

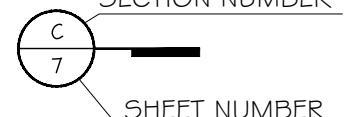
LINEA ROSSA LLC SERIES "LR-420" ALUMINUM OUTSWING CASEMENT WINDOWS LARGE MISSILE IMPACT

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 7TH EDITION OF FLORIDA BUILDING CODE 2020 INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- WINDOWS RATED FOR LARGE MISSILE IMPACT. LMI SYSTEM TO BE USED FOR INSTALLATIONS UP TO 30 FT OF GRADE. IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE WINDOWS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- 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.
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/ METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 7TH EDITION OF FLORIDA BUILDING CODE 2020 SECTION AS APPLICABLE.
- METAL STRUCTURES NOT CONTINENTAL GLASS SYSTEM TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.
- ULTIMATE LOAD OBTAINED FROM ASCE 7-16, 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.
- SEALANT:
ALL FRAME AND PANEL JOINT, INSTALLATION SCREWS AND HEAD OF ANCHOR SCREWS TO BE SEALED WITH DOW CORNING 899 SILICONE BUILDING SEALANT.

USE CHARTS AS FOLLOWS.

- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 STANDARD OR WIND TUNNEL REPORTS.
- STEP 2:** SEE SHEET E I FOR APPROVED TYPICAL ELEVATION & CONFIGURATION.
- STEP 3:** SEE SHEET G I FOR ALLOWED WINDOW SIZE AND APPROVED DESIGN LOAD.
- STEP 4:** ANCHOR OPTION SEE SHEET D I. ANCHOR LAYOUT SEE SHEET E I.
- STEP 5:** THE LOWEST VALUE RESULTING FROM STEPS 2,3 & 4 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM. WHEN USE SYSTEM WITH DOOR, THE LOWER VALUE OF THE DESIGN PRESSURE RATING FOR THE SYSTEM AND THE DOOR SHALL APPLY.

ABBREVIATIONS AND SYMBOLS	
G.B. - GLASS BITE	
D.L.O. - DAYLITE OPENING	
F.H. - FRAME HEIGHT	
F.W. - FRAME WIDTH	
W/ - WITH	
W/O - WITHOUT	
O.C. - ON CENTER	

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.

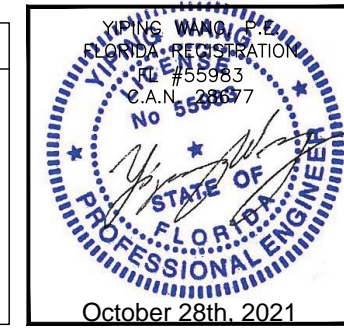
B- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

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 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.

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#39598



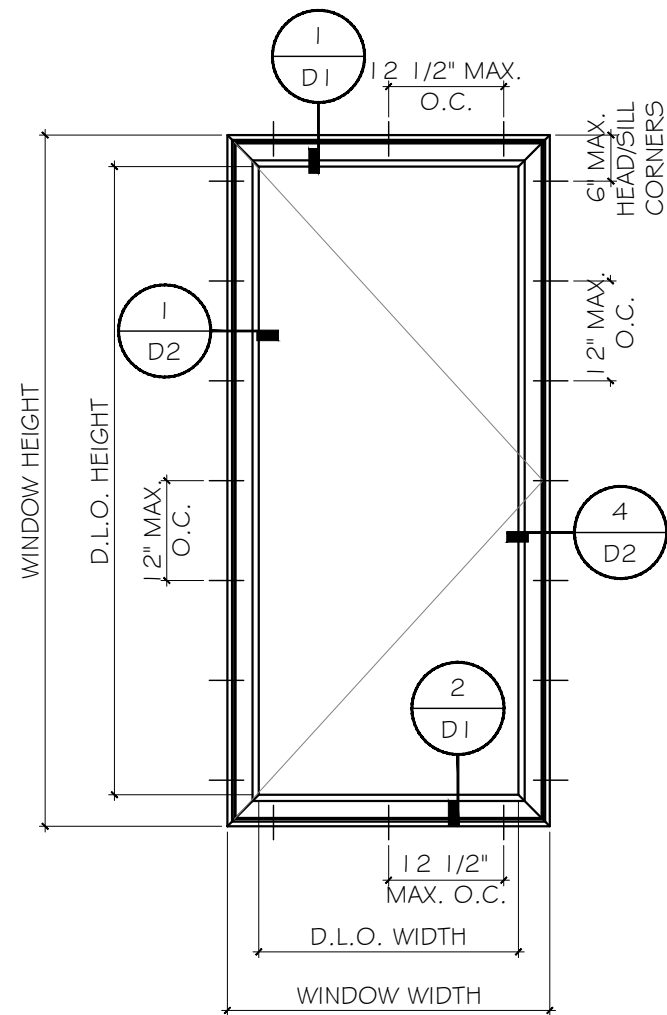
MCY ENGINEERING, INC.
GLAZING CONSULTANTS

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www.MCYEngineering.com mcy@mcyengineering.com

SERIES LR-420 ALUMINUM OUTSWING CASEMENT WINDOW - L.M.I.

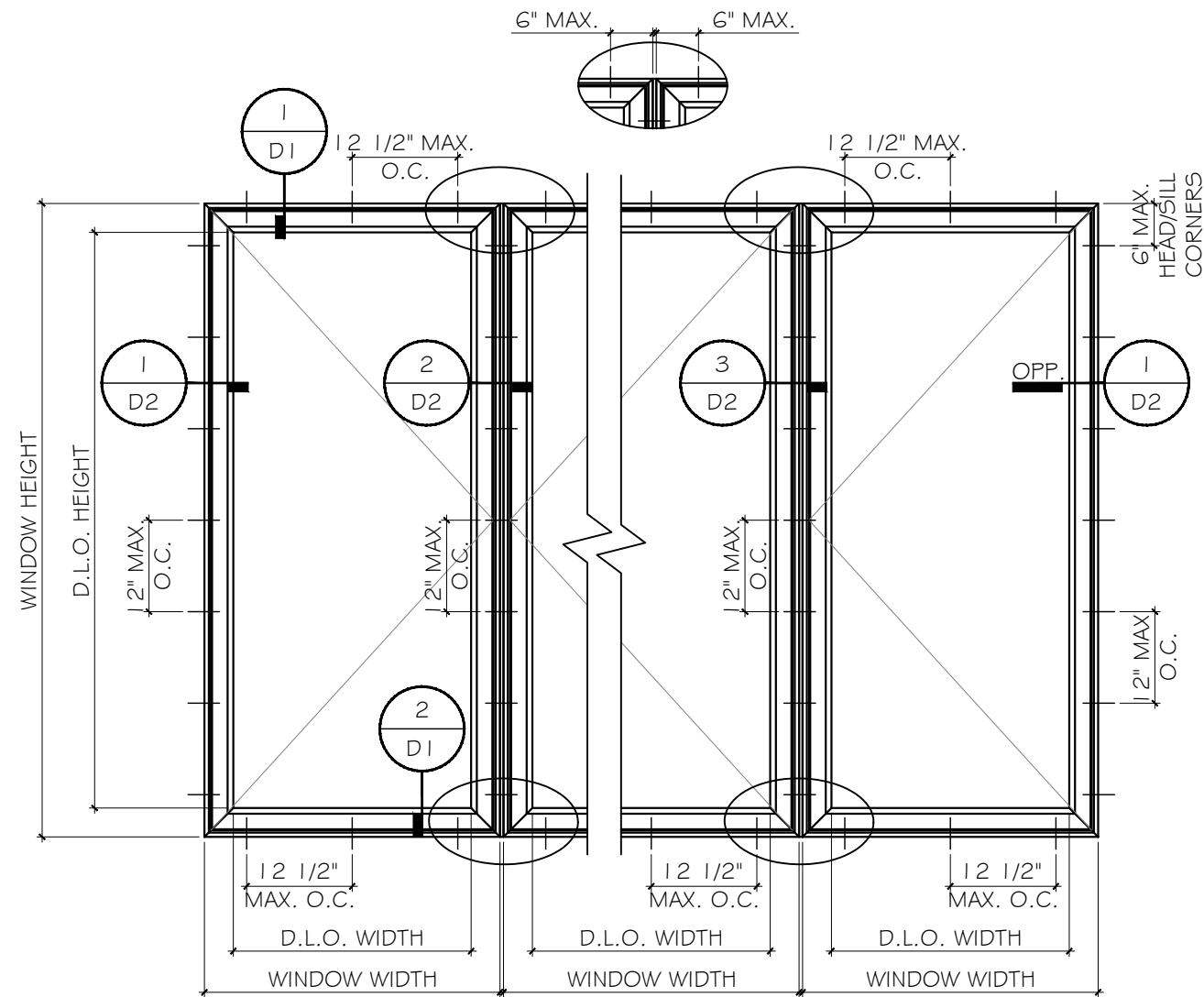
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COVER			
Sheet No.			
1 OF 8			



TYPICAL EXTERIOR ELEVATION

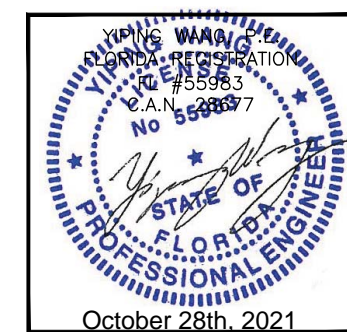
DESIGN LOAD
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC
+80 PSF -80 PSF



TYPICAL EXTERIOR ELEVATION

DESIGN LOAD
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC
+80 PSF -80 PSF

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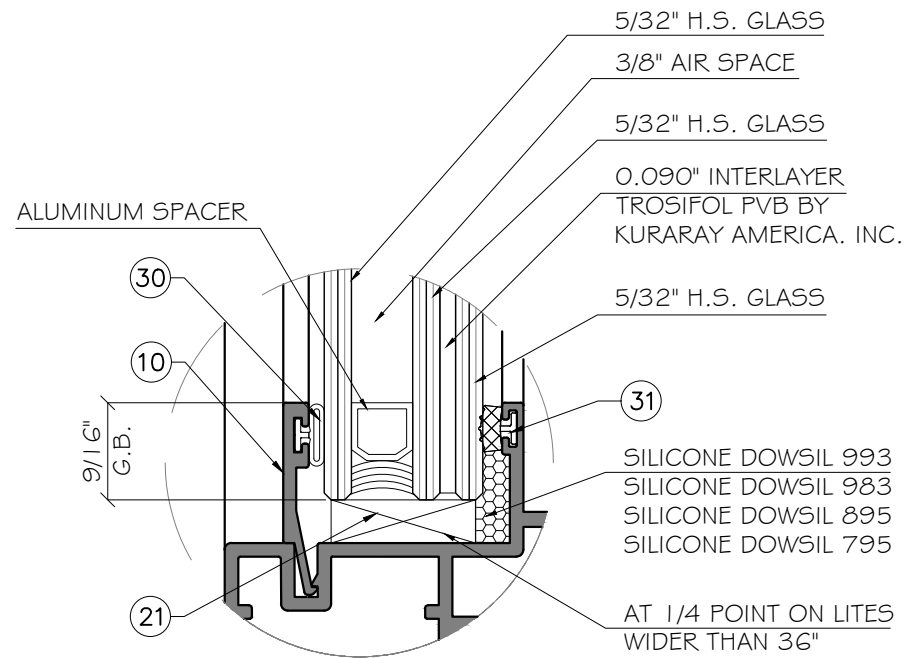
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E1

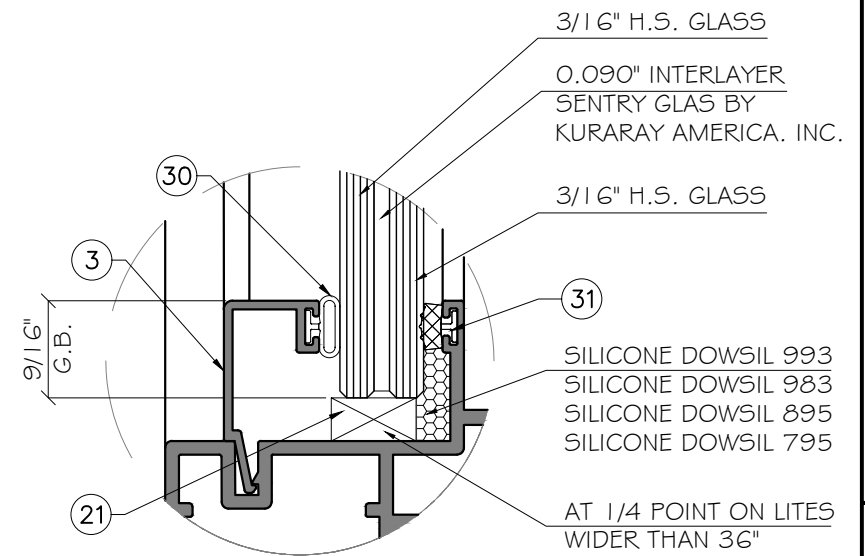
2 OF 8

DESIGN LOAD CAPACITY - PSF		
WINDOW DIMS.		GLASS TYPE
HEIGHT INCH	WIDTH INCH	'A' & 'B' (+)/(-)
36	24	80
	30	80
	36	80
	42	80
	48	80
	54	80
42	24	80
	30	80
	36	80
	42	70
	48	70
	54	70
48	24	80
	30	80
	36	80
	42	70
	48	62
	54	62
54	24	80
	30	80
	36	80
	42	70
60	24	80
	30	80
	36	80
	42	70
66	24	80
	30	80
	36	80
	42	70
72	24	80
	30	80
	36	80
76	24	80
	30	80
	36	80

DESIGN LOAD CAPACITY - PSF		
WINDOW DIMS.		GLASS TYPE
HEIGHT INCH	WIDTH INCH	'A' & 'B' (+)/(-)
26	26.5	80
	37	80
	38.375	26.5
50.625	26.5	80
	37	80
	50.625	26.5
63	26.5	80
	37	80
76	26.5	80
	37	80

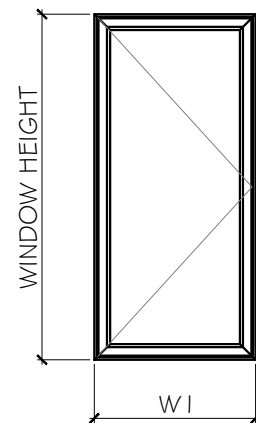


GA GLASS TYPE 'GA'
1 5/16" NOMINAL OVERALL

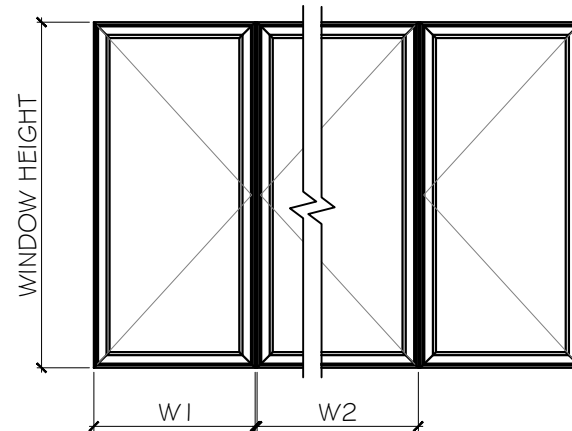


GB GLASS TYPE 'GB'
1 5/32" NOMINAL OVERALL

NOTE:
GLASS COMPLIES WITH ASTM E1300-09
(3 SEC. GUSTS).



WIDTH (W) = W1



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

GLASS D.L.O. DIMS.
D.L.O. HEIGHT = WINDOW HEIGHT - 8.188"
D.L.O. WIDTH = WINDOW WIDTH - 8.188"

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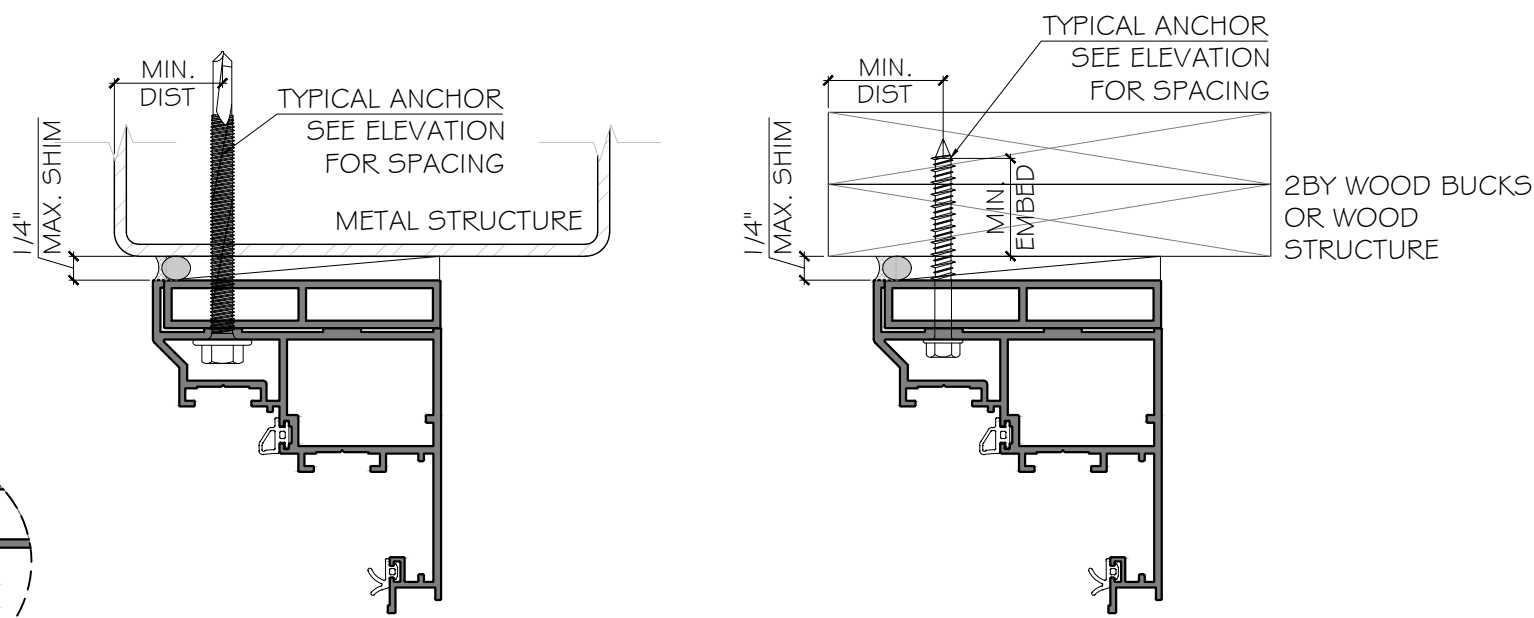
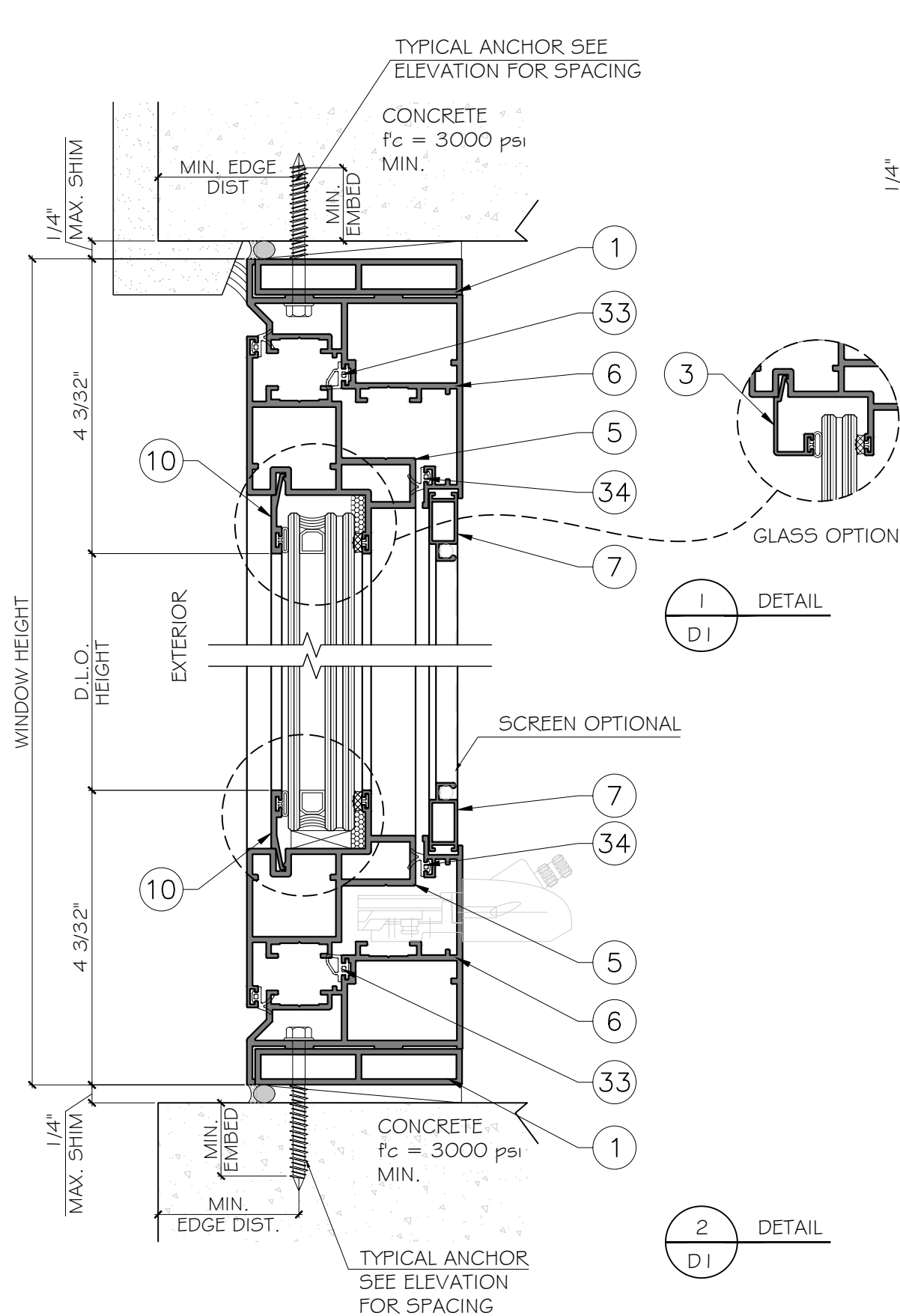
YIANG WANG
FLORIDA REGISTRATION
#55983
C.A.N. 2887
No 55983
STATE OF FLORIDA
PROFESSIONAL ENGINEER
October 28th, 2021

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Drawn Date: 10/12/2021
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G1
Sheet No.: 3 OF 8



ANCHOR TYPES: (SEE ELEVATIONS FOR SPACING)

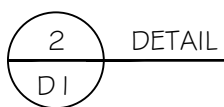
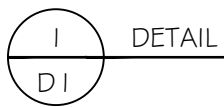
TYPE 'A' -- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2 BY WOOD BUCKS OR WOOD STRUCTURES.
 1 1/2" MIN. PENETRATION INTO WOOD

THRU 1 BY BUCKS INTO CONCRETE OR BLOCKS
 1 3/4" MIN. EMBED INTO CONCRETE
 1 3/4" MIN. EMBED IN TO BLOCKS

DIRECTLY INTO CONCRETE OR BLOCKS
 1 3/4" MIN. EMBED IN TO CONCRETE
 1 3/4" MIN. EMBED IN TO BLOCKS

TYPE 'B' -- #14 - 20 DRILL FLEX INDENTED HEX WASHER HEAD (GRADE 5 CRS)
 INTO FBC APPROVED MULLIONS (1/8" THK. MIN.)
 OR INTO METAL STRUCTURES, STEEL: 1/8" THK. MIN. (A36 MIN.)
 (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE
 INTO CONCRETE = 2-1/2" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMB f'c=3000PSI MIN.
 C-90 HOLLOW/ FILLED BLOCK AT JAMBS fm=2000 PSI MIN.



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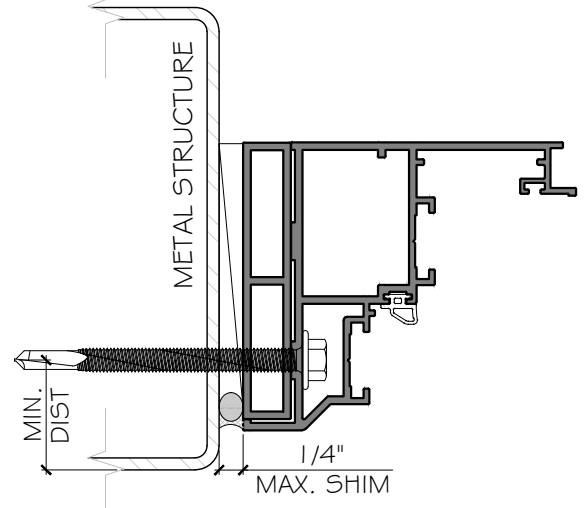
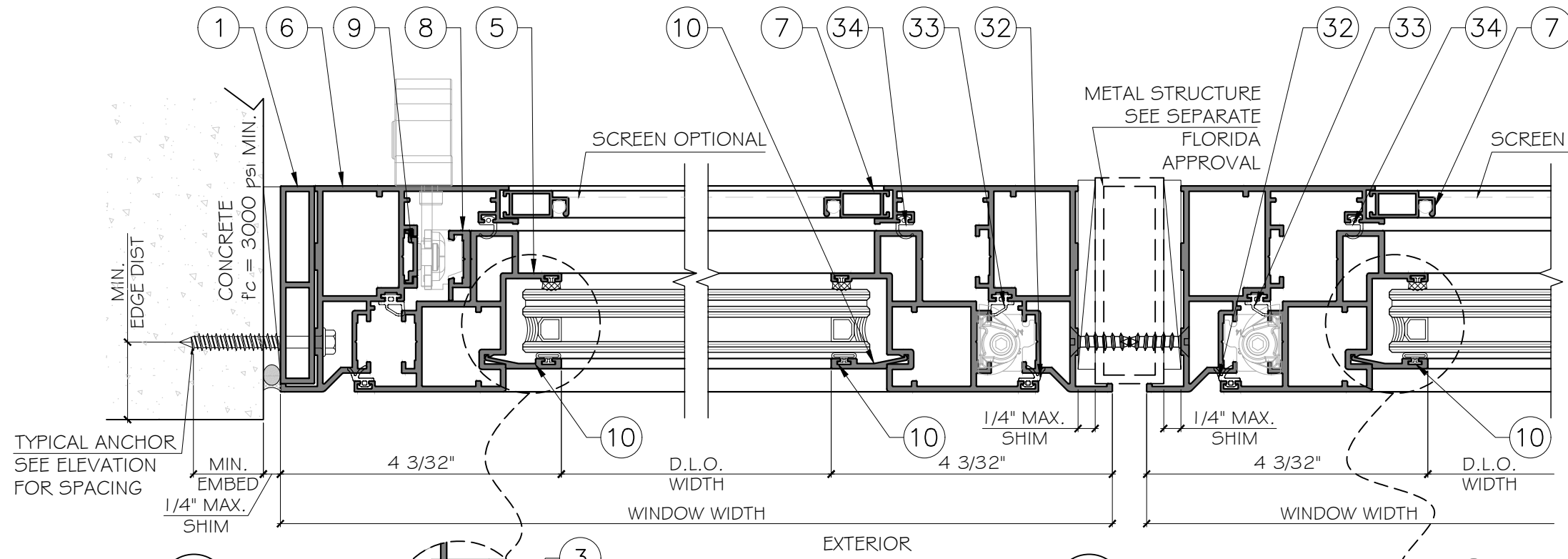
YIANG WANG
 FLORIDA REGISTRATION
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 C.A.N. 28877
 No 55983
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
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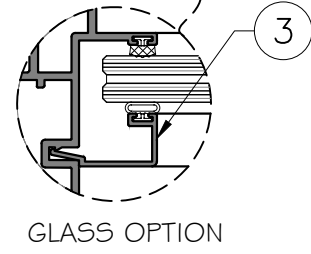
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Sheet No. **4 OF 8**

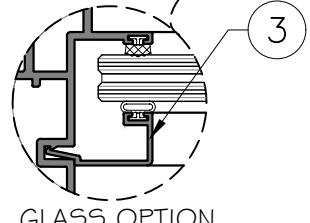


1
D2
DETAIL

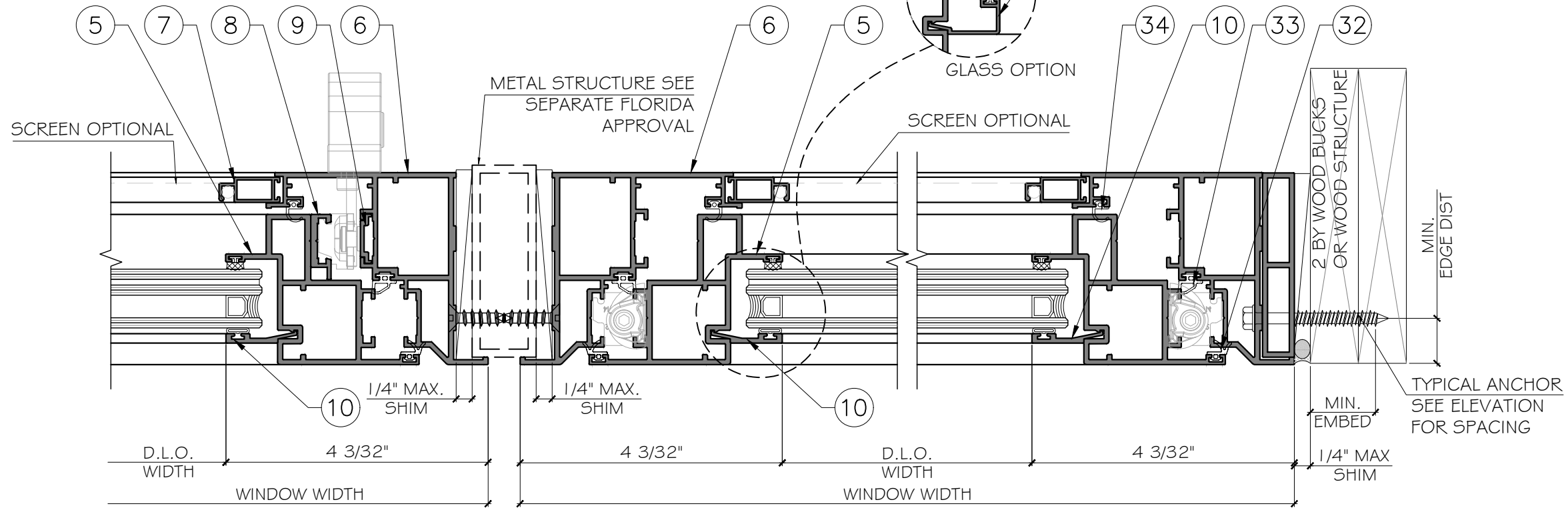


3
GLASS OPTION

2
D2
DETAIL



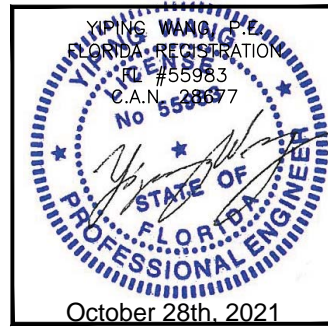
3
GLASS OPTION



3
D2
DETAIL

4
D2
DETAIL

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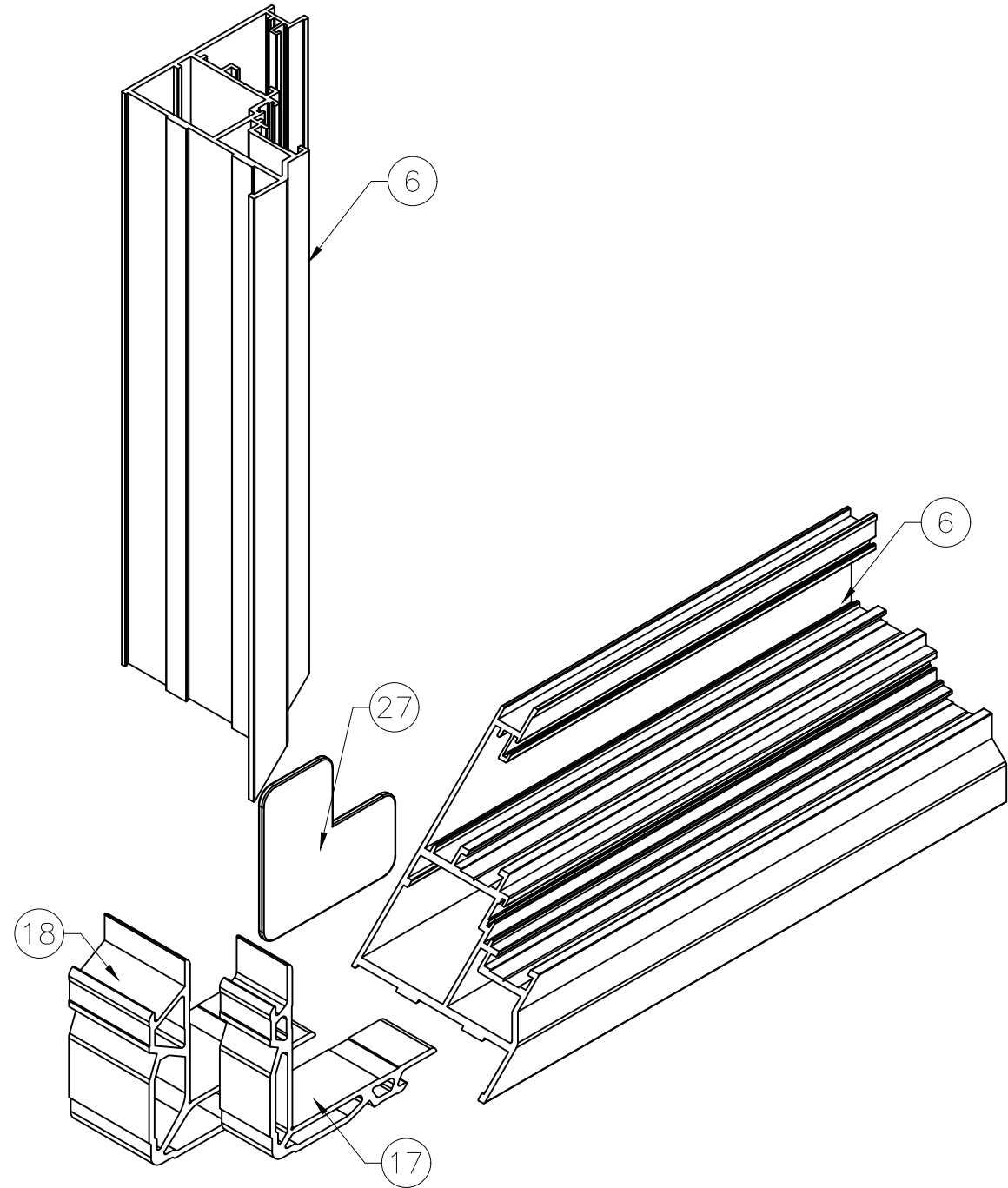
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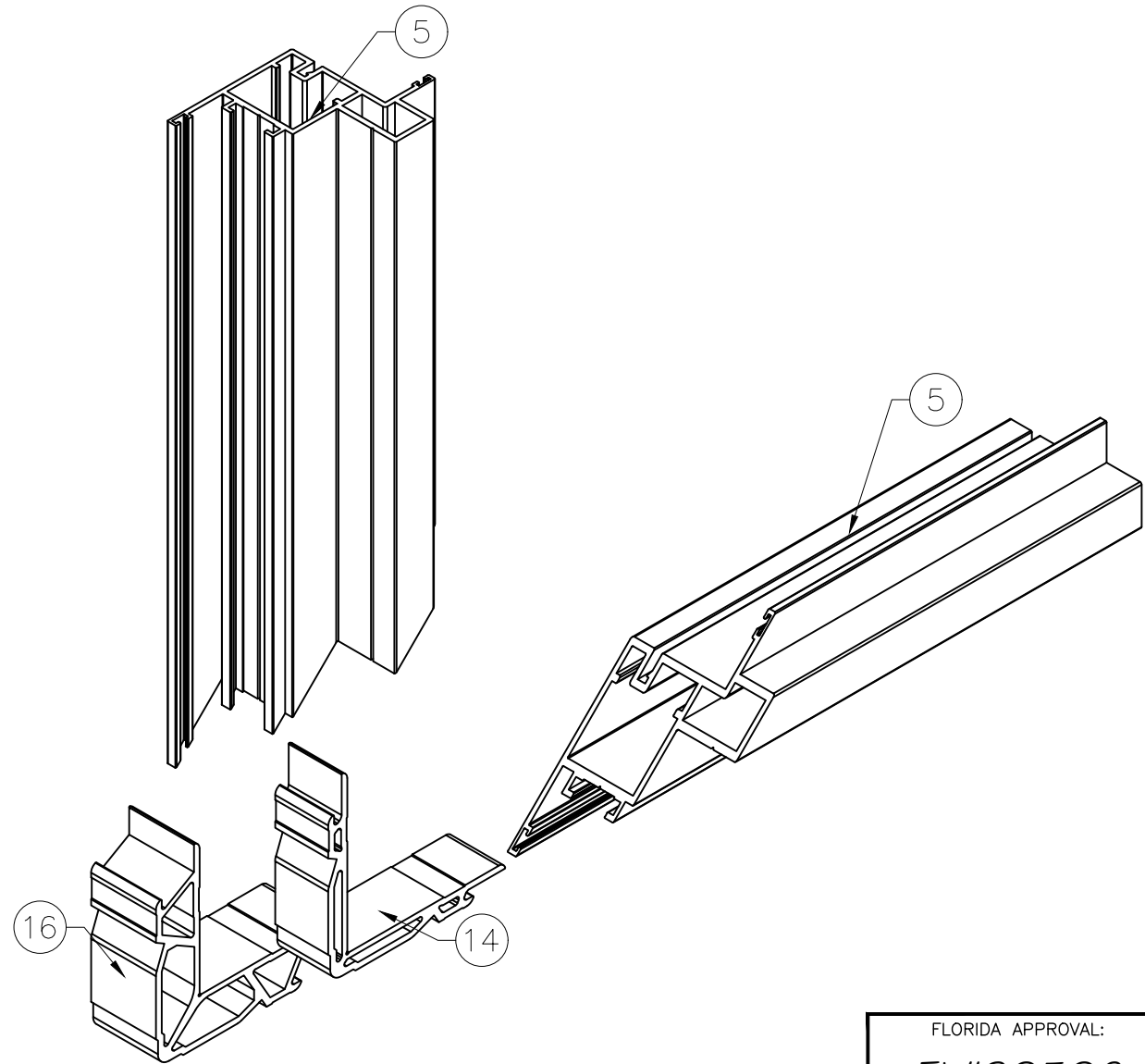
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DRAWING NO. AD21-29

Sheet No. 5 OF 8



FRAME PROFILE CORNER



SASH PROFILE CORNER

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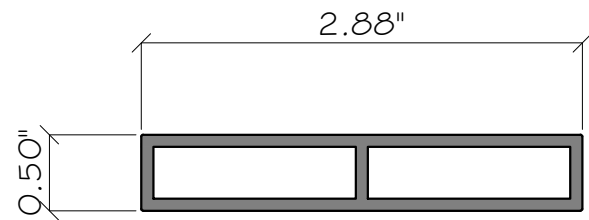
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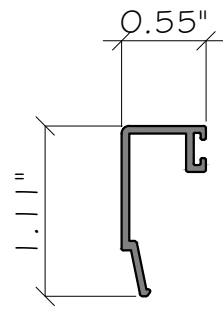
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DRAWING NO.: AD21-29

ISO
Sheet No.: 6 OF 8

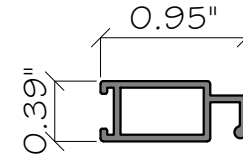
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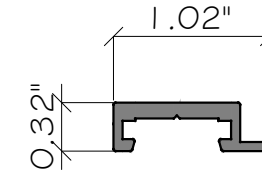
① TUBE PROFILE LR220-08
ALUM. 6063-T6



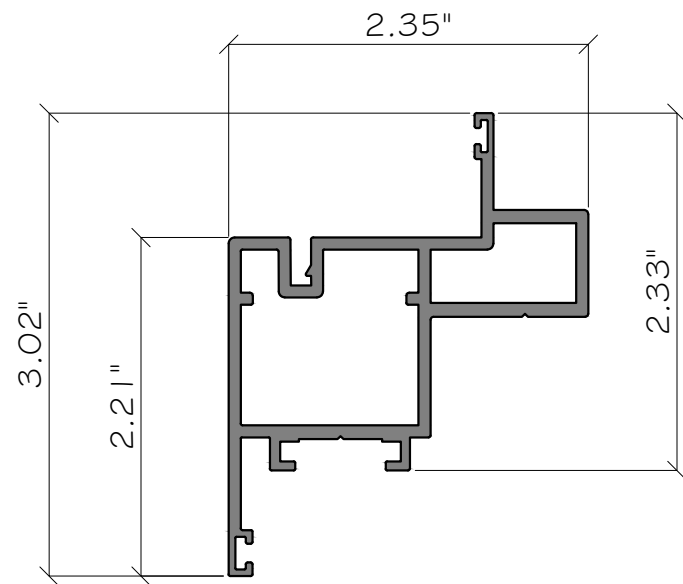
③ GLAZING BEAD LR220-14
ALUM. 6063-T6



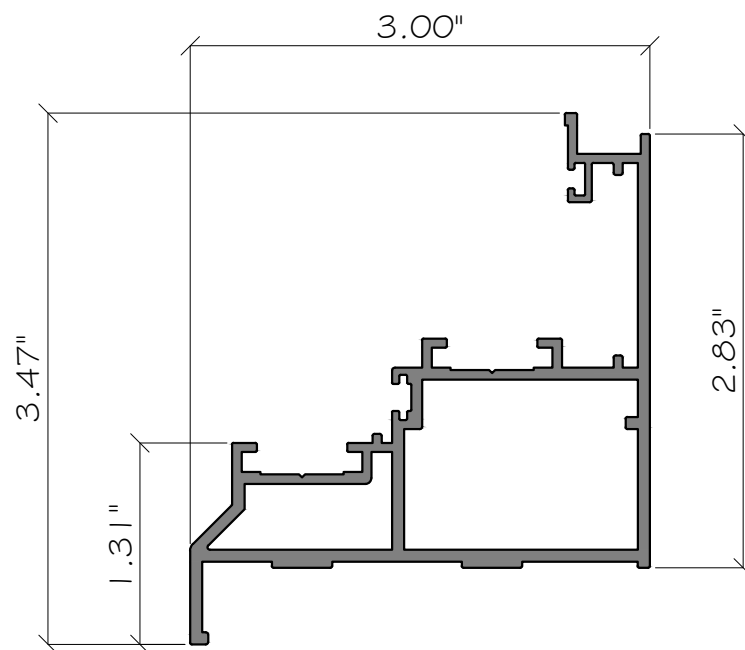
⑦ FLY SCREEN LR420-04
ALUM. 6063-T6



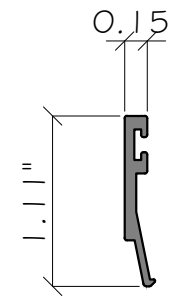
⑧ LOCK ADAPTER 420-09
ALUM. 6063-T6



⑤ VENT LR420-07
ALUM. 6063-T6

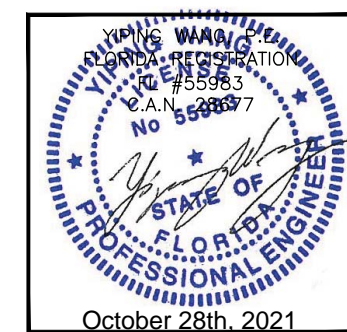


⑥ FRAME LR420-08
ALUM. 6063-T6



⑩ GLAZING BEAD 5000-08
ALUM. 6063-T6

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PART

Sheet No. 7 OF 8

BILL OF MATERIALS

ITEM #	PROFILE	DESCRIPTION	MATERIAL	MANUFACTURER/REMARKS
1	LR220-08	TUBE PROFILE	6063-T6	LINEA ROSSA
2	-	-	-	-
3	LR220-14	GLAZING BEAD	6063-T6	LINEA ROSSA
4	-	-	-	-
5	LR420-07	VENT PROFILE	6063-T6	LINEA ROSSA
6	LR420-08	FRAME PROFILE	6063-T6	LINEA ROSSA
7	LR420-04	FLYSCREEN	6063-T6	LINEA ROSSA
8	LR420-09	LOCK ADAPTER	6063-T6	LINEA ROSSA
9	LR440-15	ALUMINIUM ROD	6063-T6	LINEA ROSSA
10	5000-08	GLAZING BEAD	6063-T6	LINEA ROSSA
11	654	1"x3" TUBE	-	-
12	-	-	-	-
13	-	-	-	-
14	B3108238	CORNER CLEAT 8, 6x23,8 mm.	6063-T6	LINEA ROSSA
16	B3119291	CORNER CLEAT 19, 6x29,1 mm.	6063-T6	LINEA ROSSA
17	B3110241	CORNER CLEAT 10, 5x24,1 mm.	6063-T6	LINEA ROSSA
18	B3119384	CORNER CLEAT 19, 6x38,4 mm.	6063-T6	LINEA ROSSA
19	B61643541	INVISIBLE HINGE - RIGHT	ZAMAK ST. STEEL	AZURPASS
20	B61643542	INVISIBLE HINGE- LEFT	ZAMAK ST. STEEL	AZURPASS
21	B2410003	SETTING BLOCK	EPDM DUROMETER 80± SHORE A	-
22	B7410071	SINGLE ARM 7.5" OPERATOR RH	ST. STEEL	AZURPASS
	B7410072	SINGLE ARM 7.5" OPERATOR LH	ST. STEEL	AZURPASS
	B7410073	SINGLE ARM 9" OPERATOR RH	ST. STEEL	AZURPASS
	B7410074	SINGLE ARM 9" OPERATOR LH	ST. STEEL	AZURPASS
	B7410075	SINGLE ARM 13.5" OPERATOR RH	ST. STEEL	AZURPASS
	B7410076	SINGLE ARM 13.5" OPERATOR LH	ST. STEEL	AZURPASS
23	B7210009	OPERATOR HANDLE RH	NYLON	AZURPASS
	B7210010	OPERATOR HANDLE LH	NYLON	AZURPASS
24	B7210011	VESTA OPERATOR HANDLE RH	NYLON	AZURPASS
	B7210012	VESTA OPERATOR HANDLE LH	NYLON	AZURPASS
25	B7410077	LOCK HANDLE	ZAMAK	AZURPASS
26	B7410050	LOCK HANDLE	ALUMINIUM	AZURPASS
27	B2110441	CORNER ALIGNMENT	NYLON	AZURPASS
28	B7510119	FUTURA BURGLAR-PROOF FASTENING MECHANISM	ZAMAK ST. STEEL	AZURPASS
29	B2510751	WEEP COVER	NYLON	AZURPASS
30	B4510092	EXTERIOR GLASS GASKET	EPDM DUROMETER 60 ±5 SHORE A	LINEA ROSSA
31	B4510090	INTERIOR GLASS GASKET	EPDM DUROMETER 60 ±5 SHORE A	LINEA ROSSA
32	B4210016	VENT GASKET	EPDM DUROMETER 60 ±5 SHORE A	LINEA ROSSA
33	B4510094	CENTRAL GASKET	EPDM DUROMETER 60 ±5 SHORE A	LINEA ROSSA
34	B4110019	FRAME GASKET	EPDM DUROMETER 60 ±5 SHORE A	LINEA ROSSA

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8 OF 8			

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