Trinity Glass INTERNATIONAL

4621 192nd STREET TACOMA, WA 98446

6'0 X 8'0 OPAQUE PREMIUM FIBERGLASS DOUBLE DOOR INSWING / OUTSWING

"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/CSA101/I.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.

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2	Door panel construction details
3	Horizontal cross sections
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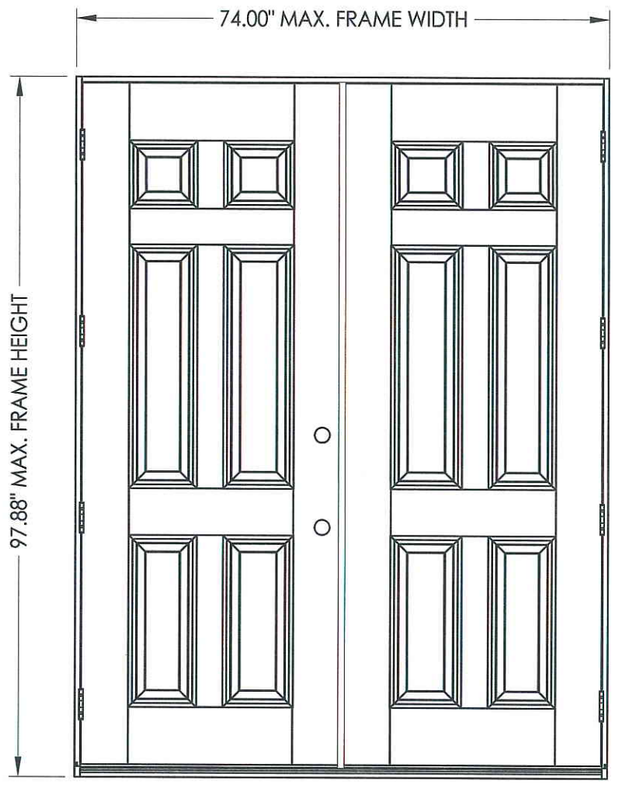
9	Bill of materials



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

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

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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: TRINITY GLASS INT'L 8'0 PREMIUM OPAQUE

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

REVISIONS

NO.	DATE	BY
2	7/27/09	AL
1	6/28/06	EW

TDI PRODUCT EVALUATION UPDATE
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

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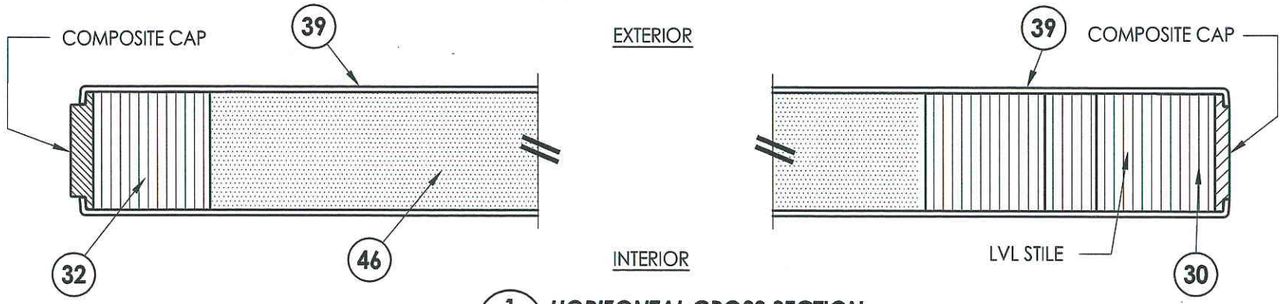
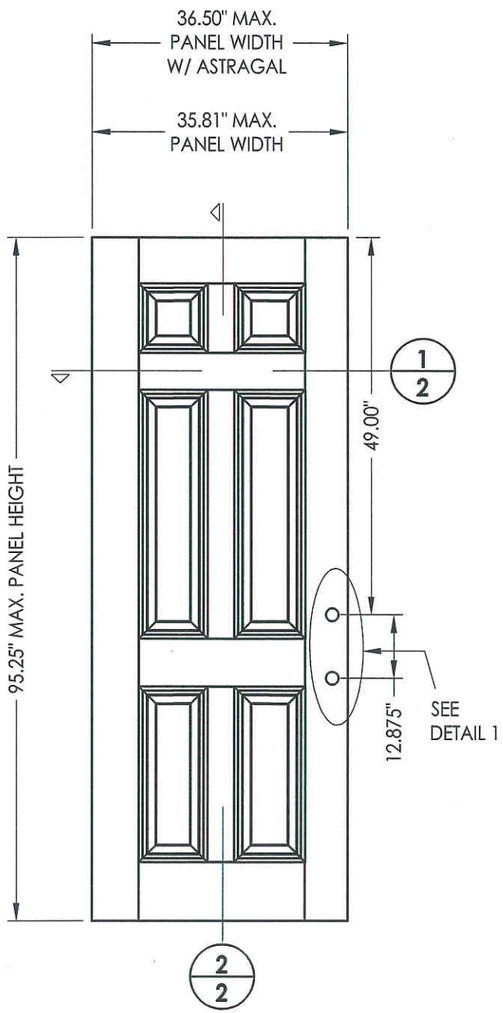
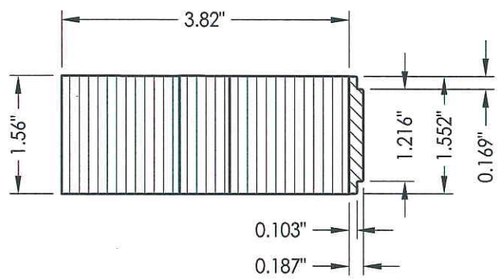


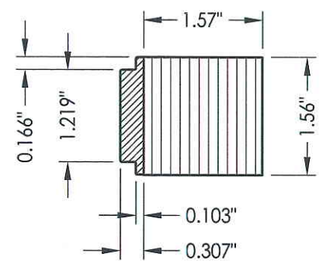
1/2 **HORIZONTAL CROSS SECTION**



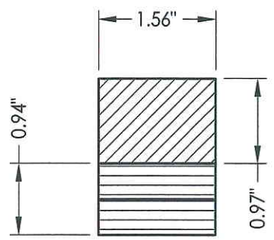
7 **PREMIUM OPAQUE DOOR**
"IMPACT"



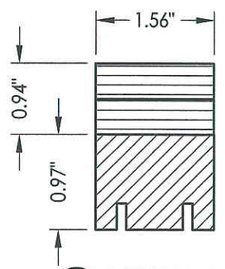
30 **LATCH STILE**



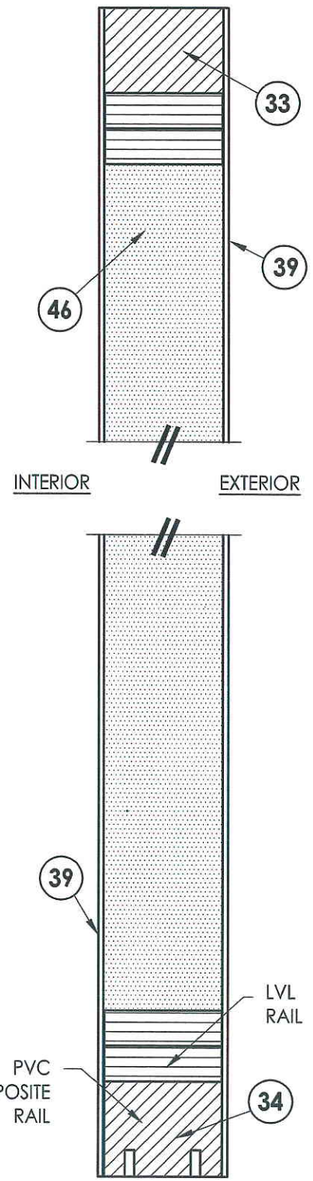
32 **HINGE STILE**



33 **TOP RAIL**



34 **BOTTOM RAIL**



2/2 **VERTICAL CROSS SECTION**

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STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER · 1.6.10

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

PART OR ASSEMBLY: DOOR PANEL CONSTRUCTION DETAILS

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

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

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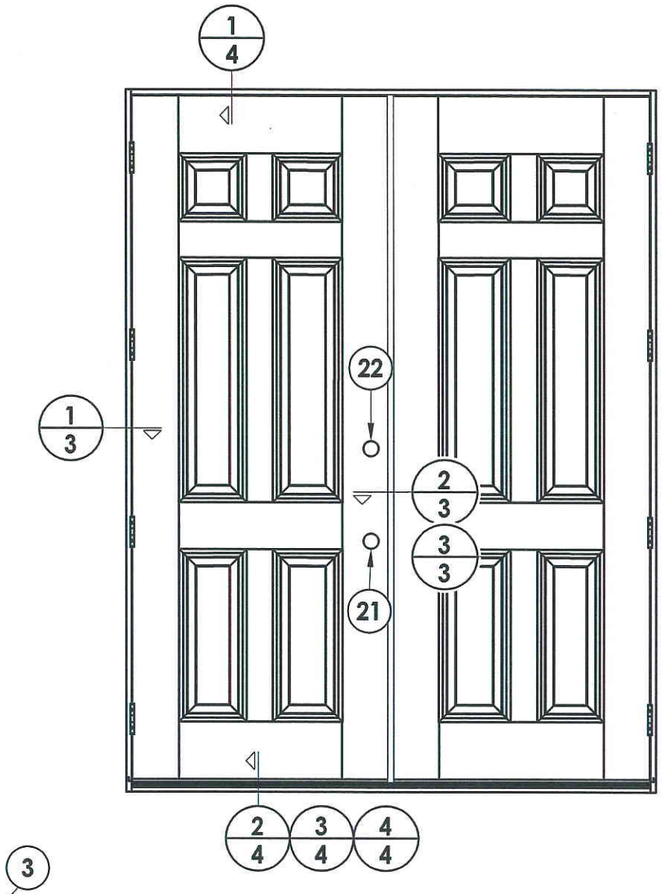
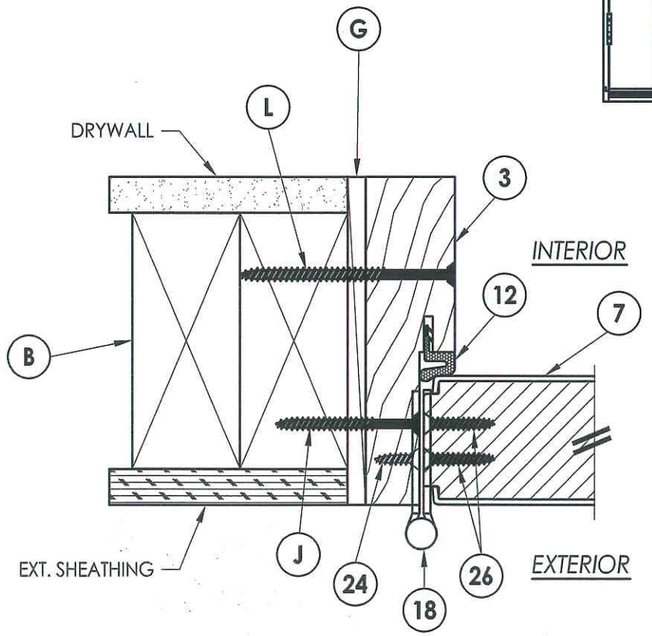
NOTE:

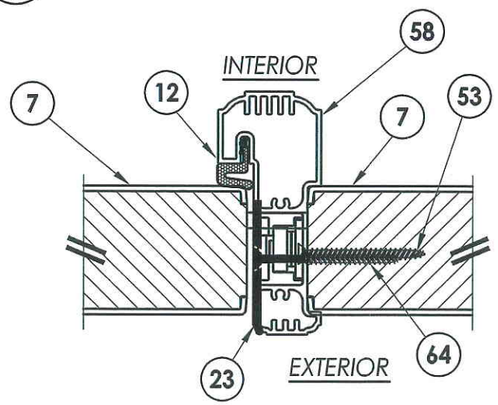
1. Item #63 - #8 x 2-1/4" PFH screws thru jamb into sidelite located @ 6", 27", 50-1/4", & 72-1/8" from top of frame typ. both side jambs.



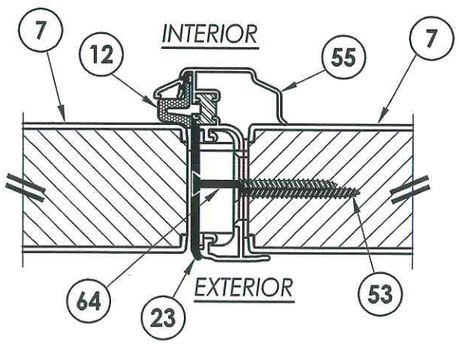
LOCK & DEADBOLT RATINGS CHART				
MANUFACTURER	MODEL	ITEM #	MAX. DESIGN PRESSURE (PSF) POSITIVE	MAX. DESIGN PRESSURE (PSF) NEGATIVE
KWIKSET	LOCK: 740 DEADBOLT: 780	21 22	+47.0	-47.0
KWIKSET	LOCK: COMBO 660 DEADBOLT: COMBO 660	21 22	+47.0	-47.0
SCHLAGE	LOCK: MAX. SECURITY DEADBOLT: MAX. SECURITY	21 22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



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



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



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

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CERTIFICATE OF REGISTRATION # F-11852

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

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

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

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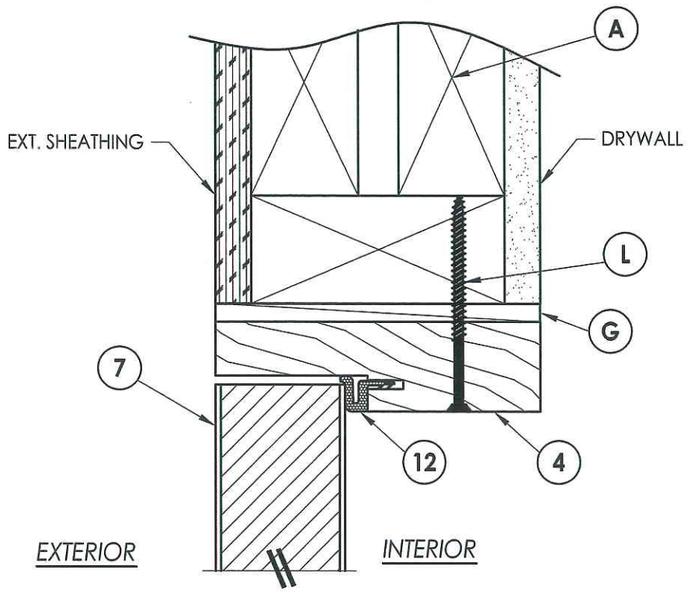
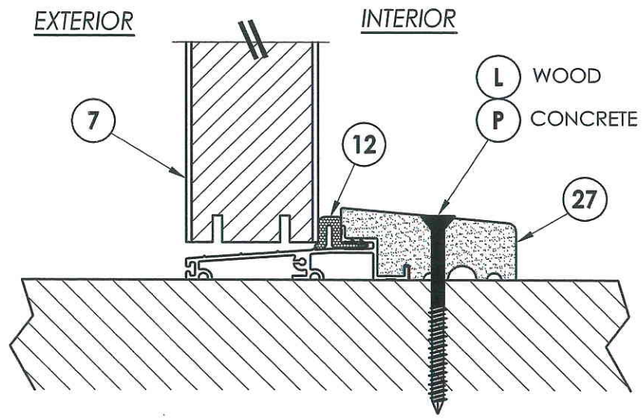
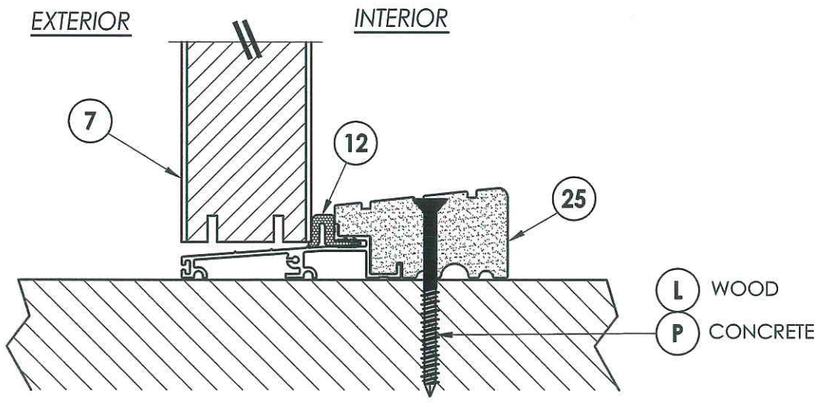


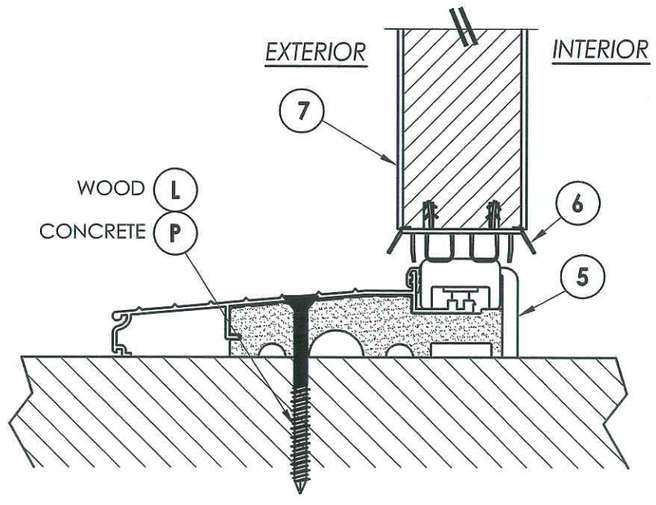
1/4 **VERTICAL CROSS SECTION**
Outswing shown
Inswing also approved



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



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



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

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1-6-10

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

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS

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

DATE: 11/21/05
SCALE: N.T.S.
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DRAWING NO.: TX-722
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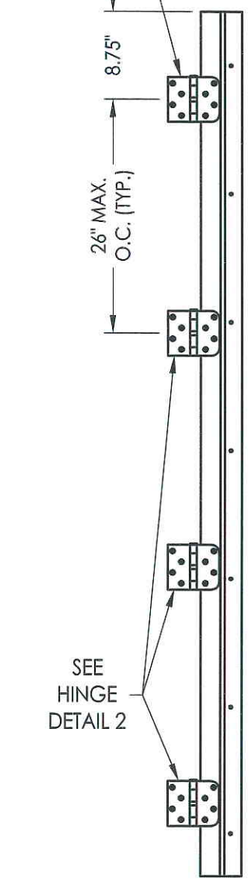
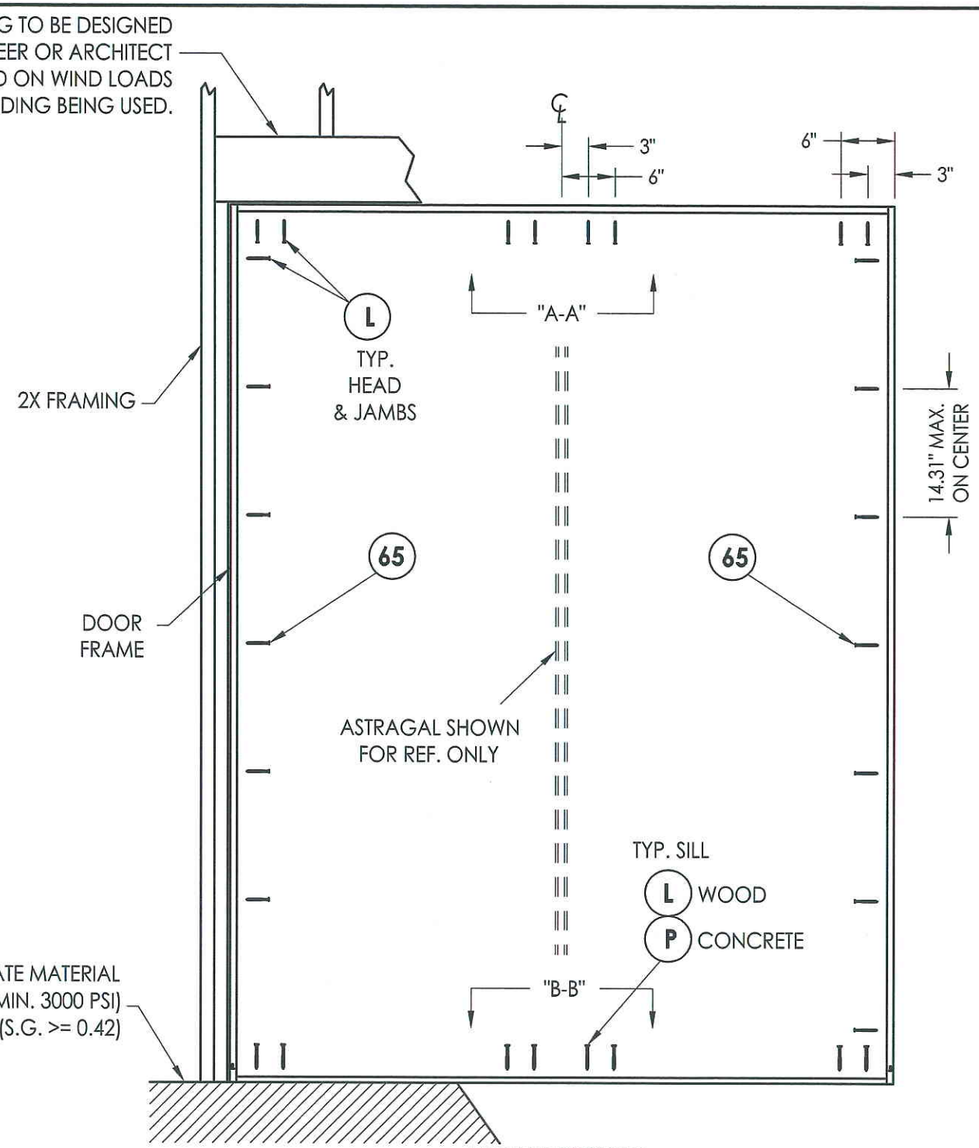
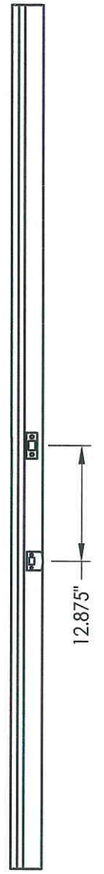
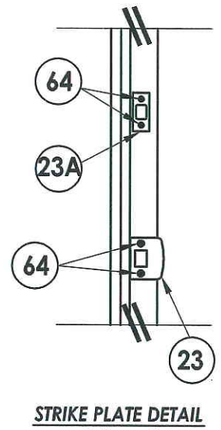




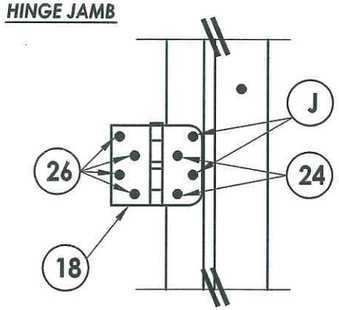
FRAME ANCHORING
Stud construction



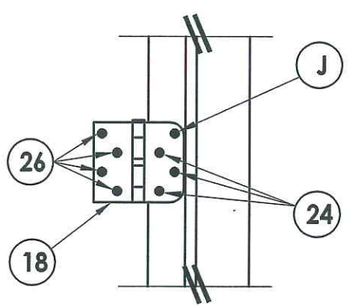


STRIKE PLATE DETAIL
Astragal

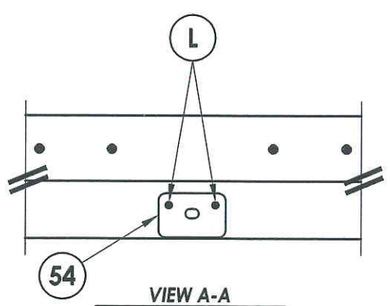
HINGE JAMB



HINGE DETAIL 1

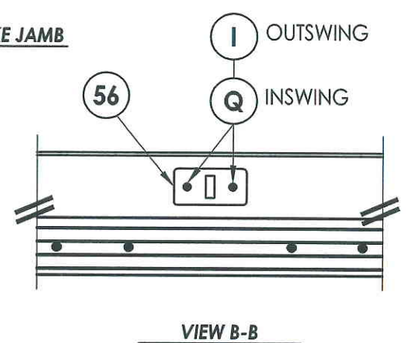


HINGE DETAIL 2

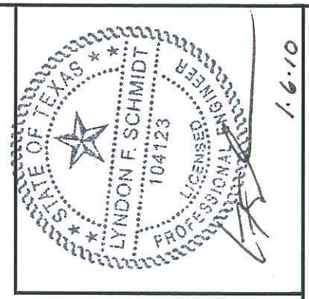


VIEW A-A
Astragal strike @ head

ASTRAGAL STRIKE JAMB



VIEW B-B
Astragal strike @ sill



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

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

PART OR ASSEMBLY: FRAME ANCHORING

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

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

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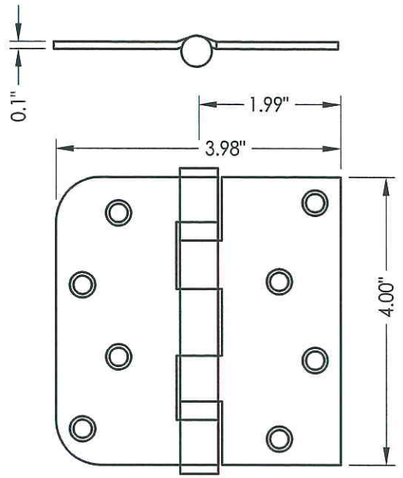
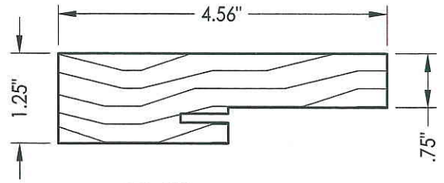
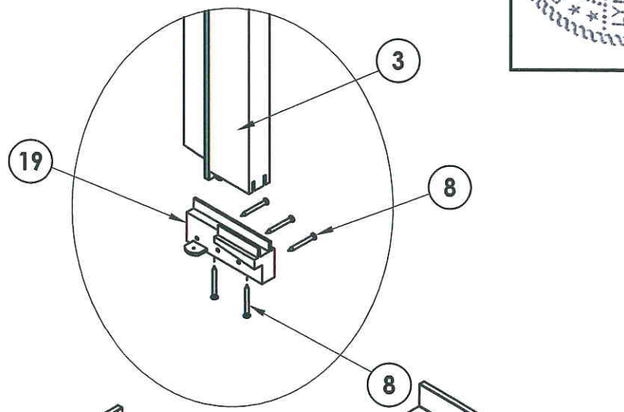
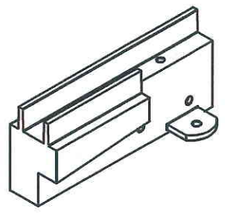


18 **HINGE**



4 3 **SIDE & HEAD JAMBS**





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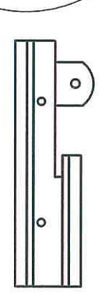
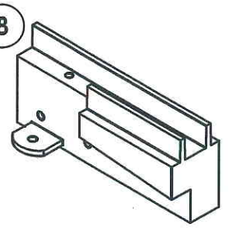
SCALE: NONE





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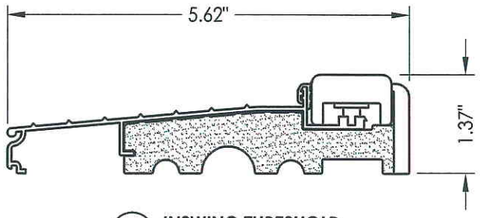
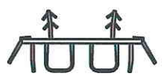
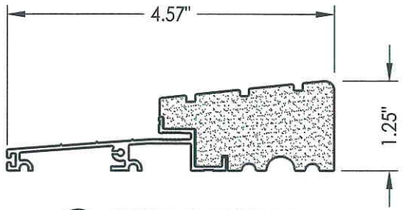


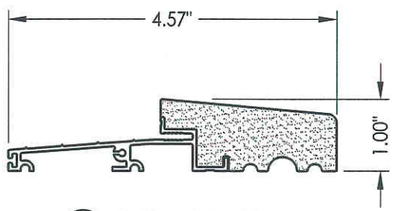
5 **INSWING THRESHOLD**



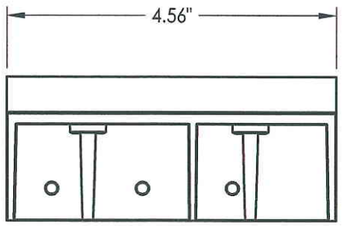
6 **DOOR BOTTOM SWEEP**

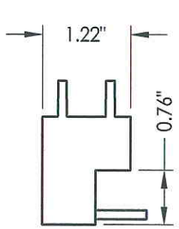


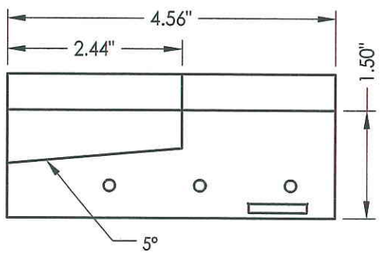
25 **OUTSWING THRESHOLD**
High-dam option



27 **OUTSWING THRESHOLD**







19 **SILLKEY DETAILS**
Optional

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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:
COMPONENTS

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

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

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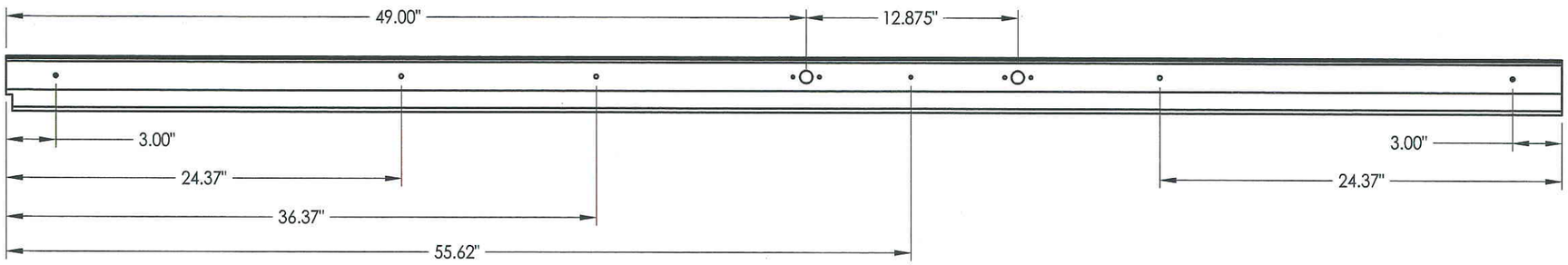
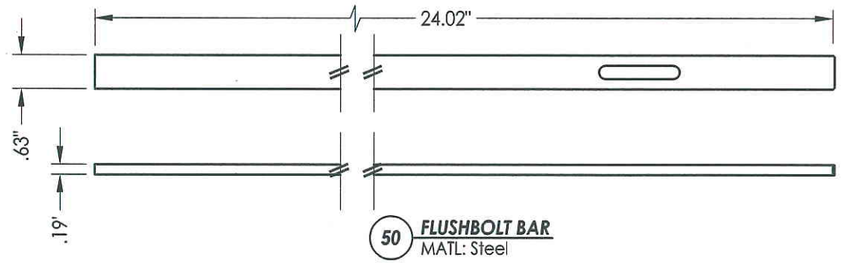
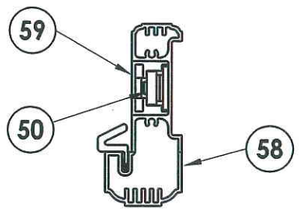


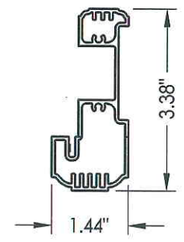
8'0 ALUMINUM ASTRAGAL ASSEMBLY
By Trinity



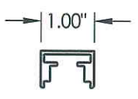
50 FLUSHBOLT BAR
MATL: Steel



VIEW A-A
Aluminum Astragal Assembly



58 ALUMINUM ASTRAGAL
By Trinity



59 ASTRAGAL CHANNEL
By Trinity

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

STATE OF TEXAS · LYNDON F. SCHMIDT · 104123 · LICENSED PROFESSIONAL ENGINEER
1.6.10

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

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

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

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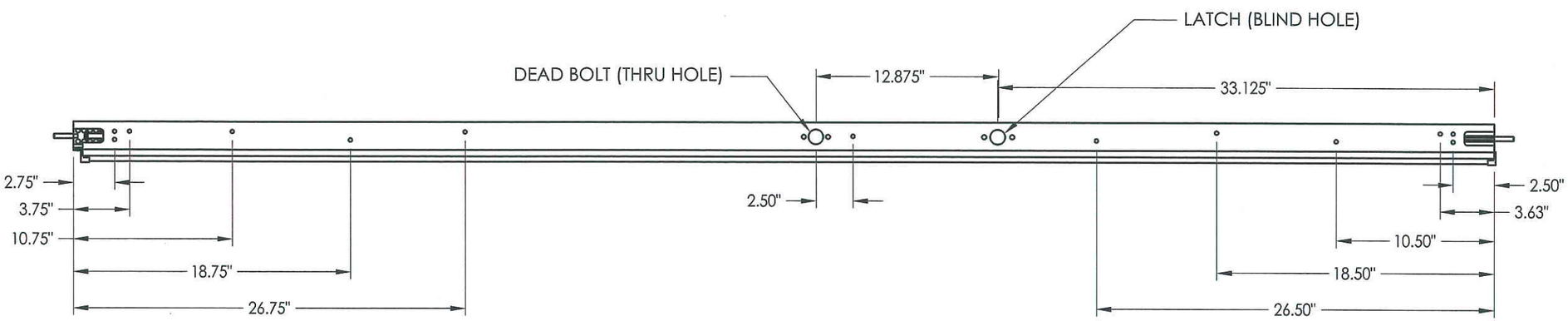
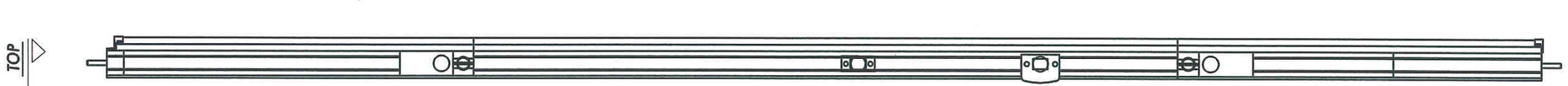
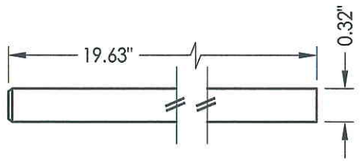


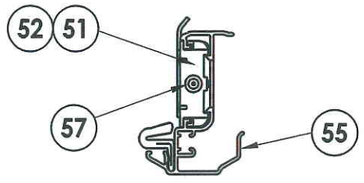
BOTTOM



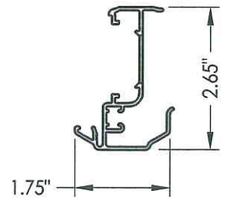
8'-0" ALUMINUM ASTRAGAL ASSEMBLY
By Endura Products



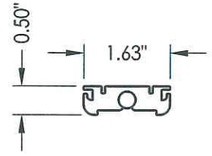
57 SLIDE BOLT ROD
MATL: Steel



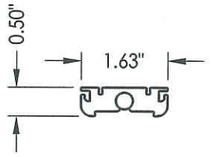
VIEW A-A
Aluminum Astragal Assembly



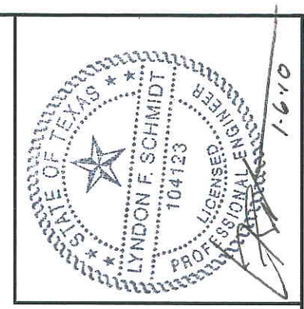
55 ALUMINUM ASTRAGAL
By Endura Products



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



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



1.6.10

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

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F-11852

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

PART OR ASSEMBLY: ENDURA ASTRAGAL DETAILS

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

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

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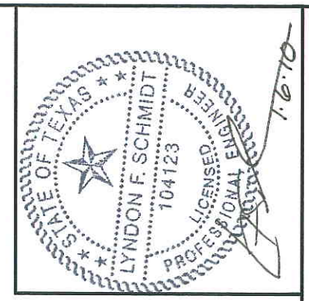
BILL OF MATERIALS

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



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"

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

R|W BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
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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	BY
2	7/27/09	TDI PRODUCT EVALUATION UPDATE	AL
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