



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/pera/

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

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA - Product Control Section 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 Section (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. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section 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 "StormPlus IZ4 Clad Direct Glazed" Aluminum Clad Wood Fixed Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1539, titled "Clad Direct Glaze Impact HP", sheets 1 through 4 of 4, dated 06/17/07, with revision A1 dated 10/14/11, 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 Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

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, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 07-0924.01 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.



NOA No. 11-1021.07
Expiration Date: November 30, 2012
Approval Date: December 22, 2011

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **1539**, titled "Clad Direct Glaze Impact HP", sheets 1 through 4 of 4, dated 06/17/07, with revision A1 dated 10/14/11, prepared by W. W. Schaefer Engineering & Consulting, P.A, signed and sealed by Warren W. Schaefer, P.E.

B. TESTS

1. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram, of a direct set wood fixed window, prepared by Architectural Testing, Inc., Test Report No.

ATI-73561.01-201-18, dated 06/21/07, signed and sealed by Joseph A. Reed, P.E.
(Submitted under previous NOA# 07-0924.01)

2. Test reports on
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading erFBC,TAS 202-94.
 - 3) Water Resistance Test, per FBC, TAS 202-94.
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with installation diagram of a 6072 clad direct set wood fixed window, prepared by Architectural Testing Inc., Test Report No. **ATI-02-31929.01**, dated 01/11/00, and addendum letter dated 09/21/00, both signed and sealed by Allen N. Reeves, P.E

(Submitted under previous NOA# 05-0815.08)

3. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94.
 - 3) Water Resistance Test, per FBC, TAS 202-94.
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with installation diagram of a 4872 Clad Direct Set wood fixed window, prepared by Architectural Testing Inc., Test Report No. **ATI-02-31930.01**, dated 01/11/00, and addendum letter dated on 09/21/00, both signed and sealed by Allen N. Reeves, P.E

(Submitted under previous NOA# 05-0815.08)


Manuel Perez, P.E.
Product Control Examiner
NOA No. 11-1021.07

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B. TESTS (CONTINUED)

4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94.
3) Water Resistance Test, per FBC, TAS 202-94.
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of a wood fixed window prepared by Fenestration Testing Laboratory, Test Report No. **FTL-2240**, dated 02/26/99, signed and sealed by Gilbert Diamond, P.E.
(Submitted under previous NOA# 05-0815.08)
5. 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 an octagon wood fixed window prepared by Fenestration Testing Laboratory, Inc. Test Report No. **FTL-2239**, dated February 12, 1999, signed and sealed by Gilbert Diamond, P.E.
(Submitted under previous NOA# 05-0815.08)
6. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94.
3) Water Resistance Test, per FBC, TAS 202-94.
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of a wood arch fixed window prepared by Fenestration Testing Laboratory, Test Report No. **FTL-2238**, dated 02/12/99, signed and sealed by Gilbert Diamond, P.E.
(Submitted under previous NOA# 05-0815.08)
7. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94.
3) Water Resistance Test, per FBC, TAS 202-94.
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of a wood fixed window, prepared by Fenestration Testing Laboratory, Test Report No. **FTL-2234**, dated 02/12/99, signed and sealed by Gilbert Diamond, P.E.
(Submitted under previous NOA# 05-0815.08)


Manuel Perez, P.E.
Product Control Examiner

NOA No. 11-1021.07

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C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2007 and FBC-2010, prepared by prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 06/26/07 and updated on 10/14/11, signed and sealed by Warren W. Schaefer, P.E.
2. Glazing complies with ASTM E1300-04

D. QUALITY ASSURANCE

1. Miami-Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **10-0413.04** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Sentry Glass® Interlayer**" dated 05/26/10, expiring on 01/14/12.

F. STATEMENTS

1. Statement letter of conformance complying with the FBC-2007 and FBC-2010, dated October 14, 2011, signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter of no financial interest, dated October 14, 2011, signed and sealed by Warren W. Schaefer, P.E.

G. OTHERS

1. Notice of Acceptance No. **07-0924.01**, issued to Marvin Windows and Doors for their Series "Clad Direct Glazed StormPlus IZ4" Aluminum Clad Wood Fixed Window – L.M.I., approved on 11/08/07 and expiring on 11/30/12.


Manuel Perez, P.E.
Product Control Examiner

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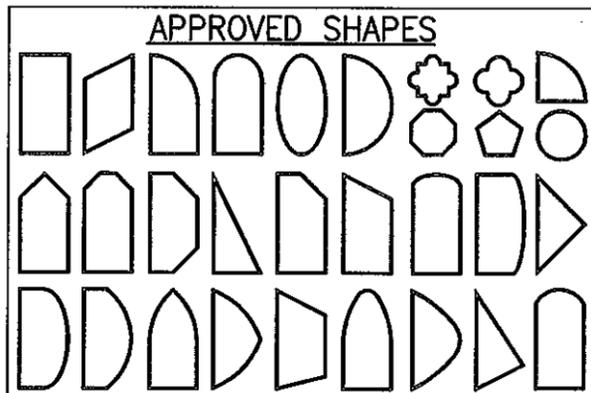
GENERAL NOTES:

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS.
5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SECURING WINDOW FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
11. ALL WOOD MEMBERS OF WINDOWS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

CORNER CONSTRUCTION

JAMB CORNERS: WOOD MEMBERS ARE SQUARE CUT, BUTTED TOGETHER, & JOINED WITH FOUR(4) NO. 7 X 2" SMS SCREWS AND SEALED WITH SM 8500 SEALANT.

CLAD CORNERS: CLAD MEMBERS ARE MITER CUT, JOINED WITH A CORNER KEY AND FOUR(4) NO. 7 X 1 1/2" SCREWS & SEALED WITH A FOAM SEALANT.

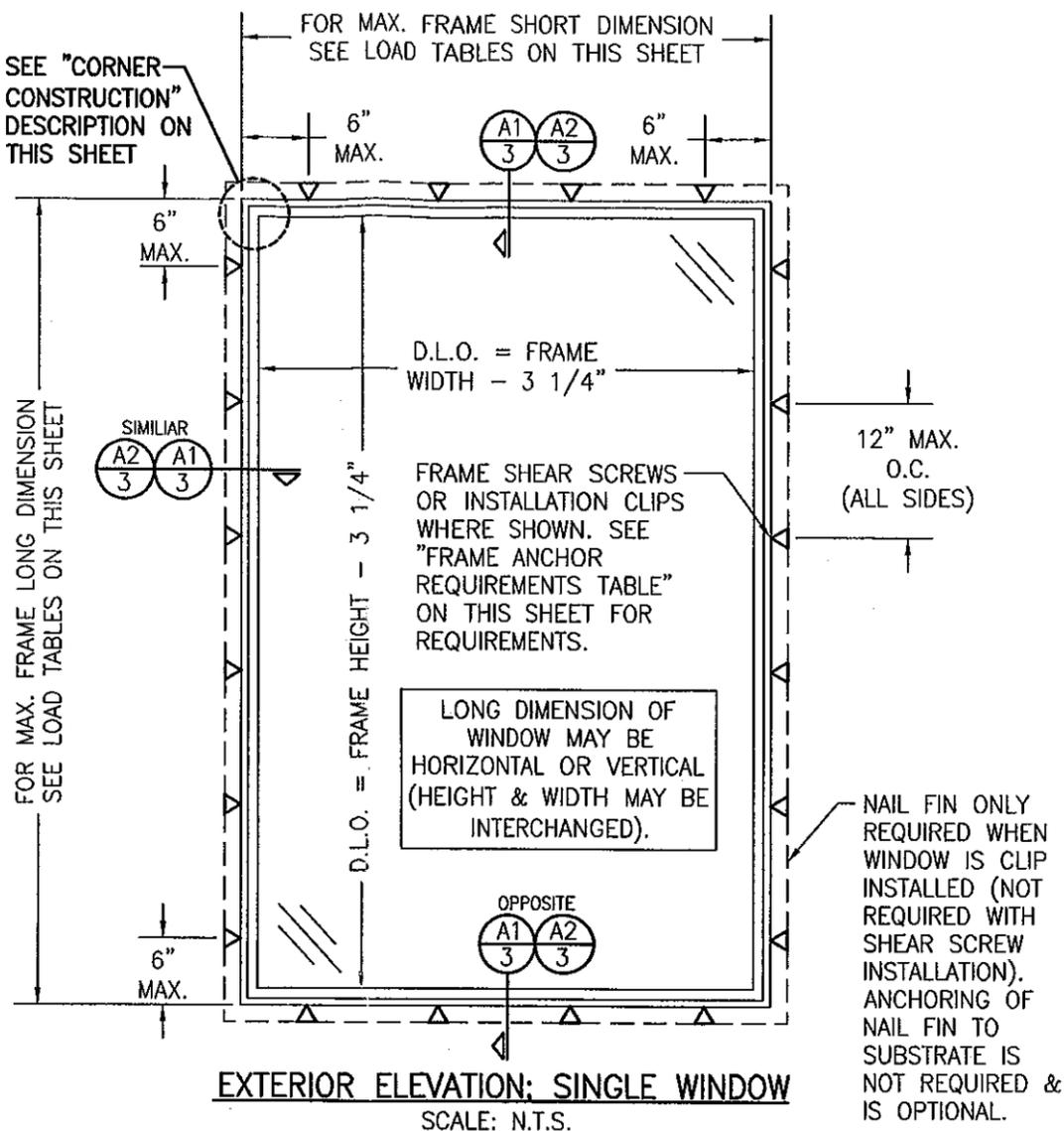


NOTES:
 1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED ON THIS SHEET.
 2. ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.

FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME/CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SHEAR SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
INSTALLATION CLIP			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 X 1 1/2" SMS	1 3/8"	1/2"
MIN. 18 GA. 33 KSI METAL STUD	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS, HILTI KWIK-CON II OR POWERS RAWL TAPPER (HARDENED STEEL OR S.S.).



EXTERIOR ELEVATION: SINGLE WINDOW
SCALE: N.T.S.

RECTANGULAR WINDOWS SHOWN. ANCHORING OF SHAPED WINDOWS IS THE SAME WITH REQUIRED ANCHOR SPACING ALONG THE FRAME CIRCUMFERENCE BEING THE SAME AS SPECIFIED FOR A STRAIGHT FRAME.

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

ALLOWABLE SINGLE WINDOW DESIGN PRESSURE

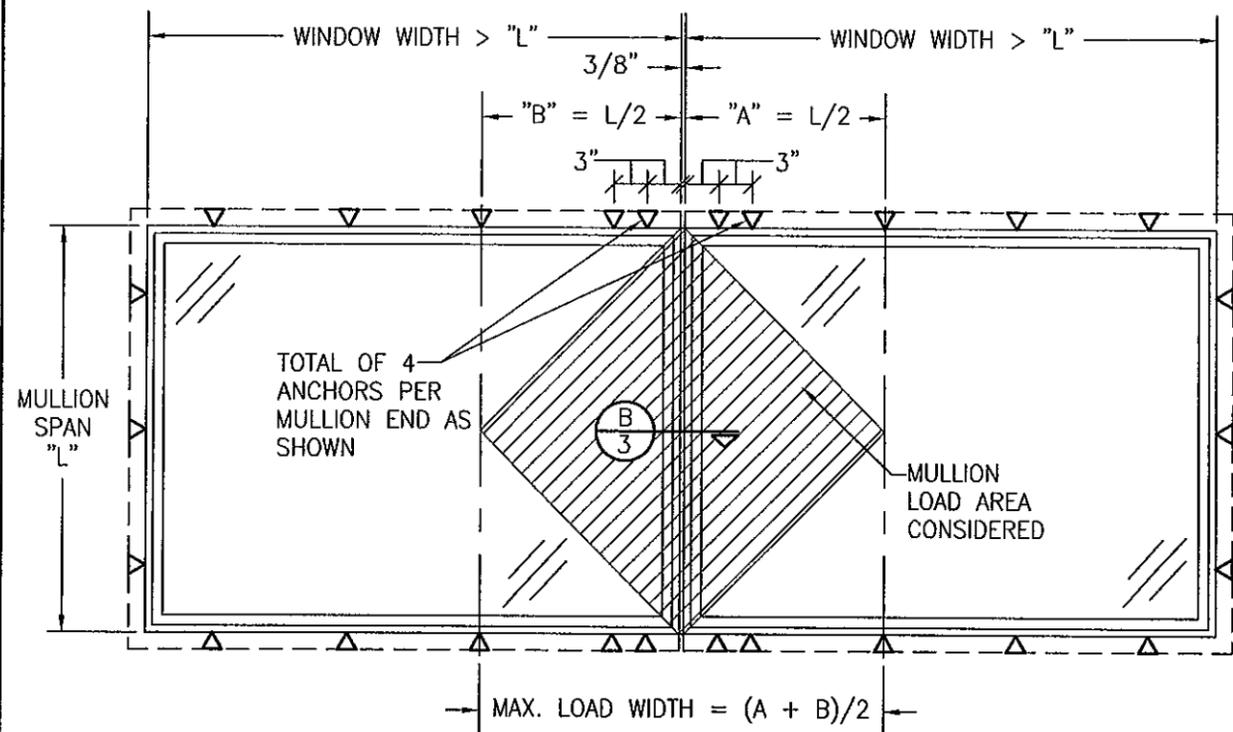
MAXIMUM FRAME LONG DIMENSION (IN.)	MAXIMUM FRAME SHORT DIMENSION (IN.)	ALLOWABLE PRESSURE (POS. & NEG. PSF)	
		GLASS OPTION 1	GLASS OPTION 2
144	50	54.6	75.0
	48	58.2	75.0
	42	75.0	75.0
132	24	95.0	95.0
	54	52.2	75.0
	48	60.4	75.0
	42	74.9	75.0
	36	75.0	75.0
120	26	95.0	95.0
	60	50.3	75.0
	54	56.3	75.0
	48	63.6	75.0
	42	75.0	75.0
108	28	95.0	95.0
	60	55.9	75.0
	54	61.5	75.0
	48	69.8	75.0
	42	75.0	75.0
96	32	95.0	95.0
	60	63.7	75.0
	54	69.7	75.0
	48	75.0	75.0
	36	95.0	95.0
90	60	68.9	75.0
	54	74.4	75.0
	48	75.0	75.0
	38	95.0	95.0
	60	73.1	75.0
84	41	95.0	95.0
	54	75.0	75.0
	60	75.0	75.0
	44	95.0	95.0
	72	74.6	75.0
78	66	75.0	75.0
	48	95.0	95.0
	66	75.0	75.0
	52	95.0	95.0
	60	75.0	75.0
66	57	95.0	95.0
	60	95.0	95.0
	58	95.0	95.0

NOTES:
 1. SEE GLAZING DETAILS FOR GLASS OPTIONS
 2. CROSSED OUT BOXES DESIGNATE SIZES NOT ACCEPTABLE FOR THE RESPECTIVE GLASS OPTION.

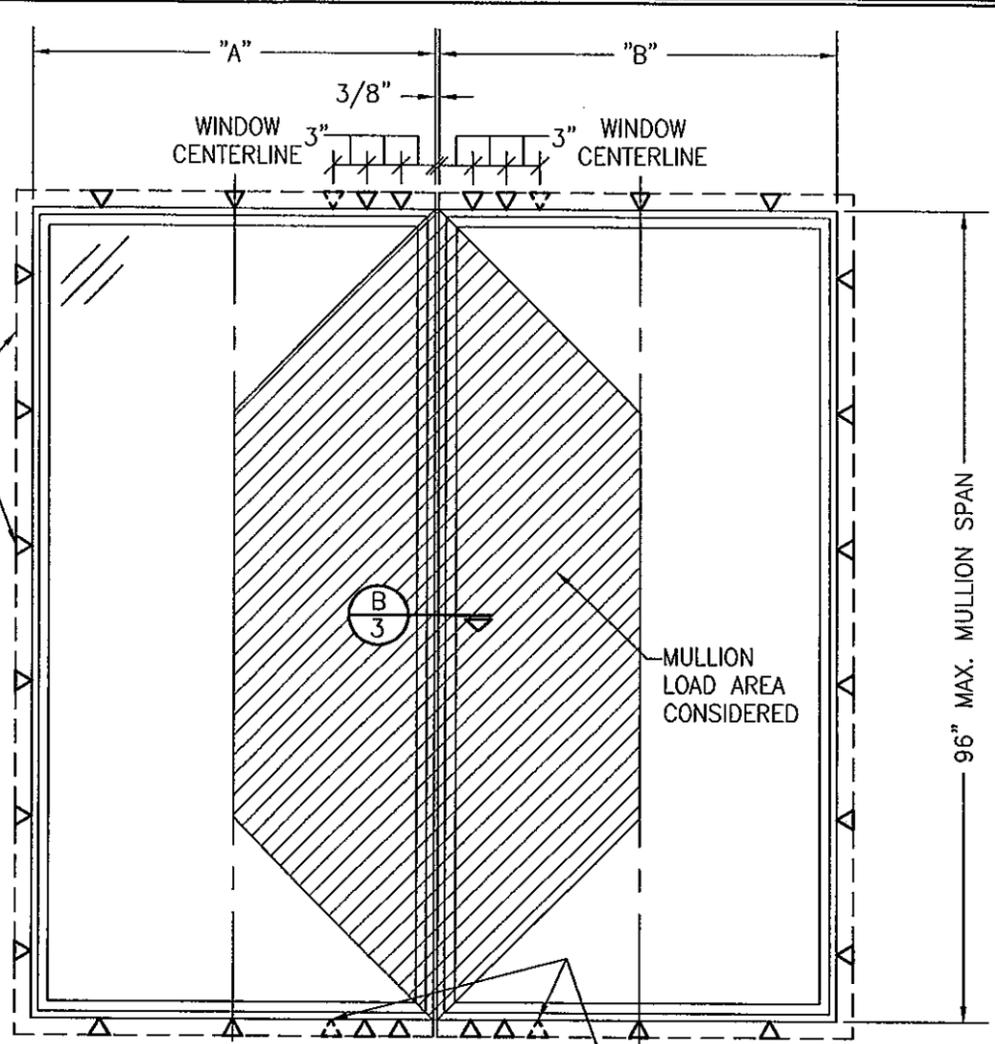
PRODUCT REVISED as complying with the Florida Building Code Acceptance No 11-1021.07 Expiration Date NOV. 30, 2012
 By *Manuel Perez*
 Miami Dade Product Control



DRAWN BY: W.R.M. CHECKED BY: W.W.S. PLOT: 1=16 DATE: 06/17/07	DATE: 10/14/11 BY: W.R.M. REVISION DESCRIPTION: UPDATE TO CURRENT STANDARDS	NO. A1	DRAWING TITLE: CLAD DIRECT GLAZE IMPACT HP	MANUFACTURER: MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN. 56763 800-346-5044
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424				
CERTIFICATION: <i>Manuel Perez</i> DATE: OCT 14 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135				
DRAWING NO. 1539 SHEET NO. 1 OF 4		REV. A		



SEE SINGLE WINDOW ELEVATION FOR FRAME ANCHOR & NAIL FIN REQUIREMENTS



ADDITIONAL ANCHORS AT MULLION ENDS. SEE MULLION LOAD TABLE FOR MULLION END ANCHOR QUANTITY REQUIREMENTS

FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE GREATER THAN THE MULLION LENGTH
(SEE MULLION LOAD TABLE)
SEE SINGLE WINDOW ELEVATION FOR WINDOW DETAIL NOT SHOWN

FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE LESS THAN OR EQUAL TO THE MULLION LENGTH
(SEE MULLION LOAD TABLE)
SCALE: N.T.S.
SEE SINGLE WINDOW ELEVATION FOR WINDOW DETAIL NOT SHOWN

MULTIPLE UNIT NOTES:

1. ALL WINDOWS ARE RESTRICTED BY THE DIMENSIONS SPECIFIED.
2. THE MAXIMUM ALLOWABLE PRESSURE FOR A COMBINED UNIT IS RESTRICTED BY THE LESSER OF THE INDIVIDUAL WINDOW ALLOWABLE PRESSURE OR THE ALLOWABLE MULLION PRESSURE. SEE LOAD TABLES ON SHEET 1 & 2.
3. WINDOWS MAY BE STACKED HORIZONTAL OR VERTICAL. IF VERTICALLY STACKED, MANUFACTURER MUST INSURE THAT THE DEAD WEIGHT OF THE WINDOWS DOES NOT CAUSE ANY WINDOW FAILURES OR DEFORMATIONS.
4. NUMBER OF WINDOWS IN ONE OPENING IS NOT RESTRICTED PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.

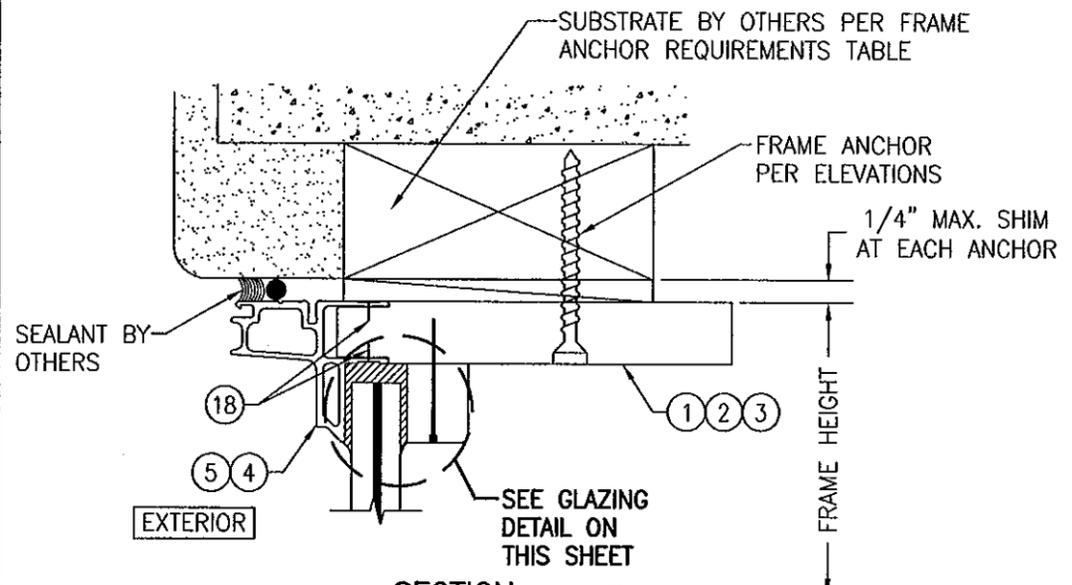
LESSER OF THE PRESSURE SHOWN IN THIS TABLE & THAT ALLOWED FOR THE INDIVIDUAL WINDOW SHALL CONTROL AS ALLOWABLE FOR THE OVERALL UNIT.

MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (POS. & NEG. PSF)		MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (POS. & NEG. PSF)		
		4 END ANCHORS	6 END ANCHORS			4 END ANCHORS	6 END ANCHORS	
96	60	41.9	57.6	78	60	57.6	85.8	
	54	44.5	61.9		54	60.2	89.7	
	48	48.0	68.7		48	64.0	95.0	
	42	52.7	76.8		42	69.3	95.0	
	36	59.1	88.0		36	76.8	95.0	
	30	68.3	95.0		30	87.8	95.0	
	24	82.3	95.0		24	95.0	95.0	
	18	95.0	95.0		24	72	64.0	95.0
90	60	46.1	67.0	72	66	64.4	95.0	
	54	48.8	71.9		60	65.8	95.0	
	48	52.4	78.0		54	68.3	95.0	
	42	57.2	85.3		48	72.0	95.0	
	36	64.0	95.0		42	77.4	95.0	
	30	73.7	95.0		36	85.3	95.0	
	24	88.6	95.0		30	95.0	95.0	
	18	95.0	95.0		30	66	76.2	95.0
84	60	51.2	76.3	66	60	76.8	95.0	
	54	53.9	80.3		54	78.8	95.0	
	48	57.6	85.8		48	82.3	95.0	
	42	62.7	93.4		42	87.8	95.0	
	36	69.8	95.0		36	95.0	95.0	
	30	80.1	95.0		30	60	92.2	95.0
	24	95.0	95.0		24	54	93.1	95.0
					24	48	95.0	95.0
			24	54	95.0	95.0		

PRODUCT REVISED
complying with the Florida Building Code
Acceptance No 11-1021.07
Expiration Date Nov 30, 2012
By *Warren W. Schaefer*
Miami Dade Product Control

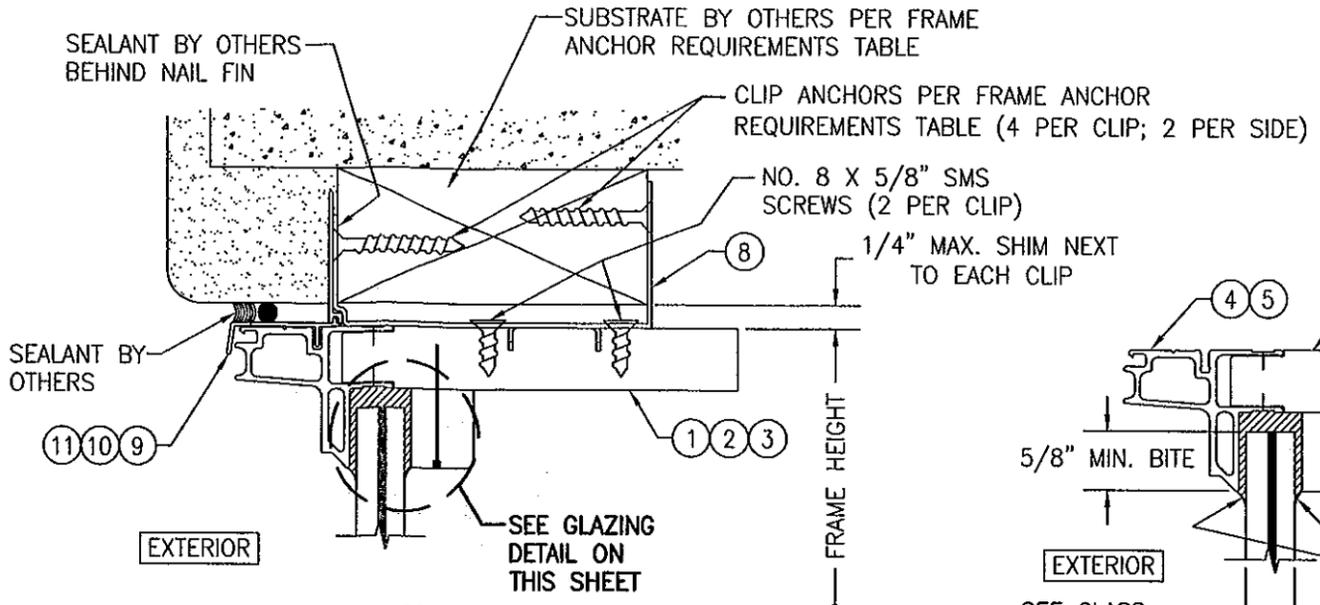


DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-16	DATE: 09/17/07
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE: CLAD DIRECT GLAZE IMPACT HP	
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	
MANUFACTURER: MARVIN WINDOWS & DOORS	
7480 150TH COURT NORTH, PALM BEACH GARDENS, FL 33418	
WARROAD, MN 56763	
800-346-5044	
CERTIFICATION	DATE: OCT 14 2011
DRAWING NO. 1539	REV. A
SHEET NO. 2	OF 4



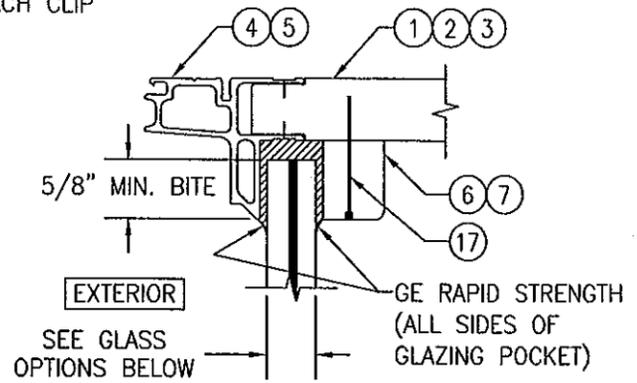
SECTION A1
SCALE: 1/2 FULL

(SHEAR SCREW INSTALLATION)
(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)



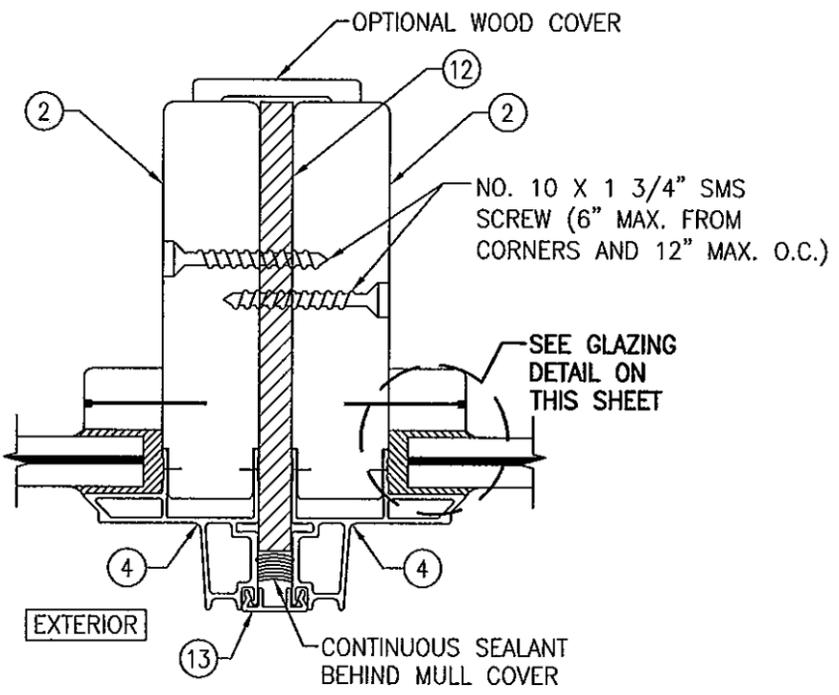
SECTION A2
SCALE: 1/2 FULL

(CLIP MOUNT INSTALLATION)
(FOR DETAIL NOT SHOWN SEE DETAIL A1/3)
(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)



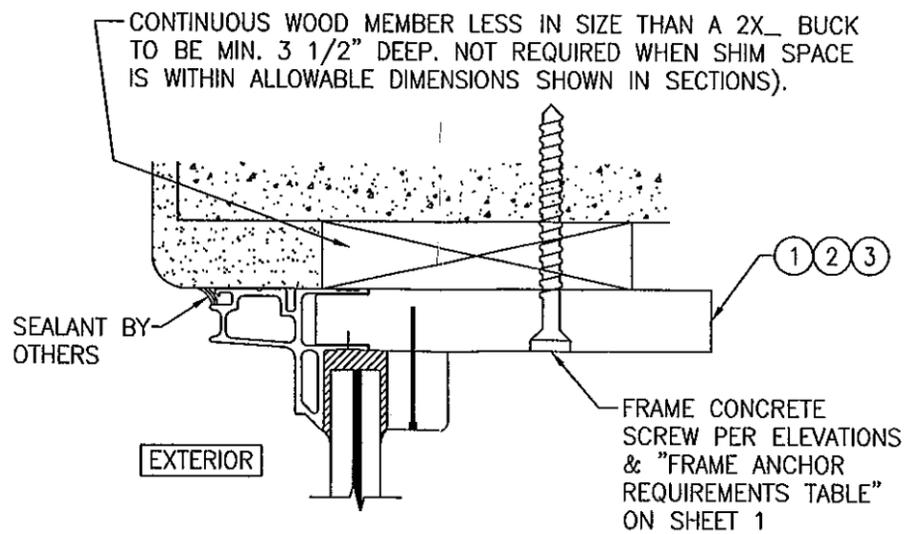
TYPICAL GLAZING DETAIL

GLASS OPTION 1: 9/16" THICK DUPONT LAMINATED GLASS (1/4" AN./0.09" DUPONT SG/1/4" AN.)
GLASS OPTION 2: 9/16" THICK DUPONT LAMINATED GLASS (1/4" HT.ST./0.09" DUPONT SG/1/4" HT.ST.)



SECTION B
SCALE: 1/2 FULL

(FOR DETAL NOT SHOWN SEE DETAIL A1/3)



OPTIONAL DIRECT MOUNT DETAIL
TO BLOCK OR CONCRETE WITH SPACER OR SHIM
(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

PRODUCT REVISED
complying with the Florida Building Code
Acceptance No 11-1021.07
Expiration Date NOV 30, 2012
By *Manuel Perez*
Miami/Dade Product Control



DRAWN BY:	W.R.M.	CHECKED BY:	W.W.S.
PLOT:	1=2	DATE:	06/17/07
NO.		REVISION DESCRIPTION	
DATE		BY	

DRAWING TITLE: CLAD DIRECT GLAZE IMPACT HP

MANUFACTURER: MARVIN WINDOWS & DOORS
HIGHWAY 11; P.O. BOX 100
WARROAD, MN 56763
800-346-5044

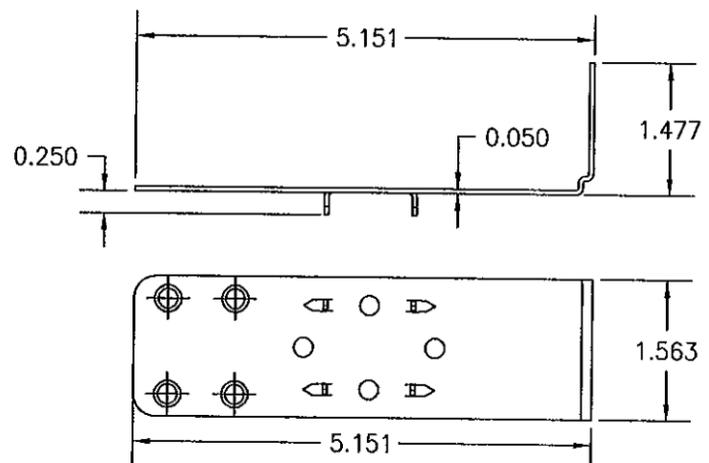
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7490 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION: OCT 14 2011
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

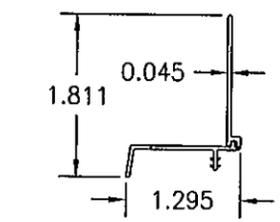
DRAWING NO.	1539	REV.	A
SHEET NO.	3	OF	4

ITEM #	PART #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS			
1	00011225	JAMB (STRAIGHT JAMB USED WITH RADIUS UNITS)	PINE
2	00011050	JAMB (USED WITH ALL RECTANGULAR & POLYGON UNITS)	PINE
3	-	RADIUS JAMB	LAMINATED PINE
4	00001210	FRAME CLADDING (USED WITH ALL RECTANGULAR & POLYGON JAMB UNITS)	6063-T5 ALUMINUM
5	00011209	FRAME CLADDING (USED WITH RADIUS JAMB UNITS)	6063-T5 ALUMINUM
6	00007080	GLAZING STOP (USED WITH ALL RECTANGULAR & POLYGON JAMB UNITS)	PINE
7	-	GLAZING STOP (USED WITH RADIUS JAMB UNITS)	LAMINATED PINE
8	00036080	GALVANIZED STEEL C-CLIP (FY=50 KSI)	1 1/2" WIDE X 6 1/2" LONG X .050" THK
9	-	NAILING FIN (RECTANGULAR HEAD)	6063-T5 ALUMINUM
10	-	NAILING FIN (SHAPED HEAD)	6063-T5 ALUMINUM
11	-	NAILING FIN (SIDES & SILL)	6063-T5 ALUMINUM
12	-	BAR MULLION	6061-T6 ALUMINUM
13	-	MULLION CLIP	6063-T5 ALUMINUM
MISC. FASTENERS			
17	V084	F-14 X 1 3/8" BRAD NAIL	3" FROM CORNERS & MAX. 8" O.C.
18	V084	GSN 18 X 1/2" S.S. STAPLE	3" FROM CORNERS & MAX. 6" O.C.

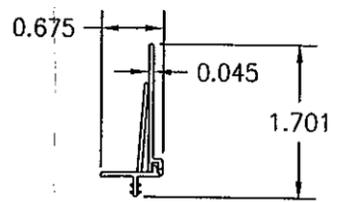
* ALL WOOD USED WITH TESTED UNITS IS MIN. GRADE 2 WESTERN PINE. ALTERNATE WOOD SPECIES TO PINE SHALL BE MIN. GRADE 2 WITH "E" = 1200000 PSI MIN. & "G" = 0.43 MIN
 NOTE: ALL WOOD IS RECEIVED BY MARVIN WINDOWS & DOORS AS GRADE 2, BUT IS MACHINED BY MARVIN TO A SELECT GRADE USE.



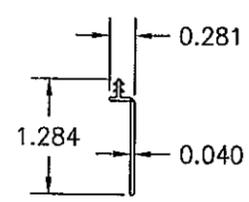
8 GALVANIZED STEEL INSTALLATION C-CLIP



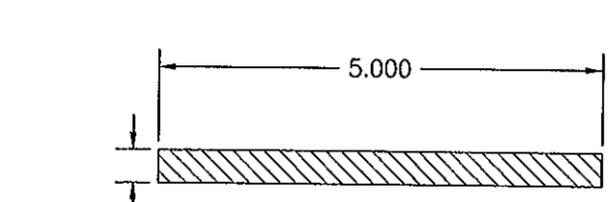
9 NAIL FIN (RECTANGULAR HEAD)



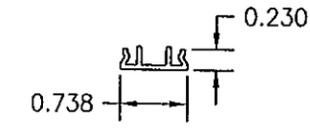
10 NAIL FIN (SHAPED HEAD)



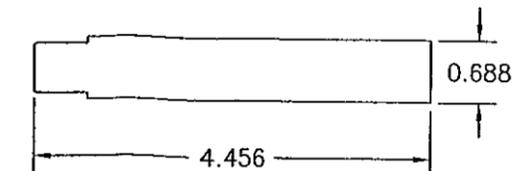
11 NAIL FIN



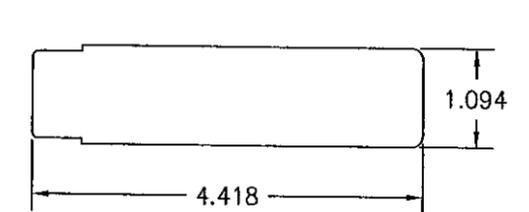
12 BAR MULLION



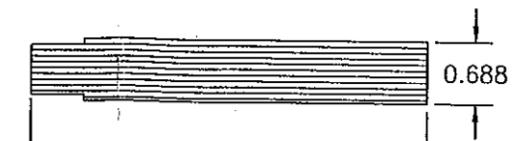
13 MULLION CLIP



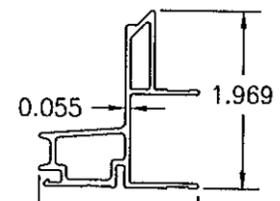
1 JAMB (STRAIGHT JAMB USED WITH RADIUS UNITS)



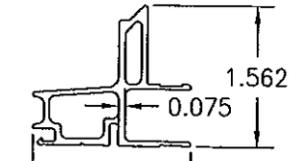
2 JAMB (USED WITH ALL RECTANGULAR & POLYGON UNITS)



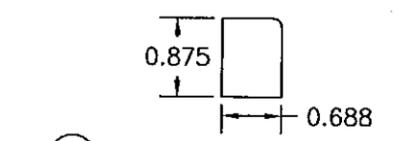
3 RADIUS JAMB



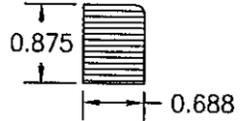
4 FRAME CLADDING (USED WITH ALL RECTANGULAR & POLYGON JAMB UNITS)



5 FRAME CLADDING (USED WITH RADIUS JAMB UNITS)



6 GLAZING STOP (USED WITH ALL RECTANGULAR & POLYGON JAMB UNITS)



7 GLAZING STOP (USED WITH RADIUS JAMB UNITS)

* ALL WOOD USED WITH TESTED UNITS IS MIN. GRADE 2 WESTERN PINE. ALTERNATE WOOD SPECIES TO PINE SHALL BE MIN. GRADE 2 WITH "E" = 1200000 PSI MIN. & "G" = 0.43 MIN
 NOTE: ALL WOOD IS RECEIVED BY MARVIN WINDOWS & DOORS AS GRADE 2, BUT IS MACHINED BY MARVIN TO A SELECT GRADE USE.

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 11-1021-07
 Expiration Date Nov. 30, 2012
 By *Warren W. Schaefer*
 Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 06/17/07	
DATE	BY	REVISION DESCRIPTION	NO.
CLAD DIRECT GLAZE IMPACT HP			
MANUFACTURER			
MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044			
CONSULTANTS			
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
DRAWING TITLE			
CLAD DIRECT GLAZE IMPACT HP			
CERTIFICATION			
OCT 14 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1539		REV. A	
SHEET NO. 4 OF 4			