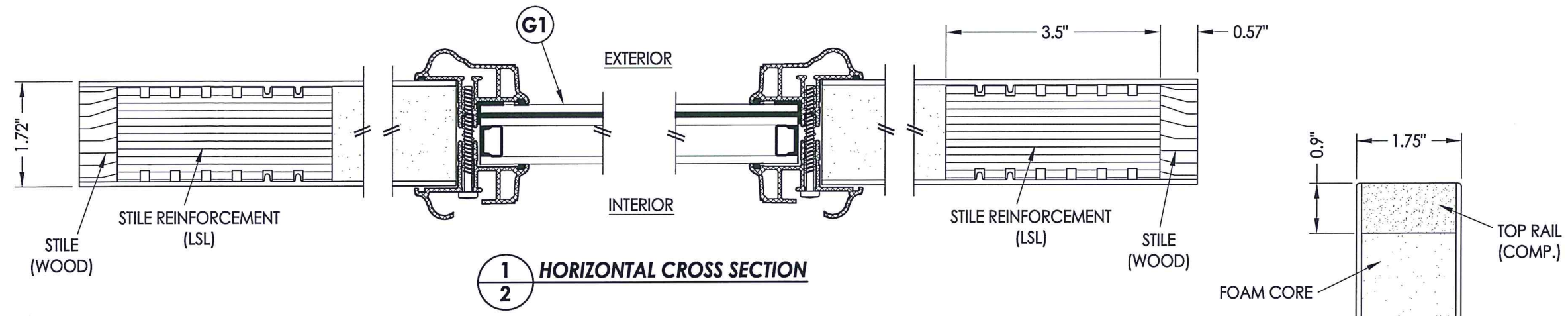


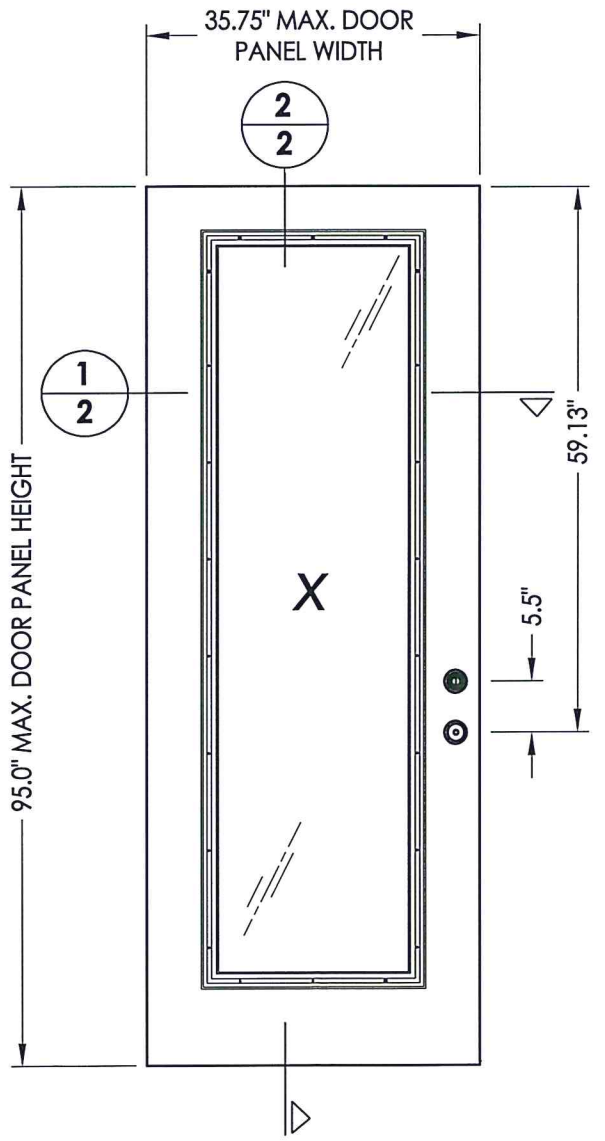




R:\Clients\Mastergrain PERMANENT\B - Texas Dept of Ins\TDI - DR 991 Fiberglass Door - Glazed Impact (8-0)\Drawings\TX-4891-93.dwg, 2.2

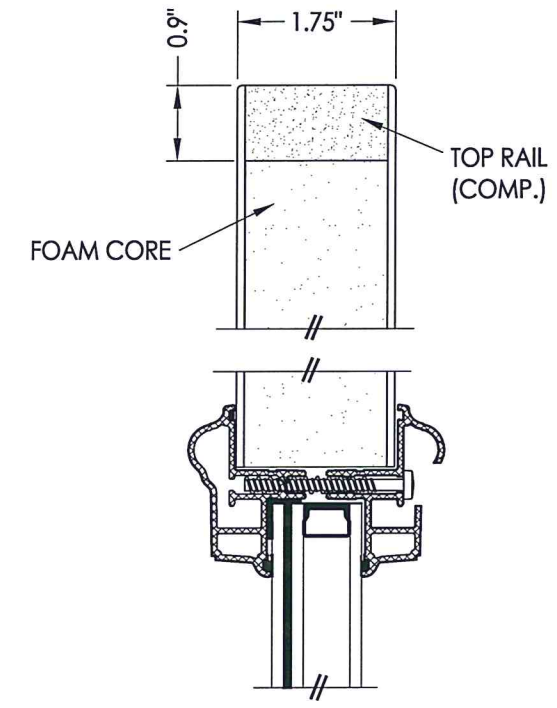


**1**  
**2** HORIZONTAL CROSS SECTION



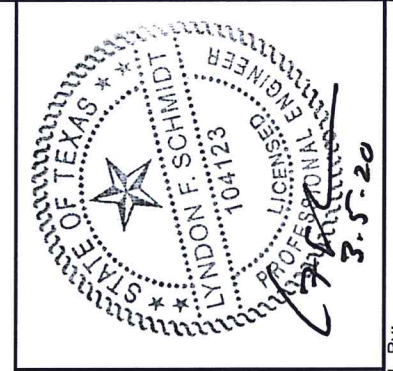
**40** DOOR PANEL  
Mastergrain

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



EXTERIOR INTERIOR

**2**  
**2** VERTICAL CROSS SECTION

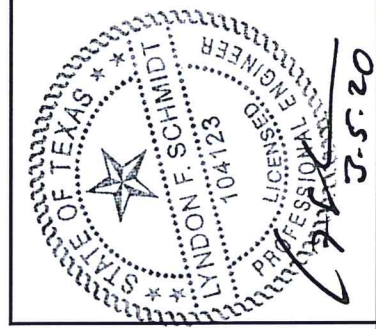
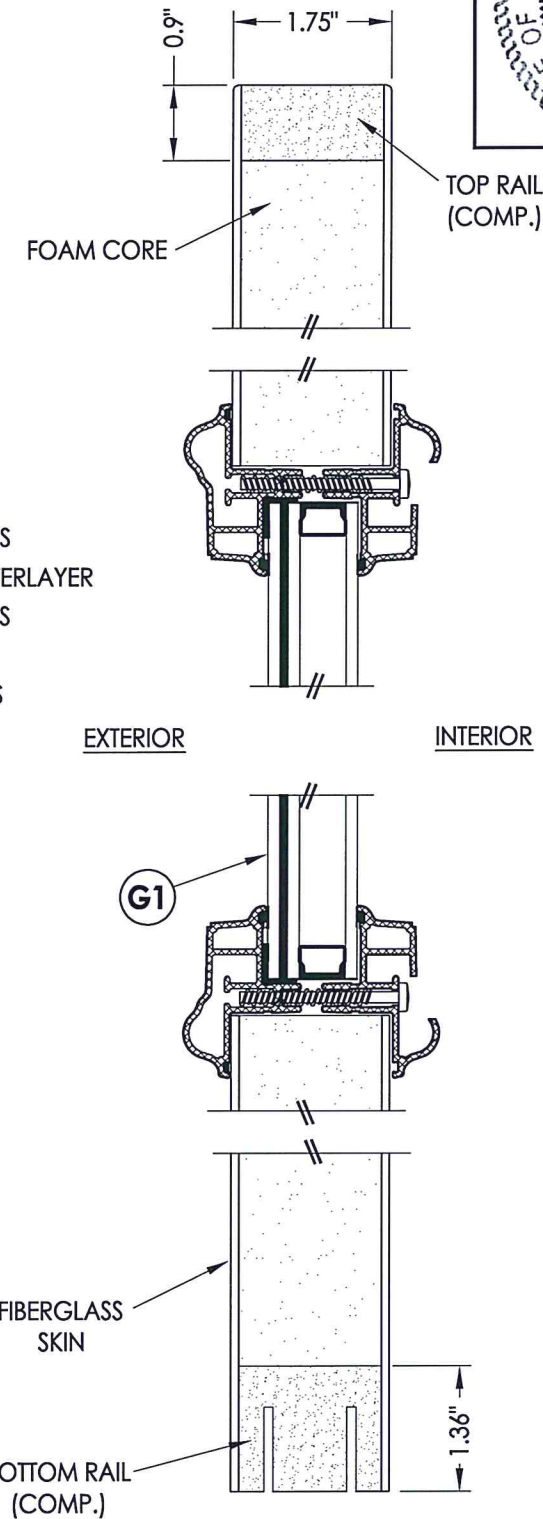
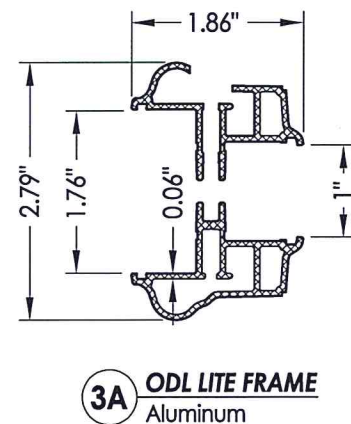
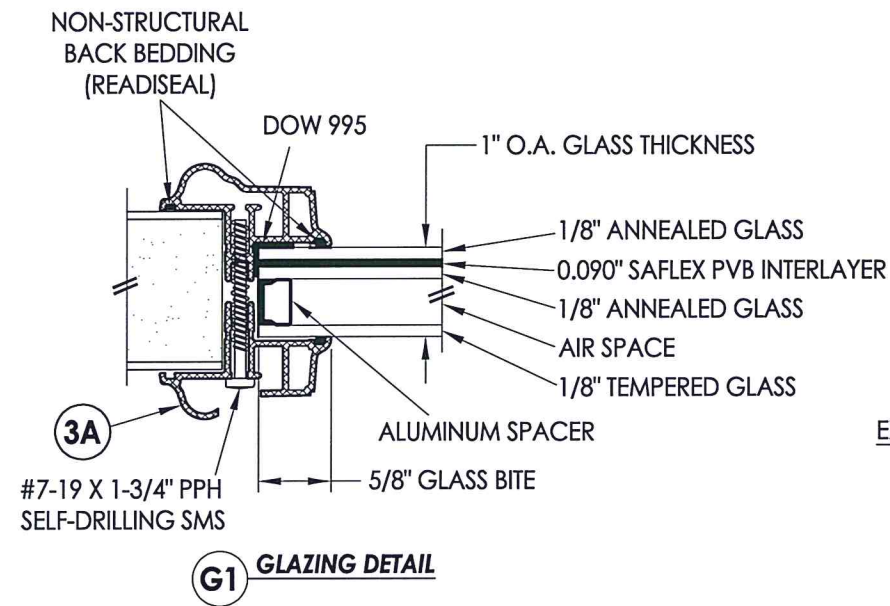
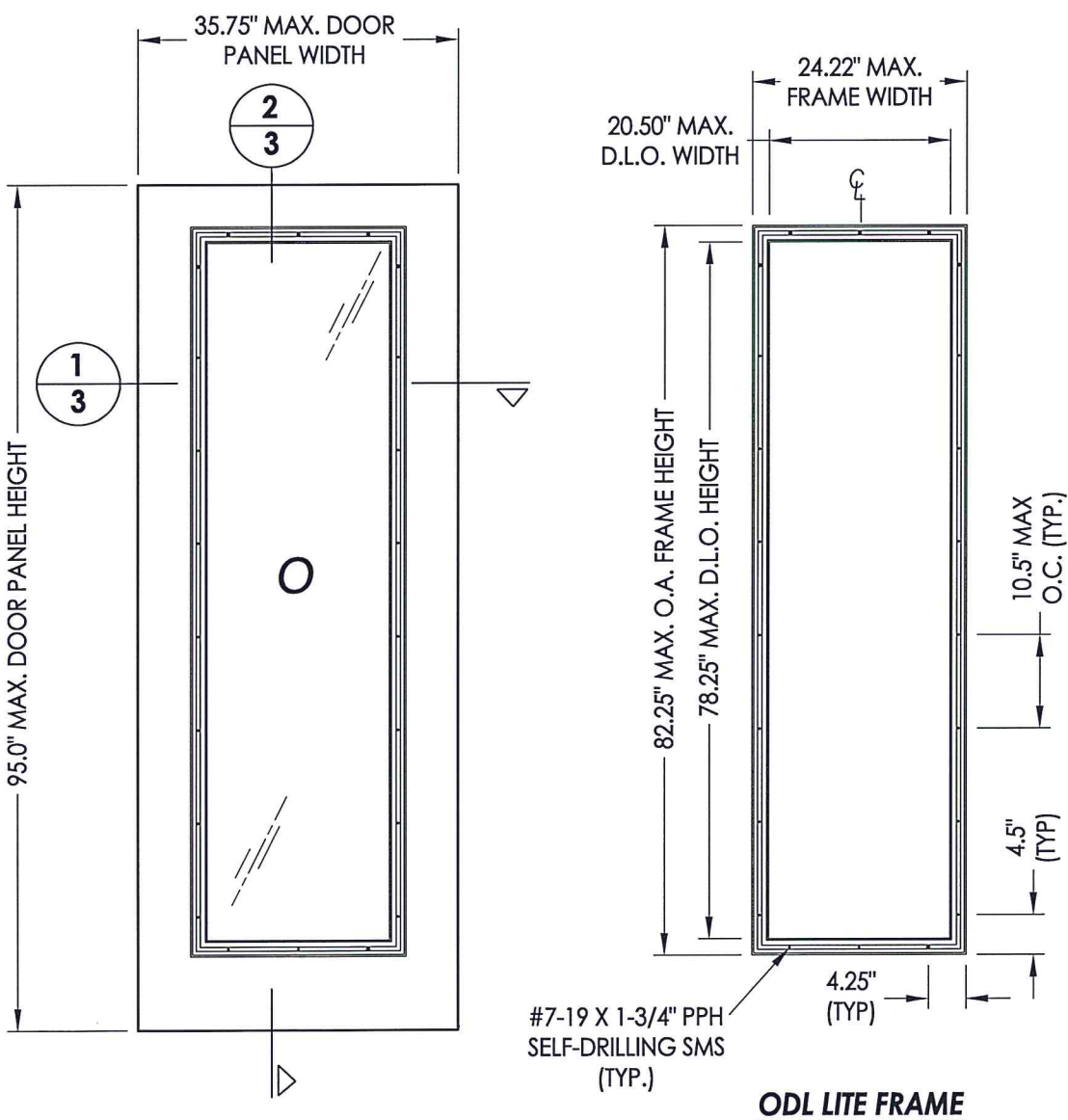
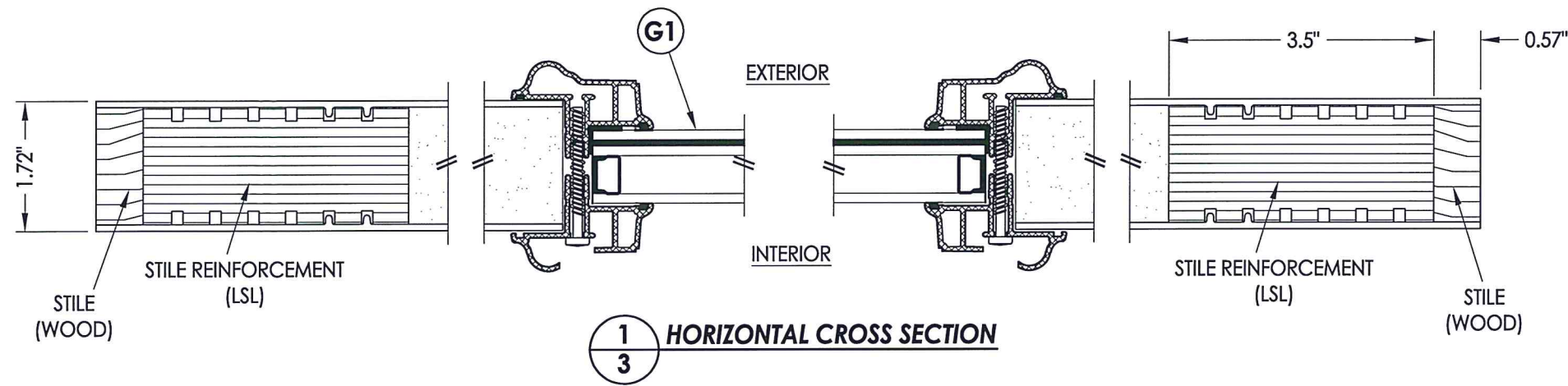


Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL, 33595  
Phone No.: 813.659.9197  
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:		MASTERGRAIN FIBERGLASS DOOR	
PART OR ASSEMBLY:		DOOR PANEL DETAILS	
NO.	DATE	IBC/IRC CODE	BY
1	3/05/20	UPDATE TO 2018	LFS
REVISIONS			
DATE: 9/04/18			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4892			
SHEET 2 OF 11			

R:\Clients\Mastergrain PERMANENT\B - Texas Dept of Ins\TDI - DR 991 Fiberglass Door - Glazed Impact (8-0)\Drawings\TX-4891-93.dwg, 3.2



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

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

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

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

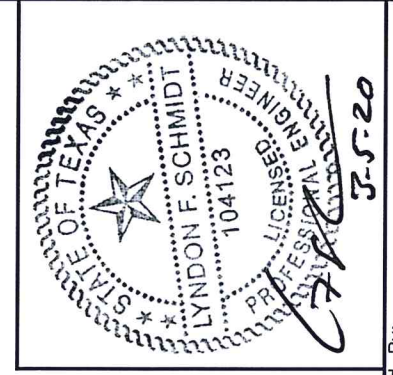
NO.	DATE	REVISIONS	BY
1	3/05/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE:	9/04/18
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4892
SHEET	3 OF 11

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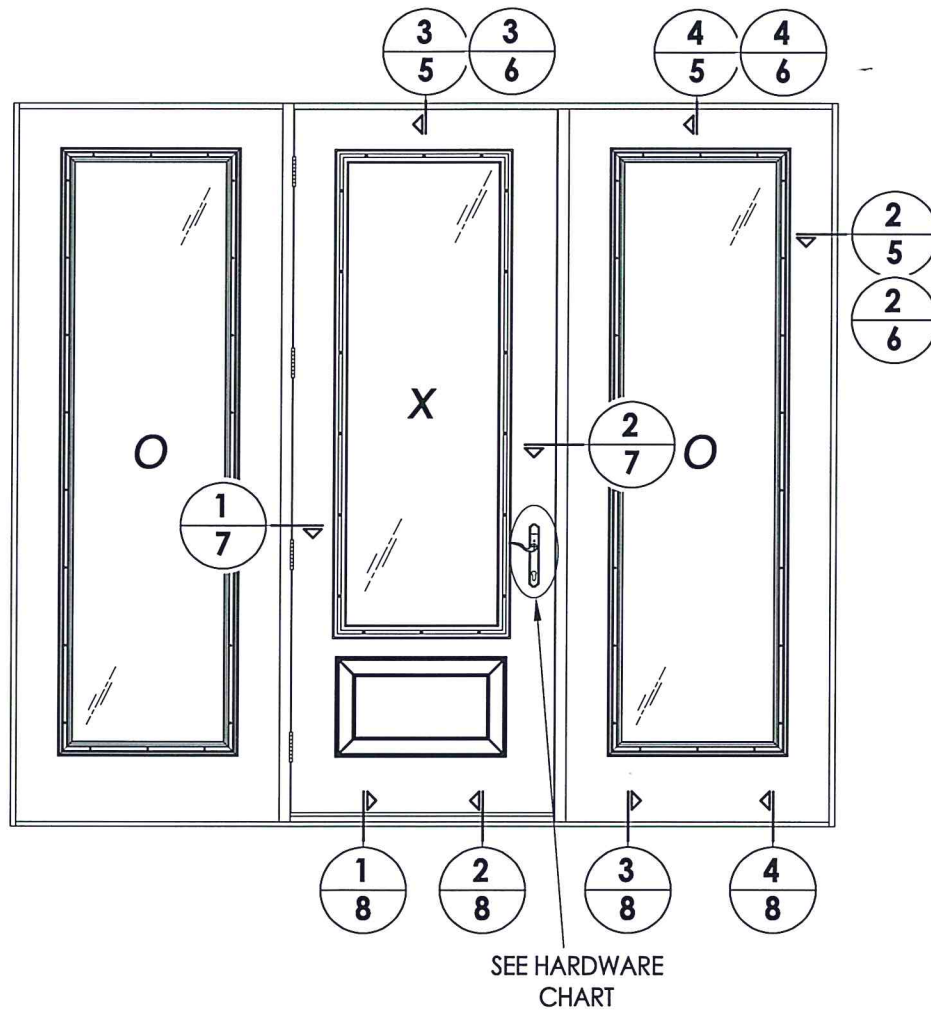
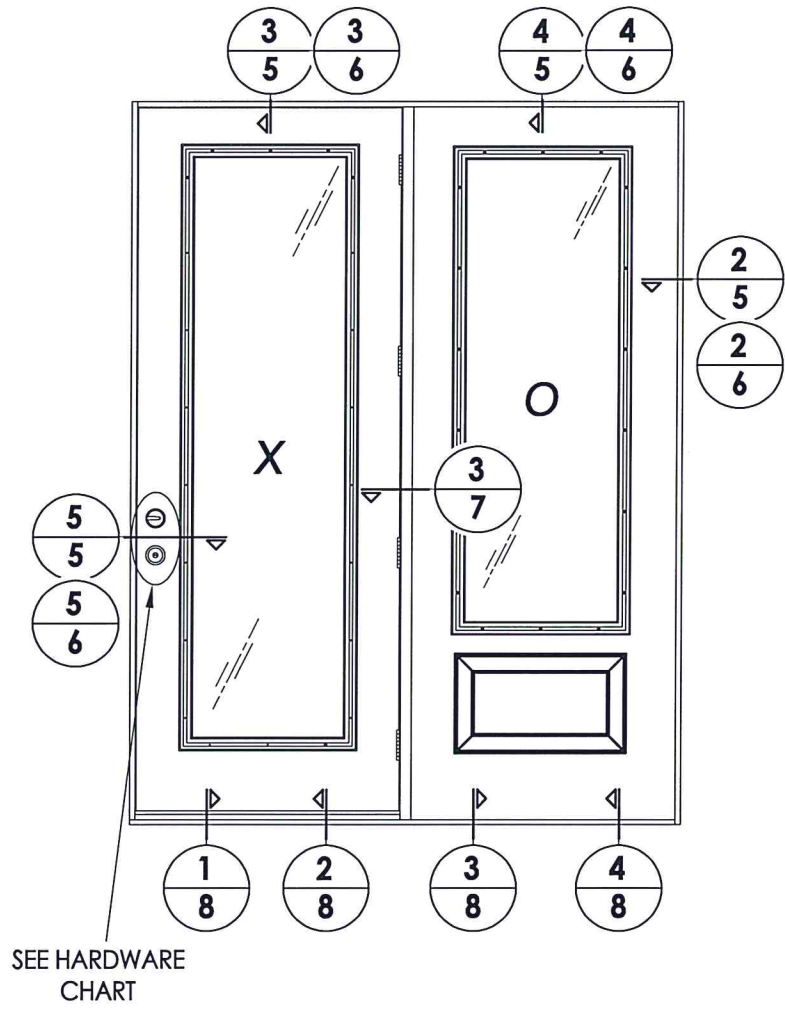
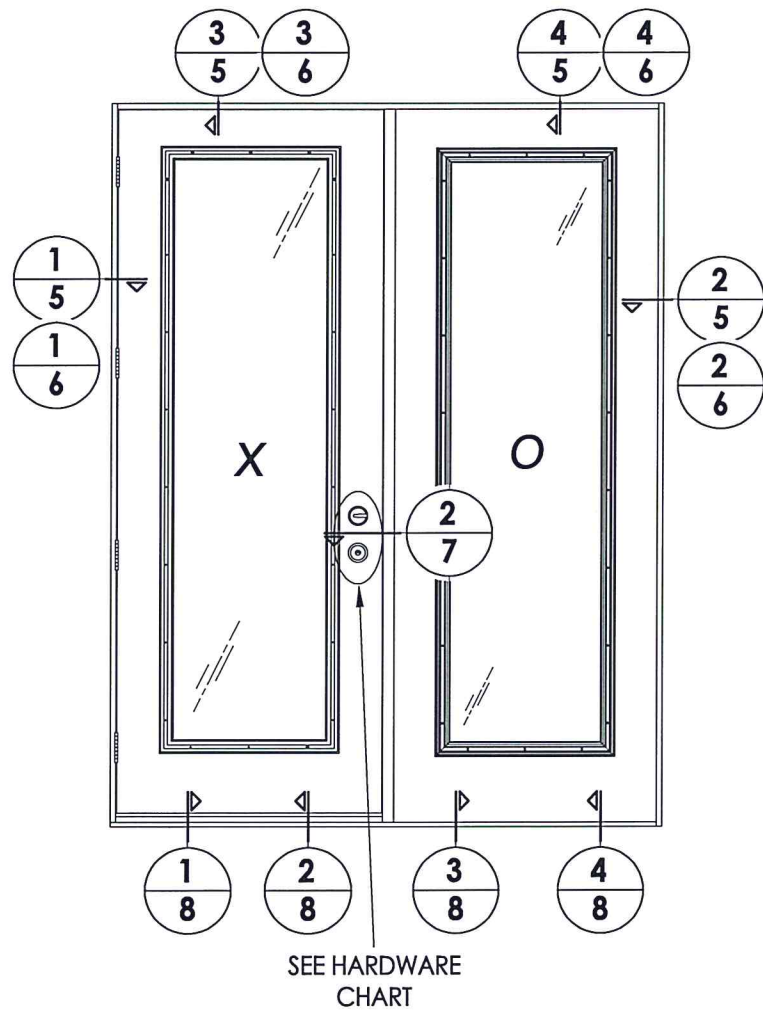


HARDWARE TABLE	
MANUFACTURER	MODEL
KWIKSET	KNOB: SIGNATURE SERIES DEADBOLT: SIGNATURE SERIES (980)
SCHLAGE	KNOB: F51 DEADBOLT: B60N
HOPPE	MULTIPOINT: HLS™ ONE (3 pt. Manual Tongue)



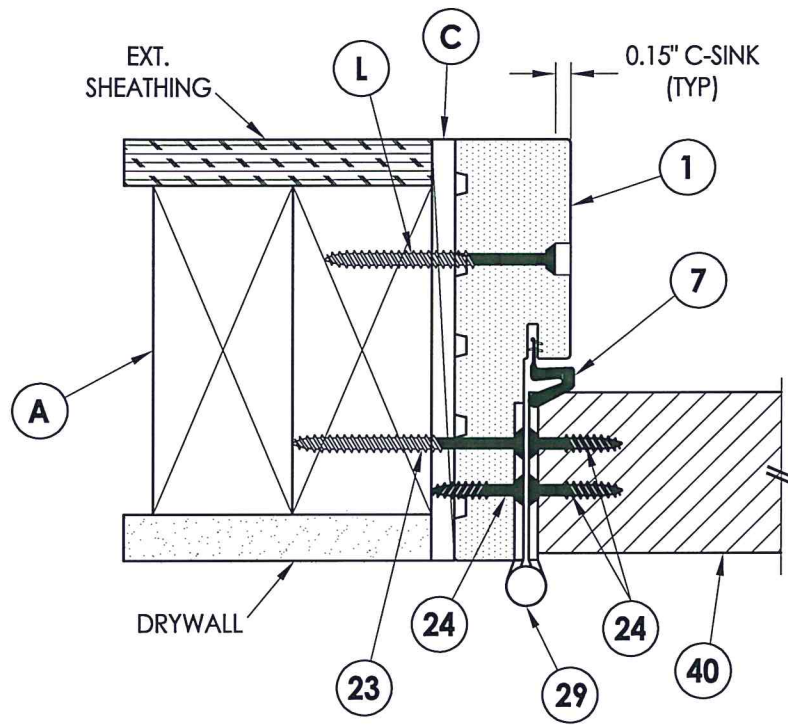
Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Vairico FL. 33595  
Phone No.: 813.659.9197  
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

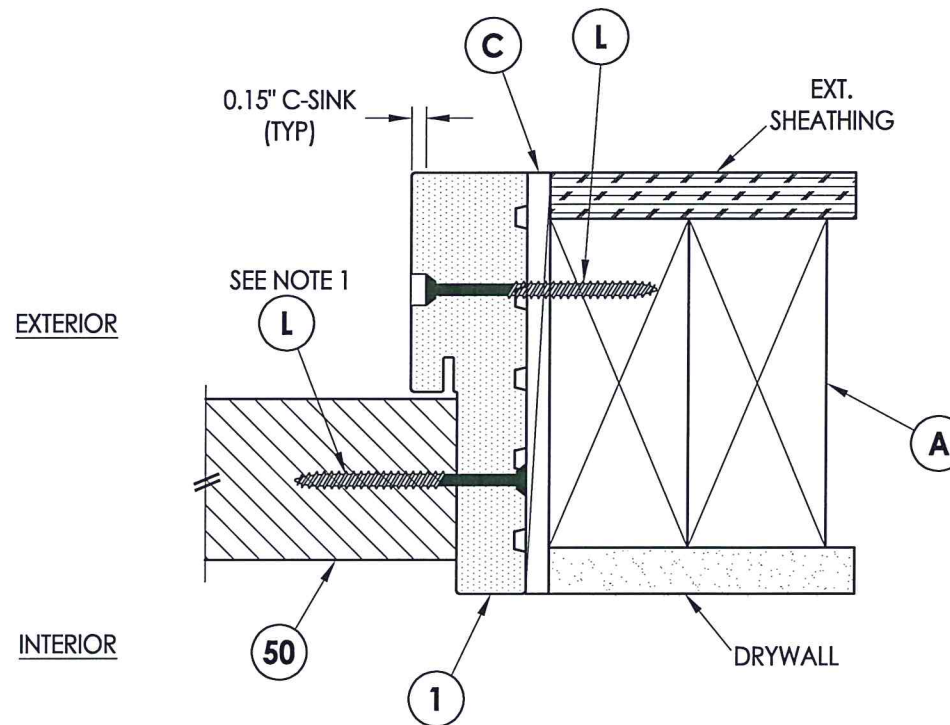


PRODUCT: MASTERGRAIN FIBERGLASS DOOR	
PART OR ASSEMBLY: ELEVATIONS	
NO.	DATE
1	3/05/20
UPDATE TO 2018 IBC/IRC CODE	
LFS	BY
REVISIONS	
DATE: 9/04/18	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: TX-4892	
SHEET 4 OF 11	



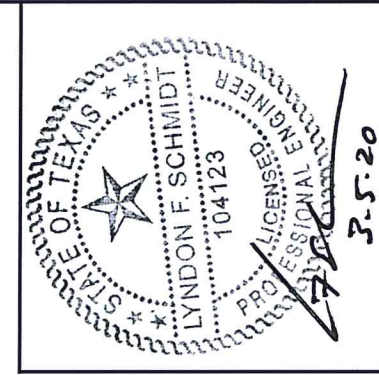


**1 HORIZONTAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Inswing shown (Outswing similar)

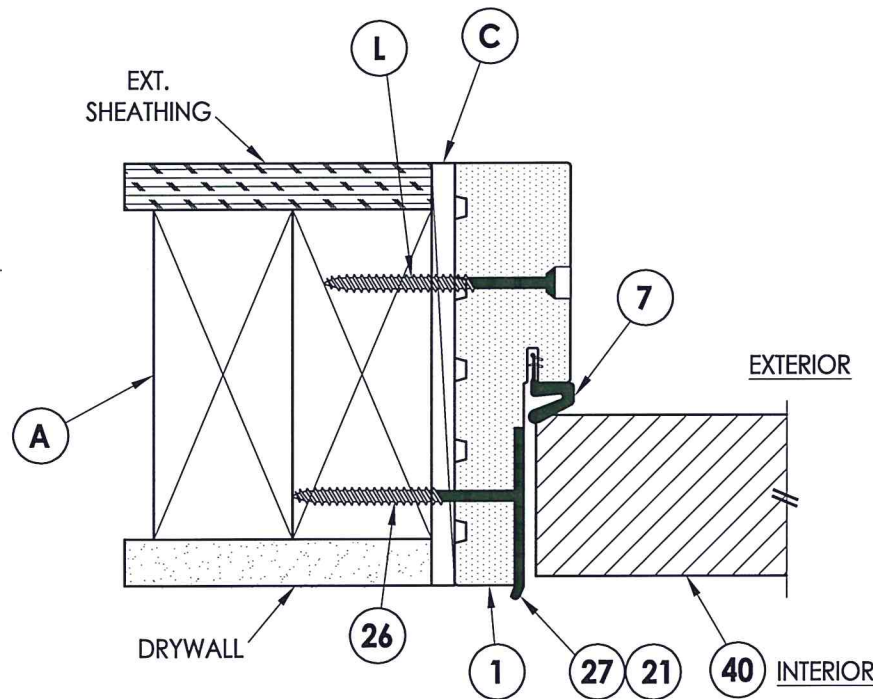


**2 HORIZONTAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Inswing shown (Outswing similar)

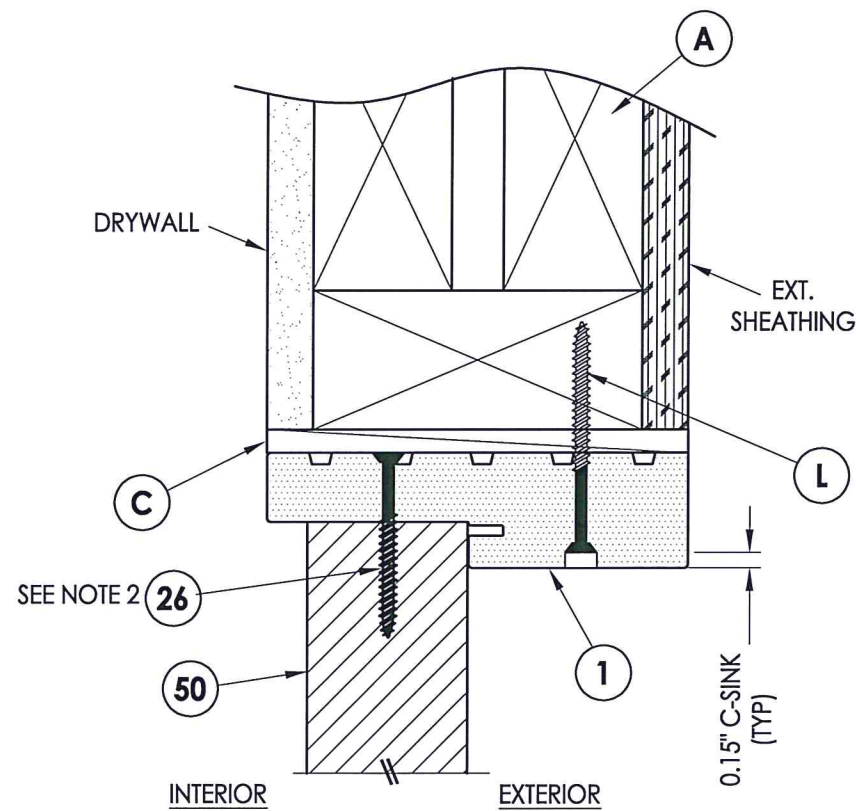
NOTE:  
 1. Item #L located 4" from each end then 7 more equally spaced (9 total).  
 2. Item #26 located 12" from each end (2 total).



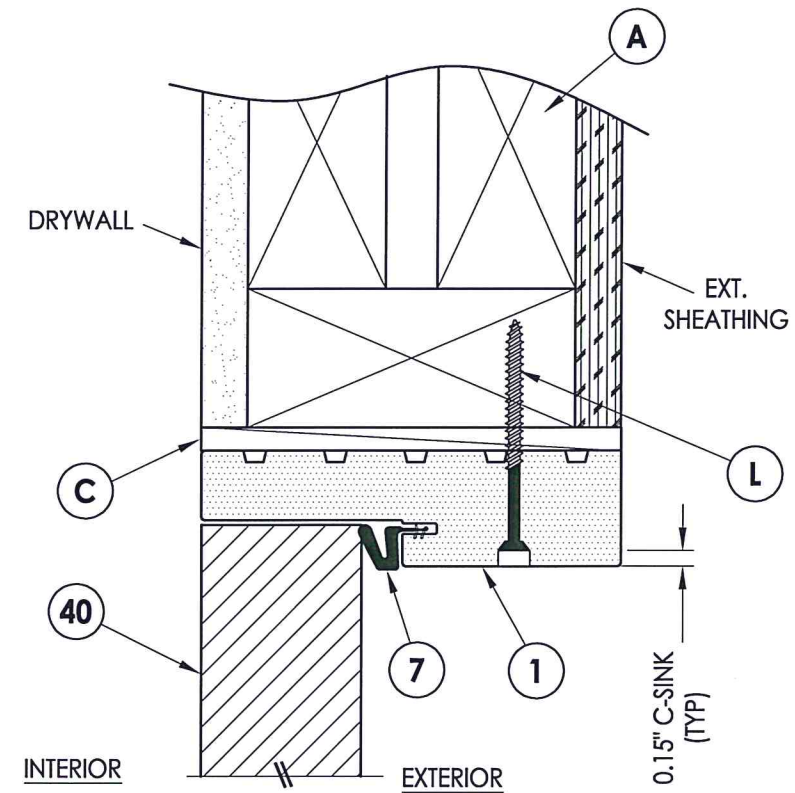
Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123  
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230 Vairico FL 33595  
 Phone No.: 813.659.9197  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852



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



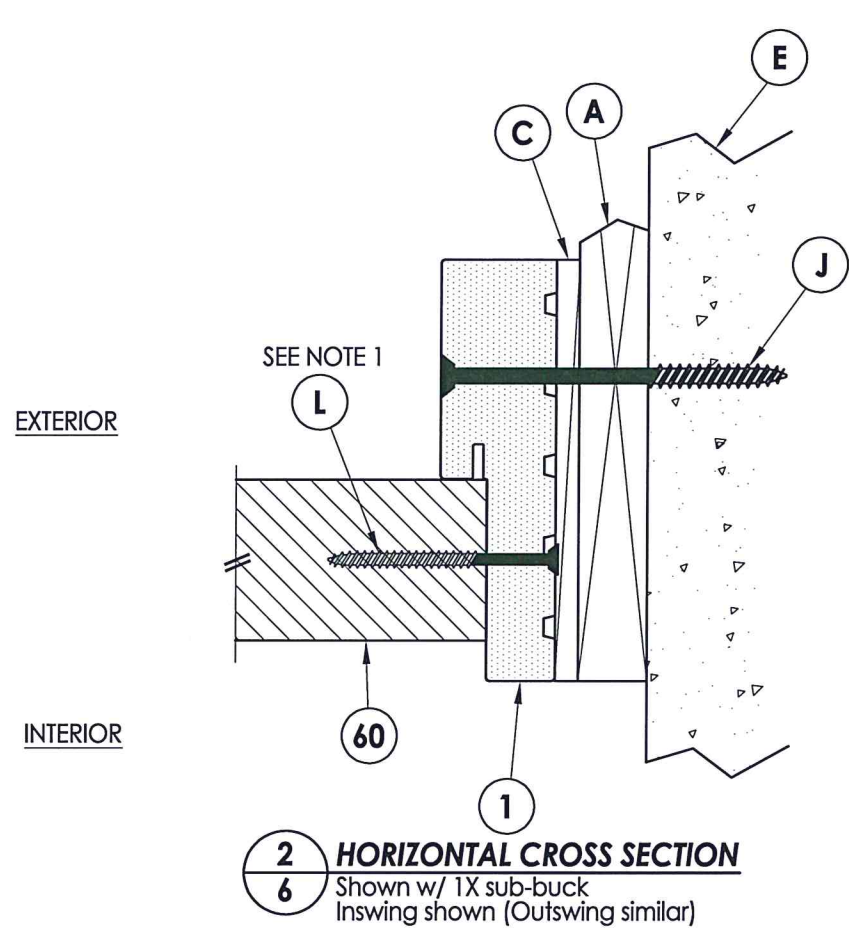
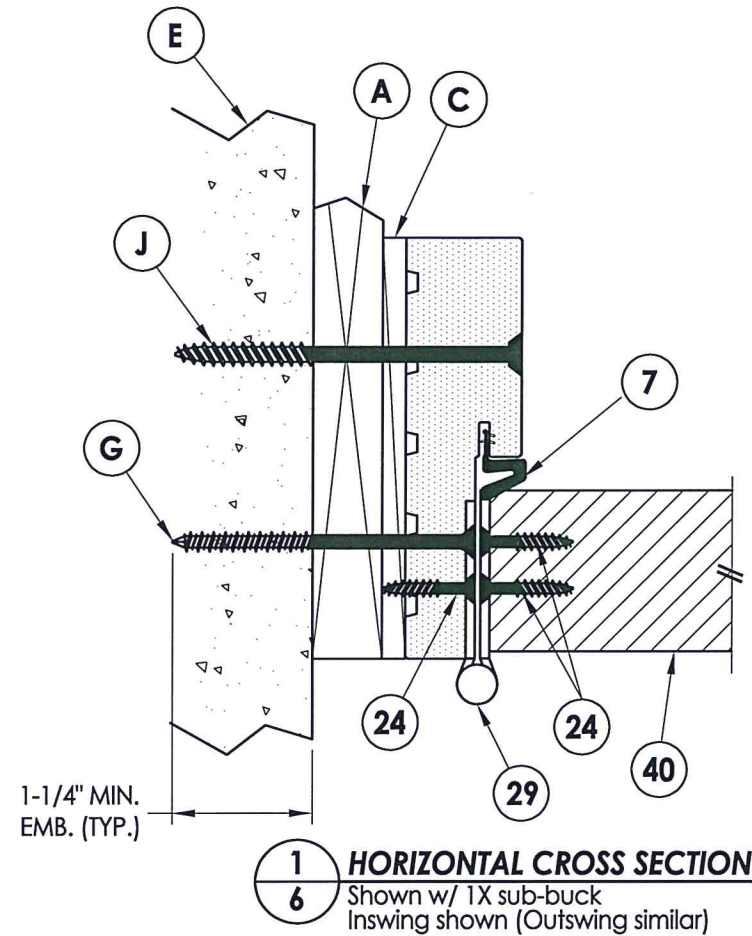
**4 VERTICAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Inswing shown (Outswing similar)



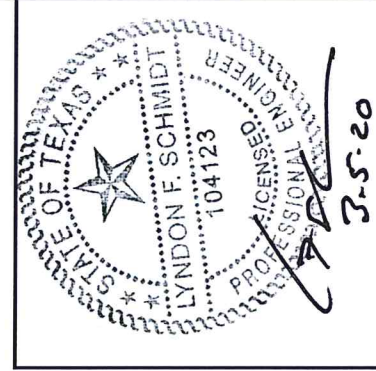
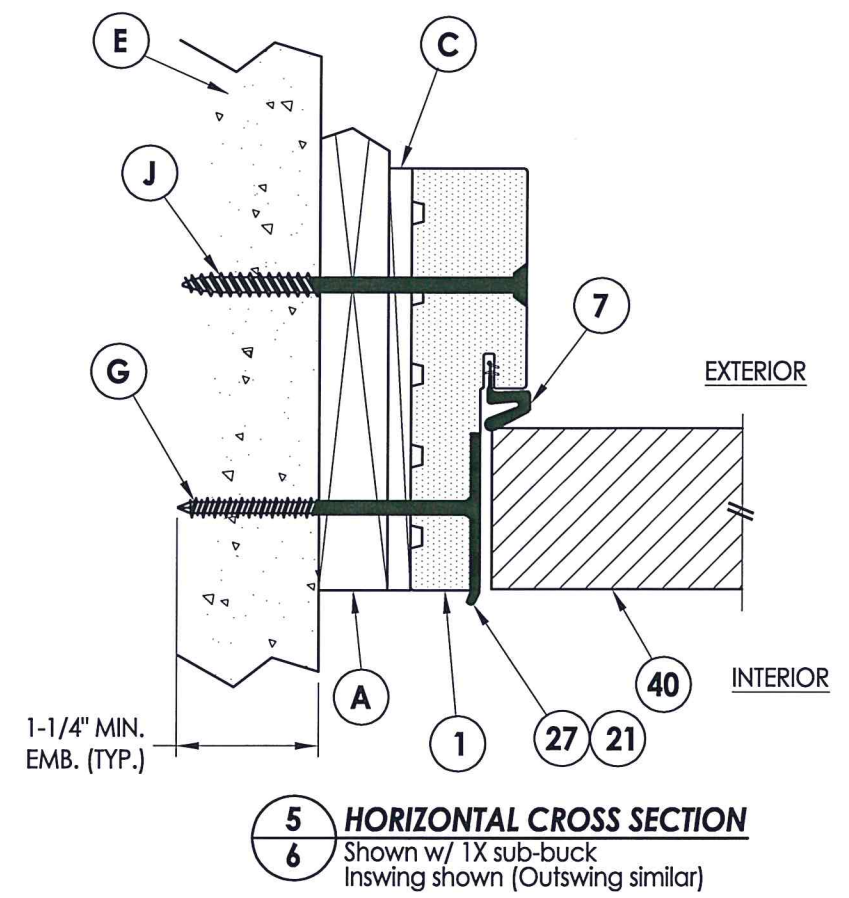
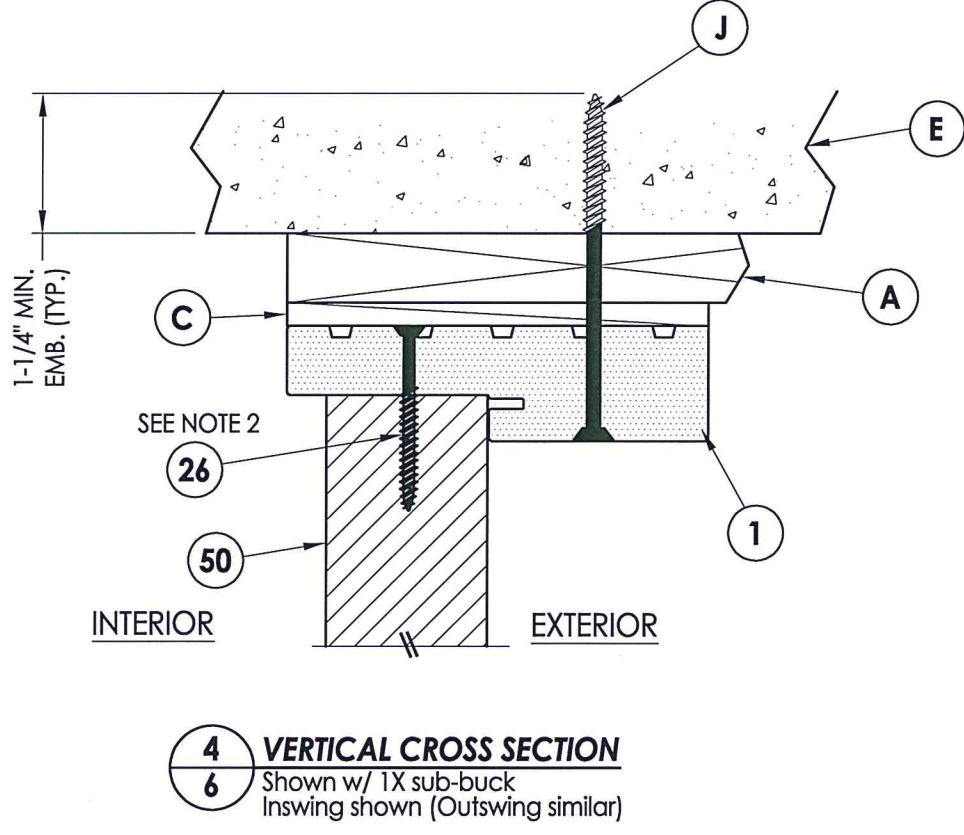
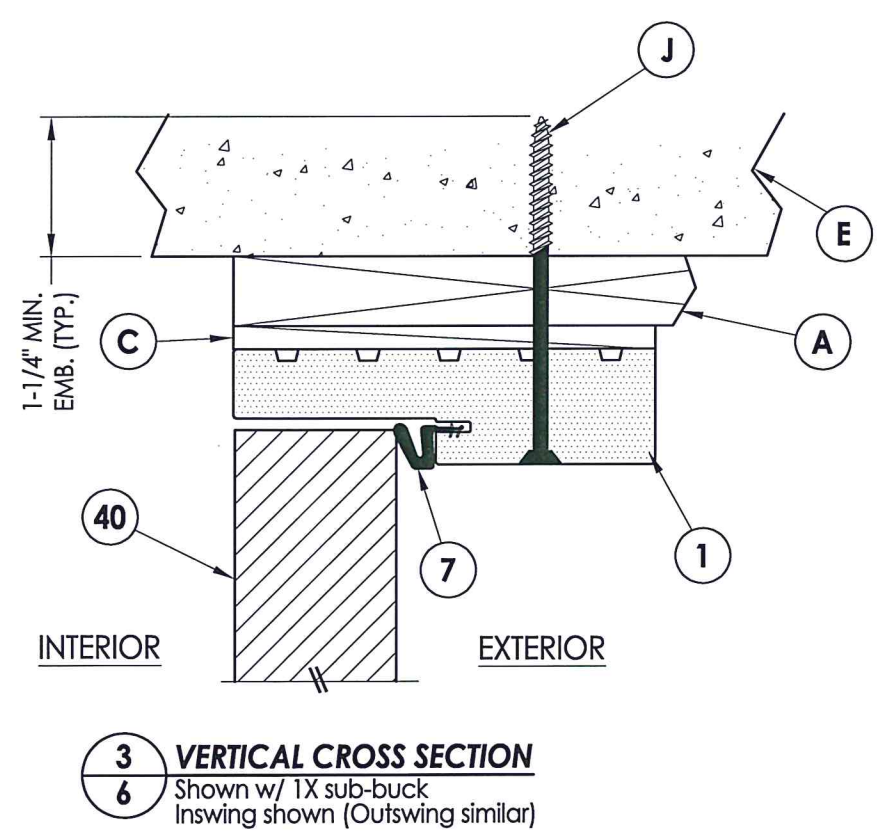
**3 VERTICAL CROSS SECTION**  
**5** Shown w/ 2X Buck  
 Inswing shown (Outswing similar)

PRODUCT: MASTERGRAIN FIBERGLASS DOOR	
PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (2X BUCK)	
NO.	DATE
1	3/05/20
UPDATE TO 2018 IBC/IRC CODE	
LFS	BY
REVISIONS	
DATE:	9/04/18
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4892
SHEET	5 OF 11





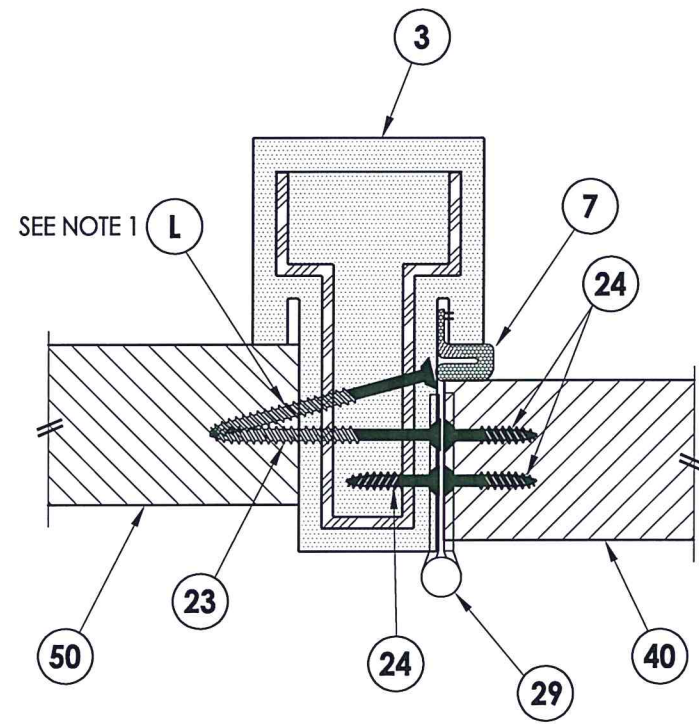
NOTE:  
1. Item #L located 4" from each end then 7 more equally spaced (9 total).  
2. Item #26 located 12" from each end (2 total).



Documents Prepared By: Lyndon F. Schmidt, P.E. TEXAS P.E. #104123		<b>RW</b> BUILDING CONSULTANTS, INC. P.O. Box 230 Vairico FL 33595 Phone No.: 813.659.9197 TEXAS BOARD OF PROFESSIONAL ENGINEERS CERTIFICATE OF REGISTRATION # F-11852	
PRODUCT:	MASTERGRAIN FIBERGLASS DOOR		
PART OR ASSEMBLY:	HORIZONTAL & VERTICAL CROSS SECTIONS (1X BUCK)		
NO.	DATE	DESCRIPTION	BY
1	3/05/20	UPDATE TO 2018 IBC/IRC CODE	LFS
			BY
DATE: 9/04/18			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4892			
SHEET 6 OF 11			



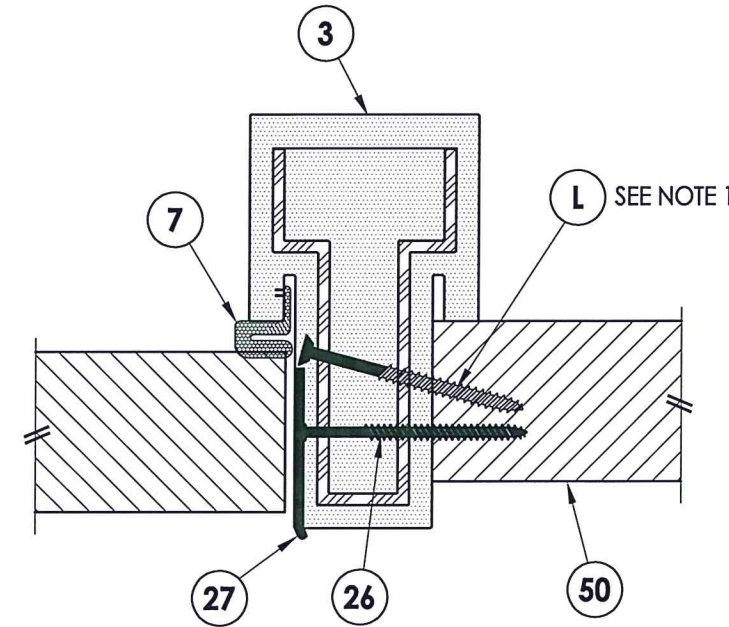
NOTE:  
1. Item #L located 4" from each end then 7 more equally spaced (9 total).



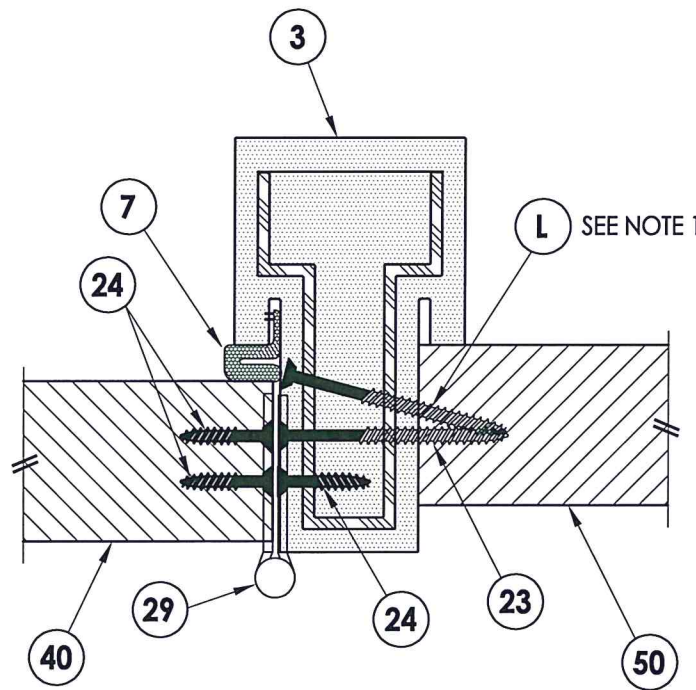
**1**  
**7** **HORIZONTAL CROSS SECTION**  
Inswing shown (Outswing similar)

EXTERIOR

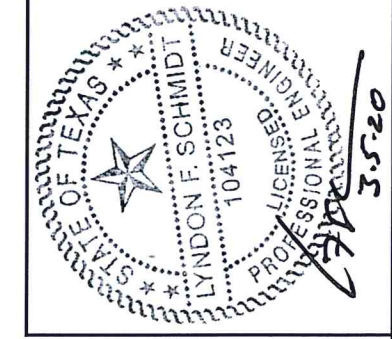
INTERIOR



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



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



Documents Prepared By: Lyndon F. Schmidt, P.E.  
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Phone No.: 813.659.9197  
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: MASTERGRAIN FIBERGLASS DOOR  
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

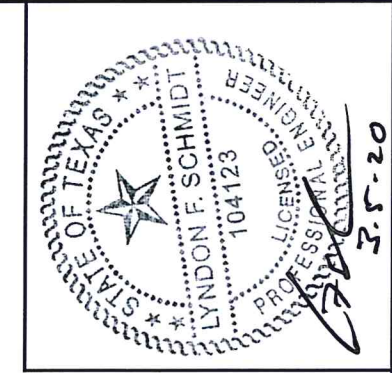
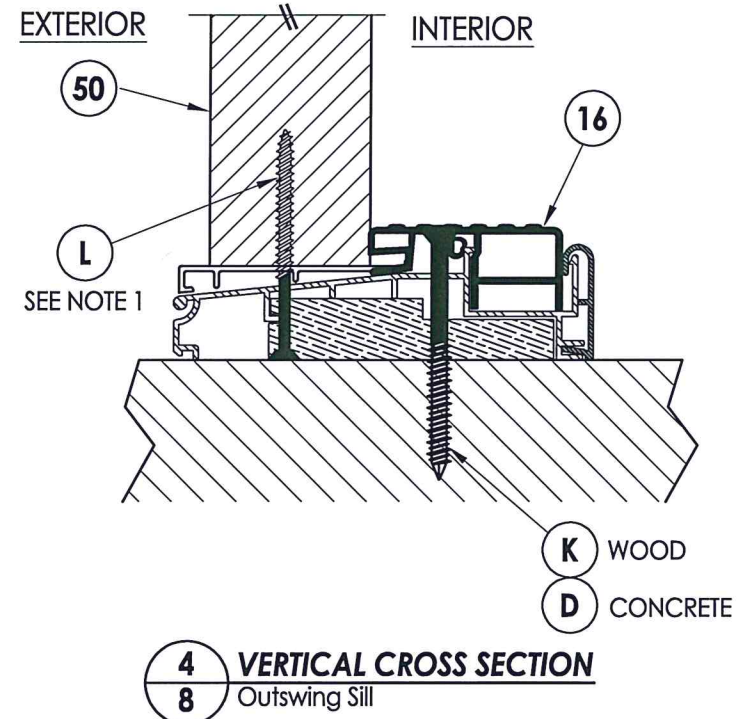
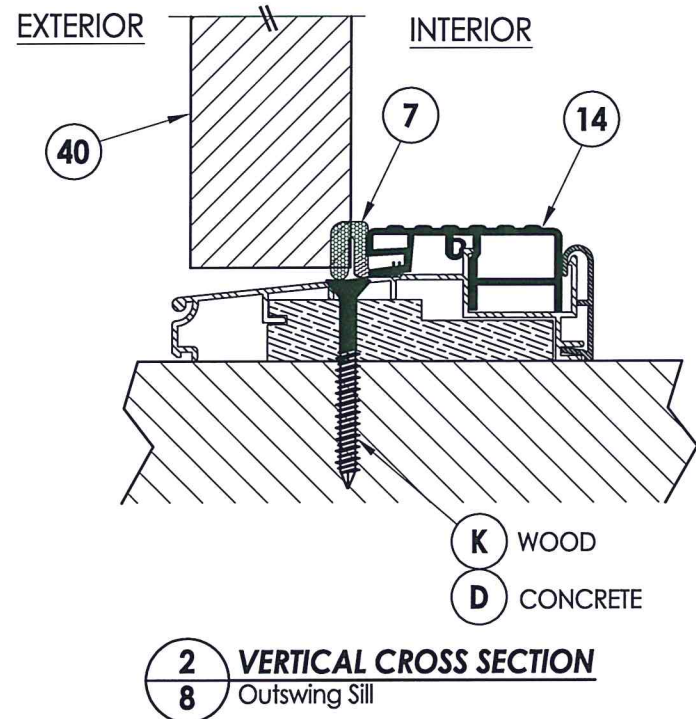
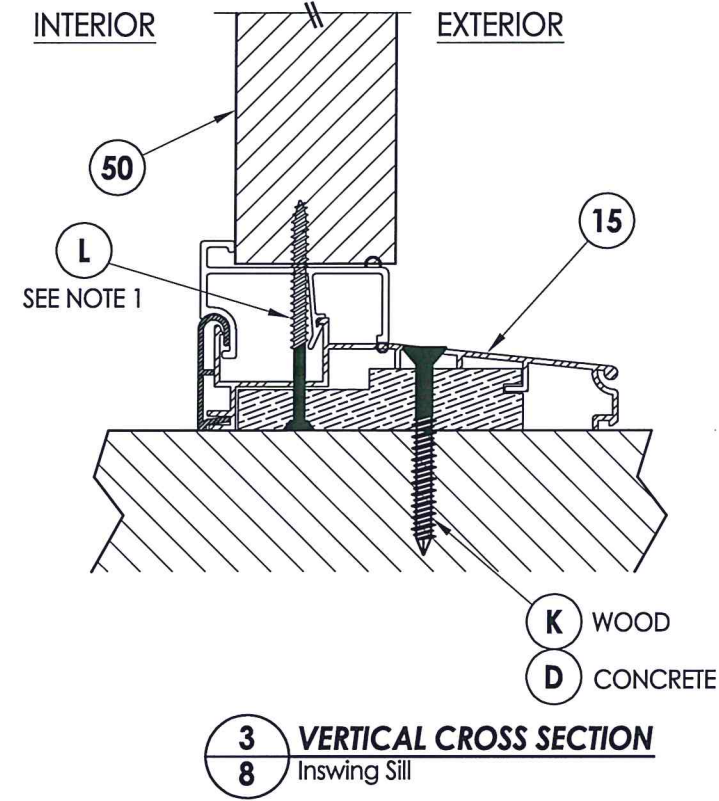
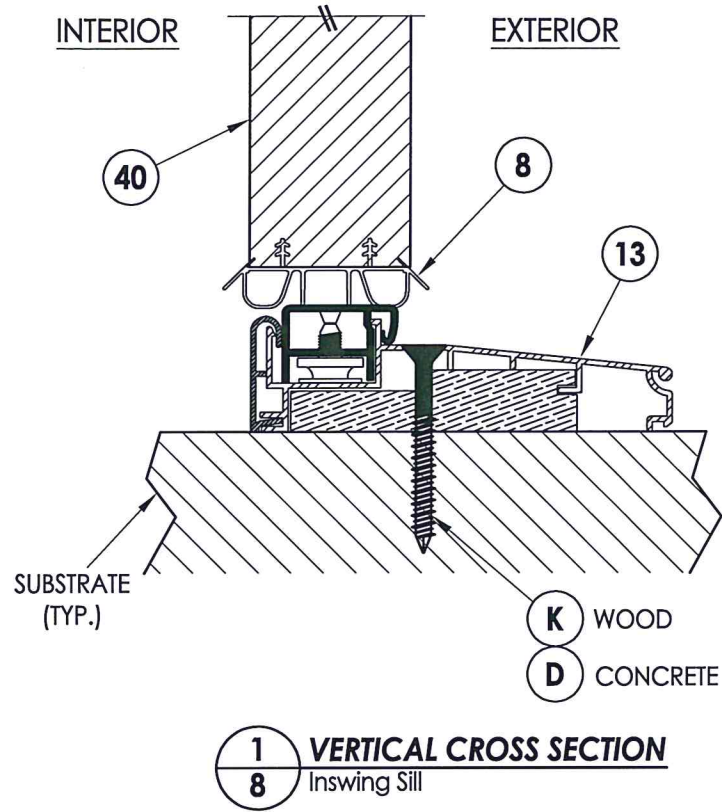
NO.	DATE	DESCRIPTION	BY
1	3/05/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE: 9/04/18  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4892  
SHEET 7 OF 11



R:\Clients\Mastergrain PERMANENT\B - Texas Dept of Ins\TDI - DR 991 Fiberglass Door - Glazed Impact (8-0)\Drawings\TX-4891-93.dwg, 8.2

NOTE:  
1. Item #L located 12" from each end (2 total).



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

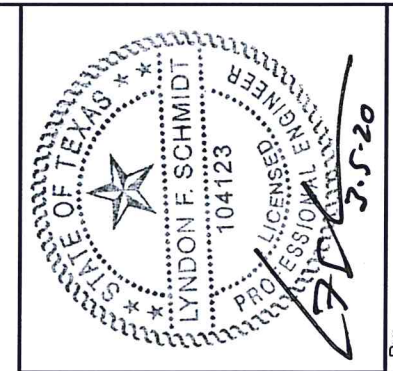
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: MASTERGRAIN FIBERGLASS DOOR  
PART OR ASSEMBLY: VERTICAL CROSS SECTIONS (THRESHOLDS)

NO.	DATE	REVISIONS
1	3/05/20	UPDATE TO 2018 IBC/IRC CODE
		LFS
		BY

DATE: 9/04/18  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4892  
SHEET 8 OF 11

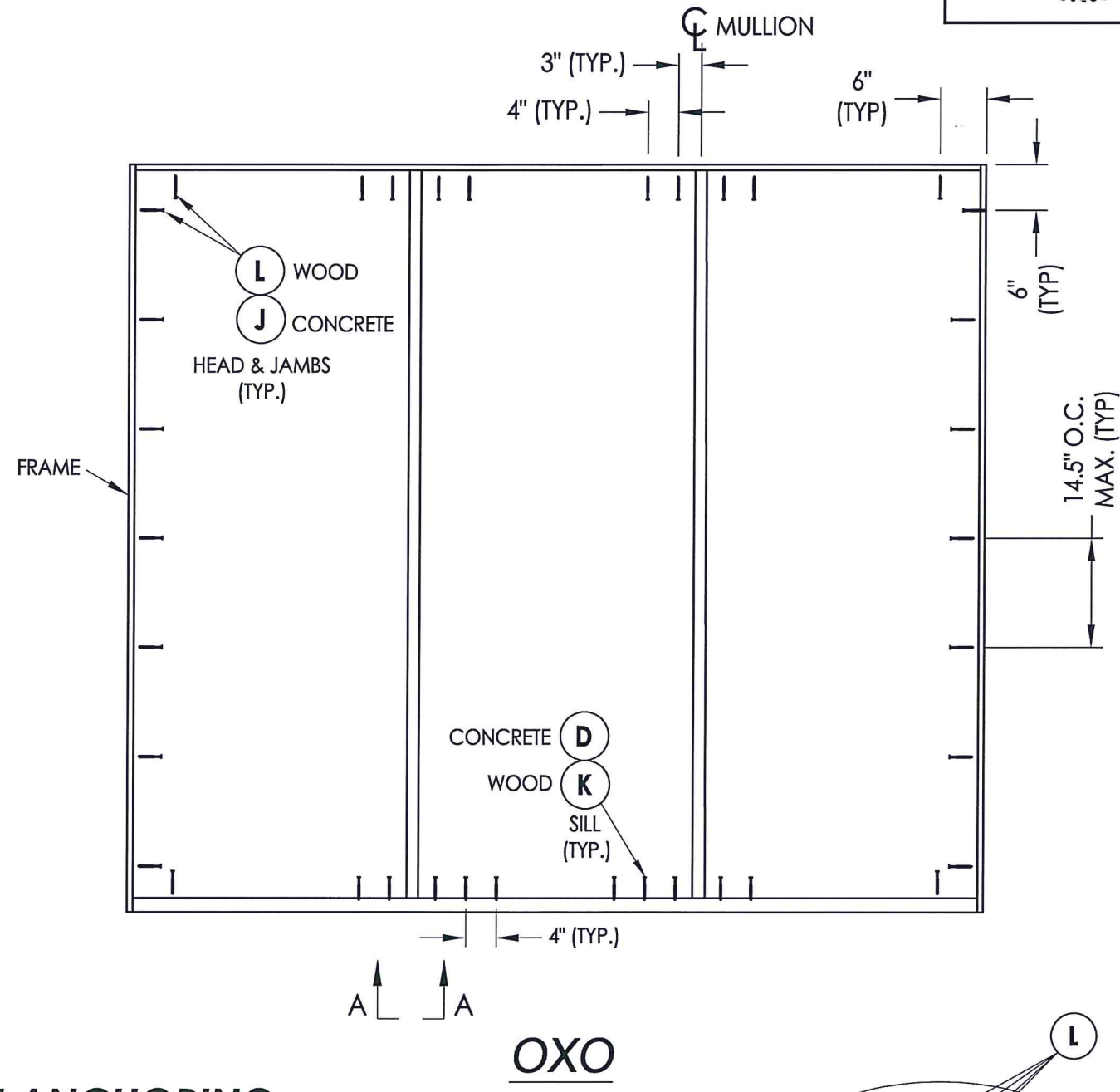
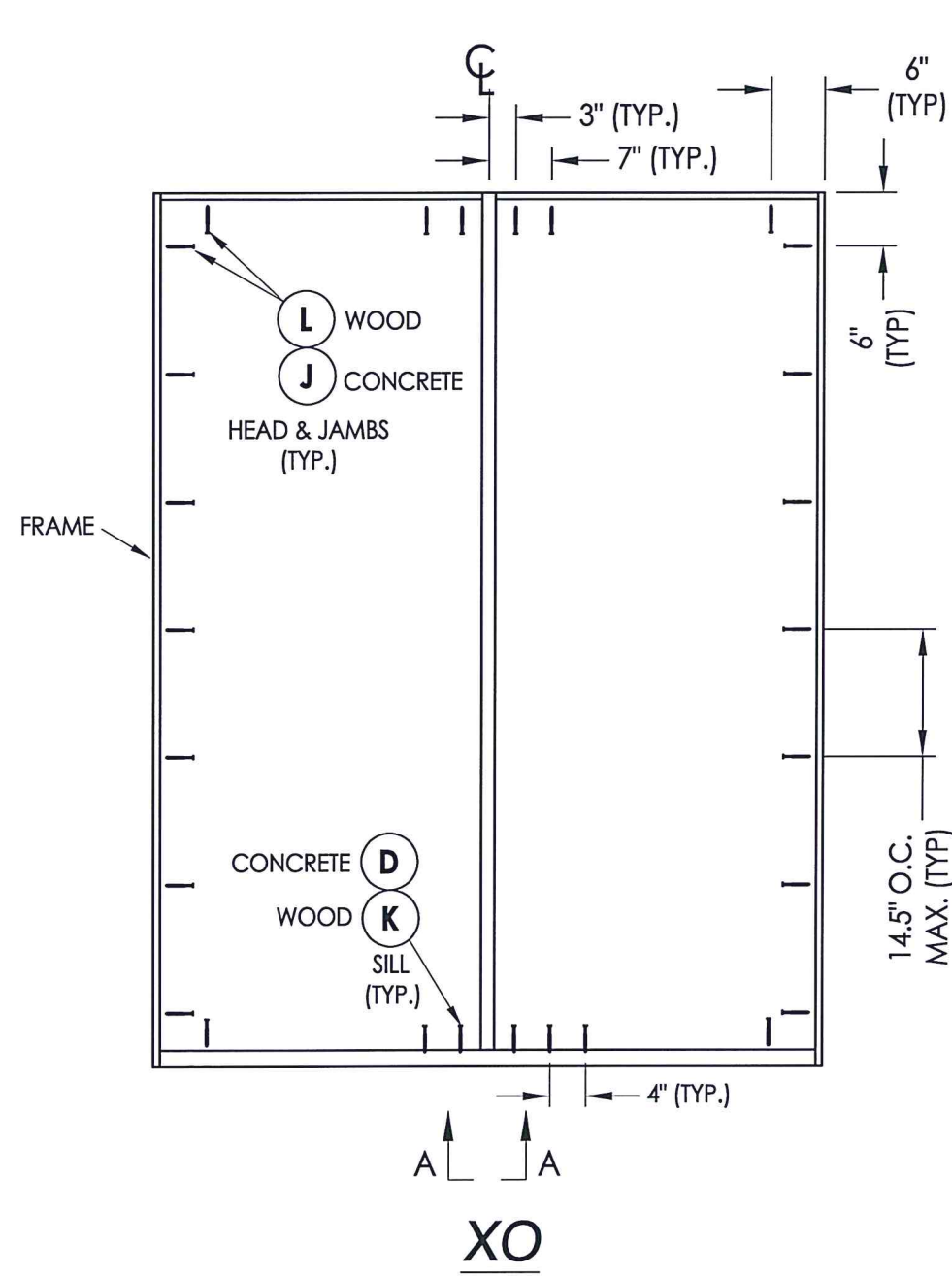




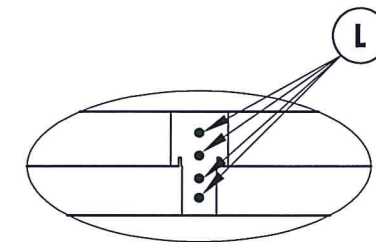
Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

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

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852



**FRAME ANCHORING**

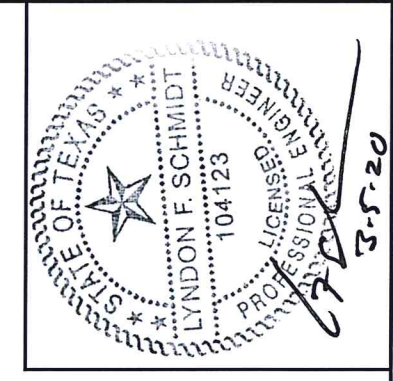
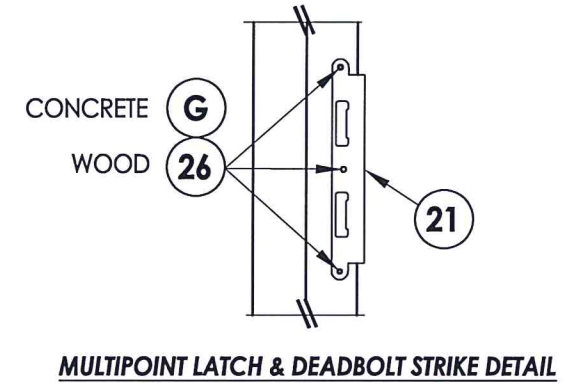
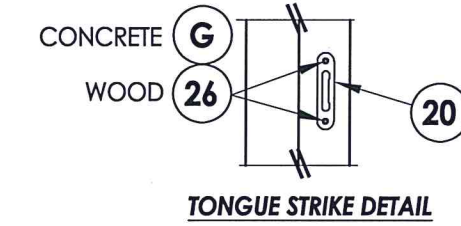
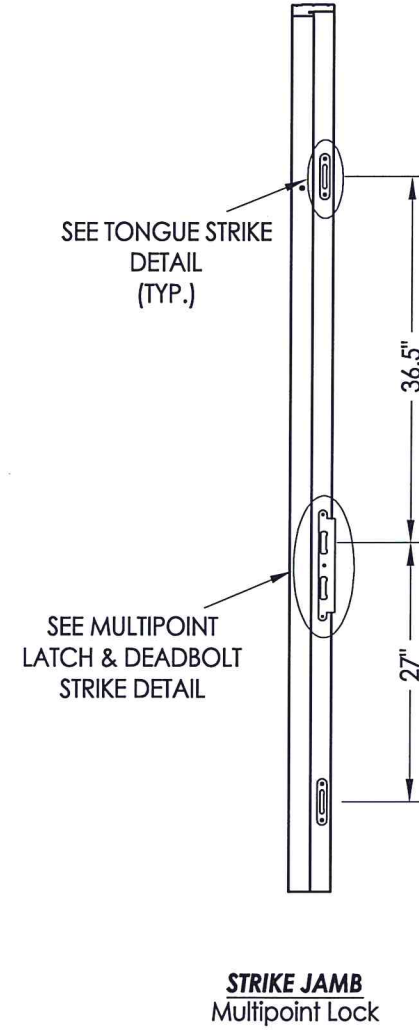
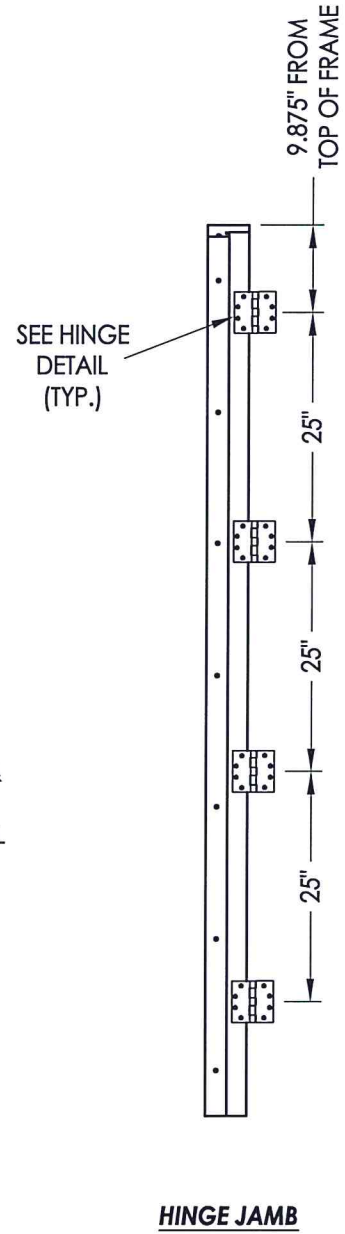
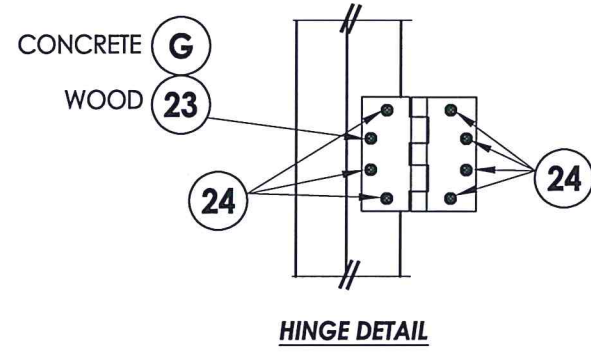
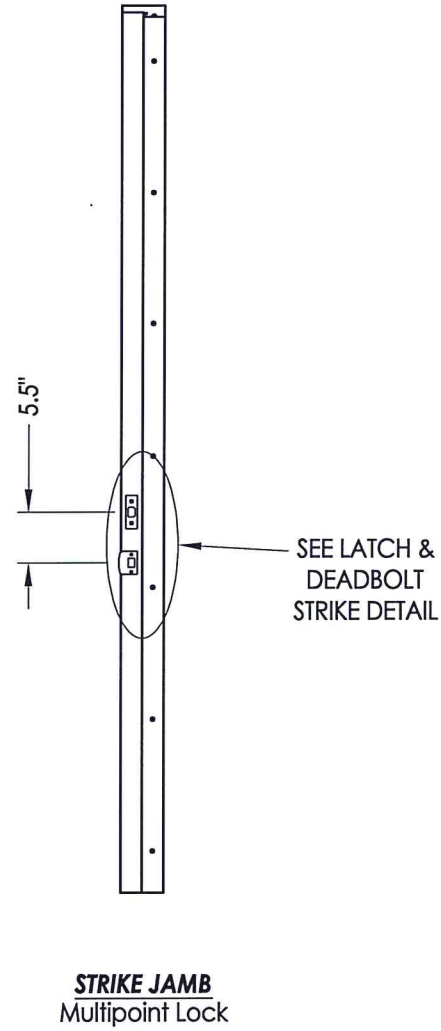
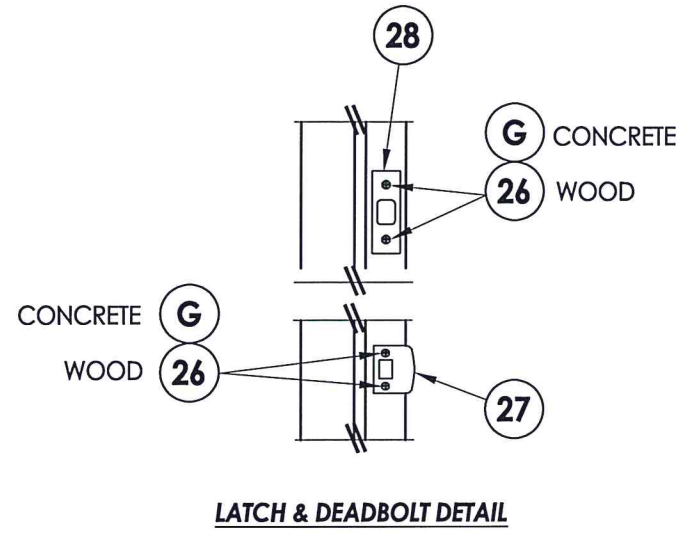


**SECTION A-A**  
 (TYP. AT HEAD AND SILL)

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

PRODUCT: MASTERGRAIN FIBERGLASS DOOR	
PART OR ASSEMBLY: FRAME ANCHORING	
NO.	DATE
1	3/05/20
UPDATE TO 2018 IBC/IRC CODE	
LFS	BY
REVISIONS	
DATE: 9/04/18	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: TX-4892	
SHEET 9 OF 11	





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

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

TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:	MASTERGRAIN FIBERGLASS DOOR
PART OR ASSEMBLY:	HARDWARE DETAILS

NO.	DATE	DESCRIPTION	BY
1	3/05/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE:	9/04/18
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4892
SHEET	10 OF 11

**LATCH & DEADBOLT HARDWARE DETAILS**

**MULTIPOINT LOCK HARDWARE DETAILS**



**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
A	2X FRAMING (SG >= 0.42)	WOOD
B	1X BUCK (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" Ø PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	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 ELCO OR ITW CONCRETE SCREW	STEEL
K	#10 PFH WS (1-3/4" MIN. EMBEDMENT)	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	-

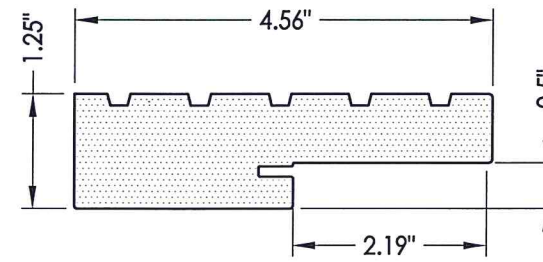
**CONCRETE ANCHOR NOTES:**

- 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:

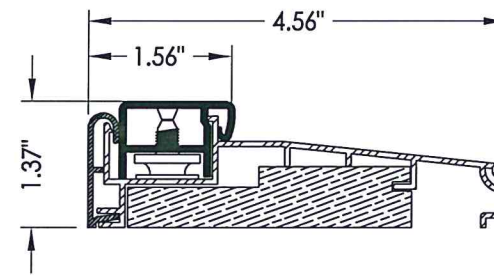
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
ELCO ULTRACON®	1/4"	1-1/4"	1"	4"
ITW TAPCON®	3/16"	1-1/4"	3"	1-1/2"

**WOOD SCREW INSTALLATION NOTES:**

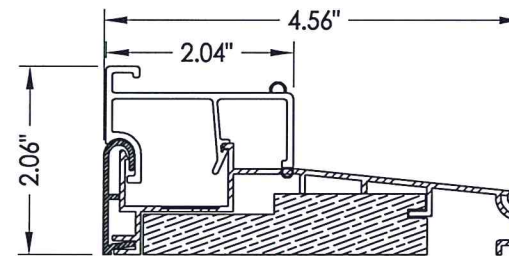
- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



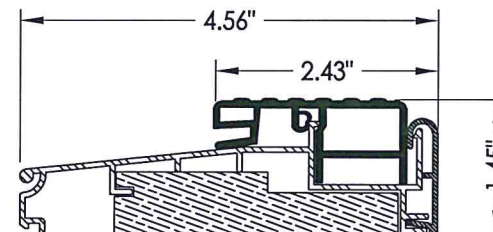
**1 COMPOSITE JAMB**  
WORLDWIDE



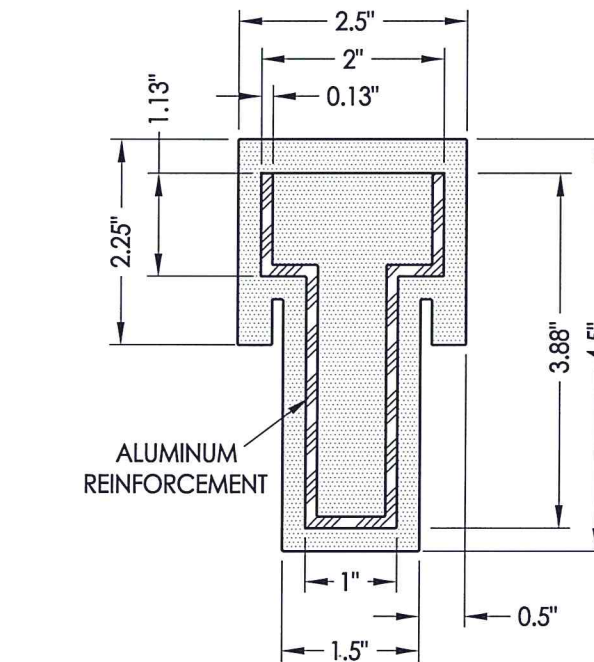
**13 INSWING THRESHOLD**  
WORLDWIDE



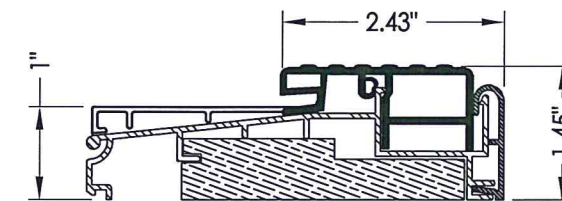
**15 INSWING THRESHOLD w/ SIDELITE ADAPTER**  
WORLDWIDE



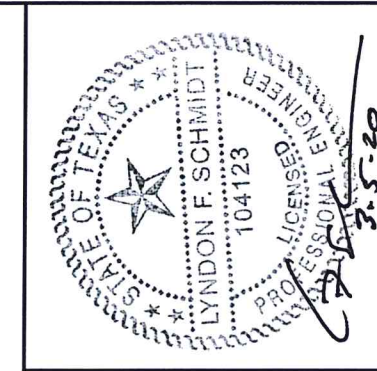
**14 OUTSWING THRESHOLD**  
WORLDWIDE



**3 COMPOSITE MULLION**  
WORLDWIDE



**16 OUTSWING THRESHOLD w/ SIDELITE ADAPTER**  
WORLDWIDE



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  
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: MASTERGRAIN FIBERGLASS DOOR  
PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	DESCRIPTION	BY
1	3/05/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE: 9/04/18  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4892  
SHEET 11 of 11