



MIAMI-DADE COUNTY
BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1107
MIAMI, FLORIDA 33130-1563
(305) 375-2902 FAX (305) 372-6339

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/buildingcode

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: Series Wood Double Hung Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **04-HWD-0002**, titled "Double Hung Window – Large Missile Impact Resistant", sheets 1 through 8, dated 11/08/04, with revision dated 08/21/09, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P. E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration 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 **revises** and **renews** NOA No. **04-1129.03** and 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 **Jaime D. Gascon, P. E.**



J. Gascon
9/9/09

NOA No. 09-0608.13
Expiration Date: April 07, 2015
Approval Date: September 30, 2009
Page 1

Hartman Windows & Doors, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No **04-HWD-0002**, titled "Double Hung Window – Large Missile Impact Resistant", sheets 1 through 10, dated 11/08/04, with revision dated 08/21/09, prepared by Engineering Express, 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
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 3603.2 (b) and TAS 202-94
along with marked-up drawings and installation diagram of wood double hung window, X/X configuration, prepared by Hurricane Test Laboratory, LLC, Test Report No. **HTL-0137-1028-02**, dated 10/17 to 21/02, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No. 04-1129.03)
2. 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 wood double hung windows mullied together, X/X-X/X configuration, and two single windows, X/X configuration, prepared by Hurricane Test Laboratory, LLC, Test Report No. **HTL-0137-0114-04**, dated 1/28-29/04, signed and sealed by Vinu J. Abraham, P. E.
(Submitted under previous NOA No. 04-1129.03)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2007, dated 07/22/09 prepared by Engineering Express, signed, sealed and dated 08/21/09 by Frank L. Bennardo, P.E.
Complies with ASTM E1300-02/ 04

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **06-0216.06** issued to Solutia Inc. for their "Saflex III G Clear or colored interlayer" dated May 04, 2006, expiring on May 21, 2011.



Jaime D. Gascon, P.E.
Product Control Examiner
NOA No. 09-0608.13

Expiration Date: April 07, 2015
Approval Date: September 30, 2009

Hartman Windows & Doors, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS (CONTINUED)

2. Notice of Acceptance No. **07-1116.11** issued to SAF-GLASS for their “**SAF-GLAS Polycarbonate Laminate**” dated December 12, 2007, expiring on December 16, 2012.
3. Notice of Acceptance No. **09-0312.03** issued to E.I. DuPont DeNemours & Co., Inc. for their “**DuPont Sentry Glass® Interlayer**” dated 05/13/09, expiring on 01/14/12.

F. STATEMENTS

1. Statement letter of conformance, dated September 08, 2009, signed and sealed by Frank L. Bennardo, P. E.
2. Statement letter of no financial interest, dated September 08, 2009, signed and sealed by Frank L. Bennardo, P. E.

G. OTHERS

1. Notice of Acceptance No. **04-1129.03**, issued to Hartman Windows & Doors, LLC for their Series “**Wood Double Hung Window – Impact**”, approved on 04/07/05 and expiring on 04/07/10.



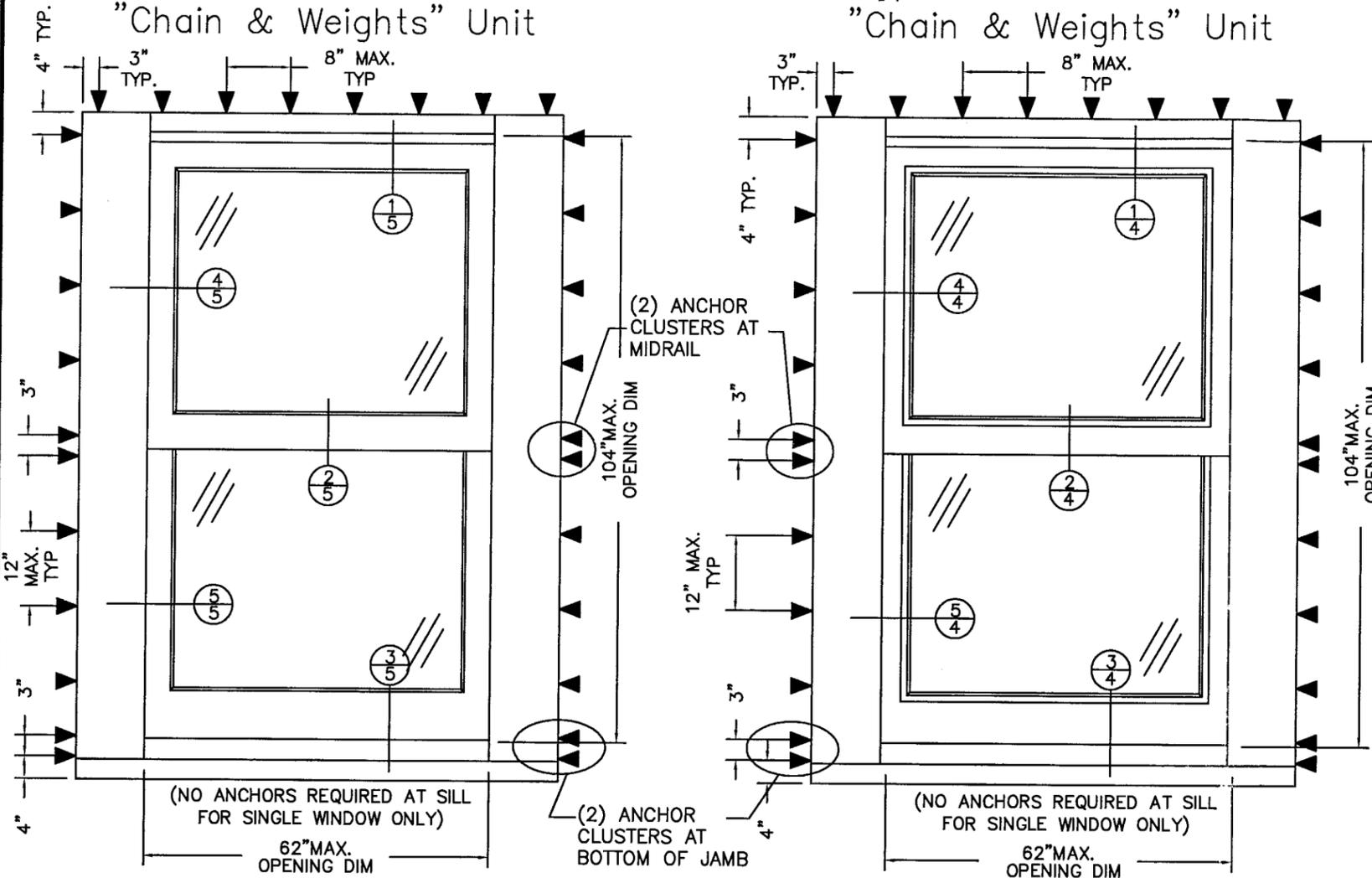
Jaime D. Gascon, P.E.
Product Control Examiner
NOA No. 09-0608.13

Expiration Date: April 07, 2015
Approval Date: September 30, 2009

DOUBLE HUNG WINDOW

Typical Interior Glazed
"Chain & Weights" Unit

Typical Exterior Glazed
"Chain & Weights" Unit



ANCHORS LEGEND

- ◀ (3) #10 SMS (3/4" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW) AND (2) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO 2x SOUTHERN PINE BUCK)

ANCHOR NOTES:

- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, WITH 3/4" MIN. EDGE DISTANCE.
- ALL UNITS SHALL BE ANCHORED TO EXISTING 2x WOOD BUCK OR DIRECTLY TO 2x MIN WOOD HOST STRUCTURE WITH STEEL STRAPS SPACED AS FOLLOWS:
 - AT HEAD: 3" FROM EACH UNIT CORNER & 8" O.C.
 - AT JAMBS: 4" FROM EACH UNIT CORNER & 12" O.C.
 - AT SILL: NO ANCHORS REQUIRED
- STRAPS SHALL BE 1/16" x 1-1/4" (MIN), ASTM A653 STRUCTURAL QUALITY GRADE 33 (MIN) STEEL WITH MIN Fu=45ksi.
- EACH STRAP SHALL BE FASTENED TO THE MAHOGANY WINDOW FRAME WITH (3) #10 SMS (3/4" MIN EMBED) AND TO THE 2x SOUTHERN PINE BUCK WITH (2) #12 SMS (1-1/2" MIN EMBED), AS SHOWN HEREIN. SEE GENERAL NOTE No. 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 #09-0312.03):
 - 3/16" ANNEALED GLASS
 - 0.090" DuPont SENTRYGLASS PLUS INTERLAYER
 - 3/16" ANNEALED GLASS
- 7/16" "SAFLEX" by Solutia (NOA #06-0216.06):
 - 3/16" HEAT STRENGTHENED GLASS
 - 0.090" SAFLEX PVB INTERLAYER
 - 3/16" HEAT STRENGTHENED GLASS
- 7/16" "Security Impact Glass" by SAFGLASS (NOA #07-1116.11):
 - 3/16" ANNEALED OR HEAT STRENGTHENED GLASS
 - 0.015" URETHANE ADHESIVE
 - 0.070" POLYCARBONATE "S.I.G" INTERLAYER
 - 0.015" URETHANE ADHESIVE
 - 3/16" ANNEALED OR HEAT STRENGTHENED GLASS

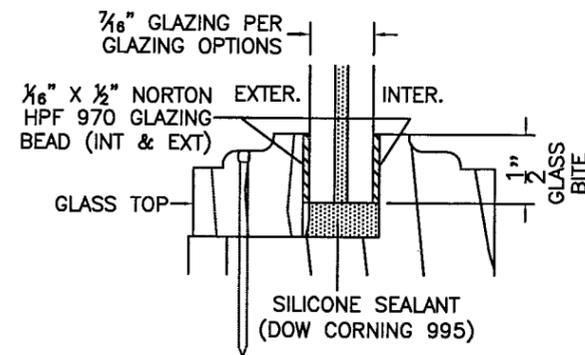
ALLOWABLE DESIGN PRESSURES:

+60 PSF
-60 PSF

GENERAL NOTES:

- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE PER TAS PROTOCOLS 201, 201, & 203.
- ALL UNITS ARE LARGE MISSILE IMPACT RESISTANT. NO PROTECTION FROM WINDBORNE DEBRIS IS REQUIRED FOR ANY INSTALLATION.
- 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.
- ALL WOOD PARTS SHALL BE SOUTHERN PINE/ MAHOGANY WITH THE MINIMUM SPECIFIC GRAVITY OF G=0.55 OR ANY NATURALLY DURABLE WOOD WITH THE MINIMUM GRADE 2 AND WITH A SPECIFIC GRAVITY OF G = 0.55 AND MIN DOWEL BEARING STRENGTH Fe=5450psi.
- ALL EXPOSED WOOD SHALL BE TREATED WITH EITHER SICKENS® CETOL-1 BASECOAT AND CETOL-23 TOPCOAT (FOR STAINED FINISHES) OR SHERWIN WILLIAMS® DURATION EXTERIOR ACRYLIC LATEX (FOR PAINTED FINISHES).
- 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.
- 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.

(INTER GLAZED OPTION SHOWN. FOR EXTER OPTION, REVERSE "INTERIOR" & "EXTERIOR" DESIGNATION)



GLAZING DETAIL:

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 09-0608.13
Expiration Date APRIL 07/2015
By *[Signature]*
Miami Lide Product Control Division

DRWN	CHKD	DATE
CL	FLB	11/04/04
CL	FLB	6/16/05
AML	IRKB	08/21/09

REMARKS: INIT ISSUE 2004 FBC; 2007 FBC; COUNTY COMMENTS: TSB

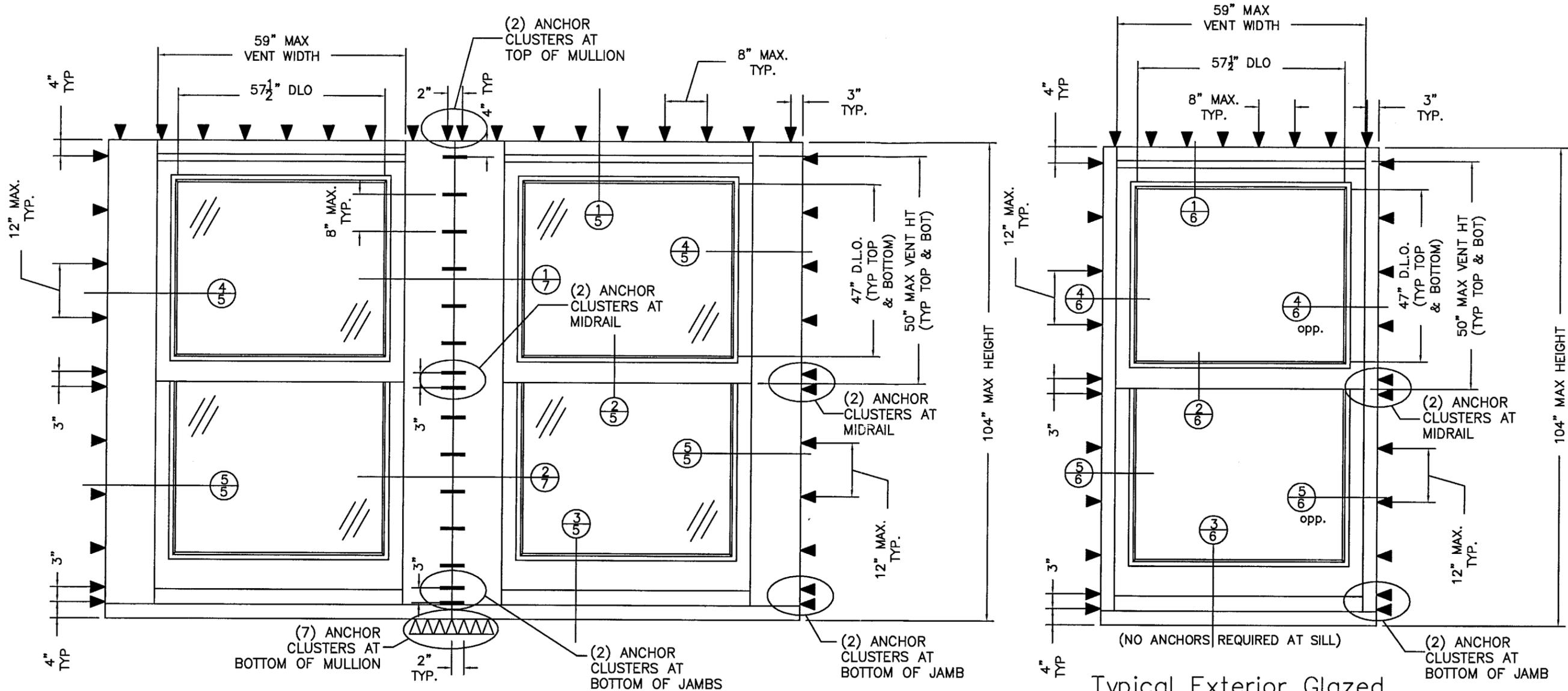
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04-HWD-0002

SCALE: --
PAGE DESCRIPTION: --

DOUBLE HUNG WINDOW (SIDE-BY-SIDE INSTALLATIONS)



Typical Interior Glazed
"Chain & Weights" Units
Installed Side-By-Side

NOTE:
TWO (2) "CHAIN & WEIGHTS" UNITS MAY BE
INSTALLED SIDE-BY-SIDE WITH NO SEPARATE
MULLIONS OR ADDITIONAL REINFORCEMENT

ANCHORS LEGEND

- (5) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW)
- ▲ (3) #10 SMS (3/4" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW) AND (2) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO 2x SOUTHERN PINE BUCK)
- △ (2) #10 SMS (3/4" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW) AND (1) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO 2x SOUTHERN PINE BUCK)

Typical Exterior Glazed
"Spring & Balance" Unit

FRANK L. BENNARDO, P.E.
PE0046549



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DEERFIELD BEACH, FL 33442
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WWW.ENGEXP.COM
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A FRANK L. BENNARDO, P.E., INC. INNOVATION

HARTMAN WINDOWS
& DOORS, LLC
531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405
DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT RESISTANT

DRWN	CHKD	DATE
CL	FLB	11/8/04
CL	FLB	6/16/05
TSB	FLB	05/28/09
AML	RKB	08/21/09

REMARKS:
INIT ISSUE
2004 FBC
2007 FBC
COUNTY COMMENTS

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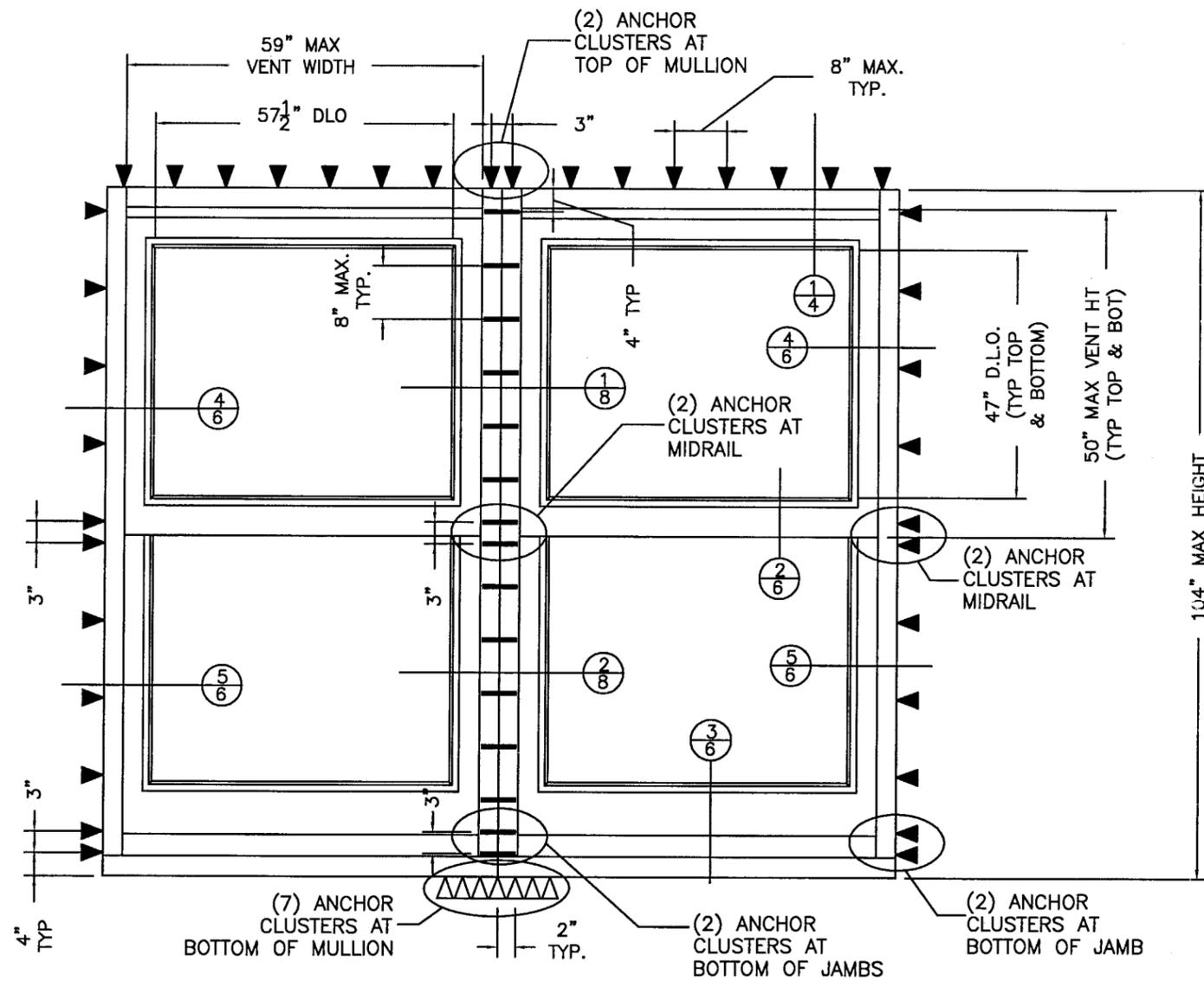
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By *[Signature]*
Miami Dade Product Control
Division

DOUBLE HUNG WINDOW (SIDE-BY-SIDE INSTALLATIONS)



Typical Exterior Glazed
"Spring & Balance" Units
Installed Side-By-Side

NOTE:
TWO (2) "SPRING & BALANCE" UNITS MAY BE
INSTALLED SIDE-BY-SIDE WITH NO SEPARATE
MULLIONS OR ADDITIONAL REINFORCEMENT

ANCHORS LEGEND

- (5) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW)
- (3) #10 SMS (3/4" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW) AND (2) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO 2x SOUTHERN PINE BUCK)
- (2) #10 SMS (3/4" MIN. THREAD PENETRATION INTO MAHOGANY WINDOW) AND (1) #12 SMS (1-1/2" MIN. THREAD PENETRATION INTO 2x SOUTHERN PINE BUCK)

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Expiration Date **APRIL 07, 2015**
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Miami Dade Product Control
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09/04/2009

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DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT RESISTANT

DRWN	CHKD	DATE
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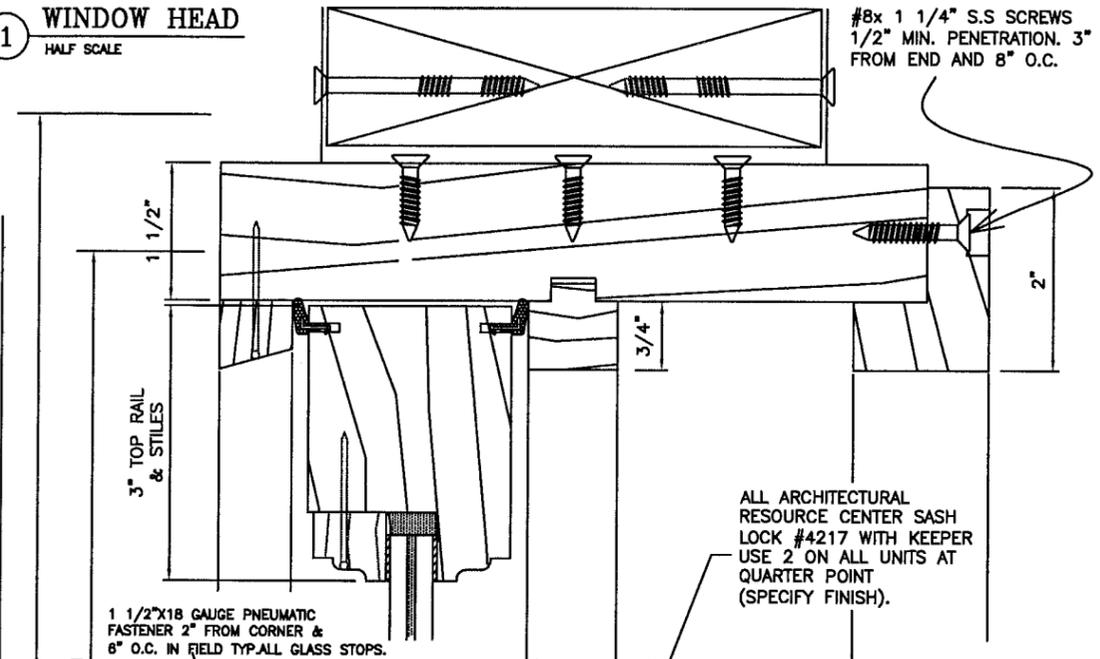
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OF 10

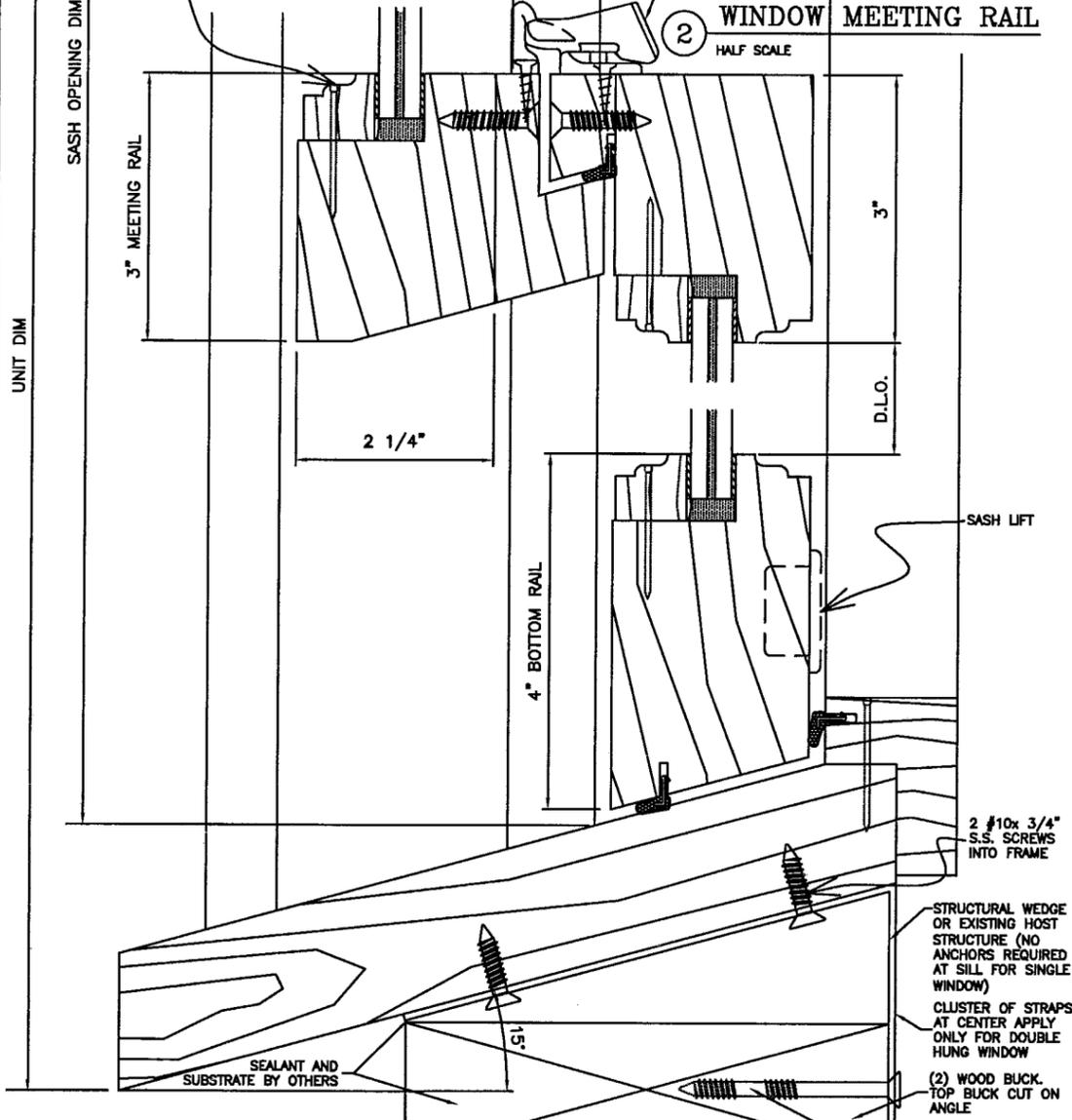
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EXTERIOR GLAZED UNITS WITH "CHAIN & WEIGHTS"

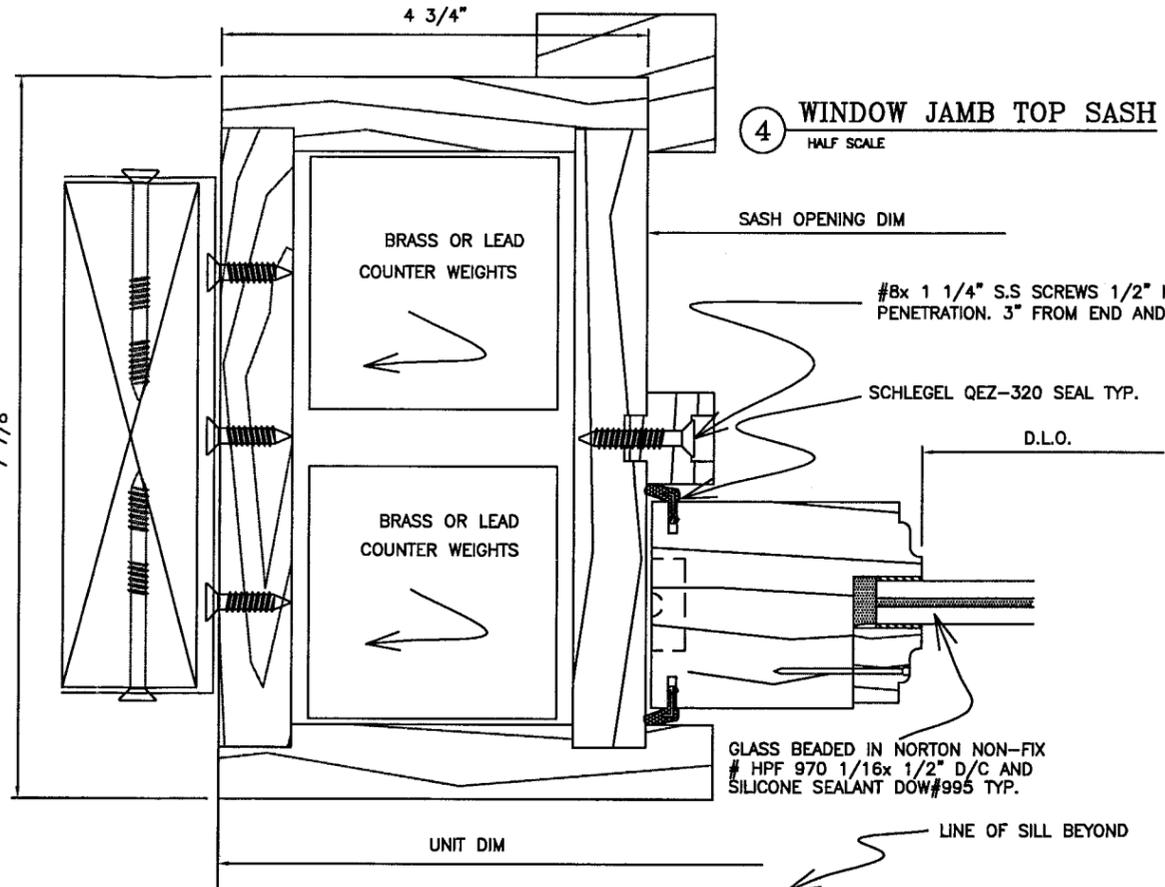
1 WINDOW HEAD
HALF SCALE



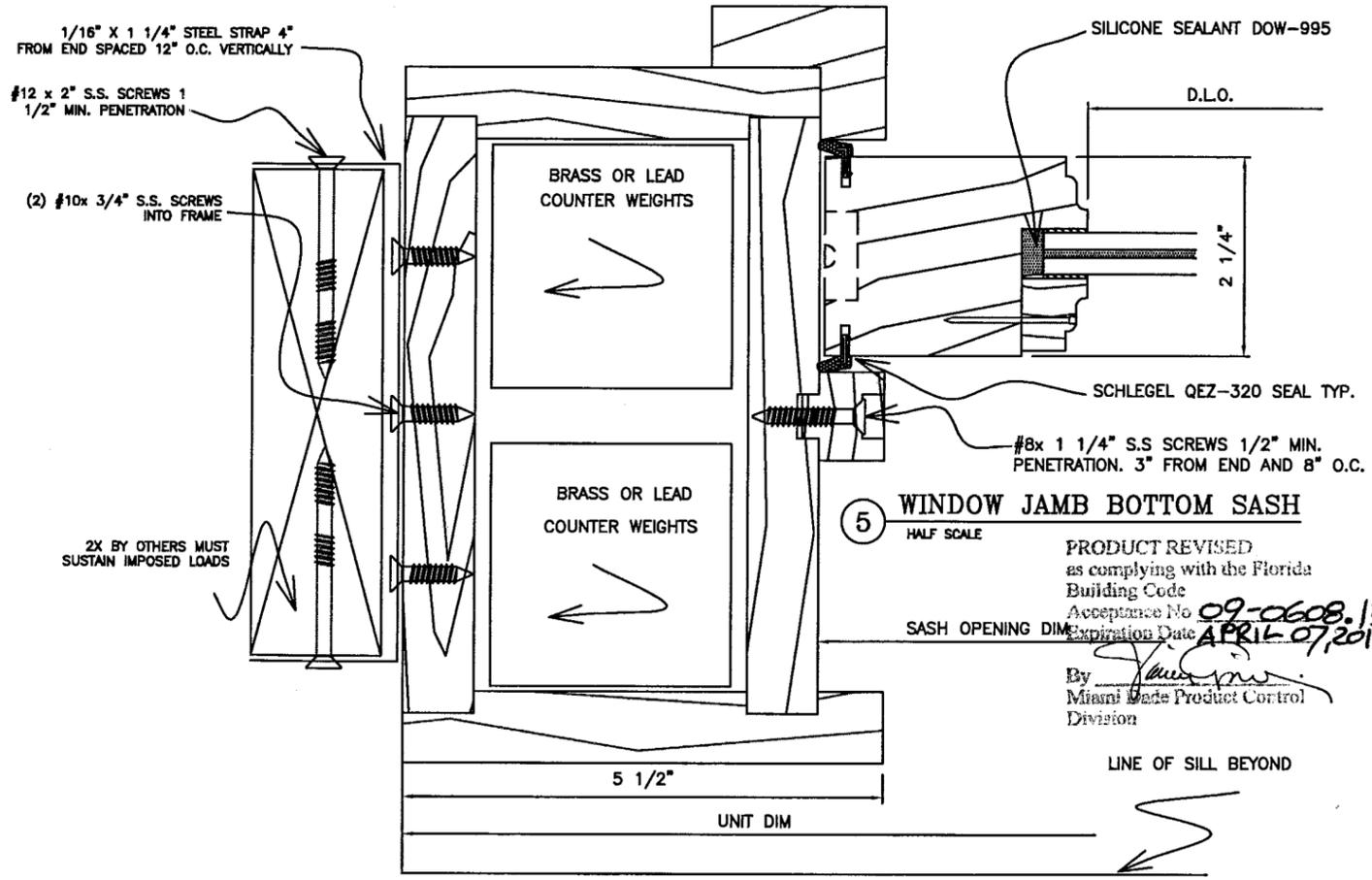
2 WINDOW MEETING RAIL
HALF SCALE



3 WINDOW SILL
HALF SCALE



4 WINDOW JAMB TOP SASH
HALF SCALE



5 WINDOW JAMB BOTTOM SASH
HALF SCALE

PRODUCT REVISED as complying with the Florida Building Code

Acceptance No. 09-0608.13

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SASH OPENING DIM

By *[Signature]*
Miami Made Product Control Division

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HARTMAN WINDOWS & DOORS, LLC

531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405

DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT RESISTANT

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CL	FLB	11/8/04
2004 FBC	CL	FLB	6/16/05
2007 FBC	TSB	FLB	05/28/09
COUNTY COMMENTS	AML	RKB	08/21/09

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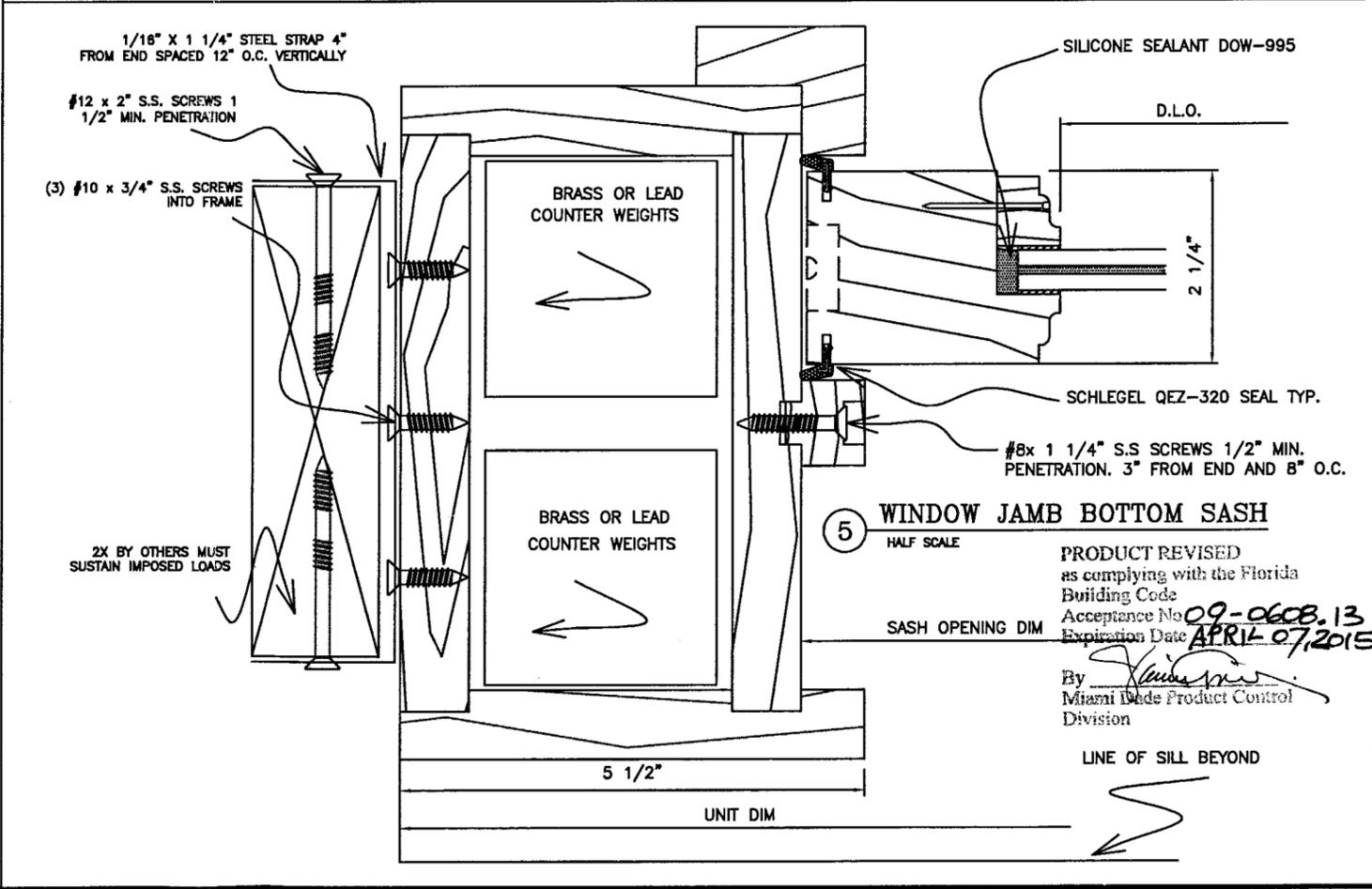
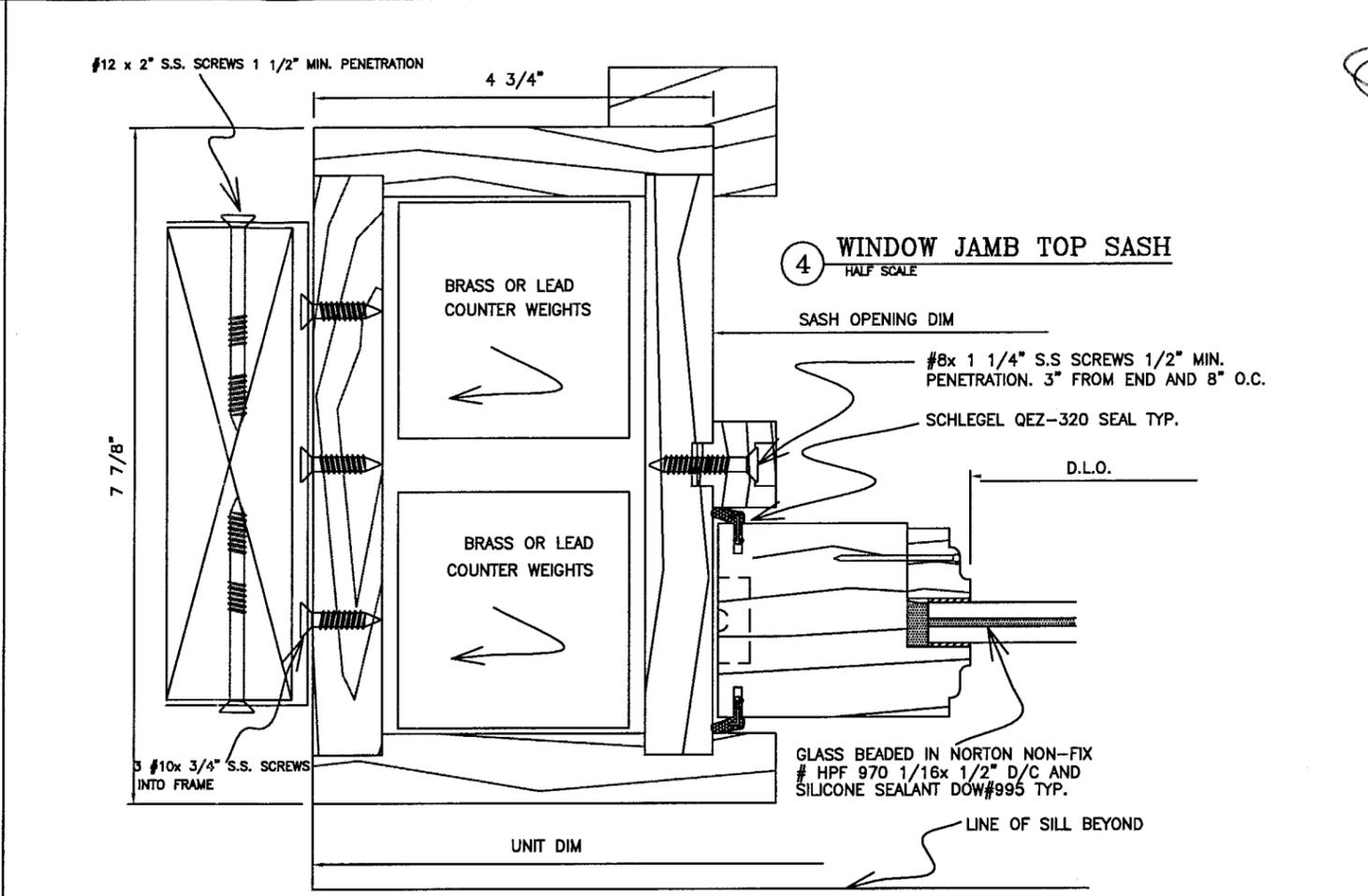
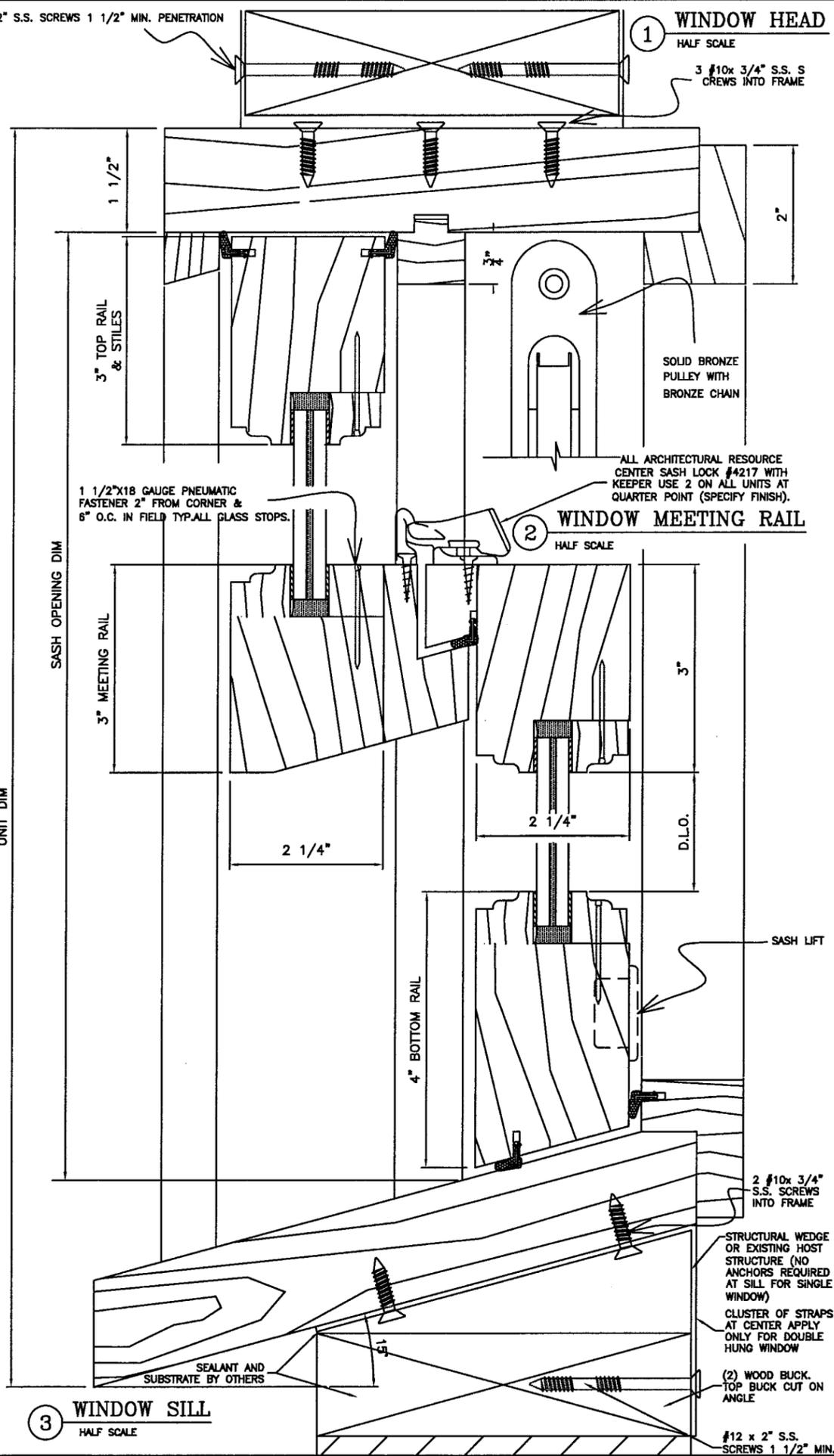
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INTERIOR GLAZED UNITS WITH "CHAIN & WEIGHTS"



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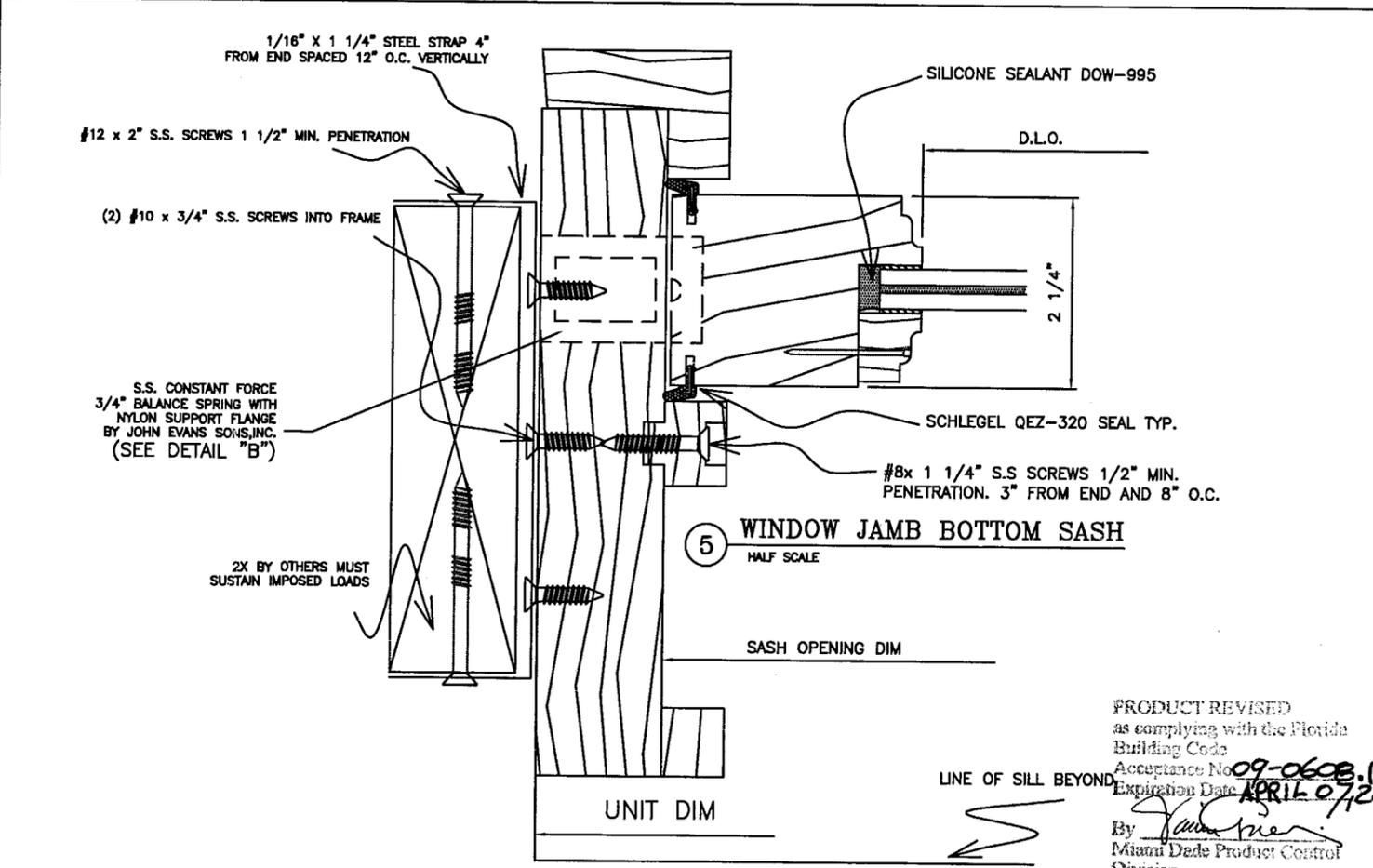
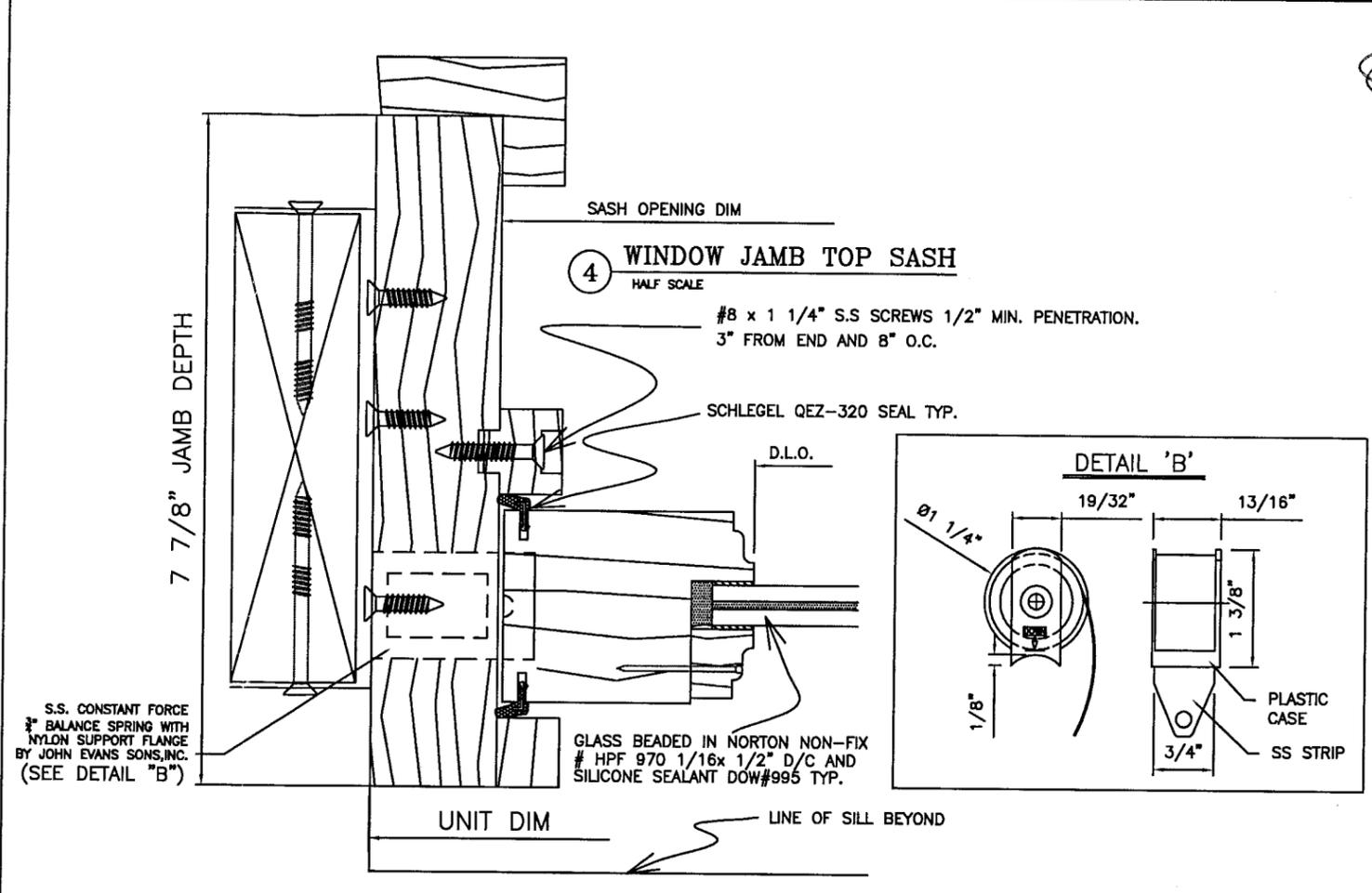
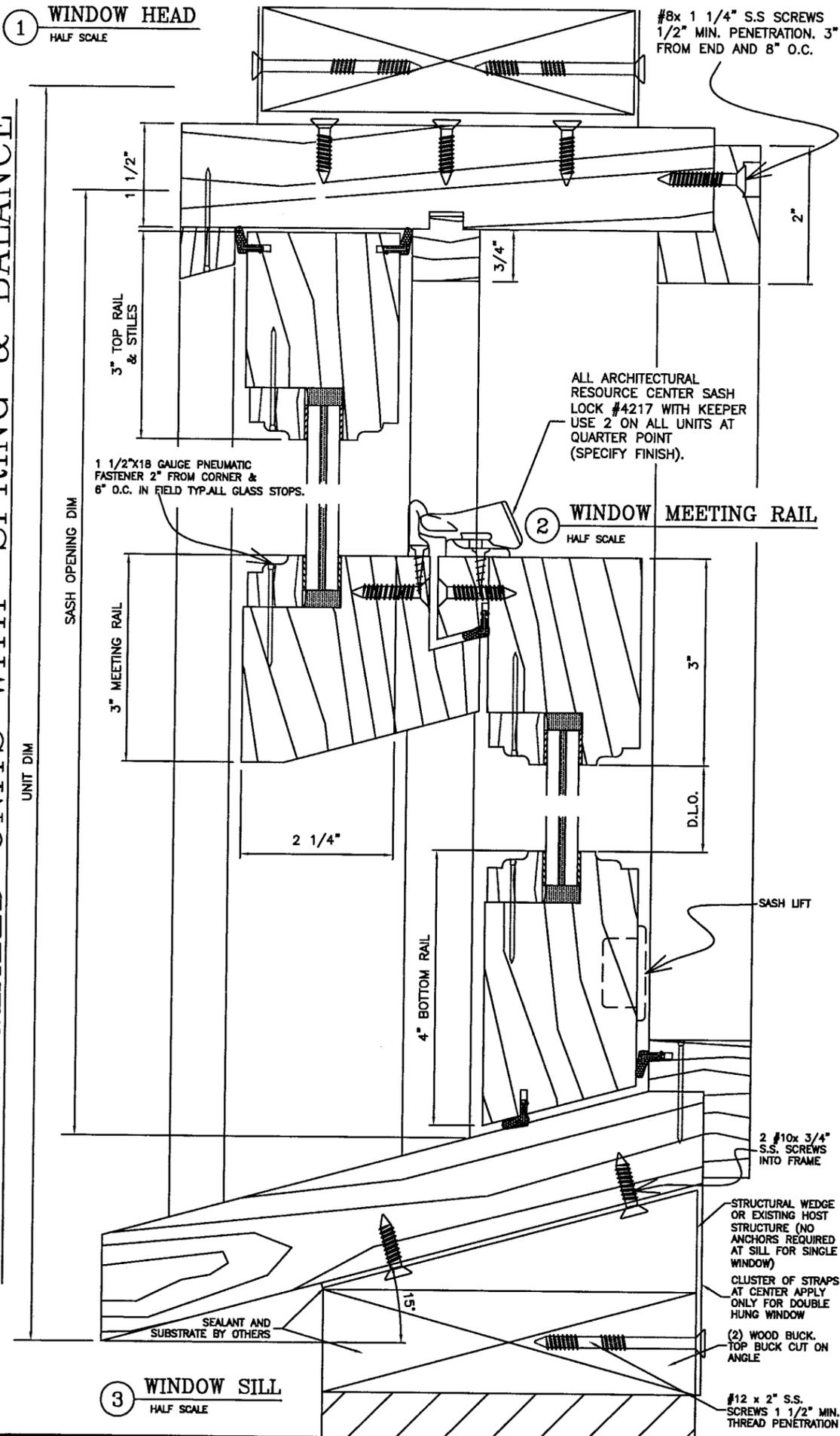
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 531 SOUTHERN BLVD
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 DOUBLE HUNG WINDOW
 LARGE MISSILE IMPACT RESISTANT

REMARKS	DRWN	CHKD	DATE
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2007 FBC	TSB	FLB	05/28/09
COUNTY COMMENTS	AVL	RKB	08/21/09

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EXTERIOR GLAZED UNITS WITH "SPRING & BALANCE"



PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 09-0608.13 Expiration Date APRIL 07/2015

By *[Signature]*
Miami Dade Product Control Division

FRANK L. BENNARDO, P.E.
#PE0046549

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

DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT RESISTANT

REMARKS	DRWN	CHKD	DATE
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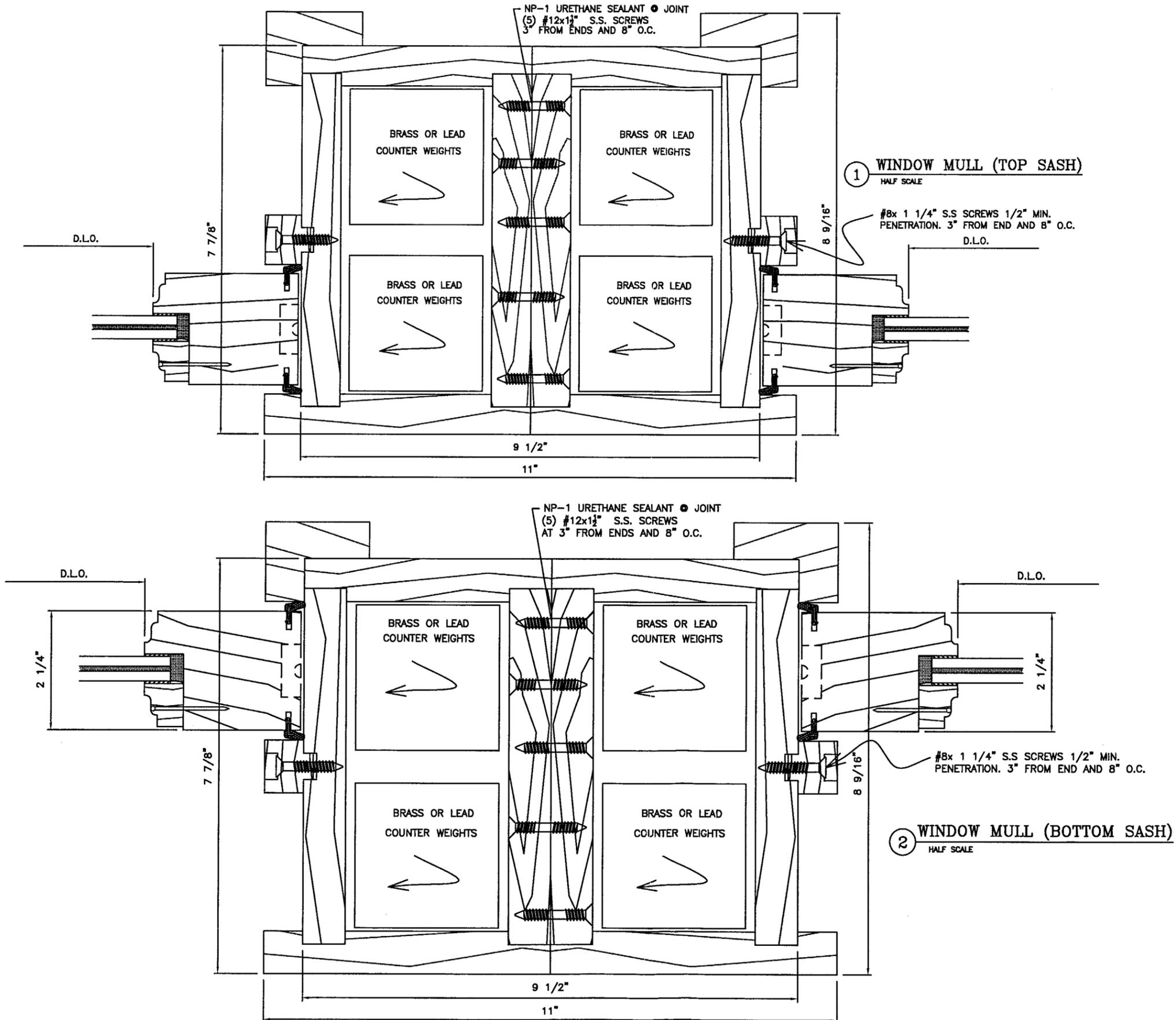
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"CHAIN & WEIGHTS" UNITS



FRANK L. BENNARDO, P.E.
PE0046549

FL

09/04/2009

ENGINEERING EXPRESS

160 SW 12th AVENUE, #106
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CERT OF AUTH #8885

A. FRANK L. BENNARDO, P.E., INC. INNOVATION

HARTMAN WINDOWS & DOORS, LLC
531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405
DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT RESISTANT

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CL	FLB	11/8/04
2004 FCC	CL	FLB	6/16/05
2007 FCC	TSB	FLB	05/28/09
COUNTY COMMENTS	AML	RKB	08/21/09

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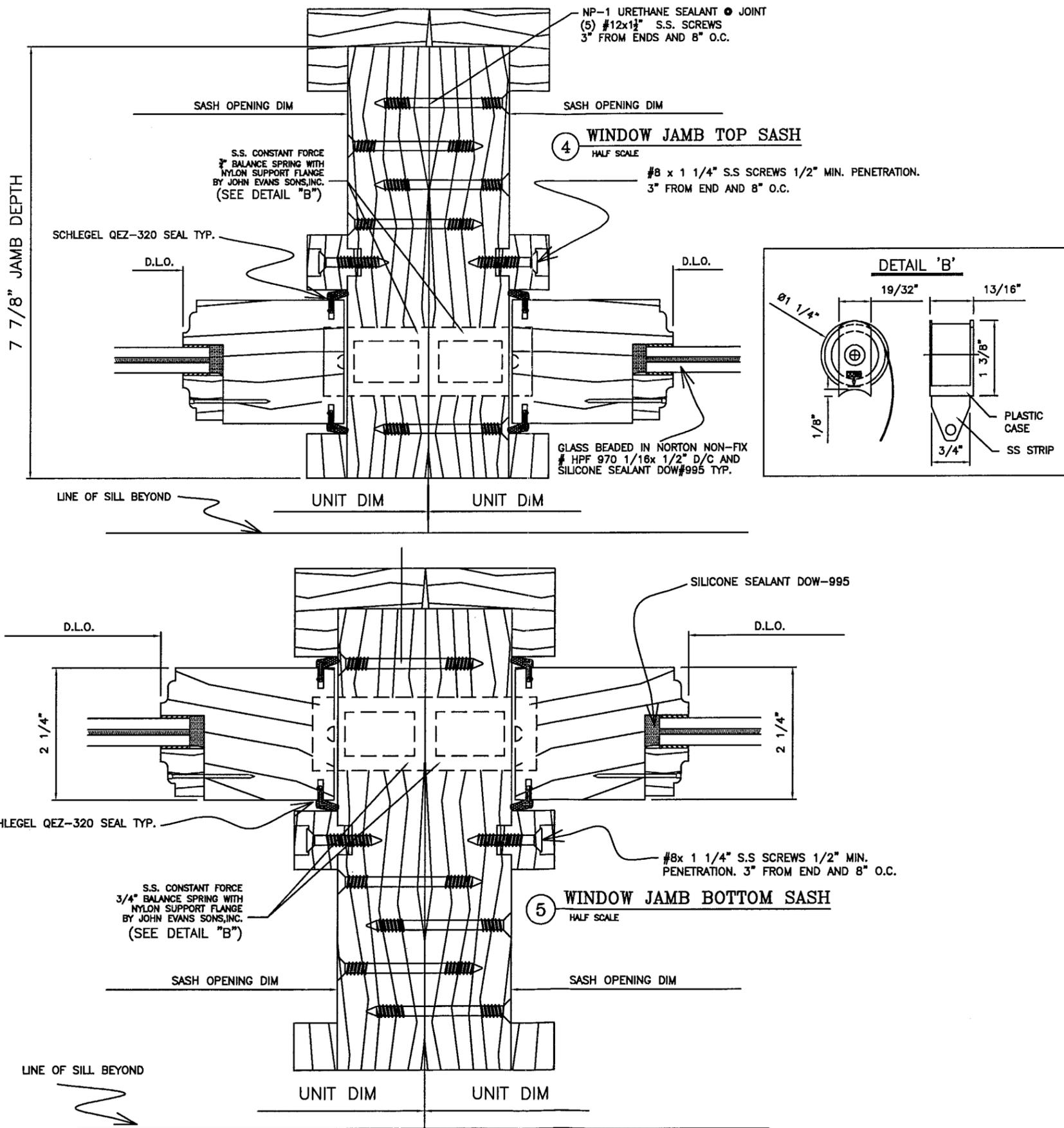
04-HWD-0002

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PAGE DESCRIPTION:

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 09-0608.13
Expiration Date APRIL 07, 2015
By Frank L. Bennardo
Miami Dade Product Control
Division

F:\01 Project Files\Hartman Windows & Doors (HWD)\2004 Jobs\04-HWD-0002 Double-Hung Window (NOA).dwg 09/04/2009 - 10:26am rbartlett

"SPRING & BALANCE" UNITS



FRANK L. BENNARDO, P.E.
 # PE0046549

FL
 09/04/2009

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HARTMAN WINDOWS & DOORS, I.L.C.
 531 SOUTHERN BLVD
 WEST PALM BEACH, FL 33405

DOUBLE HUNG WINDOW
 LARGE MISSILE IMPACT RESISTANT

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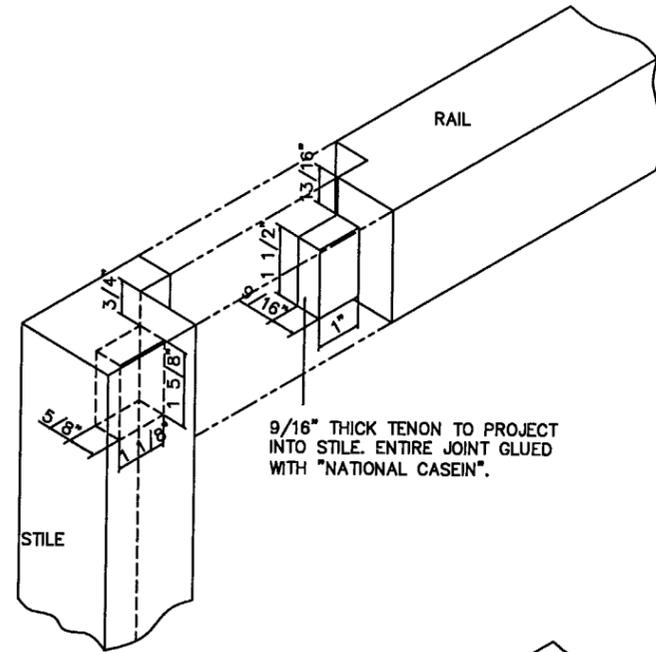
By *[Signature]*
 Miami Dade Product Control
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8 of 10

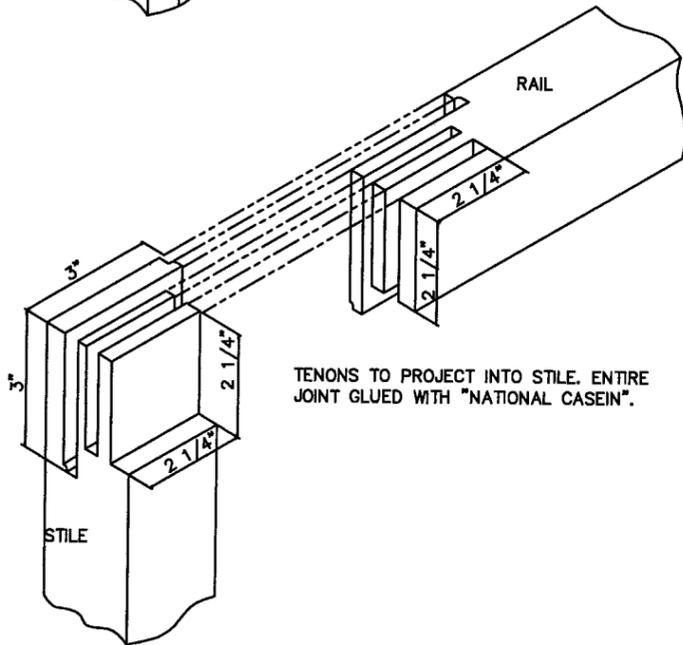
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FRAME & SASH CONSTRUCTION DETAILS

SASH CORNER DETAILS

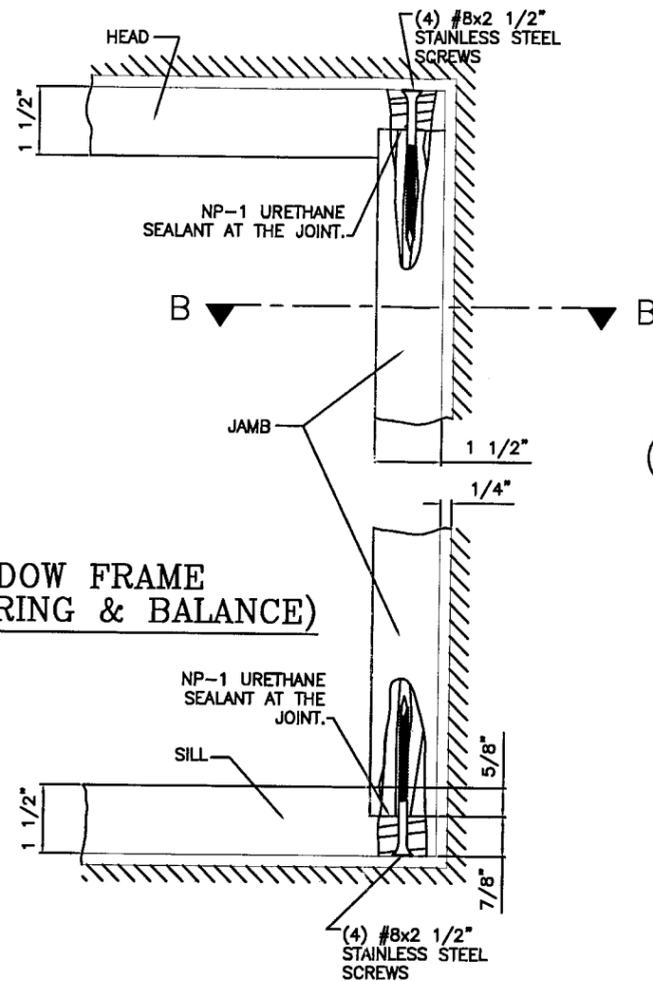


9/16" THICK TENON TO PROJECT INTO STILE. ENTIRE JOINT GLUED WITH "NATIONAL CASEIN".



TENONS TO PROJECT INTO STILE. ENTIRE JOINT GLUED WITH "NATIONAL CASEIN".

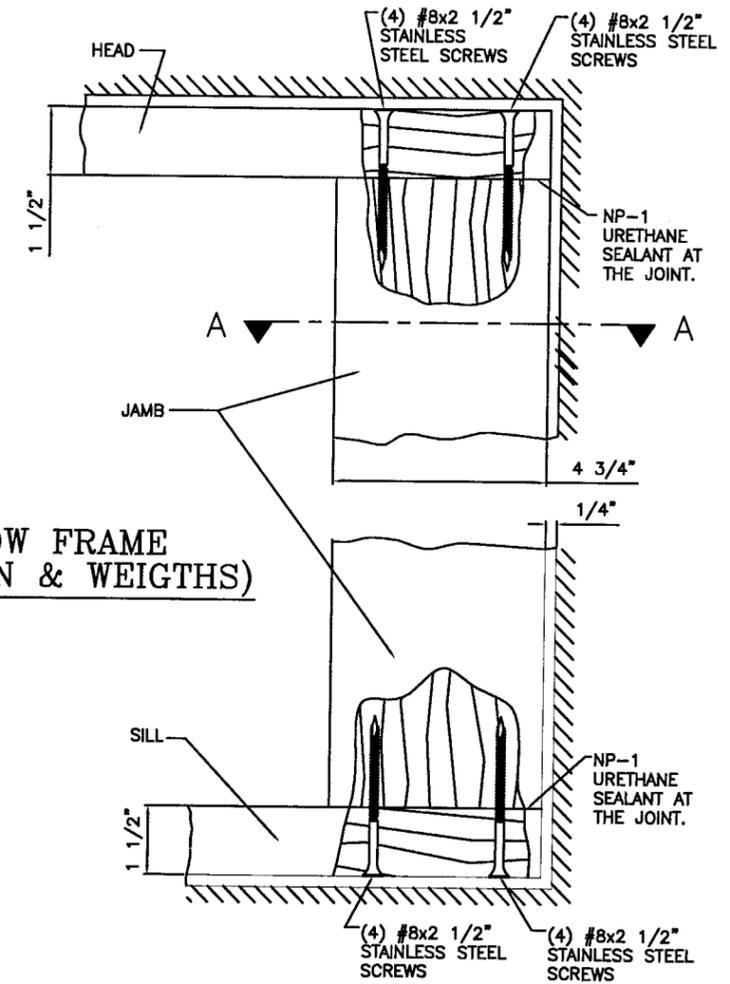
1 WINDOW FRAME (SPRING & BALANCE) 1/4" SCALE



1

1/4" SCALE

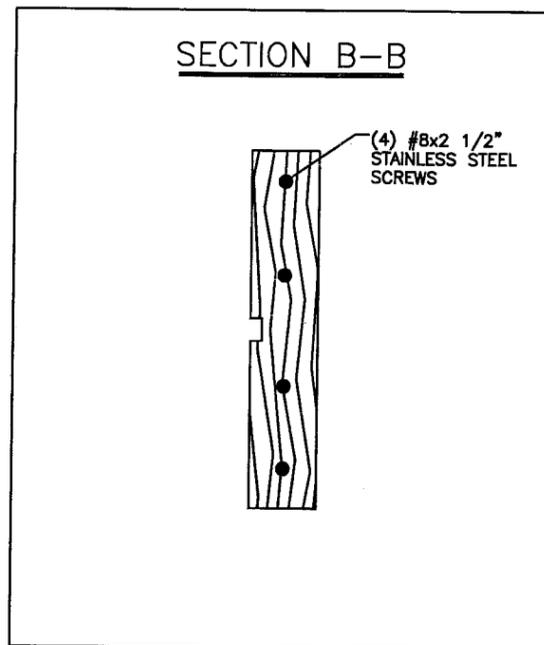
2 WINDOW FRAME (CHAIN & WEIGHTS) 1/4" SCALE



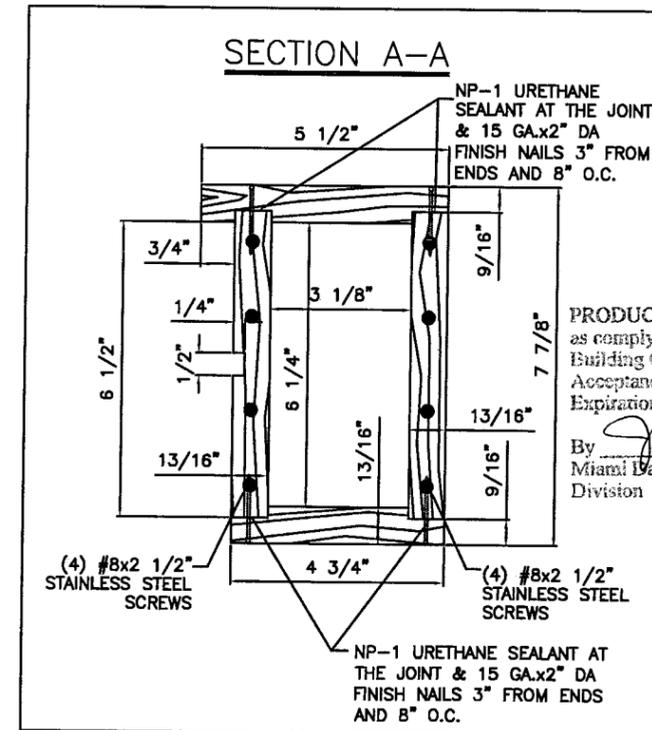
2

1/4" SCALE

SECTION B-B



SECTION A-A



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By *[Signature]*
Miami Code Product Control Division

FRANK L. BENNARDO, P.E.
PE0046549

FL

09/04/2009

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531 SOUTHERN BLVD
WEST PALM BEACH, FL 33405

DOUBLE HUNG WINDOW
LARGE MISSILE IMPACT RESISTANT

DRWN	CHKD	DATE
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CL	FLB	6/16/05
TSB	FLB	09/28/09
AML	FRK	08/21/09

REMARKS: 13
INIT ISSUE: 2004 FBC
2007 FBC
COUNTY COMMENTS: AML

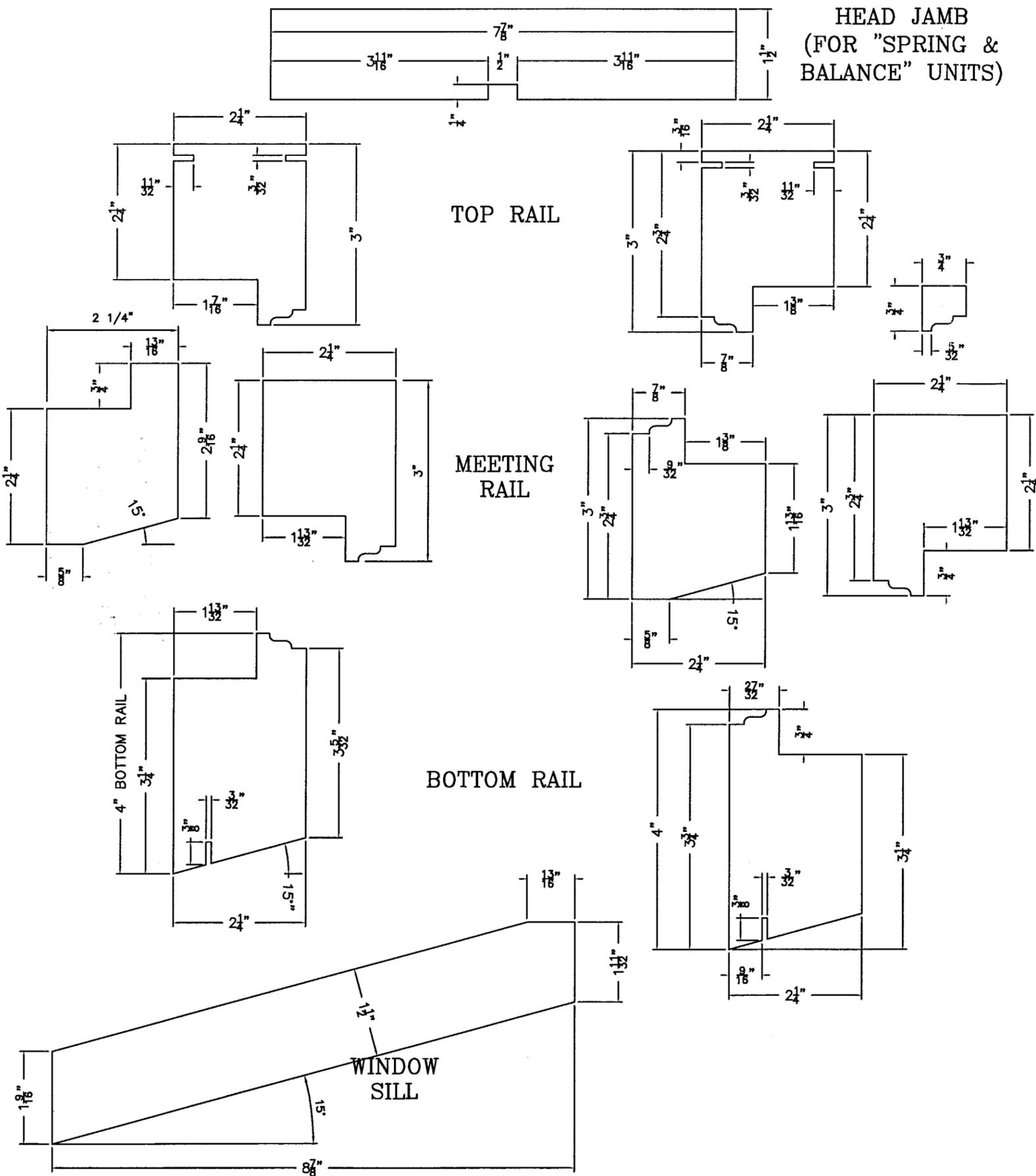
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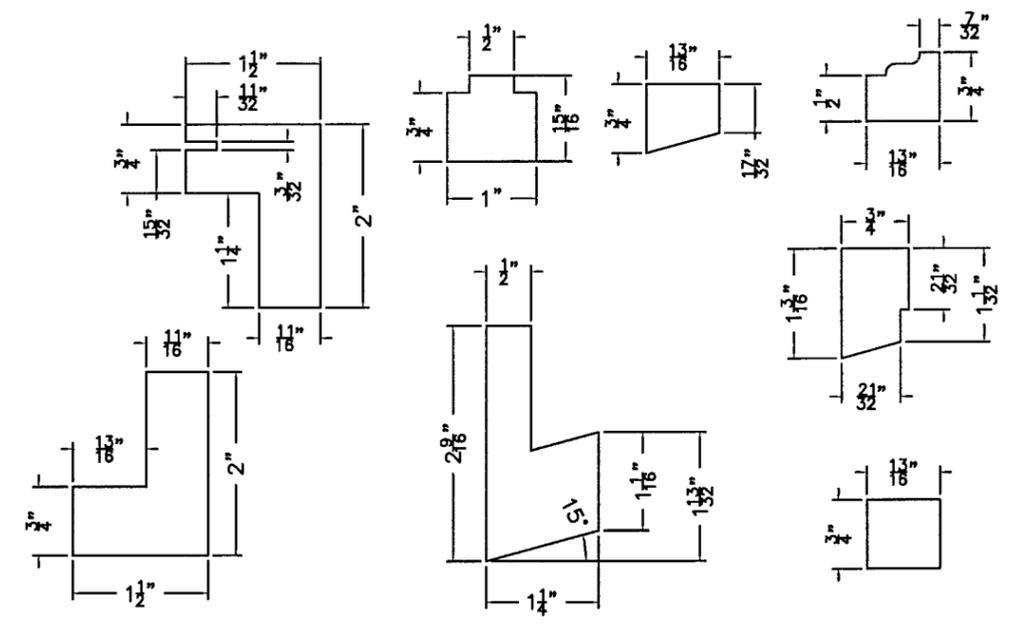
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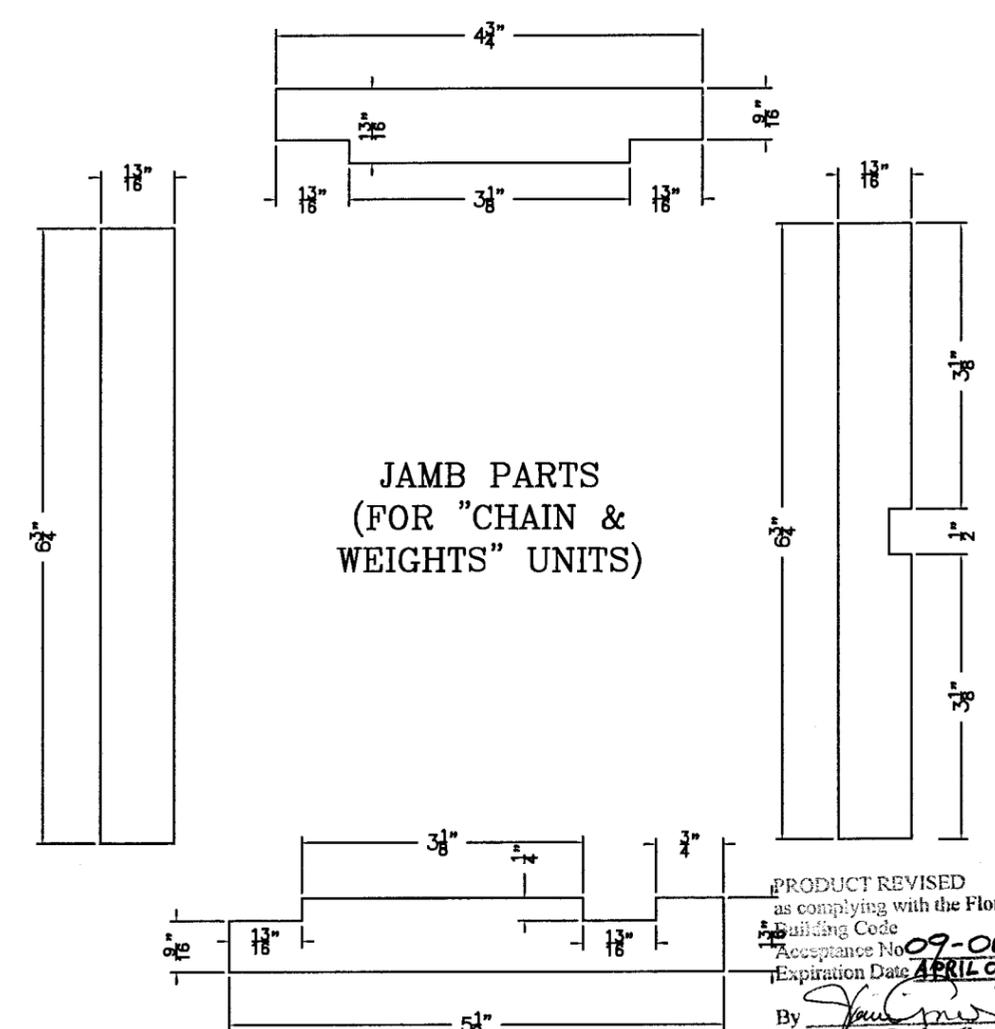
OF 10



GLAZING BEADS, STOPS AND MISCELLANEOUS



JAMB PARTS (FOR "CHAIN & WEIGHTS" UNITS)



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