

K RESEARCH & DEVELOPMENT, LLC
SPA 100 SLIDING GLASS DOOR SYSTEM - L.M.I.

GENERAL NOTES:

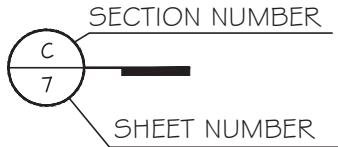
- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 8TH EDITION FLORIDA BUILDING CODE (2023) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- DOORS RATED FOR LARGE AND SMALL MISSILE IMPACT. LMI SYSTEM TO BE USED FOR INSTALLATIONS UP TO 30 FT OF GRADE. FOR ABOVE 30 FT OF GRADE, SMI TO BE USED. IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE SLIDING GLASS DOOR 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 8TH EDITION FLORIDA BUILDING CODE (2023) SECTION AS APPLICABLE.
- METAL STRUCTURES BY OTHERS 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 7-22, 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.
- 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.
- SEALANT:
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICONE SEALANT.

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-22 STANDARD OR WIND TUNNEL REPORTS.
- STEP 2: SEE SHEET E I FOR TYPICAL SLIDING GLASS DOOR ELEVATION.
- STEP 3: SEE SHEET A I FOR ANCHOR OPTIONS. SEE SHEET E I FOR NUMBER OF ANCHORS REQUIRED.

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

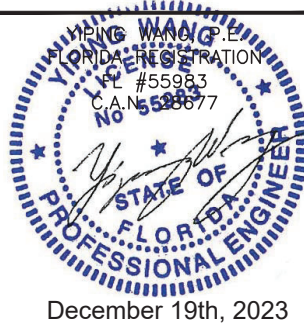


LIMITATIONS OF USE

- 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 #45992



SPA100 Sliding Glass Door SYSTEM - L.M.I.&S.M.I.

K RESEARCH & DEVELOPMENT, LLC

202 RINGLING BOULEVARD SUITE 301

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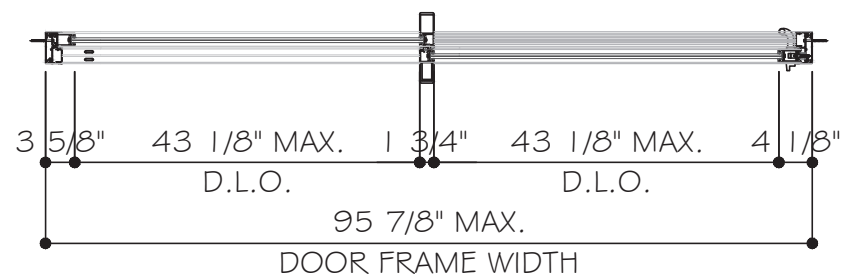
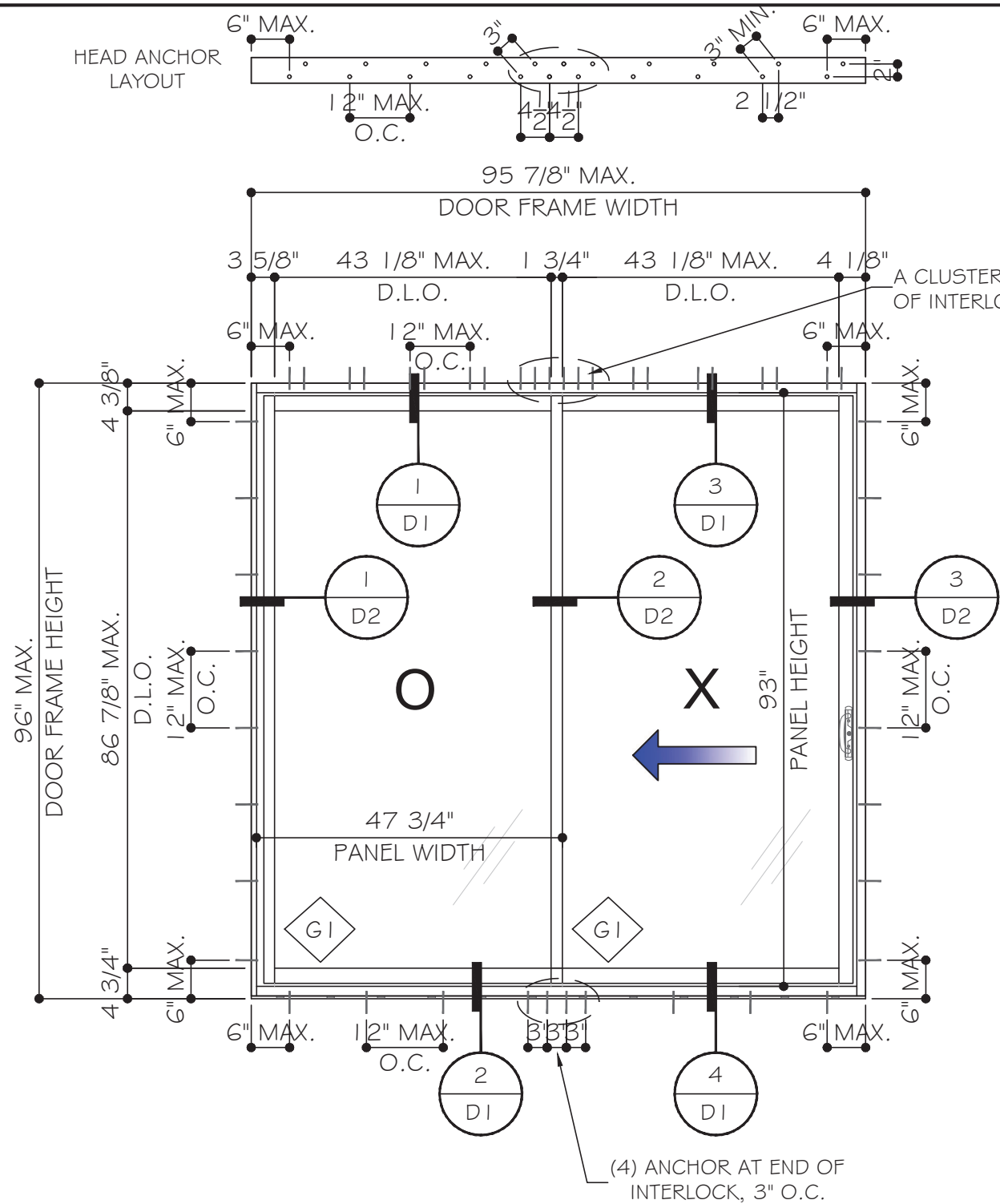
Drawn Date 12.15.2023

SCALE AS SHOWN

DRAWING NO. AD23-52

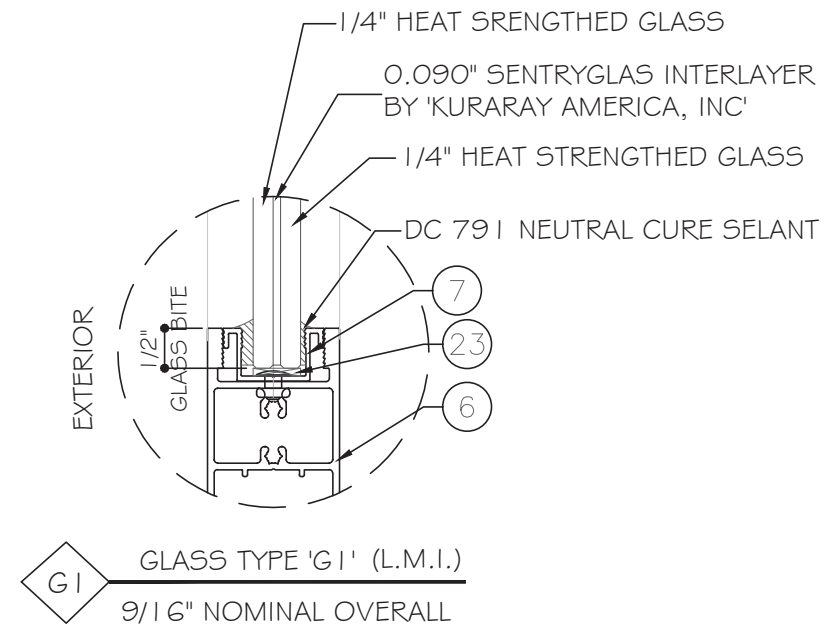
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Sheet No. 1 OF 8



TYPICAL EXTERIOR ELEVATIONS

DESIGN LOADS
(FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC)
+80 PSF
-80 PSF



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

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#55983
CAN 559877

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E1

Sheet No. 2 OF 8

TYPICAL ANCHOR TYPES:
SEE ELEVATIONS FOR SPACING

TYPE "A": 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu= 164 KSI, Fy= 148 KSI)
DIRECTLY INTO CONCRETE
WITH 1 3/4" MIN. EMBED INTO CONCRETE

INTO HOLLOW BLOCK(JAMB ONLY)
WITH 1 1/4" MIN. EMBED

INTO GROUT FILLED BLOCKS(JAMB ONLY)
WITH 1 3/4" MIN. EMBED

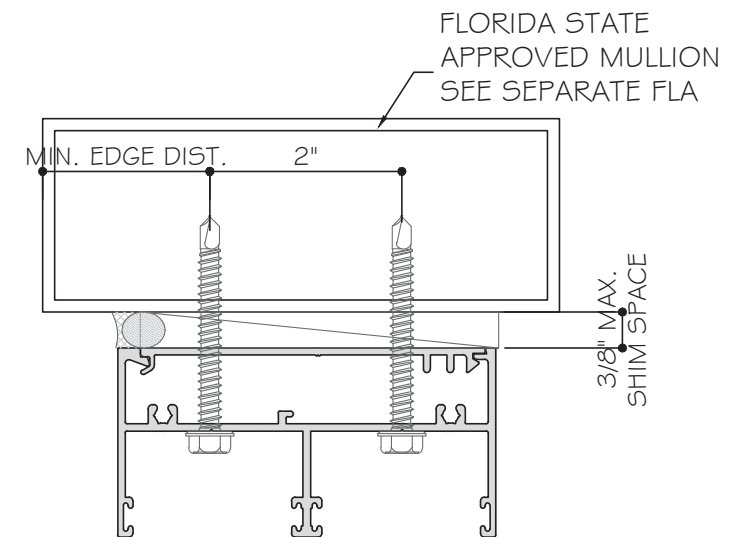
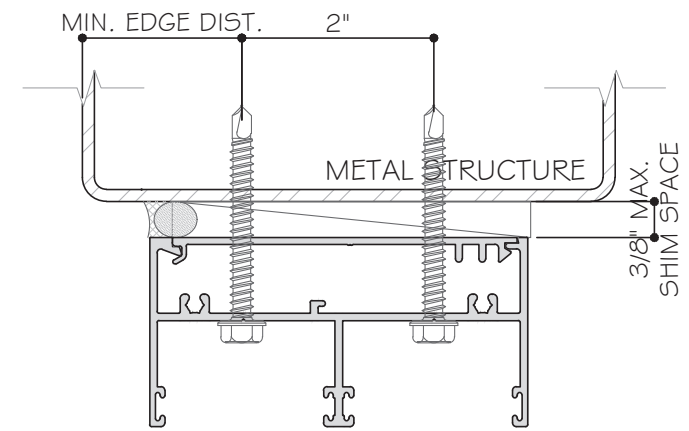
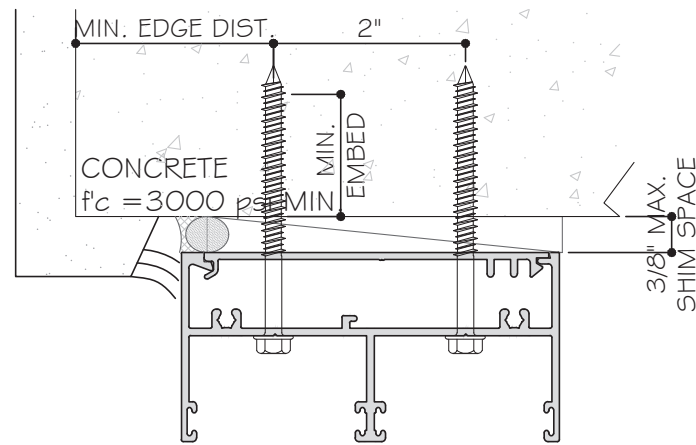
TYPE "B": 1/4" SELF DRILLING SCREW(GRADE 5) (Fu= 120 KSI, Fy=90 KSI)
INTO APPROVED MULLIONS
 (1/8" THK. MIN.) INTO METAL STRUCTURE

STEEL: 1/8" MIN. ($F_y=36$ KSI MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T6 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE ISOLATED OR PAINTED)

TYPICAL ANCHOR EDGE DISTANCE:
 INTO CONCRETE AND MASONRY = 2 1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.

WOOD SG = 0.55 MIN.
CONCRETE $f_c = 3000$ p_{si} MIN.
C-90 HOLLOW/FILLED BLOCK $f_m = 2000$ p_{si} MIN.
NORMAL STRENGTH CMU(AT JAMB ONLY)

GLAZING BEAD AT FRAME SILL SEALED TO GLASS WITH DOW CORNING 791.
FRAME CORNERS SEALED WITH DOW CORNING 791 OR EQUAL COMPATIBLE



1X OR 2X WOOD BUCKS AND METAL STRUCTURES BY OTHERS MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

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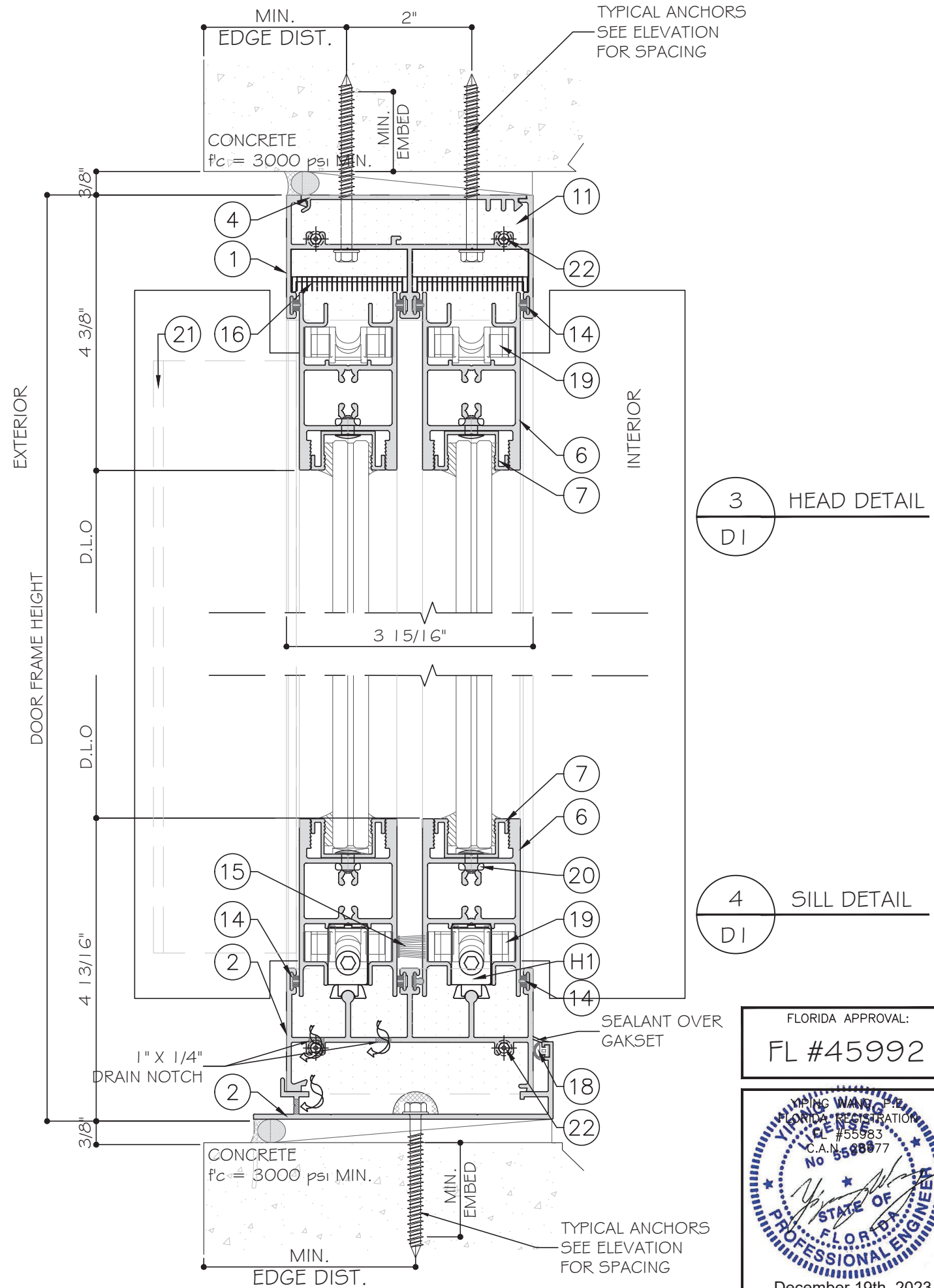
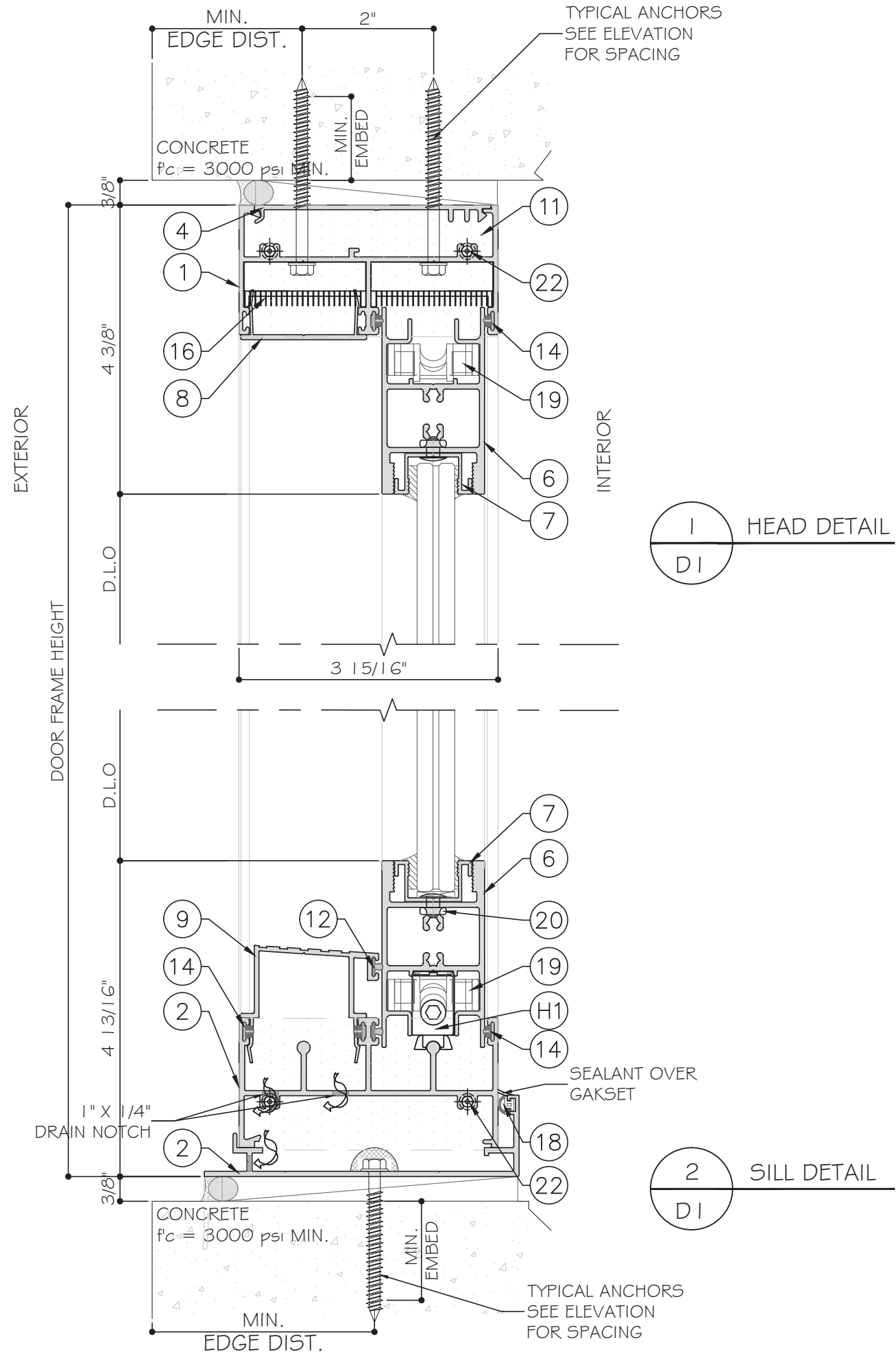
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STATE OF
FLORIDA
PROFESSIONAL ENGINEER

December 19th, 2023

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FLORIDA APPROVAL:
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December 19th, 2023

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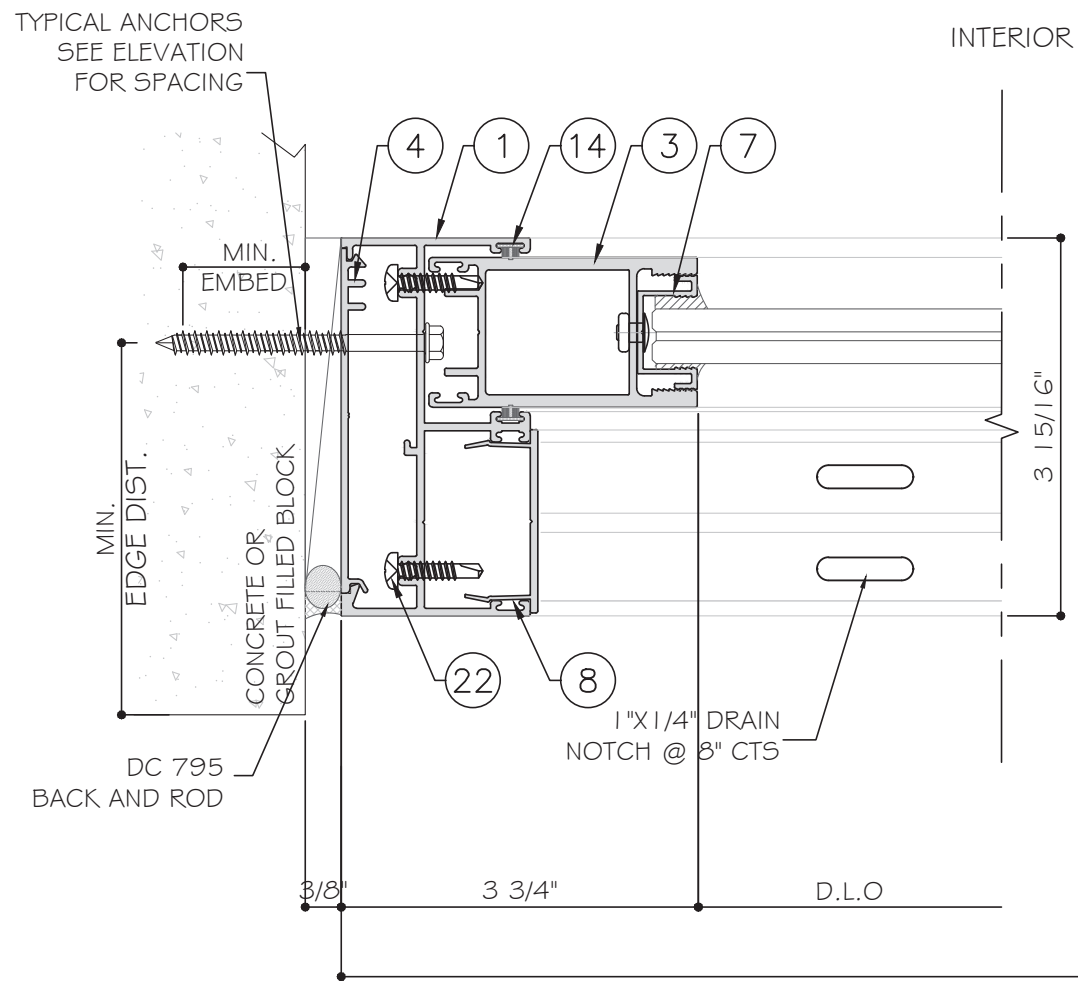
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SCALE: AS SHOWN

Drawing No. AD23-52

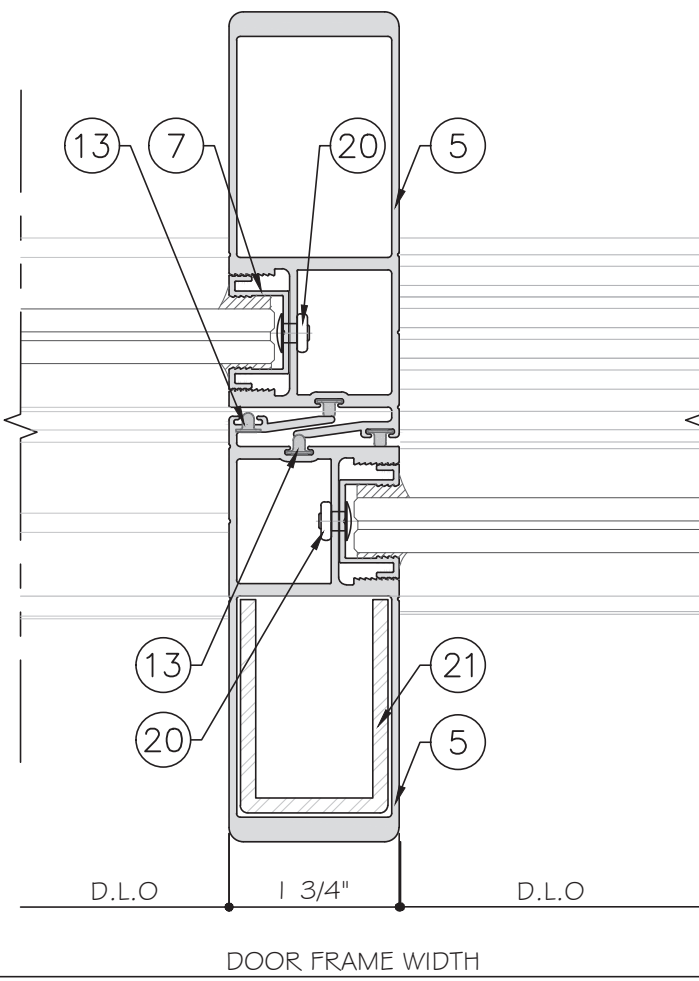
Sheet No. 4 OF 8

TYPICAL ANCHORS
SEE ELEVATION
FOR SPACING



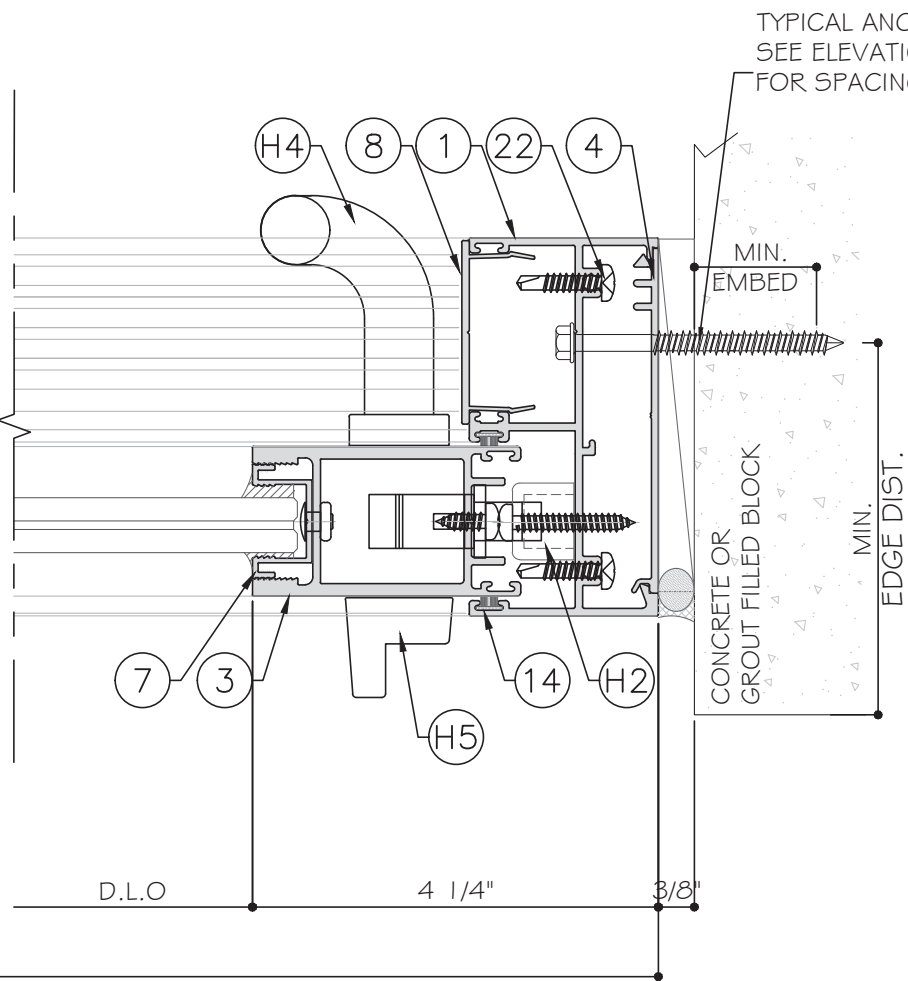
1 JAMB DETAIL
D2

INTERIOR



2 INTERLOCK DETAIL
D2

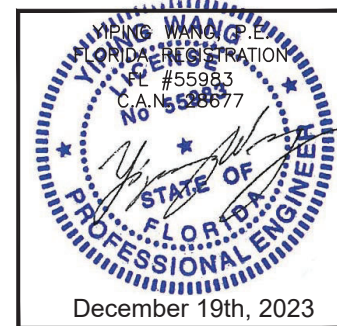
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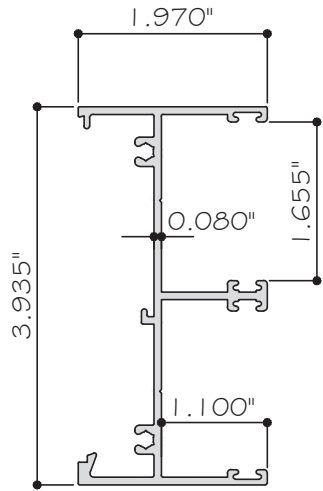
3 JAMB DETAIL
D2

EXTERIOR

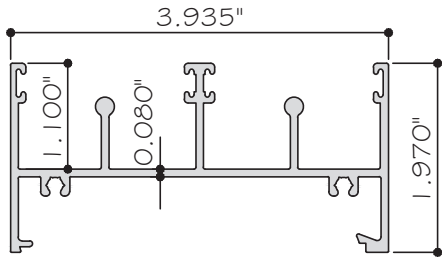
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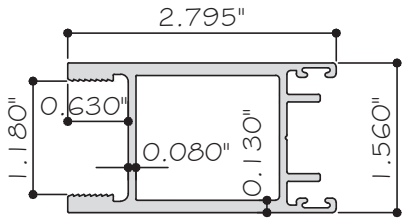
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D2			
Sheet No. 5 OF 8			



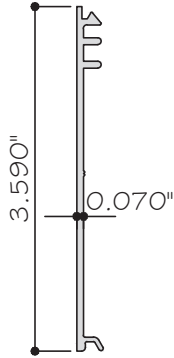
1 DOOR JAMB
SPA10020 6063-T5



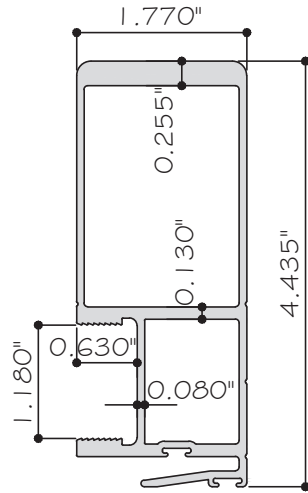
2 DOOR TRACK
SPA10021A 6063-T5



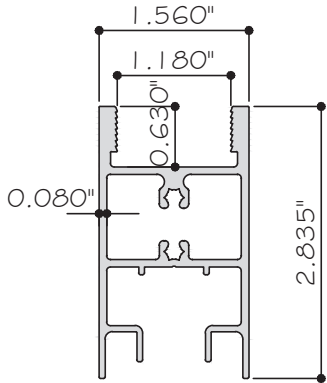
3 DOOR STILE
SPA10027 6063-T5



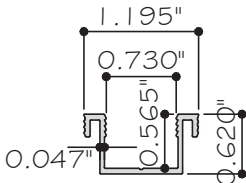
4 FLUSH ADAPTOR
SPA10007 6063-T5



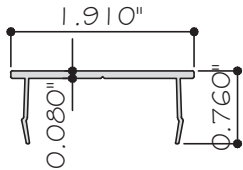
5 INTERLOCK
SPA10025A 6063-T5



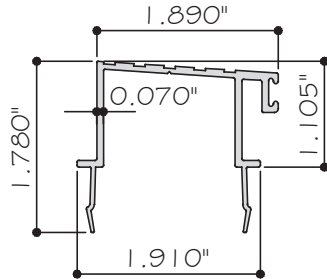
6 TOP & BOTTOM RAIL
SPA10098 6063-T5



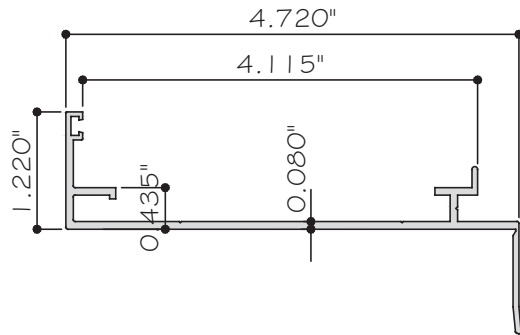
7 LAMINATED GLASS POCKET
SPA10097 6063-T5



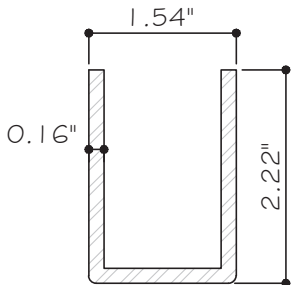
8 FRAME ADAPTOR
SPA10029 6063-T5



9 DOOR SILL ADAPTOR
SPA10036 6063-T5



10 SUB SILL
YY5032 6063-T5



21 INTERLOCK REINFORCEMENT
REI-SD001 GALVANIZED STEEL

FLORIDA APPROVAL:
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PARTS

Sheet No.
6 OF 8

BILL OF MATERIALS				
ITEM	PART	DESCRIPTION	MATERIAL	MANUF. / REMARKS

1	SPA10020	DOOR FRAME	ALUM. 6063-T5	-
2	SPA10021A	DOOR TRACK	ALUM. 6063-T5	-
3	SPA10027	DOOR STILE	ALUM. 6063-T5	-
4	SPA10007	FLUSH ADAPTOR	ALUM. 6063-T5	-
5	SPA10025A	INTERLOCK	ALUM. 6063-T5	-
6	SPA10098	TOP & BOTTOM RAIL	ALUM. 6063-T5	-
7	SPA10097	LAMINATED GLASS POCKET	ALUM. 6063-T5	-
8	SPA10029	FRAME ADAPTOR	ALUM. 6063-T5	-
9	SPA10036	DOOR SILL ADAPTOR	ALUM. 6063-T5	-
10	YY5032	SUB SILL	ALUM. 6063-T5	-
11	SPA10001W	3M WATERPROOF SEAL	-	-
12	KS211	FOAMING GASKET(HARDNESS:9±2A)	-	DOW CORNING
13	KS201	FOAMING GASKET(HARDNESS:9±2A)	-	-
14	7-3.5-4	PILE WEATHER STRIPPING WITH FIN(0.268"X0.161")	-	-
15	8-11	PILE WEATHER STRIPPING WITH FIN(0.335"X0.445")	-	-
16	ACSPA001	TOP SEALING BLOCK AND STOPPER	-	-
17	-	TYPICAL ANCHOR	-	-
18	SBW-22298	EPDM GASKET(HARDNESS:30±5)	EPDM	-
19	ACSPA020	CONNECTING AND STRUT MEMBER	-	-
20	-	ALUM. RIVET, 3/16"X5/8", 6" FROM EACH END AND 18" O.C.	-	-
21	REI-SD001	INTERLOCK REINFORCEMENT	GALVANIZED STEEL	-
22		3/16"X1 1/2" (#10) TEK5 ASSEMBLY SCREW	-	-
23		1/16" X 9/16" SETTING BLOCK, 70-90 SHORE A DUROMETER	NEOPRENE	
H1	SA89136-02T	DOOR ROLLER	-	-
H2	D80SP55	STRIKER PALTES	-	-
H3	D70L-55	DUAL POINT MORTISE LOCK	-	-
H4	2095 HANDLE-AL	INTERIOR HANDLE	-	-
H5	2095 HANDLE-AL	EXTERIOR HANDLE	-	-

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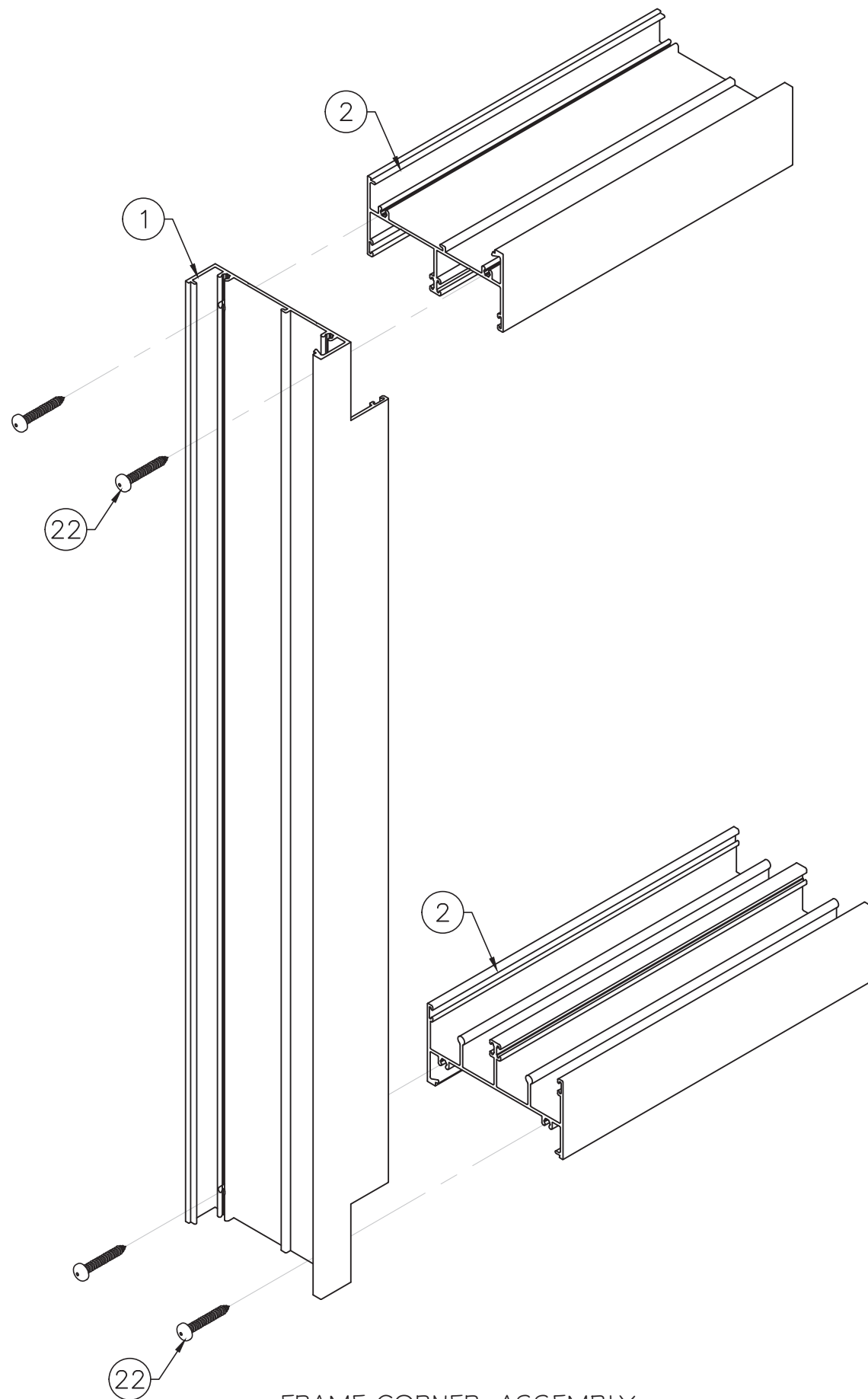
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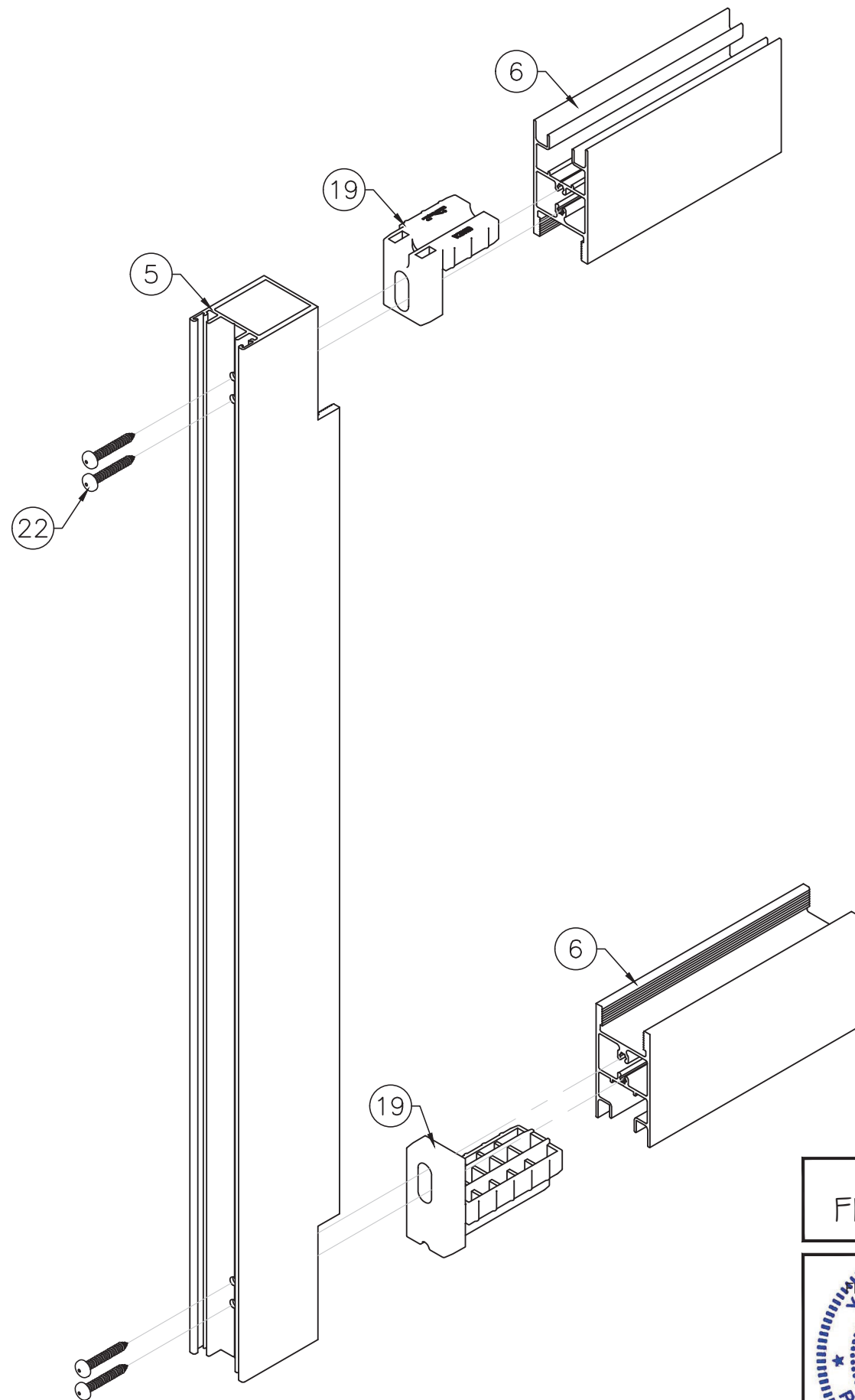
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Sheet No. 7 OF 8							



FRAME CORNER ASSEMBLY



PANEL CORNER ASSEMBLY

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