



BUILDING CODE COMPLIANCE OFFICE (BCCO)
 PRODUCT CONTROL DIVISION

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

NOTICE OF ACCEPTANCE (NOA)

www.buldingcodeonline.com

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

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 "Clad Casemaster" Aluminum Clad Wood Fixed Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **00013081**, titled "Clad Casemaster Stationary Impact HP", sheets 1 through 7 of 7, dated 03/31/99 with revision C1 dated 08/03/05, prepared by W. W. Schaefer Engineering & Consultant, P. A., signed and 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

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 **renews NOA # 05-0815.07** 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. 07-0306.07
Expiration Date: May 16, 2008
Approval Date: May 3 2007
 Page 1

Marvin Windows & Doors

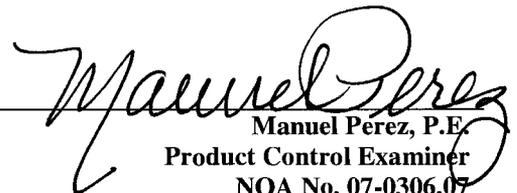
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **00013081**, titled "Clad Casemaster Stationary Impact HP", sheets 1 through 7 of 7, dated 03/31/99 with revision C1 dated 08/03/05, prepared by W. W. Schaefer Engineering & Consultant, P.A., signed and sealed by Warren W. Schaefer, P.E.

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 SFBC, PA 201-94
 - 5) Cyclic Wind Pressure Loading per SFBC, PA 203-94along with installation diagram of a wood fixed/casement window prepared by Fenestration Testing Laboratory, test report No. **FTL-2230**, dated 02/26/99 and **FTL-2233**, and **FTL-2236**, both dated 02/12/99 signed and sealed by Gilbert Diamond, P.E. (*Submitted under previous NOA #01-1031.11*)
2. Test reports on
 - 1) Large Missile Impact Test per SFBC, PA 201-94
 - 2) Cyclic Wind Pressure Loading per SFBC, PA 203-94along with installation diagram of a wood fixed/casement window, prepared by Fenestration Testing Laboratory, Inc. Test report No. **FTL-2232**, dated February 26, 1999, signed & sealed by Gilbert Diamond, P.E. (*Submitted under previous NOA #01-1031.11*)
3. 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 SFBC, PA 201-94
 - 5) Cyclic Wind Pressure Loading per SFBC, PA 203-94along with installation diagram of 6472 Casemaster Stationary window, prepared by Architectural Testing Inc., Test Report No. **ATI-02-31931.01 & ATI-02-31932.01**, both dated 01/11/2000 all signed and sealed by Allen N. Reeves, P.E. (*Submitted under previous NOA #05-0815.07*)


Manuel Perez, P.E.
Product Control Examiner
NOA No. 07-0306.07

Expiration Date: May 16, 2008
Approval Date: May 3 2007

Marvin Windows & Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2004, prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 01/22/07, signed and sealed by Warren W. Schaefer, P.E.
Complies with ASTM E1300-02
2. Anchor verification calculations, complying w/ FBC 2004, dated Nov 02, 2006, prepared by W.W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E. (*Submitted under previous NOA #05-0815.07*)
3. Anchor Calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 4/10/99 and revised on 04-09-01, signed and sealed by Warren W. Schaefer, P.E. (*Submitted under previous NOA #01-1031.11*)

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

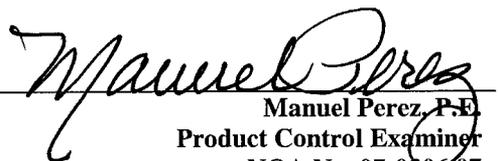
1. Notice of Acceptance No. **03-0916.02** issued to Glasslam N. G. I. Inc., dba Nebula Glass International Inc. for their "Glasslam Safety-Plus Laminated Glass", approved on 10/23/03 and expiring on 09/09/08.
2. Notice of Acceptance No. **03-0417.01** issued to Cardinal LG for "Cardinal Sea Storm Type B", approved on 05/15/03 and expiring on 12/30/2007.

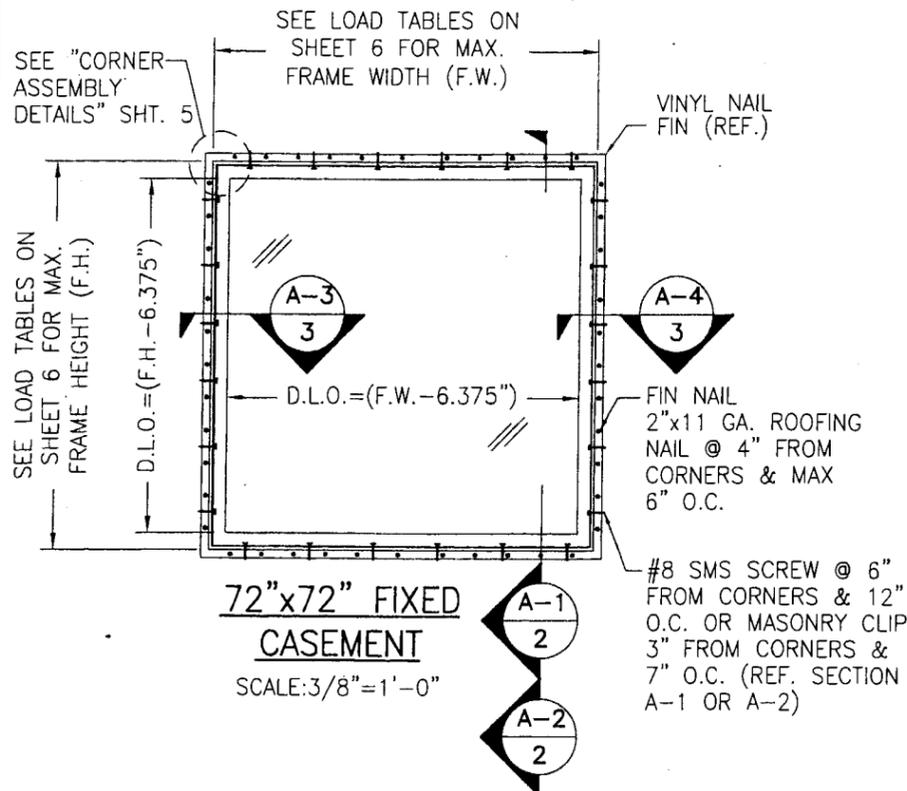
F. STATEMENTS

1. Statement letter of conformance, dated January 22, 2007, signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter from manufacturer stating that the product has not changed and requesting a One-Year Renewal to allow the time to perform a verification test, dated February 14, 2007, signed by John Sopkowiak.
3. Letter from laboratory confirming manufacturer has contracted and scheduled verification tests, issued by Architectural Testing, Inc., dated February 1, 2007, signed by Daniel A. Johnson, Director – Regional Operations.

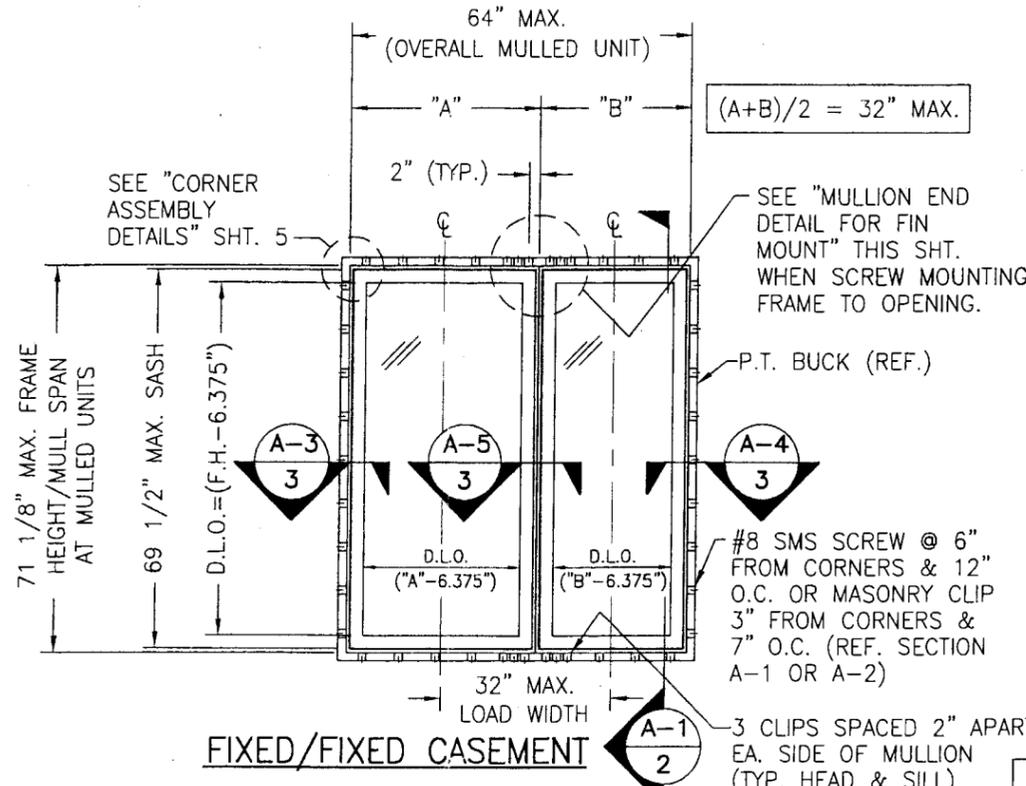
G. OTHER

1. Notice of Acceptance No. **05-0815.07**, issued to Marvin Windows & Doors for their Series "Clad Casemaster" Aluminum Clad Wood Fixed Window – L.M.I., approved on 04/13/06 and expiring on 05/16/07.

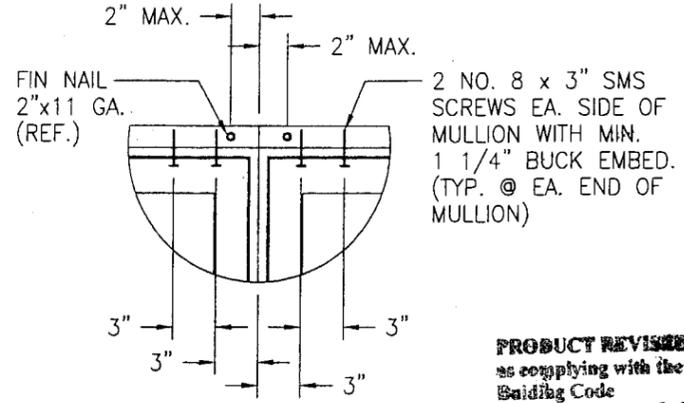

Manuel Perez, P.E.
Product Control Examiner
NOA No. 07-0306.07
Expiration Date: May 16, 2008
Approval Date: May 3 2007



72"x72" FIXED CASEMENT
SCALE: 3/8" = 1'-0"



FIXED/FIXED CASEMENT
SCALE: 3/8" = 1'-0"
ALLOWABLE DESIGN LOADS FOR MULLED UNITS SHALL BE +65/-65 PSF
FOR PARTS DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION



MULLION END DETAIL FOR FIN MOUNT
SCALE: 1" = 1'-0"

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 05-0915-07
Expiration Date MAY 16, 2007
By Ishag J. Chande
Miami Dade Product Control Division

ALLOWABLE DESIGN LOADS
SEE LOAD TABLES ON SHEET 6

NOTE: SIZES OF SINGLE FIXED WINDOWS MAY VARY FROM THOSE SHOWN IN THESE ELEVATIONS PER THE LOAD TABLES ON SHEET 6.

GENERAL NOTES

1. THESE CASEMENT WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES ON SHEET 6.
2. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE DESIGNED & INSTALLED TO WITHSTAND WIND LOADS AS DETERMINED FOR EA. APPLICATION
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203.
5. FOR ANCHOR EMBED & EDGE DISTANCE REQUIREMENTS, SEE "ANCHOR REQUIREMENTS TABLE" ON THIS SHEET.
6. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE (FBC) INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
7. THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH FLORIDA BUILDING CODE PROTOCOLS TAS-201, TAS-202 & TAS-203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.
8. 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.

ALL ELEVATIONS VIEWED FROM EXTERIOR

THE DETAILS ON THESE DRAWINGS ARE FOR STATIONARY CASEMENT WINDOWS. FOR OPERABLE CASEMENT WINDOWS SEE DRAWING NO. 00013081A UNDER SEPERATE APPROVAL.

FRAME ANCHOR REQUIREMENTS TABLE

* SHEAR SCREWS			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 1/4"	3/4"
CMU/CONCRETE	3/16" CONCRETE SCREWS	1 1/4"	2"
* NAIL FIN NAILS			
2X_ WOOD FRAME OR BUCK	11 GA. ROOFING NAILS	1 3/4"	1/2"
STRUCTURAL CLIPS			
2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 3/8"	1/4"
* FIN NAILS AND SHEAR SCREWS TO BE USED TOGETHER.			

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No. 07-0306-07
Expiration Date MAY 16, 2008

JAN 22 2006
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135

WOOD PART DIP SPEC
 DIP AT MLDR. NO DIP IN PROD.
RESEARCH AND DEVELOPMENT
MARVIN BOX 100, WARROAD, MN 56763
WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

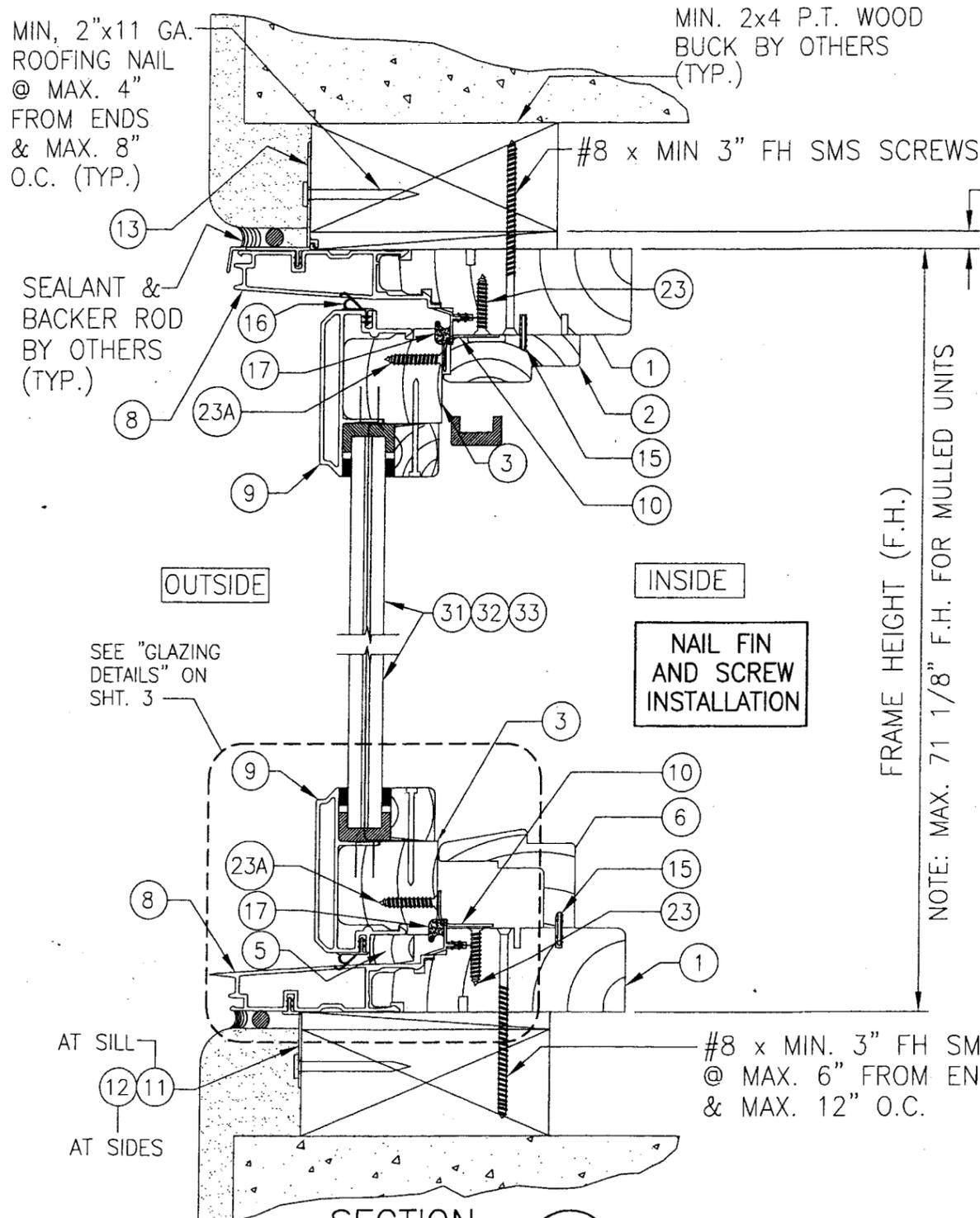
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP
PRODUCT: IMPACT HP

ASSEMBLY:
ELEVATIONS OF TESTED SHAPES
MATERIAL: N/A
SIZE: B
DRAWING NO: 00013081
SCALE: NOTED
DATE: 03/31/99
DRAWN BY: T.M.H.
SHEET: 1 OF 7

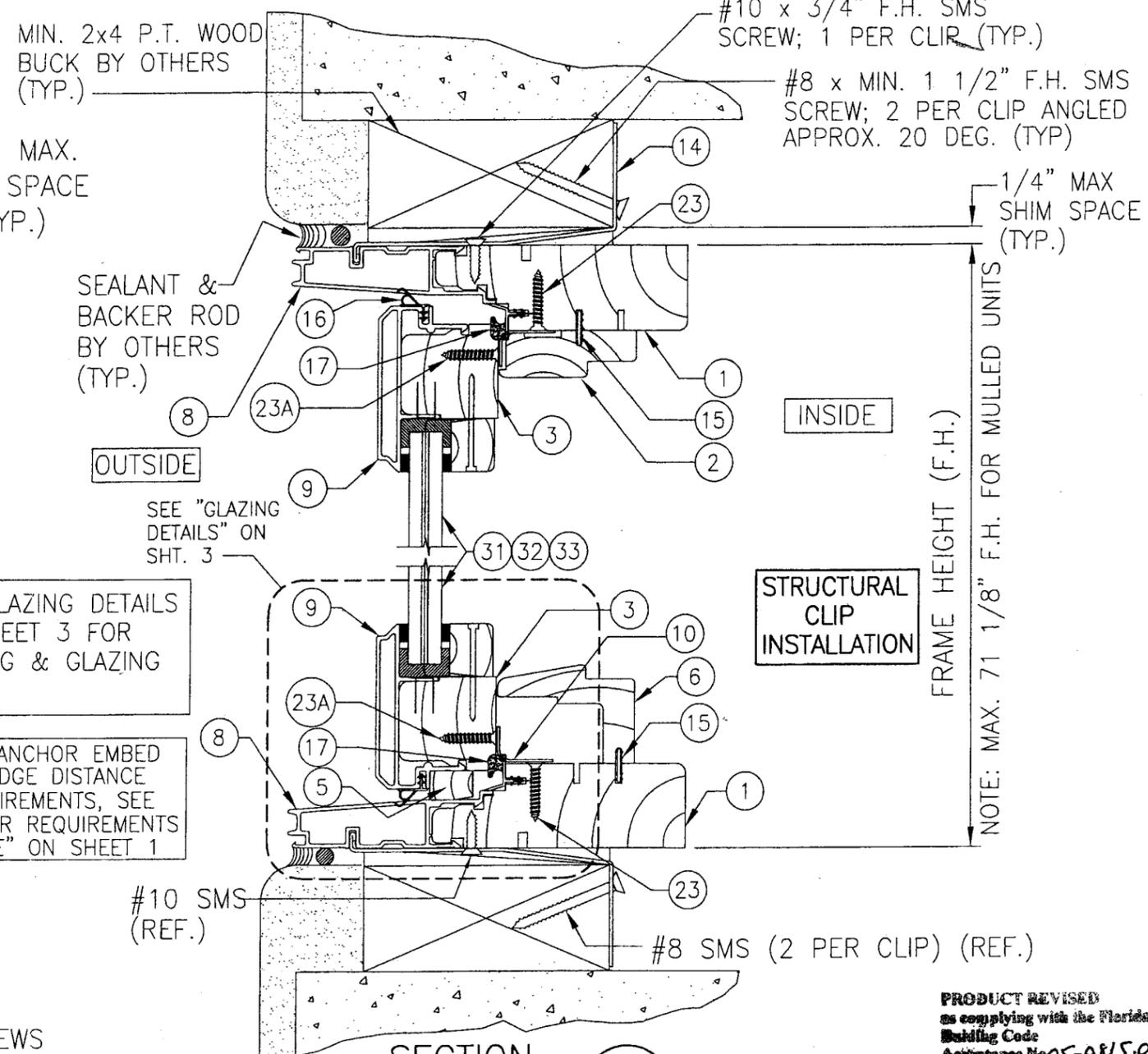
By Manuel Perez
Miami Dade Product Control Division

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
8895 N. MILITARY TRAIL, SUITE C204
PALM BEACH GARDENS, FL 33410
PHONE: 561-775-4902

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
C1	UPDATED GENERAL NOTES TO 2004 FBC		08/03/05	WWS
B1	OMITTED UN-NECESSARY ELEVATIONS		04/11/01	WWS
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS



SECTION A-1
SCALE: HALF FULL SIZE
(NOTE: HORIZONTAL SECTION SIMILAR)



SECTION A-2
SCALE: HALF FULL SIZE
(NOTE: HORIZONTAL SECTION SIMILAR)

FRAME HEIGHT (F.H.)
NOTE: MAX. 71 1/8\" F.H. FOR MULLED UNITS

FRAME HEIGHT (F.H.)
NOTE: MAX. 71 1/8\" F.H. FOR MULLED UNITS

SEE GLAZING DETAILS ON SHEET 3 FOR GLAZING & GLAZING STOPS.
FOR ANCHOR EMBED & EDGE DISTANCE REQUIREMENTS, SEE \"ANCHOR REQUIREMENTS TABLE\" ON SHEET 1

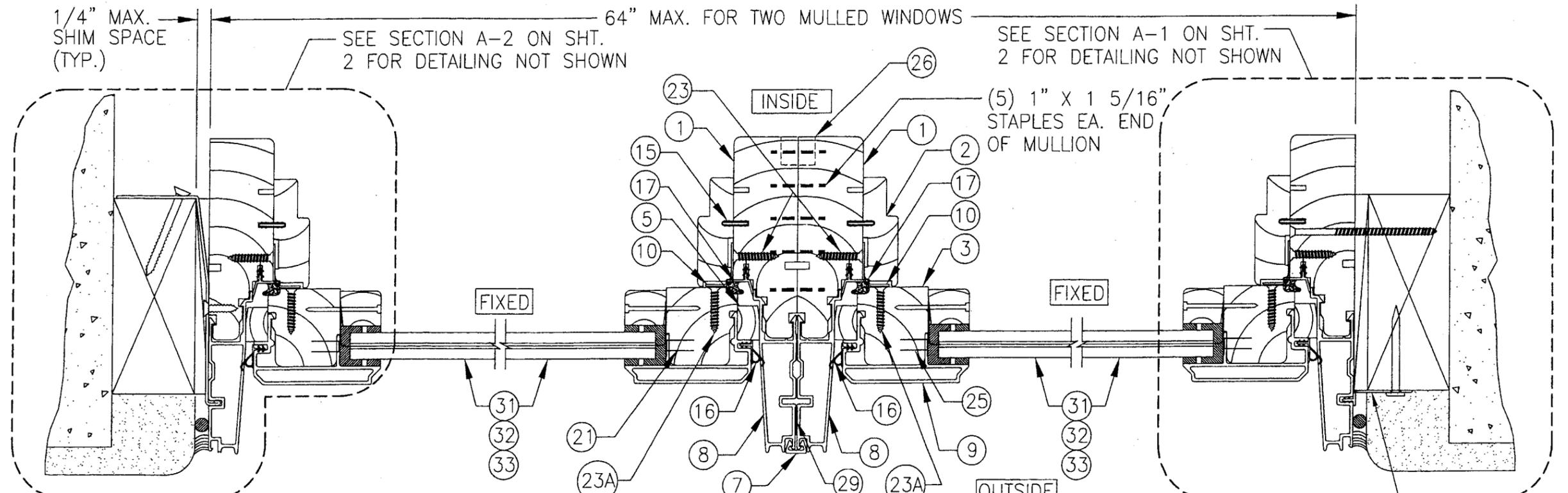
PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 05-0815.07
Expiration Date MAY 16, 2007
By Lukas L. Landa
Signed Date Product Control Division

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No. 07-0306.07
Expiration Date MAY 16, 2008
By Manuel Serrano
Signed Date Product Control Division

JAN 22 2006
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
8895 N. MILITARY TRAIL, SUITE C204
PALM BEACH GARDENS, FL 33410
PHONE: 561-775-4902

WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.		MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP PRODUCT: IMPACT HP			
ASSEMBLY: CROSS SECTIONS			
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081	
SCALE: NOTED	DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 2 OF 7

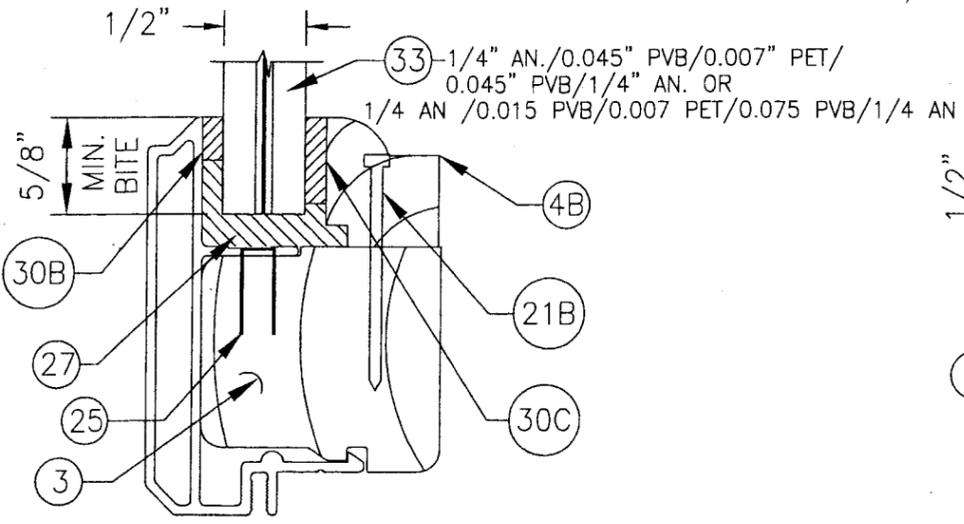
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



SECTION A-3
SCALE: HALF FULL SIZE

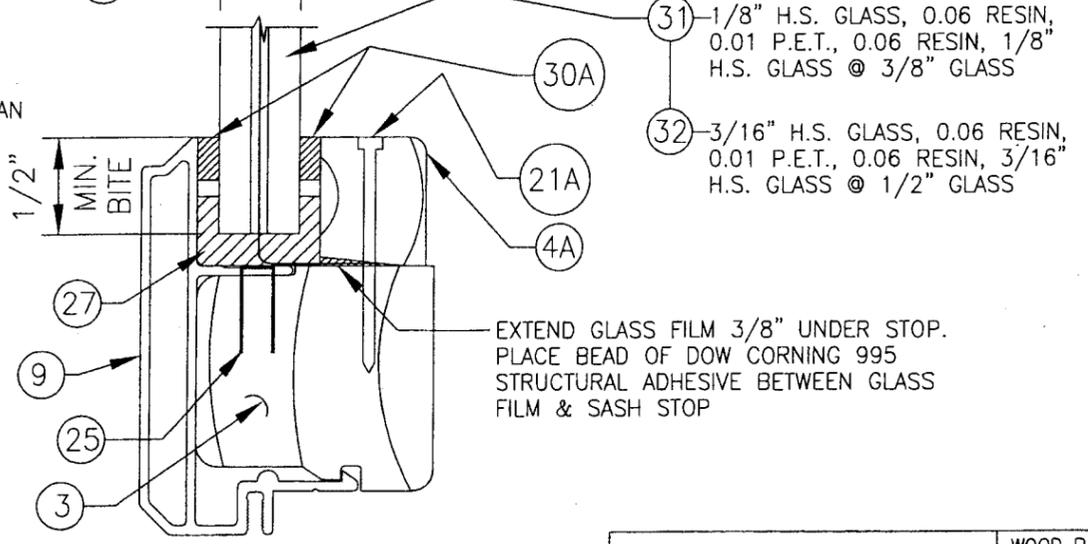
SECTION A-5
SCALE: HALF FULL SIZE

SECTION A-4
SCALE: HALF FULL SIZE



TYPICAL GLAZING DETAIL
(GLASS 33)

SCALE: FULL SIZE
CARDINAL SEA-STORM 1/2"
LAMINATED ANNEALED GLASS



TYPICAL GLAZING DETAIL
(GLASS 31 & 32)

SCALE: FULL SIZE
NEBULA GLASSLAM SAFETY-PLUS 3/8" OR 1/2"
HEAT STRENGTHENED LAMINATED GLASS

- 31 - 1/8" H.S. GLASS, 0.06 RESIN, 0.01 P.E.T., 0.06 RESIN, 1/8" H.S. GLASS @ 3/8" GLASS
- 32 - 3/16" H.S. GLASS, 0.06 RESIN, 0.01 P.E.T., 0.06 RESIN, 3/16" H.S. GLASS @ 1/2" GLASS

EXTEND GLASS FILM 3/8" UNDER STOP. PLACE BEAD OF DOW CORNING 995 STRUCTURAL ADHESIVE BETWEEN GLASS FILM & SASH STOP

FOR ANCHOR EMBED & EDGE DISTANCE REQUIREMENTS, SEE "ANCHOR REQUIREMENTS TABLE" ON SHEET 1

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No. 05-0815-07
Expiration Date MAY 16, 2007
By Ishag I. Chant
Miami Dade Product Control Division

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No. 07-0306-07
Expiration Date MAY 16, 2008
By Manuel Perez
Miami Dade Product Control Division

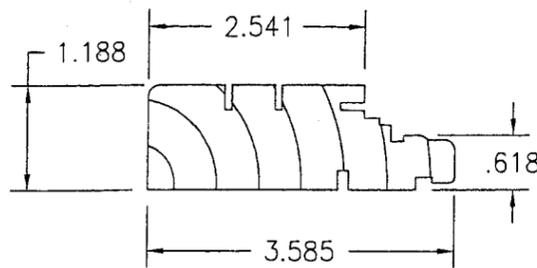
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
B2	ADDED NEW CARDINAL SEASTORM INNER LAYER		04/11/01	WWS
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS

JAN 22 2006

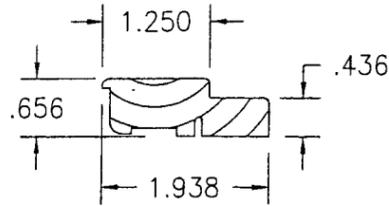
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
8895 N. MILITARY TRAIL, SUITE C204
PALM BEACH GARDENS, FL 33410
PHONE: 561-775-4902

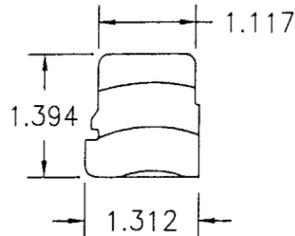
WOOD PART DIP SPEC		MARVIN RESEARCH AND DEVELOPMENT	
<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	BOX 100, WARROAD, MN 56763	
<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP		ASSEMBLY: MULLION-CROSS SECTION & GLASS DETAIL	
PRODUCT: IMPACT HP		MATERIAL: N/A	SIZE: B
DRAWING NO: 00013081		SCALE: NOTED	DATE: 03/31/99
DRAWN BY: T.M.H.		SHEET: 3 OF 7	



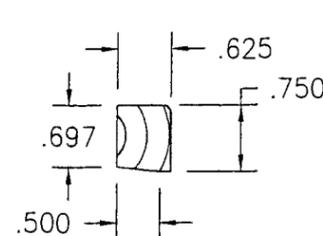
① **WOOD FRAME**
SUGAR OR PONDEROSA
PINE. G=0.04



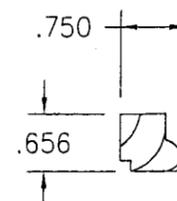
② **WOOD STOP**
SUGAR OR PONDEROSA
PINE. G=0.04



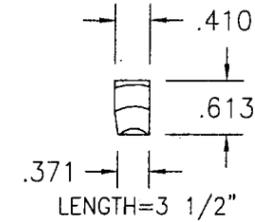
③ **WOOD SASH**
SUGAR OR PONDEROSA
PINE. G=0.04



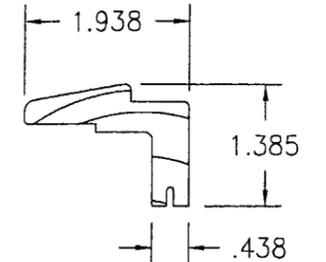
④A **GLAZING STOP**
SUGAR OR PONDEROSA
PINE. G=0.04



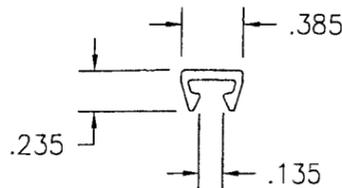
④B **GLAZING STOP**
SUGAR OR PONDEROSA
PINE. G=0.04



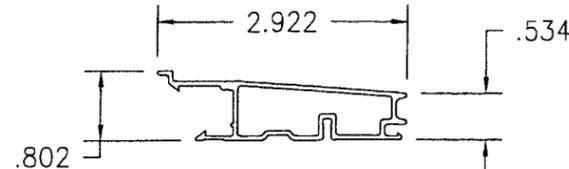
⑤ **SASH BLOCK**
SUGAR OR PONDEROSA
PINE. G=0.04



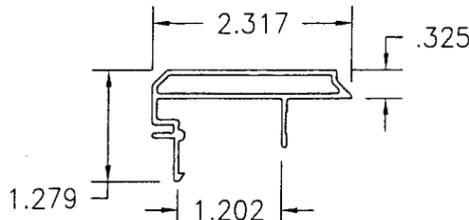
⑥ **SILL COVER**
SUGAR OR PONDEROSA
PINE. G=0.04



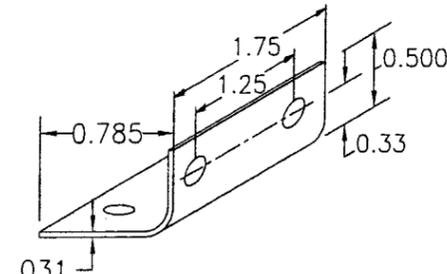
⑦ **MULLION CLIP**
6063-T5



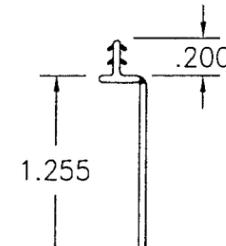
⑧ **FRAME CLADDING**
6063-T5



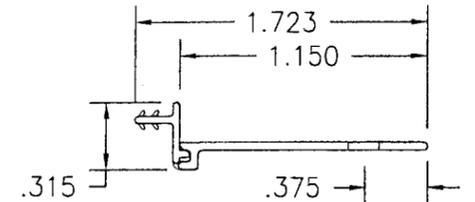
⑨ **SASH CLADDING**
6063-T5



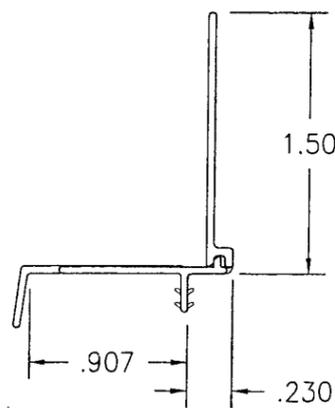
⑩ **ANGLE BRACKET**
GALVANIZED STEEL



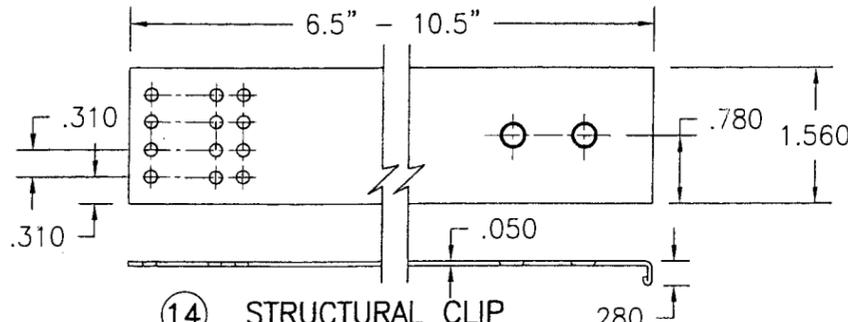
⑪ **SILL NAILING FIN**
VINYL



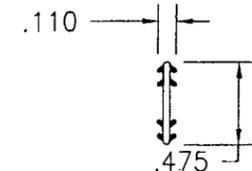
⑫ **JAMB NAILING FIN**
VINYL



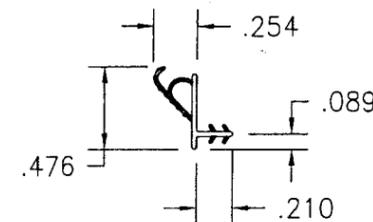
⑬ **DRIP CAP NAILING FIN**
VINYL



⑭ **STRUCTURAL CLIP**
GALVANIZED CARBON STEEL

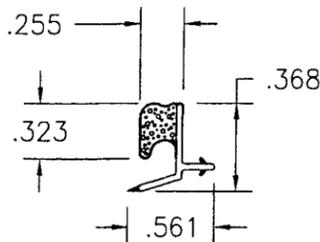


⑮ **CONNECTING BARB**
PVC & GEON C70c0

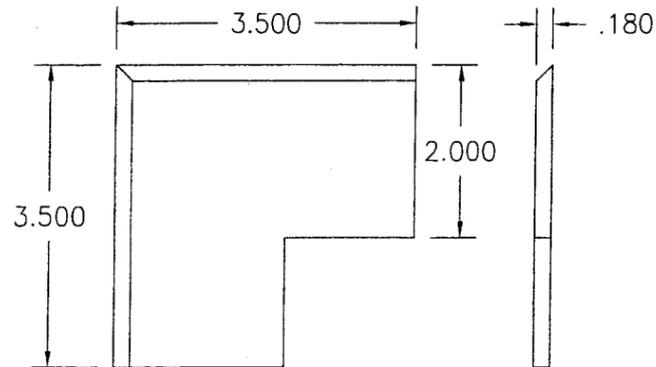


⑯ **VINYL SASH WEATHERSTRIP**

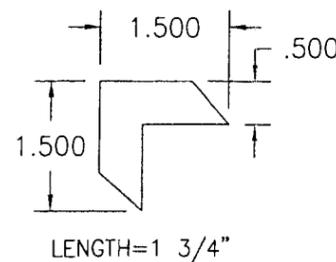
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 05-0815-07
Expiration Date MAY 16, 2007
By: *Shah J. Gaudin*
Miami/Dade Product Control
Division



⑰ **VINYL FRAME WEATHERSTRIP**



⑱ **CORNER KEY**
NYLON



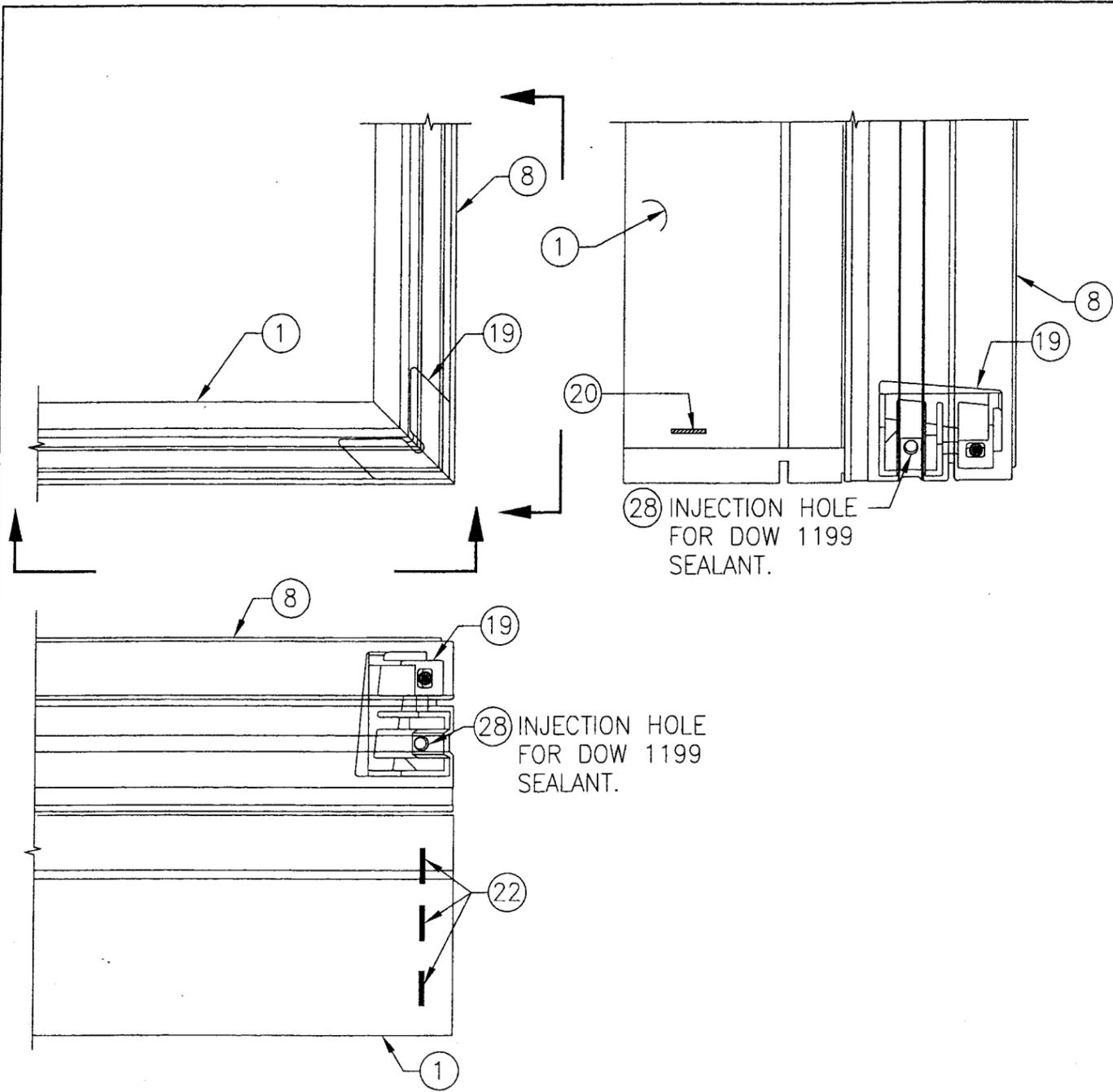
⑲ **CORNER KEY**
NYLON

PRODUCT APPROVED
as complying with the Florida
Building Code
Acceptance No. 07-0306-07
Expiration Date MAY 16, 2008
By: *Manuel Perez*
Miami/Dade Product Control
Division

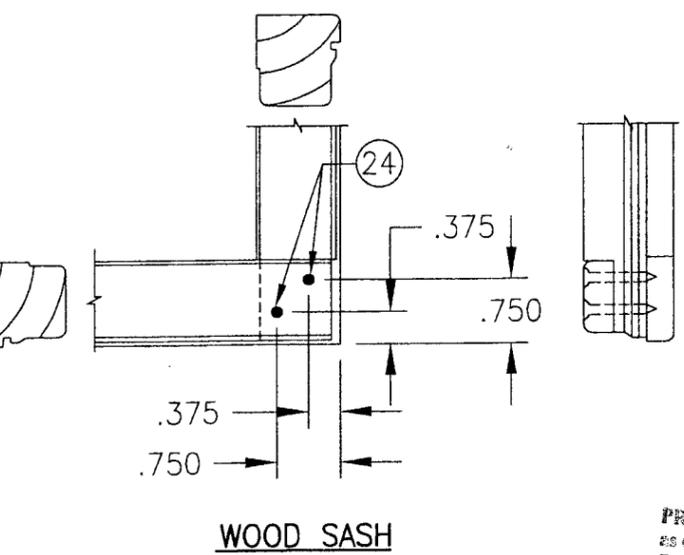
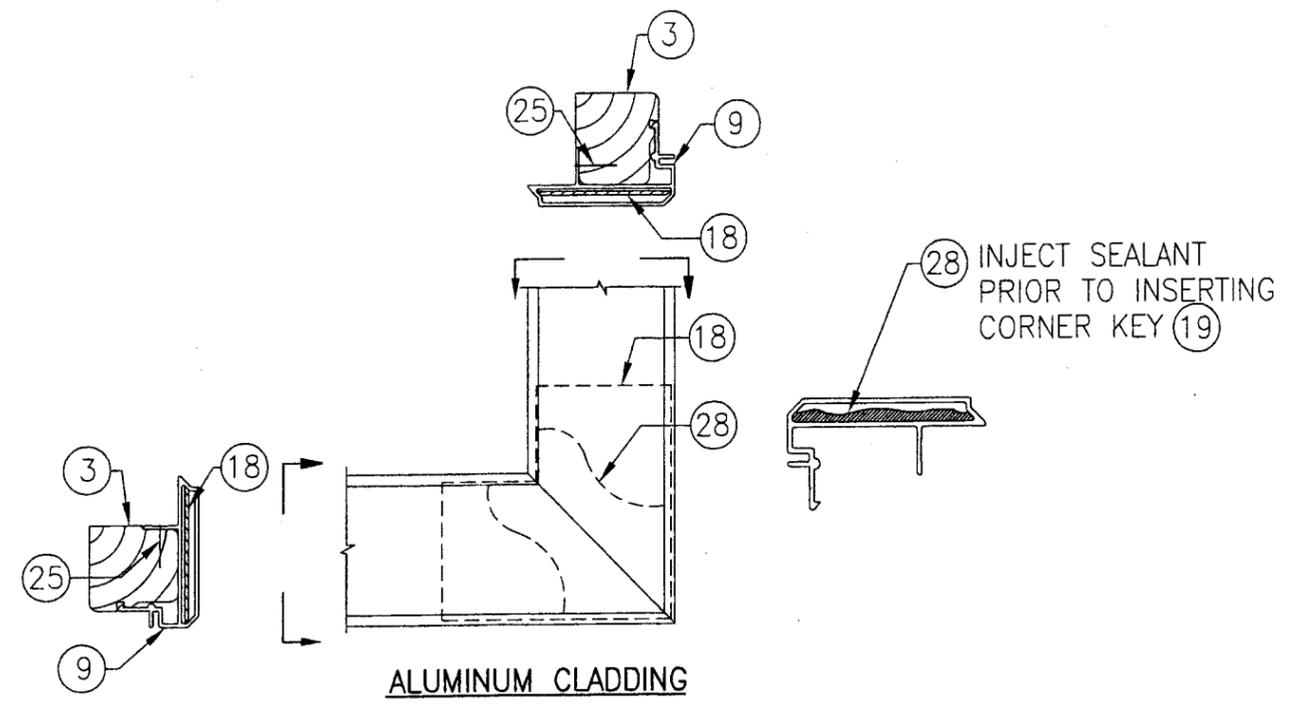
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS

JAN 22 2006
WARREN W. SCHAEFER, P.E.
 STRUCTURAL ENGINEER
 P.E. No. 44135
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 STRUCTURAL CONSULTING ENGINEERS
 8895 N. MILITARY TRAIL, SUITE C204
 PALM BEACH GARDENS, FL 33410
 PHONE: 561-775-4902

WOOD PART DIP SPEC		MARVIN RESEARCH AND DEVELOPMENT	
<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	BOX 100, WARROD, MN 56763	
<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP		PRODUCT: IMPACT HP	
ASSEMBLY: PARTS & EXTRUSIONS			
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081	
SCALE: NOTED	DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 4 OF 7



FRAME CORNER ASSEMBLY
SCALE: HALF FULL SIZE



SASH CORNER ASSEMBLY
SCALE: HALF FULL SIZE

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. *05-0815.07*
Expiration Date *MAY 16, 2007*
By *(Signature)*
Miami Dade Product Control
Division

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. *07-0306.07*
Expiration Date *MAY 16, 2008*
By *(Signature)*
Miami Dade Product Control
Division

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS

JAN 22 2006

WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135

WOOD PART DIP SPEC
 DIP AT MLDR.
 NO DIP IN PROD.

PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP
 PRODUCT: IMPACT HP

ASSEMBLY:
CORNER ASSEMBLY DETAILS

MATERIAL: N/A SIZE: B DRAWING NO: 00013081

SCALE: NOTED DATE: 03/31/99 DRAWN BY: T.M.H. SHEET: 5 of 7

MARVIN RESEARCH AND DEVELOPMENT
BOX 100, WARROD, MN 56763
WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

NOTE: ONLY SIZES WITH LOADS GIVEN ARE ALLOWABLE SIZES TO BE USED.

ALLOWABLE POSITIVE & NEGATIVE DESIGN LOAD TABLE (FOR SINGLE FIXED WINDOWS WITH GLASS "31")							
LONG DIMENSION	ALLOWABLE PRESSURE (PSF)						
48"	95	95	95	95	95		
54"	95	95	95	95	95		
60"	95	95	95	95			
66"	95	95	95				
71 1/8"	95	95	95				
72"	95	95	95				
78"	95	95					
84"	95	95					
90"	95						
96"	95						
102"	95						
108"	95						
SHORT DIMENSION	24"	30"	36"	42"	48"	54"	60"

ALLOWABLE POSITIVE & NEGATIVE DESIGN LOAD TABLE (FOR SINGLE FIXED WINDOWS WITH GLASS "32")									
LONG DIMENSION	ALLOWABLE PRESSURE (PSF)								
48"	95	95	95	95	95				
54"	95	95	95	95	95	84.4			
60"	95	95	95	95	95	65	65		
66"	95	95	95	95	95	65	65	65	
71 1/8"	95	95	95	95	95	65	65	65	65
72"	95	95	95	95	65	65	65	65	65
78"	95	95	95	95	65	65	63.4		
84"	95	95	95	65	65	63.9	60.7		
90"	95	95	95	65	65	61.9			
96"	95	95	95	65	65	60.3			
102"	95	95	65	65	63.8				
108"	95	95	65	65					
120"		65	65	65					
132"			65						
144"			65						
SHORT DIMENSION	24"	30"	36"	42"	48"	54"	60"	66"	71 1/8"

ALLOWABLE POSITIVE & NEGATIVE DESIGN LOAD TABLE (FOR SINGLE FIXED WINDOWS WITH GLASS "33")							
LONG DIMENSION	ALLOWABLE PRESSURE (PSF)						
48"	95	95	95	95	95		
54"	95	95	95	95	95	84.4	
60"	95	95	95	95	95	65	65
66"	95	95	95	95	95	65	65
71 1/8"	95	95	95	95	95	65	65
72"	95	95	95	95	65	65	65
78"	95	95	95	95	65	64.4	
84"	95	95	95	65	65		
90"	95	95	95	65	64.6		
96"	95	95	65	65			
102"	95	95	65	65			
108"	95	95	65				
120"		65	65				
SHORT DIMENSION	24"	30"	36"	42"	48"	54"	60"

NOTE: ALL JAMB TO JAMB MULLED UNITS ARE LIMITED TO +/-65 PSF ALLOWABLE DESIGN PRESSURE AS CONTROLLED BY TESTING.

GLASS NO. 31 = NEBULA GLASSLAM SAFETY PLUS 3/8" LAMINATED HEAT STRENGTHENED GLASS
 GLASS NO. 32 = NEBULA GLASSLAM SAFETY PLUS 1/2" LAMINATED HEAT STRENGTHENED GLASS
 GLASS NO. 33 = CARDINAL SEA-STORM 1/2" LAMINATED ANNEALED GLASS

B3	UPDATED LOAD TABLES		04/11/01	WWS
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 05-0815.07
 Expiration Date MAY 16, 2007

By Ishaq I. Chanda
 Miami Dade Product Control Division

PRODUCT RENEWED
 as complying with the Florida Building Code

Acceptance No. 07-0306.07
 Expiration Date MAY 16, 2008

By Manuel Perez
 Miami Dade Product Control Division

JAN 22 2006

WARREN W. SCHAEFER, P.E.
 STRUCTURAL ENGINEER
 P.E. No. 44135

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WOOD PART DIP SPEC
 DIP AT MLDR.
 NO DIP IN PROD.

MARVIN RESEARCH AND DEVELOPMENT
 BOX 100, WARROD, MN 56763
 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913

PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP
 PRODUCT: MPACT HP

ASSEMBLY:
 LOAD CAPACITY CHARTS

MATERIAL: N/A SIZE: B DRAWING NO: 00013081

SCALE: FULL DATE: 03/31/99 DRAWN BY: T.M.H. SHEET: 6 OF 7

MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
PARTS & EXTRUSIONS			
1	W1994	3.585"x 1.188" WOOD JAMB	
2	W7001	1.938"x0.656" WOOD JAMB STOP	
3	W3707	1.312"x1.394" WOOD SASH	
4A	W4002	0.625"x0.750" WOOD GLAZING STOP	USED WITH GLASS "31 & 32"
4B	W4002	0.656"x0.750" WOOD GLAZING STOP	USED WITH GLASS "33"
5	W7049	.410"x.613"x 3 1/2" LG. STATIONARY SASH BLOCK	SEE NOTE 1 THIS SHEET. POSITIONED AT QUATER POINTS OF SIDES & SILL (2 PER SIDE)
6	W7018	SILL COVER	
7	A104	MULLION CLIP	ALUMINUM (6063-T5) FULL LENGTH OF MULLION
8	A323	ALUMINUM FRAME CLADDING	ALUMINUM (6063-T5)
9	A209	ALUMINUM SASH CLADDING	ALUMINUM (6063-T5)
10	MISC-1615	STATIONARY ANGLE BRACKET	GALVANIZED STEEL BY WABINICA 5" FROM CORNERS & MAX. 10" O.C.
11	V084	VINYL SILL NAILING FIN	BY AMESBURY
12	V104	VINYL JAMB NAILING FIN	BY AMESBURY
13	V114	VINYL DRIP CAP NAILING FIN	BY AMESBURY
14	11860012-3	6.5"-10.5" LONG, STRUCTURAL MASONRY CLIP	690 LOCFORM GALV. STEEL BY WABINICA, INC. LOCATED 3" FOM CORNERS & 8" O.C.
15	V803	0.110" x 0.475" CONNECTING BARB	PVC & GEON C70d0
16	V195	SASH WEATHERSTRIP	BY INTEK
17	V138	VINYL FRAME WEATHERSTRIP	BY AMSBURY
18	-	3 1/2"x3 1/2"x3/16" CORNER KEY	NYLON; AT ALL MITERED CORNERS OF SASH
19	-	1 1/2"x1 1/2"x1/2" CORNER KEY	NYLON; AT ALL MITERED CORNERS OF FRAME
FASTENERS			
20	-	GS14 x 2.25" STAPLE	1 PER JAMB CORNER
21A	11892207	F-14 x 1.375" BRAD NAIL	2" FROM CORNERS & MAX. 5" O.C.
21B	-	F-18 x 1.125" BRAD NAIL	3" FROM CORNERS & MAX. 8" O.C.
22	-	GS16 x 2.00" STAPLE	3 PER FRAME (JAMB) CORNER.
23	-	#8 x 1" F.H. SMS SCREW	2 PER ANGLE LEG INTO JAMB
23A	-	#8 x 1 1/4" F.H. SMS SCREW	2 PER ANGLE LEG INTO SASH
24	-	#8 x 1 1/4" F.H. SMS SCREW	2 AT EA. SASH CORNER
25	-	GNS-18 x 0.500" STAPLE	2" FROM CORNERS & MAX. 6" O.C. FASTENING CLADDING TO SASH
26	11820012	5/8" x 1/2" CORRUGATED STEEL FASTENER	FASTENES INTERIOR SIDE OF JAMBS TOGETHER @ JAMB TO JAMB MULLION. (3 AT EA. TOP & BOTTOM OF MULLION)

B2	ADDED NEW CARDINAL SEASTORM INNER LAYER		04/11/01	WWS
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
SEALANTS			
27	-	DOW 995 SILICON SEALANT	BY DOW CORNING
28	-	DOW 1199 SILICON SEALANT	CORNER INJECTION SEALANT; DOW CORNING
29	00003991	.063" x .500 FOAM TAPE	@ MULLED UNITS; BY 3M (FULL LENGTH)
30A	-	.0625" x .375" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
30B	-	.0625" x .25" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
30C	-	.0625" x .5" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
OTHER			
31	-	3/8" HEAT STRENGTHENED LAMINATED GLASS	NEBULA GLASSLAM SAFETY-PLUS LAMINATED GLASS (1/8" HEAT STRENGTHENED /0.06" RESIN/0.01 P.E.T./0.06" RESIN/ 1/8" HEAT STRNEGTHENED GLASS
32	-	1/2" HEAT STRENGTHENED LAMINATED GLASS	NEBULA GLASSLAM SAFETY-PLUS LAMINATED GLASS (3/16" HEAT STRENGTHENED /0.06" RESIN/0.01 P.E.T./0.06" RESIN/ 3/16" HEAT STRNEGTHENED GLASS
33	-	1/2" ANNEALED LAMINATED GLASS	CARDINAL SEA-STORM LAMINATED GLASS (1/4" ANNEALED/0.045" PVB/0.007" PET/ 0.045" PVB/1/4" ANNEALED) OR (1/4" ANNEALED/0.015" PVB/0.007" PET/ 0.075" PVB/1/4" ANNEALED) OR

NOTE:

- ALL WOOD USED WITH TESTED UNITS IS PONDEROSA OR SUGAR PINE. ALTERNATIVE WOOD SPECIES TO PINE:
 - MAHOGANY
 - OAK
 - CHERRY
 - CYPRUS
 - DOUGLAS FIR

IN ADDITION TO CORRUGATED FASTENERS, THE JAMBS ARE TO BE SECURED TOGETHER AT THE MULLION ENDS WITH FIVE(5) 1" X 1 5/16" STAPLES.

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 05-0815-07
 Expiration Date MAY 16, 2007
 By Ishag I. Chand
 Miami Dade Product Control Division

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No. 07-0306-07
 Expiration Date MAY 16, 2008
 By Manuel Sere
 Miami Dade Product Control Division

JAN 22 2006

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<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP		ASSEMBLY:	
PRODUCT: MPACT HP		MATERIAL LIST	
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081	
SCALE: 1:1	DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 7 OF 7