



**Distributed by: Builders FirstSource**  
**302 North Mile 2-1/2 East**  
**Mercedes, TX 78570**

## FIBERGLASS ENTRY DOOR INSWING / OUTSWING "IMPACT"

EVALUATED FOR USE IN THE STATE OF TEXAS

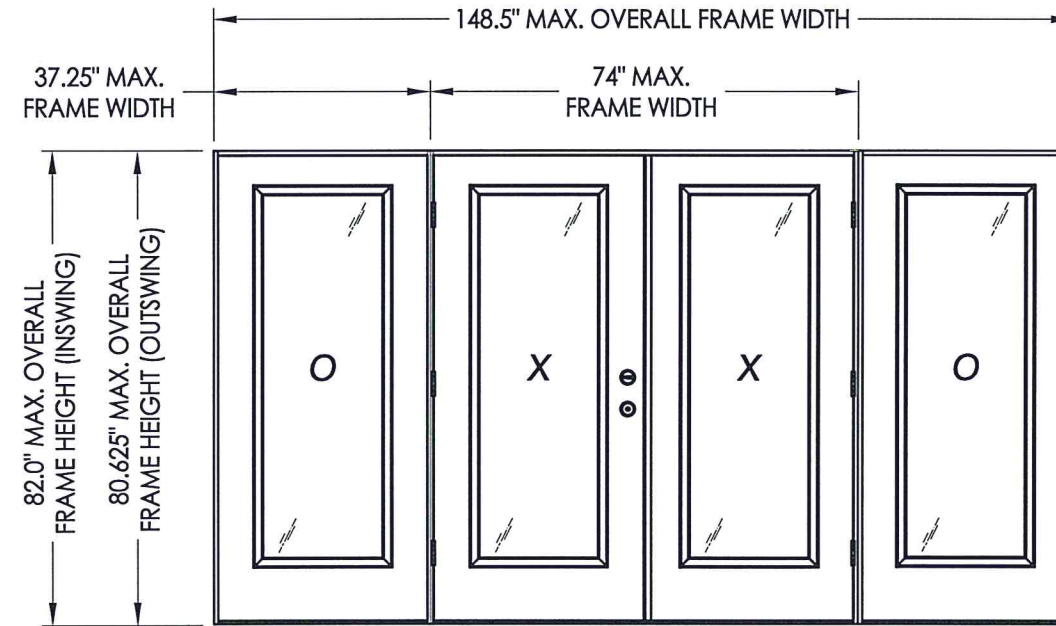
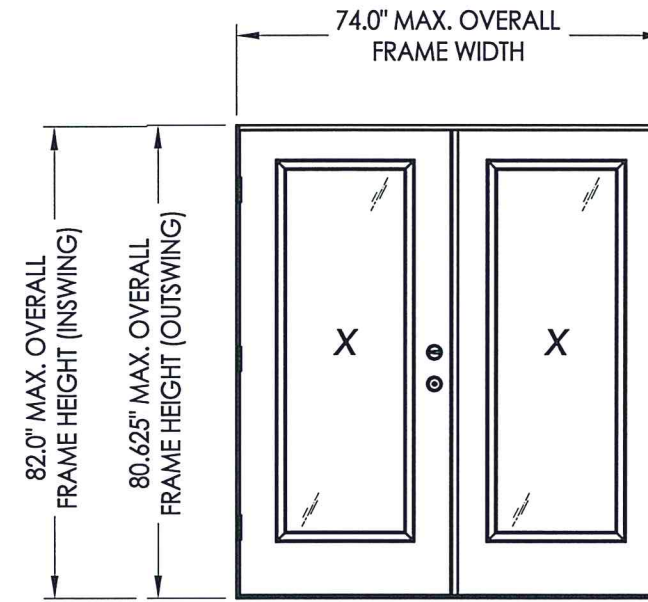
**TDI DR-634**

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:

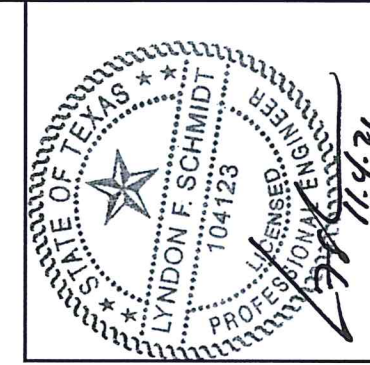
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. This system has been tested and evaluated as a large missile impact protective system for installation in areas that require wind borne debris protection. This product meets missile level "D" as defined in ASTM E 1996.
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.

**TABLE OF CONTENTS**

SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door/Sidelite panel details
3	Lite frame and glazing details
4	Elevations
5	Horizontal cross sections
6	Vertical cross sections
7	Vertical cross sections
8	Frame anchoring
9	Astragal details
10	Bill of materials & components



CONFIGURATION	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	74.0" x 82.0"	+50.0	-50.0	+50.0	-50.0
OXXO	148.5" x 82.0"	+50.0	-50.0	+50.0	-50.0



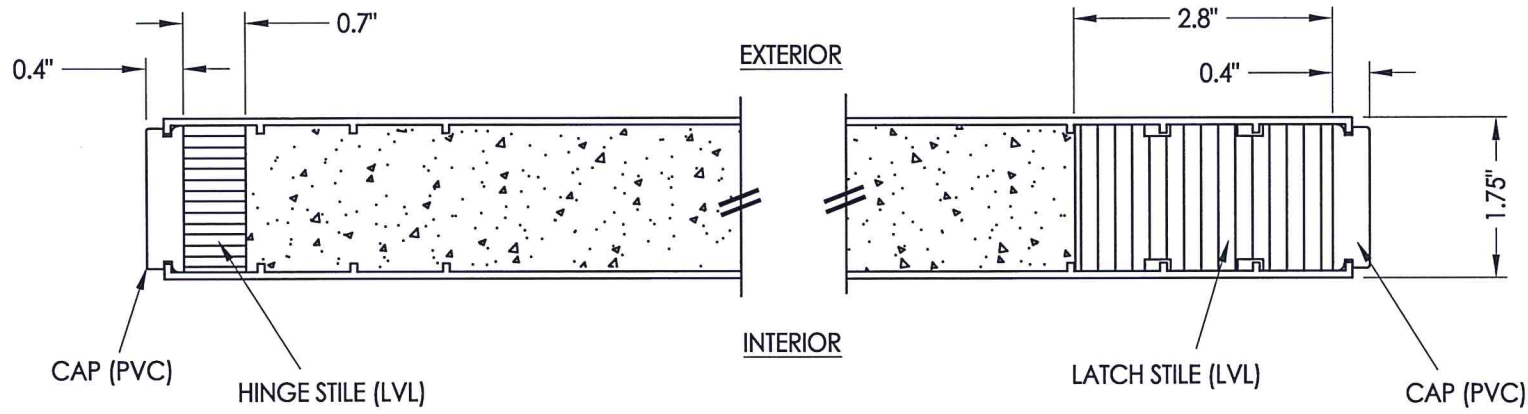
Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

**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

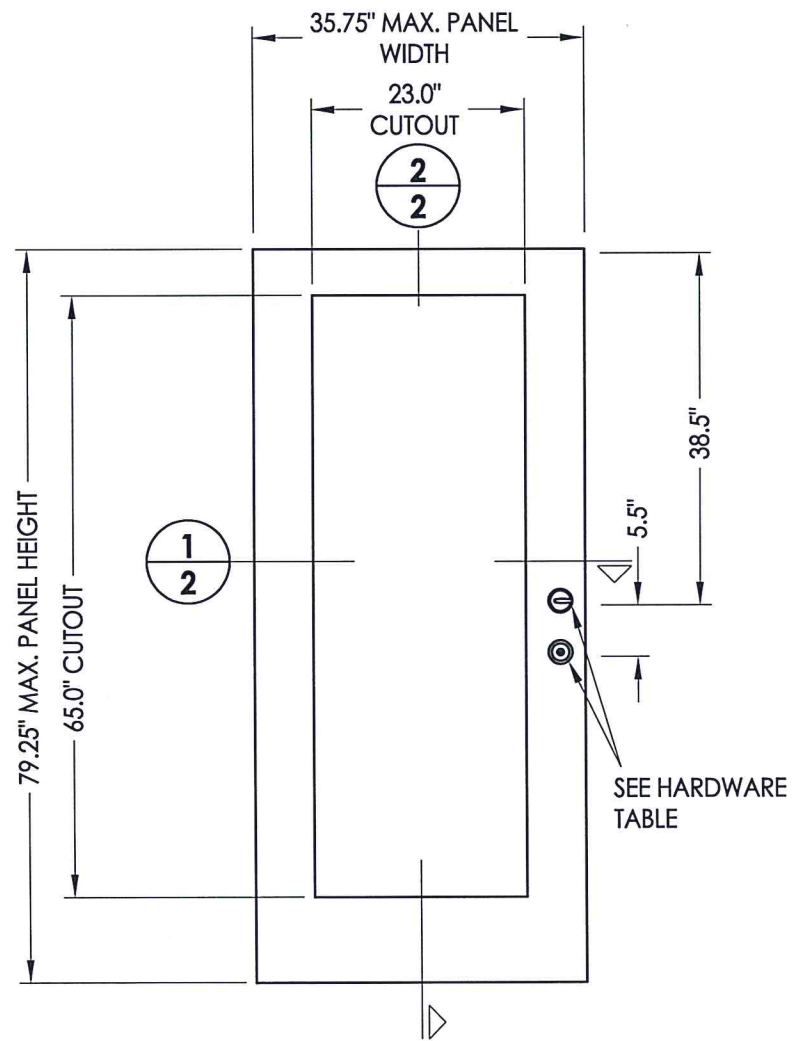
PRODUCT: FIBERGLASS DOOR  
 PART OR ASSEMBLY:  
 TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IRC/IBC
2	5/29/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 11/8/12  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4277  
 SHEET 1 of 10



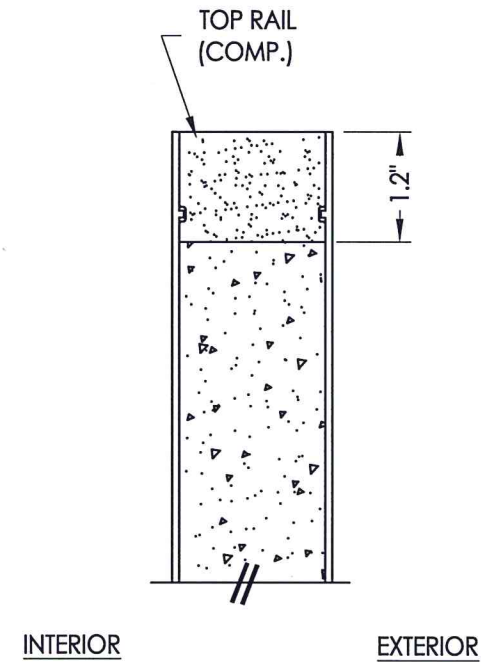
**1**  
**2** HORIZONTAL CROSS SECTION



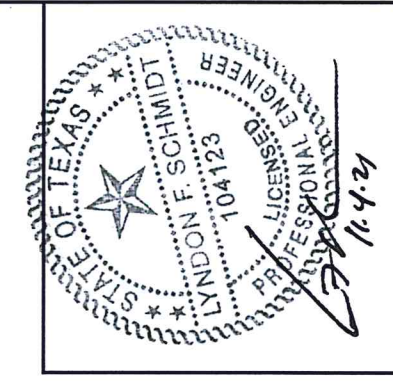
**40** DOOR PANEL  
Fiberglass (Plastpro)

**50** SIDELITE PANEL  
Fiberglass (Plastpro)

HARDWARE TABLE		
MANUFACTURER	MODEL	
KWIKSET	KNOB: DEADBOLT:	SIGNATURE SERIES SIGNATURE SERIES (980)



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

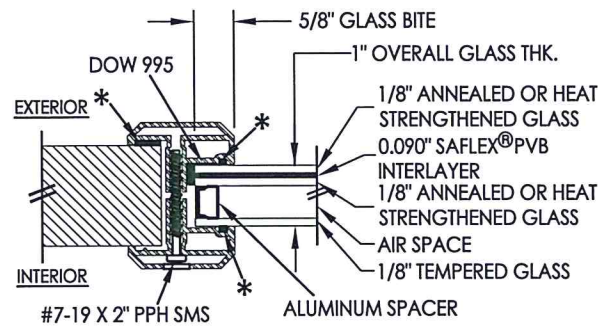


Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

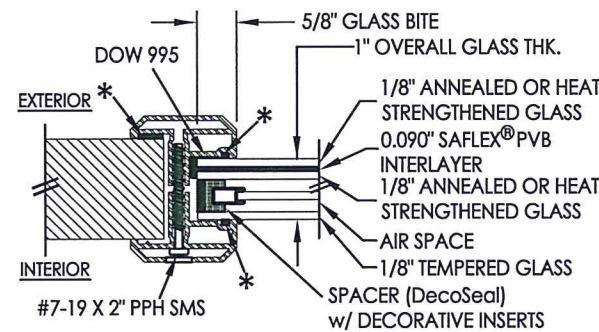
**R.W.** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197

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

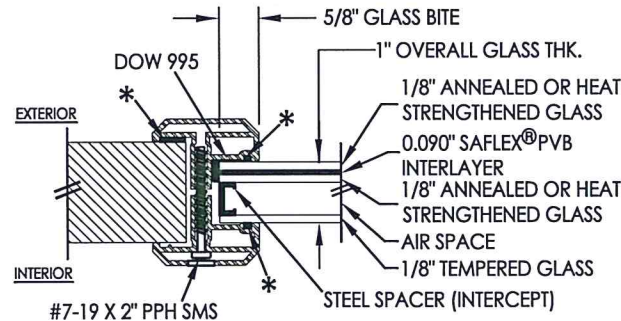
PRODUCT:	FIBERGLASS DOOR			
PART OR ASSEMBLY:	DOOR/SIDELITE PANEL DETAILS			
NO.	DATE	BY	REVISIONS	
3	10/25/21	LFS	UPDATE TO 2018 IBC/IRC	
2	5/29/18	JK	ADD FLAT FRAME LITE PROFILE	
1	12/14/15	JK	ADD H.S. GLAZING OPTION	
DATE:	11/8/12			
SCALE:	N.T.S.			
DWG. BY:	JK			
CHK. BY:	LFS			
DRAWING NO.:	TX-4277			
SHEET	2 OF 10			



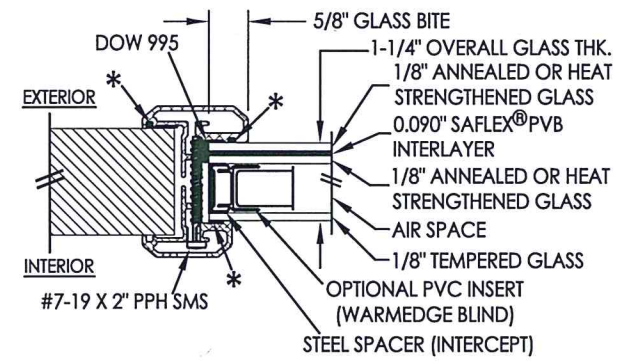
**G1 GLAZING DETAIL**  
Flat Frame Profile



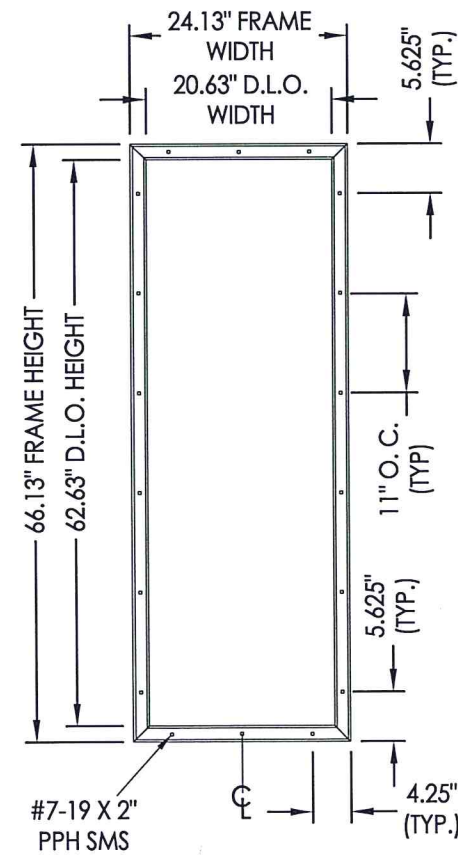
**G3 GLAZING DETAIL**  
Flat Frame Profile



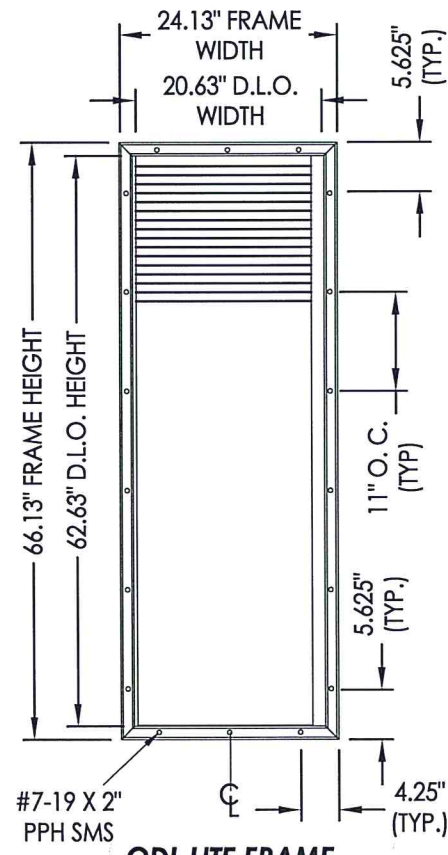
**G2 GLAZING DETAIL**  
Flat Frame Profile



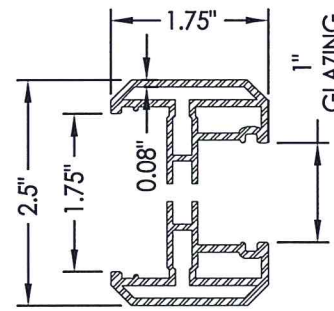
**G4 GLAZING DETAIL**  
Flat Frame Profile  
w/ Blinds Between Glass



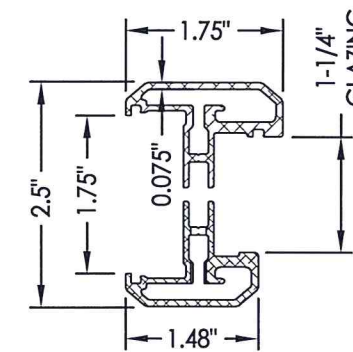
**ODL LITE FRAME**  
"Flat Frame" Aluminum



**ODL LITE FRAME**  
"Flat Frame" Aluminum  
w/ Blinds Between Glass

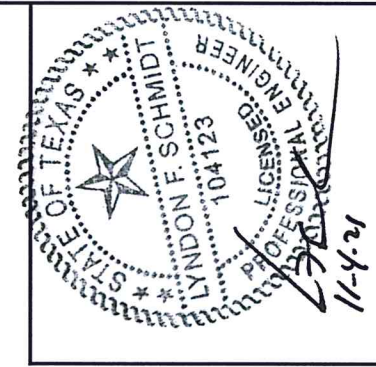


**ODL LITE FLAT FRAME**  
1" GLAZING



**ODL LITE FLAT FRAME**  
1-1/4" GLAZING

\* NON-STRUCTURAL BACKBEDDING (READI-SEAL)



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: FIBERGLASS DOOR  
PART OR ASSEMBLY: LITE FRAME & GLAZING DETAILS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/29/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 11/8/12

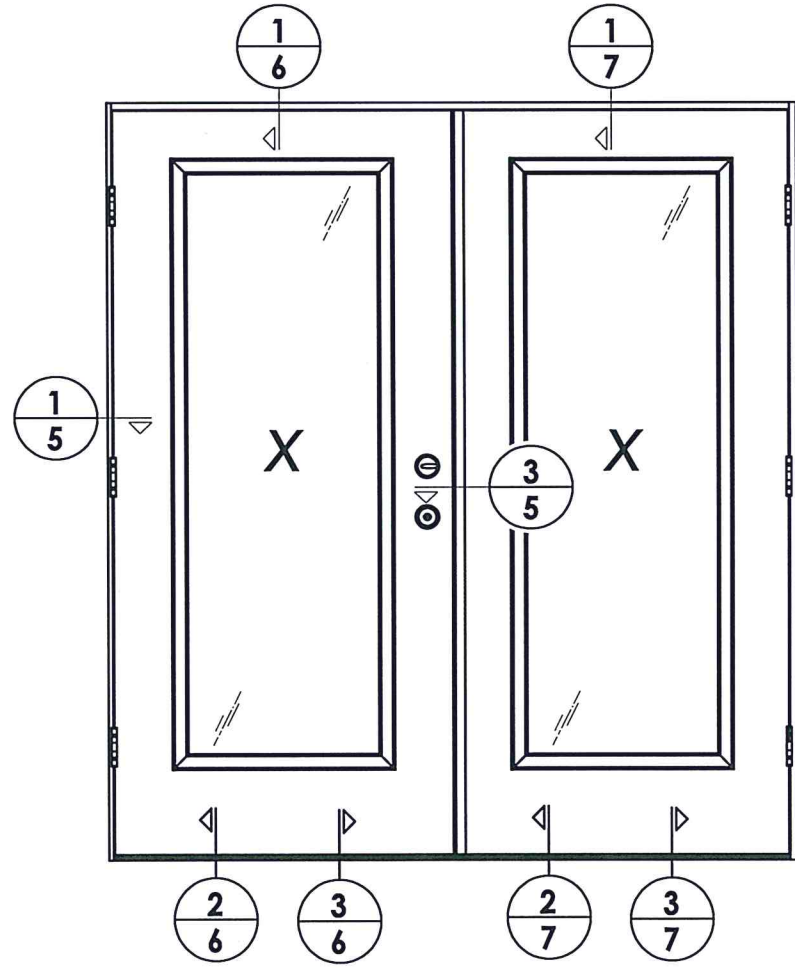
SCALE: N.T.S.

DWG. BY: JK

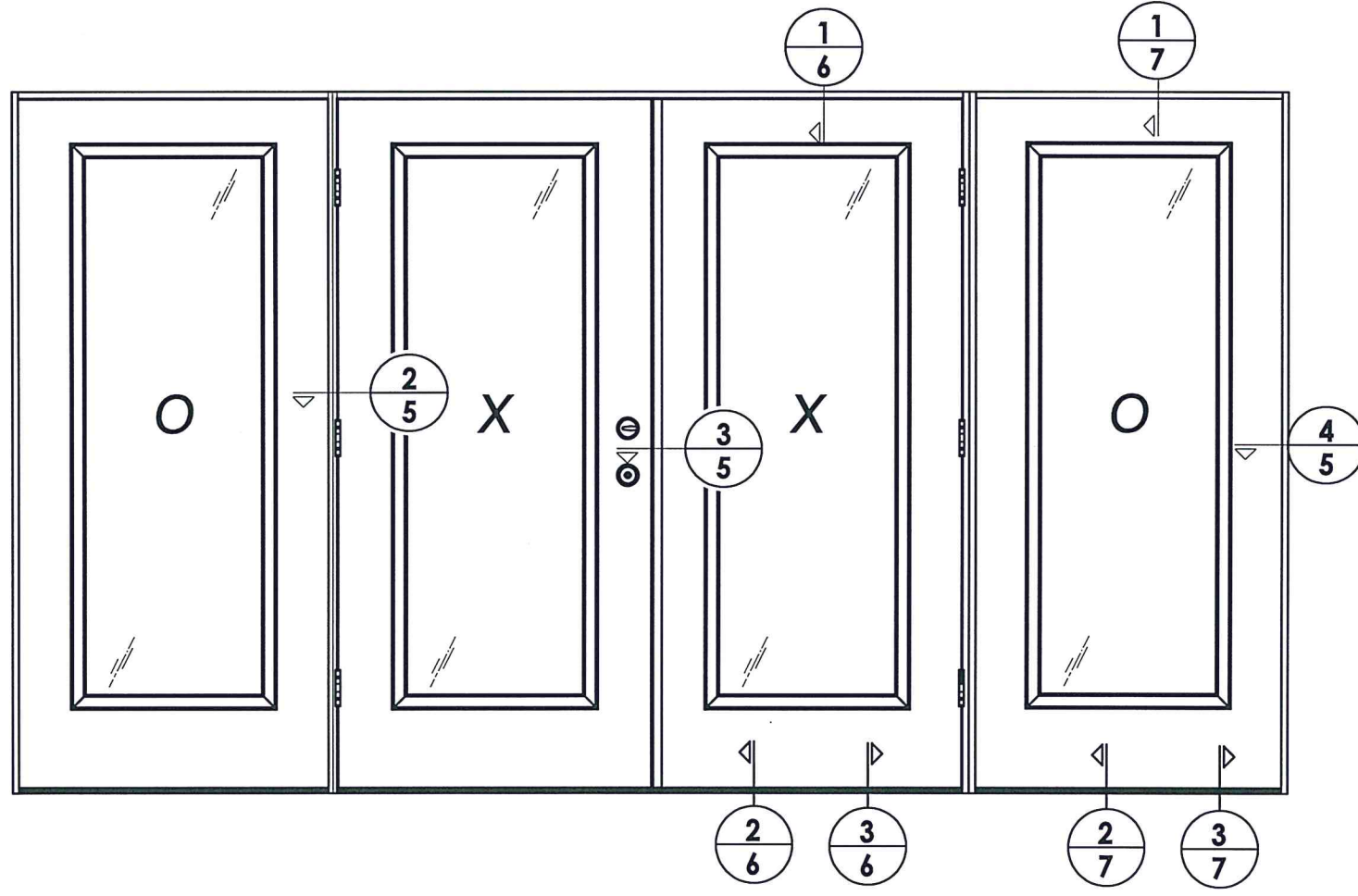
CHK. BY: LFS

DRAWING NO.: TX-4277

SHEET 3 OF 10



ELEVATION  
XX



ELEVATION  
OXXO



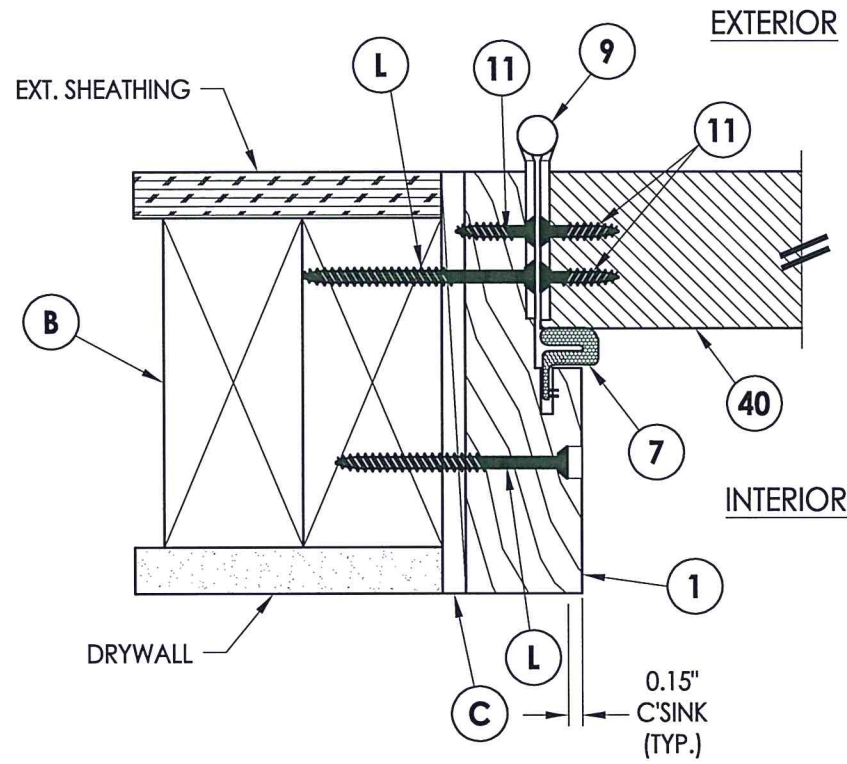
Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**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

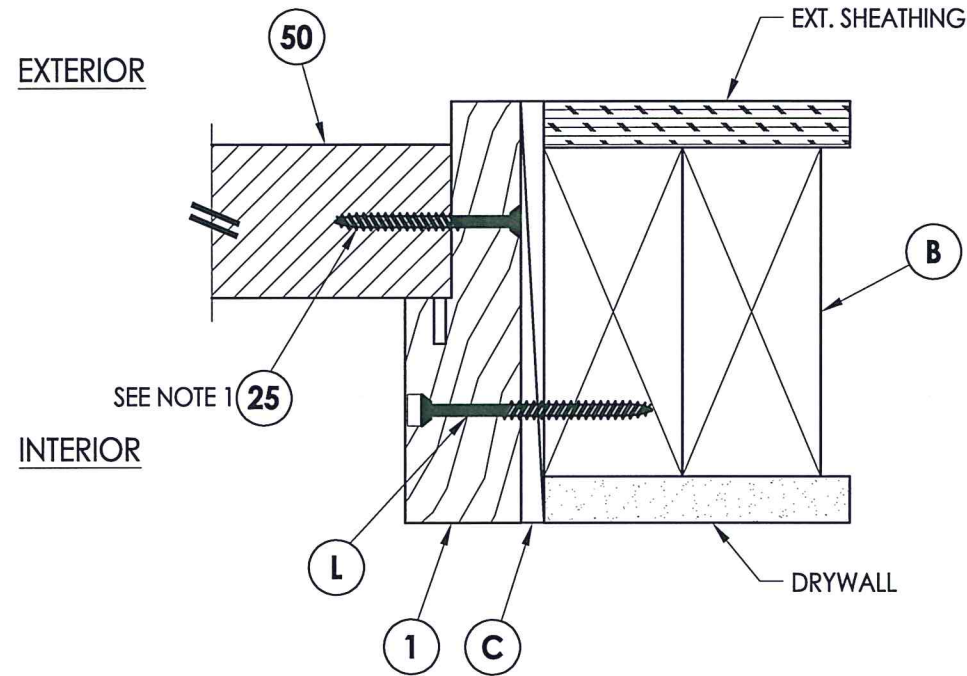
PRODUCT: FIBERGLASS DOOR  
PART OR ASSEMBLY: ELEVATIONS

NO.	DATE	REVISIONS	BY
3	10/25/21	UPDATE TO 2018 IBC/IRC	LFS
2	5/29/18	ADD FLAT FRAME LITE PROFILE	LFS
1	12/14/15	ADD H.S. GLAZING OPTION	JK

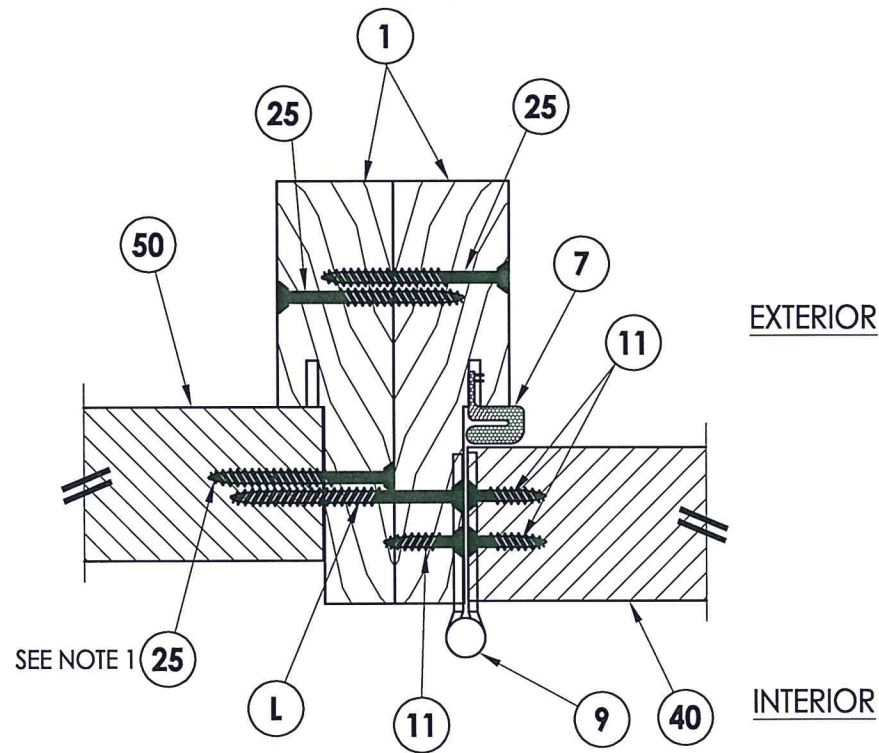
DATE: 11/8/12  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4277  
SHEET 4 OF 10



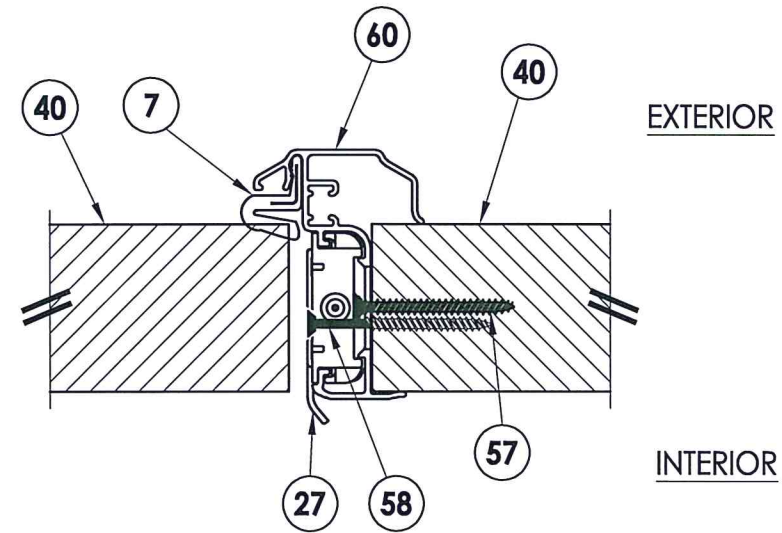
**1 HORIZONTAL CROSS SECTION**  
**5** Outswing shown - inswing also approved



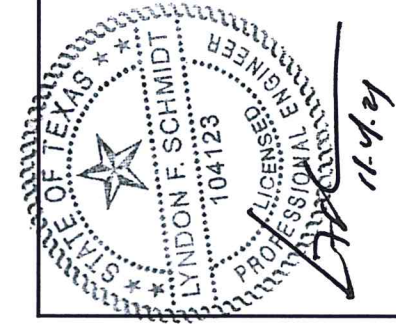
**4 HORIZONTAL CROSS SECTION**  
**5** Outswing shown - Inswing also approved



**2 HORIZONTAL CROSS SECTION**  
**5** Inswing shown - outswing also approved



**3 HORIZONTAL CROSS SECTION**  
**5** Inswing shown - outswing also approved



NOTE:  
 1. Sidelite panel screws located 6" from each end plus 4 more equally spaced (6 screws total).

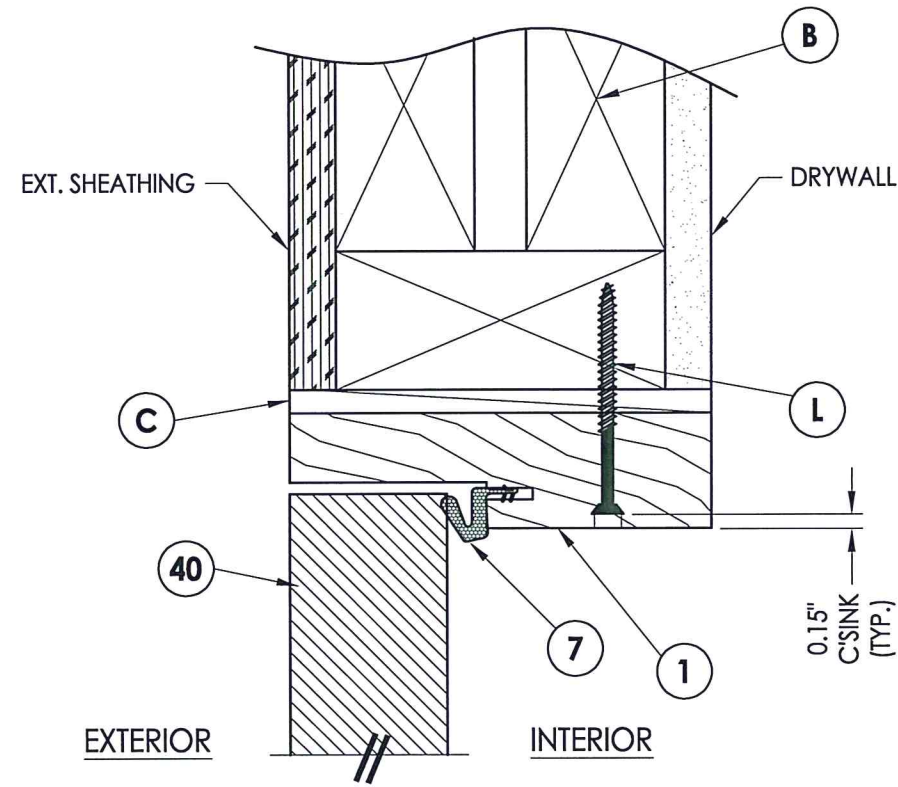
Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

**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

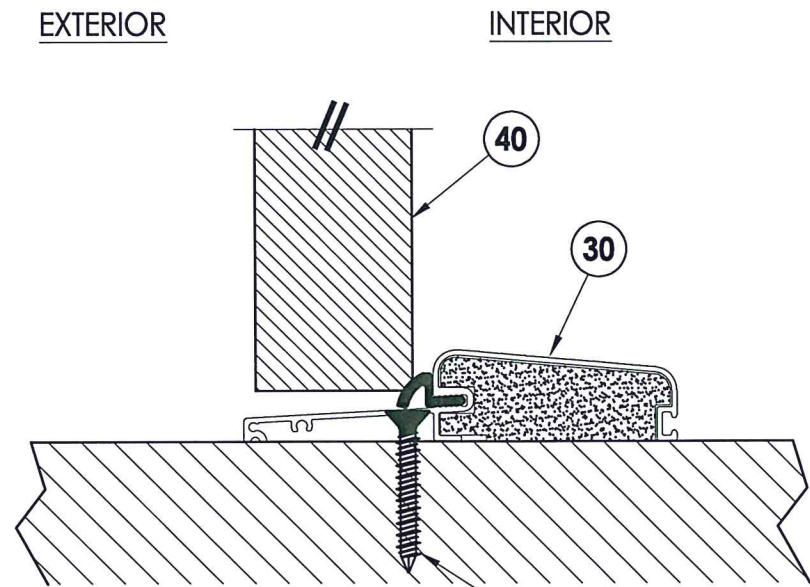
PRODUCT: FIBERGLASS DOOR  
 PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/29/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

DATE: 11/8/12  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4277  
 SHEET 5 OF 10

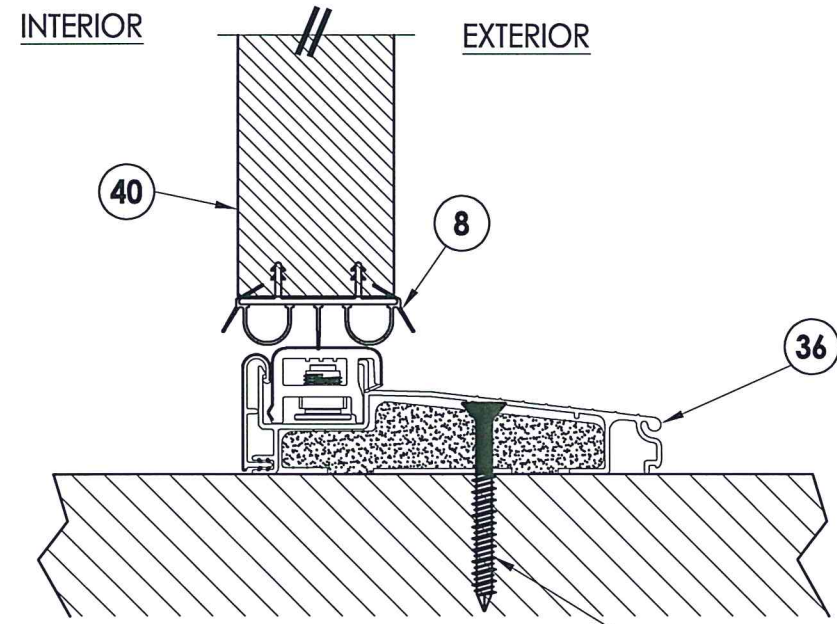


**1 VERTICAL CROSS SECTION**  
**6** Outswing shown - inswing also approved



**2 VERTICAL CROSS SECTION**  
**6** Outswing configuration

**J** WOOD  
**D** CONCRETE



**3 VERTICAL CROSS SECTION**  
**6** Inswing configuration

**J** WOOD  
**D** CONCRETE



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

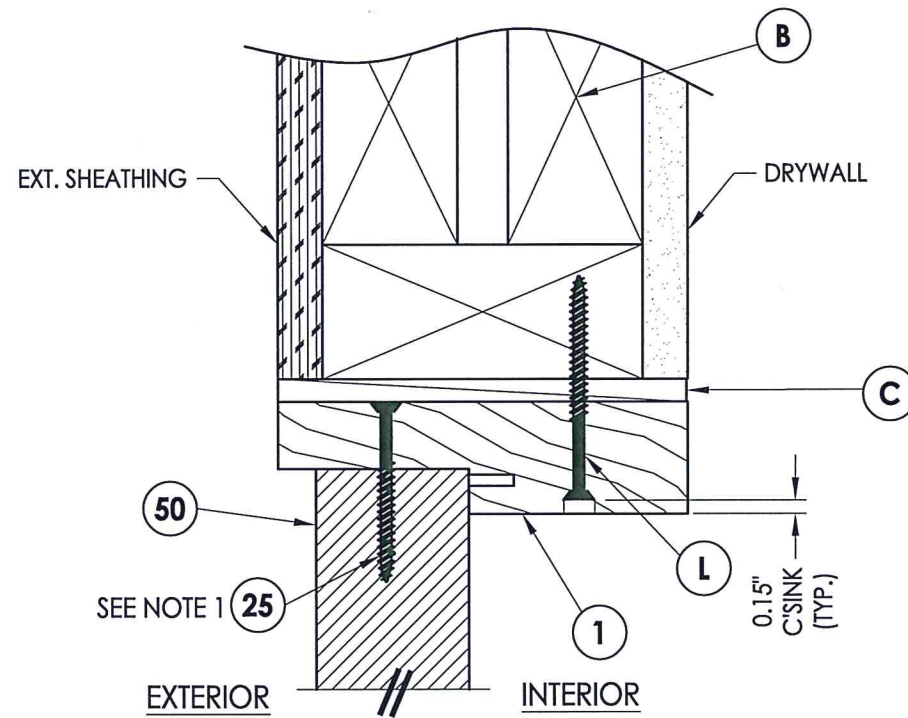
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: FIBERGLASS DOOR

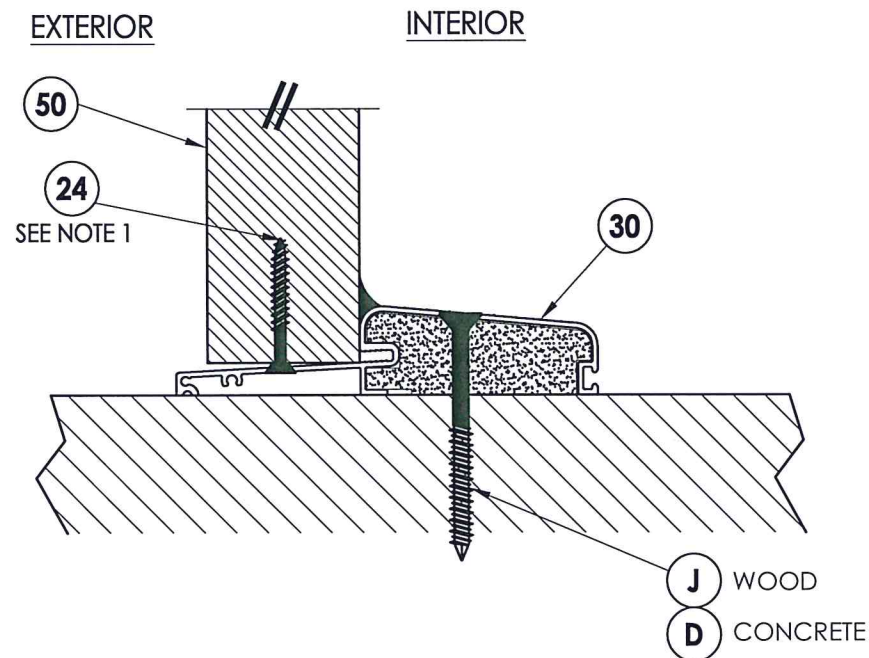
PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
3	10/25/21	UPDATE TO 2018 IBC/IRC	LFS
2	5/29/18	ADD FLAT FRAME LITE PROFILE	LFS
1	12/14/15	ADD H.S. GLAZING OPTION	JK

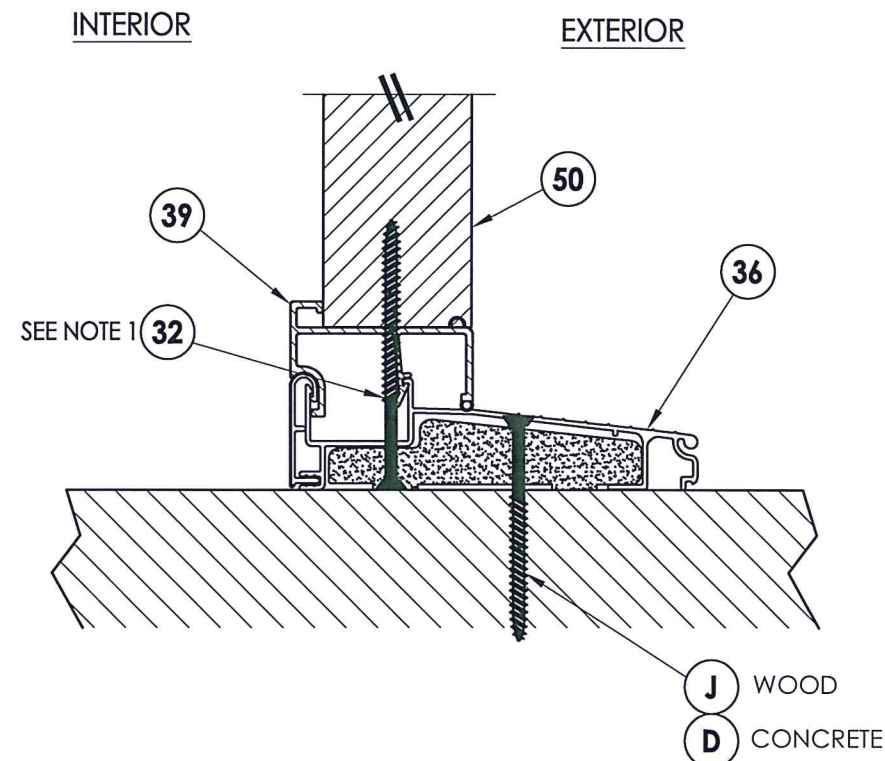
DATE: 11/8/12  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4277  
 SHEET 6 OF 10



**1** VERTICAL CROSS SECTION  
**7** Outswing shown - Inswing also approved

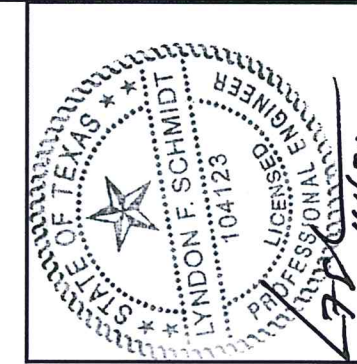


**2** VERTICAL CROSS SECTION  
**7** Outswing shown



**3** VERTICAL CROSS SECTION  
**7** Inswing shown

NOTE:  
 1. Sidelite panel screws located 6" from each end (2 Total).

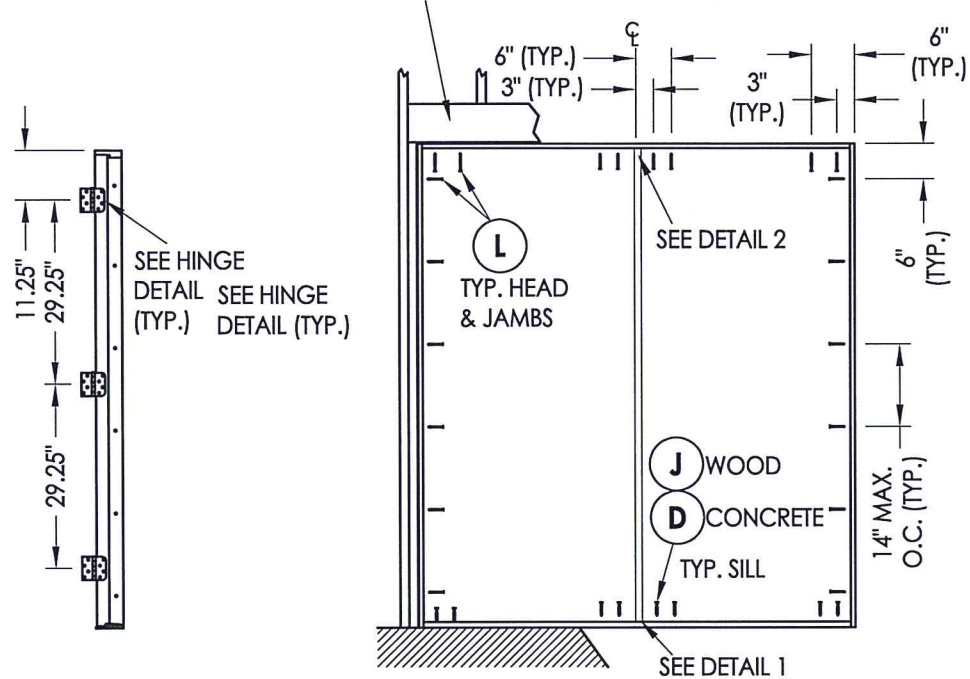


Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

**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:		FIBERGLASS DOOR	
PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
3	10/25/21	LFS	UPDATE TO 2018 IBC/IRC
2	5/29/18	LFS	ADD FLAT FRAME LITE PROFILE
1	12/14/15	JK	ADD H.S. GLAZING OPTION
DATE: 11/8/12			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4277			
SHEET 7 of 10			

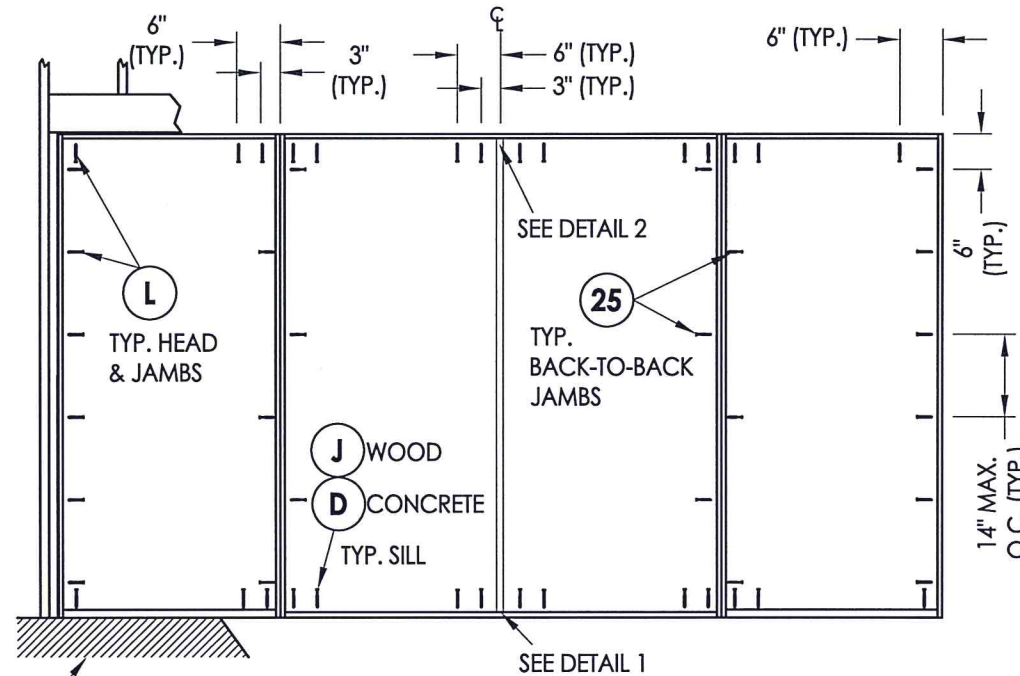
2X FRAMING TO BE DESIGNED BY THE ENGINEER OR ARCHITECT OF RECORD BASED ON WIND LOADS AND THE CLADDING BEING USED (TYP.).



**HINGE JAMB**

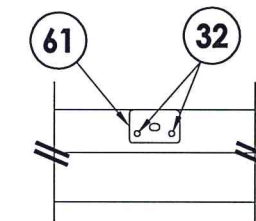
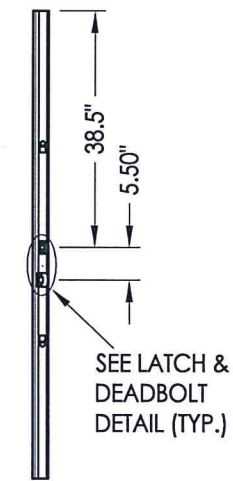
**FRAME ANCHORING  
XX**

FLOOR SUBSTRATE MATERIAL (TYP.)  
CONCRETE (MIN. 3000 PSI)  
WOOD (G >= 0.42)



**FRAME ANCHORING  
OXXO**

**ASTRAGAL STRIKE**

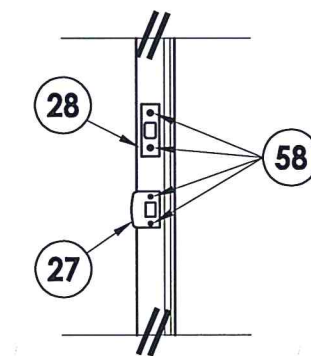


**DETAIL 2**  
Astragal strike plate @ head

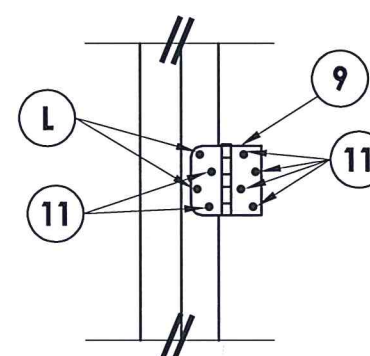
**CONCRETE ANCHOR NOTES:**

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:

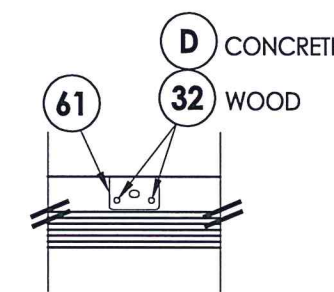
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	3"
DeWALT ULTRACON®	1/4"	1-3/4"	1"	3"



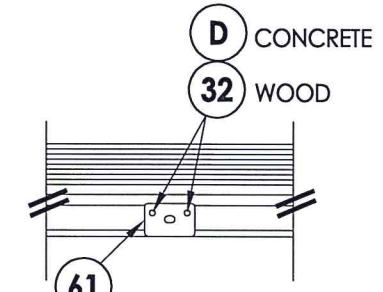
**LATCH & DEADBOLT DETAIL**



**HINGE DETAIL**



**DETAIL 1**  
Astragal strike plate @ sill  
(Outswing)



**DETAIL 1**  
Astragal strike plate @ sill  
(Inswing)



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

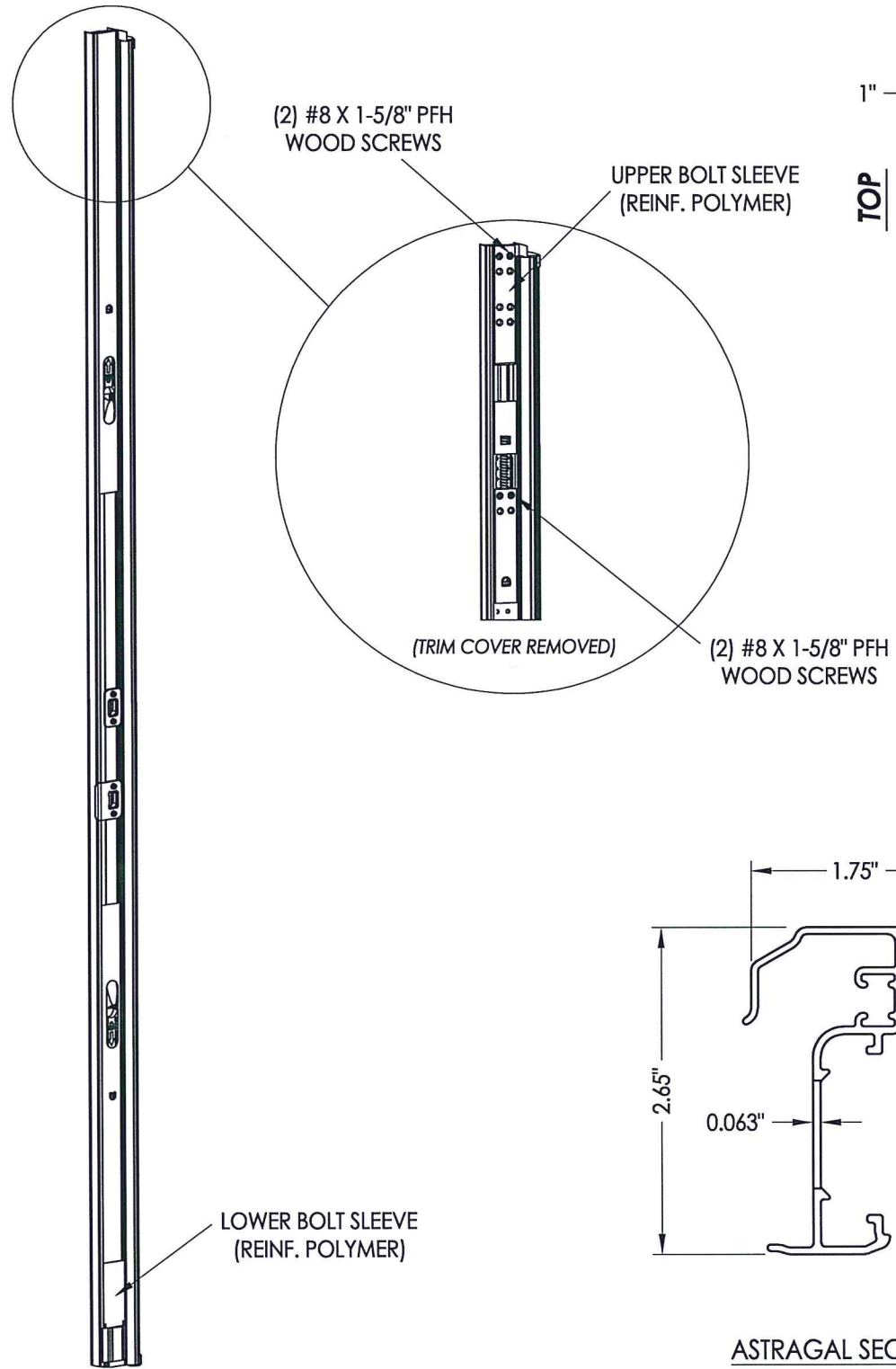
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:	FIBERGLASS DOOR
PART OR ASSEMBLY:	FRAME ANCHORING

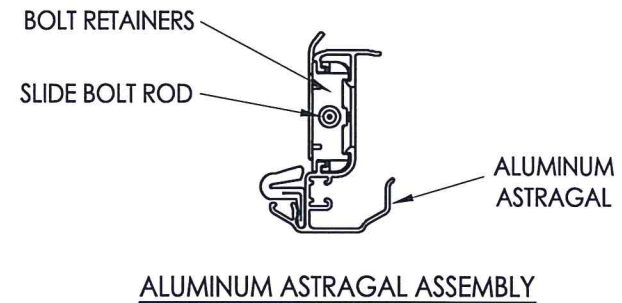
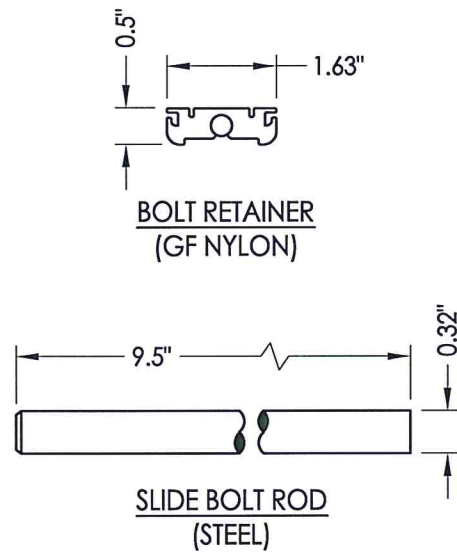
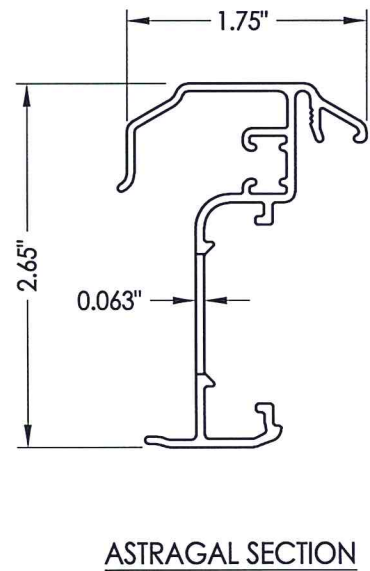
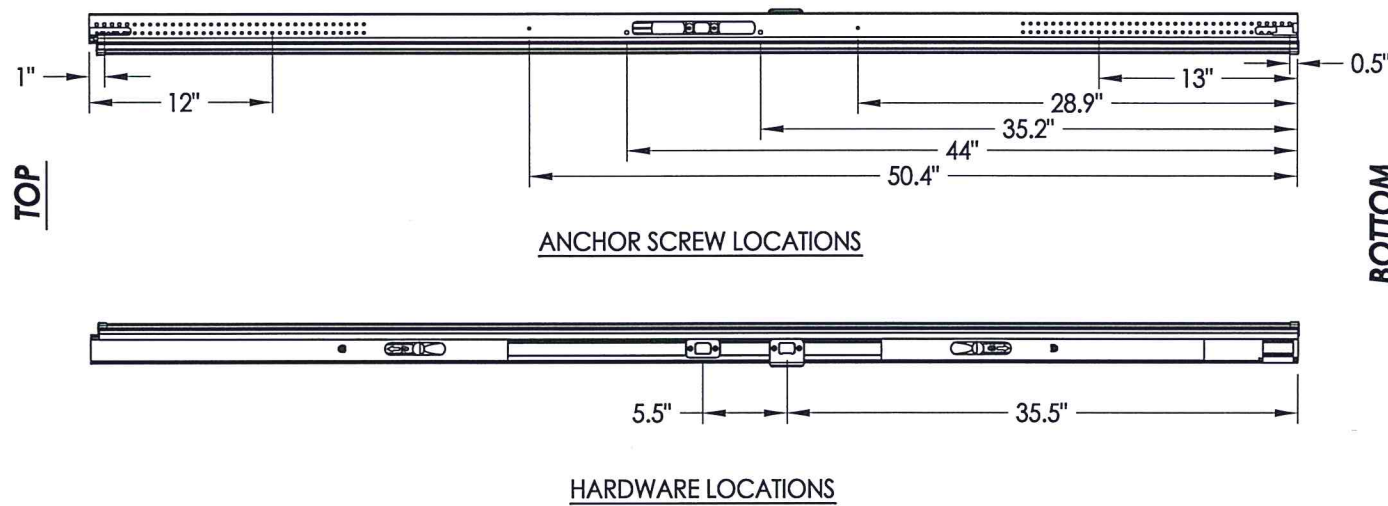
NO.	DATE	BY	REVISIONS
3	10/25/21	LFS	UPDATE TO 2018 IBC/IRC
2	5/29/18	JK	ADD FLAT FRAME LITE PROFILE
1	12/14/15	JK	ADD H.S. GLAZING OPTION

DATE: 11/8/12  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4277  
SHEET 8 of 10





**ULTIMATE HURRICANE ASTRAGAL**



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: FIBERGLASS DOOR

PART OR ASSEMBLY: ASTRAGAL DETAILS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/29/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION
		BY JK
		LFS

DATE: 11/18/12

SCALE: N.T.S.

DWG. BY: JK

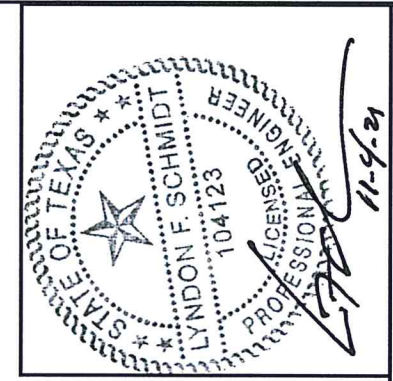
CHK. BY: LFS

DRAWING NO.: TX-4277

SHEET 9 OF 10

**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
B	2X FRAMING (G >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
J	#10 X 3" PFH WOOD SCREW (1-1/2" MIN. EMB.)	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMB.)	STEEL
1	HEAD & JAMB (FINGER-JOINT PINE)	WOOD
7	WEATHERSTRIP (PE 650 - ENDURA)	FOAM
8	DOOR BOTTOM SWEEP	VINYL
9	4" HINGE	STEEL
11	#9 X 3/4" PFH WOOD SCREW	STEEL
24	#10 X 1-1/2" PFH WOOD SCREW	STEEL
25	#10 X 2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
30	OUTSWING THRESHOLD	ALUM/COMP
32	#8 X 3" PFH WS	STEEL
36	INSWING THRESHOLD	ALUM/COMP
39	INSWING SIDELITE SEAT	PVC
40	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR DETAILS	-
50	SIDELITE PANEL - SEE SIDELITE PANEL DETAIL SHEET FOR DETAILS	-
57	#8 X 2" PFH SMS	STEEL
58	#8 X 2-1/2" PFH WOOD SCREW	STEEL
60	ASTRAGAL (ENDURA)	ALUM
61	ASTRAGAL STRIKE PLATE	STEEL



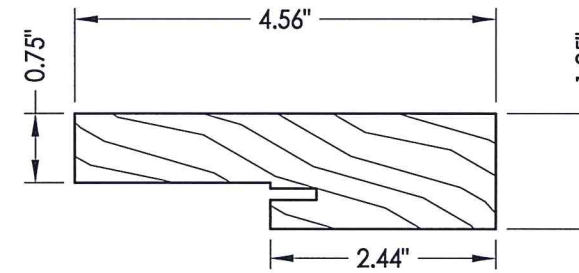
Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**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

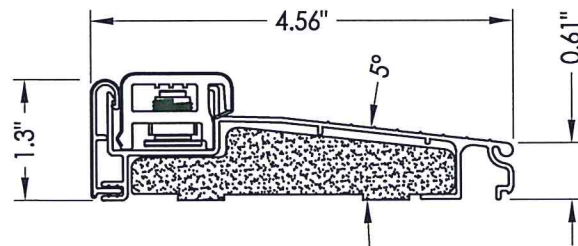
PRODUCT: FIBERGLASS DOOR  
PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	REVISIONS
3	10/25/21	UPDATE TO 2018 IBC/IRC
2	5/29/18	ADD FLAT FRAME LITE PROFILE
1	12/14/15	ADD H.S. GLAZING OPTION

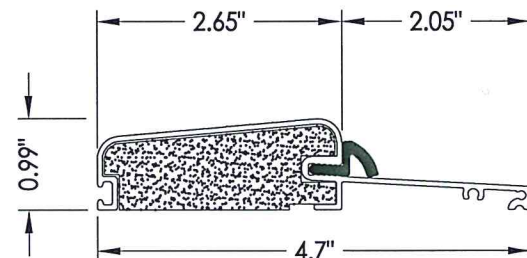
DATE: 11/8/12  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4277  
SHEET 10 OF 10



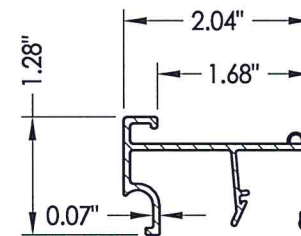
**1 HEAD & JAMB**  
Wood



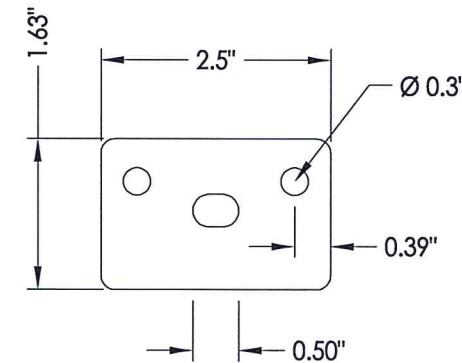
**36 INSWING THRESHOLD**  
ENDURA ZAIL 4565  
with Composite Substrate



**30 OUTSWING THRESHOLD**  
Columbia 775 Series  
w/ Composite Substrate



**39 INSWING SIDELITE SEAT**  
ENDURA 60 SERIES



**61 ASTRAGAL STRIKE PLATE**