



MIAMI-DADE COUNTY, FLORIDA  
 METRO-DADE FLAGLER BUILDING  
 140 WEST FLAGLER STREET, SUITE 1603  
 MIAMI, FLORIDA 33130-1563  
 (305) 375-2901 FAX (305) 372-6339  
[www.miamidade.gov/buildingcode](http://www.miamidade.gov/buildingcode)

**BUILDING CODE COMPLIANCE OFFICE (BCCO)  
 PRODUCT CONTROL DIVISION  
 NOTICE OF ACCEPTANCE (NOA)**

**Marvin Windows & Doors  
 Highway 11 West  
 P.O. Box 100  
 Warroad, MN 56763-0100**

**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 "Casemaster HP" Aluminum Clad Wood Casement Window – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. **1099** titled "Aluminum Clad Casemaster Operable Impact HP Shaped Window", sheets 1 through 5 of 5, dated 04/15/02, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed & sealed by Warren W. Schaefer, P.E., bearing the Miami-Dade County Product Control Renewal 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**

**LIMITATION:** One year conditional approval, subjected to successful verification test.

**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.

**REVISION** 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 **renews NOA # 07-0524.06** 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 **Manuel Perez, P.E.**



**NOA No. 08-0313.03  
 Expiration Date: September 26, 2009  
 Approval Date: April 17, 2008**

**Marvin Windows & Doors**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **1099** titled "Aluminum Clad Casemaster Operable Impact HP Shaped Window", sheets 1 through 5 of 5, dated 04/15/02, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed & sealed by Warren W. Schaefer, P.E.  
*(Submitted under NOA# 07-0524.06)*

**B. TESTS**

1. Test reports on:
  - 1) Air Infiltration Test, per PA 202-94
  - 2) Uniform Static Air Pressure Test, Loading per PA 202-94
  - 3) Water Resistance Test, per PA 202-94
  - 4) Large Missile Impact Test per PA 201-94
  - 5) Cyclic Wind Pressure Loading per PA 203-94
  - 6) Forced Entry Test, per SFBC 3603.2 (b) and PA 202-94

Along with marked-up drawings and installation diagram of alum. clad wood casement windows in half round, arch top, and quarter round single configurations and quarter round mulled to fixed casement configurations, prepared by Architectural Testing, Inc., Test Report No. **ATI 02-33634.01**, dated November 24, 2001, signed and sealed by Allen N. Reeves, P.E.

*(Submitted under NOA# 02-0607.01)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2004, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated June 20, 2007, signed & sealed by Warren W. Schaefer, P.E.

**Complies with ASTM E1300-02**

*(Submitted under NOA# 07-0524.06)*

**D. QUALITY ASSURANCE**

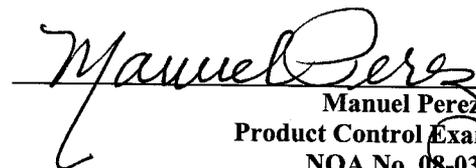
1. Miami Dade Building Code Compliance Office (BCCO).

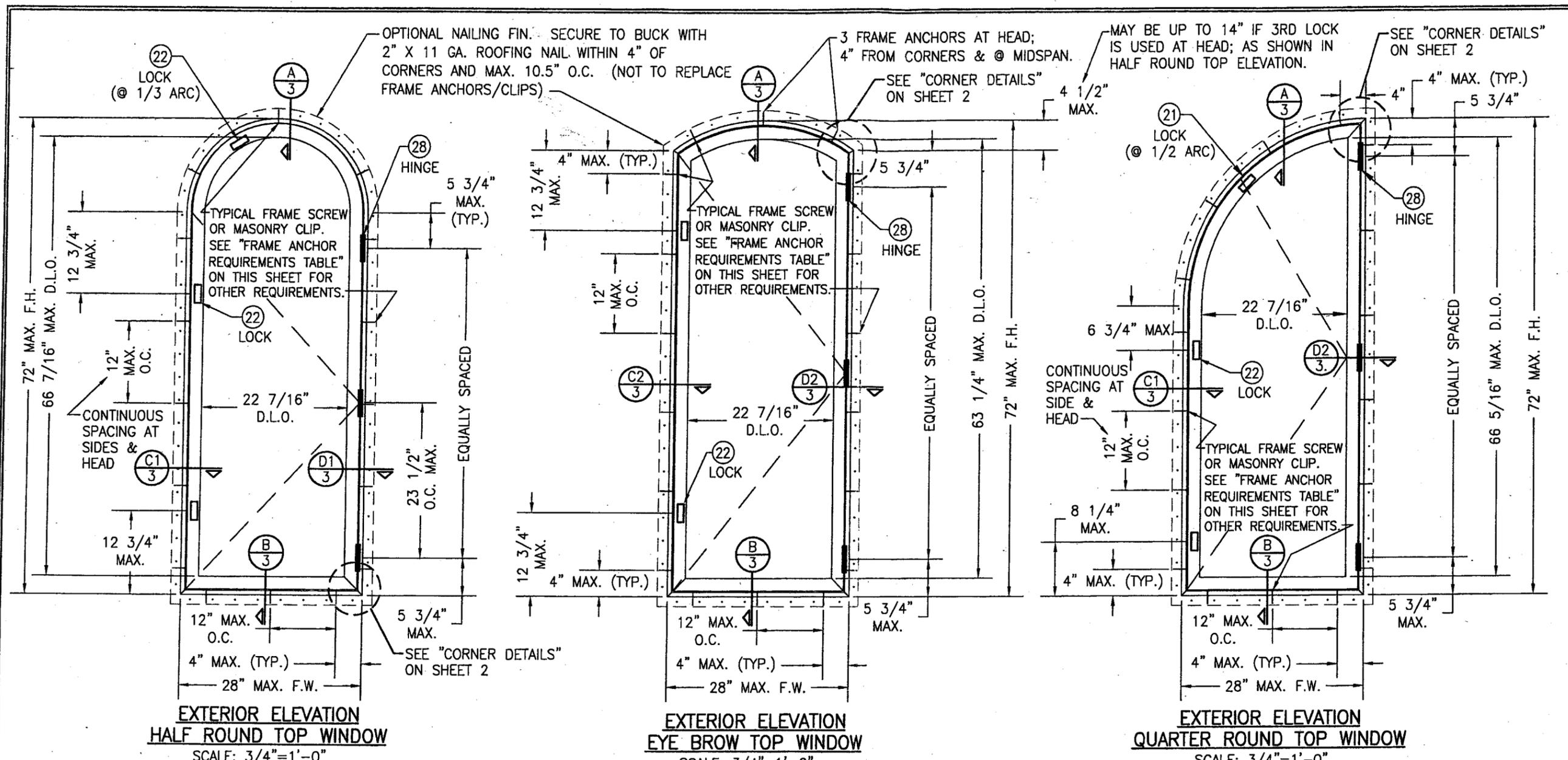
**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **07-0831.06** issued to Cardinal LG for their "Cardinal Sea-Storm Type B" dated October 12, 2007, expiring on December 30, 2012.

**F. STATEMENTS**

1. Testing agreement letter, dated March 3, 2008 between Architectural Testing, Inc. (ATI) and Marvin Windows & Doors, issued by ATI.

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. **08-0313.03**  
Expiration Date: September 26, 2009  
Approval Date: April 17, 2008



**EXTERIOR ELEVATION  
HALF ROUND TOP WINDOW**  
SCALE: 3/4"=1'-0"

**EXTERIOR ELEVATION  
EYE BROW TOP WINDOW**  
SCALE: 3/4"=1'-0"

**EXTERIOR ELEVATION  
QUARTER ROUND TOP WINDOW**  
SCALE: 3/4"=1'-0"

**GENERAL NOTES**

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN LOADS" TABLE(S).
2. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE 2004 FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS.
5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SHALL BE INSTALLED AS SPECIFIED ON THESE DRAWINGS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
8. ALL FRAME ANCHORS SECURING WINDOW/DOOR FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
9. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2004 FLORIDA BUILDING CODE SECTION 2003.8.4.

FRAME ANCHOR REQUIREMENTS TABLE			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	NO. 10 SMS SCREW	1 1/4"	3/4"
CMU/CONCRETE	3/16" CONCR. SCREW	1 1/4"	2"

**\* FRAME ANCHOR NOTE:** FRAME MAY BE EITHER DIRECT MOUNTED TO THE OPENING, MOUNTED ONTO A CONTINUOUS SPACER, OR ANCHORED TO A MIN. 2X4 NO. 3 SOUTHERN PINE WOOD BUCK. WHEN ANCHORED TO A 2X4 BUCK, NO. 10 SCREWS SHALL BE USED. WHEN DIRECT MOUNTED OR MOUNTED WITH SPACER, 3/16" CONCRETE SCREWS SHALL BE USED. SEE "FRAME ANCHOR REQUIREMENTS TABLE" FOR EMBED REQUIREMENTS. PROPER MATERIAL SHALL BE USED BETWEEN ALL DISIMILAR MATERIALS (BLOCK/CONCRETE & ALUMINUM).

ALLOWABLE DESIGN LOAD & LOCK/HINGE REQUIREMENTS TABLE			
WINDOW HEIGHT	ALLOWABLE DESIGN PRESSURE	MIN. NUMBER OF LOCKS/KEEPERS	MIN. NUMBER OF HINGES
MORE THAN 48"	± 65 PSF	* 2	3
48" & LESS	± 75 PSF	* 2	2

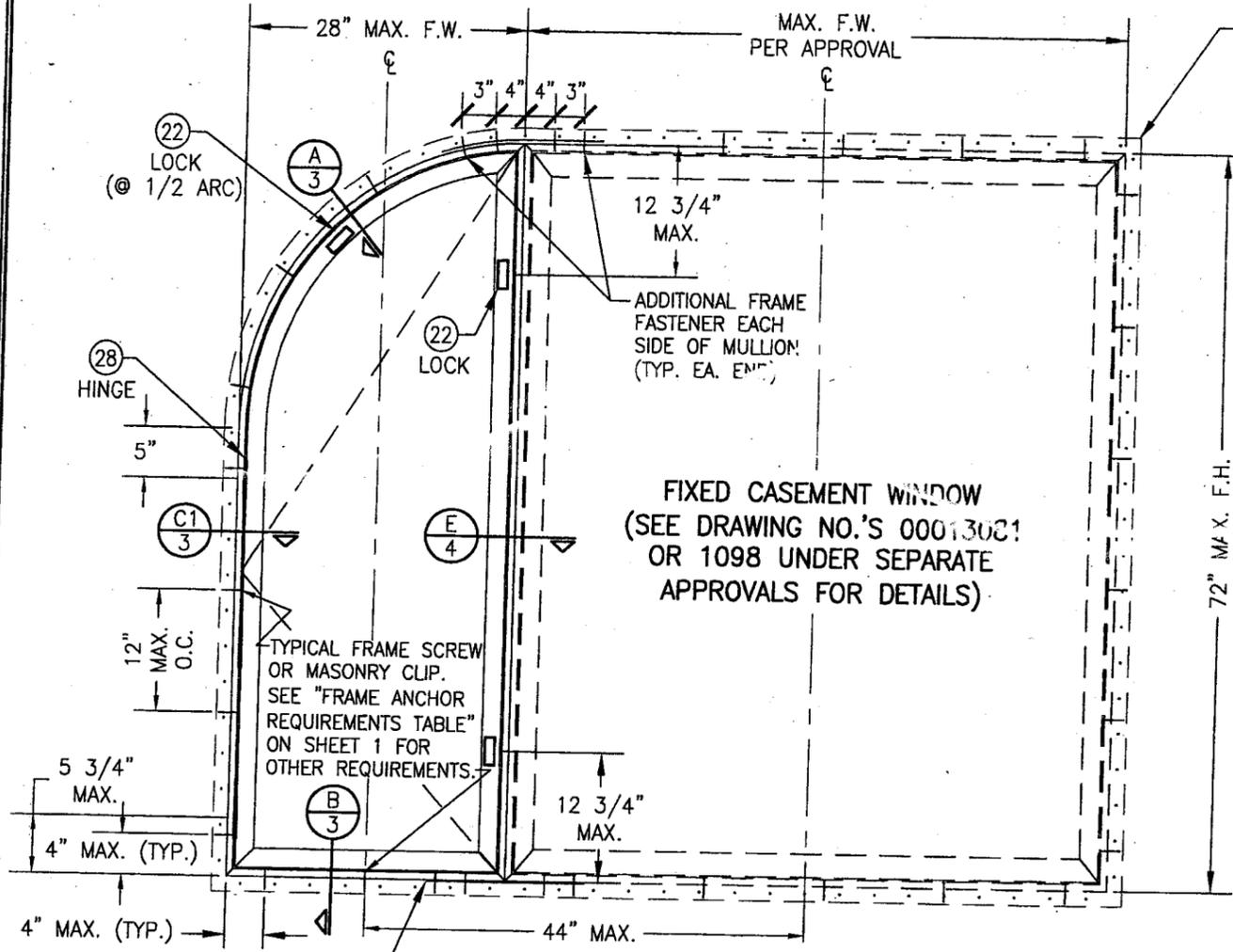
\* THE LOCKS SPECIFIED IN THIS TABLE ARE THOSE AT THE SIDES OF THE WINDOWS ONLY. AN ADDITIONAL 3RD LOCK IS REQUIRED AT THE HEAD OF THOSE SHAPES SPECIFIED (SEE ELEVATIONS).

FOR OPTIONAL SHAPE WINDOWS, OTHER THAN THOSE IN ELEVATIONS, SEE SHEET 2.

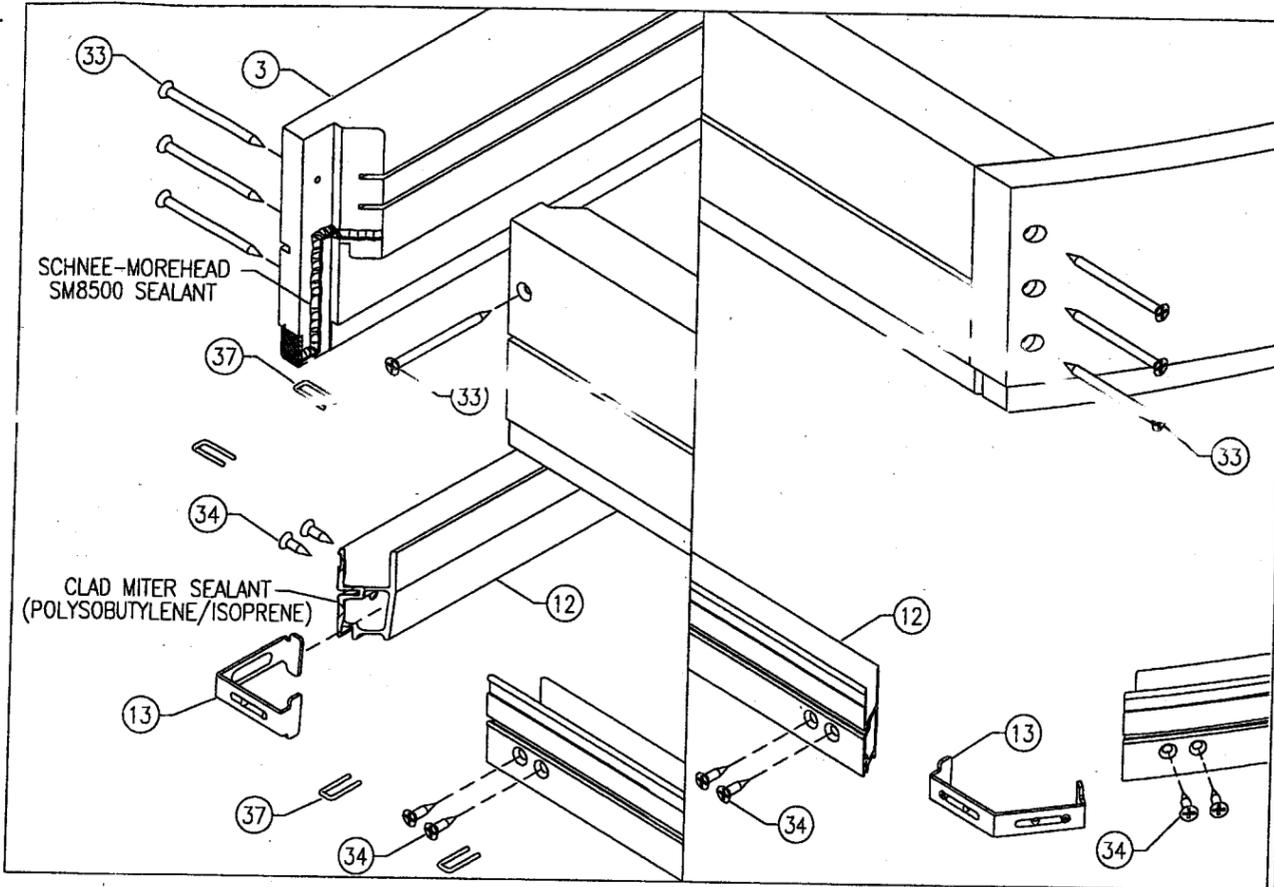
PRODUCT RENEWED as complying with the Florida Building Code  
 Acceptance No. 08-0313.03  
 Expiration Date 09/26/2009  
 By *Manuel Perez*  
 Miami Dade Product Control Division

PRODUCT RENEWED as complying with the Florida Building Code  
 Acceptance No. 07-0524.06  
 Expiration Date 09/24/2008  
 By *Manuel Perez*  
 Miami Dade Product Control Division

DRAWN BY: J.C.F.	CHECKED BY: W.W.S.
PLOT: 1-16	DATE: 04/15/02
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE ALUMINUM CLAD CASEMASTER OPERABLE IMPACT HP SHAPED WINDOW	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.	MANUFACTURER MARVIN WINDOWS & DOORS
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
HIGHWAY 11 WEST WARROAD, MN 56763-0100 218-386-1430	
CERTIFICATION JUN 20 2007	DRAWING NO. 1099
WARREN W. SCHAEFER, P.E. P.E. NO. 44133	REV. SHEET NO. 1 OF 5



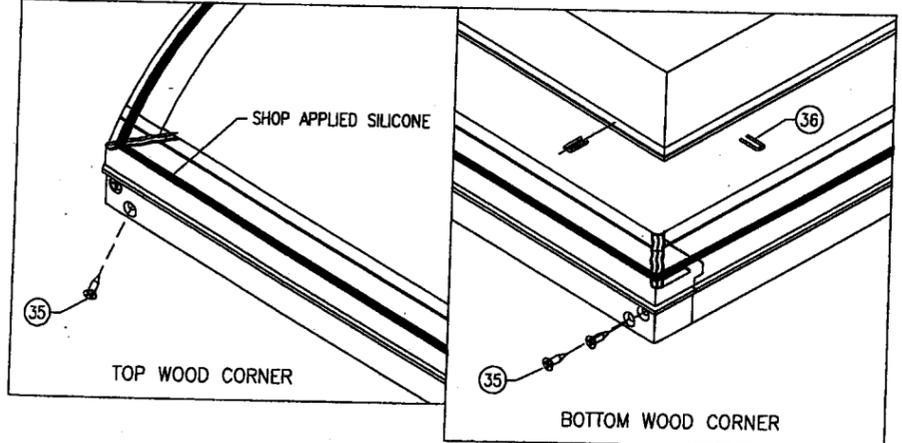
OPTIONAL NAILING FIN. SECURE TO BUCK WITH 2" X 11 GA. ROOFING NAIL WITHIN 4" OF CORNERS AND MAX. 10.5" O.C. (NOT TO REPLACE FRAME ANCHORS/CLIPS)



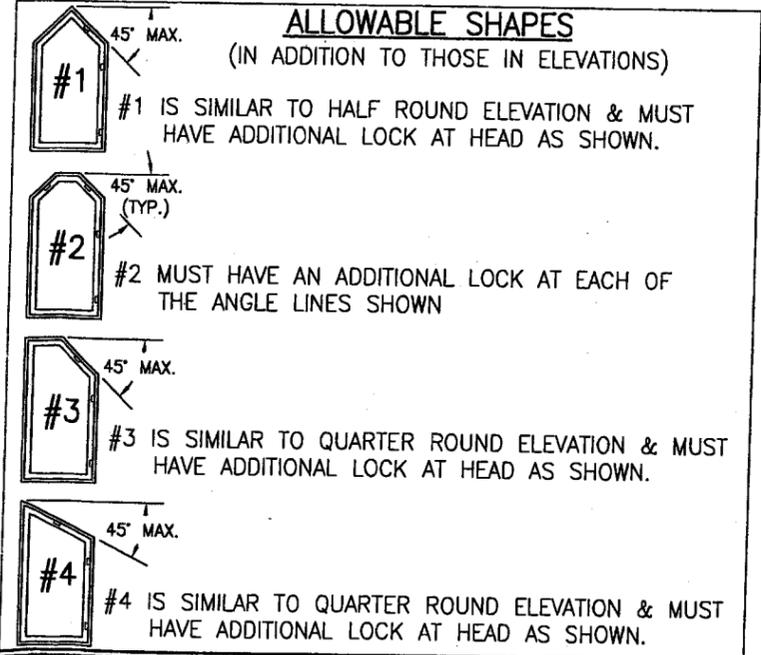
BOTTOM CORNER DETAIL      TOP CORNER DETAIL  
**FRAME CORNER ASSEMBLY**  
 (NOT TO SCALE)

3 1/2" X 16" X 16 GA. STRAP ACROSS MULLION ENDS: SECURE TO JAMBS WITH EIGHT (8) 16 GA. X 1/2" X 1/2" CROWN STAPLES EACH SIDE OF MULLION.

**EXTERIOR ELEVATION**  
**MULTIPLE OPERABLE/FIXED CASEMENTS**  
 (MAX. FOUR WINDOWS MAY BE COMBINED)  
 (ANY COMBINATION)  
 SCALE: 3/4"=1'-0"



**SASH CORNER ASSEMBLY**  
 (NOT TO SCALE)



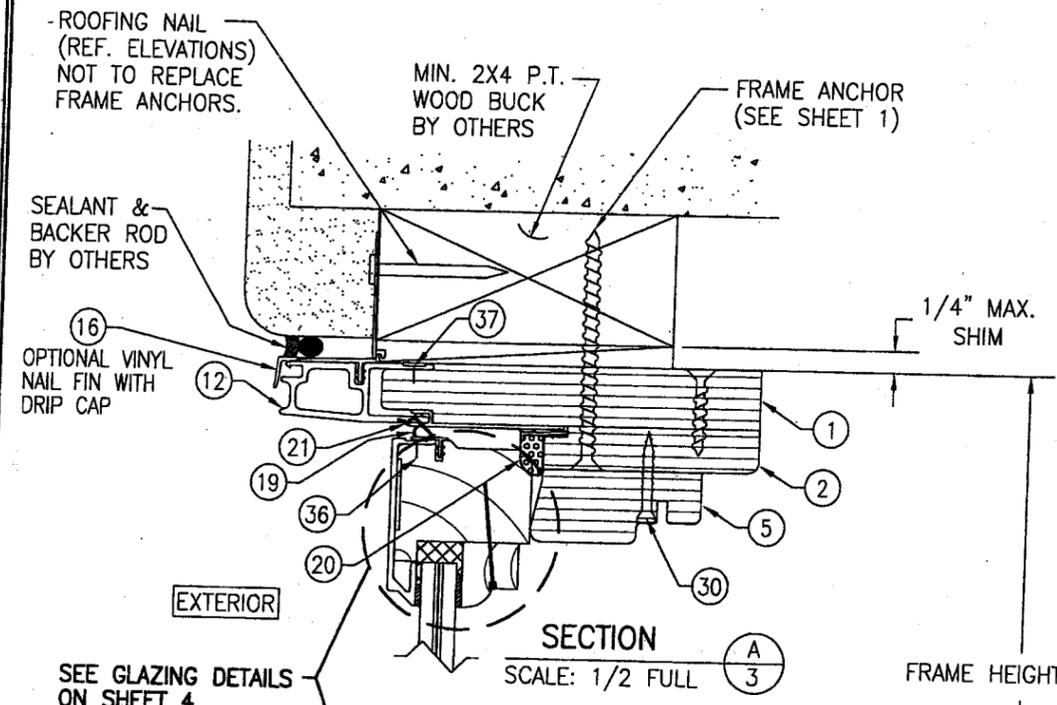
PRODUCT RENEWED as complying with the Florida Building Code  
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 Expiration Date 09/26/2009

By *Mannel Perez*  
 Miami Dade Product Control Division

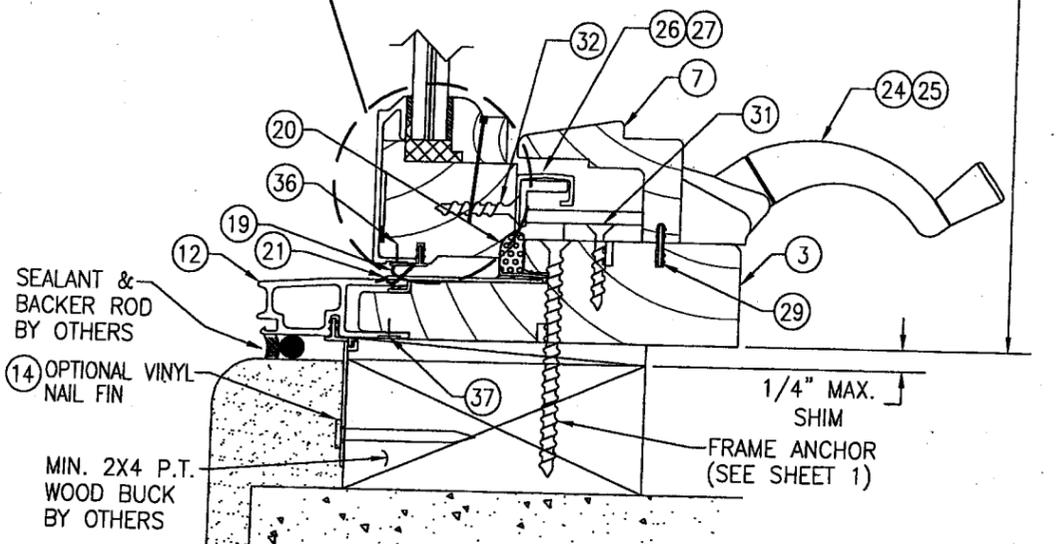
PRODUCT RENEWED as complying with the Florida Building Code  
 Acceptance No 07-0524.06  
 Expiration Date 09/29/2008

By *[Signature]*  
 Miami Dade Product Control Division

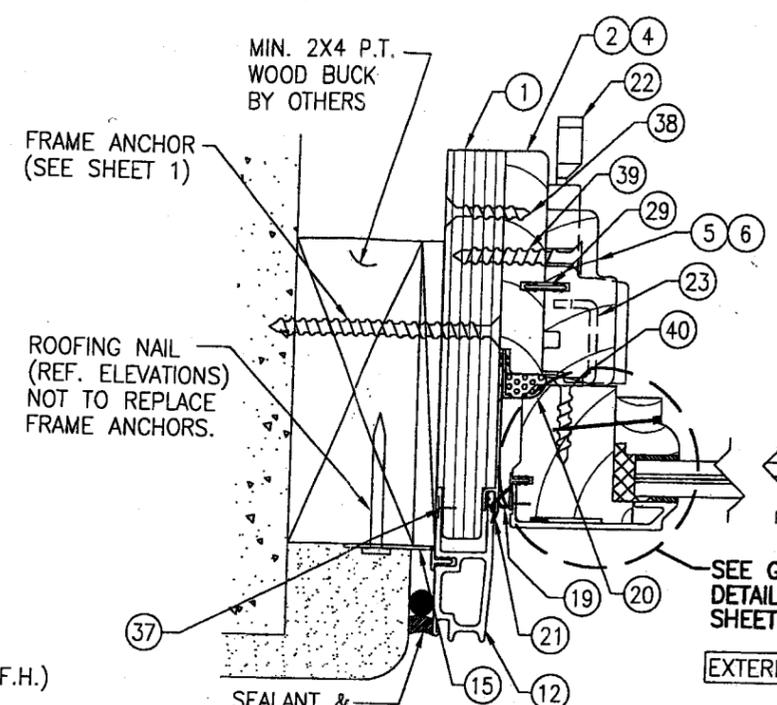
DRAWN BY: J.C.F.		CHECKED BY: W.W.S.	
PLOT: 1-16		DATE: 04/15/02	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE <b>ALUMINUM CLAD CASEMASTER OPERABLE IMPACT HP SHAPED WINDOW</b>			
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903			
MANUFACTURER <b>MARVIN WINDOWS &amp; DOORS</b> HIGHWAY 11 WEST WARROAD, MN 56763-0100 218-386-1430			
CERTIFICATION <b>JUN 20 2007</b>		DRAWING NO. 1099	
REV. 1		SHEET NO. 2 OF 5	



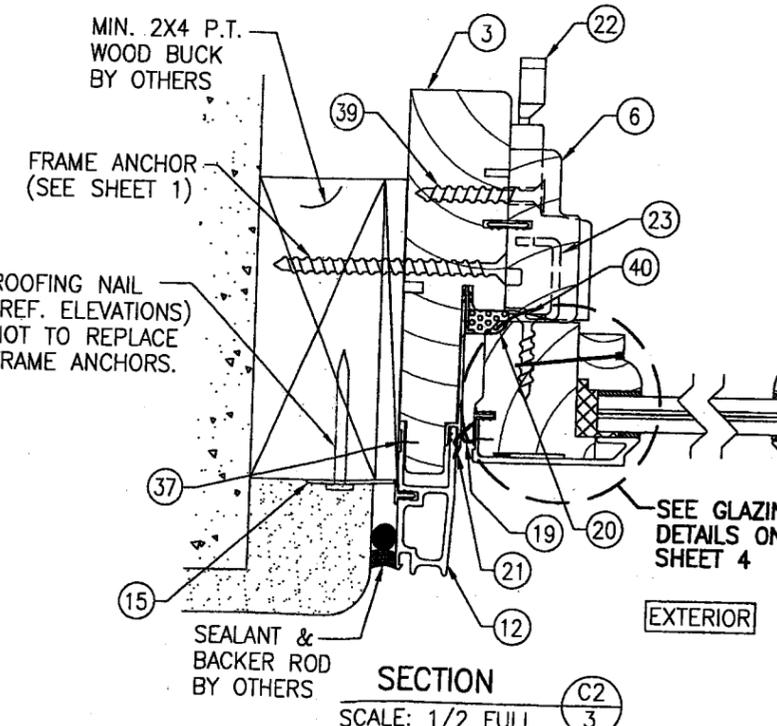
SECTION A  
SCALE: 1/2 FULL  
3



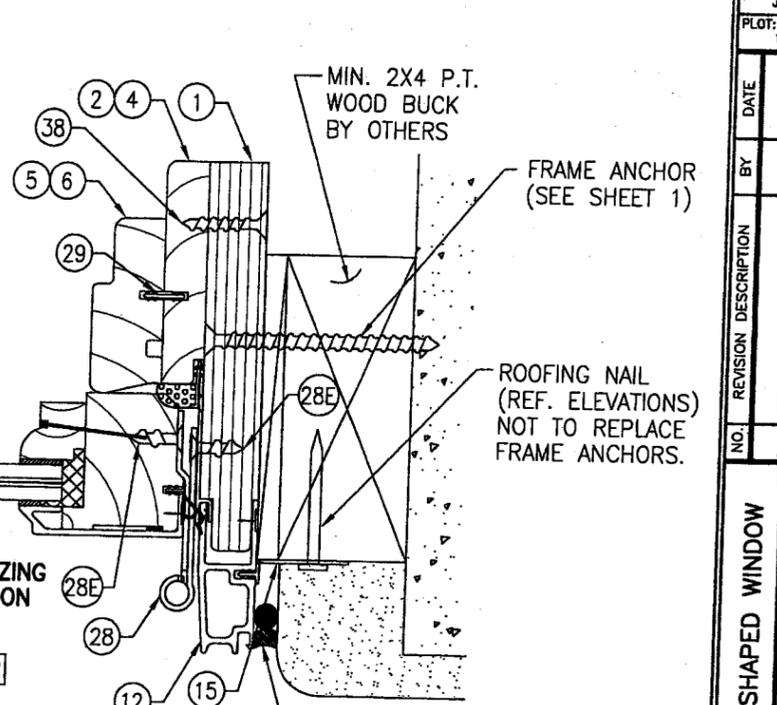
SECTION B  
SCALE: 1/2 FULL  
3



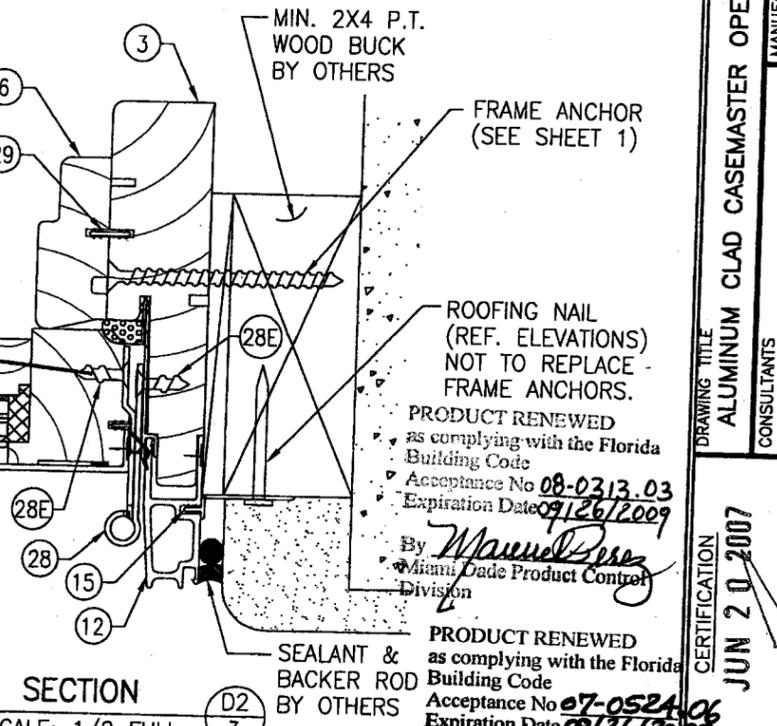
SECTION C1  
SCALE: 1/2 FULL  
3



SECTION C2  
SCALE: 1/2 FULL  
3



SECTION D1  
SCALE: 1/2 FULL  
3



SECTION D2  
SCALE: 1/2 FULL  
3

DRAWN BY: J.C.F.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 04/15/02
DATE	
BY	
REVISION DESCRIPTION	
NO.	

DRAWING TITLE  
**ALUMINUM CLAD CASEMASTER OPERABLE IMPACT HP SHAPED WINDOW**

MANUFACTURER  
**MARVIN WINDOWS & DOORS**  
HIGHWAY 11 WEST  
WARROAD, MN 56763-0100  
218-386-1430

CONSULTANTS  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
600 SANDTREE DRIVE, SUITE 203B  
PALM BEACH GARDENS, FL 33403  
PHONE: 561-775-4902 FAX: 561-775-4903

PRODUCT RENEWED as complying with the Florida Building Code  
Acceptance No **08-0313.03**  
Expiration Date **09/26/2009**  
By *Warren W. Schaefer*  
Miami Dade Product Control Division

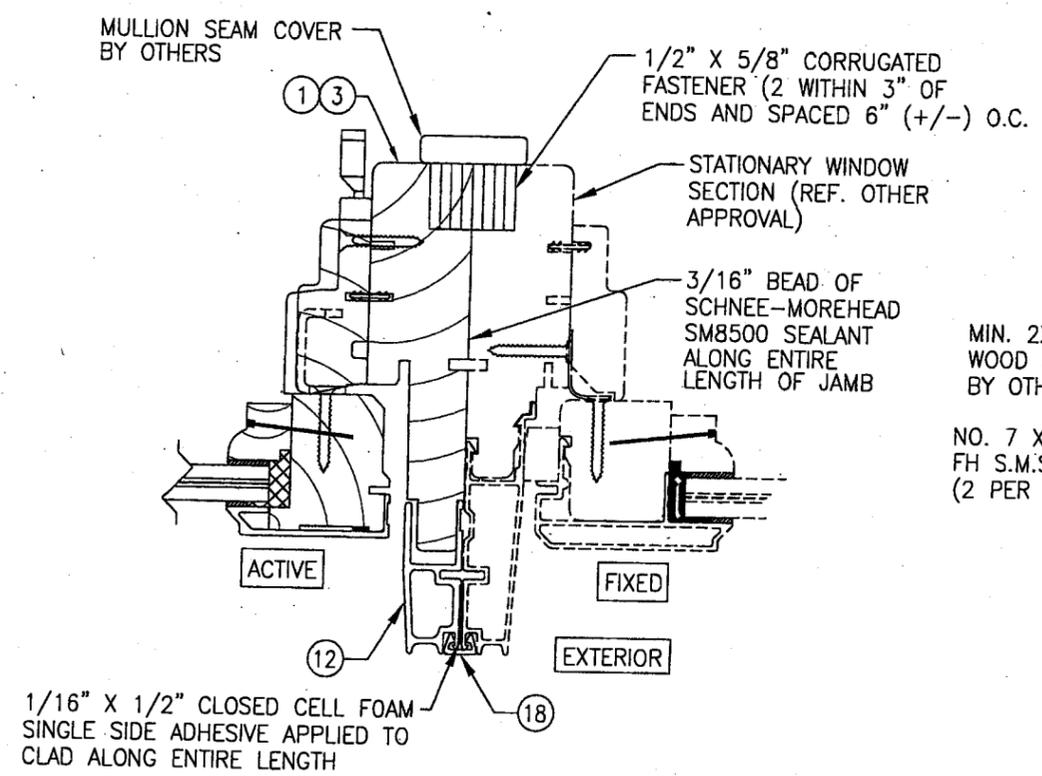
PRODUCT RENEWED as complying with the Florida Building Code  
Acceptance No **07-0524.06**  
Expiration Date **09/26/2008**  
By *Warren W. Schaefer*  
Miami Dade Product Control Division

CERTIFICATION  
**JUN 20 2007**

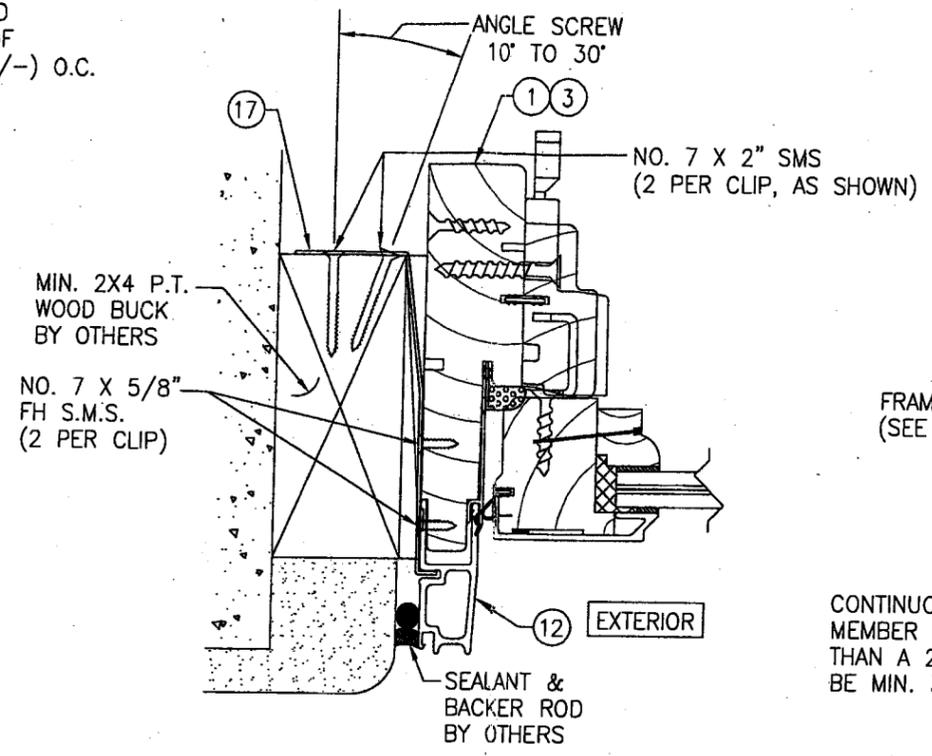
DRAWING NO. <b>1099</b>	REV.
SHEET NO. <b>3</b>	OF <b>5</b>

DRAWN BY: J.C.F. CHECKED BY: W.W.S.  
 PLOT: 1-2 DATE: 04/15/02

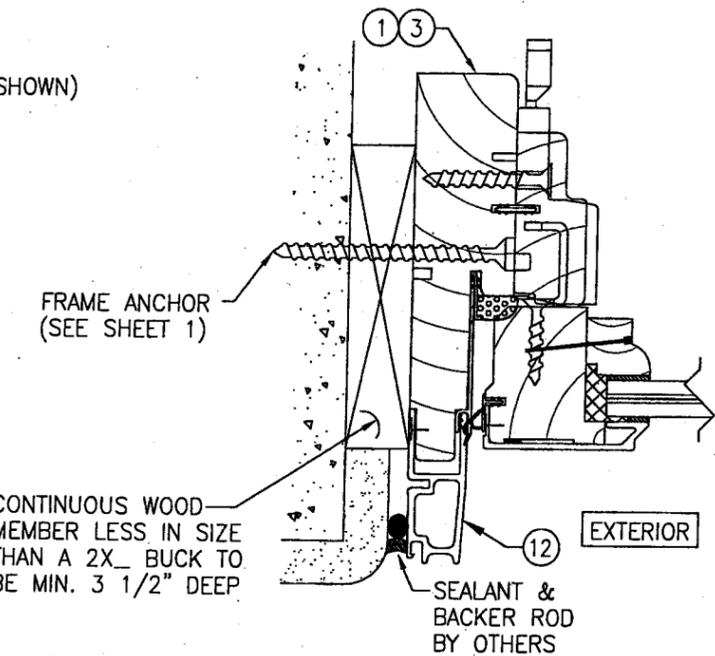
NO.	REVISION DESCRIPTION	DATE	BY



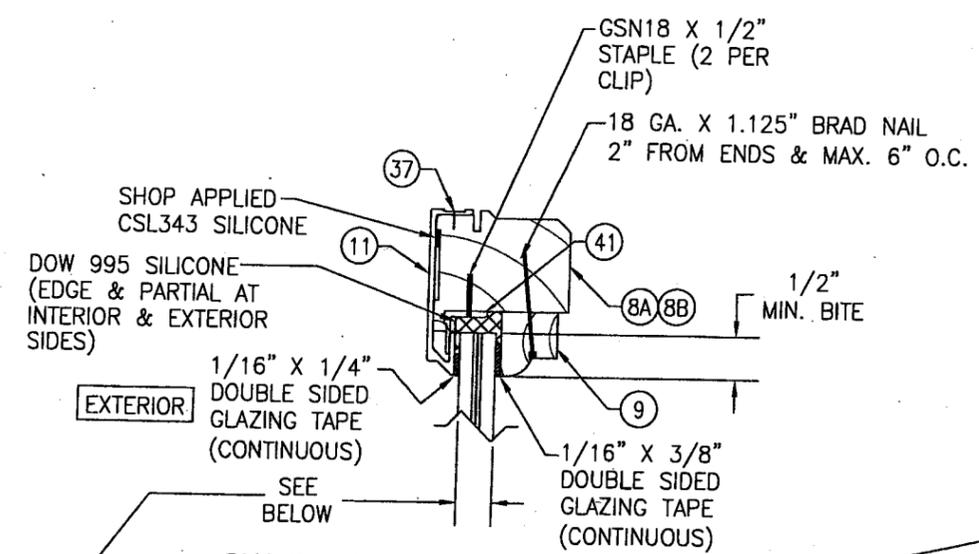
SECTION E  
 SCALE: 1/2 FULL  
 (SEE JAMB SECTIONS FOR DETAIL NOT SHOWN)



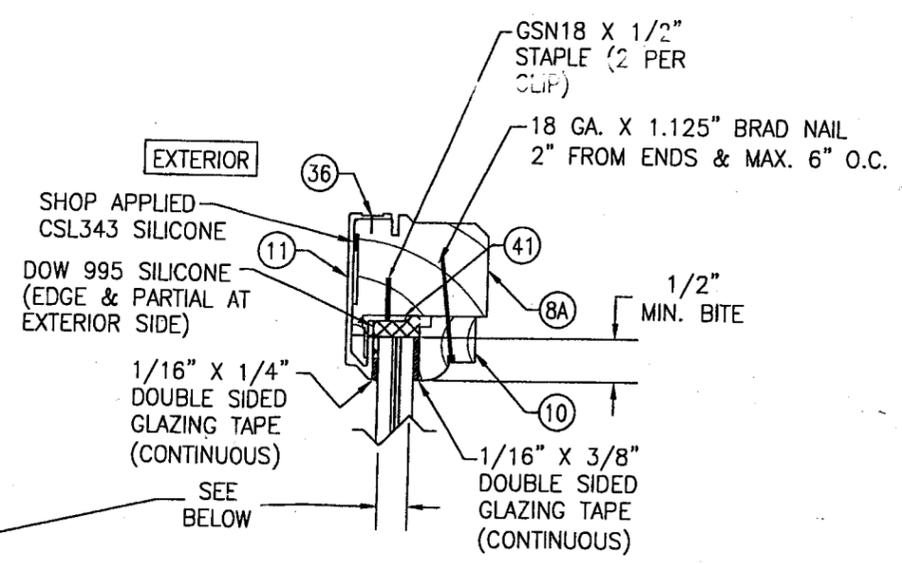
OPTIONAL CLIP INSTALLATION  
 SIDE JAMB DETAIL SHOWN; OTHER JAMBS SIMILAR  
 SEE SECTIONS FOR DETAIL NOT SHOWN



DIRECT MOUNT DETAIL  
 SIDE JAMB DETAIL SHOWN; OTHER JAMBS SIMILAR  
 SEE SECTIONS FOR DETAIL NOT SHOWN



SHAPED MEMBER GLAZING DETAIL  
 CARDINAL SEASTORM TYPE "B" LAMINATED GLASS  
 OPTION 1) 7/16" THICK OVERALL (3/16" AN/0.045 PVB/0.007 PET/0.045 PVB/3/16" AN)  
 OR 7/16" THICK OVERALL (3/16" AN/0.015 PVB/0.007 PET/0.075 PVB/ 3/16" AN)



STRAIGHT MEMBER GLAZING DETAIL

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 By *Manuel Perez* Miami Dade Product Control Division

PRODUCT RENEWED as complying with the Florida Building Code  
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 By *Warren W. Schaefer* Miami Dade Product Control Division

DRAWING TITLE: ALUMINUM CLAD CASEMASTER OPERABLE IMPACT HP SHAPED WINDOW

MANUFACTURER: MARVIN WINDOWS & DOORS  
 HIGHWAY 11 WEST  
 WARROAD, MN 56763-0100  
 218-386-1430

CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
 600 SANDTREE DRIVE, SUITE 203B  
 PALM BEACH GARDENS, FL 33403  
 PHONE: 561-775-4802 FAX: 561-775-4803

CERTIFICATION: JUN 20 2007

DRAWING NO. 1099  
 SHEET NO. 4 OF 5

