

# THERMA TRU®

118 INDUSTRIAL DR., EDGERTON, OH 43517

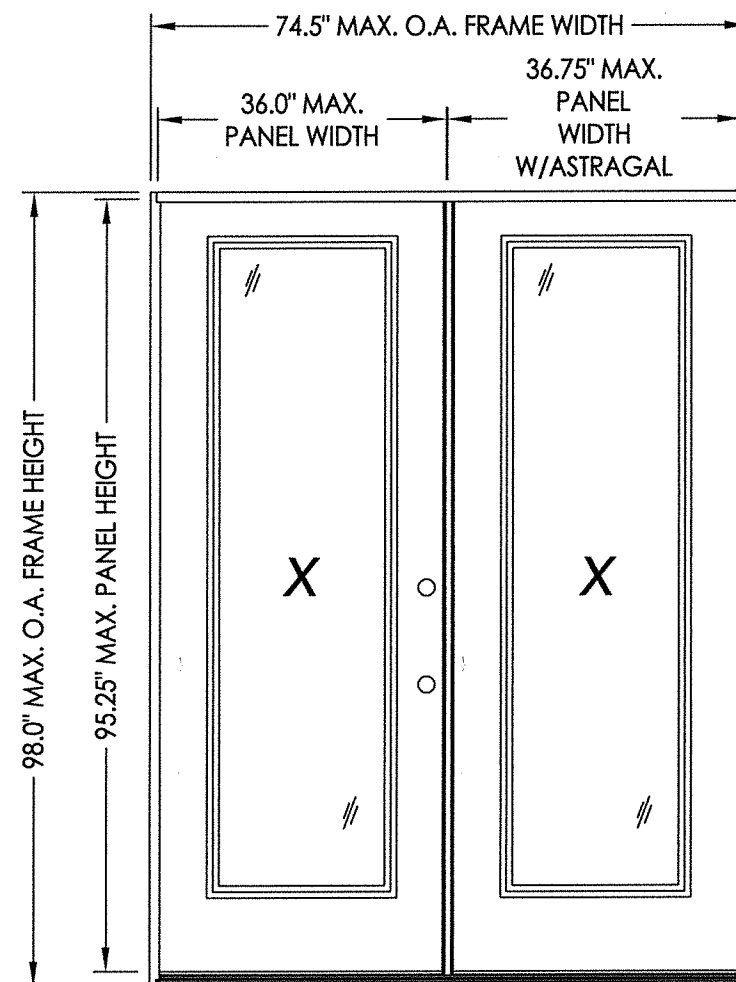
## "SMOOTH-STAR", "FIBER-CLASSIC", "CLASSIC-CRAFT" & "CLASSIC-CRAFT RUSTIC" GLAZED FIBERGLASS DOUBLE DOOR IN SWING / OUT SWING "IMPACT"

### 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:

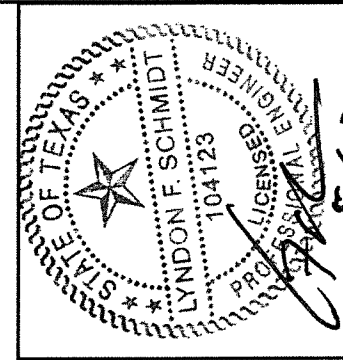
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. This system has been tested and evaluated as a large missile impact protective system for installation in areas that require wind borne debris protection. This 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.
5. Fiber-Classic and Smooth-Star Door and Sidelite panels require the use of "J" part numbers. These door and sidelite panels must be stained or painted within six months of installation.

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SHEET #	DESCRIPTION
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5	HORIZONTAL CROSS SECTIONS
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"SMOOTH-STAR", "FIBER-CLASSIC"  
"CLASSIC-CRAFT" & "CLASSIC-CRAFT RUSTIC"

SWING	OVERALL FRAME DIMENSION	OVERALL D.L.O. DOOR / SIDELITE DIMENSION	DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
IN SWING	74.5" X 98.0"	21.0" X 78.75"	+50.0	-50.0
OUT SWING	74.5" X 96.75"	21.0" X 78.75"	+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

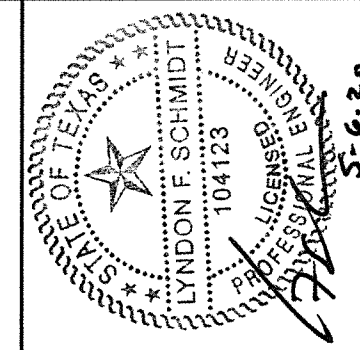
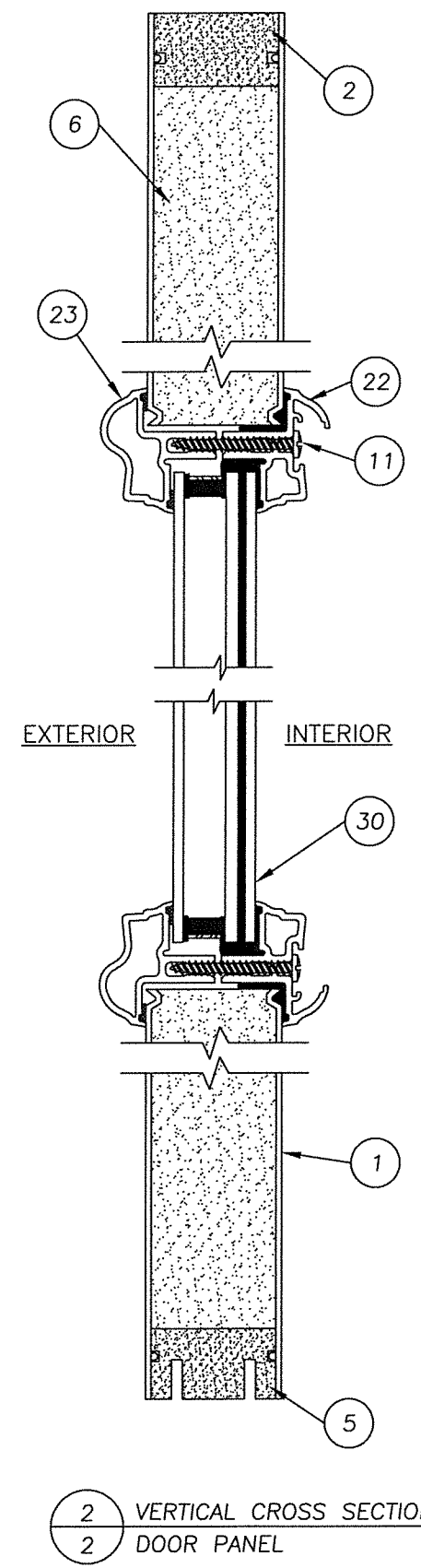
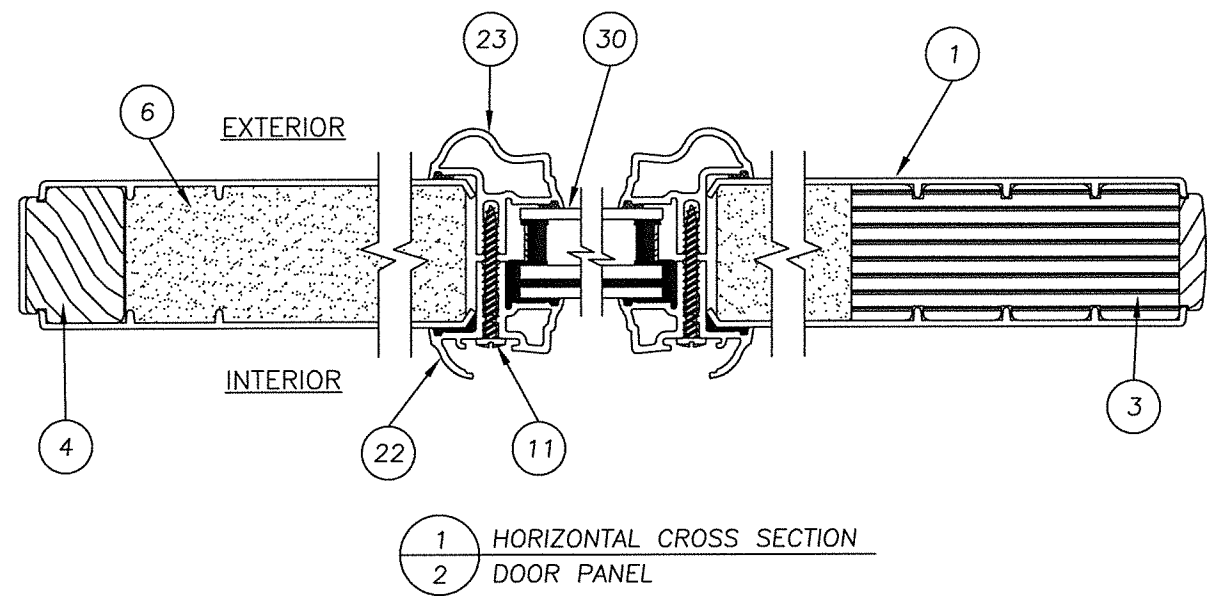
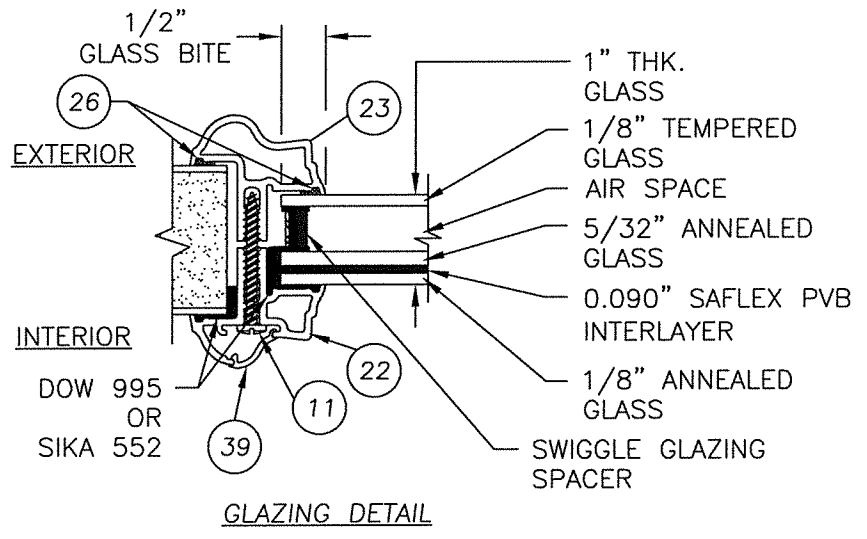
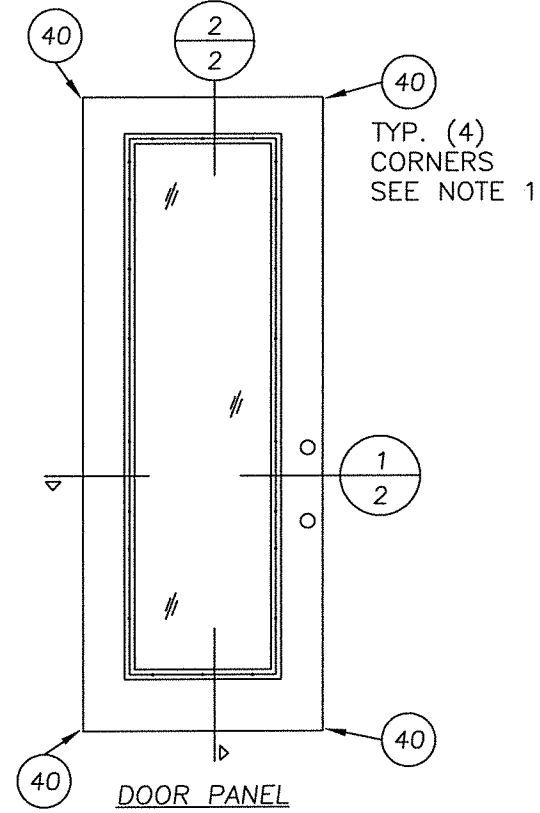
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU GLAZED FIBERGLASS DOUBLE DOOR IN/OUTSWING "IMPACT", PART OR ASSEMBLY:

TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	BY	REVISIONS
2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	LFS	ADDED GENERAL NOTE 5.

DATE: 7/17/12  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4198  
SHEET 1 OF 9

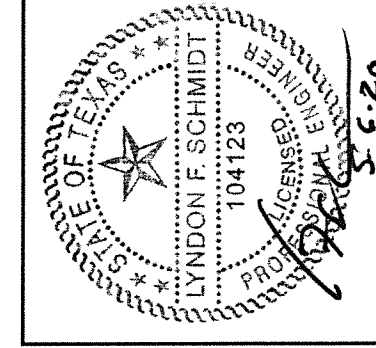
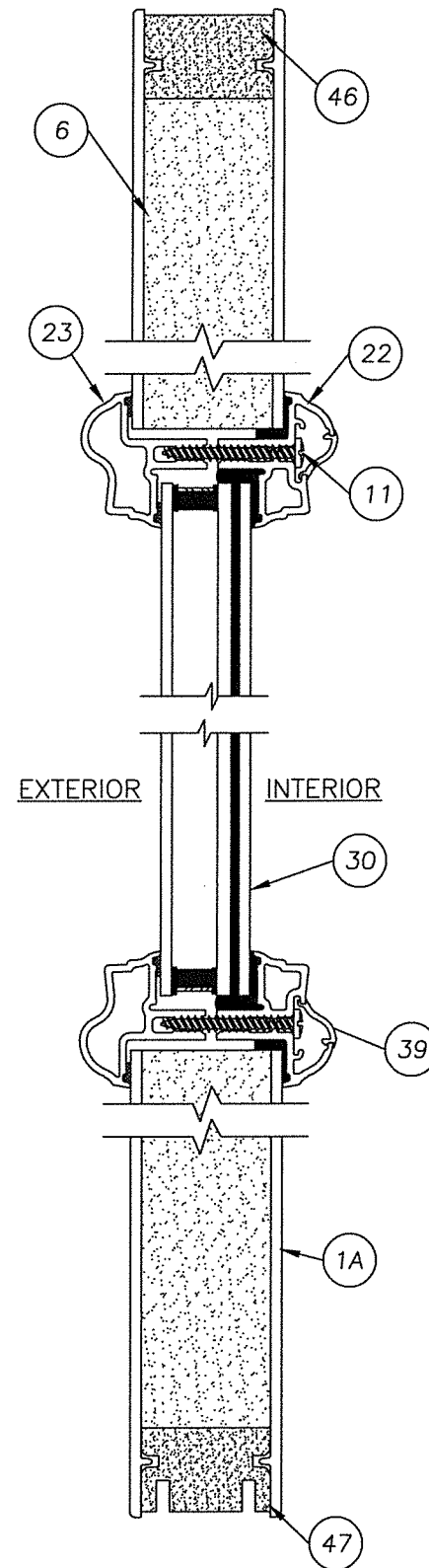
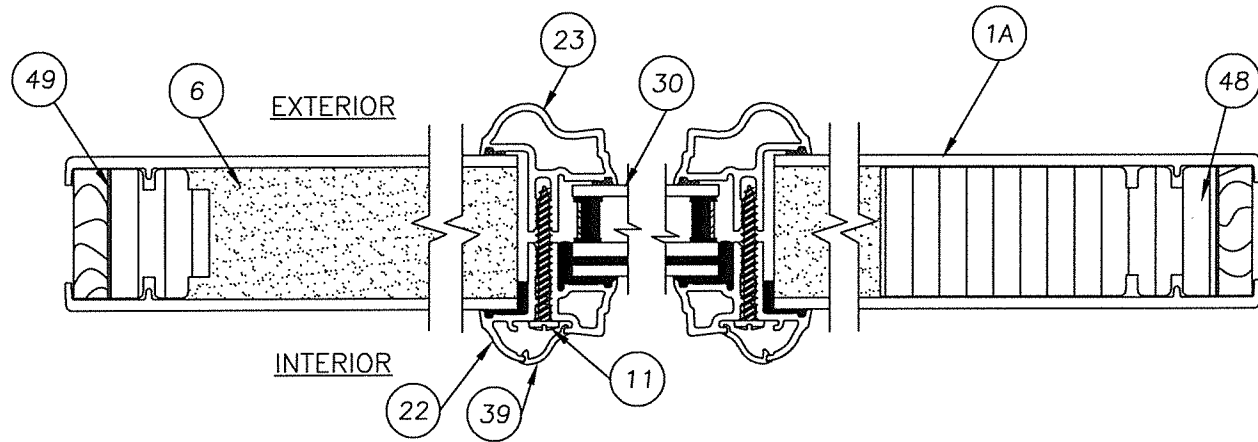
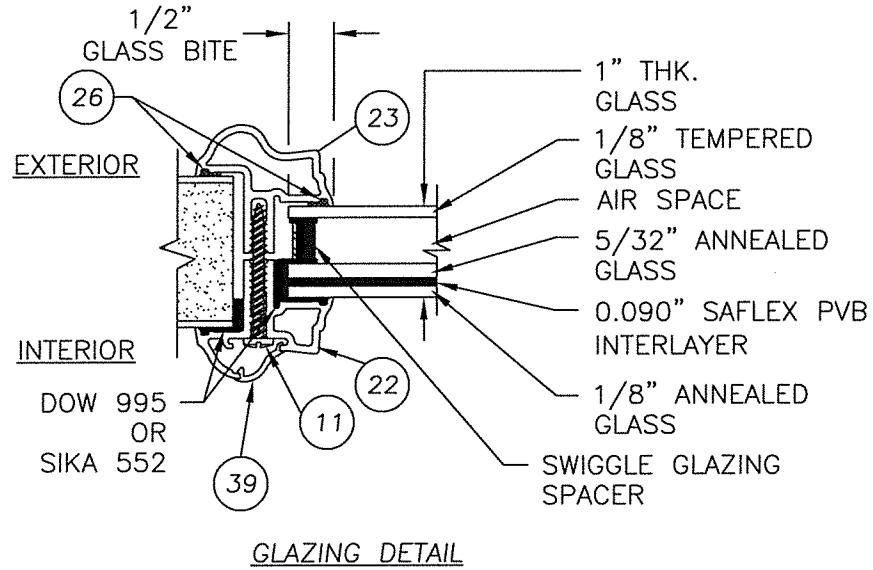
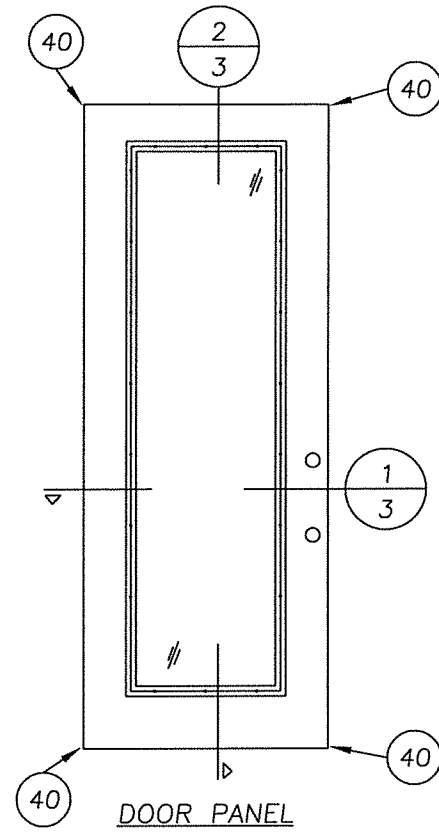


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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:		THERMA-TRU GLAZED FIBERGLASS DOUBLE DOOR IN/OUTSWING "IMPACT"	
PART OR ASSEMBLY:		"SMOOTH-STAR" DOOR PANEL DETAILS	
NO.	DATE	BY	REVISIONS
2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	LFS	ADDED GENERAL NOTE 5.
DATE: 7/17/12			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4198			
SHEET 2 OF 9			



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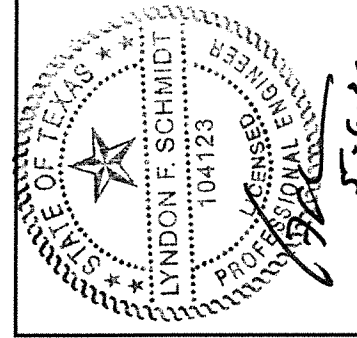
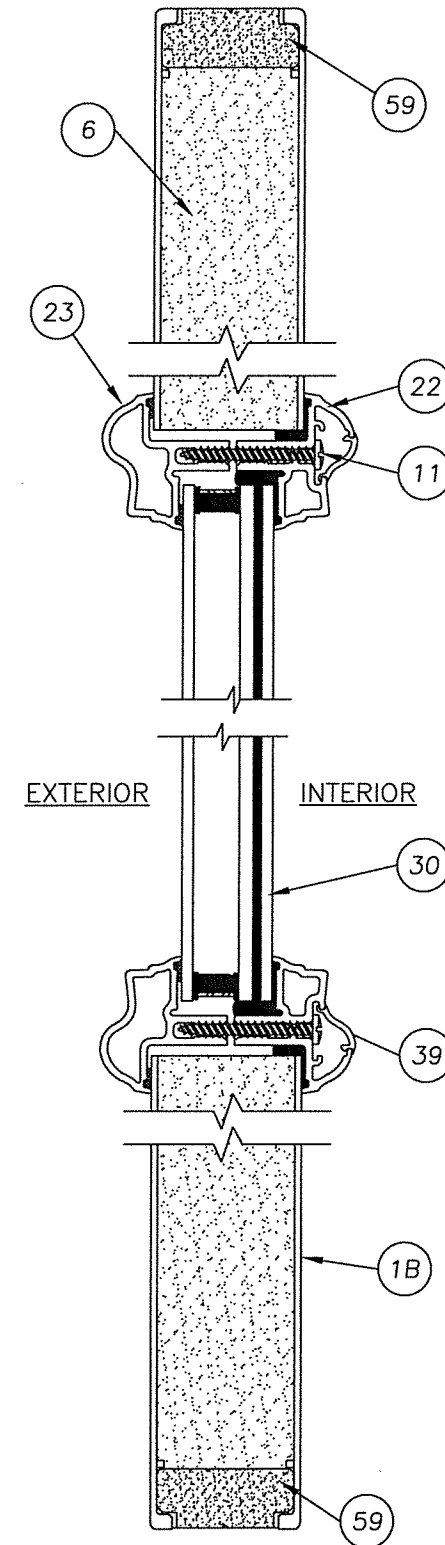
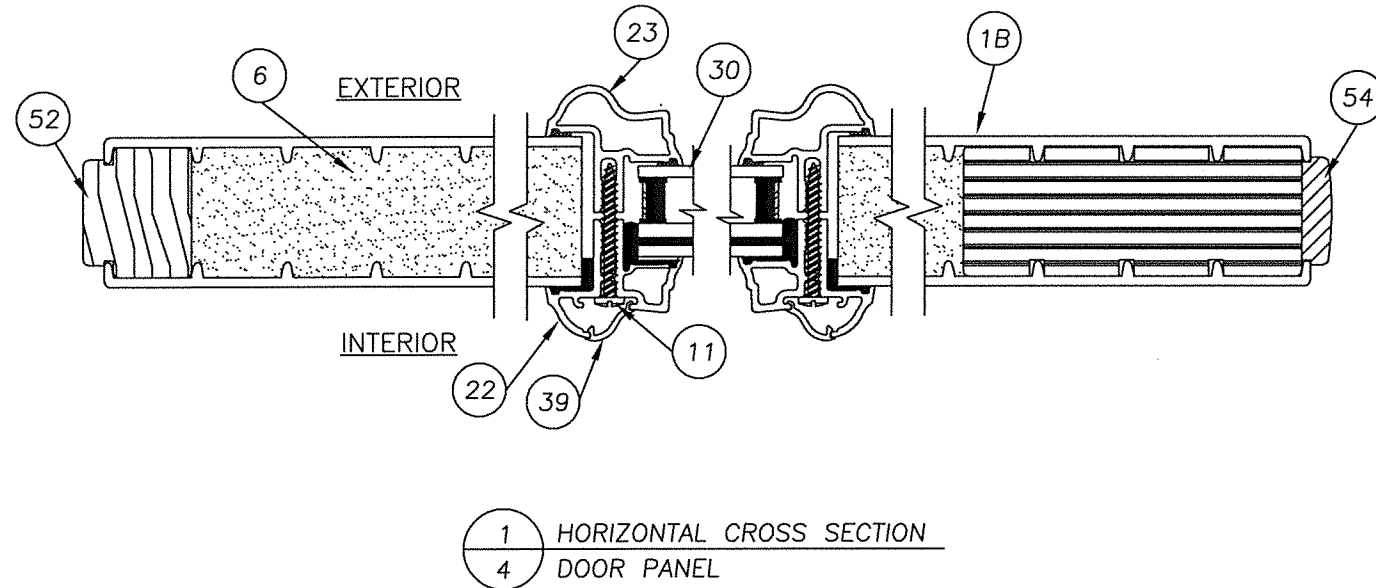
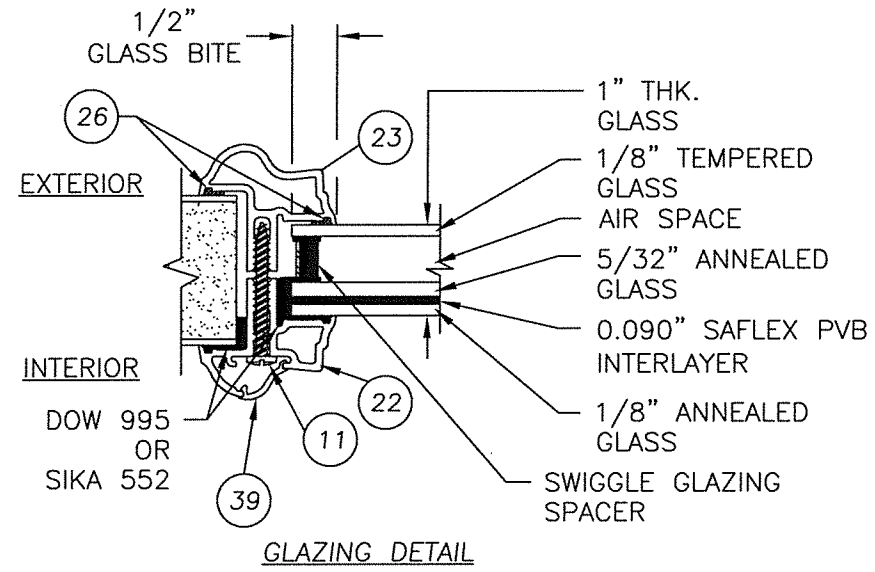
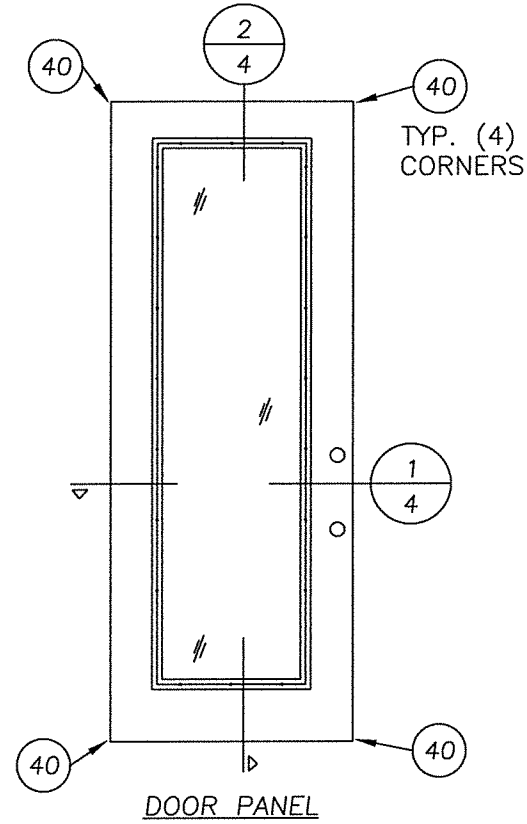
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PRODUCT: THERMA-TRU  
GLAZED FIBERGLASS DOUBLE DOOR  
IN/OUTSWING "IMPACT"  
PART OR ASSEMBLY:  
"CLASSIC-CRAFT" & "CC RUSTIC"  
DOOR PANEL DETAILS

NO.	DATE	BY	REVISIONS
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1	7/22/15	LFS	ADDED GENERAL NOTE 5.

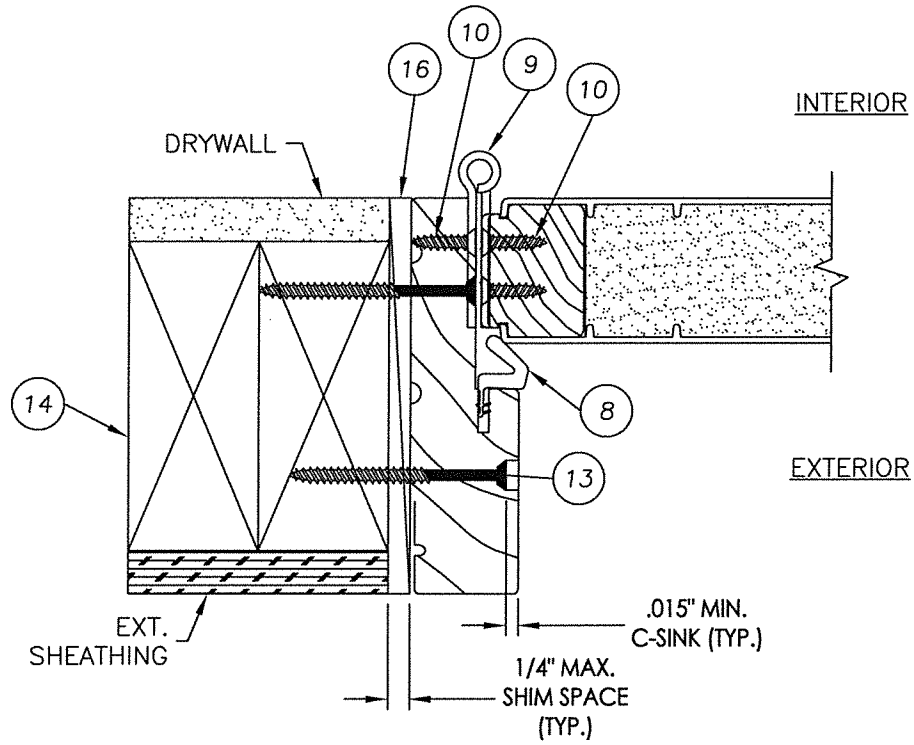
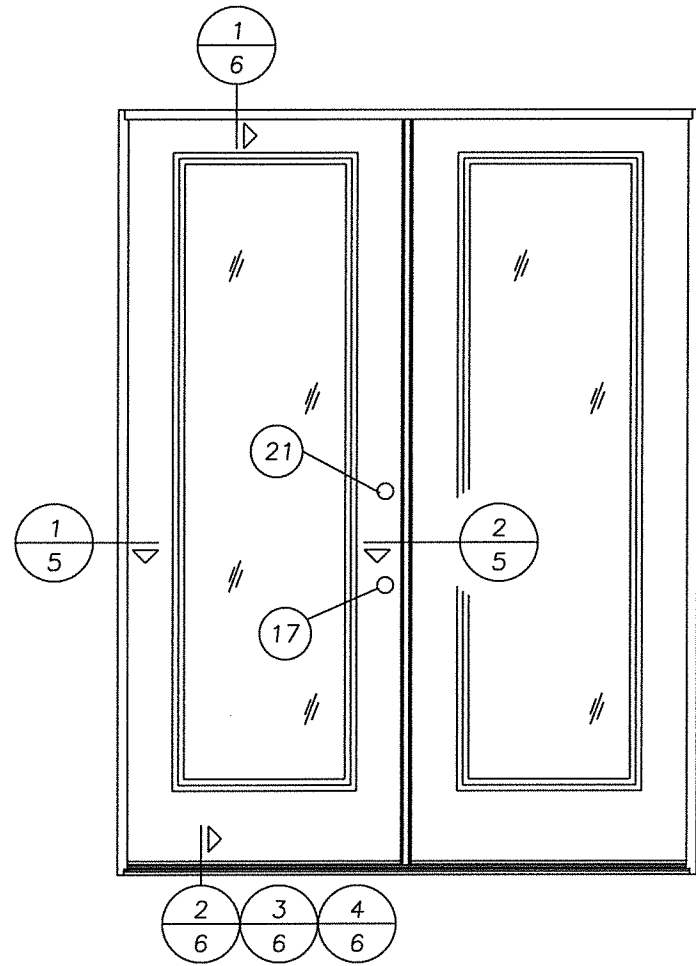
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DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4198  
SHEET 3 of 9



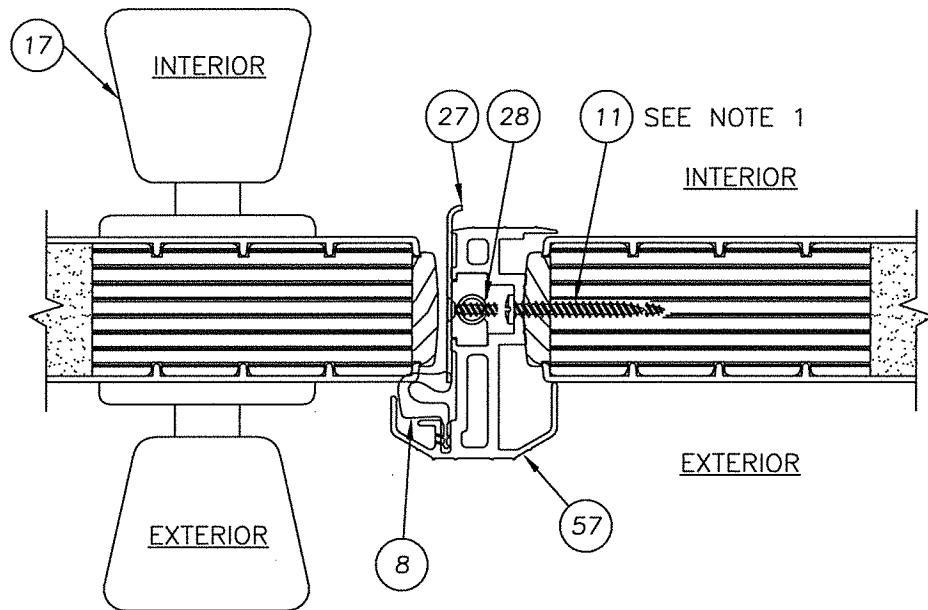
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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:	THERMA-TRU GLAZED FIBERGLASS DOUBLE DOOR IN/OUTSWING "IMPACT"		
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	1	7/22/15	ADDED GENERAL NOTE 5.
	NO.	DATE	
	REVISIONS		
DATE:	7/17/12		
SCALE:	N.T.S.		
DWG. BY:	JK		
CHK. BY:	LFS		
DRAWING NO.:	TX-4198		
SHEET	4	OF	9



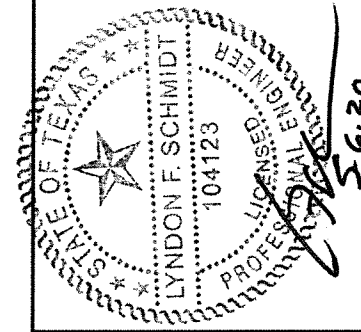
**1** **HORIZONTAL CROSS SECTION**  
**5** INSWING SHOWN (OUTSWING ALSO APPROVED)  
 ("SMOOTH-STAR Series" shown)



**2** **HORIZONTAL CROSS SECTION**  
**5** INSWING SHOWN (OUTSWING ALSO APPROVED)  
 ("SMOOTH-STAR Series" shown)

**NOTE:**

1. ASTRAGAL RETAINING SCREWS LOCATED @  
 3/4", 2", 3-1/4", 4-1/2", 18-7/8",  
 37-1/4", 57-7/8", 76-3/8", 90-3/4",  
 92", 93" & 94-1/2" FROM TOP OF  
 ASTRAGAL (12 TOTAL).



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

PRODUCT: THERMA-TRU  
 GLAZED FIBERGLASS DOUBLE DOOR  
 IN/OUTSWING "IMPACT"  
 PART OR ASSEMBLY:  
 HORIZONTAL  
 CROSS SECTIONS

NO.	DATE	BY	REVISIONS
2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	LFS	ADDED GENERAL NOTE 5.

DATE: 7/17/12

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

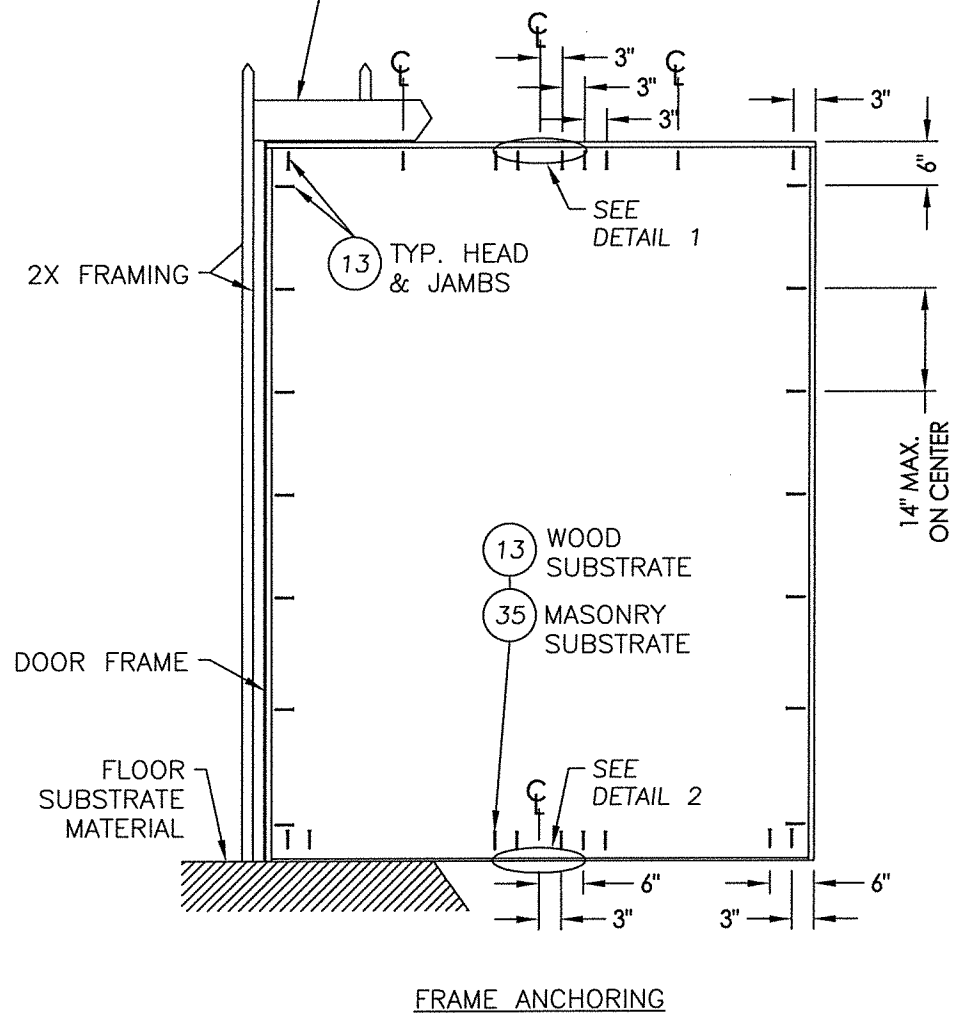
DRAWING NO.:  
 TX-4198

SHEET 5 OF 9



R:\Clients\Therma Tru Permanent\B - Texas Dept of Ins\TDI - DR 599 - 80 Glazed FG Imp IS - OS Sgls Dbls w-wo Imp SLC - Drawings\Current\TX-4195-99.dwg, 7.8

THE ENGINEER OR ARCHITECT OF RECORD TO DETERMINE FRAMING REQUIREMENTS BASED ON WIND LOADS AND THE CLADDING BEING USED.

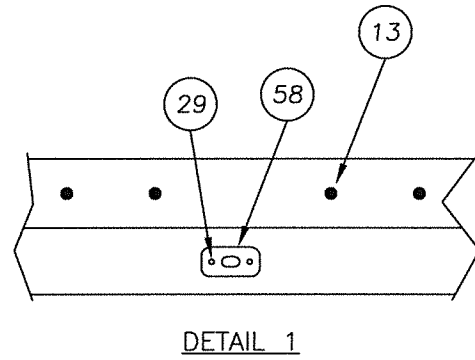


FRAME ANCHORING

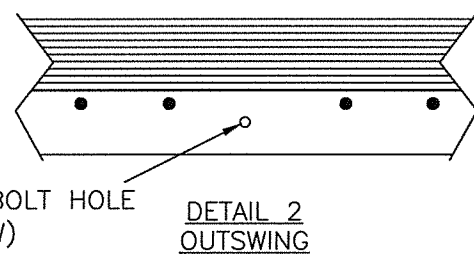
**CONCRETE ANCHOR NOTES:**

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:

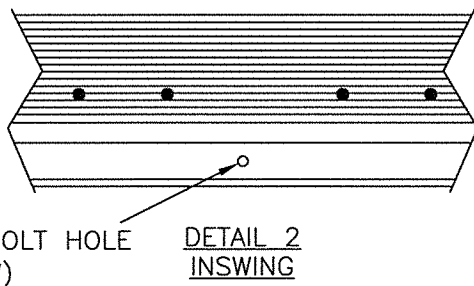
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



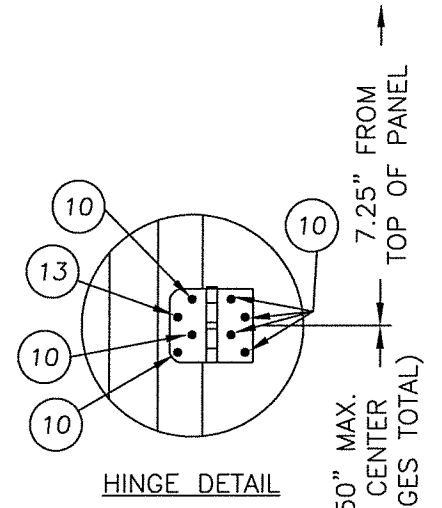
DETAIL 1



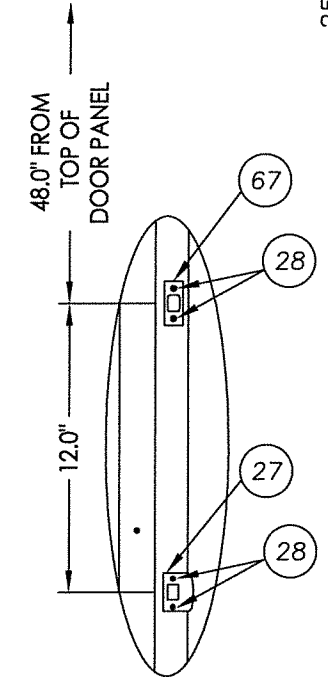
DETAIL 2 OUTSWING



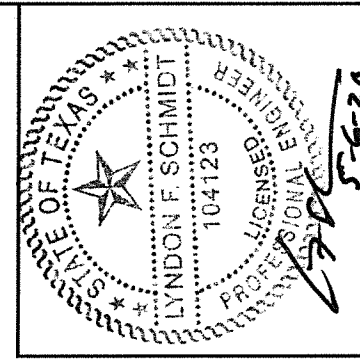
DETAIL 2 INSWING



HINGE DETAIL



LATCH & DEADBOLT DETAIL



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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: THERMA-TRU GLAZED FIBERGLASS DOUBLE DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	BY
2	5/06/20	LFS
1	7/22/15	LFS

REVISIONS

DATE: 7/17/12

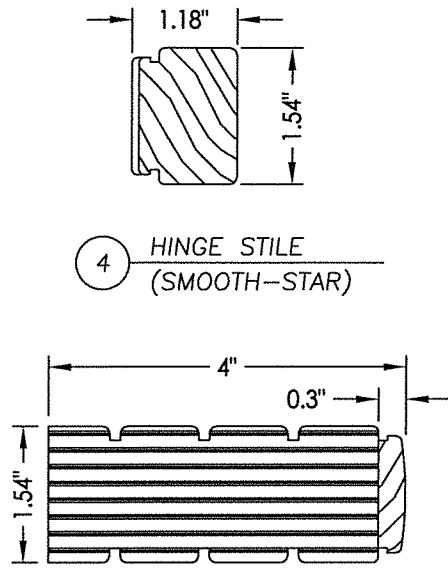
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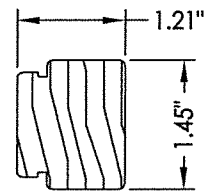
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DRAWING NO.: TX-4198

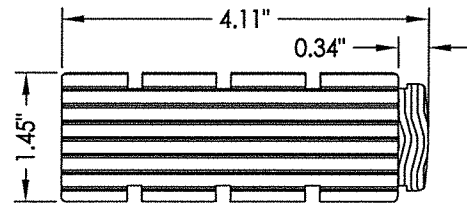
SHEET 7 OF 9



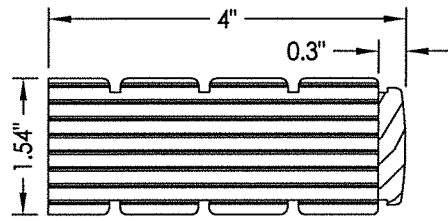
4 HINGE STILE  
(SMOOTH-STAR)



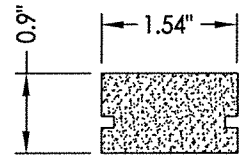
52 HINGE STILE  
(FIBER-CLASSIC)



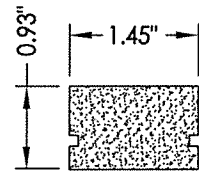
54 LOCK STILE  
(FIBER-CLASSIC)



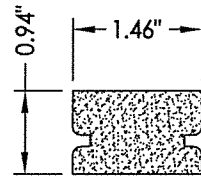
3 LATCH STILE  
(SMOOTH-STAR)



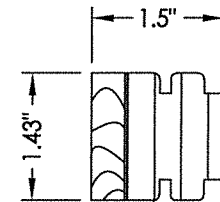
2 DOOR TOP RAIL  
(SMOOTH-STAR)



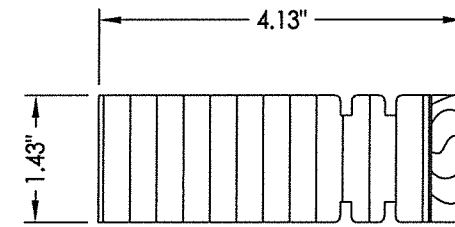
50 DOOR TOP RAIL  
(FIBER-CLASSIC)



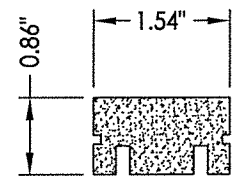
46 DOOR TOP RAIL  
(CLASSIC-CRAFT  
& RUSTIC)



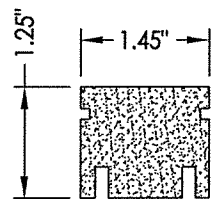
49 HINGE STILE  
(CLASSIC-CRAFT  
& RUSTIC)



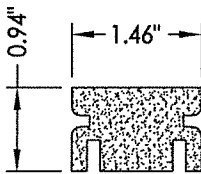
48 LATCH STILE  
(CLASSIC-CRAFT  
& RUSTIC)



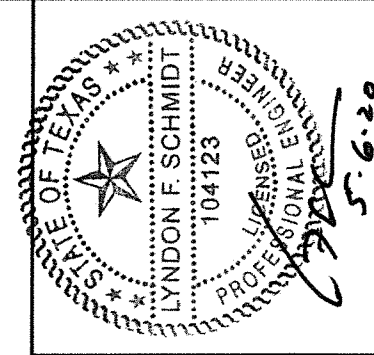
5 BOTTOM RAIL DOOR  
(SMOOTH-STAR)



51 DOOR BOTTOM RAIL  
(FIBER-CLASSIC)



47 DOOR BOTTOM RAIL  
(CLASSIC-CRAFT  
& RUSTIC)



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PRODUCT: THERMA-TRU  
GLAZED FIBERGLASS DOUBLE DOOR  
IN/OUTSWING "IMPACT"  
PART OR ASSEMBLY:  
COMPONENTS

NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	ADDED GENERAL NOTE 5.
		LFS
		LFS
		BY

DATE: 7/17/12

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:

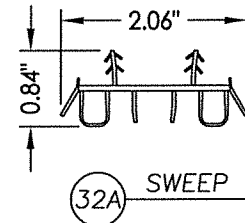
TX-4198

SHEET 8 OF 9

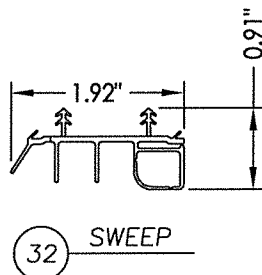


R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 599 - 80 Glazed FG Imp IS - OS Sgls Dbls w-wo Imp SLVC - Drawings\Current\TX-4195-99.dwg, 9.8

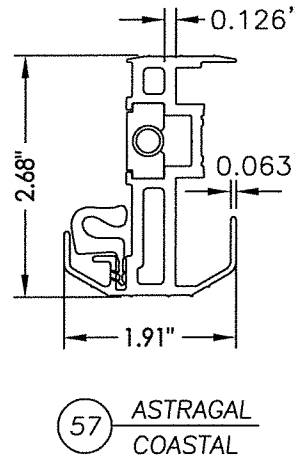
Item	DESCRIPTION	Material
1	DOOR SKIN; SMOOTH-STAR SERIES (.075" MIN.)	FIBERGLASS
1A	DOOR SKIN; CLASSIC-CRAFT & RUSTIC SERIES (0.090" MIN.)	FIBERGLASS
1B	DOOR SKIN; FIBER-CLASSIC SERIES (.065" MIN.)	FIBERGLASS
2	TOP RAIL DOOR THERMA-TRU (SMOOTH-STAR)	COMP.
3	LATCH STILE DOOR THERMA-TRU (SMOOTH-STAR)	LVL
4	HINGE STILE / DOOR, STILE / SIDELITE THERMA-TRU (SMOOTH-STAR)	WOOD
5	BOTTOM RAIL DOOR THERMA-TRU (SMOOTH-STAR)	COMP.
6	POLYURETHANE FOAM (1.9lbs. DENSITY)	FOAM
7	MEDIUM REACH COMPRESSION WEATHER-STRIP (THERMA-TRU)	FOAM
8	LONG REACH COMPRESSION WEATHER-STRIP (THERMA-TRU)	FOAM
9	4" x 4" HINGE .097" THK. (THERMA-TRU)	STEEL
10	#10 x 3/4" PFH WOOD SCREW (Hinge to Frame)	STEEL
11	#10 x 1-1/2" PPH SHEET METAL SCREW	STEEL
12	#10 x 2" PFH WOOD SCREW	STEEL
13	#10 x 2-1/2" PFH WOOD SCREW	STEEL
14	2X FRAMING (G>= 0.42)	WOOD
16	MAX. 1/4" SHIM MATERIAL	WOOD
17	LOCK - KWIKSET 200 SERIES	STEEL
18	THRESHOLD OUTSWING (THERMA-TRU)	ALUM./WOOD
19	HEADER JAMB (4.656" x 1.25" THERMA-TRU, PINE)	WOOD
20	SIDE JAMB (4.656" x 1.25" THERMA-TRU) (FJ PINE)	WOOD
21	DEADBOLT - KWIKSET 780 SERIES	STEEL
22	INTERIOR LITE FRAME	ALUM.
23	EXTERIOR LITE FRAME	ALUM.
25	SILICONE CAULK	SILICONE
26	CELLULAR GLAZING TAPE	FOAM
27	LATCH STRIKE	STEEL
28	#8 x 2-1/2" PFH WOOD SCREW	STEEL
29	#8 x 3" PFH SCREW	STEEL
30	1" THK. INSUL. LAMINATED GLASS (SAFLEX PVB INTERLAYER) 1/8" TEMP. - AIR - 5/32" ANN. / 0.090" SAFLEX PVB / 1/8" ANN.	GLASS
31	OUTSWING THRESHOLD COASTAL	ALUM./WOOD
32	DOOR BOTTOM SWEEP (INSWING)	PVC
32A	DOOR BOTTOM SWEEP (INSWING)	PVC
33	INSWING THRESHOLD HPA	ALUM./COMP.
35	1/4" ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
39	LITE FRAME TRIM	ALUM.
40	#9 x 3" PFH WOOD SCREW	STEEL
46	TOP RAIL (CLASSIC-CRAFT & RUSTIC)	COMP.
47	BOTTOM RAIL (CLASSIC-CRAFT & RUSTIC)	COMP.
48	LATCH SIDE STILE (CLASSIC-CRAFT & RUSTIC)	LSL / OAK
49	HINGE SIDE STILE (CLASSIC-CRAFT & RUSTIC)	LSL / OAK
50	TOP RAIL (FIBER-CLASSIC)	COMP.
51	BOTTOM RAIL (FIBER-CLASSIC)	COMP.
52	HINGE SIDE STILE (FIBER-CLASSIC)	WOOD
54	LATCH SIDE STILE (FIBER-CLASSIC)	LVL / OAK
57	ASTRAGAL (6063-T5) COASTAL	ALUM.
58	ASTRAGAL STRIKE PLATE	STEEL
65	INSWING THRESHOLD SELF ADJUSTING	ALUM./COMP.
66	INSWING THRESHOLD IMPERIAL	ALUM./COMP.
67	DEAD BOLT STRIKE PLATE	STEEL



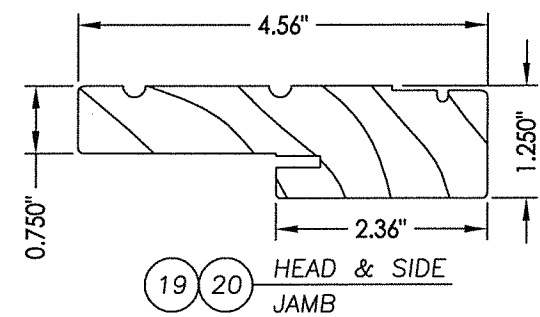
32A SWEEP



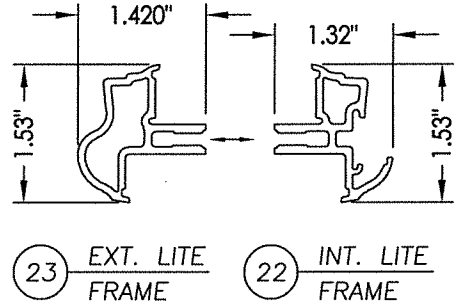
32 SWEEP



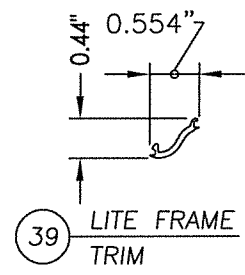
57 ASTRAGAL COASTAL



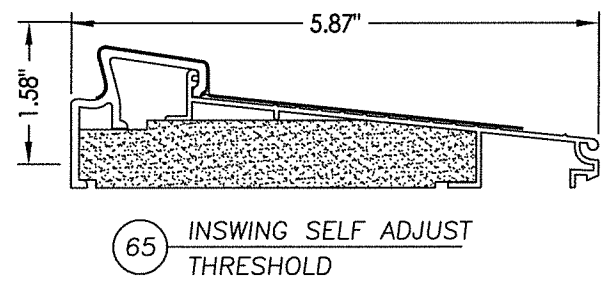
19 20 HEAD & SIDE JAMB



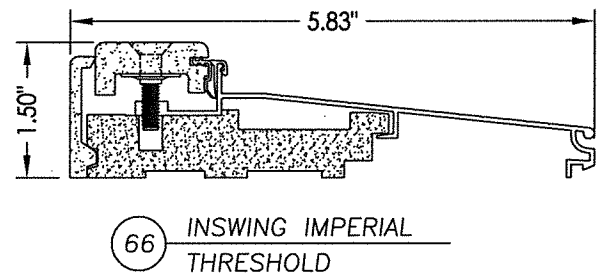
23 EXT. LITE FRAME 22 INT. LITE FRAME



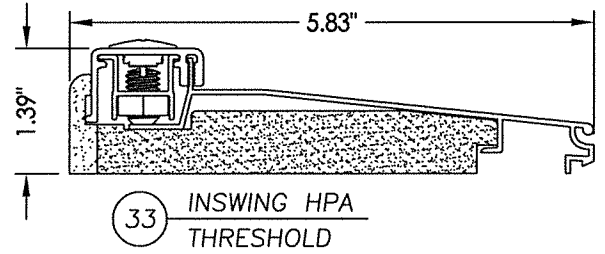
39 LITE FRAME TRIM



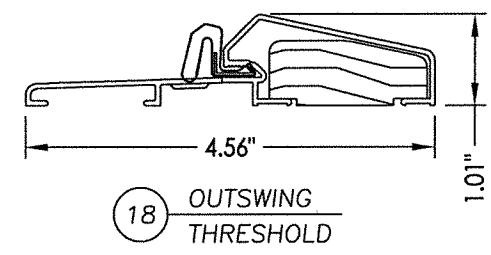
65 INSWING SELF ADJUST THRESHOLD



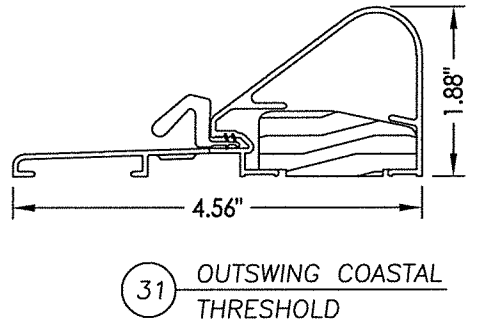
66 INSWING IMPERIAL THRESHOLD



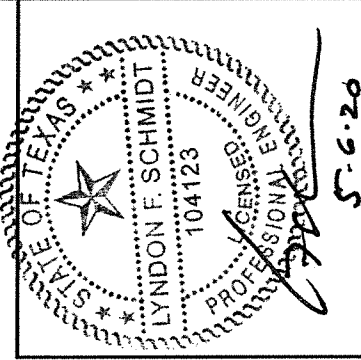
33 INSWING HPA THRESHOLD



18 OUTSWING THRESHOLD



31 OUTSWING COASTAL THRESHOLD



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PRODUCT: THERMA-TRU FIBERGLASS DOUBLE DOOR W/ SIDELITES IN/OUTSWING "IMPACT" PART OR ASSEMBLY:  
BILL OF MATERIAL & COMPONENTS

NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	ADDED GENERAL NOTE 5.

DATE: 7/17/12  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4198  
SHEET 9 OF 9