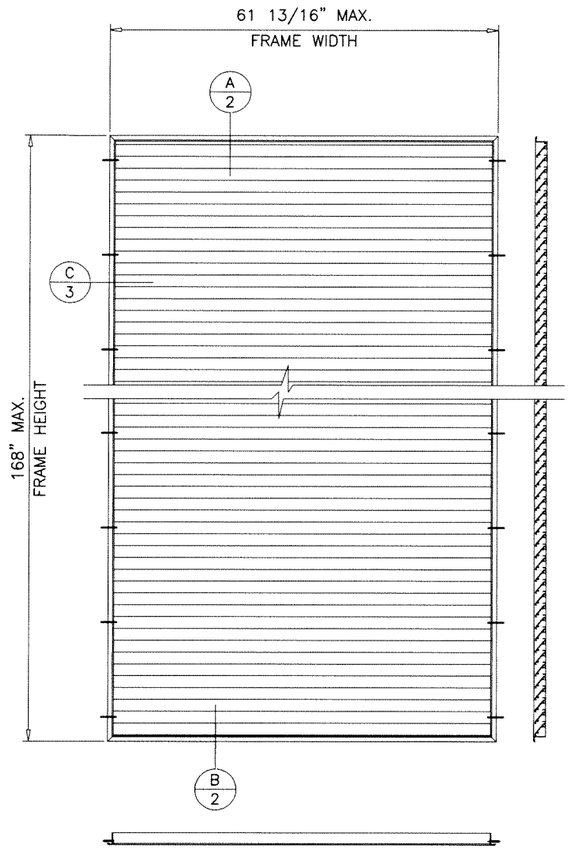
Evaluation Report Engineer:



Jalal Farooq PE # 81223

Al-Farooq Corporation EB # 3538

Sealed: 7/21/2023



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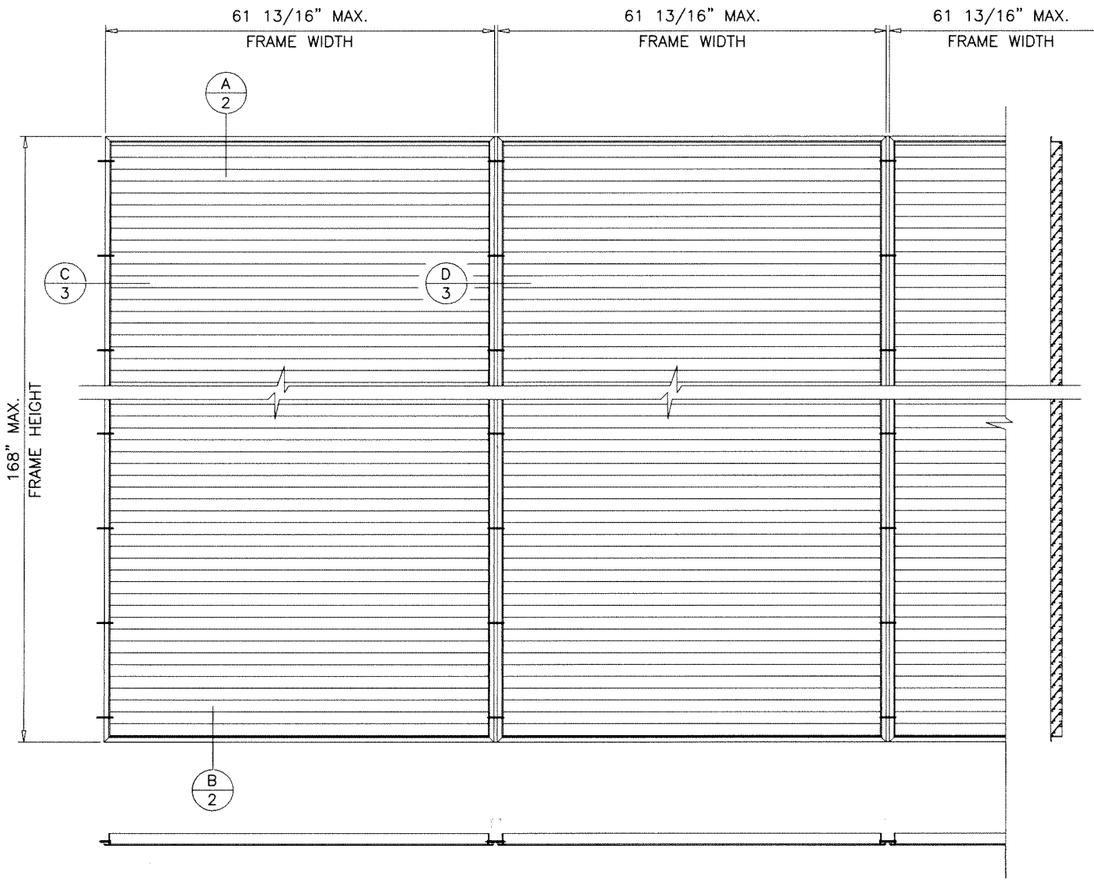

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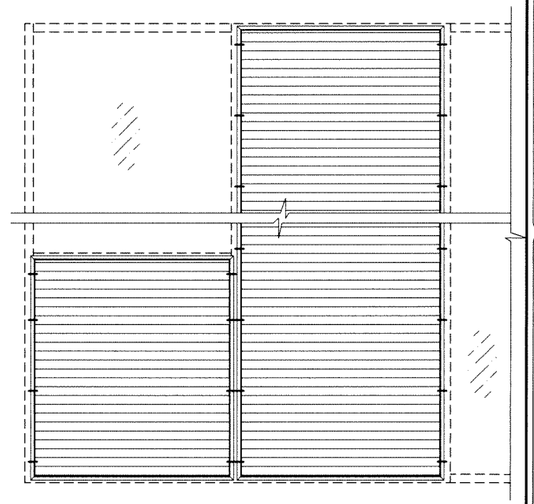

LOUVERS CAN ALSO BE INSTALLED IN FBC APPROVED WINDOW WALL, DOOR AND WINDOW FRAMES.
FOR APPROVED PRODUCTS CAPACITY AND LIMITATIONS SEE SEPARATE APPROVALS.
FOR LOUVER CAPACITY SEE BELOW.
LOWER VALUES FROM APPROVED PRODUCTS AND LOUVER CAPACITY SHALL APPLY.

TYPICAL ELEVATIONS

MAX. DESIGN LOAD RATING	
FRAME WIDTH	LOAD CAPACITY
59- 1/2" MAX.	80.0 PSF
61-13/16" MAX.	73.8 PSF

INTERPOLATION BETWEEN WIDTHS ALLOWED

SERIES MG-450 ALUMINUM LOUVER 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.

LOUVER SYSTEM IS TO BE INSTALLED IN LOCATIONS WHERE THE ROOM BEHIND LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM.
THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS OR SUPPLIES.

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

Sealed: 7/21/2023

FL #39859

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

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

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

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

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

LOUVER\21-64F-MG

SERIES MG-450 ALUMINUM STATIONARY LOUVERS

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
A	07.18.23	UPDATED TO 2023 FBC

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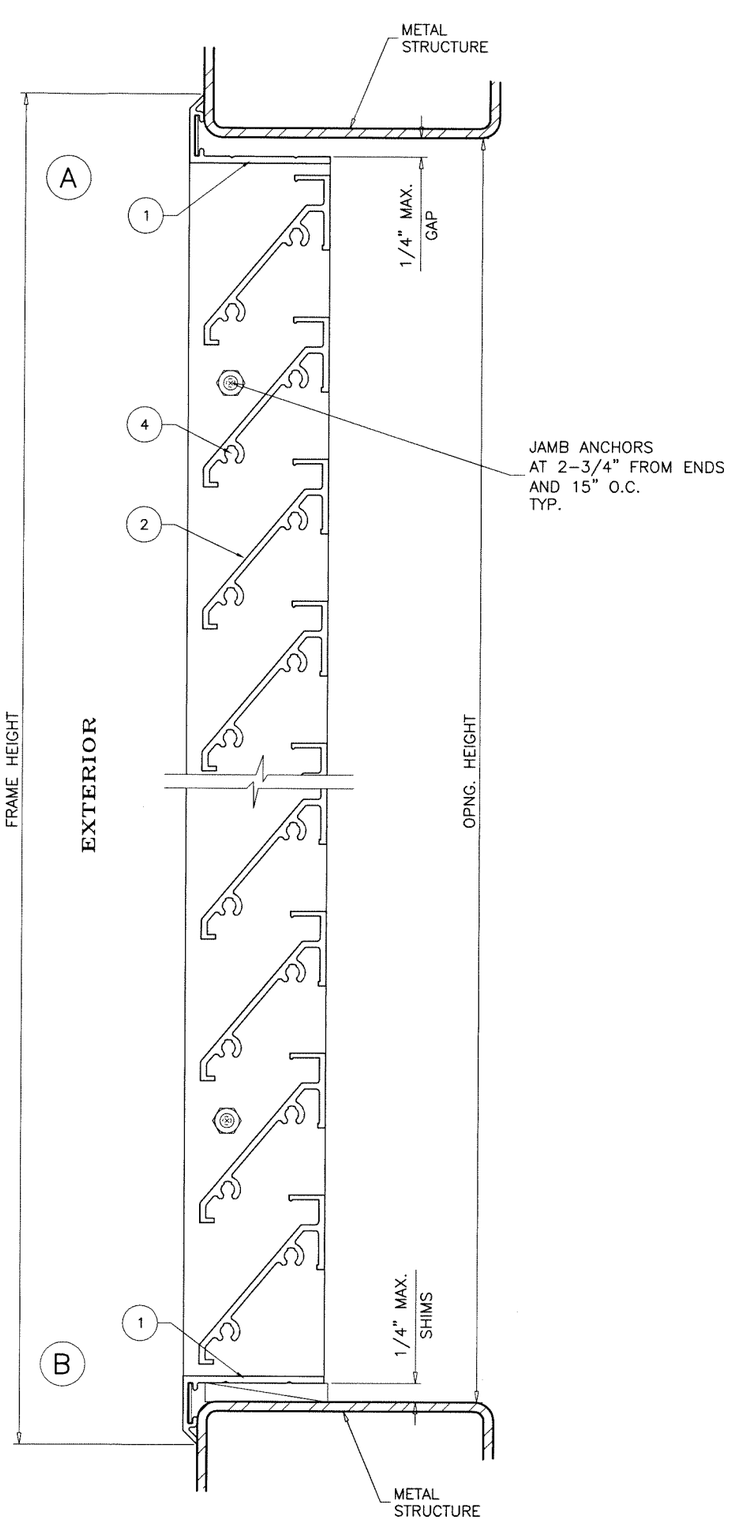
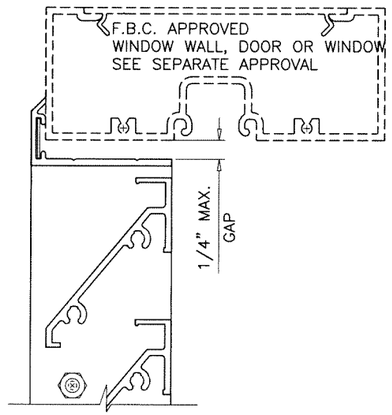
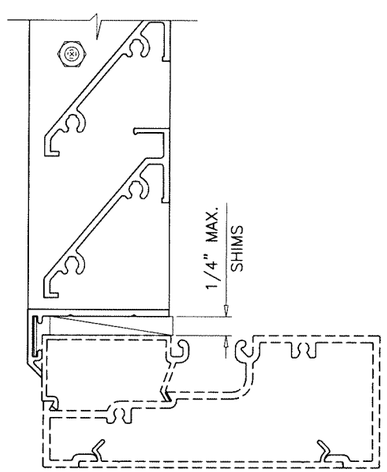
chk. by:

drawing no. 21-64F







METAL STRUCTURES NOT BY 'MR-GLASS'
MUST SUPPORT LOADS IMPOSED BY LOUVER SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

JAMB ANCHORS:

1/4" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
AND
INTO METAL STRUCTURES
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
.078" THK. MIN. (6063-T6)
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

CRITICAL EDGE DISTANCE
INTO METAL STRUCTURE = 1/2" MIN.

Sealed: 7/21/2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #39859

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

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8051 N.W. 79th Place
Medley, FL. 33166
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revisions:

no	date	by	description

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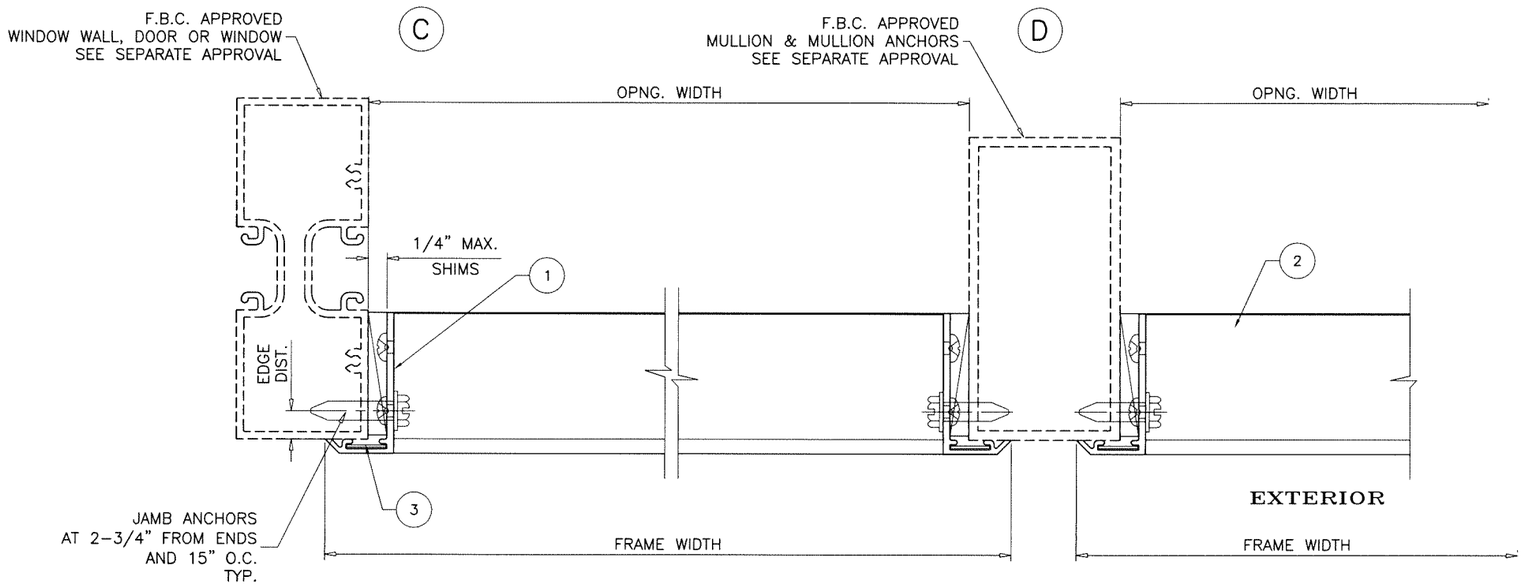
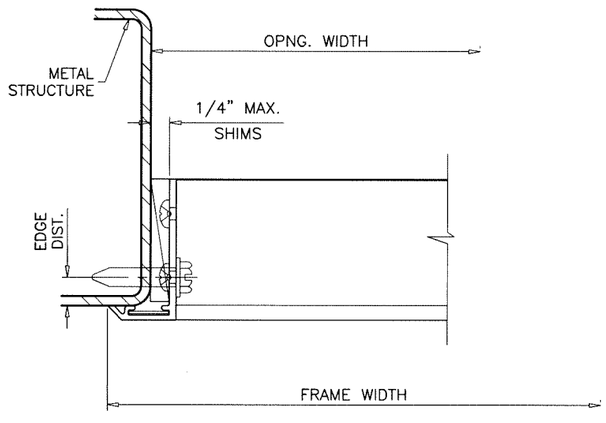
chk. by:

drawing no. 21-64F





Sealed: 7/21/2023

FL #39859

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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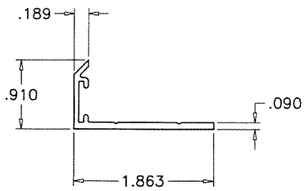
chk. by:

drawing no. 21-64F

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E454	AS REQD.	LOUVER FRAME	6063–T6	–
2	E453	AS REQD.	LOUVER BLADE	6063–T6	–
3	A60–04	1/ CORNER	CORNER KEY	ST. STEEL	–
4	#10 X 1"	AS REQD.	ASSEMBLY FASTENERS	–	PH PAN HEAD SMS
5	–	–	–	–	–



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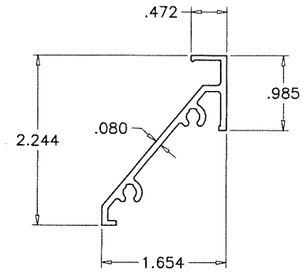

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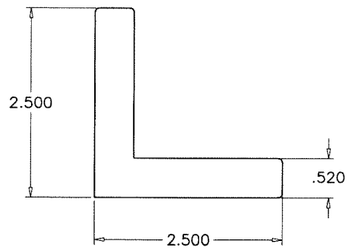

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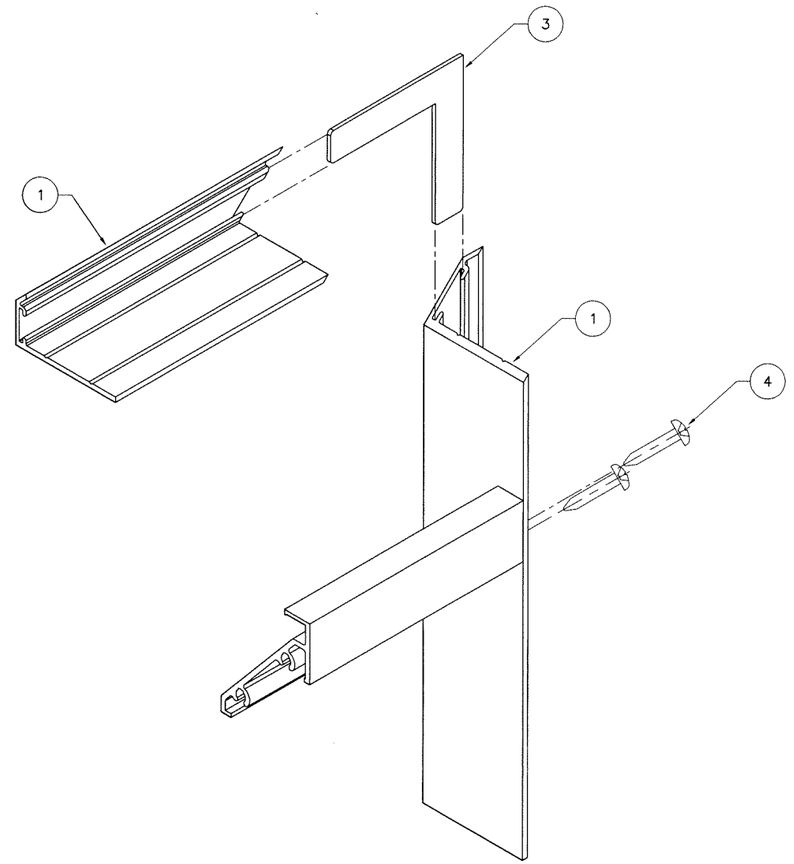

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sheet 4 of 4