



Testing Evaluation Laboratories, Inc.

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Test Report Issued To

Arcadia Custom
9280 East Old Vail Road
Tucson, AZ 85747
Telephone: 520.284.2070

Report Number

TEL 2004-05-18-007

Test Date

March 10, 2004

Date Report Re-Issued

February 10, 2006

Model Designation

Specimen 1 3'0 x 4'0 Wood Casement Window
Specimen 2 3'0 x 6'0 Wood Casement Window

Reference Specifications

ASTM E330, E283, E547

Summary of Results

ASTM E 330

Specimen 1
Specimen 2

3'0 x 4'0 Wood Casement Window
3'0 x 6'0 Wood Casement Window

Design Pressures:

*+60.0 psf -60.0 psf
+47.0 psf -47.0 psf

AIR LEAKAGE – Conducted in accordance with ASTM E283

Specimen	Differential Test Pressure	Actual CFM / SQ FT
1	1.57 PSF	0.05
2	1.57 PSF	0.04

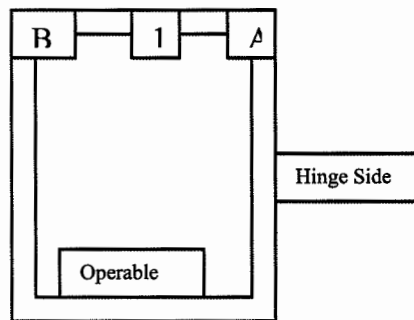
STATIC AIR PRESSURE TESTS – Conducted in accordance with ASTM E330

Specimen 1 Design Loads +60.0 psf – 60.0 psf

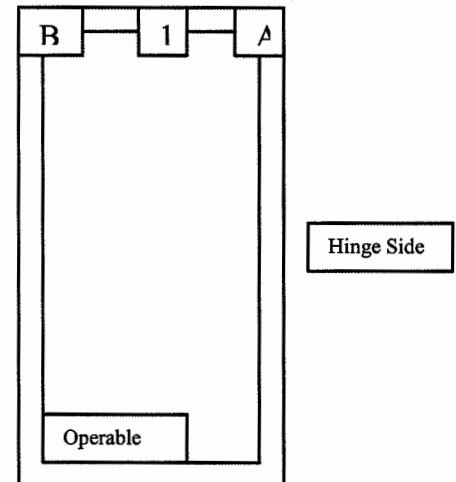
Direction Load Applied	Design Load @ 60.0 PSF	Test Load @ 90.0 PSF	Deflection @ Test Load	Actual Permanent Set @ Test Load
			Loc. 1	Loc. 1
Positive	40 Seconds	10 Seconds	0.022 in.	0.000 in.
Negative	40 Seconds	10 Seconds	0.001 in.	0.000 in.

Specimen 2 Design Loads +47.0 psf -47.0 psf

Direction Load Applied	Design Load @ 47.0 PSF	Test Load @ 70.5 PSF	Deflection @ Test Load	Actual Permanent Set @ Test Load
			Loc. 1	Loc. 1
Positive	40 Seconds	10 Seconds	0.043 in.	0.004 in.
Negative	40 Seconds	10 Seconds	0.118 in.	0.001 in.



Specimen 1



Specimen 2

Specimens 1 and 2

Deflection and Permanent set was measured with two (2) Mitutoyo Digital Indicators located at positions as indicated on Specimens 1 and 2.

WATER PENETRATION - Conducted in accordance with ASTM E547.

Specimen 1 – Water at 9.00 psf (15% of 60.0 psf) for (4) 5 minute cycles. No water penetration over sill.

Specimen 2 – Water at 7.05 psf (15% of 47.0 psf) for (4) 5 minute cycles. No water penetration over sill.

Product Description:

Overall Size:

Specimen 1	3'0 x 4'0 Wood Casement Window	36.00" wide x 48.00" high x 4.3975" deep
Specimen 2	3'0 x 6'0 Wood Casement Window	36.00" wide x 72.00" high x 4.3975" deep

Sash Size:

Specimen 1	34.00" wide x 46.00" high x 1.75" thick
Specimen 2	34.00" wide x 70.00" high x 1.75" thick

Daylight Opening:

Specimen 1	27.25" wide x 41.50" high
Specimen 2	27.25" wide x 63.50" high

Configuration:

Specimens 1 and 2 X

MATERIAL CHARACTERISTICS:

Frame and Sash Material:

The frames and sashes are constructed from cedar .

Frame Construction:

Specimen 1 - The wood frame was comprised of cedar lumber 4.3975" wide x 1.5110" thick, with corners square cut, butted, sealed with silicone and secured with (2) 16 gauge 3/8" crown staples (1.5" long) and 2 #8 x 2.0" screws in each corner.

Specimen 2 - The wood frame was comprised of cedar 4.3975" wide x 1.5110" thick, with corners square cut, butted, sealed with silicone and secured with (4) 16 gauge 3/8" crown staples (1.5" long) and 2 #8 x 2.0" screws in each corner.

Sash Construction:

On all specimens, sash was constructed of cedar measuring 3.31" wide x 1.75" thick, with corners square cut, butted and joined with (1) 0.50" diameter x 4.0" wood dowel in each corner.

Glazing:

Specimen 1- The window is glazed with 0.625" insulated glass consisting of two (2) 0.125" pieces of annealed glass with a 0.375" air space. The glass is wet glazed using Pecora 896 glazing compound and stopped with 0.375" x 0.50" wood glazing stop and secured with 16 gauge 1.0" brads spaced 2.0" from each corner and maximum 4.0" on center. The glass bite is 0.375".

Specimen 2 is glazed with 0.75" insulated glass consisting of two (2) 0.1875" pieces of annealed glass with a 0.375" air space. The glass is wet glazed using Pecora 896 glazing compound and stopped with 0.375" x 0.50" wood glazing stop and secured with 16 gauge 1.0" brads spaced 2.0" from each corner and maximum 4.0" on center. The glass bite is 0.375".

Weather-stripping:

All Specimens:

Bulb weatherstrip by Amesbury applied into kerf around perimeter of sash.
Leaf weatherstrip by Amesbury applied into kerf around perimeter of stop.

Hardware:

Specimen 1 – AGB 2-Point Locking Device.
(2) Friction Hinges by Whitco
Specimen 2 – AGB 3-Point Locking Device.
(2) Friction Hinges by Whitco.

Weepholes:

None

Muntins:

NA

Reinforcement:

NA

Sealant:

Latex caulking as needed to seal jamb to the test buck.

Additional Description:

Specimens were installed in wood test bucks.

Screws and method of Attachment:

Specimen 1 - Ten (10) #10 x 2-1/2" Sheet Metal Screws, See Drawing #L-2447, Sheet 1 of 1.
Specimen 2 - Twelve (12) #10 x 2-1/2" Sheet Metal Screws, See Drawing #L-2446, Sheet 1 of 1.

Drawings Attached:

Specimen 1 - Client Laboratory Drawing #WD6-DP-TEST-36x48DWG, Sheets 1 through 3 of 3
Anchor Location Drawing #L-2447, Sheet 1 of 1

Specimen 2 – Client Laboratory Drawing #WD5-DP-TEST-42x72DWG, Sheets 1 through 3 of 3
Anchor Location Drawing #L-2446, Sheet 1 of 1

Conditions, Terms, and General Notes Regarding These Tests

The product tested **Has Been** compared to the detailed drawing, bill of materials and fabrication information supplied by the client so named herein. Our analysis, which includes dimensional and component description comparisons, indicate the tested product and engineering information supplied by the client **"Are Equivalent"**.

The report and representative samples will be retained for four years from the date of initial test.

These test results were obtained by employing all requirements of the of the designated test methods with no deviations. The test results and specimen supplied for testing are in compliance with the reference.

The test results are specific to the product tested by this laboratory and of the sample supplied by the client named herein, and they relate to no other product either manufactured by the client, a fabricator of the client or of installed field performance.

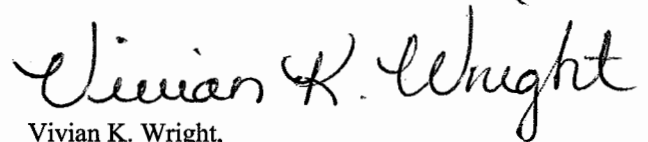
This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.

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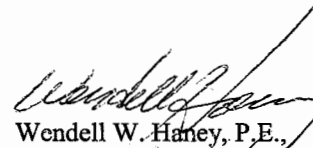
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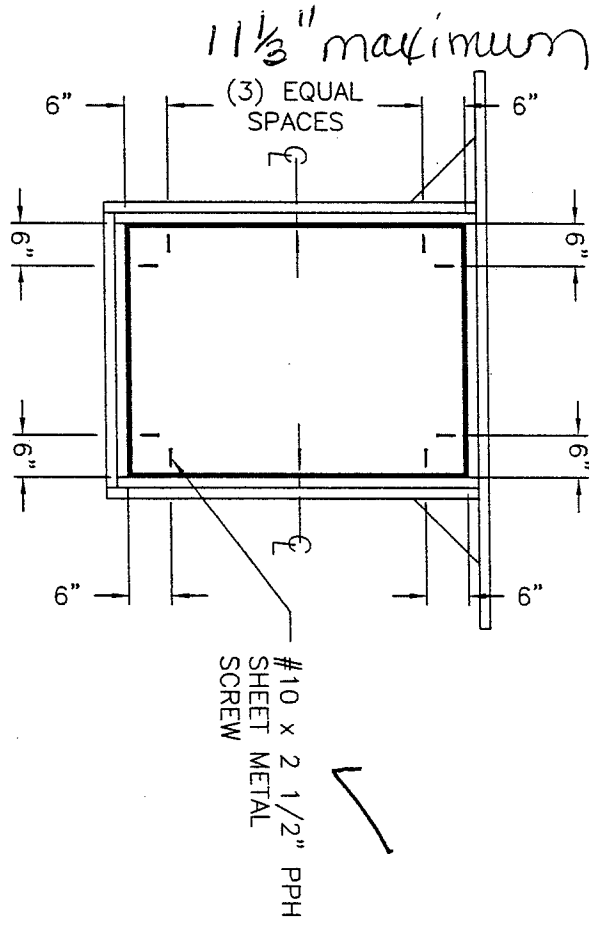


Vivian K. Wright,
President

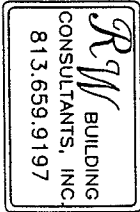


Wendell W. Haney, P.E.,
Florida P.E. Number 54158

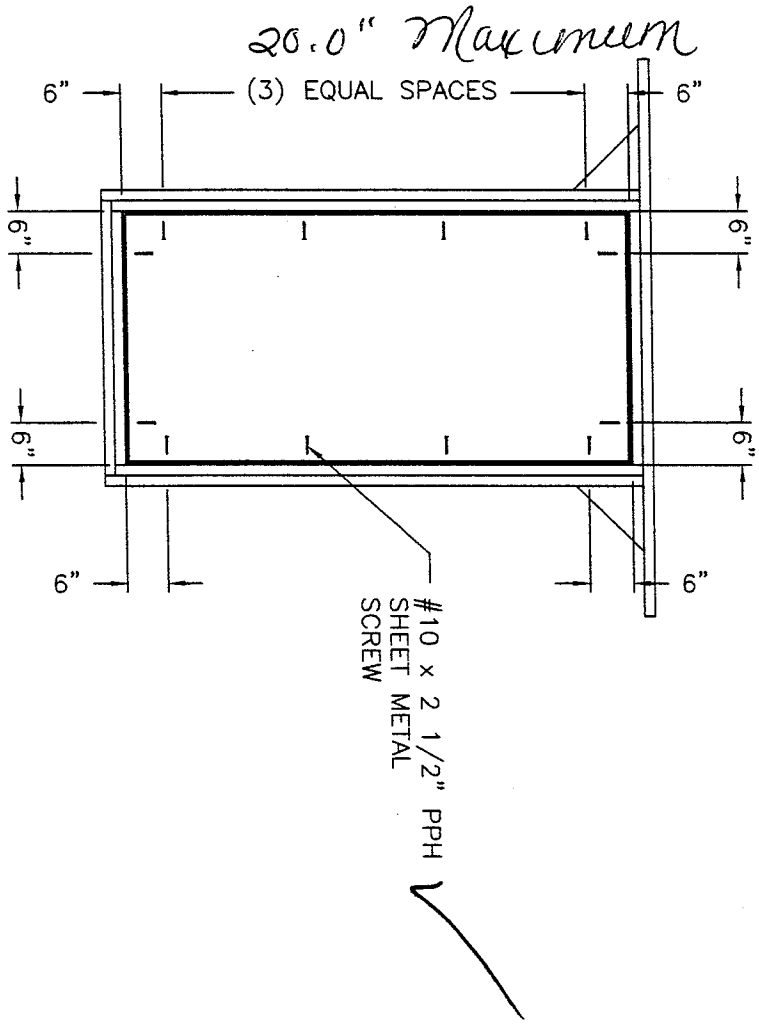
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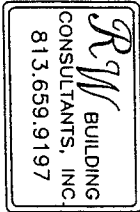


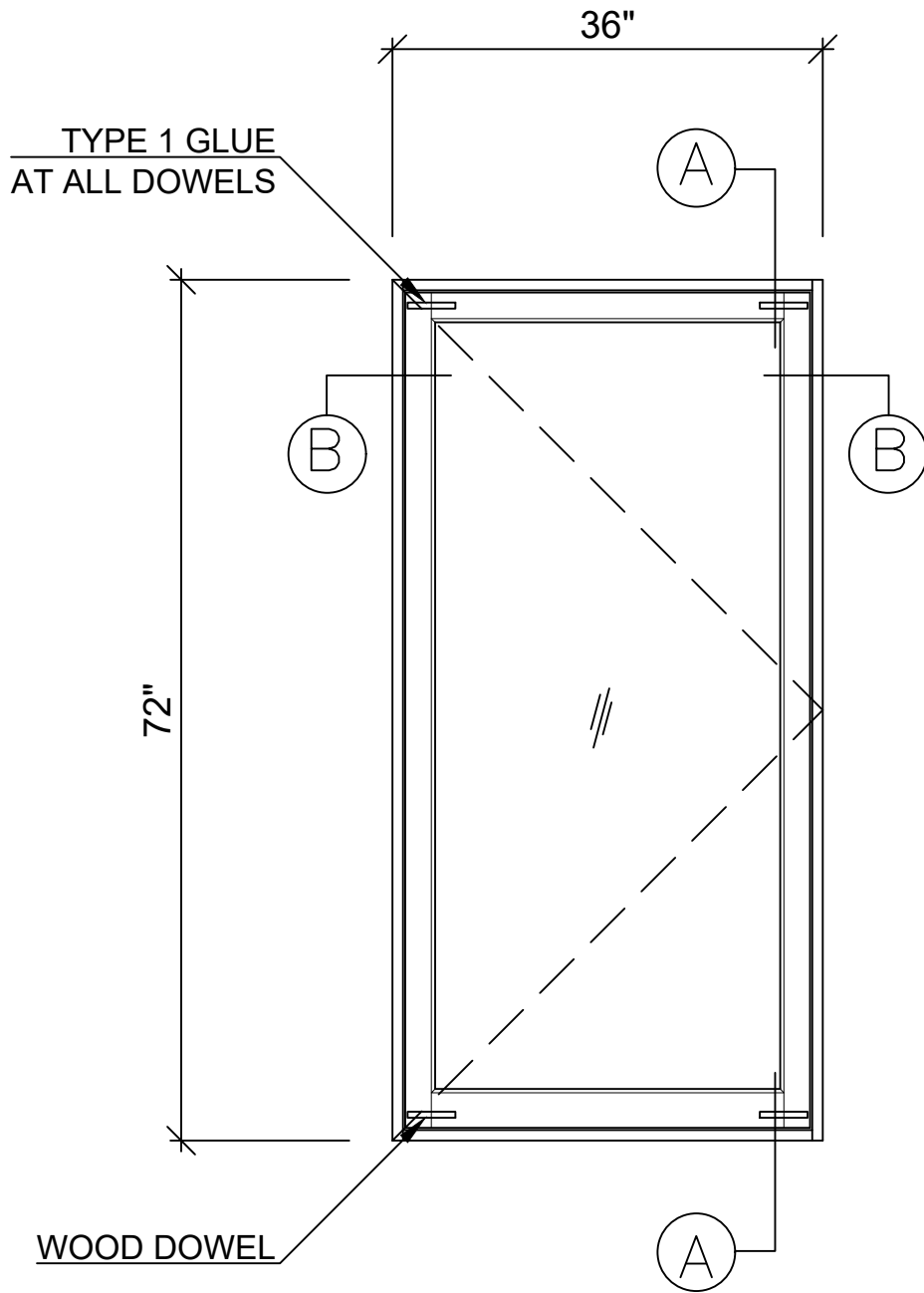
Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 2004-05-18-007
 Date 5/18/04 Verified by JKW

DATE: SCALE: N.T.S. DWG. BY: EW CHK. BY: RW DRAWING NO.: L-2447 SHEET 1 OF 1		PRODUCT: DBA ARCADIA CUSTOM ARCHITECTURAL TRADITIONS 3'0 X 4'0 CASEMENT WINDOW PART OR ASSEMBLY: ANCHORING LOCATIONS	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NO.</th> <th style="width: 40%;">DATE</th> <th style="width: 50%;">BY</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">REVISIONS</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY	REVISIONS											
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Testing Evaluation Laboratories Inc
 Specimen Complies with Drawing
 Deviations Noted - TEL # 2004-05-18-007
 Date 5/18/04 Verified by OKW



SCALE: N.T.S. DWG. BY: EW CHK. BY: RW DRAWING NO.: L-2446 SHEET 1 OF 1	 RW BUILDING CONSULTANTS, INC. 813.659.9197	PRODUCT: DBA ARCADIA CUSTOM ARCHITECTURAL TRADITIONS 3'0 X 6'0 CASEMENT WINDOW		
		PART OR ASSEMBLY: ANCHORING LOCATIONS		
REVISIONS		NO.	DATE	BY



WINDOW ELEVATION - 5
 SCALE: 3/4" = 1' - 0"

ITEM	QTY	P/N	DESC.	REMARKS
13	AQ	--	TYPE 1 GLUE	--
12	4	--	WOOD DOWEL	1/2" DIA X 4"
11	3	MORTSTK	STRIKE	--
10	1	CAL-L	3 POINT MULTI LOCK	--
9	2	-14	FRICITION HINGE	--
8	AQ	--	BRAD NAIL	FRAME-1 3/4" X 7/16" 16GA MED CROWN STAPLE
7	10	--	RUBBER SHIM	--
6	96	--	BRAD NAIL	STOP-F18 1/2" GALV
5	8	--	WOOD SCREW	8X2 1/2" PHIL-GOLD SCREW
4	AQ	896	CAULK	PECORA GLAZING COMP.
3	LF	12079	WEATHER STRIP LEAF	AMESBURY GROUP
2	LF	PP0629	WEATHER STRIP BULB	AMESBURY GROUP
1	AQ	--	GLASS 3/4" ANN.	3/16" GLASS 3/8" SPACER
BILL OF MATERIALS				

WINDOW-5 FOR DP TESTING
 36" X 72" CASEMENT WINDOW - CEDAR
 ELEVATIONS & DETAILS

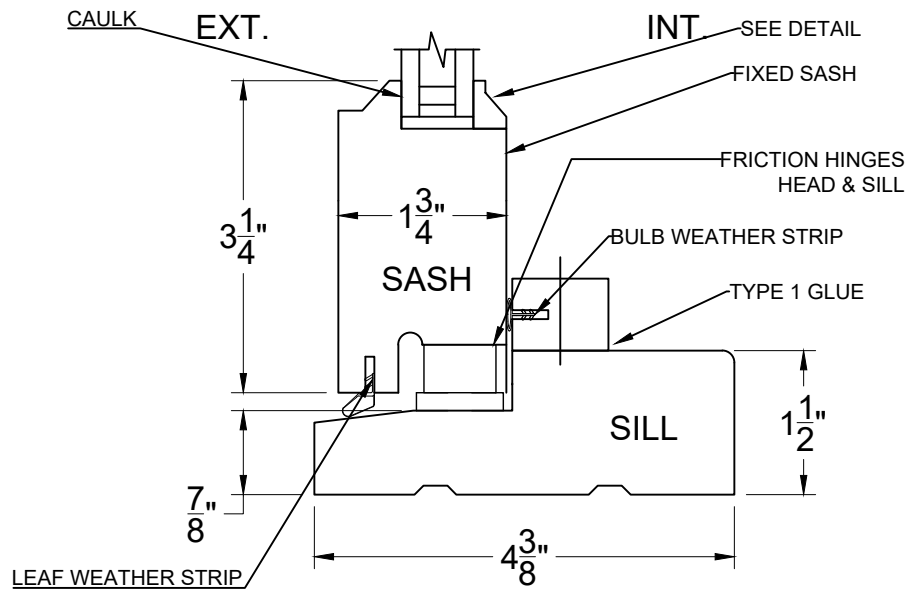
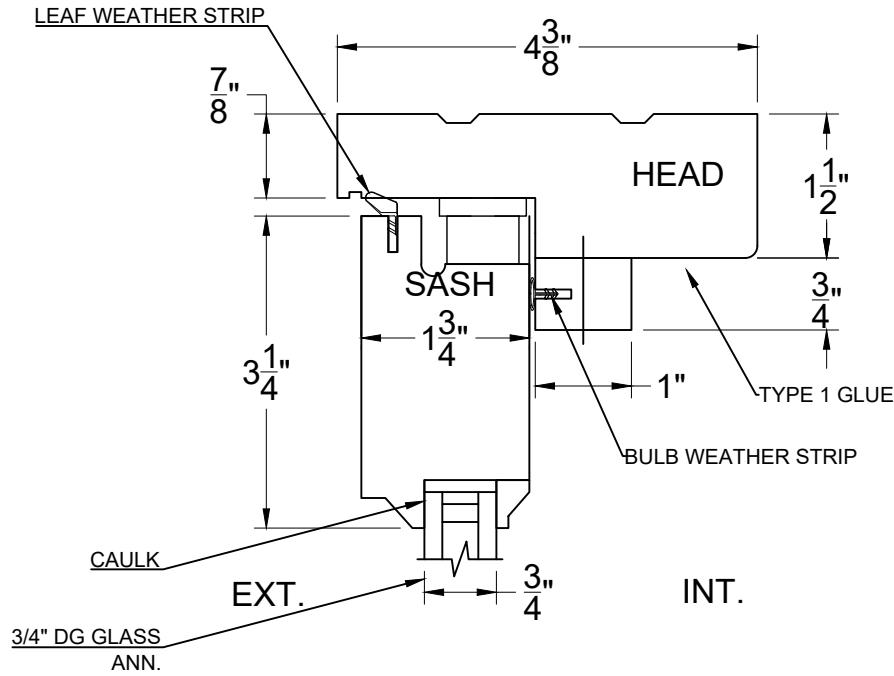
arcadia CUSTOM
 WINDOW AND DOOR SOLUTIONS
 STEEL - ALUMINIUM - WOOD

9280 E. OLD VAIL RD.
 TUCSON, AZ 85747
 TEL: (520) 284-2070
 FAX: (520) 299-1638

DRAWING NUMBER:

4.01

WINDOW-5 FOR DP TESTING
 36" X 72" CASEMENT WINDOW - CEDAR
 ELEVATIONS & DETAILS



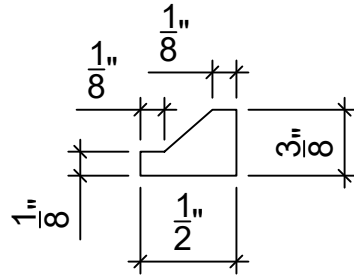
HEAD & SILL DETAIL - AA
SCALE: 6" = 1' - 0"

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 WINDOW AND DOOR SOLUTIONS
 STEEL - ALUMINUM - WOOD

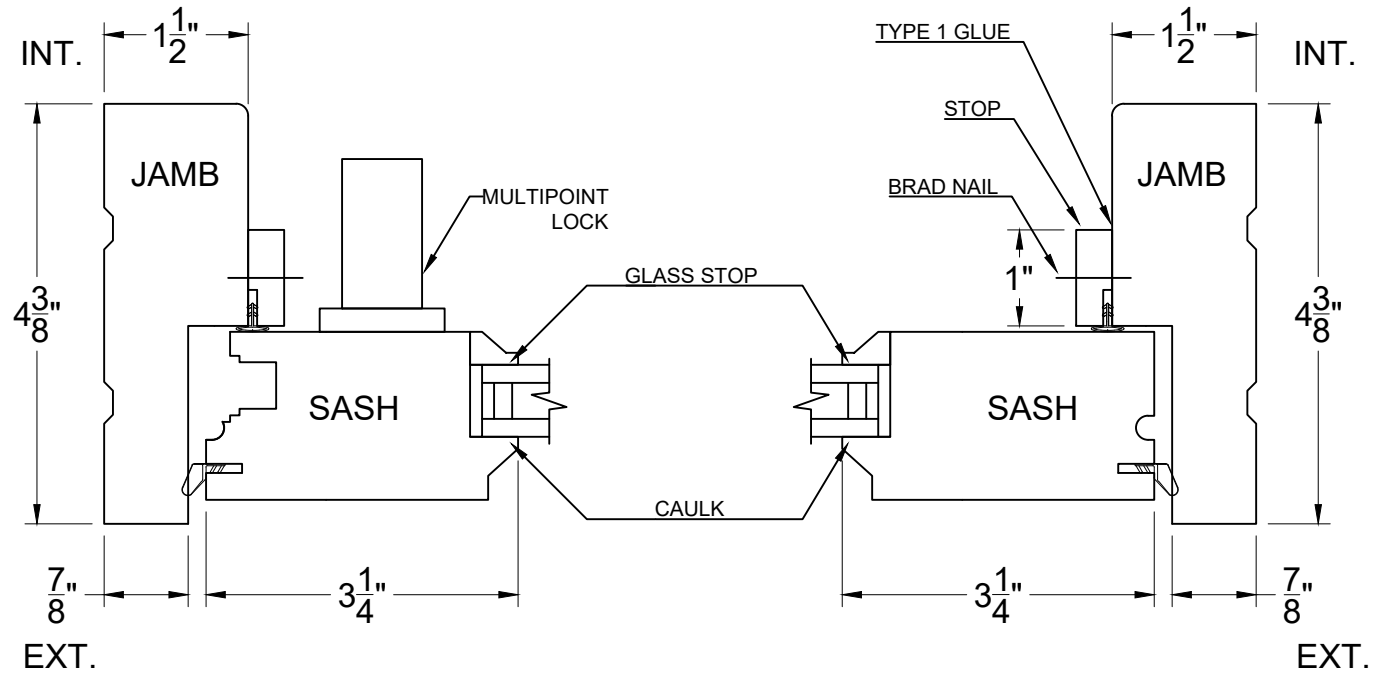
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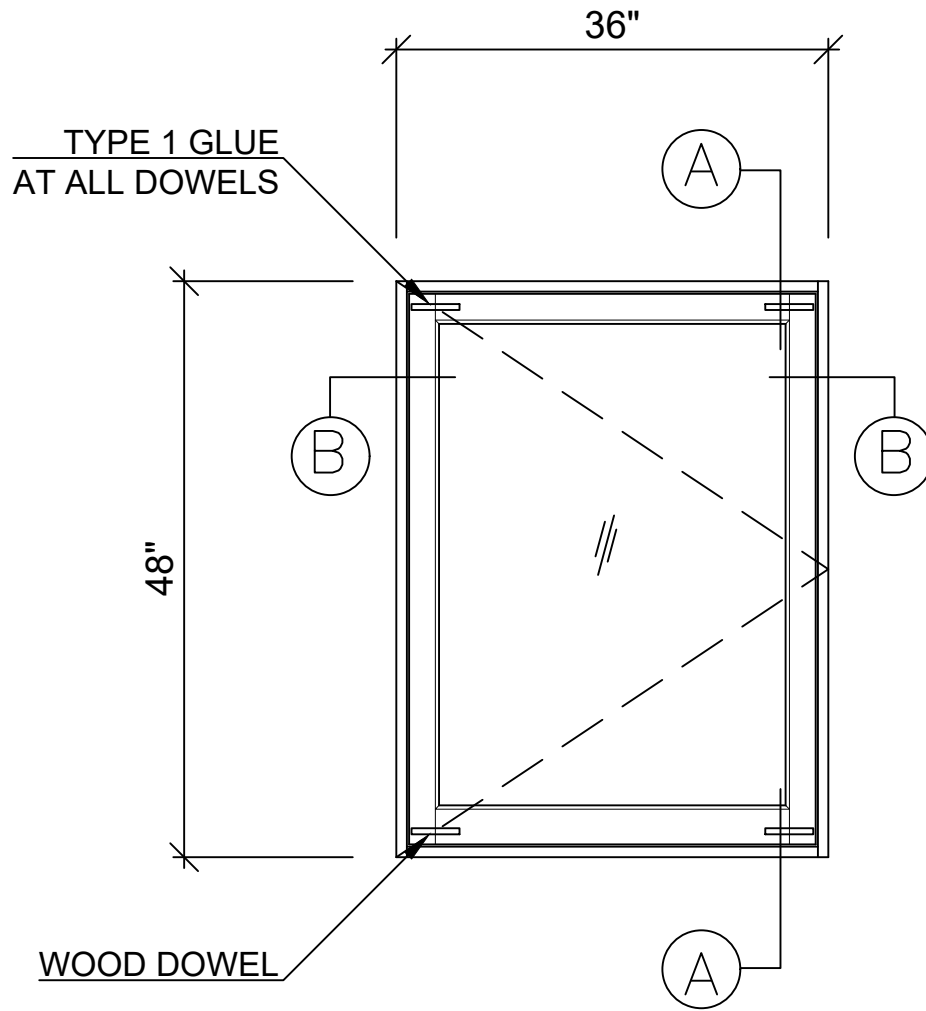
4.02



GLASS STOP DETAIL
 SCALE: 1' = 1' - 0"



JAMB TO JAMB DETAIL - BB
 SCALE: 6" = 1' - 0"



WINDOW ELEVATION - 6
 SCALE: 3/4" = 1' - 0"

WINDOW-6 FOR DP TESTING
 36" X 48" CASEMENT WINDOW - CEDAR
 ELEVATIONS & DETAILS

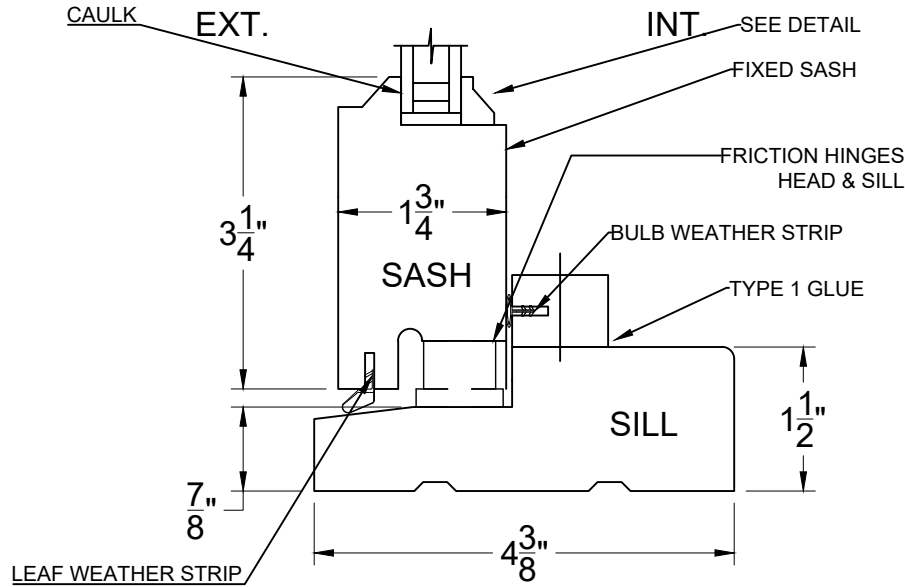
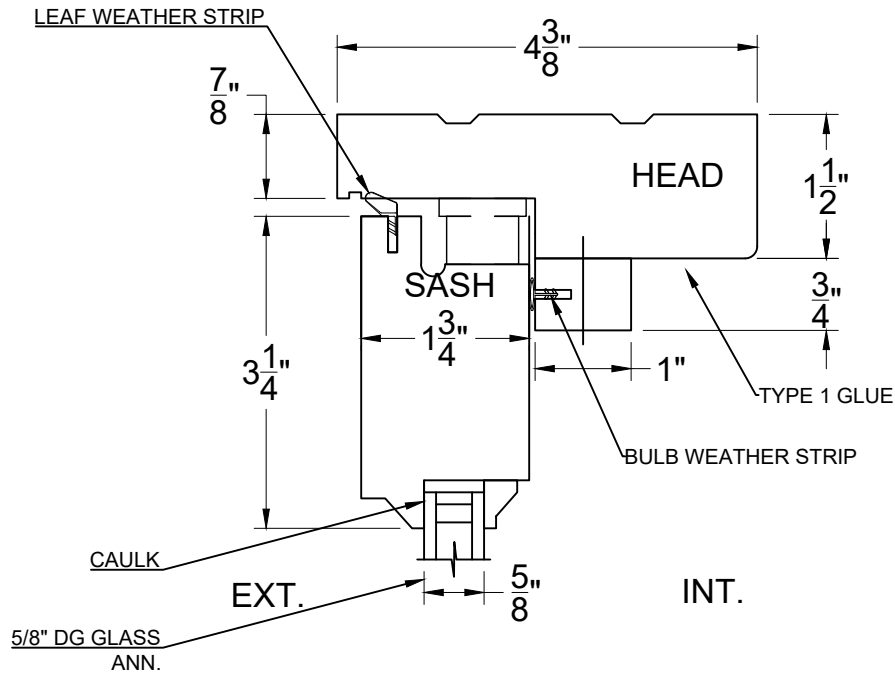
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 WINDOW AND DOOR SOLUTIONS
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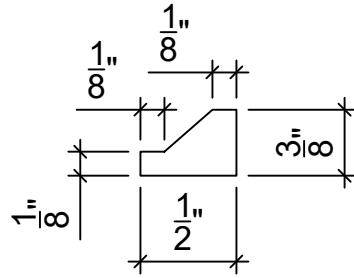
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8	AQ	--	BRAD NAIL	FRAME-1 3/4" X 7/16" 16GA MED CROWN STAPLE
7	10	--	RUBBER SHIM	--
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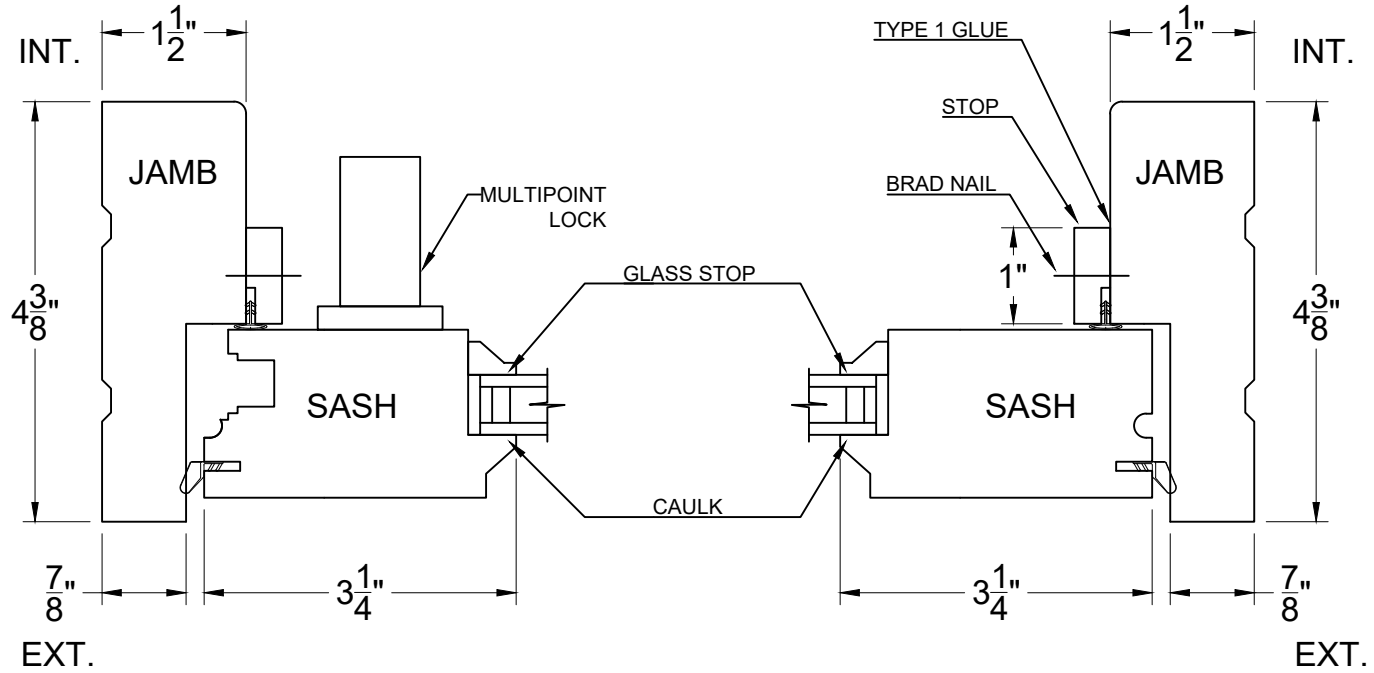
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HEAD & SILL DETAIL - AA
SCALE: 6" = 1' - 0"



GLASS STOP DETAIL
SCALE: 1' = 1' - 0"



JAMB TO JAMB DETAIL - BB
SCALE: 6" = 1' - 0"