

**6'0 X 8'0**  
**OPAQUE PREMIUM FIBERGLASS**  
**DOUBLE DOOR**  
**IN SWING / OUT SWING**  
**"IMPACT"**

**EVALUATED FOR USE IN THE STATE OF TEXAS**

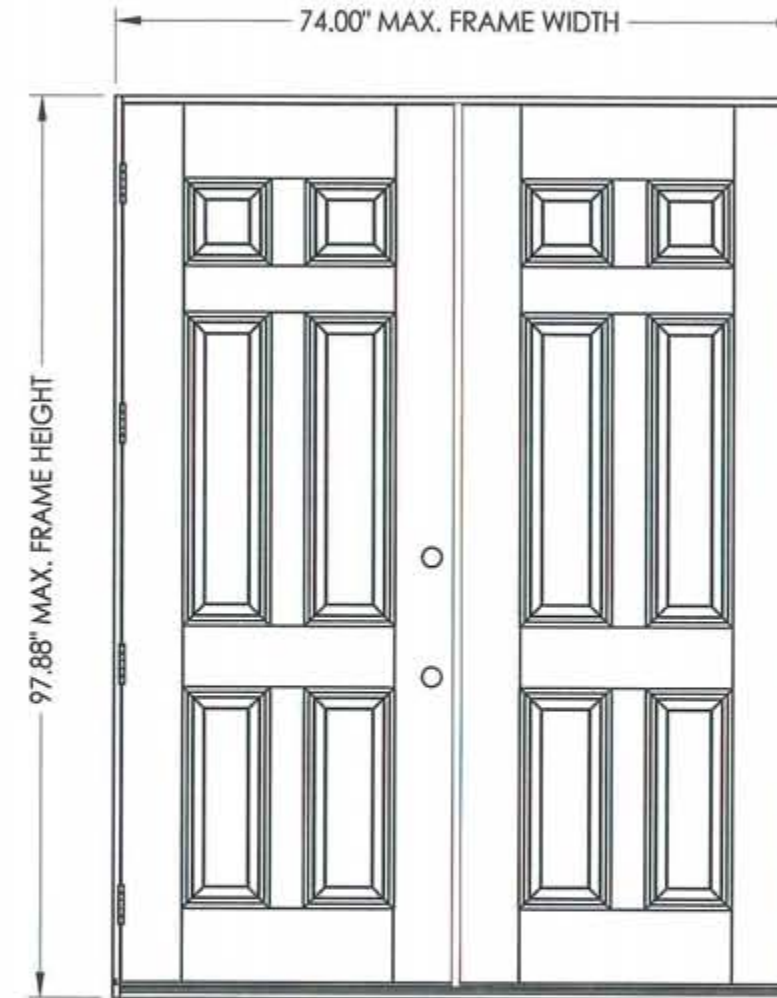
The Trinity Opaque Premium Fiberglass Door described herein complies with the 2006 International Residential Code (IRC), Sections R301 & R613 and the 2006 International Building Code (IBC), Sections 1405.12, 1609, 1714.5, 2403 and 2404 (including Texas revisions) subject to the following conditions:

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 complies with Sections R301.2.1.2 of the IRC and 1609.1.2 of the IRC as an impact resistant product and does not require the use of an approved impact resistant covering. This product does not meet the requirements for enhanced protection of essential facilities as defined in ASTM E1996.
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.

**SUPPORTING DOCUMENTS & EVIDENCE**

1. Testing per ASTM E330-02, ASTM E1886-02 and ASTM E1996-02 as performed by Testing Evaluation Laboratories, Inc. and reported in test report numbers TEL 05-1026-1 and TEL 05-1026-1-C signed by Wendell W. Haney, P.E.
2. Testing per AAMA/WDMA/CSA 101/1.S.2/A440-05, ASTM E1886-02 and ASTM E1996-02 as performed by Testing Evaluation Laboratories, Inc. and reported in test report numbers TEL 08-01370021 and TEL 08-01370021-IC signed by Wendell W. Haney, P.E.
3. Calculations (Anchoring) prepared by Lyndon F. Schmidt, P.E.
4. Certificate of Participation issued by the National Accreditation and Management Institute, Inc., certifying that Trinity Glass Int'l is manufacturing products within a Quality Assurance program.

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



ASTRAGAL TYPE	SWING	MAX. FRAME DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF)	
				POSITIVE	NEGATIVE
TRC	IN SWING	74.00" x 97.88"	G1	+47.0	-47.0
	OUT SWING	74.00" x 96.75"		+47.0	-47.0
ENDURA	IN SWING	74.00" x 97.88"	G1	+47.0	-47.0
	OUT SWING	74.00" x 96.75"		+47.0	-47.0

Refer to Table (sheet 3) for Passage Lock Rating Limitations



Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123  
*16.10*

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

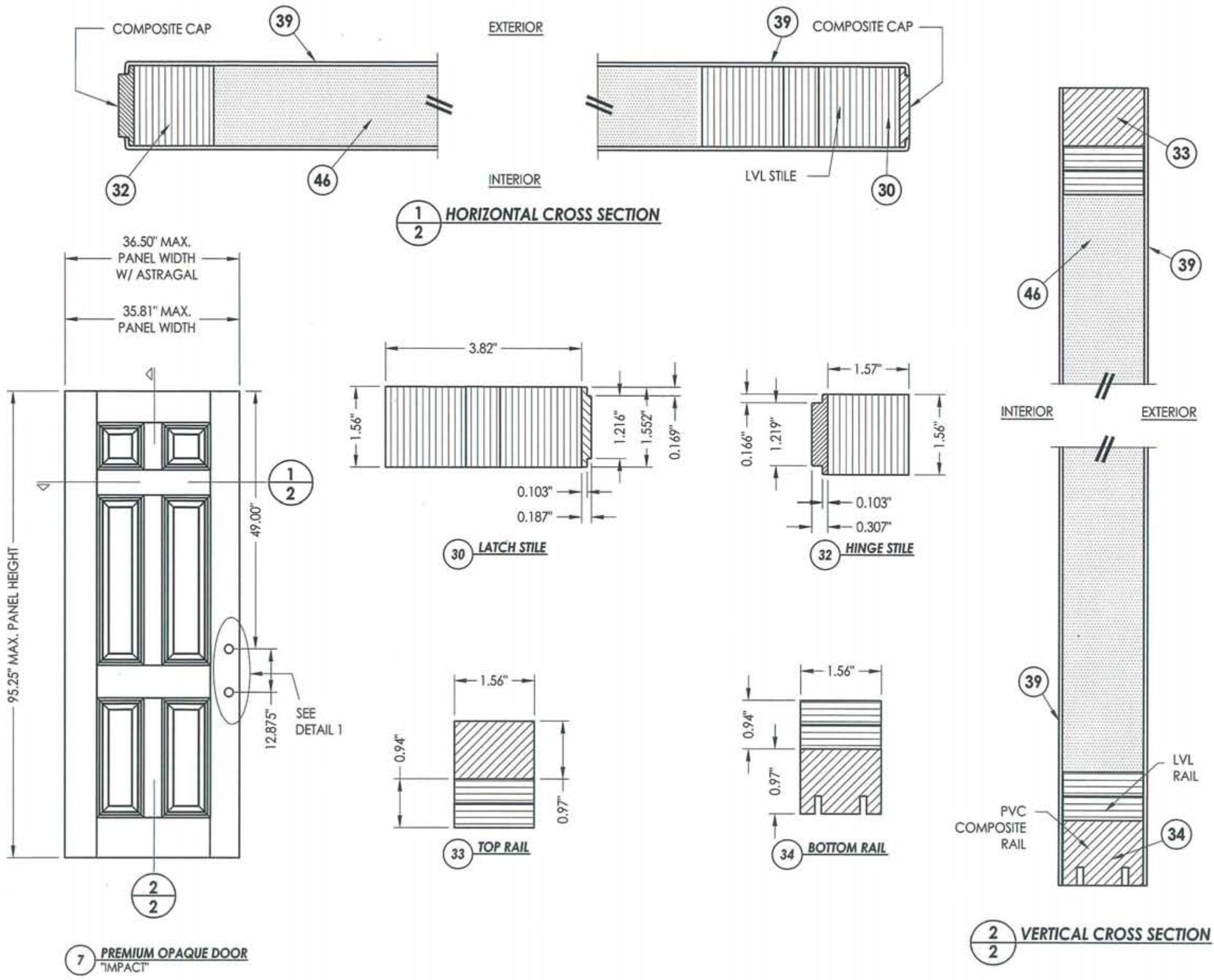
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: TRINITY GLASS INT'L  
8'0 PREMIUM OPAQUE

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

NO.	DATE	REVISIONS
2	7/27/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

DATE: 11/21/05  
SCALE: N.T.S.  
DWG. BY: AEM  
CHK. BY: LFS  
DRAWING NO.: TX-722  
SHEET 1 of 9



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: TRINITY GLASS INT'L  
8'0 PREMIUM OPAQUE

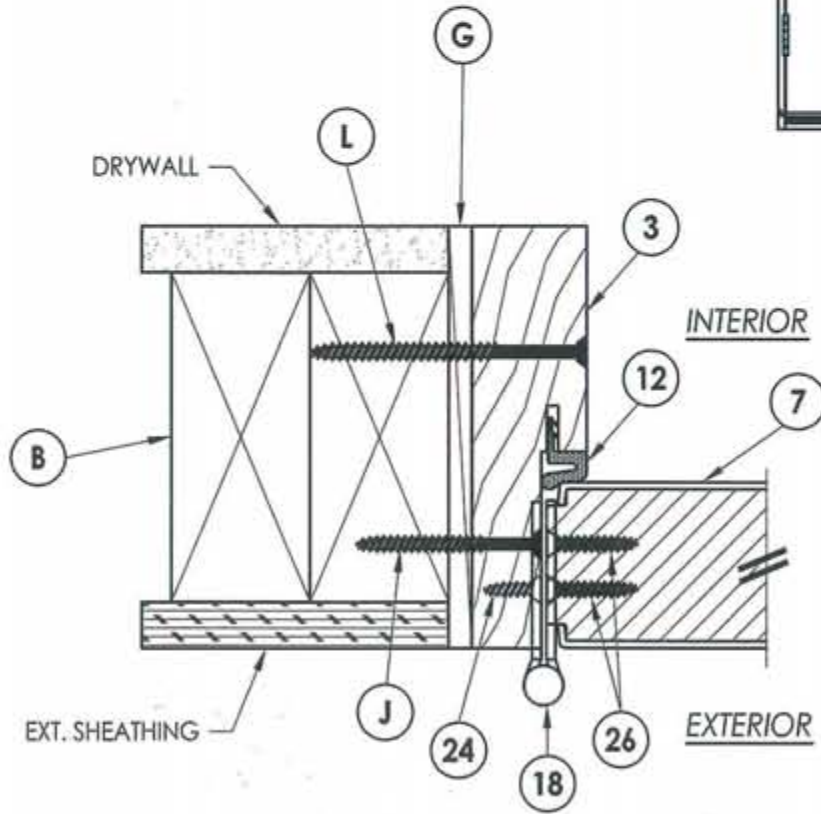
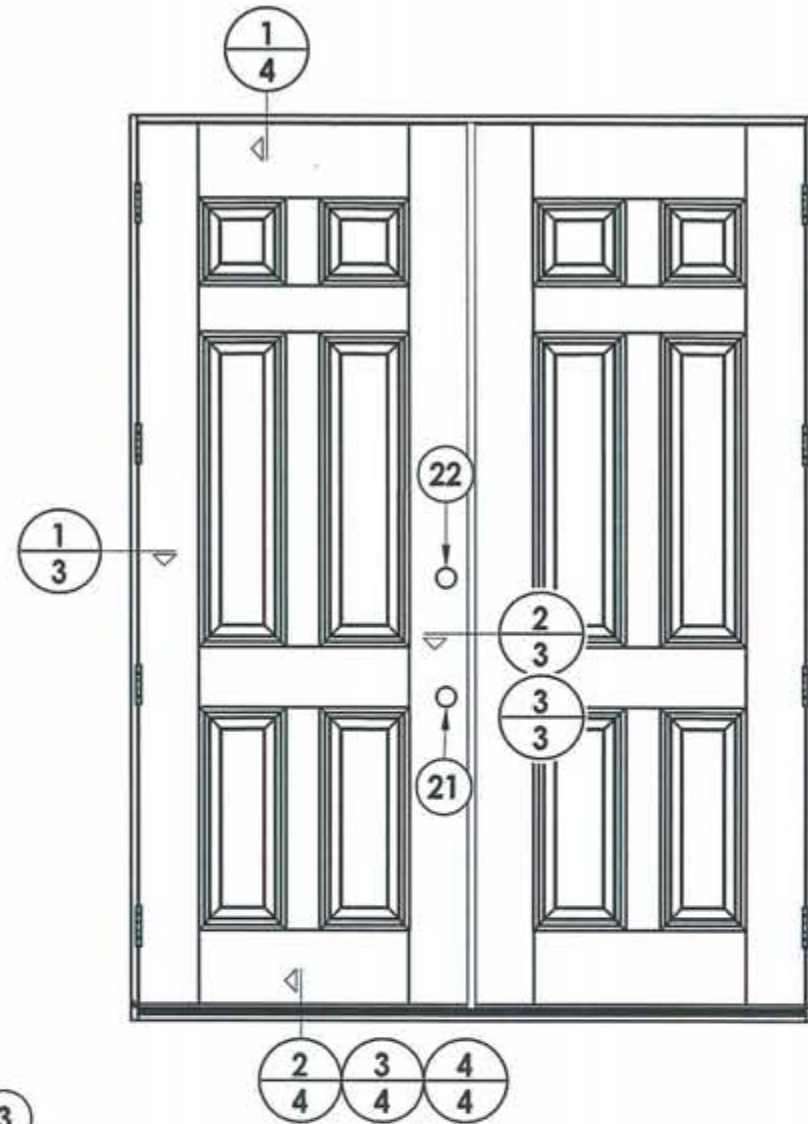
PART OR ASSEMBLY: DOOR PANEL  
CONSTRUCTION DETAILS

NO.	DATE	BY	REVISIONS
2	7/27/09	AL	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	EW	REVISED LOCKSET NOMENCLATURE

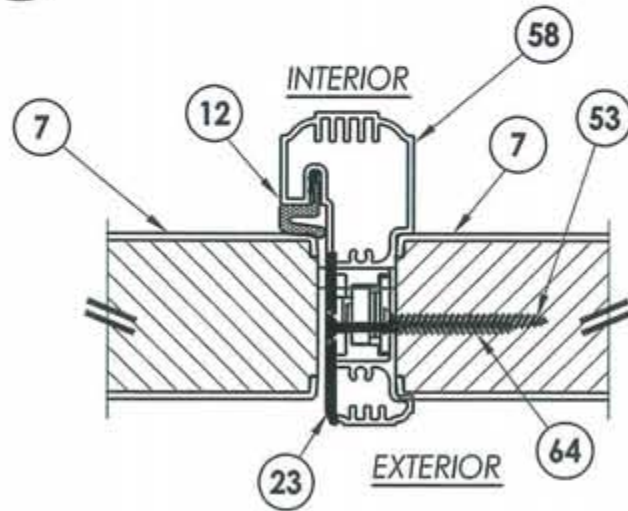
DATE: 11/21/05  
SCALE: N.T.S.  
DWG. BY: AEM  
CHK. BY: LFS  
DRAWING NO.: TX-722  
SHEET 2 of 9

**NOTE:**

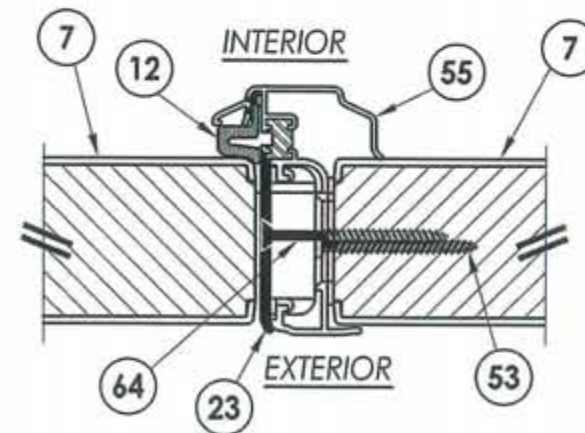
- Item #63 - #8 x 2-1/4" PFH screws thru jamb into sidelite located @ 6", 27", 50-1/4", & 72-1/8" from top of frame typ. both side jambs.



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



**2** HORIZONTAL CROSS SECTION  
**3** TRC astragal



**3** HORIZONTAL CROSS SECTION  
**3** Endura astragal

LOCK & DEADBOLT RATINGS CHART				
MANUFACTURER	MODEL	ITEM #	MAX. DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
KWIKSET	LOCK: 740	21	+47.0	-47.0
	DEADBOLT: 780	22		
KWIKSET	LOCK: COMBO 660	21	+47.0	-47.0
	DEADBOLT: COMBO 660	22		
SCHLAGE	LOCK: MAX. SECURITY	21	+47.0	-47.0
	DEADBOLT: MAX. SECURITY	22		



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

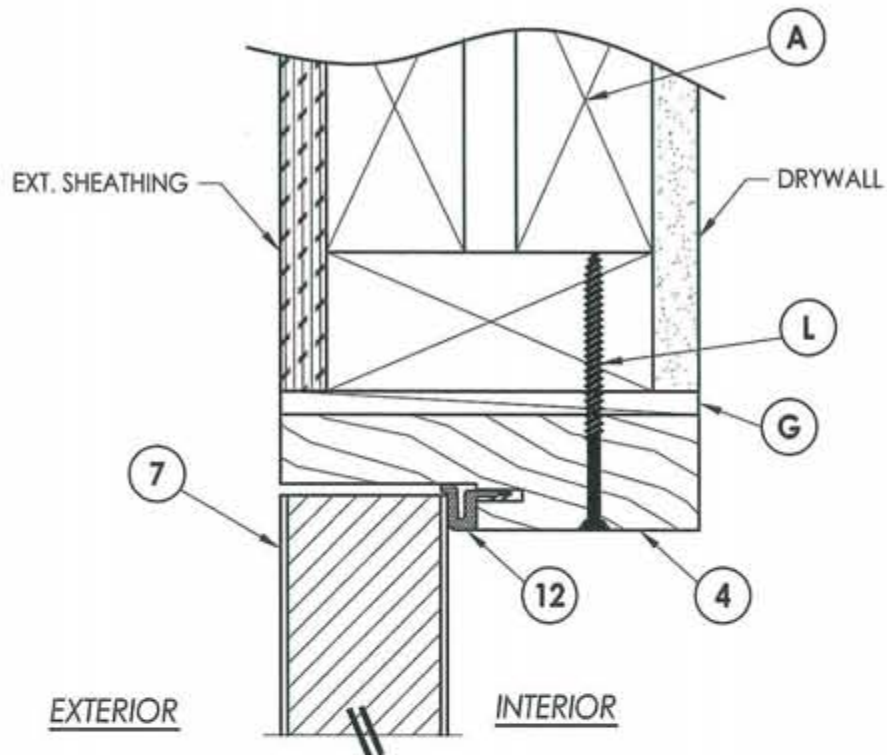
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: TRINITY GLASS INT'L  
 80 PREMIUM OPAQUE

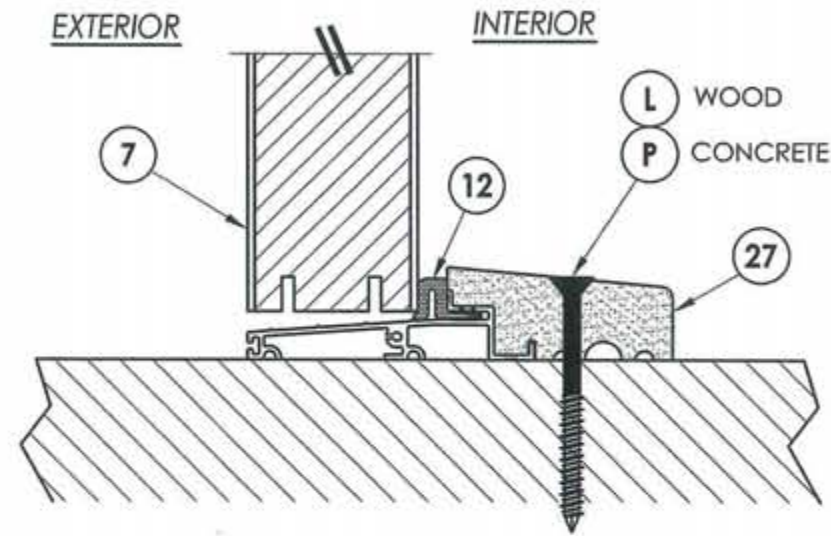
PART OR ASSEMBLY:  
 HORIZONTAL CROSS SECTIONS

NO	DATE	BY	REVISIONS
2	7/27/09	AL	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	EW	REVISED LOCKSET NOMENCLATURE

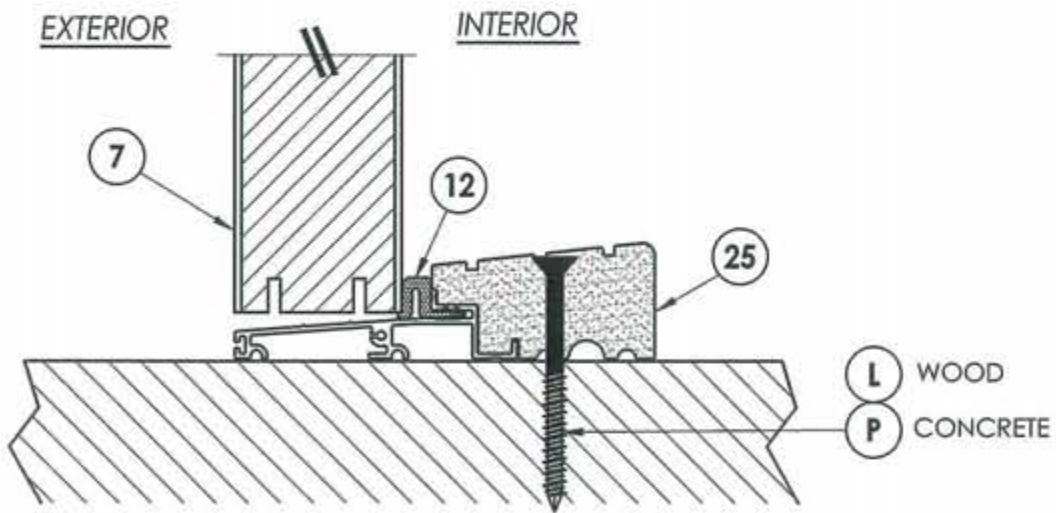
DATE: 11/21/05  
 SCALE: N.T.S.  
 DWG. BY: AEM  
 CHK. BY: LFS  
 DRAWING NO.: TX-722  
 SHEET 3 OF 9



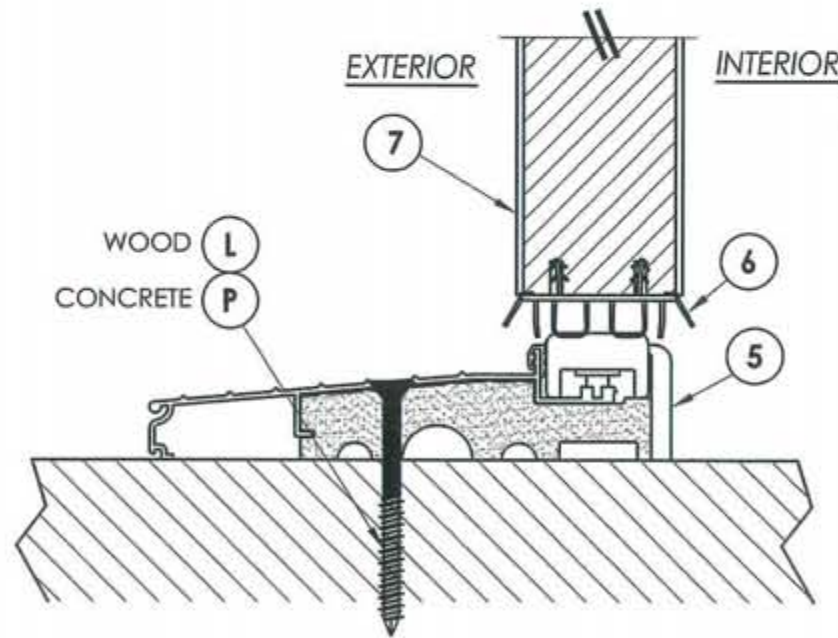
**1** VERTICAL CROSS SECTION  
**4** Outswing shown  
 Inswing also approved



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



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



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



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

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

PRODUCT: TRINITY GLASS INT'L  
 80 PREMIUM OPAQUE  
 PART OR ASSEMBLY:  
 VERTICAL CROSS SECTIONS

NO.	DATE	BY	REVISIONS
2	7/27/09	AL	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	EW	REVISED LOCKSET NOMENCLATURE

DATE: 11/21/05  
 SCALE: N.T.S.  
 DWG. BY: AEM  
 CHK. BY: LFS  
 DRAWING NO.: TX-722  
 SHEET 4 OF 9



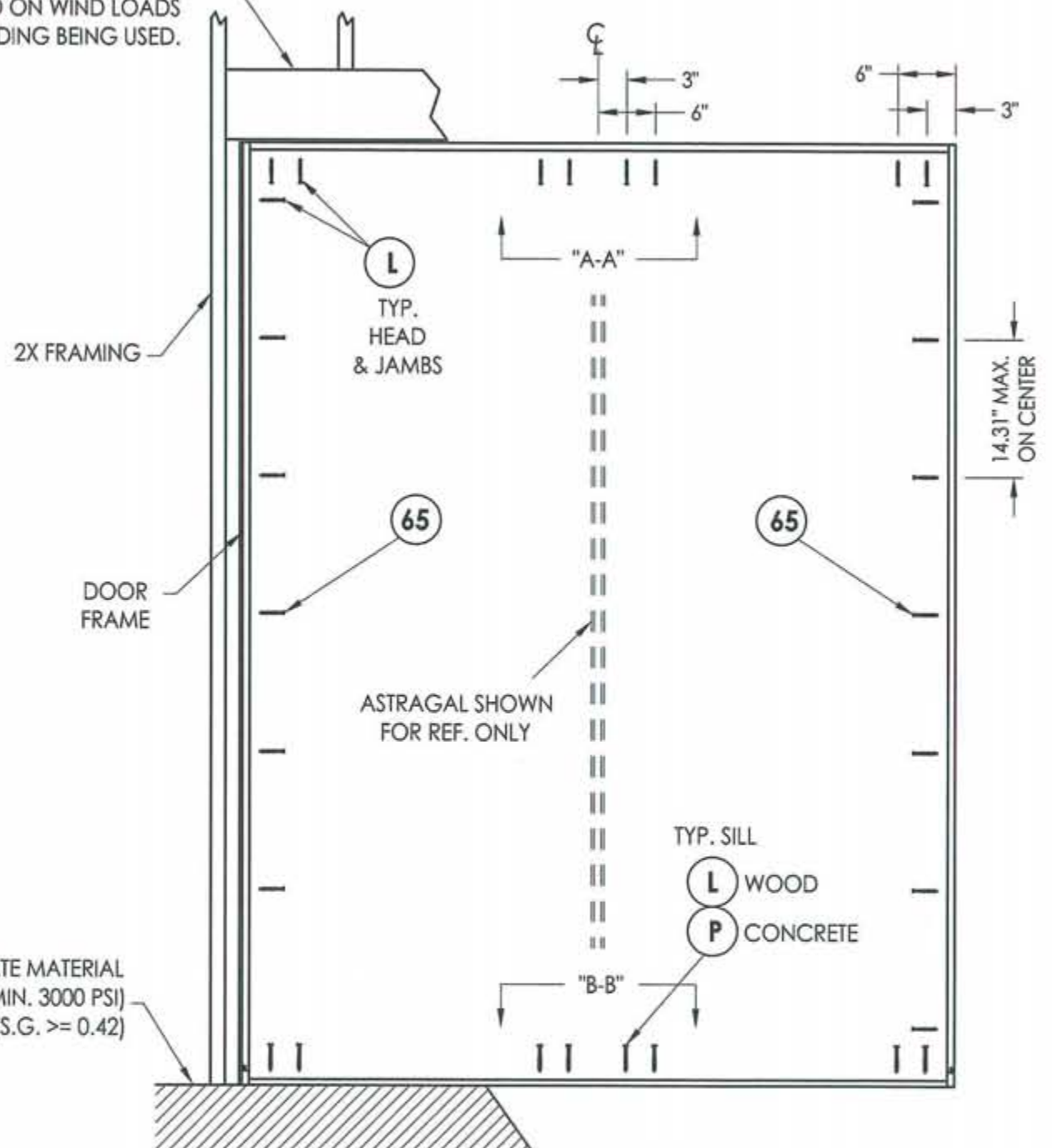
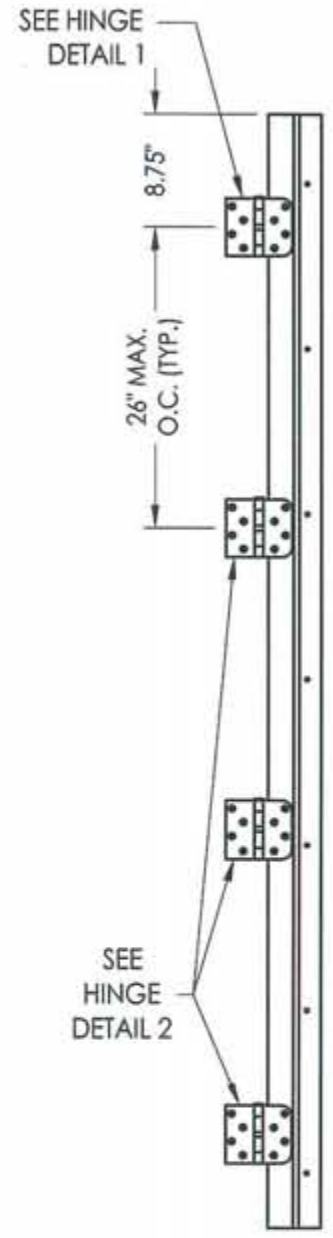
1.6.10

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

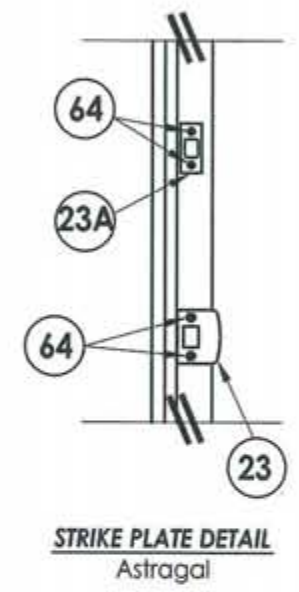
**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Vero Beach, FL 33595  
Phone No.: 813.659.9197

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

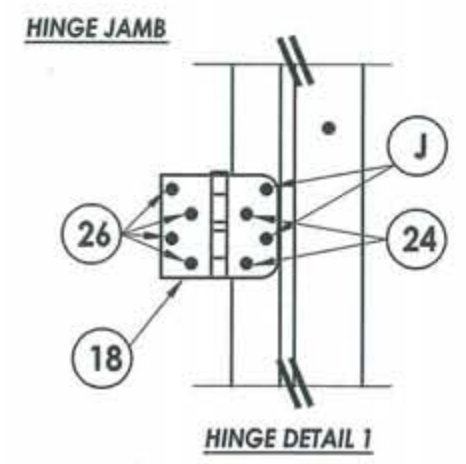
2X FRAMING TO BE DESIGNED BY THE ENGINEER OR ARCHITECT OF RECORD BASED ON WIND LOADS AND THE CLADDING BEING USED.



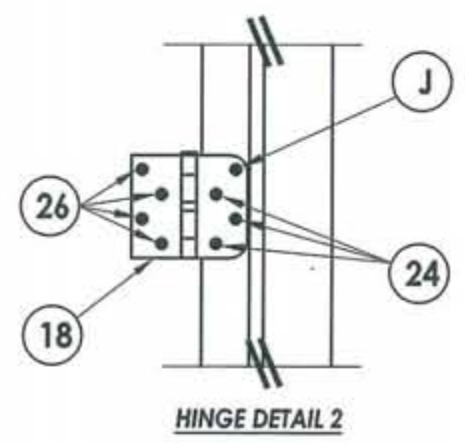
FLOOR SUBSTRATE MATERIAL  
CONCRETE (MIN. 3000 PSI)  
WOOD (S.G. >= 0.42)



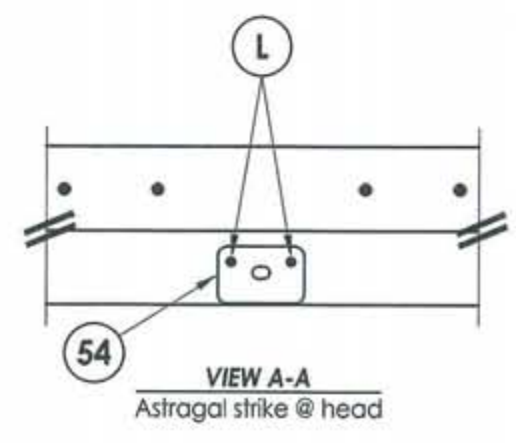
STRIKE PLATE DETAIL  
Astragal



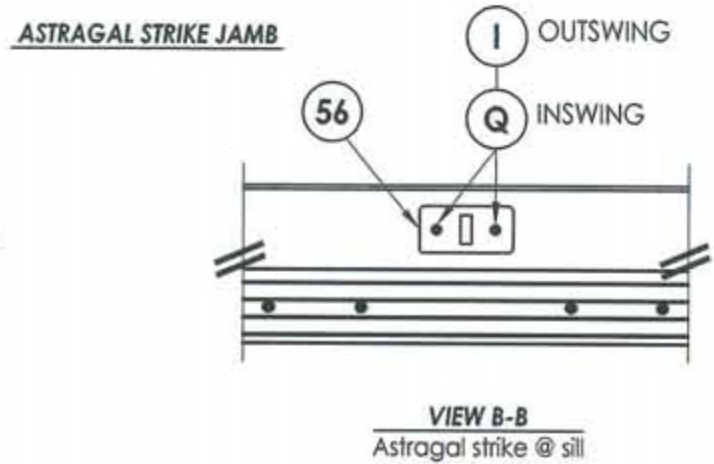
HINGE DETAIL 1



HINGE DETAIL 2



VIEW A-A  
Astragal strike @ head



VIEW B-B  
Astragal strike @ sill

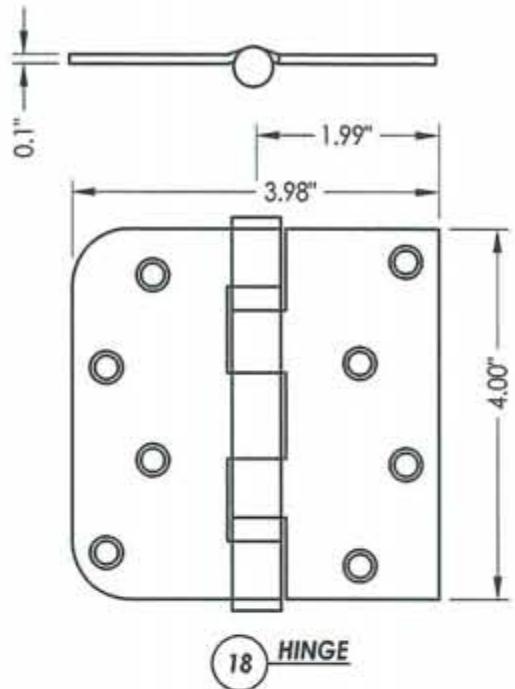
PRODUCT:	TRINITY GLASS INT'L 8'0 PREMIUM OPAQUE
PART OR ASSEMBLY:	FRAME ANCHORING

NO.	DATE	REVISIONS
2	7/27/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE
		AL
		EW
		BY

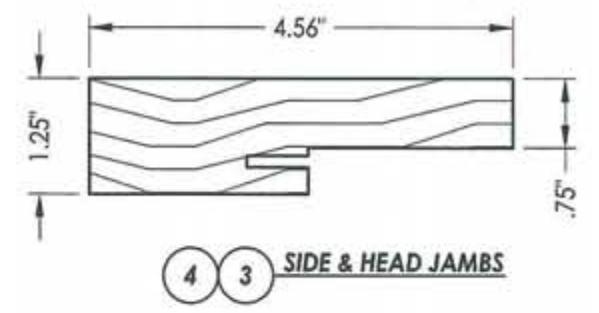
DATE:	11/21/05
SCALE:	N.T.S.
DWG. BY:	AEM
CHK. BY:	LFS
DRAWING NO.:	TX-722
SHEET	5 of 9

© 2009 R.W. BUILDING CONSULTANTS INC.

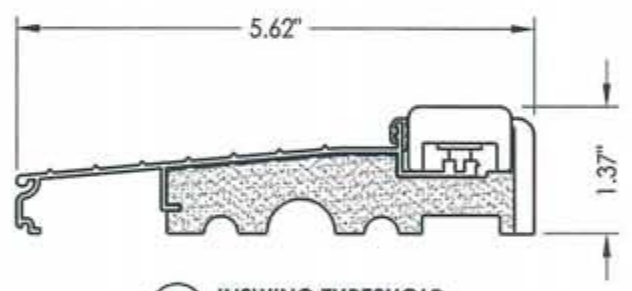
R:\A - Projects\Project Folders\Proj 801 - 900\p1826\TX-722\TX-722.dwg, 5



18 HINGE



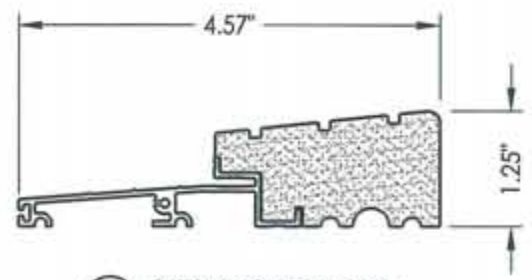
4 3 SIDE & HEAD JAMBS



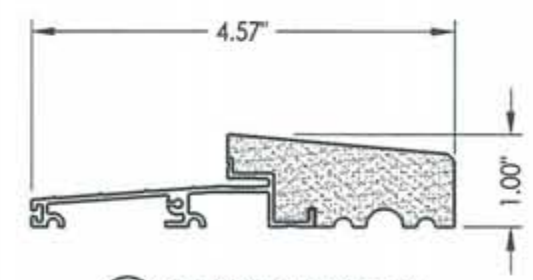
5 INSWING THRESHOLD



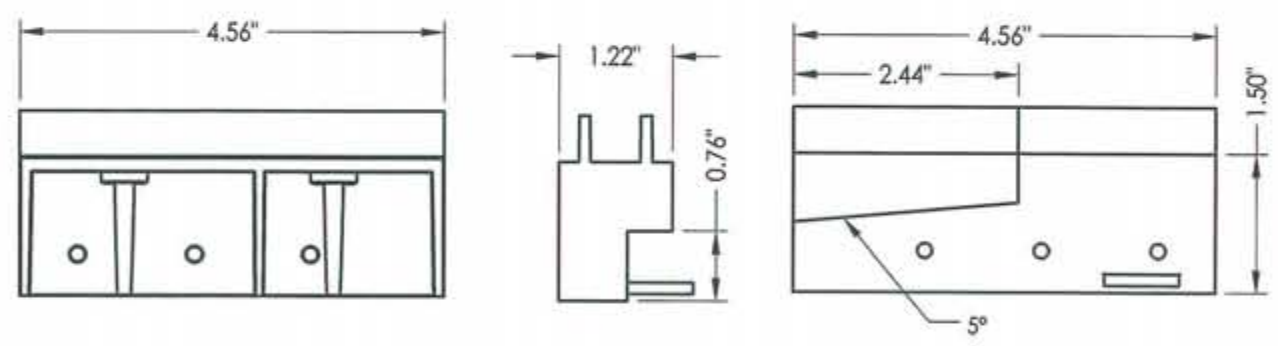
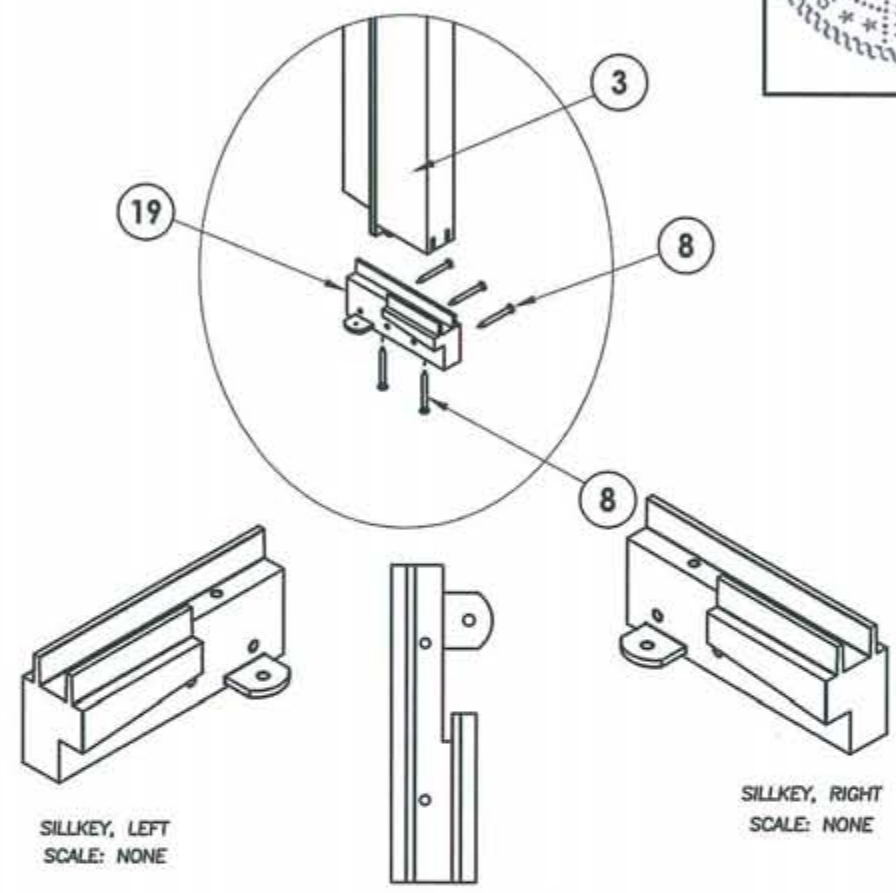
6 DOOR BOTTOM SWEEP



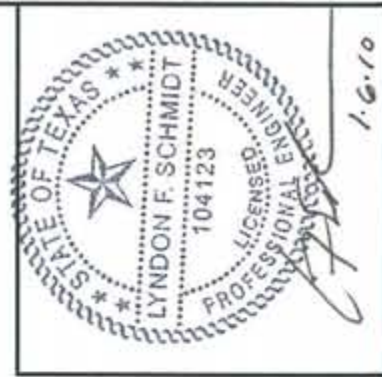
25 OUTSWING THRESHOLD  
High-dam option



27 OUTSWING THRESHOLD



19 SILLKEY DETAILS  
Optional



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

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

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

PRODUCT: TRINITY GLASS INT'L  
80 PREMIUM OPAQUE

PART OR ASSEMBLY: COMPONENTS

NO.	DATE	REVISIONS
2	7/27/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE
		AL
		EW
		BY

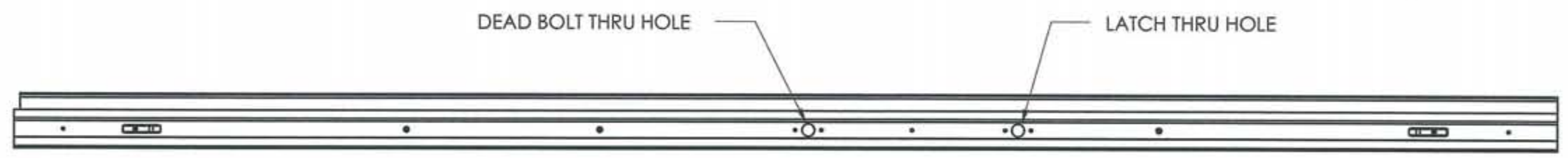
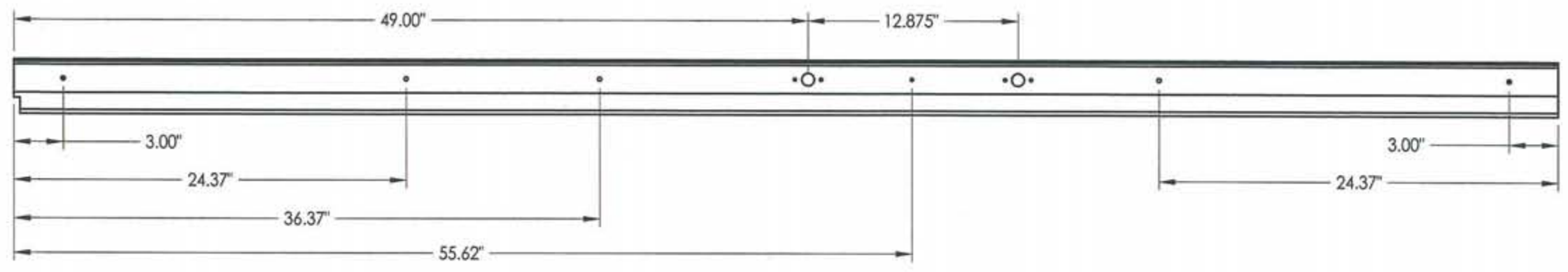
DATE: 11/21/05  
SCALE: N.T.S.  
DWG. BY: AEM  
CHK. BY: LFS  
DRAWING NO.: TX-722  
SHEET 6 of 9



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

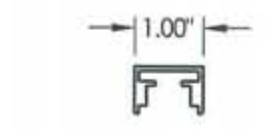
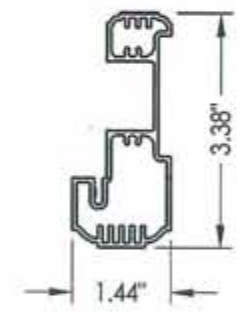
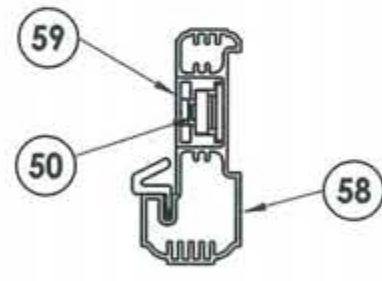
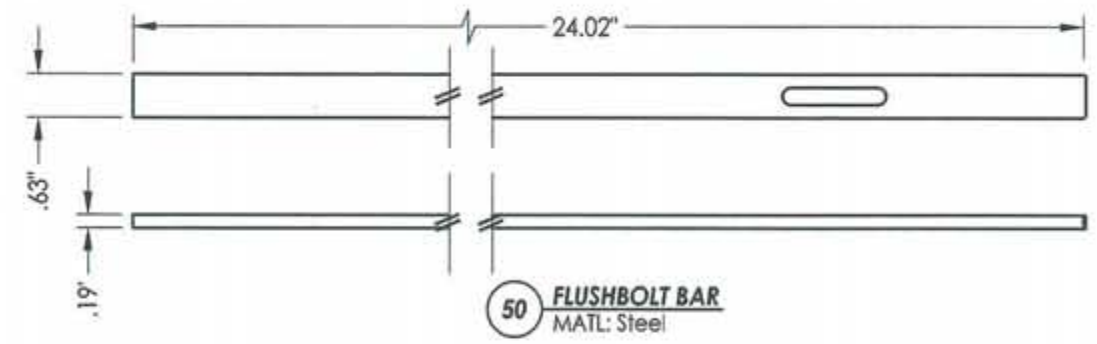
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852



**8'0 ALUMINUM ASTRAGAL ASSEMBLY**  
By Trinity

TOP  
A-A

BOTTOM



PRODUCT:	TRINITY GLASS INT'L 8'0 PREMIUM OPAQUE
PART OR ASSEMBLY:	TRC ASTRAGAL DETAILS

NO.	DATE	REVISIONS
2	7/27/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE
		AL
		EW
		BY

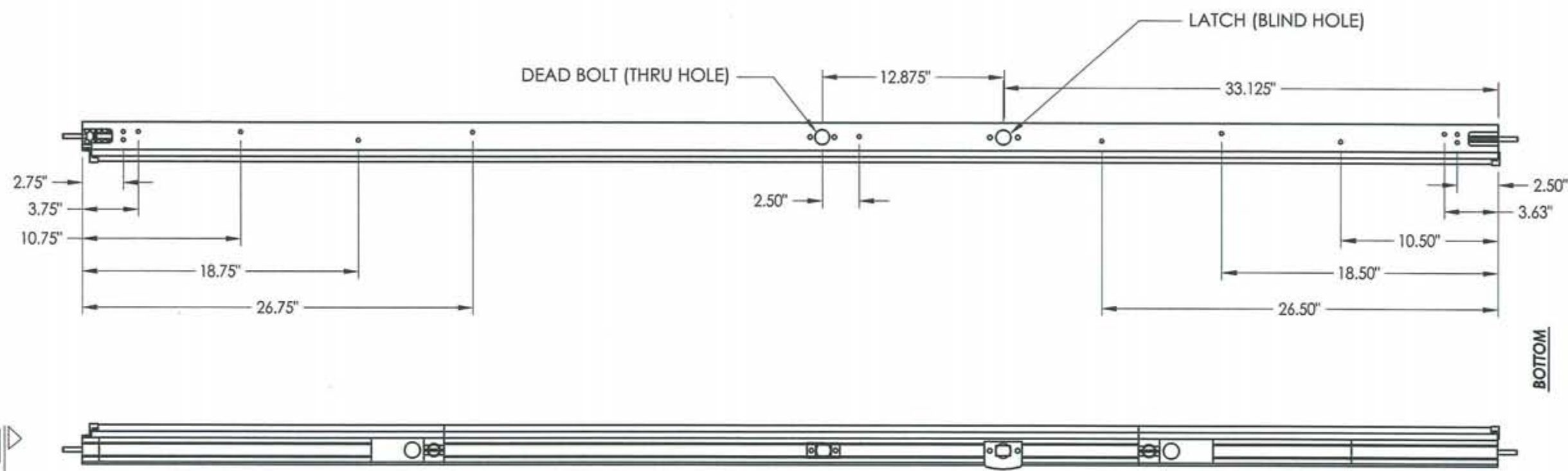
DATE:	11/21/05
SCALE:	N.T.S.
DWG. BY:	AEM
CHK. BY:	LFS
DRAWING NO.:	TX-722
SHEET	7 OF 9



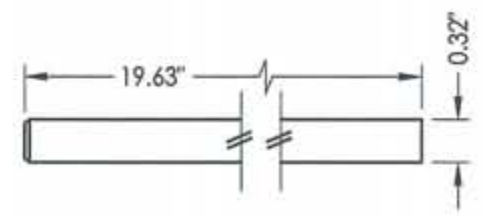
Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

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

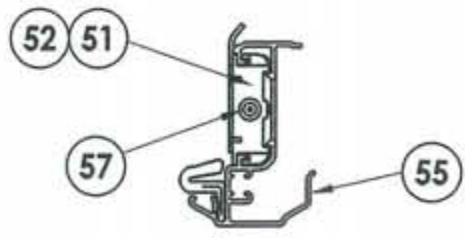
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
 CERTIFICATE OF REGISTRATION # F-11852



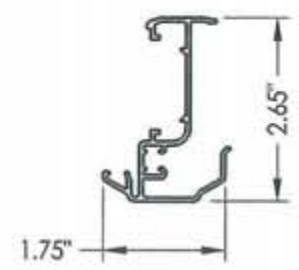
**8'-0" ALUMINUM ASTRAGAL ASSEMBLY**  
 By Endura Products



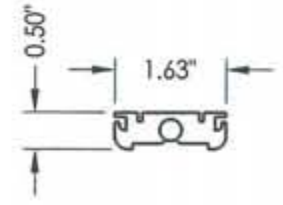
**57 SLIDE BOLT ROD**  
 MATL: Steel



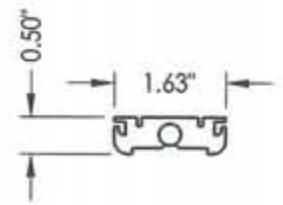
**VIEW A-A**  
 Aluminum Astragal Assembly



**55 ALUMINUM ASTRAGAL**  
 By Endura Products



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



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

PRODUCT: TRINITY GLASS INT'L  
 8'0 PREMIUM OPAQUE

PART OR ASSEMBLY:  
 ENDURA ASTRAGAL DETAILS

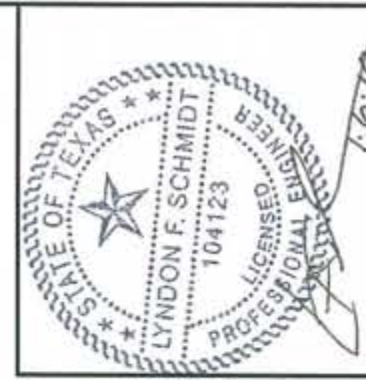
NO.	DATE	BY	REVISIONS
2	7/27/09	AL	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	EW	REVISED LOCKSET NOMENCLATURE

DATE: 11/21/05  
 SCALE: N.T.S.  
 DWG. BY: AEM  
 CHK. BY: LFS  
 DRAWING NO.: TX-722  
 SHEET 8 of 9



**BILL OF MATERIALS**

ITEM	DESCRIPTION	MATERIAL
A	2X HEADER FRAMING SG >= 0.42	WOOD
B	2X FRAMING SG >= 0.42	WOOD
I	3/16"X 1-3/4" PFH ITW CONCRETE SCREW	STEEL
G	MAX. 1/4" SHIM SPACE	WOOD
J	#9 X 2-1/4" PFH WS	STEEL
L	#8 X 3" PFH WS	STEEL
P	3/16" X 2-3/4" ELCO OR ITW PFH CONCRETE SCREW	STEEL
Q	3/16" X 3-1/4" ITW CONCRETE SCREW	STEEL
3	HINGE JAMB - FINGER-JOINT PINE - SG >= 0.42	WOOD
4	HEAD - FINGER-JOINT PINE - SG >= 0.42	WOOD
5	INSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUMINUM
6	DOOR BOTTOM SWEEP	PVC
7	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
8	#6 X 1-1/4 PFH DRYWALL SCREW	STEEL
12	WEATHER STRIP QEBD650 Q-LON	-
18	3.983" X 4.0" HINGE MIN 0.098" THICK	STEEL
19	SILLKEY	PC/ASA
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 WS	STEEL
25	OUTSWING HIGH-DAM THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM./ COMP.
26	#9 X 1.0" PFH WS	STEEL
27	OUTSWING THRESHOLD ALUMINUM W/ COMPOSITE SUBSTRATE	ALUM./ COMP.
30	LATCH STILE - SG >= 0.42	LVL/PVC
32	HINGE STILE - SG >= 0.42	LVL/PVC
33	TOP RAIL - POPLAR LVL & WPC COMBINATION	POPLAR/WPC
34	BOTTOM RAIL - POPLAR LVL & WPC COMBINATION	POPLAR/WPC
39	FIBERGLASS SKIN 0.079" MIN. THICKNESS (Fy = 5,203 PSI MIN.)	FIBERGLASS
46	DOOR PANEL CORE FOAMED	POLYURETHANE
50	FLUSHBOLT BAR	STEEL
51	4-3/4" LENGTH TOP BOLT RETAINER	HDPE
52	9-8/4" LENGTH TOP BOLT RETAINER	ALUMINUM
53	#8 X 1-3/4" PFH SMS	STEEL
54	ASTRAGAL STRIKE @ HEAD	STEEL
55	ENDURA ASTRAGAL BY ENDURA PRODUCTS	ALUMINUM
56	ASTRAGAL STRIKE @ SILL	STEEL
57	SLIDE BOLT ROD	STEEL
58	ASTRAGAL BY TRC	ALUMINUM
59	ASTRAGAL CHANNEL BY TRC	ALUMINUM
64	#8 x 2" PFH WS	STEEL
65	#10 x 2" PFH WS	STEEL



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: TRINITY GLASS INT'L  
8'0 PREMIUM OPAQUE

PART OR ASSEMBLY:  
BILL OF MATERIALS

NO.	DATE	REVISIONS
2	7/27/09	TDI PRODUCT EVALUATION UPDATE
1	6/28/06	REVISED LOCKSET NOMENCLATURE

DATE: 11/21/05  
SCALE: N.T.S.  
DWG. BY: AEM  
CHK. BY: LFS  
DRAWING NO.: TX-722  
SHEET 9 of 9

**CONCRETE ANCHOR NOTES:**

1. Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.
2. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. If 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" dimensions are not exceeded.
3. Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW	3/16"	1-3/4"	2-5/8"	2-1/4"
ELCO	3/16"	1-3/4"	1"	3"