

# THERMA-TRU<sup>®</sup> DOORS

Fiber-Classic<sup>®</sup> & Smooth-Star<sup>®</sup>

## COMPOSITE EDGE OPAQUE FIBERGLASS "COASTAL - IMPACT" DOUBLE DOOR w/ "NON-IMPACT" SIDELITES IN SWING/OUT SWING

EVALUATED FOR USE IN THE STATE OF TEXAS

**TDI DR-949**

The Fiberglass Door system described herein complies with the 2018 International Residential Code (IRC), Sections R301 & R609 and the 2018 International Building Code (IBC), Sections 1404.13, 1609, 1709.5, 2403 and 2404 subject to the following conditions:

1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. When used in areas requiring wind-borne debris protection, the opaque door does not require impact protection and meets missile level "D" as defined in ASTM E 1996. The sidelites are required to be protected with an impact resistant covering that complies with Section R301.2.1.2 of the IRC and Section 1609.1.2 of the IBC.
3. Allowable design pressure requirements must be equal to or less than the design pressure rating shown in the design pressure chart, sheet 1 of this drawing.
4. Conditions not covered by this drawing are subject to further engineering analysis.
5. Fiber-Classic and Smooth-Star Door and Sidelite panels require the use of "J" part numbers. These door and sidelite panels must be stained or painted within six months of installation.

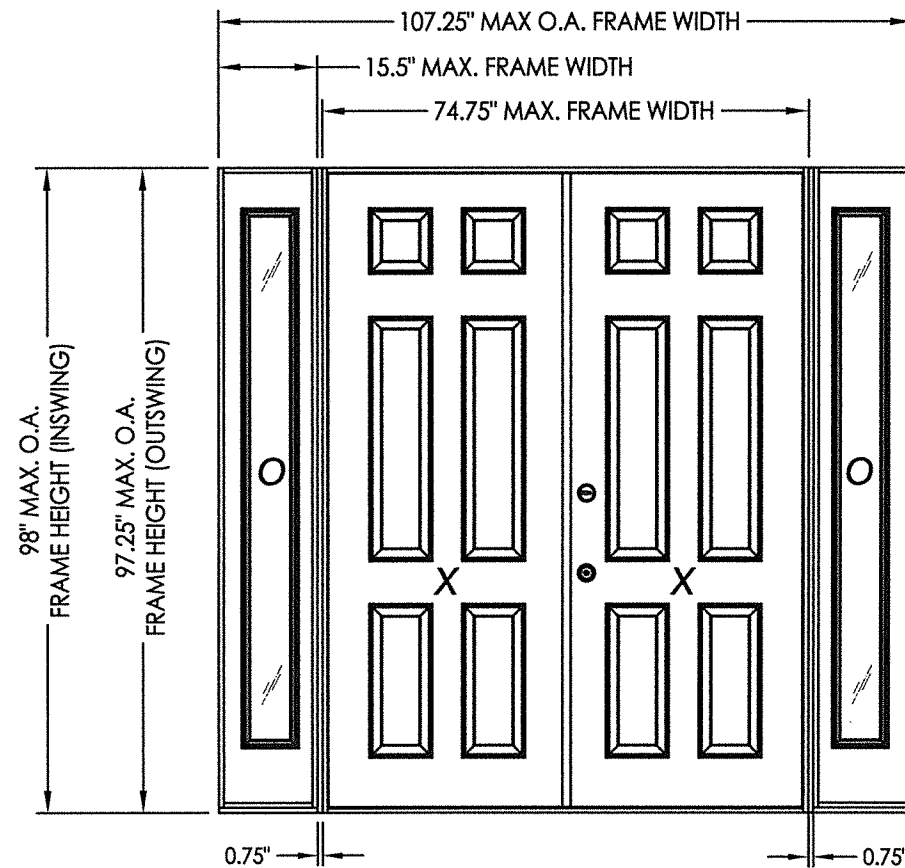
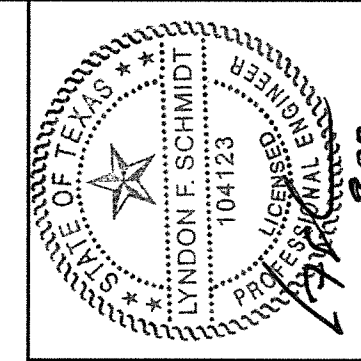


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7	Frame Anchoring
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11	Bill of Materials

CONFIGURATION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
OXXO	+65.0	-65.0	+65.0	-65.0

See Sheet 4 for Hardware Specifications

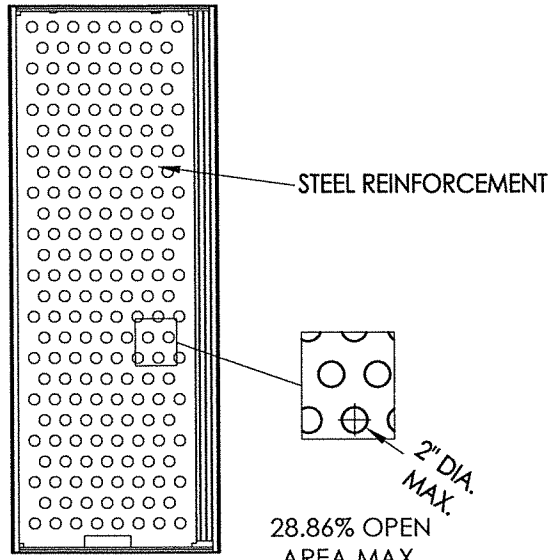


Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197

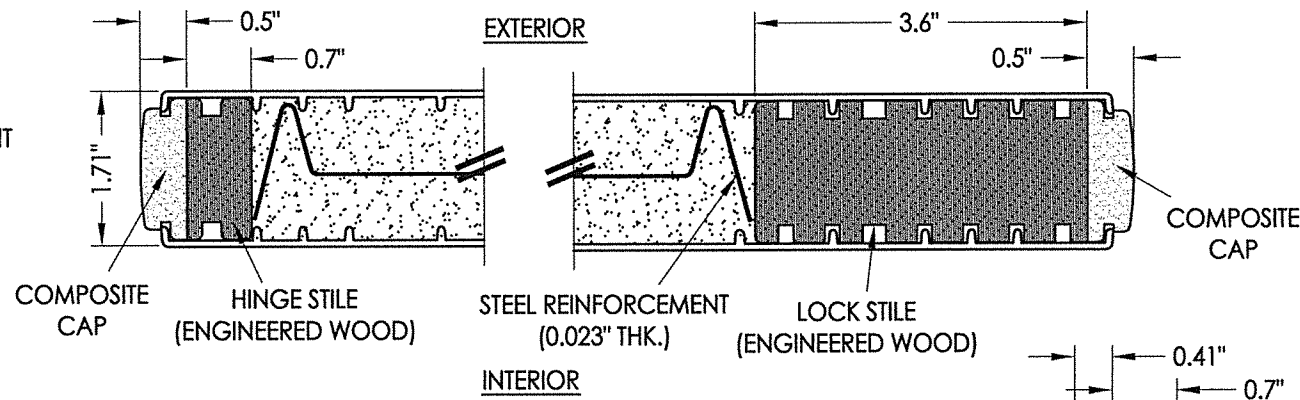
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU FIBERGLASS DOOR	
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES	
NO.	DATE
1	9/23/21
UPDATE TO 2018 IBC/IRC CODE	
LFS	BY
REVISIONS	
DATE: 11/14/17	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: TX-4744	
SHEET 1 OF 11	

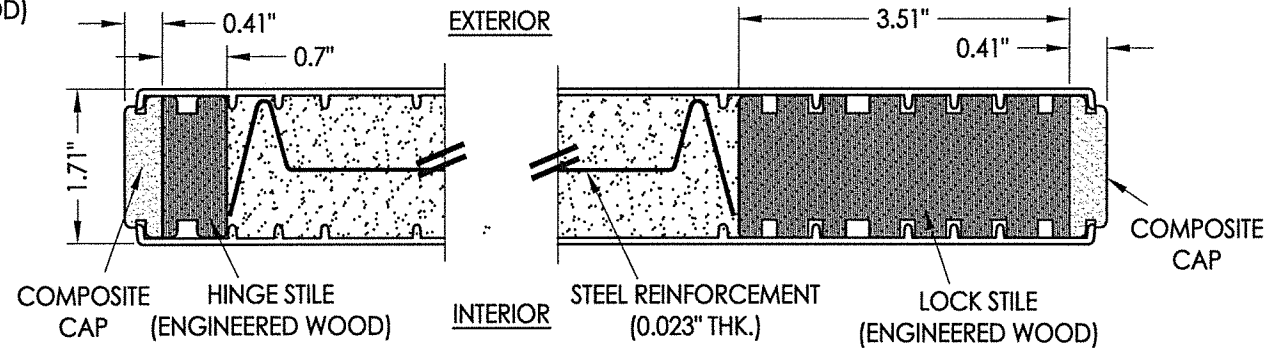


**DETAIL A-A**  
PANEL REINFORCEMENT  
(0.023" Thick Steel)

28.86% OPEN AREA MAX.

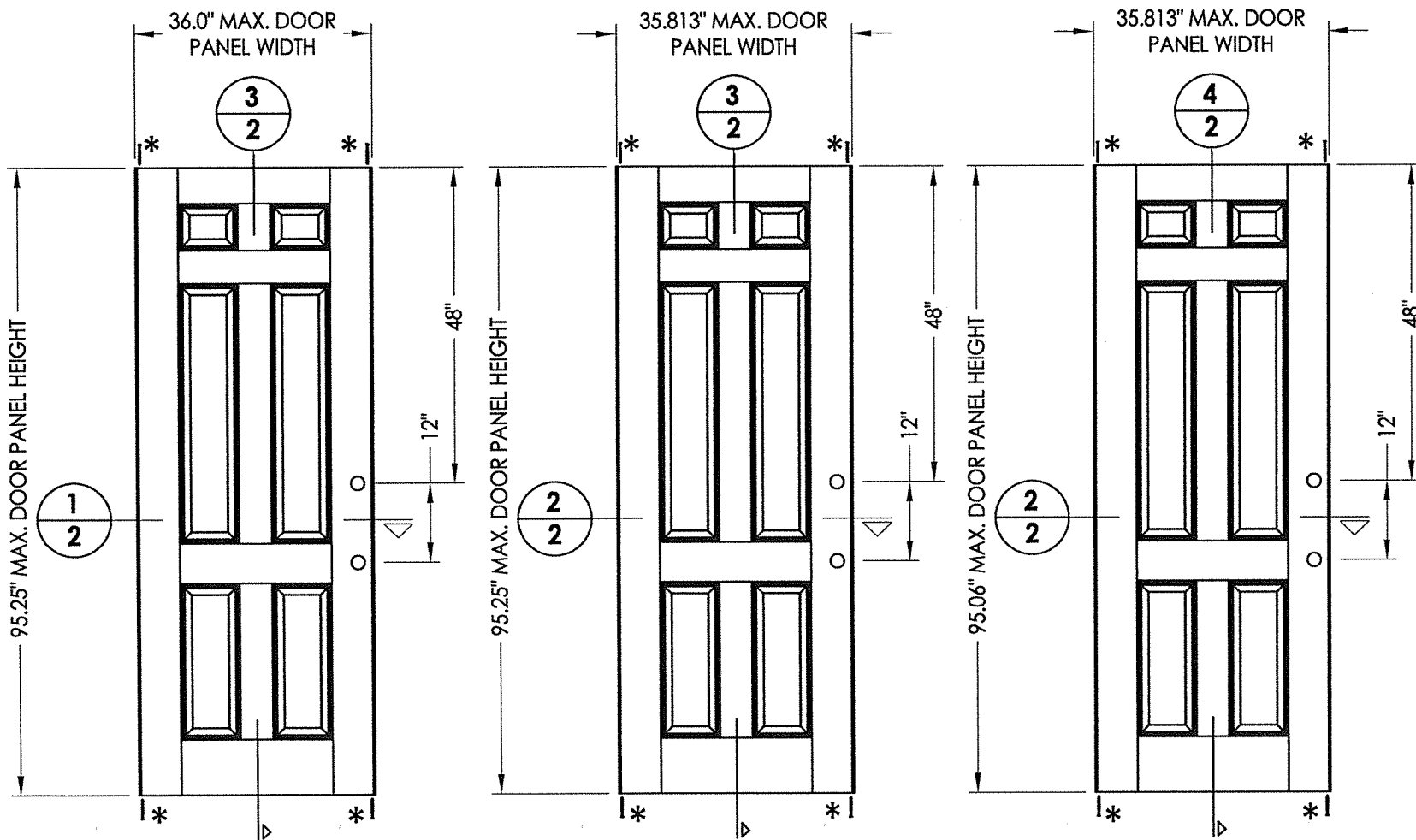


**1 HORIZONTAL CROSS SECTION**



**2 HORIZONTAL CROSS SECTION**

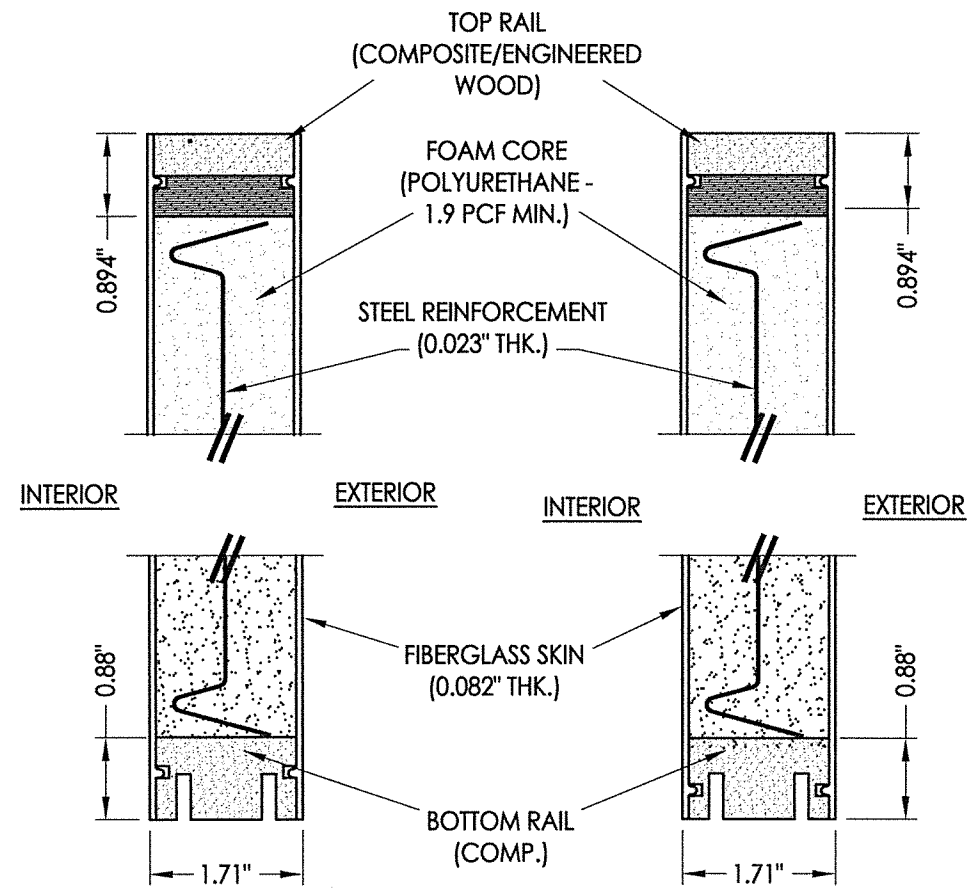
\* #8 X 2.5" PFH WS (TYP. @ EACH DOOR CORNER)



**40 DOOR PANEL BOOK**

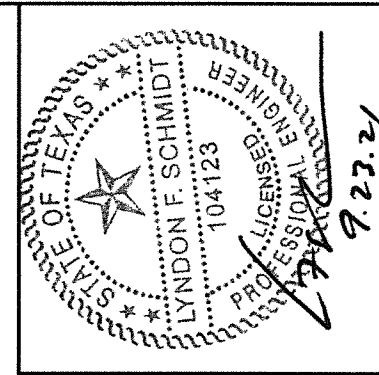
**41 DOOR PANEL Hybrid Door**

**42 DOOR PANEL U1 Door**



**3 VERTICAL CROSS SECTION**

**4 VERTICAL CROSS SECTION**



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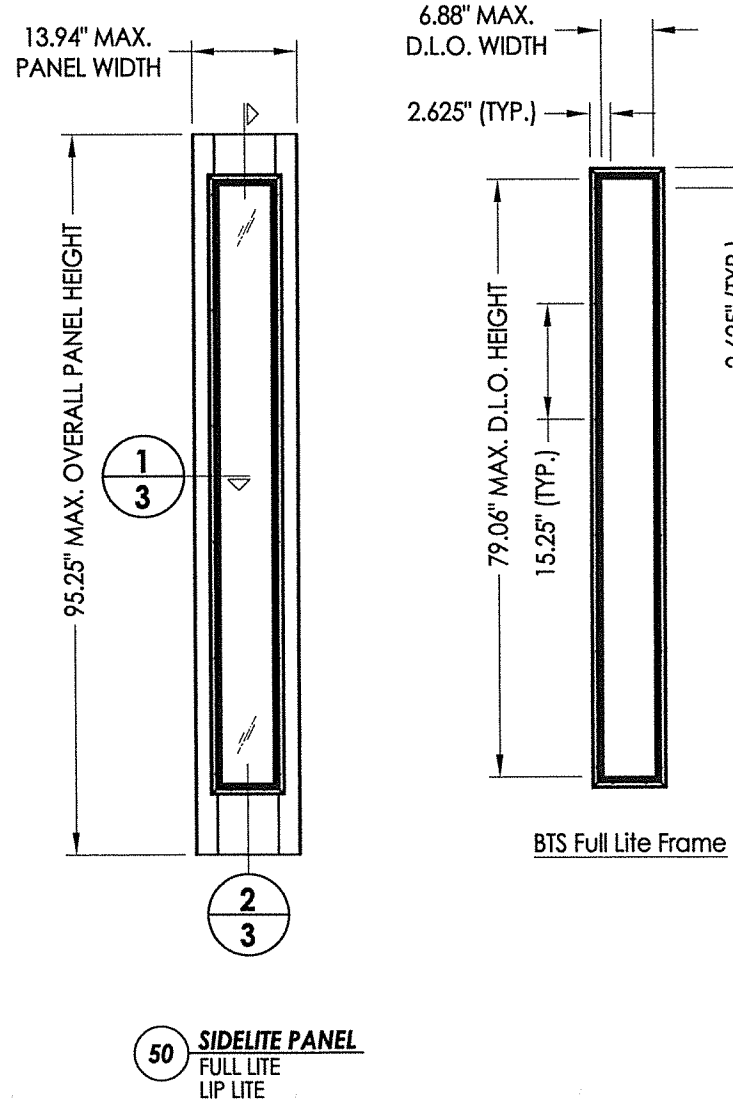
**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197

CERTIFICATE OF REGISTRATION # F-11852

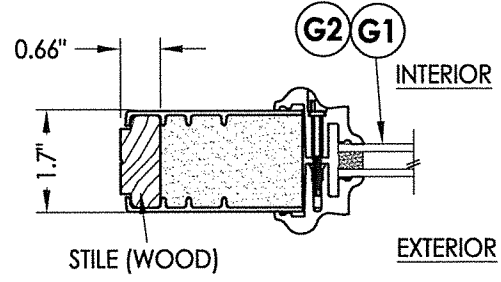
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NO.	DATE	DESCRIPTION	LFS	BY
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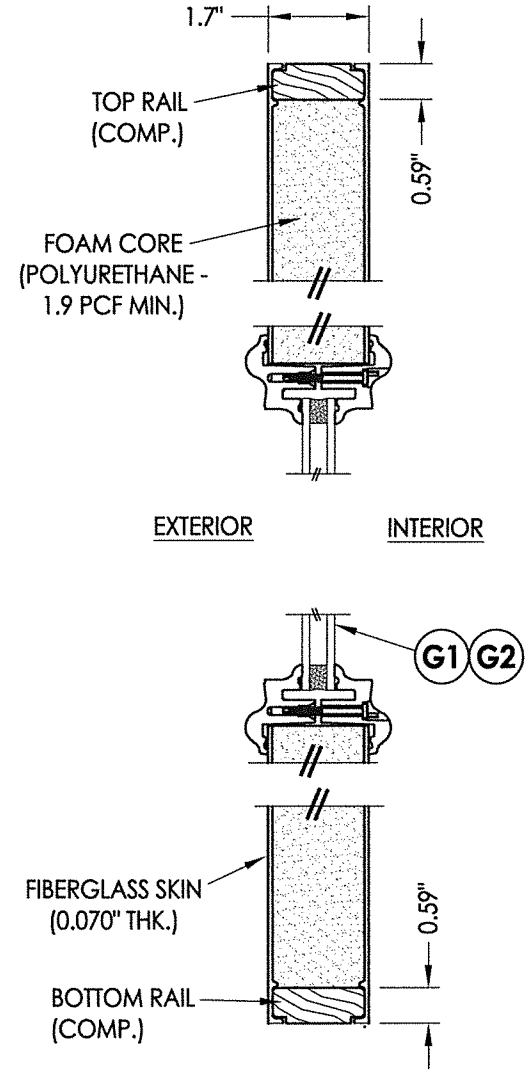
DATE:	11/14/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4744
SHEET	2 OF 11



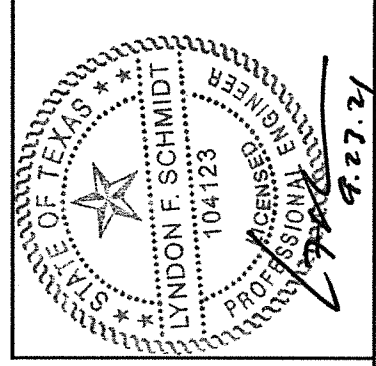
**50** **SIDELITE PANEL**  
FULL LITE  
LIP LITE



**1** **HORIZONTAL CROSS SECTION**  
**3** Lip Lite Glazing



**2** **VERTICAL CROSS SECTION**  
**3** Lip Lite Glazing

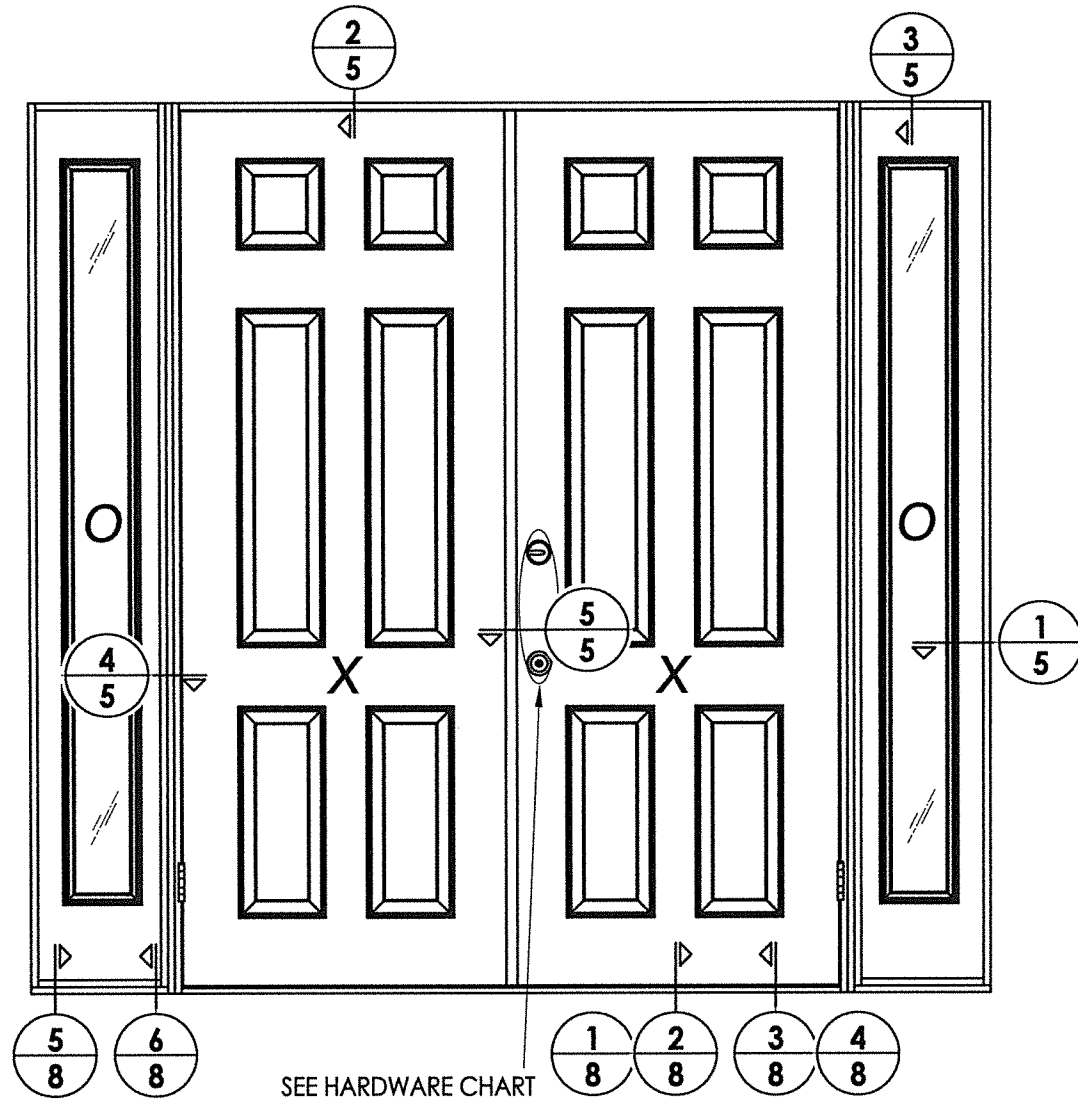


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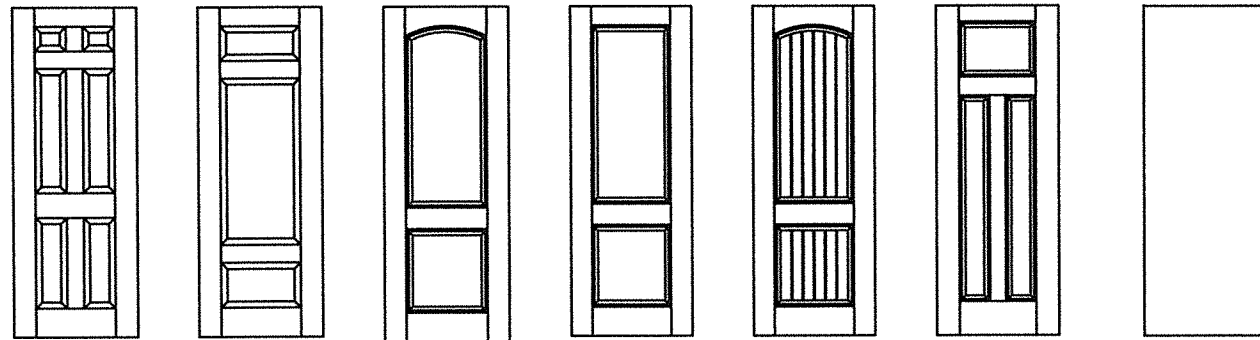
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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:		THERMA TRU FIBERGLASS DOOR	
PART OR ASSEMBLY:		SIDELITE PANEL DETAILS	
NO.	DATE	DESCRIPTION	BY
1	9/23/21	UPDATE TO 2018 IBC/IRC CODE	LFS
			REVISIONS
DATE: 11/14/17			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4744			
SHEET 3 OF 11			

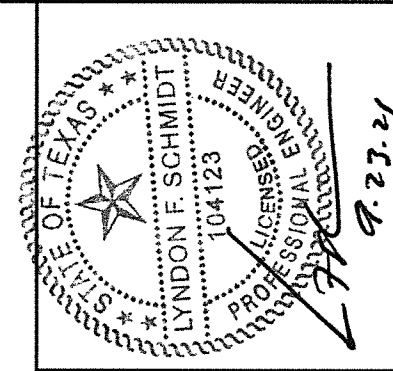


SEE HARDWARE CHART



**Fiber-Classic/Smooth-Star Door Panel Options**  
 Panel options shown are for illustration and are representative only  
 (similar opaque panel configurations are allowed)

HARDWARE TABLE	
MANUFACTURER	MODEL
SCHLAGE	KNOB: F51 DEADBOLT: B60
KWIKSET	KNOB: SIGNATURE SERIES DEADBOLT: SIGNATURE SERIES (980)
HOPPE (THERMA-TRU)	MULTIPOINT : MPDGSB (3 pt. Manual Shootbolt)



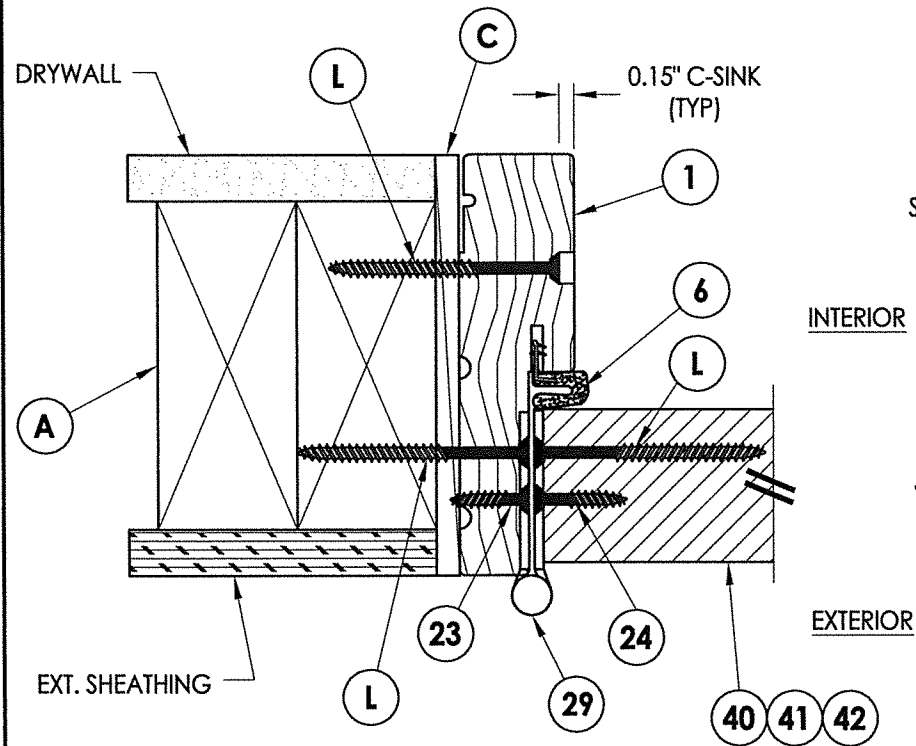
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 Phone No.: 813.659.9197  
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU  
 FIBERGLASS DOOR  
 PART OR ASSEMBLY:  
 ELEVATIONS

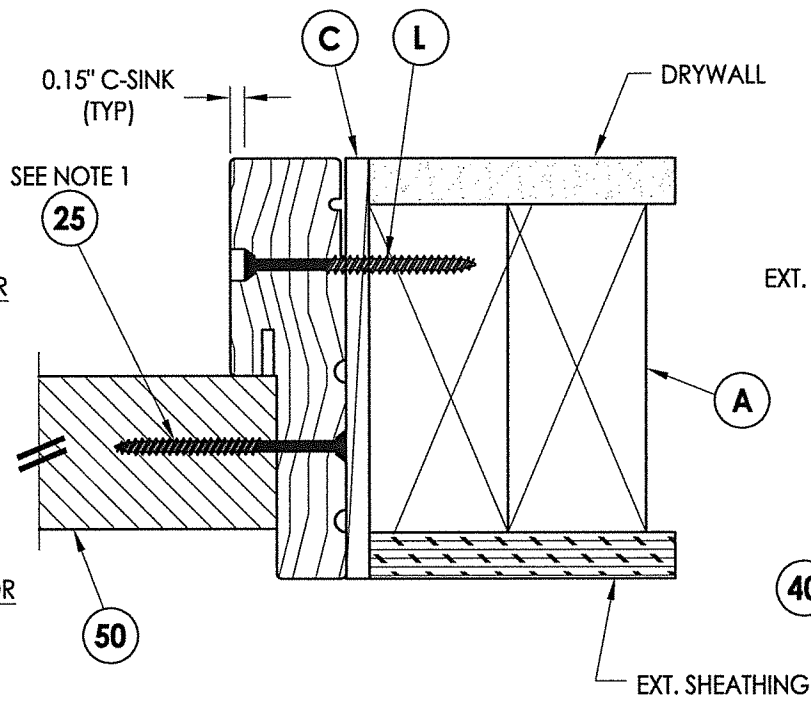
REVISIONS	
NO.	DATE
1	9/23/21
	UPDATE TO 2018 IBC/IRC CODE
	LFS
	BY

DATE: 11/14/17  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4744  
 SHEET 4 OF 11

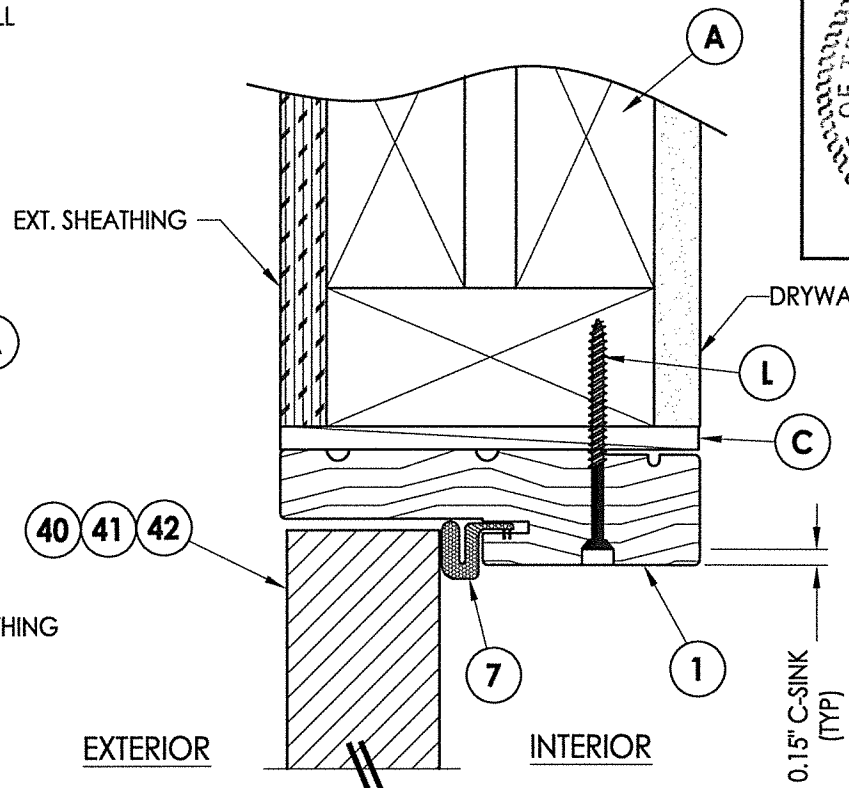
Z:\Clients\Therma Tru PERMANENT.B - Texas Dept of Ins\TDI - DR 949 - 6'8 & 8'0 Opaque Comp Edge Coastal Impact w NI Sidelites (TX 4741 - 4744)\C - Drawings\TX-4743-44.dwg



**1** **HORIZONTAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Outswing shown (Inswing similar)



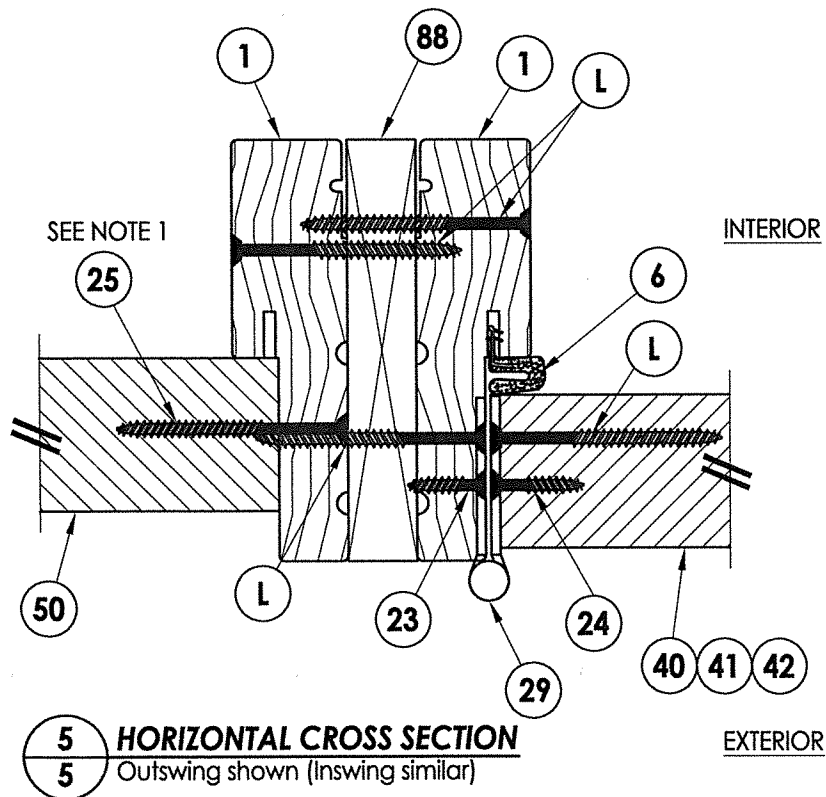
**2** **HORIZONTAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Outswing shown (Inswing similar)



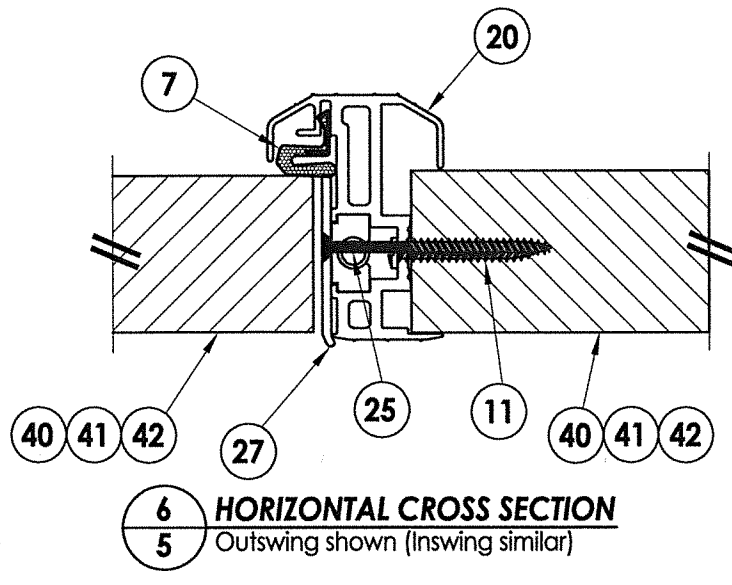
**3** **VERTICAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Outswing shown (Inswing similar)

**Notes:**

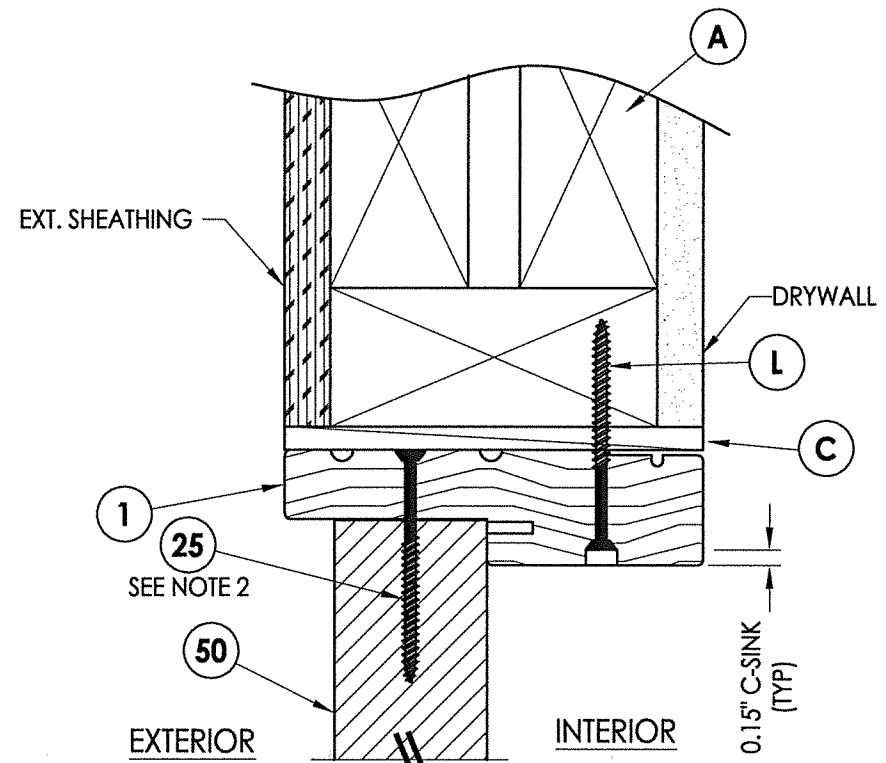
1. Sidelite assembly screws located 6" from each end plus 6 more screws equally spaced between (8 screws total per side jamb).
2. Sidelite assembly screws located 4" from each end (2 screws along head jamb).



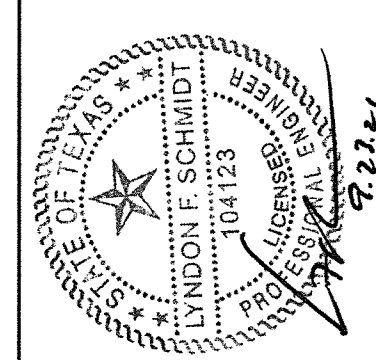
**5** **HORIZONTAL CROSS SECTION**  
**5** Outswing shown (Inswing similar)



**6** **HORIZONTAL CROSS SECTION**  
**5** Outswing shown (Inswing similar)



**4** **VERTICAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Outswing shown (Inswing similar)



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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:	Therma-TRU FIBERGLASS DOOR
PART OR ASSEMBLY:	HORIZONTAL & VERTICAL CROSS SECTIONS

NO.	DATE	DESCRIPTION	LFS	BY
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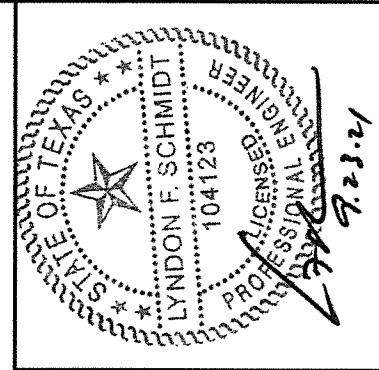
DATE:	11/14/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4744
SHEET	5 OF 11

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Z:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 949 - 6'8 & 8'0 Opaque Comp Edge Coastal Impact w NI Sidelites (TX 4741 - 4744)\C - Drawings\TX-4743-44.dwg

**Notes:**

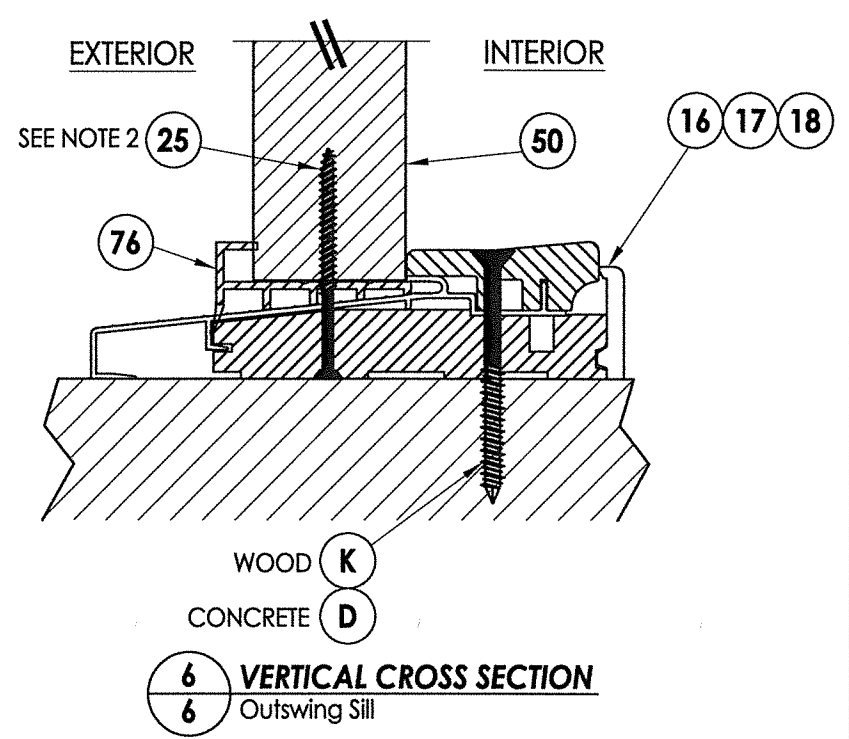
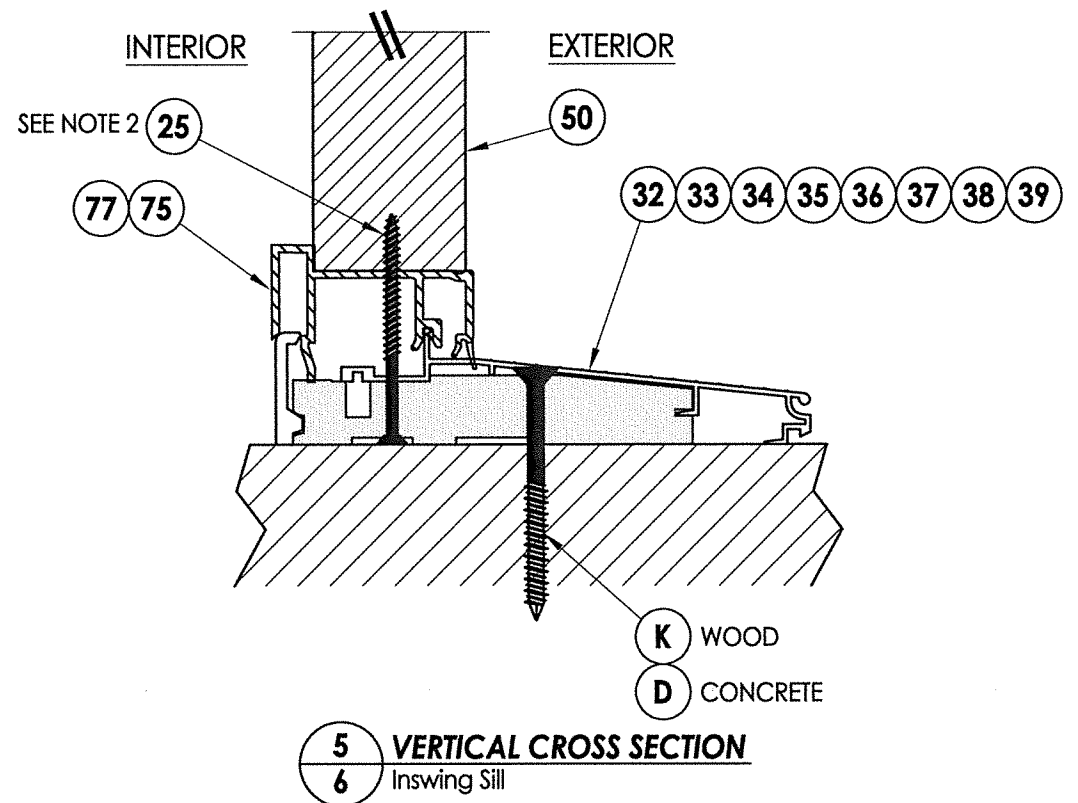
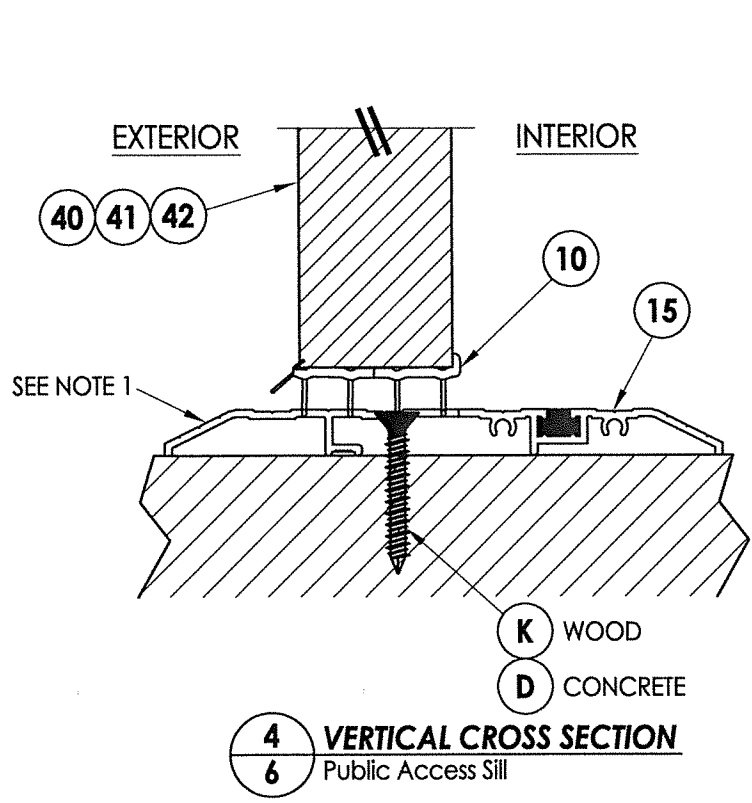
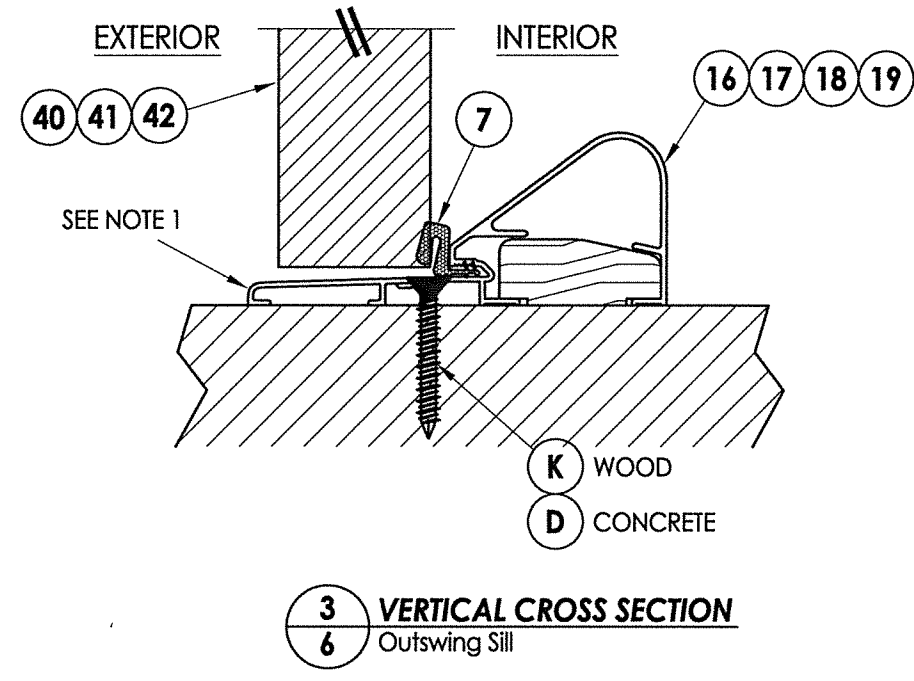
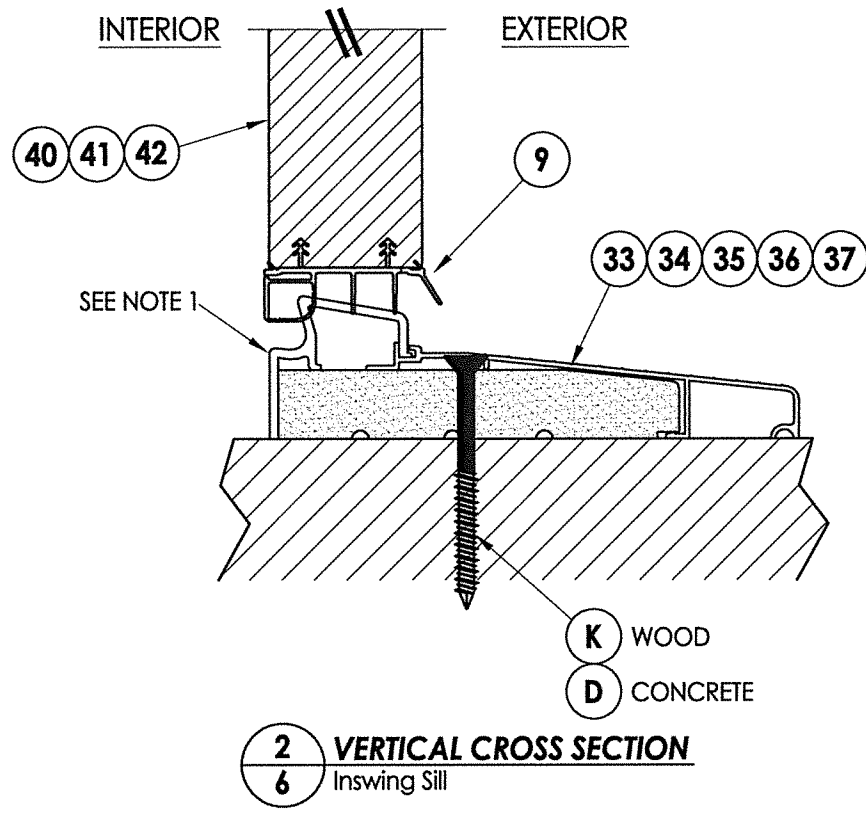
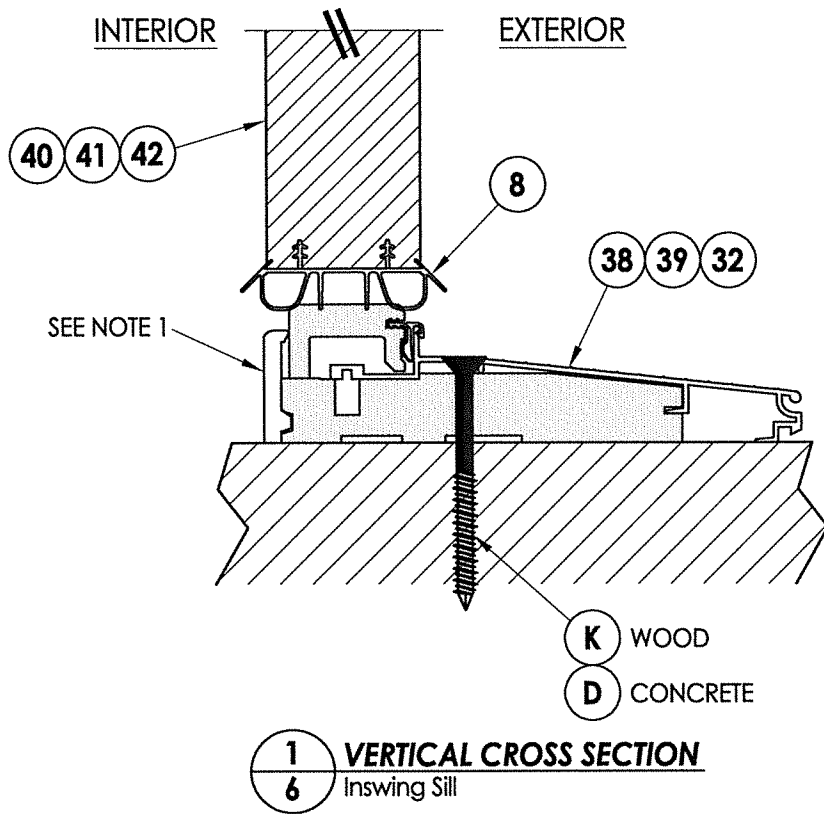
- Sill Item #'s 16, 32, 33, 34, 35, 36, 37, 38 & 39 are attached to jambs w/ (3) #8 X 2-1/2" pfh screws at each end.  
Sill Item #'s 17, 18 & 19 are attached to jambs w/ (2) #8 X 2-1/2" pfh screws at each end.  
Sill Item #15 is attached to jambs utilizing (2) #10 X 1-1/2" pph screws at each end.
- Sidelite assembly screws located 4" from each end (2 screws along sill).



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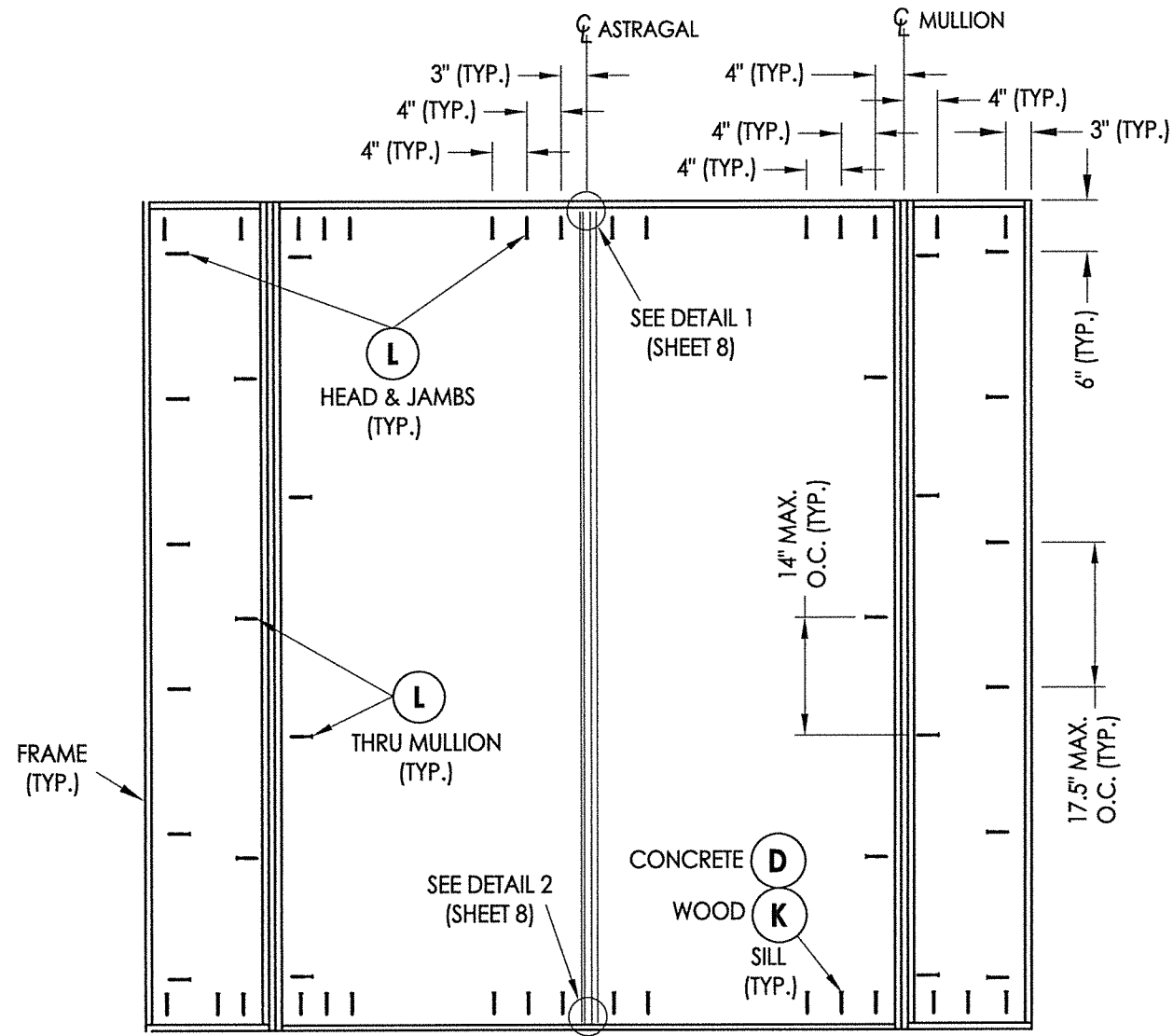
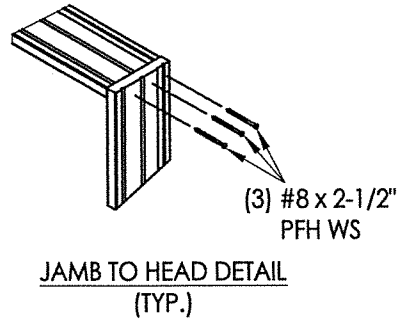
CERTIFICATE OF REGISTRATION # F-11852



PRODUCT:		THERMA-TRU FIBERGLASS DOOR	
PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS (THRESHOLDS)	
NO.	DATE	DESCRIPTION	BY
1	9/23/21	UPDATE TO 2018 IBC/IRC CODE	LFS
REVISIONS			
DATE: 11/14/17			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4744			
SHEET 6 OF 11			

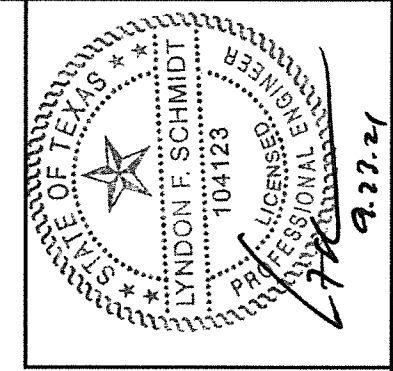
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OX XO

**FRAME ANCHORING**

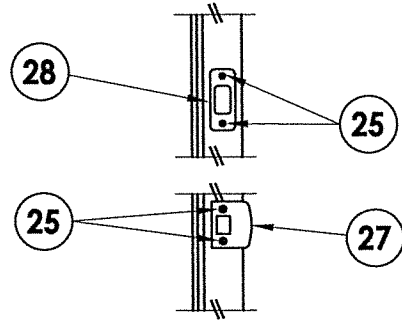


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P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197  
CERTIFICATE OF REGISTRATION # F-11852

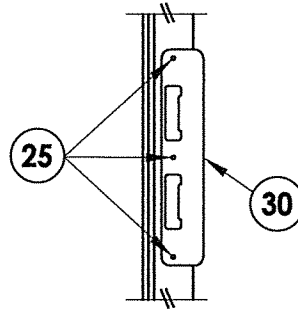
PRODUCT: THERMA-TRU FIBERGLASS DOOR  
PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	DESCRIPTION	BY
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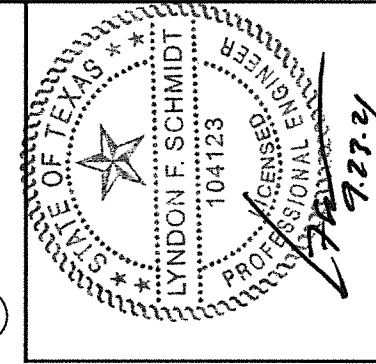
DATE: 11/14/17  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4744  
SHEET 7 OF 11



**LATCH & DEADBOLT DETAIL**  
Schlage / Kwikset



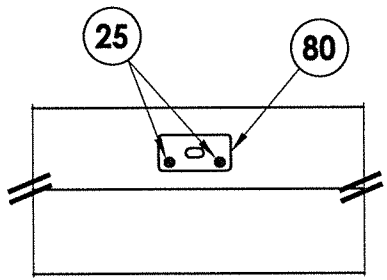
**LATCH & DEADBOLT DETAIL**  
Multipoint Lock



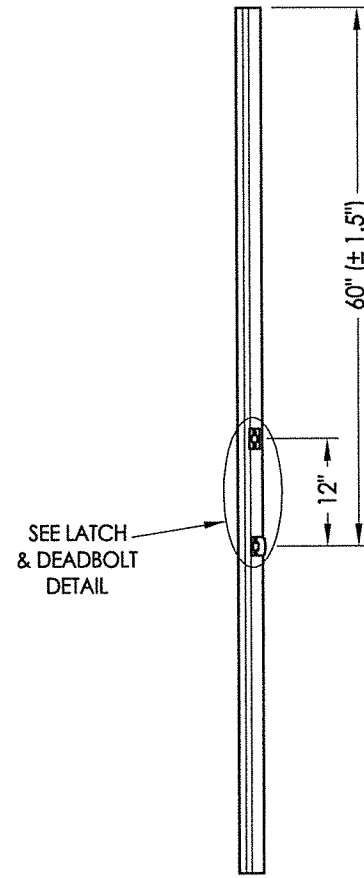
Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
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Phone No.: 813.659.9197

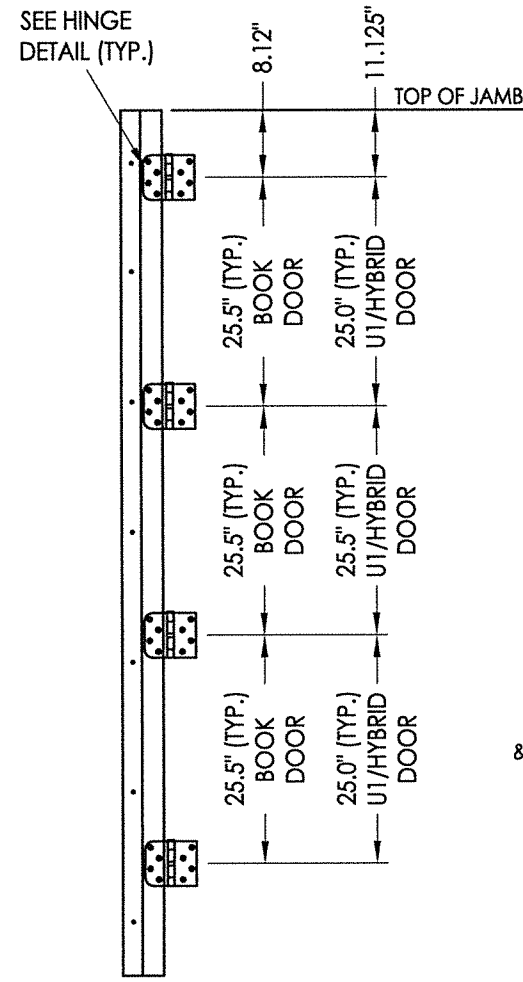
CERTIFICATE OF REGISTRATION # F-11852



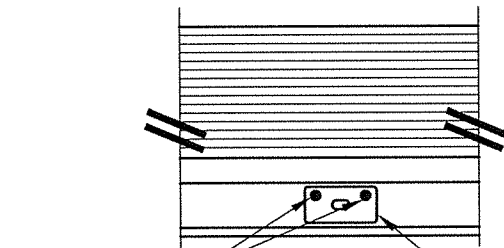
**DETAIL 1**  
Coastal Astragal Strike Plate @ Head



SEE LATCH & DEADBOLT DETAIL



SEE LATCH & DEADBOLT DETAIL

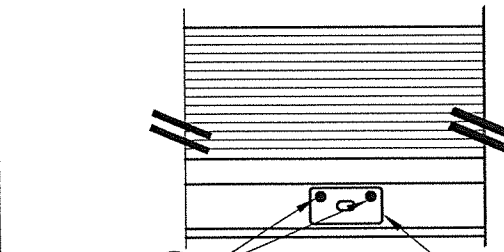


**DETAIL 2**  
Inswing  
Coastal Astragal Strike Plate @ Sill

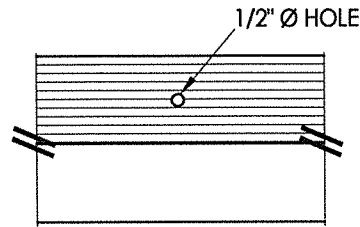
**STRIKE JAMB**  
Latch and Deadbolt

**HINGE JAMB**

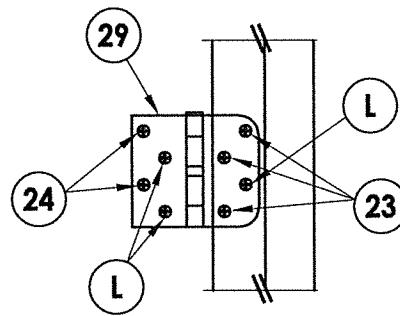
**STRIKE JAMB**  
Multipoint Lock



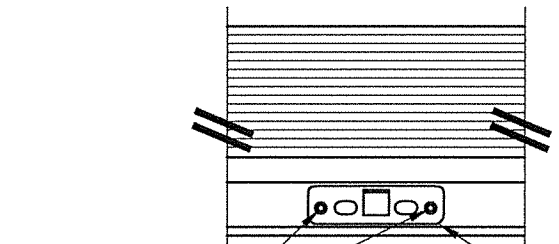
**DETAIL 2**  
Inswing  
Coastal Astragal Strike Plate @ Sill



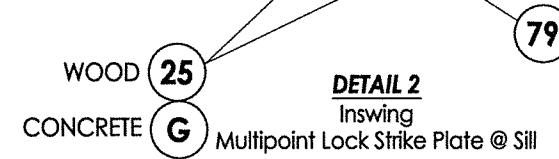
**DETAIL 2**  
Outswing  
Astragal Bolt Hole @ Sill



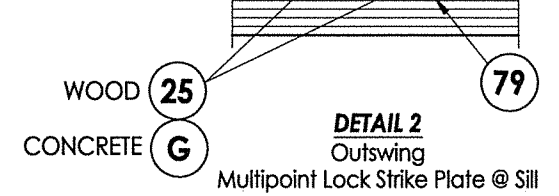
**HINGE DETAIL**



**DETAIL 1**  
Multipoint Lock Strike Plate @ Head



**DETAIL 2**  
Inswing  
Multipoint Lock Strike Plate @ Sill



**DETAIL 2**  
Outswing  
Multipoint Lock Strike Plate @ Sill

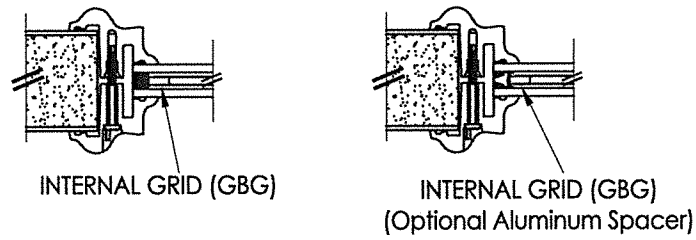
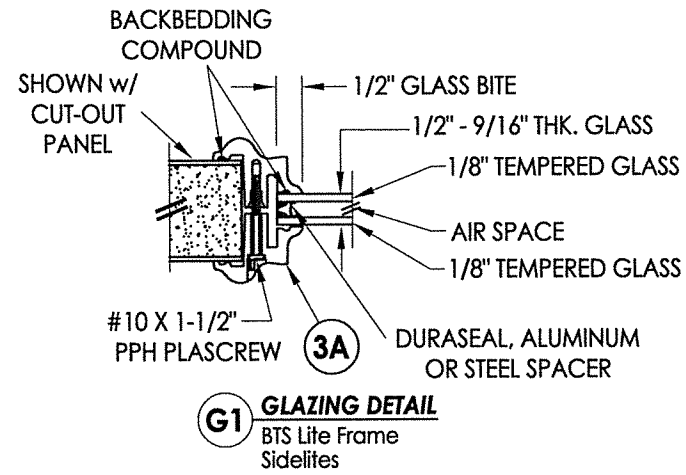
**MULTIPOINT LOCK STRIKE DETAILS**

PRODUCT: THERMA-TRU FIBERGLASS DOOR  
PART OR ASSEMBLY: HARDWARE DETAILS

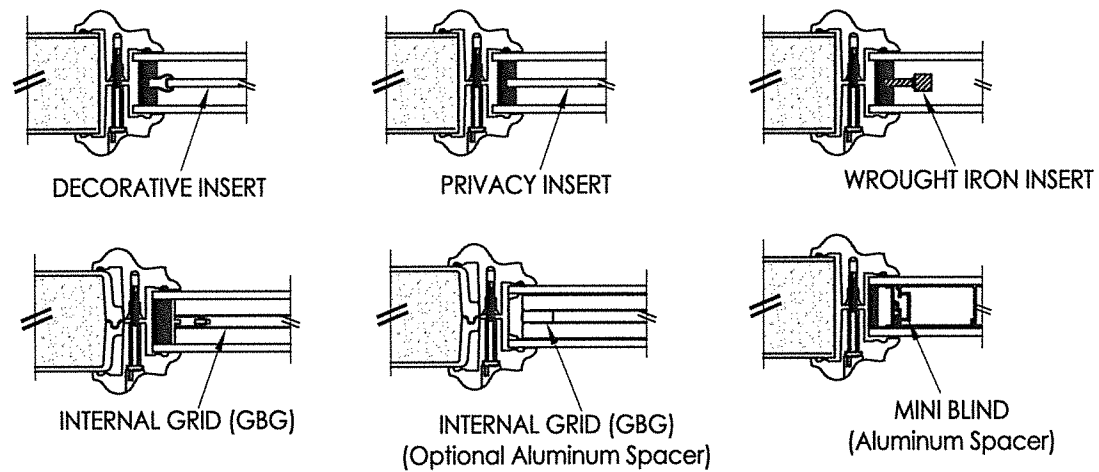
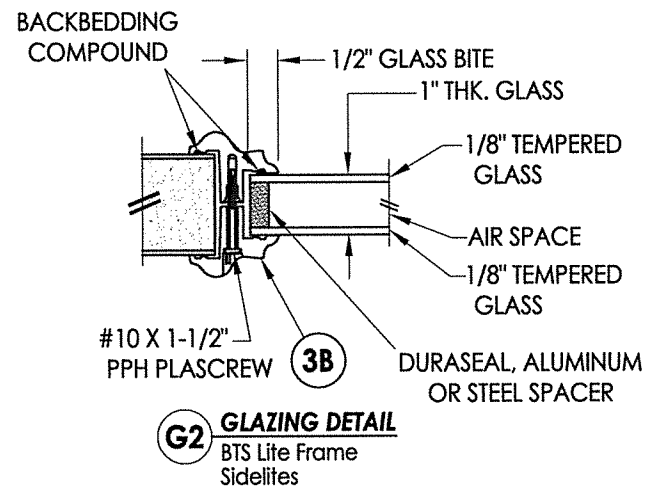
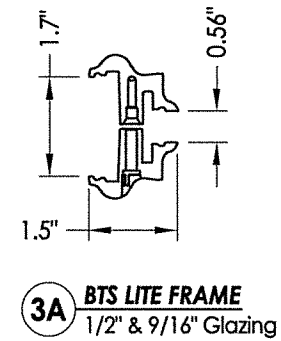
NO.	DATE	DESCRIPTION	LFS	BY
1	9/23/21	UPDATE TO 2018 IBC/IRC CODE	LFS	BY

DATE: 11/14/17  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4744  
SHEET 8 of 11

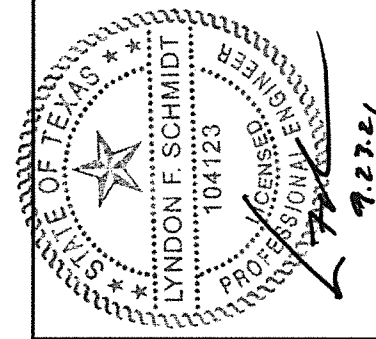
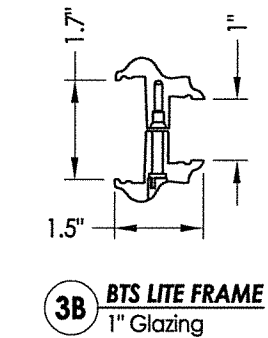




**9/16" INSULATED GLASS INSERT OPTIONS**



**1" INSULATED GLASS INSERT OPTIONS**



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TEXAS P.E. #104123

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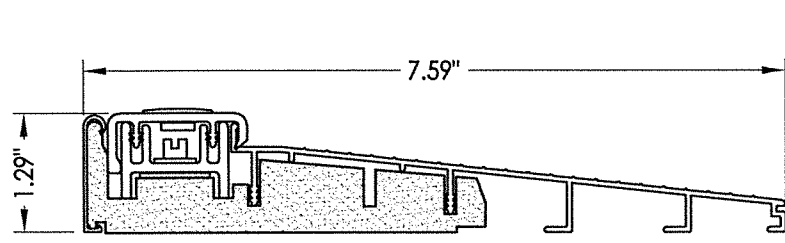
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU FIBERGLASS DOOR

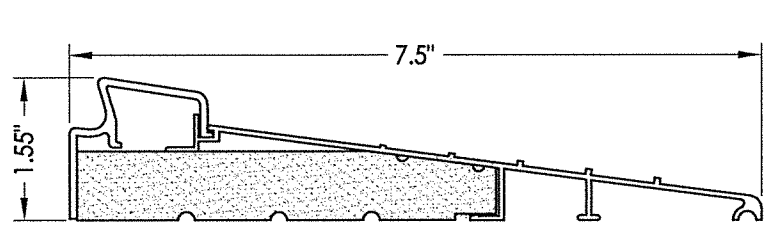
PART OR ASSEMBLY: GLAZING DETAILS

NO.	DATE	DESCRIPTION	BY
1	9/23/21	UPDATE TO 2018 IBC/IRC CODE	LFS

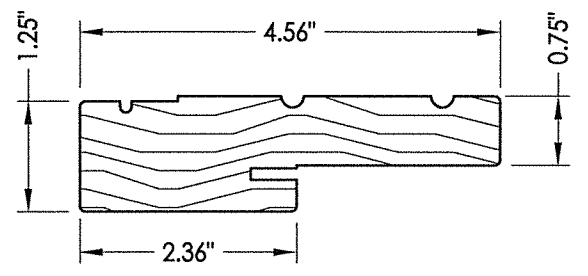
DATE: 11/14/17  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4744  
SHEET 9 OF 11



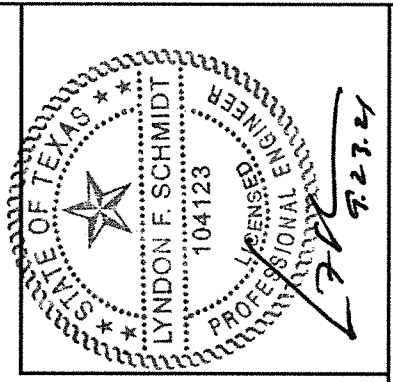
**32 INSWING THRESHOLD**  
Inswing Basic Composite Adjustable Sill 7-1/2"



**37 INSWING THRESHOLD**  
Inswing Basic Fixed 7-1/2" Sill



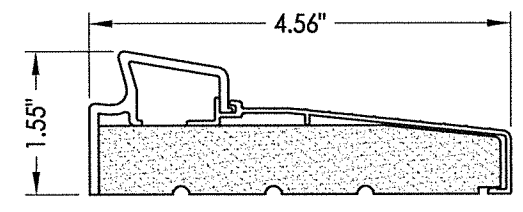
**1 WOOD JAMB**



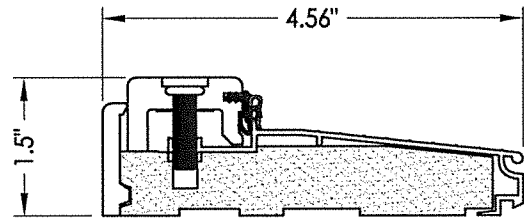
Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197

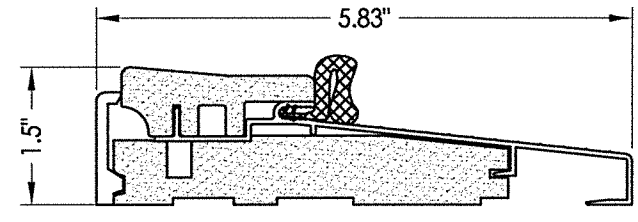
CERTIFICATE OF REGISTRATION # F-11852



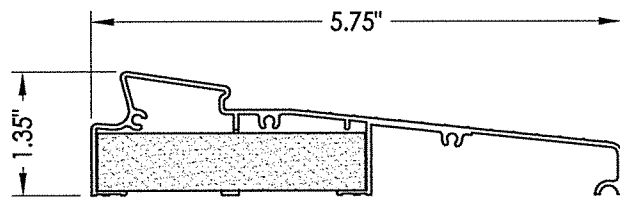
**33 INSWING THRESHOLD**  
Inswing Basic Fixed Sill



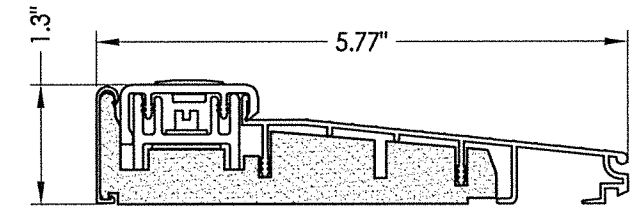
**38 INSWING THRESHOLD**  
Inswing Composite Adjustable Sill



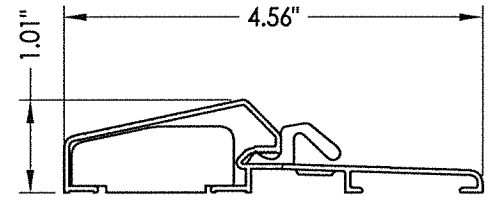
**16 OUTSWING THRESHOLD**  
Composite Sill



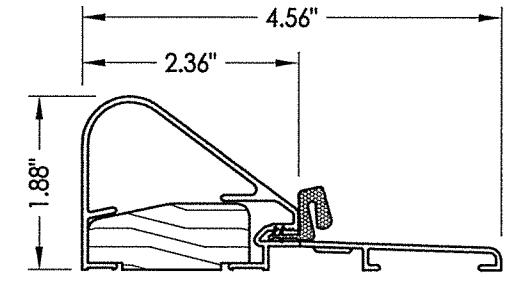
**34 INSWING THRESHOLD**  
Inswing Moderate Climate Sill 1-3/8"



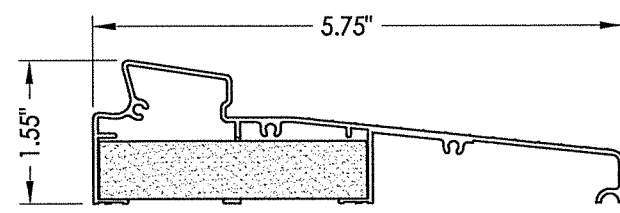
**39 INSWING THRESHOLD**  
Inswing Basic Composite Adjustable Sill



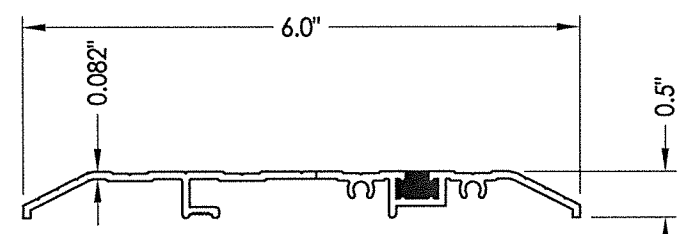
**17 OUTSWING THRESHOLD**  
Composite / Aluminum Sill



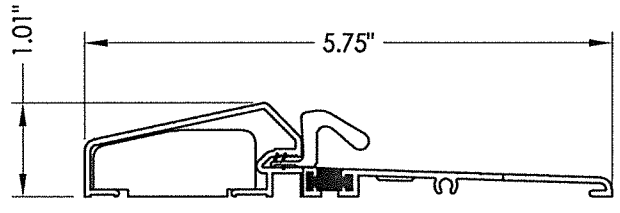
**19 COASTAL OUTSWING THRESHOLD**  
Wood / Aluminum Sill



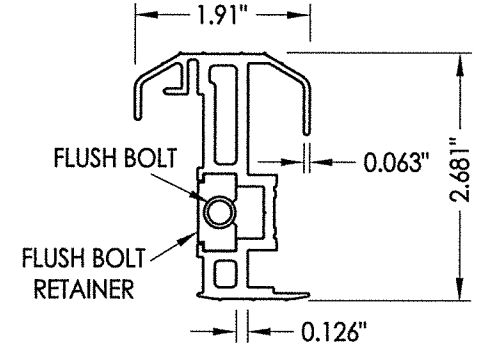
**35 INSWING THRESHOLD**  
Inswing Moderate Climate Sill



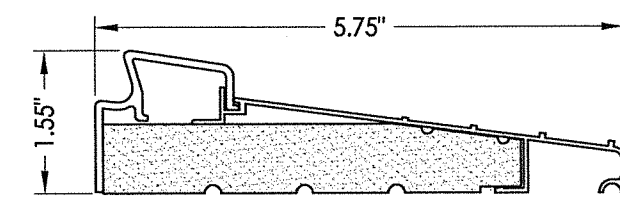
**15 PUBLIC ACCESS THRESHOLD**



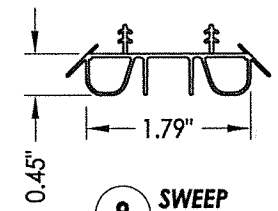
**18 OUTSWING THRESHOLD**  
Composite / Aluminum Sill (Thermal Break)



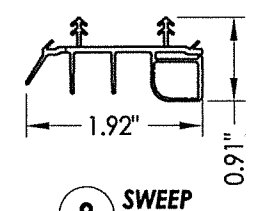
**20 COASTAL ALUMINUM ASTRAGAL**



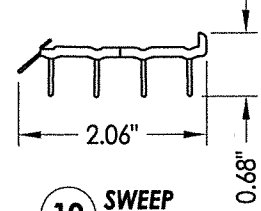
**36 INSWING THRESHOLD**  
Inswing Basic Fixed 5-3/4" Sill



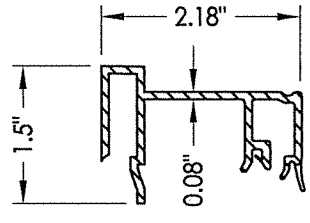
**8 SWEEP**



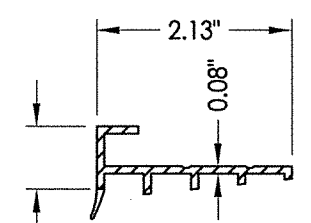
**9 SWEEP**



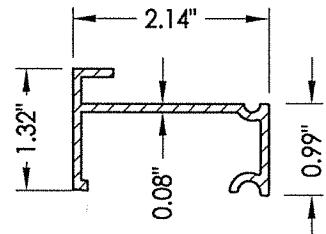
**10 SWEEP**



**75 SIDELITE SPACER**  
Inswing



**76 SIDELITE SPACER**  
Outswing

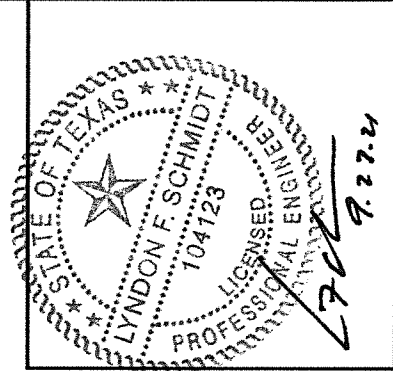


**77 SIDELITE SPACER**  
Inswing Moderate Climate Threshold

PRODUCT: THERMA-TRU FIBERGLASS DOOR		PART OR ASSEMBLY: COMPONENTS	
NO.	DATE	DESCRIPTION	BY
1	9/23/21	UPDATE TO 2018 IBC/IRC CODE	LFS
REVISIONS			
DATE: 11/14/17			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4744			
SHEET 10 OF 11			

**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
A	2X FRAMING (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" PFH DeWALT OR ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	STEEL
G	3/16" PFH DeWALT OR ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	STEEL
K	#12 PFH WOOD SCREW (1-1/2" MIN. EMBEDMENT)	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
1	JAMB (FINGER JOINT PINE)	WOOD
6	WEATHERSTRIP (MEDIUM REACH)	FOAM
7	WEATHERSTRIP (LONG REACH)	FOAM
8	SWEEP	VINYL
9	SWEEP (USE w/ MODERATE CLIMATE THRESHOLD)	VINYL
10	SWEEP (USE w/ PUBLIC ACCESS THRESHOLD)	VINYL
11	#10 X 1-1/2" PPH SMS	STEEL
15	PUBLIC ACCESS THRESHOLD	ALUM
16	OUTSWING THRESHOLD	ALUM/COMP
17	OUTSWING THRESHOLD	ALUM/COMP
18	OUTSWING THRESHOLD	ALUM/COMP
19	COASTAL OUTSWING THRESHOLD	ALUM/WOOD
20	COASTAL ALUMINUM ASTRAGAL	ALUM
23	#10 x 3/4" PFH WOOD SCREW	STEEL
24	#10 x 1" PFH WOOD SCREW	STEEL
25	#8 x 2-1/2" PFH WOOD SCREW	STEEL
26	#8 x 5/8" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT SUB STRIKE PLATE	STEEL
29	4" X 4" HINGE	STEEL
30	LATCH & DEADBOLT STRIKE PLATE (TONGUE SYSTEM)	ALUM/COMP
31	MULTIPOINT STRIKE PLATE (TONGUE SYSTEM)	ALUM/COMP
32	INSWING THRESHOLD	ALUM/COMP
33	INSWING THRESHOLD	ALUM/COMP
34	INSWING THRESHOLD	ALUM/COMP
35	INSWING THRESHOLD	ALUM/COMP
36	INSWING THRESHOLD	ALUM/COMP
37	INSWING THRESHOLD	ALUM/COMP
38	INSWING THRESHOLD	ALUM/COMP
39	INSWING THRESHOLD	ALUM/COMP
40	DOOR PANEL (BOOK)	-
41	DOOR PANEL (HYBRID)	-
42	DOOR PANEL (U1)	-
50	SIDELITE	-
75	SIDELITE SPACER (INSWING)	PVC
76	SIDELITE SPACER (OUTSWING)	PVC
77	SIDELITE SPACER (INSWING) - MODERATE CLIMATE SILL	PVC
78	MULTIPOINT LOCK STRIKE PLATE @ HEAD	STEEL
79	MULTIPOINT LOCK STRIKE PLATE @ SILL	STEEL
80	ASTRAGAL STRIKE PLATE	STEEL
88	2X MULLION (SG >= 0.55)	WOOD



Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: BILL OF MATERIALS

NO.	DATE	UPDATE TO 2018 IBC/IRC CODE	REVISIONS
1	9/23/21		LFS
			BY

DATE: 11/14/17

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4744

SHEET 11 OF 11

CONCRETE ANCHOR NOTES:

- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.
- Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2"	4"
DeWALT ULTRACON®	1/4"	1-3/4"	1"	4"
ITW TAPCON®	3/16"	1-3/4"	3"	1-1/2"

WOOD SCREW INSTALLATION NOTES:

- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.