

SERIES 9050, IMPACT-RESISTANT, ALUMINUM, INSWING / OUTSWING TERRACE DOOR

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

2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS.

3) FOR MASONRY APPLICATIONS, USE ONLY APPROVED MASONRY ANCHORS. MATERIALS USED FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASTM C90 CONCRETE MASONRY UNITS (CMU'S) OF NORMAL WEIGHT AND OF COMPRESSIVE STRENGTH OF MIN. 1.9 KSI AND CONCRETE WITH MIN. KSI PER ANCHOR TYPE.

4) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

5) IF SILL IS TIGHT TO SUBSTRATE, GROUT IS NOT REQUIRED. IF USED, NON-SHRINK, NON-METALLIC GROUT AT 3.4 KSI MIN. PER ASTM C1107, (DONE BY OTHERS). MAX. 1/4" SHIM SPACE FOR GROUT WHICH MUST FULLY SUPPORT THE ENTIRE LENGTH OF THE SILL THAT IS NOT TIGHT TO THE SUBSTRATE, AND TRANSFER SHEAR LOAD TO SUBSTRATE. IF SUBSTRATE IS WOOD, #30 FELT PAPER OR MASTIC IS REQUIRED BETWEEN THE GROUT AND WOOD SUBSTRATE, OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION, COMPLYING WITH THE FBC.

6) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE THE EMBEDMENT SHOWN ON TABLE 1, THIS SHEET. NARROW JOINT SEALANT IS TO BE USED ON ALL FOUR CORNERS OF THE FRAME. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

7) MAX. 1/4" SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. WOOD BUCKS, BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE DOOR.

- 8) DESIGN PRESSURES:
- A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL AND CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
 - B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL AND CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
 - C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.

9) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (INCLUDING ADOPTED STANDARDS) FOR CORROSION RESISTANCE.

10) SIZES MUST BE VERIFIED FOR COMPLIANCE WITH EGRESS REQUIREMENTS PER THE FLORIDA BUILDING CODE.

11) AS PER TAS 202-94, WATER INFILTRATION TEST PRESSURE IS 15% OF THE POSITIVE DESIGN PRESSURE OF THE SPECIFIED DOOR.

TABLE 2:

Glass Type	Description (Listed from Exterior to Interior)
1	7/16" LAMI: 3/16" HS, 0.090" PVB, 3/16" HS
2	1-1/4" LIG: 3/16" TP CAP, 5/8" AIRSPACE, 3/16" HS, 0.090" PVB, 3/16" HS
3	7/16" LAMI: 3/16" HS, 0.090" SG, 3/16" HS
4	1-1/4" LIG: 3/16" TP CAP, 5/8" AIRSPACE, 3/16" HS, 0.090" SG, 3/16" HS
5	5/16" LAMI: 3/16" TP - 0.090" SG - 0.70mm ATG
6	1" LAMI IG: 3/16" TP CAP - 1/2" AIRSPACE - 3/16" TP - 0.090" SG - 0.70mm ATG

SEE SHEET 10 FOR GLAZING DETAILS.

FLORIDA PRODUCT APPROVAL #29783

TABLE 1:

Anchor Group	Anchor Type	Frame Member	Substrate	Min. Edge Distance	Min. Embedment or Metal Thickness
A	#14 Steel SMS (Gr. 5)	Head, Sill & Jamb	Southern Pine (SG = 0.55)	5/8"	1-3/8"
			6063-T5 Aluminum	3/8"	0.090"
			A36 Steel	3/8"	0.063"
			Steel Stud, Gr. 33	3/8"	0.045" (18 Ga)
B	#14 18-8 Stainless Steel SMS	Head, Sill & Jamb	Southern Pine (SG = 0.55)	5/8"	1-3/8"
			6063-T5 Aluminum	3/8"	0.090"
			A36 Steel	3/8"	0.063"
			Steel Stud, Gr. 33	3/8"	0.045" (18 Ga)
C	1/4" DeWalt Ultracon+®	Head	Concrete (min. 3 ksi)	1-3/4"	1-3/4"
		Sill	Concrete (min. 3 ksi)	1-11/16"	1-3/8"
		Jamb	Concrete (min. 3 ksi)	1-1/2"	1-3/4"
		Jamb	Hollow/Filled CMU (ASTM C90)	1-1/2"	1-1/4"
D	1/4" DeWalt Ultracon+®	Jamb & Head	Concrete (min. 3 ksi)	2-1/2"	1-3/4"
		Sill	Concrete (min. 3 ksi)	2-1/2"	1-3/8"
	1/4" 410 SS Elco CreteFlex®	Jamb & Head	Concrete (min. 3.35 ksi)	2-1/2"	1-1/4"
		Jamb	Hollow/Filled CMU (ASTM C90)	2-1/2"	1-1/4"
		Sill	Concrete (min. 3.35 ksi)	2-1/2"	1-3/4"

- 1) ALL ANCHOR HEAD TYPES ARE APPLICABLE.
- 2) MIN. OF 3 THREADS BEYOND METAL SUBSTRATE.
- 3) METAL SUBSTRATE TO MEET MIN. STRENGTH, IMPOSED DEAD LOADS AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.

INSTRUCTIONS:

- 1) DETERMINE THE DESIGN PRESSURE REQUIREMENT (LBS/FT²) FOR THE OPENING USING THE ASCE-7 STANDARD.
- 2) TABLE 3, SHEET 2 REFERS TO SINGLE (X) DOORS. TABLE 4, SHEET 3 REFERS TO TO DOUBLE (XX) DOORS. DETERMINE THE DESIGN PRESSURE OF YOUR PRODUCT USING THE APPROPRIATE TABLE. THIS DESIGN PRESSURE NEEDS TO BE GREATER THAN OR EQUAL TO THE OPENING'S REQUIRED DESIGN PRESSURE FROM STEP 1.
- 3) DETERMINE YOUR ANCHOR GROUP FROM TABLE 1, THIS SHEET AND YOUR GLASS TYPE, (1-9) FROM SHEET 2 OR 3.
- 4) ANCHOR LOCATIONS AND SPACING ARE SHOWN ON THE ELEVATIONS ON SHEETS 2, (X) & 3, (XX).
- 5) DEPENDING ON THE PRODUCT CONFIGURATION, SHEETS 6-9 SHOW INSTALLATION CROSS-SECTION DETAILS.
- 6) SEE THE EXAMPLES ON SHEET 5.

GUIDE TO SHEETS:

- GENERAL NOTES.....1
- ELEVATION, DP & GLAZING, X.....2
- ELEVATION, DP & GLAZING, XX... 3
- CLUSTER QTY & DETAILS.....4
- JAMB ANCHORS/EXAMPLES..... 5
- HORIZ. INSTALLATION.....6,7
- VERT. INSTALLATION..... 8,9
- GLAZING DETAILS..... 10
- PARTS/BOM/HARDWARE LIST.....11-12

DESIGN PRESSURE RATING
SEE TABLE 3, SHEET 2 (SINGLE DOOR) SEE TABLE 4, SHEET 3 (DOUBLE DOOR)

IMPACT RATING
RATED FOR LARGE & SMALL MISSILE IMPACT RESISTANCE

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02/07/23

ALUMINUM IS & OS TERRACE DOOR (LM)

A. MORLESIN

GEN. NOTES & ANCHOR TABLE

1 OF 12

TD9050

TD9050LM-I-FPA

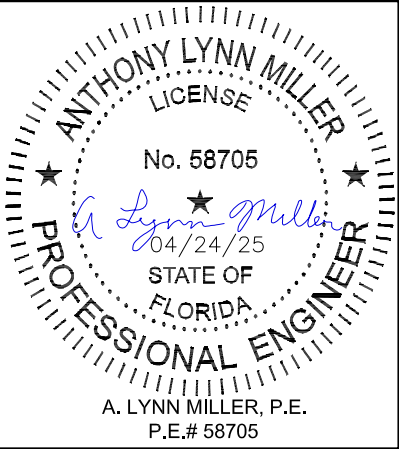
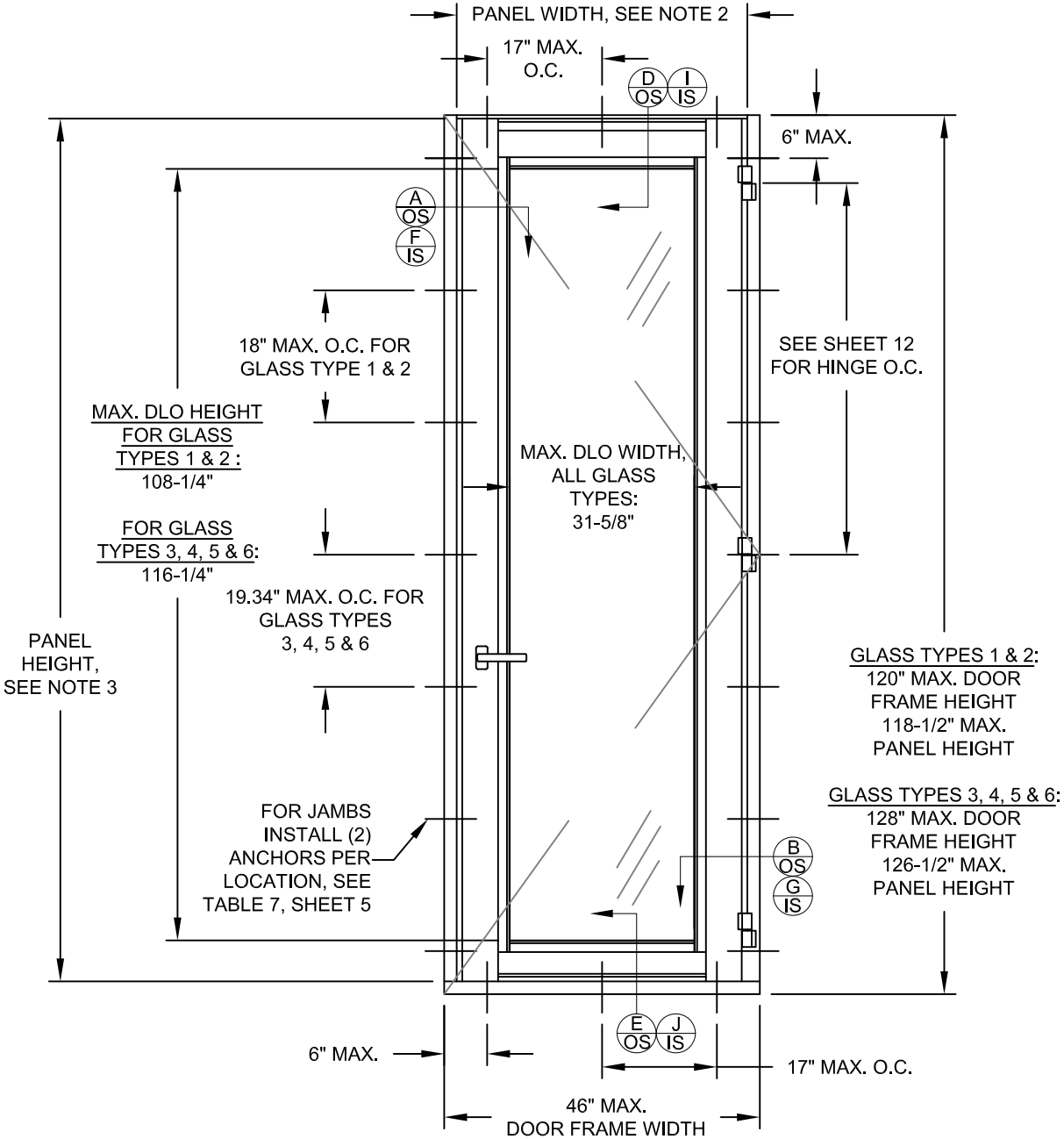


TABLE 3:

Design Pressure, psf for Single Doors (X)						
Glass Type: 1 & 2 (PVB Interlayer)						
Frame Height	Overall (X) Frame Width					
	28"	32"	36"	40"	42"	46"
72"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -80	+80 / -80
80"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -80	+80 / -80
84"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -80	+80 / -80
96"	+80 / -90	+80 / -90	+80 / -90	+80 / -87.5	+80 / -80	+80 / -80
108"	+80 / -90	+80 / -90	+80 / -82.6	+80 / -80	+80 / -80	+80 / -80
120"	+80 / -90	+80 / -89.3	+80 / -80	+80 / -80	+80 / -80	+80 / -80
Glass Type: 3 & 4 (SG Interlayer)						
Frame Height	Overall (X) Frame Width					
	28"	32"	36"	40"	42"	46"
72"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
80"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
84"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
96"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
108"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
120"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
128"	+100 / -120	+100 / -120	+100 / -120	+92 / -115	+87.6 / -109.5	+80 / -100
Glass Type: 5 & 6 (ATG Glass)						
Frame Height	Overall (X) Frame Width					
	28"	32"	36"	40"	42"	46"
72"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
80"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
84"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
96"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
108"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
120"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
128"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90

USED IN
EXAMPLE 1,
SHEET 5



TYP. ELEVATION OF SINGLE DOOR, (X)

NOTES:

- 1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.
- 2) SEE SHEET 10 FOR GLASS DESCRIPTIONS.
- 3) PANEL WIDTH = DOOR FRAME WIDTH - 4.09
- 4) PANEL HEIGHT = FRAME HEIGHT - 1.42



DETAIL LETTER

OUTSWING, SEE SHEETS 7 & 9



DETAIL LETTER

INSWING, SEE SHEETS 6 & 8

 WINDOOR		104 TRIPLE DIAMOND BLVD N VENICE, FL 34275 (833) 554-5432		REGISTRATION #29296		PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	
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Title		ALUMINUM IS & OS TERRACE DOOR (LM)		Date		02/07/23	
Series Desc.		X ELEVATION & DP		Drawn By		A. MORLESIN	
Sheet		2 OF 12		DWC No.		TD9050LM-FPA	
TD9050							

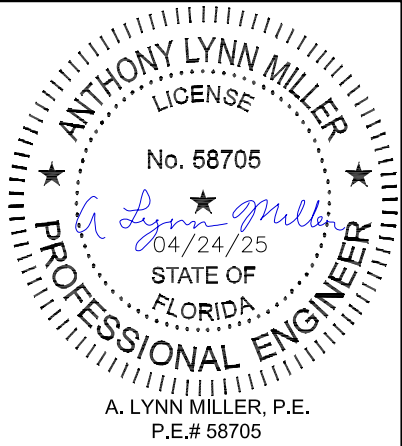
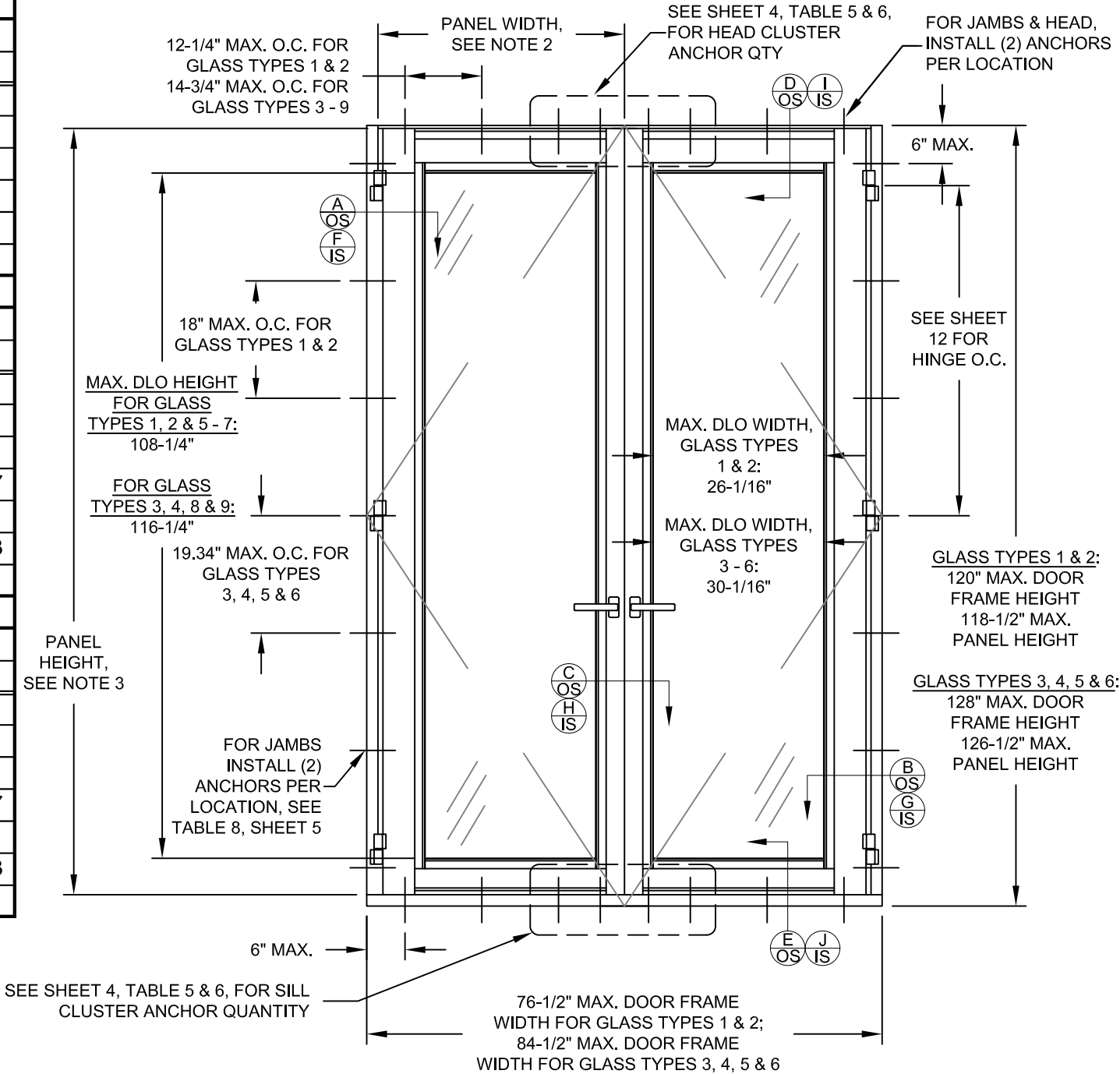


TABLE 4:

Design Pressure, psf for Double Doors (XX)						
Glass Type: 1 & 2 (PVB Interlayer)						
Frame Height	Overall (XX) Frame Width					
	54"	60"	66"	72"	76-1/2"	-
72"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	-
80"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	-
84"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	-
96"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -87.5	-
108"	+80 / -90	+80 / -90	+80 / -90	+80 / -82.6	+77.8 / -77.8	-
120"	+80 / -90	+80 / -89.3	+80 / -81.1	+74.4 / -74.4	+70 / -70	-
Glass Type: 3 & 4 (SG Interlayer)						
Frame Height	Overall (XX) Frame Width					
	54"	60"	66"	72"	76-1/2"	84-1/2"
72"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
80"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
84"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
96"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+73.3 / -86.7
108"	+80 / -90	+80 / -90	+80 / -90	+76.5 / -90	+72 / -85.1	+65.2 / -77
120"	+80 / -90	+80 / -90	+75.1 / -88.8	+68.9 / -81.4	+64.8 / -76.6	+58.7 / -69.3
128"	+80 / -90	+77.5 / -90	+70.4 / -83.2	+64.5 / -76.3	+60.8 / -71.8	+55 / -65
Glass Type: 5 - 6 (ATG Glass)						
Frame Height	Overall (XX) Frame Width					
	54"	60"	66"	72"	76-1/2"	84-1/2"
72"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
80"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
84"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90
96"	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+80 / -90	+73.3 / -86.7
108"	+80 / -90	+80 / -90	+80 / -90	+76.5 / -90	+72 / -85.1	+65.2 / -77
120"	+80 / -90	+80 / -90	+75.1 / -88.8	+68.9 / -81.4	+64.8 / -76.6	+58.7 / -69.3
128"	+80 / -90	+77.5 / -90	+70.4 / -83.2	+64.5 / -76.3	+60.8 / -71.8	+55 / -65

USED IN
EXAMPLE 2,
SHEET 5



TYP. ELEVATION OF DOUBLE DOOR, (XX)

NOTES:

- 1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.
- 2) SEE SHEET 10 FOR GLASS DESCRIPTIONS.
- 3) PANEL WIDTH = DOOR FRAME WIDTH - 4.09
- 4) PANEL HEIGHT = FRAME HEIGHT - 1.42

- DETAIL LETTER
OUTSWING, SEE SHEETS 7 & 9
- DETAIL LETTER
INSWING, SEE SHEETS 6 & 8

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ALUMINUM IS & OS TERRACE DOOR (LM)

XX ELEVATION & DP

02/07/23

A. MORLESIN

TD9050

TD9050LM-FPA

3 OF 12

TD9050

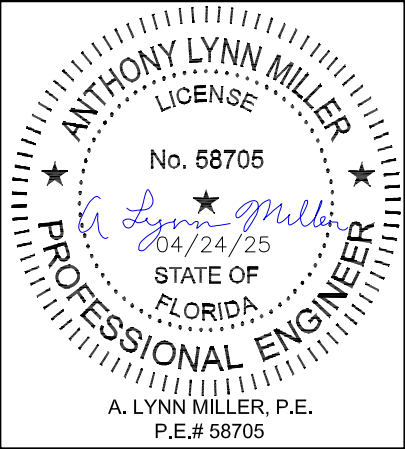


TABLE 5:

Min. Quantity of Cluster Anchors @ Head & Sill, XX							
Glass Type: 1 & 2 (PVB Interlayer)							
Frame Height	Frame Location	Anchor Group	Frame Width				
			54"	60"	66"	72"	76-1/2"
72"	Head	A	4	4	4	4	6
	Sill		3	3	3	3	4
	Head	B	4	4	4	6	6
	Sill		3	3	3	4	4
	Head	C	4	4	4	4	4
	Sill		3	3	3	3	4
	Head	D	4	4	4	4	4
	Sill		3	3	3	4	4
80"	Head	A	4	4	4	6	6
	Sill		3	3	3	4	4
	Head	B	4	4	6	6	6
	Sill		3	3	4	4	4
	Head	C	4	4	4	4	6
	Sill		3	3	3	4	4
	Head	D	4	4	4	4	4
	Sill		3	4	4	4	4
84"	Head	A	4	4	6	6	6
	Sill		3	3	4	4	4
	Head	B	4	6	6	6	6
	Sill		3	3	4	4	4
	Head	C	4	4	4	6	6
	Sill		3	3	4	4	4
	Head	D	4	4	4	4	6
	Sill		3	4	4	4	5
96"	Head	A	4	6	6	6	6
	Sill		3	4	4	4	4
	Head	B	6	6	6	6	6
	Sill		4	4	4	5	5
	Head	C	4	4	6	6	6
	Sill		3	4	4	4	4
	Head	D	4	4	4	6	6
	Sill		4	4	4	5	5
108"	Head	A	6	6	6	6	6
	Sill		4	4	4	4	4
	Head	B	6	6	6	6	6
	Sill		4	4	5	5	5
	Head	C	4	6	6	6	6
	Sill		4	4	4	4	4
	Head	D	4	6	6	6	6
	Sill		4	5	5	5	5
120"	Head	A	6	6	6	6	6
	Sill		4	4	4	4	4
	Head	B	6	6	6	6	6
	Sill		4	5	5	5	5
	Head	C	6	6	6	6	6
	Sill		4	4	4	4	4
	Head	D	6	6	6	6	6
	Sill		5	5	5	5	5

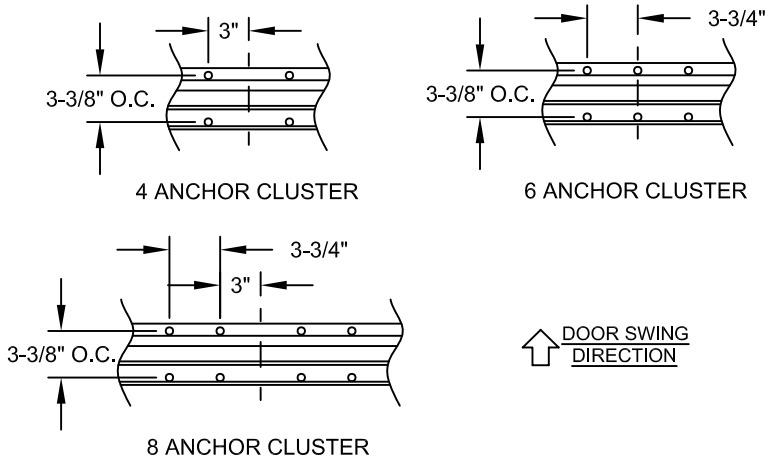
NOTES:

- 1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.
- 2) HEAD AND SILL ANCHOR QUANTITIES ARE FOR DOUBLE DOOR (XX) ANCHOR CLUSTERS ONLY.

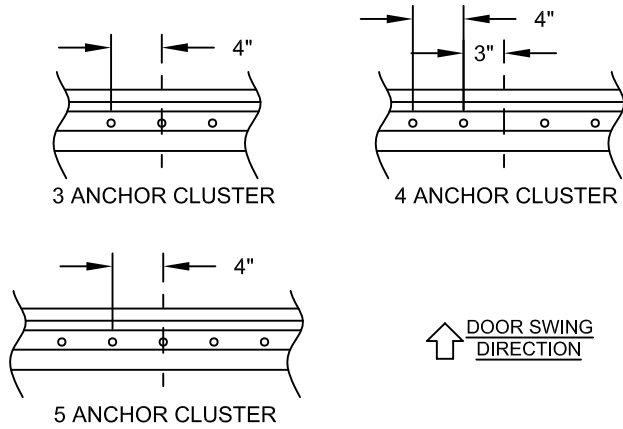
TABLE 6:

Min. Quantity of Cluster Anchors @ Head & Sill, XX									
Glass Type: 3, 4, 5 & 6									
Frame Height	Frame Location	Anchor Group	Frame Width						
			54"	60"	66"	72"	76-1/2"	84-1/2"	
72"	Head	A	4	4	4	4	6	6	
	Sill		3	3	3	3	4	4	
	Head	B	4	4	4	6	6	6	
	Sill		3	3	3	4	4	4	
	Head	C	4	4	4	4	4	6	
	Sill		3	3	3	3	4	4	
	Head	D	4	4	4	4	4	4	
	Sill		3	3	3	4	4	4	
80"	Head	A	4	4	4	6	6	6	
	Sill		3	3	3	4	4	4	
	Head	B	4	4	6	6	6	6	
	Sill		3	3	4	4	4	4	
	Head	C	4	4	4	4	6	6	
	Sill		3	3	3	4	4	4	
	Head	D	4	4	4	4	4	6	
	Sill		3	4	4	4	4	5	
84"	Head	A	4	4	6	6	6	6	
	Sill		3	3	4	4	4	4	
	Head	B	4	6	6	6	6	6	
	Sill		3	3	4	4	4	5	
	Head	C	4	4	4	6	6	6	
	Sill		3	3	4	4	4	4	
	Head	D	4	4	4	4	6	6	
	Sill		3	4	4	4	5	5	
96"	Head	A	4	6	6	6	6	6	
	Sill		3	4	4	4	5	5	
	Head	B	6	6	6	6	6	8	
	Sill		4	4	4	5	5	5	
	Head	C	4	4	6	6	6	6	
	Sill		3	4	4	4	5	5	
	Head	D	4	4	4	6	6	6	
	Sill		4	4	4	5	5	5	
108"	Head	A	6	6	6	6	6	6	
	Sill		4	4	4	5	5	5	
	Head	B	6	6	6	8	8	8	
	Sill		4	4	5	5	5	5	
	Head	C	4	6	6	6	6	6	
	Sill		4	4	4	5	5	5	
	Head	D	4	6	6	6	6	6	
	Sill		4	5	5	5	5	5	
120"	Head	A	6	6	6	6	6	6	
	Sill		4	4	5	5	5	5	
	Head	B	6	6	8	8	8	8	
	Sill		4	5	5	5	5	5	
	Head	C	6	6	6	6	6	6	
	Sill		4	4	5	5	5	5	
	Head	D	6	6	6	6	6	6	
	Sill		5	5	5	5	5	5	
128"	Head	A	6	6	6	6	6	6	
	Sill		4	5	5	5	5	5	
	Head	B	6	8	8	8	8	8	
	Sill		5	5	5	5	5	5	
	Head	C	6	6	6	6	6	6	
	Sill		4	5	5	5	5	5	
	Head	D	6	6	6	6	6	6	
	Sill		5	5	5	5	5	5	

USED IN EXAMPLE
2, SHEET 5



ANCHOR CLUSTER PATTERN @ HEAD



ANCHOR CLUSTER PATTERN @ SILL

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

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WINDOOR

104 TRIPLE DIAMOND BLVD
N VENICE, FL 34275
(833) 554-5432

02/07/23

ALUMINUM IS & OS TERRACE DOOR (LM)

A. MORLESIN

ANCHOR QUANTITY

TD9050

TD9050LM-I-FPA

PROFESSIONAL ENGINEER

ANTHONY LYNN MILLER

LICENSE

No. 58705

04/24/25

STATE OF FLORIDA

A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 7:

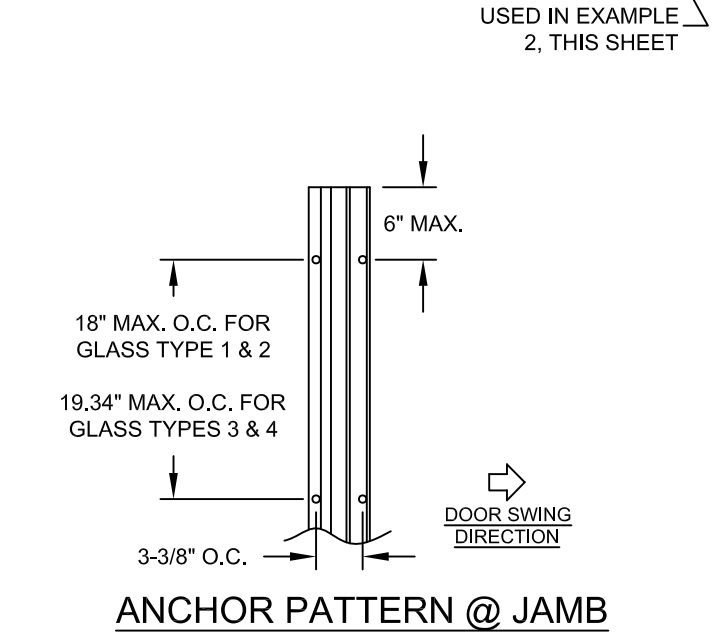
Min. Quantity of Anchors Required at the Jamb, X						
All Glass Types: 1 - 6 & All Anchor Groups: A, B, C & D						
Frame Height	Frame Width					
	28"	32"	36"	40"	42"	46"
72"	10	10	10	10	10	10
80"	10	10	10	10	10	10
84"	10	10	10	10	10	10
96"	12	12	12	12	12	12
108"	14	14	14	14	14	14
120"	14	14	14	14	14	14
128" *	14	14	14	14	14	14

* APPLICABLE ONLY TO GLASS TYPES 3, 4, 5 & 6.

TABLE 8:

Min. Quantity of Anchors Required at the Jamb, XX						
All Glass Types: 1 - 6 & All Anchor Groups: A, B, C & D						
Frame Height	Frame Width					
	54"	60"	66"	72"	76-1/2"	84-1/2"
72"	10	10	10	10	10	10
80"	10	10	10	10	10	10
84"	10	10	10	10	10	10
96"	12	12	12	12	12	12
108"	12	12	12	12	12	12
120"	14	14	14	14	14	14
128" *	14	14	14	14	14	14

* APPLICABLE ONLY TO GLASS TYPES 3, 4, 5 & 6.



NOTES:

1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

EXAMPLE 1:

- SINGLE DOOR, X, 42" X 83-3/4", REQUIRED DESIGN PRESSURE IS +55/-75 PSF.
- SUBSTRATE IS WOOD ON ALL SIDES.

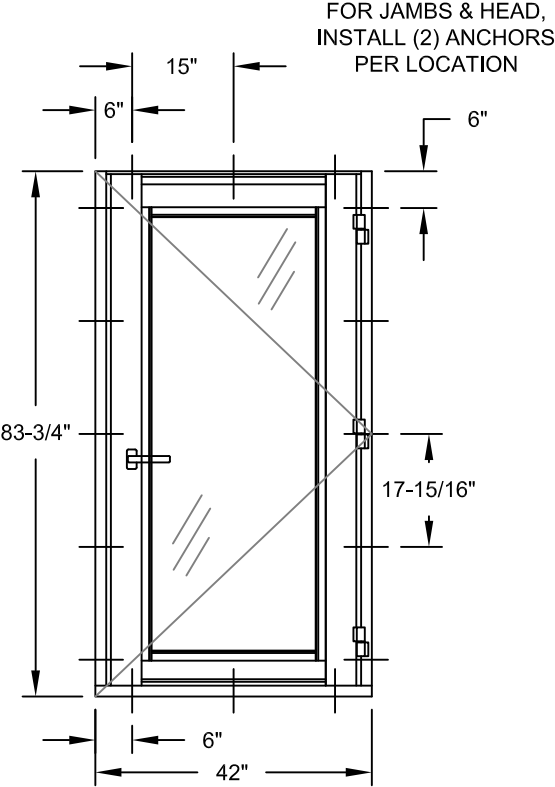
1) FROM TABLE 3, WE SEE THAT THE SIZE IS AVAILABLE USING PVB INTERLAYER GLAZING (GLASS TYPES 1 OR 2), OR SG INTERLAYER GLAZING (GLASS TYPES 3 & 4), OR ATG GLASS (GLASS TYPE 5 & 6) OR THIS EXAMPLE CHOOSE THE PVB INTERLAYER.

2) FROM TABLE 3, AFTER ROUNDING THE WIDTH AND HEIGHT UP TO THE SIZES GIVEN ON THE TABLE, WE SEE THAT THE MAXIMUM DESIGN PRESSURE IS +80/-80. SINCE THIS EXCEEDS THE REQUIREMENTS OF +55/-75, WE MAY PROCEED.

3) FOLLOW ANCHOR LOCATIONS AS SHOWN ON THE ELEVATION OF SHEET 2.

4) FROM TABLE 7, IT IS REQUIRED THAT WE USE AT LEAST 10 ANCHORS IN THE JAMB (5 PAIRS). FOR THE MAXIMUM O.C., SEE THE ELEVATION DRAWING ON SHEET 2.

5) INSTALL USING THE CROSS-SECTION DRAWINGS ON SHEETS 6 & 7 AS A GUIDELINE.



EXAMPLE 2:

- DOUBLE DOOR, XX, 79-1/2" X 124-3/4". REQUIRED DESIGN PRESSURE IS +/-52.5 PSF.
- SUBSTRATE IS CONCRETE AT THE HEADER AND SILL AND UNFILLED CONCRETE BLOCKS AT THE JAMBS.

1) FROM TABLE 4, WE SEE THAT THE SIZE IS NOT AVAILABLE USING PVB INTERLAYER GLAZING (GLASS TYPES 1 OR 2), SG INTERLAYER GLAZING (GLASS TYPES 5 OR 6) WILL BE USED.

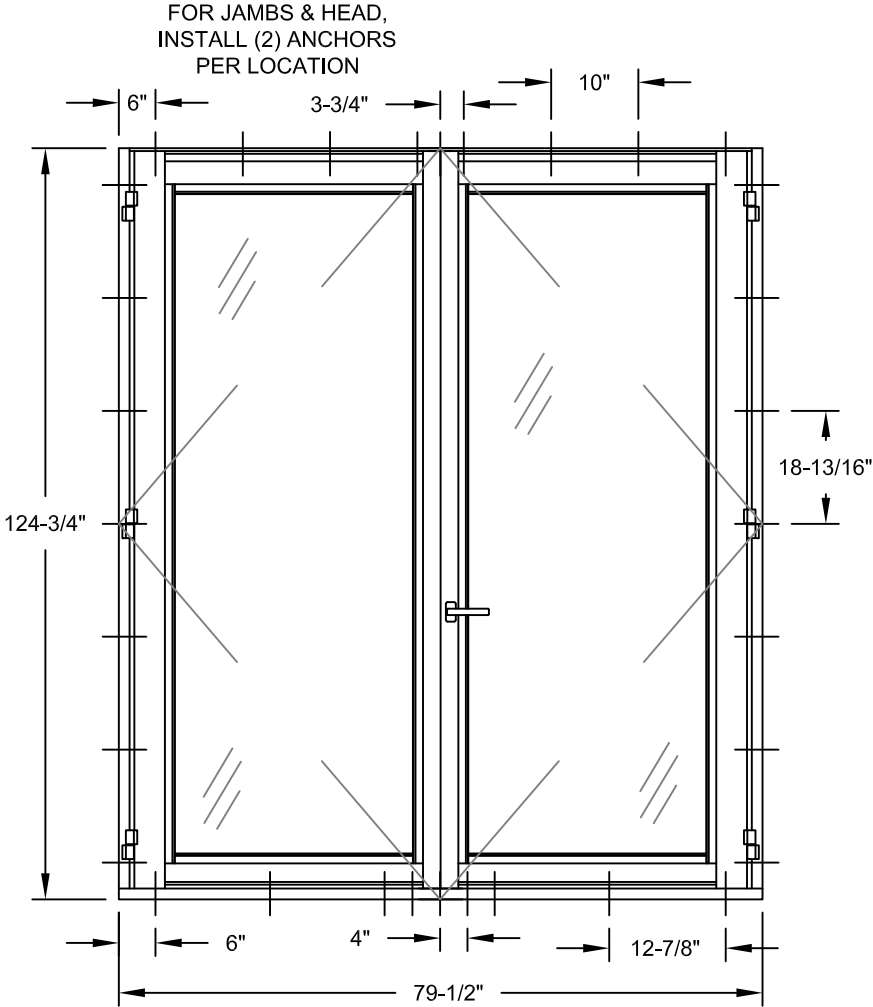
2) FROM TABLE 4, AFTER ROUNDING THE WIDTH AND HEIGHT UP TO THE SIZES GIVEN ON THE TABLE, WE SEE THAT THE MAXIMUM DESIGN PRESSURE IS +55/-65. SINCE THIS EXCEEDS THE REQUIREMENTS OF +/-52.5, WE MAY PROCEED.

3) FOLLOW ANCHOR LOCATIONS AS SHOWN ON THE ELEVATION OF SHEET 3. FOR THE HEAD AND SILL CLUSTER QUANTITIES, REFER TO TABLE 6.

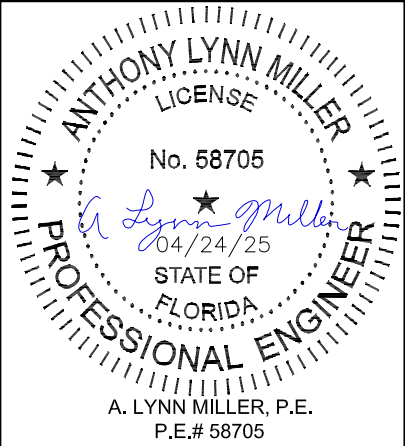
4) TABLE 6 REQUIRES US TO KNOW THE ANCHOR GROUP TO BE USED. WE PLAN ON USING ULTRACON ANCHORS. LOOKING AT TABLE 1, SHEET 1, WE CHOSE ANCHOR GROUP D SINCE WE KNOW THAT THE ANCHORS AT THE HEAD AND SILL ARE INTO CONCRETE AND THE ANCHORS AT THE JAMBS ARE INTO HOLLOW BLOCK.

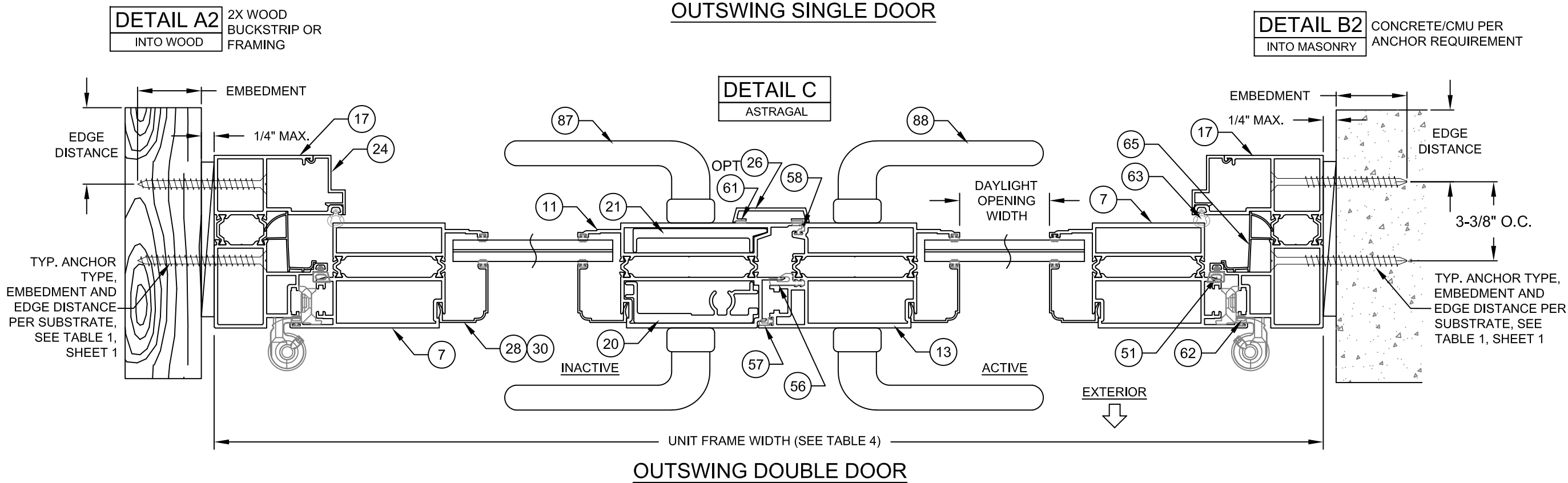
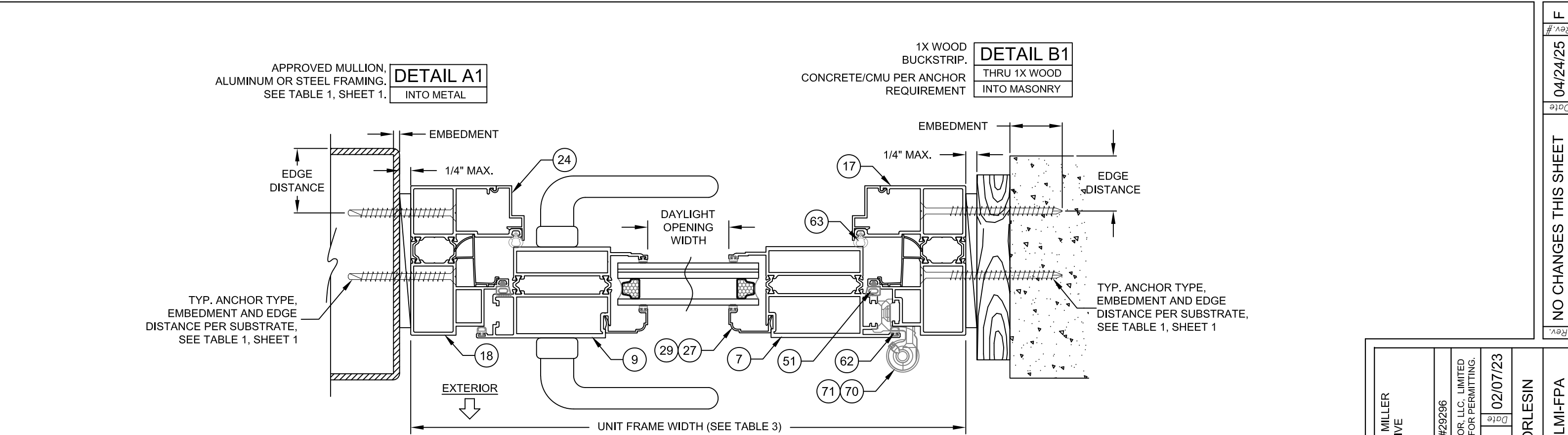
WE REQUIRE 6 CLUSTER ANCHORS IN THE HEAD AND 5 CLUSTER ANCHORS IN THE SILL USING THE SPACING SHOWN ON SHEET 4.

5) INSTALL USING THE CROSS-SECTION DRAWINGS ON SHEETS 6 & 7 AS A GUIDELINE.



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Title	ALUMINUM IS & OS TERRACE DOOR (LM)			Date	02/07/23		
Series Desc.	JAMB ANCHOR QTY. / EXAMPLES			Drawn By	A. MORLESIN		
Series	TD9050	Sheet	5 OF 12	DWG No.	TD9050LM-I-FPA		





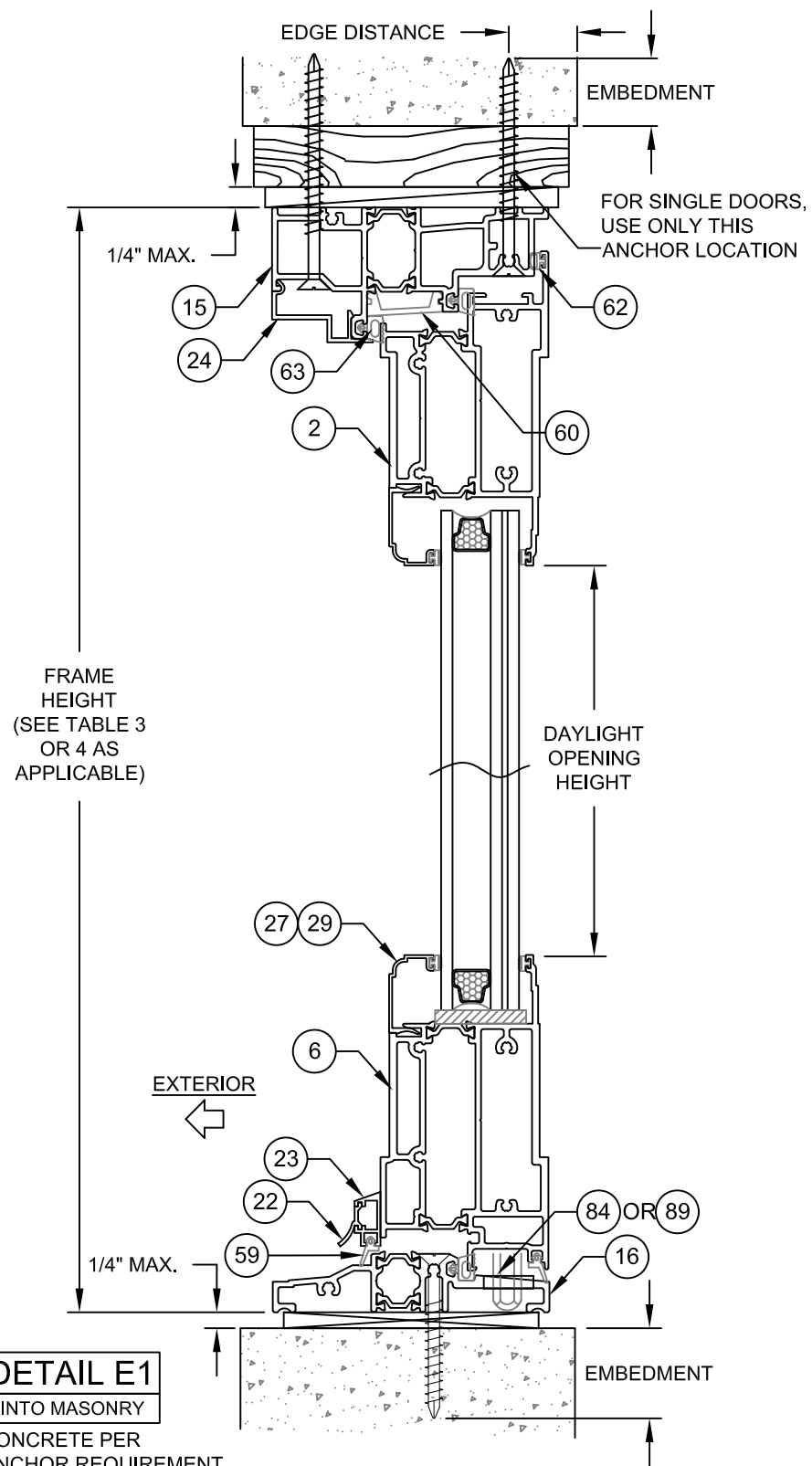
NOTES:

1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS, FOLLOW EMBEDMENT, EDGE DISTANCE AND SUBSTRATE REQUIREMENTS PER TABLE 1, SHEET 1. ANY INSTALLATION OPTION SHOWN MAY BE USED. ALL ANCHOR HEAD TYPES ARE ALLOWED.

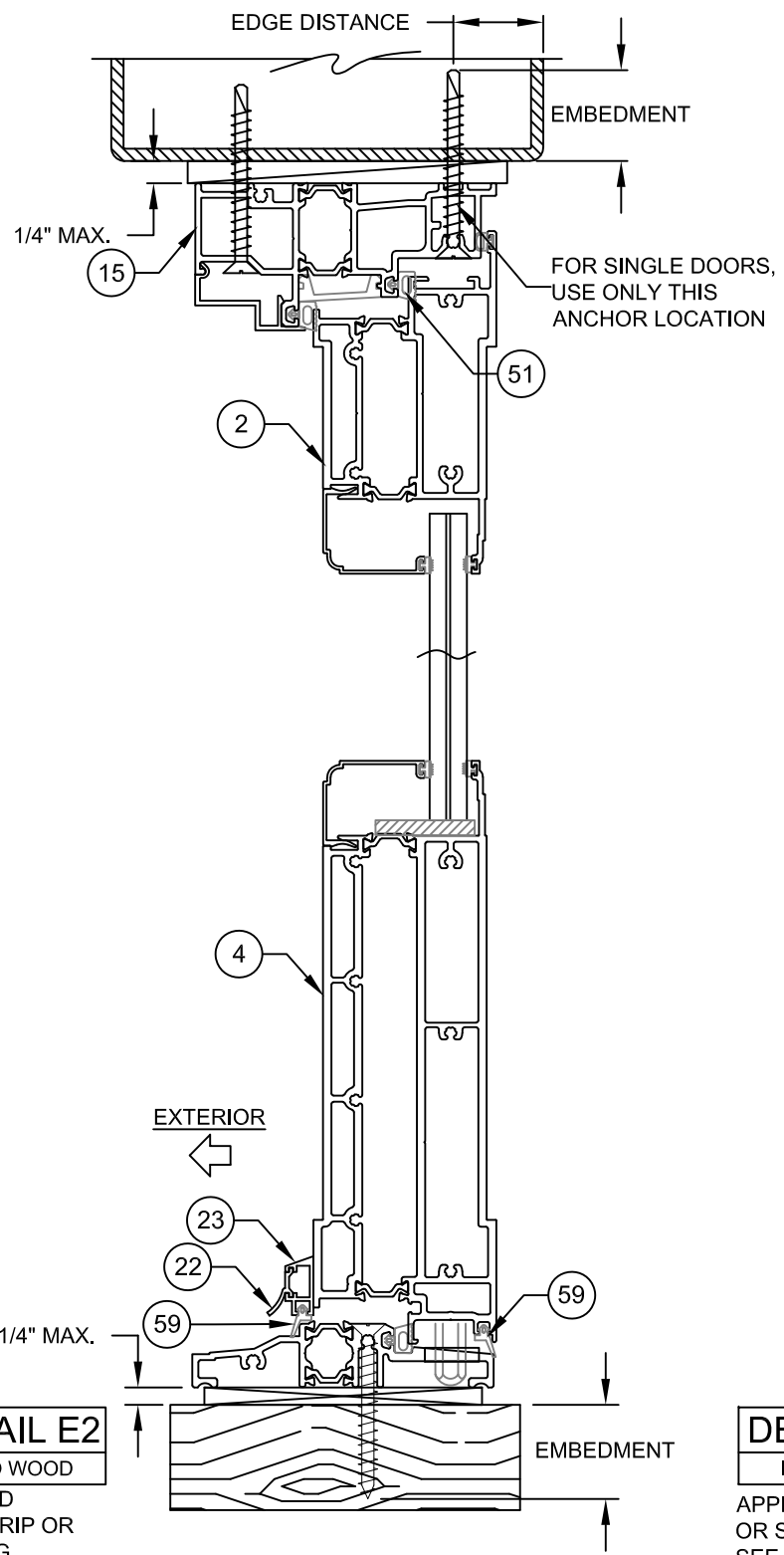
2) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL. UNIT MAY BE INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

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WINDOOR		104 TRIPLE DIAMOND BLVD N VENICE, FL 34275 (833) 554-5432	ALUMINUM IS & OS TERRACE DOOR (LM)
OUTSWING HORIZ. X-SECTION		By A. MORLESIN	Date
TD9050		7 OF 12	Sheet
TD9050LM-FPA		No.	DWG
Series		Desc.	Title

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LICENSE
No. 58705
04/24/25
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

DETAIL D11X WOOD
THRU 1X WOOD
INTO MASONRYBUCKSTRIP.
CONCRETE PER
ANCHOR REQUIREMENT**INSWING WITH
STANDARD BOTTOM RAIL****DETAIL D2**

INTO METAL

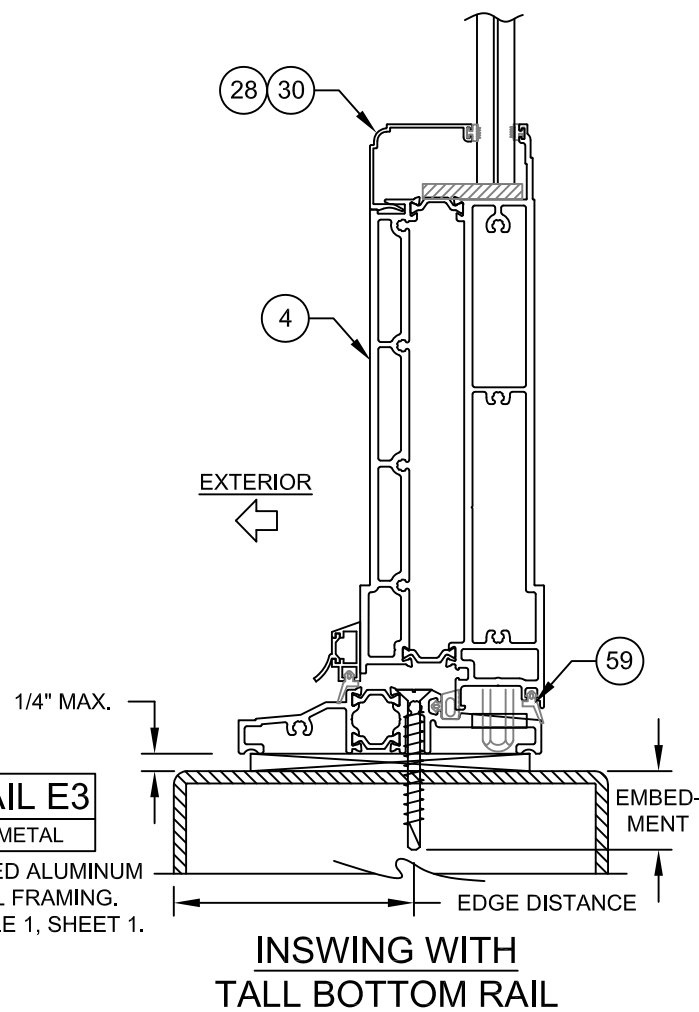
APPROVED MULLION,
ALUMINUM OR STEEL
FRAMING. SEE TABLE 1,
SHEET 1.**INSWING WITH
TALL BOTTOM RAIL****NOTES:**

1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS, FOLLOW EMBEDMENT, EDGE DISTANCE AND SUBSTRATE REQUIREMENTS PER TABLE 1, SHEET 1. ANY INSTALLATION OPTION SHOWN MAY BE USED. ALL ANCHOR HEAD TYPES ARE ALLOWED.

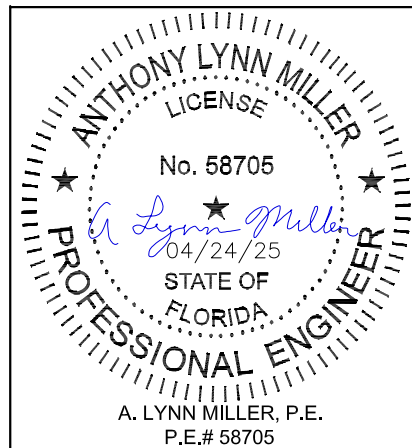
2) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL. UNIT MAY BE INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

DETAIL E3

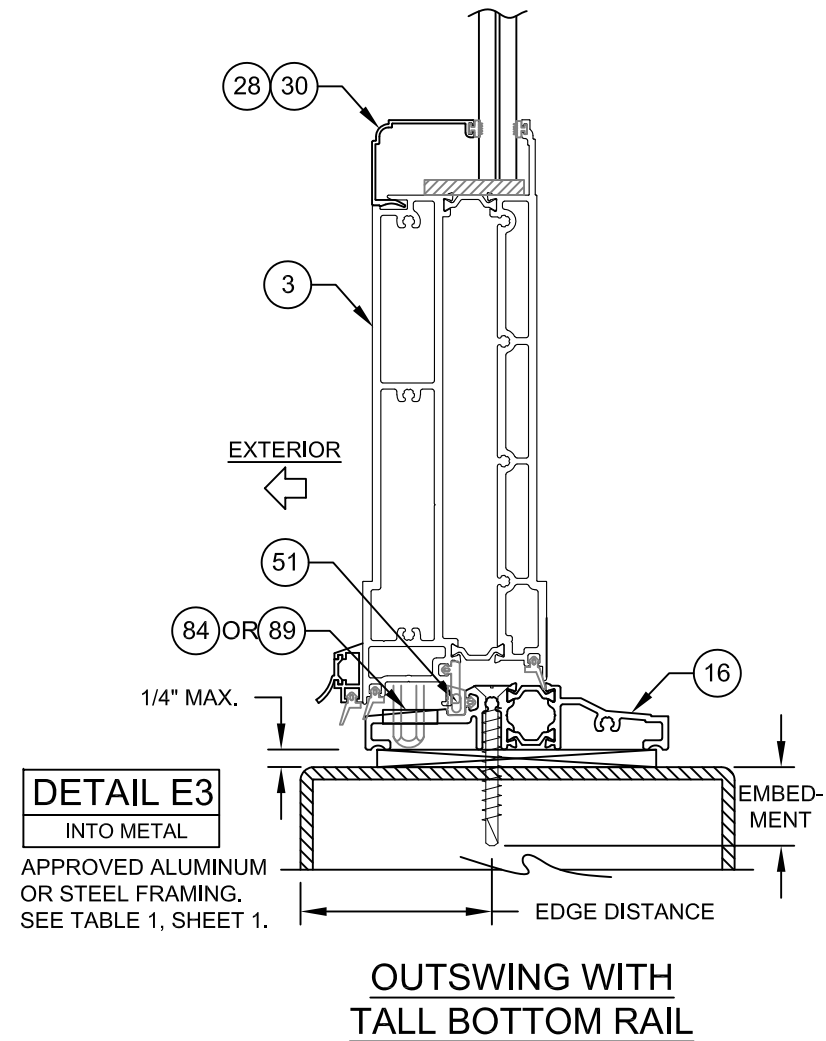
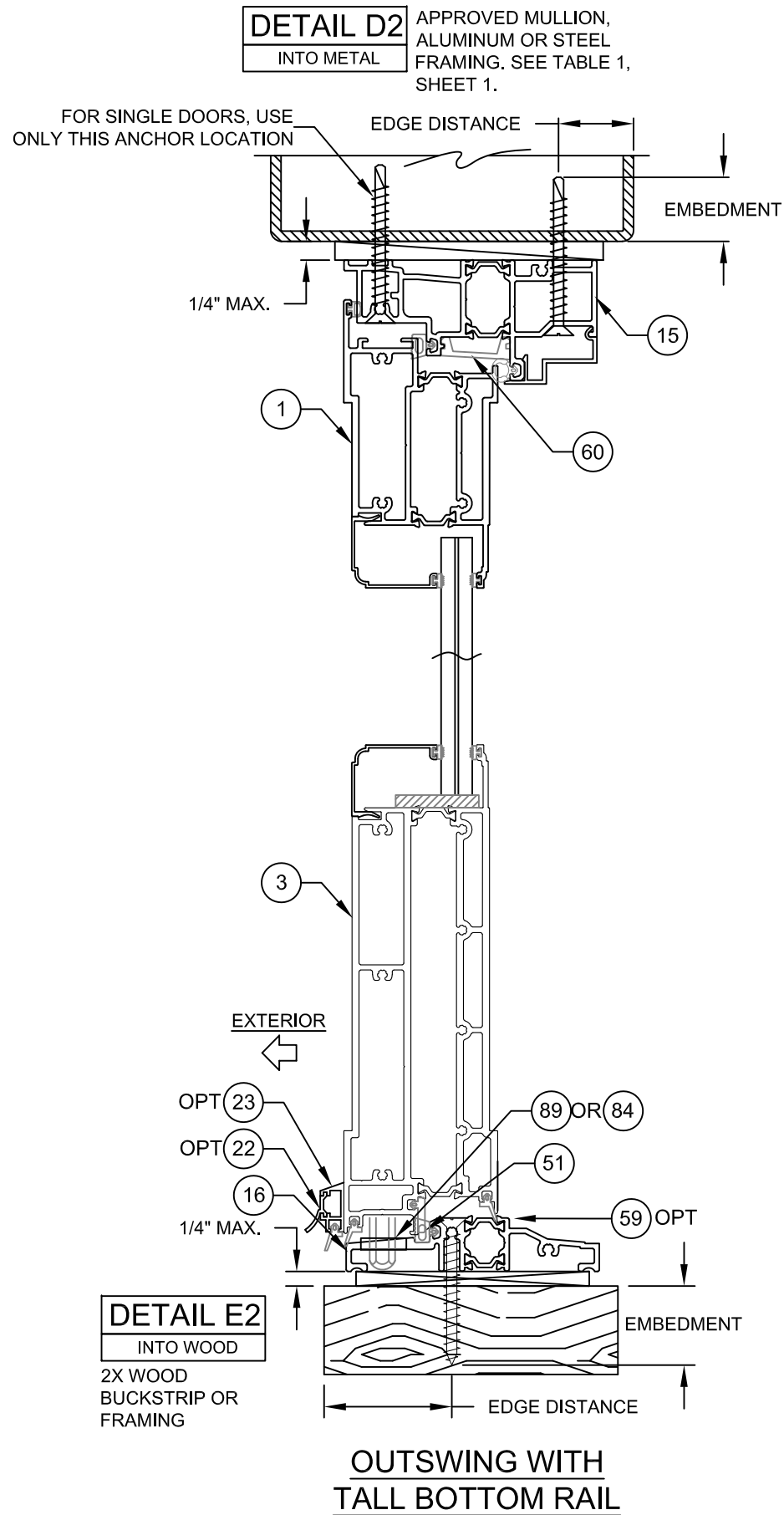
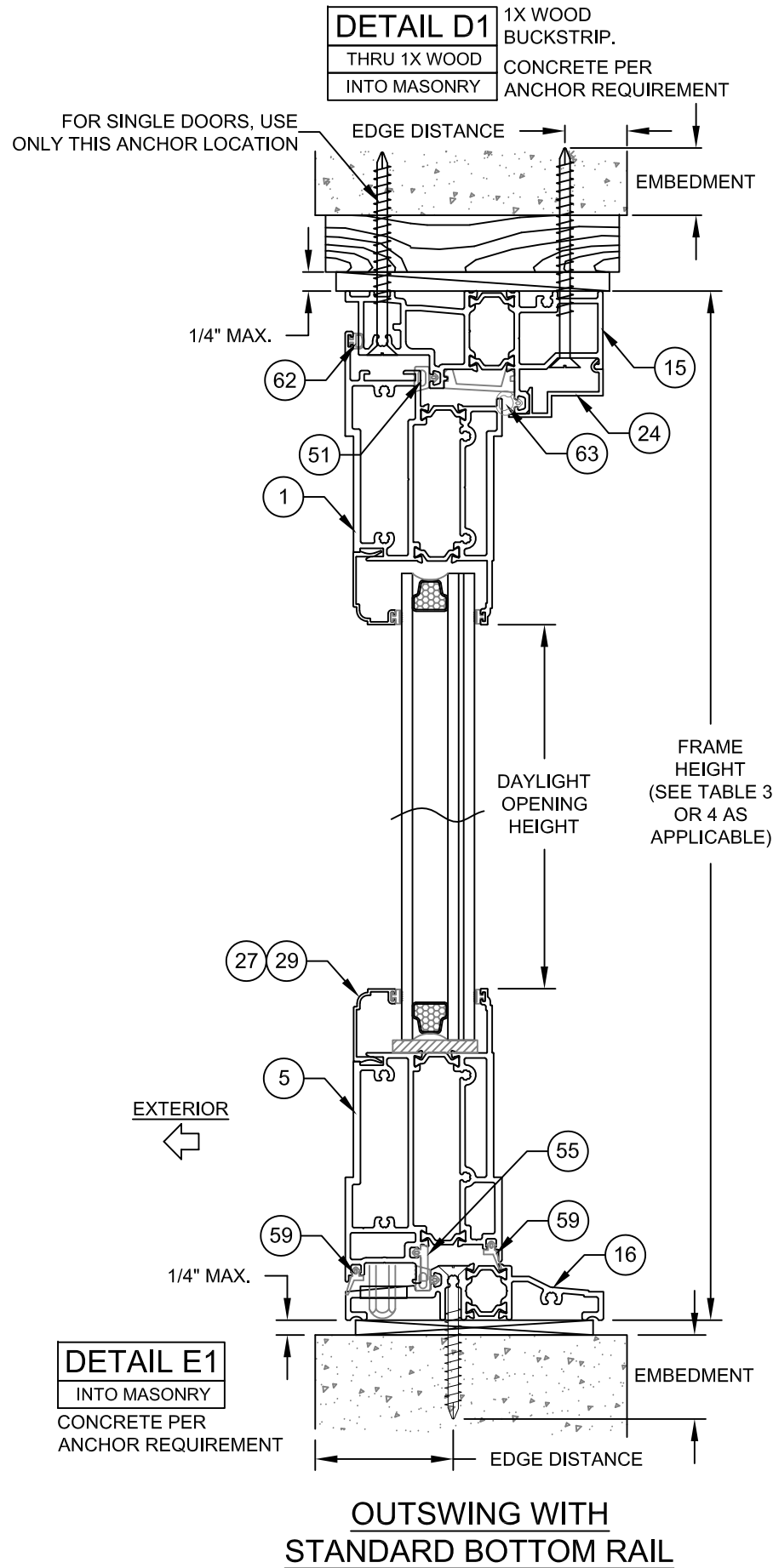
INTO METAL

APPROVED ALUMINUM
OR STEEL FRAMING.
SEE TABLE 1, SHEET 1.**INSWING WITH
TALL BOTTOM RAIL**

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104 TRIPLE DIAMOND BLVD N VENICE, FL 34275 (833) 554-5432		COPYRIGHT © 2025 WINDOOR, LLC. LIMITED LICENSE TO MAKE COPIES FOR PERMITTING.	By	Date	Drawn	DWG	No.	TD9050
WINDOOR		ALUMINUM IS & OS TERRACE DOOR (LM)		INSWING VERT. X-SECTION		8 OF 12		Sheet
TD9050		Title		Desc.		Series		TD9050

A. LYNN MILLER, P.E.
P.E.# 58705

Rev.	NO CHANGES THIS SHEET	Date	04/24/25	Rev.
F				

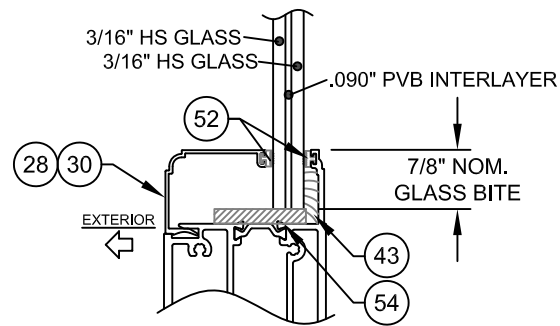


NOTES:

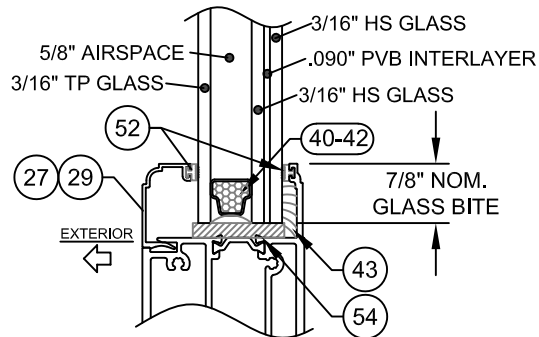
1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS, FOLLOW EMBEDMENT, EDGE DISTANCE AND SUBSTRATE REQUIREMENTS PER TABLE 1, SHEET 1. ANY INSTALLATION OPTION SHOWN MAY BE USED. ALL ANCHOR HEAD TYPES ARE ALLOWED.

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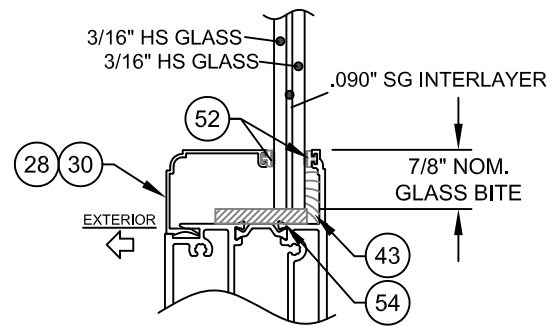
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OUTSWING VERT. X-SECTION		DWG No.	TD9050LM-FPA
TD9050	9 OF 12	Sheet	
ANTHONY LYNN MILLER LICENSE No. 58705 04/24/25 STATE OF FLORIDA PROFESSIONAL ENGINEER A. LYNN MILLER, P.E. P.E.# 58705			



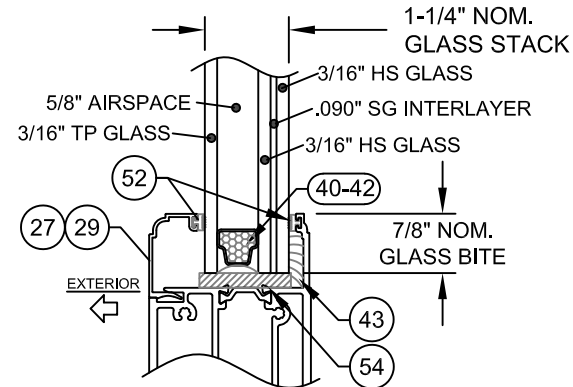
GLASS TYPE 1 (WITH PVB)
7/16" NOM



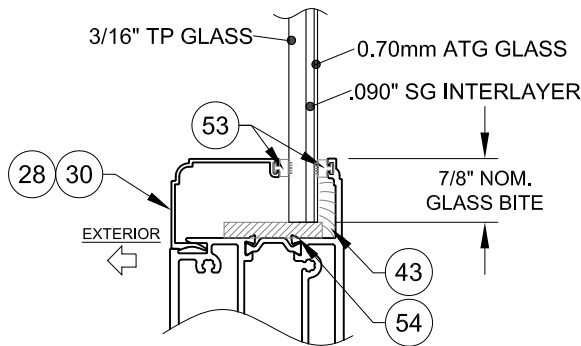
GLASS TYPE 2 (WITH PVB)
1-1/4" NOM



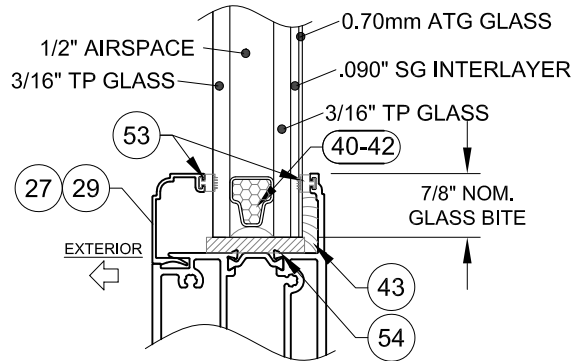
GLASS TYPE 3 (WITH SG)
7/16" NOM



GLASS TYPE 4 (WITH SG)
1-1/4" NOM



GLASS TYPE 5 (WITH ATG GLASS)
5/16" NOM



GLASS TYPE 6 (WITH ATG GLASS)
1" NOM

"HS" = HEAT STRENGTHENED
"TP" = TEMPERED
"PVB" = .090" TROSIFOL® PVB INTERLAYER BY KURARAY AMERICA, INC.
"SG" = .090" SENTRYGLAS® INTERLAYER BY KURARAY AMERICA, INC.
"ATG" = ARCHITECTURAL TECHNICAL GLASS BY CORNING.

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GLAZING DETAILS		10 OF 12	Sheet	TD9050		Series

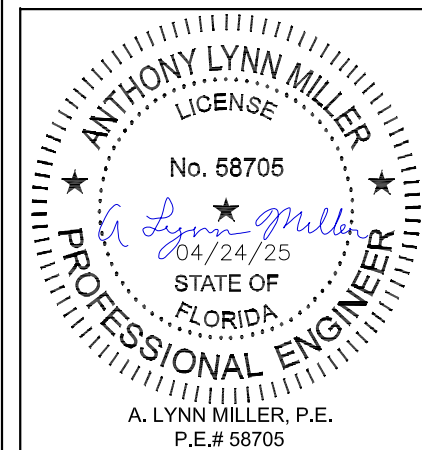
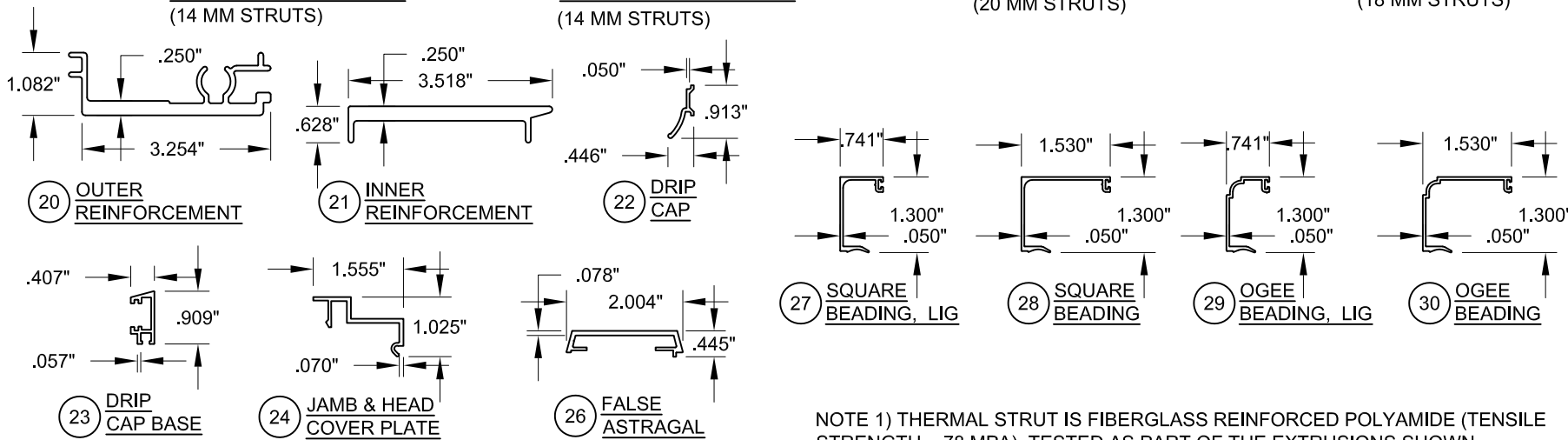
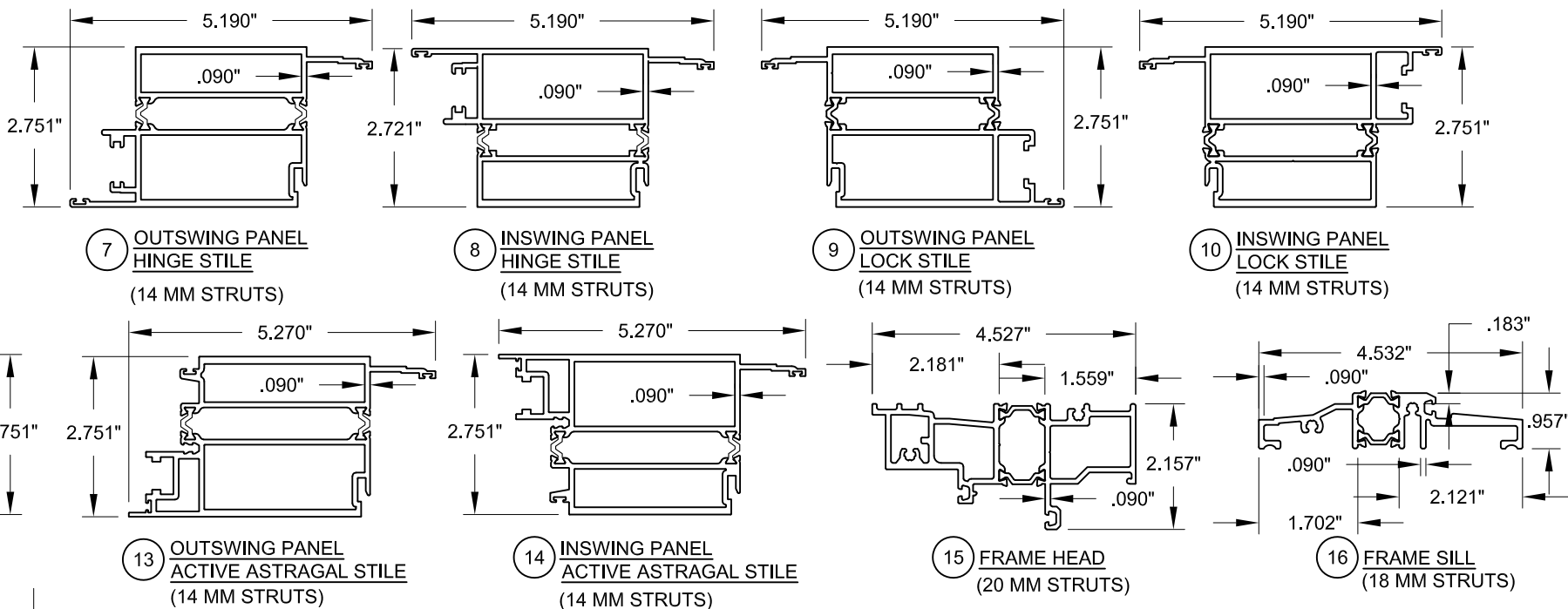
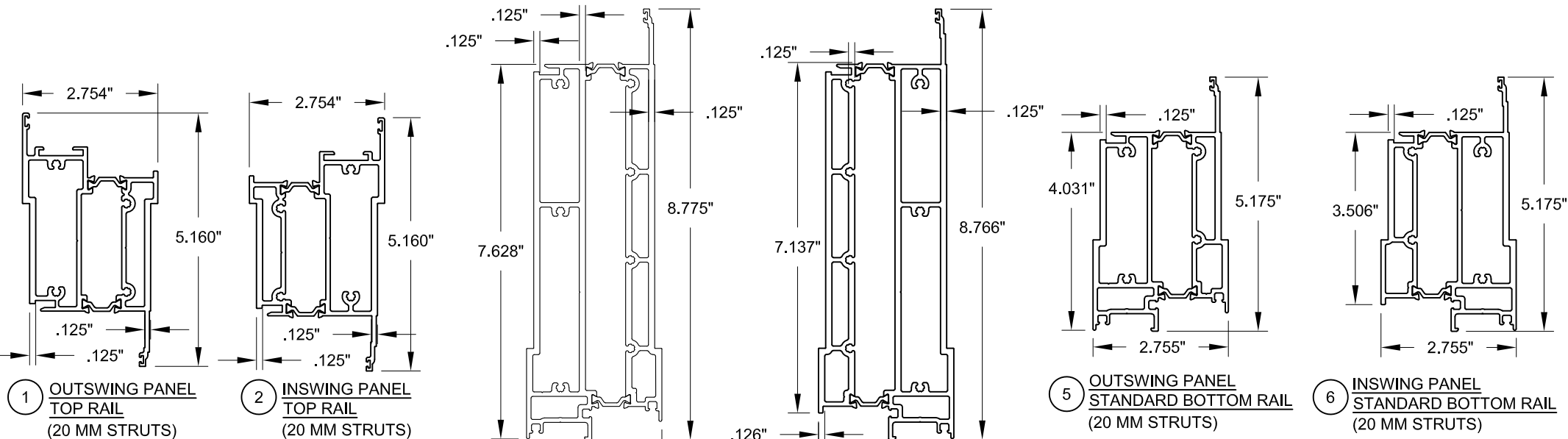


TABLE 9:

#	Part #	Description	Material
1	130905A36	Outswing Panel Top Rail	6063 -T6
2	130905A26	Inswing Panel Top Rail	6063 -T6
3	130905A38	Outswing Panel High Bottom Rail	6063 -T6
4	130905A28	Inswing Panel High Bottom Rail	6063 -T6
5	130905A37	Outswing Panel Standard Bottom Rail	6063 -T6
6	130905A27	Inswing Panel Standard Bottom Rail	6063 -T6
7	130905A03	Outswing Panel Hinge Stile	6063 -T6
8	130905A04	Inswing Panel Hinge Stile	6063 -T6
9	13010447	Outswing Panel Lock Stile	6063 -T6
10	13010450	Inswing Panel Lock Stile	6063 -T6
11	130905A18	Outswing Panel Inactive Panel Stile	6063 -T6
12	130905A20	Inswing Panel Inactive Panel Stile	6063 -T6
13	130905A17	Outswing Panel Active Panel Stile	6063 -T6
14	130905A19	Inswing Panel Active Panel Stile	6063 -T6
15	130905A32	Frame Head	6063 -T6
16	130905A34	Frame Sill	6063 -T6
17	130905A21	Frame Hinge Jamb	6063 -T6
18	13010440	Frame Lock Jamb	6063 -T6
19	130905A09	Outswing Panel High Bottom Rail Adapter	6063 -T6
20	11006862	Outer Reinforcement	6063 -T6
21	11006863	Inner Reinforcement	6063 -T6
22	11060646	Drip Cap/Sweep	6063 -T6
23	11060647	Drip Cap/Sweep Base	6063 -T6
24	11046085	Jamb & Head Cover Plate	6063 -T6
26	11010287	False Astragal	6063 -T6
27	11052598	Square Beading, LIG	6063 -T6
28	11052596	Square Beading	6063 -T6
29	11046084	Ogee Beading, LIG	6063 -T6
30	11046082	Ogee Beading	6063 -T6



NOTE 1) THERMAL STRUT IS FIBERGLASS REINFORCED POLYAMIDE (TENSILE STRENGTH = 78 MPA), TESTED AS PART OF THE EXTRUSIONS SHOWN.

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PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600		ALUMINUM IS & OS TERRACE DOOR (LM)				Date	02/07/23	
						By		A. MORLESIN
						Drawn		
						DWG		No.
						Sheet		11 OF 12
Series		TD9050		TD9050LM-FPA				

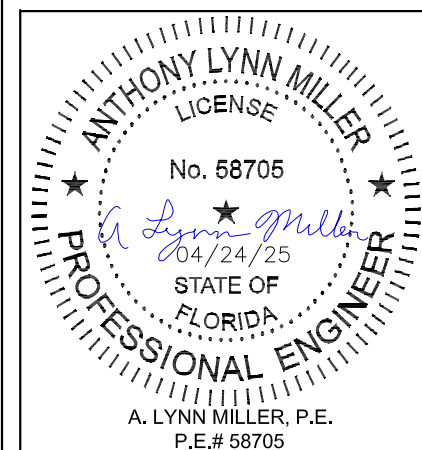


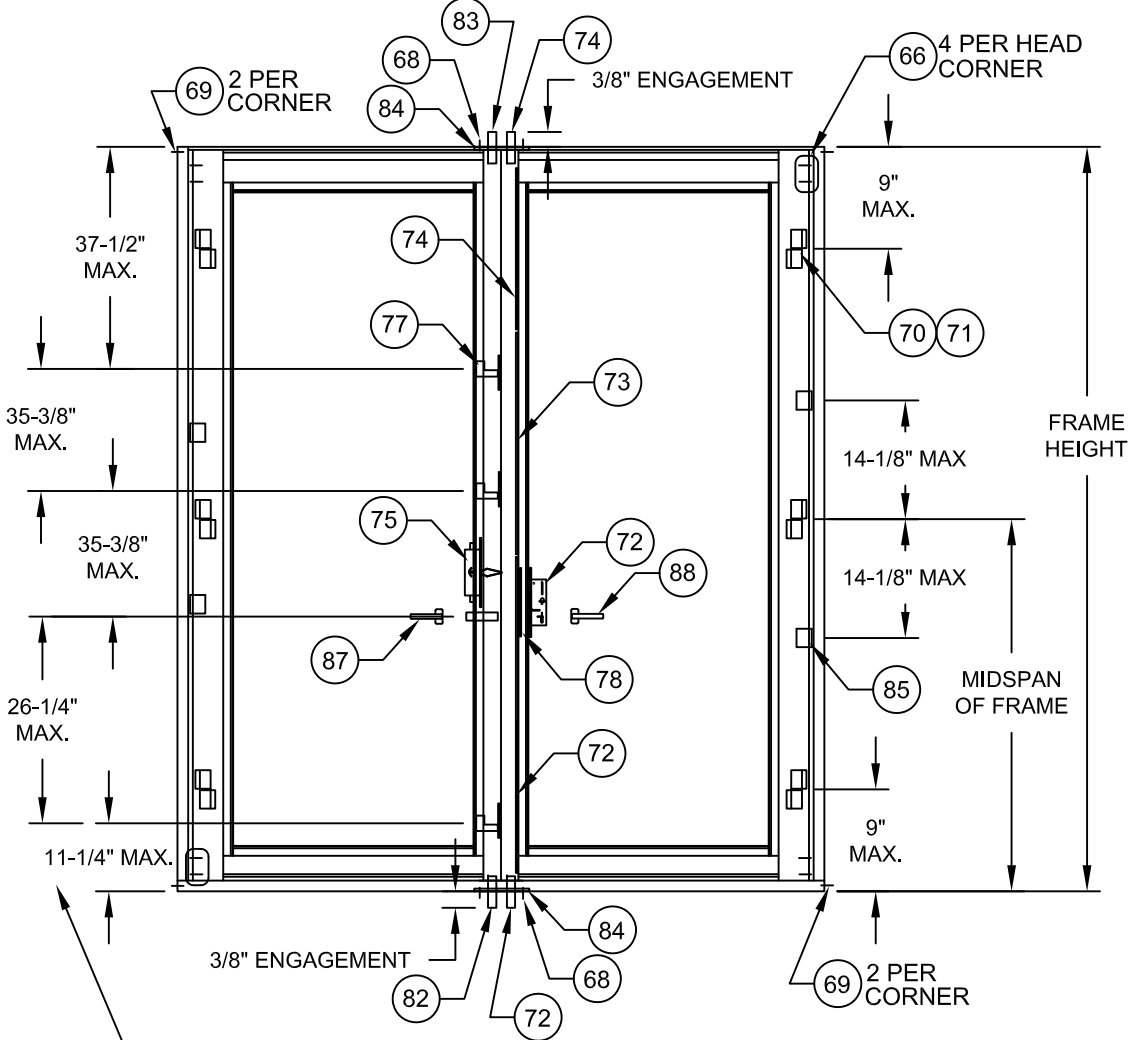
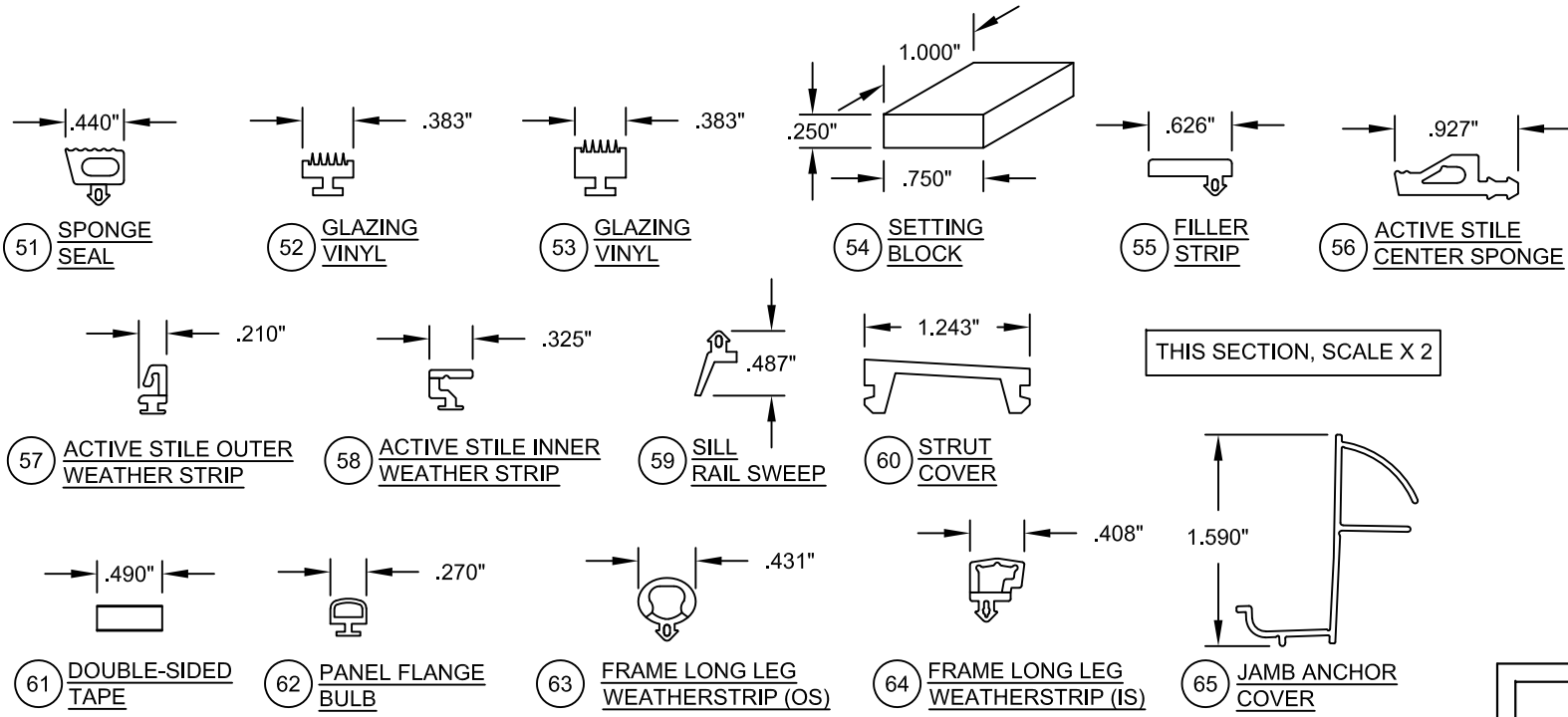
TABLE 10:

#	Part #	Description
40		Kommerling Kodispace 4SG TPS
41		Quanex Super Spacer nXT with Hot Melt Butyl
42		Metal IG Spacer
43		Silicone: SIKA 552, Dow 791, Dow 983
51	W9050-BL-9100E	Sponge Seal, 905VP-22-SEAL, EPDM
52	121006/121007	Glazing Vinyl, EPDM, 80 Duro
53	23083	Glazing Vinyl, EPDM, 80 Duro, Wide
54	121001	Setting Block, 1/4" x 3/4" x 1", Neoprene, 80 Duro
55	15303	Filler Strip, TP-448, PVC, 92 Duro
56	W9050-BL-54576	Active Stile Center Sponge
57	W9050-BL-3911	Active Stile Outer Weatherstrip, Co-ex. EPDM, 80 Duro
58	W9050-BL-3912	Active Stile Inner Weatherstrip, Co-ex., EPDM, 80 Duro
59	17010491	Sill Rail Sweep, Black, Santoprene
60	W9050-BL-9102E	Strut Cover
61	15005	Double-sided Astragal Tape, Adhesive Foam
62	15103	Panel Flange Bulb, EPDM, 80 Duro
63	15187	Frame Long Leg Weatherstrip (OS), EPDM 80 Duro
64	W9050-BL-3913	Frame Long Leg Weatherstrip (IS), EPDM, 80 Duro
65	10236	Jamb Anchor Cover, PVC, 92 Duro
66		#8 x 1" Ph SQ SMS (Panel Assembly), SS
67	140008	#10 x 3/4" Ph FH SMS (Sill/Head Strike Plates), SS
68		#10 x 3/4" Ph FH Tek SMS (Shoot Bolt Plate), SS
69		#10 x 1-1/4" Ph SQ SMS (Frame Assembly), SS

TABLE 11: HINGES AND LOCKING HARDWARE COMPONENTS AND SCHEDULE

#	Part #	Description	Manufacturer
70	H9050-XX-4637M	Flash XXL Door Hinge	Giesse
71	H9050-XX-0599M	Hinge Covers	Giesse
72	H9050-GEAR-1728	Bottom Extension with Gear, Lock, Lower Swing Hook & Shoot Bolt (3/8" Engagement into Head & Sill)	Hoppe
73	3622833	Middle Extension with 2 Swing Hooks	Hoppe
74	8778627	Top Extension with Shoot Bolt	Hoppe
75	H9050-FB-2267	Mortise Flushbolt, Inactive Panel	Hoppe
77	H9050-SH-2884	Hook Latch Strike Plate, SS	Seljan
78	H9050-LH-2902 H9050-RH-2905	LH/RH Latch & Deadbolt Strike Plate, SS	Seljan
79	H9050-RP-2913	Shoot Bolt reinforcing Plate, SS	Seljan
80	H9050-SPADA-3921	Shoot Bolt reinforcing Shim	Seljan
81	1900908	10mm Standard Rod Guides	Hoppe
82	8759551	10mm Lower Flush Bolt Rod	Hoppe
83	8786867	10mm Upper Flush Bolt Rod	Hoppe
84	H9050-SP-2948D	Twin Shoot Bolt Head & Sill Strike Plate, SS	Seljan
85	H9050-XX1445M	Snubber Driver	Advantage
86	905VP-20	Ramp Block	
87	Varies	False Handle & Trim Set	Varies
88	Varies	Handle & Trim Set with Lock Cylinder & Thumb Turn	Hoppe/Giesse
89	H9050-SP-275	Single Shoot Bolt Head & Sill Strike Plate, SS	Seljan

4 PER SILL CORNER FOR STD BOT. RAIL
7 PER SILL CORNER FOR HIGH BOT. RAIL



HARDWARE ELEVATION
DOUBLE (XX) DOOR SHOWN, SINGLE (X) DOOR SIMILAR

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

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ALUMINUM IS & OS TERRACE DOOR (LM)

02/07/23

By A. MORLESIN

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12 OF 12

TD9050

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