



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)

Tecnoglass, LLC
3550 NW 49 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 “HC-200” Outswing Aluminum Casement Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **W05-13**, titled “Series HC200 Aluminum Casement Wdw. (L.M.I.)”, sheets 1 through 6 of 6, dated 03/15/05, with revision **H** dated 12/10/20, 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 S.A.**, 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.

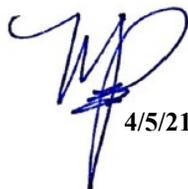
ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

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. 20-0310.15** and consists of this page 1, 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.**




 4/5/21

NOA No. 21-0113.07
Expiration Date: June 30, 2025
Approval Date: April 15, 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. 05-0427.02)
2. Drawing No. **W05-13**, titled "Series HC200 Aluminum Casement Wdw. (L.M.I.)", sheets 1 through 6 of 6, dated 03/15/05, with revision **G** dated 03/19/18, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
(Submitted under NOA No. 18-0327.07)

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) Small 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 aluminum outswing casement window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-4889**, dated 04/04/07, witnessed by Michael Wenzel, P.E.
(Submitted under NOA No. 07-1019.03)
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) Small 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 aluminum outswing casement window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-4897**, dated 07/18/06, signed and sealed by Edmundo J. Largaespada, P.E.
(Submitted under NOA No. 07-1019.03)
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 and die drawings of aluminum outswing casement window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-4887**, dated 12/18/06, signed and sealed by Michael Wenzel, P.E.
(Submitted under NOA No. 07-1019.03)



Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0113.07

Expiration Date: June 30, 2025
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (CONTINUED)

4. 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 aluminum outswing casement window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-4896, FTL-4504 and FTL-4570**, dated 10/02/06, 02/02/05 and 03/18/05, all signed and sealed by Edmundo J. Largaespada, P.E.
(Submitted under NOA's No. 07-1019.03 and 05-0427.02)
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 an aluminum Outswing casement window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-4417, FTL-4416, FTL-4371**, dated 12/09/04 and 02/09/05, all signed and sealed by Edmundo J. Largaespada, P.E.
(Submitted under NOA No. 05-0427.02)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC-2014**, dated 07/13/15 and 02/25/16 prepared by Al-Farooq Corporation, signed and sealed, by Javad Ahmad, P.E.
(Submitted under NOA No. 15-0715.02)
2. Glazing complies with **ASTM E 1300-09**

D. QUALITY ASSURANCE

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (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.
2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their “**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**” dated 05/23/19, expiring on 05/23/24.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0113.07

Expiration Date: June 30, 2025
Approval Date: April 15, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, and of no financial interest, dated February 20, 2020, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 20-0310.15)
2. Laboratory compliance letter for Test Reports No. **FTL-4889** and **FTL-4887**, issued by Fenestration Testing Laboratory, Inc., dated 04/04/07 and 12/18/06, both signed and sealed by Michael Wenzel, P.E.
(Submitted under NOA No. 07-1019.03)
3. Laboratory compliance letter for Test Reports No., **FTL-4897**, **FTL-4896**, **FTL-4417**, **FTL-4416**, **FTL-4371**, **FTL-4504** and **FTL-4570**, issued by Fenestration Testing Laboratory, Inc., dated 12/09/04, 02/09/05, 02/02/05, 03/18/05, 07/18/06 and 10/02/06, respectively, all signed and sealed by Edmundo J. Largaespada, P.E.
(Submitted under NOA's No. 07-1019.03 and 05-0427.02)
4. Letter of sales of asset and relinquishing of all rights of NOA No. **12-0410.26**, dated 07/15/14, issued by R.C. Aluminum Industries, Inc. signed by Raul Casares, for and on behalf of R.C. Aluminum Industries, Inc.
(Submitted under NOA No. 15-0715.02)
5. Asset purchase agreement dated 06/19/14, signed by Mr. Raul Casares, for and on behalf of R.C. Aluminum Industries, Inc.
(Submitted under NOA No. 15-0715.02)

G. OTHERS

1. Notice of Acceptance No. **18-0327.07**, issued to Tecnoglass, LLC, for their Series "HC-200" Outswing Aluminum Casement Window – L.M.I., approved on 05/31/18 and expiring on 06/30/20.



Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0113.07

Expiration Date: June 30, 2025
Approval Date: April 15, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W05-13**, titled “Series HC200 Aluminum Casement Wdw. (L.M.I.)”, sheets 1 through 6 of 6, dated 03/15/05, with revision **H** dated 12/10/20, 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 07/13/15 and 02/25/16 and further updated on 12/09/20 to comply 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. **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.
2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their “**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**” dated 05/23/19, expiring on 05/23/24.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)**, with **FBC 7th Edition (2020)** and of no financial interest, dated December 09, 2020, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHERS

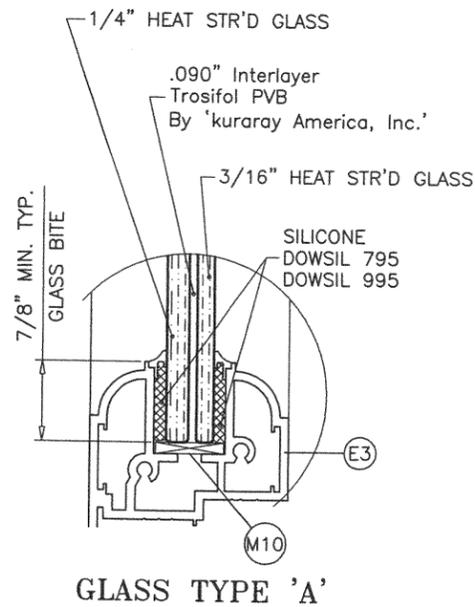
1. Notice of Acceptance No. **20-0310.15**, issued to Tecnoglass, LLC, for their Series “HC-200” Outswing Aluminum Casement Window – L.M.I., approved on 05/07/20 and expiring on 06/30/25.



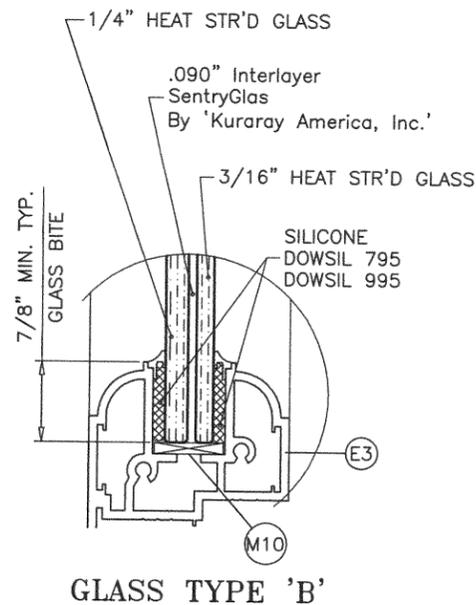
Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-0113.07

Expiration Date: June 30, 2025
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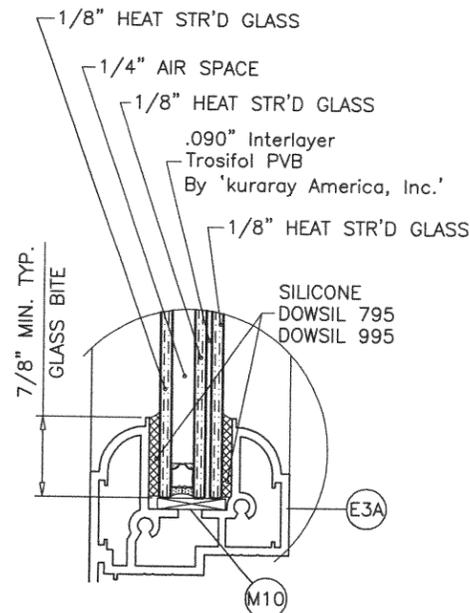
EXTERIOR



GLASS TYPE 'A'



GLASS TYPE 'B'



GLASS TYPE 'C'

GLAZING OPTIONS

NOTE:
TO QUALIFY FOR SMALL MISSILE IMPACT RATING
EXTERIOR PLY OF GLASS TYPE 'C' MUST BE TEMPERED.

1/4" 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

SERIES HC200 ALUMINUM CASEMENT WINDOW

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

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE
COMBINATIONS OF CASEMENT/CASEMENT OR CASEMENT WITH OTHER
MIAMI-DADE COUNTY APPR'D 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 2017 (6TH EDITION)/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.

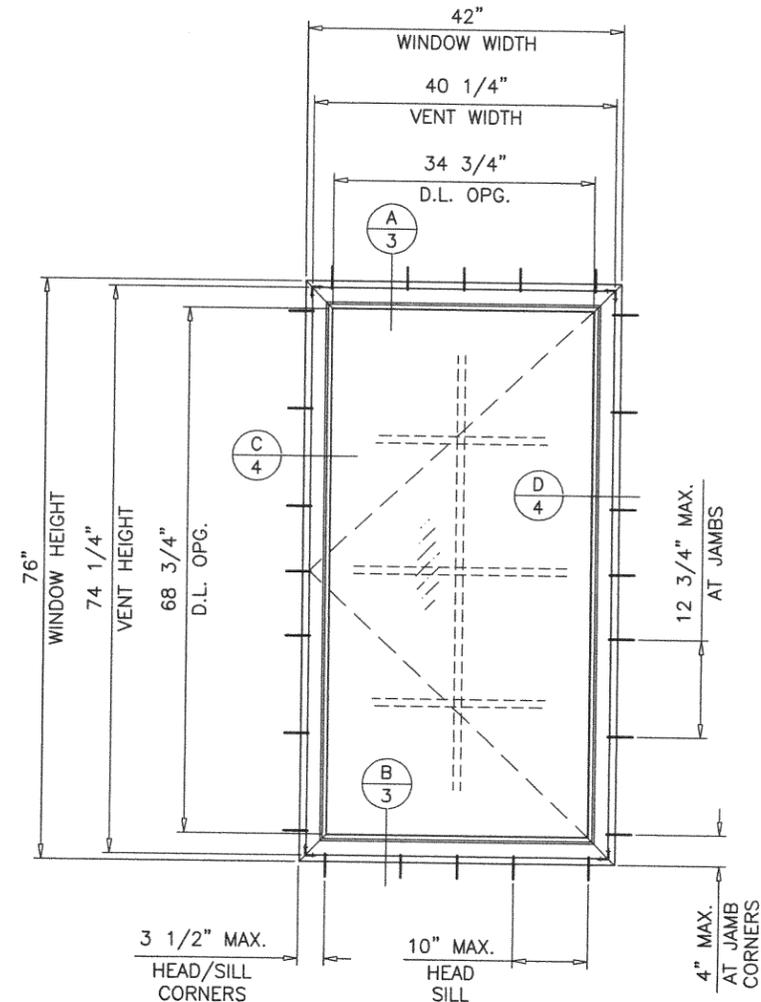
ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS
AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE
MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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 2017/2020 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

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

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0113.07
Expiration Date: 06/30/2025
By: *Manuel Perez*
Miami-Dade Product Control

DEC 16 2020



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
COMP-ANL W05-13RC

SERIES HC200 ALUMINUM CASEMENT WDW. (L.M.I.)
TECNOGLASS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
E	01.20.15		UPDATED TO 2014 FBC
F	12.21.15		REV. PER RER COMMENTS
G	03.19.18		UPDATED TO 2017 FBC
H	12.10.20		UPDATED TO 2020 FBC

date: 03-15-05
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

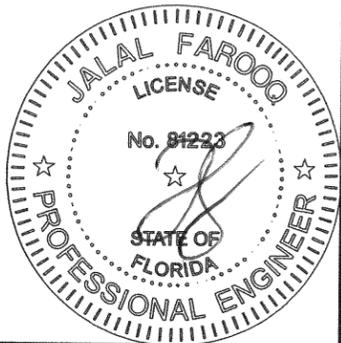
drawing no.
W05-13
sheet 1 of 6

DESIGN LOAD CAPACITY - PSF FOR (X) SIZES							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
20"	36"	130.0	180.0	150.0	210.0	100.0	100.0
24"		130.0	180.0	150.0	210.0	100.0	100.0
28"		130.0	180.0	150.0	210.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	165.0	130.0	150.0	100.0	100.0
40"		130.0	165.0	130.0	150.0	100.0	100.0
42"		130.0	165.0	130.0	150.0	100.0	100.0
20"	42"	130.0	180.0	150.0	210.0	100.0	100.0
24"		130.0	180.0	150.0	210.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	165.0	130.0	150.0	100.0	100.0
40"		130.0	151.7	130.0	150.0	100.0	100.0
42"		130.0	144.5	130.0	144.5	100.0	100.0
20"	48"	130.0	180.0	150.0	210.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	165.0	130.0	150.0	100.0	100.0
40"		130.0	165.0	130.0	150.0	100.0	100.0
42"		130.0	165.0	130.0	150.0	100.0	100.0
20"	54"	130.0	165.0	130.0	150.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	165.0	130.0	150.0	100.0	100.0
40"		130.0	157.3	130.0	150.0	100.0	100.0
42"		130.0	149.8	130.0	149.8	100.0	100.0
20"	60"	130.0	165.0	130.0	150.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	165.0	130.0	150.0	100.0	100.0
40"		130.0	130.0	130.0	150.0	-	-
42"		130.0	130.0	130.0	150.0	-	-
20"	66"	130.0	165.0	130.0	150.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	130.0	130.0	150.0	-	-
40"		130.0	130.0	130.0	150.0	-	-
42"		130.0	130.0	130.0	150.0	-	-
20"	72"	130.0	165.0	130.0	150.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	165.0	130.0	150.0	100.0	100.0
36"		130.0	130.0	130.0	150.0	-	-
40"		130.0	130.0	130.0	147.5	-	-
42"		130.0	130.0	130.0	140.5	-	-

DESIGN LOAD CAPACITY - PSF FOR (X) SIZES							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
20"	78"	130.0	165.0	130.0	150.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	165.0	130.0	150.0	100.0	100.0
32"		130.0	130.0	130.0	150.0	-	-
36"		130.0	130.0	130.0	150.0	-	-
40"		124.0	130.0	124.0	143.0	-	-
42"		130.0	165.0	130.0	150.0	100.0	100.0
20"	84"	130.0	165.0	130.0	150.0	100.0	100.0
24"		130.0	165.0	130.0	150.0	100.0	100.0
28"		130.0	130.0	130.0	150.0	-	-
32"		118.0	130.0	118.0	136.2	-	-
36"		106.6	123.0	106.6	123.0	-	-
42"		130.0	165.0	130.0	150.0	100.0	100.0

DESIGN LOAD CAPACITY - PSF FOR (X) SIZES							
WINDOW DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'		GLASS TYPE 'C'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
19-1/8"	26"	130.0	180.0	130.0	210.0	100.0	100.0
26-1/2"		130.0	180.0	130.0	210.0	100.0	100.0
37"		130.0	180.0	130.0	210.0	100.0	100.0
42"		130.0	165.0	130.0	150.0	100.0	100.0
42"		130.0	165.0	130.0	150.0	100.0	100.0
19-1/8"	38-3/8"	130.0	180.0	130.0	210.0	100.0	100.0
26-1/2"		130.0	180.0	130.0	210.0	100.0	100.0
37"		130.0	165.0	130.0	150.0	100.0	100.0
42"	130.0	158.1	130.0	150.0	100.0	100.0	
19-1/8"	50-5/8"	130.0	180.0	130.0	210.0	100.0	100.0
26-1/2"		130.0	165.0	130.0	150.0	100.0	100.0
37"		130.0	165.0	130.0	150.0	100.0	100.0
42"		130.0	159.8	130.0	150.0	100.0	100.0
19-1/8"	63"	130.0	165.0	130.0	150.0	100.0	100.0
26-1/2"		130.0	165.0	130.0	150.0	100.0	100.0
37"		130.0	165.0	130.0	150.0	100.0	100.0
42"		130.0	130.0	130.0	150.0	-	-
19-1/8"	76"	130.0	165.0	130.0	150.0	100.0	100.0
26-1/2"		130.0	165.0	130.0	150.0	100.0	100.0
37"		130.0	130.0	130.0	150.0	-	-
42"		130.0	130.0	130.0	133.1	-	-

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



DEC 16 2020

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **21-0113.07**
Expiration Date: **06/30/2025**
By: *Manuel Perez*
Miami-Dade Product Control

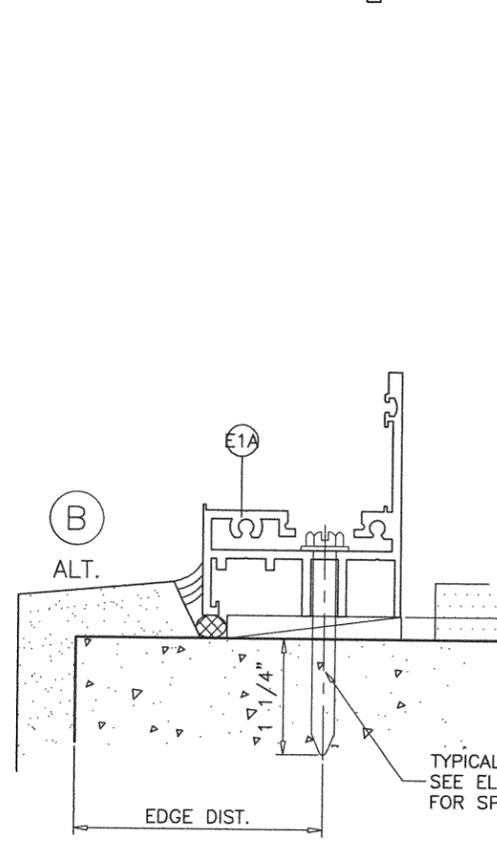
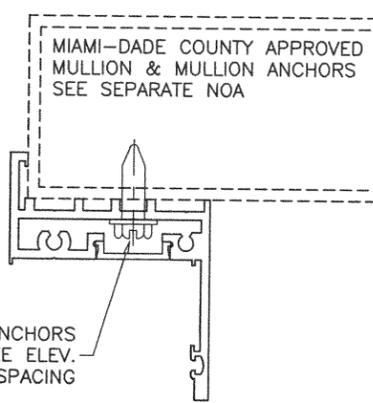
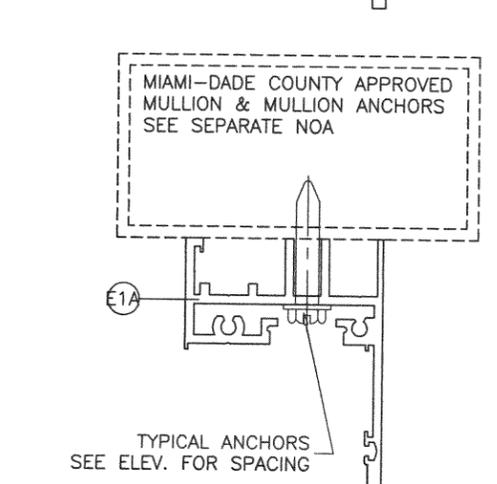
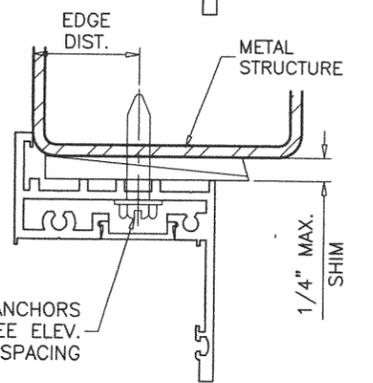
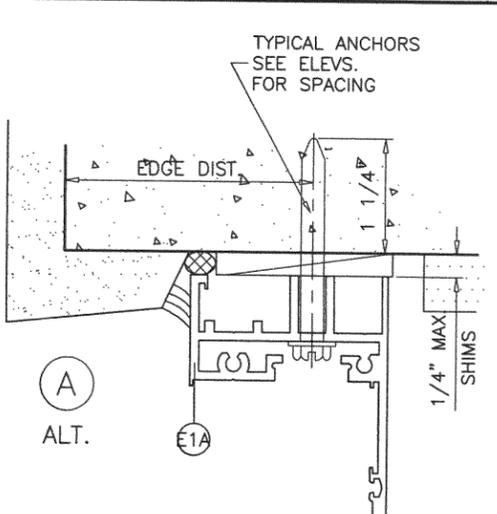
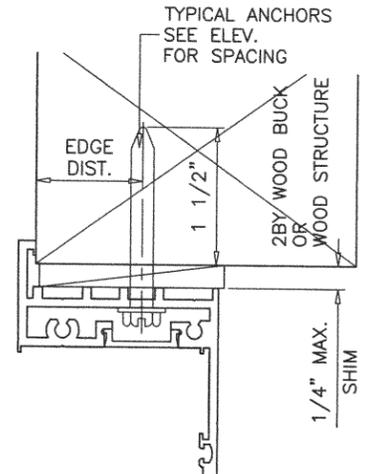
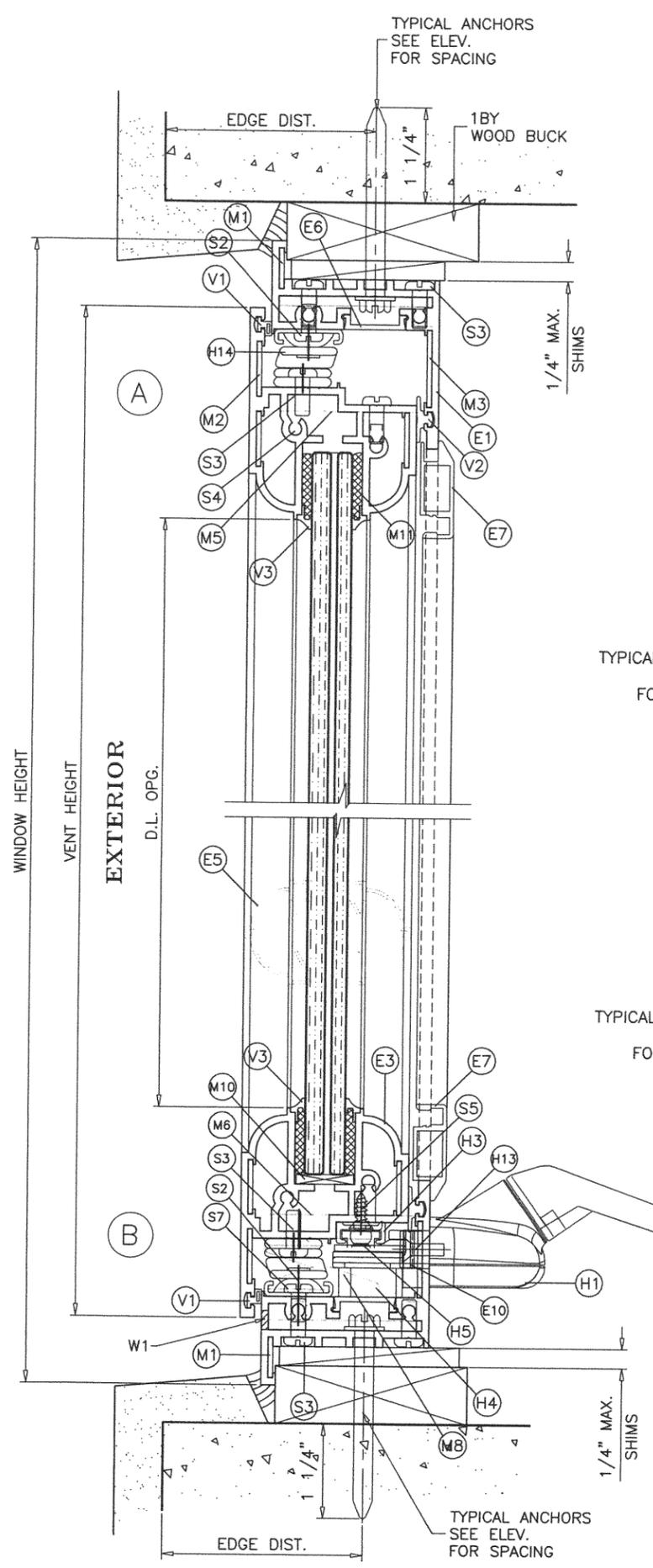
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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
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SERIES HC200 ALUMINUM CASEMENT WDW. (L.M.I.)
TECNOGLASS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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dr. by:	TARIQ
chk. by:	

drawing no.
W05-13
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WOOD BUCKS AND METAL STRUCTURE NOT BY 'TECHNOGLASS'
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
 1-1/4" 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)

#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)

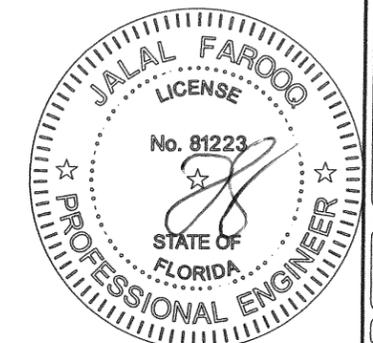
CRITICAL EDGE DISTANCE
 INTO CONCRETE AND BLOCKS = 2-3/4" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.

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.

SEALANTS:
 ALL FRAME AND VENT CORNERS SEALED WITH SILICONE.

WEEP HOLES:
 W1 = 1/4" X 1/2" WEEP SLOT AT 4" FROM EACH END

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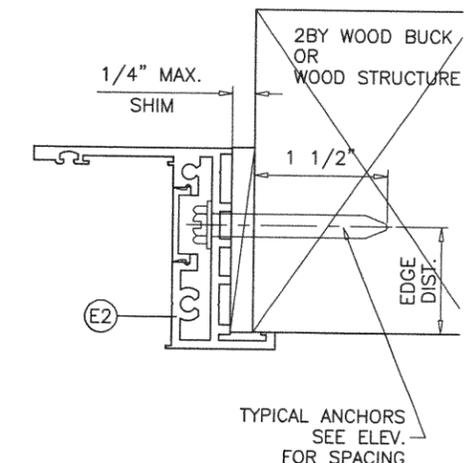
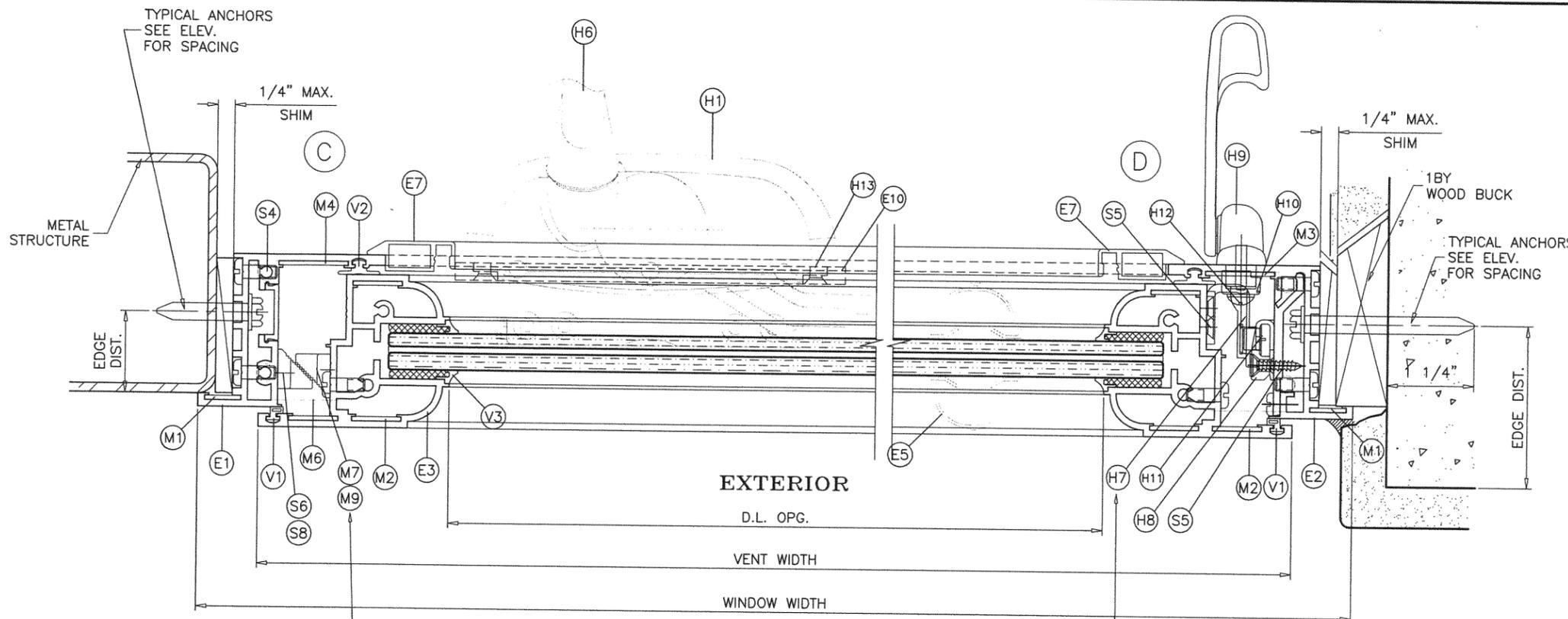
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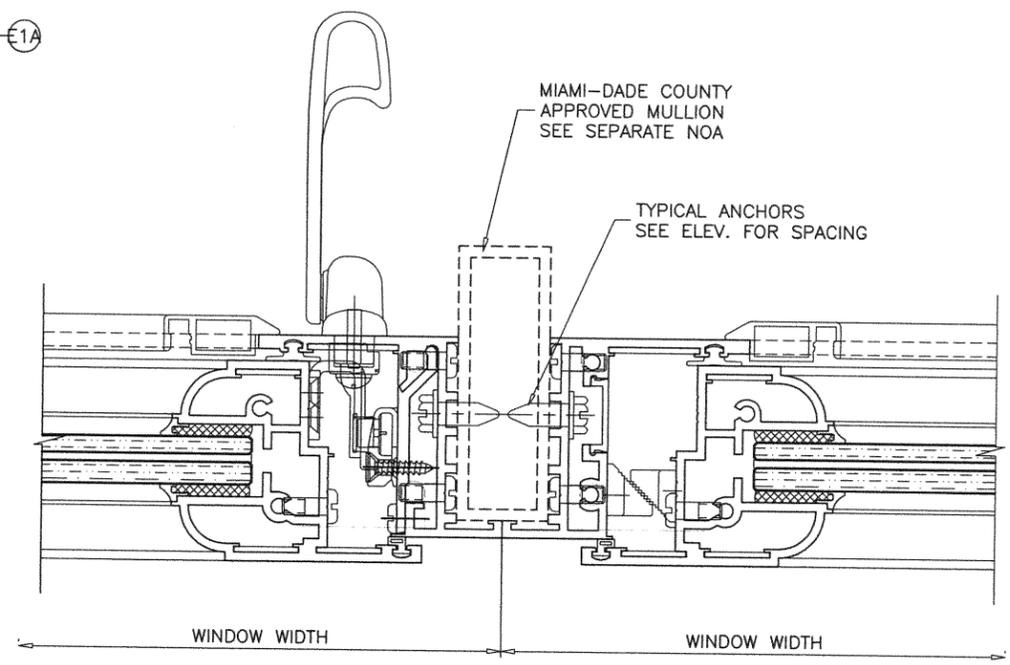
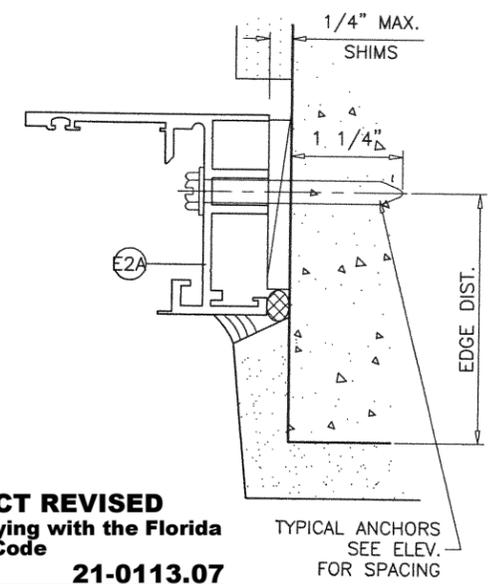
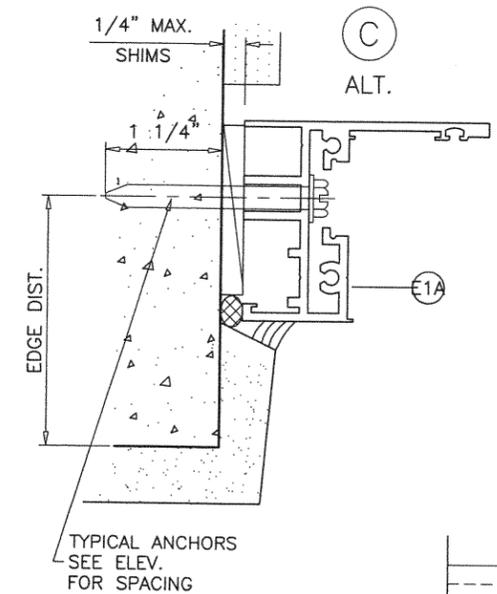
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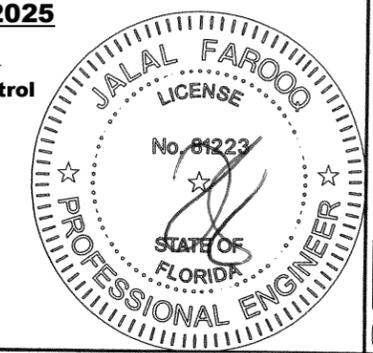
SNUBBERS
 3 PLASTIC SNUBBERS UP TO 38-3/8" WDW. HTS.
 2 ALUM + 2 PLASTIC SNUBBERS UP TO 60" WDW. HTS.
 3 ALUM + 2 PLASTIC SNUBBERS OVER 60" WDW. HTS.

LATCH KEEPER
 3 PER JAMB UP TO 38-3/8" WDW. HTS.
 4 PER JAMB UP TO 63" WDW. HTS.
 5 PER JAMB OVER 63" WDW. HTS.



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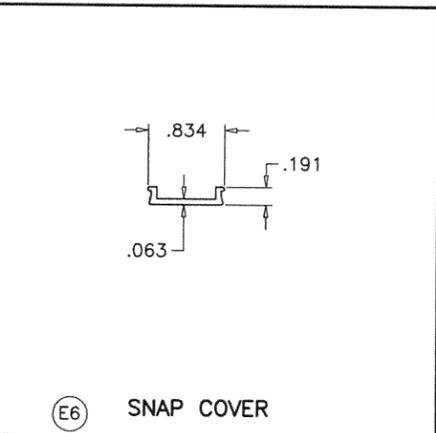
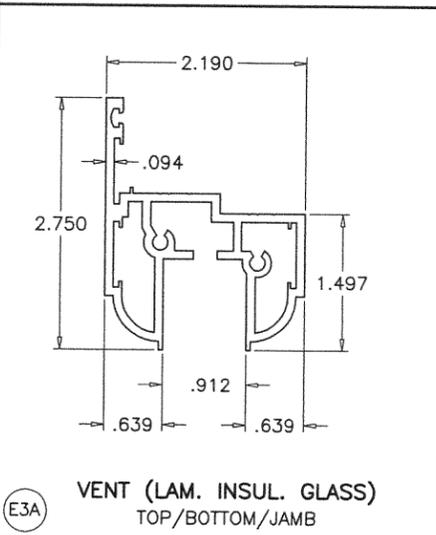
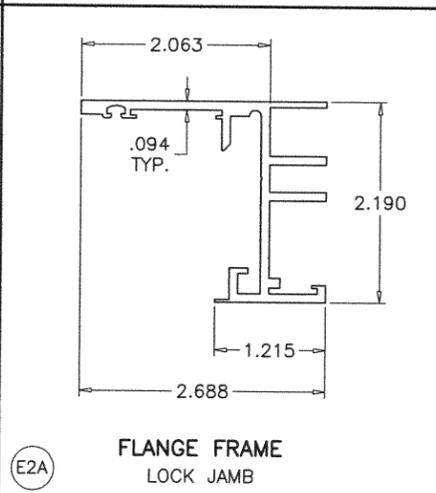
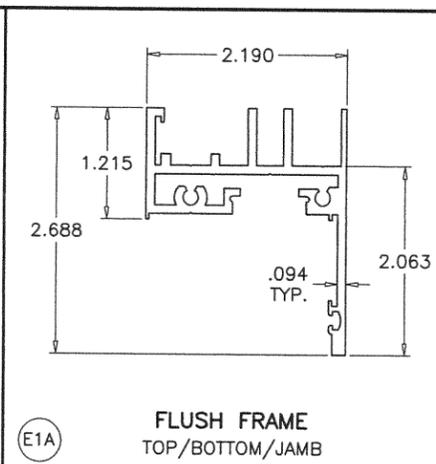
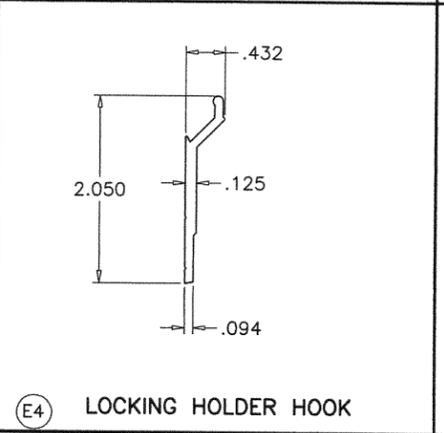
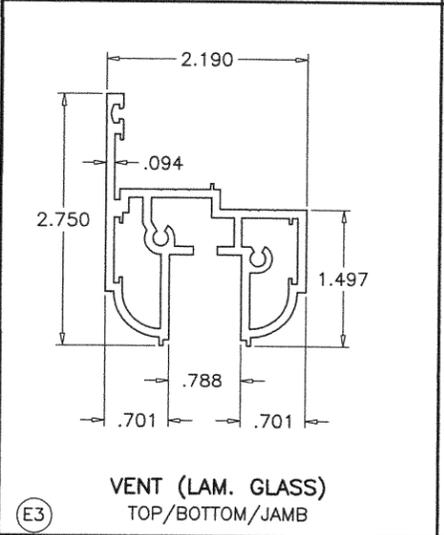
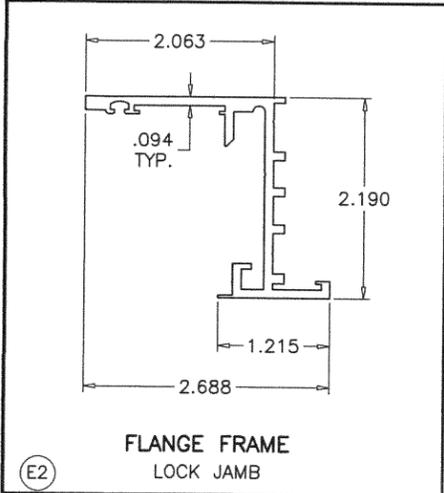
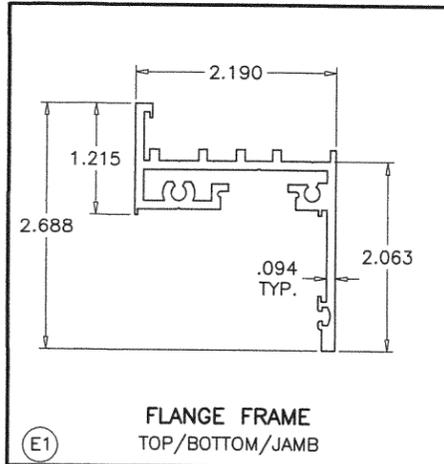
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ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	HC200-001	3/ WDW.	FLANGE FRAME TOP , BOTTOM & JAMB (NON LOCK)	6063-T6	-
E1A	HC200-008	3/ WDW.	FLUSH FRAME TOP , BOTTOM & JAMB (NON LOCK)	6063-T6	-
E2	HC200-002	1/ WDW.	FLANGE FRAME LOCK JAMB	6063-T6	-
E2A	HC200-009	1/ WDW.	FLUSH FRAME LOCK JAMB	6063-T6	-
E3	HC200-003	4/ WDW.	VENT TOP , BOTTOM & JAMBS (LAM. GLASS)	6063-T6	-
E3A	HC200-006	4/ WDW.	VENT TOP , BOTTOM & JAMBS (LAM. INSUL. GLASS)	6063-T6	-
E4	HC200-004	1/ WDW.	LOCKING HOLDER HOOK	6063-T6	-
E5	HC200-005	AS REQD.	OPTIONAL MUNTIN	ALUMINUM	-
E6	BD4500-015	4/ WDW.	SNAP COVER (OPTIONAL)	ALUMINUM	-
E7	1/ WDW.	-	SCREEN (OPTIONAL)	ALUMINUM	-
E10	CM100-022	-	ANCHOR ARM FOR ROTO OPERATOR	-	-
V1	V-059	AS REQD.	EXTERIOR W/STP. VINYL	PVC	-
V2	V-033A	AS REQD.	TR-5804N COMPRESSION GASKET (INSIDE)	NEOPRENE	TREMCO
V3	P-021 (OPTIONAL)	AS REQD.	COSMETIC COVER SEAL MELTPOINT	-	-
M1	HC200-M01	1/ CORNER	FRAME SMALL CORNER LOCK	ST. STEEL	16 GA.
M2	HC200-M02	3/ CORNER	VENT CORNER LOCK	ST. STEEL	16 GA.
M3	HC200-M03	1/ CORNER	FRAME LARGE CORNER LOCK	ST. STEEL	16 GA.
M4	HC200-M04	1	FRAME LARGE CORNER LOCK (AT ROTO OPERATOR ONLY)	ST. STEEL	16 GA.
M5	HC200-M05	1/ CORNER	LEFT HAND FRAME CORNER LOCK	6063-T6	-
M6	HC200-M06	1/ CORNER	RIGHT HAND FRAME CORNER LOCK	6063-T6	-
M7	HC200-M07	-	ALUMINUM SNUBBER	-	-
M8	P-030	-	NYLON CAM	-	-
M9	P#12206	-	NYLON SNUBBERS	-	-
M10		2/ LITE	1/8" X 3/4" SETTING BLOCK, AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
M12	HC200-M08	-	GUIDE HOUSING	ALUMINUM	-
M13	P-031	-	SHIM ANTI FRICTION	PLASTIC	-
H1	CD25	-	9.5" SINGLE ARM OPERATOR	ST/ST	ROTO HARDWARE
H3	CB304	1/ WDW.	SURFACE MOUNT OPERATOR	-	ROTO HARDWARE
H4	CB253	1	8.5 MM. OPERATOR BOTTOM SPACER	-	ROTO HARDWARE
H5	CB201	1	OPERATOR TOP SPACER	-	ROTO HARDWARE
H7	L1305-2111	3	KEEPERS	ST/ST	ROTO HARDWARE
H8	GT553	-	GUIDE HOUSING	-	ROTO HARDWARE
H9	LH088-7510	-	WHITE HANDLE	-	ROTO HARDWARE
H10	G2-HND-LPLT-02	-	HANDLE FASTENER PLATE	-	ROTO HARDWARE
H11	LB06	1	LOCK POINT STAINLESS STEEL	-	ROTO HARDWARE
H12	GT990	-	#10-32X 3/8" LG. PH. MACHINE SCREW (LOCKING HANDLE)	ST/ST	-
H13	M1000	-	#8-32X 3/4" LG. PHL. FH. THREAD CUTTING (ANCHOR ARM)	ST/ST	-
H14		2	4 BAR HINGE	-	TRUTH OR BRONZE CRAFT
S2		-	#10 X 3/8" LG. PH. PHL. SMS. (ARM-FRAME)	ST/ST	-
S3		-	#10 X 1/2" LG. PH. PHL. SMS. (ARM-VENT)	ST/ST	-
S4		-	#10 X 1-1/2" LG. PH. PHL. SMS. (ASSEMBLY)	ST/ST	-
S5		-	#8-32 X 1/2" LG. FH. PHL. (GUIDES-SURFACE MOUNT)	ST/ST	-
S6		-	#6 X 1/2" LG. FH. PHL. SMS. (SNUBBERS)	ST/ST	-
S7		-	#10 X 1/2" LG. PHL. FH. SMS.	ST/ST	-
S8		-	#6 X 1/2" LG. PH. SMS. ST/ST AT ALUM. SNUBBER	-	-

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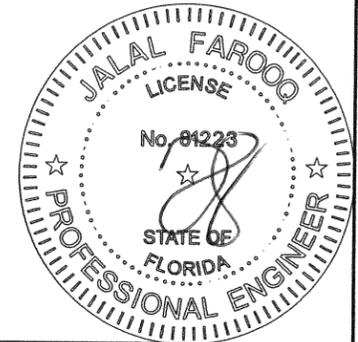
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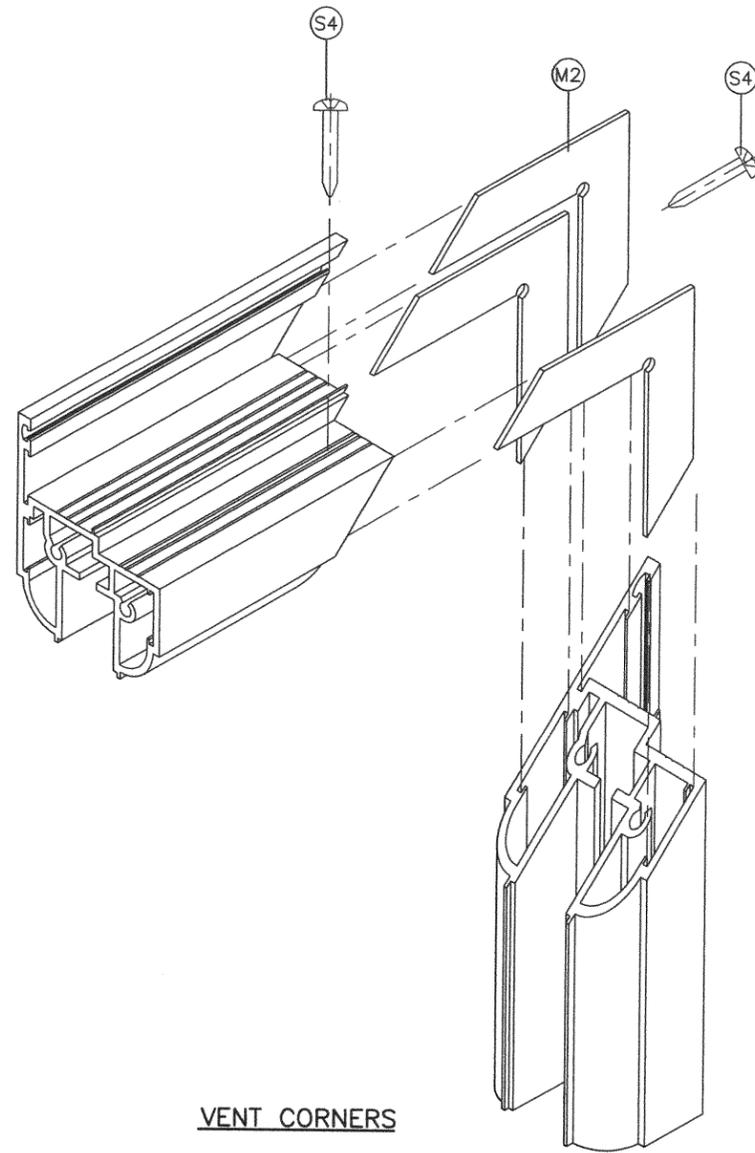
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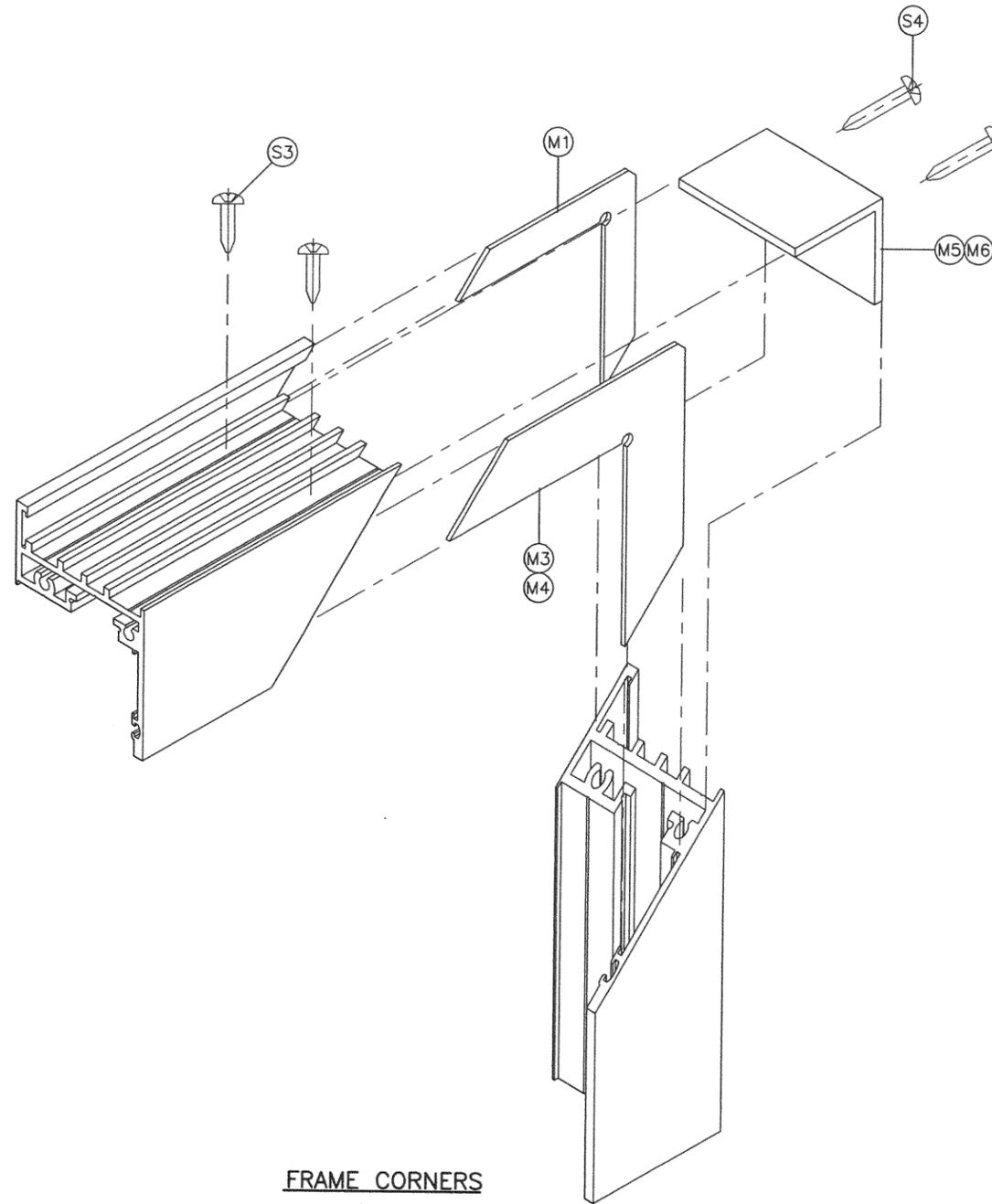
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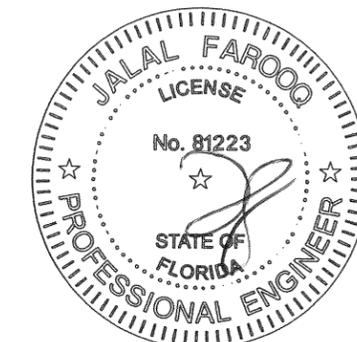


VENT CORNERS



FRAME CORNERS

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