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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.

ES-FX1515AM / ES-SGD1515AM

(LARGE & SMALL MISSILE IMPACT)

GENERAL NOTES

1. THIS SYSTEM PRESENTED HEREIN HAS BEEN DESIGNED AND TESTED IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE, 9TH EDITION (2026) AND IS INTENDED FOR USE IN THE HIGH-VELOCITY HURRICANE ZONE (HVHZ) PER TAS 201, 202, AND 203.
2. THE DESIGN PRESSURES OUTLINED IN THIS DOCUMENT ARE DERIVED FROM THE MAXIMUM TESTED PRESSURES DIVIDED BY A SAFETY FACTOR OF 1.5.
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.
7. THE DETAILS OF THE SYSTEM PROVIDED HEREIN ARE OF A GENERIC NATURE AND DO NOT OFFER SPECIFIC SITE INFORMATION. FOR SITE CONDITIONS THAT DIFFER FROM THOSE SPECIFIED HERE, A LICENSED ENGINEER OR REGISTERED ARCHITECT MUST PREPARE SITE-SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS CERTIFICATION.
8. THE CONTRACTOR IS ACCOUNTABLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT GALVANIC CORROSION (E.G., STEEL WITH ALUMINUM).
9. THE SUBSTITUTION OF FASTENERS DESCRIBED IN THIS CERTIFICATION IS PERMISSIBLE, PROVIDED THE ALTERNATIVE ANCHOR EXHIBITS STRENGTH EQUAL TO OR GREATER THAN THE ORIGINALLY SPECIFIED FINAL APPROVAL OF SUBSTITUTED ANCHORS SHALL BE GRANTED BY RELEVANT AUTHORITIES.
10. THE WOOD SCREWS REFERENCED IN THIS CERTIFICATION MUST MEET A MINIMUM ULTIMATE TENSILE STRENGTH (Fu) OF 74 KSI
11. THE ENGINEER'S SEAL AFFIXED HERE VALIDATES THE STRUCTURAL DESIGN AS PRESENTED SOLELY. ANY USE OF THIS SPECIFICATION BY THE CONTRACTOR OR OTHERS INDEMNIFIES AND SAVES THE ENGINEER HARMLESS FROM ALL COSTS AND DAMAGES, INCLUDING LEGAL FEES AND APPELLATE FEES ARISING FROM MATERIAL FABRICATION, SYSTEM ERECTION, AND CONSTRUCTION PRACTICES BEYOND THE SCOPE CALLED FOR BY LOCAL, STATE, AND FEDERAL CODES OR DEVIATIONS FROM THE PLAN.
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:
    1. FASTENERS INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED TO ASTM A153, CLASS D; ASTM A641, CLASS 3S; OR PROVIDED WITH EQUIVALENT CORROSION PROTECTION.
    2. 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.
16. EACH PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM, CONTAINING THE FOLLOWING REQUIRED INFORMATION:

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

FL# 47930.1

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

PROJECT :

ES-FX1515AM / ES-SGD1515AM
(L.M.I & S.M.I)

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Drawing no.	JA-1909-25

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



SEALED: 08/17/2026

COVER PAGE

SHEET No.
01 OF 25

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 2026 (9TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

D. 1BY OR 2BY WOOD BUCKS & BUCK 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 MANUFACTURER'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 2026 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

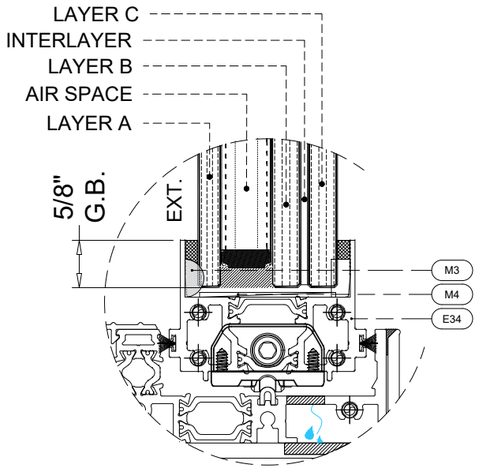
I. THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

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)

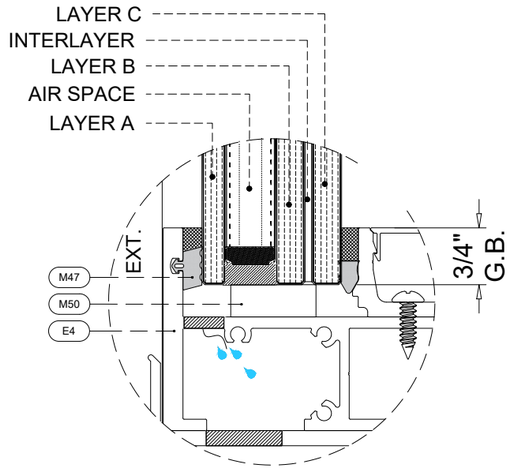
L. MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE LABELING TO COMPLY WITH SECTION 1709.9.2.

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.



GLASS TYPE 'G1-SGD'

1-3/4" OVERALL INSULATED LAMINATED GLASS



GLASS TYPE 'G1-FX'

1-3/4" OVERALL INSULATED LAMINATED GLASS

COMPOSITION OF GLASS							
GLASS TYP.	EXT. SEALANT	LAYER A	AIR SPACE	LAYER B	INTERLAYER	LAYER C	INT. SEALANT
G1 (SGD)	EMP-212 ES-8011A S	5/16" CLEAR TEMP.	5/8" ALUMINUM AIR SPACER BY HELIMA	3/8" CLEAR HEAT STREN'D	0.090" INTERLAYER SGP CLEAR BY `KURARAY AMERICA, INC.'	3/8" CLEAR HEAT STREN'D	STRUCTURAL SILICONE DS 983
G1 (FX)	EMP-339 ES-8860-G01 S	5/16" CLEAR TEMP.	5/8" ALUMINUM AIR SPACER BY HELIMA	3/8" CLEAR HEAT STREN'D	0.090" INTERLAYER SGP CLEAR BY `KURARAY AMERICA, INC.'	3/8" CLEAR HEAT STREN'D	STRUCTURAL SILICONE DS 983

INSTRUCTIONS:

STEP 1: DETERMINE DESIGN WIND LOADS BASED ON WIND VELOCITY, BUILDING HEIGHT, AND WIND ZONE USING THE APPLICABLE ASCE 7 STANDARD

STEP 2: REFER TO GLASS SPECIFICATIONS ON SHEET 2.

STEP 3: CHECK SLIDING GLASS DOOR INTERLOCK CAPACITY USING CHARTS ON SHEET 5.

STEP 4: CHECK ANCHOR CAPACITY FOR FIXED WINDOW OR SLIDING GLASS DOOR SYSTEMS USING CHARTS ON SHEET 6

STEP 5: THE LOWEST VALUE OBTAINED FROM STEPS 3 AND 4 SHALL GOVERN THE SYSTEM DESIGN.

FL# 47930.1

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(L.M.I & S.M.I)

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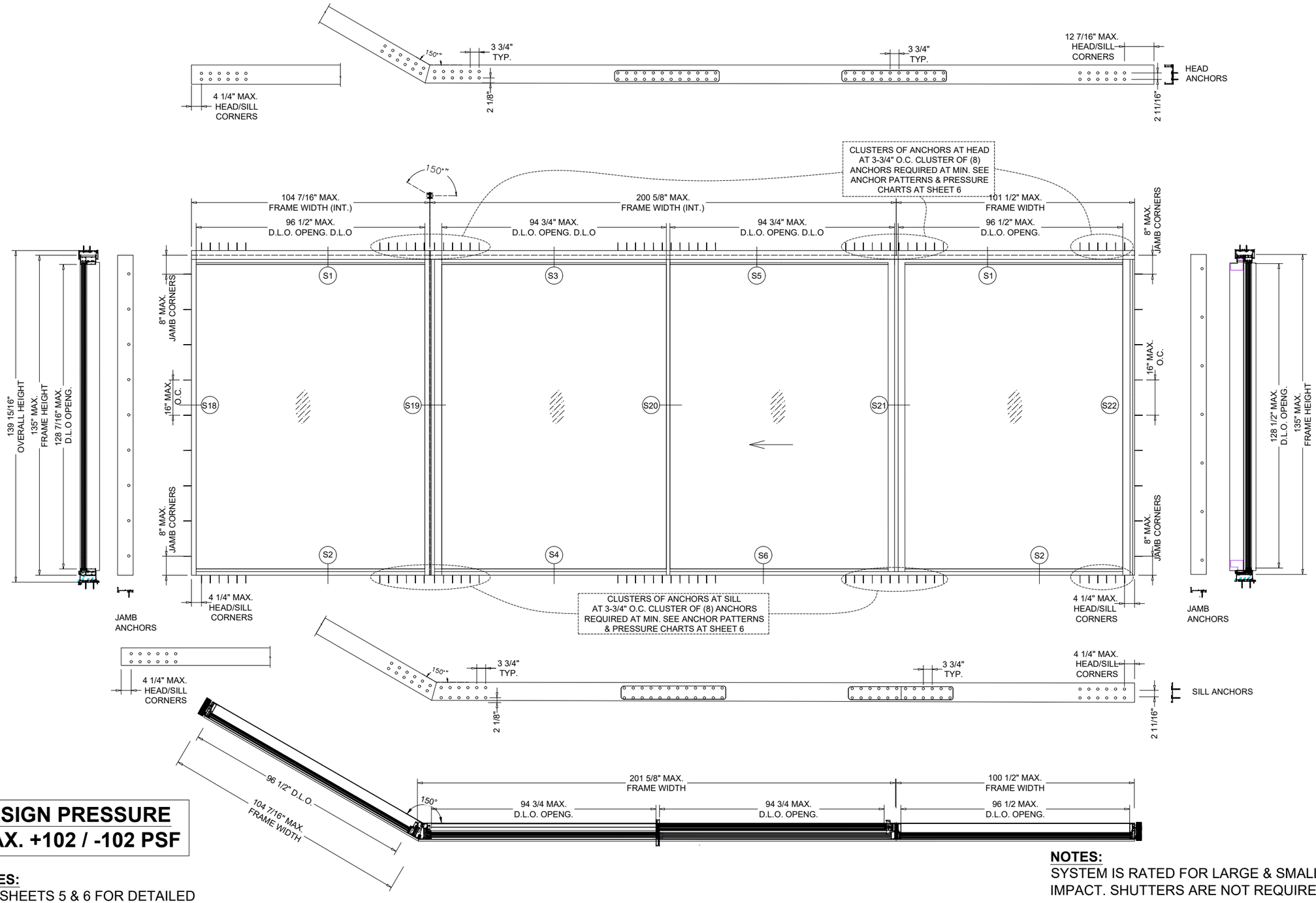
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

SEALED: 08/17/2026

GLAZING DETAILS

SHEET No. 02 OF 25



DESIGN PRESSURE
MAX. +102 / -102 PSF

NOTES:
SEE SHEETS 5 & 6 FOR DETAILED PRESSURE CHARTS.

TYPICAL ELEVATION

NOTES:
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.

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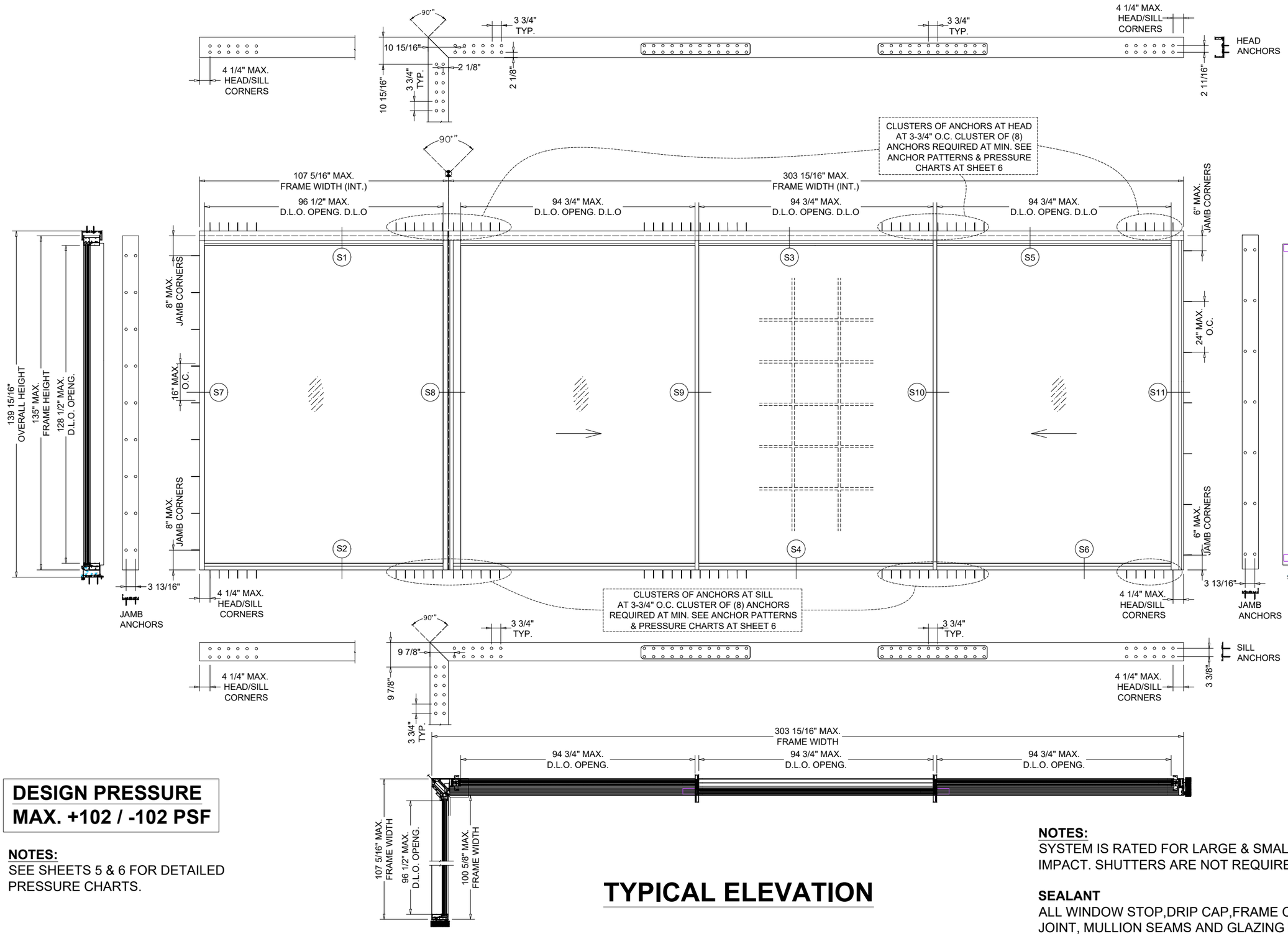
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TYP. ELEV.

SHEET No. 03 OF 25



TYPICAL ELEVATION

DESIGN PRESSURE
MAX. +102 / -102 PSF

NOTES:
SEE SHEETS 5 & 6 FOR DETAILED PRESSURE CHARTS.

NOTES:
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# 47930.1

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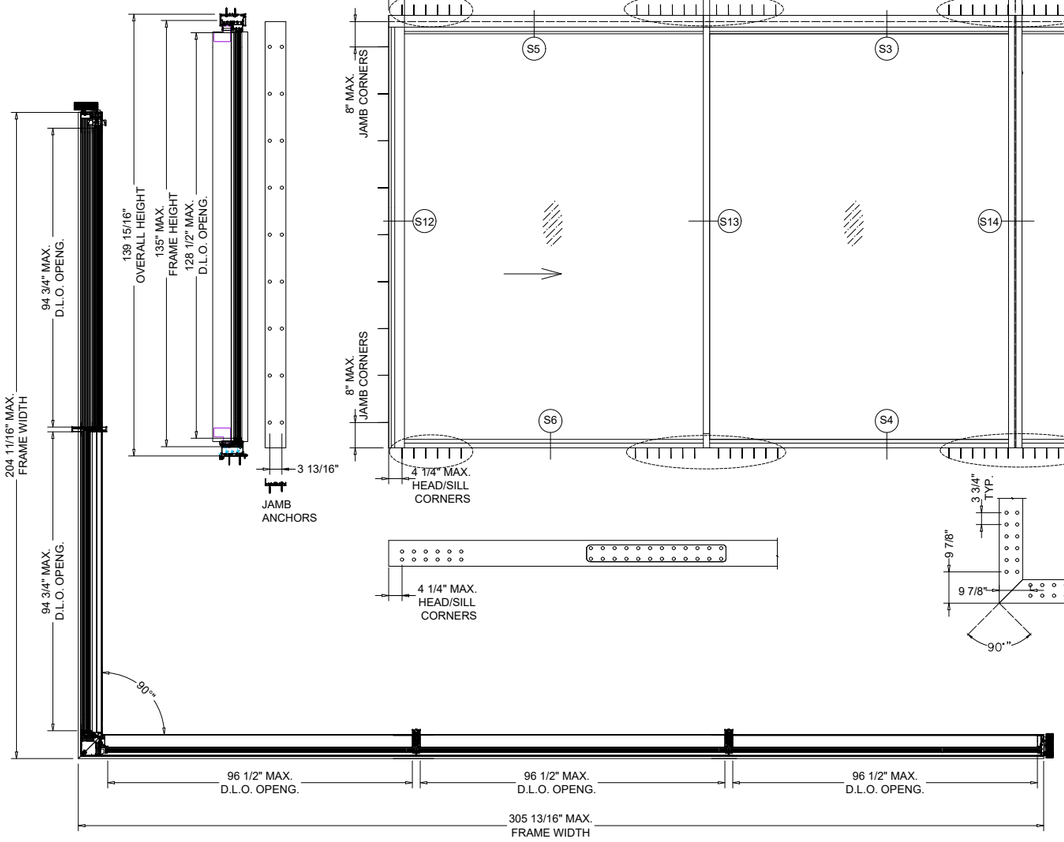
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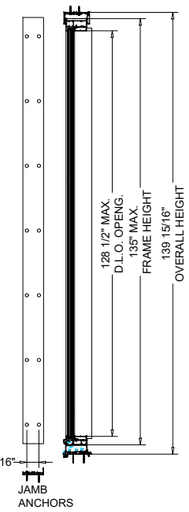
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SEALED: 08/17/2026

TYP. ELEV. | SHEET No. 04 OF 25





DESIGN PRESSURE
MAX. +102 / -102 PSF

NOTES:
SEE SHEETS 5 & 6 FOR DETAILED PRESSURE CHARTS.

TYPICAL ELEVATION

NOTES:
SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

SEALANT
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TYP. ELEV. | SHEET No. 05 OF 25

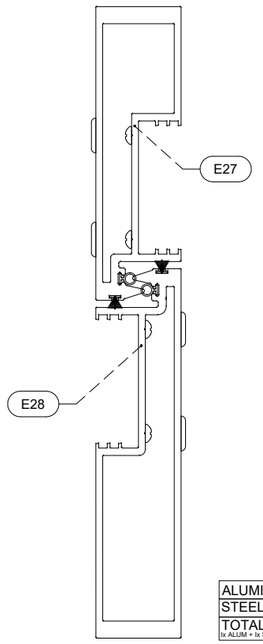
DOOR INTERLOCKS ALLOWABLE PRESSURE CHARTS:

INTERLOCK DESIGN LOAD CAPACITY (PSF)			
AVG. PANEL WIDTH (INCHES)	OVERALL HEIGHT (INCHES)	W/O REINF.	W/ REINF.
		+/- PSF	+/- PSF
48	96	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		102.0	102.0
102		102.0	102.0
48	102	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		102.0	102.0
102		102.0	102.0
48	108	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		102.0	102.0
102		102.0	102.0

INTERLOCK DESIGN LOAD CAPACITY (PSF)			
AVG. PANEL WIDTH (INCHES)	OVERALL HEIGHT (INCHES)	W/O REINF.	W/ REINF.
		+/- PSF	+/- PSF
48	114	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		102.0	102.0
102		102.0	102.0
48	120	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		102.0	102.0
102		102.0	102.0
48	126	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		102.0	102.0
102		102.0	102.0

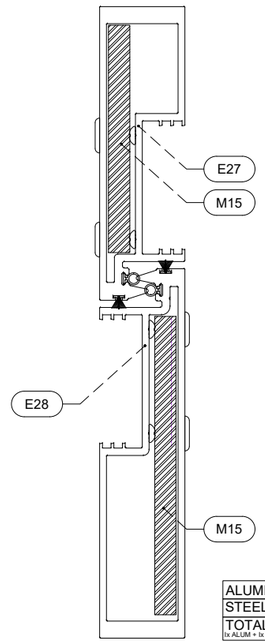
INTERLOCK DESIGN LOAD CAPACITY (PSF)			
AVG. PANEL WIDTH (INCHES)	OVERALL HEIGHT (INCHES)	W/O REINF.	W/ REINF.
		+/- PSF	+/- PSF
48	132	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		102.0	102.0
96		90.0	102.0
102		85.0	102.0
48	138	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		102.0	102.0
84		102.0	102.0
90		90.0	102.0
96		85.0	102.0
102		80.0	102.0
48	144	102.0	102.0
54		102.0	102.0
60		102.0	102.0
66		102.0	102.0
72		102.0	102.0
78		95.0	102.0
84		90.0	102.0
90		85.0	102.0
96		80.0	102.0
102		75.0	102.0

NOTE: INTERPOLATION BETWEEN WIDTHS IS ALLOWED



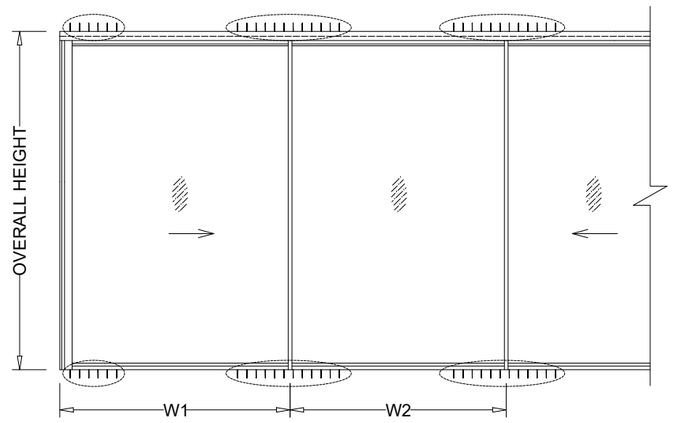
	Ix IN^4	Sx IN^3
ALUMINUM	51.841	9.093
STEEL		
TOTAL Ix ALUM + Ix STL X2.9	51.841	

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



	Ix IN^4	Sx IN^3
ALUMINUM	51.841	9.093
STEEL	6.522	2.722
TOTAL Ix ALUM + Ix STL X2.9	70.567	

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



AT FRAME JAMBS, AVERAGE PANEL WIDTH, W = W1

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

FOR SGDs ALL CONFIG.

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

REVISION

No.	DATE	BY	DESCRIPTION
1	4.16.2026	SA	

date:	04.16.2026
scale:	N/A
drawn by:	SA
check by:	DM
Drawing no.	JA-1909-25

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



SEALED: 08/17/2026

PRESSURE CHART

SHEET No. 06 OF 25

CLUSTER ANCHORS ALLOWABLE PRESSURE CHARTS:

ANCHORS 'A' & 'B' LOAD CHART - 1/2" MAX. SHIM (PSF)

AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	CLUSTER ANCHORS @ MTG. STILE ENDS			
		8	12	16	20
54	114	102.0	102.0	102.0	102.0
66		102.0	102.0	102.0	102.0
78		86.4	102.0	102.0	102.0
90		74.9	102.0	102.0	102.0
102		66.1	99.1	102.0	102.0
54	120	102.0	102.0	102.0	102.0
66		97.0	102.0	102.0	102.0
78		82.1	102.0	102.0	102.0
90		71.1	102.0	102.0	102.0
102		62.8	94.1	102.0	102.0
54	126	102.0	102.0	102.0	102.0
66		92.4	102.0	102.0	102.0
78		78.2	102.0	102.0	102.0
90		67.7	101.6	102.0	102.0
102		59.8	89.7	102.0	102.0
54	132	102.0	102.0	102.0	102.0
66		88.2	102.0	102.0	102.0
78		74.6	102.0	102.0	102.0
90		64.7	97.0	102.0	102.0
102		57.1	85.6	102.0	102.0
54	138	102.0	102.0	102.0	102.0
66		84.3	102.0	102.0	102.0
78		71.4	102.0	102.0	102.0
90		61.8	92.8	102.0	102.0
102		54.6	81.9	102.0	102.0
54	144	98.8	102.0	102.0	102.0
66		80.8	102.0	102.0	102.0
78		68.4	102.0	102.0	102.0
90		59.3	88.9	102.0	102.0
102		52.3	78.4	102.0	102.0

ANCHORS 'A' & 'B' LOAD CHART - 1" MAX. SHIM (PSF)

AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	CLUSTER ANCHORS @ MTG. STILE ENDS			
		16	20	24	28
54	114	102.0	102.0	102.0	102.0
66		102.0	102.0	102.0	102.0
78		92.9	102.0	102.0	102.0
90		80.5	100.7	102.0	102.0
102		71.1	88.8	102.0	102.0
54	120	102.0	102.0	102.0	102.0
66		102.0	102.0	102.0	102.0
78		88.3	102.0	102.0	102.0
90		76.5	95.6	102.0	102.0
102		67.5	84.4	101.3	102.0
54	126	102.0	102.0	102.0	102.0
66		99.4	102.0	102.0	102.0
78		84.1	102.0	102.0	102.0
90		72.9	91.1	102.0	102.0
102		64.3	80.4	96.4	102.0
54	132	102.0	102.0	102.0	102.0
66		94.8	102.0	102.0	102.0
78		80.2	100.3	102.0	102.0
90		69.5	86.9	102.0	102.0
102		61.4	76.7	92.0	102.0
54	138	102.0	102.0	102.0	102.0
66		90.7	102.0	102.0	102.0
78		76.8	95.9	102.0	102.0
90		66.5	83.2	99.8	102.0
102		58.7	73.4	88.0	102.0
54	144	102.0	102.0	102.0	102.0
66		86.9	102.0	102.0	102.0
78		73.6	91.9	102.0	102.0
90		63.8	79.7	95.6	102.0
102		56.3	70.3	84.4	98.4

ANCHORS 'C' LOAD CHART - 1/2" MAX. SHIM (PSF)

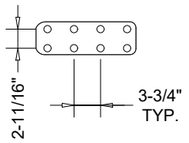
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	CLUSTER ANCHORS @ MTG. STILE ENDS			
		8	12	16	20
54	114	75.1	102.0	102.0	102.0
66		61.5	92.2	102.0	102.0
78		52.0	78.0	102.0	102.0
90		45.1	67.6	90.2	102.0
102		39.8	59.7	79.5	99.4
54	120	71.4	102.0	102.0	102.0
66		58.4	87.6	102.0	102.0
78		49.4	74.1	98.8	102.0
90		42.8	64.2	85.6	102.0
102		37.8	56.7	75.6	94.5
54	126	68.0	102.0	102.0	102.0
66		55.6	83.4	102.0	102.0
78		47.1	70.6	94.1	102.0
90		40.8	61.2	81.6	102.0
102		36.0	54.0	72.0	90.0
54	132	64.9	97.3	102.0	102.0
66		53.1	79.6	102.0	102.0
78		44.9	67.4	89.8	102.0
90		38.9	58.4	77.9	97.3
102		34.3	51.5	68.7	85.9
54	138	62.1	93.1	102.0	102.0
66		50.8	76.2	101.6	102.0
78		43.0	64.4	85.9	102.0
90		37.2	55.9	74.5	93.1
102		32.9	49.3	65.7	82.1
54	144	59.5	89.2	102.0	102.0
66		48.7	73.0	97.3	102.0
78		41.2	61.8	82.3	102.0
90		35.7	53.5	71.4	89.2
102		31.5	47.2	63.0	78.7

ANCHORS 'C' LOAD CHART - 1" MAX. SHIM (PSF)

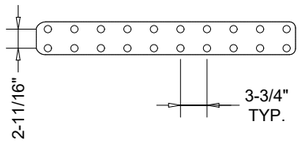
AVG. PANEL WIDTH (INCH)	OVERALL HEIGHT (INCH)	CLUSTER ANCHORS @ MTG. STILE ENDS			
		16	20	24	28
54	114	80.6	100.8	102.0	102.0
66		65.9	82.4	98.9	102.0
78		55.8	69.8	83.7	97.7
90		48.4	60.5	72.5	84.6
102		42.7	53.3	64.0	74.7
54	120	76.6	95.7	102.0	102.0
66		62.7	78.3	94.0	102.0
78		53.0	66.3	79.5	92.8
90		45.9	57.4	68.9	80.4
102		40.5	50.7	60.8	70.9
54	126	72.9	91.2	102.0	102.0
66		59.7	74.6	89.5	102.0
78		50.5	63.1	75.7	88.4
90		43.8	54.7	65.6	76.6
102		38.6	48.3	57.9	67.6
54	132	69.6	87.0	102.0	102.0
66		57.0	71.2	85.4	99.7
78		48.2	60.2	72.3	84.3
90		41.8	52.2	62.7	73.1
102		36.9	46.1	55.3	64.5
54	138	66.6	83.2	99.9	102.0
66		54.5	68.1	81.7	95.3
78		46.1	57.6	69.1	80.7
90		40.0	49.9	59.9	69.9
102		35.3	44.1	52.9	61.7
54	144	63.8	79.8	95.7	102.0
66		52.2	65.3	78.3	91.4
78		44.2	55.2	66.3	77.3
90		38.3	47.9	57.4	67.0
102		33.8	42.2	50.7	59.1

ANCHORS PATTERN AT INTERLOCK ENDS (HALF @ JAMB ENDS):

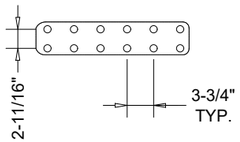
CLUSTER OF (8) ANCHORS:



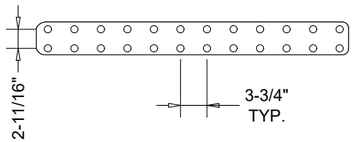
CLUSTER OF (20) ANCHORS:



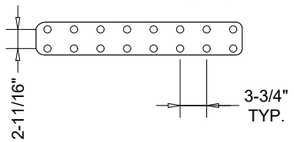
CLUSTER OF (12) ANCHORS:



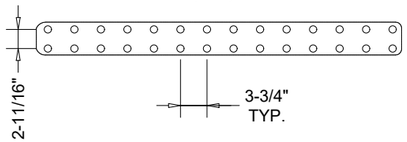
CLUSTER OF (24) ANCHORS:

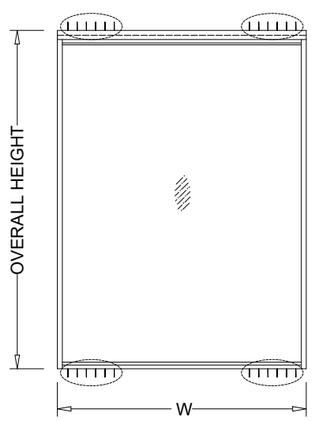


CLUSTER OF (16) ANCHORS:



CLUSTER OF (28) ANCHORS:



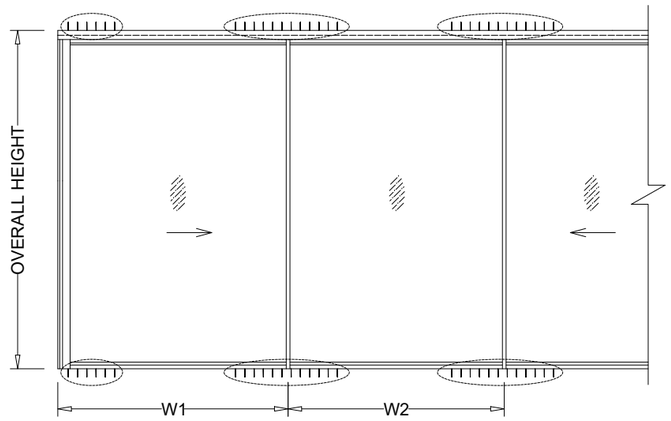


FOR FIXED 'O' PANELS

AVERAGE PANEL WIDTH = W

SEE CLUSTER ANCHOR PATTERN ON THE LEFT

NOTE: INTERPOLATION BETWEEN WIDTHS OR HEIGHTS IS ALLOWED



FOR SGDs ALL CONFIG.

AT FRAME JAMBS, AVERAGE PANEL WIDTH, W = W1

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

FL# 47930.1

JAVAD AHMAD PE, inc
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PROJECT :

ES-FX1515AM / ES-SGD1515AM
(L.M.I & S.M.I)

CLIENT :

E.S. WINDOWS, LLC

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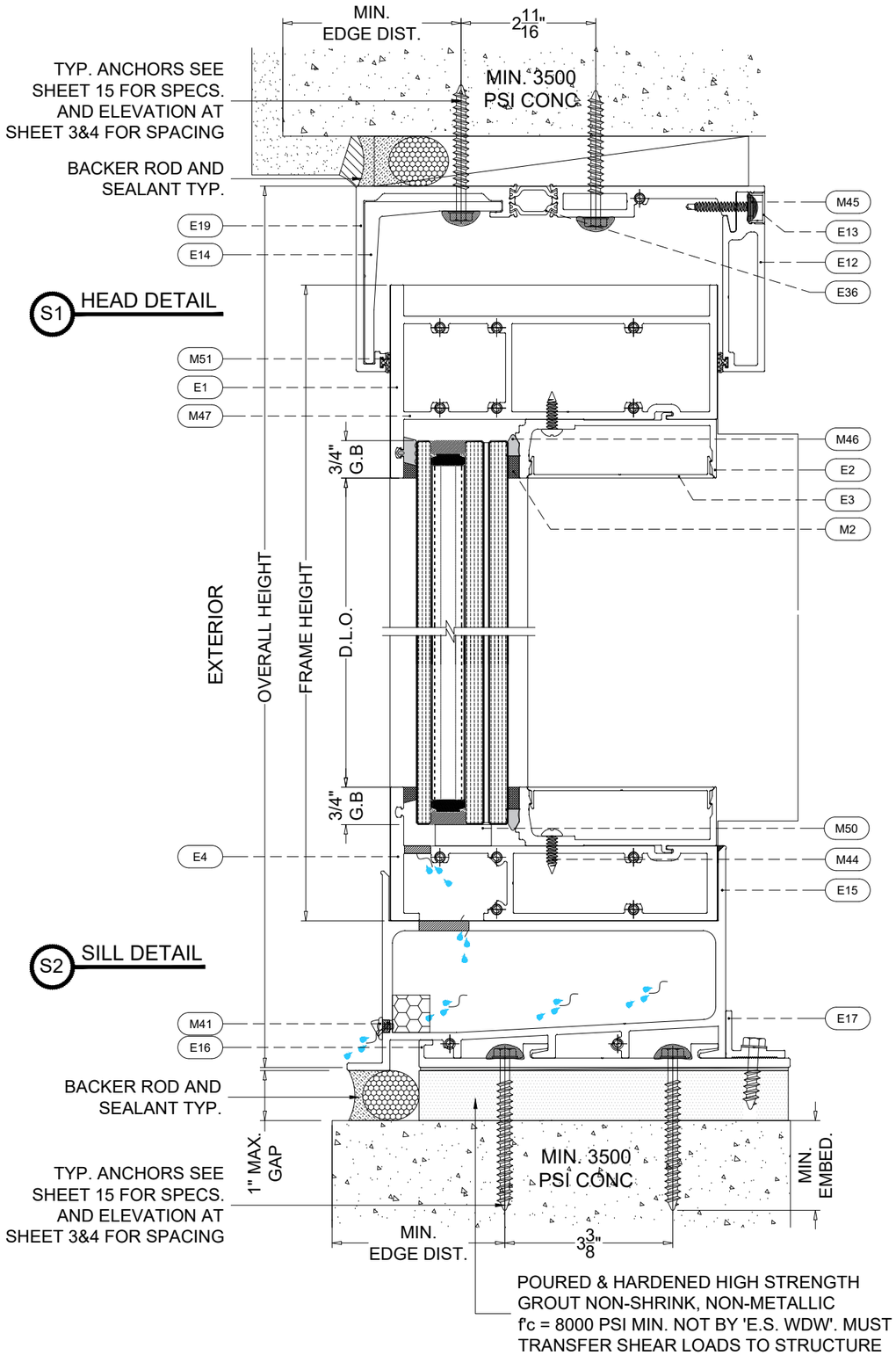
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



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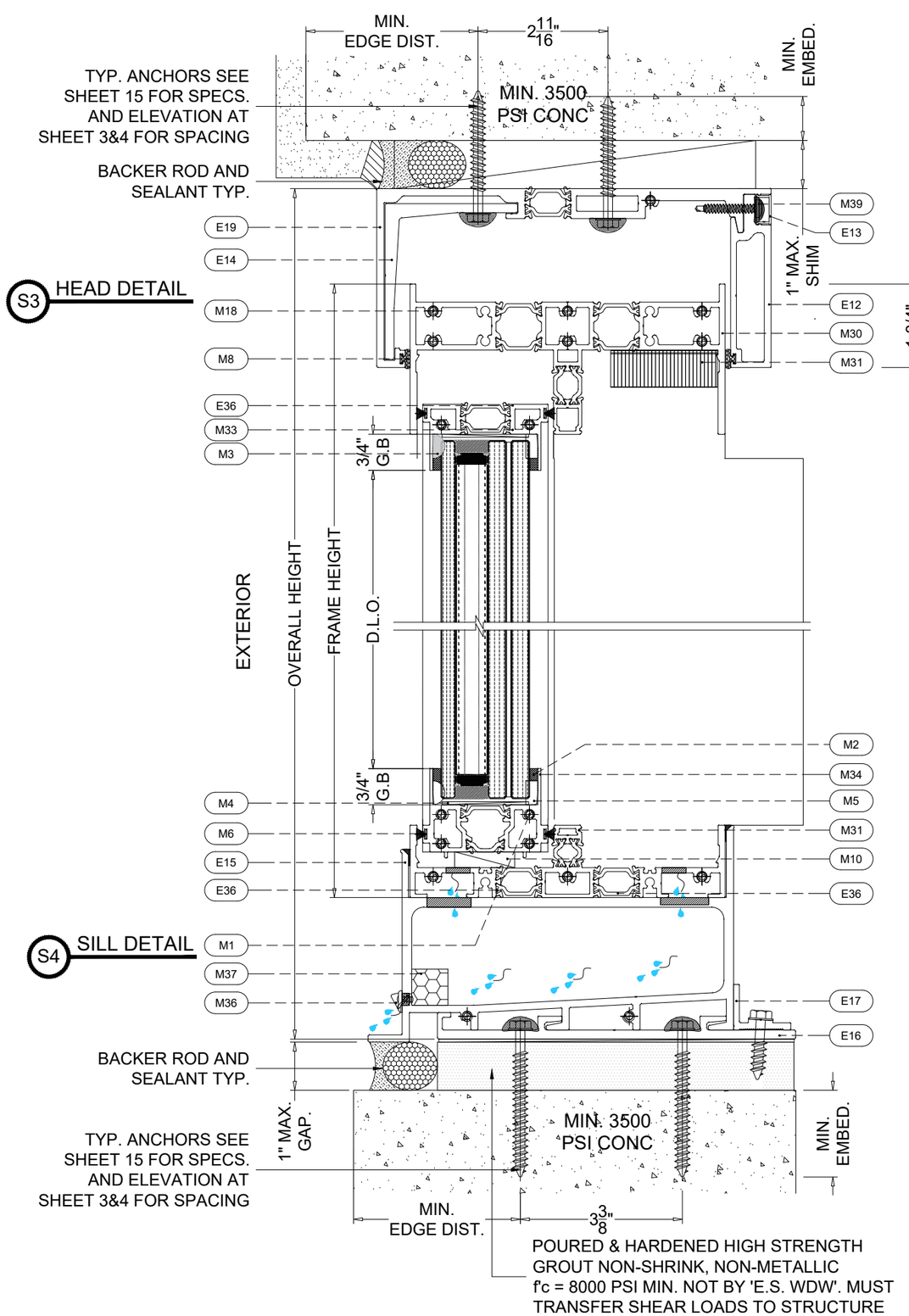
PRESSURE CHART

SHEET No. 7 OF 25



S1 HEAD DETAIL

S2 SILL DETAIL



S3 HEAD DETAIL

S4 SILL DETAIL

POURED & HARDENED HIGH STRENGTH
GROUT NON-SHRINK, NON-METALLIC
f'c = 8000 PSI MIN. NOT BY 'E.S. WDW'. MUST
TRANSFER SHEAR LOADS TO STRUCTURE

POURED & HARDENED HIGH STRENGTH
GROUT NON-SHRINK, NON-METALLIC
f'c = 8000 PSI MIN. NOT BY 'E.S. WDW'. MUST
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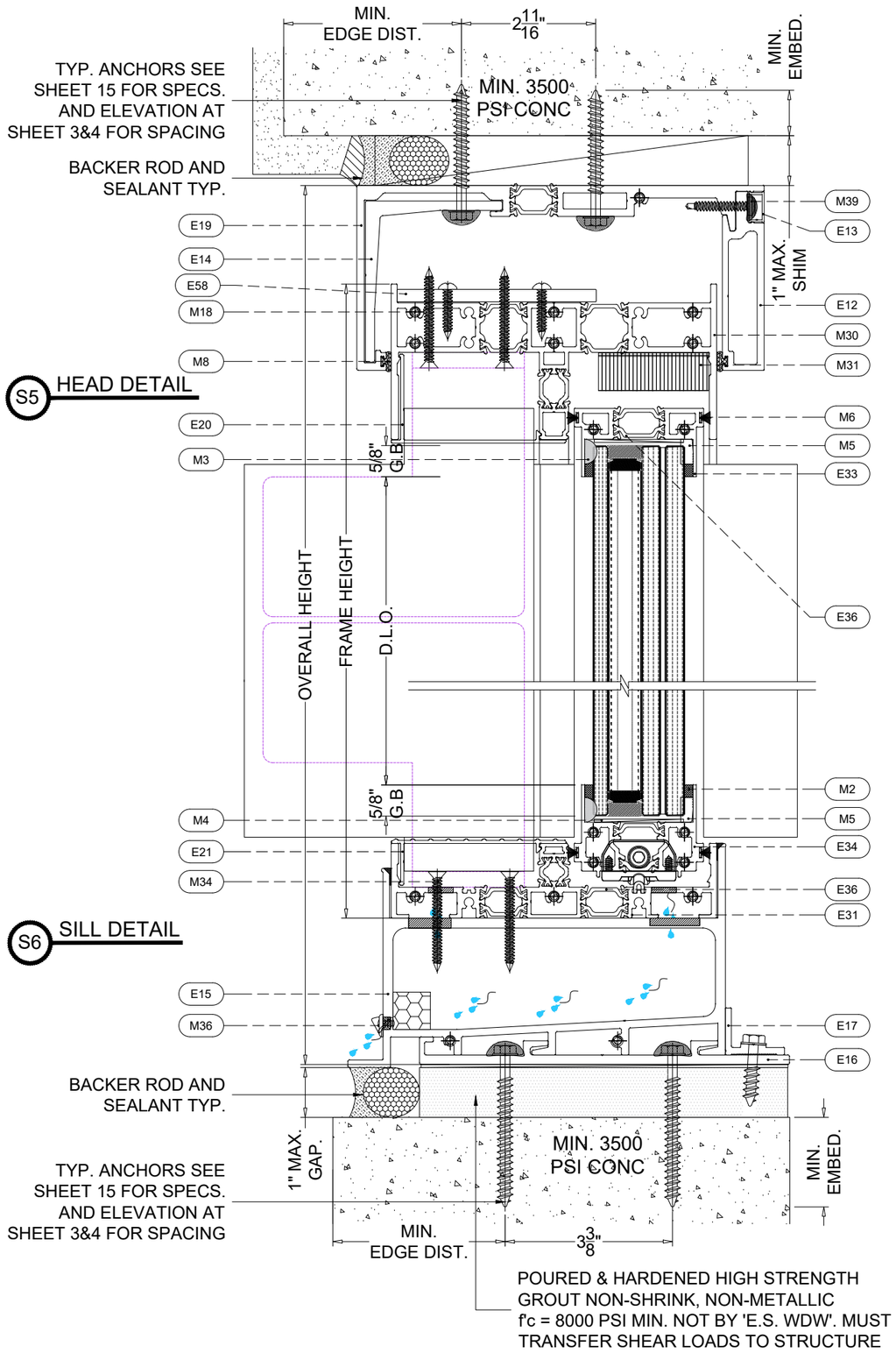
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

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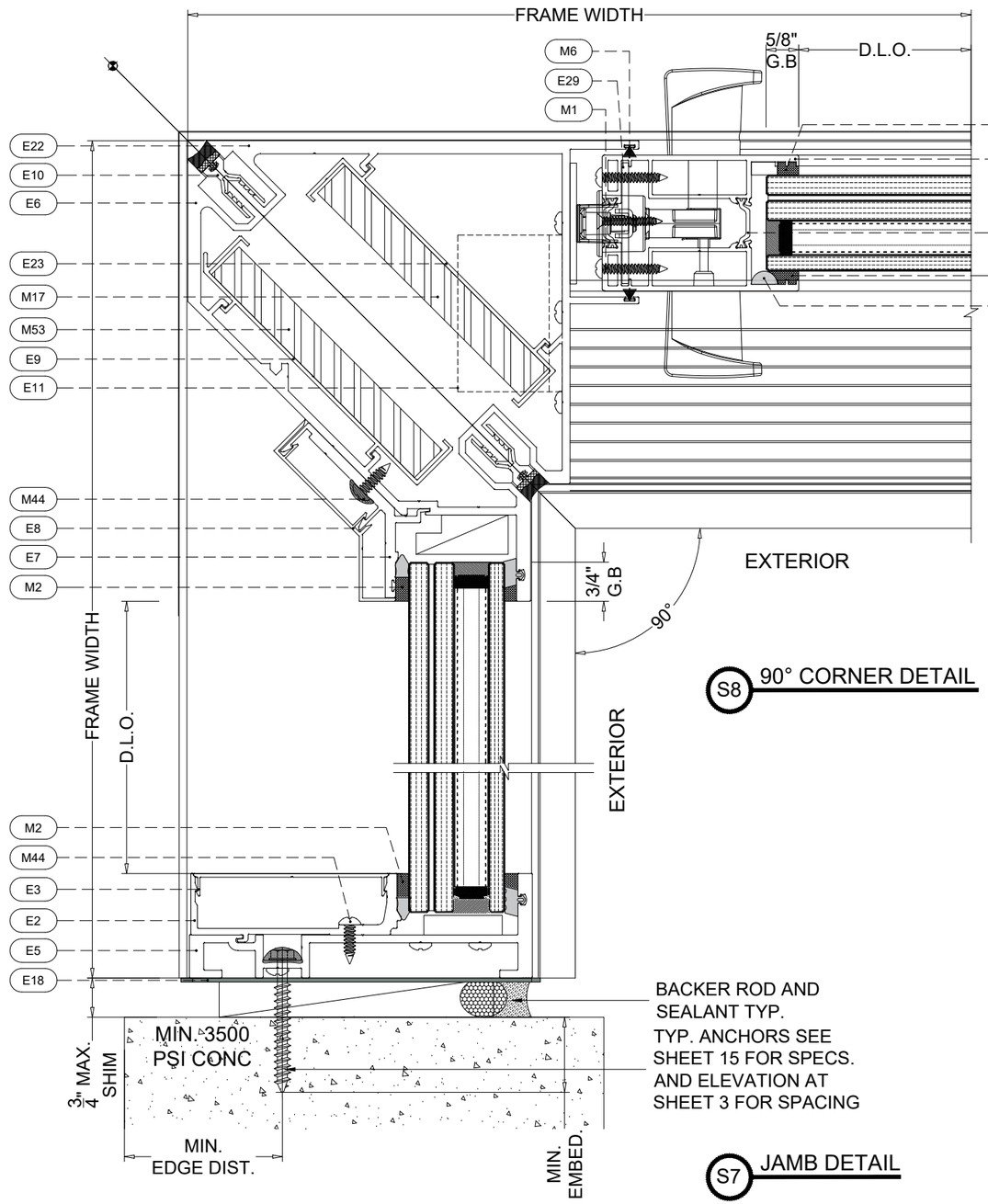
SEC. DETAILS

SHEET No.
8 OF 25



S5 HEAD DETAIL

S6 SILL DETAIL



S8 90° CORNER DETAIL

S7 JAMB DETAIL

FL# 47930.1

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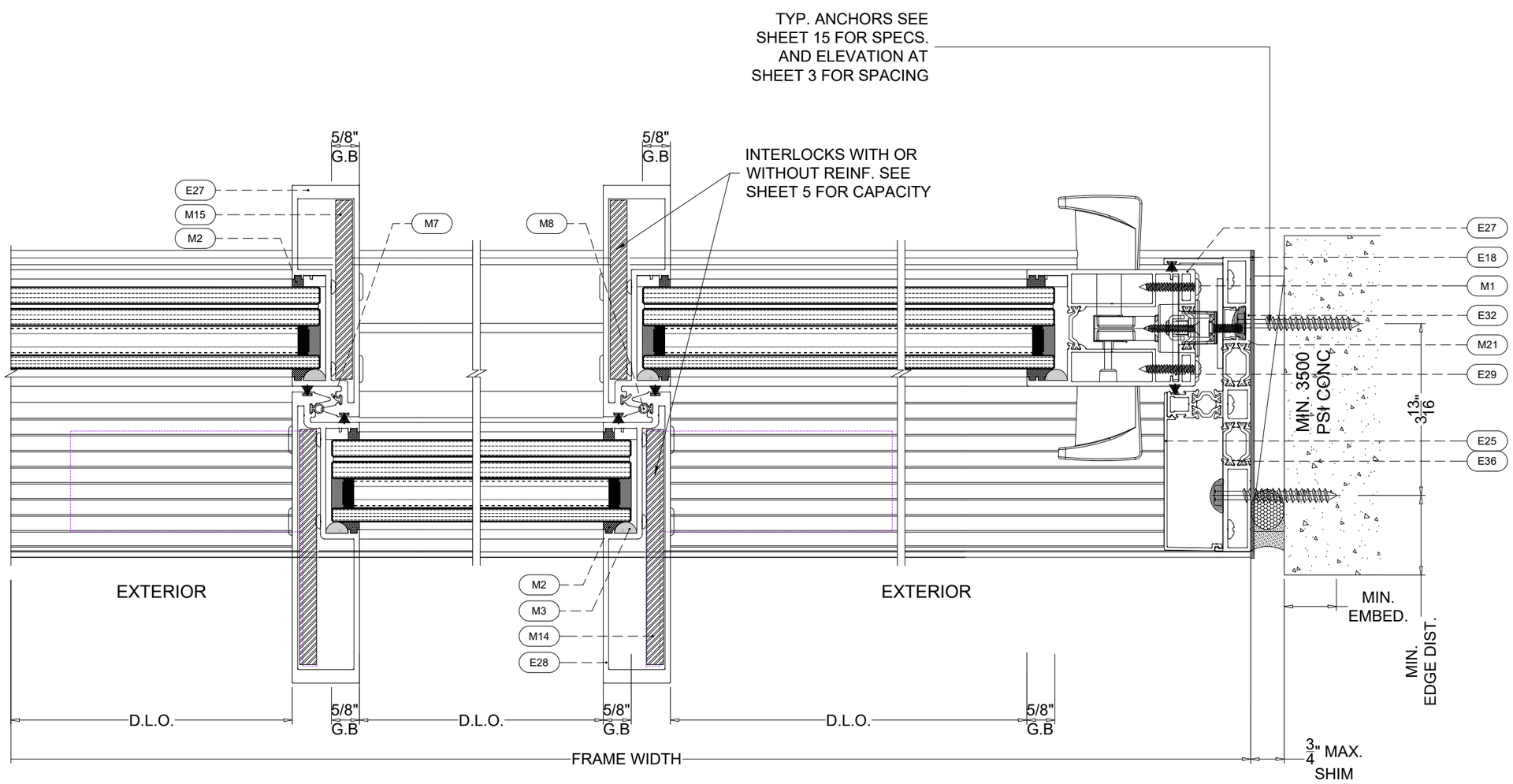
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

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SEC. DETAILS

SHEET No. 9 OF 25



S9 INTERLOCK DETAIL

S10 INTERLOCK DETAIL

S11 HANDLE DETAIL

FL# 47930.1

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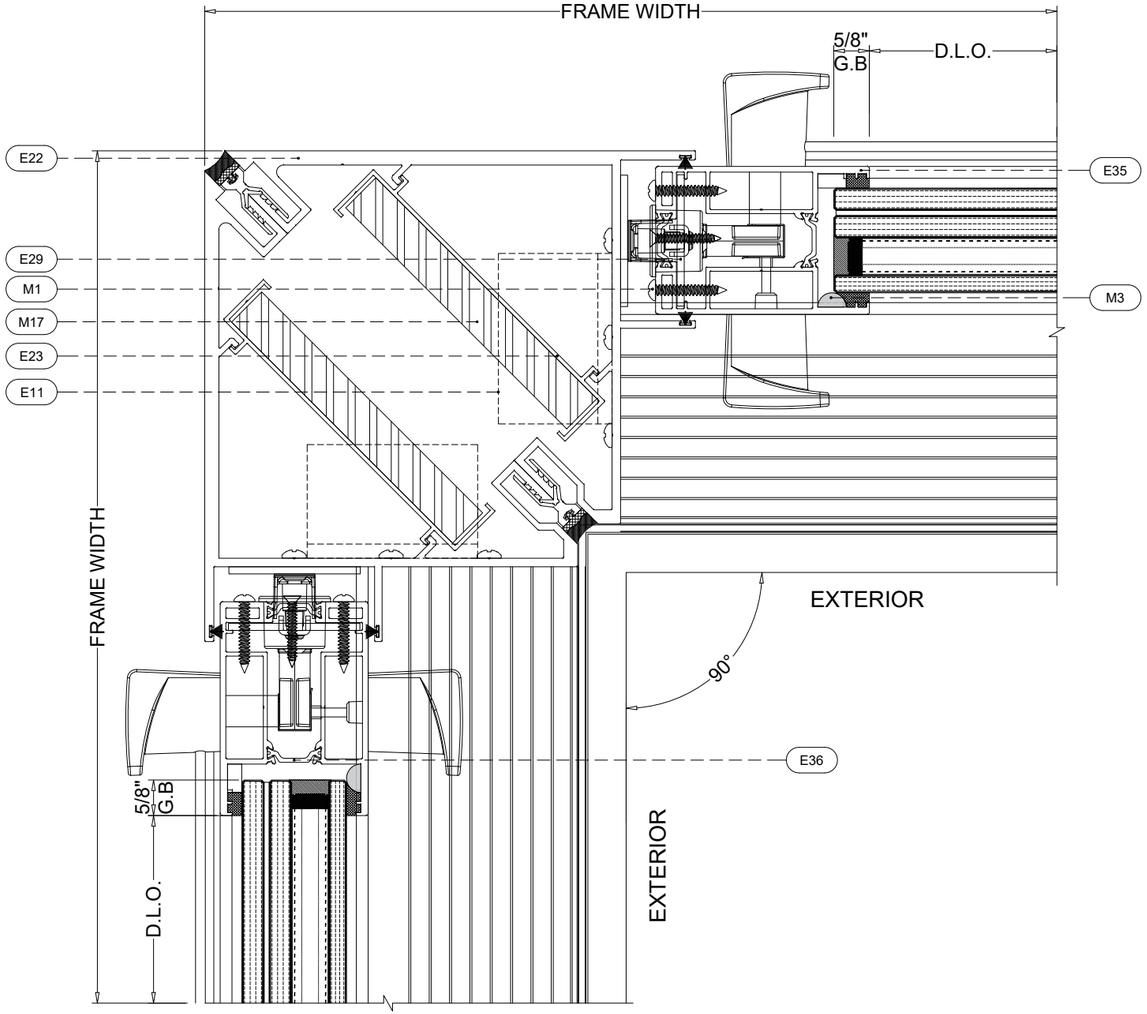
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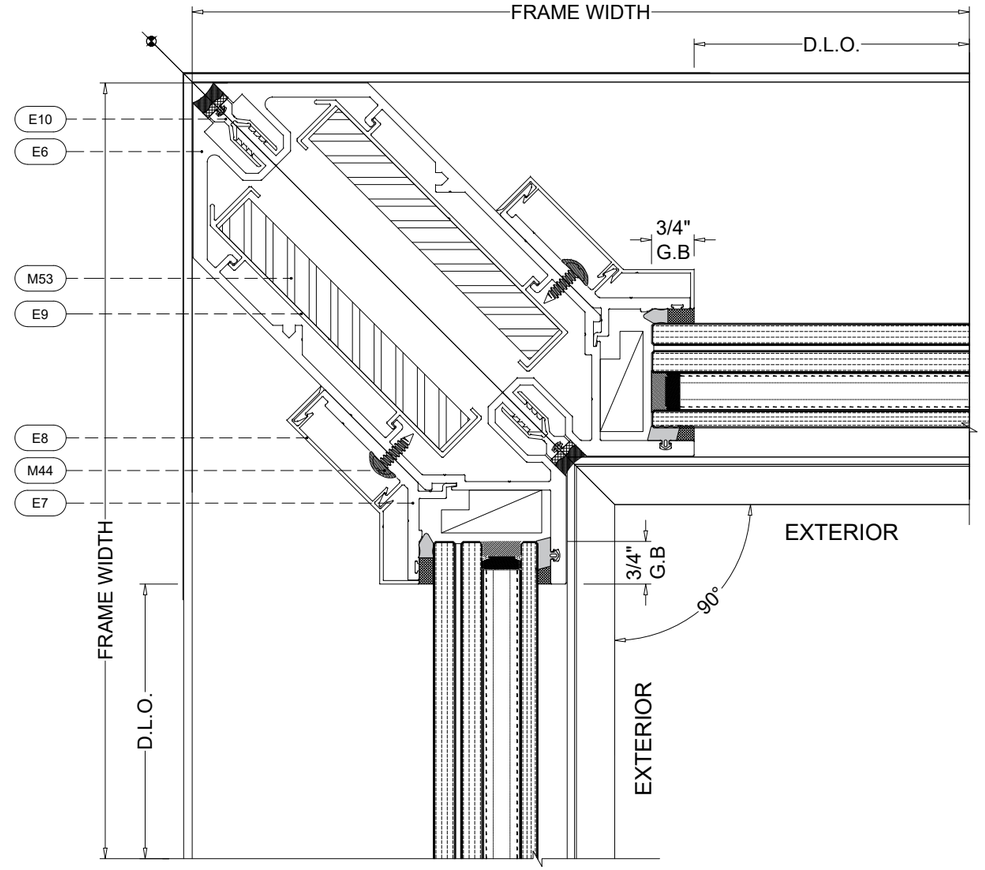
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SEC. DETAILS

SHEET No. 10 OF 25



S12 90° CORNER DETAIL



S13 90° CORNER DETAIL

FL# 47930.1

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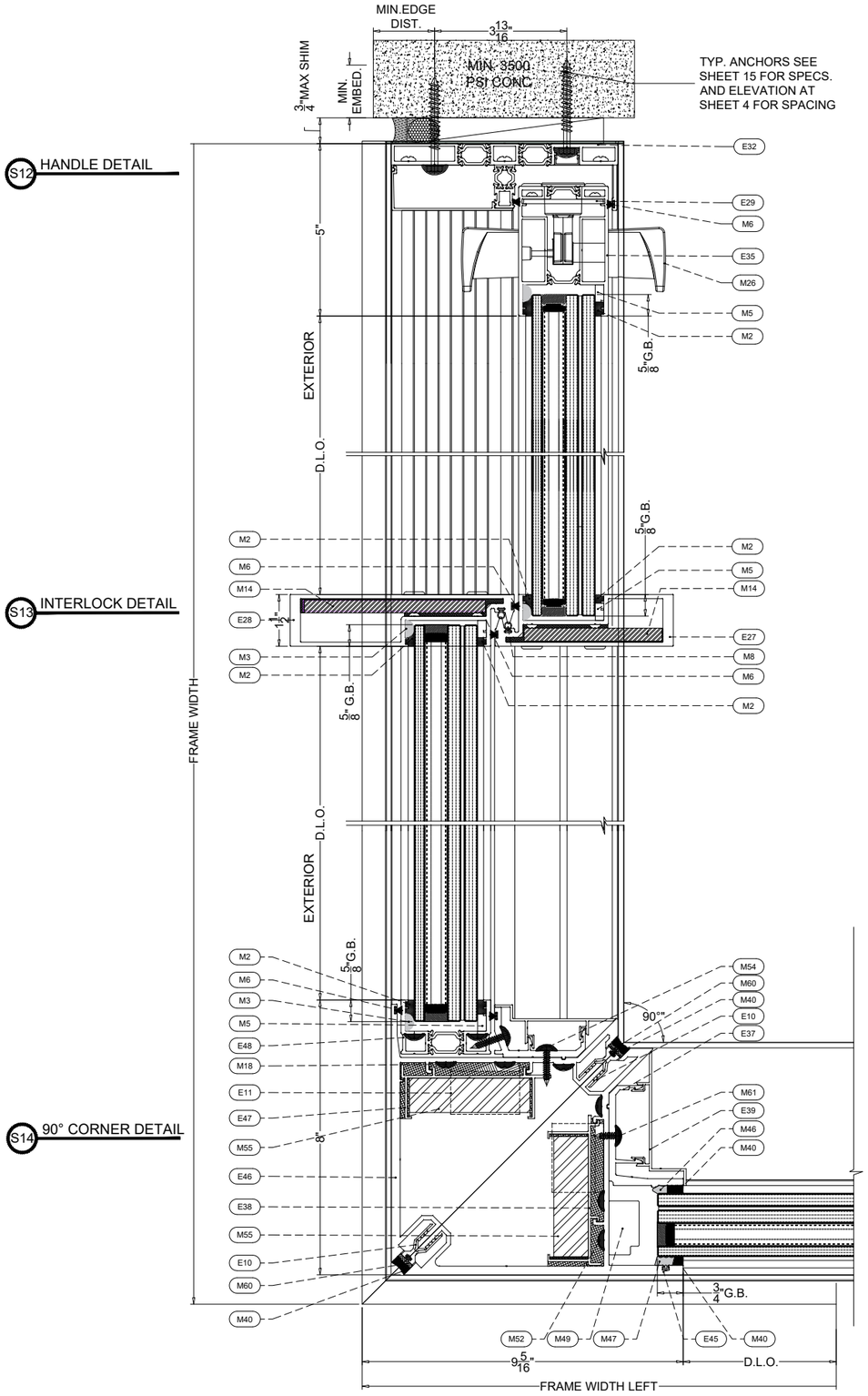
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SEC. DETAILS

SHEET No.
11 OF 25



S12 HANDLE DETAIL

S13 INTERLOCK DETAIL

S14 90° CORNER DETAIL

FL# 47930.1

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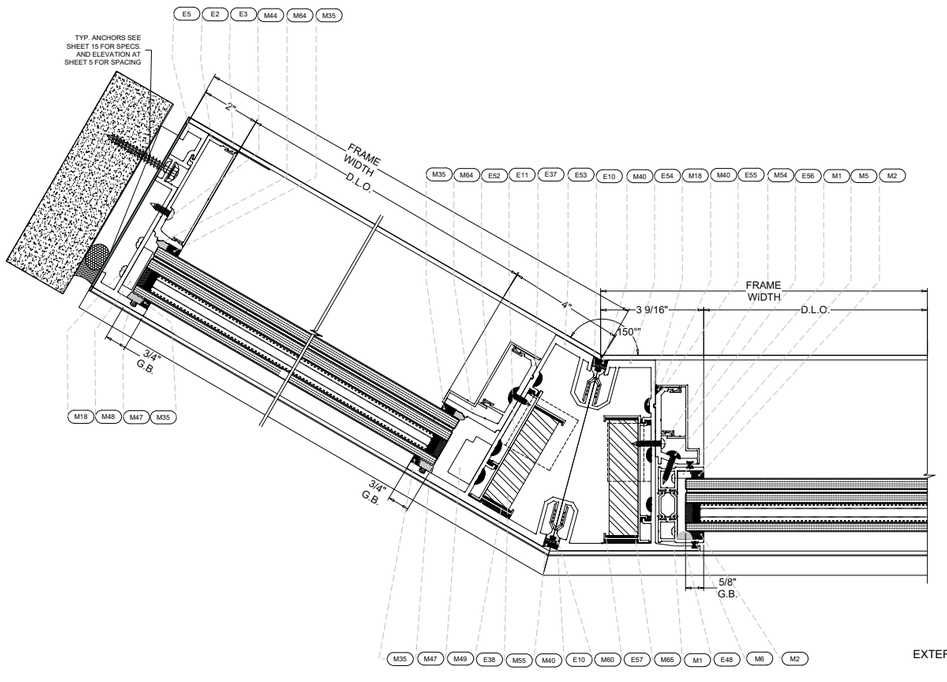
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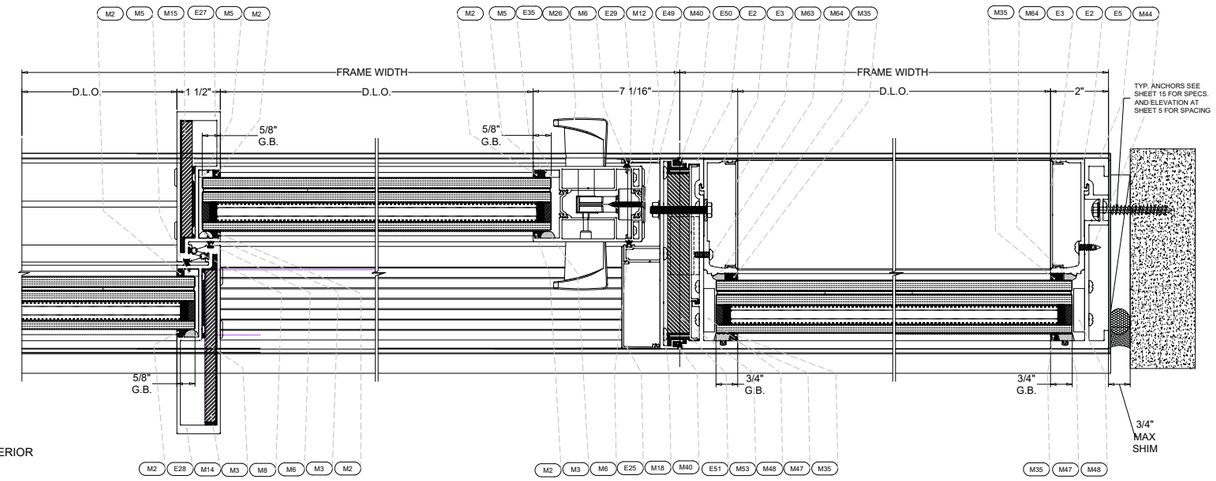
SEC. DETAILS.

SHEET No. 12 OF 25



S18 JAMB DETAIL

S19 150° CORNER DETAIL



S20 INTERLOCK DETAIL

S21 HANDLE DETAIL

S22 JAMB DETAIL

SECTIONAL DETAILS

FL# 47930.1

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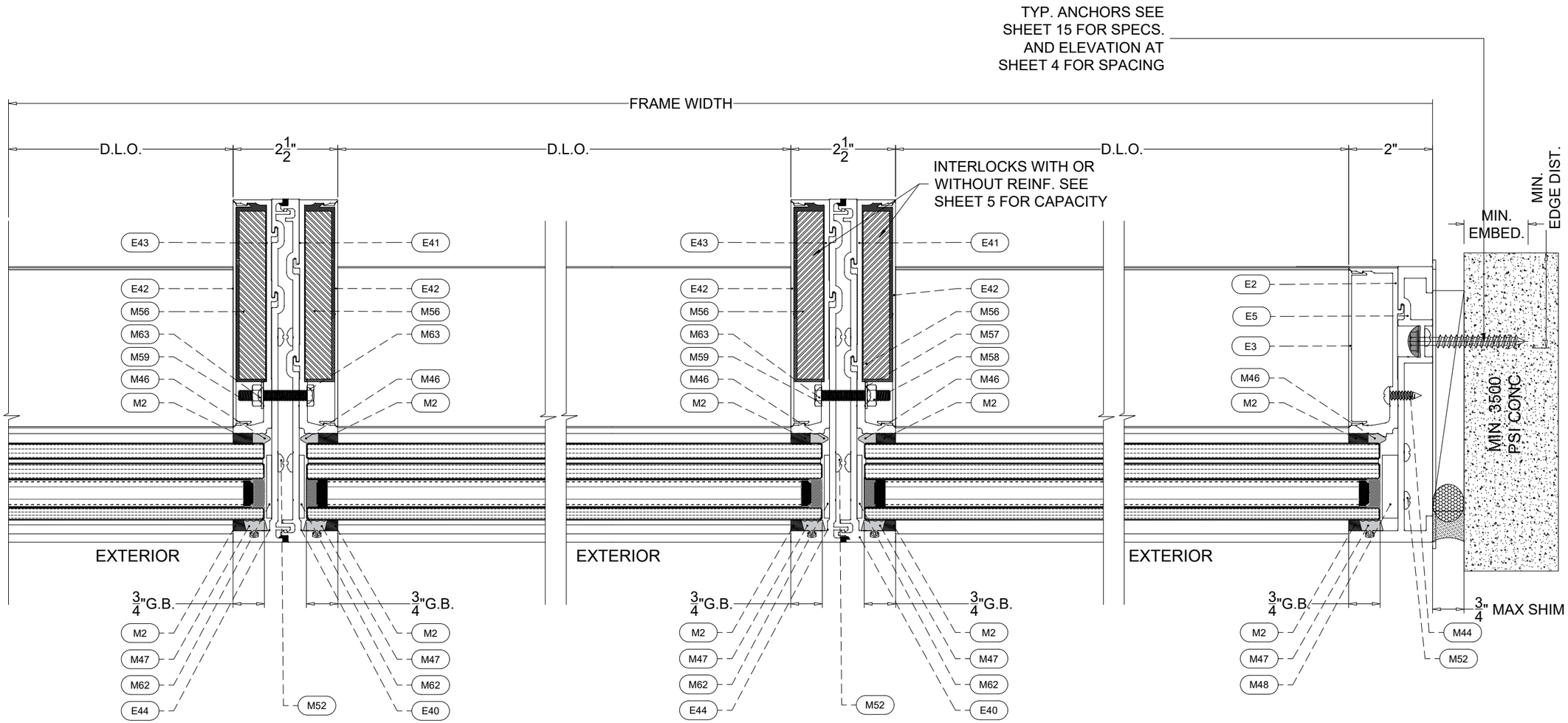
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Drawing no.	JA-1909-25

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

JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

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SEC. DETAILS | SHEET No. 13 OF 25



S15 INTERMEDIATE DETAIL

S16 INTERMEDIATE DETAIL

S17 JAMB DETAIL

SECTIONAL DETAILS

FL# 47930.1

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PROJECT :

ES-FX1515AM / ES-SGD1515AM
(L.M.I & S.M.I)

CLIENT :

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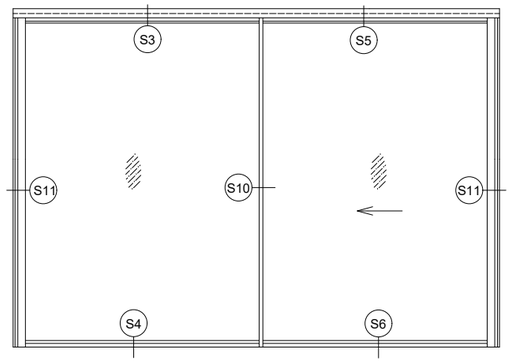
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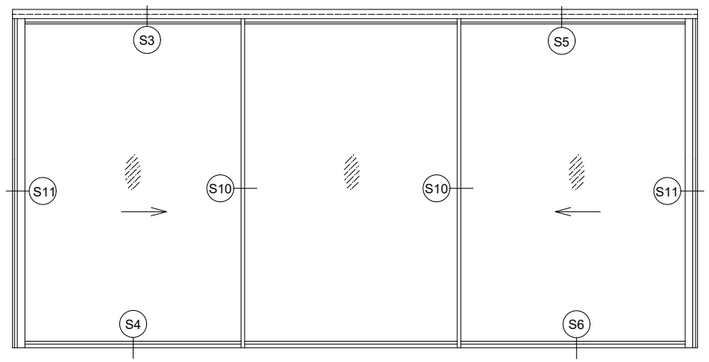
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SEC. DETAILS | SHEET No. 14 OF 25



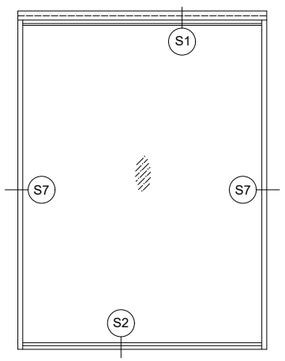
APPROVED CONFIGURATIONS FOR
TWO PANEL STANDALONE SGDs

XO, OX



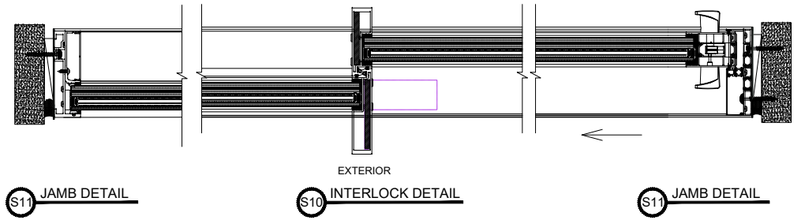
APPROVED CONFIGURATIONS FOR
THREE PANEL STANDALONE SGDs

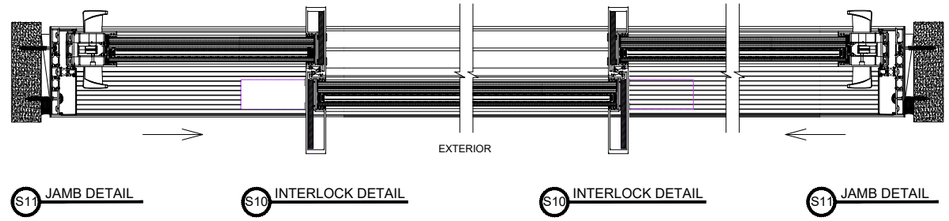
XOX, OXX, XXO, XOO, OOX

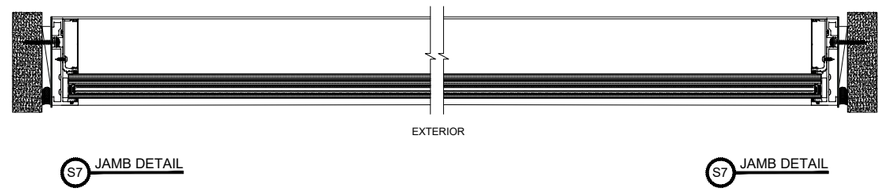


APPROVED CONFIGURATIONS FOR
SINGLE O PANEL - FIXED WINDOW

O







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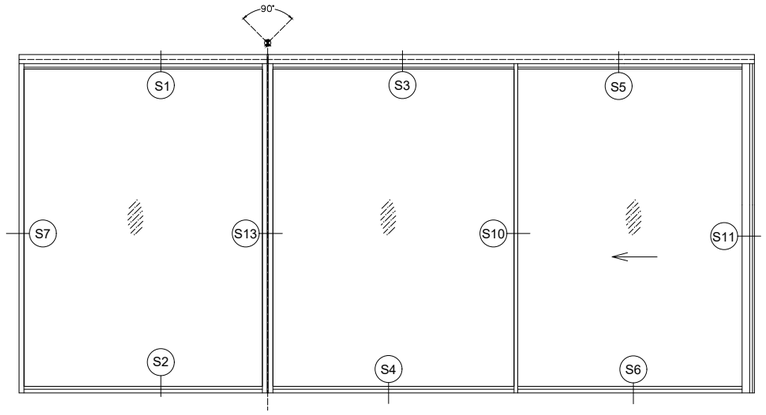
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



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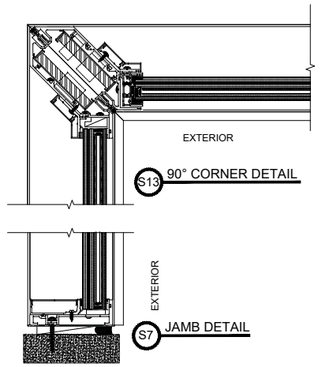
CONFIGURATIONS

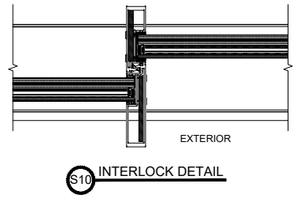
SHEET No.
15 OF 25

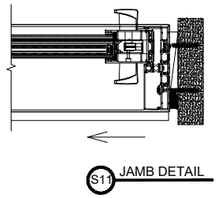


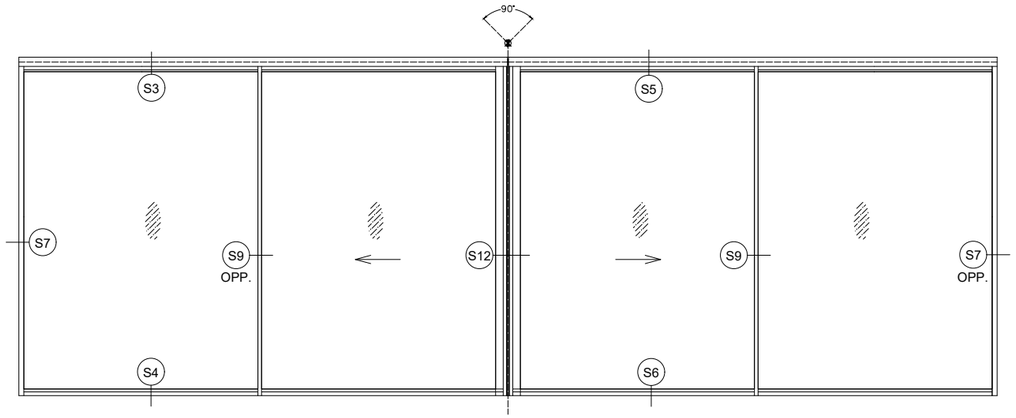
APPROVED CONFIGURATIONS FOR FIXED WINDOW W/ SGDs @ 90 DEG CORNER

O-OX



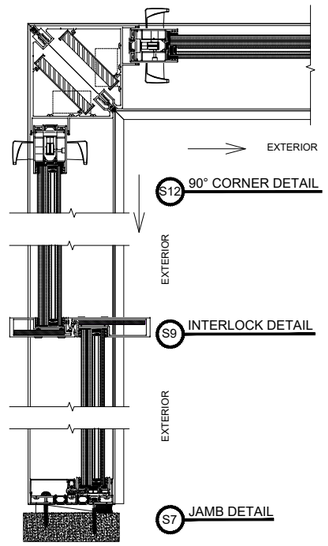


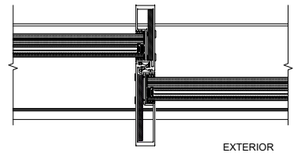


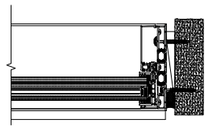


APPROVED CONFIGURATIONS FOR SGD W/ SGDs @ 90 DEG CORNER

OX-XO







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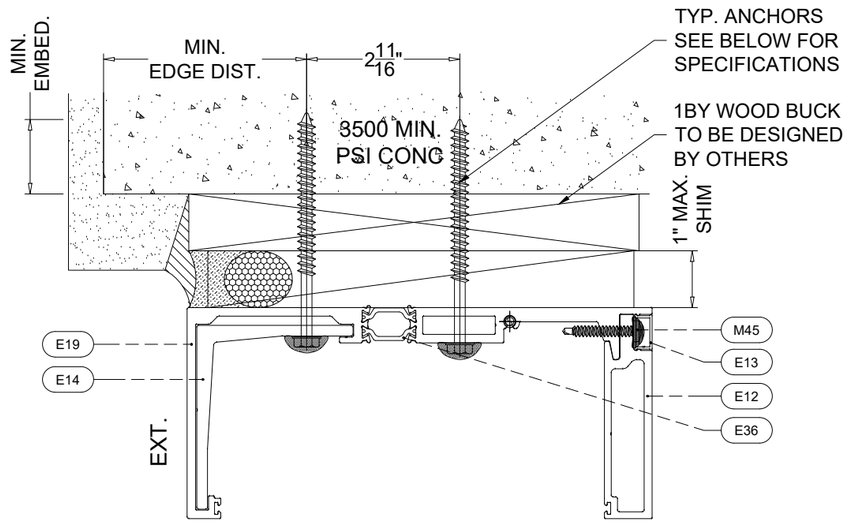
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CIVIL FLA. PE # 70592 – C.A.N. 34254

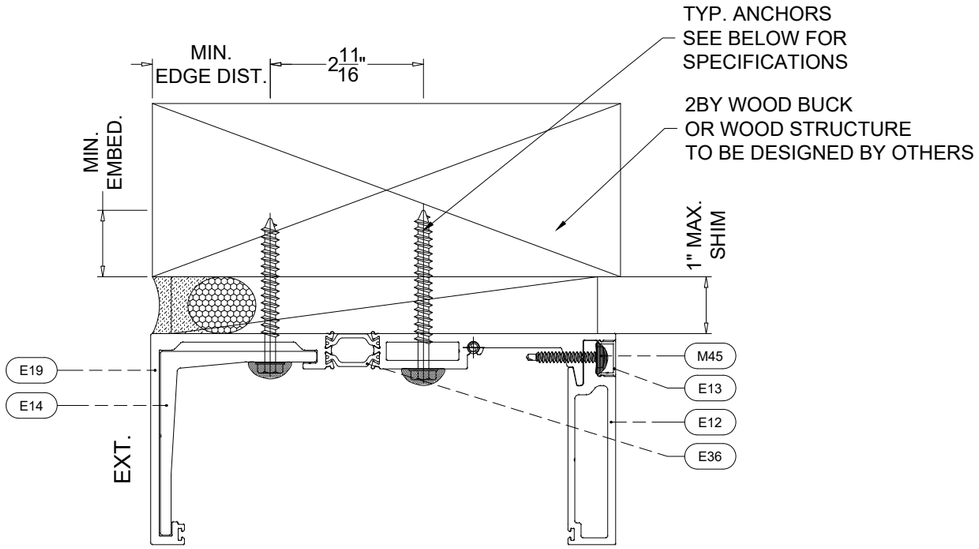


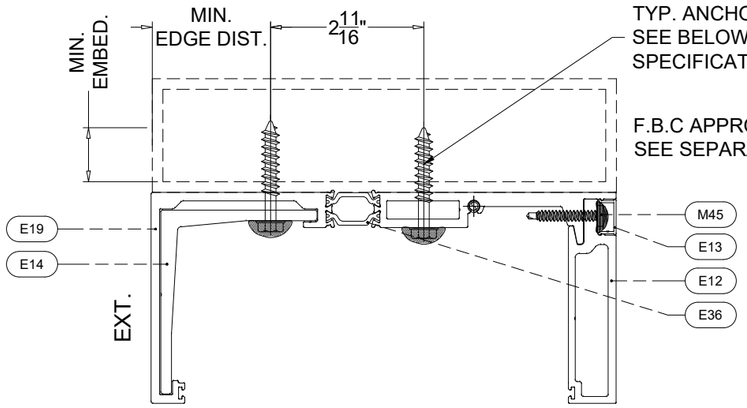
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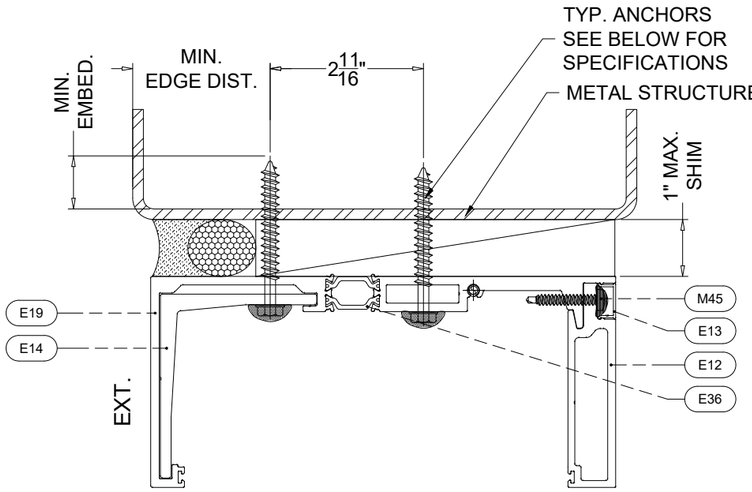
CONFIGURATIONS

SHEET No.
16 OF 25









TYPICAL SUBSTRATE ANCHORS:

A

5/16" DIA ULTRACON+ BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
THRU 1BY OR 2BY BUCKS INTO CONC. (MIN. 3500 PSI CONC.)
2" MIN. EMBED INTO CONCRETE (HEAD / SILL / JAMBS)

DIRECTLY INTO CONCRETE
2" MIN. EMBED INTO CONCRETE (MIN. 3500 PSI CONC.)
1-3/4" MIN. EMBED INTO CONCRETE

ANCHOR EDGE DISTANCES
INTO CONCRETE = 3-1/8" MIN.
INTO BLOCKS = 2-1/2" MIN.

B

5/16" DIA ULTRACON+ BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
INTO WOOD STRUCTURES (MIN. S.G. 0.55)
2" MIN. PENETRATION INTO WOOD (HEAD / SILL / JAMBS)

ANCHOR EDGE DISTANCES
INTO WOOD STRUCTURE = 1-9/16" MIN.

C

5/16" DIA. DRILL-FLEX (Fu=120 KSI, Fy=48 KSI)
INTO METAL STRUCTURES. (HEAD / SILL / JAMBS)
(3) THREAD MIN. PENETRATION BEYOND METAL SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T6 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 = 3/4" MIN.

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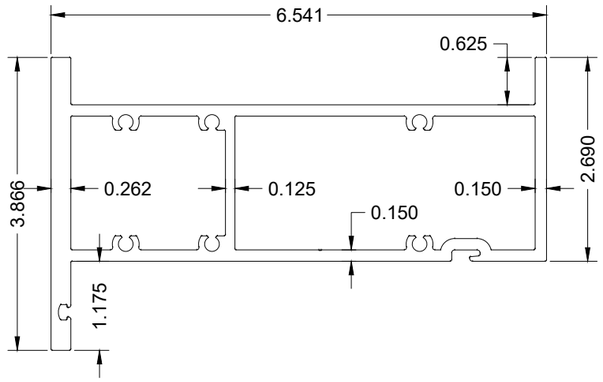
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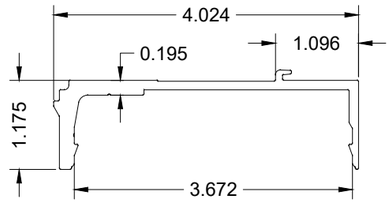
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ANCHOR SPECS

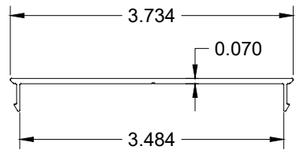
SHEET No. 17 OF 25



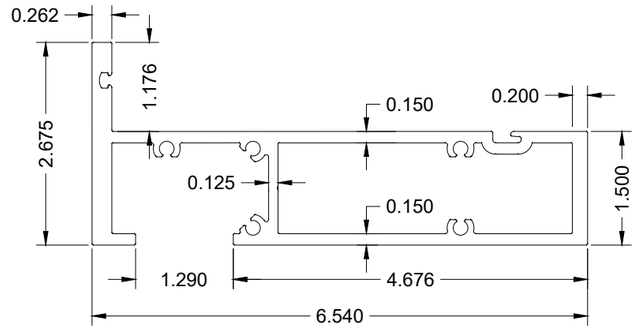
E1 FRAME HEAD
SCALE = 6"=1'-0"



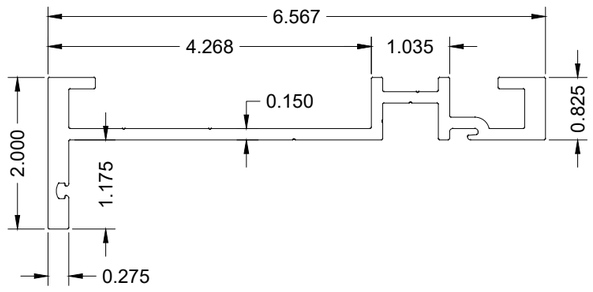
E2 GLASS STOP
SCALE = 6"=1'-0"



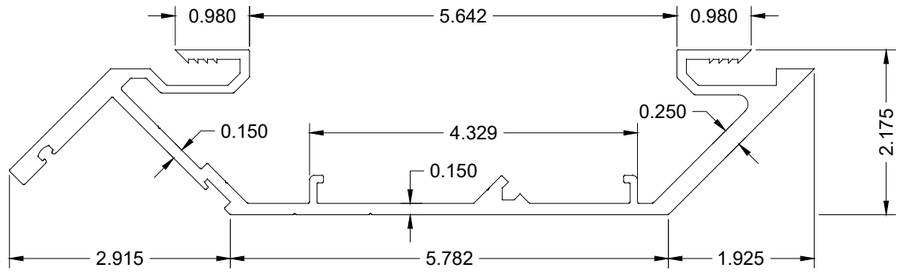
E3 COVER
SCALE = 6"=1'-0"



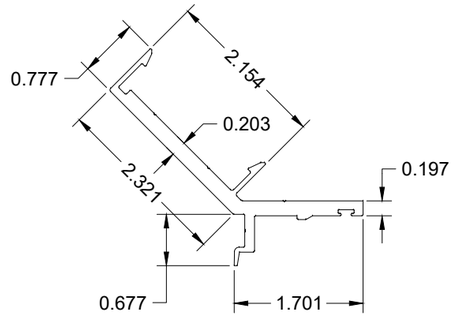
E4 FRAME SILL
SCALE = 6"=1'-0"



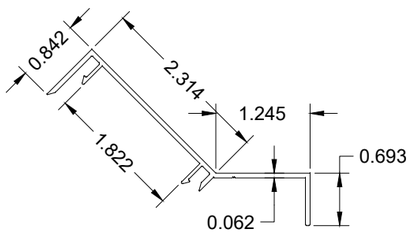
E5 JAMB
SCALE = 6"=1'-0"



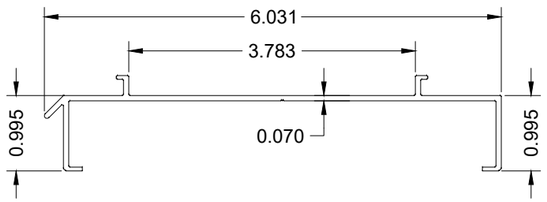
E6 MULLION (CORNER)
SCALE = 6"=1'-0"



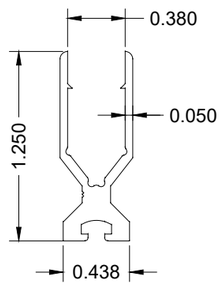
E7 GLASS STOP IN (CORNER)
SCALE = 6"=1'-0"



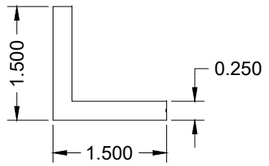
E8 GLASS STOP COVER IN (CORNER)
SCALE = 6"=1'-0"



E9 STEEL SUPPORT
SCALE = 6"=1'-0"



E10 CORNER CLIP
SCALE = 2'-0"=1'-0"



E11 L - ANGLE (REINF.)
SCALE = 6"=1'-0"

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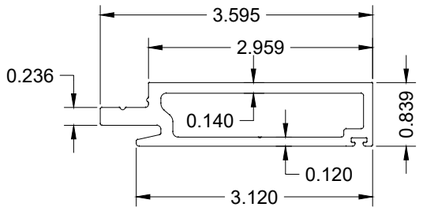
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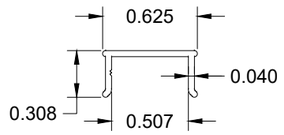
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PROFILES

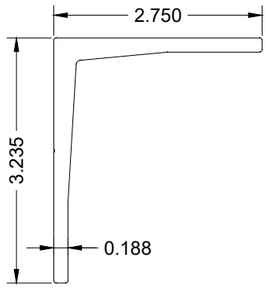
SHEET No.
18 OF 25



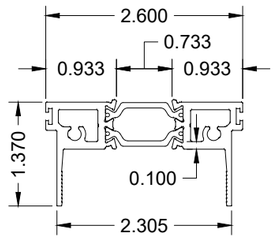
E12 HEAD RECEPTOR STOP
SCALE = 6"=1'-0"



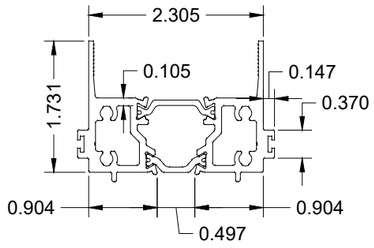
E13 COVER
SCALE = 2'-0"=1'-0"



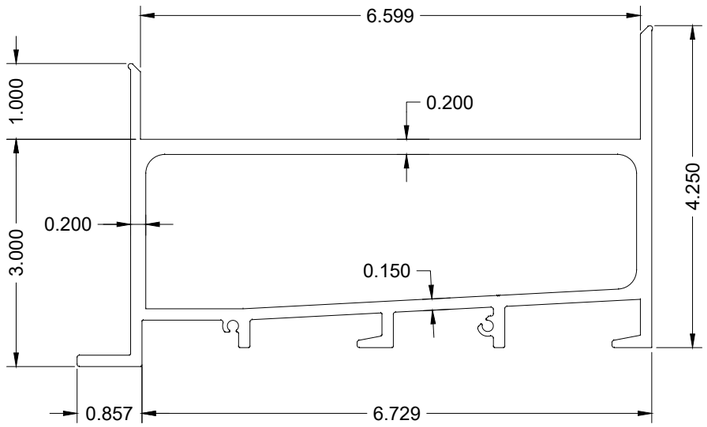
E14 HEAD RECEPTOR REINF.
SCALE = 6"=1'-0"



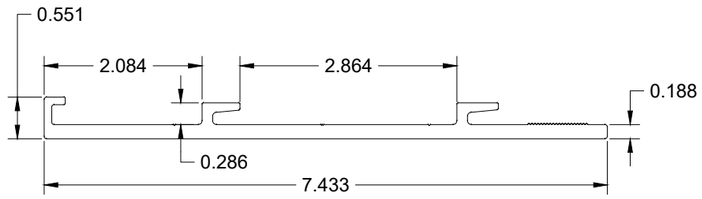
E33 TOP
SCALE = 6"=1'-0"



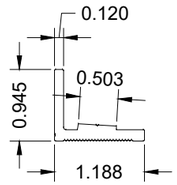
E34 BOTTOM
SCALE = 6"=1'-0"



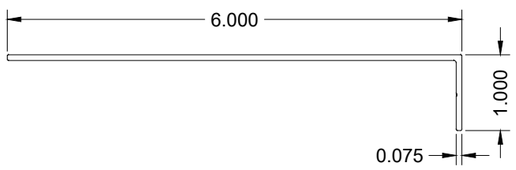
E15 SUB SILL
SCALE = 6"=1'-0"



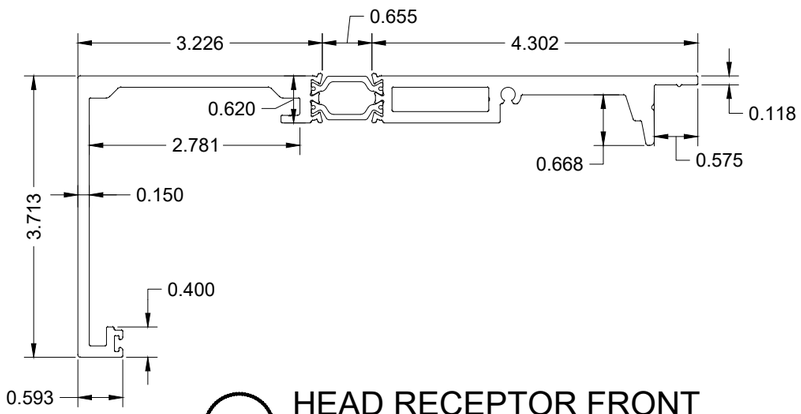
E16 ANCHOR PLATE
SCALE = 6"=1'-0"



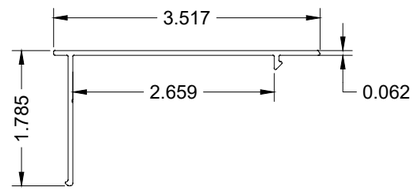
E17 STOP ANCHOR
SCALE = 6"=1'-0"



E18 END DAM
SCALE = 6"=1'-0"



E19 HEAD RECEPTOR FRONT
SCALE = 6"=1'-0"



E20 HEAD COVER
SCALE = 6"=1'-0"

FL# 47930.1

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(L.M.I & S.M.I)

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Drawing no.	JA-1909-25

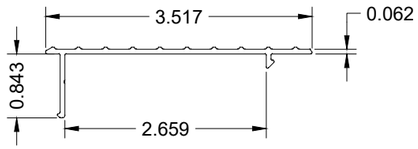
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

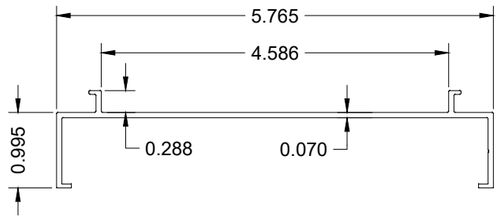
SEALED: 08/17/2026

PROFILES

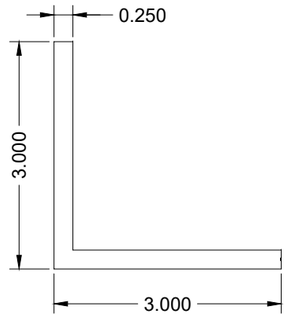
SHEET No.
19 OF 25



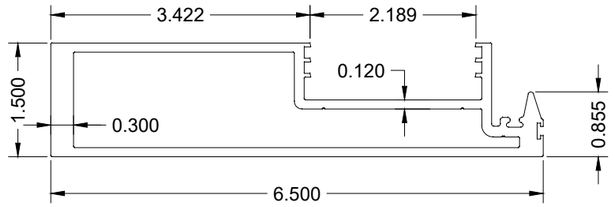
E21 SILL COVER
SCALE = 6"=1'-0"



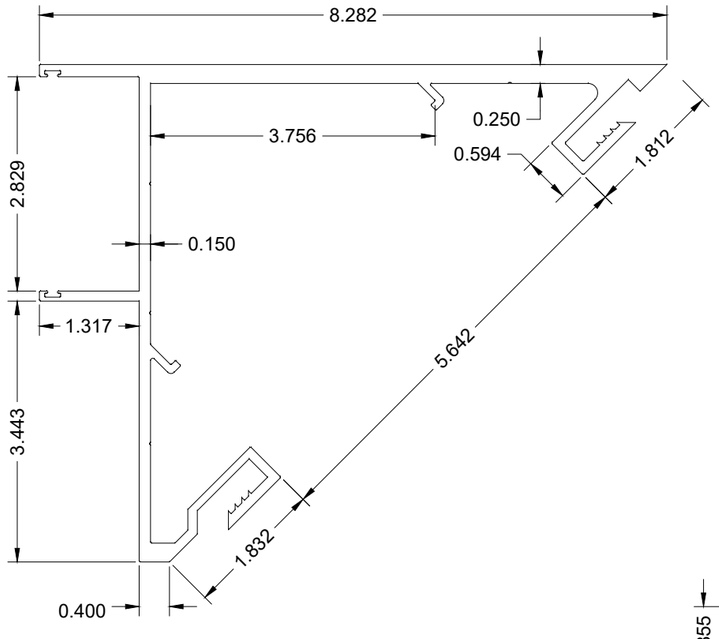
E23 STEEL SUPPORT
SCALE = 6"=1'-0"



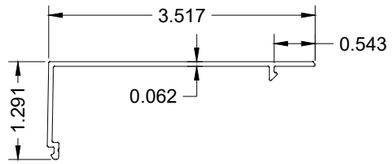
E24 L - ANGLE (REINF.)
SCALE = 6"=1'-0"



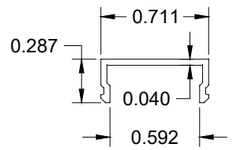
E28 HEAVY INTERLOCK
SCALE = 6"=1'-0"



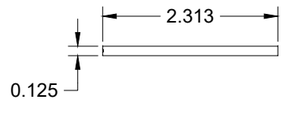
E22 90° MULLION
SCALE = 6"=1'-0"



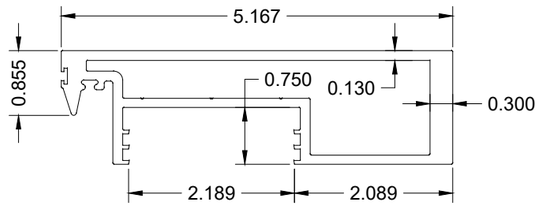
E25 JAMB COVER
SCALE = 6"=1'-0"



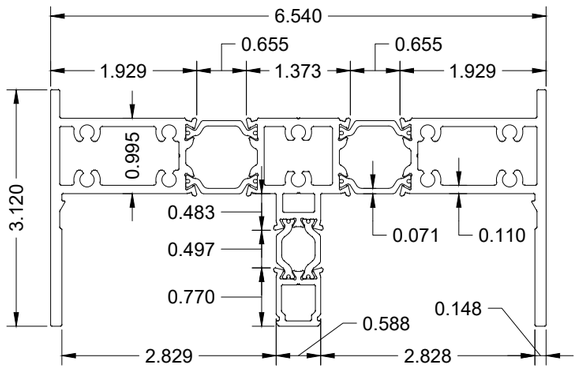
E26 SCREW COVER
SCALE = 2'-0"=1'-0"



E29 MORTICE PLATE
SCALE = 6"=1'-0"



E27 INTERLOCK
SCALE = 6"=1'-0"



E30 FRAME HEAD (2 TRACK)
SCALE = 6"=1'-0"

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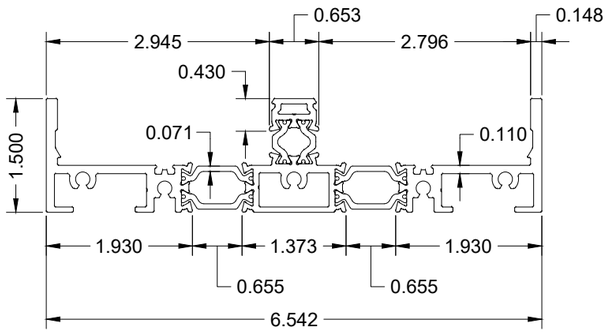
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254



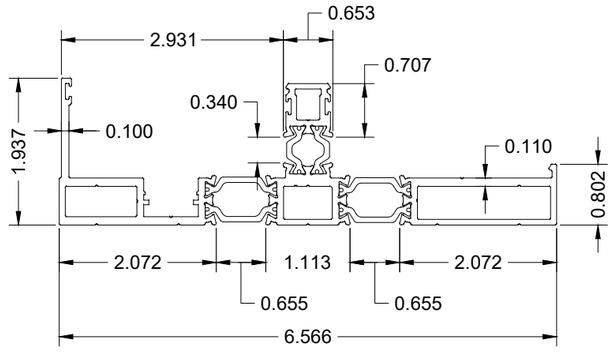
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PROFILES

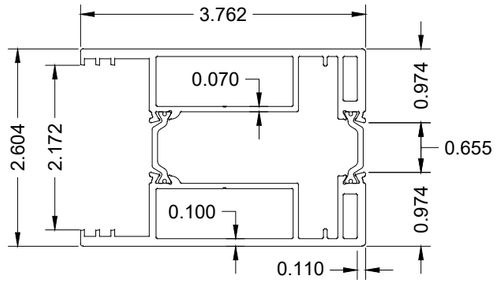
SHEET No.
20 OF 25



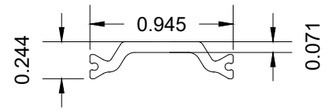
E31 FRAME SILL (2 TRACK)
SCALE = 6"=1'-0"



E32 FRAME JAMB
SCALE = 6"=1'-0"



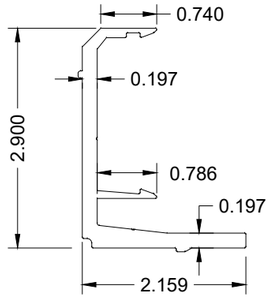
E35 LEFT LOCKSTILE
SCALE = 6"=1'-0"

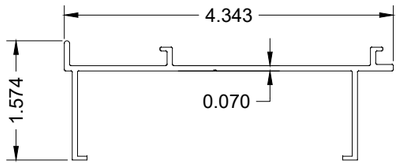


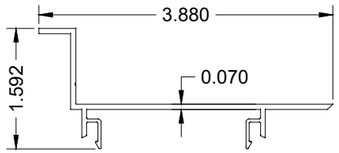
20MM OFFSET

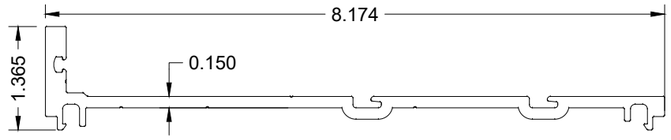
66 GF INSULBARS
MATERIAL = POLYAMIDE
TENSILE STRENGTH = 13031 PSI
RATE OF BURN = .752 IN./MIN.
SELF IGNITION TEMP. = 793° F
FLASH IGNITION TEMP. = 781°C
SMOKE DENSITY = 1.63

E36 TECATHERM ®
SCALE = 1'=1'-0"

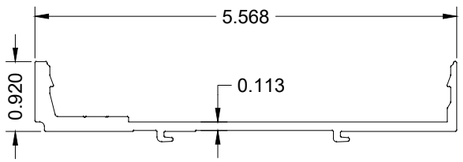




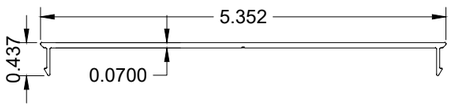




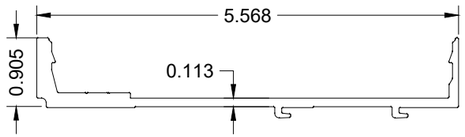
E37 GLASS STOP
SCALE = 6"=1'-0"



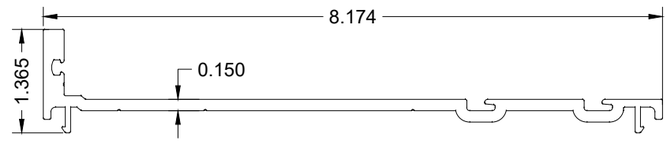
E38 STEEL SUPPORT
SCALE = 6"=1'-0"



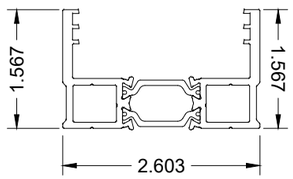
E39 GLASS STOP
SCALE = 6"=1'-0"



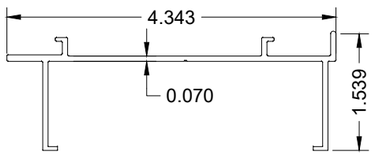
E40 LEFT MULLION
SCALE = 6"=1'-0"



E41 GLASS STOP
SCALE = 6"=1'-0"



E42 GLASS STOP
SCALE = 6"=1'-0"



E43 GLASS STOP MULLION
SCALE = 6"=1'-0"

E44 MULLION
SCALE = 6"=1'-0"

E48 FIXED STILE FOR CORNER
SCALE = 6"=1'-0"

E47 STEEL SUPPORT
SCALE = 6"=1'-0"

FL# 47930.1

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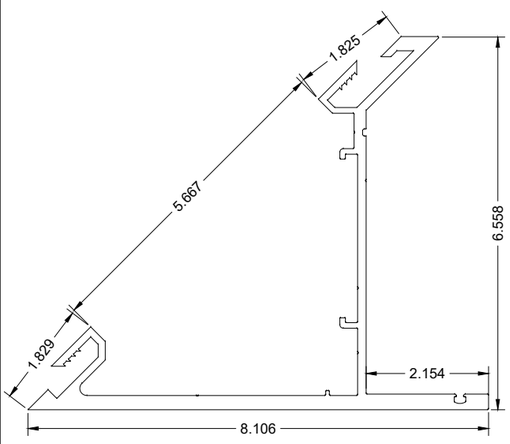
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

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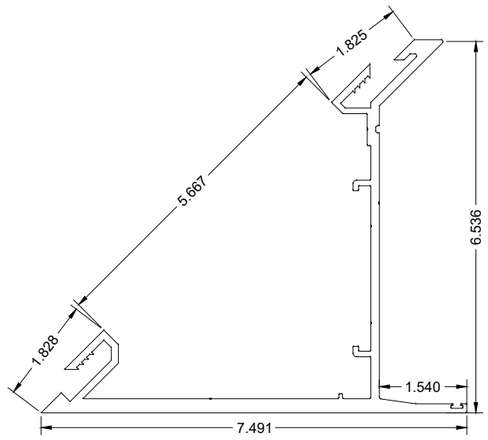
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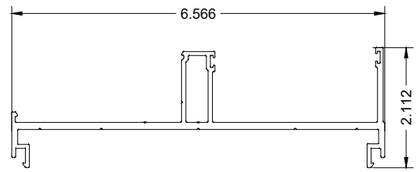
SHEET No. 21 OF 25



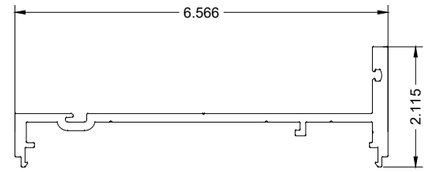
E45 CORNER OUT MULLION
SCALE = 4-1/2"=1'-0"



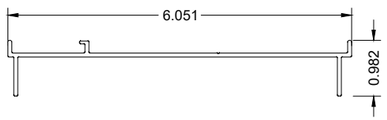
E46 CORNER OUT MULLION
SCALE = 4-1/2"=1'-0"



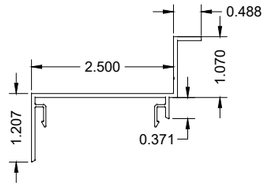
E49 SGD MULLION
SCALE = 4-1/2"=1'-0"



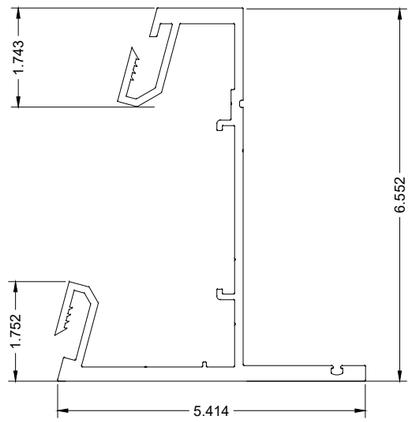
E50 SGD MULLION
SCALE = 4-1/2"=1'-0"



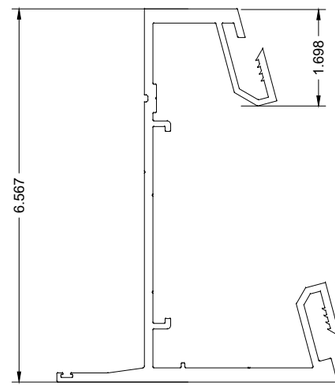
E51 SUPPORT
SCALE = 4-1/2"=1'-0"



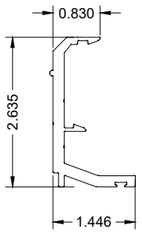
E52 GLASS STOP
SCALE = 4-1/2"=1'-0"



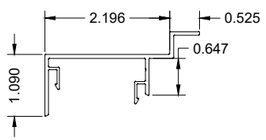
E53 150° CORNER OUT MULLION FX
SCALE = 4-1/2"=1'-0"



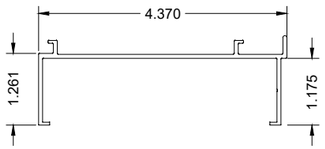
E54 150° CORNER OUT MULLION SGD
SCALE = 4-1/2"=1'-0"



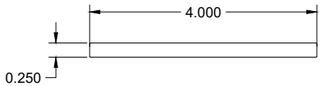
E55 COVER SUPPORT
SCALE = 4-1/2"=1'-0"



E56 JAMB COVER
SCALE = 4-1/2"=1'-0"



E57 STEEL SUPPORT
SCALE = 4-1/2"=1'-0"



E58 PLATINA DE 4" X 1/4"
SCALE = 4-1/2"=1'-0"

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CIVIL FLA. PE # 70592 – C.A.N. 34254

JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

SEALED: 08/17/2026

PROFILES

SHEET No.
22 OF 25

BILL OF MATERIALS

ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
E1	ES-FX1515AM-001	FRAME HEAD	6063-T6
E2	ES-FX1515AM-006	GLASS STOP	6063-T6
E3	ES-FX1515AM-007	COVER	6063-T5
E4	ES-FX1515AM-002	FRAME SILL	6063-T6
E5	ES-FX1515AM-003	JAMB	6063-T6
E6	ES-FX1515AM-016	CORNER IN MULLION	6005-T5
E7	ES-FX1515AM-017	GLASS STOP, CORNER IN	6063-T6
E8	ES-FX1515AM-018	GLASS STOP, COVER CORNER IN	6063-T5
E9	ES-FX1515AM-019	STEEL SUPPORT	6063-T6
E10	ES-8860-049	CORNER CLIP	6063-T5
E11	ALU-A-021	ANGLE FOR REINFORCEMENT	6063-T6
E12	ES-FX1515AM-027	HEAD RECEPTOR STOP	6063-T6
E13	ES-EL114	COVER	6063-T6
E14	ES-FX1515AM-028	HEAD RECEPTOR REINFORCEMENT	6005-T5
E15	ES-FX1515AM-024	SUBSILL	6063-T6
E16	ES-FX1515AM-022	ANCHOR PLATE	6063-T6
E17	ES-FX1515AM-023	STOP ANCHOR	6063-T6
E18	ES-CF-001	END DAM	6063-T5
E19	ES-FX1515AM-501	HEAD RECEPTOR FRONT	6063-T6
E20	ES-SGD1515AM-029	HEAD COVER	6063-T6
E21	ES-SGD1515AM-030	SILL COVER	6063-T5
E22	ES-SGD1515AM-024	90° MULLION	6005-T5
E23	ES-SGD1515AM-025	STEEL SUPPORT	6063-T6
E24	ALU-A-044	ANGLE FOR REINFORCEMENT	6063-T6
E25	ES-SGD1515AM-028	JAMB COVER	6063-T5
E26	ES-6011	SCREW COVER	6063-T6
E27	ES-SGD1515T-040	INTERLOCK	6005-T5
E28	ES-SGD1515AM-013	HEAVY INTERLCOK	6005-T5
E29	ES-SGD1515T-058	MORTICE PLATE	6063-T6
E30	ES-SGD1515AM-502	FRAME HEAD 2 TRACKS	6063-T6
E31	ES-SGD1515AM-503	FRAME SILL 2 TRACKS	6063-T6
E32	ES-SGD1515AM-501	FRAME JAMB	6063-T6
E33	ES-SGD1515T-530	TOP	6063-T6
E34	ES-SGD1515AM-505	BOTTOM	6063-T6
E35	ES-SGD1515T-536	LEFT LOCKSTILE	6063-T6
E36	TECATHERM ®	66 GF INSULBARS	POLYAMIDE
E37	ES-FX1515AM-012	GLASS STOP	6063-T6
E38	ES-FX1515AM-014	STEEL SUPPORT	6063-T6
E39	ES-FX1515AM-013	GLASS STOP	6063-T5
E40	ES-FX1515AM-004	LEFT MULLION	6063-T5
E41	ES-FX1515AM-008	GLASS STOP	6063-T6
E42	ES-FX1515AM-010	GLASS STOP	6063-T5
E43	ES-FX1515AM-009	GLASS STOP MULLION	6063-T6
E44	ES-FX1515AM-005	MULLION	6063-T5
E45	ES-FX1515AM-011	CORNER OUT MULLION	6063-T5
E46	ES-FX1515AM-016	CORNER OUT MULLION	6063-T5
E47	ES-SGD1515AM-017	STEEL SUPPORT	6063-T5
E48	ES-SGD1515T-504	FIXED STILE FOR CORNER	6063-T6
E49	ES-SGD1515AM-001	SGD MULLION	6063-T6
E50	ES-FX1515AM-021	SGD MULLION	6063-T5
E51	ES-FX1515AM-029	SUPPORT	6063-T6
E52	ES-FX1515AM-020	GLASS STOP	6063-T5
E53	ES-FX1515AM-015	150° CORNER OUT MULLION FX	6063-T5
E54	ES-SGD1515T-020	150° CORNER OUT MULLION SGD	6005-T5
E55	ES-SGD1515AM-018	COVER SUPPORT	6063-T6
E56	ES-SGD1515AM-021	JAMB COVER	6063-T5
E57	ES-SGD1515AM-022	STEEL SUPPORT	6063-T6
E58	ALU-P-060	PLATINA DE 4" X 1/4"	6063-T6

MISCELLANEOUS ITEMS

ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
M1	#10 x1-1/4" P.H.	FOR PANEL	STAINLESS STEEL
M2	DS. 983	SILICONE STRUCTURAL	SILICONE
M3	ES-8011A S	OUTSIDE GLAZING	SILICONE
M4	ES-PZ250T-B02 S	SETTING BLOCK	SILICONE
M5	80-378A S	SIDE BLOCK	SILICONE
M6	W33251NG	PLUSH W33251NG - ULTRAFAB	POLYETHYLENE
M7	ES-7530-G06	FOR INTERLOCK	EPDM 60 DUROMETER
M8	ES-5008A	OUTER WEATHER STRIPING	SILICONE
M9	PP6677	ROLLER	ZAMAK
M10	ES-SGD1010T -B01 S	FOR FIXED PANEL	SILICONE
M11	PS01-0035-XXX	LOCK 2 POINT PS01-0035-00B	ZINC DIE CAST
M12	#8 X 1 1/4" F.H	FOR MORTICE	STAINLESS STEEL
M13	#10X3/4" PHIL FLAT	FOR STEEL PLATE	STAINLESS STEEL
M14	STEEL BAR - 3/8" X 5 1/4"	FOR EXT. INTERLOCK	STAINLESS STEEL
M15	STEEL BAR - 3/8" X 4"	FOR INT. INTERLOCK	STAINLESS STEEL
M16	A2016.52	GUIDE	STAINLESS STEEL
M17	STEEL BAR - 3/4" X 5 1/2"	STEEL BAR	STAINLESS STEEL
M18	TOR 12X1-1/4 PH	TOR 12X1-1/4" PHIL PAN TYPE A 18-8ss	STAINLESS STEEL
M19	2101 HOLE PLUG	HOLE PLUG	POLYETHYLENE
M20	PS01-1005-XXX	2PL ASTRAGAL STRIKER BLACK	ZINC DIE CAST
M21	#10-24 X 3/4" F.H.	FOR STRIKE	STAINLESS STEEL
M22	D50009AMK	ADHESIVE DUST PLUG	POLYPROPYLENE SILICONE
M24	PS01-0203-XXX	CREST LEVER HANDLE	ZAMAK
M25	M4 x 07 x 40mm F.H	TOR M4x0.7x40mm Phil Flat Sc. 18-8ss	STAINLESS STEEL
M26	PS01-0208-XXX	PS01-0208-000 CREST HANDLE KIT	ZAMAK
M27	ES-SD2020-C02	C02 WEEP COVER BLACK	POLYPROPYLENE
M28	ES-SGD2020-B03 E	COVER WEEP HOLE	EPDM
M29	RETICULAR FOAM	FOAM 30PPI	POLYURETHANE
M30	ES-SD2020T-FE03	ADHESIVE FOAM INTERLOCK	POLYPROPYLENE
M31	ES-SD2020T-FE01	ADHESIVE FOAM HEAD	POLYPROPYLENE
M32	ES-SD2020T-FE02	ADHESIVE FOAM SILL	POLYPROPYLENE
M33	ATTACHMENT	ATTACHMENT ANGLE FIXED PANEL	STAINLESS STEEL
M34	#10 x 2" F.H.	FOR ATTACHMENT ANGLE	STAINLESS STEEL
M35	DS 983	SILICONE STRUCTURAL	SILICONE
M36	WA2L	DRAIN WA2L-SLV ES2000	POLYPROPYLENE
M37	RETICULAR FOAM	30PPI WPSA-N1 3/4*3/4*2	POLYURETHANE
M38	SCREW #10 x 1" F.H.	FOR END DAMS	STAINLESS STEEL
M39	TOR 10X1 1/4 PH	TOR 10X1 1/4 PH AUTOP A. INOX	STAINLESS STEEL
M40	DS 791	SILICONE BLACK	SILICONE
M41	WA2L	DRAIN WA2L-SLV ES2000 SILVER	POLYPROPILENE
M42	RETICULAR FOAM	30PPI WPSA-N1 3/4*3/4*2	POLYURETHANE
M43	SCREW #10 x 1" F.H.	FOR END DAMS	STAINLESS STEEL
M44	TOR 12X3/4" PHIL PAN	TOR 12X3/4 PHIL PAN	STAINLESS STEEL
M45	TOR 10X1 1/4 PH	TOR 10X1 1/4 PH AUTOP A. INOX	STAINLESS STEEL
M46	ES-H340-G02 S.	INSIDE GLAZING	SILICONE
M47	ES-8860-G01 S	OUTSIDE GLAZING	SILICONE
M48	ES-UN625-B01 S	SETTING BLOCK	SILICONE
M49	ES-9550-B02A S	SETTING BLOCK	SILICONE

MISCELLANEOUS ITEMS

ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
M50	ES-6025-B01A S	SETTING BLOCK	SILICONE
M51	ES-5008A	OUTER WEATHER STRIPING	SILICONE
M52	TOR 12X1-1/4 PH	FOR FRAME	STAINLESS STEEL
M53	STEEL BAR - 3/4" X 5 1/2"	STEEL BAR	STAINLESS STEEL
M54	TOR 10X1" PHIL PAN	TOR 10X1" PHIL PAN	STAINLESS STEEL
M55	STEEL BAR - 1" X 3 1/2"	RIGHT/LEFT REINFORCEMENT	STAINLESS STEEL
M56	STEEL BAR - 5/8" X 4"	LEFT/RIGHT REINFORCEMENT	STAINLESS STEEL
M57	1/4" WASHER	PRESSURE WASHER	STAINLESS STEEL
M58	1/4" -20 NUT	NUT	STAINLESS STEEL
M59	1/4" DIA. 1 11/2"	BOLT WITH NUTS	STAINLESS STEEL
M60	EMP-705 V-003AS	FOR CLIPS CORNER	SILICONE
M61	TOR 12X5/8" PHIL PAN T-AB S	FOR GLASS STOP COVER	STAINLESS STEEL
M62	GW7000-B01-S	SETTING BLOCK	SILICONE
M63	TOR 12-14X1/2" PHILIPS PAN TYPE AB 18-8	FOR GLASS STOP COVER	STAINLESS STEEL
M64	ES-H340-G02 S.	INSIDE GLAZING	SILICONE
M65	STEEL BAR 1" X 4"	FOR CORNER MULLION	STAINLESS STEEL

FL# 47930.1

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PROJECT :

ES-FX1515AM / ES-SGD1515AM
(L.M.I & S.M.I)

CLIENT :

E.S. WINDOWS, LLC

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

REVISION

No.	DATE	BY	DESCRIPTION
1	4.16.2026	SA	

date:	04.16.2026
scale:	N/A
drawn by:	SA
check by:	DM
Drawing no.	JA-1909-25

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

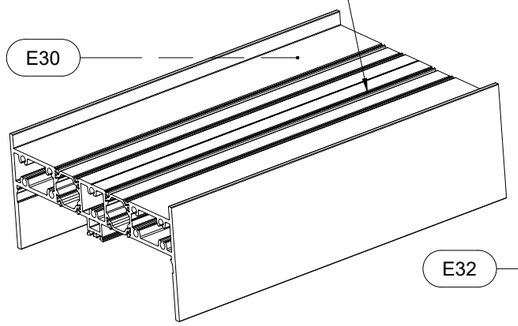


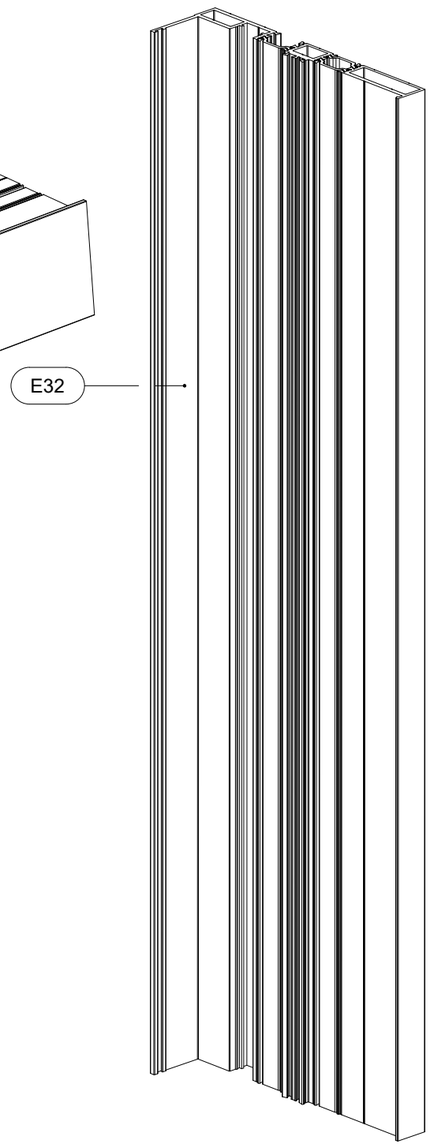
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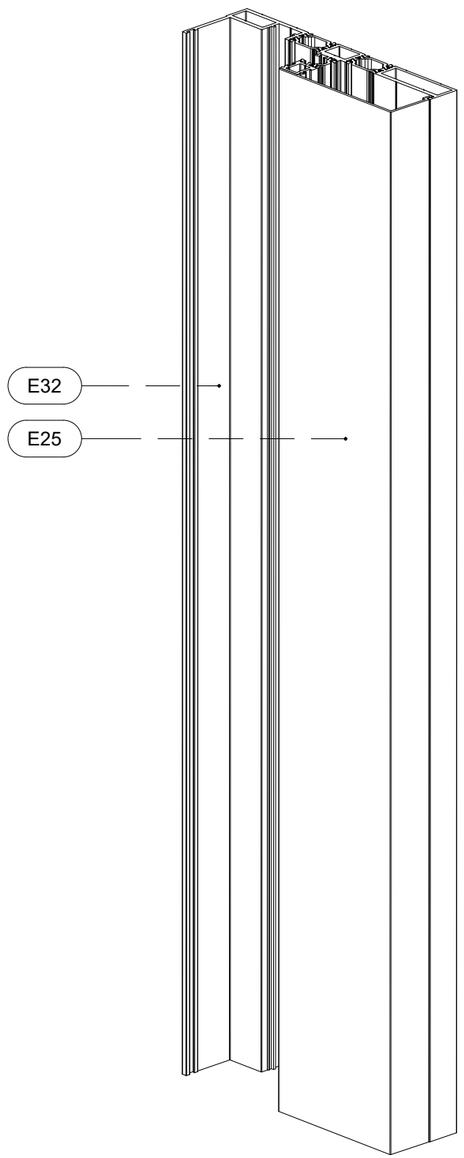
SHEET No.
23 OF 25

HORIZONTAL EXTRUSION CONNECTED TO JAMBS THROUGH TOR 12X1-1/4 PH SHEET METAL SCREWS

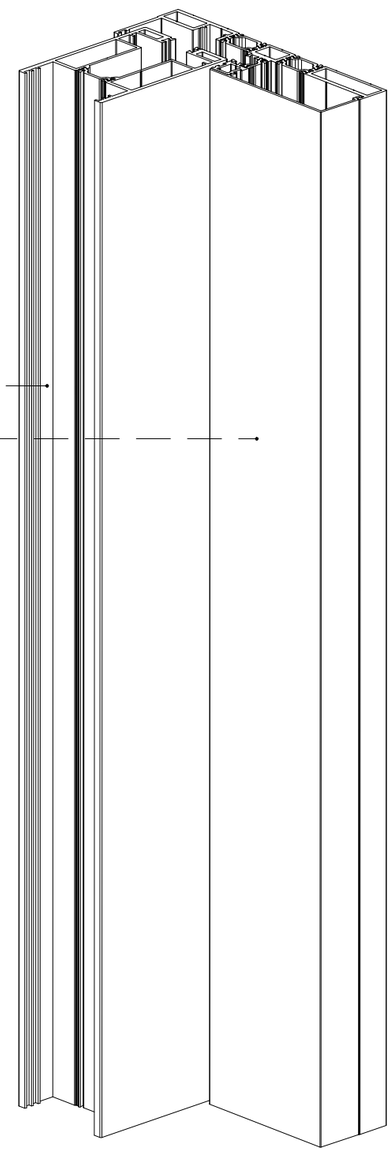




HEAD / JAMB ASSEMBLY VIEW



SLIDING GLASS DOOR JAMB



SLIDING PANEL WITH JAMB

FL# 47930.1

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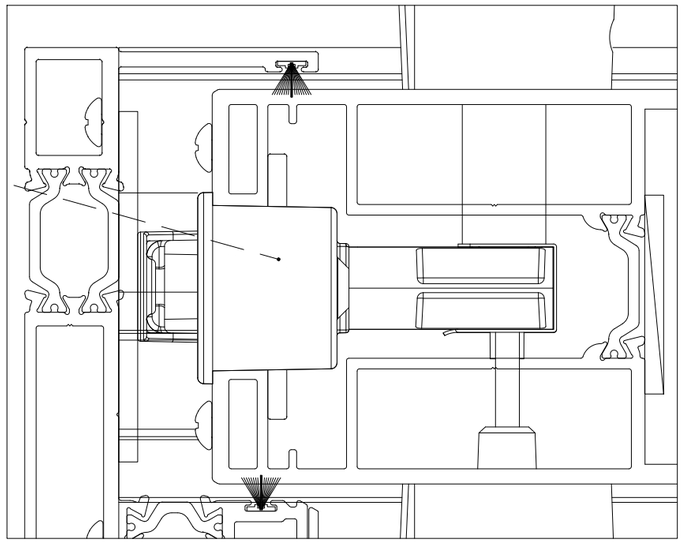
Eng: JAVAD AHMAD, PE
CIVIL FLA. PE # 70592 – C.A.N. 34254

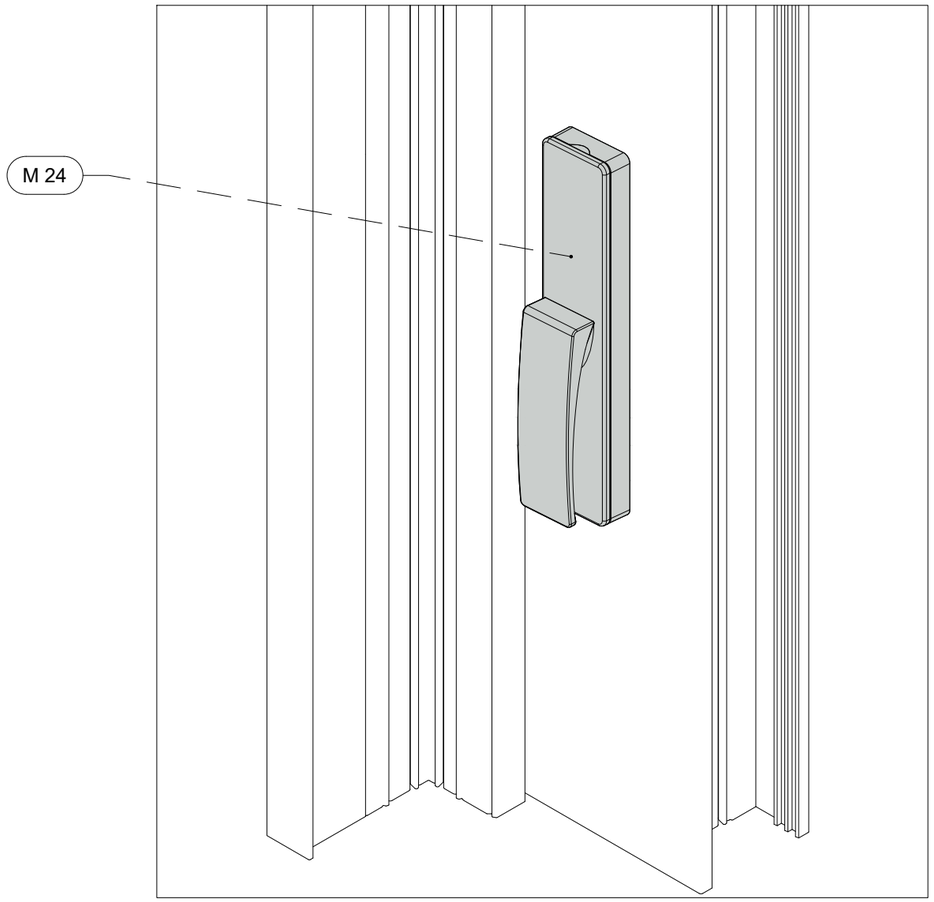


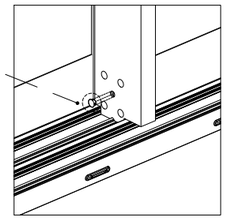
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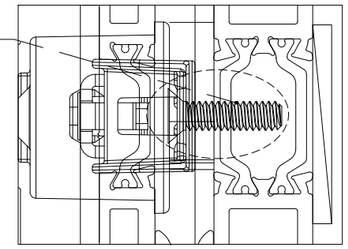
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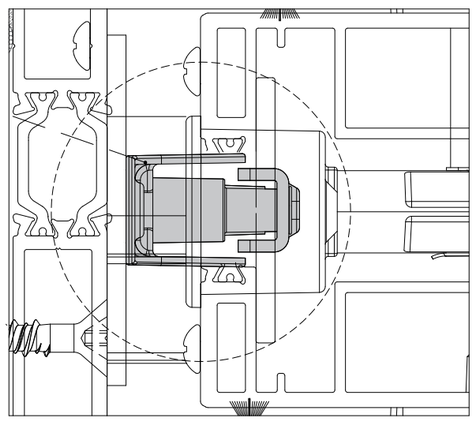
SHEET No.
24 OF 25











LEVER HANDLE INSTALLATION

FL# 47930.1

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JAVAD AHMAD LICENSE No 70592 STATE OF FLORIDA PROFESSIONAL ENGINEER

SEALED: 08/17/2026

INSTALLATION

SHEET No.
25 OF 25