



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

## NOTICE OF ACCEPTANCE (NOA)

**A & M Hurricane Protection, LLC**  
**1050 East 15<sup>th</sup> Street**  
**Hialeah, Florida 33010**

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

### DESCRIPTION: “HPMA / Performance System 2” Aluminum Accordion Shutter

**APPROVAL DOCUMENT:** Drawing No. AD10-33, titled “System 2 Aluminum Accordion Shutter”, sheets 1 through 11 of 11, prepared by MCY Engineering, Inc., dated November 24, 2020, signed and sealed by Yiping Wang, P.E., on November 30, 2020 bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews** NOA # **18-0410.02** and consists of this page 1, evidence submitted pages E-1, E-2, E-3 & E-4 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



*Helmy A. Makar*  
*01/21/2021*

NOA No. 20-1215.02  
Expiration Date: 03/24/2026  
Approval Date: 01/21/2021  
Page 1

**A & M Hurricane Protection, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 10-0930.09**

**A. DRAWINGS**

1. *Drawing No. AD10-33, titled " System 2 Aluminum Accordion Shutter ", sheets 1 through 10 of 10, prepared by MCY Engineering, Inc., dated May 13, 2010, last revision #1 dated September 05, 2010, signed and sealed by Yiping Wang, P.E.*

**B. TESTS**

1. *See Association's generic approval under 10-0710.*

**C. CALCULATIONS**

1. *See Association's generic approval under 10-0710.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building and Neighborhood Compliance Department.*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 10-0710.*

**F. STATEMENTS**

1. *Release letter issued by the Hurricane Protection Manufacturers Association, dated 09/30/2010, certifying this product to meet the criteria of product tested and approved, and allowing A & M Hurricane Protection, LLC to use the test results approved under Miami Dade County Approval #10-0710 signed by Henry Revilla.*
2. *Acknowledgment letter by A & M Hurricane Protection, LLC dated February 10, 2011, signed by Mr. Jose Perez.*
3. *Letter by MCY Engineering, Inc., dated February 02, 2011, signed and sealed by Yipping Wang, P.E., certifying that the drawing (No. AD10-33) prepared for A & M Hurricane Protection, LLC is engineering wise identical to HPMA's generic drawing (No. AD10-12).*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-0419.04**

**A. DRAWINGS**

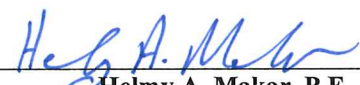
1. *Drawing No. AD10-33, titled " System 2 Aluminum Accordion Shutter ", sheets 1 through 10 of 10, prepared by MCY Engineering, Inc., dated May 13, 2010, last revision #2 dated March 27, 2012, signed and sealed by Yiping Wang, P.E.*

**B. TESTS**

1. *See Association's generic approval under 12-0736.*

**C. CALCULATIONS**

1. *See Association's generic approval under 12-0736.*

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.02  
Expiration Date: 03/24/2026  
Approval Date: 01/21/2021



**A & M Hurricane Protection, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 12-0736.*

**F. STATEMENTS**

1. *Release letter issued by the Hurricane Protection Manufacturers Association, dated March 28, 2012, certifying this product to meet the criteria of product tested and approved, and allowing A & M Hurricane Protection, LLC to use the test results approved under Miami Dade County Approval No. 12-0736, signed by Mr. Henry Revilla.*
2. *Acknowledgment letter by A & M Hurricane Protection, LLC dated March 28, 2012, signed by Mr. Jose Perez.*
3. *Letter by MCY Engineering, Inc., dated March 28, 2012, signed and sealed by Yipping Wang, P.E., certifying that the drawing (No. AD10-33) prepared for A & M Hurricane Protection, LLC is engineering wise identical to HPMA's generic drawing (No. AD10-12).*

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 15-0615.09**

**A. DRAWINGS**

1. *Drawing No. AD10-33, titled " System 2 Aluminum Accordion Shutter ", sheets 1 through 10 of 10, prepared by MCY Engineering, Inc., dated May 13, 2010, last revision #3 dated March 20, 2015, signed and sealed by Yiping Wang, P.E.*

**B. TESTS**

1. *See Association's generic approval under 15-0430.*

**C. CALCULATIONS**

1. *See Association's generic approval under 15-0430.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

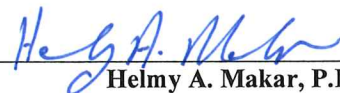
**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 15-0430.*

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 16-0209.16**

**A. DRAWINGS**

1. *None.*




Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.02  
Expiration Date: 03/24/2026  
Approval Date: 01/21/2021

**A & M Hurricane Protection, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

- B. TESTS**  
1. See Association's generic approval under 15-0430.
- C. CALCULATIONS**  
1. See Association's generic approval under 15-0430.
- D. QUALITY ASSURANCE**  
1. By Miami-Dade County Department of Regulatory and Economic Resources.
- E. MATERIAL CERTIFICATIONS**  
1. See Association's generic approval under 15-0430.
- 5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 18-0410.02**
- A. DRAWINGS**  
1. Drawing No. AD10-33, titled "System 2 Aluminum Accordion Shutter", sheets 1 through 10 of 10, prepared by MCY Engineering, Inc., dated May 13, 2010, last revision #4 dated April 24, 2018, signed and sealed by Yiping Wang, P.E.
- B. TESTS**  
1. See Association's generic approval under 18-0255.
- C. CALCULATIONS**  
1. See Association's generic approval under 18-0255.
- D. QUALITY ASSURANCE**  
1. By Miami-Dade County Department of Regulatory and Economic Resources.
- E. MATERIAL CERTIFICATIONS**  
1. See Association's generic approval under 18-0255.
- F. STATEMENTS**  
1. Letter by MCY Engineering, Inc., dated April 24, 2018, signed and sealed by Yipping Wang, P.E., certifying that the drawing (No. AD10-33) prepared for A & M Hurricane Protection, LLC conforms to the Florida Building Code 2017 Edition.
- 6. NEW EVIDENCE SUBMITTED**
- A. DRAWINGS**  
1. Drawing No. AD10-33, titled "System 2 Aluminum Accordion Shutter", sheets 1 through 11 of 11, prepared by MCY Engineering, Inc., dated November 24, 2020, signed and sealed by Yiping Wang, P.E., on November 30, 2020.

  
\_\_\_\_\_  
Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.02  
Expiration Date: 03/24/2026  
Approval Date: 01/21/2021



A & M Hurricane Protection, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- B. TESTS**

  - 1. *See Association's generic approval under 20-1783.*
- C. CALCULATIONS**

  - 1. *See Association's generic approval under 20-1783.*
- D. QUALITY ASSURANCE**

  - 1. *By Miami-Dade County Department of Regulatory and Economic Resources.*
- E. MATERIAL CERTIFICATIONS**

  - 1. *See Association's generic approval under 20-1783.*
- F. STATEMENTS**

  - 1. *Letter by MCY Engineering, Inc., dated November 10, 2020, signed and sealed by Yipping Wang, P.E., certifying that the drawing (No. AD10-33) prepared for A & M Hurricane Protection, LLC conforms to the Florida Building Code 2020 Edition.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.02  
Expiration Date: 03/24/2026  
Approval Date: 01/21/2021

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND NON-HIGH VELOCITY HURRICANE ZONE (NON-HVHZ) OF THE 7TH EDITION FLORIDA BUILDING CODE (2020).
2. SYSTEM RATED FOR LARGE AND SMALL MISSILE IMPACT.
3. STAINLESS STEEL SHEET METAL SCREWS USED AT LOUVER PIN SHALL BE # 14 x 3", 410-HT MINIMUM SERIES W/ 135.0 ksi YIELD STRENGTH & 180 ksi TENSILE STRENGTH. SCREWS SHALL BE COATED WITH XYLAN 5000 SERIES FLUOROPOLYMER COATINGS AS MANUFACTURED BY WHITFORD Co, BOX 507, WEST CHESTER PA 19381.
4. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY WITH MINIMUM YIELD STRENGTH OF Fy = 31.0 ksi.
5. ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
6. ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
7. WOOD BUCKS BY OTHERS MUST BE SOUTHERN PINE, G = 0.55 AND MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.
8. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.
9. BOLTS TO BE GALVANIZED OR STAINLESS STEEL WITH 36 ksi MINIMUM YIELD STRENGTH.
10. SHUTTER'S COMPONENTS ARE PATENT PENDING.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.
12. A PERMANENT SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED ON THE EXPOSED SURFACE OF THE CENTER MATE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.  
LABEL SHALL READ AS FOLLOWS:  
"PERFORMANCE SYSTEM 2 ACCORDION SHUTTER"  
A & M HURRICANE PROTECTION, LLC.  
HIALEAH, FLORIDA  
MIAMI - DADE COUNTY PRODUCT CONTROL APPROVED  
TEST REPORT TAS-201, 202 & 203.
13. (a) THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) PREPARED BY THIS ENGINEER IS GENERIC.
- (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS PRODUCT APPROVAL PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
- (c) THIS PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
- (d) 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 DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- (e) THIS P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
14. ULTIMATE LOAD OBTAINED FROM ASCE 7-16, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT.  
THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

TYPICAL ANCHORS: (SEE CHARTS FOR ANCHOR SPACING)

- TYPE A. 1/4" DIA. ITW TAPCON BY ITW BUILDEX  
Fu = 120 KSI, Fy = 92 KSI  
INTO CONCRETE fc'=3000 PSI  
1-3/4" MIN. EMBED  
2-1/2" MIN. EDGE DISTANCE
- TYPE A1. INTO CONCRETE BLOCK  
1-1/4" MIN. EMBED  
2-1/2" MIN. EDGE DISTANCE
- TYPE B. 1/4"-20 CALK-IN BY 'POWERS' FASTENERS  
INTO CONCRETE fc'=3000 PSI  
7/8" MIN. EMBED  
3" MIN. EDGE DISTANCE
- TYPE B1. INTO CONCRETE BLOCK  
7/8" MIN. EMBED  
3" MIN. EDGE DISTANCE
- TYPE C. 1/4" CRETE-FLEX SS4 MASONRY ANCHOR BY "ELCO" CONSTRUCTION PRODUCTS  
Fu = 120 KSI, Fy = 92 KSI  
INTO CONCRETE fc'=3000 PSI  
1 3/4" MIN. EMBED  
2 1/2" MIN. EDGE DISTANCE
- TYPE C1. INTO CONCRETE BLOCK  
1 1/4" MIN. EMBED  
2 1/2" MIN. EDGE DISTANCE

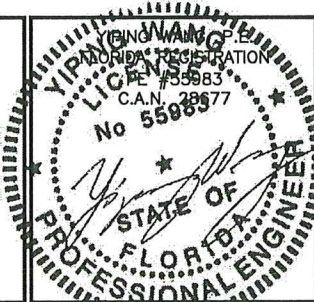
NOTES:

WHEN EDGE DISTANCE EQUAL OR GREATER THAN 2" AND LESS THAN MIN. EDGE DISTANCE SPECIFIED ABOVE THE ANCHOR SPACE IN ANCHOR CHARTS ON THE DRAWINGS MUST MULTIPLY BY FOLLOWING REDUCTION FACTOR:  
ANCHOR TYPE A, & A1: REDUCTION FACTOR = 0.77  
ANCHOR TYPE B & B1: REDUCTION FACTOR = 0.50  
ANCHOR TYPE C & C1: REDUCTION FACTOR = 0.77

PLEASE NOTE THIS INSTALLATION ARE ONLY VALID FOR THE RESULTING ANCHOR SPACE EQUAL OR GREATER THAN 3".

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 20-1215.02  
Expiration Date 03/24/2026  
By Kelly A. Mohr  
Miami Dade Product Control

MIAMI DADE COUNTY



REVISIONS	
NO	DATE DESCRIPTION
1	09/05/19 AS PER BCCO COMMENTS
2	03/25/20 UPDATE TO 2010 FBC
3	03/25/20 UPDATE TO 2014 FBC
4	09/28/20 UPDATE TO 2020 FBC

MCY

MCY ENGINEERING, INC.  
GLAZING CONSULTANTS  
12781 Miramar Parkway #301 P: (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com

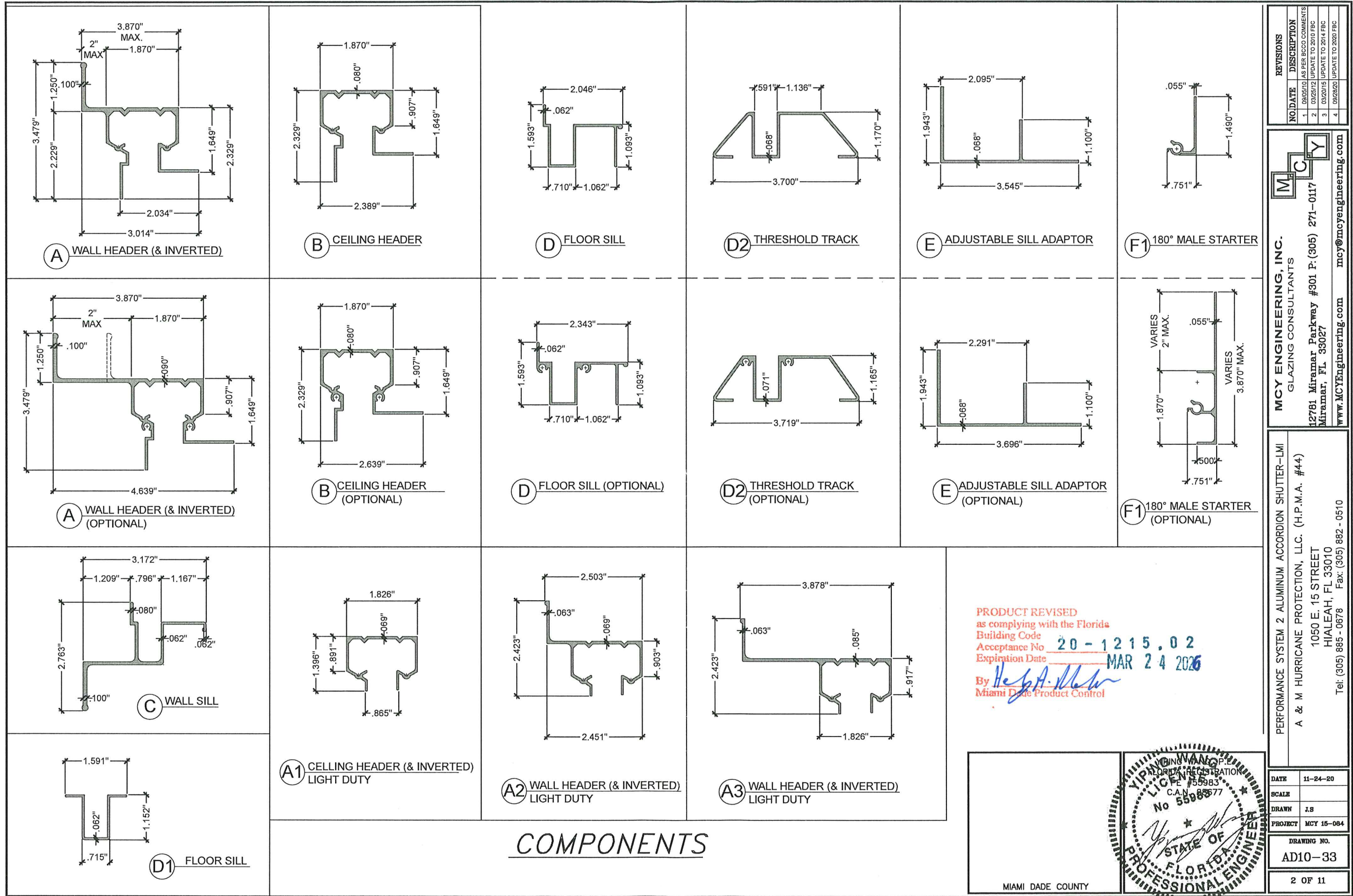
PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI  
A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)  
1050 E. 15 STREET  
HIALEAH, FL 33010  
Tel: (305) 885 - 0678 Fax: (305) 882 - 0510

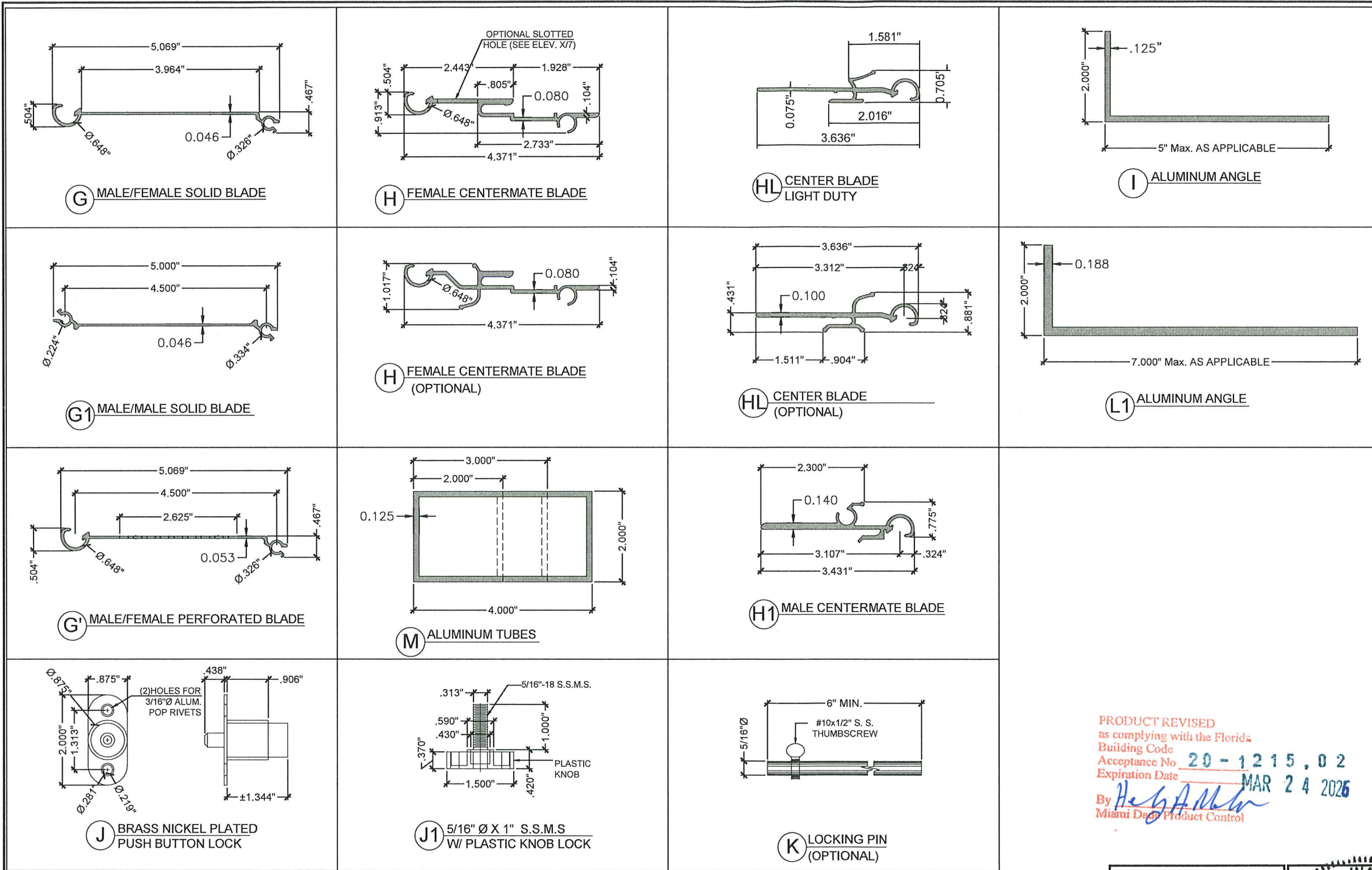
DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-084

DRAWING NO.  
AD10-33

1 OF 11







# COMPONENTS

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215.02  
Expiration Date MAR 24 2026  
By *H. G. A. Mohr*  
Miami Dade Product Control

MIAMI DADE COUNTY

YIPING WANG

PROFESSIONAL ENGINEER

FLORIDA

NO. 55985

DATE

11-24-20

SCALE

DRAWN

J.S

PROJECT

MCY 15-084

DRAWING NO.

AD10-33

3 OF 11

REVISIONS	
NO.	DATE DESCRIPTION
1	09/05/10 AS PER BCC COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2014 FBC
4	09/28/20 UPDATE TO 2020 FBC

MCY

MCY ENGINEERING, INC.

GLAZING CONSULTANTS

12701 Miramar Parkway #301 P: (305) 271-0117

Miramar, FL 33027

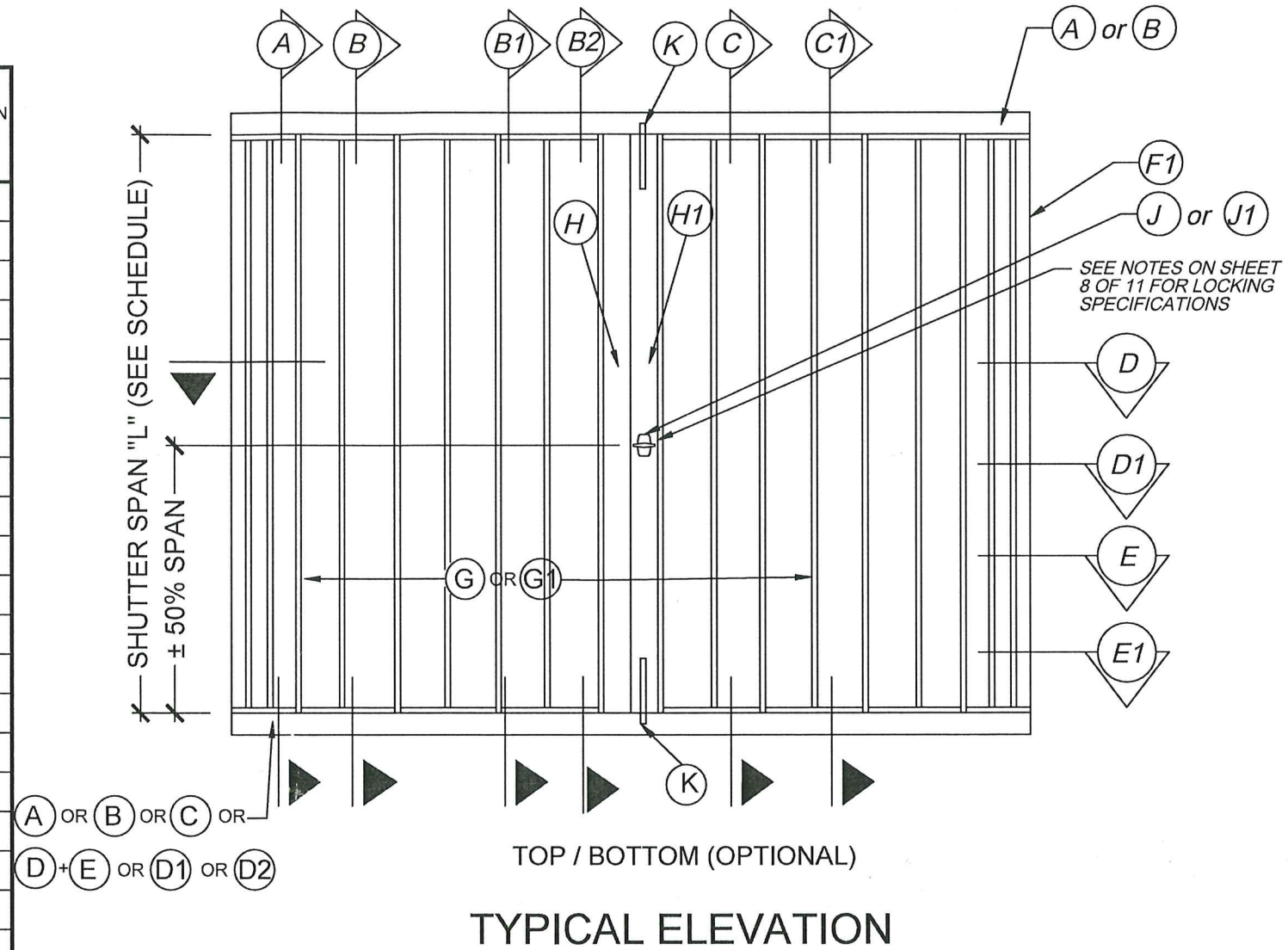
www.MCYEngineering.com mcy@mcyengineering.com

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI	
A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)	
1050 E. 15 STREET	
HIALEAH, FL 33010	
Tel: (305) 885-0678 Fax: (305) 882-0510	



MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF)  
AND CORRESPONDING MAXIMUM SPAN "L" SCHEDULE.

MAXIMUM DESIGN LOAD "Pd" (PSF)	MAXIMUM SHUTTER SPAN "L" FOR ALL SECTIONS		HVHZ MINIMUM SEPARATION TO GLASS (in.) ALL SECTIONS	NON-HVHZ NO MIN. SEPARATION IS REQUIRED
	VS POSITIVE LOAD	VS NEGATIVE LOAD		
40	13'-2"	14'-1"	3.0	-
45	12'-9"	14'-1"	3.0	-
50	12'-5"	14'-1"	3.0	-
55	12'-2"	13'-5"	3.0	-
60	11'-11"	12'-10"	3.0	-
65	11'-8"	12'-4"	3.0	-
70	11'-5"	11'-11"	3.0	-
75	11'-3"	11'-6"	3.0	-
80	11'-1"	11'-2"	3.0	-
85	10'-10"	10'-10"	3.0	-
90	10'-6"	10'-6"	3.0	-
95	10'-3"	10'-3"	2.875	-
100	10'	10'	2.875	-
105	9'-9"	9'-9"	2.625	-
110	9'-6"	9'-6"	2.5	-
115	9'-4"	9'-4"	2.5	-
120	9'-1"	9'-1"	2.5	-
125	8'-10"	8'-10"	2.5	-
130	8'-6"	8'-6"	2.375	-
135	-	8'-2"	2.375	-
140	-	7'-11"	2.375	-
145	-	7'-7"	2.375	-
150	-	7'-4"	2.375	-
155	-	7'-2"	2.375	-
160	-	6'-11"	2.375	-
165	-	6'-8"	2.375	-
170	-	6'-6"	2.375	-
175	-	6'-4"	2.375	-
180	-	6'-2"	2.375	-
185	-	6'	2.375	-
190	-	5'-10"	2.375	-
195	-	5'-8"	2.375	-



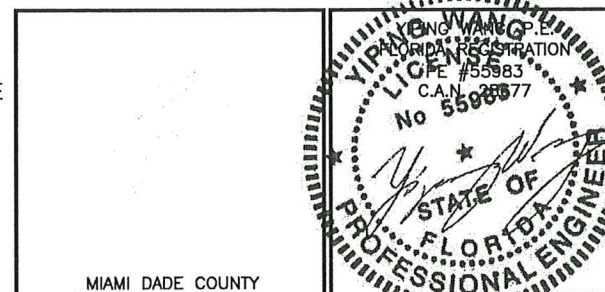
**INSTRUCTION:**

**STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON VELOCITY, BUILDING HEIGHT, WIND ZONE USING APPLICABLY ASCE 7 STANDARD.

**STEP 2** CHECK SHUTTER CAPACITY FOR A GIVEN SHUTTER SPAN USING CHARTS ON SHEET 4. MAX. DESIGN LOAD FROM CHART HAS TO BE GREATER THAN DESIGN WIND LOAD FROM STEP 1.

**STEP 3** USING CHARTS ON SHEET 5 THRU SHEET 11 SELECT ANCHOR TYPE AND SPACING BASED ON DESIGN LOAD AND SHUTTER SPAN FOR THE ANCHOR DETAIL USED.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215.02  
Expiration Date MAR 24 2026  
By *Heidi A. Miller*  
Miami Data Product Control



MIAMI DADE COUNTY

REVISIONS		<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 Miramar Parkway #301 P: (305) 271-0117 Miramar, FL 33027 www.MCYEngineering.com mcy@mcyengineering.com
NO.	DATE	
1	09/05/10	AS PER BCCO COMMENTS
2	03/25/12	UPDATE TO 2010 FBC
3	03/20/15	UPDATE TO 2014 FBC
4	09/28/20	UPDATE TO 2020 FBC

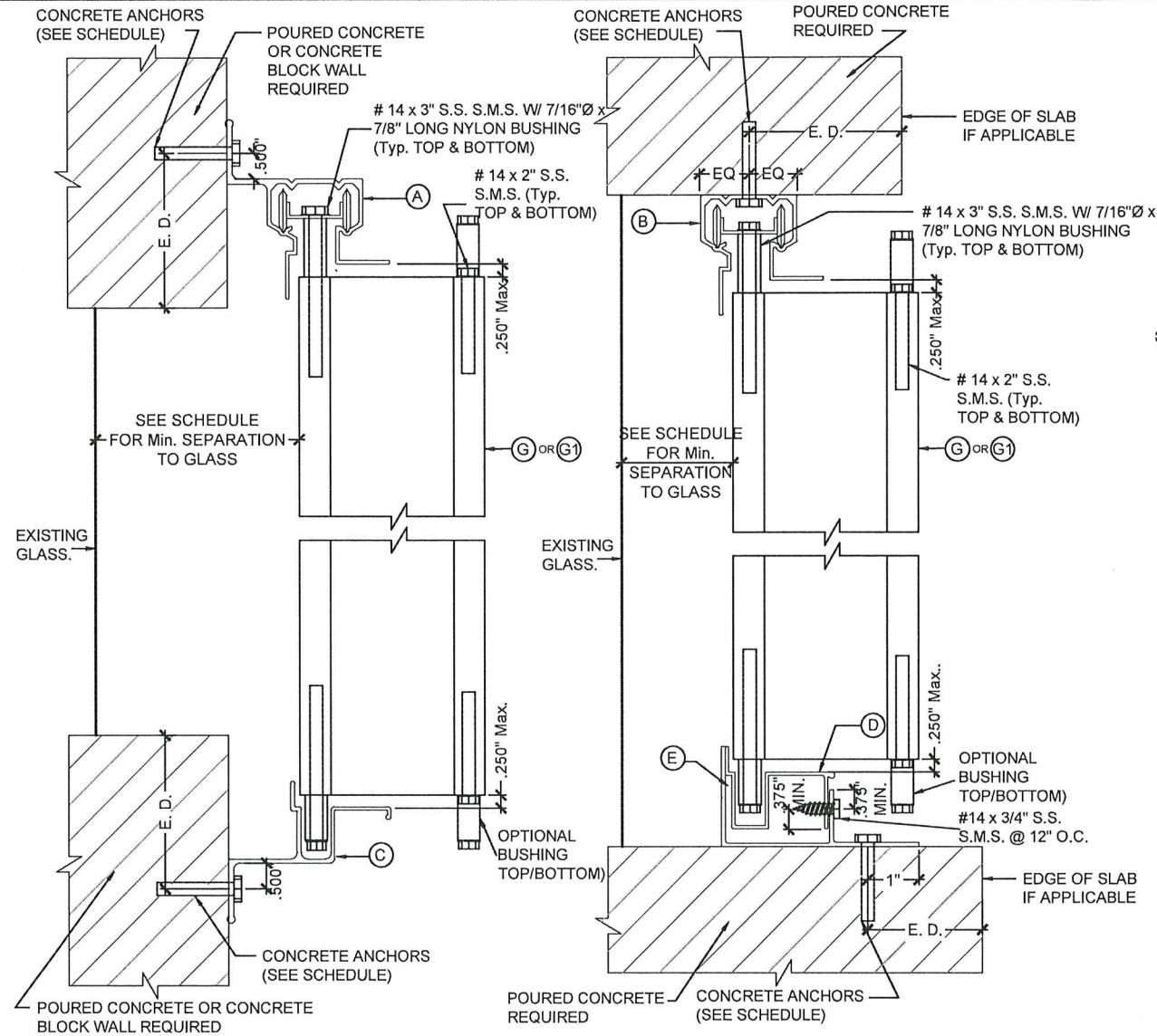
PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI	A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)
1050 E. 15 STREET	HIALEAH, FL 33010
Tel: (305) 885-0678	Fax: (305) 882-0510

DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-004
DRAWING NO.	AD10-33
	4 OF 11

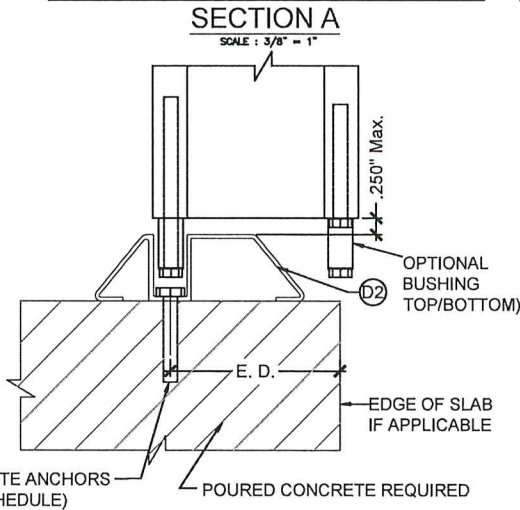
November 30th, 2020





WALL MOUNTING INSTALLATION

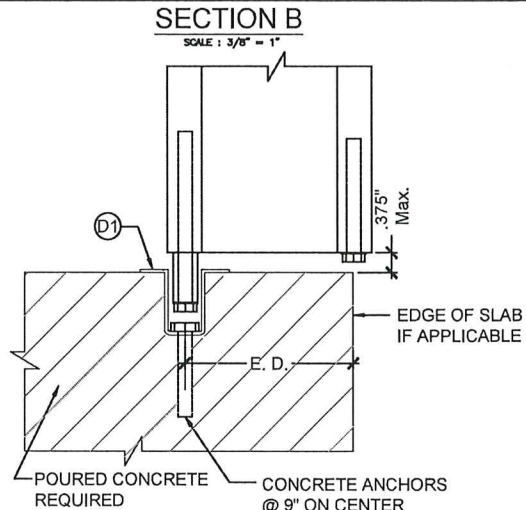
CEILING & FLOOR MOUNTING INSTALLATION



FLOOR MOUNTING INSTALLATION

SECTION B1

SCALE: 3/8" = 1"



FLOOR MOUNTING INSTALLATION

SECTION B2

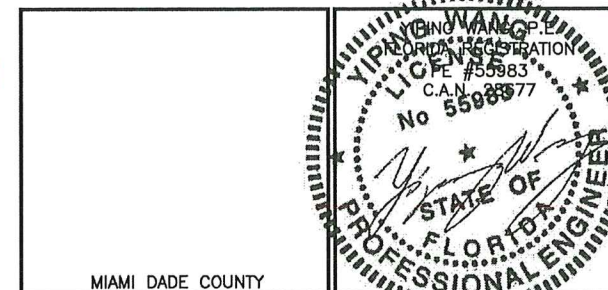
SCALE: 3/8" = 1"

MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION A (TOP/BOTTOM)			SECTION B (TOP/BOTTOM) B1 (BOTTOM)		
		SUBSTRATE CONCRETE			SUBSTRATE BLOCK		
		ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE B1	ANCHOR TYPE C1	ANCHOR TYPE C
60	60"	9	9	9	4	4.6	6
	78	9	9	9	3	3.5	6
	96	8	7.5	8	-	-	6
	120"	6	6	6.5	-	-	6
	144"	5	5	5.5	-	-	6
65	154"	5	4.5	5	-	-	6
	60"	9	9	9	3.5	4.2	6
	78	9	8.5	9	-	3.2	6
	96	7	7	7.5	-	-	6
	120"	5.5	5.5	6	-	-	6
70	148"	4.5	4.5	4.5	-	-	6
	60"	9	9	9	3.5	3.9	6
	78	8	8	8.5	-	3	6
	96	6.5	6.5	7	-	-	6
	120"	5.5	5	5.5	-	-	6
80	143"	4.5	4.5	4.5	-	-	6
	60"	9	9	9	3	3.4	6
	78	7	7	7.5	-	-	6
	96	6	5.5	6	-	-	6
	120"	4.5	4.5	5	-	-	6
100	134"	4	4	4.5	-	-	6
	60"	7.5	7.5	8	-	-	6
	78	5.5	5.5	6	-	-	6
	96	4.5	4.5	5	-	-	6
	120"	3.5	3.5	4	-	-	6
195	60"	3.5	3.5	4	-	-	6
	66"	3.5	3	3.5	-	-	5.5

NOTE:  
FOR LIGHT DUTY SHUTTER ON SHEET 10, MAX. SPACING SHOULD BE LIMITED TO 6" O.C.

PRODUCT REVISED  
as complying with the Florida  
Building Code 20-1215.02  
Acceptance No. MAR 24 2026  
Expiration Date  
By *Heidi A. Miller*  
Miami Dade Product Control



MIAMI DADE COUNTY

REVISIONS	
NO.	DESCRIPTION
1	09/05/10 AS PER BECCO COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2014 FBC
4	09/28/20 UPDATE TO 2020 FBC

**MCY**

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS

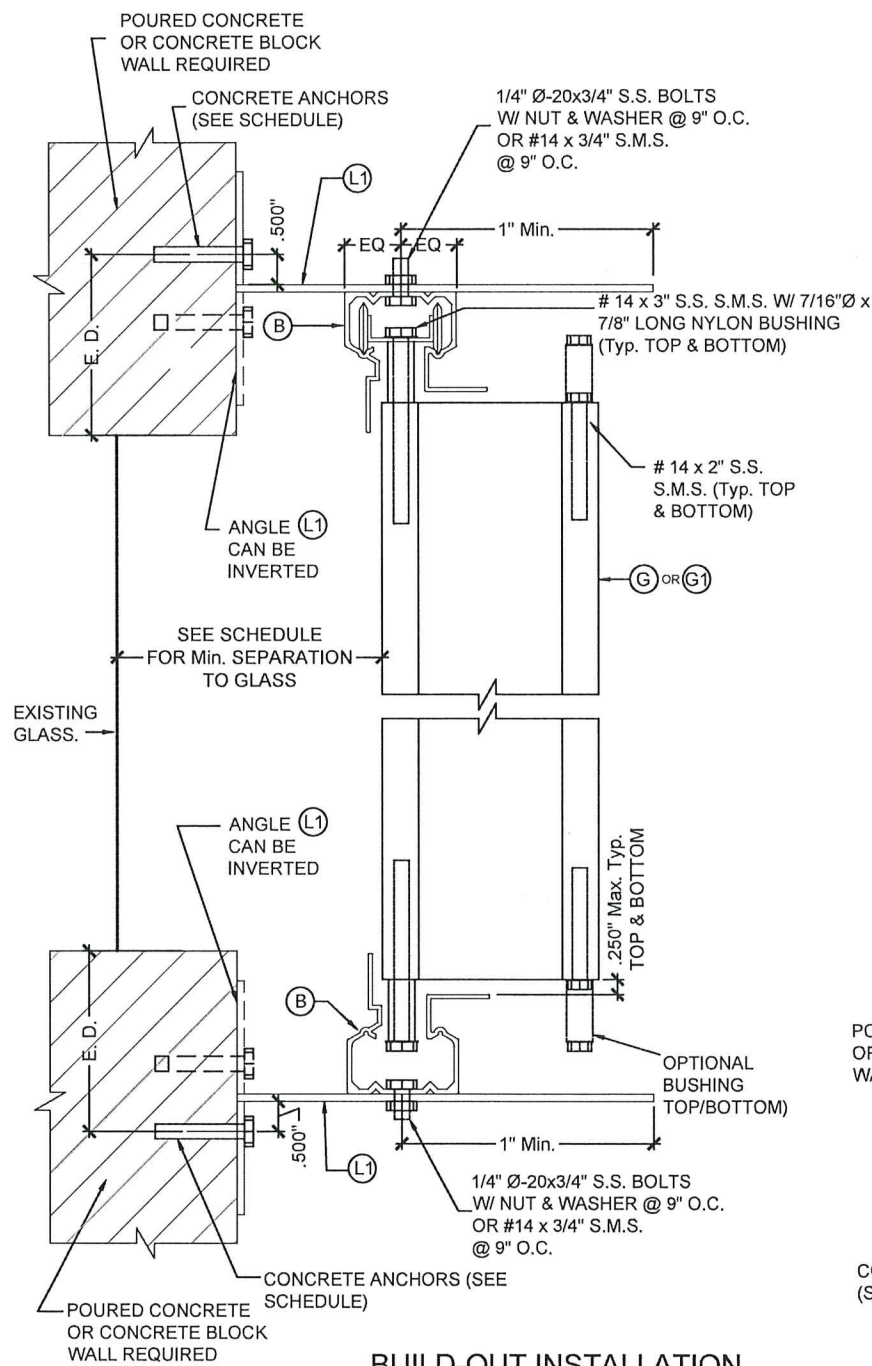
12781 Miramar Parkway #301 P: (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI  
A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)  
1050 E. 15 STREET  
HIALEAH, FL 33010  
Tel: (305) 885-0678 Fax: (305) 882-0510

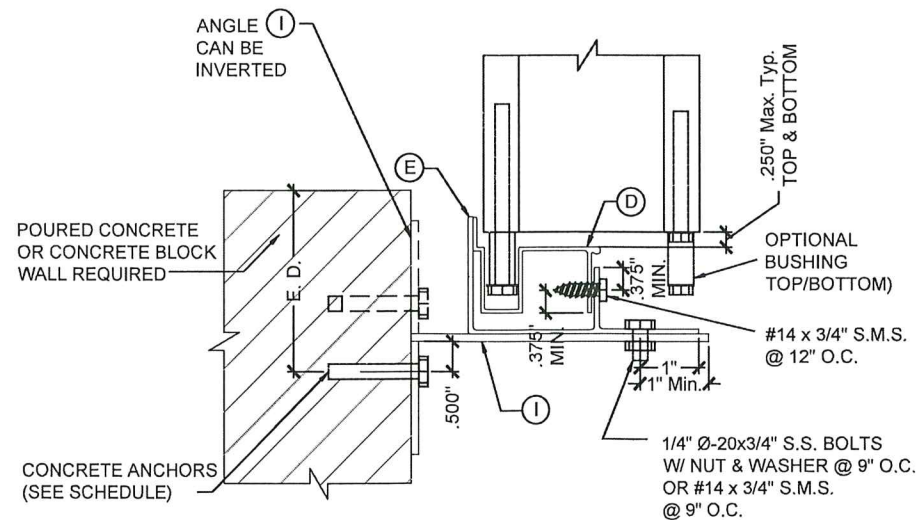
DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-064
DRAWING NO.	AD10-33
	5 OF 11

November 30th, 2020





BUILD-OUT INSTALLATION  
SECTION C

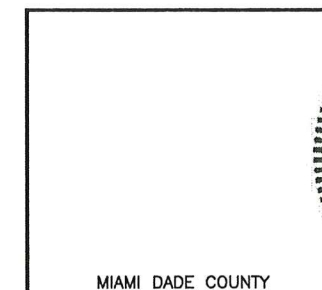


BUILD-OUT INSTALLATION  
SECTION C1

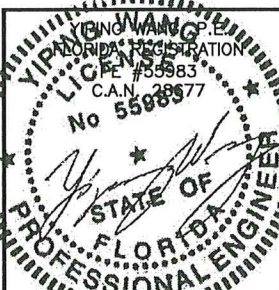
MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING  
MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION C TOP/BOTTOM						SECTION C1 BOTTOM					
		SUBSTRATE CONCRETE			SUBSTRATE BLOCK			SUBSTRATE CONCRETE			SUBSTRATE BLOCK		
		ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE A1	ANCHOR TYPE B1	ANCHOR TYPE C1	ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE A1	ANCHOR TYPE B1	ANCHOR TYPE C1
60	60"	6	6	6	4	5.5	8.1	6	6	6	4	6	8.1
	78"	6	6	6	3	4.5	6.3	6	6	6	3	4.5	6.3
	96"	6	6	6	-	3.5	5.1	6	6	6	-	4	5.1
	120"	6	6	6	-	-	4.1	6	6	6	-	3	4.1
	144"	6	6	6	-	-	3.4	6	6	6	-	-	3.4
65	60"	6	6	6	-	-	3.2	6	6	6	-	-	3.2
	78"	6	6	6	3.7	5	7.5	6	6	6	3.7	5.5	7.5
	96"	6	6	6	-	4	5.8	6	6	6	-	4.5	5.8
	120"	6	6	6	-	3	4.7	6	6	6	-	3.5	4.7
	148"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
70	60"	6	6	6	3.4	5	7	6	6	6	3.4	5.5	7
	78"	6	6	6	-	3.5	5.4	6	6	6	-	4	5.4
	96"	6	6	6	-	3	4.4	6	6	6	-	3	4.4
	120"	6	6	6	-	-	3.5	6	6	6	-	-	3.5
	143"	6	6	6	-	-	-	6	6	6	-	-	-
80	60"	6	6	6	-	4	6.1	6	6	6	-	4.5	6.1
	78"	6	6	6	-	3	4.7	6	6	6	-	3.5	4.7
	96"	6	6	6	-	-	3.8	6	6	6	-	3	3.8
	120"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
	134"	6	5.5	6	-	-	-	6	6	6	-	-	-
100	60"	6	6	-	-	3.5	4.9	6	6	6	-	3.5	4.9
	78"	6	6	-	-	-	3.8	6	6	6	-	-	3.8
	96"	6	6	-	-	-	3.1	6	6	6	-	-	3.1
	120"	5	5	5.5	-	-	-	5	5.5	6	-	-	-
	195	60"	5	5	5.5	-	-	5	5.5	6	-	-	-
195	66"	4.5	4.5	5	-	-	-	5	5	5.5	-	-	-

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215.02  
Expiration Date MAR 24 2026  
By *Heidi A. Nelson*  
Miami Dade Product Control



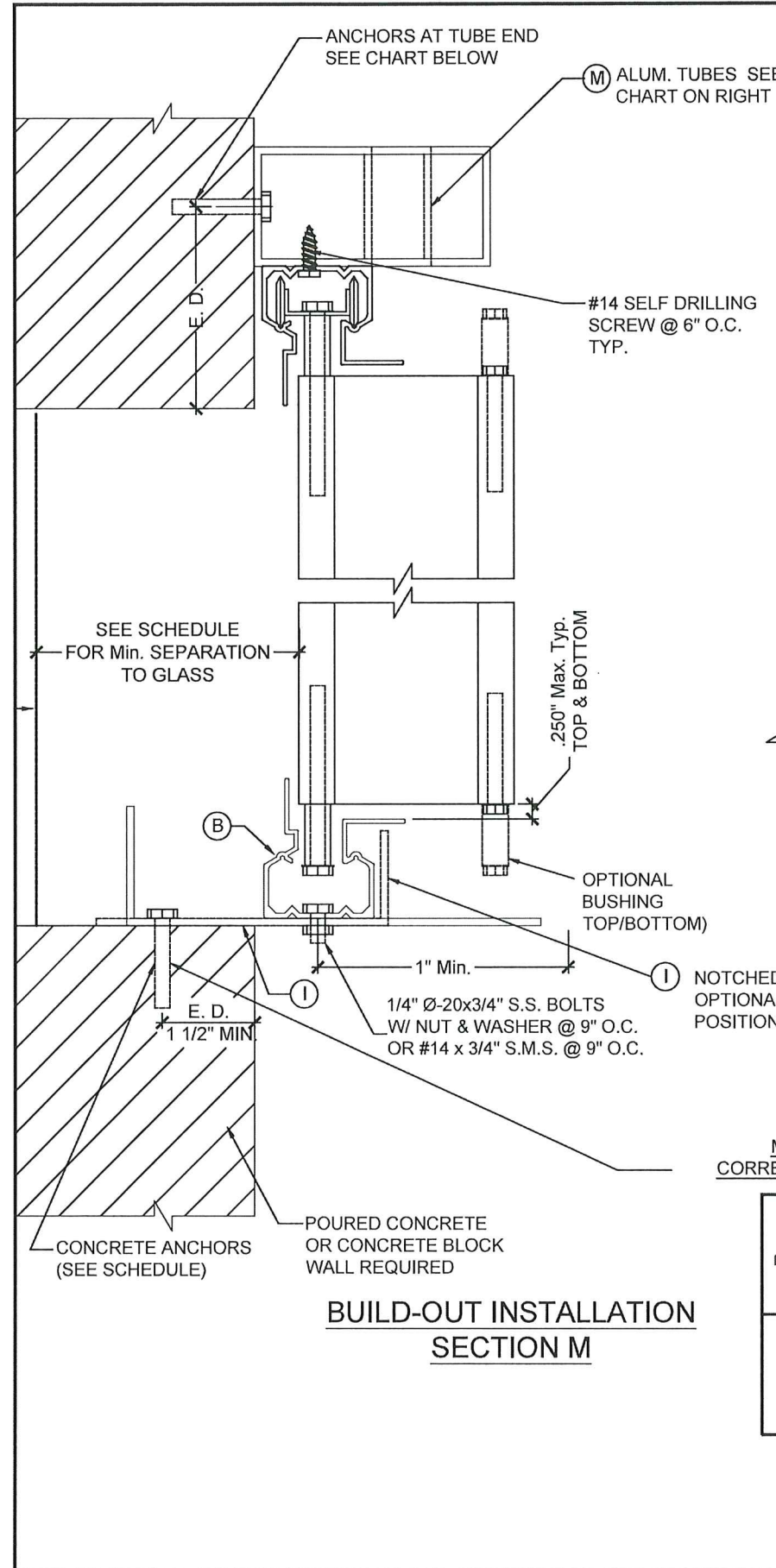
MIAMI DADE COUNTY



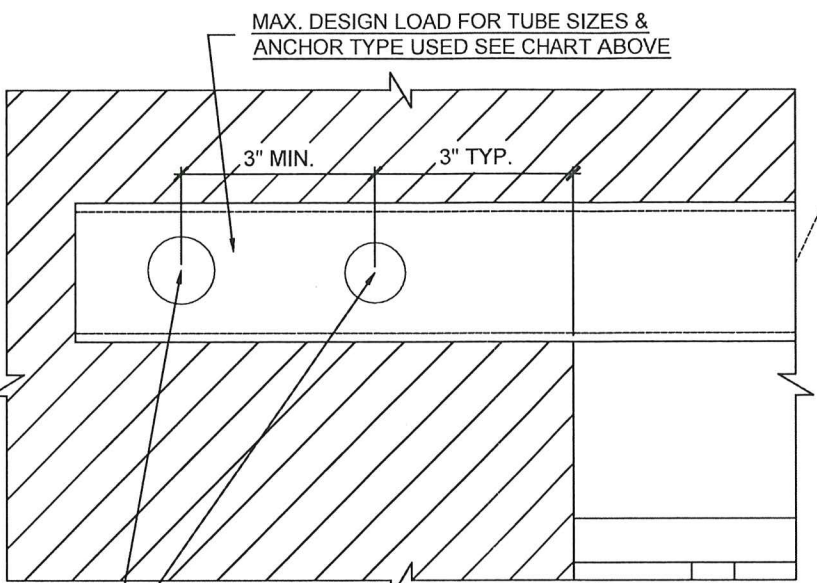
November 30th, 2020

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI		A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)		12781 Miramar Parkway #301 P: (305) 271-0117 Miramar, FL 33027	
1050 E. 15 STREET HIALEAH, FL 33010		Tel: (305) 885-0678 Fax: (305) 882-0510		www.MCYEngineering.com mcy@mcyengineering.com	
DATE	11-24-20	DRAWING NO. AD10-33			
SCALE		6 OF 11			
DRAWN	J.S				
PROJECT	MCY 15-084				
REVISIONS					
NO. DATE	DESCRIPTION				
1	09/05/10	AS PER BCCO COMMENTS			
2	03/25/12	UPDATE TO 2010 FBC			
3	03/20/15	UPDATE TO 2014 FBC			
4	09/28/20	UPDATE TO 2020 FBC			





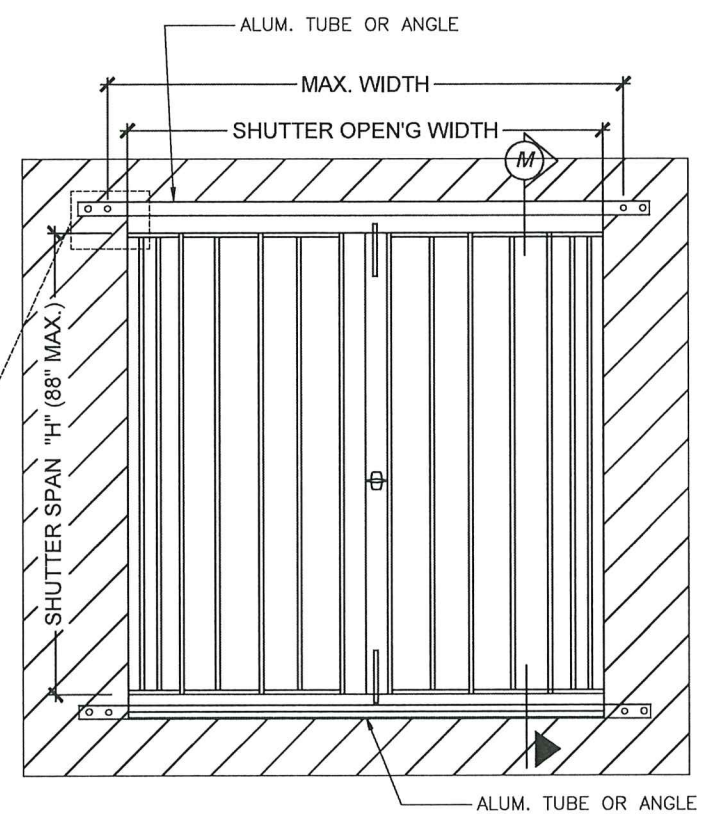
ALUM. TUBE SIZE	OPEN'G WIDTH	MAX. HEIGHT	DESIGN LOAD (PSF)	
			ANCHOR TYPE "A"	ANCHOR TYPE "C"
2"x2"x1/8"	42"	88"	65	65
2"x3"x1/8"	60"	88"	65	65
2"x4"x1/8"	78"	88"	57.3	62
	78"	84"	60	65
	78"	77"	65	65



OPTIONAL: FOR ANCHOR INTO GROUT FILLED CONCRETE BLOCK  
fcm'=>1500 PSI USE (2) - 3/8" KWIK-BOLT 2 1/2" MIN. EMBED INTO  
CONCRETE BLOCK 4" MIN. EDGE DIST. AND 4" SPACING

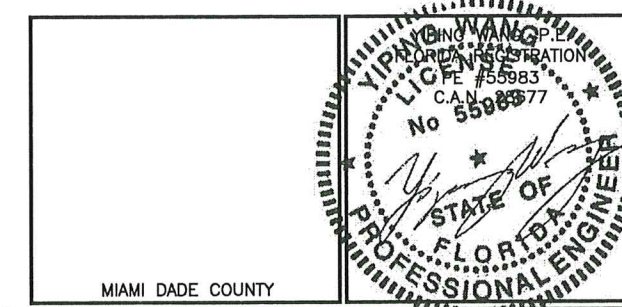
MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND  
CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION M BOTTOM	
		SUBSTRATE CONCRETE	
		ANCHOR SPACING ( in.)	
65	60"	ANCHOR TYPE A	ANCHOR TYPE C
	72"	8.5	9
	84"	7	7.5
	88"	6	6.5
	88"	5.5	6



TOP / BOTTOM (OPTIONAL)

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 20-1215-02  
Expiration Date MAR 24 2026  
By *H. G. A. M. M.*  
Miami Dade Product Control



REVISIONS

NO	DATE	DESCRIPTION
1	09/25/10	AS PER EDCO COMMENTS
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3	03/20/15	UPDATE TO 2014 FBC
4	09/26/20	UPDATE TO 2020 FBC

MCY

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GLAZING CONSULTANTS

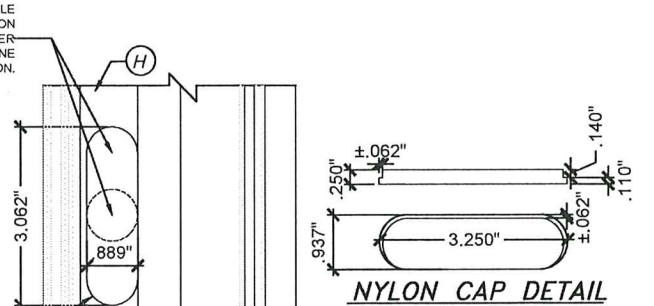
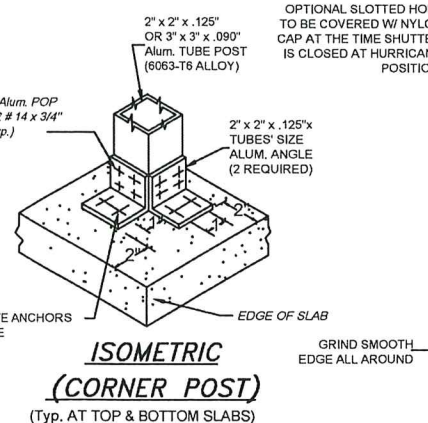
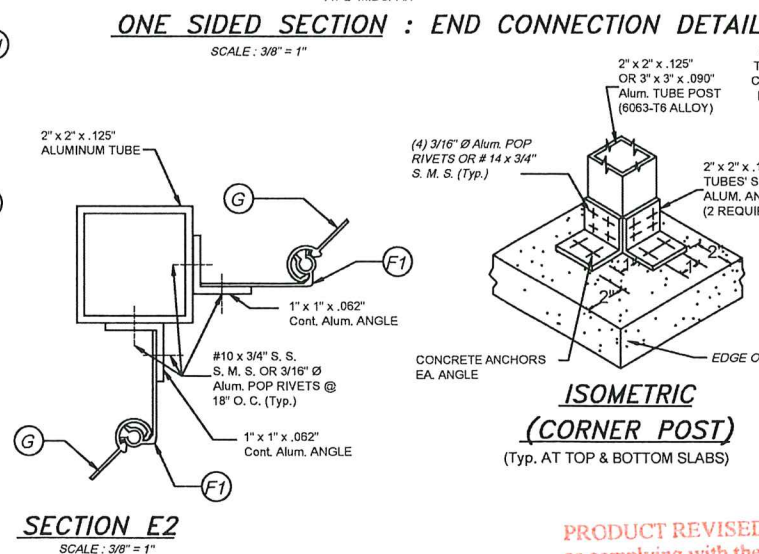
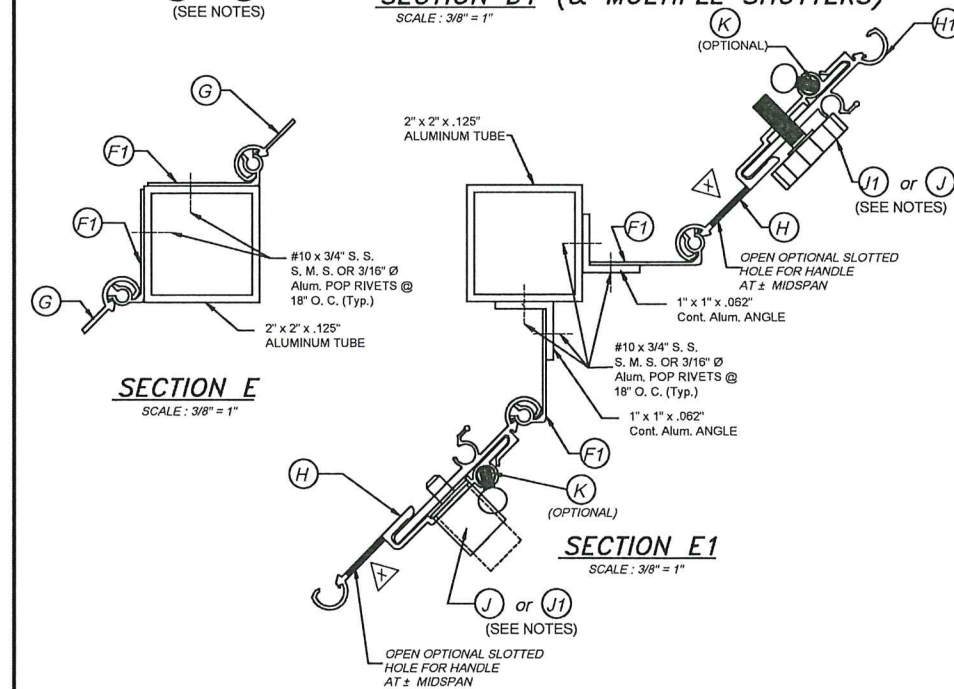
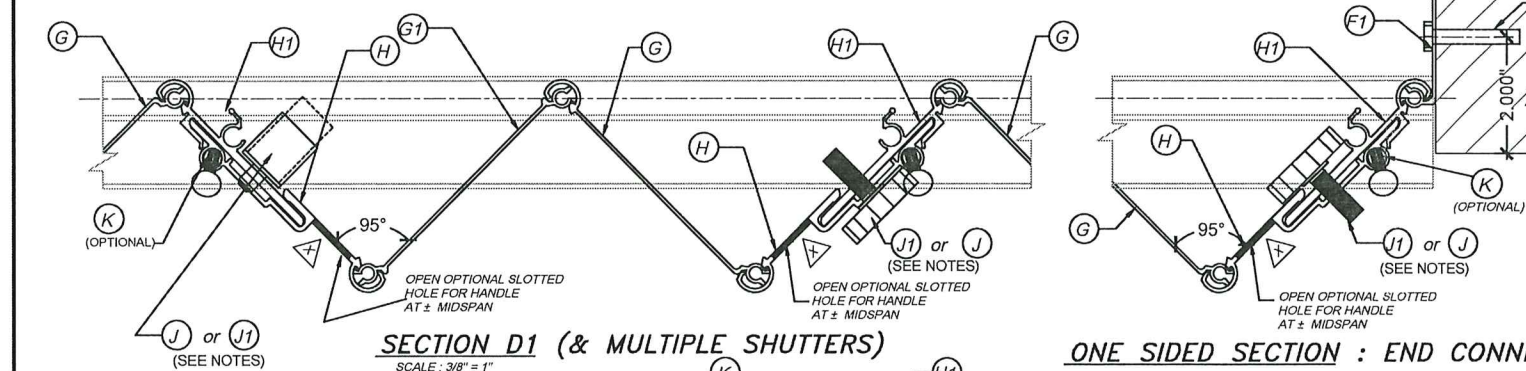
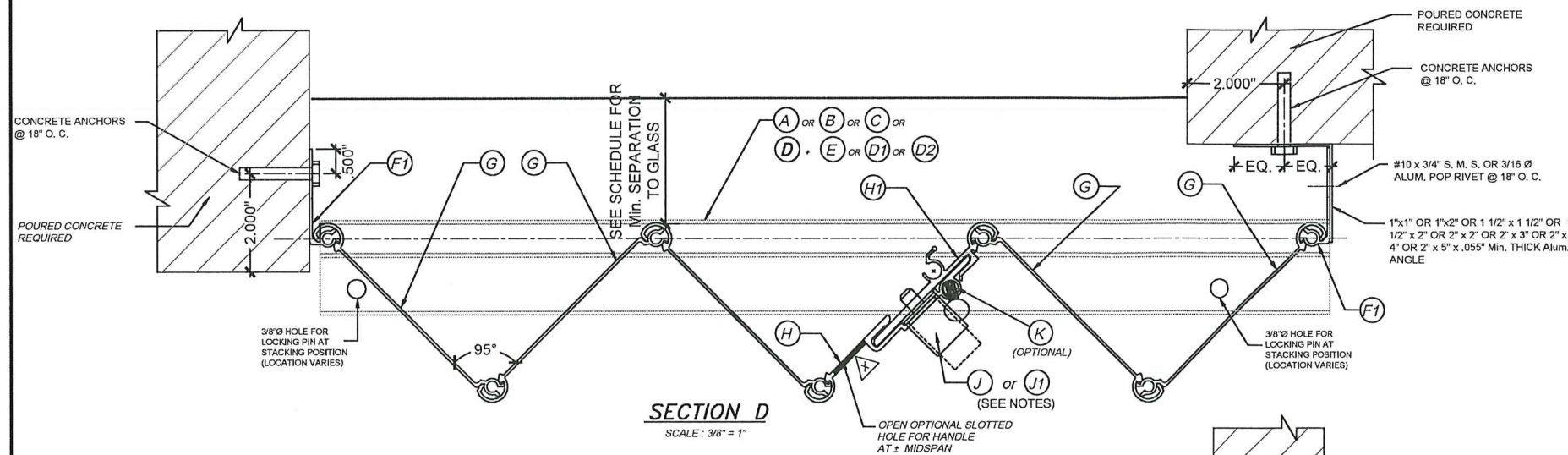
12781 Miramar Parkway #301 P. (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcycengineering.com

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI

A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)  
1050 E. 15 STREET  
HIALEAH, FL 33010  
Tel: (305) 885-0678 Fax: (305) 882-0510

DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-084
DRAWING NO.	AD10-33
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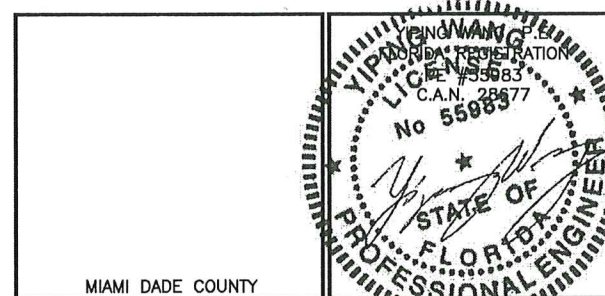
**NOTES FOR LOCKING OF (H) & (H1)**

1-PUSH BOTTOM LOCK (J) MAY BE USED FOR INSTALLATIONS SECURED FROM THE OUTSIDE OR INSIDE OF SHUTTER. WHEN INSTALLING (J) FROM THE OUTSIDE, A 7/8"Ø HOLE SHALL BE DRILLED AT (H) AND (J) MUST BE RIVETED FROM THE BACK OF (H) TO THE FRONT W/ (2)3/16"Ø ALUM. POP RIVETS. A 3/8"Ø HOLE MUST THEN BE DRILLED AT (H1) TO ALLOW FOR (J)'S PIN TO PASS THRU. WHEN INSTALLING (J) FROM THE INSIDE, (J) MUST BE RIVETED TO (H1) W/ (2)3/16"Ø ALUM. POP RIVETS. A 3/8"Ø HOLE MUST THEN BE DRILLED THRU (H) AND (H1) TO ALLOW FOR (J)'S PIN TO PASS THRU.

2-5/16"x1" LOCK (J1) MAY BE USED ALTERNATIVELY TO (J) LOCK FOR INSTALLATIONS SECURED FROM THE OUTSIDE OR INSIDE OF SHUTTER. IN THIS CASE, A 5/16"Ø HOLE SHALL BE DRILLED THRU (H) AND (H1). HOLE DRILLED TO (H1) SHALL BE TAPPED TO ACCEPT 18 THREADS PER INCH MACHINE SCREW.

**NOTE:**  
END CONDITIONS SHOWN CAN BE INTERCHANGEABLE.

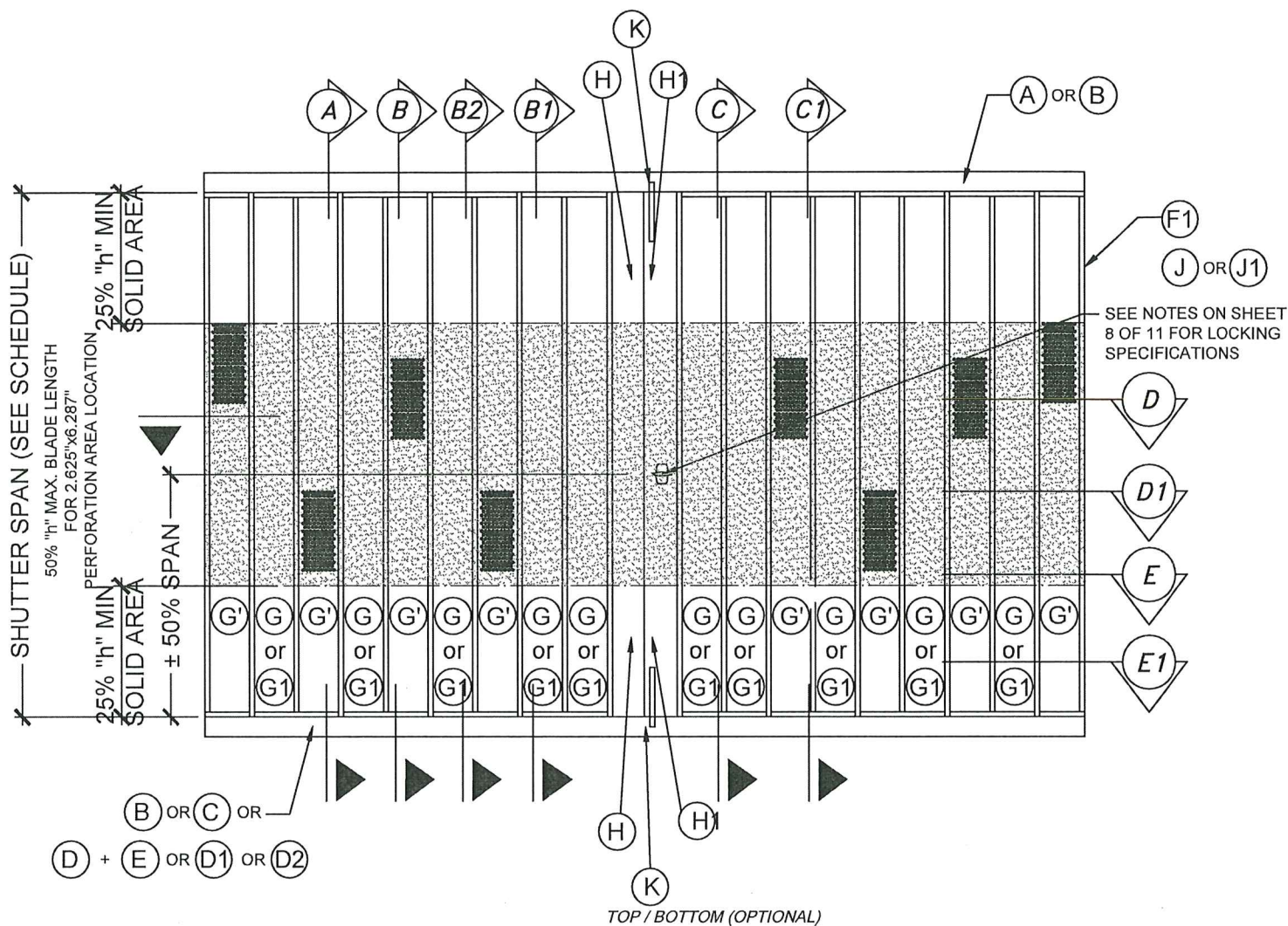
PRODUCT REVISED  
as complying with the Florida  
Building Code 20-1215.02  
Acceptance No. 20-1215.02  
Expiration Date MAR 24 2026  
By *Hedy A. Miller*  
Miami Dade Product Control



PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI		A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)		12781 Miramar Parkway #301 P: (305) 271-0117 Miramar, FL 33027	
1050 E. 15 STREET HIALEAH, FL 33010		Tel: (305) 885-0678 Fax: (305) 882-0510		www.MCYEngineering.com mcycyengineering.com	
<div><div><div>MCY</div><div>C</div><div>Y</div></div></div>					
DATE		11-24-20		REVISIONS	
SCALE				NO. DATE DESCRIPTION	
DRAWN		J.S		1 08/25/10 AS PER EDCO COMMENTS	
PROJECT		MCY 15-084		2 03/20/12 UPDATE TO 2010 FBC	
DRAWING NO.		AD10-33		3 03/20/15 UPDATE TO 2014 FBC	
8 OF 11				4 08/28/20 UPDATE TO 2020 FBC	

November 30th, 2020

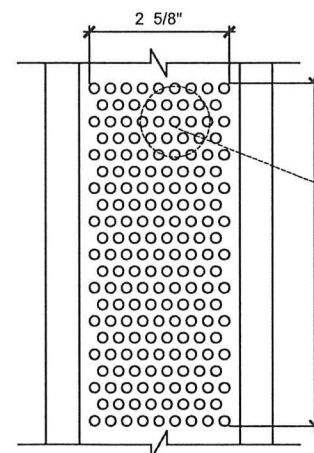




TYPICAL ELEVATION



TYPICAL SHUTTER PLAN



TYPICAL G' PERFORATED BLADE ELEVATION

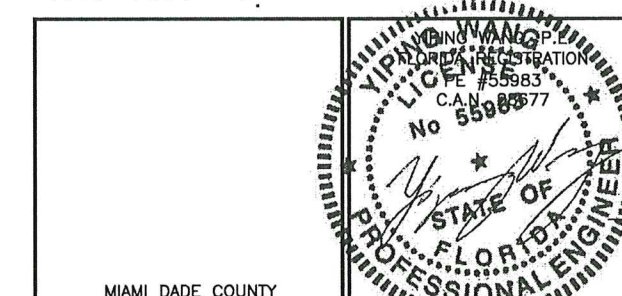
**GENERAL LIMITATIONS AND CONDITIONS OF USE FOR G OR G1 BLADE ACCORDIAN SHUTTER SYSTEM WORKING IN UNISON WITH G' BLADES.**

1. MAXIMUM SHUTTER SPAN AND PRESSURE RATING, MAXIMUM ANCHOR SPACING AND MINIMUM SEPARATION TO GLASS FOR G' AND G1' WORKING IN UNISON WITH G AND G1 ARE AS PER SCHEDULES ON SHEET 4, 5, 6 & 10.
2. MAXIMUM PERFORATION AREA AT G', G1' IS  $\pm 2.625" \times 6.28"$  AND MUST BE LOCATED WITHIN THE CENTRAL 50% OF THE BLADE SPAN.  
  
PERFORATED BLADES G, G1 MUST BE SOLID AT THE TOP AND BOTTOM 25% OF BLADES SPAN.
3. PERFORATED BLADES G', G1' SHALL BE INSTALLED AT EVERY OTHER BLADE (FREQUENCY).
4. CENTERMATES H, H1 MUST ALWAYS BE ACCOMPANIED BY TWO SOLID BLADES G, G1 AT EITHER SIDE OF EACH CENTERMATE.
5. STARTERS AND CENTERMATES MUST BE ALWAYS SOLID.
6. STARTERS CONNECTION TO EXISTING BUILDING OR TO END/CORNER TUBES MUST BE AS PER DETAILS INDICATED ON SHEET 8.



**SECTION S-S THRU G MALE/FEMALE BLADE**

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215-02  
Expiration Date MAR 24 2026  
By *H. G. A. Mohr*  
Miami Dade Product Control



MIAMI DADE COUNTY

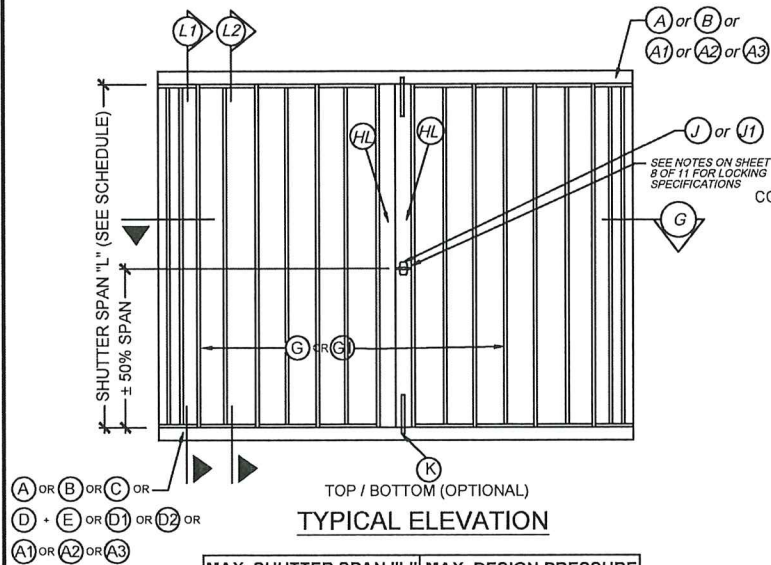
NO.	DATE	DESCRIPTION
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**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
**MCY**  
12781 Miramar Parkway #301 P: (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com

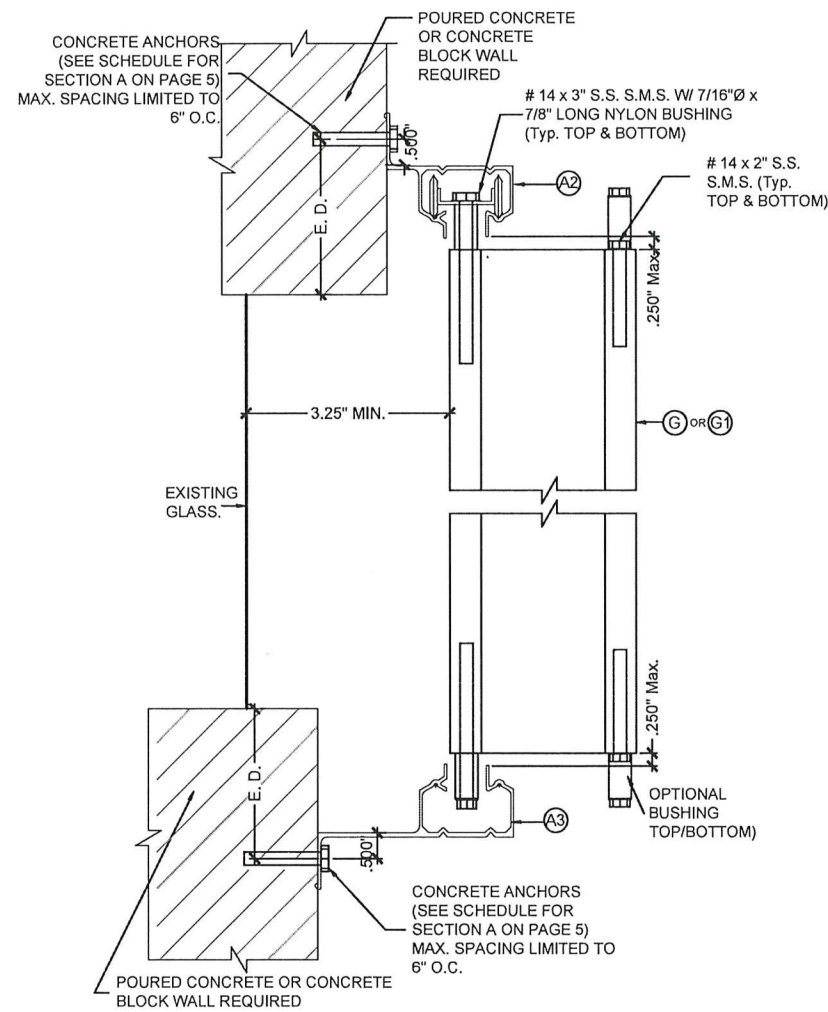
PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI  
A & M HURRICANE PROTECTION, LLC. (H.P.M.A. #44)  
1050 E. 15 STREET  
HIALEAH, FL 33010  
Tel: (305) 885-0678 Fax: (305) 882-0510

DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-084
DRAWING NO.	AD10-33
	9 OF 11



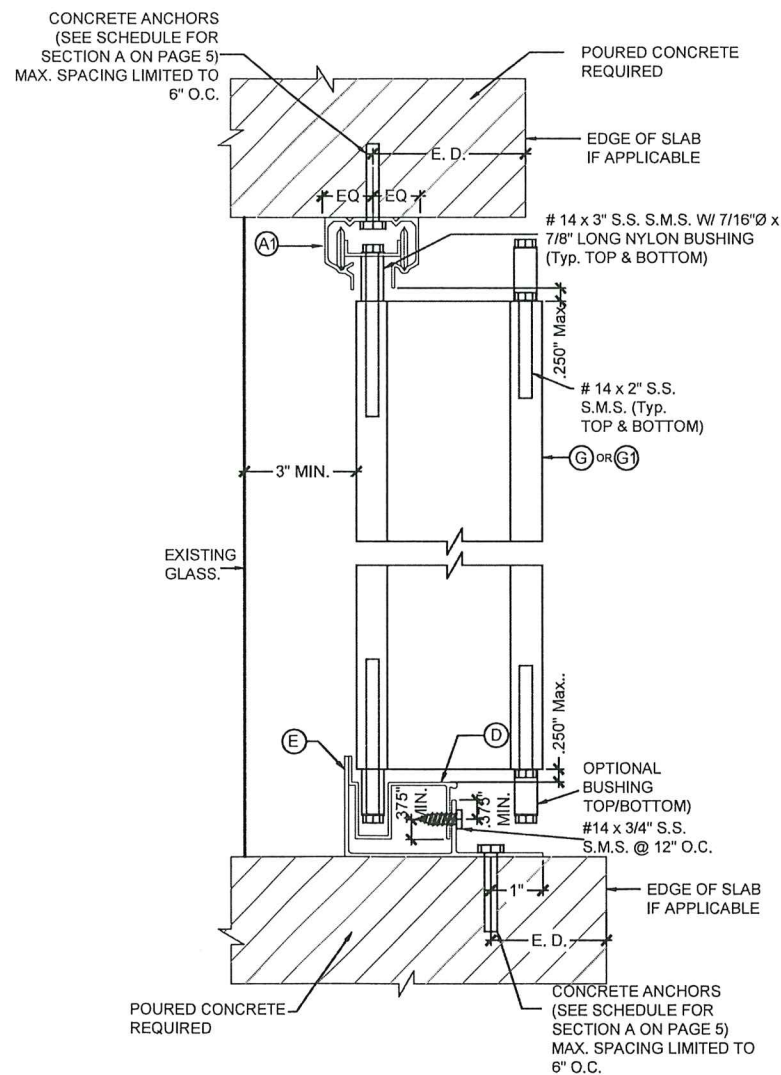
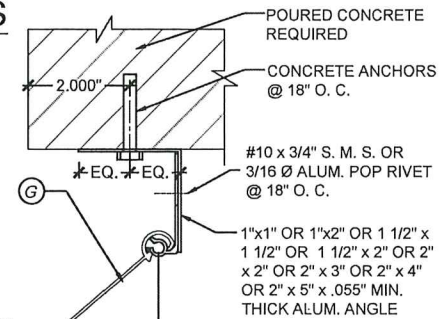
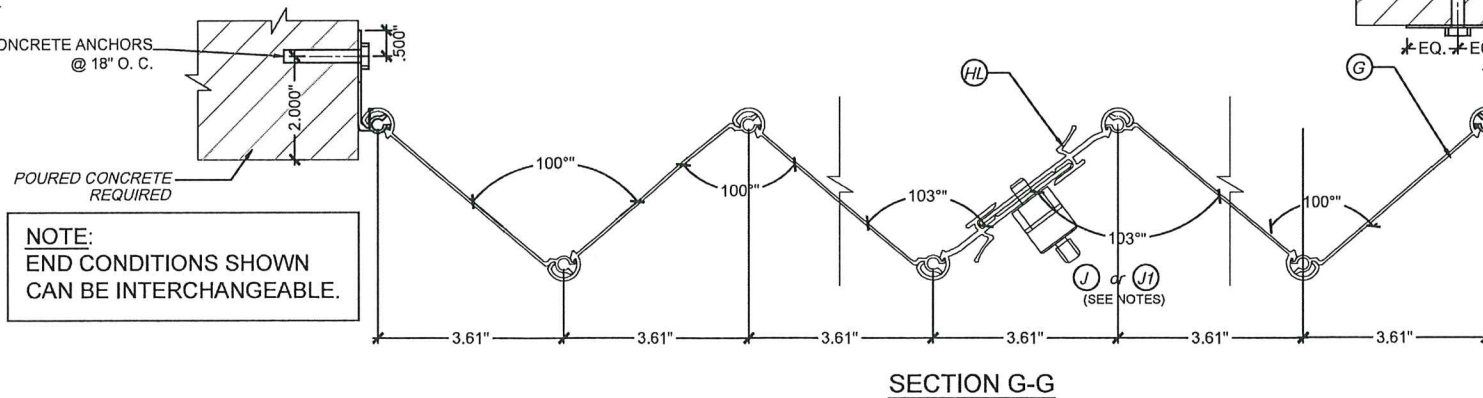


MAX. SHUTTER SPAN "L"	MAX. DESIGN PRESSURE
60"	+/- 75 PSF
108"	+/- 70 PSF



SECTION L1  
SCALE : 3/8" = 1"

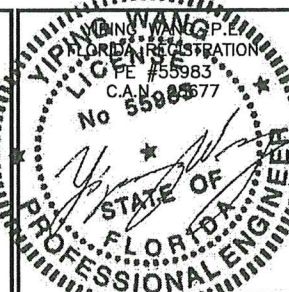
## LIGHT DUTY SHUTTER WALL MOUNT, CEILING AND FLOOR INSTALLATIONS W/ A1, A2, A3 TRACKS, CENTERMATE HL & BLADES G, G1



SECTION L2  
SCALE : 3/8" = 1"

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215  
Expiration Date MAR 24 2026  
By He G. A. N. N.  
Miami Dade Product Control

MIAMI DADE COUNTY



NO	DATE	DESCRIPTION
1	09/05/10	AS PER BCC COMMENTS
2	03/25/12	UPDATE TO 2010 FBC
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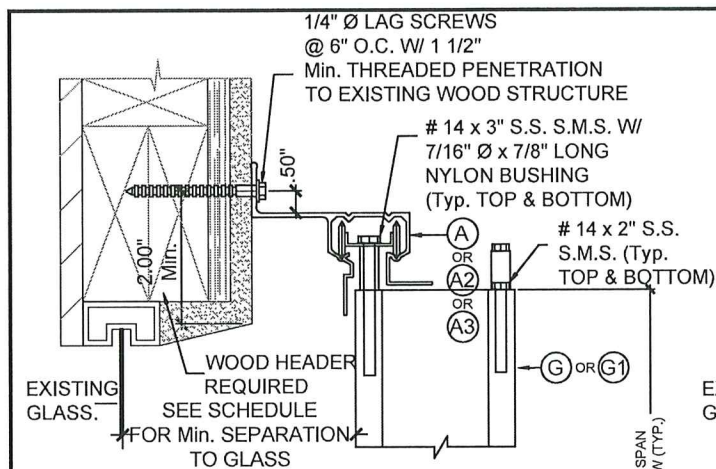
MCY ENGINEERING, INC.  
GLAZING CONSULTANTS  
12781 Miramar Parkway #301 P: (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER-LMI  
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HIALEAH, FL 33010  
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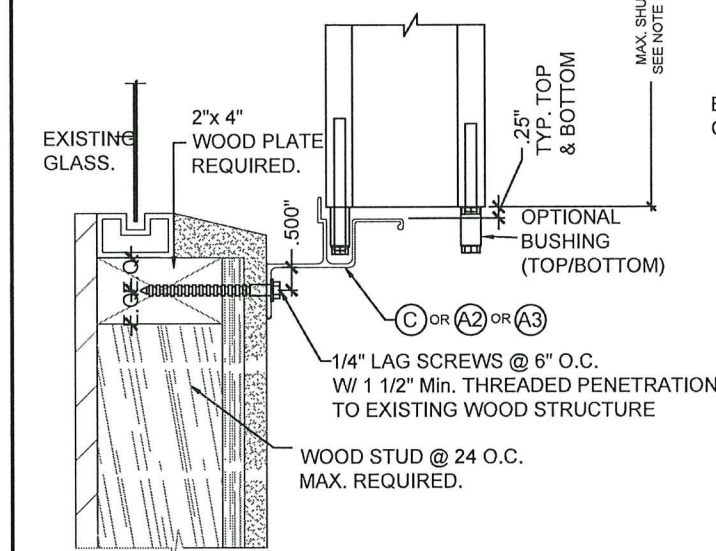
DATE	11-24-20
SCALE	
DRAWN	J.S.
PROJECT	MCY 15-084
DRAWING NO.	AD10-33
10 OF 11	

November 30th, 2020

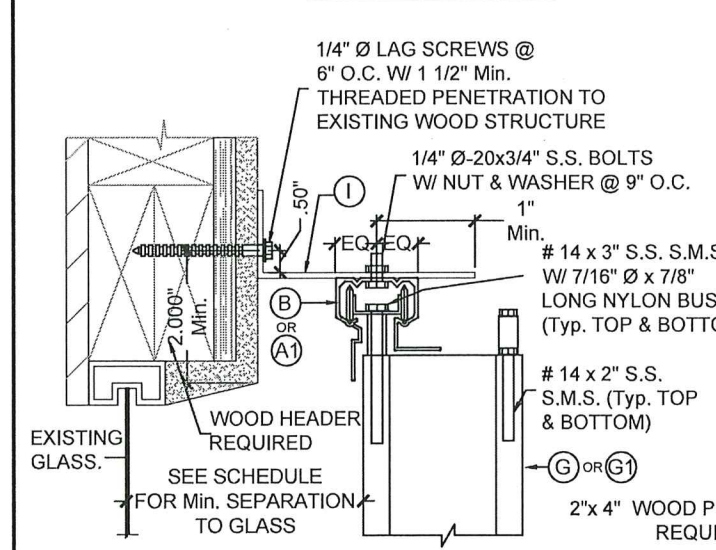




ALTERNATIVE 1

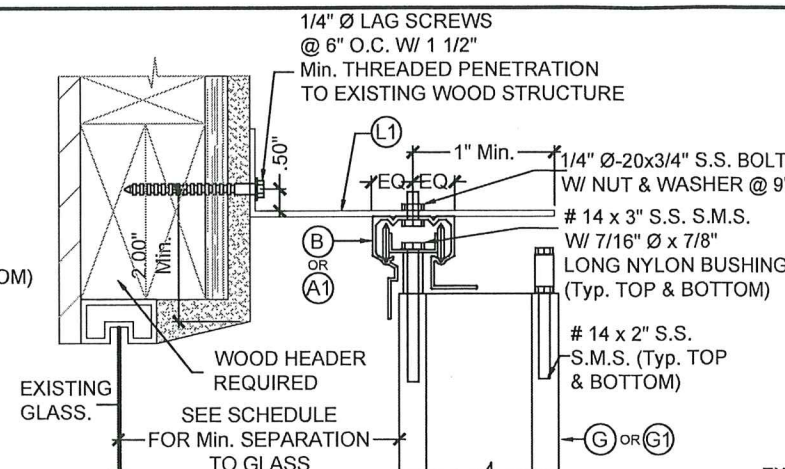


ALTERNATIVE 2

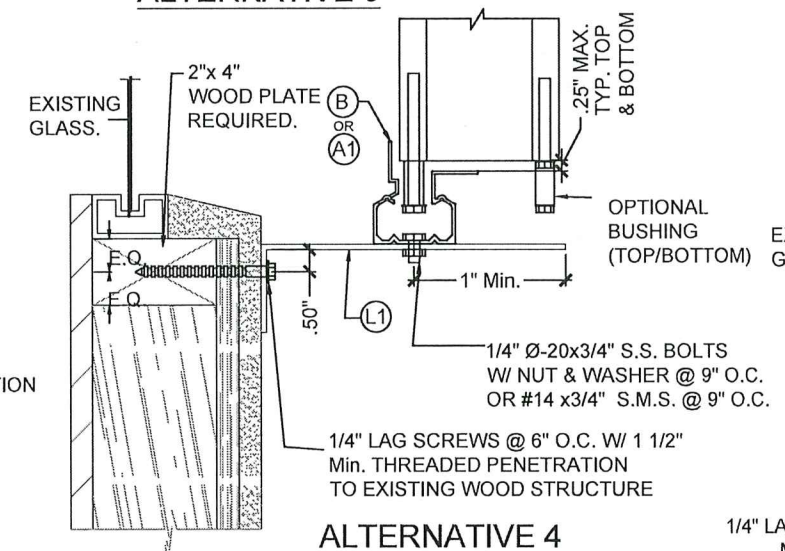


ALTERNATIVE 5

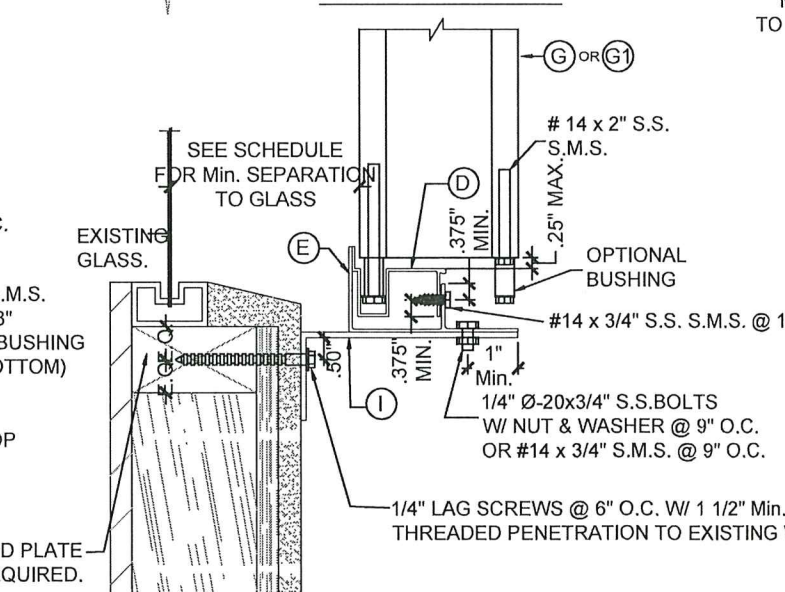
WALL MOUNTING INSTALLATION (OFFSET)  
SECTIONS A  
SCALE: 1/4"=1"  
INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



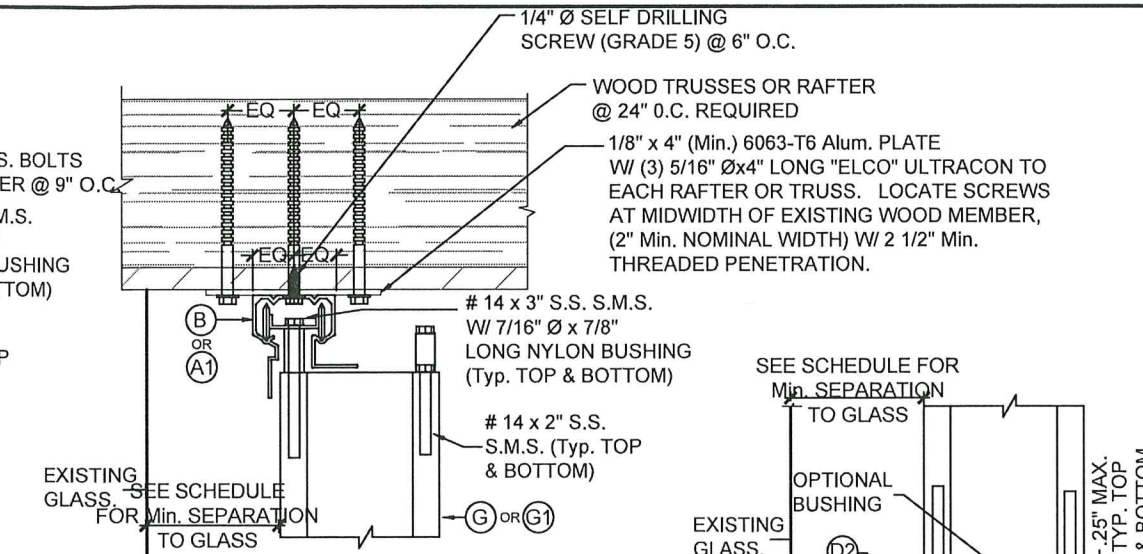
ALTERNATIVE 3



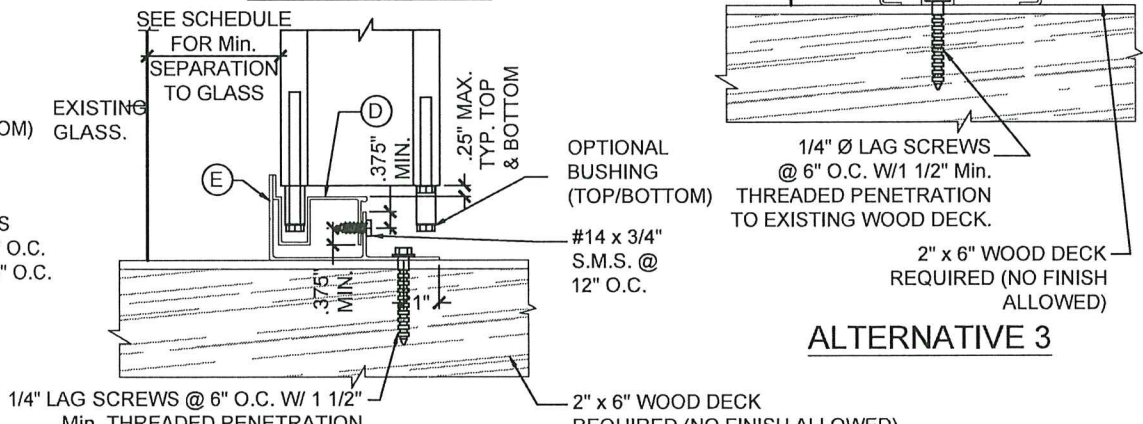
ALTERNATIVE 4



ALTERNATIVE 6



ALTERNATIVE 1



ALTERNATIVE 2

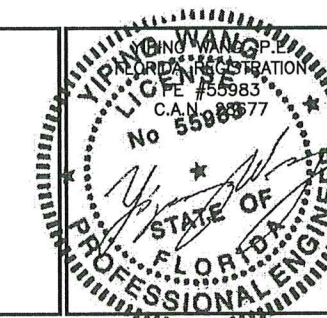
WALL MOUNTING INSTALLATION (OFFSET)  
SECTIONS B  
SCALE: 1/4"=1"

NOTE:  
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

NOTES:  
1. INSTALLATIONS ARE ONLY VALID FOR INSTALLATIONS WITH DESIGN WIND LOADS LESS THAN OR EQUAL TO 70 p.s.f. AND 9'-0" Max. SHUTTER SPAN.  
2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL/GREATER.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215.02  
Expiration Date MAR 24 2025  
By *Heidi A. Miller*  
Miami Date Product Control

MIAMI DADE COUNTY



REVISIONS	
NO.	DATE
1	08/25/10 AS PER EDC COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
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4	09/28/20 UPDATE TO 2020 FBC

<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12761 Miramar Parkway #301 P: (305) 271-0117 Miramar, FL 33027 www.MCYEngineering.com mcy@mcycengineering.com	
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DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-084
DRAWING NO.	AD10-33
11 OF 11	