



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

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

www.miamidade.gov/economy

Eco Window Systems, LLC
8502 NW 80 Street
Medley, FL 33166

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 Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "400" Aluminum Window Wall System (with window inserts) – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W09-42**, titled "Series 400 Alum. Window Wall System (L.M.I.)", sheets 1, 1.1, 2 thru 9, 9.1, 10, 11, 12 and 12.1 of 12, dated 08/13/09, with revision F dated 04/13/18, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and 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, model/series, and following statement: "Miami-Dade County Product Control Approved", 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 NOA# 17-0329.02** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Sifang Zhao, P.E.**



SZ
08/23/2018

NOA No. 18-0503.03
Expiration Date: December 20, 2022
Approval Date: August 23, 2018
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
"Submitted under NOA# 12-0801.02"
2. Drawing No. **W09-42**, titled "Series 400 Alum Window Wall System (L.M.I.)", sheets 1 through 9 of 9, dated 08/13/09, with revision C dated 01/13/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7233**, dated 02/01/13, signed and sealed by Marlin D. Brinson, P.E.
"Submitted under NOA# 14-0910.07"
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-10-3129**, dated 10/18/10, signed and sealed by Candido F. Font, P.E.
"Submitted under NOA# 12-0801.02"
3. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Hurricane Engineering & Testing, Inc., Test Reports No. **HETI-10-3071, HETI-10-3072, HETI-10-3073, HETI-10-3074 and HETI-10-3075**, all dated 10/18/10, all signed and sealed by Candido F. Font, P.E.
"Submitted under NOA# 12-0801.02"
4. Test reports on: 1) Safety Performance Test, (class A, Sec. 5) per ANSI Z97.1-1984
CPSC 16 CFR, CH II, Part 1201
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-10-3096**, dated 10/18/10, signed and sealed by Candido F. Font, P.E.
"Submitted under NOA# 12-0801.02"



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 18-0503.03
Expiration Date: December 20, 2022
Approval Date: August 23, 2018

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (CONTINUED)

5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94

along with marked-up drawings and installation diagram of outswing alum. door and alum. window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-8281**, dated 06/22/16, signed and sealed by Idalmis Ortega, P.E.
“Submitted under NOA# 17-0329.02”

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)** and **FBC 6th Edition (2017)**, dated 08/02/17 and updated on 08/29/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. NOA No. **14-0916.11** issued to **Kuraray America, Inc.** for their **“SentryGlas® (Clear and White) Glass Interlayers”** dated 06/25/15, expiring on 07/04/18.
2. NOA No. **16-1117.01** issued to **Kuraray America, Inc.** for their **“Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers”** dated 01/19/17, expiring on 07/08/19.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 5th Edition (2014)**, and of no financial interest, dated August 25, 2014, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Laboratory compliance letters for Test Reports No **HETI-10-3071, HETI-10-3072, HETI-10-3073, HETI-10-3074, HETI-10-3075, HETI-10-3096** and **HETI-10-3129**, all issued by Hurricane Engineering & Testing, Inc., dated 10/18/10, and signed and sealed by Candido F. Font, P.E.
3. Proposal No. **10-0233R** issued by the Product Control Section, dated 07/12/10, signed by Manuel Perez, P.E.
4. Proposals issued by the Product Control Section, dated 01/11/13 and 01/13/15, both signed by Jaime Gascon, P.E., Supervisor, Product Control Section.

G. OTHERS

1. NOA No. 14-0910.07, issued to Eco Window Systems, LLC for their Series “400” Aluminum Window Wall System (with window Inserts) – L.M.I, approved on 04/30/15 and expiring on 12/20/17.


Sifang Zhao, P.E.

Product Control Examiner

NOA No. 18-0503.03

Expiration Date: December 20, 2022

Approval Date: August 23, 2018

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W09-42**, titled “Series 400 Alum Window Wall System (L.M.I.)”, sheets 1, 1.1, 2 thru 9, 9.1, 10 thru 12 and 12.1 of 12, dated 08/13/09, with revision F dated 04/13/18, with revision E dated 08/02/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
4) Safety Performance Test, (class A, Sec. 5) per ANSI Z97.1
along with marked-up drawings and installation diagram of outswing alum. door and alum. window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-9872**, dated 12/12/17, signed and sealed by Idalmis Ortega, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, dated 03/15/18, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS


1. NOA No. **17-0808.02** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 12/28/17, expiring on 07/04/23.
2. NOA No. **17-1114.14** issued to **Kuraray America, Inc.** for their “**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**” dated 01/19/18, expiring on 07/08/19.

F. STATEMENTS

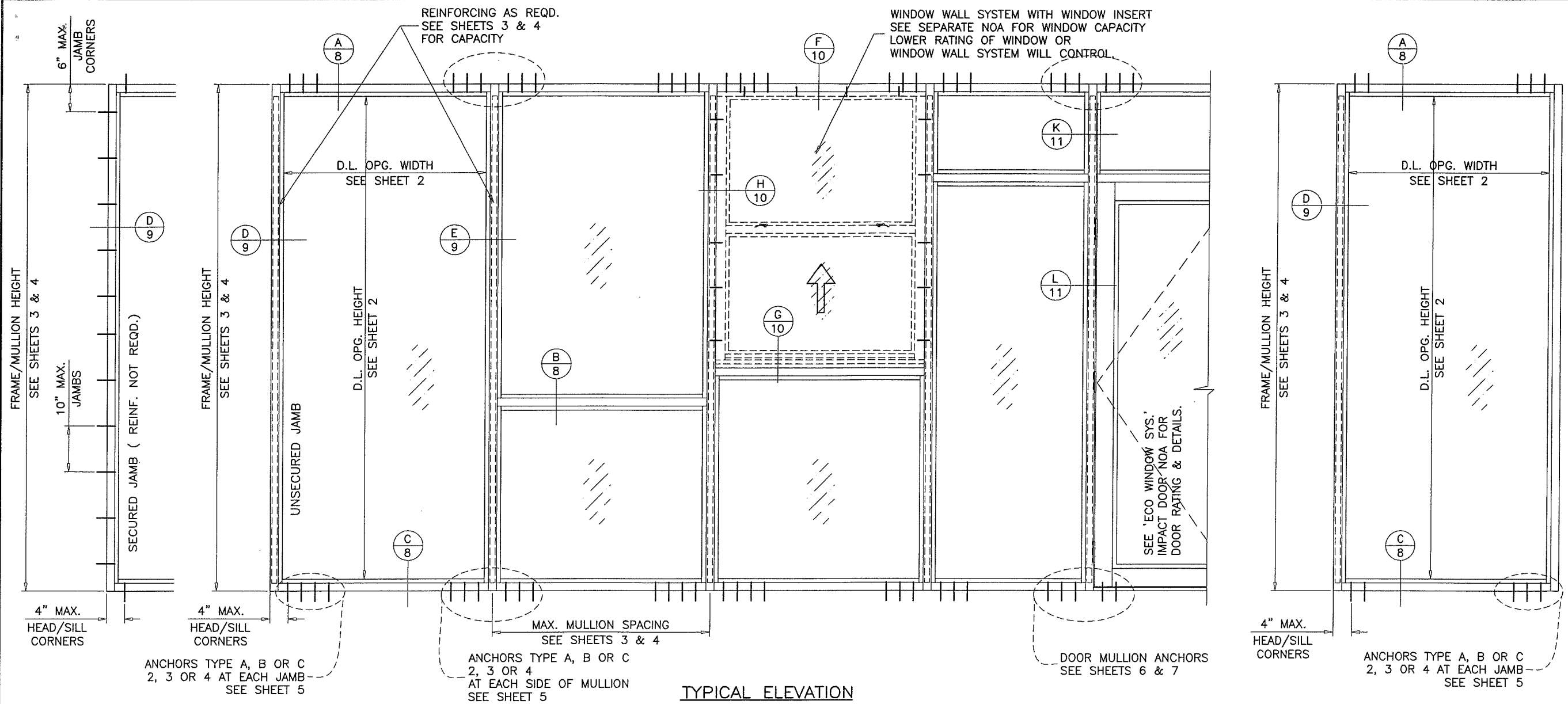
1. Statement letter of conformance, complying with **FBC 6th Edition (2017)** and of no financial interest, dated March 15, 2018, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Proposal No. **17-0579** issued by the Product Control Section, dated 07/18/17, signed by Manuel Perez, P.E.

G. OTHERS

1. Notice of Acceptance No. 17-0329.02, issued to Eco Window Systems, LLC for their Series “400” Aluminum Window Wall System (with window inserts) – L.M.I, approved on 10/19/17 and expiring on 12/20/22.



Sifang Zhao, P.E.
Product Control Examiner
NOA No. 18-0503.03
Expiration Date: December 20, 2022
Approval Date: August 23, 2018



TYPICAL ELEVATION

SERIES 400 ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM MAY BE USED IN CONJUNCTION WITH MIAMI-DADE COUNTY APPR'D LARGE MISSILE IMPACT RESISTANT DOORS.

LOWER DESIGN PRESSURE FROM WINDOW WALL OR DOOR APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH 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 2017 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.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** CHECK GLASS CAPACITY TABLE ON SHEET 2 FOR GLASS TYPE, GLASS DIMENSIONS (WIDTH & HEIGHT) AND PRESSURE CAPACITY. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 3** CHECK WINDOW WALL SYSTEM CAPACITY FOR DESIRED HEIGHT AND MULLION SPACING USING CHARTS ON SHEETS 3 & 4. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 5 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** VERIFY UNANCHORED JAMBS, IF USED AS PER SHEETS 3, 4 AND 7.
- STEP 6** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.
- STEP 7** WHEN USING THIS SYSTEM WITH DOORS, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE DOOR SHALL APPLY.

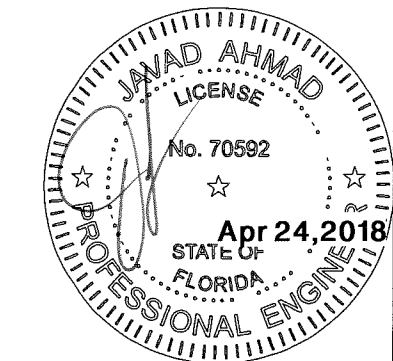
PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

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

LARGE MISSILE IMPACT

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 18-0503.03
 Expiration Date 12/20/2022

By Miami Dade Product Control



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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
 STORE \W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
 8502 N.W. 80th STREET
 MEDLEY, FL. 33166
 TEL. (305) 885-5299 FAX (305) 885-5902

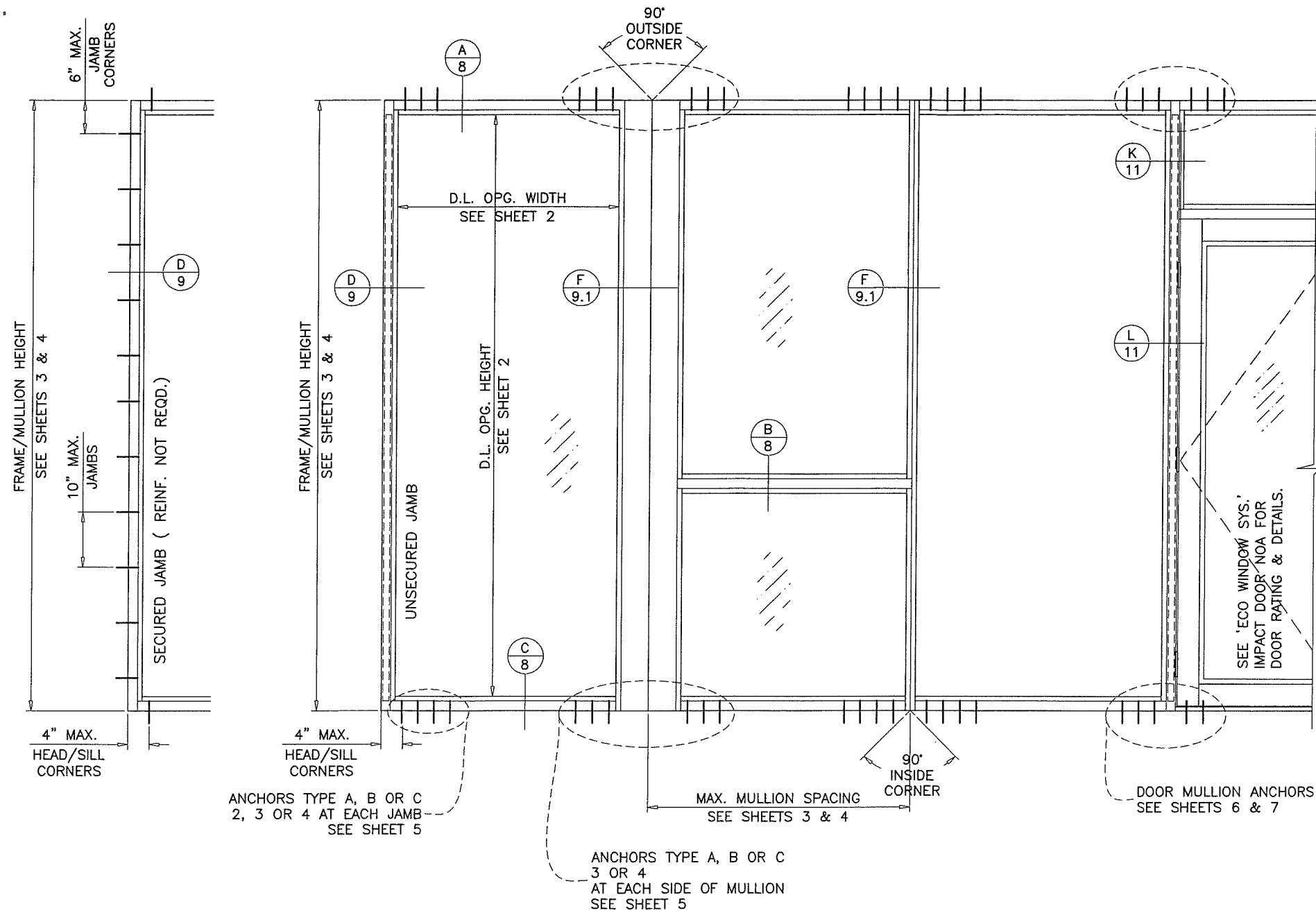
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D	10.05.16	GENERAL REVISION	
E	08.02.17	REV. PER RER COMMENTS	
F	04.13.18	CORNER MULLION ADDED	

revisions:

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 dr. by: TARIQ
 chk. by:

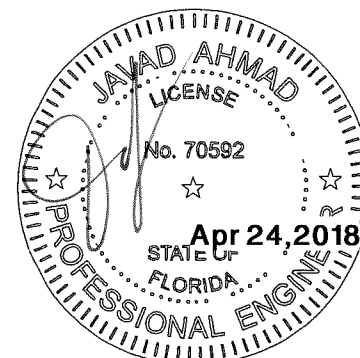
drawing no.
W09-42

sheet 1 of 12



TYPICAL ELEVATION

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 18-0503.03
 Expiration Date 12/20/2022
 By [Signature]
 Miami Dade Product Control



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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
 STORE \W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
 8502 N.W. 80th STREET
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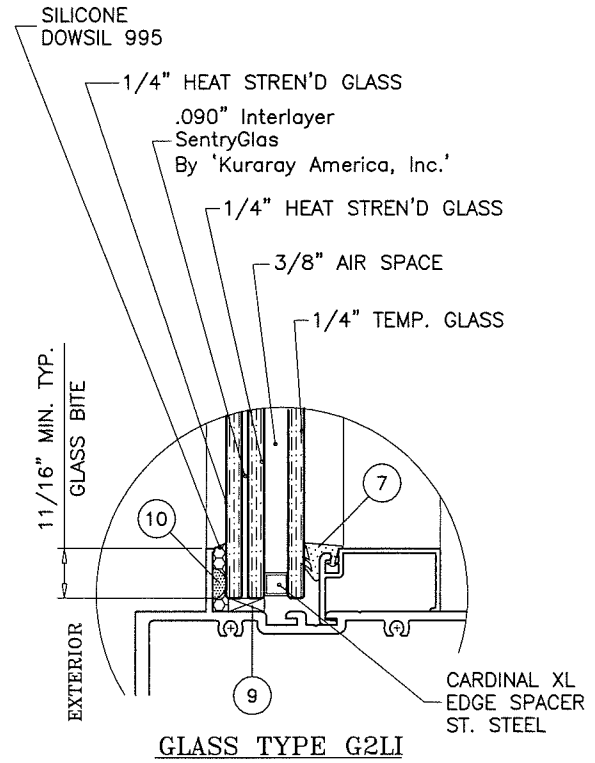
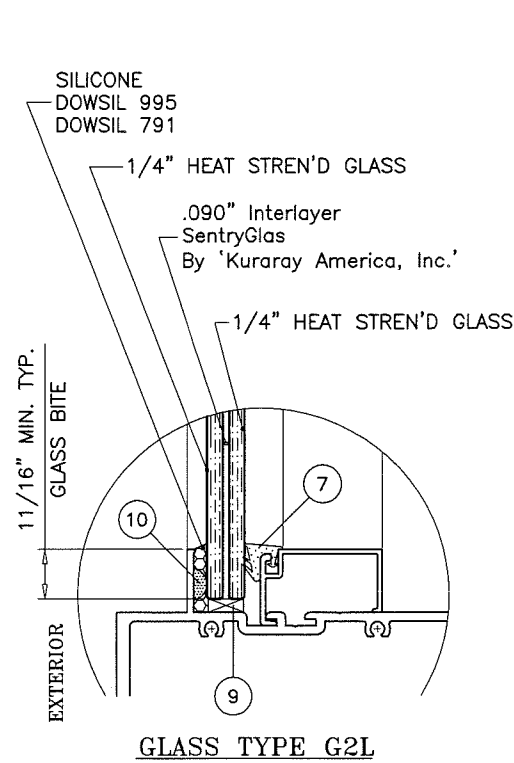
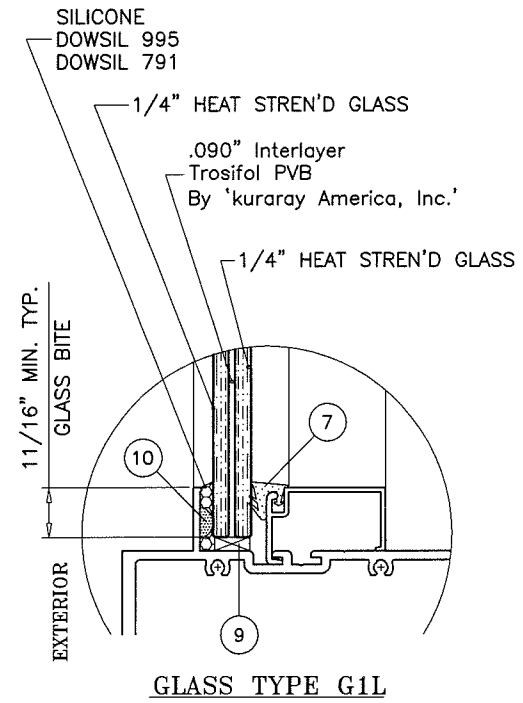
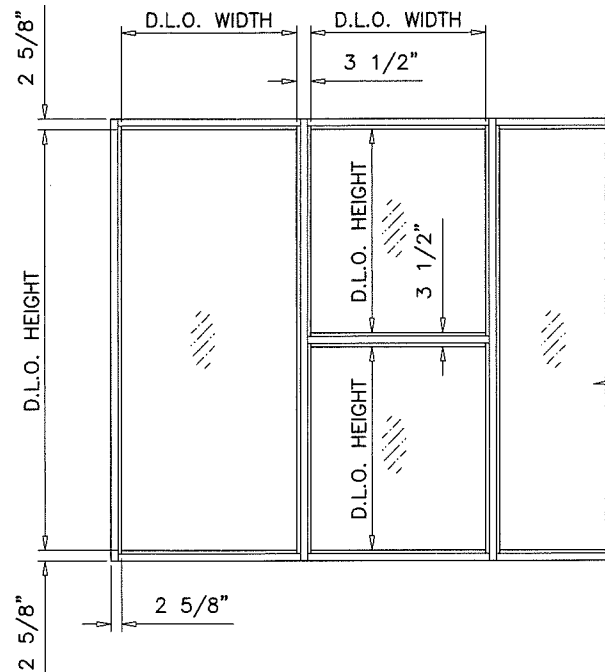
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	F 04.13.18			CORNER MULLION ADDED

date: 08-13-09
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:

drawing no.
W09-42
 sheet 1.1 of 12

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPE 'G1L'		GLASS TYPES 'G2L' & 'G2LI'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/2"	78-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	130.0
56-1/2"		65.0	75.0	80.0	130.0
26-1/2"	84-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	130.0
56-1/2"		65.0	75.0	80.0	100.0
26-1/2"	90-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	100.0
56-1/2"	65.0	75.0	80.0	100.0	
26-1/2"	96-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
47"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	100.0
26-1/2"	102-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
49"		65.0	75.0	80.0	100.0
26-1/2"	108-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
41"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
47"		65.0	75.0	80.0	100.0
26-1/2"	114-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
39"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
26-1/2"		120-3/4"	65.0	75.0	80.0
32-1/2"	65.0		75.0	80.0	130.0
37"	65.0		75.0	80.0	130.0
38-1/2"	65.0		75.0	80.0	100.0
42"	65.0		75.0	80.0	100.0
26-1/2"	126-3/4"		65.0	75.0	80.0
32-1/2"		65.0	75.0	80.0	130.0
35"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	100.0
40"		65.0	75.0	80.0	100.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLAZING OPTIONS

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

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 18-0503.03
Expiration Date 12/20/2022

By: *[Signature]*
Miami Dade Product Control



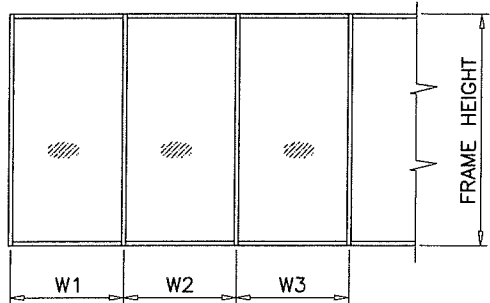
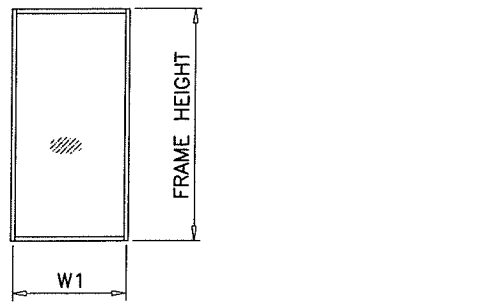
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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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STORE W09-42ECO

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no	date	description
C	01.13.15	REV. PER COMMENTS
D	10.05.16	GENERAL REVISION
E	08.02.17	REV. PER COMMENTS
F	04.13.18	NO CHANGE THIS SHEET

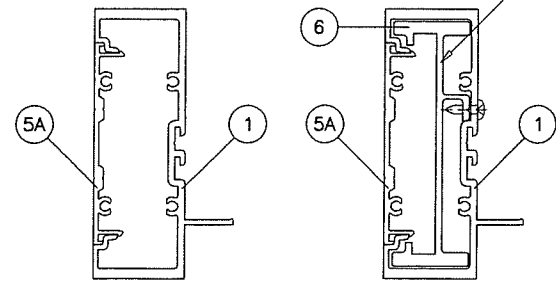
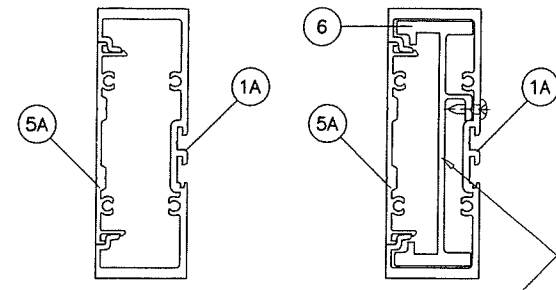
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scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:
drawing no. W09-42
sheet 2 of 12

JAMB & MULLION LOAD CAPACITY - PSF									
JAMBS & MULLIONS WITHOUT INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1' MULL 'M1'		JAMB 'J2' MULL 'M2'		JAMB 'J2' MULL 'M3'		MULL 'MC'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	84"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
60"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
30"	90"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	97.7	80.0	100.0	80.0	130.0	80.0	120.0
60"		80.0	90.9	80.0	100.0	80.0	130.0	80.0	120.0
30"	96"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	92.1	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	83.9	80.0	100.0	80.0	130.0	80.0	120.0
60"		77.7	77.7	80.0	100.0	80.0	130.0	80.0	120.0
30"	102"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	90.1	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	80.2	80.0	100.0	80.0	130.0	80.0	120.0
54"		72.9	72.9	80.0	100.0	80.0	130.0	80.0	120.0
56"		70.8	70.8	80.0	100.0	80.0	130.0	80.0	120.0
60"	-	-	-	-	80.0	129.0	80.0	120.0	
30"	108"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	91.3	80.0	100.0	80.0	130.0	80.0	120.0
42"		79.3	79.3	80.0	100.0	80.0	130.0	80.0	120.0
48"		70.5	70.5	80.0	100.0	80.0	130.0	80.0	120.0
53"		64.8	64.8	80.0	99.5	80.0	125.3	80.0	120.0
54"		-	-	-	-	80.0	123.4	80.0	120.0
56"	-	-	-	-	80.0	120.0	80.0	120.0	
60"	-	-	-	-	80.0	113.4	-	-	
30"	114"	80.0	96.4	80.0	100.0	80.0	100.0	80.0	120.0
36"		80.0	81.1	80.0	100.0	80.0	100.0	80.0	120.0
42"		70.4	70.4	80.0	100.0	80.0	100.0	80.0	120.0
48"		62.4	62.4	80.0	95.6	80.0	100.0	80.0	120.0
50"		60.3	60.3	80.0	92.3	80.0	100.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	80.0	120.0
60"	-	-	-	-	80.0	80.0	-	-	
30"	120"	80.0	82.4	80.0	100.0	80.0	100.0	80.0	120.0
36"		69.5	69.5	80.0	100.0	80.0	100.0	80.0	120.0
42"		60.3	60.3	80.0	96.0	80.0	100.0	80.0	120.0
48"		53.6	53.6	80.0	85.1	80.0	100.0	80.0	120.0
51-7/8"		-	-	-	-	80.0	80.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	-	-
60"	-	-	-	-	80.0	80.0	-	-	
30"	126"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-
30"	132"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-



WIDTH (W) = W1
AT FRAME JAMB

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



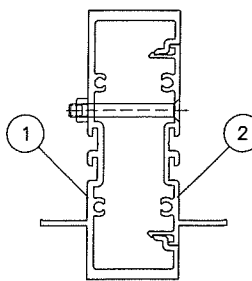
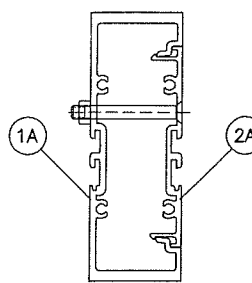
REINFORCING REQD. AT
UNSECURED JAMBS ONLY
SEE CHART FOR CAPACITY

UNSECURED JAMB 'J1'

Ix	IN ⁴	Sx	IN ³
6.5984		2.5580	

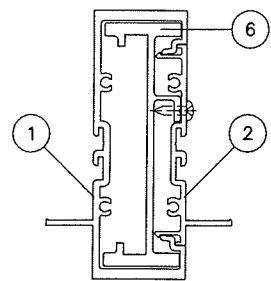
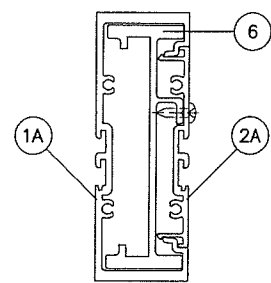
UNSECURED JAMB 'J2'

Ix	IN ⁴	Sx	IN ³
10.7054		4.1502	



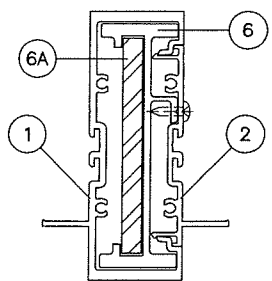
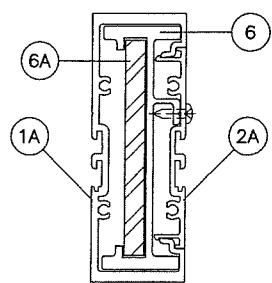
MULLION 'M1'

Ix	IN ⁴	Sx	IN ³
6.7306		2.6093	



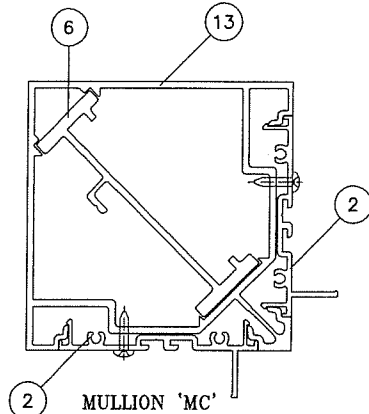
MULLION 'M2'

Ix	IN ⁴	Sx	IN ³
10.8376		4.2014	



MULLION 'M3'

Ix	IN ⁴	Sx	IN ³
ALUMINUM	10.8376	4.2014	
STEEL	2.000	1.0000	
TOTAL			
Ix ALUM + Ix STL X 2.9	16.6376		

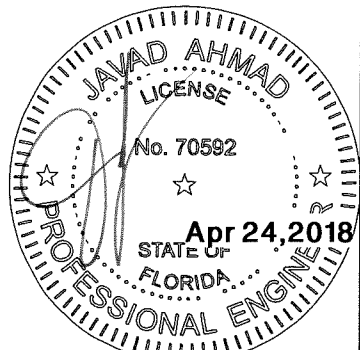


MULLION 'MC'

Ix	IN ⁴	Sx	IN ³
12.5914		5.005	

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 18-0503.03
Expiration Date 12/20/2022

By:
Miami Dade Product Control



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 353B)
TEL. (305) 264-8100 FAX. (305) 262-6978

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th STREET
MEDLEY, FL. 33166
TEL. (305) 885-5299 FAX (305) 885-5902

no	date	description
C	01.13.15	REV. PER RER COMMENTS
D	10.05.16	GENERAL REVISION
E	08.02.17	REV. PER RER COMMENTS
F	04.13.18	CORNER MULLION ADDED
TOTAL		

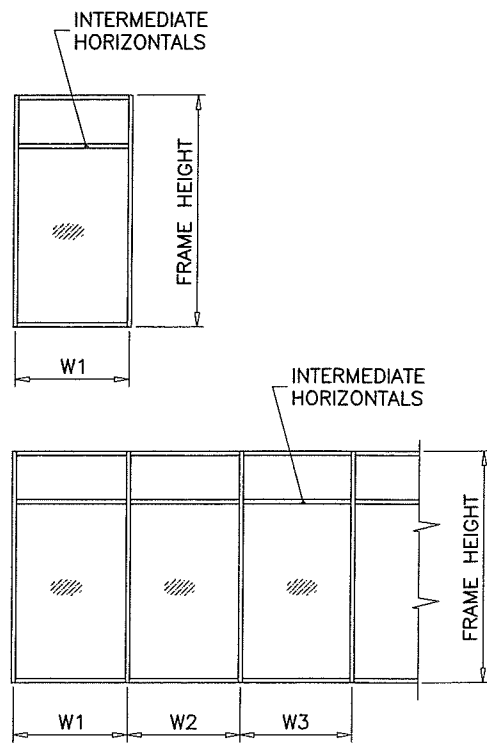
date: 08-13-09
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

drawing no.
W09-42

sheet 3 of 12

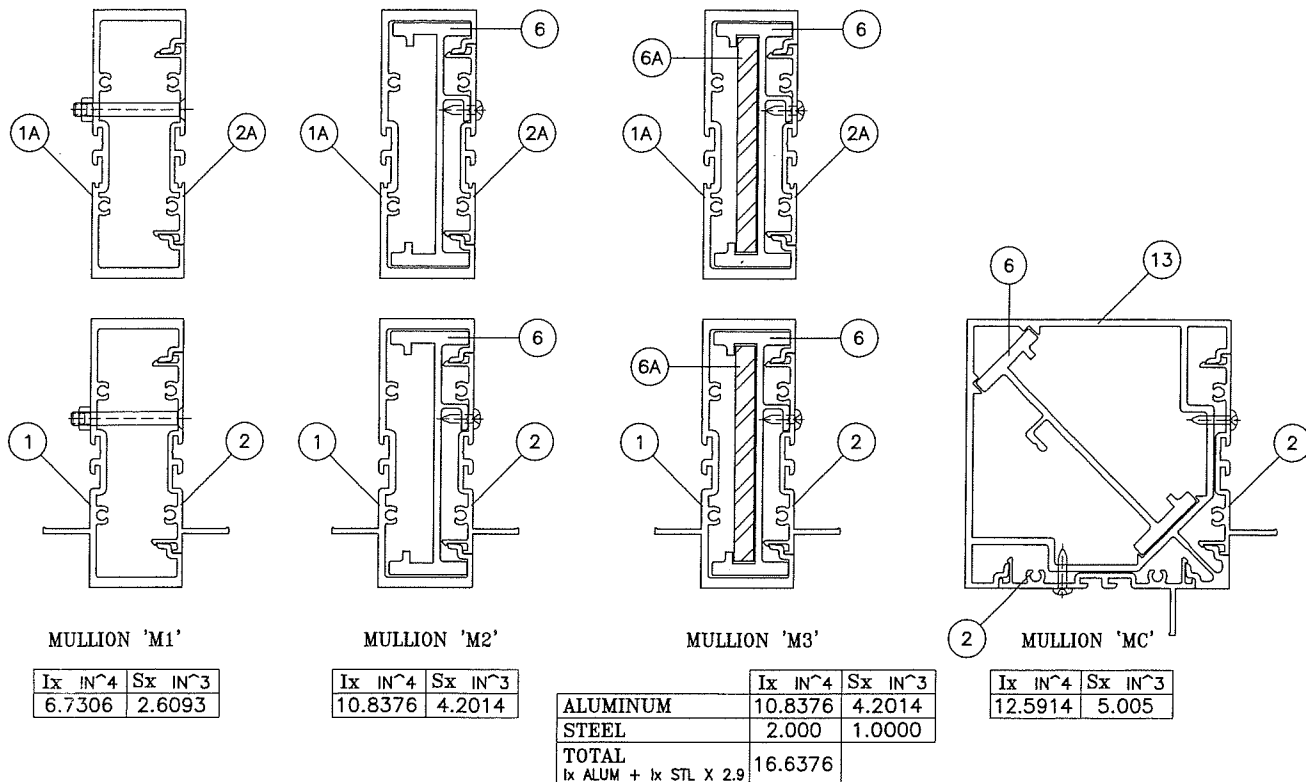
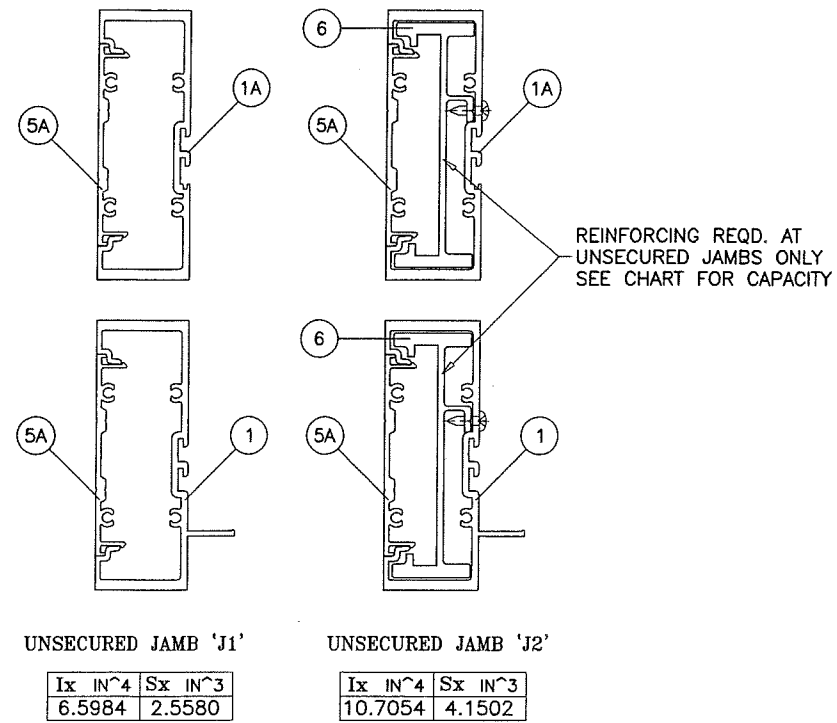
STORE W09-42ECO

JAMB & MULLION LOAD CAPACITY - PSF									
JAMBS & MULLIONS WITH INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		JAMB 'J2'		MULL 'MC'	
		MULL 'M1'		MULL 'M2'		MULL 'M3'			
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	84"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	99.6	80.0	100.0	80.0	130.0	80.0	120.0
60"		80.0	89.7	80.0	100.0	80.0	130.0	80.0	120.0
30"	90"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	97.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	86.2	80.0	100.0	80.0	130.0	80.0	120.0
60"		77.6	77.6	80.0	100.0	80.0	130.0	80.0	120.0
30"	96"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	96.7	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	84.6	80.0	100.0	80.0	130.0	80.0	120.0
54"		75.2	75.2	80.0	100.0	80.0	130.0	80.0	120.0
60"		67.7	67.7	80.0	100.0	80.0	129.1	80.0	120.0
30"	102"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	99.3	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	85.1	80.0	100.0	80.0	130.0	80.0	120.0
48"		74.5	74.5	80.0	100.0	80.0	130.0	80.0	120.0
54"		66.2	66.2	80.0	100.0	80.0	127.1	80.0	120.0
56"		63.8	63.8	80.0	98.1	80.0	122.5	80.0	120.0
60"	-	-	-	-	80.0	114.3	80.0	120.0	
30"	108"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	88.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		75.4	75.4	80.0	100.0	80.0	130.0	80.0	120.0
48"		66.0	66.0	80.0	100.0	80.0	127.5	80.0	120.0
53"		59.8	59.8	80.0	91.7	80.0	115.5	80.0	120.0
54"		-	-	-	-	80.0	114.0	80.0	120.0
56"	-	-	-	-	80.0	113.3	80.0	120.0	
60"	-	-	-	-	80.0	102.0	-	-	
30"	114"	80.0	94.0	80.0	100.0	80.0	100.0	80.0	120.0
36"		78.3	78.3	80.0	100.0	80.0	100.0	80.0	120.0
42"		67.1	67.1	80.0	100.0	80.0	100.0	80.0	120.0
48"		58.7	58.7	80.0	90.1	80.0	100.0	80.0	120.0
50"		56.4	56.4	80.0	86.5	80.0	100.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	80.0	120.0
60"	-	-	-	-	80.0	80.0	-	-	
30"	120"	80.0	80.6	80.0	100.0	80.0	100.0	80.0	120.0
36"		67.1	67.1	80.0	100.0	80.0	100.0	80.0	120.0
42"		57.5	57.5	80.0	92.2	80.0	100.0	80.0	120.0
48"		50.4	50.4	80.0	80.7	80.0	100.0	80.0	120.0
51-7/8"		-	-	-	-	80.0	100.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	-	-
60"	-	-	-	-	80.0	80.0	-	-	
30"	126"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-
48"		-	-	-	-	80.0	80.0	-	-
54"		-	-	-	-	80.0	80.0	-	-
60"		-	-	-	-	74.9	74.9	-	-
30"	132"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-
48"		-	-	-	-	80.0	80.0	-	-
54"		-	-	-	-	75.9	75.9	-	-
60"		-	-	-	-	68.3	68.3	-	-



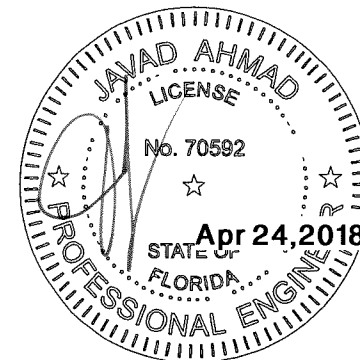
WIDTH (W) = W1
AT FRAME JAMB

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



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 18-0503.03
Expiration Date 12/20/2021

By: *[Signature]*
Miami Dade Product Control



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
STORE W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th STREET
MEDLEY, FL. 33166
TEL. (305) 885-5299 FAX (305) 885-5902

no.	date	by	description
C	01.13.15		REV. PER RER COMMENTS
D	10.05.16		GENERAL REVISION
E	08.02.17		REV. PER RER COMMENTS
F	04.13.18		CORNER MULLION ADDED

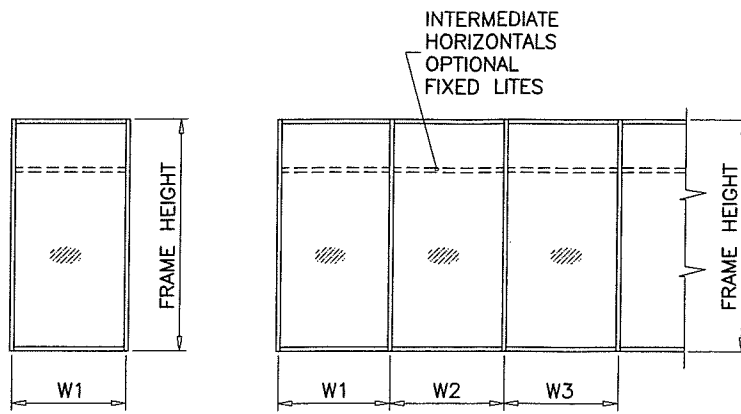
revisions:

date: 08-13-09
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

drawing no.
W09-42
sheet 4 of 12

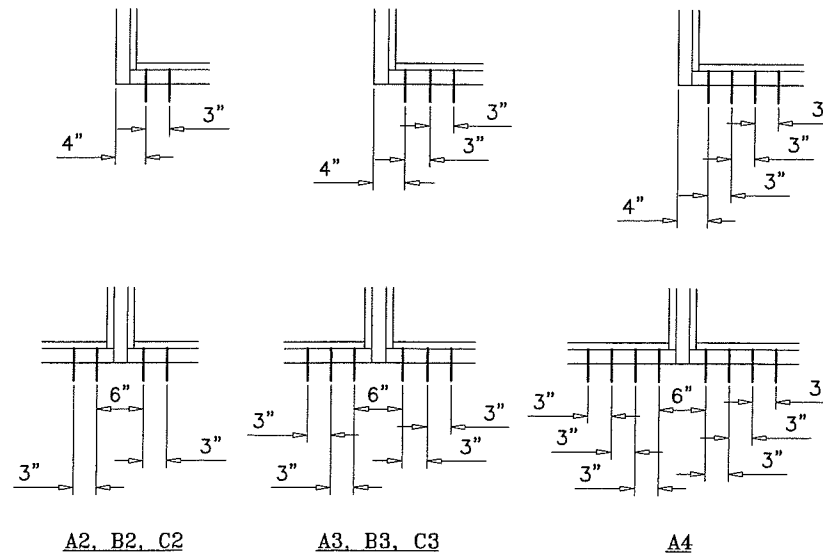
ANCHOR LOAD CAPACITY - PSF
EXT.(+) & INT.(-)

NOMINAL DIMS.		ANCHORS TYPE 'A'			ANCHORS TYPE 'B' & 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/C2	B3/C3	B4/C4
30"	84"	123.0	130.0	130.0	130.0	130.0	130.0
36"		102.5	130.0	130.0	130.0	130.0	130.0
42"		87.8	130.0	130.0	112.3	130.0	130.0
48"		76.9	115.3	130.0	98.3	130.0	130.0
54"		68.3	102.5	130.0	87.4	130.0	130.0
60"		61.5	92.2	123.0	78.6	117.9	130.0
30"	90"	114.8	130.0	130.0	130.0	130.0	130.0
36"		95.6	130.0	130.0	122.3	130.0	130.0
42"		82.0	123.0	130.0	104.8	130.0	130.0
48"		71.7	107.6	130.0	91.7	130.0	130.0
54"		63.8	95.6	127.5	81.5	122.3	130.0
60"		57.4	86.1	114.8	73.4	110.1	130.0
30"	96"	107.6	130.0	130.0	130.0	130.0	130.0
36"		89.7	130.0	130.0	114.7	130.0	130.0
42"		76.9	115.3	130.0	98.3	130.0	130.0
48"		67.3	100.9	130.0	86.0	129.0	130.0
54"		59.8	89.7	119.6	76.4	114.7	130.0
60"		53.8	80.7	107.6	68.8	103.2	130.0
30"	102"	101.3	130.0	130.0	129.5	130.0	130.0
36"		84.4	126.6	130.0	107.9	130.0	130.0
42"		72.3	108.5	130.0	92.5	130.0	130.0
48"		63.3	94.9	126.6	80.9	121.4	130.0
54"		56.3	84.4	112.5	71.9	107.9	130.0
60"		50.6	76.0	101.3	64.8	97.1	129.5
30"	108"	95.6	130.0	130.0	122.3	130.0	130.0
36"		79.7	119.6	130.0	101.9	130.0	130.0
42"		68.3	102.5	130.0	87.4	130.0	130.0
48"		59.8	89.7	119.6	76.4	114.7	130.0
54"		53.1	79.7	106.3	68.0	101.9	130.0
60"		47.8	71.7	95.6	61.2	91.7	122.3
30"	114"	90.6	130.0	130.0	115.9	130.0	130.0
36"		75.5	113.3	130.0	96.6	130.0	130.0
42"		64.7	97.1	129.4	82.8	124.2	130.0
48"		56.6	84.9	113.3	72.4	108.6	130.0
54"		50.3	75.5	100.7	64.4	96.6	128.7
60"		45.3	68.0	90.6	57.9	86.9	115.9
30"	120"	86.1	129.1	130.0	110.1	130.0	130.0
36"		71.7	107.6	130.0	91.7	130.0	130.0
42"		61.5	92.2	123.0	78.6	117.9	130.0
48"		53.8	80.7	107.6	68.8	103.2	130.0
54"		47.8	71.7	95.6	61.2	91.7	122.3
60"		43.0	64.6	86.1	55.0	82.6	110.1
30"	126"	82.0	123.0	130.0	104.8	130.0	130.0
36"		68.3	102.5	130.0	87.4	130.0	130.0
42"		58.6	87.8	117.1	74.9	112.3	130.0
48"		51.2	76.9	102.5	65.5	98.3	130.0
54"		45.5	68.3	91.1	58.2	87.4	116.5
60"		41.0	61.5	82.0	52.4	78.6	104.8
30"	132"	78.3	117.4	130.0	100.1	130.0	130.0
36"		65.2	97.8	130.0	83.4	125.1	130.0
42"		55.9	83.8	111.8	71.5	107.2	130.0
48"		48.9	73.4	97.8	62.5	93.8	125.1
54"		43.5	65.2	86.9	55.6	83.4	111.2
60"		39.1	58.7	78.3	50.0	75.1	100.1



WIDTH (W) = W1
AT FRAME JAMB

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



ANCHORS TYPES: SEE SHEET 6 FOR DESCRIPTION

A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

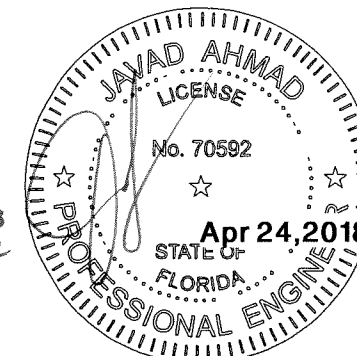
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION

NOTE:
USE SEAR CLIP UW-403 AT
ANCHOR LOCATIONS OF SUFFICIENT LENGTH
TO COVER ALL ANCHOR SPACINGS

PRODUCT REVIEWED
as complying with the Florida
Building Code
Acceptance No. 18-0503.03
Expiration Date 12/31/2022

By:
Miami Dade Product Control



af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-5100 FAX. (305) 262-6978
STORE W09-42ECO

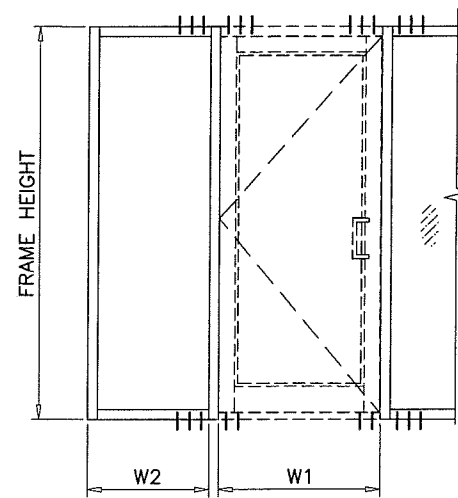
SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th STREET
MEDLEY, FL. 33166
TEL. (305) 885-5299 FAX (305) 885-5902

no	date	by	description
C	01.13.15	REV. PER RER COMMENTS	
D	10.05.16	GENERAL REVISION	
E	08.02.17	NO CHANGE THIS SHEET	
F	04.13.18	NO CHANGE THIS SHEET	

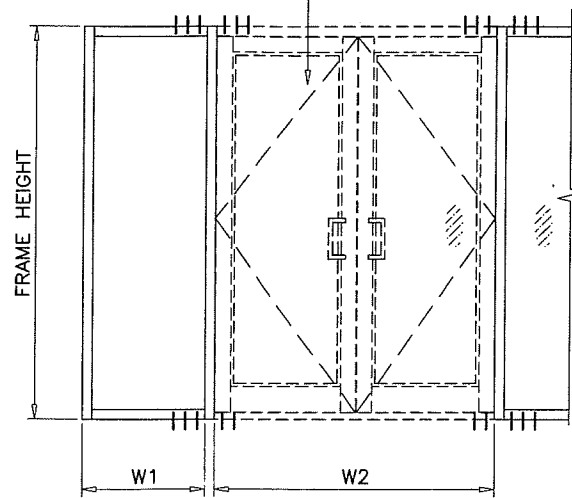
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dr. by:	TARIQ
chk. by:	

drawing no.
W09-42
sheet 5 of 12

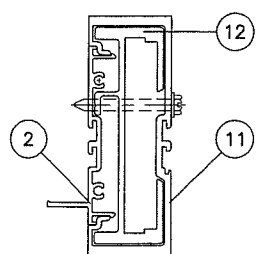
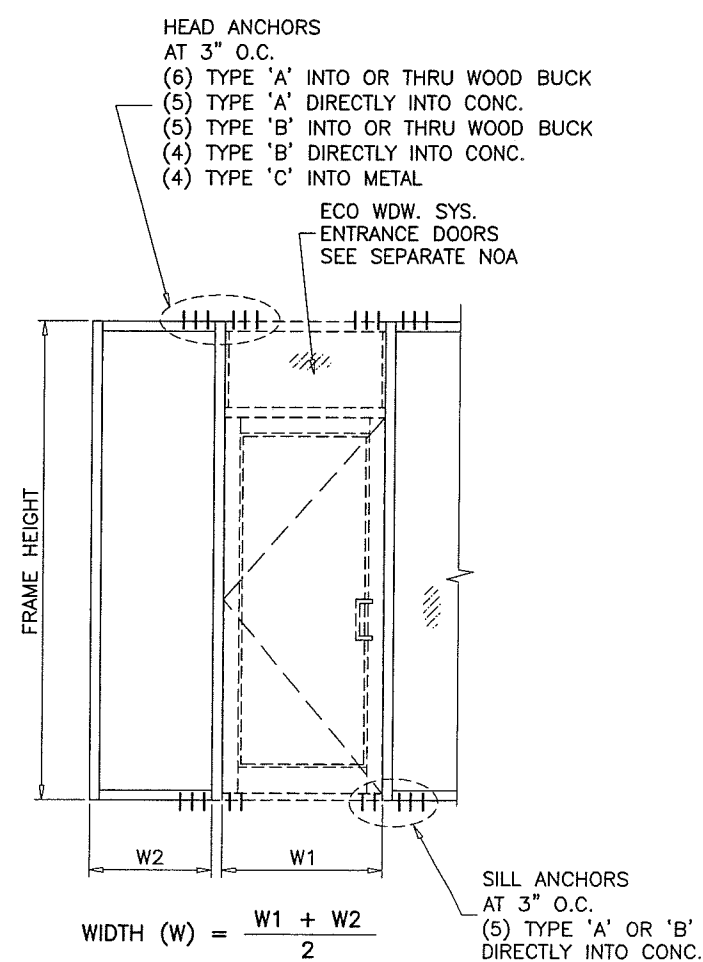
DOOR MULLION LOAD CAPACITY					
NOMINAL DIMS.		ALUMINUM REINF.		ALUM.+STEEL REINF.	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(--)	EXT.(+)	INT.(--)
36"	84"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
60"		70.0	80.0	70.0	80.0
36"	90"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
60"		70.0	80.0	70.0	80.0
36"	96"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
60"		70.0	80.0	70.0	80.0
36"	102"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
58"		70.0	80.0	70.0	80.0
36"	108"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
55"		70.0	80.0	70.0	80.0
36"	114"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
52"		70.0	80.0	70.0	80.0
36"	120"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
49"		70.0	80.0	70.0	80.0
36"	126"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
47"		70.0	75.0	70.0	80.0
36"	132"	70.0	80.0	70.0	80.0
42"		70.0	73.0	70.0	80.0
45"		68.1	68.1	70.0	80.0



$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

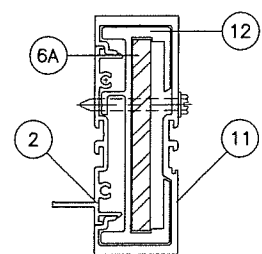


$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4}$$



DOOR MULLION ALUMINUM REINF.

Ix IN ⁴	Sx IN ³
11.3629	4.5263

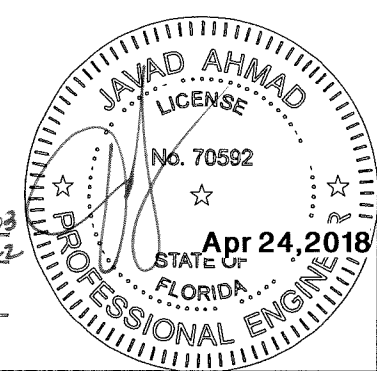


DOOR MULLION ALUM.+STEEL REINF.

	Ix IN ⁴	Sx IN ³
ALUMINUM	11.3629	4.5263
STEEL	2.000	1.000
TOTAL Ix ALUM + Ix STL X 2.9	17.1629	

DOOR MULLION

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 18-0503.03
 Expiration Date 12/20/2022
 By: Miami Dade Product Control



AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
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 STORE W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
 8502 N.W. 80th STREET
 MEDLEY, FL. 33166
 TEL. (305) 885-5299 FAX (305) 885-5902

revisions:

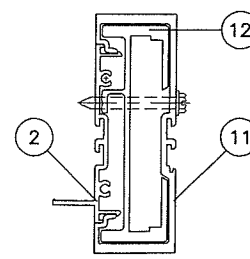
no	date	by	description
D	10.05.16		GENERAL REVISION
E	08.02.17		REV. PER RER COMMENTS
F	04.13.18		NO CHANGE THIS SHEET

date: 08-13-09
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:
 drawing no. **W09-42**
 sheet 6 of 12

DOOR MULLION LOAD CAPACITY - PSF								
NOMINAL DIMS.				ALUMINUM REINF.		ALUM.+STEEL REINF.		
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
85-3/4	108	84	84	30	70.0	80.0	70.0	80.0
				36	70.0	80.0	70.0	80.0
				42	70.0	80.0	70.0	80.0
				48	70.0	80.0	70.0	80.0
				54	70.0	80.0	70.0	80.0
				59	70.0	80.0	70.0	80.0
	114	84	84	30	70.0	80.0	70.0	80.0
				36	70.0	80.0	70.0	80.0
				42	70.0	80.0	70.0	80.0
				48	70.0	77.8	70.0	80.0
				54	70.0	74.2	70.0	80.0
				56	70.0	73.0	70.0	80.0
	120	84	84	30	70.0	80.0	70.0	80.0
				36	70.0	75.8	70.0	80.0
				42	70.0	72.1	70.0	80.0
				48	68.6	68.6	70.0	80.0
				53	66.0	66.0	70.0	77.5
				30	70.0	70.5	70.0	80.0
	126	84	84	36	66.5	66.5	70.0	79.3
				42	63.0	63.0	70.0	75.4
				48	59.8	59.8	70.0	71.9
				51	58.3	58.3	70.0	70.3
				30	60.0	60.0	70.0	75.1
				36	56.6	56.6	70.0	71.3
132	84	84	42	53.7	53.7	67.9	67.9	
			48	51.0	51.0	64.7	64.7	
			30	60.0	60.0	70.0	80.0	
			36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	80.0	
			48	60.0	60.0	70.0	80.0	
85-3/4	108	90	90	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				59	60.0	60.0	70.0	80.0
	114	90	90	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				56	60.0	60.0	70.0	80.0
120	90	90	30	60.0	60.0	70.0	80.0	
			36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	80.0	
			48	60.0	60.0	70.0	80.0	
			53	60.0	60.0	70.0	79.9	
			30	60.0	60.0	70.0	80.0	
126	90	90	36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	77.4	
			48	60.0	60.0	70.0	73.7	
			51	60.0	60.0	70.0	72.0	
			30	60.0	60.0	70.0	76.8	
			36	58.6	58.6	70.0	72.8	
132	90	90	42	55.4	55.4	69.2	69.2	
			48	52.5	52.5	66.0	66.0	

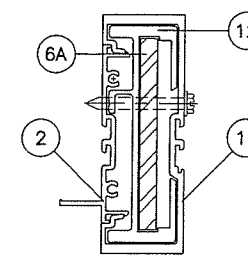
DOOR MULLION LOAD CAPACITY - PSF								
NOMINAL DIMS.				ALUMINUM REINF.		ALUM.+STEEL REINF.		
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
85-3/4	108	96	96	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				59	60.0	60.0	70.0	80.0
	114	96	96	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				56	60.0	60.0	70.0	80.0
	120	96	96	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				53	60.0	60.0	70.0	80.0
				30	60.0	60.0	70.0	80.0
	126	96	96	36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	76.0
				51	60.0	60.0	70.0	74.2
				30	60.0	60.0	70.0	79.1
				36	60.0	60.0	70.0	74.9
132	96	96	42	57.6	57.6	70.0	71.1	
			48	54.5	54.5	67.7	67.7	
			30	60.0	60.0	70.0	80.0	
			36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	80.0	
			48	60.0	60.0	70.0	80.0	
85-3/4	108	102	102	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				59	60.0	60.0	70.0	80.0
	114	102	102	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				56	60.0	60.0	70.0	80.0
120	102	102	30	60.0	60.0	70.0	80.0	
			36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	80.0	
			48	60.0	60.0	70.0	80.0	
			53	60.0	60.0	70.0	80.0	
			30	60.0	60.0	70.0	80.0	
126	102	102	36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	80.0	
			48	60.0	60.0	70.0	80.0	
			51	60.0	60.0	70.0	77.1	
			30	60.0	60.0	70.0	80.0	
			36	60.0	60.0	70.0	77.5	
132	102	102	42	60.0	60.0	70.0	73.5	
			48	56.9	56.9	69.9	69.9	

DOOR MULLION LOAD CAPACITY - PSF								
NOMINAL DIMS.				ALUMINUM REINF.		ALUM.+STEEL REINF.		
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
85-3/4	108	108	108	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				59	60.0	60.0	70.0	80.0
	114	108	108	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				54	60.0	60.0	70.0	80.0
				56	60.0	60.0	70.0	80.0
	120	108	108	30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				53	60.0	60.0	70.0	80.0
				30	60.0	60.0	70.0	80.0
	126	108	108	36	60.0	60.0	70.0	80.0
				42	60.0	60.0	70.0	80.0
				48	60.0	60.0	70.0	80.0
				51	60.0	60.0	70.0	80.0
				30	60.0	60.0	70.0	80.0
				36	60.0	60.0	70.0	80.0
132	108	108	42	60.0	60.0	70.0	80.0	
			48	60.0	60.0	70.0	80.0	
			51	60.0	60.0	70.0	80.0	
			30	60.0	60.0	70.0	80.0	
			36	60.0	60.0	70.0	80.0	
			42	60.0	60.0	70.0	76.6	
48	59.5	59.5	70.0	72.6				



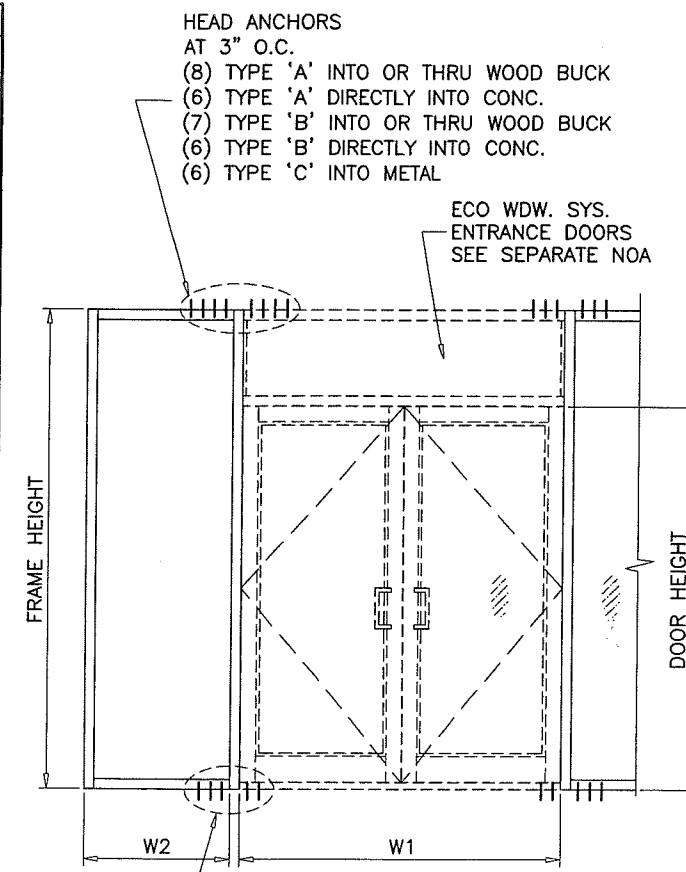
DOOR MULLION
ALUMINUM REINF.

Ix IN ⁴	Sx IN ³
11.3629	4.5263



DOOR MULLION
ALUM.+STEEL REINF.

	Ix IN ⁴	Sx IN ³
ALUMINUM	11.3629	4.5263
STEEL	2.000	1.000
TOTAL	13.3629	5.5263
Ix ALUM + Ix STL X 2.9	17.1629	



- HEAD ANCHORS
AT 3" O.C.
(8) TYPE 'A' INTO OR THRU WOOD BUCK
(6) TYPE 'A' DIRECTLY INTO CONC.
(7) TYPE 'B' INTO OR THRU WOOD BUCK
(6) TYPE 'B' DIRECTLY INTO CONC.
(6) TYPE 'C' INTO METAL

- SILL ANCHORS
AT 3" O.C.
(5) TYPE 'A' OR 'B'
DIRECTLY INTO CONC.

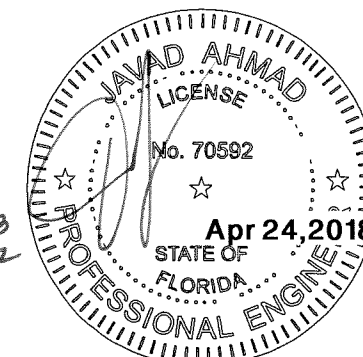
af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th STREET
MEDLEY, FL. 33166
TEL. (305) 885-5299 FAX (305) 885-5902

no	date	description
D	10.05.16	GENERAL REVISION
E	06.02.17	REV. PER PER COMMENTS
F	04.13.18	NO CHANGE THIS SHEET

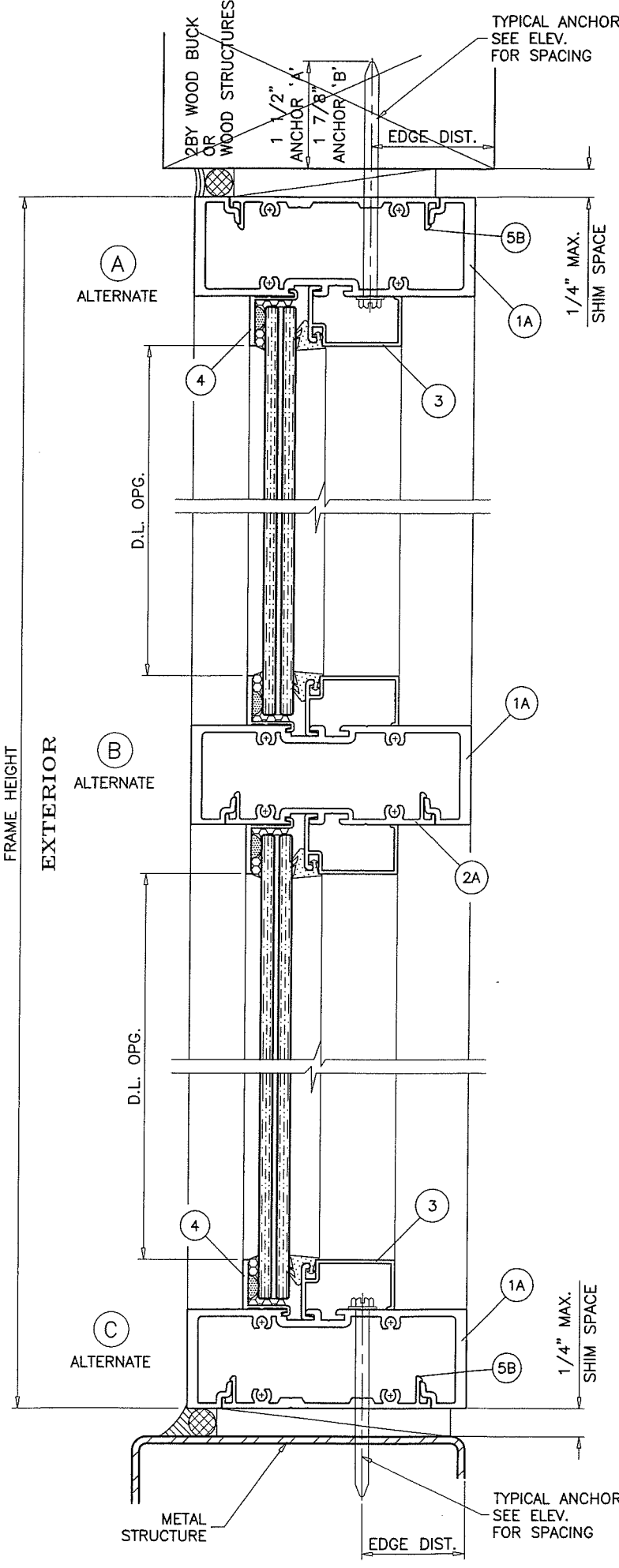
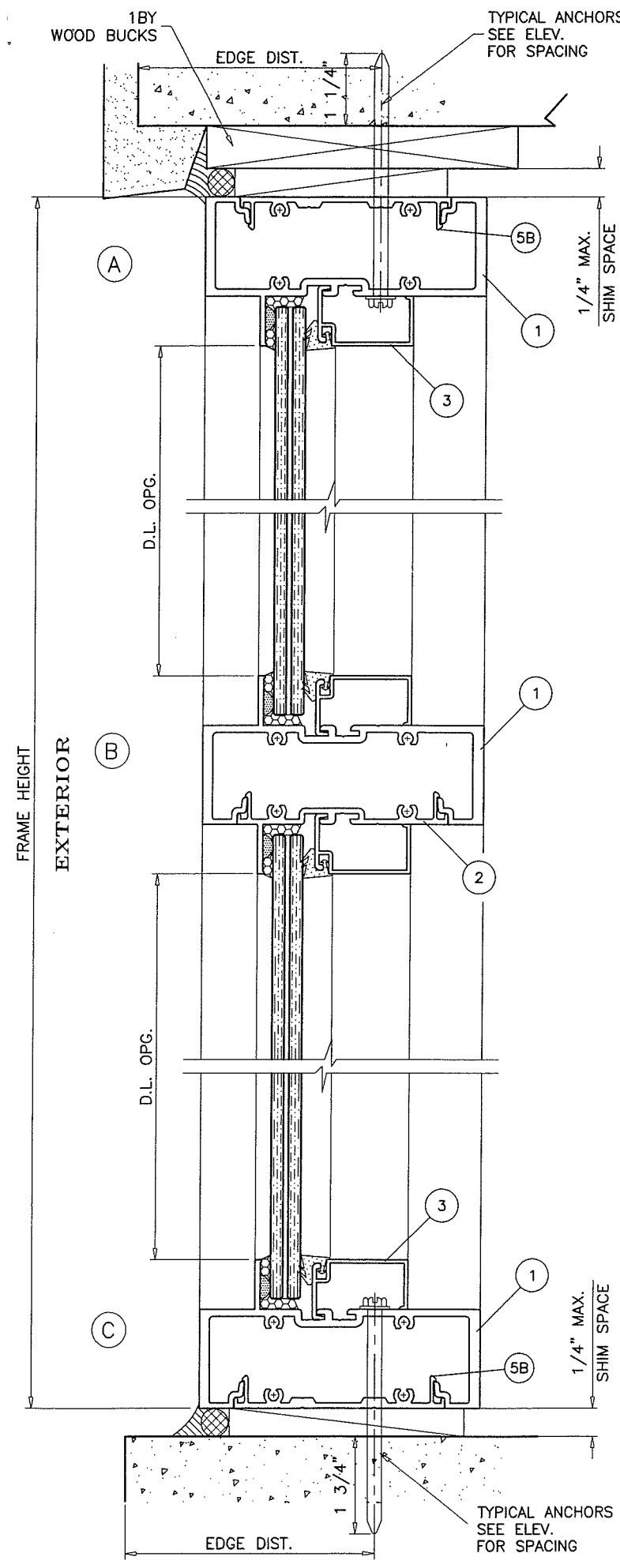
date: 08-13-09
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:
drawing no.
W09-42
sheet 7 of 12

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 16-0503.03
Expiration Date 12/20/2022



By:
Miami Dade Product Control

DOOR MULLION



WOOD BUCKS AND METAL STRUCTURE NOT BY ECO WINDOWS 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 'ELCO' (Fu=177 KSI, Fy=155 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
 1-5/8" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
 INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B'
5/16" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 KSI)
 INTO WOOD STRUCTURES
 1-7/8" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY OR 2BY BUCKS INTO CONC. OR BLOCKS
 1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)
 DIRECTLY INTO CONCRETE OR BLOCKS
 1-5/8" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

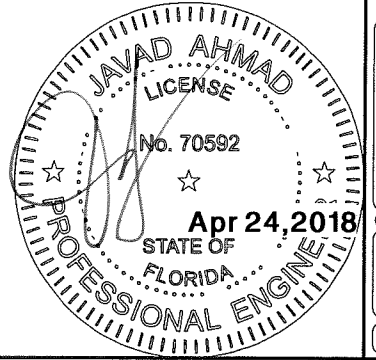
ANCHOR EDGE DISTANCES
 INTO CONCRETE AND MASONRY = 3" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

TYPE 'C'
#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
 INTO MIAMI-DADE COUNTY APPROVED MULLIONS OR
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. PENETRATION BEYOND 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 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 18-0503.03
 Expiration Date 12/20/2022
 By: [Signature]
 Miami Dade Product Control

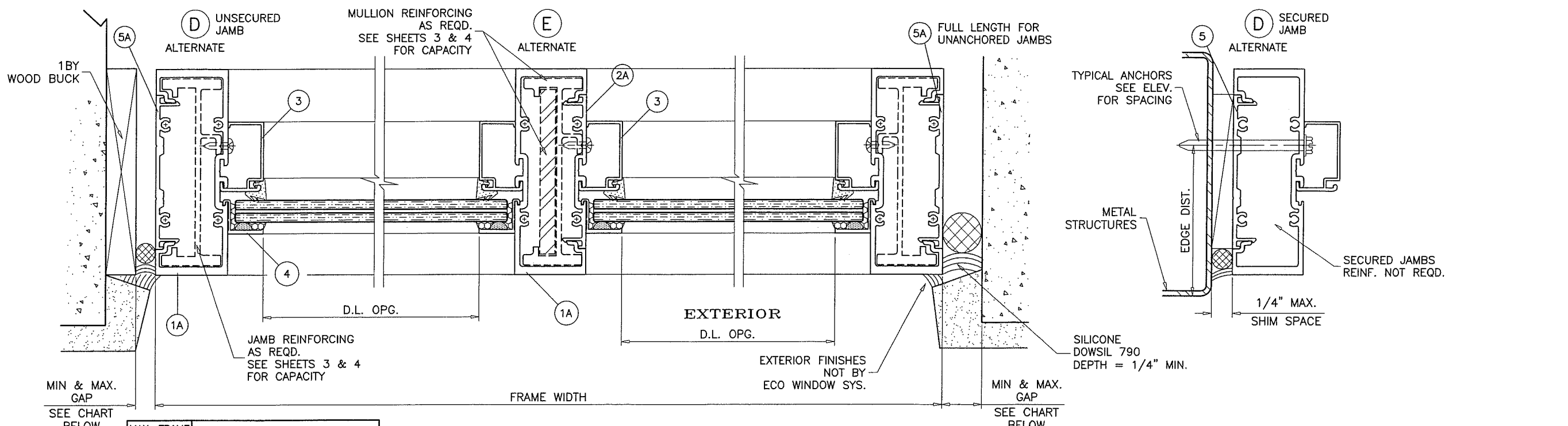
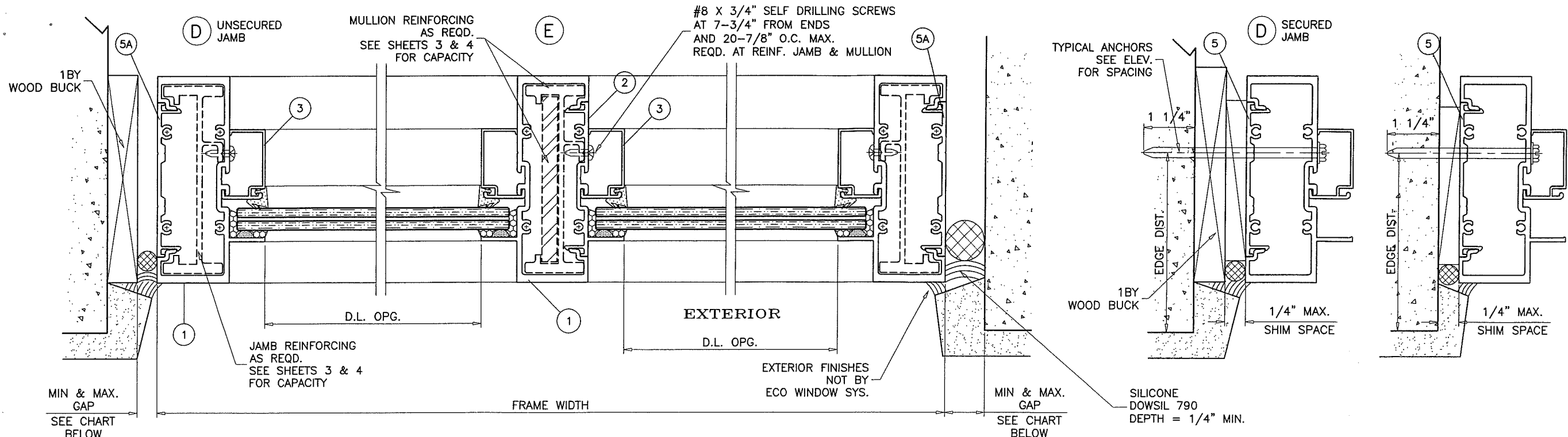


af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
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 STORE/W09-42ECO

SERIES 400 ALUM WINDOW WALL SYSTEM (L.M.I.)
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 MEDLEY, FL. 33166
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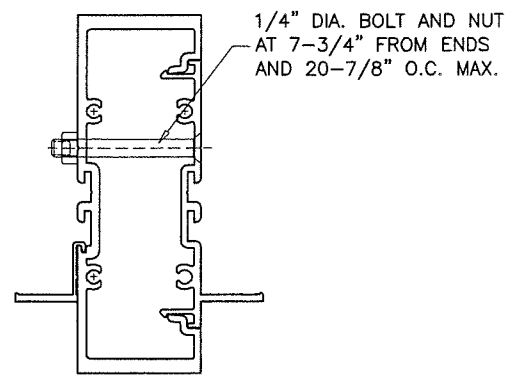
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F	04.13.18	NO	CHANGE THIS SHEET

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 chk. by:
 drawing no. W09-42
 sheet 8 of 12

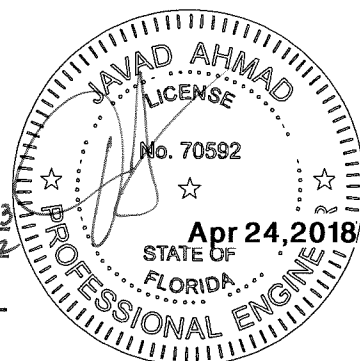


MAX. FRAME HEIGHT UPTO	GAPS FOR UNANCHORED JAMBS	
	MIN.	MAX.
120"	1/4"	1"
132"	3/8"	1"

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.
 REFER TO SHEETS 4 THRU 7 FOR SELECTION OF MULLION/JAMB WITH REINFORCED & UNREINFORCED FRAMES.



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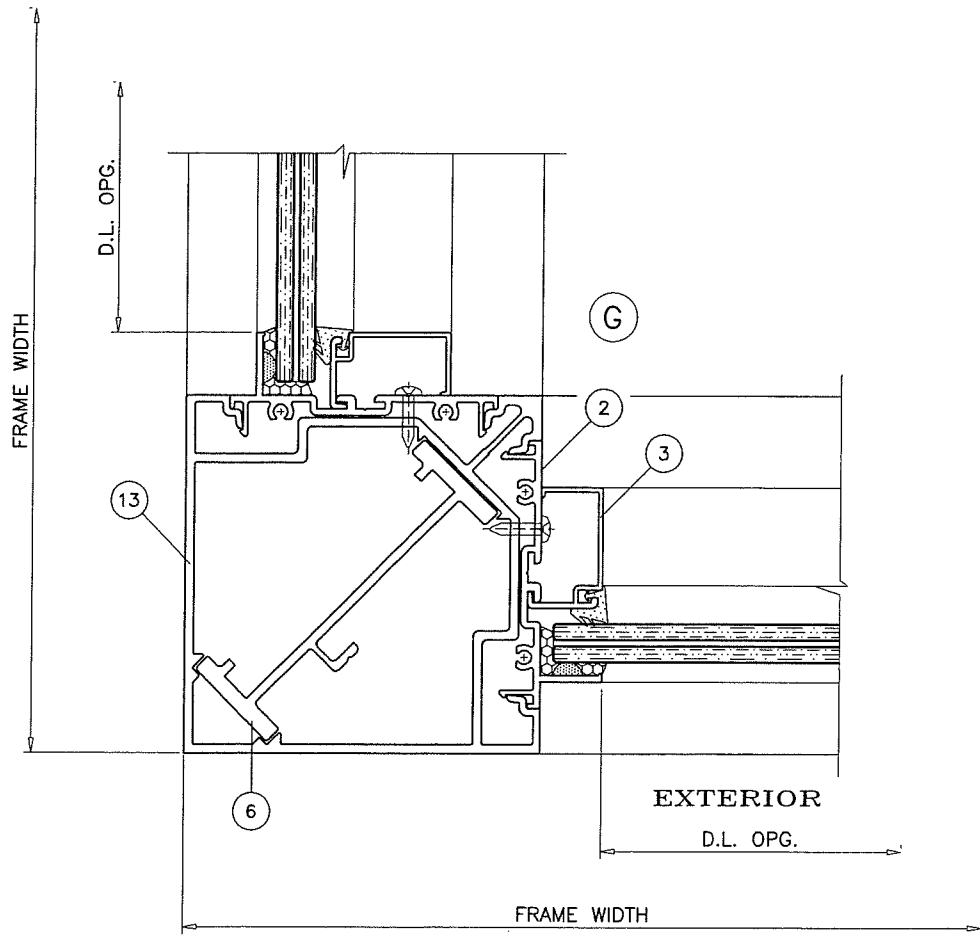
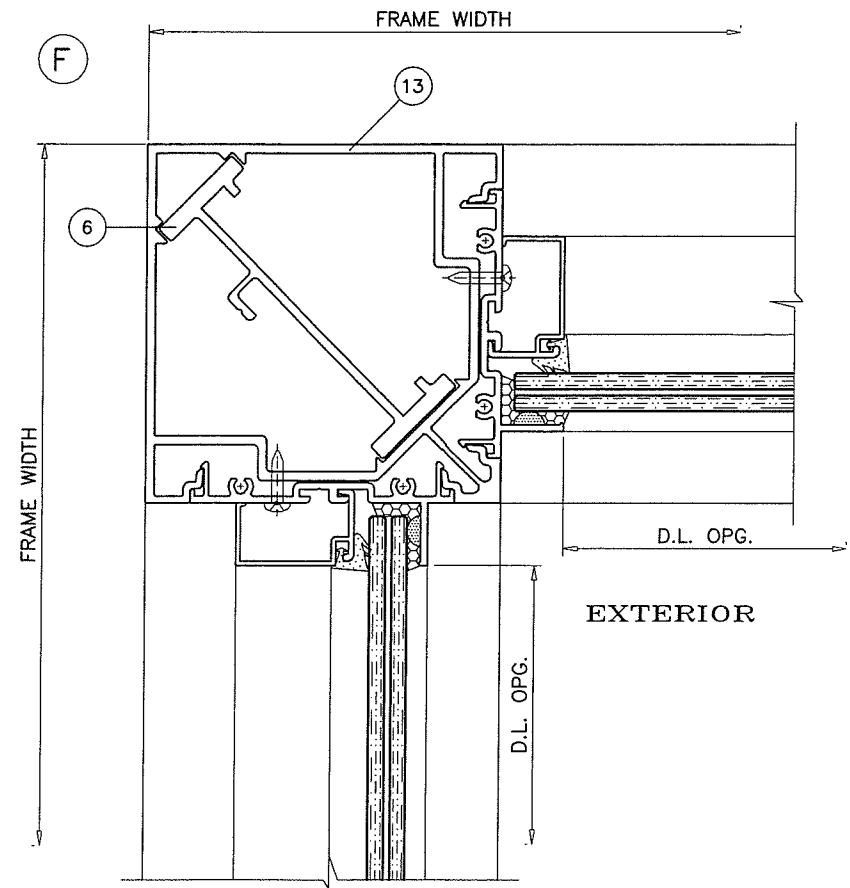
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 ENGINEERS & PRODUCT DEVELOPMENT
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 8502 N.W. 80th STREET
 MEDLEY, FL. 33166
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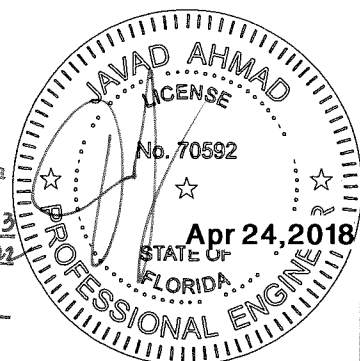
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dr. by:	TARIQ
chk. by:	

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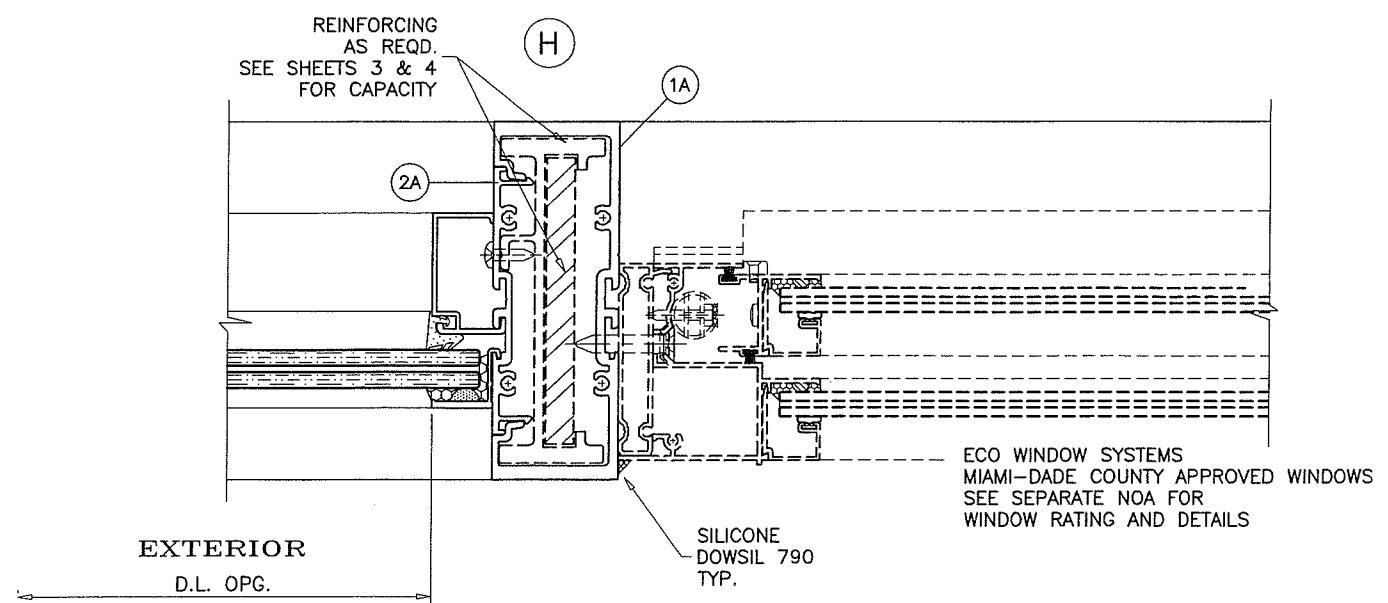
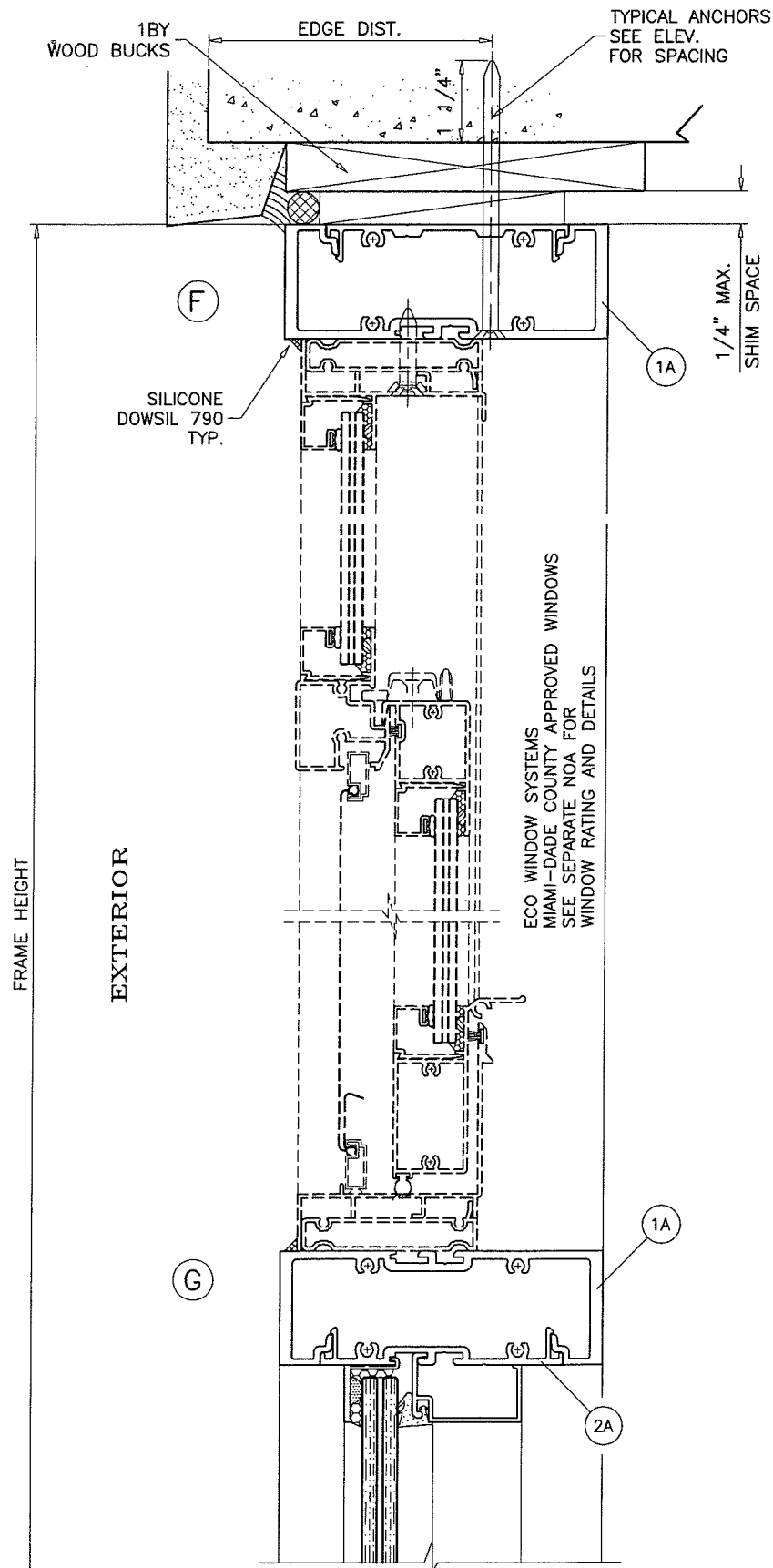


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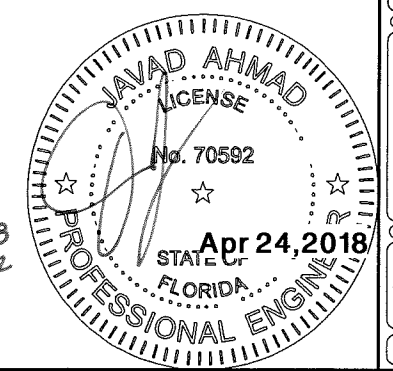
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no	date	by	description
F	04.13.18		CORNER MULLION ADDED

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chk. by:	
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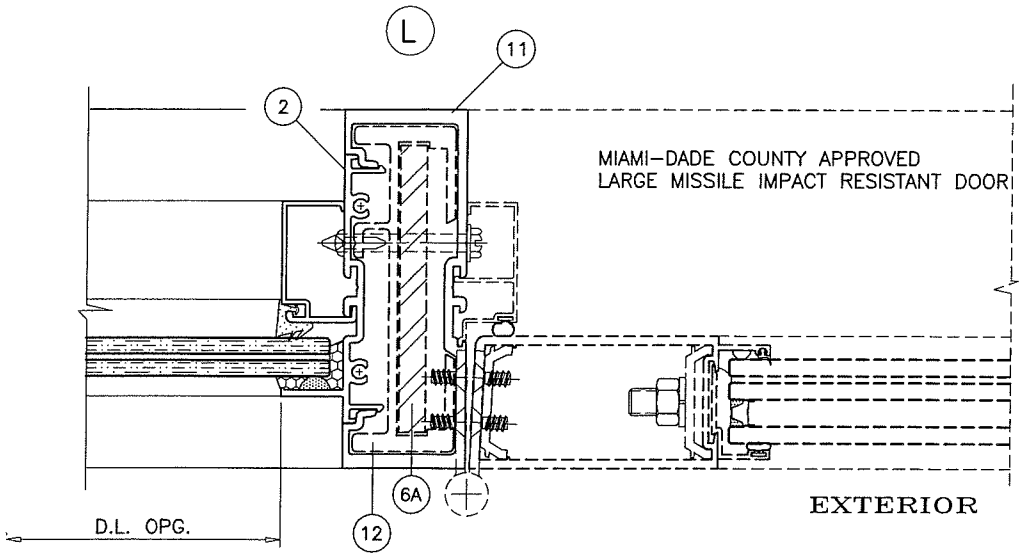
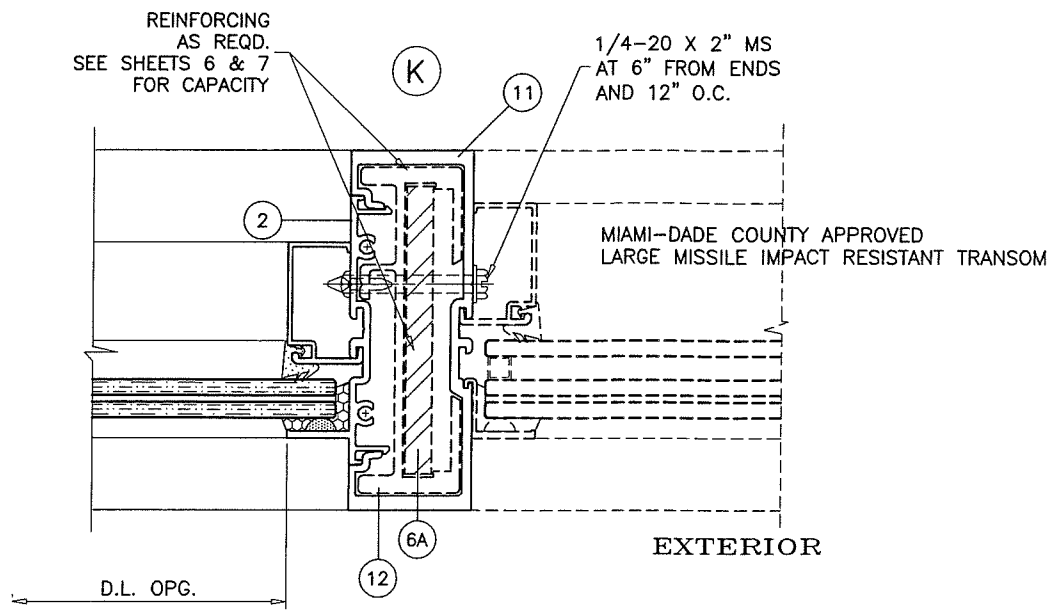


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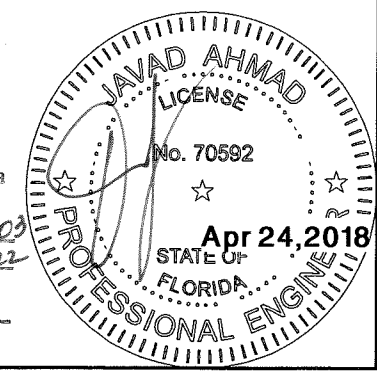
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SEE SEPARATE NOA FOR DESIGN LOAD CAPACITY OF DOORS AND DOOR ANCHORS.
 LOWER VALUES FROM DOORS NOA OR WINDOW WALL SYSTEM CAPACITY CHARTS WILL APPLY TO ENTIRE SYSTEM.

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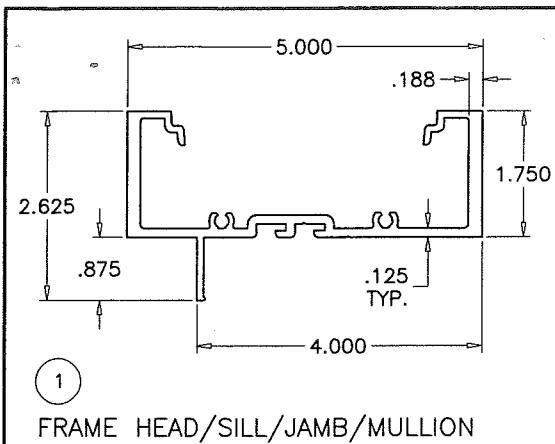
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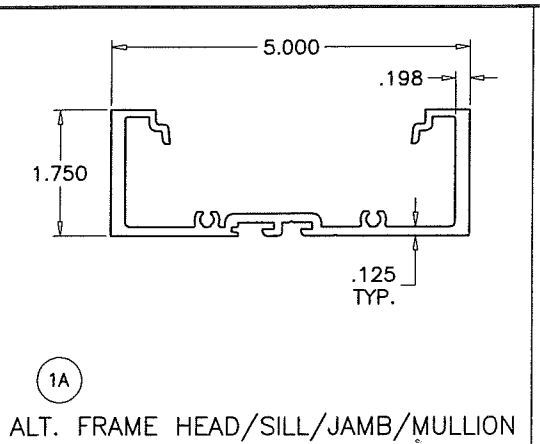
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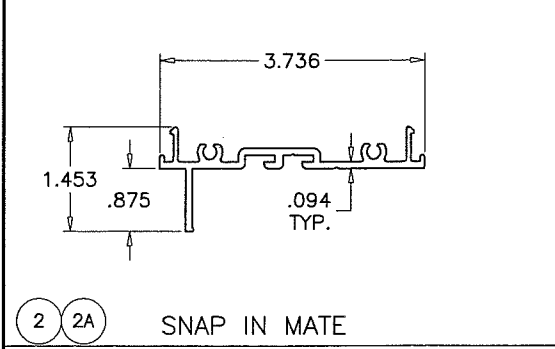
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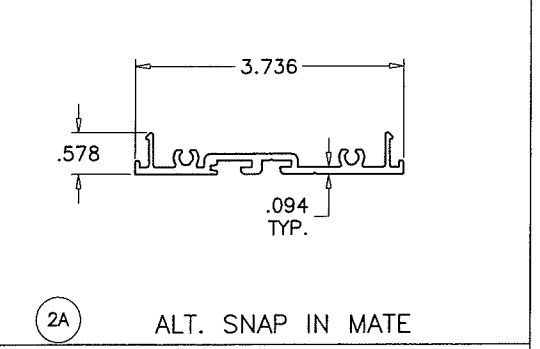
1 FRAME HEAD/SILL/JAMB/MULLION



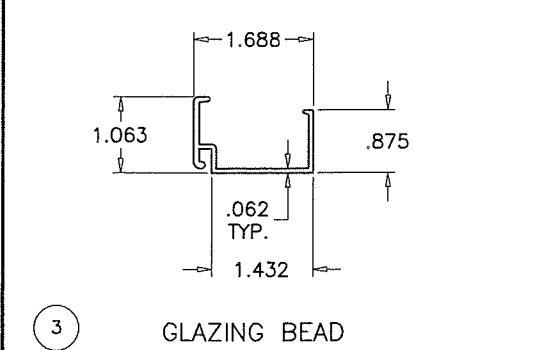
1A ALT. FRAME HEAD/SILL/JAMB/MULLION



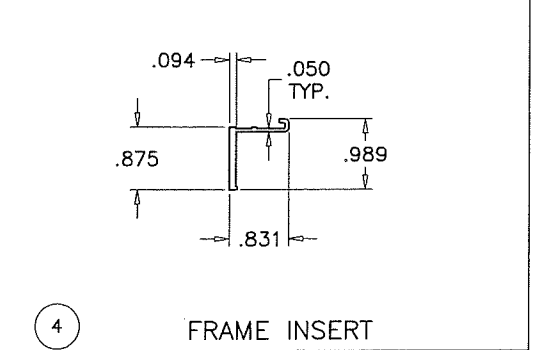
2 SNAP IN MATE



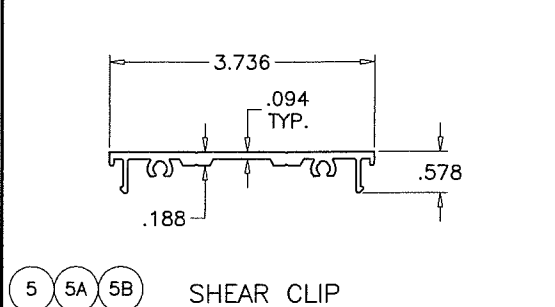
2A ALT. SNAP IN MATE



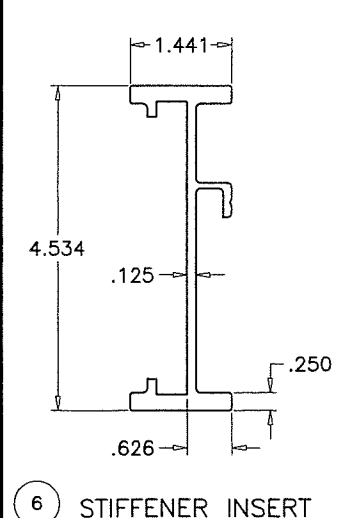
3 GLAZING BEAD



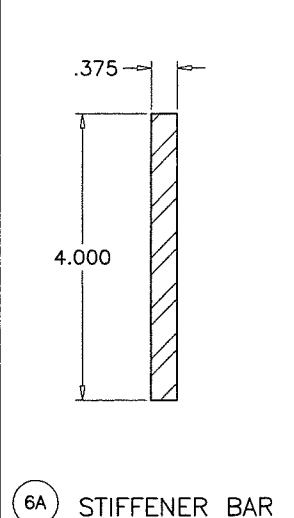
4 FRAME INSERT



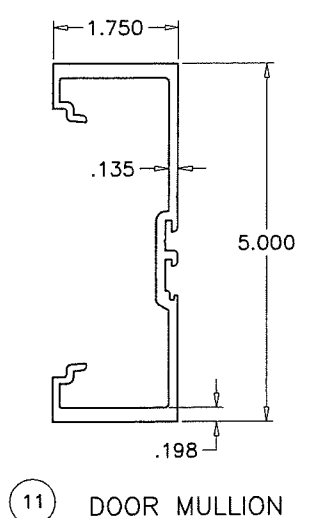
5 SHEAR CLIP



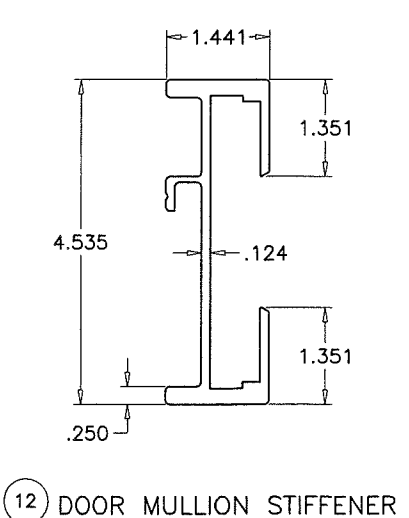
6 STIFFENER INSERT



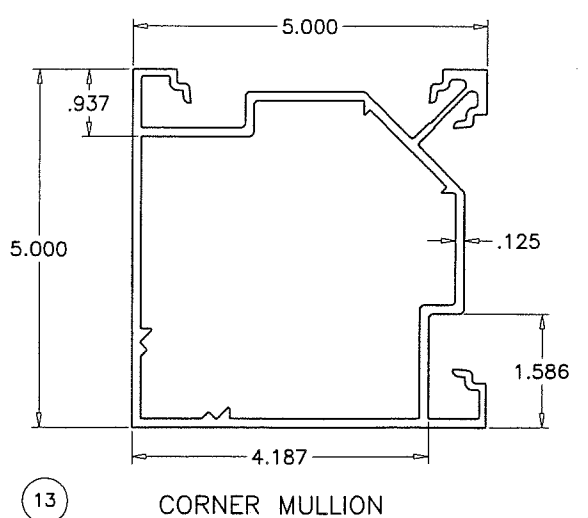
6A STIFFENER BAR



11 DOOR MULLION



12 DOOR MULLION STIFFENER



13 CORNER MULLION

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	UW-401	AS REQD.	FRAME HEAD/SILL/JAMB/MULLION	6063-T6	-
1A	UW-407	AS REQD.	ALT. FRAME HEAD/SILL/JAMB/MULLION	6063-T6	-
2	UW-402	AS REQD.	SNAP-IN MATE	6063-T6	-
2A	UW-402	AS REQD.	ALT. SNAP-IN MATE	6063-T6	-
3	UW-404	AS REQD.	GLAZING BEAD	6063-T6	-
4	UW-408	AS REQD.	FRAME INSERT	6063-T6	-
5	UW-403	AS REQD.	SHEAR CLIP, 3-3/4" LONG AT JAMB ANCHORS	6063-T6	-
5A	UW-403	AS REQD.	SHEAR CLIP, FULL LENGTH	6063-T6	-
5B	UW-403	AS REQD.	SHEAR CLIP, LENGTH VARIES TO COVER ANCHOR SPACINGS	6063-T6	-
6	UW-408	AS REQD.	STIFFENER INSERT	6063-T6	-
6A	-	AS REQD.	STIFFENER BAR	GALV. STEEL	-
7	UW-406	AS REQD.	GLAZING GASKET	NEOPRENE	DUROMETER 55±5 SHORE A
8	#12 X 1-1/4"	4/ CORNER	FRAME ASSEMBLY SCREWS	-	PH SMS
9	-	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (3/16" X 1/2" X 2" LONG)	EPDM	DUROMETER 80±5 SHORE A
10	-	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE
11	UW-407	AS REQD.	DOOR MULLION	6063-T6	-
12	E813	AS REQD.	DOOR MULLION INSERT	6063-T6	-
13	UW-411	AS REQD.	CORNER MULLION	6063-T6	-

SEALANTS:

ALL FRAME JOINTS AND SEAMS SEALED WITH SCHNEE-MOREHEAD SM5504 ACRYL-R SEAM SEALER.

af c
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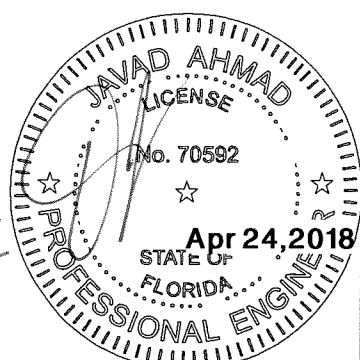
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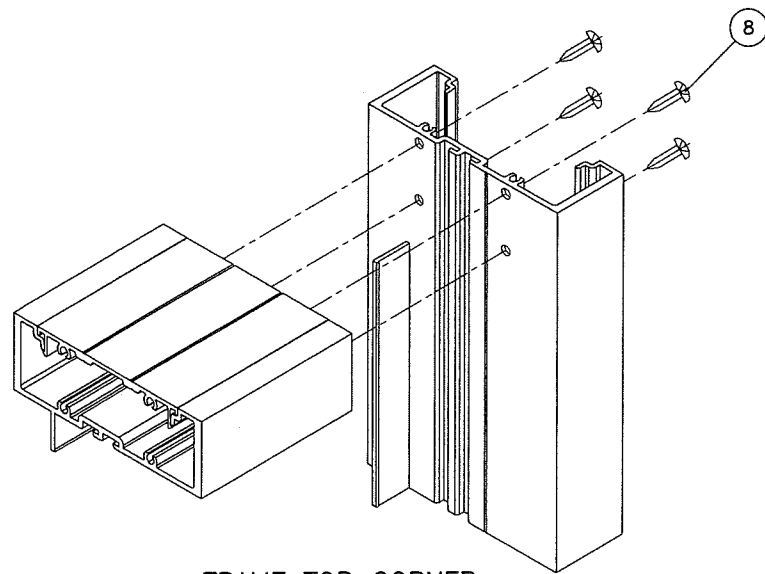
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 sheet 12 of 12

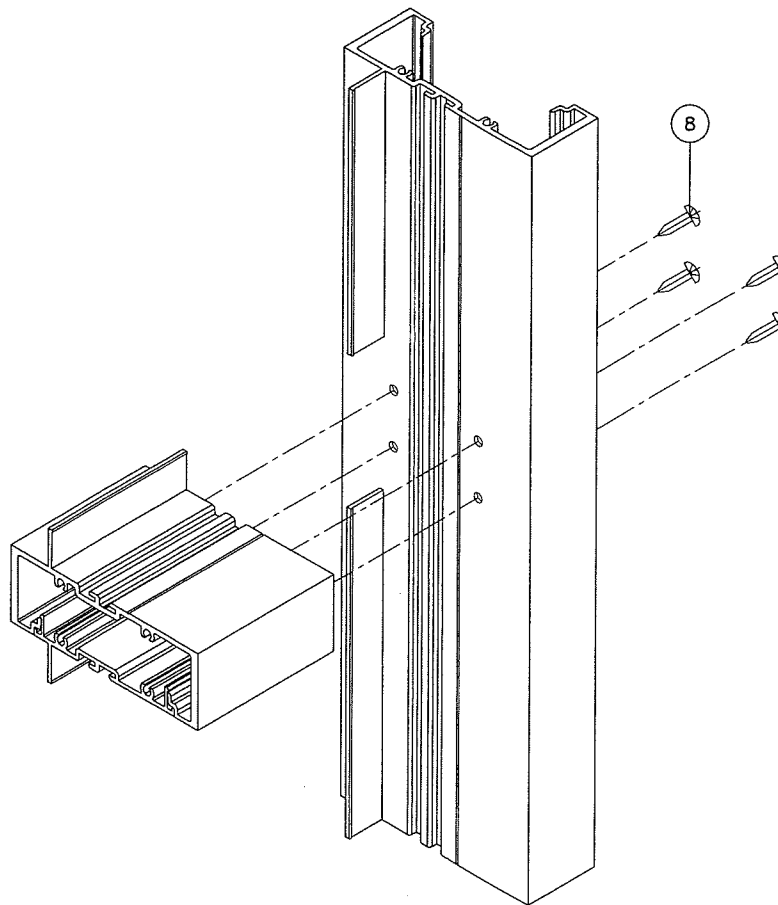
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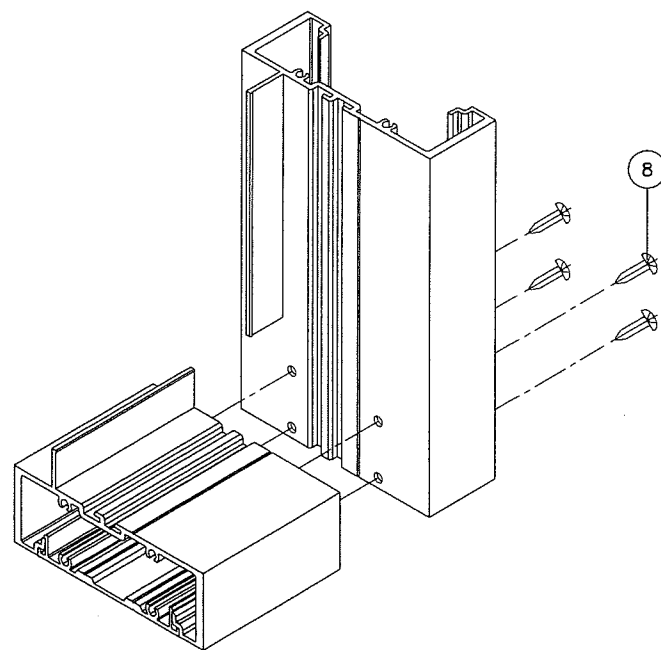




FRAME TOP CORNER



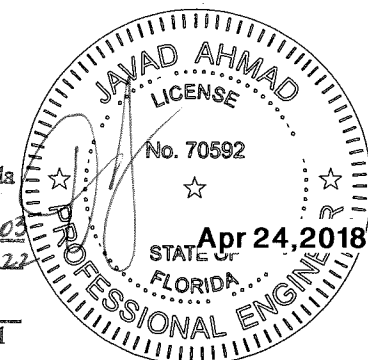
HORIZONTAL CORNER




FRAME BOTTOM CORNER

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