

CT WINDOWS d.b.a. ARCHITECTURAL ALUMINUM TECHNIQUES
SERIES 3 IR HYBRID CURTAIN WALL SYSTEM
LARGE AND SMALL MISSILE IMPACT (NON-HVHZ)

GENERAL NOTE

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 8TH EDITION FBC 2023 / 9TH EDITION FBC 2026. SERIES 3 IR CURTAIN WALL SYSTEM IS RATED FOR LARGE AND SMALL MISSILE IMPACT. EXCLUDING IN HIGH VELOCITY HURRICANE ZONE (HVHZ). SHUTTERS ARE NOT REQUIRED FOR NON HVHZ.

ULTIMATE LOAD OBTAINED FROM ASCE 7-22, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

THIS SYSTEM MAY BE USED IN CONJUNCTION WITH A FLORIDA/MIAMI DADE COUNTY APPROVED ENTRANCE DOORS.

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE MAIN STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL / METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 8TH EDITION FBC 2023 / 9TH EDITION FBC 2026.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

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.

INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING. COMPLIANCE WITH THESE CONDITIONS TO BE CHECKED PER FBC 1711.

FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1711.1.1 (E.G., ASTM A153 CLASS D, ASTM A641 CLASS 35, OR EQUIVALENT CORROSION RESISTANCE). CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH SECTION 1711.1.2 (E.G., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE7-22 STANDARD.
- STEP 2: SEE TYPICAL ELEVATION ON SHEET E1 FOR MAXIMUM SIZES AND CAPACITY.
- STEP 3: SEE SHEET A1 FOR GLASS COMPOSITIONS AND ANCHOR TYPES.
- STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

ABBREVIATIONS AND SYMBOLS	
D.L.O. - DAYLITE OPENING	CL - CENTER LINE
F.H. - FRAME HEIGHT	H.S. - HEAT STRENGTHENED
F.W. - FRAME WIDTH	TEMP. - TEMPERED
W/ - WITH	O.C. - ON CENTER
W/O - WITHOUT	
	SECTION NUMBER
	SHEET NUMBER

LIMITATIONS OF USE

A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

B- 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.

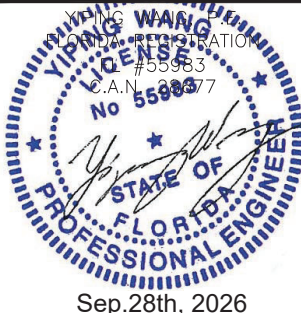
C- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

D- 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.

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

FLORIDA APPROVAL:

FL 17589.1



SERIES 3 IR HYBRID CURTAIN WALL (LMI & SMI) (NON-HVHZ)

CT WINDOWS d.b.a. ARCHITECTURAL ALUMINUM TECHNIQUES

9195 BOGGY CREEK RD. #1
ORLANDO, FL 32824

PH: (407) – 857 – 9237

COVER

DATE	09.28.2026
SCALE	AS SHOWN
DRAWN	James
PROJECT	--

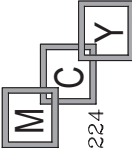
DRAWING NO.
AD15-24
1 OF 8

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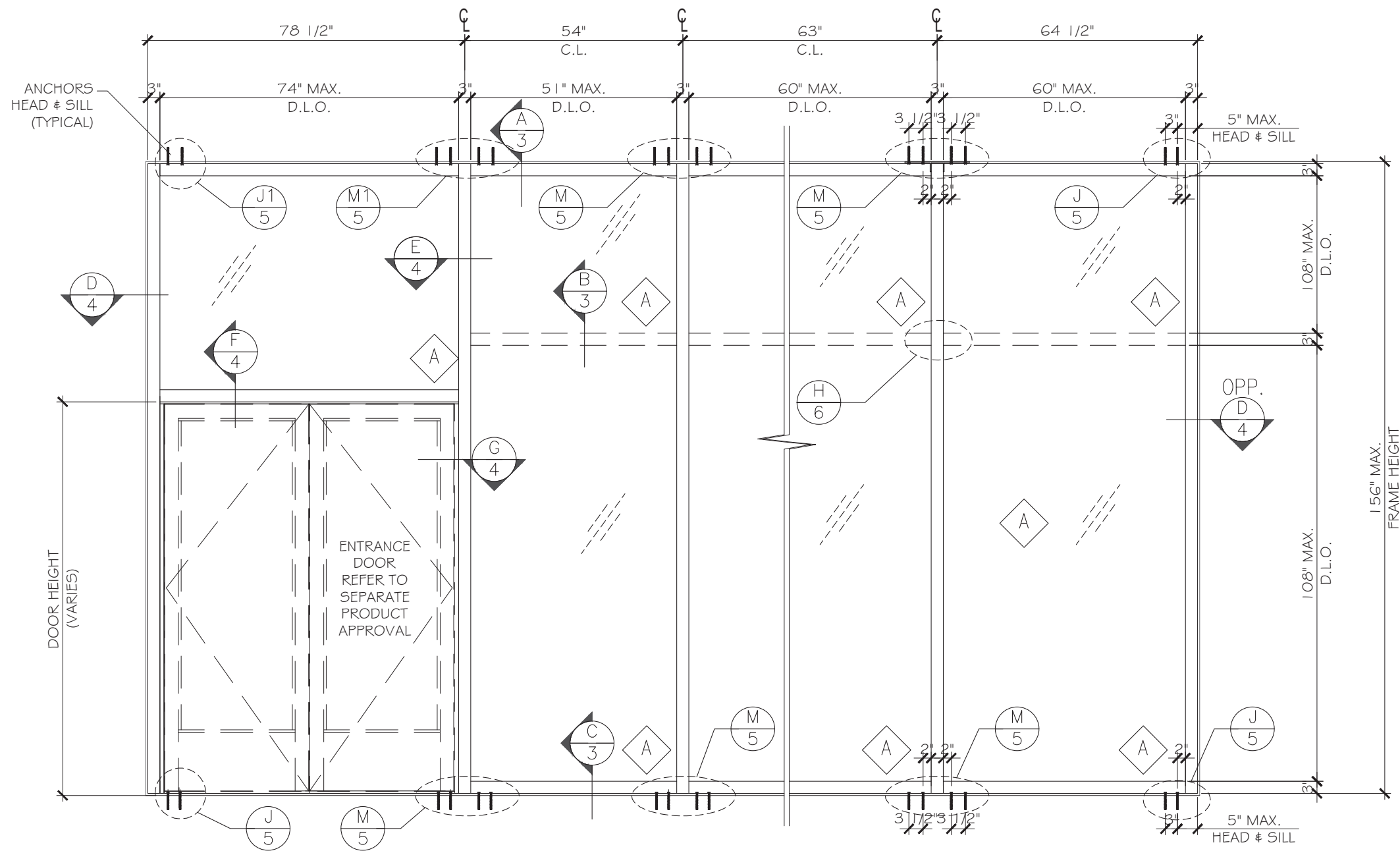
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12781 MIRAMAR PKWY. STE. 301 P: 305.588.5224
MIRAMAR, FL 33027

www.MCYEngineering.com mcy@mcyengineering.com



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R3	06/25/25 FBC 2023
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TYPICAL ELEVATION

DESIGN LOADS
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC
+80.0 PSF -80.0 PSF

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Sep.28th, 2026

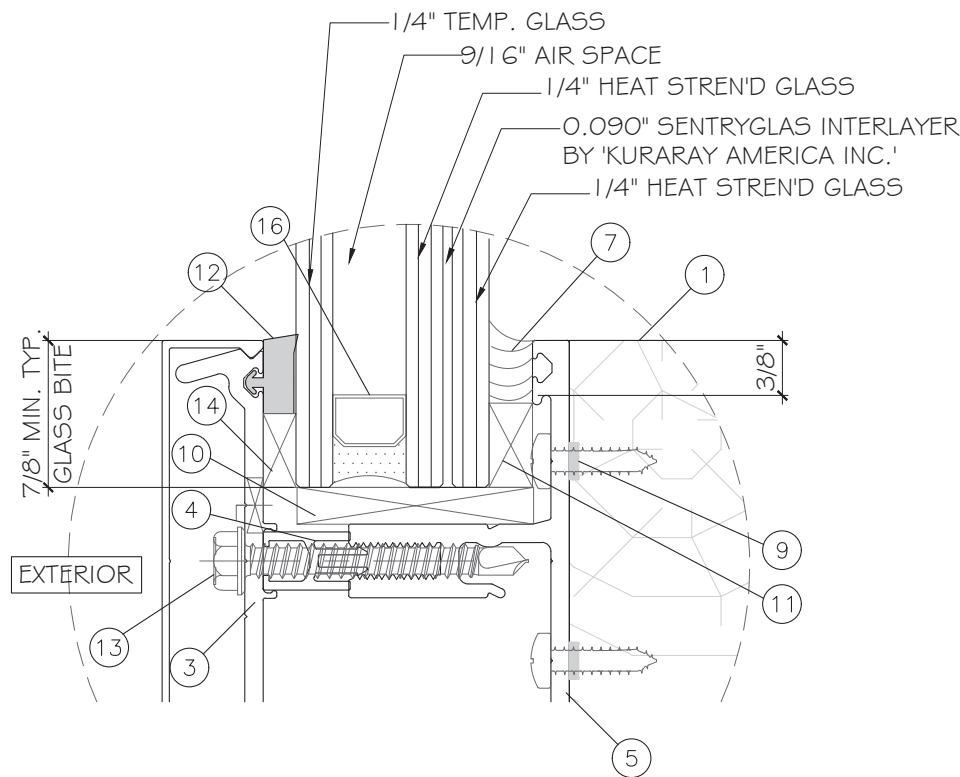
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E1	
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2 OF 8	



A GLASS TYPE 'A'
1-5/16" NOMINAL OVERALL
MAX. GLASS AREA = 44 SQFT.
GLASS AREA = D.L.O. WIDTH * D.L.O. HEIGHT

NOTE:
GLASS COMPLIES WITH ASTM E1300-16
OR 24 (3 SEC. GUSTS).

TYPICAL ANCHORS: SEE ELEVATION FOR SPACING

±80 PSF MAX.	TYPE A	3/8" POWER WEDGE BOLT (AT MULLION DETAIL (M) (M1) AT JAMB DETAIL (J) (J1)) ·THRU 1 BY BUCKS INTO CONCRETE 3-1/2" MIN. EMBED INTO CONC. ·THRU 2BY WOOD BUCKS OR WOOD STRUCTURE 1-1/2" MIN. EMBED
	TYPE A I	3/8" POWER WEDGE BOLT (AT MULLION DETAIL (M) & AT JAMB DETAIL (J) ONLY) ·DIRECTLY INTO CONC. 3-1/2" MIN. EMBED.
	TYPE B	1/2" POWER WEDGE BOLT (AT DOOR JAMB (M1) & DOOR JAMB MULLION (J1) ONLY) ·DIRECTLY INTO CONC. 3-1/2" MIN. EMBED
±40 PSF MAX.	TYPE C	5/16" SMS OR SELF DRILLING SCREW (fu=120 KSI, fy=92 KSI) ·INTO METAL STRUCTURES ·INTO MIAMI-DADE COUNTY APPROVED MULLION 1/8" THK. (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
	TYPE D	1/4" ULTRACON+ BY 'DEWALT' (fu=164 KSI, fy=148 KSI) ·THRU 1 BY BUCKS INTO CONC. 1-3/4" MIN. EMBED INTO CONC. ·THRU 2BY WOOD BUCKS OR WOOD STRUCTURE 1-1/2" MIN. EMBED
	TYPE D I	1/4" ULTRACON+ BY 'DEWALT' (fu=164 KSI, fy=148 KSI) ·DIRECTLY INTO CONC. 1-3/4" MIN. EMBED.
	TYPE E	1/4" SELF DRILLING SCREW (fu=120 KSI, fy=92 KSI) ·INTO METAL STRUCTURES ·INTO MIAMI-DADE COUNTY APPROVED MULLION 1/8" THK. (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

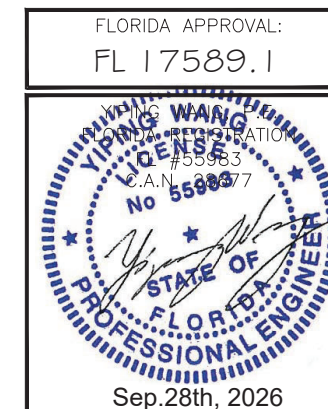
STEEL : 1/8" THK. MIN. (fy=36 KSI MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T6 MIN.)

CONCRETE
f'c= 3,000 PSI MIN.

WOOD
S.G. ≥ 0.55

ANCHOR EDGE DISTANCES
INTO CONCRETE = 3" MIN. (ANCHOR TYPE A I AND TYPE B)
INTO CONCRETE = 2 1/2" MIN. (ANCHOR TYPE D AND D I)
INTO WOOD STRUCTURE = 2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

SEALANT:
ALL CORNERS SEALED WITH ADHESIVE.
THE EXTERIOR PERIMETER OF THE WINDOW SEALED WITH SILICONE



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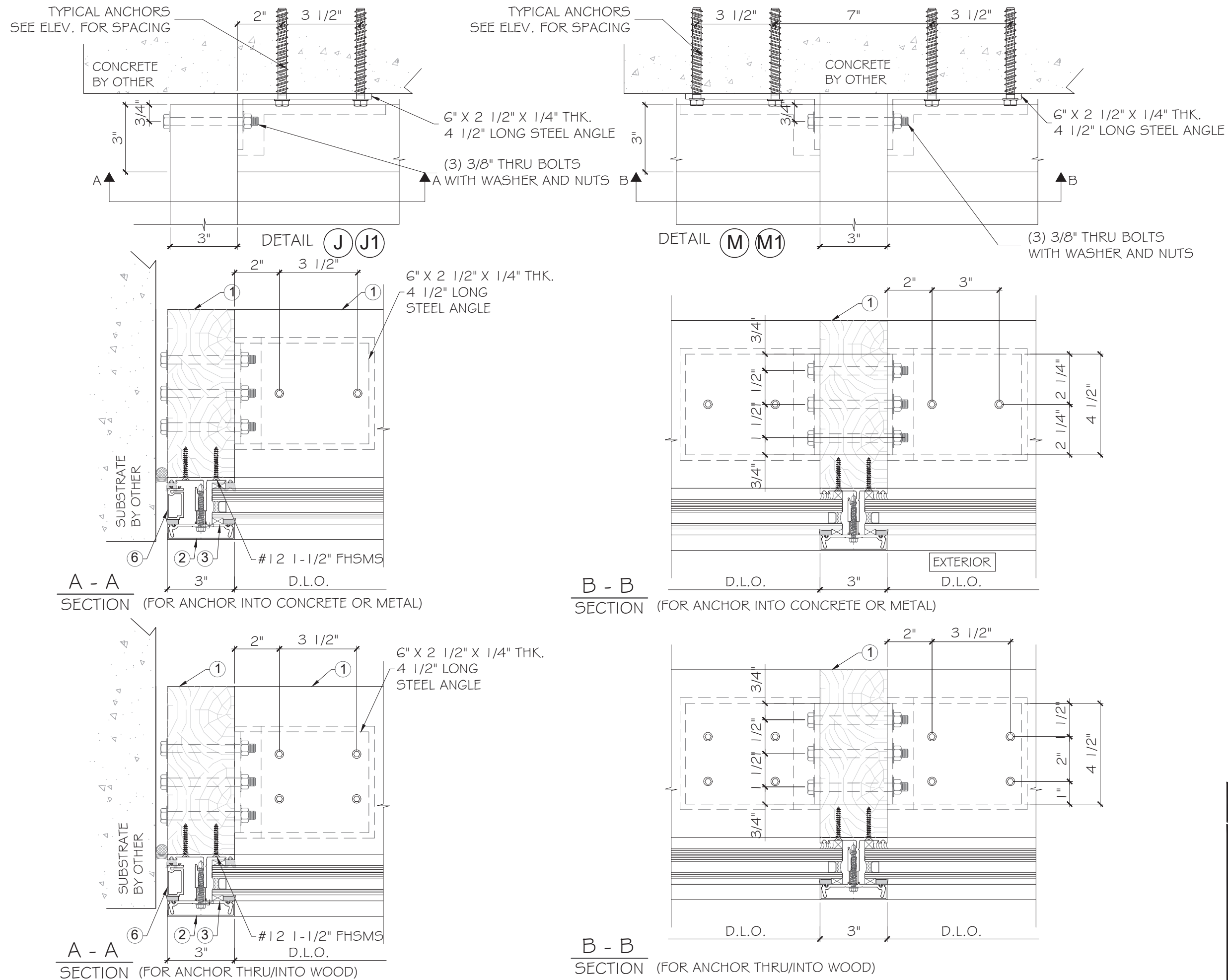
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A1	
DATE	09.28.2026
SCALE	AS SHOWN
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PROJECT	--
DRAWING NO. AD15-24	
3 OF 8	



YIP PING WANG
 PROFESSIONAL ENGINEER
 #55983
 C.A.N. 00877
 No. 55983
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 Sep. 28th, 2026

DETAIL	
DATE	09.28.2026
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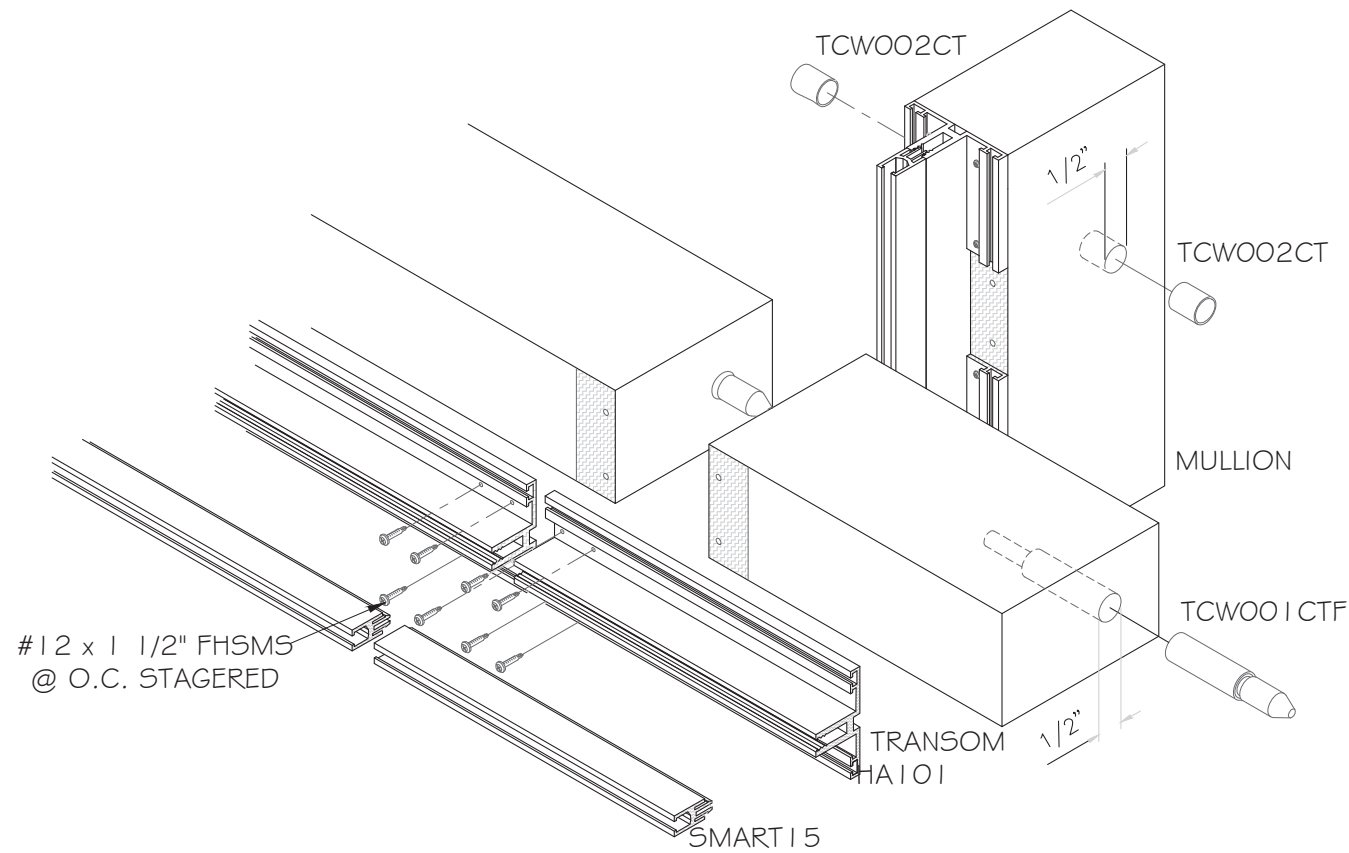
YIPING WANG
REGISTERED PROFESSIONAL ENGINEER
No. 55983
C.A.N. 33027
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Sep. 28th, 2026

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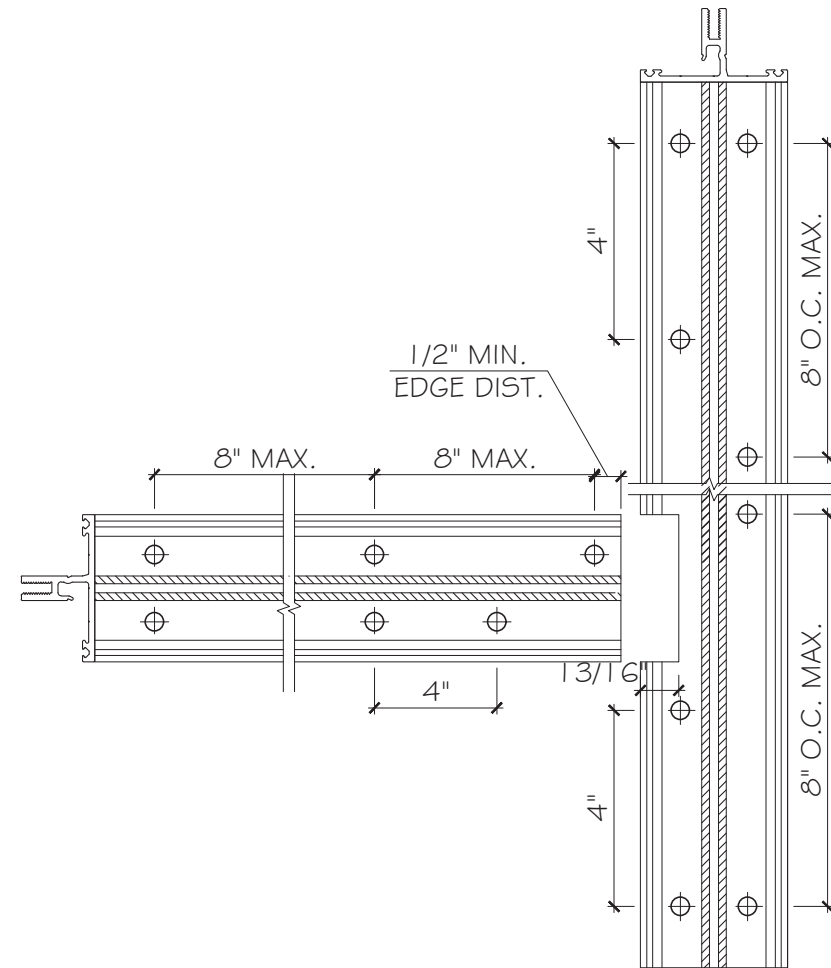
DETAIL
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H
6

DETAIL
HORIZONTAL TO
VERTICAL CONNECTION



A
6

SECTION

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ASSEMBLY	
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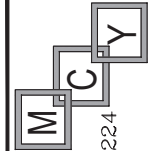
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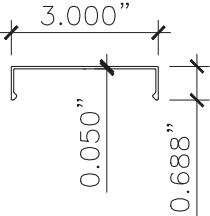
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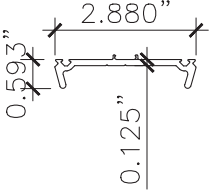
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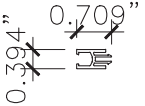
1 CTW3750 WOOD MULLION
DOUGLASS-FIR LAM.
E= 1800 KSI
Fbx=2400 PSI (MIN.), Fby= 1450 PSI (MIN.)
Fv=265 psi



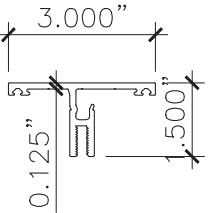
2 CTW332 6063-T6 ALUM



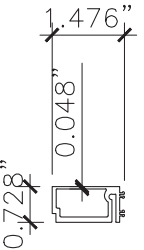
3 CTW330 6063-T6 ALUM



4 SMRTB15



5 CTW334 6063-T6 ALUM



6 SMP002 POCKET FILLER 6063-T6 ALUM



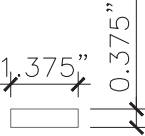
7 SILICONE SEALANT DC995



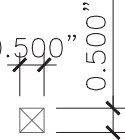
8 NORTON TAPE @SSG MULLION



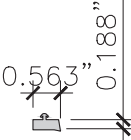
9 BUTYL TAPE 1/4"x1/16"



10 EPDM SETTING BLOCK



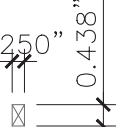
11 FOAM TAPE



12 CTWB115 GASKET



13 HEX HEAD ST/ST. #14 X 2" HH SCREW



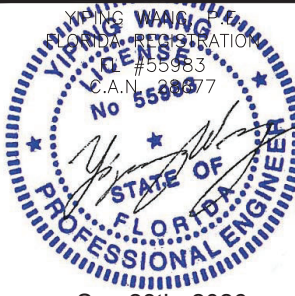
14 FOAM TAPE



15 STEEL PIN TCWOO1CTF

BILL OF MATERIAL					
ITEM	PART NUMBER	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER/SUPPLIER/REMARKS
1	CTW3750	HEAD / SILL ,MALE JAMB	7.500 x 3.000	WOOD	DOUGLASS-FIR LAM.
2	CTW332	FACE CAP	3.000 x 0.688	6063-T6 ALUM	BONNELL ALUMINUM EXTRUSION COMPANY
3	CTW330	PRESSURE PLATE	2.880 x 0.593	6063-T6 ALUM	BONNELL ALUMINUM EXTRUSION COMPANY
4	SMRTB15	THERMAL BREAK	0.709 x 0.394	---	---
5	CTW334	CURTAIN WALL NOSING	3.000 x 1.500	6063-T6 ALUM	BONNELL ALUMINUM EXTRUSION COMPANY
6	SMP002	POCKET CLOSER	1.476 x 0.728	6063-T6 ALUM	BONNELL ALUMINUM EXTRUSION COMPANY
7	DC995	SILICONE SEALANT		SILICONE	DOW CORNING
8	---	NORTON TAPE	0.250 x 0.250	---	NORTON
9	---	BUTYL TAPE	0.250 x 0.063	RUBBER	---
10	---	SETTING BLOCK	1.375 x 0.375	EPDM	REED RUBBER PRODUCTS, DUROMETER +/- 60 SHORE A
11	---	FOAM TAPE	0.500 x 0.500	---	---
12	CTWB115	EXTERIOR GLAZING GASKET	.188 SPACE	EPDM	REED RUBBER PRODUCTS, DUROMETER +/- 60 SHORE A
13	AS REQ.	#14 X 2" HH SS AT 8" O.C. MAX.	#14 X 2"	ST/ST	Fy=65 KSI MIN. Fu= 100 KSI MIN.
14	---	FOAM TAPE	0.438 x 0.250	---	---
15	TCWOO1CTF	STEEL PIN	---	---	---
16	---	ALUMINUM SPACER	---	ALUMINUM	VARIES

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