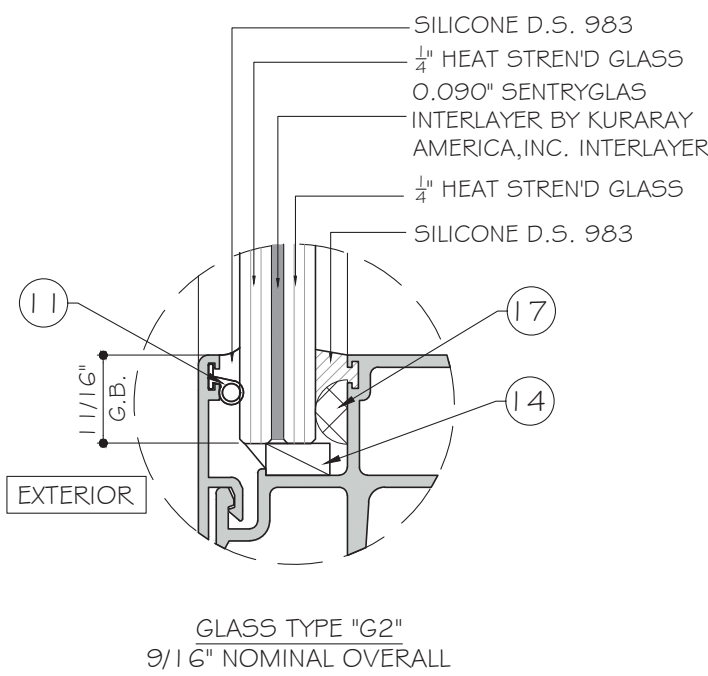
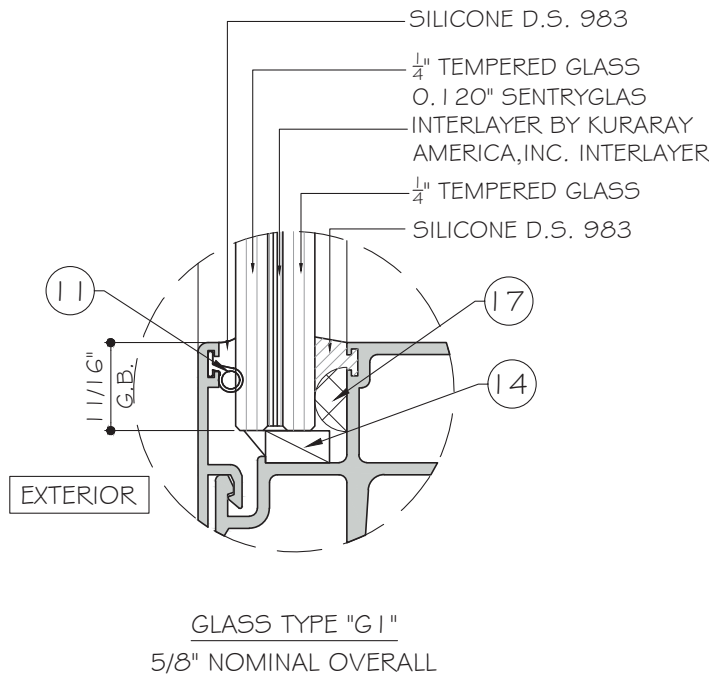


E.S. WINDOWS, INC.
SERIES ES-WW1032 ALUMINUM CURVED WINDOW WALL
LARGE MISSILE IMPACT (LMI)



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

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 7TH EDITION (2020)/8TH EDITION (2023) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- CURVED WINDOW WALL ARE RATED FOR LARGE MISSILE IMPACT. IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE CURVED WINDOW WALL 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 FLORIDA BUILDING CODE 7TH EDITION (2020)/8TH EDITION (2023) SECTION AS APPLICABLE.
- METAL STRUCTURES OR WOOD STRUCTURES NOT BY E.S. WINDOWS, INC 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/ASCE 7-22, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.
- SEALANT:
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION SEALED WITH SILICONE SEALANT.

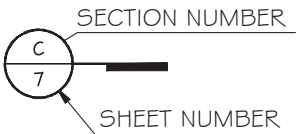
- MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE LABELING TO COMPLY WITH SECTION 1709.9.2.

INSTRUCTIONS:

- STEP 1:** DETERMINE ALLOWABLE DESIGN LOAD BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16/ ASCE 7-22 STANDARD. MAX. DESIGN LOAD SHOWN ON E1 SHOULD BE GREATER OR EQUAL ALLOWABLE DESIGN LOAD OBTAINED BY ASCE 7-16/ ASCE 7-22.
- STEP 2:** SEE APPROVED GLASS TYPE ON SHEET COVER.
- STEP 3:** SEE TYPICAL ELEVATION AND DESIGN LOAD ON SHEET E1.
- STEP 4:** SELECT ANCHOR TYPE ON SHEET D5.
- STEP 5:** THE LOWEST VALUE RESULTING FROM STEPS 3 SHALL APPLY TO ENTIRE SYSTEM.

ABBREVIATIONS AND SYMBOLS

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



LIMITATIONS OF USE

- A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
- B- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- C- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- D- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.
- E- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FLORIDA APPROVAL:

FL #39623



MCY ENGINEERING, INC.

GLAZING CONSULTANTS

12781 MIRAMAR PARKWAY #301
MIRAMAR, FL. 33027 P: 305.271.0117

www.MCYEngineering.com mcy@mcyengineering.com

SERIES ES - WW1032 ALUMINUM CURVED WINDOW WALL - L.M.I.

E.S. WINDOWS, INC.

10653 NE Quaybridge Ct.

Miami, FL33138

TEL. (305) 624-7775

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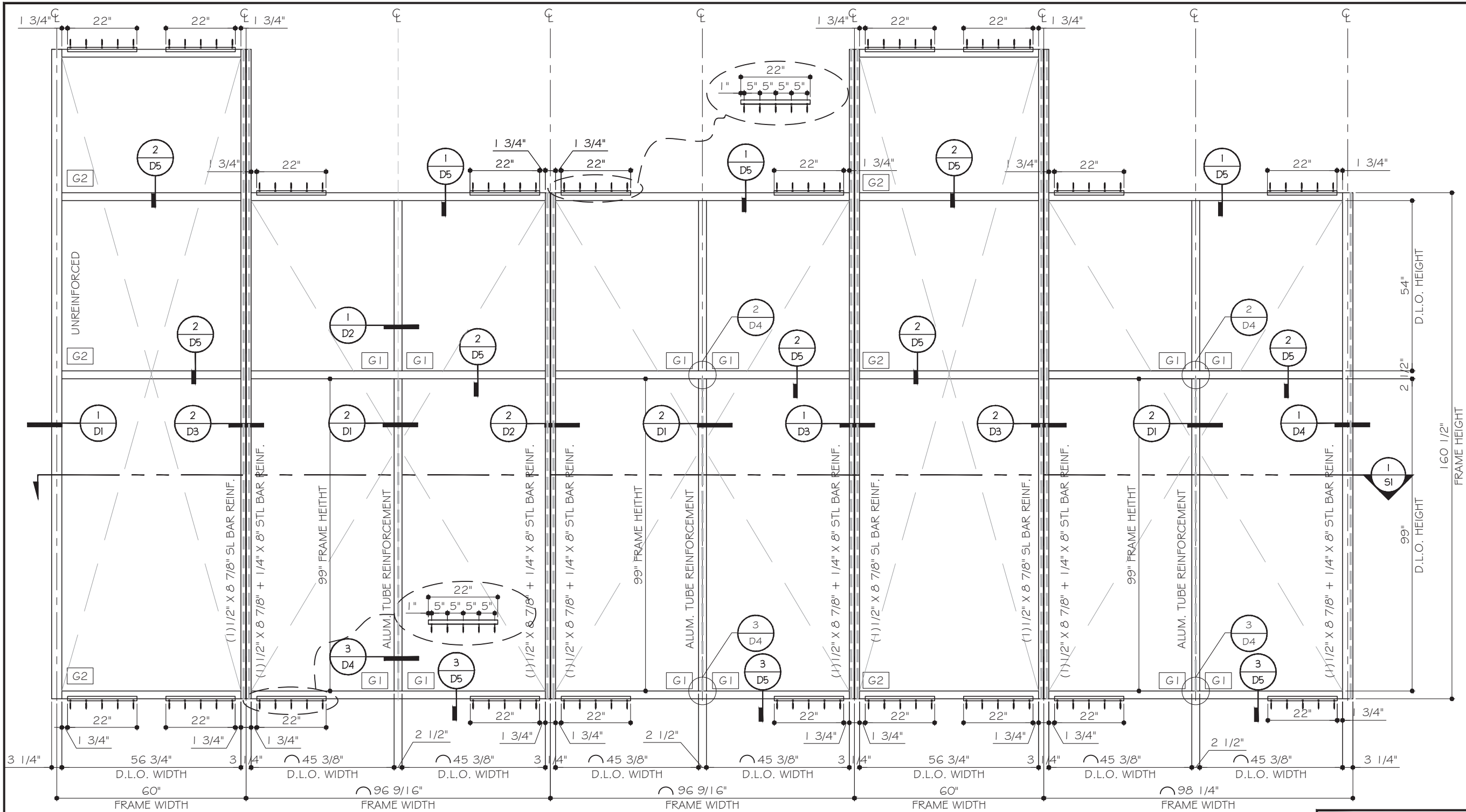
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COVER

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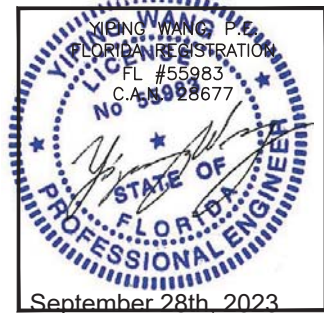


TYPICAL EXTERIOR ELEVATIONS

DESIGN LOADS (FOR SIZES SHOWN ABOVE ONLY)
+ 120.0 PSF - 120.0 PSF

NOTE:
THIS DOCUMENT ASSUMED POSITIVE OR
NEGATIVE LOAD SIMULTANEOUSLY APPLIED TO
THE ENTIRE SYSTEM.

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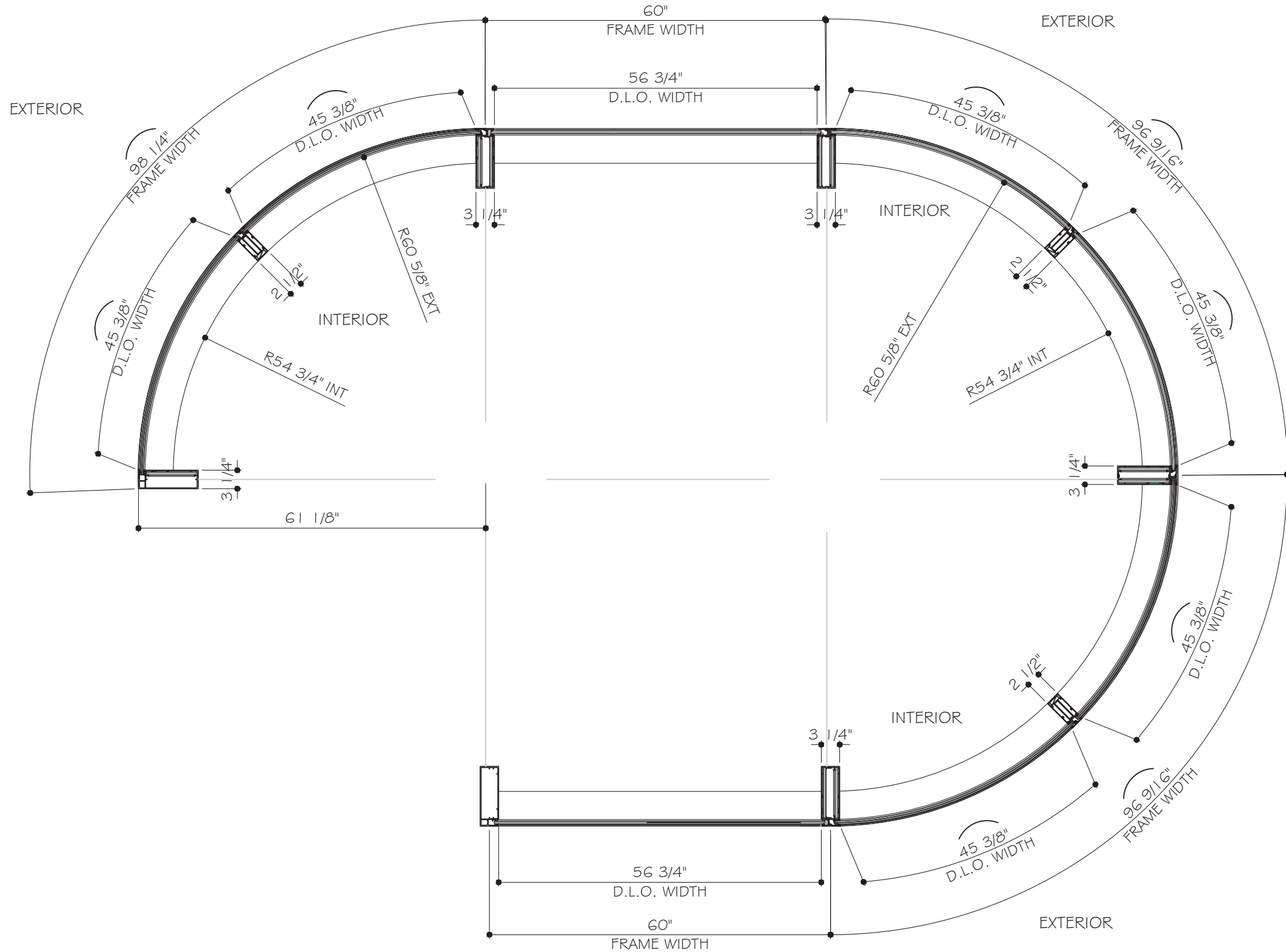
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AD21-20

E1

Sheet No.
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SECTION
I

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FL #39623

YONG WANG P.E.
FLORIDA REGISTRATION
FL #55983
C.A. #19928677

September 28th, 2023

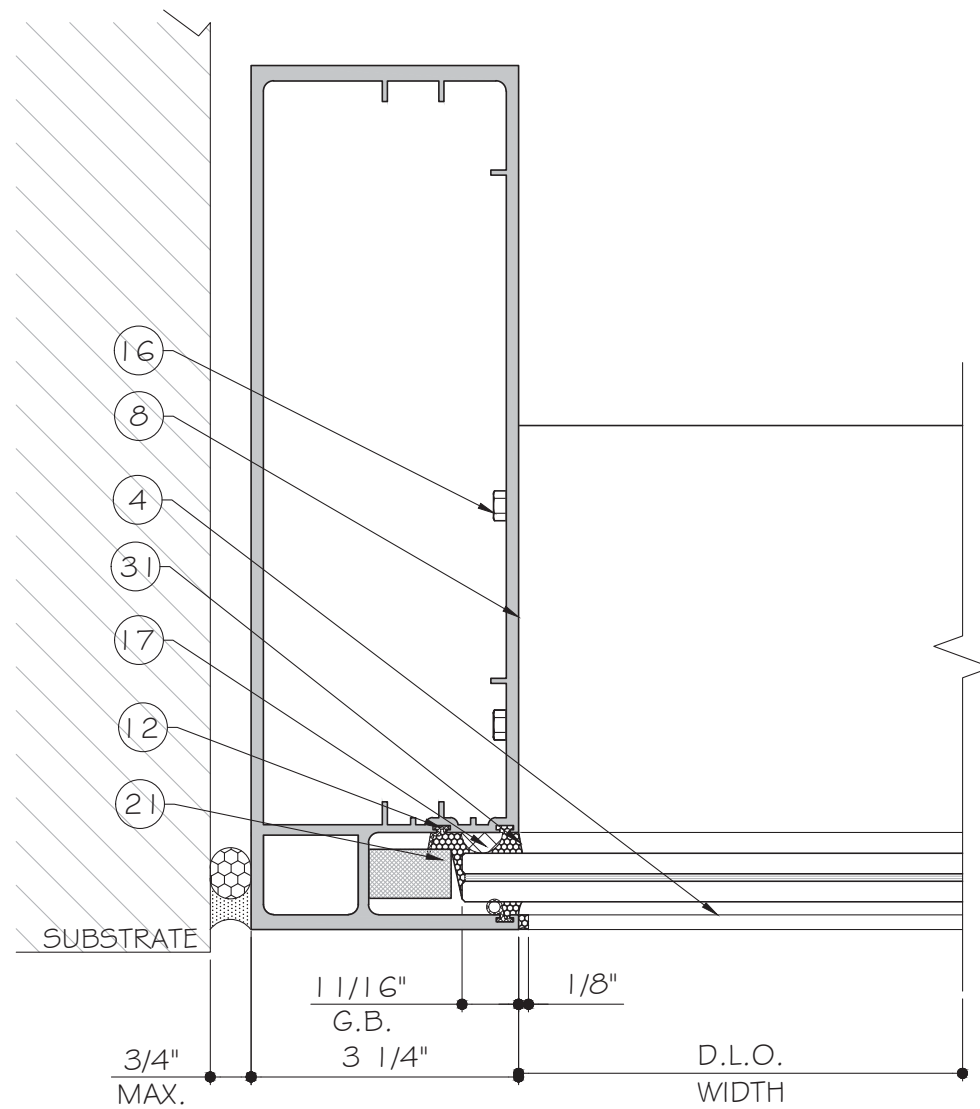
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DRAWING NO. AD21-20		Sheet No. 03 OF 10
S1		
Rev. No.	Date	Drawn By
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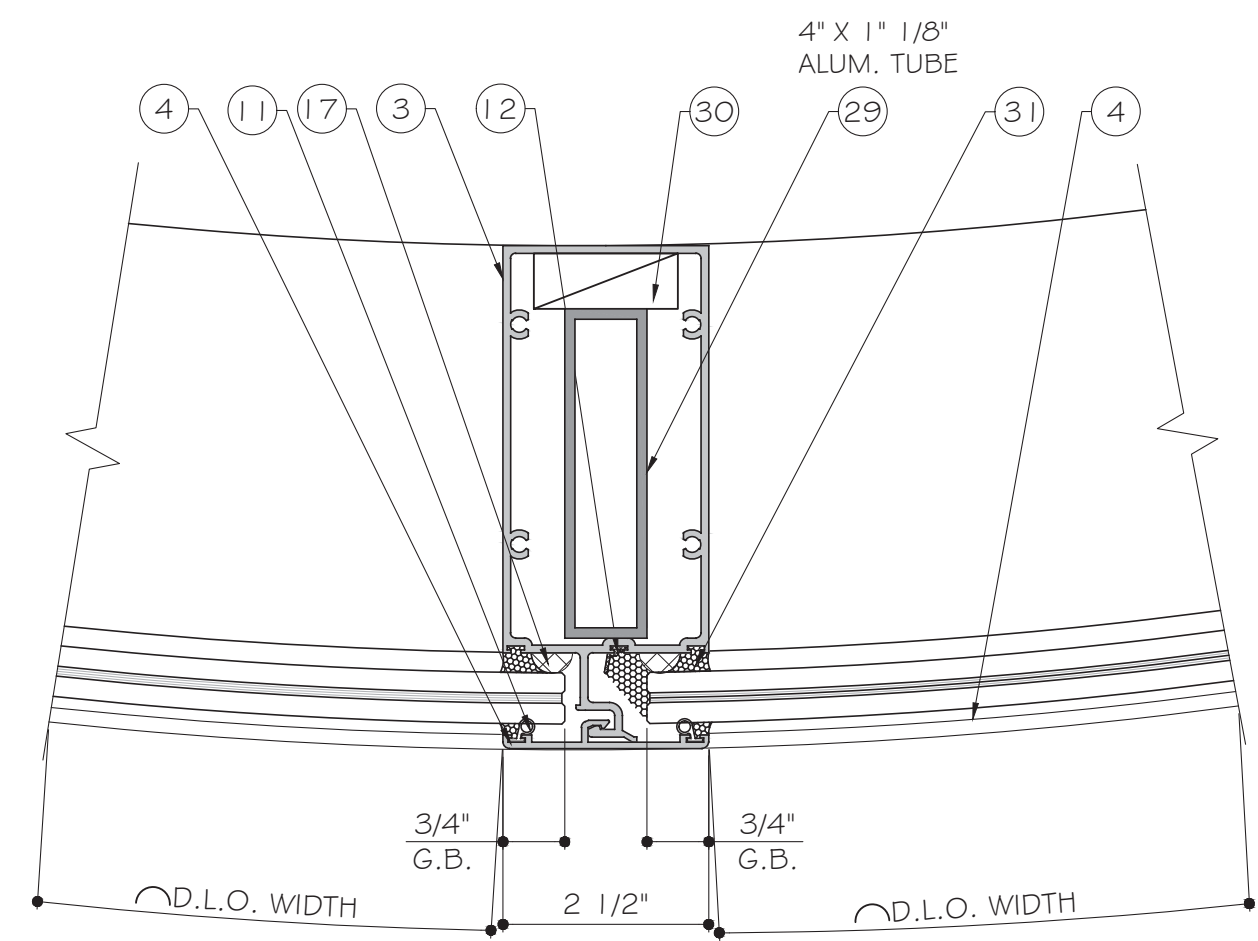
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EXTERIOR

1
DI
DETAIL



EXTERIOR

2
DI
DETAIL

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FLORIDA REGISTRATION
FL #55983
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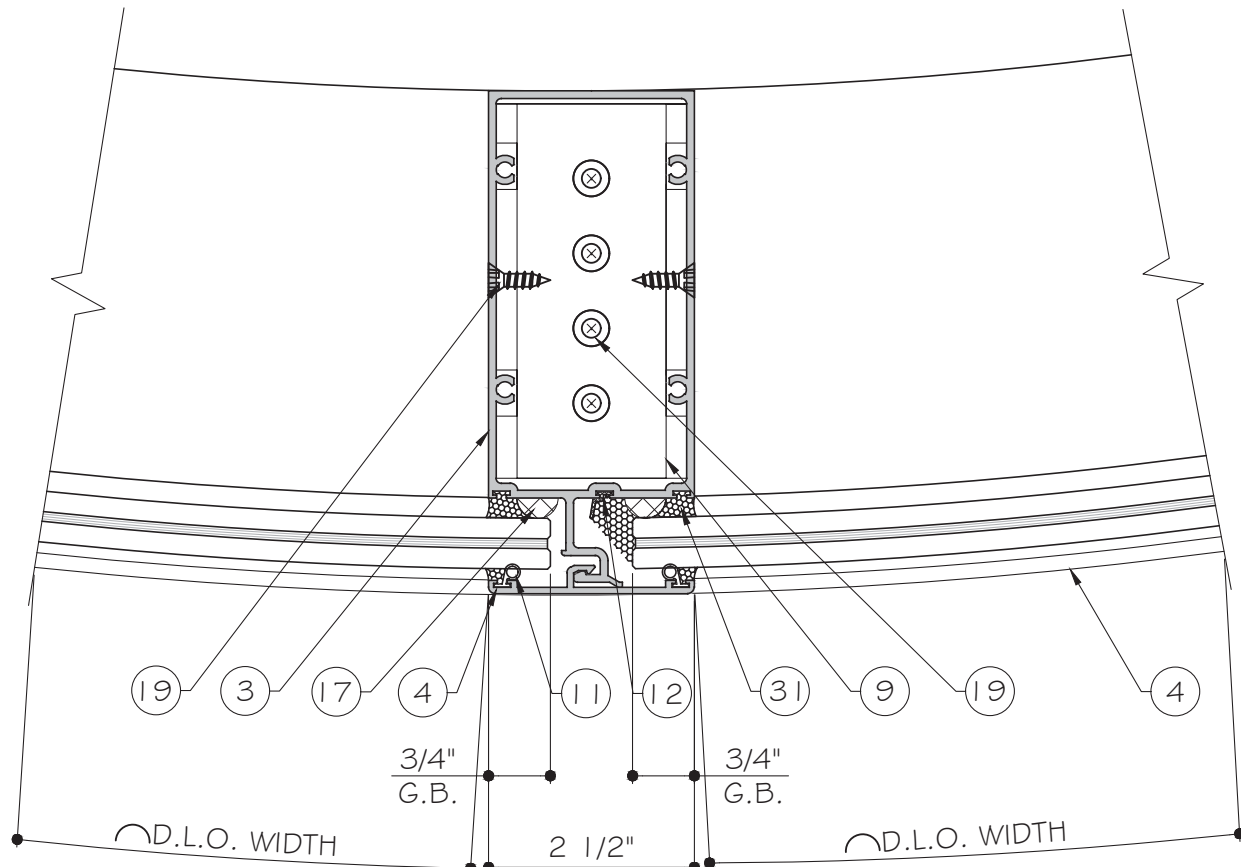
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D1

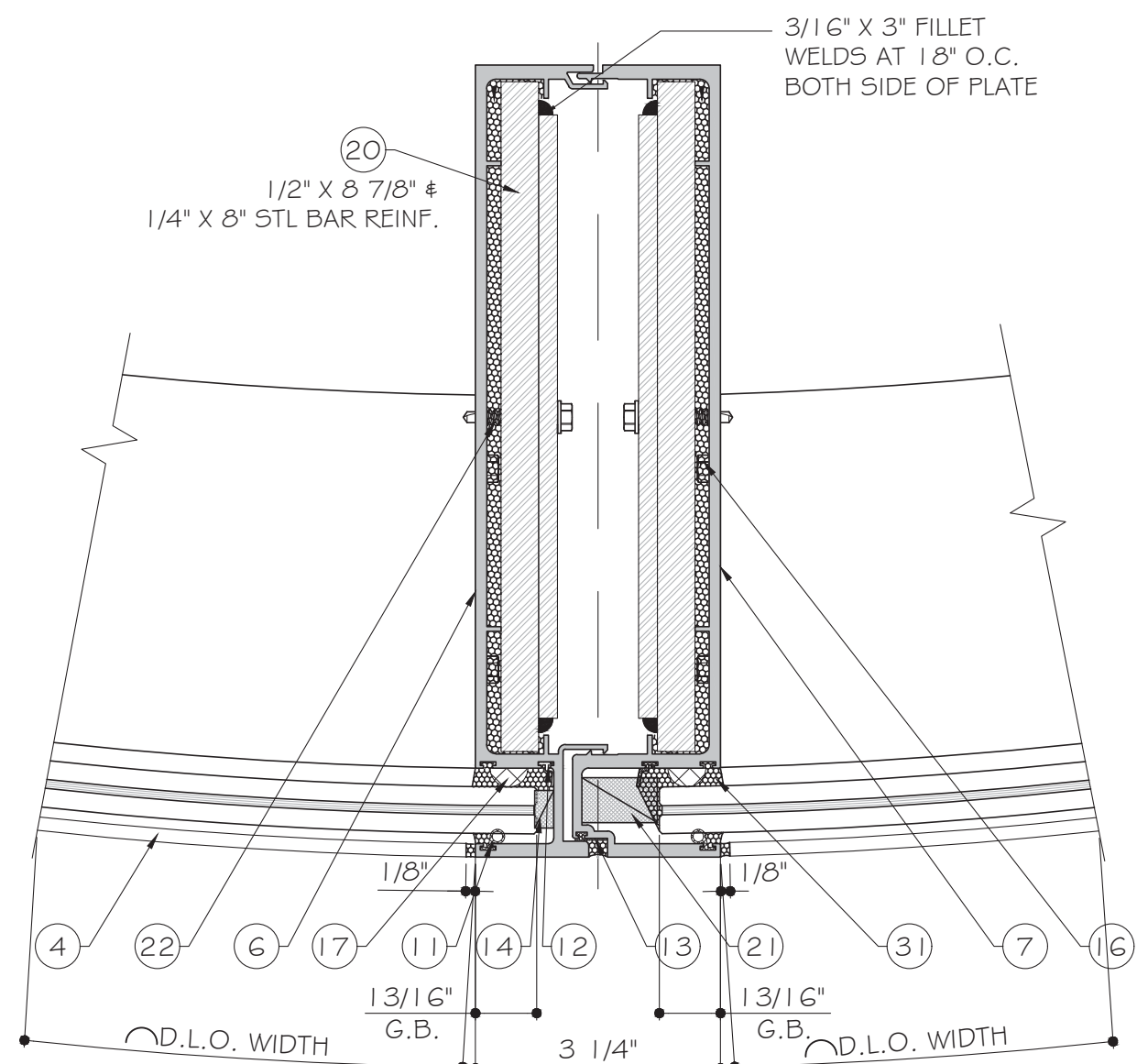
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EXTERIOR

1
D2

DETAIL



EXTERIOR

2
D2

DETAIL

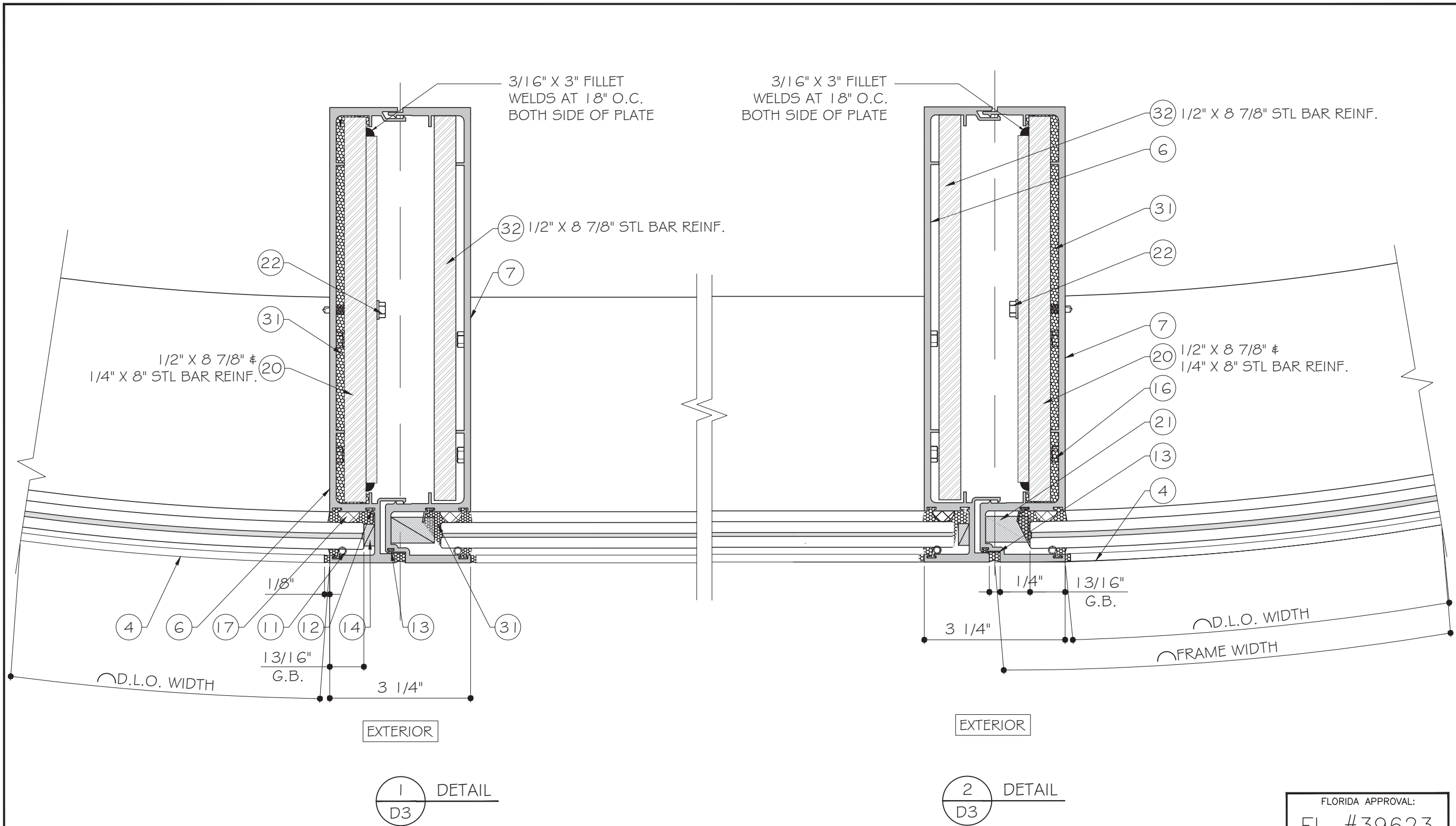
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1
D3

DETAIL

2
D3

DETAIL

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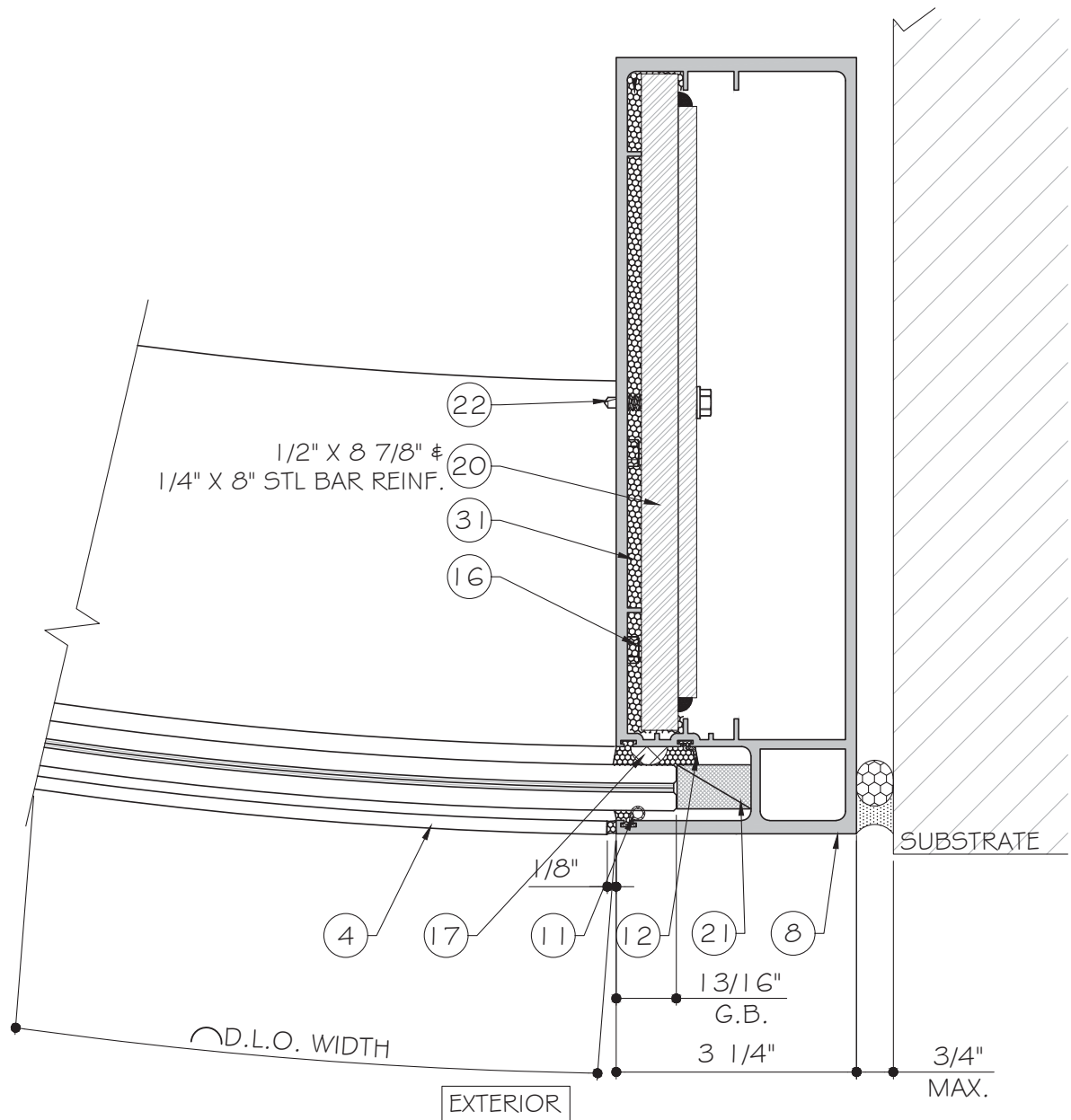
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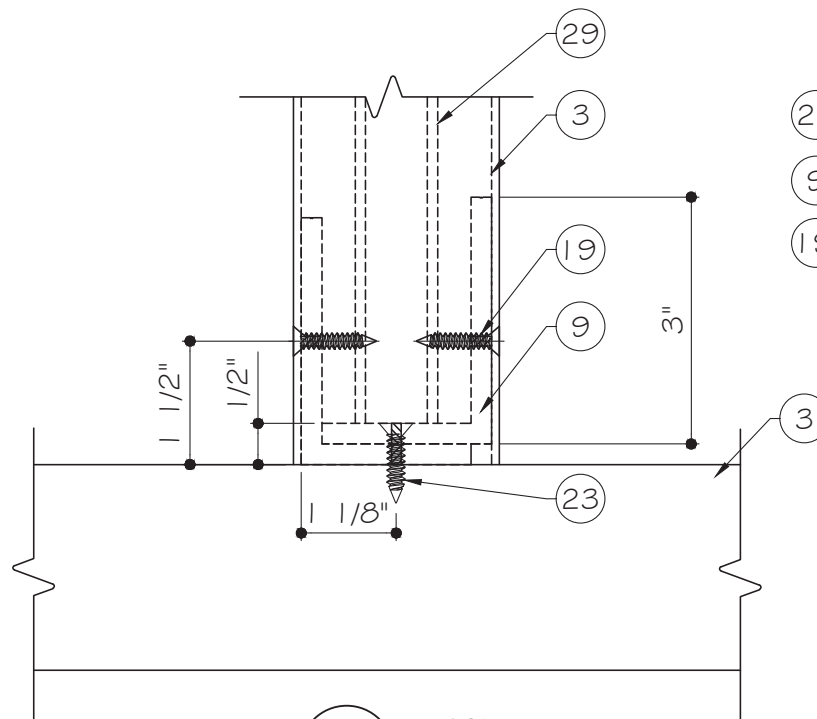
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D3

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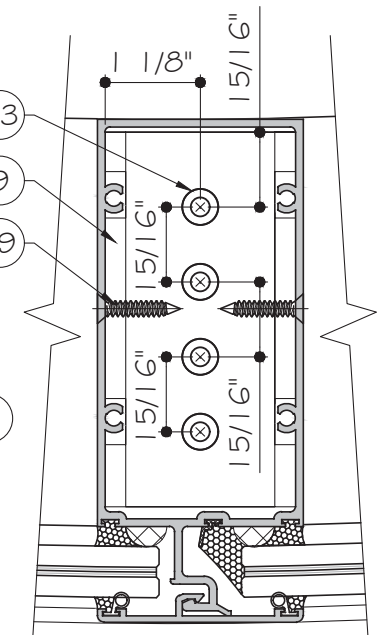


1
D4
DETAIL

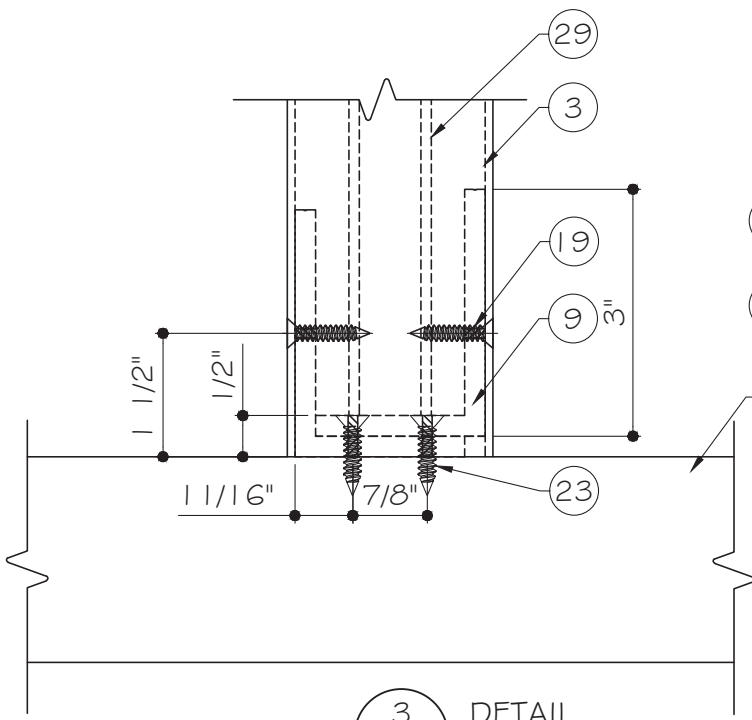


2
D4
DETAIL

NOTE: APPLIES FOR BOTTOM AND TOP OF THE VERTICAL INTERMEDIATE.

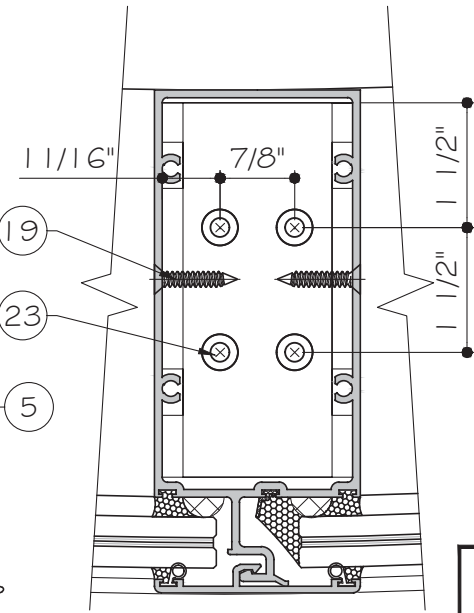


2
D4
TOP VIEW



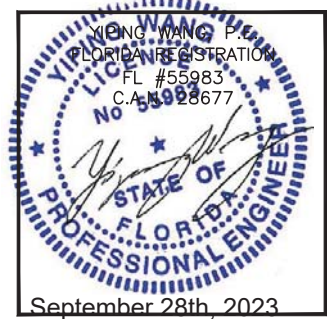
3
D4
DETAIL

NOTE: APPLIES FOR BOTTOM INTERMEDIATES ON THE SILL



3
D4
TOP VIEW

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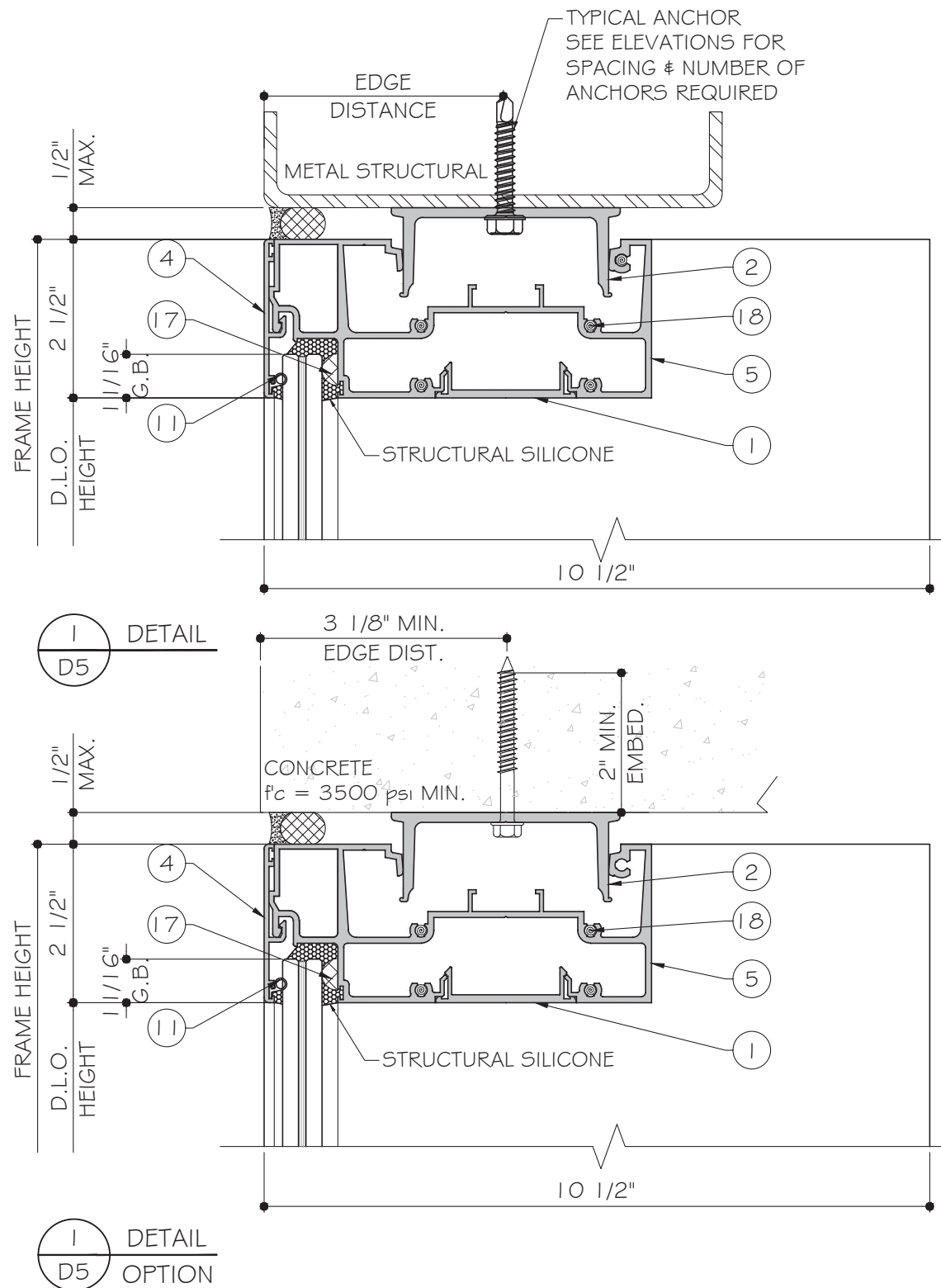
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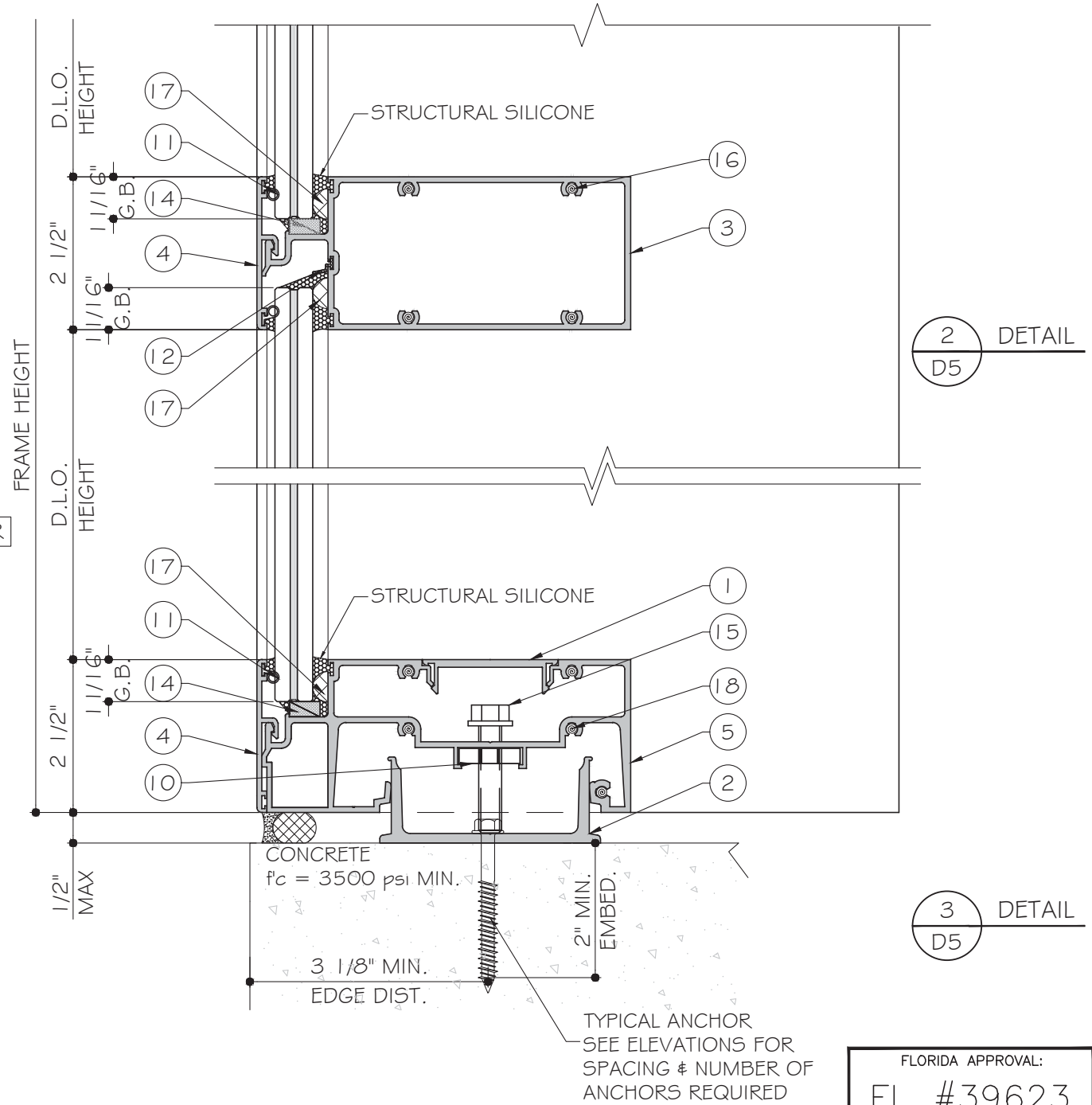
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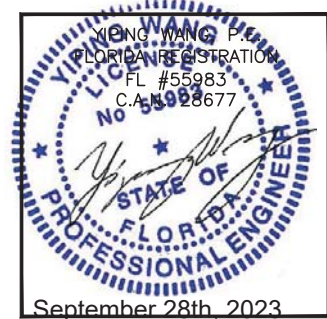


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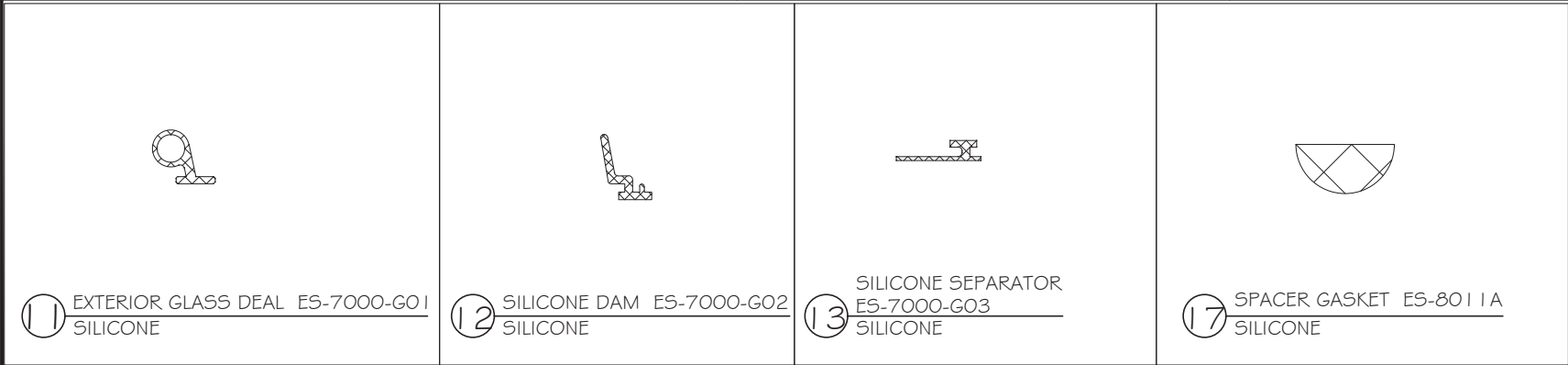
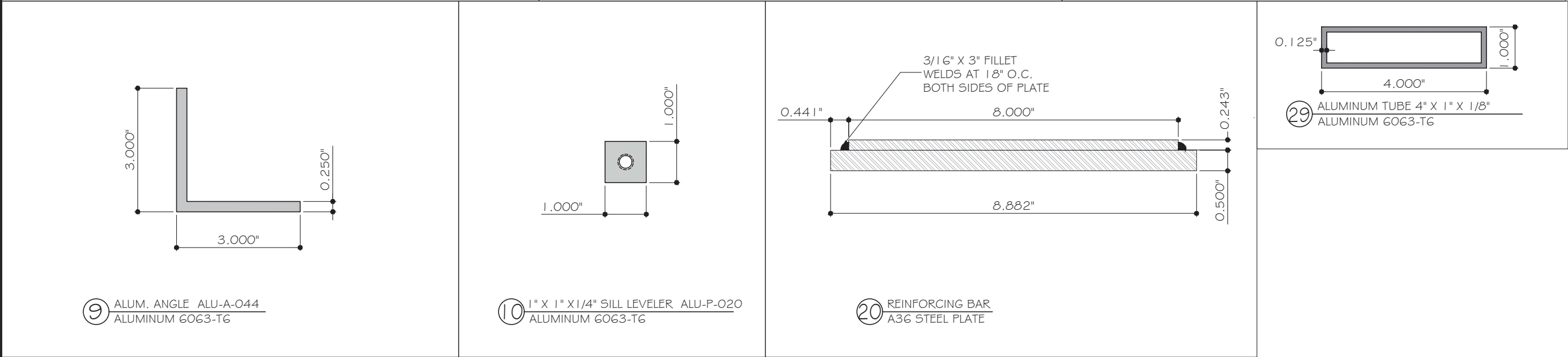
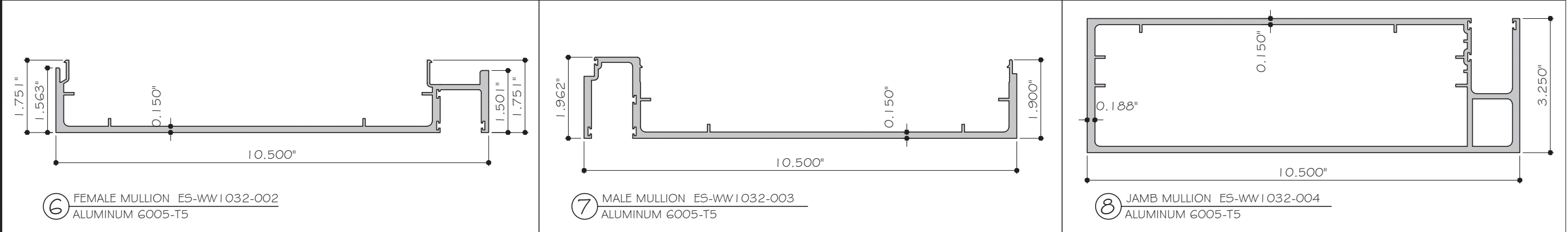
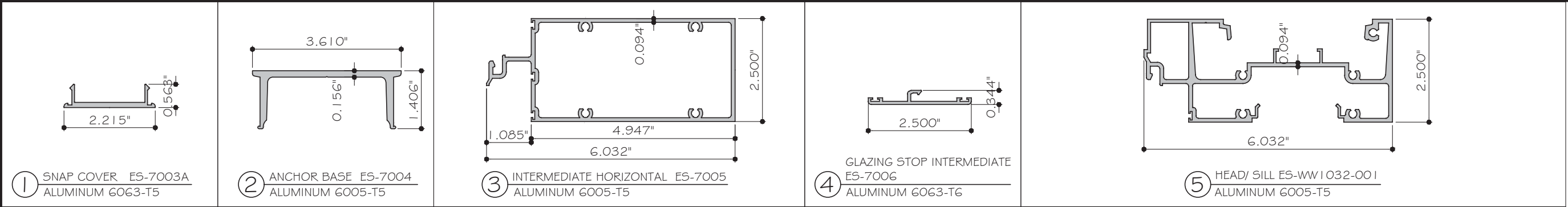
TYPE "A": 5/16" DIA. ULTRACON BY "DEWALT" ($F_u = 177$ KSI, $F_y = 155$ KSI)
2" MIN. EMBED INTO CONCRETE, ($f'_c = 3.5$ KSI MIN.)
3 1/8" MIN. EDGE DISTANCE, @5" O.C.

TYPE "B": 5/16" DRILL FLEX, GRADE 5 ($F_u = 120$ KSI, $F_y = 92$ KSI)
INTO 1/4" THK. STEEL STRUCTURE (A36 MIN.)
3/4" MIN. EDGE DISTANCE. @5" O.C.
(3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE
(STEEL IN CONTACT WITH ALUMINUM TO BE PAINTED OR PLATED)

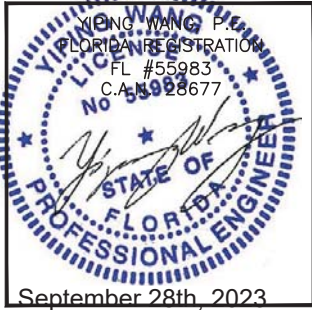
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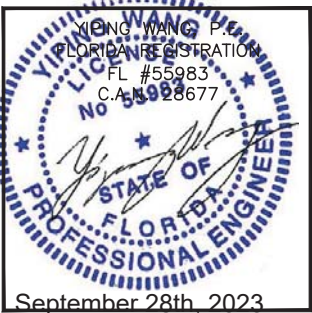
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PARTS

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BILL OF MATERIALS			
ITEM	PART	DESCRIPTION	MATERIAL
1	ES-7003A	SNAP COVER	6063-T5
2	ES-7004	ANCHOR BASE	6005-T5
3	ES-7005	INTERMEDIATE HORIZONTAL	6005-T5
4	ES-7006	GLAZING STOP INTERMEDIATE	6063-T6
5	ES-WW1032-001	HEAD/ SILL	6005-T5
6	ES-WW1032-002	FEMALE MULLION	6005-T5
7	ES-WW1032-003	MALE MULLION	6005-T5
8	ES-WW1032-004	JAMB MULLION	6005-T5
9	ALU-A-044	3" X 3" X 1/4" ALUMINUM ANGLE	6063-T6
10	ALU-P-020	1" X 1" X 1/4" SILL LEVELER	6063-T6
11	ES-7000-G01	EXTERIOR GLASS SEAL	SILICONE 60±5 SHORE A
12	ES-7000-G02	SILICONE DAM	SILICONE 60±5 SHORE A
13	ES-7000-G03	SILICONE SEPARATOR	SILICONE 60±5 SHORE A
14	80-378	SETTING BLOCK	SILICONE 80±5 SHORE A
15	-	3/8" - 16 X 2" HWH, LEVELING SCREW	STAINLESS STEEL
16	-	#12 X 1" HWH ST/ ST. INTERMEDIATE ASSEMBLY SCREWS	STAINLESS STEEL
17	ES-8011A	SPACER GASKET	SILICONE 70±5 SHORE A
18	-	1/4" X 1" HWH ST/ ST, HEAD/ SILL ASSEMBLY SCREWS	STAINLESS STEEL
19	-	#14 X 1" SS SMS. SELF-DRILLING FOR INTERMEDIATE	STAINLESS STEEL
20	-	HEAVY REINFORCING BAR, FULL LENGTH MINUS 6" CENTERED ON F.H.	A36 STEEL BARS
21	ES-21-B02A S	SIDE BLOCK	SILICONE 80±5 SHORE A
22	-	#12 X 1 1/4" SELF-DRILLING SCREWS FOR REINFORCING BAR @ HORIZONTAL	STAINLESS STEEL
23	-	#12 X 1" SS SMS. SELF-DRILLING SCREWS FOR INTERMEDIATE	STAINLESS STEEL
24	-	3/16" X 1/4" VHB, DOUBLE SIDE TAPE	POLYETHYLAMINE FORMATE
25	-	1/16" X 1/2" DOUBLE SIDE TAPE	POLYETHYLAMINE FORMATE
26	-		
27	-	1 INCH PIN, INSULATION CLAMP PIN	-
28	-	3500 DE 4" FOIL TAPE	-
29	-	ALUMINUM TUBE 4" X 1" X 1/8"	6063-T6
30	-	PLASTIC SHIM 1 3/4" X 1 1/16"	-
31	-	STRUCTURAL SEALANT DOWSIL 983	SILICONE
32	-	1/2" X 8 7/8" STEEL BAR	A36 STEEL BARS

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AD21-20

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