# THERMA-TRU®

118 INDUSTRIAL DR., EDGERTON, OH 43517
TEL. (419)298-1740

## *"SMOOTH STAR", "FIBER CLASSIC", "CLASSIC CRAFT" & "CLASSIC CRAFT RUSTIC" GLAZED FIBERGLASS DOUBLE DOOR INSWING / OUTSWING "IMPACT"*

EVALUATED FOR USE IN THE STATE OF TEXAS

The Fiberglass Glazed 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. This system has been tested and evaluated as a large missile impact protective system for installation in the Seaward, Inland I and Inland II areas. This product 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.
5. Fiber-Classic and Smooth-Star Door and Sidelite panels require the use of "J" part numbers. These door and sidelite panels must be stained or painted within six months of installation.

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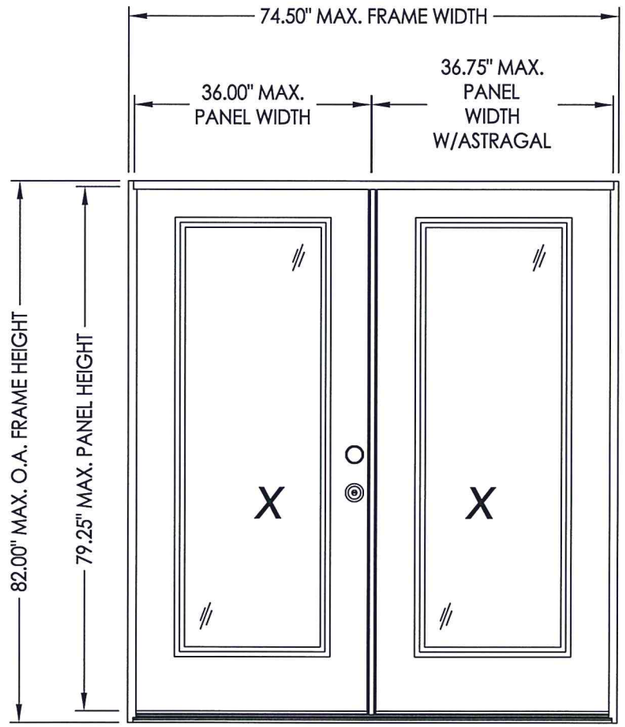


*"SMOOTH STAR", "FIBER CLASSIC" "CLASSIC CRAFT" & "CLASSIC CRAFT RUSTIC"*

| SWING | OVERALL FRAME DIMENSION | OVERALL D.L.O. DIMENSION | DESIGN PRESSURE (PSF) | |
|---|---|---|---|---|
| | | | POSITIVE | NEGATIVE |
| INSWING | 74.50" X 82.00" | 21.00" X 63.25" | +47.0 | -53.0 |
| OUTSWING | 74.50" X 80.62" | 21.00" X 63.25" | +50.0 | -50.0 |

STATE OF TEXAS — LYNDON F. SCHMIDT — 104123 — LICENSED PROFESSIONAL ENGINEER — 7.22.15

Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123
R.W. 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: *THERMA-TRU GLAZED DOUBLE FIBERGLASS DOOR IN/OUTSWING "IMPACT"*

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

REVISIONS

| NO. | DATE | BY |
|---|---|---|
| 1 | 7/22/15 | LFS |
| | | |

ADDED GENERAL NOTE 5.

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4193
SHEET 1 OF 8

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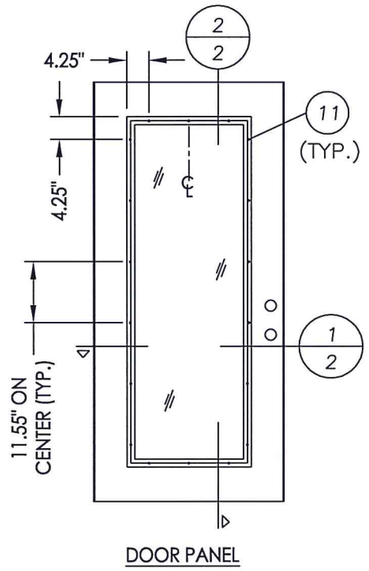
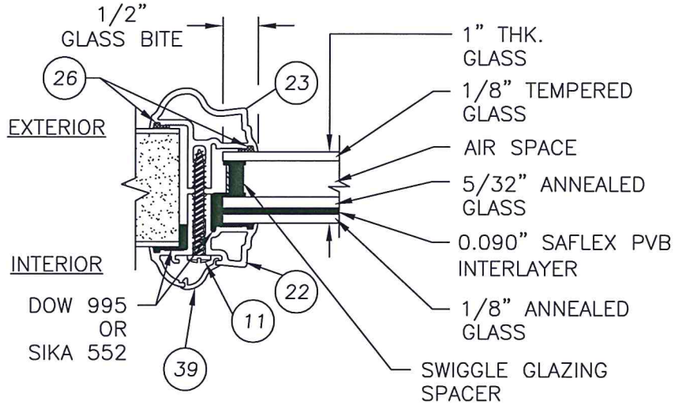
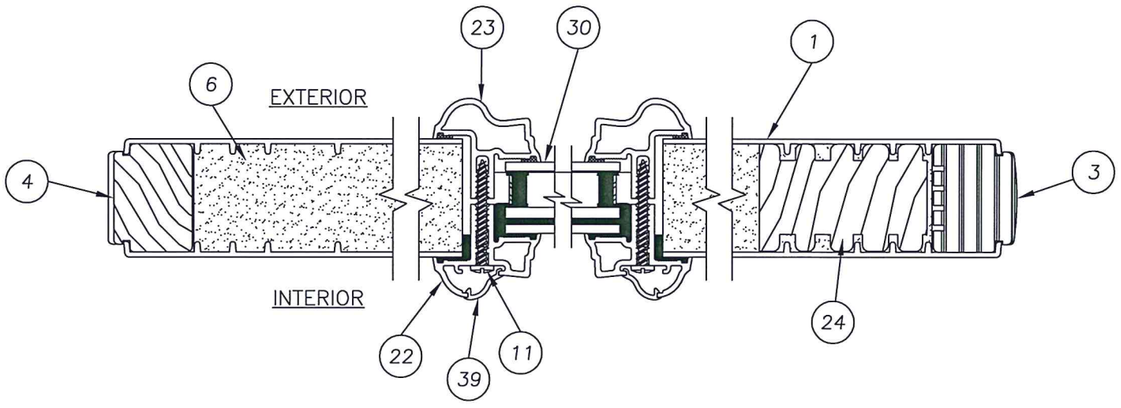


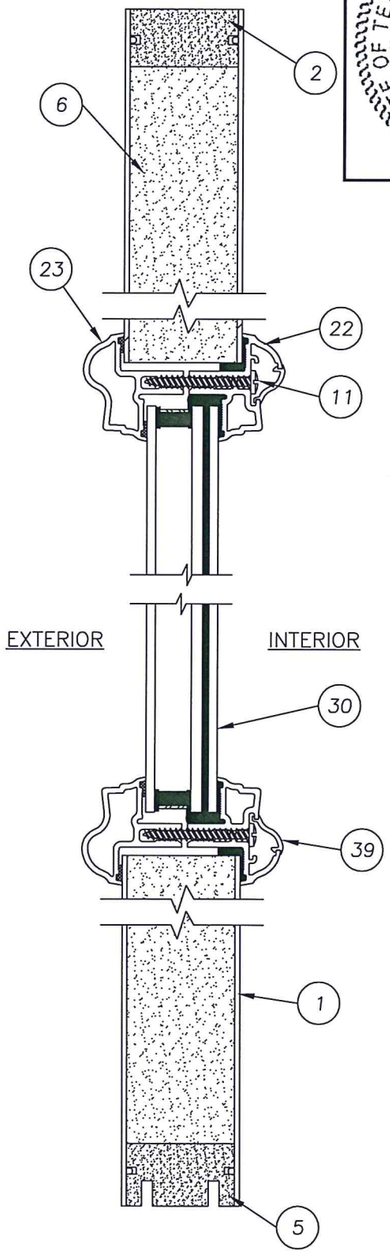

DOOR PANEL




*GLAZING DETAIL*




1/2 *HORIZONTAL CROSS SECTION DOOR PANEL*




2/2 *VERTICAL CROSS SECTION DOOR PANEL*

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CERTIFICATE OF REGISTRATION # F-11852


PRODUCT: *THERMA-TRU GLAZED DOUBLE FIBERGLASS DOOR IN/OUTSWING "IMPACT"*

PART OR ASSEMBLY: *"SMOOTH STAR" DOOR PANEL DETAILS*

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 1 | 7/22/15 | ADDED GENERAL NOTE 5. | LFS |

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4193
SHEET 2 OF 8

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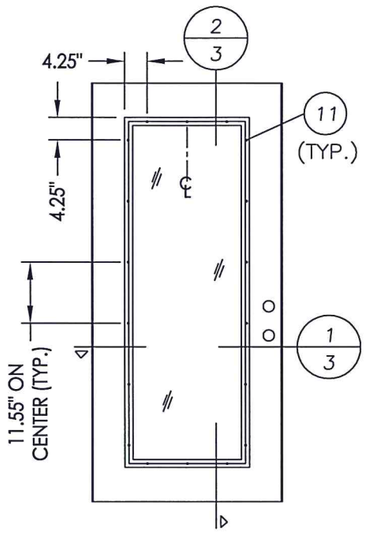
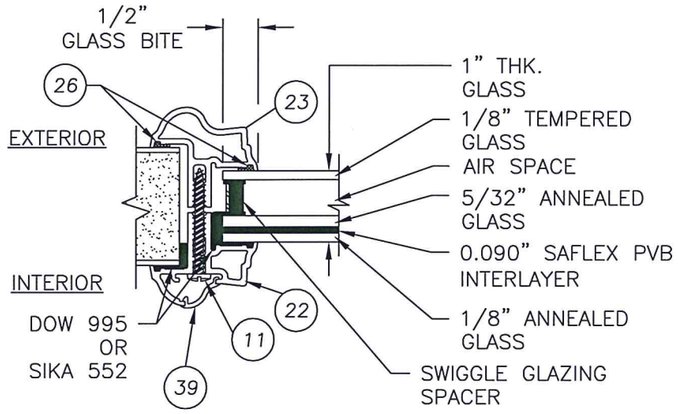
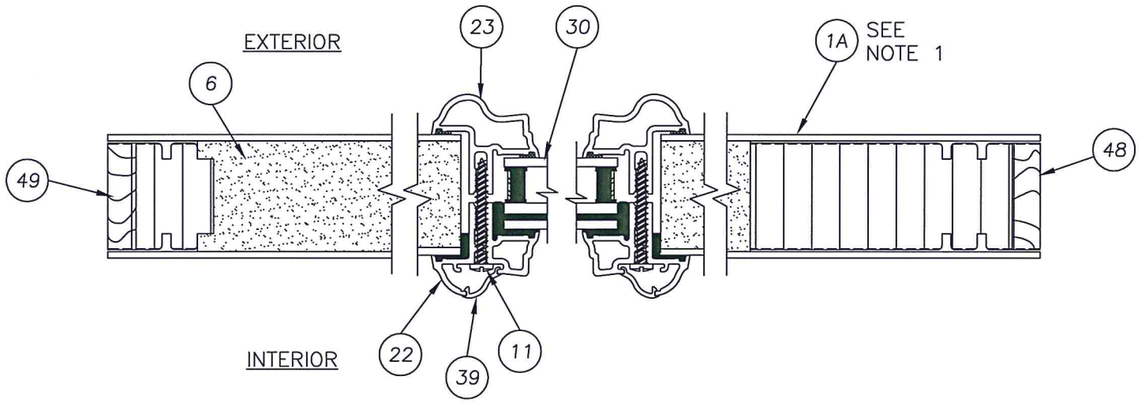


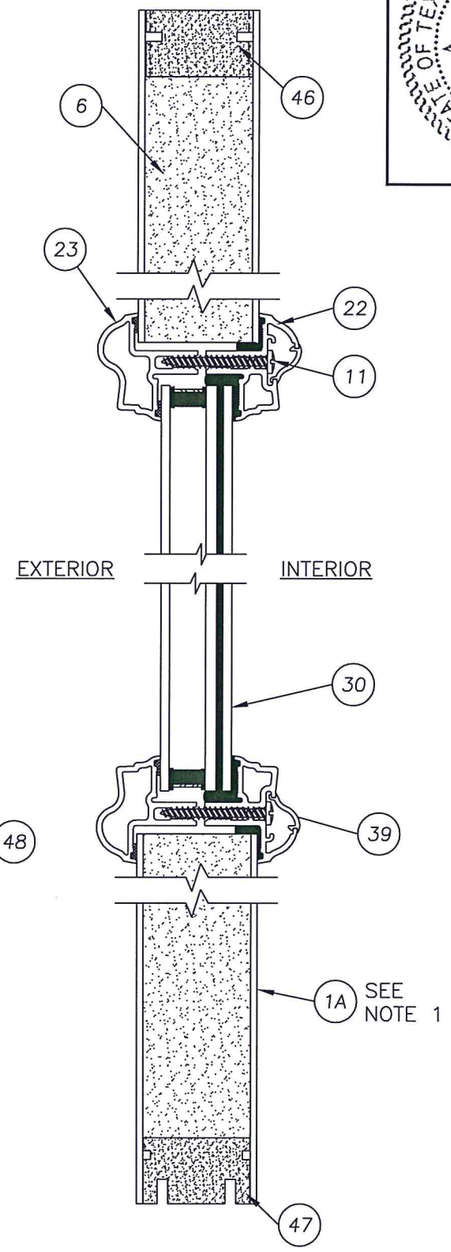

DOOR PANEL




GLAZING DETAIL




1/3 HORIZONTAL CROSS SECTION DOOR PANEL




2/3 VERTICAL CROSS SECTION DOOR PANEL

NOTE:
1. "RUSTIC" PANEL UTILIZES MAHOGANY GRAINING PATTERN, "CLASSIC CRAFT" PANEL UTILIZES OAK GRAINING PATTERN.

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:
THERMA-TRU
GLAZED DOUBLE FIBERGLASS
DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY:
"CLASSIC CRAFT" & "C.C. RUSTIC"
DOOR PANEL DETAILS

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 1 | 7/22/15 | ADDED GENERAL NOTE 5. | LFS |

DATE: 7/17/12
SCALE: N.T.S.
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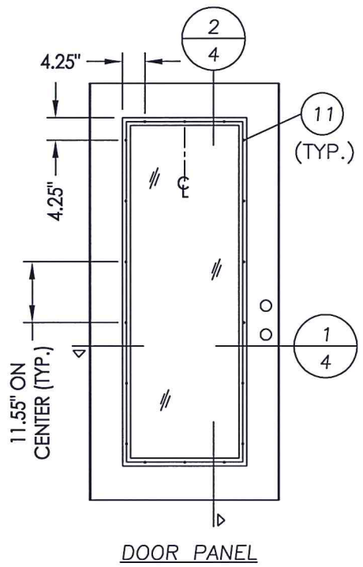
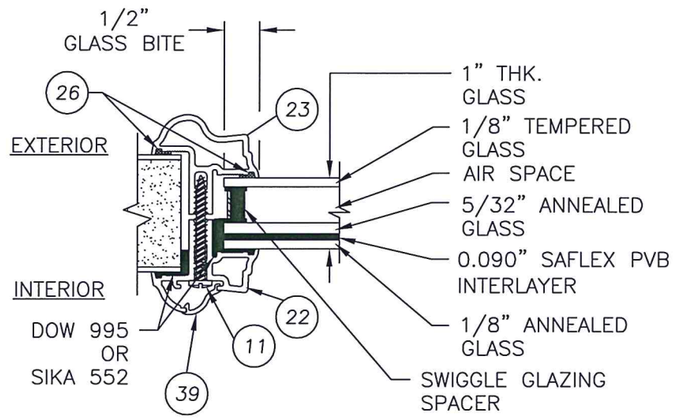
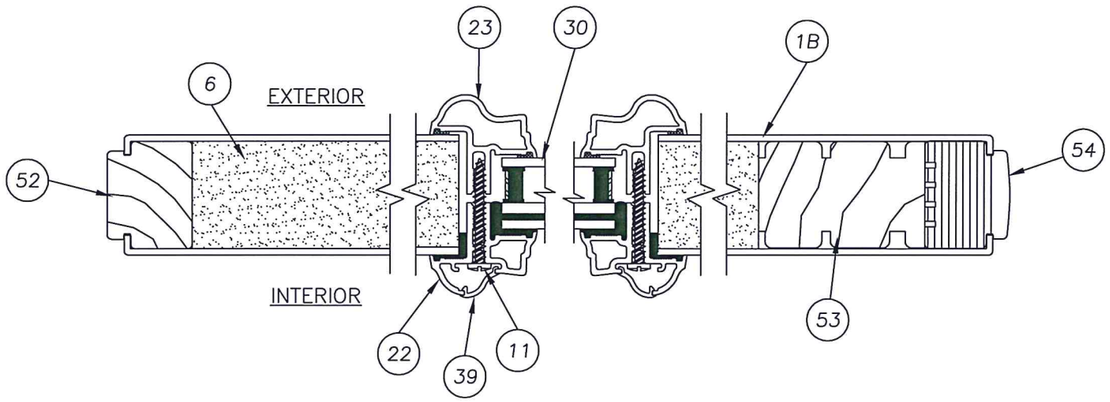


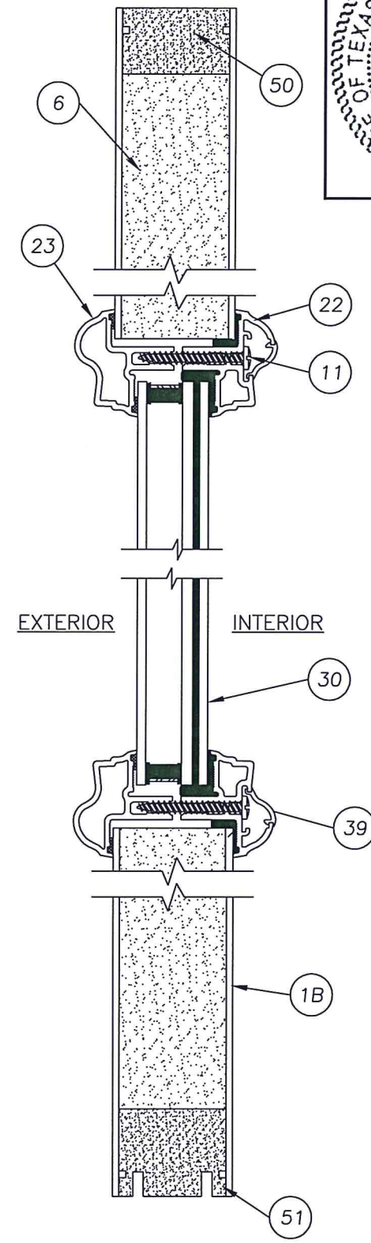

DOOR PANEL




GLAZING DETAIL




1/4 HORIZONTAL CROSS SECTION
DOOR PANEL




2/4 VERTICAL CROSS SECTION
DOOR PANEL

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7-22-15

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

PRODUCT: THERMA-TRU
GLAZED DOUBLE FIBERGLASS
DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY:
"FIBER CLASSIC"
DOOR PANEL DETAILS

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 1 | 7/22/15 | ADDED GENERAL NOTE 5. | LFS |

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
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DRAWING NO.: TX-4193
SHEET 4 OF 8

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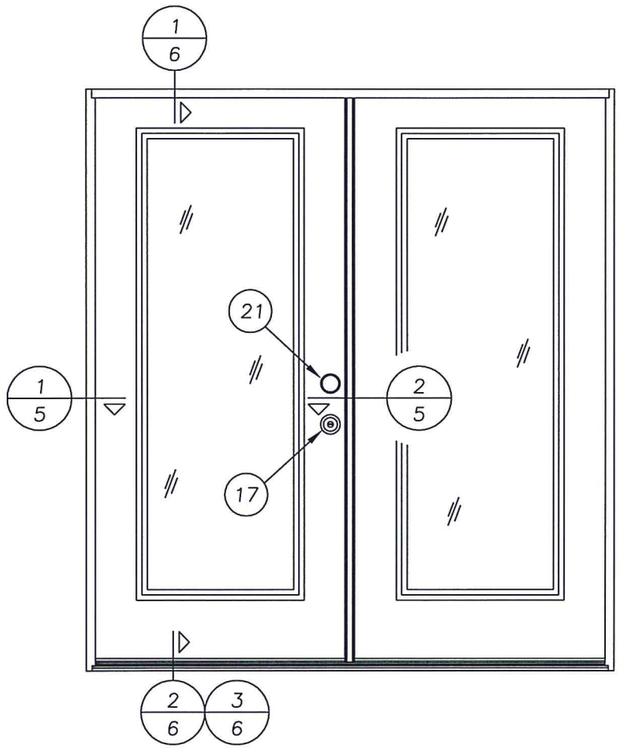
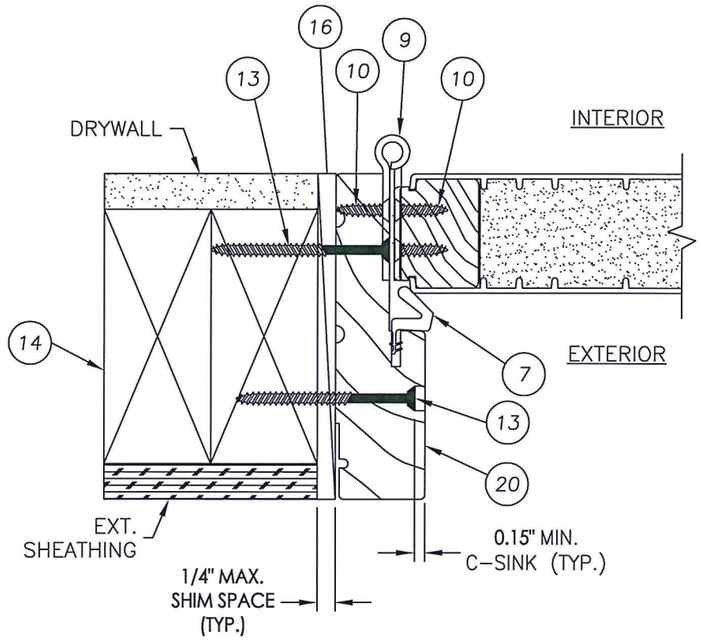
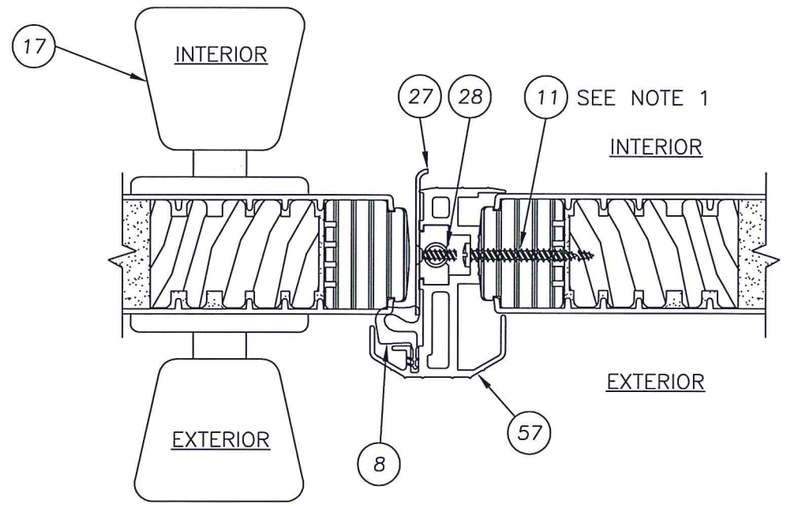



**1/5 HORIZONTAL CROSS SECTION**
INSWING SHOWN (OUTSWING ALSO APPROVED)
("Smooth Star Series" shown)




**2/5 HORIZONTAL CROSS SECTION**
INSWING SHOWN (OUTSWING ALSO APPROVED)
("Smooth Star Series" shown)

*NOTE:*
1. *ASTRAGAL RETAINING SCREWS LOCATED @ 3/4", 2", 3–1/4", 4–1/2", 18–7/8", 41–7/8", 60–7/8", 74–3/4", 76", 77–1/4" & 78–1/2" FROM TOP OF ASTRAGAL (11 TOTAL).*

STATE OF TEXAS
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TEXAS BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF REGISTRATION # F–11852


PRODUCT:
THERMA–TRU
GLAZED DOUBLE FIBERGLASS
DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY:
HORIZONTAL
CROSS SECTIONS

| NO. | DATE | BY |
|---|---|---|
| 1 | 7/22/15 | LFS |

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1 ADDED GENERAL NOTE 5.

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DRAWING NO.: TX–4193
SHEET 5 OF 8

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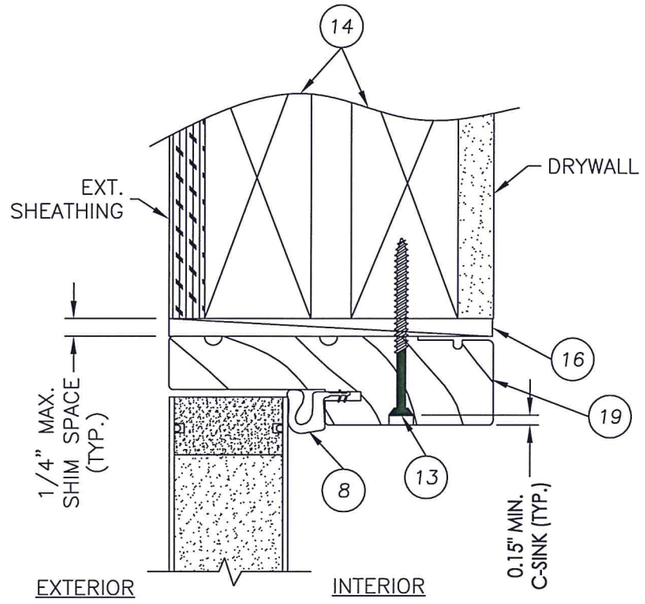
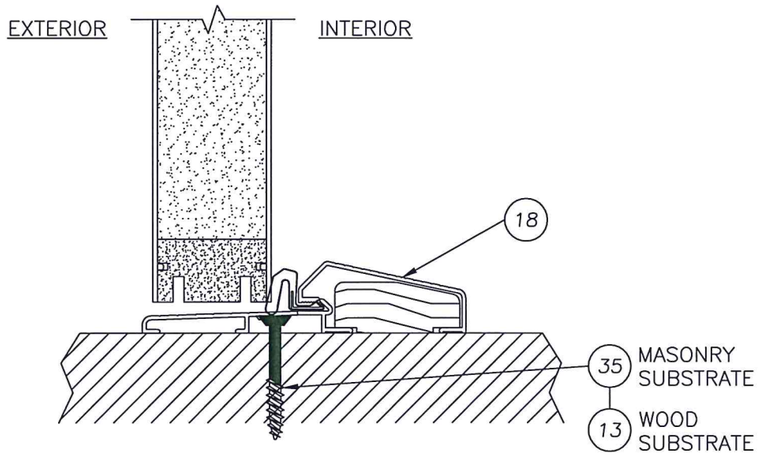
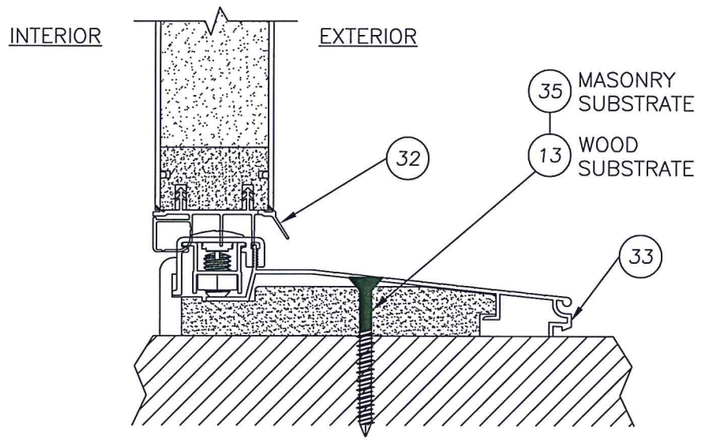



1/6 VERTICAL CROSS SECTION
OUTSWING SHOWN (INSWING ALSO APPROVED)
("SMOOTH STAR SERIES" SHOWN)




2/6 VERTICAL CROSS SECTION
OUTSWING CONFIGURATION
("SMOOTH STAR SERIES" SHOWN)




3/6 VERTICAL CROSS SECTION
INSWING CONFIGURATION
("SMOOTH STAR SERIES" SHOWN)

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

PRODUCT:
THERMA-TRU
GLAZED DOUBLE FIBERGLASS
DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY:
VERTICAL
CROSS SECTIONS

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 1 | 7/22/15 | ADDED GENERAL NOTE 5. | LFS |

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4193
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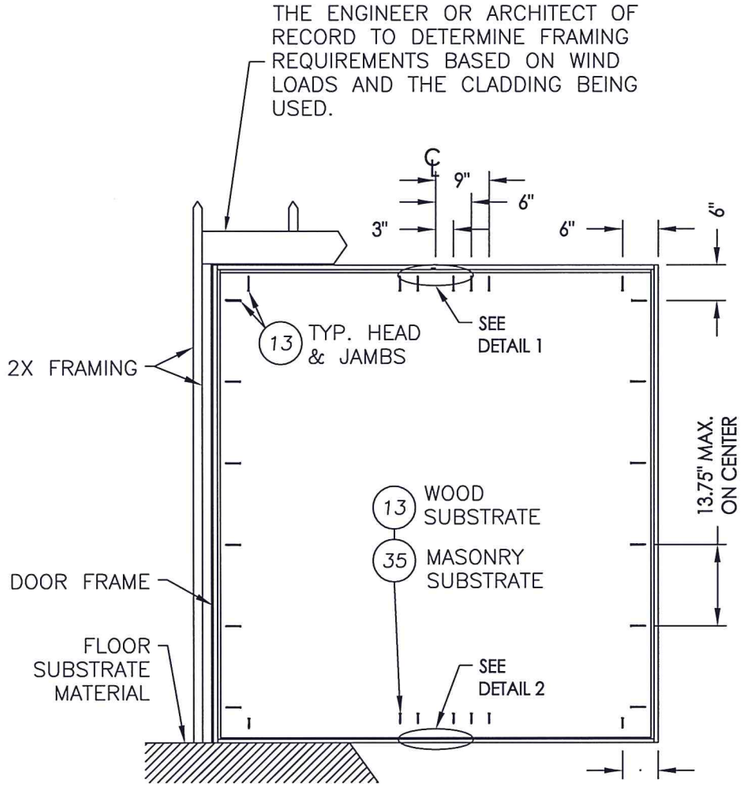
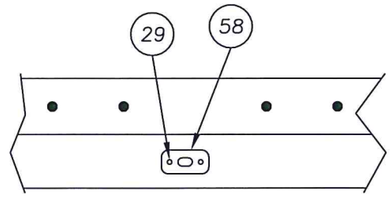



FRAME ANCHORING

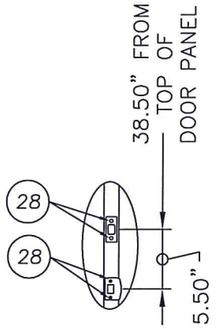
*CONCRETE ANCHOR NOTES:*

1. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.*
2. *Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.*
3. *Concrete anchor table:*

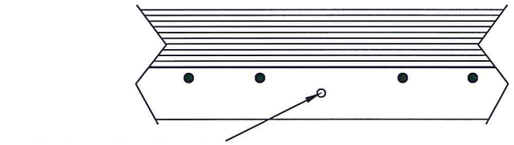
| *ANCHOR TYPE* | *ANCHOR SIZE* | *MIN. EMBEDMENT* | *MIN. CLEARANCE TO MASONRY EDGE* | *MIN. CLEARANCE TO ADJACENT ANCHOR* |
|---|---|---|---|---|
| **ITW TAPCON®** | **1/4"** | **1-3/4"** | **2-1/2"** | **3"** |
| **ELCO ULTRACON®** | **1/4"** | **1-3/4"** | **1"** | **3"** |



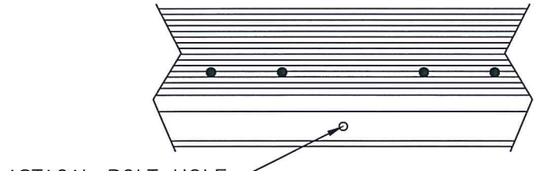

DETAIL 1



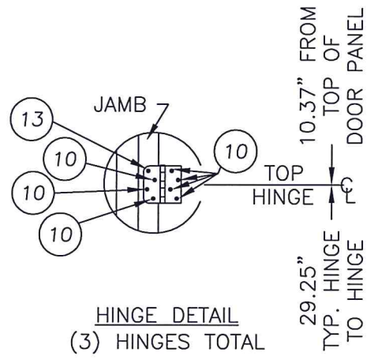

LATCH & DEADBOLT STRIKE PLATE DETAIL



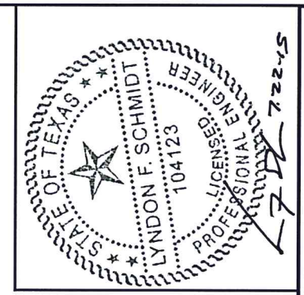

DETAIL 2 OUTSWING




DETAIL 2 INSWING




HINGE DETAIL
(3) HINGES TOTAL

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

PRODUCT: THERMA-TRU GLAZED FIBERGLASS DOUBLE DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY: FRAME ANCHORING

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 1 | 7/22/15 | ADDED GENERAL NOTE 5. | LFS |

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4193
SHEET 7 OF 8

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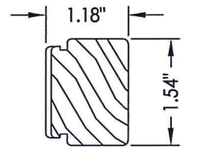
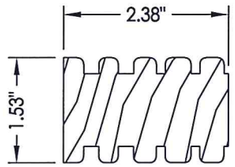
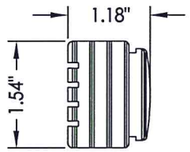
| Item | DESCRIPTION | Material |
|---|---|---|
| 1 | DOOR SKIN; SMOOTH STAR SERIES (.065" MIN.) | FIBERGLASS |
| 1A | DOOR SKIN; CLASSIC CRAFT & RUSTIC SERIES (.090" MIN.) | FIBERGLASS |
| 1B | DOOR SKIN; FIBER CLASSIC SERIES (.065" MIN.) | FIBERGLASS |
| 2 | TOP RAIL DOOR THERMA-TRU (SMOOTH STAR) | COMP. |
| 3 | LATCH STILE DOOR THERMA-TRU (SMOOTH STAR) | LVL |
| 4 | HINGE STILE DOOR THERMA-TRU (SMOOTH STAR) | WOOD |
| 5 | BOTTOM RAIL DOOR THERMA-TRU (SMOOTH STAR) | COMP. |
| 6 | POLYURETHANE FOAM | FOAM |
| 7 | MEDIUM REACH COMPRESSION WEATHER-STRIP (THERMA-TRU) | FOAM |
| 8 | LONG REACH COMPRESSION WEATHER-STRIP (THERMA-TRU) | FOAM |
| 9 | 4" x 4" HINGE .097" THK. (THERMA-TRU) | STEEL |
| 10 | #10 x 3/4" PFH WOOD SCREW (Hinge to Frame) | STEEL |
| 11 | #10 x 1-1/2" PPH SHEET METAL SCREW | STEEL |
| 12 | #10 x 2" PFH WOOD SCREW | STEEL |
| 13 | #10 x 2-1/2" PFH WOOD SCREW | STEEL |
| 14 | 2X FRAMING (G >= 0.42) | WOOD |
| 16 | MAX. 1/4" SHIM MATERIAL | WOOD |
| 17 | LOCK - KWIKSET 200 SERIES | STEEL |
| 18 | THRESHOLD OUTSWING (THERMA-TRU) | ALUM./WOOD |
| 19 | HEADER JAMB (4.656" x 1.25" THERMA-TRU, PINE) | WOOD |
| 20 | SIDE JAMB (4.656" x 1.25" THERMA-TRU) (FJ PINE) | WOOD |
| 21 | DEADBOLT - KWIKSET 600 SERIES | STEEL |
| 22 | INTERIOR LITE FRAME | ALUM. |
| 23 | EXTERIOR LITE FRAME | ALUM. |
| 24 | LOCK BLOCK (SMOOTH STAR) | WOOD |
| 25 | SILICONE CAULK | SILICONE |
| 26 | CELLULAR GLAZING TAPE | FOAM |
| 27 | LATCH STRIKE | STEEL |
| 28 | #8 x 2-1/2" PFH WOOD SCREW | STEEL |
| 29 | #8 x 3" PFH SCREW | STEEL |
| 30 | 1" THK. INSUL. LAMINATED GLASS (PVB INTERLAYER BY SOLUTIA) 1/8" TEMP.-AIR- 5/32" ANN./.090" PVB INTERLAYER/1/8" ANN. | GLASS |
| 32 | DOOR BOTTOM SWEEP (INSWING) | PVC |
| 33 | INSWING THRESHOLD | ALUM./COMP. |
| 35 | 1/4" ELCO OR ITW CONCRETE SCREW (1-3/4" MIN. EMB.) | STEEL |
| 39 | LITE FRAME TRIM | PVC |
| 40 | #9 x 3" PFH WOOD SCREW | STEEL |
| 46 | TOP RAIL (CLASSIC CRAFT & RUSTIC) | COMP. |
| 47 | BOTTOM RAIL (CLASSIC CRAFT & RUSTIC) | COMP. |
| 48 | LATCH SIDE STILE (CLASSIC CRAFT & RUSTIC) | LSL / OAK |
| 49 | HINGE SIDE STILE (CLASSIC CRAFT & RUSTIC) | LSL / OAK |
| 50 | TOP RAIL (FIBER CLASSIC) | COMP. |
| 51 | BOTTOM RAIL (FIBER CLASSIC) | COMP. |
| 52 | HINGE SIDE STILE (FIBER CLASSIC) | WOOD |
| 53 | LOCK BLOCK (FIBER CLASSIC) | WOOD |
| 54 | LATCH SIDE STILE (FIBER CLASSIC) | LVL / OAK |
| 57 | ASTRAGAL (6063-T5) | ALUM. |
| 58 | ASTRAGAL STRIKE PLATE | STEEL |



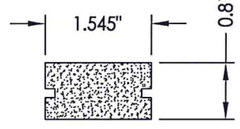

4 HINGE STILE (SMOOTH STAR)



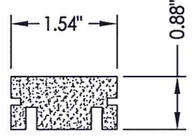

24 LOCK BLOCK (SMOOTH STAR)



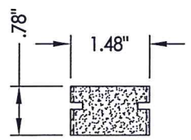

3 LATCH STILE (SMOOTH STAR)



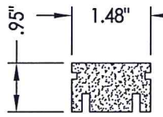

2 DOOR TOP RAIL (SMOOTH STAR)



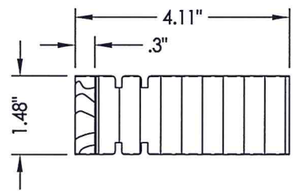

5 DOOR BTM. RAIL (SMOOTH STAR)



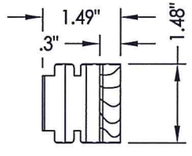

46 TOP RAIL (CLASSIC CRAFT) (& RUSTIC)



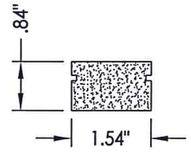

47 BOTTOM RAIL (CLASSIC CRAFT) (& RUSTIC)



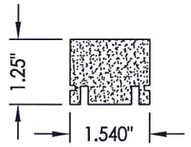

48 LATCH SIDE STILE (CLASSIC CRAFT) (& RUSTIC)



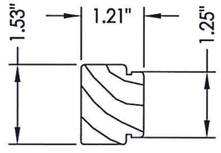

49 HINGE SIDE STILE (CLASSIC CRAFT) (& RUSTIC)



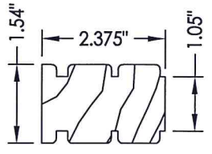

50 TOP RAIL (FIBER CLASSIC)



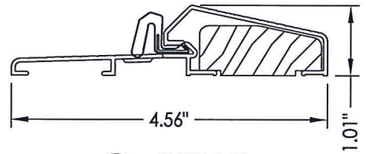

51 BOTTOM RAIL (FIBER CLASSIC)



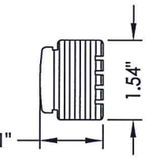

52 HINGE SIDE STILE (FIBER CLASSIC)



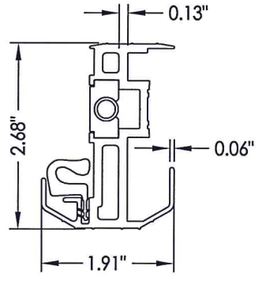

53 LOCK BLOCK (FIBER CLASSIC)



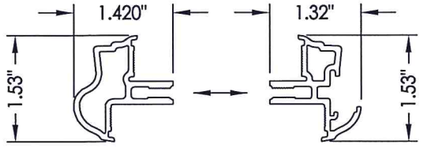

18 OUTSWING THRESHOLD




54 LATCH SIDE STILE (FIBER CLASSIC)

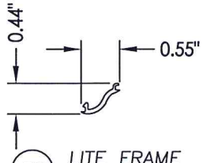



57 ASTRAGAL

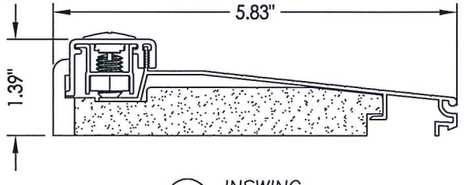



23 EXT. LITE FRAME

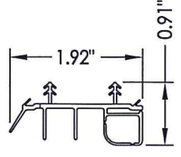
22 INT. LITE FRAME



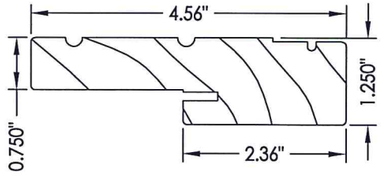

39 LITE FRAME TRIM




33 INSWING THRESHOLD




32 SWEEP




19 20 HEAD & SIDE JAMB

STATE OF TEXAS
LYNDON F. SCHMIDT
104123
LICENSED PROFESSIONAL ENGINEER
7.22.12


Documents Prepared By: Lyndon F. Schmidt, P.E.
TEXAS P.E. #104123
R|W 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: THERMA-TRU GLAZED DOUBLE FIBERGLASS DOOR IN/OUTSWING "IMPACT"

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 1 | 7/22/15 | ADDED GENERAL NOTE 5. | LFS |

DATE: 7/17/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: TX-4193
SHEET 8 OF 8

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R:\Clients\Therma Tru PERMANENT\B - Texas Dept of Ins\TDI - DR 330 - 68 Glazed FG Imp 1S - OS Sgls Dbls w-wo Imp SLC - Drawings\Current\TX-4190-94.dwg, 8.3