Intertek | Architectural Testing

**TEST REPORT**

**Report No.:** E4545.01-801-44

**Rendered to:**

GLASSCRAFT DOOR COMPANY
Houston, Texas

**PRODUCT TYPE:** Inswing and Outswing 8'0" Single Fiberglass Door with Speak Easy
**SERIES/MODEL:** 8'0" Single Fiberglass Door with Speak Easy
In-Swing (Specimen #1) Out-Swing (Specimen #2)

| | Summary of Results | |
|---|---|---|
| **Title** | **Test Specimen #1** | **Test Specimen #2** |
| Design Pressure | ±2400 Pa (±50.14 psf) | ±2400 Pa (±50.14 psf) |
| Uniform Load Structural Test Pressure | ±3600 Pa (±75.19 psf) | ±3600 Pa (±75.19 psf) |

STATE OF TEXAS
JOHN H. WASKOW
78232
REGISTERED PROFESSIONAL ENGINEER

Texas Firm F-11869

John H Waskow P.E.
Digitally Signed by: John H. Waskow
2015.08.12 15:55:36 -05'00'

TYLER WESTERLING
LICENSE
No. 72012
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally Signed by: Tyler Westerling
2015.08.12 11:27:18 -07'00'

Reference must be made to Report No. E4545.01-801-44, dated 07/01/15 for complete test specimen description and detailed test results.

**1.0 Report Issued To**: Glasscraft Door Company
2002 Brittmoore Street
Houston, Texas 77043

**2.0 Test Laboratory**: Intertek-ATI
1909 10th Street
Plano, Texas 75074
(469) 814-0687

**3.0 Project Summary**:

**3.1 Product Type**: In-Swing and Out-Swing 8'0" Fiberglass Door with Speak Easy

**3.2 Series/Model**: 8'0" Fiberglass Door with Speak Easy (Inswing is specimen #1, Outswing is specimen #2)

**3.3 Compliance Statement**: Results obtained are tested values and were secured by using the designated test method(s). Test specimen description and results are reported herein.

**3.4 Test Dates**: 01/22/2015 - 03/15/2015

**3.5 Test Record Retention End Date**: All test records for this report will be retained until March 15, 2019.

**3.6 Test Location**: Architectural Testing, Inc. test facility in Southlake, Texas.

**3.7 Test Sample Source**: The test specimens were provided by the client. Representative samples of the test specimens will be retained by Architectural Testing for a minimum of four years from the test completion date.

**3.8 Drawing Reference**: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix A. Any deviations are documented herein or on the drawings.

**3.9 List of Official Observers**:

| Name | Company |
|---|---|
| Clint Barnett | Intertek-ATI |

## 4.0 Test Method(s):

ASTM E 330-02, *Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

## 5.0 Test Specimen Description:

### 5.1 Product Sizes:

**Test Specimens #1 and #2:**

| **Overall Area:** 2.4 $m^2$ (25.52 $ft^2$) | **Width** | | **Height** | |
|---|---|---|---|---|
| | **millimeters** | **inches** | **millimeters** | **inches** |
| Overall size | 953 | 37-1/2 | 2489 | 98 |
| Leaf | 914 | 36 | 2438 | 96 |

***The following descriptions apply to all specimens.***

### 5.2 Frame Construction:

| **Frame Member** | **Material** | **Description** |
|---|---|---|
| Head and jambs | Wood | 1-1/4" x 4-5/8" cross section |
| Threshold | Aluminum-clad vinyl composite with extruded vinyl trim | 6" wide with slope towards exterior. |

| | **Joinery Type** | **Detail** |
|---|---|---|
| All corners | Screwed partial rabbet | Secured with four #9 x 3" wood screws |

### 5.3 Panel Construction:

| **Frame Member** | **Material** | **Description** |
|---|---|---|
| All members | Fiberglass | Fiberglass panels filled with foam |

| | **Joinery Type** | **Detail** |
|---|---|---|
| All corners | Glued | Panels were backed with foam |

**5.0 Test Specimen Description**: (Continued)

**5.4 Weatherstripping**:

| Description | Quantity | Location |
|---|---|---|
| U-shaped foam-filled vinyl gasket with kerf insert | 1 Row | Shoulder of the jambs and header |
| Five fin rubber door sweep | 1 Row | Threshold face of leaf |

**5.5 Glazing**: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

| Glass Type | Spacer Type | Interior Lite | Exterior Lite | Glazing Method |
|---|---|---|---|---|
| 1" IG | 1/2" Aluminum box | 1/8" Annealed | 1/8" Annealed-0.09" PVB Inerlayer-1/8" Annealed | Exterior wet glazed |

| Location | Quantity | Daylight Opening | | Glass Bite |
|---|---|---|---|---|
| | | millimeters | inches | |
| Speakeasy | 1 | 152 x 292 | 6 x 11-1/2 | 1/2" |

**5.6 Drainage**: Sloped threshold was utilized.

**5.7 Hardware**:

| Description | Quantity | Location |
|---|---|---|
| Door hinge | 4 | 12" and 28" from bottom; 9" and 34-1/2" from top; attached with two #9 x 3" and two #9 x 1" wood screws |
| 3 point lock set | 1 | Inserted into lock stile of operable leaf, secured with nine #8 x 3" wood screws at 7-3/8", 14-1/4", 17-9/16", 26-5/16", 45-13/16", 55-13/16", 62-3/16", 65-7/16" and 72-3/4" from bottom |
| Strike plate | 4 | On lock jamb in line with 3 point lock and dead bolt; secured with two #9 x 3" wood screws each |
| Latch | 1 per leaf | Centered on speak easy lock stile |
| Keeper | 1 per leaf | In line with latch, on speak easy frame |
| Hinge | 2 per leaf | 3" from top and bottom of speak easy |

**5.8 Reinforcement**: No reinforcement was utilized.

**5.9 Screen Construction**: No screen was utilized.

## 6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/2" shim space.

| Location | Anchor Description | Anchor Location |
|---|---|---|
| Jambs | #9 x 3" wood screws | 12" from corners and center; through top and bottom mounting holes of hinges |
| Head and threshold | #9 x 3" wood screws | 4" from corners, 12" on center thereafter |

**7.0 Test Results**: The temperature during testing was 26.7°C (80°F). The results are tabulated as follows:

**Test Specimen #1**: Inswing

| Title of Test | Results | Allowed | Note |
|---|---|---|---|
| **Uniform Load Deflection,** per ASTM E 330 taken at leaf lock edge | | | |
| +2400 Pa (+50.13 psf) | 3 mm (0.13") | | |
| -2400 Pa (-50.13 psf) | 1 mm (0.02") | Report Only | 1, 2 |
| **Uniform Load Structural,** per ASTM E 330 taken at leaf lock edge | | | |
| +3600 Pa (+75.19 psf) | 1 mm (0.02") | 10 mm (0.38") max. | |
| -3600 Pa (-75.19 psf) | 1 mm (0.02") | 10 mm (0.38") max. | 1, 2 |

**Test Specimen #2**: Outswing

| Title of Test | Results | Allowed | Note |
|---|---|---|---|
| **Uniform Load Deflection,** per ASTM E 330 taken at leaf lock edge | | | |
| +2400 Pa (+50.13 psf) | 1 mm (0.02") | | |
| -2400 Pa (-50.13 psf) | 4 mm (0.16") | Report Only | 1, 2 |
| **Uniform Load Structural,** per ASTM E 330 taken at leaf lock edge | | | |
| +3600 Pa (+75.19 psf) | < 1 mm (0.01") | 10 mm (0.38") max. | |
| -3600 Pa (-75.19 psf) | < 1 mm (0.01") | 10 mm (0.38") max. | 1, 2 |

**7.0 Test Results**: (Continued)

***General Note**: All testing was performed in accordance with the referenced standard(s).*

*Note 1: Loads were held for 10 seconds.*

*Note 2: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.*

Architectural Testing will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Architectural Testing, Inc. for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

Digitally Signed by: Clint Barnett

Clint Barnett
Technician

Digitally Signed by: John H. Waskow

John H. Waskow, P.E.
Director – Regional Operations

Digitally Signed by: Tyler Westerling

Tyler Westerling, P.E.
Senior Project Engineer

CB/JW: hd

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Drawings (12)

## Revision Log

| Rev. # | Date | Page(s) | Revision(s) |
|---|---|---|---|
| 1 | 07/24/15 | 4 | Changed frame material to fiberglass |
| 2 | 08/10/15 | Cover Page | Added second P.E. Seal |
| 2 | 08/10/15 | 6 | Added third signature. |

# Appendix A

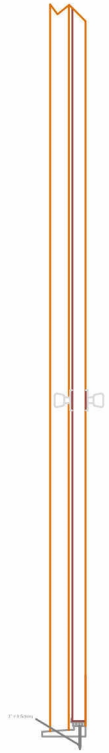
## Drawings

~~Architectural Testing, Inc~~

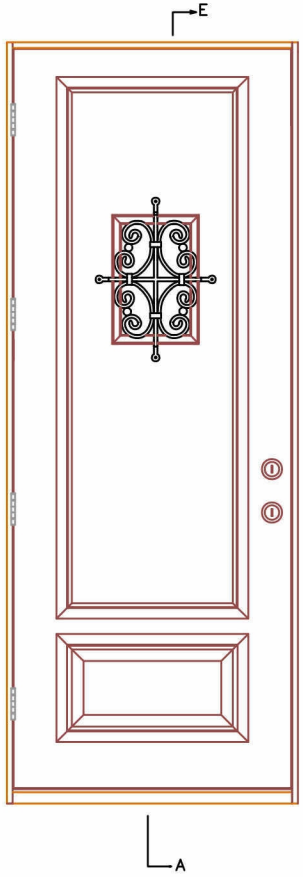
Test sample complies with details shown herein. Any deviations are noted in the test report or drawings.

Report #: E4545.01, .02

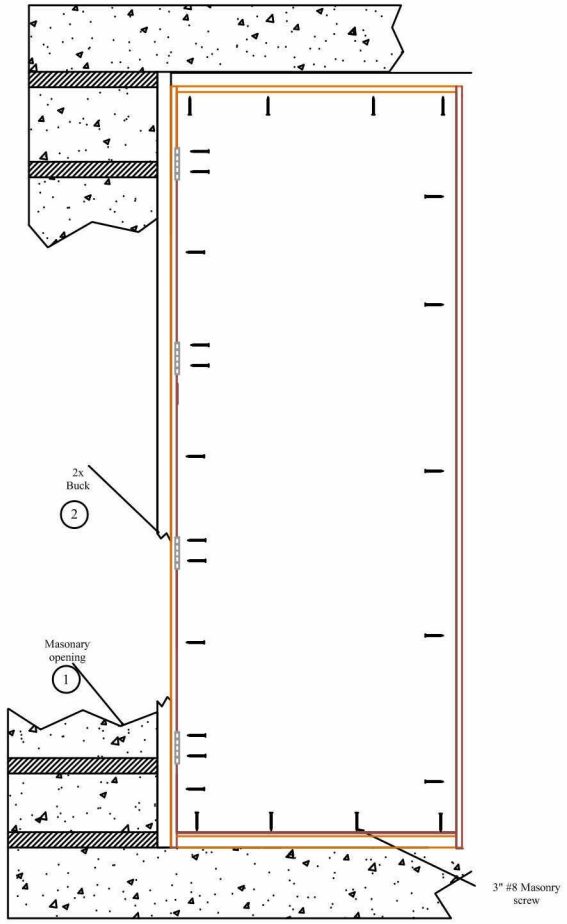
Date: 07/14/15 By: CB



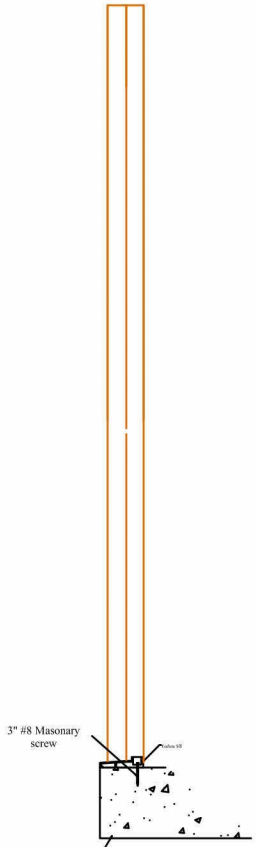
In Swing




ELEVATION




ANCHORING LAYOUT




Set frame sill in concrete or bed of caulk

Impact Out-swing 8'-0 Fiberglass Door W/Speakeasy

# Inside View / Out swing

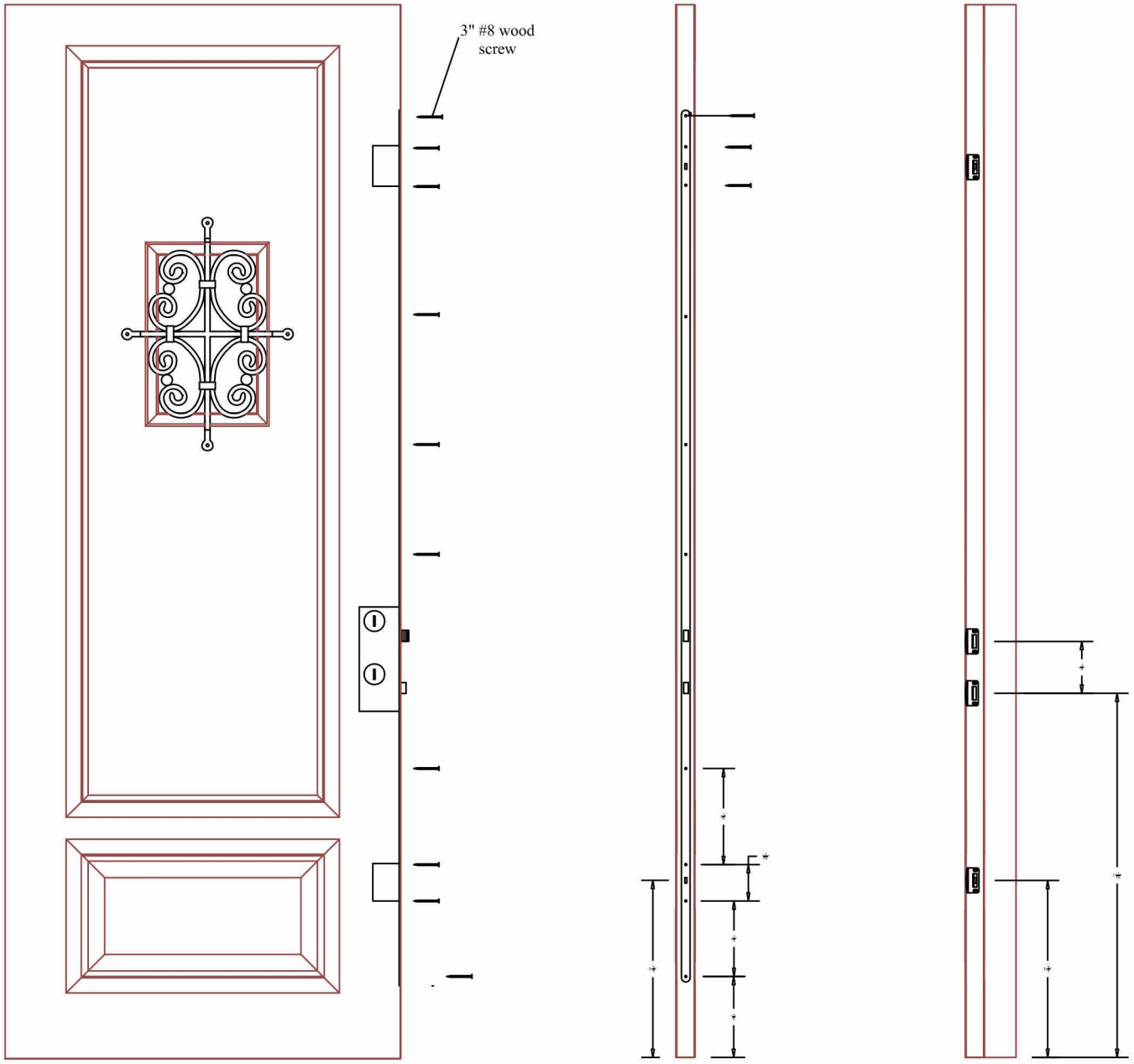
**Glass*Craft**

Architectural Testing, Inc

Test sample complies with details shown herein. Any deviations are noted in the test report or drawings.

Report #: E4545.01,.02

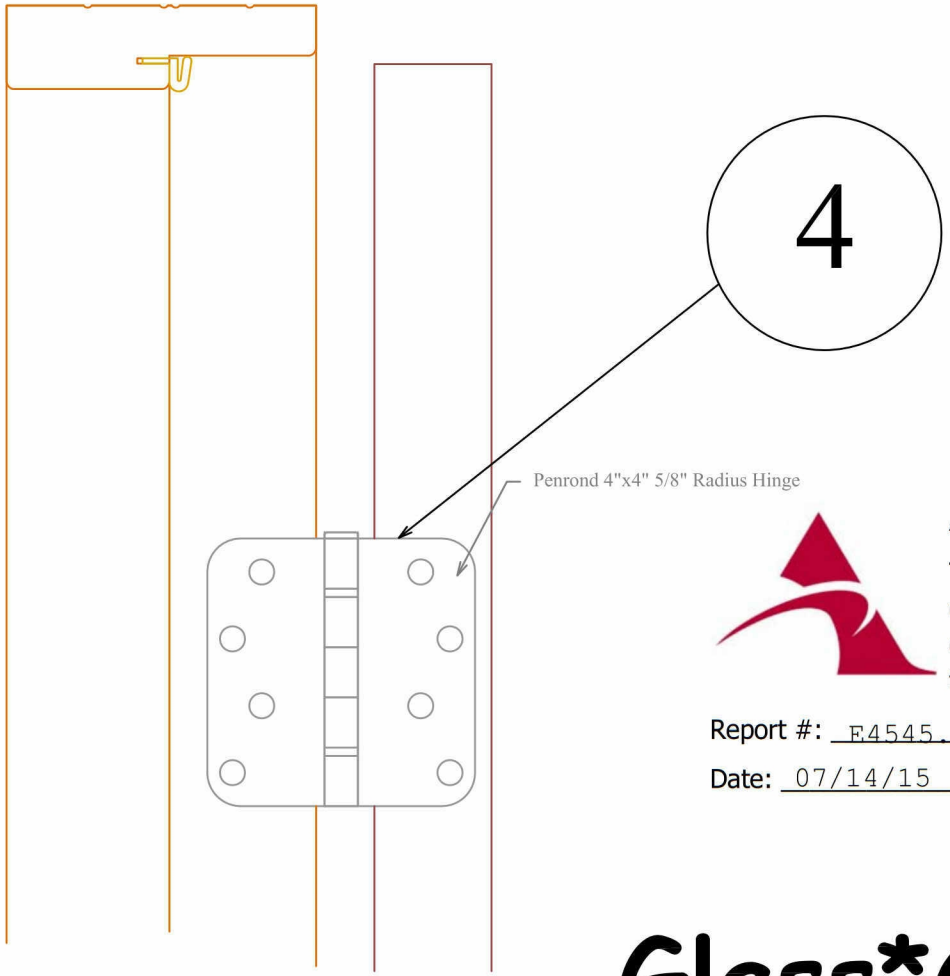
Date: 07/14/15 By: CB




# Three point lock set screw location and strike plate

**Glass*Craft**

Impact Fiberglass Glazed Doors




Architectural Testing, Inc

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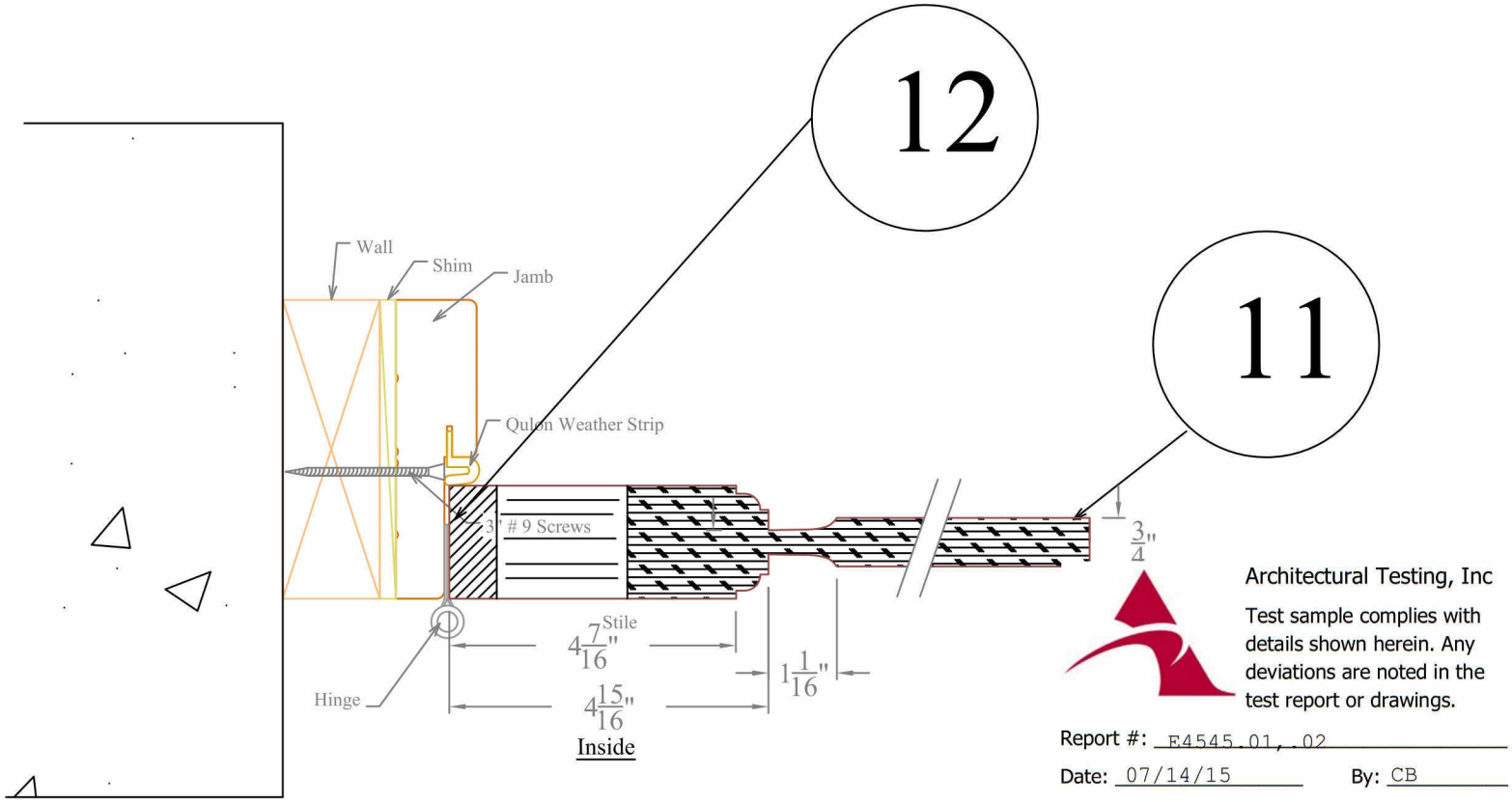
Report #: E4545.01,.02

Date: 07/14/15 By: CB

# Glass*Craft

## Single 8'0 Fiberglass Door / Speakeasy Door

D Door Hinge




Architectural Testing, Inc

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Report #: F4545.01, .02

Date: 07/14/15 By: CB

B Panel

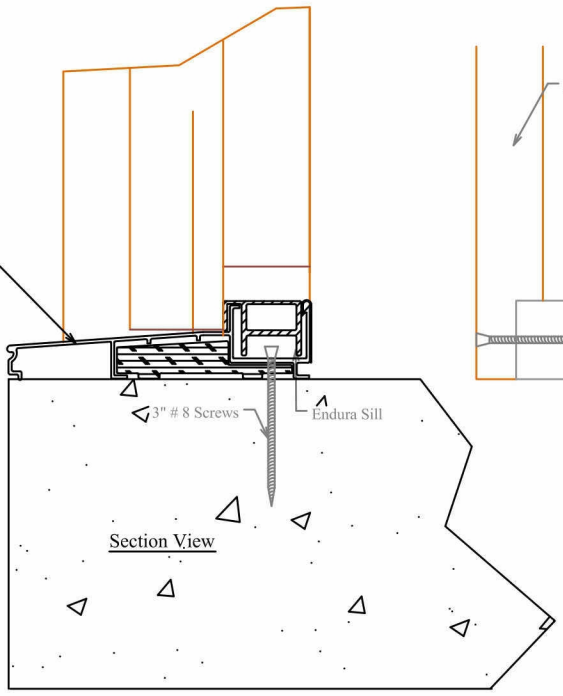
# Glass*Craft

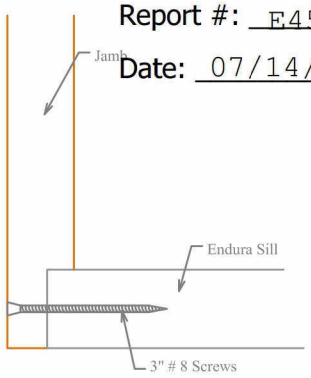
## Single 8'0 Fiberglass Door / Speakeasy Door

17

10

Endura Sill




Inside View

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# Glass*Craft

Single 8'0 Fiberglass Door / Speakeasy Door

Ⓐ Threshold Out Swing

8

## Install Outside Housing

NOTE: Do not install adapter ring if using 1½" (38 mm) hole.

a. FOR F360/F362: Ensure pin is positioned to slide through correct backset slot in deadbolt.

b. Insert housing through escutcheon and adapter ring and into door. Driver bar should slide under deadbolt.

## Instalación del alojamiento exterior

NOTA: Si se usa un agujero de 38 mm no se instala un anillo adaptador.

a. PARA LOS MODELOS F360/F362: Se debe verificar que el pasador esté colocado de manera que se deslice a través de la ranura en el pasado que corresponda a la distancia correcta del borde de la puerta al centro de la bocallave.

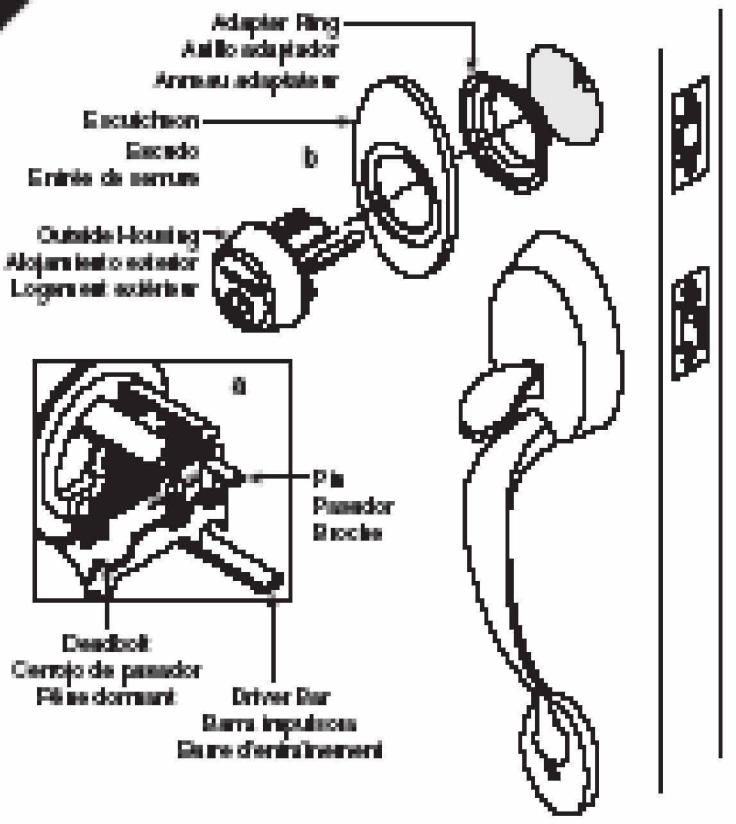
b. Introducir el alojamiento en la puerta, a través del escudo y del anillo adaptador. La barra impulsora debe deslizarse debajo del pasado.

## Installation du logement extérieur

REMARQUE: Ne pas installer l'anneau adaptateur si le trou 38 mm est utilisé.

a. POUR les modèles F360/F362: S'assurer que la broche est placée de sorte à glisser dans la fente d'écartement correct du pène dormant.

b. Insérer le logement par l'entrée de serrure et l'anneau adaptateur et dans la porte. La barre d'entraînement doit glisser sous le pène dormant.



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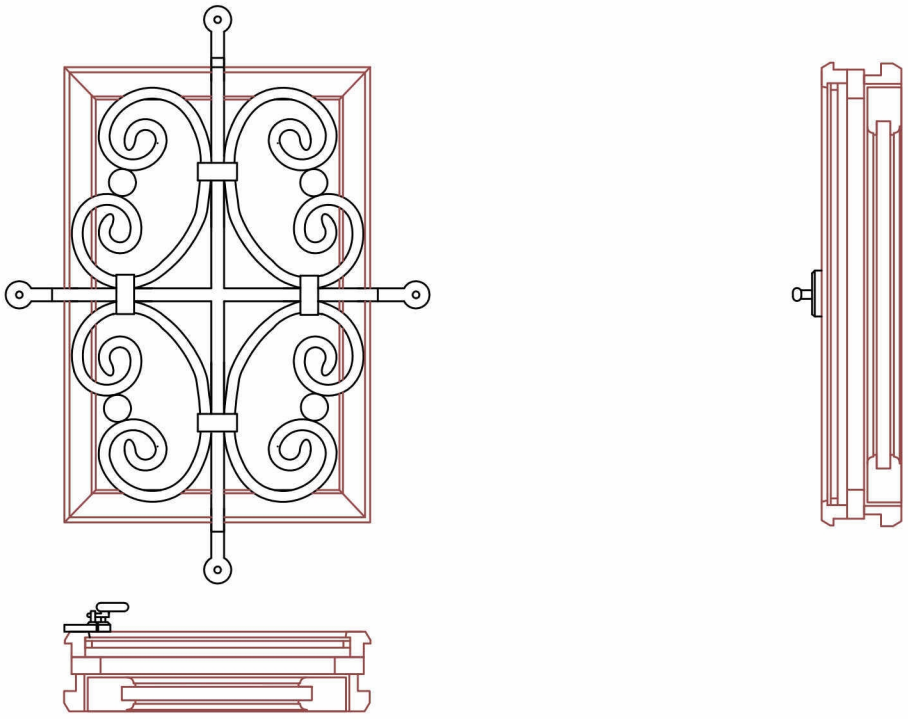
Report #: E4545.01,.02

Date: 07/14/15 By: CB

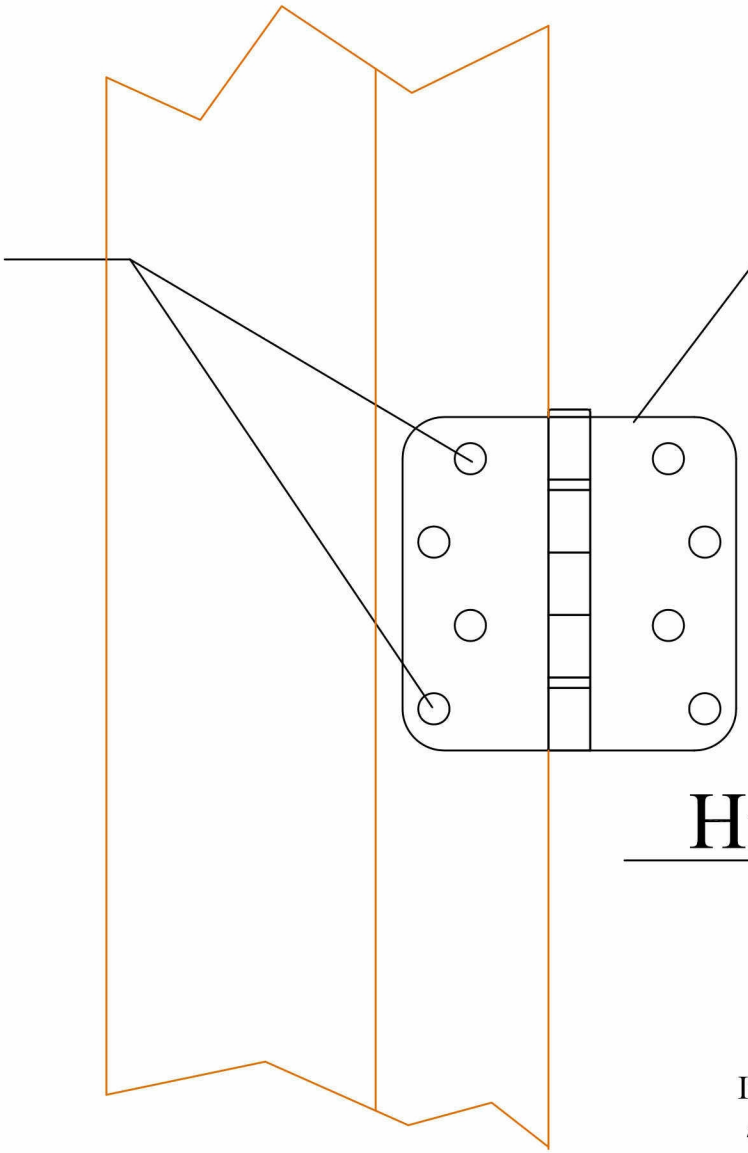


# Speakeasy

# Glass*Craft

Penrond 4"x4" 5/8" Radius Hinge

Install (2) 3" #8 Wood Screws Per Henge.



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Report #: E4545.01, .02

Date: 07/14/15 By: CB

# Hinge Detail

**Glass*Craft**

Impact Single 8'0 Fiberglass Door / Speakeasy Door

# Impact Single 8'0 Fiberglass Door / Speakeasy Door

## List of Material

| Item # | Discription | Material |
|---|---|---|
| 1 | Masonry | CONC. |
| 2 | 2x Buck | Wood |
| 3 | Imperial 3 point lock set | Metal |
| 4 | Penrond 4"x4" 5/8" Radius Hinge | Metal |
| 5 | Endura Sill ZAIL 5866 / I/S | Alum. |
| 6 | 3" #9 Wood screw | Metal |
| 7 | Door Jam | Fiber |
| 8 | Bottom Door sweep | Rubber |
| 9 | weather strip | Foam |
| 10 | Endura Sill ZAIL 5866 / O/S | Alum. |
| 11 | Door Fill | Foam |
| 12 | Stile | Composits |
| 14 | Impact speakeasy grill | Metal |
| | | |
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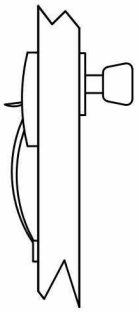
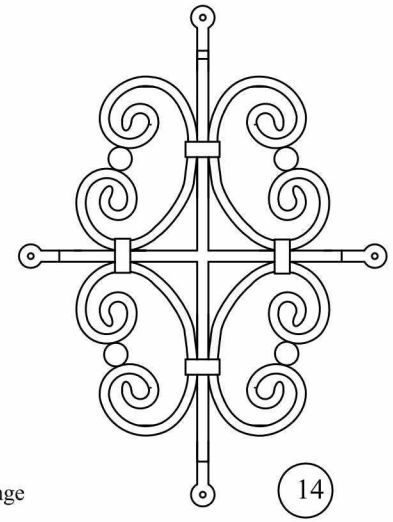


Imperial 3 point set 3



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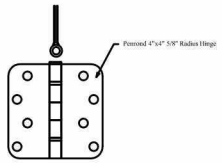
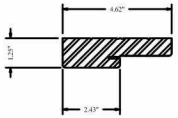


Penrond 4"x4" 5/8" Radius Hinge

4



Door Jam 7

Bottom Door sweep 8

Endura Sill
ZAIL 5866 / I/S 10

weather strip 9

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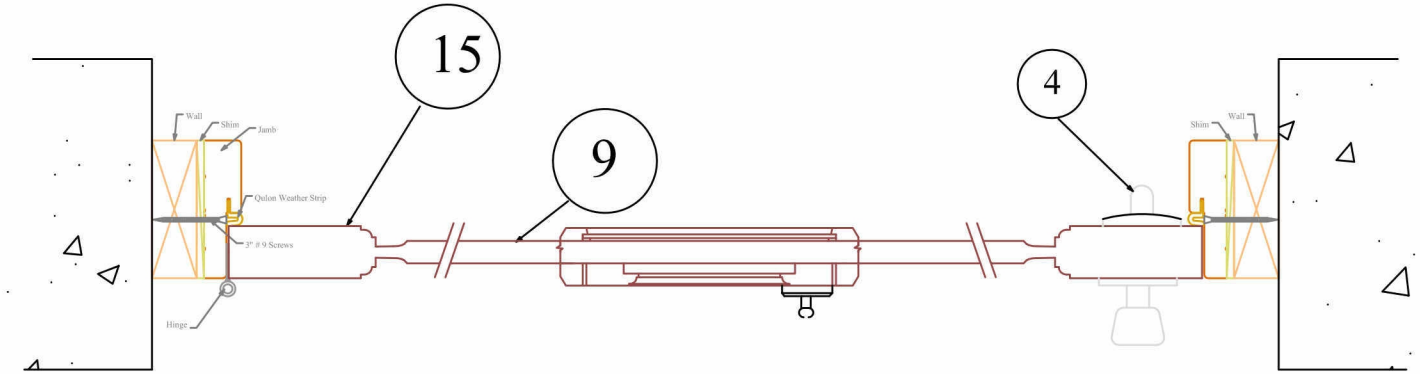
Glass*Craft

Exterior




Interior

Horizontal Cross Section

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# Impact Single 8'0 Fiberglass Door / Speakeasy Door

Glass*Craft

Architectural Testing, Inc

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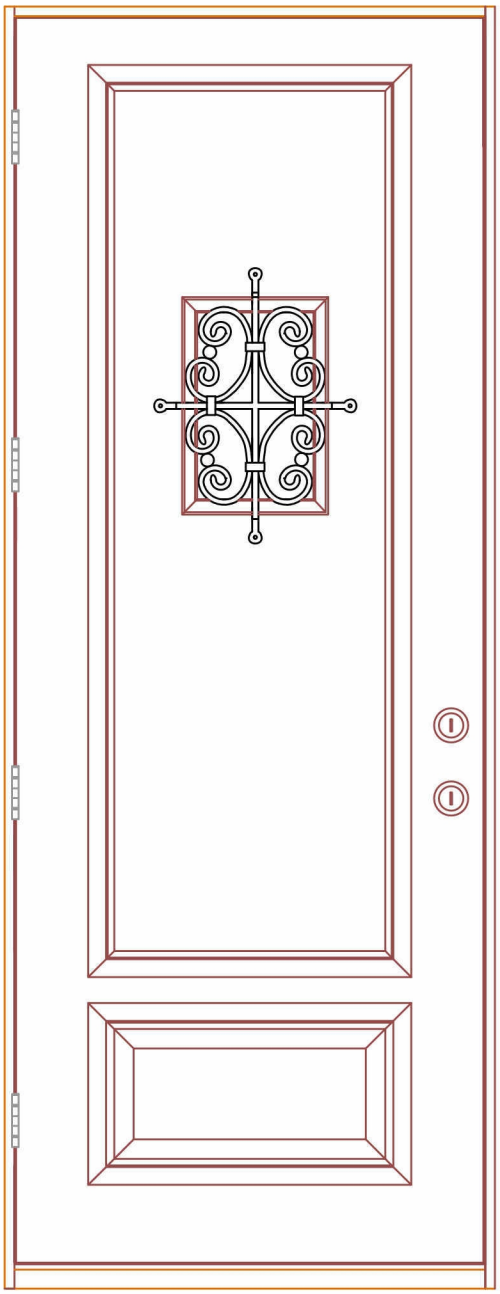
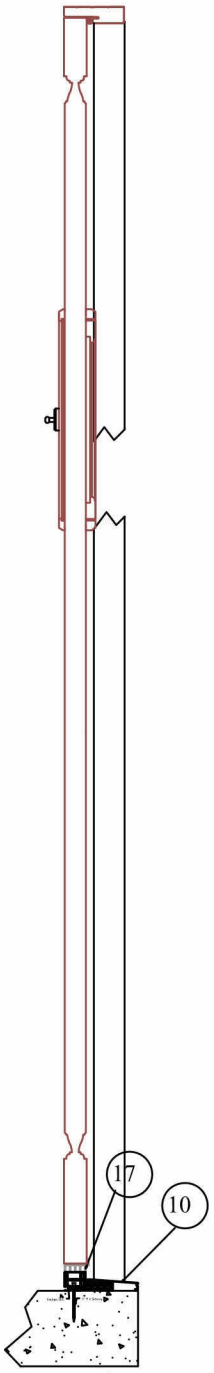
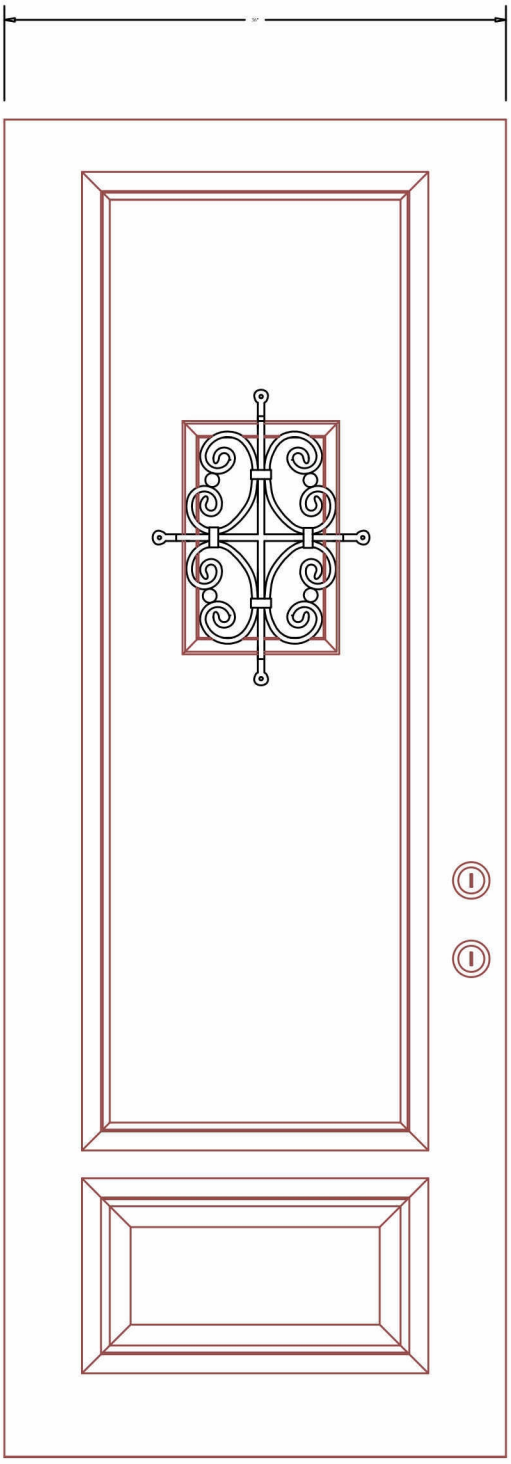





Section
H-H

# Glass*Craft

Impact Single 8'0 Fiberglass Door
/ Speakeasy Door



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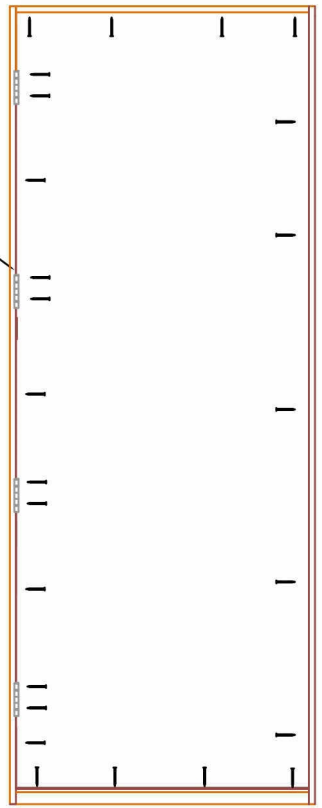
Glass*Craft

ImpactSingle 8'0 Impact Fiberglass Door / Speakeasy Door

See Hinge Detail



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# ANCHORING LOCATION

**Glass*Craft**

Impact Single 8'0 Fiberglass Door / Speakeasy Door