

STEVE'S AND SONS

203 Humble Ave.
San Antonio, TX 78225

Opaque Fiberglass "IMPACT" Double Door w/ or w/out "NON-IMPACT" Sidelites IN SWING / OUT SWING

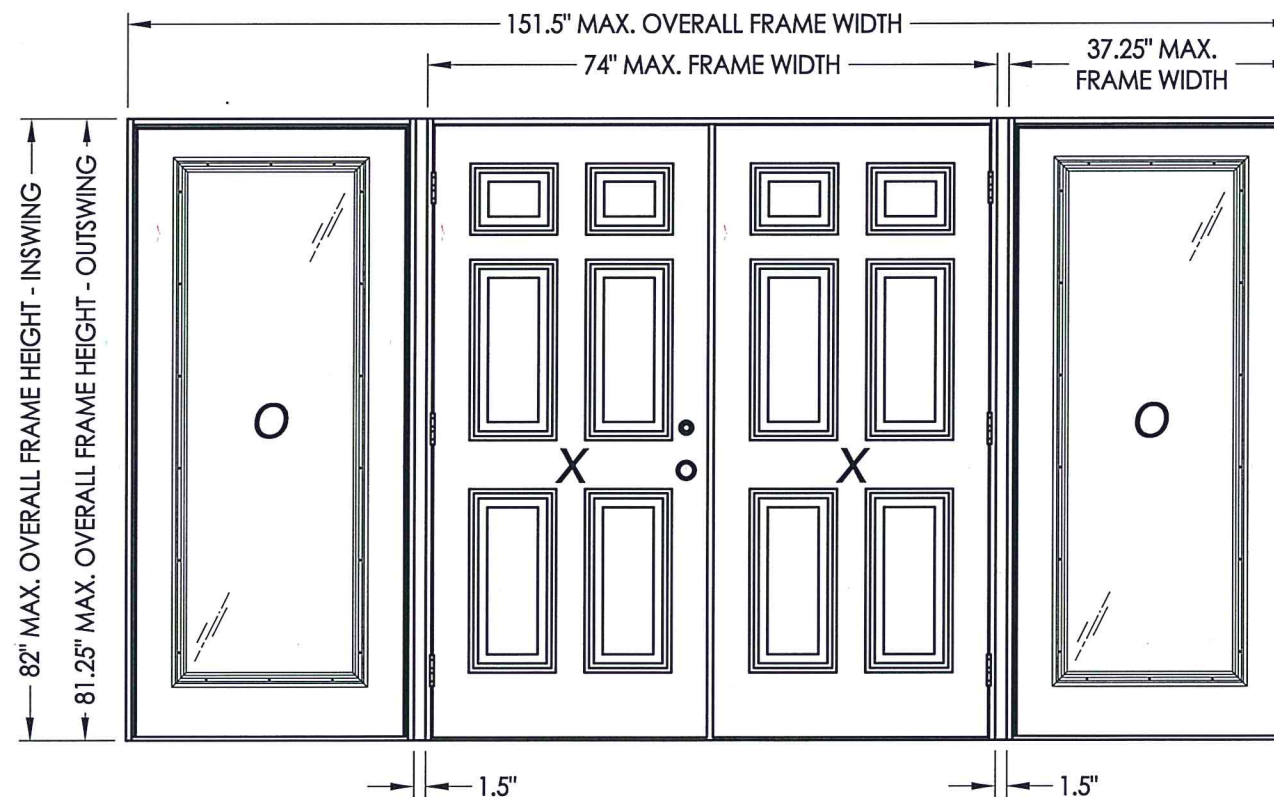
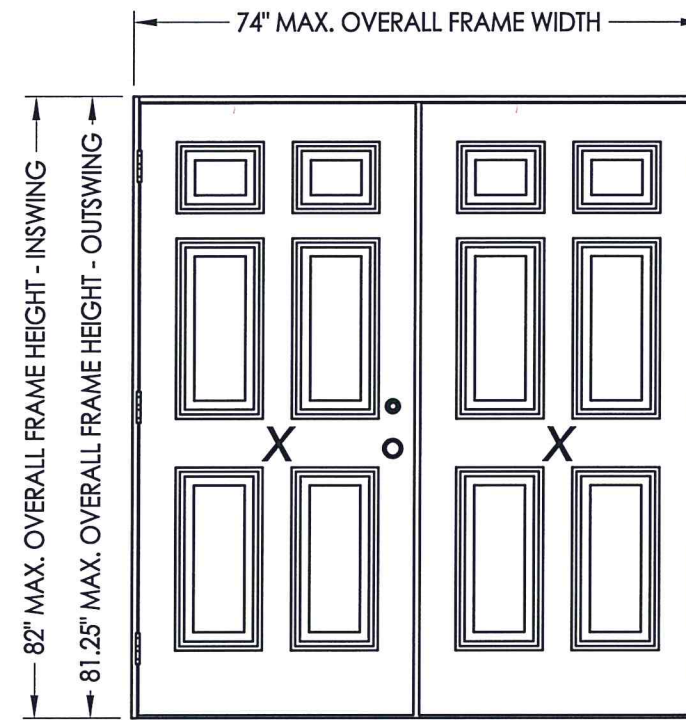
EVALUATED FOR USE IN THE STATE OF TEXAS

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. The opaque doors have been tested and evaluated as a large missile impact protective system for installation in areas that require wind borne debris protection. The doors meet missile level "D" as defined in ASTM E 1996. The "Non-Impact" sidelites are required to be protected with an impact resistant covering that complies with Section R301.2.1.2 of the IRC and Section 1609.1.2 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.

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CONFIGURATION	MAX. FRAME DIMENSION	MAX. SIDELITE D.L.O. DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
				POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	74.0" x 82.0"	N/A	N/A	+50.0	-55.0	+50.0	-50.0
OXXO	151.5" x 82.0"	20.5" x 62.5"	G1	+47.0	-47.0	+47.0	-47.0



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

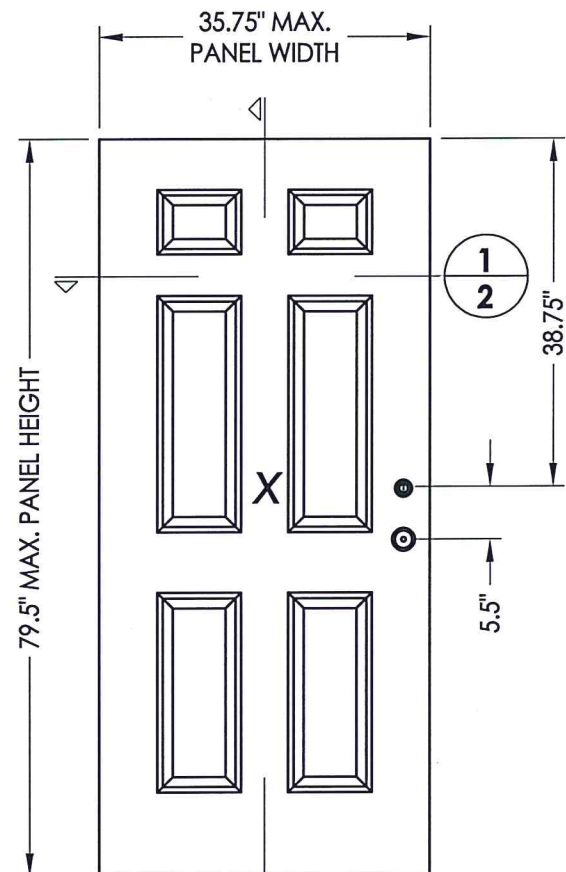
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL 33595
Phone No.: 813.659.9197

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

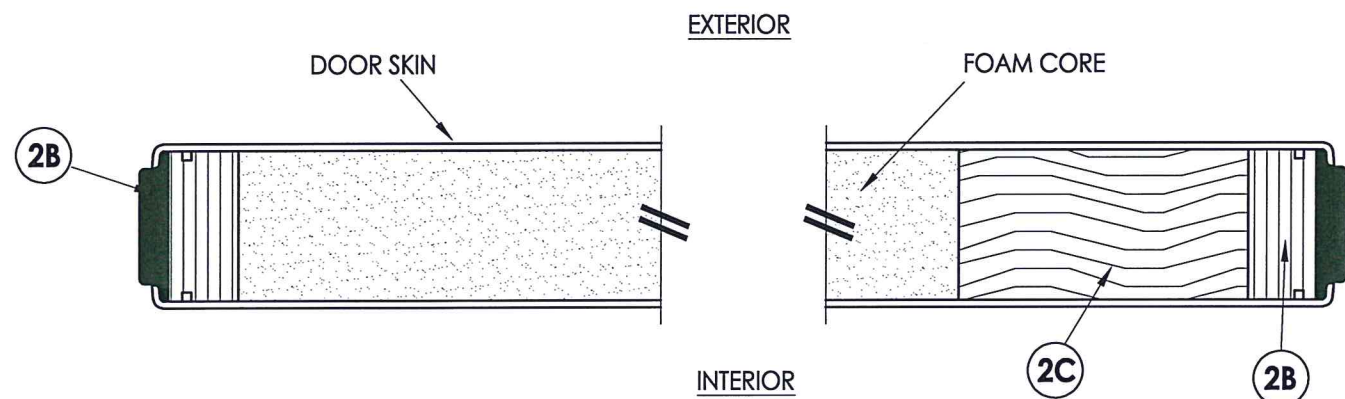
PRODUCT: STEVE'S AND SONS FIBERGLASS DOOR
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS
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2	2/21/18	Revise to ODL Lite Frame
1	7/16/15	Manuf./Product Name Change

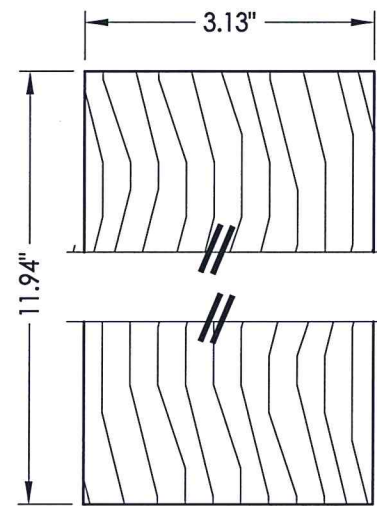
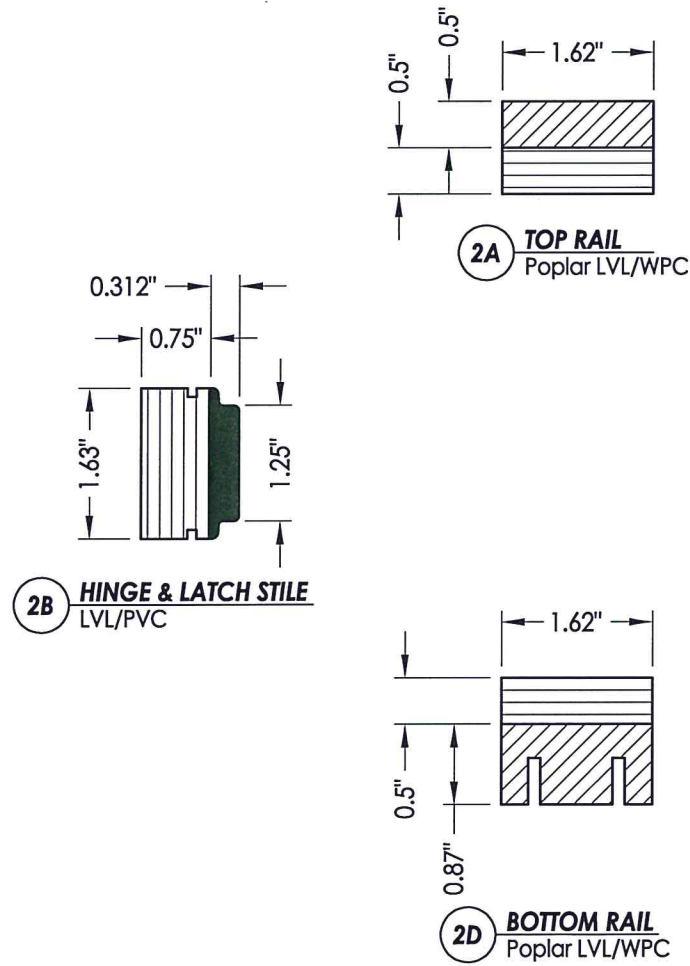
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DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4091
SHEET 1 of 11



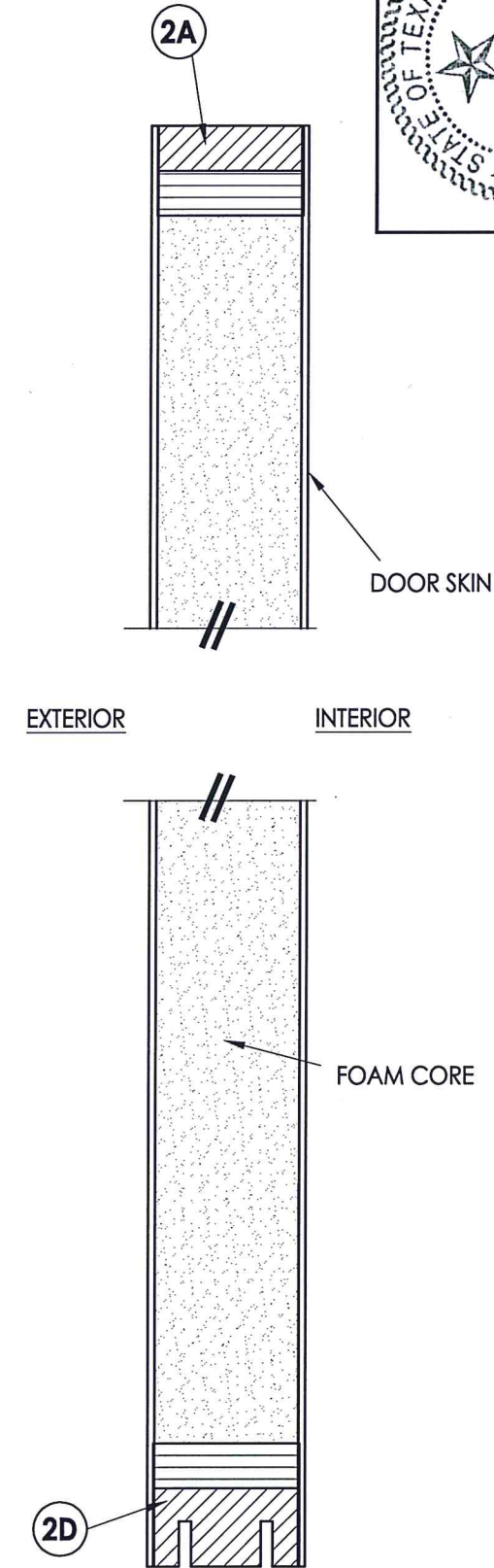
FIBERGLASS DOOR SKIN: MIN. 0.079" THK.
CORE MATERIAL: EPS FOAM (POLYSTYRENE)



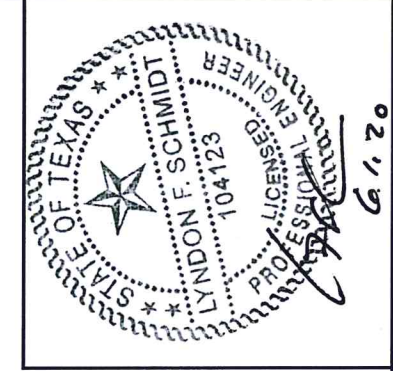
1
2 HORIZONTAL CROSS SECTION



2C LOCK BLOCK
Wood (S.G.>= 0.42)



2
2 VERTICAL CROSS SECTION



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PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: DOOR PANEL DETAILS

NO.	DATE	REVISIONS
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE
2	2/21/18	Revise to ODL Lite Frame
1	7/16/15	Manuf./Product Name Change
		NO. DATE
		BY

DATE: 04/13/10

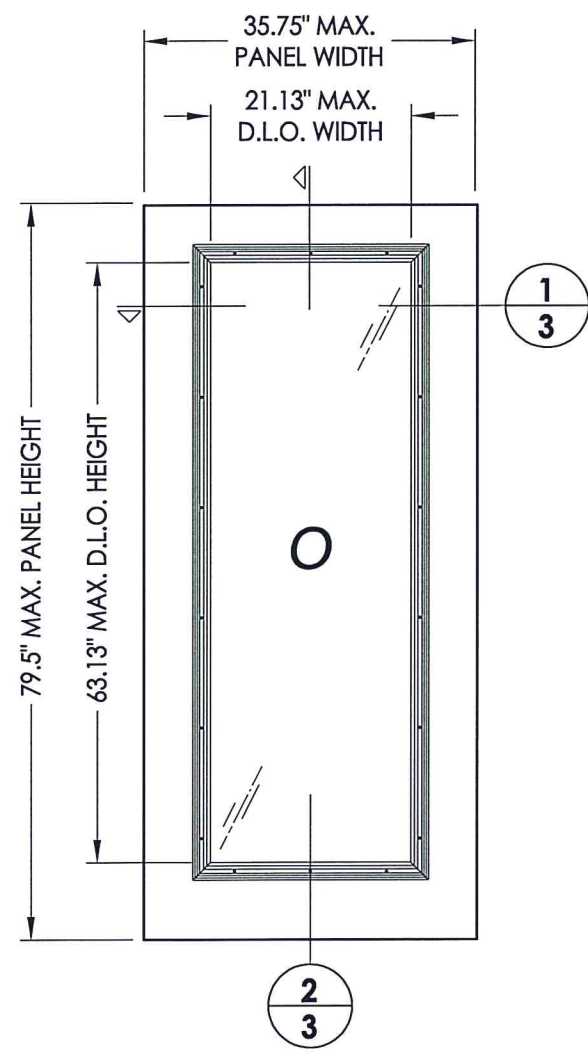
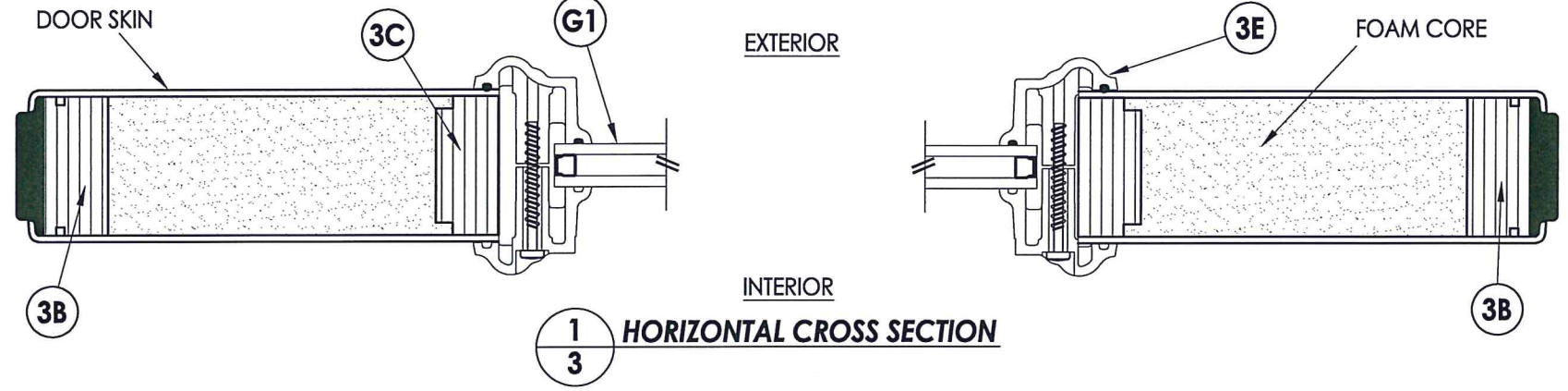
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CHK. BY: LFS

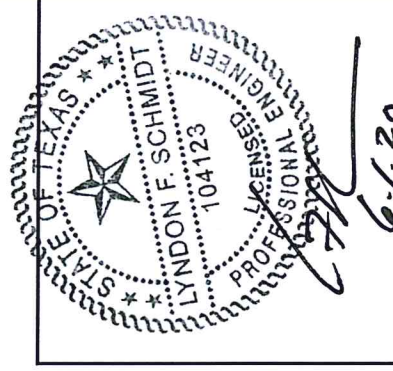
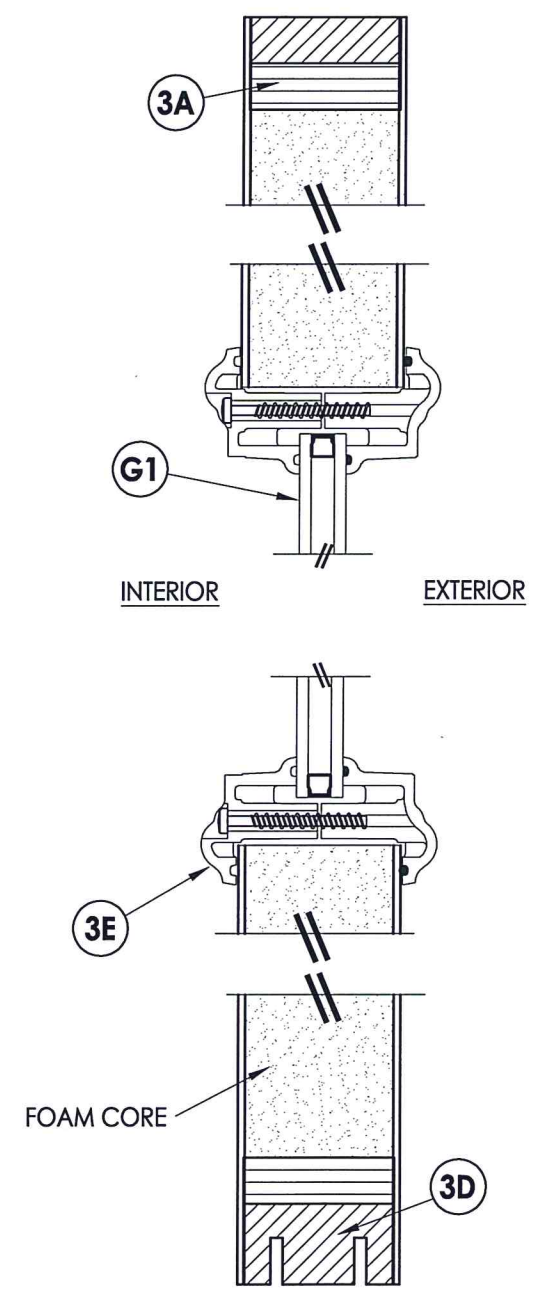
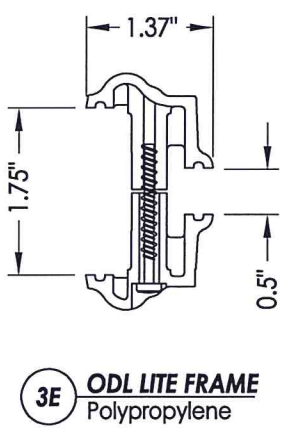
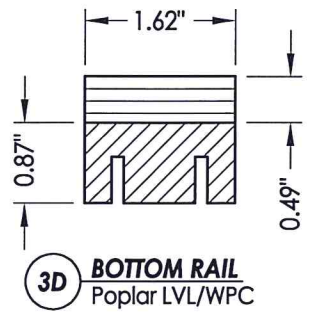
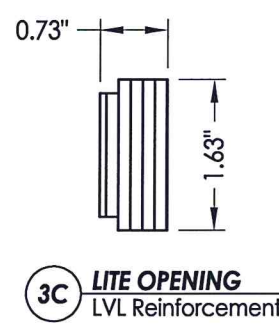
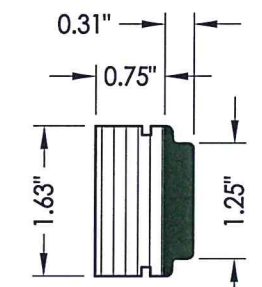
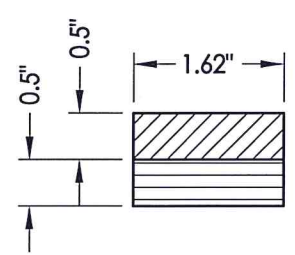
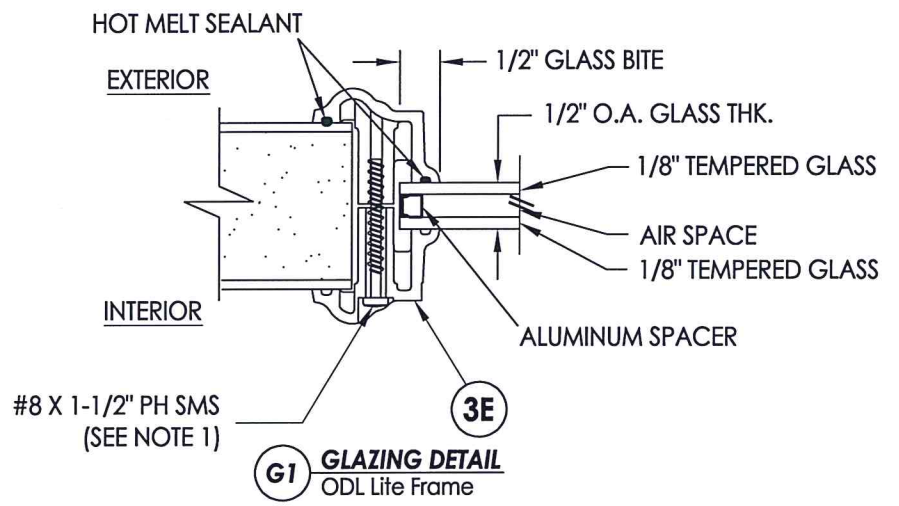
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SHEET 2 OF 11



FIBERGLASS DOOR SKIN: MIN. 0.079" THK.
CORE MATERIAL: EPS FOAM (POLYSTYRENE)

NOTE:
1. Spacing for lite frame screws is as follows:
Sides: 6.5" from corners plus 4 more equally spaced (6 total).
Top & Bottom: 3.25" from corners & at centerline (3 total).



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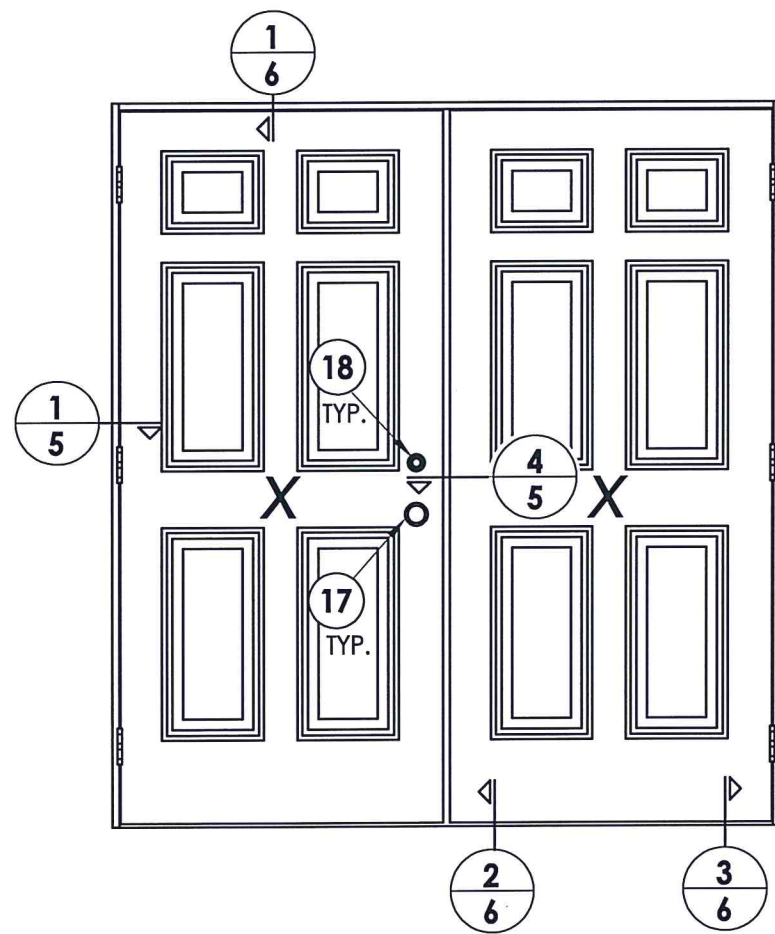
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FIBERGLASS DOOR

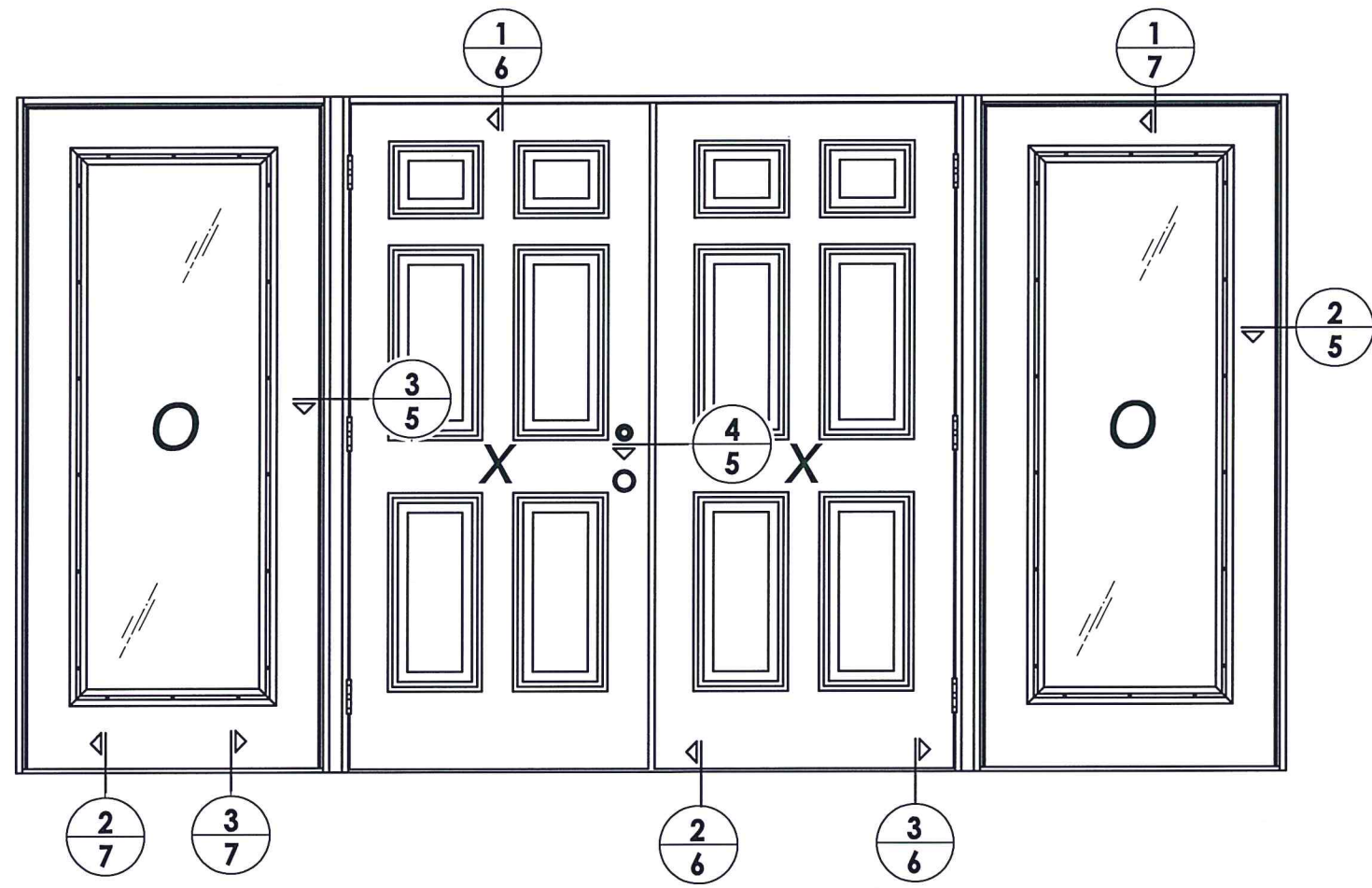
PART OR ASSEMBLY:
SIDELITE PANEL &
GLAZING DETAILS

NO.	DATE	REVISIONS
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE
2	2/21/18	Revise to ODL Lite Frame
1	7/16/15	Manuf./Product Name Change
		NO. DATE
		BY

DATE: 04/13/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4091
SHEET 3 OF 11

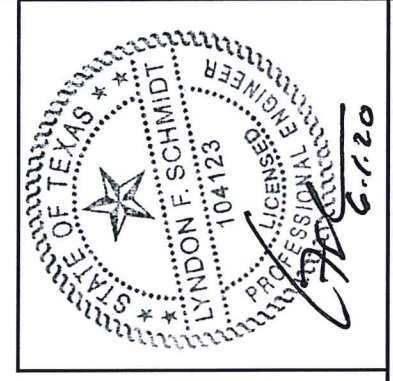


ELEVATION (XX)



ELEVATION (OXXO)

HARDWARE CHART		
MANUFACTURER	MODEL	ITEM #
KWIKSET	LOCK: 200	17
	DEADBOLT: 600	18



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PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: ELEVATIONS

NO.	DATE	REVISIONS	BY
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE	LFS
2	2/21/18	Revise to ODL Lite Frame	LFS
1	7/16/15	Manuf./Product Name Change	JK

DATE: 04/13/10

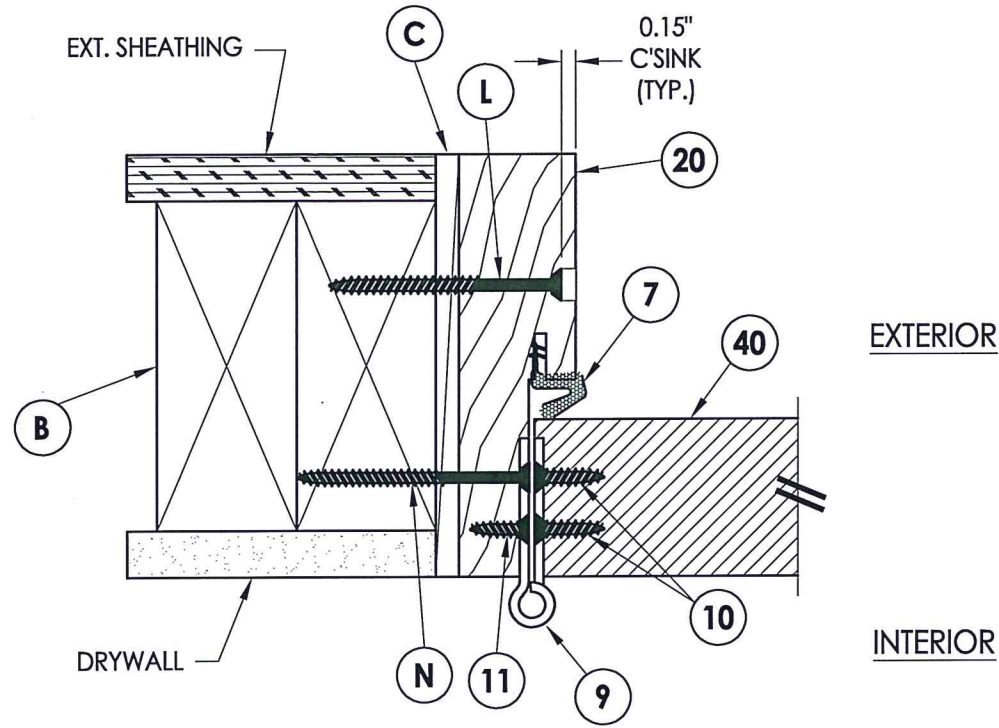
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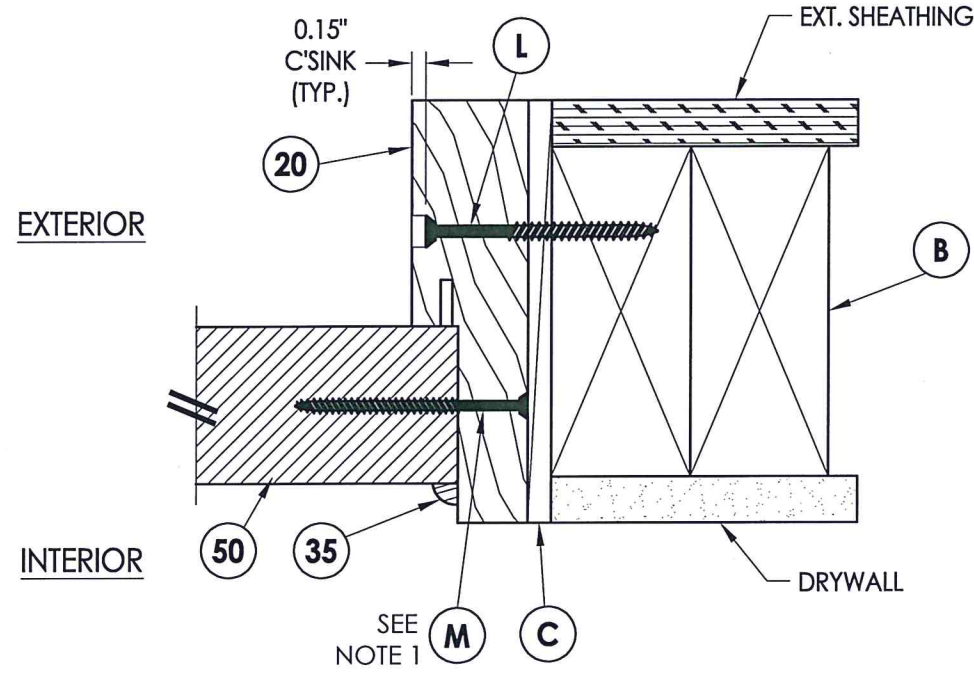
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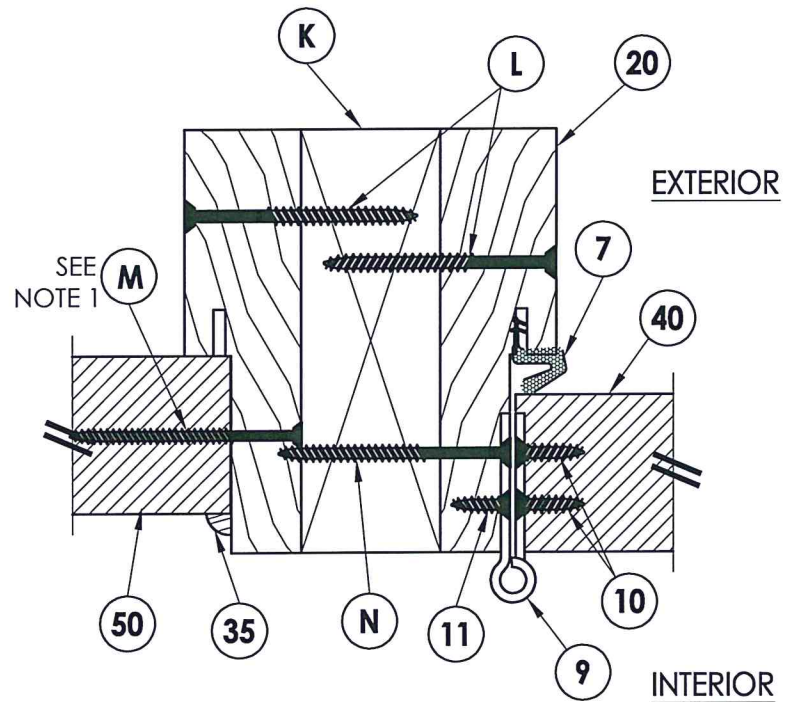
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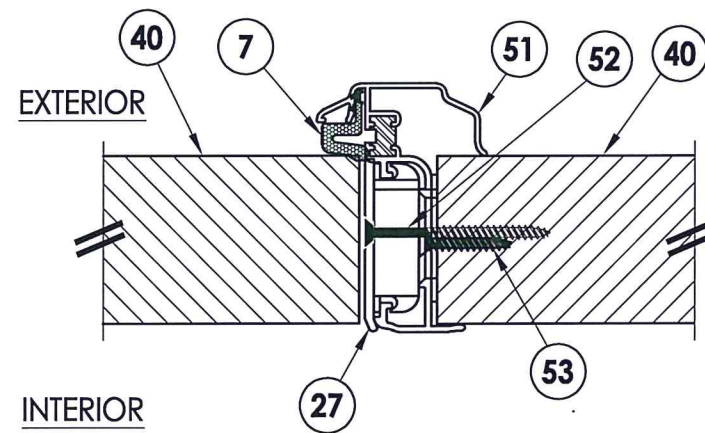
1 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved



2 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved

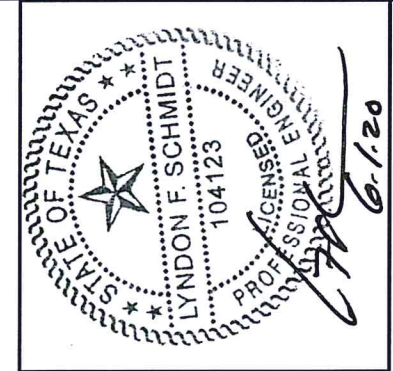


3 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved



4 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved

NOTE:
 1. Sidelite ass'y fasteners located 6" from each end and 6 more screws equally spaced between (8 screws total per jamb).



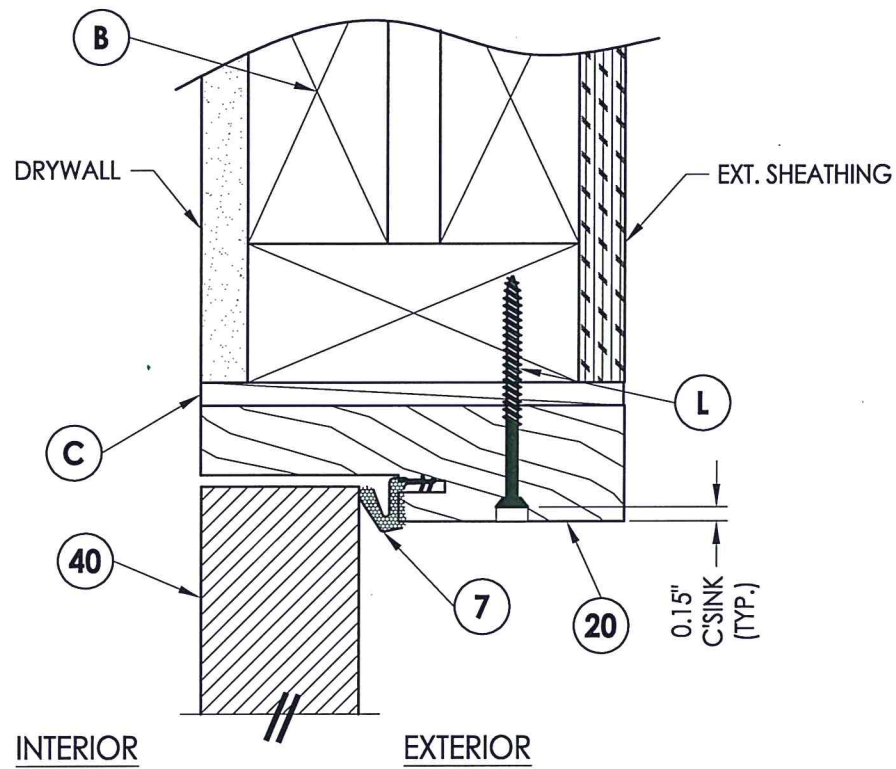
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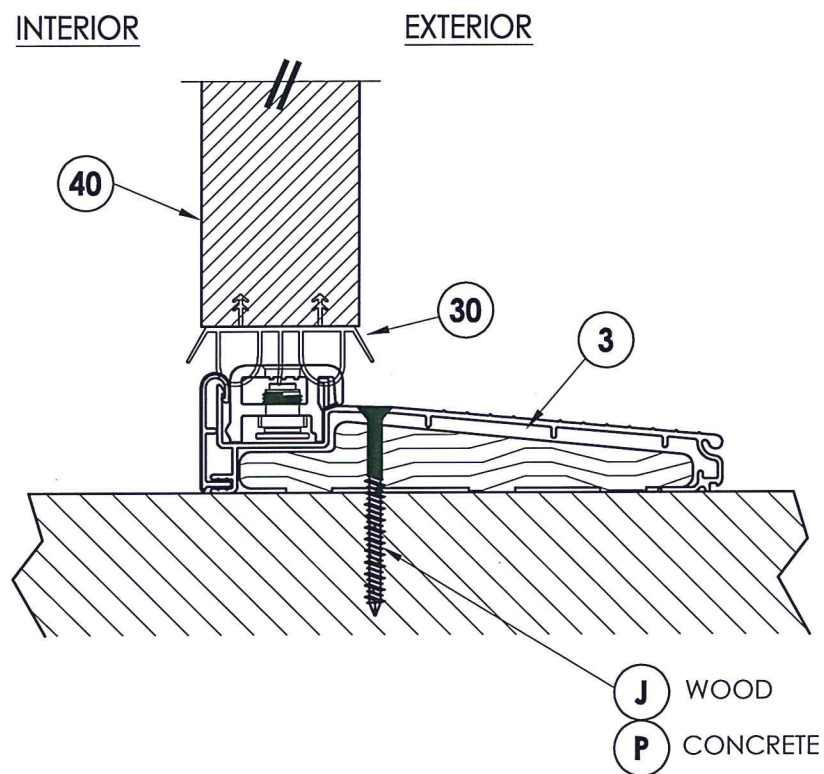
PRODUCT: STEVES AND SONS FIBERGLASS DOOR
 PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE
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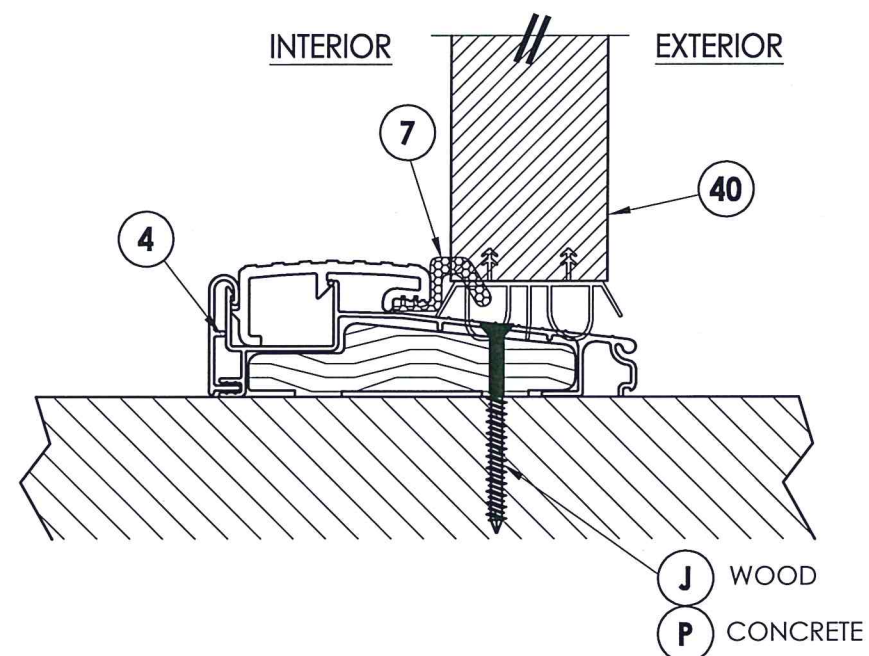
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 DRAWING NO.: TX-4091
 SHEET 5 OF 11



1 VERTICAL CROSS SECTION
6 Inswing shown - outswing also approved



2 VERTICAL CROSS SECTION
6 Inswing configuration



3 VERTICAL CROSS SECTION
6 Outswing configuration



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PRODUCT: STEVES AND SONS
 FIBERGLASS DOOR

PART OR ASSEMBLY:
 VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS	BY
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE	LFS
2	2/21/18	Revise to ODL Lite Frame	LFS
1	7/16/15	Manuf./Product Name Change	JK

DATE: 04/13/10

SCALE: N.T.S.

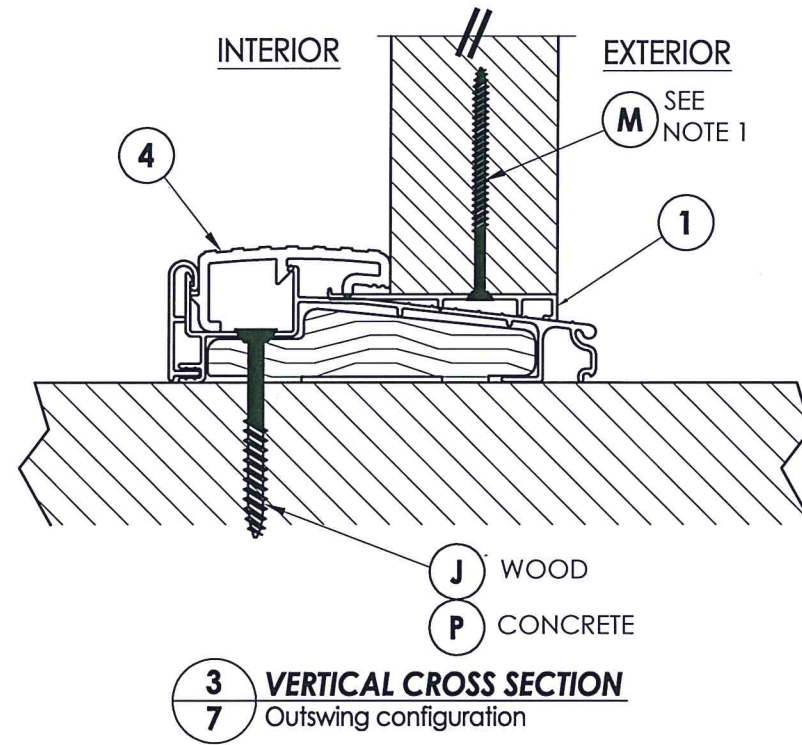
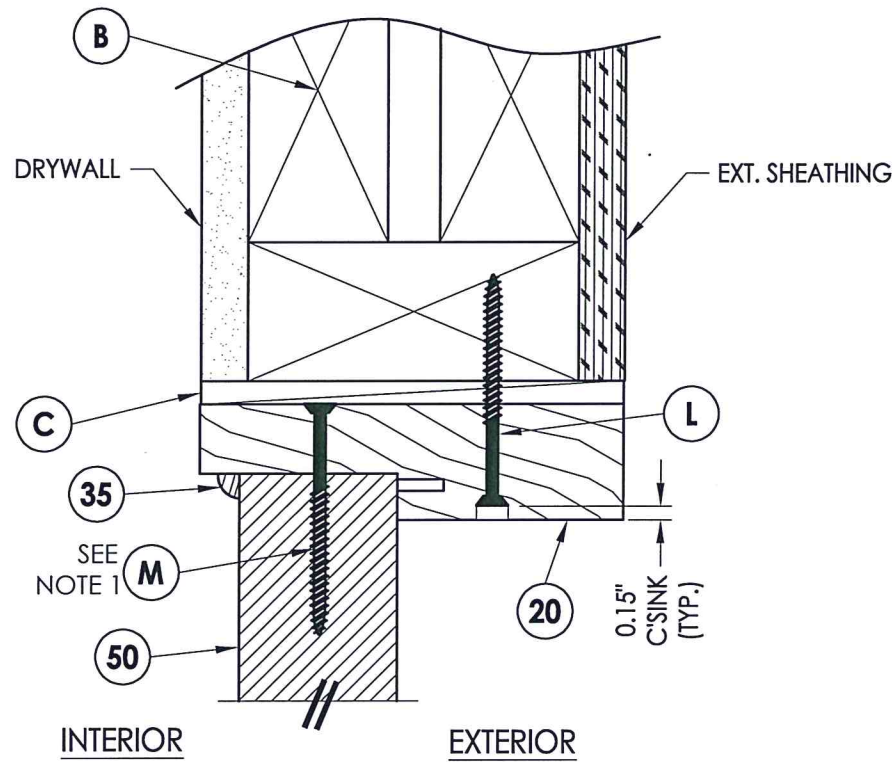
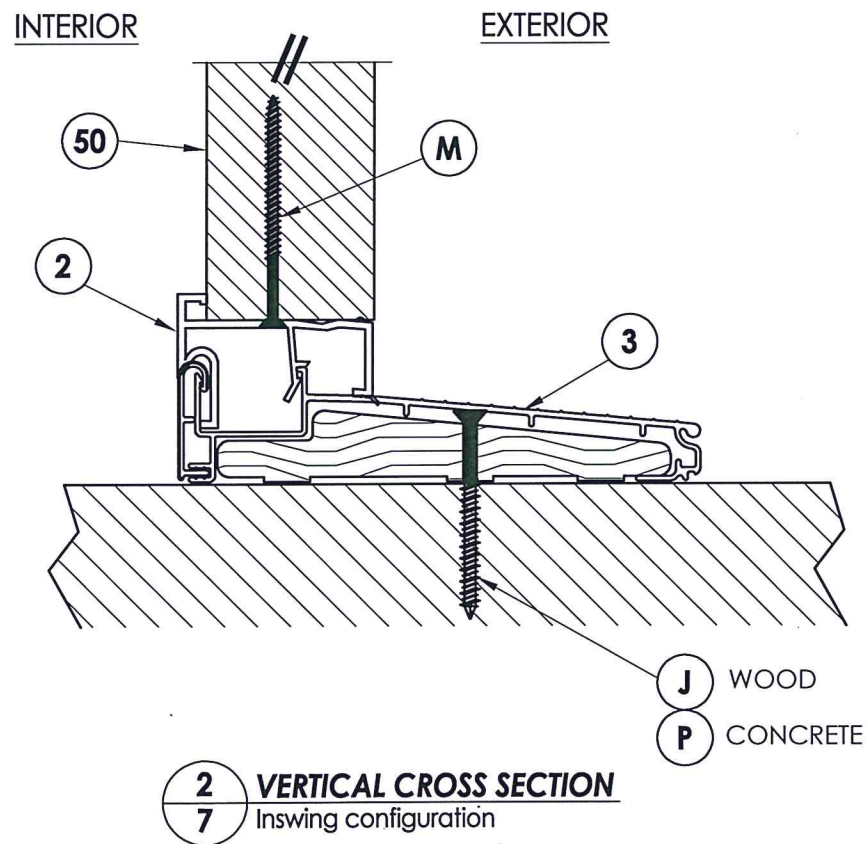
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CHK. BY: LFS

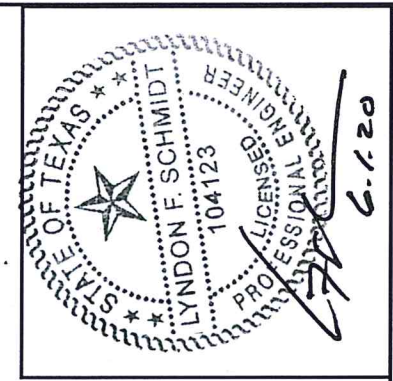
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TX-4091

SHEET 6 of 11



NOTE:
1. Screws thru head and sill jamb located 3" from each end and on center line.



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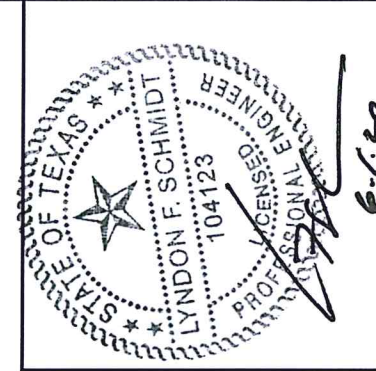
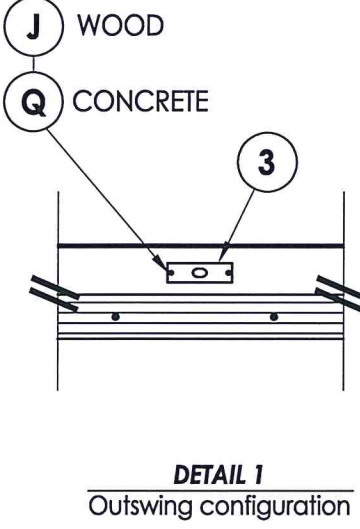
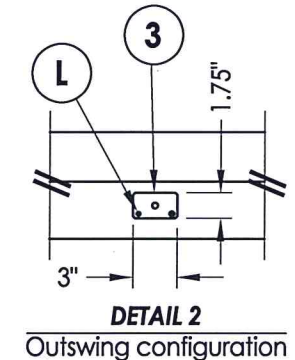
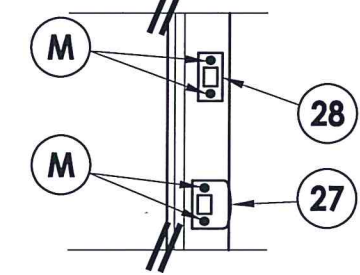
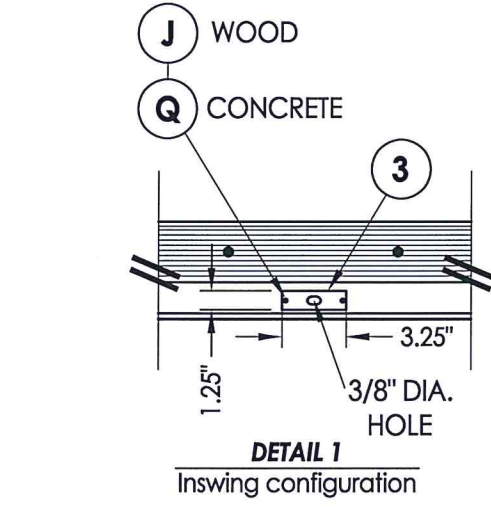
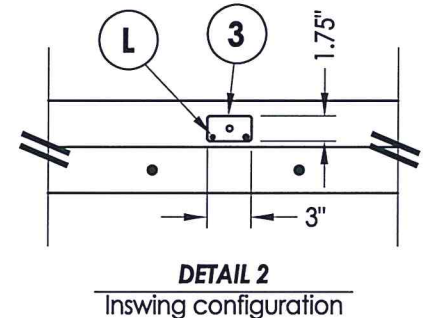
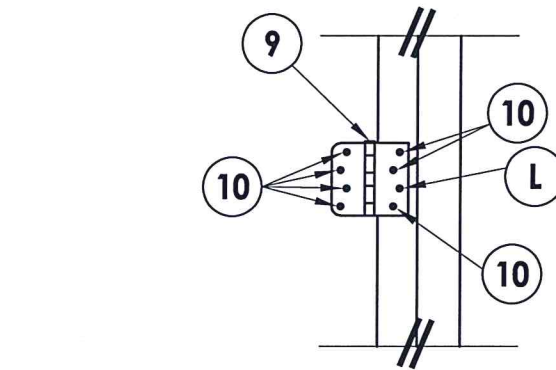
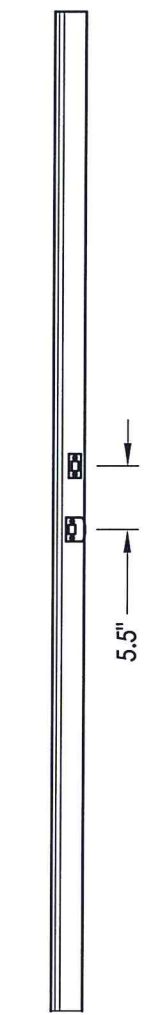
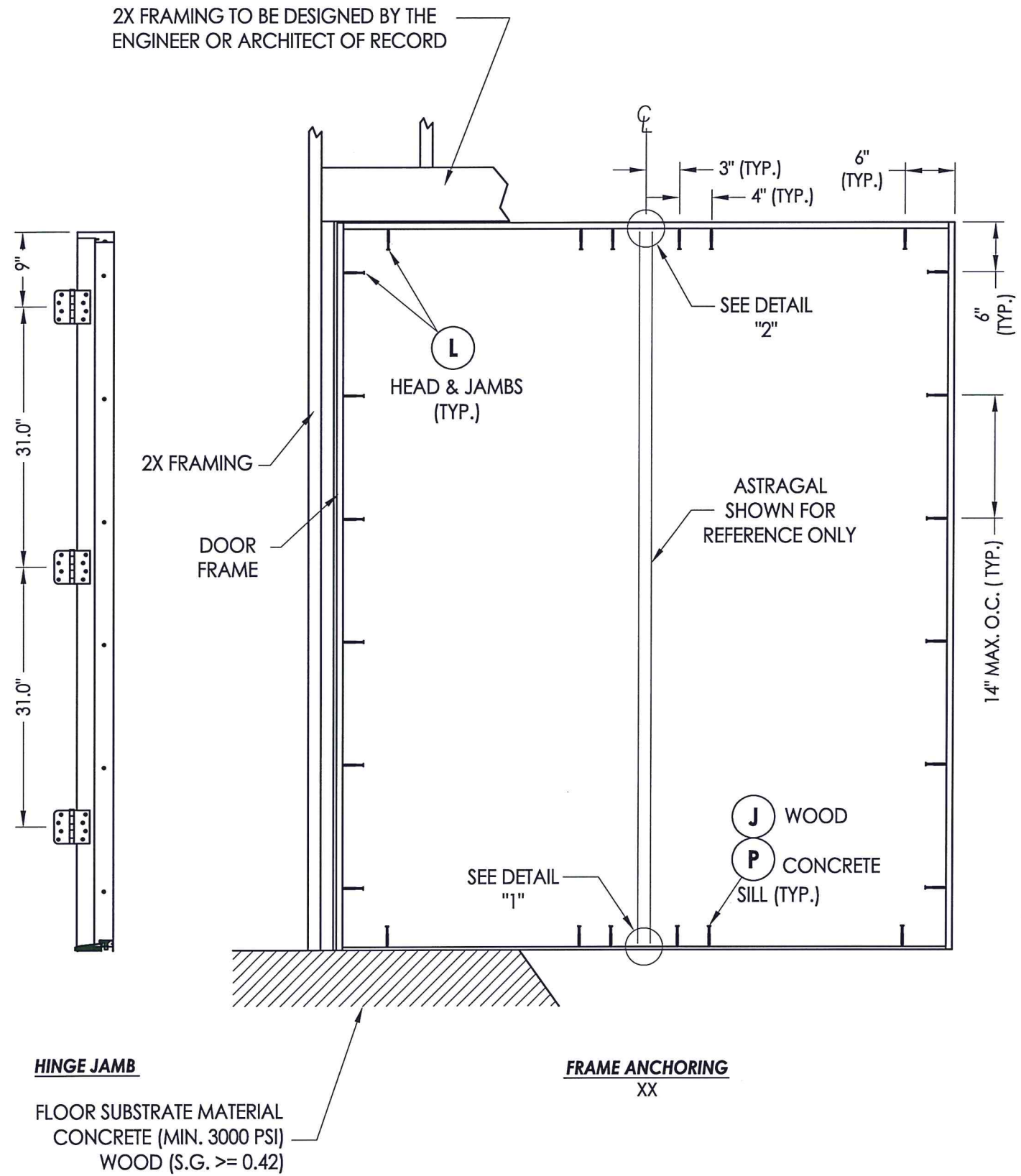
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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE
2	2/21/18	Revise to ODL Lite Frame
1	7/16/15	Manuf./Product Name Change

DATE: 04/13/10
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4091
SHEET 7 OF 11



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PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	REVISIONS	BY
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE	LFS
2	2/21/18	Revise to ODL Lite Frame	LFS
1	7/16/15	Manuf./Product Name Change	JK

DATE: 04/13/10

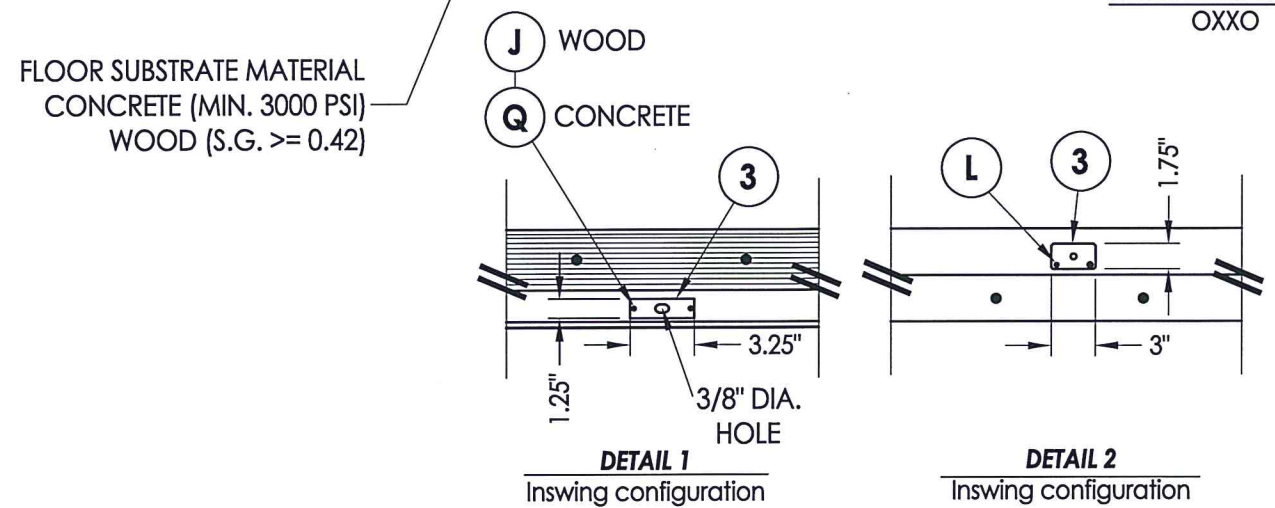
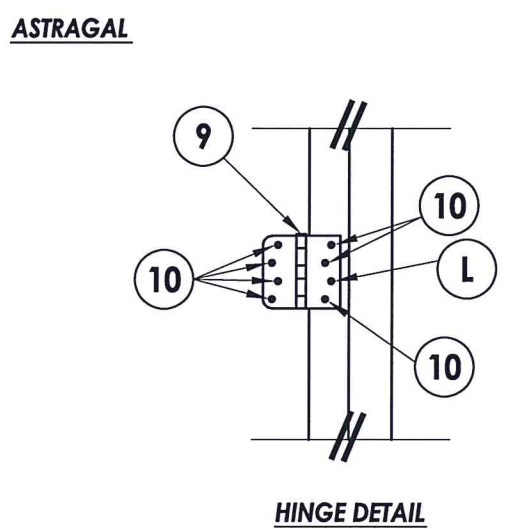
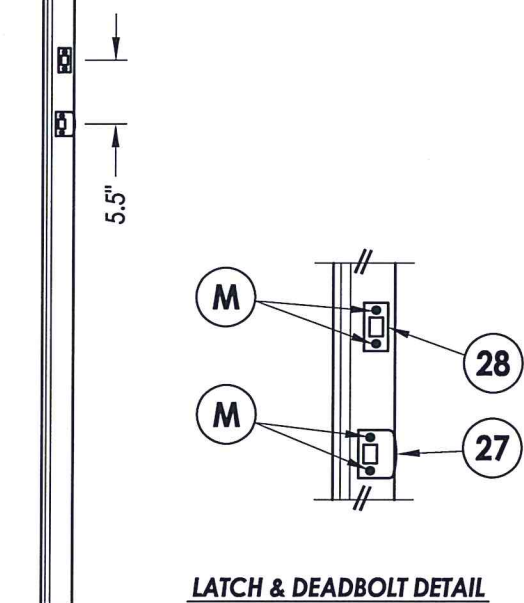
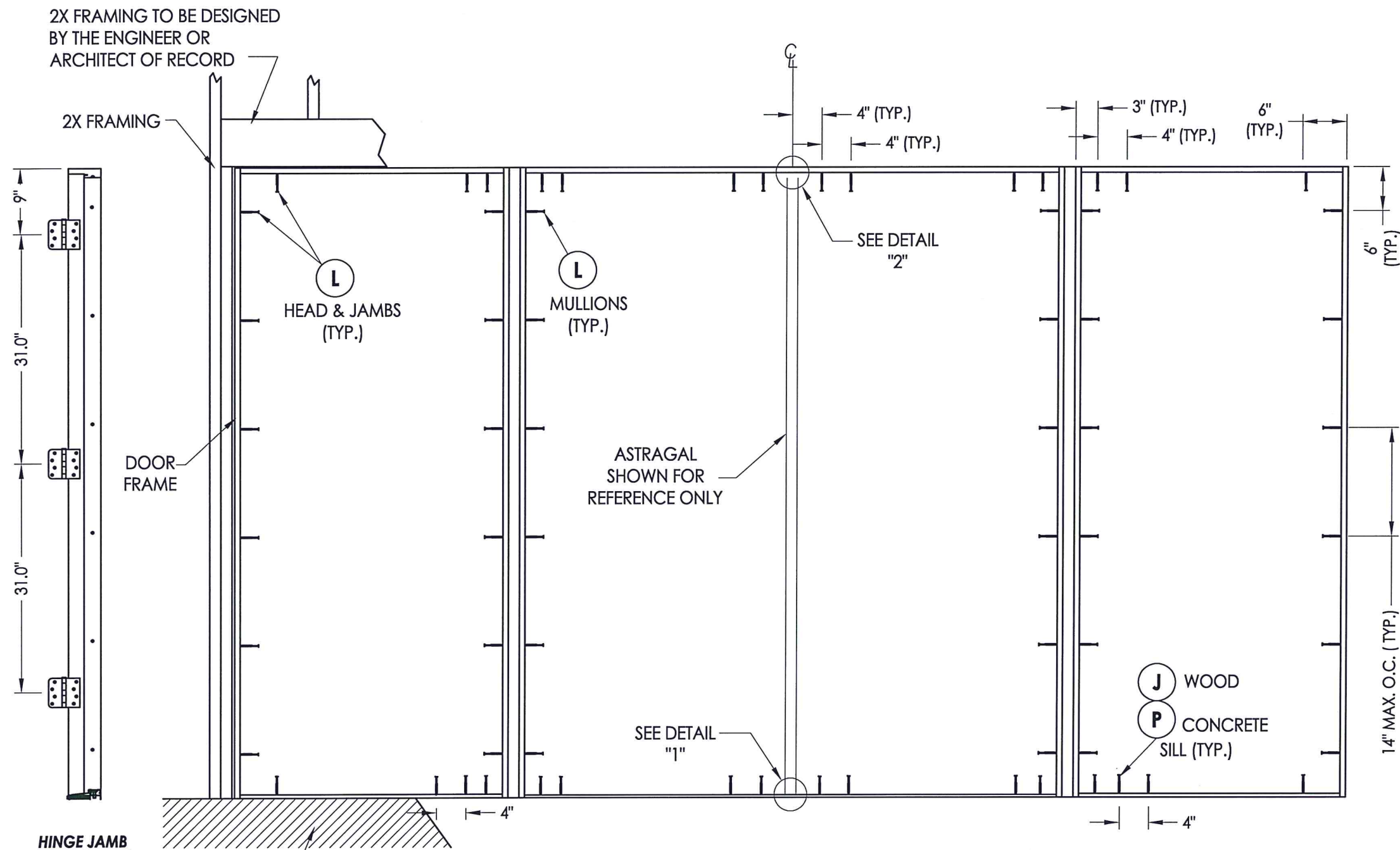
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CHK. BY: LFS

DRAWING NO.: TX-4091

SHEET 8 OF 11

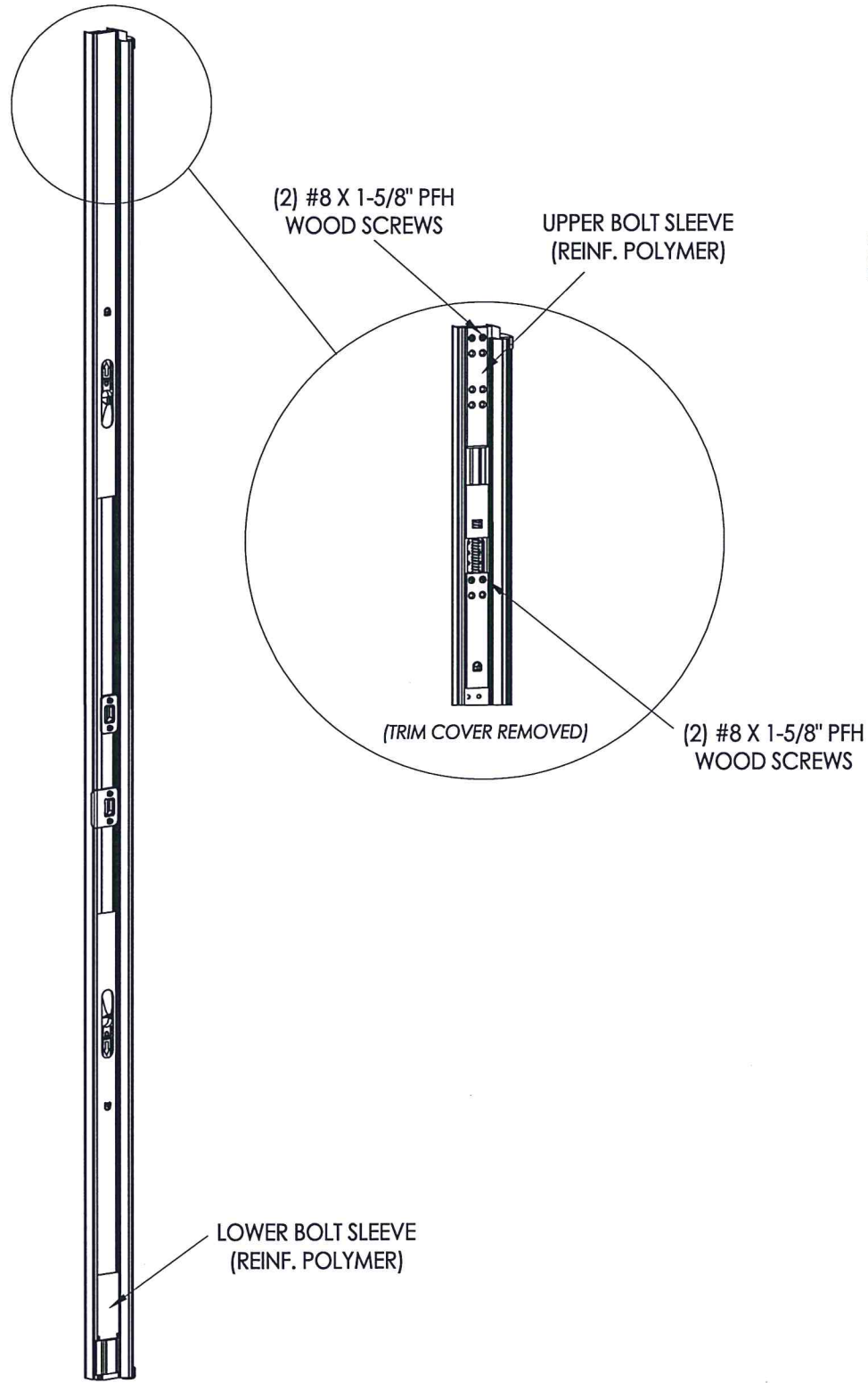


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TEXAS P.E. #104123

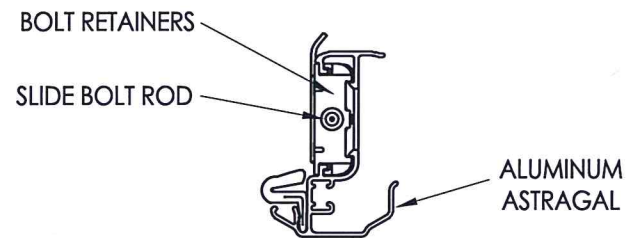
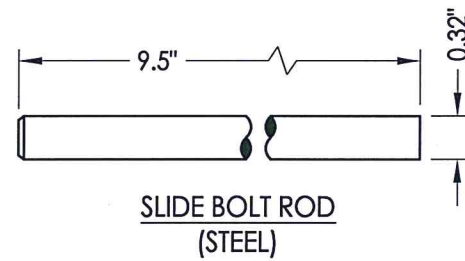
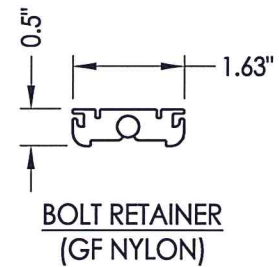
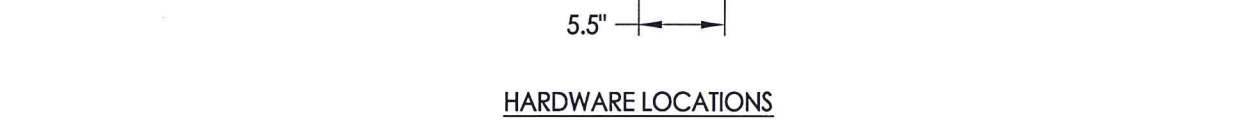
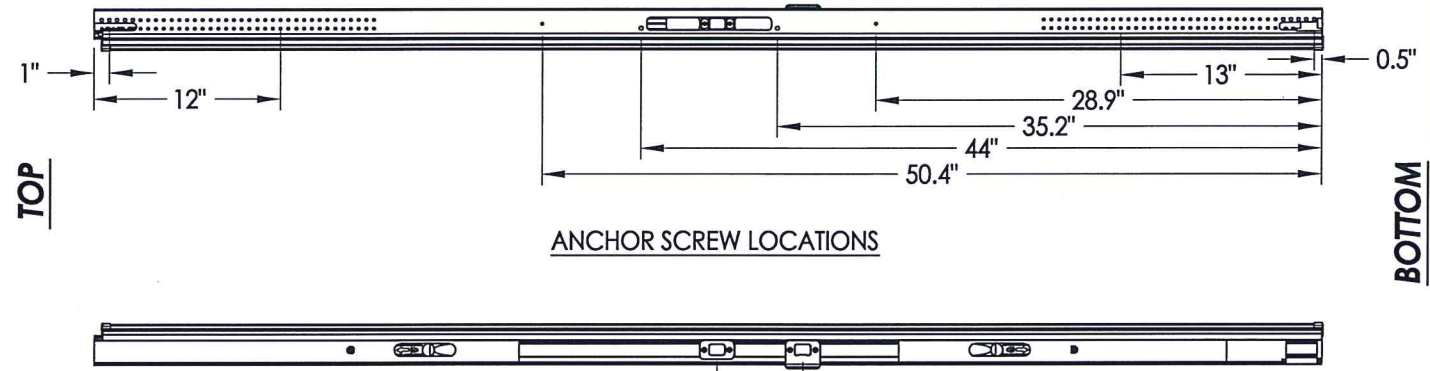
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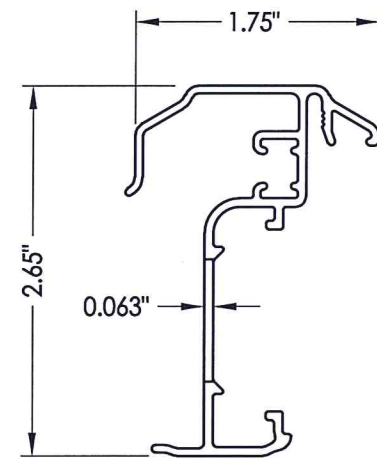
PRODUCT:		STEVES AND SONS FIBERGLASS DOOR	
PART OR ASSEMBLY:		FRAME ANCHORING	
NO.	DATE	BY	REVISIONS
3	6/01/20	LFS	UPDATE TO 2018 IBC/IRC CODE
2	2/21/18	LFS	Revise to ODL Lite Frame
1	7/16/15	JK	Manuf./Product Name Change
DATE: 04/13/10			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4091			
SHEET 9 OF 11			



ULTIMATE HURRICANE ASTRAGAL



ALUMINUM ASTRAGAL ASSEMBLY



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TEXAS P.E. #104723

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PRODUCT: STEVES AND SONS STEEL DOOR

PART OR ASSEMBLY: ENDURA ASTRAGAL DETAILS

NO.	DATE	REVISIONS	BY
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE	LFS
2	2/21/18	Revise to ODL Lite Frame	LFS
1	7/16/15	Manuf./Product Name Change	JK

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SCALE: N.T.S.

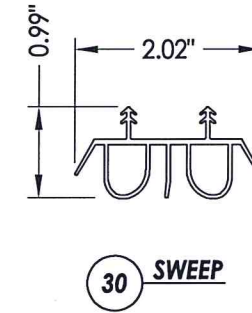
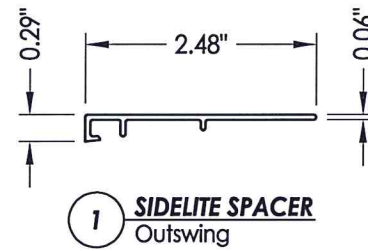
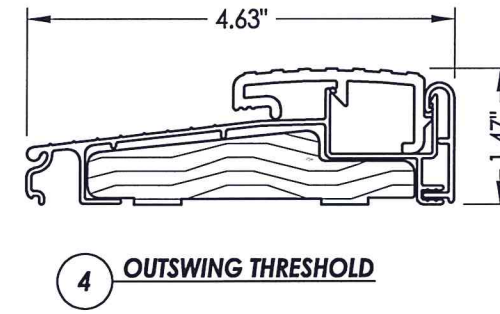
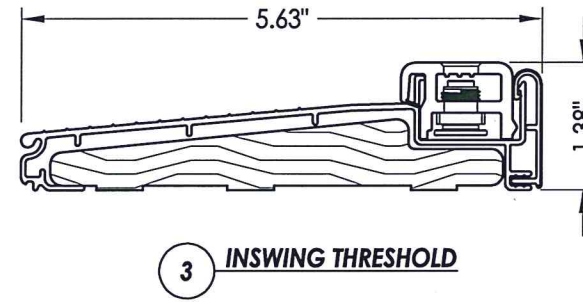
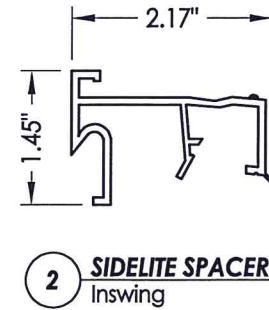
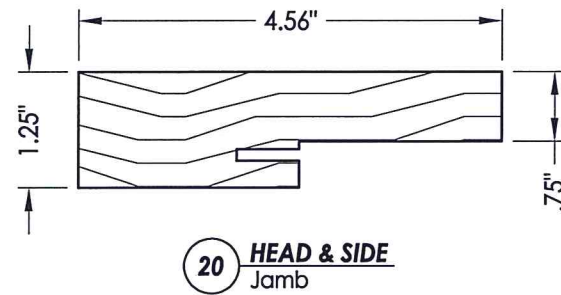
DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4091

SHEET 10 OF 11

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2X FRAMING SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
J	#10 X 3" PFH WOOD SCREW	STEEL
K	2X REINFORCEMENT (CLEAR PINE SG >= 0.42)	WOOD
L	#10 X 2-1/2" PFH WOOD SCREW	STEEL
M	#8 X 2-1/2" PFH WOOD SCREW	STEEL
N	#9 X 2-1/2" PFH WOOD SCREW	STEEL
P	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
Q	3/16" PFH ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
1	SIDELITE SPACER -OUTSWING	-
2	SIDELITE SPACER -INSWING	-
3	INSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM/COMP.
4	OUTSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM/COMP.
5	#10 X 2-1/2" PFH SCREW	STEEL
7	WEATHERSTRIP BY Q-LON	FOAM
9	4" HINGE	STEEL
10	#9 X 1" PFH WOOD SCREW	STEEL
11	#9 X 5/8" PFH WOOD SCREW	STEEL
20	JAMB FINGER - JOINT - PINE (SG >= 0.42)	WOOD
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT PLATE	STEEL
30	DOOR SWEEP	PVC
35	QUARTER ROUND	WOOD
40	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
50	SIDELITE PANEL - SEE SIDELITE PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
51	ASTRAGAL BY ENDURA	ALUM
52	#8 x 2-1/4" PFH WOOD SCREW	STEEL
53	#8 x 1" PFH WOOD SCREW	STEEL
56	ASTRAGAL STRIKE PLATE	STEEL



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"

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

6-1-20

RW BUILDING CONSULTANTS, INC.
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Phone No.: 813.659.9197

STATE OF TEXAS * * *
LYNDON F. SCHMIDT
104123
PROFESSIONAL ENGINEER
LICENSED

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: COMPONENTS AND B.O.M.

NO.	DATE	REVISIONS
3	6/01/20	UPDATE TO 2018 IBC/IRC CODE LFS
2	2/21/18	Revise to ODL Lite Frame LFS
1	7/16/15	Manuf./Product Name Change JK

DATE: 04/13/10

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4091

SHEET 11 OF 11

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