FL #	FL22527-R12
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) 624-7775 achamorro@eswllc.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	Swinging 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	07/16/2025
Validated By	Abel Carrasco, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL22527_R12_COI_SS - Certificate of Independence 2022.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM E1886	2013
ASTM E1996	2017
TAS 201	1994
TAS 202	1994
TAS 203	1994

Equivalence of Product Standards Certified By: Florida Licensed Professional Engineer or Architect
FL22527_R12_Equiv_SS - Equiv Ltr ASTM E1886-1996.pdf

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	08/01/2023
Date Validated	09/05/2023
Date Pending FBC Approval	09/08/2023
Date Approved	10/17/2023

Summary of Products

FL #	Model, Number or Name	Description
22527.1	Series ES-9000 Aluminum Outswing French Door	Large missile impact resistant aluminum outswing door
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +120/-130 **Other:** See attached drawing W17-91 for installation instructions.		**Installation Instructions** FL22527_R12_II_SS- 9000 OS ED (LMI) - DWG W17-91 2023.1.pdf Verified By: Jalal Farooq PE# 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL22527_R12_AE_SS - 9000 OS Door (LMI)-PAE 2023.pdf Created by Independent Third Party: Yes
22527.2	Series ES-9000-10 Aluminum Outswing French Door	Large missile impact resistant aluminum outswing door.
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +114/-114 **Other:** See attached drawing 18-58F for installation instructions.		**Installation Instructions** FL22527_R12_II_9000-10 OS Door (LMI) - DWG 18-58F (2023.1).pdf Verified By: Jalal Farooq PE #81223 Created by Independent Third Party: Yes **Evaluation Reports** FL22527_R12_AE_SS - 9000-10 OS Door (LMI)-PAE 2023.pdf Created by Independent Third Party: Yes
22527.3	Series ES-9100 Aluminum Outswing Door	Small missile impact resistant aluminum outswing door.
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +120/-150 **Other:** See attached drawing W17-56 for installation instructions.		**Installation Instructions** FL22527_R12_II_SS- 9100 OS Door (SMI) - DWG W17-56 (2023.1).pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL22527_R12_AE_SS - 9100 OS Door (SMI)-PAE 2023.pdf Created by Independent Third Party: Yes

Back Next

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

August 26, 2022

Product Approval Administrator
Building Codes & Standards Section
Department of Business & Professional Regulations
1940 North Monroe Street, Suite 90
Tallahassee, FL 32399-2100

To whom it may concern,

As the design engineer retained to prepare the product approval(s) associated with this letter as shown below on this same web page, I do hereby declare that I do not have and will not have any financial interest in any company manufacturing or distributing the referenced product(s), nor do I have or will have any financial interest with any other entity involved in the approval process of the referenced product(s).

Sincerely,

Sealed: 8/26/2022

Jalal Farooq, P.E.
CFO

9360 Sunset Drive, Suite 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfarooq@afceng.com

AL-FAROOQ CORPORATION
CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

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

FL 22527
Date: 07/18/2023

Detailed Product Description:
Manufacturer: E.S. WINDOWS, LLC.
Manufacturer Address: 3550 N.W. 49 STREET – MIAMI, FL. 33142
Model Name: SERIES ES-9000-10 ALUMINUM OUTSWING FRENCH DOOR
Maximum Load: +114, -114 PSF (Large Missile Impact)
Installation Drawings # 18-58F

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.

Comparative analysis used ___ Yes __X__ 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. Intertek	5/17/2018 11/17/2020 11/10/2022	BW-ESW-18-004 BT-ESW-20-040 F3920.01-450-18	Constantin Bortes, PE Vinu Abraham, PE
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Blackwater Testing Inc. Intertek	5/17/2018 11/10/2022	BW-ESW-18-004 F3920.01-450-18	Constantin Bortes, PE Vinu Abraham, PE
ASTM E330 & TAS 202	Uniform Static Air Press.	Blackwater Testing Inc. Intertek	5/17/2018 11/17/2020 11/10/2022	BW-ESW-18-004 BT-ESW-20-040 F3920.01-450-18	Constantin Bortes, PE Vinu Abraham, PE
AAMA 1304	Forced Entry Test	Blackwater Testing Inc. Intertek	5/17/2018 11/17/2020 11/10/2022	BW-ESW-18-004 BT-ESW-20-040 F3920.01-450-18	Constantin Bortes, PE Vinu Abraham, 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) ASTME1886/1996	Large Missile Impact & Cyclic	Blackwater Testing Inc. Intertek Blackwater	5/17/2018 11/17/2020 11/10/2022 05/22/2023	BW-ESW-18-004 BT-ESW-20-040 F3920.01-450-18 BT-ESW-23-004	Constantin Bortes, PE Vinu Abraham, PE Michael Caldwell, 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 PE # 81223
Al-Farooq Corporation EB # 3538

Sealed: 8/1/2023

SERIES 9000-10
ALUMINUM OUTSWING ENTRANCE DOOR

SEE SHEETS 2 & 2.1 FOR DESIGN LOAD CAPACITY OF SINGLE AND DOUBLE DOORS WITHOUT TRANSOMS.

SEE SHEETS 3 & 4 FOR DESIGN LOAD CAPACITY OF SINGLE AND DOUBLE DOORS WITH TRANSOMS.

LOWER VALUES FROM DOOR CAPACITY OR TRANSOM CAPACITY CHART WILL APPLY.

DOORS CAN ALSO BE USED WITH E.S. WINDOWS SERIES 9500 OR SERIES 8000 WINDOW WALL SYSTEMS UNDER SEPARATE APPROVAL.

SEE SEPARATE APPROVALS FOR E.S. WINDOWS SERIES 9500 AND SERIES 8000 WINDOW WALL DOOR MULLION CAPACITIES.

LOWER VALUES FROM DOOR CAPACITY CHARTS OR WINDOW WALL APPROVAL WILL APPLY TO ENTIRE SYSTEM.

DOORS WITH HIGH THRESHOLD (ES-9026) APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED. STANDARD AND MEDIUM THRESHOLDS NOT APPROVED FOR WATER INFILTRATION RESISTANCE.
SEE SHEET 6 FOR DETAILS.

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)'.

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.

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

GLASS D.L.O. DIMS.

D.L.O. HEIGHT (DOOR) = FRAME HEIGHT - 15.250" (STD. THRESHOLD)
D.L.O. HEIGHT (DOOR) = FRAME HEIGHT - 15.750" (MED. & HIGH THRESHOLDS)
D.L.O. WIDTH (DOOR) = FRAME WIDTH - 14.0625"

D.L.O. HEIGHT (ES-9500 TRANSOM) = TRANSOM HEIGHT - 5"
D.L.O. WIDTH (ES-9500 TRANSOM) = FRAME WIDTH - 7"

D.L.O. HEIGHT (ES-8000 TRANSOM) = TRANSOM HEIGHT - 5.5"
D.L.O. WIDTH (ES-8000 TRANSOM) = FRAME WIDTH - 5.5"

LEAF HEIGHT = FRAME HEIGHT - 2.938" (STD. THRESHOLD)
LEAF HEIGHT = FRAME HEIGHT - 2.438" (MED. & HIGH THRESHOLDS)
LEAF WIDTH = FRAME WIDTH - 5.188"

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

FL #22527

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.

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM OUTSWING FRENCH 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
A	10.05.20		UPDATED TO 2020 FBC
B	03.16.22		THRESHOLD OPTION ADDED
C	10.03.22		LEVEL E IMPACT DOOR ADDED
D	08.22.23		SILICONE OPTION ADDED

date: 05-22-18
scale: -
dr. by: TARIQ
chk. by:

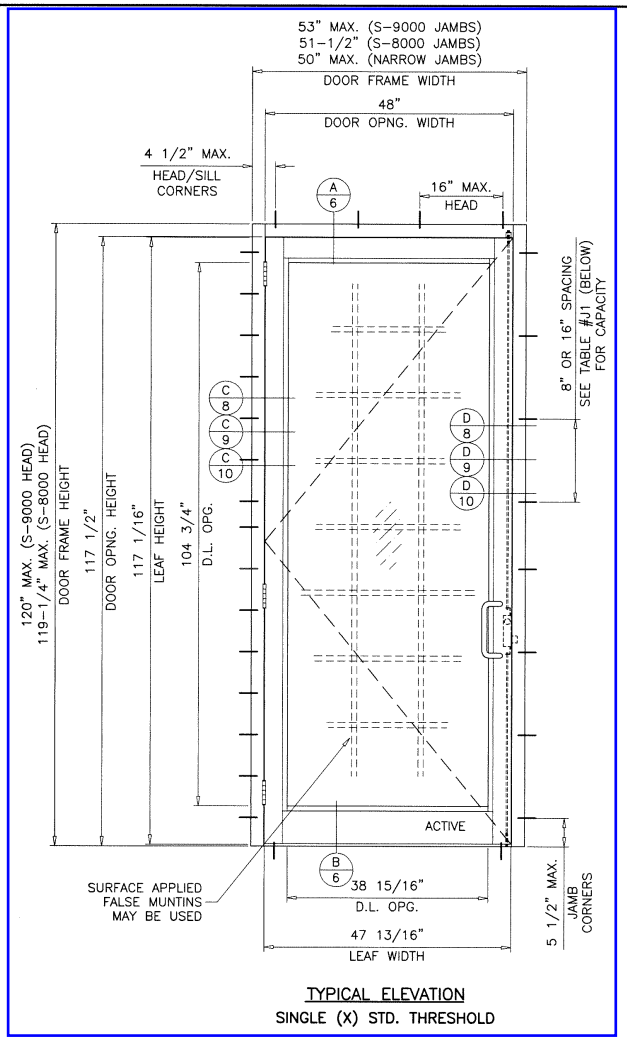
drawing no. 18-58F

sheet 1 of 21

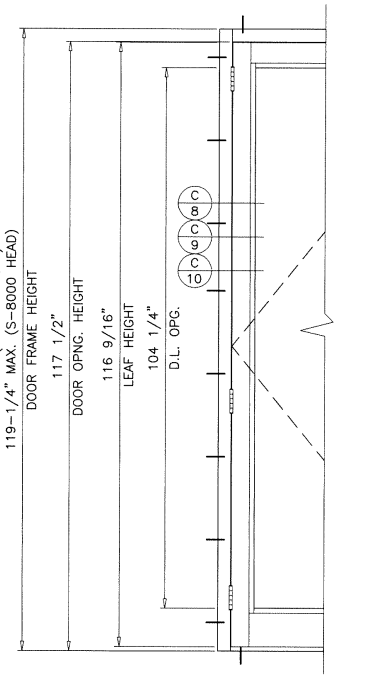
DOORS LOAD CAPACITY – PSF SINGLE DOORS (X)			
SINGLE DOOR (X) DIMS.		GLASS TYPES 'A' & 'Ai'	
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+)	INT.(–)
42"	108"	90.0	90.0

DOORS LOAD CAPACITY – PSF SINGLE DOORS (X)			
SINGLE DOOR (X) DIMS.		GLASS TYPES 'B' & 'Bi'	
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+)	INT.(–)
48"	117–1/2"	90.0	90.0

DOORS LOAD CAPACITY – PSF SINGLE DOORS (X)			
SINGLE DOOR (X) DIMS.		GLASS TYPE 'BB'	
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+)	INT.(–)
38"	113–1/2"	114.0	114.0
41"	105–1/2"		



TYPICAL ELEVATION
SINGLE (X) STD. THRESHOLD



MED. & HIGH THRESHOLDS
SINGLE (X) & DOUBLE (XX) DOORS

TABLE #J1	SINGLE DOOR JAMB ANCHORS LOAD CAPACITY – PSF								
	1/4" SHIM SPACE			3/8" SHIM SPACE			1/2" SHIM SPACE		
	SPACING AT 16" O.C.		AT 8" O.C.	SPACING AT 16" O.C.		AT 8" O.C.	SPACING AT 16" O.C.		AT 8" O.C.
SINGLE DOOR DIMS.	ANCHOR 'A'	ANCHOR 'C' & 'D'	ANCHOR 'A','C'&'D'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A' & 'C'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A' & 'C'
DOOR OPNG. WIDTH / DOOR OPNG. HEIGHT	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
42" 108"	90.0	90.0	90.0	70.2	90.0	90.0	54.6	79.0	90.0
48" 117–1/2"	88.0	90.0	90.0	62.3	89.0	90.0	48.4	70.0	90.0
38" 113–1/2"	109.0	114.0	114.0	76.9	109.4	114.0	59.8	86.4	114.0
41" 105–1/2"	101.9	114.0	114.0	71.9	102.3	114.0	55.9	80.7	114.0

SEE SHEET 7 FOR ANCHOR DESCRIPTION

FL #22527

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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TEL. (305) 264-8100

COMP–ANL\18–58F–ES

SERIES–9000–10 ALUM OUTSWING FRENCH 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: 05–22–18
scale: 1/2"=1'–0"
dr. by: TARIQ
chk. by:

drawing no. 18–58F

sheet 2 of 21

DOORS LOAD CAPACITY – PSF DOUBLE DOORS (XX)			
DOUBLE DOOR (XX) DIMS.		GLASS TYPES 'A' & 'Ai'	
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+)	INT.(–)
84"	108"	90.0	90.0

DOORS LOAD CAPACITY – PSF DOUBLE DOORS (XX)			
DOUBLE DOOR (XX) DIMS.		GLASS TYPES 'B' & 'Bi'	
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+)	INT.(–)
96"	117–1/2"	90.0	90.0

DOORS LOAD CAPACITY – PSF DOUBLE DOORS (XX)			
DOUBLE DOOR (XX) DIMS.		GLASS TYPE 'BB'	
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+)	INT.(–)
75–7/8"	113–1/2"	114.0	114.0
81–7/8"	105–1/2"		

TABLE #J2 — DOUBLE DOOR JAMB ANCHORS LOAD CAPACITY – PSF

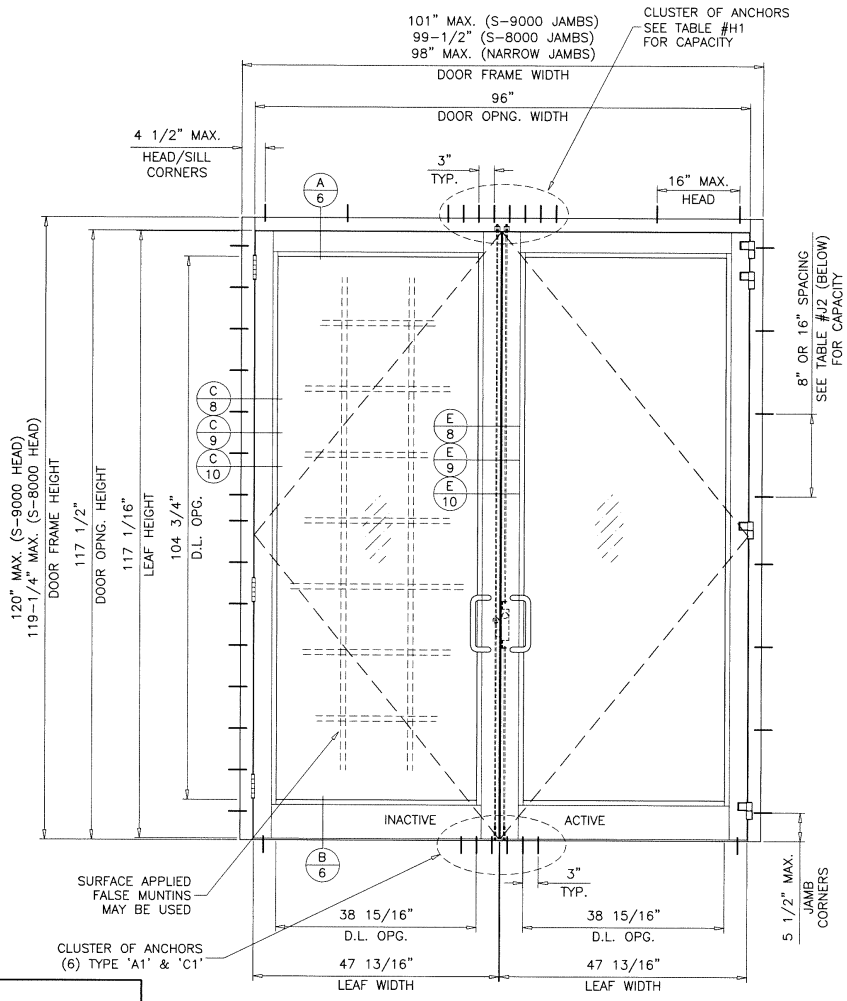
DOUBLE DOOR DIMS.		1/4" SHIM SPACE		3/8" SHIM SPACE			1/2" SHIM SPACE		
		SPACING AT 16" O.C.	AT 8" O.C.	SPACING AT 16" O.C.		AT 8" O.C.	SPACING AT 16" O.C.		AT 8" O.C.
		ANCHOR 'A', 'C' & 'D'	ANCHOR 'A', 'C', 'D'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A' & 'C'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A' & 'C'
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
84"	108"	90.0	90.0	74.2	90.0	90.0	57.7	83.0	90.0
96"	117–1/2"	90.0	90.0	65.4	90.0	90.0	50.8	73.0	90.0
75–7/8"	113–1/2"	114.0	114.0	81.6	114.0	114.0	63.5	91.7	114.0
81–7/8"	105–1/2"	107.7	114.0	76.0	108.2	114.0	59.1	85.4	114.0

SEE SHEET 7 FOR ANCHOR DESCRIPTION

TABLE #H1 — DOUBLE DOOR HEAD ANCHORS LOAD CAPACITY – PSF

DOOR DIMS.		1/4" SHIM SPACE			3/8" SHIM SPACE				1/2" SHIM SPACE			
		CLUSTER OF 6	CLUSTER OF 8		CLUSTER OF 6		CLUSTER OF 8		CLUSTER OF 6		CLUSTER OF 8	
		ANCHOR 'A', 'C' & 'D'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A'	ANCHOR 'C'	ANCHOR 'A'	ANCHOR 'C'
DOOR OPNG. WIDTH	DOOR OPNG. HEIGHT	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
84"	108"	90.0	75.2	90.0	75.2	90.0	90.0	90.0	58.5	90.0	75.2	90.0
96"		90.0	66.2	90.0	66.3	90.0	85.2	90.0	51.5	80.0	66.2	90.0
84"	117–1/2"	90.0	69.2	90.0	69.2	90.0	89.0	90.0	53.8	78.0	69.2	90.0
96"		90.0	61.0	90.0	61.0	90.0	78.4	90.0	47.4	72.0	61.0	90.0
75–7/8"	113–1/2"	111.7	114.0	114.0	78.8	112.2	101.3	114.0	61.3	88.5	78.8	113.8
81–7/8"	105–1/2"	111.7	114.0	114.0	78.8	112.2	101.3	114.0	61.3	88.5	78.8	113.8

SEE SHEET 7 FOR ANCHOR DESCRIPTION



TYPICAL ELEVATION
DOUBLE (XX) STD. THRESHOLD

FL #22527

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(C.A.N. 3538)

COMP–ANL\18–58F–ES

SERIES–9000–10 ALUM. OUTSWING FRENCH DOOR (L.M.I.)

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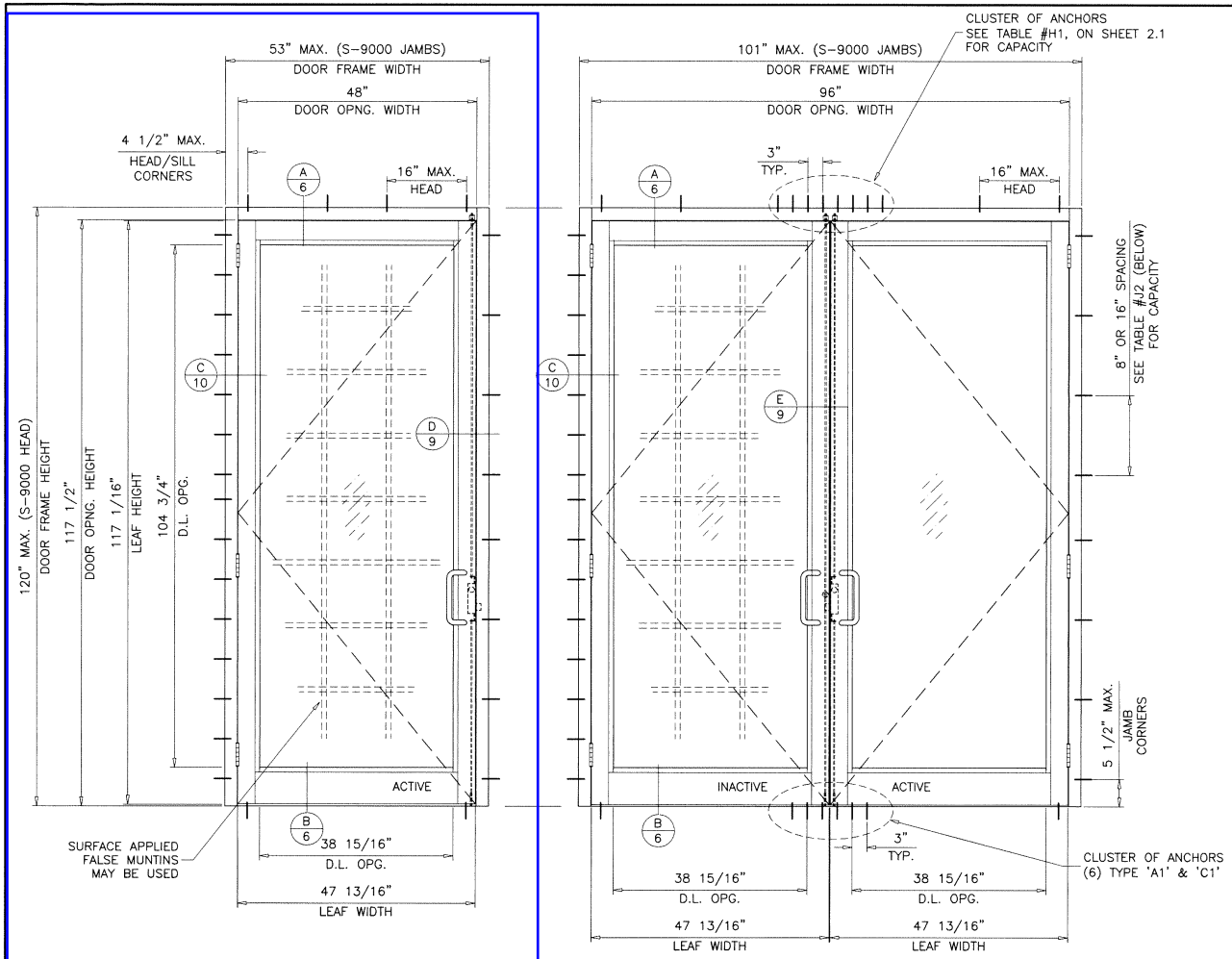
revisions:

no	date	by	description

date: 05–22–18
scale: 1/2"=1'–0"
dr. by: TARIQ
chk. by:

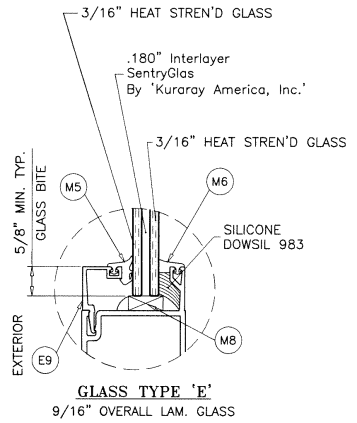
drawing no. 18–58F

sheet 2.1 of 21

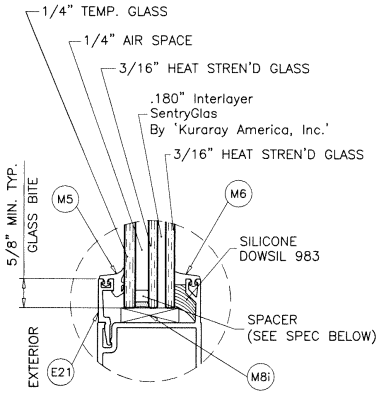


TYPICAL ELEVATION
SINGLE (X) STD. THRESHOLD

TYPICAL ELEVATION
DOUBLE (XX) STD. THRESHOLD



GLASS TYPE 'E'
9/16" OVERALL LAM. GLASS



GLASS TYPE 'Ei'
1-1/8" OVERALL INSUL. LAM. GLASS

GLAZING OPTIONS (LEVEL 'E' IMPACT)
DOOR LEAF

GLASS TYPES 'E' & 'Ei'
MAXIMUM DESIGN LOAD RATING = + 90.0 PSF
− 90.0 PSF
(ONLY FOR DOOR SIZES SHOWN ON THIS SHEET OR SMALLER)

THESE FRAMES CAN BE USED AT ALL SUBSTRATES SHOWN ON SHEETS 6, 7 AND 9.

DOOR LOCKS OPTION #1 SHOWN ON SHEET 15.
DOOR HINGES OPTION #1 SHOWN ON SHEET 16.

1/4" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #22527

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COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM OUTSWING FRENCH DOOR (L.M.I.)

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no	date	by	description

date: 05-22-18
scale: 1/2"=1'-0"
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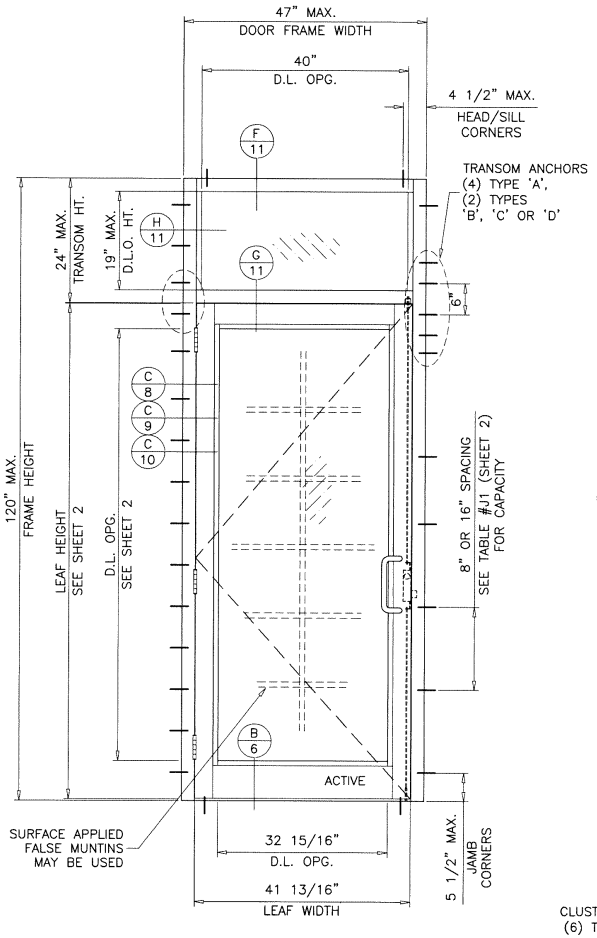
chk. by:

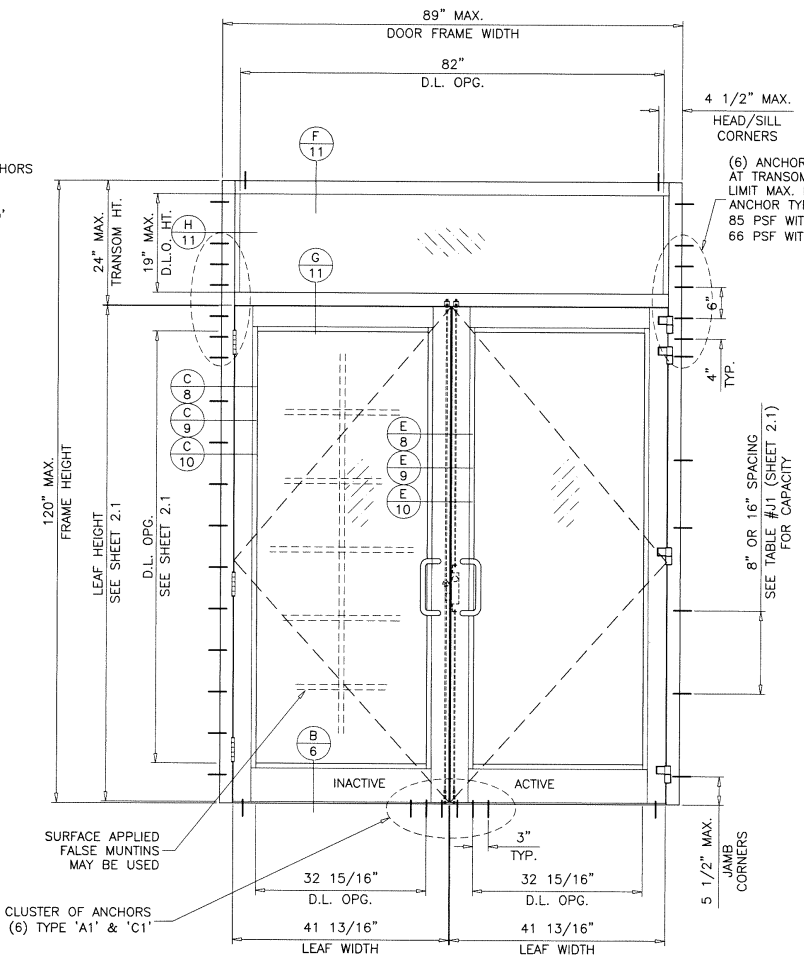
drawing no. 18-58F

sheet 2.2 of 21



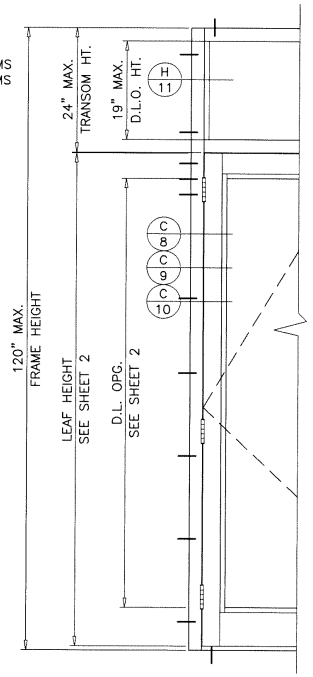
TYPICAL ELEVATION
SINGLE (O/X) STD. THRESHOLD
(ES-9500 TRANSOM)

SINGLE DOORS WITH TRANSOM (O/X) CAPACITY - PSF GLASS TYPES 'A', 'Ai' & 'B', 'Bi' (DOOR) GLASS TYPES 'A', 'B' & 'Ci' (TRANSOM)				
FRAME WIDTH	DOOR HEIGHT	TRANSOM HEIGHT	EXT.(+)	INT.(-)
47" (X)	108"	12"	90.0	90.0



TYPICAL ELEVATION
DOUBLE (O/XX) STD. THRESHOLD
(ES-9500 TRANSOM)

DOUBLE DOORS WITH TRANSOM (O/XX) CAPACITY - PSF GLASS TYPES 'A', 'Ai' & 'B', 'Bi' (DOOR) GLASS TYPES 'A', 'B' & 'Ci' (TRANSOM)				
FRAME WIDTH	DOOR HEIGHT	TRANSOM HEIGHT	EXT.(+)	INT.(-)
89" (XX)	108"	12"	90.0	90.0



MED. & HIGH THRESHOLDS
SINGLE (X) & DOUBLE (XX) DOORS

SEE SHEETS 2 AND 2.1 FOR DOOR GLASS OPTIONS

FL #22527

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM OUTSWING FRENCH 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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no | date | by | description

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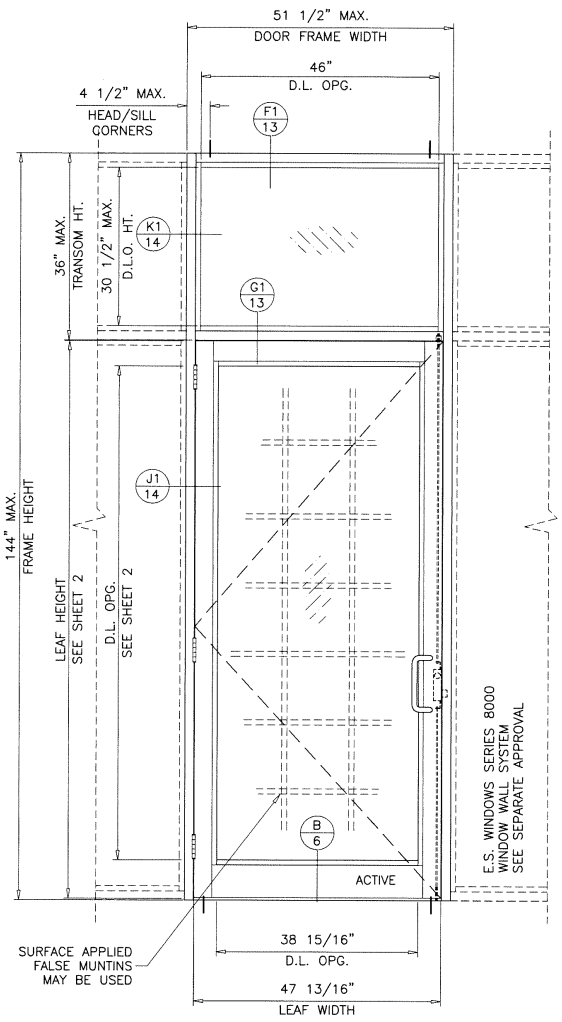
sheet 3 of 21



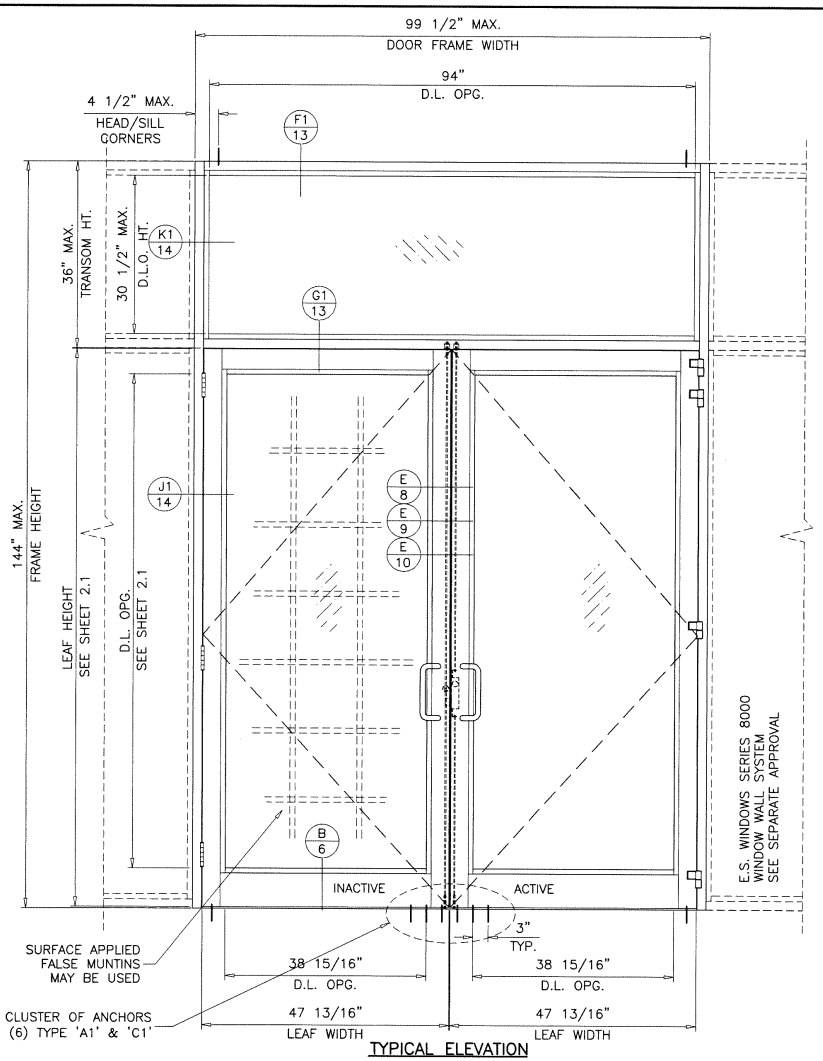
TYPICAL ELEVATION

SINGLE (O/X) STD. THRESHOLD

(ES-8000 TRANSOM)

SINGLE DOORS WITH TRANSOM (O/X) CAPACITY - PSF GLASS TYPE 'B' (TRANSOM)				
FRAME WIDTH	DOOR HEIGHT	TRANSOM HEIGHT	WITHOUT REINF. EXT.(+)	WITHOUT REINF. INT.(−)
51-1/2" (X)	108"	12"	90.0	90.0
		18"	90.0	90.0
		24"	90.0	90.0
		30"	90.0	90.0
		36"	90.0	90.0

SEE SHEETS 2 AND 2.1
FOR DOOR GLASS OPTIONS



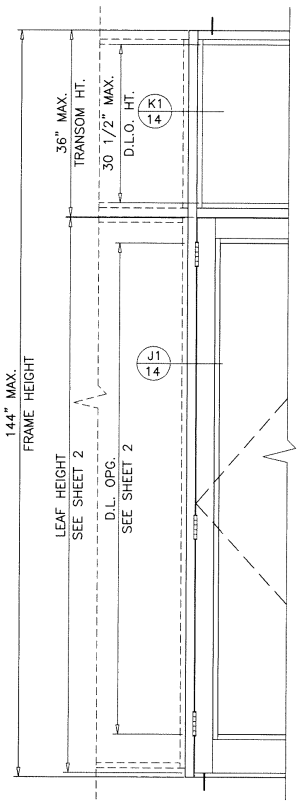
TYPICAL ELEVATION

DOUBLE (O/XX) STD. THRESHOLD

(ES-8000 TRANSOM)

DOUBLE DOORS WITH TRANSOM (O/XX) CAPACITY - PSF GLASS TYPE 'B' (TRANSOM)				
FRAME WIDTH	DOOR HEIGHT	TRANSOM HEIGHT	WITH REINF. EXT.(+)	WITH REINF. INT.(−)
99-1/2" (XX)	108"	12"	90.0	90.0
		18"	90.0	90.0
		24"	90.0	90.0
		30"	90.0	90.0
		36"	90.0	90.0

SEE SHEET 12
FOR REINF. DETAIL



MED. & HIGH THRESHOLDS

SINGLE (X) & DOUBLE (XX) DOORS

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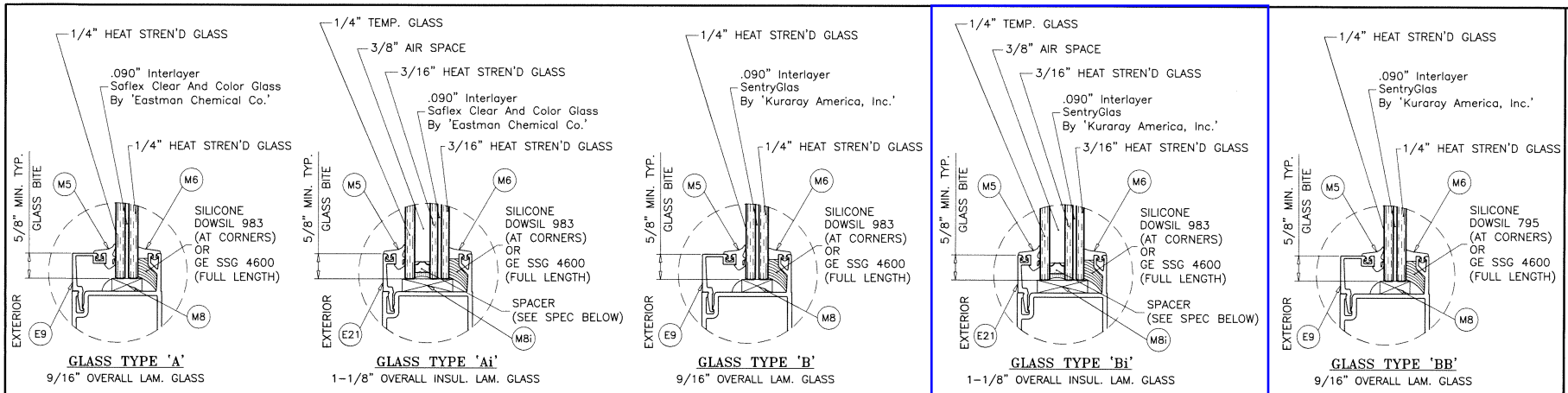
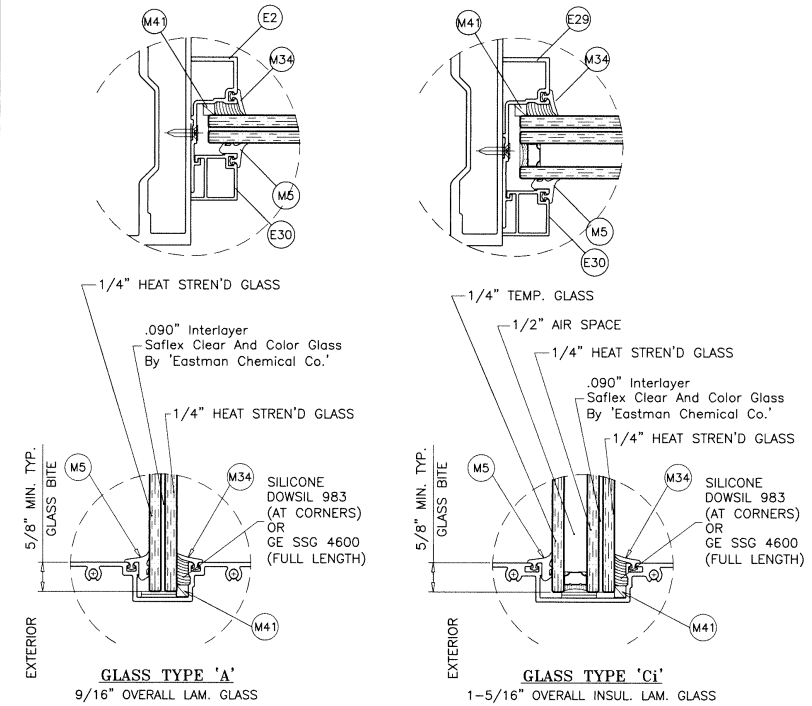


GLAZING OPTIONS (LEVEL 'D' IMPACT)
DOOR LEAF



GLAZING OPTIONS (LEVEL 'D' IMPACT)
TRANSOM (ES-9500)

GLAZING DETAIL (LEVEL 'D' IMPACT)
TRANSOM (ES-8000)

3/8" & 1/2" 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

FL #22527

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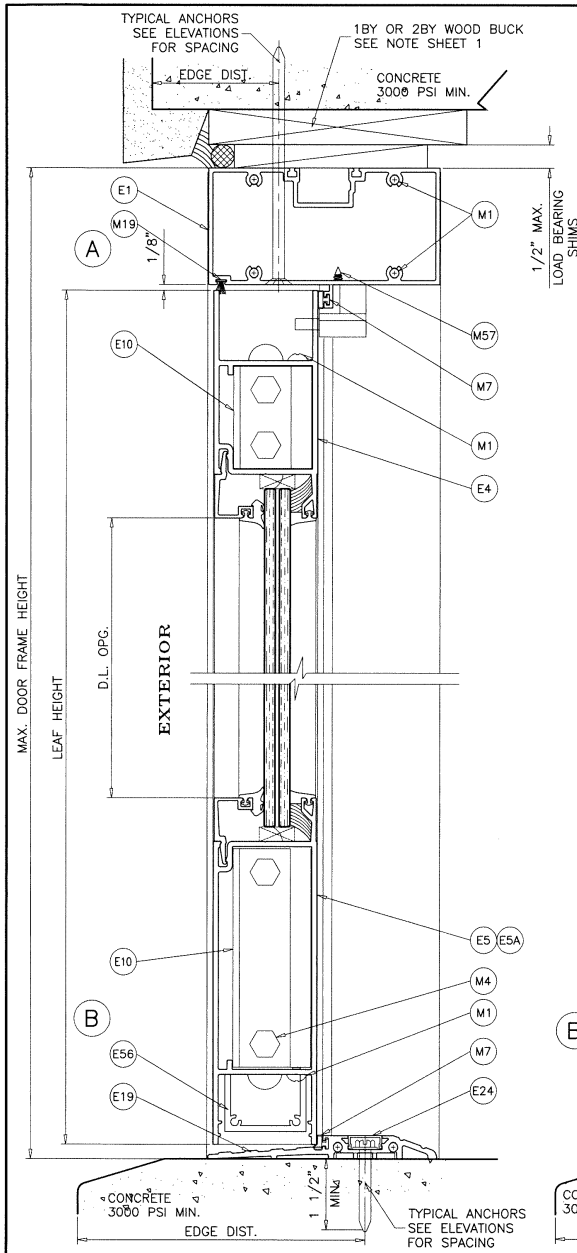
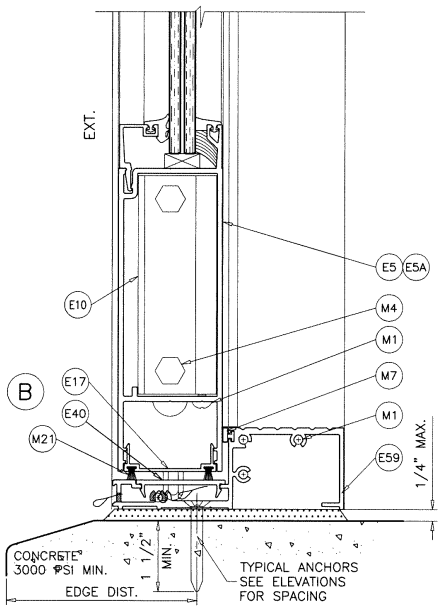


STANDARD THRESHOLD
NOT APPROVED FOR WATER INFILTRATION RESISTANCE



MEDIUM THRESHOLD
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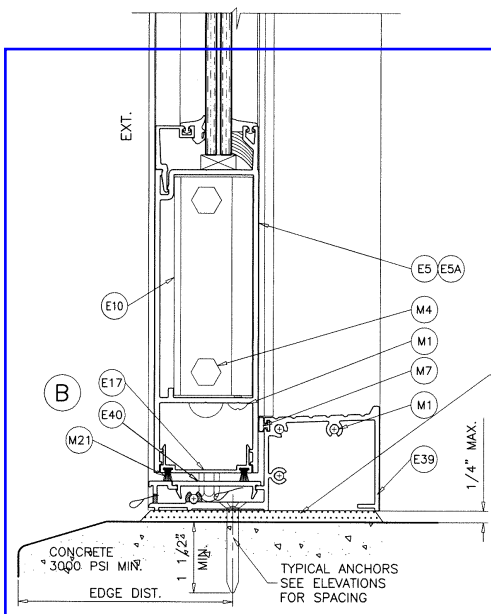
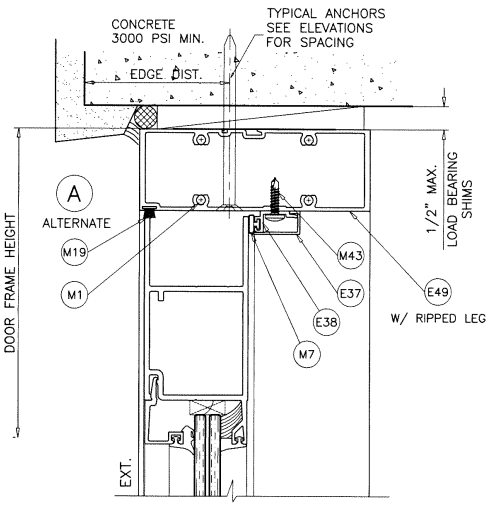


HIGH THRESHOLD
APPROVED FOR WATER INFILTRATION RESISTANCE

FL #22527



DOOR HEAD
SERIES-8000 FRAME OPTION

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

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

AT HEAD OR JAMBS

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

THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE OR BLOCKS
1–1/4" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
1–1/4" MIN. EMBED INTO BLOCKS (THRU 2BY BUCKS) (JAMBS)
1–3/4" MIN. EMBED INTO GROUT FILLED BLOCKS (THRU 1BY BUCKS) (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
2" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
2" MIN. EMBED INTO GROUT FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE AND BLOCKS = 2–1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

AT HEAD OR JAMBS

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

THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE OR BLOCKS
1–1/4" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
1–1/4" MIN. EMBED INTO BLOCKS (THRU 2BY BUCKS) (JAMBS)
1–3/4" MIN. EMBED INTO GROUT FILLED BLOCKS (THRU 1BY BUCKS) (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
2" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)
2" MIN. EMBED INTO GROUT FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE AND BLOCKS = 3–1/8" MIN.
INTO WOOD STRUCTURE = 1–1/4" MIN.

AT HEAD OR JAMBS

TYPE 'D'– 1/4" TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)

INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES (HEAD/JAMBS)
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
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 METAL STRUCTURE = 1/2" MIN.

AT SILL

TYPE 'A1'– 1/4" X 1–3/4" ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONCRETE (FOR STD. AND HIGH THRESHOLD)
WITH 1–1/2" MIN. EMBED INTO CONCRETE

ANCHOR EDGE DISTANCES
INTO CONCRETE = 2–1/2" MIN.

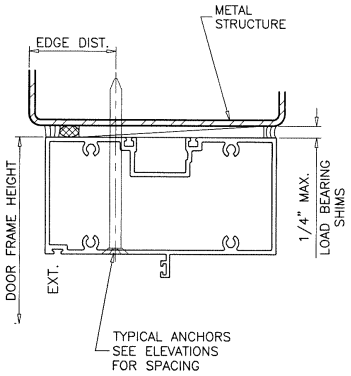
AT SILL

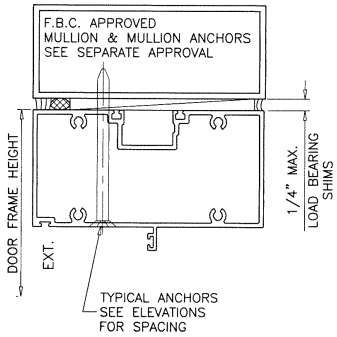
TYPE 'C1'– 5/16" X 2" ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)

DIRECTLY INTO CONCRETE (FOR SADDLE THRESHOLD)
WITH 1–1/2" MIN. EMBED INTO CONCRETE

ANCHOR EDGE DISTANCES
INTO CONCRETE = 3–1/8" 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.





FL #22527

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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MIAMI, FLORIDA 33173 FAX. (305) 262-6978
TEL. (305) 264-8100

COMP–ANL\18–58F–ES

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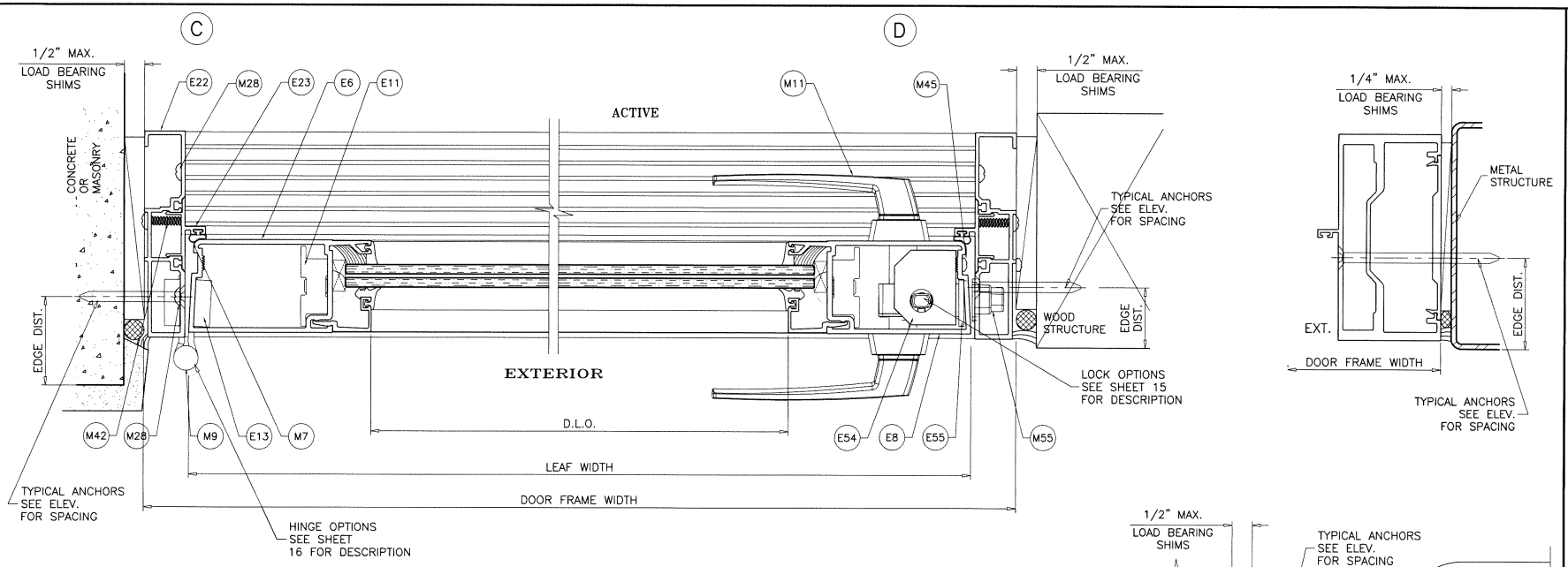

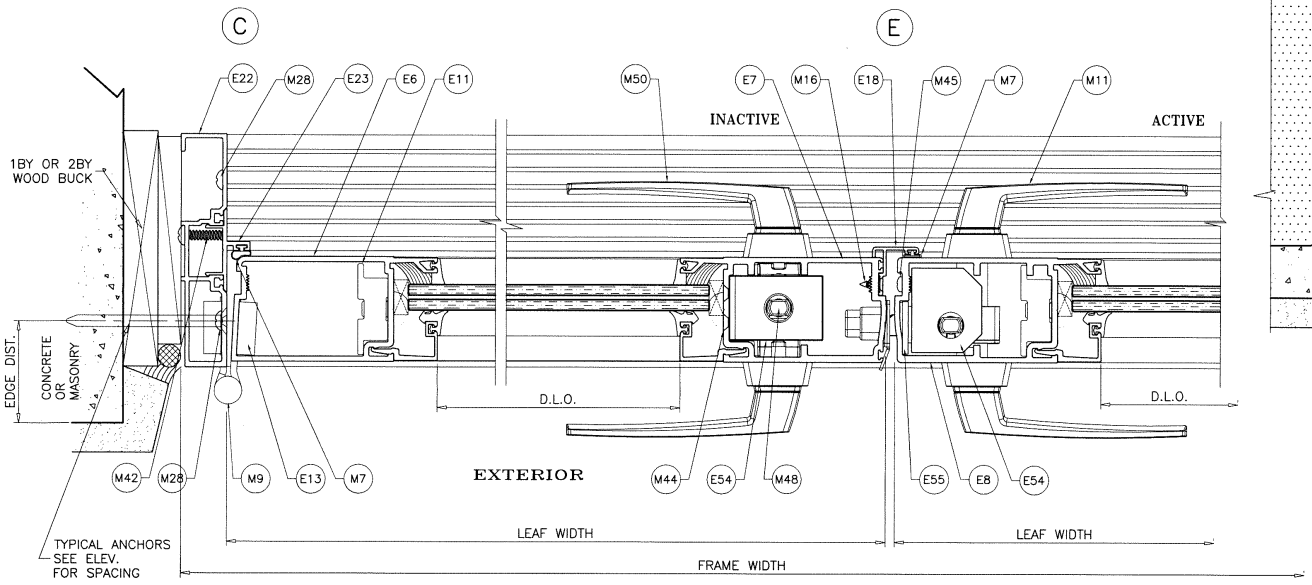

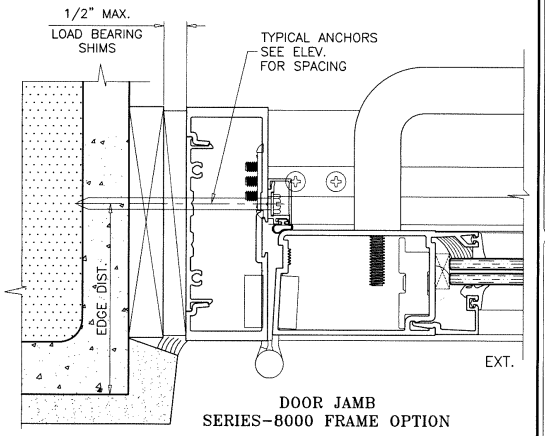

DOOR JAMB
SERIES-8000 FRAME OPTION

FL #22527

JALAL FAROOQ
LICENSE
No. 81223
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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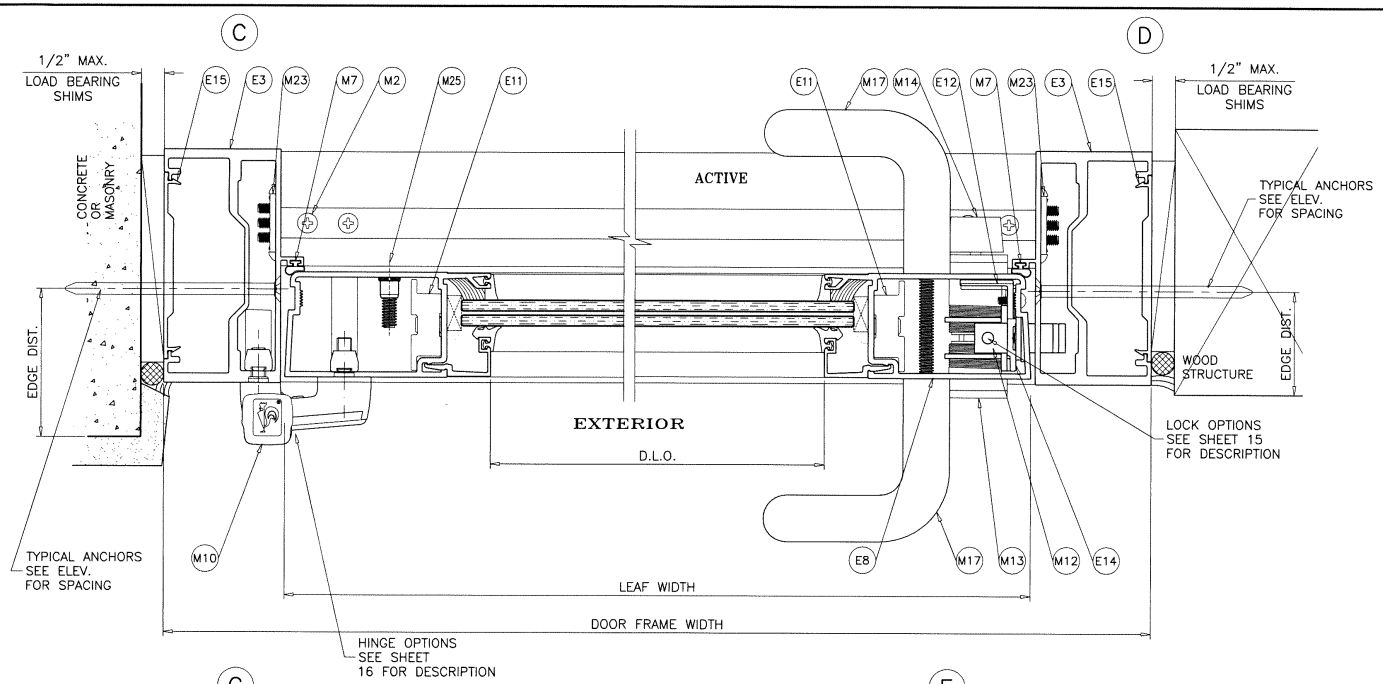

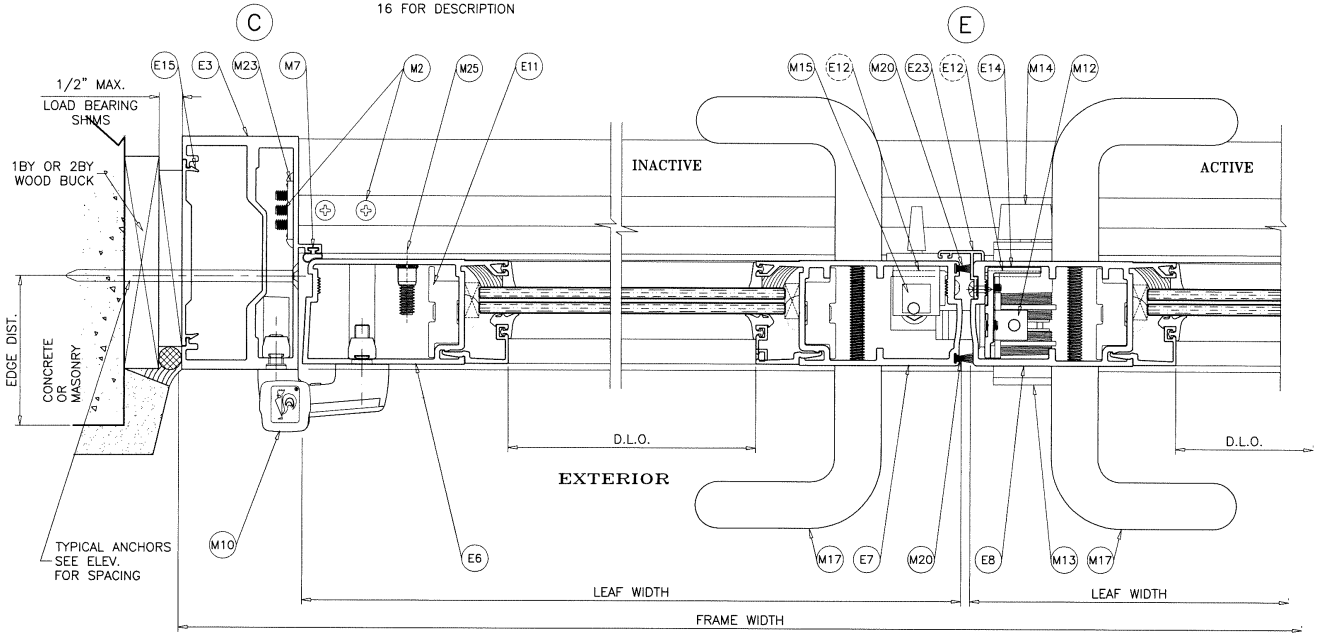

FL #22527

JALAL FAROOQ LICENSE No. 61223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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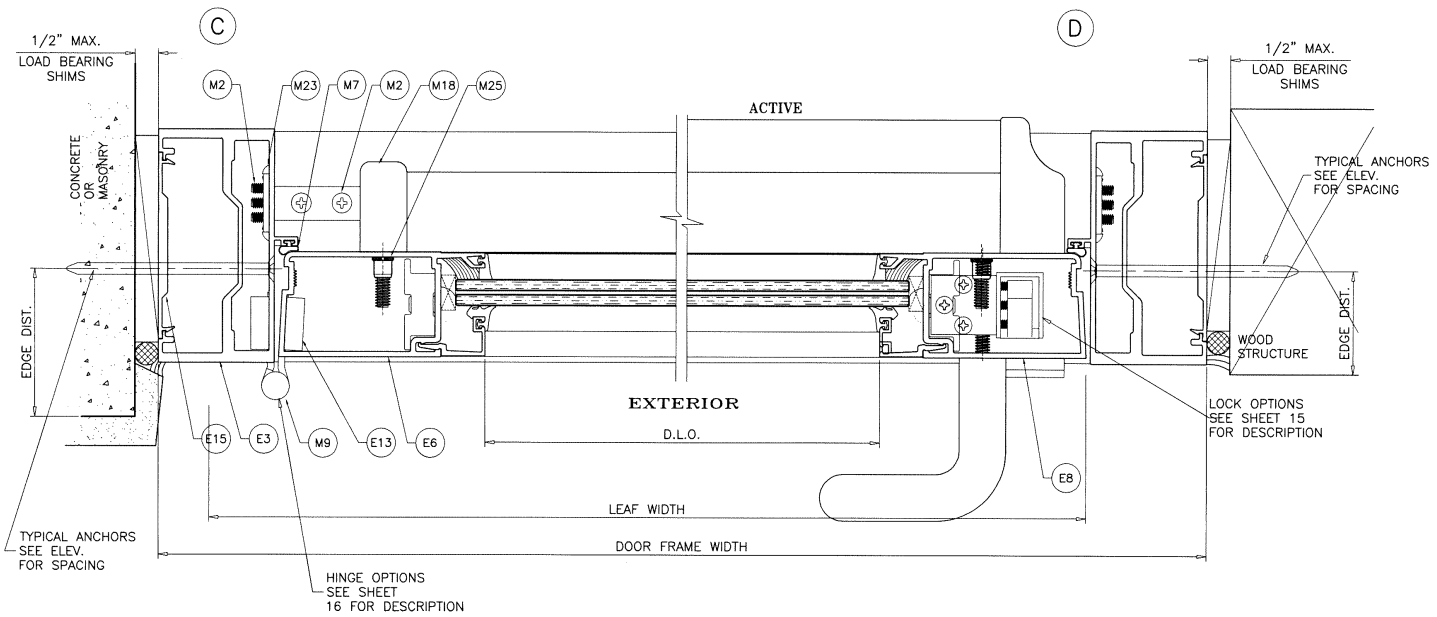

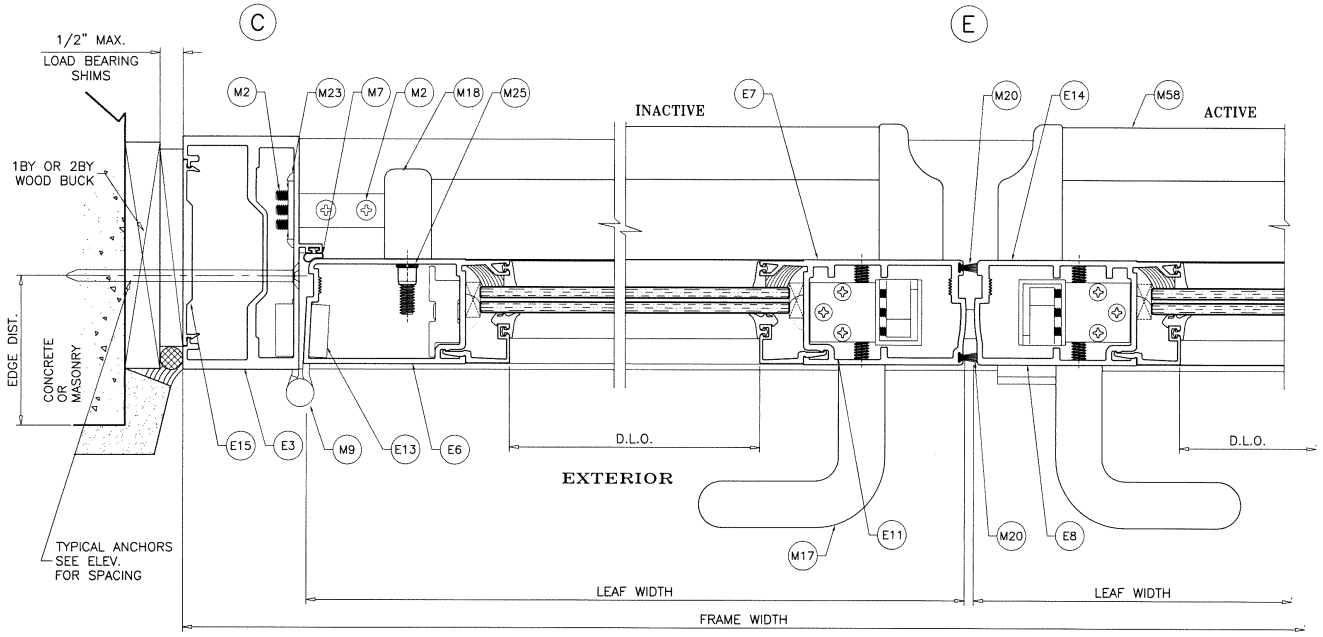

FL #22527

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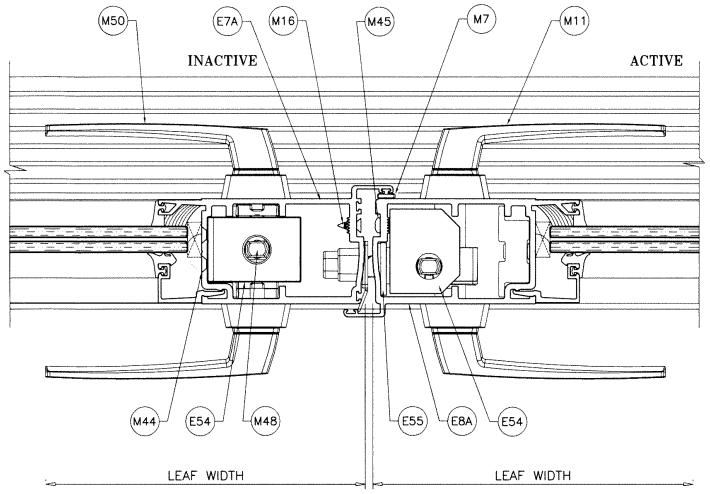
E ALTERNATE



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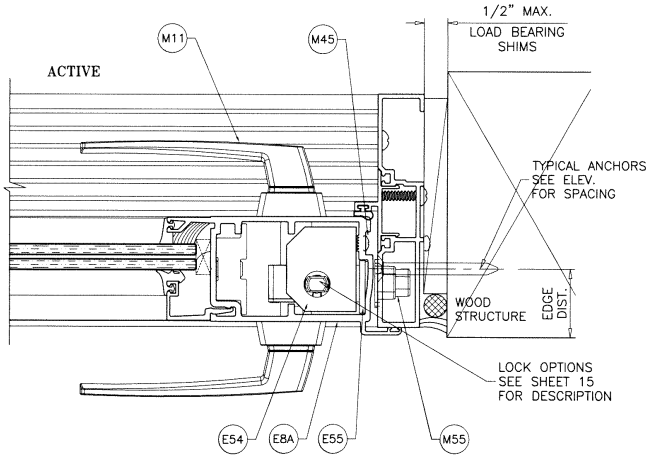

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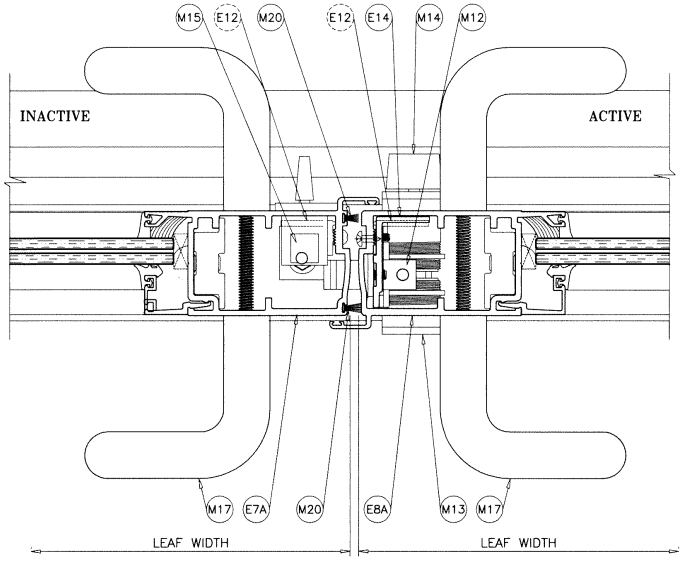

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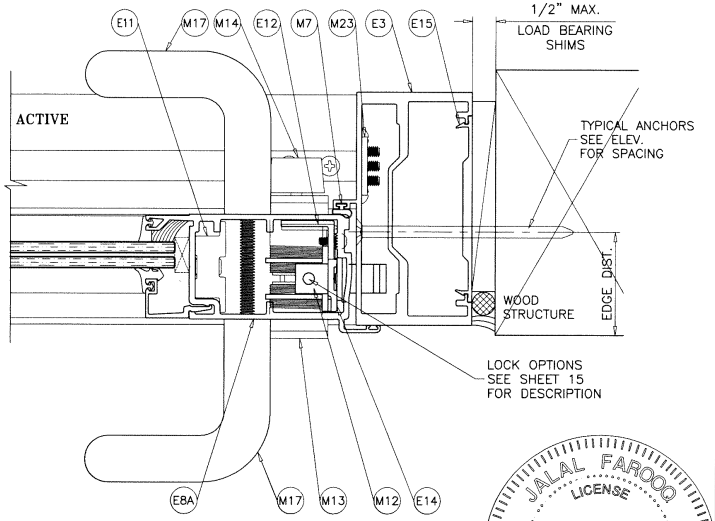

ALT. MEETING STILES NOT APPROVED FOR DOORS WITH PANIC EXIT DEVICES.

FL #22527

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afc

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no	date	by	description

date: 05-22-18
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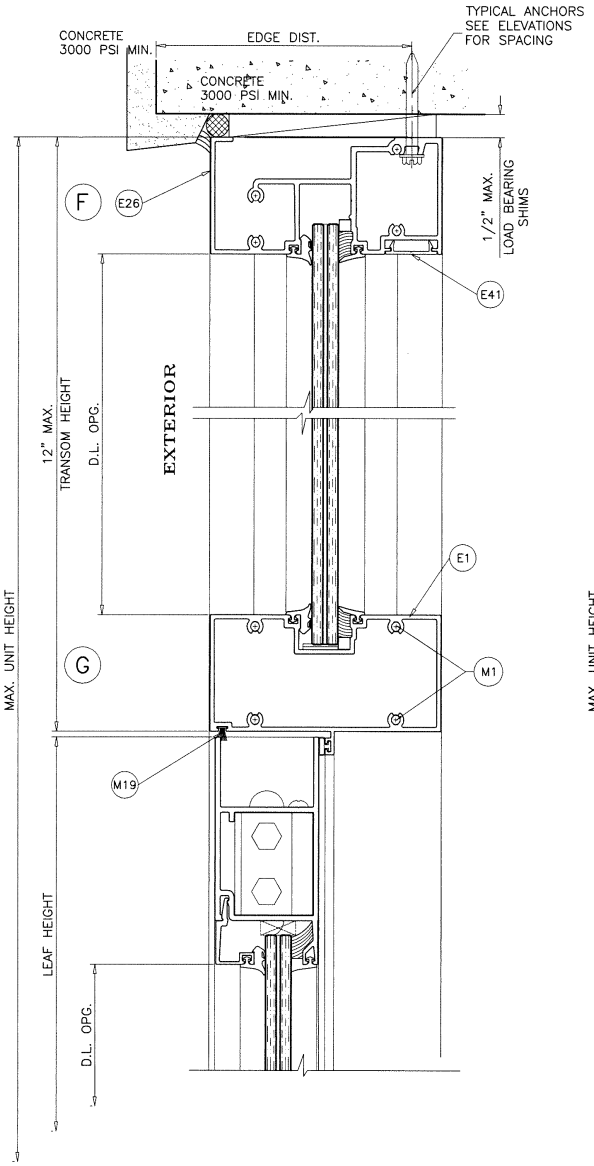
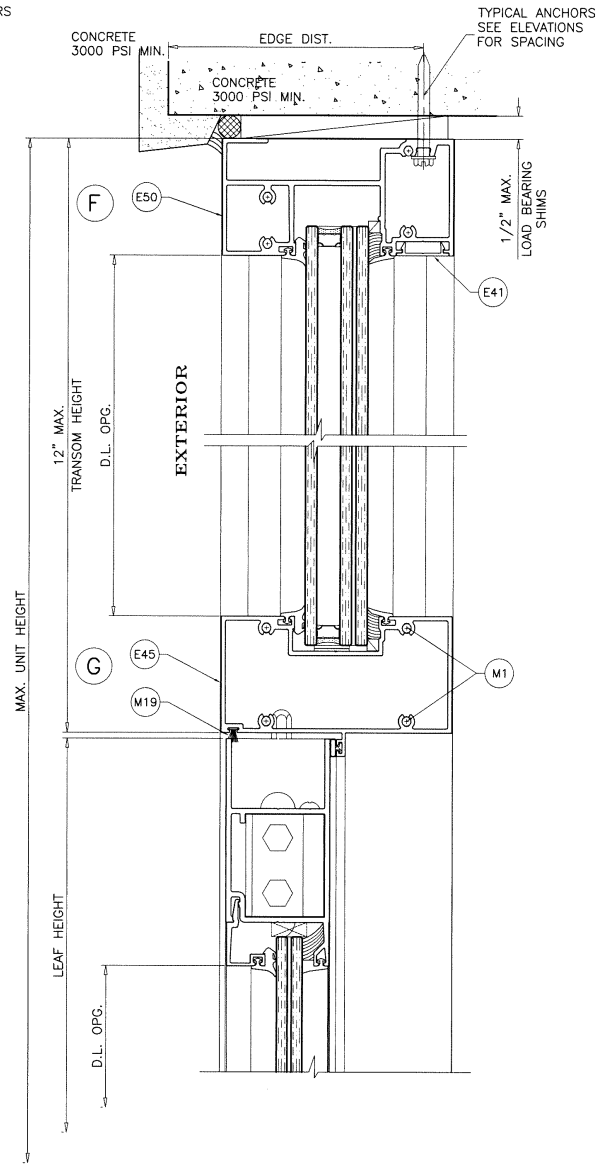
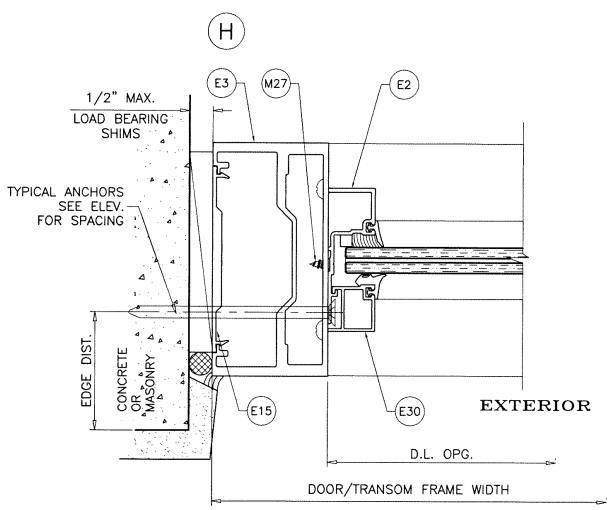
dr. by: TARIQ
chk. by:

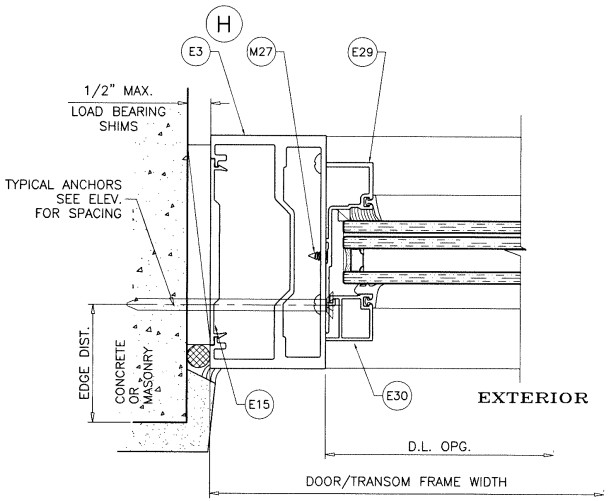
drawing no. 18-58F

sheet 10.1 of 21









TRANSOM
SERIES-9500 FRAMES

FL #22527

JALAL FAROOQ
LICENSE
No. 81223
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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

COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM OUTSWING FRENCH 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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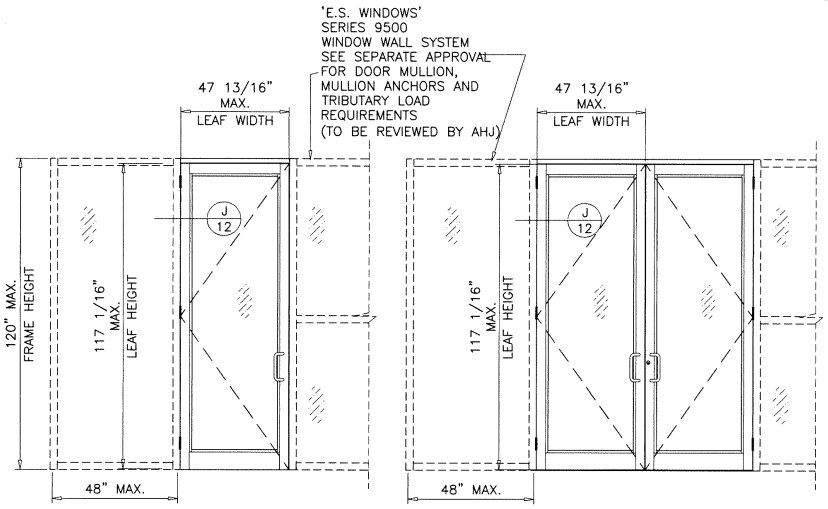
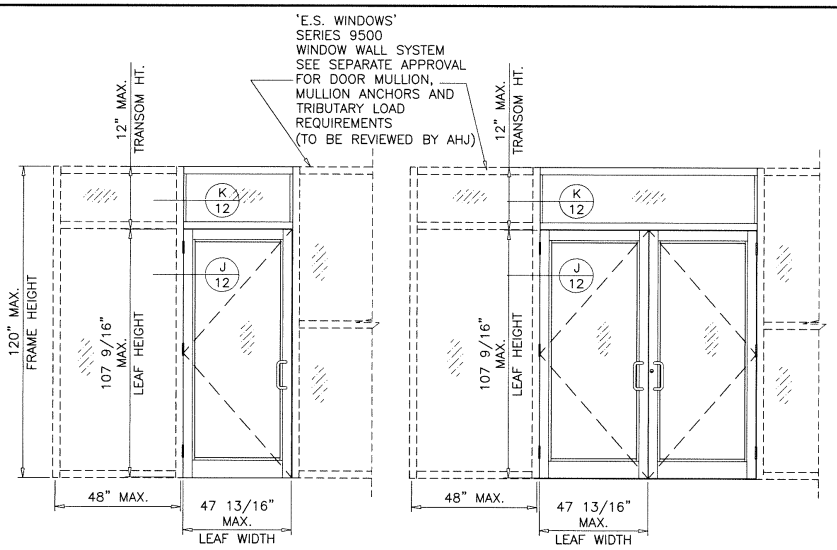
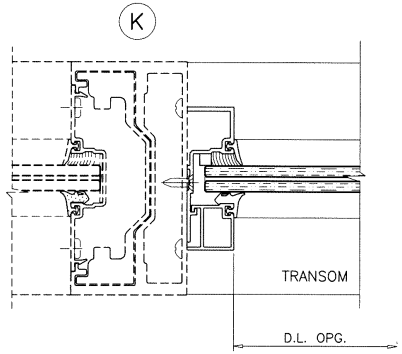
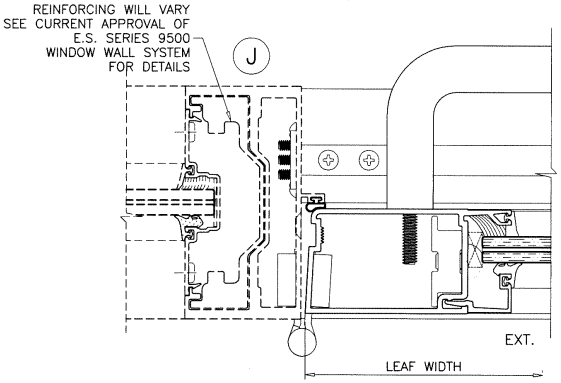
18-58F

sheet 11 of 21









F.B.C. APPROVED
SERIES 9500 WINDOW WALL SYSTEM BY 'E.S. WINDOWS'
UNDER SEPARATE APPROVAL.

LOWER VALUES FROM DOOR CAPACITY CHARTS OR
WINDOW WALL APPROVAL WILL APPLY TO ENTIRE SYSTEM.

FL #22527

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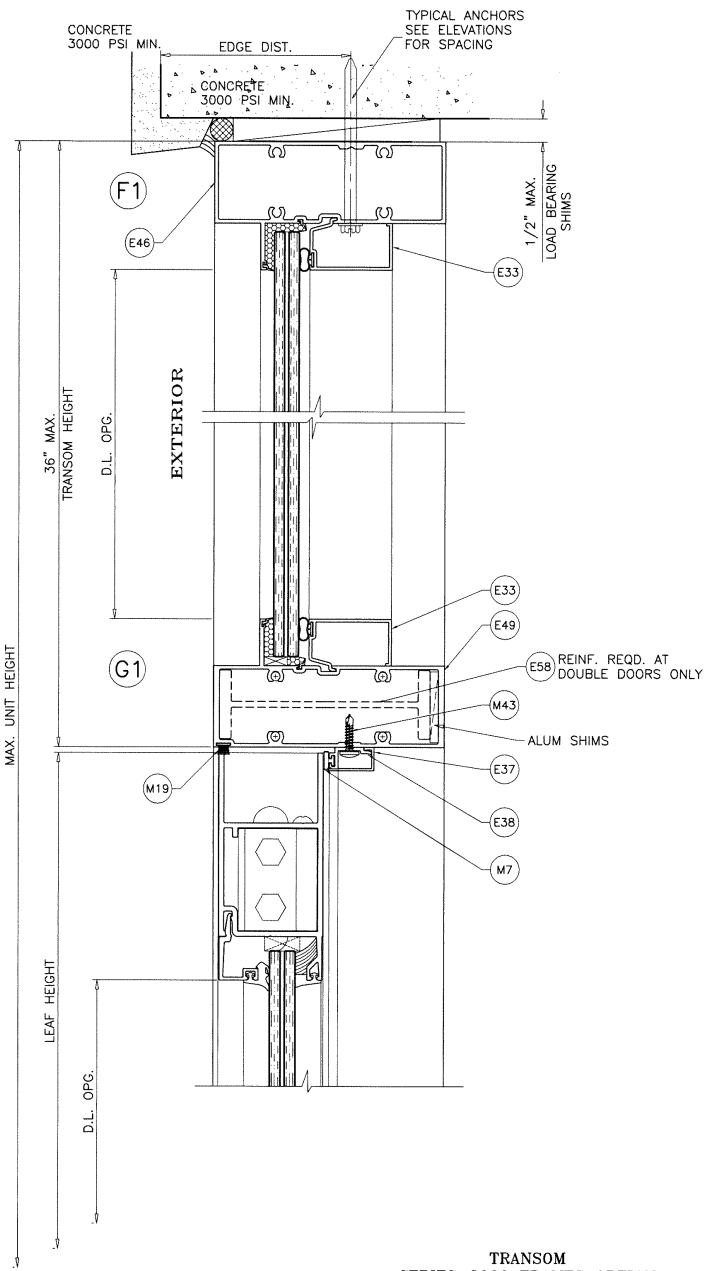
18-58F

sheet 12 of 21



TRANSOM
SERIES-8000 FRAMES OPTION

FL #22527

JALAL FAROOQ
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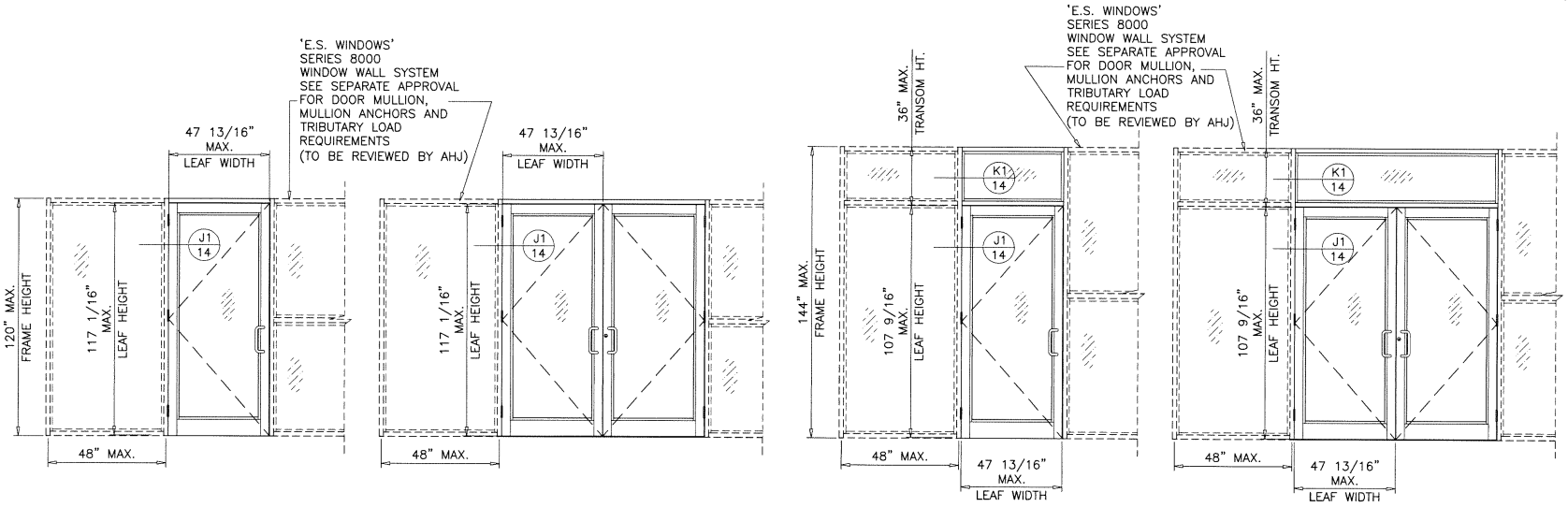
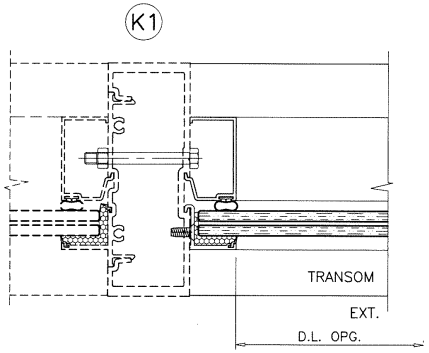
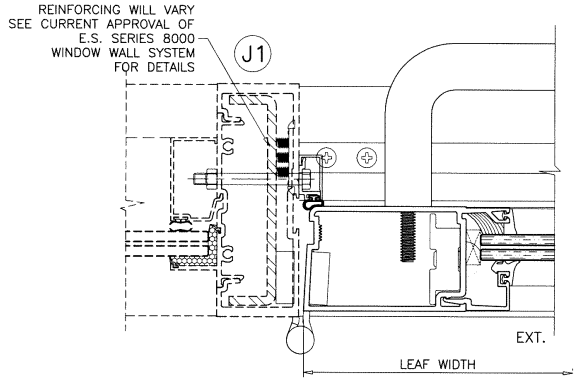
18-58F

sheet 13 of 21







F.B.C. APPROVED
SERIES 8000 WINDOW WALL SYSTEM BY 'E.S. WINDOWS'
UNDER SEPARATE APPROVAL.

LOWER VALUES FROM DOOR CAPACITY CHARTS OR
WINDOW WALL APPROVAL WILL APPLY TO ENTIRE SYSTEM.

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drawing no.
18-58F

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LOCK OPTIONS:

3 POINT LOCK

OPTION #1:

MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 90 PSF

ACTIVE LEAF:

KEY OPERATED THREE POINT LOCK SYSTEM 4015/4016 BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL
FASTENED WITH
(2) #12-24 X 1/2" FH MACHINE SCREWS

INACTIVE LEAF:

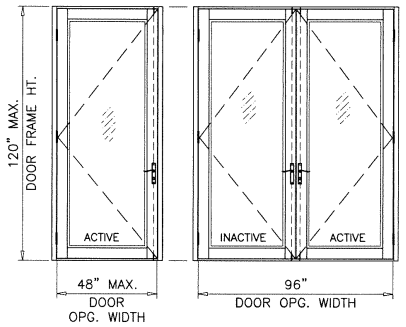
MANUALLY OPERATED TWO POINT LOCK SYSTEM 1880/81 BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL
FASTENED WITH
(2) #8-32 X 1/4" PH MACHINE SCREWS

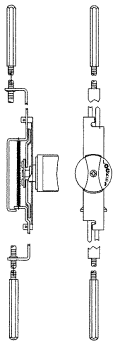
ACTIVE LEAF:

SURFACE MOUNT 3 POINT MORTISE LOCK SYSTEM
BY 'INTERLOCK USA'
KEY OPERATED ON EXTERIOR AND THUMB TURN ON INTERIOR
LEVER TYPE HANDLE AT 40" FROM BOTTOM
ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL
FASTENED WITH
(2) #10 X 3/4" FH SMS

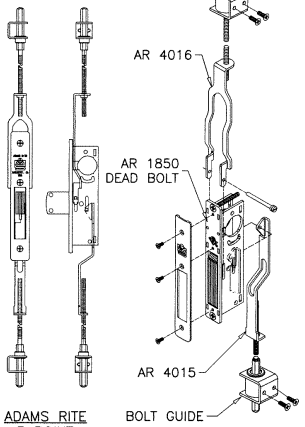
INACTIVE LEAF:

SURFACE MOUNT 2 POINT LOCK SYSTEM
BY 'INTERLOCK USA'
LEVER TYPE HANDLE AT 40" FROM BOTTOM
ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL
FASTENED WITH
(2) #10 X 3/4" FH SMS





ADAMS RITE
2 POINT
LOCK



ADAMS RITE
3 POINT
LOCK

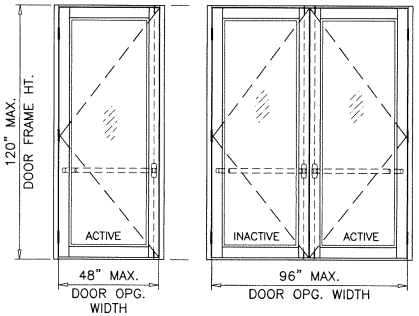
PANIC EXIT DEVICE

OPTION #2:

PANIC EXIT DEVICE
MAX. FRAME HEIGHT = 120 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 90 PSF

ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE SERIES 3347
BY 'VON DUPRIN' LOCATED AT 40" FROM SILL
AT EACH LEAF.
FASTENED WITH
(2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND
(2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END

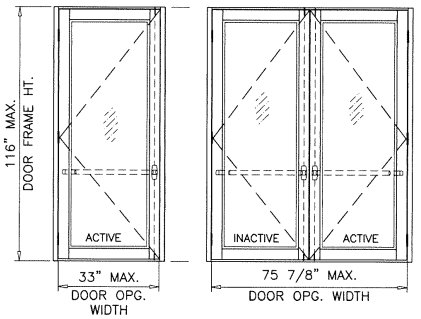


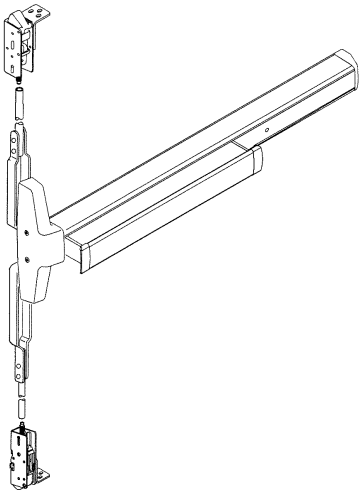
OPTION #3:

PANIC EXIT DEVICE
MAX. FRAME HEIGHT = 116 IN.
MAX. LEAF WIDTH = 38 IN.
MAX. DESIGN LOAD = 114 PSF

ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE SERIES 1490
BY 'DOOR-O-MATIC' LOCATED AT 40" FROM SILL
AT EACH LEAF.
FASTENED WITH
(2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND
(2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END





FL #22527

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dr. by: TARIQ
chk. by:

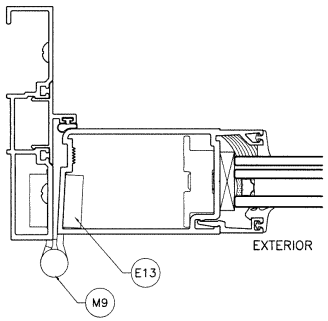
drawing no.
18-58F

sheet 15 of 21

HINGES:

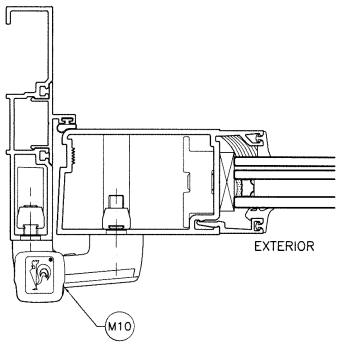
OPTION #1:

4 X 4-3/4" ST. STEEL BALL BEARING BUTT HINGES
LOCATED AT
11" FROM TOP & BOTTOM AND AT MIDSPAN
FASTENED TO DOOR FRAME AND LEAF STILE WITH
(4) #12-24 X 1/2" FH MACHINE SCREWS PER HASP



OPTION #2:

SERIES 60AT (DR HAHN A701) DIE CAST ALUMINUM HINGE
BY 'DR HAHN'
(2) HINGES PER LEAF AT 6" FROM TOP & BOTTOM



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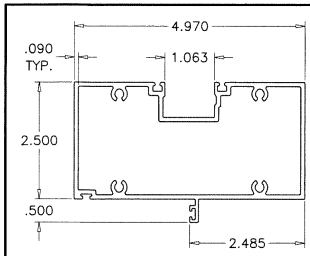
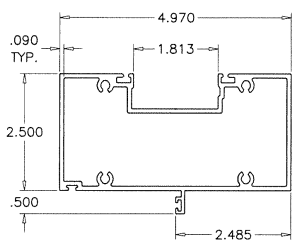
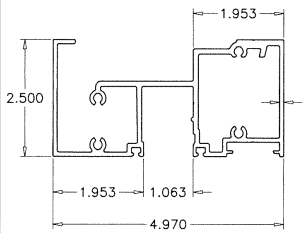


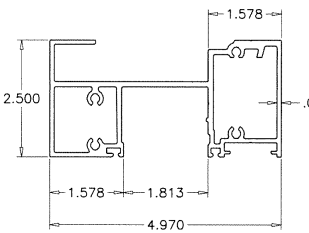
E1 DOOR HEADER (ES-9500)
(LAM. GLASS)



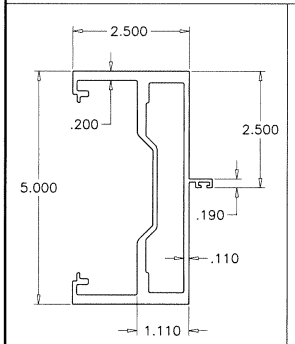
E45 DOOR HEADER (ES-9500)
(INSUL. LAM. GLASS)



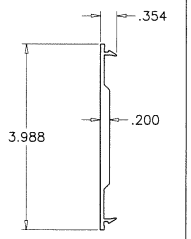
E26 TRANSOM HEAD (ES-9500)
(LAM. GLASS)



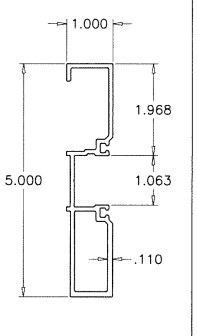
E50 TRANSOM HEAD (ES-9500)
(INSUL. LAM. GLASS)



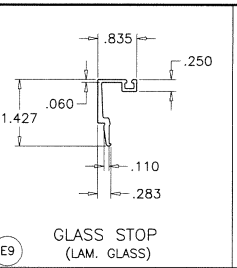
E3 STD. JAMB (ES-9500)



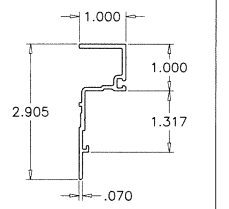
E15 JAMB FILLER



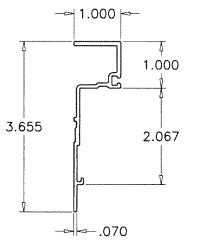
E22 NARROW JAMB



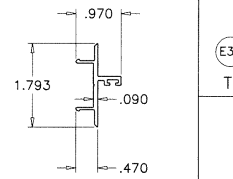
E9 GLASS STOP
(LAM. GLASS)



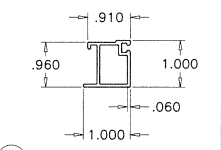
E2 TRANSOM ADAPTER
(LAM. GLASS)



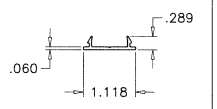
E29 TRANSOM ADAPTER
(INSUL. LAM. GLASS)



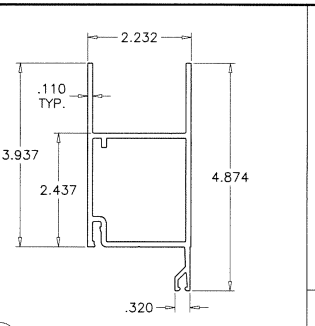
E23 NARROW JAMB
DOOR STOP



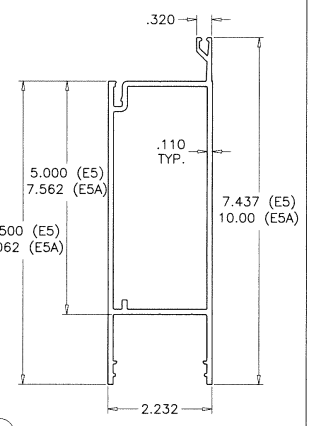
E30 TRANSOM GLASS STOP



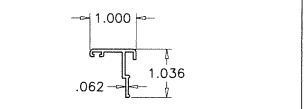
E41 HEAD COVER



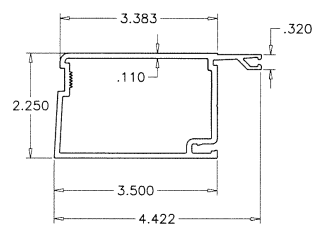
E4 TOP RAIL



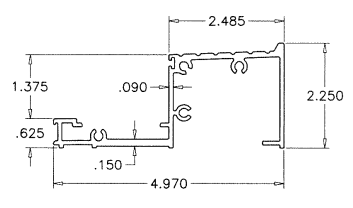
E5 STD. BOTTOM RAIL
E5A HI-PROFILE BOTTOM RAIL



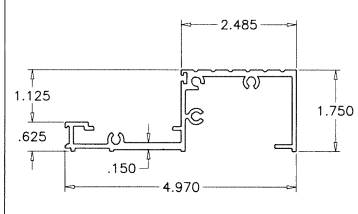
E18 ASTRAGAL STILE



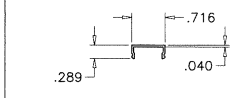
E6 HINGE/LOCK STILE



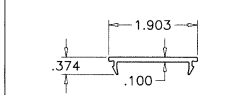
E39 HIGH THRESHOLD
APPR'D FOR WATER RESISTANCE



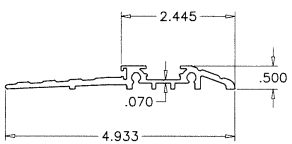
E59 MEDIUM THRESHOLD
NOT APPR'D FOR WATER RESISTANCE



E24 STD. THRESHOLD COVER



E40 HIGH THRESHOLD COVER



E19 STANDARD THRESHOLD

FL #22527

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AL-FAROOQ CORPORATION
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COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM. OUTSWING FRENCH DOOR (L.M.I.)

E.S. WINDOWS, LLC
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revisions:

no.	date	by	description

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scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no. 18-58F

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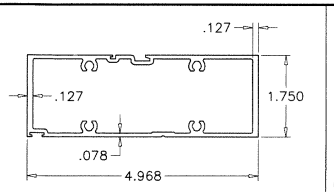
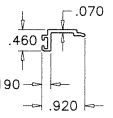
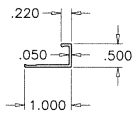


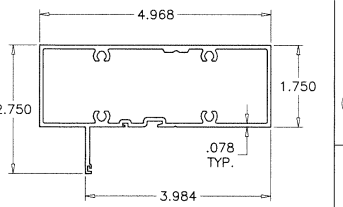
E49 DOOR HEADER (ES-8000)



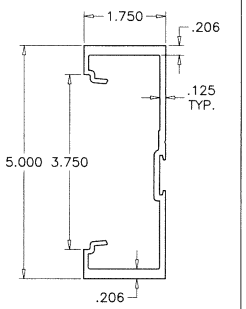
E38 DOOR STOP



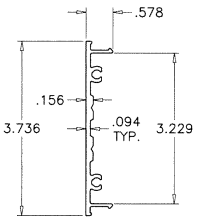
E37 DOOR STOP COVER



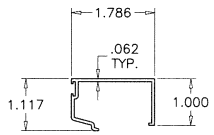
E46 TRANSOM HEAD (ES-8000)



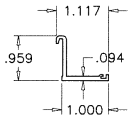
E35 TRANSOM JAMB (ES-8000)



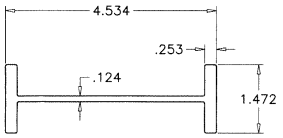
E32 JAMB FILLER (ES-8000)



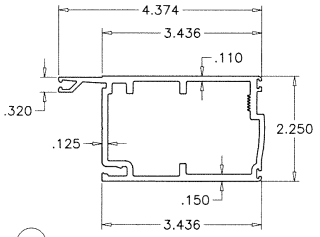
E33 TRANSOM GLASS STOP (ES-8000)



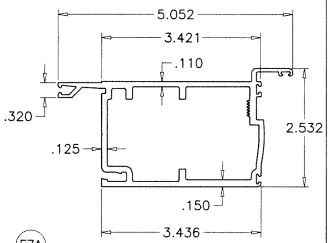
E36 TRANSOM GLAZING ADAPTER



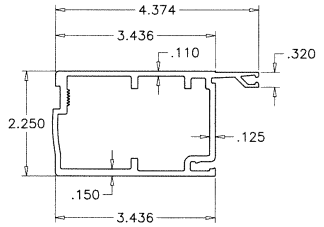
E58 TRANSOM STIFFENER (ES-8000)



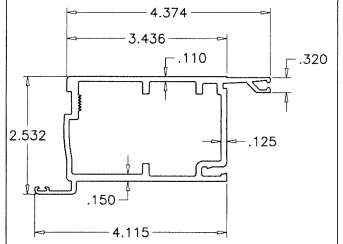
E7 MEETING STILE – INACTIVE LEAF



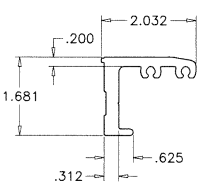
E7A ALT. MEETING STILE – INACTIVE LEAF



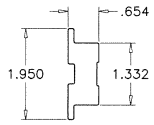
E8 MEETING STILE – ACTIVE LEAF



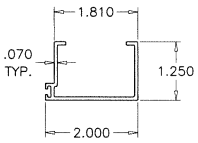
E8A ALT. MEETING STILE – ACTIVE LEAF



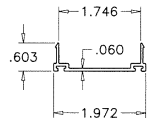
E10 CORNER BLOCK



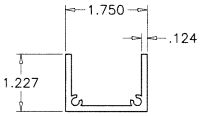
E11 CORNER PLATE



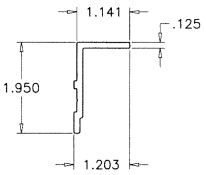
E18 CLOSURE DOOR STOP



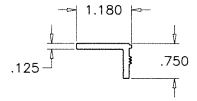
E17 DOOR SWEEP



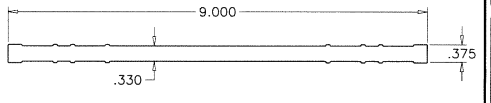
E56 SUPPORT GUIDE



E14 LOCK BACK UP PLATE



E12 SUPPORT ANGLE



E13 HINGE BACKUP PLATE

FL #22527

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COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM OUTSWING FRENCH DOOR (L.M.I.)

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chk. by:

drawing no. 18-58F

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ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-9012	1	DOOR HEADER	6061-T6	-
E2	ES-9019		TRANSOM ADAPTER	6063-T5	-
E3	ES-9013	2	STD. DOOR JAMB	6063-T6	-
E4	ES-9001	2	TOP RAIL	6063-T5	-
E5	ES-9002	1	STD. BOTTOM RAIL	6063-T6	-
E5A	ES-9000-031	1	HI-PROFILE BOTTOM RAIL	6063-T6	-
E6	ES-9003	2	HINGE/LOCK STILE	6063-T5	-
E7	ES-9006	1	MEETING STILE - INACTIVE LEAF	6063-T5	-
E7A	-	1	ALT. MEETING STILE - INACTIVE LEAF	6063-T5	-
E8	ES-9007	1	MEETING STILE - ACTIVE LEAF	6063-T5	-
E8A	-	1	ALT. MEETING STILE - ACTIVE LEAF	6063-T5	-
E9	ES-9004	4	GLASS STOP	6063-T5	-
E10	ES-9008	4	CORNER BLOCK	6063-T5	-
E11	ES-9009	4	CORNER PLATE	6063-T5	-
E12	ES-9010	4	SUPPORT ANGLE	6063-T5	3/4" X 1" X 1/8" X 9" LONG
E13	ES-9011	AS RQD.	HINGE BACKUP PLATE REINFORCEMENT	6063-T5	1-1/4" X 9" X 3/8" THK.
E14	ES-9020	1	LOCK BACKUP PLATE REINFORCEMENT	6063-T5	10" LONG
E15	ES-9016	AS RQD.	JAMB FILLER	6063-T6	-
E17	ES-9005	-	DOOR SWEEP	6063-T5	-
E18	ES-9060		ASTRAGAL STILE, SECURED W/ #8 X 1/2" SMS @ 12" O.C.	6063-T5	-
E19	ES-9000-030	1	STANDARD THRESHOLD	6061-T6	-
E22	ES-7530-213	AS REQD.	NARROW DOOR JAMB	6063-T6	-
E23	ES-7530-214	AS REQD.	NARROW JAMB DOOR STOP	6063-T6	-
E24	ES-6011	AS REQD.	SCREW COVER	6063-T6	-
E26	ES-9506	AS REQD.	FRAME HEAD (LAM. GLASS)	6063-T5	-
E29	ES-9024	AS REQD.	TRANSOM ADAPTER (INSUL. LAM. GLASS)	6063-T5	-
E30	ES-9018	AS REQD.	TRANSOM GLASS STOP	6063-T5	-
E32	ES-8003	AS REQD.	JAMB FILLER	6063-T6	-
E33	ES-8006	AS REQD.	GLASS STOP	6063-T5	-
E36	ES-8014	AS REQD.	GLAZING ADAPTER (DOOR TRANSOM)	6063-T6	-
E37	ES-9052	-	DOOR STOP COVER	6063-T5	-
E38	ES-9051	-	DOOR STOP	6063-T5	-
E39	ES-9026	1	HIGH THRESHOLD	6063-T6	-
E40	ES-9027	1	THRESHOLD COVER	6063-T5	-
E41	ES-9502	AS REQD.	HEAD COVER	6063-T5	-
E45	ES-9025	AS REQD.	DOOR HEADER (INSUL. LAM. GLASS)	6061-T6	-
E46	ES-8005	AS REQD.	TRANSOM HEAD	6063-T6	-
E49	ES-8013M2	AS REQD.	DOOR HEAD	6061-T6	-
E50	ES-9554	AS REQD.	HEAD (INSUL. LAM. GLASS)	6063-T5	-
E54	ALU-A-027	AS REQD.	ANGLE	6063-T6	-
E55	ALU-P-030	AS REQD.	PLATE	6063-T6	-
E56	GMP-104A	AS REQD.	SUPPORT GUIDE	6063-T6	-
E58	-	AS REQD.	TRANSOM STIFFENER (ES-8000)	6005-T5	-
E59	ES-9000-036	1	MEDIUM THRESHOLD	6063-T6	-
M1	#12 X 1"	AS REQD.	FRAME & LEAF ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M2	12-24 X 1/2"	AS REQD.	HINGE, INT. PIVOT & THRESHOLD CLIP FASTENERS	ST. STEEL	FH MS
M3	8-32 X 1/2"	AS REQD.	SUPPORT ANGLE & LOCK BACK UP PLATE FASTENERS	ST. STEEL	FH MS
M4	3/8-16 X 1"	AS REQD.	LEAF ASSEMBLY FASTENERS	ST. STEEL	HEX BOLT
M5	ES-9000-G01	AS RQD.	WEDGE GASKET	SILICONE	DUROMETER 70±5 SHORE A
M6	ES-9000-G02	AS RQD.	SPACER GASKET	EPDM	DUROMETER 70±5 SHORE A
M7	ES-9000-G03	AS RQD.	BULB VINYL, BASE-POLYPROPILENE, BULB-TPE	-	ULTRAFAB, DUROMETER 73
M8	ES-9000-B01	AS REQD.	SETTING BLOCK (LAM. GLASS) AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
M8i	ES-9000-B02A	AS REQD.	SETTING BLOCK (INSUL. LAM. GLASS) AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
M9	-	AS REQD.	BUTT HINGE 4 1/2" x 4"	ST. STEEL	-
M10	60AT 2-TLG	AS REQD.	RESIDENTIAL HINGE	-	DR. HAHN
M11	DL01-6192-117	1	LOCK HANDLE KIT	-	ADAMS RITE
M12	MS1953-350	1	3 POINT LOCK	-	ADAMS RITE
M13	SBCTN03	1	KEY CYLINDER	-	-
M14	SBCTN03	1	THUMBTURN	-	-
M15	MS1880-04	1	2 POINT LOCK	-	ADAMS RITE
M16	#8 X 1/2"	AS REQD.	ASTRAGAL FASTENERS	ST. STEEL	FH SMS

ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
M17	BF157A47	AS REQD.	PUSH - PULL	-	-
M18	33/35A	AS REQD.	PANIC EXIT DEVICE	-	VON DUPRIN
M19	W13273NK	AS REQD.	PILE W'STRIPPING	WOOL	-
M20	W23451NK	AS REQD.	PILE W'STRIPPING MTG. STILES	WOOL	-
M21	W13351NK	AS REQD.	PILE W'STRIPPING SWEEP	WOOL	-
M21B	W13276NK	AS REQD.	PILE W'STRIPPING	WOOL	-
M22	-	1/ CLOSER	CHANNEL SPACER 5/8" X 1-7/8"	-	-
M23	-	2	THRESHOLD CLIP	-	-
M24	DOWSIL 983	AS RQD.	STRUCTURAL SILICONE	-	-
M25	AEKA-420-165	AS RQD.	1/4-20 NUT FOR INSERT IN PUSH BAR	-	-
M27	#10 X 1/2"	AS REQD.	TRANSOM ADAPTER FASTENERS	ST. STEEL	FH SMS
M28	#12 X 1"	AS REQD.	TO LEAF	ST. STEEL	FH SMS
M34	ES-8009	AS REQD.	SILICONE DAM	EPDM	DUROMETER 60±5 SHORE A
M36	ES-8010	AS REQD.	BULB SEAL	EPDM	DUROMETER 60±5 SHORE A
M37	ES-6025-B05	AS REQD.	SETTING BLOCK (LAM. GLASS) AT 1/4 POINTS	EPDM	DUROMETER 85±5 SHORE A
M38	ES-8011	AS REQD.	GLASS SPACER	EPDM	DUROMETER 85±5 SHORE A
M41	-	AS REQD.	1/4" X 1/4" INTERIOR SPACER	EPDM	DUROMETER 85±5 SHORE A
M42	#12 X 2"	AS REQD.	THRESHOLD TO JAMB FASTENERS	ST. STEEL	PH SMS
M43	#8 X 1/2"	AS REQD.	DOOR STOP FASTENERS	ST. STEEL	PH SMS
M44	10-24 X 1/2"	AS REQD.	ANGLE FASTENERS	ST. STEEL	FH SMS
M45	8-32 X 1/2"	AS REQD.	ANGLE FASTENERS	ST. STEEL	PH SMS
M46	#8 X 3/4"	AS REQD.	ANGLE FASTENERS	ST. STEEL	FH SMS
M47	-	AS REQD.	MORTISE LOCK	-	-
M48	DL01-6040	AS REQD.	SHOOT BOLT TIPS	-	-
M50	DL01-6295-117	AS REQD.	DUMMY HANDLE KIT	-	-
M57	#10 X 1-1/2"	AS REQD.	FOR RATCHET RELEASE ACCESORY	ST. STEEL	FH SMS

FL #22527

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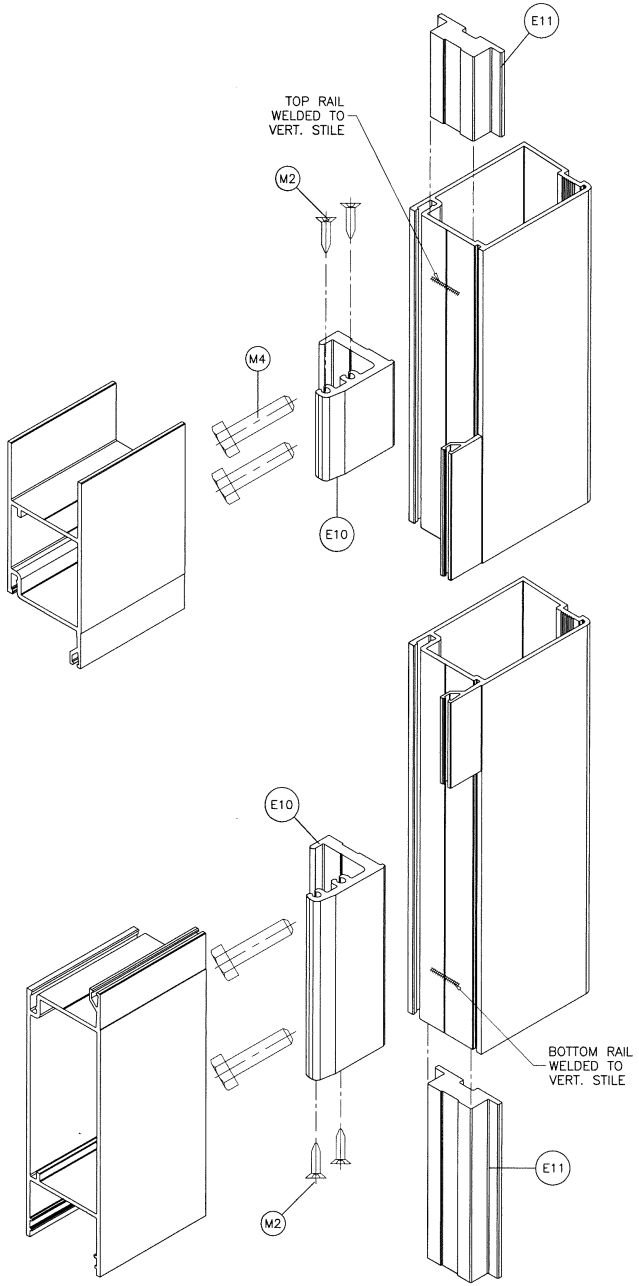
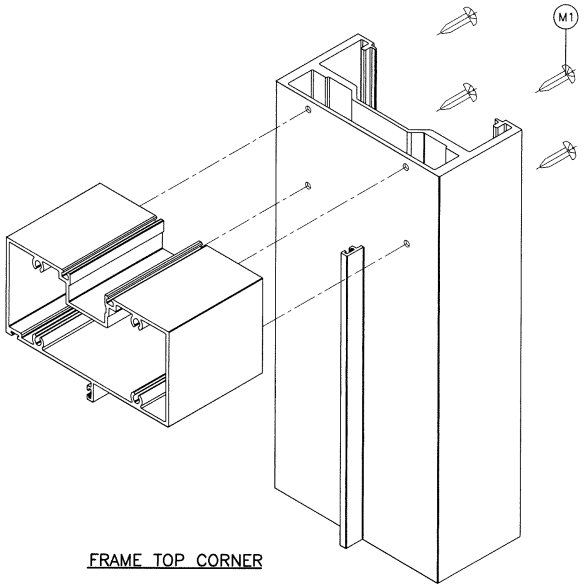
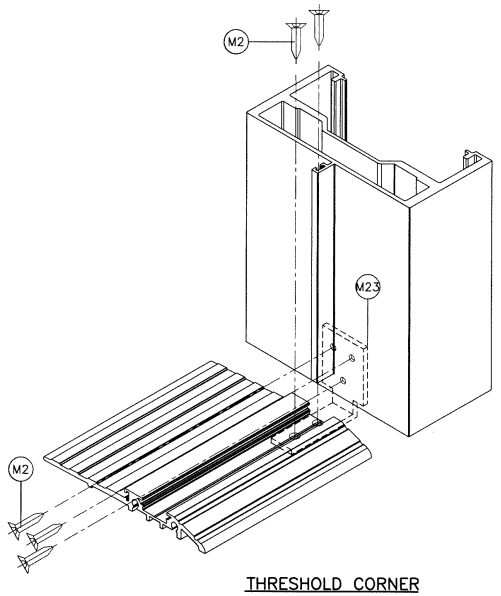




FRAME TOP CORNER



THRESHOLD CORNER

FL #22527

JALAL FAROOQ
LICENSE
No. 61223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

COMP-ANL\18-58F-ES

SERIES-9000-10 ALUM OUTSWING FRENCH DOOR (L.M.I.)

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

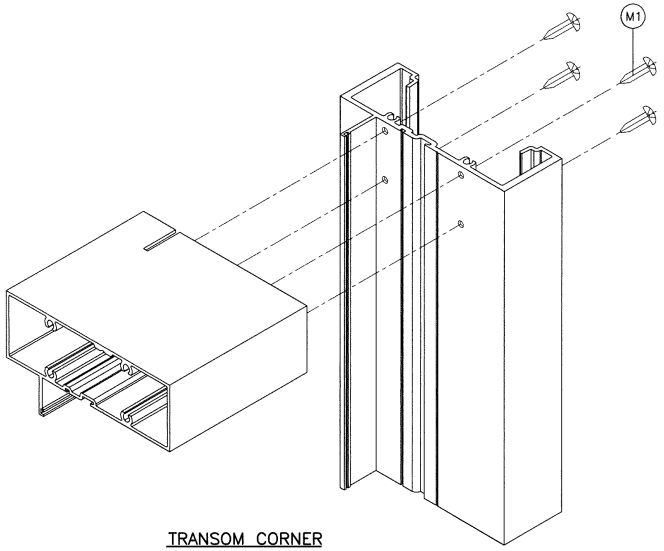
revisions:

no	date	by	description

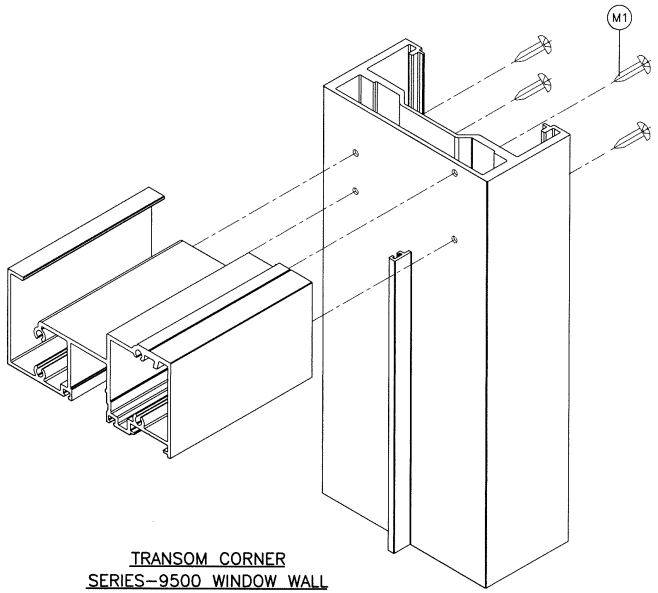
date: 05-22-18
scale: -
dr. by: TARIQ
chk. by:

drawing no.
18-58F

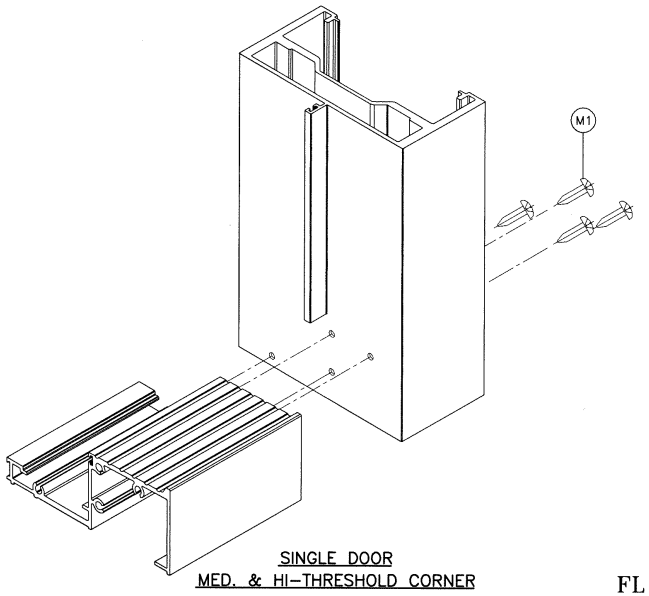
sheet 20 of 21



TRANSOM CORNER
SERIES–8000 WINDOW WALL



TRANSOM CORNER
SERIES–9500 WINDOW WALL



SINGLE DOOR
MED. & HI–THRESHOLD CORNER

FL #22527

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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sheet 21 of 21