

G:\2023 FBC DRAWINGS\Therma-Tru\FL-21142 R3\FL-21142.10-12.dwg

THERMA-TRU[®] DOORS

Fiber-Classic[®] & Smooth-Star[®]

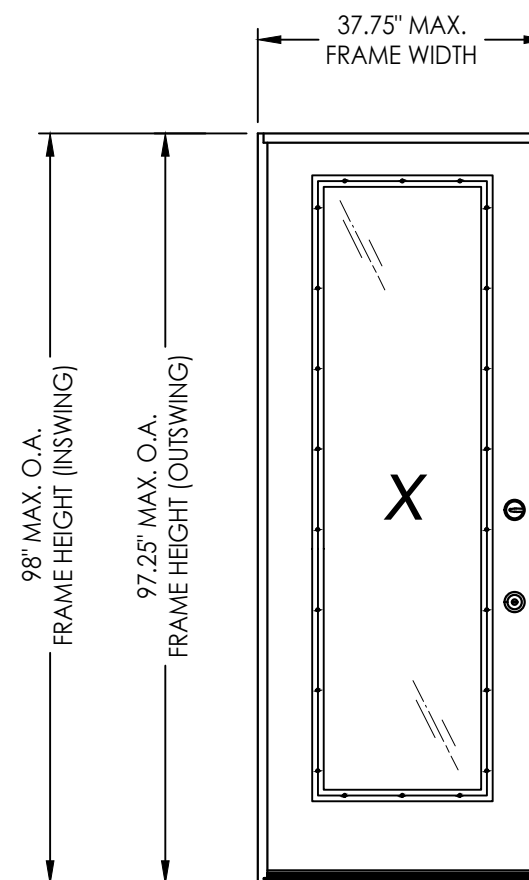
WOOD EDGE GLAZED FIBERGLASS SINGLE DOOR INSWING/OUTSWING "IMPACT"

GENERAL NOTES

1. This product evaluation drawing has been developed in compliance with the 8th Edition (2023) Florida Building Code (FBC) including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product complies with Section 1626 of the FBC and does not require an impact resistant covering.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection, this product complies with FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
5. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
7. This product meets the water infiltration requirements for the "HVHZ".
8. Outswing configurations using Coastal Sill (item #19) & Composite Sill (item #16) under active doors meet water infiltration requirements for "HVHZ". All other configurations do not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.

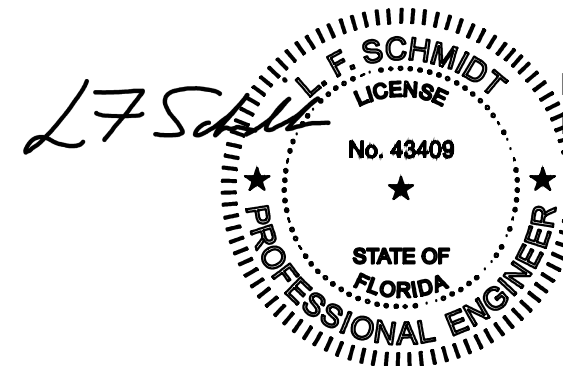
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6	Horizontal & Vertical Cross Sections (Direct to Masonry)
7	Vertical Cross Sections (Thresholds)
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CONFIGURATION	LOCK HARDWARE	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
X	Latch & Deadbolt	+50.0	-55.0	+50.0	-50.0
X	Multipoint	+50.0	-55.0	+55.0	-55.0

See Sheet 3 for Hardware Specifications



Digitally signed by Lyndon F Schmidt
Date: 2023.08.18 12:59:26 -04'00'

This item has been digitally signed and sealed by
L. F. Schmidt, P.E. on the date adjacent to the seal.

Printed copies of this document are not
considered signed and sealed and the signature
must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID
ONLY FOR THE STATE OF FLORIDA

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Lyndon F. Schmidt
P.E. No. 43409

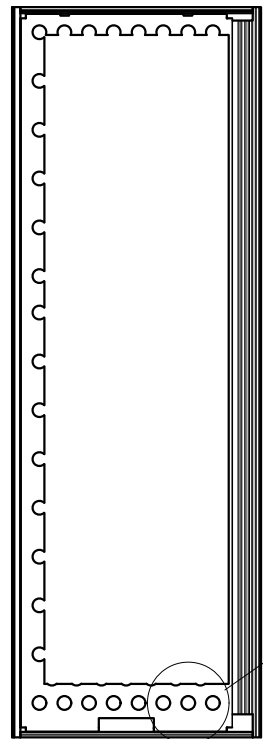
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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU
FIBERGLASS DOOR
PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN
PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS
3	8/18/23	UPDATE TO 8TH ED. (2023) FBC
2	7/15/20	UPDATE TO 7th ED (2020) FBC
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING

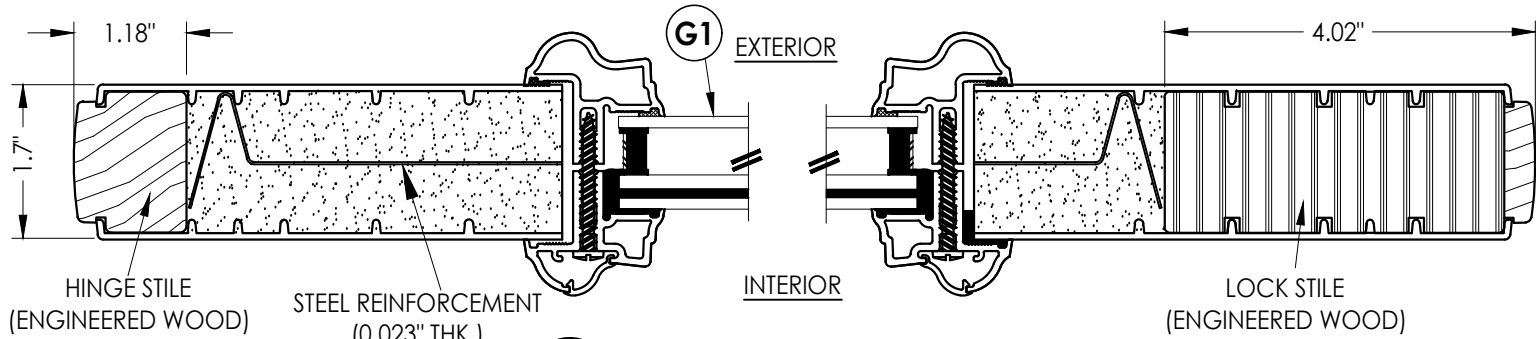
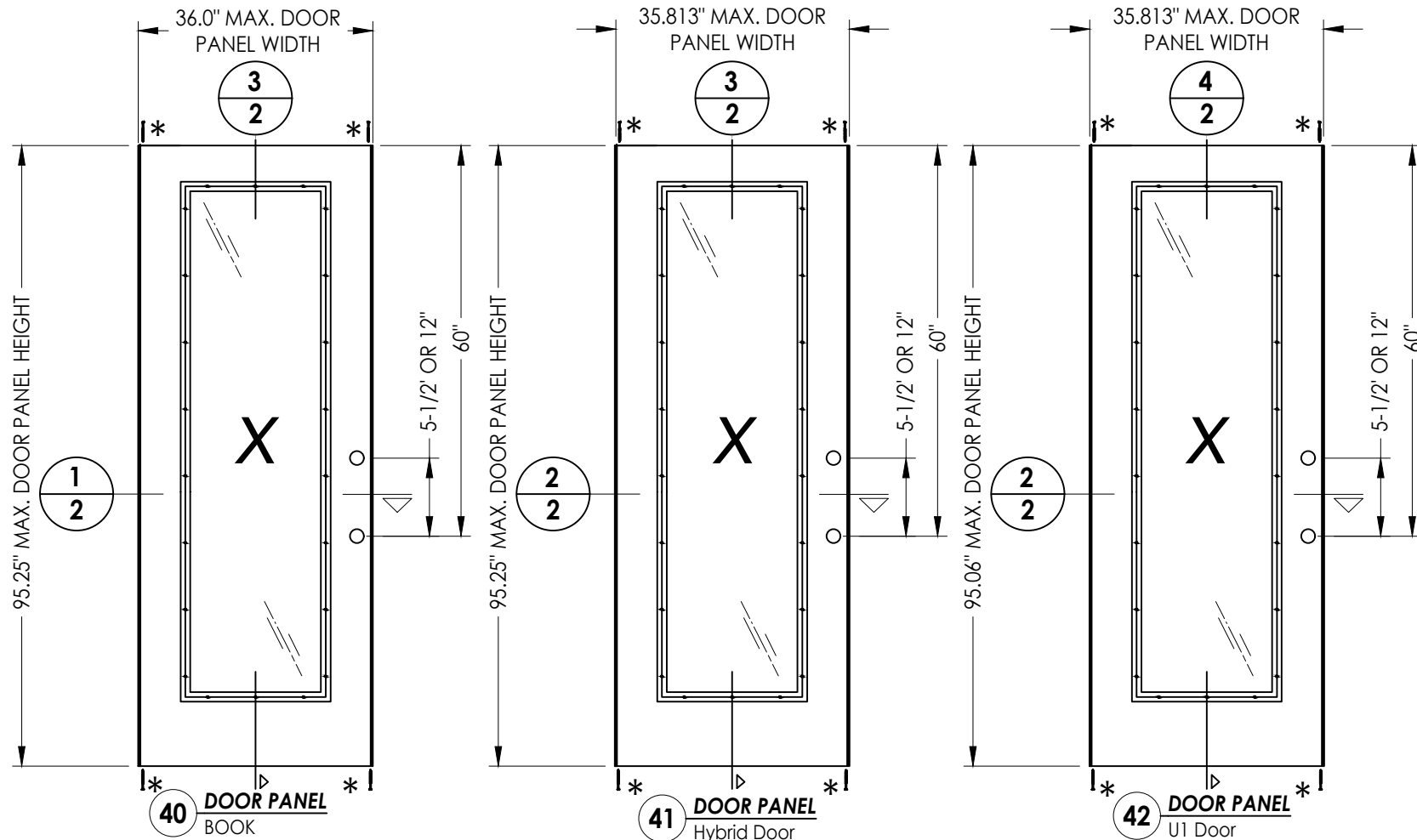
DATE: 12/22/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.:
FL-21142.10
SHEET 1 OF 12

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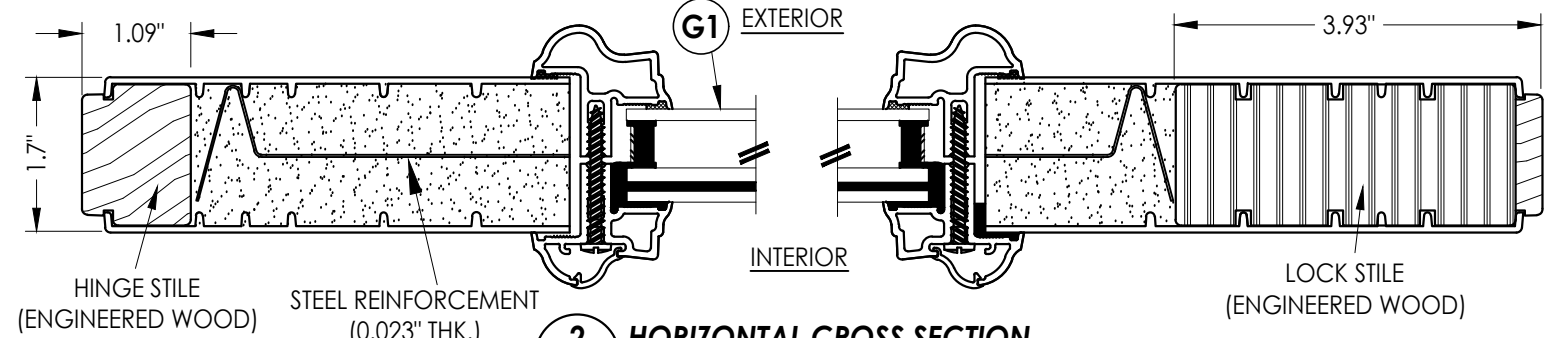


DETAIL A-A
PANEL REINFORCEMENT
(0.023" Thick Steel)

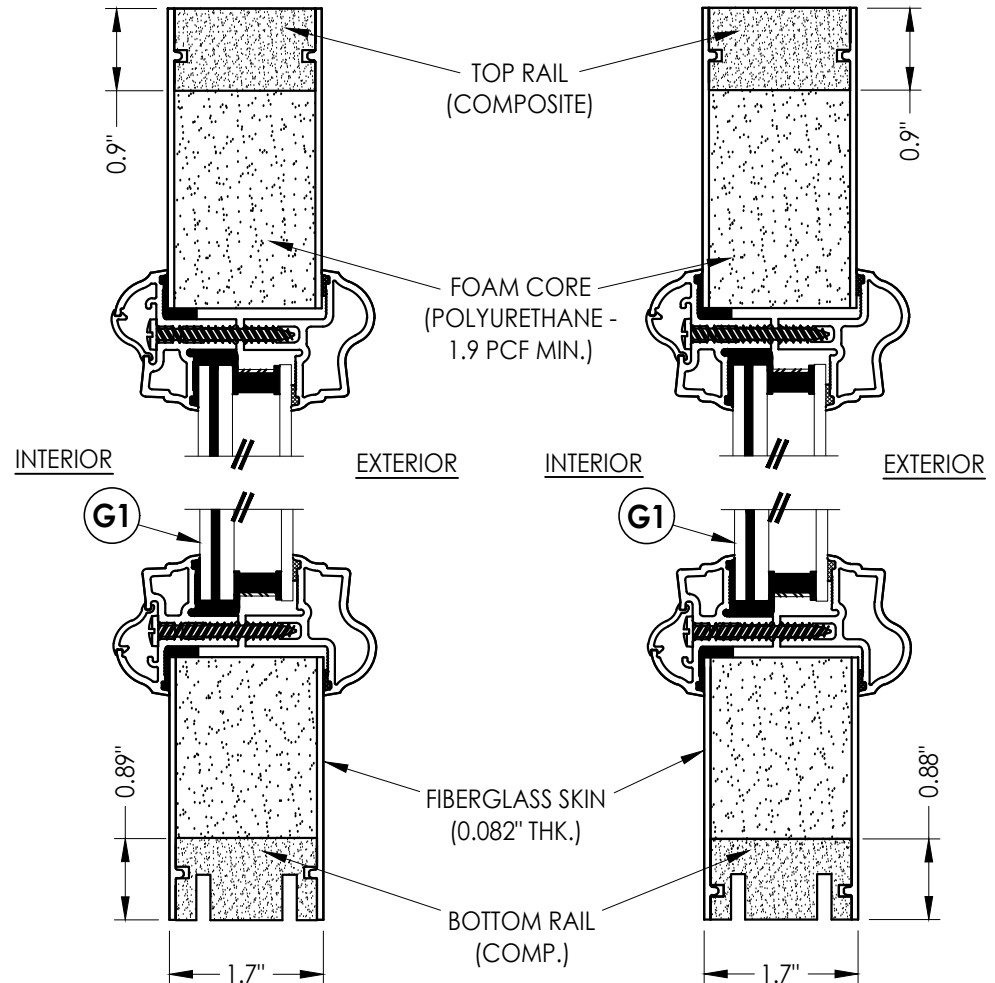
* #8 X 2.5" PFH WS (TYP. @ EACH DOOR CORNER)



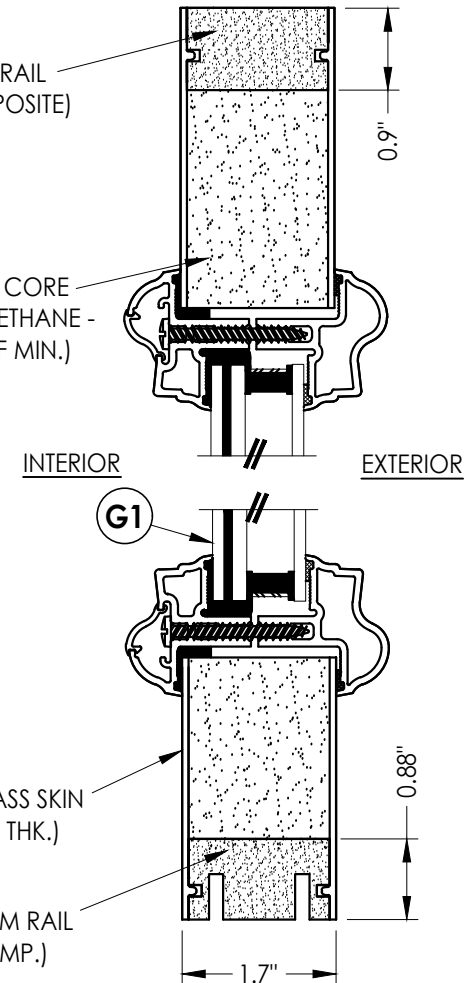
1 HORIZONTAL CROSS SECTION



2 HORIZONTAL CROSS SECTION



3 VERTICAL CROSS SECTION



4 VERTICAL CROSS SECTION

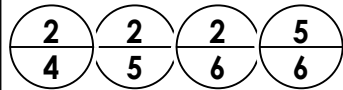
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PRODUCT:
THERMA-TRU
FIBERGLASS DOOR

PART OR ASSEMBLY:
DOOR PANEL DETAILS

DATE:	12/22/16
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-21142.10
SHEET	2 OF 12

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SEE HARDWARE
CHART



DATE: 12/22/16

SCALE: *N.T.S.*

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:

FL-21142.10

SHEET 3 OF 12

PRODUCT: _____

THERMA-TRU
FIBERGLASS DOOR

PART OR ASSEMBLY:

ELEVATIONS

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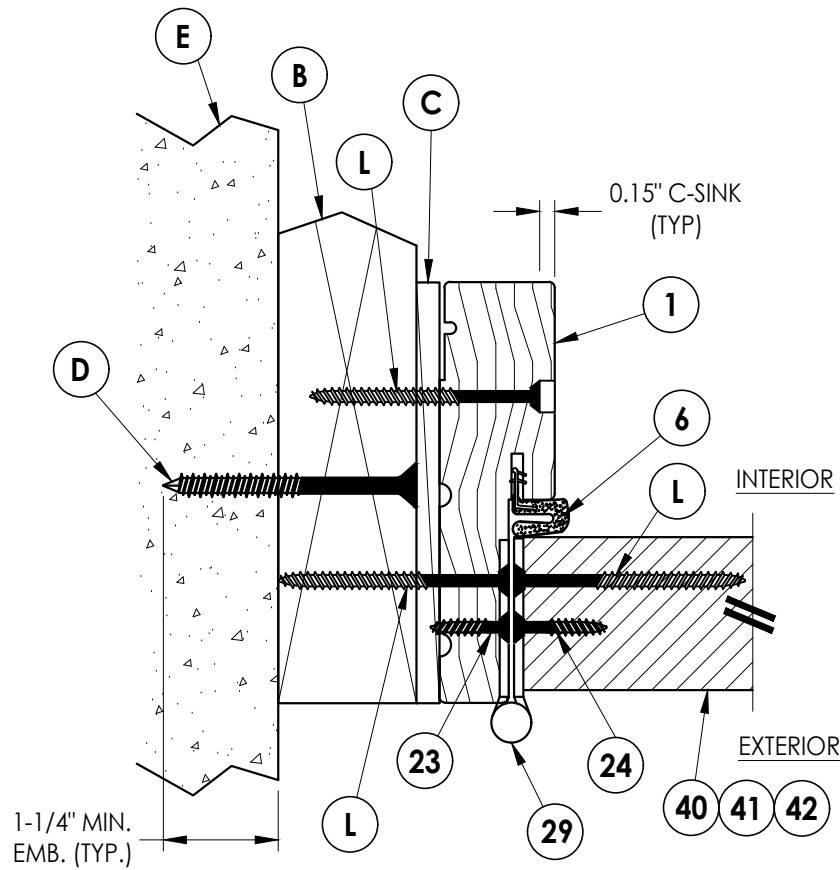
Reginald
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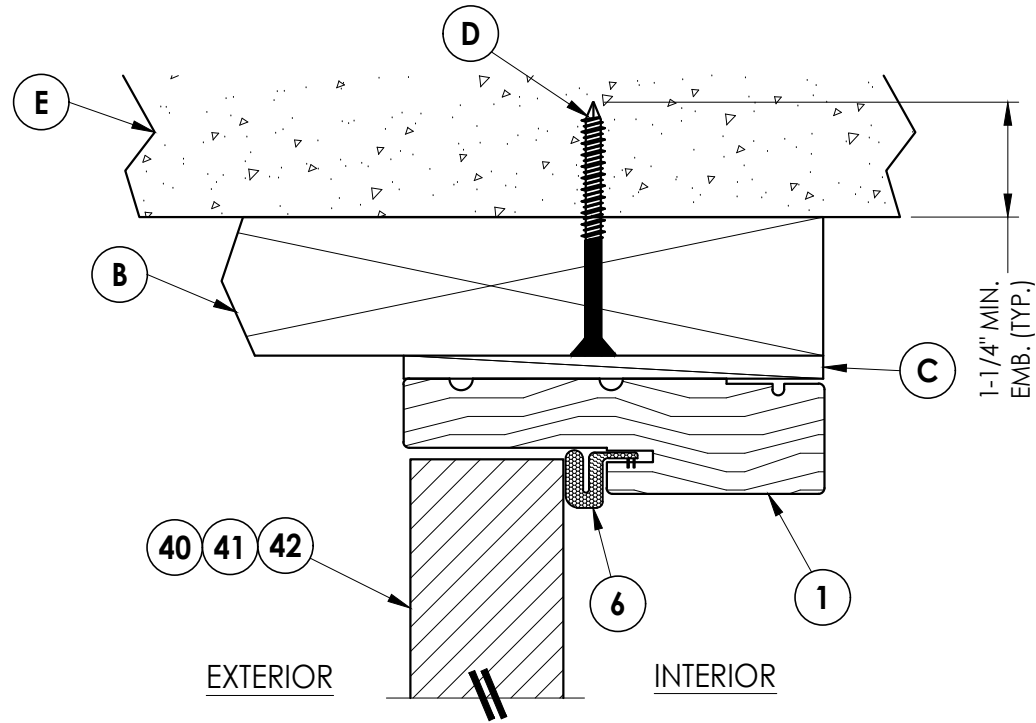
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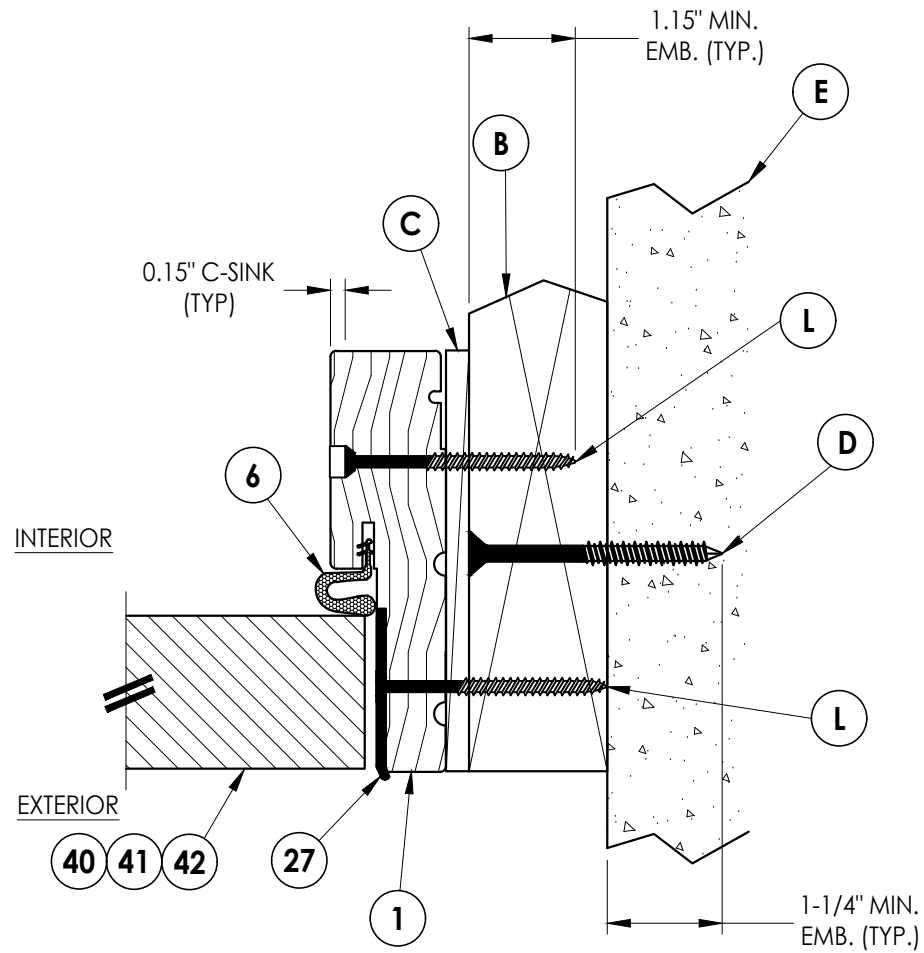
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2 HORIZONTAL CROSS SECTION
4 Shown w/ 2X Buck
Outswing shown (Inswing similar)



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



3 HORIZONTAL CROSS SECTION
4 Shown w/ 2X Buck
Outswing shown (Inswing similar)

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PRODUCT:
THERMA-TRU
FIBERGLASS DOOR

PART OR ASSEMBLY:
HORIZONTAL & VERTICAL
CROSS SECTIONS (2X BUCK)

NO.	DATE	REVISIONS
3	8/18/23	UPDATE TO 8TH ED. (2023) FBC LFS
2	7/15/20	UPDATE TO 7th ED (2020) FBC PO
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING LFS

DATE: 12/22/16

SCALE: N.T.S.

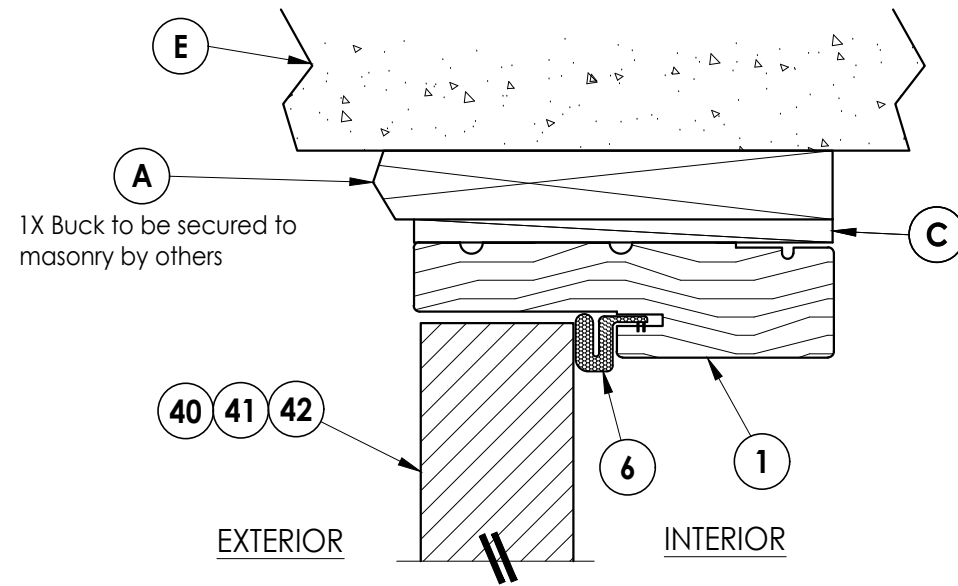
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DRAWING NO.: FL-21142.10

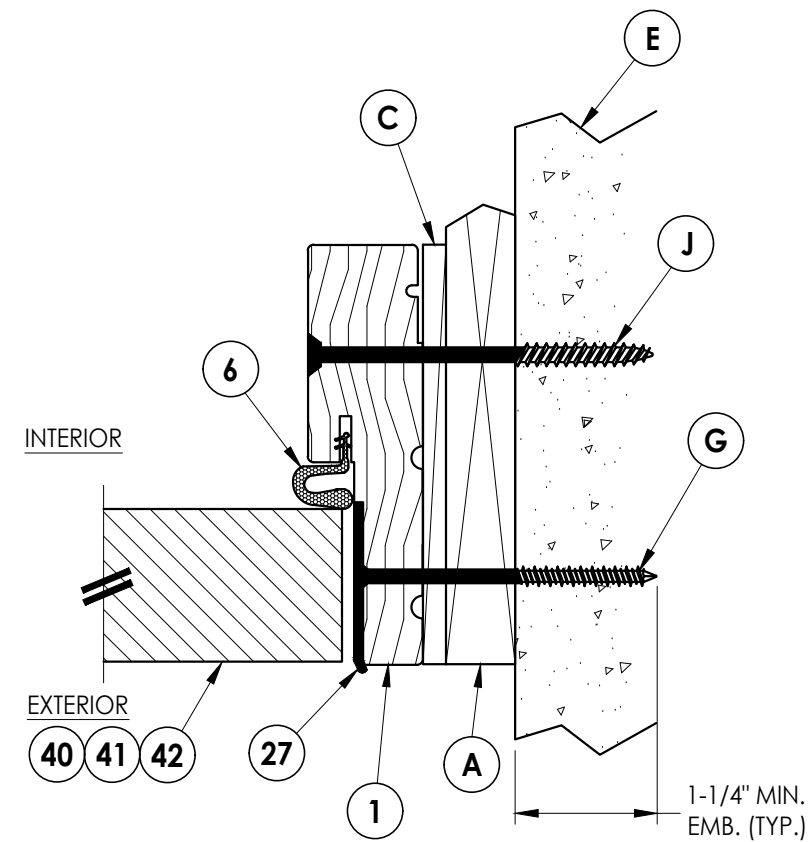
SHEET 4 OF 12

1-1/4" MIN.
EMB. (TYP.)



1 5 **VERTICAL CROSS SECTION**

Shown w/ 1X sub-buck
Outswing shown (Inswing similar)



3 **HORIZONTAL CROSS SECTION**

5 Shown w/ 1X sub-buck
Outswing shown (Inswing similar)

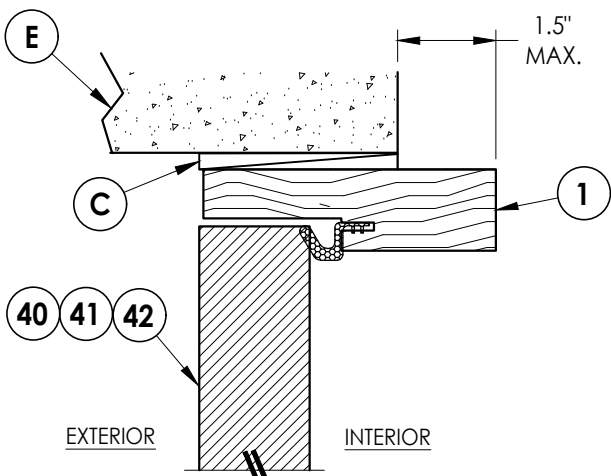
3	8/18/23	UPDATE TO 8TH ED. (2023)	FBC	LFS		
2	7/15/20	UPDATE TO 7th ED (2020)	FBC	PO		
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING		LFS		
NO.	DATE			BY		
				REVISIONS		
DATE: 12/22/16						
SCALE: N.T.S.						
DWG. BY: JK						
CHK. BY: LFS						
DRAWING NO.: FL-21142.10						
SHEET 5 OF 12						

PRODUCT: THERMA--TRU FIBERGLASS DOOR	PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (1X BUCK)
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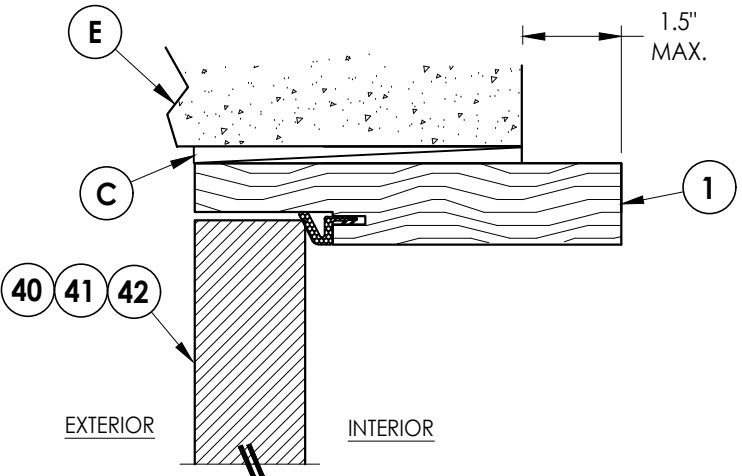
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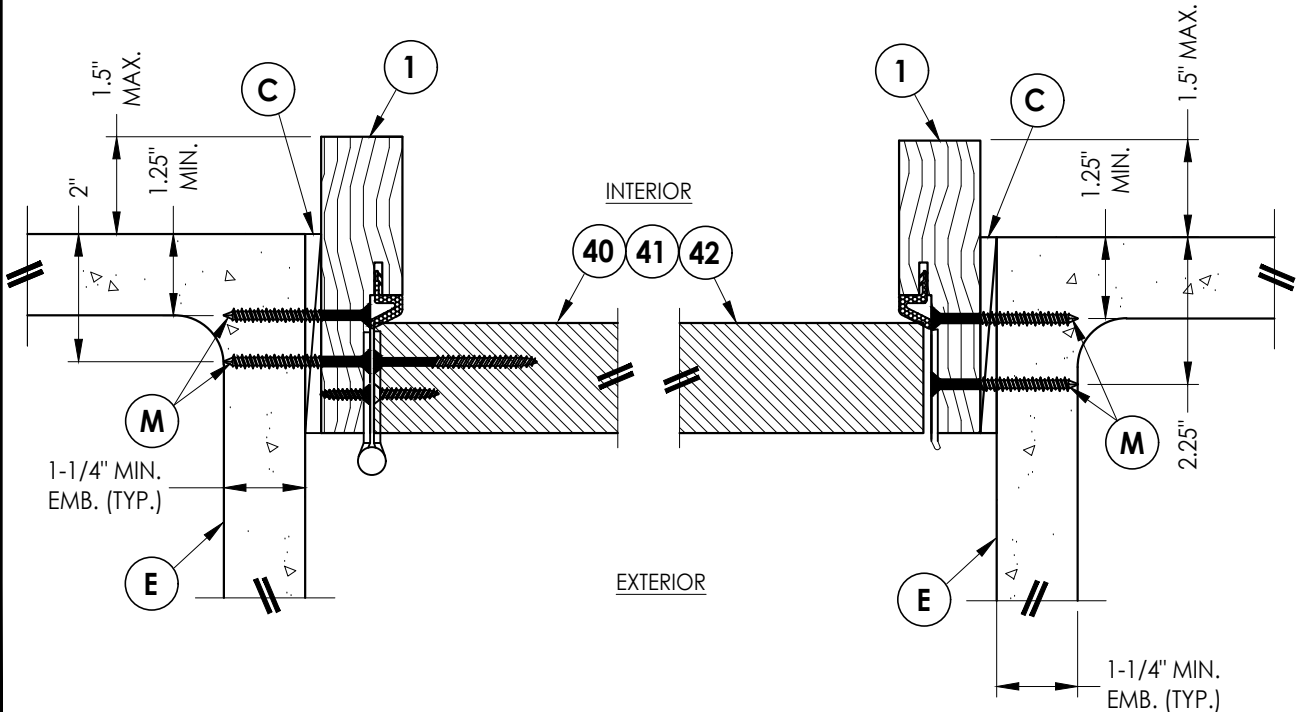


1
6 **VERTICAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb



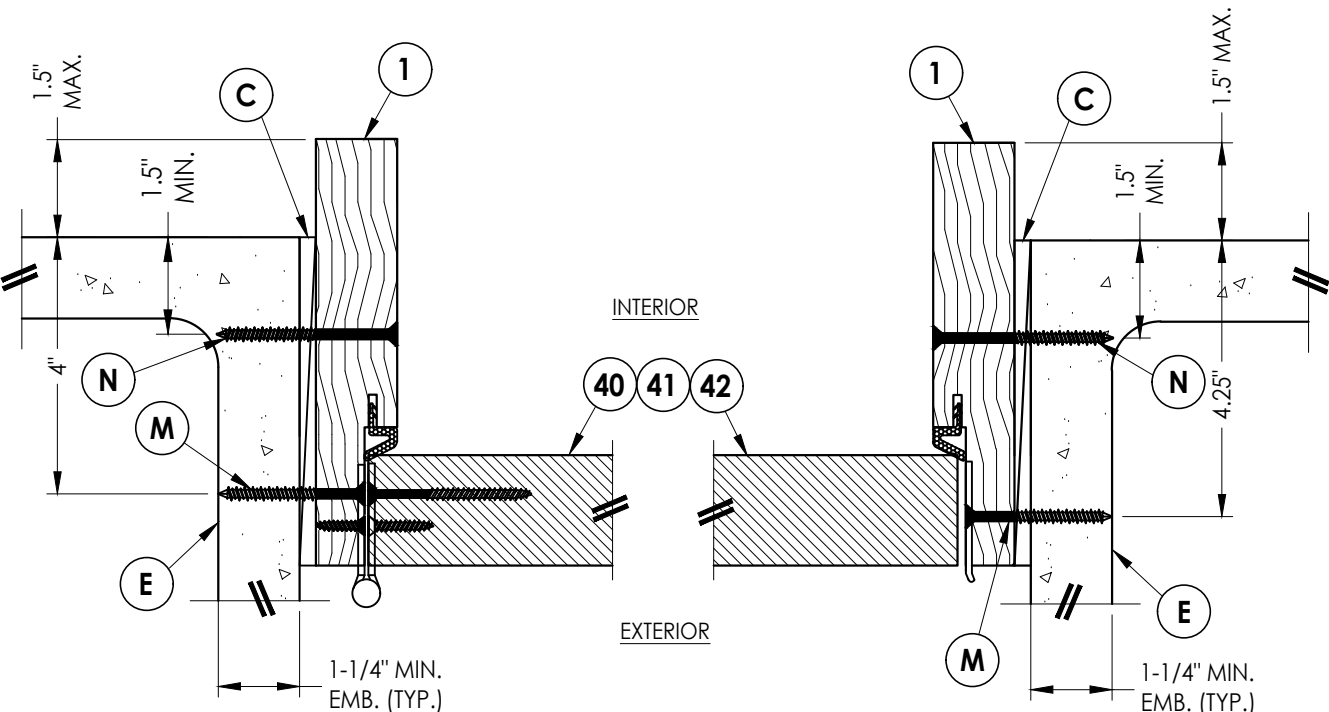
4
6 **VERTICAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

DIRECT TO MASONRY MAX. DESIGN PRESSURE:
w/ STANDARD STRIKE = ± 47 PSF
w/ SECURITY STRIKE = ± 55 PSF



2
6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb

3
6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb



5
6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

6
6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

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PRODUCT:
THERMA-TRU
FIBERGLASS DOOR

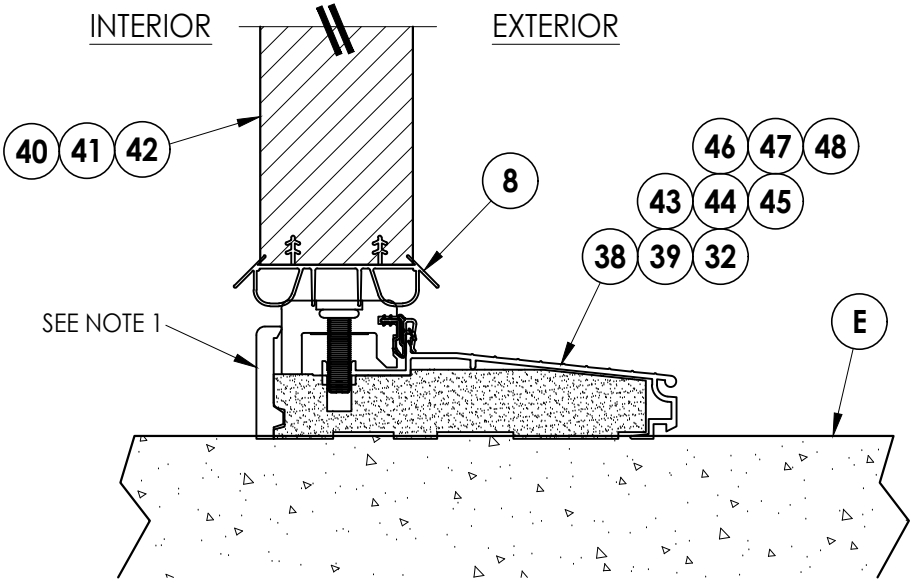
PART OR ASSEMBLY:
HORIZONTAL & VERTICAL
SECTIONS (DIRECT TO MASONRY)

NO.	DATE	REVISIONS
3	8/18/23	UPDATE TO 8TH ED. (2023) FBC LFS
2	7/15/20	UPDATE TO 7TH ED (2020) FBC PO
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING LFS
		BY

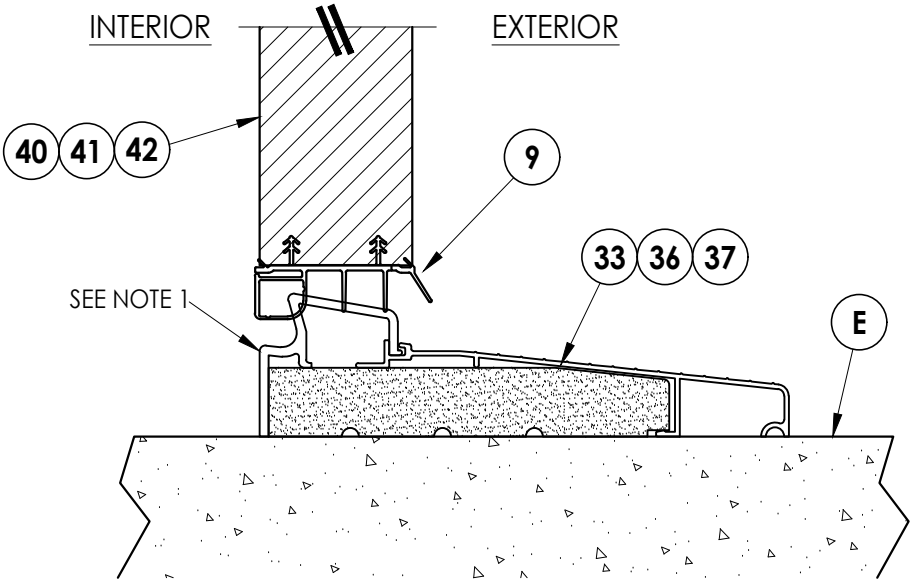
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CHK. BY: LFS
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SHEET 6 OF 12

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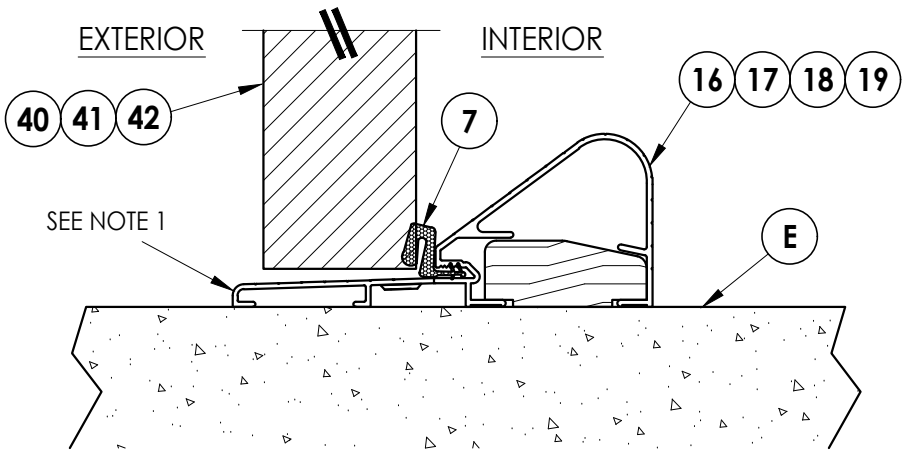
- Notes:
- 1. Sill Item #'s 16, 32, 33, 36, 37, 38, 39, 43, 44, 45, 46, 47 & 48 are attached to jambs w/ (3) #8 X 2-1/2" pfh screws or (3) 2.5" staples at each end.
 - 2. Sill Item #'s 17, 18 & 19 are attached to jambs w/ (2) #8 X 2-1/2" pfh screws at each end.
 - 3. Sill Item #15 is attached to jambs utilizing (2) #10 X 2" pph SMS screws at each end.



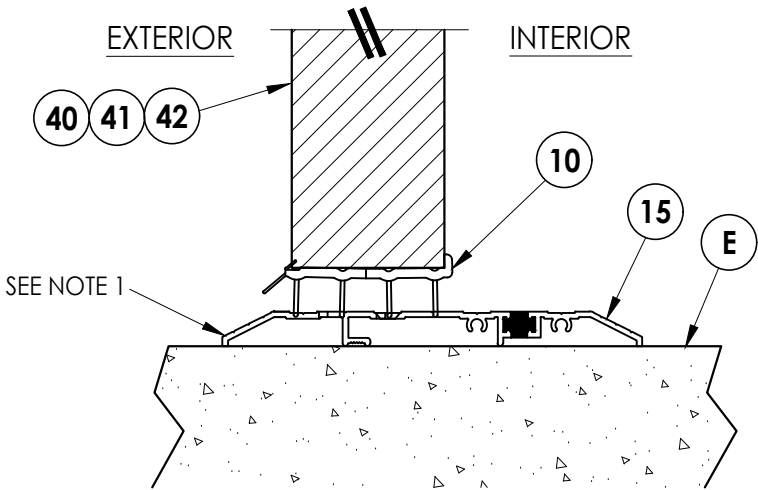
1
7 **VERTICAL CROSS SECTION**
Inswing Sill



2
7 **VERTICAL CROSS SECTION**
Inswing Sill



3
7 **VERTICAL CROSS SECTION**
Outswing Sill (Coastal Sill Shown)



4
7 **VERTICAL CROSS SECTION**
Public Access Sill

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FBPE Registry No. 9813

PRODUCT: THERMA-TRU
FIBERGLASS DOOR
PART OR ASSEMBLY:
VERTICAL CROSS
SECTIONS (THRESHOLDS)

NO.	DATE	REVISIONS
3	8/18/23	UPDATE TO 8TH ED. (2023) FBC LFS
2	7/15/20	UPDATE TO 7th ED (2020) FBC PO
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING LFS

DATE: 12/22/16

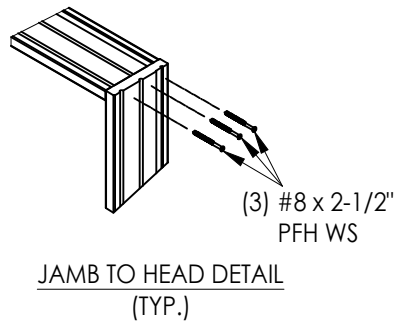
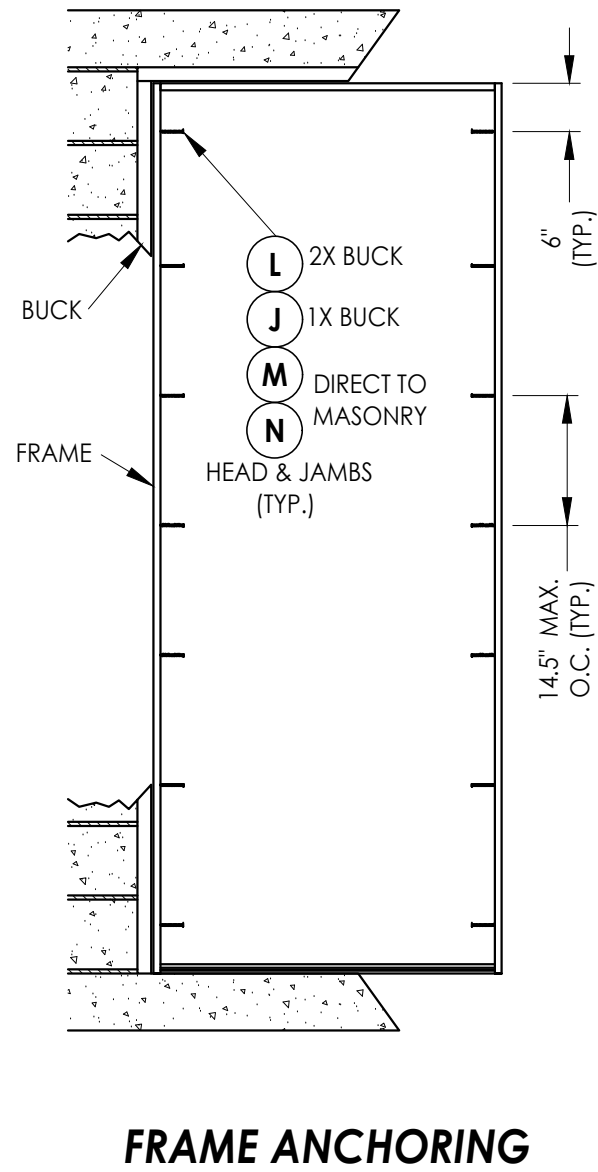
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CHK. BY: LFS

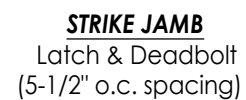
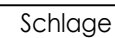
DRAWING NO.: FL-21142.10

SHEET 7 OF 12

[illegible]

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Technical drawing of a cross-section of a component. The overall width is 1.53 inches, the overall height is 1.7 inches, and the thickness of the section is 1 inch. The component has a complex, symmetrical shape with a central vertical slot and rounded ends.

Technical drawing of the ALUMINUM LITE FRAME. The drawing shows a rectangular frame with the following dimensions and specifications:

- Overall Dimensions:**
 - Width: 20.88" D.L.O. (Dimension Line Outside)
 - Height: 78.88" D.L.O. (Dimension Line Outside)
- Material and Section:**
 - Material: #10 X 1-1/2" PPH SMS (Typical)
- Detail Dimensions:**
 - Top and Bottom Flange Thickness: 4" (Typical)
 - Side Flange Thickness: 3" (Typical)
 - Center-to-Center Distance (C-C): 10.5" MAX. O.C. (Typical)

A schematic diagram of a gas turbine engine. It shows a cross-section of the engine with a compressor on the left, a combustion chamber in the middle, and a turbine on the right. The compressor is driven by the turbine. The combustion chamber is where fuel is injected and ignited. The turbine is connected to the compressor and the propeller. The diagram is labeled with various components and their functions.

A technical drawing showing a cross-section of a mechanical assembly. A central shaft is shown with a pin or bolt passing through it. The shaft is surrounded by a housing or casing. The drawing includes hatching to indicate different materials and a break symbol (two parallel lines) on the left side, indicating that the assembly continues beyond the shown section.

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1: THERMA-TRU
FIBERGLASS DOOR

PART OR ASSEMBLY:

GLAZING DETAILS

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3	8/18/23	UPDATE TO 8TH ED. (2023)	FBC	LFS
2	7/15/20	UPDATE TO 7th ED (2020)	FBC	PO
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING		LFS
NO.	DATE			BY
REVISIONS				

DATE: 12/22/16

SCALE: N.T.S.

DWG. BY: JK

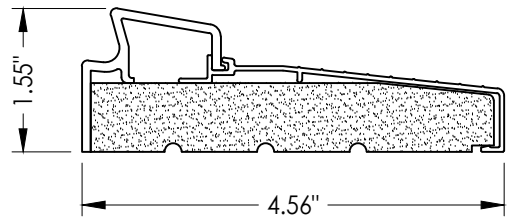
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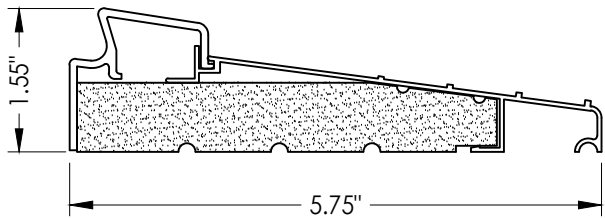
FL-21142.1C

SHEET 10 OF 12

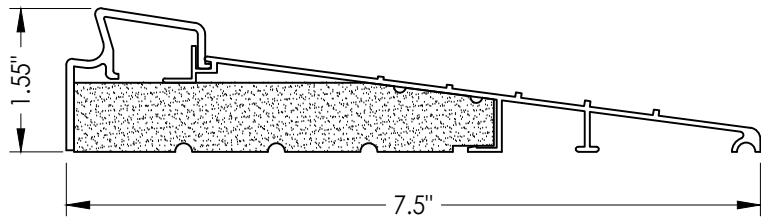
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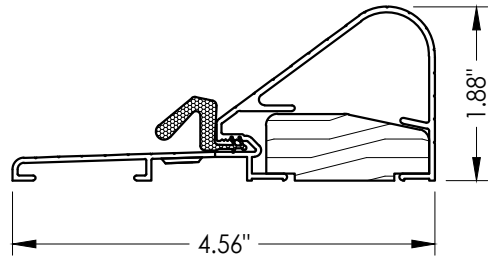
33 INSWING THRESHOLD
Inswing Basic Fixed Sill



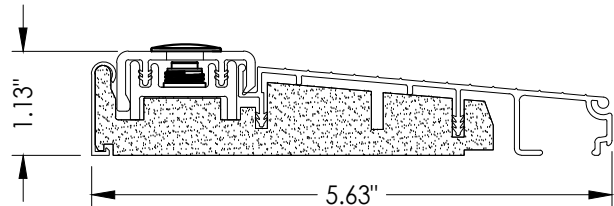
36 INSWING THRESHOLD
Inswing Basic Fixed 5-3/4" Sill



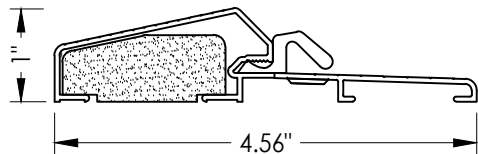
37 INSWING THRESHOLD
Inswing Basic Fixed 7-1/2" Sill



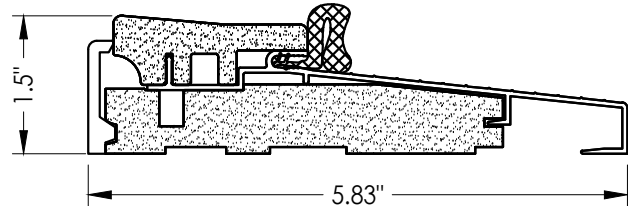
19 OUTSWING
Threshold coastal



39 INSWING THRESHOLD
Inswing Composite Adjustable Sill

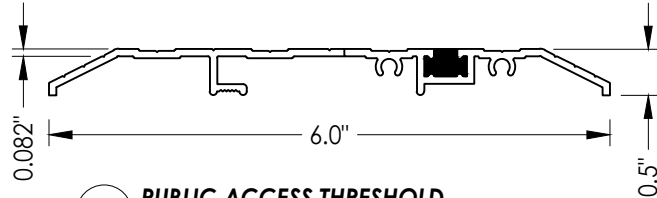


17 OUTSWING THRESHOLD
Composite / Aluminum Sill

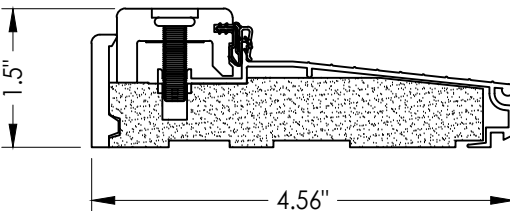


16 OUTSWING THRESHOLD*
Composite / Aluminum Sill

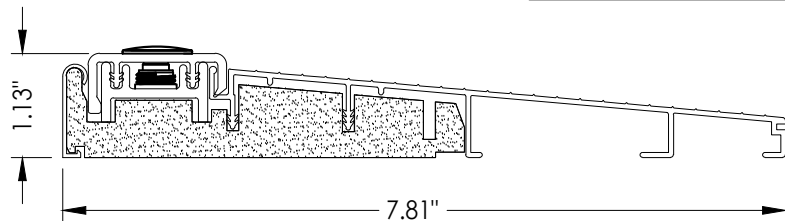
* **MAX. +55 PSF**
(where water infiltration is required)



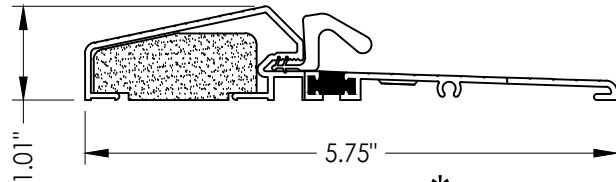
15 PUBLIC ACCESS THRESHOLD



38 INSWING THRESHOLD
Inswing Composite Adjustable Sill

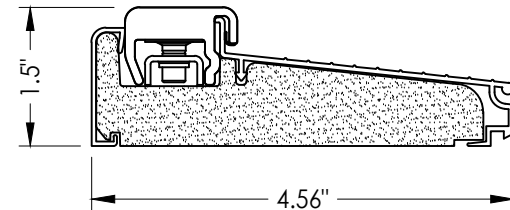


32 INSWING THRESHOLD
Inswing Composite Adjustable 7-3/4" Sill

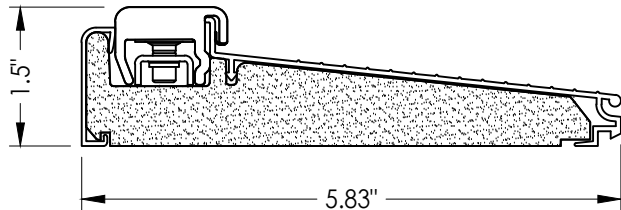


18 OUTSWING THRESHOLD*
Composite / Aluminum Sill
(Thermal Break)

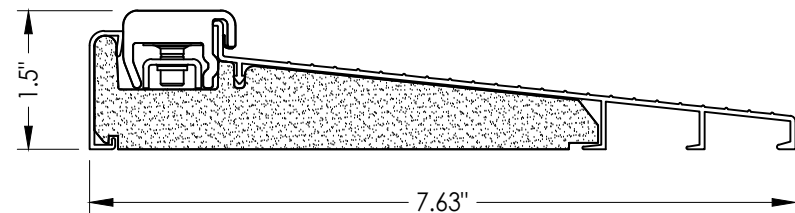
* Max. Positive Design Pressure = +55 PSF
(Where water infiltration is required)



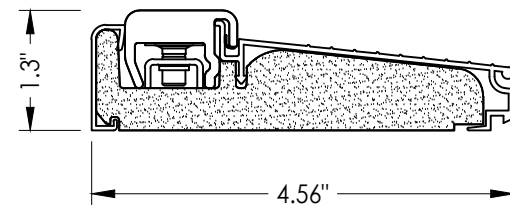
43 INSWING THRESHOLD
Inswing Composite Adjustable Sill
Book, Hybrid



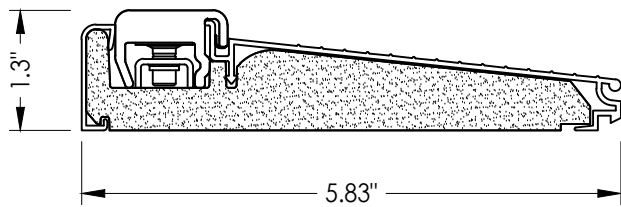
44 INSWING THRESHOLD
Inswing Composite Adjustable Sill
Book, Hybrid



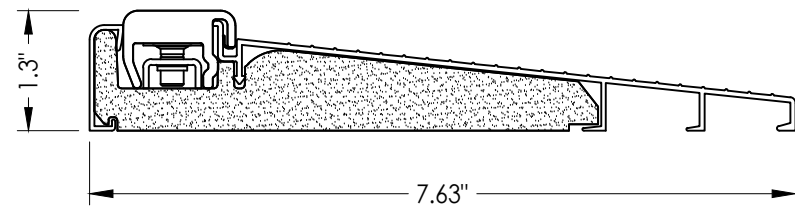
45 INSWING THRESHOLD
Inswing Composite Adjustable Sill
Book, Hybrid



46 INSWING THRESHOLD
Inswing Composite Adjustable Sill
U1



47 INSWING THRESHOLD
Inswing Composite Adjustable Sill
U1



48 INSWING THRESHOLD
Inswing Composite Adjustable Sill
U1

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

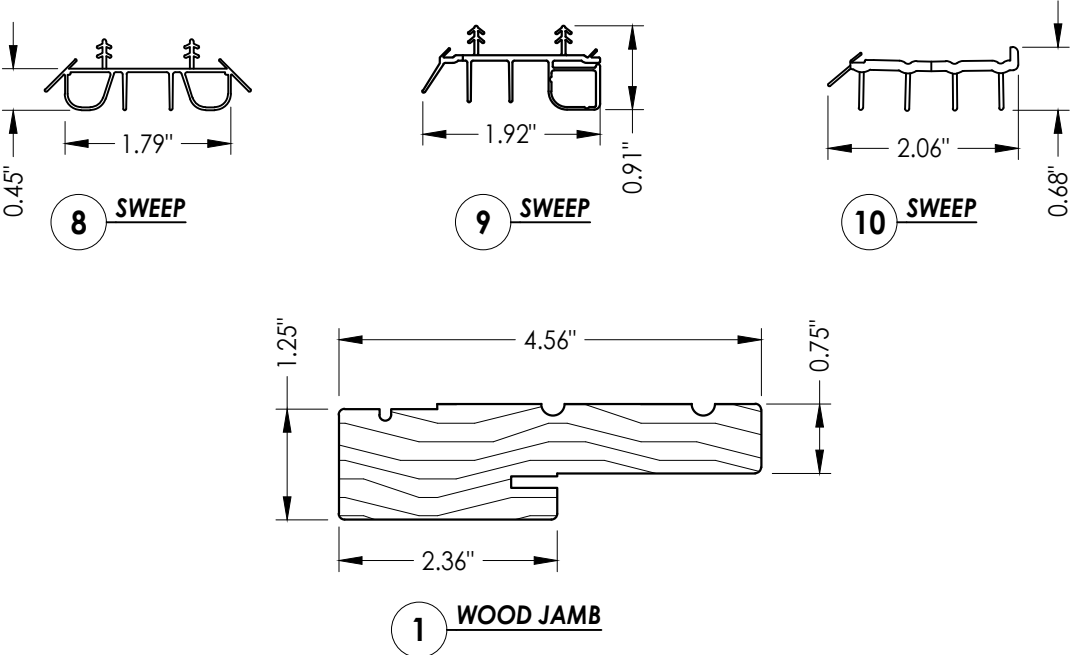
PRODUCT: THERMA-TRU
FIBERGLASS DOOR

PART OR ASSEMBLY:

COMPONENTS

NO.	DATE	REVISIONS			
		DATE	BY	PO	LFS
3	8/18/23	UPDATE TO 8TH ED. (2023)	FBC	LFS	
2	7/15/20	UPDATE TO 7th ED (2020)	FBC	PO	
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING	LFS		
DATE: 12/22/16					
SCALE: N.T.S.					
DWG. BY: JK					
CHK. BY: LFS					
DRAWING NO.: FL-21142.10					
SHEET 11 OF 12					

BILL OF MATERIALS			BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL	ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK (SG >= 0.42)	WOOD	25	#8 x 2-1/2" PFH WOOD SCREW	STEEL
B	2X BUCK (SG >= 0.42)	WOOD	26	#8 x 5/8" PFH WOOD SCREW	STEEL
C	1/4" MAX. SHIM SPACE	-	27	LATCH STRIKE PLATE	STEEL
D	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL	28	DEADBOLT STRIKE PLATE (STANDARD)	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE	28A	DEADBOLT SUB STRIKE PLATE	STEEL
			28B	DEADBOLT STRIKE PLATE (SECURITY)	STEEL
G	3/16" X 3-1/4" ITW CONCRETE SCREW	STEEL	29	4" X 4" HINGE	STEEL
J	1/4" X 3-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL	30	LATCH & DEADBOLT STRIKE PLATE (TONGUE SYSTEM)	ALUM/COMP
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL	31	MULTIPOINT STRIKE PLATE (TONGUE SYSTEM)	ALUM/COMP
M	3/16" X 2-1/4" ITW CONCRETE SCREW	STEEL	32	INSWING THRESHOLD	ALUM/COMP
N	3/16" X 2-3/4" ITW CONCRETE SCREW	STEEL	33	INSWING THRESHOLD	ALUM/COMP
1	JAMB (FINGER JOINT PINE)	WOOD	36	INSWING THRESHOLD	ALUM/COMP
6	WEATHERSTRIP (MEDIUM REACH)	FOAM	37	INSWING THRESHOLD	ALUM/COMP
7	WEATHERSTRIP (LONG REACH)	FOAM	38	INSWING THRESHOLD	ALUM/COMP
8	SWEEP	VINYL	39	INSWING THRESHOLD	ALUM/COMP
9	SWEEP	VINYL	40	DOOR PANEL (BOOK)	-
10	SWEEP (USE w/ PUBLIC ACCESS THRESHOLD)	VINYL	41	DOOR PANEL (HYBRID)	-
15	PUBLIC ACCESS THRESHOLD	ALUM	42	DOOR PANEL (U1)	-
16	OUTSWING THRESHOLD	ALUM/COMP	43	INSWING THRESHOLD	ALUM/COMP
17	OUTSWING THRESHOLD	ALUM/COMP	44	INSWING THRESHOLD	ALUM/COMP
18	OUTSWING THRESHOLD	ALUM/COMP	45	INSWING THRESHOLD	ALUM/COMP
19	COASTAL OUTSWING THRESHOLD	ALUM/WOOD	46	INSWING THRESHOLD	ALUM/COMP
22	#8 x 3/4" PFH WOOD SCREW	STEEL	47	INSWING THRESHOLD	ALUM/COMP
23	#10 x 3/4" PFH WOOD SCREW	STEEL	48	INSWING THRESHOLD	ALUM/COMP
24	#10 x 1" PFH WOOD SCREW	STEEL			



CONCRETE ANCHOR NOTES:

1. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
2. 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.
3. Concrete anchor table:

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

WOOD SCREW INSTALLATION NOTES:

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

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SHEET 12 OF 12			
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2	7/15/20	UPDATE TO 7th ED (2020)	FBC PO
1	4/06/19	ADD 5-1/2" LATCH/DB SPACING	LFS
NO.	DATE		BY
PRODUCT:		THERMA-TRU FIBERGLASS DOOR	
PART OR ASSEMBLY:		COMPONENTS & BILL OF MATERIALS	
Documents Prepared By:		BUILDING CONSULTANTS, INC. Lyndon F. Schmidt P.E. No. 43409	
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