

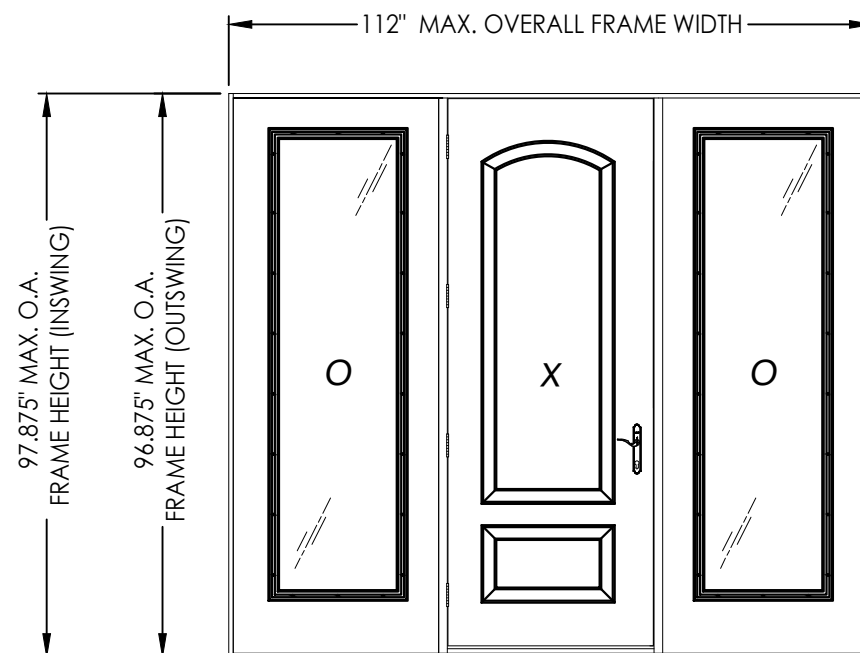
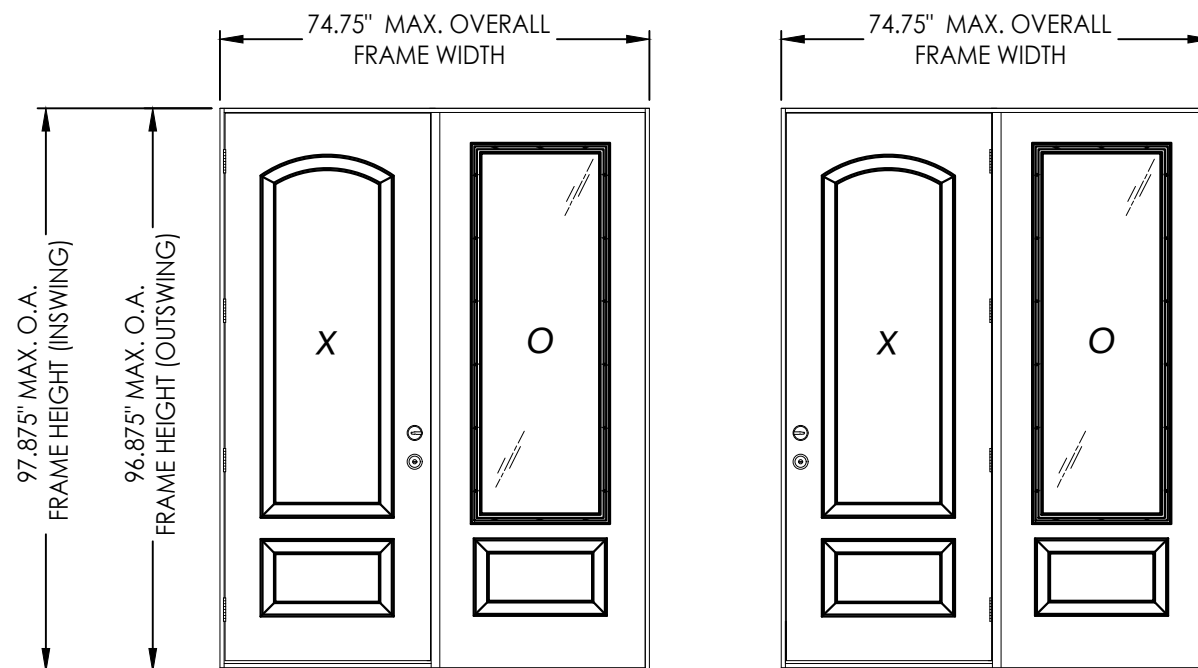


**FIBERGLASS OPAQUE
SINGLE DOOR
w/ or w/out SIDELITE(S)
INSWING/OUTSWING
"IMPACT"**

GENERAL NOTES

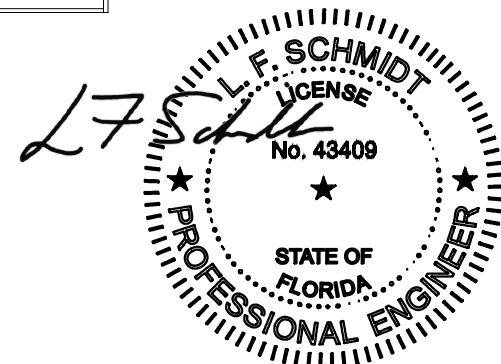
1. This product has been evaluated and is in compliance with the 9th Edition (2026) Florida Building Code (FBC) structural requirements excluding the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in areas 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 E1996.
4. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
5. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.

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1	Typical Elevations, Design Pressures & General Notes
2	Door Panel Details
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6	Horizontal & Vertical Cross Sections (1X Buck)
7	Horizontal Cross Sections
8	Vertical Cross Sections (Thresholds)
9	Buck Anchoring
10	Frame Anchoring
11	Hardware Details
12	Bill of Materials & Components



CONTINUOUS HEAD & SILL

CONFIGURATION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XO, OX, OXO	+50.0	-55.0	+50.0	-50.0



Digitally signed by Lyndon F Schmidt

Date: 2026.07.22 17:01:59 -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

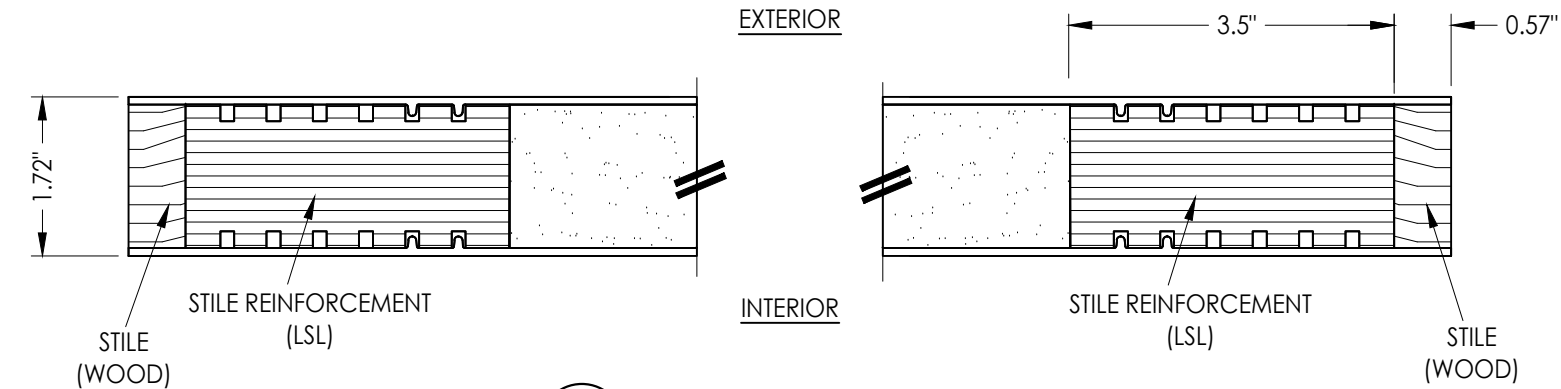
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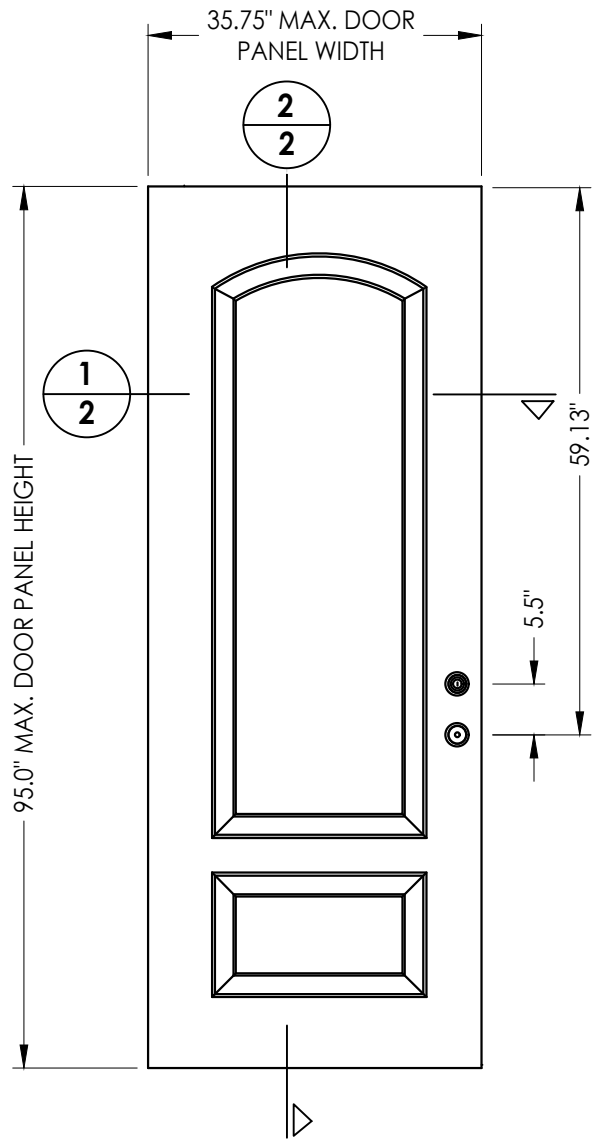
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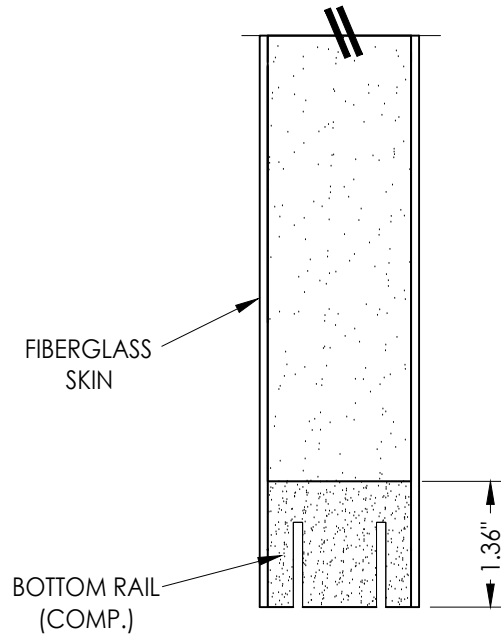
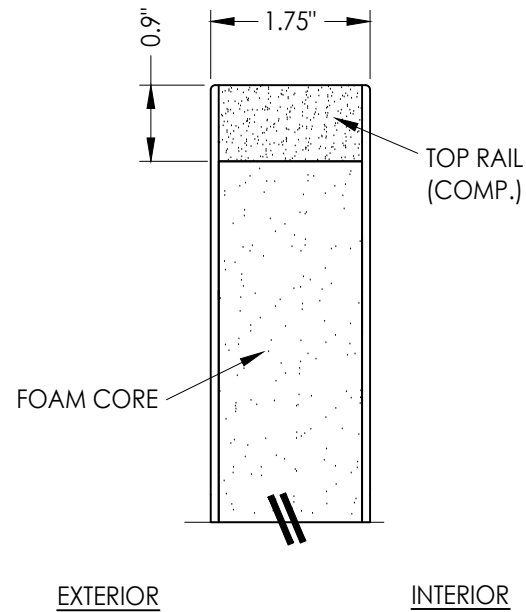
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1
2 **HORIZONTAL CROSS SECTION**



FIBERGLASS DOOR SKIN: 0.095" MIN. THK.
FOAM CORE: POLYURETHANE - 1.9 PCF MIN.



2
2 **VERTICAL CROSS SECTION**

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PRODUCT:		MASTERGRAIN FIBERGLASS DOOR	
PART OR ASSEMBLY:		DOOR PANEL DETAILS	

NO.	DATE	REVISIONS
4	7/01/26	UPDATE TO 9TH ED. (2026) FBC LFS
3	7/01/23	UPDATE TO 8TH ED. (2023) FBC LFS
2	7/08/20	UPDATE TO 7TH ED. (2020) FBC LFS
1	10/03/17	UPDATE TO 6TH ED. (2017) FBC JK

DATE: 02/09/17

SCALE: N.T.S.

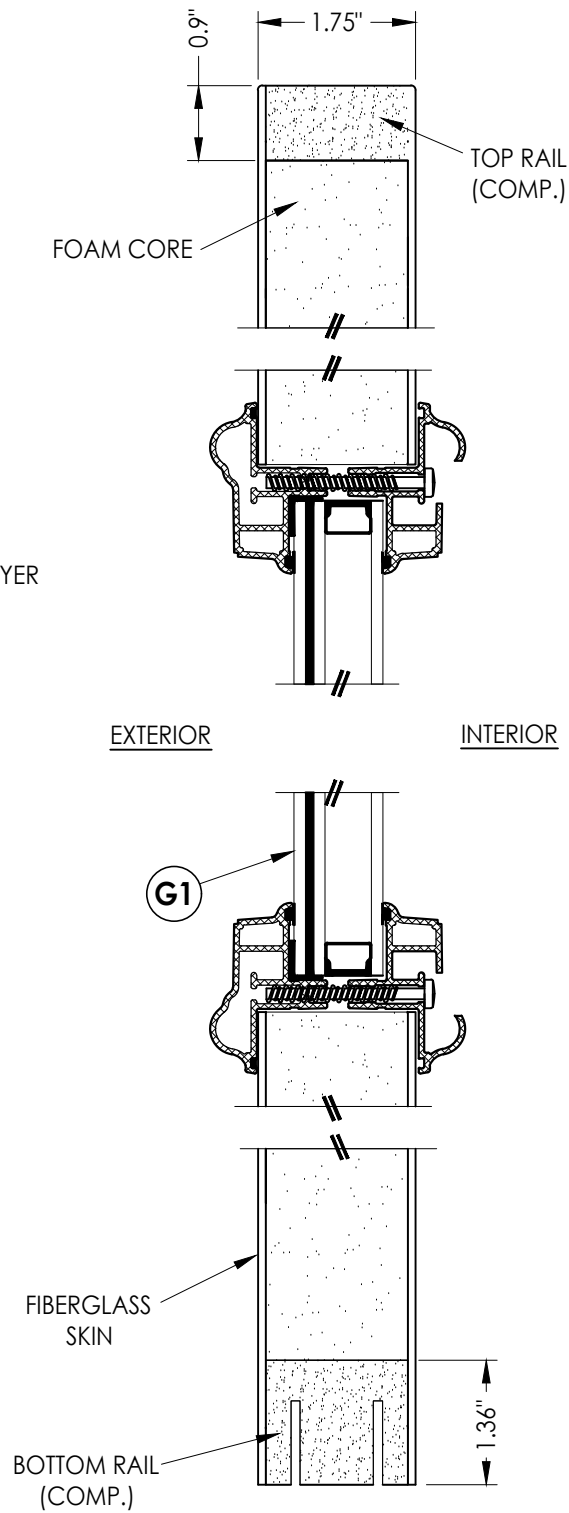
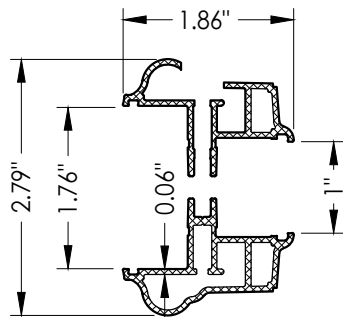
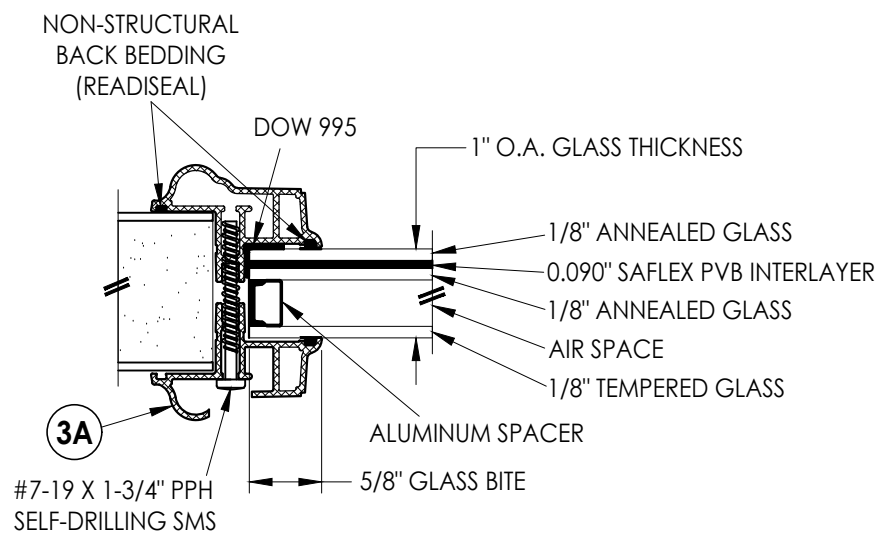
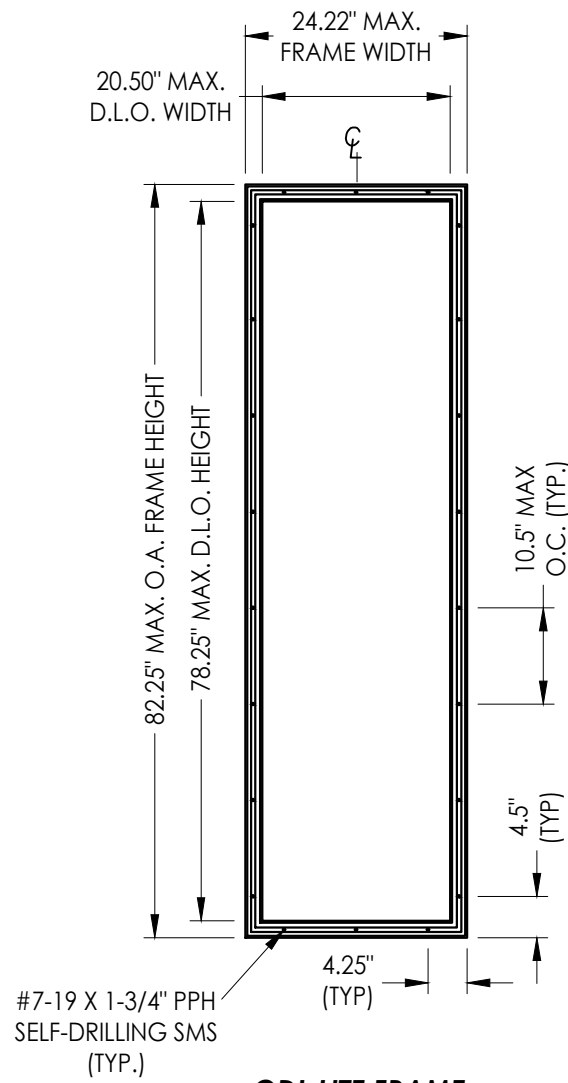
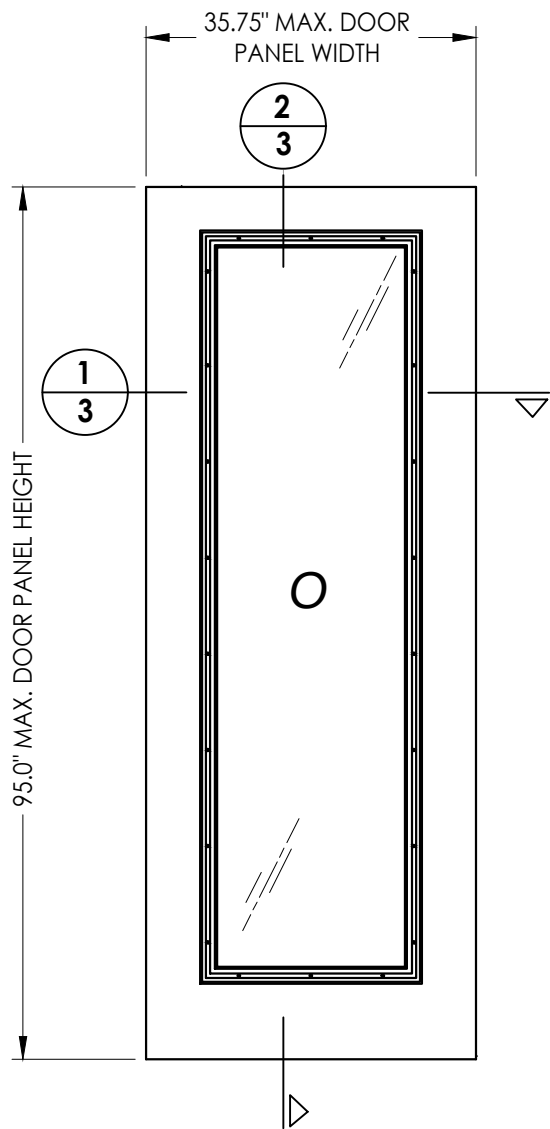
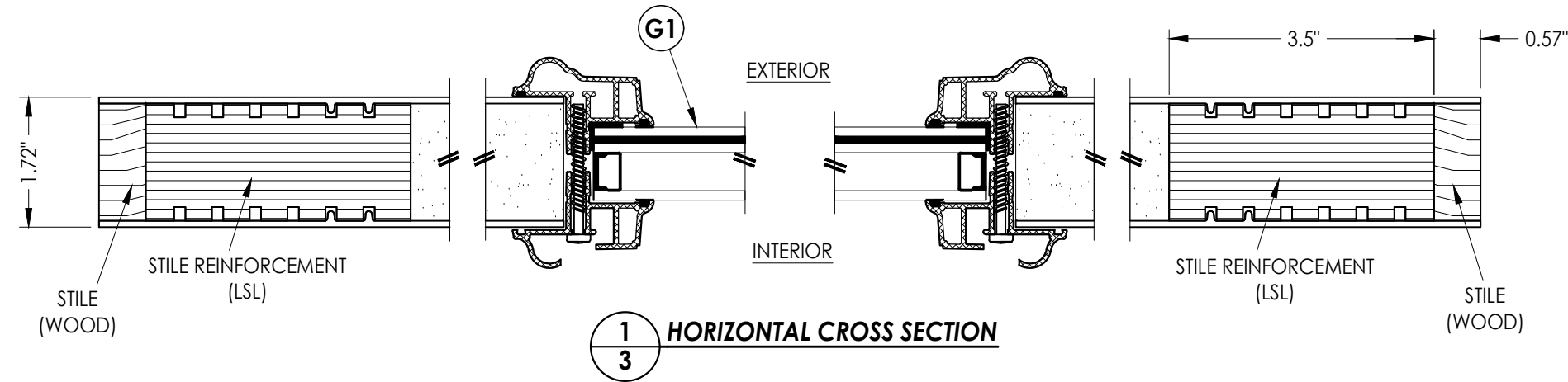
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DRAWING NO.: FL-21852.4

SHEET 2 OF 12

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FIBERGLASS SIDELITE SKIN: 0.095" MIN. THK.
FOAM CORE: POLYURETHANE - 1.9 PCF MIN.

50 **SIDELITE PANEL**
Mastergrain

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PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
SIDELITE PANEL DETAILS

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1	10/03/17	UPDATE TO 6TH ED. (2017) FBC JK

DATE: 02/09/17

SCALE: N.T.S.

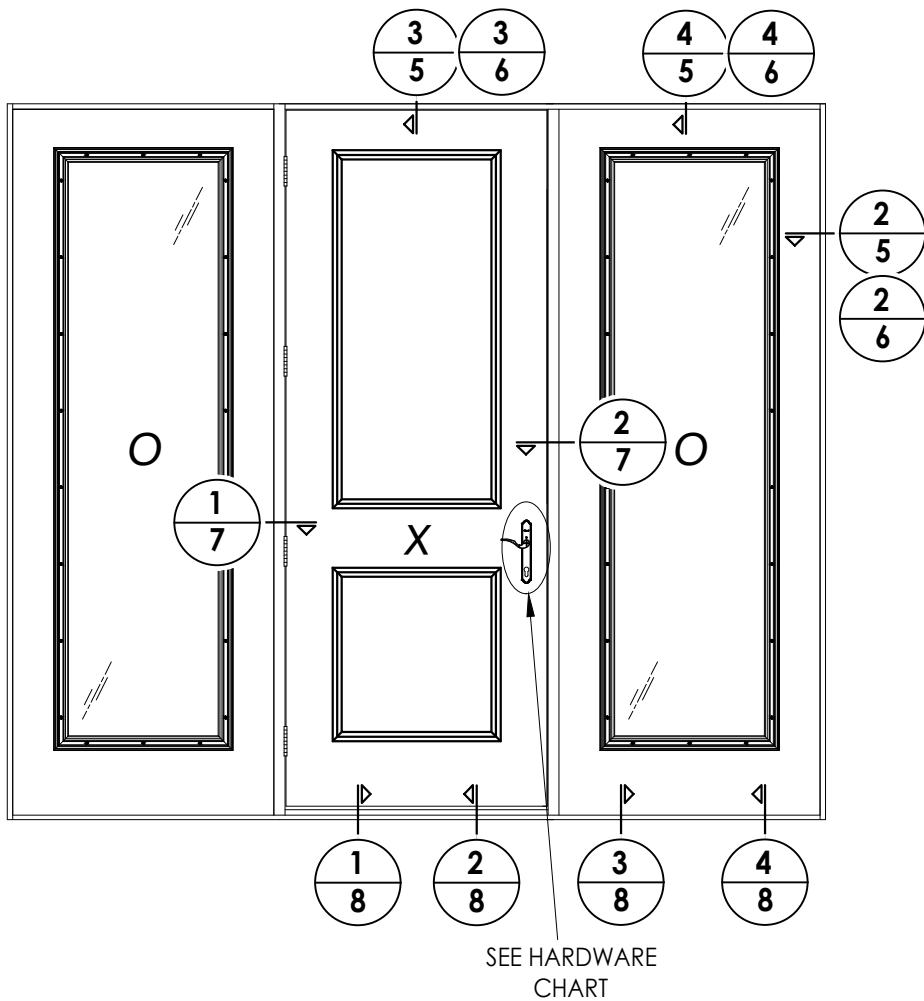
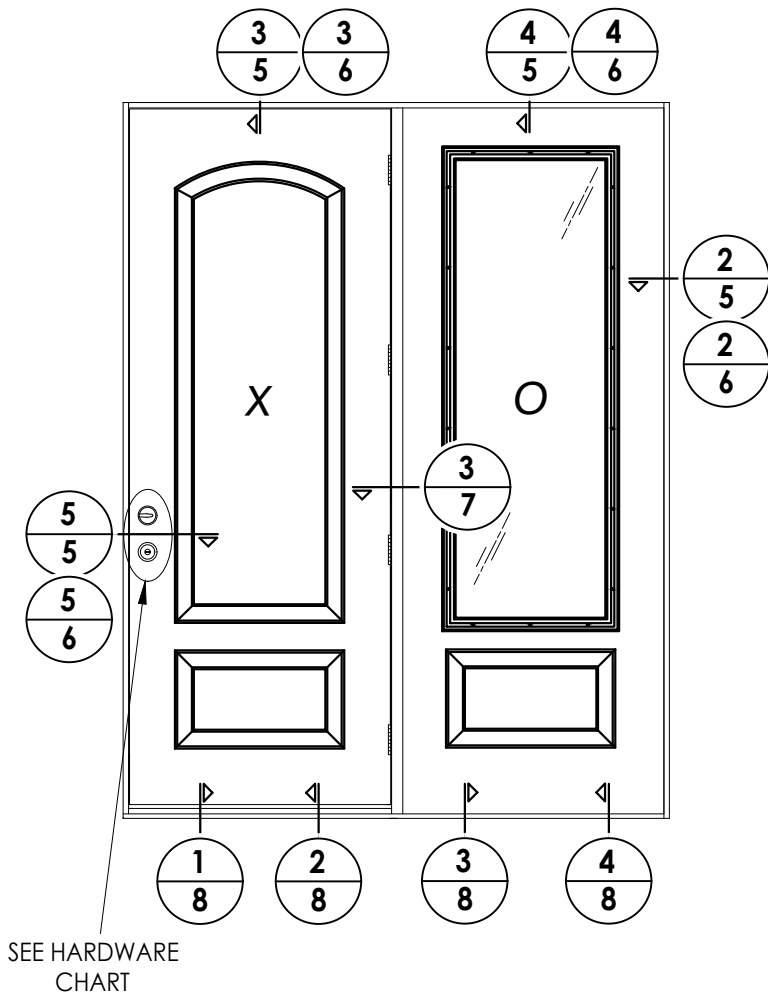
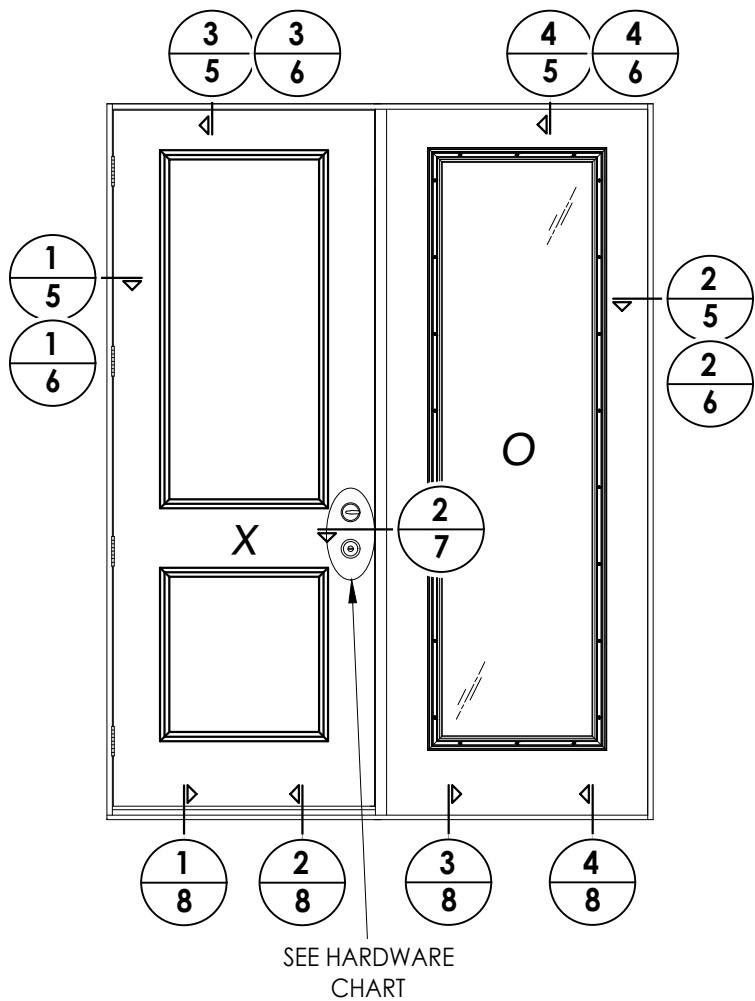
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SHEET 3 OF 12



HARDWARE TABLE		
MANUFACTURER	MODEL	
PAMEX	KNOB:	FLU600
	DEADBOLT:	FD261
KWIKSET	KNOB:	SIGNATURE SERIES
	DEADBOLT:	SIGNATURE SERIES (980)
SCHLAGE	KNOB:	F51
	DEADBOLT:	B60N
HOPPE	MULTIPOINT:	HLS™ ONE
		(3 pt. Manual Tongue)

		REVISIONS			
		NO.	DATE	BY	
4	7/01/26	UPDATE TO 9TH ED.	(2026)	FBC	LFS
3	7/01/23	UPDATE TO 8TH ED.	(2023)	FBC	LFS
2	7/08/20	UPDATE TO 7TH ED.	(2020)	FBC	LFS
1	10/03/17	UPDATE TO 6TH ED.	(2017)	FBC	JK

DATE: 02/09/17
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DRAWING NO.: FL-21852.4
SHEET 4 OF 12

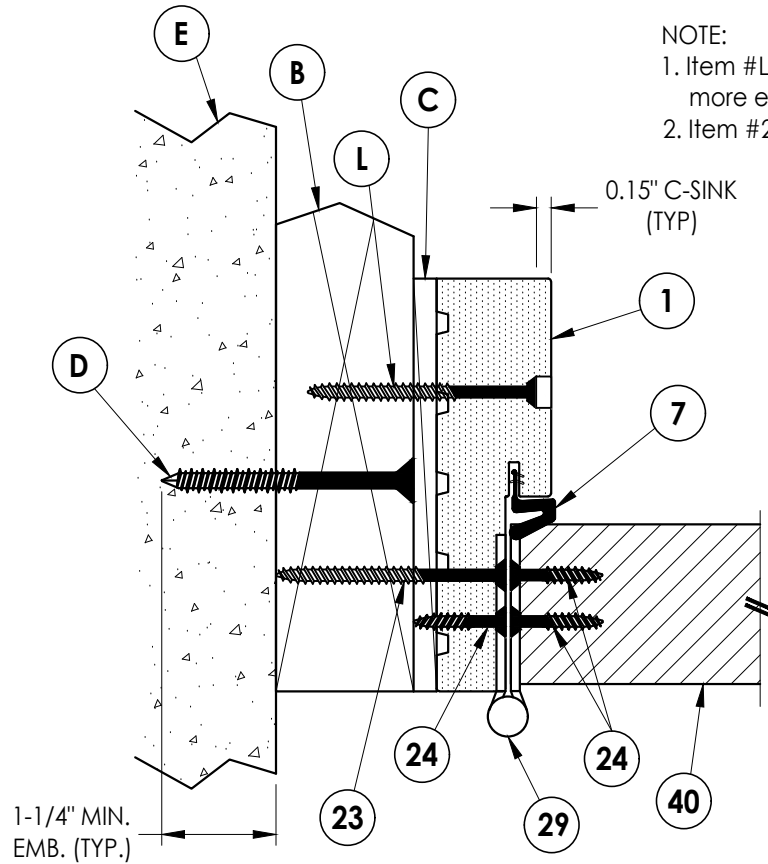
PRODUCT: MASTERGRAIN FIBERGLASS DOOR

PART OR ASSEMBLY: ELEVATIONS

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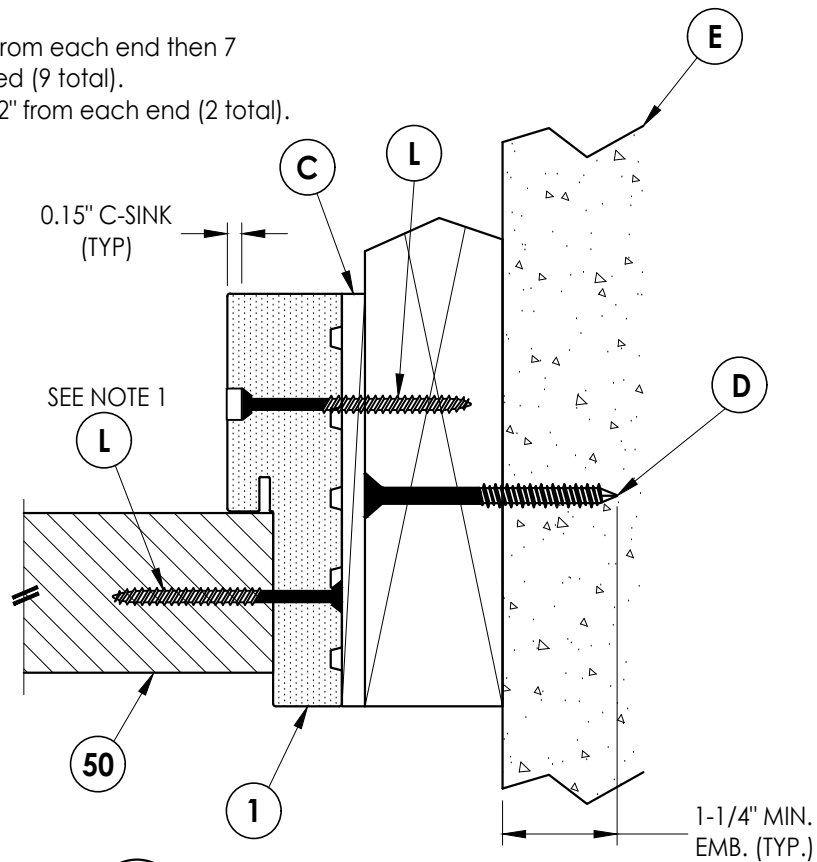
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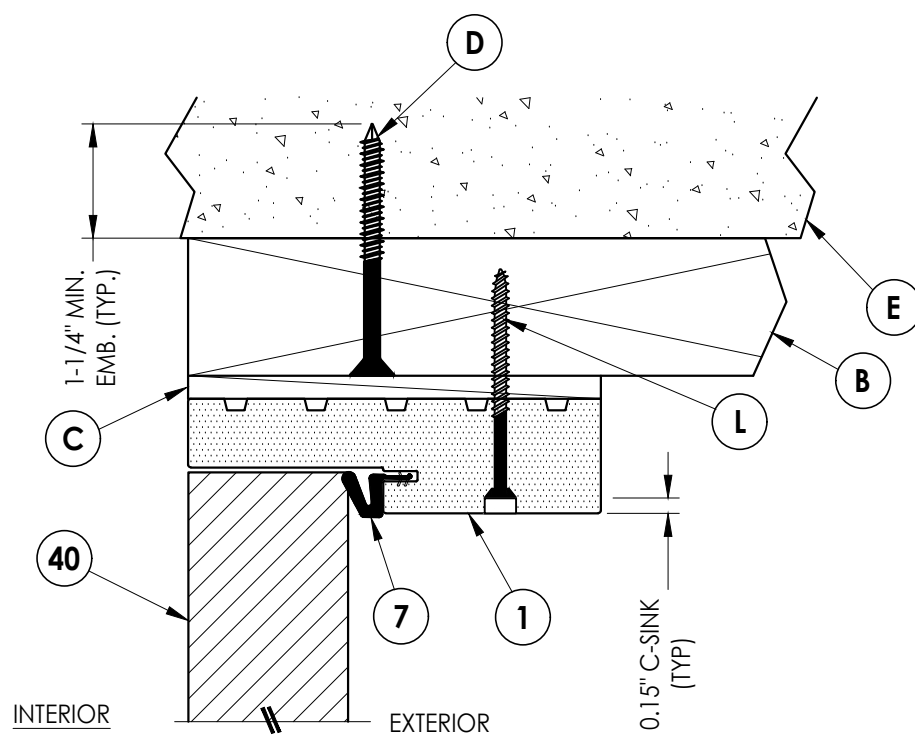


1
5 **HORIZONTAL CROSS SECTION**
Shown w/ 2X Buck
Inswing shown (Outswing similar)

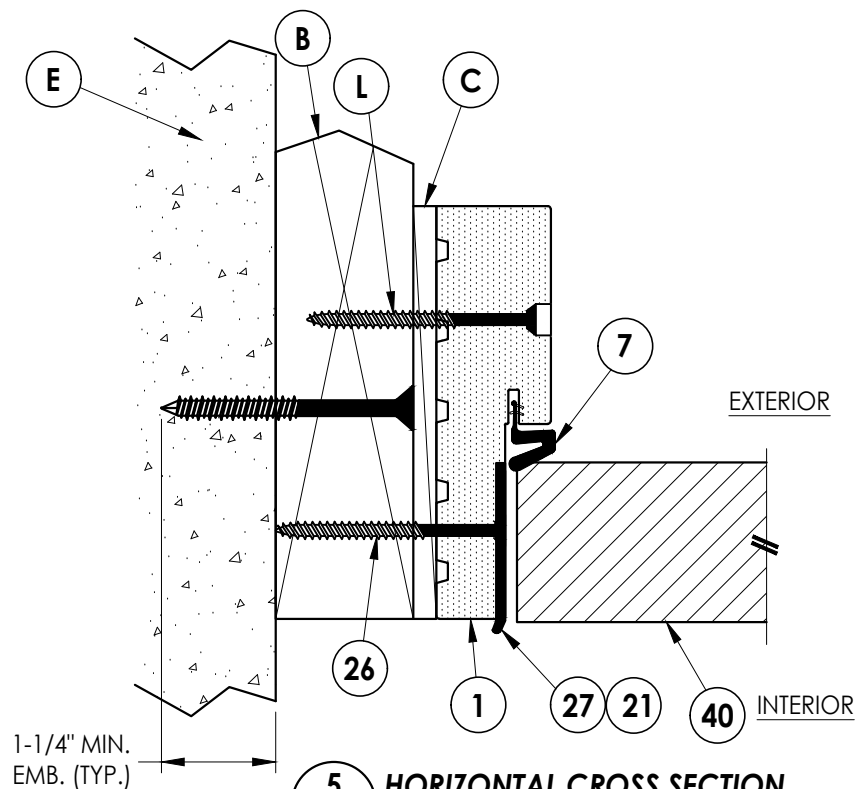
- NOTE:
1. Item #L located 4" from each end then 7 more equally spaced (9 total).
2. Item #26 located 12" from each end (2 total).



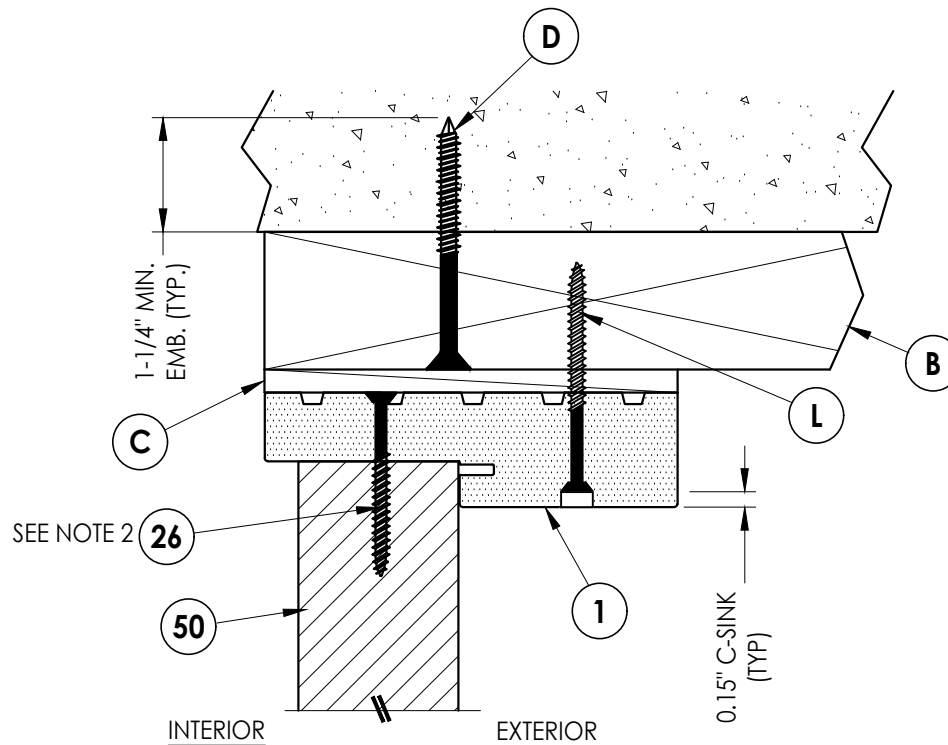
2
5 **HORIZONTAL CROSS SECTION**
Shown w/ 2X Buck
Inswing shown (Outswing similar)



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



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



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

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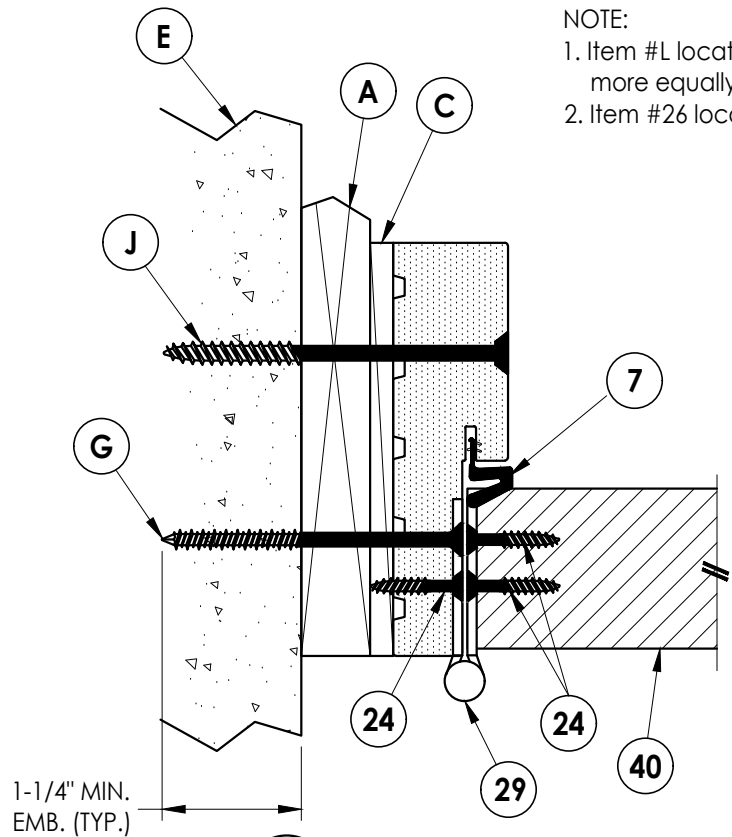
PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

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

NO.	DATE	REVISIONS				
		DATE	BY	CHK	APP	REV
4	7/01/26	UPDATE TO 9TH ED. (2026)	FBC	LFS		
3	7/01/23	UPDATE TO 8TH ED. (2023)	FBC	LFS		
2	7/08/20	UPDATE TO 7TH ED. (2020)	FBC	LFS		
1	10/03/17	UPDATE TO 6TH ED. (2017)	FBC	JK		

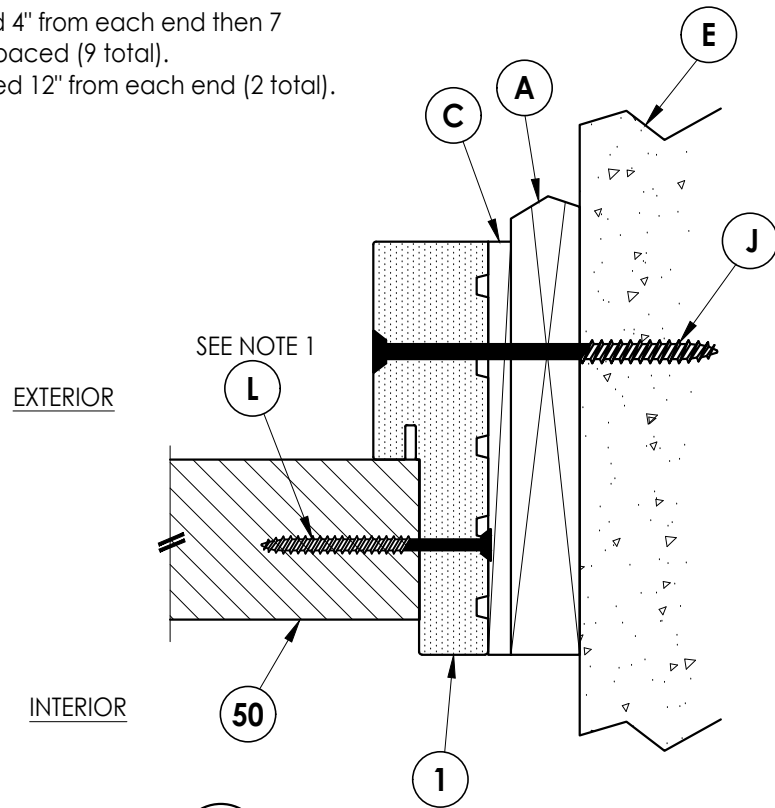
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SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21852.4
SHEET 5 OF 12

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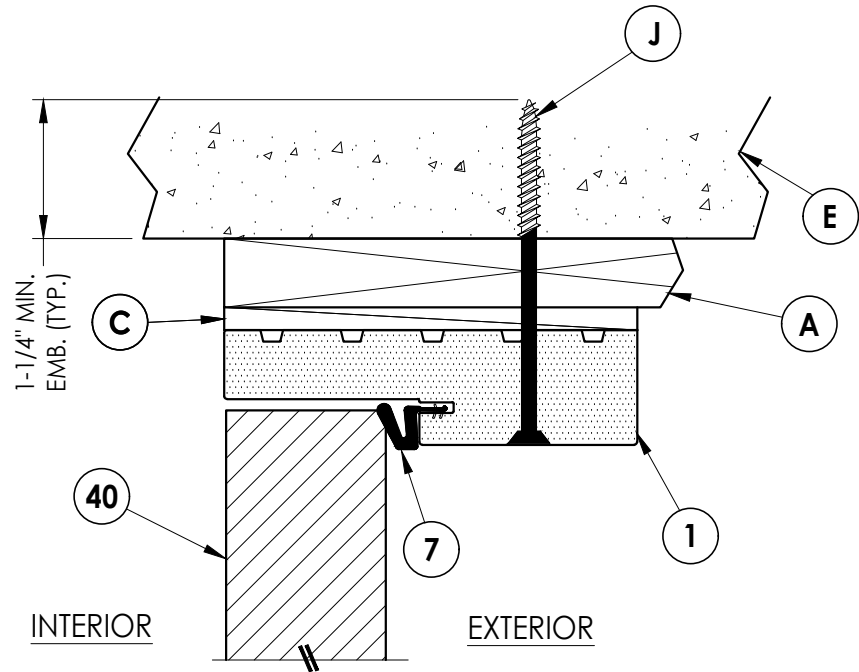


1
6 **HORIZONTAL CROSS SECTION**
Shown w/ 1X sub-buck
Inswing shown (Outswing similar)

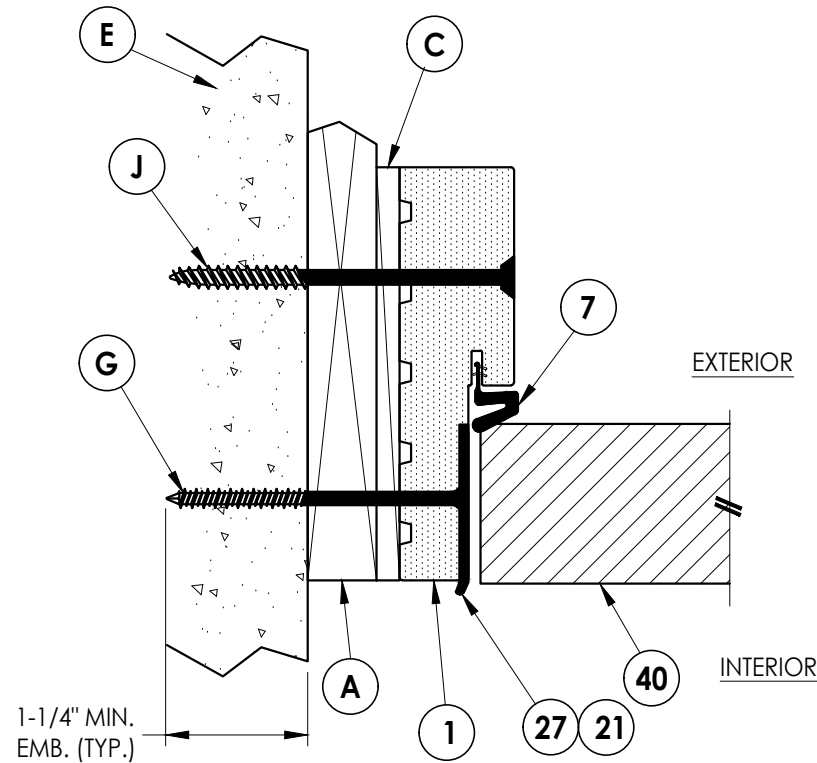
- NOTE:
1. Item #L located 4" from each end then 7 more equally spaced (9 total).
2. Item #26 located 12" from each end (2 total).



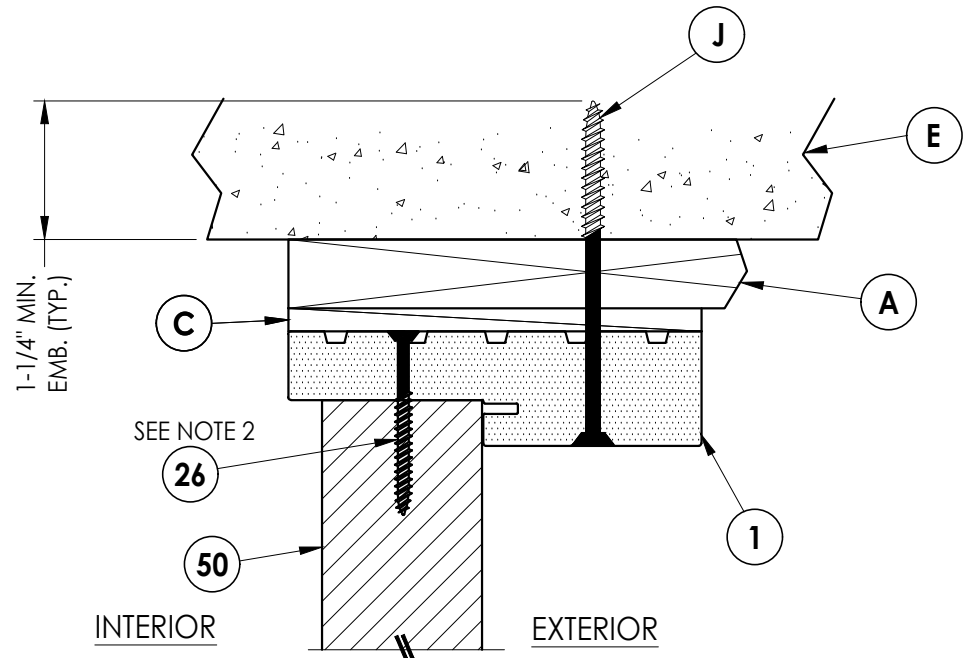
2
6 **HORIZONTAL CROSS SECTION**
Shown w/ 1X sub-buck
Inswing shown (Outswing similar)



3
6 **VERTICAL CROSS SECTION**
Shown w/ 1X sub-buck
Inswing shown (Outswing similar)



5
6 **HORIZONTAL CROSS SECTION**
Shown w/ 1X sub-buck
Inswing shown (Outswing similar)



4
6 **VERTICAL CROSS SECTION**
Shown w/ 1X sub-buck
Inswing shown (Outswing similar)

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FBPE Registry No. 9813

PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
HORIZONTAL & VERTICAL
CROSS SECTIONS (1X BUCK)

NO.	DATE	REVISIONS
4	7/01/26	UPDATE TO 9TH ED. (2026) FBC LFS
3	7/01/23	UPDATE TO 8TH ED. (2023) FBC LFS
2	7/08/20	UPDATE TO 7TH ED. (2020) FBC LFS
1	10/03/17	UPDATE TO 6TH ED. (2017) FBC JK

DATE: 02/09/17

SCALE: N.T.S.

DWG. BY: JK

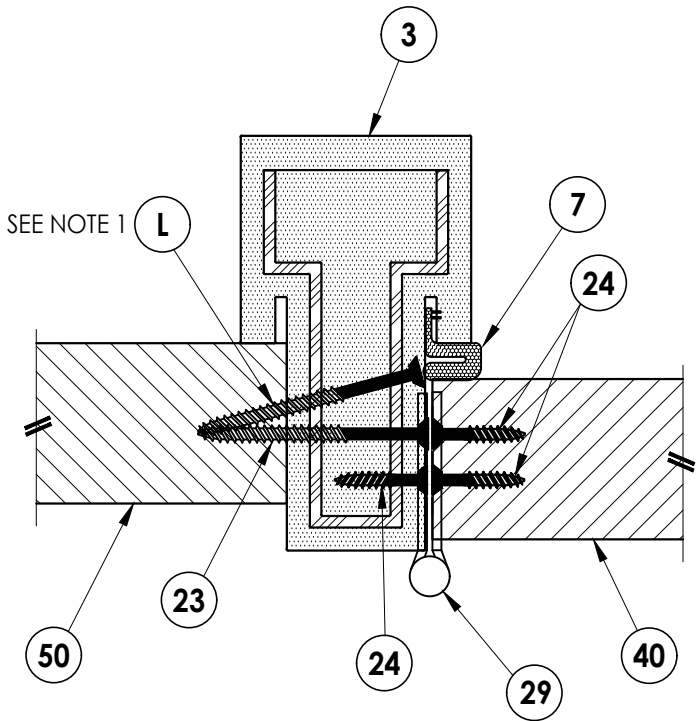
CHK. BY: LFS

DRAWING NO.: FL-21852.4

SHEET 6 OF 12

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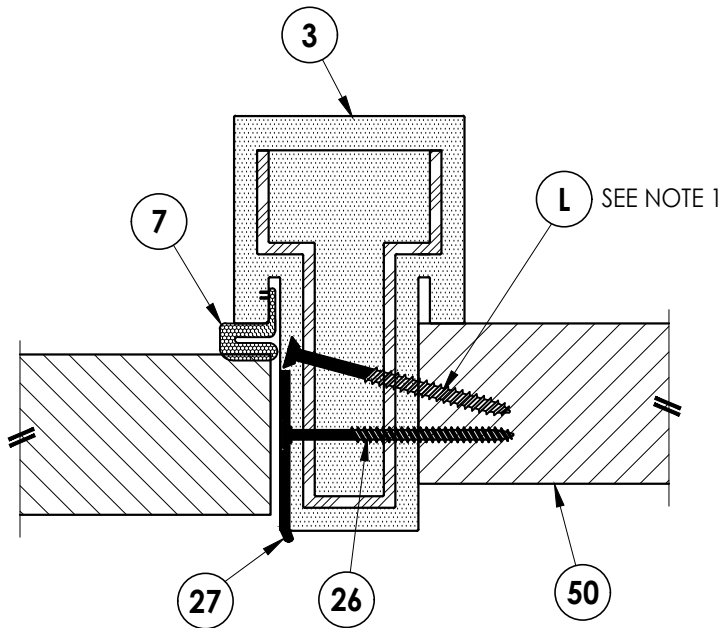
NOTE:
1. Item #L located 4" from each end then 7 more equally spaced (9 total).



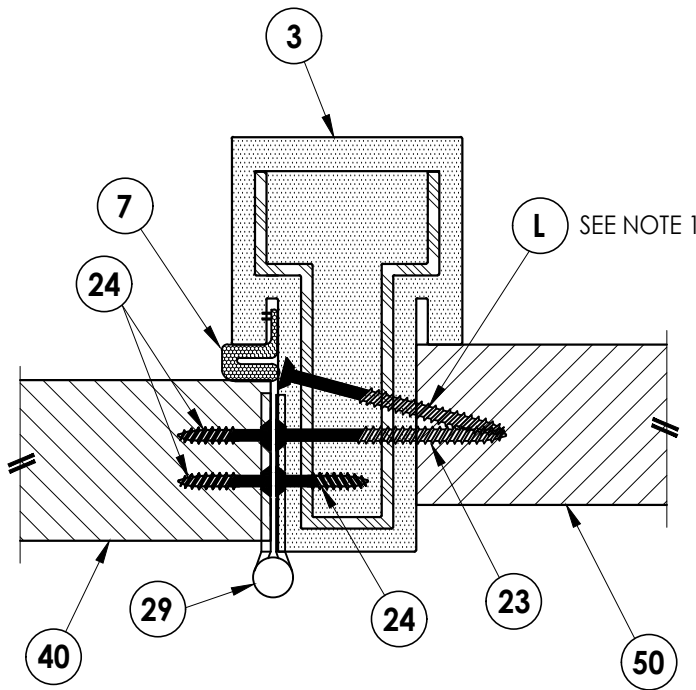
1
7 **HORIZONTAL CROSS SECTION**
Inswing shown (Outswing similar)

EXTERIOR

INTERIOR



2
7 **HORIZONTAL CROSS SECTION**
Inswing shown (Outswing similar)



3
7 **HORIZONTAL CROSS SECTION**
Inswing shown (Outswing similar)

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FBPE Registry No. 9813

PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
HORIZONTAL
CROSS SECTIONS

NO.	DATE	REVISIONS
4	7/01/26	UPDATE TO 9TH ED. (2026) FBC LFS
3	7/01/23	UPDATE TO 8TH ED. (2023) FBC LFS
2	7/08/20	UPDATE TO 7TH ED. (2020) FBC LFS
1	10/03/17	UPDATE TO 6TH ED. (2017) FBC JK

DATE: 02/09/17

SCALE: N.T.S.

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DRAWING NO.: FL-21852.4

SHEET 7 OF 12

Diagram illustrating the Vertical Cross Section of a door threshold assembly, showing the interior and exterior sides.

Key components and labels:

- INTERIOR** (Left side)
- EXTERIOR** (Right side)
- 40**: Label for the vertical door frame.
- 8**: Label for the door.
- 13**: Label for the threshold assembly.
- H**: Label for the door handle.
- 1-1/4" MIN. EMB. (TYP.)**: Dimension indicating the minimum embedment depth of the threshold into the concrete base.
- 1** and **8**: Section markers.
- VERTICAL CROSS SECTION**: Title of the diagram.
- Inswing Sill**: Description of the door type.

INTERIOR

EXTERIOR

50

L

SEE NOTE 1

15

E

H

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

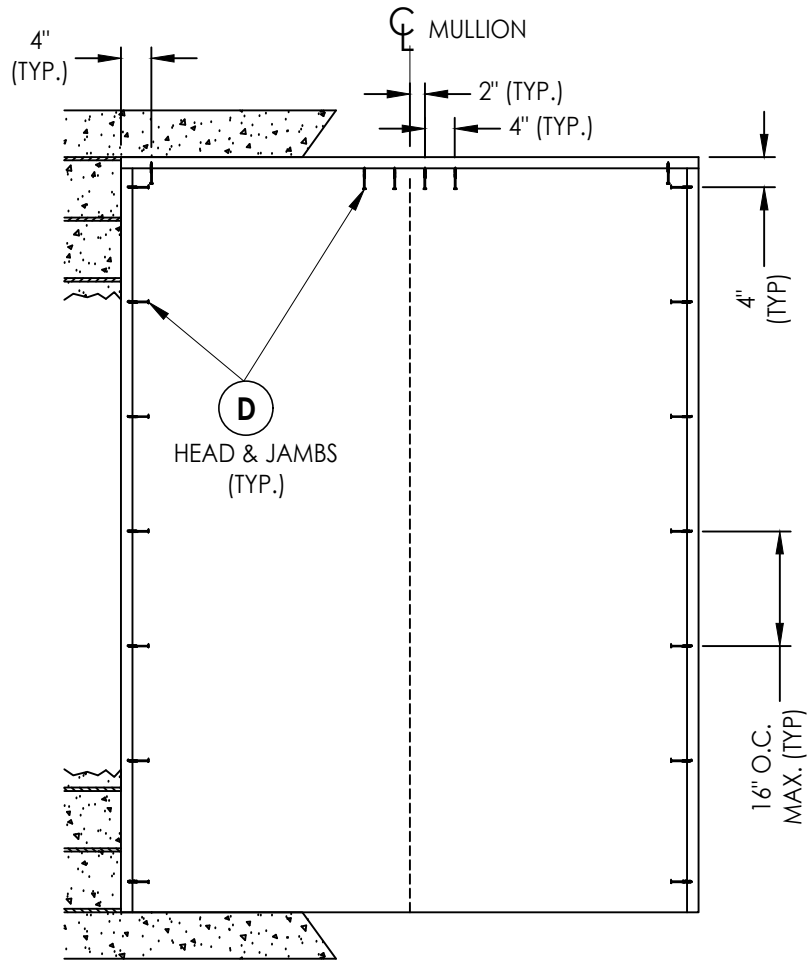
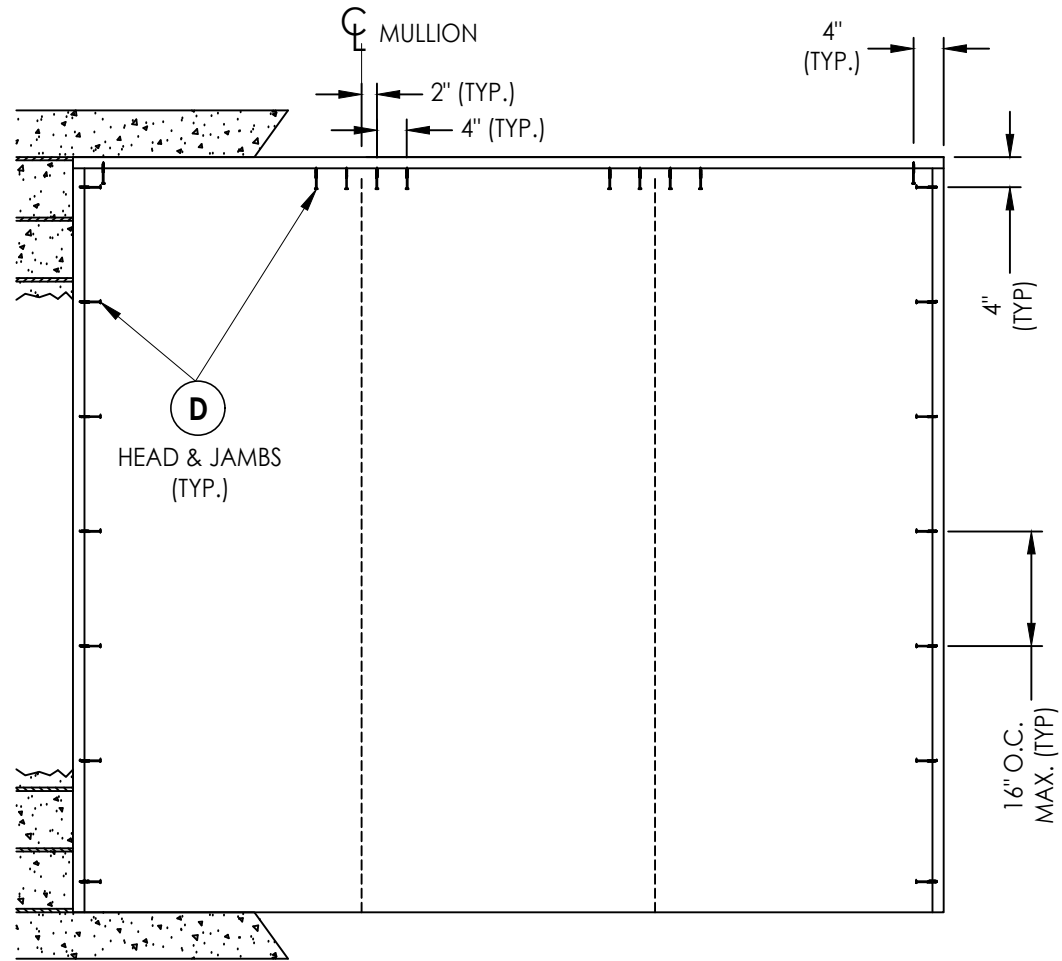
3 8 **VERTICAL CROSS SECTION**
Inswing Sill

A detailed vertical cross-section diagram of an outswing door sill assembly. The diagram is divided into two main regions: 'EXTERIOR' on the left and 'INTERIOR' on the right. The exterior wall is shown with diagonal hatching and is labeled with a circled '40'. The interior wall is also hatched and labeled with a circled '7'. A door frame is shown in the center, with a door leaf partially visible on the interior side, labeled with a circled '14'. The door frame is mounted on a concrete or masonry base, which is labeled with a circled 'E'. A vertical dimension line on the right side of the base indicates a minimum height of '1-1/4" MIN.' and a typical height of 'EMB. (TYP.)'. A circled 'H' points to the base of the door frame. At the bottom, a circular callout contains the numbers '2' and '8' separated by a horizontal line, followed by the text 'VERTICAL CROSS SECTION' and 'Outswing Sill'.

Diagram illustrating the Vertical Cross Section of a window sill assembly, showing the exterior wall (50), interior wall (16), window frame (L), and the sill assembly (E) embedded in the concrete base (4). The sill is shown with a drainage channel (D) and a minimum embedment depth of 1-1/4" MIN. EMB. (TYP.).

4 **VERTICAL CROSS SECTION**
8 Outswing Sill

[illegible]

XOOXO

2X BUCK ANCHORING

[illegible]

DATE: 02/09/17

SCALE: *N.T.S.*

DWG. BY: JK

CHK. BY: LFS

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FL-21852.4

SHEET 9 OF 12

PRODUCT:

MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:

BUCK ANCHORING

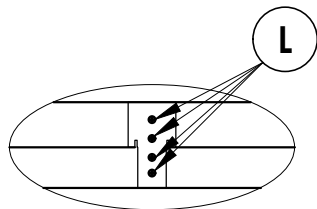
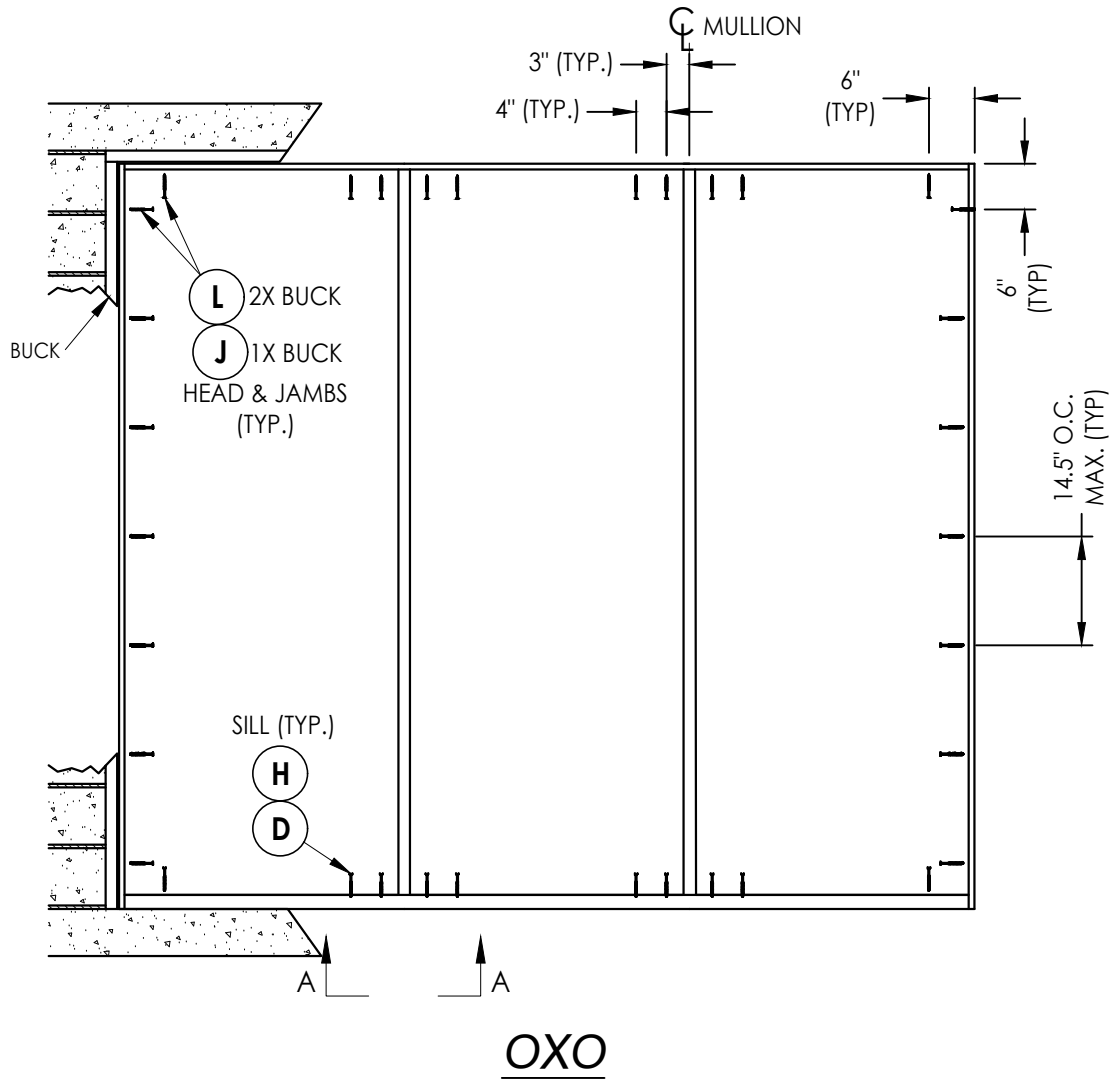
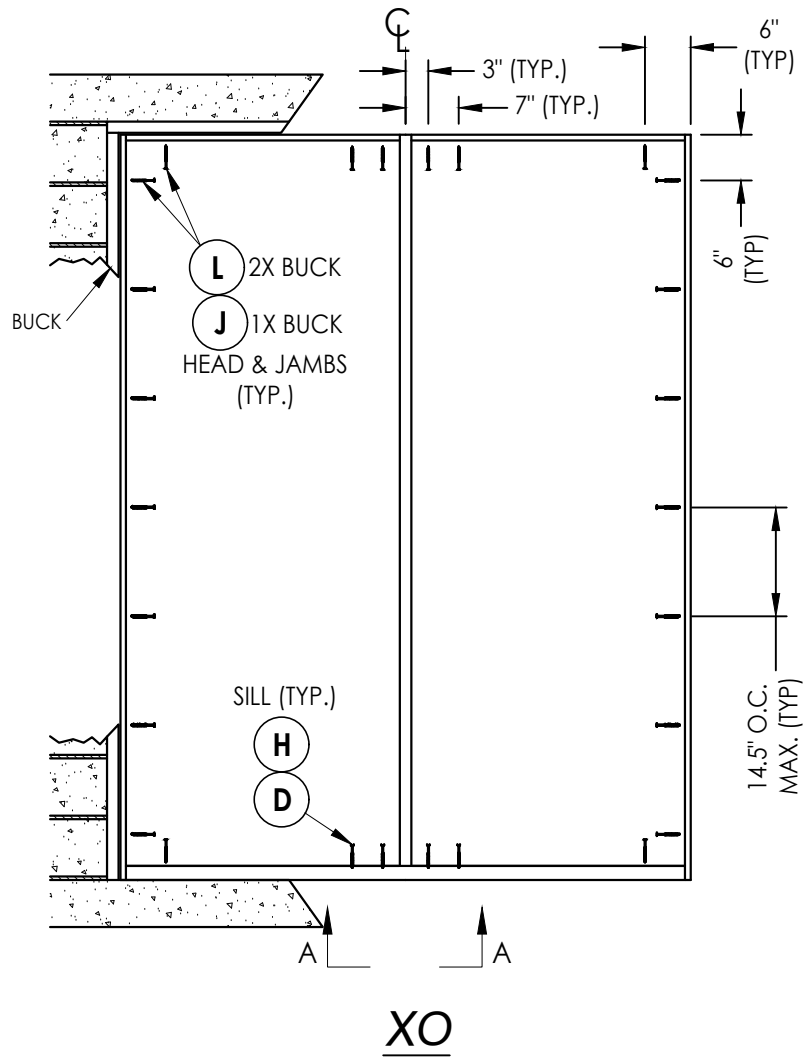
REVISIONS

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SECTION A-A
(TYP. AT HEAD AND SILL)

NOTE:
1. ALL FRAME CORNERS SECURED WITH (3) #8 X 2-1/2" FH DEEP THREAD
WOOD SCREWS @ HEAD & SILL.

FRAME ANCHORING

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PRODUCT:
MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
FRAME ANCHORING

NO.	DATE	REVISIONS
4	7/01/26	UPDATE TO 9TH ED. (2026) FBC
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2	7/08/20	UPDATE TO 7TH ED. (2020) FBC
1	10/03/17	UPDATE TO 6TH ED. (2017) FBC
NO.	DATE	BY

DATE:	02/09/17
SCALE:	N.T.S.
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CHK. BY:	LFS
DRAWING NO.:	FL-21852.4
SHEET	10 OF 12

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BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK (SG >= 0.42)	WOOD
B	2X BUCK (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	3/16" X 3-1/4" PFH ITW CONCRETE SCREW	STEEL
H	1/4" X 2-1/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
J	1/4" X 3-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
1	COMPOSITE JAMB	COMP
3	MULLION	ALUM/COMP
7	WEATHERSTRIP	FOAM
8	SWEEP	VINYL
13	INSWING ADJUSTABLE THRESHOLD	ALUM/COMP
14	OUTSWING BUMP THRESHOLD	ALUM/COMP
15	INSWING THRESHOLD (w/ SIDELITE ADAPTER)	ALUM/COMP
16	OUTSWING THRESHOLD (w/ SIDELITE ADAPTER)	ALUM/COMP
20	MULTIPOINT TONGUE STRIKE PLATE	STEEL
21	MULTIPOINT LATCH & DEADBOLT STRIKE PLATE	STEEL
23	#12 X 2-1/2" PFH WOOD SCREW	STEEL
24	#12 x 1" PFH WOOD SCREW	STEEL
26	#10 X 2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4.5" X 4.5" HINGE	STEEL
40	DOOR PANEL	-
50	SIDELITE PANEL	-

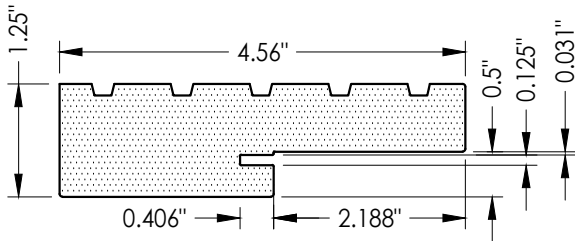
CONCRETE ANCHOR NOTES:

- 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:

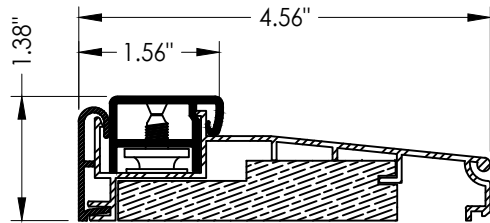
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
ELCO ULTRACON®	1/4"	1-1/4"	1"	4"
ITW TAPCON®	3/16"	1-1/4"	3"	1-1/2"

WOOD SCREW INSTALLATION NOTES:

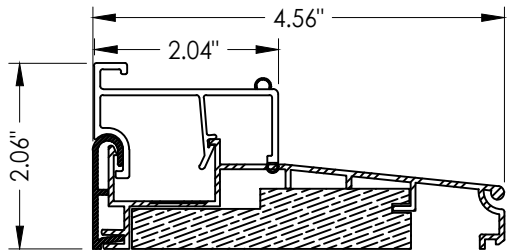
- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



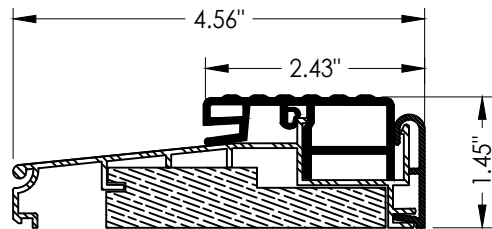
1 COMPOSITE JAMB
WORLDWIDE



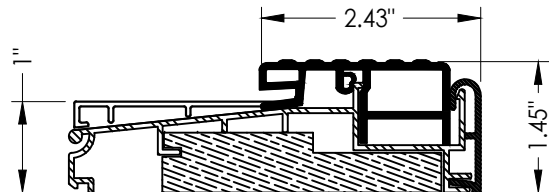
13 INSWING THRESHOLD
WORLDWIDE



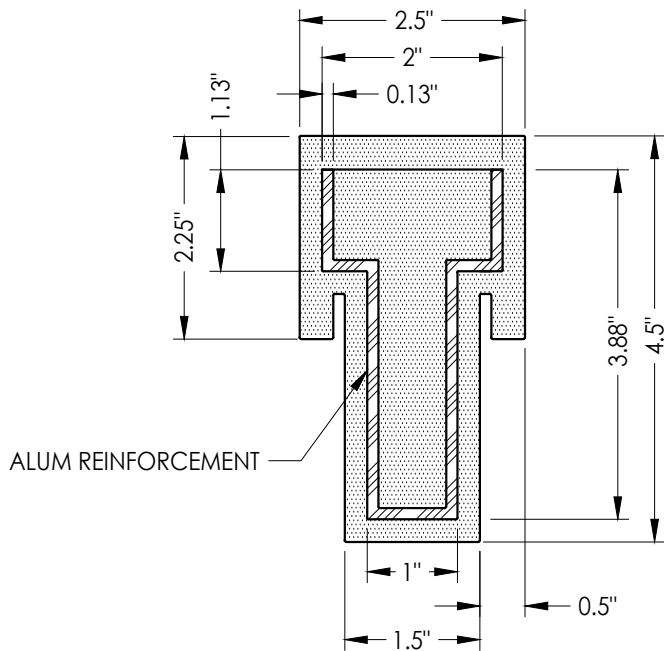
15 INSWING THRESHOLD w/ SIDELITE ADAPTER
WORLDWIDE



14 OUTSWING THRESHOLD
WORLDWIDE



16 OUTSWING THRESHOLD w/ SIDELITE ADAPTER
WORLDWIDE



3 COMPOSITE MULLION
WORLDWIDE

Documents Prepared By:

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RW BUILDING CONSULTANTS, INC.

P.O. Box 230, Valrico, FL 33595

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FBPE Registry No. 9813

PRODUCT:

MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:

BILL OF MATERIALS
& COMPONENTS

DATE: 02/09/17

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:

FL-21852.4

SHEET 12 OF 12