

# THERMA-TRU<sup>®</sup> DOORS

Fiber-Classic<sup>®</sup> & Smooth-Star<sup>®</sup>

## FLUSH GLAZED FIBERGLASS DOOR INSWING/OUTSWING "NON-IMPACT"

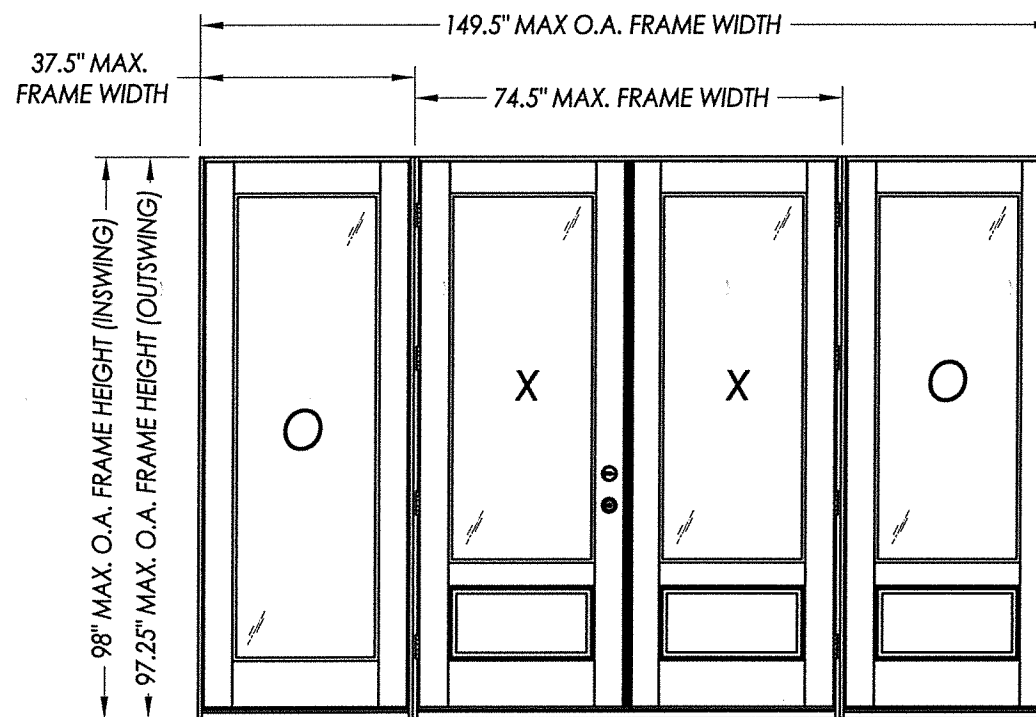
### EVALUATED FOR USE IN THE STATE OF TEXAS

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:

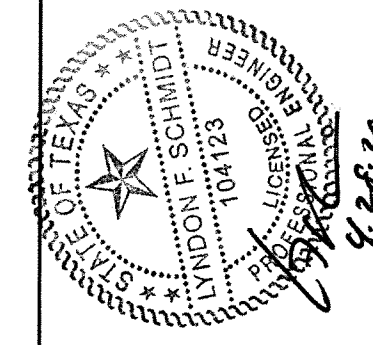
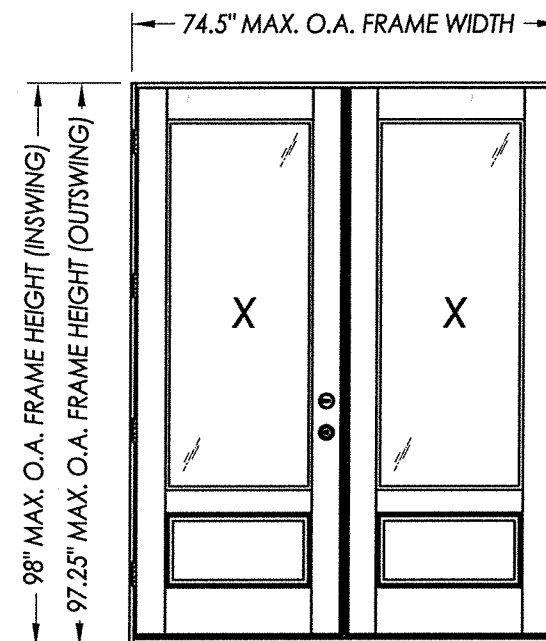
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. When used in areas requiring wind-borne debris protection, this system is required to be protected with an impact resistant covering that complies with Section R301.2.1.2 of the IRC and Section 1609.2 of the IBC.
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	Table of contents, design pressure and general notes
2	Door/Slidelite panel & glazing details
3	Slidelite panel & glazing details
4	Elevators
5	Horizontal cross sections
6	Vertical cross sections
7	Frame anchoring & hardware details
8	Bill of materials and components



CONFIGURATION	MAX FRAME DIMENSION	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	74.5" X 98.0"	+35.0	-35.0	+35.0	-35.0
OXXO	149.5" X 98.0"	+35.0	-35.0	+35.0	-35.0



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: THERMA-TRU  
FLUSH GLAZED DOOR

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

NO.	DATE	REVISIONS
1	4/28/20	UPDATE TO 2018 IBC/IRC CODE

DATE: 7/28/15

SCALE: N.T.S.

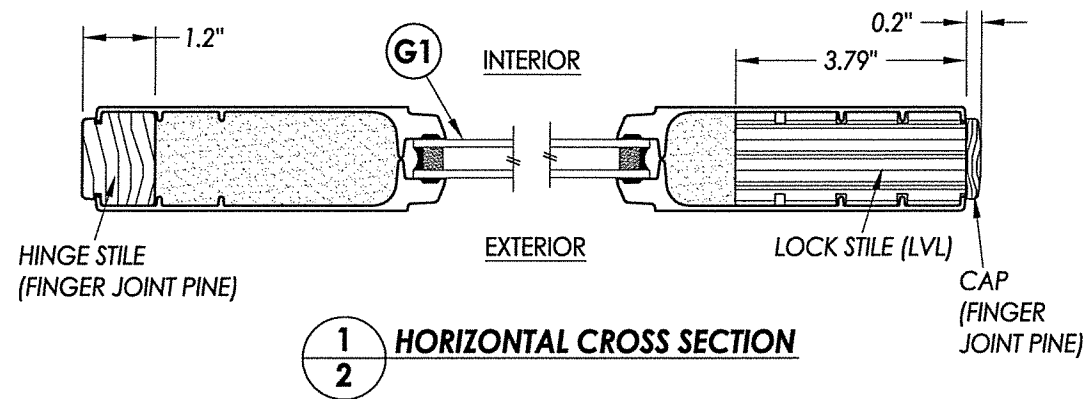
DWG. BY: JK

CHK. BY: LFS

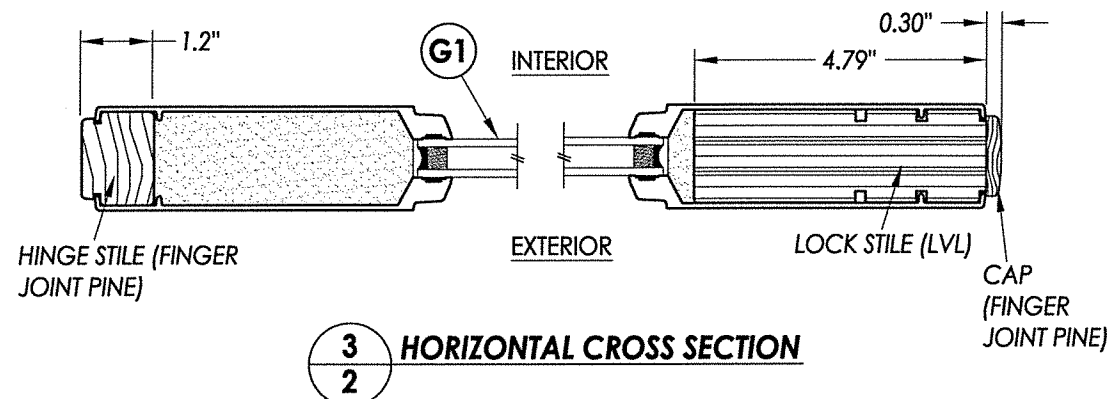
DRAWING NO.:

TX-4559

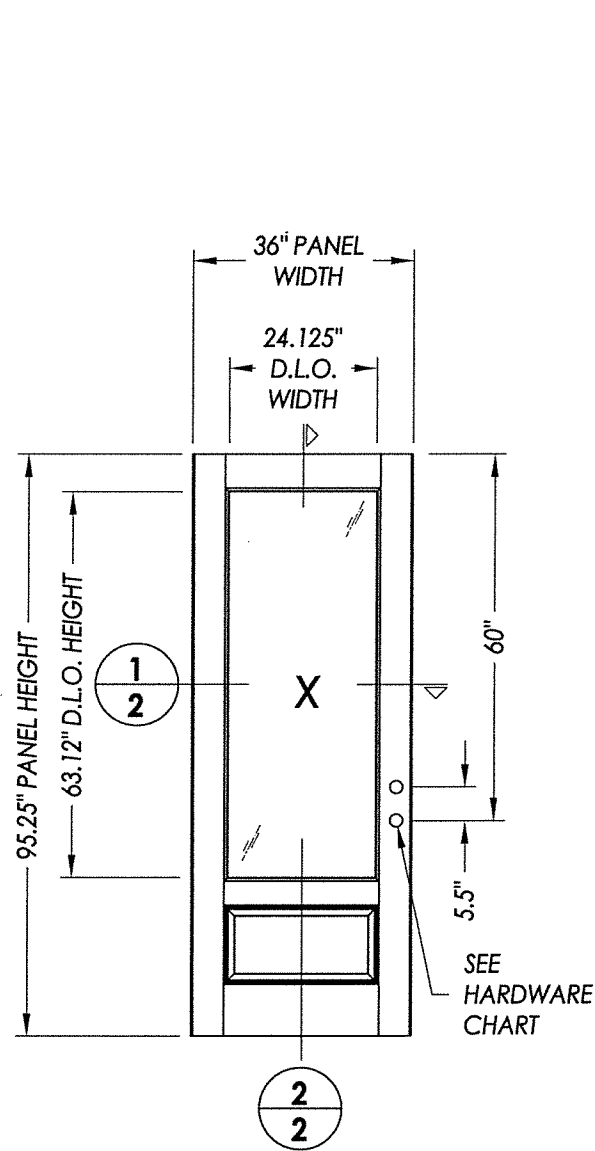
SHEET 1 OF 8



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

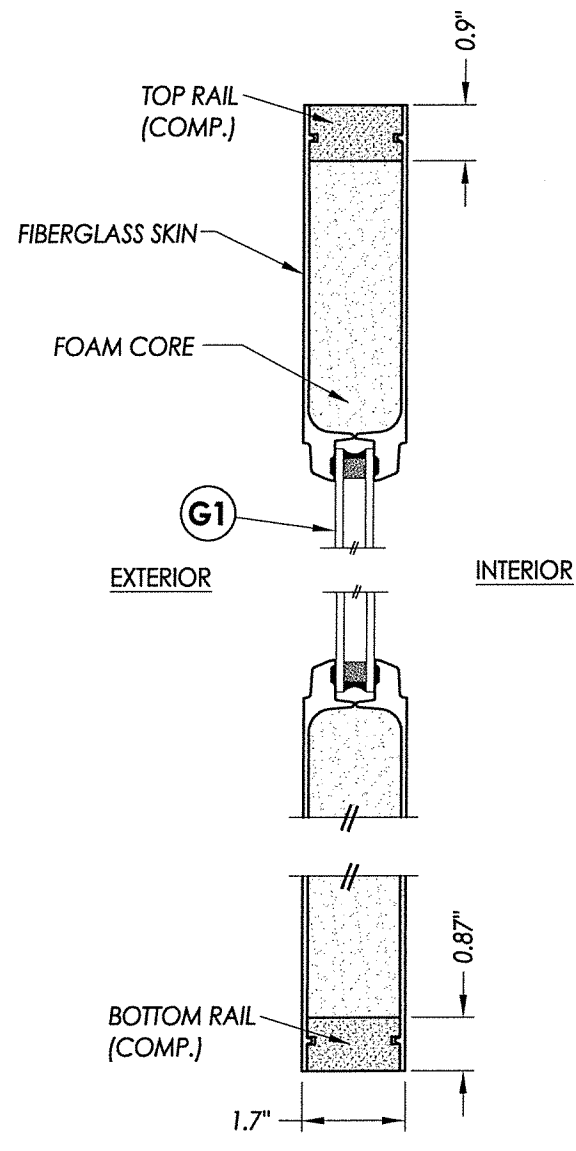


**3**  
**2** HORIZONTAL CROSS SECTION

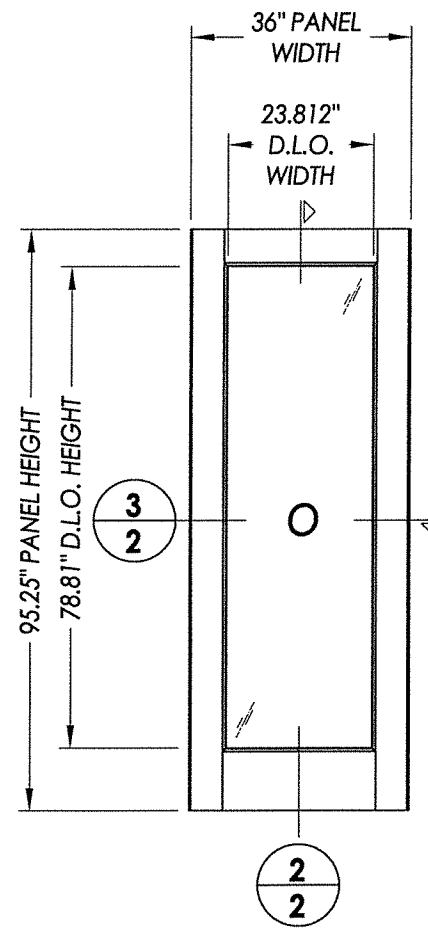


**40** 3'-0" DOOR/SIDELITE PANEL  
Fiber-Classic or Smooth-Star  
3/4 Lite (Flush Glazed)

FIBERGLASS SKIN: 0.077" THICKNESS  
FOAM CORE: POLYURETHANE

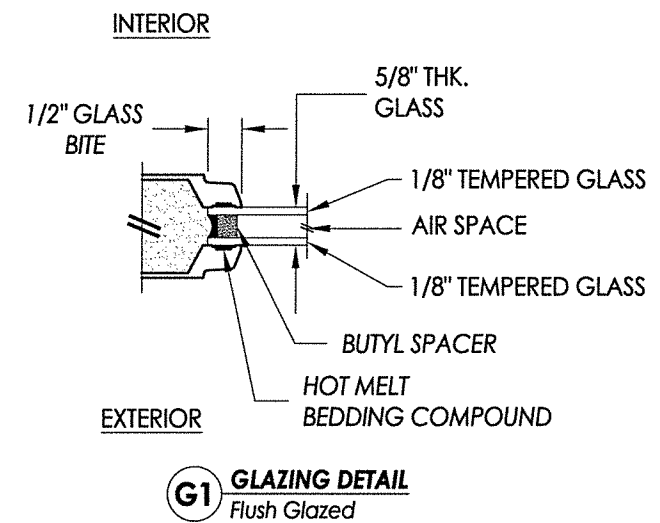


**2**  
**2** VERTICAL CROSS SECTION



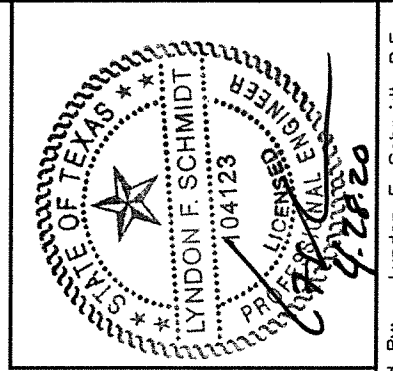
**50** 3'-0" SIDELITE PANEL  
Fiber-Classic or Smooth-Star  
Full Lite (Flush Glazed)

FIBERGLASS SKIN: 0.077" THICKNESS  
FOAM CORE: POLYURETHANE



**G1** GLAZING DETAIL  
Flush Glazed

HARDWARE TABLE	
MANUFACTURER	MODEL
KWIKSET	KNOB: 400 DEADBOLT: 660



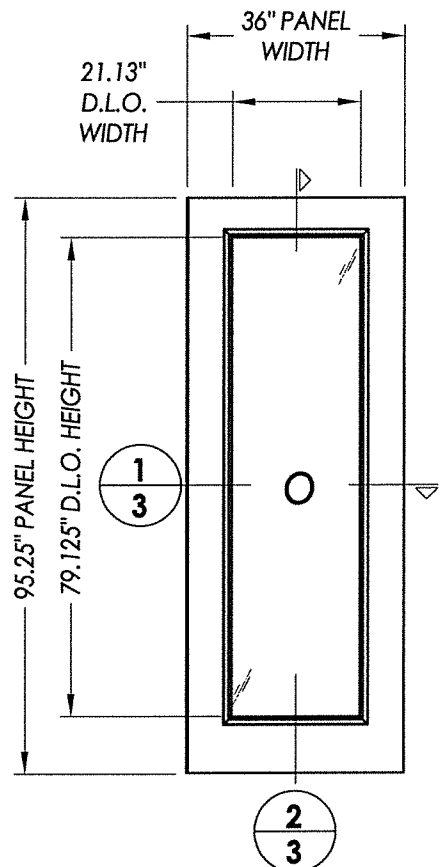
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CERTIFICATE OF REGISTRATION # F-11852

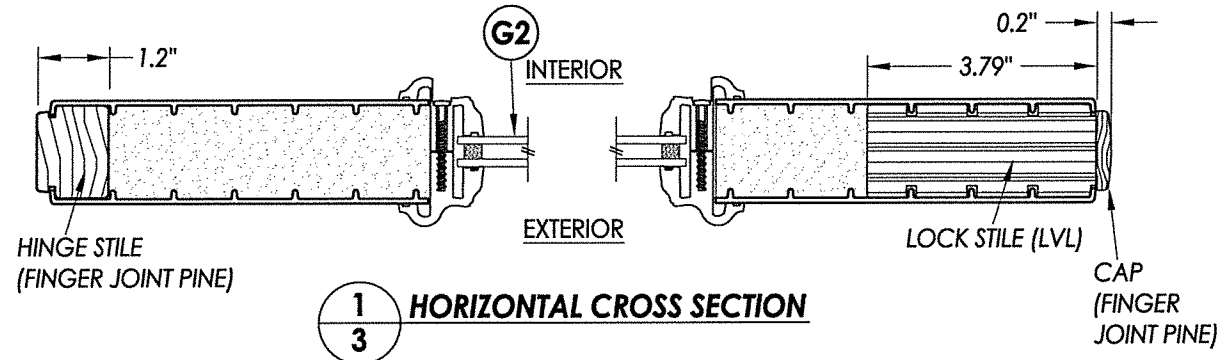
PRODUCT:	Therma-TRU FLUSH GLAZED DOOR
PART OR ASSEMBLY:	DOOR PANEL & GLAZING DETAILS
NO.	1
DATE	4/28/20
UPDATE TO	2018 IBC/IRC CODE
BY	LFS
REVISIONS	

DATE: 7/28/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4559  
SHEET 2 OF 8

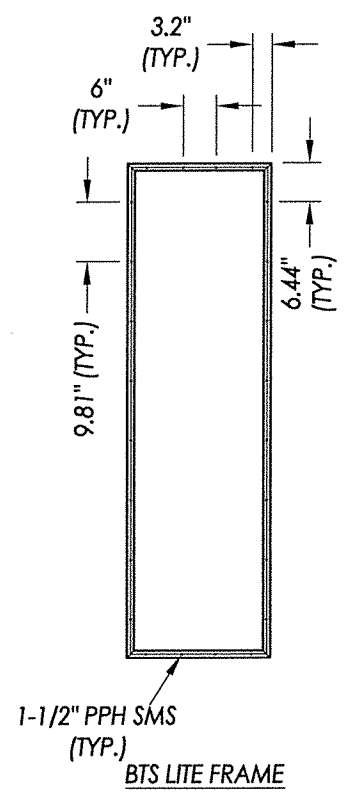


**60 3'-0" SIDELITE PANEL**  
Full Lite (BTS Lite Frame)

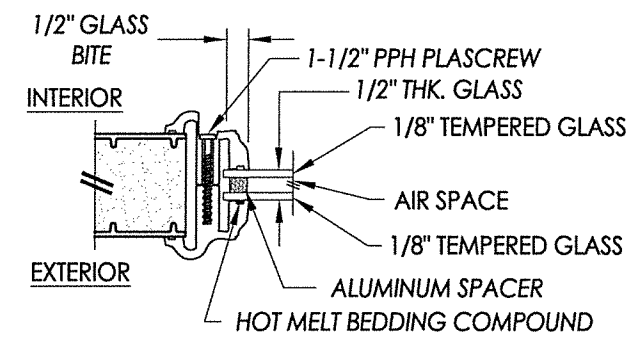
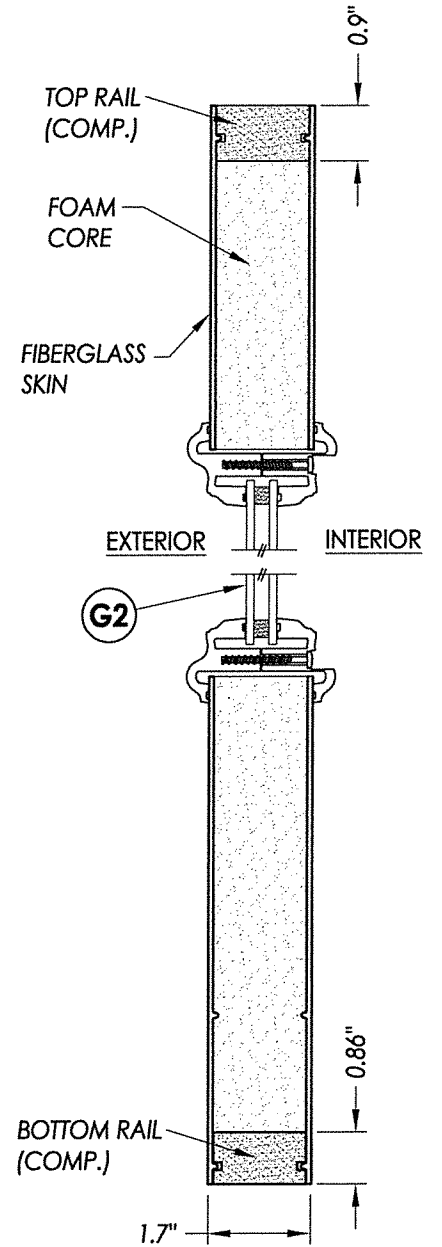
FIBERGLASS SKIN: 0.07" THICKNESS  
FOAM CORE: POLYURETHANE



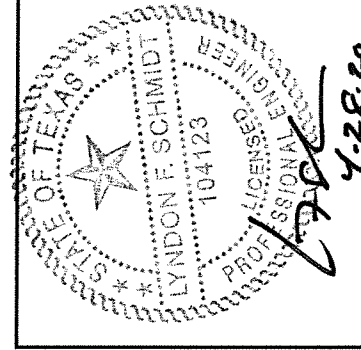
**1 HORIZONTAL CROSS SECTION**



**2 VERTICAL CROSS SECTION**



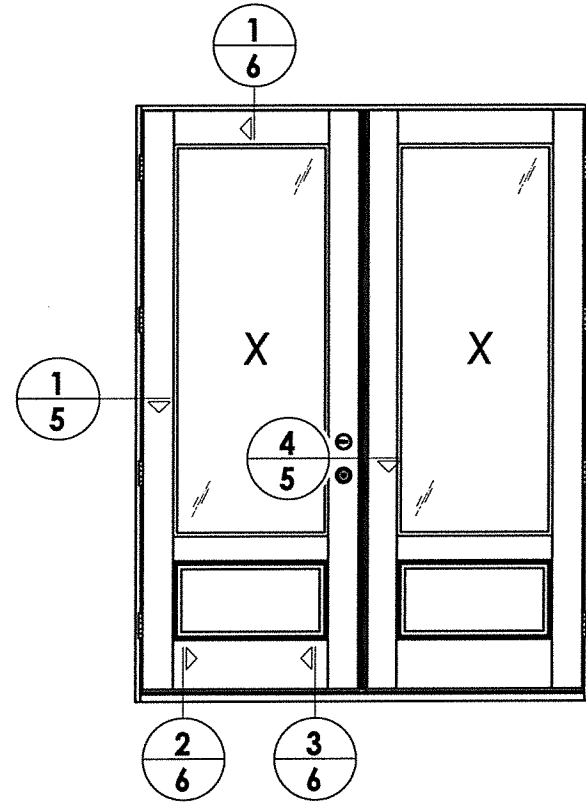
**G2 GLAZING DETAIL**  
BTS Lite Frame



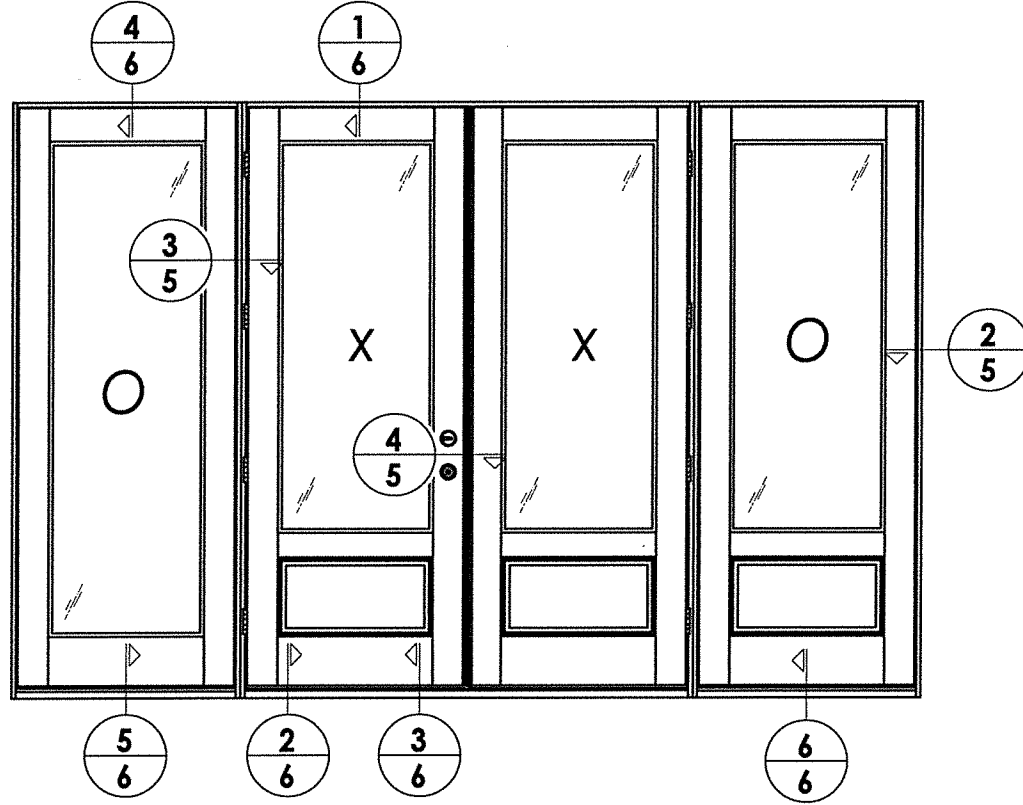
Documents Prepared By: Lyndon F. Schmidt, P.E.  
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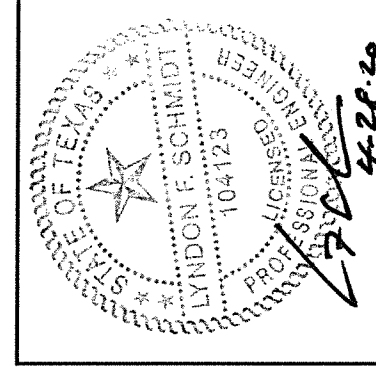
PRODUCT:	THERMA-TRU FLUSH GLAZED DOOR			
PART OR ASSEMBLY:	SIDELITE PANEL & GLAZING DETAILS			
DATE:	7/28/15			
SCALE:	N.T.S.			
DWG. BY:	JK			
CHK. BY:	LFS			
DRAWING NO.:	TX-4559			
SHEET	3 OF 8			
NO.	DATE	UPDATE TO 2018 IBC/IRC CODE	LFS	BY
1	4/28/20			
REVISIONS				



XX



OXXO



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

PRODUCT: THERMA-TRU  
FLUSH GLAZED DOOR

PART OR ASSEMBLY:  
ELEVATIONS

NO.	DATE	REVISIONS
1	4/28/20	UPDATE TO 2018 IBC/IRC CODE
		LFS
		BY

DATE: 7/28/15

SCALE: N.T.S.

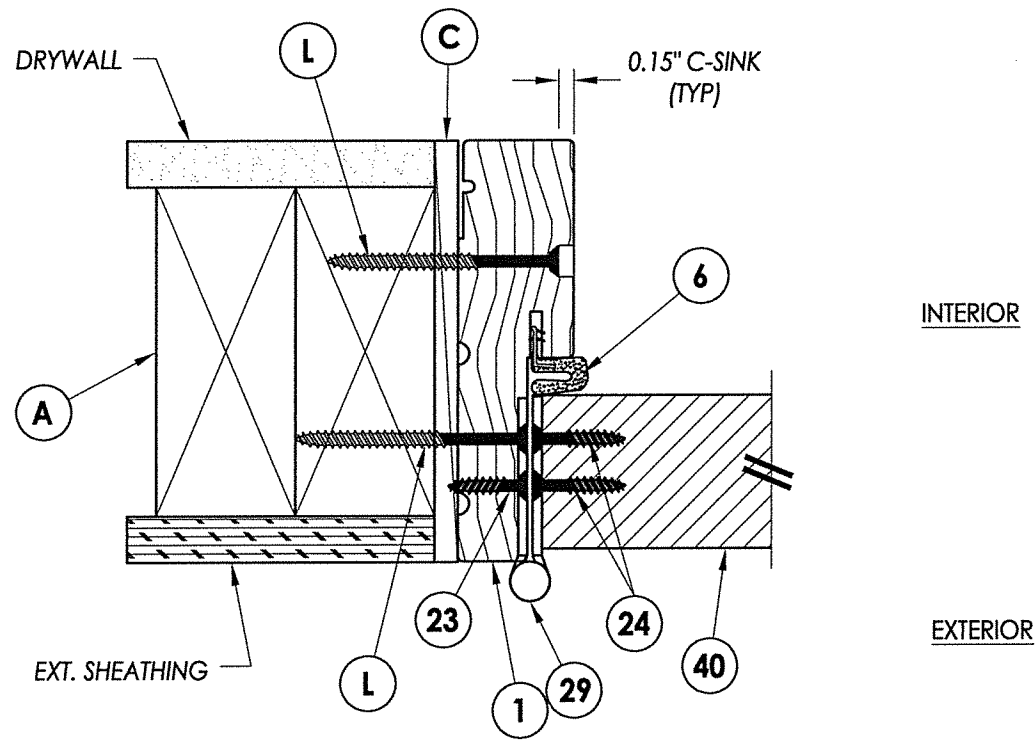
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CHK. BY: LFS

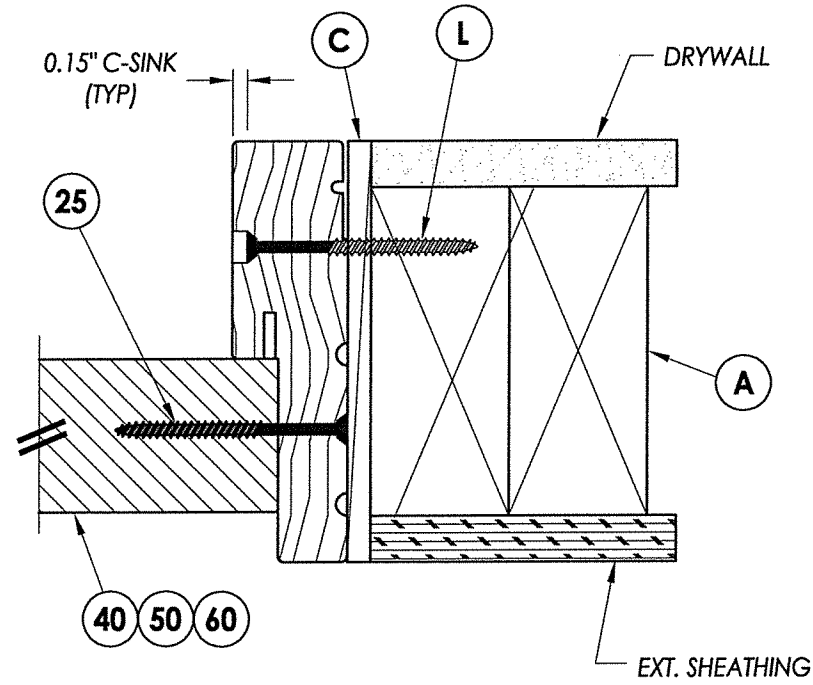
DRAWING NO.:  
TX-4559

SHEET 4 OF 8

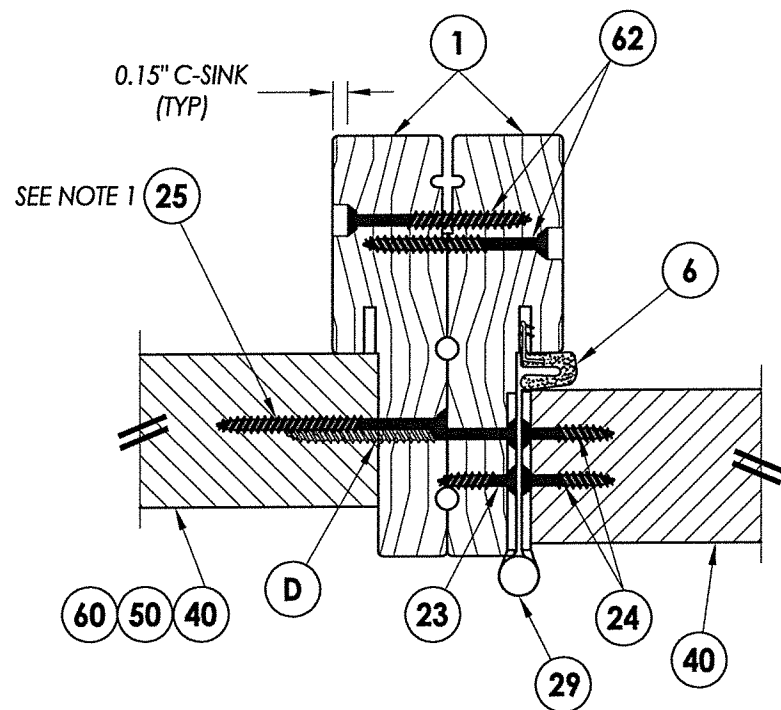
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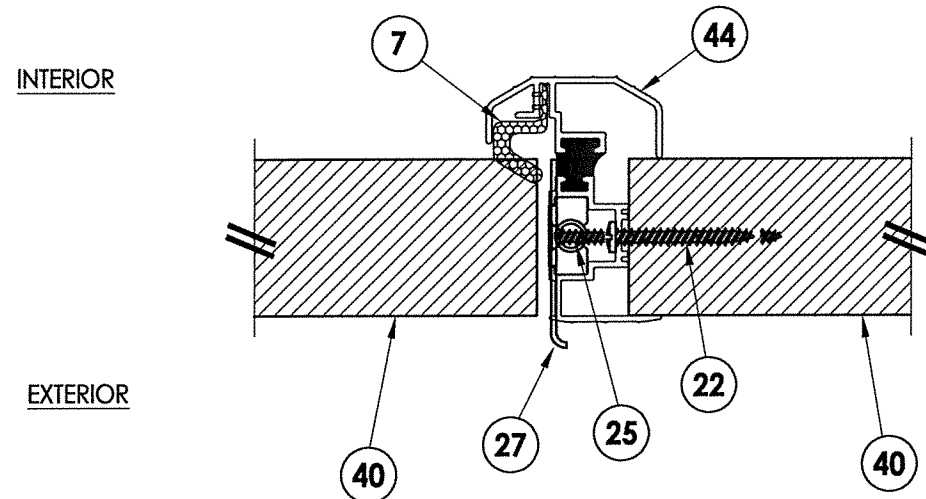
**1** HORIZONTAL CROSS SECTION  
**5** Outswing Shown (Inswing similar)



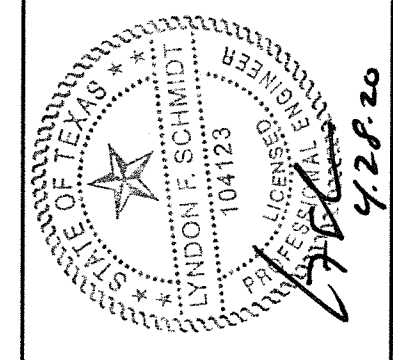
**2** HORIZONTAL CROSS SECTION  
**5** Outswing Shown (Inswing similar)



**3** HORIZONTAL CROSS SECTION  
**5** Outswing Shown (Inswing similar)



**4** HORIZONTAL CROSS SECTION  
**5** Outswing Shown (Inswing similar)



Note:  
1. Sidelite assembly screws located 8" from each end then 2 more equally spaced (4 total).

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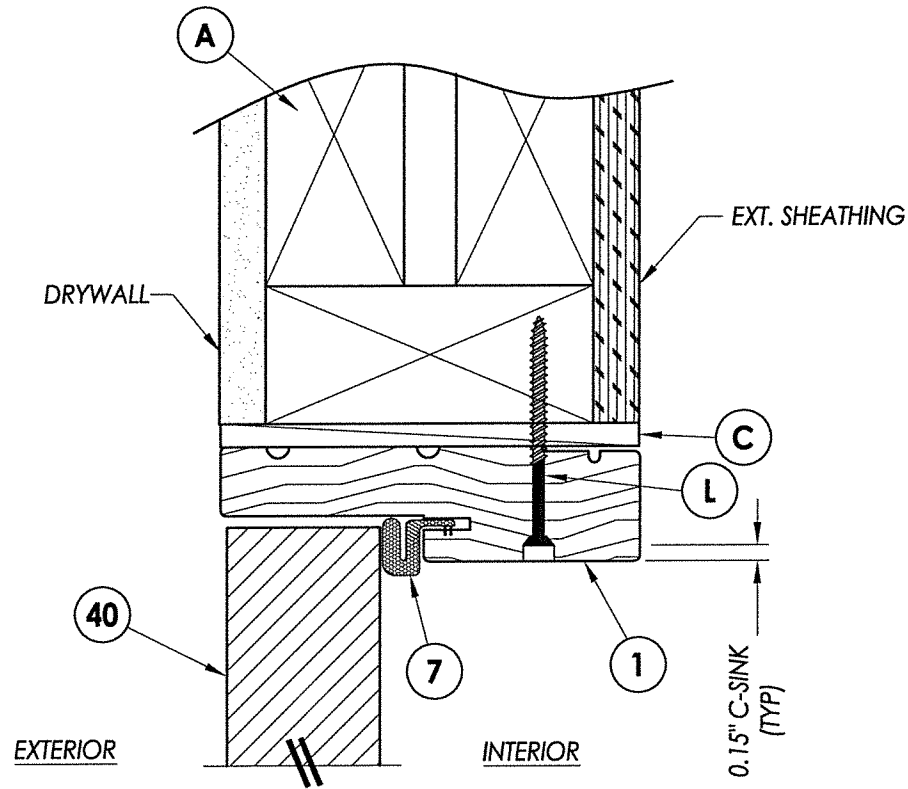
RW BUILDING CONSULTANTS, INC.  
P.O. Box 230 Vairico FL 33595  
Phone No.: 813.659.9197  
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU FLUSH GLAZED DOOR  
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

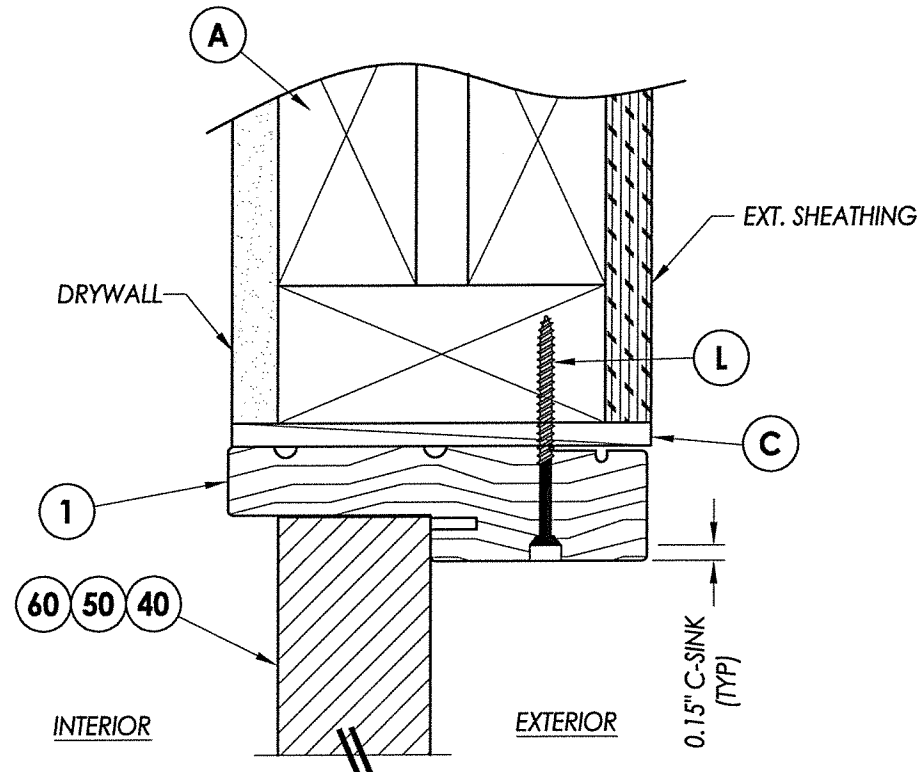
NO.	DATE	DESCRIPTION	BY
1	4/28/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE: 7/28/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4559  
SHEET 5 OF 8

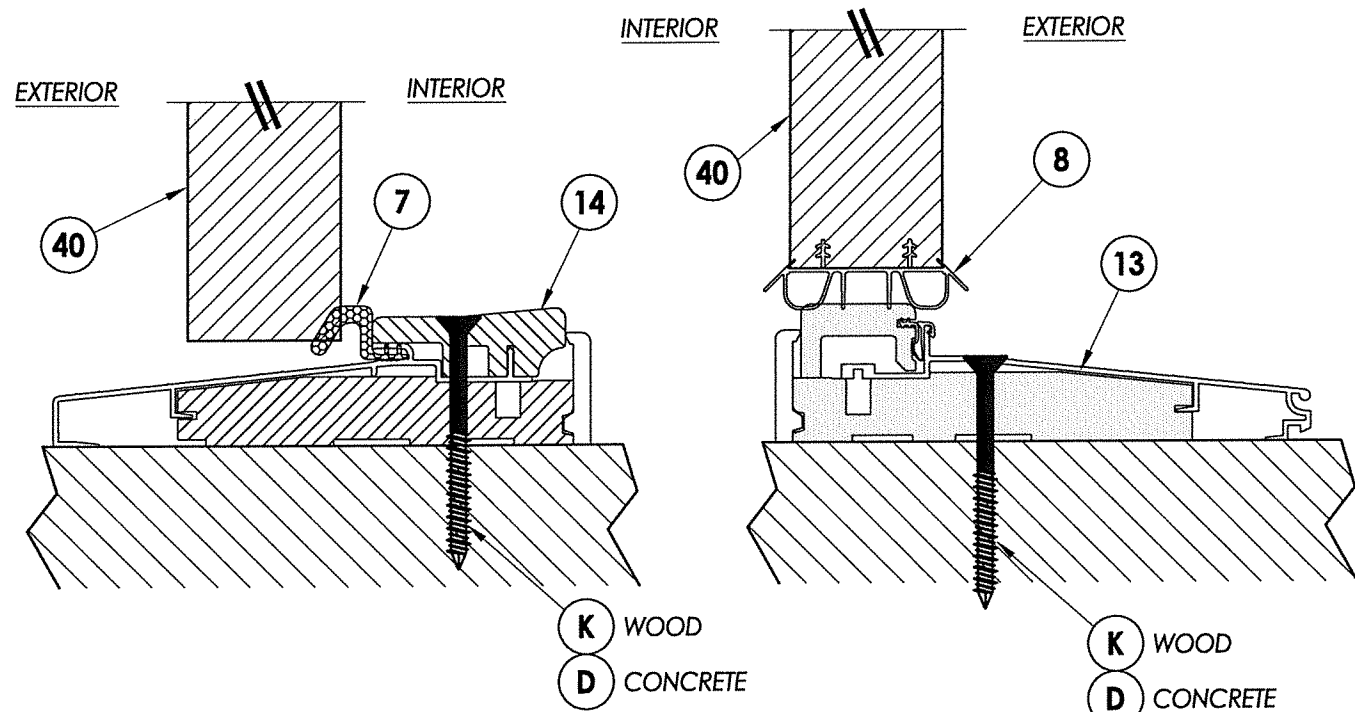
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**1** VERTICAL CROSS SECTION  
**6** Outswing Shown (Inswing similar)

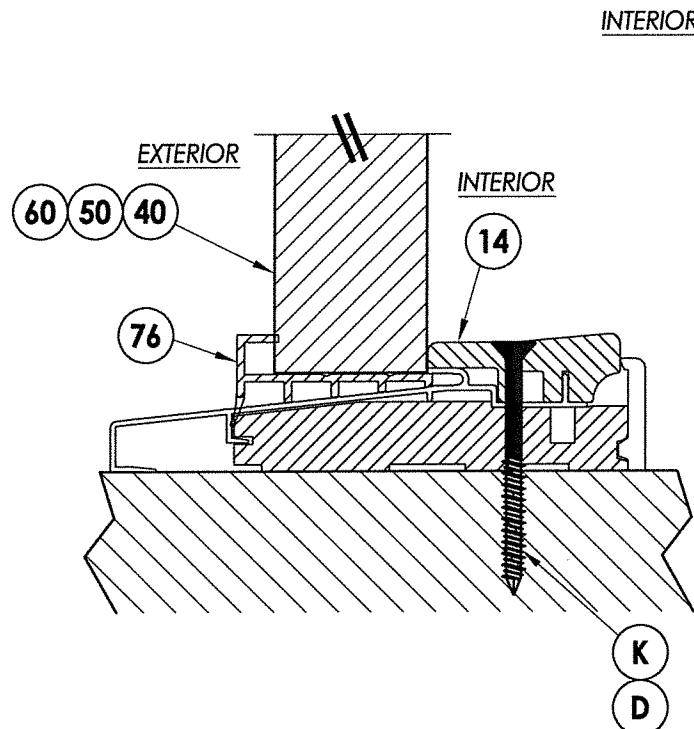


**4** VERTICAL CROSS SECTION  
**6** Outswing Shown (Inswing similar)

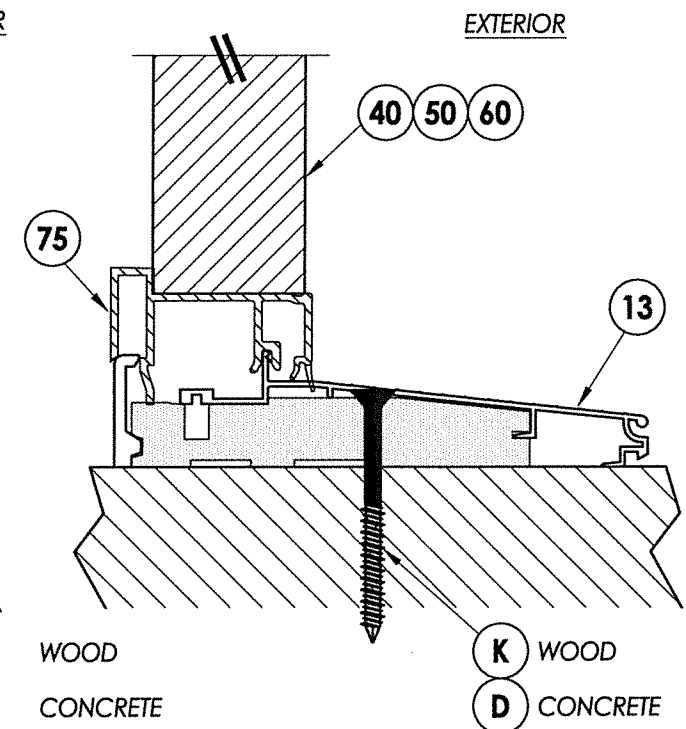


**2** VERTICAL CROSS SECTION  
**6** Outswing Sill

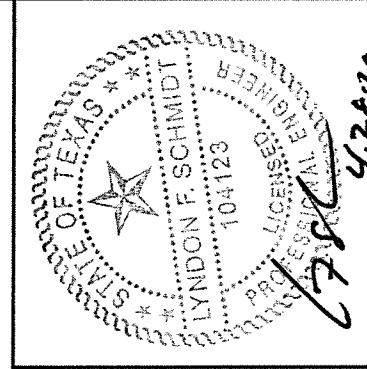
**3** VERTICAL CROSS SECTION  
**6** Inswing Sill



**5** VERTICAL CROSS SECTION  
**6** Outswing Sill



**6** VERTICAL CROSS SECTION  
**6** Inswing Sill



Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123  
 4.28.20

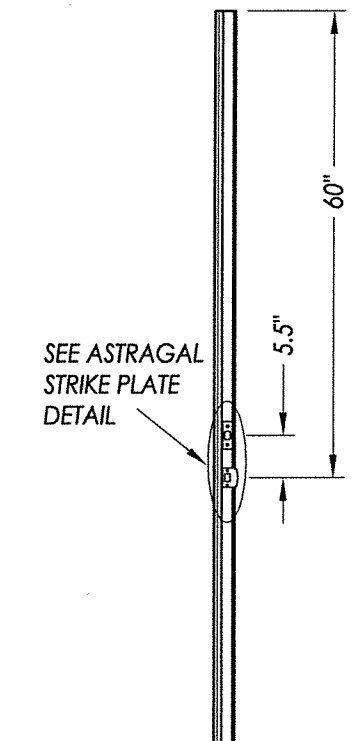
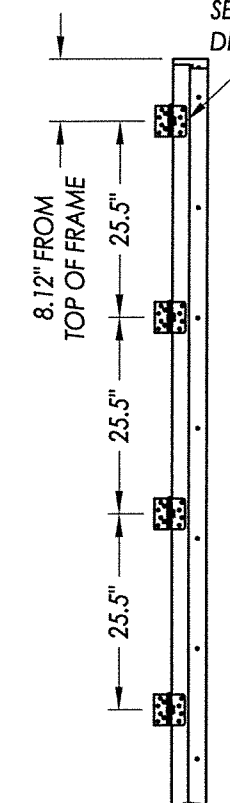
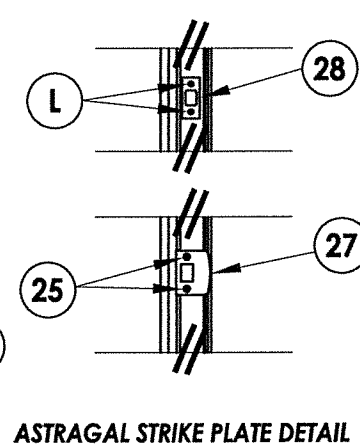
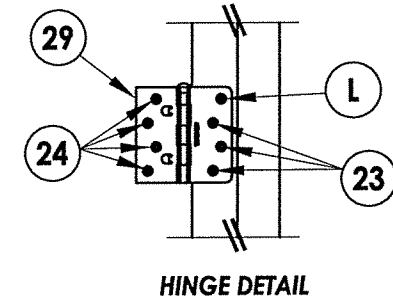
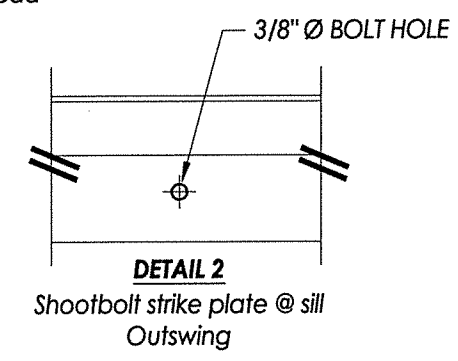
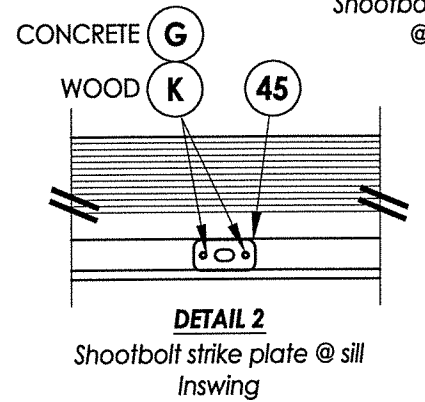
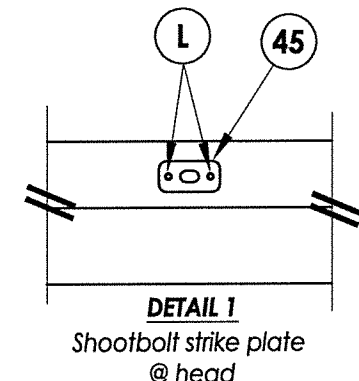
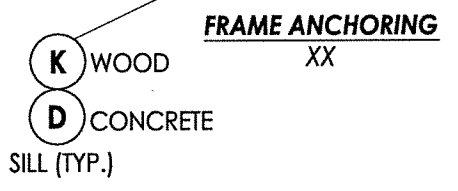
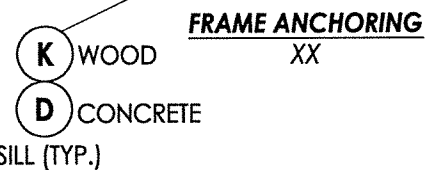
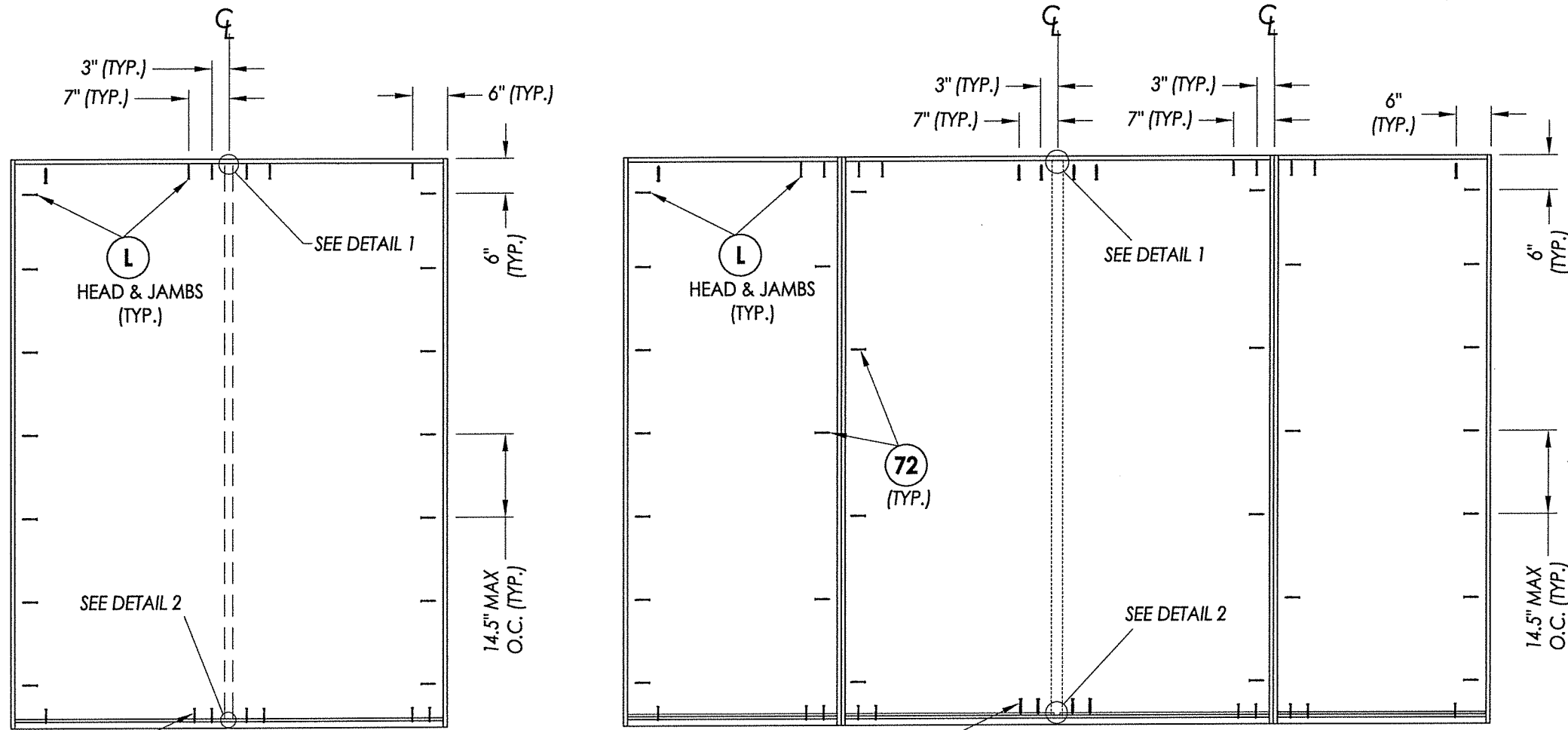
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230 Valrico FL 33595  
 Phone No.: 813.659.9197  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU  
 FLUSH GLAZED DOOR  
 PART OR ASSEMBLY:  
 VERTICAL  
 CROSS SECTIONS

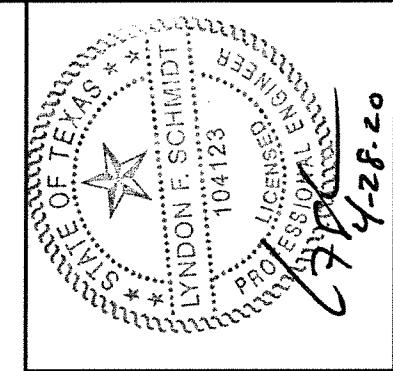
NO.	DATE	DESCRIPTION	BY
1	4/28/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE: 7/28/15  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4559  
 SHEET 6 OF 8

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**FRAME ANCHORING**  
2X stud framing  
w/ wood/concrete substrate



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

PRODUCT: THERMA-TRU  
FLUSH GLAZED DOOR  
PART OR ASSEMBLY:  
FRAME ANCHORING  
& HARDWARE DETAILS

NO.	DATE	REVISIONS	LFS	BY
1	4/28/20	UPDATE TO 2018 IBC/IRC CODE	LFS	

DATE: 7/28/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4559  
SHEET 7 OF 8

**BILL OF MATERIALS**

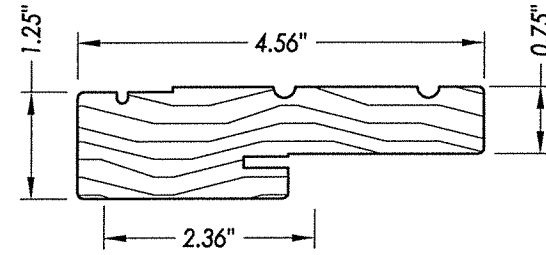
ITEM #	DESCRIPTION	MATERIAL
A	2X FRAMING (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	STEEL
G	3/16" PFH ITW CONCRETE SCREW (1-3/4" MIN. EMBEDMENT)	STEEL
K	#10 PFH WOOD SCREW (1-1/2" MIN. EMBEDMENT)	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
1	JAMB - FINGER JOINTED PINE	WOOD
6	WEATHERSTRIP (Medium Reach by Therma-Tru)	FOAM
7	WEATHERSTRIP (Long Reach by Therma-Tru)	FOAM
8	SWEEP	VINYL
13	INSWING THRESHOLD	ALUM/COMP
14	OUTSWING THRESHOLD	ALUM/COMP
23	#10 x 3/4" PFH WOOD SCREW	STEEL
24	#10 x 1" PFH WOOD SCREW	STEEL
25	#8 x 2-1/2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4" X 4" HINGE	STEEL
40	3'-0" DOOR/SIDELITE PANEL - 3/4 LITE (FLUSH GLAZED)	-
44	ASTRAGAL (THERMA-TRU)	ALUM
45	SHOOTBOLT STRIKE PLATE	STEEL
50	3'-0" SIDELITE PANEL - FULL LITE (FLUSH GLAZED)	-
60	3'-0" SIDELITE PANEL - FULL LITE (BTS LITE FRAME)	-
72	#10 X 2" PFH WOOD SCREW	STEEL
75	SIDELITE SPACER (INSWING)	PVC
76	SIDELITE SPACER (OUTSWING)	PVC

**CONCRETE ANCHOR NOTES:**

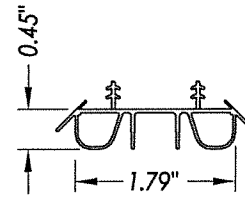
- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON 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®	3/16"	1-3/4"	3"	1-1/2"
	1/4"	1-3/4"	1-1/2"	4"
ELCO ULTRACON®	1/4"	1-3/4"	1"	4"

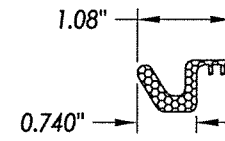
MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90



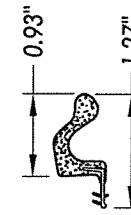
1 WOOD JAMB



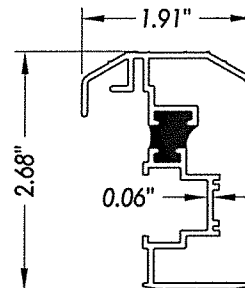
8 SWEEP



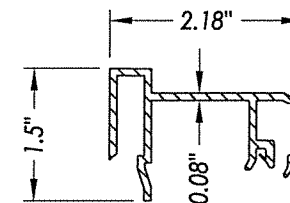
6 WEATHERSTRIP Medium Reach



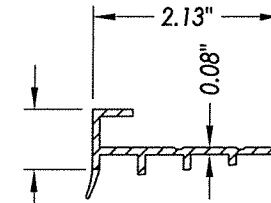
7 WEATHERSTRIP Long Reach



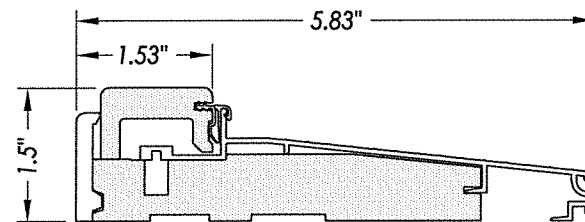
44 ASTRAGAL



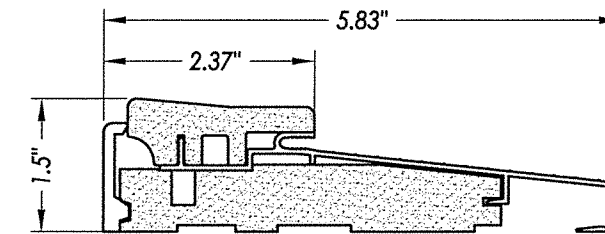
75 SIDELITE SPACER Inswing



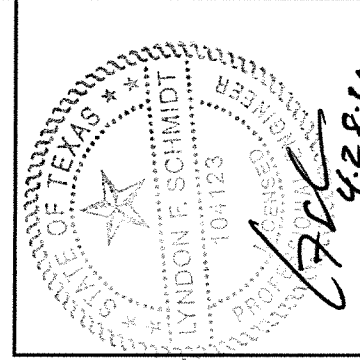
76 SIDELITE SPACER Outswing



13 INSWING THRESHOLD



14 OUTSWING THRESHOLD



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

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

PRODUCT: THERMA-TRU FLUSH GLAZED DOOR

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO.	DATE	REVISIONS
1	4/28/20	UPDATE TO 2018 IBC/IRC CODE

DATE: 7/28/15  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4559  
SHEET 8 OF 8