



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

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

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-P252 Thermally Broken” Aluminum Fixed Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **18-05D**, titled “ES-P252 Thermal Aluminum Fixed Wdw. (L.M.I)”, sheets 1, 1.1, 1.2, 2, 3, 4, 5, 5.1 and 6 of 6, dated 12/27/17, with revision **D** dated 10/03/24, 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: Large and 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 and renews NOA No. 23-0717.21** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**




 11/08/24

NOA No. 24-1101.03
Expiration Date: January 16, 2030
Approval Date: November 21, 2024
 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. 18-0312.02)
2. Drawing No. **18-05D**, titled "ES-P252 Thermal Aluminum Fixed Wdw. (L.M.I)", sheets 1 through 6 of 6, dated 12/27/17, with revision **C** dated 06/29/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0717.21)

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) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of series ES-P252 fixed windows mock-ups 1 thru 6, prepared by Blackwater Testing, Inc., Test Report No. **BT-ESW-17-022**, dated 12/05/17, signed and sealed by Constantin Bortes, P.E.
(Submitted under NOA No. 18-0312.02)
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
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of series ES-P252 fixed windows mock-ups 7 thru 9, prepared by Blackwater Testing, Inc., Test Report No. **BT-ESW-17-022B**, dated 02/14/18, signed and sealed by Constantin Bortes, P.E.
(Submitted under NOA No. 18-0312.02)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC 6th Edition (2017), dated 01/05/18, updated on 11/16/20 to comply with FBC 7th Edition (2020), prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 20-1116.02)
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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


Manuel Pérez, P.E.
Product Control Examiner
NOA No. 24-1101.03
Expiration Date: January 16, 2030
Approval Date: November 21, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

E. MATERIAL CERTIFICATIONS

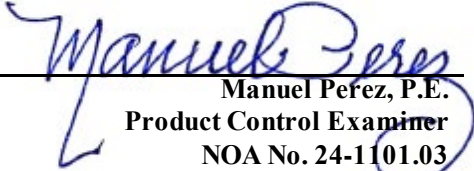
1. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 12/15/22, expiring on 07/04/28.
2. 0.315-inch (Length) by 0.26-inch (Height) by 0.0059-inch (Thickness) (8x6.6x0.15mm) Aluminum Low Profile Insulated-Glass spacer **Helima AH 800 N** (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. Ensinger, GmbH Part No. **Tecatherm 66 GF Insulbar** complying with ASTM D638 Tensile Strength of 13,031 psi, ASTM D 1929 Self Ignition 793°F and Flash Ignition – 781°F, ASTM D 2843 Smoke Density of 1.63, ASTM D 635 Rate of Burn 0.752 in./min., ASTM D 790 Flexural Modulus of 870 ksi, ASTM D 256 Notched Izod of 1.9 ft.-lb./in.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020)**, with **FBC 8th Edition (2023)**, and of no financial interest, dated July 14, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0717.21)
2. Distributor Agreement between ES Windows–Energia Solar, S.A., Barranquilla, Columbia, S.A. and ES Windows, LLC, Miami, Florida, dated 09/12/13, signed by Ms. Adriana Montoya, Manager and Andres Chamorro, General Manager respectively on behalf of the companies.
(Submitted under NOA No. 18-0312.02)

G. OTHERS

1. Notice of Acceptance No. **20-1116.02**, issued to E.S. Windows, LLC, for their Series “ES-P252 Thermally Broken” Aluminum Fixed Window – L.M.I., approved on 02/25/21 and expiring on 01/16/25.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 24-1101.03
Expiration Date: January 16, 2030
Approval Date: November 21, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **18-05D**, titled “ES-P252 Thermal Aluminum Fixed Wdw. (L.M.I)”, sheets 1, 1.1, 1.2, 2, 3, 4, 5, 5.1 and 6 of 6, dated 12/27/17, with revision **D** dated 10/03/24, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

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) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
 - 5) Large Missile Impact Test per FBC, TAS 201-94
 - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94along with marked-up drawings and installation diagram of series ES-P252 thermal casement and fixed windows mock-ups 1 thru 3, prepared by Fenestration Testing Laboratory, a QAI Company, Test Report No. **FTL-12502**, dated 04/16/21, signed and sealed by Idalmis Ortega, P.E.
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
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Drop Load Test, per CPCS 16 CFR 1201 (Cat 11) and ANSI Z97.1 (Class and A) (400 foot-pound impact)along with marked-up drawings and installation diagram of series ES-P252 fixed window mock-ups 1 thru 10, prepared by Fenestration Testing Laboratory, a QAI Company, Test Report No. **FTL-12278**, dated 02/05/21, signed and sealed by Idalmis Ortega, P.E.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC 8th Edition (2023), dated 10/23/24, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

D. QUALITY ASSURANCE

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



Manuel Perez, P.E.
Product Control Examiner
NOA No. 24-1101.03
Expiration Date: January 16, 2030
Approval Date: November 21, 2024

E.S. Windows, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED (CONTINUED)

E. MATERIAL CERTIFICATIONS


1. Notice of Acceptance No. **23-0717.30** issued to **Kuraray America, Inc.** for their “**SentryGlas® (Clear and White) Glass Interlayers**” dated 08/31/23, expiring on 07/04/28.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023)**, and of no financial interest, dated October 23, 2024, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHERS

1. Notice of Acceptance No. **23-0717.21**, issued to E.S. Windows, LLC, for their Series “**ES-P252 Thermally Broken**” Aluminum Fixed Window – L.M.I., approved on 08/24/23 and expiring on 01/16/25.



Manuel Pérez, P.E.
Product Control Examiner
NOA No. 24-1101.03
Expiration Date: January 16, 2030
Approval Date: November 21, 2024

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

ES-P252
THERMAL ALUMINUM FIXED WINDOW

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

NOA APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIX./FIX. OR FIXED 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 NOA WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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

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

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

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

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

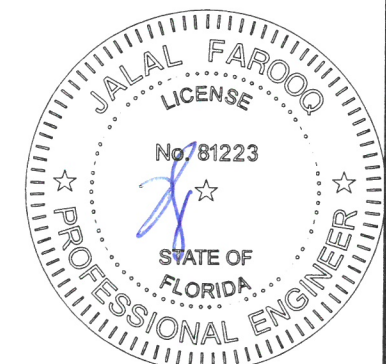
THIS PRODUCT NOA IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

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)'.

WINDOWS COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **24-1101.03**
Expiration Date: **01/16/2030**
By: *Manuel Ferrer*
Miami-Dade Product Control



OCT 29 2024



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

COMP-ANL\18-05D-ES

ES-P252 THERMAL ALUMINUM FIXED WDW. (L.M.I.)

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

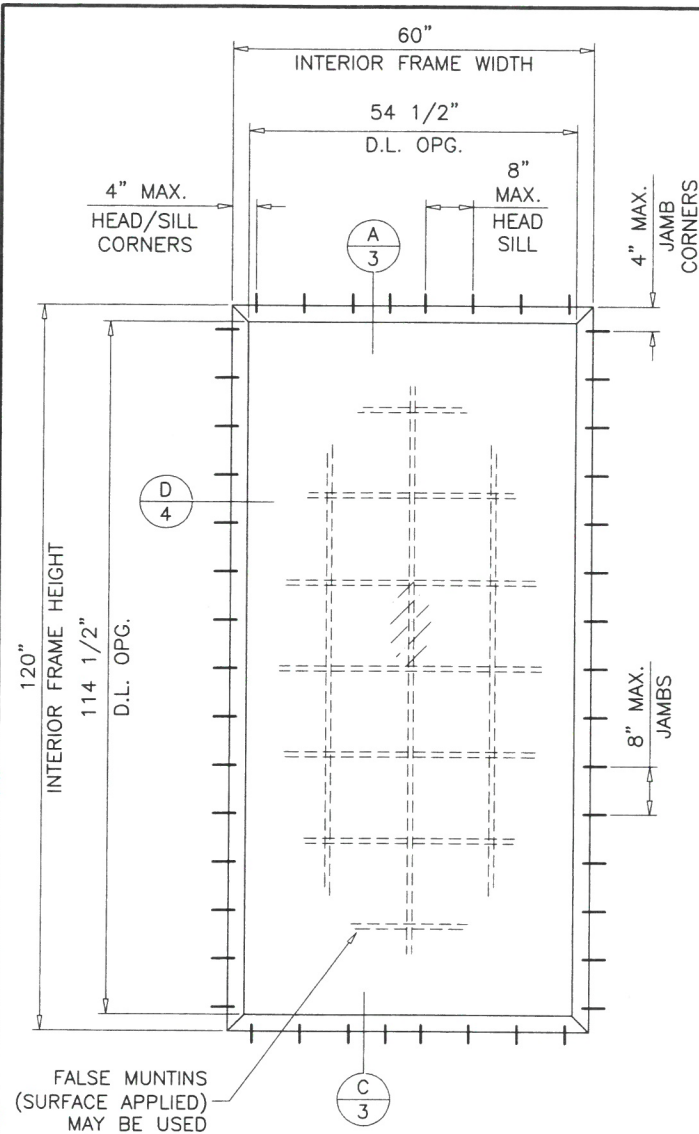
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B	11.09.20		UPDATED TO 2020 FBC
C	06.29.23		UPDATED TO 2023 FBC
D	10.03.24		GENERAL REVISION

date: 12-27-17
scale: 3/8"=1'-0"
dr. by: TARIQ
chk. by:

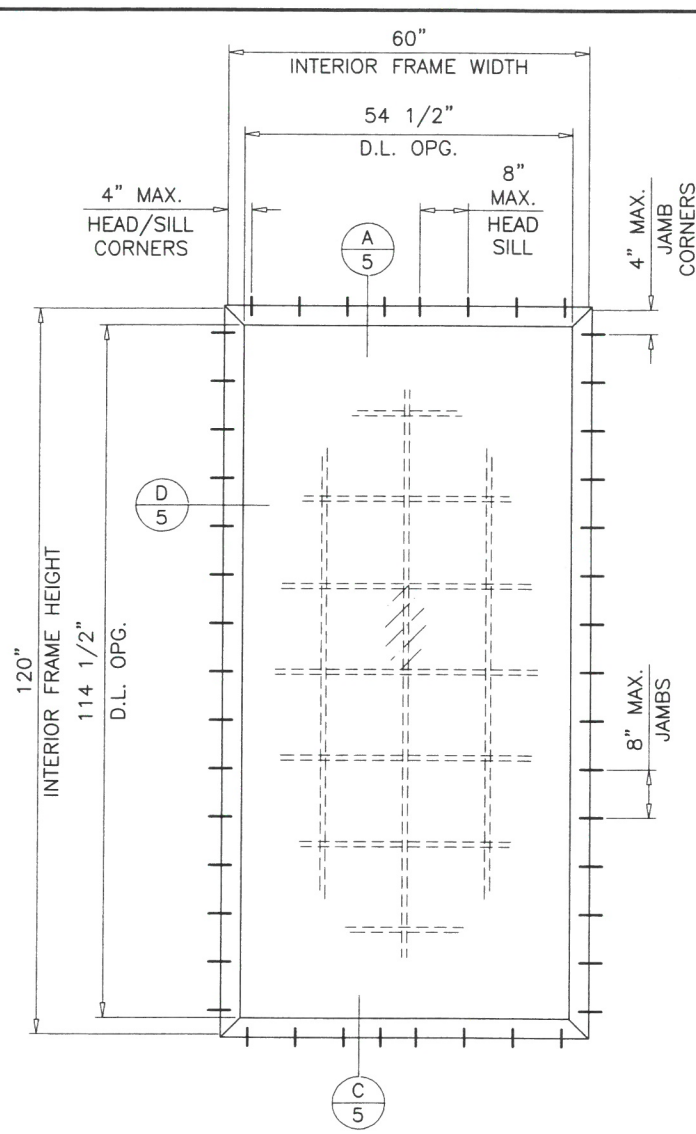
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18-05D

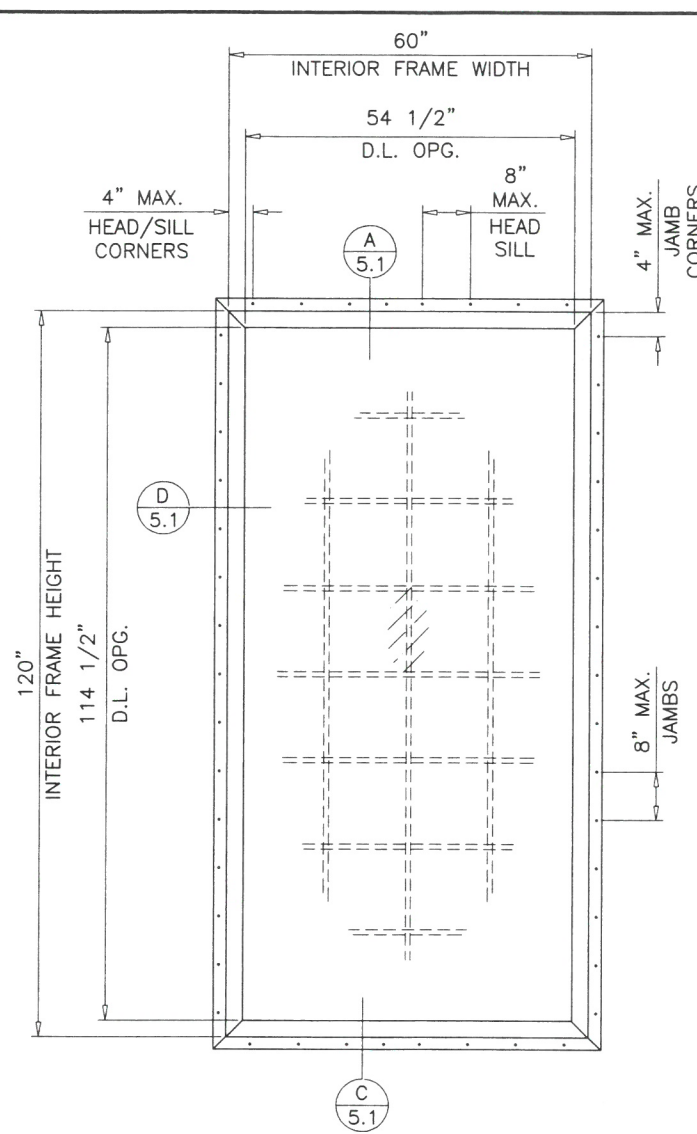
sheet 1 of 6



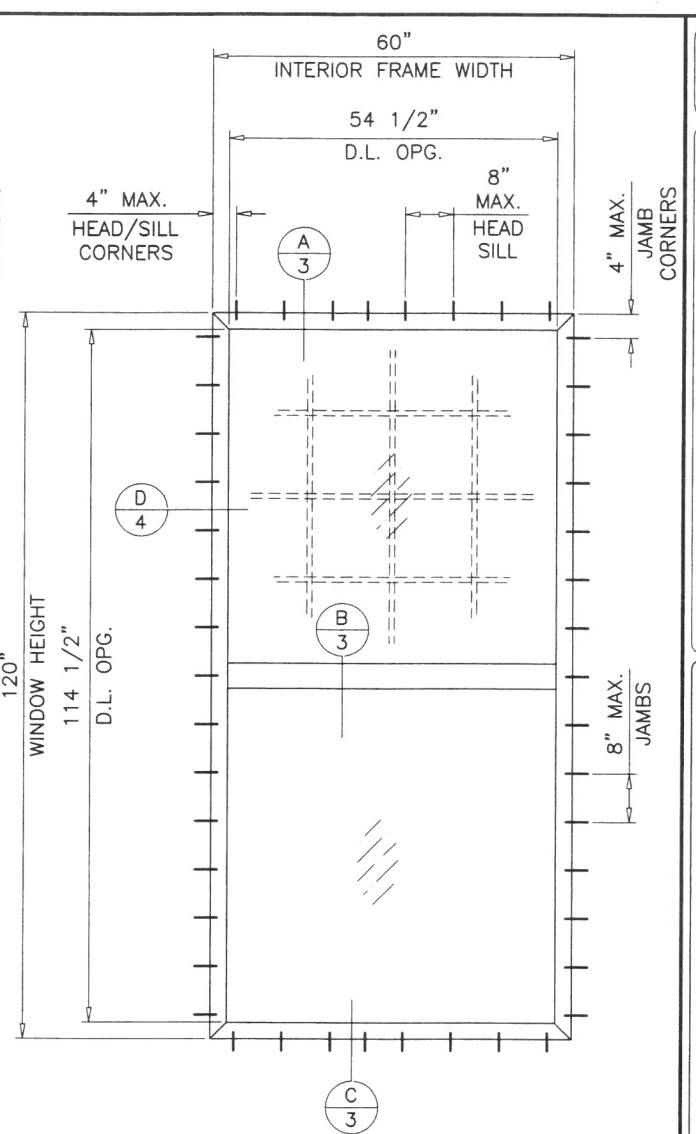
TYPICAL ELEVATION
FLUSH FRAMES



TYPICAL ELEVATION
FLANGE FRAMES



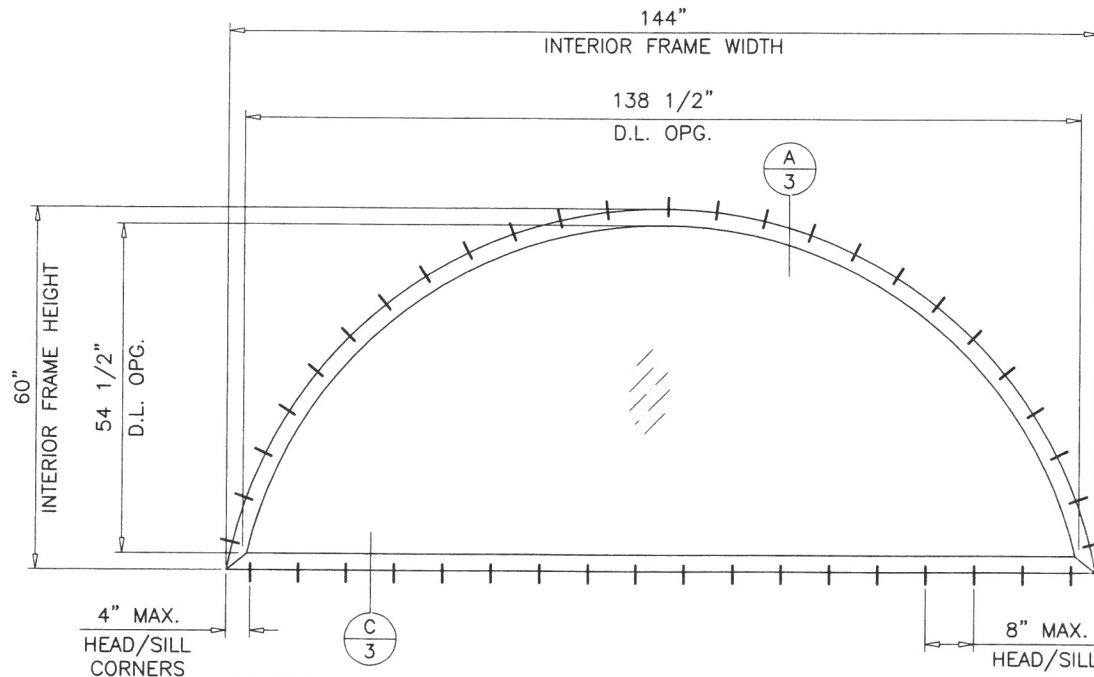
TYPICAL ELEVATION
FLUSH FRAMES WITH FINs



FALSE MUNTINS
(SURFACE APPLIED)
MAY BE USED

NOTE:
FOR FLUSH FRAME WINDOWS WITH NAIL FINs LIMIT
MAX. DESIGN LOADS TO +70.0, -75.0 PSF
MAX. SIZE TO 60" W X 120" HT.
MAX. INTERIOR FRAME WINDOW AREA TO 50 SQ. FT.

DAYLITE OPENINGS:
D.L.O. HEIGHT = WINDOW HEIGHT - 5.50"
D.L.O. WIDTH = WINDOW WIDTH - 5.50"



af c
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MIAMI, FL. 33142
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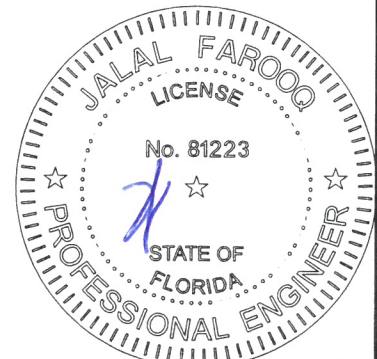
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C	06.29.23		UPDATED TO 2023 FBC
D	10.03.24		GENERAL REVISION

date: 12-27-17
scale: 3/8"=1'-0"
dr. by: TARIQ
chk. by:

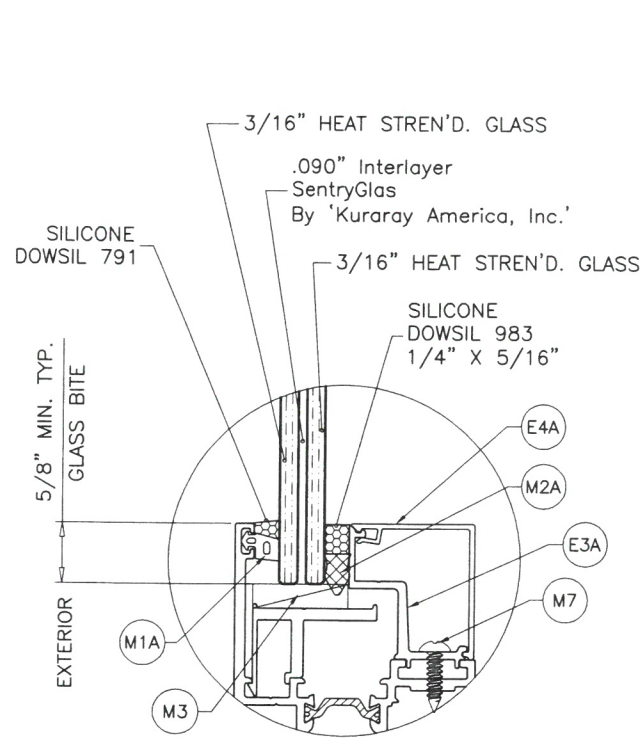
drawing no.
18-05D

sheet 1.1 of 6

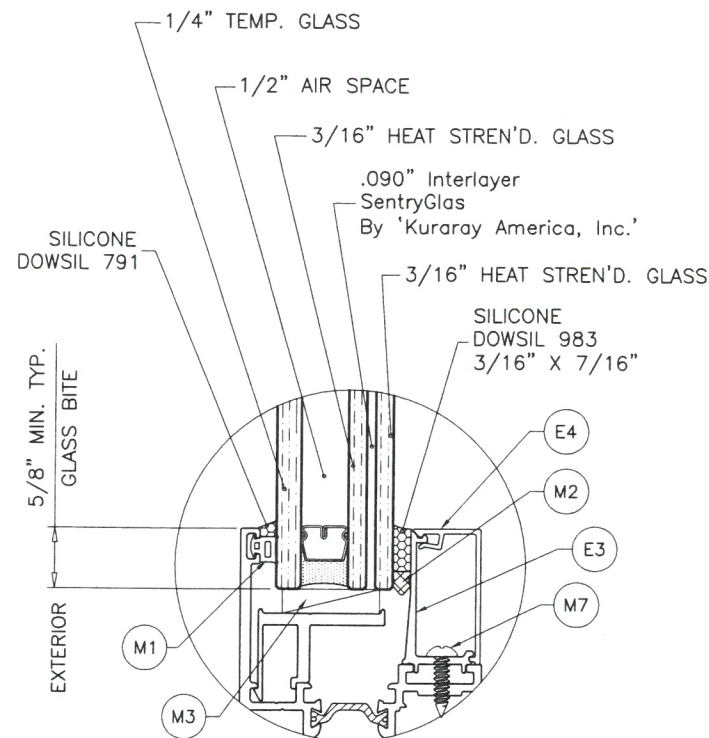
PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. **24-1101.03**
Expiration Date: **01/16/2030**
By: *Manuel Ferrer*
Miami-Dade Product Control



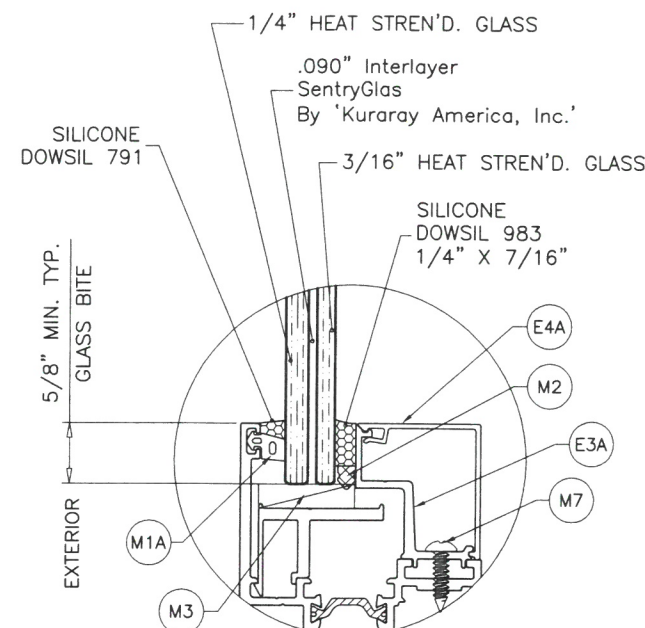
OCT 29 2024



GLASS TYPE 'A'
7/16" OVERALL LAM. GLASS



GLASS TYPE 'Ai'
1-3/16" OVERALL INSUL. LAM. GLASS

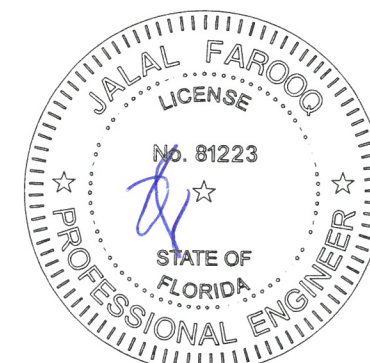


GLASS TYPE 'B'
1/2" OVERALL LAM. GLASS

GLAZING OPTIONS

1/2" 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

PRODUCT REVISED
 As complying with the Florida
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 By: *Manuel Ferrer*
 Miami-Dade Product Control



OCT 29 2024

afc
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no	date	by	description
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date: 12-27-17
 scale: 1/2" = 1"
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drawing no.
18-05D

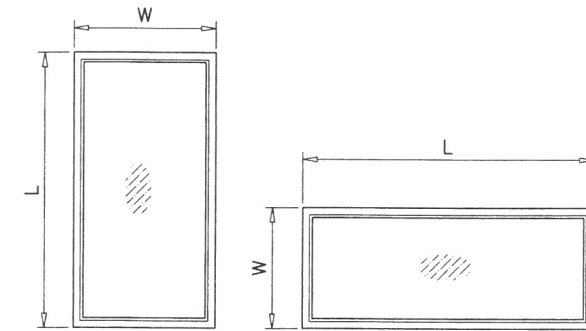
sheet 1.2 of 6

DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		GLASS TYPES 'A' & 'Ai'		GLASS TYPE 'B'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	60"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	150.0	110.0	150.0
48"		110.0	137.5	110.0	137.5
54"		110.0	122.2	110.0	122.2
60"		110.0	110.0	110.0	110.0
66"		110.0	110.0	110.0	110.0
72"		110.0	110.0	110.0	110.0
78"		110.0	110.0	110.0	110.0
84"		110.0	110.0	110.0	110.0
30"	66"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	150.0	110.0	150.0
48"		110.0	137.5	110.0	137.5
54"		110.0	122.2	110.0	122.2
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		100.0	100.0	100.0	100.0
78"		100.0	100.0	100.0	100.0
84"		100.0	100.0	100.0	100.0
30"	72"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	150.0	110.0	150.0
48"		110.0	137.5	110.0	137.5
54"		110.0	122.2	110.0	122.2
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		91.7	91.7	91.7	91.7
78"		91.7	91.7	91.7	91.7
84"		91.7	91.7	91.7	91.7
30"	78"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	150.0	110.0	150.0
48"		110.0	135.0	110.0	135.0
54"		110.0	122.2	110.0	122.2
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		91.7	91.7	91.7	91.7
78"		84.6	84.6	84.6	84.6
84"		84.6	84.6	84.6	84.6
30"	84"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	135.0	110.0	135.0
48"		110.0	135.0	110.0	135.0
54"		110.0	122.2	110.0	122.2
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		91.7	91.7	91.7	91.7
78"		84.6	84.6	84.6	84.6
84"		78.6	78.6	78.6	78.6

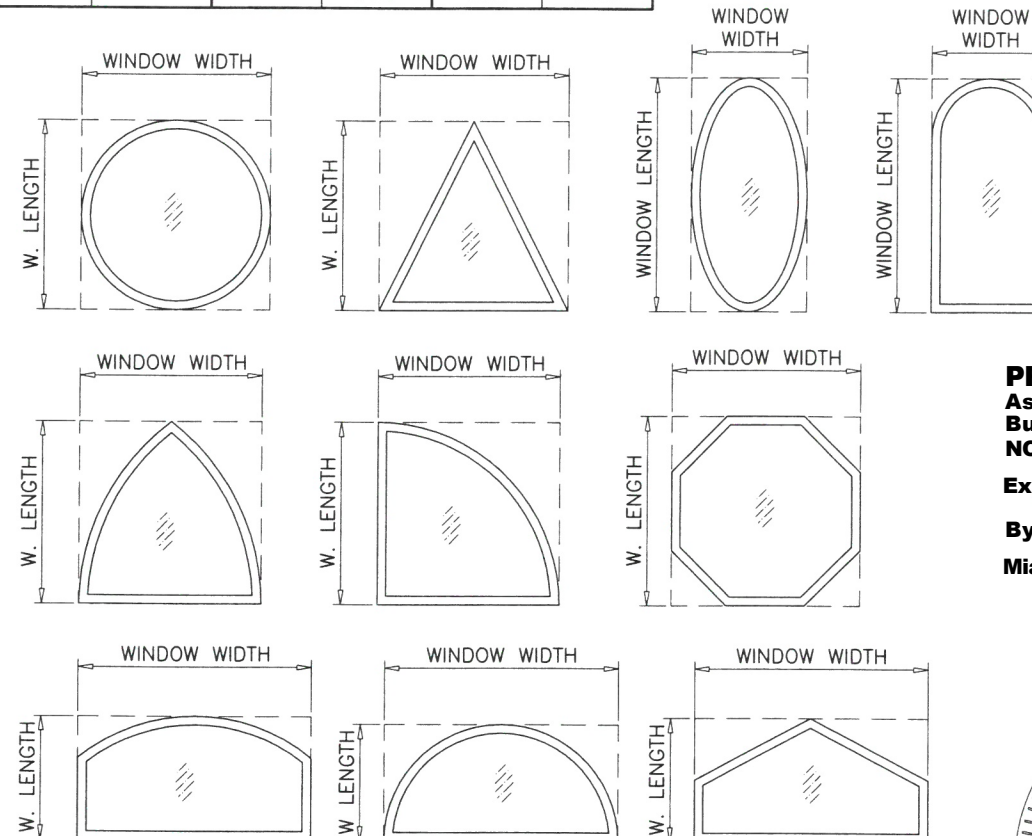
NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3SEC. GUSTS).

DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		GLASS TYPES 'A' & 'Ai'		GLASS TYPE 'B'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	90"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	135.0	110.0	135.0
48"		110.0	135.0	110.0	135.0
54"		110.0	110.0	110.0	110.0
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		91.7	91.7	91.7	91.7
78"		84.6	84.6	84.6	84.6
84"		67.9	67.9	67.9	67.9
30"	96"	110.0	150.0	110.0	150.0
36"		110.0	150.0	110.0	150.0
42"		110.0	135.0	110.0	135.0
48"		110.0	135.0	110.0	135.0
54"		110.0	110.0	110.0	110.0
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		91.7	91.7	91.7	91.7
78"		73.1	73.1	73.1	73.1
84"		67.9	67.9	67.9	67.9
30"	102"	110.0	150.0	110.0	150.0
36"		110.0	135.0	110.0	135.0
42"		110.0	135.0	110.0	135.0
48"		110.0	110.0	110.0	110.0
54"		110.0	110.0	110.0	110.0
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		79.2	79.2	79.2	79.2
78"		73.1	73.1	73.1	73.1
84"		67.9	67.9	67.9	67.9
30"	108"	110.0	150.0	110.0	150.0
36"		110.0	135.0	110.0	135.0
42"		110.0	135.0	110.0	135.0
48"		110.0	110.0	110.0	110.0
54"		110.0	110.0	110.0	110.0
60"		110.0	110.0	110.0	110.0
66"		100.0	100.0	100.0	100.0
72"		79.2	79.2	79.2	79.2
78"		73.1	73.1	73.1	73.1
84"		67.9	67.9	67.9	67.9
30"	114"	110.0	150.0	110.0	150.0
36"		110.0	135.0	110.0	135.0
42"		110.0	110.0	110.0	110.0
48"		110.0	110.0	110.0	110.0
54"		110.0	110.0	110.0	110.0
60"		110.0	110.0	110.0	110.0
66"		86.4	86.4	86.4	86.4
72"		79.2	79.2	79.2	79.2
78"		73.1	73.1	73.1	73.1
84"		67.9	67.9	67.9	67.9
30"	120"	110.0	135.0	110.0	135.0
36"		110.0	135.0	110.0	135.0
42"		110.0	110.0	110.0	110.0
48"		110.0	110.0	110.0	110.0
54"		110.0	110.0	110.0	110.0
60"		110.0	110.0	110.0	110.0
66"		86.4	86.4	86.4	86.4
72"		79.2	79.2	79.2	79.2
78"		73.1	73.1	73.1	73.1
84"		67.9	67.9	67.9	67.9

DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		GLASS TYPES 'A' & 'Ai'		GLASS TYPE 'B'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	126"	110.0	135.0	110.0	135.0
36"		110.0	135.0	110.0	135.0
42"		110.0	110.0	110.0	110.0
48"		110.0	110.0	110.0	110.0
54"		110.0	110.0	110.0	110.0
60"		95.0	95.0	95.0	95.0
66"	86.4	86.4	86.4	86.4	
30"	132"	110.0	135.0	110.0	135.0
36"		110.0	110.0	110.0	110.0
42"		110.0	110.0	110.0	110.0
48"		110.0	110.0	110.0	110.0
54"		110.0	110.0	110.0	110.0
60"		95.0	95.0	95.0	95.0
30"	138"	110.0	135.0	110.0	135.0
36"		110.0	110.0	110.0	110.0
42"		110.0	110.0	110.0	110.0
48"		110.0	110.0	110.0	110.0
54"		95.0	95.0	95.0	103.9
60"		95.0	95.0	95.0	95.0
30"	144"	110.0	135.0	110.0	135.0
36"		110.0	110.0	110.0	110.0
42"		110.0	110.0	110.0	110.0
48"		110.0	110.0	110.0	110.0
54"		95.0	95.0	95.0	102.8
60"		95.0	95.0	95.0	95.0



NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED
VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

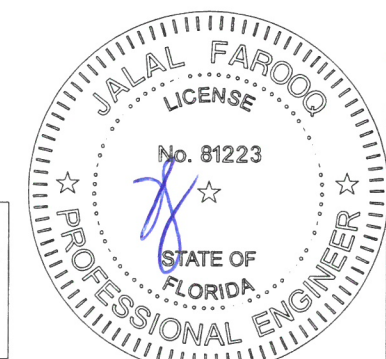


ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE
VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS
SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

LIMIT MAX. LOADS FOR ALTERNATE SHAPES TO ±95.0 PSF

PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. **24-1101.03**
Expiration Date: **01/16/2030**
By: *Manuel Perez*
Miami-Dade Product Control

OCT 29 2024



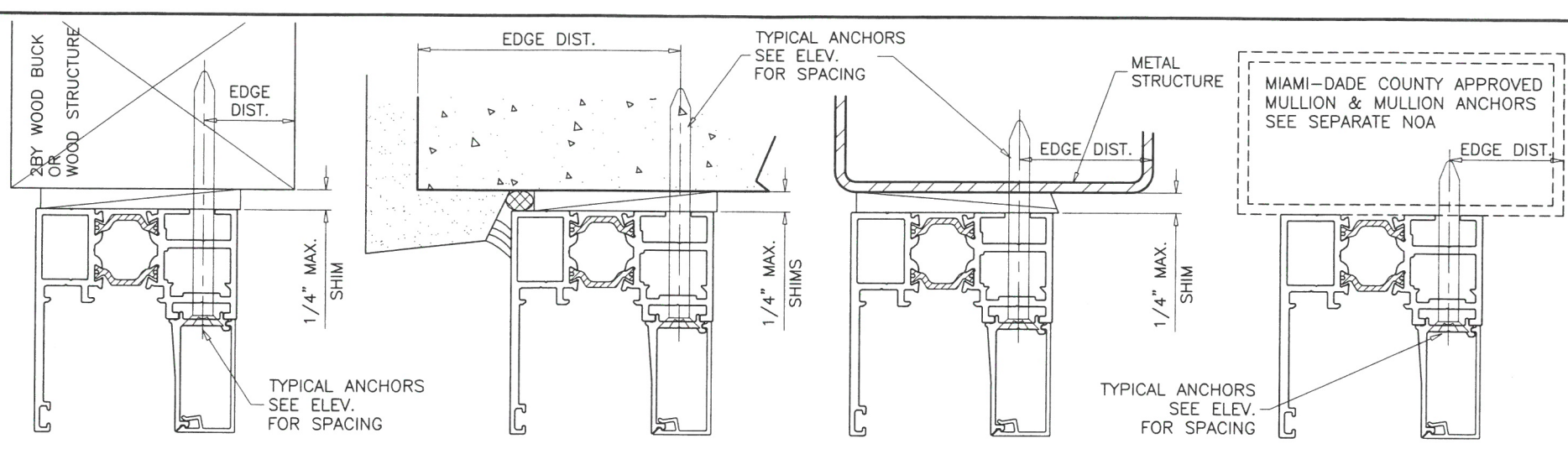
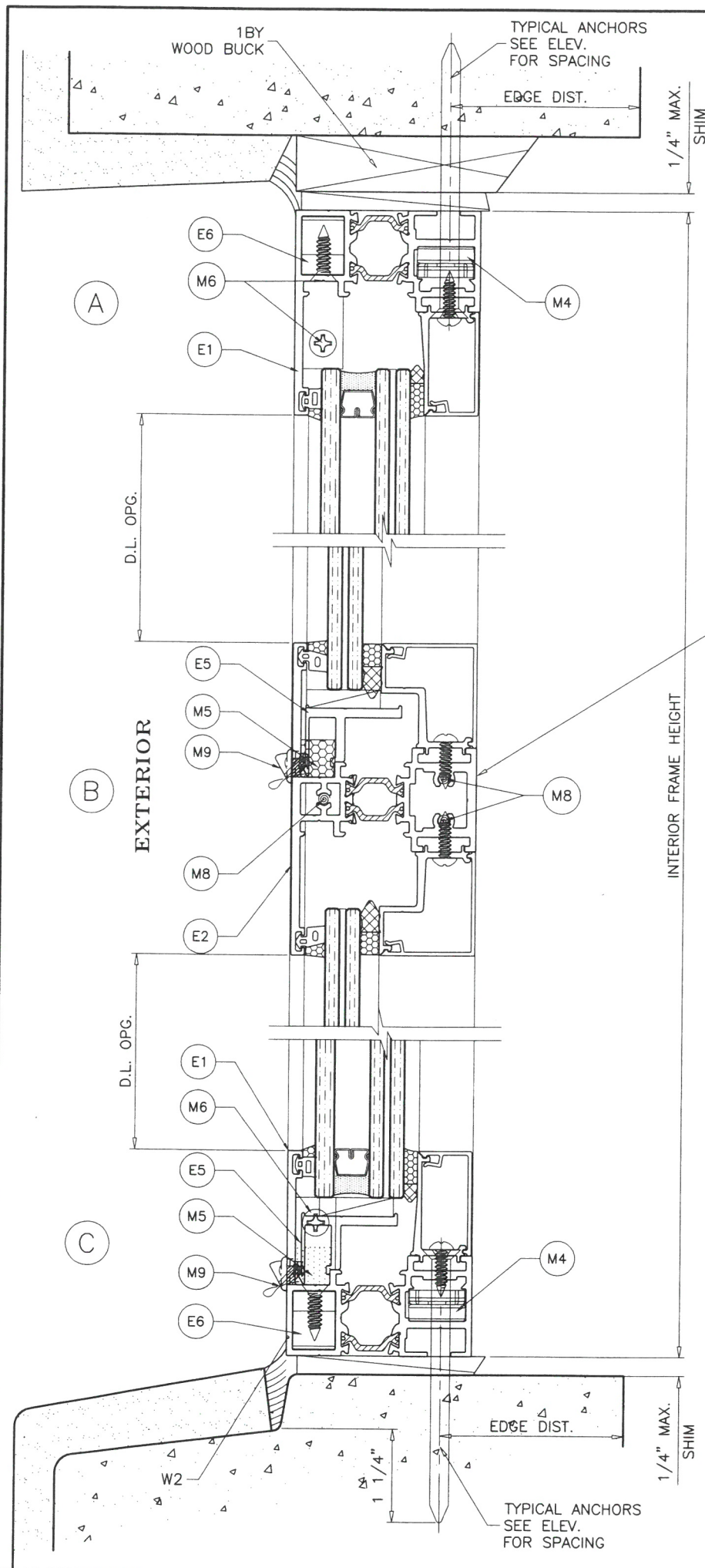
afC
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978

ES-P252 THERMAL ALUMINUM FIXED WDW. (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no.	date	by	description
	A	06.01.18		NO CHANGE THIS SHEET
	B	11.09.20		UPDATED TO 2020 FBC
	C	06.29.23		NO CHANGE THIS SHEET
	D	10.03.24		GENERAL REVISION

date: 12-27-17
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
18-05D
sheet 2 of 6



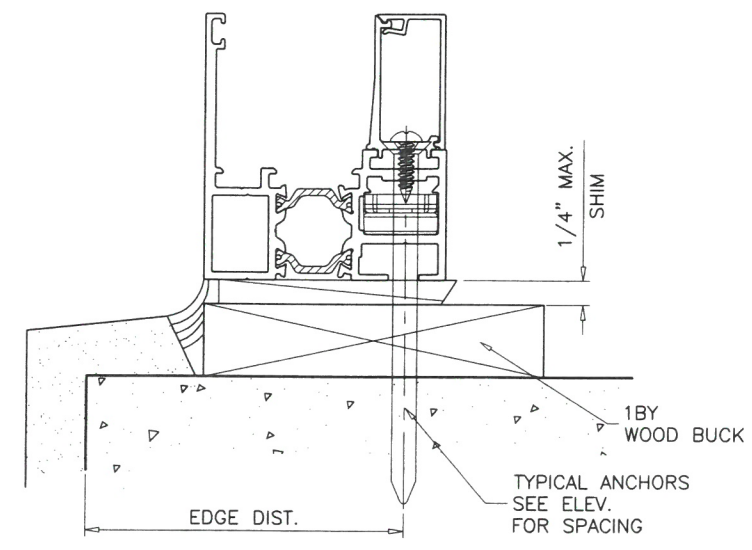
LIMIT MAX. DESIGN LOADS FOR WINDOWS WITH IMPOST AS FOLLOWS

WINDOW WIDTH	MAX. LOAD CAPACITY - PSF
54"	90.0
60"	75.0

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

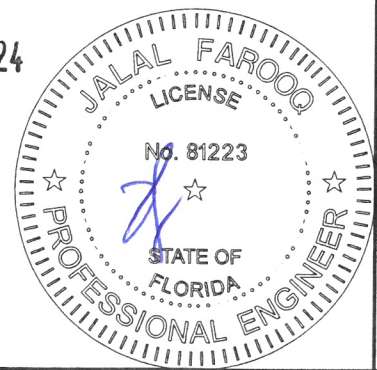
TYPICAL ANCHORS: SEE ELEV. FOR SPACING
1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-3/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)
 DIRECTLY INTO CONCRETE OR BLOCKS
 1-3/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-3/4" MIN. EMBED INTO GROUT-FILLED BLOCKS (JAMBS)
#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. TO EXTEND BEYOND METAL THICKNESS
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

CRITICAL EDGE DISTANCE
 INTO CONCRETE AND BLOCKS = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.
 WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



OCT 29 2024

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 Miami-Dade Product Control



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 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978
 (C.A.N. 3538)

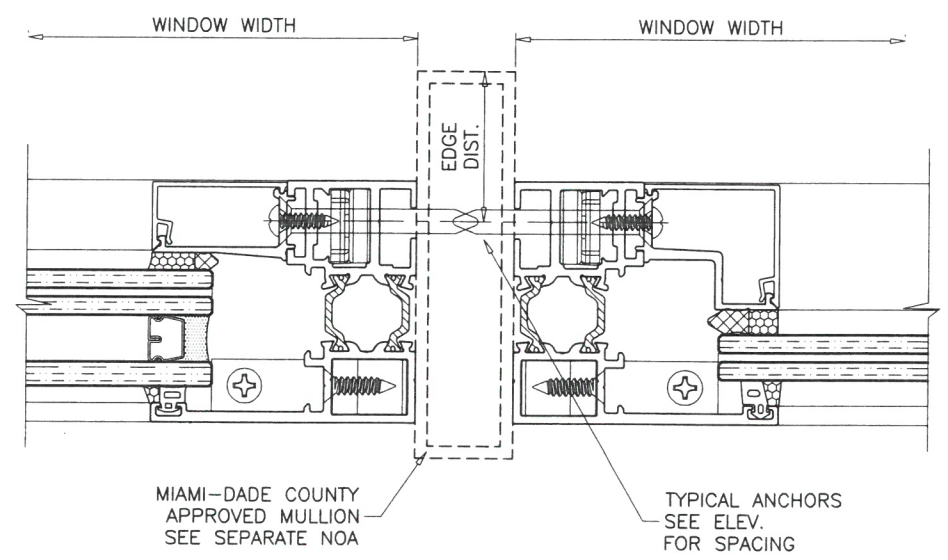
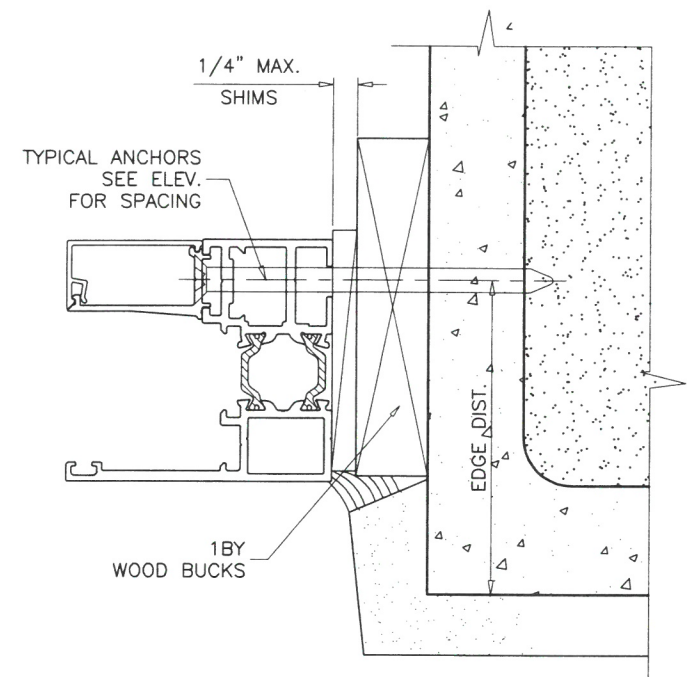
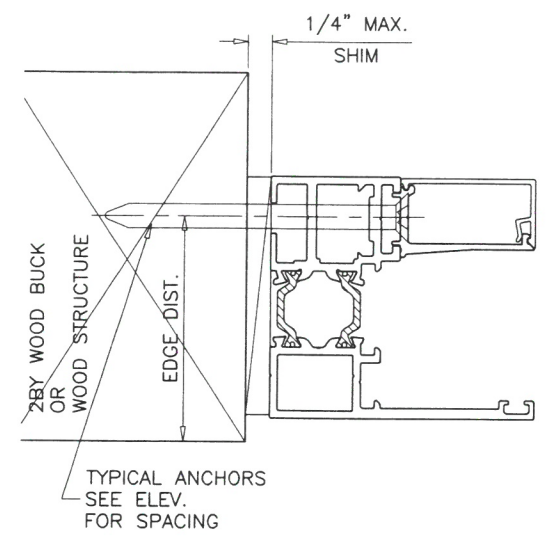
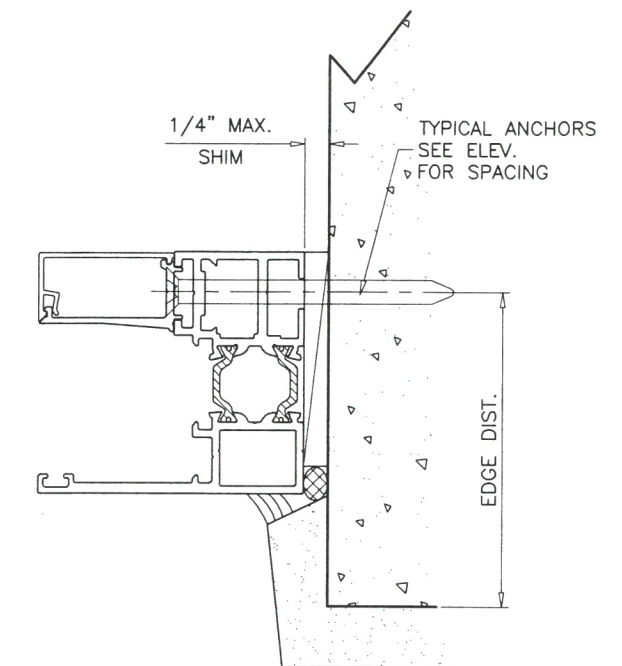
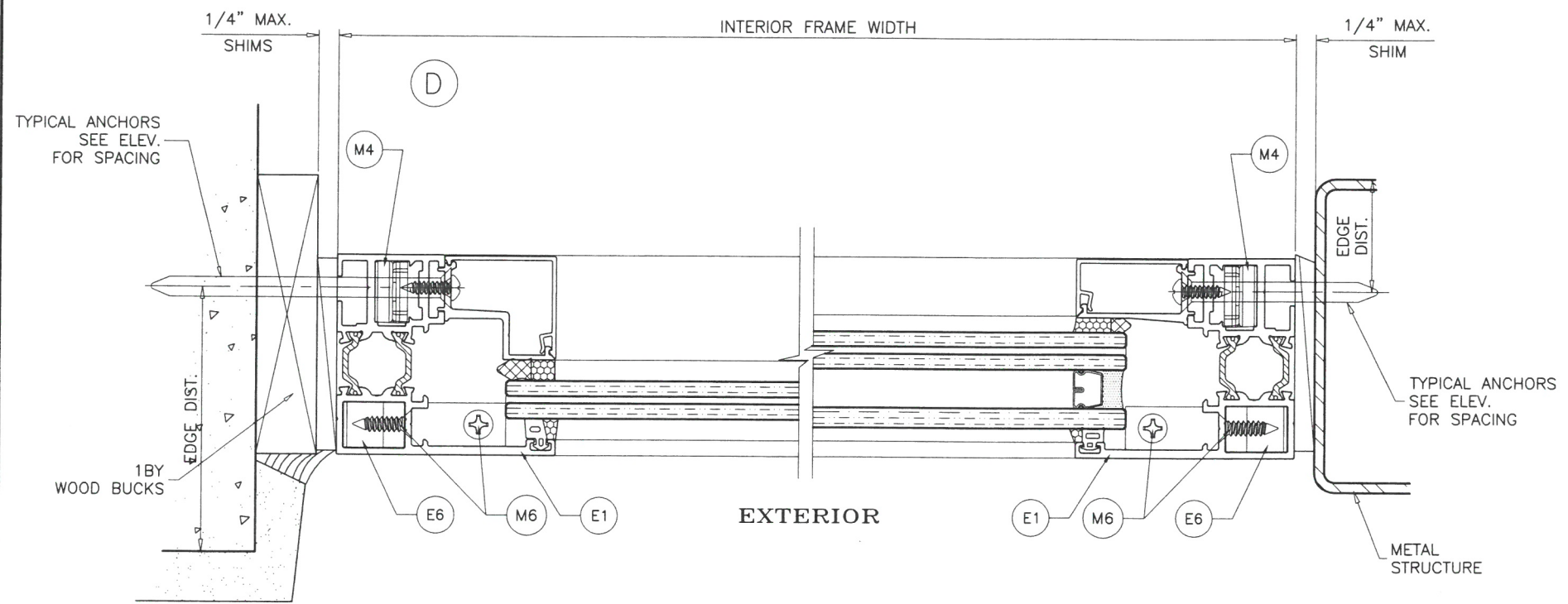
ES-P252 THERMAL ALUMINUM FIXED WDW. (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	A	06.01.18	REV. PER RER COMMENTS	
	B	11.09.20	UPDATED TO 2020 FBC	
	C	06.29.23	NO CHANGE THIS SHEET	
	D	10.03.24	GENERAL REVISION	

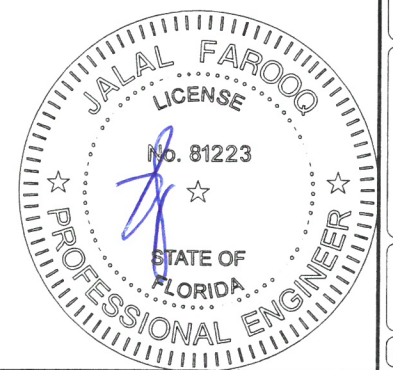
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scale:	1/2" = 1"
dr. by:	TARIQ
chk. by:	

drawing no.	18-05D
sheet	3 of 6

COMP-ANL 18-05D-ES



PRODUCT REVISED
 As complying with the Florida Building Code
 NOA-No. **24-1101.03**
 Expiration Date: **01/16/2030**
 By: *Manuel Ferrer*
 Miami-Dade Product Control



OCT 29 2024

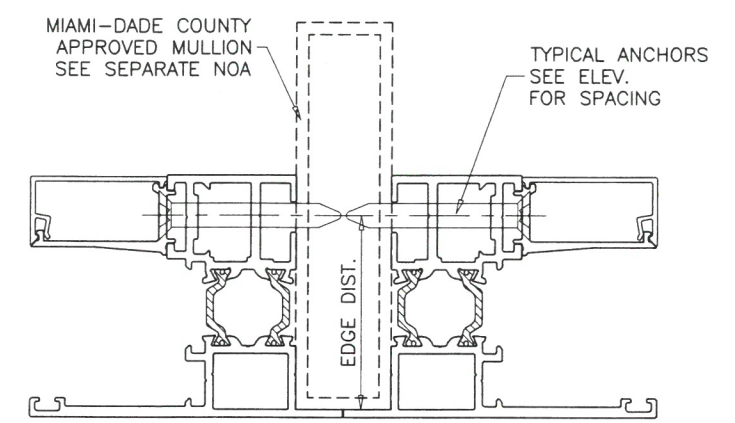
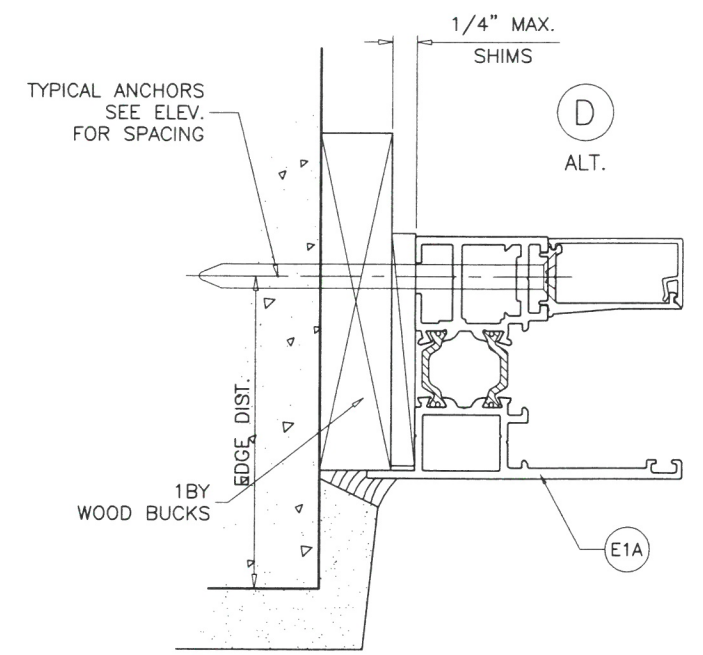
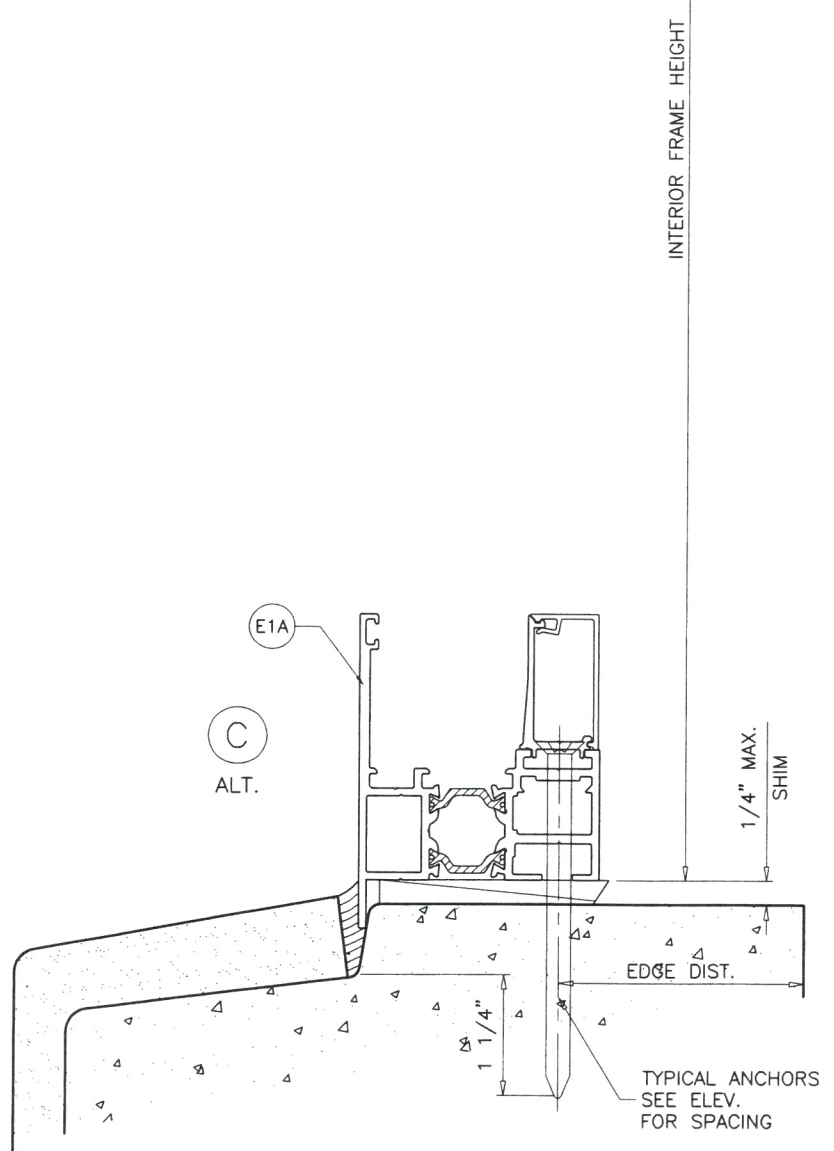
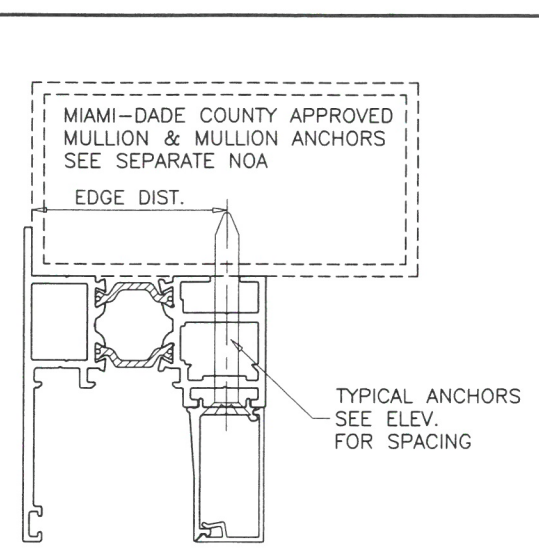
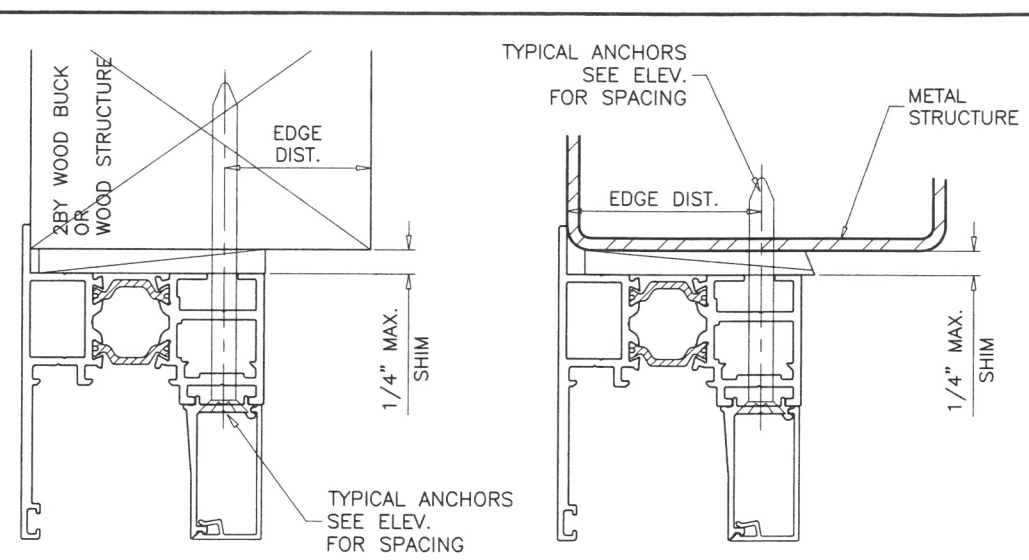
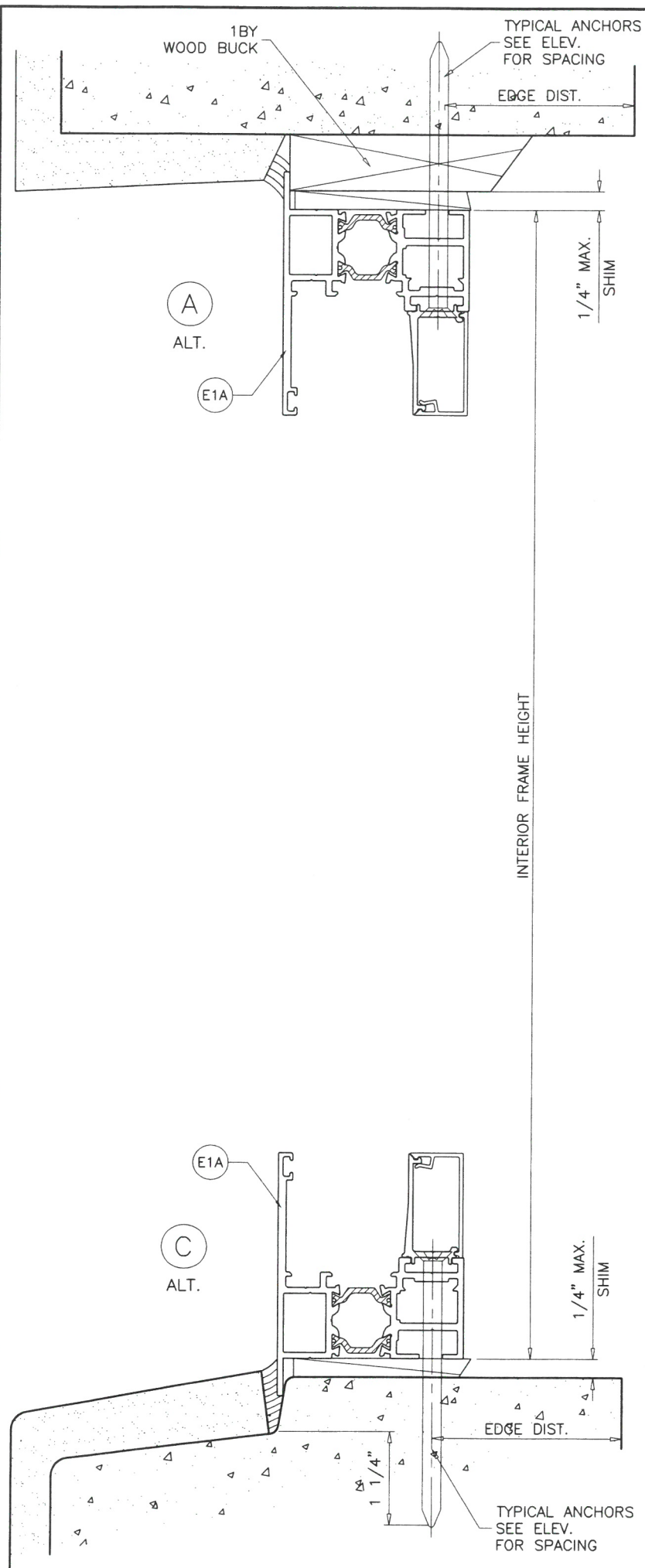
af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL 18-05D-ES

ES-P252 THERMAL ALUMINUM FIXED WDW. (L.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	06.01.18		NO CHANGE THIS SHEET
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C	06.29.23		NO CHANGE THIS SHEET
D	10.03.24		GENERAL REVISION

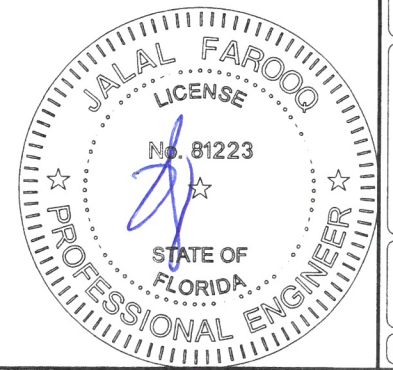
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 dr. by: TARIQ
 chk. by:

drawing no.
18-05D
 sheet 4 of 6



INSTALLATION DETAILS WITH FLANGE FRAMES
SEE SHEETS 3 & 4 FOR WINDOW DETAILS

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **24-1101.03**
Expiration Date: **01/16/2030**
By: *Manuel Ferrer*
Miami-Dade Product Control



OCT 29 2024

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
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COMP-ANL 18-05D-ES

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chk. by:

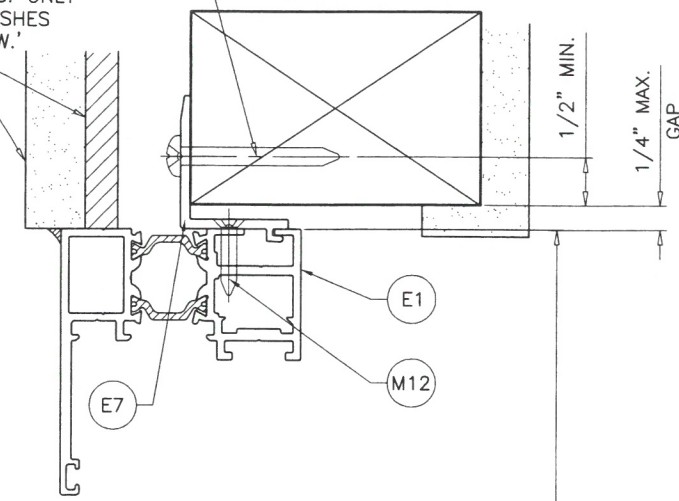
drawing no.
18-05D

sheet 5 of 6

ILLUSTRATIVE DTLS. ONLY
EXT. OR INT. FINISHES
NOT BY 'E.S. WDW.'

TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

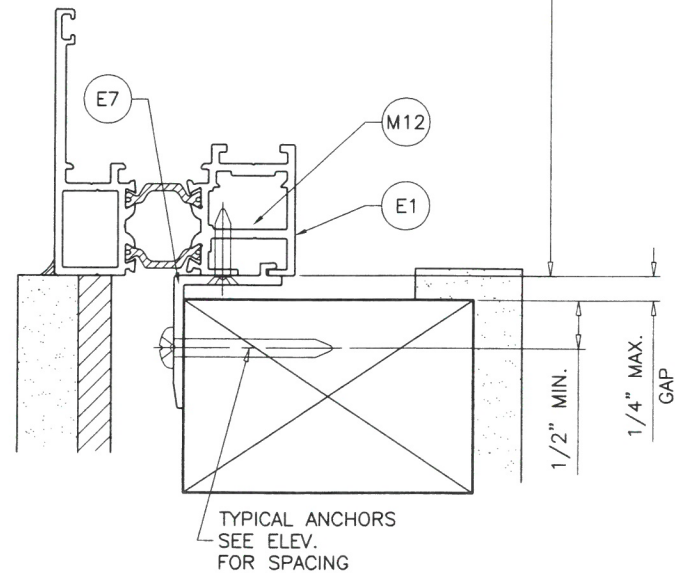
A
ALT.



EXTERIOR

INTERIOR FRAME HEIGHT

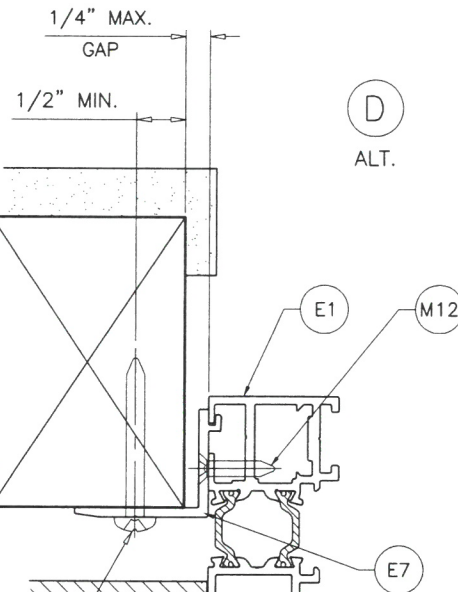
C
ALT.



TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

#10 SMS OR WOOD SCREWS (GRADE 2 CRS)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/4" MIN. PENETRATION INTO WOOD



D
ALT.

TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

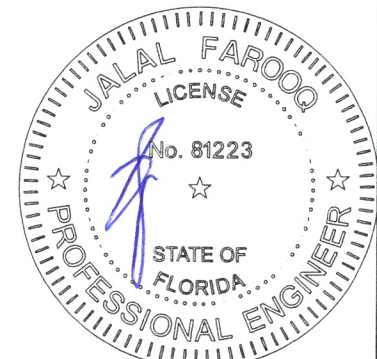
EXTERIOR

INTERIOR FRAME WIDTH

INSTALLATION DETAILS FLUSH FRAMES WITH NAIL FINIS

SEE SHEETS 3 & 4 FOR WINDOW DETAILS

PRODUCT REVISED
As complying with the Florida
Building Code
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By: *Manuel Ferrer*
Miami-Dade Product Control



OCT 29 2024



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9360 SUNSET DRIVE, SUITE 220
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ES-P252 THERMAL ALUMINUM FIXED WDW. (L.M.I.)

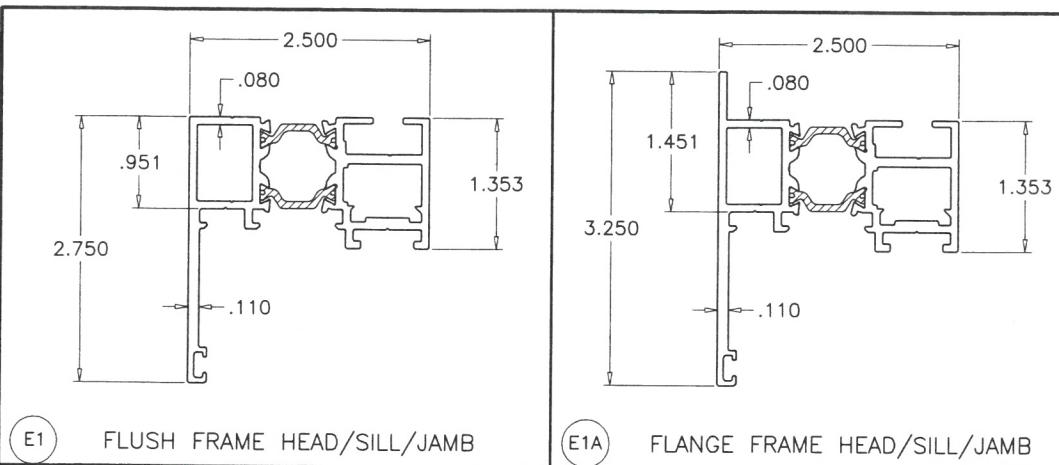
E.S. WINDOWS, LLC
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dr. by:	TARIQ
chk. by:	

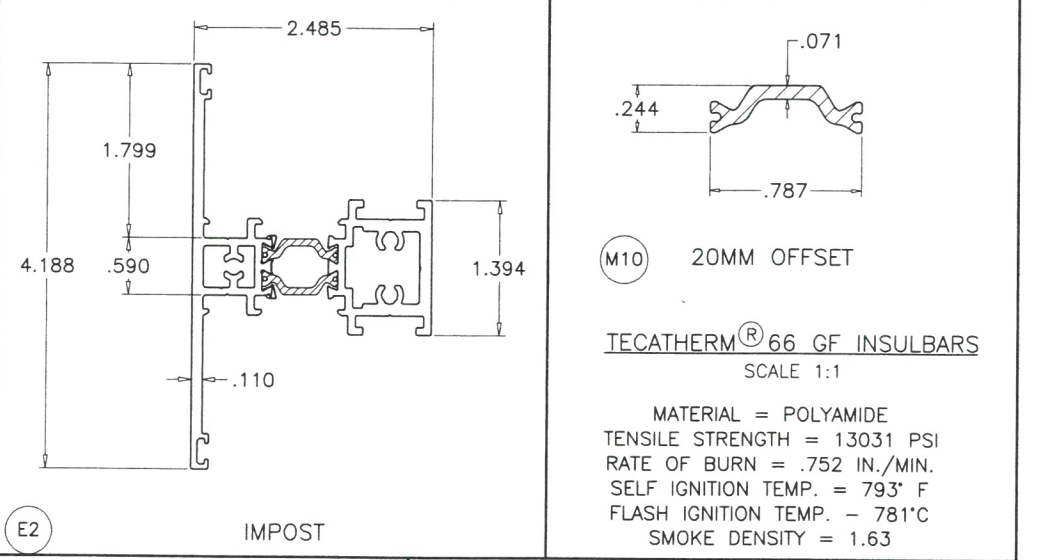
drawing no.	18-05D
sheet	5.1 of 6

COMP-ANL\18-05D-ES



E1 FLUSH FRAME HEAD/SILL/JAMB

E1A FLANGE FRAME HEAD/SILL/JAMB



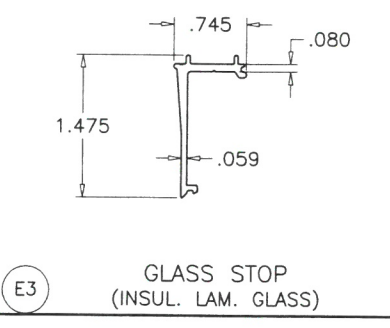
E2 IMPOST

M10 20MM OFFSET

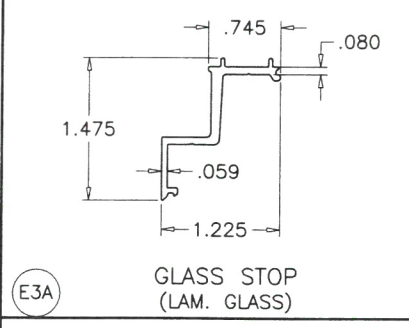
TECATHERM® 66 GF INSULBARS
SCALE 1:1

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

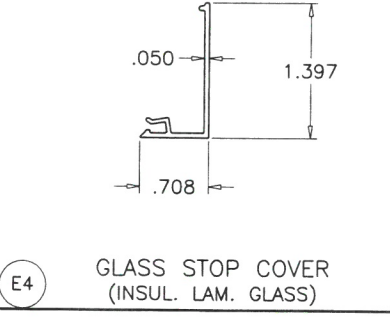
ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-P252-501	4	FLUSH FRAME HEAD/SILL/JAMB	6063-T6	-
E1A	-	4	FLANGE FRAME HEAD/SILL/JAMB	6063-T6	-
E2	ES-P251-513	AS REQD.	IMPOST	6063-T6	-
E3	ES-P252-005	4	GLASS STOP (INSUL. LAM. GLASS)	6063-T5	-
E3A	ES-P252-031	4	GLASS STOP (LAM. GLASS)	6063-T5	-
E4	ES-P252-006	1	GLASS STOP COVER (INSUL. LAM. GLASS)	6063-T6	-
E4A	ES-P252-032	1	GLASS STOP COVER (LAM. GLASS)	6063-T6	-
E5	ES-P251-007	2/ LITE	SETTING CHAIR, 4" LONG	6063-T5	-
E6	ES-P251-018	AS REQD.	CORNER KEY	6005-T5	-
E7	TBA-002	AS REQD.	NAIL FIN	6063-T6	-
M1	ES-P251-G02	AS REQD.	GLAZING GASKET (EXTERIOR)	EPDM	TREMCO TR-19619SW, DUROMETER 70±5 SHORE A
M1A	ES-UN625-G02	AS REQD.	GLAZING GASKET (EXTERIOR)	SILICONE	DUROMETER 70±5 SHORE A
M2	ES-SD451-G04	AS REQD.	GLAZING GASKET (INTERIOR)	EPDM	TREMCO TR-3234E, DUROMETER 70±5 SHORE A
M2A	ES-H340-G02	AS REQD.	GLAZING GASKET (INTERIOR)	SILICONE	DUROMETER 60±5 SHORE A
M3	ES-21-B04A	2/ LITE	SETTING BLOCK, 4" LONG, AT 1/4 POINTS	EPDM	SOLUCIONESENCAUCHO, DUROMETER 80±5 SHORE A
M4	0337	1/ CORNER	CORNER JOINT	CAST ALUMINUM	MASTER
M5	WPSA-N1	-	3/4" X 3/4" X 2" RETICULATED FOAM 30PPI	-	-
M6	#10 X 3/4"	AS REQD.	ANGLE FASTENERS	ST. STEEL	FH SMS
M7	#8 X 5/8"	AS REQD.	GLASS STOP FASTENERS	ST. STEEL	PH SMS
M8	#10 X 1-1/4"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M9	WA2L	2	WEEP COVER	PLASTIC	-
M10	2479	AS REQD.	INSULBAR 20MM OFFSET	POLYAMIDE	ENSINGER
M11	791	-	GLAZING COMPOUND	SILICONE	DOWSIL
M12	#12 X 3/4"	-	NAIL FIN FASTENERS AT 3" FROM ENDS & 12" O.C.	ST. STEEL	FH SMS



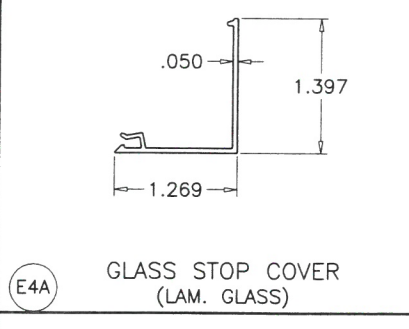
E3 GLASS STOP (INSUL. LAM. GLASS)



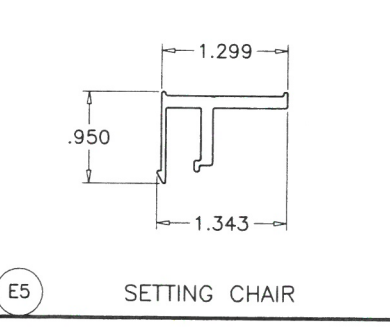
E3A GLASS STOP (LAM. GLASS)



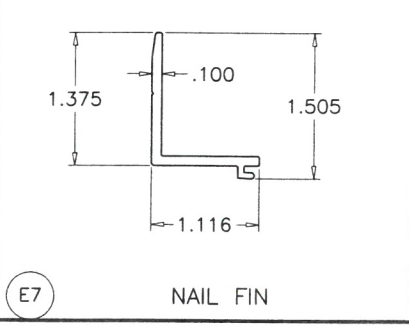
E4 GLASS STOP COVER (INSUL. LAM. GLASS)



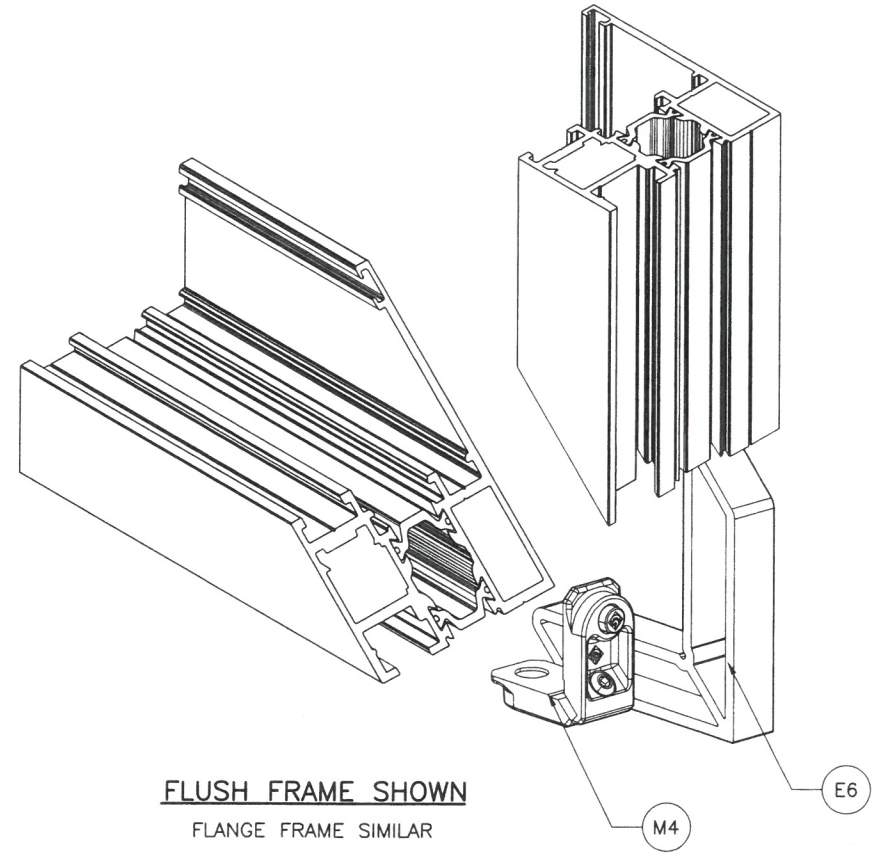
E4A GLASS STOP COVER (LAM. GLASS)



E5 SETTING CHAIR



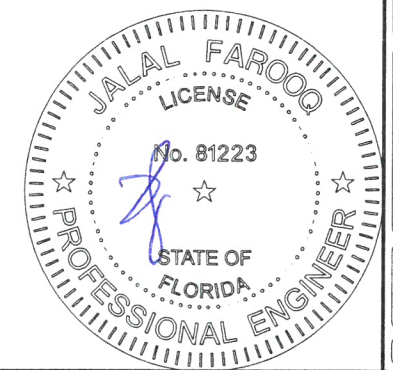
E7 NAIL FIN



SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH WHITE/ALUMINUM COLORED SILICONE.

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. **24-1101.03**
Expiration Date: **01/16/2030**
By: *Manuel Fern*
Miami-Dade Product Control



OCT 29 2024

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
COMP-ANL\18-05D-ES

ES-P252 THERMAL ALUMINUM FIXED WDW. (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	description
A	06.01.18	NO CHANGE THIS SHEET
B	11.09.20	UPDATED TO 2020 FBC
C	06.29.23	NO CHANGE THIS SHEET
D	10.03.24	GENERAL REVISION

date: 12-27-17
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. **18-05D**
sheet **6** of **6**