

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

"Profiles" Series

Opaque "Impact" Steel Doors w/ or w/o "Non-Impact" Sidelites

INSWING / OUTSWING

EVALUATED FOR USE IN THE STATE OF TEXAS

The Steel 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 while the sidelites are required to be protected with an impact resistant covering that complies with Section R301.2.1.2 of the IRC and Section 1609.2 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.

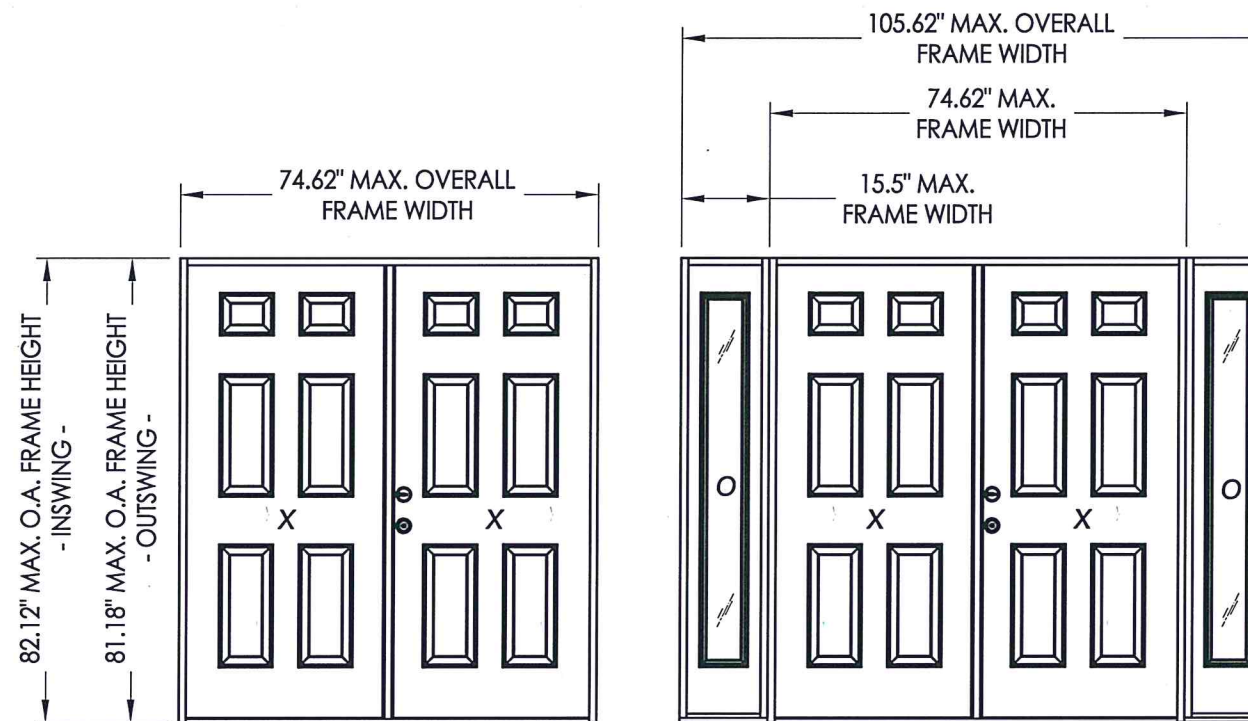
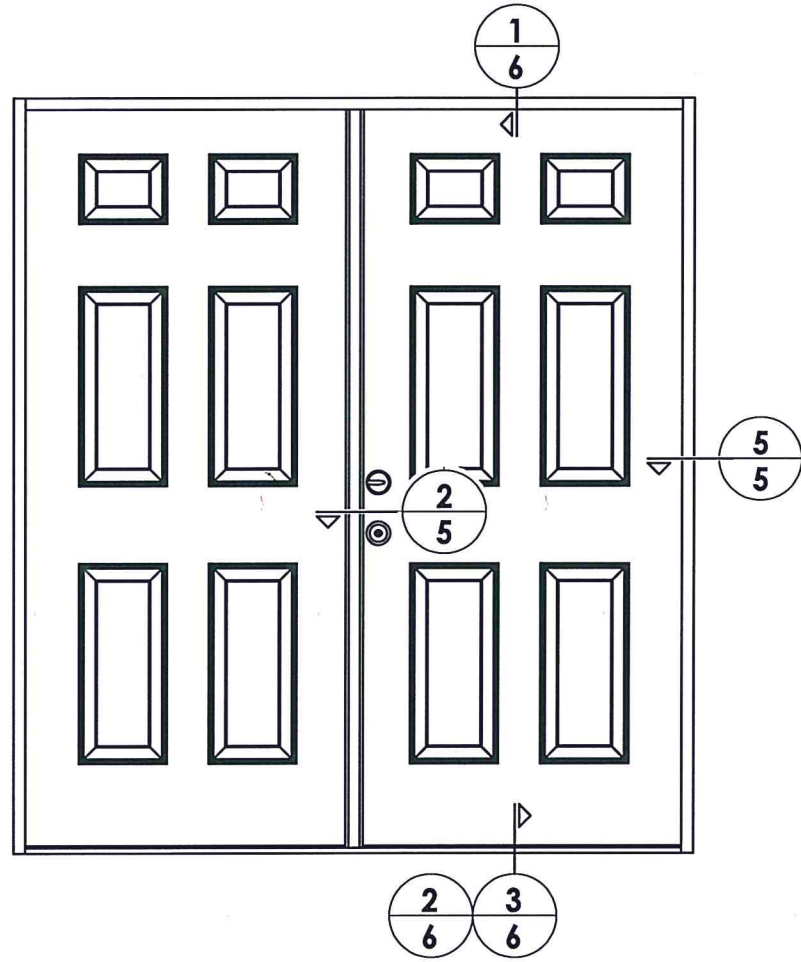


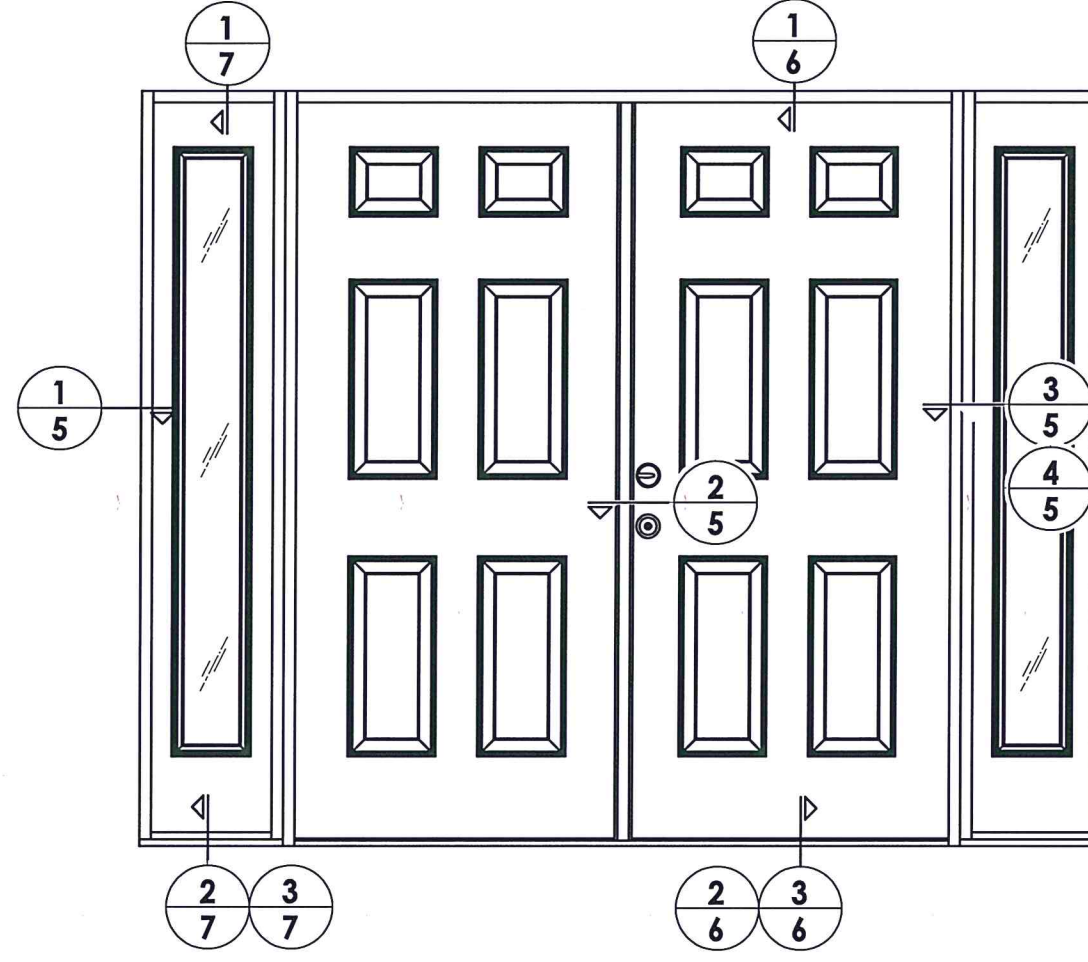
TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door panel details
3	Sidelite panel details and glazing detail
4	Elevations
5	Horizontal cross section
6	Vertical cross sections
7	Vertical cross sections
8	Frame anchoring
9	Astragal details
10	Bill of materials and components

CONFIGURATION	MAX. FRAME DIMENSION	MAX. D.L.O. DIMENSION	SWING	DESIGN PRESSURE (PSF)	
				POSITIVE	NEGATIVE
XX	74.62" x 82.12"	N/A	INSWING	+50.0	-55.0
	74.62" x 81.18"		OUTSWING	+50.0	-50.0
OXXO	105.62" x 82.12"	6.0" x 63.0"	INSWING	+50.0	-55.0
	105.62" x 81.18"		OUTSWING	+50.0	-50.0

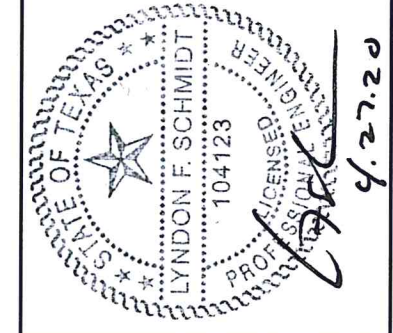
PRODUCT:	THERMA-TRU STEEL DOOR
PART OR ASSEMBLY:	TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES
DATE:	08/16/12
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4229
SHEET	1 OF 10



ELEVATION (XX)



ELEVATION (OXXO)



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PRODUCT: THERMA-TRU STEEL DOOR

PART OR ASSEMBLY: ELEVATIONS

NO.	DATE	DESCRIPTION	BY
1	4/27/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE: 08/16/12

SCALE: N.T.S.

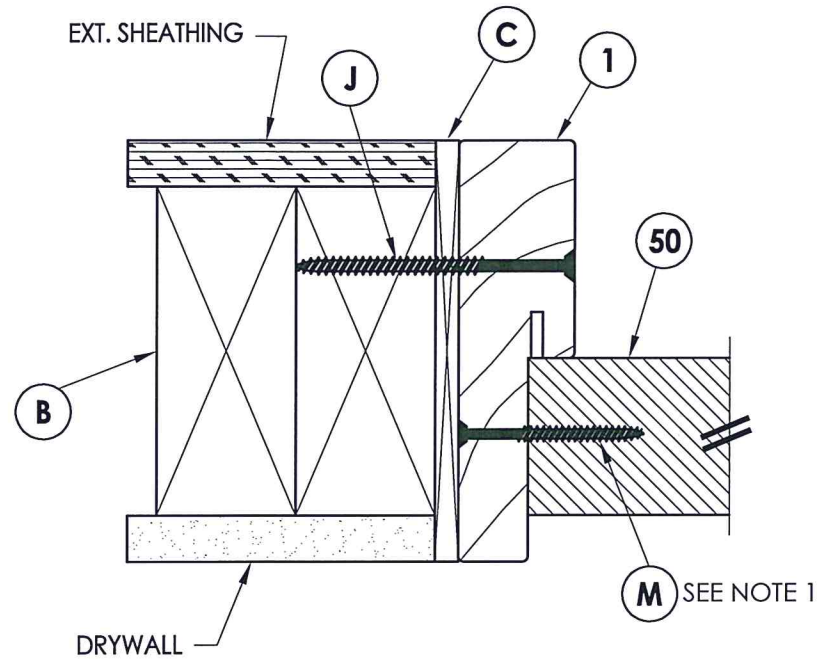
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CHK. BY: LFS

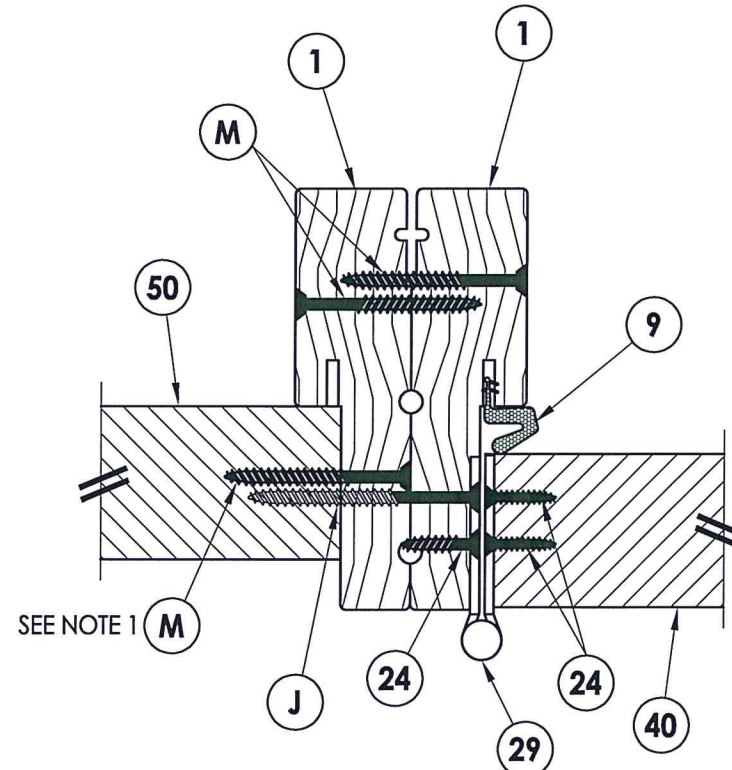
DRAWING NO.: TX-4229

SHEET 4 OF 10

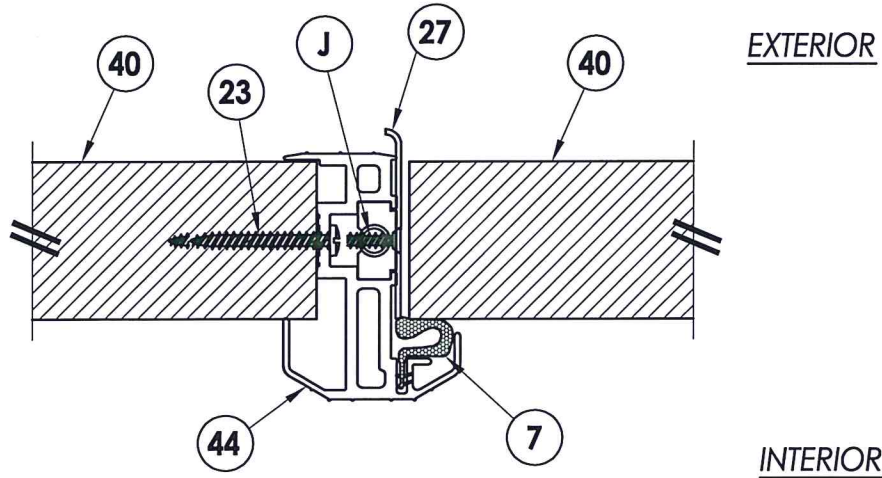
R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 603 - 68 Opaque Profiles Steel Imp IS - OS Sgls Dbls w-wo Non-imp SL\C - Drawings\TX-4228-29.dwg, 5.2



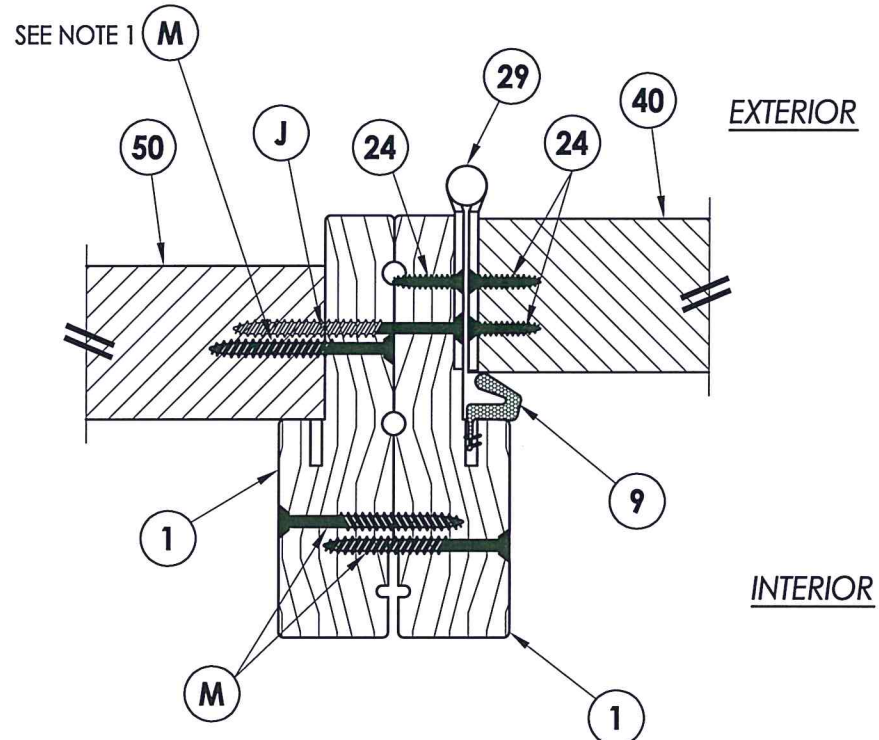
1 HORIZONTAL CROSS SECTION
5 Inswing shown - Outswing also approved



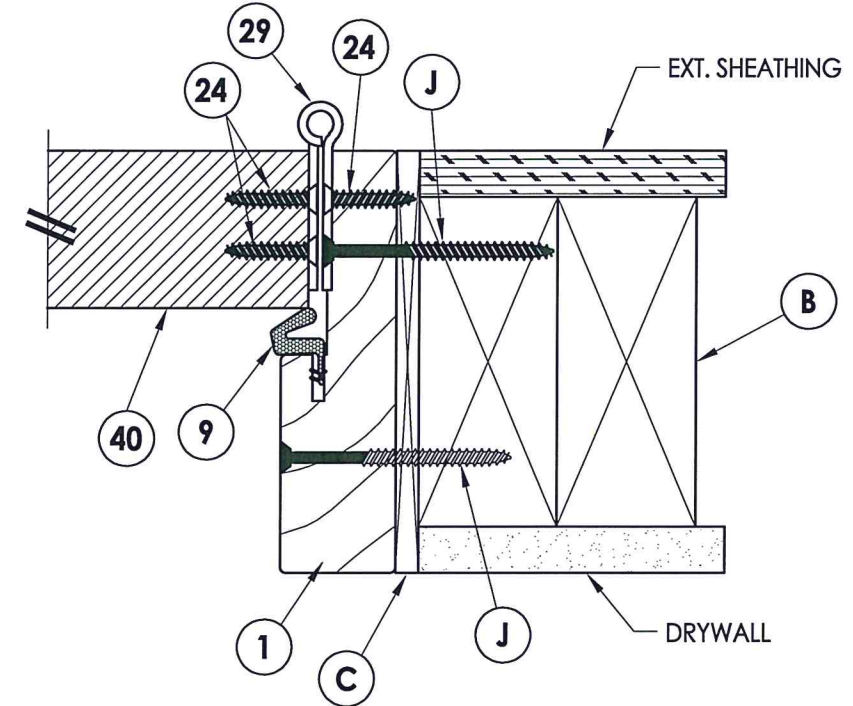
3 HORIZONTAL CROSS SECTION
5 Inswing shown



2 HORIZONTAL CROSS SECTION
5 Outswing shown - Inswing also approved

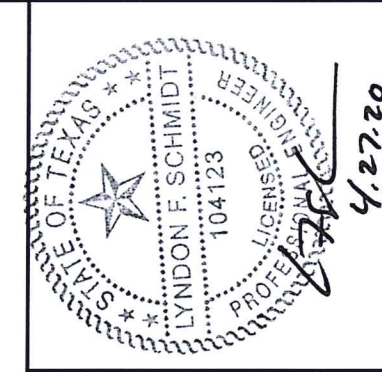


4 HORIZONTAL CROSS SECTION
5 Outswing shown



5 HORIZONTAL CROSS SECTION
5 Outswing shown - Inswing also approved

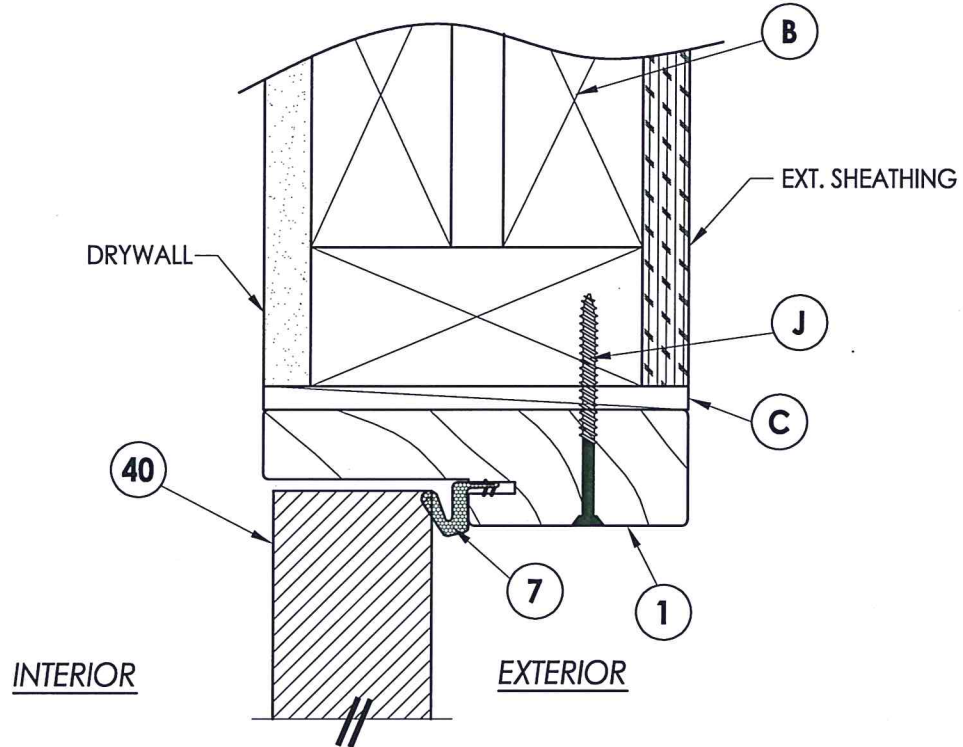
Note:
 1. Sidelite assembly screws located 6" from each end plus 4 more equally spaced (6 total).



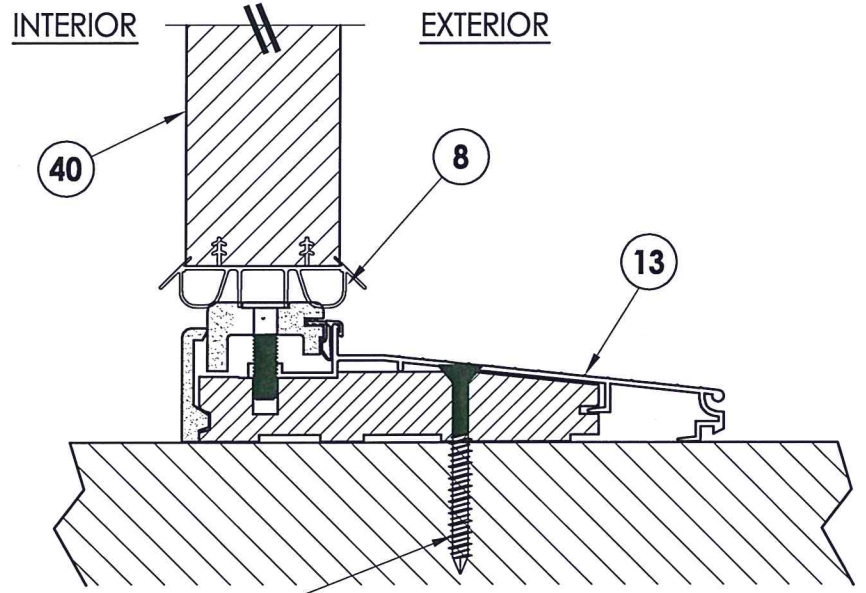
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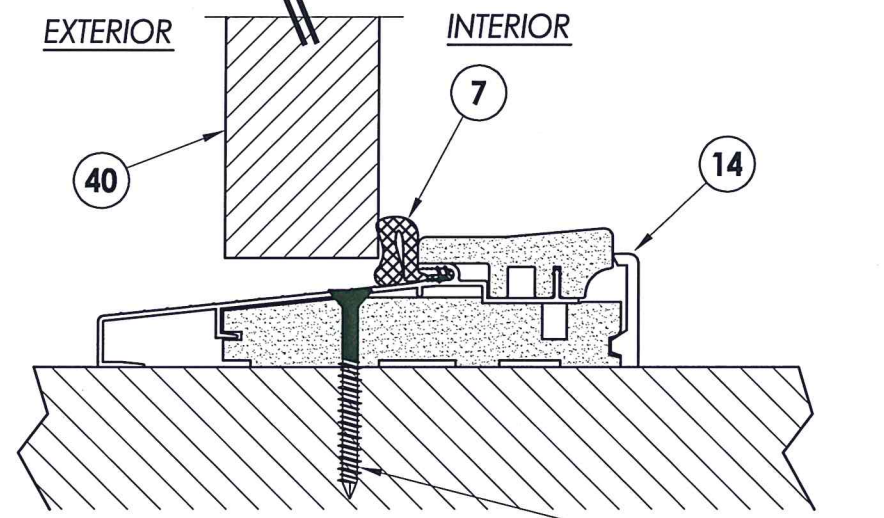
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NO.	DATE	DESCRIPTION	BY
1	4/27/20	UPDATE TO 2018 IBC/IRC CODE	LFS
REVISIONS			
DATE: 08/16/12			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4229			
SHEET 5 OF 10			



1 VERTICAL CROSS SECTION
6 Inswing shown - Outswing also approved



2 VERTICAL CROSS SECTION
6 Inswing configuration



3 VERTICAL CROSS SECTION
6 Outswing configuration



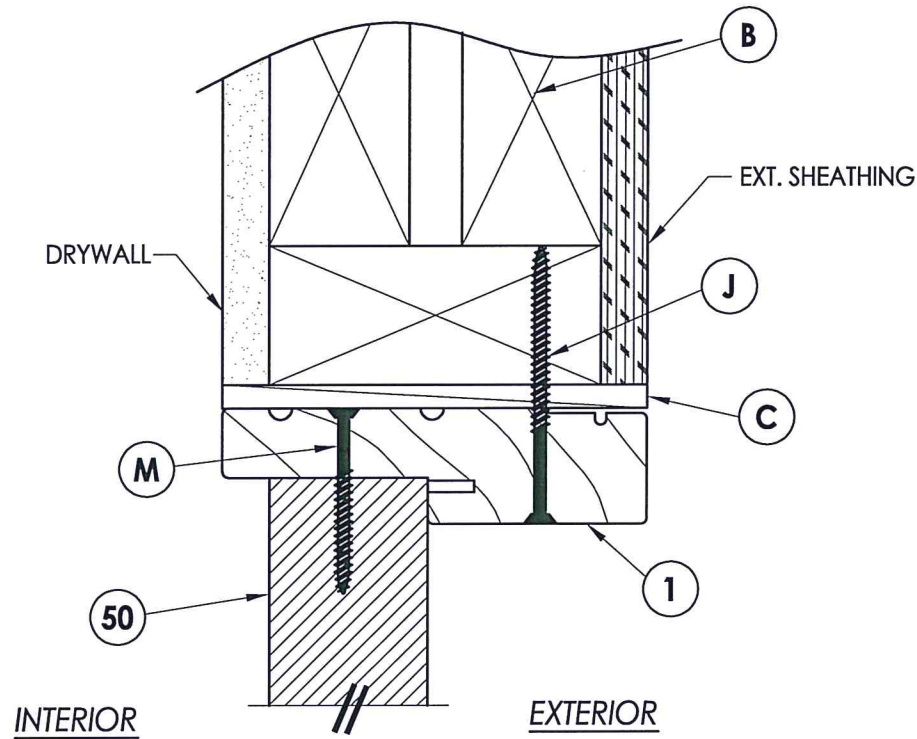
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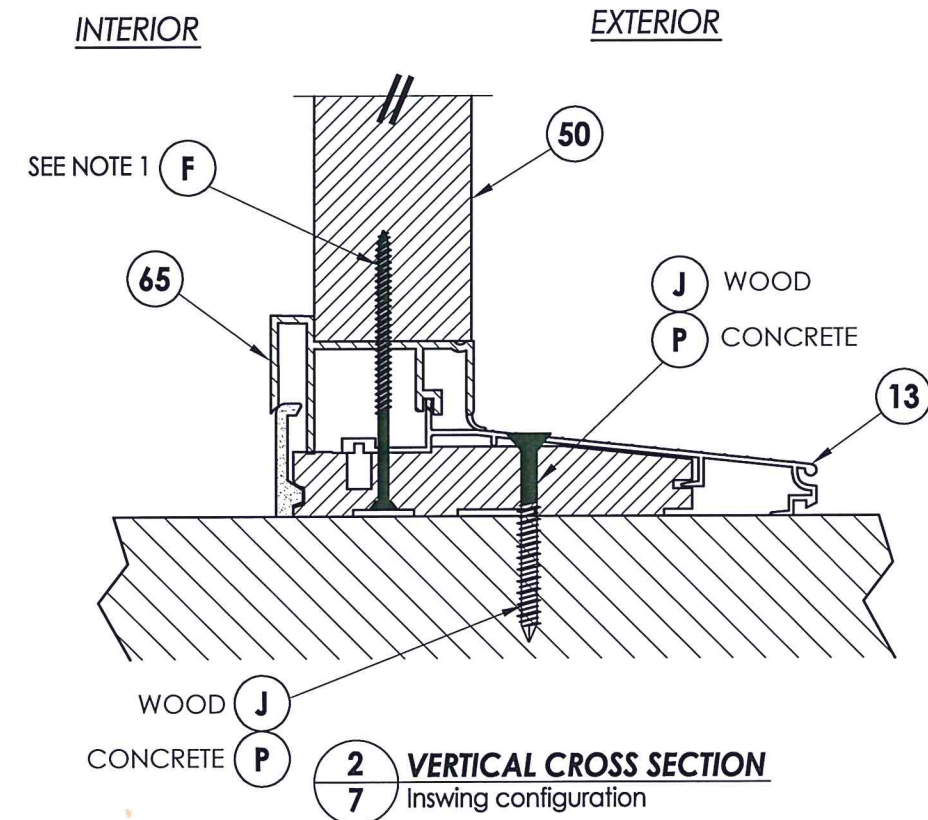
PRODUCT: THERMA-TRU STEEL DOOR
 PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

NO.	DATE	DESCRIPTION	BY
1	4/27/20	UPDATE TO 2018 IBC/IRC CODE	LFS

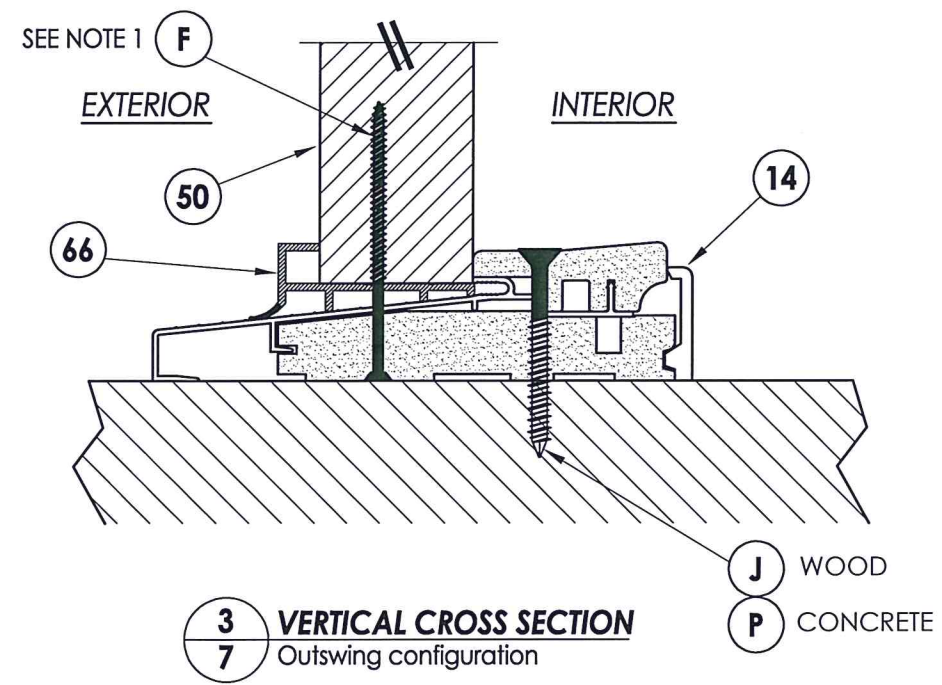
DATE: 08/16/12
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: TX-4229
 SHEET 6 OF 10



1 VERTICAL CROSS SECTION
 7 Inswing shown - Outswing also approved



2 VERTICAL CROSS SECTION
 7 Inswing configuration



3 VERTICAL CROSS SECTION
 7 Outswing configuration

Note:
 1. Sidelite assembly screws located 3" from each end (2 total).



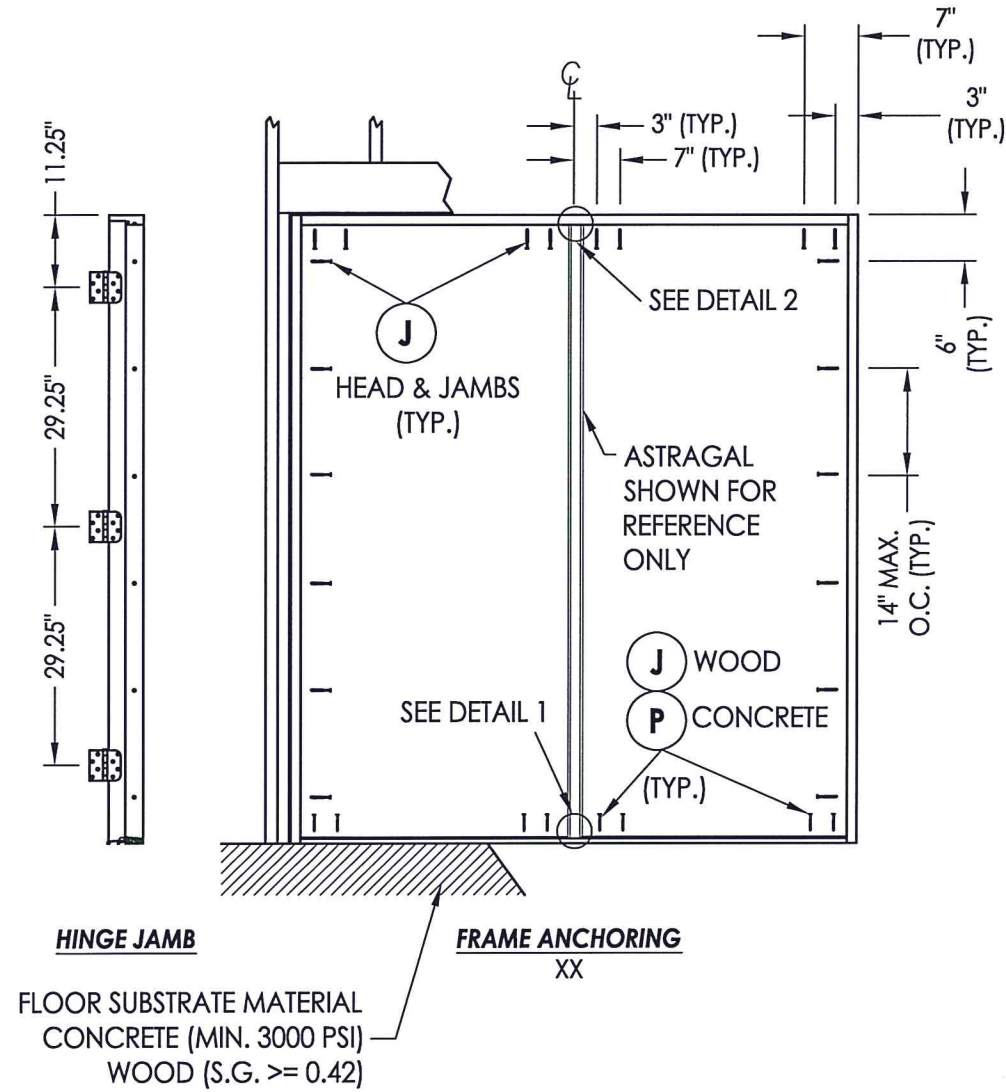
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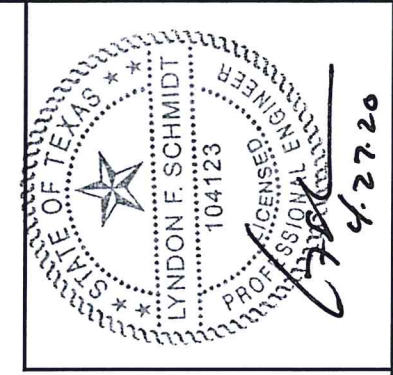
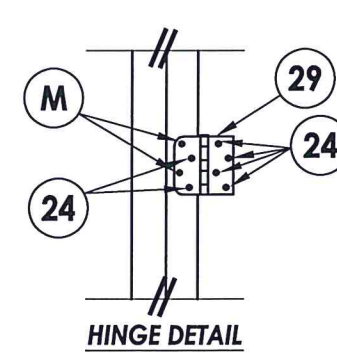
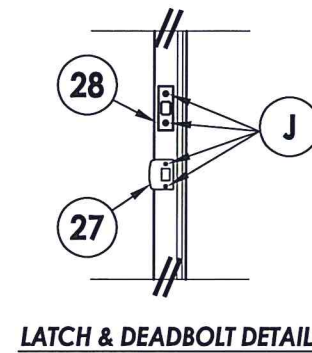
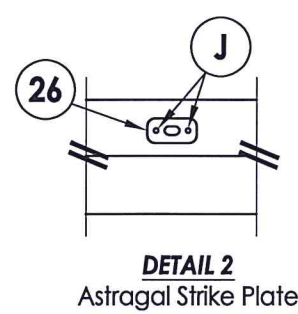
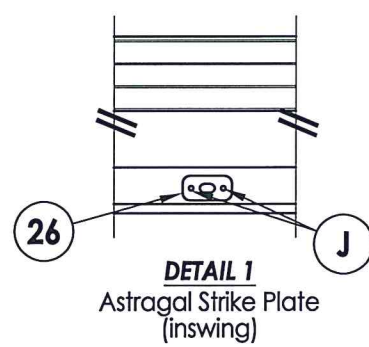
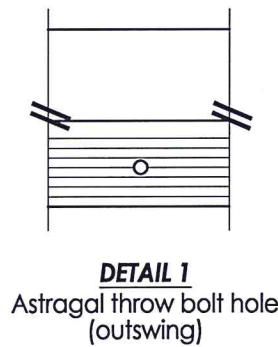
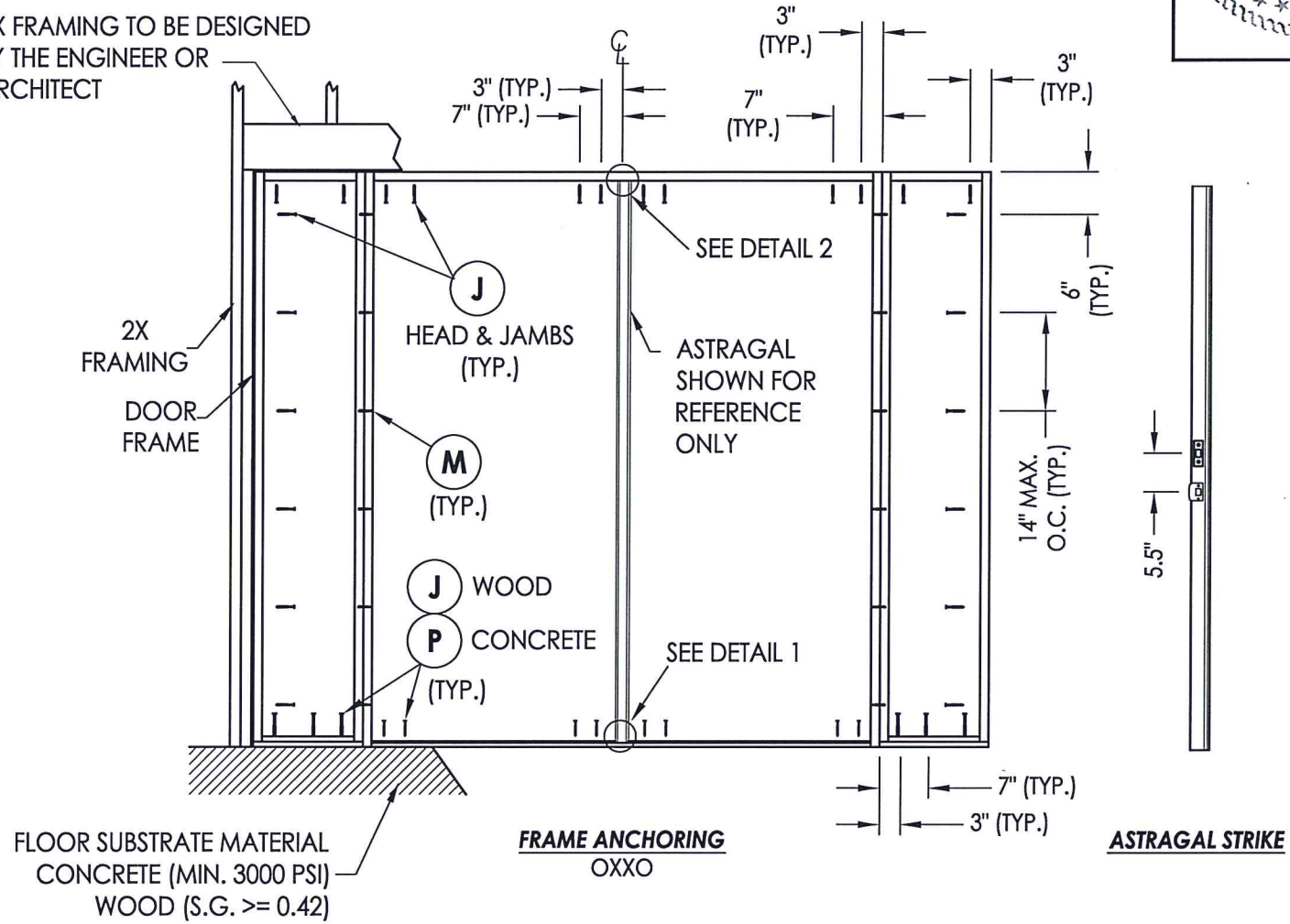
PRODUCT:	THERMA-TRU STEEL DOOR
PART OR ASSEMBLY:	VERTICAL CROSS SECTIONS

NO.	DATE	DESCRIPTION	LFS	BY
1	4/27/20	UPDATE TO 2018 IBC/IRC CODE		

DATE:	08/16/12
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4229
SHEET	7 OF 10



2X FRAMING TO BE DESIGNED BY THE ENGINEER OR ARCHITECT



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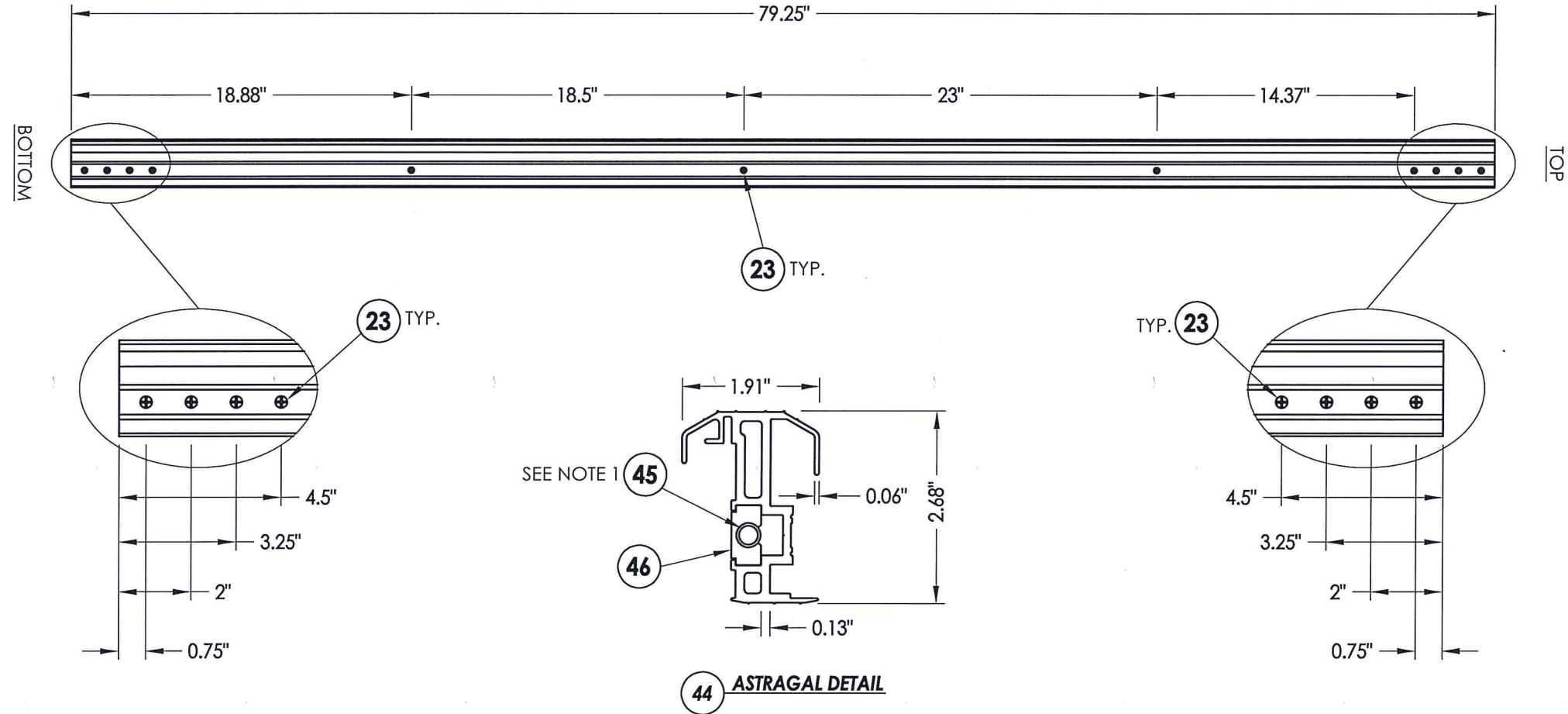
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PRODUCT:	Therma-Tru STEEL DOOR
PART OR ASSEMBLY:	FRAME ANCHORING

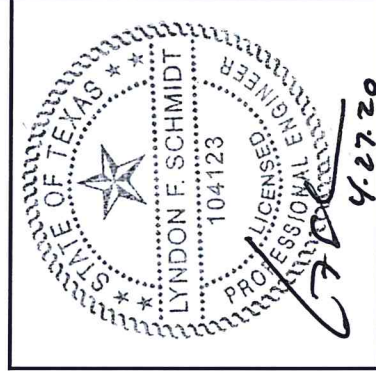
NO.	DATE	DESCRIPTION	BY
1	4/27/20	UPDATE TO 2018 IBC/IRC CODE	LFS

DATE:	08/16/12
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4229
SHEET	8 OF 10



NOTE:

1. THE ASTRAGAL BOLT HAS A 3" THROW AT THE TOP AND AT THE BOTTOM.



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PRODUCT: THERMA-TRU STEEL DOOR

PART OR ASSEMBLY: ASTRAGAL DETAILS

NO.	DATE	DESCRIPTION	LFS	BY
1	4/27/20	UPDATE TO 2018 IBC/IRC CODE	LFS	BY

DATE: 08/16/12

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4229

SHEET 9 OF 10

R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 603 - 68 Opaque Profiles Steel Imp IS - OS Sgls Dbls w-wo Non-imp SLIC - Drawings\TX-4228-29.dwg, 10.2

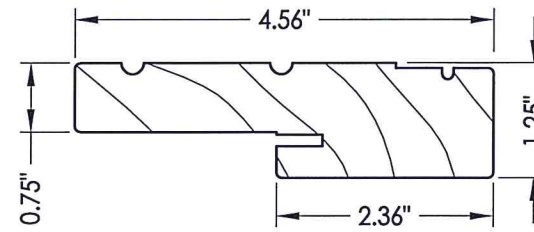
BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
F	#10 X 3" PFH WOOD SCREW	STEEL
J	#10 X 2-1/2" PFH WOOD SCREW	STEEL
M	#10 X 2" PFH WOOD SCREW	STEEL
P	1/4" PFH ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.)	STEEL
1	JAMB - FINGER JOINTED PINE	WOOD
7	WEATHERSTRIP (Long Reach by Therma-Tru)	FOAM
8	SWEEP	VINYL
9	WEATHERSTRIP (Medium Reach by Therma-Tru)	FOAM
13	INSWING THRESHOLD	ALUM/COMP
14	OUTSWING THRESHOLD	ALUM/COMP
23	#10 X 1-1/2" PANHEAD SMS	STEEL
24	#10 x 1" PFH WOOD SCREW	STEEL
26	ASTRAGAL STRIKE PLATE	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4" X 4" HINGE	STEEL
40	DOOR PANEL	-
44	HURRICANE ASTRAGAL	-
45	ASTRAGAL FLUSH BOLT	-
46	ASTRAGAL FLUSH BOLT RETAINER	-
50	SIDELITE PANEL	-
65	INSWING SIDELITE ADAPTER	PVC
66	OUTSWING SIDELITE ADAPTER	PVC

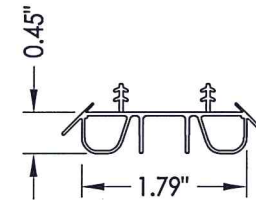
CONCRETE ANCHOR NOTES:

1. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
2. Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.
3. Concrete anchor table:

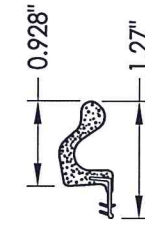
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	3"
ELCO ULTRACON®	1/4"	1-3/4"	1"	3"



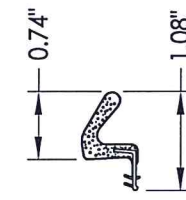
1 WOOD JAMB



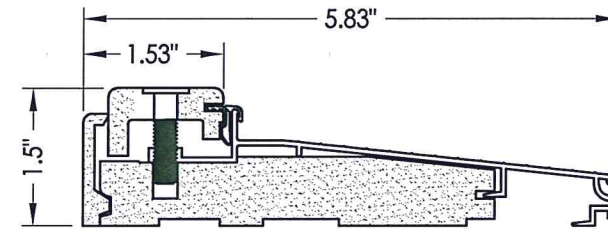
8 SWEEP



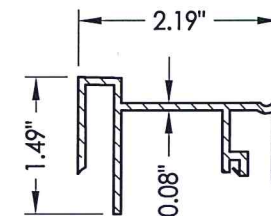
7 WEATHERSTRIP Long Reach



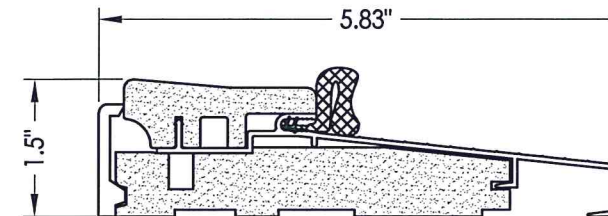
9 WEATHERSTRIP Medium Reach



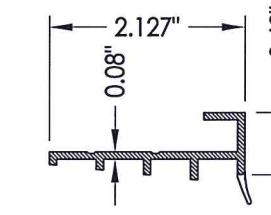
13 INSWING THRESHOLD



65 INSWING SIDELITE ADAPTER



14 OUTSWING THRESHOLD



66 OUTSWING SIDELITE ADAPTER



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PRODUCT:	Therma-Tru Steel Door
PART OR ASSEMBLY:	BILL OF MATERIALS & COMPONENTS
DATE:	08/16/12
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	TX-4229
SHEET	10 of 10