



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
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/building

E.S. Windows, LLC
3550 NW 49th Street
Miami, FL 33142

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 "ES-H340 Thermal" Aluminum Single Hung Window – S.M.I.

APPROVAL DOCUMENT: Drawing No. **W15-01** titled "ES-H340 Thermal Alum Single Hung Wdw. (S.M.I.)", sheets 1 through 9 of 9, dated 01/09/15, with revision **C** dated 02/05/21, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, 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: Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Colombia**, 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.

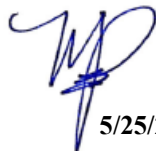
ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

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 No. 20-0310.14** 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 **Manuel Perez, P.E.**




5/25/21

NOA No. 21-0510.03
Expiration Date: June 25, 2025
Approval Date: June 03, 2021
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 No. 15-0129.11)
2. Drawing No. **W15-01**, titled "ES-H340 Thermal Alum Single Hung Wdw. (S.M.I.)", sheets 1 through 9 of 9, dated 01/09/15, with revision **B** dated 11/15/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under NOA No. 17-1218.11)

B. TESTS

1. 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) Small Missile Impact Test per FBC, TAS 201-94
6) Cyclic Wind Pressure Loading per FBC, TAS 203-94
7) Forced Entry Test, per FBC 2411.3.2.1 (b) and TAS 202-94
along with marked-up drawings and installation diagram of model ES-H340 aluminum single hung windows, prepared by Fenestration Testing Laboratory, Inc. Test Report No. **FTL-7607**, dated 06/12/14, signed and sealed by Idalmis Ortega, P.E.
(Submitted under NOA No. 15-0129.11)

C. CALCULATIONS

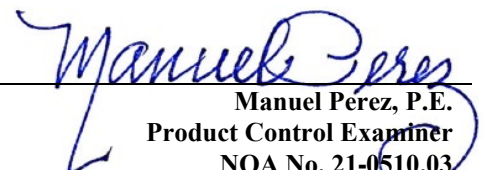
1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, dated 11/11/14, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under NOA No. 15-0129.11)
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 05/09/19, expiring on 07/08/24.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0510.03
Expiration Date: June 25, 2025
Approval Date: June 03, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

E. MATERIAL CERTIFICATIONS (CONTINUED)

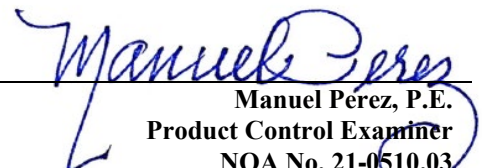
2. Aluminum Low Profile Insulated Glass spacer **Helima AH 800 N**, 0.3125" (Length) by 0.26 (Height) by 0.0059" (Thickness) (8.0x6.6x0.15mm), (P/N.: USA K 001 000 000 R7) with Aluminum Alloy **AW-3000** (F_u=17 ksi and F_y=12ksi) by Helmut Lingemann GmbH & Co., KG. (HELIMA).
3. Test report No. **ATI-60520.02-106-18**, prepared by Architectural Testing, Inc., dated 11/09/06, with revision date 11/29/06, issued to **Ensinger, Inc.**, for their **Tecatherm® 66GF insulbar material** comprised of Polyamide 66 with 25% glass fibers, per **ASTM G 155-00ae1**, "*Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of /Non-Metallic Materials*", per **ASTM D638-03** "*Standard Test Methods for Tensile Properties of Plastics*", for exposed & unexposed sample per Xenon Arc after 4500 Hours, **ASTM D635-98** "*Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position*", **ASTM D1929-96** (2000)e01 "*Standard Test Method for Determining Ignition Properties of Plastics*" and **ASTM D2843-99** "*Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics*" and **ASTM D2843-99** "*Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics*", signed and sealed by Joseph A. Reed, P.E.
4. Standard Material Values Data Sheet from **Ensinger** for "***Tecatherm 66 GF*** Polymide 66 with 25% glass fibers, black– Mechanical Properties and Thermal Properties.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, dated February 20, 2017, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E. (***Submitted under NOA's No. 20-0310.14***)
2. Testing proposal issued by the Product Control Section, dated 04/15/13, signed by Jaime Gascon, P.E., Product Control Supervisor. (***Submitted under NOA's No. 15-0129.11***)

G. OTHERS

1. Notice of Acceptance No. **17-1218.11**, issued to ES Windows LLC, for their Series "ES-H340 Thermal" Aluminum Single Hung Window – S.M.I., approved on 02/01/18 and expiring on 06/25/20.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0510.03
Expiration Date: June 25, 2025
Approval Date: June 03, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W15-01**, titled “ES-H340 Thermal Alum Single Hung Wdw. (S.M.I.)”, sheets 1 through 9 of 9, dated 01/09/15, with revision **C** dated 02/05/21, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, dated 11/11/14 and updated on 11/17/20 to comply with **FBC 6th Edition (2017)** and with **FBC 7th Edition (2020)**, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

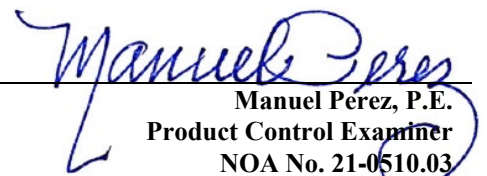
1. Notice of Acceptance No. **20-0915.22** issued to **Kuraray America, Inc.** for their “**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**” dated 11/19/20, expiring on 07/08/24.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, with **FBC 7th Edition (2020)** and of no financial interest, dated November 17, 2020, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHERS

1. Notice of Acceptance No. **20-0310.14**, issued to E.S. Windows, LLC, for their Series “ES-H340 Thermal” Aluminum Single Hung Window – S.M.I., approved on 04/23/20 and expiring on 06/25/25.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0510.03
Expiration Date: June 25, 2025
Approval Date: June 03, 2021

ES-H340 (S.M.I.)

THERMAL ALUMINUM SINGLE HUNG WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 2.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING MIAMI-DADE COUNTY APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

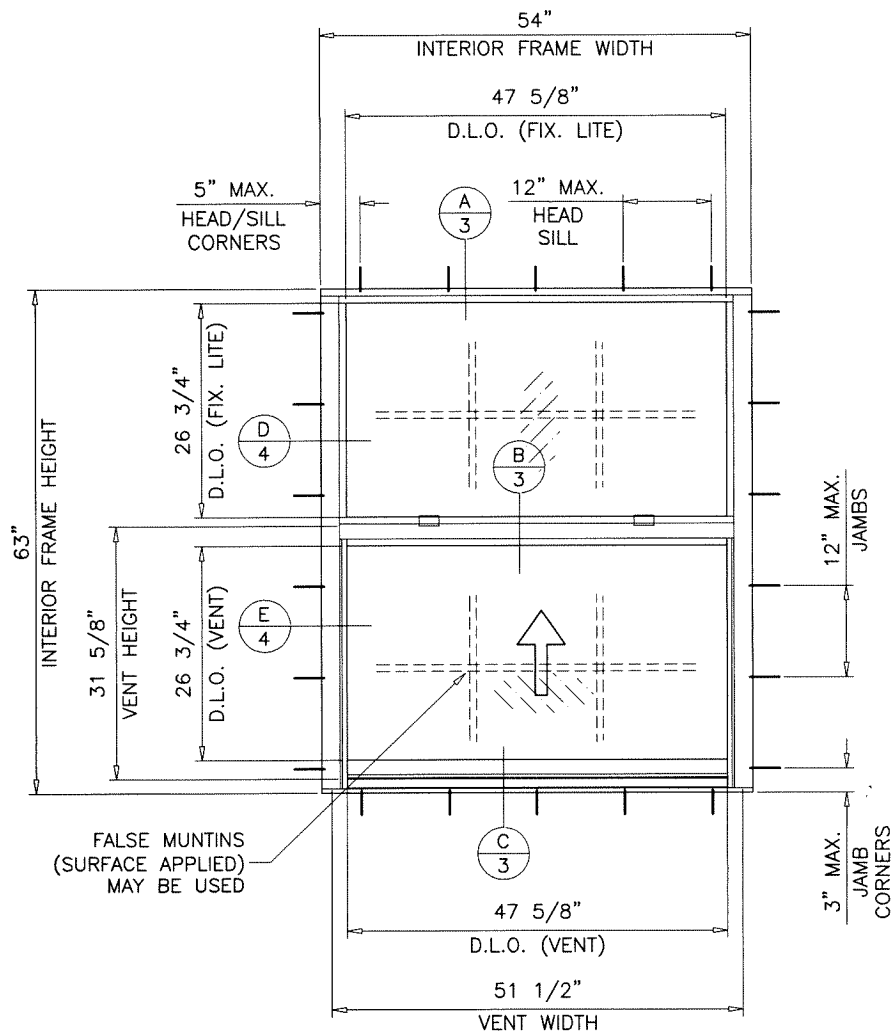
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

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

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

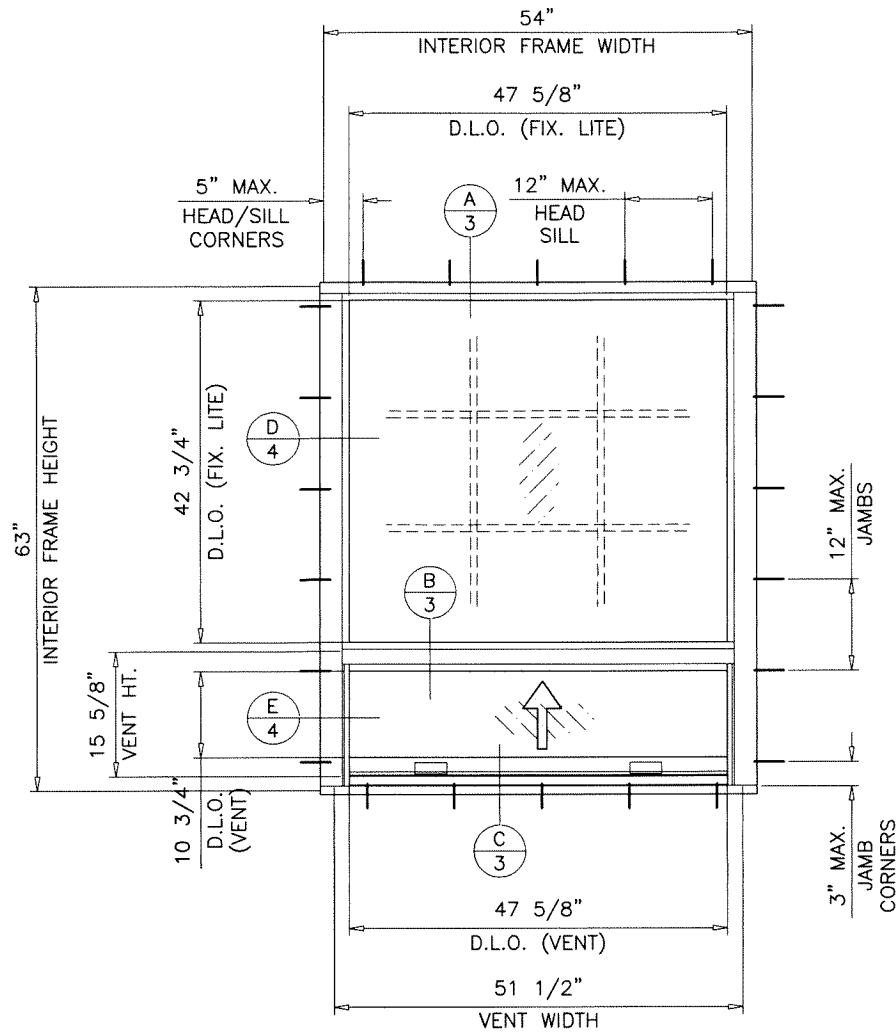
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.



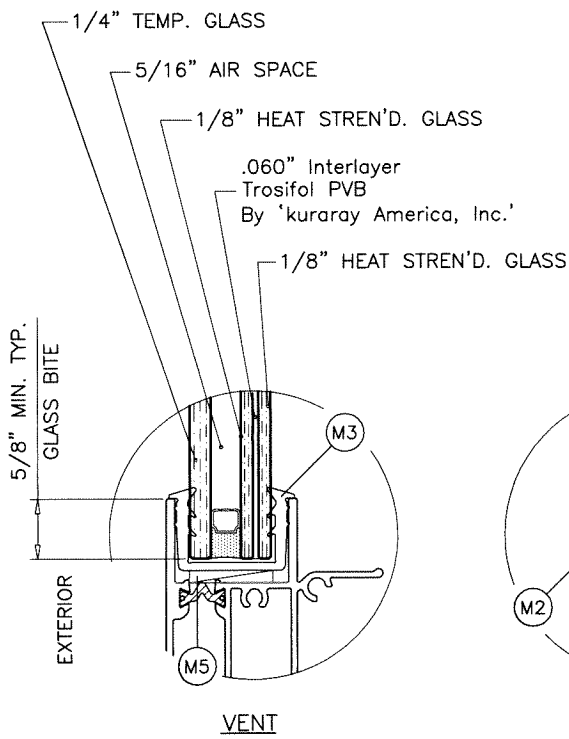
TYPICAL ELEVATION

EQUAL LITES



TYPICAL ELEVATION

UNEQUAL LITES (ORIEL TYPES)



GLAZING DETAILS

7/8" OVERALL NOM. THK.

5/16" AIR SPACE CONSISTING OF:

SPACER:

'HELIMA' LOW PROFILE ALUMINUM SPACER

BY 'LINGERMANN GMBH'

AROUND THE PERIMETER OF THE GLASS.

PERIMETER SEALANT:

SILICONE

DOWSIL 791

GE 2000

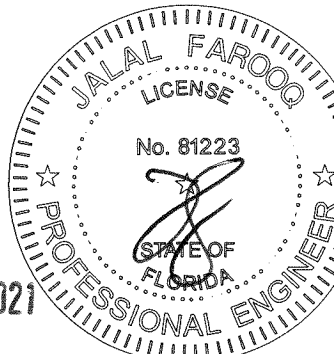
THESE WINDOWS ARE RATED FOR SMALL MISSILE IMPACT. MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

PRODUCT REVISED
as complying with the Florida
Building Code

NOA-No. **21-0510.03**

Expiration Date: **06/25/2025**

By: *Manuel Perez*
Miami-Dade Product Control



MAY 04 2021

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

ES-H340 THERMAL ALUM SINGLE HUNG WDW. (S.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
A	05.21.15	REV. PER	REV. COMMENTS
B	11.15.17	UPDATED	TO 2017 FBC
C	02.05.21	UPDATED	TO 2020 FBC

date:	01-09-15
scale:	1/2"=1'-0"
dr. by:	TAR/Q
chk. by:	

drawing no.

W15-01

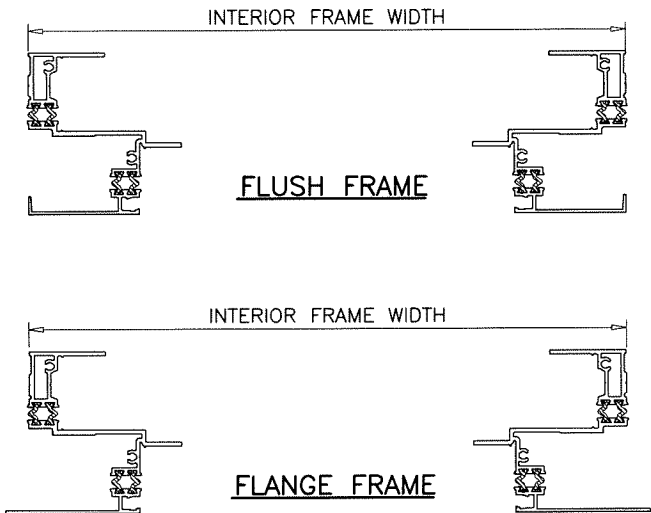
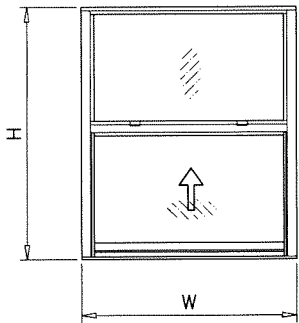
sheet 1 of 9

COMP-ANL\W15-01ESW

EQUAL LITES WINDOWS DESIGN LOAD CAPACITY - PSF			
INTERIOR FRAME DIMS.		INSUL. LAM. GLASS	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
18-1/8"	25" (3)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	90.0
18-1/8"	37-3/8" (4)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	90.0
18-1/8"	49-5/8" (5)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	90.0
18-1/8"	55" (5)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	90.0
18-1/8"	62" (6)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	69" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	73-1/4" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	75" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	81" (8)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9

EQUAL LITES WINDOWS DESIGN LOAD CAPACITY - PSF			
INTERIOR FRAME DIMS.		INSUL. LAM. GLASS	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
18-1/8"	73-1/4" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
18-1/8"	75" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
18-1/8"	81" (8)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0

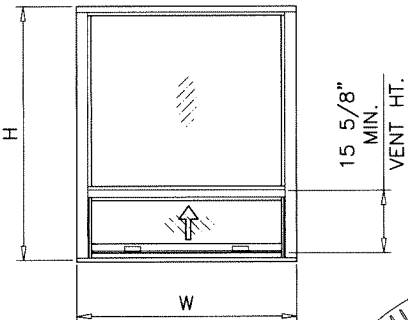
* NUMBER IN PARENTHESIS INDICATE
MIN. NO. OF ANCHORS PER JAMB.



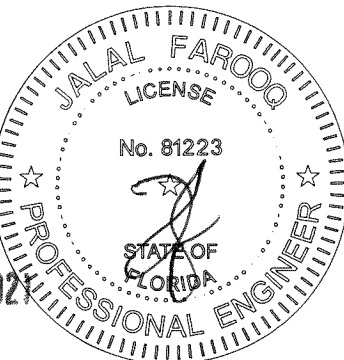
NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

UNEQUAL LITES (ORIEL TYPE) WDWS. DESIGN LOAD CAPACITY - PSF			
INTERIOR FRAME DIMS.		INSUL. LAM. GLASS	
WIDTH	HEIGHT	EXT.(+)	INT.(-)
18-1/8"	49-5/8" (5)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	90.0
18-1/8"	55" (5)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	90.0
18-1/8"	62" (6)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	69" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	73-1/4" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	75" (7)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9
18-1/8"	81" (8)	80.0	90.0
25-1/2"		80.0	90.0
31"		80.0	90.0
36"		80.0	90.0
39"		80.0	90.0
43"		80.0	90.0
47"		80.0	90.0
52-1/8"		80.0	90.0
54"		80.0	88.9

* NUMBER IN PARENTHESIS INDICATE
MIN. NO. OF ANCHORS PER JAMB.



PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **21-0510.03**
Expiration Date: **06/25/2025**
By: *Manuel Peres*
Miami-Dade Product Control



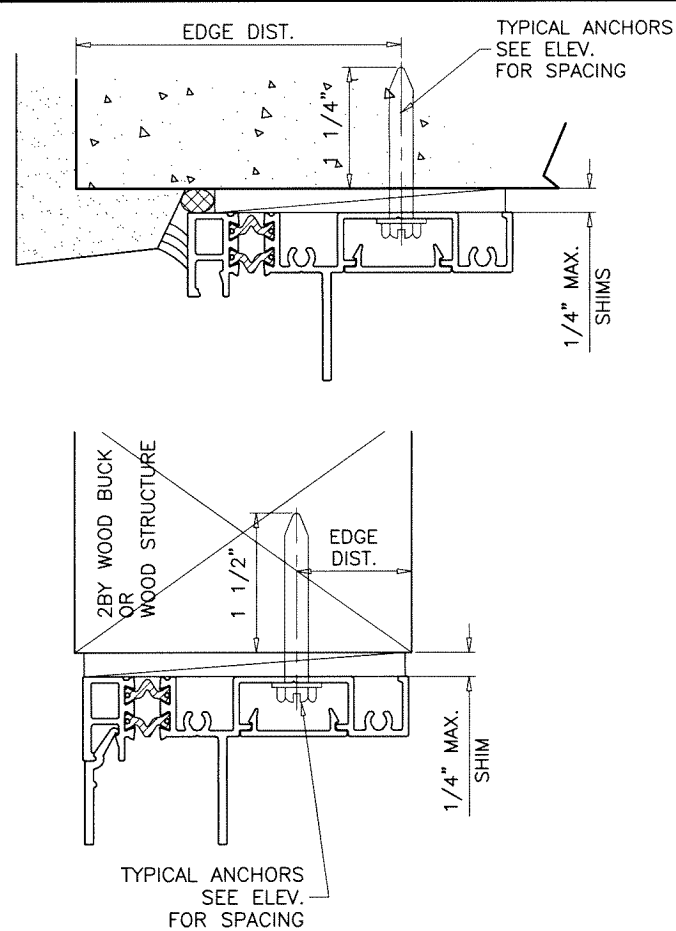
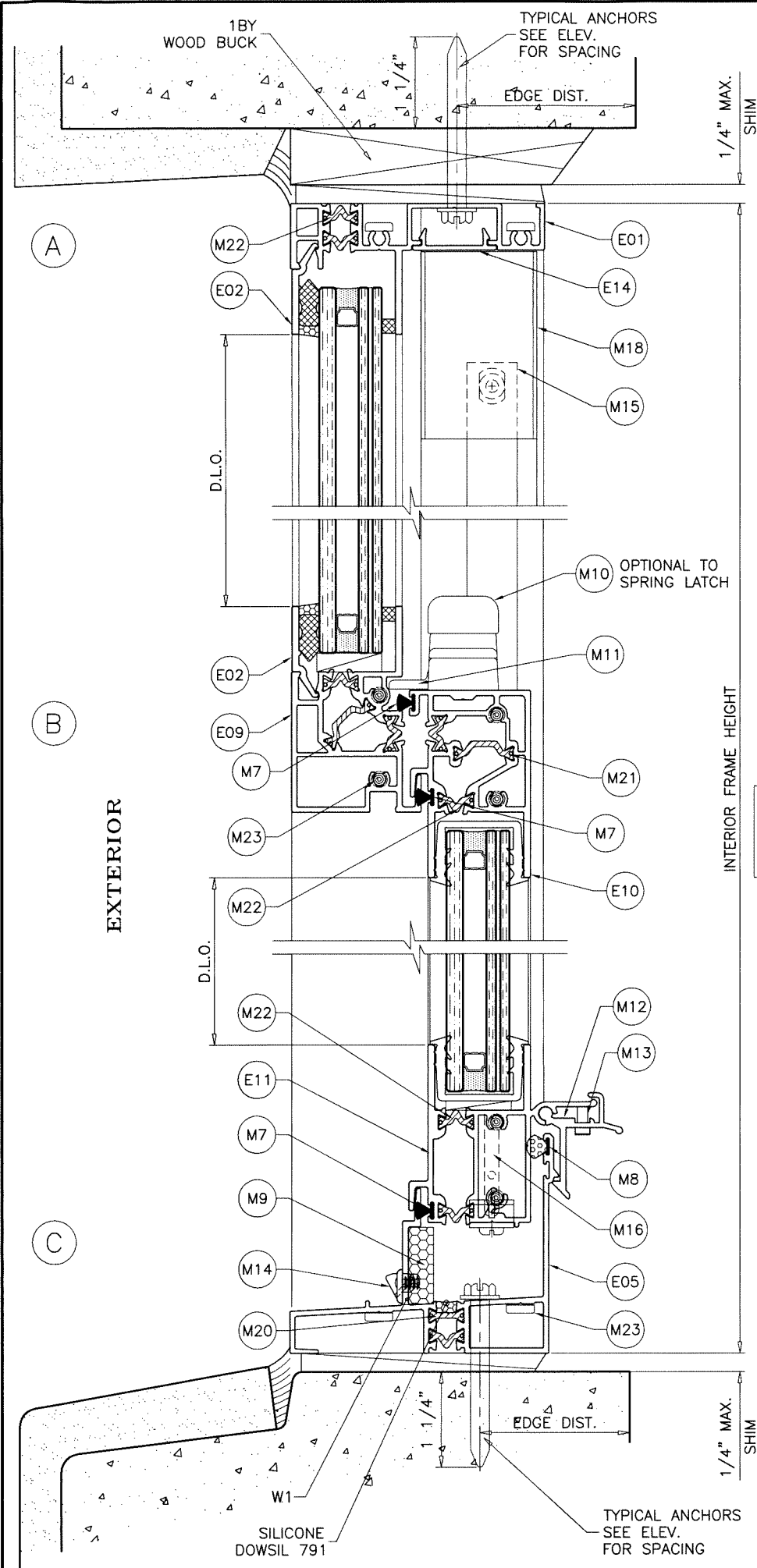
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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 262-6978 FAX. (305) 262-6978
COMP-ANL\W15-01ESW

ES-H340 THERMAL ALUM SINGLE HUNG WDW. (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
A	05.21.15	REV. PER RER COMMENTS	
B	11.15.17	UPDATED TO 2017 FBC	
C	02.05.21	UPDATED TO 2020 FBC	

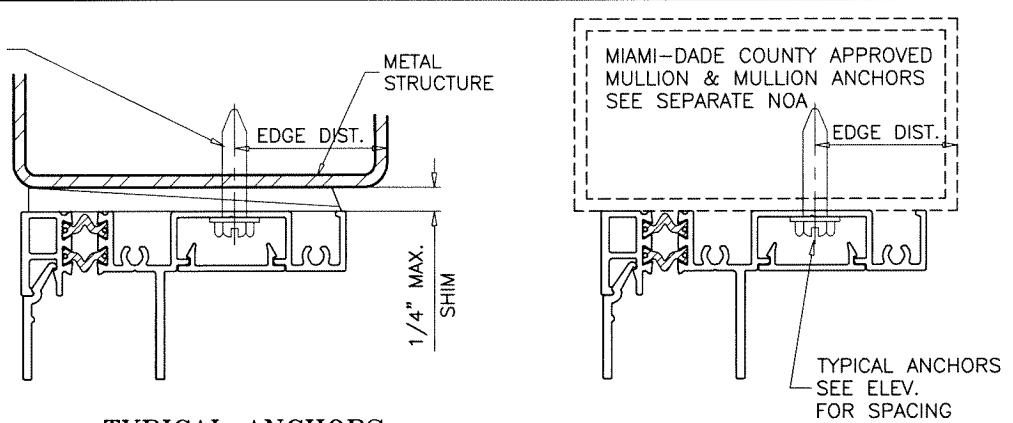
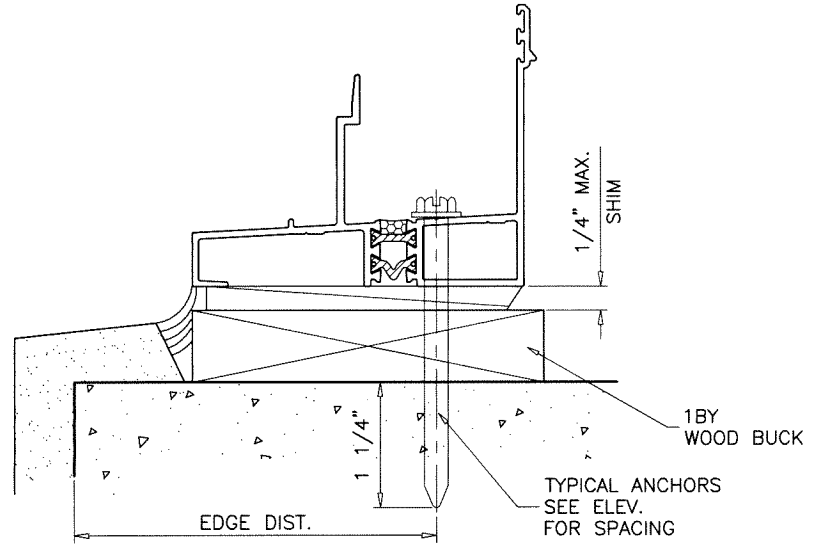
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dr. by: TARIQ
chk. by:

drawing no.
W15-01
sheet 2 of 9



WOOD BUCKS AND METAL STRUCTURE NOT BY E.S. WINDOWS
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

WEEPHOLES:
W1 = 1-7/8" X 1/4" WEEPHOLES AT 6-1/2" FROM EACH END



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

#14 DIA. CRETE-FLEX SS4 BY 'DEWALT' (Fu=190 KSI, Fy=127 KSI)
1/4" DIA. AGGRE-GATOR 300 BY 'DEWALT' (Fu=96 KSI, Fy=57 KSI)
1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)
 DIRECTLY INTO CONCRETE OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

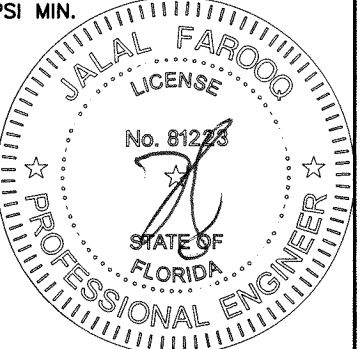
1/4" DIA. ULTRACON SS4 410 BY 'DEWALT' (Fu=190 KSI, Fy=164 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO GROUT-FILLED BLOCKS (JAMBS)
 DIRECTLY INTO CONCRETE OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO GROUT-FILLED BLOCKS (JAMBS)

1/4" DIA. BI-FLEX 300 SELF DRILLING SCREWS BY 'DEWALT'
1/4" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT' (GRADE 5 CRS)
 INTO MIAMI-DADE COUNTY APPROVED MULLIONS
 AND
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

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

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

PRODUCT REVISED
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MAY 04 2021



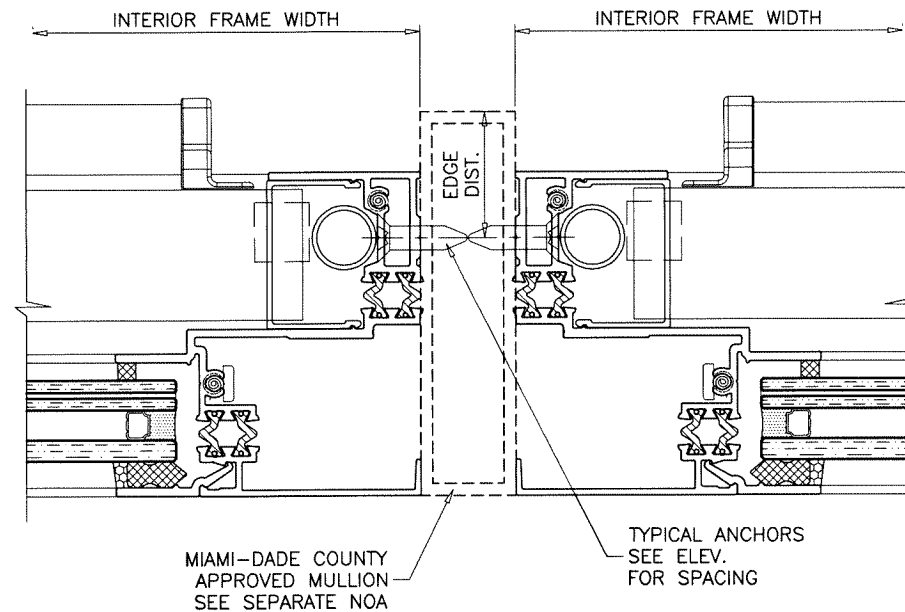
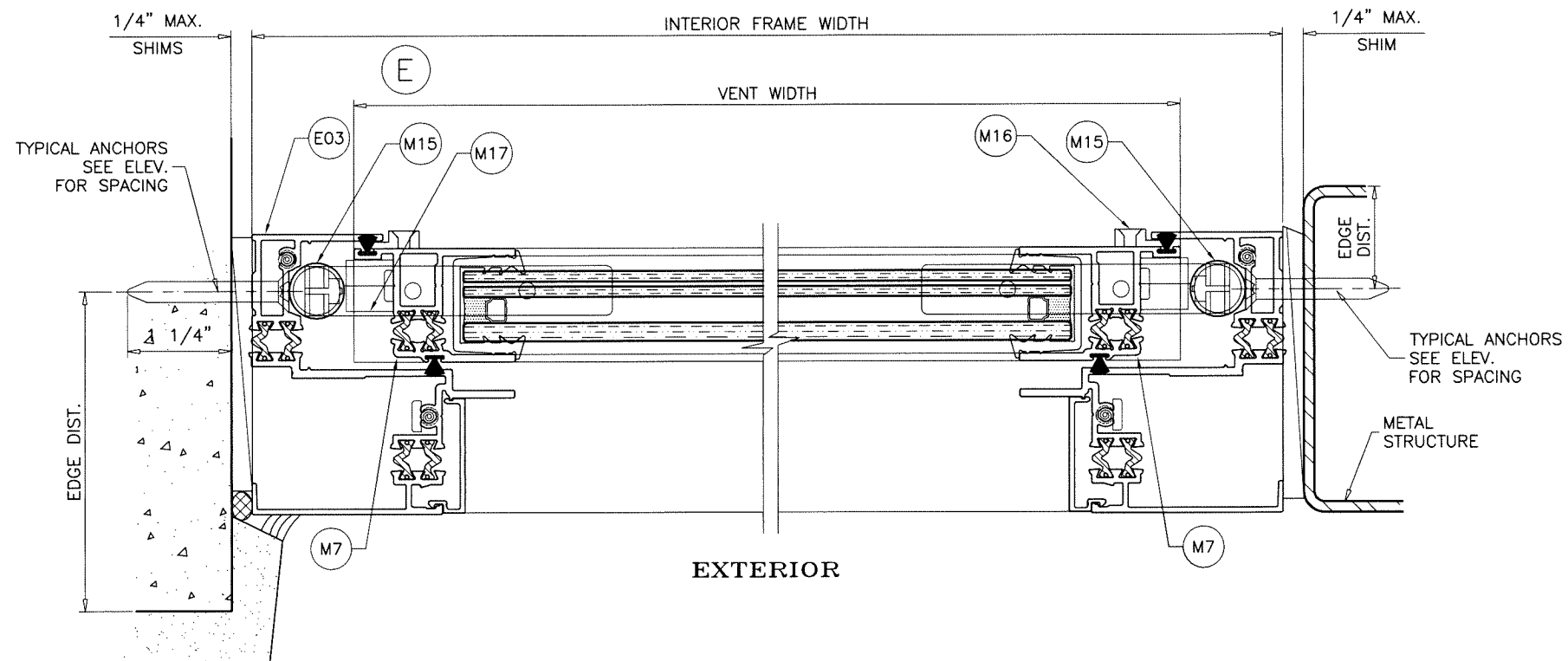
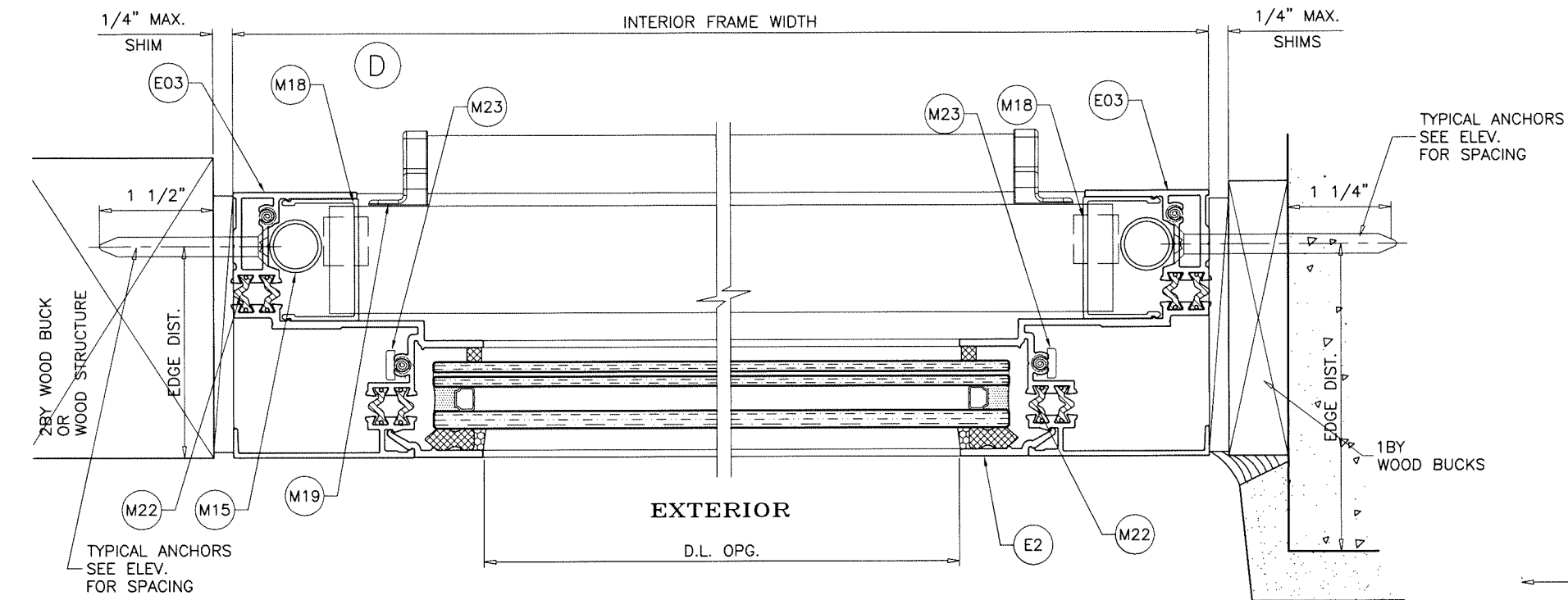
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978

E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
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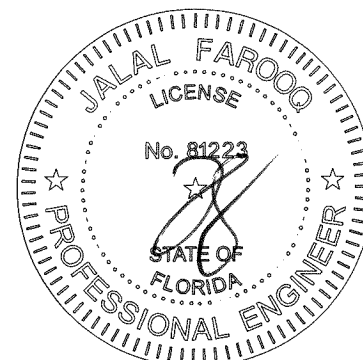
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 sheet 3 of 9



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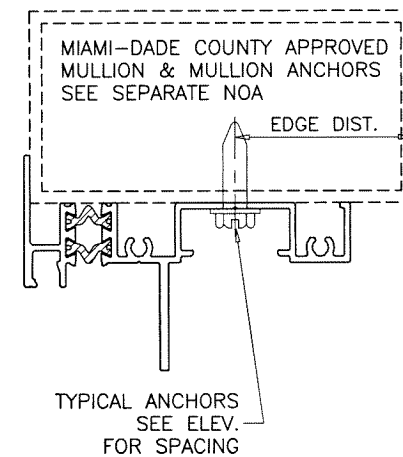
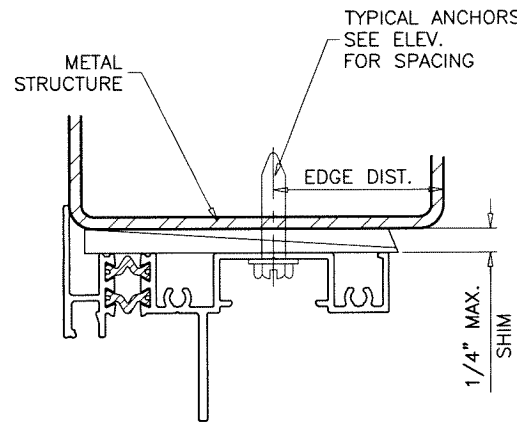
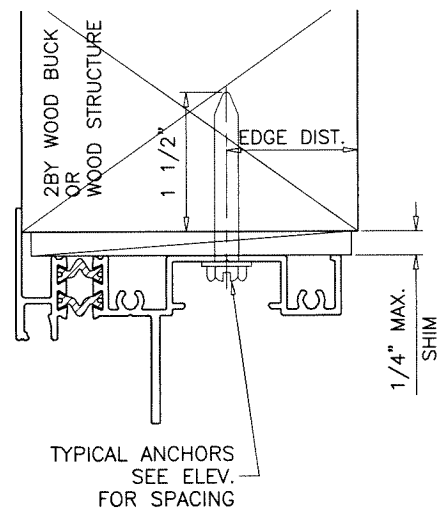
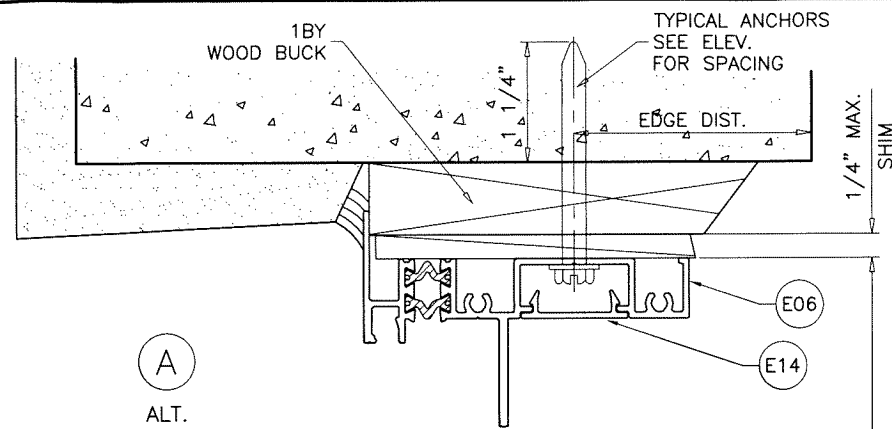


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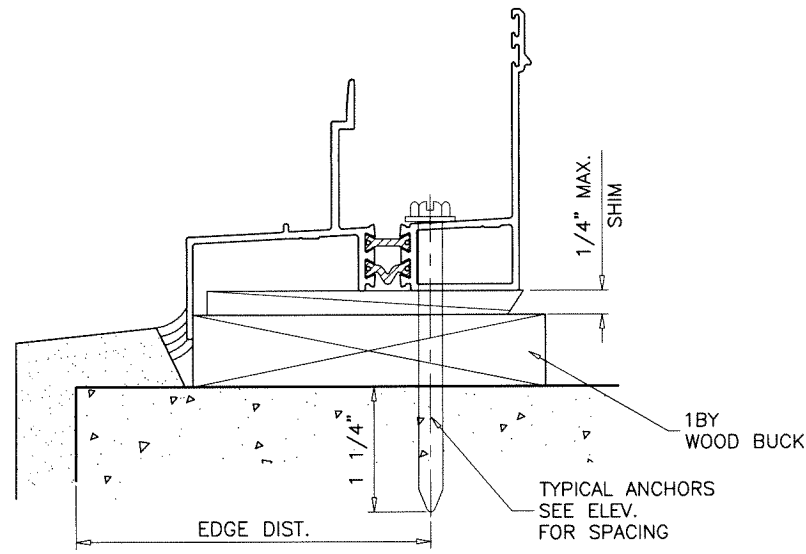
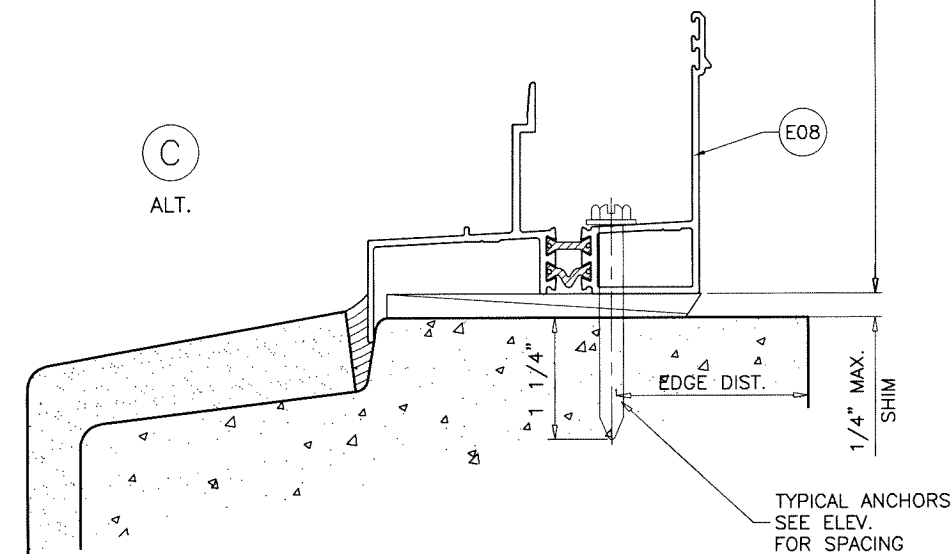
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chk. by:					
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sheet	4 of 9				



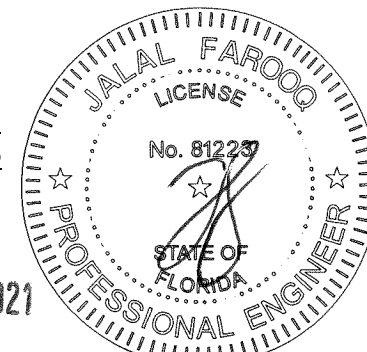
INTERIOR FRAME HEIGHT



INSTALLATION DETAILS WITH FLANGE FRAMES

PRODUCT REVISED
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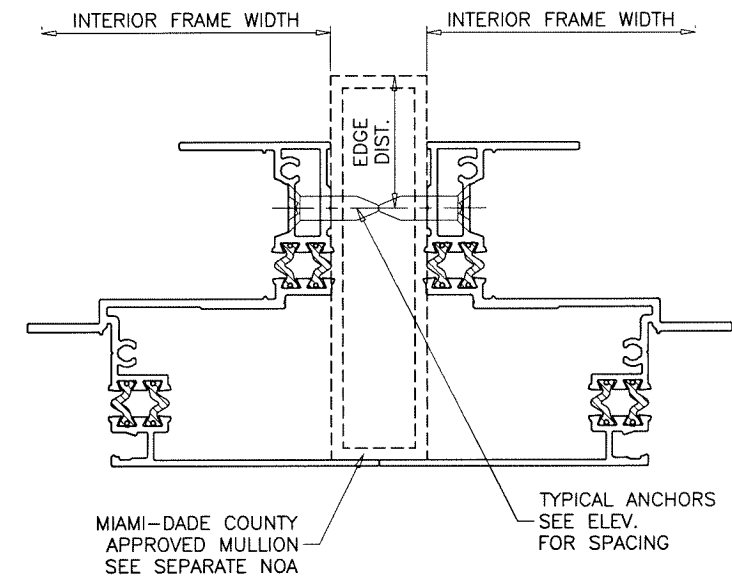
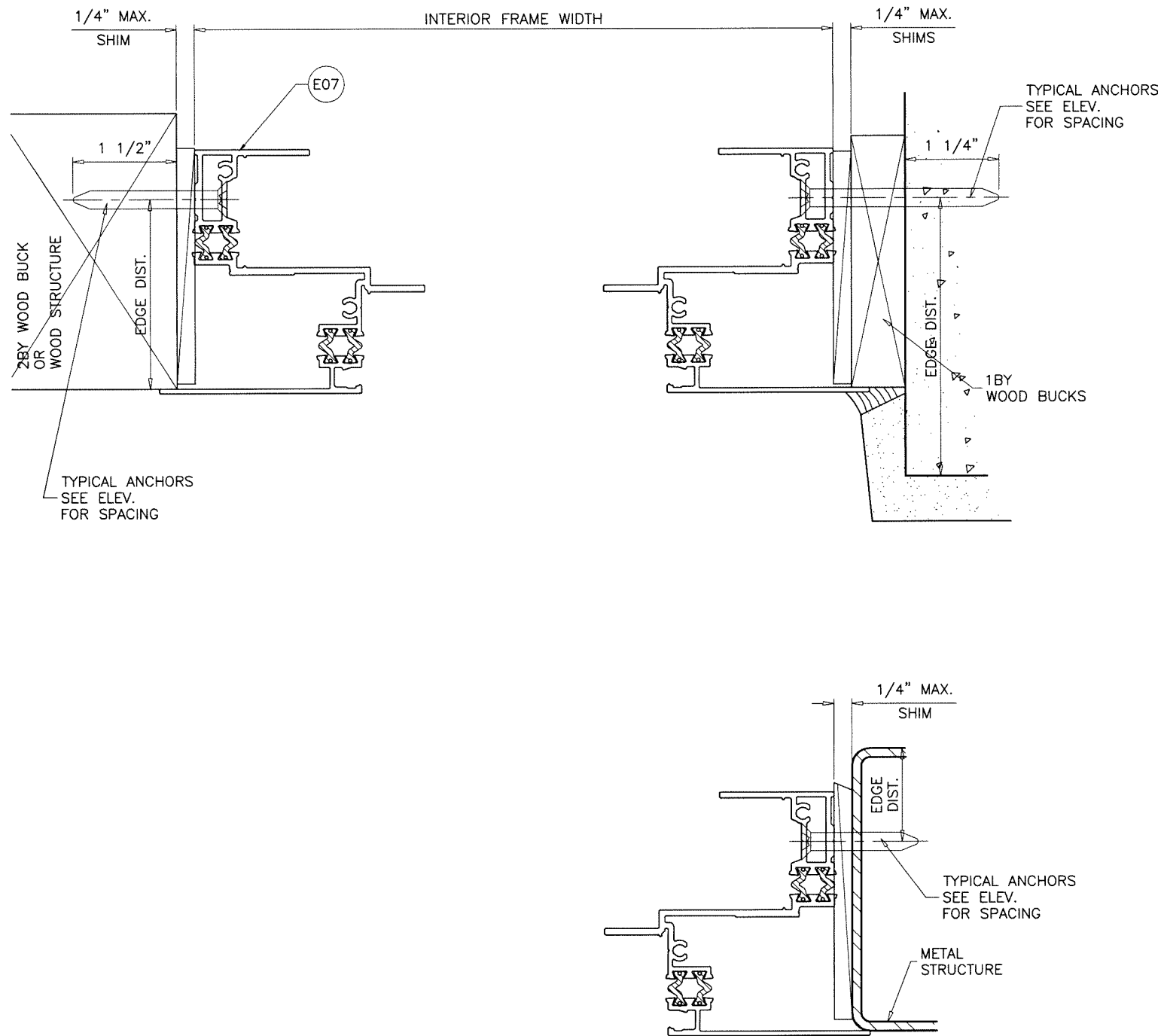
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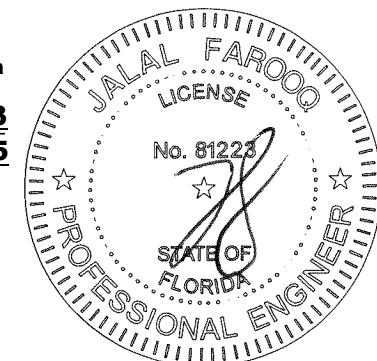
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sheet 5 of 9



INSTALLATION DETAILS WITH FLANGE FRAMES

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sheet 6 of 9

COMP-ANL\W15-01ESW

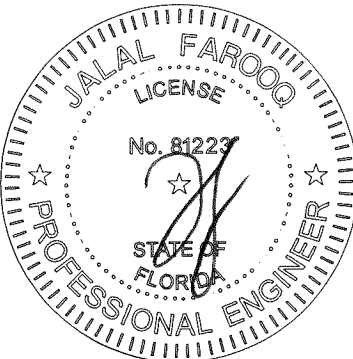
ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E01	ES-H340-501	1	FLUSH FRAME HEAD	6063-T6	-
E02	ES-H340-003	4/ LITE	GLASS STOP	6063-T6	-
E03	ES-H340-505	2	FLUSH FRAME JAMB	6063-T6	-
E04	ES-H340-007	AS REQD.	SCREEN ADAPTER/COVER	6063-T5	-
E05	ES-H340-503	1	FLUSH FRAME SILL	6063-T6	-
E06	ES-H340-502	1	FLANGE FRAME HEAD	6063-T6	-
E07	ES-H340-506	2	FLANGE FRAME JAMB	6063-T6	-
E08	ES-H340-504	1	FLANGE FRAME SILL	6063-T6	-
E09	ES-H340-507	1	FIXED INTERLOCK	6063-T6	-
E10	ES-H340-508	1	VENT INTERLOCK	6063-T6	-
E11	ES-H340-509	1	BOTTOM RAIL	6063-T6	-
E12	ES-H340-510	2	JAMB STILE	6063-T6	-
E13	ES-H340-021	-	JAMB TRIM	6063-T5	-
E14	ES-9502	AS REQD.	HEAD FRAME COVER	6063-T5	-
M2	ES-H340-G02	AS REQD.	EXTERIOR GLAZING WEDGE (FIX. LITE)	EPDM	DUROMETER 60±5 SHORE A
M3	ES-H340-G01	AS REQD.	GLAZING GASKET (VENT)	EPDM	DUROMETER 60±5 SHORE A
M4	ES-21-B04A	AS REQD.	SETTING BLOCK (FIX. LITE)	EPDM	DUROMETER 80±5 SHORE A
M5	ES-7530-B01A	AS REQD.	SETTING BLOCK (VENT)	EPDM	DUROMETER 80±5 SHORE A
M6	-	AS REQD.	INTERIOR GLAZING TAPE	POLYURETHANE	THERMALBOND
M7	W23241NK	AS REQD.	PILE W'STRIPPING	-	-
M8	Q300T190	AS REQD.	Q-LONG W'STRIPPING	-	-
M9	WPSA	1/ WEEP	FOAM PAD, 2" X 1" X 5/8"	FOAM	OPEN CELL
M10	3032	2/ VENT	SWEEP LOCK	DIE CAST ALUM.	-
M11	ES1050-PL1	-	SWEEP LOCK FLAT BOLT	ST. STEEL	-
M12	SK08-4000.000	-	VENT LATCH INTERLOCK	DIE CAST ALUM	-
M13	ES-1012	-	LATCH SPRING LS 4050	ST. STEEL	-
M14	WA2L	-	WEEP HOLE COVER	RIGID PVC	-
M15	30-31	2/ VENT	ULTRA LIFT BALANCE	STEEL ROD	-
M16	-	2/ VENT	BALANCE GUIDE	NYLON	FASTENED W/ (1) #8 X 1/2" FH SMS
M17	21803	-	NON TILT	ST. STEEL	-
M18	ES-H340-P01	-	SASH STOP	RIGID PVC	-
M19	ES-1000-P1	-	NOTCH CAP	NYLON	-
M20	2310	-	INSULBAR 10MM FLAT	POLYAMIDE	ENSINGER
M21	1673	-	INSULBAR 20MM OFFSET	POLYAMIDE	ENSINGER
M22	-	-	INSULBAR 12MM OFFSET	POLYAMIDE	ENSINGER
M23	#10 X 1-1/4"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M24	#8 X 1/2"	-	NON TILT SCREWS	ST. STEEL	PH SMS
M25	#6 X 1/2"	-	BALANCE GUIDE SCREWS	ST. STEEL	FH SMS

SEALANTS:

FRAME AND VENT CORNERS AND INSTALLATION SCREWS AT SILL
SEALED WITH WHITE/ALUMINUM COLORED GENERAL PURPOSE
SILICONE SEALANT BY MACKLANBURG-DUNCAN.

PRODUCT REVISED
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Miami-Dade Product Control

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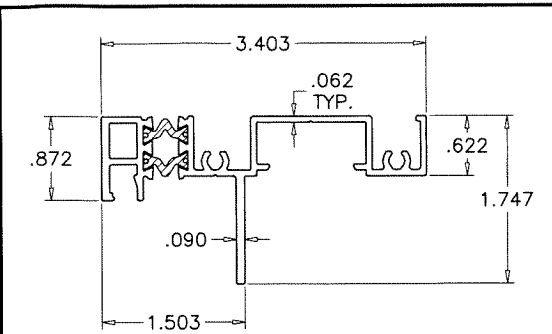
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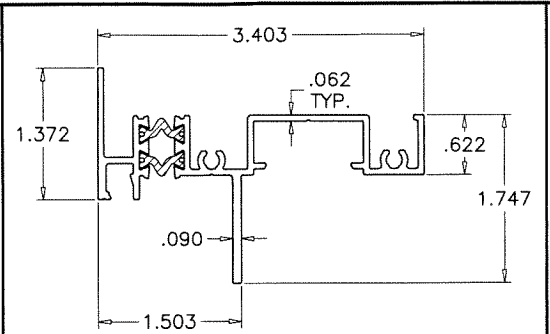
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W15-01

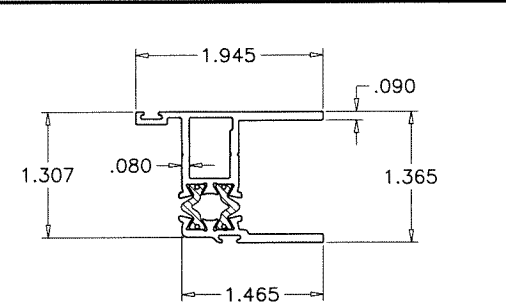
sheet 7 of 9



E01 FLUSH FRAME HEAD

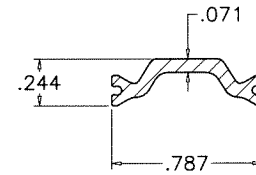


E06 FLANGE FRAME HEAD

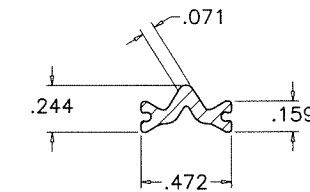


E12 VENT SIDE RAIL

M20 10MM FLAT



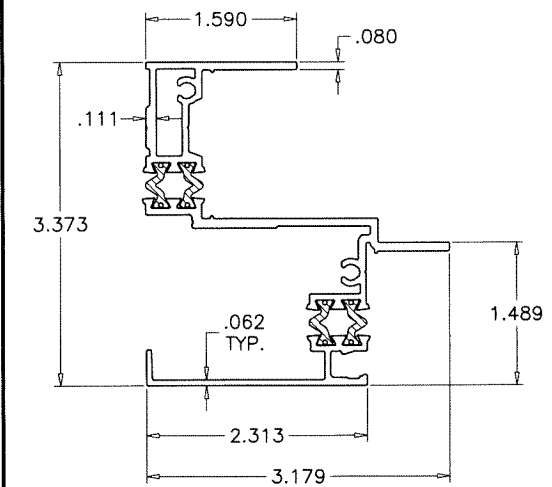
M21 20MM OFFSET



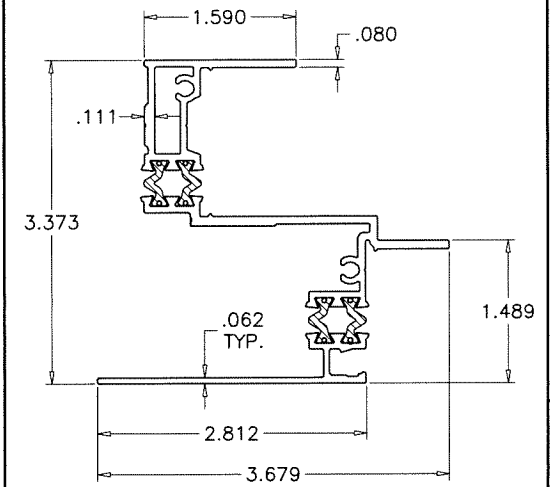
M22 12MM OFFSET

TECATHERM® 66 GF INSULBARS
SCALE 1:1

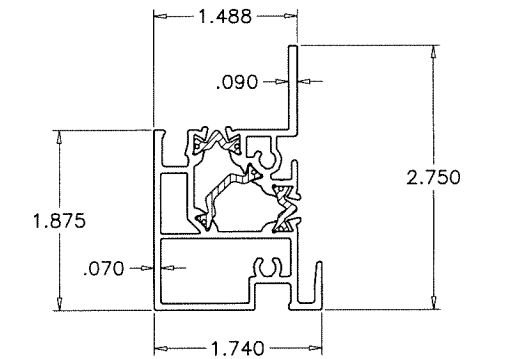
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TENSILE STRENGTH = 13031 PSI
RATE OF BURN = .752 IN./MIN.
SELF IGNITION TEMP. = 793° F
FLASH IGNITION TEMP. = 781°C
SMOKE DENSITY = 1.63



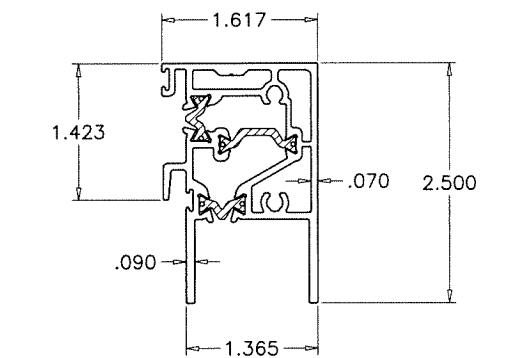
E03 FLUSH FRAME JAMB



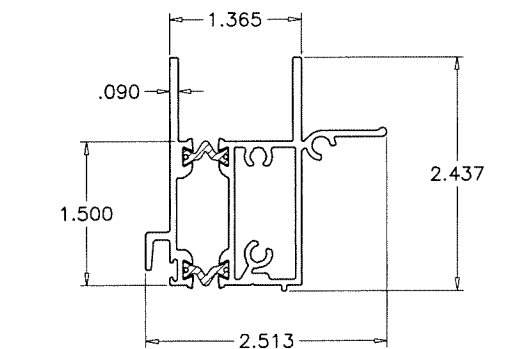
E07 FLANGE FRAME JAMB



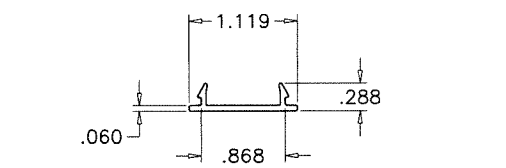
E09 FIX. MEETING RAIL



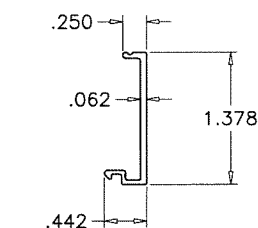
E10 VENT TOP RAIL



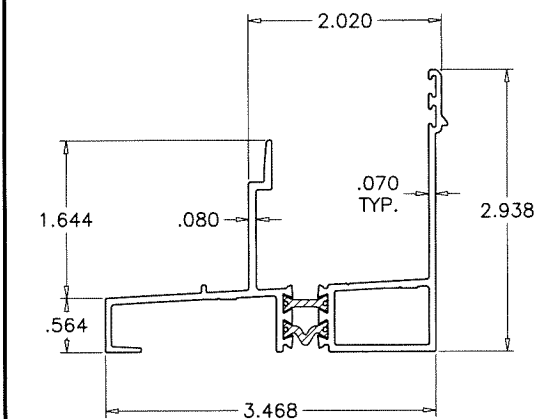
E11 VENT BOTTOM RAIL



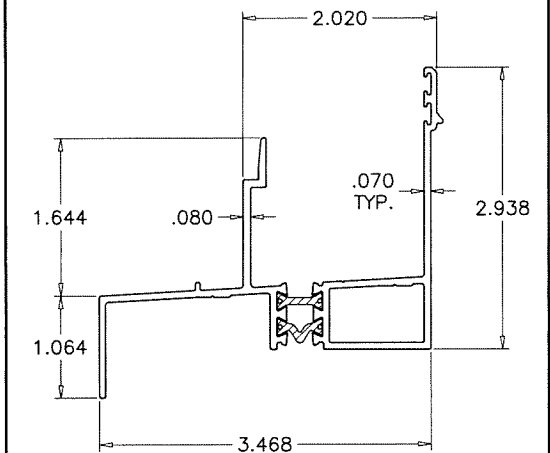
E14 HEAD FRAME COVER



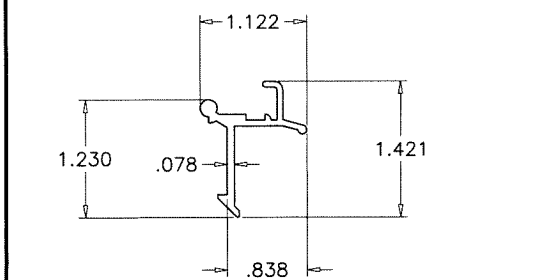
E13 JAMB TRIM



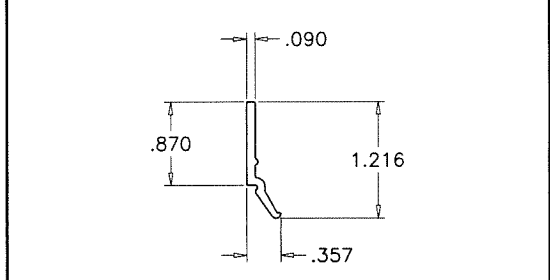
E05 FLUSH FRAME SILL



E08 FLANGE FRAME SILL



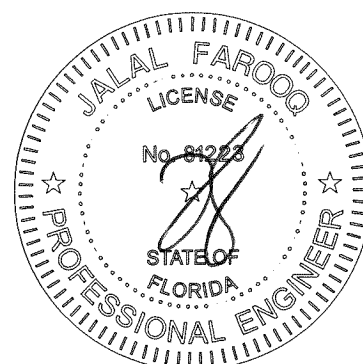
M12 SPRING LOADED LATCH



E02 GLAZING BEAD

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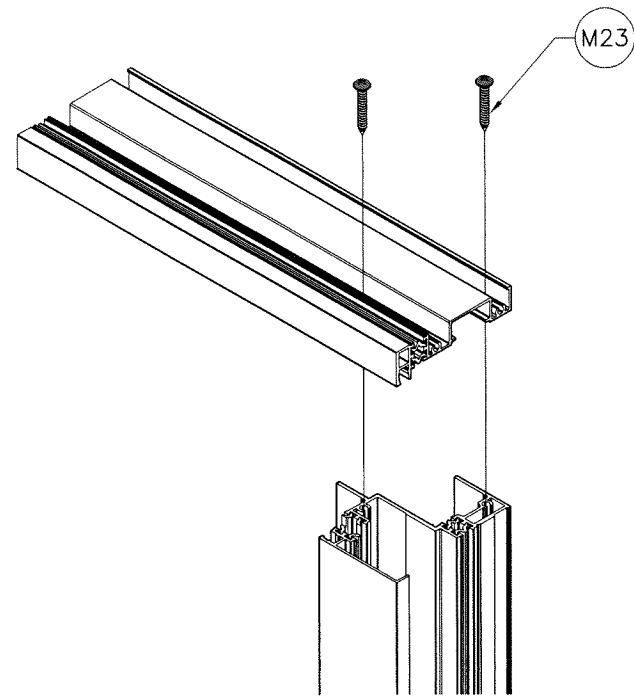
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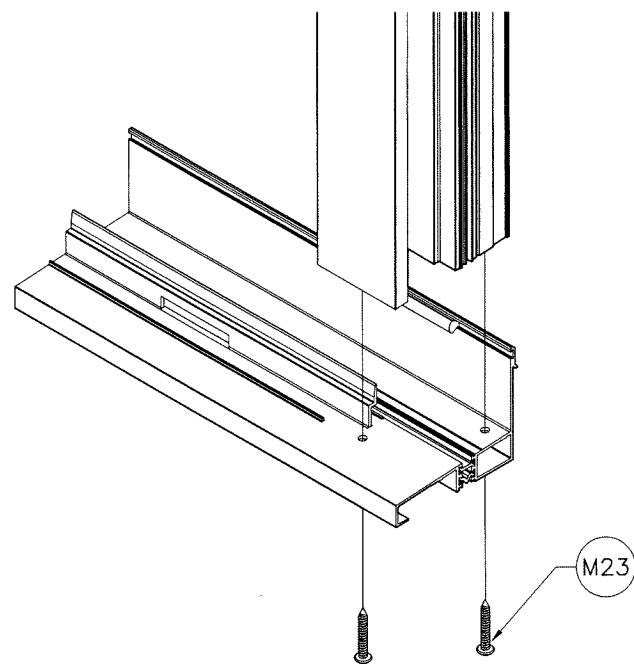
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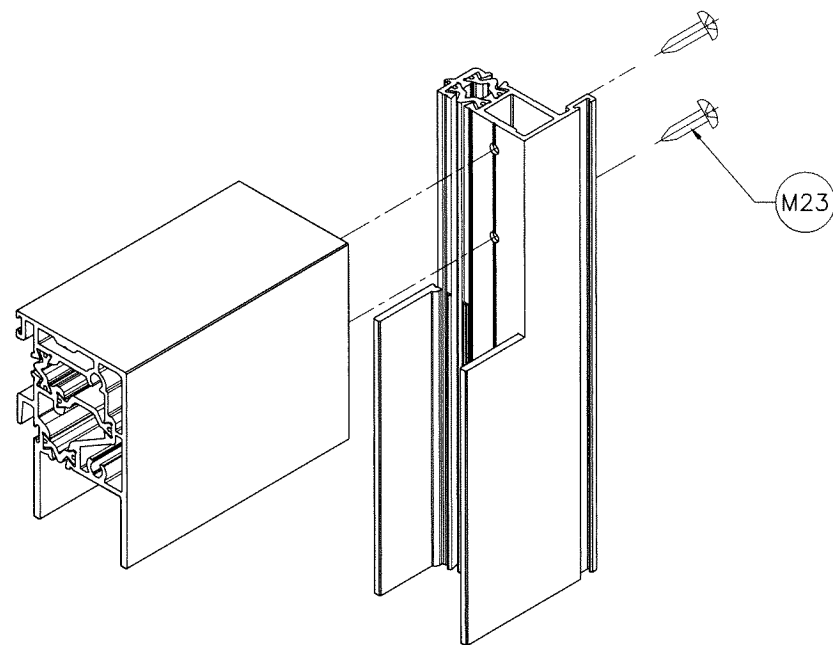
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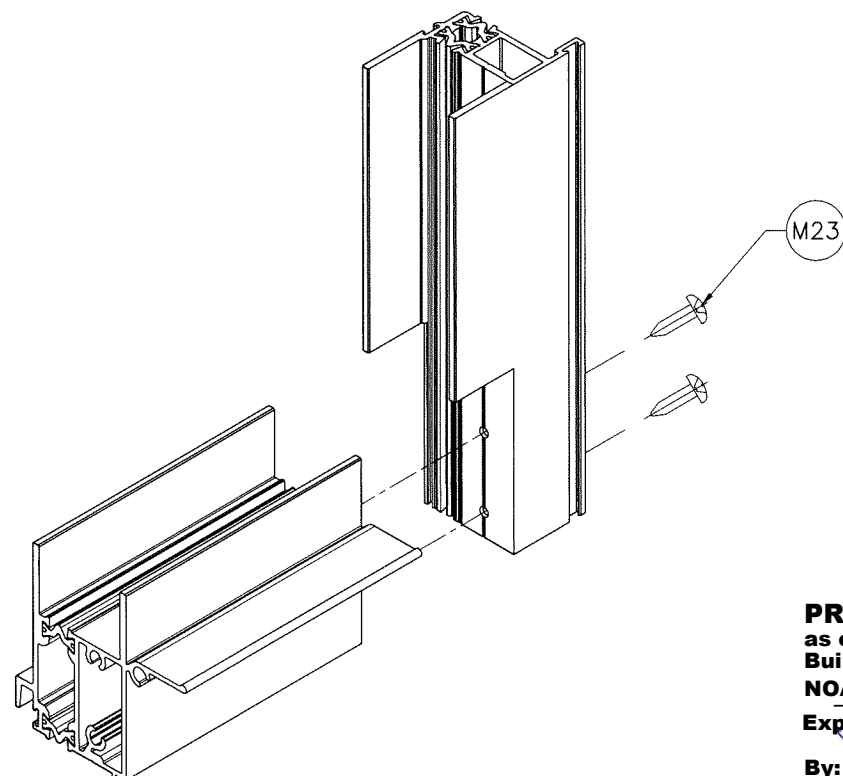
FRAME TOP CORNER



FRAME BOTTOM CORNER



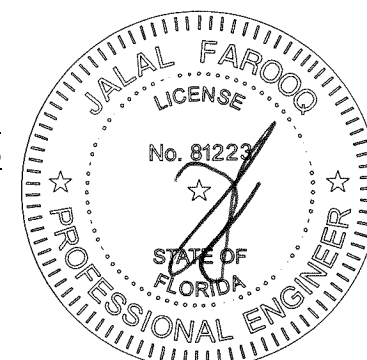
VENT TOP CORNER



VENT BOTTOM CORNER

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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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revisions:		no	date	by	description
A	05.21.15			REV. PER RER COMMENTS	
B	11.15.17			UPDATED TO 2017 FBC	
C	02.05.21			UPDATED TO 2020 FBC	

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				sheet 9 of 9