

SHEET INDEX	
01	COVER PAGE
02	GLAZING DETAILS
03	TYPICAL ELEVATION
04	TYPICAL ELEVATION
05	INTERLOCK / ASTRAGAL CHARTS
06	ANCHOR SPECIFICATIONS
07	ANCHOR PRESSURE CHART
08	SECTION DETAILS
09	SECTION DETAILS
10	SECTION DETAILS
11	SECTION DETAILS
12	PROFILES
13	PROFILES
14	PROFILES
15	PROFILES / BOM
16	MISC. HARDWARE
TO OBTAIN AUTOCAD/REVIT COMPATIBLE DETAILS OF THIS PRODUCT, KINDLY GET IN TOUCH WITH US CONTACTING US VIA OUR OFFICIAL EMAIL ADDRESS: CONTACT@JA-PE.COM.	

GENERAL NOTES

1. THIS SYSTEM PRESENTED HEREIN HAS UNDERGONE DESIGN AND TESTING IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND NINTH EDITION (2026) IS INTENDED FOR USE IN HIGH VELOCITY HURRICANE ZONE PER TAS 201/202/203.
2. THE DESIGN PRESSURES OUTLINED IN THIS DOCUMENT ARE DERIVED FROM MAXIMUM TESTED PRESSURES AND INCORPORATE A 1.5 SAFETY FACTOR.
3. THE PRESSURES PROVIDED IN THIS CERTIFICATION ARE DETERMINED USING THE ALLOWABLE STRESS DESIGN METHOD (ASD).
4. THIS PRODUCT HAS BEEN RIGOROUSLY TESTED IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN NOTE 1 OF THE GENERAL NOTES. IT IS CONFIRMED TO BE RESISTANT TO LARGE MISSILE IMPACT, THEREBY NOT NECESSITATING THE USE OF IMPACT-RESISTANT SHUTTERS.
5. THE DESIGN OF THIS SYSTEM DOES NOT INCORPORATE A 33-1/3% INCREASE IN ALLOWABLE STRESS. FOR WOOD ANCHOR DESIGN, A WIND LOAD DURATION FACTOR OF CD=1.6 HAS BEEN EMPLOYED.
6. THE ARCHITECT/ENGINEER OF RECORD RESPONSIBLE FOR THE PROJECT'S SUPERSTRUCTURE, WITH WHICH THIS DESIGN IS ASSOCIATED, SHALL ENSURE THE INTEGRITY OF ALL SUPPORTING SURFACES. COORDINATION WITH THE PERMITTING CONTRACTOR IS REQUIRED, AND PROPER ANCHORING OF WOOD BUCKS (BY OTHERS) MUST FACILITATE LOAD TRANSFER TO THE EXISTING STRUCTURE.

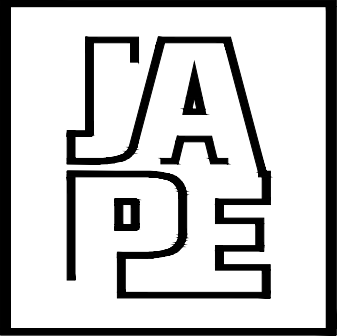
SERIES ES-V400 ALUMINUM
SLIDING GLASS DOOR
(*LARGE & SMALL MISSILE IMPACT*)

12. NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED BEYOND WHAT IS EXPRESSLY PROVIDED IN THIS DOCUMENT.
13. ALTERATIONS, ADDITIONS, OR ANY MARKINGS TO THIS DOCUMENT ARE STRICTLY PROHIBITED AND WILL INVALIDATE THIS CERTIFICATION.
14. PROPER SAFETY MEASURES MUST BE OBSERVED DURING THE INSTALLATION AND USE OF THIS SYSTEM, EVEN THOUGH THEY ARE NOT EXPLICITLY LISTED IN THIS CERTIFICATION.
15. MATERIAL SELECTION AND CORROSION PROTECTION SHALL BE VERIFIED FOR THE APPLICABLE COASTAL DISTANCE AND EXPOSURE CONDITION IN ACCORDANCE WITH SECTION 1711 AND TABLE 1711.1 OF THE 2026 FLORIDA BUILDING CODE
- CORROSION PROTECTION: ANCHORS AND ALL RELATED ATTACHMENT HARDWARE SHALL BE MANUFACTURED FROM CORROSION-RESISTANT MATERIALS OR PROTECTED BY AN APPROVED CORROSION-RESISTANT FINISH. FOR INSTALLATIONS WITHIN 3,000 FEET OF A SALTWATER COASTLINE, PROVIDE THE FOLLOWING:

A. FASTENERS INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED TO ASTM A153, CLASS D; ASTM A641, CLASS 3S; OR PROVIDED WITH EQUIVALENT CORROSION PROTECTION.

B. CONNECTORS AND METAL PLATES SHALL HAVE A STANDARD GALVANIZED FINISH COMPLYING WITH ASTM A653, G90; ASTM A123; OR AN APPROVED PROTECTIVE COATING COMPLYING WITH TPI 1.

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :			
SERIES ES-V400 ALUMINUM SLIDING GLASS DOOR (L.M.I & S.M.I)			
CLIENT :			
 imagine extraordinary		ES WINDOWS, LLC 3550 NW 49TH STREET MIAMI, FL 33142 TEL. (305) 638-5151 FAX. (305) 638-5158	
REVISION			
No.	DATE	BY	DESCRIPTION
0			
date:		8/17/2026	
scale:		N/A	
drawn by:		M.S.	
check by:			
Drawing no.		JA-1593-26	
Eng: JAVAD AHMAD, PE CIVIL FLA. PE # 70592 — C.A.N. 34254			



SEALED: 10-15-2026

COVER PAGE	SHEET No. 01 OF 16
------------	-----------------------

GENERAL NOTES:

- A. APPROVAL APPLIES TO STAND ALONE DOOR UNITS OR IN COMBINATION WITH APPROVED SIDELITES OR SIDE BY SIDE COMBINATIONS WITH OTHER F.B.C APPR'D WINDOWS / DOOR USING F.B.C. APPROVED MULLIONS IN BETWEEN.
- B. LOWER DESIGN PRESSURE FROM DOORS / SIDELITES WILL APPLY TO ENTIRE SYSTEM.
- C. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2023 (8TH EDITION) & 2026 (9TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- D. 1BY OR 2BY WOOD BUCKS & BUCKS FASTENERS BY OTHER,MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.
- E. 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.
- F. A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
- G. ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.
- H. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2023 & 2026 FLORIDA BLDG. CODE & ADOPTED STANDARDS.
- I. 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.
- J. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.
- K. DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)' FOR EQUIVALENT LOADS IN 'LOAD AND RESISTANCE FACTOR DESIGN (LRFD)' MULTIPLY 'ASD' LOADS BY 1.67 (ASD LOAD X 1.67 = LRFD LOAD)
- L. 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.

INSTRUCTIONS:

- STEP 1:

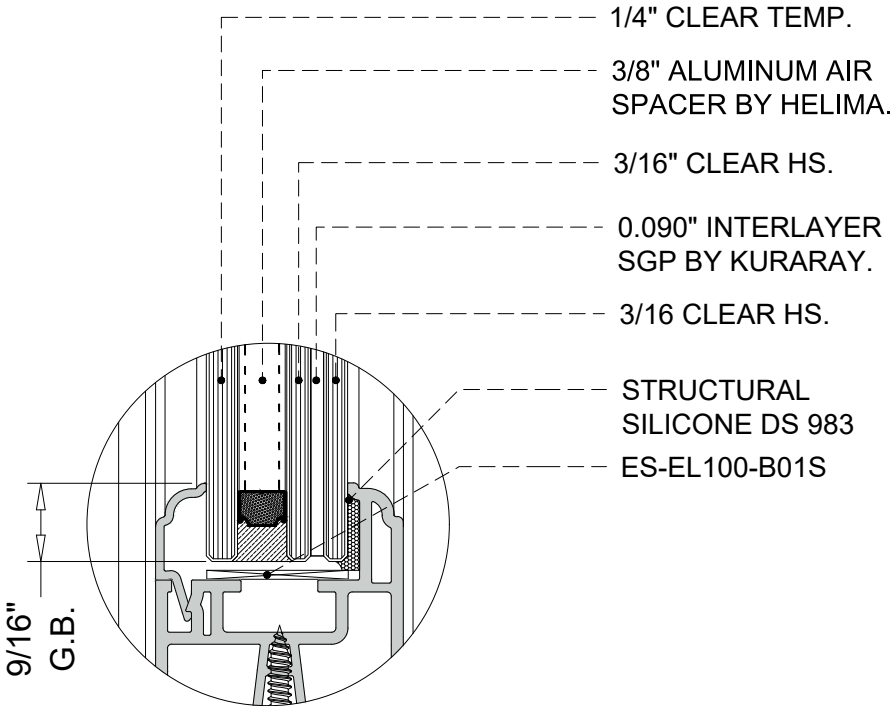
DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2:

SEE GLASS SPECIFICATIONS AND ALLOWABLE PRESSURES ON SHEET 2.
- STEP 3:

CHECK SLIDING GLASS DOOR INTERLOCK & ASTRAGAL CAPACITY FOR GIVEN WIDTHS AND HEIGHTS USING CHARTS ON SHEETS 05.
- STEP 4:

CHECK ANCHOR SPECIFICATIONS AND CAPACITY FOR SLIDING GLASS DOOR SYSTEMS USING ANCHOR SPECIFICATIONS AND CHARTS ON SHEETS 06 AND 07 RESPECTIVELY.
- STEP 5:

THE LOWEST VALUE RESULTING FROM STEP 2, 3 AND 4 SHALL APPLY TO THE ENTIRE SYSTEM.

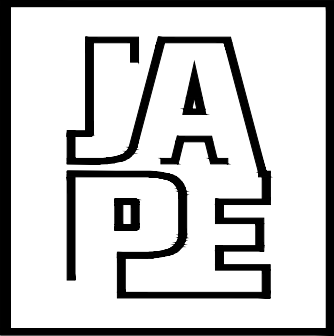


GLASS TYPE 'G1-SGD'

1–1/16” OVERALL
INSULATED LAMINATED GLASS

MAX. ALLOWABLE
DESIGN LOAD: +/- 85.5 PSF

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :



ES WINDOWS, LLC
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158

REVISION

No.	DATE	BY	DESCRIPTION
0			
date:		8/17/2026	
scale:		N/A	
drawn by:		M.S.	
check by:			
Drawing no.		JA-1593-26	

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



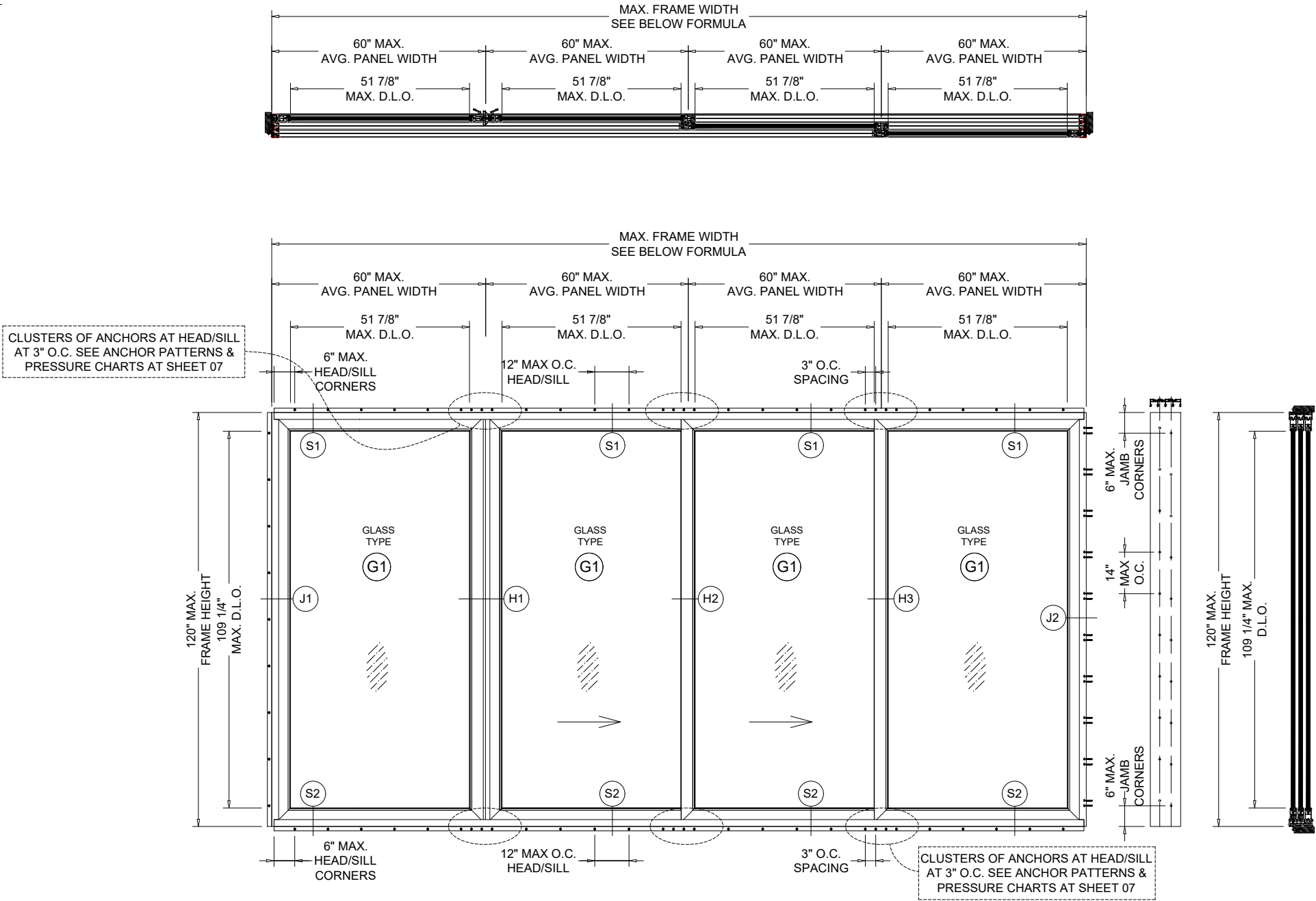
SEALED: 10-15-2026

GLAZING DETAILS

SHEET No.
02 OF 16

3-TRACK SYSTEM

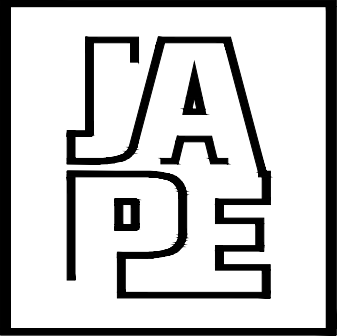
NOTES:
SEE SHEETS 05 & 07 FOR
DETAILED PRESSURE CHARTS.



- NOTES:
- MAX. FRAME WIDTH = AVG. PANEL WIDTH X TOTAL NUMBER OF PANELS
 - NO. OF PANELS NOT TO EXCEED APPROVED DOOR CONFIGURATIONS
 - SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

SEALANT
ALL WINDOW STOP,DRIP CAP,FRAME CORNERS,
JOINT, MULLION SEAMS AND GLAZING BEAD TO
FRAME SEALED WITH SILICONE SEALANT.

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES **ES WINDOWS, LLC**
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

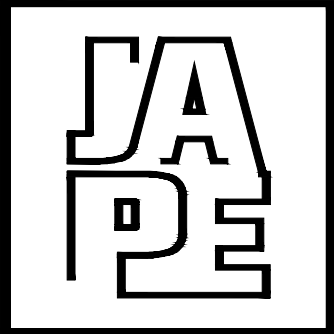


SEALED: 10-15-2026

TYP. ELEV.

SHEET No.
03 OF 16

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :



ES WINDOWS, LLC

3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
-------	-----------

scale:	N/A
--------	-----

drawn by:	M.S.
-----------	------

check by:

Drawing no.	JA-1593-26
-------------	------------

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 - C.A.N. 34254



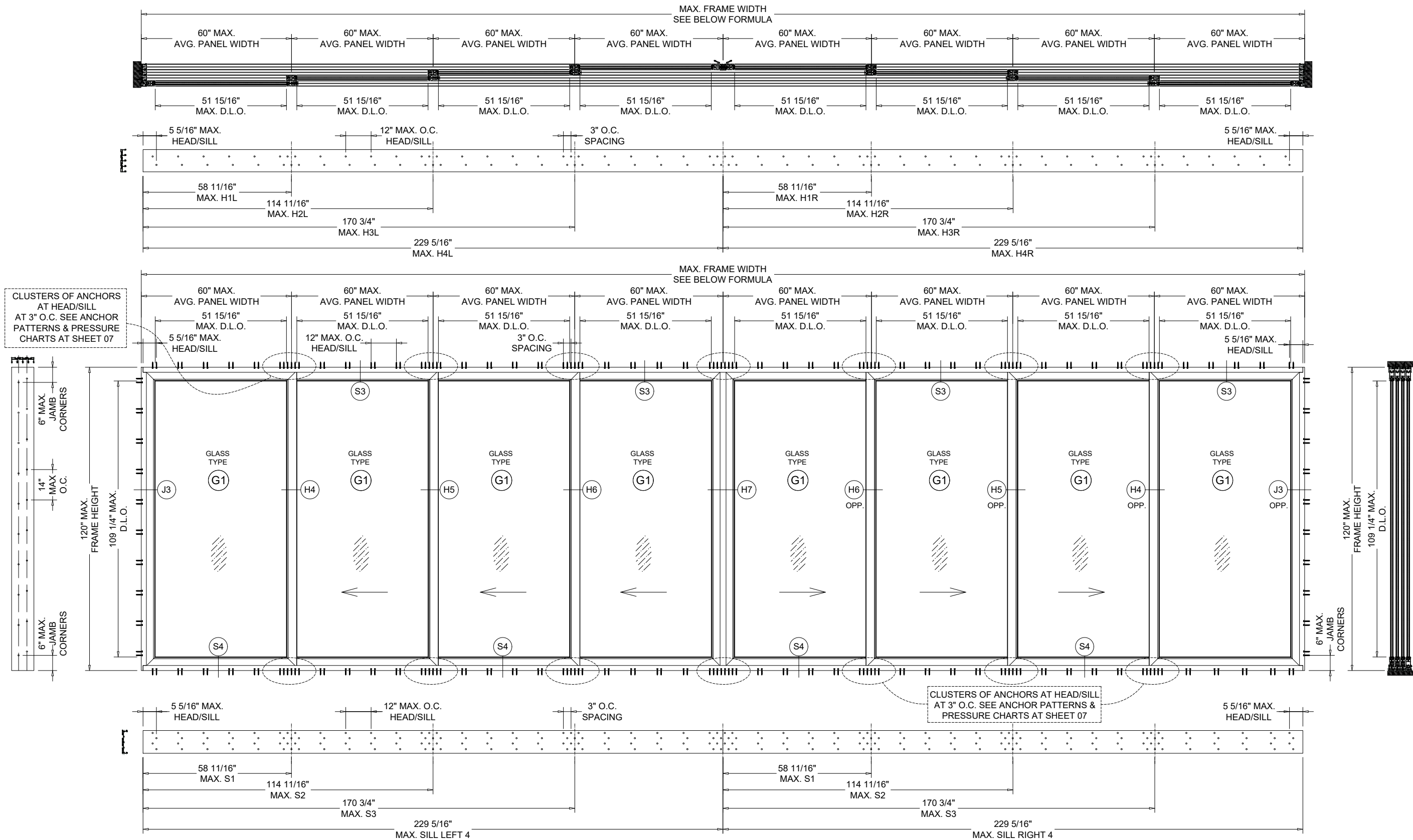
SEALED: 10-15-2026

TYP. ELEV.

SHEET No.
04 OF 16

NOTES:

SEE SHEETS 05 & 07 FOR
DETAILED PRESSURE CHARTS.



NOTES:

- MAX. FRAME WIDTH = AVG. PANEL WIDTH X TOTAL NUMBER OF PANELS
- NO. OF PANELS NOT TO EXCEED APPROVED DOOR CONFIGURATIONS
- SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

TYPICAL ELEVATION
OXXX-XXXO

OTHER APPROVED CONFIGURATIONS

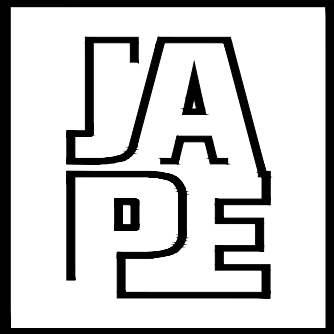
XXXX-XXXX
 OOXX-XXOO
 OOOX-XOOO
 XXXX

SEALANT

ALL WINDOW STOP,DRIP CAP,FRAME CORNERS,
JOINT, MULLION SEAMS AND GLAZING BEAD TO
FRAME SEALED WITH SILICONE SEALANT.

DOOR INTERLOCKS ALLOWABLE PRESSURE CHARTS:

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES WINDOWS, LLC
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



SEALED: 10-15-2026

PRESSURE CHART

SHEET No.
05 OF 16

INTERLOCK DESIGN LOAD CAPACITY (PSF)			
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	W/O REINF.	W REINF.
		+/- PSF	+/- PSF
36	84	85.5	85.5
42		85.5	85.5
48		85.5	85.5
54		85.5	85.5
60		85.5	85.5
36	90	85.5	85.5
42		85.5	85.5
48		85.5	85.5
54		80.0	85.5
60		72.0	85.5
36	96	85.5	85.5
42		85.5	85.5
48		75.0	85.5
54		65.0	85.5
60		60.0	85.5
36	102	85.0	85.5
42		70.0	85.5
48		62.0	85.5
54		55.0	85.5
60		50.0	85.0
36	108	70.0	85.5
42		60.0	85.5
48		52.0	85.5
54		47.0	77.0
60		42.0	70.0
36	114	60.0	85.5
42		50.0	85.5
48		45.0	75.0
54		-	65.0
60		-	60.0
36	120	50.0	85.5
42		43.0	72.0
48		-	65.0
54		-	57.0
60		-	50.0

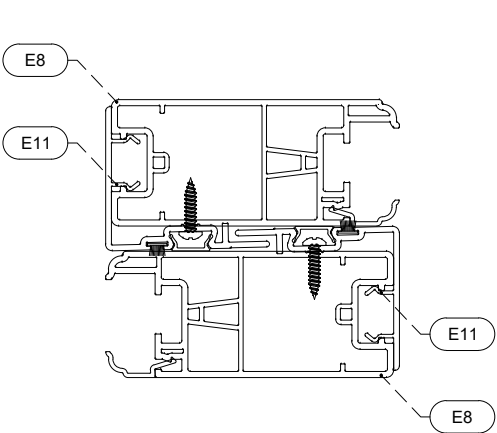
ASTRAGAL DESIGN LOAD CAPACITY (PSF)			
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	W/O REINF.	W REINF.
		+/- PSF	+/- PSF
36	84	85.5	85.5
42		85.5	85.5
48		85.5	85.5
54		85.5	85.5
60		85.5	85.5
36	90	85.5	85.5
42		85.5	85.5
48		85.5	85.5
54		85.5	85.5
60		78.4	85.5
36	96	85.5	85.5
42		85.5	85.5
48		80.8	85.5
54		71.8	80.8
60		64.6	72.7
36	102	85.5	85.5
42		77.0	85.5
48		67.3	75.7
54		59.9	67.3
60		53.9	60.6
36	108	75.6	85.1
42		64.8	72.9
48		56.7	63.8
54		50.4	56.7
60		45.4	51.0
36	114	64.3	72.3
42		55.1	62.0
48		48.2	54.3
54		42.9	48.2
60		38.6	43.4
36	120	55.1	62.0
42		47.3	53.2
48		41.4	46.5
54		36.8	41.3
60		33.1	37.2

NOTE: INTERPOLATION BETWEEN WIDTHS IS ALLOWED



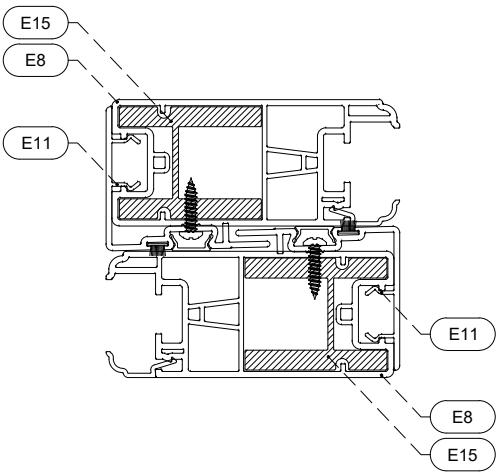
AT FRAME JAMBS, AVERAGE
PANEL WIDTH, W = W1

AT FRAME MULLIONS, AVERAGE
PANEL WIDTH, W = (W1 + W2) / 2
FOR SGDs ALL CONFIG.



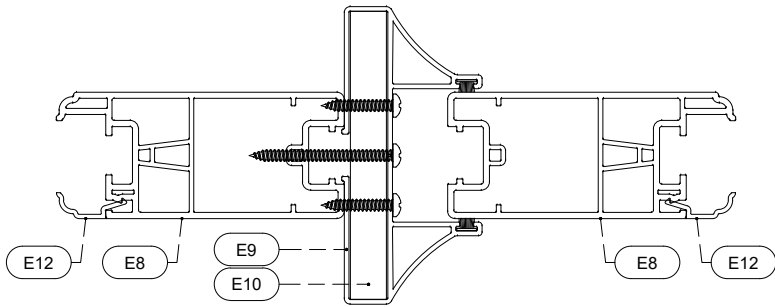
	1x IN^4	Sx IN^3
6063-T6	4.9911	2.584
6005-T5	-	-
TOTAL 1x 6063-T6 + 1x 6005-T5	4.9911	

STANDARD INTERLOCK
SCALE = 4-1/2" = 1'-0"



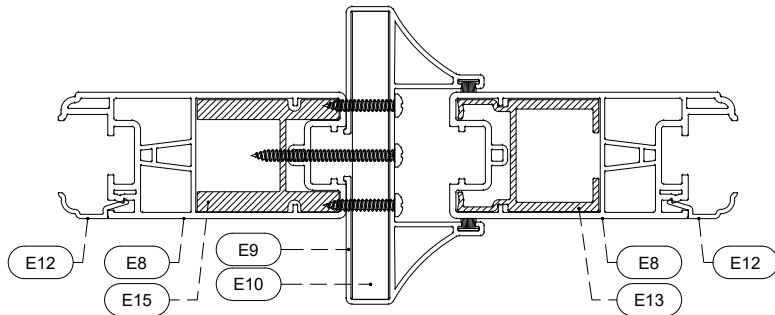
	1x IN^4	Sx IN^3
6063-T6	4.9911	2.584
6005-T5	3.3430	-
TOTAL 1x 6063-T6 + 1x 6005-T5	8.3340	

INTERLOCK W/ REINF.
SCALE = 4-1/2" = 1'-0"



	1x IN^4	Sx IN^3
6063-T6	5.5270	2.673
6005-T5	-	-
TOTAL 1x 6063-T6 + 1x 6005-T5	5.5270	

STANDARD ASTRAGAL
SCALE = 4-1/2" = 1'-0"



	1x IN^4	Sx IN^3
6063-T6	5.5270	2.673
6005-T5	0.690	0.335
TOTAL 1x 6063-T6 + 1x 6005-T5	6.218	

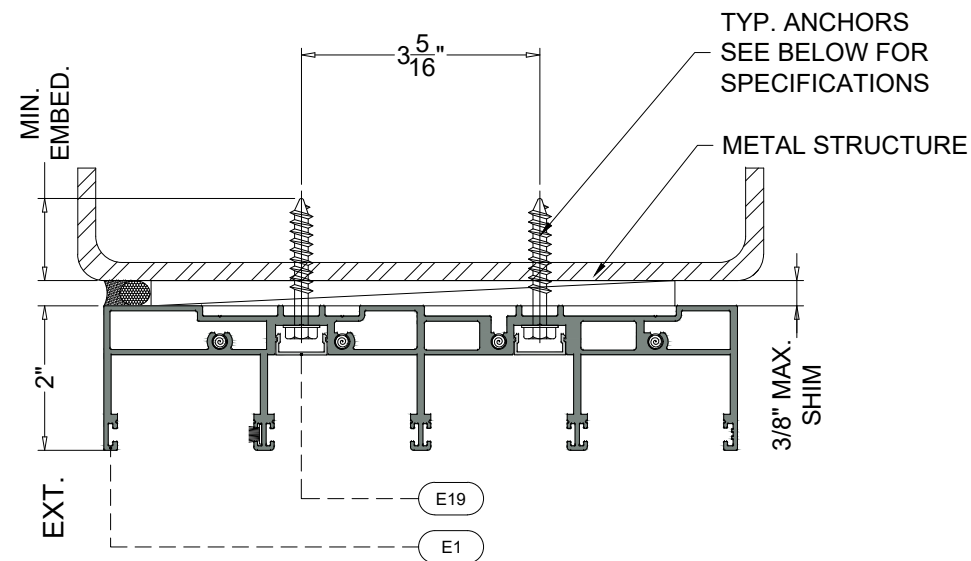
ASTRAGAL W/ REINF.
SCALE = 4-1/2" = 1'-0"

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 - C.A.N. 34254



ANCHOR SPECS

SHEET No.
06 OF 16



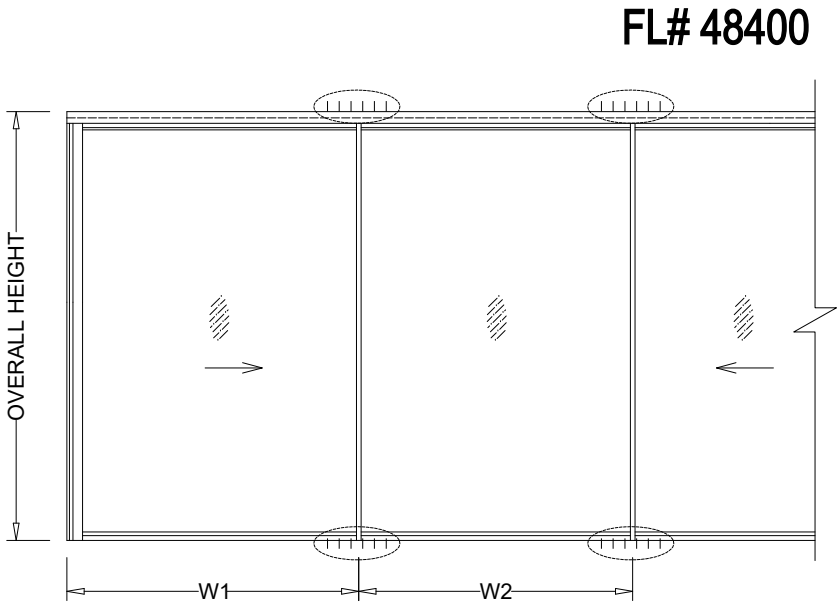
INTO METAL STRUCTURE = 3/4" MIN.

HEAD CLUSTER ANCHORS ALLOWABLE PRESSURE CHARTS:

ANCHORS 'A' & 'B' LOAD CHART (PSF)					
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	1/4" MAX. SHIM		3/8" MAX. SHIM	
		CLUSTER ANCHORS @ MTG. STILE ENDS		CLUSTER ANCHORS @ MTG. STILE ENDS	
		4	6	4	6
36	84	85.5	85.5	85.5	85.5
42		85.5	85.5	85.5	85.5
48		85.5	85.5	77.5	85.5
54		85.5	85.5	68.9	85.5
60		81.4	85.5	62.0	85.5
36	90	85.5	85.5	85.5	85.5
42		85.5	85.5	82.7	85.5
48		85.5	85.5	72.3	85.5
54		84.4	85.5	64.3	85.5
60		75.9	85.5	57.9	85.5
36	96	85.5	85.5	85.5	85.5
42		85.5	85.5	77.5	85.5
48		85.5	85.5	67.8	85.5
54		79.1	85.5	60.3	85.5
60		71.2	85.5	54.3	81.4
36	102	85.5	85.5	85.1	85.5
42		85.5	85.5	72.9	85.5
48		83.8	85.5	63.8	85.5
54		74.5	85.5	56.7	85.1
60		67.0	85.5	51.1	76.6
36	108	85.5	85.5	80.4	85.5
42		85.5	85.5	68.9	85.5
48		79.1	85.5	60.3	85.5
54		70.3	85.5	53.6	80.4
60		63.3	85.5	48.2	72.3
36	114	85.5	85.5	76.1	85.5
42		85.5	85.5	65.3	85.5
48		74.9	85.5	57.1	85.5
54		66.6	85.5	50.8	76.1
60		60.0	85.5	45.7	68.5
36	120	85.5	85.5	72.3	85.5
42		81.4	85.5	62.0	85.5
48		71.2	85.5	54.3	81.4
54		63.3	85.5	48.2	72.3
60		57.0	85.4	43.4	65.1

ANCHORS 'C' LOAD CHART (PSF)					
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	1/4" MAX. SHIM		3/8" MAX. SHIM	
		CLUSTER ANCHORS @ MTG. STILE ENDS		CLUSTER ANCHORS @ MTG. STILE ENDS	
		4	6	4	6
36	84	68.4	85.5	48.8	73.2
42		58.6	85.5	41.8	62.8
48		51.3	76.9	36.6	54.9
54		45.6	68.4	32.5	48.8
60		41.0	61.6	29.3	43.9
36	90	63.8	85.5	45.6	68.3
42		54.7	82.1	39.0	58.6
48		47.9	71.8	34.2	51.3
54		42.6	63.8	30.4	45.6
60		38.3	57.4	27.3	41.0
36	96	59.8	85.5	42.7	64.1
42		51.3	76.9	36.6	54.9
48		44.9	67.3	32.0	48.0
54		39.9	59.8	28.5	42.7
60		35.9	53.9	25.6	38.4
36	102	56.3	84.5	40.2	60.3
42		48.3	72.4	34.5	51.7
48		42.2	63.4	30.1	45.2
54		37.5	56.3	26.8	40.2
60		33.8	50.7	24.1	36.2
36	108	53.2	79.8	38.0	56.9
42		45.6	68.4	32.5	48.8
48		39.9	59.8	28.5	42.7
54		35.5	53.2	25.3	38.0
60		31.9	47.9	22.8	34.2
36	114	50.4	75.6	36.0	53.9
42		43.2	64.8	30.8	46.2
48		37.8	56.7	27.0	40.5
54		33.6	50.4	24.0	36.0
60		30.2	45.4	21.6	32.4
36	120	47.9	71.8	34.2	51.3
42		41.0	61.6	29.3	43.9
48		35.9	53.9	25.6	38.4
54		31.9	47.9	22.8	34.2
60		28.7	43.1	20.5	30.8

ANCHORS 'D' LOAD CHART (PSF)					
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	1/4" MAX. SHIM		3/8" MAX. SHIM	
		CLUSTER ANCHORS @ MTG. STILE ENDS		CLUSTER ANCHORS @ MTG. STILE ENDS	
		4	6	4	6
36	84	85.5	85.5	85.5	85.5
42		85.5	85.5	83.6	85.5
48		85.5	85.5	73.2	85.5
54		85.5	85.5	65.0	85.5
60		80.8	85.5	58.5	85.5
36	90	85.5	85.5	85.5	85.5
42		85.5	85.5	78.0	85.5
48		85.5	85.5	68.3	85.5
54		83.8	85.5	60.7	85.5
60		75.4	85.5	54.6	81.9
36	96	85.5	85.5	85.3	85.5
42		85.5	85.5	73.2	85.5
48		85.5	85.5	64.0	85.5
54		78.5	85.5	56.9	85.3
60		70.7	85.5	51.2	76.8
36	102	85.5	85.5	80.3	85.5
42		85.5	85.5	68.9	85.5
48		83.2	85.5	60.2	85.5
54		73.9	85.5	53.6	80.3
60		66.5	85.5	48.2	72.3
36	108	85.5	85.5	75.9	85.5
42		85.5	85.5	65.0	85.5
48		78.5	85.5	56.9	85.3
54		69.8	85.5	50.6	75.9
60		62.8	85.5	45.5	68.3
36	114	85.5	85.5	71.9	85.5
42		85.0	85.5	61.6	85.5
48		74.4	85.5	53.9	80.9
54		66.1	85.5	47.9	71.9
60		59.5	85.5	43.1	64.7
36	120	85.5	85.5	68.3	85.5
42		80.8	85.5	58.5	85.5
48		70.7	85.5	51.2	76.8
54		62.8	85.5	45.5	68.3
60		56.6	84.8	41.0	61.4



FOR SGD's ALL CONFIG.

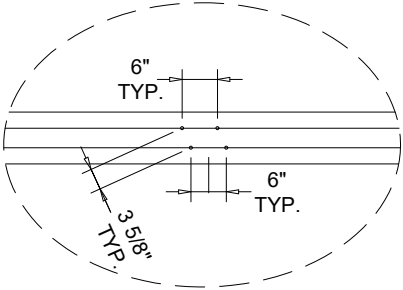
AT FRAME JAMBS, AVERAGE
PANEL WIDTH, W = W1

AT FRAME MULLIONS, AVERAGE
PANEL WIDTH, W = (W1 + W2) / 2

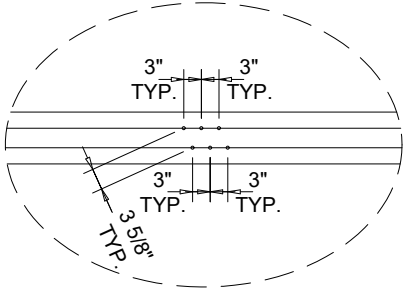
SEE CLUSTER ANCHOR PATTERN ON THE LEFT

NOTE: INTERPOLATION BETWEEN
WIDTHS OR HEIGHTS IS ALLOWED

CLUSTER ANCHOR PATTERN @ HEAD

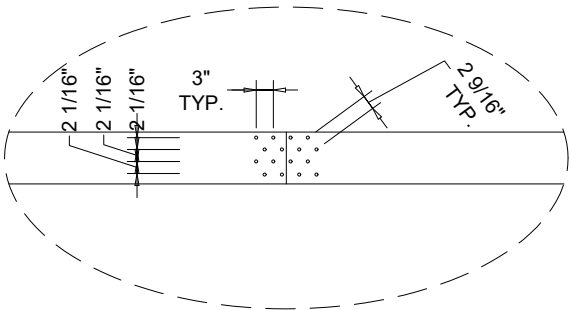


CLUSTER OF 4 ANCHORS

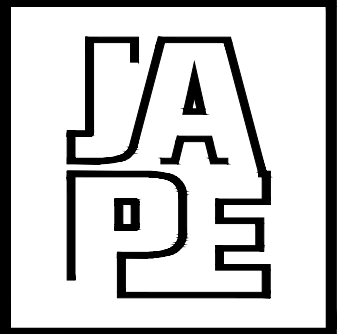


CLUSTER OF 6 ANCHORS

CLUSTER ANCHOR PATTERN @ SILL



CLUSTER OF 16 ANCHORS



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102

Doral, FL 33126

Ph: (305) 424-8001

support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :



ES WINDOWS, LLC

3550 NW 49TH STREET

MIAMI, FL 33142

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

REVISION

No.	DATE	BY	DESCRIPTION
0			

date: 8/17/2026

scale: N/A

drawn by: M.S.

check by:

Drawing no. JA-1593-26

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



SEALED: 10-15-2026

ANCHOR CHART

SHEET No.
07 OF 16

support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS



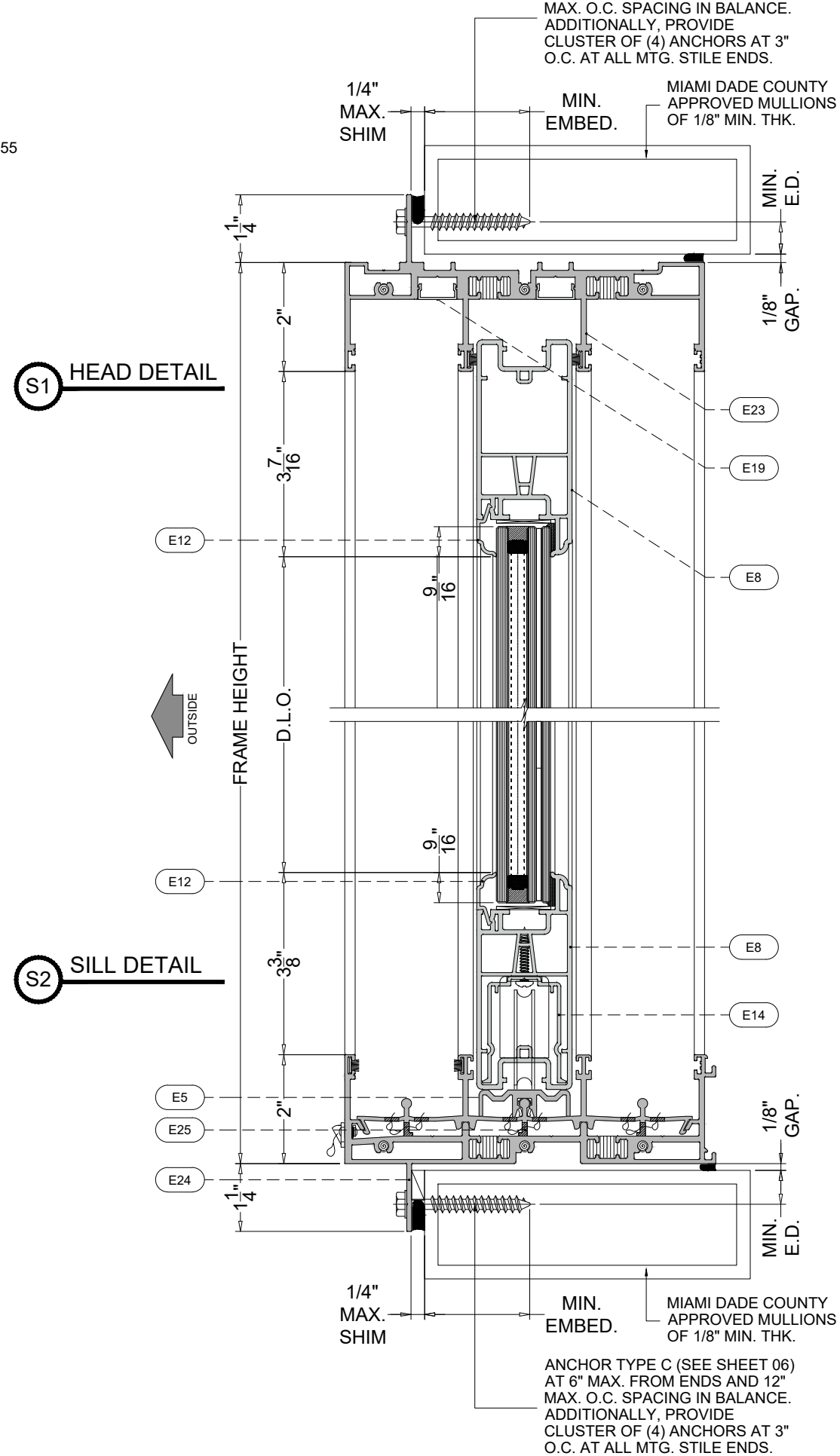
ES
Imagine
extraordin

3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158

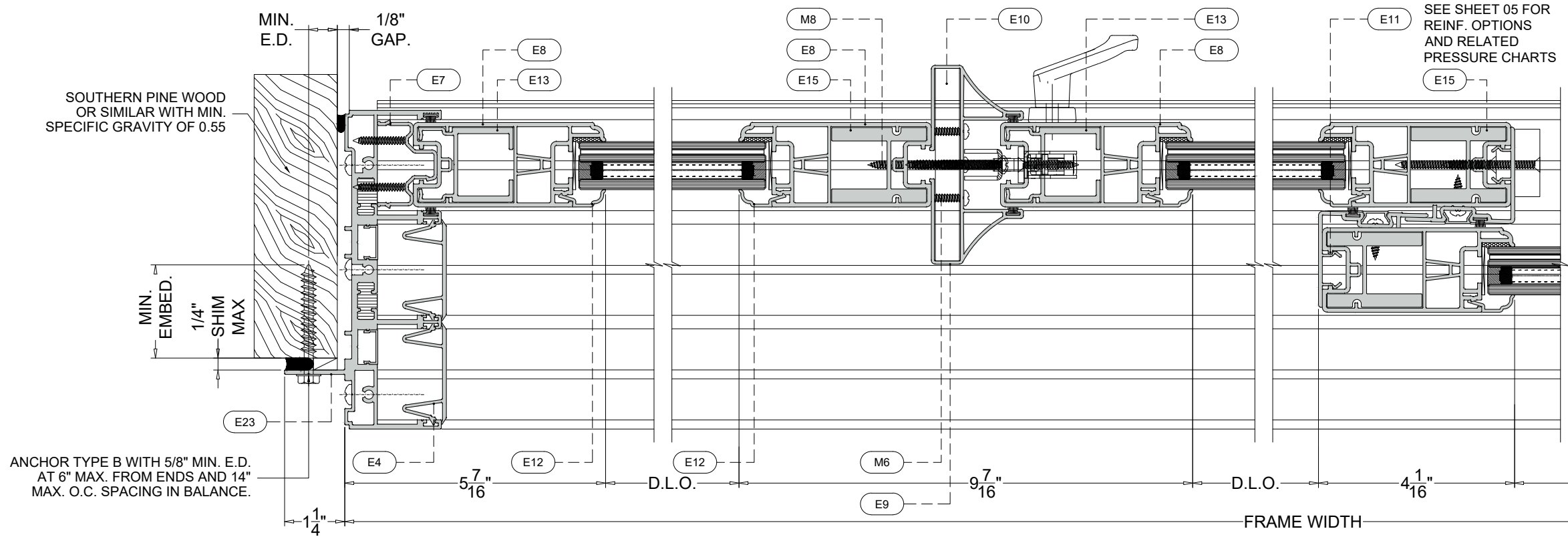
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 - C.A.N. 34254



SHEET No.
08 OF 16



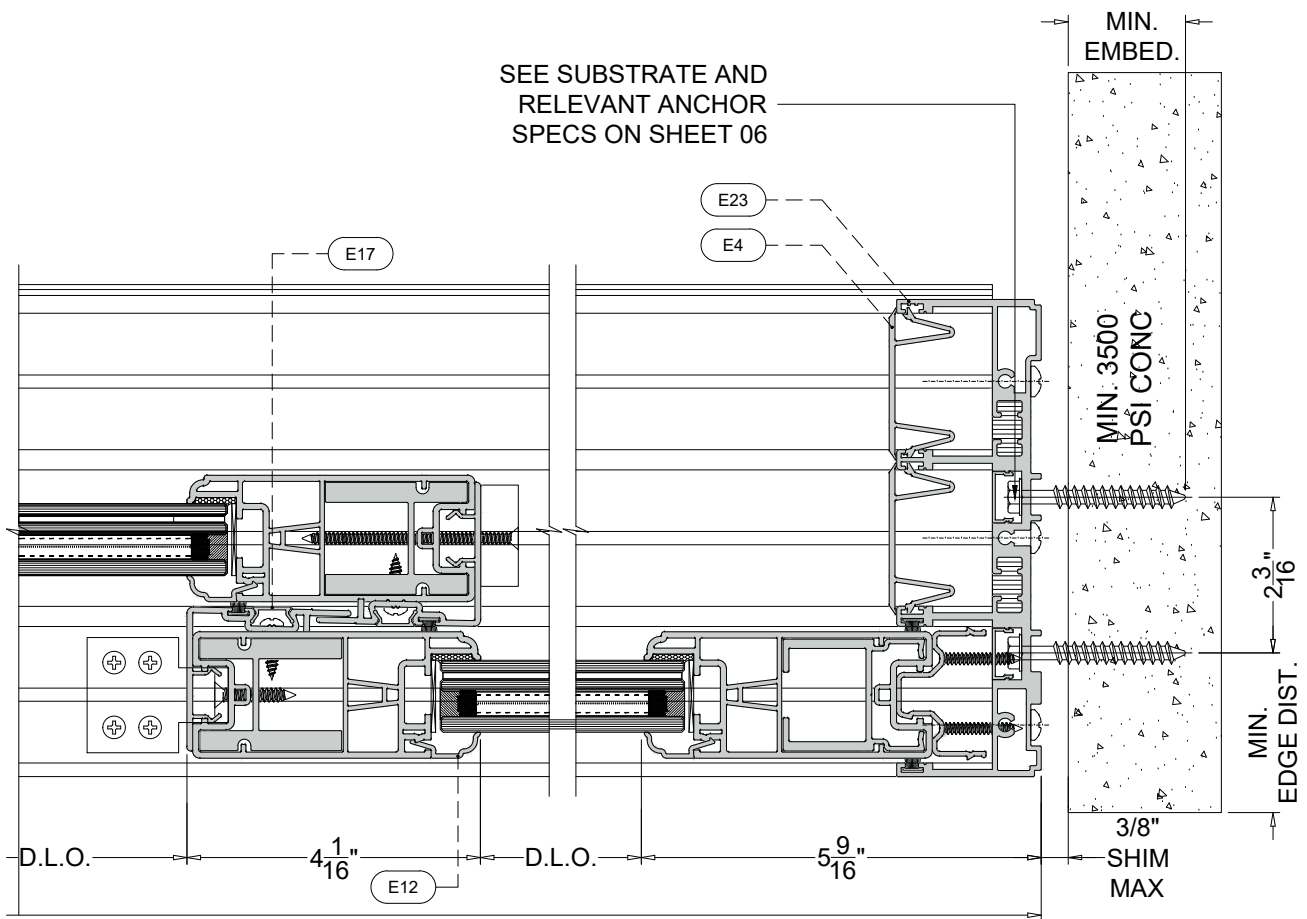
3 TRACK SYSTEM DETAILS



J1 JAMB DETAIL

H1 ASTRAGAL DETAIL

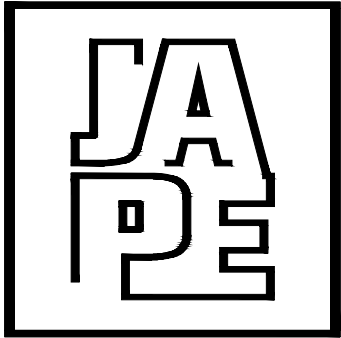
H2 INTERLOCK DETAIL



H3 INTERLOCK DETAIL

J2 JAMB DETAIL

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES WINDOWS, LLC
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

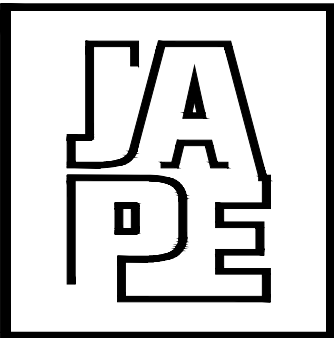


SEALED: 10-15-2026

SEC. DETAILS

SHEET No.
09 OF 16

3 TRACK SYSTEM DETAILS



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES **ES WINDOWS, LLC**
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date: 8/17/2026

scale: N/A

drawn by: M.S.

check by:

Drawing no. JA-1593-26

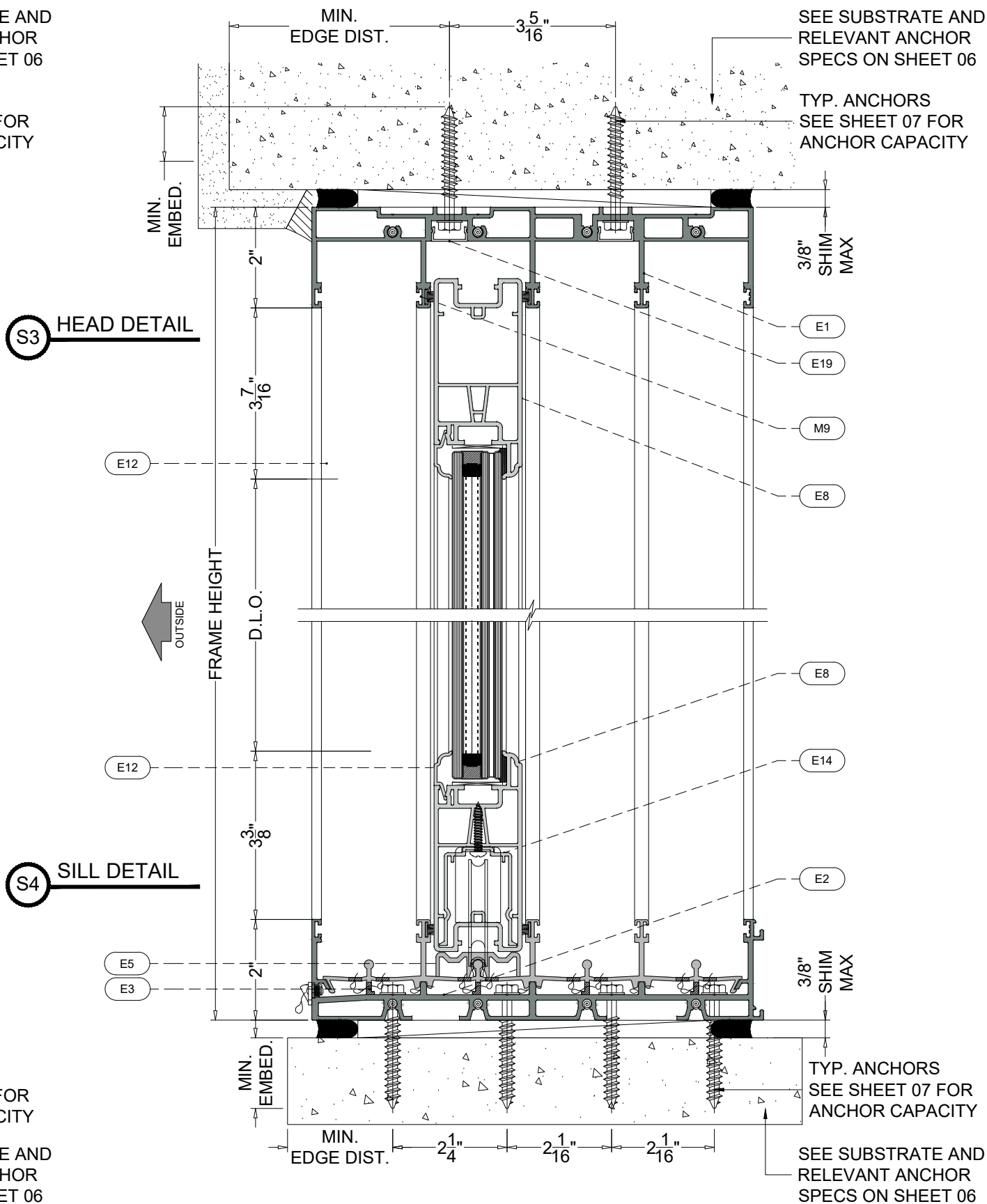
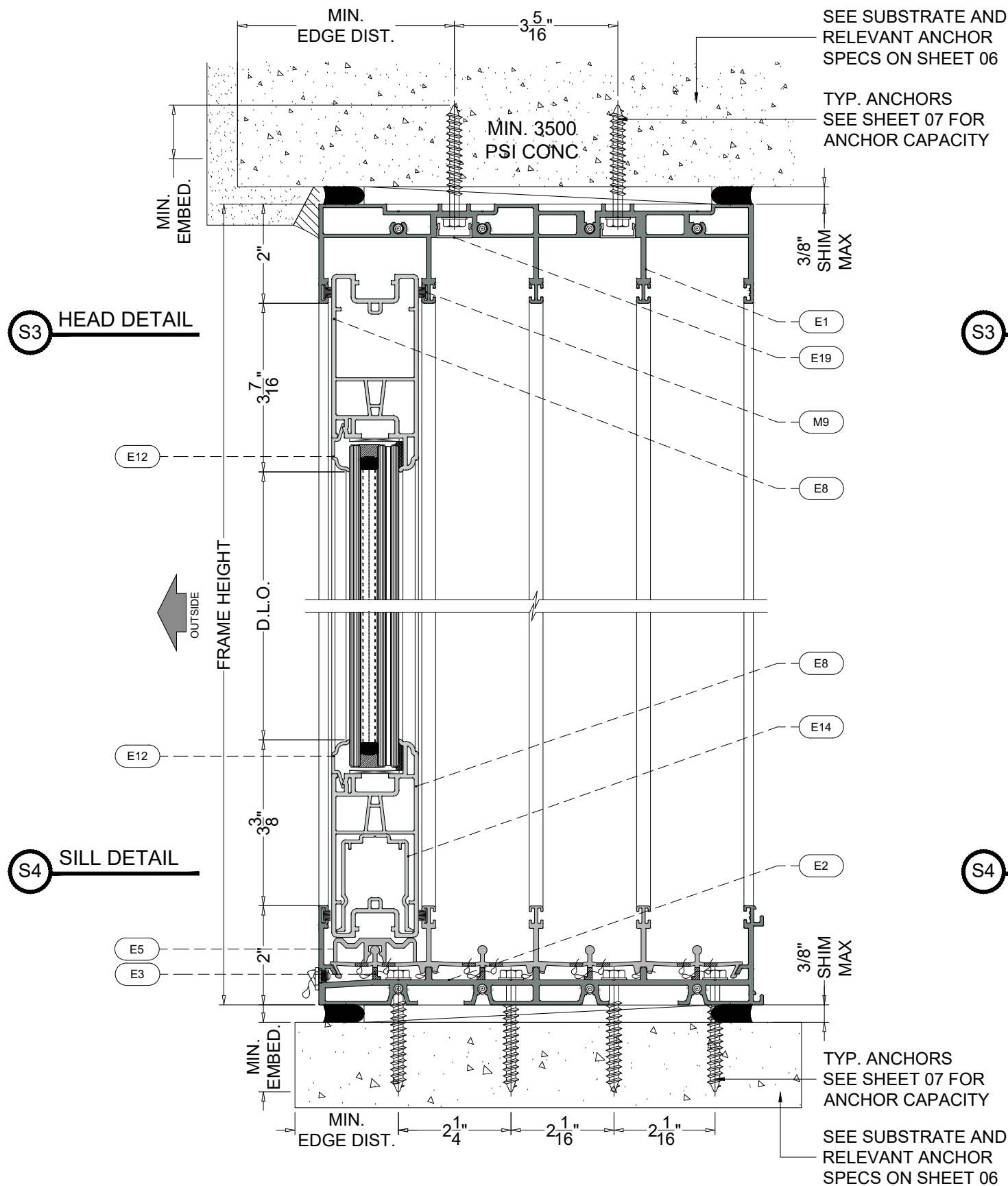
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 - C.A.N. 34254



SEALED: 10-15-2026

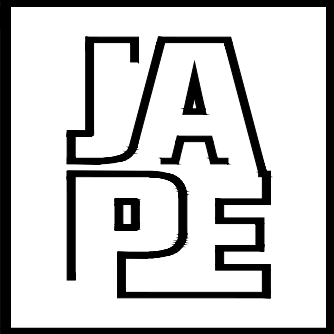
SEC. DETAILS

SHEET No.
10 OF 16



4 TRACK SYSTEM DETAILS

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES **ES WINDOWS, LLC**
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

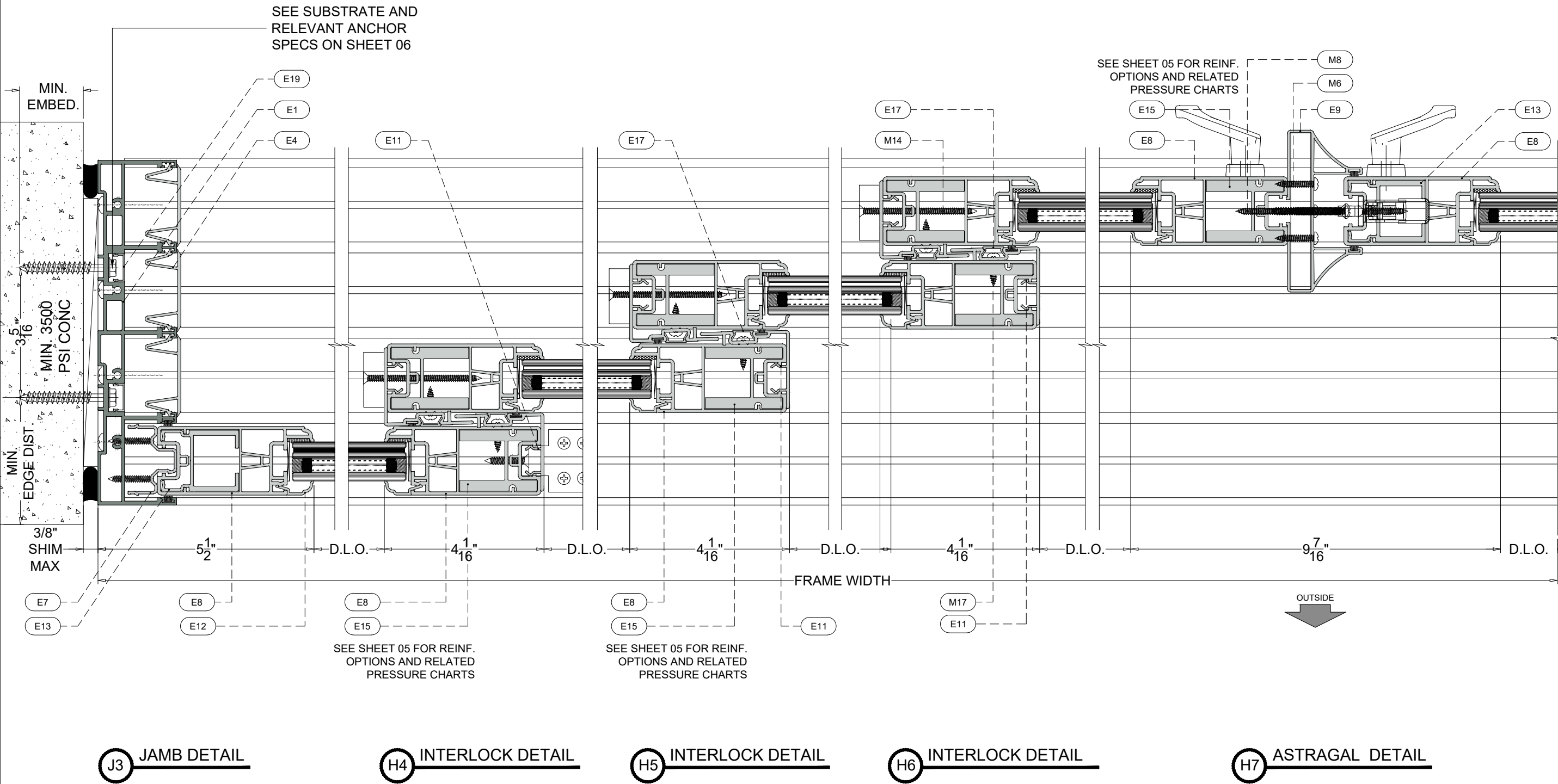
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



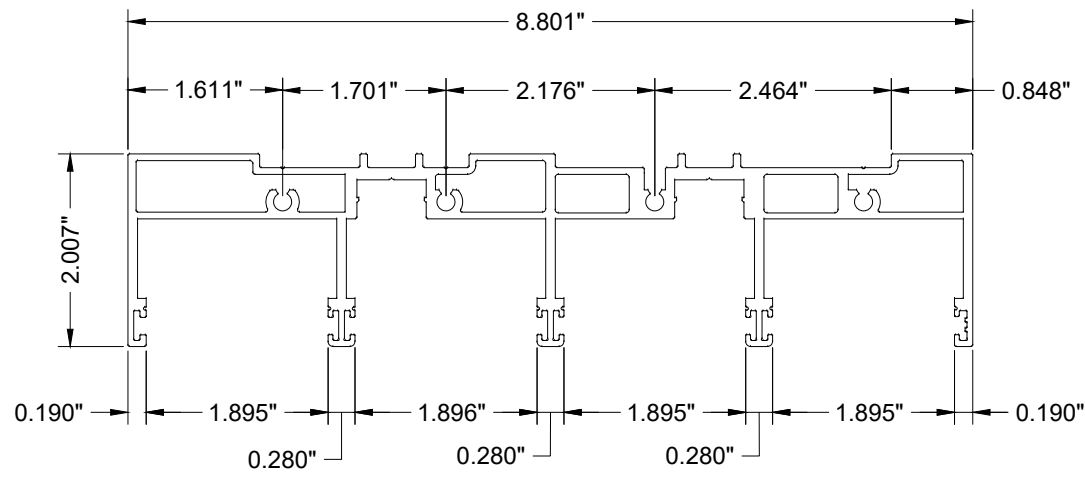
SEALED: 10-15-2026

SEC. DETAILS

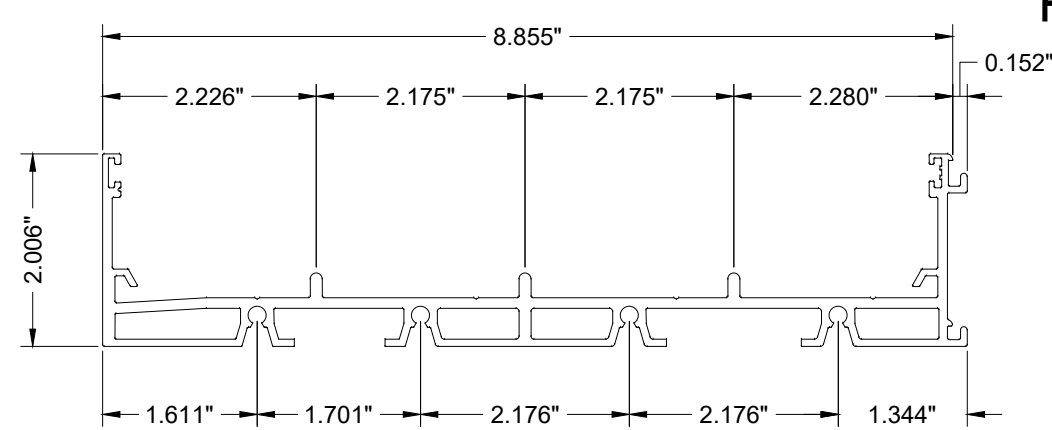
SHEET No.
11 OF 16



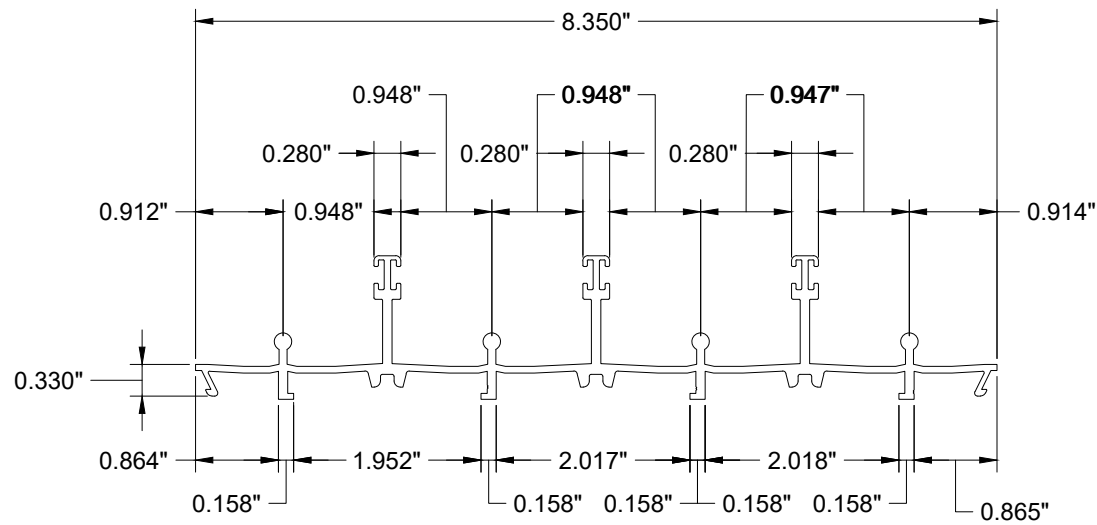
4 TRACK SYSTEM DETAILS



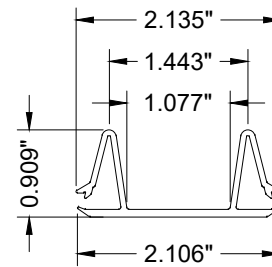
E1 HEAD & JAMB 4 TRACKS
SCALE = 6" = 1'-0"



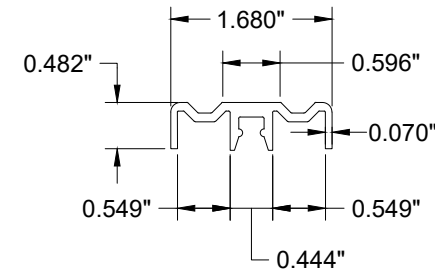
E2 SILL 4 TRACKS
SCALE = 6" = 1'-0"



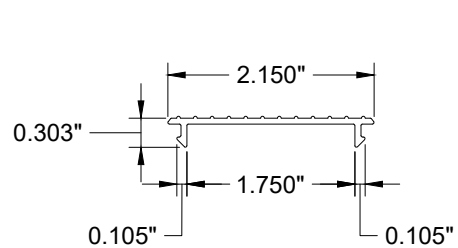
E3 SILL 4 TRACKS
SCALE = 6" = 1'-0"



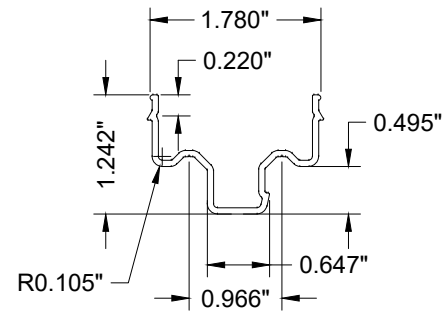
E4 FRAME ADAPTER/HEAD COVER
SCALE = 6" = 1'-0"



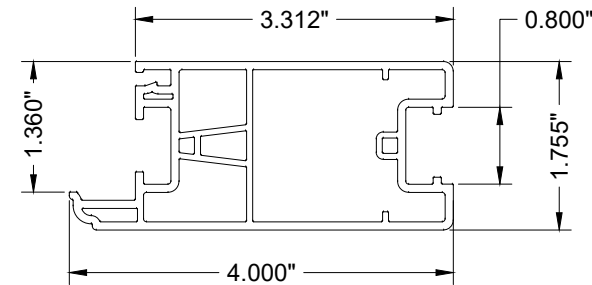
E5 PANEL RISER
SCALE = 6" = 1'-0"



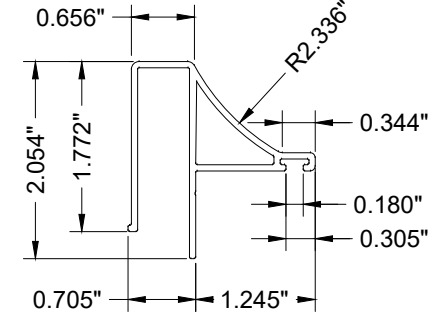
E6 COVER
SCALE = 6" = 1'-0"



E7 SNUBBER
SCALE = 6" = 1'-0"



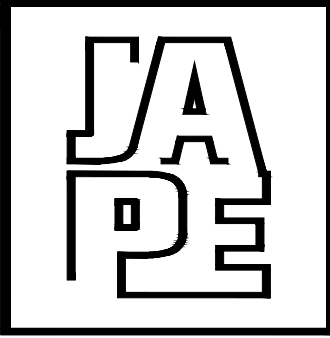
E8 PANEL HORIZONTAL/ VERTICAL
SCALE = 6" = 1'-0"



E9 ASTRAGAL MOVIL
SCALE = 6" = 1'-0"

EXTRUSION PROFILES

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

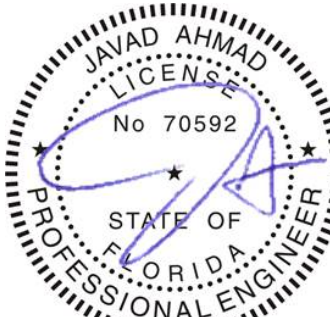
ES WINDOWS, LLC
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

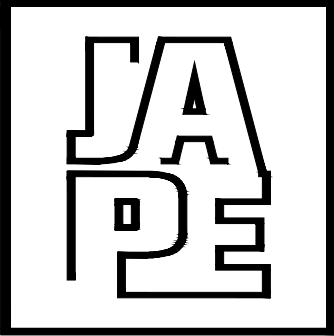
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



SEALED: 10-15-2026

PROFILES

SHEET No.
12 OF 16



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES **ES WINDOWS, LLC**
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

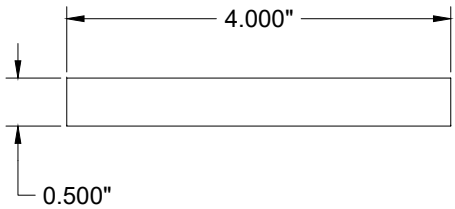
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



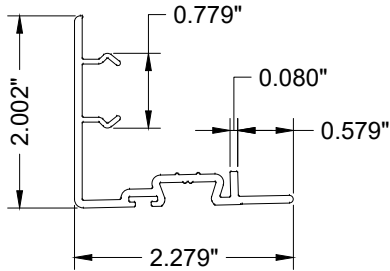
SEALED: 10-15-2026

PROFILES

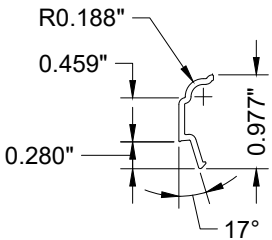
SHEET No.
13 OF 16



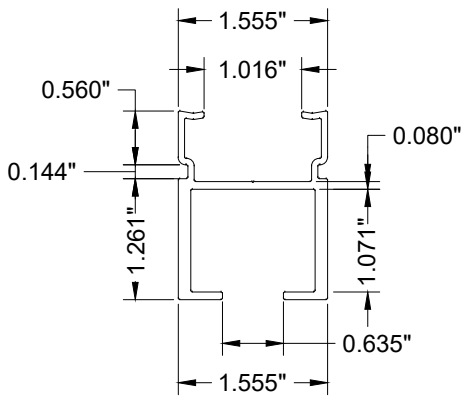
E10 ALUMINUM PLATE - 4" X 1/2"
SCALE = 6" = 1'-0"



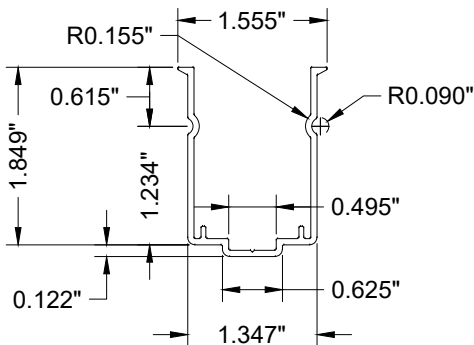
E11 INTERLOCK BRACKET
SCALE = 6" = 1'-0"



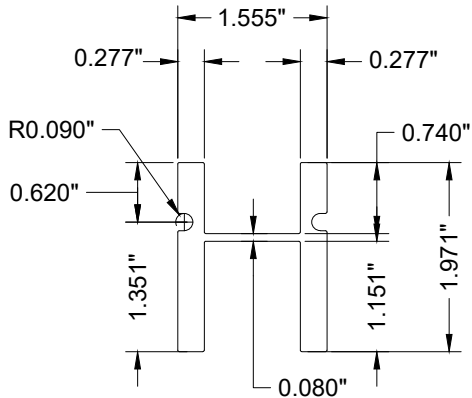
E12 GLAZING BEAD
SCALE = 6" = 1'-0"



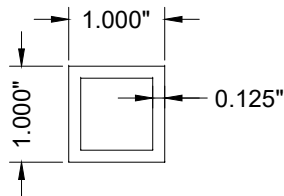
E13 ALUMINUM REINFORCEMENT STILES
SCALE = 6" = 1'-0"



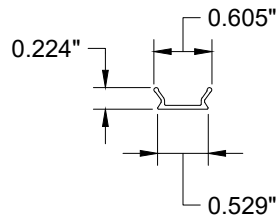
E14 BOTTOM RAIL REINFORCEMENT
SCALE = 6" = 1'-0"



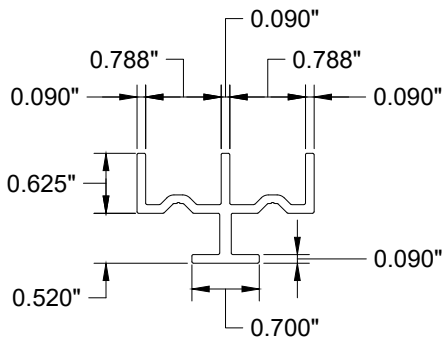
E15 REINFORCEMENT
SCALE = 6" = 1'-0"



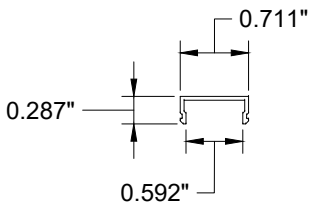
E16 TUBE 1X1X1/8"
SCALE = 6" = 1'-0"



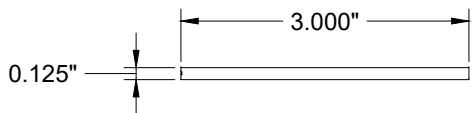
E17 SCREW COVER
SCALE = 6" = 1'-0"



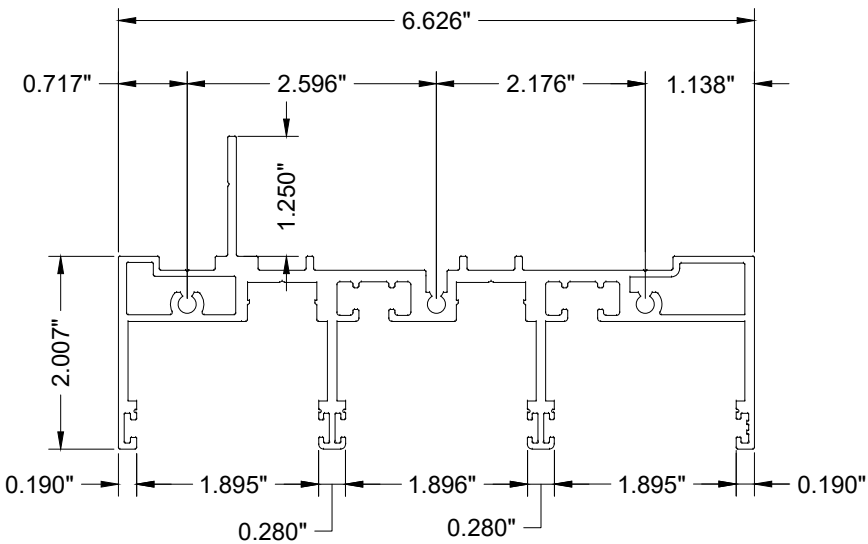
E18 ALUMINUM TRACKS GUIDES
SCALE = 6" = 1'-0"



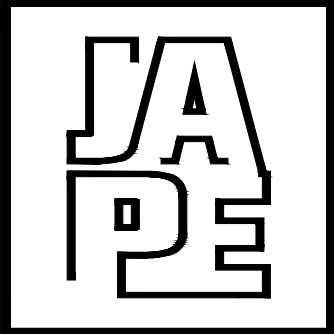
E19 COVER HEAD
SCALE = 6" = 1'-0"



E20 ALUMINUM PLATE 3 X 1/8"
SCALE = 6" = 1'-0"



E23 HEAD & JAMB 3 TRACKS
SCALE = 6" = 1'-0"



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES **ES WINDOWS, LLC**
3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158
Imagine extraordinary

REVISION

No.	DATE	BY	DESCRIPTION
0			
date:		8/17/2026	
scale:		N/A	
drawn by:		M.S.	
check by:			
Drawing no.		JA-1593-26	

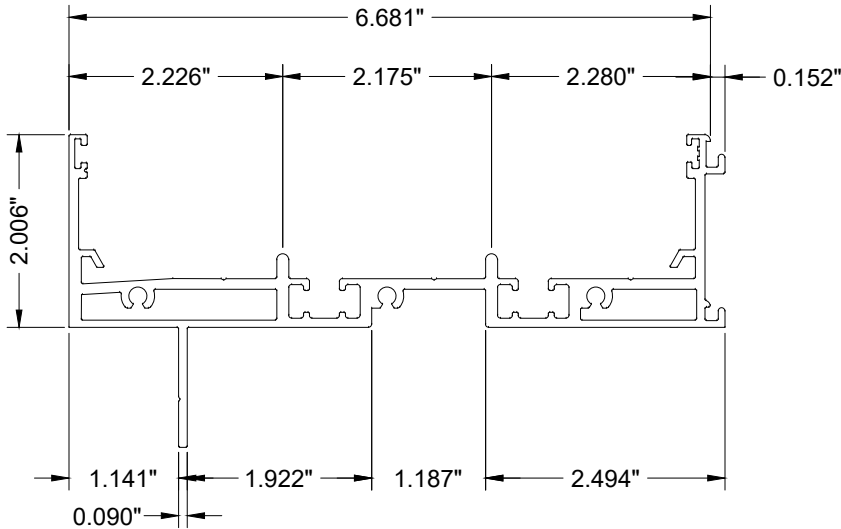
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



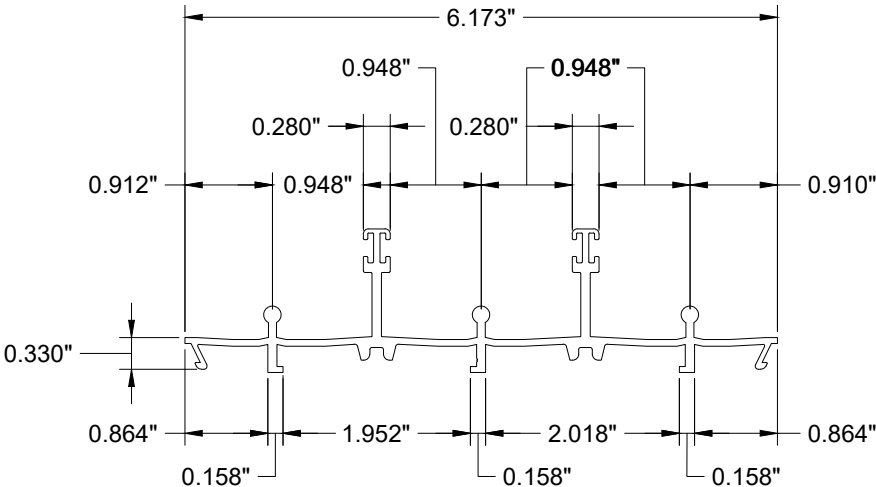
SEALED: 10-15-2026

PROFILES

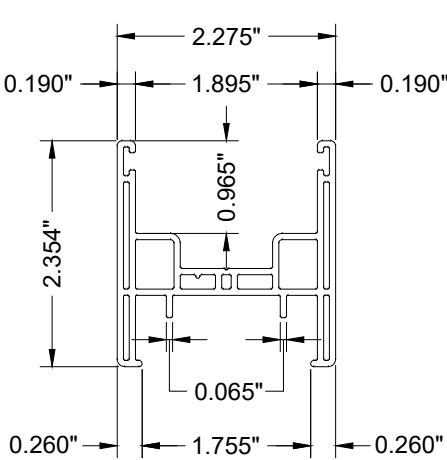
SHEET No.
14 OF 16



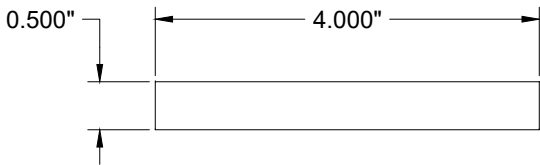
E24 SILL 3 TRACKS WITH FIN
SCALE = 6" = 1'-0"



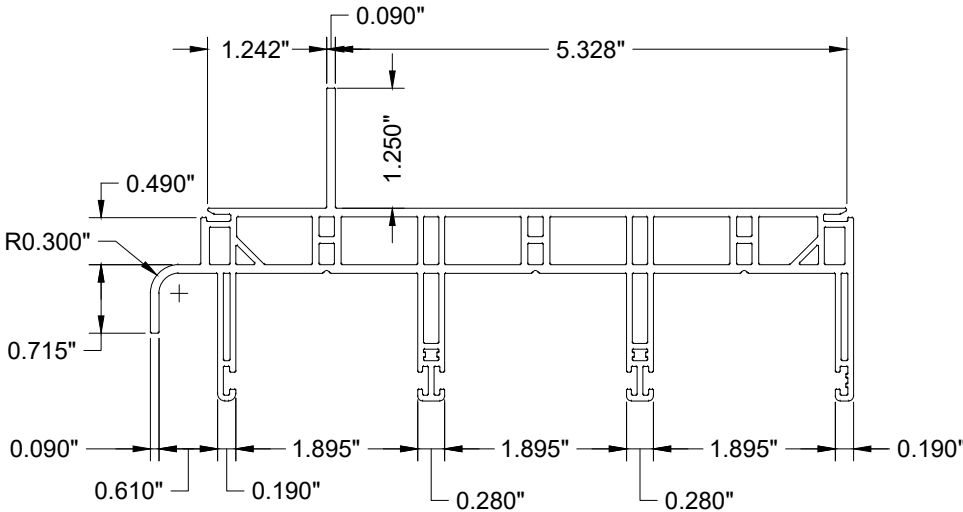
E25 3 TRACKS
SCALE = 6" = 1'-0"



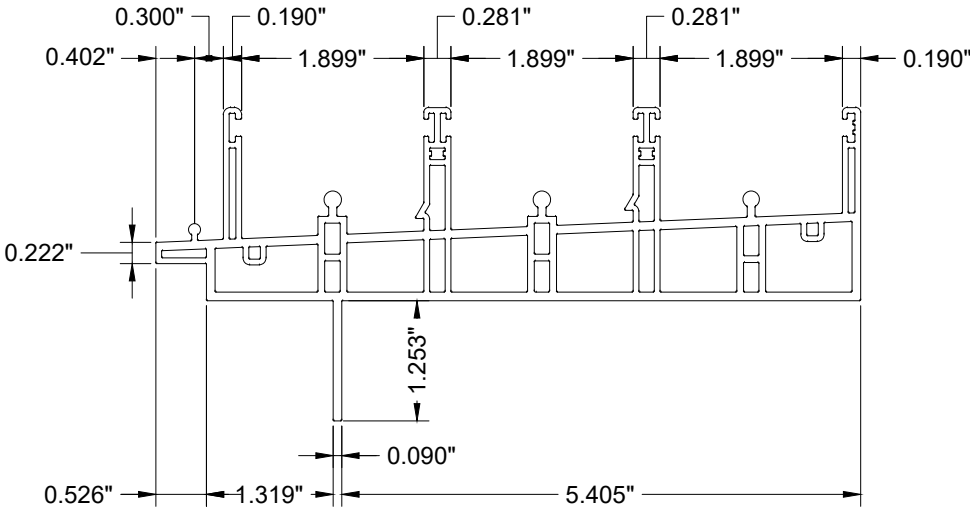
E26 ASTRAGAL MOVIL
SCALE = 6" = 1'-0"



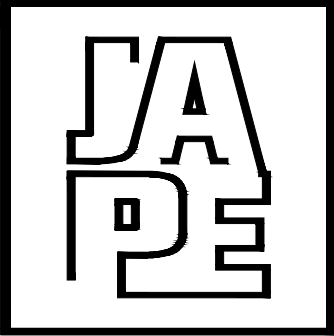
E27 ALUMINUM PLATE 4 x 1/2"
SCALE = 6" = 1'-0"



E28 NAIL FIN HEAD & JAMB 3 TRACKS
SCALE = 6" = 1'-0"



E29 NAIL FIN SILL 3 TRACKS
SCALE = 6" = 1'-0"



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :

ES

Imagine extraordinary

ES WINDOWS, LLC

3550 NW 49TH STREET
MIAMI, FL 33142
TEL. (305) 638-5151 | FAX. (305) 638-5158

REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

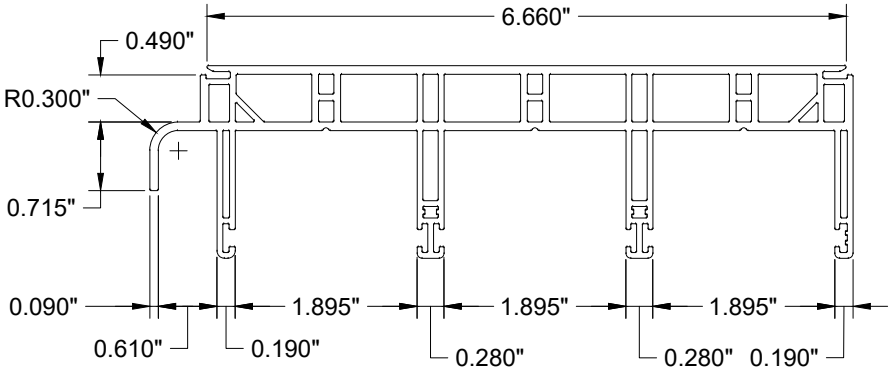
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



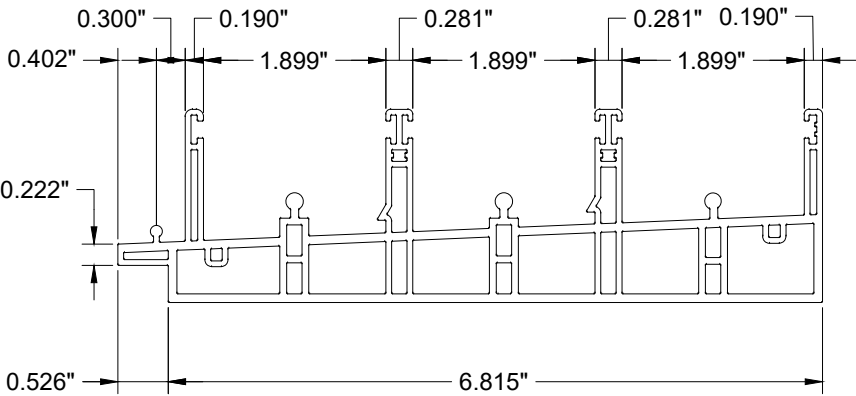
SEALED: 10-15-2026

BILL OF MATERIALS

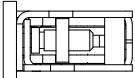
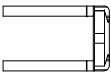
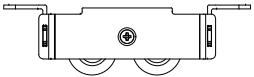
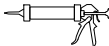
ITEM NO.	PART#	DESCRIPTION	MATERIAL
E1	ES-V400-006	HEAD & JAMB 4 TRACKS	6063-T6
E2	ES-V400-008	SILL 4 TRACKS	6063-T6
E3	ES-V400-010	SILL 4 TRACKS	6063-T6
E4	10001106	FRAME ADAPTER/HEAD COVER	PVC
E5	ES-V400-011	PANEL RISER	6063-T6
E6	ES-V400-012	COVER	6063-T6
E7	DECE-015	SNUBBER	6005-T5
E8	10001102	PANEL HORIZONTAL/ VERTICAL	PVC
E9	10001183	ASTRAGAL MOVIL	PVC
E10	ALU-P-061	ALUMINUM PLATE 4 X 1/2"	6063-T6
E11	10001117	INTERLOCK BRACKET	PVC
E12	10001111	GLAZING BEAD	PVC
E13	DECE-016	ALUMINUM REINFORCEMENT STILES	6005-T5
E14	DECE-018	BOTTOM RAIL REINFORCEMENT	6005-T5
E15	DECE-017	REINFORCEMENT	6005-T5
E16	T-005	TUBE 1x1x1/8"	6063-T6
E17	10001118	SCREW COVER	PVC
E18	DECE-014	ALUMINUM TRACKS GUIDES	6005-T5
E19	ES-6011	COVER HEAD	6063-T6
E20	ALU-P-051	ALUMINUM PLATE 3 X 1/8"	6063-T6
E21	ALU-P-4X0.125	SPLICE HEAD	6063-T6
E22	ES-PL-1002	SPLICE SILL	6063-T6
E23	ES-V400-002	HEAD & JAMB 3 TRACKS	6063-T6
E24	ES-V400-004	SILL 3 TRACKS WITH FIN	6063-T6
E25	ES-V400-005	3 TRACKS	6063-T6
E26	10001116	ASTRAGAL MOVIL	PVC
E27	ALU-P-061	ALUMINUM PLATE 4 x 1/2"	6063-T6
E28	10001250	NAIL FIN HEAD & JAMB 3 TRACKS	PVC
E29	10001252	NAIL FIN SILL 3 TRACKS	PVC
E30	10001250	EQUAL LEG HEAD & JAMB 3 TRACKS	PVC
E31	10001252	EQUAL LEG SILL 3 TRACKS	PVC

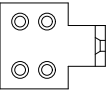
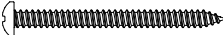


E28 NAIL FIN HEAD & JAMB 3 TRACKS
SCALE = 6" = 1'-0"



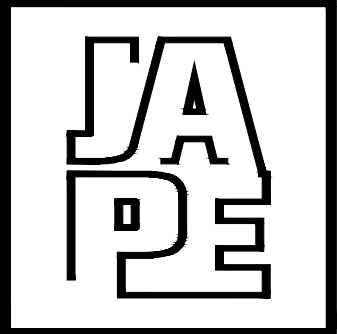
E29 NAIL FIN SILL 3 TRACKS
SCALE = 6" = 1'-0"

COD	PARTS	GRAPH	DESCRIPTION	MATERIAL
MISCELLANEOUS				
M1	2817-84 SS GEMINI TRIMPLATE 2PT LOCK		LOCK SET ASSEMBLY - 2817 LOCK W/ TRIMPLATE	--
M2	EMP-500 ES-EL100-B01 S		SETTING BLOCK	SILICONE
M3	GEMINI KEEPER		2778-84 SS GEMINI KEEPER	STAINLESS STEEL
M4	ROLLER SS WHEEL		1988PRS166REVSS ROLLER SS WHEEL	STAINLESS STEEL
M5	#8 X 1.25" PFH		SNUBBER	STAINLESS STEEL
M6	#8 X 1" PPH		ASTRAGAL / ROLLER ASSEMBLY	STAINLESS STEEL
M7	#8 X 1.25" PHIL. FLAT SELF DRILL 316SS		FOR PANEL	STAINLESS STEEL
M8	#8 X 2" PPH		LITE ASTRAGAL	STAINLESS STEEL
M9	W21255MW		WEATHERSTRIPPING PILE	POLYPROPYLENE
M10	WA2L-WHT		WEEP HOLE COVER	POLYPROPYLENE
M11	SILICONE DS 983		STRUCTURAL SILICONE	SILICONE

COD	PARTS	GRAPH	DESCRIPTION	MATERIAL
MISCELLANEOUS				
M12	#10 X 1.5" PTH		KEEPER (INSTALLED)	STAINLESS STEEL
M13	L BRACKET		PANEL FIXED	STAINLESS STEEL
M14	#8 X 3" PFH		IMPACT BRACKET	STAINLESS STEEL
M15	#8 x 1" PFH		TRACK GUIDE	STAINLESS STEEL
M16	#8 x 1 1/8" PFH		REINFORCEMENT TO PANEL / PANEL RISER	STAINLESS STEEL
M17	#8 X 0.75" PPH		INTERLOCK	STAINLESS STEEL
M18	#12 X 1.5" PPH		FRAME ASSEMBLY	STAINLESS STEEL
M19	ROLLER TRACK CAP		94" ROLLER TRACK CAP	STAINLESS STEEL
M20	#10 x 2" PFH		KEEPER (INSTALLATION)	STAINLESS STEEL
M21	#6 x .375" PPH		SCREEN KEEPER	STAINLESS STEEL

MISCELLANEOUS HARDWARE

FL# 48400



JAVAD AHMAD PE, inc

7875 NW 12 Street, Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com
CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING
ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

PROJECT :

SERIES ES-V400
ALUMINUM SLIDING GLASS DOOR
(L.M.I & S.M.I)

CLIENT :



REVISION

No.	DATE	BY	DESCRIPTION
0			

date:	8/17/2026
scale:	N/A
drawn by:	M.S.
check by:	
Drawing no.	JA-1593-26

Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



SEALED: 10-15-2026

MISC HARDWARE

SHEET No.
16 OF 16