



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](http://www.miamidade.gov/economy)

E.S. Windows, 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 "6100" Aluminum Sliding Glass Doors (Dry glazed) w/ reinforcements-S.M.I.

**APPROVAL DOCUMENT:** Drawing No. **W12-33 Rev I**, titled "Series -6100 Alum Sliding Glass Door (SMI)", sheets 1, 2, 3, 3.1, 3.2, 4, 5, 5.1, 6 through 12 of 12, prepared by Al-Farooq Corporation, dated JUN 19, 2012 and last revised on JUL 17, 2023, signed and sealed by Jalal Farooq, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING:** Small Missile Impact Resistant

### Limitations:

1. See Design Pressures (DP) Vs reinforcement & glazing options charts in sheets **3, 3.1, 3.2, 4 & 5**. See approved configurations in sheet 2.
2. See anchors capacity charts in sheet **5 & 5.1**. Lower DP shall control of the charts in sheets **3** thru **5.1**.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Columbia, S.A.** 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 #**21-0628.15** consists of this page 1 and evidence pages E-1, E2, E-3, E-4 and E-5, as well as approval document mentioned above.

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



*Ishaq I. Chanda*

NOA No. 23-0724.14  
Expiration Date: September 05, 2024  
Approval Date: September 14, 2023  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. Evidence submitted under previous NOAs**

**A. DRAWINGS**

1. Manufacture's die drawings and sections (see files below).
2. Drawing No. **W12-33 Rev E**, titled "Series -6100 Alum Sliding Glass Door (SMI)", sheets 1 through 12 of 12, prepared by Al-Farooq Corporation, dated JUN 19, 2012 and last revised on 03/08/16, signed and sealed by Javad Ahmad, P.E.

**B. TESTS (Submitted under files #14-0428.23/#13-1007.03/#13-0226.05/#12-0620.01/#09-1217.02)**

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, TAS 202-94

along with marked-up drawings and installation diagram of OX aluminum sliding glass door, prepared by Fenestration Testing Laboratories, Inc., Test Report No. **FTL -7572**, dated 11/03/13, signed and sealed by Marlin D. Brinson, P. E.

along with marked-up drawings and installation diagram of OXXX aluminum sliding glass door, prepared by, prepared by Fenestration Testing Laboratories, Test Report No. **FTL- 6293 (FTL 10063)**, dated 10/15/10 and **FTL- 5669 (FTL 08057)**, signed and sealed by Jorge A. Causo, P.E. and Michael Wenzel, P.E. respectively.

2. Additional Test reports on (Submitted under files #07-0828.08)
  - 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, TAS 202-94

along with marked-up drawings and installation diagram of OXXX aluminum sliding glass door, prepared by, prepared by Fenestration Testing Laboratories, Test Report No. **FTL- 6293 (FTL 10063)**, dated 10/15/10 and **FTL- 5669 (FTL 08057)**, signed and sealed by Jorge A. Causo, P.E. and Michael Wenzel, P.E.

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2014(5<sup>th</sup> Edition), prepared by Al Farooq Corporation, dated AUG 13, 2015 and last revised on MAR 07, 2016, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies w/ ASTM-E-1300-02, -04 & -09.

*Ishaq I. Chanda*

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**Ishaq I. Chanda, P.E.**  
**Product Control Unit Supervisor**  
**NOA No. 23-0724.14**  
**Expiration Date: September 05, 2024**  
**Approval Date: September 14, 2023**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. NOA No. **14-0916.11** issued to Kuraray America, Inc. (former E.I. DuPont DeNemours & Co., Inc.) for the “**Sentry Glass ® Interlayer**”, expiring on 07/4/17.
2. NOA No. **14-0916.10** issued to Kuraray America, Inc. (former E.I. DuPont DeNemours & Co., Inc.) for “**Kuraray Butacite PVB Interlayer**”, expiring on 12/11/16.
3. Technical cut sheet data for EPDM, rubber compound by Solucionesencaucho, Columbia.

**F. STATEMENTS**

1. Statement letter of conformance to FBC 2014 (5<sup>th</sup> Edition) and letter of no financial interest, prepared by Al Farooq Corporation, dated 08/13/15, signed and sealed by Javad Ahmad, P.E.
2. Lab compliance as part of the above referenced test report.

*Ishaq I. Chanda*

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**Ishaq I. Chanda, P.E.**  
**Product Control Unit Supervisor**  
**NOA No. 23-0724.14**  
**Expiration Date: September 05, 2024**  
**Approval Date: September 14, 2023**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. Evidence submitted under previous approval.**

**A. DRAWINGS**

1. Drawing No. **W12-33** titled “Series -6100 Alum Sliding Glass Door (SMI)”, sheets 1, 2, 3, 3.1, 4, 5, 5.1, 6 through 12 of 12, prepared by Al-Farooq Corporation, dated 06/19/12 with revision **G** dated on 03/09/18, signed and sealed by Javad Ahmad, P.E.

**B. TESTS**

1. Test reports on:
  - 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 2) Water Resistance Test, per FBC, TAS 202-94
  - 3) Small Missile Impact Test per FBC, TAS 201-94
  - 4) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 5) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of aluminum sliding glass door, prepared by Fenestration Testing Lab, Inc., Test Report No. **FTL-8721**, dated 03/08/17, signed and sealed by Idalmis Ortega, P. E.

**C. CALCULATIONS**

1. Anchor verification calculations complying with FBC2017 (6<sup>th</sup> Edition), prepared by Al Farooq Corporation, dated 01/19/2018, signed and sealed by Javad Ahmad, P.E.

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. NOA No. **17-0808.02** issued to Kuraray America, Inc. (former E.I. DuPont DeNemours & Co., Inc.) for the “**Sentry Glass ® Interlayer**”, expiring on 07/04/23.
2. NOA No. **19-0305.02** issued to Kuraray America, Inc. (former E.I. DuPont DeNemours & Co., Inc.) for “**Kuraray Trosifol PVB Interlayer**”, expiring on 07/08/24.

**F. STATEMENTS**

1. Statement letter of conformance to **FBC 6<sup>th</sup> Edition (2017)** and of no financial interest, prepared by Al-Farooq Corporation, dated 01/19/2018, signed and sealed by Javad Ahmad, P.E.

**G. OTHER**

1. This NOA **revises & renews NOA # 15-0430.03**, expiring 06/14/2018.

*Ishaq I. Chanda*

**Ishaq I. Chanda, P.E.**  
**Product Control Unit Supervisor**  
**NOA No. 23-0724.14**  
**Expiration Date: September 05, 2024**  
**Approval Date: September 14, 2023**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. Evidence submitted.**

**A. DRAWINGS**

1. Drawing No. **W12-33 Rev H**, titled “Series -6100 Alum Sliding Glass Door (SMI)”, sheets 1, 2, 3, 3.1, 3.2, 4, 5, 5.1, 6 through 12 of 12, prepared by Al-Farooq Corporation, dated JUN 19, 2012 and last revised on DEC 01, 2021, signed and sealed by Jalal Farooq, P.E.

**B. TESTS**

1. Test reports on:
  - 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 2) Water Resistance Test, per FBC, TAS 202-94
  - 3) Small Missile Impact Test per FBC, TAS 201-94
  - 4) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 5) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of aluminum sliding glass door, prepared by Blackwater Testing Lab, Inc., Test Report No. **BT-GMP-19-012**, dated 09/19/2019, signed and sealed by Constantin Bortes, P. E.

**C. CALCULATIONS**

1. Anchor verification calculations complying with FBC2020 (7<sup>th</sup> Edition), prepared by Al Farooq Corporation, dated 05/17/2021, signed and sealed by Jalal Farooq, P.E.

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. NOA No. **17-0808.02** issued to Kuraray America, Inc. (former E.I. DuPont DeNemours & Co., Inc.) for the “**Sentry Glass ® Interlayer**”, expiring on 07/04/23.
2. NOA No. **19-0305.02** issued to Kuraray America, Inc. (former E.I. DuPont DeNemours & Co., Inc.) for “**Kuraray Trosifol PVB Interlayer**”, expiring on 07/08/24.

**F. STATEMENTS**

1. Statement letter of conformance to **FBC 7<sup>th</sup> Edition (2020)** and of no financial interest, prepared by Al-Farooq Corporation, dated 05/17/2021, signed and sealed by Jalal Farooq, P.E.
2. Statement letter dated DEC 08, 2021 issued by GMP Consulting & Contractors, Inc. authorizing ES winows, Inc. use of test report BT-GMP-19-012, signed by Nicholas Abuchaibe, CFO.

**G. OTHER**

1. This NOA **revises NOA # 16-1130.04**, expiring 09/05/2024.
2. Distribution agreement between Energia Solar, S.A.-ES Windows and ES Windows, LLC, dtd 08/03/15, signed by Ms. Carla Garcia (MGR) and Andres Chamorro (Gen. MGR) respectively (original copy in various ES approved NOA(s) files)
3. Reference Test report Bt-GMP-021.

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**Ishaq I. Chanda, P.E.**  
**Product Control Unit Supervisor**  
**NOA No. 23-0724.14**  
**Expiration Date: September 05, 2024**  
**Approval Date: September 14, 2023**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**4. New Evidence submitted.**

**A. DRAWINGS**

1. Drawing No. **W12-33 Rev I**, titled “Series -6100 Alum Sliding Glass Door (SMI)”, sheets 1, 2, 3, 3.1, 3.2, 4, 5, 5.1, 6 through 12 of 12, prepared by Al-Farooq Corporation, dated JUN 19, 2012 and last revised on JUL 17, 2023, 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. **20-0915.22** issued to **Kuraray America, Inc.** for their “**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**” dated 11/19/20, expiring on 07/08/24.
2. 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.

**F. STATEMENTS**

1. Statement letter of conformance to FBC 2023 (8<sup>th</sup> Edition), prepared by Al Farooq Corporation, dated 07/19/23, signed and sealed by Jalal Farooq, P.E.

**G. OTHER**

1. This NOA **revises NOA # 21-0628.15** and updates to FBC 2023, expiring 09/05/24.
2. Distribution agreement between ES Windows, LLC (distributor) and Energia Solar, S.A, (manufacturer, dated 08/01/18, signed by MS. Carla Garcia (MGR) and Ms. Evelyn Deas (MGR) respectively (submitted under previous approvals).

*Ishaq I. Chanda*

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**Ishaq I. Chanda, P.E.**  
**Product Control Unit Supervisor**  
**NOA No. 23-0724.14**  
**Expiration Date: September 05, 2024**  
**Approval Date: September 14, 2023**

ALTERNATE SIZE UNITS:  
MAX. FRAME AREA OF DOORS NOT TO EXCEED  
MAX. TESTED AREA OF 160 SQ. FT.

DAYLITE OPENINGS:  
D.L.O. HEIGHT = PANEL HEIGHT - 7.000"  
D.L.O. WIDTH = PANEL WIDTH - 6.937"  
PANEL HEIGHT = DOOR FRAME HEIGHT - 1.375"

### SERIES-6100 ALUMINUM SLIDING GLASS DOOR

SEE SHEETS 3 THRU 4 FOR DESIGN LOAD CAPACITY OF  
DESIRED GLASS SIZE BASED ON APPLICABLE GLASS TYPE  
AND REINFORCING OPTION.

USING CHART ON SHEETS 5 & 5.1 SELECT ANCHOR OPTION  
WITH DESIGN RATING MORE THAN DESIGN LOADS REQUIRED.

LOWER DESIGN PRESSURES FROM DESIGN LOAD CAPACITY  
(REINFORCING OPTION/GLASS TYPE) OR ANCHOR CHARTS  
WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE  
REQUIREMENTS OF THE 2020 (7TH EDITION)/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.

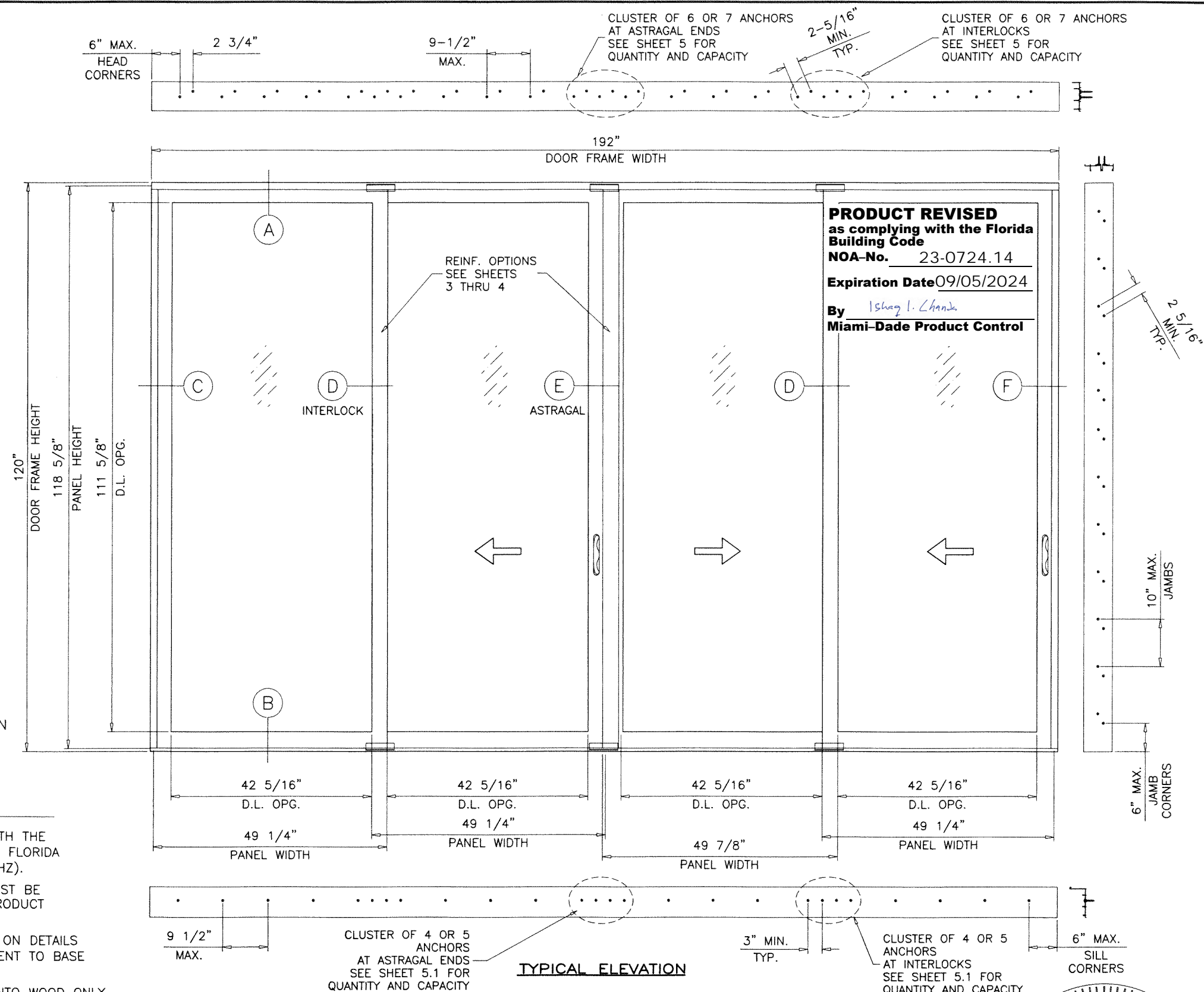
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT  
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE  
REQUIREMENTS OF THE 2020/2023 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)'.

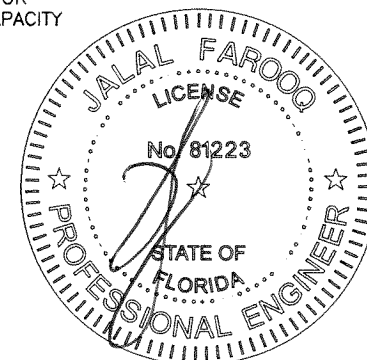


THESE DOORS ARE RATED FOR SMALL MISSILE IMPACT.  
MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS  
REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE.  
SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

VERIFY COMPLIANCE WITH EGRESS LIMITATIONS WHERE REQUIRED.

LAMINATED GLASS  
DRY GLAZED

JUL 17 2023



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

SERIES-6100 ALUM SLIDING GLASS DOOR (S.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
	E	12.23.15	REV. PER	COMMENTS
	F	01.15.18	GENERAL	REVISION
	G	03.09.18	REV. PER	COMMENTS
	H	06.22.21	UPDATED	TO 2020 FBC
	I	07.14.23	UPDATED	TO 2023 FBC

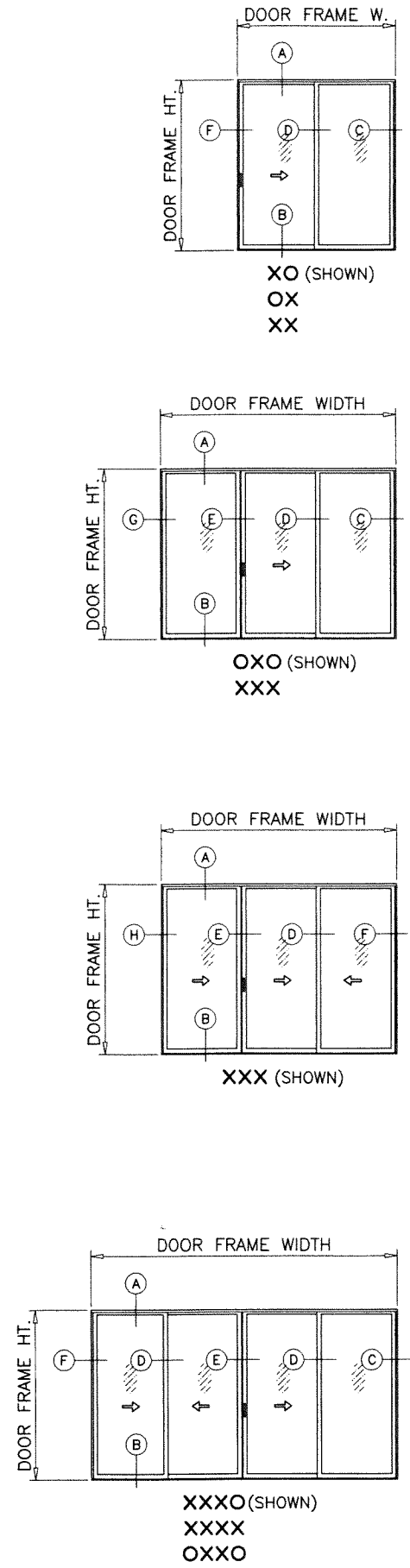
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dr. by:	TARIQ
chk. by:	

drawing no.

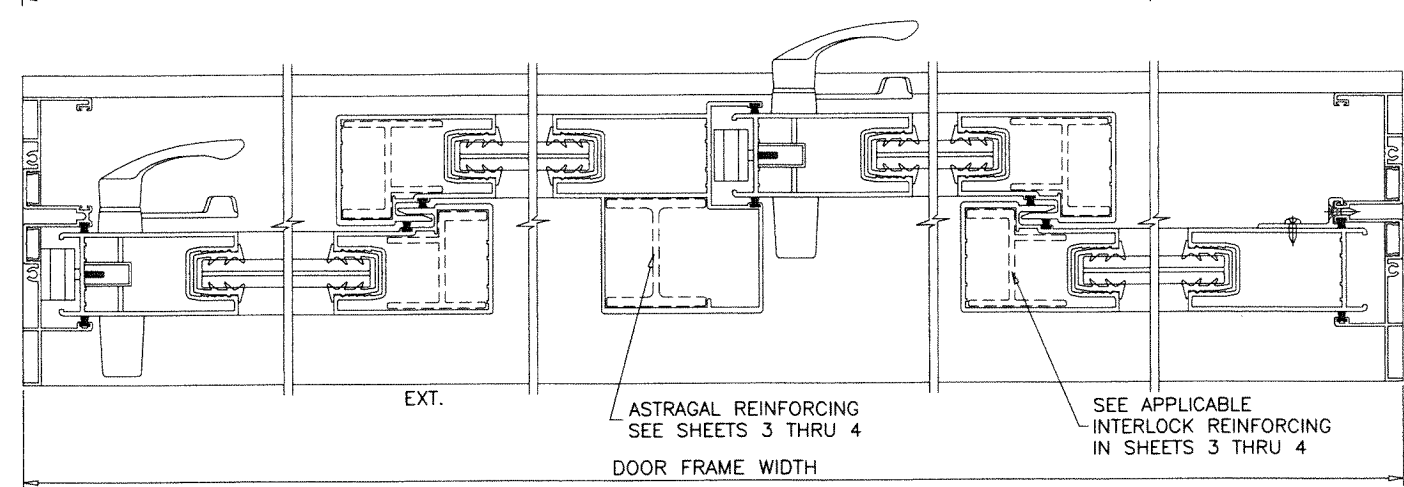
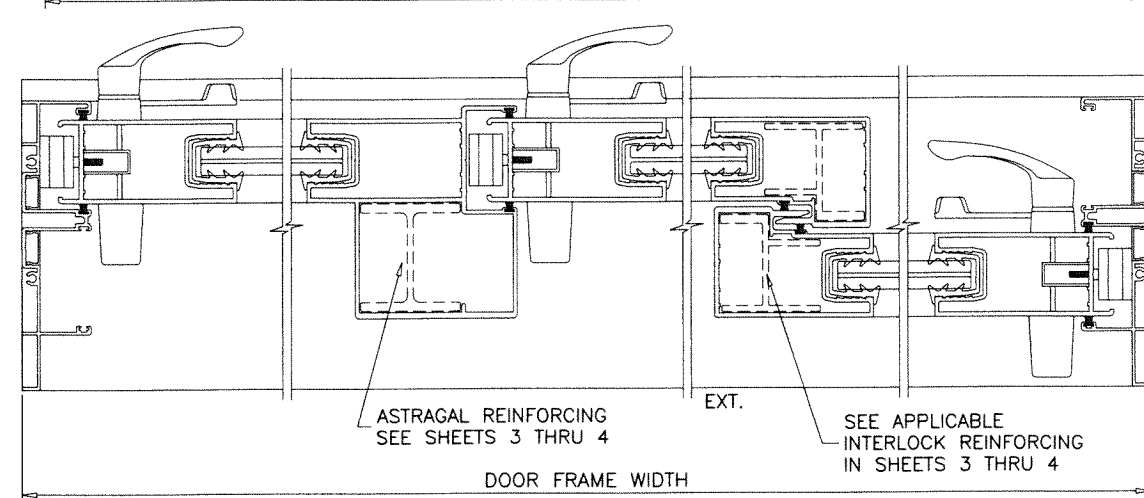
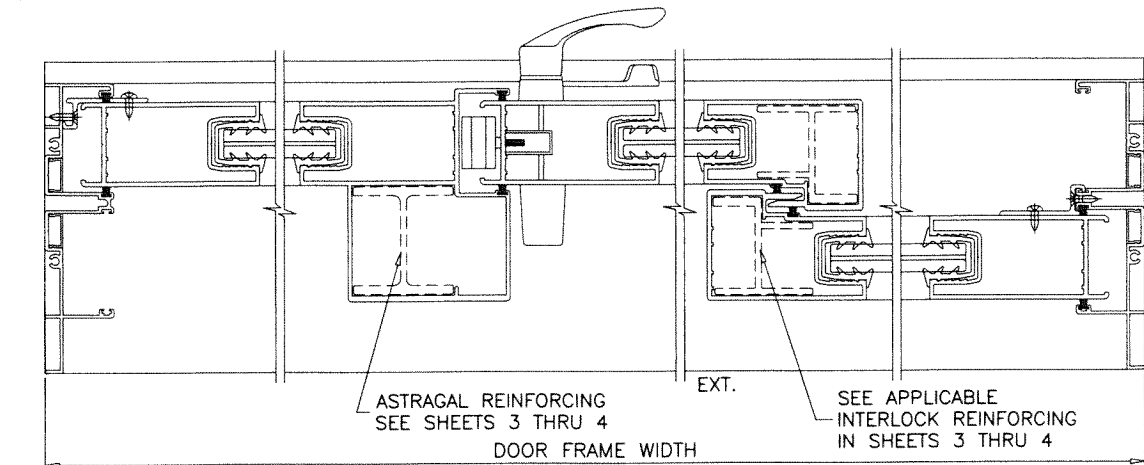
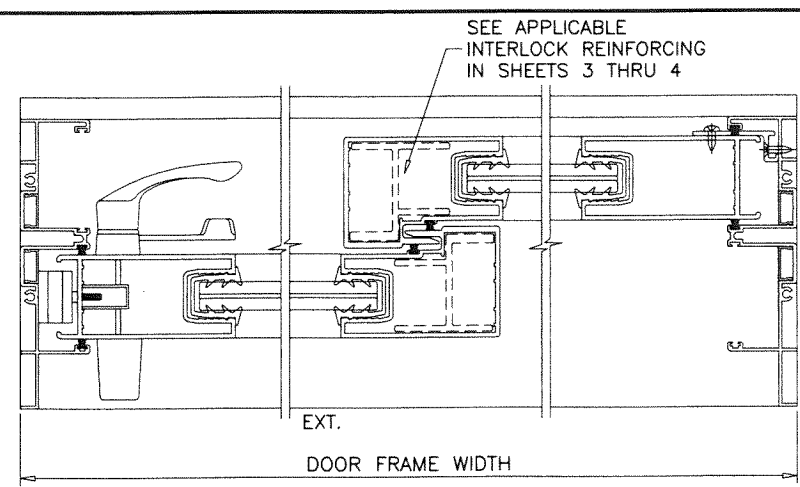
W12-33

sheet 1 of 12

COMP-ANL\W12-33ES



APPROVED CONFIGURATIONS

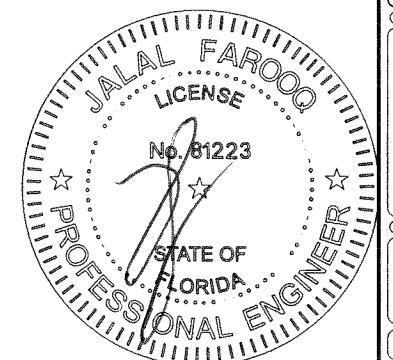


MAX. OVERALL DOOR FRAME AREA NOT TO EXCEED 160 SQ. FT.

NOTE:  
CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSE  
SEE APPLICABLE DESIGN PRESSURE & SIZE IN  
SHEETS 3 THRU 4 AND ANCHOR INSTALLATION IN  
SHEETS 5 & 5.1.

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-0724.14  
Expiration Date 09/05/2024  
By Ishag I. Chande  
Miami-Dade Product Control

JUL 17 2023



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

COMP-ANL\W12-33ES

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SERIES-6100 ALUM SLIDING GLASS DOOR (S.M.I.)

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

COMP-ANL\W12-33ES

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revisions:		by description	
no	date	rev.	per
E	12.23.15	REV.	PER
F	01.15.18	GENERAL	REVISION
G	03.09.18	REV.	PER
H	06.22.21	UPDATED TO 2020 FBC	
I	07.14.23	NO CHANGE THIS SHEET	

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date: 06-18-12	scale: -	dr. by: TARIQ	chk. by:
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drawing no.

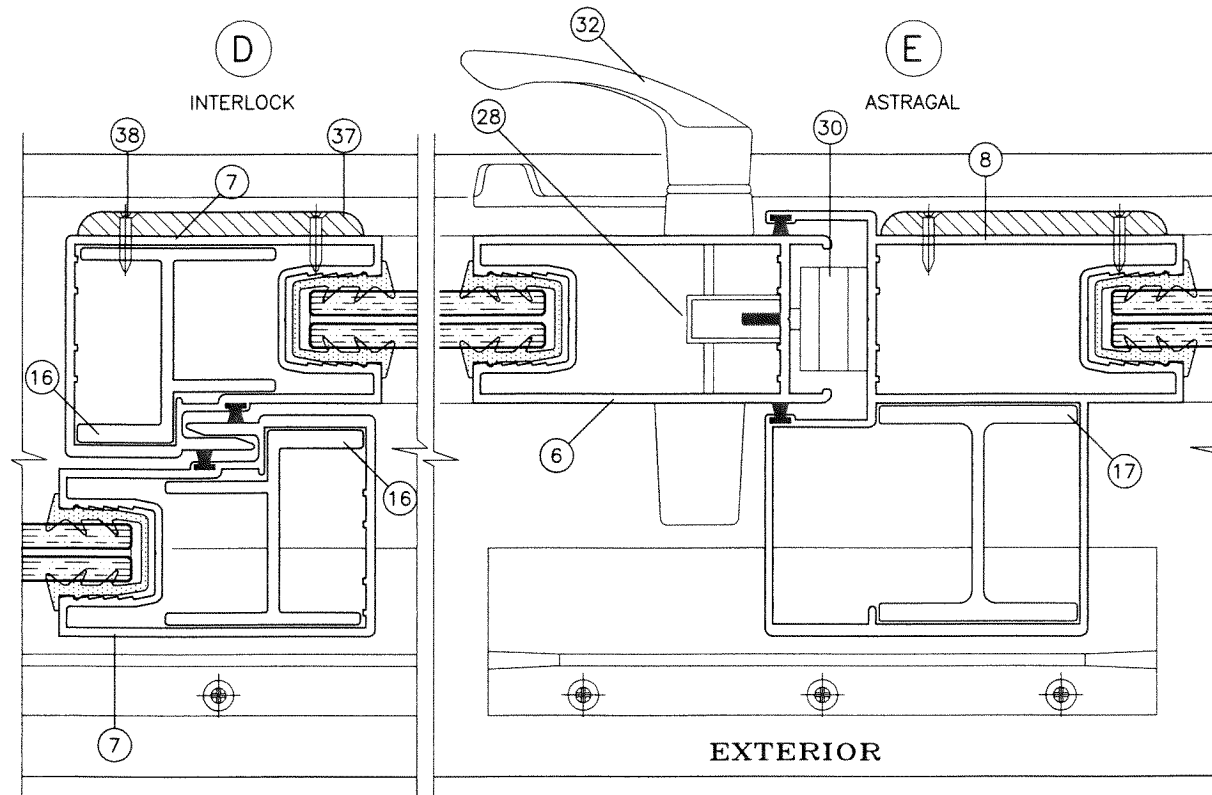
**W12-33**

sheet 2 of 12

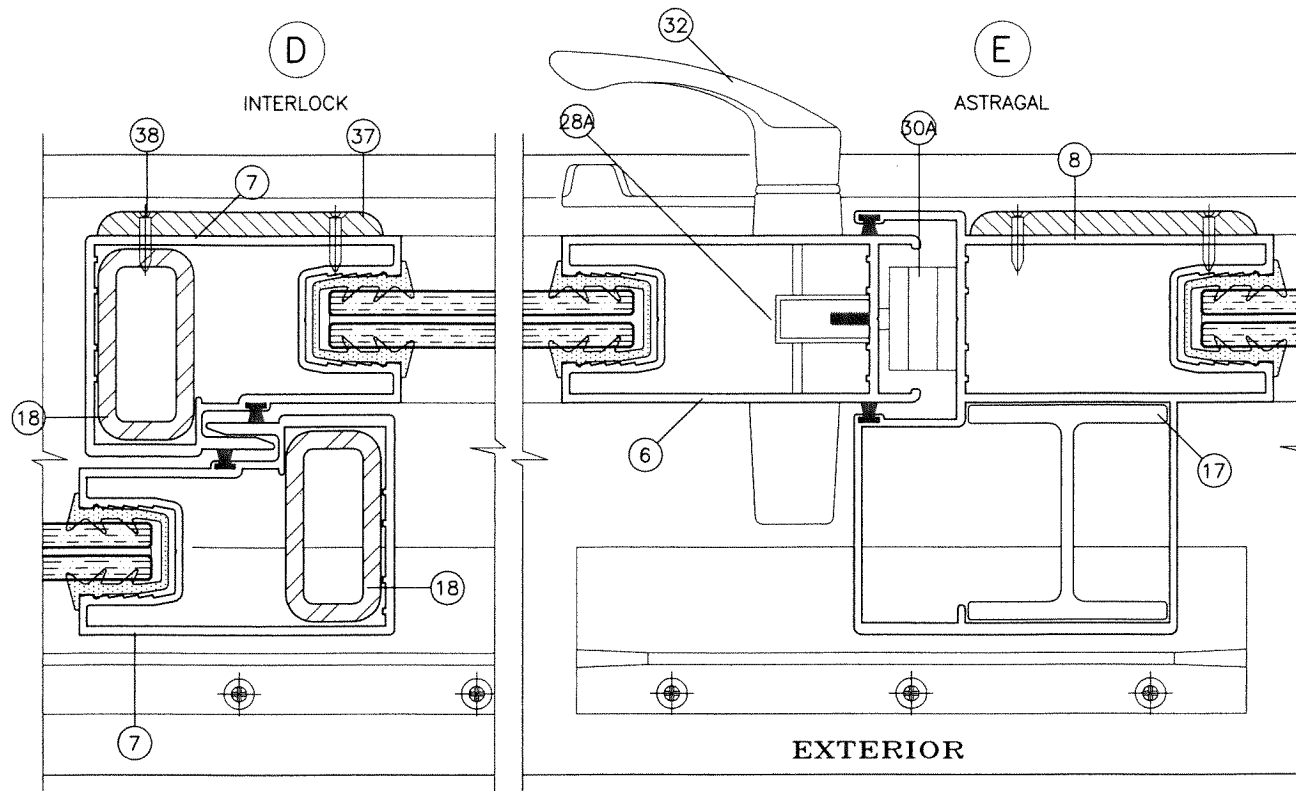
no.

**W12-33**

sheet 2 of 12



**REINFORCING OPTION #1**  
ALUMINUM REINFORCING AT INTERLOCK  
ALUMINUM REINFORCING AT ASTRAGAL



**REINFORCING OPTION #2**  
STEEL REINFORCING AT INTERLOCK  
ALUMINUM REINFORCING AT ASTRAGAL

SEE CHART ON THIS SHEET FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE AND REINFORCING TYPES.

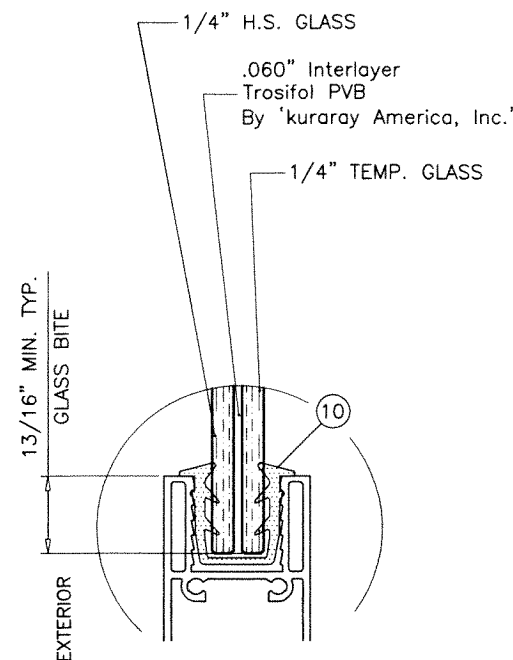
SEE CHART ON SHEET 5 FOR HEAD ANCHOR CAPACITY.  
SEE CHART ON SHEET 5.1 FOR SILL ANCHOR CAPACITY.

LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART, HEAD ANCHOR CHART OR SILL ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-0724.14

Expiration Date 09/05/2024

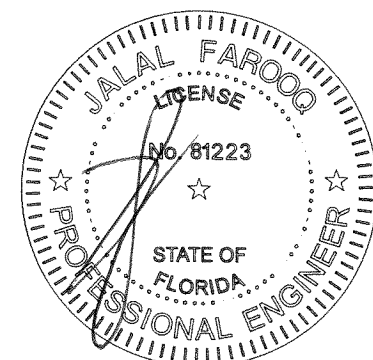
By Ishag I. Chande  
Miami-Dade Product Control



**GLASS TYPE 'A' (DRY GLAZED)**  
**GLAZING DETAIL**

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

DESIGN LOAD CAPACITY - PSF PVB LAMINATED GLASS TYPE 'A' ALL CONFIGURATIONS SHOWN ON SHEET 2					
PANEL WIDTH NOMINAL INCHES	DOOR FRAME HEIGHT INCHES	REINF. OPTION #1		REINF. OPTION #2	
		EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	82	85.0	140.0	85.0	110.0
40		85.0	140.0	85.0	110.0
44		85.0	140.0	85.0	110.0
48		85.0	140.0	85.0	110.0
50		85.0	134.4	81.6	105.6
53		81.6	126.8	77.0	99.6
56		72.9	120.0	72.9	94.3
60		68.0	112.0	68.0	88.0
36	96	85.0	140.0	85.0	110.0
40		85.0	136.4	85.0	110.0
44		85.0	127.4	85.0	110.0
48		85.0	120.0	85.0	110.0
50		85.0	96.0	81.6	105.6
53		85.0	90.5	77.0	99.6
56		85.0	85.7	72.9	94.3
60		80.0	80.0	68.0	88.0
36	102	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	100.0	85.0	110.0
50		85.0	96.0	81.6	105.6
53		85.0	90.5	77.0	99.6
56		85.0	85.7	72.9	94.3
36	108	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	100.0	85.0	110.0
50		85.0	96.0	81.6	105.6
53		85.0	90.5	77.0	99.6
36	114	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	96.0	85.0	110.0
50		85.0	96.0	81.6	105.6
36	120	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	96.2	85.0	110.0
48		85.0	90.0	85.0	110.0



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 262-8100 FAX. (305) 262-6978  
COMP-ANL W12-33ES

SERIES-6100 ALUM SLIDING GLASS DOOR (S.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	description
E	12.23.15	REV. PER RER COMMENTS
F	01.15.18	GENERAL REVISION
G	03.09.18	REV. PER RER COMMENTS
H	06.22.21	UPDATED TO 2020 FBC
I	07.14.23	NO CHANGE THIS SHEET

date: 06-18-12

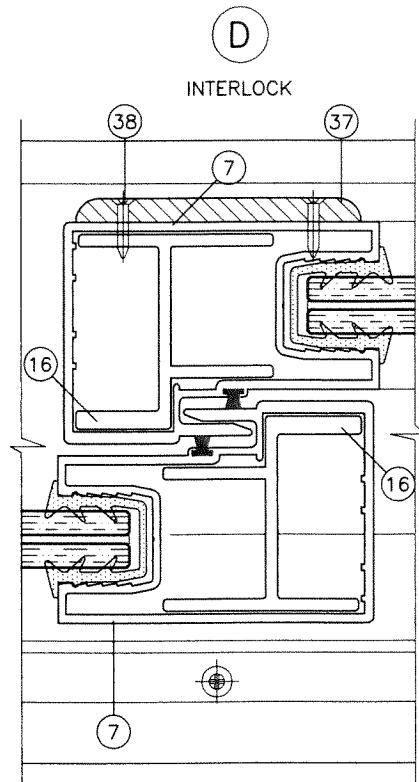
scale: 1/2" = 1"

dr. by: TARIQ

chk. by:

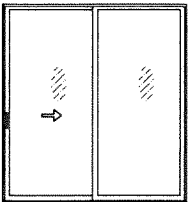
drawing no.  
**W12-33**

sheet 3 of 12



REINFORCING OPTION #1  
ALUMINUM REINFORCING AT INTERLOCK

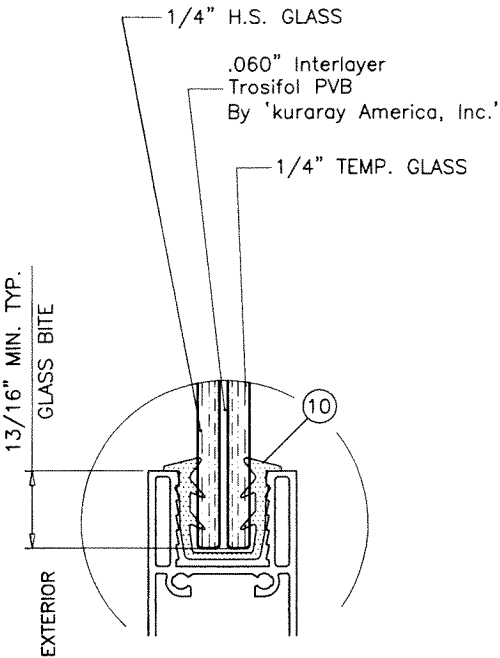
SEE CHART ON THIS SHEET FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE AND REINFORCING TYPES.  
SEE CHART ON SHEET 5 FOR HEAD ANCHOR CAPACITY.  
SEE CHART ON SHEET 5.1 FOR SILL ANCHOR CAPACITY.  
LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART, HEAD ANCHOR CHART OR SILL ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.



PRODUCT REVISED  
as complying with the Florida  
Building Code  
NOA-No. 23-0724.14

Expiration Date 09/05/2024 'XO' OR 'OX' DOORS ONLY

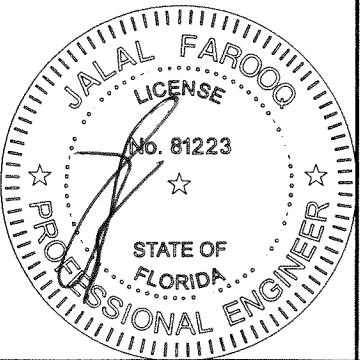
By Ishag I. Chande  
Miami-Dade Product Control



GLASS TYPE 'A' (DRY GLAZED)  
GLAZING DETAIL

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

DESIGN LOAD CAPACITY - PSF PVB LAMINATED GLASS TYPE 'A' 'XO' OR 'OX' CONFIGURATIONS ONLY			
PANEL WIDTH NOMINAL INCHES	DOOR FRAME HEIGHT INCHES	REINF. OPTION #1	
		EXT. (+)	INT. (-)
36	82	110.0	110.0
40		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		105.6	105.6
53		99.6	99.6
56		94.3	94.3
60		88.0	88.0
36	84	110.0	110.0
40		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		105.6	105.6
53		99.6	99.6
56		94.3	94.3
60		88.0	88.0
36	90	110.0	110.0
40		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		105.6	105.6
53		99.6	99.6
56		94.3	94.3
36	96	110.0	110.0
40		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		105.6	105.6
53		99.6	99.6
36	102	110.0	110.0
40		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		105.6	105.6
36	108-1/2	110.0	110.0
40		110.0	110.0
44		110.0	110.0
48		110.0	110.0



JUL 17 2023

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

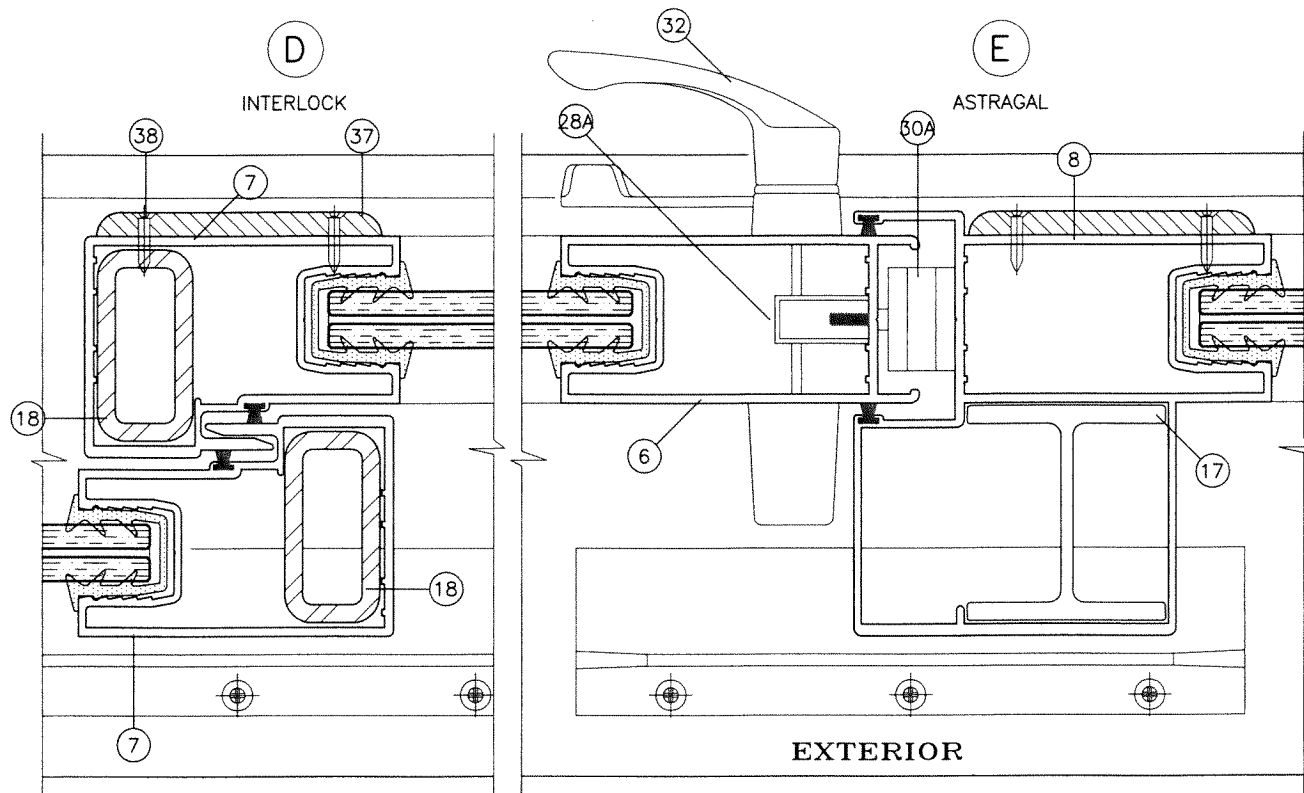
SERIES-6100 ALUM SLIDING GLASS DOOR (S.M.I.)

**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
	F	01.15.18		GENERAL REVISION
	G	03.09.18		REV. PER RER COMMENTS
	H	06.22.21		UPDATED TO 2020 FBC
	I	07.14.23		NO CHANGE THIS SHEET

date: 06-18-12  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:

drawing no.  
**W12-33**  
sheet 3.1 of 12

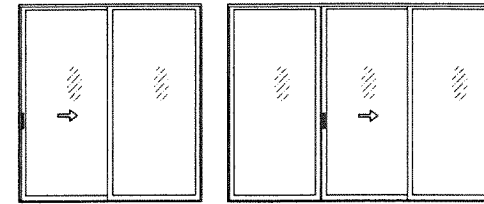


**REINFORCING OPTION #2**  
STEEL REINFORCING AT INTERLOCK  
ALUMINUM REINFORCING AT ASTRAGAL

SEE CHART ON THIS SHEET FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE AND REINFORCING TYPES.

SEE CHART ON SHEET 5 FOR HEAD ANCHOR CAPACITY.  
SEE CHART ON SHEET 5.1 FOR SILL ANCHOR CAPACITY.

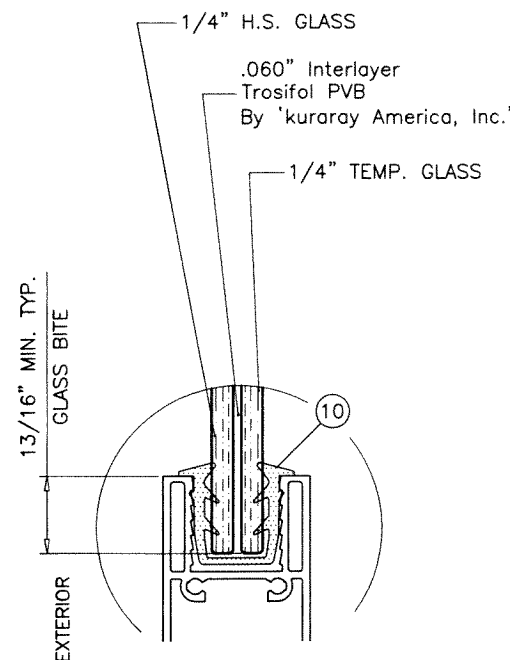
LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART, HEAD ANCHOR CHART OR SILL ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.



**XO (SHOWN)**  
**OXO (SHOWN)**

**APPROVED CONFIGURATIONS**

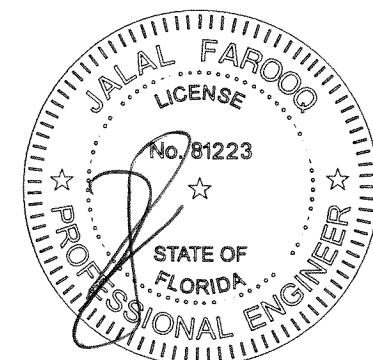
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-0724.14  
Expiration Date 09/05/2024  
By *Ishaq I. Chandra*  
Miami-Dade Product Control



**GLASS TYPE 'A' (DRY GLAZED)**  
**GLAZING DETAIL**

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

DESIGN LOAD CAPACITY - PSF PVB LAMINATED GLASS TYPE 'A' 'XO', 'OX' OR 'OXO' CONFIGURATIONS ONLY			
PANEL WIDTH NOMINAL INCHES	DOOR FRAME HEIGHT INCHES	REINF. OPTION #2	
		EXT. (+)	INT. (-)
36	82	85.0	123.0
40		85.0	123.0
44		85.0	115.7
48		85.0	110.0
50		81.6	105.6
53		77.0	99.6
56		72.9	94.3
60		68.0	88.0
36	96	85.0	123.0
40		85.0	123.0
44		85.0	115.7
48		85.0	110.0
50		81.6	105.6
53		77.0	99.6
56		72.9	94.3
60		68.0	88.0
36	102	85.0	123.0
40		85.0	123.0
44		85.0	110.0
48		85.0	110.0
50		81.6	105.6
53		77.0	99.6
56		72.9	94.3
36	108	85.0	123.0
40		85.0	123.0
44		85.0	110.0
48		85.0	110.0
50		81.6	105.6
53		77.0	99.6
36	108-1/4	85.0	123.0
40		85.0	123.0
41-3/8		85.0	123.0
36	114	85.0	110.0
40		85.0	110.0
44		85.0	110.0
48		85.0	110.0
50		81.6	105.6
36	120	85.0	110.0
40		85.0	110.0
44		85.0	110.0
48		85.0	110.0



JUL 17 2023

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W12-33ES

SERIES-6100 ALUM SLIDING GLASS DOOR (S.M.I.)

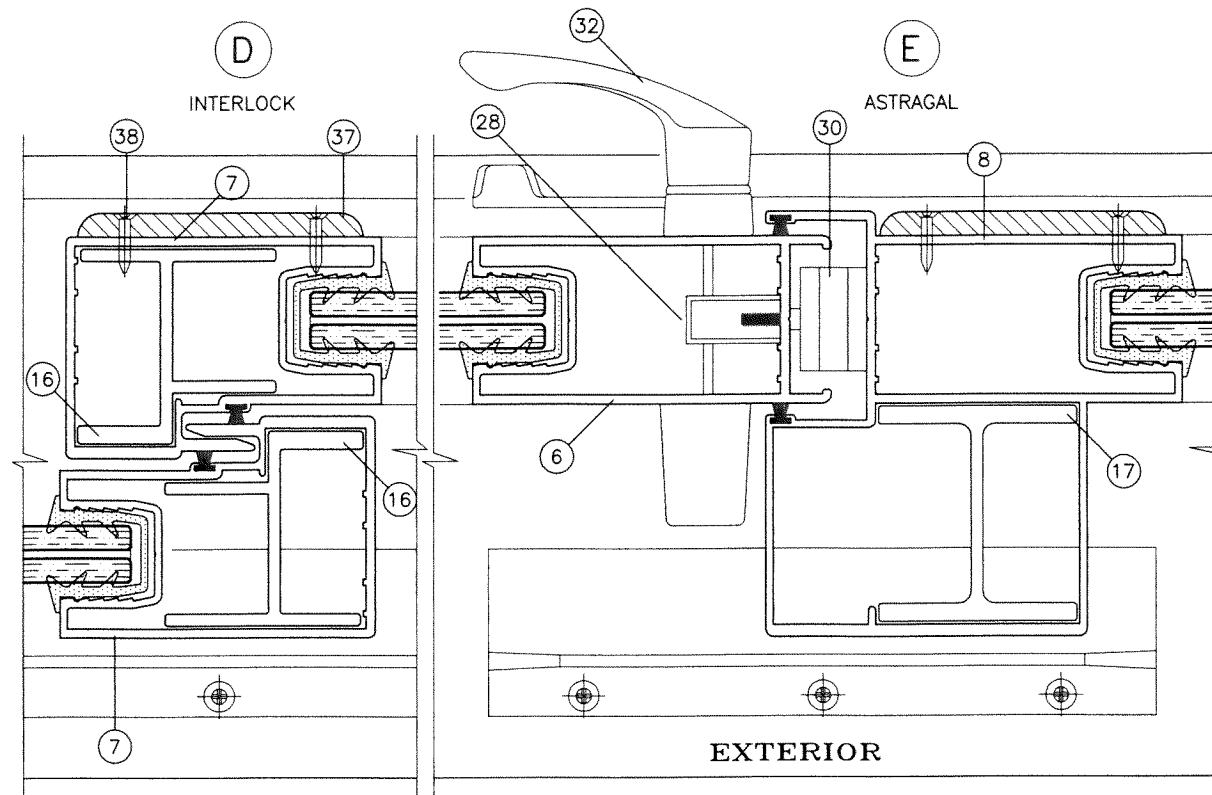
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:

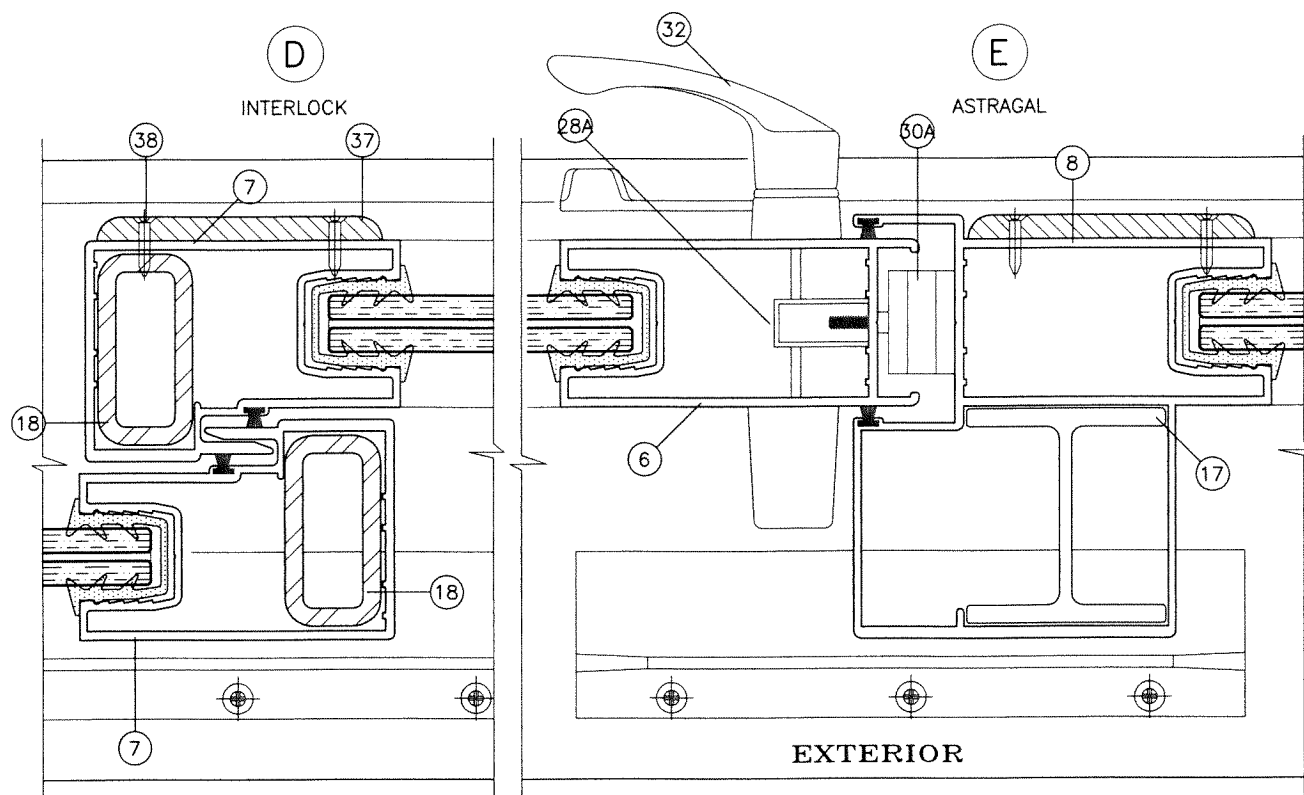
no	date	by	description
1	07.14.23		NO CHANGE THIS SHEET

date: 06-18-12  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:

drawing no.  
**W12-33**  
sheet 3.2 of 12



**REINFORCING OPTION #1**  
ALUMINUM REINFORCING AT INTERLOCK  
ALUMINUM REINFORCING AT ASTRAGAL



**REINFORCING OPTION #2**  
STEEL REINFORCING AT INTERLOCK  
ALUMINUM REINFORCING AT ASTRAGAL

SEE CHART ON THIS SHEET FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE AND REINFORCING TYPES.

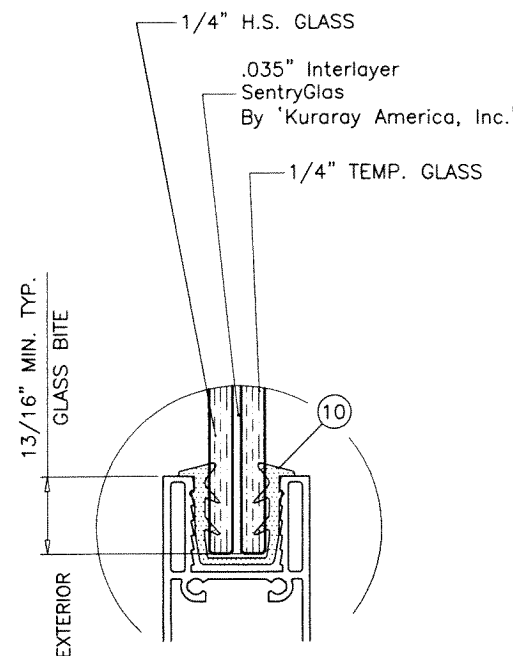
SEE CHART ON SHEET 5 FOR HEAD ANCHOR CAPACITY.  
SEE CHART ON SHEET 5.1 FOR SILL ANCHOR CAPACITY.

LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART, HEAD ANCHOR CHART OR SILL ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-0724.14

Expiration Date 09/05/2024

By *Ishaq I. Chande*  
Miami-Dade Product Control



**GLASS TYPE 'A1' (DRY GLAZED)**  
**GLAZING DETAIL**

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

DESIGN LOAD CAPACITY - PSF					
SENTRIGLAS LAMINATED GLASS TYPE 'A1'					
ALL CONFIGURATIONS SHOWN ON SHEET 2					
PANEL WIDTH NOMINAL INCHES	DOOR FRAME HEIGHT INCHES	REINF. OPTION #1		REINF. OPTION #2	
		EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	82	85.0	100.0	85.0	140.0
40		85.0	100.0	85.0	140.0
44		85.0	100.0	85.0	140.0
48		85.0	100.0	85.0	140.0
50		85.0	96.0	85.0	134.4
53		85.0	90.5	85.0	126.8
56		85.0	85.7	85.0	120.0
60		80.0	80.0	85.0	112.0
36	96	85.0	100.0	85.0	140.0
40		85.0	100.0	85.0	140.0
44		85.0	100.0	85.0	140.0
48		85.0	100.0	85.0	137.3
50		85.0	96.0	85.0	105.6
53		85.0	90.5	85.0	99.6
56		85.0	85.7	85.0	94.3
60		85.0	80.0	85.0	88.0
36	102	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	100.0	85.0	110.0
50		85.0	96.0	85.0	105.6
53		85.0	90.5	85.0	99.6
56		80.0	80.0	85.0	94.3
36	108	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	100.0	85.0	110.0
50		85.0	96.0	85.0	105.6
53		85.0	90.5	85.0	99.6
56		85.0	80.0	85.0	94.3
36	114	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	100.0	85.0	110.0
50		85.0	96.0	85.0	105.6
53		85.0	90.5	85.0	99.6
56		85.0	80.0	85.0	94.3
36	120	85.0	100.0	85.0	110.0
40		85.0	100.0	85.0	110.0
44		85.0	100.0	85.0	110.0
48		85.0	96.2	85.0	110.0
50		85.0	90.0	85.0	110.0
53		85.0	90.0	85.0	110.0
56		85.0	90.0	85.0	110.0

**af**

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

SERIES-6100 ALUM SLIDING GLASS DOOR (S.M.I.)

**E.S. WINDOWS, LLC**

3550 N.W. 49 STREET

MIAMI, FL. 33142

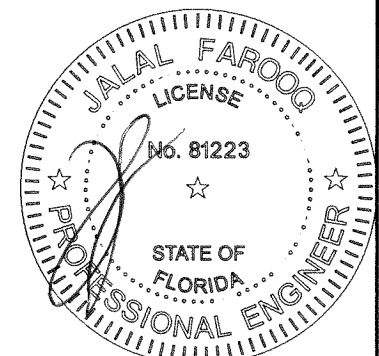
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	E	12.23.15		REV. PER COMMENTS
	F	01.15.18		GENERAL REVISION
	G	03.09.18		REV. PER COMMENTS
	H	06.22.21		UPDATED TO 2020 FBC
	I	07.14.23		NO CHANGE THIS SHEET

date: 06-18-12  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:

drawing no.  
**W12-33**

sheet 4 of 12



JUL 17 2023

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

AT HEAD

TYPE 'A' - 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

THRU 1BY BUCKS INTO CONCRETE  
1-1/2" MIN. EMBED INTO CONCRETE

TYPE 'B' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)  
DIRECTLY INTO CONCRETE  
1-1/2" MIN. EMBED

TYPE 'C' - #14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)  
INTO MIAMI-DADE COUNTY APPROVED MULLIONS  
OR  
INTO METAL STRUCTURES  
(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)

AT SILL

TYPE 'B' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)  
DIRECTLY INTO CONCRETE  
1-3/4" MIN. EMBED

AT JAMBS

TYPE 'A' - 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

THRU 1BY BUCKS INTO CONC. OR BLOCKS  
1-1/4" MIN. EMBED INTO CONC. OR BLOCKS

TYPE 'B' - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)  
DIRECTLY INTO CONC. OR BLOCKS  
1-1/4" MIN. EMBED INTO CONC. OR BLOCKS

TYPE 'C' - #14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)  
INTO MIAMI-DADE COUNTY APPROVED MULLIONS  
OR  
INTO METAL STRUCTURES  
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS  
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)  
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)  
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO CONCRETE = 2-1/2" MIN.  
INTO WOOD STRUCTURE = 1" 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.

HEAD ANCHOR LOAD CAPACITY - PSF					
AVERAGE PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	ANCHOR TYPE 'A'		ANCHOR 'B'	ANCHOR 'C'
		6 ANCHORS AT MTG. STILE ENDS	7 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30	82	140.0	140.0	140.0	140.0
36		140.0	140.0	140.0	140.0
40		140.0	140.0	140.0	140.0
42		140.0	140.0	140.0	140.0
44		140.0	140.0	140.0	140.0
48		140.0	140.0	140.0	140.0
50		140.0	140.0	140.0	140.0
53		140.0	140.0	140.0	140.0
56		134.4	140.0	140.0	140.0
60		132.4	140.0	140.0	140.0
30	84	140.0	140.0	140.0	140.0
36		140.0	140.0	140.0	140.0
40		140.0	140.0	140.0	140.0
42		140.0	140.0	140.0	140.0
44		140.0	140.0	140.0	140.0
48		140.0	140.0	140.0	140.0
50		140.0	140.0	140.0	140.0
53		135.5	140.0	140.0	140.0
56		131.7	140.0	140.0	140.0
60		127.5	140.0	140.0	140.0
30	90	140.0	140.0	140.0	140.0
36		140.0	140.0	140.0	140.0
40		140.0	140.0	140.0	140.0
42		140.0	140.0	140.0	140.0
44		138.0	140.0	140.0	140.0
48		130.4	140.0	140.0	140.0
50		127.1	140.0	140.0	140.0
53		122.7	140.0	140.0	140.0
56		118.9	138.8	140.0	140.0
60		114.7	133.8	140.0	140.0
30	96	140.0	140.0	140.0	140.0
36		140.0	140.0	140.0	140.0
40		135.9	140.0	140.0	140.0
42		131.1	140.0	140.0	140.0
44		126.8	140.0	140.0	140.0
48		119.5	139.4	140.0	140.0
50		110.0	110.0	110.0	110.0
53		110.0	110.0	110.0	110.0
56		106.3	110.0	110.0	110.0
60		104.3	110.0	110.0	110.0
30	102	123.0	123.0	123.0	123.0
36		123.0	123.0	123.0	123.0
40		123.0	123.0	123.0	123.0
42		110.0	110.0	110.0	110.0
44		110.0	110.0	110.0	110.0
48		110.0	110.0	110.0	110.0
50		107.3	110.0	110.0	110.0
53		103.2	110.0	110.0	110.0

HEAD ANCHOR LOAD CAPACITY - PSF					
AVERAGE PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	ANCHOR TYPE 'A'		ANCHOR 'B'	ANCHOR 'C'
		6 ANCHORS AT MTG. STILE ENDS	7 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30	108-1/2	123.0	123.0	123.0	123.0
36		123.0	123.0	123.0	123.0
40		123.0	123.0	123.0	123.0
42		110.0	110.0	110.0	110.0
44		108.5	110.0	110.0	110.0
48		101.8	110.0	110.0	110.0
50		98.9	110.0	110.0	110.0
53		95.0	110.0	110.0	110.0
30	114	110.0	110.0	110.0	110.0
36		110.0	110.0	110.0	110.0
40		109.8	110.0	110.0	110.0
42		105.7	110.0	110.0	110.0
44		102.0	110.0	110.0	110.0
48		95.6	110.0	110.0	110.0
50		92.8	108.3	110.0	110.0
30	120	110.0	110.0	110.0	110.0
36		110.0	110.0	110.0	110.0
40		103.2	110.0	110.0	110.0
42		99.3	110.0	110.0	110.0
44		95.8	110.0	110.0	110.0
48		89.6	104.6	110.0	110.0

PRODUCT REVISED  
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Building Code  
NOA-No. 23-0724.14

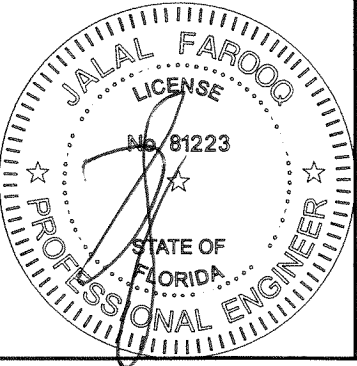
Expiration Date 09/05/2024

By Ishag I. Chank  
Miami-Dade Product Control

SEE CHART ON SHEETS 3 THRU 5 FOR DESIGN LOAD CAPACITY  
OF DESIRED GLASS SIZE AND REINFORCING TYPES.

SEE CHART ABOVE FOR HEAD ANCHOR CAPACITY.  
SEE CHART ON SHEET 5.1 FOR SILL ANCHOR CAPACITY.

LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART,  
HEAD ANCHOR CHART OR SILL ANCHOR CHART WILL APPLY  
TO ENTIRE SYSTEM.



JUL 17 2023

afC

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

SERIES-6100 ALUM SLIDING GLASS DOOR (S.M.I.)  
E.S. WINDOWS, LLC  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:		by description	
no	date	rev.	per
E	12.23.15	REV.	PER
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H	06.22.21	UPDATED	TO 2020 FBC
I	07.14.23	NO	CHANGE

date: 06-18-12  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:

drawing no.  
W12-33  
sheet 5 of 12

SILL ANCHOR LOAD CAPACITY - PSF			
AVERAGE PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	ANCHOR TYPE 'B'	
		4 ANCHORS AT MTG. STILE ENDS	5 ANCHORS AT MTG. STILE ENDS
		EXT. (+) INT. (-)	EXT. (+) INT. (-)
30	82	140.0	140.0
36		140.0	140.0
40		140.0	140.0
42		140.0	140.0
44		140.0	140.0
48		140.0	140.0
50		140.0	140.0
53		140.0	140.0
56		140.0	140.0
60		140.0	140.0
30	84	140.0	140.0
36		140.0	140.0
40		140.0	140.0
42		140.0	140.0
44		140.0	140.0
48		140.0	140.0
50		140.0	140.0
53		140.0	140.0
56		140.0	140.0
60		138.7	140.0
30	90	140.0	140.0
36		140.0	140.0
40		140.0	140.0
42		140.0	140.0
44		140.0	140.0
48		140.0	140.0
50		138.2	140.0
53		133.5	140.0
56		129.4	140.0
60		124.8	140.0
30	96	140.0	140.0
36		140.0	140.0
40		140.0	140.0
42		140.0	140.0
44		138.0	140.0
48		130.0	140.0
50		110.0	110.0
53		110.0	110.0
56		110.0	110.0
60		110.0	110.0
30	102	123.0	123.0
36		123.0	123.0
40		123.0	123.0
42		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		110.0	110.0
53		110.0	110.0
56		110.0	110.0

SILL ANCHOR LOAD CAPACITY - PSF			
AVERAGE PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	ANCHOR TYPE 'B'	
		4 ANCHORS AT MTG. STILE ENDS	5 ANCHORS AT MTG. STILE ENDS
		EXT. (+) INT. (-)	EXT. (+) INT. (-)
30	108-1/2	123.0	123.0
36		123.0	123.0
40		123.0	123.0
42		110.0	110.0
44		110.0	110.0
48		110.0	110.0
50		107.6	110.0
53		103.4	110.0
30	114	110.0	110.0
36		110.0	110.0
40		110.0	110.0
42		110.0	110.0
44		110.0	110.0
48		104.0	110.0
50		101.0	110.0
30	120	110.0	110.0
36		110.0	110.0
40		110.0	110.0
42		108.1	110.0
44		104.2	110.0
48		97.5	110.0

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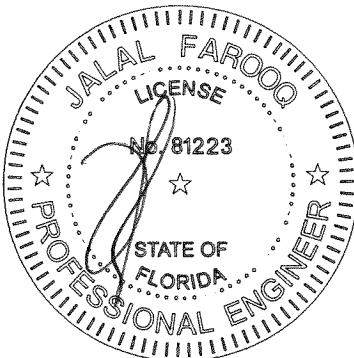
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SEE CHART ON SHEET 5 FOR HEAD ANCHOR CAPACITY.

LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART, HEAD ANCHOR CHART OR SILL ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.

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Expiration Date 09/05/2024

By Ishaq I. Chandra  
Miami-Dade Product Control



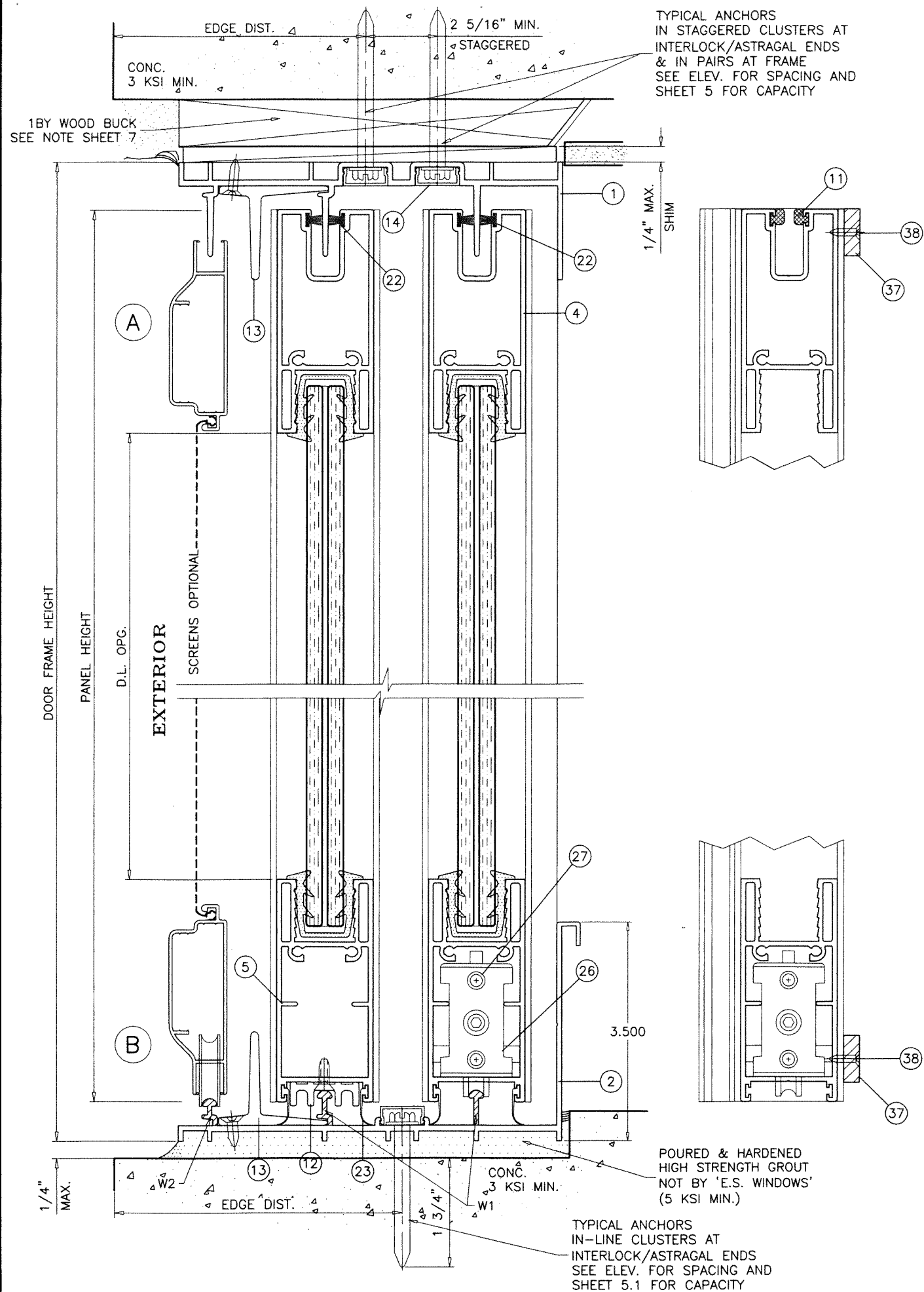
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dr. by: TARIQ	chk. by:
drawing no.	
W12-33	
sheet 5.1 of 12	

COMP-ANL\W12-33ES

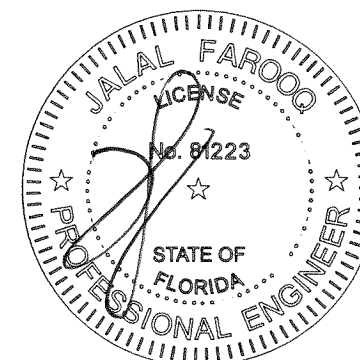


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 By Ishag I. Chande  
 Miami-Dade Product Control

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

**WEEPHOLES:**  
 W1 = 2-5/8" LONG WEEP NOTCH AT EACH END  
 W2 = 1" LONG WEEP NOTCH AT EACH END

JUL 17 2023



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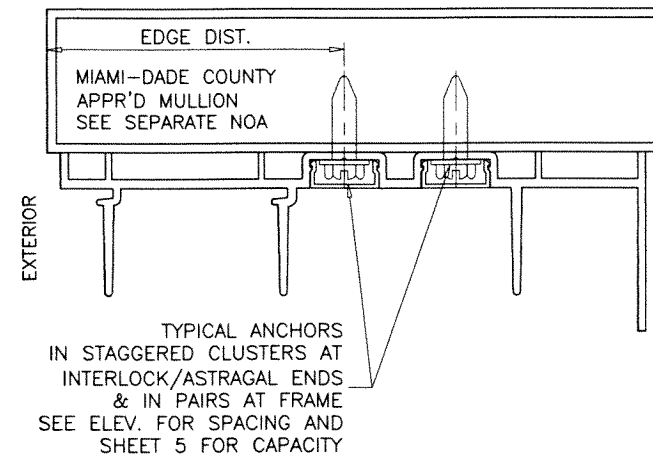
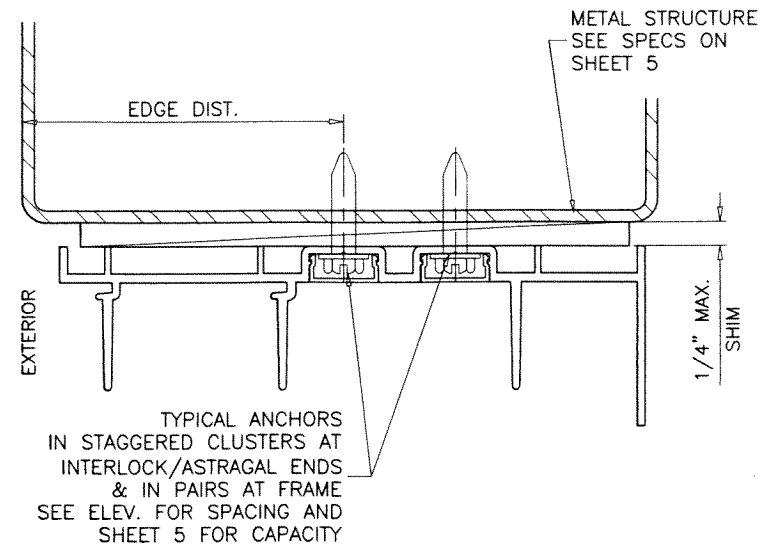
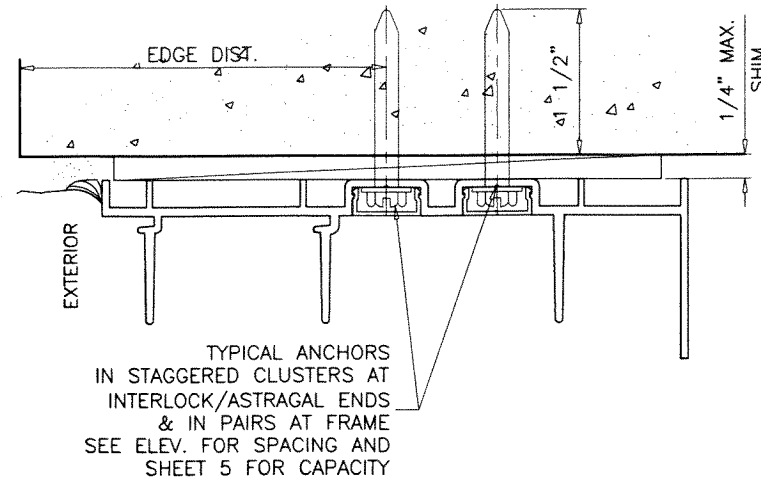
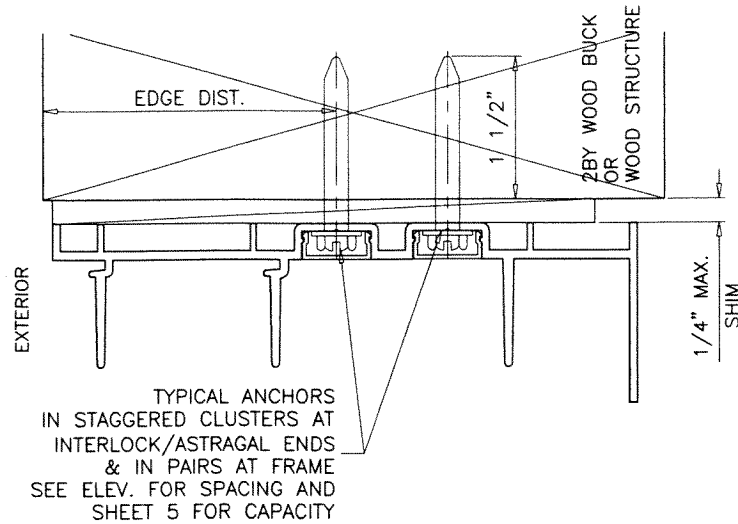
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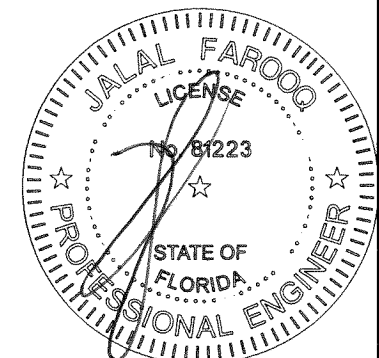
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sheet	6 of 12



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By Ishaq I. Chande  
Miami-Dade Product Control

1BY OR 2BY WOOD BUCKS AND METAL STRUCTURES NOT BY 'E.S. WINDOWS'  
MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND  
TRANSFER THEM TO THE BUILDING STRUCTURE.

JUL 17 2023



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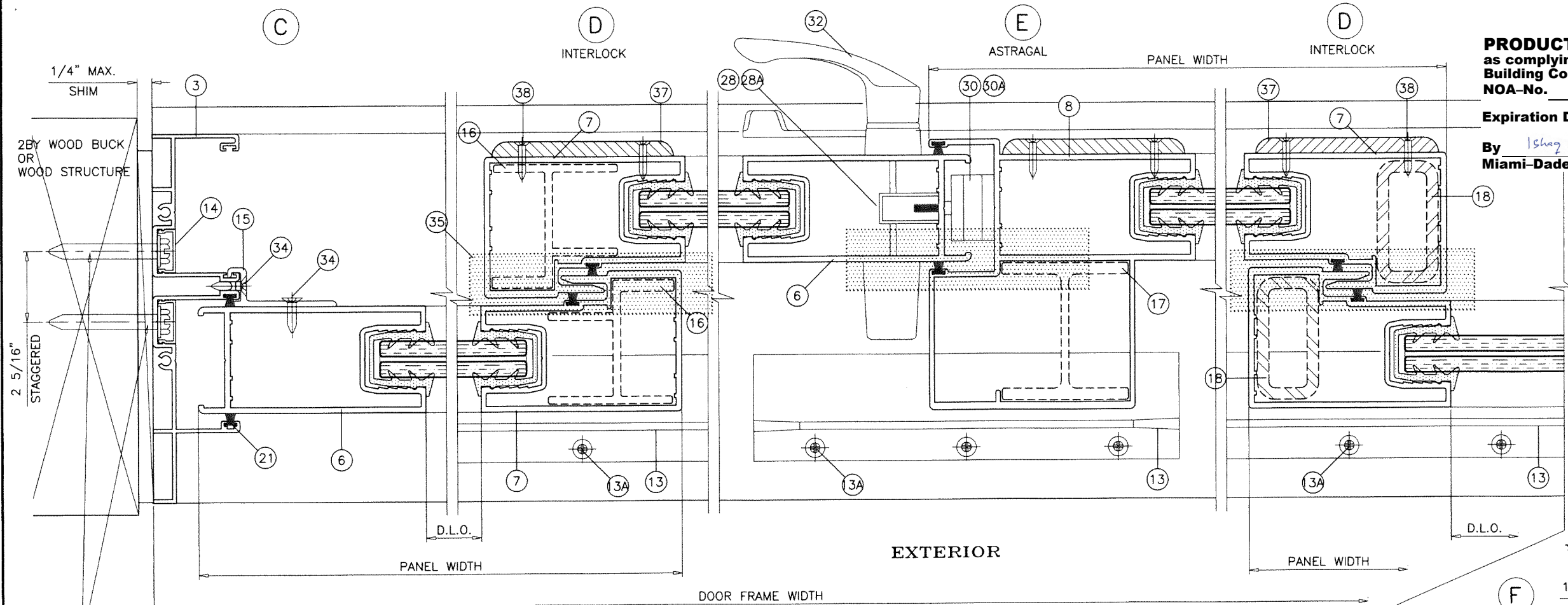
  

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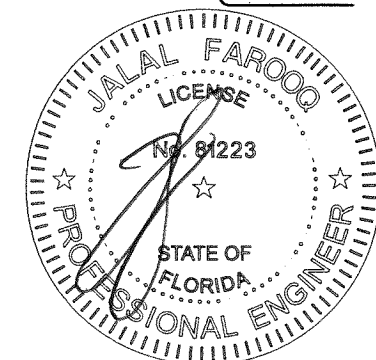
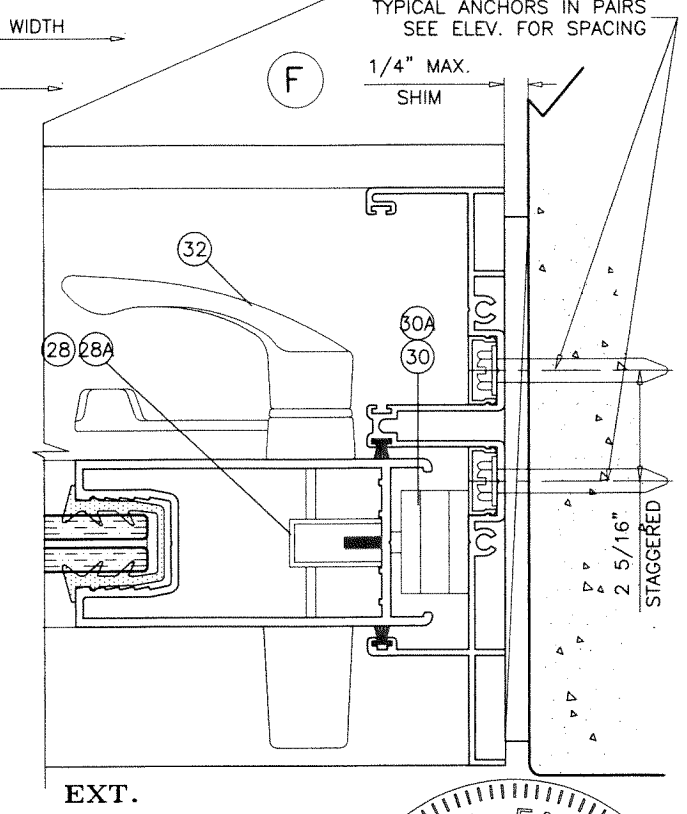
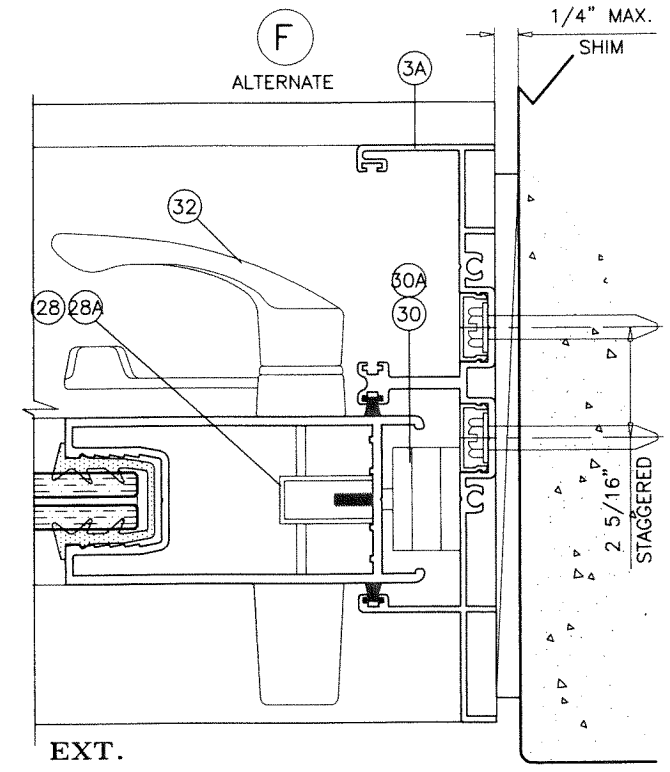
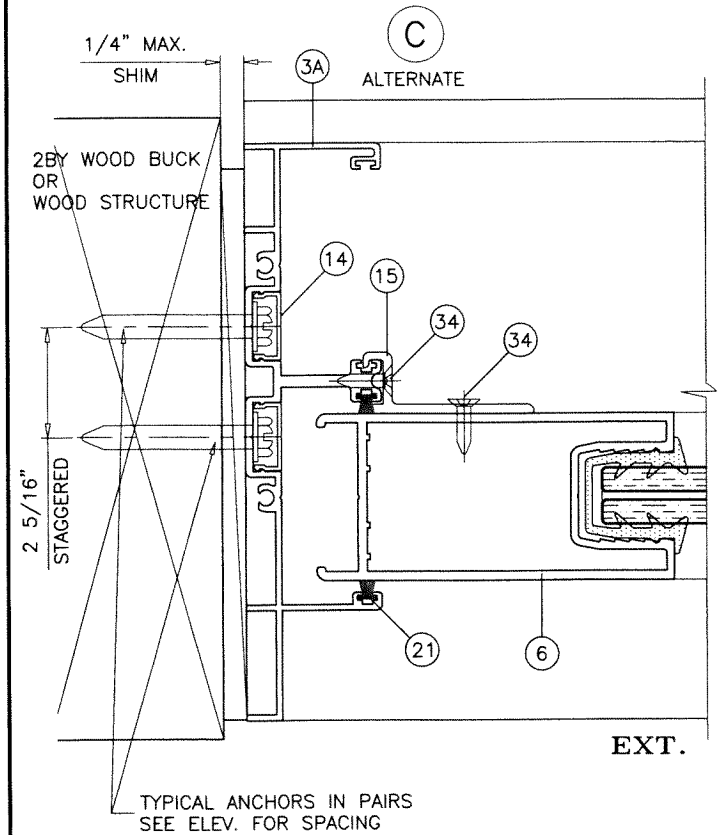
drawing no.	W12-33
sheet	7 of 12

COMP-ANL\W12-33ES



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 By *Ishaq I. Chank*  
 Miami-Dade Product Control

ALUMINUM AND STEEL REINFORCING AT INTERLOCK AND ASTRAGAL STILES  
 SHOWN FOR ILLUSTRATION ONLY.  
 USE AS SHOWN ON SHEETS 3 THRU 4.  
 SEE CHARTS FOR REINFORCING OPTIONS LOAD CAPACITY, INCLUDING GLASS OPTIONS.  
 SEE ELEVATION FOR ANCHOR SPACING AND SHEET 5 & 5.1 FOR ANCHOR CAPACITY.



JUL 17 2023

**AL-FAROOQ CORPORATION**  
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COMP-ANL\W12-33ES

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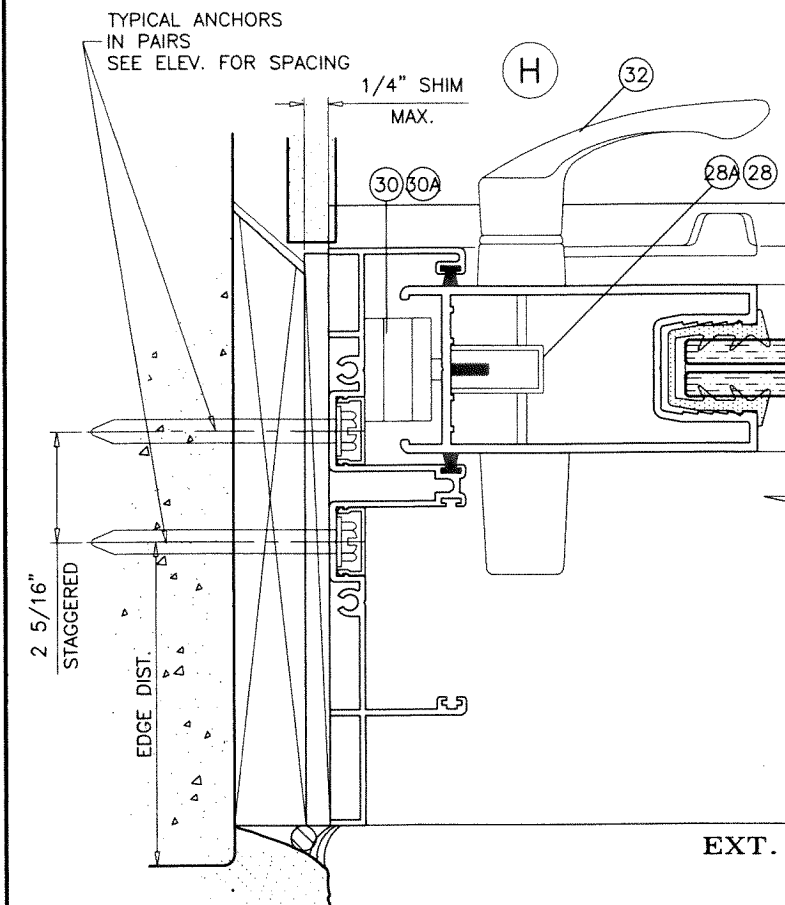
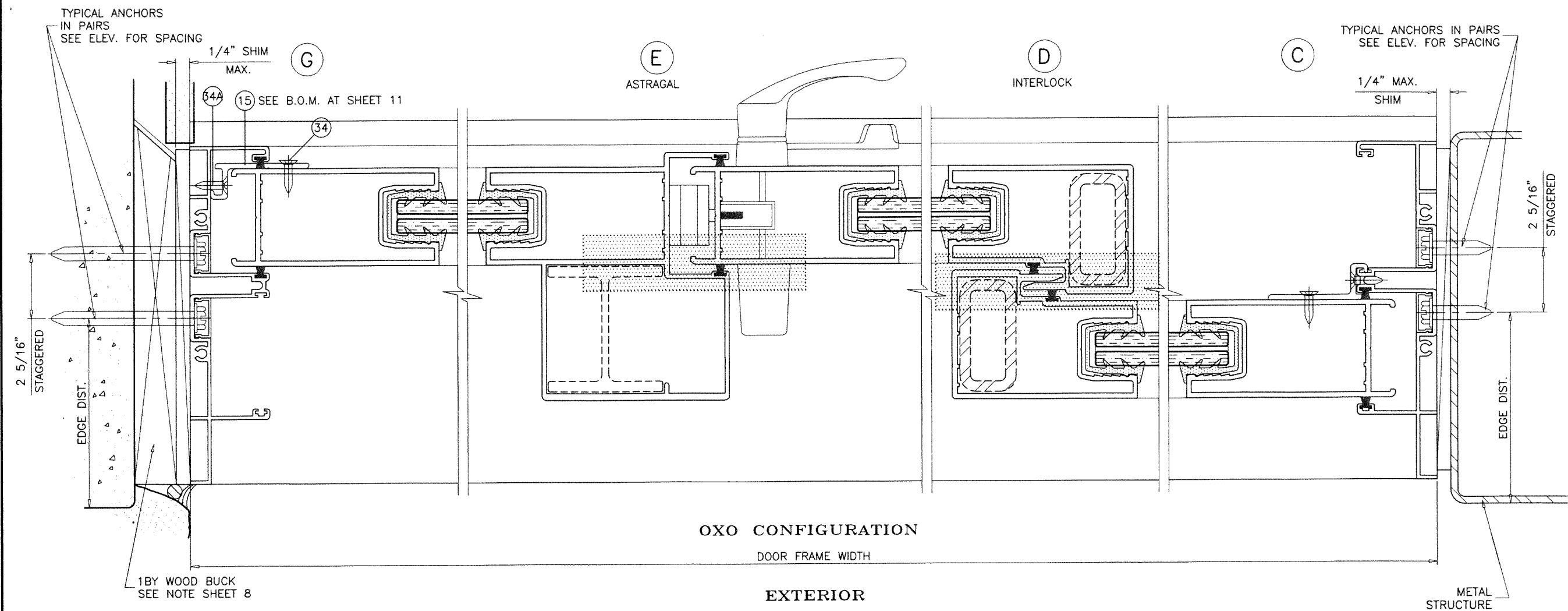
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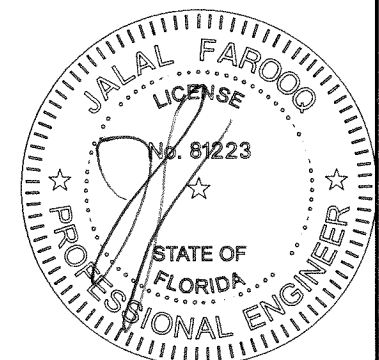
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**W12-33**  
 sheet 8 of 12



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**af c**  
**AL-FAROOQ CORPORATION**  
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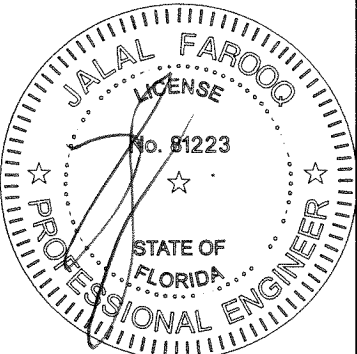
drawing no.	W12-33
sheet	9 of 12

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES6001	1	FRAME HEAD	6005-T5	-
2	ES6023	1	FRAME SILL - 3-1/2" HIGH	6005-T5	-
3	ES6003	2	FRAME JAMB	6063-T6	-
3A	ES6030	2	ALTERNATE FRAME JAMB	6063-T6	-
4	ES-6000-040	2/ PANEL	TOP RAIL	6063-T6	-
5	ES-6000-041	2/ PANEL	BOTTOM RAIL	6063-T6	-
6	ES-6000-042	AS REQD.	LOCK STILE	6063-T6	-
7	ES-6000-043	AS REQD.	INTERLOCK	6063-T6	-
8	ES-6000-044	AS REQD.	FEMALE ASTRAGAL	6063-T6	-
10	27-564	4/ PANEL	GLAZING GASKET	SILICONE	DUROMETER 65±5 SHORE A, EXTRUSIONS S.A.
11	ES6016	4/ PANEL	PANEL GUIDE (TOP ONLY)	CELCON	LOCATED AT PANEL ENDS
12	ES6015	2/ PANEL	FIXED PANEL BOTTOM GUIDE	6063-T6	SECURE W/ (2) #8 X 3/4" FH SMS
13	ES6010	2/ PANEL	RETAINER CLIP, 8" LONG AT HEAD, 7" LONG AT SILL	6005-T5	AT MTG. RAIL HEAD & SILL ENDS
13A	#8 X 3/4"	3/ CLIP	RETAINER CLIP FASTENERS	ST. STEEL	FH SMS
14	ES6011	2/ JAMB	JAMB SCREW COVER	6063-T5	OPTIONAL
15	ES6014	3/ FIX. PANEL	FIXED PANEL CLIP, 4" LONG, AT 53" O.C.	6063-T6	AT 7" FROM EACH END AND AT MIDSPAN
16	ES6012	AS REQD.	INTERLOCK STIFFENER (LENGTH = PANEL HT. - 2-3/8")	6063-T6	-
17	ES6013	AS REQD.	ASTRAGAL STIFFENER (LENGTH = PANEL HT. - 2-3/8")	6063-T6	-
18	1" X 2" X 3/16"	AS REQD.	STEEL TUBE REINFORCING (LENGTH = PANEL HT. - 2-3/8")	A36 STEEL	TO BE PAINTED
21	W222521K	AS REQD.	STILE & JAMB W'STRIPPING	-	ULTRAFAB
22	W223221K	AS REQD.	TOP RAIL PILE W'STRIPPING	-	ULTRAFAB
23	ES6027	AS REQD.	BOTTOM RAIL W'STRIPPING	EPDM	DUROMETER 75±4 SHORE A
24	#10 X 1-1/2" PH SMS	8/ PANEL	PANEL ASSY SCREWS	-	-
25	#10 X 1" PH SMS	2/ CORNER	FRAME ASSY SCREWS	-	-
26	GTT-354/460-A	2/ MOV. PANEL	TANDEM ACETAL WHEEL IN METALLIC HOUSING	-	PABOSE
27	1/4-20 X 1-3/4" PH MS	1/ ROLLER	ROLLER INST. SCREWS	-	-
28	2300-10SS	1/ MOV. PANEL	STD. MORTISE LOCK, AT 48-1/2" FROM BOTTOM	ST. STEEL	-
28A	2468T-00	1/ MOV. PANEL	MULTI POINT MORTISE LOCK, AT 48-1/2" FROM BOTTOM	ST. STEEL	WITH 2448 TRIM PLATE
29	#10-24 X 3/8" PH MS	2/ LOCK	LOCK INSTALLATION SCREW	ST. STEEL	-
30	ES6017-1	1/ LOCK	LOCK KEEPER (STD. LOCK)	PLATED STEEL	AT 48-1/2" FROM BOTTOM
30A	2447-00	1/ LOCK	LOCK KEEPER (MULTI POINT LOCK)	ST. STEEL	AT 48-1/2" FROM BOTTOM
31	#10 X 5/8" PH SMS B	2/ LOCK	LOCK KEEPER MOUNT. SCREW (STD. LOCK)	ST. STEEL	-
31A	#8 X 3/4" FH SMS	4/ LOCK	LOCK KEEPER MOUNT. SCREW (MULTI POINT LOCK)	ST. STEEL	-
32	#623Z	1/ LOCK	INTERIOR AND EXTERIOR PULL	-	(3) #6-32 X 1/2" FH MS, ST. STEEL
34	#12 X 3/4"	2/ CLIP	FIXED PANEL CLIP FASTENER	ST. STEEL	FH SMS
35	-	AS REQD.	1"X4" LONG SELF ADHESIVE PILE PAD	WOOLPILE	AT HEAD AND SILL
37	ES6019	AS REQD.	RESTRAINING PLATE	NYLON	AT TOP & BOTT. INTERLOCKS & ASTRAGAL
38	#8 X 3/4" FH SMS	2/ PLATE	RESTRAINING PLATE FASTENER	-	-

LATCHES:

ITEMS 28A AND 30A USED FOR DOORS WITH STEEL REINFORCING ONLY  
ITEMS 28 AND 30 USED FOR ALL OTHER DOORS.

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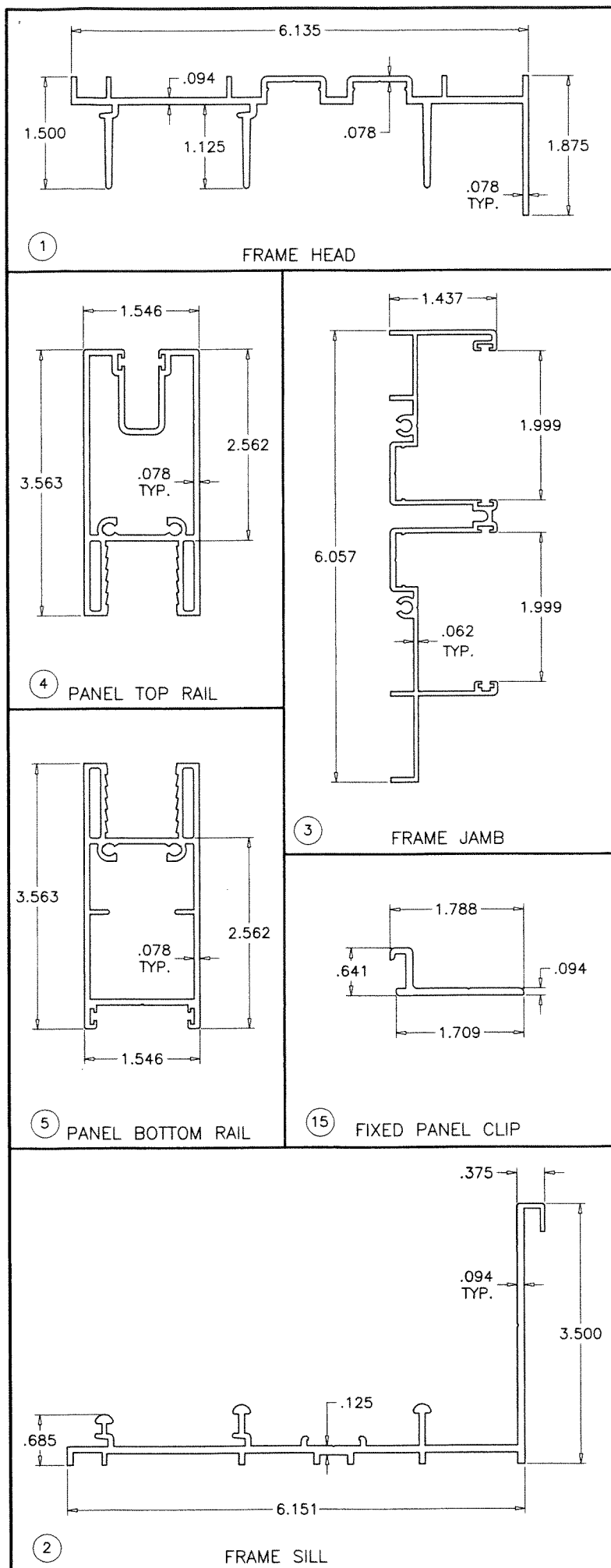
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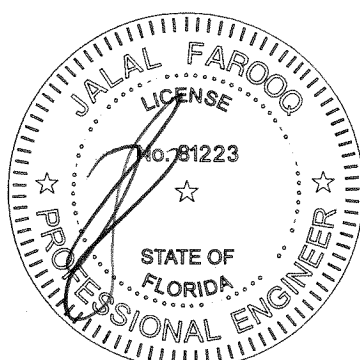
**W12-33**

sheet 10 of 12



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Miami-Dade Product Control

JUL 17 2023



BASE POLYMER = EPDM RUBBER  
DENSITY = 10.26 Lbs/Gal  
HARDNESS = 70±5  
TENSILE STRENGTH = 905 PSI  
ELONGATION AT BREAK = 273%  
TEAR STRENGTH = 1.343 Kip/ft  
BRITTLENESS TEMPERATURE = -40° F  
COMPRESSION SET = 27% (22h@158°F)

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

COMP-ANL\W12-33ES

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SERIES-6100 ALUM SLIDING GLASS DOOR (S.M.I.)

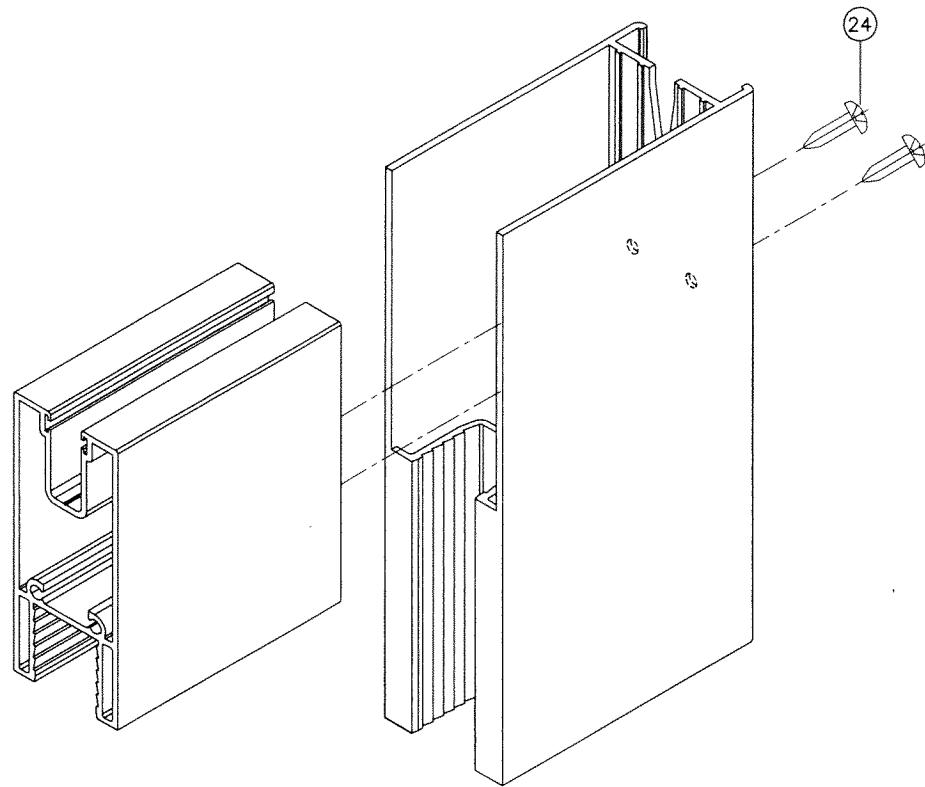
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

no	date	description
E	12.23.15	NO CHANGE THIS SHEET
F	01.15.18	GENERAL REVISION
G	03.09.18	REV. PER RER COMMENTS
H	06.22.21	UPDATED TO 2020 FBC
I	07.14.23	NO CHANGE THIS SHEET

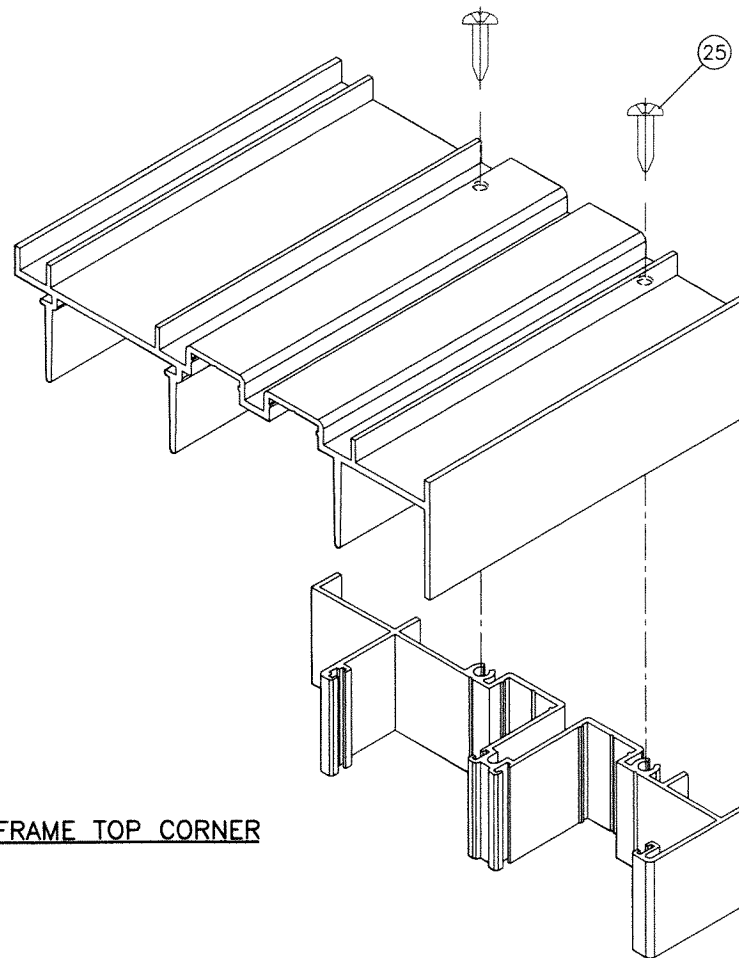
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dr. by: TARIQ  
chk. by:

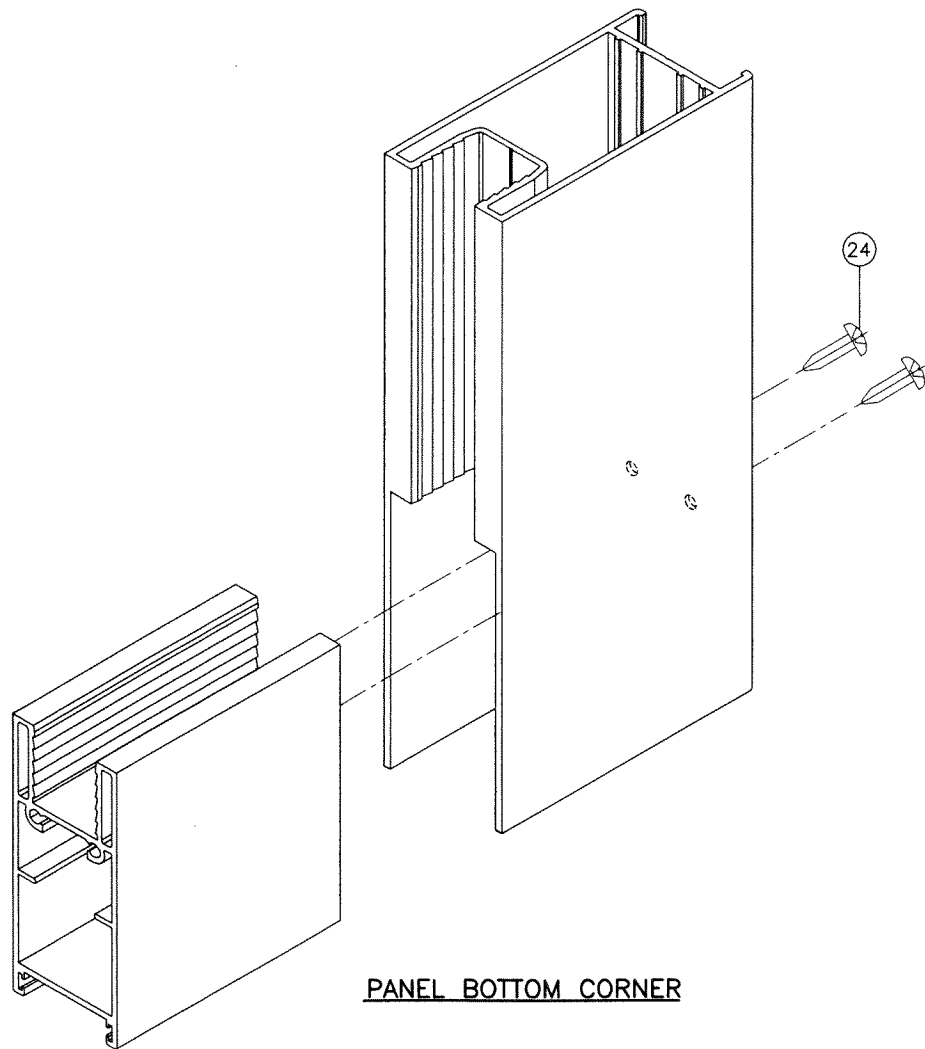
drawing no.  
**W12-33**  
sheet 11 of 12



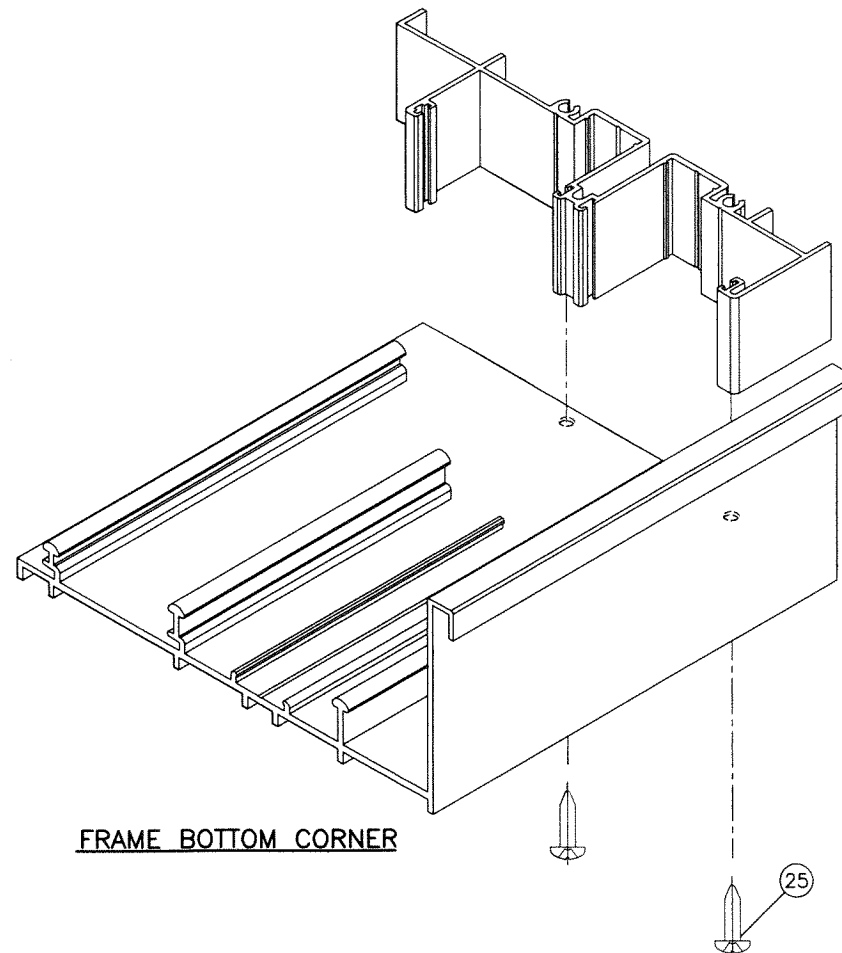
PANEL TOP CORNER



FRAME TOP CORNER



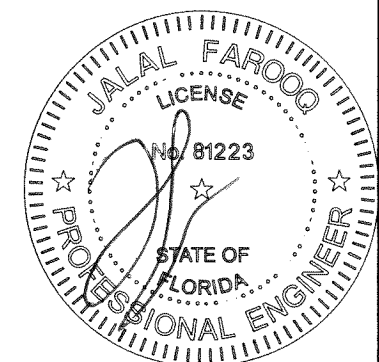
PANEL BOTTOM CORNER



FRAME BOTTOM CORNER

**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 NOA-No. 23-0724.14  
 Expiration Date 09/05/2024  
 By Ishag I. Chande  
 Miami-Dade Product Control

JUL 17 2023



**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)  
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 sheet 12 of 12