



Product Approval
USER: Public User

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OFFICE OF THE
SECRETARY

FL # FL21632-R4
Application Type Revision
Code Version 2023
Application Status Approved

Comments
Archived ☐

Product Manufacturer Eco Window Systems
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Quality Assurance Representative
Address/Phone/Email

Category Panel Walls
Subcategory Storefronts

Compliance Method Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer
☐ Evaluation Report - Hardcopy Received

Florida Engineer or Architect Name who developed the Evaluation Report A. Lynn Miller, P.E.
Florida License PE-58705
Quality Assurance Entity Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date 12/31/2032
Validated By Steven M. Urich, PE
☒ Validation Checklist - Hardcopy Received

Certificate of Independence [FL21632_R4_COI_Cert of Independence.pdf](#)

Referenced Standard and Year (of Standard)	Standard	Year
	AAMA 501	2015
	ANSI Z97.1	2014
	TAS 201	1994
	TAS 202	1994
	TAS 203	1994

Equivalence of Product Standards Certified By Florida Licensed Professional Engineer or Architect

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

10/19/2023

Date Validated

10/20/2023

Date Pending FBC Approval

10/28/2023

Date Approved

12/13/2023

Summary of Products

FL #	Model, Number or Name	Description
21632.1	Series 1050 Window Wall System	Large missile impact resistant, aluminum window wall system
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_WW1050FPA - LMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_WW1050LMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No
21632.2	Series 1050 Window Wall System	Small missile impact resistant, aluminum window wall system
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_WW1050FPA - SMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_WW1050SMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No
21632.3	Series 2500 Narrow Window Wall System	Large missile impact resistant, aluminum window wall system
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_2500-NARROW-FPA - LMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_WW2500LMI ENG EVAL - REV A2.pdf Created by Independent Third Party: No
21632.4	Series 2500 Narrow Window Wall System	Small missile impact resistant, aluminum window wall system
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_2500-NARROW-FPA - SMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_WW2500SMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No
21632.5	Series 400 Window Wall System	Large missile impact resistant, aluminum window wall system with window inserts.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_WW400FPA - LMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_ECO_WW400LMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No
21632.6	Series 400 Window Wall System	Small missile impact resistant, aluminum window wall system with window inserts.

Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_WW400FPA - SMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_ECO_WW400SMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No
21632.7	Series 450 Window Wall System	Large missile impact resistant, aluminum window wall system
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_WW450FPA - LMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_ECO_WW450LMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No
21632.8	Series 450 Window Wall System	Small missile impact resistant, aluminum window wall system
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: Please see the enclosed documents for product performance information, anchorage details, and anchor type, size, and spacing information.		Installation Instructions FL21632_R4_II_WW450FPA - SMI - REV A1.pdf Verified By: A. Lynn Miller, P.E. PE-58705 Created by Independent Third Party: No Evaluation Reports FL21632_R4_AE_ECO_WW450SMI ENG EVAL - REV A1.pdf Created by Independent Third Party: No

[Back](#)
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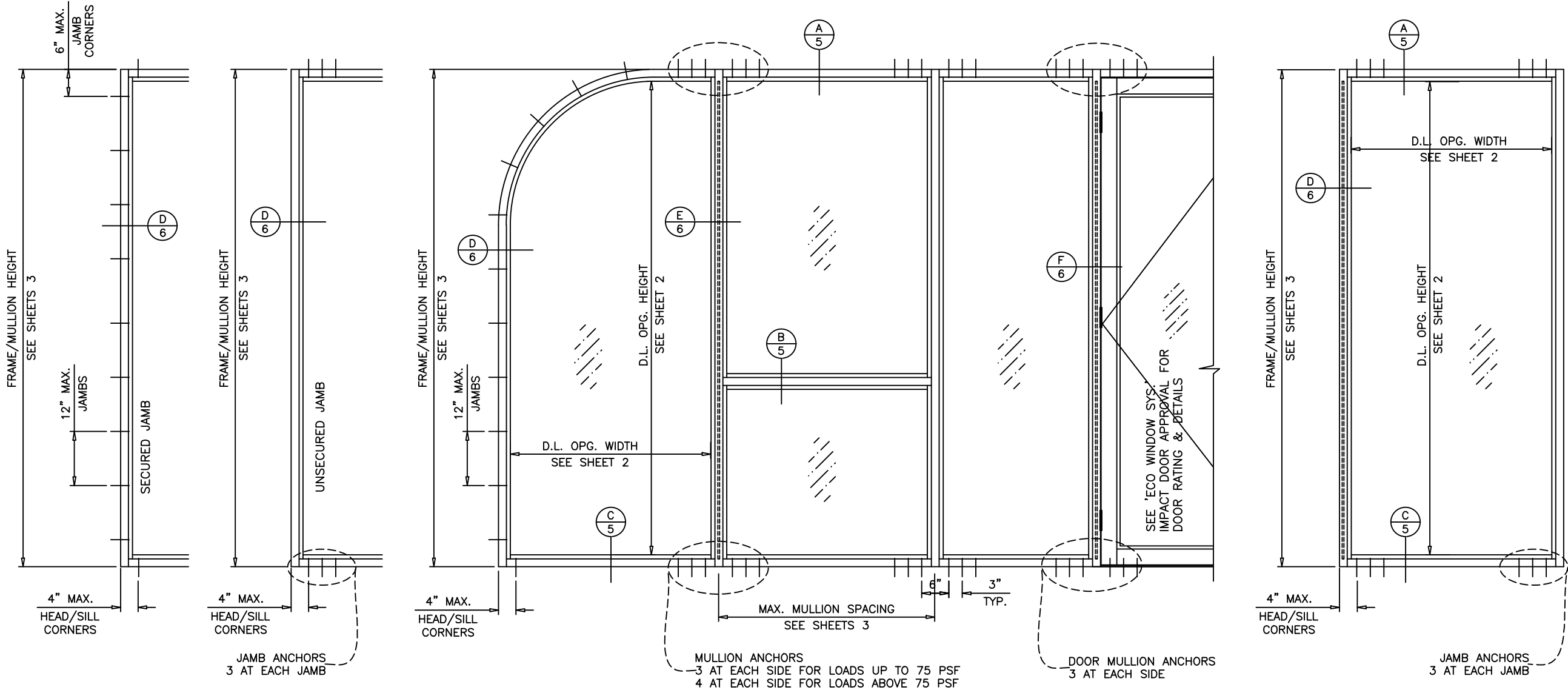
Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Product Approval Accepts:





SERIES 450 ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM MAY BE USED IN CONJUNCTION WITH FBC APPROVED LARGE MISSILE IMPACT RESISTANT DOORS.

LOWER DESIGN PRESSURE FROM WINDOW WALL OR DOOR APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT AS LISTED, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

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

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

TYPICAL ELEVATION

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** CHECK GLASS CAPACITY TABLE ON SHEET 2 FOR GLASS TYPE, GLASS DIMENSIONS (WIDTH & HEIGHT) AND PRESSURE CAPACITY. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 3** CHECK WINDOW WALL SYSTEM CAPACITY FOR DESIRED HEIGHT AND MULLION SPACING USING CHARTS ON SHEETS 3. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** FOR SYSTEM WITH UNANCHORED JAMBS, USING SHEET 6 DETERMINE THE MIN. & MAX. GAP DIMENSIONS.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.
- STEP 6** WHEN USING THIS SYSTEM WITH DOORS, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE DOOR SHALL APPLY.

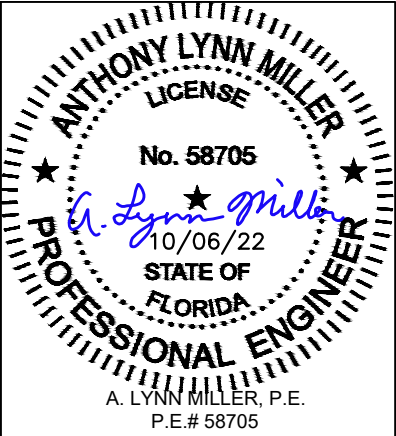
THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

LARGE MISSILE IMPACT

ALL TEMPERED AND/OR LAMINATED GLASS OPTIONS IN THIS APPROVAL HAVE BEEN CERTIFIED BY THE SGCC FOR COMPLIANCE TO ANSI Z97.1, CLASS A AND CPSC 16 CFR 1201, CATEGORY II. THIS INCLUDES LAMINATED GLASS THAT IS MANUFACTURED WITH ANNEALED GLASS PLIES. FOR APPLICATIONS WHERE THE WINDOW IS BEING USED AS A GUARD, HEAT STRENGTHENED OR TEMPERED LAMINATED GLASS MUST BE USED.

Revision:

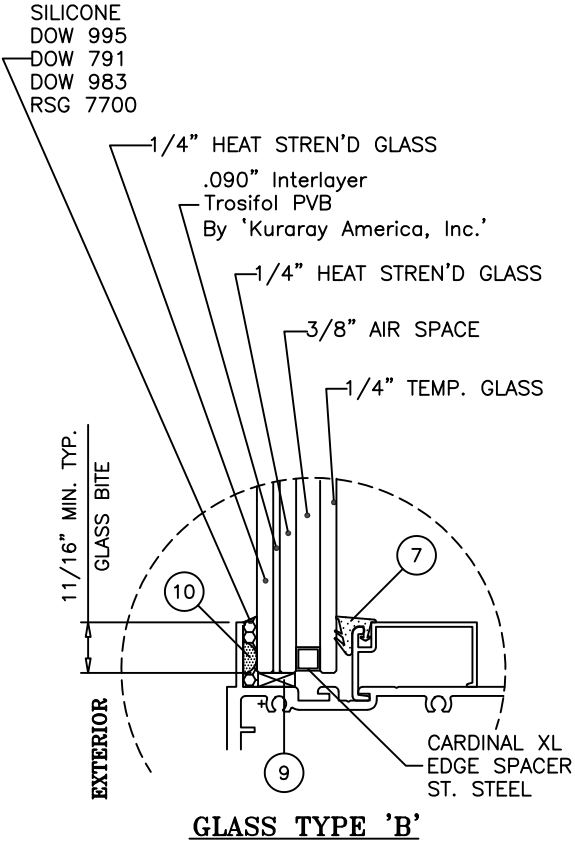
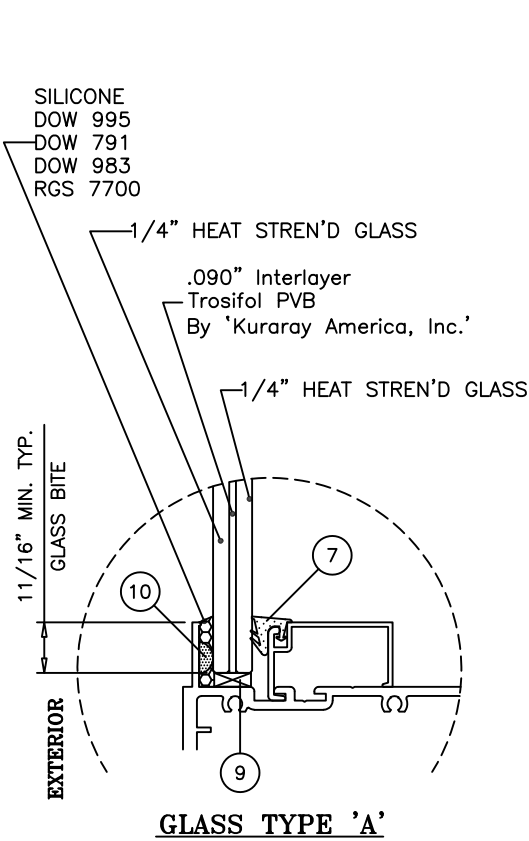
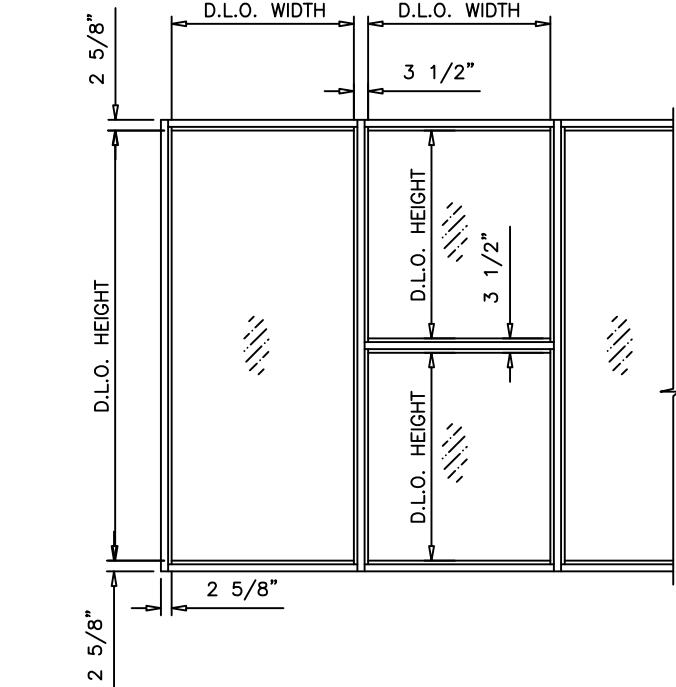
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600 REGISTRATION #29296	10/3/2022	Date	HONG C.	By	Dwg	No	1 OF 9	Sheet	Series	Desc.	Title



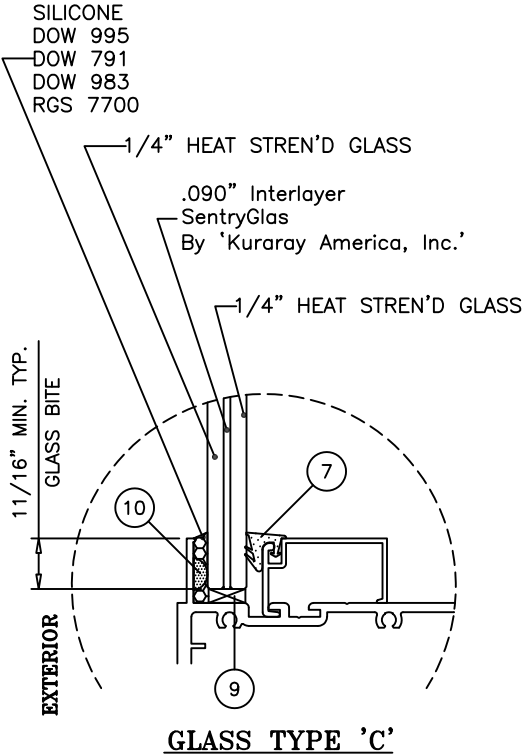
GLASS LOAD CAPACITY – PSF					
NOMINAL DIMS.		GLASS TYPES 'A' & 'B'		GLASS TYPE 'C'	
D.L.O. WIDTH	D.L.O. HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
30–3/4"	78–3/4"	70.0	75.0	80.0	90.0
33–3/4"		70.0	75.0	80.0	90.0
36–3/4"		70.0	75.0	80.0	90.0
39–3/4"		70.0	75.0	80.0	90.0
42–3/4"		70.0	75.0	80.0	90.0
45–3/4"		65.9	70.6	80.0	90.0
48–3/4"		62.2	66.7	80.0	90.0
51–3/4"		58.9	63.2	80.0	90.0
54–3/4"	84–3/4"	56.0	60.0	80.0	90.0
57–3/4"		–	–	76.2	85.7
60–3/4"		–	–	72.7	81.8
30–3/4"		70.0	75.0	80.0	90.0
33–3/4"		70.0	75.0	80.0	90.0
36–3/4"		70.0	75.0	80.0	90.0
39–3/4"		70.0	75.0	80.0	90.0
42–3/4"		70.0	75.0	80.0	90.0
45–3/4"		70.0	75.0	80.0	90.0
48–3/4"	90–3/4"	65.9	70.6	80.0	90.0
51–3/4"		62.2	66.7	80.0	90.0
54–3/4"		58.9	63.2	80.0	90.0
57–3/4"		–	–	80.0	90.0
60–3/4"		–	–	76.2	85.7
30–3/4"		70.0	75.0	80.0	90.0
33–3/4"		70.0	75.0	80.0	90.0
36–3/4"		70.0	75.0	80.0	90.0
39–3/4"	96–3/4"	70.0	75.0	80.0	90.0
42–3/4"		70.0	75.0	80.0	90.0
45–3/4"		70.0	75.0	80.0	90.0
48–3/4"		65.9	70.6	80.0	90.0
51–3/4"		62.2	66.7	80.0	90.0
54–3/4"		–	–	80.0	90.0
57–3/4"		–	–	80.0	90.0
60–3/4"		–	–	80.0	90.0
30–3/4"	102–3/4"	70.0	75.0	–	–
33–3/4"		70.0	75.0	–	–
36–3/4"		70.0	75.0	–	–
39–3/4"		70.0	75.0	–	–
42–3/4"		70.0	75.0	–	–
45–3/4"		70.0	75.0	–	–
48–3/4"		70.0	75.0	–	–
51–3/4"		70.0	75.0	–	–

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300–09 (3 SEC. GUSTS).

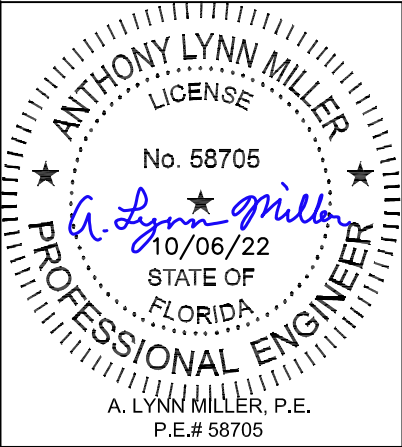
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLAZING OPTIONS



GLASS



PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296



ECO window systems
ECO WINDOW SYSTEMS, LLC.
8602 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)

GLASS CAPACITIES AND GLAZING
OPTIONS

SERIES 450

Date10/3/2022

ByHONG C.

Rev.A

WW450FPA - LMI

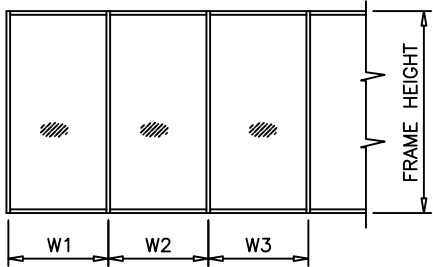
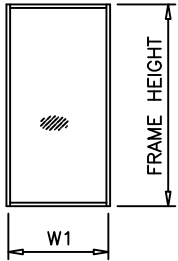
DWG

2 OF 9

Sheet

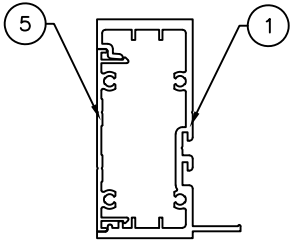
Revision:

JAMB & MULLION LOAD CAPACITY – PSF							
JAMBS & MULLIONS WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB ‘J1’		MULL ‘M1’		MULL ‘M2’	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
36”	84”	70.0	75.0	70.0	75.0	80.0	90.0
39”		70.0	75.0	70.0	75.0	80.0	90.0
42”		70.0	75.0	70.0	75.0	80.0	90.0
45”		70.0	75.0	70.0	75.0	80.0	90.0
48”		70.0	75.0	70.0	75.0	80.0	90.0
51”		70.0	75.0	70.0	75.0	80.0	90.0
54”		70.0	75.0	70.0	75.0	80.0	90.0
57”		70.0	75.0	–	–	80.0	90.0
60”	90”	70.0	75.0	–	–	80.0	90.0
63”		–	–	–	–	80.0	90.0
66”		–	–	–	–	80.0	90.0
36”		70.0	75.0	70.0	75.0	80.0	90.0
39”		70.0	75.0	70.0	75.0	80.0	90.0
42”		70.0	75.0	70.0	75.0	80.0	90.0
45”		70.0	75.0	70.0	75.0	80.0	90.0
48”		70.0	75.0	70.0	75.0	80.0	90.0
51”		70.0	75.0	70.0	75.0	80.0	90.0
54”		70.0	75.0	–	–	80.0	90.0
57”		70.0	75.0	–	–	80.0	90.0
60”		–	–	–	–	80.0	90.0
36”	96”	70.0	75.0	70.0	75.0	80.0	90.0
39”		70.0	75.0	70.0	75.0	80.0	90.0
42”		70.0	75.0	70.0	75.0	80.0	90.0
45”		70.0	75.0	70.0	74.5	80.0	90.0
48”		70.0	75.0	70.0	70.7	80.0	90.0
51”		70.0	75.0	–	–	80.0	90.0
54”		70.0	75.0	–	–	80.0	90.0
57”		–	–	–	–	80.0	86.9
58–3/4”		–	–	–	–	80.0	85.0
36”	102”	70.0	75.0	–	–	70.0	75.0
39”		70.0	75.0	–	–	70.0	75.0
42”		70.0	75.0	–	–	70.0	75.0
45”		70.0	75.0	–	–	70.0	75.0
48”		70.0	75.0	–	–	70.0	75.0
36”	108”	70.0	75.0	–	–	70.0	75.0
39”		70.0	75.0	–	–	70.0	75.0
42”		70.0	75.0	–	–	70.0	75.0
45”		70.0	75.0	–	–	70.0	75.0
48”		70.0	75.0	–	–	70.0	75.0

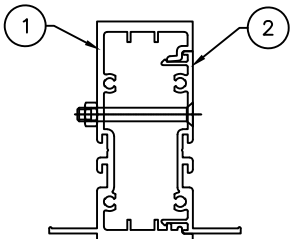


WIDTH (W) = W1
AT FRAME JAMB

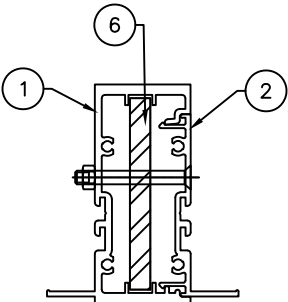
WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



UNSECURED JAMB ‘J1’



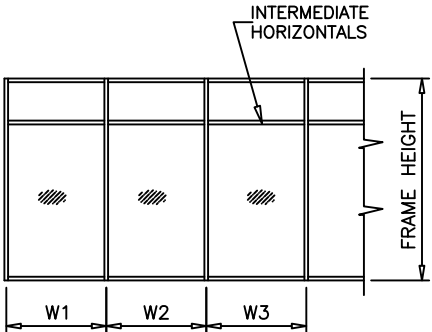
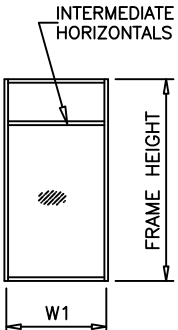
MULLION ‘M1’



MULLION ‘M2’

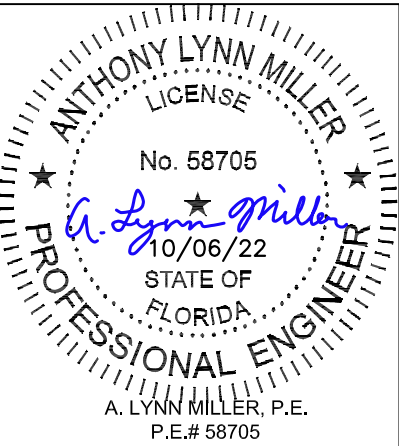
MULLION

JAMB & MULLION LOAD CAPACITY – PSF							
JAMBS & MULLIONS WITH INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB ‘J1’		MULL ‘M1’		MULL ‘M2’	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
36”	84”	70.0	75.0	70.0	75.0	80.0	90.0
39”		70.0	75.0	70.0	75.0	80.0	90.0
42”		70.0	75.0	70.0	75.0	80.0	90.0
45”		70.0	75.0	70.0	75.0	80.0	90.0
48”		70.0	75.0	70.0	75.0	80.0	90.0
51”		70.0	75.0	70.0	75.0	80.0	90.0
54”		70.0	75.0	70.0	75.0	80.0	90.0
57”		70.0	75.0	–	–	80.0	90.0
60”	90”	70.0	75.0	–	–	80.0	90.0
63”		–	–	–	–	80.0	90.0
66”		–	–	–	–	80.0	86.7
36”		70.0	75.0	70.0	75.0	80.0	90.0
39”		70.0	75.0	70.0	75.0	80.0	90.0
42”		70.0	75.0	70.0	75.0	80.0	90.0
45”		70.0	75.0	70.0	75.0	80.0	90.0
48”		70.0	75.0	70.0	75.0	80.0	90.0
51”		70.0	75.0	70.0	73.0	80.0	90.0
54”		70.0	75.0	–	–	80.0	90.0
57”		70.0	75.0	–	–	80.0	87.5
60”		–	–	–	–	80.0	83.1
36”	96”	70.0	75.0	70.0	75.0	80.0	90.0
39”		70.0	75.0	70.0	75.0	80.0	90.0
42”		70.0	75.0	70.0	73.1	80.0	90.0
45”		70.0	75.0	68.2	68.2	80.0	90.0
48”		70.0	75.0	63.9	63.9	80.0	90.0
51”		70.0	75.0	–	–	80.0	85.9
54”		70.0	75.0	–	–	80.0	81.1
57”		–	–	–	–	76.9	76.9
58–3/4”		–	–	–	–	74.6	74.6
36”	102”	70.0	75.0	–	–	70.0	75.0
39”		70.0	75.0	–	–	70.0	75.0
42”		70.0	75.0	–	–	70.0	75.0
45”		70.0	75.0	–	–	70.0	75.0
48”		70.0	75.0	–	–	70.0	75.0
36”	108”	70.0	75.0	–	–	70.0	75.0
39”		70.0	75.0	–	–	70.0	75.0
42”		70.0	75.0	–	–	70.0	75.0
45”		70.0	75.0	–	–	70.0	75.0
48”		70.0	72.7	–	–	70.0	72.7



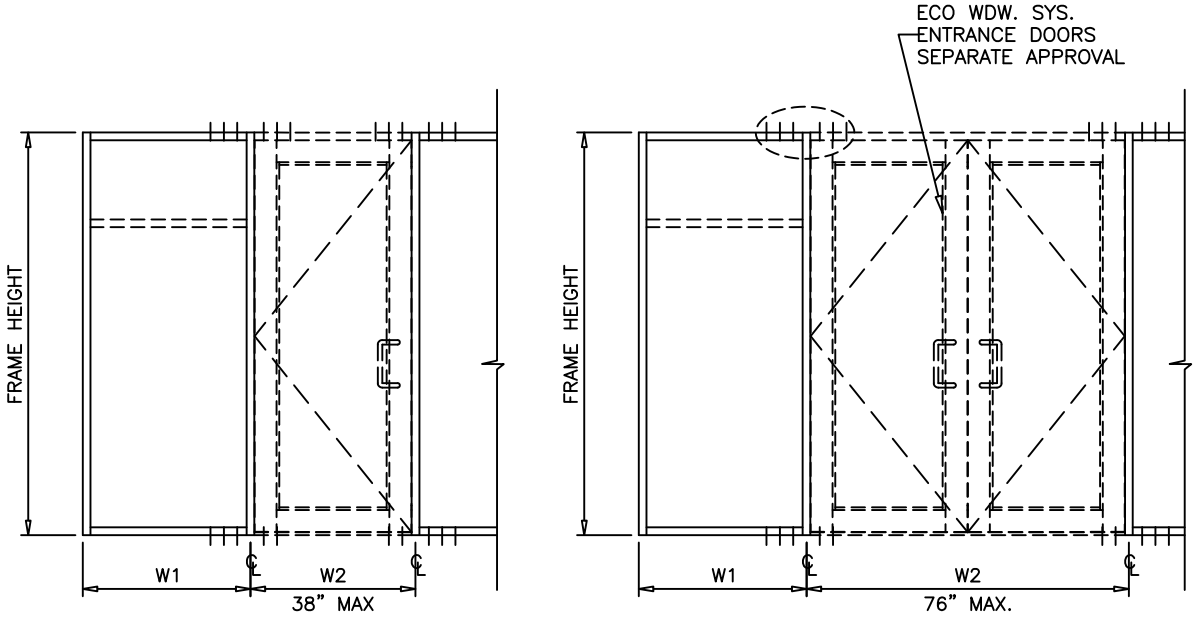
WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



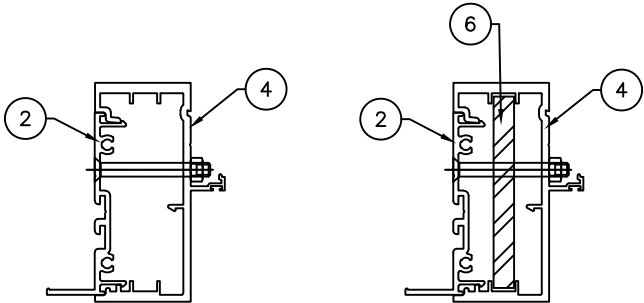
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		REGISTRATION #29296		10/3/2022		A	
ECO WINDOW SYSTEMS, LLC. 8602 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902		HONG C.		Date		Rev.	
SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)		By		HONG C.		WW450FPA - LMI	
MULLION CAPACITIES		Dwg		3 OF 9		A	
SERIES 450		Sheet		3 OF 9		A	

DOOR MULLION LOAD CAPACITY – PSF					
NOMINAL DIMS.		WITHOUT REINF.		WITH REINF.	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
37"	84"	70.0	75.0	70.0	75.0
38–1/2"		70.0	75.0	70.0	75.0
40"		70.0	75.0	70.0	75.0
41–1/2"		70.0	75.0	70.0	75.0
43"		70.0	75.0	70.0	75.0
44–1/2"		70.0	75.0	70.0	75.0
46"		70.0	75.0	70.0	75.0
47–1/2"		70.0	75.0	70.0	75.0
49"		70.0	74.8	70.0	75.0
37"	90"	70.0	75.0	70.0	75.0
38–1/2"		70.0	75.0	70.0	75.0
40"		70.0	75.0	70.0	75.0
41–1/2"		70.0	75.0	70.0	75.0
43"		70.0	74.3	70.0	75.0
44–1/2"		70.0	71.8	70.0	75.0
46"		–	–	70.0	75.0
47–1/2"		–	–	70.0	75.0
49"		–	–	70.0	75.0
37"	96"	70.0	74.0	70.0	75.0
38–1/2"		70.0	71.1	70.0	75.0
40"		68.5	68.5	70.0	75.0
41–1/2"		66.0	66.0	70.0	75.0
43"		63.7	63.7	70.0	75.0
44–1/2"		–	–	70.0	75.0
46"		–	–	70.0	75.0
47–1/2"		–	–	70.0	75.0
37"	102"	–	–	70.0	75.0
38–1/2"		–	–	70.0	75.0
40"		–	–	70.0	75.0
41–1/2"		–	–	70.0	75.0
43"		–	–	70.0	75.0
44–1/2"		–	–	70.0	75.0
37"	108"	–	–	70.0	75.0
38–1/2"		–	–	70.0	75.0
40"		–	–	70.0	75.0
41–1/2"		–	–	70.0	75.0
43"		–	–	70.0	75.0



WIDTH (W) = $\frac{W1 + W2}{2}$

WIDTH (W) = $\frac{W1}{2} + \frac{W2}{4}$



DOOR MULLION
WITHOUT REINF.

DOOR MULLION
WITH REINF.

DOOR MULLION

Revision:

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

ECO WINDOW SYSTEMS, LLC.
8502 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)

10/3/2022

Date

HONG C.

By

WW450FPA - LMI

DWG No.

4 OF 9

Sheet

SERIES 450

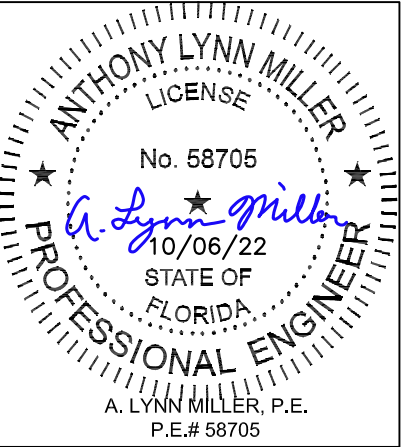
Series

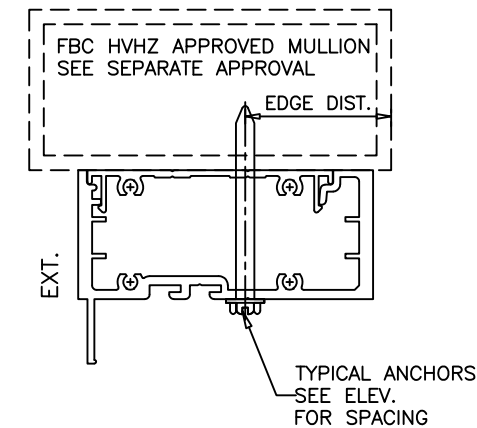
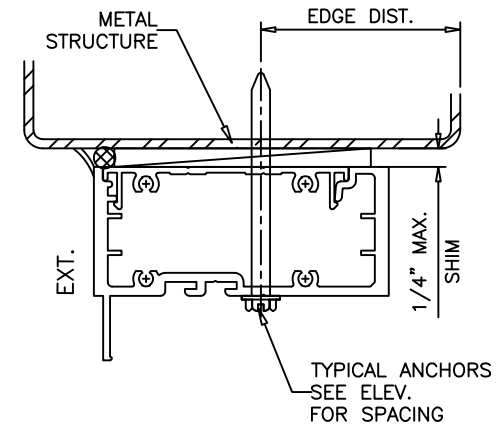
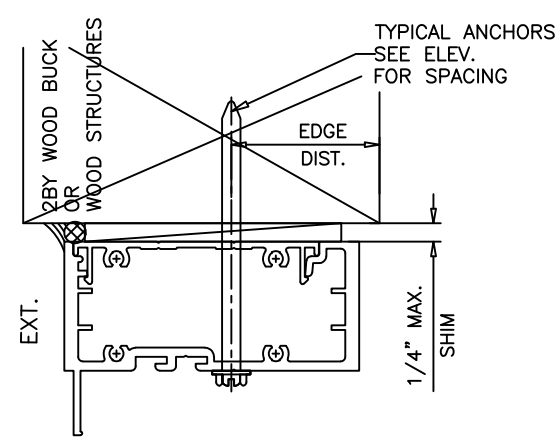
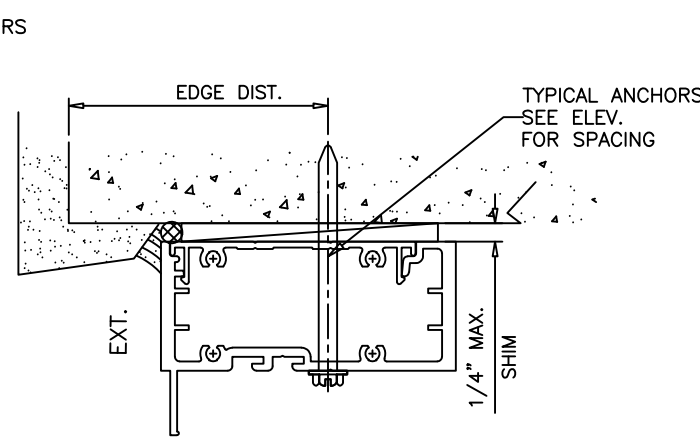
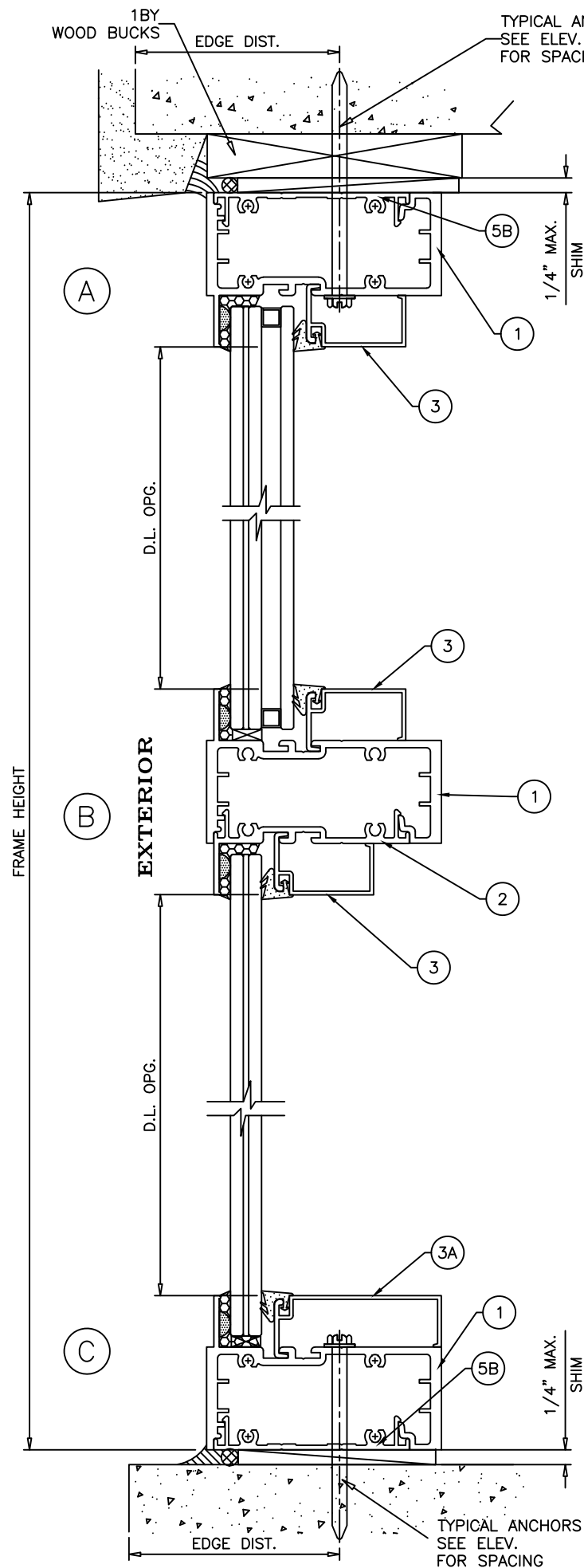
DOOR MULLION CAPACITIES

Desc.

A

Rev.





WOOD BUCKS AND METAL STRUCTURE NOT BY ECO WINDOWS
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY WOOD BUCKS INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

#14 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)

INTO FBC APPROVED MULLIONS

OR

INTO METAL STRUCTURES

(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE

STEEL : 1/8" THK. MIN. (Fy = 36 KSI MIN.)

ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCES

INTO CONCRETE AND BLOCKS = 2-1/2" MIN.

INTO WOOD STRUCTURE = 1" MIN.

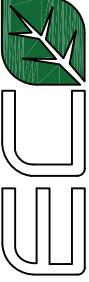
INTO METAL STRUCTURE = 3/4" MIN.

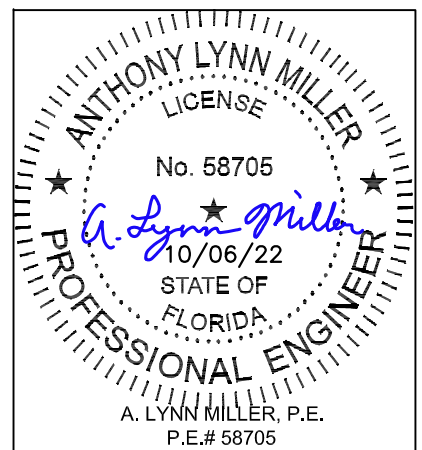
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.

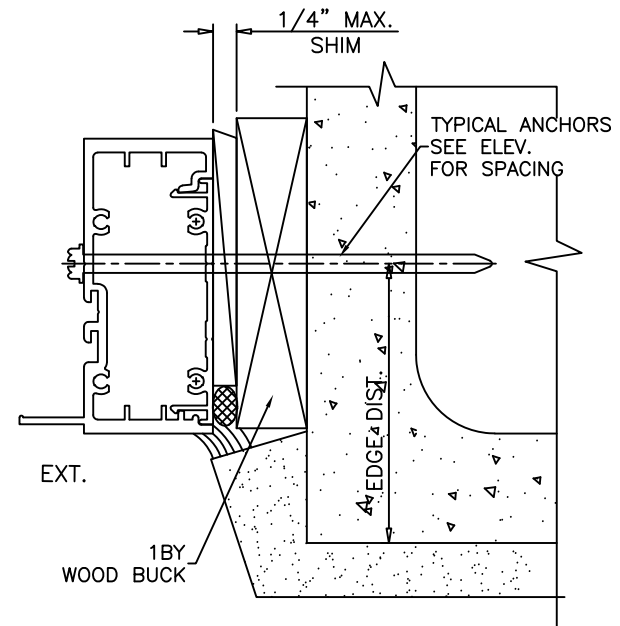
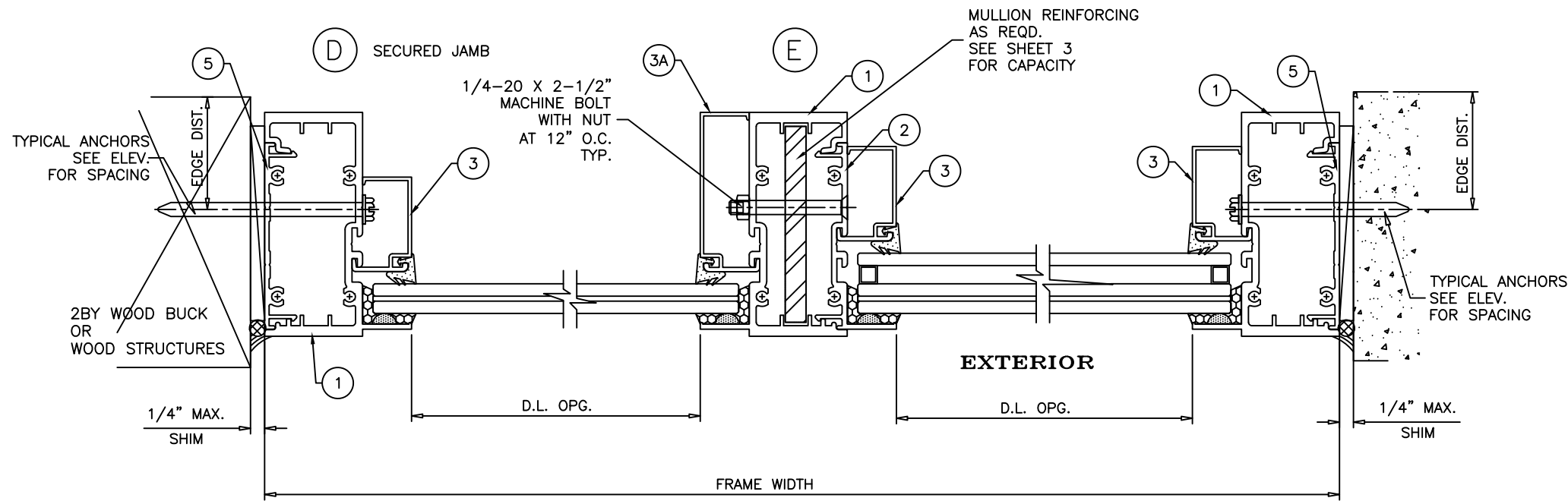
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.

C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

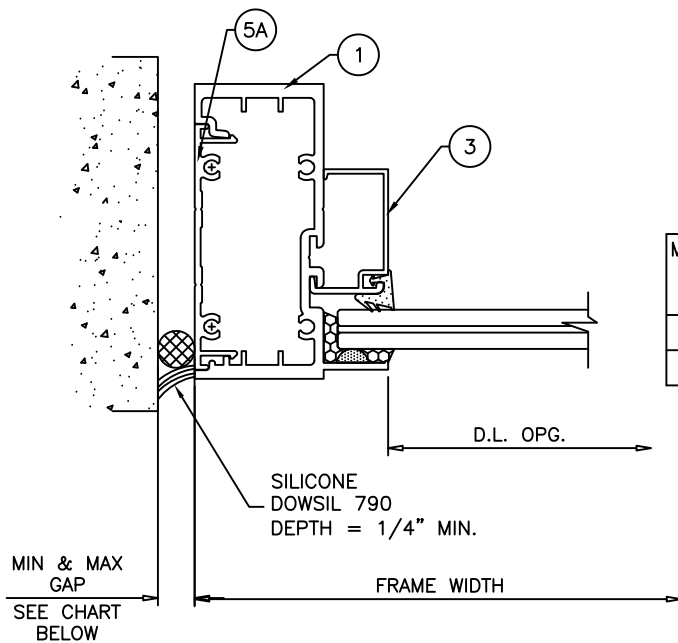
Revision:

 eco window systems ECO WINDOW SYSTEMS, LLC. 8502 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600			
	REGISTRATION #29296			
Title	SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)		Date	10/3/2022
	VERTICAL CROSS SECTIONS AND ANCHOR SPECIFICATIONS		By Drawn	HONG C.
	SERIES 450	5 OF 9	DWG No.	WW450FPA - LMI
	Series	Sheet	Rev. A	

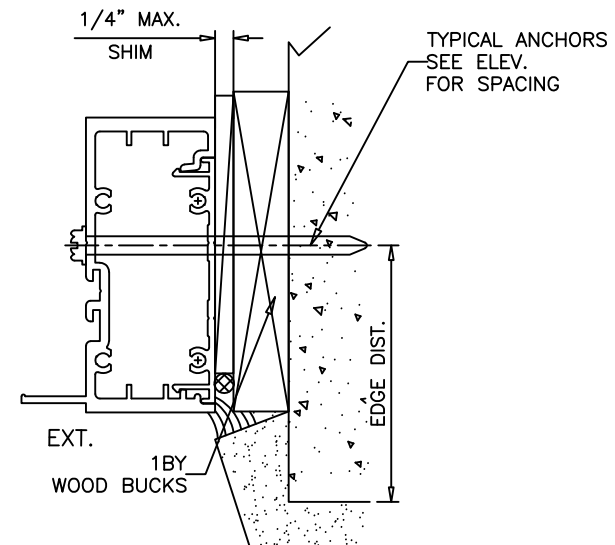
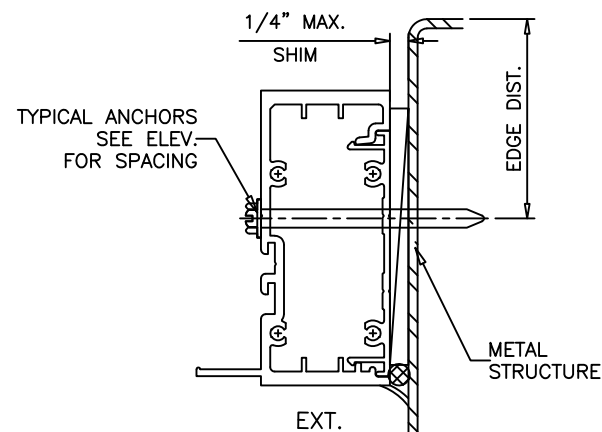




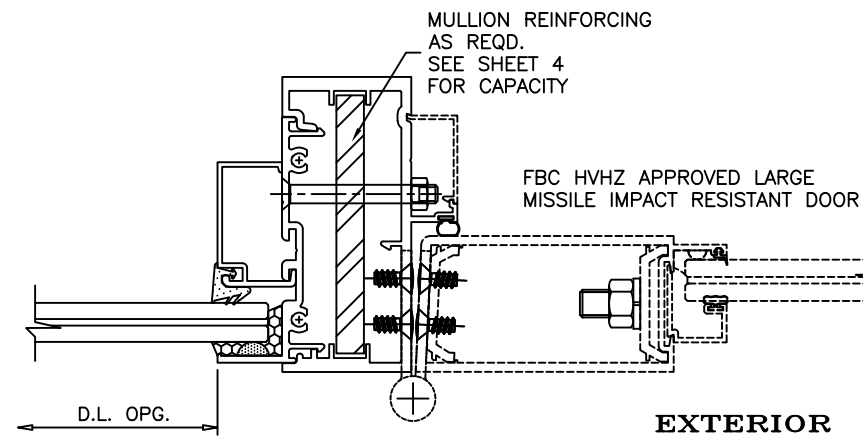
D UNSECURED JAMB



MAX. FRAME HEIGHT UP TO	GAP	
	MIN.	MAX.
96	5/16"	3/4"
120	3/8"	3/4"



F



SEE SEPARATE APPROVAL FOR DESIGN LOAD CAPACITY OF DOORS AND DOOR ANCHORS

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

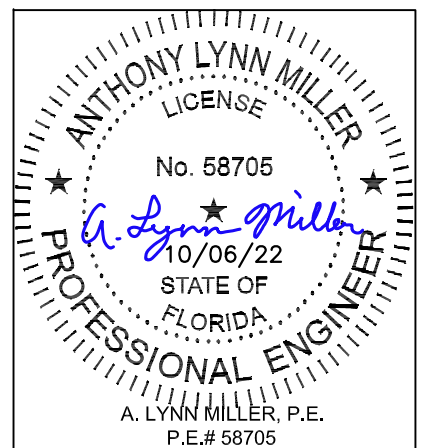
NOTE:
MAX. MOVEMENT CONSIDERED = 100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOW WALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.

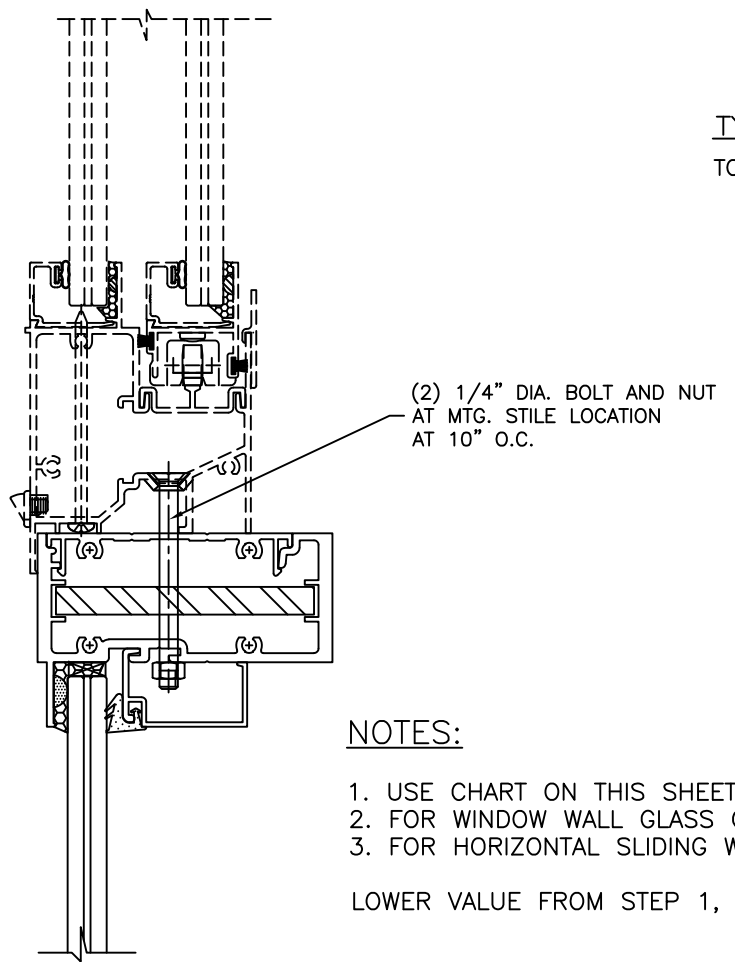
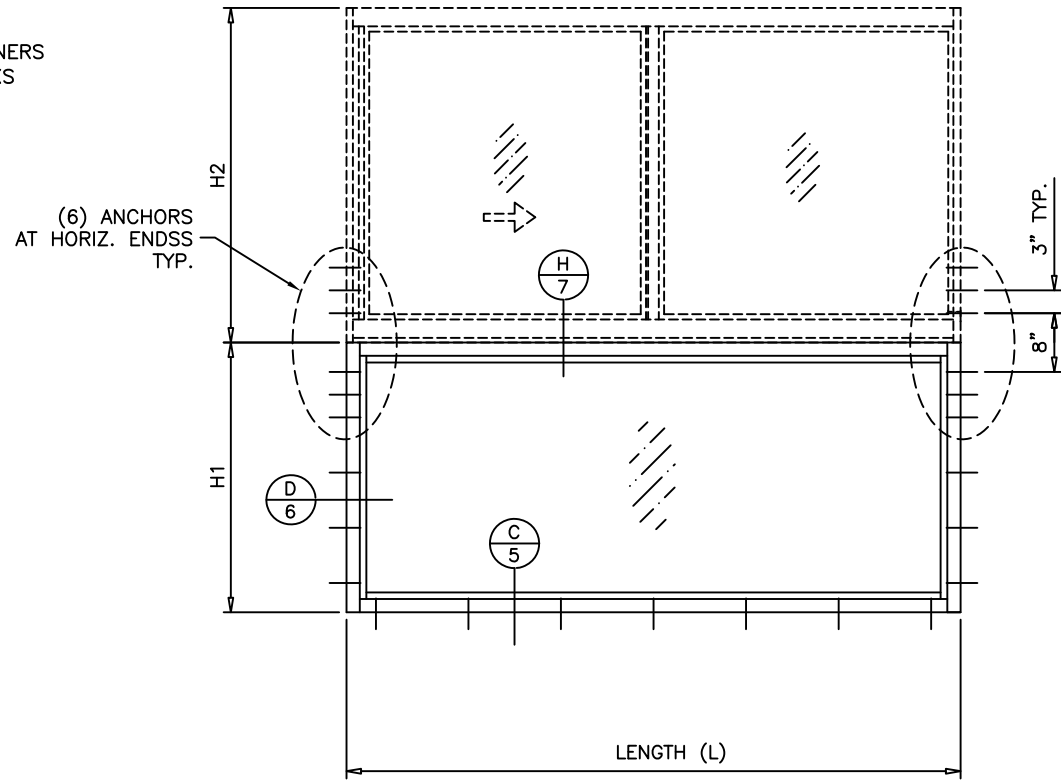
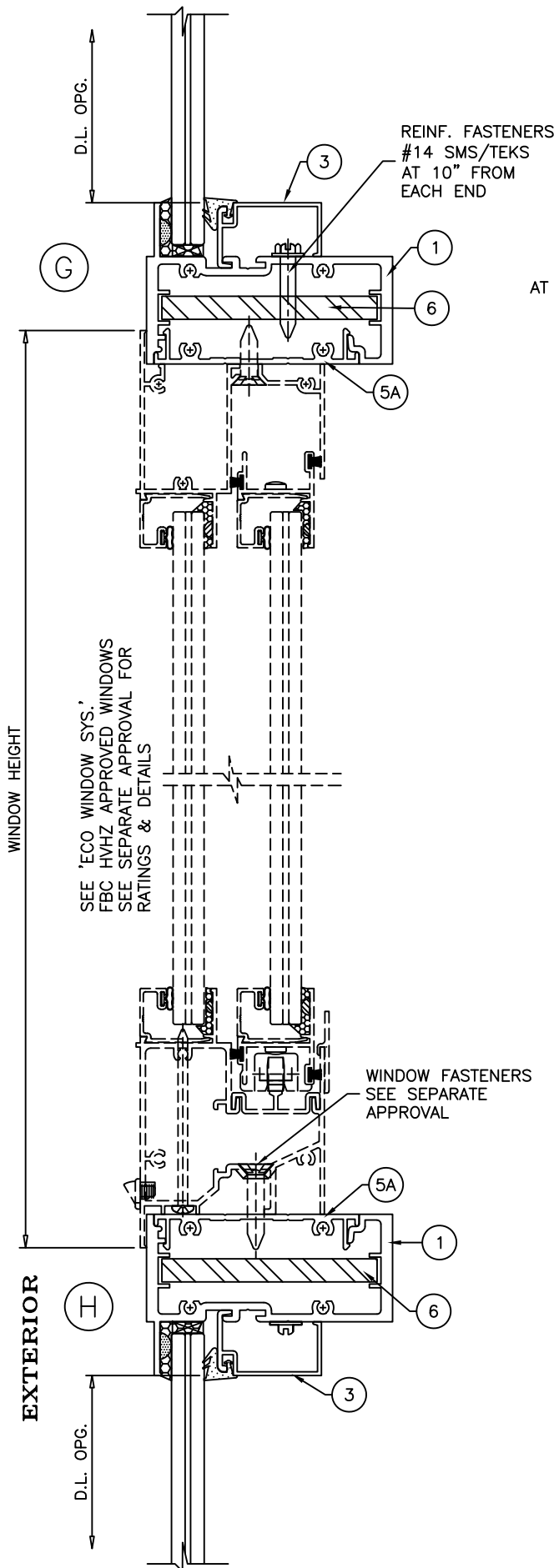
ALTERNATIVE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OR RECORD BASED ON MANUFACTURER GUIDELINES.

GAP LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OR RECORD BY THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.

Revision:

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	10/3/2022	HONG C.	WW450FPA - LMI	A
ECO WINDOW SYSTEMS, LLC. 8602 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)	HORIZONTAL CROSS SECTIONS	6 OF 9	SERIES 450	A



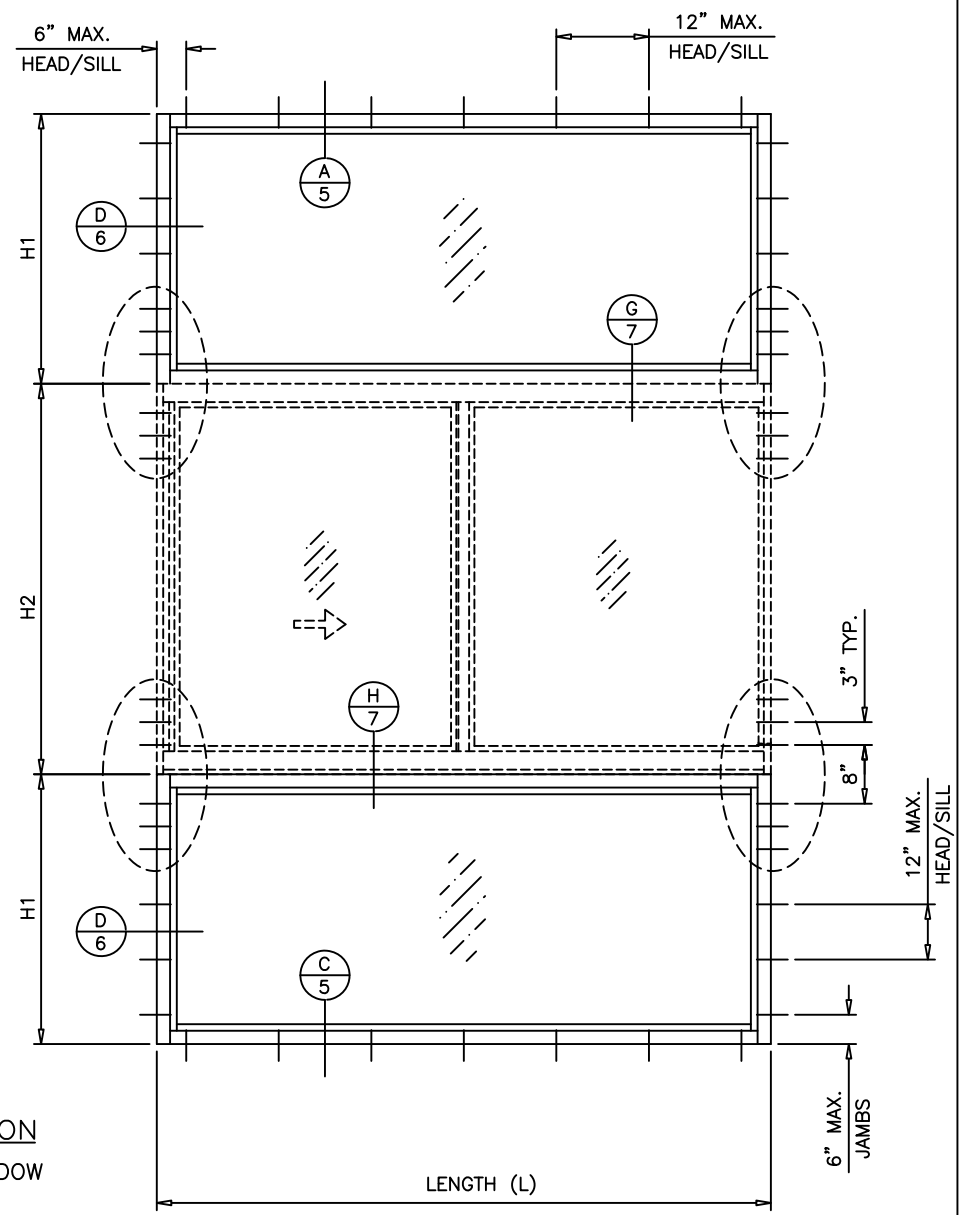


TYPICAL ELEVATION
TOP OR BOTTOM WINDOW

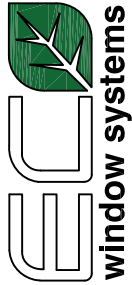
$$\text{HEIGHT (H)} = \frac{H1 + H2}{2}$$

NOTES:

1. USE CHART ON THIS SHEET FOR WINDOW WALL HORIZONTAL LOAD CAPACITY.
 2. FOR WINDOW WALL GLASS CAPACITY, SEE CHART ON SHEET 2.
 3. FOR HORIZONTAL SLIDING WINDOW LOAD CAPACITY, SEE SEPARATE APPROVAL.
- LOWER VALUE FROM STEP 1, 2, OR 3 WILL APPLY TO ENTIRE SYSTEM.



HORIZONTAL LOAD CAPACITY - PSF			
NOMINAL DIMS.		HORIZONTAL MULLION	
HEIGHT (H)	LENGTH (L)	POS. (+)	NEG. (-)
57"	84"	80.0	90.0
60"		80.0	90.0
63"		80.0	90.0
66"		80.0	90.0
69"		80.0	90.0
54"	90"	80.0	90.0
57"		80.0	90.0
60"		80.0	90.0
63"		80.0	90.0
54"	96"	80.0	90.0
57"		80.0	88.9
60"		80.0	85.0

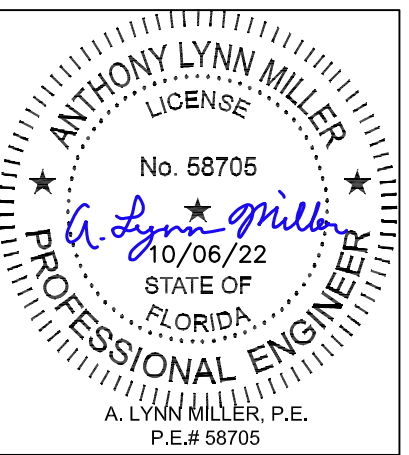


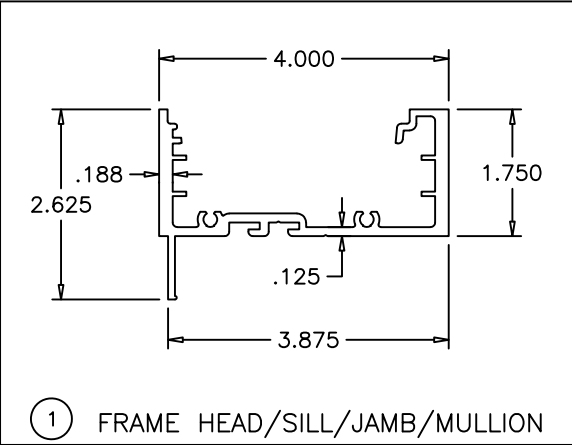
ECO WINDOW SYSTEMS, LLC.
8602 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

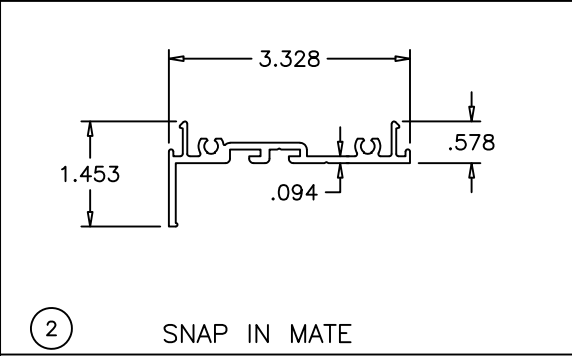
REGISTRATION #29296

Series	Desc.	Title	Date	Rev.
SERIES 450	HORIZONTAL MULLION DETAILS AND LOAD CAPACITY	SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)	10/3/2022	A
7 OF 9	Sheet	WW450FPA - LMI		

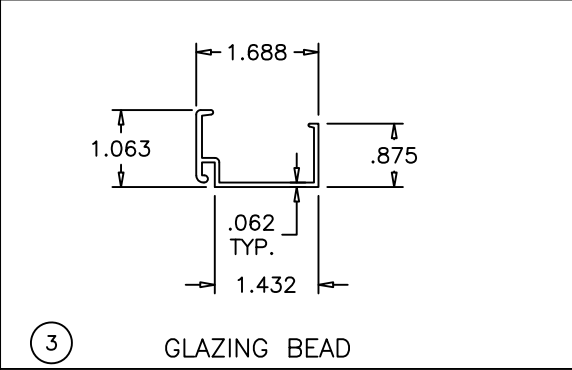




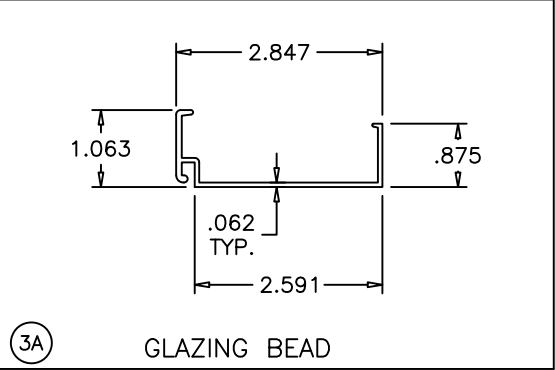
1 FRAME HEAD/SILL/JAMB/MULLION



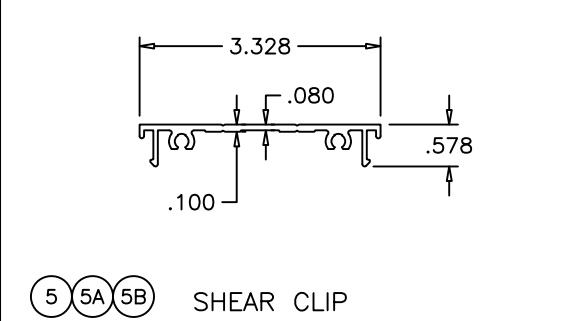
2 SNAP IN MATE



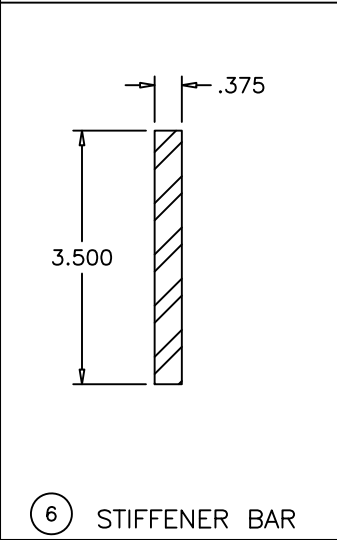
3 GLAZING BEAD



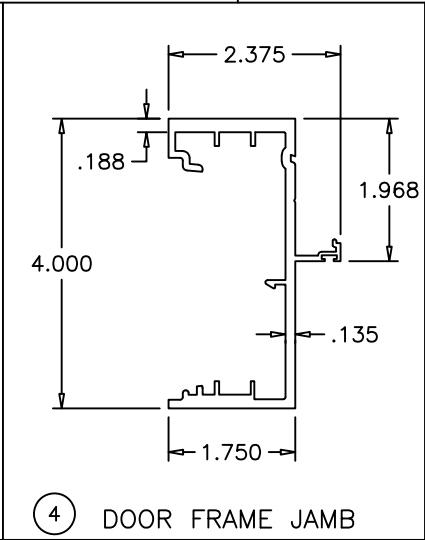
3A GLAZING BEAD



5 5A 5B SHEAR CLIP



6 STIFFENER BAR

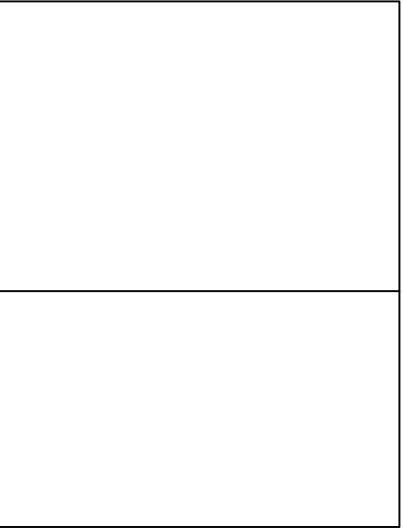


4 DOOR FRAME JAMB

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	451	AS REQD.	FRAME HEAD/SILL/JAMB/MULLION	6063 — T6	—
2	452	AS REQD.	SNAP-IN MATE	6063 — T6	—
3	UW-404	AS REQD.	GLAZING BEAD	6063 — T6	—
3A	E458	AS REQD.	GLAZING BEAD	6063 — T6	—
4	454	AS REQD.	DOOR FRAME JAMB	6063 — T6	—
5	453	AS REQD.	SHEAR CLIP, 3-3/4" LONG AT JAMB ANCHORS	6063 — T6	—
5A	453	AS REQD.	SHEAR CLIP, FULL LENGTH	6063 — T6	—
5B	453	AS REQD.	SHEAR CLIP, LENGTH VARIES TO COVER ANCHOR SPACINGS	6063 — T6	—
6	—	AS REQD.	STIFFENER BAR	GALV. STEEL	—
7	UW-406	AS REQD.	GLAZING GASKET	NEOPRENE	DUROMETER 55±5 SHORE A
8	#12 X 1-1/4"	4/ CORNER	FRAME ASSEMBLY SCREW	—	PH SMS
9	—	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (3/16" X 1/2" X 2" LONG)	EPDM	DUROMETER 80±5 SHORE A
10	—	AS REQD.	GLASS SPACER	SILICONE	FRANK LOWE

SEALANTS:

ALL FRAME JOINTS AND SEAMS SEALED WITH SCHNEE-MOREHEAD SM5504 ACRYL-R SEAM SEALER.



Revision:

PREPARED BY A. LYNN MILLER
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REGISTRATION #29296

ECO WINDOW SYSTEMS, LLC.
8602 N.W. 80th ST. MEDLEY, FL 33166
TEL. (305) 885-5299 FAX. (305) 885-5902

SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)

EXTRUSIONS AND BOM

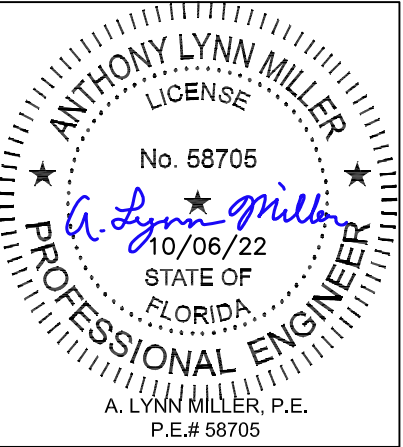
SERIES 450

HONG C.

WW450FPA - LMI

8 OF 9

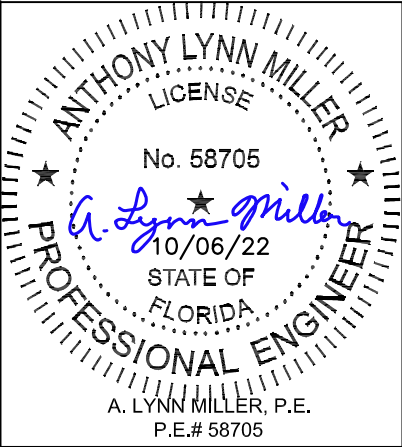
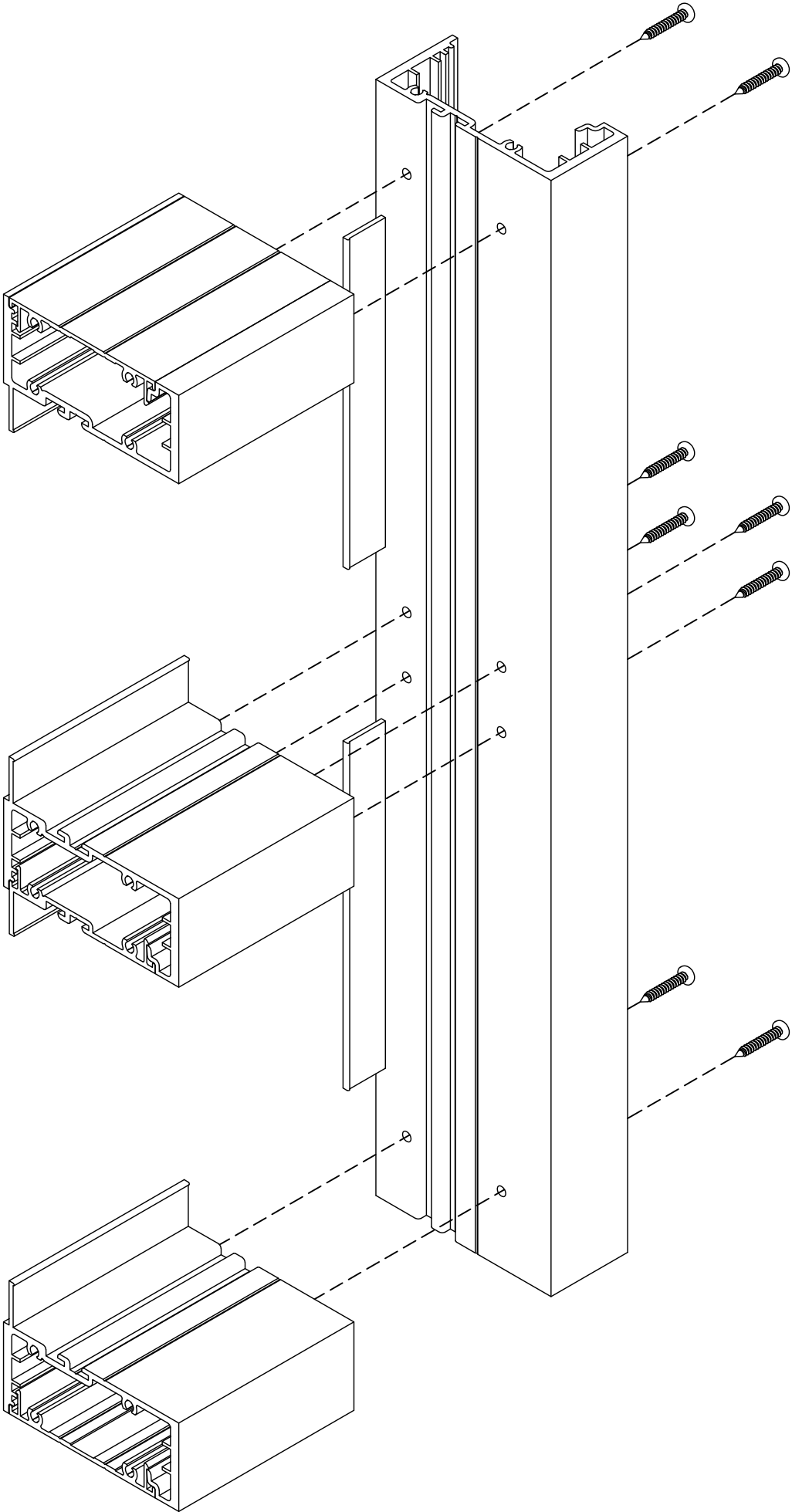
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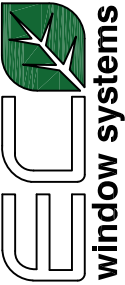


FRAME TOP CORNER

HORIZONTAL CORNER

FRAME BOTTOM CORNER



 ECO WINDOW SYSTEMS, LLC. 8602 N.W. 80th ST. MEDLEY, FL 33166 TEL. (305) 885-5299 FAX. (305) 885-5902	SERIES 450 ALUM. WINDOW WALL SYSTEM (L.M.I.)		10/3/2022	
	Series	Desc.	Title	Date
CORNER ASSEMBLY DETAILS		Drawn By	HONG C.	
SERIES 450		DWG No.	WW450FPA - LMI	Rev. A
9 OF 9		Sheet		

Revision:

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