

Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg

FIBERGLASS OPAQUE

SINGLE DOOR

INSWING/OUTSWING

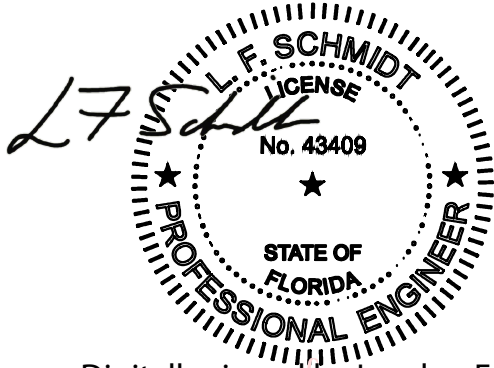
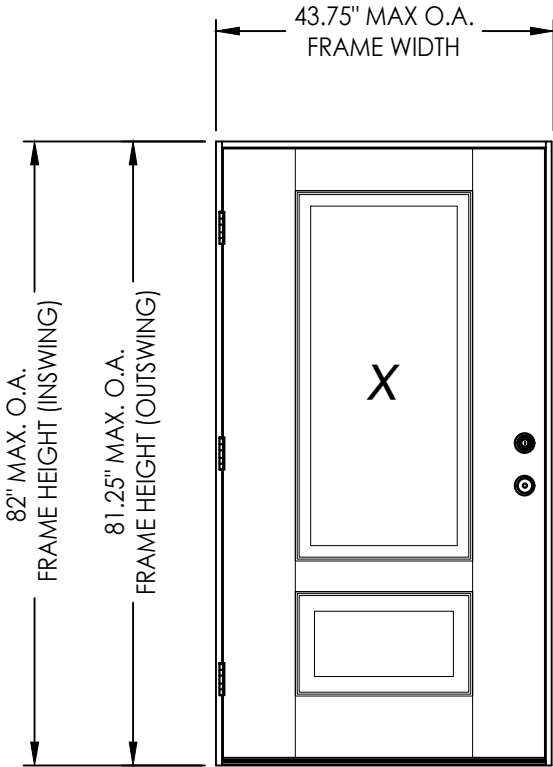
"IMPACT"

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.

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical Elevations, Design Pressures & General Notes
2	Door Panel Details
3	Elevation
4	Horizontal & Vertical Cross Sections (2X Buck)
5	Horizontal & Vertical Cross Sections (1X Buck)
6	Vertical Cross Sections (Thresholds)
7	Buck & Frame Anchoring
8	Hardware Details
9	Bill of Materials & Components

CONFIGURATION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
X	+75.0	-85.0	+75.0	-75.0



Digitally signed by Lyndon F Schmidt
Date: 2026.07.22 17:07:13 -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

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

MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN
PRESSURES & GENERAL NOTES

47/01/26
UPDATE TO 9TH ED. (2026)

37/01/23
UPDATE TO 8TH ED. (2023)

27/08/20
UPDATE TO 7TH ED. (2020)

110/03/17
UPDATE TO 6TH ED. (2017)

NO. 1

DATE

REVISIONS

DATE: 02/09/17

SCALE: N.T.S.

DWG. BY: JK

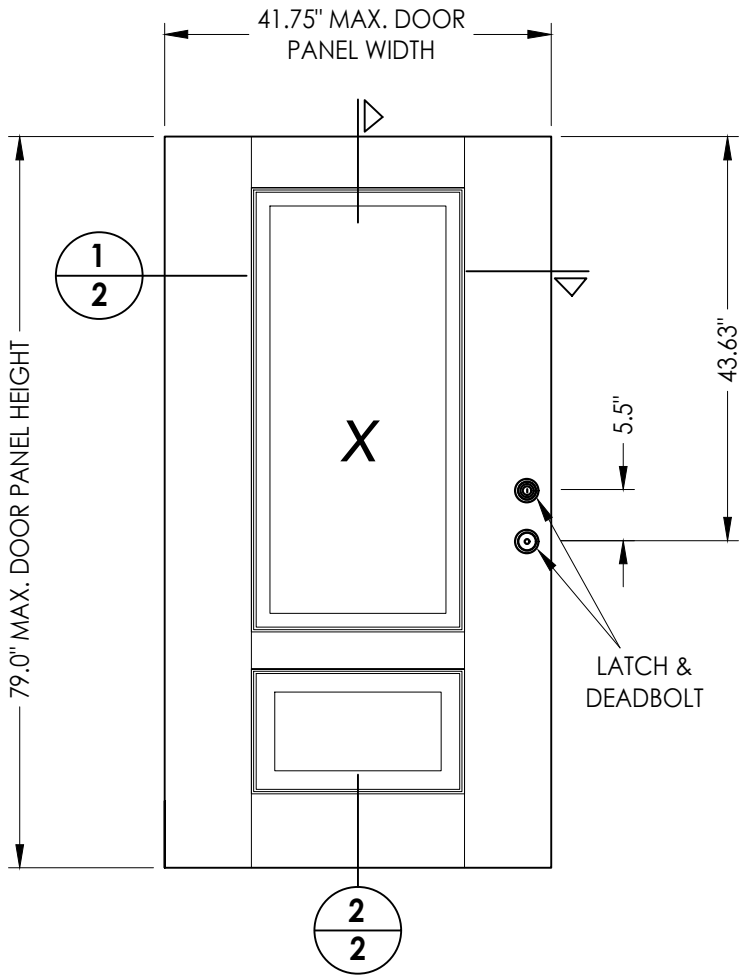
CHK. BY: LFS

DRAWING NO.:
FL-21852.11

SHEET 1 OF 9

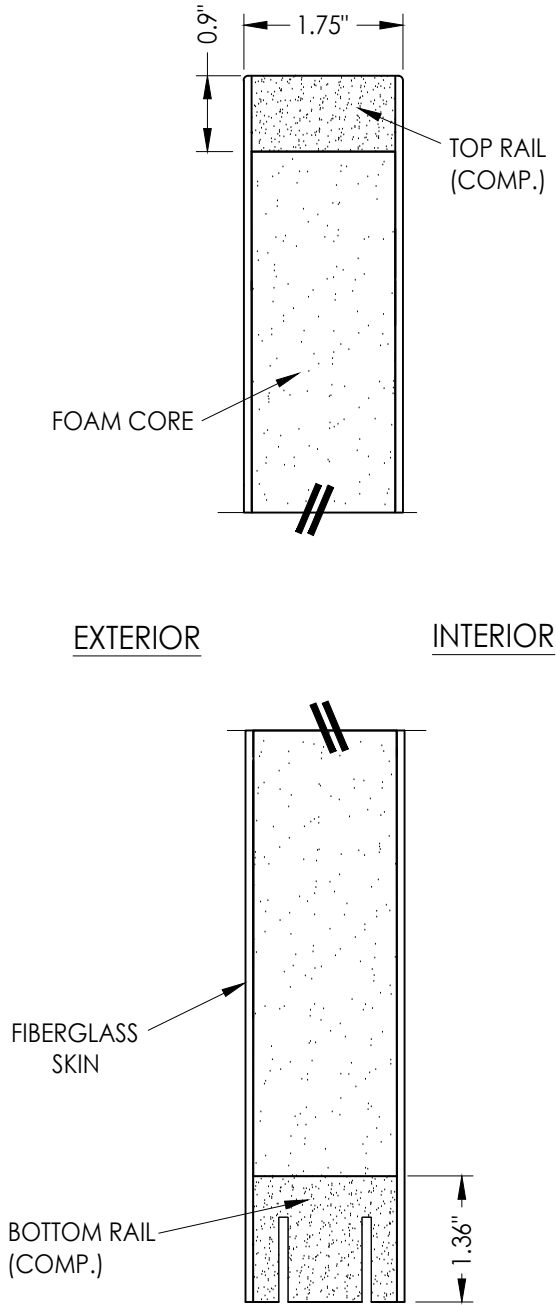
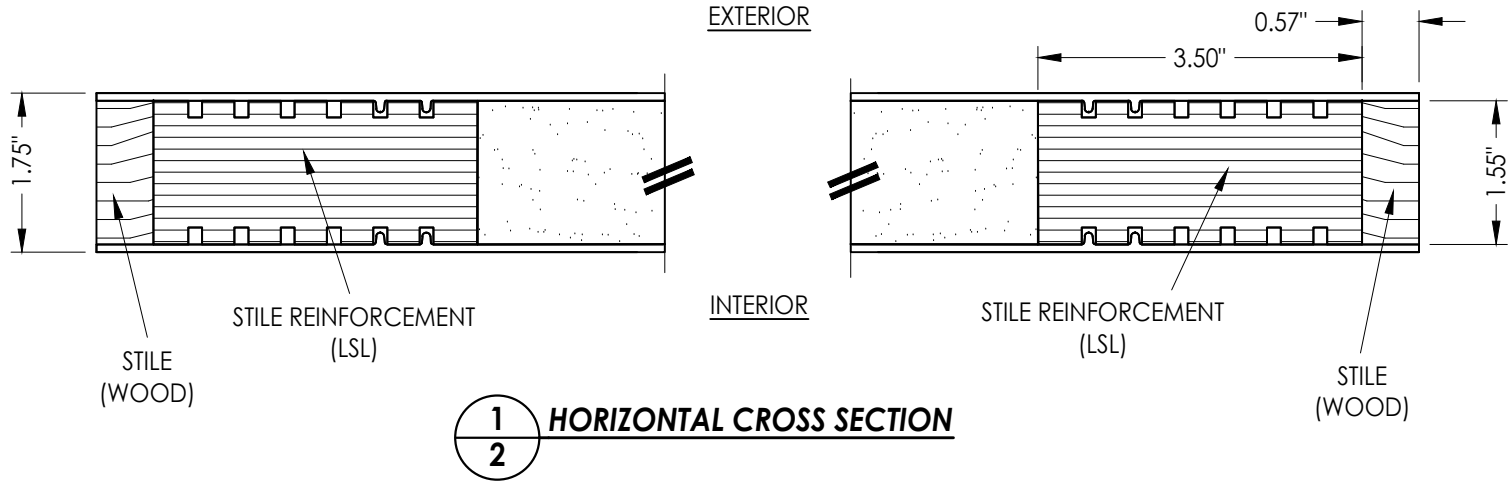
Building Consultants, Inc.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg



40 DOOR PANEL
Mastergrain

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



NO.	DATE	REVISIONS			
		DATE	BY	CHK.	APP.
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-21852.11

SHEET 2 OF 9

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:
MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:
DOOR PANEL DETAILS

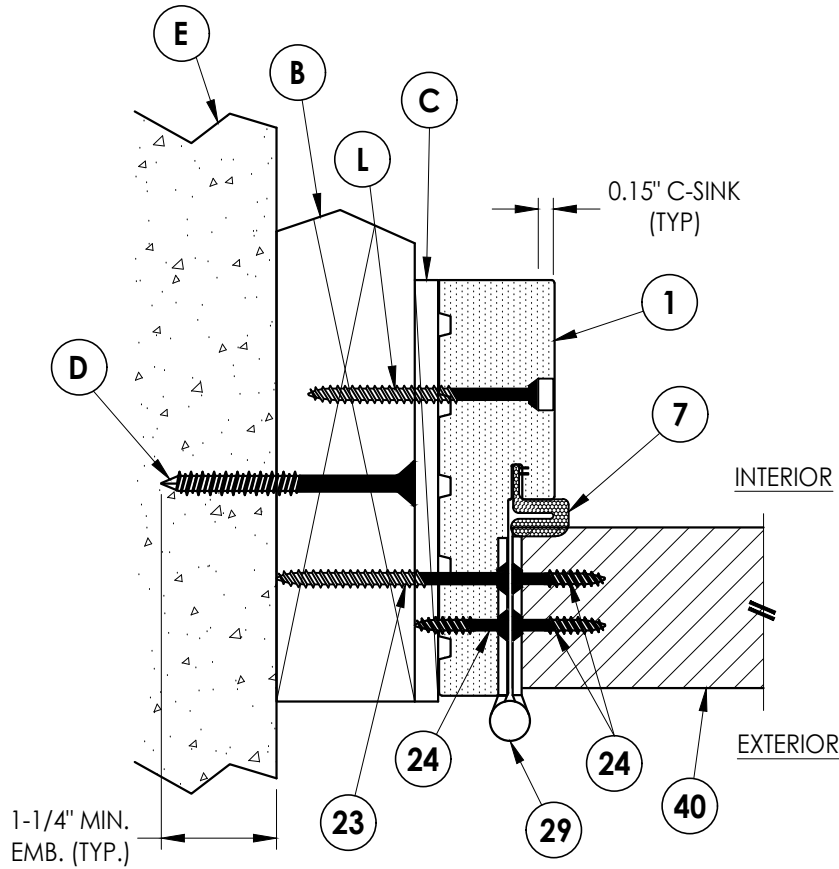
HARDWARE TABLE		
MANUFACTURER	MODEL	MAX. DESIGN PRESSURE
PAMEX	KNOB: FLU600 DEADBOLT: FD261	55 PSF
KWIKSET	KNOB: SIGNATURE SERIES DEADBOLT: SIGNATURE SERIES (980)	85 PSF
SCHLAGE	KNOB: F51 DEADBOLT: B60N	85 PSF
HOPPE	MULTIPOINT: HLS™ ONE (3 pt. Manual Tongue)	85 PSF

						LFS
						LFS
				4	7/01/26	UPDATE TO 9TH ED. (2026) FBC
				3	7/01/23	UPDATE TO 8TH ED. (2023) FBC
				2	7/08/20	UPDATE TO 7TH ED. (2020) FBC
				1	10/03/17	UPDATE TO 6TH ED. (2017) FBC
				NO.	DATE	JK BY
						REVISIONS
DATE: 02/09/17						
SCALE: N.T.S.						
DWG. BY: JK						
CHK. BY: LFS						
DRAWING NO.: FL-21852.11						
SHEET 3 OF 9						

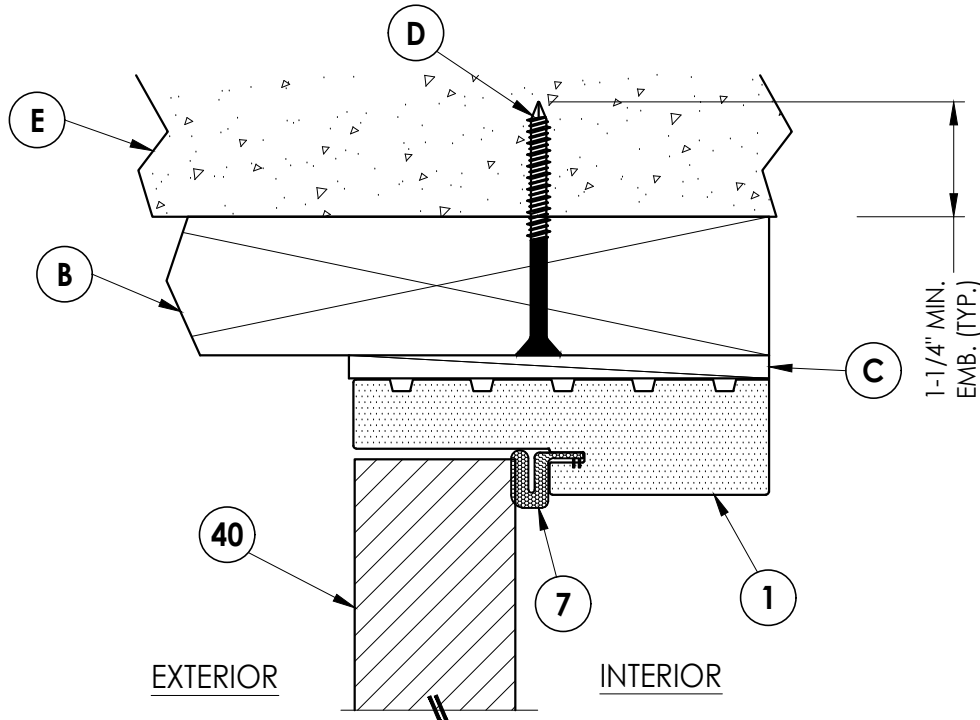
PRODUCT:	MASTERGRAIN FIBERGLASS DOOR
PART OR ASSEMBLY:	ELEVATION

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

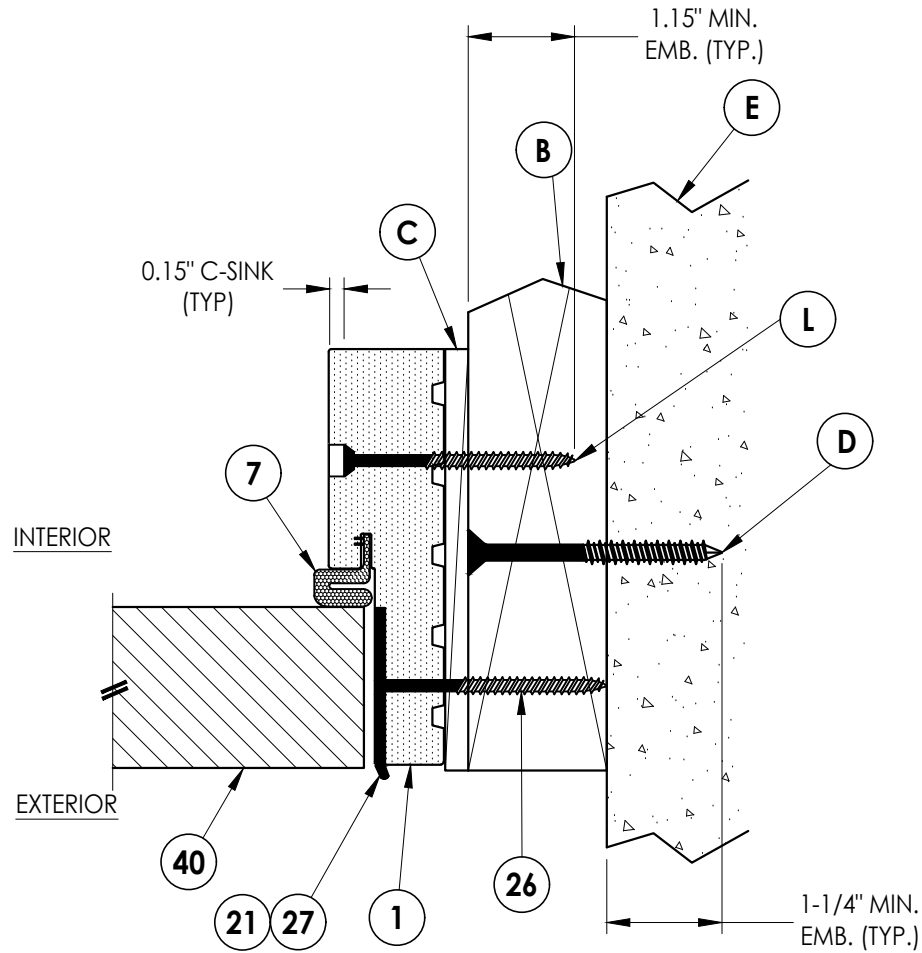
Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg



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



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



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

PRODUCT:	MASTERGRAIN FIBERGLASS DOOR
PART OR ASSEMBLY:	HORIZONTAL & VERTICAL CROSS SECTIONS (2X BUCK)

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

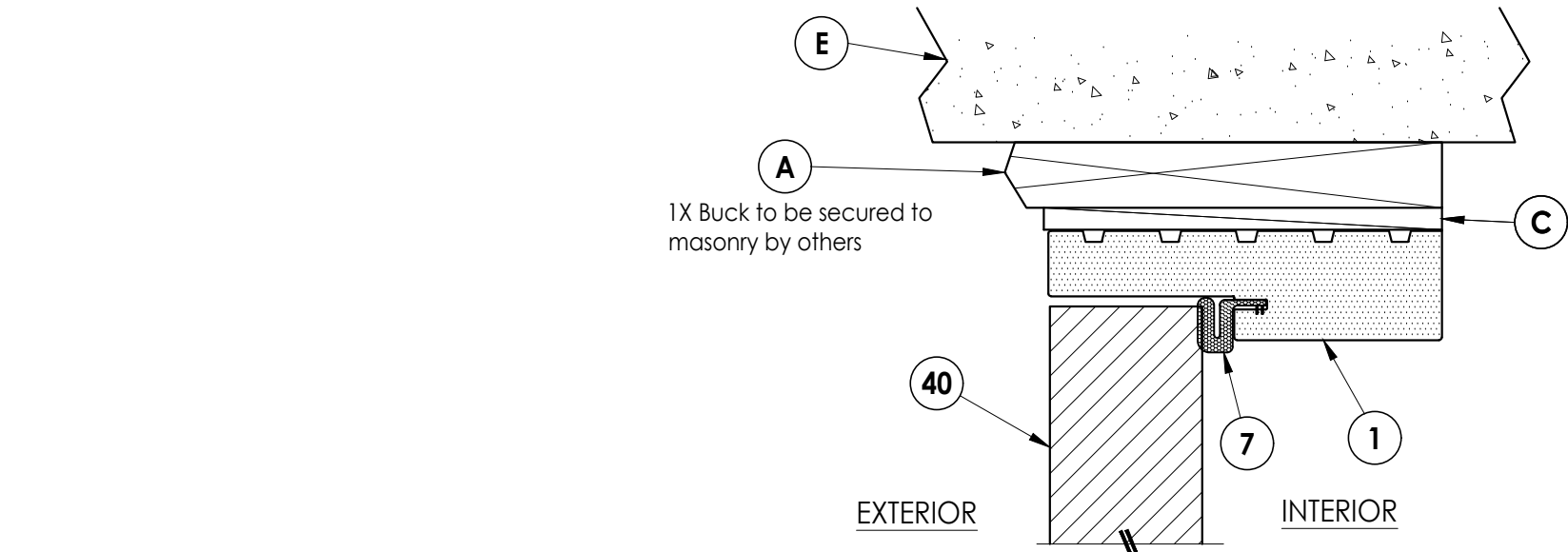
DATE		NO.		DATE		BY	
02/09/17		4	7/01/26	UPDATE TO 9TH ED. (2026)	FBC	LFS	
		3	7/01/23	UPDATE TO 8TH ED. (2023)	FBC	LFS	
		2	7/08/20	UPDATE TO 7TH ED. (2020)	FBC	LFS	
		1	10/03/17	UPDATE TO 6TH ED. (2017)	FBC	JK	
DATE		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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		NO.		DATE		BY	
REVISIONS							

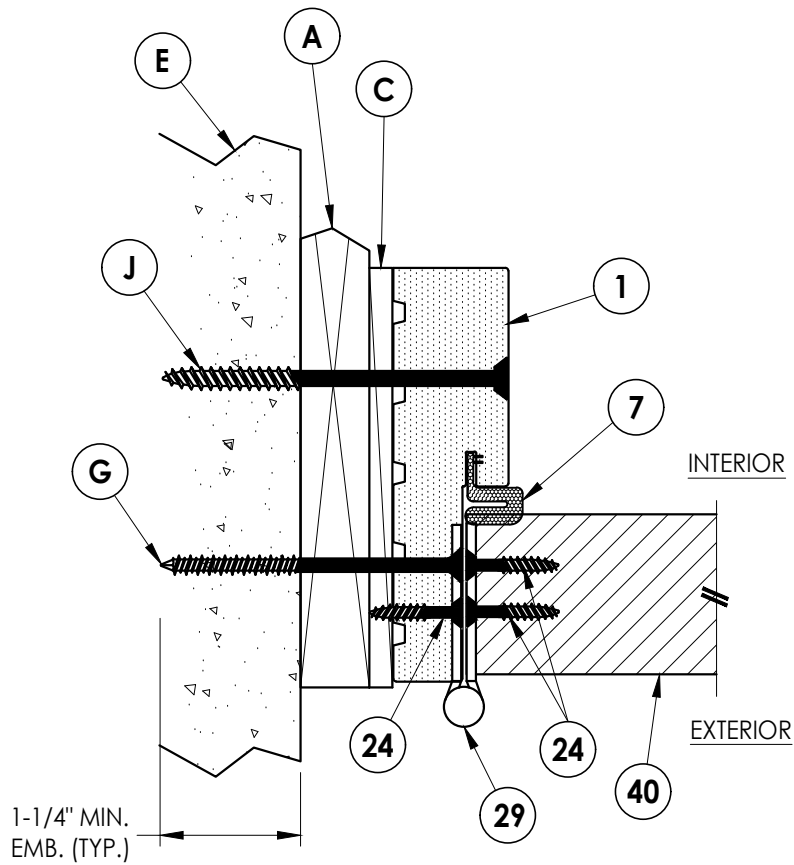
DATE		NO.		DATE		BY	
02/09/17		4	7/01/26	UPDATE TO 9TH ED. (2026)	FBC	LFS	
		3	7/01/23	UPDATE TO 8TH ED. (2023)	FBC	LFS	
		2	7/08/20	UPDATE TO 7TH ED. (2020)	FBC	LFS	
		1	10/03/17	UPDATE TO 6TH ED. (2017)	FBC	JK	
DATE		NO.		DATE		BY	
REVISIONS							

DATE		NO.		DATE		BY	
02/09/17		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			

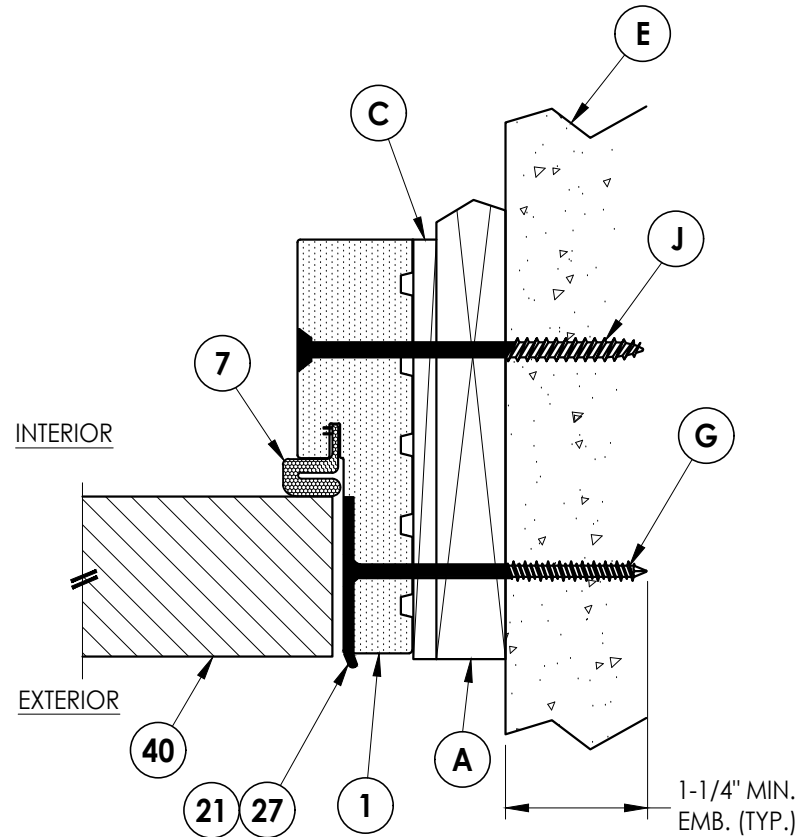
Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg



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



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



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

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:
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

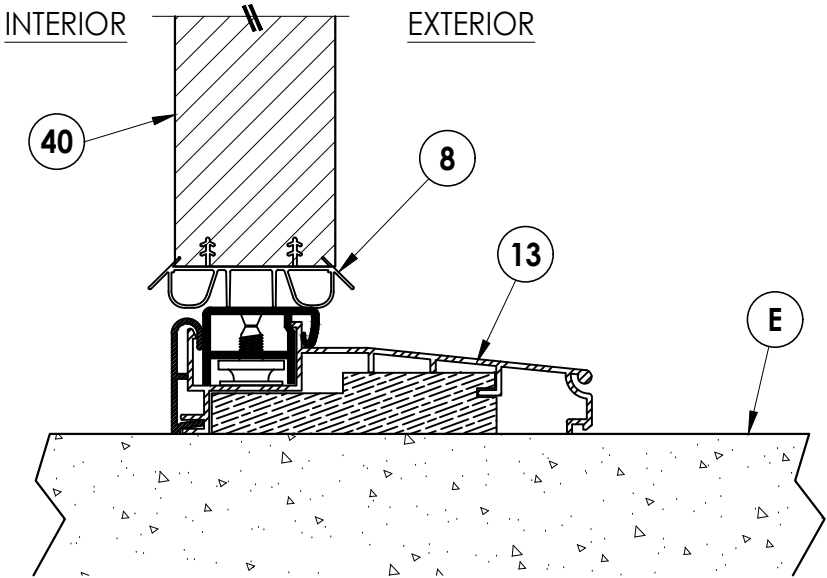
CHK. BY: LFS

DRAWING NO.:

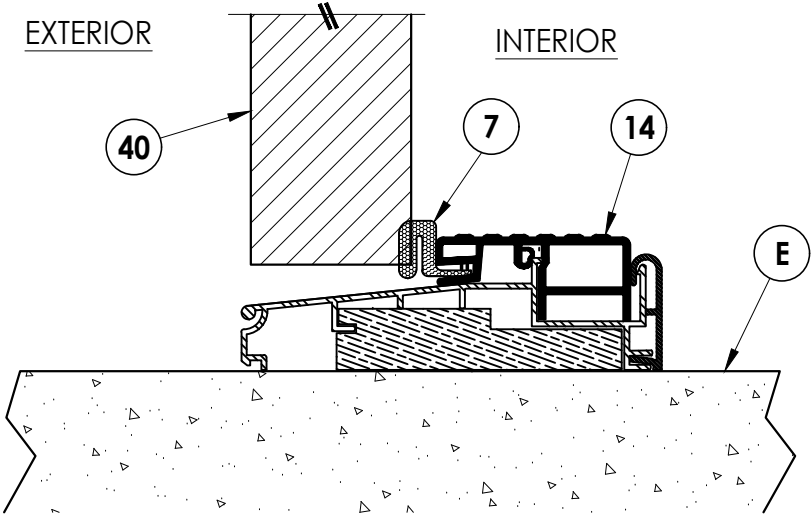
FL-21852.11

SHEET 5 OF 9

Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg



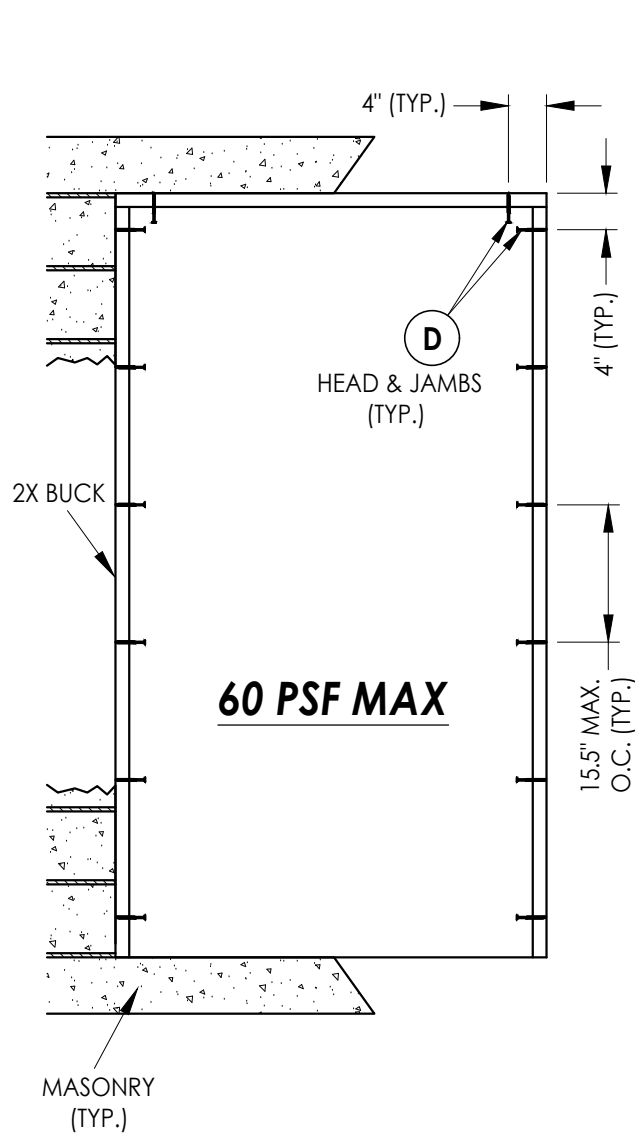
1
6 VERTICAL CROSS SECTION
Inswing Sill



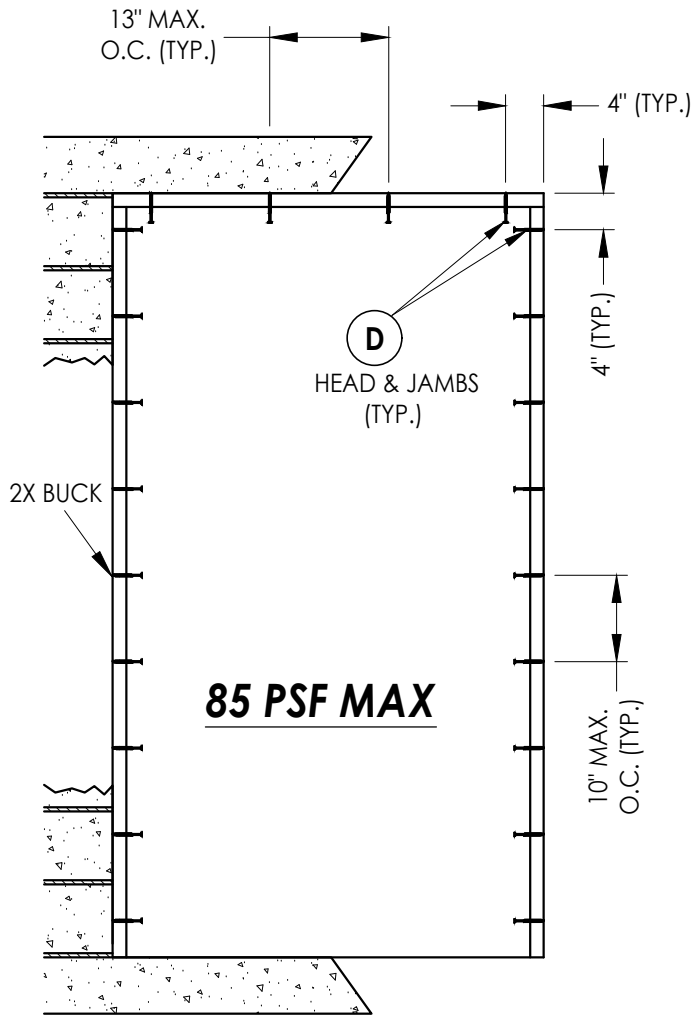
2
6 VERTICAL CROSS SECTION
Outswing Sill

Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409				BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813			
PRODUCT: MASTERGRAIN FIBERGLASS DOOR				PART OR ASSEMBLY: VERTICAL CROSS SECTIONS (THRESHOLDS)			
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			
	NO.	DATE					
				REVISIONS			
DATE: 02/09/17							
SCALE: N.T.S.							
DWG. BY: JK							
CHK. BY: LFS							
DRAWING NO.: FL-21852.11							
SHEET 6 OF 9							

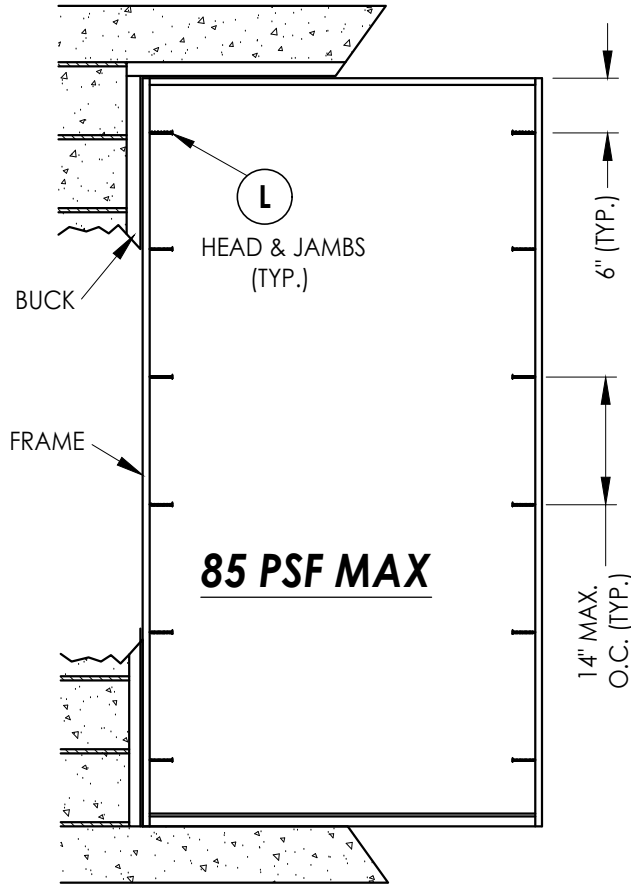
Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg



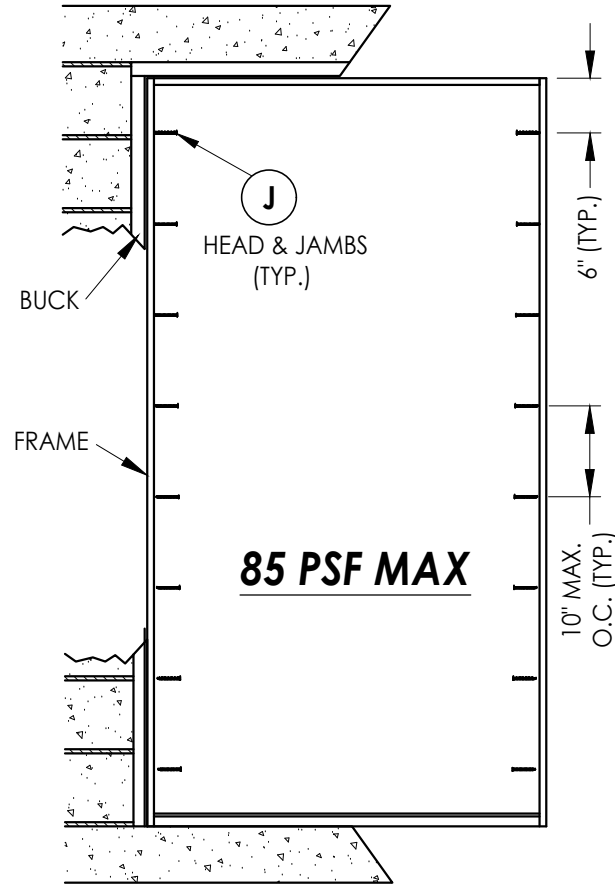
2X BUCK ANCHORING



2X BUCK ANCHORING



FRAME ANCHORING
2X BUCK CONSTRUCTION



FRAME ANCHORING
1X BUCK CONSTRUCTION

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

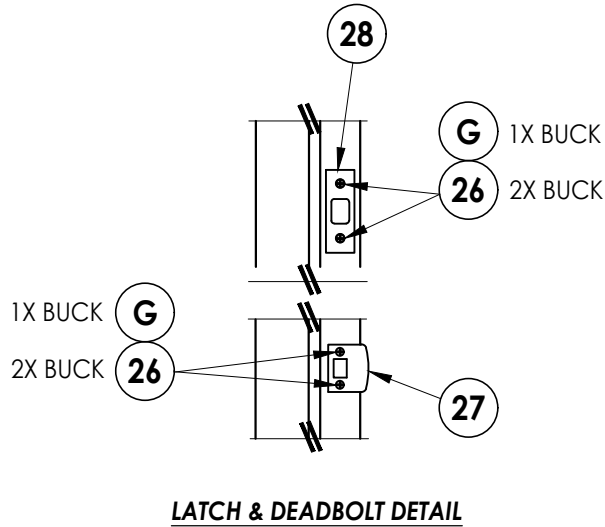
PRODUCT:		MASTERGRAIN FIBERGLASS DOOR	
PART OR ASSEMBLY:		BUCK & FRAME ANCHORING	
NO.	DATE	REVISIONS	BY
4	7/01/26	UPDATE TO 9TH ED. (2026) FBC	LFS
3	7/01/23	UPDATE TO 8TH ED. (2023) FBC	LFS
2	7/08/20	UPDATE TO 7TH ED. (2020) FBC	LFS
1	10/03/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE:	02/09/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	FL-21852.11
SHEET	7 OF 9

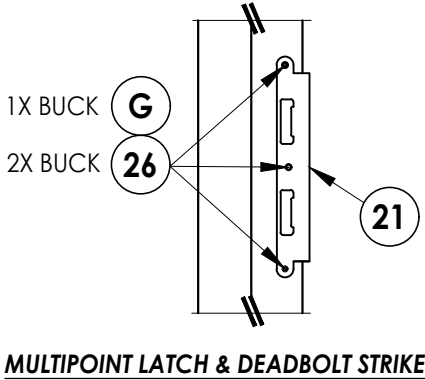
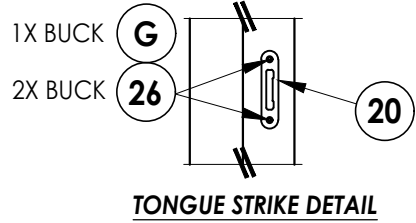
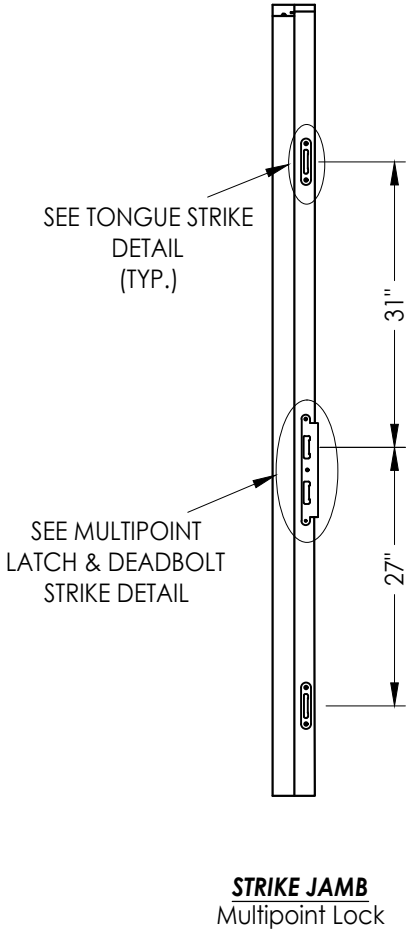
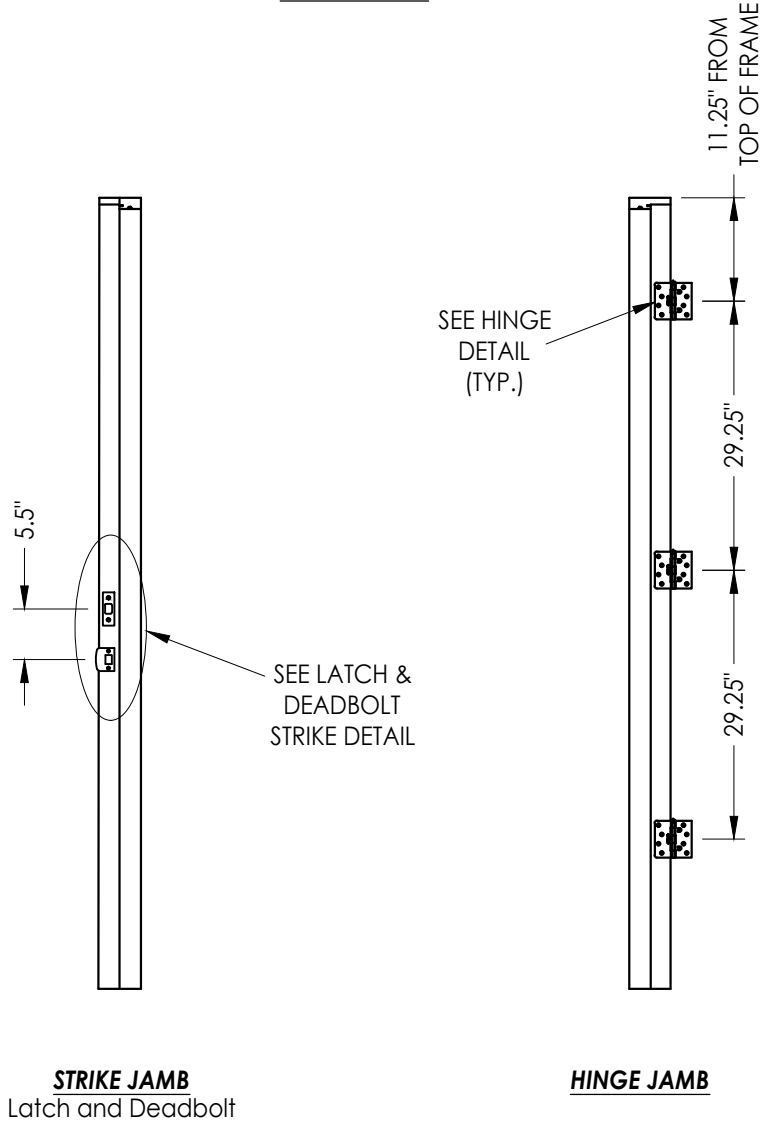
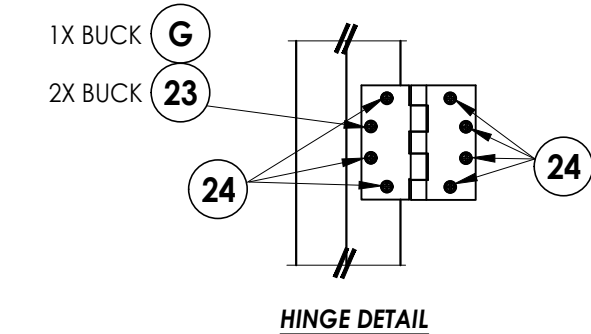
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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

Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg



LATCH & DEADBOLT HARDWARE DETAILS



PRODUCT:		MASTERGRAIN FIBERGLASS DOOR		PART OR ASSEMBLY:		HARDWARE DETAILS	
DOCUMENTS PREPARED BY:		Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC.		P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
DATE:		02/09/17		SCALE:		N.T.S.	
DWG. BY:		JK		CHK. BY:		LFS	
DRAWING NO.:		FL-21852.11		SHEET		8 OF 9	
NO.		DATE		REVISIONS		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		

MULTIPOINT LOCK HARDWARE DETAILS

Z:\2023 FBC Drawings\MasterGrain\FL-21852 R10\FL-21852.11-12.dwg

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 DeWALT 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
J	1/4" X 3-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
1	COMPOSITE JAMB	COMP
7	WEATHERSTRIP	FOAM
8	SWEEP	VINYL
13	INSWING ADJUSTABLE THRESHOLD	ALUM/COMP
14	OUTSWING BUMP THRESHOLD	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	#8 X 2-1/2" 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	-

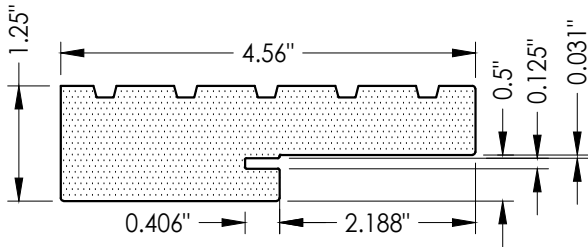
CONCRETE ANCHOR NOTES:

- 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:

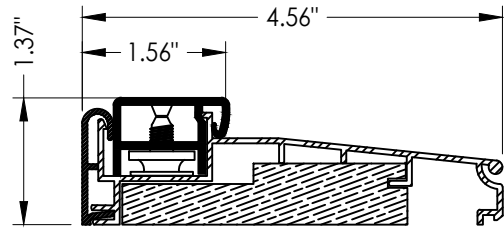
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
DeWALT ULTRACON®	1/4"	1-1/4"	1"	4"
ITW TAPCON®	3/16"	1-1/4"	3"	1-1/2"

WOOD SCREW INSTALLATION NOTES:

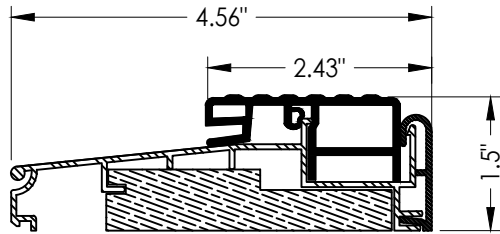
- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



1 COMPOSITE JAMB
WORLDWIDE



13 INSWING THRESHOLD
WORLDWIDE



14 OUTSWING THRESHOLD
WORLDWIDE

Documents Prepared By:

Lyndon F. Schmidt
P.E. No. 43409

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

RW

PRODUCT:

MASTERGRAIN
FIBERGLASS DOOR

PART OR ASSEMBLY:

BILL OF MATERIALS AND
COMPONENTS

DATE: 02/09/17

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:
FL-21852.11

SHEET 9 OF 9