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Business & Professional Regulation



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Product Approval
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SECRETARY

FL #	FL21632-R5
Application Type	Revision
Code Version	2023
Application Status	Approved

Comments

Archived

☐

Product Manufacturer
Address/Phone/Email

Eco Window Systems
8502 NW 80th Street
Suite 103
Medley, FL 33166
(305) 885-5299
carlos.martinez@ecowindowsystems.com

Authorized Signature

Carlos Martinez
carlos.martinez@ecowindowsystems.com

Technical Representative
Address/Phone/Email

Carlos Martinez
8502 NW 80th Street #103
Medley, FL 33166
(786) 307-2474
carlos.martinez@ecowindowsystems.com

Quality Assurance Representative
Address/Phone/Email

Category
Subcategory

Panel Walls
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

Javad Ahmad

Florida License

PE-70592

Quality Assurance Entity

Keystone Certifications, Inc.

Quality Assurance Contract Expiration Date

12/31/2032

Validated By

Ammad Riaz, P.E.

☒ Validation Checklist - Hardcopy Received

Certificate of Independence

[FL21632 R5 COI Certificate of Independence JA-PE.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

12/13/2024

Date Validated

01/06/2025

Date Pending FBC Approval

01/07/2025

Date Approved

02/11/2025

Summary of Products

FL #	Model, Number or Name	Description
21632.1	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_R5_II_SERIES_400_WINDOW_WALL-LMI-JA-1844-24-SS1.pdf Verified By: Javad Ahmad PE-70592 Created by Independent Third Party: Yes Evaluation Reports FL21632_R5_AE_ECO_400-Window_Wall-LMI-PA_EVR.pdf Created by Independent Third Party: Yes
21632.2	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_R5_II_SERIES_400_WINDOW_WALL-SMI-JA-1844-24-SS1.pdf Verified By: Javad Ahmad PE-70592 Created by Independent Third Party: Yes Evaluation Reports FL21632_R5_AE_ECO_400-Window_Wall-SMI-PA_EVR.pdf Created by Independent Third Party: Yes
21632.3	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_R5_II_SERIES_450_WINDOW_WALL-LMI-JA-1844-24-SS1.pdf Verified By: Javad Ahmad PE-70592 Created by Independent Third Party: Yes Evaluation Reports FL21632_R5_AE_ECO_450-Window_Wall-LMI-PA_EVR.pdf Created by Independent Third Party: Yes
21632.4	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_R5_II_SERIES_450_WINDOW_WALL-SMI-JA-1844-24-SS1.pdf Verified By: Javad Ahmad PE-70592 Created by Independent Third Party: Yes Evaluation Reports FL21632_R5_AE_ECO_450-Window_Wall-SMI-PA_EVR.pdf Created by Independent Third Party: Yes

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Product Approval Accepts:





PRODUCT EVALUATION REPORT

- Florida Building Code - 8th Edition (2023) -
Per Rule 61G20-3 / Method 1 - D

FL #: 21632.1

DATE: 12/02/2024

Product Description

Manufacturer: ECO WINDOW SYSTEMS, LLC

Address: 8502 NW 80th St #103, Medley, FL 33166

Model Name: Series 400 Aluminum Window Wall System (L.M.I.)

Maximum Load: +80 PSF / -130 PSF (Large Missile Impact)

Drawing No.: JA-1844-24, signed and sealed by Javad Ahmad, P.E. - FL License No. 70592

This product COMPLIES with the 2023 Florida Building Code - 8th Edition (2023 FBC) for use in the High-Velocity Hurricane Zone (HVHZ) per TAS 201/202/203.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative Analysis used: ☒ YES ☐ NO

Mandatory Tests (Tested in accordance with AAMA 501 / 101 / I.S.2 / NAFS / TAS 202)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	TEST SEALED BY
TAS 202-94	Uniform Static Test	Fenestration Testing Laboratory - FL 33166	02/01/2013	FTL-7233	Marlin D. Brinson, P.E.
			06/22/2016	FTL-8281	Idalmis Ortega, P.E.
			12/12/2017	FTL-9872	Idalmis Ortega, P.E.
			04/13/2020	FTL-11037	Idalmis Ortega, P.E.
			10/07/2020	FTL-12312	Idalmis Ortega, P.E.
			11/30/2020	FTL-12387	Idalmis Ortega, P.E.
		Hurricane Engineering & Testing Inc.	10/18/2010	HETI-10-3129	Candido F. Font, P.E.
ANSI Z97.1-1984	Safety Perform.Specif. and Methods of Test	Hurricane Engineering & Testing Inc.	10/18/2010	HETI-10-3096	Candido F. Font, P.E.

Supplemental Tests (Tested in accordance with TAS 201 and TAS-203)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	TEST SEALED BY
TAS 201 & TAS 203	Large Missile Impact & Cyclic Pressure Differentials	Fenestration Testing Laboratory	02/01/2013	FTL-7233	Marlin D. Brinson, P.E.
			06/22/2016	FTL-8281	Idalmis Ortega, P.E.
			12/12/2017	FTL-9872	Idalmis Ortega, P.E.
			04/13/2020	FTL-11037	Idalmis Ortega, P.E.
			10/07/2020	FTL-12312	Idalmis Ortega, P.E.
			11/30/2020	FTL-12387	Idalmis Ortega, P.E.
		Hurricane Engineering & Testing Inc.	10/18/2010	HETI-10-3071 HETI-10-3072 HETI-10-3073 HETI-10-3074 HETI-10-3075	Candido F. Font, P.E.

7875 NW 12 Street, Suite 102, Doral, FL 33126



PRODUCT EVALUATION REPORT

- Florida Building Code - 8th Edition (2023) -
Per Rule 61G20-3 / Method 1 - D

FL #: 21632.1

DATE: 12/02/2024

Product Description

Manufacturer: ECO WINDOW SYSTEMS, LLC

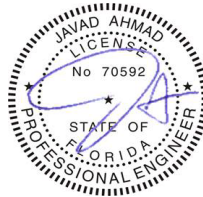
Address: 8502 NW 80th St #103, Medley, FL 33166

Model Name: Series 400 Aluminum Window Wall System (L.M.I.)

Maximum Load: +80 PSF / -130 PSF (Large Missile Impact)

Drawing No.: JA-1844-24, signed and sealed by Javad Ahmad, P.E. - FL License No. 70592

Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2023 Florida Building Code - 8th Edition (2023 FBC).

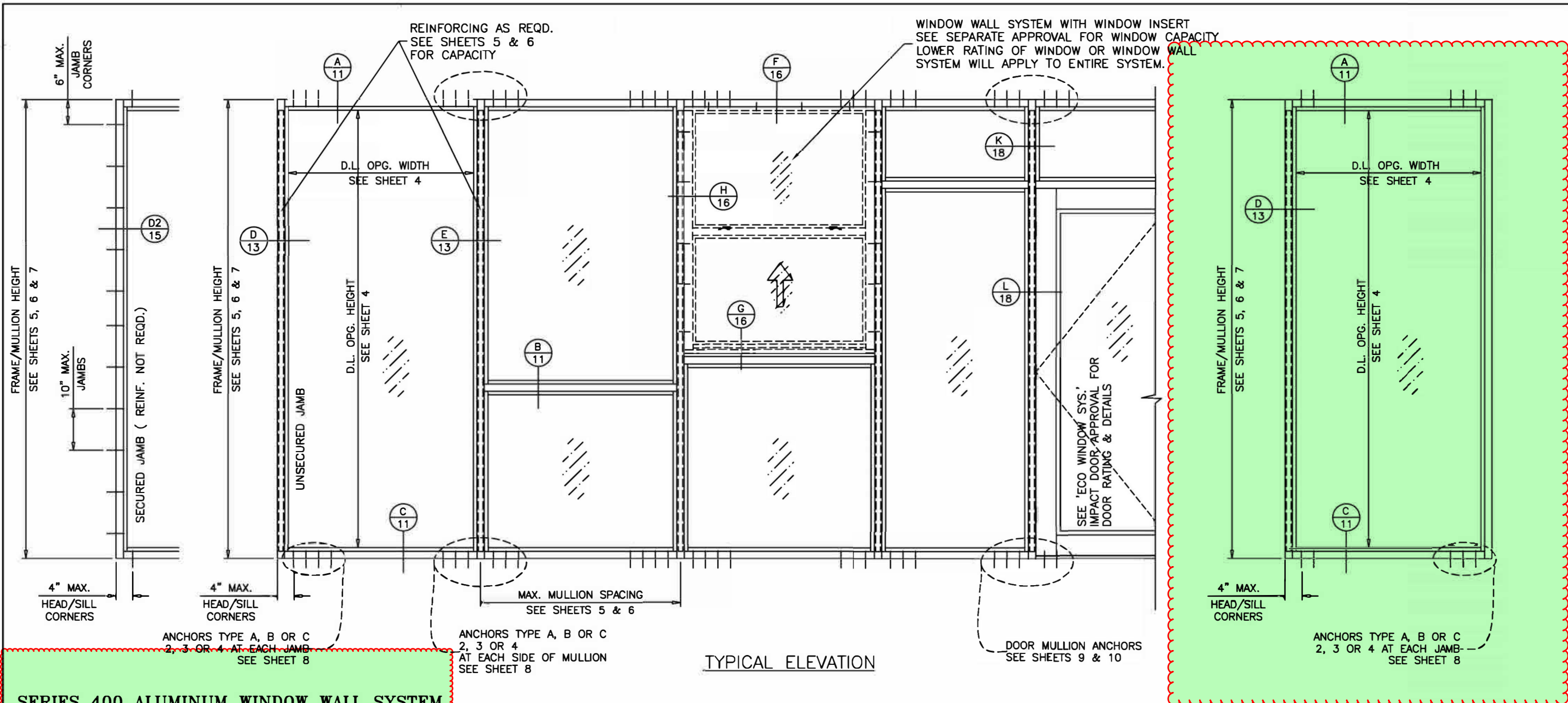


Sealed:
12/02/2024

Evaluation Report Engineer:

Javad Ahmad, PE
FL P.E.# 70592
EB C.A.N. # 34254
JAVAD AHMAD PE, Inc.

7875 NW 12 Street, Suite 102, Doral, FL 33126



SERIES 400 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)'.

- 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 4 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 5, 6 & 7. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
 - STEP 4** USING CHARTS ON SHEET 8 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
 - STEP 5** VERIFY UNANCHORED JAMBS, IF USED AS PER SHEETS 5, 6 AND 10.
 - STEP 6** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.
 - STEP 7** WHEN USING THIS SYSTEM WITH DOORS, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE DOOR SHALL APPLY.

THESE DOORS ARE 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.

FL#21632.1



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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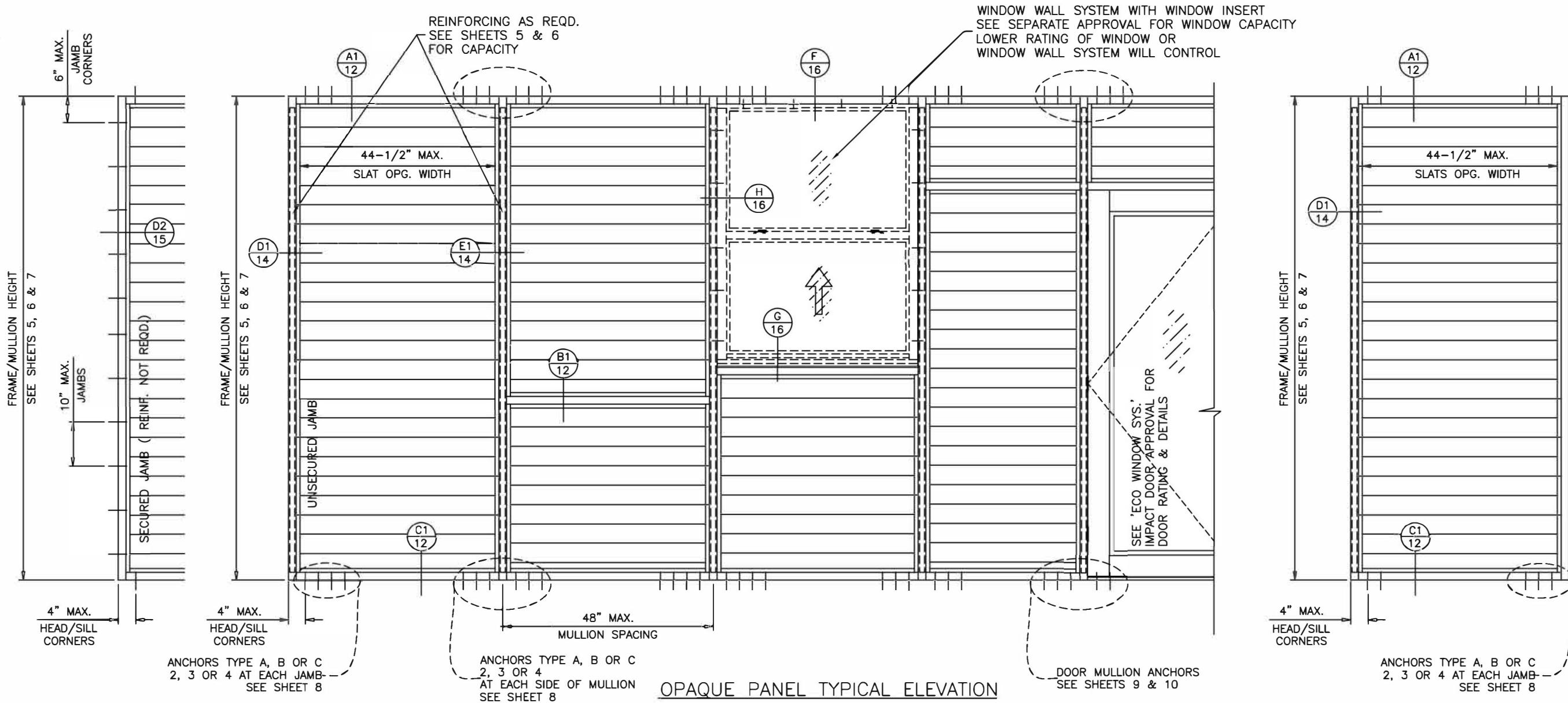
drawing no.	JA-1844-24	MA	drawn by:	BS
date:	12/30/2024	check by:		
REVISION		DATE	BY	DESCRIPTION
		No.		

SERIES 400 ALUMINUM WINDOW WALL SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED

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



SEALED: 12/30/2024



OPAQUE PANEL TYPICAL ELEVATION

FL#21632.1



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drawing no.	date:	JA-1844-24	drawn by:	MA	check by:	BS	REVISION		
							No.	DATE	DESCRIPTION

SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED



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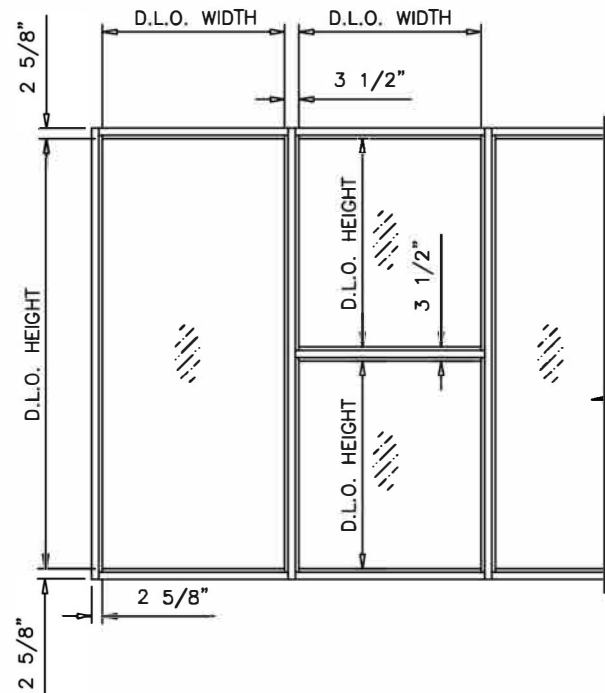


SEALED: 12/30/2024

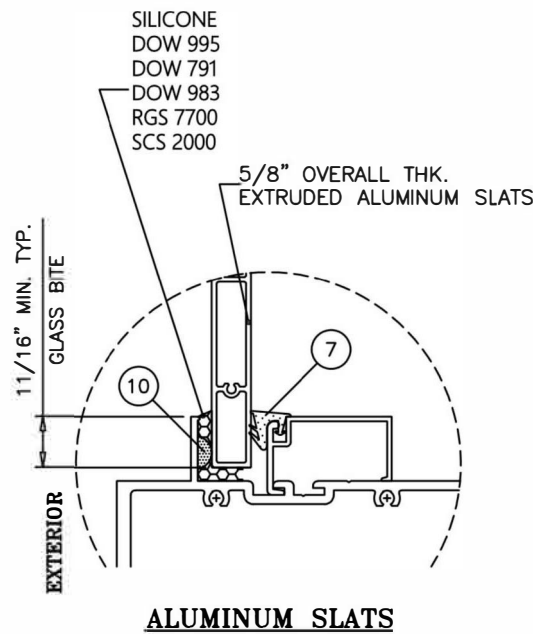
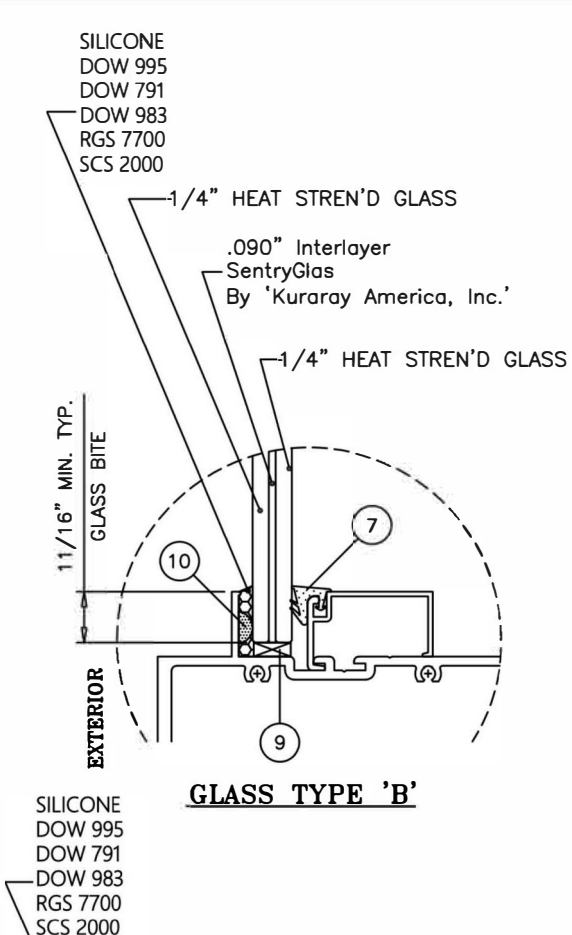
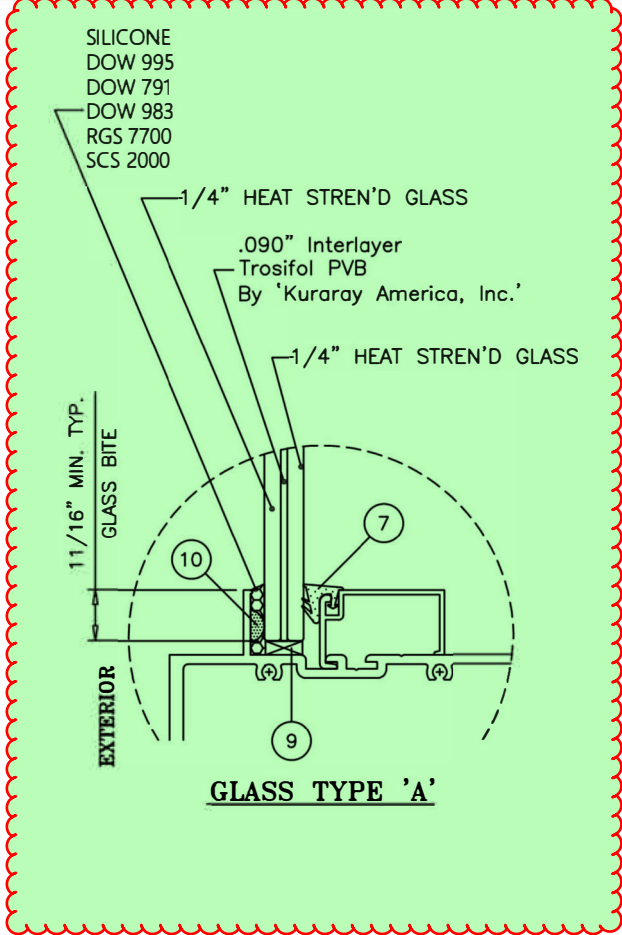
GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES 'A'		GLASS TYPES 'B' & 'C'	
D.L.O. WIDTH	D.L.O. HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
26-1/2"	78-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	130.0
56-1/2"		65.0	75.0	80.0	130.0
26-1/2"	84-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	130.0
56-1/2"		65.0	75.0	80.0	100.0
26-1/2"	90-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
50"		65.0	75.0	80.0	130.0
50-1/2"		65.0	75.0	80.0	100.0
56-1/2"		65.0	75.0	80.0	100.0
26-1/2"	96-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	130.0
47"		65.0	75.0	80.0	130.0
52-1/2"		65.0	75.0	80.0	100.0
26-1/2"	102-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
49"		65.0	75.0	80.0	100.0
50-1/2"		-	-	70.0	70.0
56-1/2"		-	-	70.0	70.0
26-1/2"	108-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
47"		65.0	75.0	80.0	100.0
50-1/2"		-	-	70.0	70.0
56-1/2"		-	-	70.0	70.0
26-1/2"	114-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	130.0
39"		65.0	75.0	80.0	130.0
44-1/2"		65.0	75.0	80.0	100.0
50-1/2"		-	-	70.0	70.0
56-1/2"		-	-	70.0	70.0

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES 'A'		GLASS TYPES 'B' & 'C'	
D.L.O. WIDTH	D.L.O. HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
26-1/2"	120-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
37"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	100.0
42"		65.0	75.0	80.0	100.0
44-1/2"		-	-	70.0	70.0
50-1/2"		-	-	70.0	70.0
56-1/2"		-	-	70.0	70.0
26-1/2"	126-3/4"	65.0	75.0	80.0	130.0
32-1/2"		65.0	75.0	80.0	130.0
35"		65.0	75.0	80.0	130.0
38-1/2"		65.0	75.0	80.0	100.0
40"		65.0	75.0	80.0	100.0
44-1/2"		-	-	70.0	70.0
50-1/2"		-	-	70.0	70.0
56-1/2"		-	-	70.0	70.0
26-1/2"	150-3/4"	-	-	70.0	70.0
32-1/2"		-	-	70.0	70.0
35"		-	-	70.0	70.0
38-1/2"		-	-	70.0	70.0
40"		-	-	70.0	70.0
44-1/2"		-	-	70.0	70.0
50-1/2"		-	-	70.0	70.0
56-1/2"		-	-	70.0	70.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-16 (3 SEC. GUSTS).

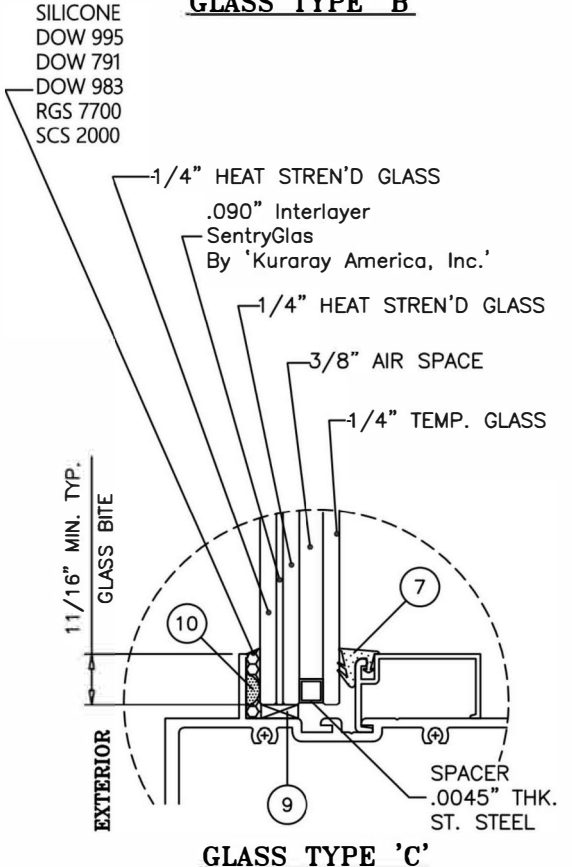


LIMITATIONS:
MAX. SLATS OPG. WIDTH = 44-1/2"
MAX. FRAME HEIGHT = 120 INCHES
MAX. DESIGN LOAD = ± 80.0 PSF

NOT APPROVED FOR
UNSECURED JAMB 'J1' AND MULLION 'M1'

FOR MULLION 'M2' ONLY
LIMIT MAX. POS. LOAD TO +74.8 PSF

GLAZING OPTIONS



FL#21632.1



JAVAD AHMAD PE, inc
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FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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

drawing no.	date:	REVISION	
		BY	DESCRIPTION
MA	BS		

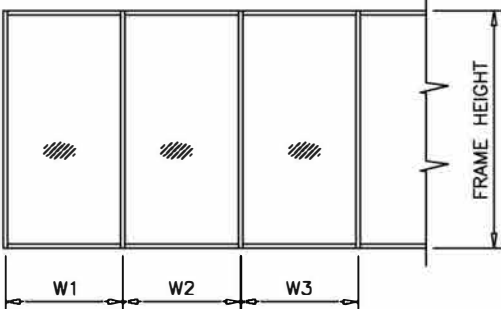
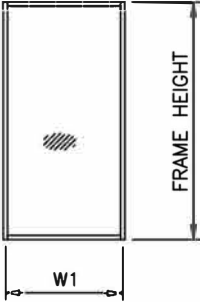
SERIES 400:ALUMINUM WINDOW WALL
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LARGE MISSILE IMPACT RATED

ECO window systems
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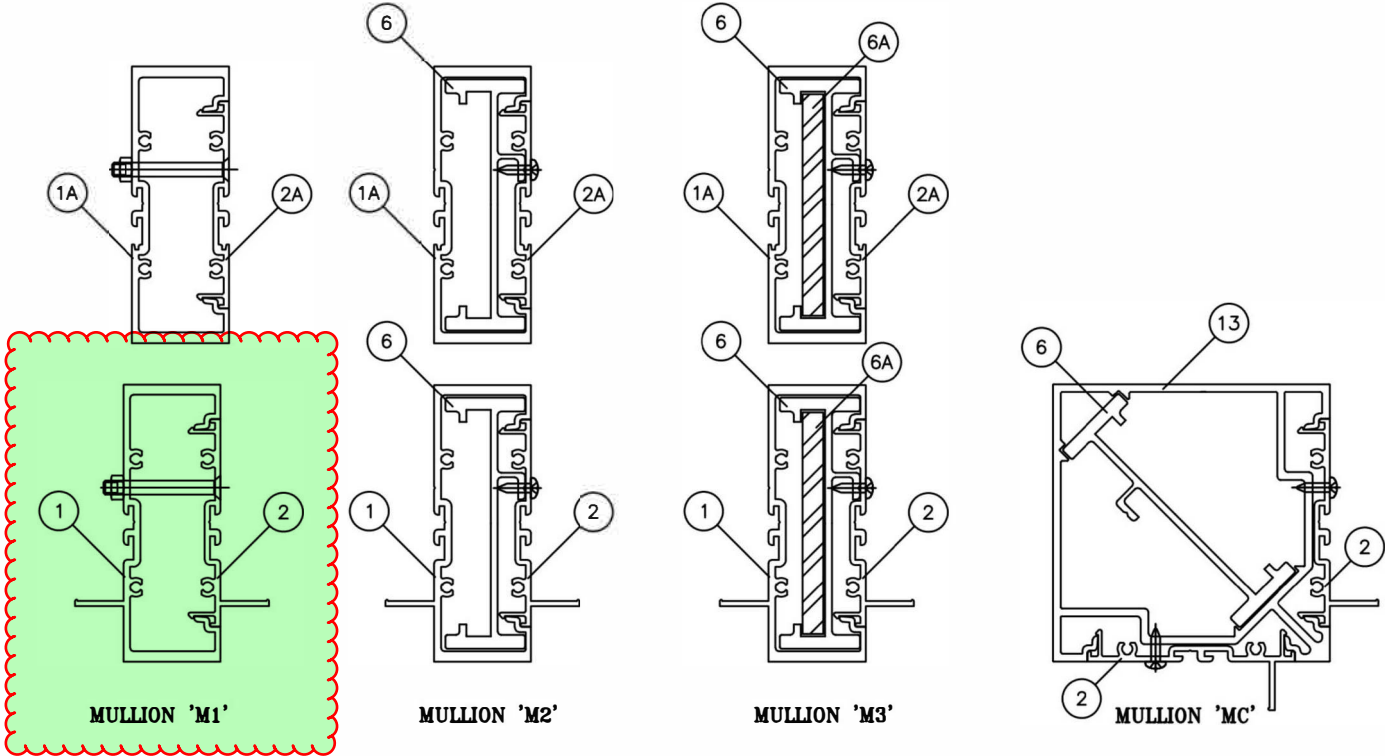
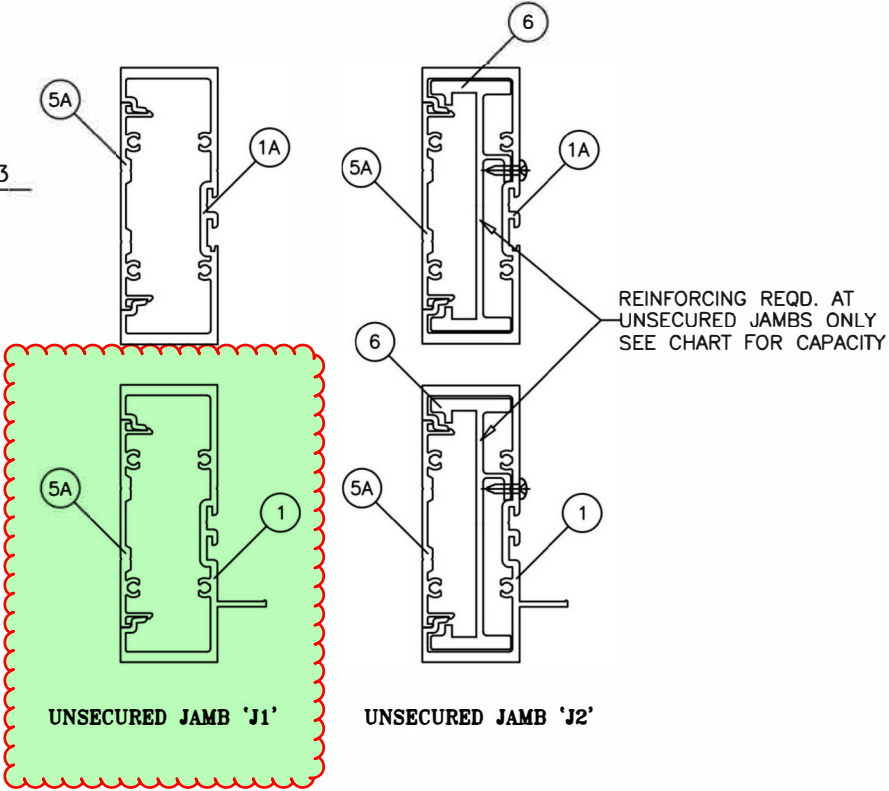
SEALED: 12/30/2024

JAMB & MULLION LOAD CAPACITY - PSF									
JAMBS & MULLIONS WITHOUT INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1' MULL 'M1'		JAMB 'J2' MULL 'M2'		JAMB 'J2' MULL 'M3'		MULL 'MC'	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
30"	84"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
60"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
30"	90"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	97.7	80.0	100.0	80.0	130.0	80.0	120.0
60"		80.0	90.9	80.0	100.0	80.0	130.0	80.0	120.0
30"	96"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	92.1	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	83.9	80.0	100.0	80.0	130.0	80.0	120.0
60"		77.7	77.7	80.0	100.0	80.0	130.0	80.0	120.0
30"	102"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	90.1	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	80.2	80.0	100.0	80.0	130.0	80.0	120.0
54"		72.9	72.9	80.0	100.0	80.0	130.0	80.0	120.0
56"		70.8	70.8	80.0	100.0	80.0	130.0	80.0	120.0
60"		-	-	-	-	80.0	130.0	80.0	120.0
30"	108"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	91.3	80.0	100.0	80.0	130.0	80.0	120.0
42"		79.3	79.3	80.0	100.0	80.0	130.0	80.0	120.0
48"		70.5	70.5	80.0	100.0	80.0	130.0	80.0	120.0
53"		64.8	64.8	80.0	99.5	80.0	125.3	80.0	120.0
54"		-	-	-	-	80.0	123.4	80.0	120.0
56"		-	-	-	-	80.0	120.0	80.0	120.0
60"		-	-	-	-	80.0	113.4	-	-
30"	114"	80.0	96.4	80.0	100.0	80.0	100.0	80.0	120.0
36"		80.0	81.1	80.0	100.0	80.0	100.0	80.0	120.0
42"		70.4	70.4	80.0	100.0	80.0	100.0	80.0	120.0
48"		62.4	62.4	80.0	95.6	80.0	100.0	80.0	120.0
50"		60.3	60.3	80.0	92.3	80.0	100.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	80.0	120.0
60"		-	-	-	-	80.0	80.0	-	-
30"	120"	80.0	82.4	80.0	100.0	80.0	100.0	80.0	120.0
36"		69.5	69.5	80.0	100.0	80.0	100.0	80.0	120.0
42"		60.3	60.3	80.0	96.0	80.0	100.0	80.0	120.0
48"		53.6	53.6	80.0	85.1	80.0	100.0	80.0	120.0
51-7/8"		-	-	-	-	80.0	80.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	-	-
60"		-	-	-	-	80.0	80.0	-	-
30"	126"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-
30"	132"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-



WIDTH (W) = W1
AT FRAME JAMB

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



FL#21632.1



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drawing no.	date:	JA-1844-24	drawn by:	check by:	REVISION		
					No.	DATE	DESCRIPTION

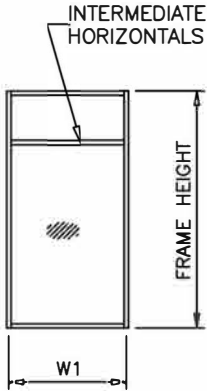
SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED

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



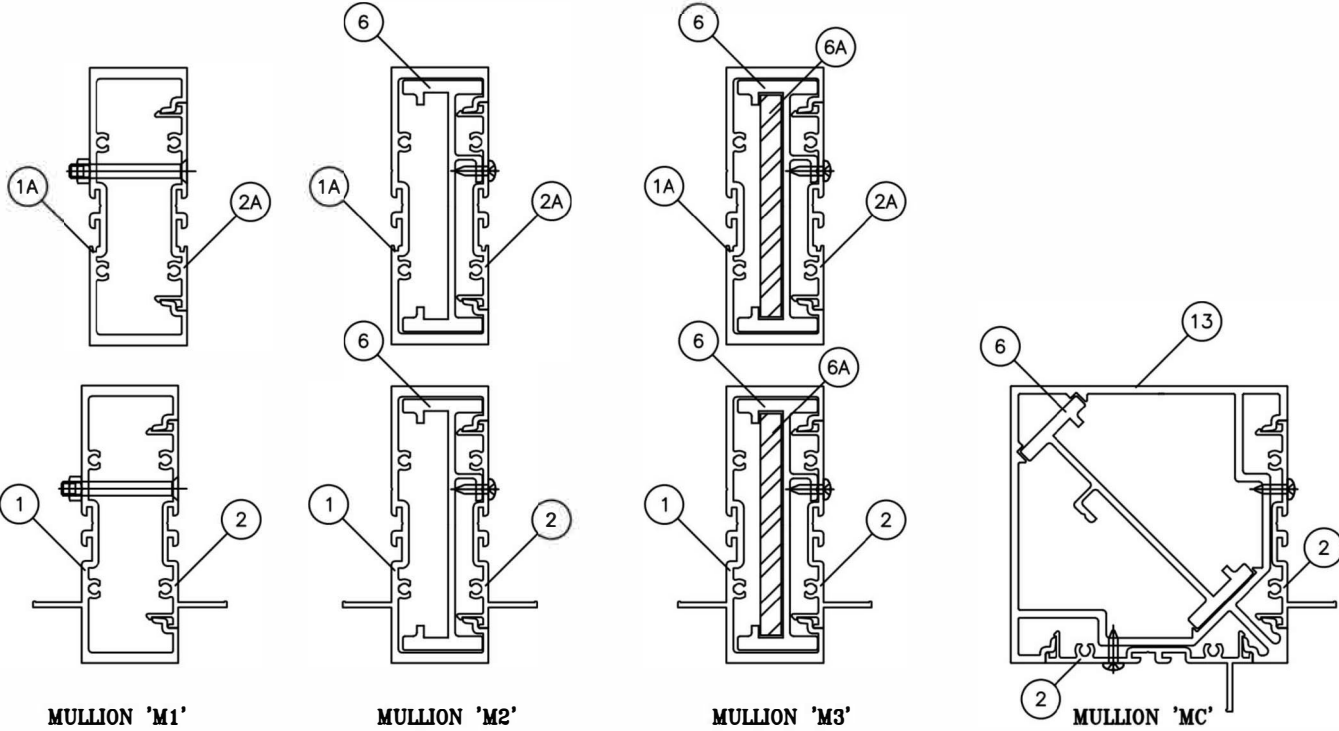
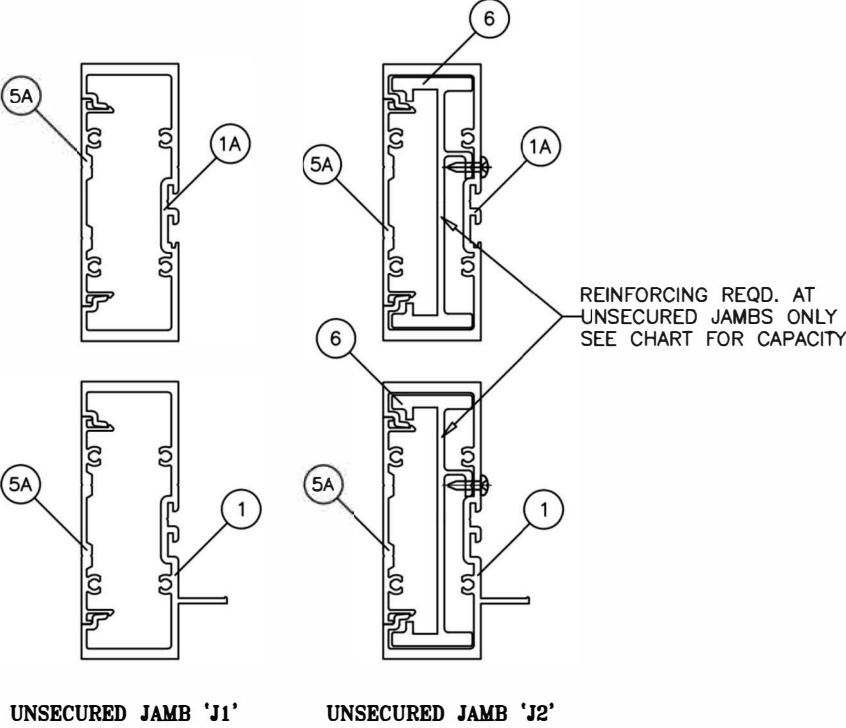
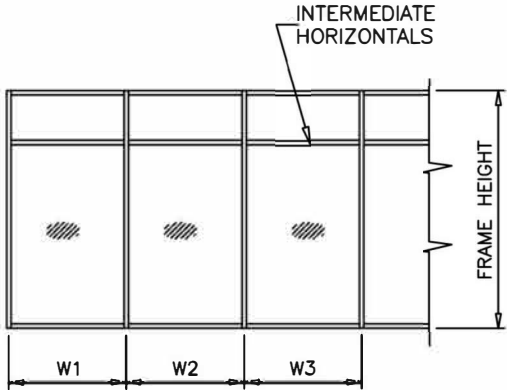
SEALED: 12/30/2024

JAMB & MULLION LOAD CAPACITY - PSF									
JAMBS & MULLIONS WITH INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		JAMB 'J2'		MULL. 'MC'	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
30"	84"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	99.6	80.0	100.0	80.0	130.0	80.0	120.0
60"		80.0	89.7	80.0	100.0	80.0	130.0	80.0	120.0
30"	90"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
54"		80.0	86.2	80.0	100.0	80.0	130.0	80.0	120.0
60"		77.6	77.6	80.0	100.0	80.0	130.0	80.0	120.0
30"	96"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	96.7	80.0	100.0	80.0	130.0	80.0	120.0
48"		80.0	84.6	80.0	100.0	80.0	130.0	80.0	120.0
54"		75.2	75.2	80.0	100.0	80.0	130.0	80.0	120.0
60"		67.7	67.7	80.0	100.0	80.0	129.1	80.0	120.0
30"	102"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	99.3	80.0	100.0	80.0	130.0	80.0	120.0
42"		80.0	85.1	80.0	100.0	80.0	130.0	80.0	120.0
48"		74.5	74.5	80.0	100.0	80.0	130.0	80.0	120.0
54"		66.2	66.2	80.0	100.0	80.0	127.1	80.0	120.0
56"		63.8	63.8	80.0	98.1	80.0	122.5	80.0	120.0
60"		-	-	-	-	80.0	114.3	80.0	120.0
30"	108"	80.0	100.0	80.0	100.0	80.0	130.0	80.0	120.0
36"		80.0	88.0	80.0	100.0	80.0	130.0	80.0	120.0
42"		75.4	75.4	80.0	100.0	80.0	130.0	80.0	120.0
48"		66.0	66.0	80.0	100.0	80.0	127.5	80.0	120.0
53"		59.8	59.8	80.0	91.7	80.0	115.5	80.0	120.0
54"		-	-	-	-	80.0	114.0	80.0	120.0
56"		-	-	-	-	80.0	113.3	80.0	120.0
60"		-	-	-	-	80.0	102.0	-	-
30"	114"	80.0	94.0	80.0	100.0	80.0	100.0	80.0	120.0
36"		78.3	78.3	80.0	100.0	80.0	100.0	80.0	120.0
42"		67.1	67.1	80.0	100.0	80.0	100.0	80.0	120.0
48"		58.7	58.7	80.0	90.1	80.0	100.0	80.0	120.0
50"		56.4	56.4	80.0	86.5	80.0	100.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	80.0	120.0
60"		-	-	-	-	80.0	80.0	-	-
30"	120"	80.0	80.6	80.0	100.0	80.0	100.0	80.0	120.0
36"		67.1	67.1	80.0	100.0	80.0	100.0	80.0	120.0
42"		57.5	57.5	80.0	92.2	80.0	100.0	80.0	120.0
48"		50.4	50.4	80.0	80.7	80.0	100.0	80.0	120.0
51-7/8"		-	-	-	-	80.0	100.0	80.0	120.0
54"		-	-	-	-	80.0	80.0	-	-
60"		-	-	-	-	80.0	80.0	-	-
30"	126"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-
48"		-	-	-	-	80.0	80.0	-	-
54"		-	-	-	-	80.0	80.0	-	-
60"		-	-	-	-	74.9	74.9	-	-
30"	132"	-	-	-	-	80.0	80.0	-	-
36"		-	-	-	-	80.0	80.0	-	-
42"		-	-	-	-	80.0	80.0	-	-
48"		-	-	-	-	80.0	80.0	-	-
54"		-	-	-	-	75.9	75.9	-	-
60"		-	-	-	-	68.3	68.3	-	-



WIDTH (W) = W1
AT FRAME JAMB

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



FL#21632.1



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drawing no.	JA-1844-24	drawn by:	MA
date:	12/30/2024	check by:	BS
REVISION			
No.	DATE	BY	DESCRIPTION

SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED

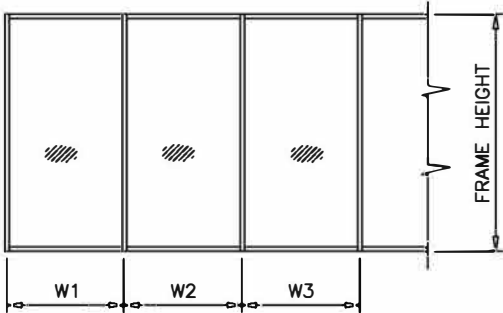
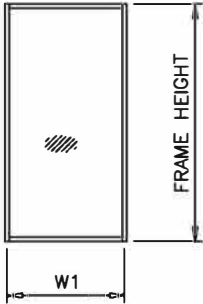


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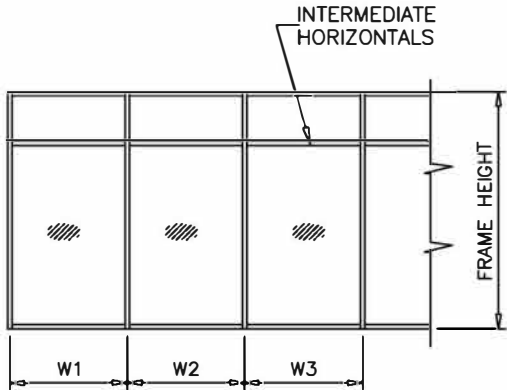
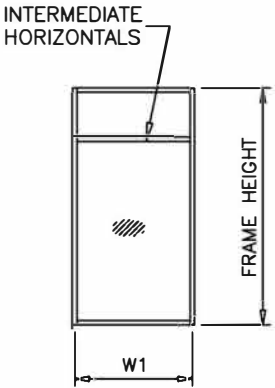
MULLION LOAD CAPACITY – PSF			
MULLIONS WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULL. 'M4'	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)
30"	132"	70.0	70.0
36"		70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		70.0	70.0
60"		70.0	70.0
30"	144"	70.0	70.0
36"		70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		70.0	70.0
60"		64.2	64.2
30"	150"	70.0	70.0
36"		70.0	70.0
42"		70.0	70.0
48"		68.9	68.9
54"		62.0	62.0
60"		56.5	56.5
30"	156"	70.0	70.0
36"		70.0	70.0
42"		69.2	69.2
48"		61.1	61.1
54"		54.9	54.9
60"		50.0	50.0



WIDTH (W) = W1
AT FRAME JAMB

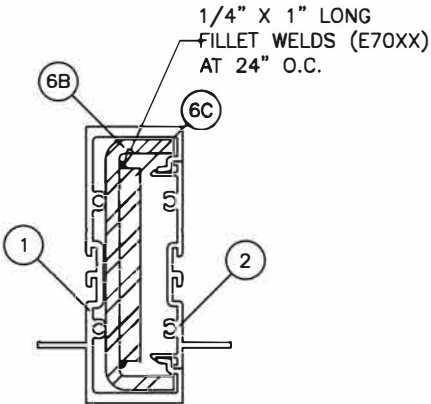
WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION

MULLION LOAD CAPACITY – PSF			
MULLIONS WITH INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULL. 'M4'	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)
30"	132"	70.0	70.0
36"		70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		70.0	70.0
60"		70.0	70.0
30"	144"	70.0	70.0
36"		70.0	70.0
42"		70.0	70.0
48"		70.0	70.0
54"		66.6	66.6
60"		60.0	60.0
30"	150"	70.0	70.0
36"		70.0	70.0
42"		70.0	70.0
48"		66.3	66.3
54"		58.9	58.9
60"		53.0	53.0
30"	156"	70.0	70.0
36"		70.0	70.0
42"		67.4	67.4
48"		58.9	58.9
54"		52.4	52.4
60"		47.2	47.2



WIDTH (W) = W1
AT FRAME JAMB

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



MULLION 'M4'



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drawing no.	date:	JA-1844-24	12/30/2024	REVISION		MA	BS
				DESCRIPTION	BY		

SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED



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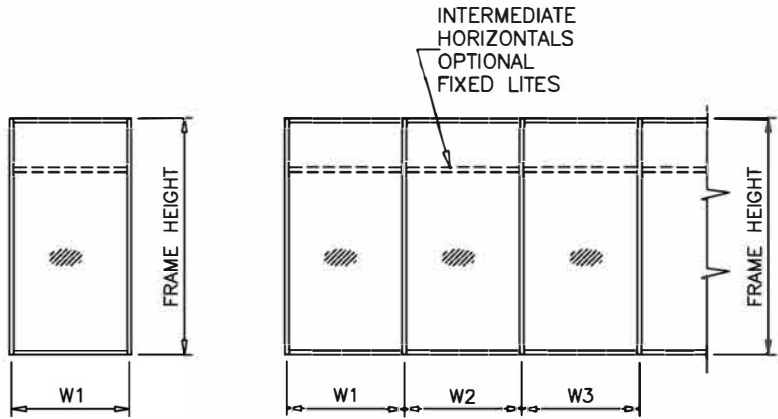


SEALED: 12/30/2024

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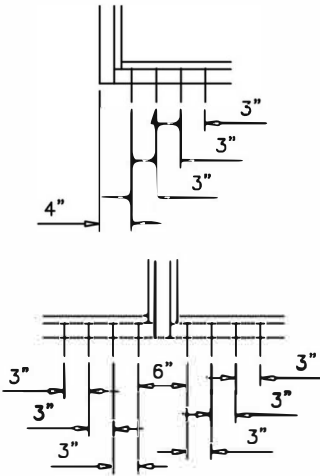
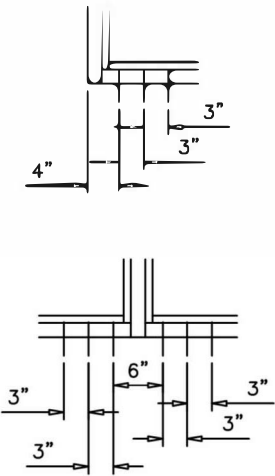
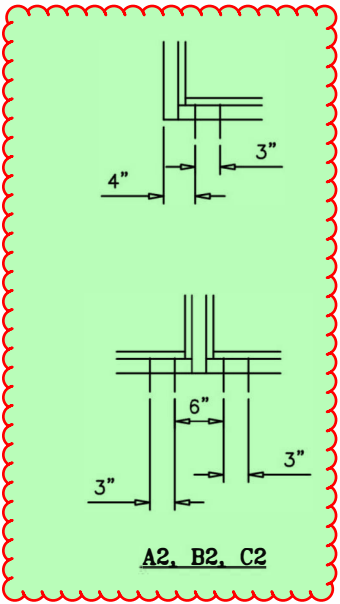
ANCHOR LOAD CAPACITY - PSF							
NOMINAL DIMS.		POS. (+) & NEG. (-)			ANCHOR TYPE 'A'		
					ANCHOR TYPE 'B' & 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/C2	B3/C3	B4/C4
30"	84"	123.0	130.0	130.0	130.0	130.0	130.0
36"		102.5	130.0	130.0	130.0	130.0	130.0
42"		87.8	130.0	130.0	112.3	130.0	130.0
48"		76.9	115.3	130.0	98.3	130.0	130.0
54"		68.3	102.5	130.0	87.4	130.0	130.0
60"		61.5	92.2	123.0	78.6	117.9	130.0
30"	90"	114.8	130.0	130.0	130.0	130.0	130.0
36"		95.6	130.0	130.0	122.3	130.0	130.0
42"		82.0	123.0	130.0	104.8	130.0	130.0
48"		71.7	107.6	130.0	91.7	130.0	130.0
54"		63.8	95.6	127.5	81.5	122.3	130.0
60"		57.4	86.1	114.8	73.4	110.1	130.0
30"	96"	107.6	130.0	130.0	130.0	130.0	130.0
36"		89.7	130.0	130.0	114.7	130.0	130.0
42"		76.9	115.3	130.0	98.3	130.0	130.0
48"		67.3	100.9	130.0	86.0	129.0	130.0
54"		59.8	89.7	119.6	76.4	114.7	130.0
60"		53.8	80.7	107.6	68.8	103.2	130.0
30"	102"	101.3	130.0	130.0	129.5	130.0	130.0
36"		84.4	126.6	130.0	107.9	130.0	130.0
42"		72.3	108.5	130.0	92.5	130.0	130.0
48"		63.3	94.9	126.6	80.9	121.4	130.0
54"		56.3	84.4	112.5	71.9	107.9	130.0
60"		50.6	76.0	101.3	64.8	97.1	129.5
30"	108"	95.6	130.0	130.0	122.3	130.0	130.0
36"		79.7	119.6	130.0	101.9	130.0	130.0
42"		68.3	102.5	130.0	87.4	130.0	130.0
48"		59.8	89.7	119.6	76.4	114.7	130.0
54"		53.1	79.7	106.3	68.0	101.9	130.0
60"		47.8	71.7	95.6	61.2	91.7	122.3
30"	114"	90.6	130.0	130.0	115.9	130.0	130.0
36"		75.5	113.3	130.0	96.6	130.0	130.0
42"		64.7	97.1	129.4	82.8	124.2	130.0
48"		56.6	84.9	113.3	72.4	108.6	130.0
54"		50.3	75.5	100.7	64.4	96.6	128.7
60"		45.3	68.0	90.6	57.9	86.9	115.9
30"	120"	86.1	129.1	130.0	110.1	130.0	130.0
36"		71.7	107.6	130.0	91.7	130.0	130.0
42"		61.5	92.2	123.0	78.6	117.9	130.0
48"		53.8	80.7	107.6	68.8	103.2	130.0
54"		47.8	71.7	95.6	61.2	91.7	122.3
60"		43.0	64.6	86.1	55.0	82.6	110.1
30"	126"	82.0	123.0	130.0	104.8	130.0	130.0
36"		68.3	102.5	130.0	87.4	130.0	130.0
42"		58.6	87.8	117.1	74.9	112.3	130.0
48"		51.2	76.9	102.5	65.5	98.3	130.0
54"		45.5	68.3	91.1	58.2	87.4	116.5
60"		41.0	61.5	82.0	52.4	78.6	104.8

ANCHOR LOAD CAPACITY - PSF							
NOMINAL DIMS.		POS. (+) & NEG. (-)			ANCHOR TYPE 'A'		
					ANCHOR TYPE 'B' & 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2/C2	B3/C3	B4/C4
30"	132"	78.3	117.4	130.0	100.1	130.0	130.0
36"		65.2	97.8	130.0	83.4	125.1	130.0
42"		55.9	83.8	111.8	71.5	107.2	130.0
48"		48.9	73.4	97.8	62.5	93.8	125.1
54"		43.5	65.2	86.9	55.6	83.4	111.2
60"		39.1	58.7	78.3	50.0	75.1	100.1
30"	144"	70.0	70.0	70.0	70.0	70.0	70.0
36"		59.8	70.0	70.0	70.0	70.0	70.0
42"		51.2	70.0	70.0	65.5	70.0	70.0
48"		44.8	67.3	70.0	57.3	70.0	70.0
54"		39.9	59.8	70.0	51.0	70.0	70.0
60"		35.9	53.8	70.0	45.9	68.8	70.0
30"	150"	68.9	70.0	70.0	70.0	70.0	70.0
36"		57.4	70.0	70.0	70.0	70.0	70.0
42"		49.2	70.0	70.0	62.9	70.0	70.0
48"		43.0	64.6	70.0	55.0	70.0	70.0
54"		38.3	57.4	70.0	48.9	70.0	70.0
60"		34.4	51.6	68.9	44.0	66.0	70.0
30"	156"	66.2	70.0	70.0	70.0	70.0	70.0
36"		55.2	70.0	70.0	70.0	70.0	70.0
42"		47.3	70.0	70.0	60.5	70.0	70.0
48"		41.4	62.1	70.0	52.9	70.0	70.0
54"		36.8	55.2	70.0	47.0	70.0	70.0
60"		33.1	49.7	66.2	42.3	63.5	70.0



WIDTH (W) = W1
AT FRAME JAMB

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



NOTE:
USE SHEAR CLIP UW-403 AT
ANCHOR LOCATIONS OF SUFFICIENT LENGTH
TO COVER ALL ANCHOR SPACINGS

ANCHORS TYPES: SEE SHEET 11 FOR DESCRIPTION

- A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

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drawing no.	date:	JA-1844-24	12/30/2024	REVISION	
				DESCRIPTION	
MA	BS	drawn by:	check by:	DATE	BY
No.					

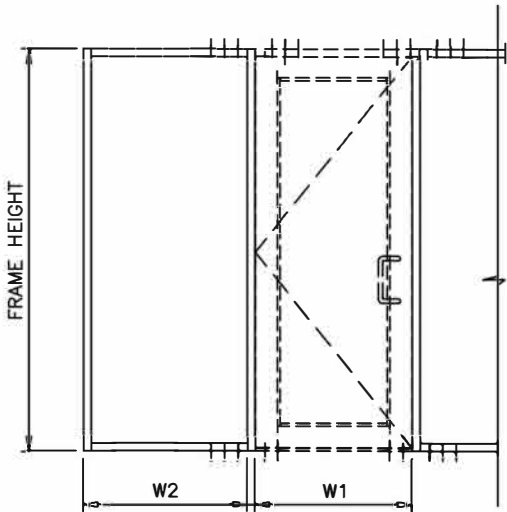
SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED

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

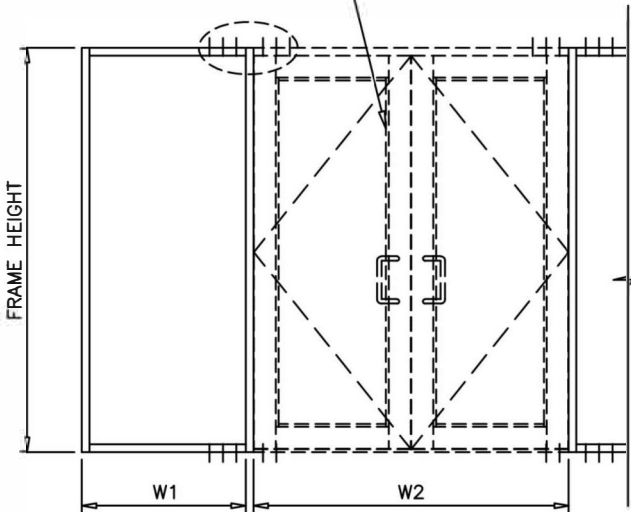


SEALED: 12/30/2024

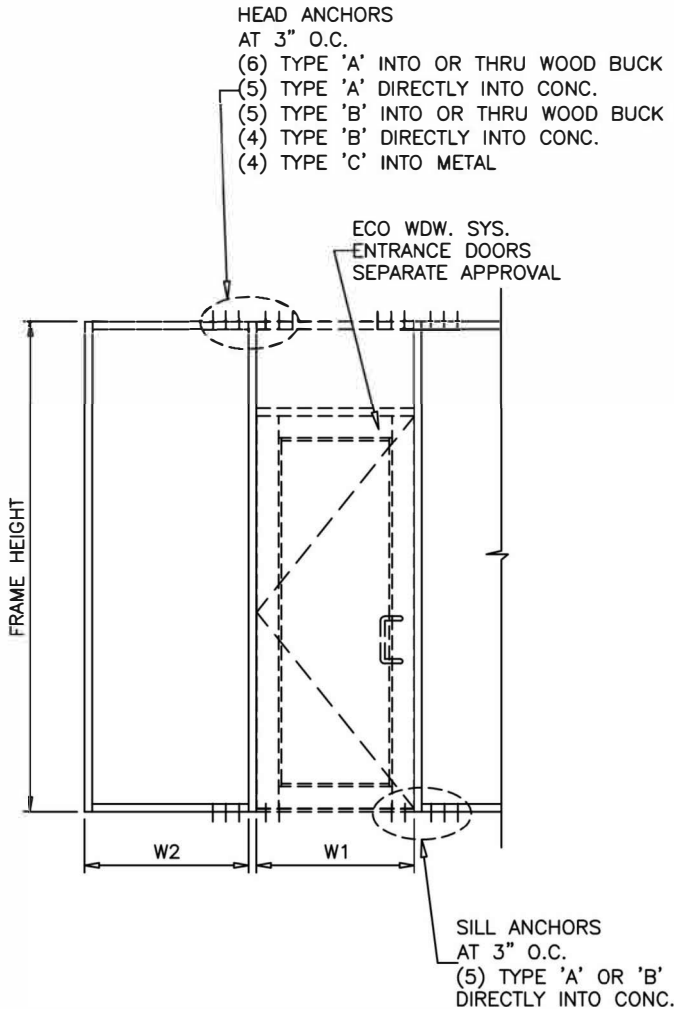
DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.		ALUMINUM REINF.		ALUM. + STEEL REINF.	
WIDTH (W)	FRAME HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
36"	84"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
60"		70.0	80.0	70.0	80.0
36"	90"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
60"		70.0	80.0	70.0	80.0
36"	96"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
60"		70.0	80.0	70.0	80.0
36"	102"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
58"		70.0	80.0	70.0	80.0
36"	108"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
54"		70.0	80.0	70.0	80.0
55"		70.0	80.0	70.0	80.0
36"	114"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
52"		70.0	80.0	70.0	80.0
36"	120"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
48"		70.0	80.0	70.0	80.0
49"		70.0	80.0	70.0	80.0
36"	126"	70.0	80.0	70.0	80.0
42"		70.0	80.0	70.0	80.0
47"		70.0	75.0	70.0	80.0
36"	132"	70.0	80.0	70.0	80.0
42"		70.0	73.0	70.0	80.0
45"		68.1	68.1	70.0	80.0



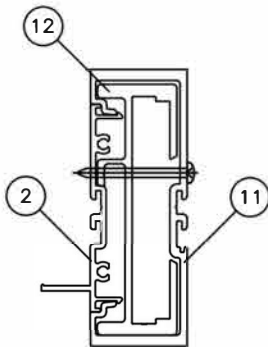
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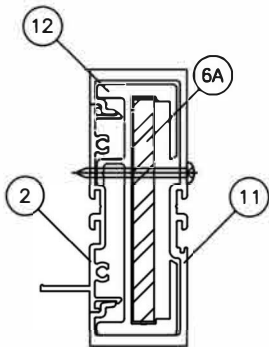
WIDTH (W) = $\frac{W1}{2} + \frac{W2}{4}$



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



DOOR MULLION
ALUMINUM REINF.



DOOR MULLION
ALUM. + STEEL REINF.



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drawing no.	date:	JA-1844-24	12/30/2024	REVISION		MA	BS
				DESCRIPTION	BY		

SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED

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



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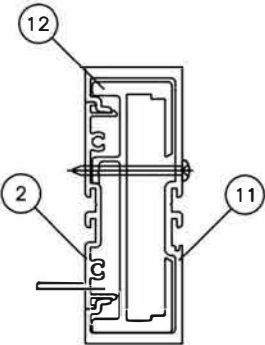
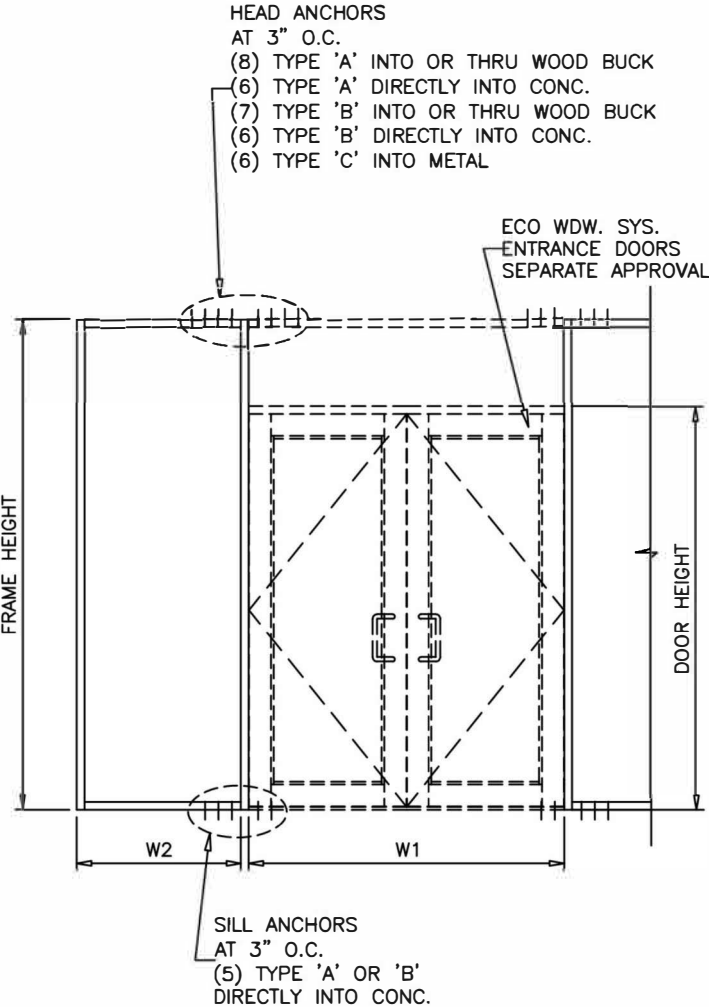
DOOR MULLION LOAD CAPACITY - PSF							
NOMINAL DIMS.				ALUMINUM REINF.		ALUM. + STEEL REINF.	
WIDTH (W1)	WIDTH (W2)	FRAME HEIGHT	DOOR HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
85-3/4"	30"	108"	84"	70.0	80.0	70.0	80.0
	36"			70.0	80.0	70.0	80.0
	42"			70.0	80.0	70.0	80.0
	48"			70.0	80.0	70.0	80.0
	54"			70.0	80.0	70.0	80.0
	59"			70.0	80.0	70.0	80.0
	30"	114"		70.0	80.0	70.0	80.0
	36"			70.0	80.0	70.0	80.0
	42"			70.0	80.0	70.0	80.0
	48"			70.0	77.8	70.0	80.0
	54"			70.0	74.2	70.0	80.0
	56"			70.0	73.0	70.0	80.0
	30"	120"		70.0	80.0	70.0	80.0
	36"			70.0	75.8	70.0	80.0
	42"			70.0	72.1	70.0	80.0
	48"			68.6	68.6	70.0	80.0
	53"			66.0	66.0	70.0	77.5
	30"	126"		70.0	70.5	70.0	80.0
	36"			68.5	66.5	70.0	79.3
	42"			63.0	63.0	70.0	75.4
	48"			59.8	59.8	70.0	71.9
	51"			58.3	58.3	70.0	70.3
	30"	132"		60.0	60.0	70.0	75.1
	36"			56.6	56.6	70.0	71.3
	42"			53.7	53.7	67.9	67.9
	48"			51.0	51.0	64.7	64.7
85-3/4"	30"	108"	90"	60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	59"			60.0	60.0	70.0	80.0
	30"	114"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	56"			60.0	60.0	70.0	80.0
	30"	120"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	53"			60.0	60.0	70.0	79.9
	30"	126"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	77.4
	48"			60.0	60.0	70.0	73.7
	51"			60.0	60.0	70.0	72.0
	30"	132"		60.0	60.0	70.0	76.8
	36"			58.6	58.6	70.0	72.8
	42"			55.4	55.4	69.2	69.2
	48"			52.5	52.5	66.0	66.0

		DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				ALUMINUM REINF.		ALUM. + STEEL REINF.	
WIDTH (W1)	WIDTH (W2)	FRAME HEIGHT	DOOR HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
85-3/4"	30"	108"	96"	60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	59"			60.0	60.0	70.0	80.0
	30"	114"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	56"			60.0	60.0	70.0	80.0
	30"	120"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	53"			60.0	60.0	70.0	80.0
	30"	126"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	76.0
	51"			60.0	60.0	70.0	74.2
	30"	132"		60.0	60.0	70.0	79.1
	36"			60.0	60.0	70.0	74.9
	42"			57.6	57.6	70.0	71.1
	48"			54.5	54.5	67.7	67.7
85-3/4"	30"	108"	102"	60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	59"			60.0	60.0	70.0	80.0
	30"	114"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	56"			60.0	60.0	70.0	80.0
	30"	120"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	53"			60.0	60.0	70.0	80.0
	30"	126"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	79.1
	51"			60.0	60.0	70.0	77.1
	30"	132"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	77.5
	42"			60.0	60.0	70.0	73.5
	48"			56.9	56.9	69.9	69.9

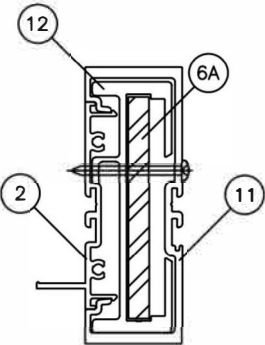
DOOR MULLION LOAD CAPACITY - PSF							
NOMINAL DIMS.				ALUMINUM REINF.		ALUM. + STEEL REINF.	
WIDTH (W1)	WIDTH (W2)	FRAME HEIGHT	DOOR HEIGHT	POS. (+)	NEG. (-)	POS. (+)	NEG. (-)
85-3/4"	30"	108"	108"	60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	59"			60.0	60.0	70.0	80.0
	30"	114"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	54"			60.0	60.0	70.0	80.0
	56"			60.0	60.0	70.0	80.0
	30"	120"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	53"			60.0	60.0	70.0	80.0
	30"	126"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	80.0
	48"			60.0	60.0	70.0	80.0
	51"			60.0	60.0	70.0	80.0
	30"	132"		60.0	60.0	70.0	80.0
	36"			60.0	60.0	70.0	80.0
	42"			60.0	60.0	70.0	76.0
	48"			59.5	59.5	70.0	72.0

NEW WINDOWS OF MIAMI

"NEW WINDOWS OF MIAMI"



DOOR MULLION
ALUMINUM REINF.



DOOR MULLION
ALUM. + STEEL REINF.

FL#21632.1



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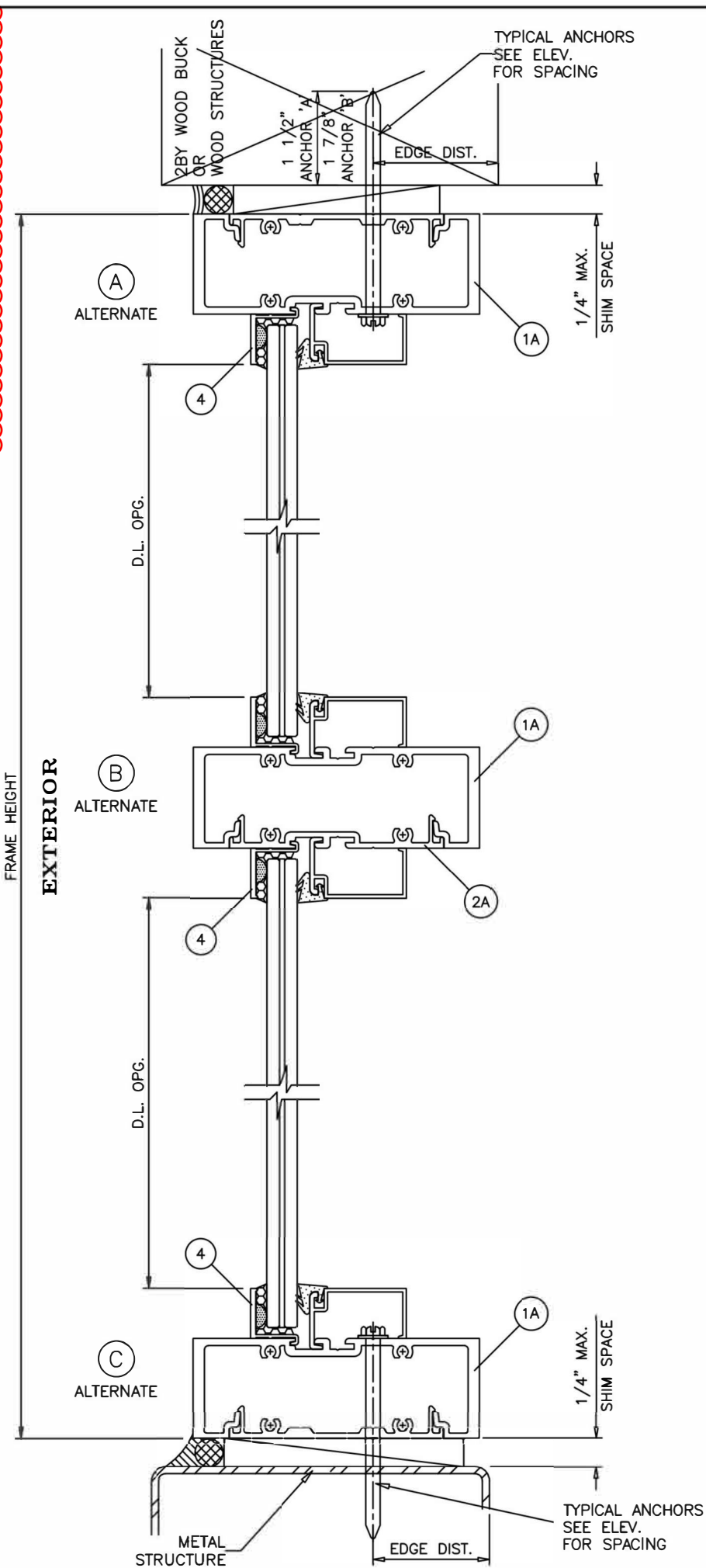
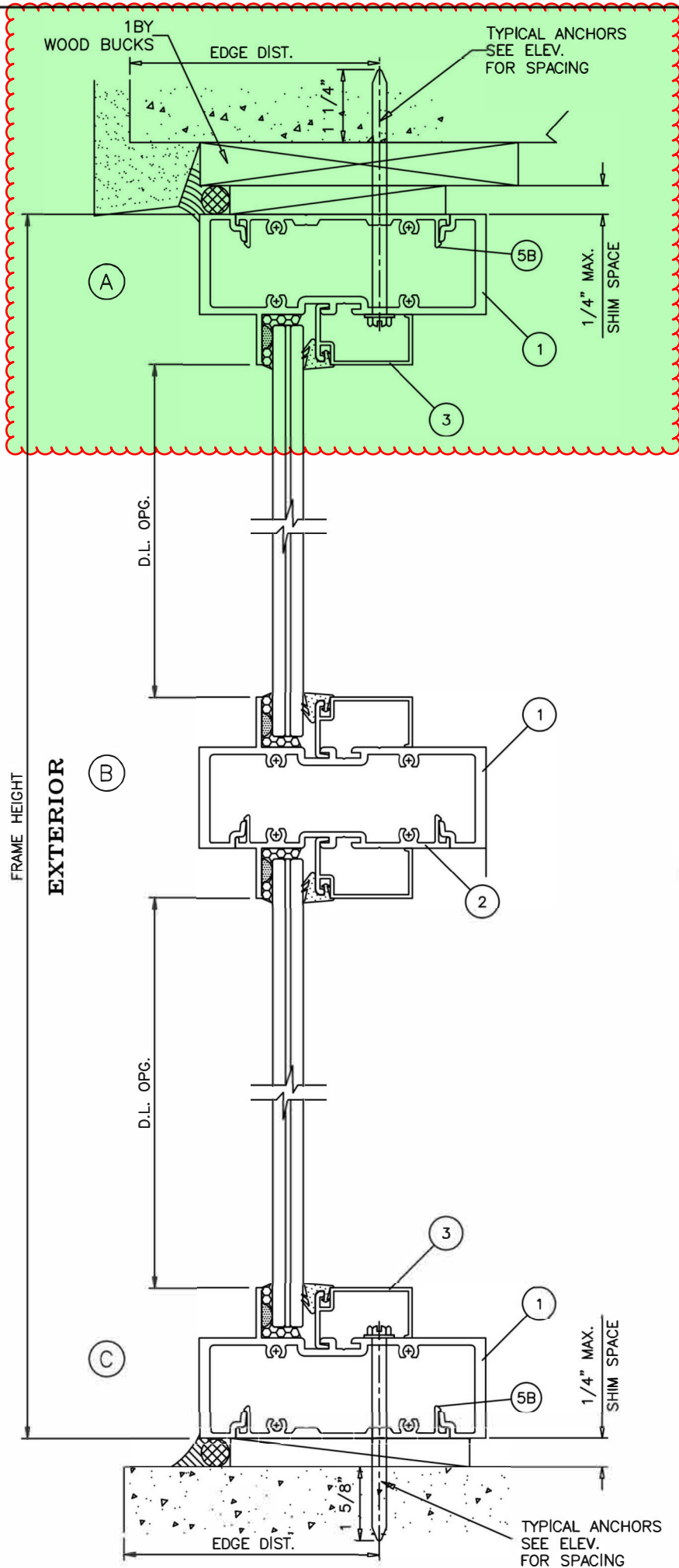
SERIES 400:ALUMINUM WINDOW WALL
SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED



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TEL. (305) 885-5299 FAX. (305) 885-5902



SEALED: 12/30/2024



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

TYPE 'A'

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

DIRECTLY INTO CONCRETE OR MASONRY
1-5/8" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B'

5/16" DIA ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
INTO WOOD STRUCTURES
1-7/8" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY OR 2BY WOOD BUCKS INTO CONC. OR BLOCKS
1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
1-5/8" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-3/4" MIN. EMBED INTO FILLED BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 3-1/8" MIN.
INTO WOOD STRUCTURE = 1-1/4" MIN.

TYPE 'C'

#14 SMS OR SELF DRILLING SCREWS ST/ST (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)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1/2" 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.

FL#21632.1



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drawing no.	date	revision	MA	BS
JA-1844-24	12/30/2024			
		REVISION		
		DESCRIPTION		
		BY		
		DATE		
		No.		

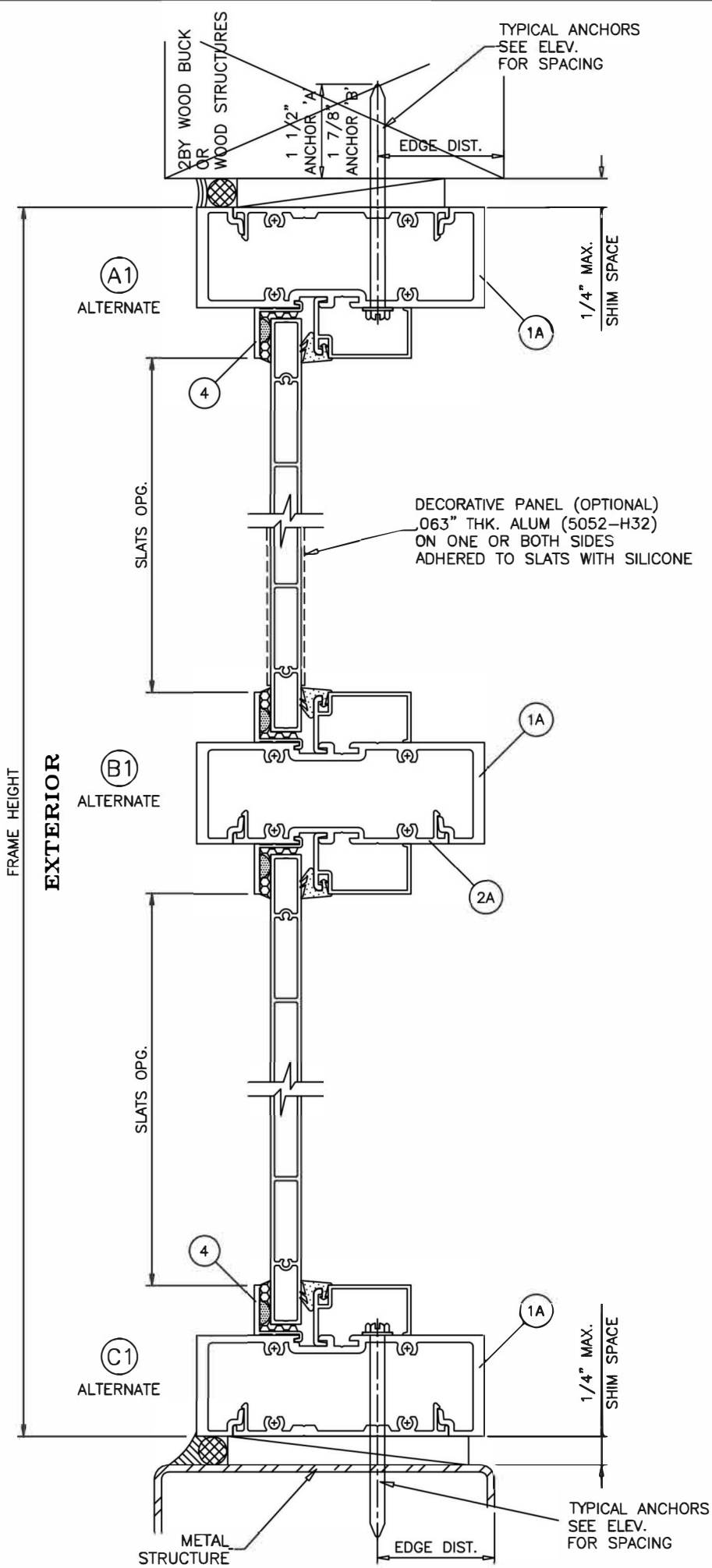
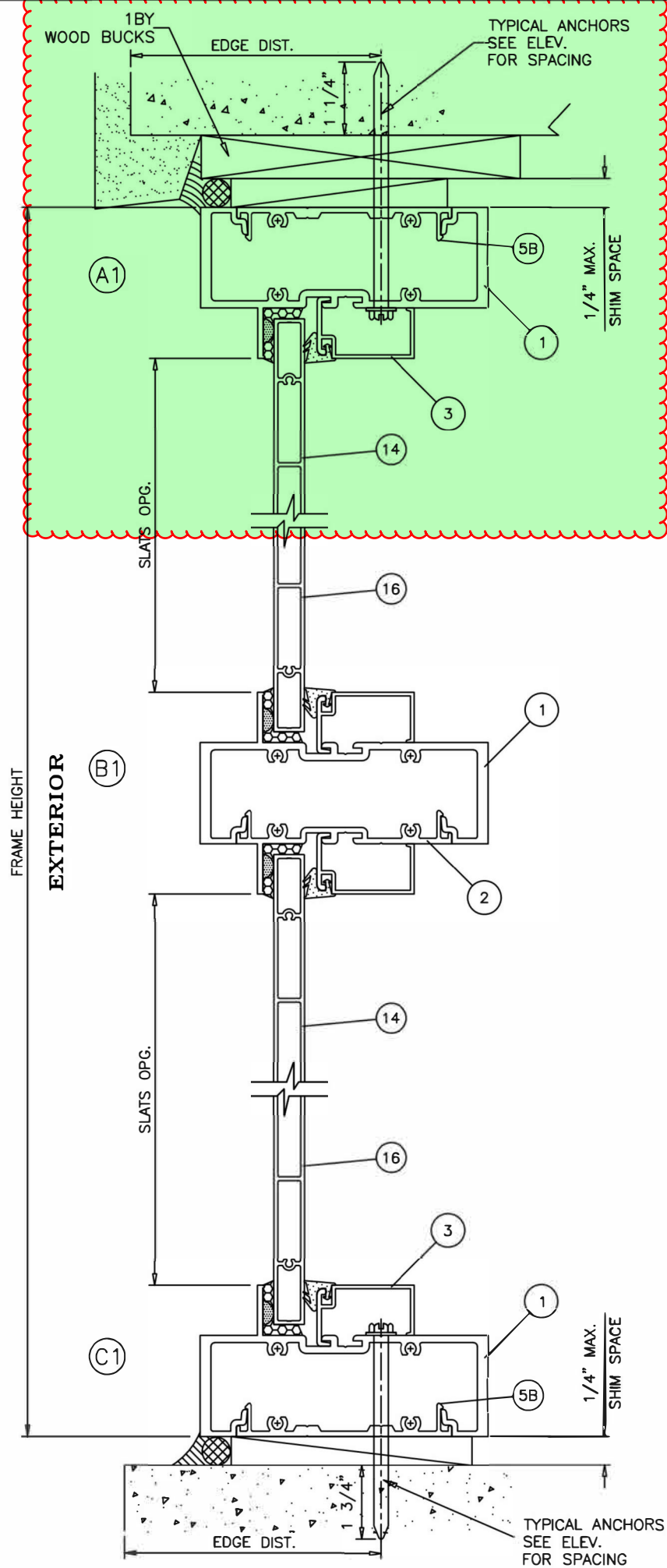
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SYSTEM (L.M.I.)
LARGE MISSILE IMPACT RATED



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



SEALED: 12/30/2024



FL#21632.1



JAVAD AHMAD PE, inc
7875 NW 12th St., Suite 102 Doral,
FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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

drawing no.	date	JA-1844-24	drawn by:	MA
revision	No.	DATE	BY	DESCRIPTION

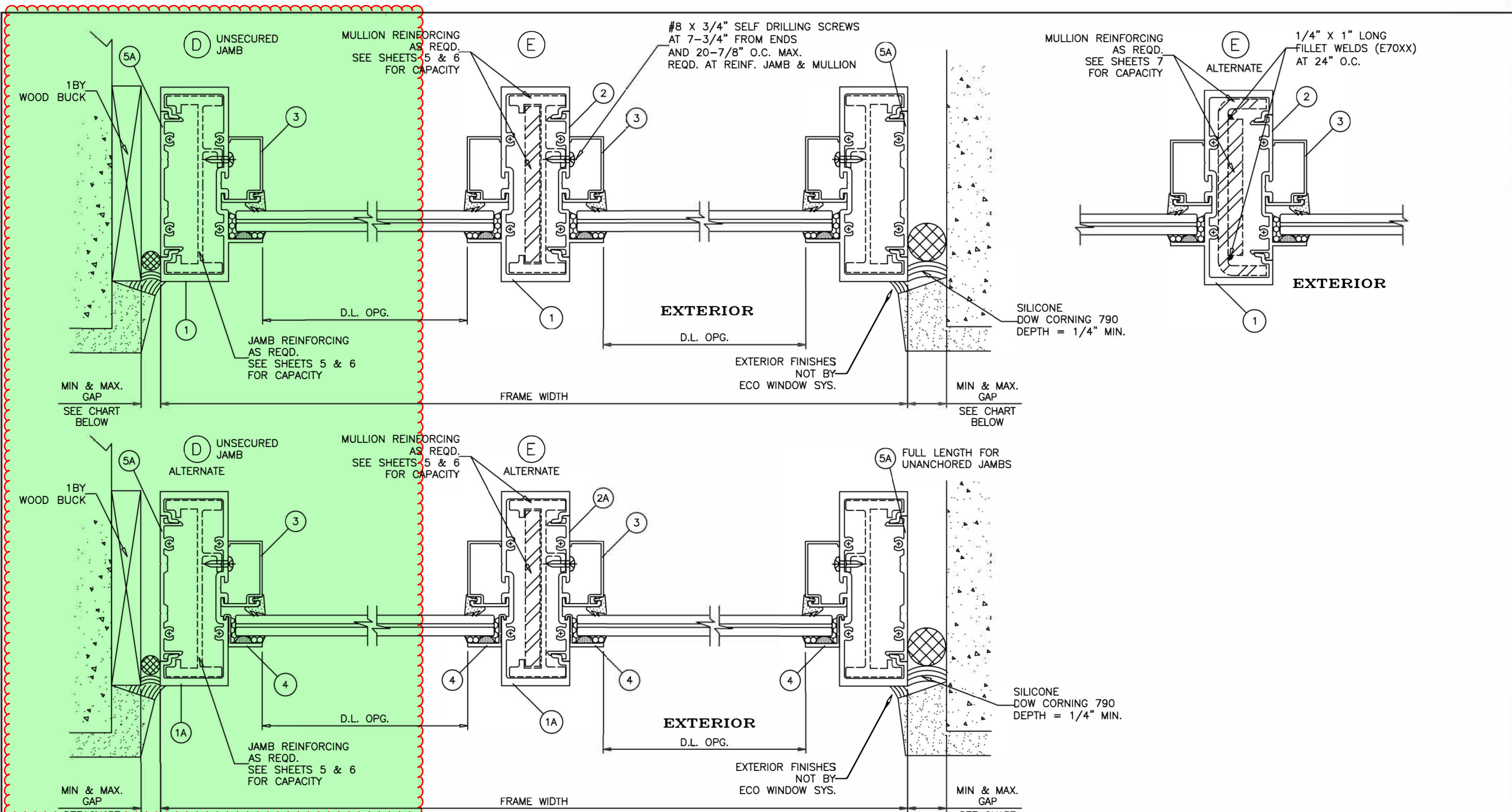
SERIES 400:ALUMINUM WINDOW WALL
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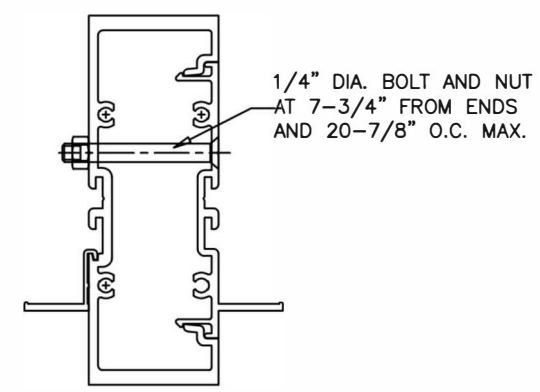
MAX. FRAME HEIGHT	GAPS FOR UNANCHORED JAMBS	
	MIN.	MAX.
UP TO 120"	1/4"	1"
132"	3/8"	1"

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-117.1R-14 FOR CONSTRUCTION TOLERANCES.

ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.

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

REFER TO SHEETS 6 THRU 10 FOR SELECTION OF MULLION/JAMB WITH REINFORCED & UNREINFORCED FRAMES.



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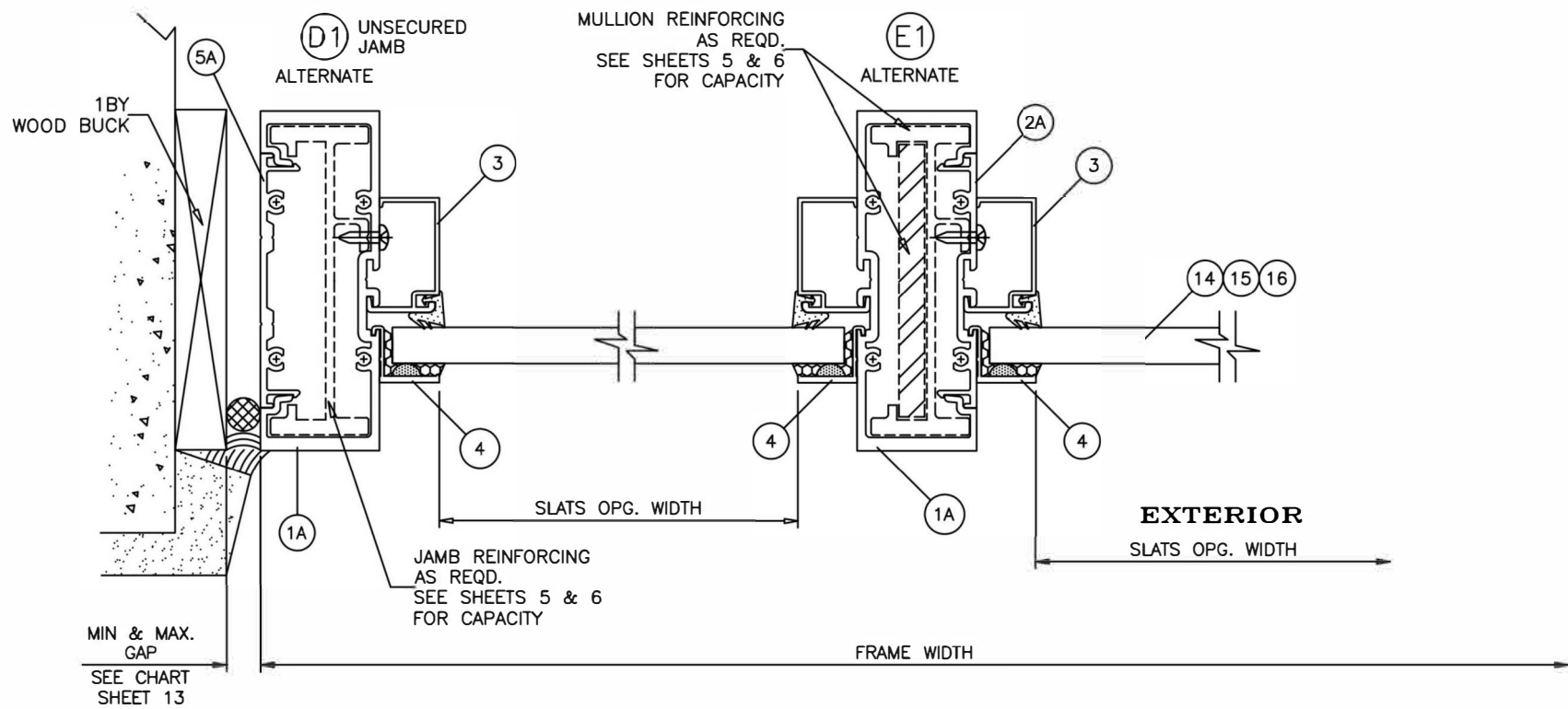
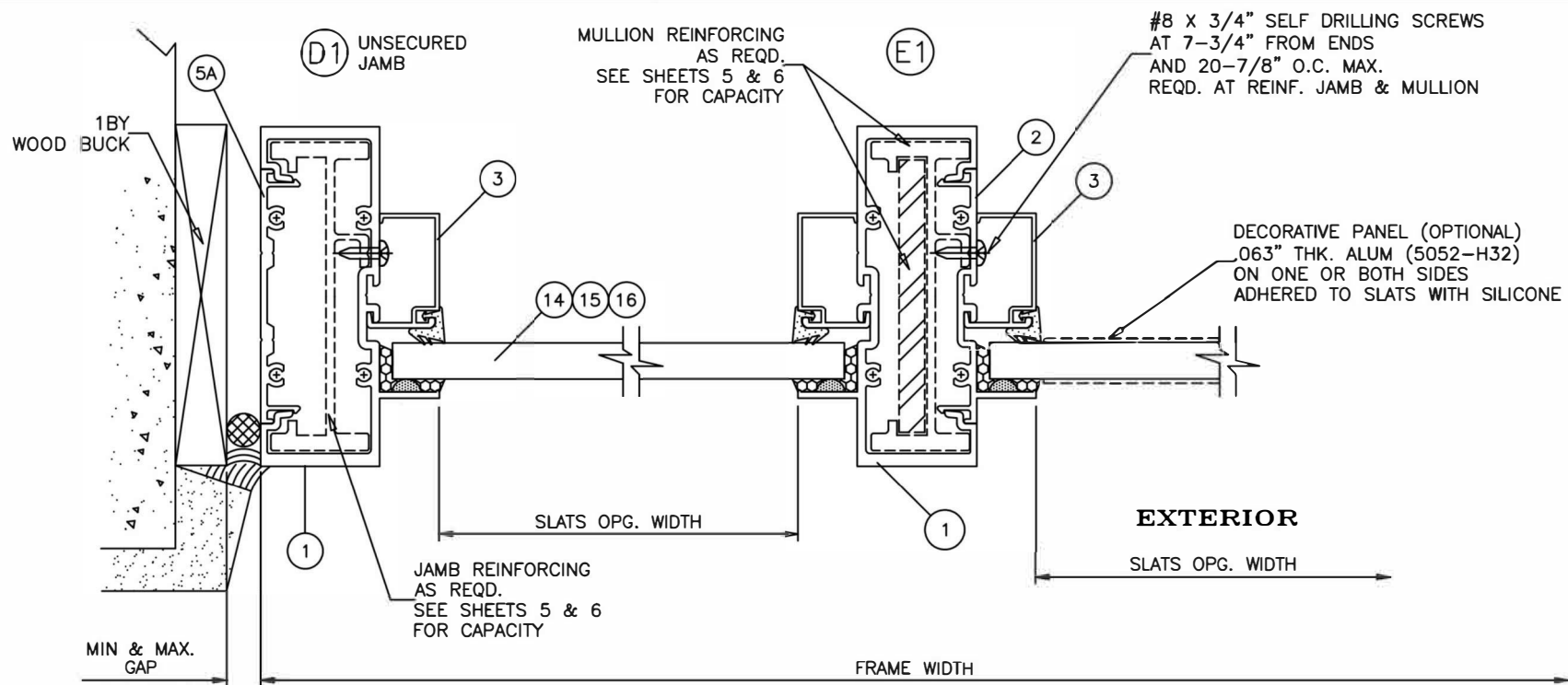
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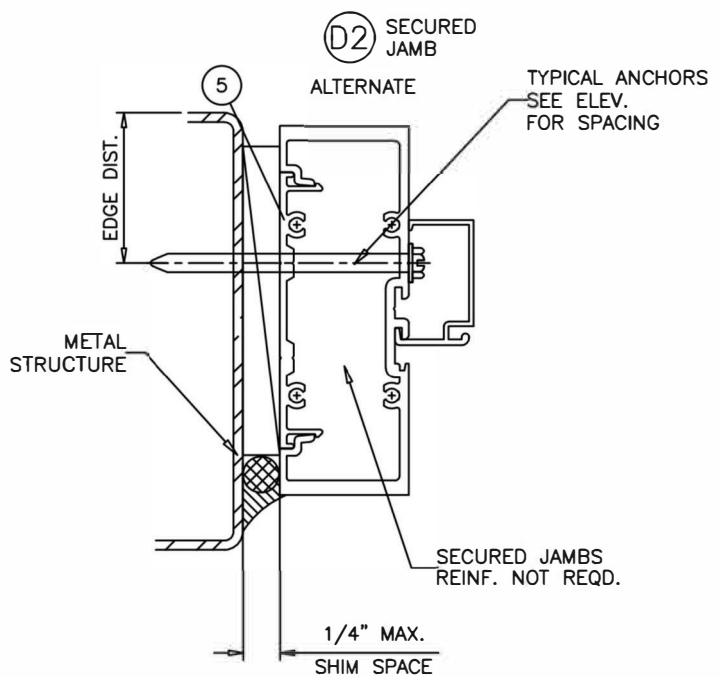
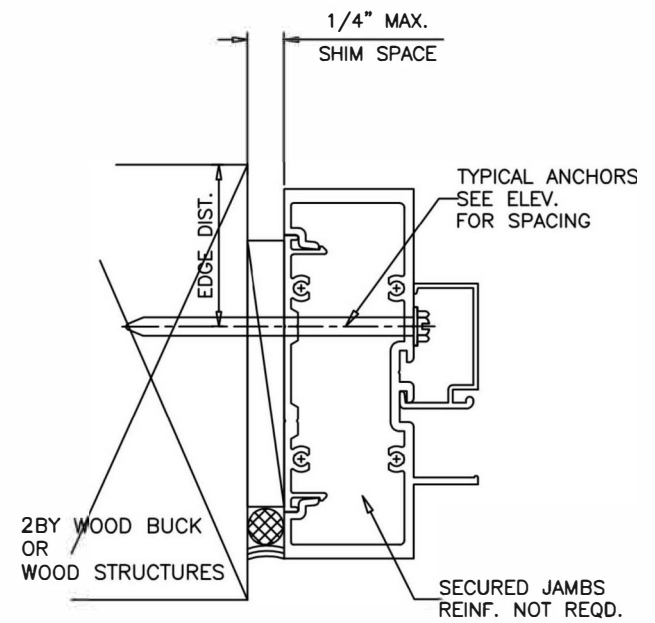
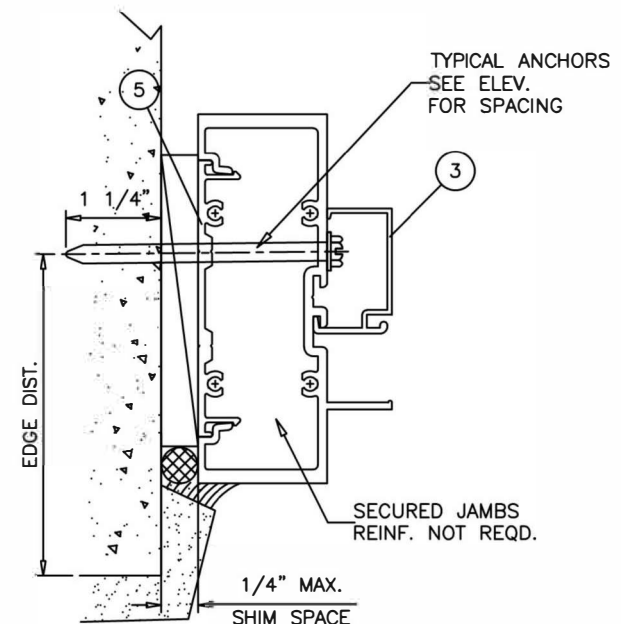
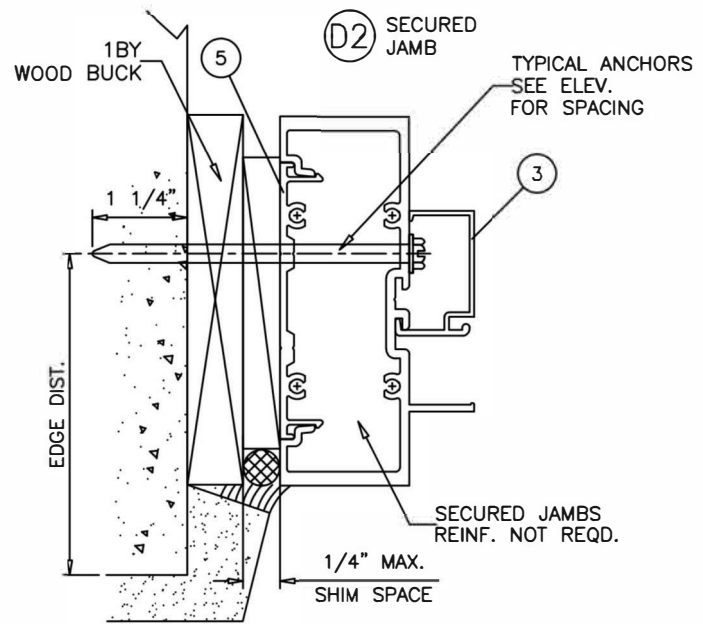
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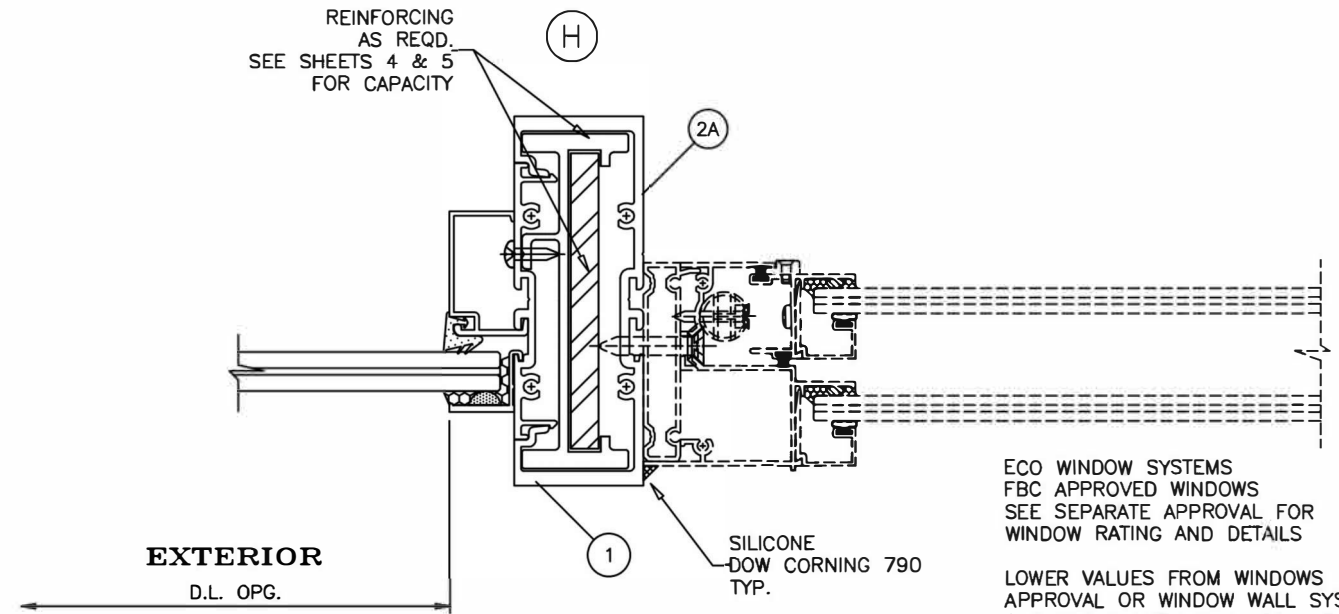
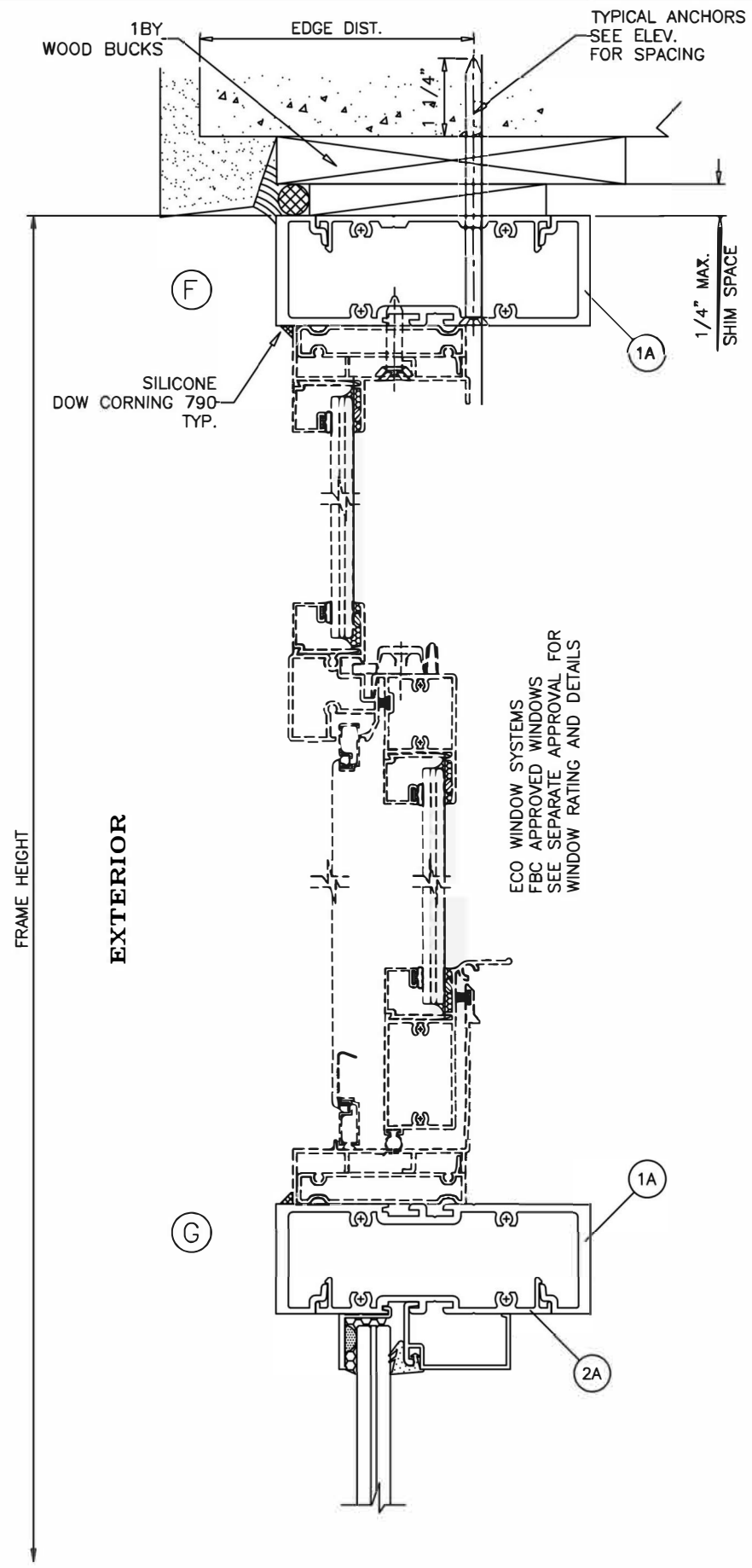
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ECO WINDOW SYSTEMS
FBC APPROVED WINDOWS
SEE SEPARATE APPROVAL FOR
WINDOW RATING AND DETAILS

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

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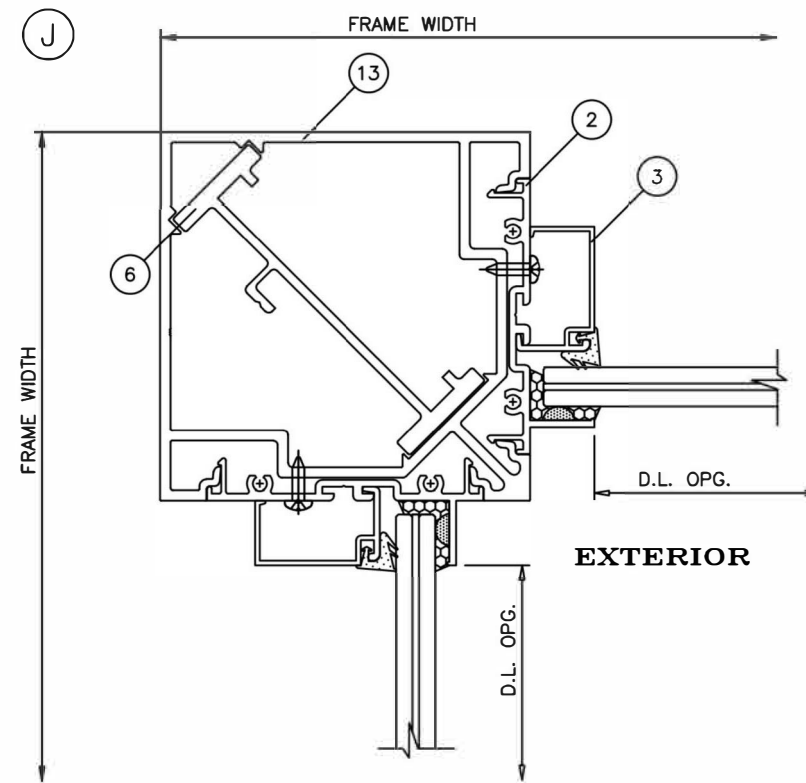
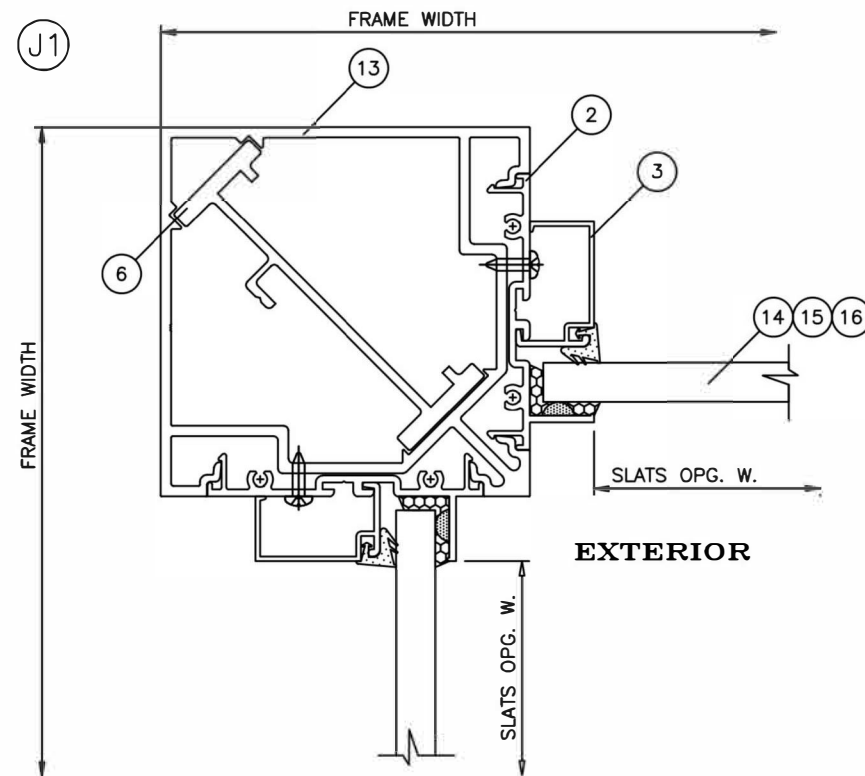
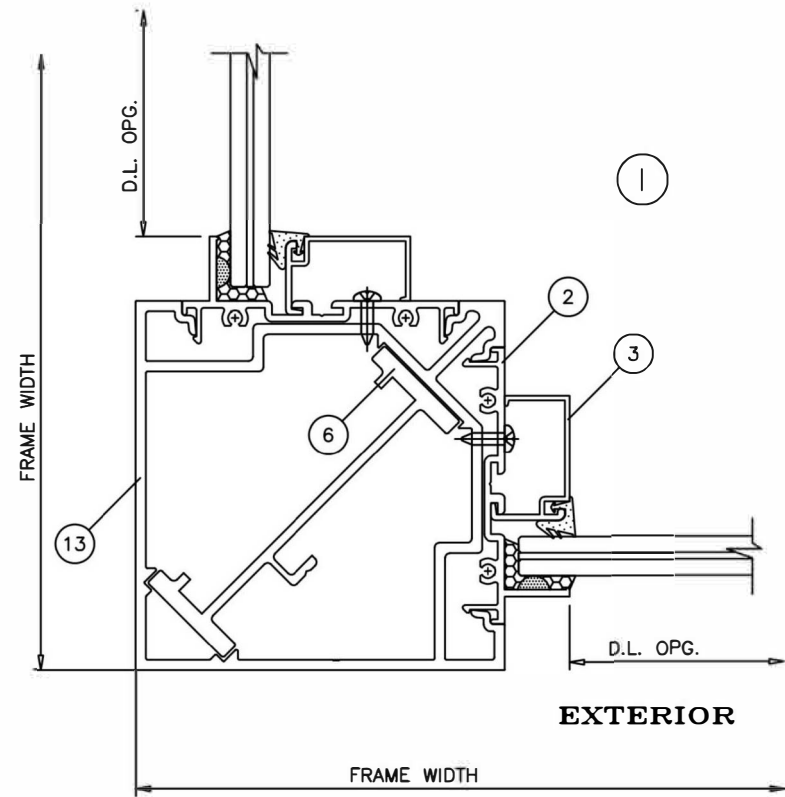
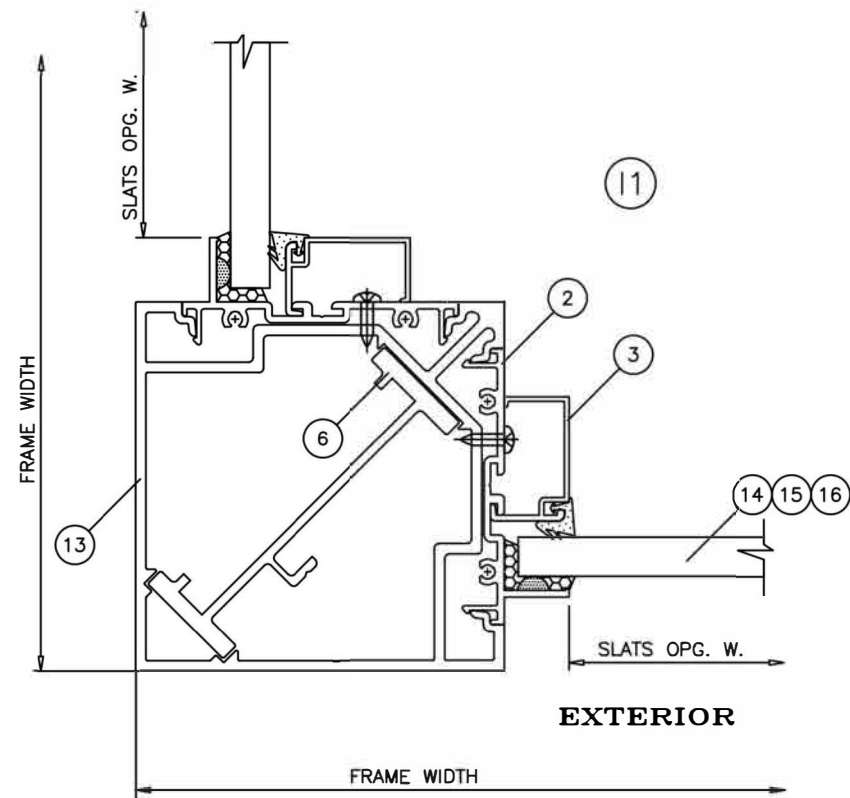
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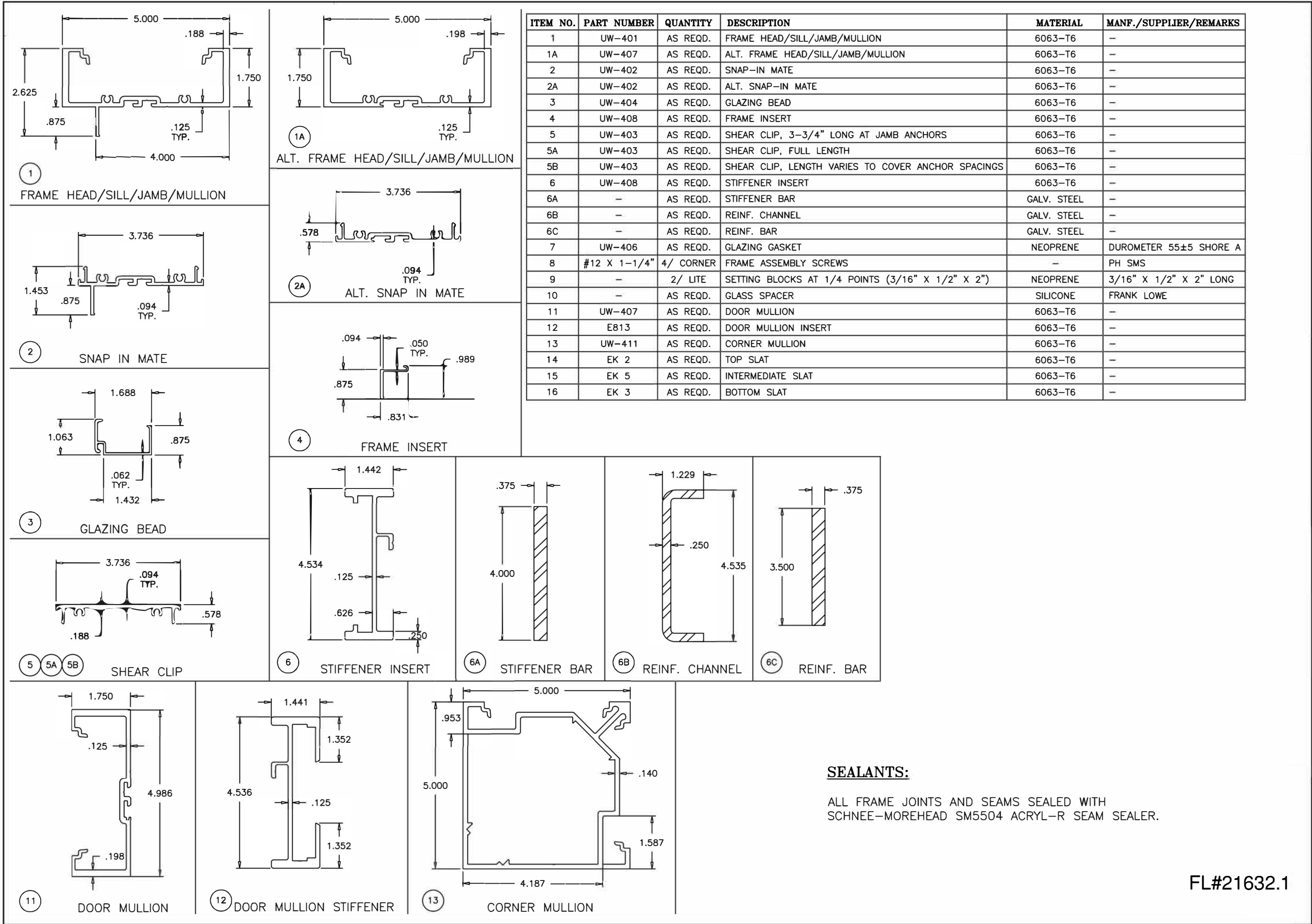
7875 NW 12th St., Suite 102 Doral,
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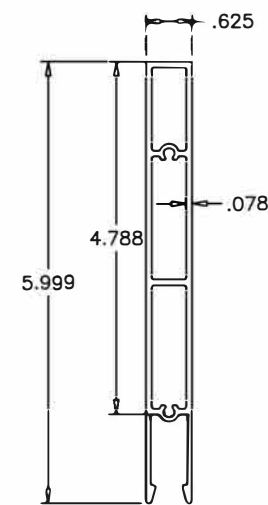
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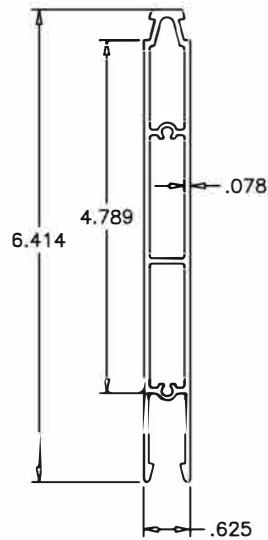






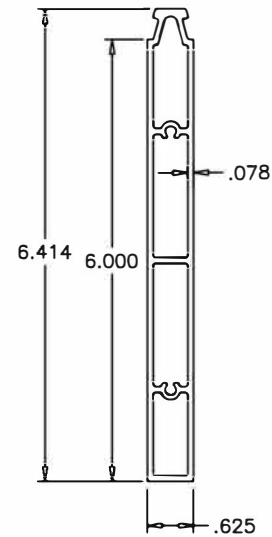
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TOP SLAT



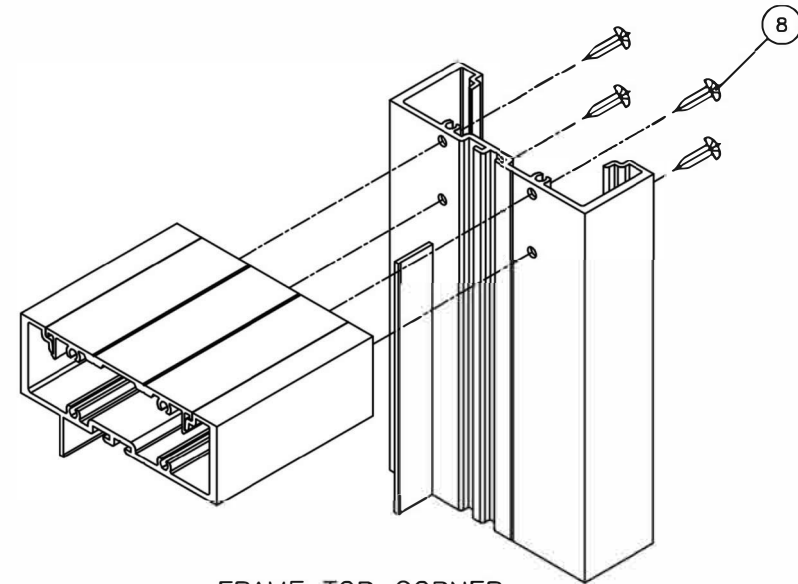
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INTERMEDIATE SLAT

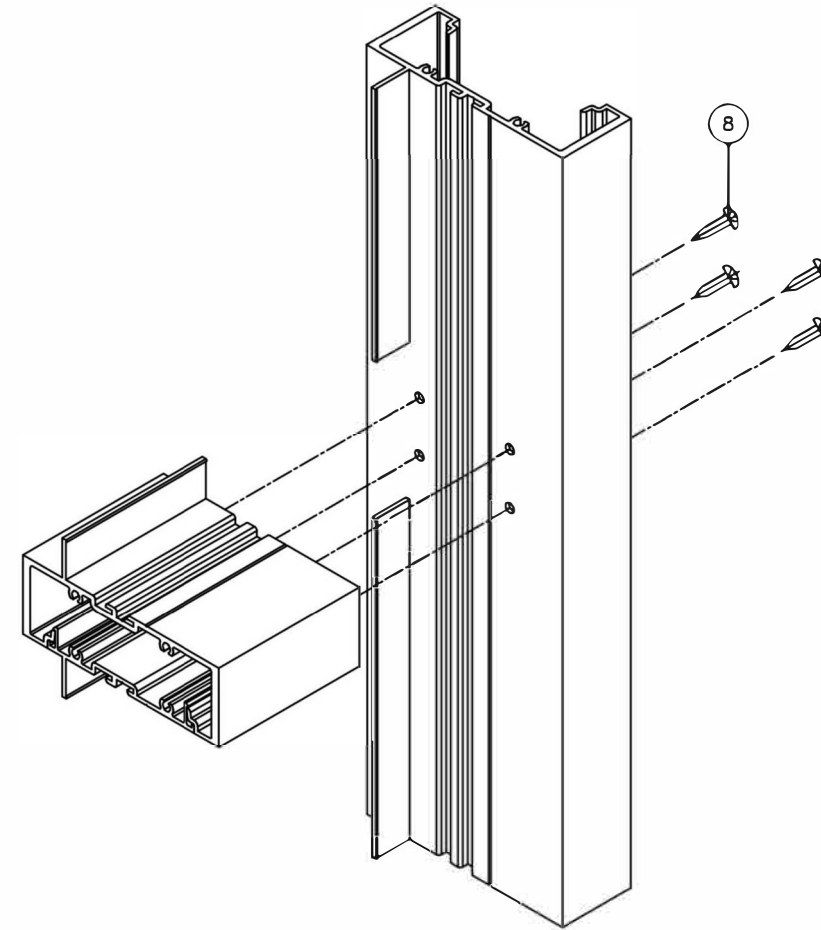


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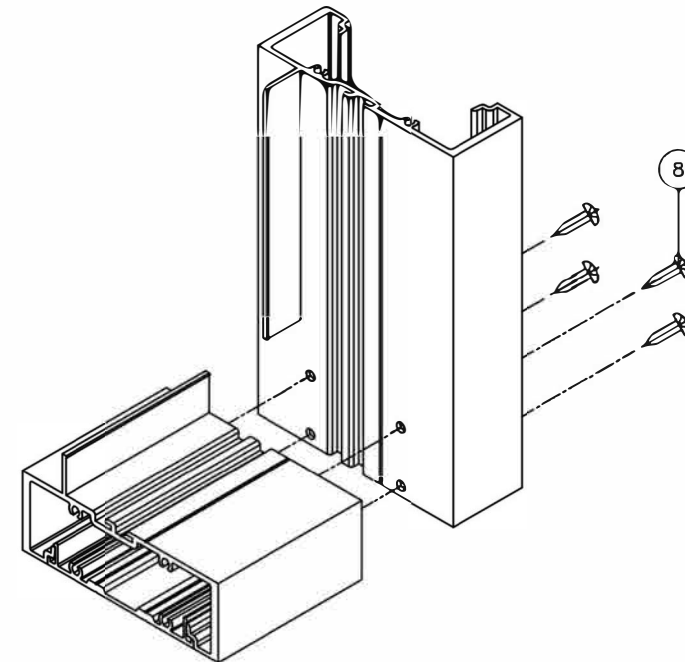
BOTTOM SLAT



FRAME TOP CORNER



HORIZONTAL CORNER



FRAME BOTTOM CORNER

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