



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/economy

E.S. Windows, LLC
10653 N.E. Quaybridge Ct.
Miami, FL 33138

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 were 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 4000 Aluminum Sliding Glass Door w/ Reinforcements-LMI

APPROVAL DOCUMENT: Drawing No. **W03-100 Rev P**, titled "Series-4000 Aluminum Sliding Glass Door (LMI), sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated 11/08/03 and last revised on APR 02, 2021, 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

Limitations:

1. See sheet **2** for Design Pressure (DP) Vs Glass types, size & reinforcing levels for (4) Panels or **less** configured SGD and sheet **3** for taller (2) panels configured **OX, XO** or **XX** w/ **Heavy Duty** reinforcing. Exterior (positive) design pressures are limited to **+70 PSF** w / **2-1/2"** sill & up to **+85 PSF** w/ **3-1/4"** sill for **OX** or **XO** and **+80 PSF** w/ **3-1/4"** sill for **XX** door.
2. Max. Door frame area not to exceed 96"x192" =128 ft² (4-panel) or 98"x 111" =75.5 ft² (2-HD panel), corresponding to the tested area.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Barranquilla, Columbia, state and series and following statement: "Miami-Dade County Product Control Approved", 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 #18-0905.06** and consists of this page 1 and evidence pages E-1, E-2, E-3 & E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**



NOA No. 21-0408.07
Expiration Date: March 18, 2024
Approval Date: May 27, 2021
Page 1

5/19/21

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under previous approvals

A. DRAWINGS

1. Manufacturer's die drawings and sections (submitted under files below)
2. Drawing No. **W03-100 Rev M**, titled "Series-4000 Aluminum Sliding Patio Door (LMI), sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated 11/08/03 and last revised on OCT 21, 2015, signed and sealed by Javad Ahmad, P.E.

B. TESTS (Submitted under files #15-0629.01/#14-0923.11/13-1115.03/#12-0312.03/#09-0210.07 and #08-0417.03)

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
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 Sliding Glass Door, prepared by Fenestration Testing Laboratory, Inc., Test Report No(s). **FTL-3908**, dated 10/09/03, **FTL-3909**, dated 09/26/03, **FTL-3910**, dated 09/30/03 and **FTL-4287**, dated 09/22/04, signed and sealed by Joseph Chan, P.E. and the Test Report No. **FTL-4287**, dated 09/22/04, signed and sealed by Edmundo Largaespada, P.E.

2. Additional Reference test reports No. **FTL-5471**, dated 01/24/08 and **FTL 7894** (Tandem Nylon Rollers), per TAS 201/203-94, issued by Fenestration Testing Lab, signed & sealed by Michael Wenzel, P.E. and Idalmis Ortega, P.E., respectively.

C. CALCULATIONS

1. Anchor verification calculation, complying w/ FBC 2014(5th Edition), dated 07/31/2015, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies with ASTM E-1300-02, -04 & -09.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **14-0916.11** issued to **Kuraray America, Inc.** (Former E.I. DuPont DeNemours & Co., Inc. for the "**Sentry Glass ® (Clear and White) Glass Interlayers**", expiring on 07/04/18.
2. Notice of Acceptance No. **14-0916.10** issued to **Kuraray America, Inc.** (Former E.I. DuPont DeNemours & Co., Inc. for the "**Kurray Butacite PVB Interlayers**", expiring on 12/11/2016.



Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 21-0408.07
Expiration Date: March 18, 2024
Approval Date: May 27, 2021

E.S. Windows, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of compliance to FBC 2014 (5th Edition) and of no financial interest issued by Al-Farooq Corp., dated 07/29/15, signed and sealed by Javad Ahmad, P.E.
2. Statement of Lab compliance, part of above test reports.
3. Distribution agreement dated 03/05/14 between ES Windows, LLC & Energia Solar, SA, and Colombia, signed by Andres Chamorro (Gen MGR) and Clara Garcia (Sales MGR), respectively on behalf of their companies (submitted under #13-1115.03)

G. OTHER

1. This NOA **revises** NOA # **14-0923.11**, expiring March 18, 2019.
2. Tet proposal # 07-3815, approved by BCCO and dated 07/01/14 by RER.

2. Evidence submitted under previous approval

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **W03-100 Rev O**, titled "Series-4000 Aluminum Sliding Glass Door (LMI), sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated 11/08/03 and last revised on SEP 07, 2017, signed and sealed by Javad Ahmad, 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) 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 Sliding Glass Door, prepared by Black water Testing, Inc., Test Report No(s). **BT-ESW-15-004**, dated 04/18/2016, signed and sealed by YamilG. Kuri, P.E.

C. CALCULATIONS


1. Anchor verification calculation, complying w/ FBC 2017 (6th Edition), dated 11/18/2016 and last revised on 09-07-17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **16-1117.01** issued to Kuraray America, Inc. (former E.I. DuPont DE Nemours & Co., Inc.) for "Trosifol: Ultra clear, clear & color PVB glass interlayer" (former "Kuraray **Butacite** PVB Interlayer)", expiring on 07/08/19.


Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 21-0408.07
Expiration Date: March 18, 2024
Approval Date: May 27, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance to FBC 2014(5th edition) and FBC 2017(6th Edition), dated 09/06/17 prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

G. OTHER

1. This NOA revises NOA # 15-0629.01, expiring 03/18/2019.

3. Evidence submitted under previous approval

A. DRAWINGS

1. Drawing No. **W03-100 Rev O**, titled "Series-4000 Aluminum Sliding Glass Door (LMI), sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated 11/08/03 and last revised on SEP 07, 2017, signed and sealed by Javad Ahmad, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS


1. Notice of Acceptance No. **16-1117.01** issued to Kuraray America, Inc. (former E.I. DuPont DE Nemours & Co., Inc.) for "**Trosifol**: Ultra clear, clear & color PVB glass interlayer" (former "Kuraray **Butacite** PVB Interlayer)", expiring on 07/08/19.

F. STATEMENTS

1. Statement letter dated AUG 27, 2018 for renewal and still conformance to FBC 2017 (6th edition), prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

G. OTHER

1. This NOA renews NOA # 17-0505.05, expiring 03/18/2024.


Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 21-0408.07
Expiration Date: March 18, 2024
Approval Date: May 27, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. New Evidence submitted

A. DRAWINGS

1. Drawing No. **W03-100 Rev P**, titled "Series-4000 Aluminum Sliding Glass Door (LMI), sheets 1 through 7 of 7, prepared by Al-Farooq Corporation, dated 11/08/03 and last revised on APR 02, 2021, signed and sealed by Jalal Farooq, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

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", expiring on 07/08/24.

F. STATEMENTS

1. Statement letter dated 04/02/21 conformance to FBC 2020 (7th edition), prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHER

1. This NOA revises NOA # **18-0905.06**, expiring 03/18/2024.



Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 21-0408.07
Expiration Date: March 18, 2024
Approval Date: May 27, 2021

DETAILS (D) AND (E)

SEE SHEET 6 FOR NO REINFORCING
 SEE SHEET 6 FOR MEDIUM REINFORCING
 SEE SHEET 5 FOR HEAVY REINFORCING

DOORS GLAZED WITH LAMINATED GLASS RATED FOR
 LARGE & SMALL MISSILE IMPACT AND REQUIRE NO SHUTTERS.

DAYLITE OPENINGS WIDTHS:
 FIXED/LOCK STILE-INTERLOCK = PANEL WIDTH - 5.375"
 INTERLOCK-ASTRAGAL = PANEL WIDTH - 5.625"

DAYLITE OPENING HEIGHT:
 PANEL HEIGHT - 5.00"

PANEL HEIGHT = DOOR FRAME HEIGHT - 1.250"

SERIES-4000 ALUM SLIDING GLASS DOOR

DESIGN LOAD RATING FOR DOORS TO BE AS PER CHARTS SHOWN
 AND APPROVED CONFIGURATIONS ON SHEETS 2 AND 3.

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.

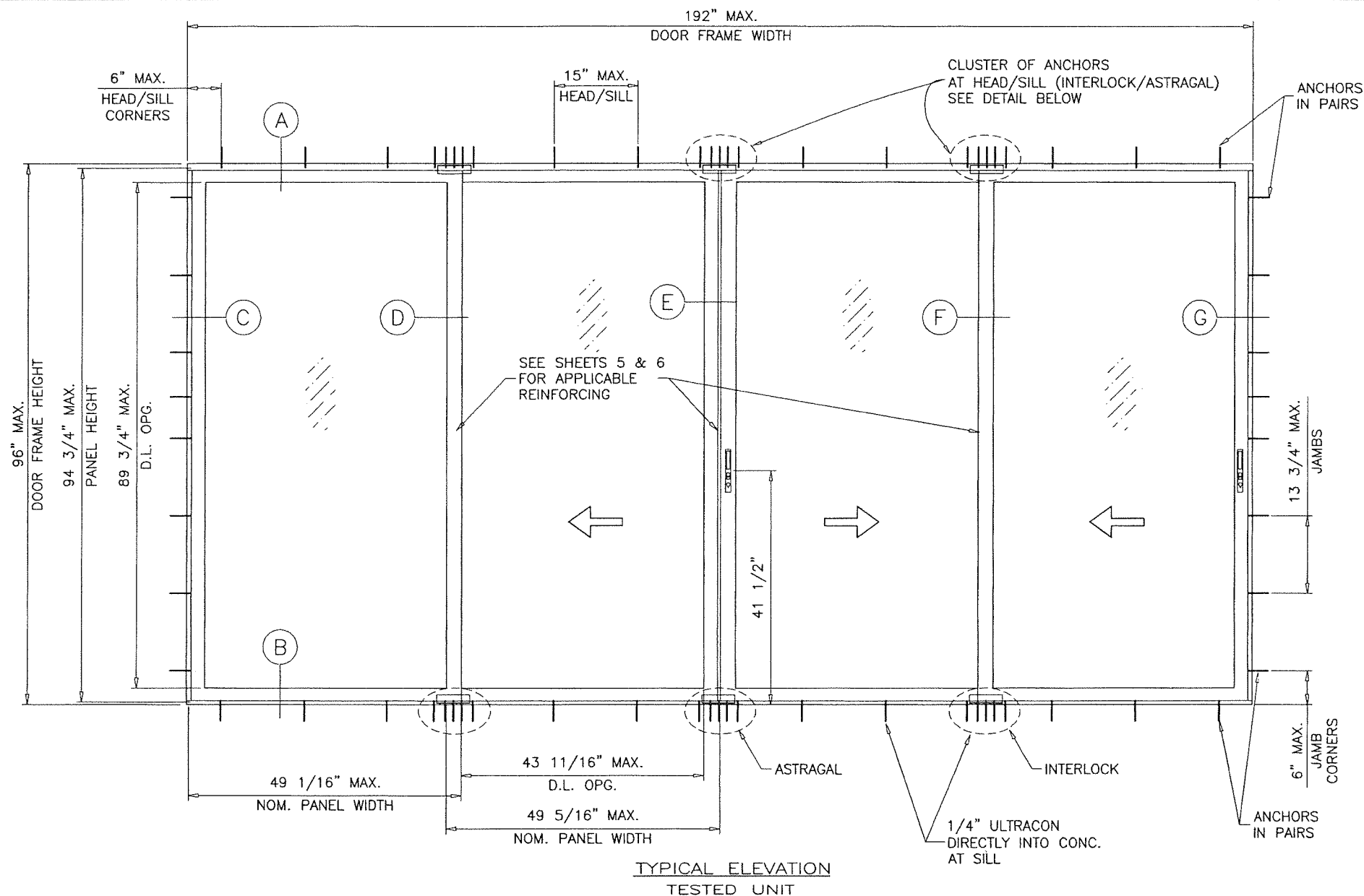
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

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.

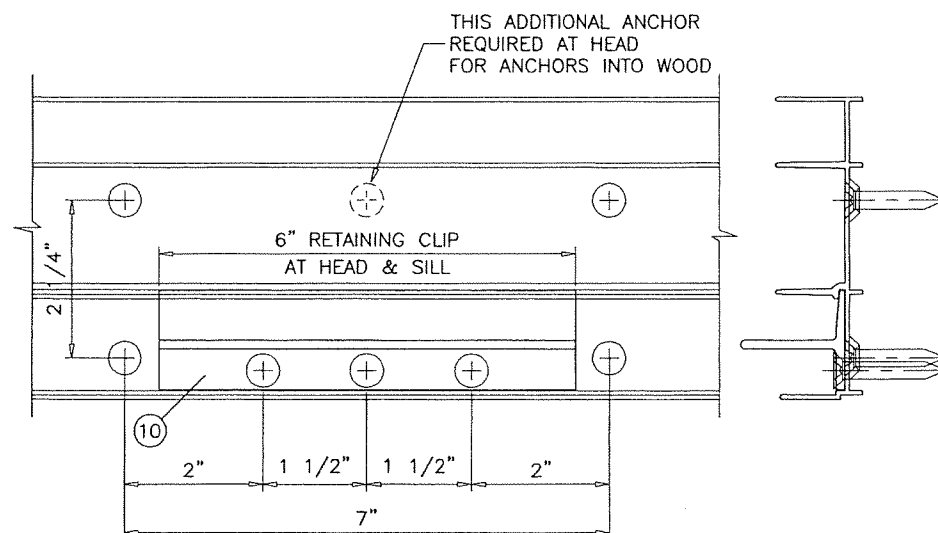
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION
 FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY
 OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR
 WATER INFILTRATION RESISTANCE ETC.

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)'.

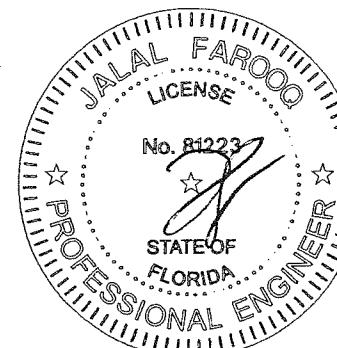


TYPICAL ELEVATION
 TESTED UNIT



DETAIL CLUSTER OF ANCHORS AT INTERLOCK/ASTRAGAL ENDS
 1/4\"/>

PRODUCT REVIEWED
 as complying with the Florida
 Building Code
 Acceptance No 21-0408-07
 Expiration Date 12/18/2024
 Jalal Farooq
 Miami Made Product Control



APR 02 2021

af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 353B)
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL\W03-100ES

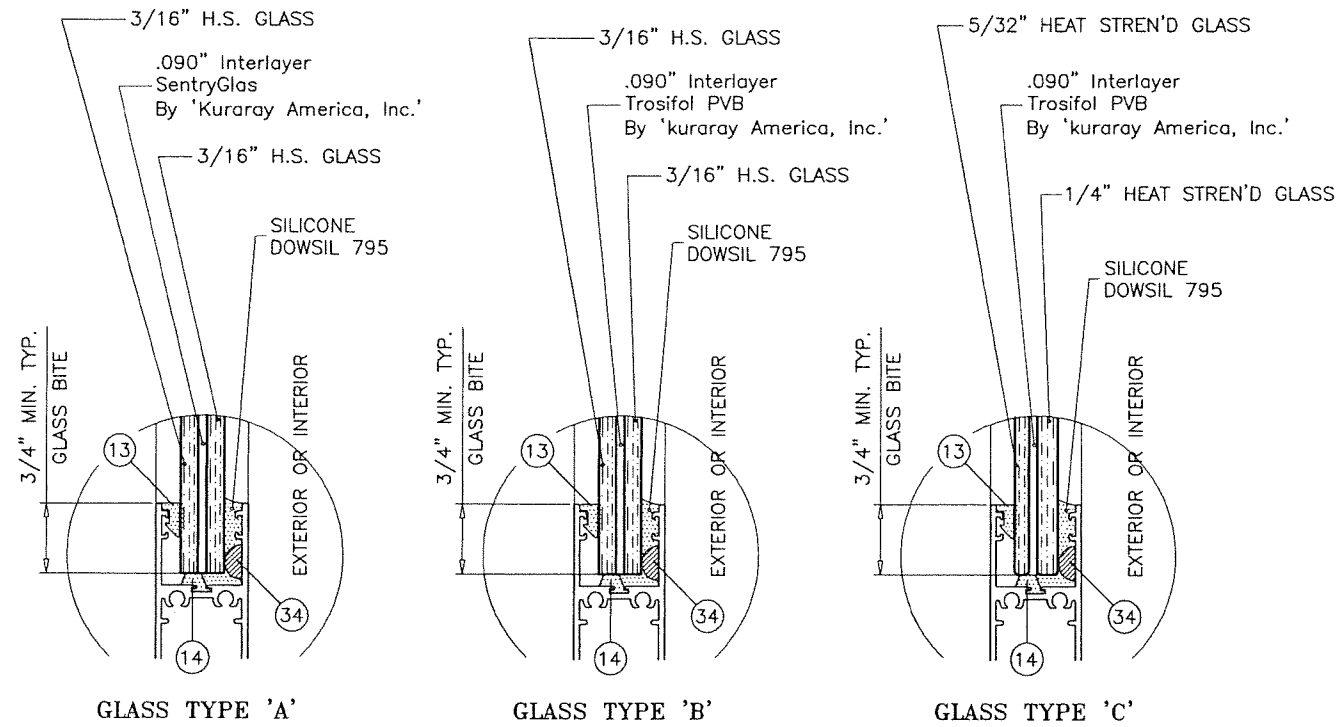
SERIES-4000 ALUM SLIDING GLASS DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
L	07.31.15		GENERAL REV.
M	10.20.15		REV. PER PER COMMENTS
N	11.04.16		EDITORIAL CHANGES
O	09.05.17		UPDATED TO 2017 FBC
P	03.08.21		UPDATED TO 2020 FBC

date: 11-08-03
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chg. by:
 drawing no.
W03-100
 sheet 1 of 7

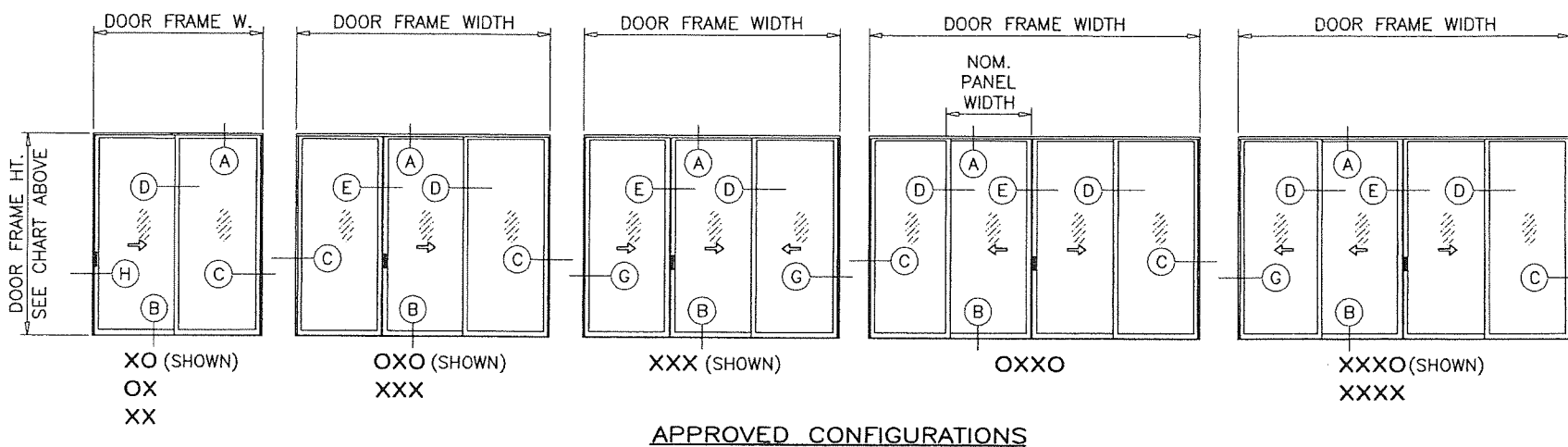
SEE SHEET 3 FOR OX, XO OR XX DOORS WITH HEAVY REINFORCING

DESIGN LOAD CAPACITY - PSF (ALL CONFIGURATIONS SHOWN ON THIS SHEET) GLASS TYPES 'A', 'B' OR 'C'							
NOMINAL PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	NO REINFOR'G		MEDIUM REINFOR'G		HEAVY REINFOR'G	
		EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
30	81 1/4	70.0	80.0	70.0	80.0	70.0	80.0
36		70.0	80.0	70.0	80.0	70.0	80.0
42		-	-	70.0	80.0	70.0	80.0
48		-	-	-	-	70.0	80.0
54		-	-	-	-	70.0	71.1
30	96	-	-	70.0	80.0	70.0	80.0
36		-	-	70.0	80.0	70.0	80.0
42		-	-	-	-	70.0	80.0
48		-	-	-	-	70.0	80.0

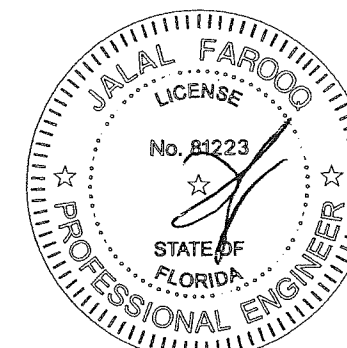


DOOR HEIGHT AND WIDTH SIZE MUST COMPLY WITH
EGRESS REQUIREMENTS PER FBC AS REQUIRED.

PRODUCT REVIEW
as complying with the Florida
Building Code
Acceptance No. 21-0402-07
Expiration Date 3/18/24
Jalal Farooq
Miami, Florida Product Control



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



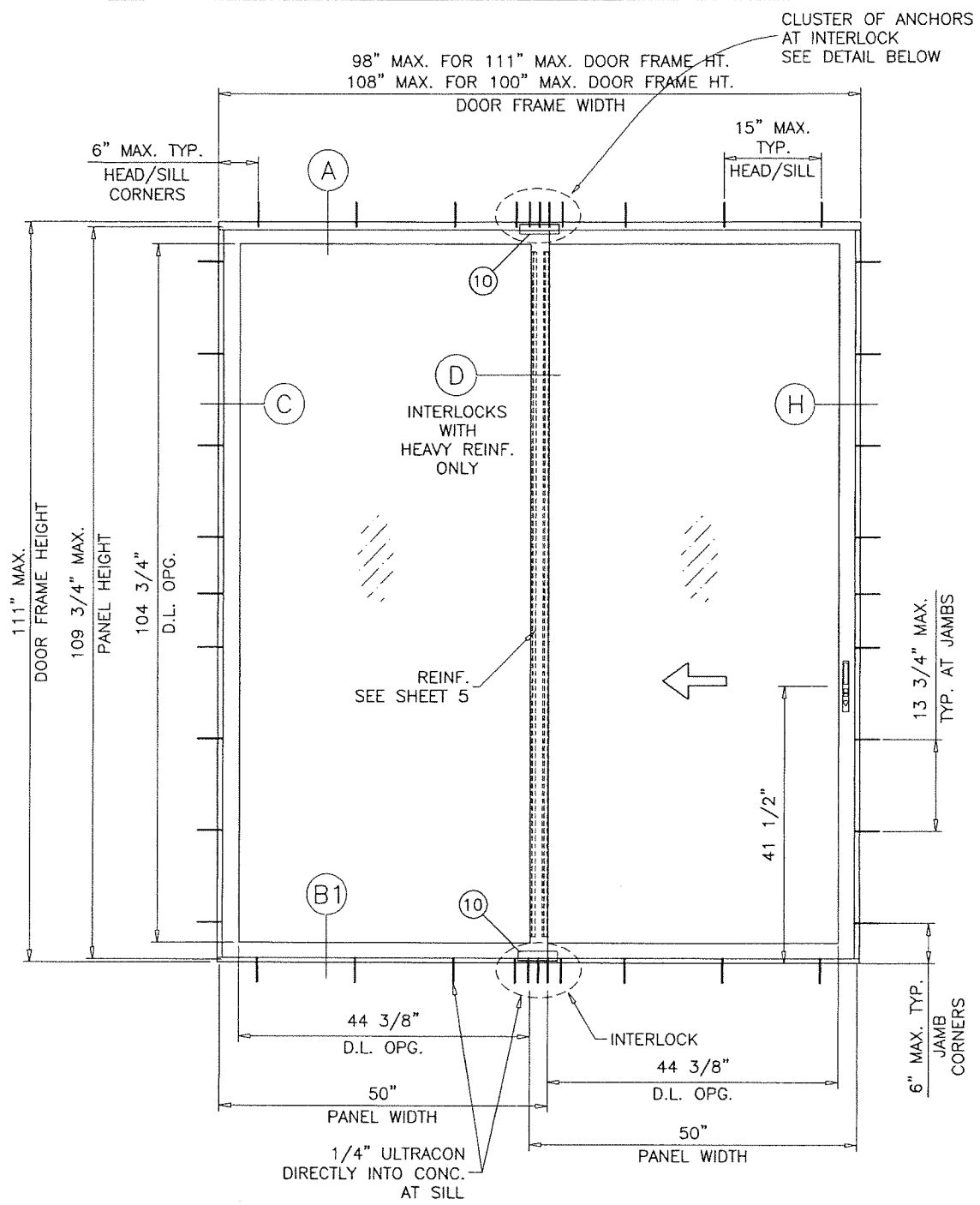
APR 02 2021

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 353B)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W03-100ES

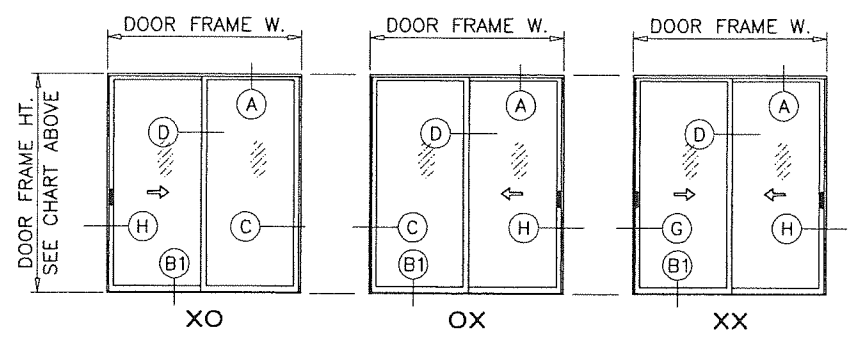
SERIES-4000 ALUM SLIDING GLASS DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	description	by
L	07.31.15	GENERAL REV.	
M	10.20.15	REV. PER RER COMMENTS	
N	11.04.16	EDITORIAL CHANGES	
O	09.05.17	UPDATED TO 2017 FBC	
P	03.08.21	UPDATED TO 2020 FBC	

date: 11-08-03
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:
drawing no.
W03-100
sheet 2 of 7



TYPICAL ELEVATION (OX) (SHOWN)
THIS SIZE TO HAVE HEAVY REINFORCING AT INTERLOCKS (SEE SHEET 5)



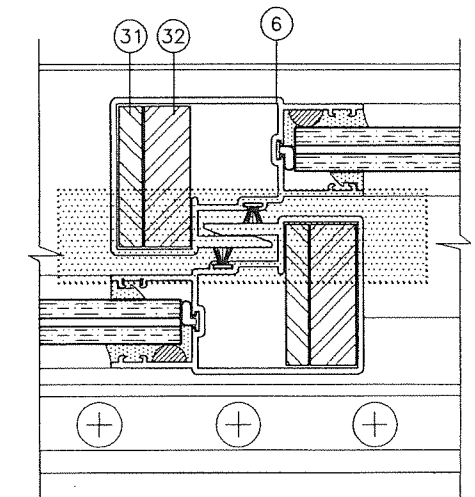
APPROVED CONFIGURATIONS

DESIGN LOAD CAPACITY - PSF (OX, XO OR XX ONLY) HEAVY REINF'G (SEE DETAIL SHEET 5)					
NOMINAL PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	GLASS TYPE 'A'		GLASS TYPE 'B'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30	81 1/4	80.0	103.0	80.0	103.0
36		80.0	103.0	80.0	103.0
42		80.0	88.3	80.0	88.3
45		64.0	82.4	85.0	85.0
48		80.0	70.0	85.0	85.0
54		72.6	63.5	77.1	77.1
30	96	80.0	103.0	80.0	103.0
36		80.0	103.0	80.0	103.0
42		80.0	70.0	85.0	85.0
45		80.0	70.0	85.0	85.0
48		80.0	70.0	85.0	85.0
54		72.0	63.5	77.1	77.1
30	100	80.0	103.0	80.0	103.0
36		80.0	103.0	80.0	103.0
42		80.0	70.0	85.0	85.0
48		80.0	70.0	85.0	85.0
49		72.6	63.5	85.0	85.0
54		72.6	63.5	-	-
30	108	80.0	70.0	85.0	85.0
36		80.0	70.0	85.0	85.0
42		80.0	70.0	85.0	85.0
48		80.0	70.0	85.0	85.0
49		-	-	85.0	85.0
30	111	80.0	70.0	80.0	70.0
36		80.0	70.0	80.0	70.0
42		80.0	70.0	80.0	70.0
48		80.0	70.0	80.0	70.0

FOR 'XX' DOORS LIMIT EXTERIOR LOADS TO +80.0 PSF

THE SHOWN EXT. (+) LOADS REQUIRE 3-1/4" SILL HEIGHT (DTL. B1 ON SHEET 4).
REDUCE EXT.(+) LOAD CAPACITY TO +70.0 PSF IF 2-1/2" SILL HEIGHT IS USED
INT.(-) LOADS REMAIN UNCHANGED.

DOOR HEIGHT AND WIDTH SIZE MUST COMPLY WITH EGRESS REQUIREMENTS PER FBC AS REQUIRED.

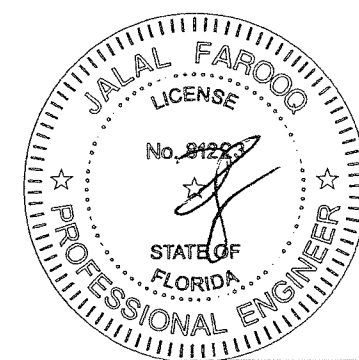


HEAVY REINFORCING
AT EXTERIOR/INTERIOR INTERLOCK

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

PRODUCT REVIEWED
as complying with the Florida Building Code
Acceptance No. 21-0408-07
Expiration Date 3/18/24
By: [Signature]
Miami, Fla. Product Control

APR 02 2021

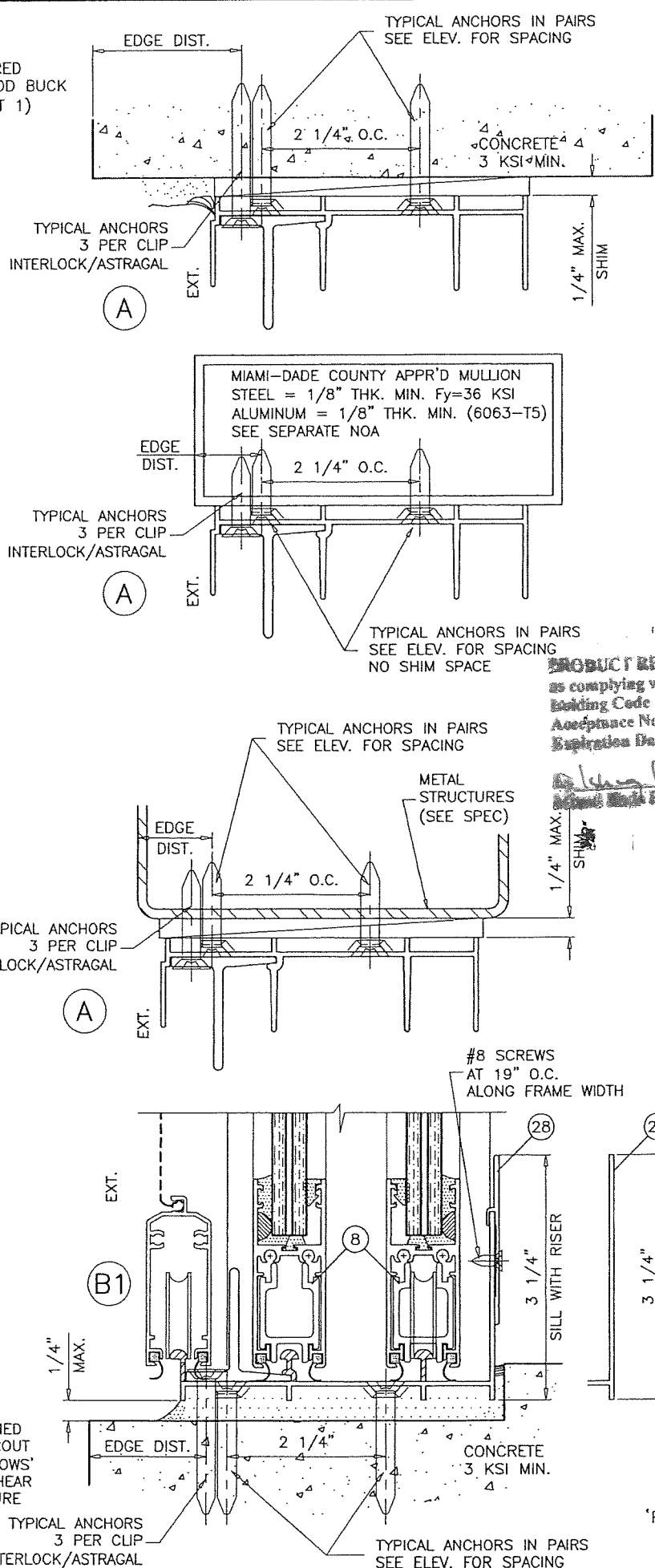
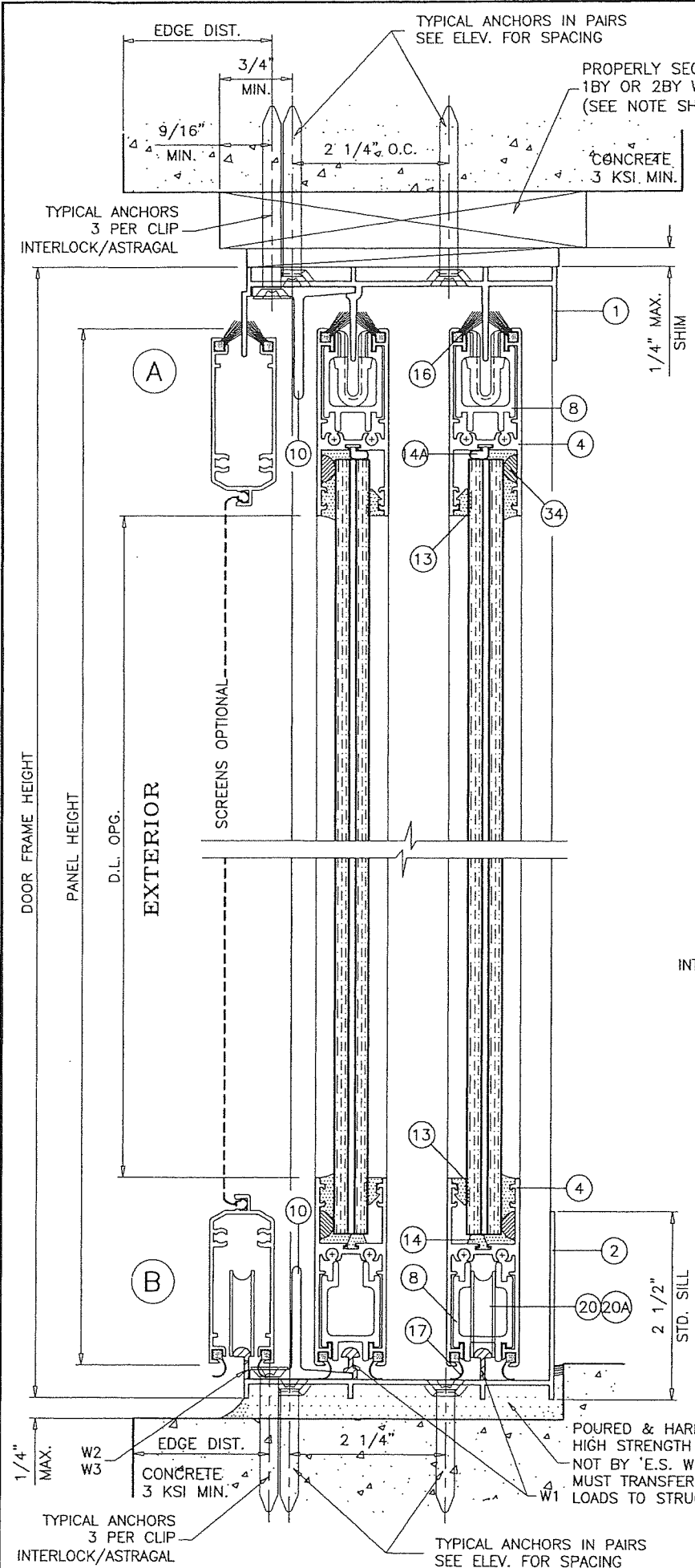


af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W03-100ES

SERIES-4000 ALUM SLIDING GLASS DOOR (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
L	07.31.15		GENERAL REV.
M	10.20.15		REV. PER RER COMMENTS
N	11.04.16		EDITORIAL CHANGES
O	09.05.17		UPDATED TO 2017 FBC
P	03.08.21		UPDATED TO 2020 FBC

date: 11-08-03
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:
drawing no.
W03-100
sheet 3 of 7



1X OR 2X 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/JAMBS)
 THRU 1BY BUCKS INTO CONC. OR BLOCKS
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
 1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
 INTO MIAMI-DADE COUNTY APPROVED MULLIONS OR
 INTO METAL STRUCTURES (HEAD/JAMBS)
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 ALUMINUM: 1/8" THK. MIN. (6063-T5)
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 3/4" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.

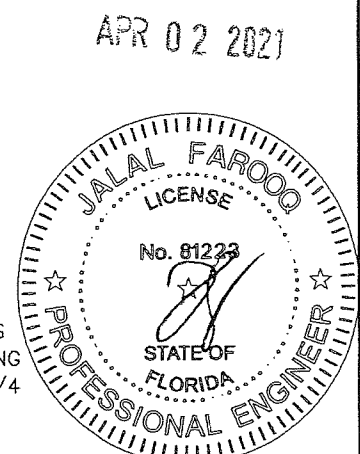
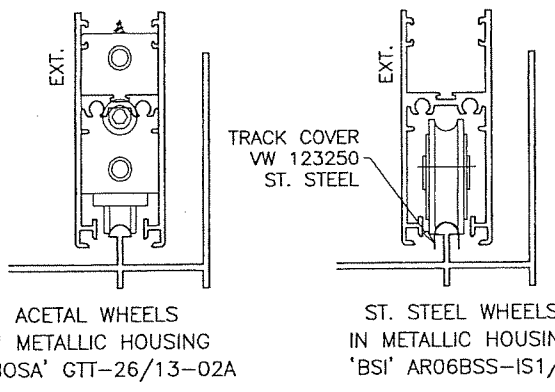
WOOD AT HEAD OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

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

WEEPHOLES:

W1 = 1-3/4" WEEP NOTCH AT EACH END
 W2 = 3/4" WEEP NOTCH AT EACH END
 W3 = 3" X 1/4" WEEP HOLES AT 2" FROM EACH END

PRODUCT REVIEWED
 as complying with the Florida
 Building Code
 Acceptance No. 21-0407-08
 Expiration Date 11/8/24
 Jalal Farooq
 Professional Engineer



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

COMP-ANL\W03-100ES

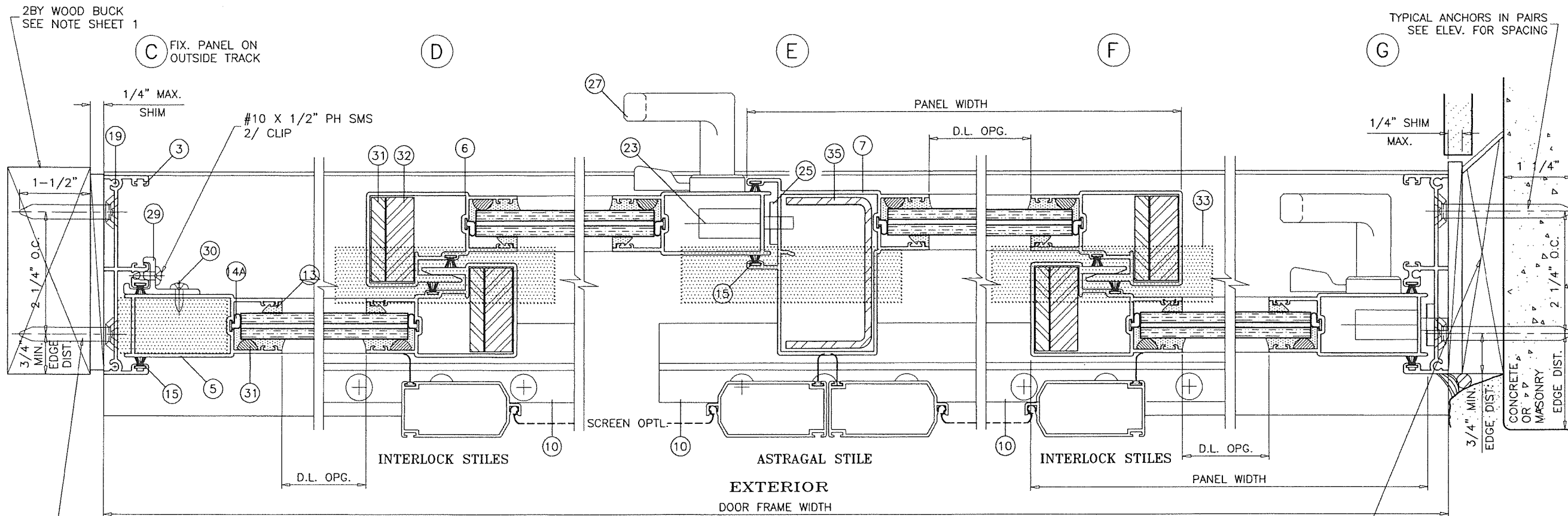
SERIES-4000 ALUM SLIDING GLASS DOOR (L.M.I.)

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

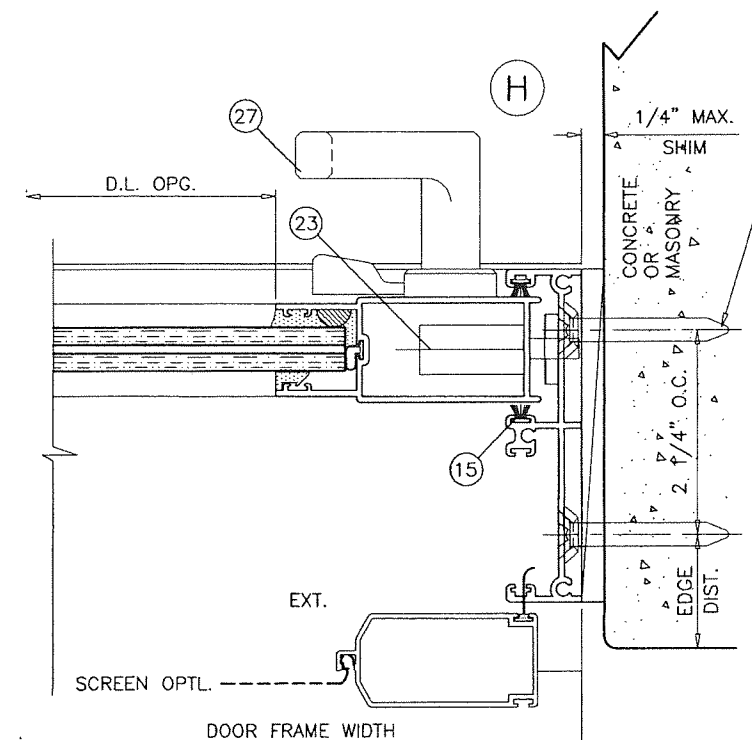
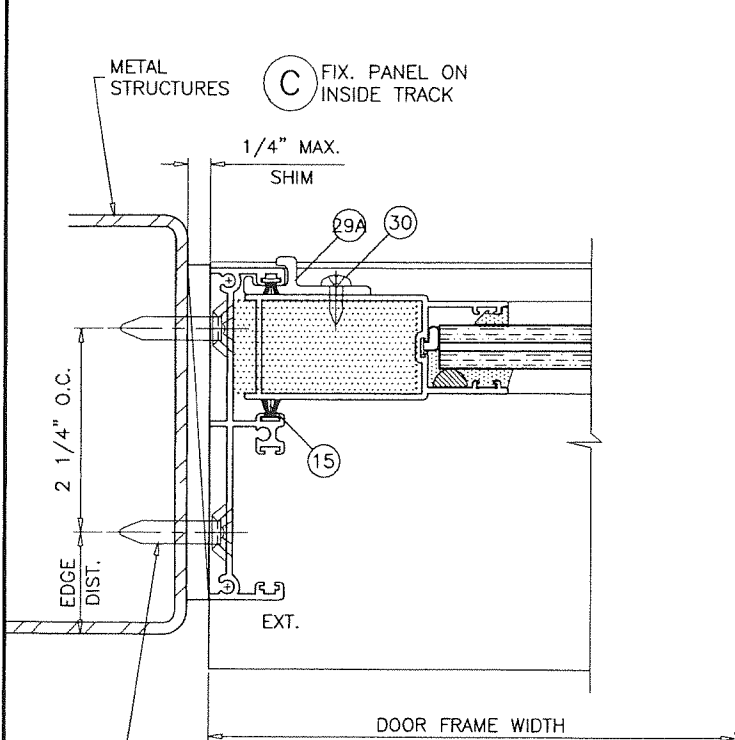
no.	date	by	description
L	07.31.15		GENERAL REV.
M	10.20.15		REV. PER RER COMMENTS
N	11.04.16		EDITORIAL CHANGES
O	09.05.17		UPDATED TO 2017 FBC
P	03.08.21		UPDATED TO 2020 FBC

date: 11-08-03
 scale: 1/2" = 1"
 dr. by: TARIQ
 chk. by:

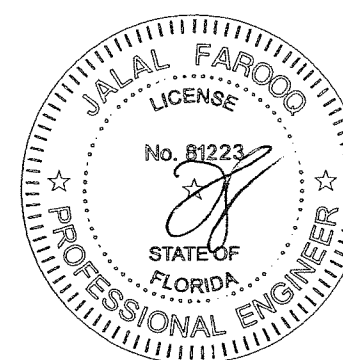
drawing no. **W03-100**
 sheet 4 of 7



**HEAVY REINFORCING
AT EXTERIOR/INTERIOR INTERLOCK & ASTRAGAL STILES**



PRODUCT REVISED
to comply with the Florida
Building Code
Acceptance No 21-0408-07
Expiration Date 3/18/24
Michael L. Chouk
Michael's Product Control



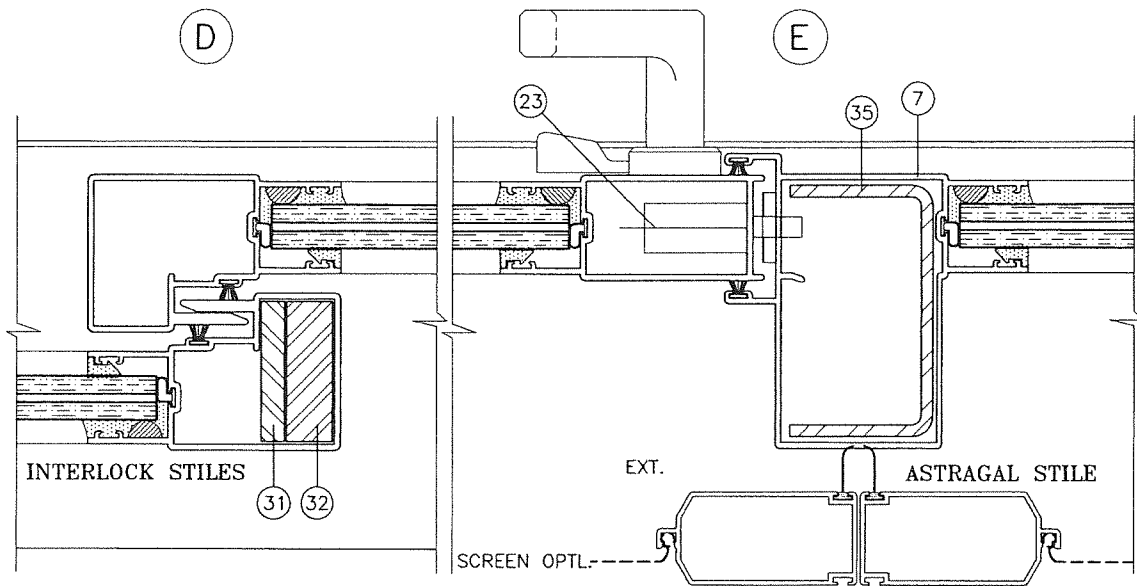
APR 02 2021

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
COMP-ANL\W03-100ES

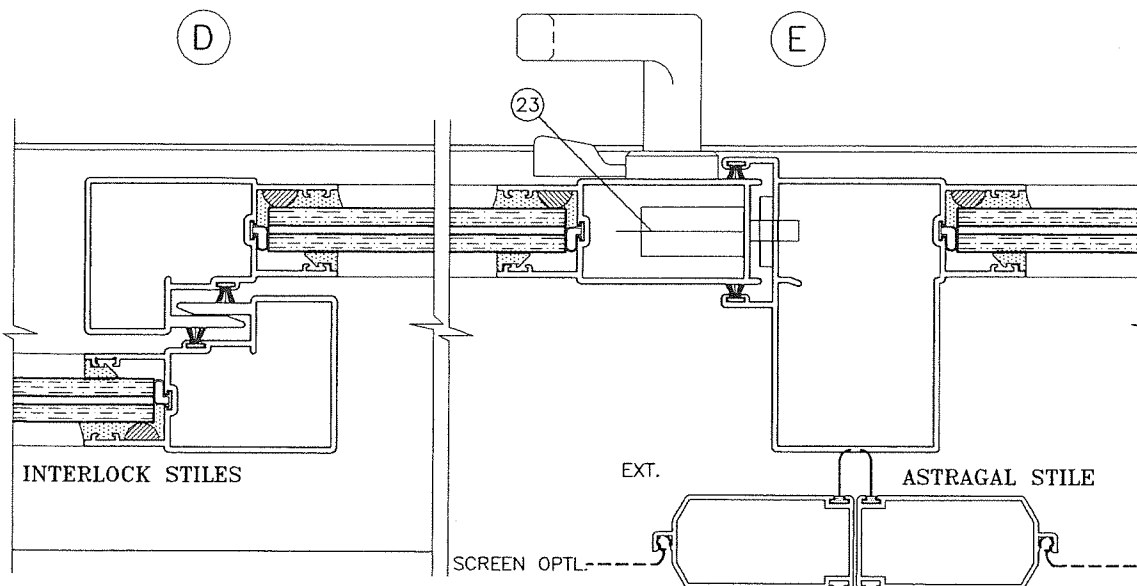
SERIES-4000 ALUM SLIDING GLASS DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	by	description
L	07.31.15		GENERAL REV.
M	10.20.15		REV. PER RER COMMENTS
N	11.04.16		EDITORIAL CHANGES
O	09.05.17		NO CHANGE THIS SHEET
P	03.08.21		UPDATED TO 2020 FBC

date: 11-08-03
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:
drawing no.
W03-100
sheet 5 of 7



**MEDIUM REINFORCING
AT EXT. INTERLOCK & ASTRAGAL STILES**

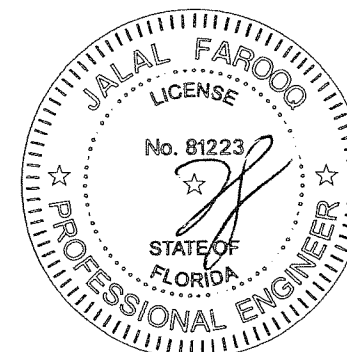


NO REINFORCING

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES-4001-1	1	FRAME HEAD	6063-T6	-
2	ES-4002-1	1	STD. FRAME SILL	6063-T6	-
2A	-	1	HI-RISE FRAME SILL	6063-T6	-
3	ES-4003-1	1	FRAME JAMB	6063-T6	-
4	ES-4004-1	2/ PANEL	TOP AND BOTTOM RAIL	6063-T6	-
5	ES-4005-1	AS REQD.	LOCK STILE	6063-T6	-
6	ES-4006-1	AS REQD.	INTERLOCK	6063-T6	-
7	ES-4007-1	AS REQD.	FEMALE ASTRAGAL	6063-T6	-
8	ES-4008	AS REQD.	TOP & BOTTOM RAIL STIFFENER	6063-T6	-
9	ES-4009	2/ PANEL	PANEL GUIDE (TOP ONLY)	CELCON	NOT SHOWN
10	ES-4010	2/ PANEL	RETAINER CLIP, 6" LONG	6063-T6	-
13	27-445	AS REQD.	GLAZING WEDGE GASKET	EPDM	DUROMETER 75±5 SHORE A, SOLUCIONESENCAUCHO
14	27-448	AS REQD.	BOTTOM RAIL GLASS STOP	EPDM	DUROMETER 68±5 SHORE A, SOLUCIONESENCAUCHO
14A	27-449	AS REQD.	TOP RAIL & STILES GLASS STOP	EPDM	DUROMETER 75±5 SHORE A, SOLUCIONESENCAUCHO
15	W23241NK	AS REQD.	STILE & JAMB W'STRIPPING	-	GLASS PANELS, ULTRAFAB
16	Q26647DK	AS REQD.	TOP RAIL W'STRIPPING	-	GLASS PANELS, ULTRAFAB
17	ES-4015	AS REQD.	BOTTOM RAIL W'STRIPPING	VINYL	GLASS PANELS
19	#10X1-1/4" PH SMS	8/ PANEL	PANEL ASSY SCREWS	-	GLASS PANELS
19A	#10X1" FH SMS	2/ CORNER	FRAME ASSY SCREWS	-	-
20	GTT-26/13-02A	2/ MOV. PANEL	TANDEM ACETAL WHEELS IN METALLIC HOUSING	-	PABOSA
20A	AR06BSS-ISI/4	2/ MOV. PANEL	TANDEM ST. STEEL WHEELS IN METALLIC HOUSING	-	BSI
21	#10X1-1/4" PH SMS	1/ ROLLER	ROLLER INST. SCREWS	-	GLASS PANELS ONLY
23	2300-10SS	1/ MOV. PANEL	3 PLY METALLIC HOOK LOCK	ST. STEEL	-
24	-	2/ LOCK	LOCK INSTALLATION SCREW	-	#6-32 X 1/2" FH MS, ST. STEEL
25	537	1/ LOCK	LOCK STRIKE PLATE	PLATED STEEL	-
26	#10 PH SMS	2/ LOCK	STRIKE PLATE MOUNT. SCREW	-	NOT SHOWN
27	#623Z	1/ LOCK	INTERIOR AND EXTERIOR PULL	-	(3) #6-32 X 1/2" FH MS, ST. STEEL
28	ES4028	AS REQD.	SILL RISER	6063-T5	-
29	ES-4017	2/ PANEL	FIXED PANEL CLIP (OUTSIDE PANEL)	6063-T5	-
29A	ES-4020	2/ PANEL	FIXED PANEL CLIP (INSIDE PANEL)	6063-T5	FOR OXO DOORS
30	#10X1/2" PH SMS	2/ CLIP	FIXED PANEL CLIP FASTENER	-	-
31	-	AS REQD.	1/4" X 1-1/2" REINFORCING BAR	36 KSI STEEL	LENGTH = PANEL HT. - 6.5"
32	-	AS REQD.	1/2" X 1-1/2" REINFORCING BAR	36 KSI STEEL	LENGTH = PANEL HT. - 6.5"
33	P38024FK	AS REQD.	3" LONG SELF ADHESIVE PILE PAD	WOOL	AT HEAD AND SILL
34	-	2/ SIDE	BUMPON	NEOPRENE	-
35	-	AS REQD.	ASTRAGAL REINFORCING	36 KSI STEEL	LENGTH = PANEL HT. - 14"

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 21-040807
Expiration Date 3/18/24
By: Jalal Farooq
Jalal Farooq Product Control

APR 02 2021

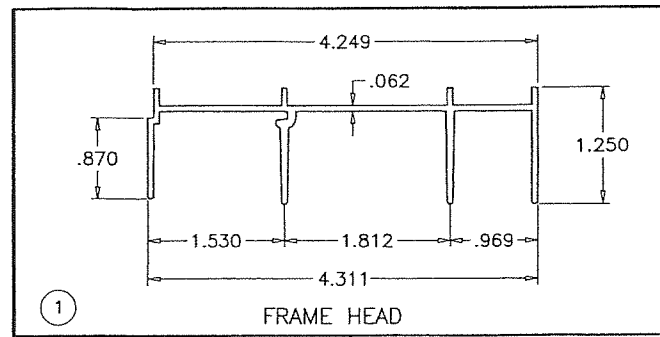


af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
MIAMI, FLORIDA 33173 TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W03-100ES

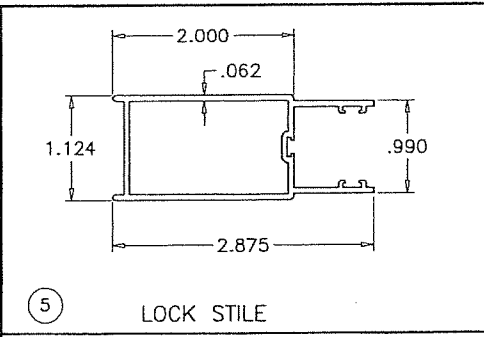
SERIES-4000 ALUM SLIDING GLASS DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no.	date	description	by
L	07.31.15	GENERAL REV.	
M	10.20.15	REV. PER RER COMMENTS	
N	11.04.16	EDITORIAL CHANGES	
O	09.05.17	NO CHANGE THIS SHEET	
P	03.08.21	UPDATED TO 2020 FBC	

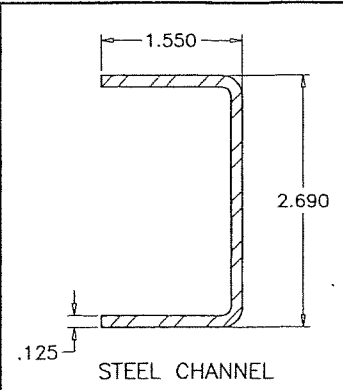
date: 11-08-03
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:
drawing no.
W03-100
sheet 6 of 7



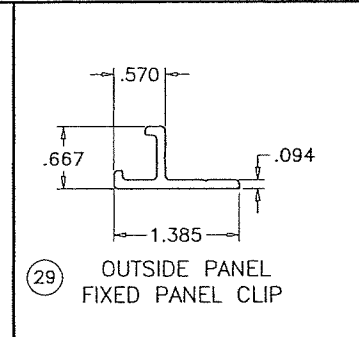
1 FRAME HEAD



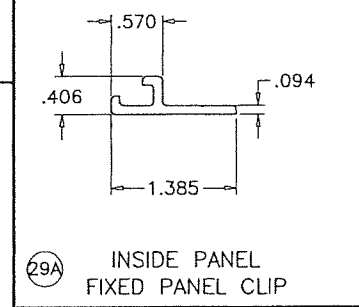
5 LOCK STILE



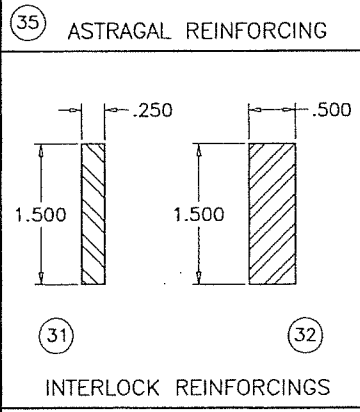
STEEL CHANNEL



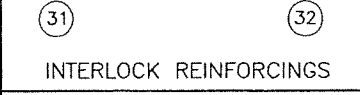
29 OUTSIDE PANEL FIXED PANEL CLIP



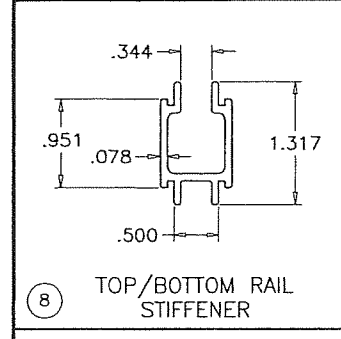
29A INSIDE PANEL FIXED PANEL CLIP



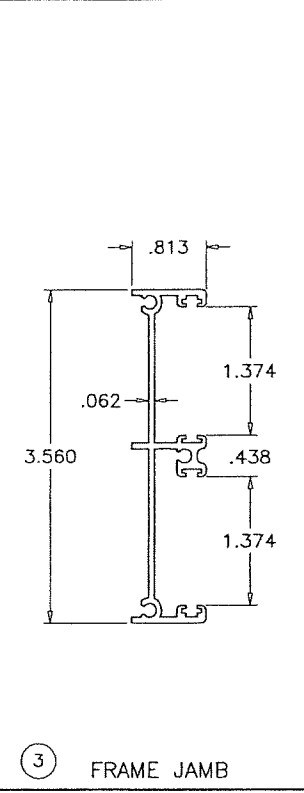
35 ASTRAGAL REINFORCING



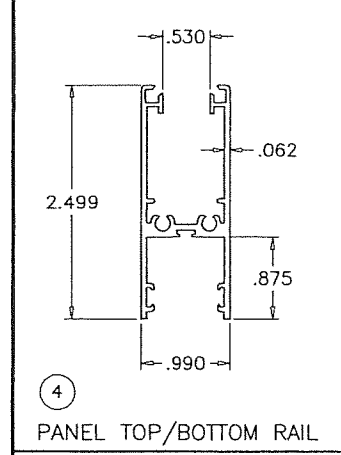
31 32 INTERLOCK REINFORCINGS



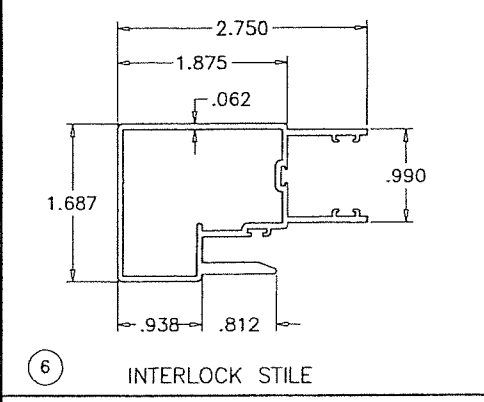
8 TOP/BOTTOM RAIL STIFFENER



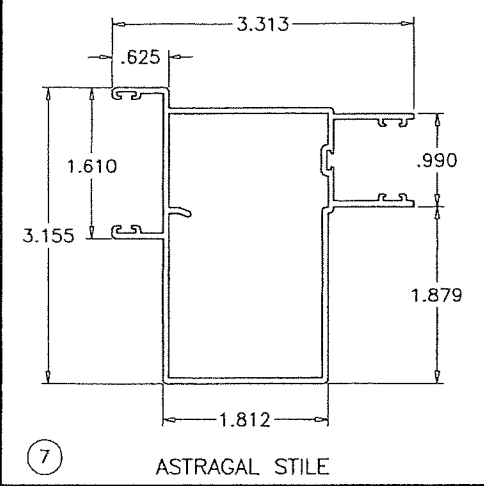
3 FRAME JAMB



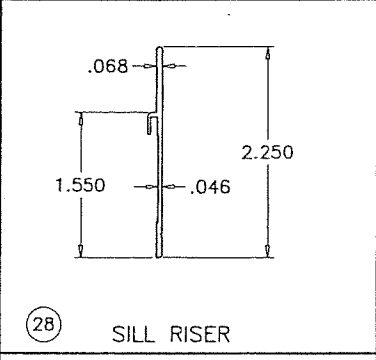
4 PANEL TOP/BOTTOM RAIL



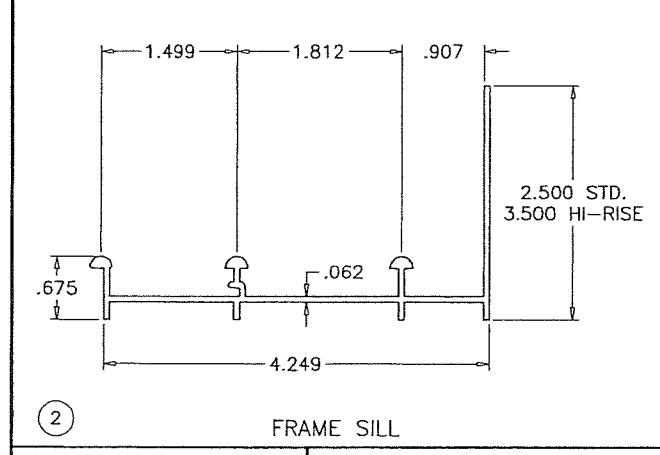
6 INTERLOCK STILE



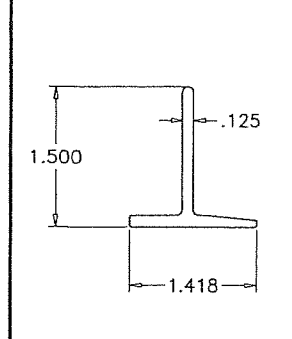
7 ASTRAGAL STILE



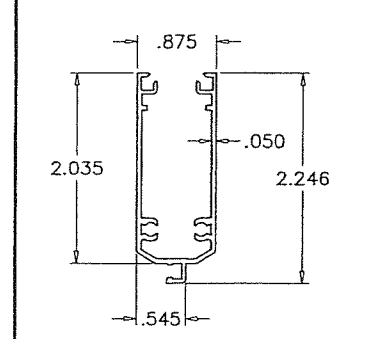
28 SILL RISER



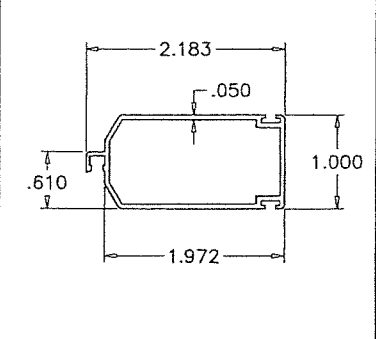
2 FRAME SILL



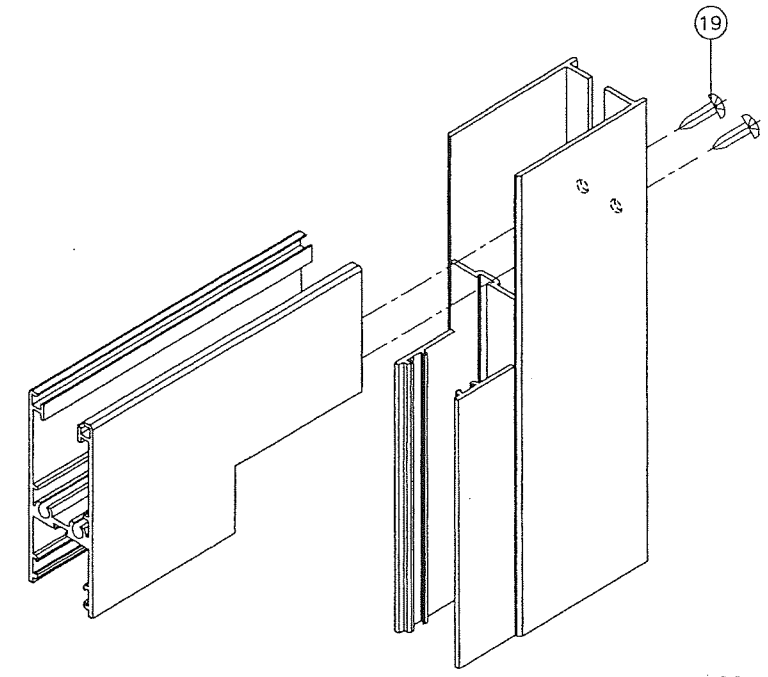
10 RETAINER CLIP



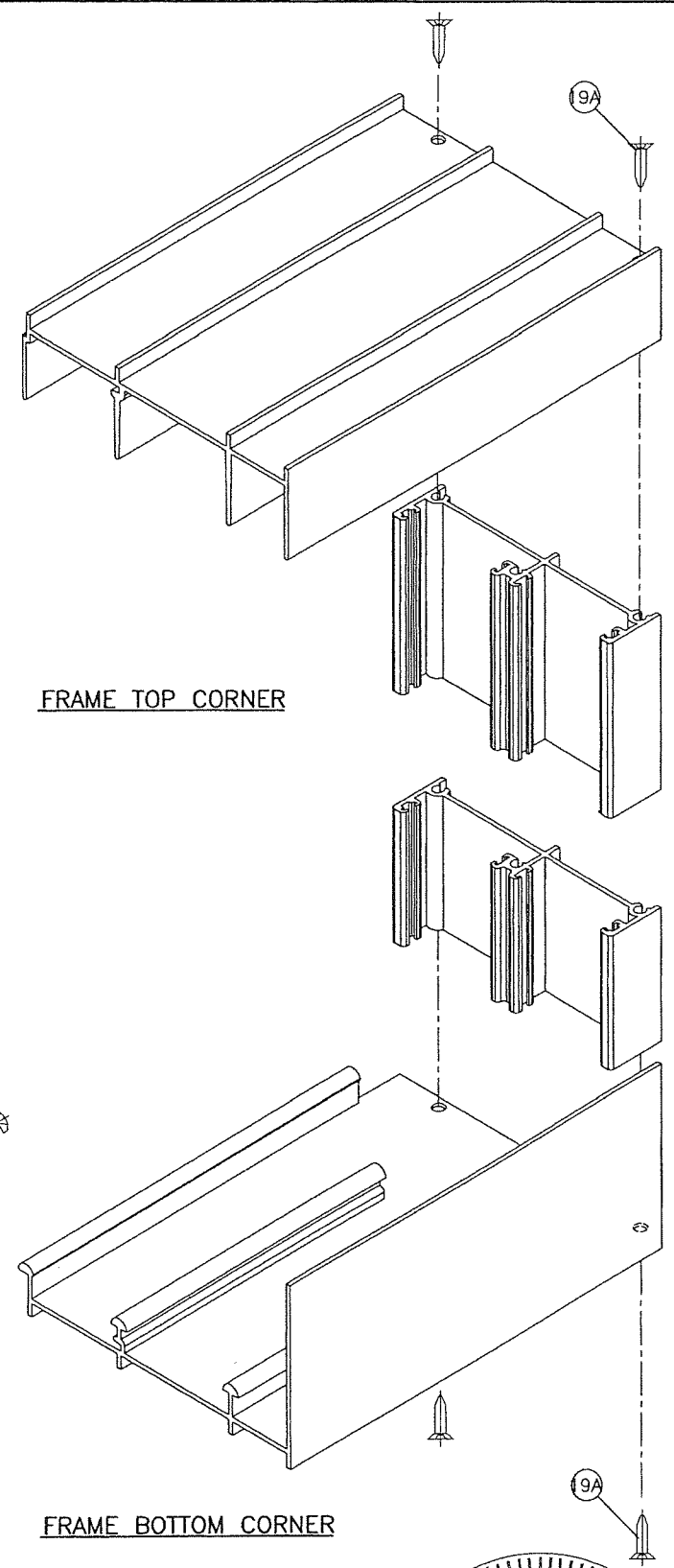
SCREEN TOP/BOTTOM RAIL



SCREEN STILE



PANEL CORNER

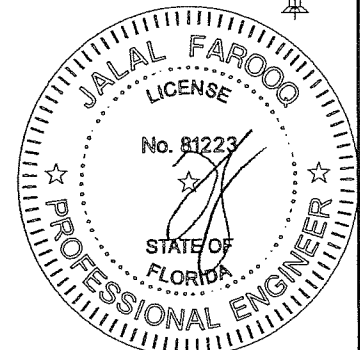


FRAME TOP CORNER

FRAME BOTTOM CORNER

PRODUCT REVIEWED
 as complying with the Florida
 Building Code
 Acceptance No. 21-0408-07
 Expiration Date 3/18/24
 By: Ishay J. Choudhury
 Aluma-Mod Product Control

APR 02 2021



af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3638)
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL\W03-100ES

SERIES-4000 ALUM SLIDING GLASS DOOR (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	by
L	07.31.15	GENERAL REV.	
M	10.20.15	NO CHANGE THIS SHEET	
N	11.04.16	EDITORIAL CHANGES	
O	09.05.17	NO CHANGE THIS SHEET	
P	03.08.21	UPDATED TO 2020 FBC	

date: 11-08-03
 scale: 1/2" = 1"
 dr. by: TARIQ
 chk. by:
 drawing no.
W03-100
 sheet 7 of 7