

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

NOTICE OF ACCEPTANCE (NOA)

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

PRODUCT CONTROL SECTION

www.miamidade.gov/economy

MIAMI-DADE COUNTY

E.S. Windows, LLC 10653 NE 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 where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "ES-6500 Ultra" Aluminum Sliding Glass Doors w/ reinforcements-LMI

APPROVAL DOCUMENT: Drawing No. **W14-13 Rev F**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on NOV 10, 2020, 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 Missile Impact Resistant Limitations:

- 1. See Design Pressures (DP) VS reinforcements & glazing options charts in sheet <u>1</u>. See Head anchors capacity charts in sheet <u>4</u> with sill anchor note, secured jambs (Elev. Sheet <u>2</u>). Also see unsecured <u>free</u> jambs (Elev. Sheet <u>3</u>) anchor capacity charts Head/sill, free jamb anchor in sheet <u>4</u> and free jamb capacity in sheet <u>11</u> w/wo jamb reinforcements. Lower DP shall control from the charts for the entire system.
- 2. (4) Panels or less configured options (see sheet 5), not to exceed tested frame/panel area and tested panel height.
- 3. See sheet <u>5</u>, for fixed panel arrangement using alum clip item M-29 (top/bottom), threshold cover item #E-11 and head cover item #E-18.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Barranquilla, Columbia 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 # 18-0426.28 consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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

MIAMI-DADE COUNTY
APPROVED

Ishaq I. Chands

NOA No. 20-1118.11 Expiration Date: September 19, 2023 Approval Date: February 18, 2021

Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted in previous files

A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No. **W14-13**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated APR 09, 2015, 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
 - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 7) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

Along with marked-up drawings and installation diagram of OXXO aluminum SGD, prepared by Fenestration Testing Laboratories, Test Report No. FTL-7651 (FTL13074), dated 02/04/14, signed and sealed by Idalmis Ortega, P.E.

- 2. Additional Referenced 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 OXXX aluminum sliding glass door, prepared by, prepared by Fenestration Testing Laboratories, Test Report No. FTL-7130 (FTL 12093), dated 04/05/13 and FTL-6990 (FTL 12051) dated 08/06/12, both signed and sealed by Marlin D. Brinson, P.E.

C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with FBC-2014, prepared by Al Farooq Corporation, dated JUL 15, 2014, NOV 12, 2014, 01/16/15 and last revised on 04/09/15, signed and sealed by Javad Ahmad, P.E.
- 2. Engineering structural analysis of reinforced rails wider than 48", prepared by Al Farooq Corporation, dated NOV 12, 2012, signed and sealed by Javad Ahmad, P.E.
- 3. Glazing complies w/ ASTME-1300-02, -04 & -09.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

Notice of Acceptance No. 11-0624.02 issued to E.I. DuPont De Nemours & Co., Inc. for their "DuPont Sentryglas ® Interlayer", expiring on 01/14/17.

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-1118.11
Expiration Date: September 19, 2023

Approval Date: February 18, 2021

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

- 1. Statement letter of conformance to FBC 2014(5th edition) and letter of no financial interest, prepared by Al Farooq Corporation, dated 07/15/14 and 04/09/15, signed and sealed by Javad Ahmad, P.E.
- 2. Lab compliance as part of the above referenced test report.
- 3. Statement letter of clarification via e-mail dated 01/20/15 for test report FTL-7651, issued by Fenestration testing lab, signed by Ms. Iliana Sanchez.
- 4. ES Windows Distribution agreement -Energia Solar, S.A. and ES Windows, LLC, dated 09/12/13, signed by Ms. Adriana Montoya, Manager and Andres Chamorro, General manager respectively on behalf of the companies.

G. OTHER

- 1. This NOA revises NOA # 14-0527.03, expiring SEP 19, 2018.
- 2. Test proposals prepared by Al-Farooq Corp. and approved by RER dated 04/11/13 & 01/21/15.
- 3. Technical cut sheet data for EPDM, rubber compound by Solucionesencaucho, Columbia.

2. Evidence submitted under previous approval.

A. DRAWINGS

1. Drawing No. **W14-13 Rev F**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on NOV 10, 2020, signed and sealed by Jalal Farooq, P.E.

B. Test

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2017 (6th Edition), prepared by Al Farooq Corporation, dated APR 23, 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. Notice of Acceptance No. **17-0808.02** issued to Kuraray America, Inc. (Former E.I. DuPont De Nemours) for the "Sentry Glass ® clear & white interlayer", expiring on 07/04/23.

F. STATEMENTS

1. Statement letter of conformance to FBC 2017 (6th Edition) and "No financial interest" dated 04/23/18, prepared by the manufacturer, signed and sealed by Thomas J. Sotos, P.E.

G. OTHER

1. This NOA revises & renews NOA # 15-0413.08, expiring 06/05/23.

Ishaq I. Chands

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-1118.11
Expiration Date: September 19, 2023

Approval Date: February 18, 2021

E.S. Windows, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. New Evidence submitted

A. DRAWINGS

1. Drawing No. **W14-13 Rev F**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on NOV 10, 2020, signed and sealed by Jalal Farooq, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC** 7th **Edition** (2020), dated 11/10/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **17-0808.02** issued to Kuraray America, Inc. (former E.I. DuPont DE Nemours & Co., Inc.) for the "Sentry Glass ® Interlayer", expiring on 07/4/23.

D. STATEMENTS

- 1. Statement letter of conformance, complying with **FBC** 7th **Edition (2020)**, dated 11/10/20, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 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.

G. OTHER

1. This NOA revises NOA No. 18-0426.28, expiring 09/19/23.

Ishaq I. Chands

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 20-1118.11
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DESIGN LOAD CAPACITY - PSF (APPLICABLE TO SECURED & FREE JAMBS)							
· · · · · ·	GLASS TYPES 'A' & 'A1'						
			ERLOCKS WITH				
AVERAGE	DOOR FRAME	TOP & BO WITHOUT		TOP & BOTTOM RAIL WITH REINF.			
PANEL WIDTH INCHES	HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)		
36		120.0	125.0	120.0	125.0		
42		120.0	125.0	120.0	125.0		
48	400"	120.0	125.0	120.0	125.0		
50	126"	115.0	120.0	120.0	125.0		
52		111.0	115.0	120.0	125.0		
54		106.0	111.0	120.0	125.0		
36		120.0	125.0	120.0	125.0		
42		120.0	125.0	120.0	125.0		
48	132"	120.0	125.0	120.0	125.0		
50		115.0	120.0	120.0	125.0		
52		111.0	115.0	120.0	125.0		
36		120.0	125.0	120.0	125.0		
42	470"	120.0	125.0	120.0	125.0		
48	138"	120.0	125.0	120.0	125.0		
50		115.0	120.0	120.0	125.0		
36		120.0	125.0	120.0	125.0		
42	144"	120.0	125.0	120.0	125.0		
48		120.0	125.0	120.0	125.0		

CHART ABOVE TO BE USED AS PER INSTRUCTIONS

TOP & BOTTOM RAIL TOP & BOTTOM RAIL WITHOUT REINF. WITH REINF (DETAIL A&B SHEET 7) (DETAIL C&D SHEET 7) REINFORCED INTERLOCKS REINFORCED INTERLOCKS ALL CONDITIONS (DETAIL F) ALL CONDITIONS (DETAIL F)

SHOWN ON SHEETS 2 & 3.

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

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

SERIES ES-6500 ULTRA ALUMINUM SLIDING GLASS DOOR

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.

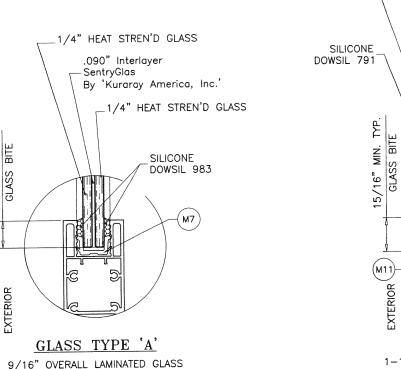
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

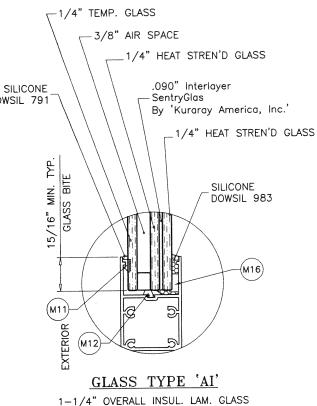
MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2017/2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

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)'.





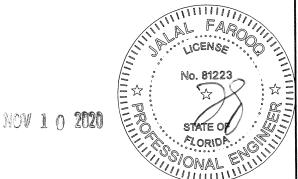
GLAZING OPTIONS

PRODUCT REVISED as complying with the Florida Building Code NOA-No. 20-1118.11

Expiration Date 09/19/2023

Ishag 1. Chands Miami-Dade Product Control 3/8" 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

> LAMINATED GLASS INSUL. LAM. GLASS



유. drawing no. W14 - 13

sheet 1 of 13

(C.A.N. 3538) (305) 262-6978

AL-FAROOQ CORPOR/ ENGINEERS & PRODUCT DEVELOPN 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A. TEL. (305) 264-8100 FAX. (305)

CORPORATION

(L.M.I.)

DOOR

S.G.

ULTRA ALUM

SERIES

LC

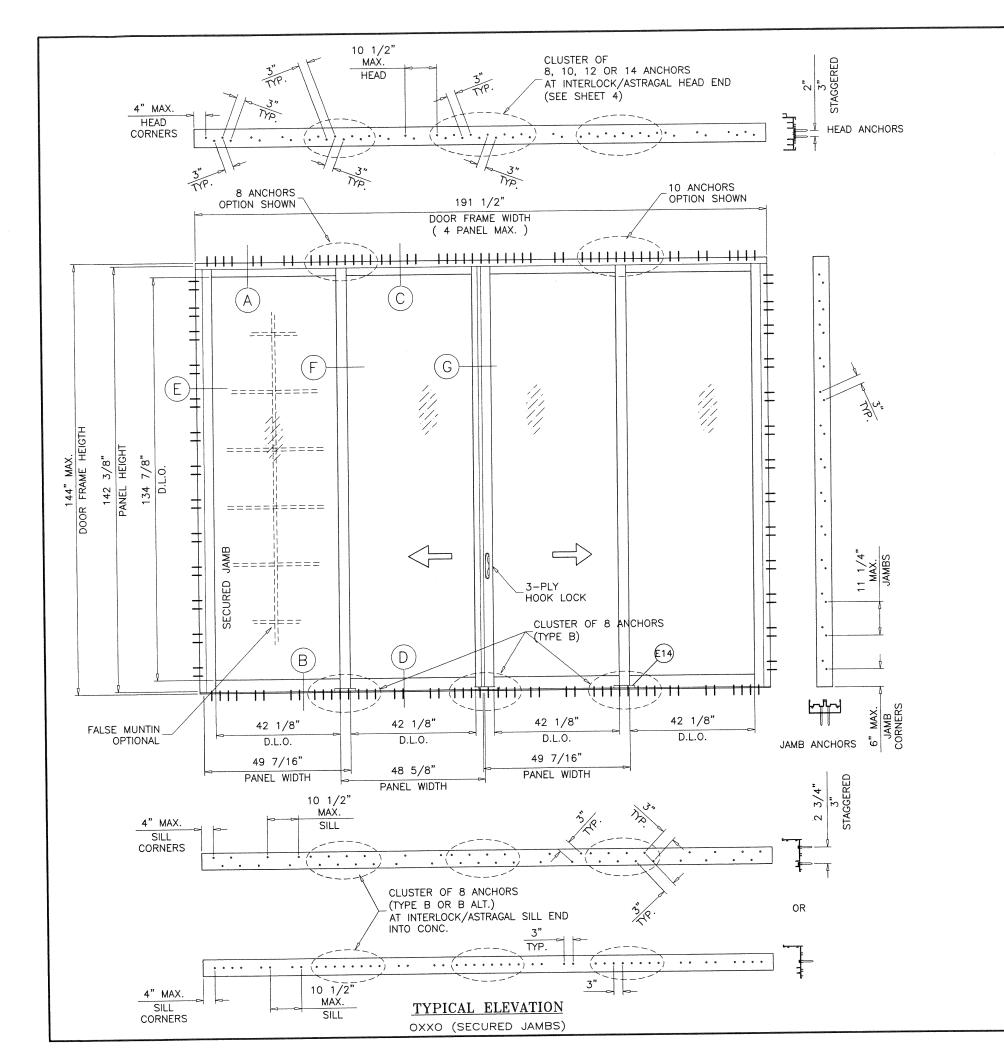
WINDOWS, LLC N.W. 49 STREET FL. 33142 305) 638–5151 FAX

E.S. 3550 MIAMI, TEL. (30)

MI, FL. (305) 63

LARGE MISSILE IMPACT

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



(C.A.N. 3538) FAX. (305) 262-6978

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

WINDOWS, LLC N.W. 49 STREET I, FL. 33142 305) 638–5151 FAX.

(L.M.I.)

DOOR

SERIES ES-6500 ULTRA ALUM S.G.

E.S. WII 3550 N.W MIAMI, FL TEL. (305)

drawing W14 - 13

sheet 2 of 13

DAYLITE OPENINGS WIDTHS: FIXED STILE-INTERLOCK = NOM. PANEL WIDTH - 7.437" INTERLOCK-ASTRAGAL = NOM. PANEL WIDTH - 6.375" LOCK STILE-INTERLOCK = NOM. PANEL WIDTH - 7.187"

DAYLITE OPENING HEIGHT: PANEL HEIGHT - 7.375"

PANEL HEIGHT = DOOR FRAME HEIGHT - 1.625"

MAX. FRAME AREA OF S.G.D. SHALL NOT EXCEED FRAME AND PANEL AREA & HEIGHT OF TESTED UNIT PER FBC REQUIREMENTS.

PRODUCT REVISED as complying with the Florida Building Code NOA-No. 20-1118.11

Expiration Date 09/19/2023

Ishaq I. Chands Miami-Dade Product Control

INSTRUCTIONS:

USE CHARTS AS FOLLOWS FOR SECURED JAMB S.G.D.

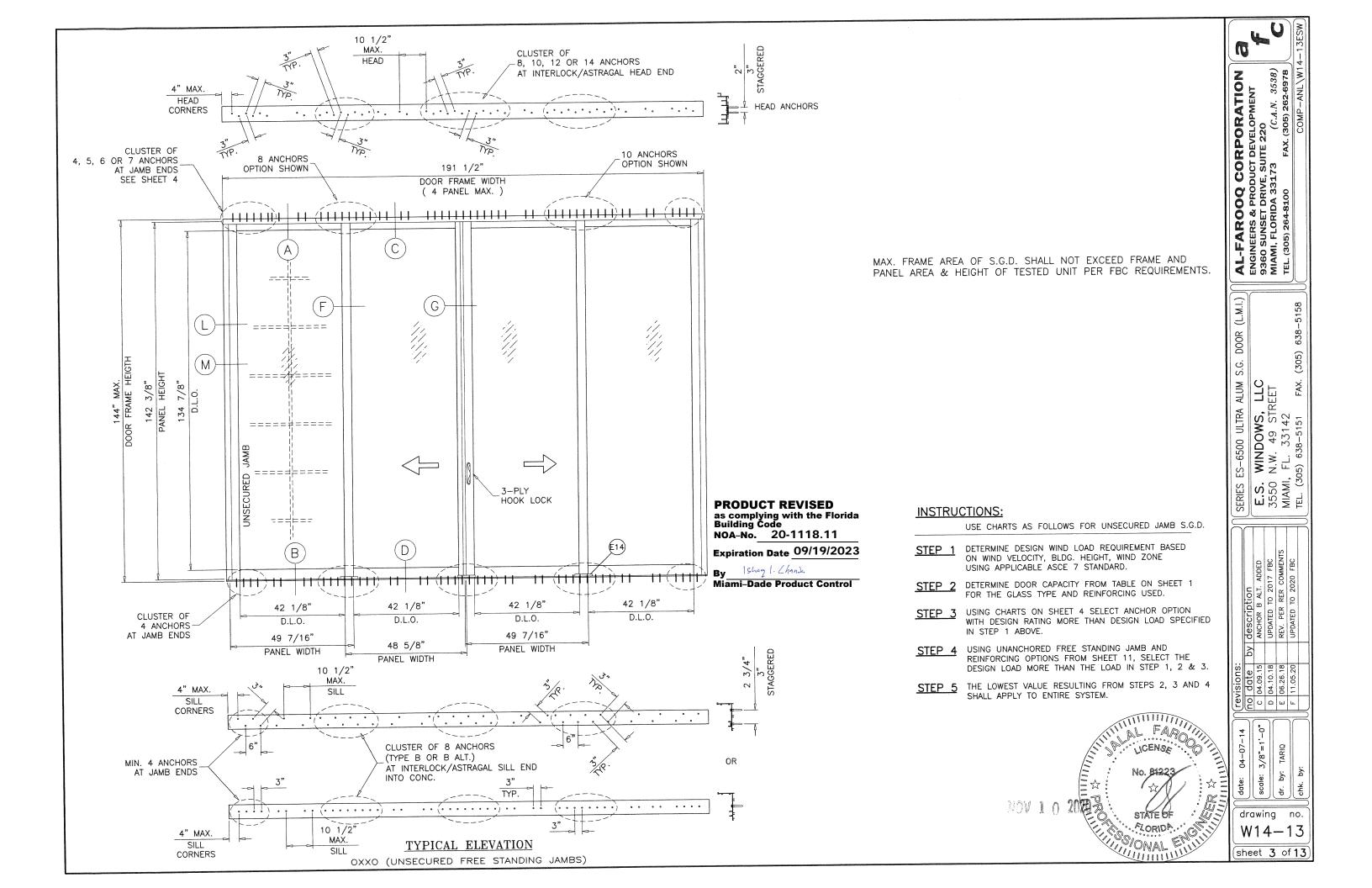
DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE STEP 1 USING APPLICABLE ASCE 7 STANDARD.

STEP 2 DETERMINE DOOR CAPACITY FROM TABLE ON SHEET 1 FOR THE GLASS TYPE AND REINFORCING USED.

USING CHARTS ON SHEET 4 SELECT HEAD ANCHOR OPTION, SILL AND JAMBS ANCHOR SHOWN IN THIS ELEVATION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN

THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

NOV 1 0 2020 ET ... FLORID:



				F	RAME HE	AD ANCH	OR CAPA	CITY - F	SF (APP	LICABLE 7	TO FREE	AND SEC	URED JA	MBS)				т	
								ANCH	IORS TYP	E 'A' &	'B'							ANCHO	
ANCHOF	R TYPE	1/4" MA	AX. SHIM		3/8	" MAX. S	HIM SPA	CE				1/2"	MAX. S	HIM SPAC				3/8" MA	
AVERAGE	DOOR FRAME		HORS AT		HORS AT		HORS AT	1	HORS AT		HORS AT	20	HORS AT ILE ENDS	12 ANCI MTG. ST	HORS AT ILE ENDS		HORS AT TLE ENDS	1	IORS AT ILE ENDS
PANEL WIDTH INCHES	HEIGHT INCHES	EXT. (+)		EXT. (+)		EXT. (+)		EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	120.0	121.0	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	103.7	103.7	120.0	124.5	120.0	125.0	120.0	125.0	120.0	125.0
48		120.0	125.0	113.1	113.1	120.0	125.0	120.0	125.0	90.8	90.8	108.9	108.9	120.0	125.0	120.0	125.0	120.0	125.0
50	126	120.0	125.0	108.6	108.6	120.0	125.0	120.0	125.0	87.1	87.1	104.6	104.6	120.0	122.0	120.0	125.0	120.0	125.0
52		120.0	125.0	104.4	104.4	120.0	125.0	120.0	125.0	83.8	83.8	100.5	100.5	117.3	117.3	120.0	125.0	120.0	125.0
54		120.0	125.0	100.5	100.5	120.0	120.6	120.0	125.0	80.7	80.7	96.8	96.8	112.9	112.9	120.0	125.0	120.0	125.0
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	115.5	115.5	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42		120.0	125.0	120.0	123.4	120.0	125.0	120.0	125.0	99.0	99.0	118.8	118.8	120.0	125.0	120.0	125.0	120.0	125.0
48	132	120.0	125.0	108.0	108.0	120.0	125.0	120.0	125.0	86.6	86.6	104.0	104.0	120.0	121.3	120.0	125.0	120.0	125.0
50		120.0	125.0	103.6	103.6	120.0	124.4	120.0	125.0	83.2	83.2	99.8	99.8	116.4	116.4	120.0	125.0	120.0	125.0
52		120.0	125.0	99.7	99.7	119.6	119.6	120.0	125.0	80.0	80.0	96.0	96.0	112.0	112.0	120.0	125.0	120.0	125.0 125.0
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	110.5	110.5	120.0	125.0	120.0	125.0	120.0	125.0	120.0	ļ
42	. 70	120.0	125.0	118.0	118.0	120.0	125.0	120.0	125.0	94.7	94.7	113.6	113.6	120.0	125.0	120.0	125.0	120.0	125.0
48	138	120.0	125.0	103.3	103.3	120.0	123.9	120.0	125.0	82.9	82.9	99.4	99.4	116.0	116.0	120.0	125.0	120.0	125.0
50		120.0	125.0	99.1	99.1	119.0	119.0	120.0	125.0	79.6	79.6	95.5	95.5	111.4	111.4	120.0	125.0	120.0	125.0
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	105.9	105.9	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42	144	120.0	125.0	113.1	113.1	120.0	125.0	120.0	125.0	90.8	90.8	108.9	108.9	120.0	125.0	120.0	125.0	120.0	125.0
48		120.0	125.0	99.0	99.0	118.8	118.8	120.0	125.0	79.4	79.4	95.3	95.3	111.2	111.2	120.0	125.0	120.0	HORS AT
			CHORS AT STANDING		HORS AT STANDING	FREE S	HORS AT	FREE	HORS AT	FREE	CHORS AT STANDING R FNDS	FREE S	HORS AT STANDING R ENDS	FREE S	HORS AT TANDING ENDS	FREE	HORS AT STANDING B ENDS	FREE S	HURS AT STANDING B ENDS

THESE TABLES APPLY TO ANCHORS AT FRAME HEAD

JAMB ENDS

JAMB ENDS

JAMB ENDS

NOTE: SILL ANCHORS IN CLUSTER OF 8 (INCLUSIVE TO ALL SHIM SPACES) AT INTERLOCK/ASTRAGAL ENDS, AND $\underline{4}$ AT FREE STANDING JAMB ENDS (ALL SIZES) MEET ALL LOAD REQUIREMENTS AND DO NOT REQUIRE SEPARATE TABLES

SEE ELEVATION IN SHEET 2, FOR DOORS WITH SECURED JAMBS WITH ANCHOR SPACING FOR ALL SIZES.

JAMB ENDS

SEE ELEVATION IN SHEET 3, FOR DOORS WITH UNSECURED JAMBS (FREE JAMBS). SEE SHEET 11 FOR JAMB DESIGN CAPACITY WITH REINFORCING USED.

SEE CHARTS IN SHEET 1, FOR DESIGN LOAD CAPACITY FOR DESIRED GLASS SIZE AND REINFORCING USED AT INTERLOCKS AND RAILS (APPLICABLE TO BOOTH SECURED AND UNSECURED (FREE) JAMBS)

LOWER DESIGN PRESSURE FROM DESIGN LOAD CHARTS (SHEET 1), HEAD ANCHOR CHARTS AND SILL ANCHOR NOTE SHEET 4 OR FREE STANDING JAMBS (SHEET 11), CAPACITY CHART SHALL APPLY TO ENTIRE SYSTEM.

PRODUCT REVISED as complying with the Florida Building Code NOA-No. 20-1118.11

Expiration Date 09/19/2023

Ishaq I. Chands Miami-Dade Product Control

JAMB ENDS

JAMB ENDS

sheet 4 of 13

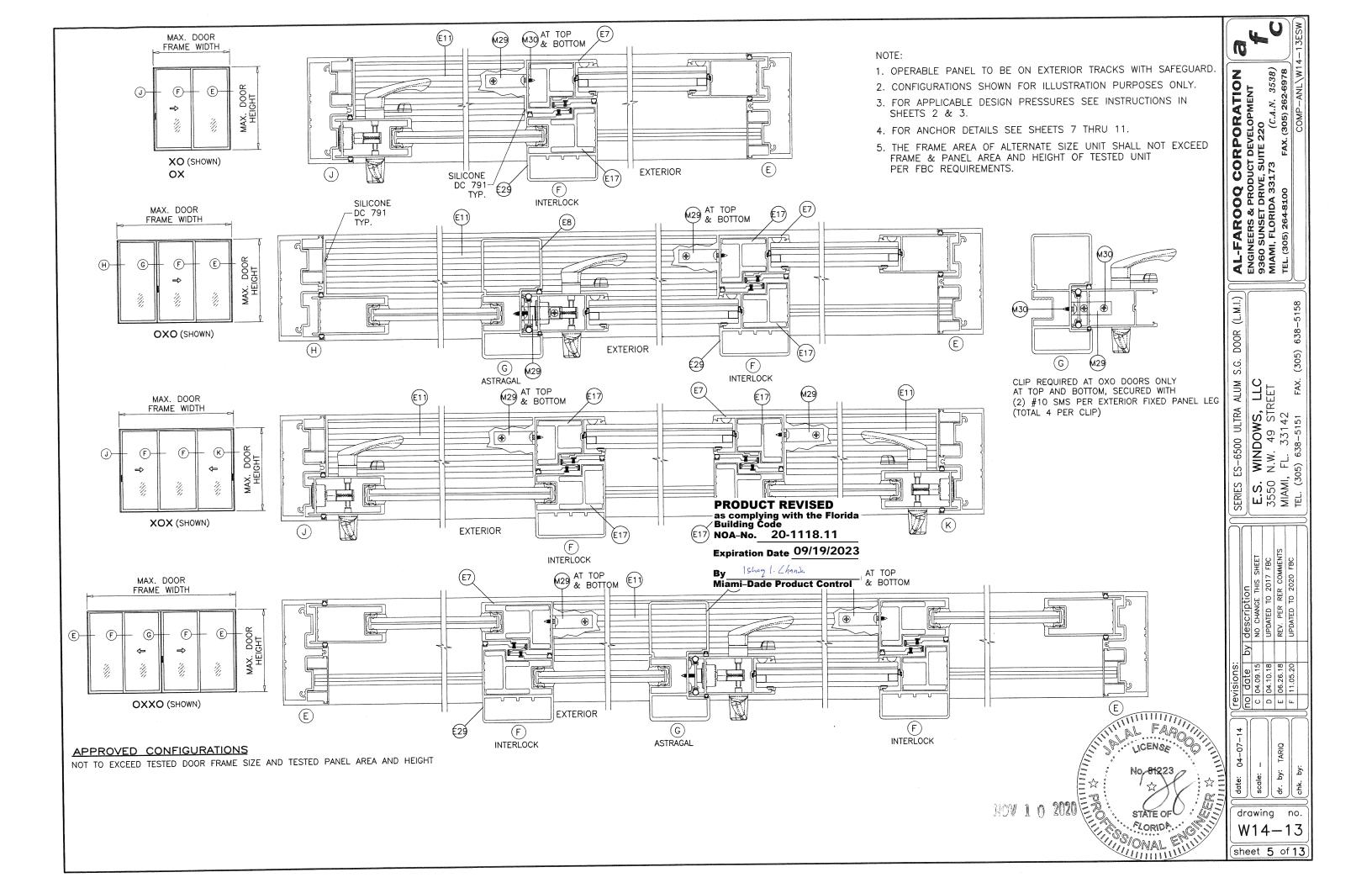
AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A.N. 3538) TEL. (305) 264-8100 FAX. (305) 262-6978 DOOR SERIES ES-6500 ULTRA ALUM S.G. E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638–5151 FAX. (

drawing

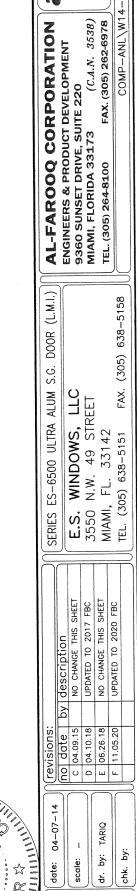
W14 - 13

no.

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TEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-6500-001	1	STANDARD FRAME HEAD	6063-T6	
E2	ES-6500-002	1	FRAME SILL	6063-T6	
E4	ES-6500-004	2	FRAME JAMB	6063-T6	
E5	ES-6500-005	2/ PANEL	TOP AND BOTTOM RAIL (INSUL. LAM. GLASS)	6063-T6	
E5A	ES-6500-024	,	TOP AND BOTTOM RAIL (LAM. GLASS)	6063-T6	
E6	ES-6500-006	,	LOCK STILE (INSUL. LAM. GLASS)	6063-T6	
E6A	ES-6500-023	1/ PANEL	LOCK STILE (LAM. GLASS)	6063-T6	
E7	ES-6500-007	1/ PANEL	INNER PANEL INTERLOCK STILE (INSUL. LAM. GLASS)	6005-T5	
E7A	ES-6500-025	1/ PANEL	INNER PANEL INTERLOCK STILE (LAM. GLASS)	6005-T5	
E8	ES-6500-025	1	ASTRAGAL STILE (INSUL. LAM. GLASS)	6005-T6	
E8A	ES-6500-031	1	ASTRAGAL STILE (LAM. GLASS)	6005-T5	
E9	ES-6500-009	1	ASTRAGAL ADAPTER	6063-T6	
E10	ES-6500-010	1	ADD-ON TRACK	6063-T6	-
	ES-6500-011	1	THRESHOLD (LENGTH = OPNG. WIDTH BETWEEN FIXED PANELS)	6063-T6	_
E11	ES-6500-012	2	SNAP-IN JAMB COVER (OPTIONAL)	6063-T5	
E12		1	TRACK INSERT	6063-T6	_
E13	ES-6500-013	-	RETAINER CLIP, 4" LONG	6063-T6	-
E14	ES-6500-014A	AS REQD.	SCREEN RAIL	6063-T6	-
E15	ES-6500-015		INTERLOCK REINFORCEMENT, FULL PANEL LENGTH	6005-T5	-
E17	ES-6500-017	AS REQD.	HEAD COVER FULL LENGTH	6063-T5	_
E18	ES-6500-018	AS REQD.	INNER INTERLOCK STILE (LAM. GLASS)	6063-T5	_
E19	_	AS REQD.		6063-T6	
E22	ES-6011	AS REQD.	SCREW COVER (OPTIONAL)	6005-T5	-
E29	ES-6500-028	1/ PANEL	OUTER PANEL INTERLOCK STILE (INSUL. LAM. GLASS)	6005-T5	
E29A	ES-6500-030	1/ PANEL	OUTER PANEL INTERLOCK STILE (LAM. GLASS)	6063-T5	
E30	ES-6500-027	1	SILL SCREW COVER	6005-T5	
E32	ES-6500-033	2	FIXED PANEL BOTTOM GUIDE	6063-T6	
E33	-	AS REQD.	FRAME JAMB ALUMINUM REINFORCING	STEEL	ASTM A36 GRADE B
E34	_	AS REQD.	FRAME JAMB STEEL REINFORCING	ST. STEEL	P.H. SMS
М1	#12 X 1 1/2"	3/ CORNER	FRAME ASSEMBLY SCREWS	ST. STEEL	P.H. SMS
M2	#10 X 1 1/2"	4/ CORNER	PANEL ASSEMBLY SCREWS		F.H. SMS
м3	#8 X 1"	2/ LOCK	LOCK FASTENERS	ST. STEEL	P.H. SMS
M4	#8 X 3/4"	2/ HANDLE	HANDLE SET FASTENERS	ST. STEEL	
М6	#10 X 1/2"	2/ CLIP	RETAINER CLIP FASTENERS	ST. STEEL	F.H. SMS as complying with the Florid Building Code NOA-No. 20-1118 11
M7	ES-6500-G01A	4/ PANEL	GLAZING GASKET (LAM. GLASS)		THERMOPLASTIC ELA NOA-No. 20-1118.11
м8	E-214	AS REQD.	ASTRAGAL ADAPTER W'STRIPPING	VINYL	DUROMETER 80±5 Expiration Date 09/19/202
M10	ES-8011	AS REQD.	SPACER GASKET	EPDM	
M11	27-445	AS REQD.	GLAZING WEDGE GASKET	EPDM	DUROMETER 75±5 By Shaq 1. Chank
M12	27-448	AS REQD.	BOTTOM RAIL GLAZING GASKET	EPDM	DUROMETER 68±5 Miami-Dade Product Control
M13	27-449	AS REQD.	GLAZING GASKET AT TOP RAIL AND STILES	EPDM	DUROMETER 75±5 SHORE A, SOLUCIONESENCAUCHO
M16	1/4" X 1/2"	AS REQD.	GLAZING TAPE (INSUL. LAM. GLASS)	FOAM	_
M17	Q300T190	AS REQD.	FABRIC COATED FOAM WEATHERSEAL	POLYETHYLENE	Q-LON
M18	Q200T190	AS REQD.	WEATHERSEAL EXTERIOR	POLYETHYLENE	Q-LON
M19	Q150T270	AS REQD.	INTERLOCK BUMPER	POLYETHYLENE	Q-LON
M19 M20	W223012K	AS REQD.	PILE W'STRIPPING	POLYPROPYLENE	_
	-	2/ MOV. PANE	THE PROPERTY OF THE PROPERTY O	_	_
M21	PS01-1015-00B	1	MORTISE LOCK KEEPER	_	INTERLOCK
M22	PS01=1013=00B	1	TWO POINT 3-PLY HOOK LOCK		INTERLOCK
M23	PS01-0035-00B	1/ MOV. PANE		-	INTERLOCK
M24		AS REQD.	THRESHOLD W'STRIPPING	_	AMESBURY
M26	52019	AS REQD.	SILL W'STRIPPING	SILICONE	DUROMETER 60±5 SHORE A
M27	ES-7000 G01	AS NEWD.	FIX. PANEL ANGLE, 2" X 2" X 1/8" X 7/8" LONG	6063-T5	HEAD/SILL (FIXED PANEL)
M29	ALU-A-027	4/ 0110	FIX. PANEL ANGLE, 2 X 2 X 1/6 X 1/6 Z 1/6 X 1/6 Z 1/6	_	HWH SMS
М30	#10 X 1"	4/ CLIP	1/4" SPACER FOR JAMB	NYLON	-
M32	ES-6500-S01	_	1/2" SPACER FOR ASTRAGAL	NYLON	_
M33	ES-6500-034	-	ADHESIVE PILE PAD (4" X 1" X 1/2")	_	ULTRAFAB
M35	P6304 AFK	AS REQD.	TOP & BOTTOM RAIL REINFORCING	6063-T6	1/4" X 1-1/2" X FULL LENGTH



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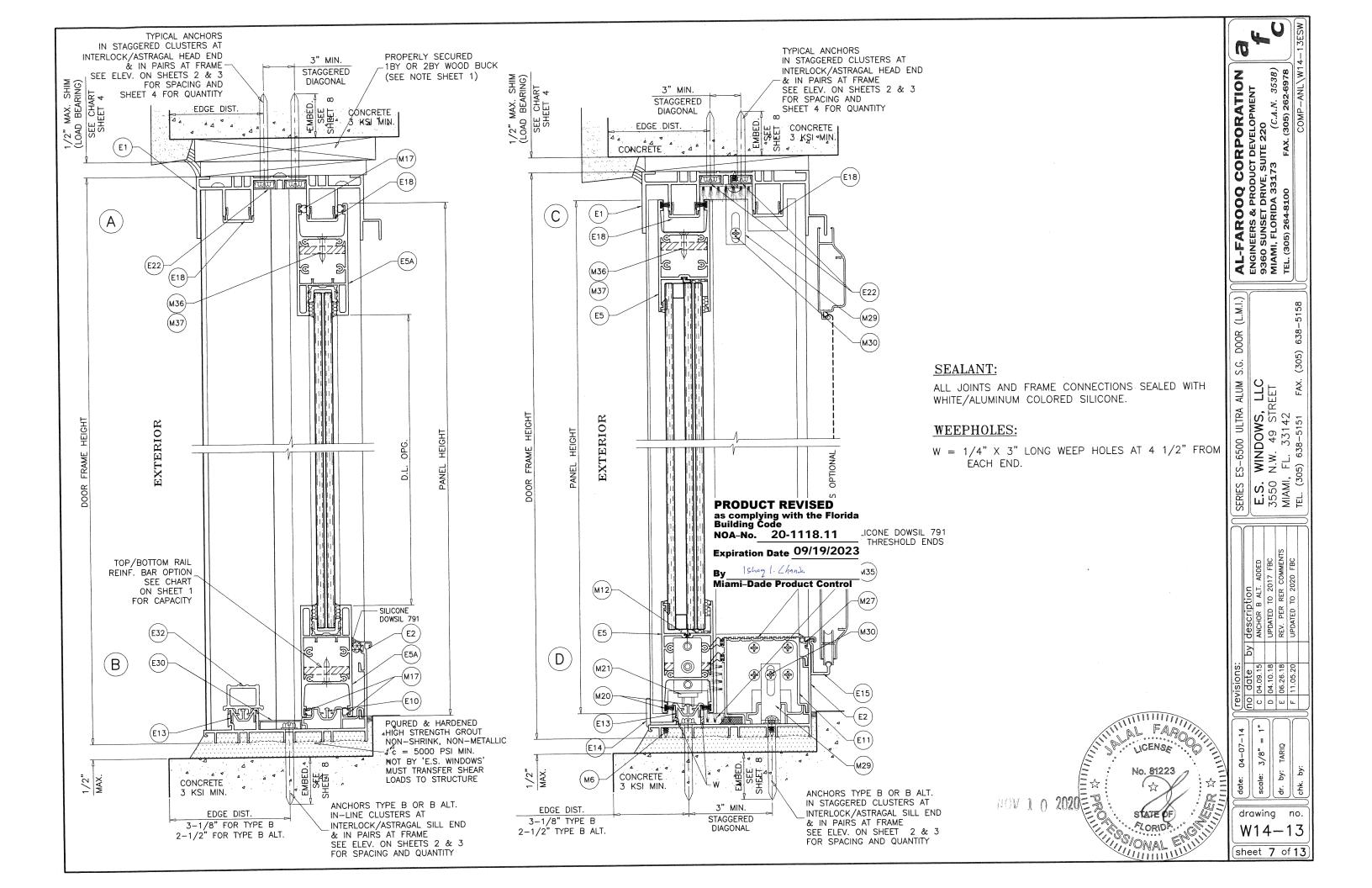
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drawing no.

scale:

W14 - 13sheet 6 of 13



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

— AT HEAD — — —

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

INTO WOOD STRUCTURES

1-7/8" MIN. PENETRATION INTO WOOD

THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE

1-1/2" MIN. EMBED INTO CONCRETE

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

DIRECTLY INTO CONCRETE 1-1/2" MIN. EMBED

TYPE 'C'- 5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) (3/8" MAX. SHIM)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS

AND

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)

TYPE 'B'- 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)

DIRECTLY INTO CONCRETE

1-1/2" MIN. EMBED

TYPE 'B' ALT. - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONCRETE 1-3/4" MIN. EMBED

- AT JAMBS

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

INTO WOOD STRUCTURES

1-7/8" MIN. PENETRATION INTO WOOD

THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE OR FILLED BLOCKS

1-1/2" MIN. EMBED INTO CONCRETE OR BLOCKS

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

DIRECTLY INTO CONCRETE OR GROUT FILLED BLOCKS

1-1/2" MIN. EMBED

5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) (3/8" MAX. SHIM)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS

AND

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

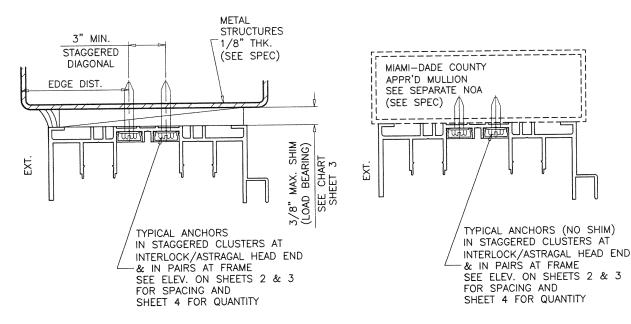
INTO CONCRETE = 2-1/2" MIN. (1/4" ANCHORS) INTO CONC. OR BLOCKS = 3-1/8" MIN. (5/16" ANCHORS)

INTO WOOD STRUCTURE = 1-1/4" 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 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



ALTERNATE SUBSTRATES

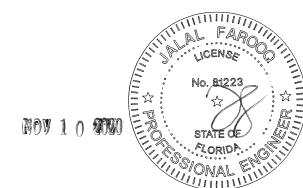
1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

PRODUCT REVISED as complying with the Florida Building Code NOA-No. 20-1118.11

Expiration Date 09/19/2023

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Miami-Dade Product Control



DQ CORPORATION
PRODUCT DEVELOPMENT
DRIVE, SUITE 220
A 33173 (C.A.N. 3538)

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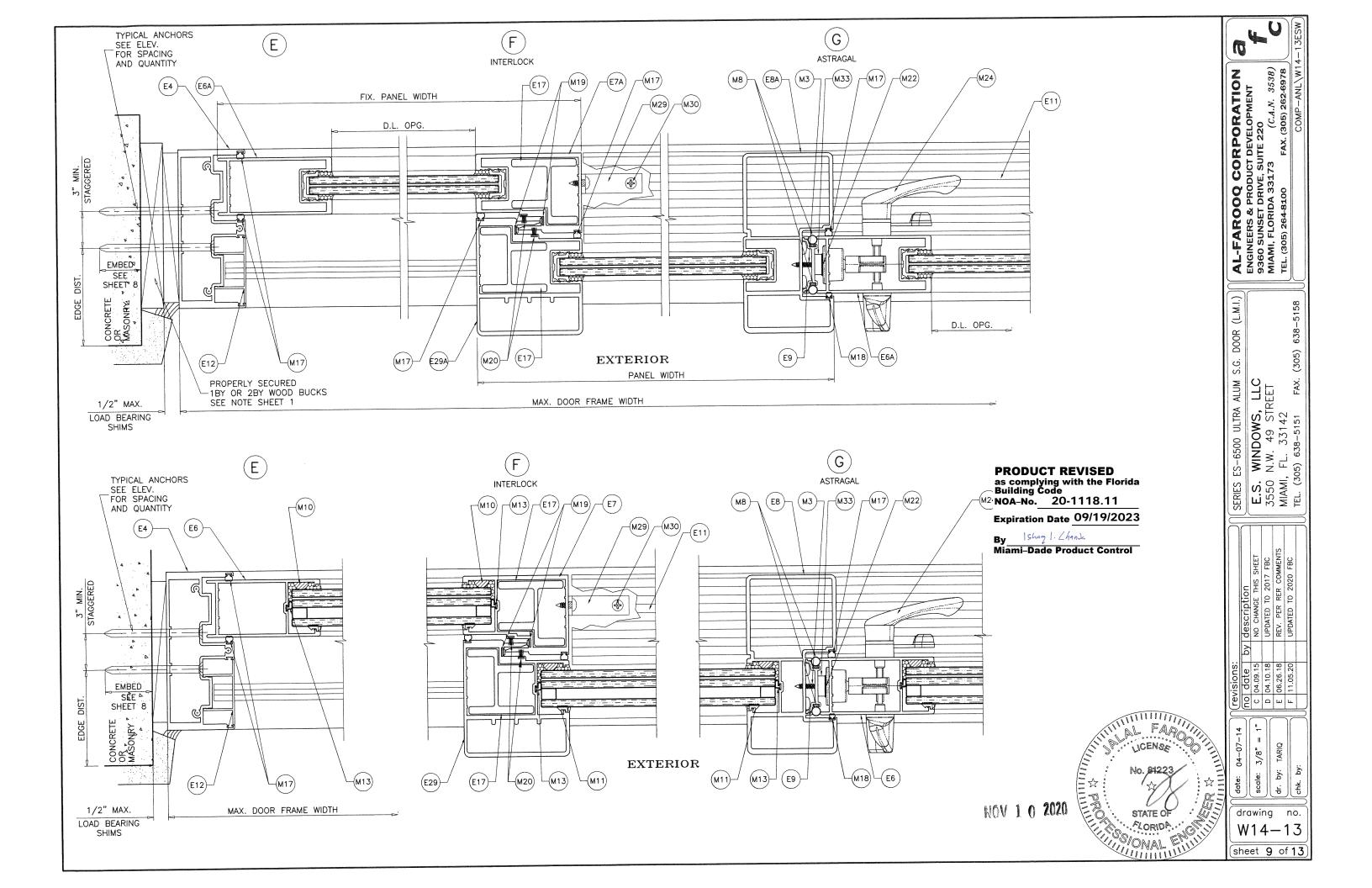
S.G. ALUM ES-6500 ULTRA

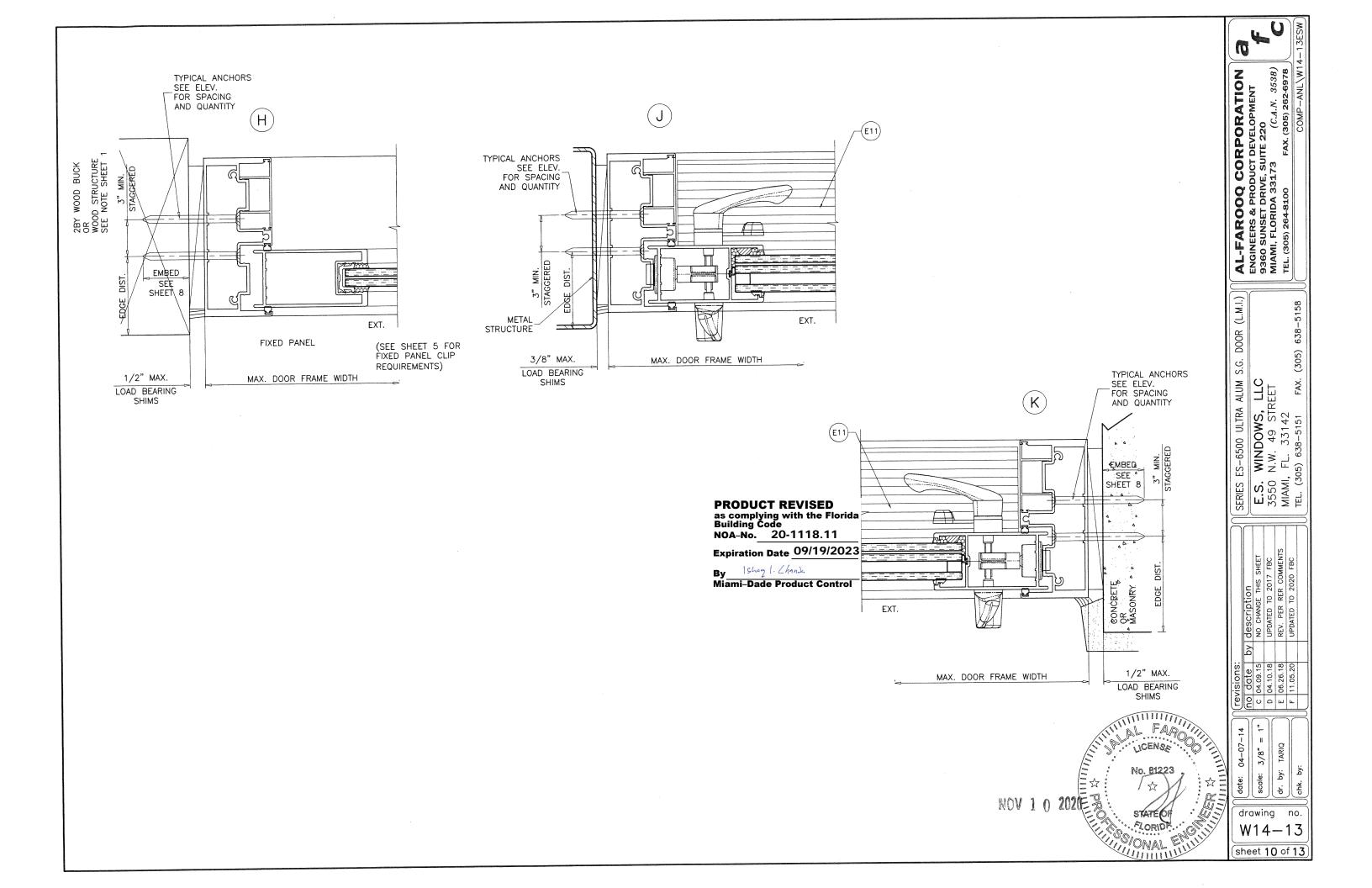
S. WINDOWS, LLC 50 N.W. 49 STREET MI, FL. 33142 (305) 638–5151 FAX. (**E.S.** 3550 MIAMI, TEL. (30 SERIES

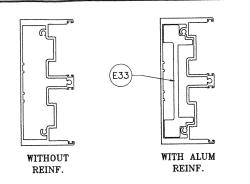
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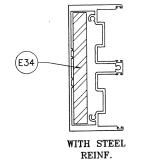
drawing no. W14 - 13

sheet 8 of 13









x IN^4	Sx IN^3	Ix IN^4	Sx IN^3
8.204	3.125	13.592	5.720

	Ix IN ⁴	Sx IN^3
ALUMINUM	8.204	3.125
STEEL	4.694	2.021
TOTAL Ix ALUM + Ix STL X 2.9	21.808	

FREE STANDING JAMB * DESIGN LOAD CAPACITY - PSF								
AVERAGE	DOOR FRAME		IOUT NF.		ALUM NF.	WITH STEEL REINF.		
PANEL WIDTH INCHES	HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
36		113.6	113.6	120.0	125.0	120.0	125.0	
42	126"	98.6	98.6	120.0	125.0	120.0	125.0	
48		87.5	87.5	120.0	125.0	120.0	125.0	
54		79.0	79.0	120.0	125.0	120.0	125.0	
36	132"	94.1	94.1	120.0	125.0	120.0	125.0	
42		81.5	81.5	120.0	125.0	120.0	125.0	
48		72.2	72.2	115.7	115.7	120.0	125.0	
52		67.3	67.3	107.8	107.8	120.0	125.0	
36		78.6	78.6	120.0	125.0	120.0	125.0	
42		68.0	68.0	108.9	108.9	120.0	125.0	
48	138"	60.2	60.2	96.4	96.4	120.0	125.0	
50		58.0	58.0	92.9	92.9	120.0	125.0	
36	144"	66.1	66.1	105.9	105.9	120.0	125.0	
42		57.2	57.2	91.6	91.6	120.0	125.0	
48		50.6	50.6	81.0	81.0	120.0	125.0	

DATA IN THIS SHEET MAY BE USED TO QUALIFY SPECIFIED JOINT SEALANT TO BE USED AT UNANCHORED FREE STANDING JAMBS.

PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & DOOR MATERIAL FINISH AND COMPLIANCE FOR WARRANTY. (UNDER SEPARATE REVIEW)

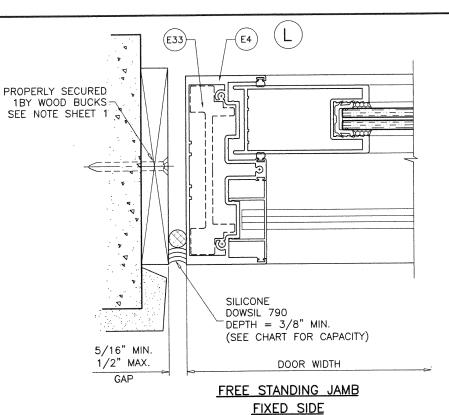
CONDITIONS OR OTHER SEALANTS NOT COVERED IN THIS SHEET TO BE ENGINEERED SEPARATELY AND TO BE REVIEWED BY AHJ.

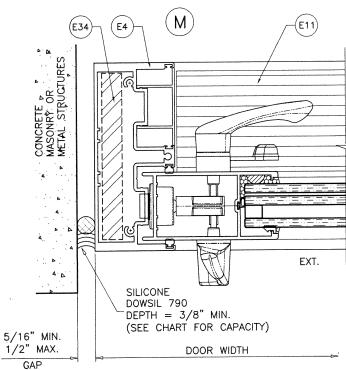
THIS CHART TO BE USED WITH DP CHART IN SHEET 1 WITH ELEVATION SHEET 3 AND ANCHOR CAPACITY CHART SHEET 4. LOWER DESIGN PRESSURE SHALL CONTROL ENTIRE ASSEMBLY.



Expiration Date 09/19/2023 Ishaq 1. Chands

Miami-Dade Product Control





FREE STANDING JAMB OPERABLE SIDE

revisions:
no date
c 04.09.15
D 04.10.18
E 06.26.18
F 11.05.20 drawing no. W14 - 13sheet **11** of **13**

(C.A.N. 3538) FAX. (305) 262-6978

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

(L.M.I.)

DOOR

SERIES ES-6500 ULTRA ALUM S.G.

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

description

NO CHANGE THIS SHEET

UPDATED TO 2017 FBC

REV. PER RER COMMENTS

UPDATED TO 2020 FBC

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REINFORCEMENT CLIP REQUIRED AT FREE STANDING JAMB WITH STEEL REINFORCING ONLY

ALUM CLIP

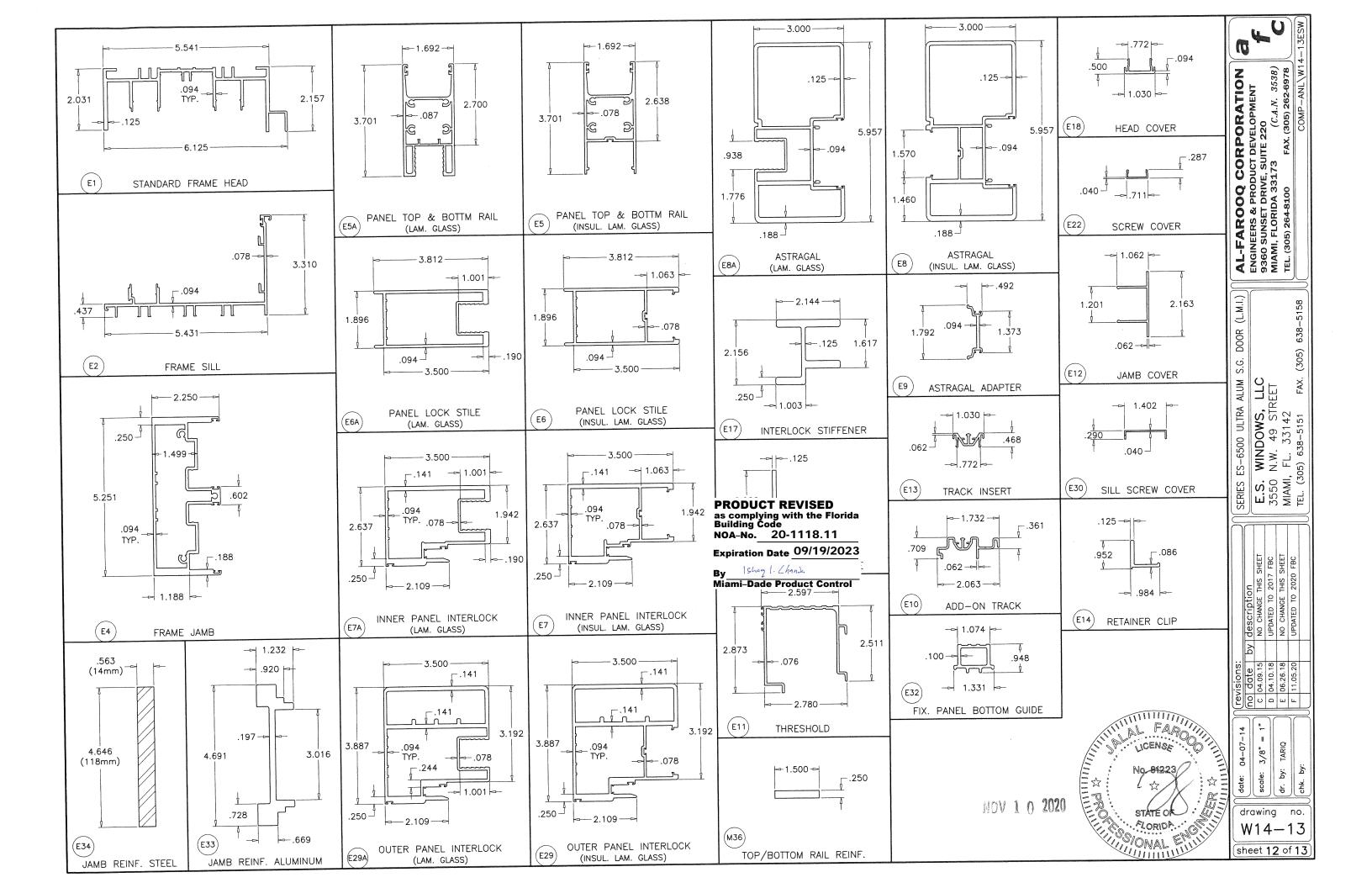
7/8" X 7/8" X 1/8" 2-3/4" LONG

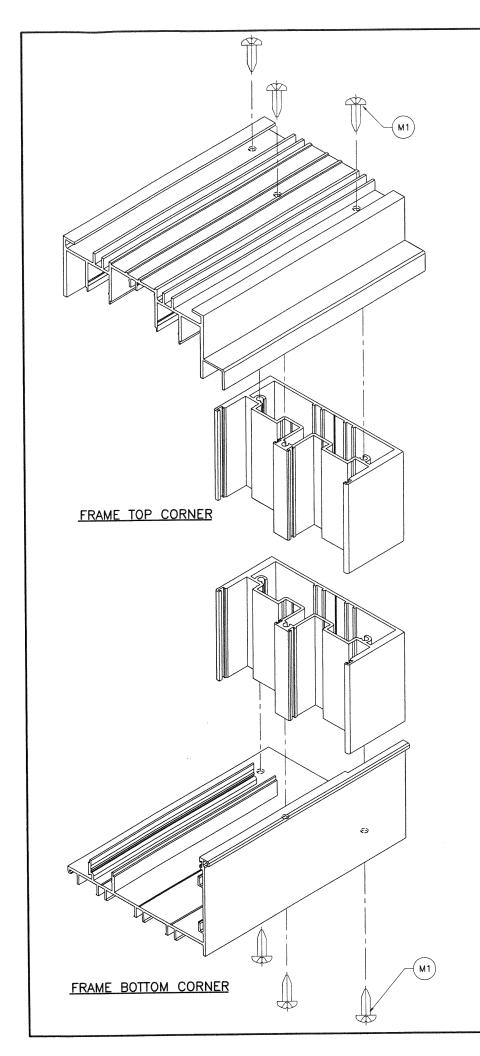
TO JAMB
WITH (2) #10 SMS
AT EACH SIDE

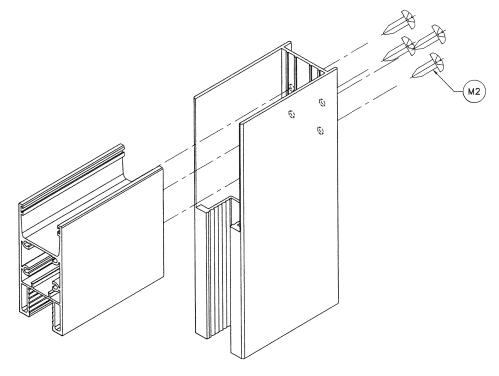
CONNECTING FRAME SILL

FRAME JAMB

(







PANEL TOP/BOTTOM CORNER

LAM. GLASS RAIL & STILE (SHOWN) INSUL. LAM. GLASS RAIL & STILE (SIMILAR)

PRODUCT REVISED as complying with the Florida Building Code
NOA-No. 20-1118.11

Expiration Date 09/19/2023

By Sheg I. Chank
Miami-Dade Product Control

.118

GLAZING GASKET

BASE POLYMER = EPDM RUBBER 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)

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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

(L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638–5151 FAX. (305) 638–5

drawing no. W14 - 13

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