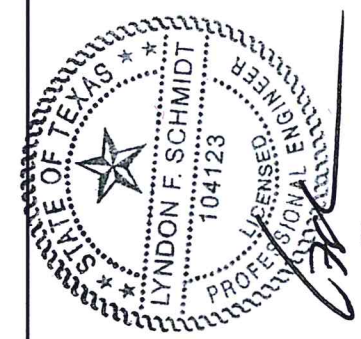


**TRINITY GLASS**  
INTERNATIONAL

33615 1st Way S, Federal Way, WA 98003

**6'0 X 6'8**  
**GLAZED PREMIUM FIBERGLASS**  
**DOUBLE DOOR INSWING / OUTSWING**  
**"NON-IMPACT"**



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

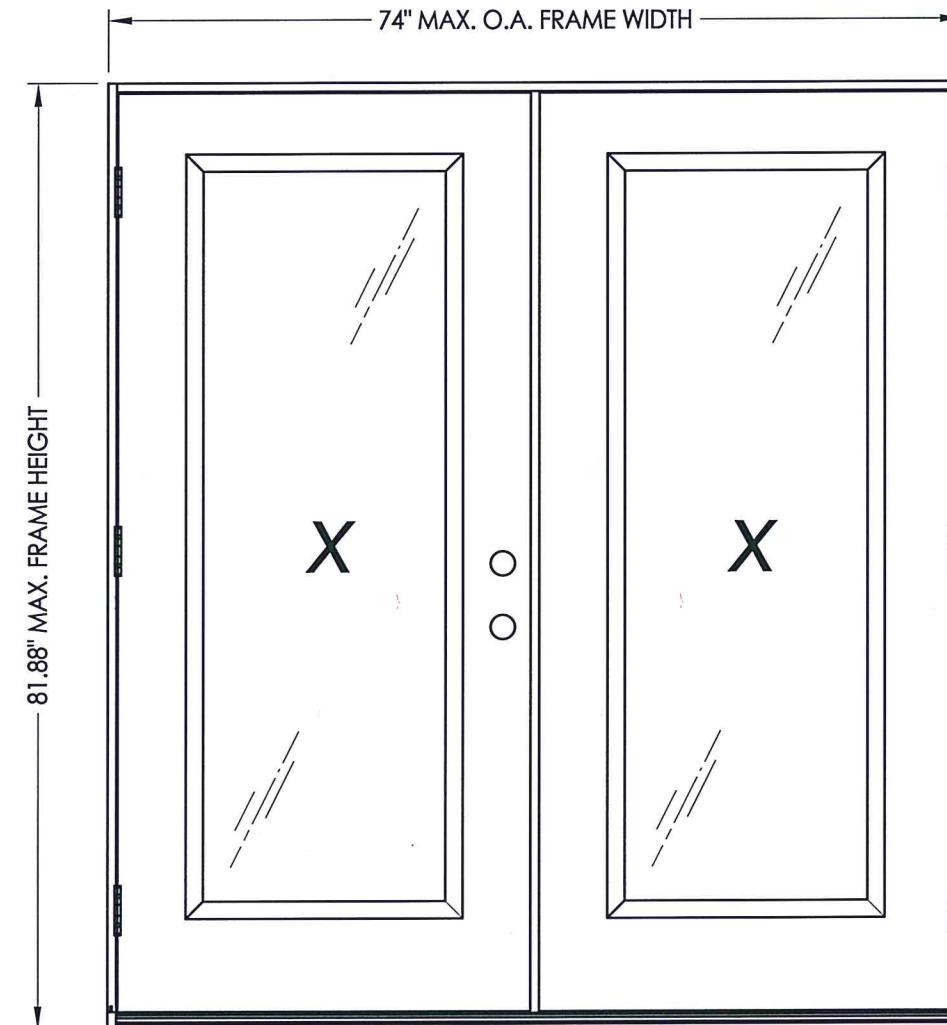
**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197

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. When used in wind borne debris regions, the opaque door panel has been tested and evaluated as an impact resistant product and does not require the use of an approved impact resistant covering. The sidelite must be protected with an impact resistant covering that complies with Sections R301.2.1.2 and 1609.1.2. This opaque door meets missile level "D" as defined in ASTM E 1996.
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.



ASTRAGAL TYPE	SWING	MAX. FRAME DIMENSION	DESIGN PRESSURE PSF)	
			POSITIVE	NEGATIVE
ENDURA	INSWING	74.0" x 81.88"	+45.0	-50.0
	OUTSWING	74.0" x 80.75"	+45.0	-45.0

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door panel construction details & glazing details
3	Horizontal cross sections
4	Vertical cross sections
5	Frame anchoring
6	Components
7	Endura astragal details
8	Bill of materials

PRODUCT: TRINITY GLASS INT'L PREMIUM LIPLITE FIBERGLASS

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

NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IRC/IBC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

DATE: 8/26/05

SCALE: N.T.S.

DWG. BY: EW

CHK. BY: LFS

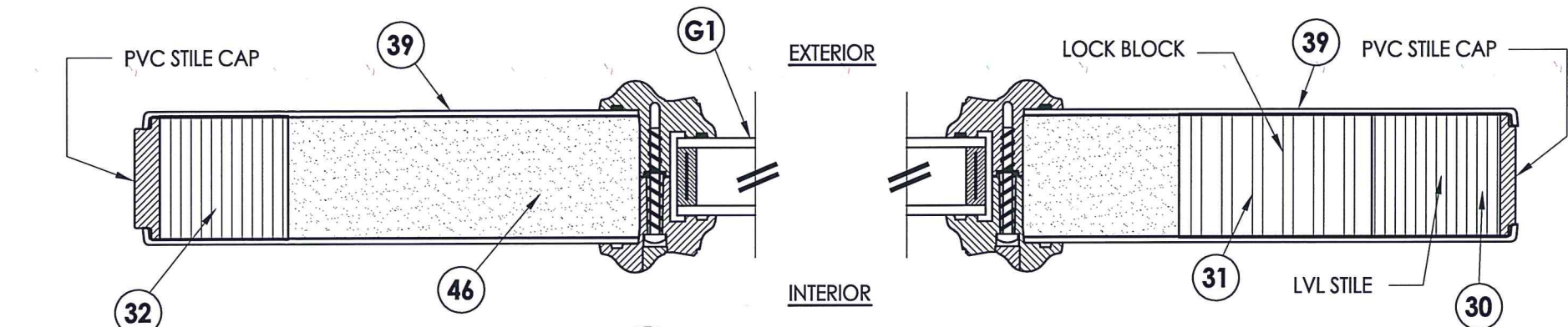
DRAWING NO.: TX-592

SHEET 1 OF 8

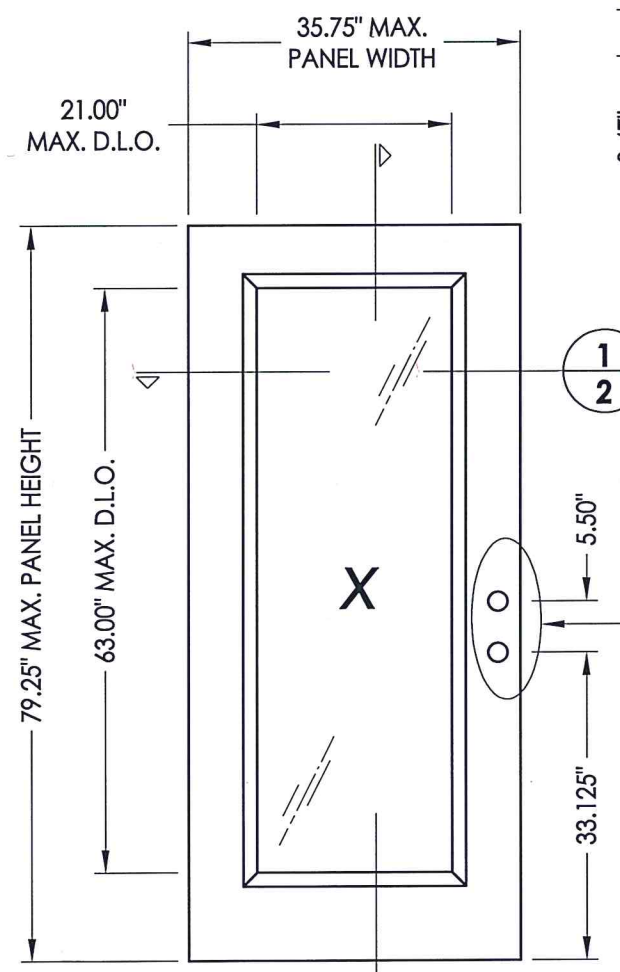
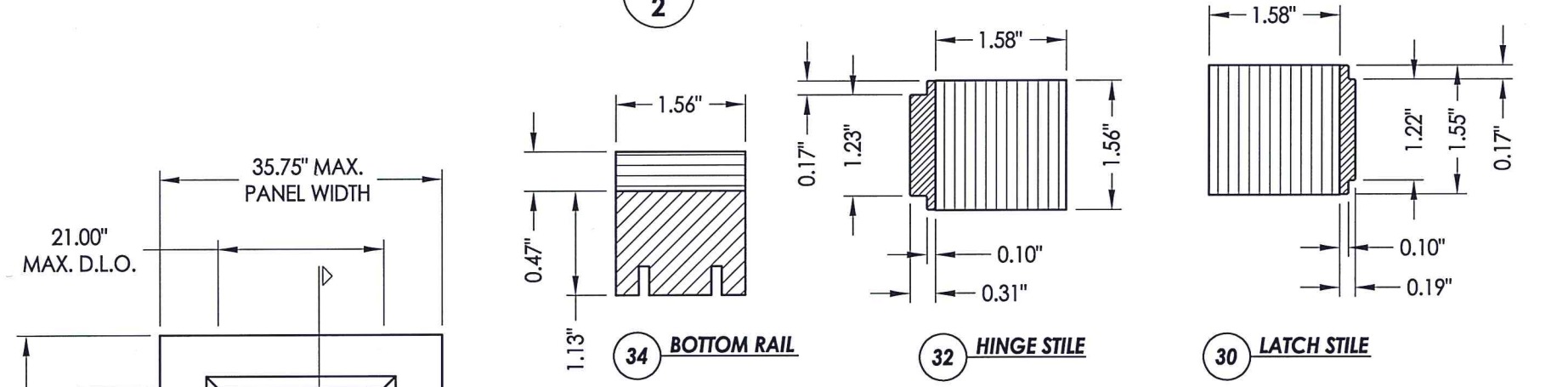
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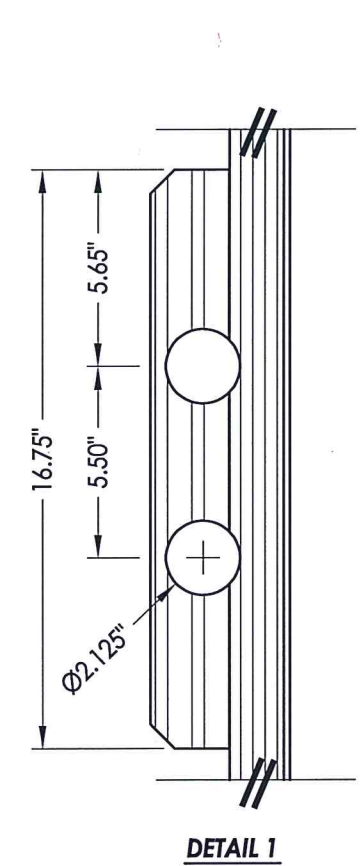
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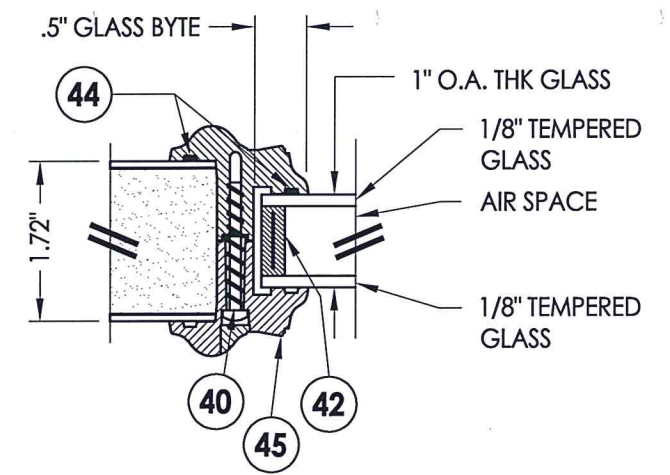
1 HORIZONTAL CROSS SECTION  
2



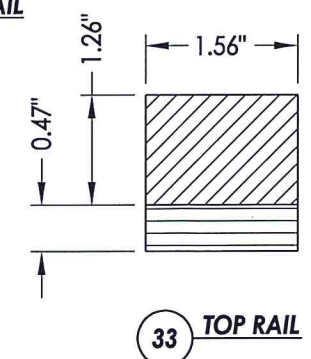
7 PREMIUM LIPLITE FIBERGLASS DOOR



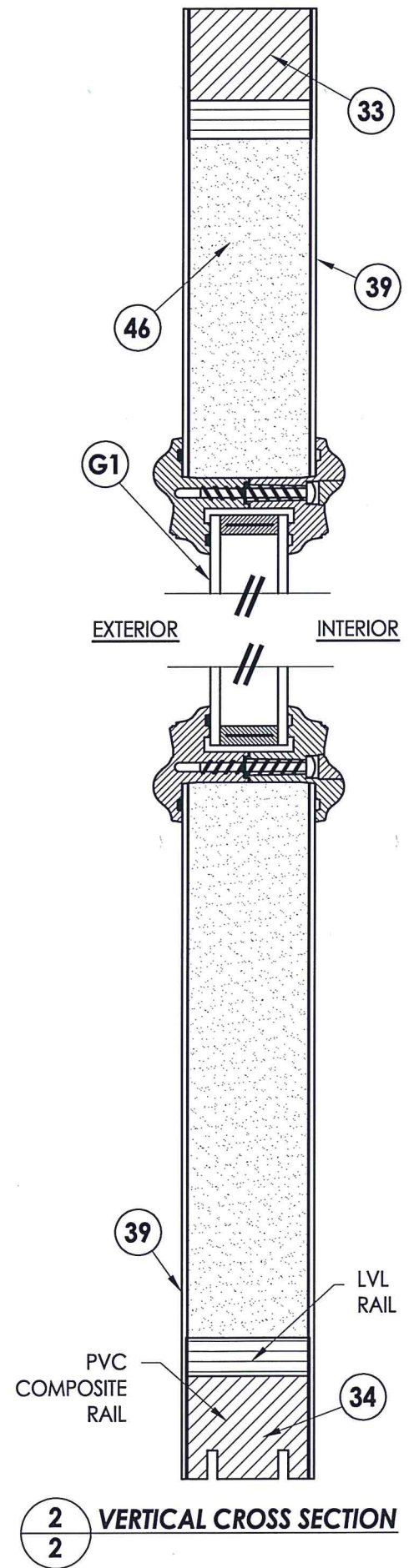
DETAIL 1



G1 GLAZING DETAIL



33 TOP RAIL



2 VERTICAL CROSS SECTION  
2



Documents Prepared By: Lyndon F. Schmidt, P.E.  
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TEXAS BOARD OF PROFESSIONAL ENGINEERS  
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PRODUCT: TRINITY GLASS INT'L PREMIUM LIPLITE FIBERGLASS

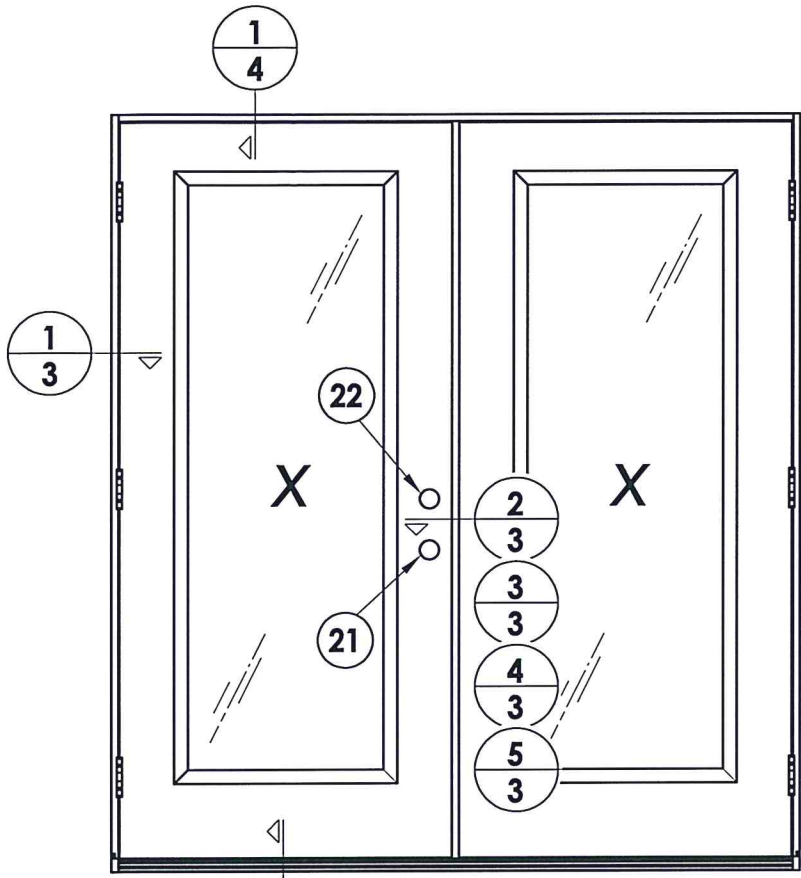
PART OR ASSEMBLY: DOOR PANEL CONSTRUCTION DETAILS AND GLAZING DETAILS

NO.	DATE	BY	REVISIONS
3	2/12/20	LFS	UPDATE TO 2018 IBC/IRC
2	7/23/09	AL	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	EW	REVISED LOCKSET NOMENCLATURE

DATE: 8/26/05  
SCALE: N.T.S.  
DWG. BY: EW  
CHK. BY: LFS  
DRAWING NO.: TX-592  
SHEET 2 OF 8



R:\Clients\Trinity Glass PERMANENT\B - Texas Dept of Ins\DR-212\C - Drawings\DR-212 2018 IBC\TX-592.dwg, 3



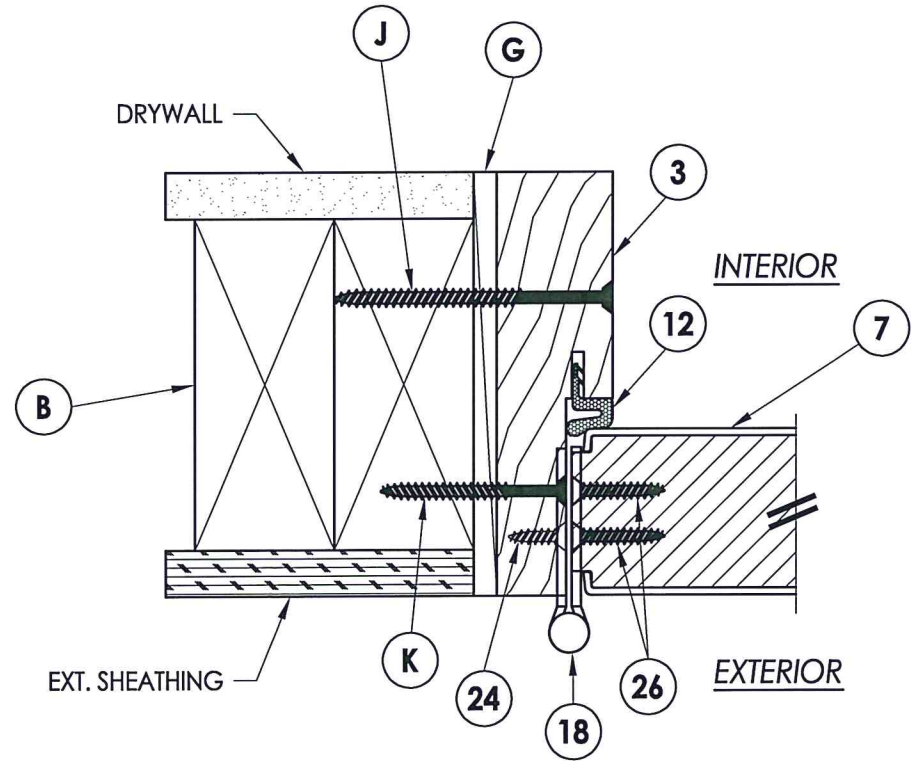
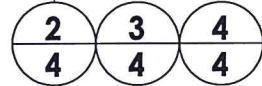
HARDWARE CHART		
MANUFACTURER	MODEL	ITEM #
KWIKSET	LOCK: 740	21
	DEADBOLT: 780	22
KWIKSET	LOCK: COMBO 660	21
	DEADBOLT: COMBO 660	22
SCHLAGE	LOCK: MAX. SECURITY	21
	DEADBOLT: MAX. SECURITY	22



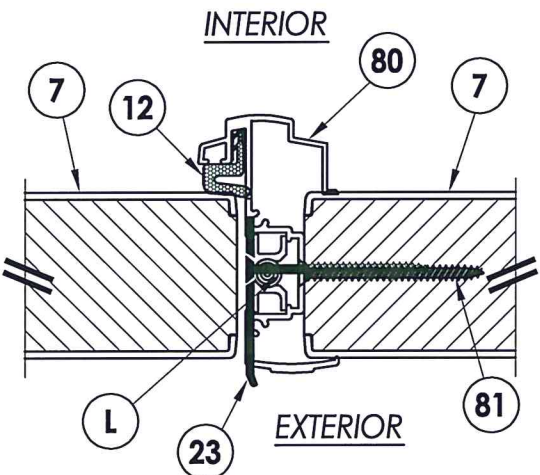
Documents Prepared By: Lyndon F. Schmidt, P.E.  
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**RW** BUILDING CONSULTANTS, INC.  
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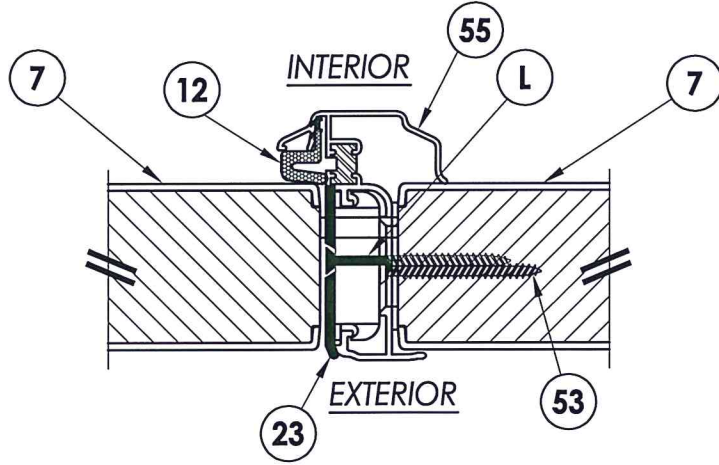
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852



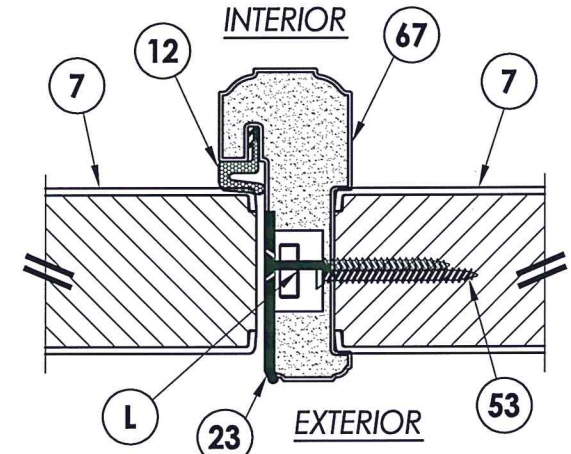
**1 HORIZONTAL CROSS SECTION**  
3 Outswing shown  
Inswing also approved



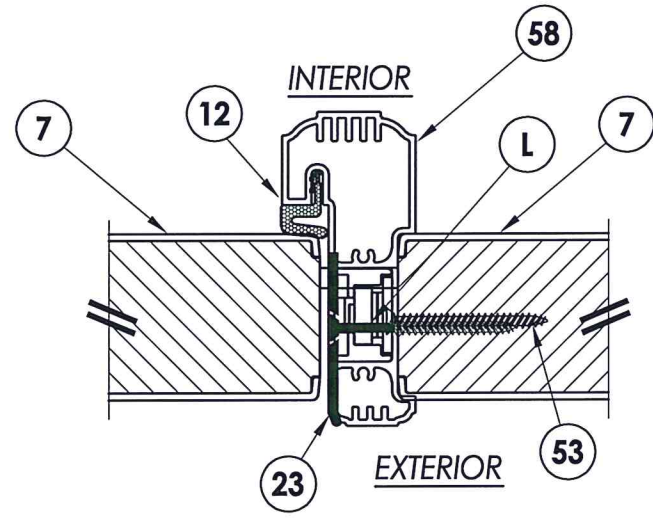
**5 HORIZONTAL CROSS SECTION**  
3 Columbia astragal



**2 HORIZONTAL CROSS SECTION**  
3 Endura astragal



**4 HORIZONTAL CROSS SECTION**  
3 PVC astragal



**3 HORIZONTAL CROSS SECTION**  
3 TRC astragal

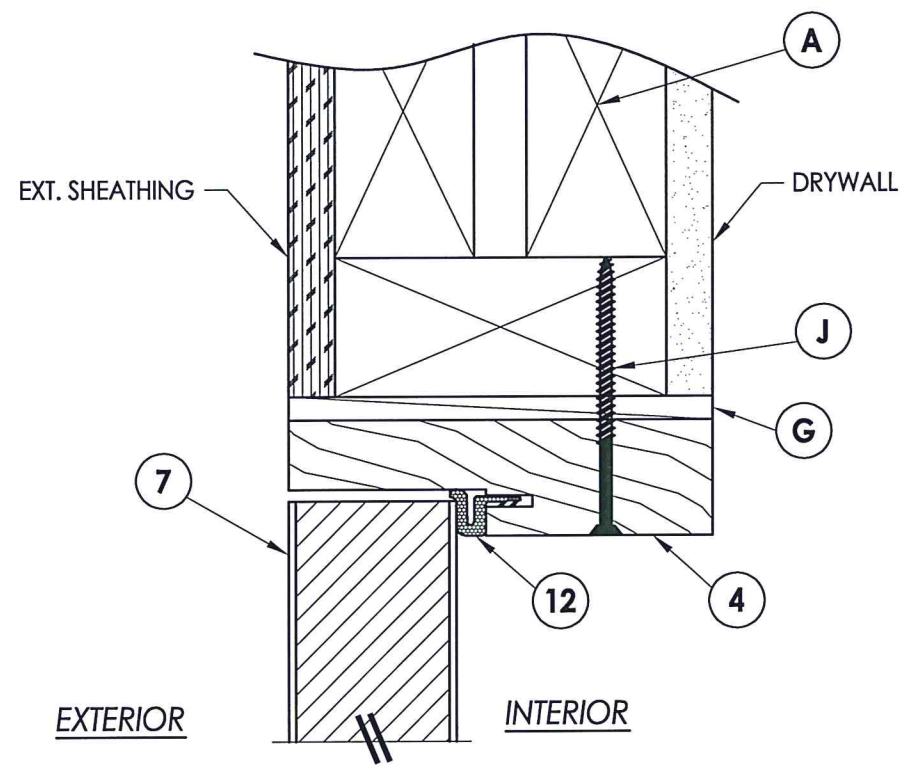
PRODUCT: TRINITY GLASS INT'L  
PREMIUM LIPLITE FIBERGLASS

PART OR ASSEMBLY:  
HORIZONTAL CROSS SECTIONS

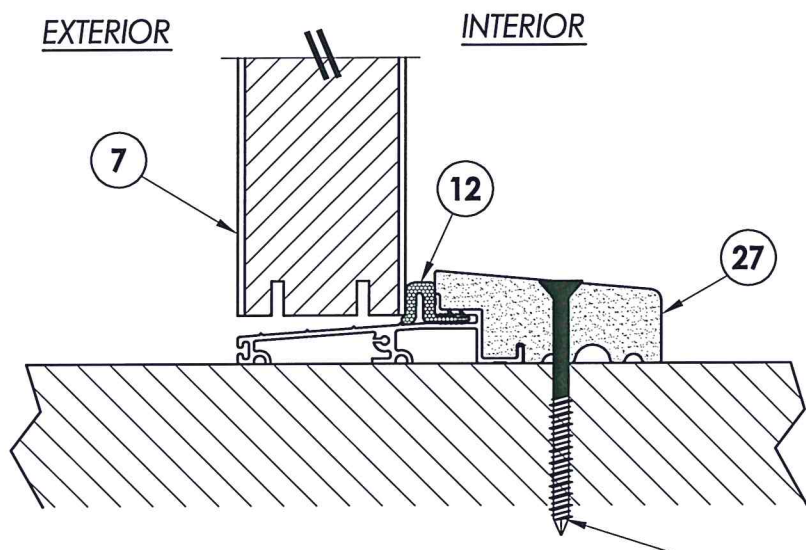
NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IBC/IRC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

DATE: 8/26/05  
SCALE: N.T.S.  
DWG. BY: EW  
CHK. BY: LFS  
DRAWING NO.: TX-592  
SHEET 3 OF 8



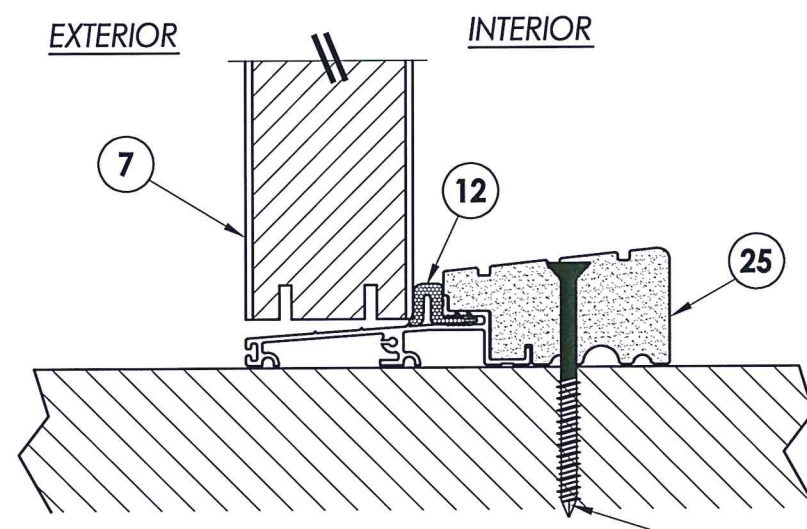


**1 VERTICAL CROSS SECTION**  
**4** Outswing shown  
 Inswing also approved



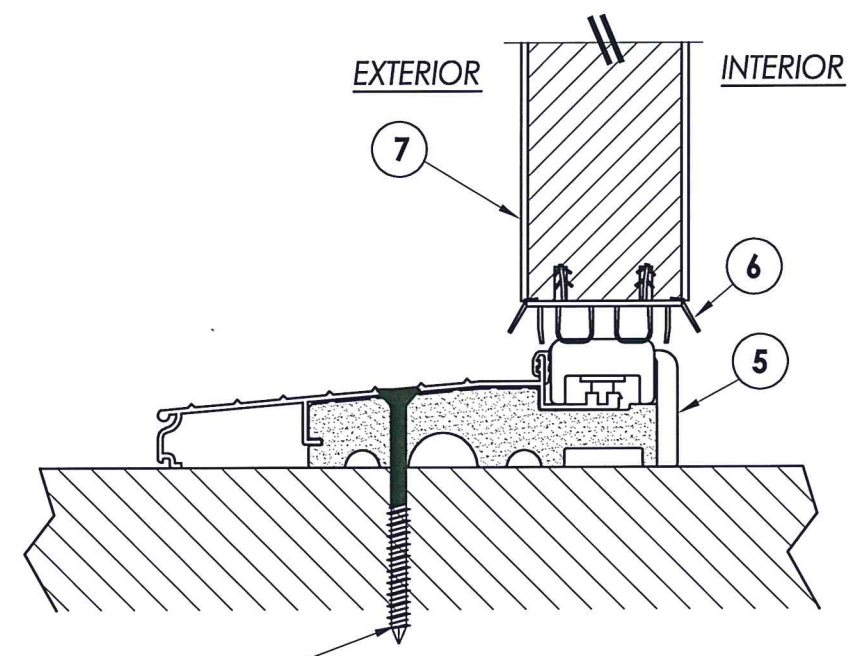
**2 VERTICAL CROSS SECTION**  
**4** Outswing configuration

**L** WOOD  
**P** CONCRETE

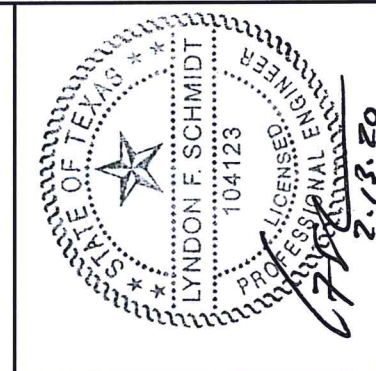


**3 VERTICAL CROSS SECTION**  
**4** Outswing configuration

**L** WOOD  
**P** CONCRETE



**4 VERTICAL CROSS SECTION**  
**4** Inswing configuration



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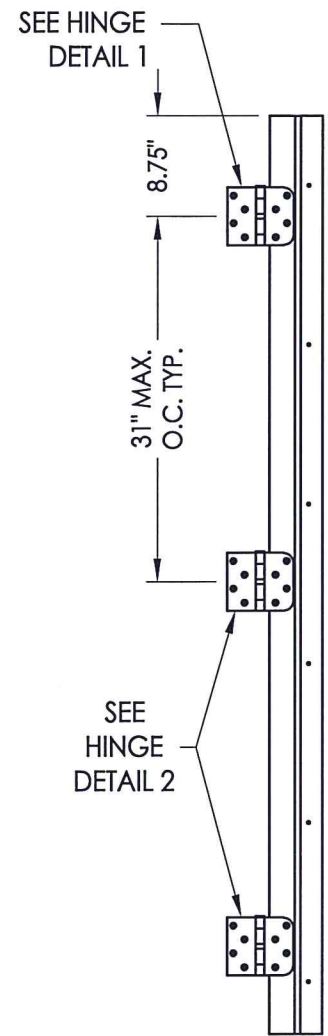
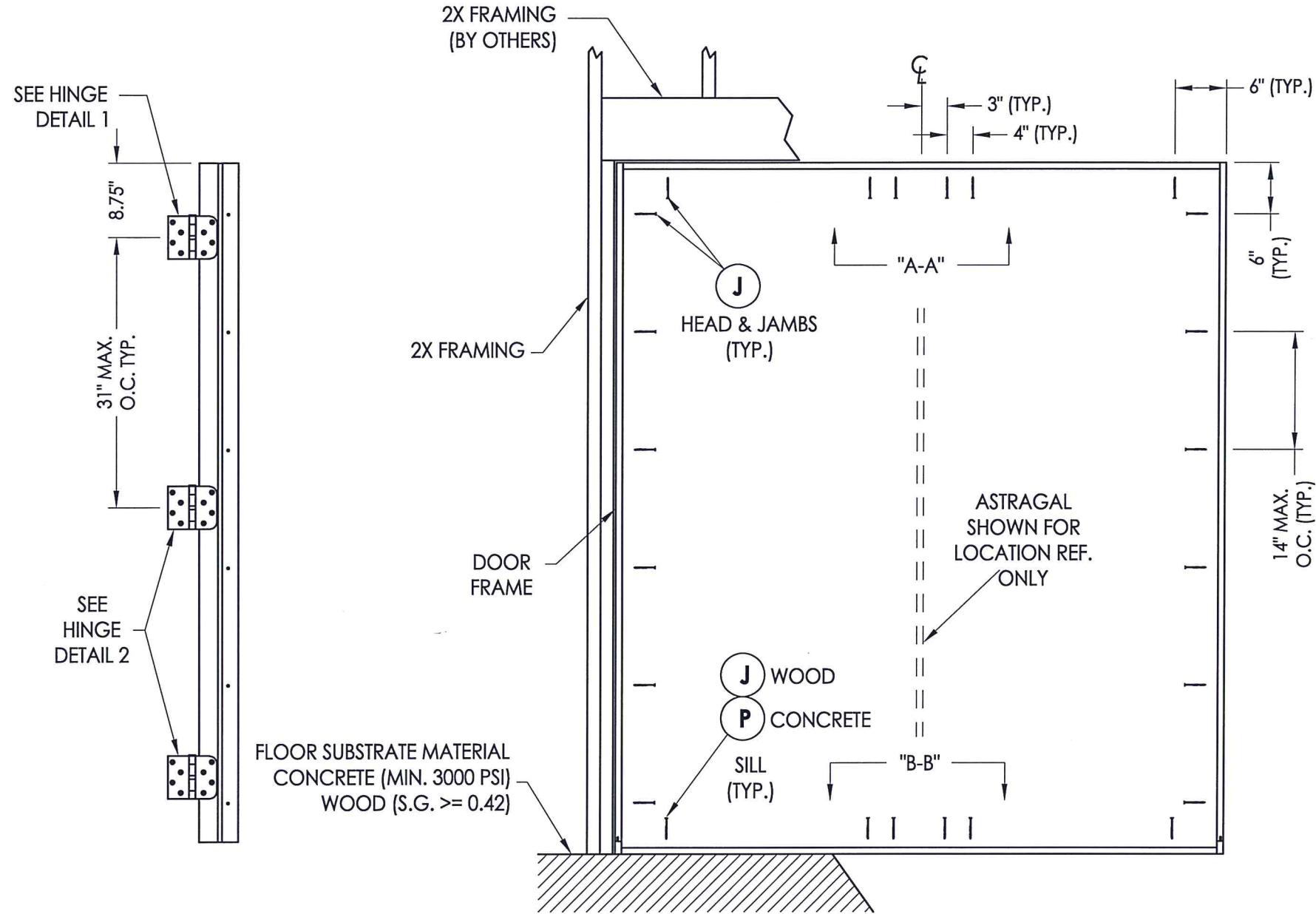
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230 Valrico FL. 33595  
 Phone No.: 813.659.9197  
 TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: TRINITY GLASS INT'L  
 PREMIUM LIPLITE FIBERGLASS  
 PART OR ASSEMBLY:  
 VERTICAL CROSS SECTIONS

NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IBC/IRC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE
		EW
		BY

DATE: 8/26/05  
 SCALE: N.T.S.  
 DWG. BY: EW  
 CHK. BY: LFS  
 DRAWING NO.: TX-592  
 SHEET 4 OF 8

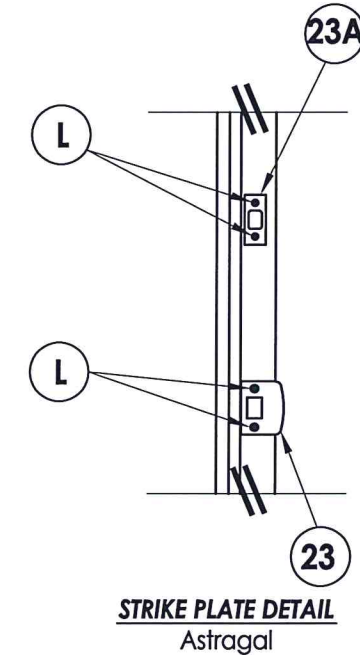
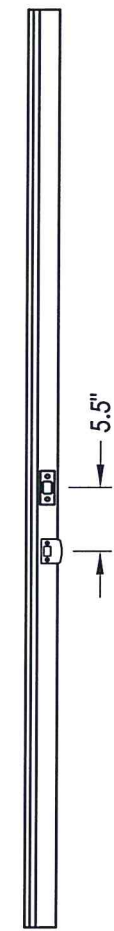
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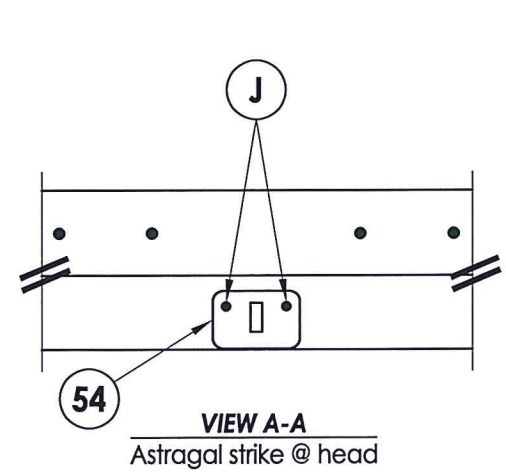
**HINGE JAMB**

**FRAME ANCHORING**  
Stud construction

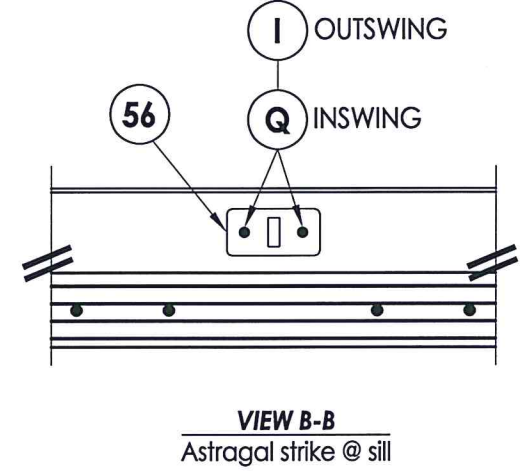
**ASTRAGAL STRIKE**



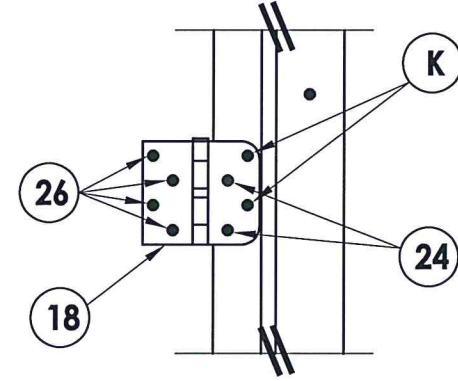
**STRIKE PLATE DETAIL**  
Astragal



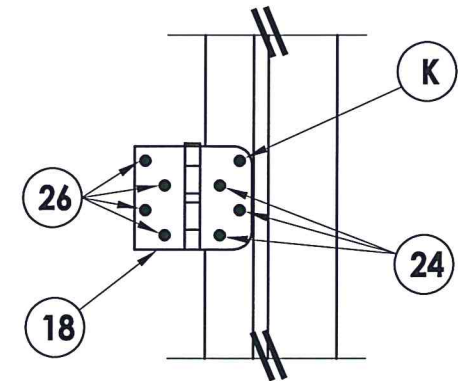
**VIEW A-A**  
Astragal strike @ head



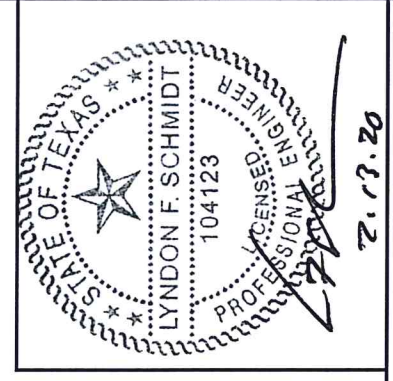
**VIEW B-B**  
Astragal strike @ sill



**HINGE DETAIL 1**



**HINGE DETAIL 2**



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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: TRINITY GLASS INT'L PREMIUM LIPLITE FIBERGLASS

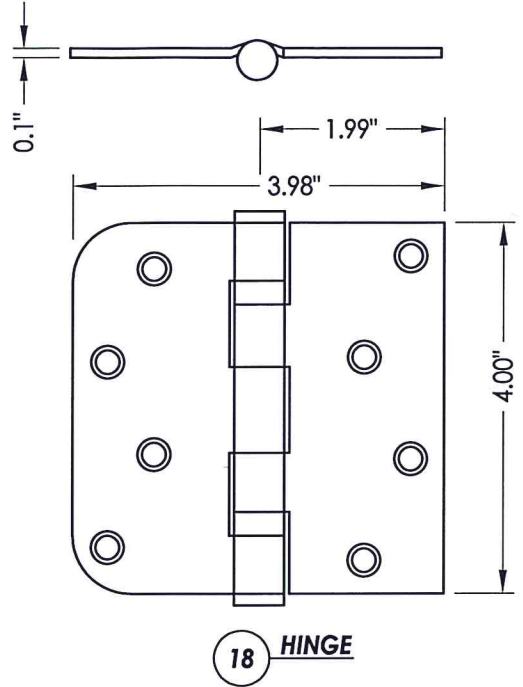
PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IBC/IRC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

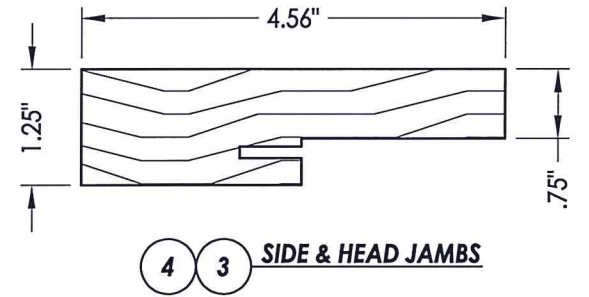
DATE: 8/26/05  
SCALE: N.T.S.  
DWG. BY: EW  
CHK. BY: LFS  
DRAWING NO.: TX-592  
SHEET 5 OF 8



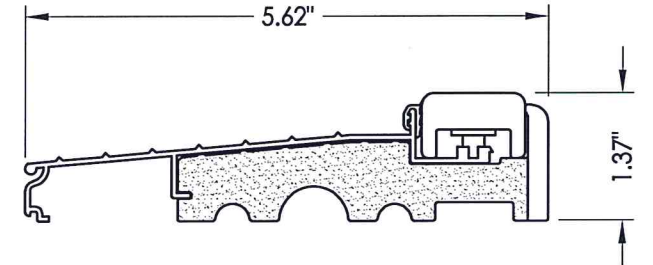
R:\Clients\Trinity Glass Permanent\B - Texas Dept of Ins\DR-212\C - Drawings\DR-212 2018 IBC\TX-592.dwg, 6



18 HINGE



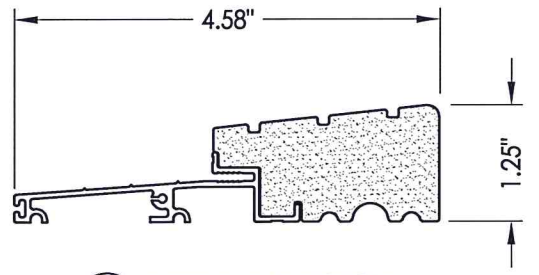
4 3 SIDE & HEAD JAMBS



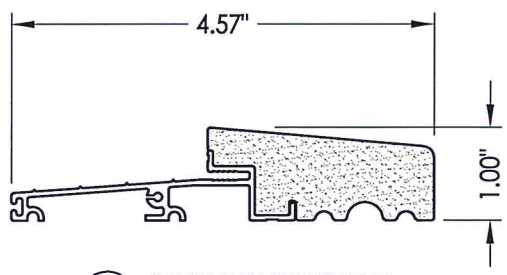
5 INSWING THRESHOLD



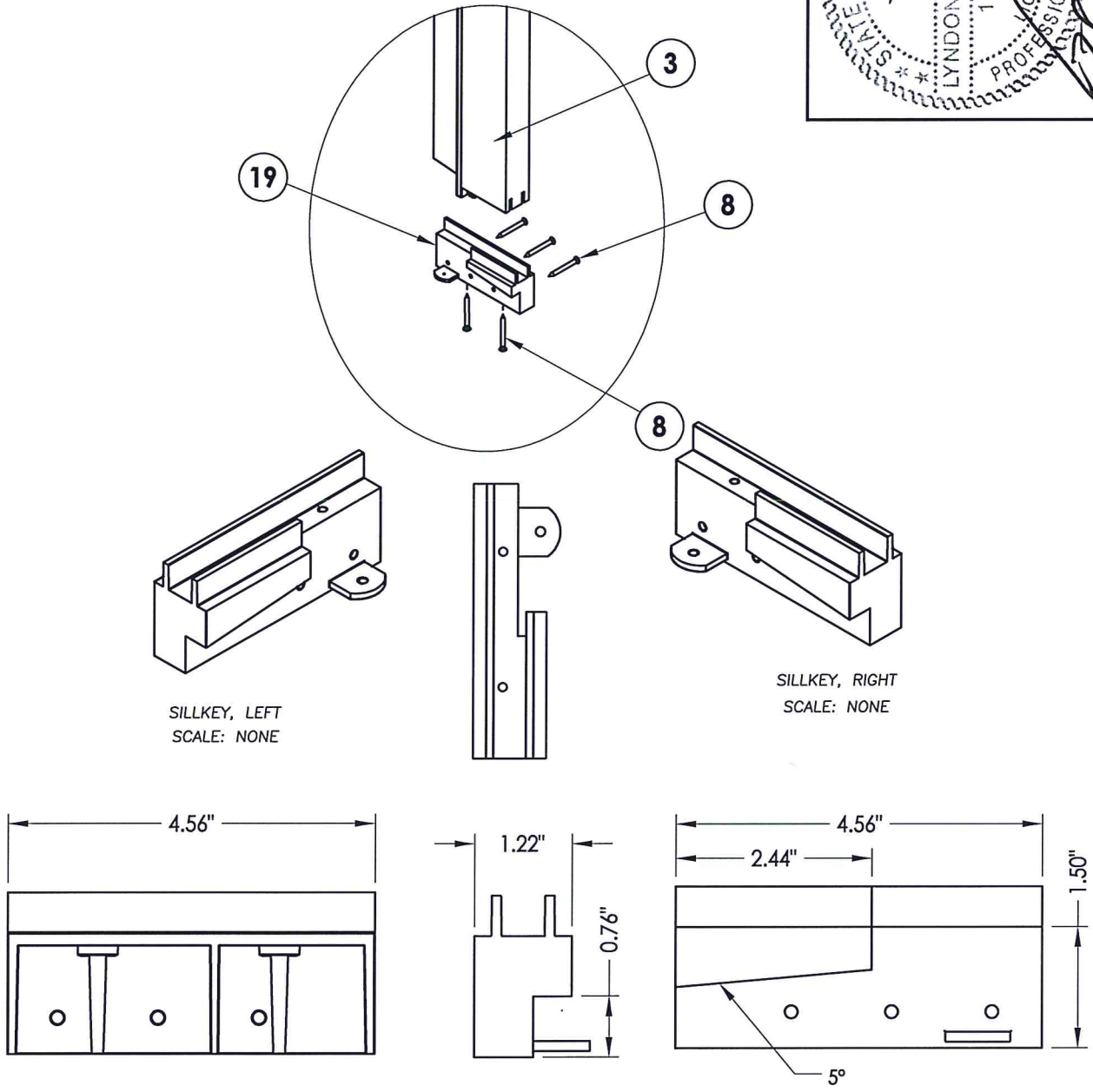
6 DOOR BOTTOM SWEEP



25 OUTSWING THRESHOLD  
High-dam option



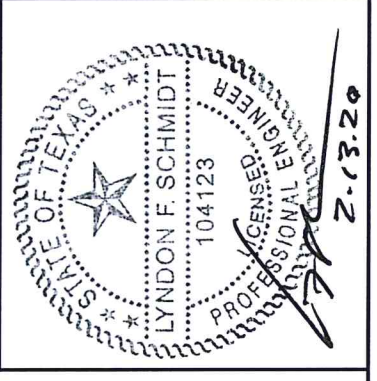
27 OUTSWING THRESHOLD



SILLKEY, LEFT  
SCALE: NONE

SILLKEY, RIGHT  
SCALE: NONE

19 SILLKEY DETAILS  
Optional



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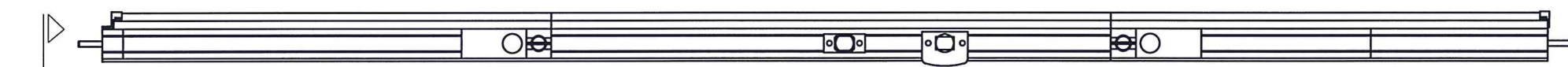
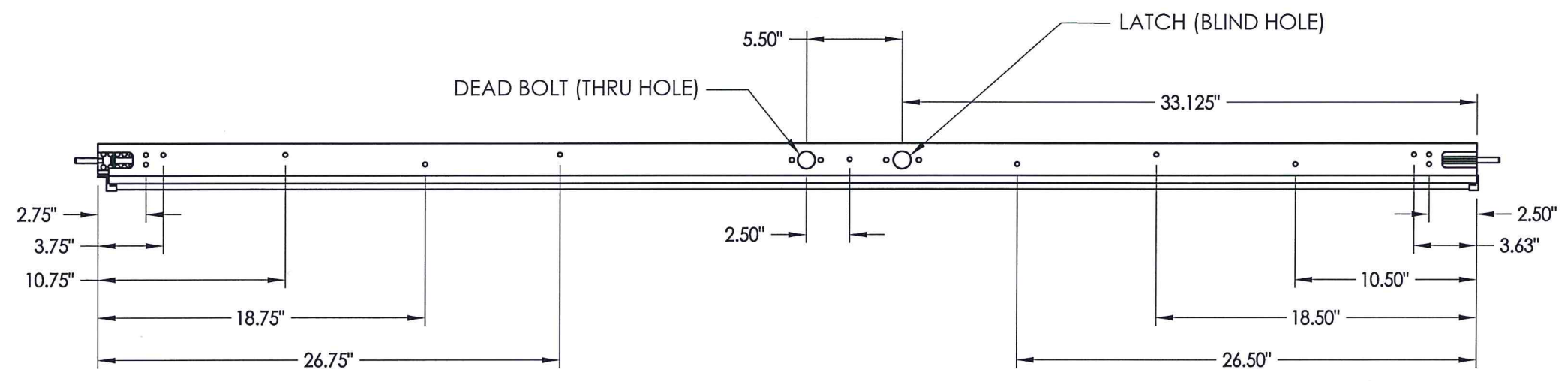
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:  
TRINITY GLASS INT'L  
PREMIUM LIPLITE FIBERGLASS

PART OR ASSEMBLY:  
COMPONENTS

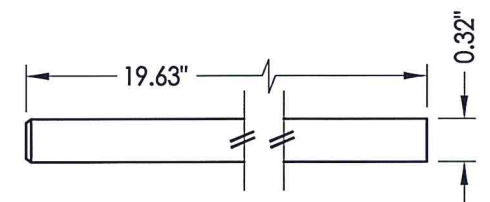
NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IBC/IRC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

DATE:	8/26/05
SCALE:	N.T.S.
DWG. BY:	EW
CHK. BY:	LFS
DRAWING NO.:	TX-592
SHEET	6 of 8

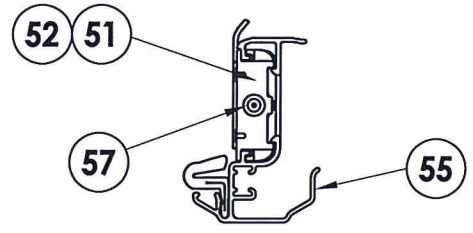


**6'8 ALUMINUM ASTRAGAL ASSEMBLY**  
By Endura Products

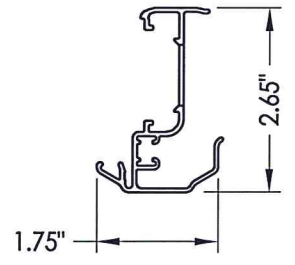
A-A



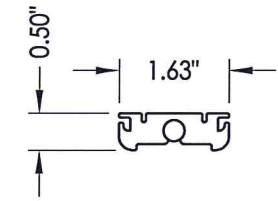
**57 SLIDE BOLT ROD**  
MATL: Steel



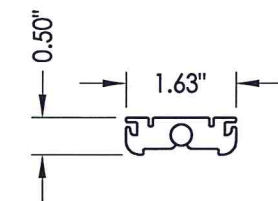
**VIEW A-A**  
Aluminum Astragal Assembly



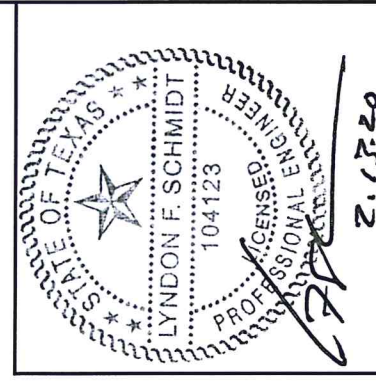
**55 ALUMINUM ASTRAGAL**  
By Endura Products



**52 TOP BOLT RETAINER**  
MATL: 9-3/4\"/>



**51 TOP BOLT RETAINER**  
MATL: 4-3/4\"/>



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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: TRINITY GLASS INT'L  
PREMIUM LIPLITE FIBERGLASS  
PART OR ASSEMBLY:  
ENDURA ASTRAGAL DETAILS

NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IBC/IRC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE
		EW
		BY

DATE: 8/26/05  
SCALE: N.T.S.  
DWG. BY: EW  
CHK. BY: LFS  
DRAWING NO.: TX-592  
SHEET 7 OF 8





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CERTIFICATE OF REGISTRATION # F-11852

**BILL OF MATERIALS**

ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
A	2X HEADER FRAMING SG >= 0.42	WOOD	31	LVL LOCK BLOCK	POPLAR
B	2X FRAMING SG >= 0.42	WOOD	32	HINGE STILE - SG >= 0.42	LVL/PVC
G	MAX. 1/4" SHIM SPACE	WOOD	33	TOP RAIL - POPLAR LVL & WPC COMBINATION	POPLAR/WPC
I	3/16" X 2-1/4" ITW PFH CONCRETE SCREW	WOOD	34	BOTTOM RAIL - POPLAR LVL & WPC COMBINATION	POPLAR/WPC
J	#10 X 3" PFH WS	STEEL	39	FIBERGLASS SKIN 0.079" MIN. THICKNESS	FIBERGLASS
K	#9 X 2" PFH WS	STEEL	40	#8 X 1-1/8" SELF THREADING SCREW	STEEL
L	#8 X 2-1/2" PFH WS	STEEL	42	ALUMINUM & BUTYL SPACER SYSTEM	ALUM./BUTYL
P	3/16" X 2-3/4" ELCO OR ITW PFH CONCRETE SCREW	STEEL	44	HOT MELT SEALANT / SILICONE	-
Q	3/16" X 3-1/4" ITW CONCRETE SCREW	STEEL	45	LITE FRAME	PC/ASA
3	HINGE JAMB - FINGER-JOINT PINE - SG >= 0.42	WOOD	46	FOAM CORE	POLYURETHANE
4	HEAD - FINGER-JOINT PINE - SG >= 0.42	WOOD	50	FLUSHBOLT BAR	STEEL
5	INSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUMINUM	51	4-3/4" LENGTH TOP BOLT RETAINER	HDPE
6	DOOR BOTTOM SWEEP	PVC	52	9-3/4" LENGTH TOP BOLT RETAINER	ALUMINUM
7	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-	53	#8 X 1-3/4" PFH SMS	STEEL
8	#6 X 1-1/4" PFH DRYWALL SCREW	STEEL	54	ASTRAGAL STRIKE @ HEAD	STEEL
12	WEATHER STRIP QEBD650 Q-LON	-	55	ASTRAGAL BY ENDURA PRODUCTS	ALUMINUM
18	3.983" X 4.0" HINGE MIN 0.098" THICK	STEEL	56	ASTRAGAL STRIKE @ SILL	STEEL
19	SILLKEY	PC/ASA	57	SLIDE BOLT ROD	STEEL
21	LOCK (SEE LOCK & DEADBOLT RATINGS CHART)	STEEL			
22	DEADBOLT (SEE LOCK & DEADBOLT RATINGS CHART)	STEEL			
23	STRIKE PLATE	STEEL			
23A	DEADBOLT PLATE	STEEL			
24	#9 X 5/8" PFH SCREW	STEEL			
25	OUTSWING HIGH-DAM THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM./ COMP.			
26	#9 X 1" PFH SCREW	STEEL			
27	OUTSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM./ COMP.			
30	LATCH STILE - SG >= 0.42	LVL/PVC			

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 BUILDEX TAPCON®	1/4"	1-3/4"	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.

PRODUCT: TRINITY GLASS INT'L PREMIUM LIPLITE FIBERGLASS

PART OR ASSEMBLY: BILL OF MATERIALS

NO.	DATE	REVISIONS
3	2/12/20	UPDATE TO 2018 IBC/IRC
2	7/23/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

DATE: 8/26/05  
SCALE: N.T.S.  
DWG. BY: EW  
CHK. BY: LFS  
DRAWING NO.: TX-592  
SHEET 8 OF 8