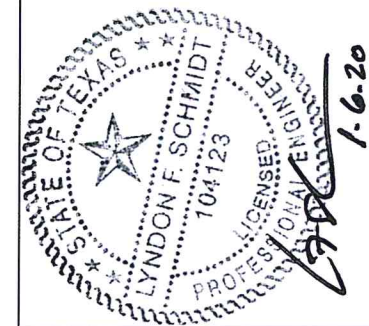
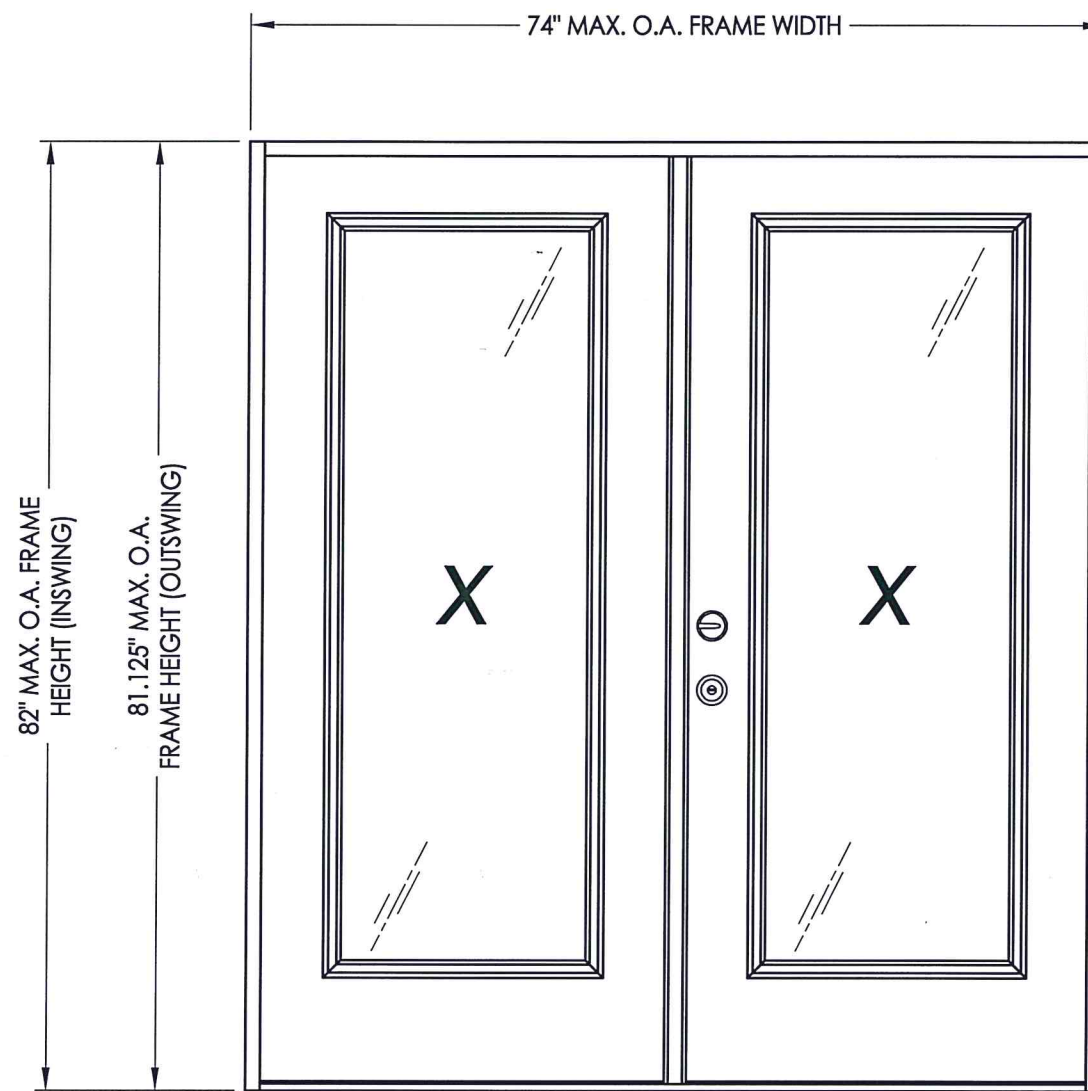




PERFORMANCE STANDARD

Glazed Fiberglass Door

"NON-IMPACT"
INSWING / OUTSWING



EVALUATED FOR USE IN THE STATE OF TEXAS

The Glazed 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 this product is 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	Astragal details (Ultimate Flip Lever)
3	Astragal details (Ultimate Multi-point)
4	Astragal details (Ultimate Hurricane)
5	Door panel details (lip lite insert glazing)
6	Horizontal & vertical cross sections
7	Vertical cross sections
8	Frame anchoring

CONFIG.	FRAME TYPE	MODEL	DESIGN PRESSURE (PSF) ULTIMATE HURRICANE ASTRAGAL		DESIGN PRESSURE (PSF) ULTIMATE MULTIPOINT ASTRAGAL		DESIGN PRESSURE (PSF) ULTIMATE FLIP LEVER ASTRAGAL	
			POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	PINE	INSWING	+50.0	-50.0	+45.0	-45.0	+55.0	-60.0
XX		OUTSWING	+45.0	-45.0	+45.0	-45.0	+45.0	-45.0
XX	"FusionFrame"	INSWING	+50.0	-50.0	+45.0	-45.0	+50.0	-50.0
XX		OUTSWING	+45.0	-45.0	+45.0	-45.0	+45.0	-45.0

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

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

PRODUCT: ENDURA

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

NO.	DATE	REVISIONS
5	9/16/19	ADD "FusionFrame" OPTION & UPDATE TO 2018 IRC/IBC CODE
4	11/07/18	REVISED TO INSERT GLAZED ONLY
3	10/25/16	ADDED THRESHOLDS
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE
1	11/26/13	ADDED ARTICULATING SILL

DATE: 7/03/12

SCALE: N.T.S.

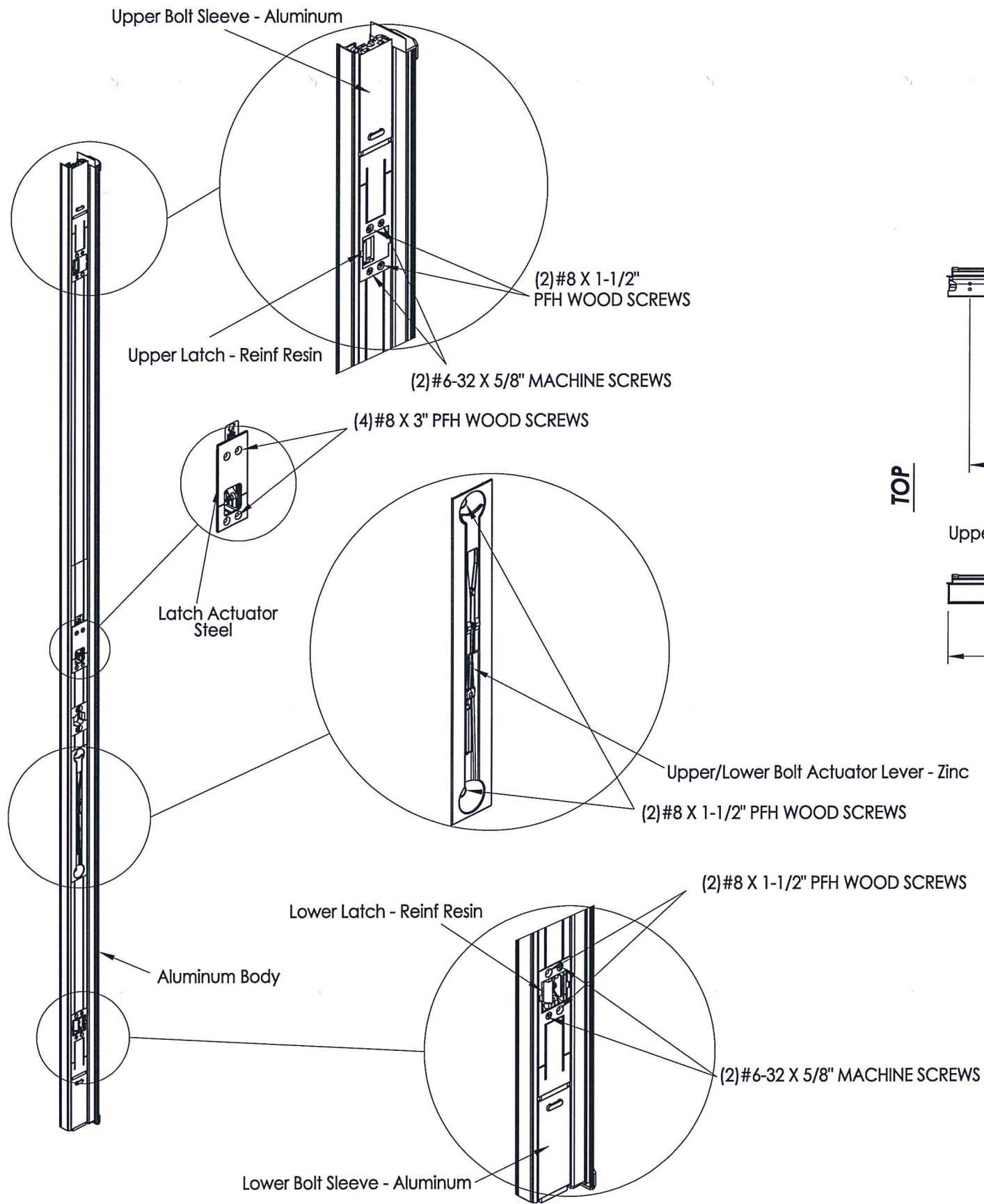
DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4164

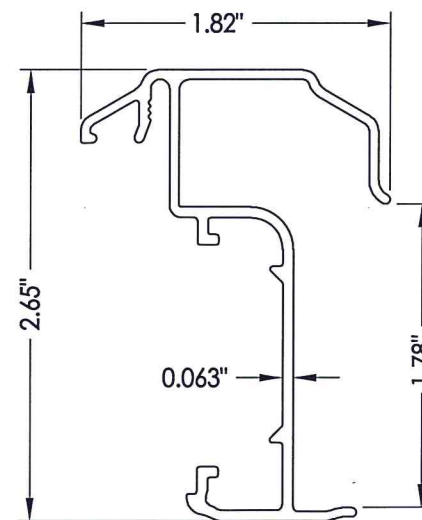
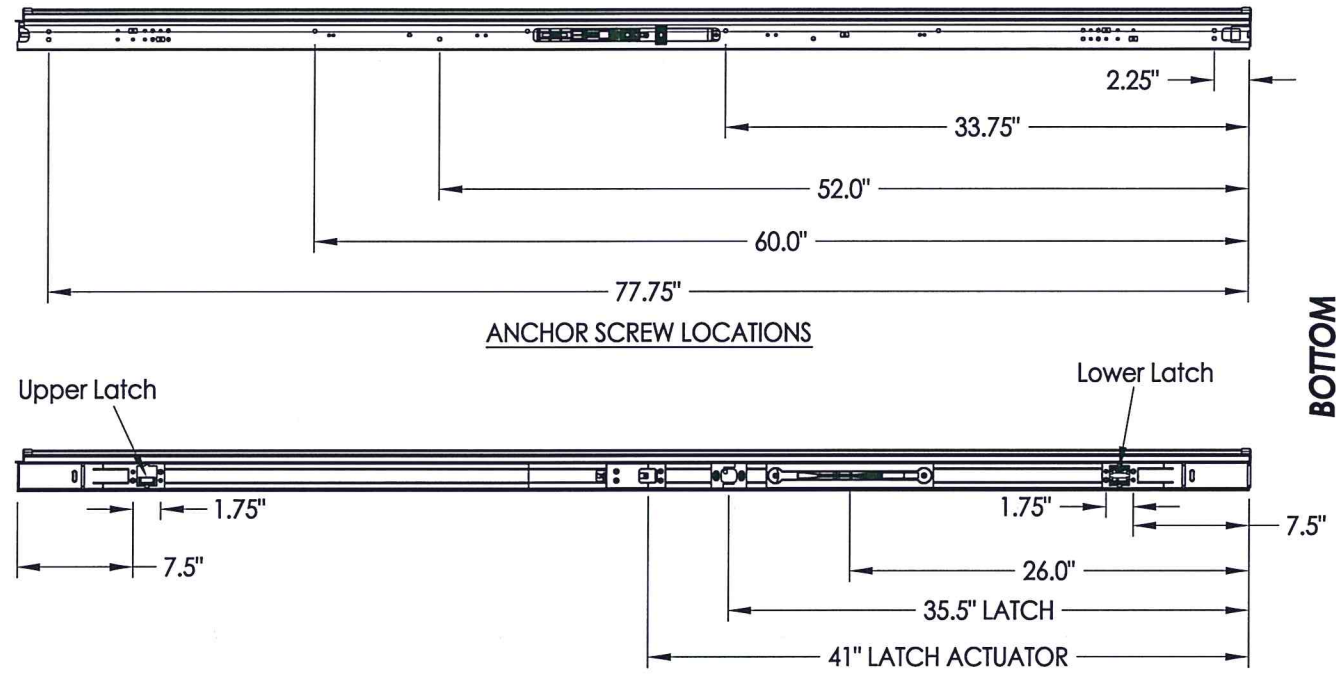
SHEET 1 OF 8

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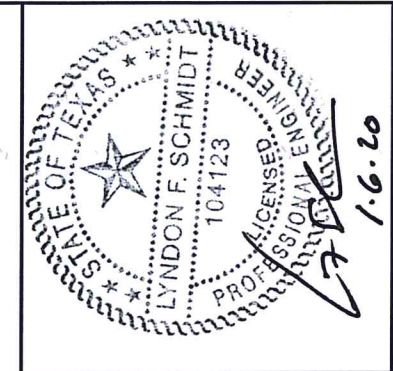
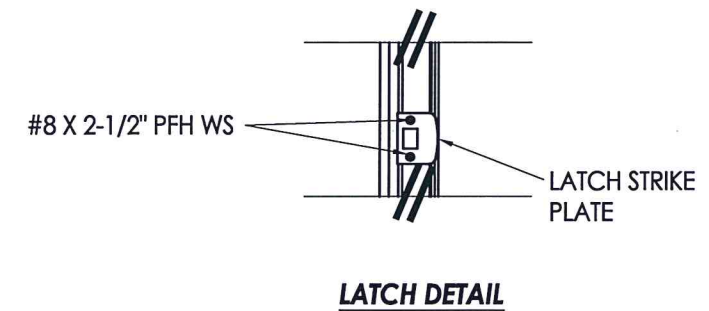


ULTIMATE MULTIPOINT ASTRAGAL

TOP



Astragal Section



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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE MULTI-POINT)

NO.	DATE	REVISIONS
5	9/16/19	ADD "FusionFrame" OPTION & UPDATE TO 2018 IBC/IRC CODE
4	11/07/18	REVISED TO INSERT GLAZED ONLY
3	10/25/16	ADDED THRESHOLDS
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE
1	11/26/13	ADDED ARTICULATING SILL

DATE: 7/03/12

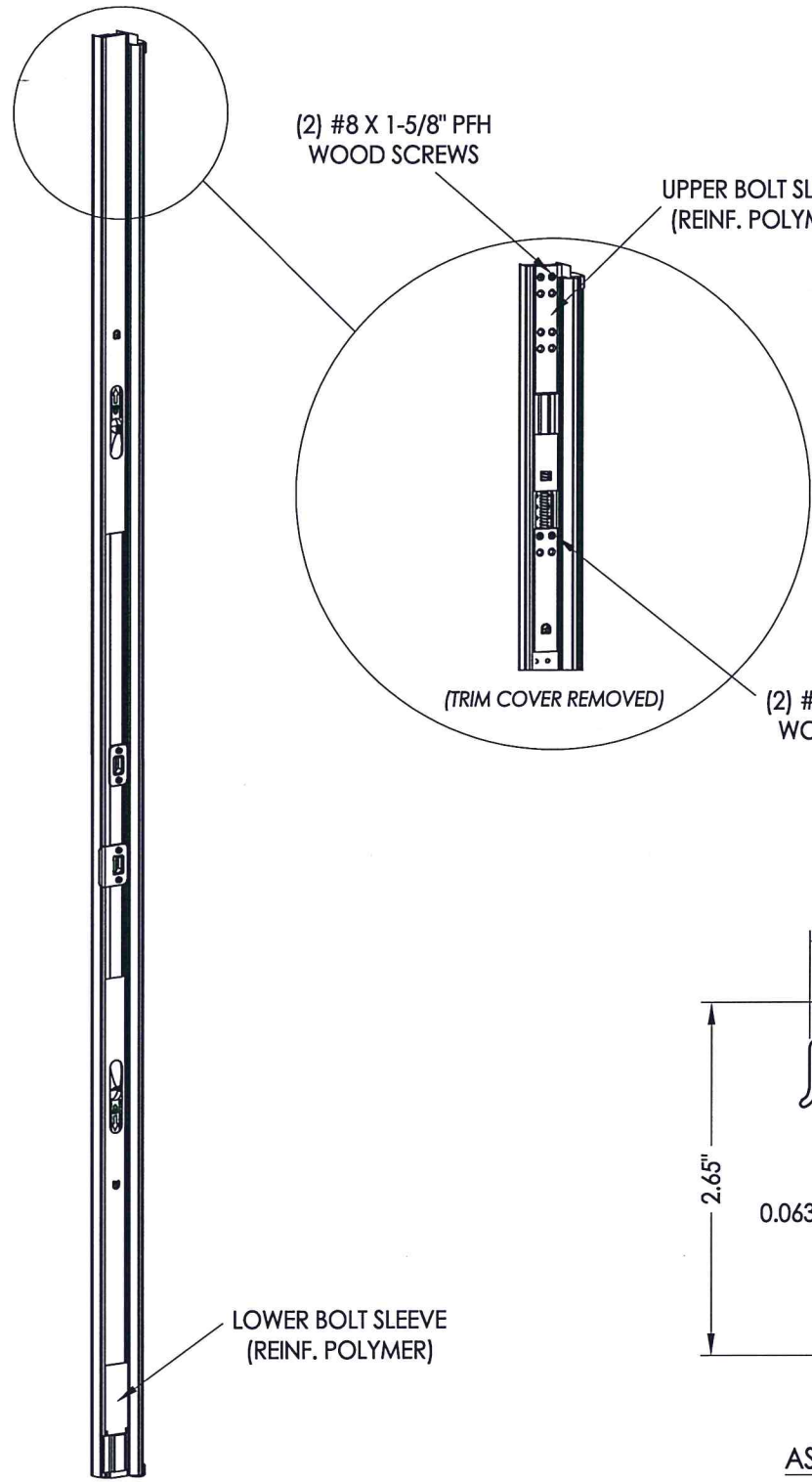
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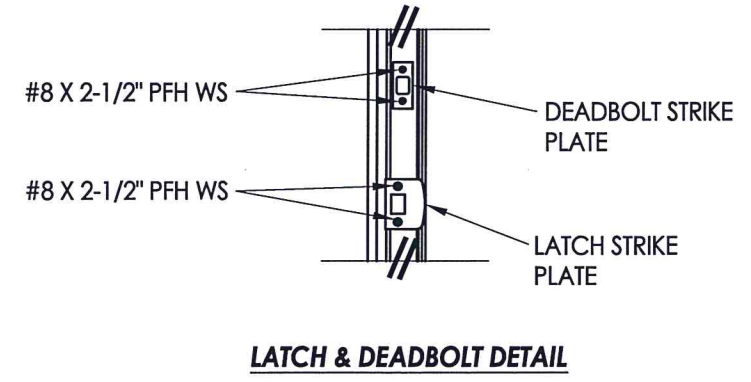
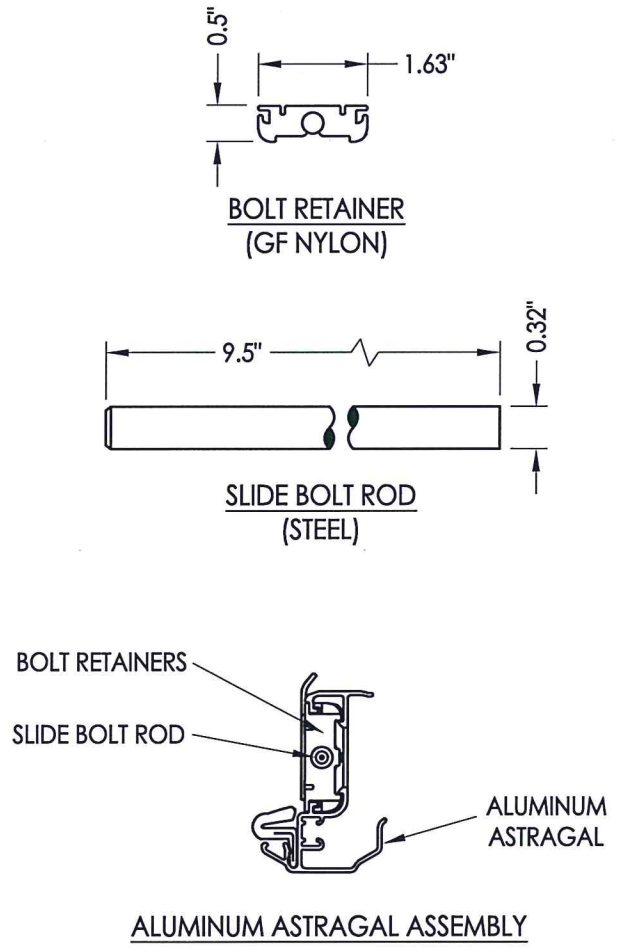
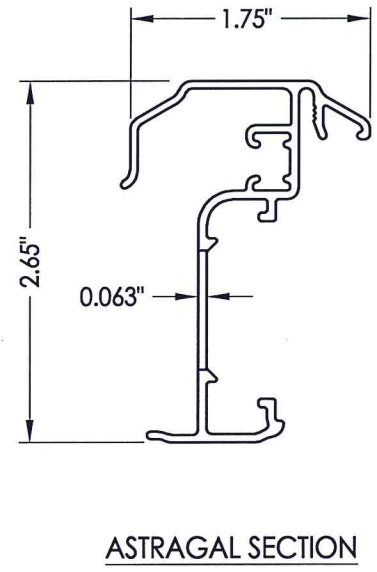
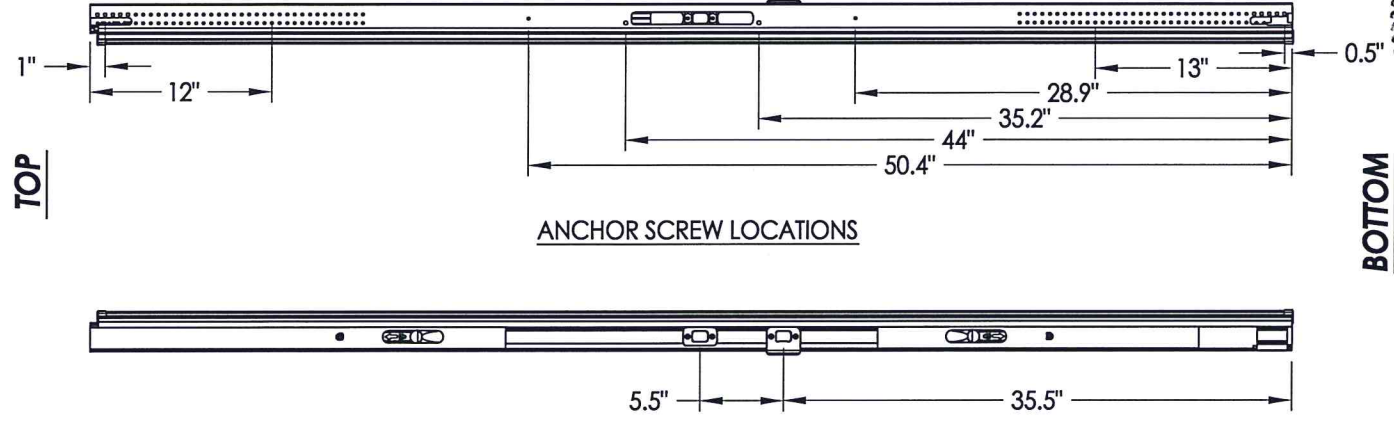
CHK. BY: LFS

DRAWING NO.: TX-4164

SHEET 3 OF 8



ULTIMATE HURRICANE ASTRAGAL



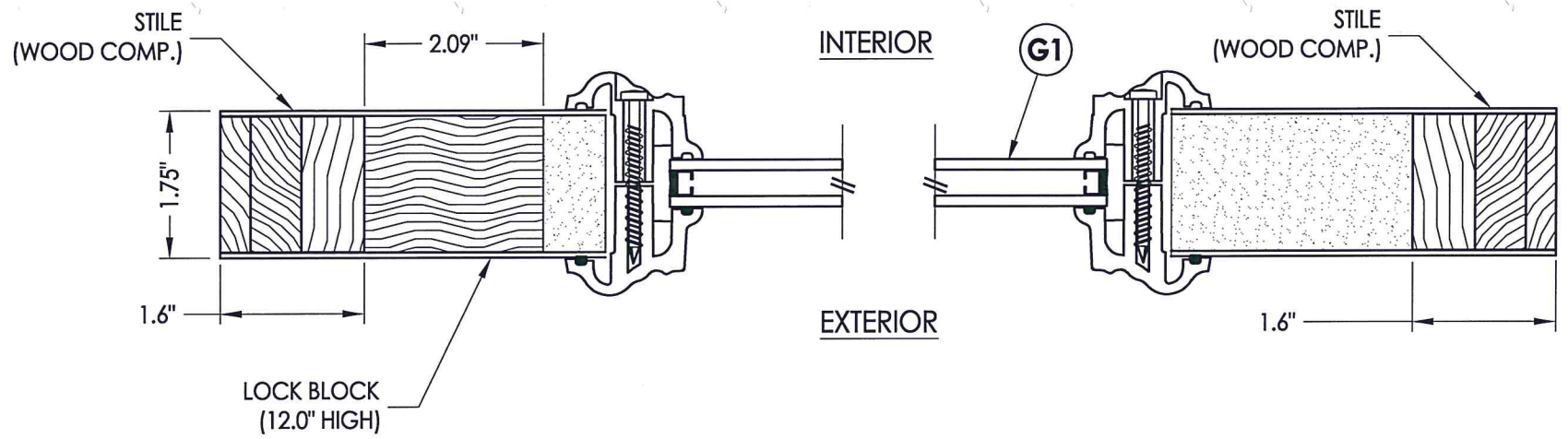
Documents Prepared By: Lyndon F. Schmidt, P.E.
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 P.O. Box 230 Valrico FL, 33595
 Phone No.: 813.659.9197

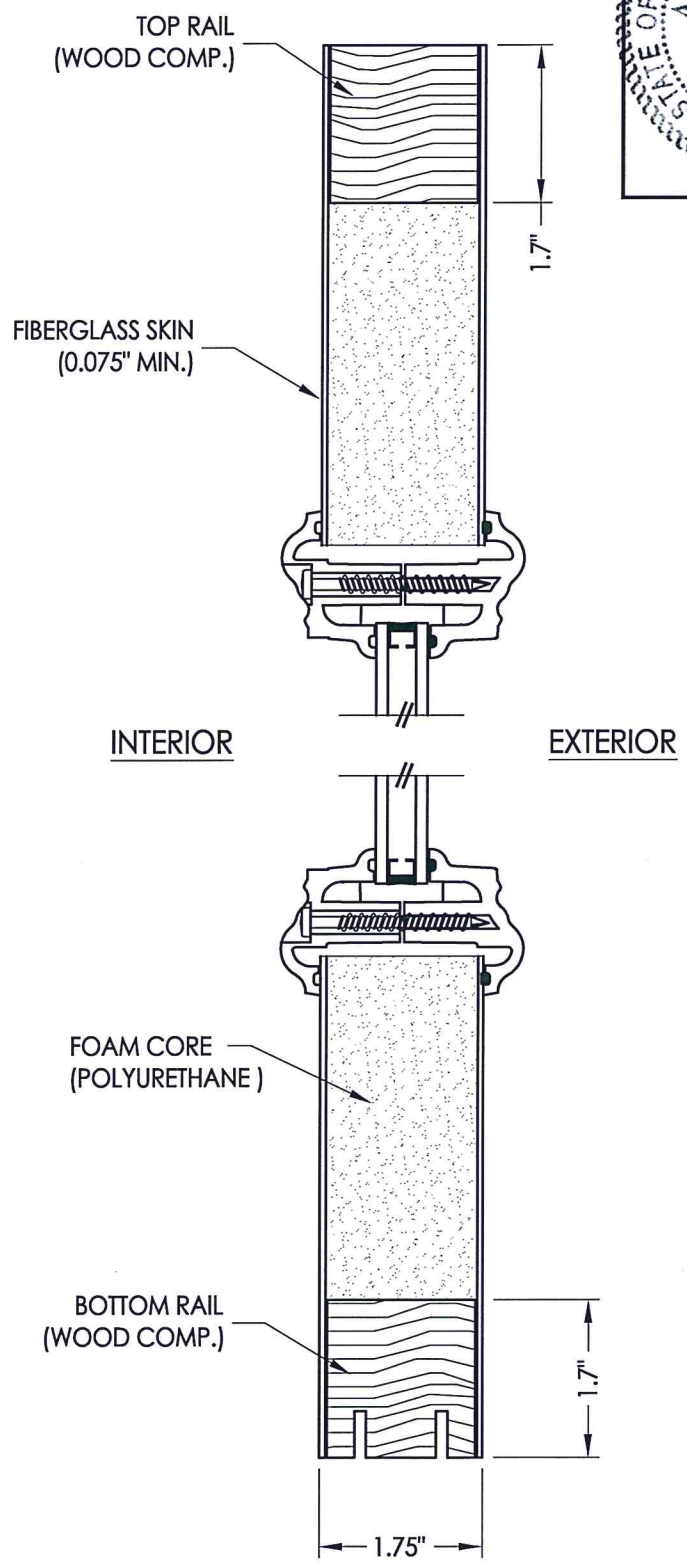
TEXAS BOARD OF PROFESSIONAL ENGINEERS
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA	
PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE HURRICANE)	
5	9/16/19 ADD "FusionFrame" OPTION & UPDATE TO 2018 IBC/IRC CODE
4	11/07/18 REVISED TO INSERT GLAZED ONLY
3	10/25/16 ADDED THRESHOLDS
2	5/5/15 ADD NEW ASTRAGAL PIN CAPTURE
1	11/26/13 ADDED ARTICULATING SILL
NO.	DATE
REVISIONS	
DATE: 7/03/12	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: TX-4164	
SHEET 4 OF 8	

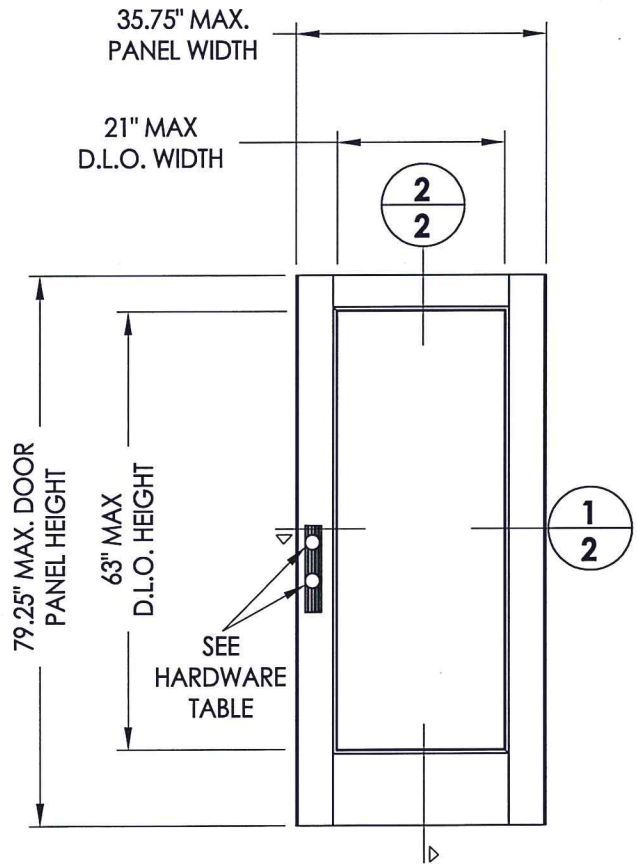
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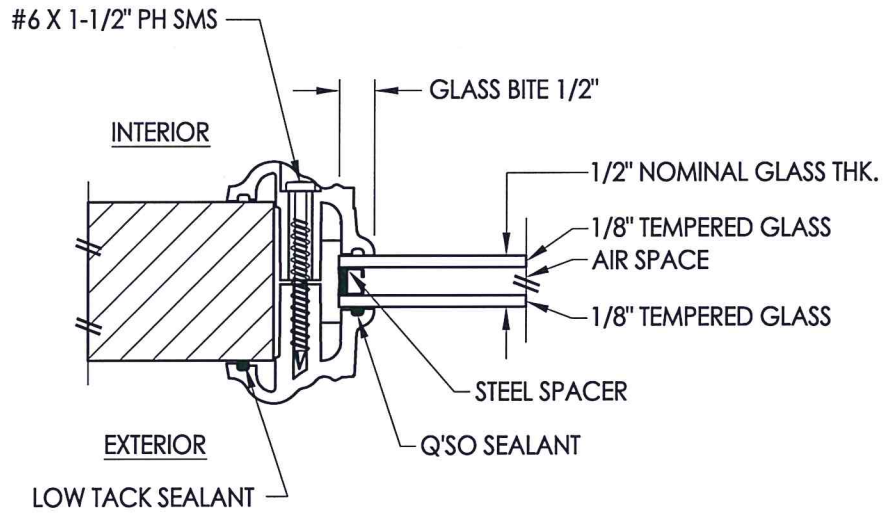
1
2 HORIZONTAL CROSS SECTION



2
2 VERTICAL CROSS SECTION

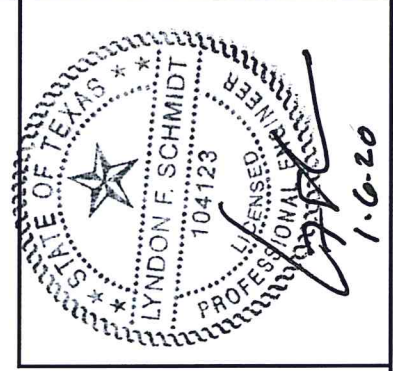


MASONITE
Insert glazed
(fiberglass)



G1 GLAZING DETAIL
Lip Lite Insert Glazing

HARDWARE TABLE	
MANUFACTURER	MODEL
KWIKSET	LATCH: KWIKSET SIGNATURE SERIES (991) DEADBOLT: KWIKSET SIGNATURE SERIES (980/985)



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

PRODUCT: ENDURA

PART OR ASSEMBLY: DOOR PANEL DETAILS (LIP LITE INSERT GLAZING)

NO.	DATE	REVISIONS
5	9/16/19	ADD "FusionFrame" OPTION & UPDATE TO 2018 IBC/IRC CODE
4	11/07/18	REVISED TO INSERT GLAZED ONLY
3	10/25/16	ADDED THRESHOLDS
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE
1	11/26/13	ADDED ARTICULATING SILL
		BY

DATE: 7/03/12

SCALE: N.T.S.

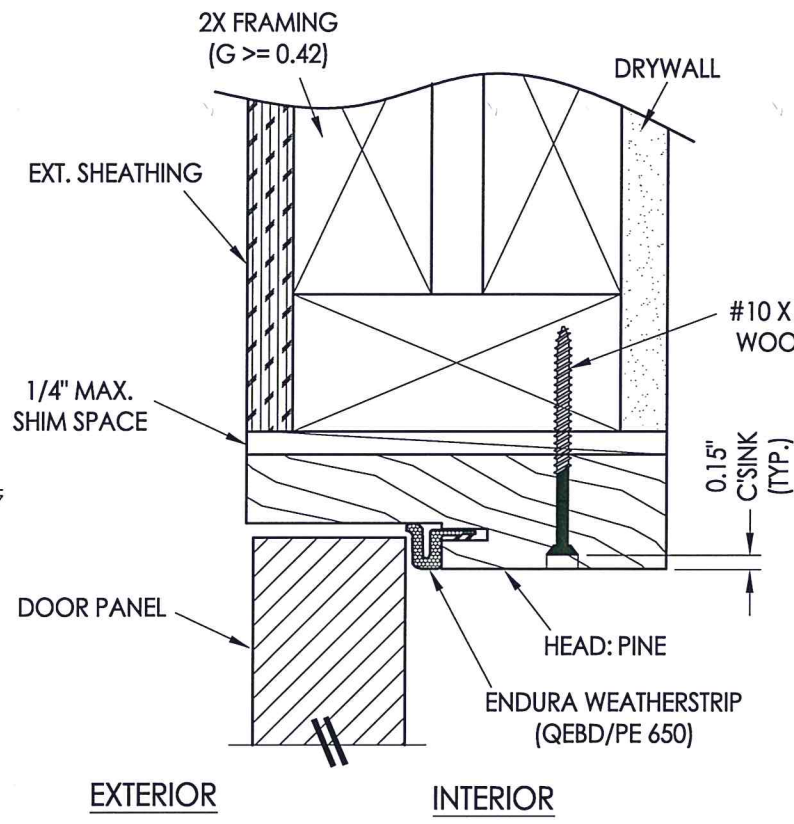
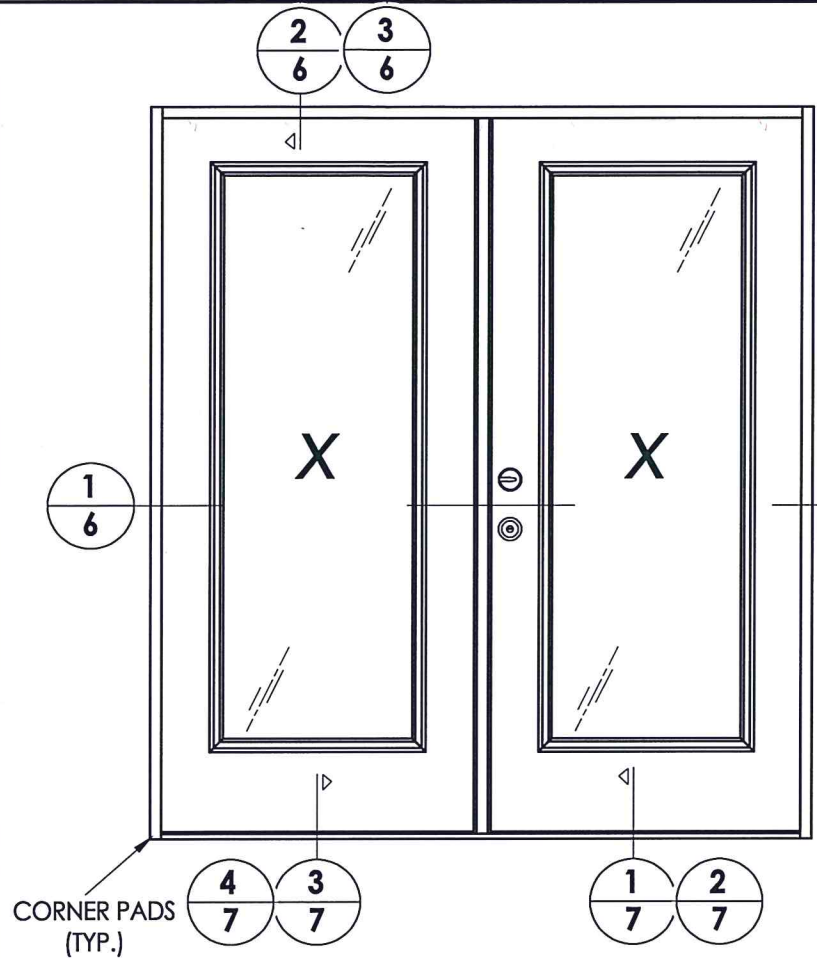
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CHK. BY: LFS

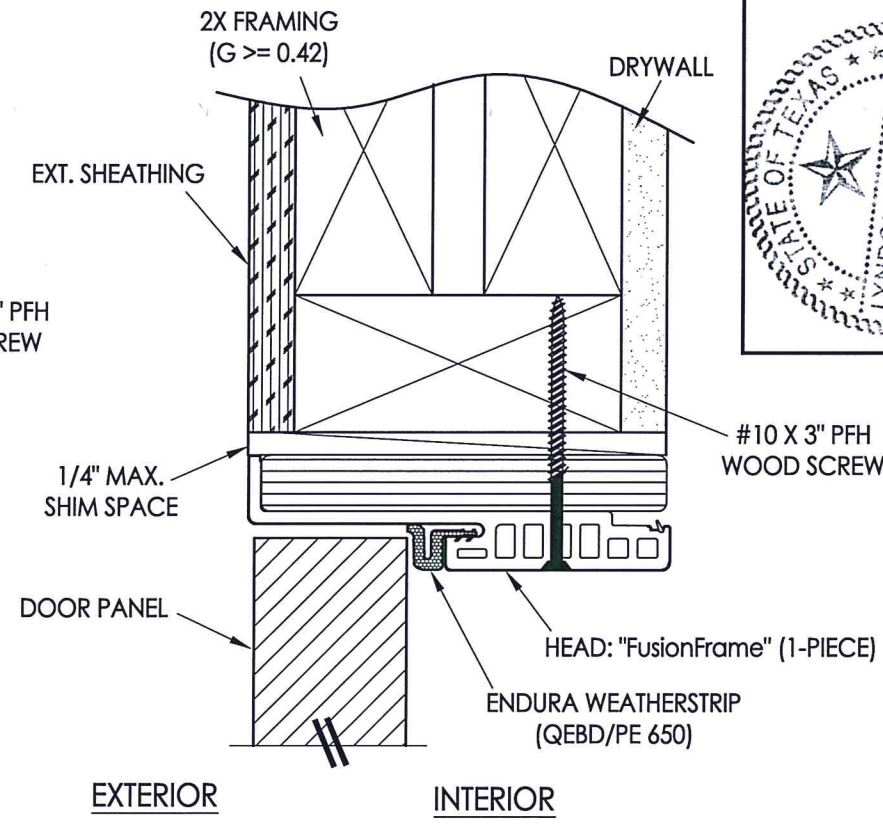
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SHEET 5 OF 8

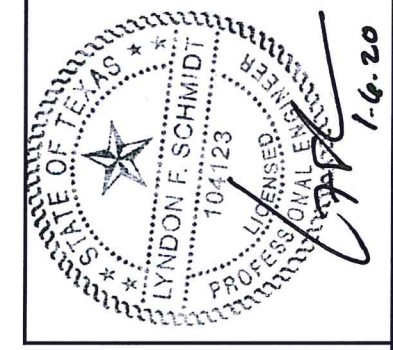
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2 VERTICAL CROSS SECTION
 6 Outswing shown - inswing also approved



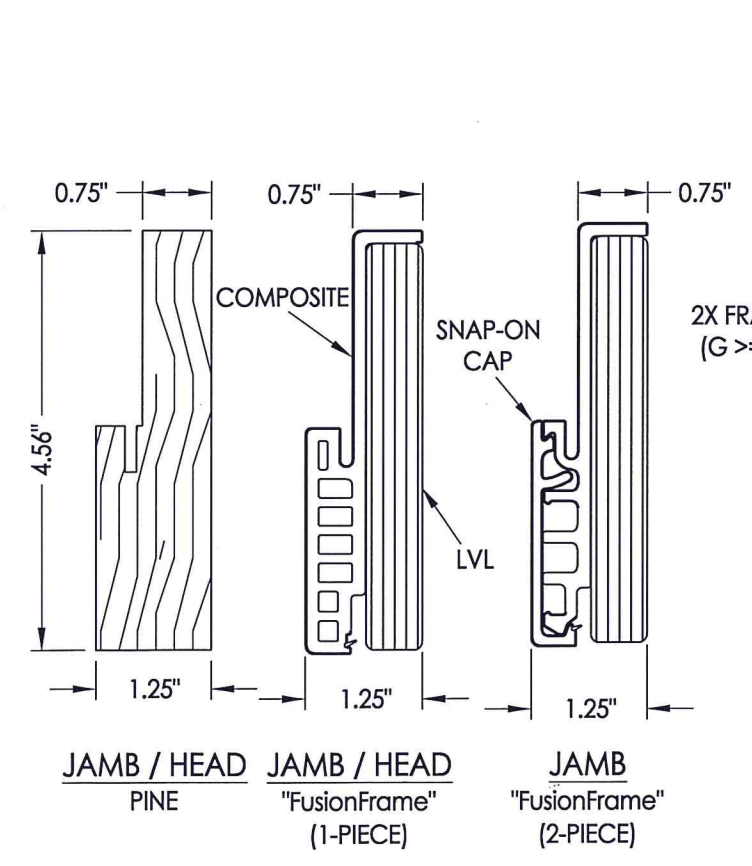
3 VERTICAL CROSS SECTION
 6 Outswing shown - inswing also approved



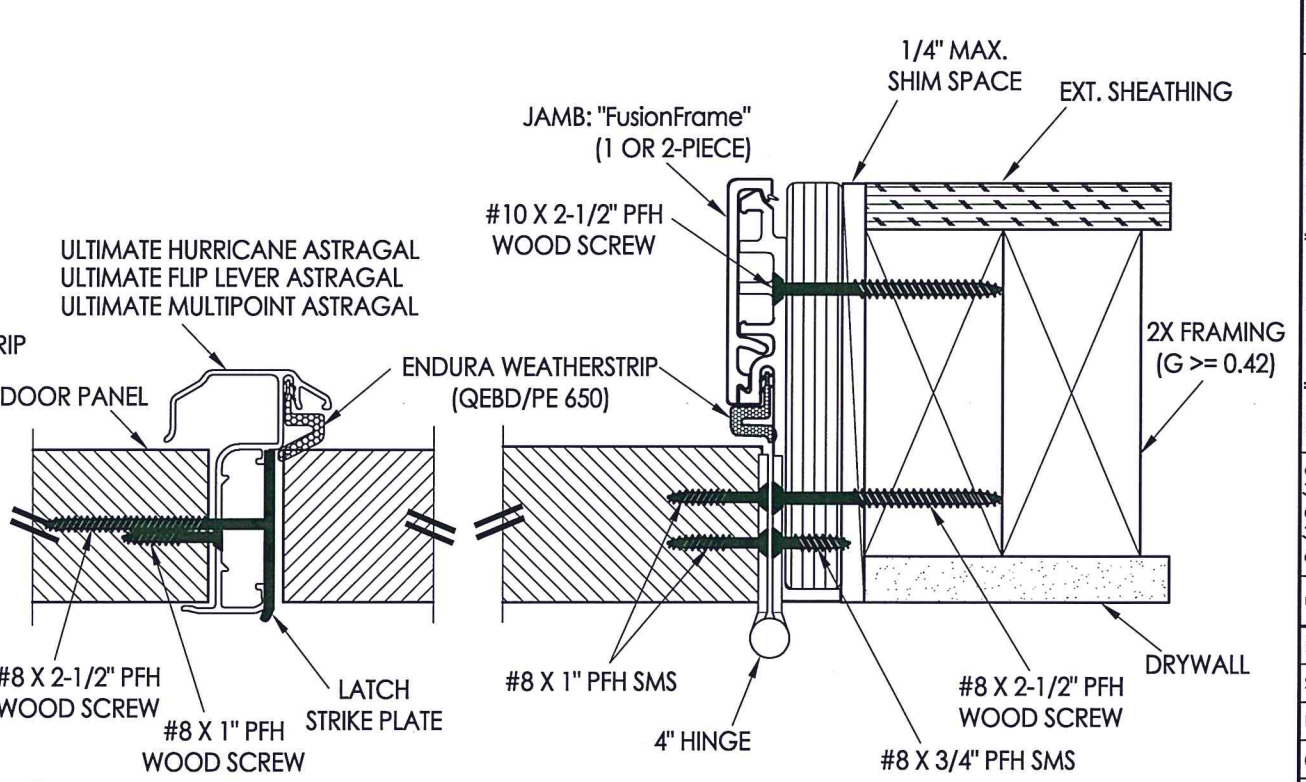
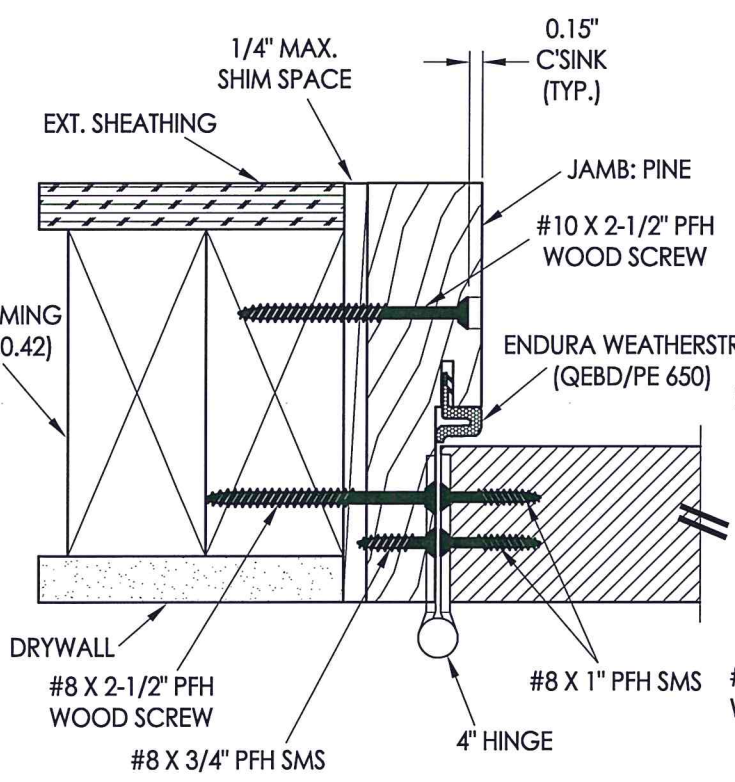
Documents Prepared By: Lyndon F. Schmidt, P.E.
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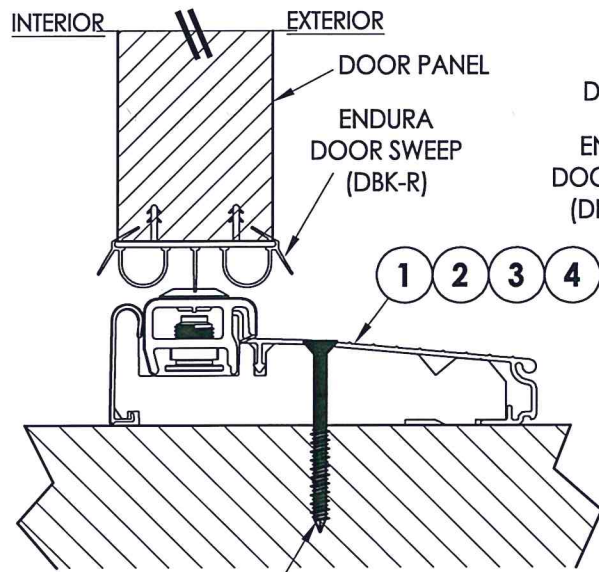
1 HORIZONTAL CROSS SECTION
 6 Inswing shown - Outswing also approved



PRODUCT:		ENDURA	
PART OR ASSEMBLY:		HORIZONTAL & VERTICAL CROSS SECTIONS	
LFS	DATE	LFS	BY
5	9/16/19	ADD "FusionFrame" OPTION & UPDATE TO 2018 IBC/IRC CODE	
4	11/07/18	REVISED TO INSERT GLAZED ONLY	
3	10/25/16	ADDED THRESHOLDS	
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE	
1	11/26/13	ADDED ARTICULATING SILL	
NO.	DATE	REVISIONS	
DATE: 7/03/12			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4164			
SHEET 6 OF 8			

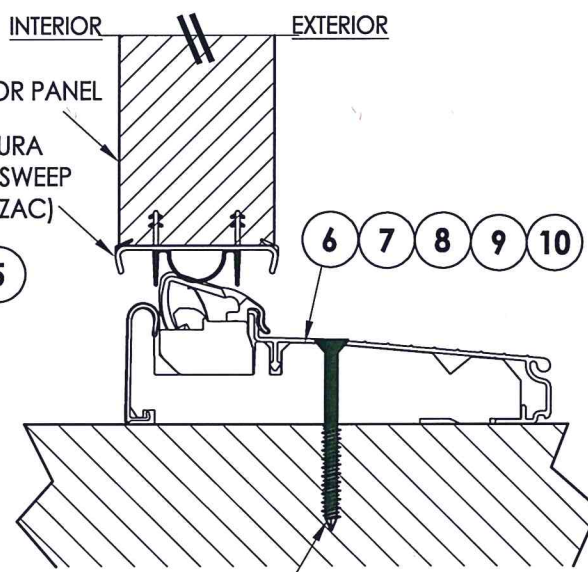
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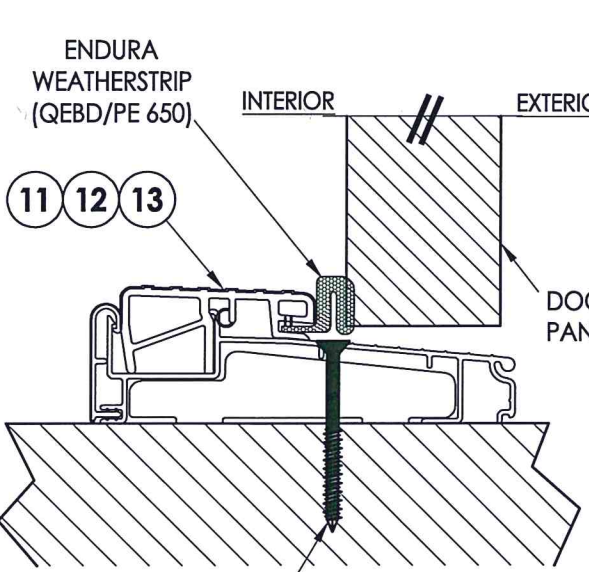
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW

1 VERTICAL CROSS SECTION
7 Inswing Adjustable Threshold



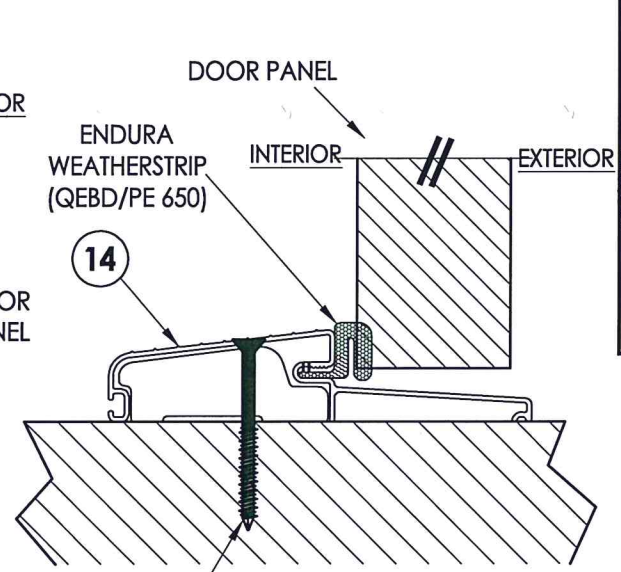
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW

2 VERTICAL CROSS SECTION
7 Inswing Articulating Threshold w/ Pin Capture



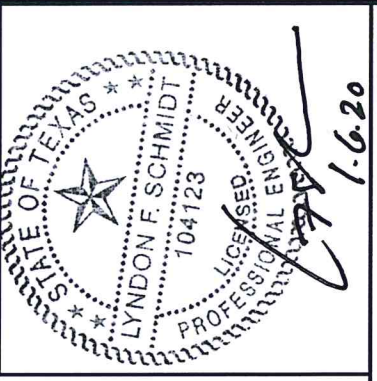
#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW

3 VERTICAL CROSS SECTION
7 Outswing Bump Threshold



#10 X 2.5" PFH WOOD SCREW OR
1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW

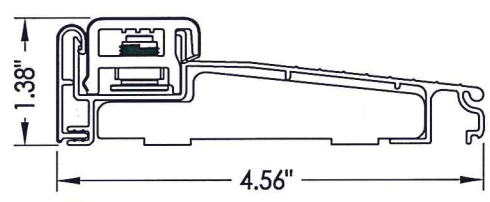
4 VERTICAL CROSS SECTION
7 Outswing Bump Threshold



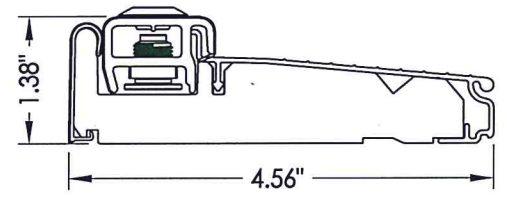
Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

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Phone No.: 813.659.9197

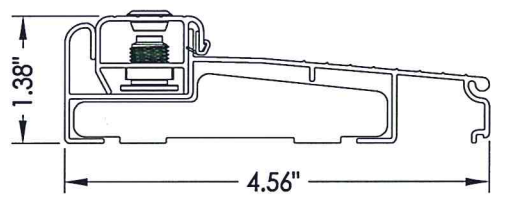
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852



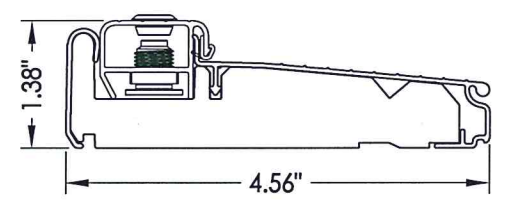
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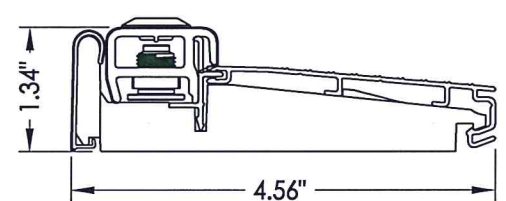
2 INSWING ADJUSTABLE THRESHOLD
ZAI4565FN
MAX. DESIGN PRESSURE = ±45 PSF



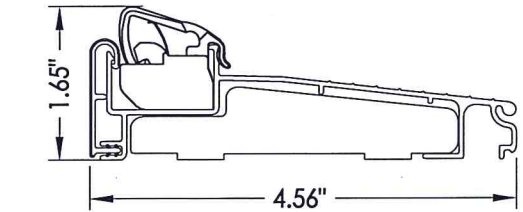
3 INSWING ADJUSTABLE THRESHOLD
ZAILAA4565



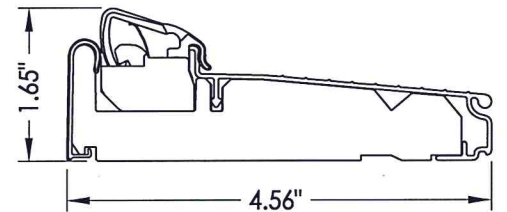
4 INSWING ADJUSTABLE THRESHOLD
ZAIAA4565FN
MAX. DESIGN PRESSURE = ±45 PSF



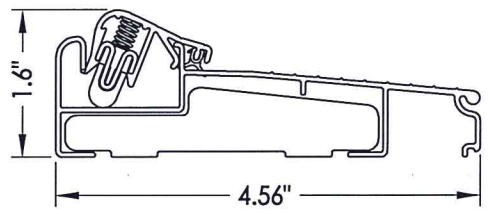
5 INSWING ADJUSTABLE THRESHOLD
ZAI4565RDS
MAX. DESIGN PRESSURE = ±50 PSF



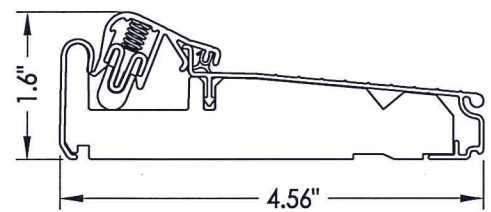
6 INSWING ARTICULATING THRESHOLD
ZACL4565
MAX. DESIGN PRESSURE = ±45 PSF



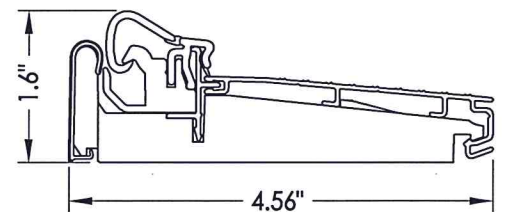
7 INSWING ARTICULATING THRESHOLD
ZAC4565FN
MAX. DESIGN PRESSURE = ±45 PSF



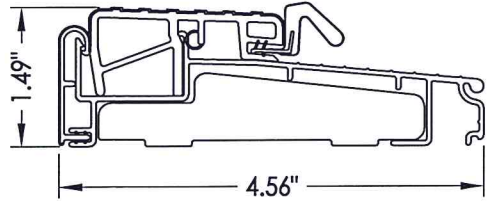
8 INSWING ARTICULATING THRESHOLD
ZACAA4565
MAX. DESIGN PRESSURE = ±45 PSF



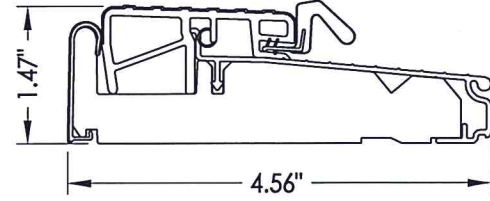
9 INSWING ARTICULATING THRESHOLD
ZACAA4565FN
MAX. DESIGN PRESSURE = ±45 PSF



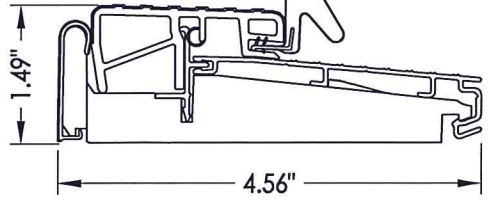
10 INSWING ARTICULATING THRESHOLD
ZAC4565RDS
MAX. DESIGN PRESSURE = ±45 PSF



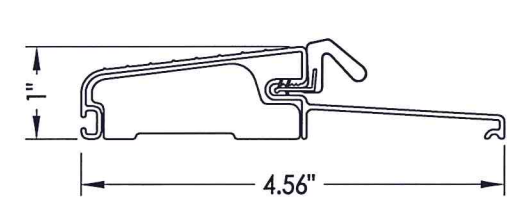
11 OUTSWING THRESHOLD
ZOBL4565



12 OUTSWING THRESHOLD
ZOB4565FN



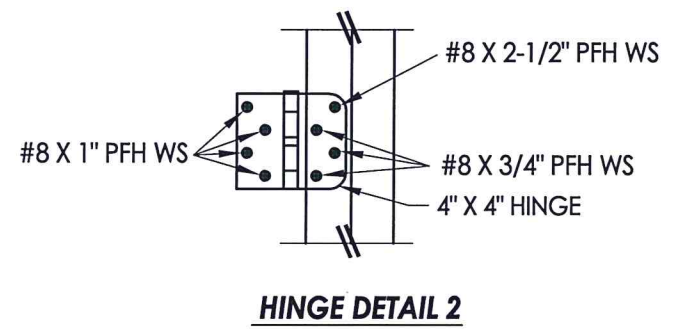
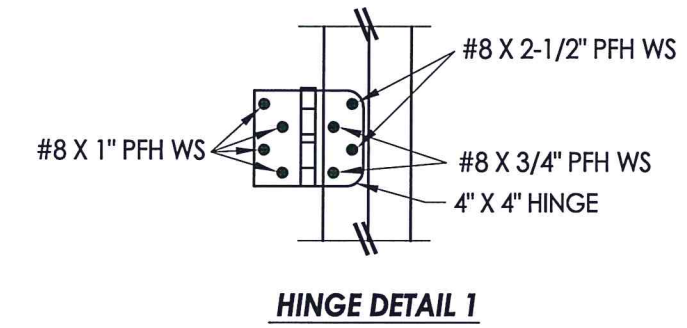
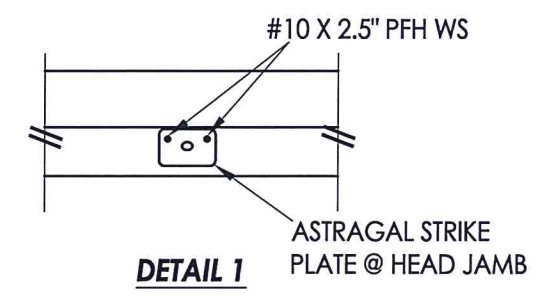
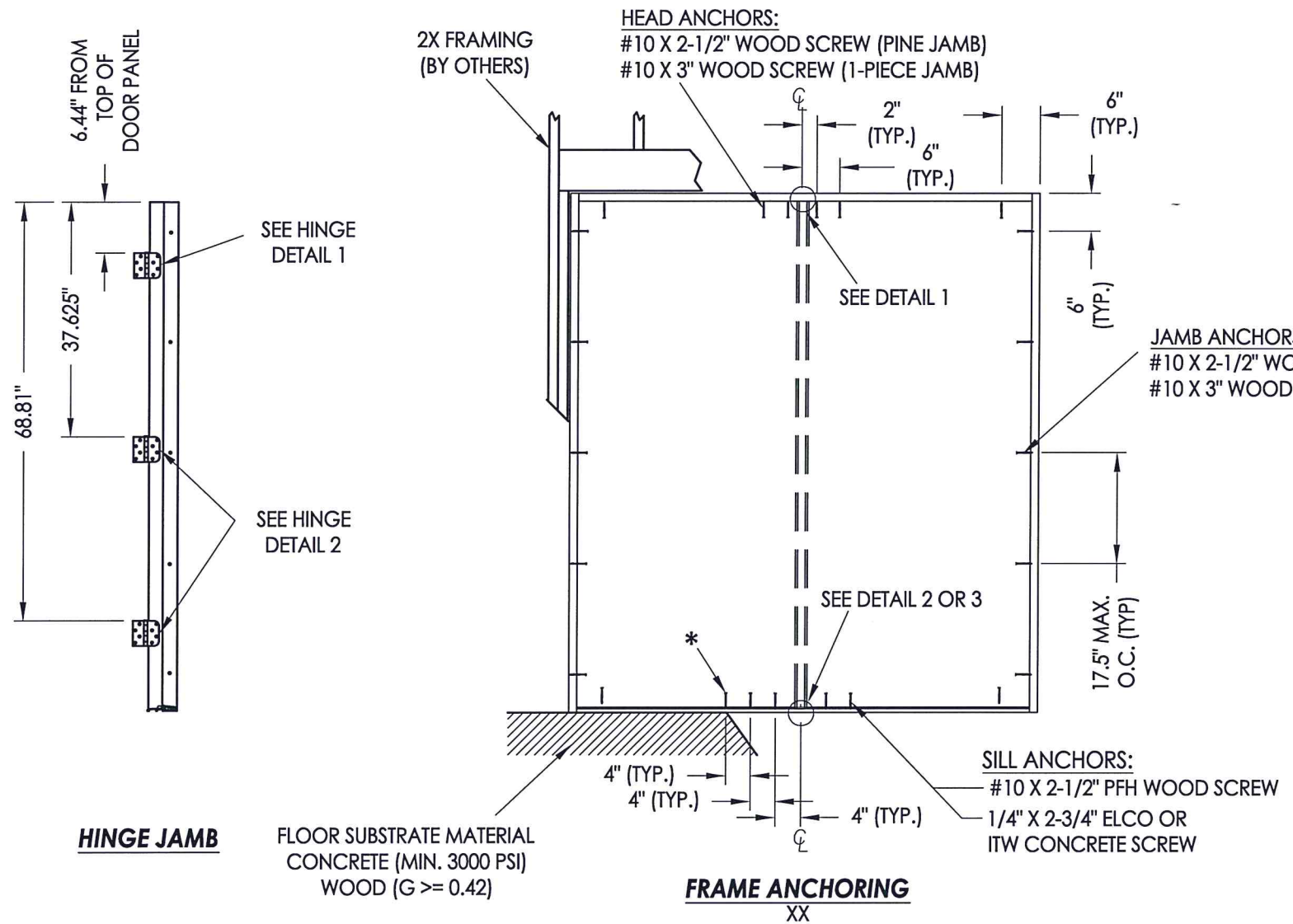
13 OUTSWING THRESHOLD
ZOB4565RDS



14 OUTSWING THRESHOLD
FOB4566

PRODUCT: ENDURA	
LFS	OPTION & CODE
LFS	REVISIONS
LFS	DATE
LFS	BY
DATE: 7/03/12	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: TX-4164	
SHEET 7 OF 8	

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* NOTE: THIS ANCHOR REQUIRED FOR D.P. > 45 PSF.

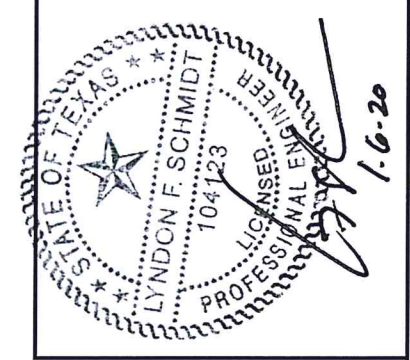
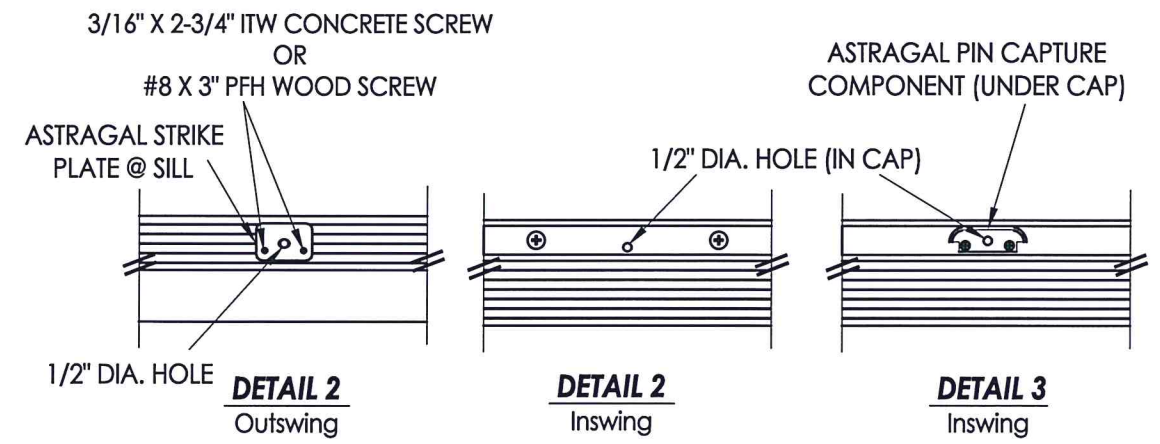
JAMB NOTES:
THE PINE OR "FusionFrame" 1-PIECE JAMB MAY BE INSTALLED @ THE HEAD OR SIDE JAMB.
THE FusionFrame" 2-PIECE JAMB MAY BE INSTALLED @ THE SIDE JAMBS ONLY.

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

WOOD SCREW INSTALLATION NOTES:

- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



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: ENDURA

PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	REVISIONS
5	9/16/19	ADD "FusionFrame" OPTION & UPDATE TO 2018 IBC/IRC CODE
4	11/07/18	REVISED TO INSERT GLAZED ONLY
3	10/25/16	ADDED THRESHOLDS
2	5/5/15	ADD NEW ASTRAGAL PIN CAPTURE
1	11/26/13	ADDED ARTICULATING SILL

DATE: 7/03/12

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4164

SHEET 8 OF 8