

PERFORMANCE TEST REPORT

Rendered to:

GLASSCRAFT DOOR COMPANY

SERIES/MODEL: Mahogany Entry Door

**PRODUCT TYPE: 3' x 8' Single Outswing TDL Hardwood Door
with TDL Sidelites**

Title	Summary of Results
Uniform Load Deflection Test Pressure	+47.18 psf / -61.6 psf
Uniform Load Structural Test Pressure	+70.77 psf / -92.4 psf

This report contains in its entirety:

Cover Page: 1 page

Report Body: 5 pages

Drawings: 20 pages

Reference should be made to Architectural Testing, Inc. Report No. 81842.01-801-44 for complete test specimen description and data.

PERFORMANCE TEST REPORT

Rendered to:

GLASSCRAFT DOOR COMPANY
2002 Brittmoore Road
Houston, Texas 77043-2209

Report No.: 81842.01-801-44
Revision 2: 06/30/08
Test Date: 04/10/08
Report Date: 06/20/08
Expiration Date: 04/10/12

Project Summary: Architectural Testing, Inc. was contracted by GlassCraft Door Company to perform testing on a Series/Model Mahogany Entry Door, 3' x 8' single outswing hardwood TDL door with two TDL sidelites. Test specimen description and results are reported herein.

Test Method: The test specimen was evaluated in accordance with:

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

Test Specimen Description:

Series/Model: Mahogany Entry Door

Product Type: 3' x 8' Single Outswing Hardwood TDL Door with TDL Sidelites

Door Description

Overall Size: 68-1/2" wide by 98" high

Leaf Size: 36" wide by 96" high

Rough Opening Size: 69" wide by 98-1/2" high

Overall Area: 46.62 ft²

Glazing Type: Sealed insulating glass comprised of 1/8" thick tempered glass at the exterior and 1/8" thick tempered glass at the interior. A 1/2" aluminum spacer system was used providing 3/4" overall thickness.

Glazing Details: Six interior glazed lites with double-sided butyl tape and a nailed-on wood glazing bead secured by 1" long x 0.040" x 0.050" rectangular shank brad nails with a 0.050" x 0.080" head (18 gauge brad nail) 1" from each corner and on 6" spacing thereafter.

Test Specimen Description: (Continued)

Door Description (Continued)

Weatherstripping: One five finger vinyl sweep at the bottom of the door leaf. One row of custom shaped foam-filled vinyl weatherstrip at the head and jambs.

Frame Construction: The door frame was constructed of 4-5/8" by 1-1/4" hardwood head and jambs, and 3-5/8" by 2-5/8" mullions and included an adjustable extruded aluminum and composite threshold. The head and jambs were kerfed to accept the weatherstripping. The corners were coped, butted and secured with two #8 x 1-1/2" and five #8 x 3" screws at the threshold and with four #8 x 1-1/2" and two #8 x 3" screws at the head. The mullions were attached with five #8 x 3" screws through the head and the threshold.

Leaf Construction: The door leaf was constructed of 1-3/4" thick hardwood and utilized a glued cove and bead joint, reinforced with 1/2" diameter by 4-1/2" long wood dowels. Two dowels were located at the top and middle rail to stile joint, and four dowels were located at the bottom rail to stile joint.

Hardware: One Schlage F-300 Series single-point lockset was located 36" on center from bottom of the leaf and one Schlage deadbolt was located 41-5/8" on center from the bottom of the leaf. Four 4" butt type hinges were fastened to each leaf with four #8 x 3" screws. Each hinge was secured to the jamb with two #8 x 3" screws and two #8 x 1" flat head screws. The hinges were located at 9-1/8", 34-1/2", 59-1/2" and 84-3/4" on center from the top of the jamb. Surface bolts were attached to the top and bottom of the leaf with four #10 x 1" flat head machine screws with a 1-1/2" long blind nut. Strike plates for the surface bolts were attached to the head with two #8 x 3" screws and to the threshold with two #10 x 3" sheet metal screws.

Drainage: Sloped sill.

Installation: The jambs were secured to a 2x4 #2 Pine test buck with one #8 x 3" screw located 2" from each corner and on 12" spacing thereafter.

Sidelite Description

Overall Size: 14" wide by 96" high

Panel Size: 9-1/2" wide by 20-1/2" high

Light size: 9-1/2" wide by 20-1/2" high

Glazing Type: Three pieces of sealed insulating glass comprised of 1/8" thick tempered glass at the exterior and 1/8" thick tempered glass at the interior. A 1/2" aluminum spacer system was used providing 3/4" overall thickness.

Test Specimen Description: (Continued)

Sidelite Description (Continued)

Glazing Details: Interior glazed with double-sided butyl tape and a wood glazing bead fastened with 1" long x 0.040" x 0.050" rectangular shank brad nails with a 0.050" x 0.080" head (18 gauge brad nail) 1" from each corner and on 6" spacing.

Weatherstripping: Five finger sweep was located under the sidelite.

Panel Construction: The panel was constructed of 1-3/4" thick hardwood and utilized a glued cove and bead joint, reinforced with #8 x 3" screws. Two screws were located at the stile to top rail and stile to lock rail joints. Four screws were located at the stile to bottom rail joints. The sidelite was secured to the mullions with eight #8 x 3" screws, 5" from the ends of the mullion and on 12" spacing. The sidelite was secured to the frame with eight #8 x 3" screws, 5" from the ends of the jamb and on 12" spacing. Additional fastening was provided by 1/2" quarter round trim fastened by 1-1/4" long x 0.040" x 0.050" rectangular shank brad nails with a 0.050" x 0.080" head (18 gauge brad nail) 1" from each corner and on 6" spacing.

Test Results: The temperature during testing was 72°F. The results are tabulated as follows:

<u>Test Method</u>	<u>Title of Test</u>	<u>Results</u>
ASTM E 330	Uniform Load Deflection (Deflections reported were taken on the mullion) (Loads were held for 10 seconds)	47.18 psf (positive) 0.45"
		61.60 psf (negative) 0.56"
ASTM E 330	Uniform Load Structural (Permanent sets reported were taken on the mullion) (Loads were held for 10 seconds)	70.77 psf (positive) 0.02"
		92.40 psf (negative) 0.02"

General Note: All testing was performed in accordance with the referenced standard.

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.

Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen reported herein.

List of Official Observers:

<u>Name</u>	<u>Company</u>
Gene Denley	GlassCraft Door Company
James Sturdevant	Architectural Testing, Inc.

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire.

Results obtained are tested values and were secured by using the designated test methods. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen can be made. 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 tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:

Andy Cost
Laboratory Manager

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

Jeffrey T. Kaminski, P.E.
Senior Project Engineer

AC:hd/cmd

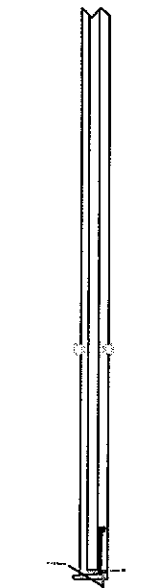
Attachments (pages): This report is complete only when all attachments listed are included.
Appendix-A: Drawings (20)

Revision Log

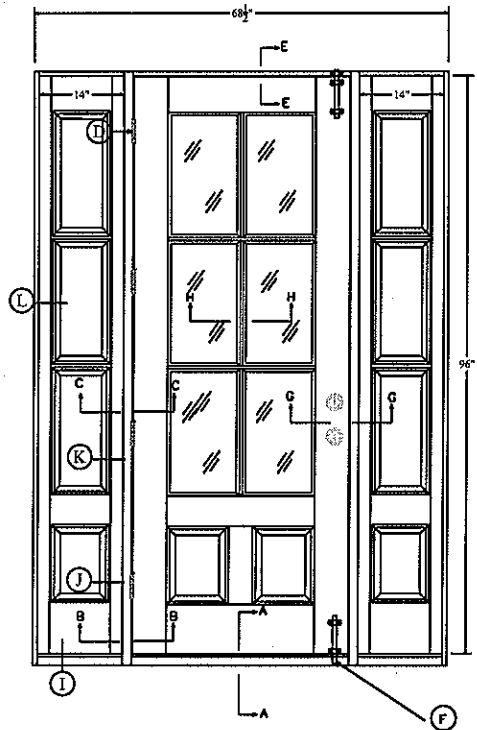
<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	06/20/08	N/A	Original report issue
1	06/26/08	Cover and Page 1	Corrected Series/Model to Mahogany
2	06/30/08	Cover and Page 1	Changed Series/Model from Mahogany to Mahogany Entry Door

Appendix A

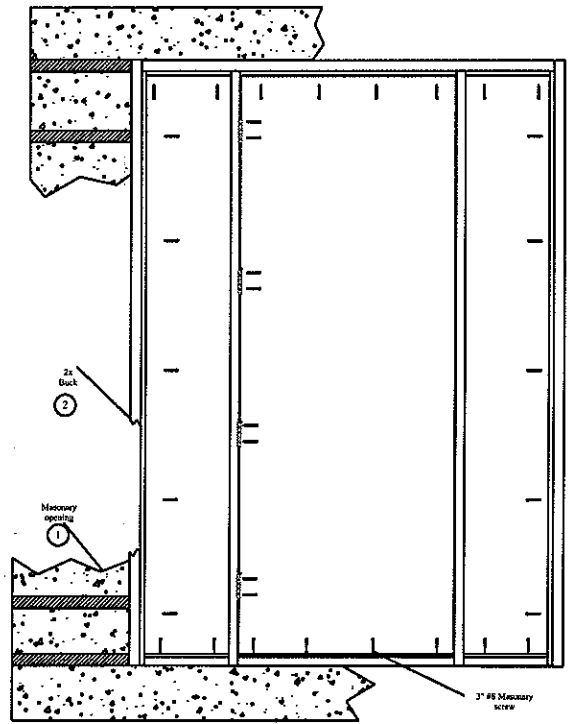
Drawings



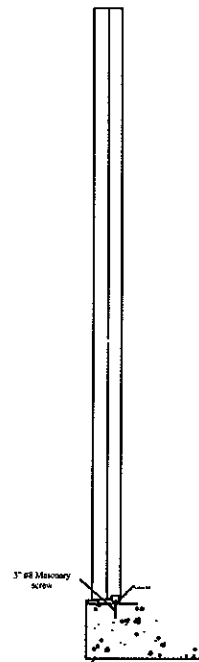
Out Swing



ELEVATION



ANCHORING LAYOUT



Set frame sill in concrete or bed of caulk

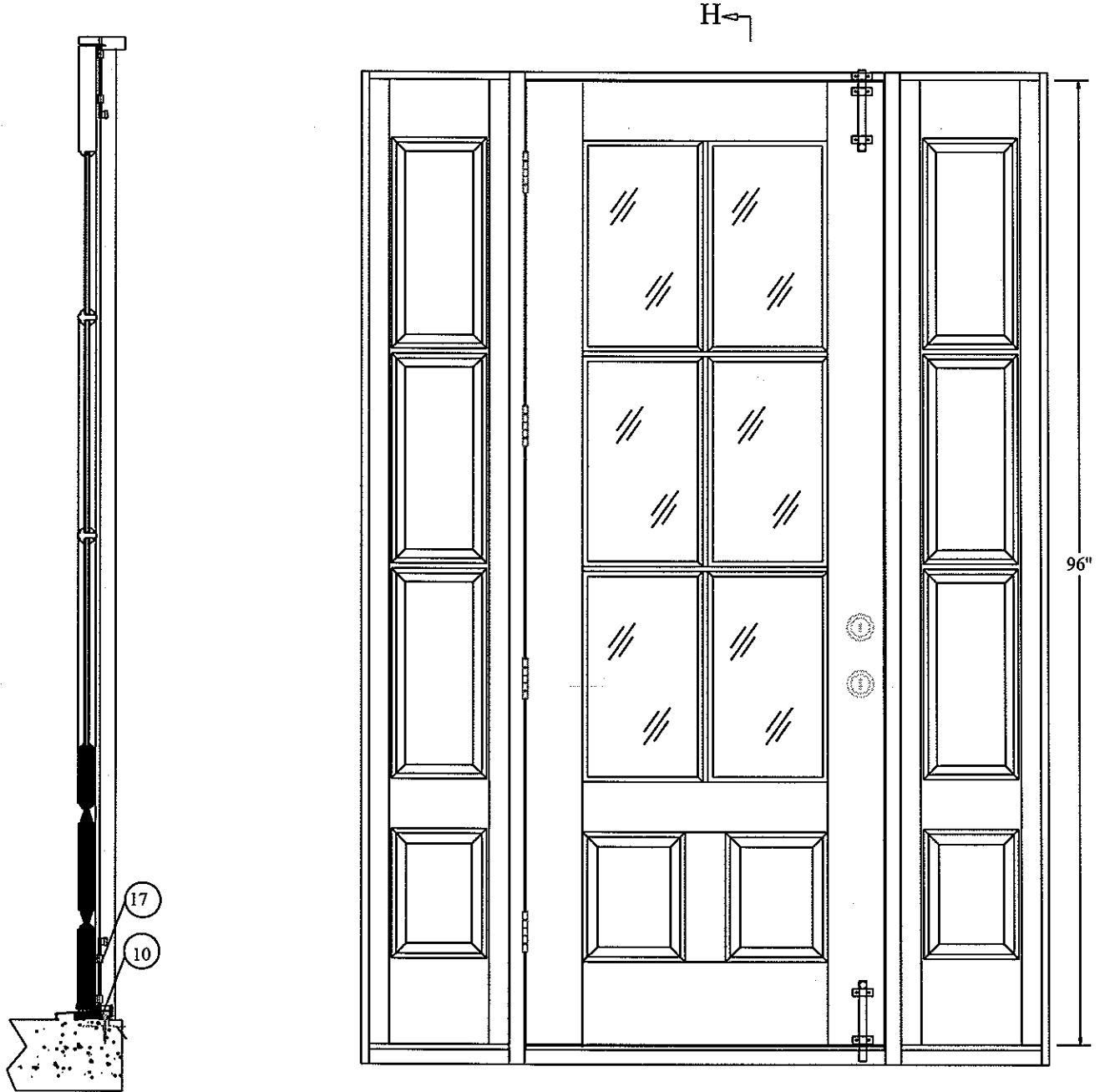
Out Swing



Test sample complies with these details.
Deviations are noted.

Report# 5184201-801-44
Date 12/10/08 Tech [Signature]

Glass*Craft



Section



Architectural Testing

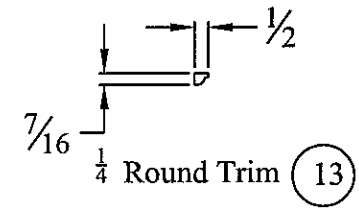
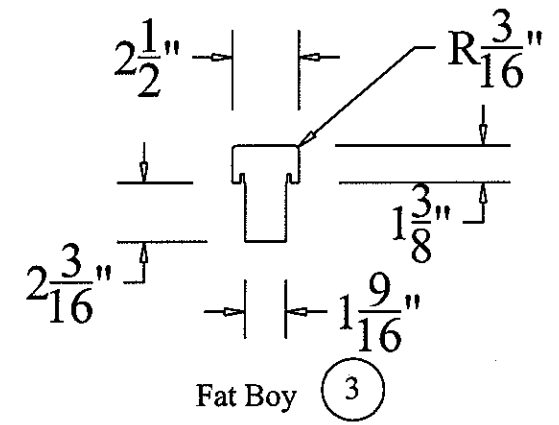
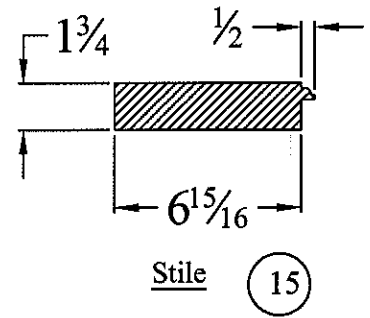
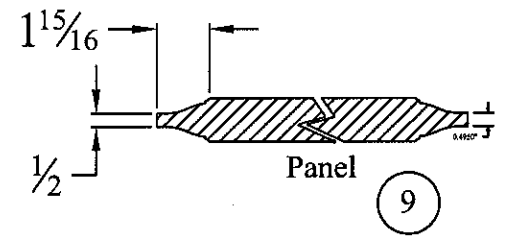
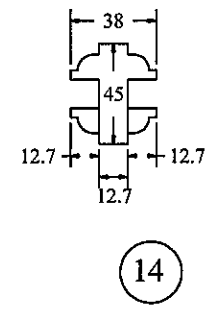
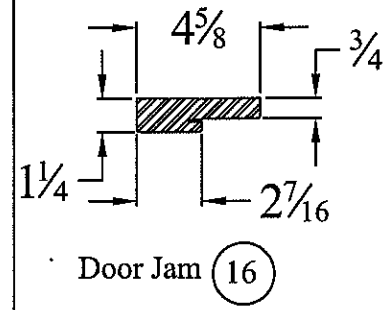
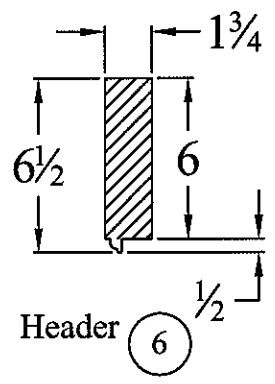
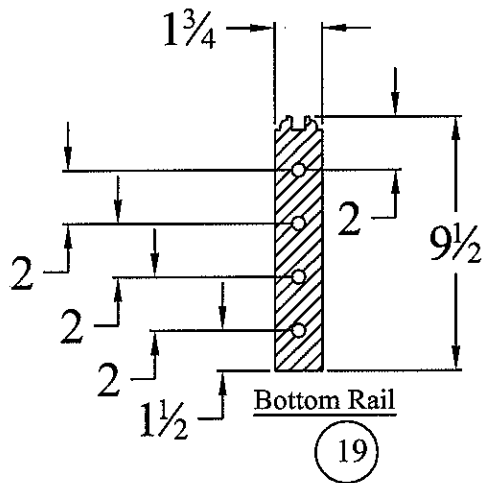
Test sample complies with these details.
Deviations are noted.

Report# 8184201-801-44
Date 6-10-08 Tech [Signature]



Glass*Craft

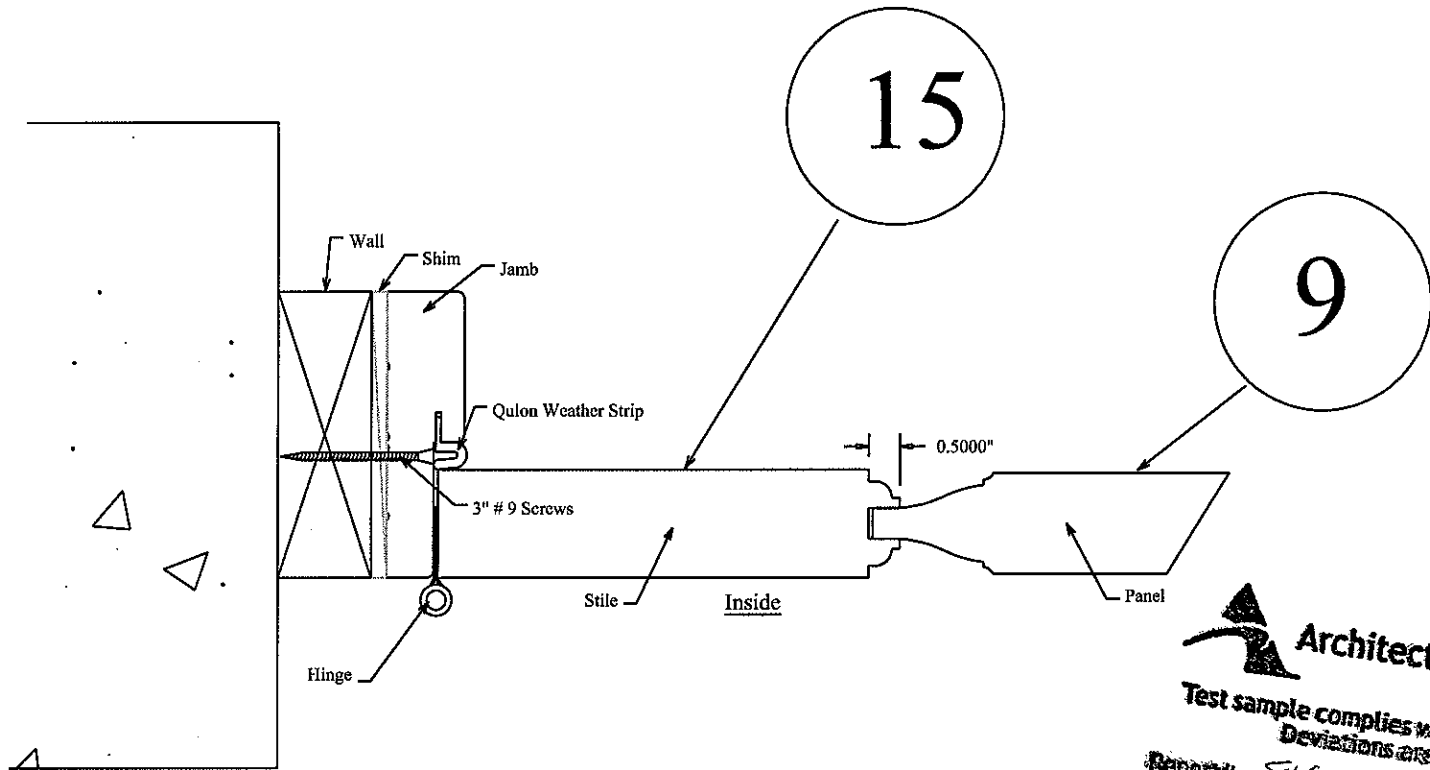
Hardwood Glazed Doors w/ Sidelites



Architectural Testing
 Test sample complies with these details.
 Deviations are noted.

Glas*Craft
 Harwood Street, Dulles, VA
 w/ Sidelets

Report# 51842-01-807-44
 Date 10-10-08 Tech [Signature]



ⓑ Panel

Architectural Testing
 Test sample complies with these details.
 Deviations are noted.
 Report# 81842-01-801.44
 Date: 6-10-08 Tech:

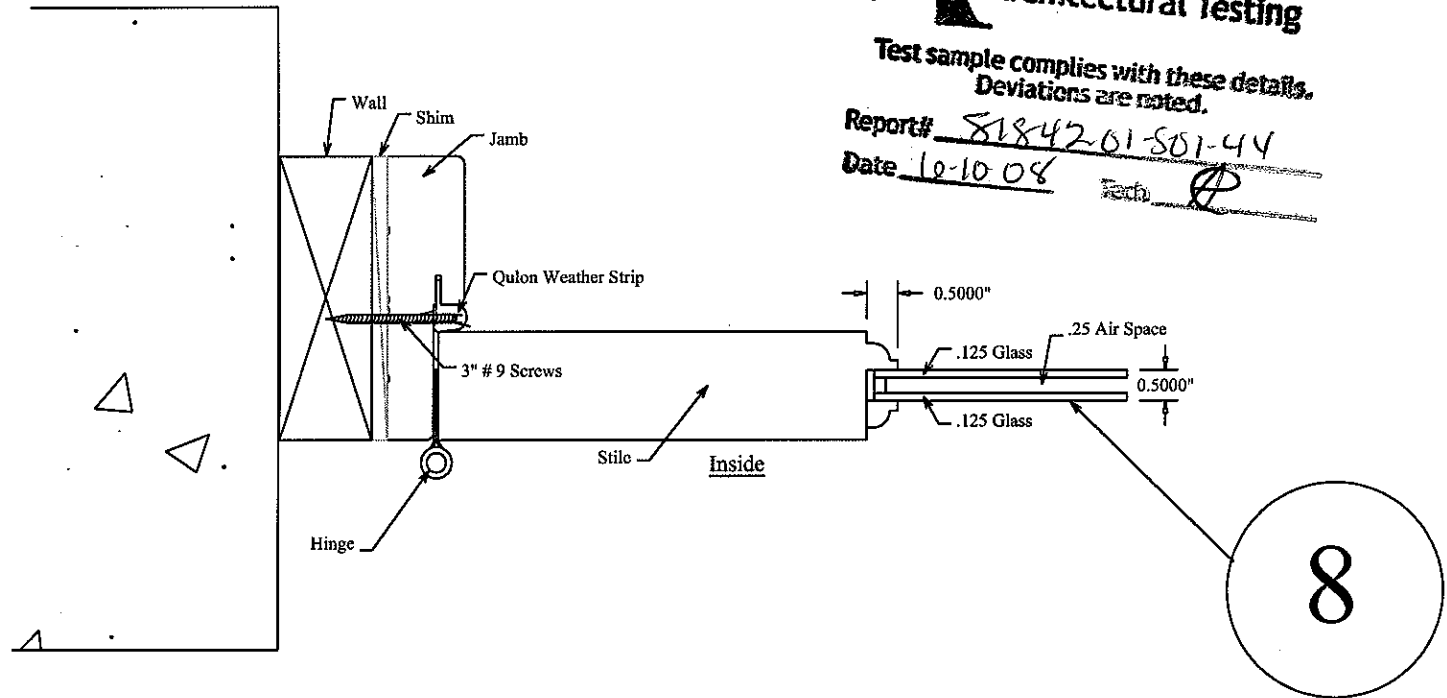
Glass*Craft

Hardwood Glazed Doors w/ Side Lite



Test sample complies with these details.
Deviations are noted.

Report# 81842-01-501-44
Date 10-10-08 Tech. Ⓟ



© Glass

Glass*Craft

Hardwood Glazed Door w/ Side Stiles

Install Outside Housing

NOTE: Do not install adapter ring if using 1 1/8" (28 mm) hole.

- FOR F300/F302:** Ensure pin is positioned to slide through correct backset slot in deadbolt.
- Insert housing through escutcheon and adapter ring and into door. Driver bar should slide under deadbolt.

Instalación del alojamiento exterior

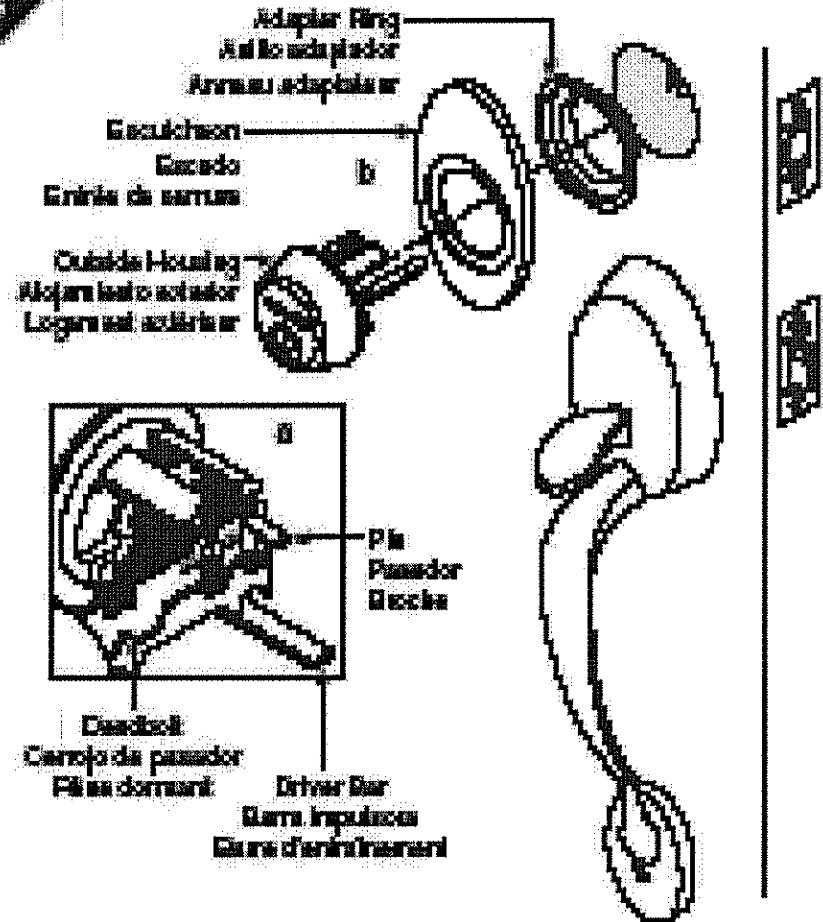
NOTA: Si se usa un agujero de 28 mm no se instala un anillo adaptador.

- PARA LOS MODELOS F300/F302:** Se debe verificar que el pasador está colocado de manera que se deslice a través de la ranura en el pasador que corresponde a la distancia correcta del borde de la puerta al centro de la bocanilla.
- Introducir el alojamiento en la puerta, a través del escudo y del anillo adaptador. La barra impulsora debe deslizarse debajo del pasador.

Installation du logement extérieur

REMARQUE: Ne pas installer l'anneau adaptateur si le trou 28 mm est utilisé.

- POUR les modèles F300/F302:** S'assurer que la broche est placée de sorte à glisser dans la fente d'écartement correcte du pièce dormant.
- Insérer le logement par l'entrée de serrure et l'anneau adaptateur si dans la porte. La barre d'entraînement doit glisser sous le pièce dormant.



Test sample complies with these details.
Deviations are noted.

Report# 51842-01-807-44
Date 12-10-08 Tech CP

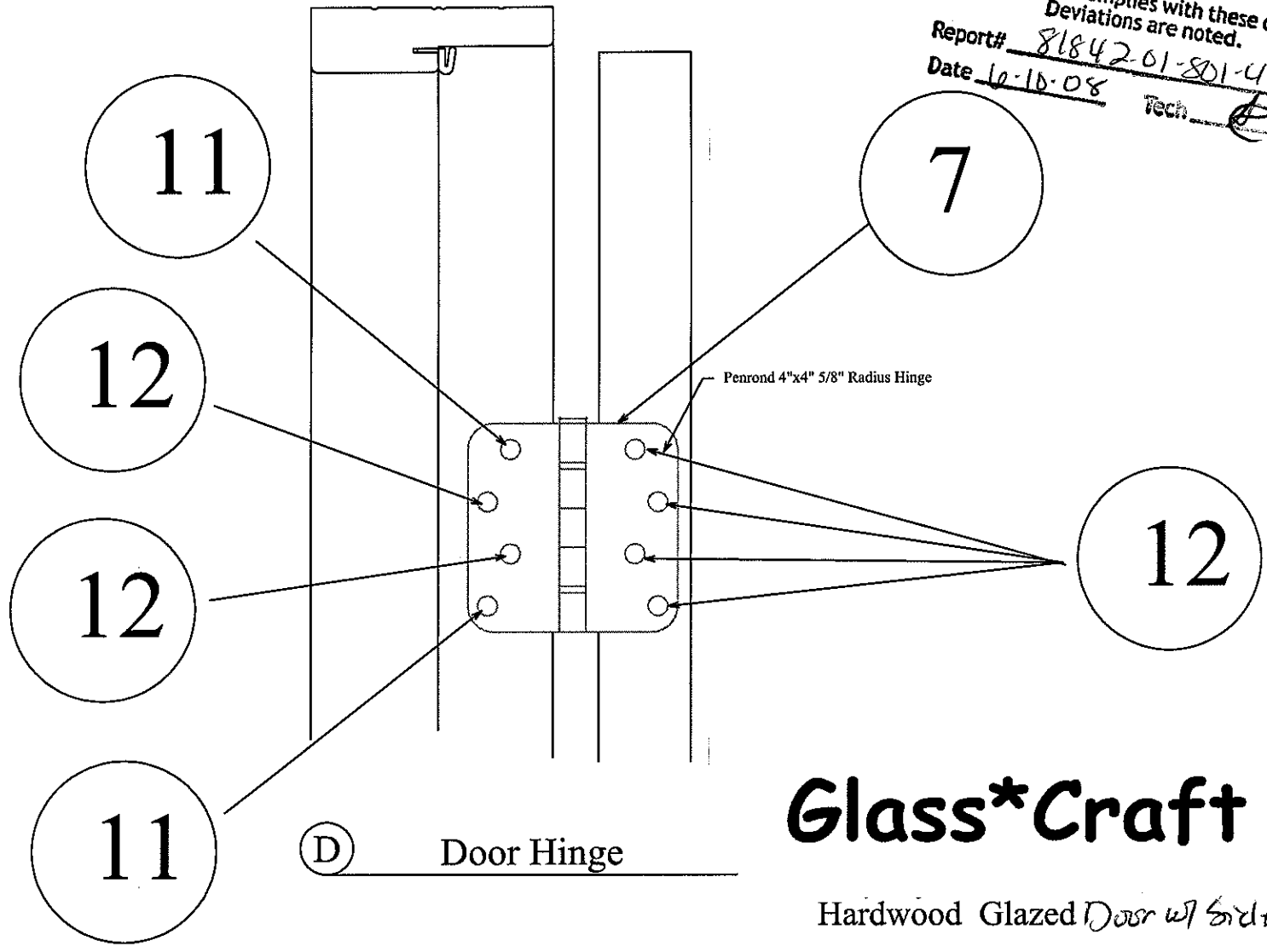
Glass*Craft

Hardwood Glazed Door w/ Side Lites

Test sample complies with these details.
Deviations are noted.

Report# 81842-01-801-44

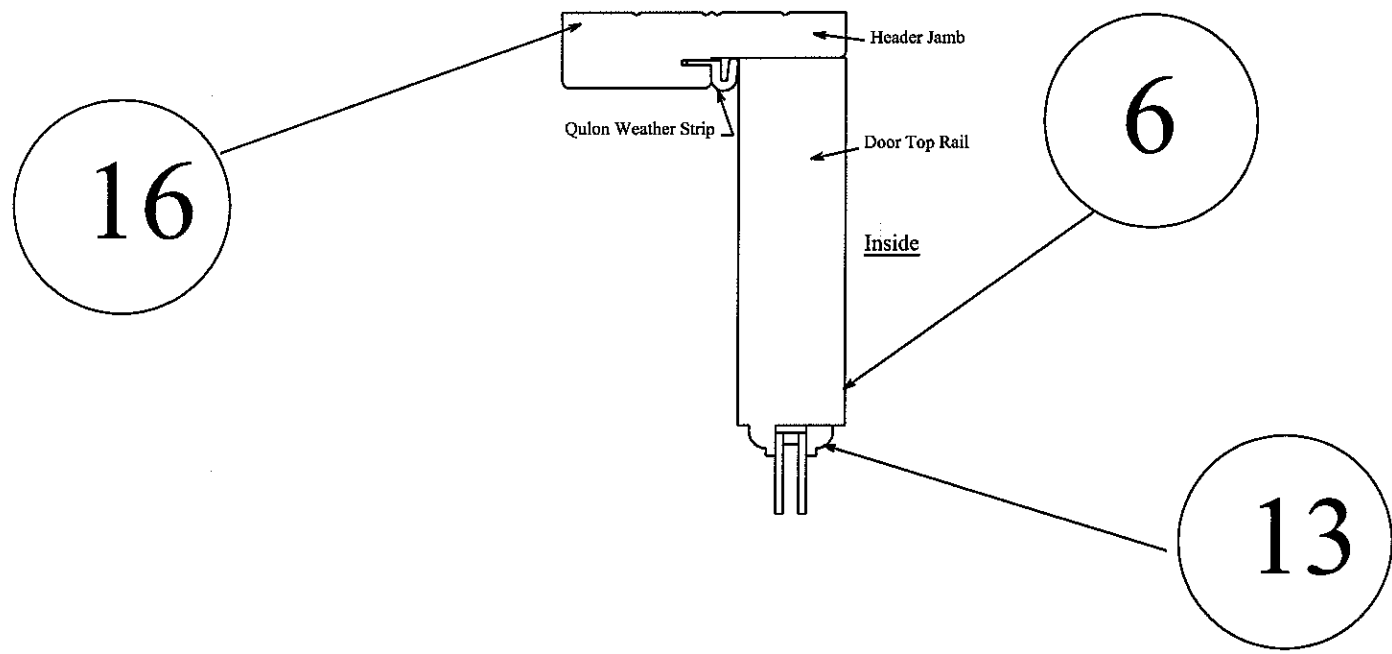
Date 10-16-08 Tech [Signature]



Glass*Craft

Hardwood Glazed Door w/ Side Lites

Report# 8184201-801-44
Date 10-16-08 Tech A



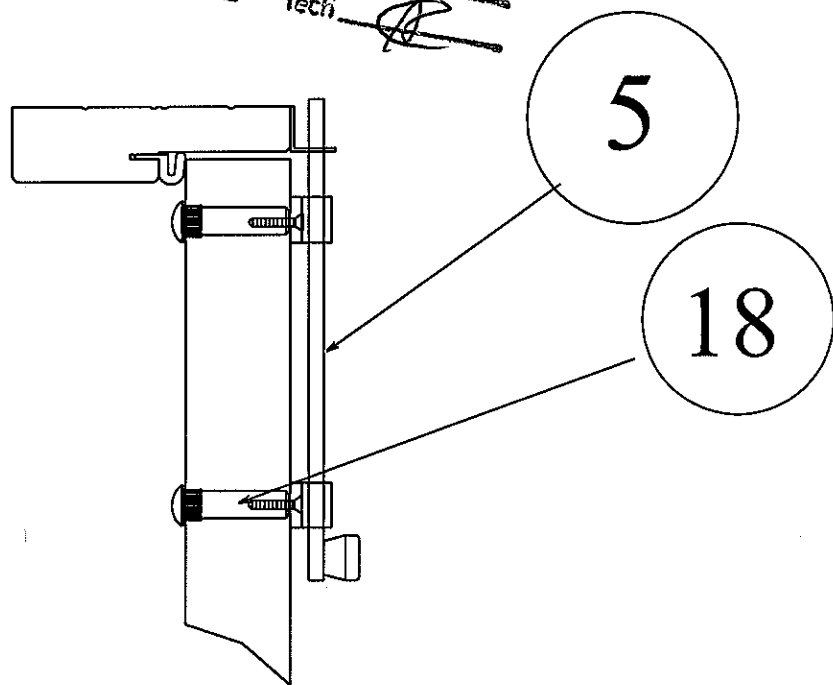
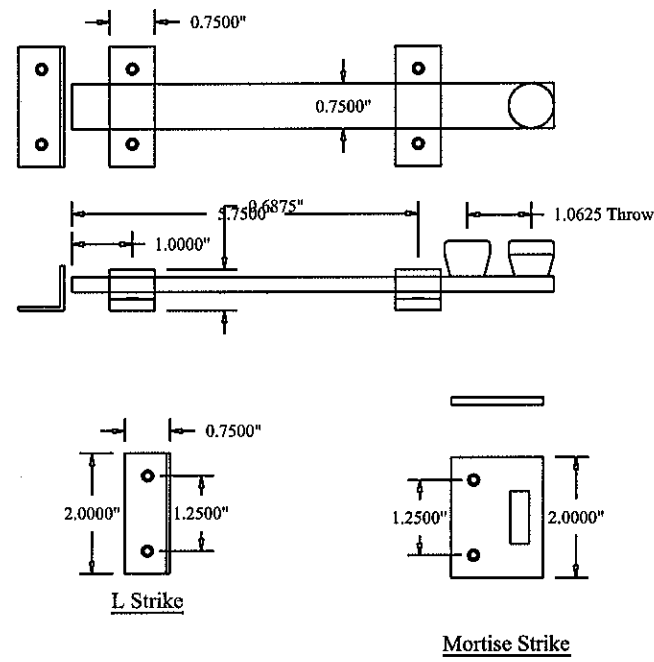
(E) Header

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Hardwood Glazed Door w/ Sidelites

Architectural Testing

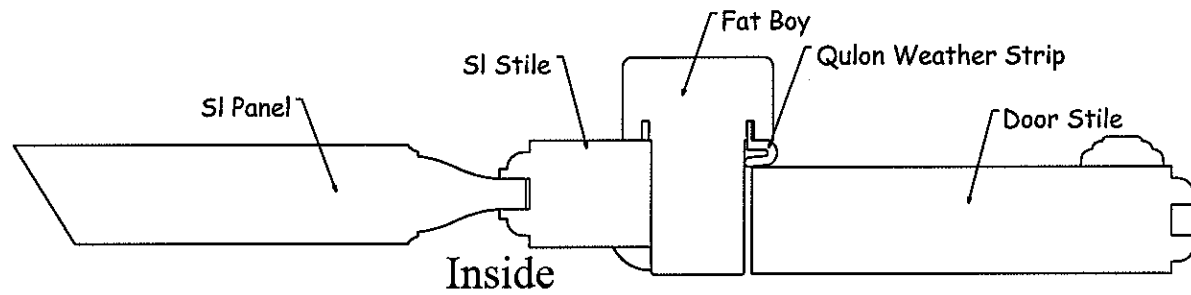
Test sample complies with these details.
Deviations are noted.
Report# 81842-01-801-44
Date 6-10-08 Tech [Signature]



(F) Rockwood 580 Surface Bolt

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Hardwood Glazed Door w/ sidelites

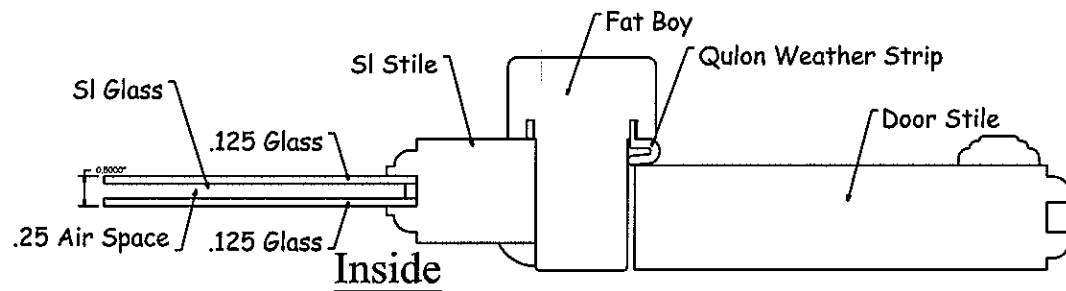


J Sidelite Panel

 **Architectural Testing**

Test sample complies with these details.
Deviations are noted.

Report# 81842.01-801-44
Date 6-10-08 Tech 



K Sidelite Panel

Architectural Testing

Test sample complies with these details.
 Deviations are noted.

Report# 81842.01-861-44

Date 10-10-08

Tech [Signature]



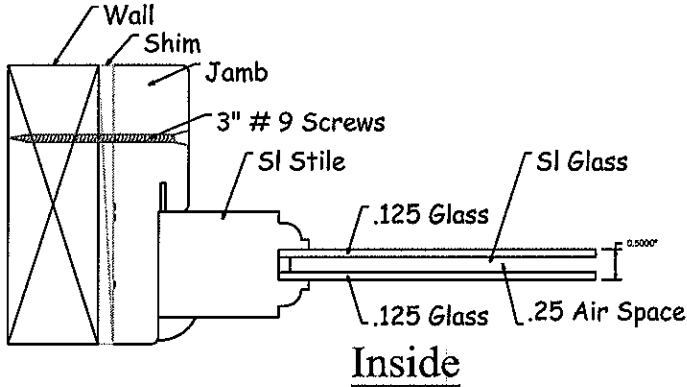
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Deviations are noted.

Report# 81842-61-861-44

Date 6-10-08

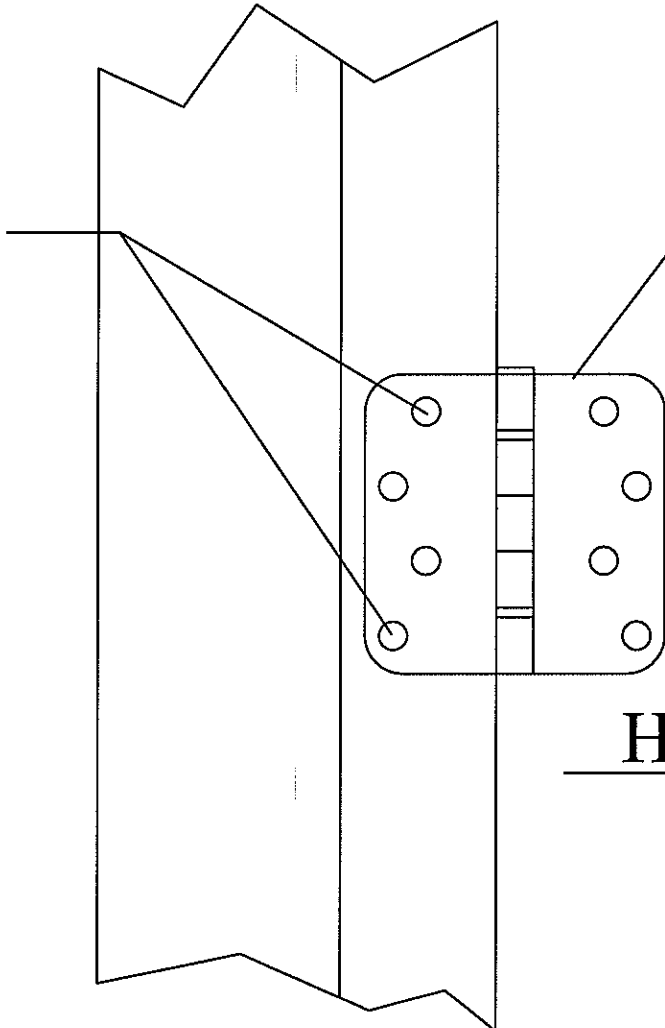
Tech P



L Sidelite

Penrond 4"x4" 5/8" Radius Hinge

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



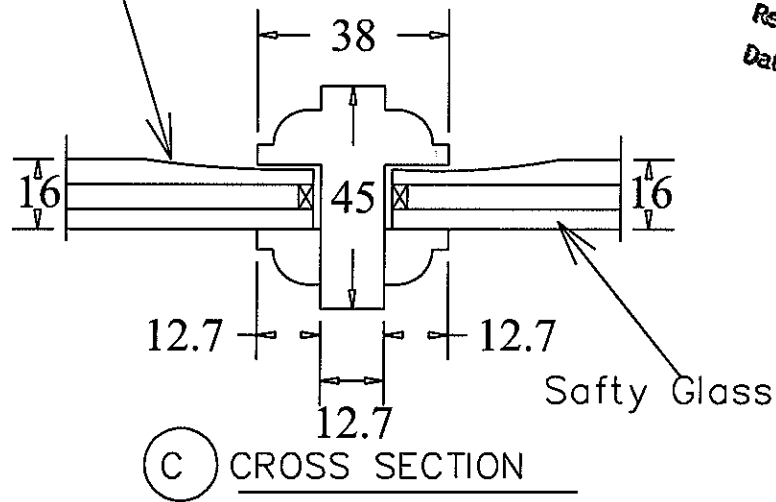
Architectural Testing
Test sample complies with these details.
Deviations are noted.
Report# 81842.61 801-44
Date 6-10-08

Hinge Detail

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Hardwood Glazed Doors w/ Sidelites

Beveled Safety Glass




 **Architectural Testing**

Test sample complies with these details.
Deviations are noted.
Report# 81842 01-801-44
Date 6-10-08 Test. P

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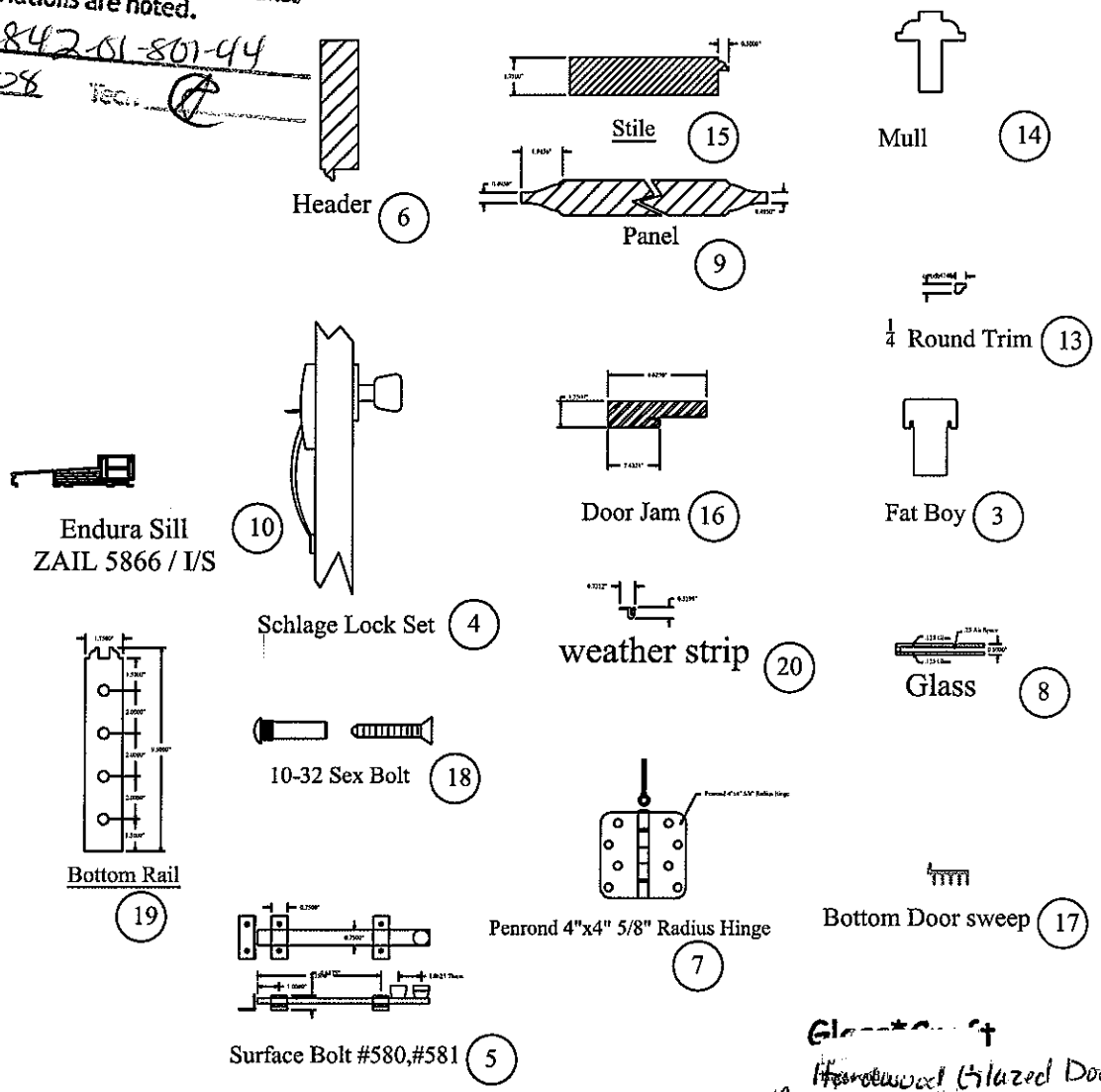
Hardwood Glazed Door w/ sidelites

Test sample complies with these details.
Deviations are noted.

Report# 81842-01-801-44
Date 6-10-08 Rec. 

List of Material

Item #	Discription	Material
1	Masonry	CONC.
2	2x Buck	Wood
3	Fat Boy	Wood
4	Schlage lock Set	Metal
5	Rockwood Surface Bolts #580	Metal
6	Top Header	Wood
7	Penrond 4"x4" 5/8" Radius Hinge	Metal
8	Glass	Glass
9	Panel	Wood
10	Endura Sill ZAIL 5866 / I/S	Alum.
11	3" #9 Wood screw	Metal
12	#9x1" PFH Wood Screw	Metal
13	1/4 Round Trim	Wood
14	Mull	Wood
15	Stile	Wood
16	Door Jam	Wood
17	Bottom Door sweep	Rubber
18	10-32 Sex Bolt	Metal
19	Bottom Rail	Wood
20	weather strip	Foam
21	Endura Sill ZAIL 5866 / O/S	Alum.



Glass is set in wood Glazed Door w/ Side Lites

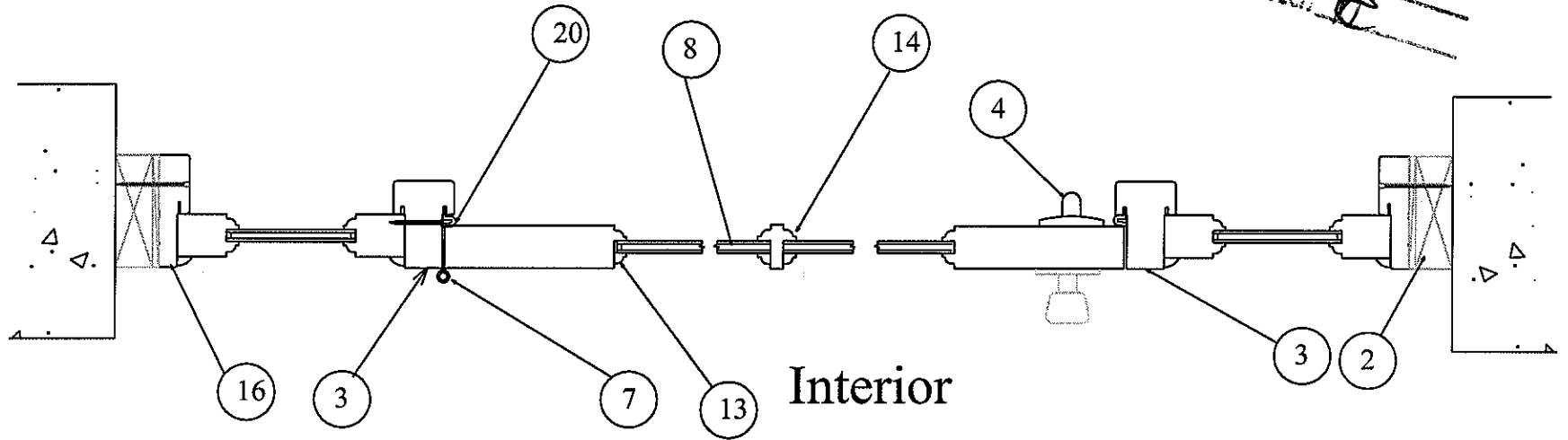


Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 81842.01-801-44
Date 6-10-08 Tech [Signature]

Exterior

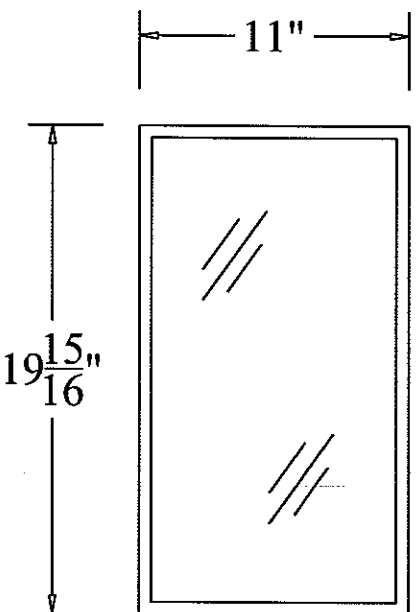


Interior

Horizontal Cross Section

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Hardwood Glazed Door w/ Sidelites



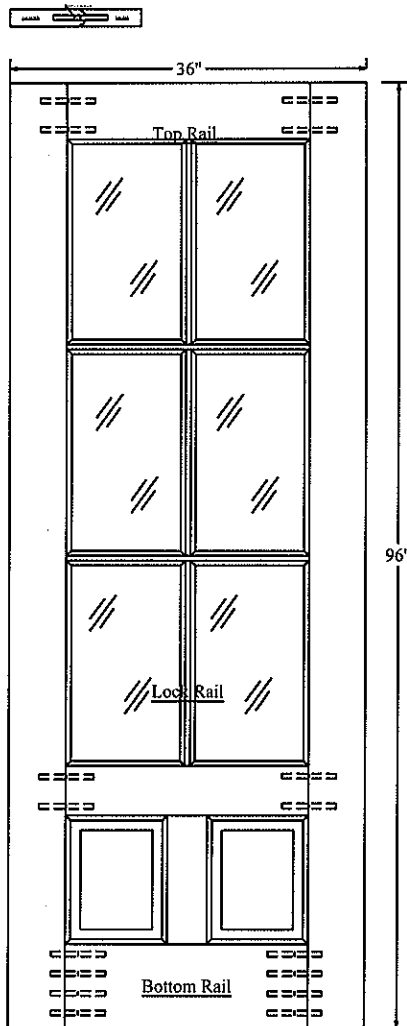
Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 81842 01-801-44
Date 6-10-08

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Hardwood Glazed Doors w/ sidelites

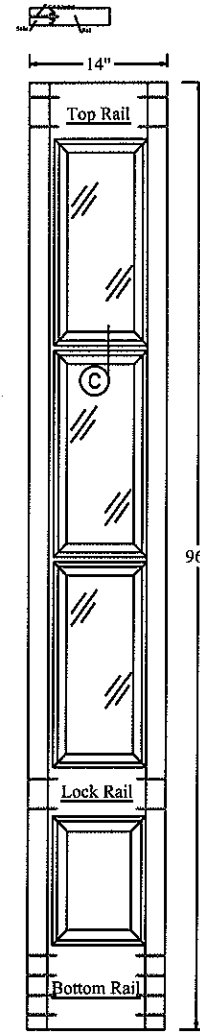


Architectural Testing

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Report# 81842-01-801-44

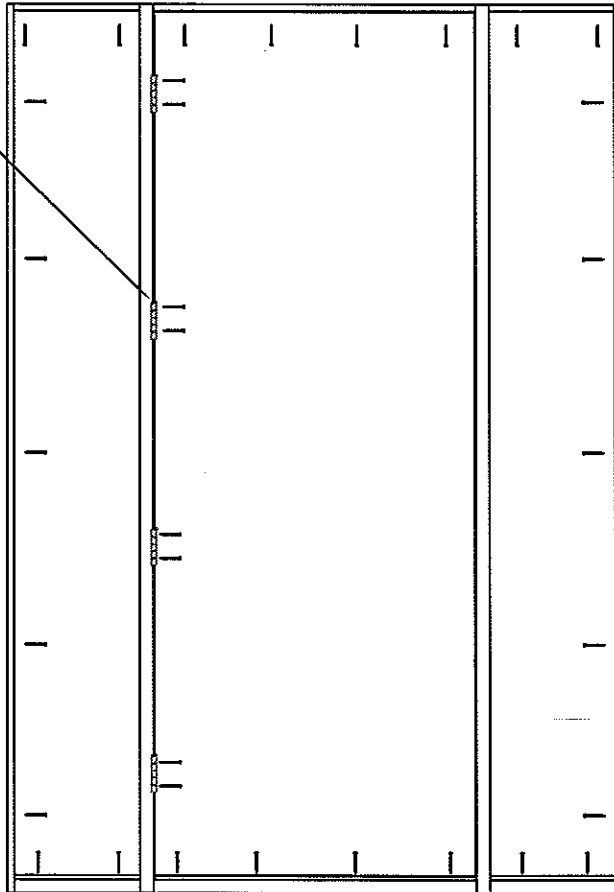
Date 6-10-08 Tech: [Signature]



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Hardwood Glazed Door w/ Side Lites

See Hinge Detail



Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 8184201-808-44
Date 10-10-08 Tech [Signature]

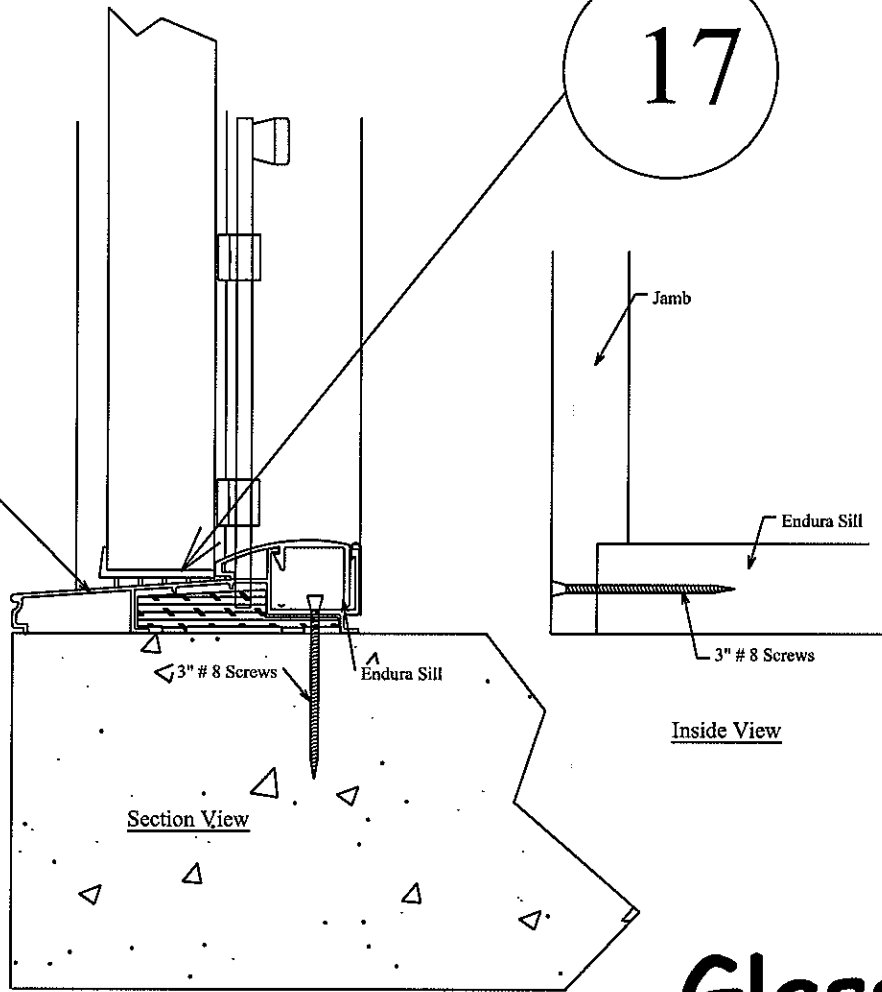
ANCHORING LOCATION

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Hardwood Glazed Door w/ Sidelites

10

17



Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 81842.01-801-44

Date 6-10-08

Tech *P*

Inside View

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Endura Sill

ZAIL 5866 / O/S

(A) Threshold Out Swing

Hardwood Glazed Door w/ Sidelites