Trinity Glass INTERNATIONAL

4621 192nd STREET EAST TACOMA, WA 98446

3'0 X 6'8
OPAQUE PREMIUM FIBERGLASS SINGLE DOOR WITH SIDELITES (CHS)

INSWING / OUTSWING "IMPACT" DOOR WITH "NON-IMPACT" SIDELITES

EVALUATED FOR USE IN THE STATE OF TEXAS

The Trinity Opaque Premium Fiberglass Door with sidelites (CHS) 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. The sidelite must be protected with an impact resistant covering that complies with sections R301.2.1.2 and 1609.1.2. 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 08-01370020-A and TEL 05-0411-5, signed by Wendell W. Haney, P.E.
2. Calculations (Anchoring and Glass load resistance report ASTM E1300-04) prepared by Lyndon F. Schmidt, P.E.
3. 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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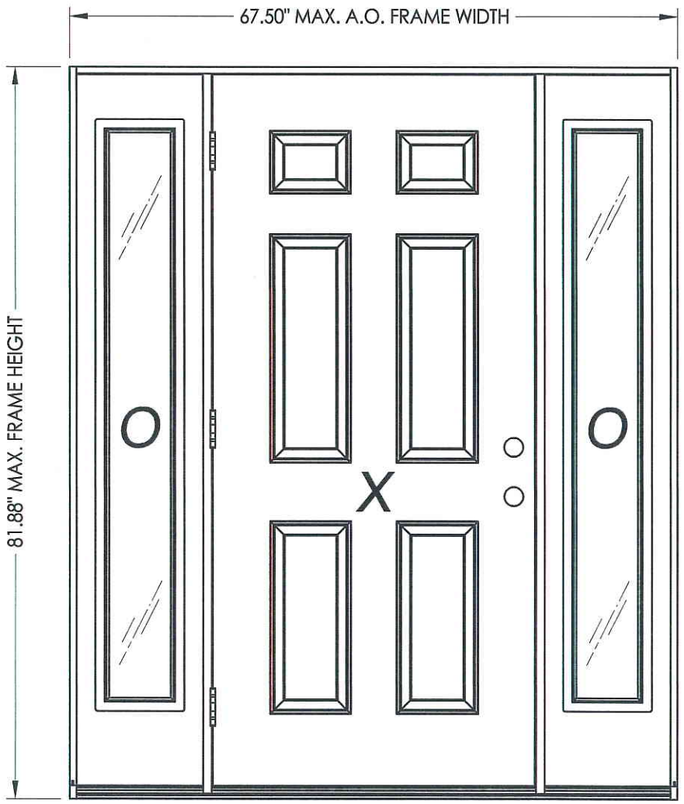
1	Typical elevations, design pressures & general notes
2	Door panel construction details
3	Sidelite panel construction details & glazing details
4	Horizontal cross sections
5	Vertical cross sections
6	Vertical cross sections
7	Frame anchoring
8	Components
9	Bill of materials



CONTINUOUS HEADER AND SILL

SWING	MAX. FRAME DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
INSWING	67.50" x 81.88"	G1	+60.0	-70.0
OUTSWING	67.50" x 80.75"		+60.0	-60.0

Refer to Table (sheet 4) for Passage Lock Rating Limitations

STATE OF TEXAS — LYNDON F. SCHMIDT — 104123 — LICENSED PROFESSIONAL ENGINEER — 1-6-10

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 6'8 PREMIUM OPAQUE

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

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

DATE: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: TX-590
SHEET 1 OF 9

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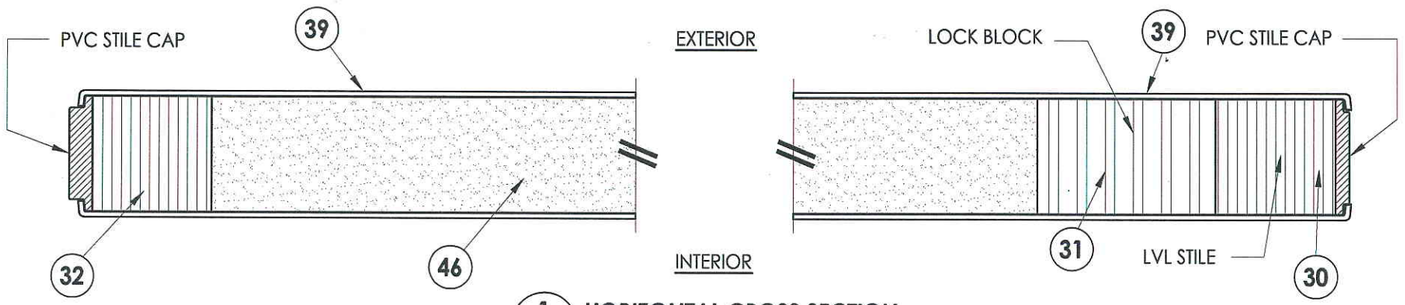
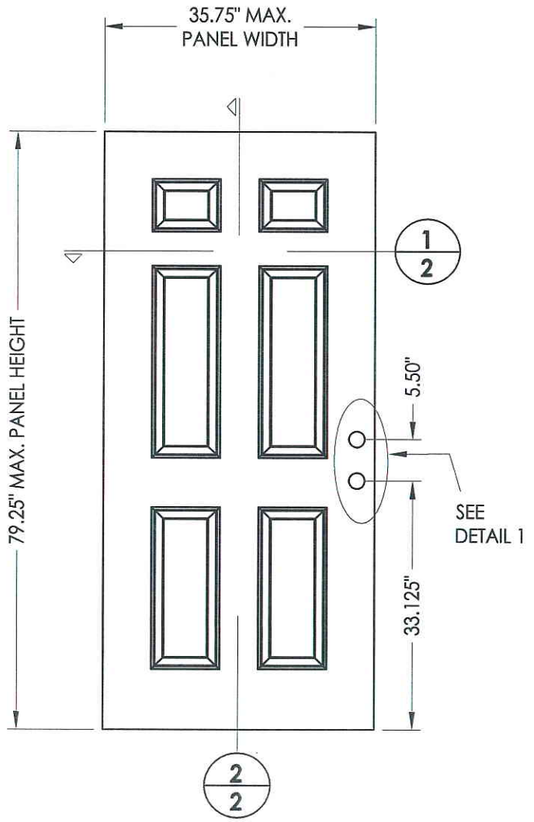
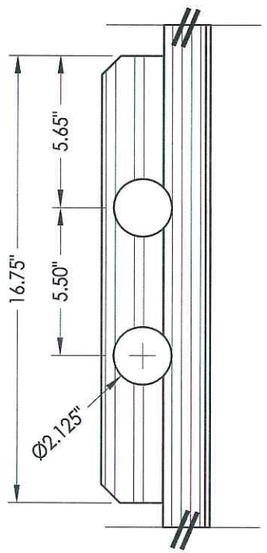


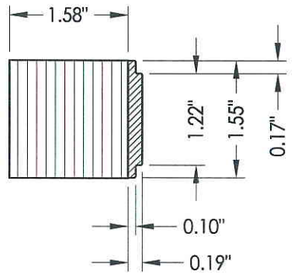
1/2 HORIZONTAL CROSS SECTION



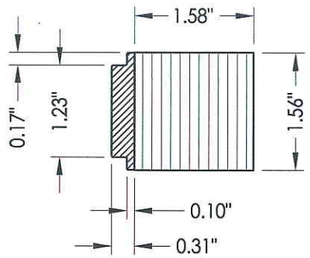
7 PREMIUM OPAQUE DOOR
"IMPACT"



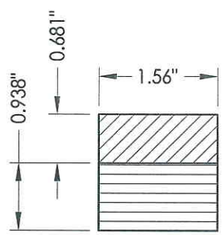
DETAIL 1



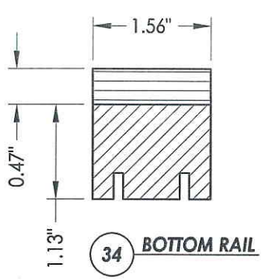
30 LATCH STILE



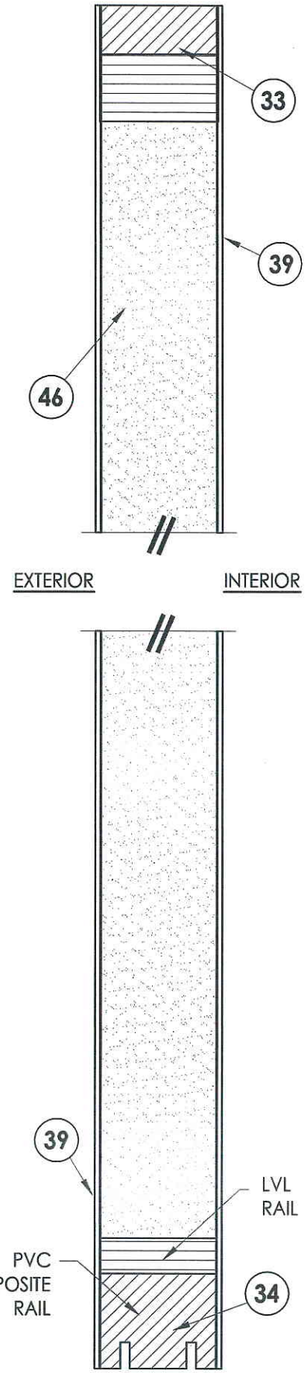
32 HINGE STILE



33 TOP RAIL



34 BOTTOM RAIL



2/2 VERTICAL CROSS SECTION

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

PRODUCT: TRINITY GLASS INT'L 6'8 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: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
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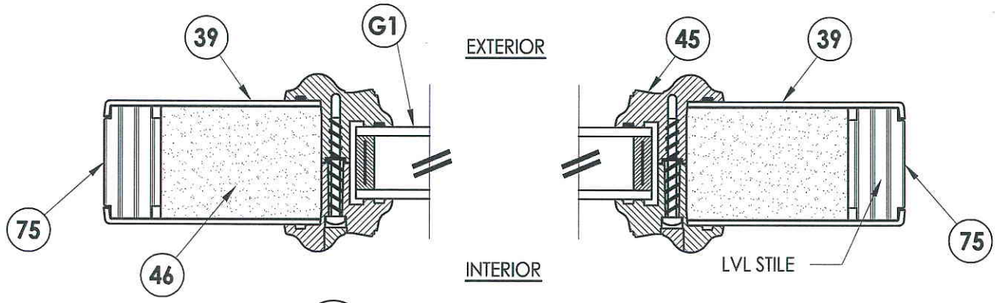
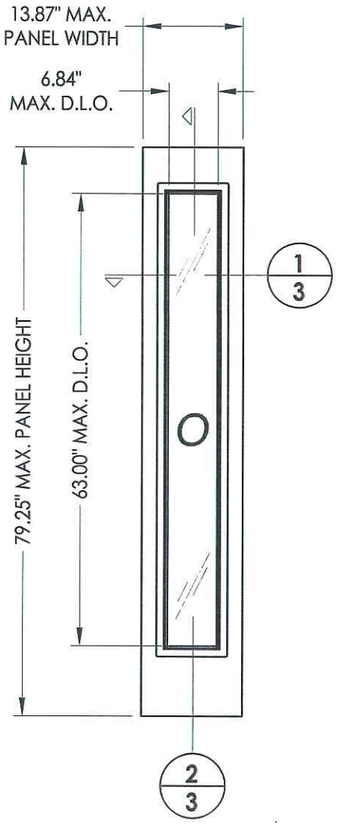
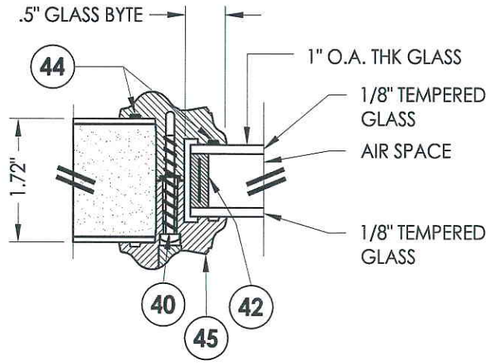


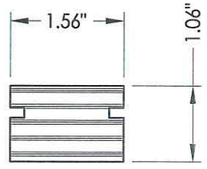
1/3 **HORIZONTAL CROSS SECTION**



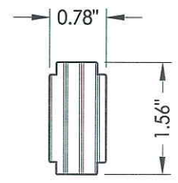
66 **FIBERGLASS SIDELITE**
"NON-IMPACT"



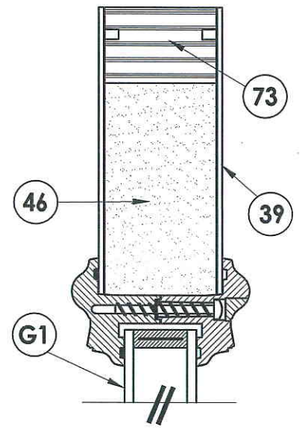
G1 **GLAZING DETAIL**

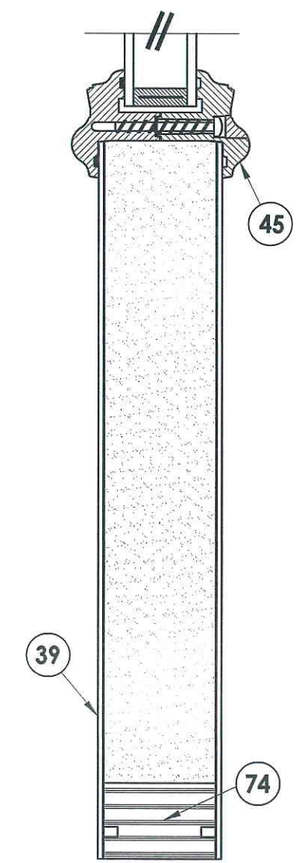


74 73 **TOP & BOTTOM RAIL**
SIDELITE



75 **SIDELITE STILE**





2/3 **VERTICAL CROSS SECTION**

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CERTIFICATE OF REGISTRATION # F-11852

STATE OF TEXAS ★★★ LYNDON F. SCHMIDT 104123 LICENSED PROFESSIONAL ENGINEER

1-6-10

PRODUCT: TRINITY GLASS INT'L 6'8 PREMIUM OPAQUE

PART OR ASSEMBLY: SIDELITE PANEL CONSTRUCTION DETAILS AND GLAZING DETAILS

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

DATE: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: TX-590
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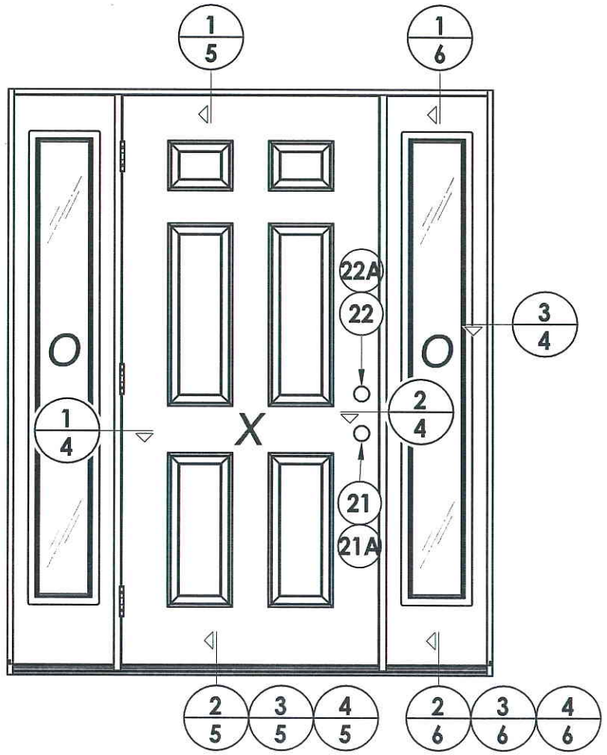
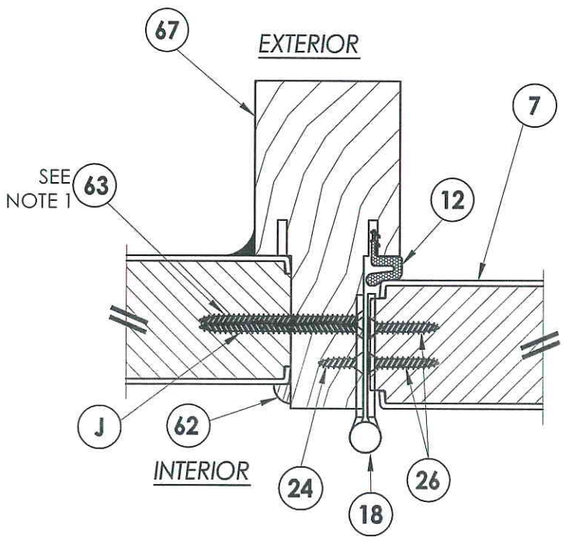
NOTE:

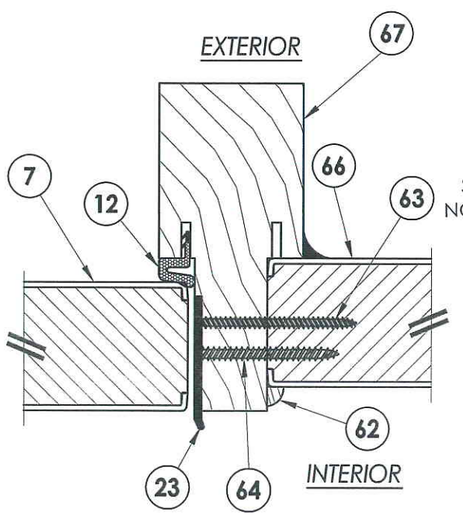
1. Sidelite ass'y fastener: 6" from each end and 4 more screws equally spaced between (6 screws total per jamb).



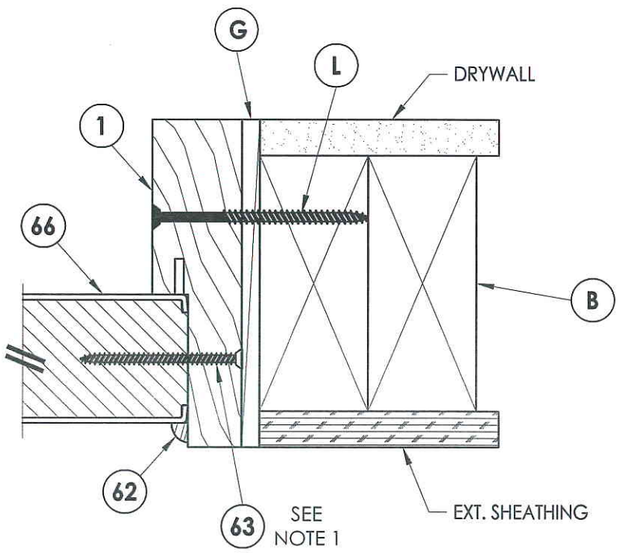
LOCK & DEADBOLT RATINGS CHART				
MANUFACTURER	MODEL	ITEM #	MAX. DESIGN PRESSURE (PSF) POSITIVE	MAX. DESIGN PRESSURE (PSF) NEGATIVE
KWIKSET	LOCK: 740	21	+60.0	-70.0
	DEADBOLT: 780	22		
KWIKSET	LOCK: COMBO 660	21	+60.0	-65.0
	DEADBOLT: COMBO 660	22		
SCHLAGE	LOCK: MAX. SECURITY	21	+60.0	-60.0
	DEADBOLT: MAX. SECURITY	22		



1/4 HORIZONTAL CROSS SECTION



2/4 HORIZONTAL CROSS SECTION



3/4 HORIZONTAL CROSS SECTION

INTERIOR

EXTERIOR

INTERIOR

EXTERIOR

INTERIOR

EXTERIOR

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LICENSED PROFESSIONAL ENGINEER
1-6-10

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

PRODUCT: TRINITY GLASS INT'L 6'8 PREMIUM OPAQUE

PART OR ASSEMBLY: HORIZONTAL CROSS SECTION

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

DATE: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: TX-590
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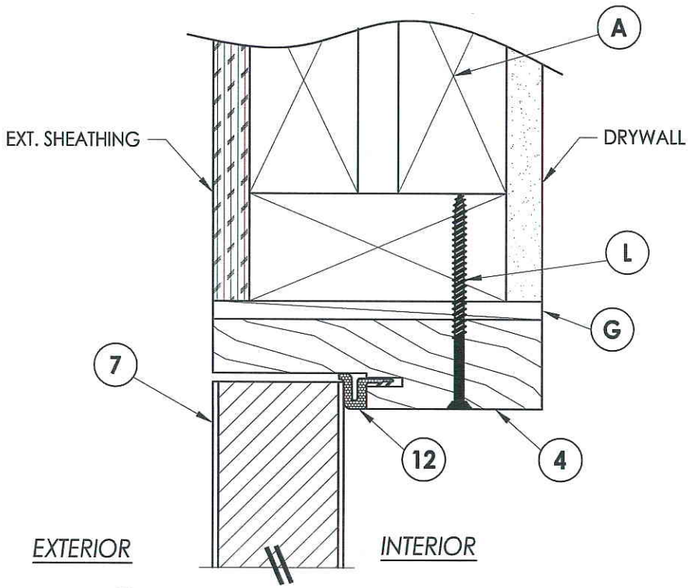
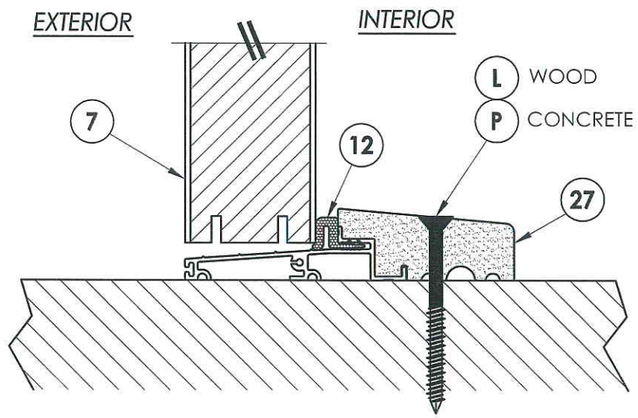
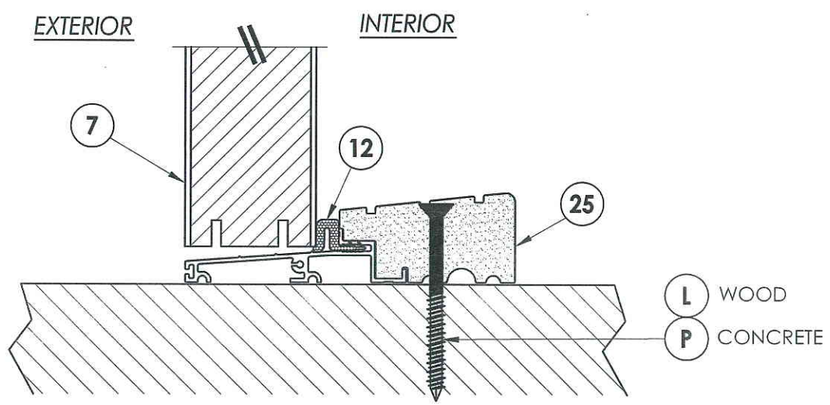


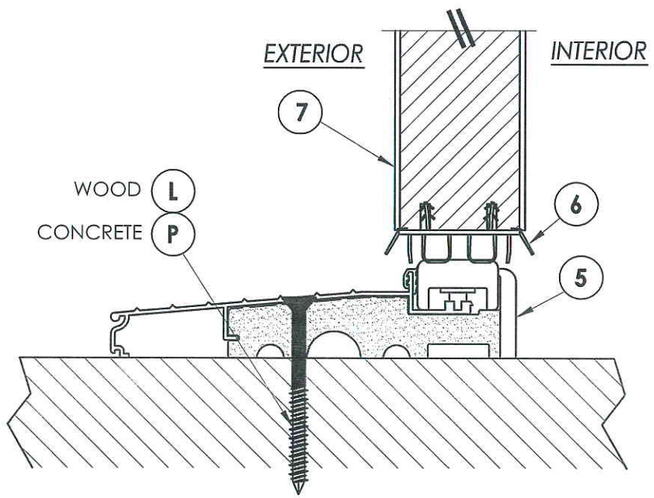
1/5 **VERTICAL CROSS SECTION**
Outswing shown
Inswing also approved



2/5 **VERTICAL CROSS SECTION**
Outswing configuration



3/5 **VERTICAL CROSS SECTION**
Outswing configuration



4/5 **VERTICAL CROSS SECTION**
Inswing configuration

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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 6'8 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: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: TX-590
SHEET 5 OF 9

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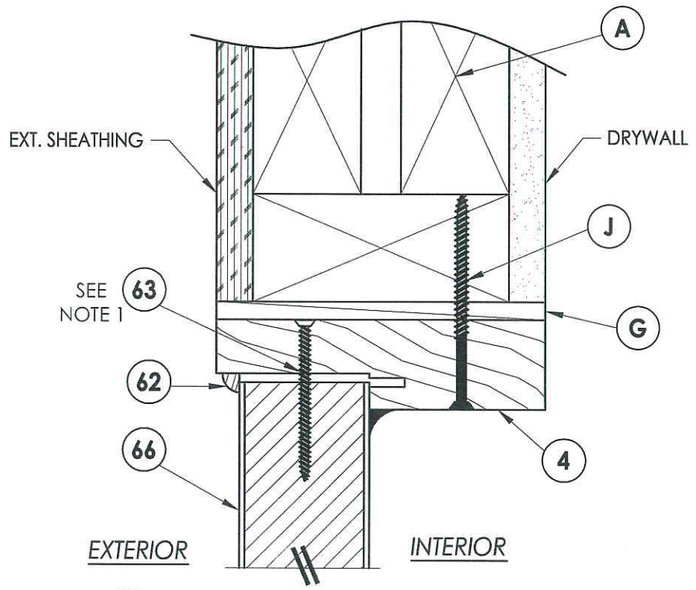
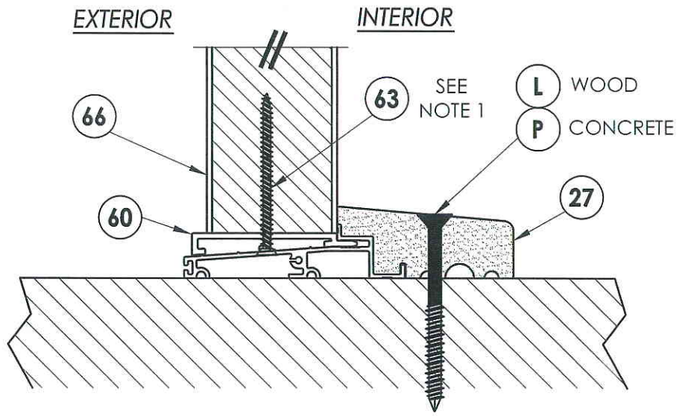


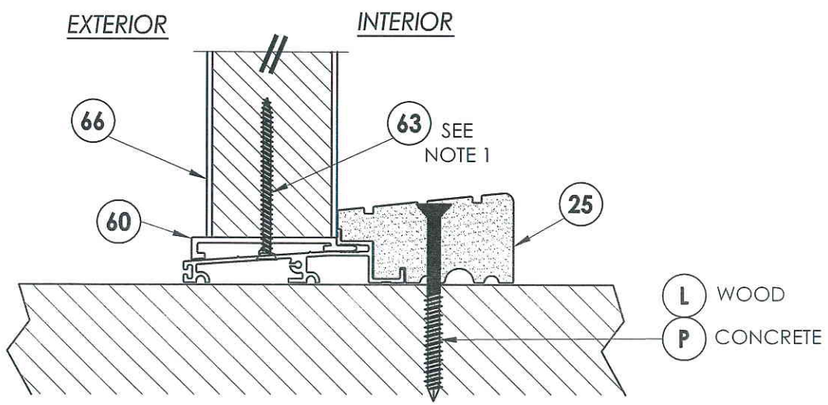
1/6 **VERTICAL CROSS SECTION**



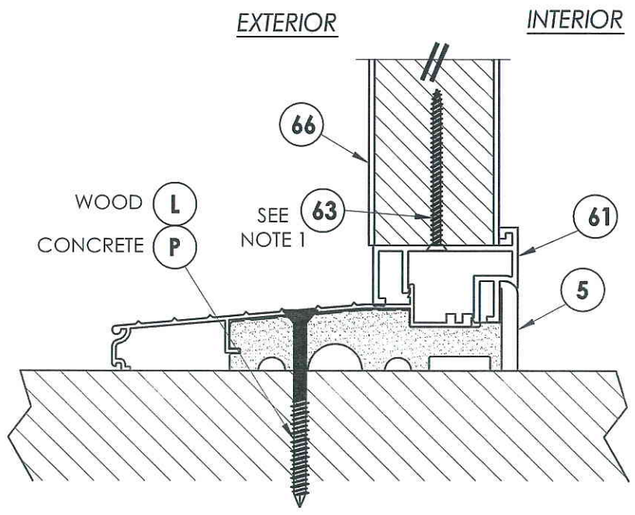
2/6 **VERTICAL CROSS SECTION**
Outswing sill

NOTE:

1. Screws thru head and sill jamb located 3" from each end and on center line.



3/6 **VERTICAL CROSS SECTION**
Outswing sill - high dam



4/6 **VERTICAL CROSS SECTION**
Inswing sill

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LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
1-6-10

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TEXAS P.E. #104123

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Phone No.: 813.659.9197

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

PRODUCT: *TRINITY GLASS INT'L 6'8 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: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
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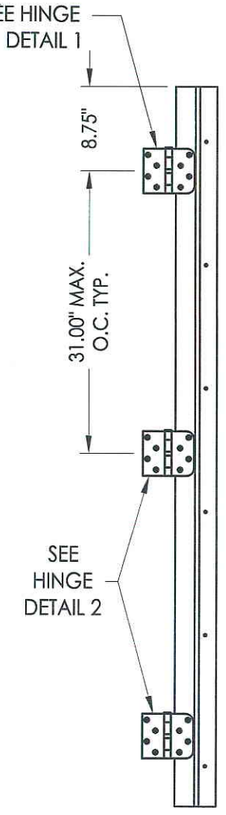
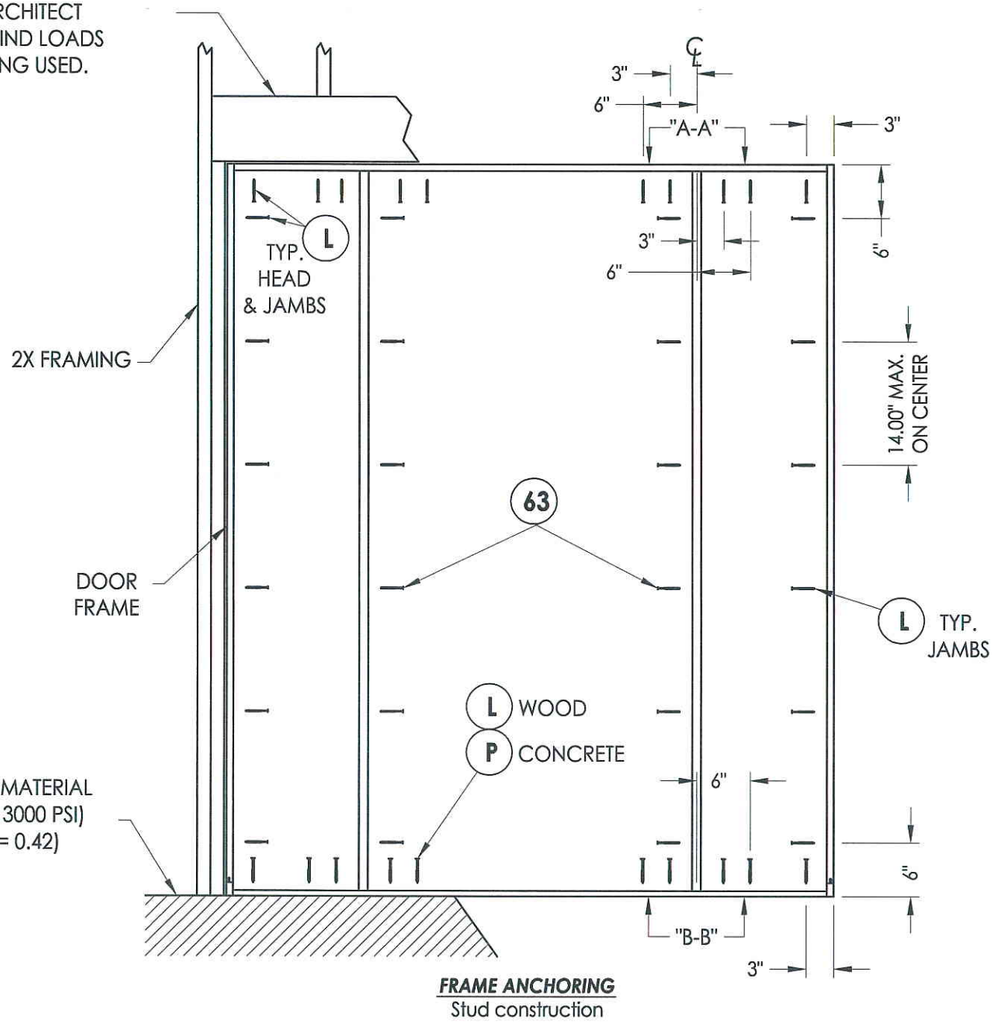
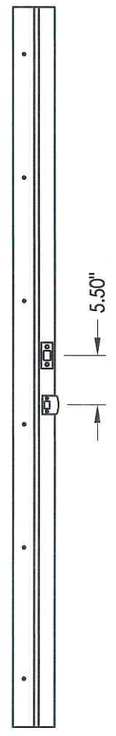
2X FRAMING TO BE DESIGNED
BY THE ENGINEER OR ARCHITECT
OF RECORD BASED ON WIND LOADS
AND THE CLADDING BEING USED.



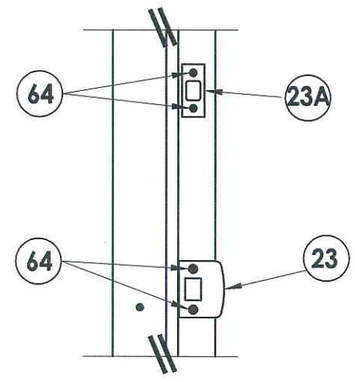
HINGE MULLION



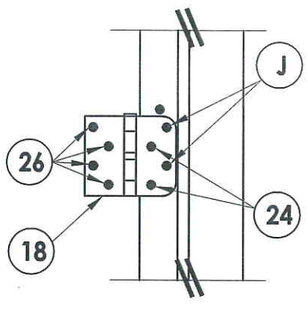
FRAME ANCHORING
Stud construction



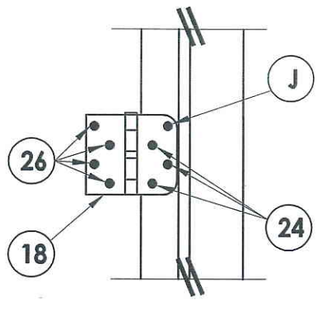
STRIKE MULLION



STRIKE PLATE DETAIL



HINGE DETAIL 1



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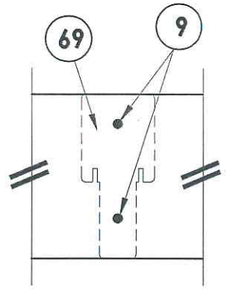
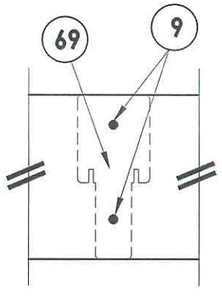


VIEW A-A
Head to mullion attachment



VIEW B-B
Sill to mullion attachment

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED
PROFESSIONAL ENGINEER
1-6-10

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 6'8 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: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: TX-590
SHEET 7 OF 9

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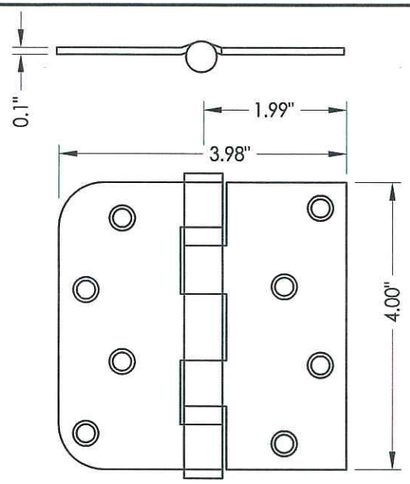
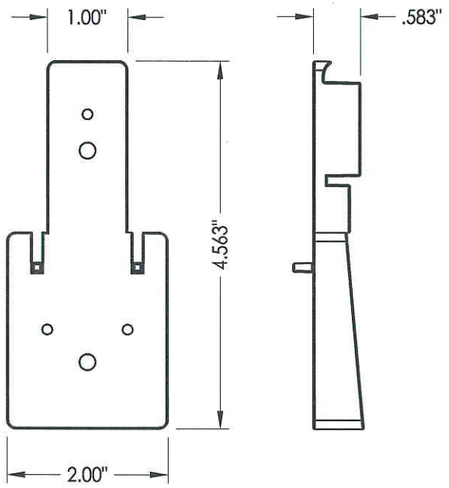
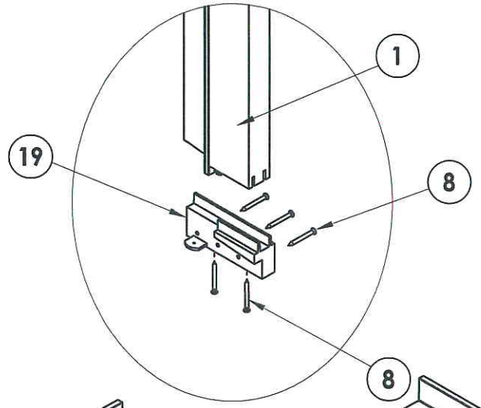
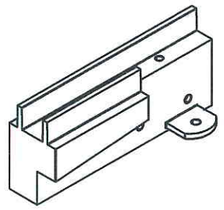


18 **HINGE**



69 **MULLION BASE KIT**
Optional





SILLKEY, LEFT
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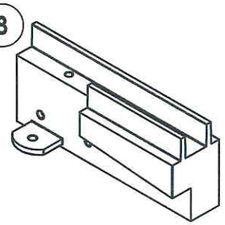

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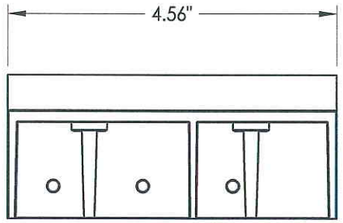
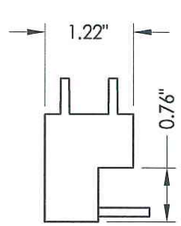
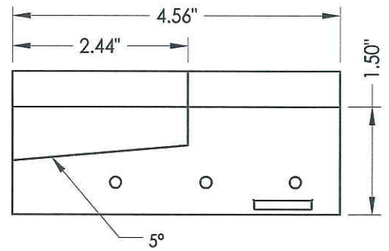
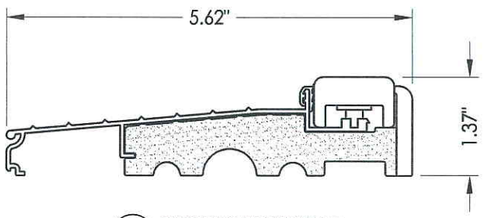


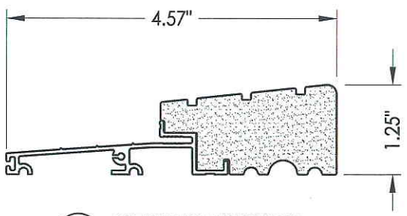




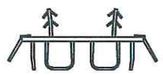
19 **SILLKEY DETAILS**
Optional



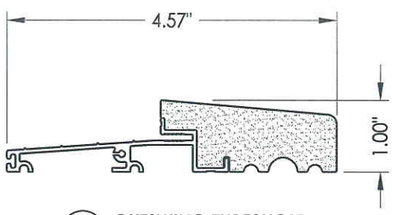
5 **INSWING THRESHOLD**



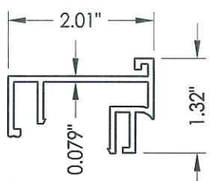
25 **OUTSWING THRESHOLD**
High-dam option



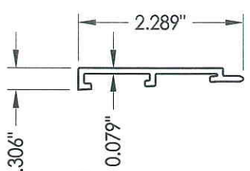
6 **DOOR BOTTOM SWEEP**



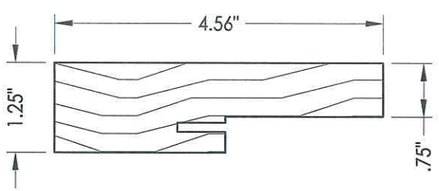
27 **OUTSWING THRESHOLD**



61 **SIDELITE SPACER**
Inswing



60 **SIDELITE SPACER**
Outswing



4 1 **SIDE & HEAD JAMBS**

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

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

PRODUCT: TRINITY GLASS INT'L 6'8" 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: 8/25/05
SCALE: N.T.S.
DWG. BY: EW
CHK. BY: LFS
DRAWING NO.: TX-590
SHEET 8 OF 9

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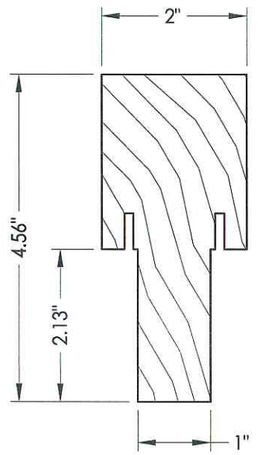
BILL OF MATERIALS		
ITEM	DESCRIPTION	MATERIAL
A	2X HEADER FRAMING SG >= 0.42	WOOD
B	2X FRAMING SG >= 0.42	WOOD
G	MAX. 1/4" SHIM SPACE	WOOD
J	#9 X 2-1/4" PFH WS	STEEL
L	#8 X 3" PFH WS	STEEL
P	3/16" X 2-3/4" ITW PFH CONCRETE SCREW	STEEL
1	SIDELITE JAMB - FINGER-JOINT PINE - SG >= 0.42	WOOD
4	HEAD - FINGER-JOINT 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
9	#9 X 2-1/4" PFH WOOD 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
31	LVL LOCK BLOCK	POPLAR
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
40	#8 X 1-1/8" SELF THREDING SCREW	STEEL
42	ALUMINUM & BUTYL SPACER SYSTEM	ALUM./BUTYL
44	HOT MELT SEALANT / SILICONE	-
45	LITE FRAME	PC/ASA
46	FOAM CORE	POLYURETHANE
60	SIDELITE SPACER - OUTSWING	PVC
61	SIDELITE SPACER - INSWING	PVC
62	QUARTER ROUND	WOOD
63	#8 x 2-1/4" PFH SCREW	STEEL
64	#8 x 2" PFH SCREW	STEEL
66	SIDELITE PANEL - SEE SIDELITE PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
67	INTEGRAL MULLION - FINGER JOINT PINE (SG >= 0.42)	WOOD
69	MULLION BASE KIT	PC/ASA
73	LVL SIDELITE TOP RAIL (FULL LITE)	POPLAR
74	LVL SIDELITE BOTTOM RAIL (FULL LITE)	POPLAR
75	LVL SIDELITE STILE (FULL LITE)	POPLAR

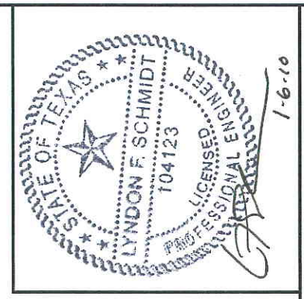


67 INTEGRAL MULLION

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"



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PRODUCT: TRINITY GLASS INT'L 6'8 PREMIUM OPAQUE

PART OR ASSEMBLY: BILL OF MATERIALS

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

DATE: 8/25/05
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