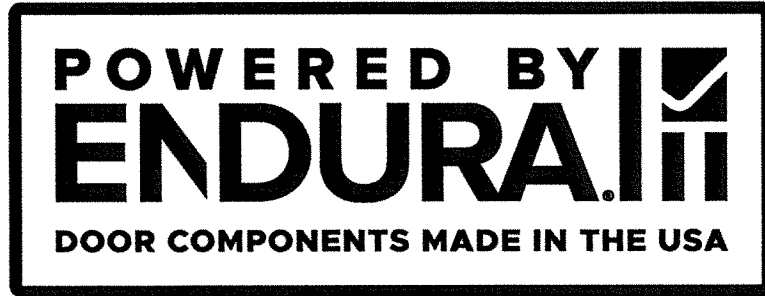


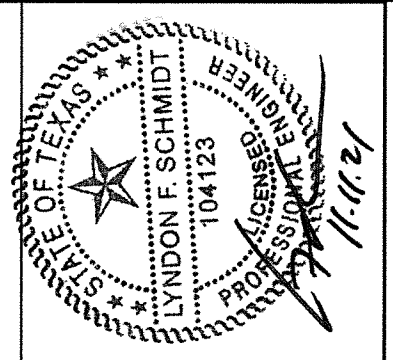
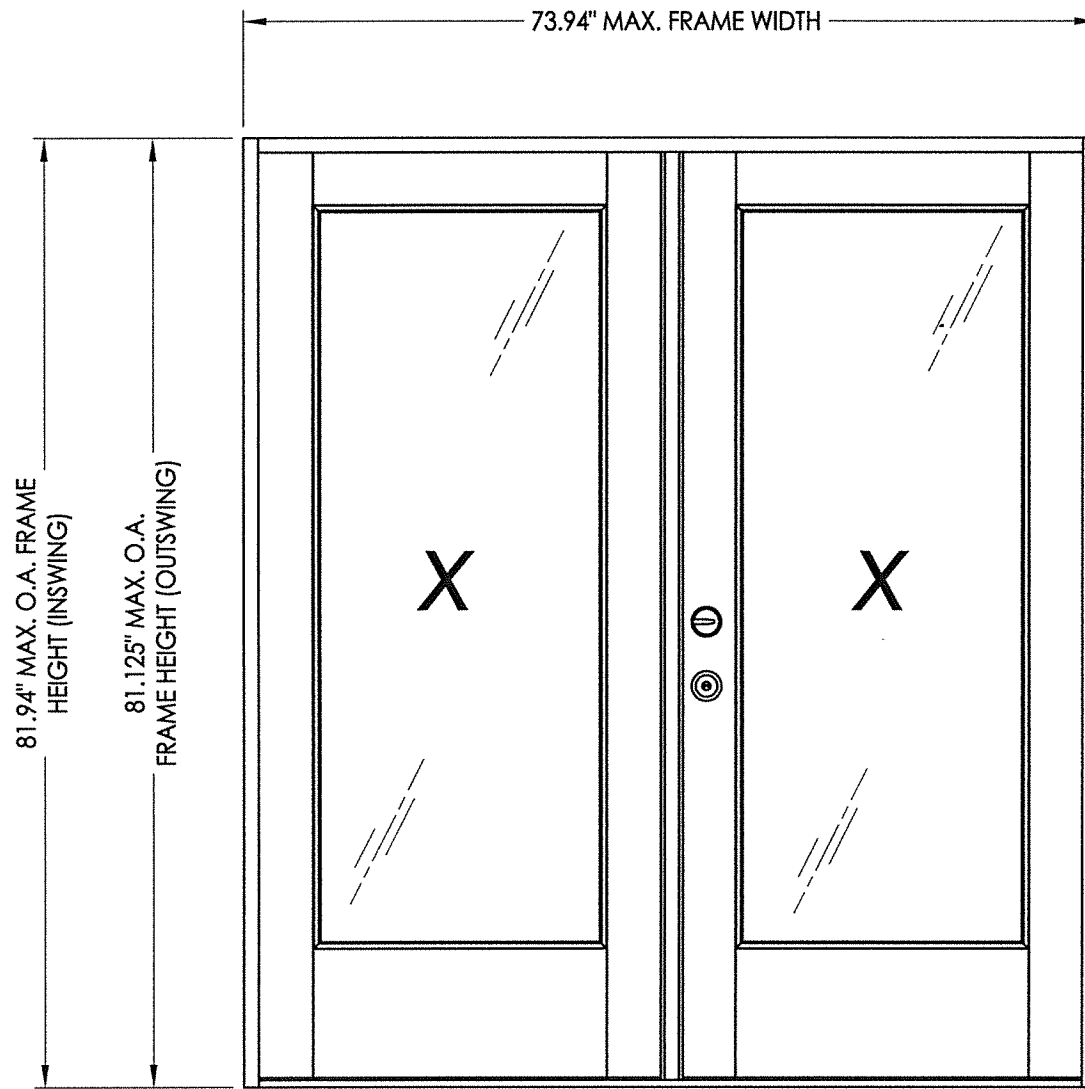
Z:\Clients\Endura PERMANENT\B - Texas Dept of Ins\TDI - DR-611 Plastpro Fiberglass Flush GLZ\C - Drawings\REV 2020\TX-4212-13.dwg



Glazed Fiberglass Door

"NON-IMPACT"

INSWING / OUTSWING



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

TDI DR-611

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:

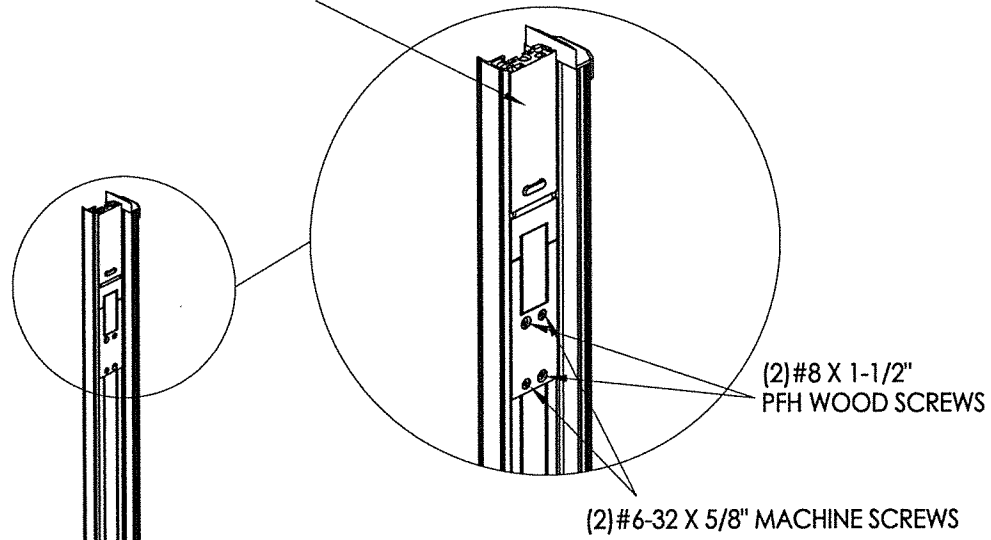
1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. When used in areas requiring wind-borne debris protection this product is required to be protected with an impact resistant covering that complies with Section R301.2.1.2 of the IRC and Section 1609.1.2 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	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 cross sections
7	Vertical cross sections
8	Frame anchoring

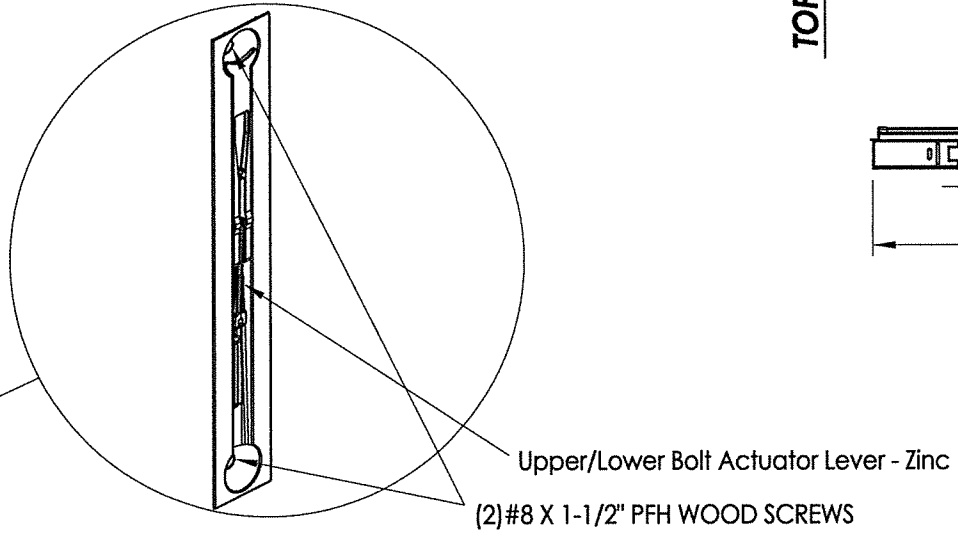
CONFIG.	GLAZING	MODEL	DESIGN PRESSURE (PSF) ULTIMATE HURRICANE ASTRAGAL		DESIGN PRESSURE (PSF) ULTIMATE MULTIPOINT ASTRAGAL		DESIGN PRESSURE (PSF) ULTIMATE FLIP LEVER ASTRAGAL	
			POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
XX	LIP LITE INSERT	INSWING	+50.0	-55.0	+45.0	-45.0	+40.0	-40.0
XX	LIP LITE INSERT	OUTSWING	+45.0	-45.0	+45.0	-45.0	+40.0	-40.0

PRODUCT:	ENDURA	
PART OR ASSEMBLY:	TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES	
REVISIONS		
NO.	DATE	DESCRIPTION
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE
4	11/07/18	REVISED TO INSERT GLAZED ONLY
3	11/02/16	ADDED THRESHOLDS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE
1	1/07/14	ADDED ARTICULATING SILL
DATE: 8/09/12		
SCALE: N.T.S.		
DWG. BY: JK		
CHK. BY: LFS		
DRAWING NO.: TX-4212		
SHEET 1 OF 8		

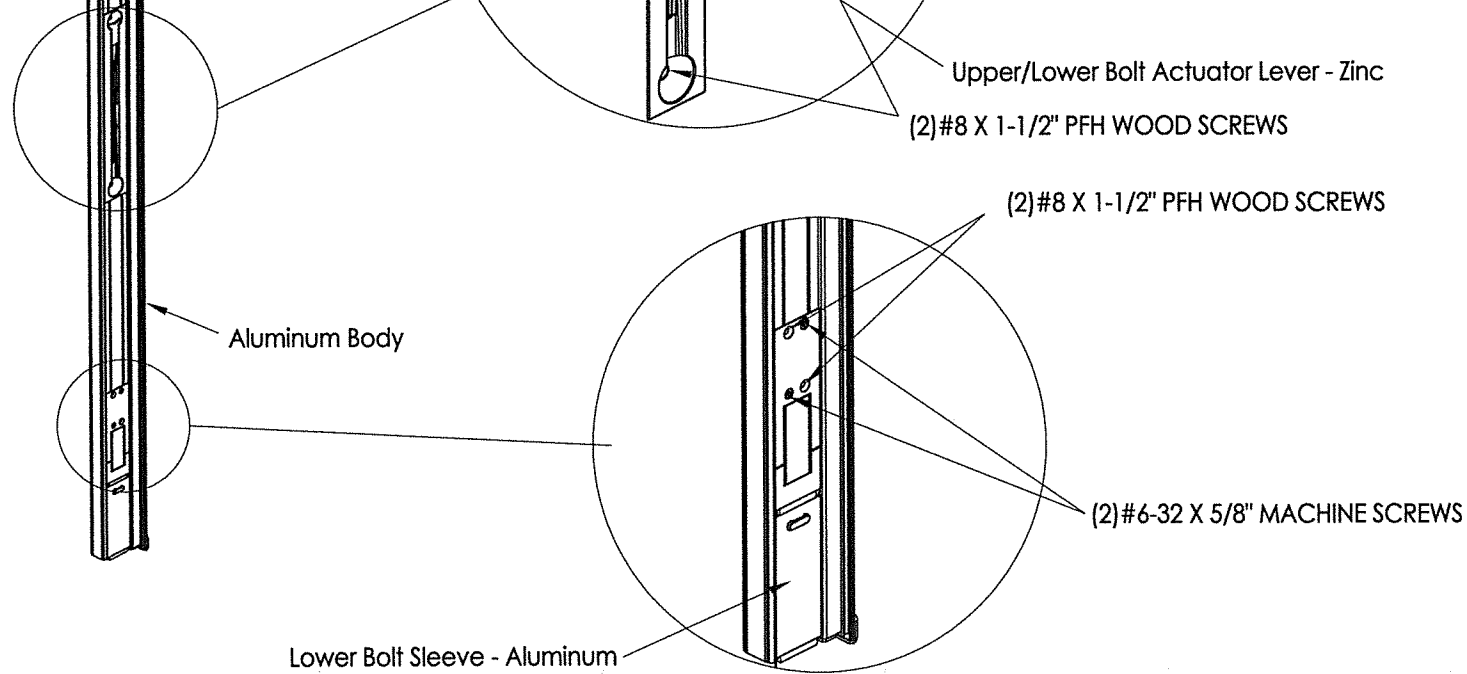
Upper Bolt Sleeve - Aluminum



Upper/Lower Bolt Actuator Lever - Zinc



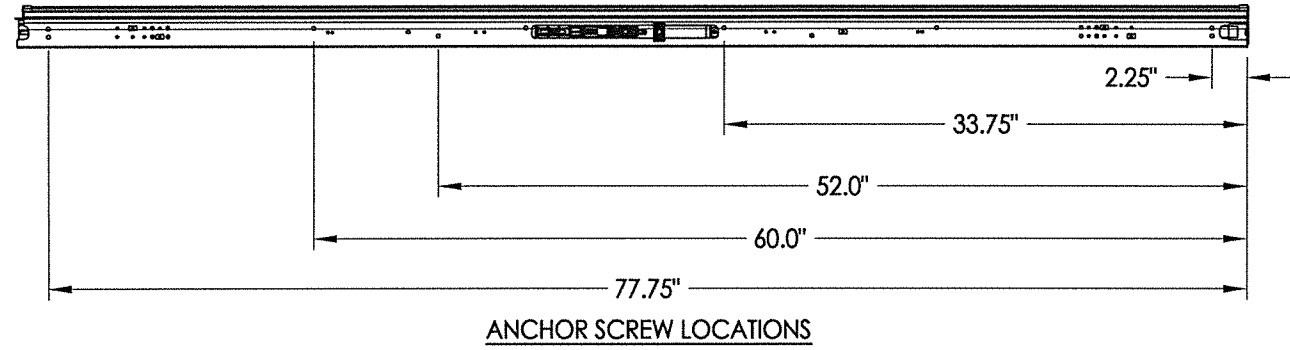
Aluminum Body



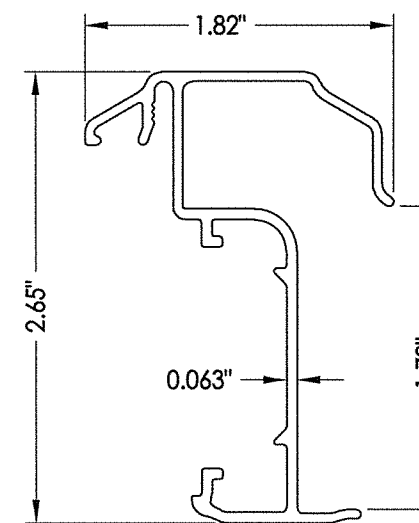
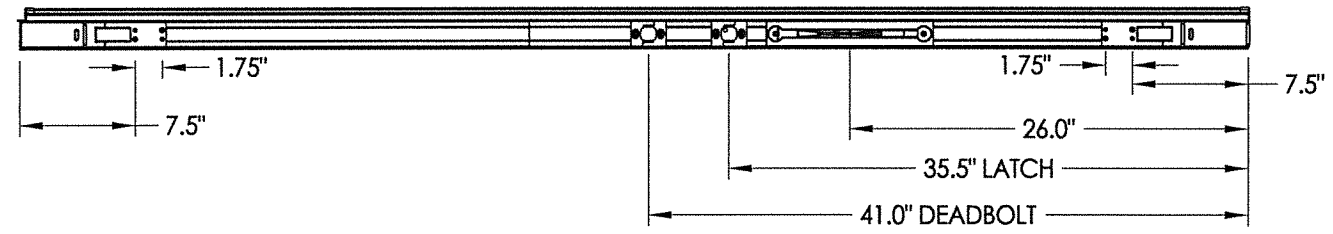
Lower Bolt Sleeve - Aluminum

ULTIMATE FLIP LEVER ASTRAGAL

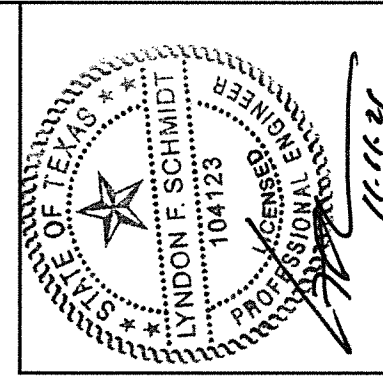
TOP



BOTTOM



Astragal Section



Documents Prepared By: Lyndon F. Schmidt, P.E.
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P.O. Box 230 Vairico FL 35595
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

PART OR ASSEMBLY:
ASTRAGAL DETAILS
(ULTIMATE FLIP LEVER)

NO.	DATE	REVISIONS
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE
4	11/7/18	REVISED TO INSERT GLAZED ONLY
3	11/02/16	ADDED THRESHOLDS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE
1	1/07/14	ADDED ARTICULATING SILL

DATE: 8/09/12

SCALE: N.T.S.

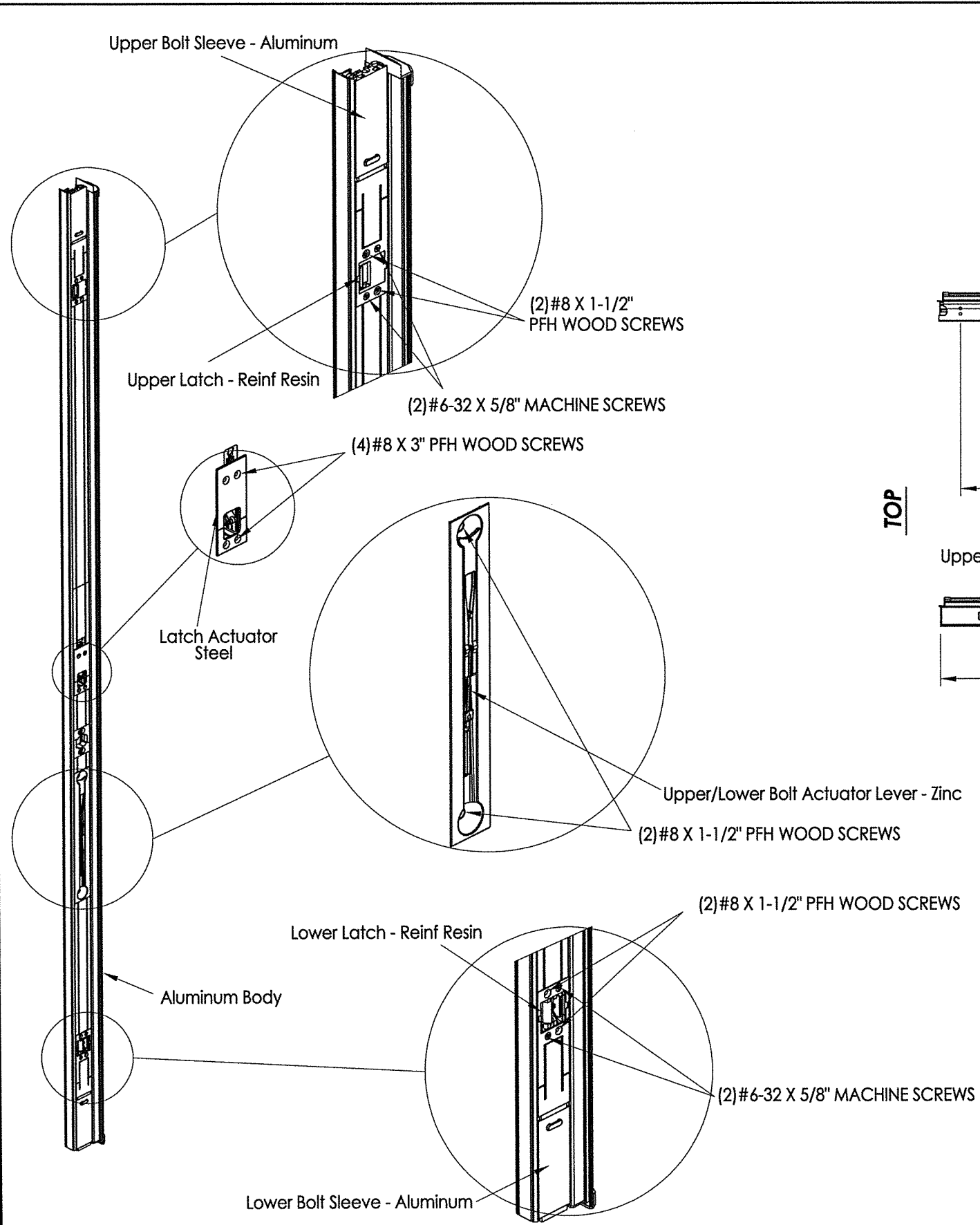
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CHK. BY: LFS

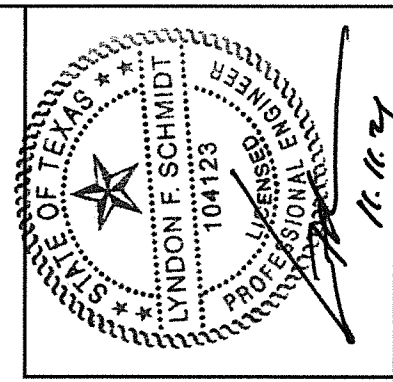
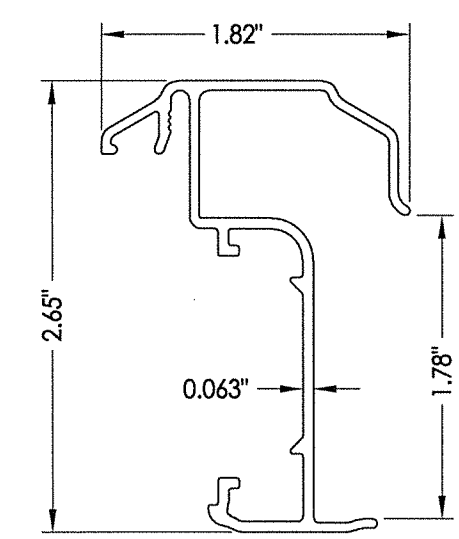
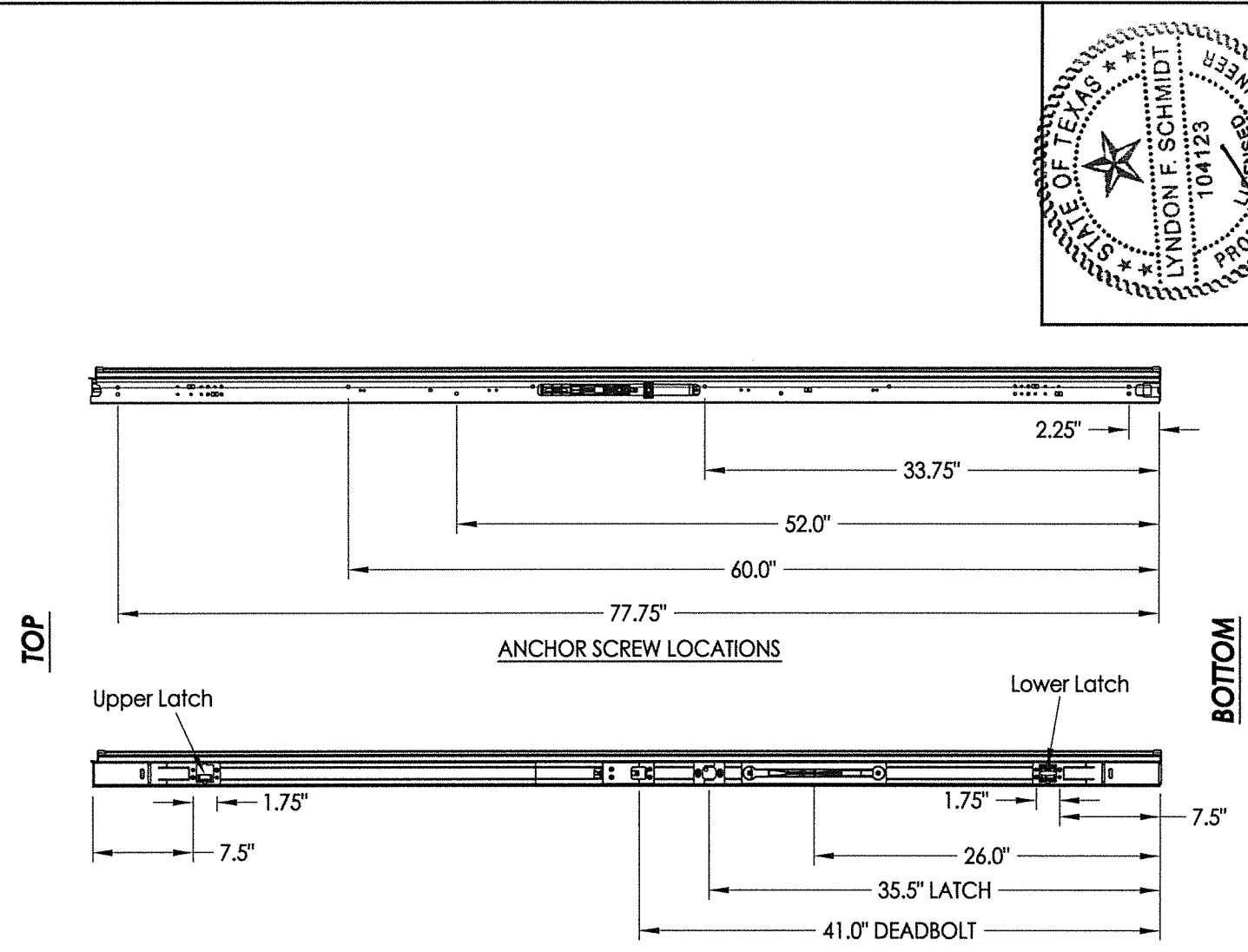
DRAWING NO.: TX-4212

SHEET 2 OF 8

Z:\Clients\Endura PERMANENT\B - Texas Dept of Ins\TDI - DR-611 Plastpro Fiberglass Flush GLZ\C - Drawings\REV 2020\TX-4212-13.dwg



ULTIMATE MULTI-POINT ASTRAGAL



Documents Prepared By: Lyndon F. Schmidt, P.E.
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

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

NO.	DATE	REVISIONS
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE
4	11/7/18	REVISED TO INSERT GLAZED ONLY
3	11/02/16	ADDED THRESHOLDS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE
1	1/07/14	ADDED ARTICULATING SILL

DATE: 8/09/12

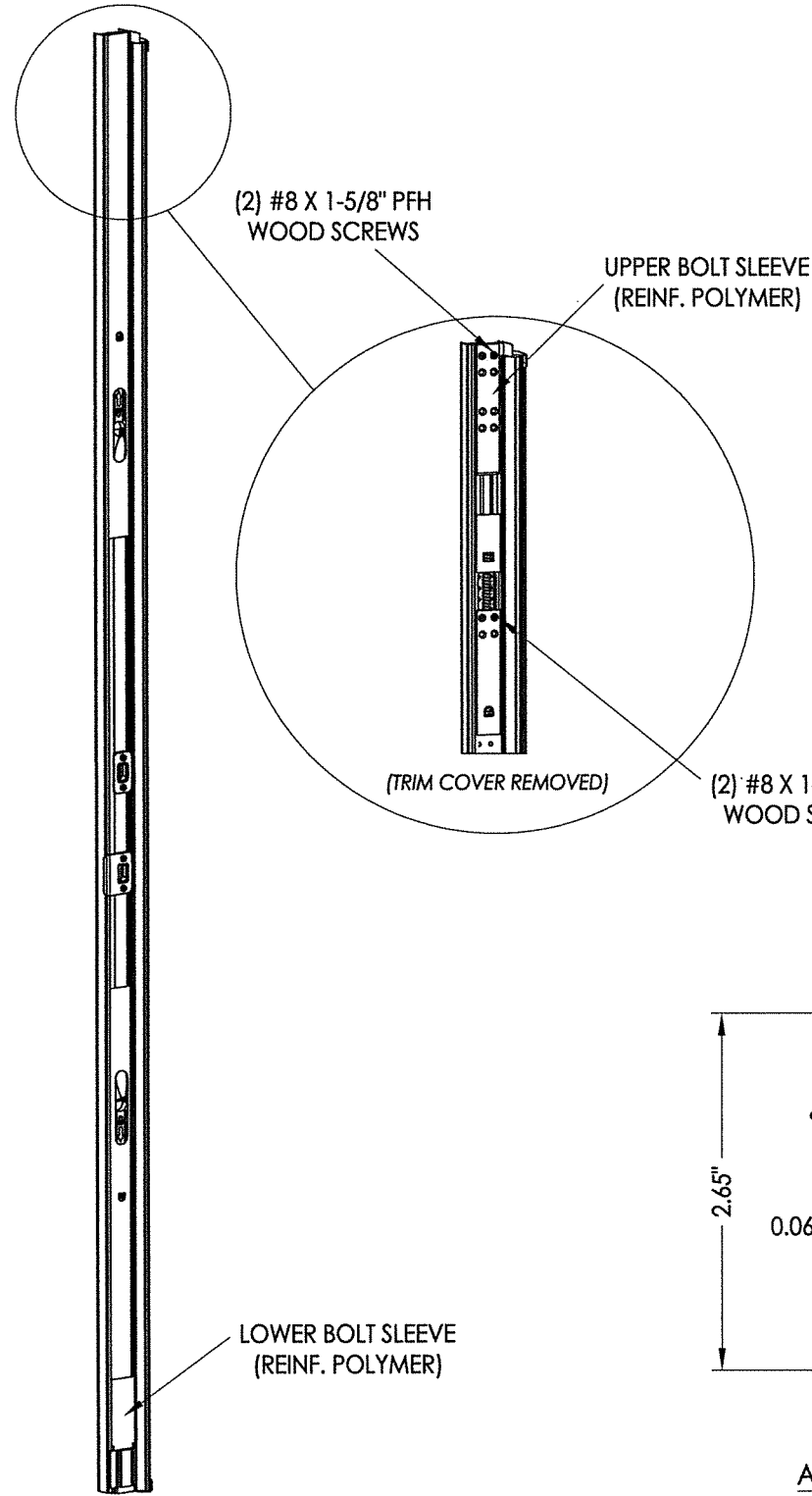
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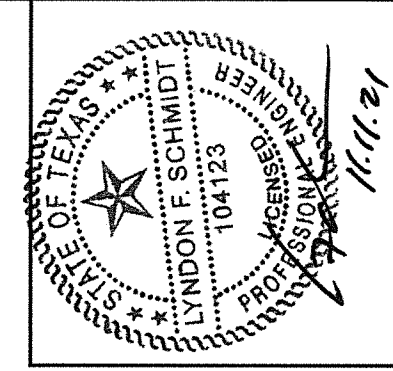
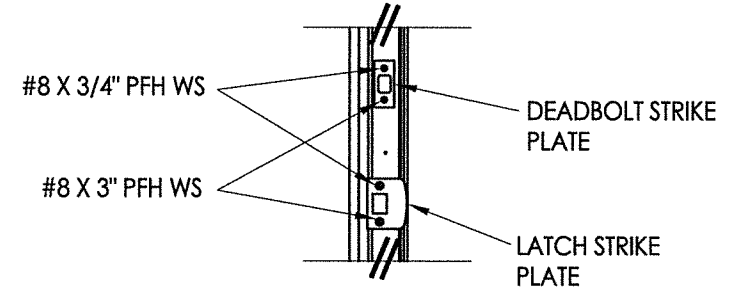
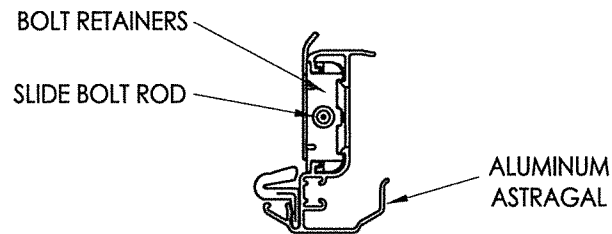
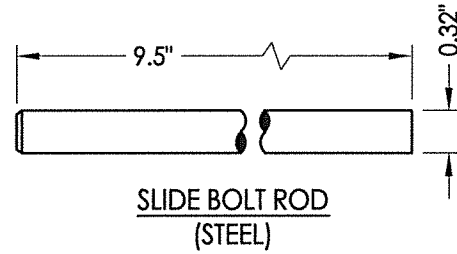
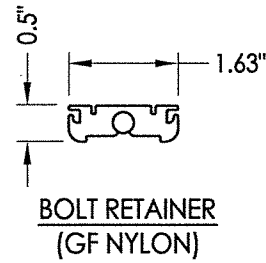
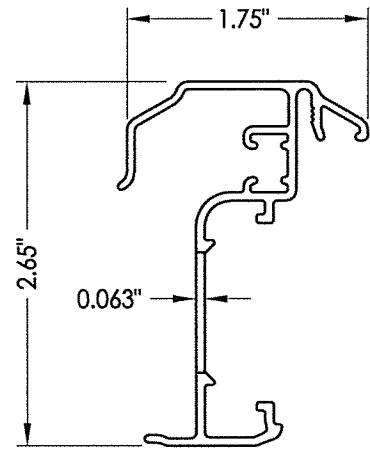
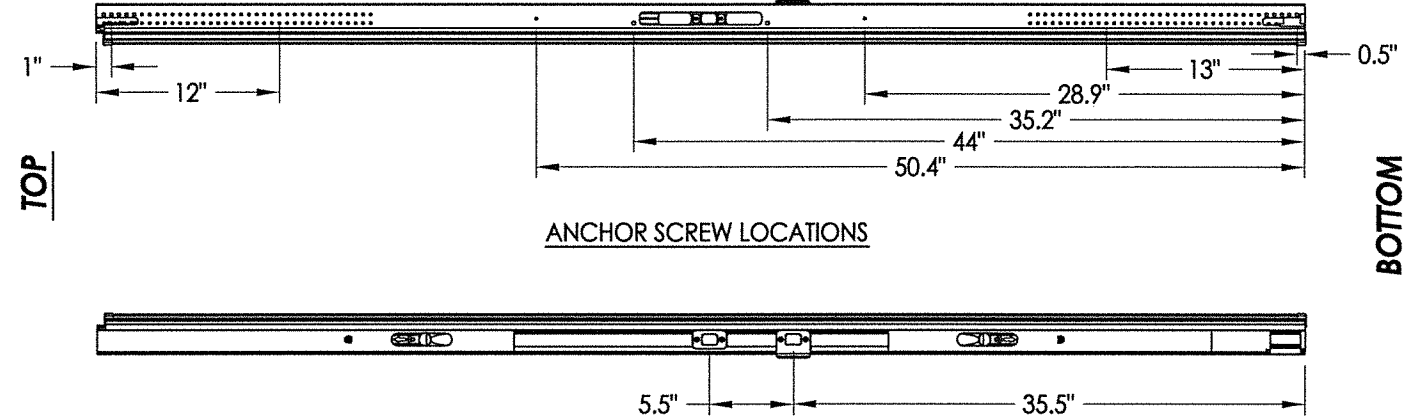
CHK. BY: LFS

DRAWING NO.: TX-4212

SHEET 3 OF 8



ULTIMATE HURRICANE ASTRAGAL



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 Phone No.: 813.659.9197

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

PRODUCT: ENDURA

PART OR ASSEMBLY: ASTRAGAL DETAILS (ULTIMATE HURRICANE)

NO.	DATE	REVISIONS
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE
4	11/7/18	REVISED TO INSERT GLAZED ONLY
3	11/02/16	ADDED THRESHOLDS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE
1	1/07/14	ADDED ARTICULATING SILL
		BY

DATE: 8/09/12

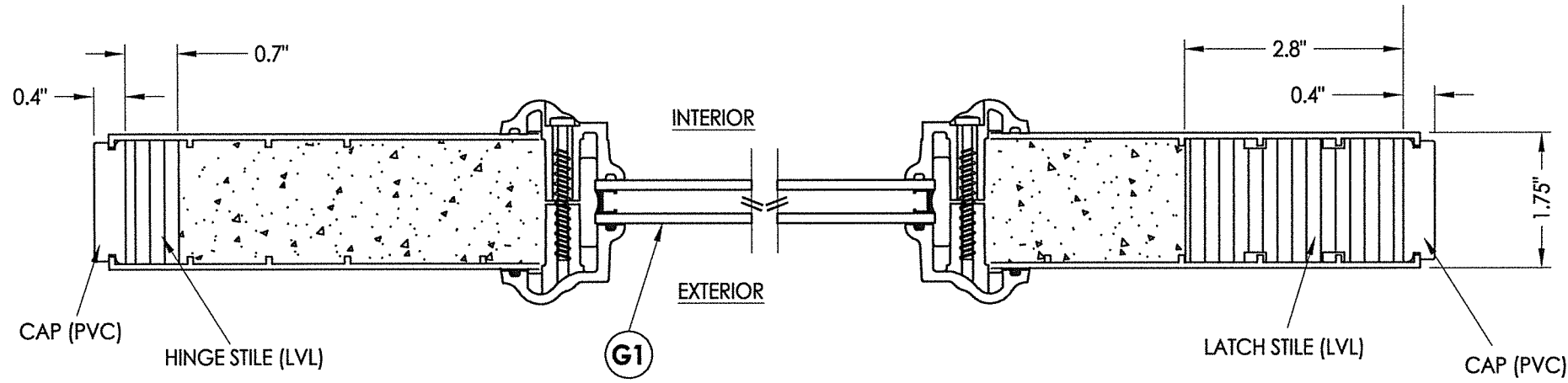
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DWG. BY: JK

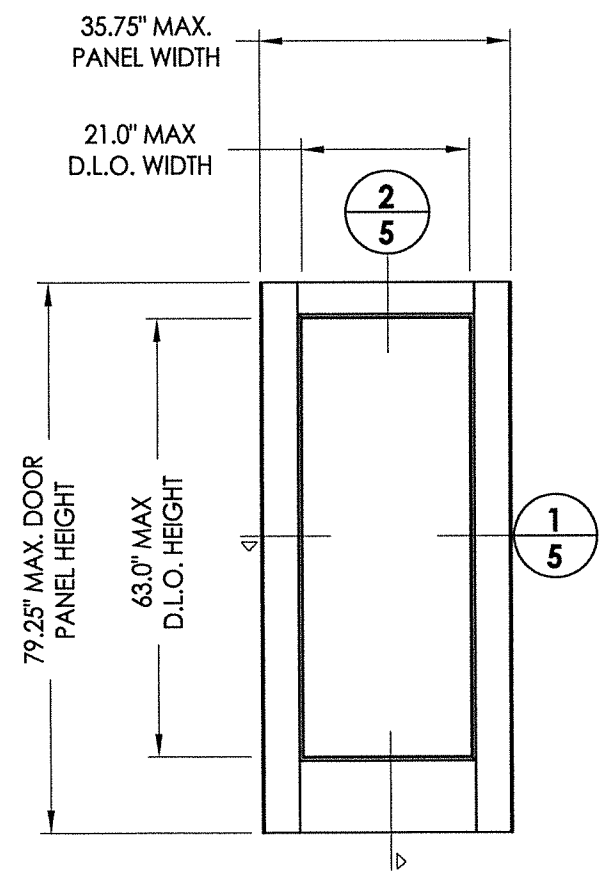
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DRAWING NO.: TX-4212

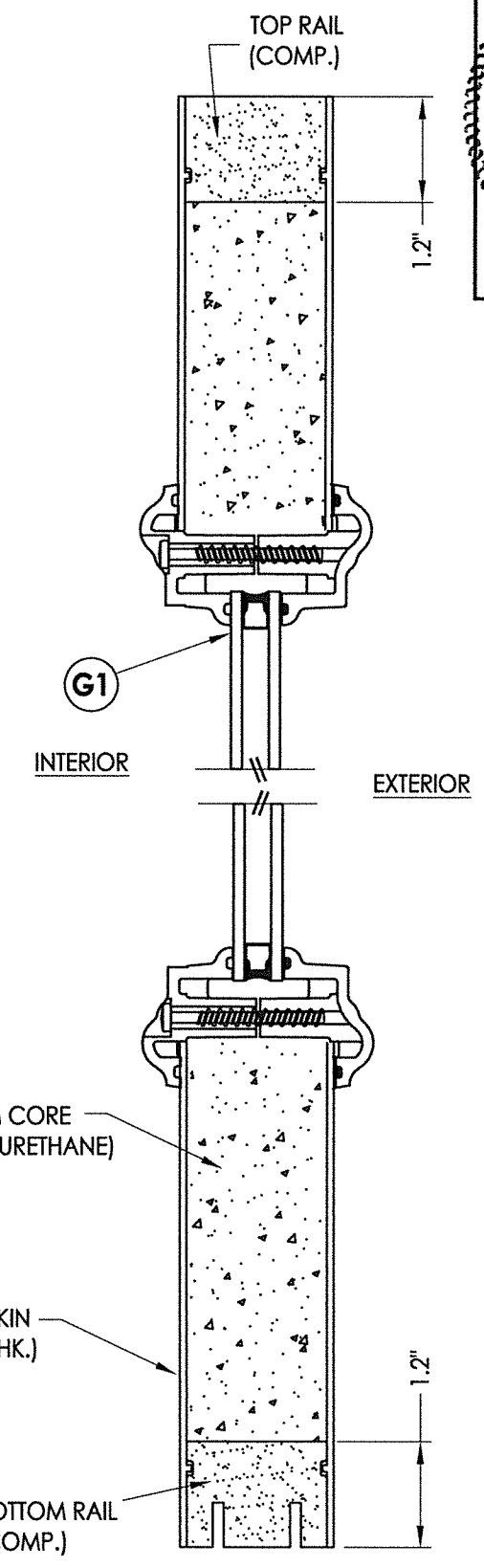
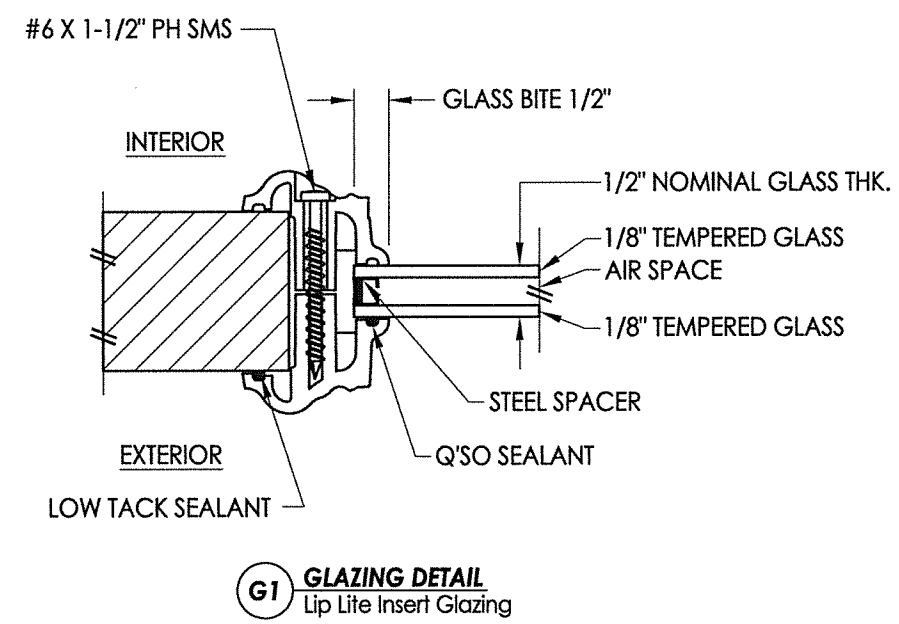
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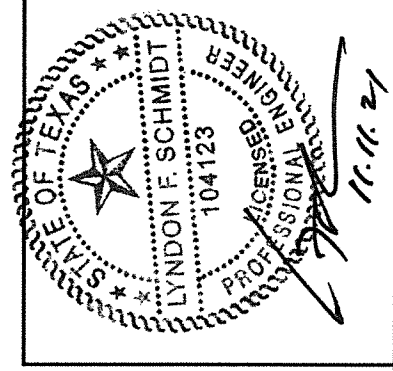
1
5 HORIZONTAL CROSS SECTION



PLASTPRO
Insert glazed
(fiberglass)



2
5 VERTICAL CROSS SECTION



Documents Prepared By: Lyndon F. Schmidt, P.E.
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Phone No.: 813.659.9197

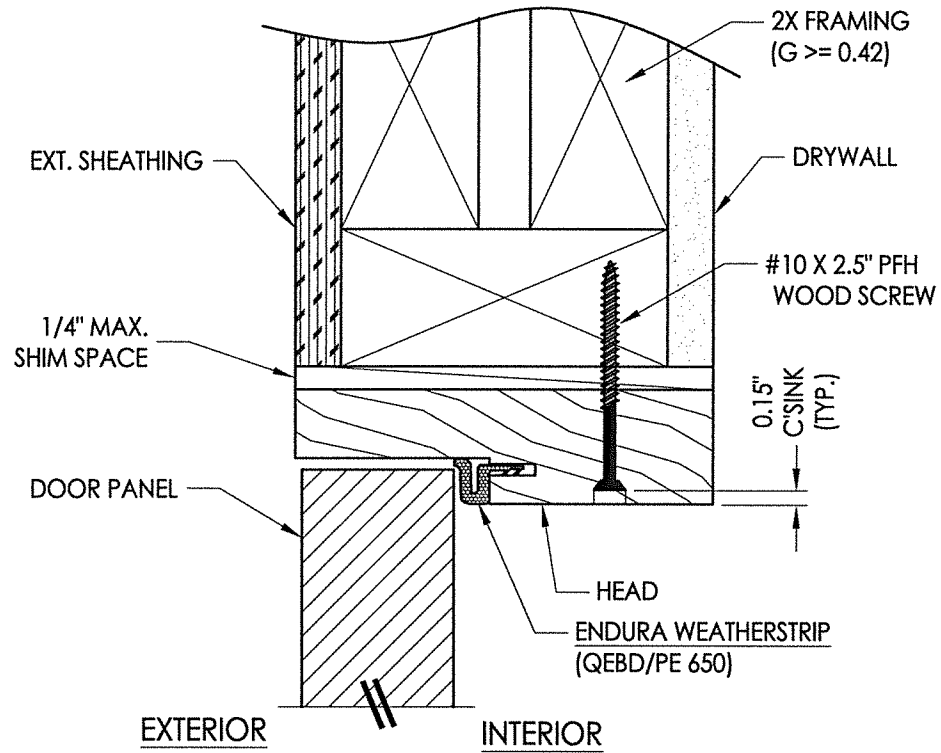
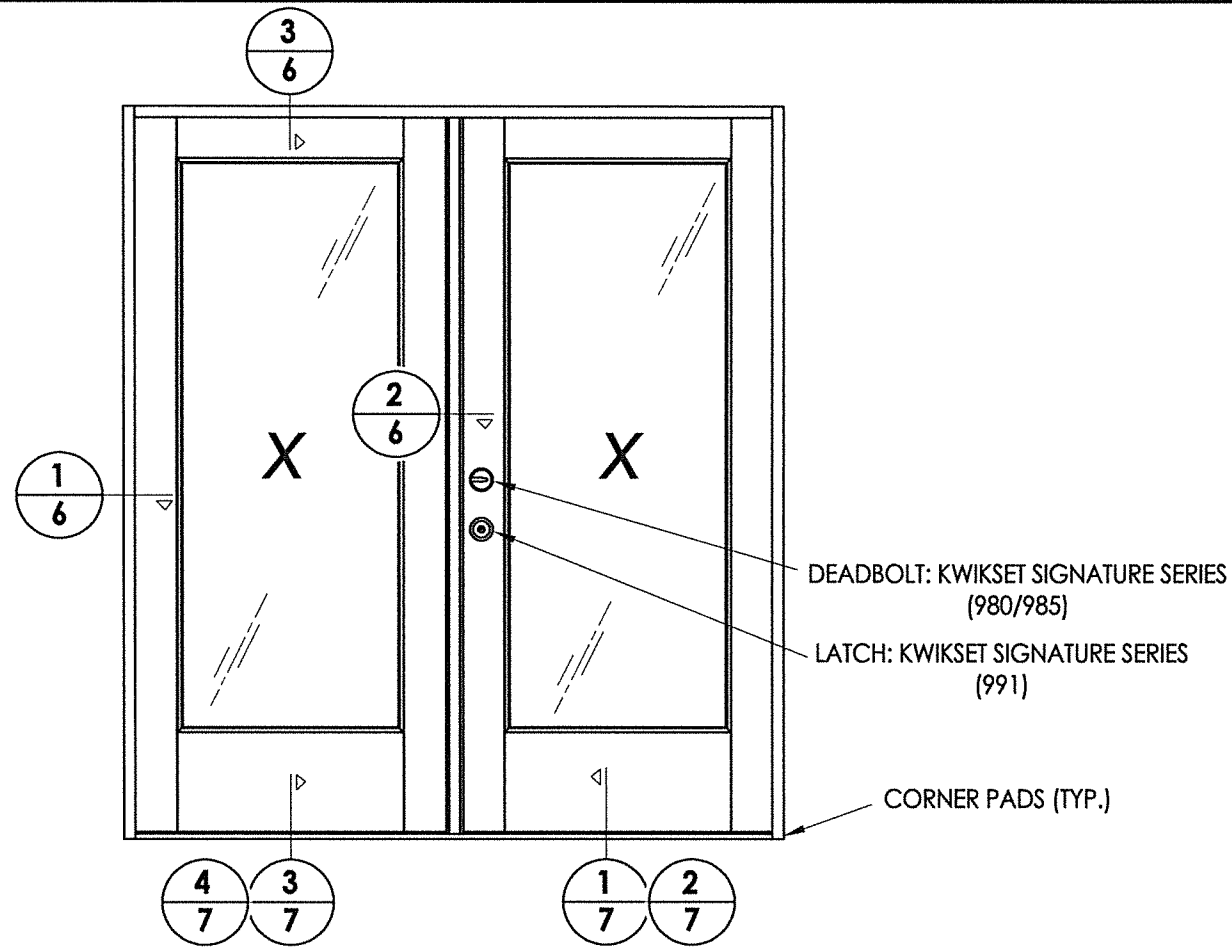
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA

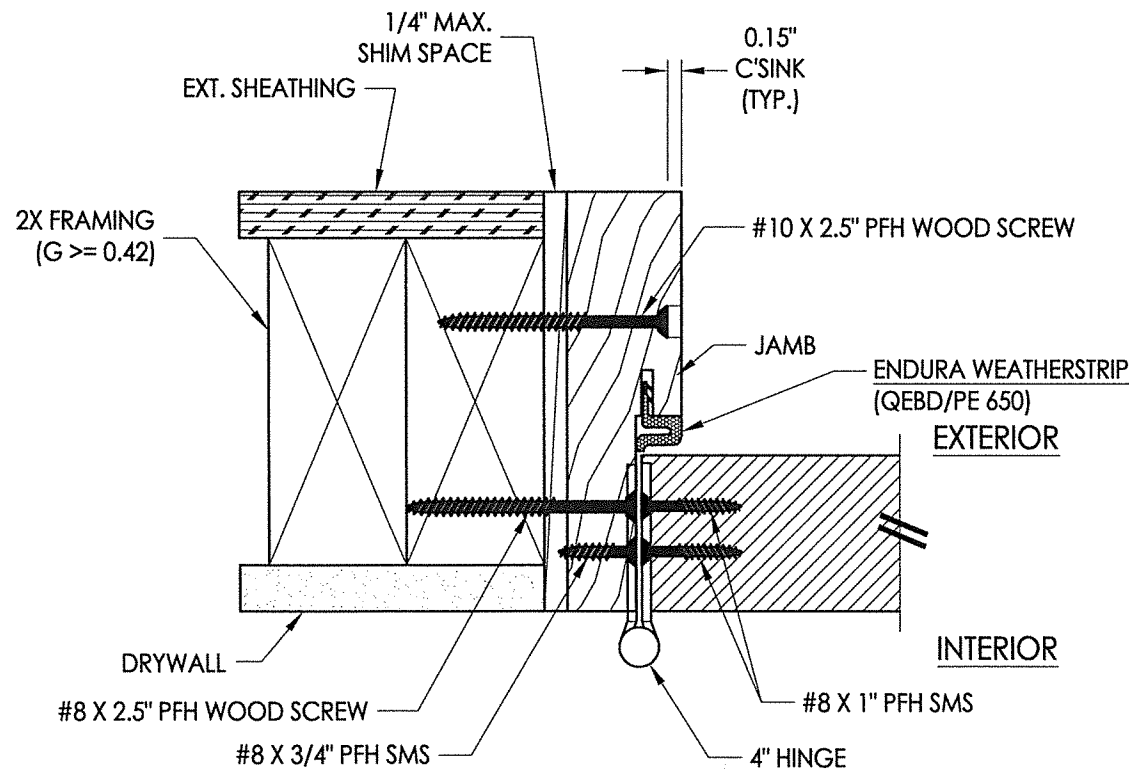
PART OR ASSEMBLY:
DOOR PANEL DETAILS
(LIP LITE INSERT GLAZING)

REVISIONS	
NO.	DATE
5	11/10/21
4	11/7/18
3	11/02/16
2	5/05/15
1	1/07/14

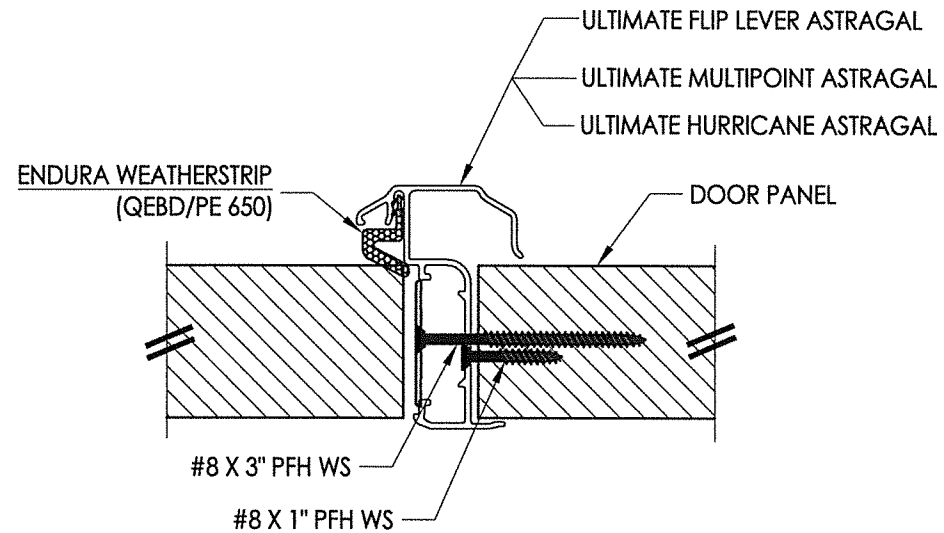
DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 5 OF 8



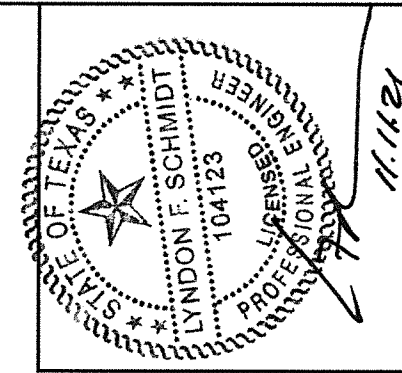
3 VERTICAL CROSS SECTION
6 Outswing shown - inswing also approved



1 HORIZONTAL CROSS SECTION
6 Inswing shown - Outswing also approved



2 HORIZONTAL CROSS SECTION
6



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

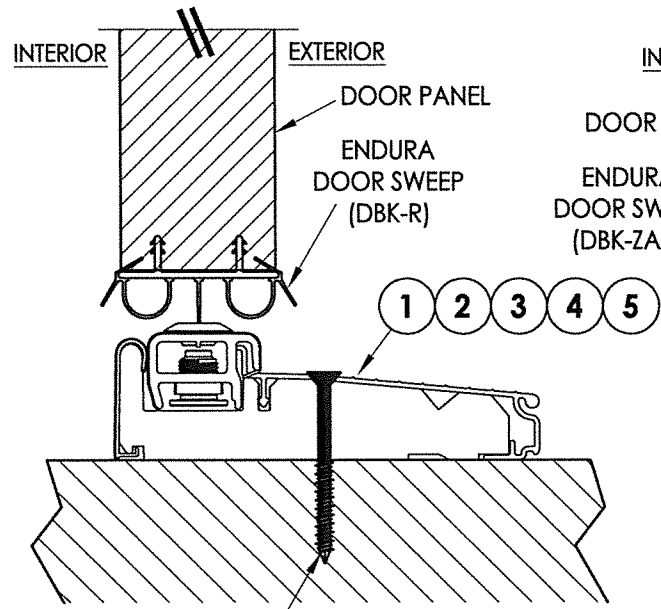
RW BUILDING CONSULTANTS, INC.
 P.O. Box 230 Vairico FL 33595
 Phone No.: 813.659.9197
 TEXAS BOARD OF PROFESSIONAL ENGINEERS
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: ENDURA
 PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO.	DATE	REVISIONS
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE
4	11/7/18	REVISED TO INSERT GLAZED ONLY
3	11/02/16	ADDED THRESHOLDS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE
1	1/07/14	ADDED ARTICULATING SILL
		LFS
		BY

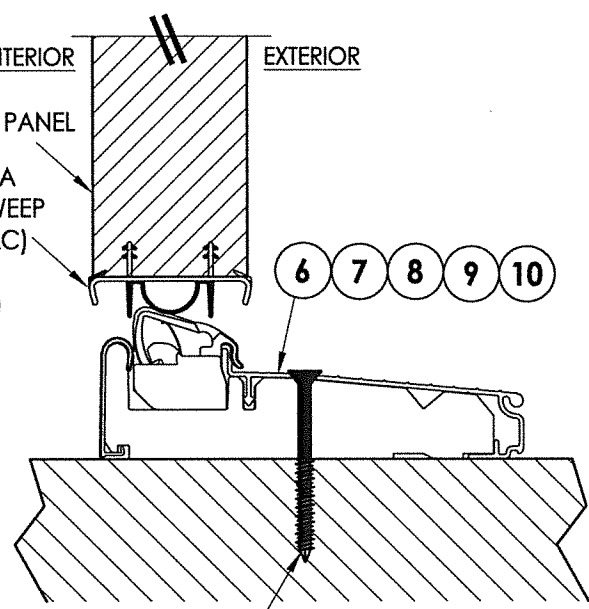
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 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: TX-4212
 SHEET 6 OF 8

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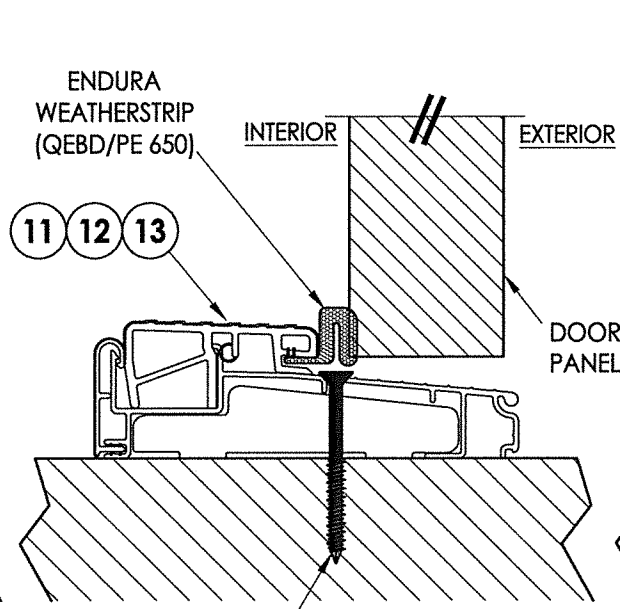
#10 X 2.5\"/>

1 VERTICAL CROSS SECTION
7 Inswing Adjustable Threshold



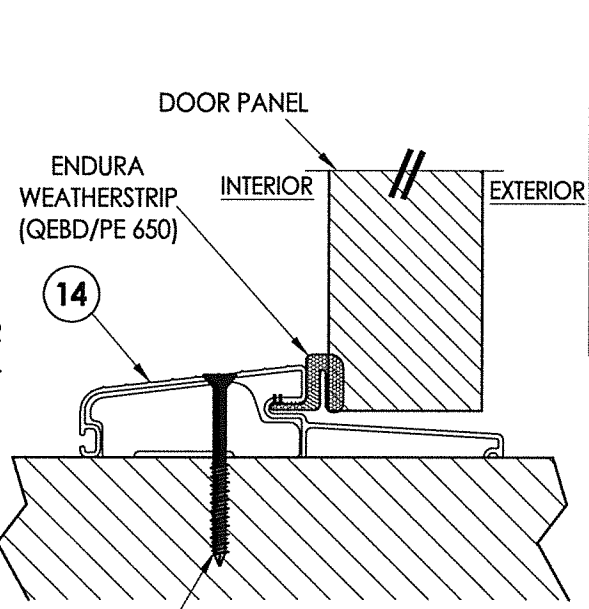
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2 VERTICAL CROSS SECTION
7 Inswing Articulating Threshold w/ Pin Capture



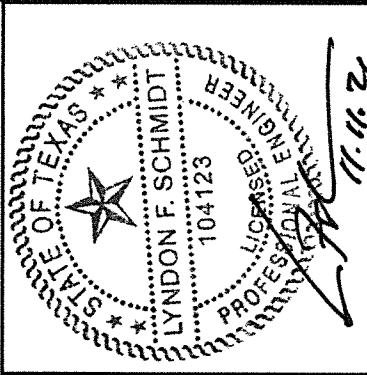
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3 VERTICAL CROSS SECTION
7 Inswing Adjustable Threshold



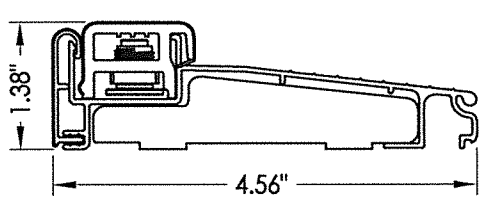
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4 VERTICAL CROSS SECTION
7 Inswing Articulating Threshold w/ Pin Capture

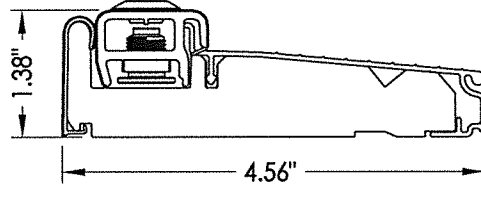


Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123

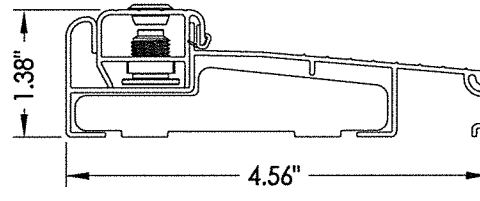
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL 33595
Phone No.: 813.659.9197
TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852



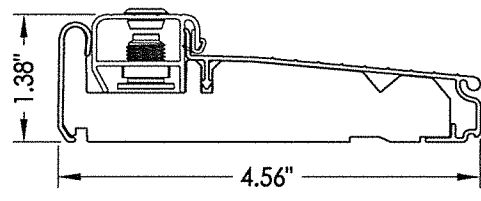
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ZAIL4565



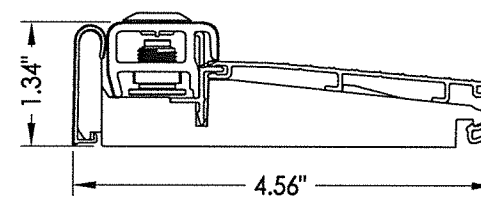
2 INSWING ADJUSTABLE THRESHOLD
ZAI4565FN
MAX. DESIGN PRESSURE = ±45 PSF



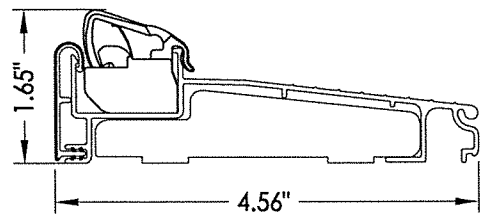
3 INSWING ADJUSTABLE THRESHOLD
ZAILAA4565



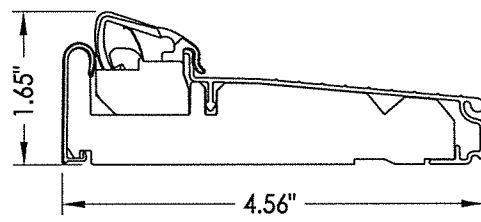
4 INSWING ADJUSTABLE THRESHOLD
ZAIAA4565FN
MAX. DESIGN PRESSURE = ±45 PSF



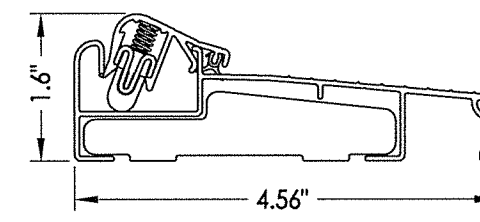
5 INSWING ADJUSTABLE THRESHOLD
ZAI4565RDS
MAX. DESIGN PRESSURE = ±50 PSF



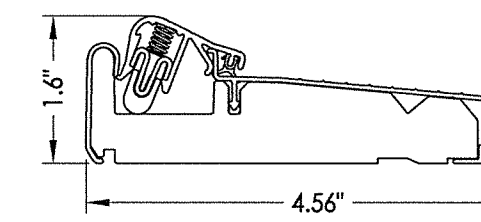
6 INSWING ARTICULATING THRESHOLD
ZACL4565
MAX. DESIGN PRESSURE = ±45 PSF



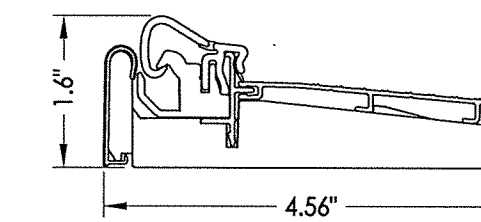
7 INSWING ARTICULATING THRESHOLD
ZAC4565FN
MAX. DESIGN PRESSURE = ±45 PSF



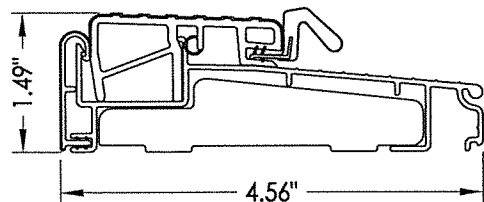
8 INSWING ARTICULATING THRESHOLD
ZACLAA4565
MAX. DESIGN PRESSURE = ±45 PSF



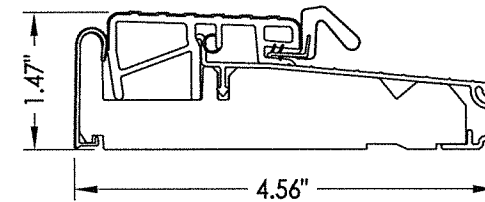
9 INSWING ARTICULATING THRESHOLD
ZACAA4565FN
MAX. DESIGN PRESSURE = ±45 PSF



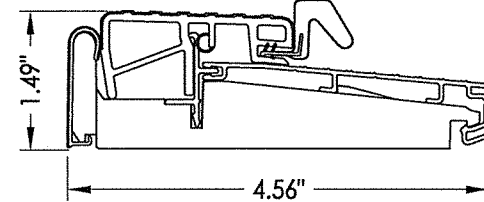
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ZAC4565RDS
MAX. DESIGN PRESSURE = ±45 PSF



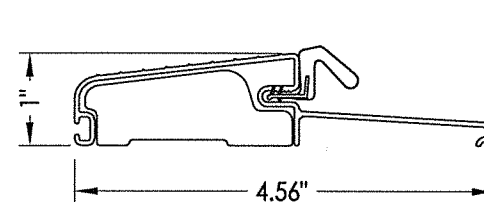
11 OUTSWING THRESHOLD
ZOBL4565



12 OUTSWING THRESHOLD
ZOB4565FN



13 OUTSWING THRESHOLD
ZOB4565RDS

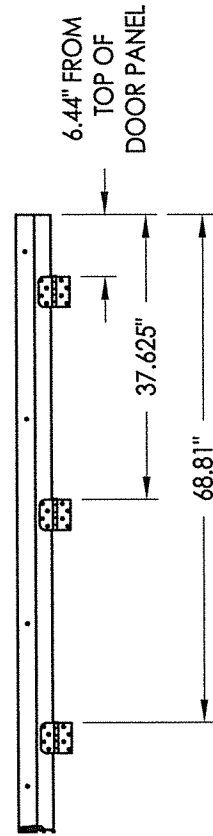


14 OUTSWING THRESHOLD
FOB4566

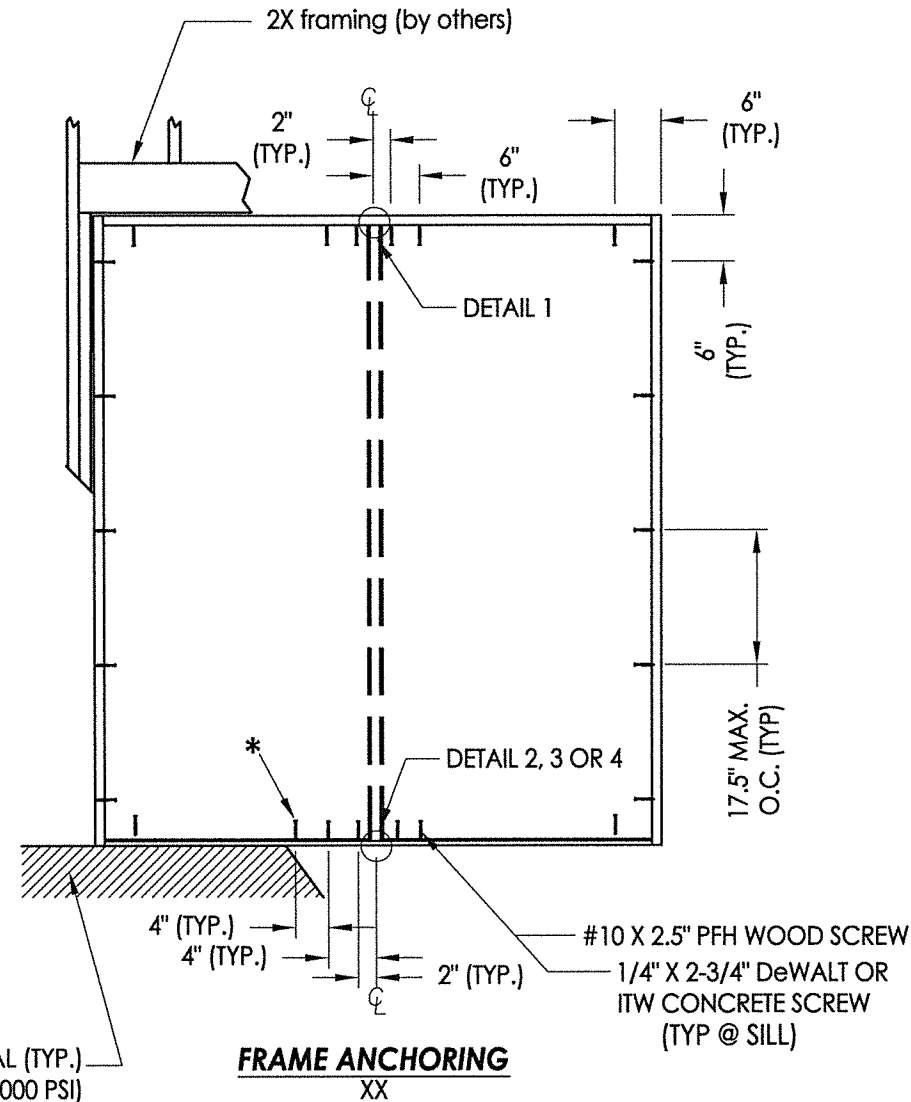
PRODUCT:		ENDURA	
PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS	
NO.	DATE	REVISIONS	BY
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE	LFS
4	11/7/18	REVISED TO INSERT GLAZED ONLY	MT
3	11/02/16	ADDED THRESHOLDS	LFS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE	LFS
1	1/07/14	ADDED ARTICULATING SILL	LFS

DATE: 8/09/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4212
SHEET 7 OF 8

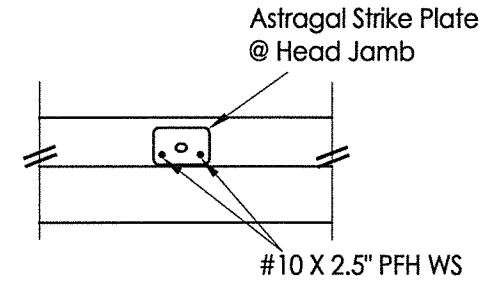
HINGE JAMB



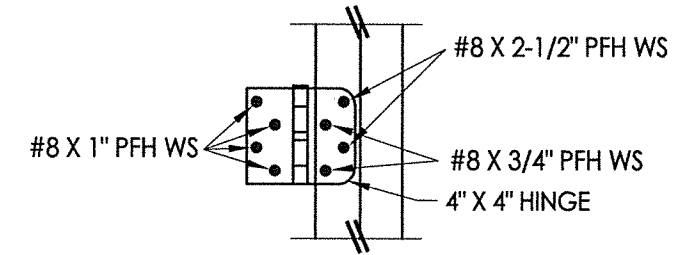
FLOOR SUBSTRATE MATERIAL (TYP.)
 CONCRETE (MIN. 3000 PSI)
 WOOD (G >= 0.42)



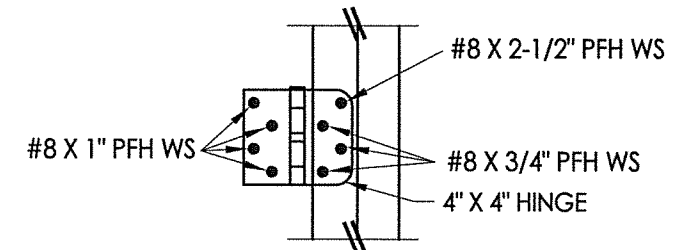
*NOTE: This anchor required for D.P. > 50 PSF.



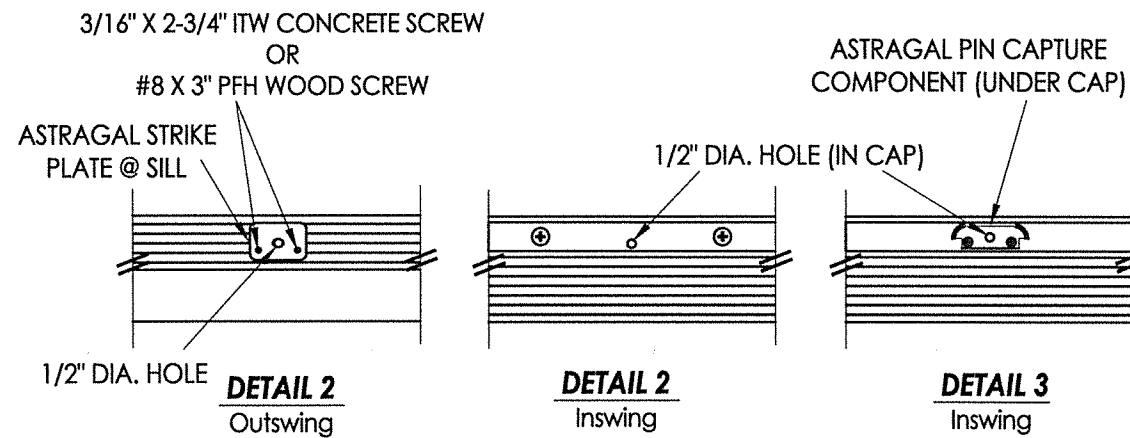
DETAIL 1



HINGE DETAIL 1



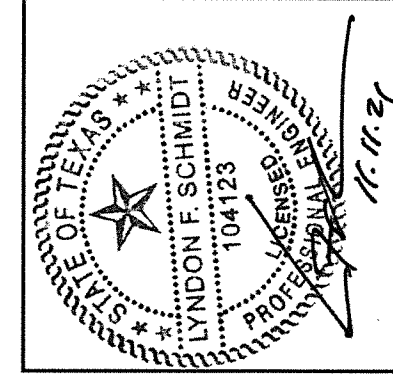
HINGE DETAIL 2



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



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 P.O. Box 230 Valrico FL 33595
 Phone No.: 813.659.9197

PRODUCT: ENDURA
 PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	REVISIONS
5	11/10/21	UPDATE TO 2018 IBC/IRC CODE
4	11/7/18	REVISED TO INSERT GLAZED ONLY
3	11/02/16	ADDED THRESHOLDS
2	5/05/15	ADD NEW ASTRAGAL PIN CAPTURE
1	1/07/14	ADDED ARTICULATING SILL

DATE: 8/09/12
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: TX-4212
 SHEET 8 OF 8