MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908
www.buildingcodeonline.com

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

NOTICE OF ACCEPTANCE (NOA)

Hartman Windows & Doors, LLC
531 Southern Blvd.
West Palm Beach, FL 33405

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Direct Set Wood Fixed Window – L. M. I.

APPROVAL DOCUMENT: Drawing No. **04-HWD-0003**, titled "Direct Set Window - Large Missile Impact Resistant", sheets 1 through 6 of 6, dated 11/22/04 and revised on 6/16/05, prepared by Frank L. Bennardo, P.E., Inc. Consulting Engineers, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**

Hartman Windows & Doors, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **04-HWD-0003**, titled "Direct Set Window - Large Missile Impact Resistant", sheets 1 through 6, of 6, dated 11/22/04, revised on 6/16/05, prepared by Frank L. Bennardo, P.E., Inc. Consulting Engineers, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS

1. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
   2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
   3) Water Resistance Test, per FBC, TAS 202-94

   along with marked-up drawings and installation diagram of one wood fixed window, O configuration, prepared by Hurricane Test Laboratory, LLC, Test Report No. **HTL-0137-0911-01**, dated 9/12/01, 2/21/02, signed and sealed by Vinu J. Abraham, P.E.
2. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
   2) Cyclic Wind Pressure Loading per FBC, TAS 203-94

   along with marked-up drawings and installation diagram of one wood fixed window, O configuration, prepared by Hurricane Test Laboratory, LLC, Test Report No. **HTL-0137-0217-02**, dated 9/12/01, 2/21/02, signed and sealed by Vinu J. Abraham, P.E.
3. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
   2) Large Missile Impact Test per FBC, TAS 201-94
   3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

   along with marked-up drawings and installation diagram of two direct set wood fixed window, one half round and one eyebrow shape, O configuration each, prepared by Hurricane Test Laboratory, LLC, Test Report No. **HTL-0137-0101-04**, dated 12/30/03, signed and sealed by Vinu J. Abraham, P.E.

C. CALCULATIONS

1. Anchor Calculations and structural analysis complying with FBC-2004, dated Nov. 22, 2004, revised on June 16, 2005, prepared by Frank L. Bennardo, P.E., Inc., signed and sealed by Frank L. Bennardo, P.E.
   Complies with ASTM E1300-02

D. QUALITY ASSURANCE

1. Miami Dade Building Code Compliance Office (BCCO).

Manuel Perez, P.E.
Product Control Examiner
NOA No. 04-1129.04
Expiration Date: October 13, 2010
Approval Date: October 13, 2005

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **02-1205.03** issued to Security Impact Glass Holding LLC for "**SAF-GLAS Polycarbonate Laminate**" dated 01/02/03, expiring on 12/16/072.
2. Notice of Acceptance No. **01-0205.02** issued to Solutia Inc. for their "**Saflex /Keepsafe Maximum**" dated 05/17/01, expiring on 05/21/06.
3. Notice of Acceptance No. **01-1204.01** issued to E.I. DuPont DeNemours for "**Sentry Glass Plus**" dated 01/17/02, expiring on 01/14/07.

F. STATEMENTS

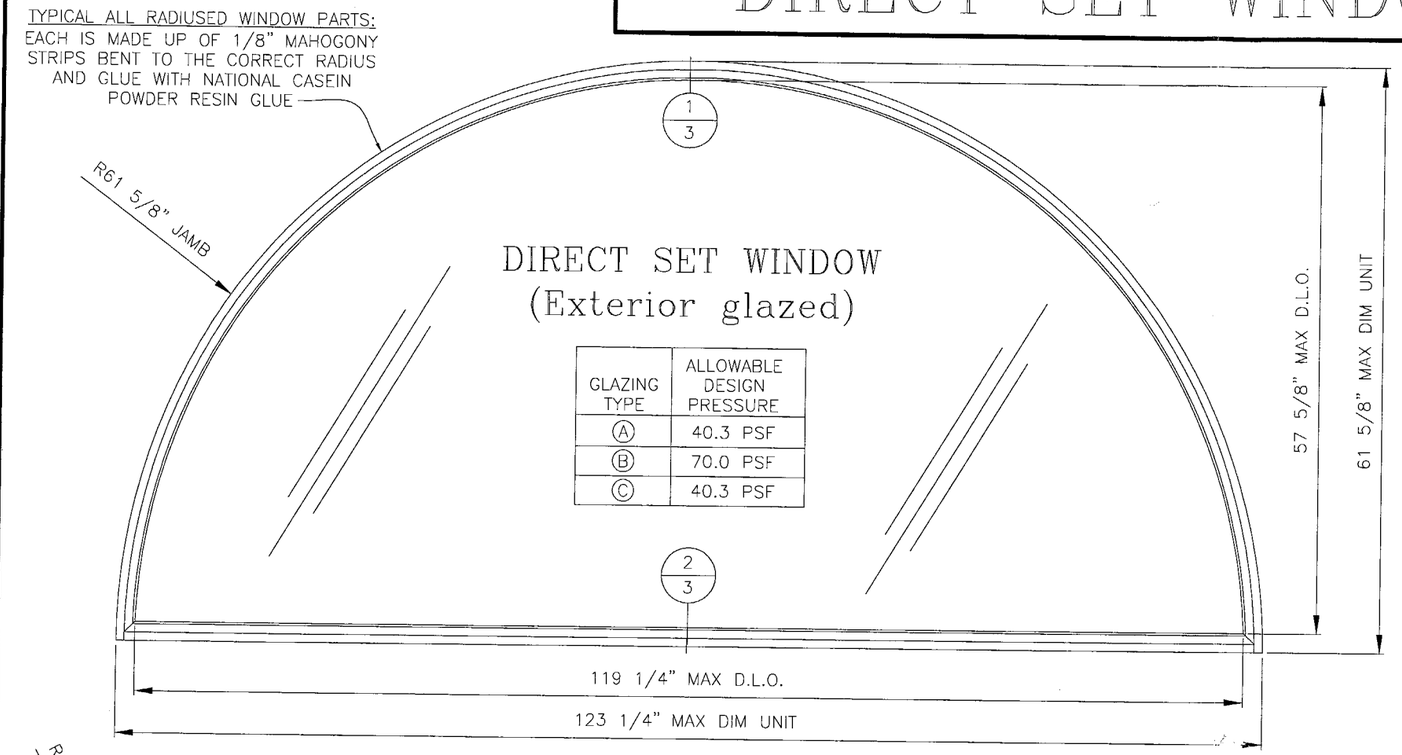
1. Statement letter of conformance, dated November 22, 2004, signed and sealed by Frank L. Bennardo, P.E.
2. Statement letter of no financial interest, dated November 22, 2004, signed and sealed by Frank L. Bennardo, P.E.
3. Laboratory compliance letter **HTL02080** for Test Reports No. **HTL- 0137-1028-02** and **HTL- 0137-0114-04**, issued by Hurricane Test Laboratory, LLC., dated August 9, 2004, signed and sealed by Vinu J. Abraham, P.E.

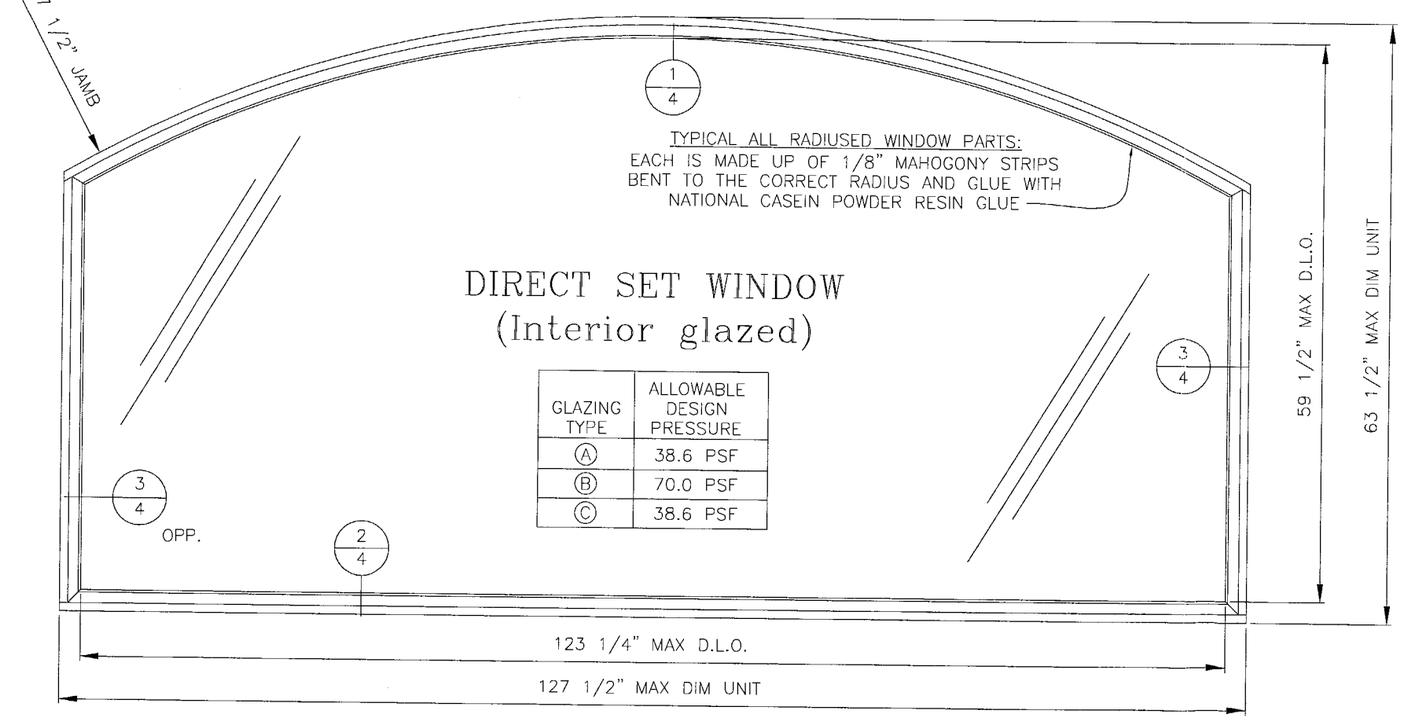
G. OTHER

1. None

Manuel Perez, P.E.
Product Control Examiner
NOA No 04-1129.04
Expiration Date: October 13, 2010
Approval Date: October 13, 2005

DIRECT SET WINDOW





GENERAL NOTES:

1) THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE PER TAS PROTOCOLS 201, 201, & 203.

2) NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.

3) ALL UNITS ARE LARGE MISSILE IMPACT RESISTANT. NO PROTECTION FROM WINDBORNE DEBRIS IS REQUIRED FOR ANY INSTALLATION.

4) POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.

5) ALL FRAMING MEMBERS SHALL BE MAHOGANY WOOD HAVING MINIMUM SPECIFIC GRAVITY G=0.54 AND MIN DOWEL BEARING STRENGTH Fe=5450psi.

6) THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE-SPECIFIC DOCUMENTS AND SUBMIT FOR A ONE-TIME NOTICE OF ACCEPTANCE FOR USE IN CONJUNCTION WITH THIS DOCUMENT.

7) PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. ALL 2x WOOD BUCKS SHALL BE ANCHORED TO THE HOST STRUCTURE TO ADEQUATELY TRANSFER ALL SUPERIMPOSED LOADS.

GLAZING OPTIONS:

Ⓐ 7/16" "Sentry Glass Plus" by E.I. Dupont (NOA #01-1204.01):
- 3/16" ANNEALED GLASS
- 0.090" DuPont SENTRYGLASS PLUS INTERLAYER
- 3/16" ANNEALED GLASS

Ⓑ 7/16" "SAFLEX" by Solutia (NOA #01-0205.02):
- 3/16" HEAT STRENGTHENED GLASS
- 0.090" SAFLEX PVB INTERLAYER
- 3/16" HEAT STRENGTHENED GLASS

Ⓒ 7/16" "SAFGLASS" by Security Implact Glass (NOA #02-1205.03):
- 3/16" ANNEALED GLASS
- 0.015" URETHANE ADHESIVE
- 0.070" POLYCARBONATE "S.I.G" INTERLAYER
- 0.015" URETHANE ADHESIVE
- 3/16" ANNEALED GLASS

Approved as complying with the Florida Buiding Code
Date OCT. 13, 2005
NOA# 04-1129.04
Miami Dade Product Control Division
By Manuel Perez

FRANK L. BENNARDO, P.E.
PE0046549
09/15/2005

FRANK L. BENNARDO, P.E., INC.
CONSULTING ENGINEERS
4441 NORTH DIXIE HIGHWAY
BOCA RATON, FL 33431
(561) 391-2888 FAX: (561) 391-2862
WWW.FLBENGINEERING.COM
CERTIFICATE OF AUTHORIZATION: #9885

HARTMAN WINDOWS & DOORS, LLC
531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405

DIRECT SET WINDOW
LARGE MISSILE IMPACT RESISTANT

REMARKS	DWN	CHKD	DATE
ORIG ISSUE	CL	FLB	11/22/04
2004 FBC	CL	FLB	6/16/05

04-HWD-0003

PAGE SCALE:
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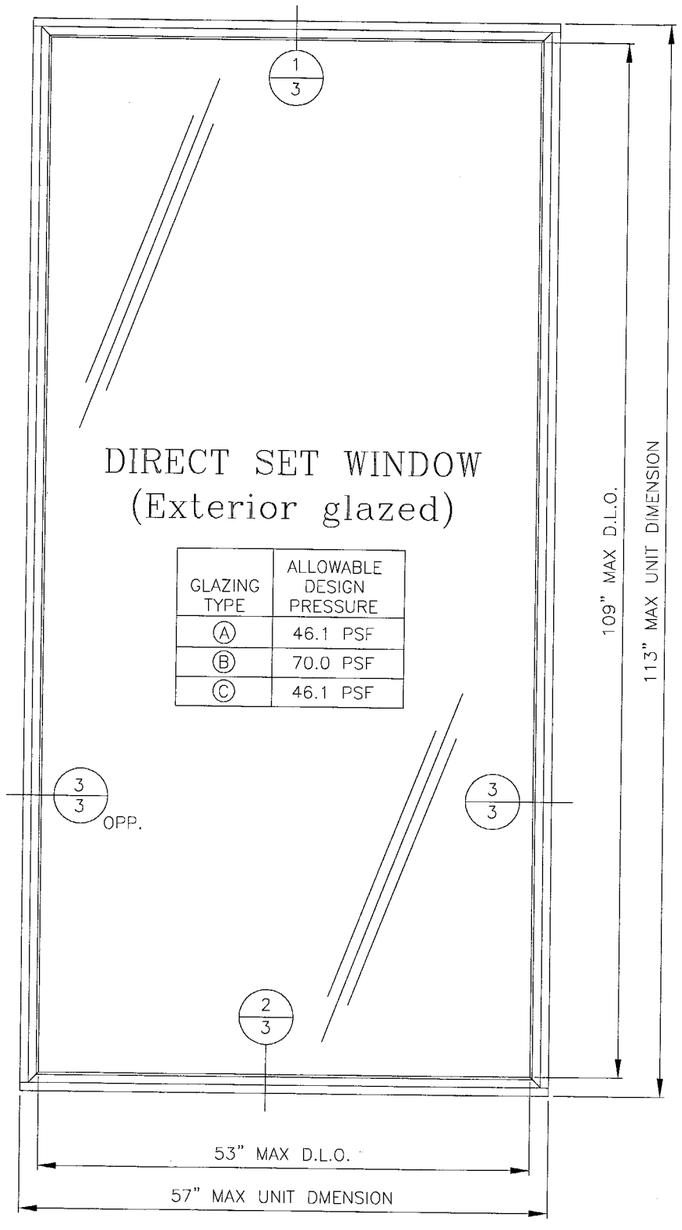
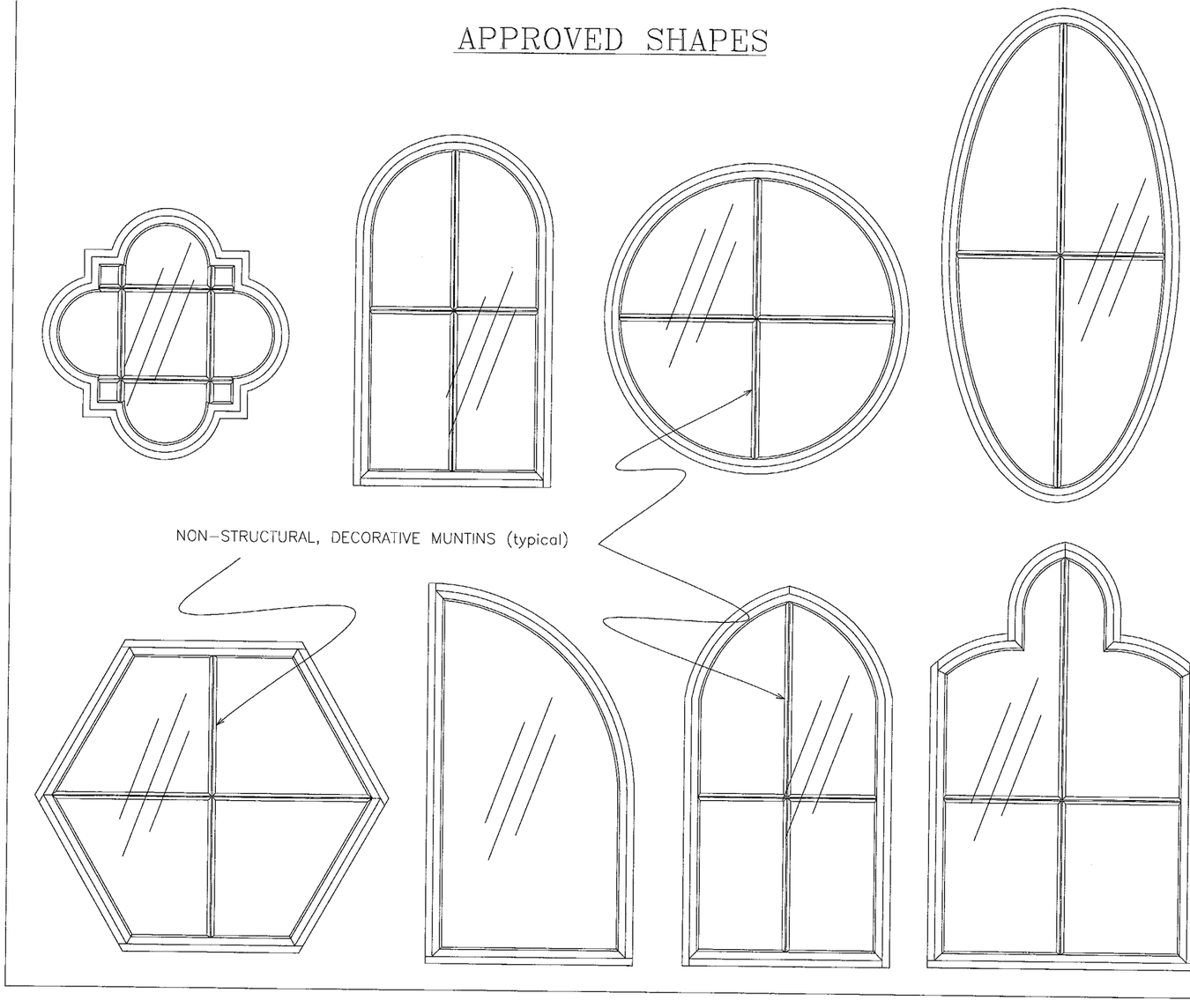


APPROVED SHAPES



SHAPED UNIT NOTES:

1) UNITS OF ANY SHAPE ARE ALLOWED PROVIDED CONSTRUCTION, GLAZING, & ANCHORAGE ARE PER DETAILS SHOWN HEREIN.

2) ALL SHAPED UNITS (OTHER THAN THOSE SHOWN ON SHEET 1) SHALL FIT WITHIN THE RECTANGULAR DIMENSIONS SHOWN ABOVE.

3) ALL RADIUSED WINDOW PARTS ARE MADE UP OF 1/8" MAHOGONY STRIPS BENT TO THE CORRECT RADIUS AND GLUE WITH NATIONAL CASEIN POWDER RESIN GLUE

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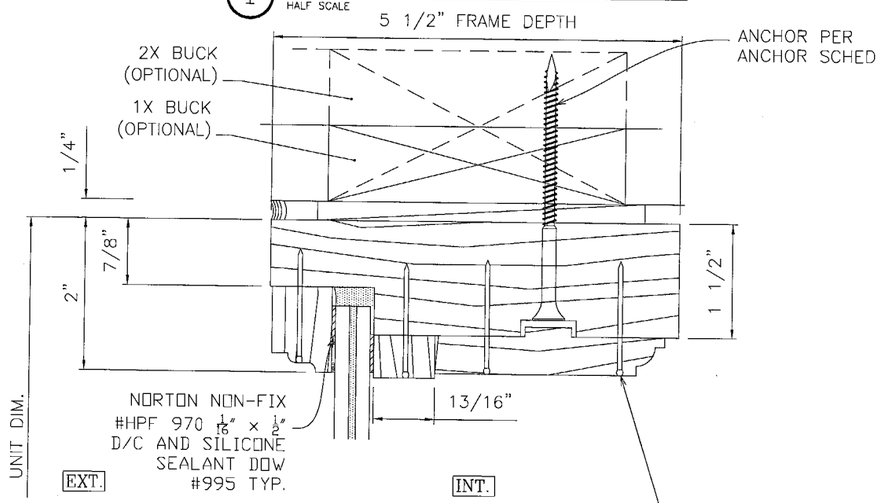
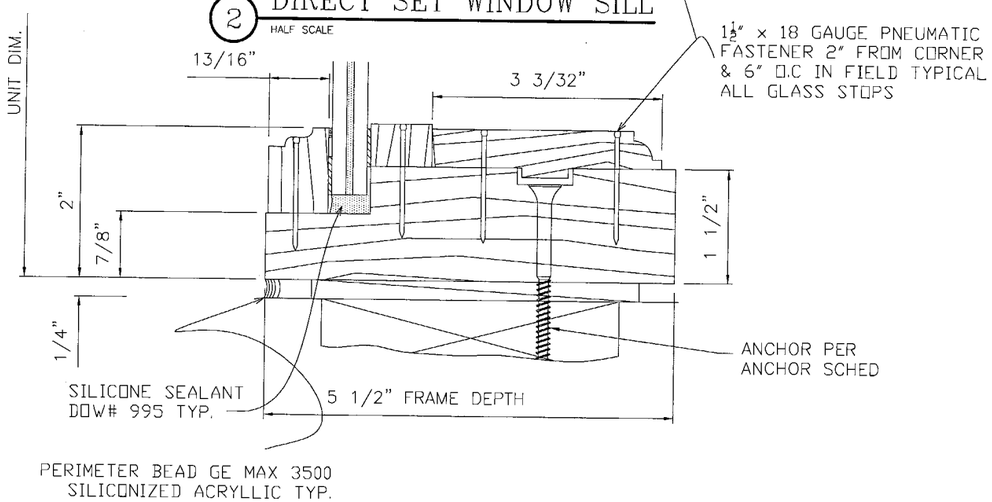
EXTERIOR GLAZED DETAILS

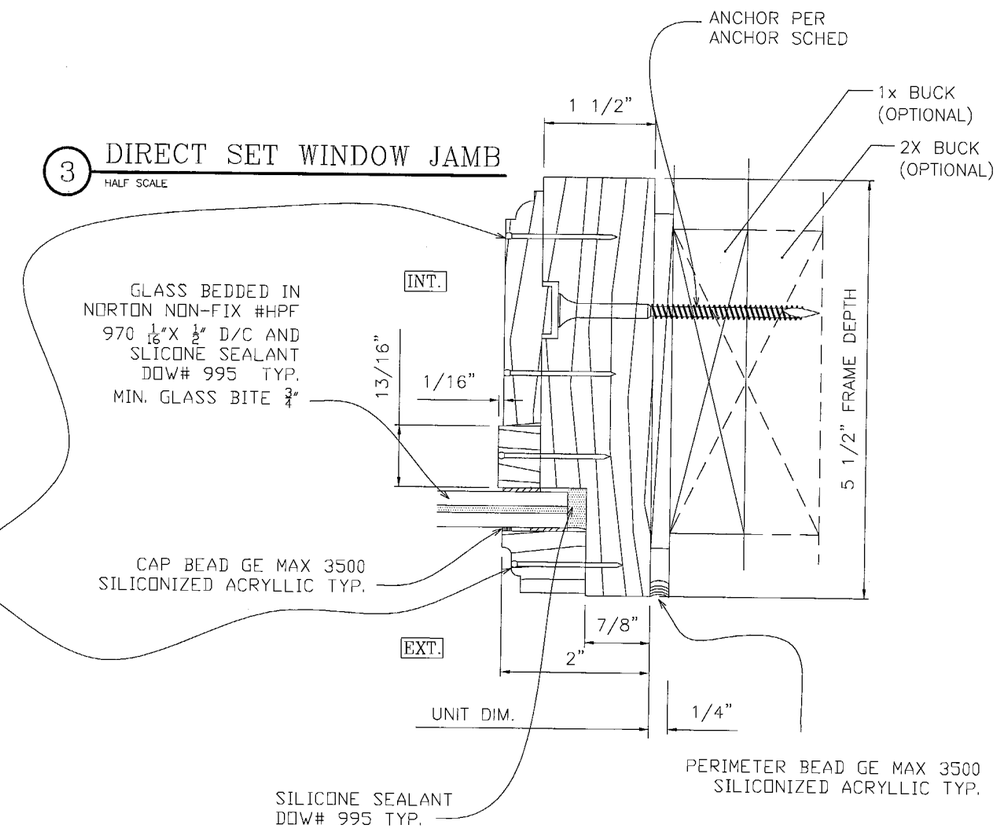
1 DIRECT SET WINDOW HEAD
HALF SCALE



2 DIRECT SET WINDOW SILL
HALF SCALE



3 DIRECT SET WINDOW JAMB
HALF SCALE



ANCHOR SCHEDULE:

TO CONCRETE OR HOLLOW BLOCK
(WITH OR WITHOUT 1x WOOD BUCK)
1/4" ITW TAPCON WITH 1-1/4" MIN EMBED & 2-1/2" MIN EDGE DISTANCE

TO 2x (MIN) WOOD BUCK OR WOOD STRUCTURE
#12 WOOD SCREW OR SMS WITH 1-1/2" MIN EMBED & 1" MIN EDGE DISTANCE

ANCHOR NOTES:

1) ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

2) ALL UNITS SHALL BE ANCHORED TO EXISTING HOST STRUCTURE WITH ANCHORS AT 3" FROM EACH CORNER & 8" O.C. AROUND ENTIRE PERIMETER. REFER TO ANCHOR SCHEDULE FOR ALLOWABLE ANCHORS & ANCHORING CONDITIONS.

5) ALL SHEET METAL AND/OR WOOD SCREWS SHALL BE SAE GRADE 5 STEEL OR EQUIVALENT.

GLAZING OPTIONS:

Ⓐ 7/16" "Sentry Glass Plus" by E.I. Dupont (NOA #01-1204.01):
- 3/16" ANNEALED GLASS
- 0.090" DuPont SENTRYGLASS PLUS INTERLAYER
- 3/16" ANNEALED GLASS

Ⓑ 7/16" "SAFLEX" by Solutia (NOA #01-0205.02):
- 3/16" HEAT STRENGTHENED GLASS
- 0.090" SAFLEX PVB INTERLAYER
- 3/16" HEAT STRENGTHENED GLASS

Ⓒ 7/16" "SAFGLASS" by Security Implact Glass (NOA #02-1205.03):
- 3/16" ANNEALED GLASS
- 0.015" URETHANE ADHESIVE
- 0.070" POLYCARBONATE "S.I.G" INTERLAYER
- 0.015" URETHANE ADHESIVE
- 3/16" ANNEALED GLASS

Approved as complying with the Florida Building Code
Date OCT. 13, 2005
NOA# 04-1129.04
Miami Dade Product Control Division
By Manuel Perez

FRANK L. BENNARDO, P.E.
PE0046549
09/15/2005

FRANK L. BENNARDO, P.E., INC.
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BOCA RATON, FL 33431
(561) 391-2888 FAX: (561) 391-2862
WWW.FLBENGINEERING.COM
CERTIFICATE OF AUTHORIZATION: #9885

HARTMAN WINDOWS & DOORS, LLC
531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405

DIRECT SET WINDOW
LARGE MISSILE IMPACT RESISTANT

REMARKS	DWN	CHKD	DATE
ORIG ISSUE	CL	FLB	11/22/04
2004 FBC	CL	FLB	6/16/05

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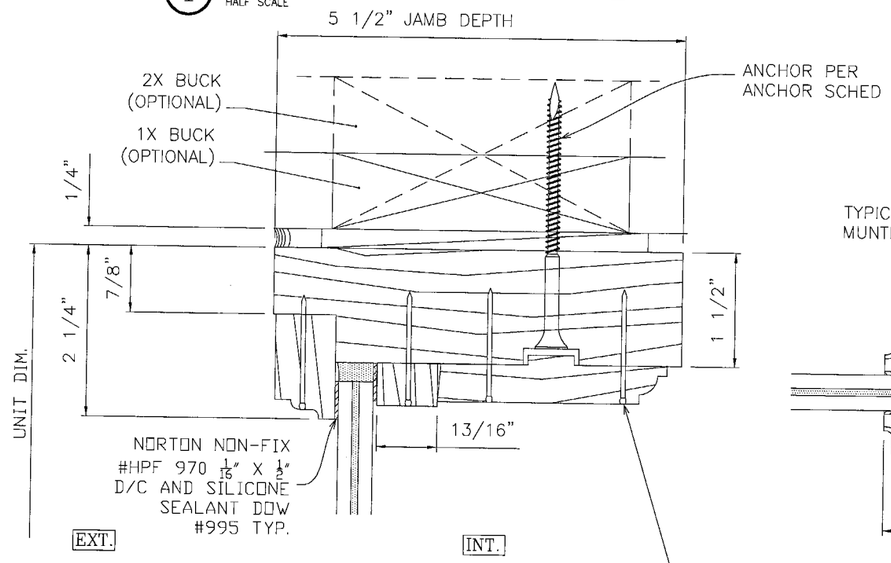
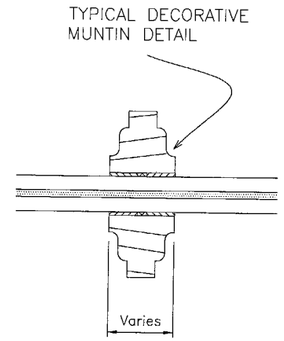
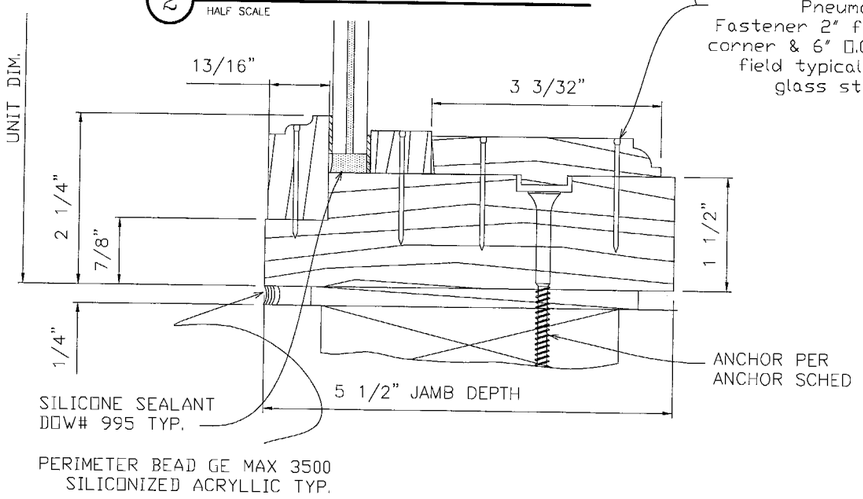
INTERIOR GLAZED DETAILS

1 DIRECT SET WINDOW HEAD
HALF SCALE



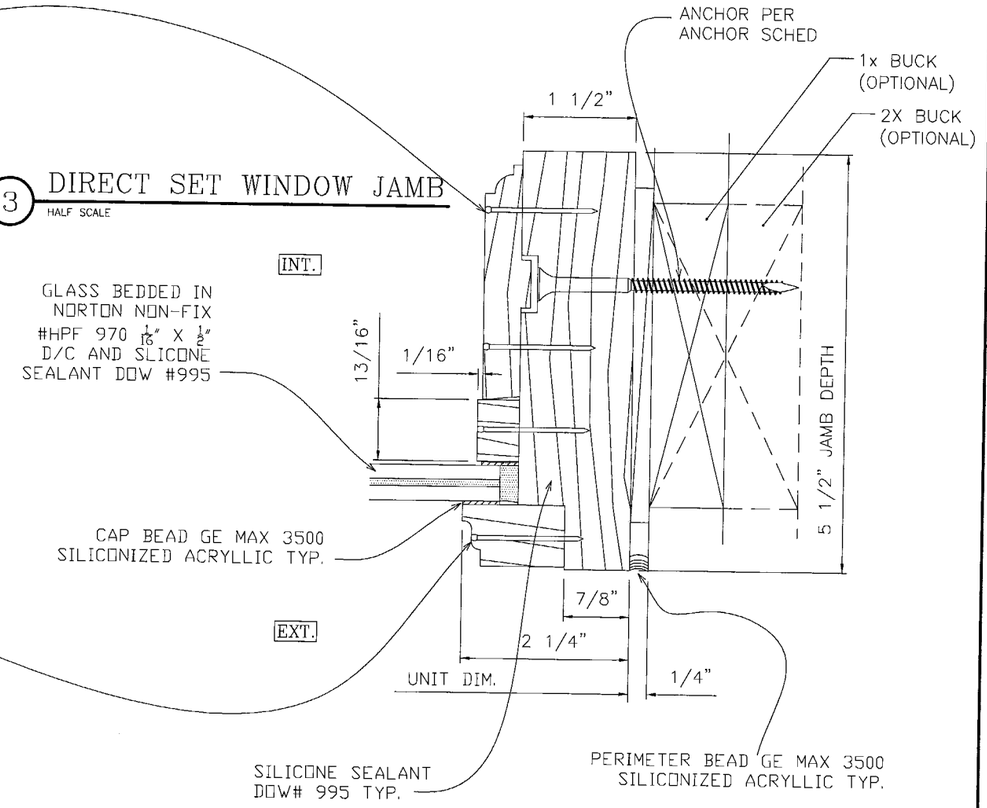


2 DIRECT SET WINDOW SILL
HALF SCALE



1½" x 18 Gauge Pneumatic Fastener 2" from corner & 6" O.C in field typical all glass stops

3 DIRECT SET WINDOW JAMB
HALF SCALE



ANCHOR SCHEDULE:

TO CONCRETE OR HOLLOW BLOCK
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1/4" ITW TAPCON WITH 1-1/4" MIN EMBED & 2-1/2" MIN EDGE DISTANCE

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Approved as complying with the Florida Building Code
Date Oct. 13, 2005
NOA# 04-1129.04
Miami Dade Product Control Division
By [signature]

FRANK L. BENNARDO, P.E.
PE0046549
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LARGE MISSILE IMPACT RESISTANT

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04-HWD-0003

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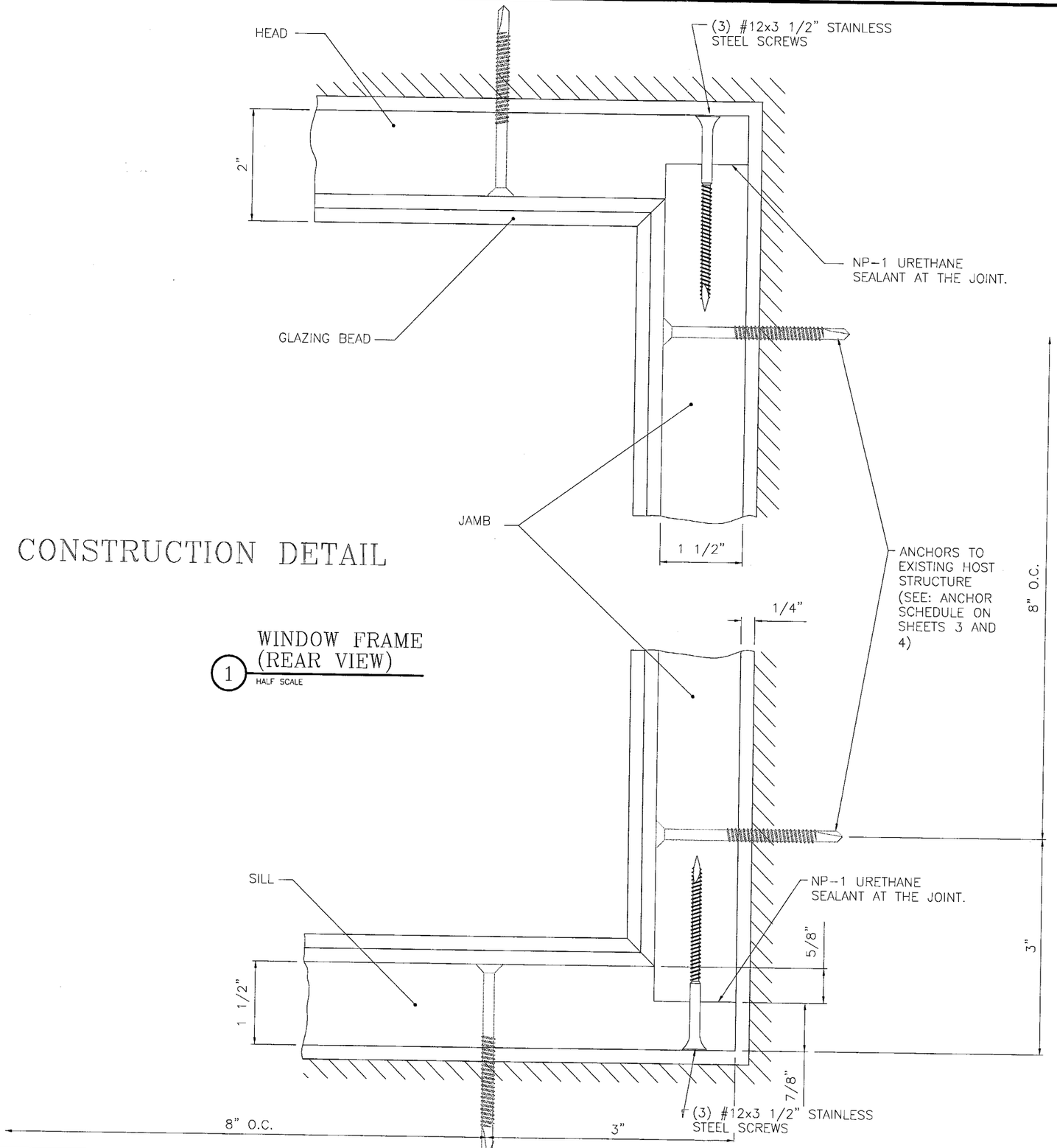

CORNER CONSTRUCTION DETAIL

1 WINDOW FRAME (REAR VIEW)
HALF SCALE

Approved as complying with the Florida Building Code
Date OCT. 13, 2005
NOA# 04-1129.04
Miami Dade Product Control Division
By Manuel Ruiz

FRANK L. BENNARDO, P.E.
PE0046549
09/15/2005

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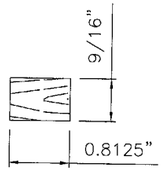
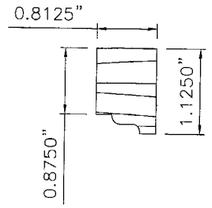
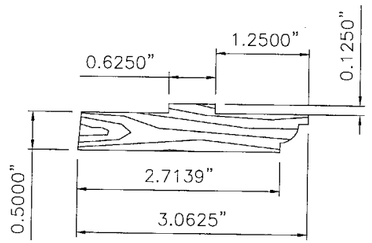
EXTERIOR GLAZED



GLAZING BEAD

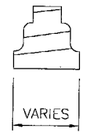


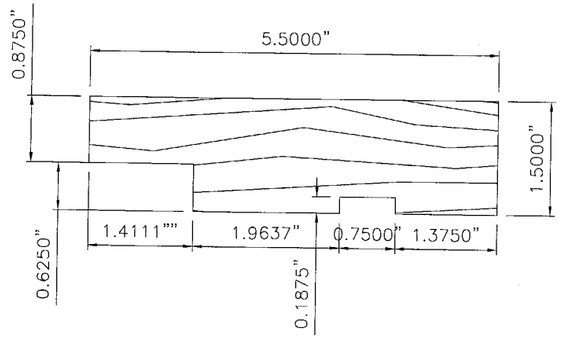
GLASS STOP



PRIMARY TRIM

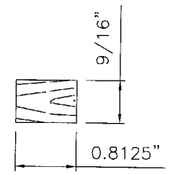
MUNTIN BAR



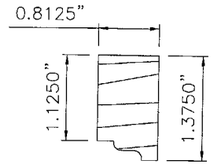


HEAD, JAMB AND SILL.

INTERIOR GLAZED

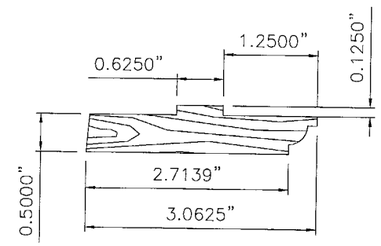


GLAZING BEAD

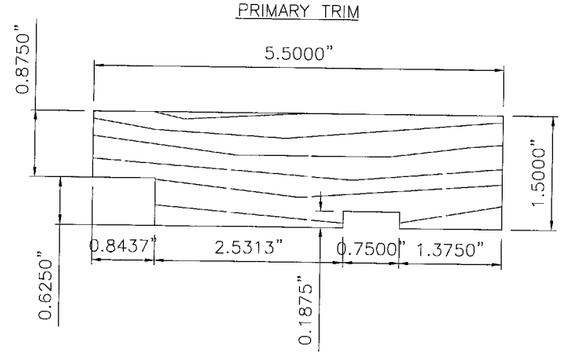


GLASS STOP

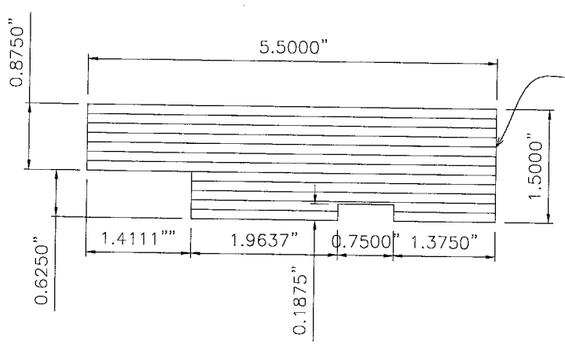
MUNTIN BAR



PRIMARY TRIM



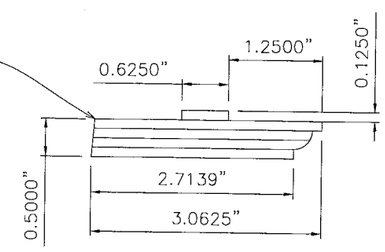
HEAD, JAMB AND SILL.



HEAD, JAMB AND SILL.

1/8" mahogony strips typical all parts

Typical all radiused window parts:
Each is made up of 1/8" mahogony strips bent to the correct radius and glue with National Casein powder resin glue



PRIMARY TRIM

Approved as complying with the Florida Building Code
Date OCT 13, 2005
NOA# 04-1129.04
Miami Dade Product Control Division
By: Manuel Perez

FRANK L. BENNARDO, P.E.
PE0046549
09/15/2005

FRANK L. BENNARDO, P.E., INC.
CONSULTING ENGINEERS
4441 NORTH DIXIE HIGHWAY
BOCA RATON, FL 33431
(561) 391-2888 FAX: (561) 391-2862
WWW.FLBENGINEERING.COM
CERTIFICATE OF AUTHORIZATION: #9885

HARTMAN WINDOWS & DOORS, LLC
531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405

DIRECT SET WINDOW
LARGE MISSILE IMPACT RESISTANT

REMARKS	DWN	CHKD	DATE
ORIG ISSUE	CL	FLB	11/22/04
2004 FBC	CL	FLB	6/16/05

04-HWD-0003

PAGE SCALE:
DESCRIPTION:

6

09/15/2005 - 10:31am clangley F:\01 Project Files\Hartman Windows & Doors (159)\2004 Jobs\04-HWD-0003 Direct-Set Window (NOA)\04-HWD-0003_01c Direct-Set Window (NOA).dwg