

THERMA TRU®

118 INDUSTRIAL DR., EDGERTON, OH 43517

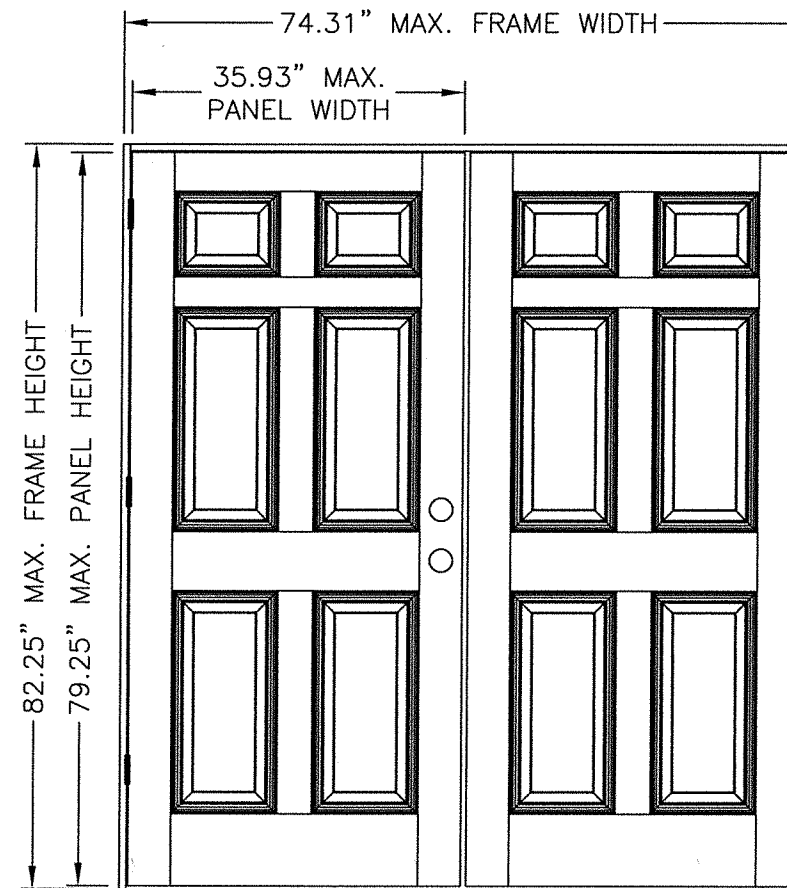
SMOOTH-STAR, FIBER-CLASSIC, CLASSIC-CRAFT & CLASSIC-CRAFT RUSTIC DOUBLE "IMPACT" DOOR IN SWING / OUT SWING

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:

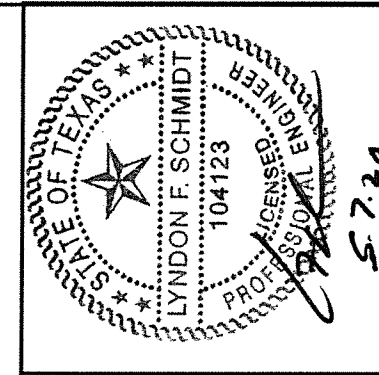
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. When used in areas requiring wind-borne debris protection, the opaque door does not require impact protection and meets missile level "D" as defined in ASTM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

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5	DOOR PANEL DETAILS (FIBER CLASSIC)
6	HORIZONTAL CROSS SECTIONS
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9	ASTRAGAL DETAILS
10	BILL OF MATERIALS & COMPONENTS



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

DOOR TYPE	SWING	DESIGN PRESSURE	
		POSITIVE	NEGATIVE
CLASSIC CRAFT	OUTSWING	+70.0	-70.0
	IN SWING	+70.0	-70.0
FIBER CLASSIC	OUTSWING	+70.0	-70.0
	IN SWING	+70.0	-70.0
SMOOTH STAR	OUTSWING	+70.0	-70.0
	IN SWING	+70.0	-70.0
CLASSIC CRAFT RUSTIC	OUTSWING	+70.0	-70.0
	IN SWING	+70.0	-70.0



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

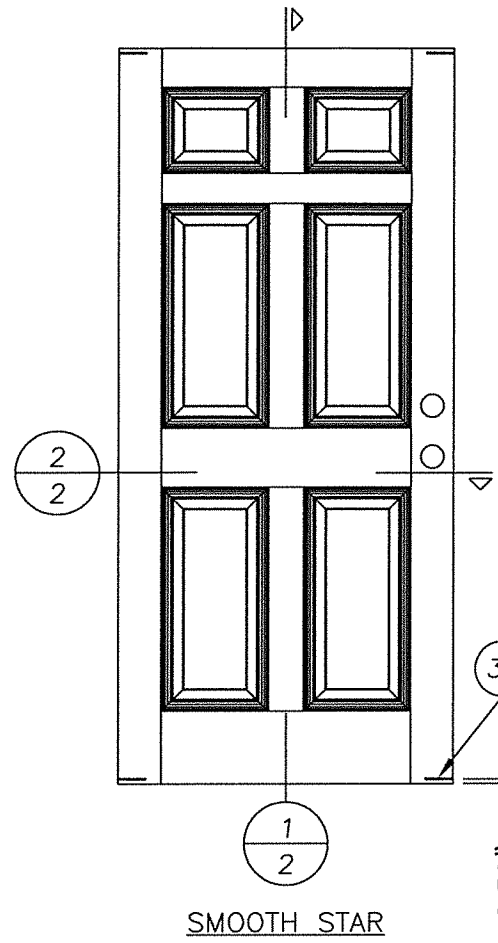
R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL, 33595
Phone No.: 813.659.9197

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

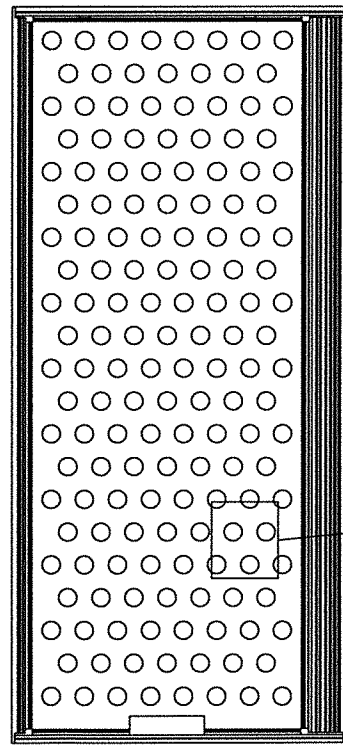
PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" IN SWING / OUTSWING
PART OR ASSEMBLY:
TYPICAL ELEVATION, DESIGN
PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE
1	7/16/15	ADDED GENERAL NOTE 5.

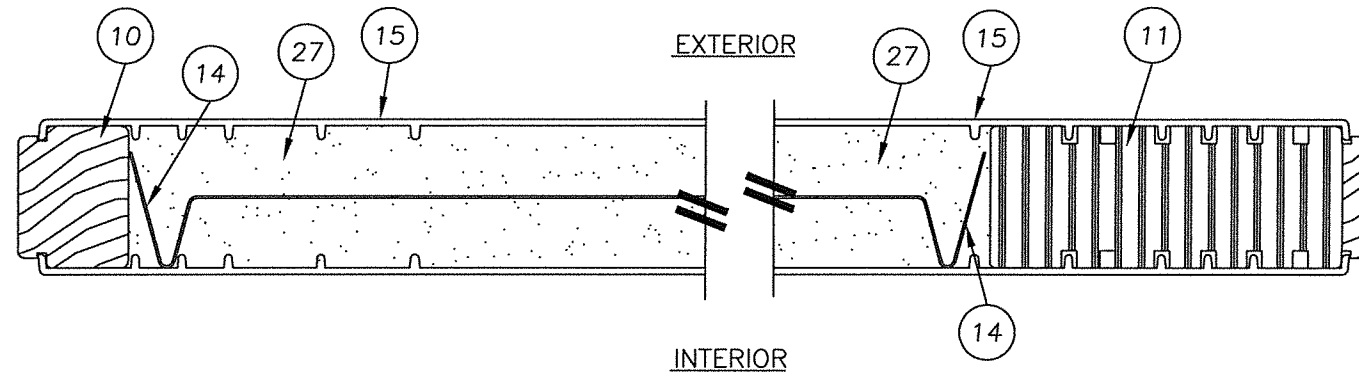
DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 1 OF 10



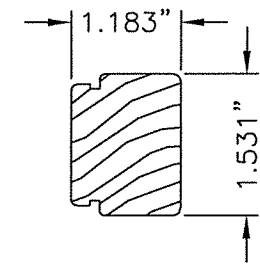
SMOOTH STAR



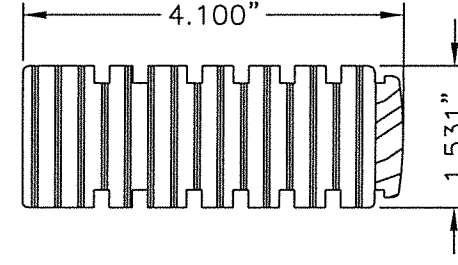
28.86% OPEN AREA MAX.



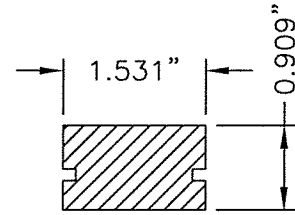
2 HORIZONTAL CROSS SECTION
2 SMOOTH STAR



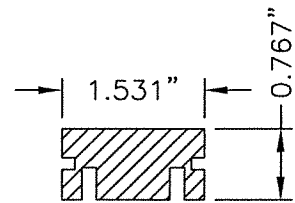
10 HINGE STILE
SMOOTH STAR



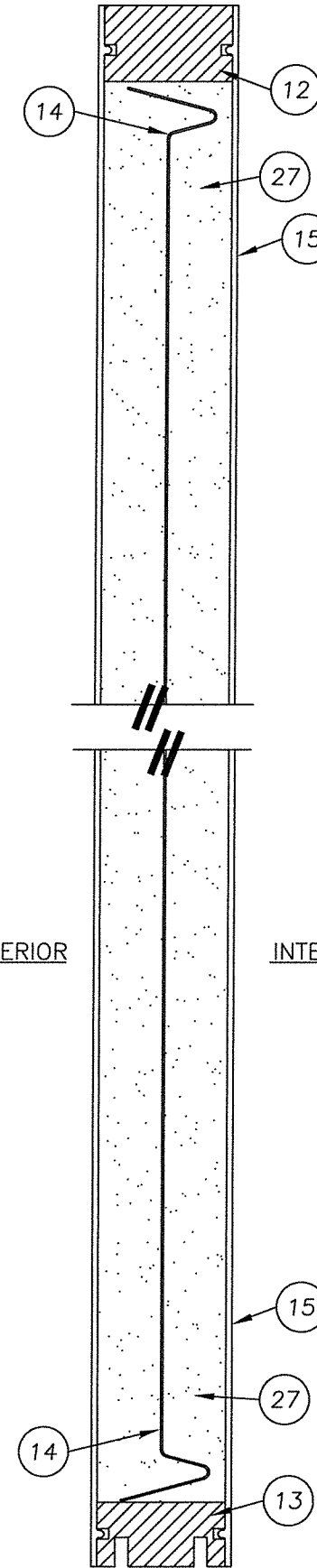
11 LOCK STILE
SMOOTH STAR



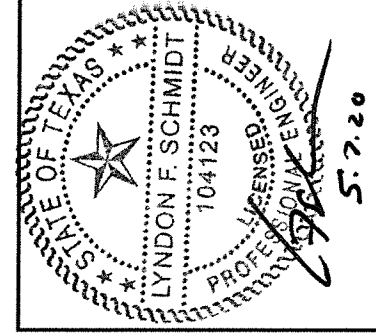
12 TOP RAIL
SMOOTH STAR



13 BOTTOM RAIL
SMOOTH STAR



1 VERTICAL CROSS SECTION
2 SMOOTH STAR



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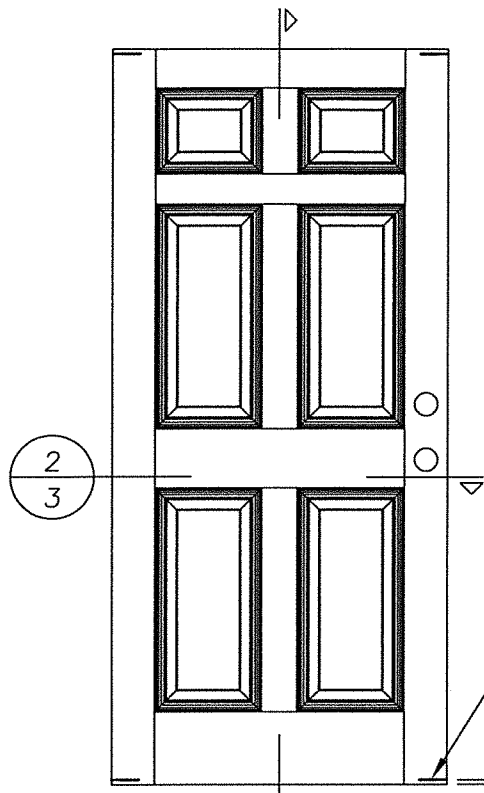
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL, 33595
Phone No.: 813.659.9197

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CERTIFICATE OF REGISTRATION # F-11852

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

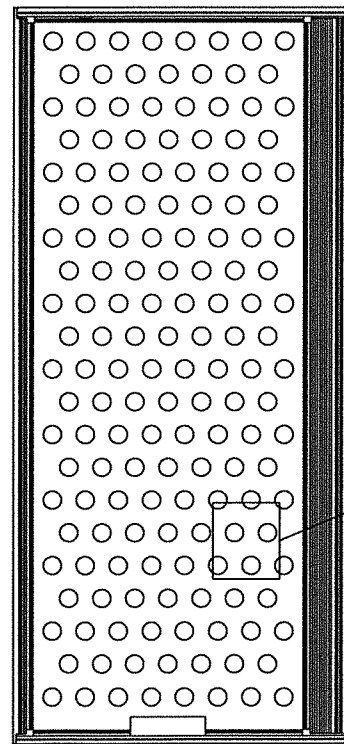
NO.	DATE	BY	REVISIONS
2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/16/15	LFS	ADDED GENERAL NOTE 5.

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 2 OF 10



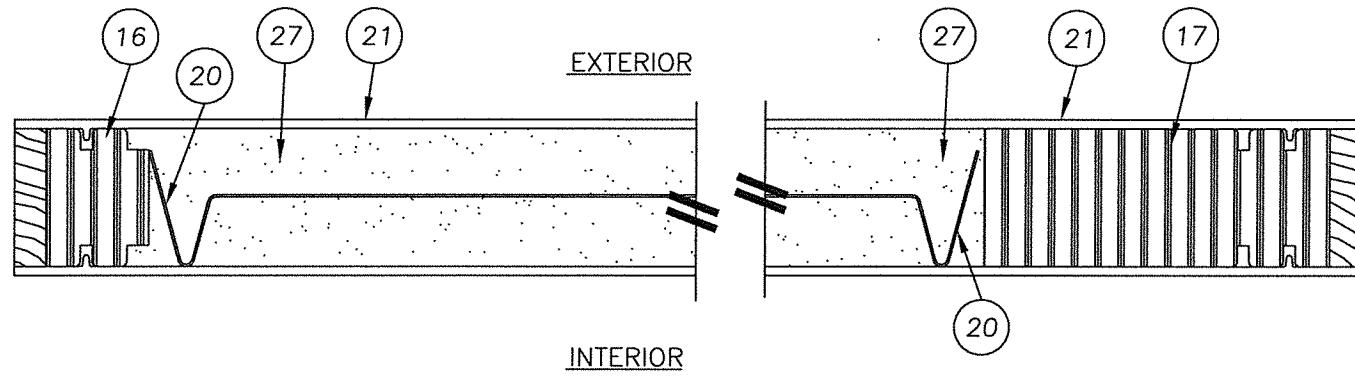
CLASSIC CRAFT

32 TYP. 4 CORNERS OF PANEL

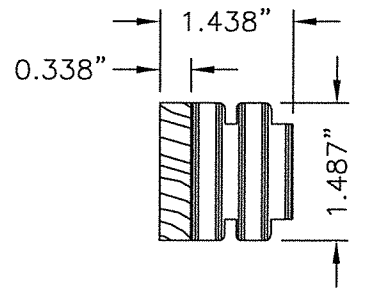


∅2" DIA. MAX.

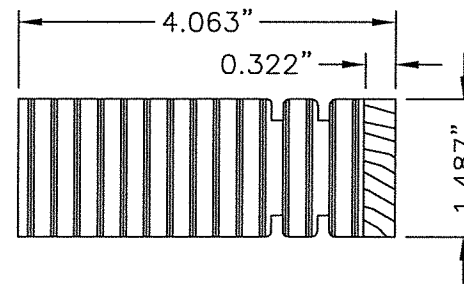
28.86% OPEN AREA MAX.



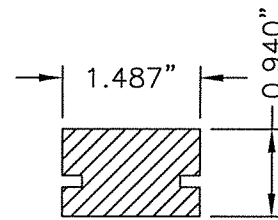
2 HORIZONTAL CROSS SECTION
3 (CLASSIC CRAFT)



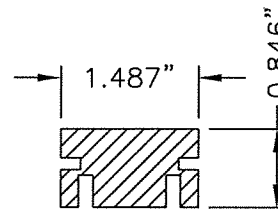
16 HINGE STILE
CLASSIC CRAFT



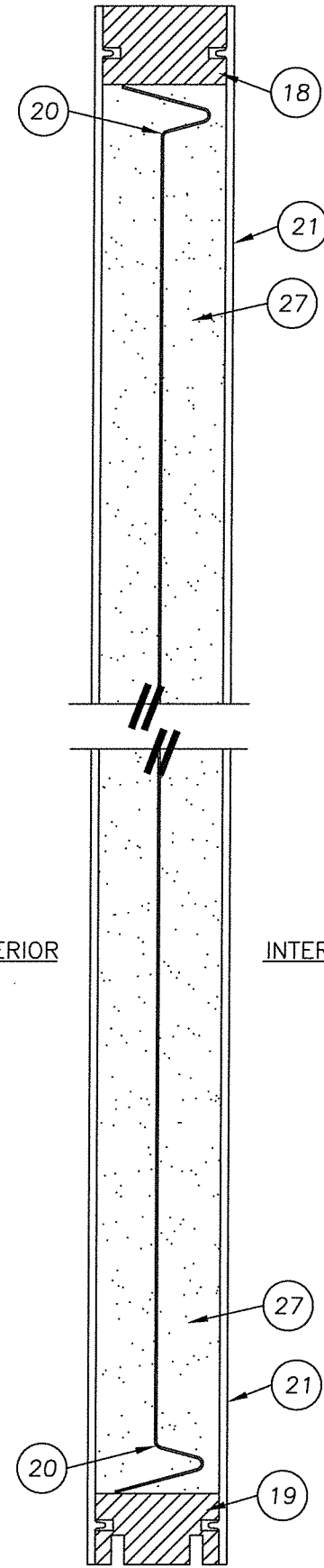
17 LOCK STILE
CLASSIC CRAFT



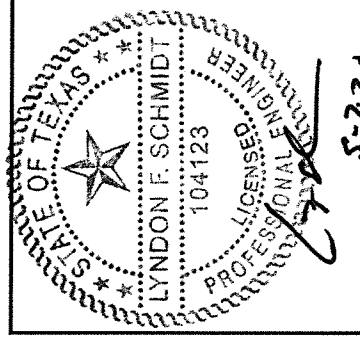
18 TOP RAIL
CLASSIC CRAFT



19 BOTTOM RAIL
CLASSIC CRAFT



1 VERTICAL CROSS SECTION
3 (CLASSIC CRAFT)



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P.O. Box 230 Valrico FL 33595
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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: DOOR PANEL DETAILS (CLASSIC CRAFT)

NO.	DATE	REVISIONS
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1	7/16/15	ADDED GENERAL NOTE 5.
LFS		BY

DATE: 7/17/12

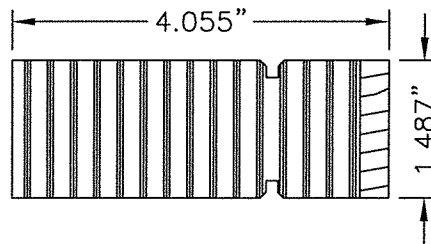
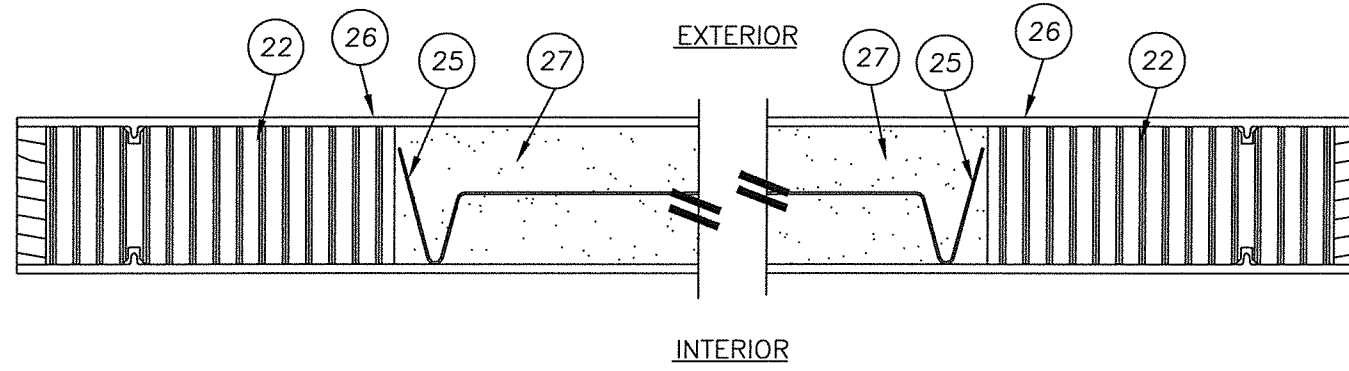
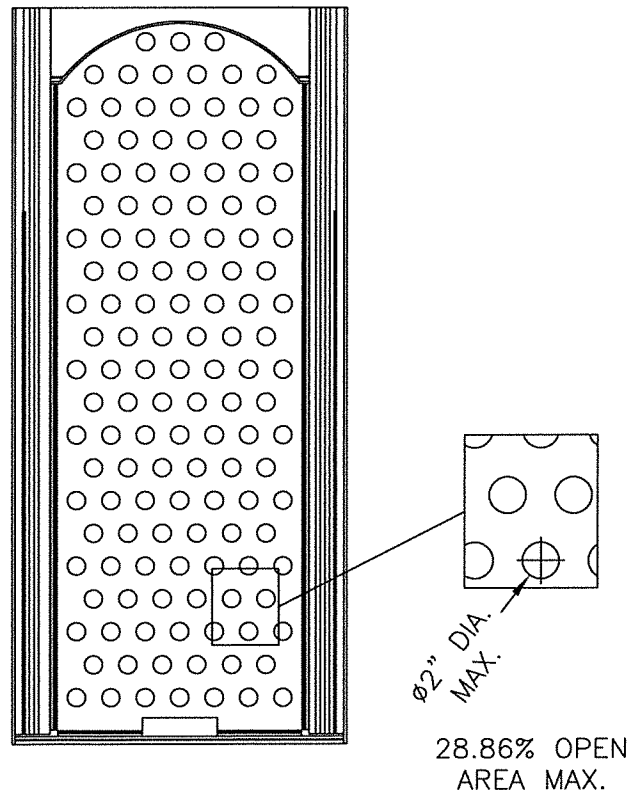
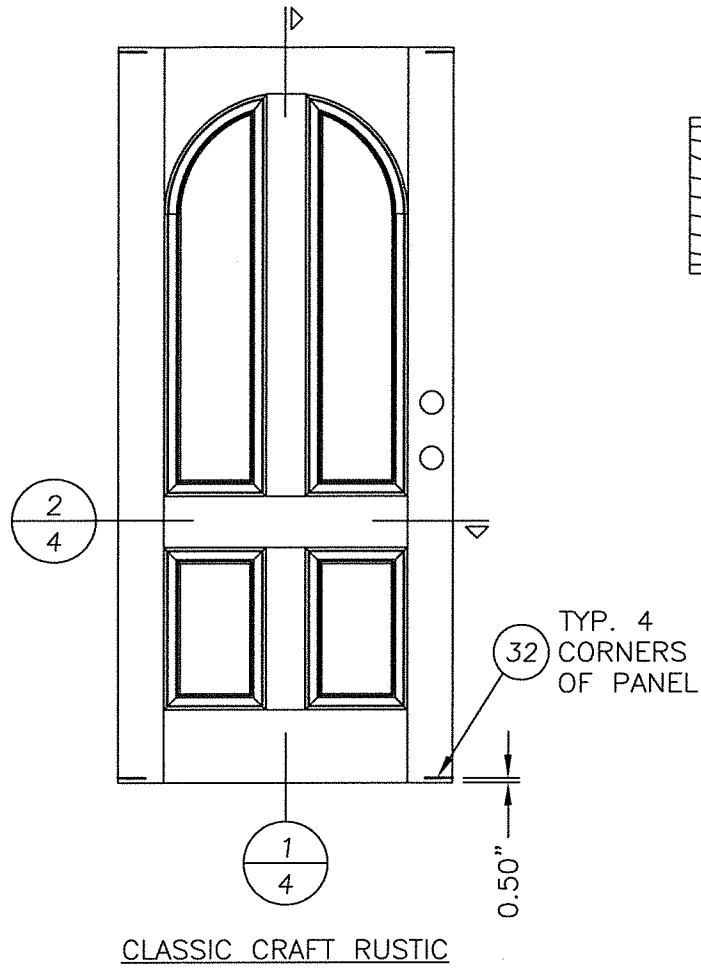
SCALE: N.T.S.

DWG. BY: JK

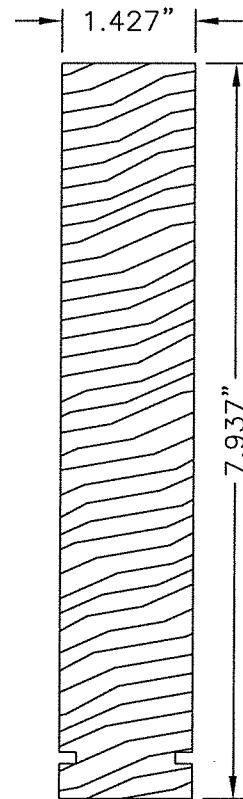
CHK. BY: LFS

DRAWING NO.: TX-4188

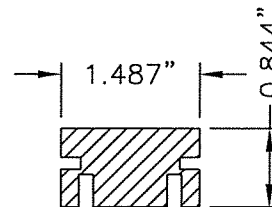
SHEET 3 OF 10



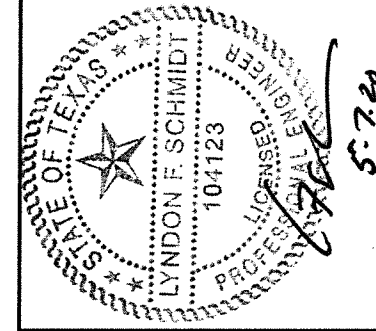
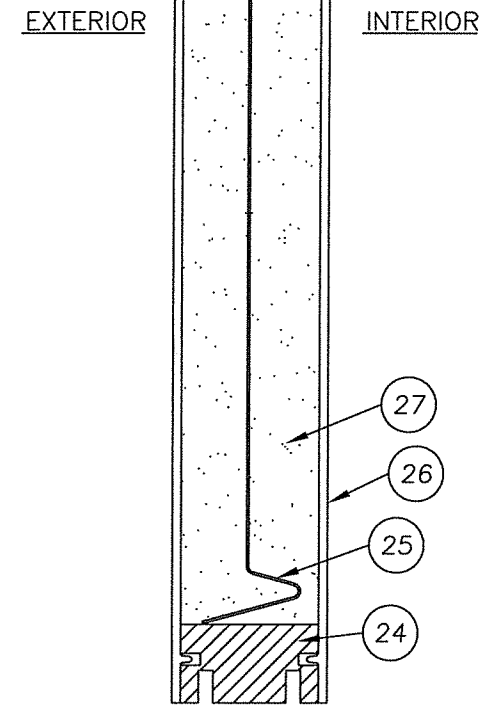
22 LOCK & HINGE STILE CLASSIC CRAFT RUSTIC



23 TOP RAIL CLASSIC CRAFT RUSTIC



24 BOTTOM RAIL CLASSIC CRAFT RUSTIC



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

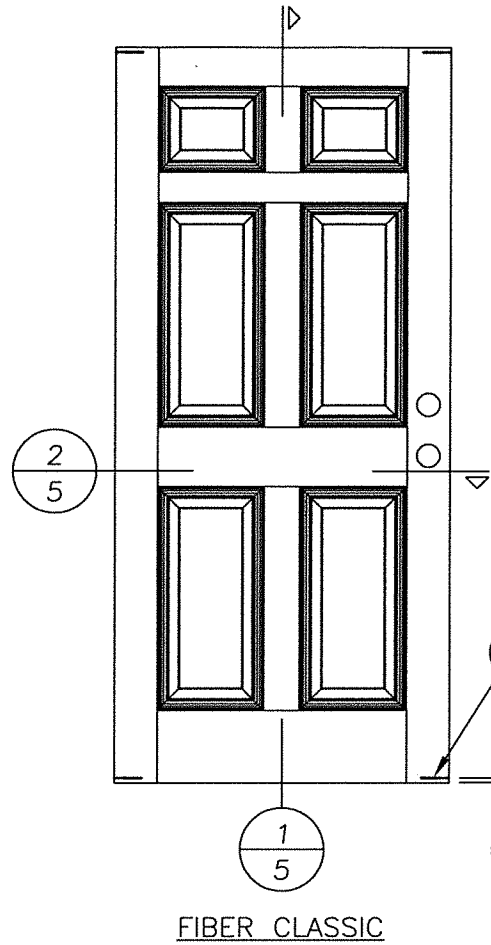
RW BUILDING CONSULTANTS, INC.
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Phone No.: 813.659.9197

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

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

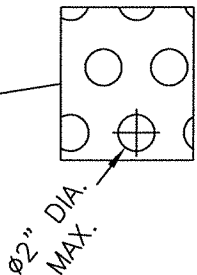
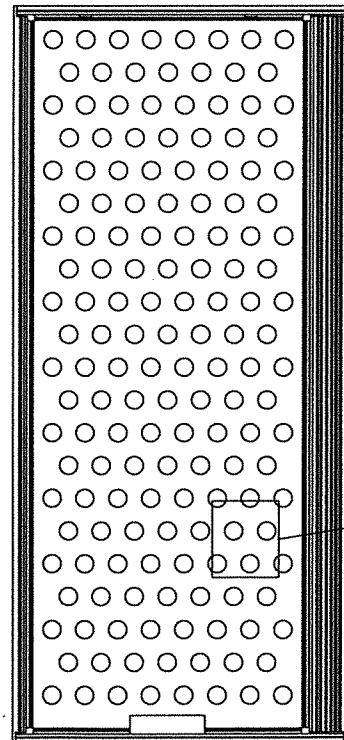
NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE LFS
1	7/16/15	ADDED GENERAL NOTE 5. LFS
		BY

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 4 OF 10

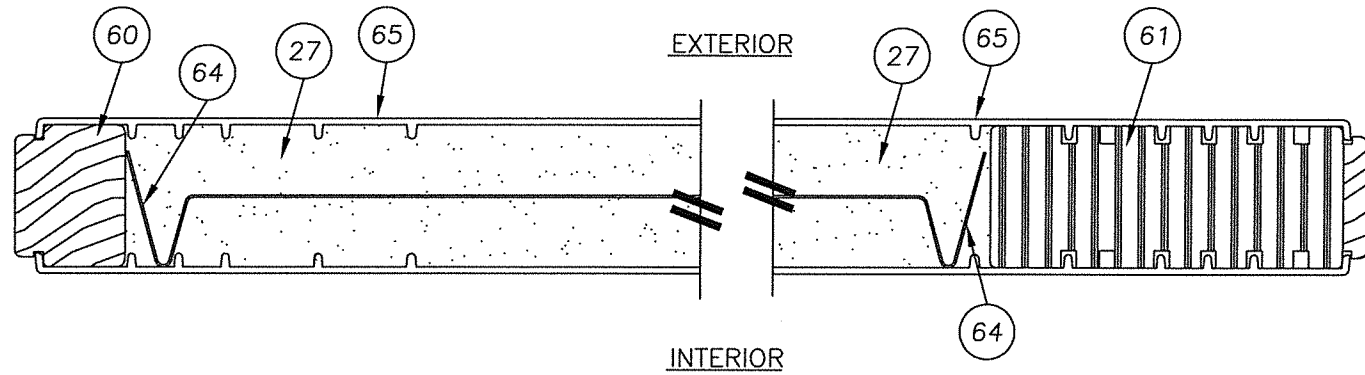


FIBER CLASSIC

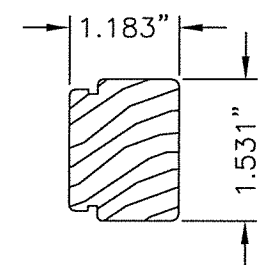
TYP. 4 CORNERS OF PANEL



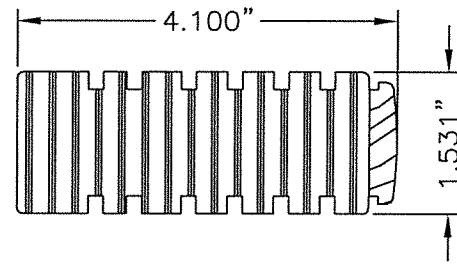
28.86% OPEN AREA MAX.



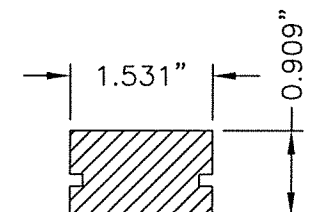
2 HORIZONTAL CROSS SECTION
5 FIBER CLASSIC



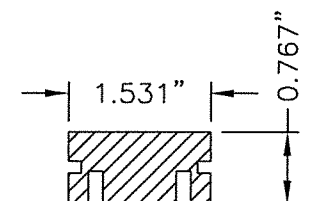
60 HINGE STILE
FIBER CLASSIC



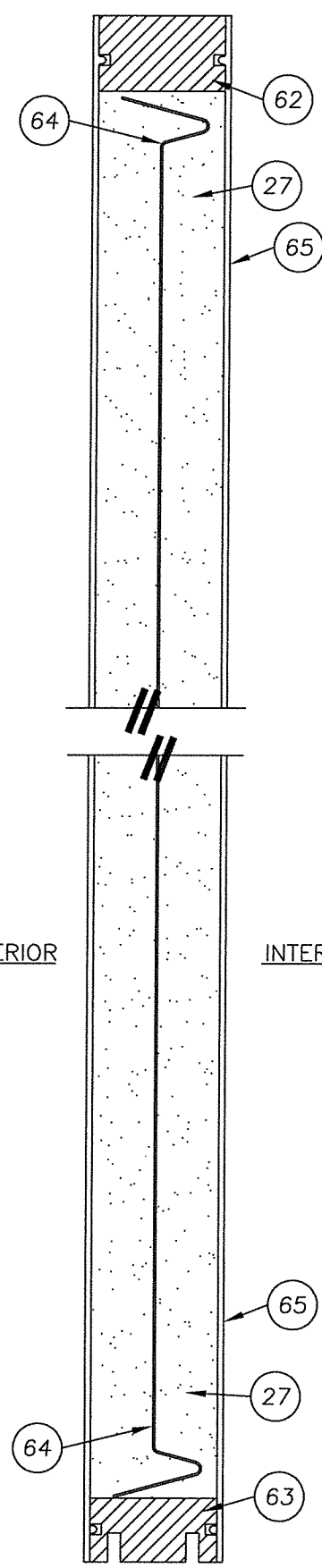
61 LOCK STILE
FIBER CLASSIC



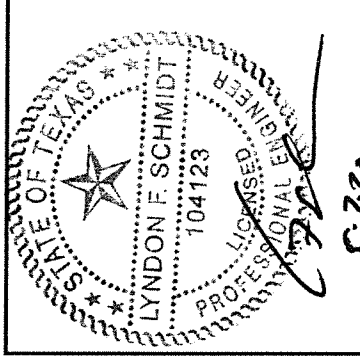
62 TOP RAIL
FIBER CLASSIC



63 BOTTOM RAIL
FIBER CLASSIC



1 VERTICAL CROSS SECTION
5 FIBER CLASSIC



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

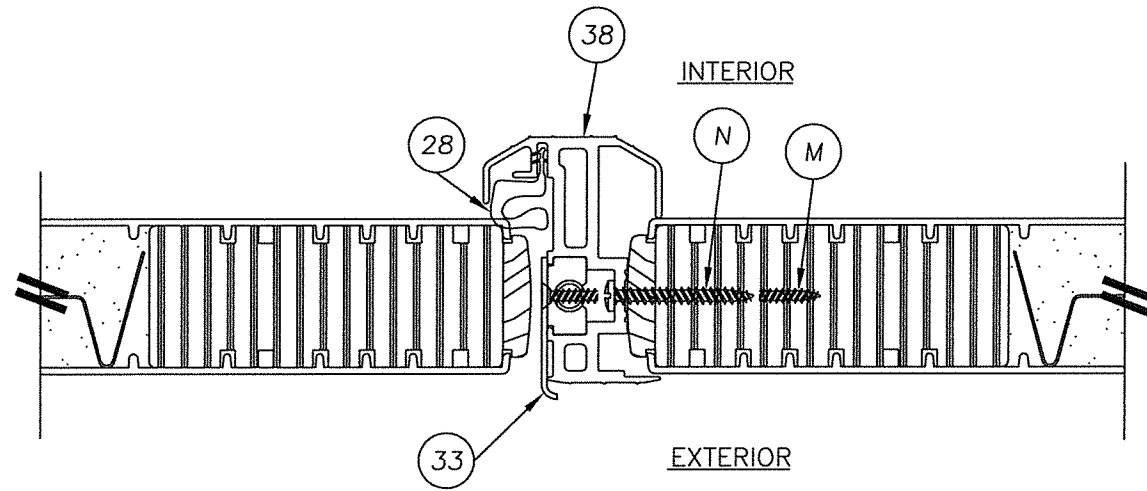
RW BUILDING CONSULTANTS, INC.
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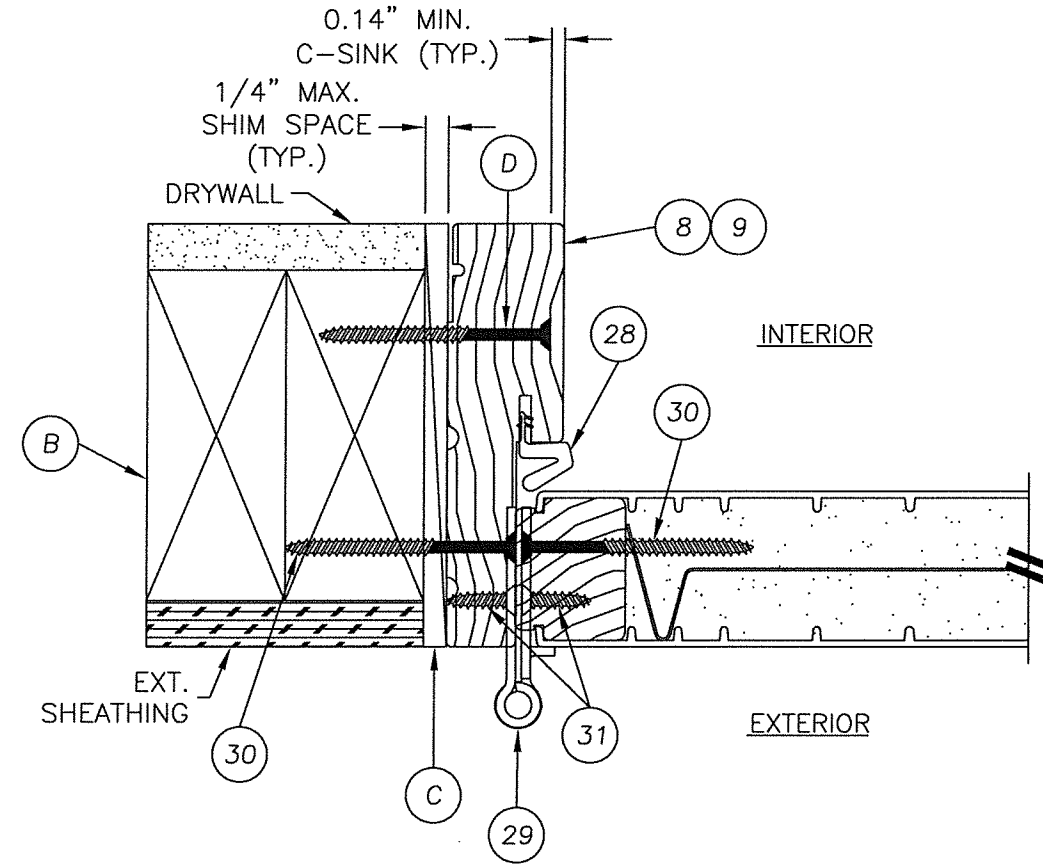
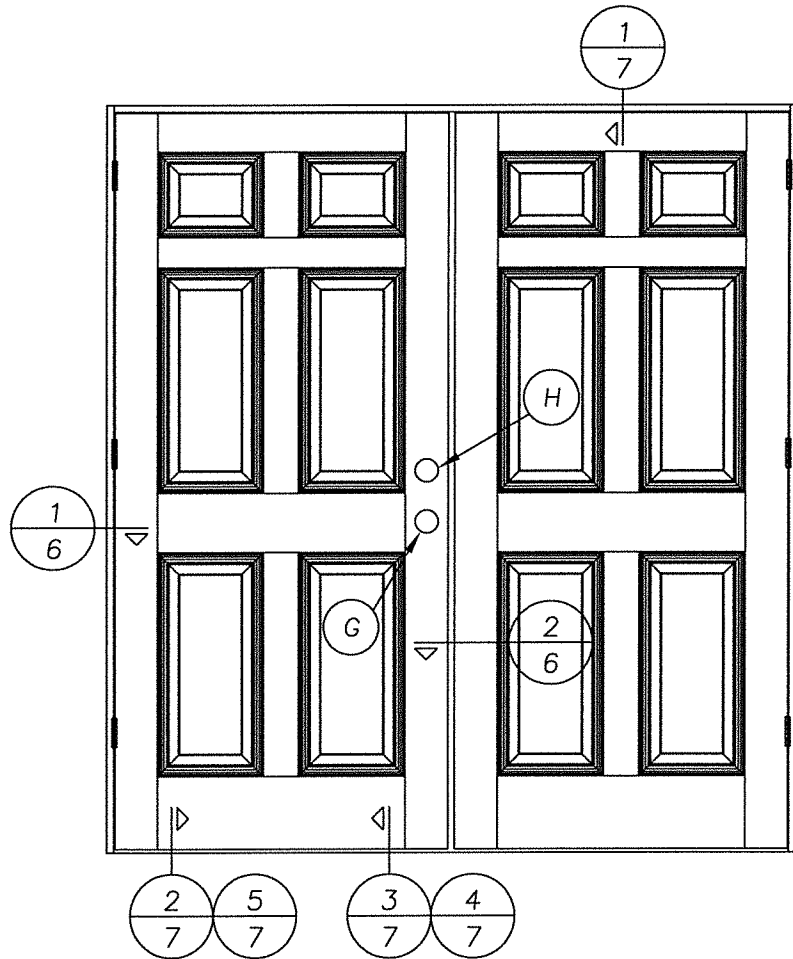
PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
DOOR PANEL DETAILS
(FIBER CLASSIC)

NO.	DATE	BY	REVISIONS
2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/16/15	LFS	ADDED GENERAL NOTE 5.

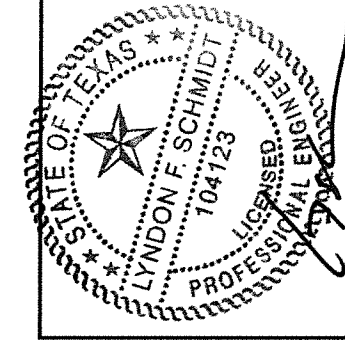
DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 5 OF 10



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



5.7.20

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 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:
 HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE	LFS
1	7/16/15	ADDED GENERAL NOTE 5.	LFS

DATE: 07/17/12

SCALE: N.T.S.

DWG. BY: JK

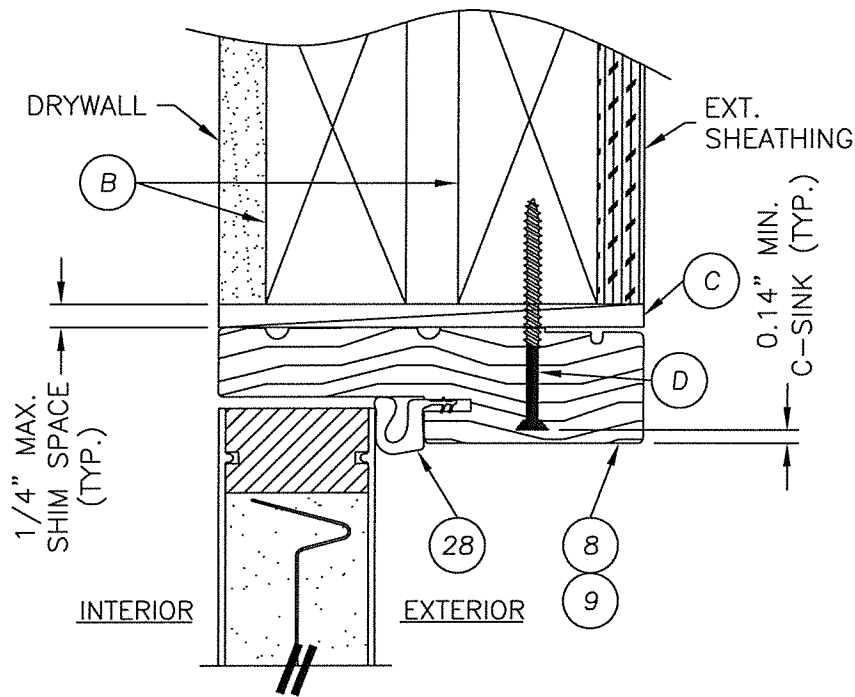
CHK. BY: LFS

DRAWING NO.:

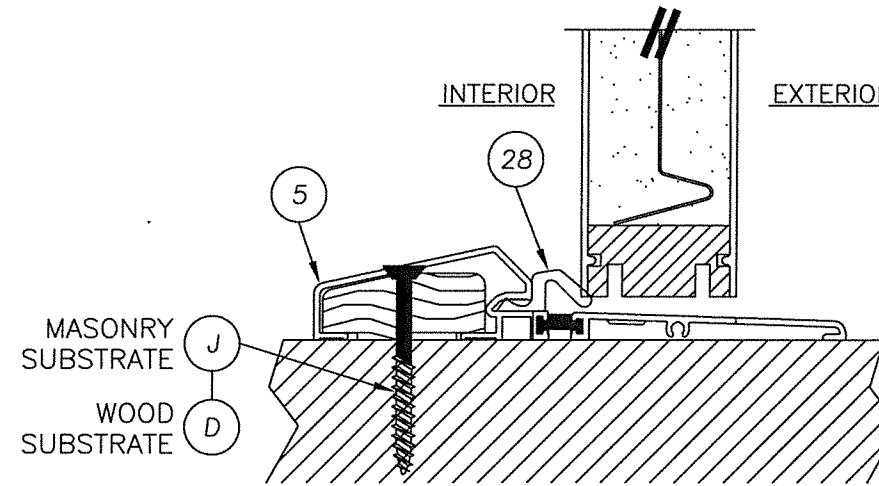
TX-4188

SHEET 6 OF 10

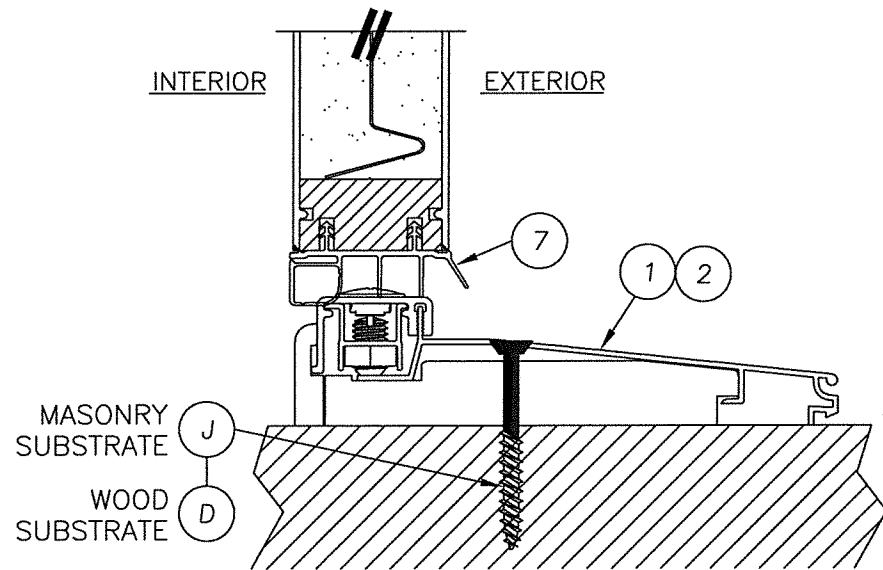
R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 276 - 68 Opaque FG Imp IS - OS Sgls Dbls w-wo Non-Imp SL\C - Drawings\Current\TX-4184-89.dwg, FAX7



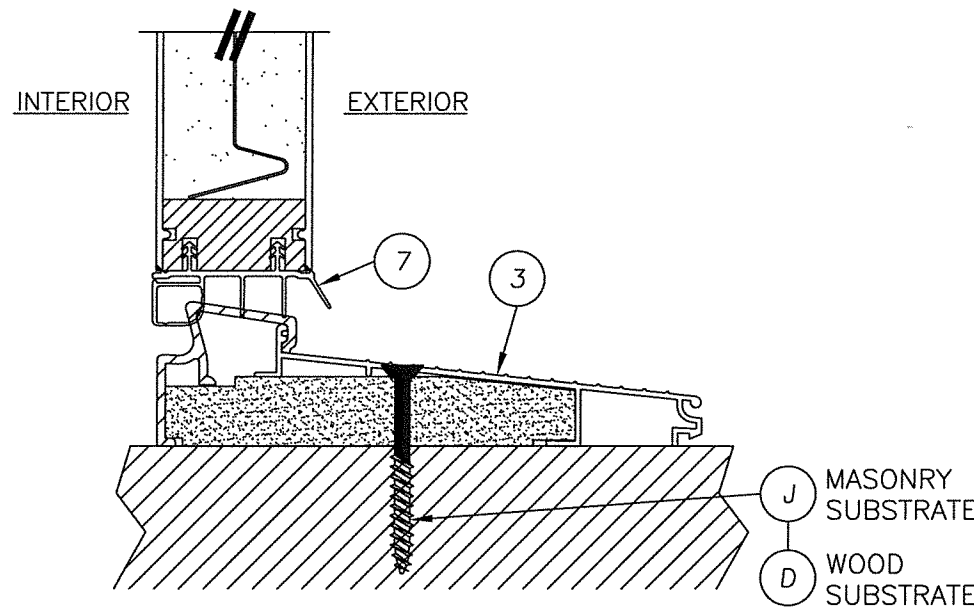
1 VERTICAL CROSS SECTION
7 INSWING SHOWN - OUTSWING ALSO APPROVED
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



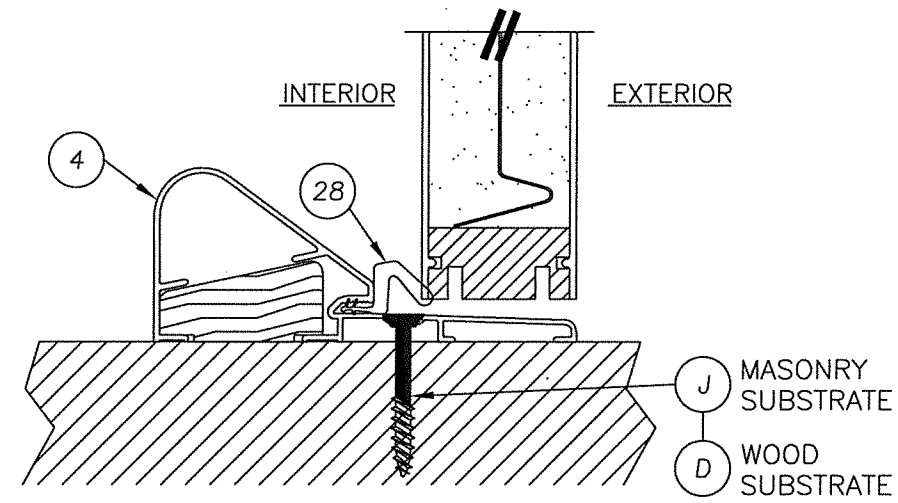
2 VERTICAL CROSS SECTION
7 @ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



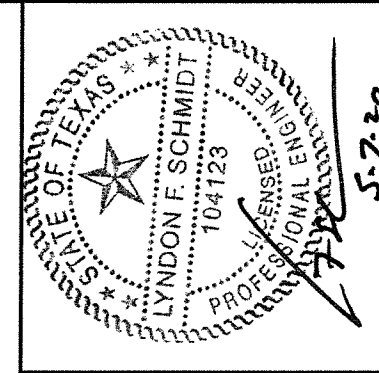
3 VERTICAL CROSS SECTION
7 @ THRESHOLD
SMOOTH STAR PANEL SHOWN
SEE DOOR PANEL DETAILS FOR
OPTIONAL PANEL TYPES



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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TEXAS P.E. #104123

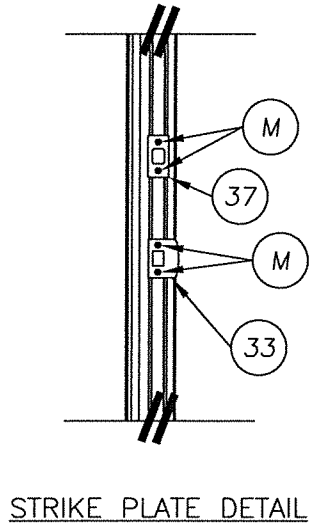
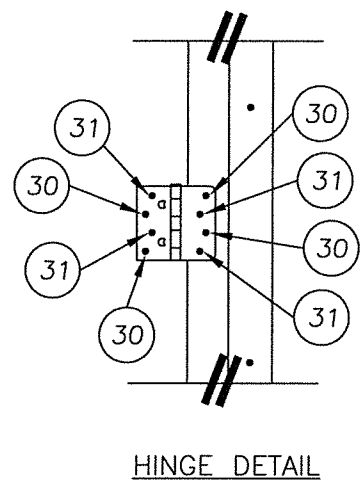
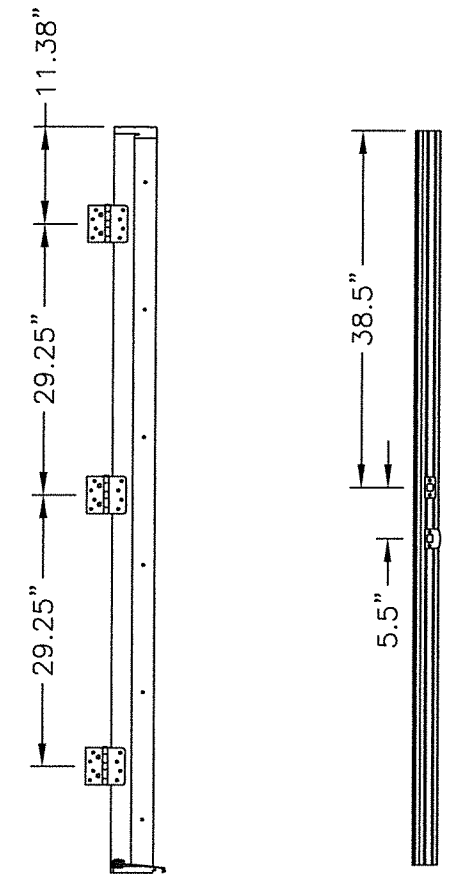
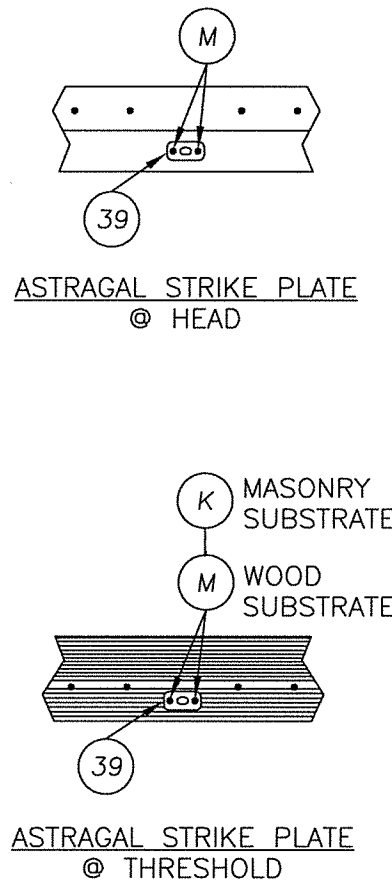
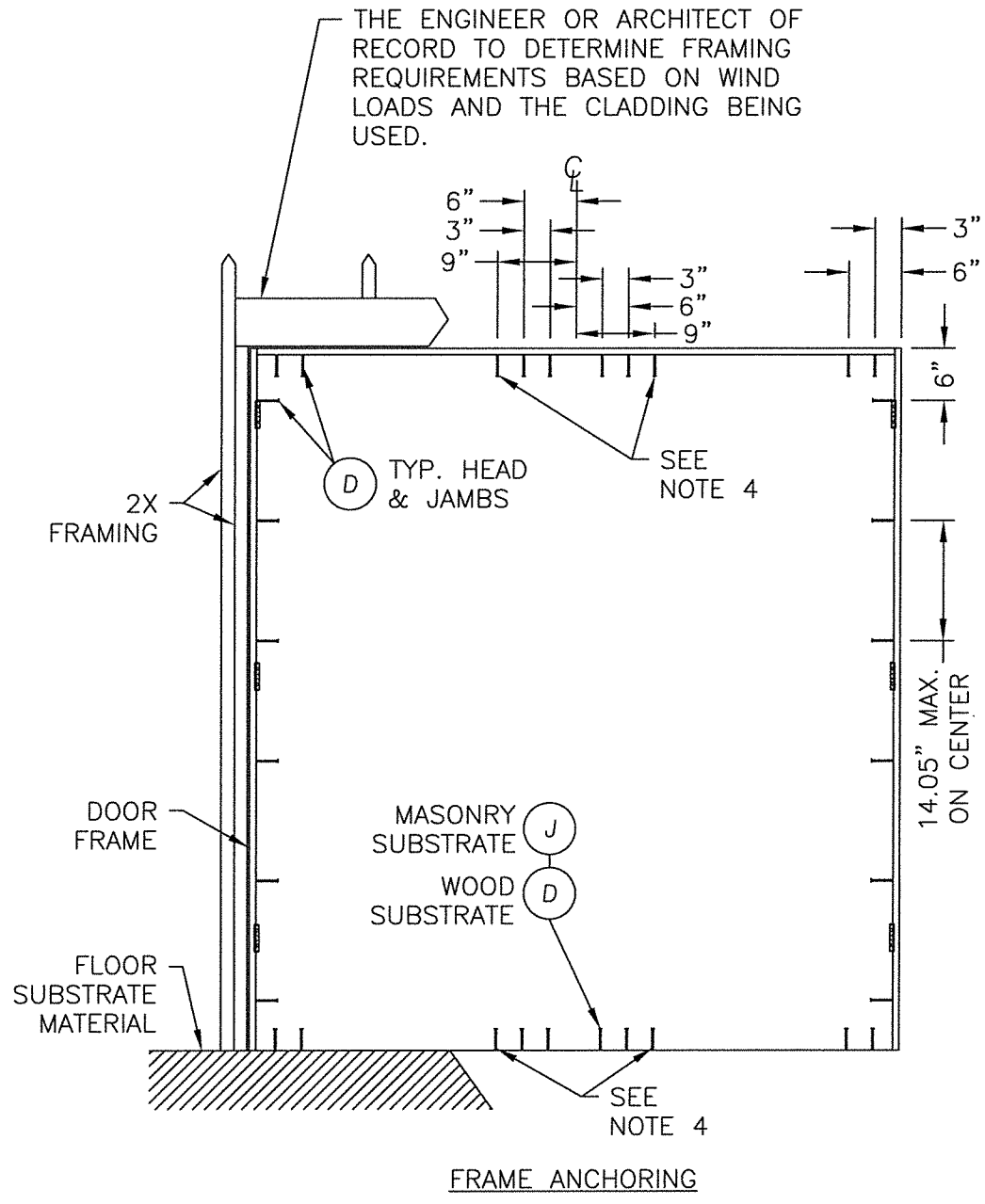
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PRODUCT: DOUBLE OPAQUE
FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

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1	7/16/15	LFS	ADDED GENERAL NOTE 5.

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 7 OF 10

R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 276 - 68 Opaque FG Imp IS - OS Sgls Dbls w-wo Non-Imp SLIC - Drawings\Current\TX-4184-89.dwg, FX8

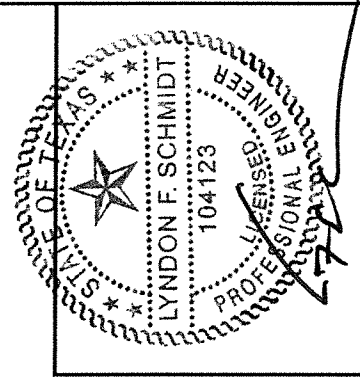


CONCRETE ANCHOR NOTES:

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"

4. THESE SCREWS ARE REQUIRED ONLY WHEN THE DP EXCEEDS 50 PSF.



5-720

Documents Prepared By: Lyndon F. Schmidt, P.E.
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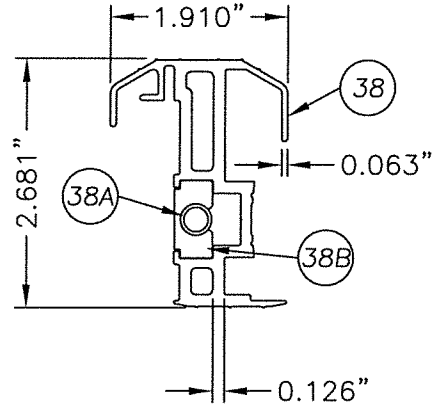
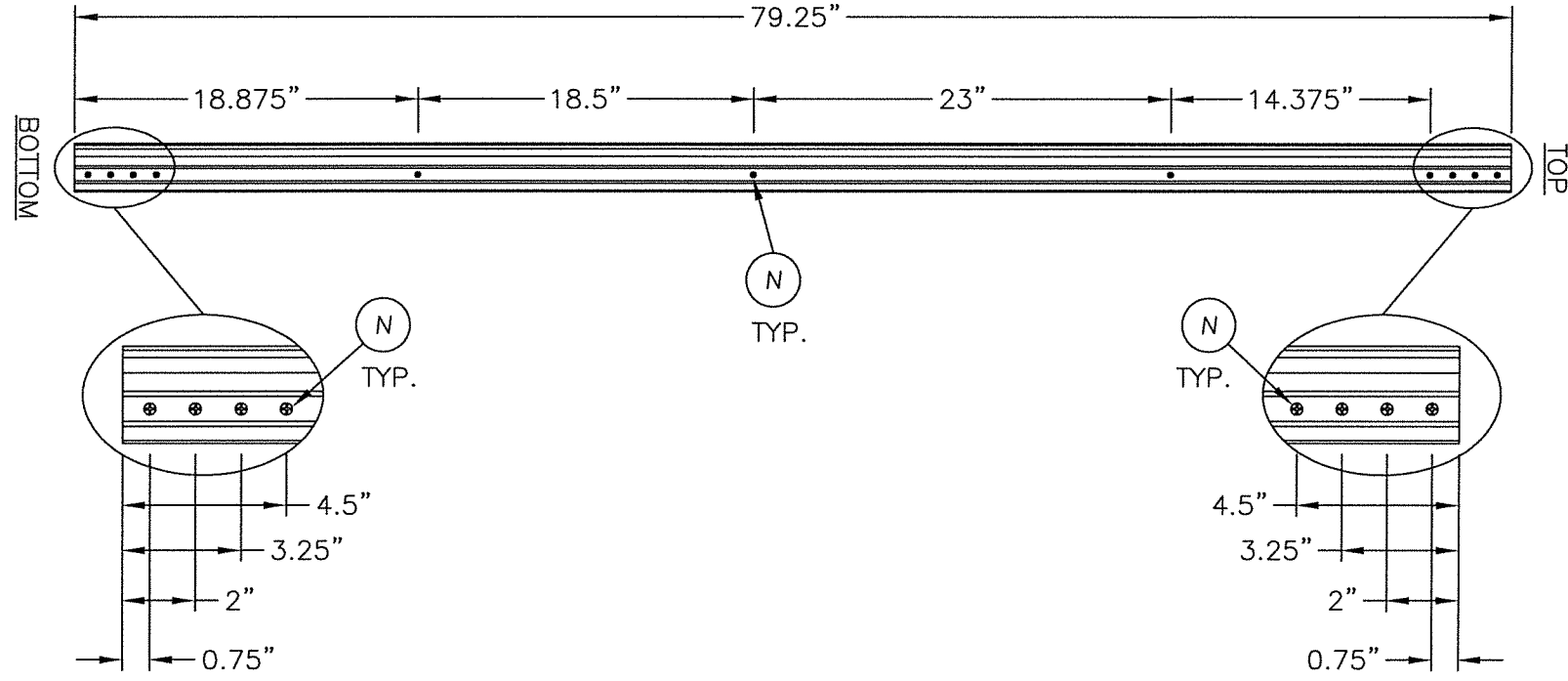
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL, 33595
Phone No.: 813.659.9197

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CERTIFICATE OF REGISTRATION # F-11852

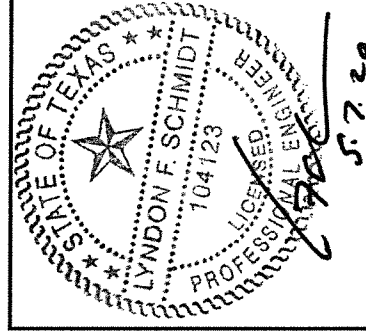
PRODUCT: DOUBLE OPAQUE FIBERGLASS DOOR
"IMPACT" INSWING / OUTSWING
PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	BY	REVISIONS
2	5/06/20	LFS	UPDATE TO 2018 IBC/IRC CODE
1	7/16/15	LFS	ADDED GENERAL NOTE 5.

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 8 OF 10



38 ASTRAGAL DETAIL



Documents Prepared By: Lyndon F. Schmidt, P.E.
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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:
ASTRAGAL DETAILS

NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE
1	7/16/15	ADDED GENERAL NOTE 5.
		BY

DATE: 07/17/12

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

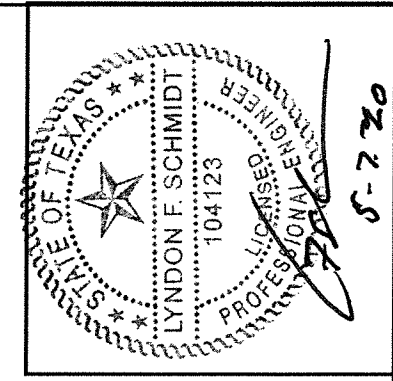
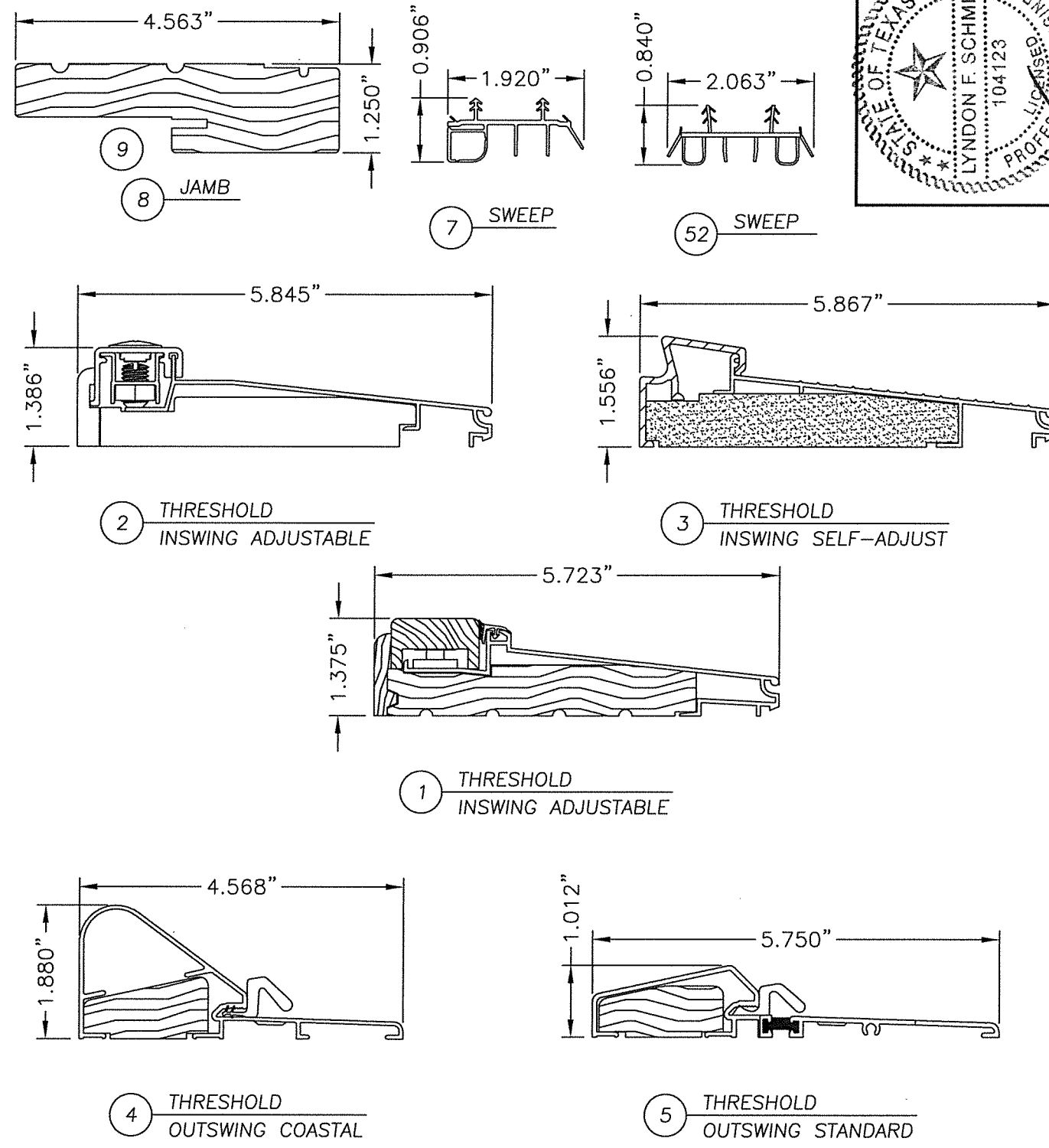
DRAWING NO.:
TX-4188

SHEET 9 OF 10

R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 276 - 68 Opaque FG Imp IS - OS Sgls Dbils w-wo Non-Imp SL/C - Drawings\Current\TX-4184-89.dwg, FXX10

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
J	1/4" ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	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)	-
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 (PINE)	WOOD
9	JAMB (OAK)	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 0.090" 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 0.090" 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
37	DEADBOLT STRIKE PLATE	STEEL
38	ASTRAGAL	ALUMINUM
38A	ASTRAGAL FLUSH BOLT	STEEL
38B	ASTRAGAL FLUSH BOLT RETAINER	ALUMINUM
39	ASTRAGAL STRIKE PLATE @ HEAD & THRESHOLD	STEEL

BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
60	HINGE STILE (FIBER CLASSIC)	WOOD
61	LOCK STILE (FIBER CLASSIC)	LVL/WOOD
62	TOP RAIL (FIBER CLASSIC)	PVC
63	BOTTOM RAIL (FIBER CLASSIC)	PVC
64	PANEL REINFORCEMENT 0.023" THK. (FIBER CLASSIC)	STEEL
65	DOOR SKIN 0.072" THK. (FIBER CLASSIC) Fy = 6,000 PSI MIN.	FIBERGLASS



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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: BILL OF MATERIALS & COMPONENTS

NO.	DATE	REVISIONS
2	5/06/20	UPDATE TO 2018 IBC/IRC CODE
1	7/16/15	ADDED GENERAL NOTE 5.

DATE: 07/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4188
SHEET 10 OF 10