



**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)**

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**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 High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: "Clad Casemaster Operator" Aluminum Clad Wood Casement Window**

**APPROVAL DOCUMENT:** Drawing No. **00013081A**, titled "Clad Casemaster Operator", sheets 1 through 8 of 8, dated 03/31/99 with revision A1 on 09/14/00, prepared by W.W. Schaeffer Engineering & Consulting, 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**

**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 # 00-0327.10** and consists of this page 1 as well as approval document mentioned above. The submitted documentation was reviewed by **Manuel Perez, P.E.**



**NOA No 02-1113.04  
Expiration Date: November 18, 2007  
Approval Date: December 12, 2002  
Page 1**

**Marvin Windows & Doors**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

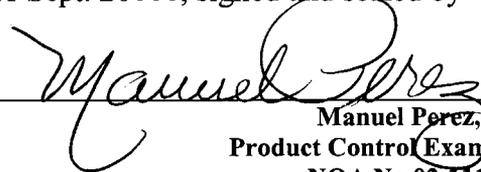
(For File ONLY. Not part of NOA)

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **00013081A**, titled "Clad Casemaster Operator", sheets 1 through 8 of 8, dated 03/31/99 with revision A1 dated 09/14/00, prepared by W.W. Schaeffer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

**B. TESTS**

1. Test reports on 1) Air Infiltration Test, per TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per TAS 202-94.  
3) Water Resistance Test, per TAS 202-94.  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of a side-by-side wood operable casement and 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) Air Infiltration Test, per TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per TAS 202-94.  
3) Water Resistance Test, per TAS 202-94.  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of a wood operable casement window prepared by Fenestration Testing Laboratory, test report No. **FTL-2231**, dated 02/11/99, signed and sealed by Gilbert Diamond, P.E
3. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94  
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of a wood operable casement window, prepared by Fenestration Testing Laboratory, Test report No. **FTL-2343**, dated 05/7/99, signed and sealed by Gilbert Diamond, P.E
4. Test reports on 1) Air Infiltration Test, per TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per TAS 202-94.  
3) Water Resistance Test, per TAS 202-94.  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of 2872 Clad Casemaster Operable window, prepared by Architectural Testing Inc., test report No. **ATI-02-31933.01**, dated 01/11/2000, and addendum letter dated 21 Sept. 20000, signed and sealed by Allen N. Reeves, P.E



Manuel Perez, P.E.  
Product Control Examiner  
NOA No 02-1113.04

Expiration Date: November 18, 2007  
Approval Date: December 12, 2002

**Marvin Windows & Doors**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

(For File ONLY. Not part of NOA)

**C. CALCULATIONS**

1. Anchor Calculations, dated September 5, 1999, prepared, signed and sealed by Mark C Fetherman, P.E.

**D. MATERIAL CERTIFICATIONS**

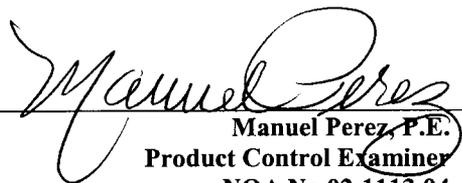
1. Notice of Proposed Action No. **99-0908.01**, issued to Cardinal DPG for their Cardinal "Sea-Storm Type B" Glass Laminate, mailed on December 10, 1999.

**E. STATEMENTS**

1. Statement letter of no change, signed by Don Lagerstrom, dated 11/4/02.

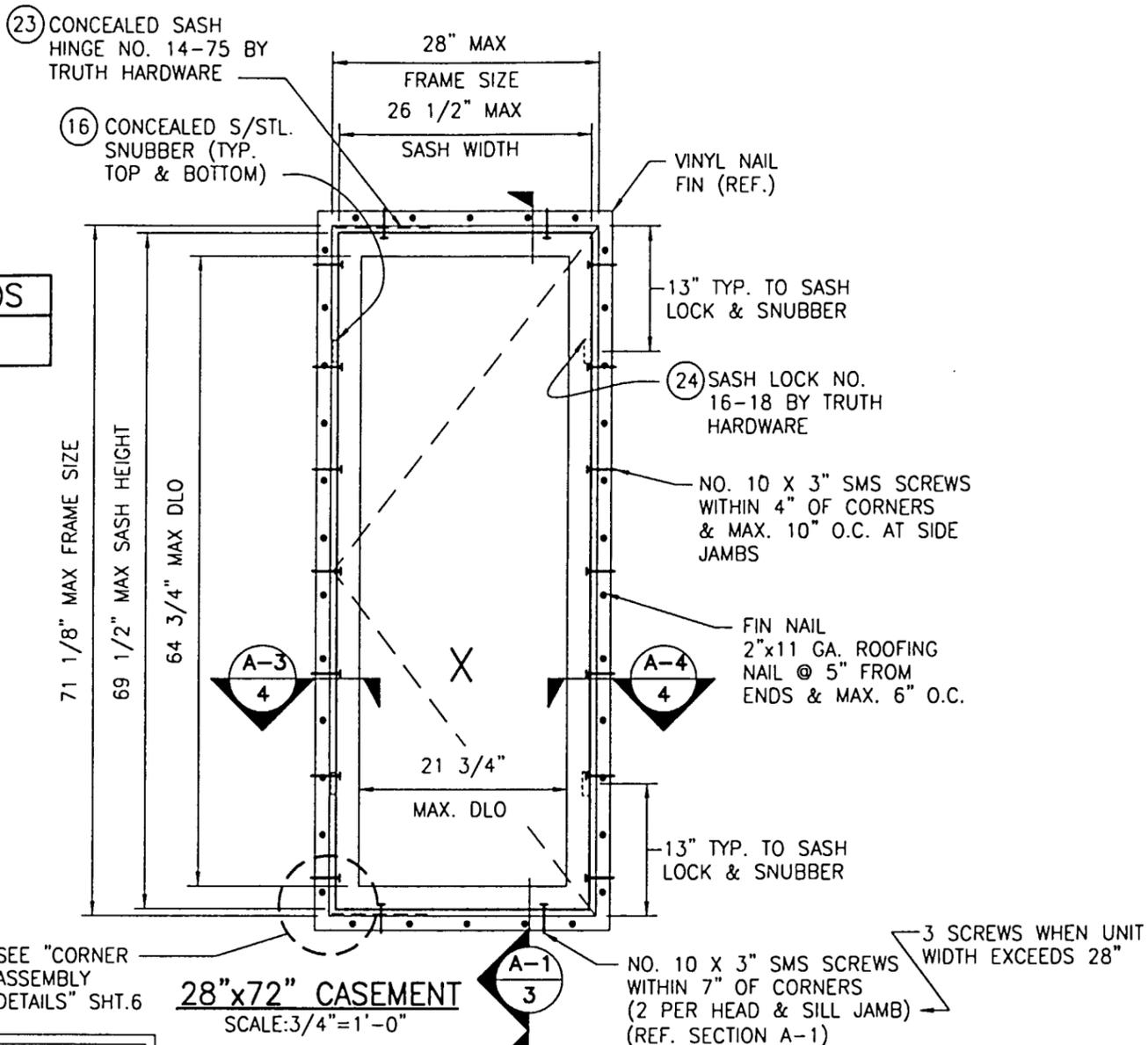
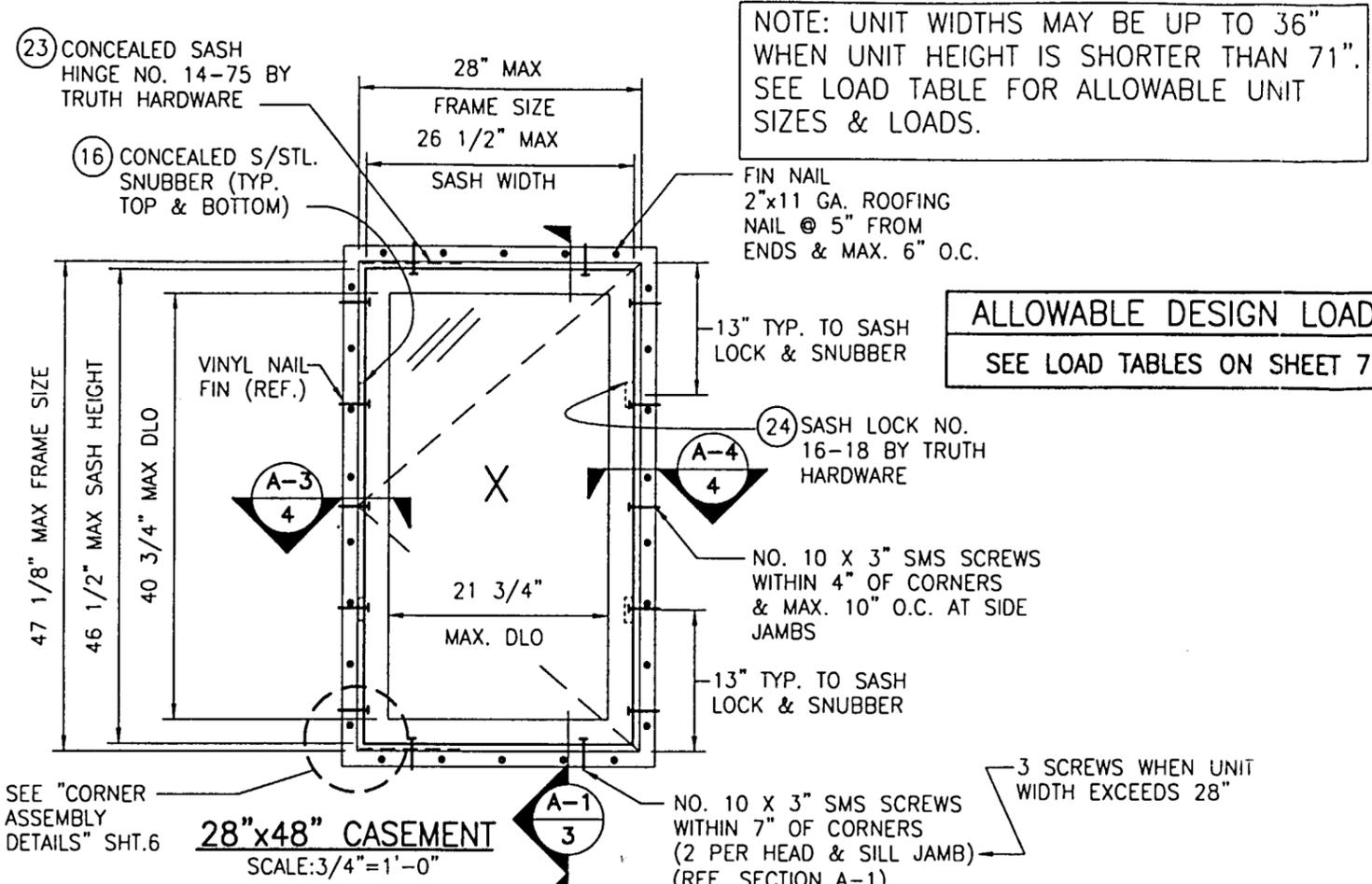
**F. OTHER**

1. Notice of Acceptance No. **00-0327.10**, issued to Marvin Windows & Doors for their Series "Clad Casemaster" Aluminum Clad Wood Casement Window, approved on 10/26/00 and expiring on 11/18/02.



Manuel Perez, P.E.  
Product Control Examiner  
NOA No 02-1113.04

Expiration Date: November 18, 2007  
Approval Date: December 12, 2002



**ALLOWABLE DESIGN LOADS**  
SEE LOAD TABLES ON SHEET 7

**ALL ELEVATIONS VIEWED FROM EXTERIOR**

**THE DETAILS ON THESE DRAWINGS ARE FOR OPERABLE CASEMENT WINDOWS. FOR STATIONARY CASEMENT WINDOWS SEE DRAWINGS NO. 00013081 & SEPERATE DADE N.O.A. NO. 99-0611.02**

**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 7.
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.

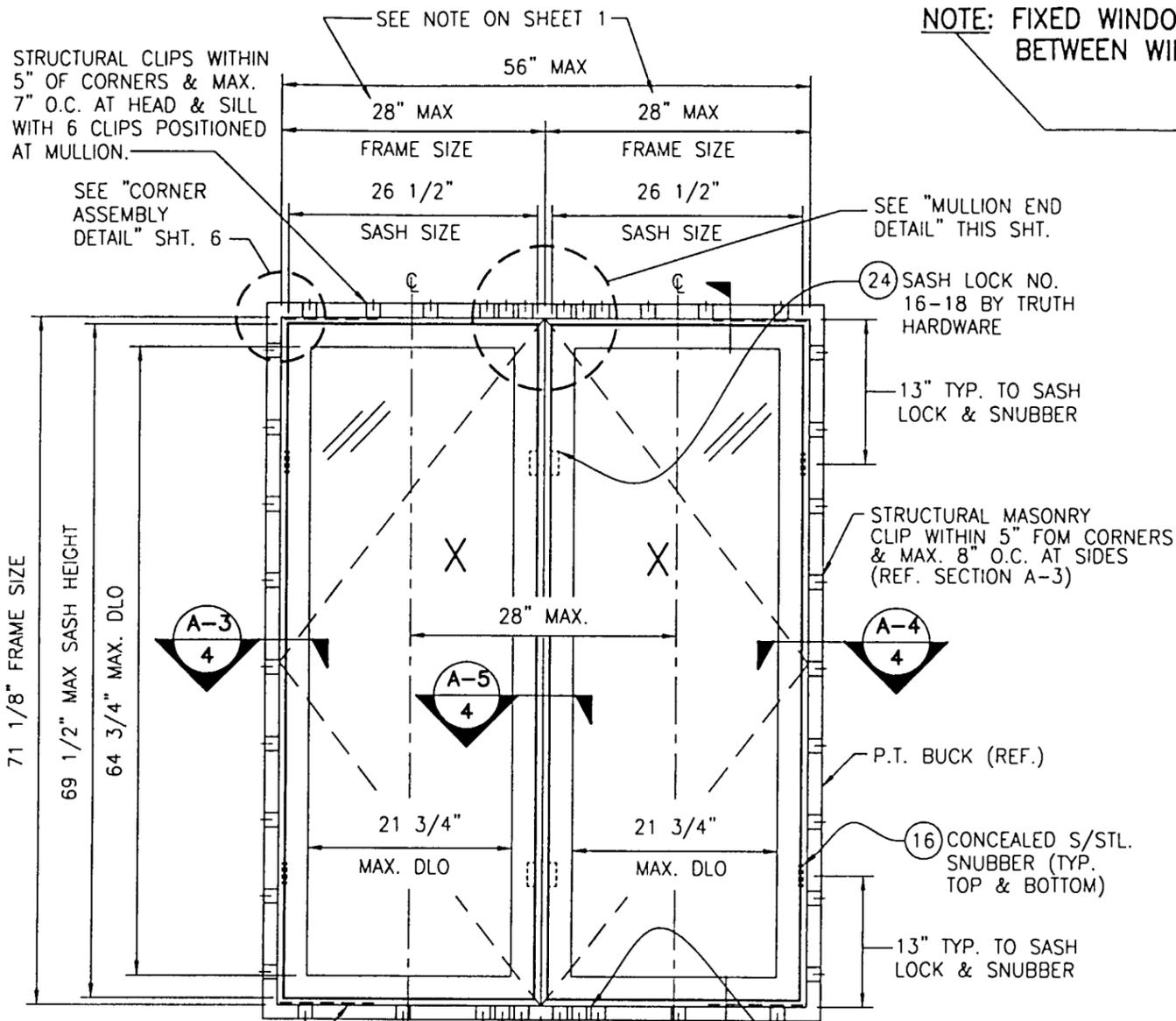
**PRODUCT RENEWED**  
as complying with the Florida Building Code  
Acceptance No. 02-1113.04  
Expiration Date 11/18/07  
By *Manuel Jure*  
Miami Dade Product Control Division

**APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE**  
DATE *October 26, 2000*  
BY *Manuel Jure*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. *00-0327.10*

SEP 14 2000  
*W. 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

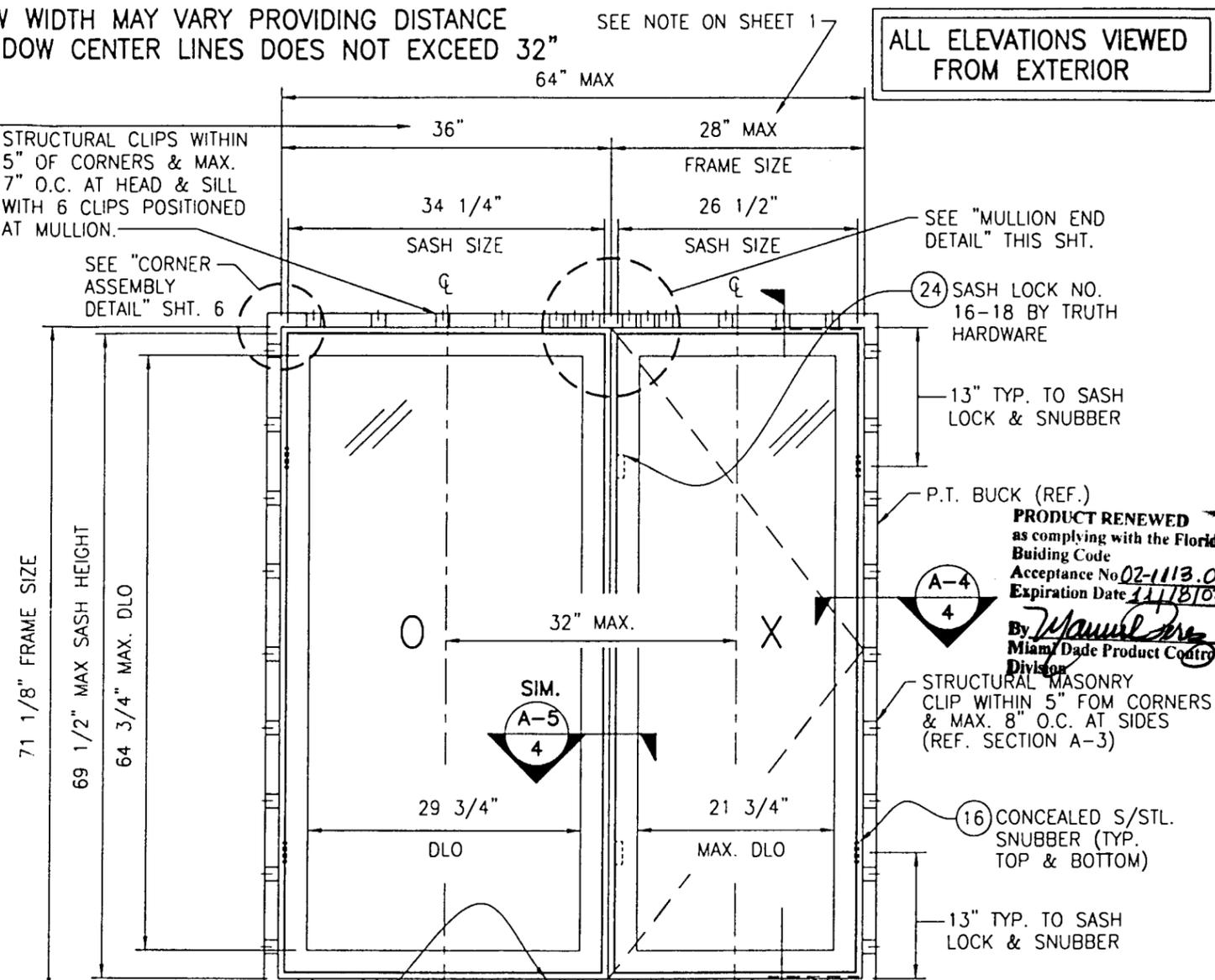
WOOD PART DIP SPEC		<b>MARVIN</b> RESEARCH AND DEVELOPMENT	
<input type="checkbox"/> DIP	<input type="checkbox"/> AT MLDR.	BOX 100, WARROAD, MN 56763	
<input type="checkbox"/> NO DIP	<input type="checkbox"/> IN PROD.	WINDOWS & DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER OPERATOR IMPACT HP		PRODUCT: IMPACT HP	
ASSEMBLY			
ELEVATIONS OF DADE-COUNTY QUALIFIED SHAPES			
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081A	
SCALE: NOTED	DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 1 OF 8

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS



**OPERABLE/OPERABLE  
CASEMENT**

SCALE: 3/4" = 1'-0"



**FIXED/OPERABLE  
CASEMENT**

SCALE: 3/4" = 1'-0"

**NOTE: FIXED WINDOW WIDTH MAY VARY PROVIDING DISTANCE BETWEEN WINDOW CENTER LINES DOES NOT EXCEED 32"**

**ALL ELEVATIONS VIEWED FROM EXTERIOR**

STRUCTURAL CLIPS WITHIN 5" OF CORNERS & MAX. 7" O.C. AT HEAD & SILL WITH 6 CLIPS POSITIONED AT MULLION.

STRUCTURAL CLIPS WITHIN 5" OF CORNERS & MAX. 7" O.C. AT HEAD & SILL WITH 6 CLIPS POSITIONED AT MULLION.

**PRODUCT RENEWED**  
as complying with the Florida Building Code  
Acceptance No. 02-1113.04  
Expiration Date 11/18/07

(23) CONCEALED SASH HINGE NO. 14-75 BY TRUTH HARDWARE

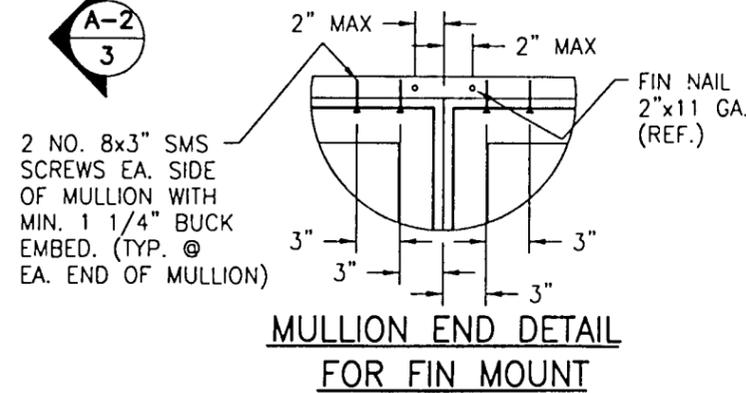
3 CLIPS SPACED 2" APART EA. SIDE OF MULLION (TYP. @ HEAD & SILL)

(23) CONCEALED SASH HINGE NO. 14-75 BY TRUTH HARDWARE

**ALLOWABLE DESIGN LOADS**  
SEE LOAD TABLES ON SHEET 7

**ALLOWABLE DESIGN LOADS FOR UNREINFORCED MULLED UNITS IS LIMITED TO +65/-65 PSF.**

THE DETAILS ON THESE DRAWINGS ARE FOR OPERABLE CASEMENT WINDOWS. FOR STATIONARY CASEMENT WINDOWS SEE DRAWINGS NO. 00013081 & SEPERATE DADE N.O.A. NO. 99-0611.02



**MULLION END DETAIL FOR FIN MOUNT**

SEP 14 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  
 DIP  AT MLDR.  
 NO DIP  IN PROD.

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

PRODUCT LINE: CLAD CASEMASTER OPERATOR IMPACT HP  
PRODUCT: IMPACT HP

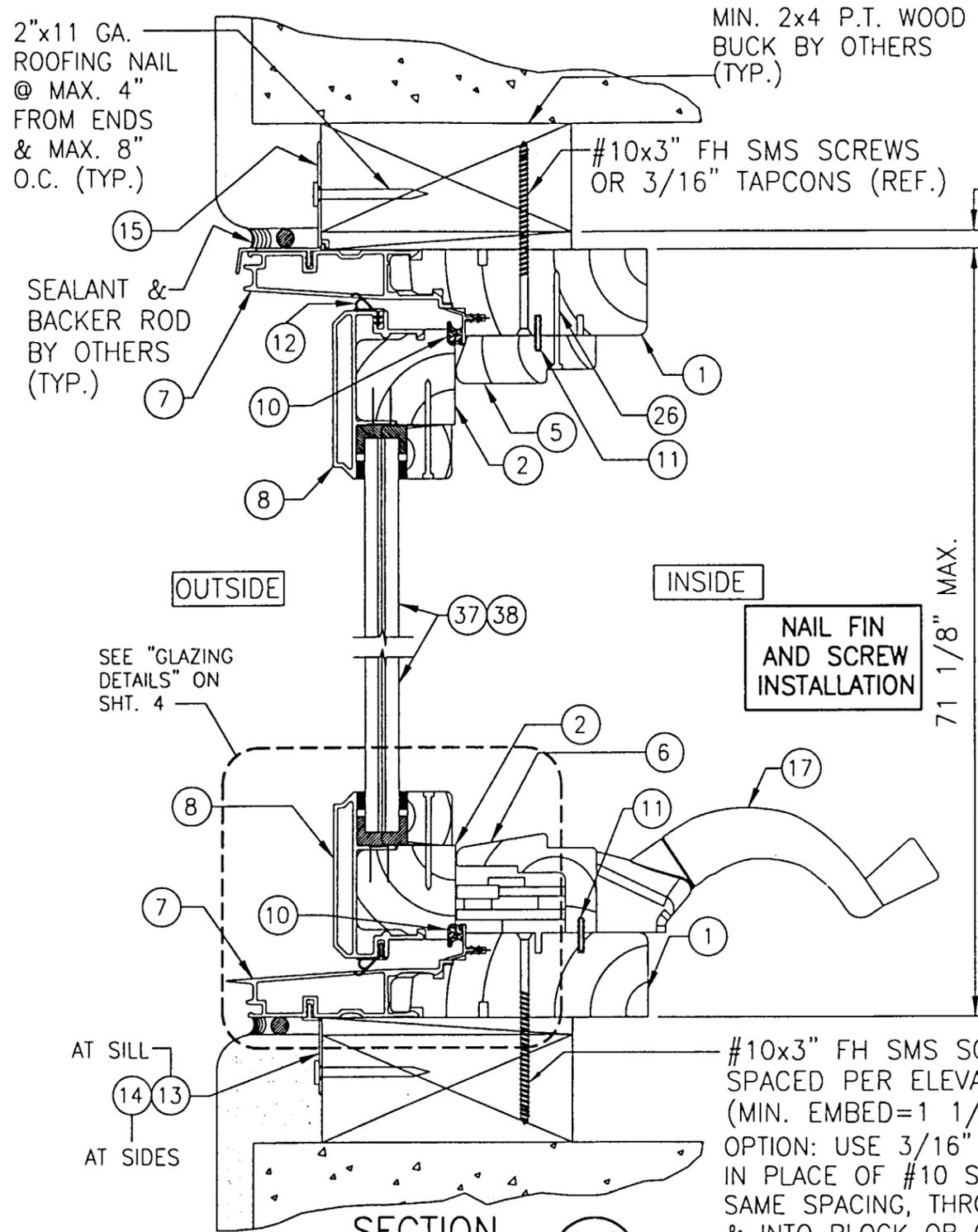
ASSEMBLY  
ELEVATIONS OF DADE-COUNTY QUALIFIED SHAPES

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

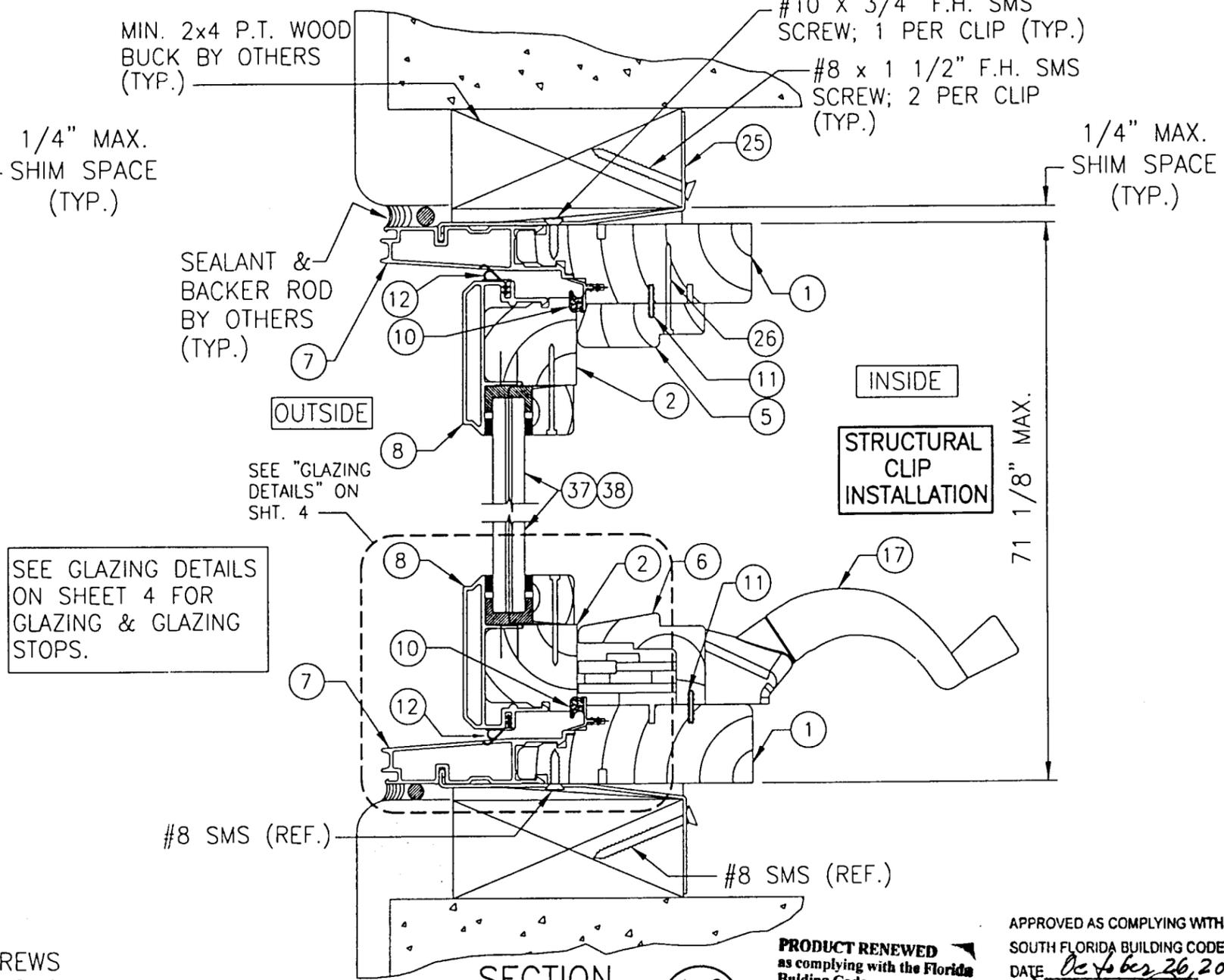
SCALE: NOTED  
DATE: 03/31/99  
DRAWN BY: T.M.H.  
SHEET: 2 OF 8

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS

FLORIDA BUILDING CODE  
DATE: October 26, 2000  
BY: *Mauro S...*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0377-70



SECTION A-1  
SCALE: HALF FULL SIZE



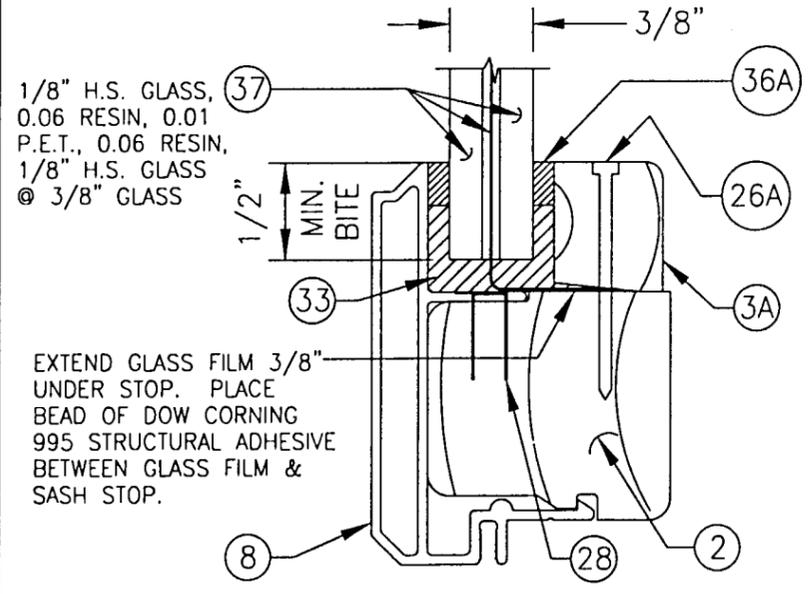
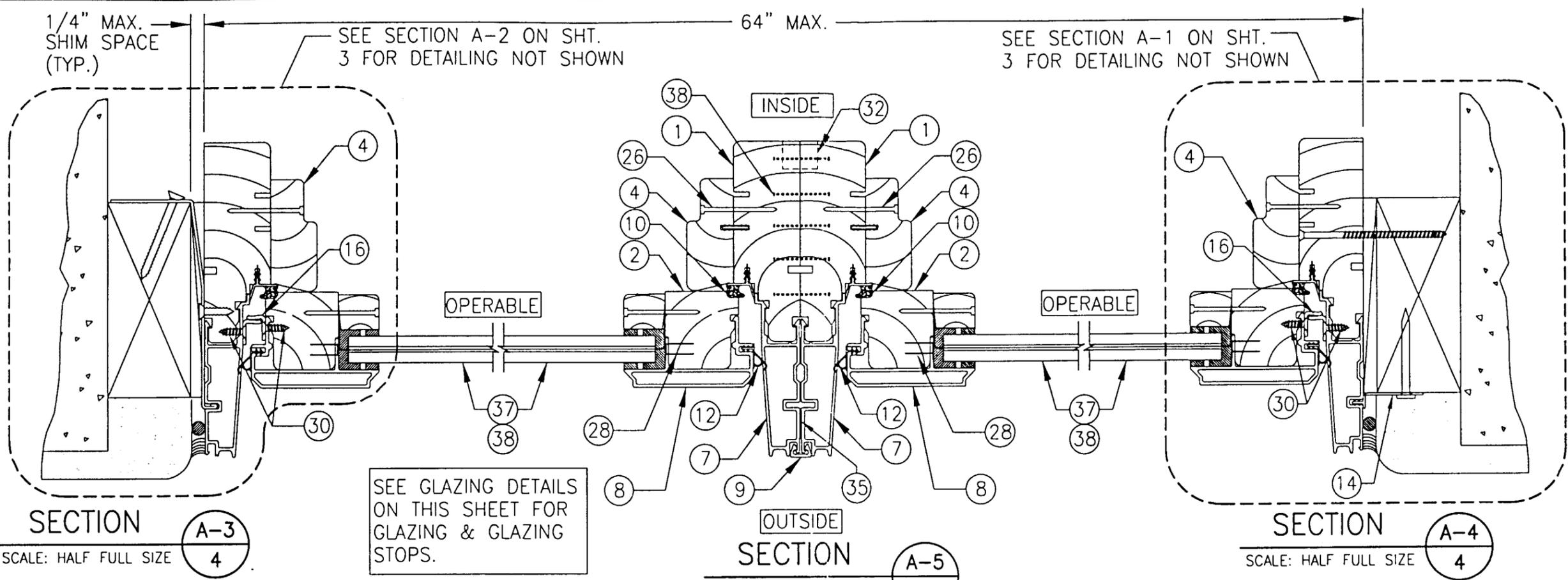
SECTION A-2  
SCALE: HALF FULL SIZE

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REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

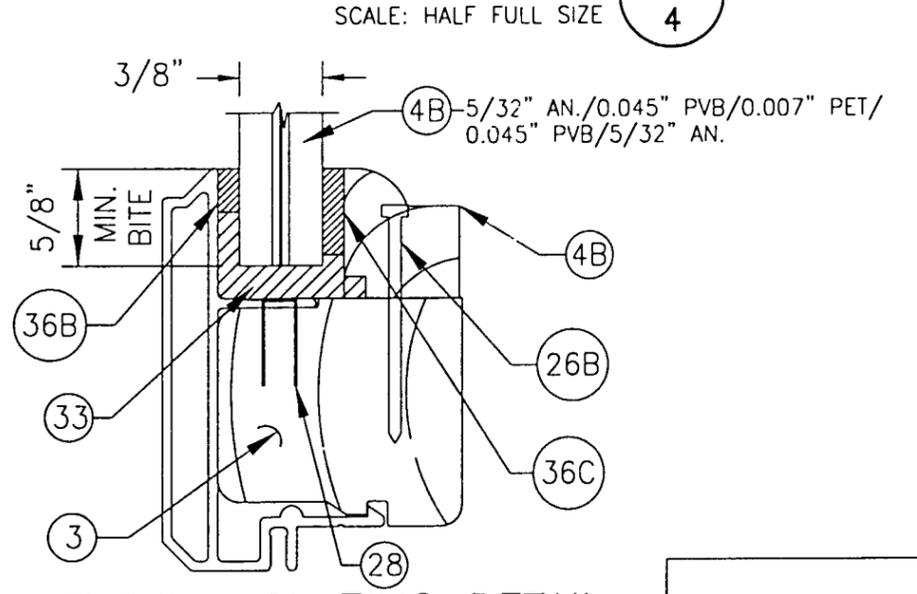
SEP 14 2000  
WARREN W. SCHAEFER, P.E.  
STRUCTURAL ENGINEER  
P.E. No. 44135  
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
STRUCTURAL CONSULTING ENGINEERS  
600 SANDTREE DRIVE, SUITE 203B  
PALM BEACH GARDENS, FL 33403  
PHONE: 561-775-4902

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: PRODUCT:	CLAD CASEMASTER OPERATOR IMPACT HP IMPACT HP
ASSEMBLY: CROSS SECTIONS	
MATERIAL: N/A	SIZE: B
DRAWING NO: 00013081A	SCALE: DATE: NOTED 03/31/99
DRAWN BY: T.M.H.	SHEET: 3 OF 8

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE: October 26, 2000  
BY: Manuel Ruiz  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-032710  
PRODUCT RENEWED as complying with the Florida Building Code  
Acceptance No 02-1113.04  
Expiration Date 11/18/07  
By: Manuel Ruiz  
Miami Dade Product Control Division



**TYPICAL GLAZING DETAIL  
(GLASS NO. 37)**  
SCALE: HALF FULL SIZE  
NEBULA SAFETY-PLUS 7/16" OR 3/8" HEAT STRENGTHENED LAMINATED GLASS



**TYPICAL GLAZING DETAIL  
(GLASS 38)**  
SCALE: FULL SIZE  
CARDINAL SEA-STORM 3/8" LAMINATED ANNEALED GLASS

**PRODUCT RENEWED**  
as complying with the Florida Building Code  
Acceptance No. 02-1113.04  
Expiration Date: 11/18/07  
By: *Manuel Diaz*  
Miami Dade Product Control Division

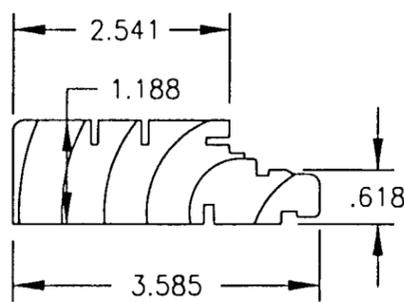
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE: *October 26, 2000*  
BY: *Manuel Diaz*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. *60-0327.10*

SEP 14 2000  
*WWS*  
WARREN W. SCHAEFER, P.E.  
STRUCTURAL ENGINEER  
P.E. No. 44135

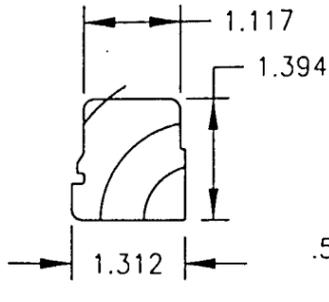
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
STRUCTURAL CONSULTING ENGINEERS  
600 SANDTREE DRIVE, SUITE 203B  
PALM BEACH GARDENS, FL 33403  
PHONE: 561-775-4902

WOOD PART DIP SPEC <input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.		<b>MARVIN</b> RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
PRODUCT LINE: CLAD CASEMASTER OPERATOR IMPACT HP		PRODUCT: IMPACT HP	
ASSEMBLY: MULLION-CROSS SECTION & GLASS DETAIL			
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081A	
SCALE: NOTED	DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 4 OF 8

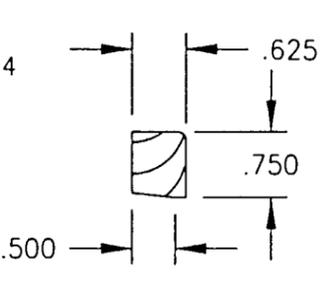
A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER



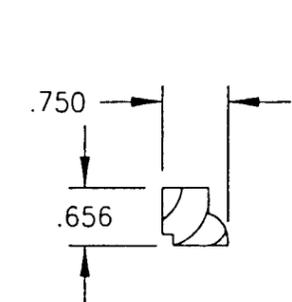
① **WOOD FRAME**  
SUGAR OR PONDEROSA  
PINE G=0.04



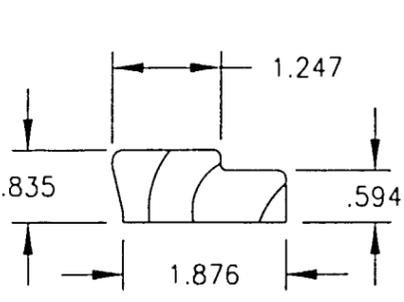
② **WOOD SASH**  
SUGAR OR PONDEROSA  
PINE G=0.04



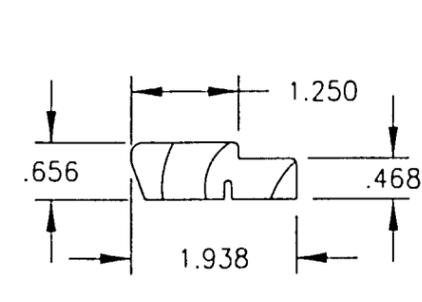
③A **GLAZING STOP**  
SUGAR OR PONDEROSA  
PINE G=0.04



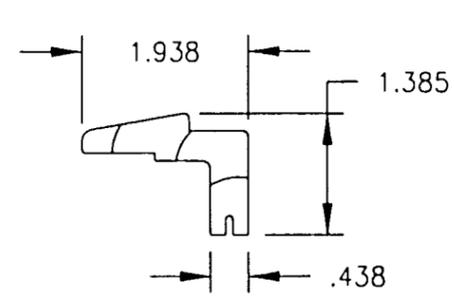
③B **GLAZING STOP**  
SUGAR OR PONDEROSA  
PINE G=0.04



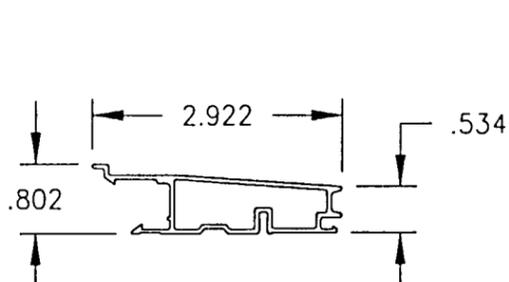
④ **JAMB SIDE STOP**  
SUGAR OR PONDEROSA  
PINE G=0.04



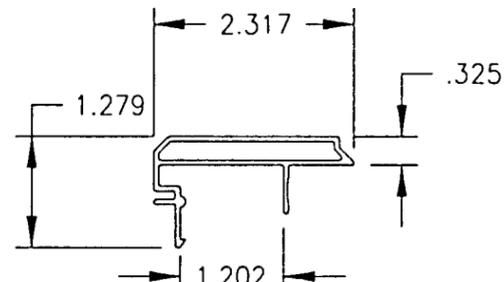
⑤ **HEAD JAMB SIDE STOP**  
SUGAR OR PONDEROSA  
PINE G=0.04



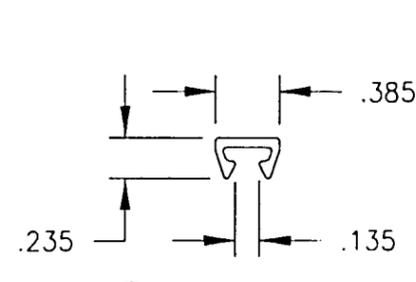
⑥ **HARDWARE COVER**  
SUGAR OR PONDEROSA  
PINE G=0.04



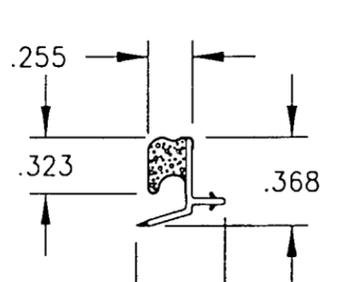
⑦ **FRAME CLADDING**  
6063-T5



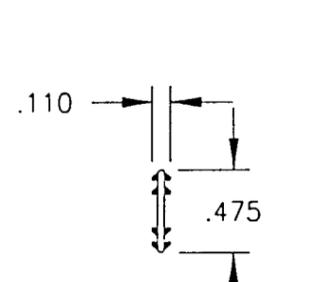
⑧ **SASH CLADDING**  
6063-T5



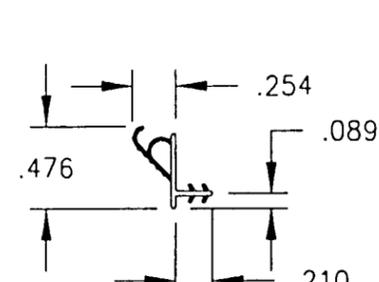
⑨ **MULL CLIP**  
6063-T5



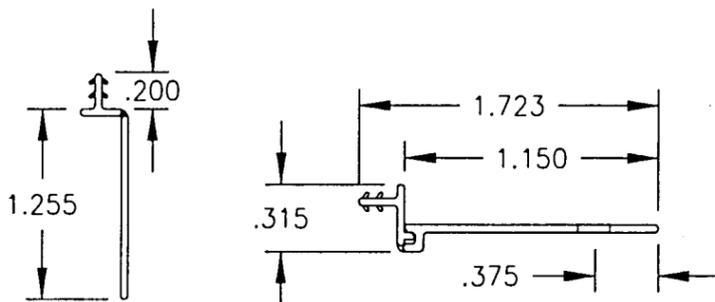
⑩ **VINYL FRAME WEATHERSTRIP**



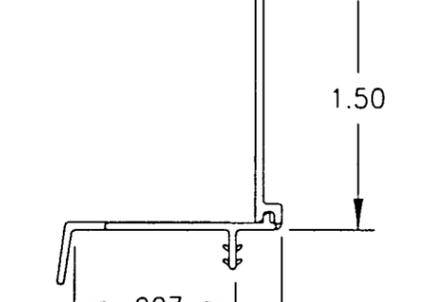
⑪ **CONNECTING BARB**  
PVC & GEON C70a0



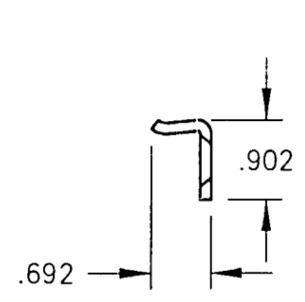
⑫ **VINYL SASH WEATHERSTRIP**



⑬ **SILL NAILING FIN** VINYL

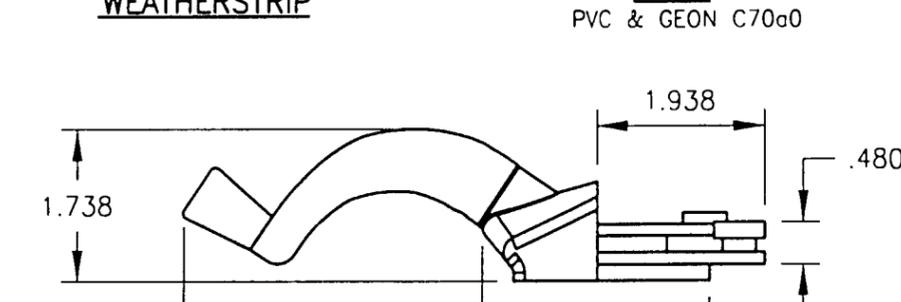


⑭ **JAMB NAILING FIN** VINYL

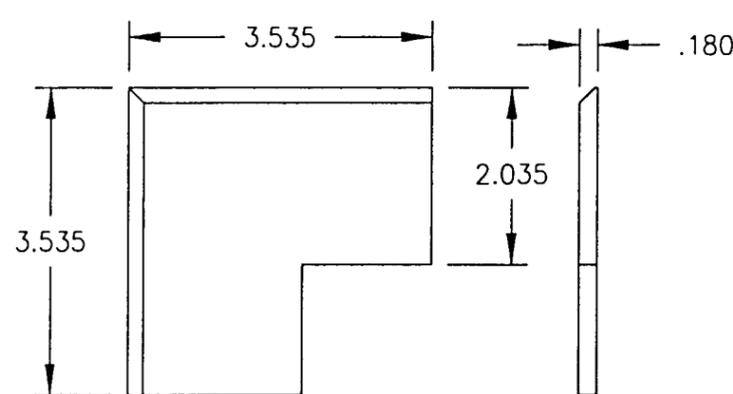


⑮ **DRIP CAP NAILING FIN** VINYL

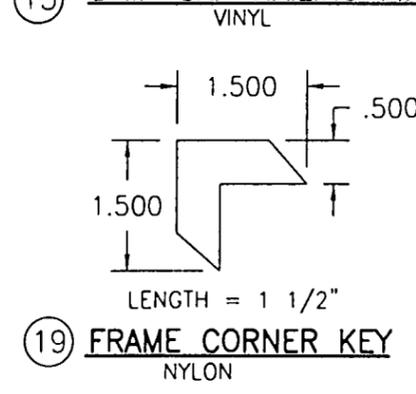
⑯ **SASH SNUBBER** STAINLESS STEEL



⑰ **OPERATOR WITH HANDLE**



⑱ **SASH CORNER KEY** NYLON



⑲ **FRAME CORNER KEY** NYLON

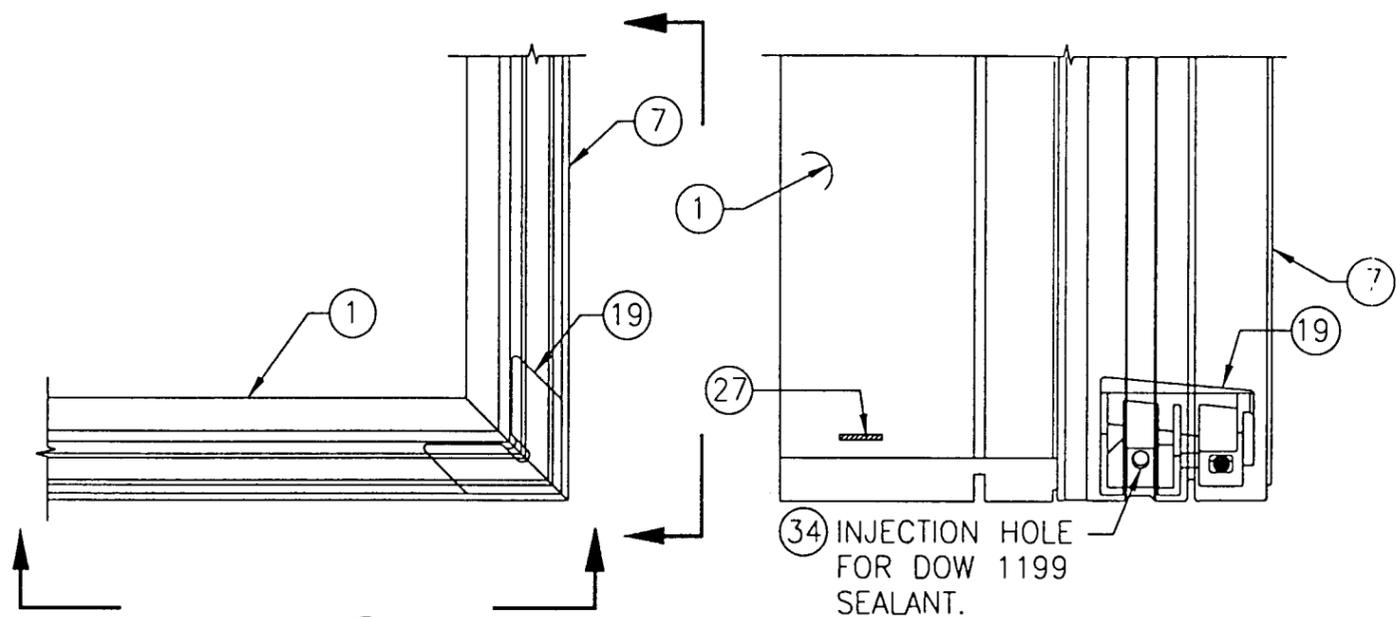
PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 02-1113.04  
Expiration Date 11/18/02  
By *Manned Suez*  
Miami Dade Product Control  
Division

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE *October 26, 2000*  
BY *Manned Suez*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. *00-0329.10*

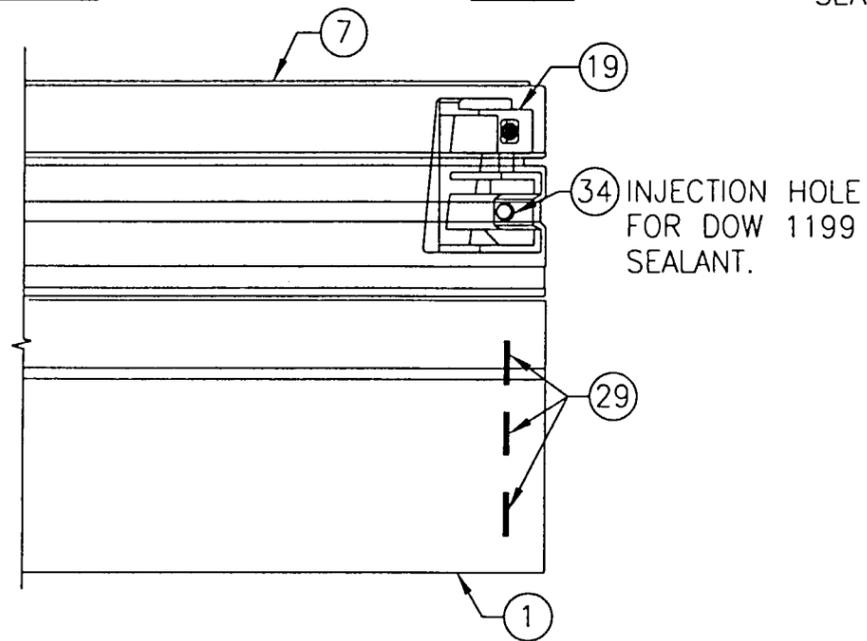
SEP 14 2000  
*W. W. Schaefer*  
WARREN W. SCHAEFER, P.E.  
STRUCTURAL ENGINEER  
P.E. No. 44135  
W. W. SCHAEFER ENGINEERING  
& CONSULTING, P.A.  
STRUCTURAL CONSULTING ENGINEERS  
600 SANDTREE DRIVE, SUITE 203B  
PALM BEACH GARDENS, FL 33403  
PHONE: 561-775-4902

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 OPERATOR IMPACT HP		PRODUCT: IMPACT HP	
ASSEMBLY: PARTS & EXTRUSIONS			
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081A	
SCALE: 1:2	DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 5 OF 8

REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER
A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS



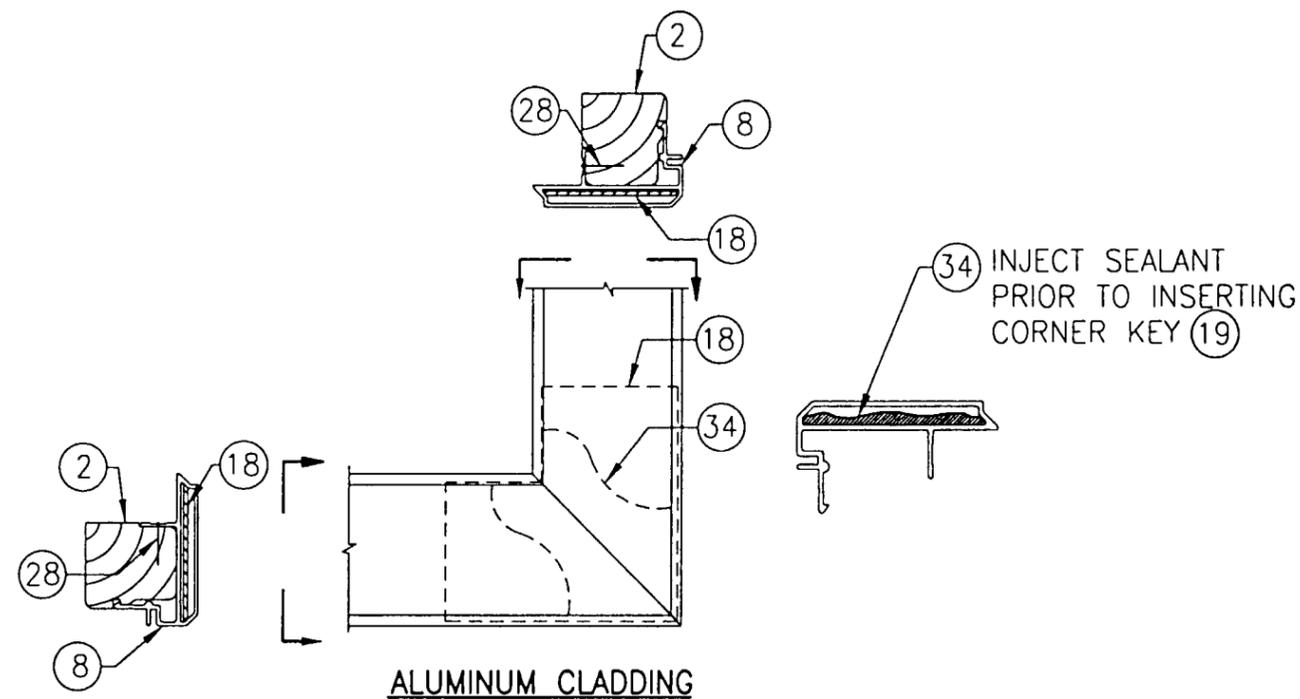
34 INJECTION HOLE FOR DOW 1199 SEALANT.



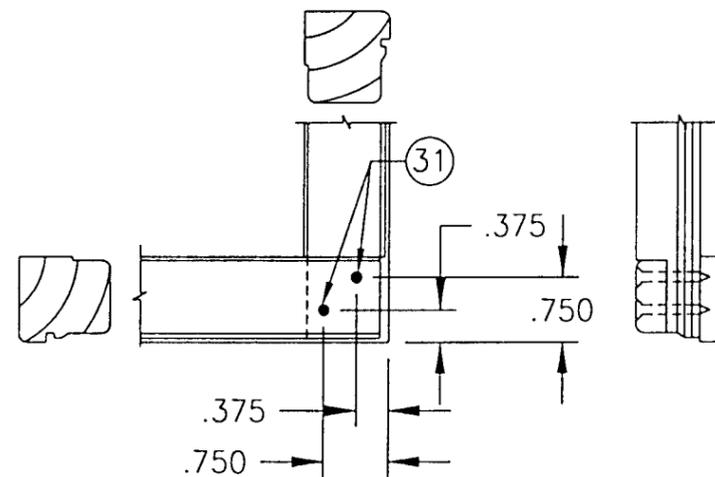
34 INJECTION HOLE FOR DOW 1199 SEALANT.

**FRAME CORNER ASSEMBLY**

SCALE: HALF FULL SIZE



**ALUMINUM CLADDING**



**WOOD SASH**

**SASH CORNER ASSEMBLY**

SCALE: HALF FULL SIZE

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 02-1113.04  
Expiration Date 11/18/07  
By *Mauro Suez*  
Miami Dade Product Control  
Division

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE *02/16/02* *02/26/2000*  
BY *Mauro Suez*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. *00-0327.10*

A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

SEP 14 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.		<b>MARVIN</b> RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913	
	PRODUCT LINE: CLAD CASEMASTER OPERATOR IMPACT HP PRODUCT: IMPACT HP			
ASSEMBLY: CORNER ASSEMBLY DETAILS				
MATERIAL: N/A		SIZE: B	DRAWING NO: 00013081A	
SCALE: NOTED		DATE: 03/31/99	DRAWN BY: T.M.H.	SHEET: 6 of 8

**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. 37 & 38	
WIDTH	HEIGHT	POSITIVE	NEGATIVE
20"	32"	75	75
24"		75	75
28"		75	75
32"		75	75
36"		75	75
20"	36"	75	75
24"		75	75
28"		75	75
32"		75	75
36"		75	75
20"	40"	75	75
24"		75	75
28"		75	75
32"		75	75
36"		65	65
20"	44"	75	75
24"		75	75
28"		75	75
32"		65	65
36"		65	65
20"	48"	75	75
24"		75	75
28"		75	75
32"		65	65
36"		65	65

GLASS NO. 37 = NEBULA SAFETY PLUS 3/8" LAMINATED HEAT STRENGTHENED GLASS  
 GLASS NO. 38 = CARDINAL SEA-STORM 3/8" LAMINATED ANNEALED GLASS

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

DESIGN LOAD CAPACITY-PSF			
WINDOW DIMENSIONS		GLASS NO. 37 & 38	
WIDTH	HEIGHT	POSITIVE	NEGATIVE
20"	52"	65	65
24"		65	65
28"		65	65
32"		65	65
36"		65	65
20"	56"	65	65
24"		65	65
28"		65	65
32"		65	65
36"		-	-
20"	60"	65	65
24"		65	65
28"		65	65
32"		65	65
36"		-	-
20"	64"	65	65
24"		65	65
28"		65	65
32"		-	-
36"		-	-
20"	68"	65	65
24"		65	65
28"		65	65
32"		-	-
36"		-	-
20"	72"	65	65
24"		65	65
28"		65	65
32"		-	-
36"		-	-

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 02-1113.04  
 Expiration Date 11/18/07  
 By Manuel Perez  
 Miami/Dade Product Control Division

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE October 26, 2000  
 BY Manuel Perez  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 00-0327.10

A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

SEP 14 2000  WARREN W. SCHAEFER, P.E. STRUCTURAL ENGINEER P.E. No. 44135	WOOD PART DIP SPEC	<b>MARVIN</b> RESEARCH AND DEVELOPMENT BOX 100, WARROAD, MN 56763 WINDOWS&DOORS. (218) 386-1430 FAX 386-1913
	<input type="checkbox"/> DIP <input type="checkbox"/> AT MLDR. <input type="checkbox"/> NO DIP <input type="checkbox"/> IN PROD.	
<b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> STRUCTURAL CONSULTING ENGINEERS 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902	PRODUCT LINE: CLAD CASEMASTER OPERATOR IMPACT HP PRODUCT: MPACT HP	
	ASSEMBLY: LOAD CAPACITY CHARTS	
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081A
SCALE: FULL	DATE: 03/31/99	DRAWN BY: T.M.H.
		SHEET: 7 OF 8

### MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
<b>PARTS &amp; EXTRUSIONS</b>			
1	W1994	3.585" x 1.188" WOOD JAMB	
2	W3707	1.312" x 1.394" WOOD SASH	
3A	W4002	0.750" x 0.625" WOOD GLAZING STOP	USED WITH GLASS NO. 37
3B	-	0.750" x 0.656" WOOD GLAZING STOP	USED WITH GLASS NO. 38
4	W2068	1.86" x 0.835" JAMB SIDE STOP	
5	W7016	1.938" x 0.656" HEAD JAMB STOP	
6	W7018	HARDWARE COVER	
7	A323	ALUMINUM FRAME CLADDING	ALUMINUM (6063-T5)
8	A209	ALUMINUM SASH CLADDING	ALUMINUM (6063-T5)
9	A104	MULLION CLIP	ALUMINUM (6063-T5) FULL LENGTH OF MULLION
10	V138	VINYL FRAME WEATHERSTRIP	BY AMSBURY
11	V803	0.110" x 0.475" CONNECTING BARB	PVC & GEON C70d0
12	V195	SASH WEATHERSTRIP	BY INTEK
13	V084	VINYL SILL NAILING FIN	BY AMES
14	V104	VINYL JAMB NAILING FIN	BY AMES
15	V114	VINYL DRIP CAP NAILING FIN	BY AMES
16	-	CONCEALED SASH SNUBBER	STAINLESS STEEL (2 EA. WINDOW; EA. PLACED 13" FROM TOP & BOTTOM OF FRAME)
17	-	OPERATOR WITH HANDLE	TRUTH-SERIES 15 DUAL ARM OPERATOR MW ZINC HANDLE MW PLASTIC HARDWARE COVER
18	-	3 1/2" x 3 1/2" x 3/16" CORNER KEY	NYLON; AT ALL MITERED CORNERS OF SASH
19	-	1 1/2" x 1 1/2" x 1/2" CORNER KEY	NYLON; AT ALL MITERED CORNERS OF FRAME
20	31359	TRUTH - KEEPER	STAINLESS STEEL
21	30706	SASH OPERATOR TRACK	STAINLESS STEEL
22	205450	TRUTH - STUD BRACKET	STAINLESS STEEL
23	-	SASH HINGE, TRUTH - #14-75	10" LONG TRACK & ARM WITH STAINLESS STEEL INSERT INSIDE DELRIN SLIDE SHOE WITH A BRASS POST AND LOCKING SNAP RING
24	-	SASH LOCK	TRUTH - #16-18 (2 EA. WINDOW; EA PLACED 13" FROM TOP & BOTTOM OF FRAME) SECURE KEEPERS TO JAMB WITH 2 NO. 8 x 1 1/4" SMS. SECURE CAM LOCKS TO SASH WITH 2 NO. 8 x 1 1/2" SMS.
25	11860012-3	6.5"-10.5" LONG, STRUCTURAL MASONRY CLIP	690 LOCFORM GALV. STEEL BY WABINICA, INC. LOCATED 3" FOM CORNERS & 8" O.C.

A1	ADDED CARDINAL SEA-STORM GLASS		09/14/00	WWS
REV#	DESCRIPTION / REQUESTER	ECN NO	DATE	DRAFTER

### MATERIAL LIST

PART NO.	REFERENCE NO.	DESCRIPTION	NOTES
<b>FASTENERS</b>			
26A	11892207	F-14 x 1.375" BRAD NAIL	2" FROM CORNERS & MAX. 5" O.C.
26B	-	F-18 x 1.125" BRAD NAIL	3" FROM CORNERS & MAX. 8" O.C.
27	-	GS14 x 2.25" STAPLE	1 PER JAMB CORNER
28	-	GNS-18 x 0.500" STAPLE	2" FROM CORNERS & MAX. 6" O.C. FASTENING CLADDING TO SASH
29	-	GS16 x 2.00" STAPLE	3 PER FRAME (JAMB) CORNER.
30	-	#8 x 1/2" F.H. SMS SCREW	2 PER SNUBBER
31	-	#8 x 1 1/4" F.H. SMS SCREW	2 AT EA. SASH CORNER
32	11820012	5/8" x 1/2" CORRUGATED STEEL FASTENER	FASTENES INTERIOR SIDE OF JAMBS TOGETHER @ JAMB TO JAMB MULLION. 3 @ EA. END & MAX. 16" O.C.
<b>SEALANTS</b>			
33	-	DOW 995 SILICON SEALANT	BY DOW CORNING
34	-	DOW 1199 SILICON SEALANT	CORNER INJECTION SEALANT; DOW CORNING
35	00003991	.063" x .500 FOAM TAPE	@ MULLED UNITS; BY 3M (FULL LENGTH)
36A	-	.0625" x .375" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
36B	-	.0625" x .25" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
36C	-	.0625" x .5" GLAZING TAPE	POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE
<b>OTHER</b>			
37	-	3/8" HEAT STRENGTHENED LAMINATED GLASS	NEBULA SAFETY-PLUS LAMINATED GLASS (1/8" HEAT STRENGTH/0.06" RESIN/0.01 P.E.T./0.06" RESIN/ 1/8" HEAT STRENGTH
38	-	3/8" ANNELAED LAMINATED GLASS	CARCINAL SEA-STORM LAMINATED GLASS 5/32" AN./0.045" PVB/0.007" PET/ 0.045" PVB/5/32" AN.

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

**PRODUCT RENEWED**  
as complying with the Florida Building Code  
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Expiration Date 11/18/02  
By *Manuel...*  
Miami Dade Product Control Division

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE *October 26, 2000*  
BY *Manuel...*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. *00-0327.10*

 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 OPERATOR PRODUCT: IMPACT HP		ASSEMBLY: MATERIAL LIST
MATERIAL: N/A	SIZE: B	DRAWING NO: 00013081A
SCALE: 1:1	DATE: 03/31/99	DRAWN BY: T.M.H. SHEET: 8 OF 8

**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
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