

THERMATRU®

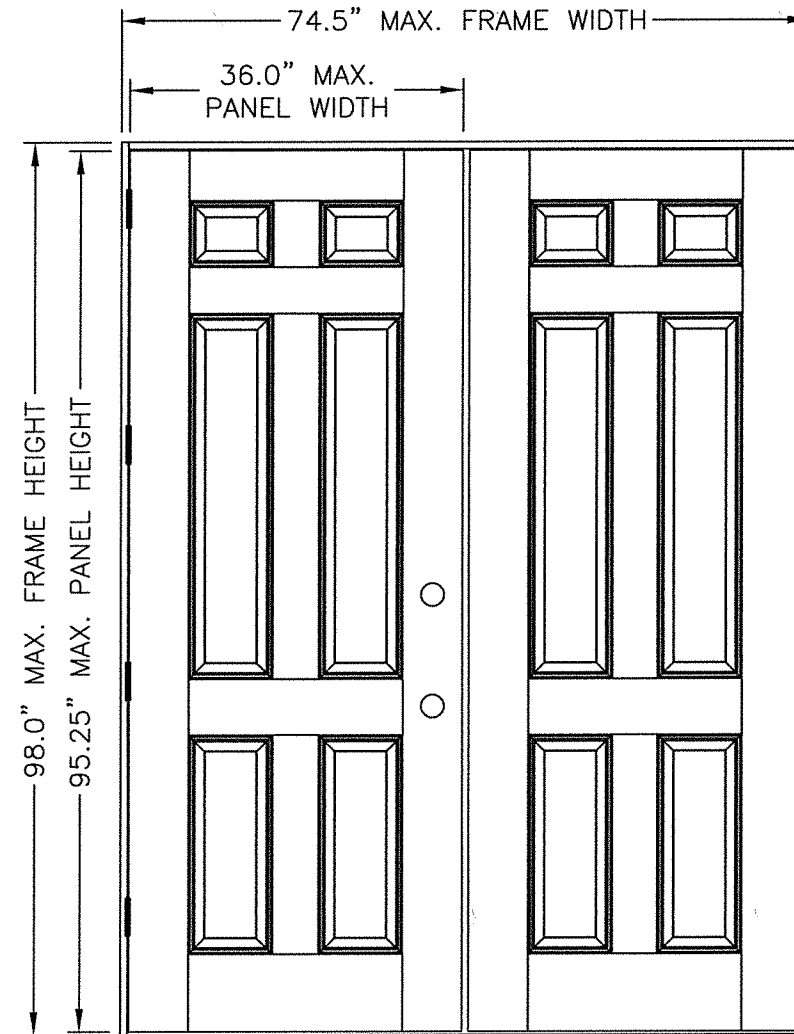
118 INDUSTRIAL DR., EDGERTON, OH 43517

SMOOTH-STAR, FIBER-CLASSIC, CLASSIC-CRAFT & CLASSIC-CRAFT RUSTIC DOUBLE "IMPACT" DOOR INSWING / OUTSWING

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:

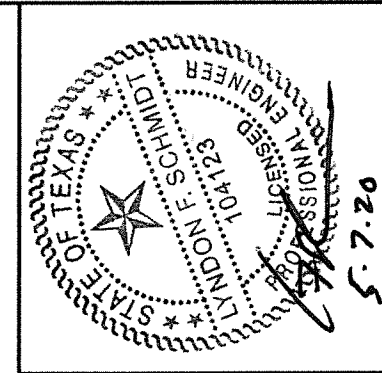
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. When used in areas requiring wind-borne debris protection, the opaque door does not require impact protection and meets missile level "D" as defined in ASTM 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.



"SMOOTH-STAR", "CLASSIC-CRAFT",
"CLASSIC-CRAFT RUSTIC" &
"FIBER-CLASSIC"

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DOOR TYPE	SWING	OVERALL FRAME DIMENSION	DESIGN PRESSURE	
			POSITIVE	NEGATIVE
CLASSIC-CRAFT	OUTSWING	74.5" X 96.5"	+65.0	-65.0
	INSWING	74.5" X 98.0"	+65.0	-65.0
FIBER-CLASSIC	OUTSWING	74.5" X 96.5"	+65.0	-65.0
	INSWING	74.5" X 98.0"	+65.0	-65.0
SMOOTH-STAR	OUTSWING	74.5" X 96.5"	+65.0	-65.0
	INSWING	74.5" X 98.0"	+65.0	-65.0
CLASSIC-CRAFT RUSTIC	OUTSWING	74.5" X 96.5"	+65.0	-65.0
	INSWING	74.5" X 98.0"	+65.0	-65.0



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

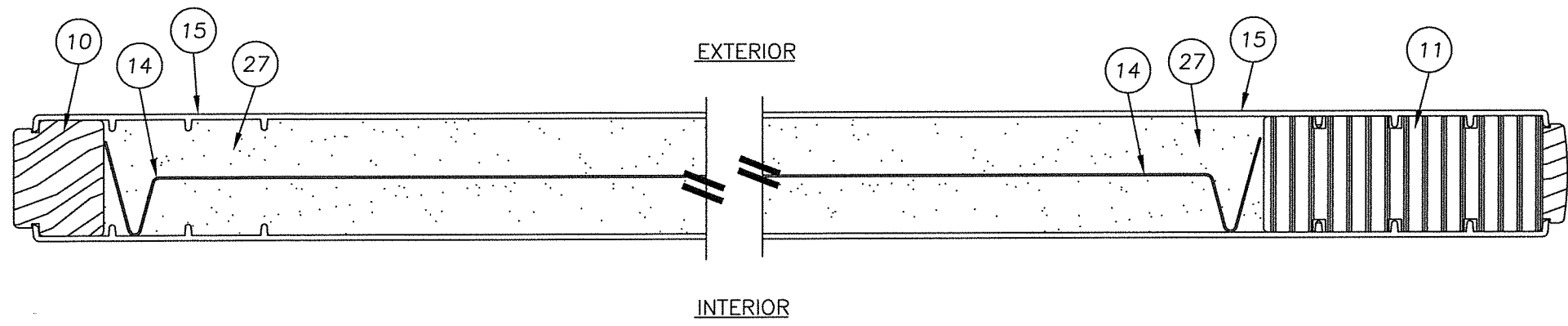
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

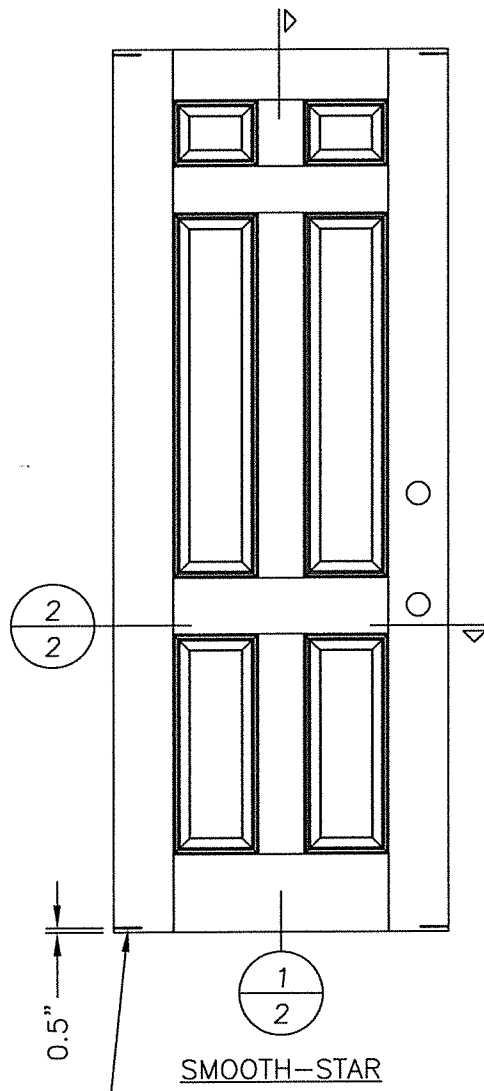
NO.	DATE	BY	REVISIONS
2	5/07/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	LFS	ADDED GENERAL NOTE 5.

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176

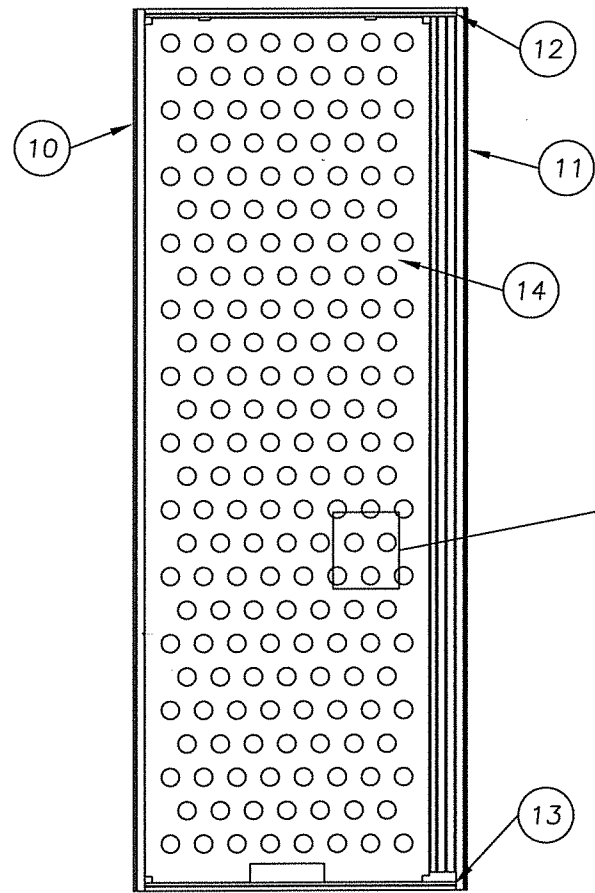
SHEET 1 of 10



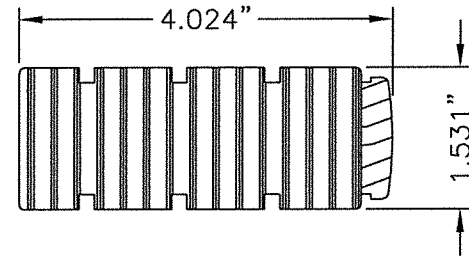
2 HORIZONTAL CROSS SECTION
2 SMOOTH-STAR



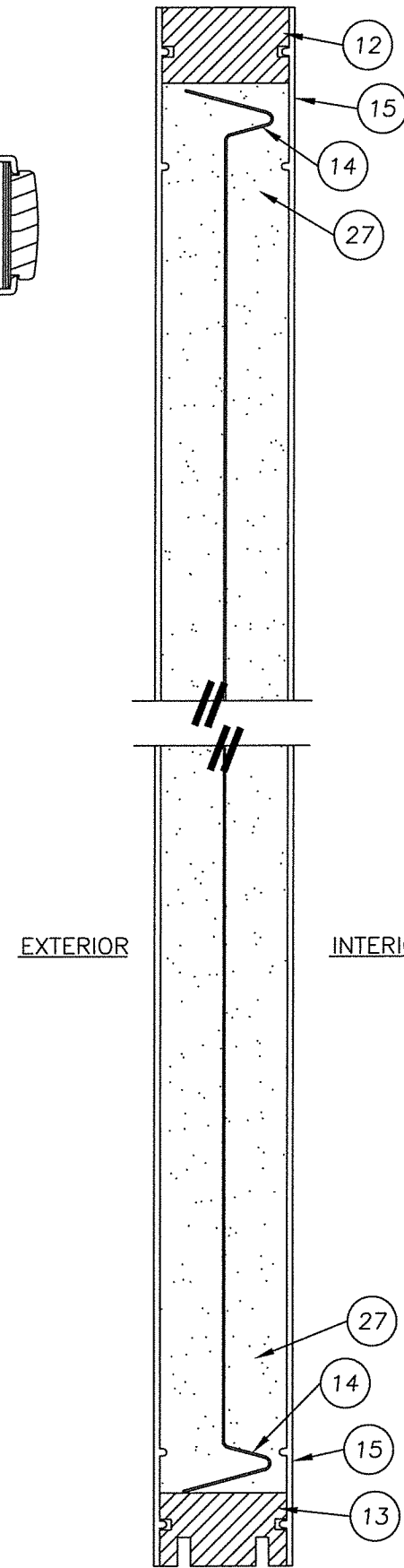
1 VERTICAL CROSS SECTION
2 SMOOTH-STAR



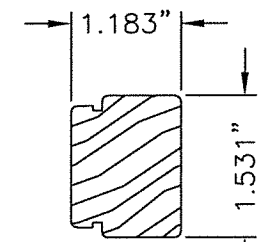
Ø2" DIA. MAX.
28.86% OPEN AREA MAX.



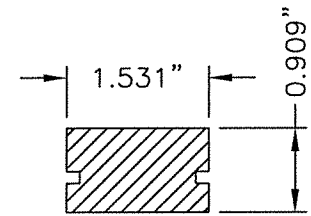
11 LOCK STILE
SMOOTH-STAR



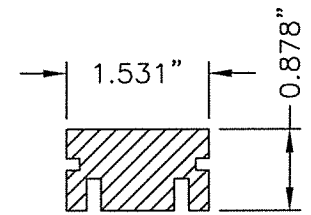
1 VERTICAL CROSS SECTION
2 SMOOTH-STAR



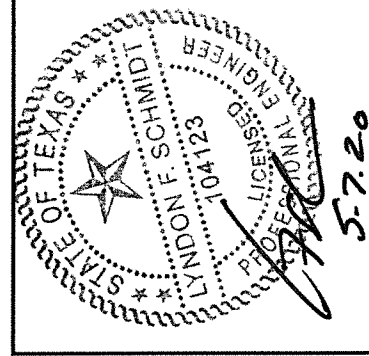
10 HINGE STILE
SMOOTH-STAR



12 TOP RAIL
SMOOTH-STAR



13 BOTTOM RAIL
SMOOTH-STAR



5-7-20

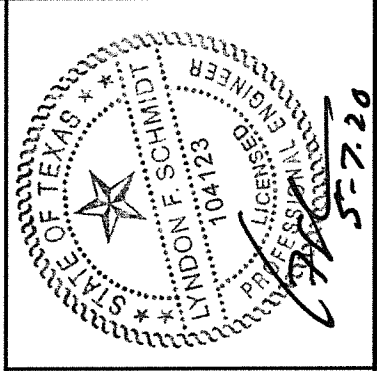
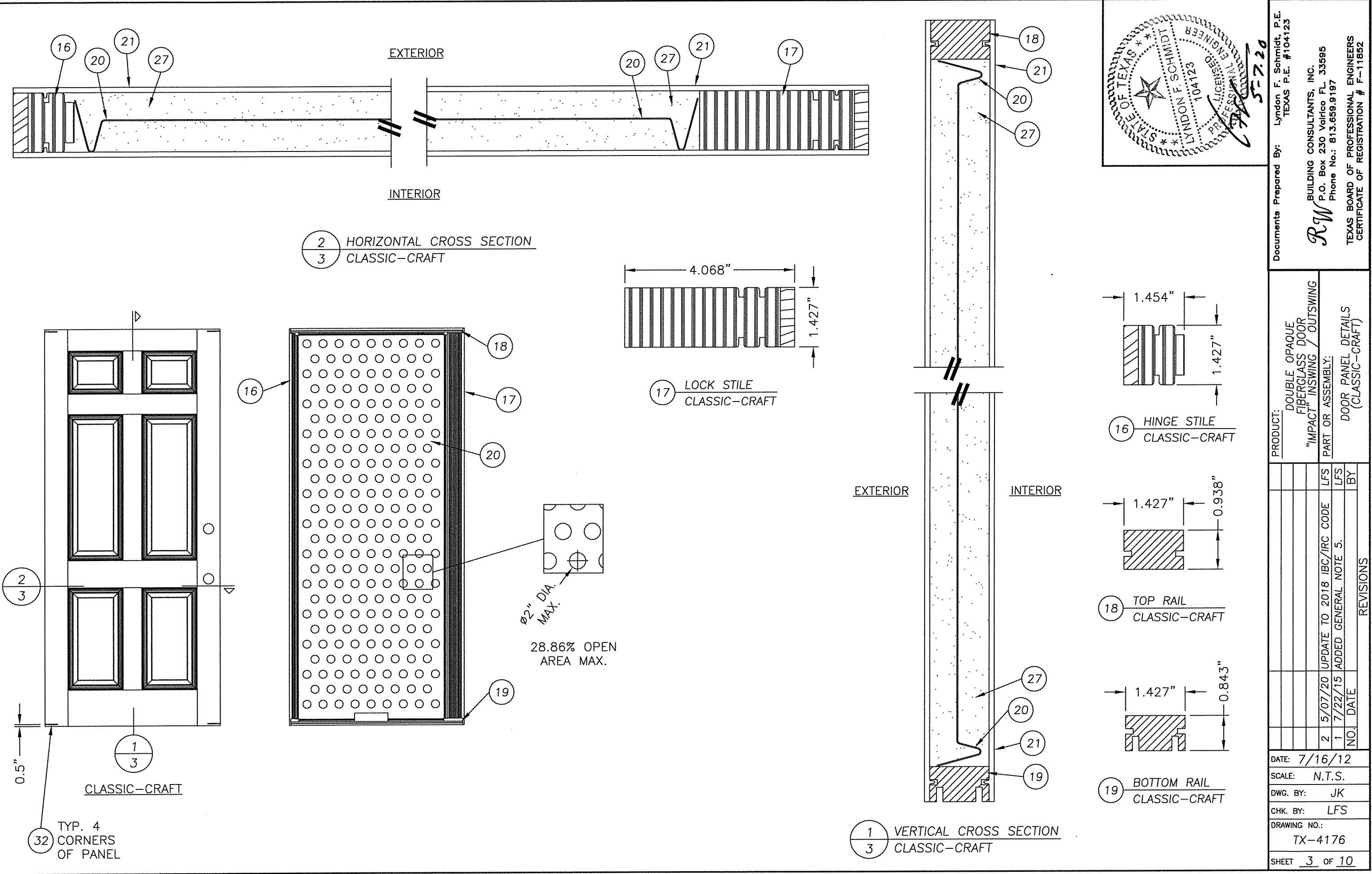
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R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL 33595
Phone No.: 813.659.9197
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
DOOR PANEL DETAILS
(SMOOTH-STAR)

NO.	DATE	REVISIONS
2	5/07/20	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	ADDED GENERAL NOTE 5.
		LFS
		BY

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 2 OF 10



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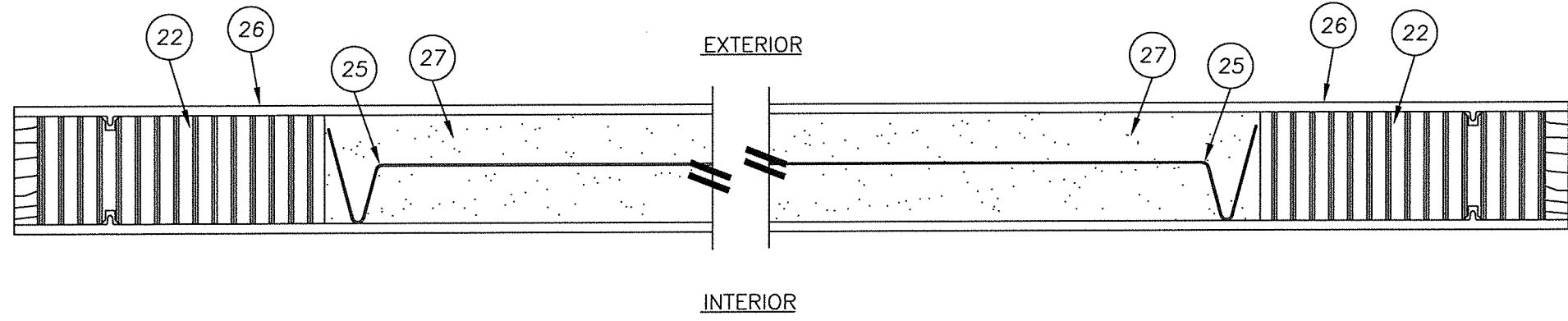
RW BUILDING CONSULTANTS, INC.
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 CERTIFICATE OF REGISTRATION # F-11852

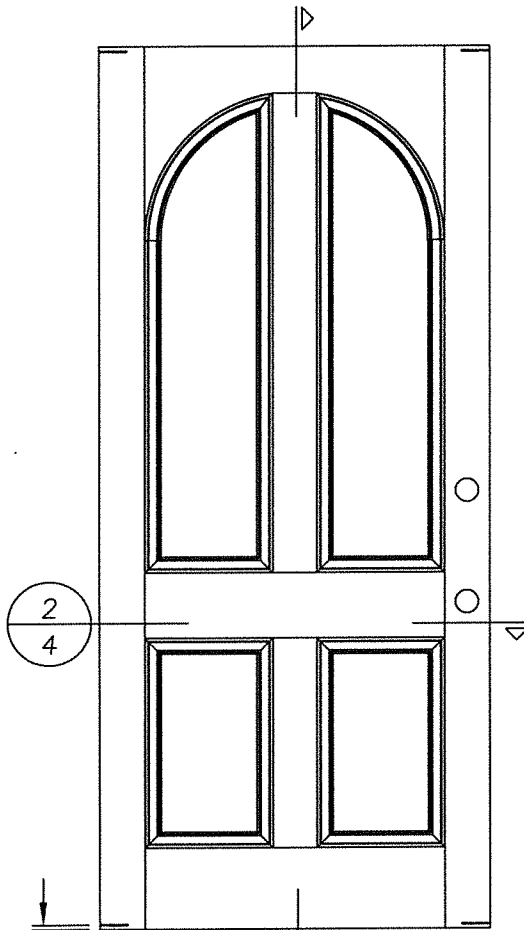
PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR
 "IMPACT" INSWING / OUTSWING
 PART OR ASSEMBLY: DOOR PANEL DETAILS (CLASSIC-CRAFT)

NO.	DATE	BY	REVISIONS
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SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4176
SHEET	3 OF 10

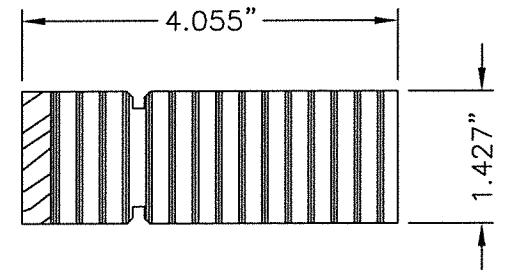
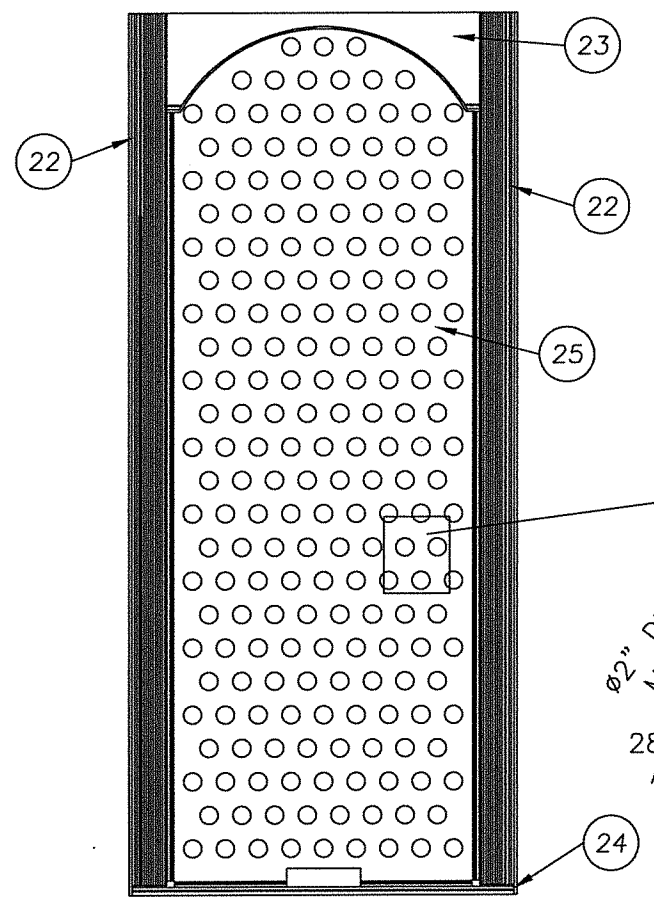


2 HORIZONTAL CROSS SECTION
4 CLASSIC-CRAFT RUSTIC

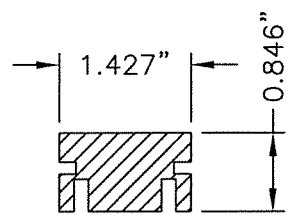


1 VERTICAL CROSS SECTION
4 CLASSIC-CRAFT RUSTIC

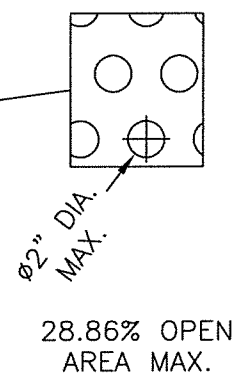
0.5" TYP. 4 CORNERS OF PANEL



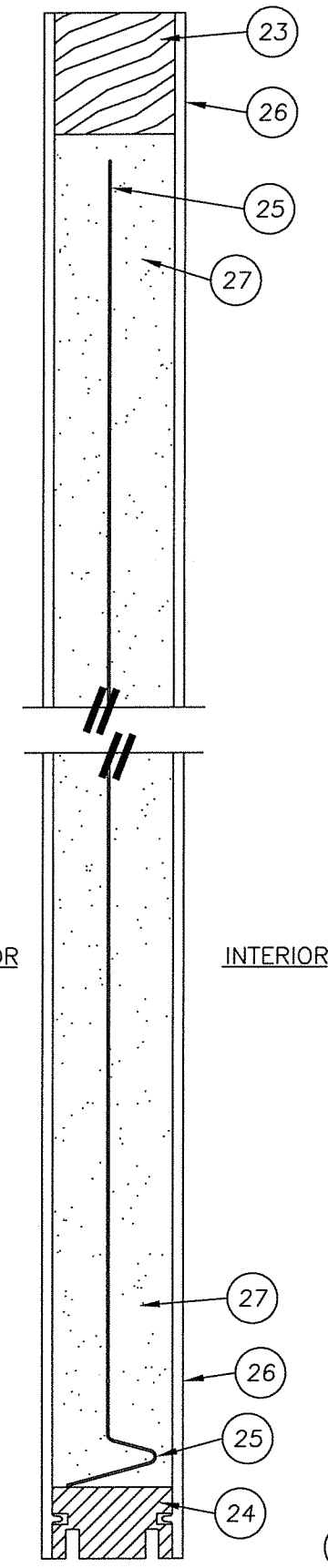
22 LOCK & HINGE STILE
CLASSIC-CRAFT RUSTIC



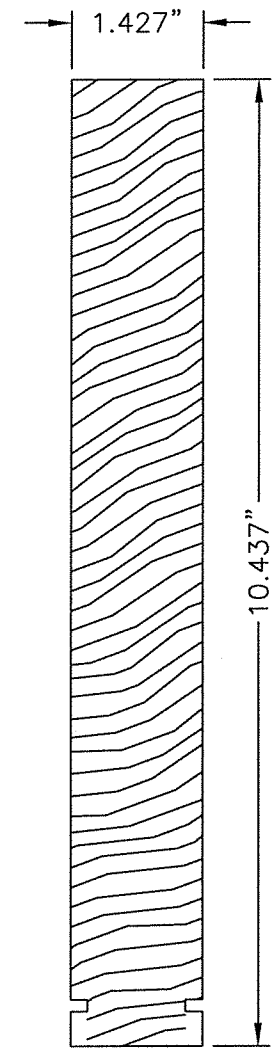
24 BOTTOM RAIL
CLASSIC-CRAFT RUSTIC



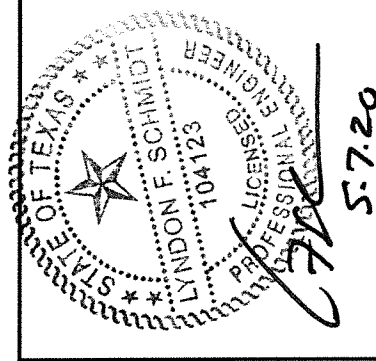
28.86% OPEN AREA MAX.



1 VERTICAL CROSS SECTION
4 CLASSIC-CRAFT RUSTIC



23 TOP RAIL
CLASSIC-CRAFT RUSTIC



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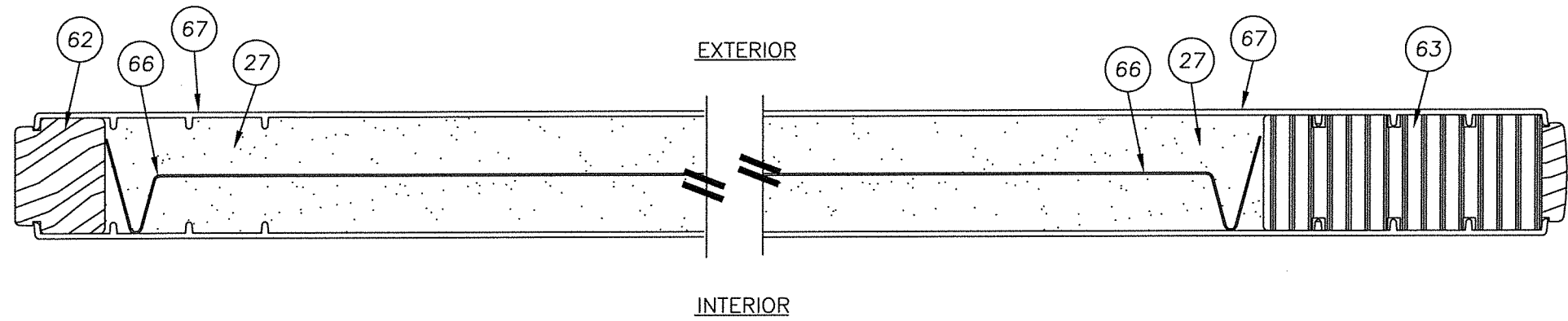
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR
"IMPACT" INSURING / OUTSWING
PART OR ASSEMBLY: DOOR PANEL DETAILS (CLASSIC-CRAFT RUSTIC)

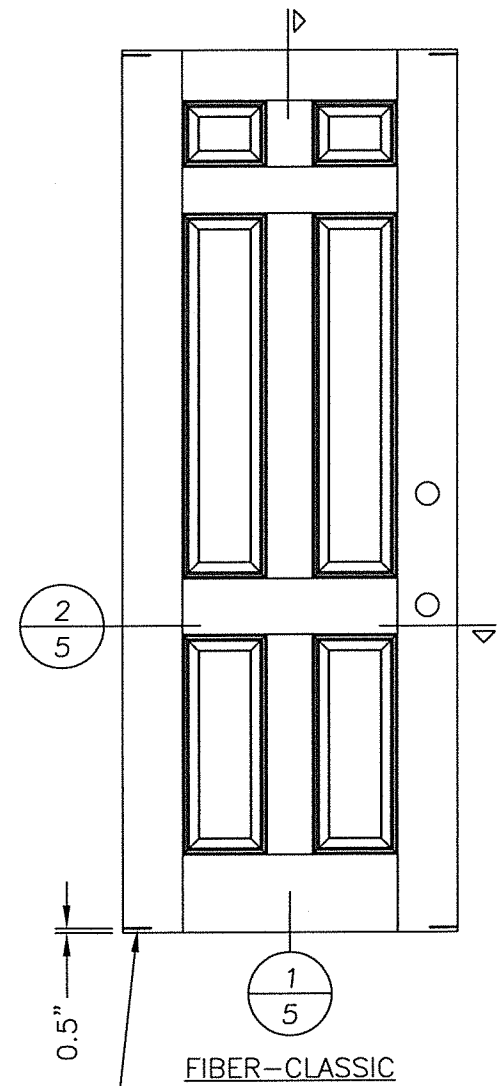
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LFS		BY

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SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 4 OF 10

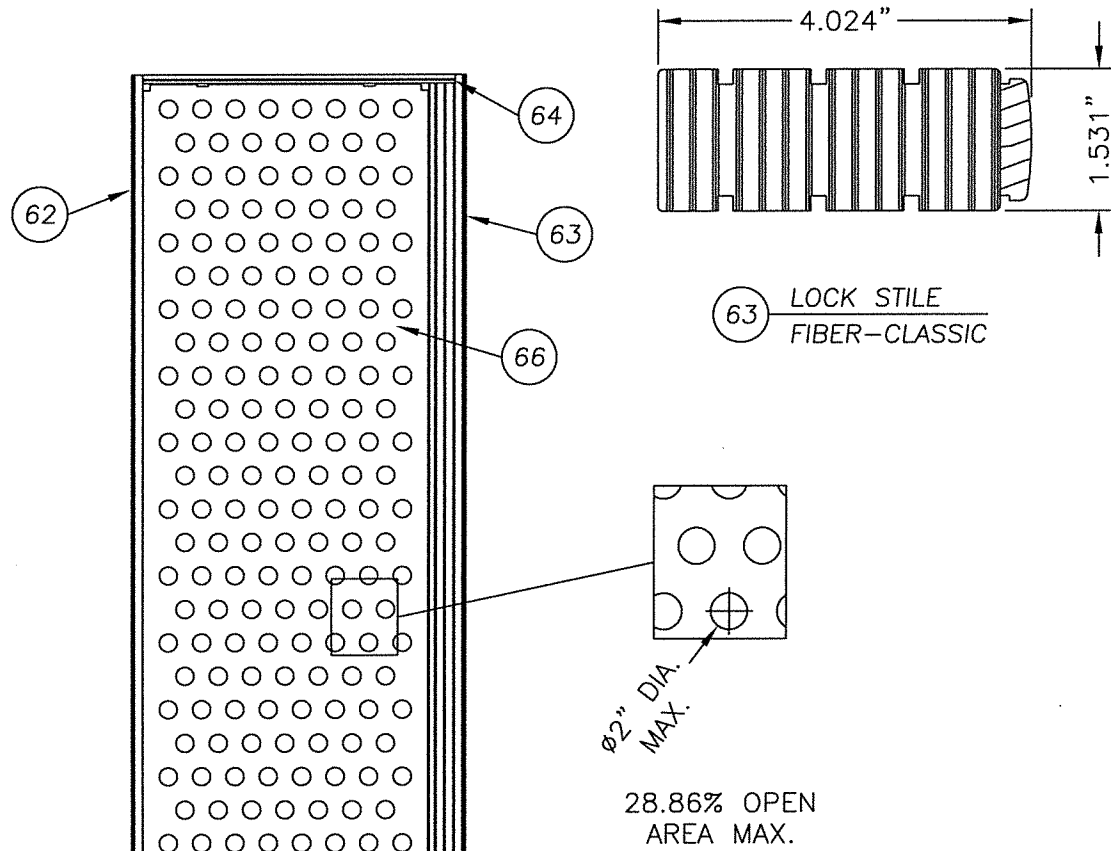
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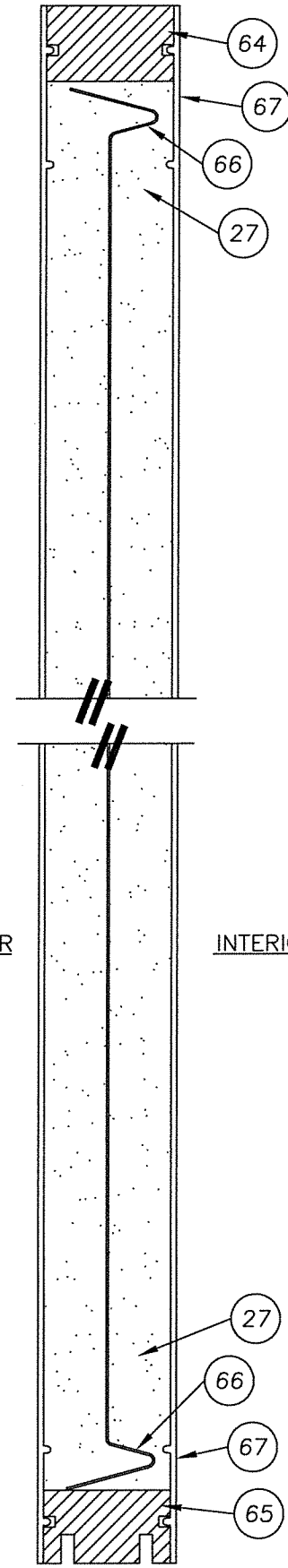
2 HORIZONTAL CROSS SECTION
5 FIBER-CLASSIC



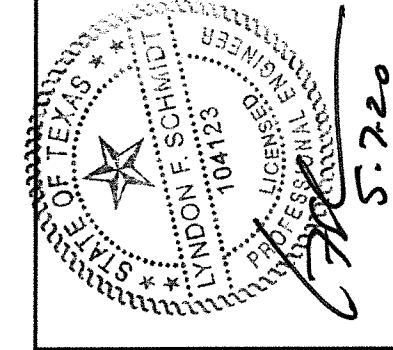
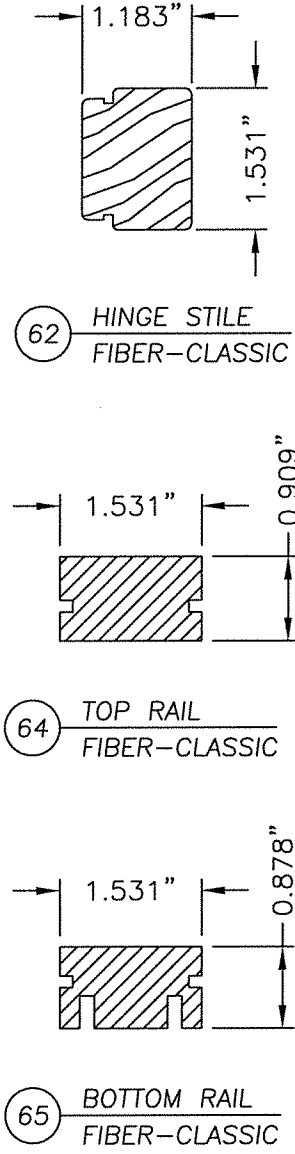
32 TYP. 4
CORNERS
OF PANEL



EXTERIOR INTERIOR



1 VERTICAL CROSS SECTION
5 FIBER-CLASSIC



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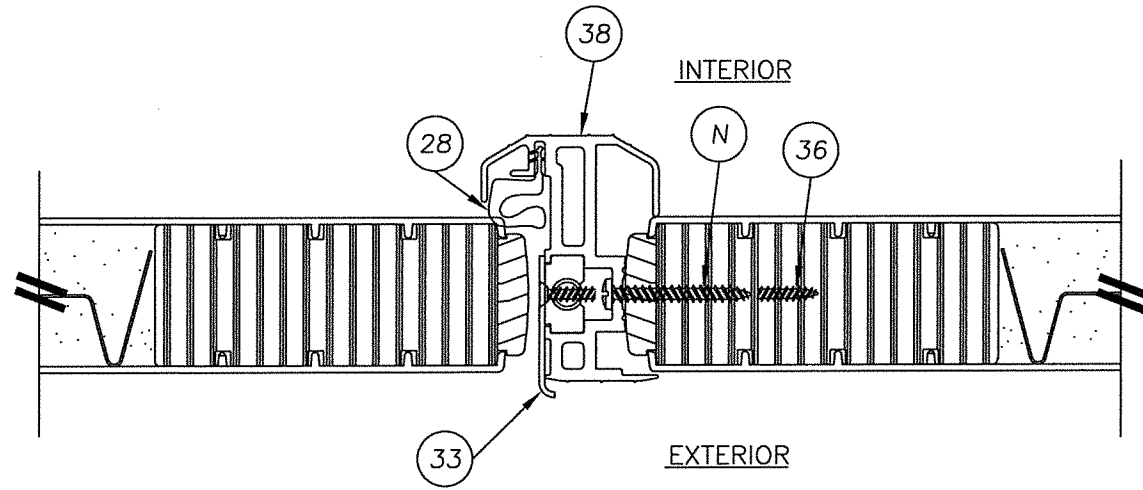
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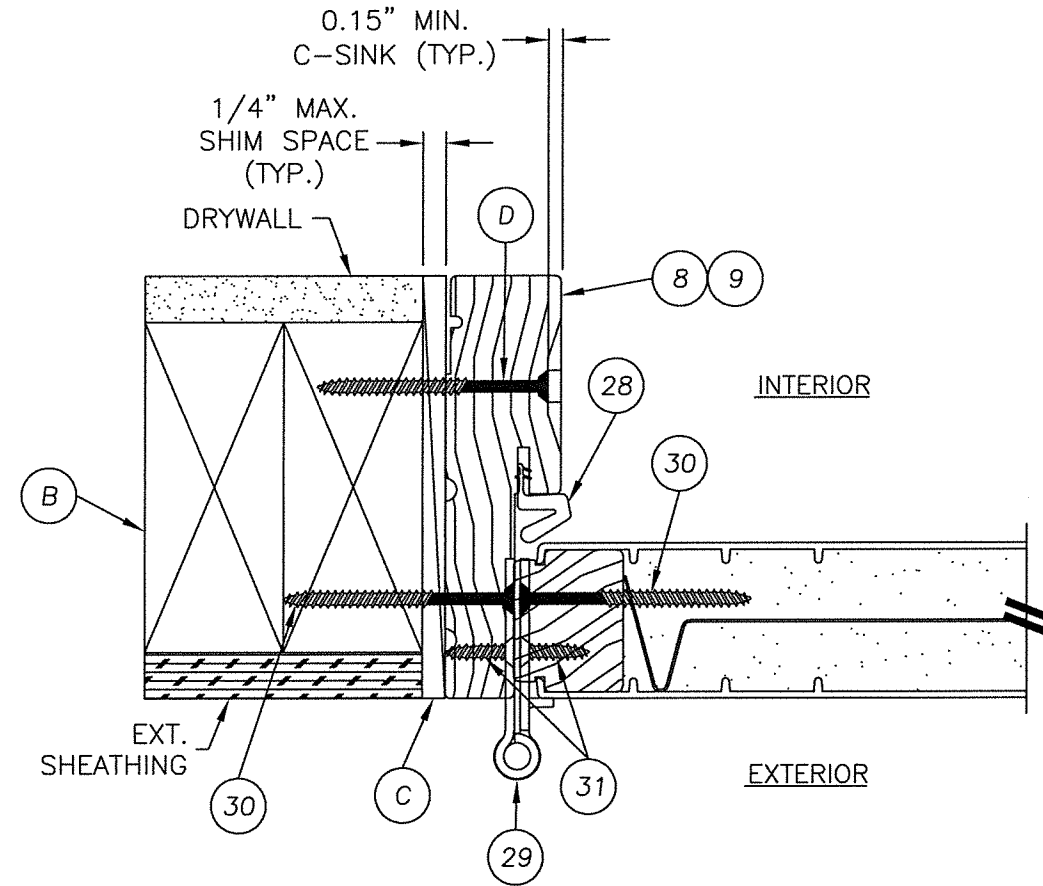
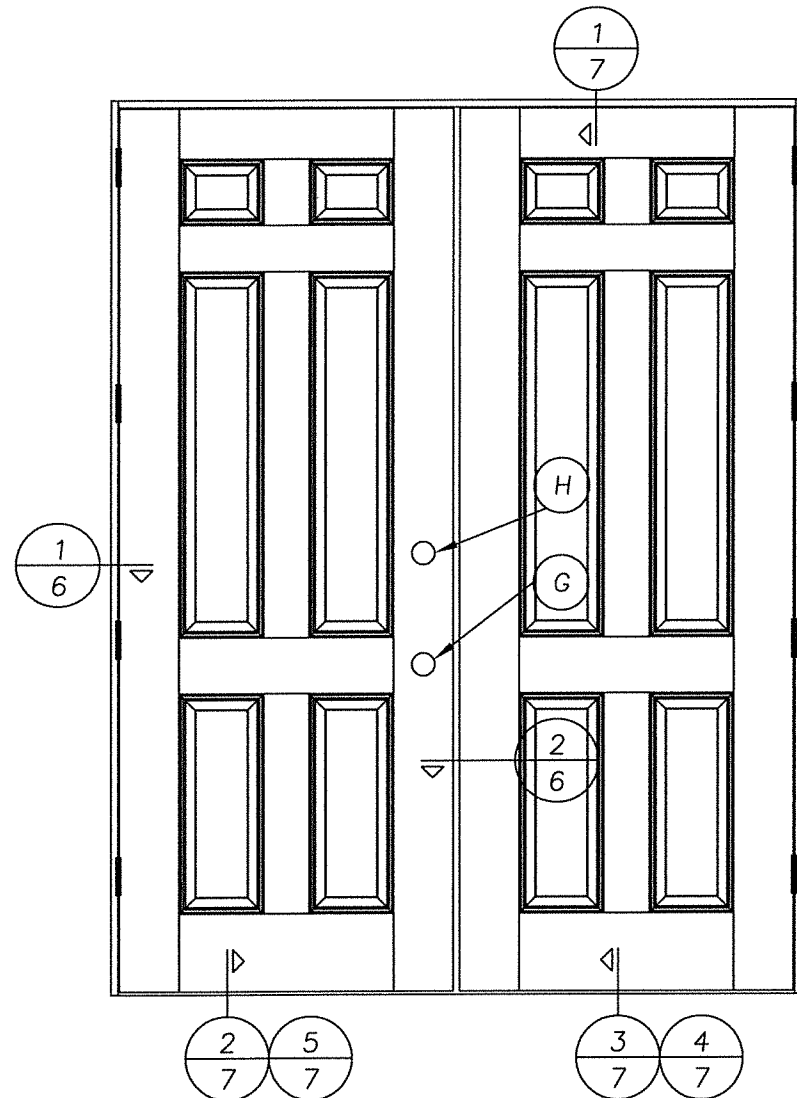
PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
DOOR PANEL DETAILS
(FIBER-CLASSIC)

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1	7/22/15	ADDED GENERAL NOTE 5.
LFS		BY
LFS		

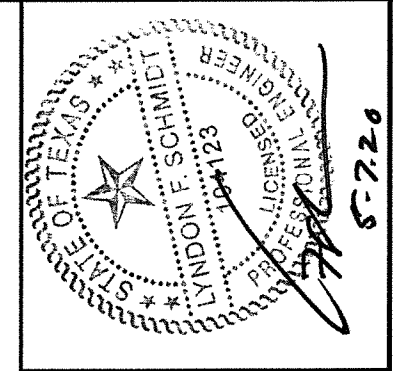
DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 5 OF 10



2 HORIZONTAL CROSS SECTION
 6 OUTSWING SHOWN (INSWING ALSO APPROVED)
 SMOOTH-STAR PANEL SHOWN
 SEE DOOR PANEL DETAILS FOR
 OPTIONAL PANEL TYPES



1 HORIZONTAL CROSS SECTION
 6 OUTSWING SHOWN (INSWING ALSO APPROVED)
 SMOOTH-STAR PANEL SHOWN
 SEE DOOR PANEL DETAILS FOR
 OPTIONAL PANEL TYPES



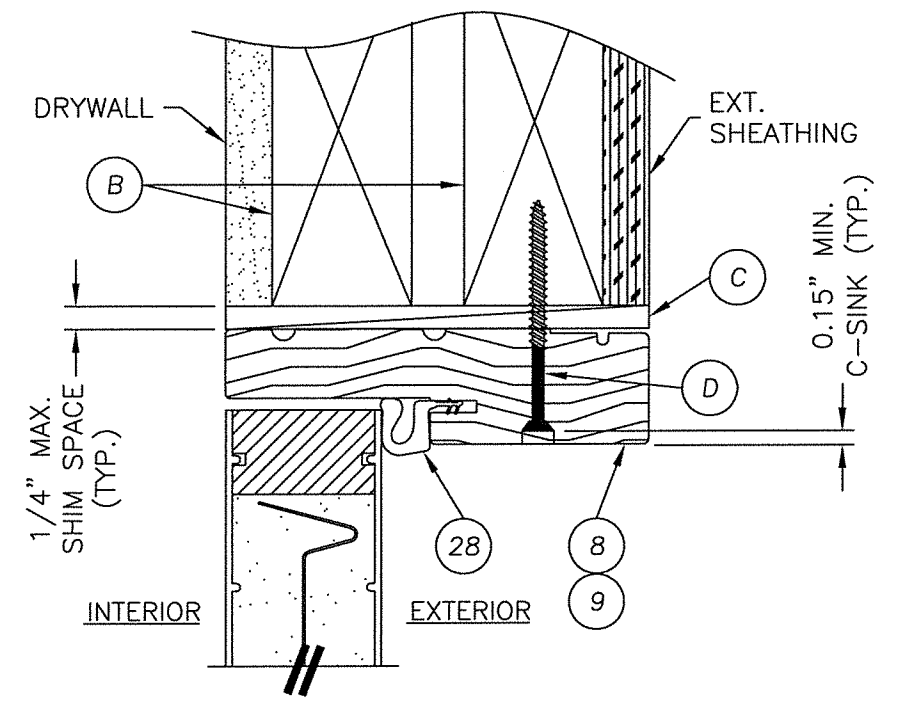
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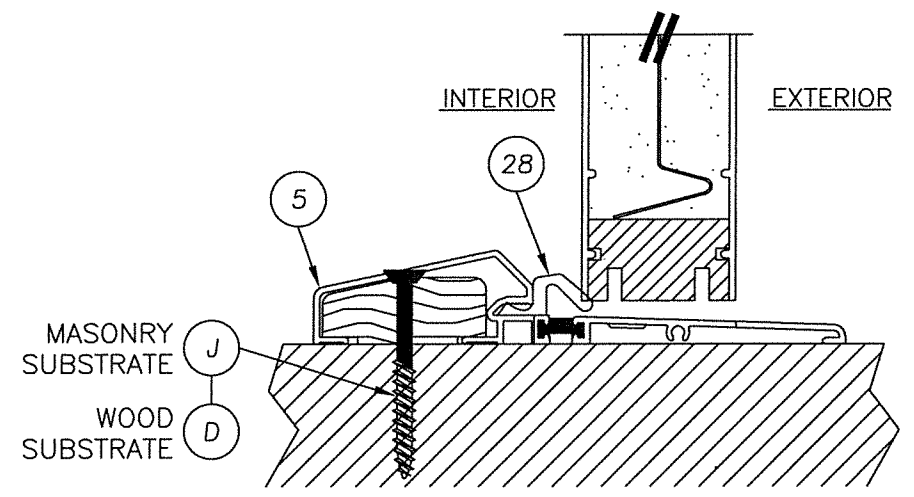
TEXAS BOARD OF PROFESSIONAL ENGINEERS
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:		DOUBLE OPAQUE FIBERGLASS DOOR	
		"IMPACT" INSWING / OUTSWING	
		PART OR ASSEMBLY:	
		HORIZONTAL CROSS SECTIONS	
		LFS	BY
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NO.	DATE	REVISIONS	
DATE: 7/16/12			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4176			
SHEET 6 OF 10			

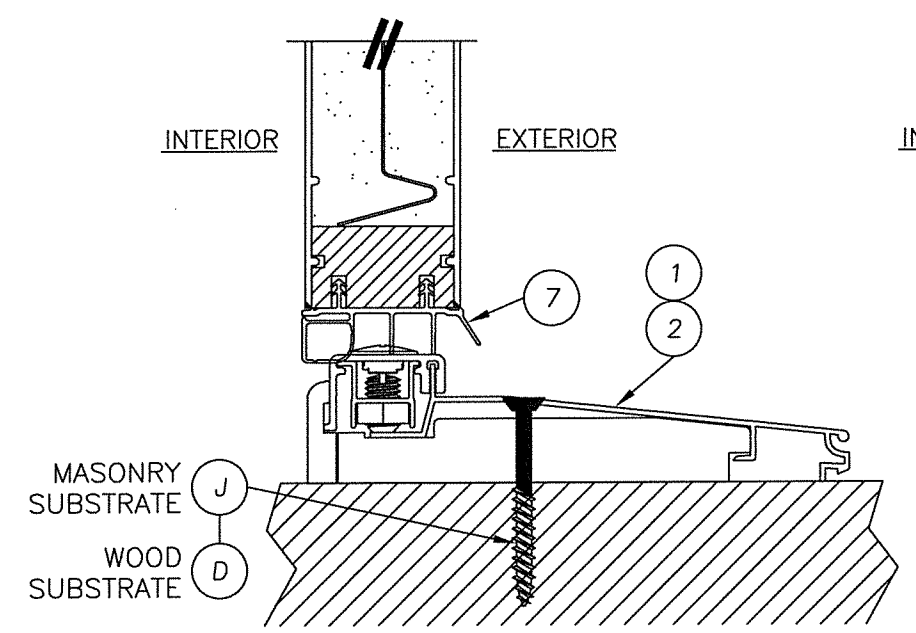
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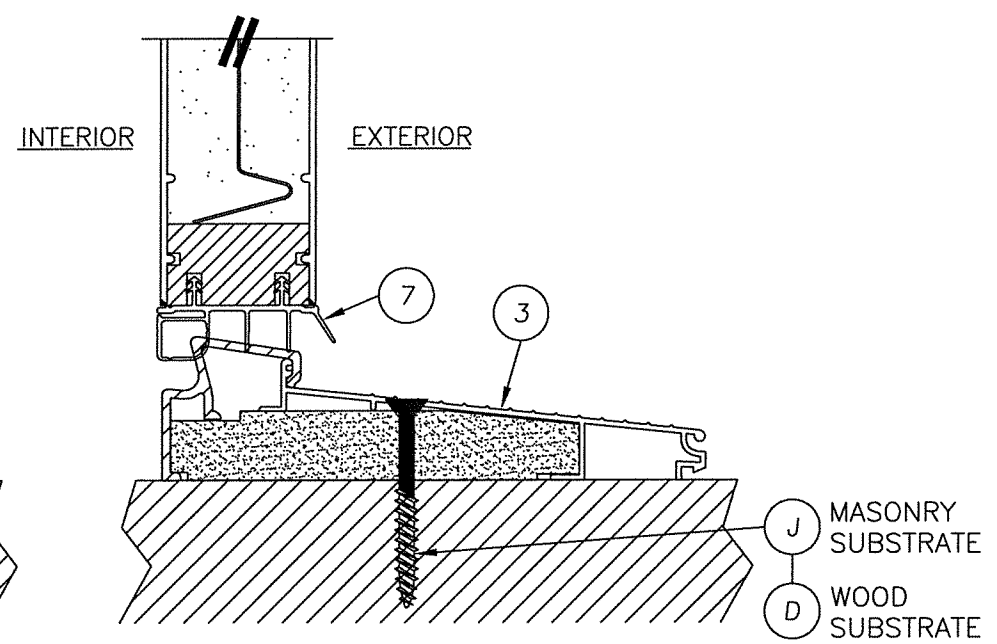
1 VERTICAL CROSS SECTION
7 INSWING SHOWN (OUTSWING ALSO APPROVED)
SMOOTH-STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



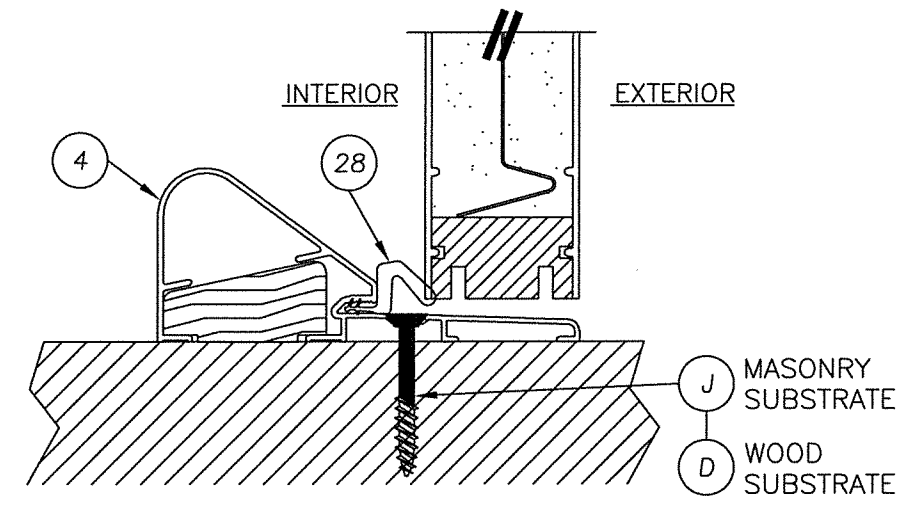
2 VERTICAL CROSS SECTION
7 @ THRESHOLD
SMOOTH-STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



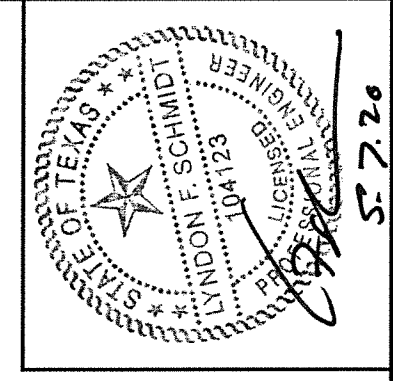
3 VERTICAL CROSS SECTION
7 @ THRESHOLD
SMOOTH-STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



4 VERTICAL CROSS SECTION
7 @ THRESHOLD
SMOOTH-STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



5 VERTICAL CROSS SECTION
7 @ THRESHOLD
SMOOTH-STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



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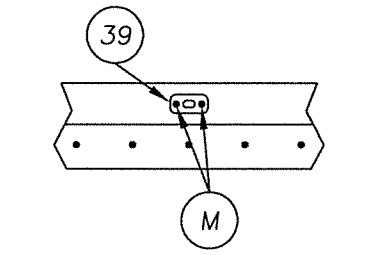
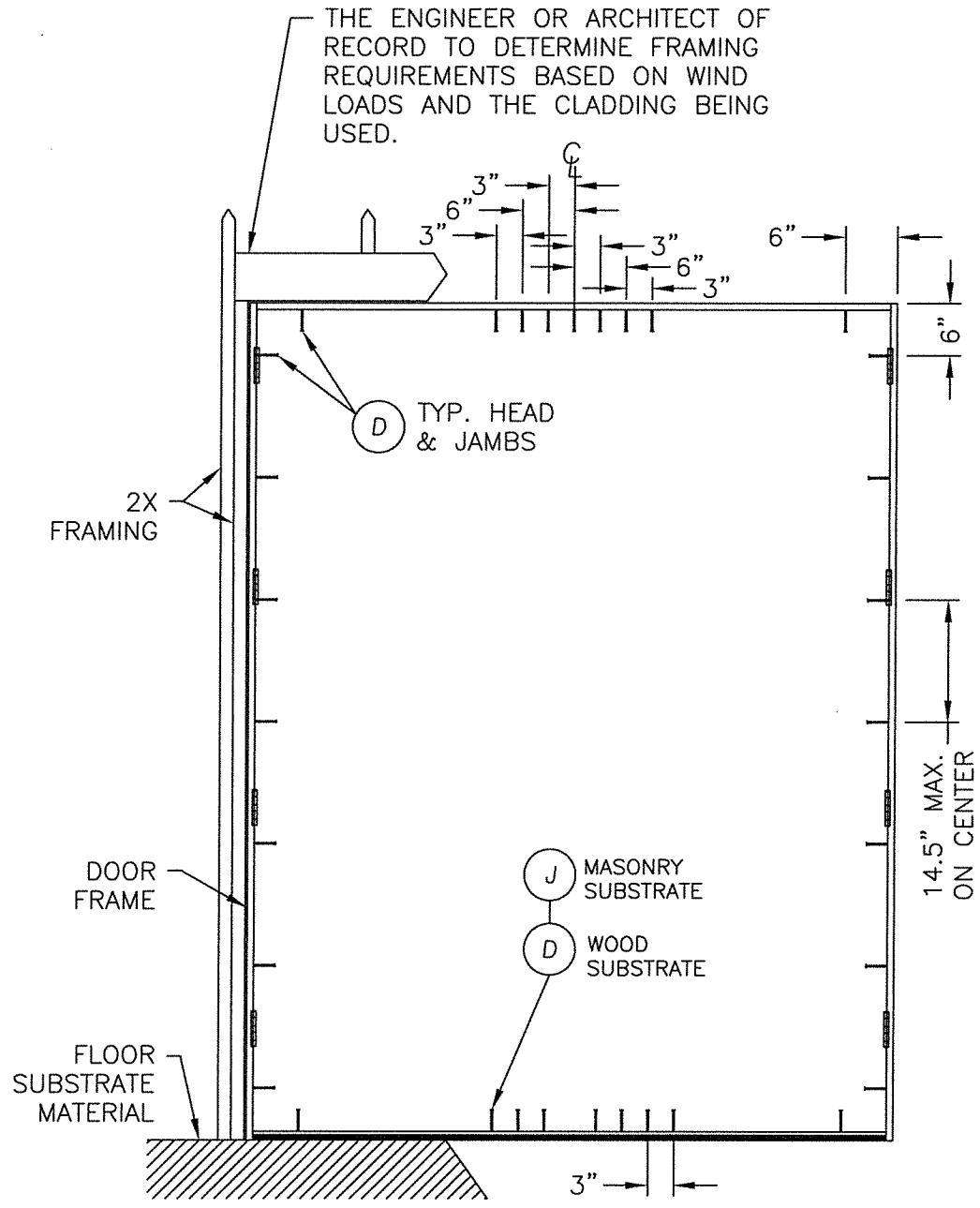
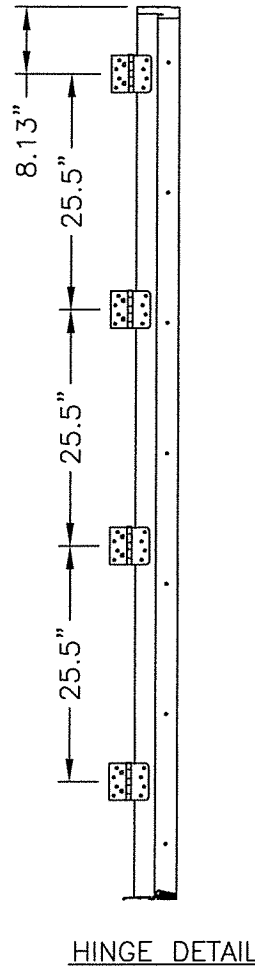
RW BUILDING CONSULTANTS, INC.
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
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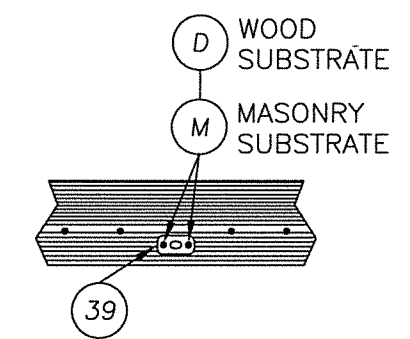
PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

NO.	DATE	BY	REVISIONS
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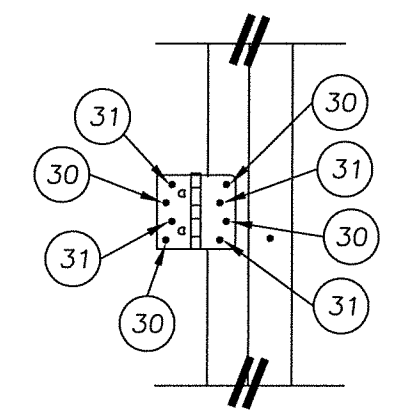
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DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 7 OF 10



ASTRAGAL STRIKE PLATE @ HEAD



ASTRAGAL STRIKE PLATE @ THRESHOLD

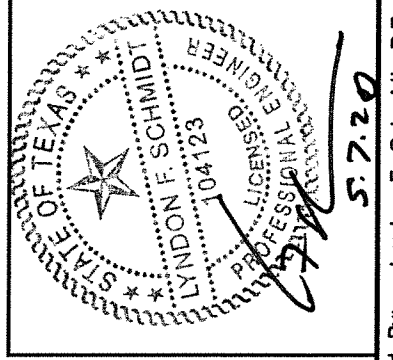


HINGE DETAIL

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®	3/16" 1/4"	1-3/4" 1-3/4"	2-5/8" 2-1/2"	1-1/8" 3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



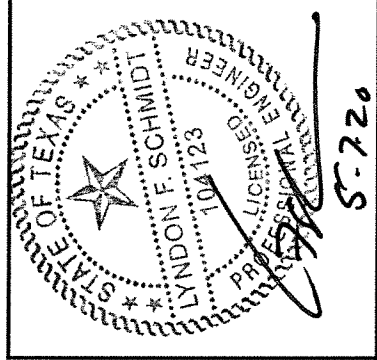
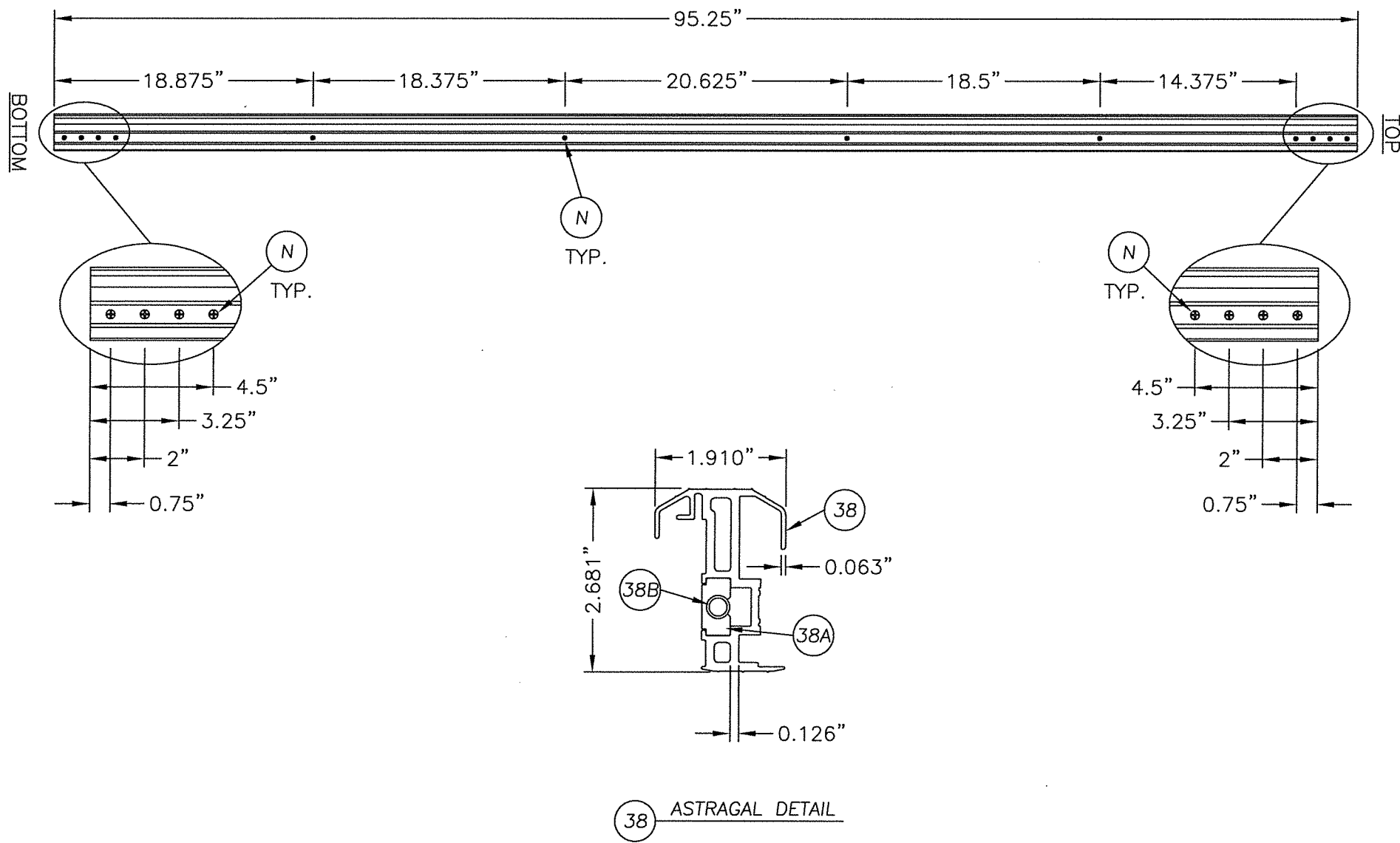
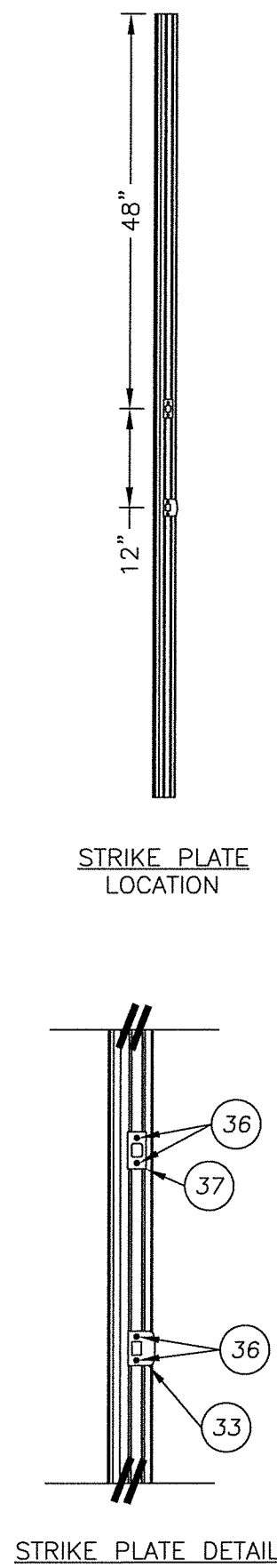
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DRAWING NO.: TX-4176
SHEET 8 OF 10



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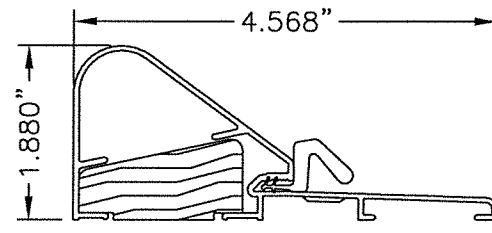
PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR "IMPACT" INSWING / OUTSWING PART OR ASSEMBLY: ASTRAGAL DETAILS

NO.	DATE	REVISIONS
2	5/07/20	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	ADDED GENERAL NOTE 5.
		BY

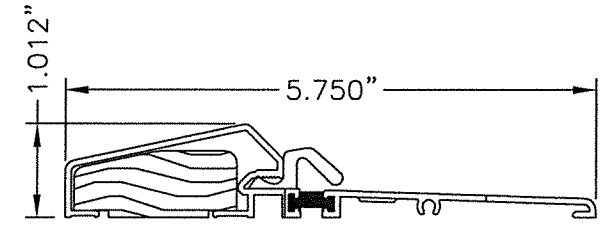
DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4176
SHEET 9 OF 10

R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 601 - 80 Opaque FG Imp IS - OS Sgls Dbls w-wo Imp SLYC - Drawings\Current\TX-4175-83.dwg, XX10

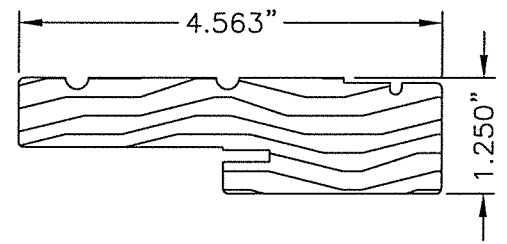
BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
B	2X FRAMING (G >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	WOOD
D	#10 X 2-1/2" PFH WOOD SCREW	STEEL
G	KWIKSET 200 SERIES PASSAGE LOCK	STEEL
H	KWIKSET 600 SERIES DEADBOLT	STEEL
K	3/16" ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
M	#8 X 3" PFH SCREW (STRIKE PLATES @ HEAD & SILL)	STEEL
N	#10 X 1-1/2" PPH SCREW ASTRAGAL TO PANEL	STEEL
1	INSWING ADJUSTABLE THRESHOLD (IS300AJ)	ALUM./WOOD
2	INSWING THRESHOLD (IS300HP5)	ALUM./COMP.
3	INSWING SELF ADJUST THERMAL BREAK THRESHOLD (ISP30M)	ALUM./COMP.
4	OUTSWING COASTAL THRESHOLD	ALUM./WOOD
5	OUTSWING STANDARD THRESHOLD	ALUM./WOOD
7	DOOR BOTTOM SWEEP	VINYL
8	JAMB (OAK)	WOOD
9	JAMB (PINE)	WOOD
10	HINGE STILE (SMOOTH-STAR)	WOOD
11	LOCK STILE (SMOOTH-STAR)	LVL/WOOD
12	TOP RAIL (SMOOTH-STAR)	PVC
13	BOTTOM RAIL (SMOOTH-STAR)	PVC
14	PANEL REINFORCEMENT 0.023" THK. (SMOOTH-STAR)	STEEL
15	DOOR SKIN 0.070" THK. (SMOOTH-STAR) Fy = 6,000 PSI MIN.	FIBERGLASS
16	HINGE STILE (CLASSIC-CRAFT)	WOOD/LVL
17	LOCK STILE (CLASSIC-CRAFT)	WOOD/LVL
18	TOP RAIL (CLASSIC-CRAFT)	PVC
19	BOTTOM RAIL (CLASSIC-CRAFT)	PVC
20	PANEL REINFORCEMENT 0.023" THK. (CLASSIC-CRAFT)	STEEL
21	DOOR SKIN 0.125" THK. (CLASSIC-CRAFT) Fy = 6,000 PSI MIN.	FIBERGLASS
22	LOCK & HINGE STILE (CLASSIC-CRAFT RUSTIC)	WOOD/LVL
23	TOP RAIL (CLASSIC-CRAFT RUSTIC)	WOOD
24	BOTTOM RAIL (CLASSIC-CRAFT RUSTIC)	PVC
25	PANEL REINFORCEMENT 0.023" THK. (CLASSIC-CRAFT RUSTIC)	STEEL
26	DOOR SKIN 0.125" THK. (CC RUSTIC) Fy = 6,000 PSI MIN.	FIBERGLASS
27	FOAM CORE	POLYURETHANE
28	WEATHERSTRIP	FOAM
29	HINGE	STEEL
30	#10 X 2-1/2" PFH SCREW	STEEL
31	#10 X 3/4" PFH SCREW	STEEL
32	#9 X 3" PFH WOOD SCREW	STEEL
33	LATCH STRIKE PLATE	STEEL
36	#8 X 3" PFH SCREW	STEEL
37	DEADBOLT STRIKE PLATE	STEEL



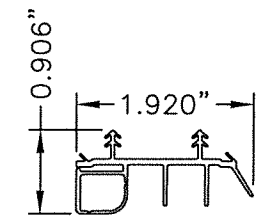
4 THRESHOLD
OUTSWING COASTAL



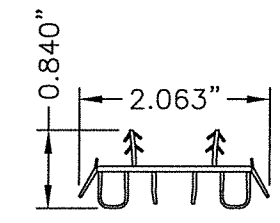
5 THRESHOLD
OUTSWING STANDARD



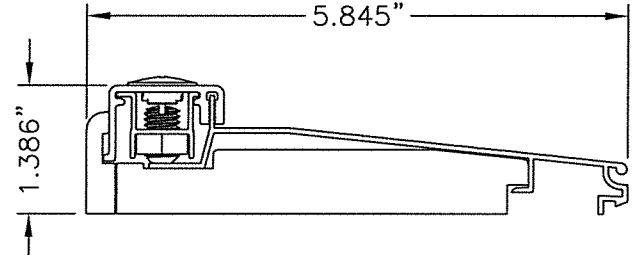
9 8 JAMB



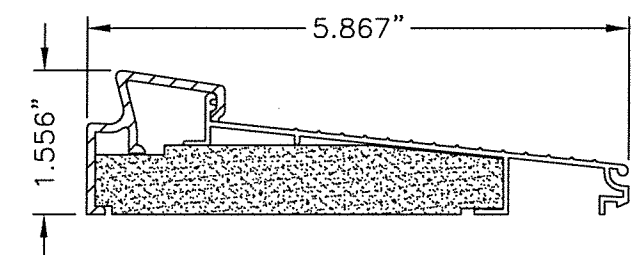
7 SWEEP



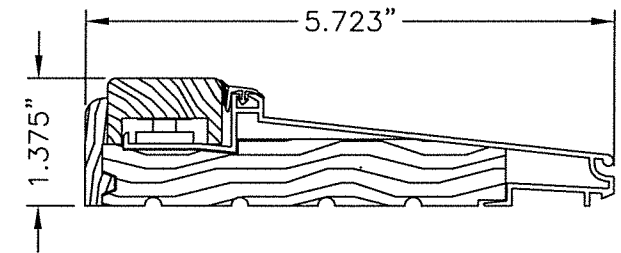
52 SWEEP



2 THRESHOLD
INSWING ADJUSTABLE

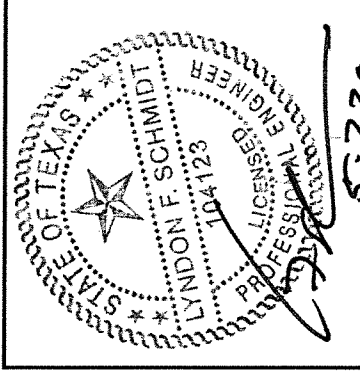


3 THRESHOLD
INSWING SELF-ADJUST



1 THRESHOLD
INSWING ADJUSTABLE

BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
38	ASTRAGAL	ALUMINUM
38A	ASTRAGAL FLUSH BOLT	STEEL
38B	ASTRAGAL FLUSH BOLT RETAINER	ALUMINUM
39	ASTRAGAL STRIKE PLATE @ HEAD	STEEL
62	HINGE STILE (FIBER-CLASSIC)	WOOD
63	LOCK STILE (FIBER-CLASSIC)	LVL/WOOD
64	TOP RAIL (FIBER-CLASSIC)	PVC
65	BOTTOM RAIL (FIBER-CLASSIC)	PVC
66	PANEL REINFORCEMENT 0.023" THK. (FIBER-CLASSIC)	STEEL
67	DOOR SKIN 0.070" THK. (FIBER-CLASSIC) Fy = 6,000 PSI MIN.	FIBERGLASS



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

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P.O. Box 230 Valrico FL, 33595
Phone No.: 813.659.9197

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

PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
BILL OF MATERIALS
& COMPONENTS

NO.	DATE	BY	REVISIONS
2	5/07/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/22/15	LFS	ADDED GENERAL NOTE 5.

DATE: 7/16/12
SCALE: N.T.S.
DWG. BY: JK
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DRAWING NO.: TX-4176
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