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Product Approval
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FL #	FL22645-R10	
Application Type	Revision	
Code Version	2023	
Application Status	Approved	
Comments		
Archived	☐	
Product Manufacturer	E.S. Windows, Inc.	
Address/Phone/Email	10653 NE Quaybridge Ct. Miami, FL 33138 (305) 638-5151 ssabagh@energiasolarsa.com	
Authorized Signature	Jalal Farooq veronica@afceng.com	
Technical Representative	Samir Sabagh	
Address/Phone/Email	3550 NW 49th St. Miami, FL 33142 (305) 638-5151 ssabagh@energiasolarsa.com	
Quality Assurance Representative		
Address/Phone/Email		
Category	Exterior Doors	
Subcategory	Sliding Exterior Door Assemblies	
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received	
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq	
Florida License	PE-81223	
Quality Assurance Entity	Keystone Certifications, Inc.	
Quality Assurance Contract Expiration Date	07/15/2034	
Validated By	Abel Carrasco, PE ☒ Validation Checklist - Hardcopy Received	
Certificate of Independence	FL22645_R10_COI_SS - Certificate of Independence 2023.pdf	
Referenced Standard and Year (of Standard)	Standard	Year
	TAS 201	1994
	TAS 202	1994
	TAS 203	1994
Equivalence of Product Standards Certified By		
Sections from the Code		

Product Approval Method

Method 1 Option D

Date Submitted 12/11/2025
 Date Validated 12/15/2025
 Date Pending FBC Approval 12/23/2025
 Date Approved 02/10/2026

Summary of Products

FL #	Model, Number or Name	Description
22645.1	ES-EL400 (Dry Glazed) Aluminum Sliding Glass Door	Large missile impact resistant dry glazed aluminum sliding glass door.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +80/-80 Other: See attached drawing W17-67 for installation details and span vs load combinations.		Installation Instructions FL22645 R10 II SS - ES-EL400 SGD-DRY GLAZED (LMI) - DWG W17-67 2023 R2.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL22645 R10 AE SS- EL400 SGD (LMI)-PAE 2023.pdf Created by Independent Third Party: Yes
22645.2	ES-EL400 (Wet Glazed) Aluminum Sliding Glass Door	Large missile impact resistant wet glazed aluminum sliding glass door.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +80/-80 Other: See attached drawing 24-10F for installation details and span vs load combinations.		Installation Instructions FL22645 R10 II SS - ES-EL400 SGD-WET GLAZED (LMI) - DWG 24-10F 2023 R2.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL22645 R10 AE SS - EL400 SGD -WET GLAZED (LMI) PAE 2023.pdf Created by Independent Third Party: Yes
22645.3	ES-EL400 Aluminum Sliding Glass Door	Non-impact resistant aluminum sliding glass door.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +100/-100 Other: See attached drawing 19-63F for installation details and span vs load combinations.		Installation Instructions FL22645 R10 II SS - ES-EL400 SGD (NI) - DWG 19-63F 2023 R3.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL22645 R10 AE SS - ES-EL400 SGD (NI)-PAE 2023 R1.pdf Created by Independent Third Party: Yes
22645.4	ES-EL400-10 Aluminum Sliding Glass Door	Large missile impact resistant aluminum sliding glass door
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +65/-65 Other: See attached drawing 20-22F for installation details and span vs load combinations.		Installation Instructions FL22645 R10 II SS - ES-EL400-10 SGD (LMI) - DWG 20-22F 2023 R2.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL22645 R10 AE SS- EL400-10 SGD (LMI)-PAE 2023.pdf Created by Independent Third Party: Yes
22645.5	ES-EL400-10 Aluminum Sliding Glass Door	Small missile impact resistant aluminum sliding glass door.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +80/-80 Other: See attached drawing 22-16F for installation details and span vs load combinations.		Installation Instructions FL22645 R10 II SS - ES-EL400-10 SGD (SMI) - DWG 22-16F 2023 R2.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL22645 R10 AE SS- EL400-10 SGD (SMI)-PAE 2023.pdf Created by Independent Third Party: Yes

Back

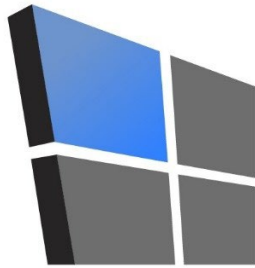
Next

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Product Approval Accepts:



AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

PRODUCT APPROVAL EVALUATION RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 22645

Date: 07/11/2023

Detailed Product Description:

Manufacturer: E.S. WINDOWS, LLC.

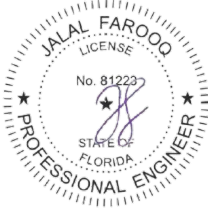
Manufacturer Address: 3550 N.W. 49 STREET – MIAMI, FL. 33142

Model Name: SERIES ES-EL400 ALUMINUM SLIDING GLASS DOOR

Maximum Load: +80 PSF, -80 PSF (Large Missile Impact)

Installation Drawings # W17-67

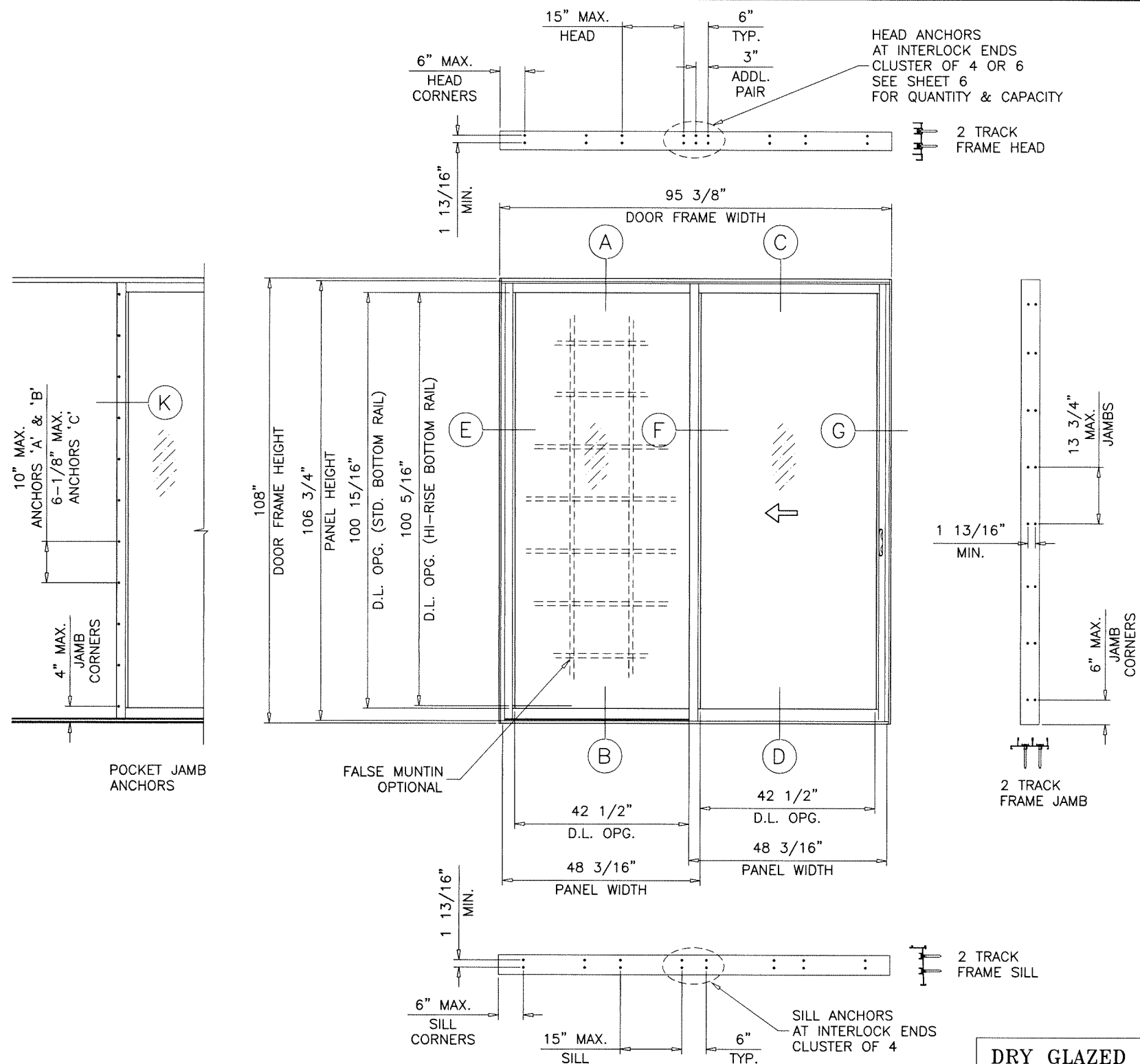
This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.					
For maximum sizes, combination of span vs loads and anchor type refer to installation drawings. This product was tested using a wrap-around glazing gasket. This is equivalent to using setting blocks.					
Comparative analysis used ☒ Yes ☐ No					
Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)					
TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	TEST SEALED BY
ASTM E283	Air Infiltration Leakage	Blackwater Testing, Inc.	06/15/2017	BT-ESW-17-009	Constantin Bortes, PE
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Blackwater Testing, Inc.	06/15/2017	BT-ESW-17-009	Constantin Bortes, PE
ASTM E330 & TAS 202	Uniform Static Air Press.	Blackwater Testing, Inc.	06/15/2017	BT-ESW-17-009	Constantin Bortes, PE
ASTM F842	Forced Entry Test	Blackwater Testing, Inc.	06/15/2017	BT-ESW-17-009	Constantin Bortes, PE

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)					
TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
FBC 1626.2 (TAS 201 & 203)	Large Missile Impact & Cyclic	Blackwater Testing, Inc.	06/15/2017	BT-ESW-17-009	Constantin Bortes, PE
Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2023 Florida Building Code.					
Evaluation Report Engineer: Jalal Farooq Al-Farooq Corporation			 Sealed: 7/12/2023		
PE # 81223 EB # 3538					

$$\text{PANEL HEIGHT} = \text{DOOR FRAME HEIGHT} - 1.250''$$

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

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION
IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE.
LABELING TO COMPLY WITH SECTION 1709.9.2.



USE CHARTS AS FOLLOWS

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** DETERMINE DOOR CAPACITY FROM TABLE ON SHEET 5 FOR THE REINFORCING OPTION USED.
- STEP 3** USING CHARTS ON SHEET 6 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

OX

Sealed: 12/11/2025

FL #22645

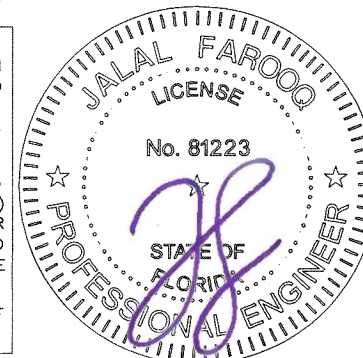
DRY GLAZED LARGE MISSILE IMPACT

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

E.S. WINDOWS, LLC
33550 N.W. 49 STREET
MIAMI, FL. 33142

AL-FAROOQ CORPORATION
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(C.A.N. 3538)
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TEL. (305) 638-5151

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revisions:

Date: 07 11 17

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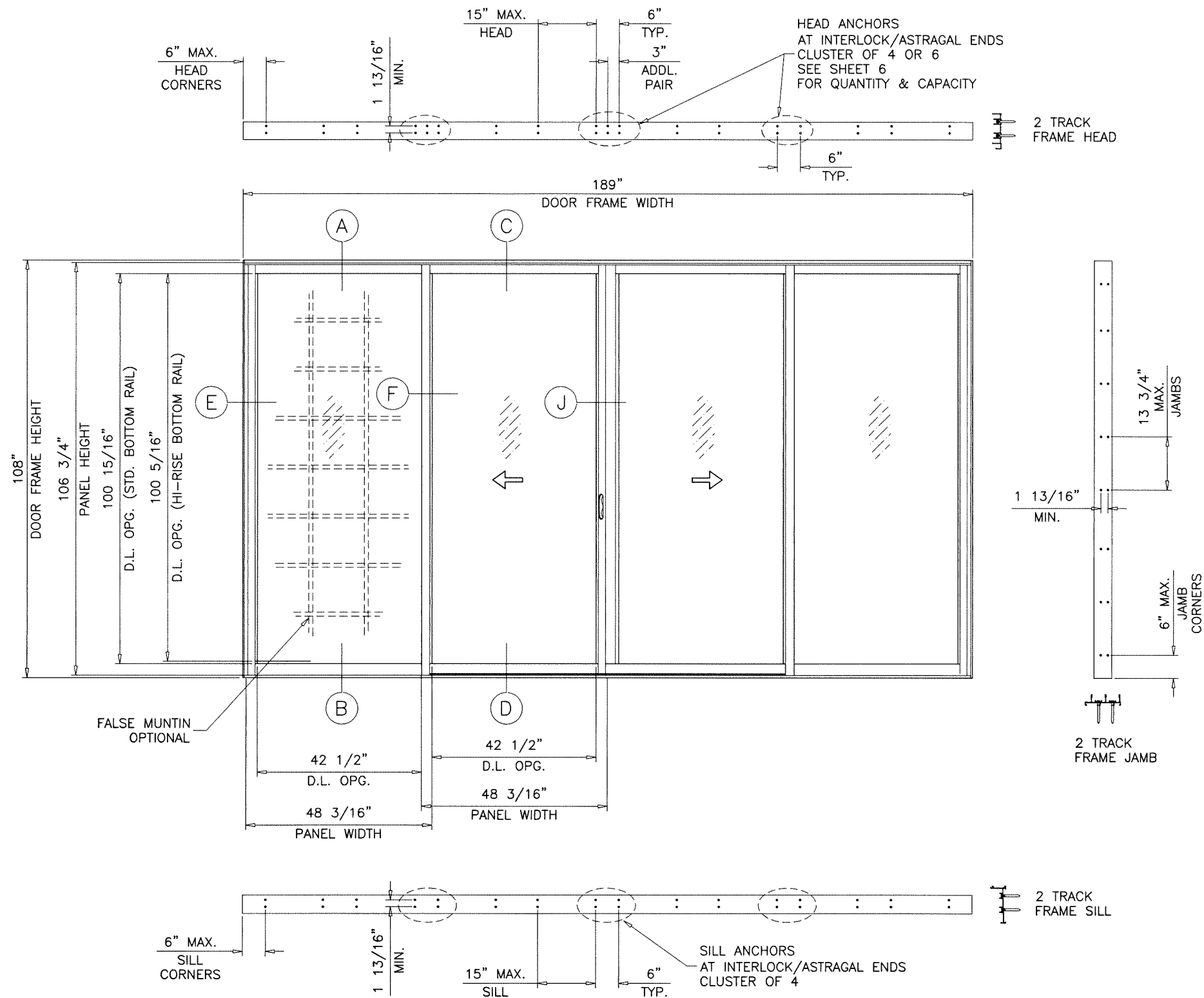
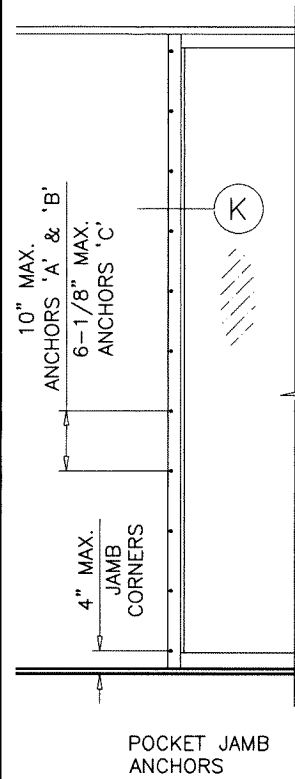
Dr. by: TARIQ

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drawing no

W17-67

sheet 1 of 23

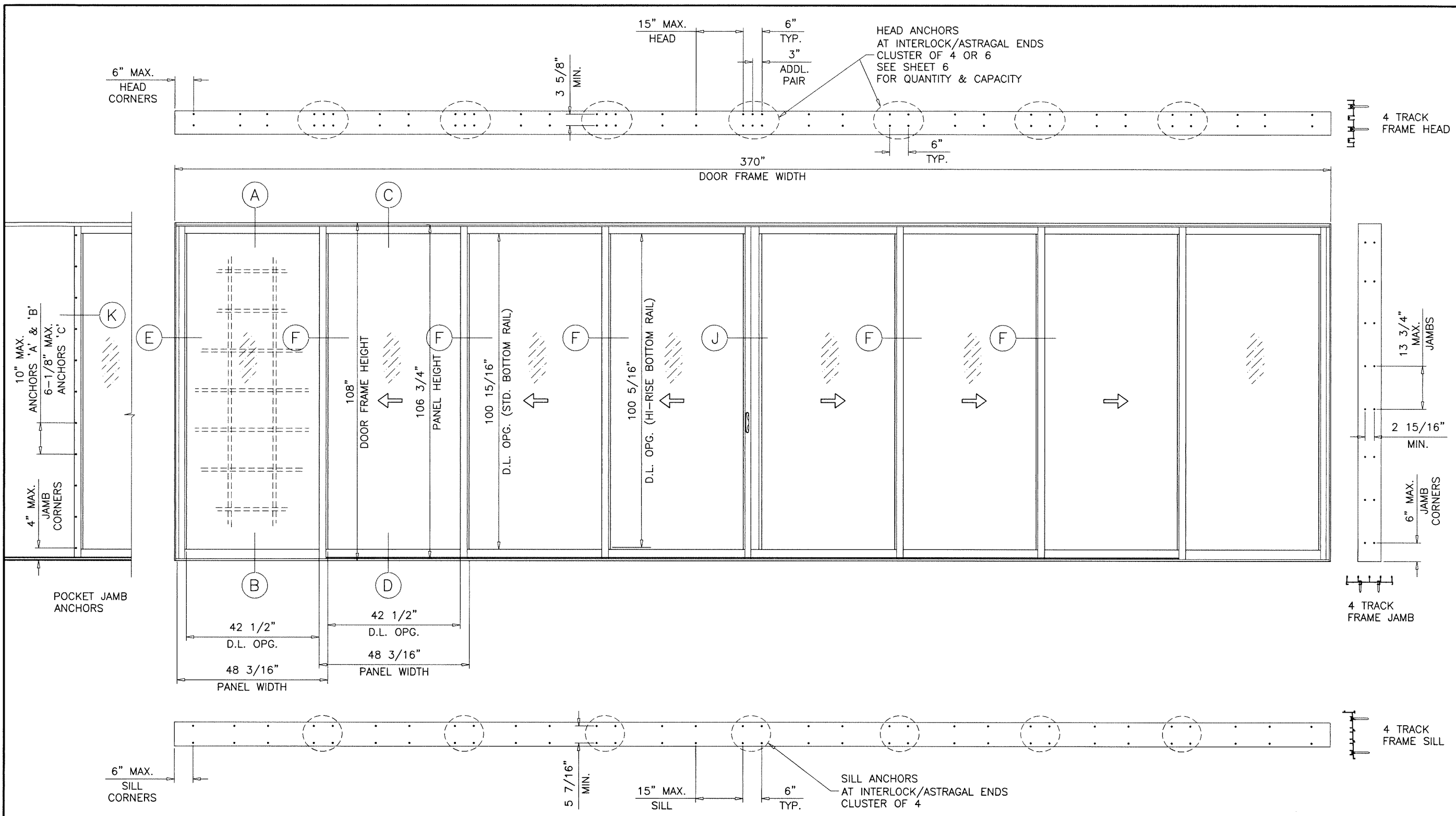


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FL #22645

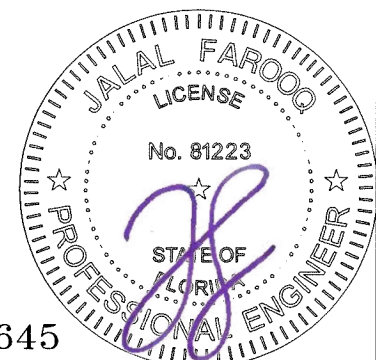


AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 TEL. (305) 264-8100 FAX. (305) 262-6978 COMP-ANL\W17-67ES				ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.) E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158					
revisions:		no		date		by		description	
date:		07-11-17		scale:		3/8"=1'-0"			
dr.		by:		chk.		by:			
drawing no.		W17-67		sheet 2 of 23					



TYPICAL ELEVATION
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Sealed: 12/11/2025



FL #22645

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AL-FAROOQ CORPORATION
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9360 SUNSET DRIVE, SUITE 220
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COMP-ANL\W17-67ES

ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)
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revisions:	
no	date by description

date: 07-11-17

scale: 3/8"=1'-0"

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chk. by:

drawing no.
W17-67

sheet 4 of 23

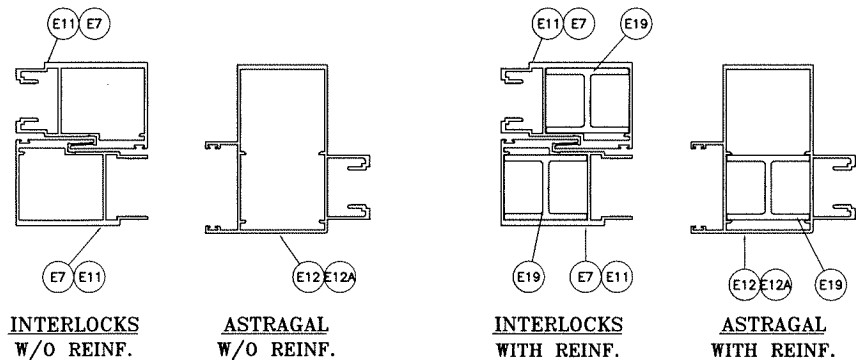
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DESIGN LOAD CAPACITY – PSF					
AVERAGE PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	INTERLOCK & ASTRAGAL STILES WITHOUT REINF.		INTERLOCK & ASTRAGAL STILES WITH REINF.	
		EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
30	82	60.0	60.0	80.0	80.0
36		60.0	60.0	80.0	80.0
42		60.0	60.0	80.0	80.0
47–1/4		60.0	60.0	80.0	80.0
48		59.1	59.1	78.8	78.8
54		52.5	52.5	70.0	70.0
60	84	–	–	47.3	47.3
30		60.0	60.0	80.0	80.0
36		60.0	60.0	80.0	80.0
42		60.0	60.0	80.0	80.0
47–1/4		60.0	60.0	80.0	80.0
48		59.1	59.1	78.8	78.8
54		52.5	52.5	70.0	70.0
60		–	–	47.3	47.3
30	90	60.0	60.0	80.0	80.0
36		60.0	60.0	80.0	80.0
42		60.0	60.0	80.0	80.0
47–1/4		60.0	60.0	80.0	80.0
48		59.1	59.1	78.8	78.8
54		–	–	52.5	52.5
30	96	60.0	60.0	80.0	80.0
36		60.0	60.0	80.0	80.0
42		60.0	60.0	80.0	80.0
47–1/4		60.0	60.0	80.0	80.0
48		59.1	59.1	59.1	59.1
54		–	–	52.5	52.5
30	102	–	–	60.0	60.0
36		–	–	60.0	60.0
42		–	–	60.0	60.0
47–1/4		–	–	60.0	60.0
48		–	–	59.1	59.1
54		–	–	60.0	60.0
30	108	–	–	60.0	60.0
36		–	–	60.0	60.0
42		–	–	60.0	60.0
47–1/4		–	–	60.0	60.0
48		–	–	59.1	59.1
54		–	–	60.0	60.0

ALL EXT.(+) LOADS SHOWN IN CHART ARE FOR DOOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED.
FOR DOOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED LIMIT EXT.(+) LOADS AS FOLLOWS.
FOR 3–11/16" SILL HEIGHT LIMIT EXT.(+) LOADS TO 80.0 PSF
FOR 3–1/8" SILL HEIGHT LIMIT EXT.(+) LOADS TO 66.6 PSF
FOR 2–3/4" SILL HEIGHT LIMIT EXT.(+) LOADS TO 53.3 PSF
SEE SHEET 14 FOR DETAILS

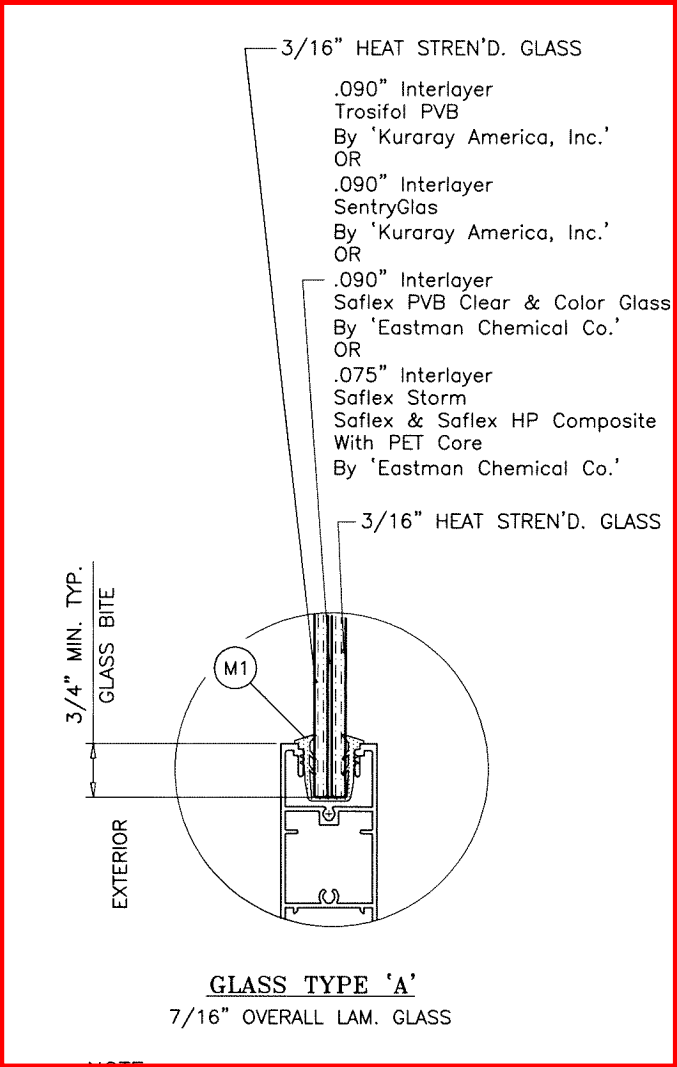


AVERAGE PANEL WIDTH = DOOR FRAME WIDTH
NUMBER OF PANELS

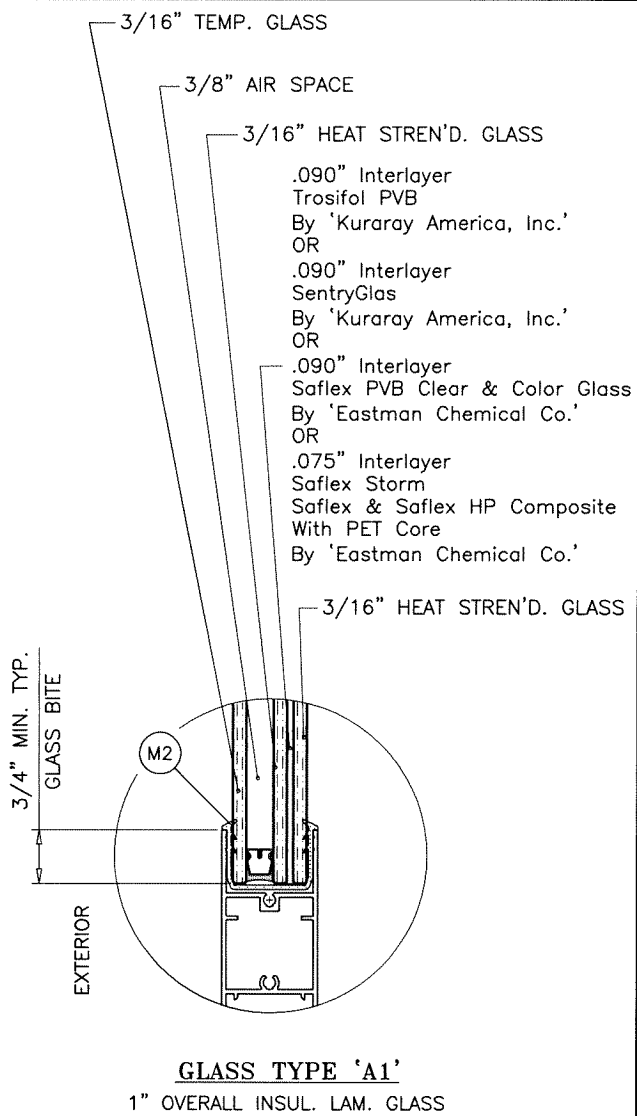
DOOR HEIGHT AND WIDTH SIZE MUST COMPLY
EGRESS REQUIREMENTS PER FBC AS REQUIRED.

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

SEE CHART ABOVE FOR DESIGN LOAD CAPACITY OF
DESIRED GLASS SIZE AND REINFORCING TYPES.
SEE CHART ON SHEET 6 FOR HEAD ANCHOR CAPACITY.
LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART
OR HEAD ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.



NOTE:
FOR SENTRYGLAS INTERLAYER
LIMIT MAX. D.L.O. AREA TO 25.7 SQ. FT.



NOTE:
FOR SENTRYGLAS INTERLAYER
AND SALEX CP INTERLAYER
LIMIT MAX. D.L.O. AREA TO 25.7 SQ. FT.

GLAZING OPTIONS

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

Sealed: 12/11/2025



FL #22645

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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COMP-ANL W17-67ES

ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
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revisions:

no	date	by	description

date: 07-11-17
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W17-67
sheet 5 of 23

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106

HEAD ANCHOR LOAD CAPACITY - PSF									
AVERAGE PANEL WIDTH INCHES	DOOR FRAME HEIGHT INCHES	ANCHOR TYPES 'A' & 'B'						ANCHOR TYPE 'C'	
		1/4" MAX. SHIM		3/8" MAX. SHIM		1/2" MAX. SHIM		3/8" MAX. SHIM	
		4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30	82	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
42		80.0	80.0	80.0	80.0	71.5	80.0	80.0	80.0
47-1/4		80.0	80.0	80.0	80.0	63.6	80.0	80.0	80.0
48		80.0	80.0	80.0	80.0	62.6	80.0	80.0	80.0
54		80.0	80.0	71.6	80.0	55.6	74.2	72.7	80.0
60		72.7	80.0	64.4	80.0	50.1	66.8	65.4	80.0
30	84	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
42		80.0	80.0	80.0	80.0	69.8	80.0	80.0	80.0
47-1/4		80.0	80.0	79.8	80.0	62.1	80.0	80.0	80.0
48		80.0	80.0	78.6	80.0	61.1	80.0	79.8	80.0
54		78.9	80.0	69.9	80.0	54.3	72.4	71.0	80.0
60		71.0	80.0	62.9	80.0	48.9	65.2	63.9	80.0
30	90	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	76.1	80.0	80.0	80.0
42		80.0	80.0	80.0	80.0	65.2	80.0	80.0	80.0
47-1/4		80.0	80.0	74.5	80.0	57.9	77.3	75.7	80.0
48		80.0	80.0	73.4	80.0	57.0	76.1	74.5	80.0
54		73.6	80.0	65.2	80.0	50.7	67.6	66.2	80.0
30	96	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	71.3	80.0	80.0	80.0
42		80.0	80.0	78.6	80.0	61.1	80.0	79.8	80.0
47-1/4		78.9	80.0	69.9	80.0	54.3	72.4	71.0	80.0
48	102	60.0	60.0	60.0	60.0	53.5	60.0	60.0	60.0
30		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42		60.0	60.0	60.0	60.0	57.5	60.0	60.0	60.0
47-1/4	108	60.0	60.0	60.0	60.0	51.1	60.0	60.0	60.0
48		60.0	60.0	60.0	60.0	50.3	60.0	60.0	60.0
30		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42	106	60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0
47-1/4		60.0	60.0	60.0	60.0	48.3	60.0	60.0	60.0

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

SEE CHART ABOVE FOR HEAD ANCHOR CAPACITY.

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

Sealed: 12/11/2025



FL #22645



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

ES-EL400 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

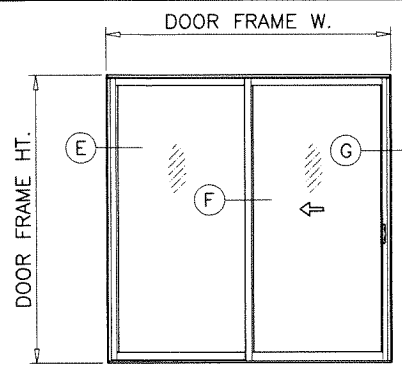
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scale:	-
dr. by:	TARIQ
chk. by:	

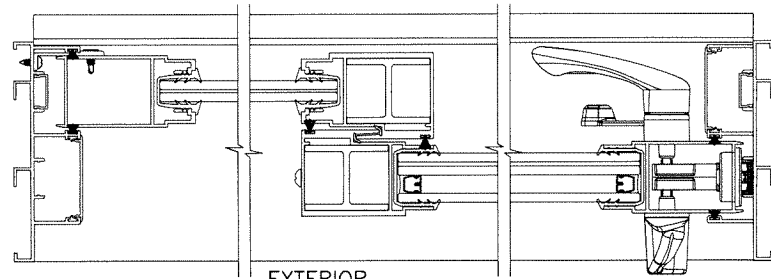
drawing no.
W17-67

sheet 6 of 23

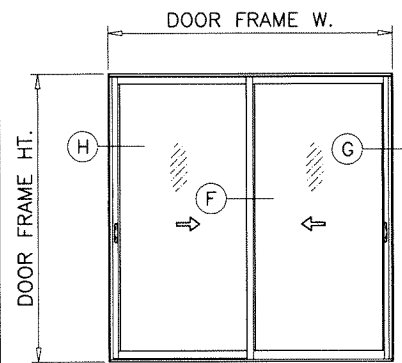
COMP-ANL\W17-67ES



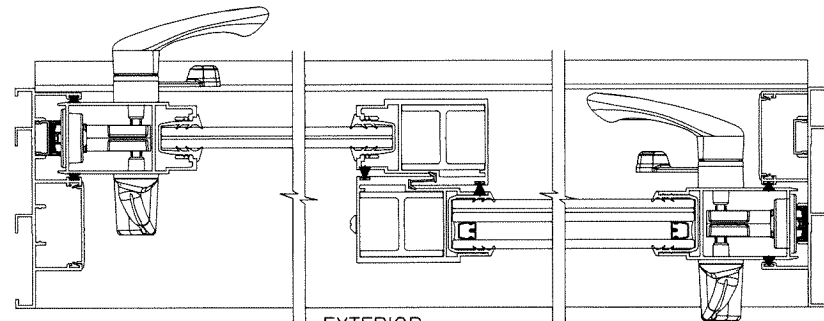
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XO



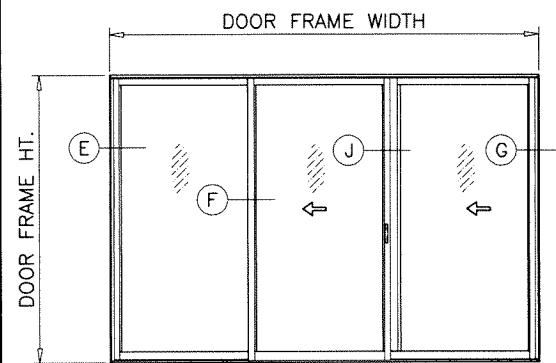
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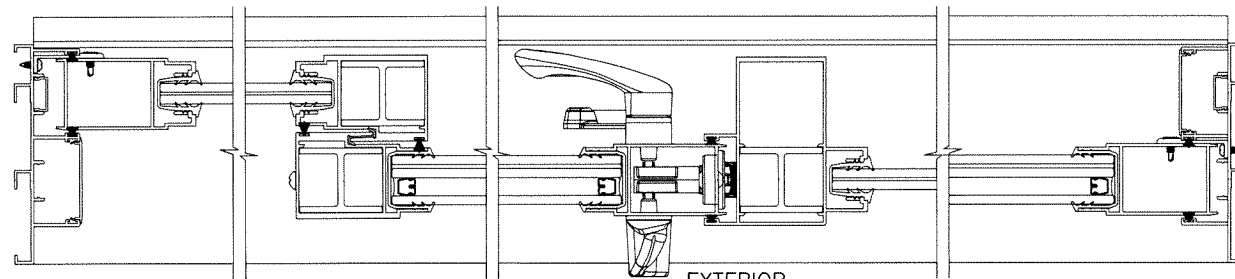
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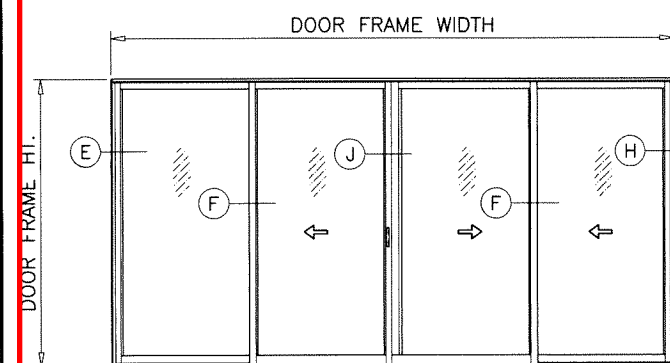
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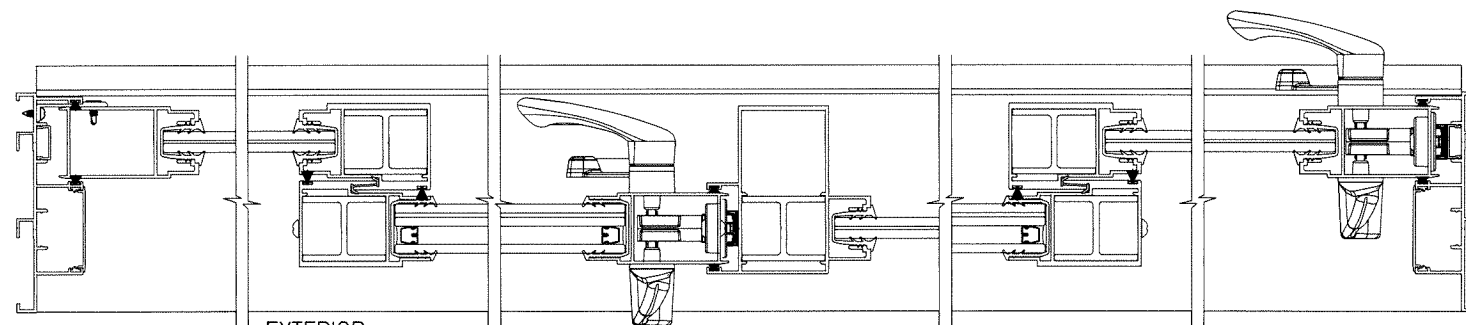
OX-O (SHOWN)
O-XO



EXTERIOR



OX-XX (SHOWN)
XX-XO
OX-XO
XX-XX



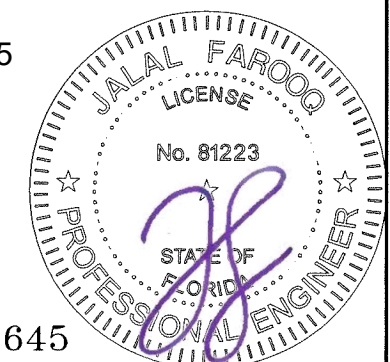
EXTERIOR

NOTE:

1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.

Sealed: 12/11/2025

APPROVED CONFIGURATIONS
NON-POCKETED DOORS
TWO (2) TRACKS



FL #22645

afc

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MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
(C.A.N. 3538)

COMP-ANL\W17-67ES

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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

date: 07-11-17

scale: -

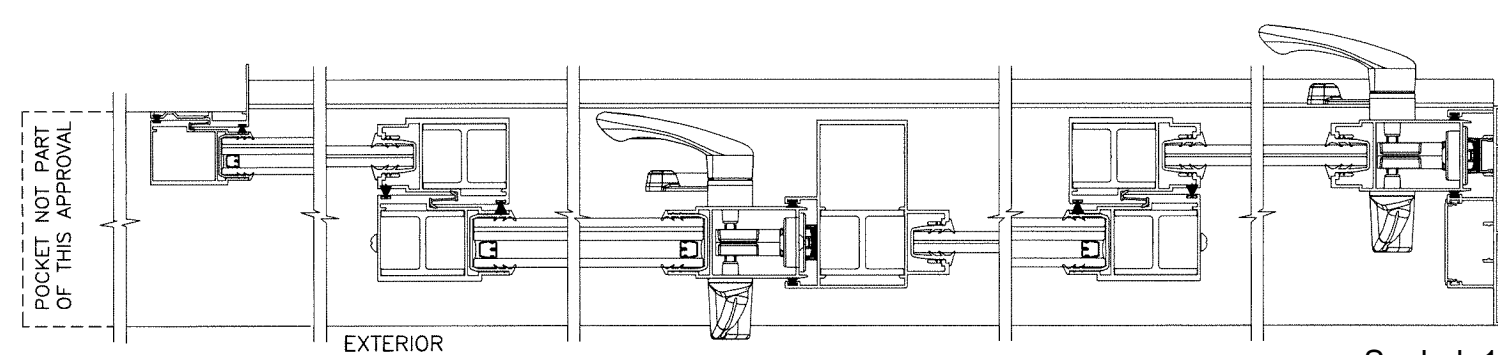
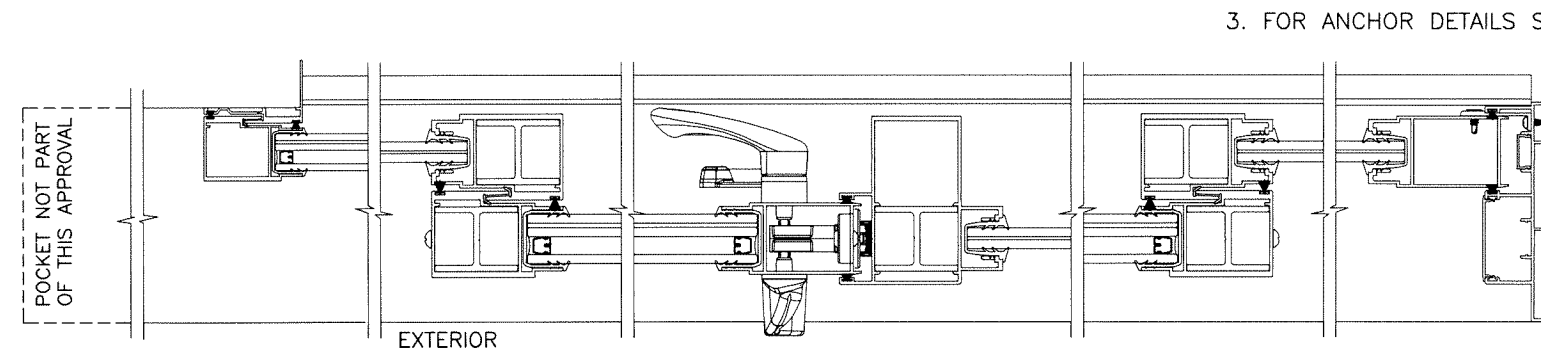
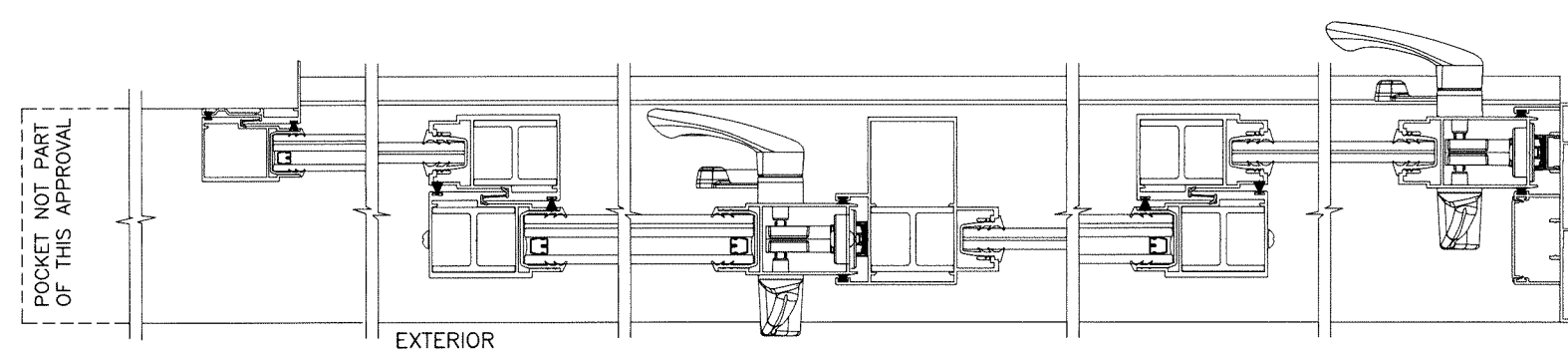
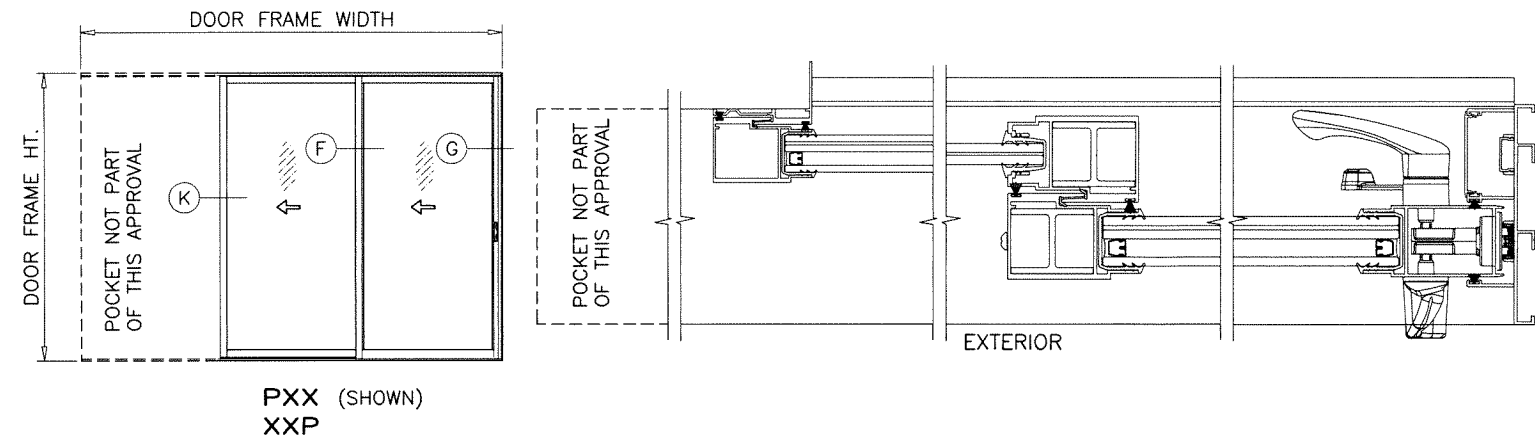
dr. by: TARIQ

chk. by:

drawing no.

W17-67

sheet 7 of 23



1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.

FAX. (305) 638-5158

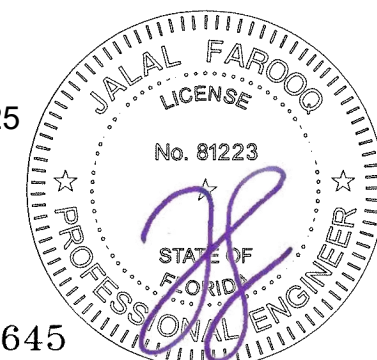
COMP--ANL\W17-67ES

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dr. by: TARIQ			
chk. by:			

drawing no. **W17-67**

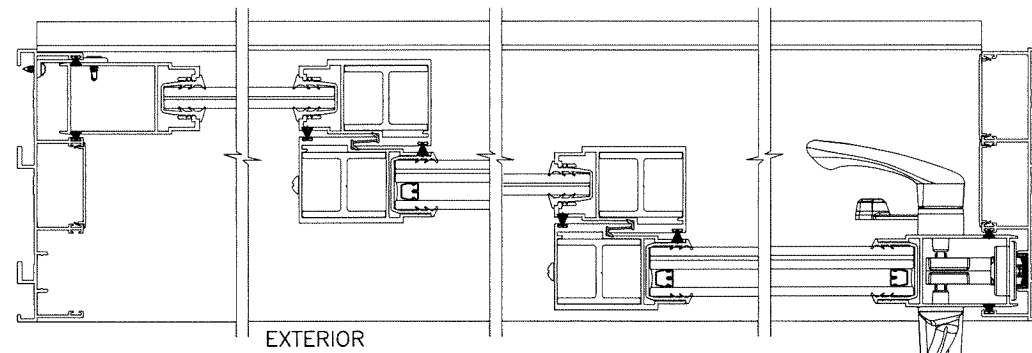
sheet **8** of **23**

Sealed: 12/11/2025



FL #22645

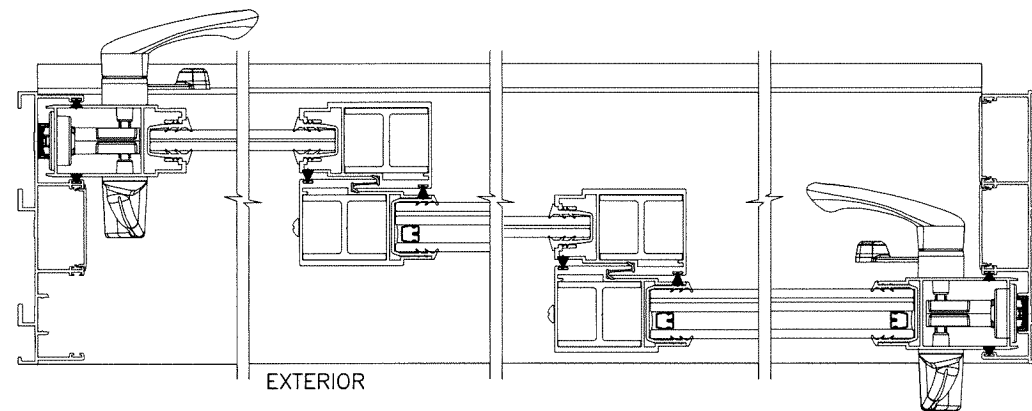
APPROVED CONFIGURATIONS
POCKETED DOORS
TWO (2) TRACKS



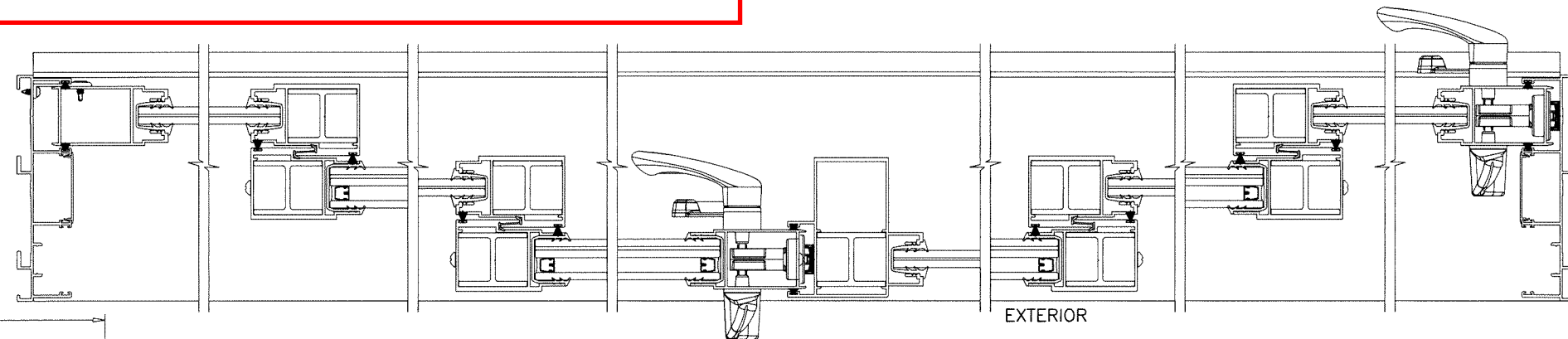
EXTERIOR

NOTE:

1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES AND REINFORCEMENTS REQUIREMENTS SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.

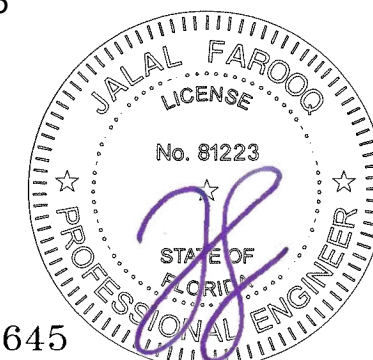


EXTERIOR



EXTERIOR

Sealed: 12/11/2025



APPROVED CONFIGURATIONS
NON-POCKETED DOORS
THREE (3) TRACKS

FL #22645

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

ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

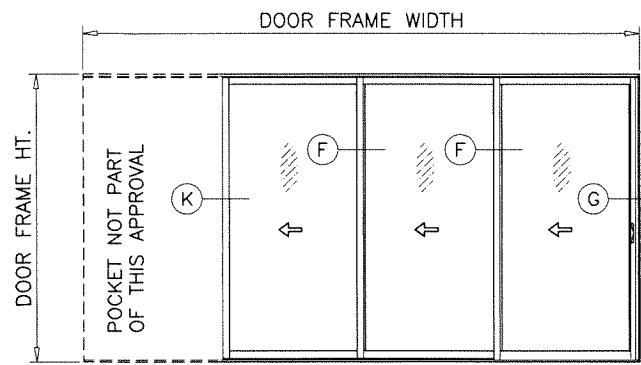
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX

FAX. (305) 638-5158

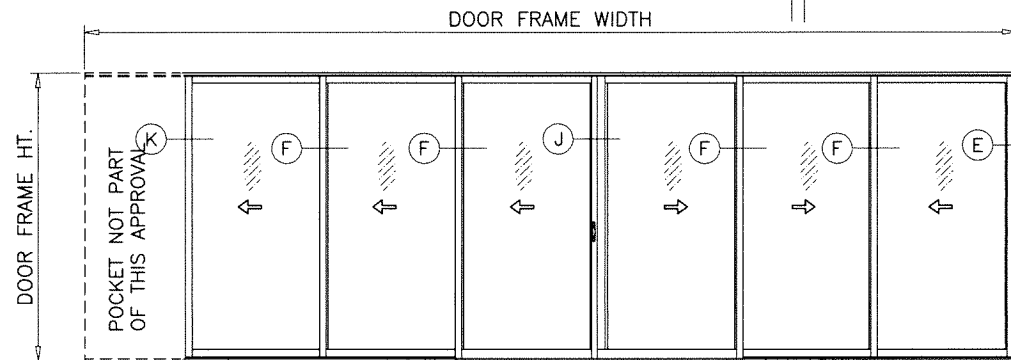
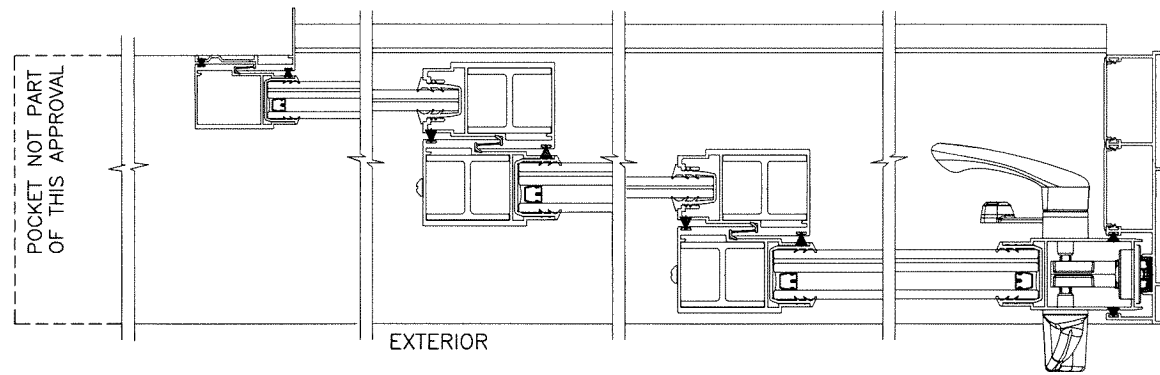
TEL. (305) 638-5151

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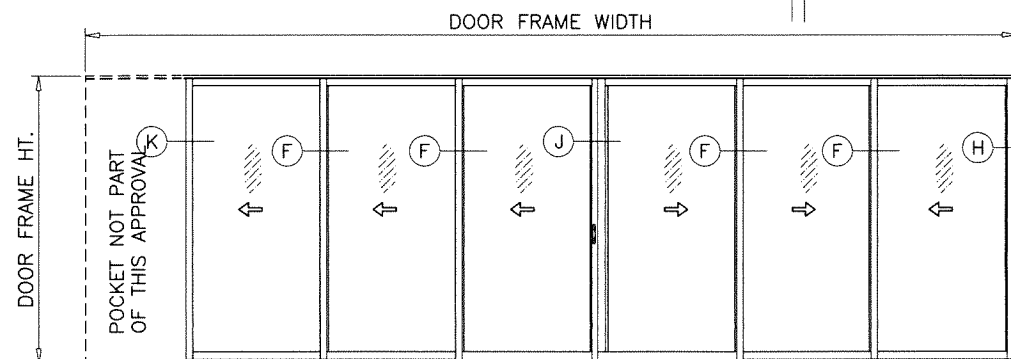
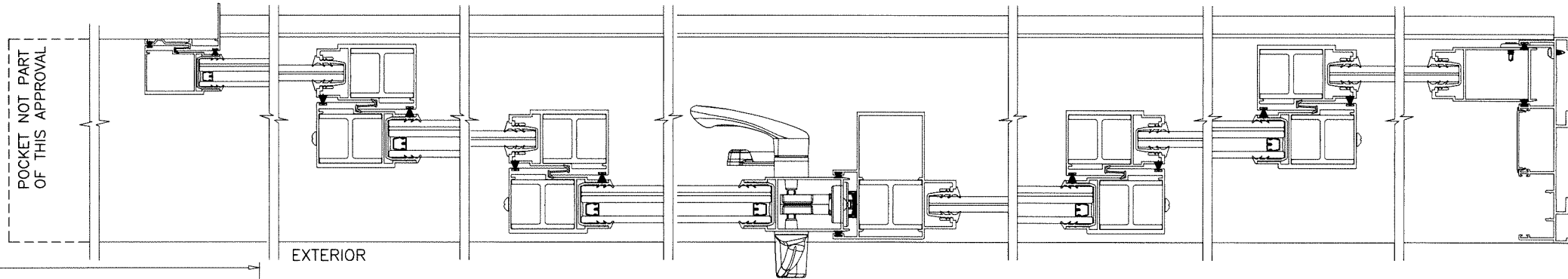
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scale: -			
dr. by: TARIQ			
chk. by:			
sheet 9 of 23			



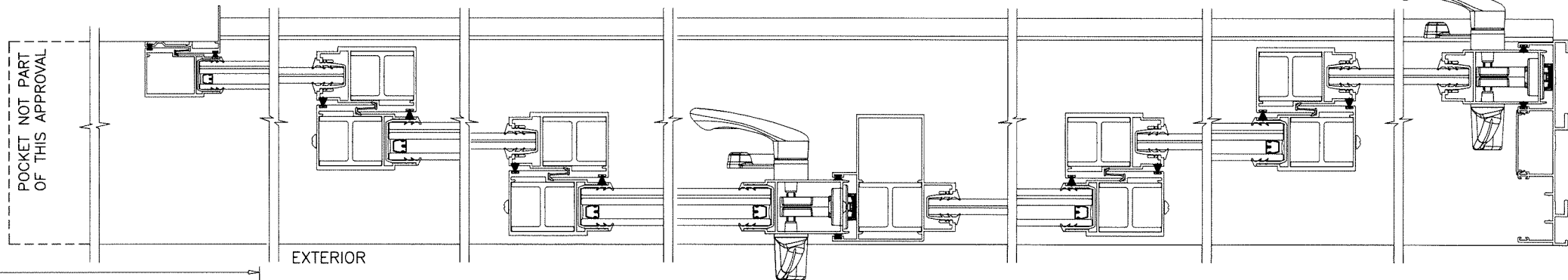
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PXXX-XXO (SHOWN)
OXX-XXXXP



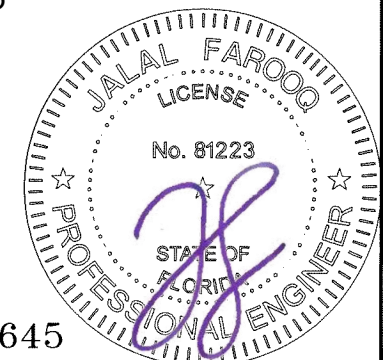
PXXX-XXX (SHOWN)
XXX-XXXXP
PXXX-XXXXP



NOTE:

1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES AND REINFORCEMENTS REQUIREMENTS SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.

Sealed: 12/11/2025



APPROVED CONFIGURATIONS
POCKETED DOORS
THREE (3) TRACKS

FL #22645

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

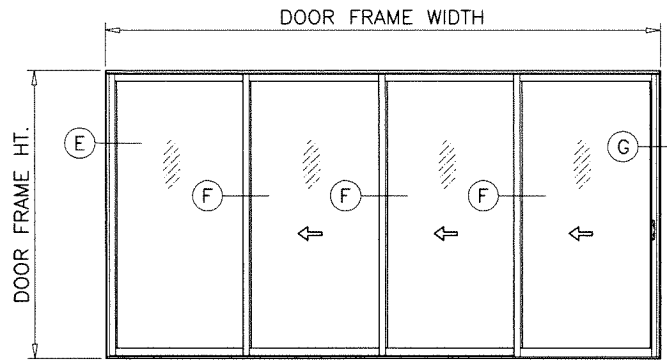
ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

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

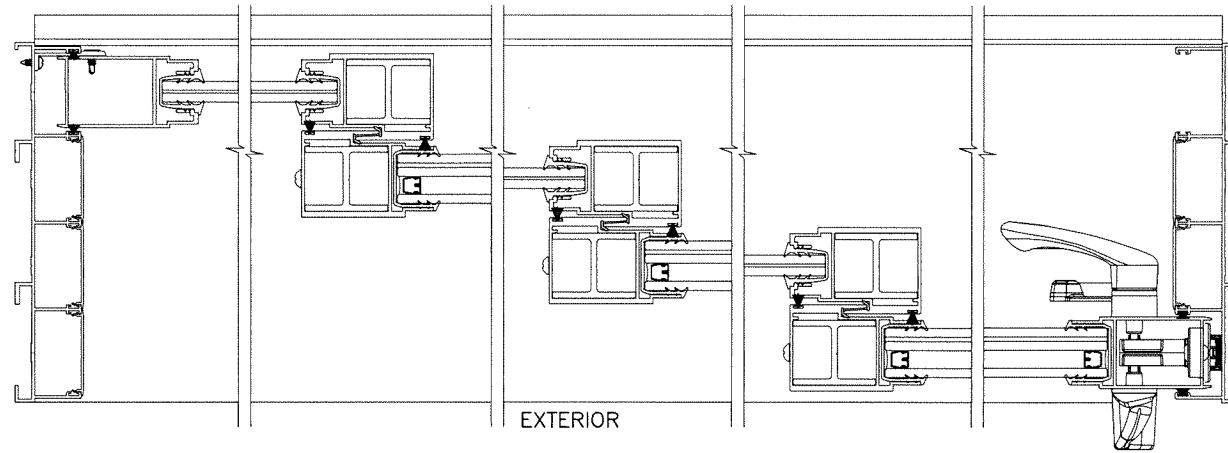
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chk. by:

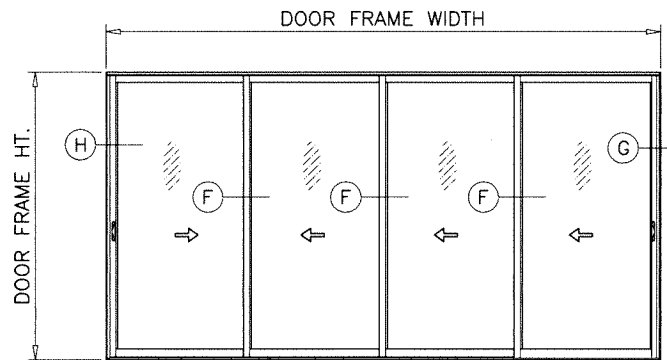
drawing no.
W17-67
sheet 10 of 23



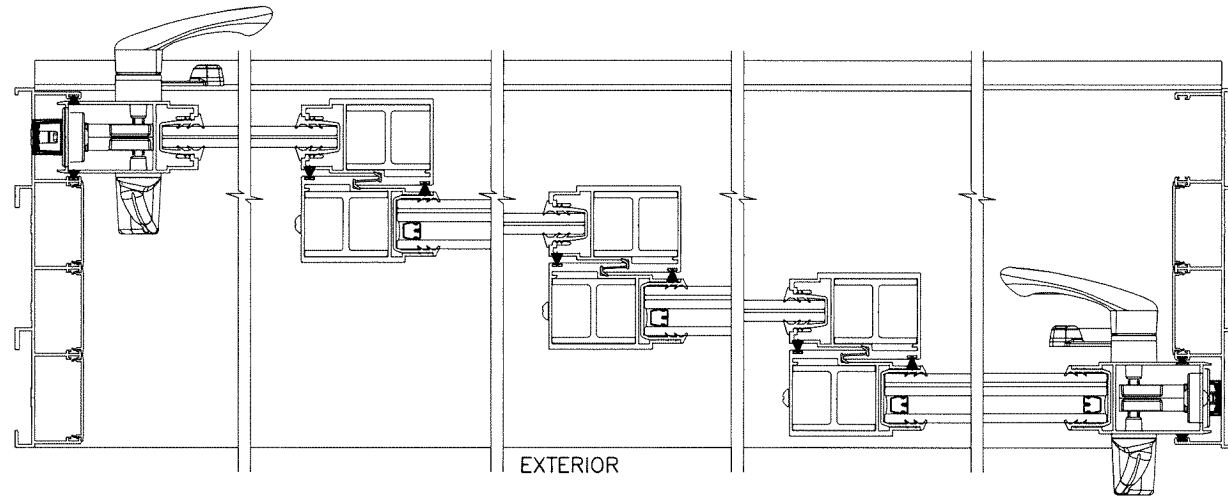
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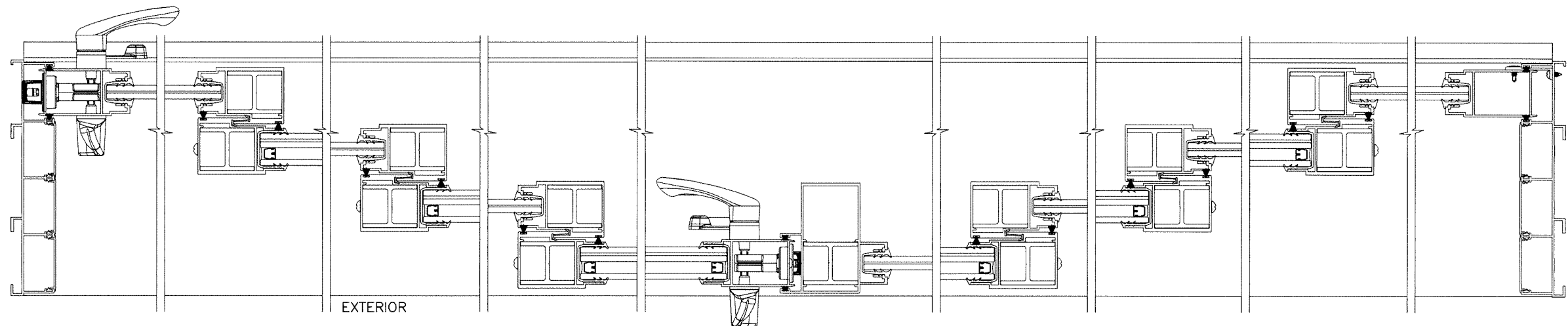
EXTERIOR



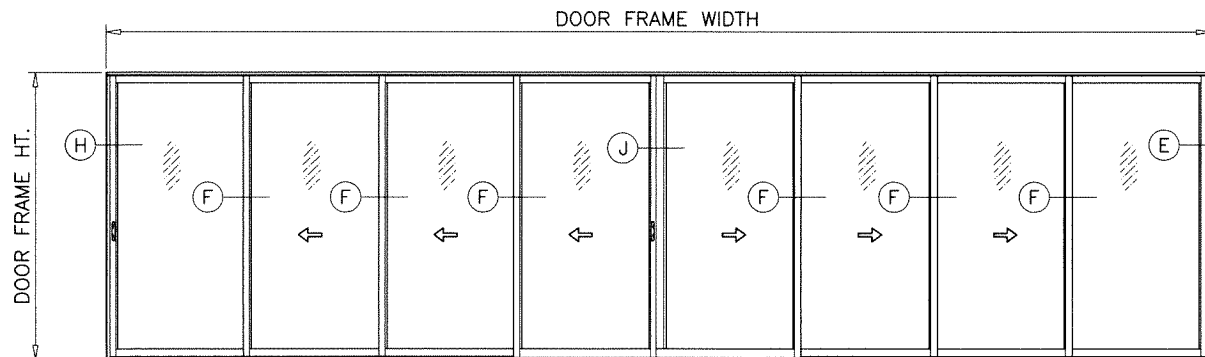
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EXTERIOR



EXTERIOR



XXXX-XXXXO (SHOWN)
XXXX-XXXX
XXXX-XXXXO
XXXX-XXXX

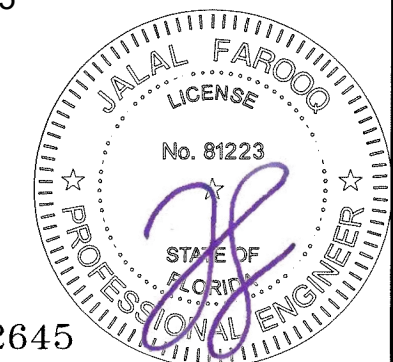
NOTE:

1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES AND REINFORCEMENTS REQUIREMENTS SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.

Sealed: 12/11/2025

APPROVED CONFIGURATIONS
NON-POCKETED DOORS
FOUR (4) TRACKS

FL #22645



af c
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MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
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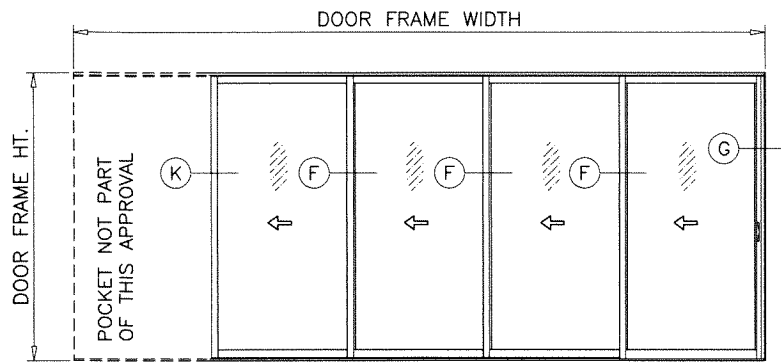
ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

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

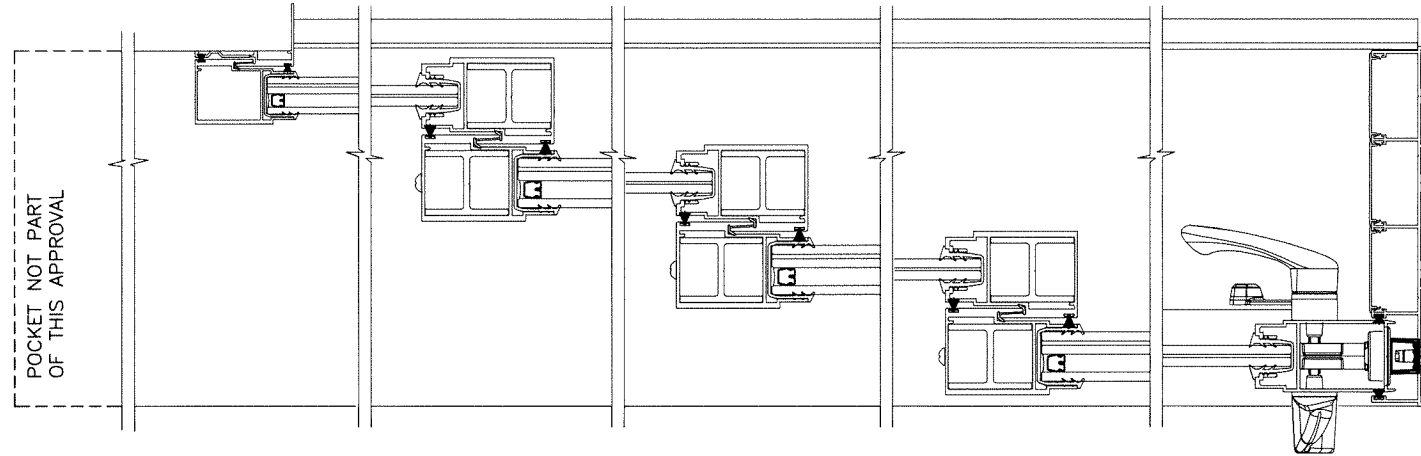
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dr. by: TARIQ
chk. by:

drawing no.
W17-67
sheet 11 of 23

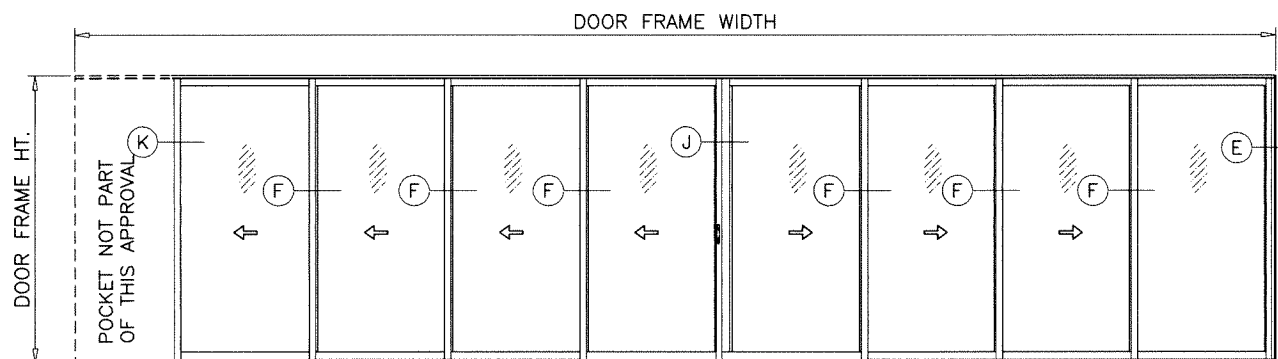
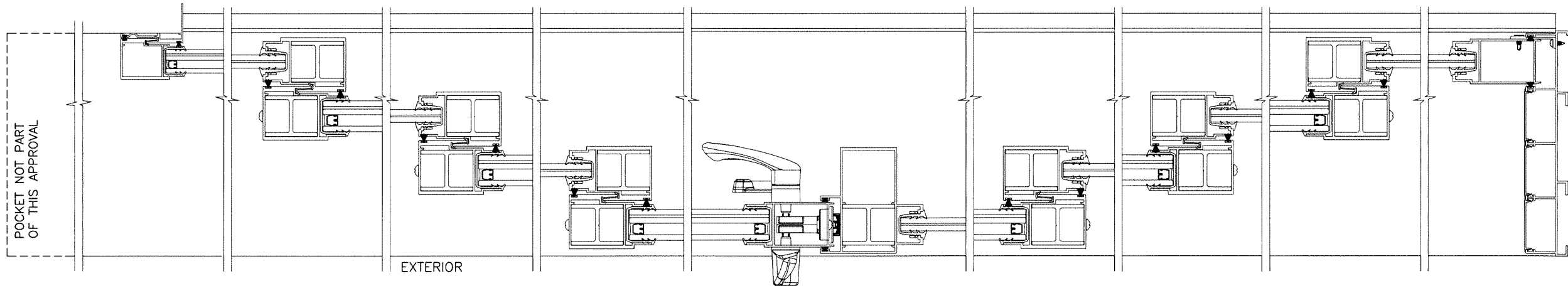


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NOTE:

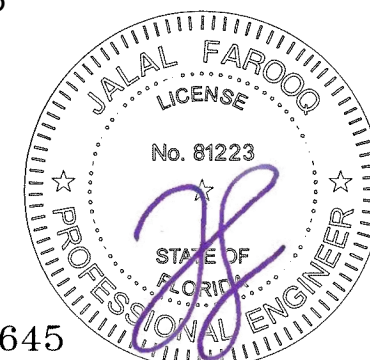
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES AND REINFORCEMENTS REQUIREMENTS SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.



PXXXX-XXXXO (SHOWN)
OXXX-XXXXP

APPROVED CONFIGURATIONS
POCKETED DOORS
FOUR (4) TRACKS

Sealed: 12/11/2025



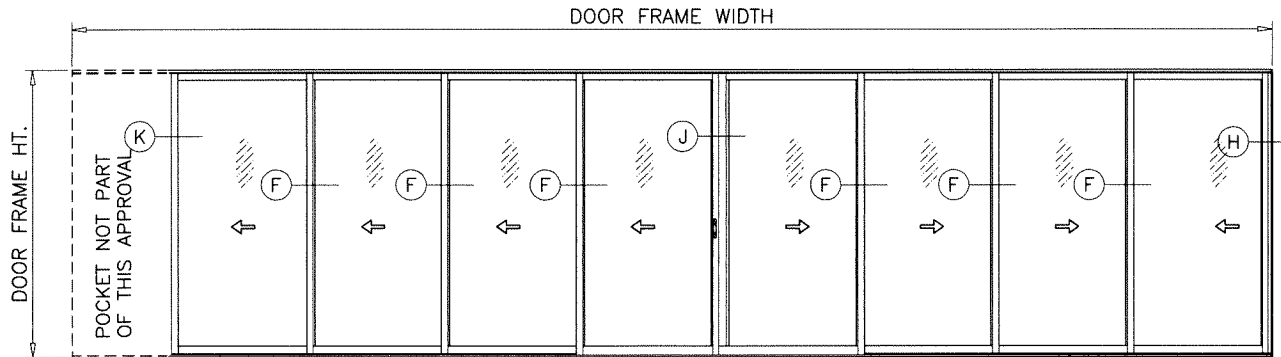
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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C.A.N. 3538

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

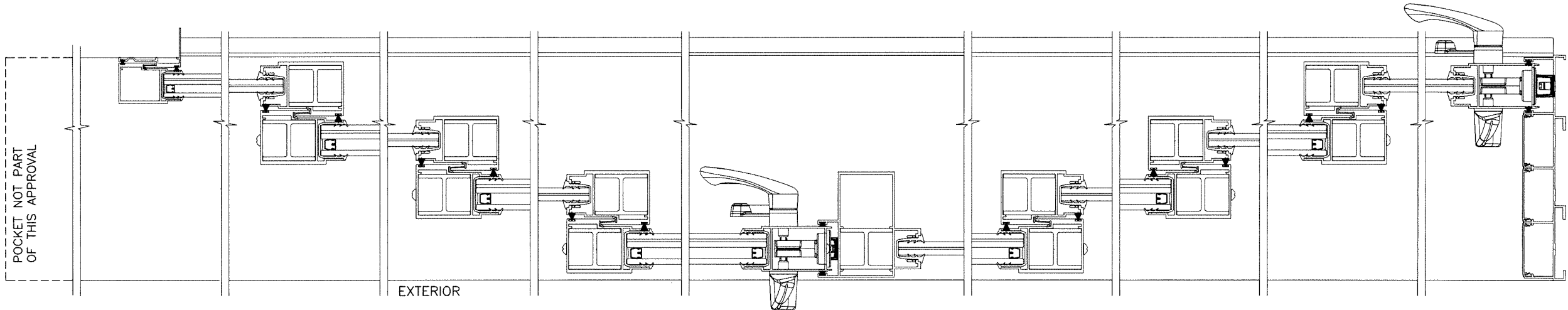
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dr. by:	TARIQ		
chk. by:			
drawing no.	W17-67		
sheet	12 of 23		

COMP-ANL W17-67ES

FL #22645



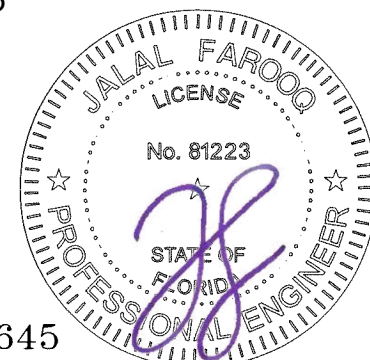
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 XXXX-XXXXP
 PXXXX-XXXXP



NOTE:

1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. FOR APPLICABLE DESIGN PRESSURES AND REINFORCEMENTS REQUIREMENTS SEE SHEET 5.
3. FOR ANCHOR DETAILS SEE SHEETS 14 THRU 19.

Sealed: 12/11/2025



APPROVED CONFIGURATIONS
POCKETED DOORS
FOUR (4) TRACKS

FL #22645

ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

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

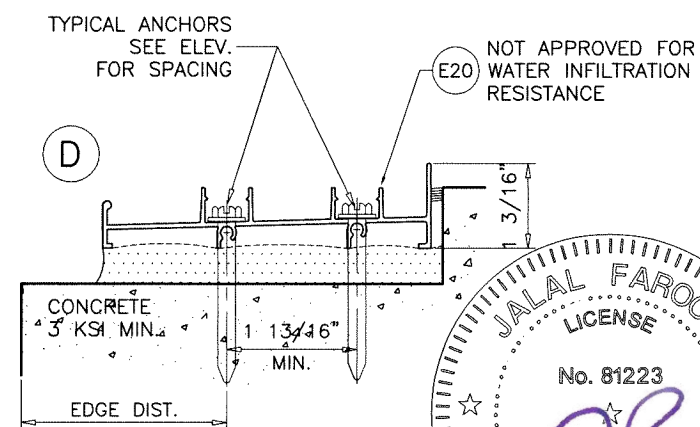
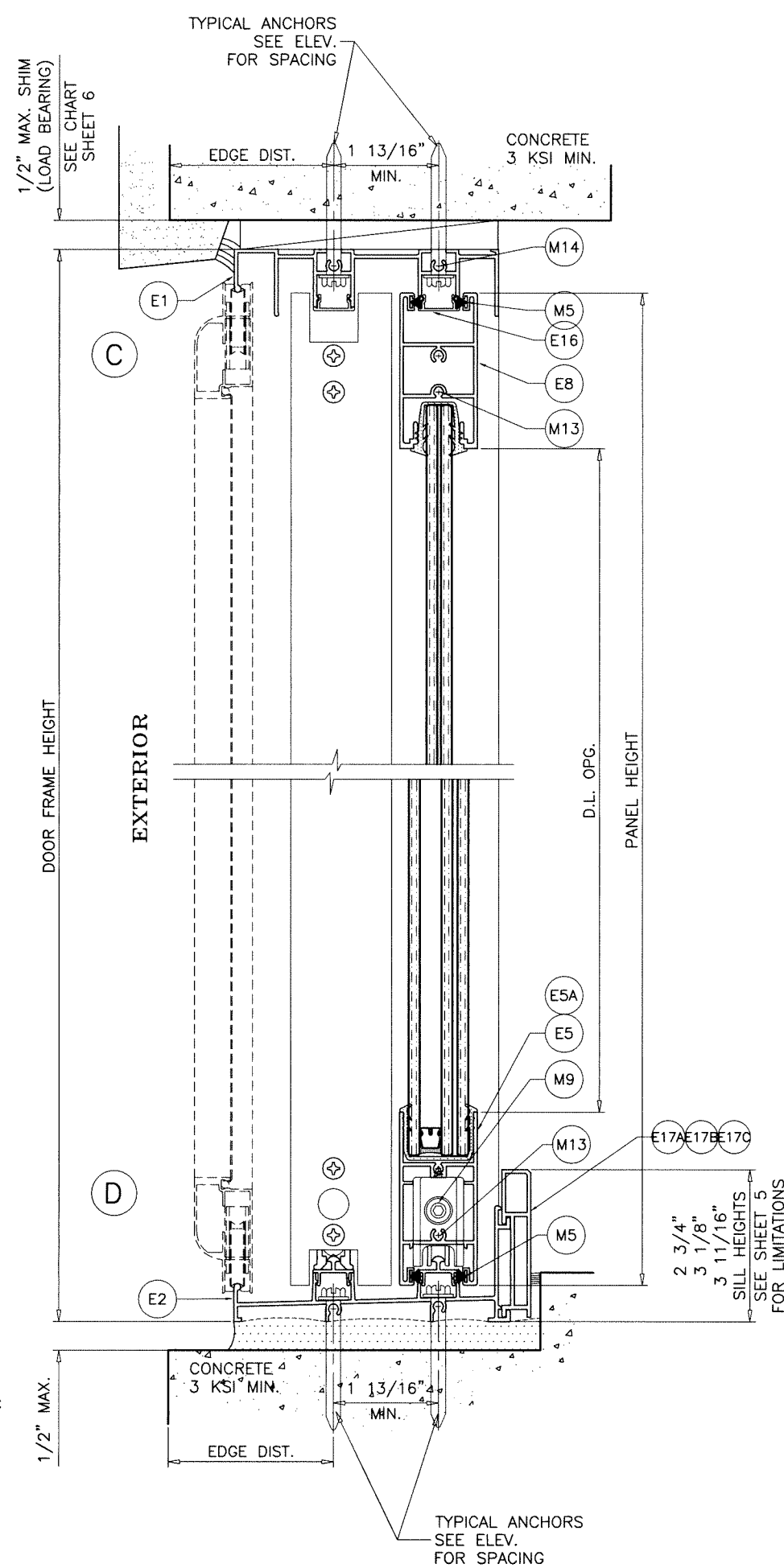
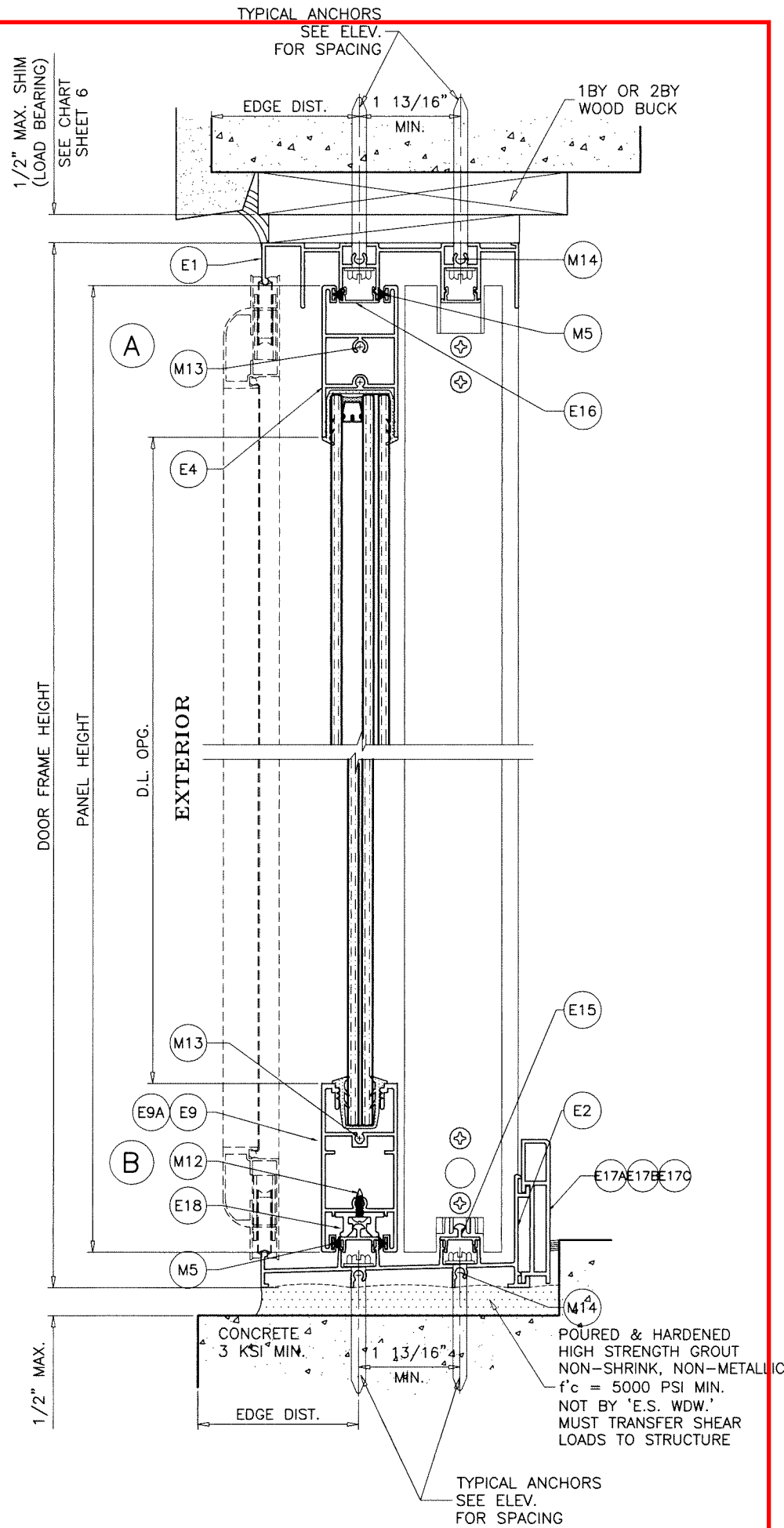
Revisions:			
no	date	by	description

date: 07-11-17
 scale: -
 dr. by: TARIQ
 chk. by:

drawing no.
W17-67
 sheet 13 of 23

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 (C.A.N. 3538)

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FL #22645



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revisions:	no.	date	by description
date: 07-11-17	scale: 3/8" = 1"	dr. by: TARIQ	chk. by:
drawing no.		W17-67	
sheet 14 of 23			

TYPICAL ANCHORS: SEE ELEV. FOR SPACING
— AT HEAD

TYPE 'A'— 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u=164$ KSI, $F_y=148$ KSI)
INTO WOOD STRUCTURES
2" MIN. PENETRATION INTO WOOD
THRU 1BY BUCKS INTO CONCRETE
1-3/4" MIN. EMBED INTO CONCRETE, 1-1/2" MIN. EDGE DIST.
THRU 2BY BUCKS INTO CONCRETE
1-1/2" MIN. EMBED INTO CONCRETE, 1-1/2" MIN. EDGE DIST.

TYPE 'B'— 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u=164$ KSI, $F_y=148$ KSI)
DIRECTLY INTO CONCRETE
2" MIN. EMBED INTO CONCRETE, 1-1/2" MIN. EDGE DIST.

TYPE 'C'— 1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. ($F_y = 36$ KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

— AT SILL

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

— AT JAMBS

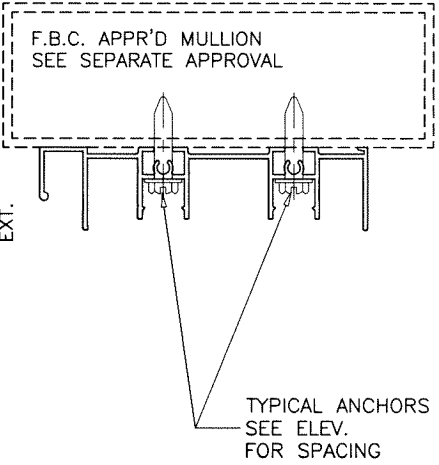
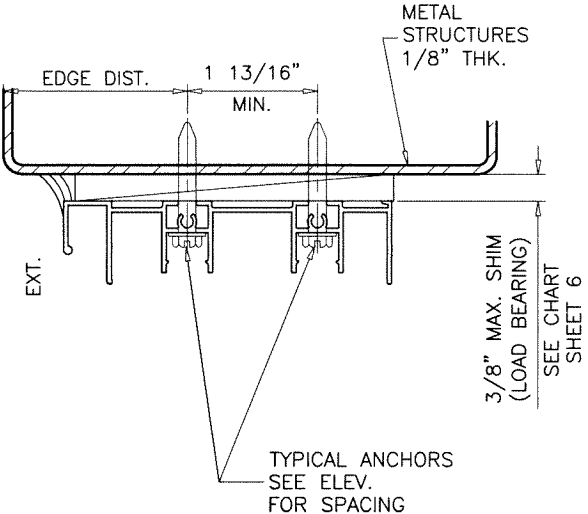
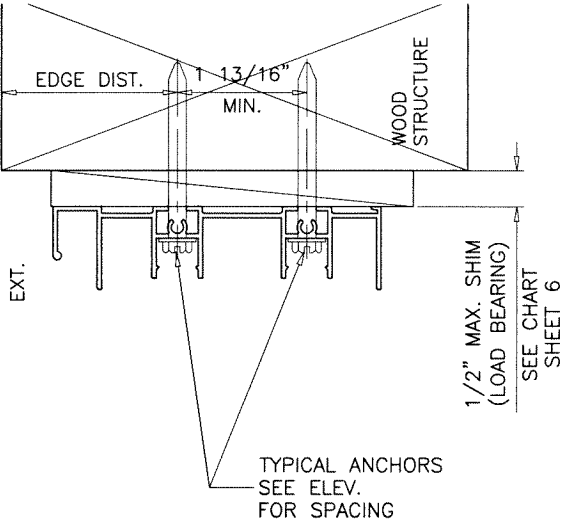
TYPE 'A'— 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u=164$ KSI, $F_y=148$ KSI)
INTO WOOD STRUCTURES
2" MIN. PENETRATION INTO WOOD
THRU 1BY OR 2BY BUCKS INTO CONC. OR FILLED BLOCK
1-1/4" MIN. EMBED INTO CONCRETE
1-1/2" MIN. EMBED INTO FILLED BLOCKS

TYPE 'B'— 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u=164$ KSI, $F_y=148$ KSI)
DIRECTLY INTO CONCRETE OR GROUT FILLED BLOCKS
2" MIN. EMBED INTO CONCRETE
2" MIN. EMBED INTO GROUT FILLED BLOCKS

TYPE 'C'— 1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. ($F_y = 36$ KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN. (UNLESS SPECIFIED OTHERWISE)
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 GROUT FILLED BLOCK AT JAMBS $f'_m = 2000$ PSI MIN.



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

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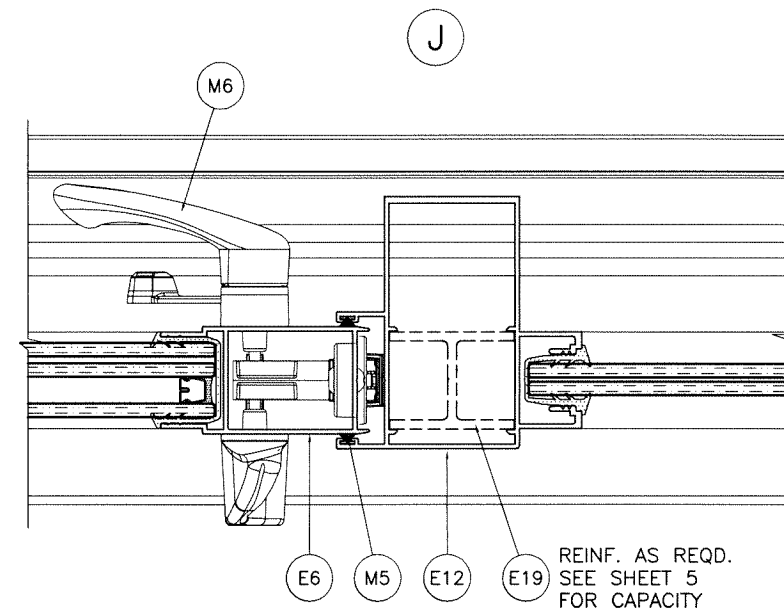
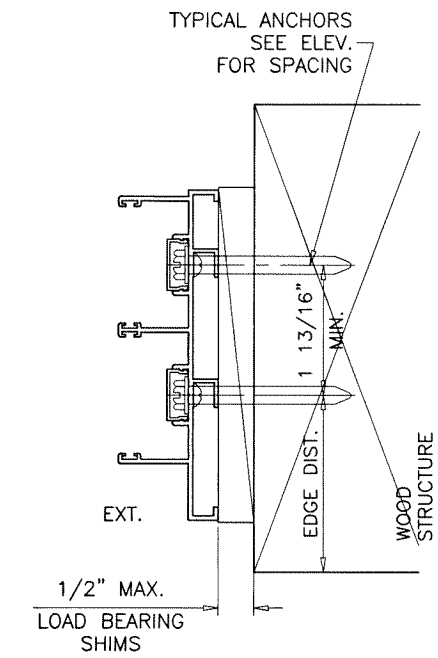
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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL W17-67ES

ES-EL400 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

revisions:	
no	date by description

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drawing no. W17-67			
sheet 15 of 23			



A circular professional engineer seal for Jalal Farooq. The outer ring contains the text "JALAL FAROOQ" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside this ring, the word "LICENSE" is at the top and "STATE OF FLORIDA" is at the bottom, also separated by two stars. In the center, the license number "No. 81223" is printed. A large, stylized purple signature is written across the center of the seal, overlapping the text "STATE OF FLORIDA" and the license number.

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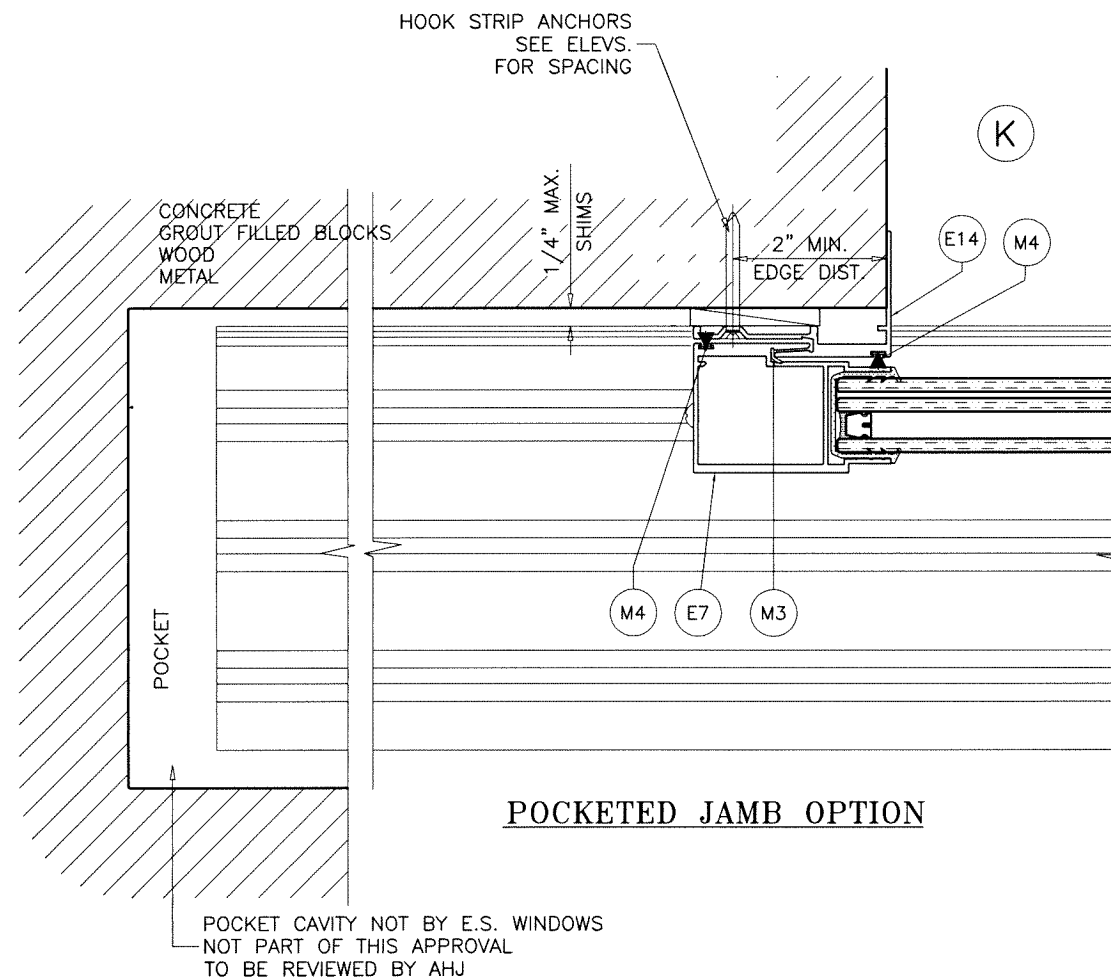
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HOOK STRIP ANCHORS: SEE ELEV. FOR SPACING

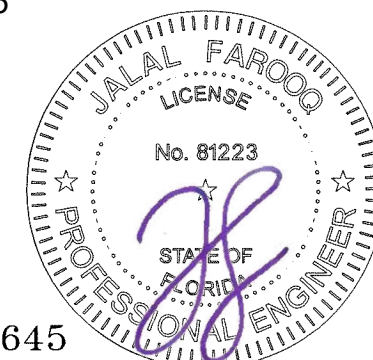
DIRECTLY INTO CONCRETE OR GROUT FILLED BLOCKS
1-3/4" MIN. EMBED INTO CONCRETE
1-3/4" MIN. EMBED INTO GROUT FILLED BLOCKS

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD

INTO METAL STRUCTURES
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
STEEL: 1/8" THK. MIN. ($F_y = 36$ KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

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

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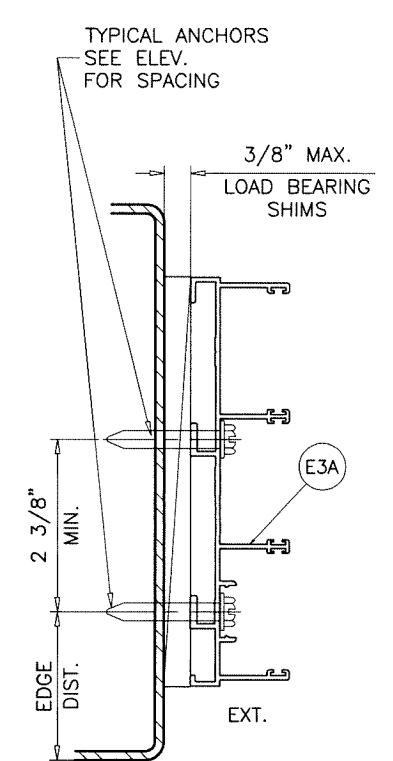
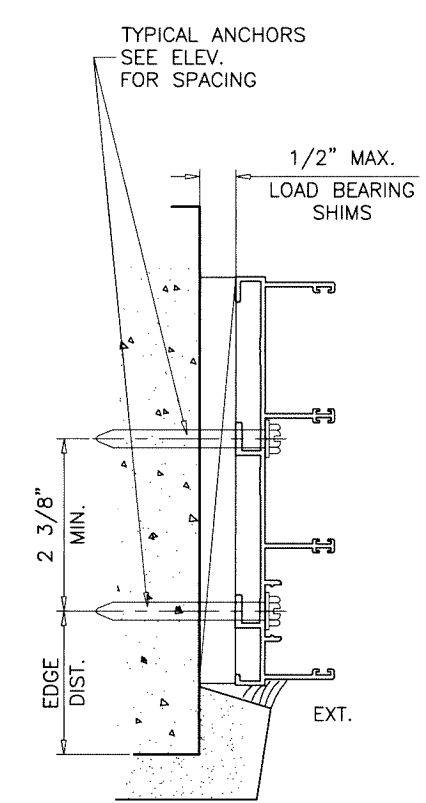
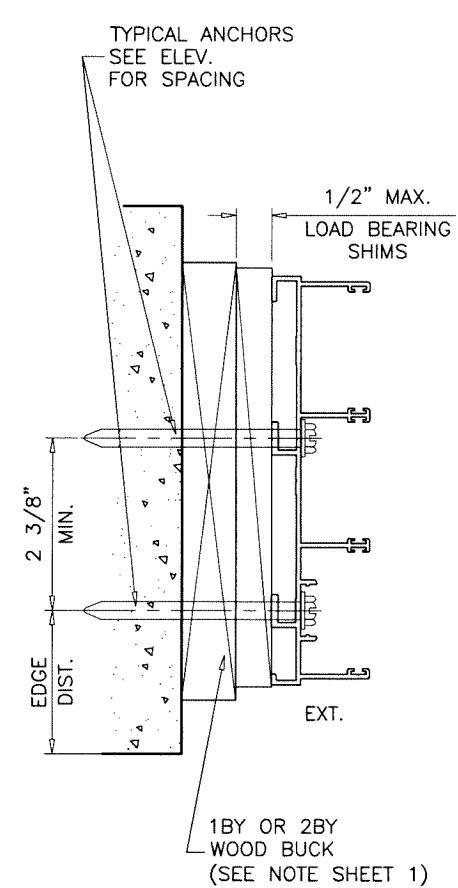
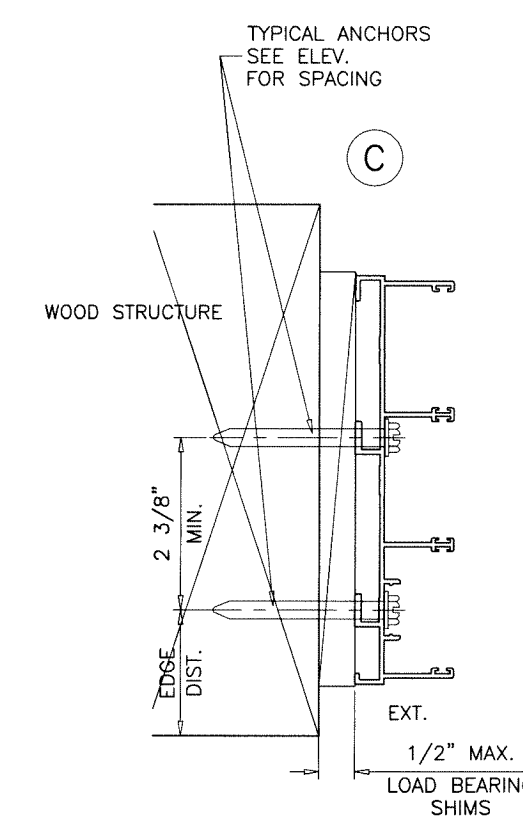
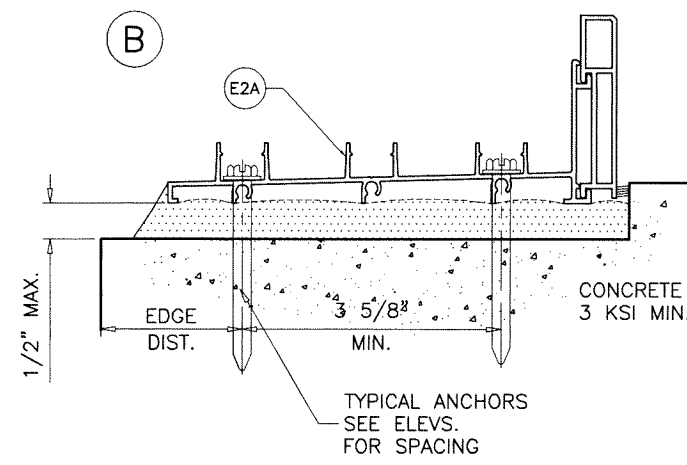
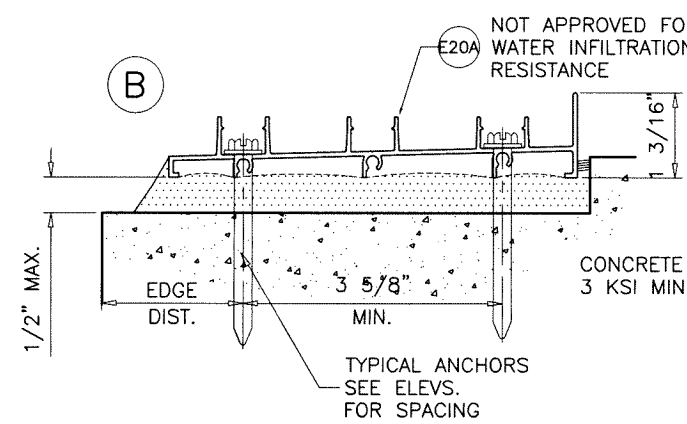
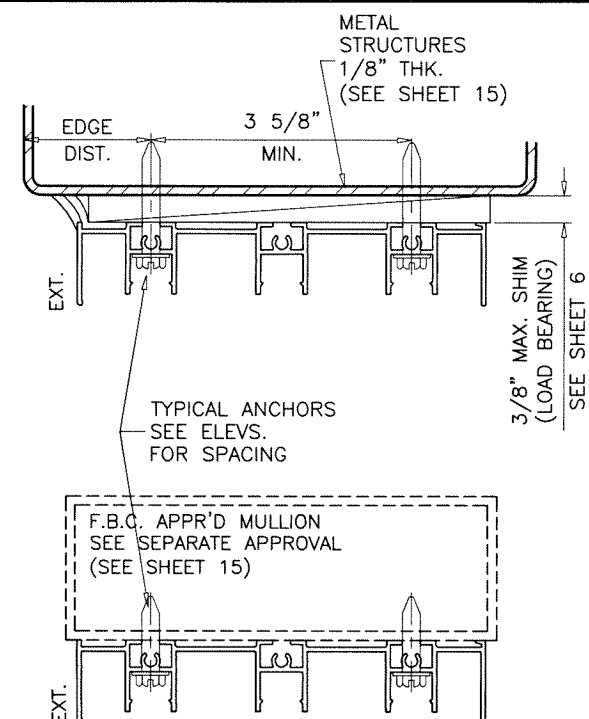
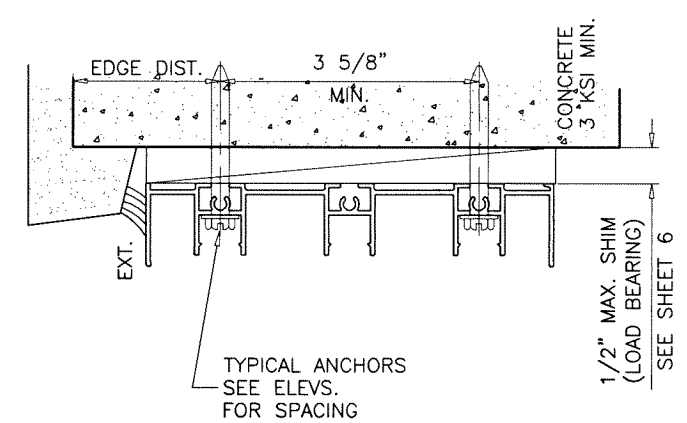
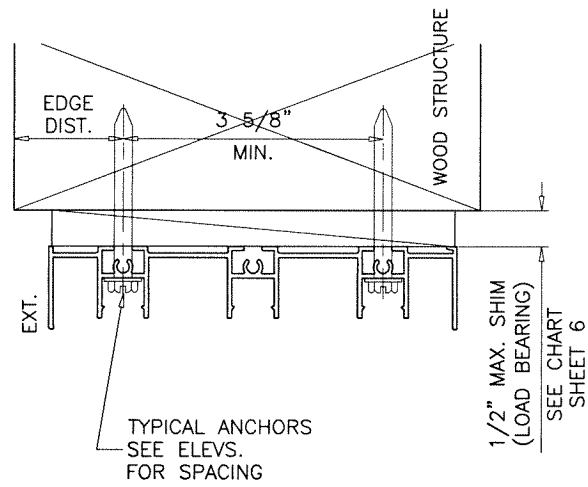
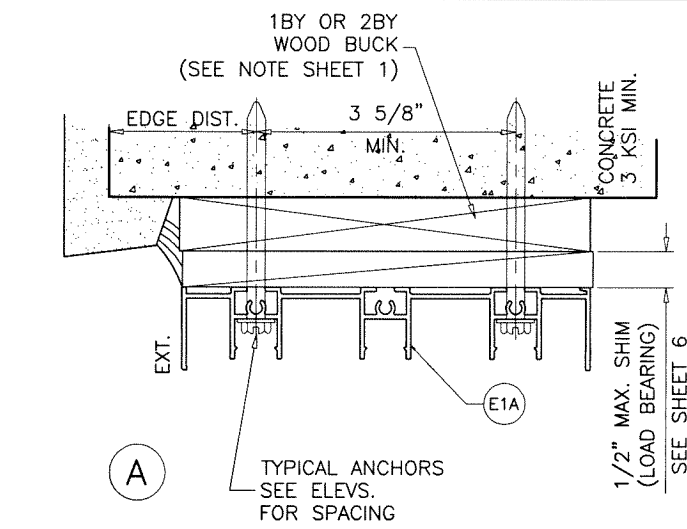
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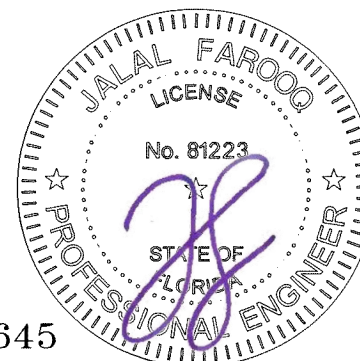
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3 TRACK FRAMES
ANCHOR LOCATIONS

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(C.A.N. 3538)
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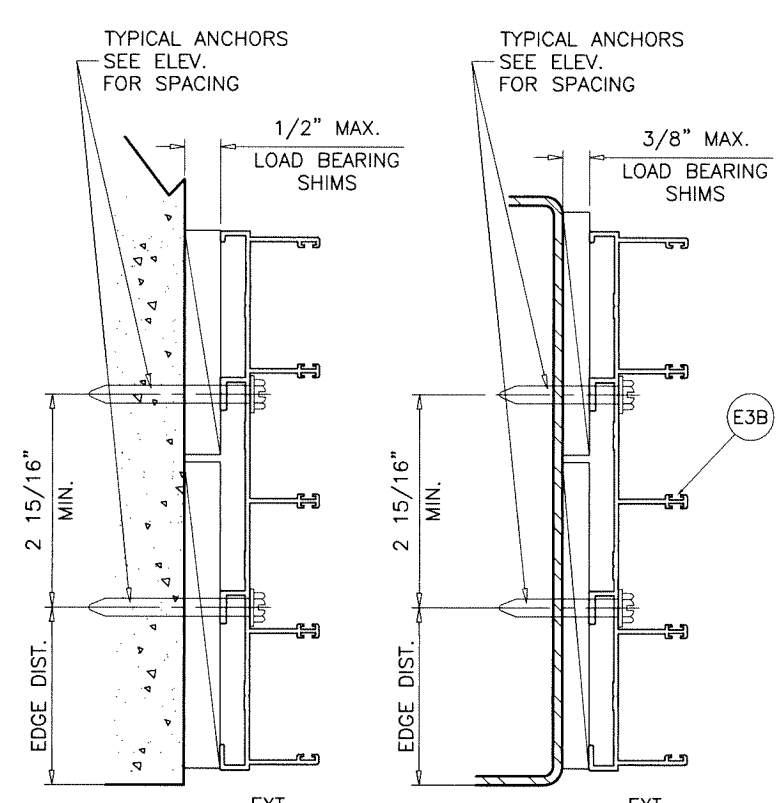
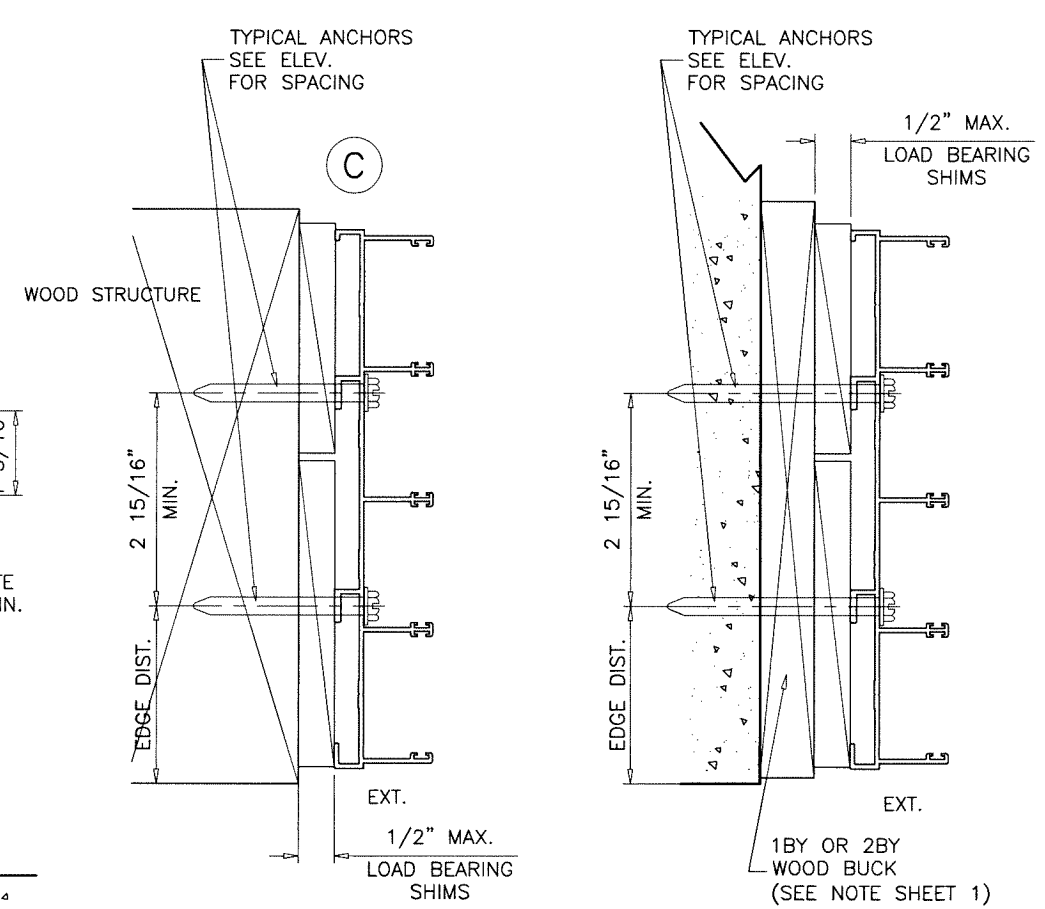
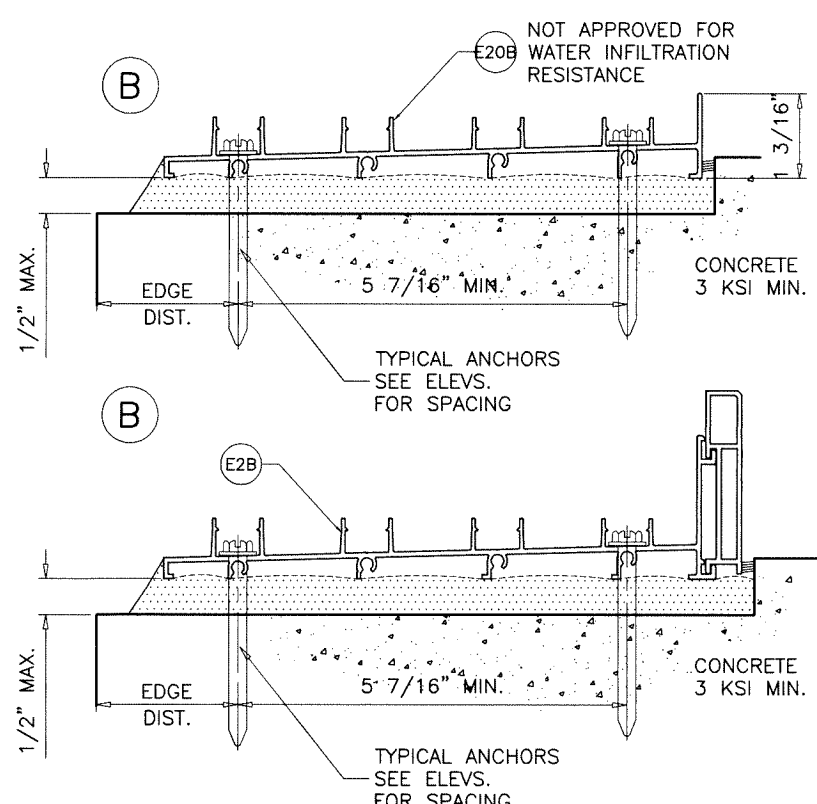
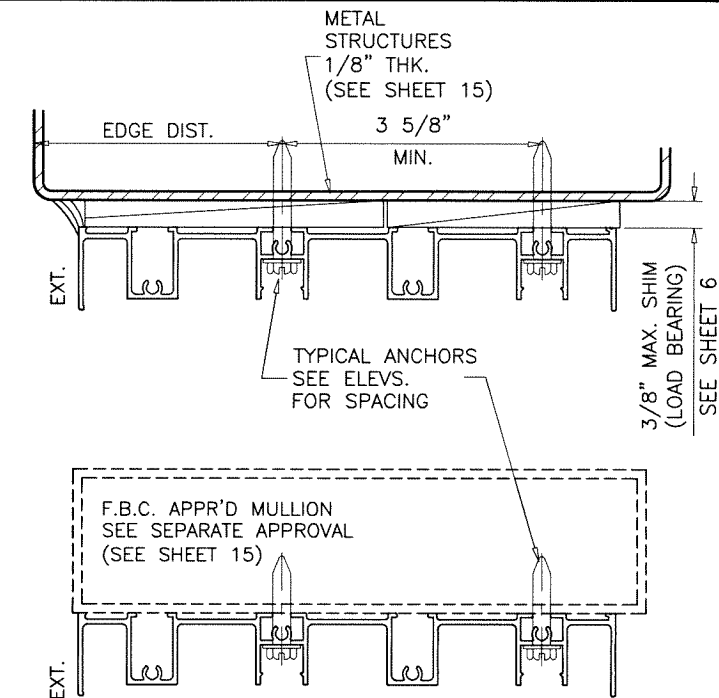
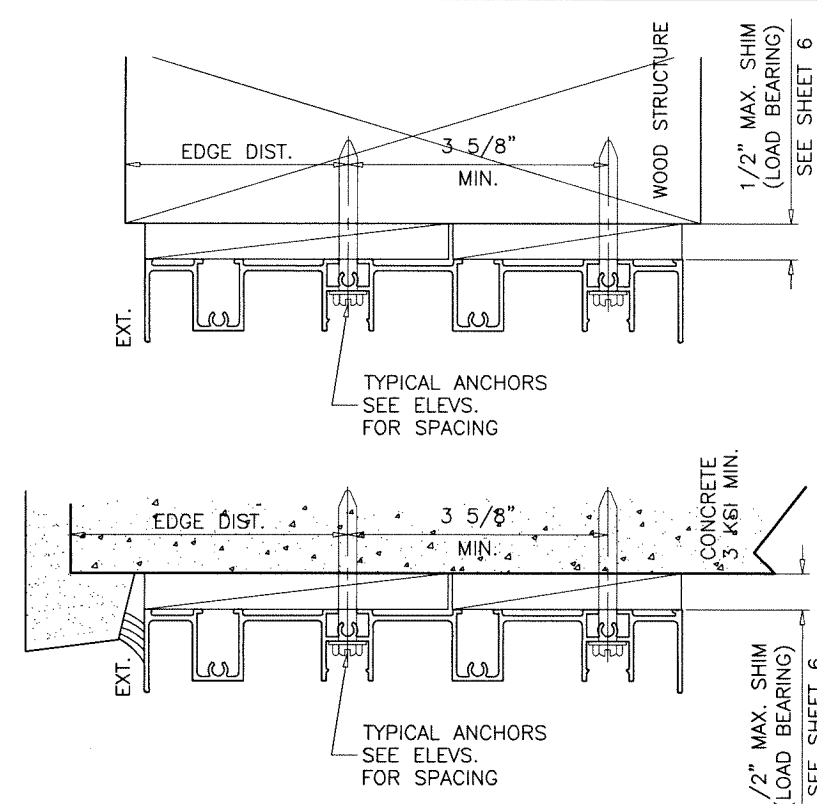
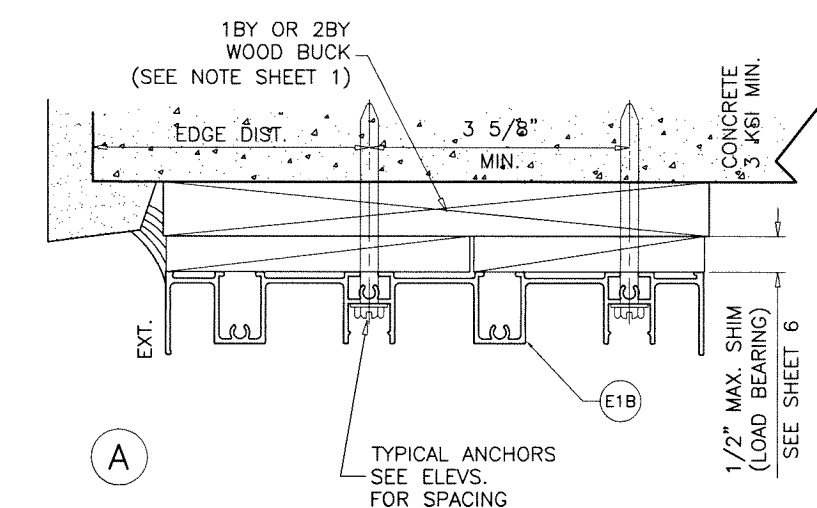
ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.)

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

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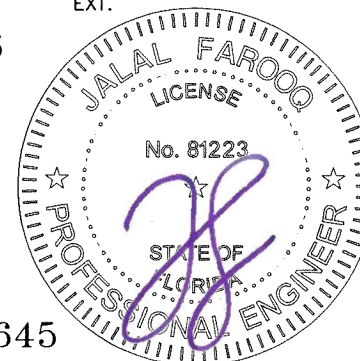
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4 TRACK FRAMES
ANCHOR LOCATIONS

FL #22645



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W17-67

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FL #22645

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-EL400-001	1	FRAME HEAD (2 TRACK)	6063-T6	-
E1A	ES-EL400-201	AS REQD.	FRAME HEAD (3 TRACK)	6063-T6	-
E1B	ES-EL400-205	AS REQD.	FRAME HEAD (4 TRACK)	6063-T6	-
E2	ES-EL400-002	1	FRAME SILL (2 TRACK)	6063-T6	-
E2A	ES-EL400-202	AS REQD.	FRAME SILL (3 TRACK)	6063-T6	-
E2B	ES-EL400-206	AS REQD.	FRAME SILL (4 TRACK)	6063-T6	-
E3	ES-EL400-003	2	FRAME JAMB (2 TRACK)	6063-T6	-
E3A	ES-EL400-203	AS REQD.	FRAME JAMB (3 TRACK)	6063-T6	-
E3B	ES-EL400-207	AS REQD.	FRAME JAMB (4 TRACK)	6063-T6	-
E4	ES-EL400-004	1/ PANEL	TOP RAIL (INSUL. LAM. GLASS)	6063-T6	-
E5	ES-EL400-005	1/ PANEL	BOTTOM RAIL (STANDARD) (INSUL. LAM. GLASS)	6063-T6	-
E5A	ES-EL400-410A	1/ PANEL	BOTTOM RAIL (HI-RISE) (INSUL. LAM. GLASS)	6063-T6	-
E6	ES-EL400-006	AS REQD.	JAMB STILE (INSUL. LAM. GLASS)	6063-T6	-
E7	ES-EL400-007	AS REQD.	INTERLOCK STILE (INSUL. LAM. GLASS)	6063-T6	-
E8	ES-EL400-009	1/ PANEL	TOP RAIL (LAM. GLASS)	6063-T6	-
E9	ES-EL400-010	1/ PANEL	BOTTOM RAIL (STANDARD) (LAM. GLASS)	6063-T6	-
E9A	ES-EL400-409A	1/ PANEL	BOTTOM RAIL (HI-RISE) (LAM. GLASS)	6063-T6	-
E10	ES-EL400-011	AS REQD.	JAMB STILE (LAM. GLASS)	6063-T6	-
E11	ES-EL400-012	AS REQD.	INTERLOCK STILE (LAM. GLASS)	6063-T6	-
E12	ES-EL400-013	AS REQD.	ASTRAGAL STILE (LAM. GLASS)	6063-T6	-
E12A	ES-EL400-008	AS REQD.	ASTRAGAL STILE (INSUL. LAM. GLASS)	6063-T6	-
E13	ES-EL400-014	AS REQD.	JAMB COVER	6063-T5	-
E14	ES-EL400-015	AS REQD.	POCKET JAMB	6063-T6	-
E15	ES-EL400-016	AS REQD.	SILL TRACK	6063-T6	-
E16	ES-EL400-017	AS REQD.	HEAD COVER	6063-T5	-
E17A	ES-2020-008	AS REQD.	SILL RISER	6063-T6	-
E17B	ES-2020-007	AS REQD.	ALT. SILL RISER	6063-T6	-
E17C	ES-2020-041	AS REQD.	ALT. SILL RISER	6063-T6	-
E18	ES-EL400-020	AS REQD.	FIXED PANEL BOTTOM GUIDE	6063-T6	-
E19	ES-EL400-021	AS REQD.	INTERLOCK REINFORCEMENT	6005-T5	-
E20	ES-EL400-401	1	FRAME SILL (2 TRACK)	6063-T6	-
E20A	ES-EL400-403	AS REQD.	FRAME SILL (3 TRACK)	6063-T6	-
E20B	ES-EL400-404	AS REQD.	FRAME SILL (4 TRACK)	6063-T6	-
E26	ES-6011	AS REQD.	SCREW COVER	6063-T6	-
M1	ES-EL400-G01	4/ PANEL	GLAZING GASKET (LAM. GLASS)	SILICONE	DUROMETER 70±3 SHORE A
M2	ES-EL400-G02	4/ PANEL	GLAZING GASKET (INSUL. LAM. GLASS)	SILICONE	DUROMETER 70±3 SHORE A
M3	ES2020-G04	AS REQD.	INTERLOCK BUMPER	PVC	DUROMETER 60±5 SHORE D
M4	W33271NK	AS REQD.	PILE W'STRIPPING (INTERLOCK)	WOOL	-
M5	W33181NK	AS REQD.	PILE W'STRIPPING	WOOL	-
M6	PS01-0014	AS REQD.	DOOR HANDLE	DIE CAST ALUM	TWO POINT HANDLE
M7	PS01-1015	AS REQD.	STRIKE FOR MORTISE LOCK	ST. STEEL	-
M8	PS01-1036	AS REQD.	MORTISE 2 POINT LOCK	ST. STEEL	-
M9	GT-R34/3-01-A	2/ PANEL	ROLLER ASSEMBLY	ZAMAK	-
M10	6844.1	AS REQD.	BUMPER	ALUM/NYLON	-
M11	ES-EL400-FPI SL	2/ PANEL	FIX. PANEL CLIPS, AT 12" FROM TOP & BOTTOM	6063-T6	-
M12	#8 X 3/4"	AS REQD.	KEEPER FASTENERS	ST. STEEL	P.H. SMS
M13	#10 X 1-1/4"	AS REQD.	PANEL ASSEMBLY FASTENERS	ST. STEEL	P.H. SMS
M14	#12 X 1-1/2"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST. STEEL	P.H. SMS
M15	#6 X 3/8"	AS REQD.	FIX. PANEL CLIP FASTENERS	ST. STEEL	P.H. SMS
M16	#8 X 1/2"	AS REQD.	FIX. PANEL CLIP FASTENERS	ST. STEEL	F.H. SMS
M18	#10 X 1/2"	AS REQD.	ROLLER FASTENERS	ST. STEEL	P.H. SMS
M19	#10 X 1"	AS REQD.	LOCK INSTALLATION FASTENERS	ST. STEEL	F.H. SMS
M20	#8 X 1/2"	AS REQD.	HANDLE INSTALLATION FASTENERS	ST. STEEL	F.H. SMS

LOCK:

SURFACE MOUNT METALLIC HANDLE AT 44" FROM BOTTOM
FASTENED TO LOCK STILE WITH
(2) #8 X 1/2" FH SMS (M20)

SURFACE MOUNT METALLIC 3 PLY DUAL HOOK LOCK
44" FROM BOTTOM
FASTENED TO LOCK STILE WITH
(2) #10 X 1" FH SMS

SURFACE MOUNT METALLIC KEEPER AT 44" FROM BOTTOM
FASTENED TO FRAME JAMB AND ASTRAGAL STILE WITH
(3) #8 X 3/4" PH SMS (M12)

SEALANT:

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

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FL #22645

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AL-FAROOQ CORPORATION
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COMP-ANL\W17-67ES

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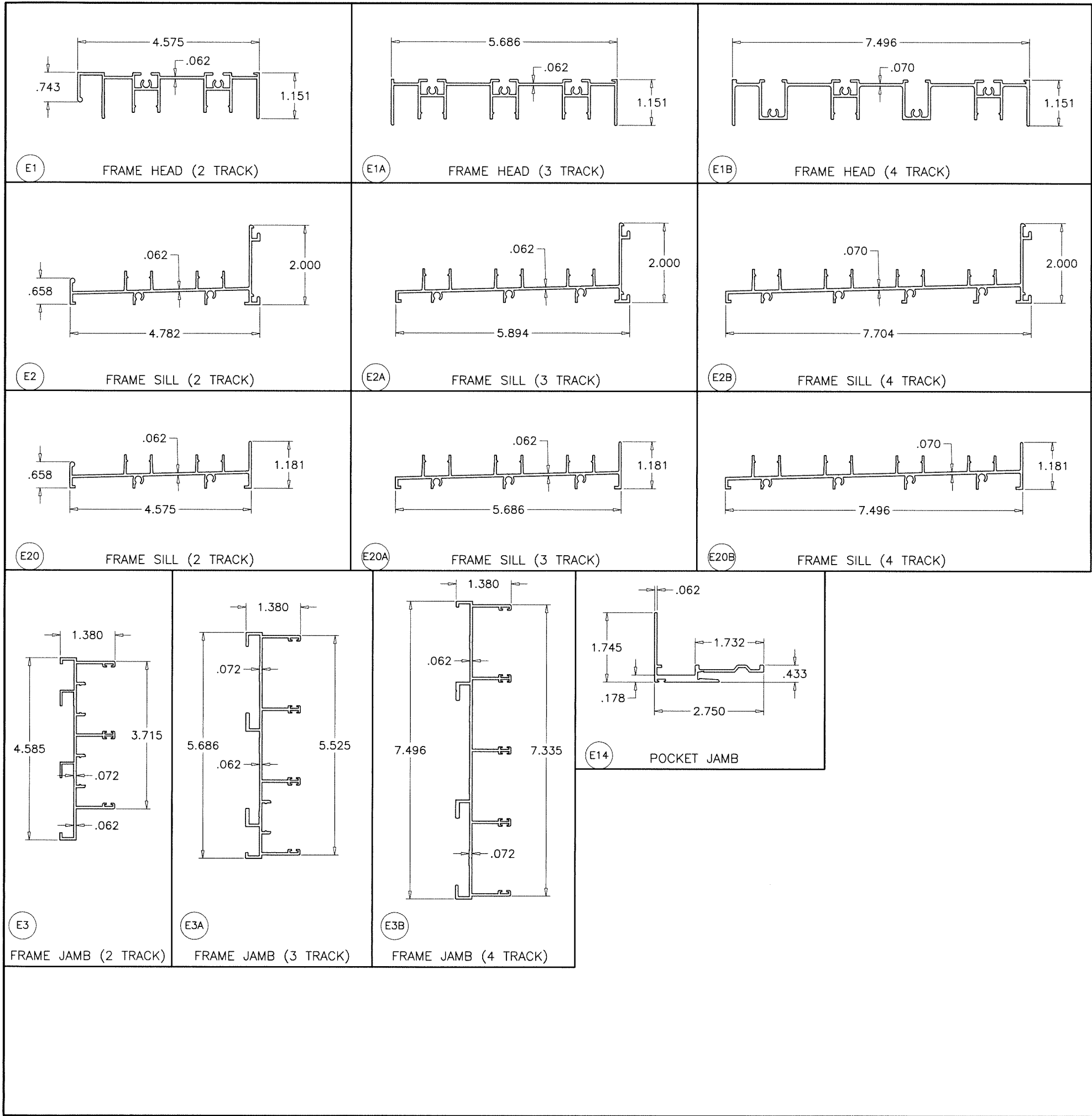
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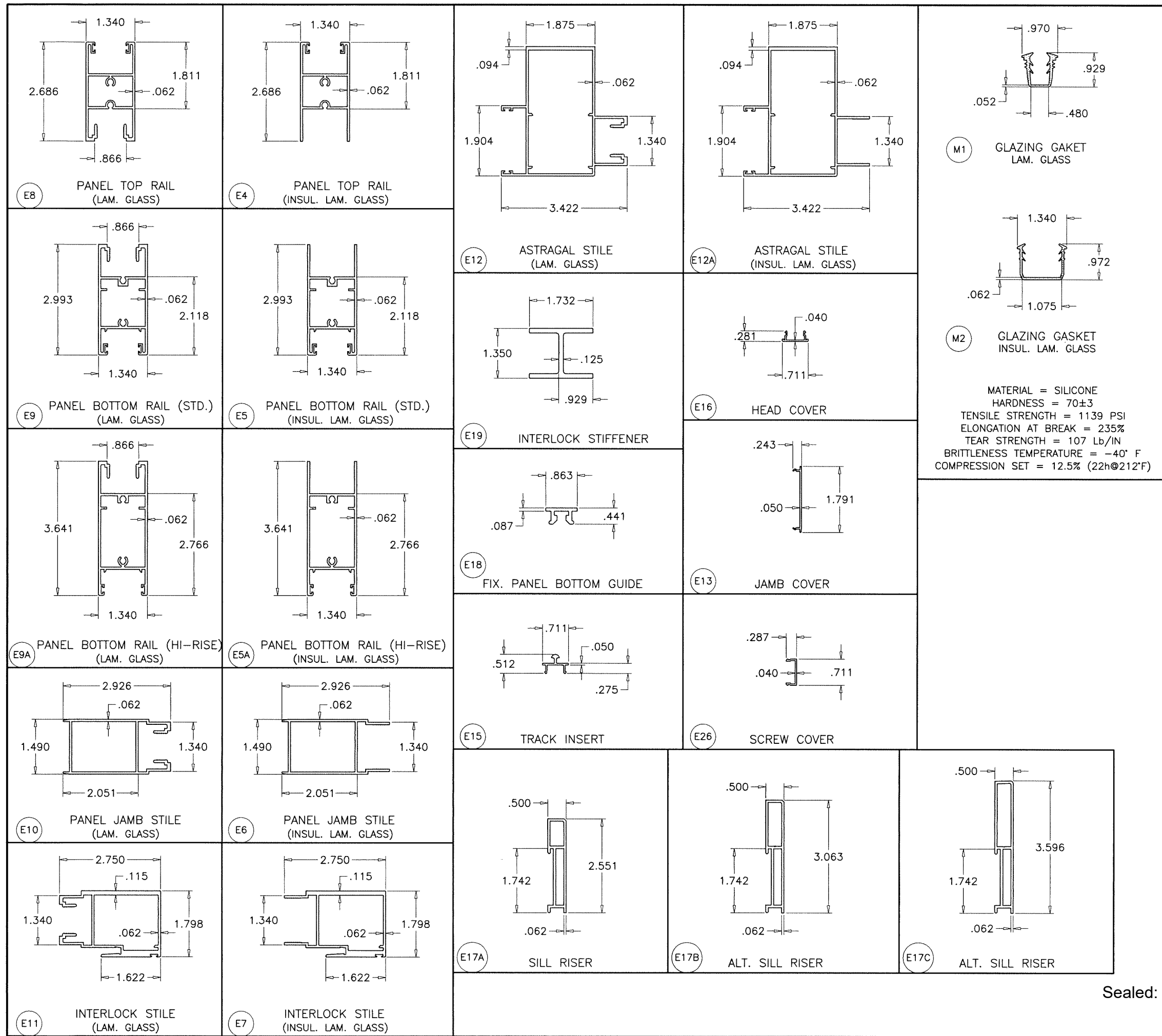
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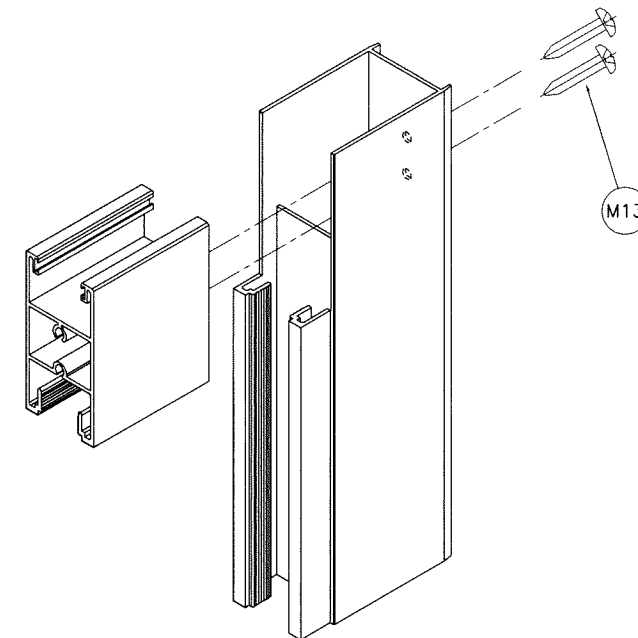
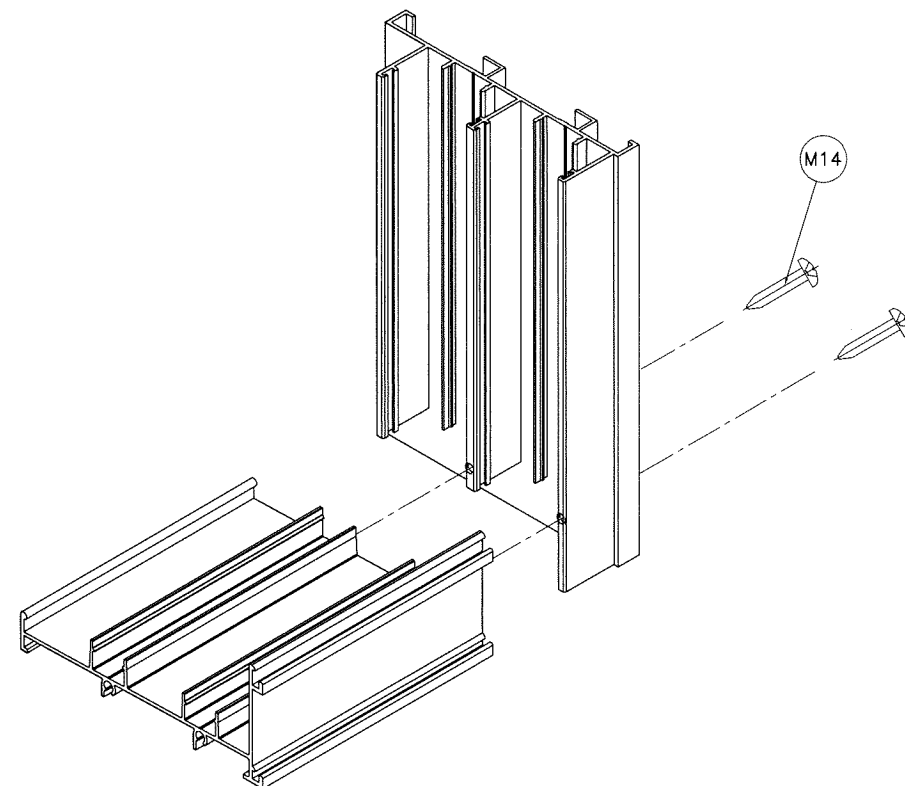
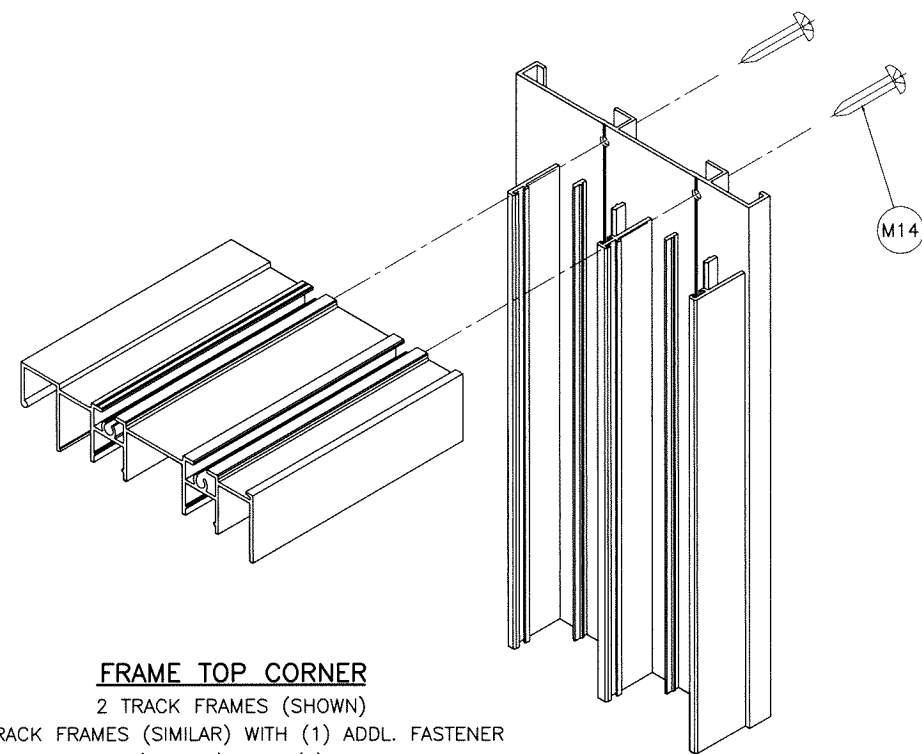
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