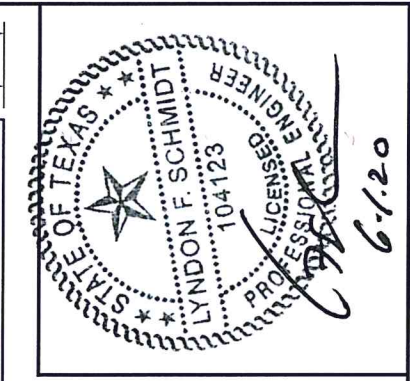
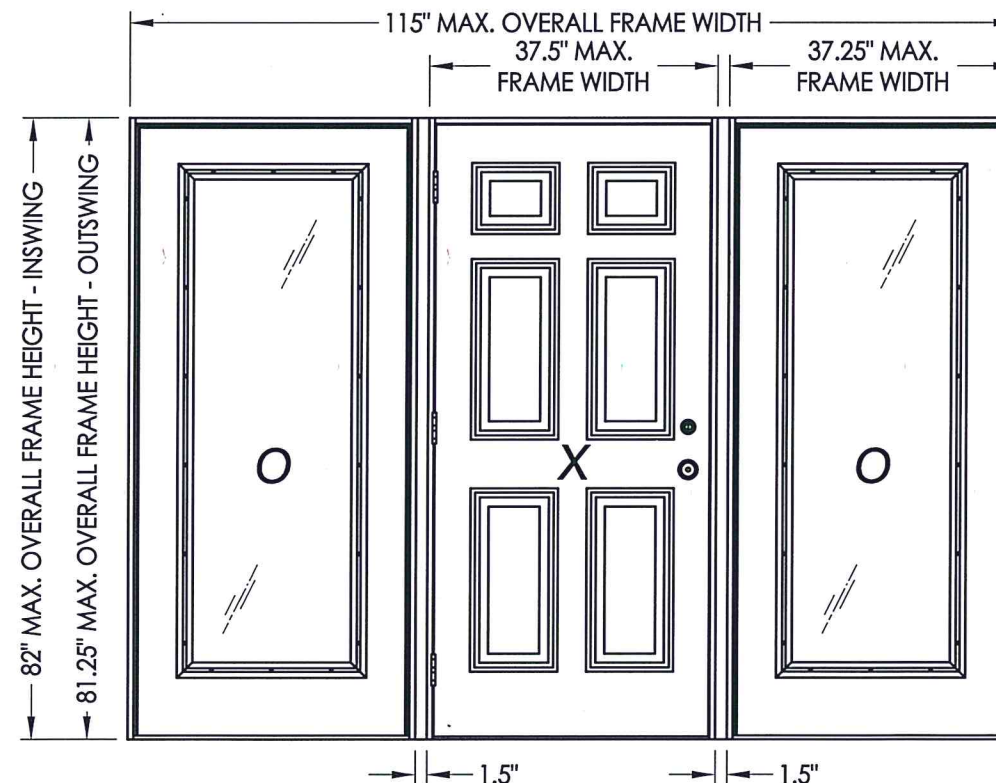
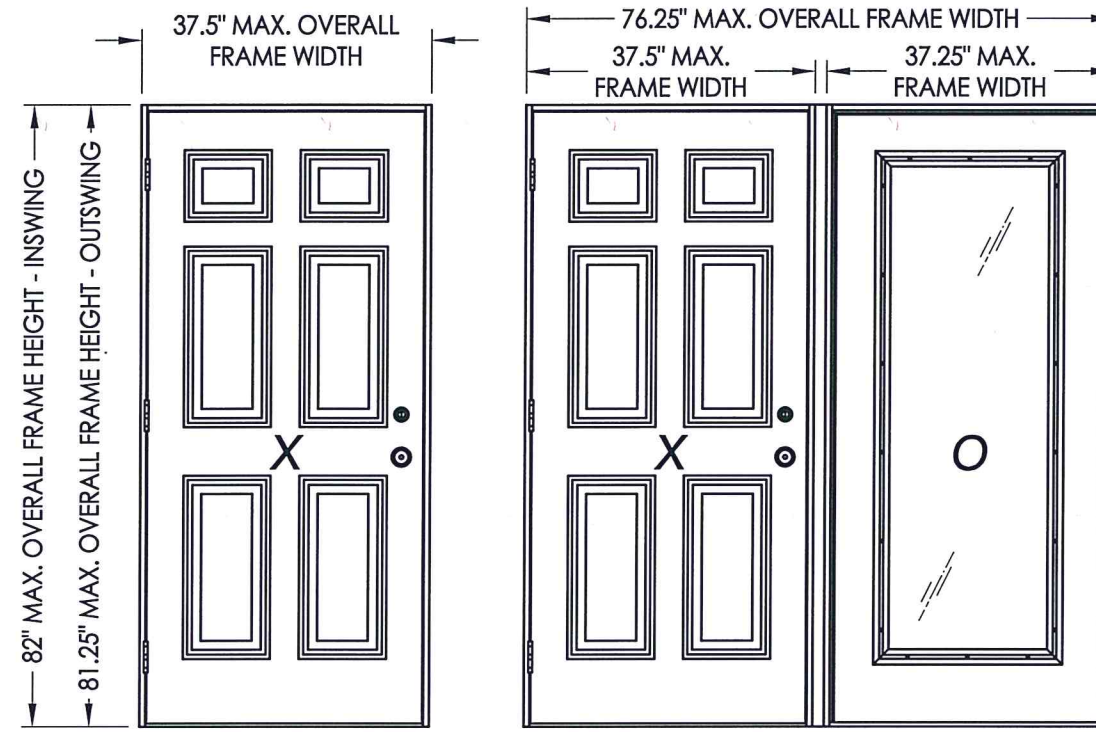


STEVE'S AND SONS

203 Humble Ave.
San Antonio, TX 78225

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



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

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.

TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door panel details
3	Sidelite panel & glazing details
4	Elevations
5	Horizontal cross sections
6	Vertical cross sections
7	Vertical cross sections
8	Frame anchoring
9	Frame anchoring
10	Components and bill of materials

CONFIGURATION	MAX. FRAME DIMENSION	MAX. SIDELITE D.L.O. DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
				POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
X	37.5" x 82.0"	N/A	N/A	+55.0	-60.0	+55.0	-55.0
OX / XO	76.25" x 82.0"	20.5" x 62.5"	G1	+47.0	-47.0	+47.0	-47.0
OXO	115.0" x 82.0"	20.5" x 62.5"		+47.0	-47.0	+47.0	-47.0

PRODUCT: STEVE'S AND SONS FIBERGLASS DOOR

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

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

DATE: 04/13/10

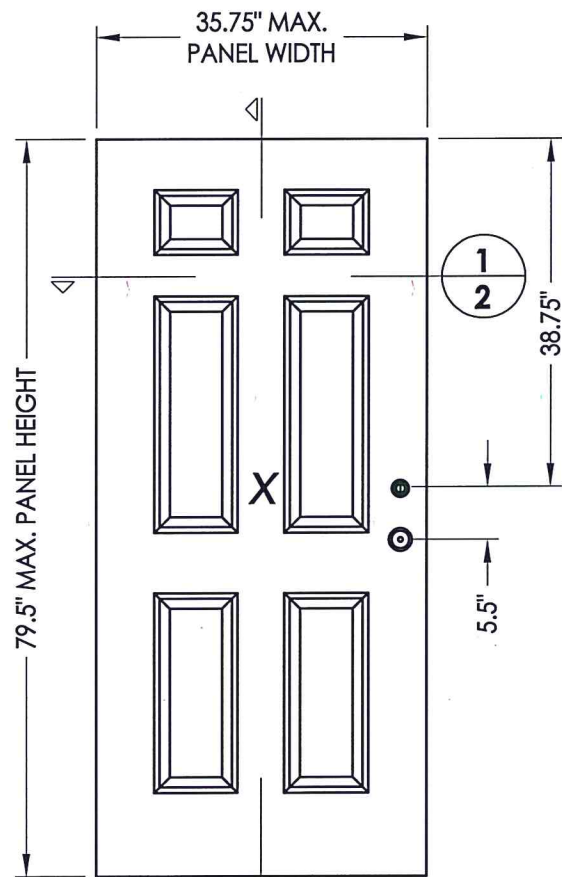
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DWG. BY: JK

CHK. BY: LFS

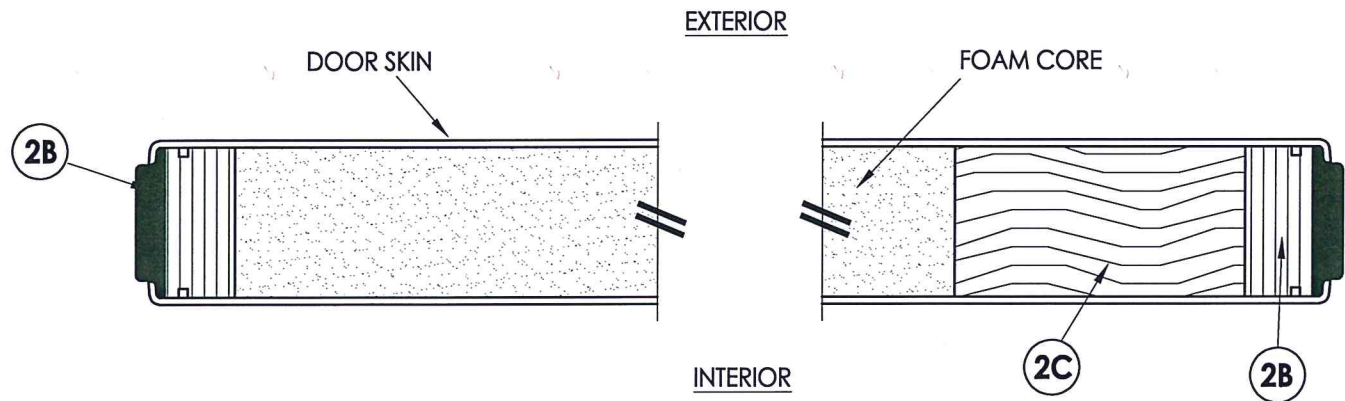
DRAWING NO.: TX-4090

SHEET 1 OF 10

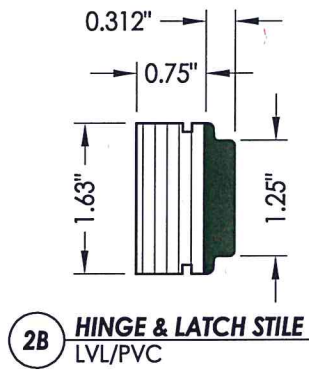


40 DOOR PANEL

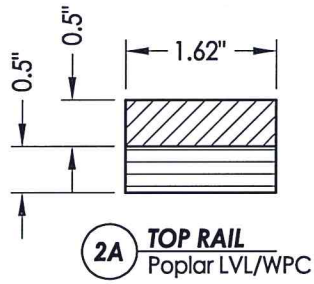
FIBERGLASS DOOR SKIN: MIN. 0.079" THK.
CORE MATERIAL: EPS FOAM (POLYSTYRENE)



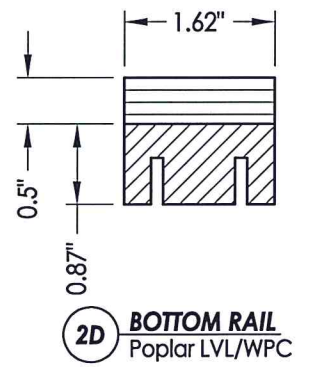
1 HORIZONTAL CROSS SECTION



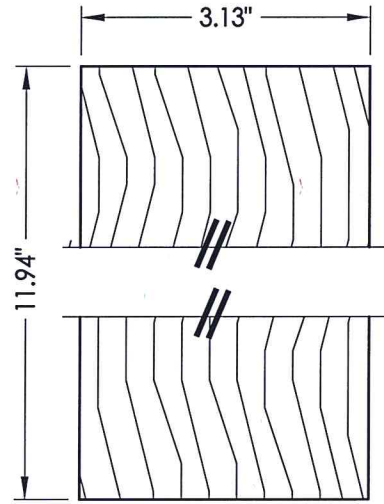
2B HINGE & LATCH STILE
LVL/PVC



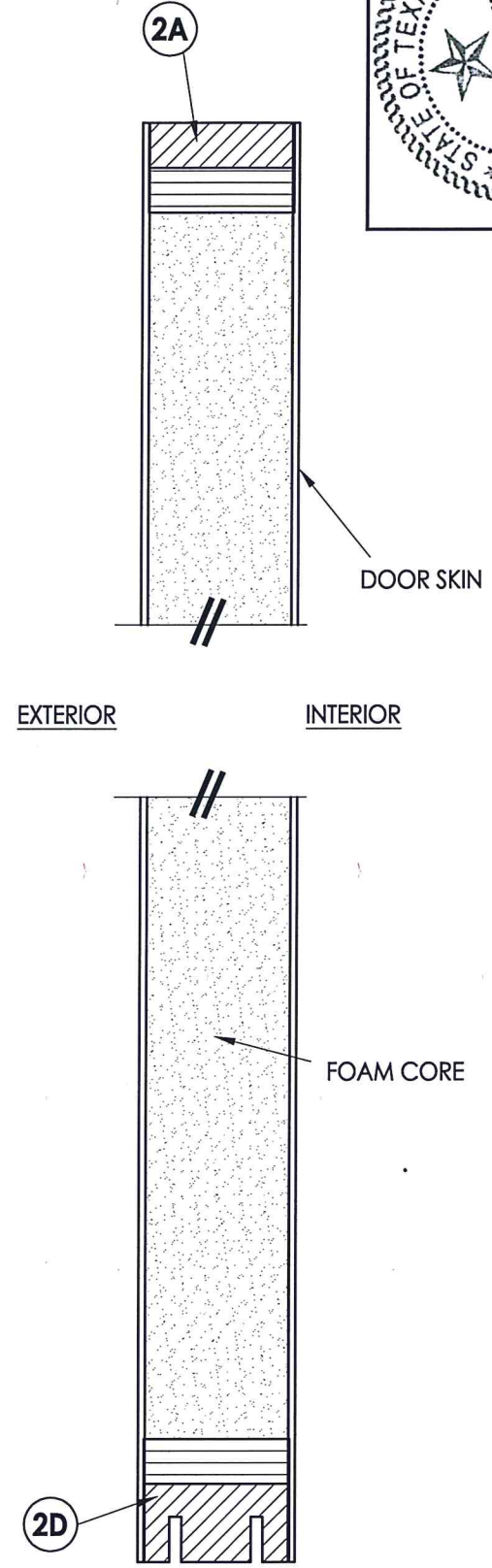
2A TOP RAIL
Poplar LVL/WPC



2D BOTTOM RAIL
Poplar LVL/WPC



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



2 VERTICAL CROSS SECTION



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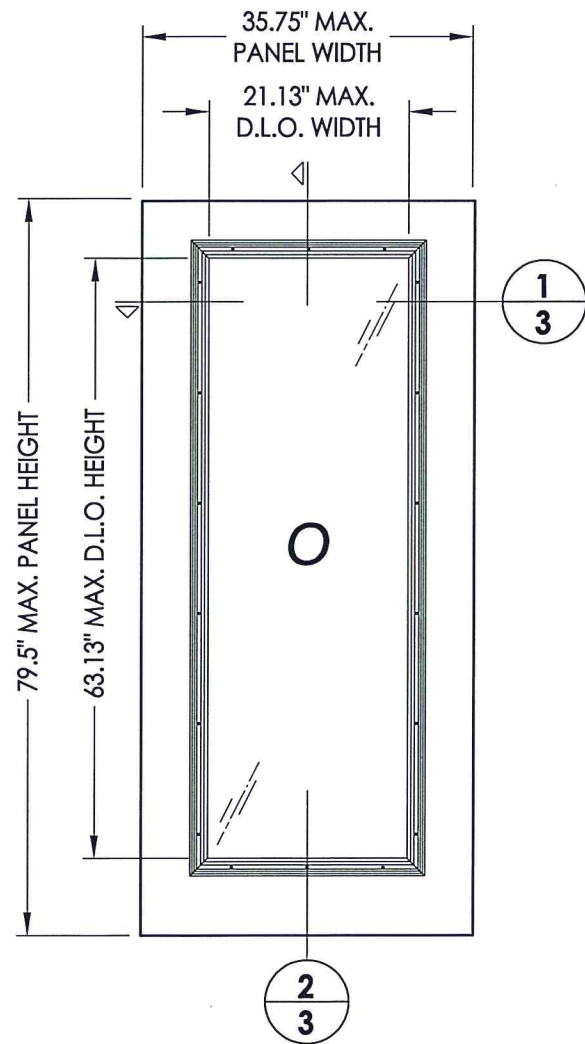
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

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 OD Lite Frame
1	7/16/15	Manuf./Product Name Change
		NO. DATE
		BY

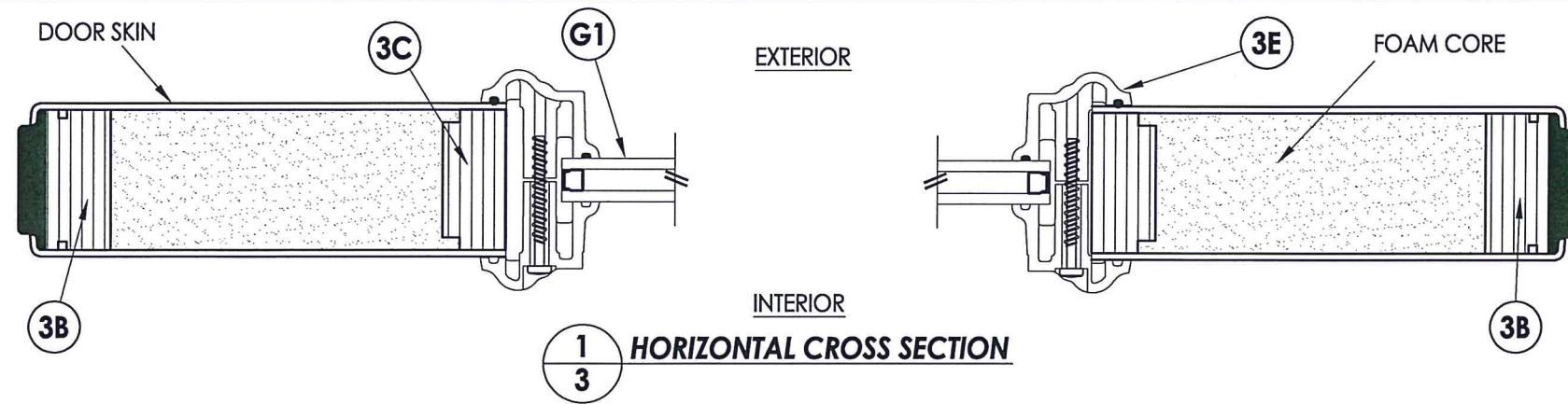
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SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4090
SHEET 2 OF 10



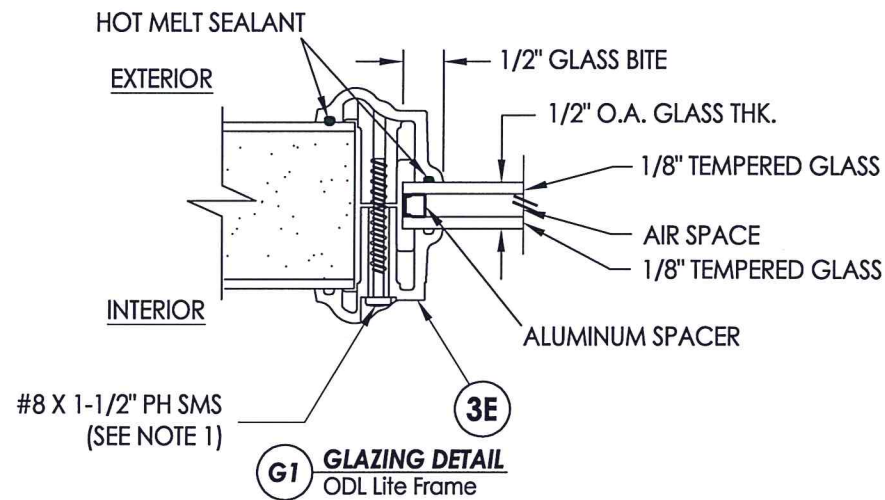
50 SIDELITE PANEL

FIBERGLASS DOOR SKIN: MIN. 0.079\"/>

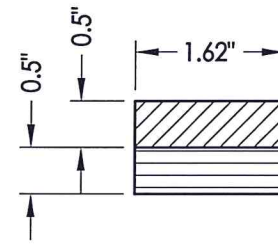
NOTE:
 1. Spacing for lite frame screws is as follows:
 Sides: 6.5\"/>



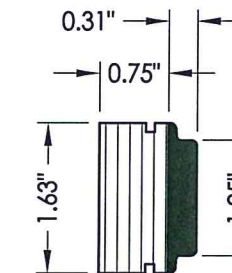
1/3 HORIZONTAL CROSS SECTION



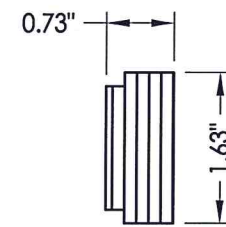
G1 GLAZING DETAIL
ODL Lite Frame



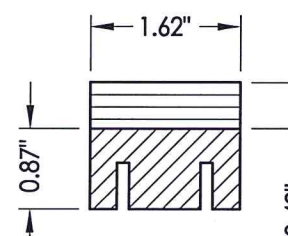
3A TOP RAIL
Poplar LVL/WPC



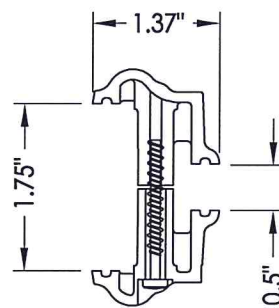
3B HINGE & LATCH STILE
LVL/PVC



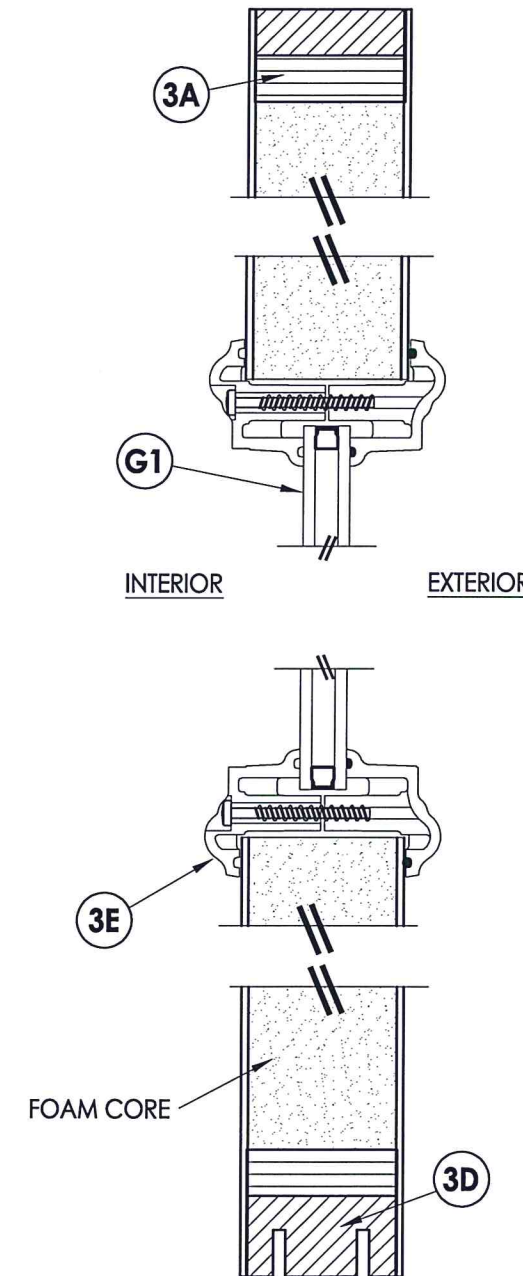
3C LITE OPENING
LVL Reinforcement



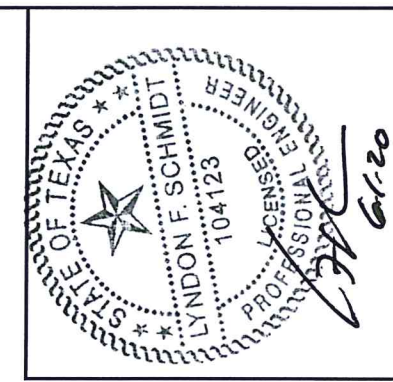
3D BOTTOM RAIL
Poplar LVL/WPC



3E ODL LITE FRAME
Polypropylene



2/3 VERTICAL CROSS SECTION



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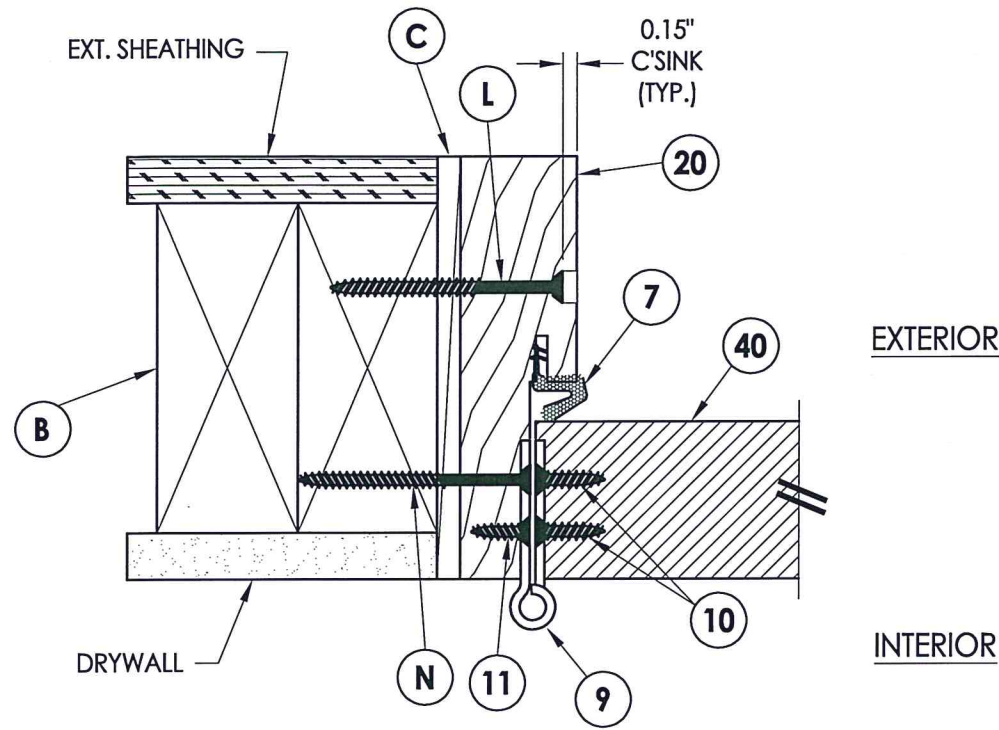
TEXAS BOARD OF PROFESSIONAL ENGINEERS
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

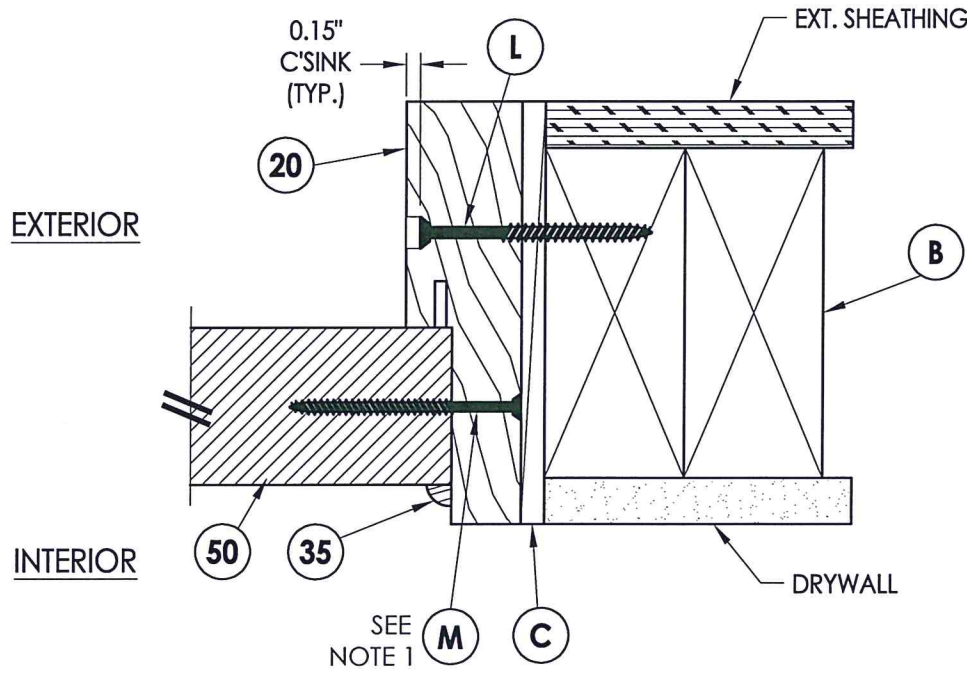
PART OR ASSEMBLY: SIDELITE PANEL & GLAZING DETAILS

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

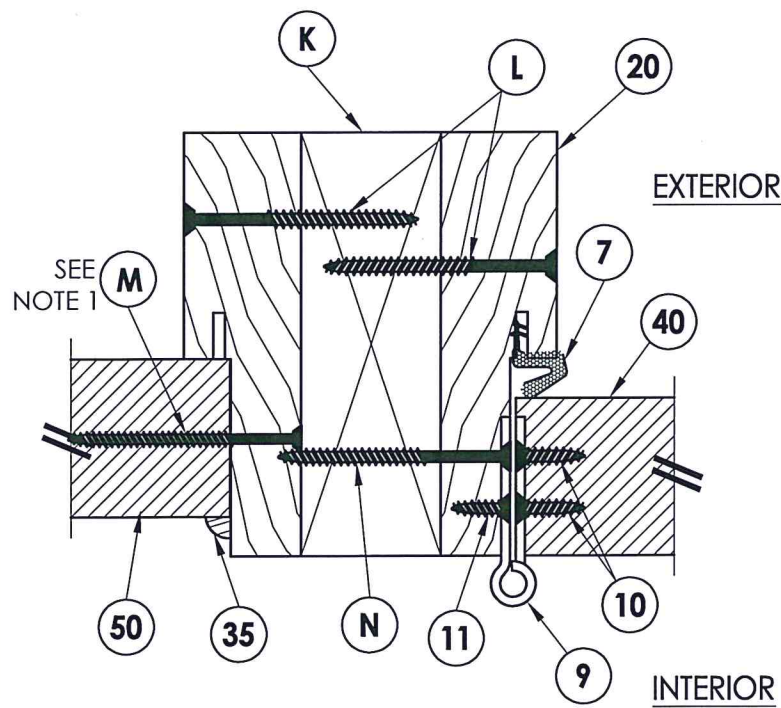
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 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: TX-4090
 SHEET 3 OF 10



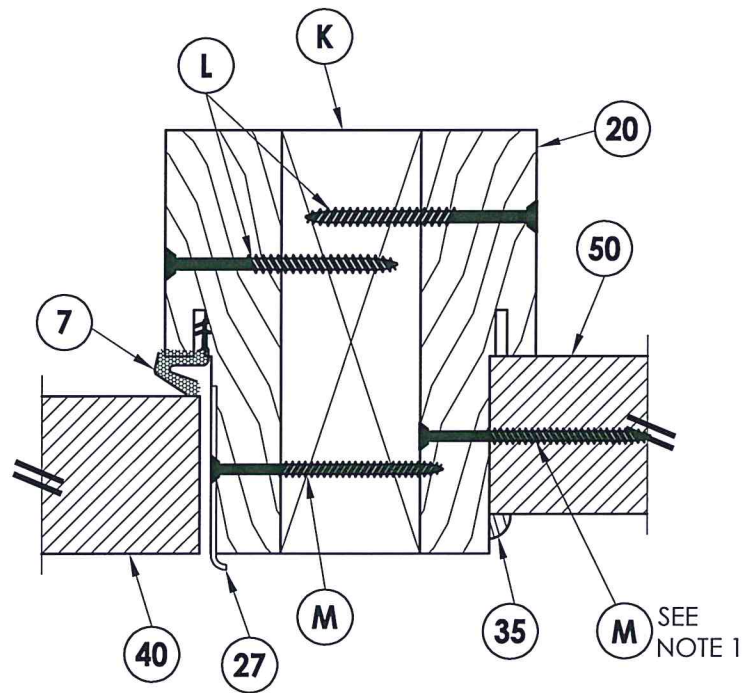
1 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved



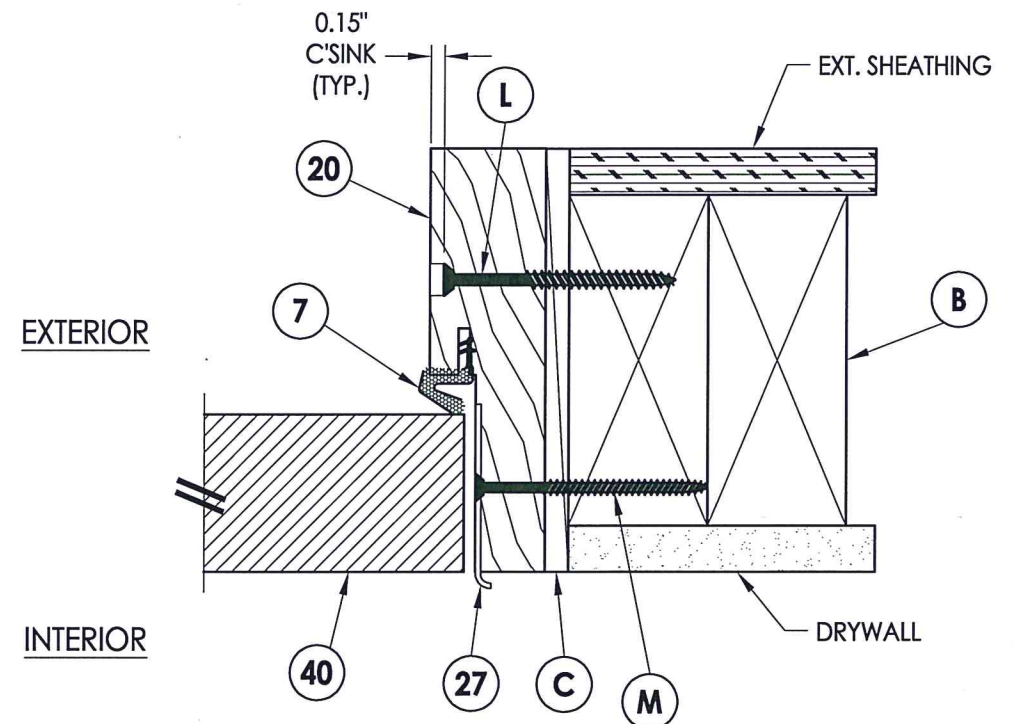
2 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved



3 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved



4 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved



5 HORIZONTAL CROSS SECTION
5 Inswing shown - outswing also approved

NOTE:

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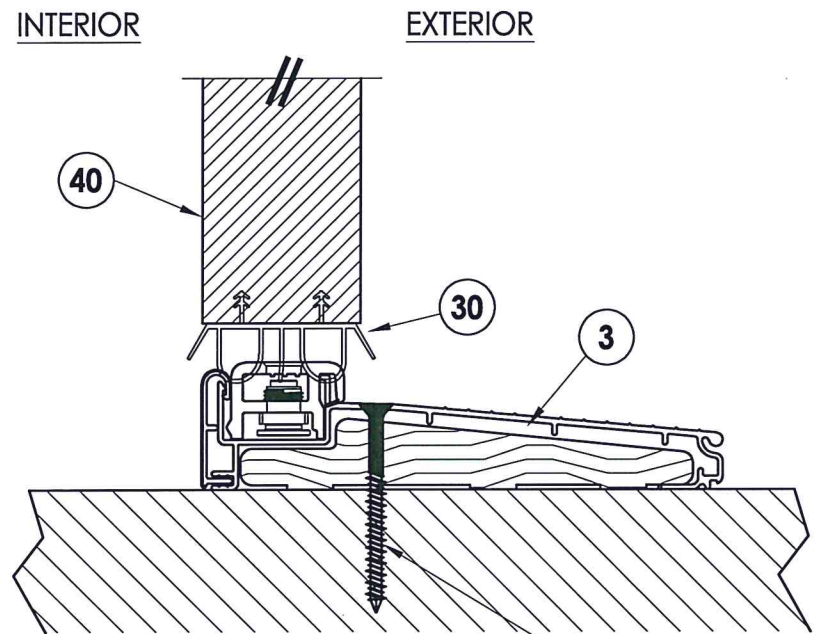
TEXAS BOARD OF PROFESSIONAL ENGINEERS
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: STEVES AND SONS FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

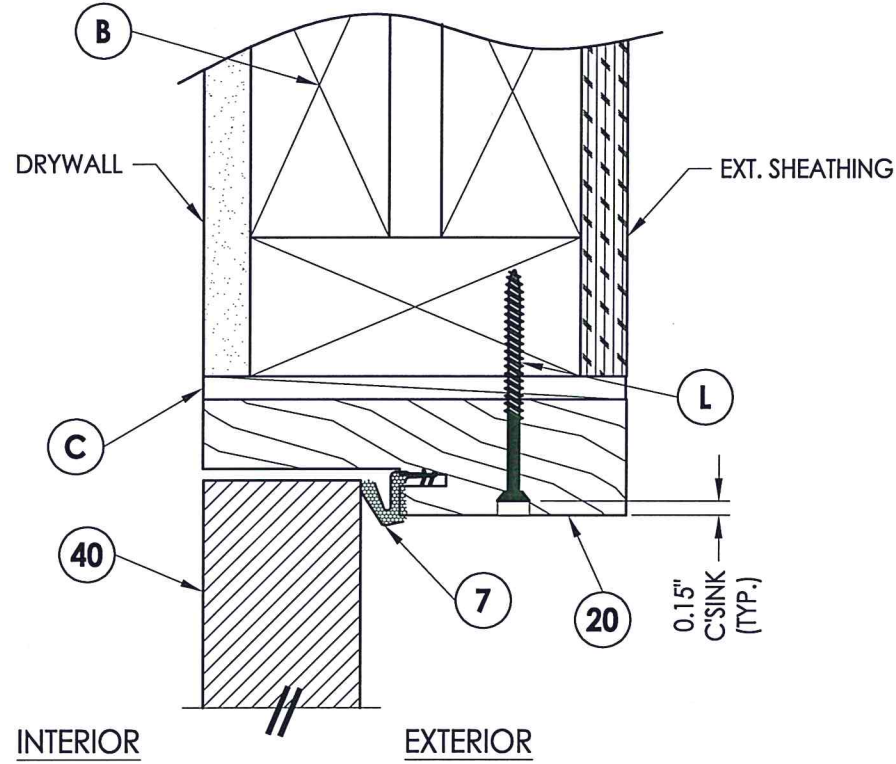
NO.	DATE	REVISIONS	BY
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2	2/21/18	Revise to ODL Lite Frame	LFS
1	7/16/15	Manuf./Product Name Change	JK

DATE: 04/13/10
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: TX-4090
 SHEET 5 OF 10

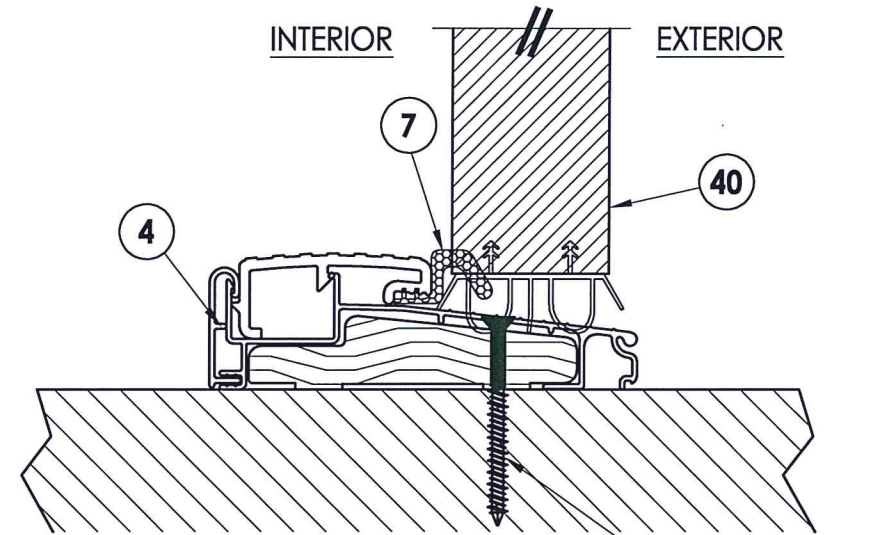


2 VERTICAL CROSS SECTION
6 Inswing configuration

J WOOD
P CONCRETE

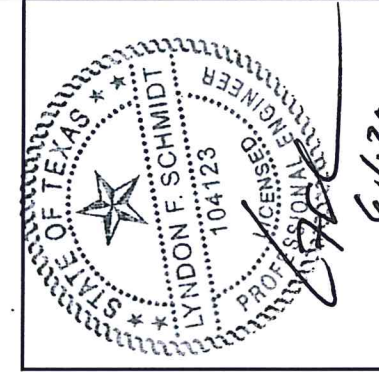


1 VERTICAL CROSS SECTION
6 Inswing shown - outswing also approved



3 VERTICAL CROSS SECTION
6 Outswing configuration

J WOOD
P CONCRETE



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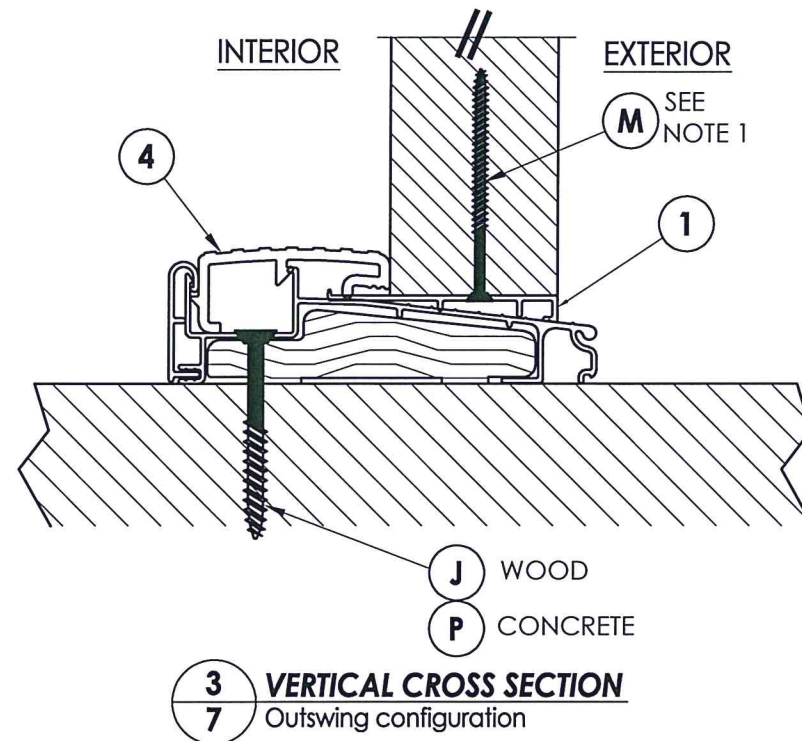
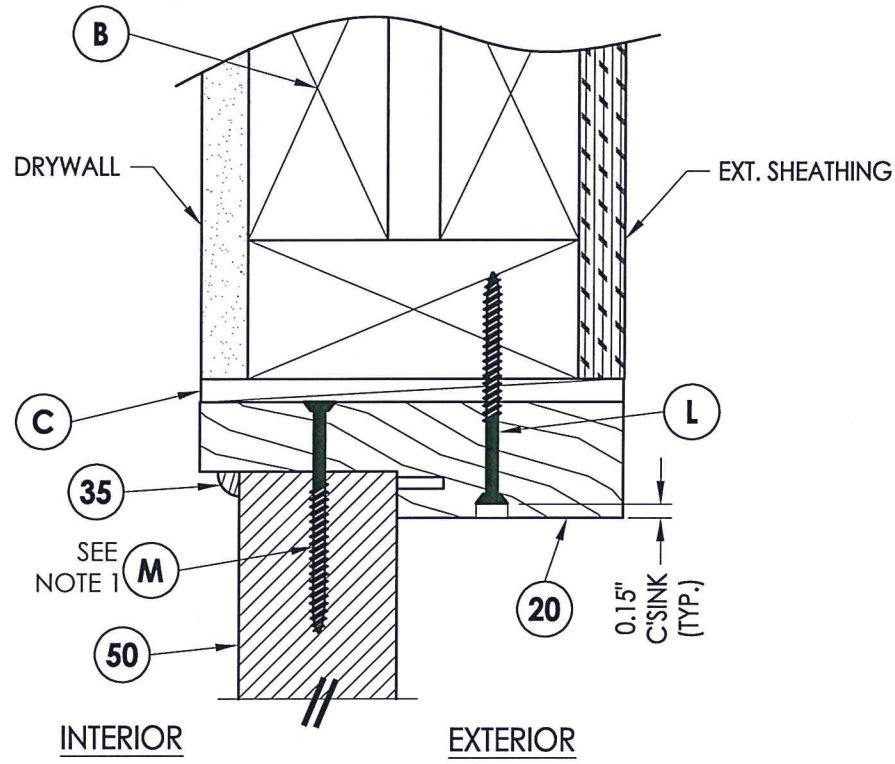
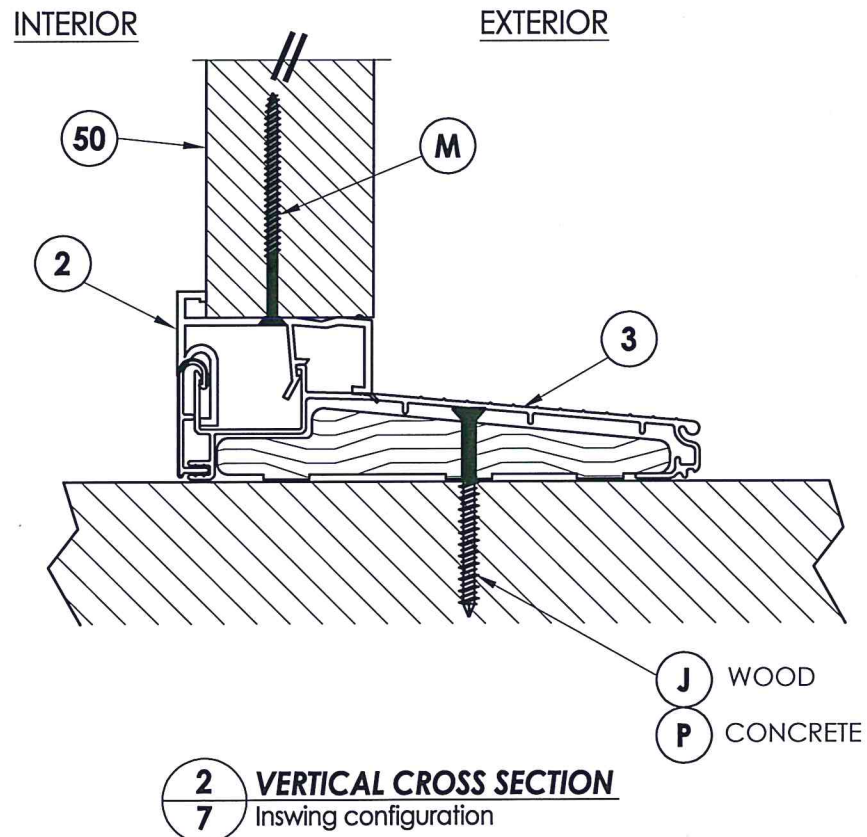
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: STEVES AND SONS
FIBERGLASS DOOR

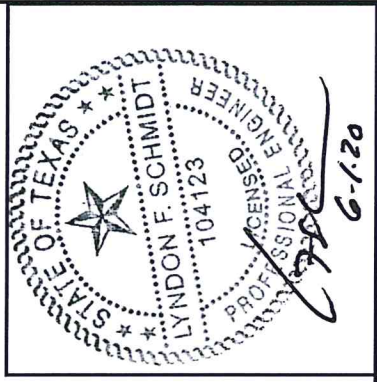
PART OR ASSEMBLY:
VERTICAL CROSS SECTIONS

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.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4090
SHEET 6 OF 10

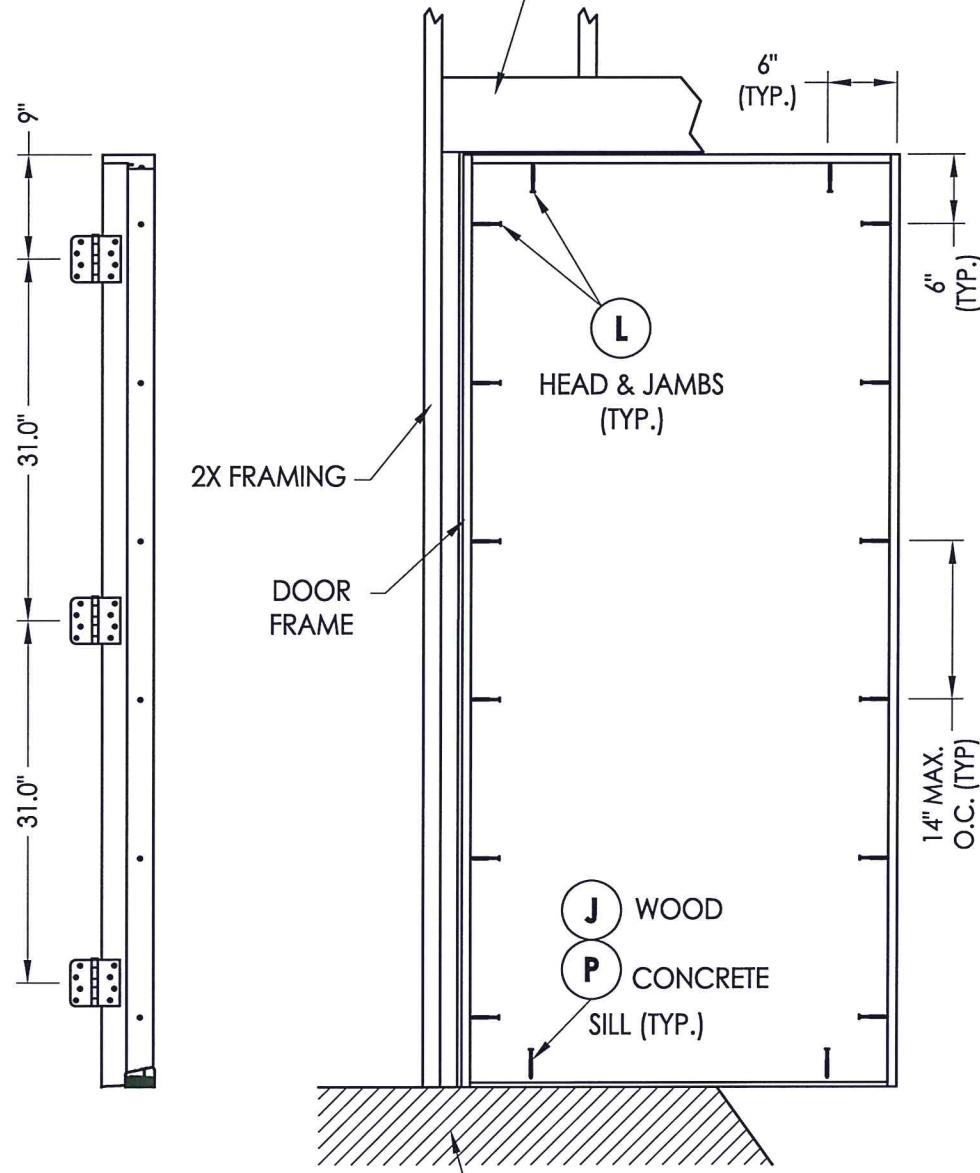


NOTE:
1. Screws thru head and sill jamb located 3" from each end and on center line.



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	
PRODUCT: STEVES AND SONS FIBERGLASS DOOR	VERTICAL CROSS SECTIONS
PART OR ASSEMBLY:	VERTICAL CROSS SECTIONS
NO.	DATE
3	6/01/20
2	2/21/18
1	7/16/15
NO.	DATE
3	6/01/20
2	2/21/18
1	7/16/15
NO.	DATE
DATE:	04/13/10
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4090
SHEET	7 OF 10

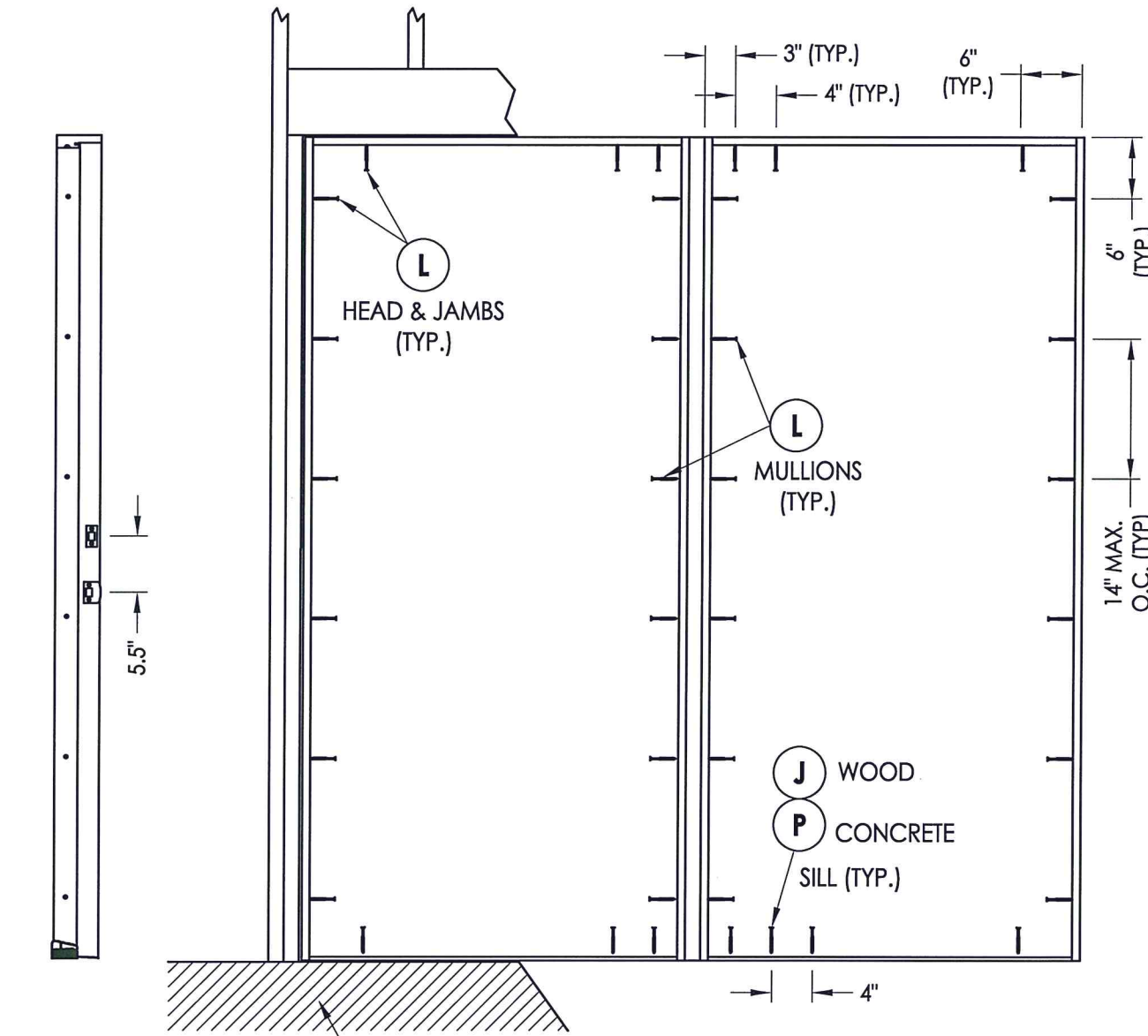
2X FRAMING TO BE DESIGNED BY THE ENGINEER OR ARCHITECT OF RECORD



HINGE JAMB

FLOOR SUBSTRATE MATERIAL
CONCRETE (MIN. 3000 PSI)
WOOD (S.G. >= 0.42)

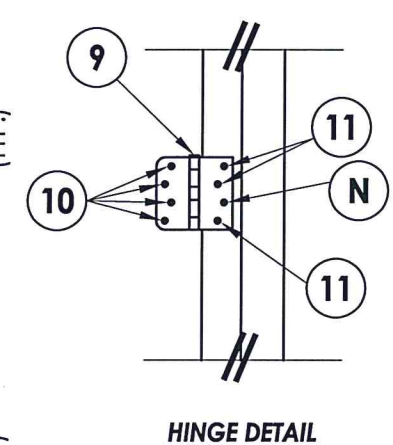
**FRAME ANCHORING
X**



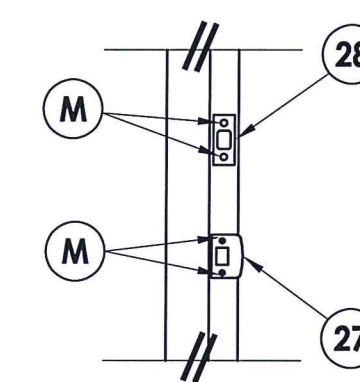
STRIKE JAMB

FLOOR SUBSTRATE MATERIAL
CONCRETE (MIN. 3000 PSI)
WOOD (S.G. >= 0.42)

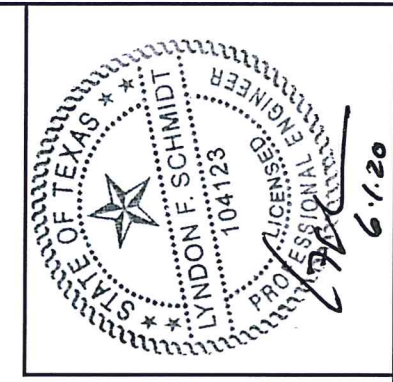
**FRAME ANCHORING
XO / OX**



HINGE DETAIL



LATCH & DEADBOLT DETAIL

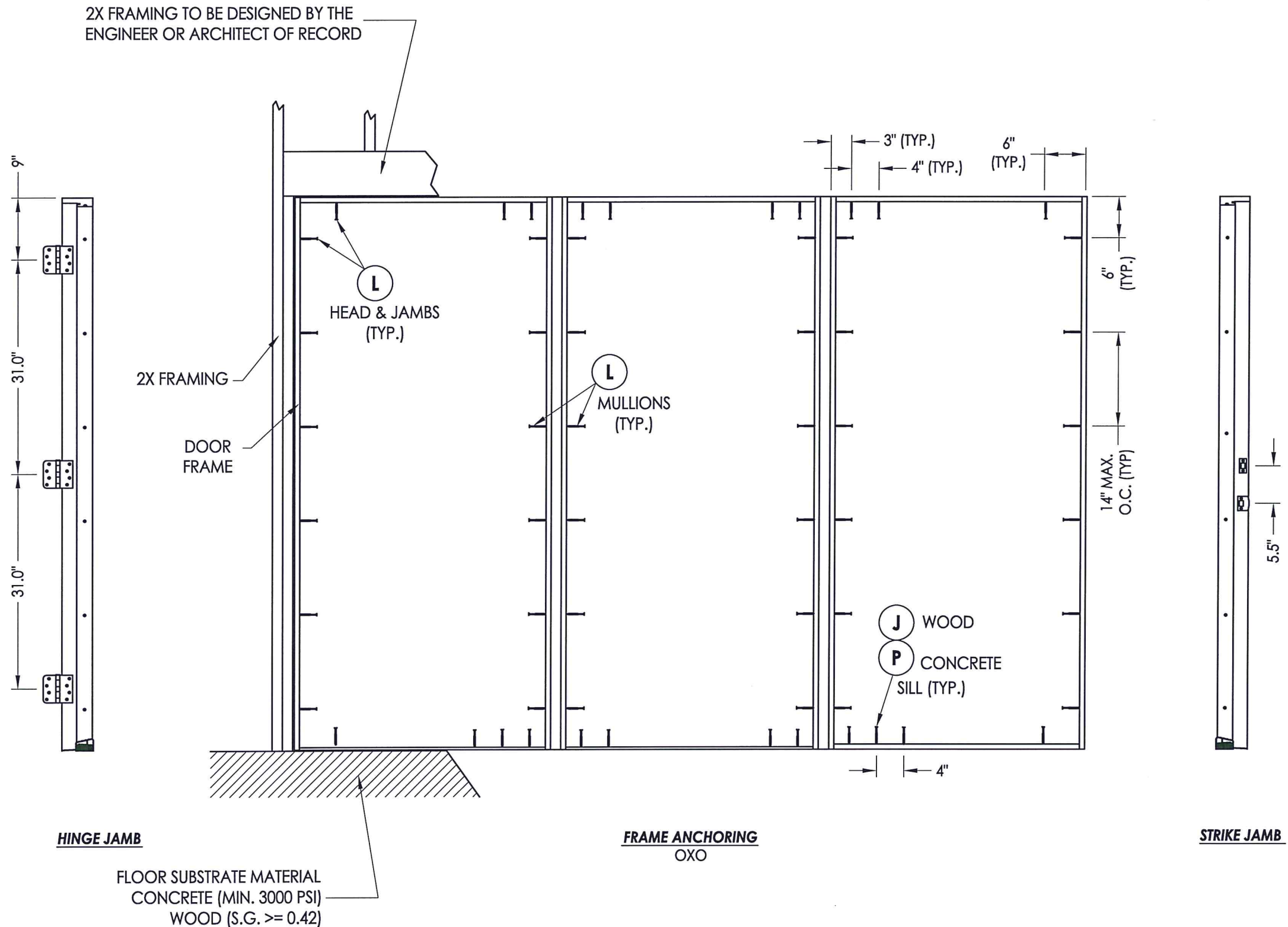


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6.1.20
RW BUILDING CONSULTANTS, INC.
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Phone No.: 813.659.9197
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

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
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4090
SHEET	8 OF 10

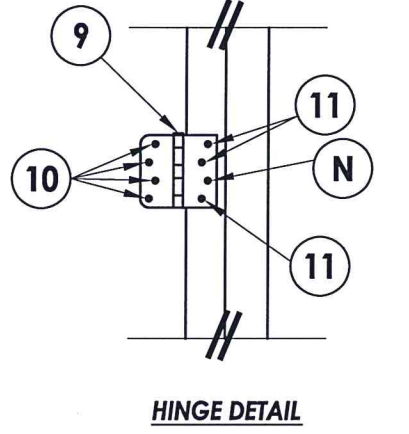


HINGE JAMB

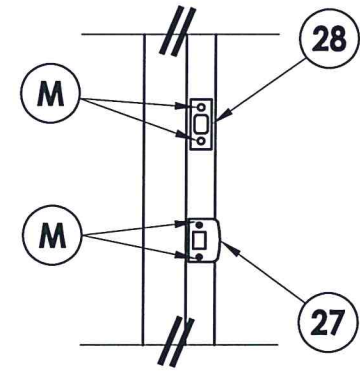
FLOOR SUBSTRATE MATERIAL
 CONCRETE (MIN. 3000 PSI)
 WOOD (S.G. >= 0.42)

**FRAME ANCHORING
 OXO**

STRIKE JAMB



HINGE DETAIL



LATCH & DEADBOLT DETAIL



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PRODUCT: STEVES AND SONS FIBERGLASS DOOR

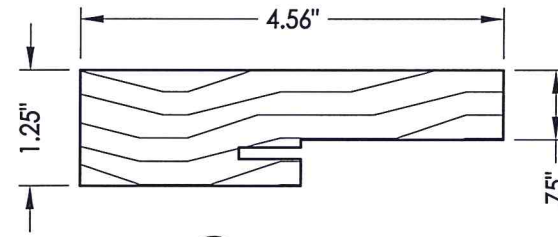
PART OR ASSEMBLY: FRAME ANCHORING

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

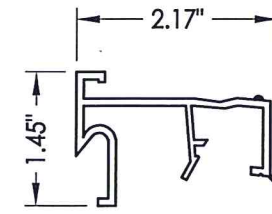
DATE: 04/13/10
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: TX-4090
 SHEET 9 OF 10

BILL OF MATERIALS

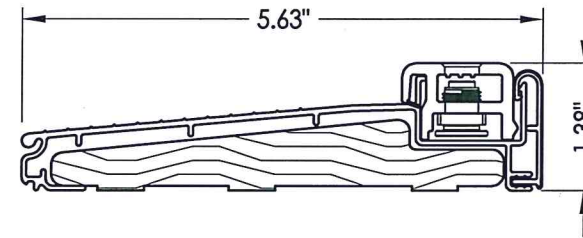
ITEM #	DESCRIPTION	MATERIAL
B	2X FRAMING SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
J	#10 X 3" PFH WOOD SCREW	STEEL
K	2X REINFORCEMENT (CLEAR PINE SG >= 0.42)	WOOD
L	#10 X 2-1/2" PFH WOOD SCREW	STEEL
M	#8 X 2-1/2" PFH WOOD SCREW	STEEL
N	#9 X 2-1/2" PFH WOOD SCREW	STEEL
P	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	
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.
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	-



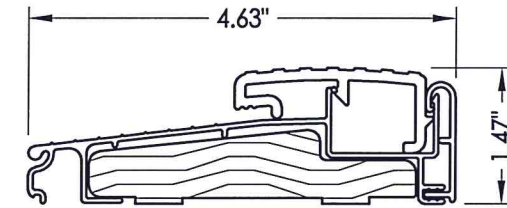
20 HEAD & SIDE Jamb



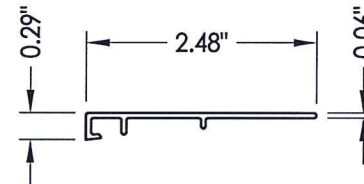
2 SIDELITE SPACER Inswing



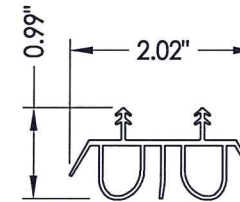
3 INSWING THRESHOLD



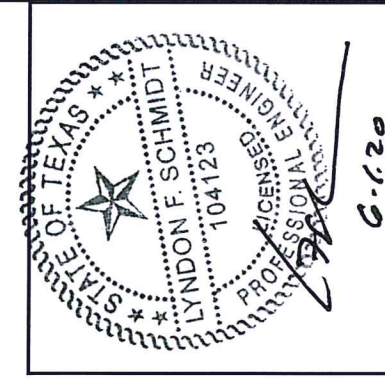
4 OUTSWING THRESHOLD Low profile ADA



1 SIDELITE SPACER Outswing



30 SWEEP



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TEXAS P.E. #104123

RW BUILDING CONSULTANTS, INC.
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

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
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-4090
SHEET 10 OF 10

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®	1/4"	1-3/4"	1-1/2"	4"
ELCO ULTRACON®	1/4"	1-3/4"	1"	4"