



BUILDING CODE COMPLIANCE OFFICE
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

CONTRACTOR LICENSING SECTION
(305) 375-2527 FAX (305) 375-2558

CONTRACTOR ENFORCEMENT DIVISION
(305) 375-2966 FAX (305) 375-2908

PRODUCT CONTROL DIVISION
(305) 375-2902 FAX (305) 372-6339

PRODUCT CONTROL NOTICE OF ACCEPTANCE

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

Your application for Notice of Acceptance (NOA) of:

"Clad Casemaster Stationary" Aluminum Clad Wood Fixed Window - Impact Resistant

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Raul Rodriguez
Chief Product Control Division

ACCEPTANCE NO.: 00-0327.09
EXPIRES: 11/02/2002

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL
CONDITIONS
BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

APPROVED: 10/11/2001

Marvin Windows and Doors

ACCEPTANCE No.: 00-0327.09

APPROVED : OCT 11 2001

EXPIRES : November 04, 2002

NOTICE OF ACCEPTANCE SPECIFIC CONDITIONS

1. SCOPE

1.1 This revises the Notice of Acceptance No. 99-0611.02 which was issued on November 04, 1999. It approves a wood fixed window as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, (SFBC), 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

2.1 The "Clad Casemaster Stationary" Aluminum Clad Wood Fixed Window - Impact Resistant and its components shall be constructed in strict compliance with the following document: Drawing No. **00013081**, titled "Clad Casemaster Stationary Impact HP", Sheets 1 thru 7 of 7, dated March 31, 1999, with revision A1 dated 09/13/00, prepared by W.W. Schaefer Engineering & Consulting, P.A, signed and sealed by Warren W. Schaefer, 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. These documents shall hereinafter be referred to as the approved drawings.

3. LIMITATIONS

3.1 This approval applies to single unit applications and side-by-side installations, as shown in approved drawings.

4. INSTALLATION

4.1 The wood fixed window and its components shall be installed in strict compliance with the approved drawings.

4.2 Hurricane protection system (shutters): the installation of this unit **will not require** a hurricane protection system.

5. LABELING

5.1 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".

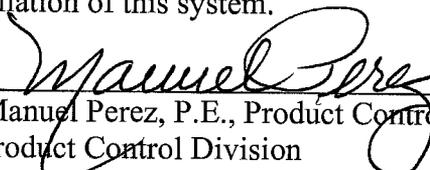
6. BUILDING PERMIT REQUIREMENTS

6.1 Application for building permit shall be accompanied by two copies of the following:

6.1.1 This Notice of Acceptance.

6.1.2 Duplicate copies of the approved drawings, as identified in section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.

6.1.3 Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.


Manuel Perez, P.E., Product Control Examiner
Product Control Division

Marvin Windows and Doors

ACCEPTANCE No.: 00-0327.09

APPROVED : OCT 11 2001

EXPIRES : November 04, 2002

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
 - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
 - b) The product is no longer the same product (identical) as the one originally approved.
 - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
 - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
 - a) Unsatisfactory performance of this product or process;
 - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purpose.
6. The Notice of Acceptance number preceded by the words Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The engineer does not need to reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Acceptance contains pages 1, 2, this last page 3.


Manuel Perez, P.E. Product Control Examiner
Product Control Division

END OF THIS ACCEPTANCE

Marvin Windows and Doors

ACCEPTANCE No.: 00-0327.09

APPROVED : OCT 11 2001

EXPIRES : November 04, 2002

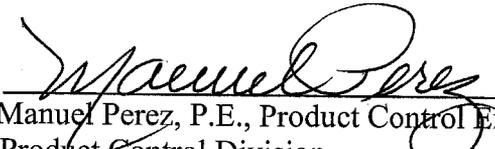
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWING:

1. Manufacturer's die drawings and sections.
2. Dwg. No. **00013081**, titled "Clad Casemaster Stationary Impact HP", Sheets 1 thru 7 of 7, dated March 31, 1999, with revision A1 dated 09/13/00, prepared, 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, signed and sealed by Gilbert Diamond, P.E
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, prepared by Fenestration Testing Laboratory, Inc. Test report No. **FTL-2232**, dated February 26, 1999, signed and sealed by Gilbert Diamond, P.E
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, prepared by Fenestration Testing Laboratory, Test report No. **FTL-2233**, dated 02/12/99, signed and sealed by Gilbert Diamond, P.E
4. 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, prepared by Fenestration Testing Laboratory, test report No. **FTL-2236**, dated 02/12/99, signed and sealed by Gilbert Diamond, P.E


Manuel Perez, P.E., Product Control Examiner
Product Control Division

Marvin Windows and Doors

ACCEPTANCE No.: 00-0327.09

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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. 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 203-94
along with installation diagram of 6472 Casemaster Stationary window, prepared by Architectural Testing Inc., test report No. **ATI-02-31931.01**, dated 01/11/2000, signed and sealed by Allen N. Reeves, P.E
6. 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 203-94
along with installation diagram of 4872 Casemaster Stationary window, prepared by Architectural Testing Inc., test report No. **ATI-02-31932.01**, dated 01/11/2000, signed and sealed by Allen N. Reeves, P.E

C. CALCULATIONS:

1. Anchor Calculations prepared by W.W. Schaefer Engineering & Consulting, P.A, dated 4/10/99, sheets 1 thru 4 of 4, signed and sealed by Warren W. Schaefer, P.E.
2. Glass Calculations prepared by W.W. Schaefer Engineering & Consulting, P.A, dated 3/06/00, sheets 1 and 2 of 2, signed and sealed by Warren W. Schaefer, P.E.

D. STATEMENTS:

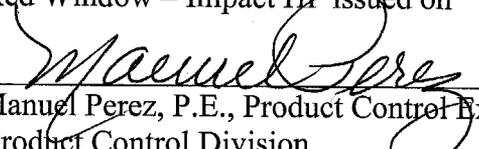
1. Statement letter of Compliance, issued by W.W. Schaefer Engineering & Consulting, P.A., dated April 21, 1999, signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter of "No Financial Interest" issued by W.W. Schaefer Engineering & Consulting, P.A, dated April 21, 1999, signed and sealed by Warren W. Schaefer, P.E.

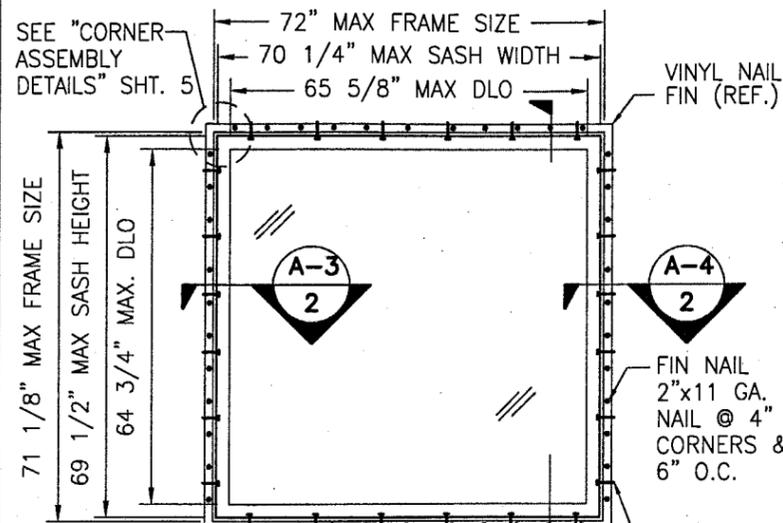
E. MATERIAL CERTIFICATIONS:

1. Notice of Acceptance No. **97-0527.04** issued to Nebula Glass International Inc. for "Glasslam Safety-Plus Laminated Glass" dated 09/09/97, expiring on 09/09/2000.
2. Notice of Acceptance No. **99-0908.01** issued to Cardinal DGP for "Cardinal Sea Storm Type B" dated 12/30/99, expiring on 12/30/2002.

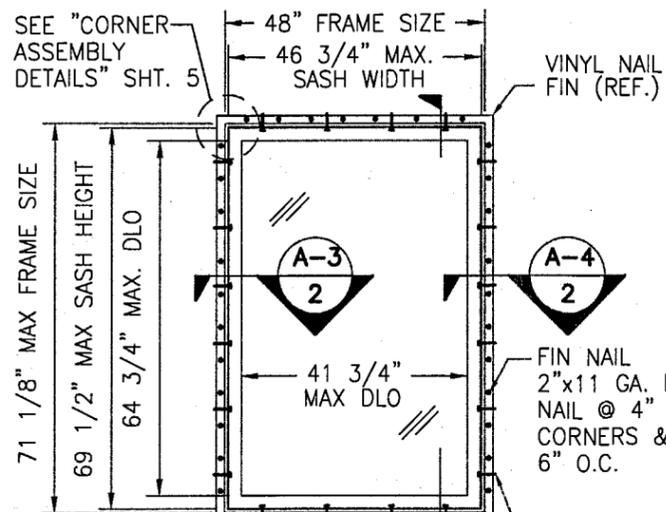
F. OTHER:

1. Notice of Acceptance No. **99-0611.02** issued to Marvin Windows & Doors for "Clad Casemaster Stationary" Alum. Clad Wood Fixed Window – Impact HP issued on 11/04/1999, expiring on 11/04/2002.

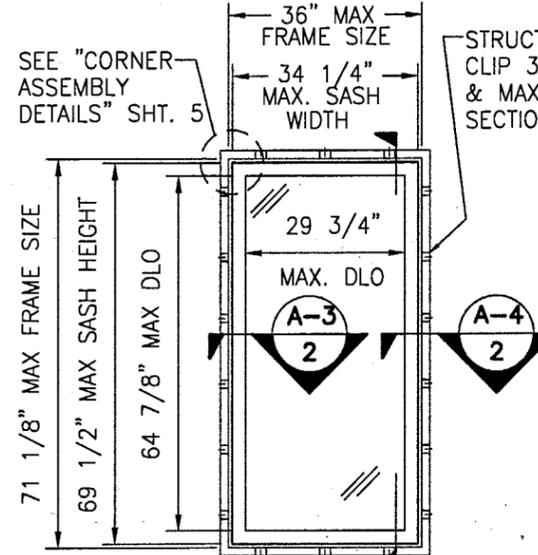

Manuel Perez, P.E., Product Control Examiner
Product Control Division



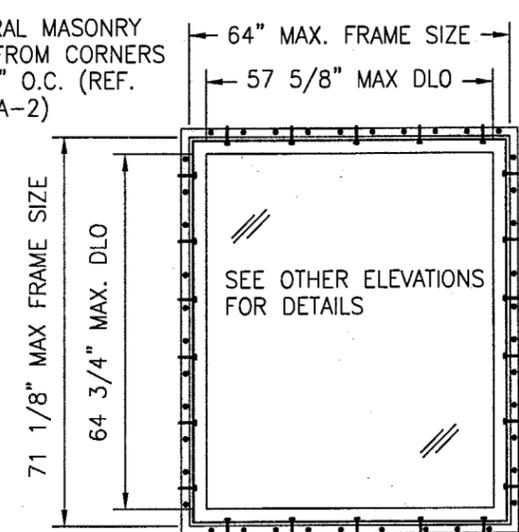
72"x72" CASEMENT
SCALE: 3/8"=1'-0"



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



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



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

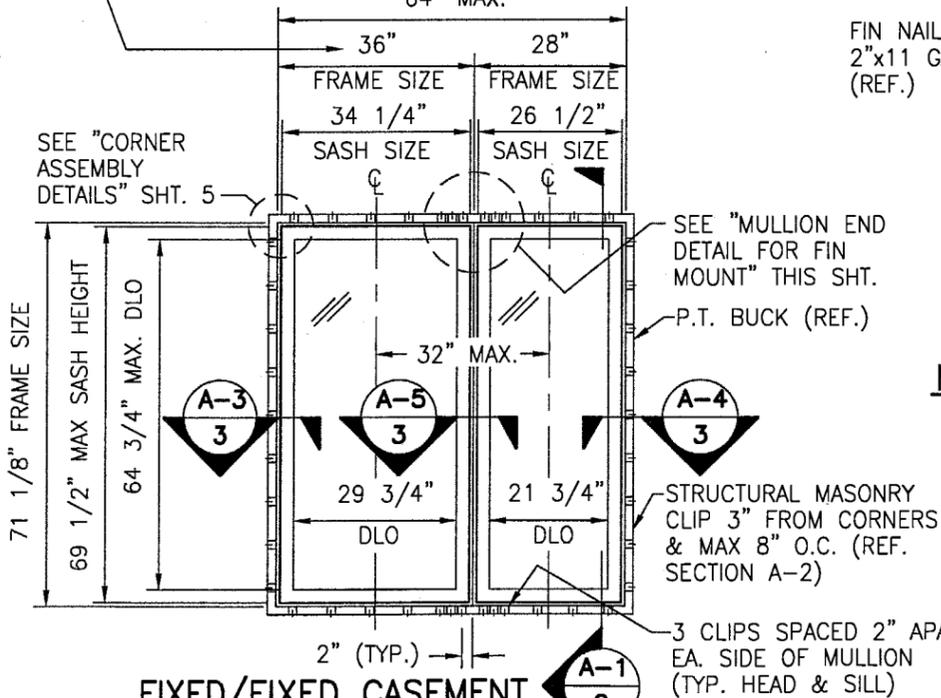
#8 SMS SCREW @ 6" FROM CORNERS & 12" O.C. (REF. SECTION A-1)

#8 SMS SCREW @ 6" FROM CORNERS & 12" O.C. (REF. SECTION A-1)

ALLOWABLE DESIGN LOADS
SEE LOAD TABLES ON SHEET 6

THIS SIZE SHALL BE MAXIMUM ALLOWABLE SIZE WHEN USING GLASS "33"

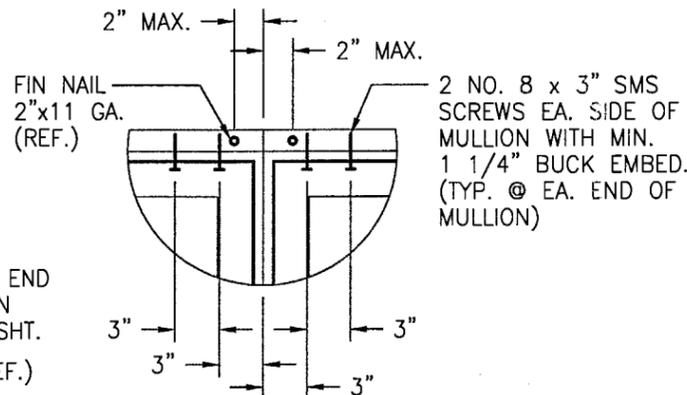
NOTE: WINDOW WIDTHS MAY VARY PROVIDING DISTANCE BETWEEN CENTERLINES DOES NOT EXCEED 32"



FIXED/FIXED CASEMENT

SCALE: 3/8"=1'-0"

ALLOWABLE DESIGN LOADS FOR UNREINFORCED MULLED UNITS SHALL BE +65/-65 PSF



MULLION END DETAIL FOR FIN MOUNT

SCALE: 1"=1'-0"

ALL ELEVATIONS VIEWED FROM EXTERIOR

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

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. BUCKING FASTENERS MAY NOT EXCEED 16" O.C. SPACING AROUND OPENINGS REGARDLESS OF CIRCUMSTANCE.
4. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
5. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTOCOLS PA 201, 202 & 203.
6. ALL JAMB TO BUCKING FASTENERS MUST PENETRATE BUCK A MINIMUM OF 1 1/4". IF PENETRATION IS LESS THAN 1 1/4" THEN SCREW LENGTH SHALL INCREASE AS REQUIRED.
7. THESE CASEMENT WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE, 1994 EDITION.
8. THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH DADE COUNTY PROTOCOLS PA-201, PA-202 & PA-203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE **OCT 11 2000**
BY *Warren W. Schaefer*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. **00-0327-09**

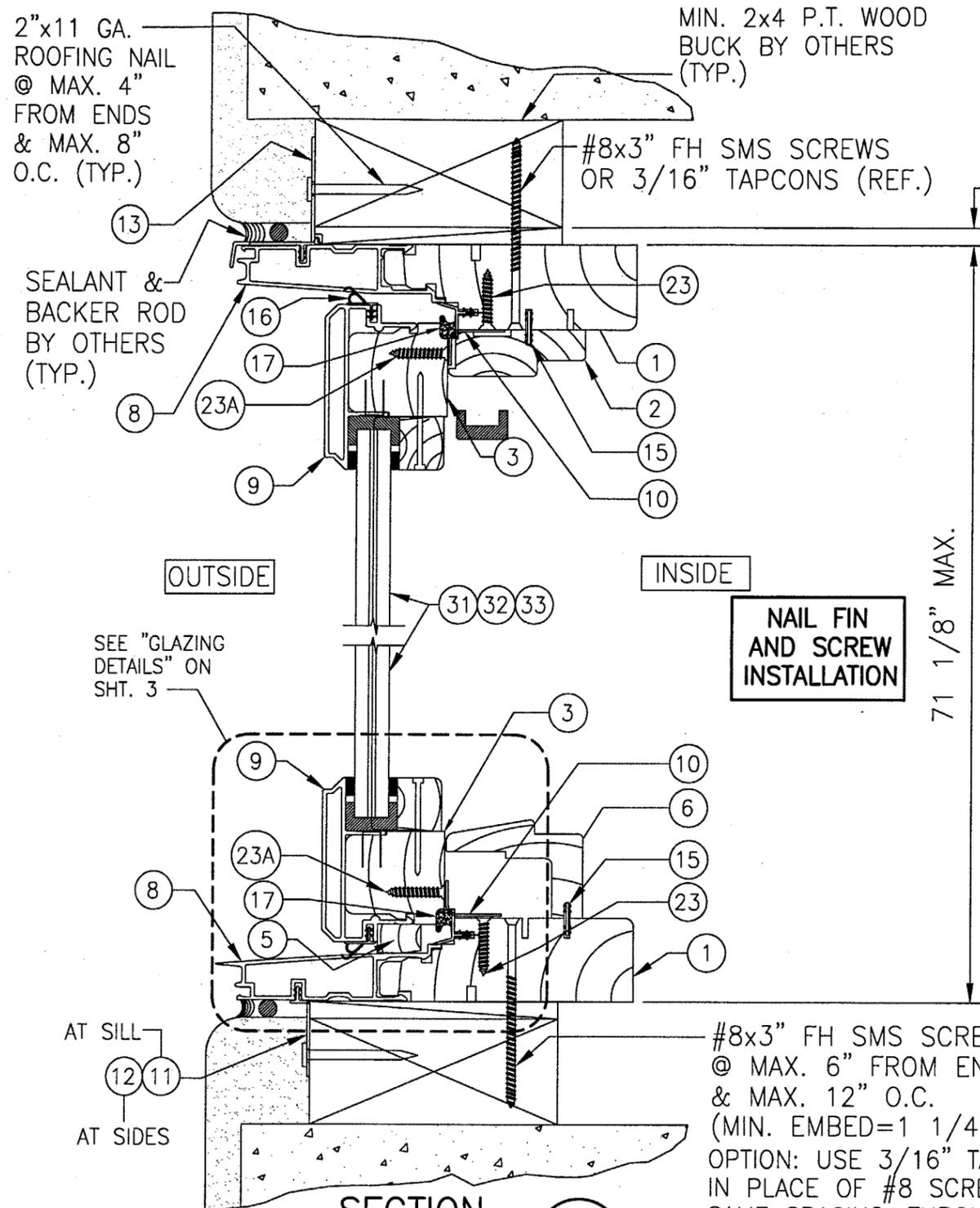
SEP 13 2000

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

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

WOOD PART DIP SPEC		RESEARCH AND DEVELOPMENT	
<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	MARVIN 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		PRODUCT CONTROL DIVISION	
PRODUCT: IMPACT HP		BUILDING CODE COMPLIANCE OFFICE	
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

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



SECTION A-1
SCALE: HALF FULL SIZE
2

(NOTE: HORIZONTAL SECTION SIMILAR)

MIN. 2x4 P.T. WOOD BUCK BY OTHERS (TYP.)

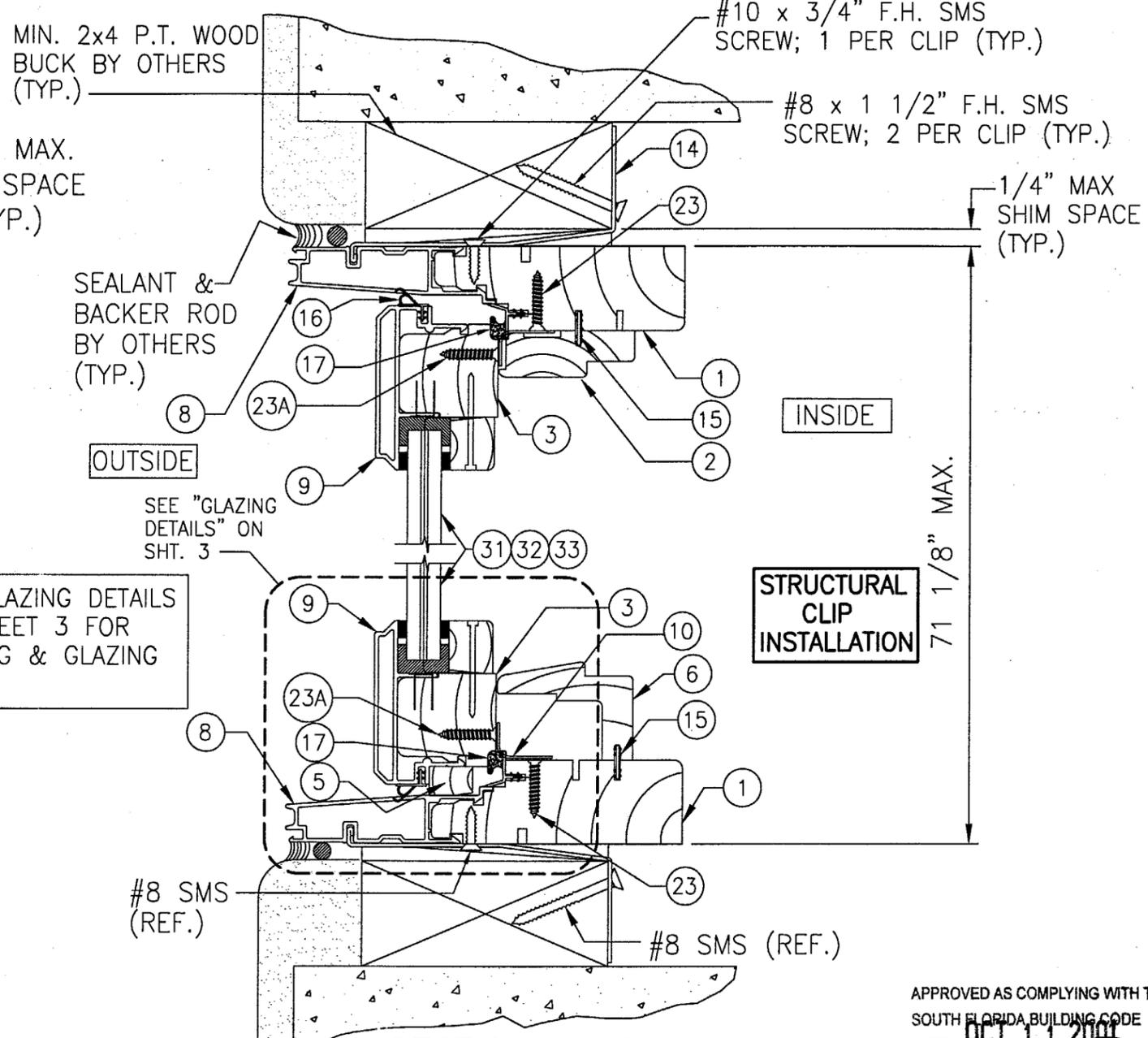
#8x3" FH SMS SCREWS OR 3/16" TAPCONS (REF.)

1/4" MAX. SHIM SPACE (TYP.)

NAIL FIN AND SCREW INSTALLATION

71 1/8" MAX.

SEE GLAZING DETAILS ON SHEET 3 FOR GLAZING & GLAZING STOPS.



SECTION A-2
SCALE: HALF FULL SIZE
2

(NOTE: HORIZONTAL SECTION SIMILAR)

STRUCTURAL CLIP INSTALLATION

71 1/8" MAX.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE: OCT 11 2001
BY: [Signature]
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. 00-0327-09

#8x3" FH SMS SCREWS @ MAX. 6" FROM ENDS & MAX. 12" O.C. (MIN. EMBED=1 1/4")
OPTION: USE 3/16" TAPCONS IN PLACE OF #8 SCREWS, @ SAME SPACING, THROUGH JAMB & INTO BLOCK OR CONCRETE WHEN A SMALLER OR NO BUCK IS SPECIFIED. (MIN. TAPCON EMBED=1 1/4" & MIN. TAPCON EDGE DISTANCE TO BLOCK EDGE=2")

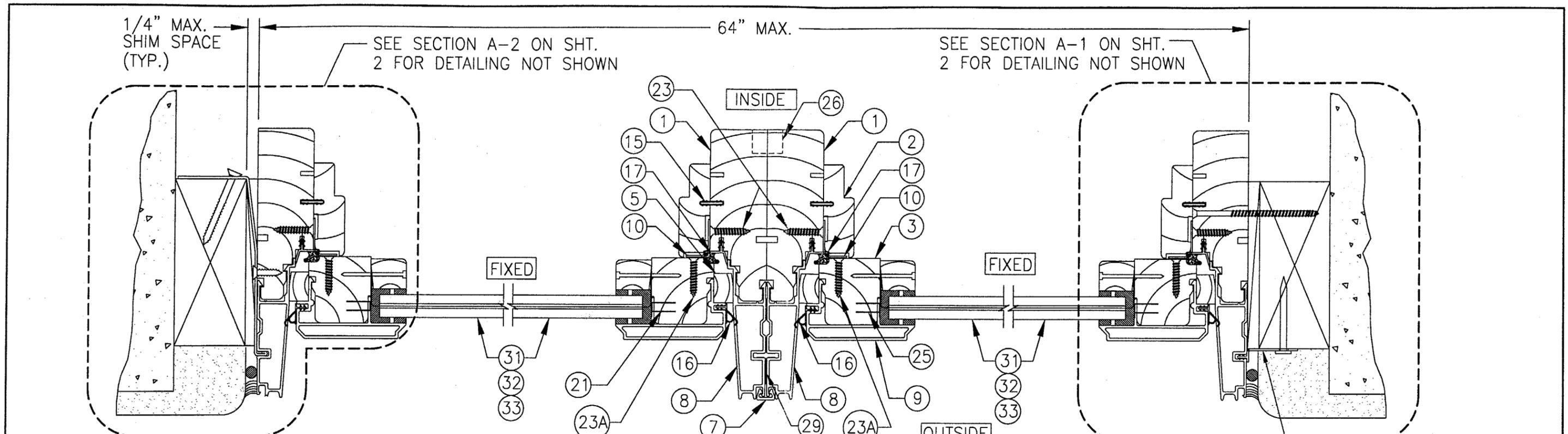
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

SEP 13 2000

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

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
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, WARROAD, 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

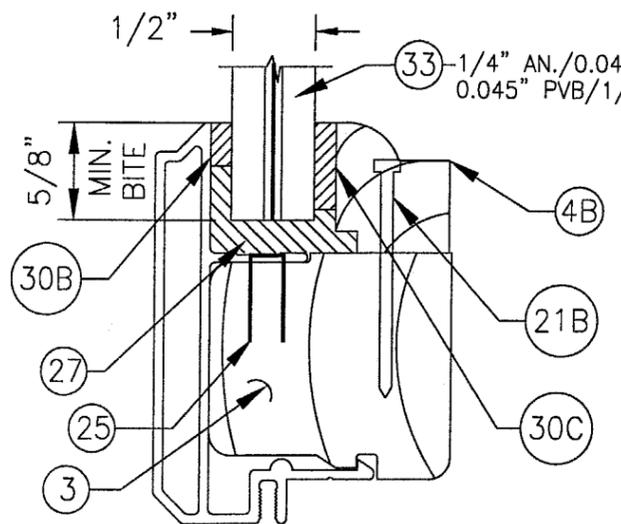


SECTION A-3
SCALE: HALF FULL SIZE

SECTION A-5
SCALE: HALF FULL SIZE

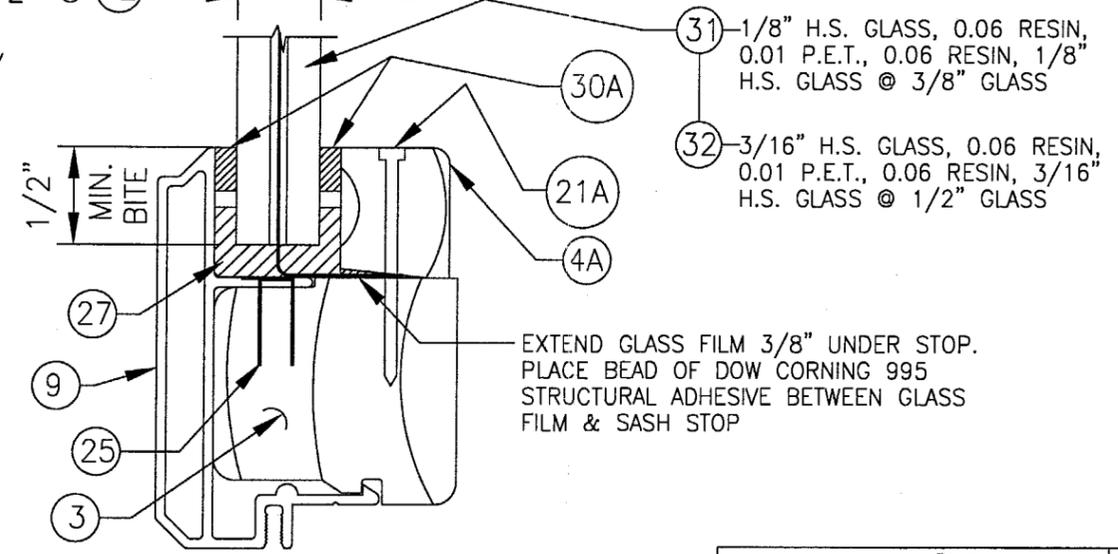
SECTION A-4
SCALE: HALF FULL SIZE

3/8" @ 31
1/2" @ 32



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 SAFETY-PLUS 3/8" OR 1/2" HEAT STRENGTHENED LAMINATED GLASS

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

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
DATE **OCT 11 2001**
BY *Warren W. Schaefer*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. **00-0327-09**

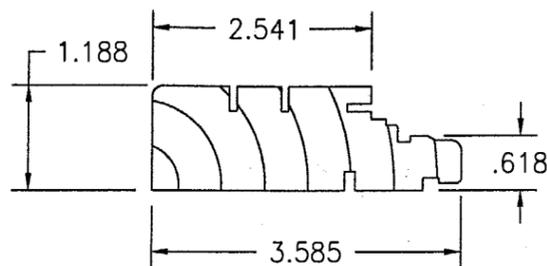
A1	ADDED CARDINAL SEA-STORM GLASS		09/13/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

SEP 13 2000

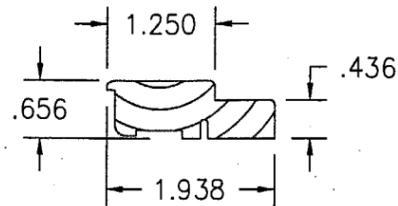
Warren W. Schaefer
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135

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

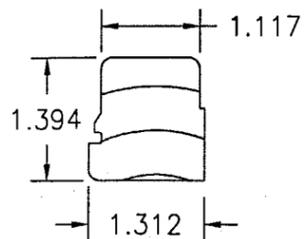
WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.		MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP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



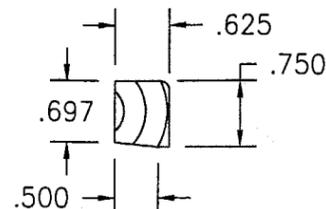
① **WOOD FRAME**
SUGAR OR PONDEROSA
PINE. G=0.04



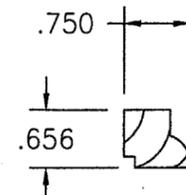
② **WOOD STOP**
SUGAR OR PONDEROSA
PINE. G=0.04



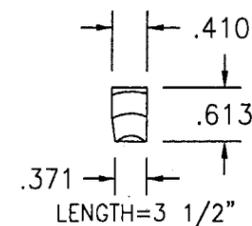
③ **WOOD SASH**
SUGAR OR PONDEROSA
PINE. G=0.04



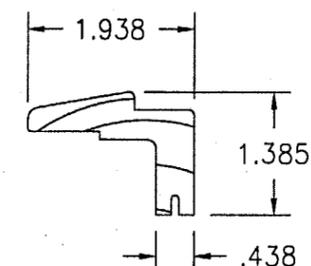
④A **GLAZING STOP**
SUGAR OR PONDEROSA
PINE. G=0.04



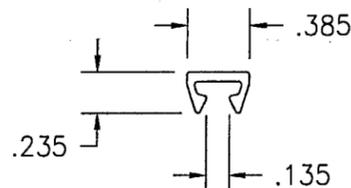
④B **GLAZING STOP**
SUGAR OR PONDEROSA
PINE. G=0.04



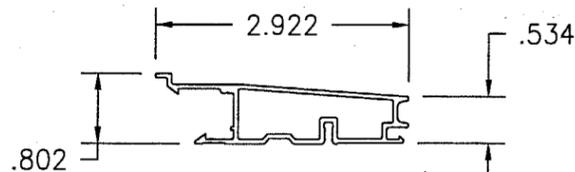
⑤ **SASH BLOCK**
SUGAR OR PONDEROSA
PINE. G=0.04



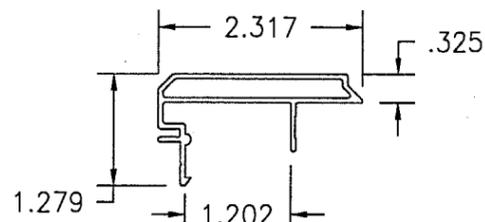
⑥ **SILL COVER**
SUGAR OR PONDEROSA
PINE. G=0.04



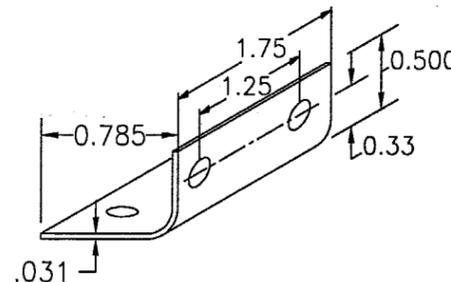
⑦ **MULLION CLIP**
6063-T5



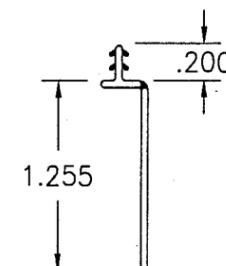
⑧ **FRAME CLADDING**
6063-T5



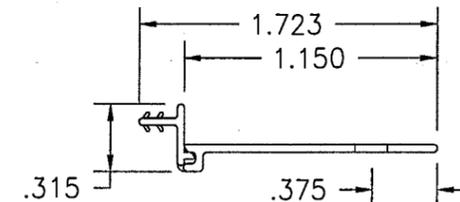
⑨ **SASH CLADDING**
6063-T5



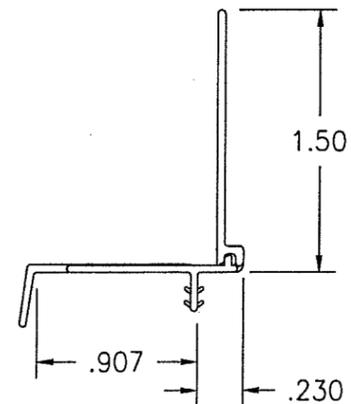
⑩ **ANGLE BRACKET**
GALVANIZED STEEL



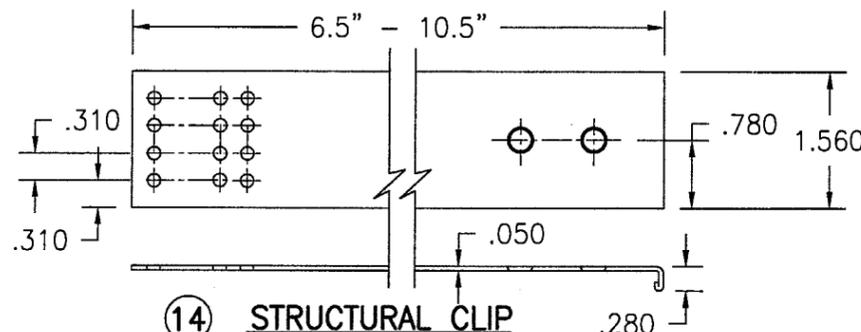
⑪ **SILL NAILING FIN**
VINYL



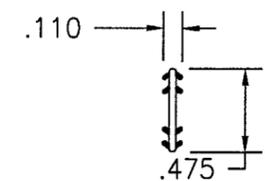
⑫ **JAMB NAILING FIN**
VINYL



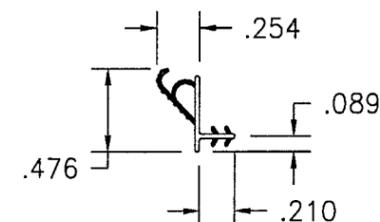
⑬ **DRIP CAP NAILING FIN**
VINYL



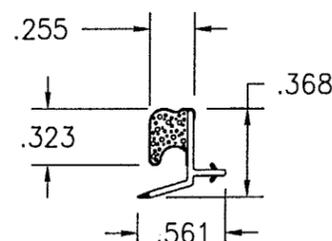
⑭ **STRUCTURAL CLIP**
GALVANIZED CARBON STEEL



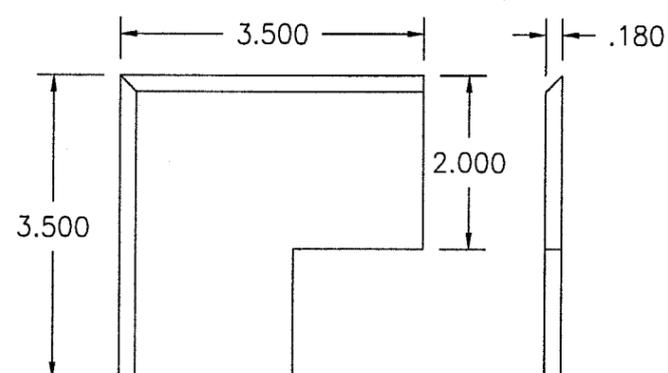
⑮ **CONNECTING BARB**
PVC & GEON C70c0



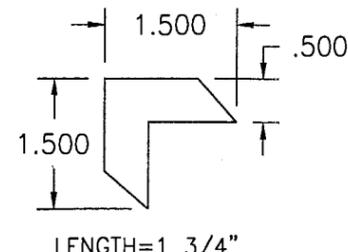
⑯ **VINYL SASH WEATHERSTRIP**



⑰ **VINYL FRAME WEATHERSTRIP**



⑱ **CORNER KEY**
NYLON



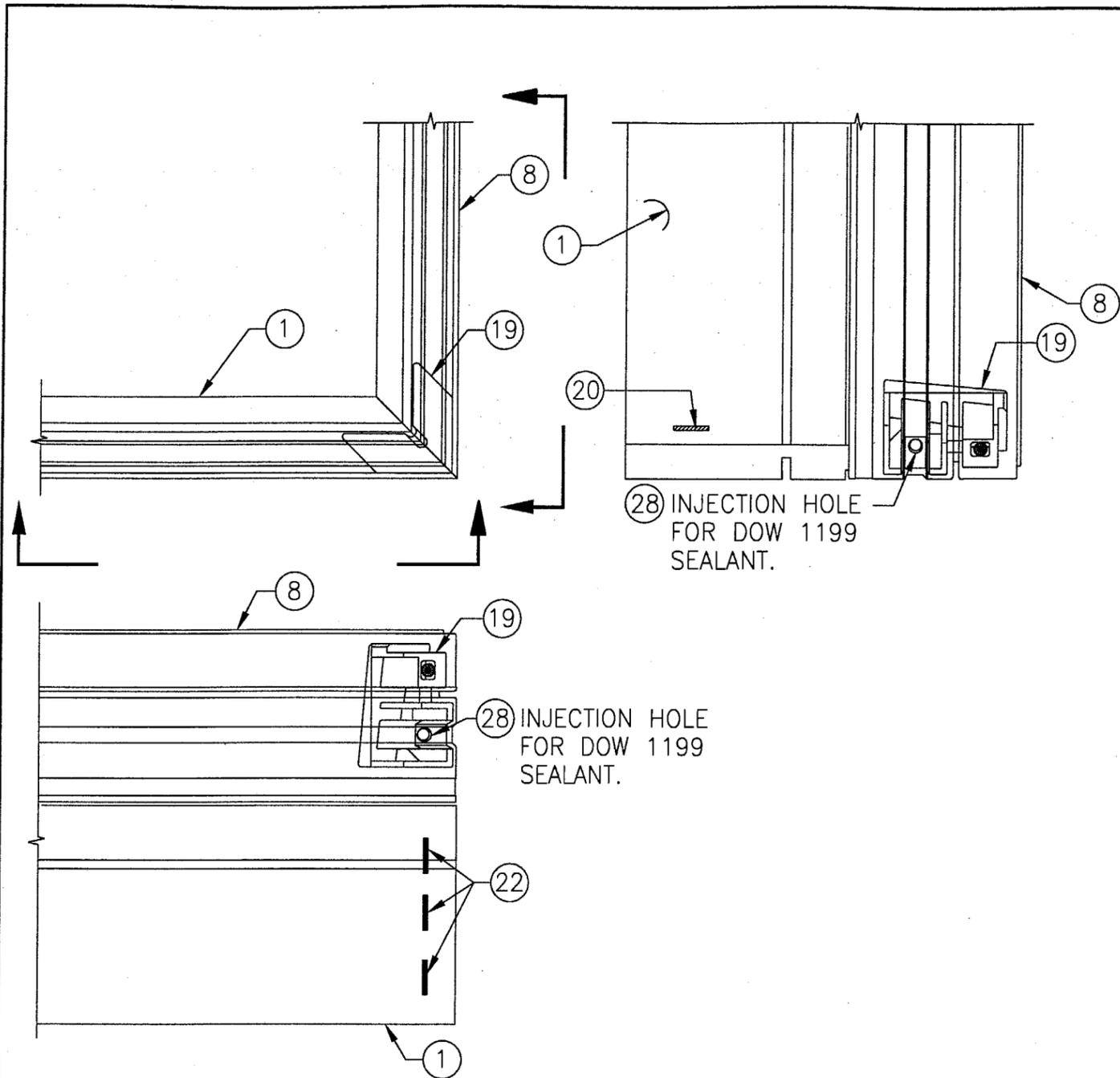
⑲ **CORNER KEY**
NYLON

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE
DATE **OCT 11 2001**
BY *Warren Schaefer*
PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE
ACCEPTANCE NO. **00-0327-09**

SEP 13 2000
Warren Schaefer
WARREN W. SCHAEFER, P.E.
STRUCTURAL ENGINEER
P.E. No. 44135
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
STRUCTURAL CONSULTING ENGINEERS
600 SANDTREE DRIVE, SUITE 203B
PALM BEACH GARDENS, FL 33403
PHONE: 561-775-4902

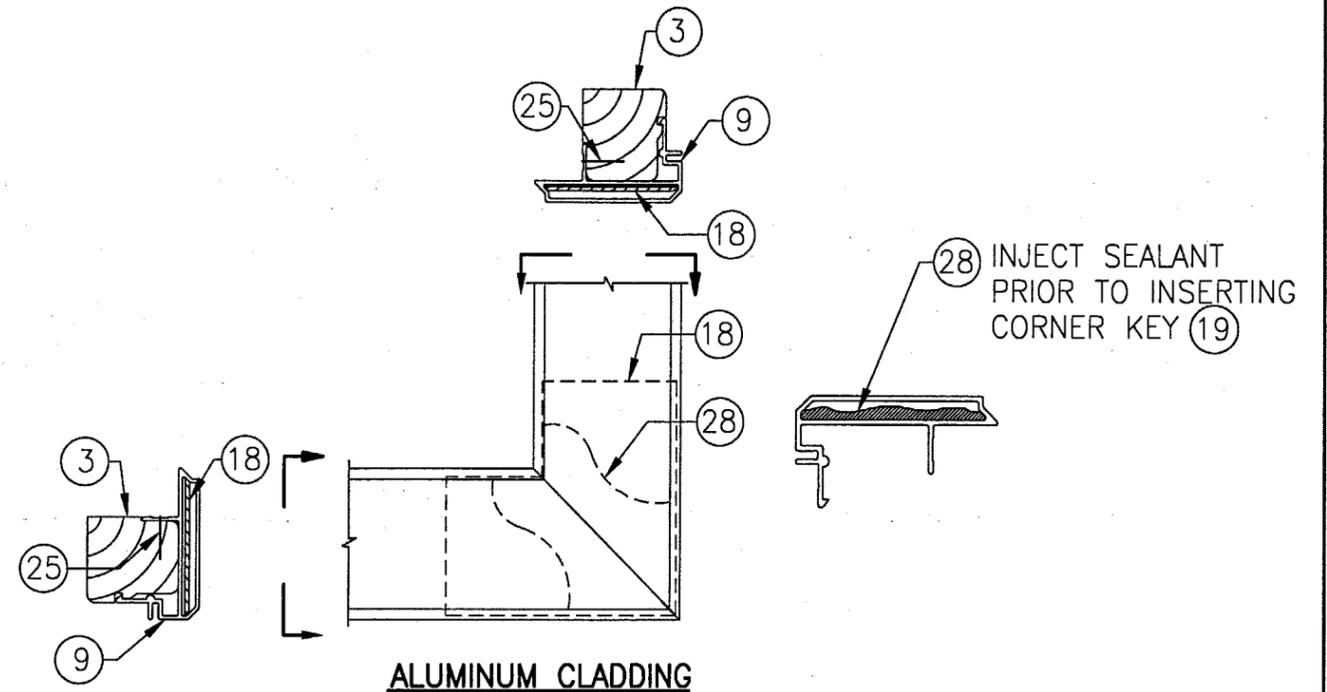
WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.		MARVIN RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS & DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT 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

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

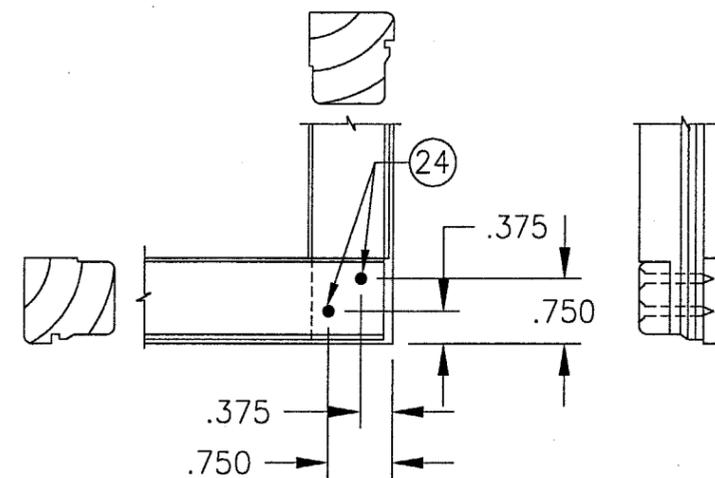


FRAME CORNER ASSEMBLY

SCALE: HALF FULL SIZE



ALUMINUM CLADDING



WOOD SASH

SASH CORNER ASSEMBLY

SCALE: HALF FULL SIZE

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE **OCT 11 2001**
 BY *Manuel Perez*
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. **60-0327-09**

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

SEP 13 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	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, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913		
	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	

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

DESIGN LOAD CAPACITY-PSF

WINDOW DIMENSIONS		GLASS NO. 31		GLASS NO. 32		GLASS NO. 33	
WIDTH	HEIGHT	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
20"	16"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		95	95	95	95	95	95
48"		95	95	95	95	95	95
54"		95	95	95	95	95	95
60"		95	95	95	95	95	95
66"		95	95	95	95	95	95
72"		95	95	95	95	95	95
20"	28"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		95	95	95	95	95	95
48"		95	95	95	95	95	95
54"		95	95	95	95	95	95
60"		95	95	95	95	95	95
66"		95	95	95	95	95	95
72"		95	95	95	95	95	95
20"	36"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		95	95	95	95	95	95
48"		95	95	95	95	95	95
54"		95	95	95	95	95	95
60"		95	95	95	95	95	95
66"		95	95	95	95	95	95
72"		95	95	95	95	95	95
20"	42"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		81	81	95	95	95	95
48"		81	81	95	95	95	95
54"		81	81	95	95	95	95
60"		81	81	95	95	95	95
66"		-	-	95	95	95	95
72"		-	-	95	95	95	95
20"	48"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		81	81	95	95	95	95
48"		71	71	95	95	95	95
54"		71	71	95	95	95	95
60"		-	-	95	95	95	95
66"		-	-	95	95	95	95
72"		-	-	95	95	95	95

DESIGN LOAD CAPACITY-PSF

WINDOW DIMENSIONS		GLASS NO. 31		GLASS NO. 32		GLASS NO. 33	
WIDTH	HEIGHT	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
20"	54"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		81	81	95	95	95	95
48"		71	71	95	95	95	95
54"		-	-	65	65	65	65
60"		-	-	65	65	65	65
66"		-	-	65	65	65	65
72"		-	-	65	65	65	65
20"	60"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		81	81	95	95	95	95
48"		71	71	95	95	95	95
54"		-	-	65	65	65	65
60"		-	-	65	65	65	65
66"		-	-	65	65	65	65
72"		-	-	65	65	65	65
20"	66"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		-	-	95	95	95	95
48"		-	-	95	95	95	95
54"		-	-	65	65	65	65
60"		-	-	65	65	65	65
64"		-	-	65	65	65	65
72"		-	-	65	65	-	-
20"	72"	95	95	95	95	95	95
24"		95	95	95	95	95	95
28"		95	95	95	95	95	95
36"		95	95	95	95	95	95
42"		-	-	95	95	95	95
48"		-	-	95	95	95	95
54"		-	-	65	65	65	65
60"		-	-	65	65	65	65
64"		-	-	65	65	65	65
72"		-	-	65	65	-	-

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

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

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE **OCT 11 2000**
 BY *Manuel Perez*
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. **00-0327-09**

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

SEP 13 2000

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

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 STRUCTURAL CONSULTING ENGINEERS
 600 SANDTREE DRIVE, SUITE 203B
 PALM BEACH GARDENS, FL 33403
 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, WARROAD, 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 C7060
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)

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 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 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)

NOTE:

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

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE
 DATE OCT 11 2000
 BY W. W. Schaefer
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 0327-09

 SEP 13 2000 WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	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, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913
PRODUCT LINE: CLAD CASEMASTER STATIONARY IMPACT HP PRODUCT: MPACT HP		ASSEMBLY: 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

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 STRUCTURAL CONSULTING ENGINEERS
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