



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

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.miamidadecounty.gov/pera/

NOTICE OF ACCEPTANCE (NOA)

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 Casemaster Casement" Wood Casement Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1550, titled "Wood Casemaster Casement StormPlus IZ4", sheets 1 through 8 of 8, dated 04/03/08, 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 # 08-1014.07 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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



NOA No. 11-1021.13
Expiration Date: March 04, 2014
Approval Date: December 22, 2011
Page 1

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

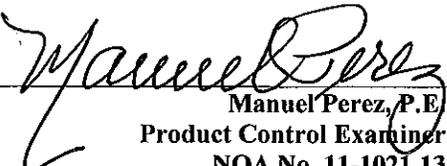
1. Manufacturer's die drawings and sections.
2. Drawing No. **1550**, titled "Wood Casemaster Casement StormPlus IZ4", sheets 1 through 8 of 8, dated 04/03/08, with revision A1 dated 10/14/11, prepared by W. W. Schaefer Engineering & Consulting, P.A, signed and sealed by Warren W. Schaefer, P.E.

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 StormPlus IZ4 wood casement window, prepared by Architectural Testing, Inc., Test Report No. **ATI-77675.01-201-18**, dated 06/16/08, and addendum letter dated 01/09/09, all signed and sealed by Joseph A. Reed, P.E.
(Submitted under NOA# 08-1014.07)
2. 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 "StormPlus IZ4 wood casement window, prepared by Architectural Testing, Inc., Test Report No. **ATI-77676.01-201-18**, dated 08/05/08, signed and sealed by Joseph A. Reed, P.E.
((Submitted under NOA# 08-1014.07 for reference only)

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 08/28/08, 12/02/08, and updated on 10/14/11, signed and sealed by Warren W. Schaefer, P.E.
2. Glazing complies with ASTM E1300-04


Manuel Perez, P.E.
Product Control Examiner
NOA No. 11-1021.13
Expiration Date: March 04, 2014
Approval Date: December 22, 2011

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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.
3. Laboratory compliance letter for Test Report No. **ATI 77675.01-201-18** issued by Architectural Testing, Inc., dated 09/25/08, signed and sealed by Joseph A. Reed, P.E.
4. Laboratory compliance letter for Test Report No. **ATI 77676.01-201-18** issued by Architectural Testing, Inc., dated 09/26/08, signed and sealed by Joseph A. Reed, P.E.
5. Test Proposal **#07-3071** issued by BCCO dated 06/21/07, revised on 07/02/07, signed by Manuel Perez, P.E.

G. OTHERS

1. Notice of Acceptance No. **08-1014.07**, issued to Marvin Windows and Doors for their Series "StormPlus IZ4 Casemaster" Wood Casement Window – L.M.I., approved on 03/04/09 and expiring on 03/04/14.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 11-1021.13

Expiration Date: March 04, 2014
Approval Date: December 22, 2011

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 WHEN USED 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.

MAX. FRAME HEIGHT	MIN. NO. OF SNUBBERS
71 1/8"	3
47 3/8"	2
23 5/8"	1

MAX. FRAME HEIGHT	MIN. NO. OF LOCKS
71 1/8"	3
47 3/8"	2

CORNER CONSTRUCTION (STANDARD RECTANGULAR WINDOWS)

FRAME CORNERS: THE SIDE WOOD MEMBERS ARE BUTTED TO THE HEAD & SILL MEMBERS, SECURED WITH THREE(3) GS16 X 1 1/2" STAPLES THROUGH THE HEAD & SILL INTO THE JAMB & ONE(1) 14 GA. 7/16 X 2" STAPLE THROUGH THE JAMB INTO THE HEAD & SILL & SEALED WITH SEALANT.

SASH CORNERS: SASH MEMBERS ARE MORTISED & TENONED AND SECURED WITH TWO(2) GS16 X 1 3/8" BRAD NAILS.

CORNER CONSTRUCTION (SHAPE WINDOWS)

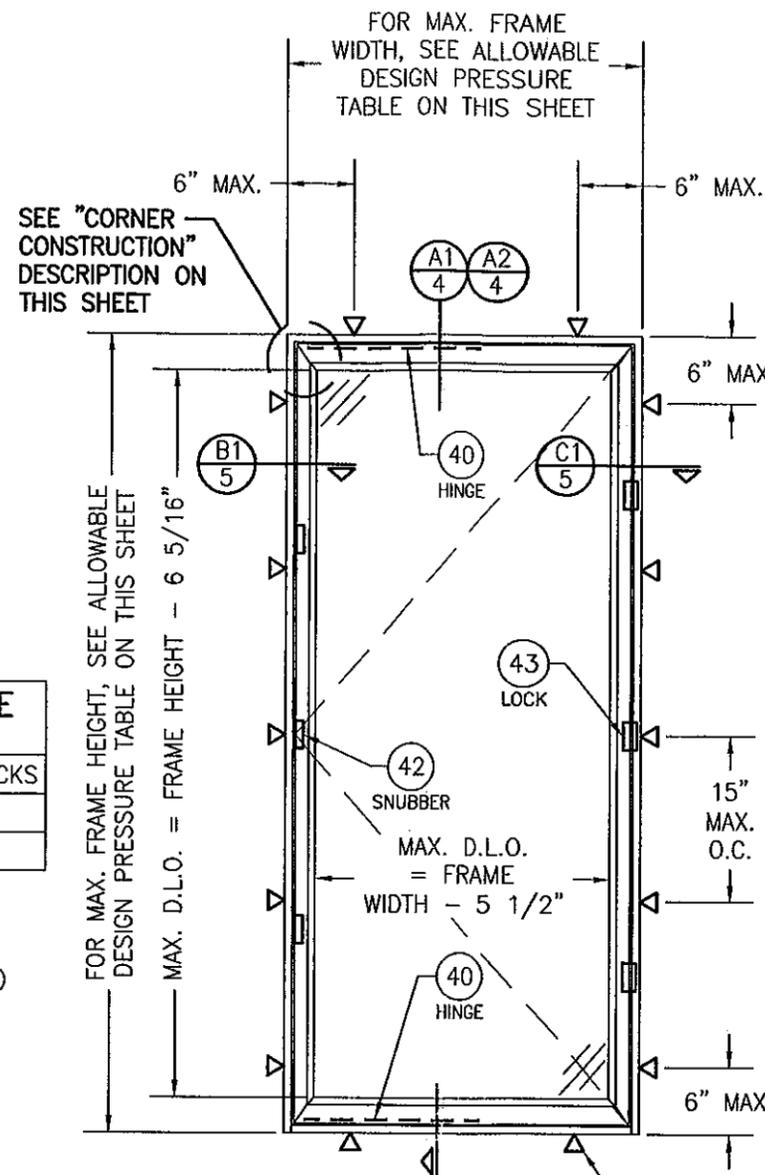
FRAME CORNERS: THE SIDE WOOD MEMBERS ARE BUTTED TO THE HEAD & SILL MEMBERS & SECURED WITH NO. 7 X 2" SCREWS (3 AT SQUARE CORNERS; 4 AT SHAPED CORNERS) AND SEALED WITH SEALANT.

SASH CORNERS: SASH MEMBERS ARE BUTTED TOGETHER, JOINED WITH 2 NO. 7 X 2" TRIM HEAD SCREWS & SEALED WITH SEALANT.

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 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 10 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
INSTALLATION CLIP SCREWS			
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. 1/8" THK A36 STEEL	NO. 8 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 GR. 5 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 RECTANGULAR CASEMENT WINDOW
SCALE: 3/4" = 1'-0"

(1) (SINGLE RECTANGULAR WINDOW & SINGLE WINDOW WITH TRANSOM)		
MAXIMUM FRAME WIDTH	MAXIMUM FRAME HEIGHT	ALLOWABLE PRESSURE
28"	71 1/8"	+70/-85 PSF
32"	71 1/8"	+70/-70 PSF
36"	59 1/8"	+70/-70 PSF

1. WITH TRANSOM UNITS, THE LESSER OF THE PRESSURE SHOWN IN THIS TABLE OR THAT SPECIFIED IN THE INDIVIDUAL FIXED OR AWNING WINDOW APPROVAL SHALL CONTROL AS THE ALLOWABLE FOR THE OVERALL UNIT.

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.

NO.	REVISION DESCRIPTION	DATE	BY	W.R.M.	CHECKED BY:	W.W.S.
1	AI UPDATE TO CURRENT STANDARDS	10/14/11				

WOOD CASEMASTER CASEMENT STORMPLUS IZ4
MANUFACTURER
MARVIN WINDOWS & DOORS
HIGHWAY 11, P.O. BOX 100
WARROAD, MN 56763
800-346-5044

CONSULTANTS
W. SCHAEFER ENGINEERING
CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

EXTERIOR ELEVATION SINGLE RECTANGULAR CASEMENT WINDOW WITH TRANSOM

SCALE: 3/4" = 1'-0"
(FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION)

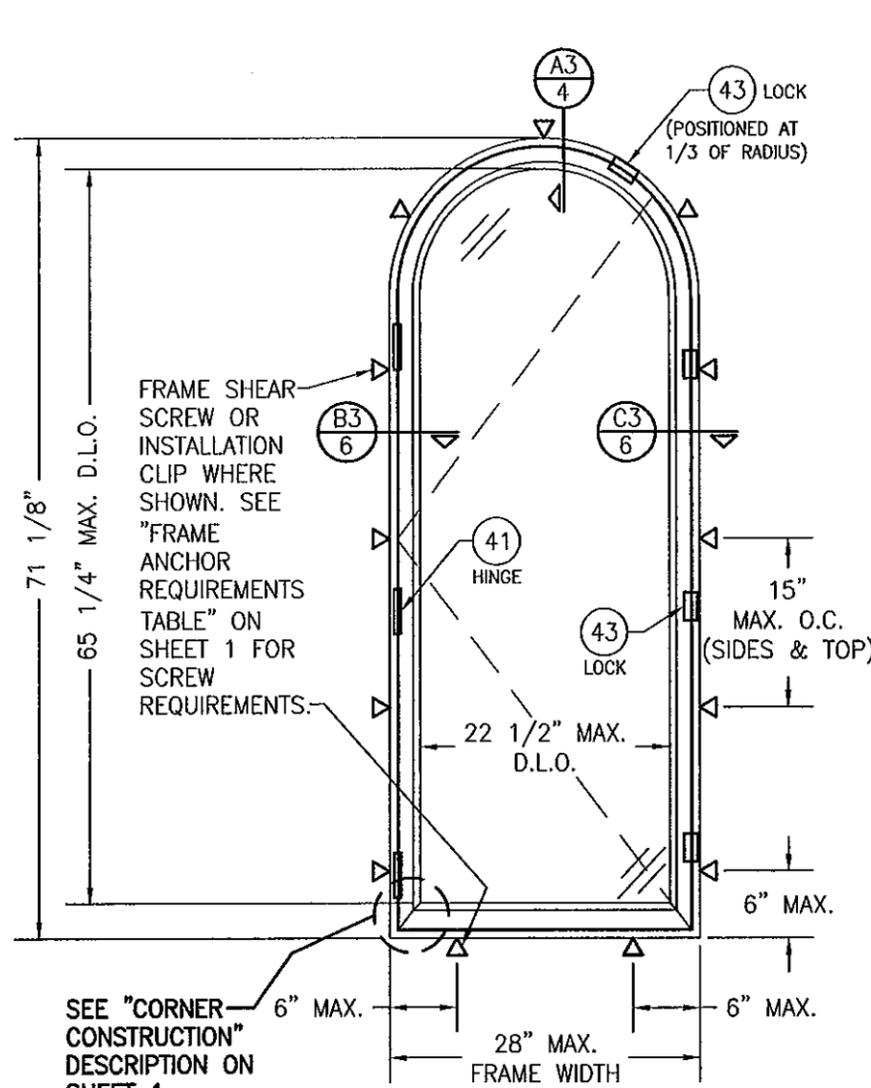
PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 11-1021-13
Expiration Date MARCH 4, 2014

By *Mauro J. Diaz*
Miami Dade Product Control

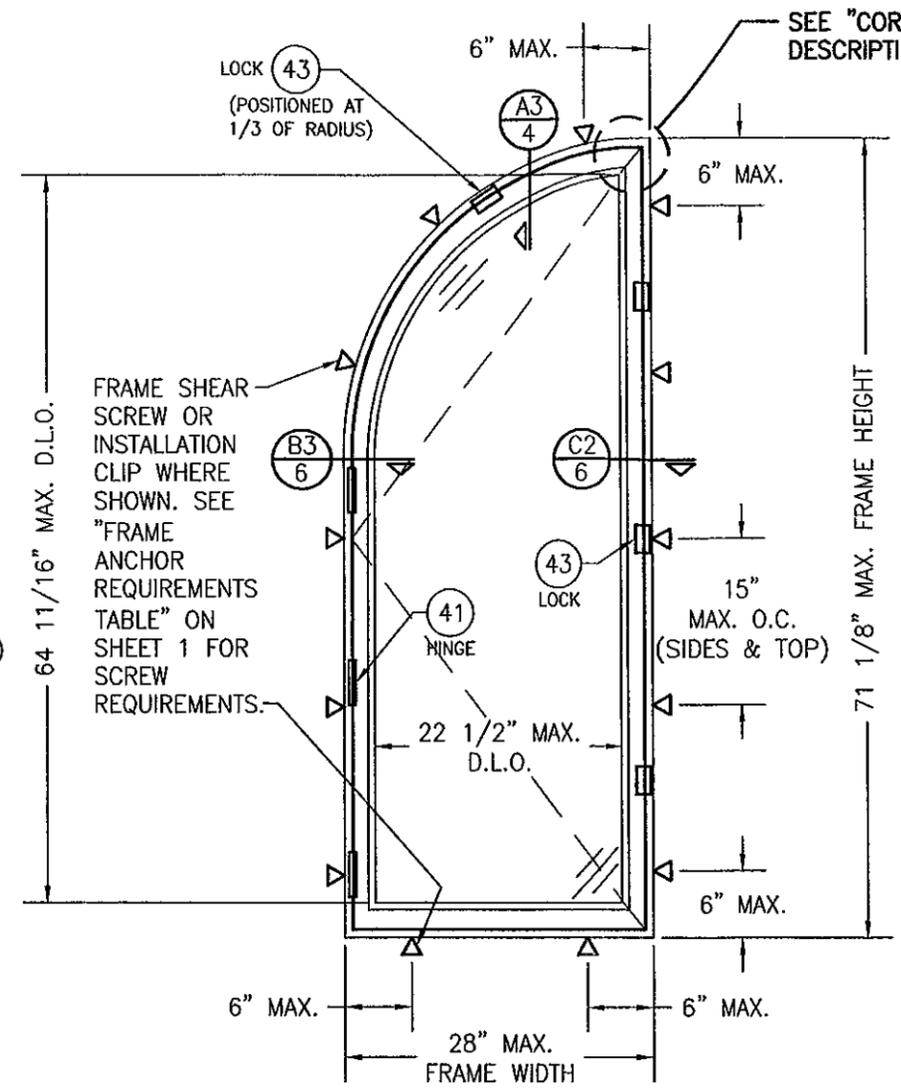
PROFESSIONAL ENGINEER
W. SCHAEFER ENGINEERING
No. 44195
OCT 14 2011
STATE OF FLORIDA
PROFESSIONAL ENGINEER
W. SCHAEFER
No. 44195

DRAWING NO.	REV.
1550	A
SHEET NO.	1 OF 8

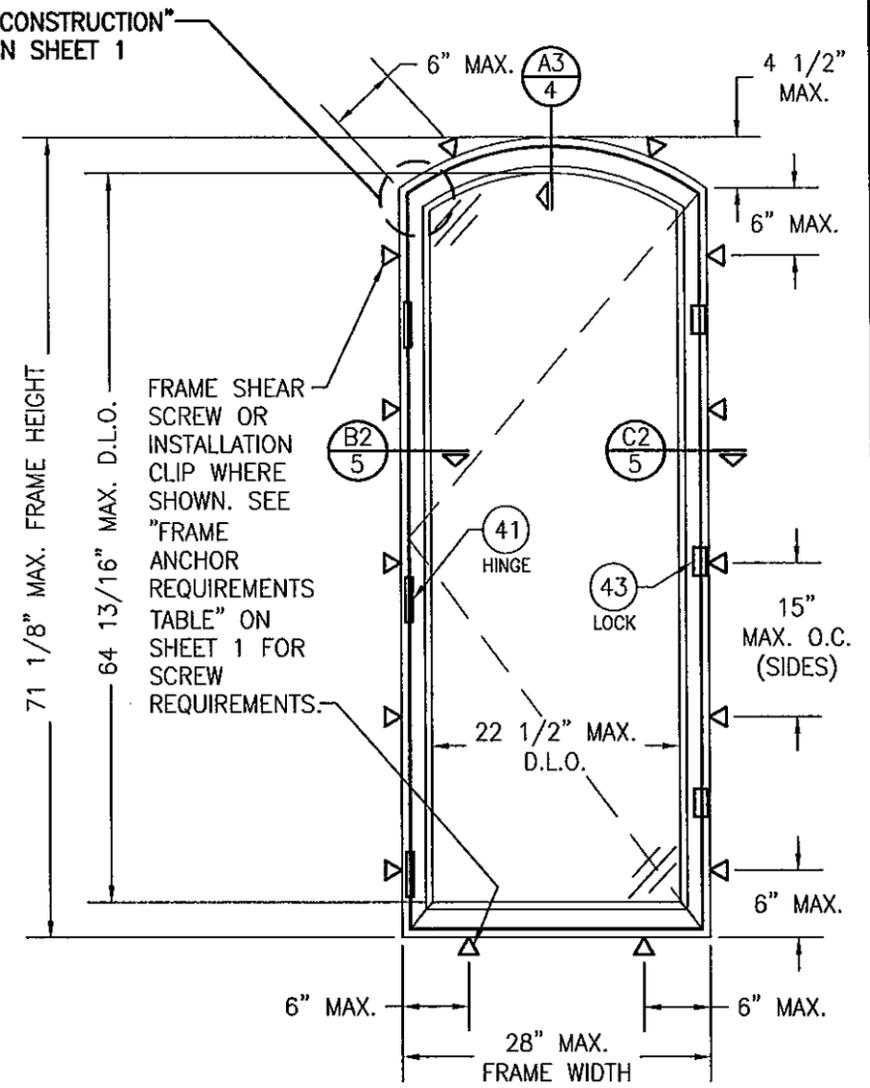
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 04/03/08
NO.	REVISION DESCRIPTION



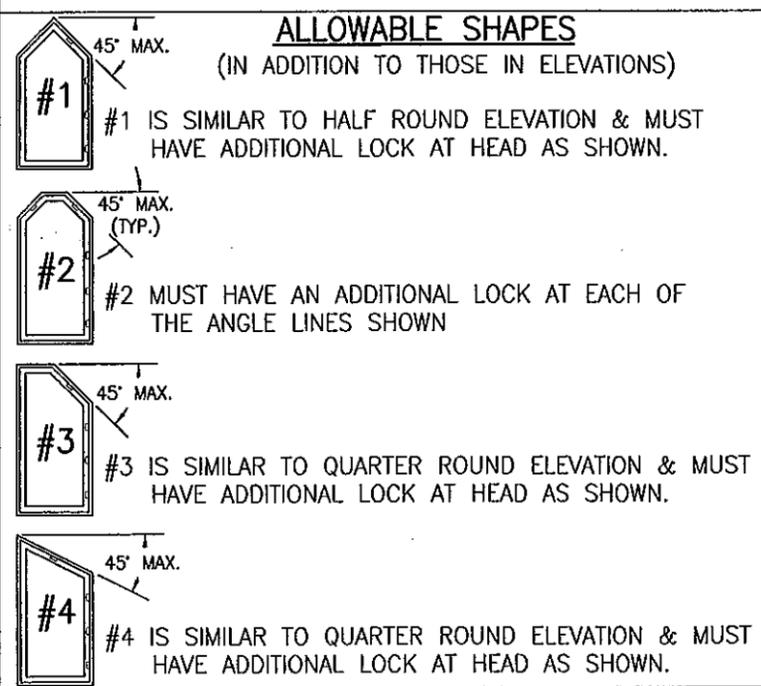
EXTERIOR ELEVATION
SINGLE HALF ROUND CASEMENT WINDOW
SCALE: 3/4" = 1'-0"



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



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



ALLOWABLE DESIGN PRESSURE
(SINGLE SHAPED WINDOWS)

+70/-85 PSF

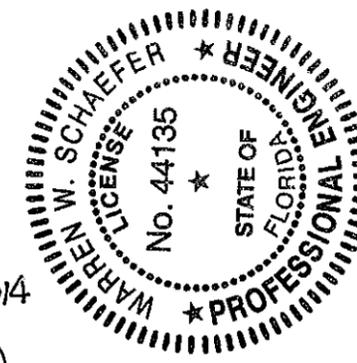
LOCK/HINGE REQUIREMENTS TABLE
(SHAPED WINDOWS)

MAX. FRAME HEIGHT	MIN. QUANTITY OF LOCKS	MIN. QUANTITY OF HINGES
71 1/8"	* 3	3
47 1/8"	* 2	2

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

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 11-102113
Expiration Date MARCH 4, 2014

By *Warren W. Schaefer*
Miami Dade Product Control



DRAWING TITLE: **WOOD CASEMASTER CASEMENT STORMPLUS IZ4**

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, 33418
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION:
OCT 14 2011

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1550
SHEET NO. 2 OF 8

**ALLOWABLE DESIGN PRESSURE TABLE
(SIDE BY SIDE WINDOWS)**

MAXIMUM FRAME HEIGHT (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)	
		"XX"	"XO"
71 1/8	52	-	+61.9/-61.9
	48	-	+67.1/-67.1
	46	-	+70.0/-70.0
	42	-	+70.0/-76.7
	37	-	+70.0/-85.0
	32	+70.0/-70.0	+70.0/-85.0
	28	+70.0/-80.0	+70.0/-85.0
	26	+70.0/-85.0	+70.0/-85.0
65 1/8	52	-	+70.0/-71.8
	49	-	+70.0/-71.8
	48	-	+70.0/-73.3
	46	-	+70.0/-76.4
	42	-	+70.0/-83.7
	40	-	+70.0/-85.0
	32	+70.0/-76.4	+70.0/-85.0
	28	+70.0/-85.0	+70.0/-85.0
59 1/8	54	-	+70.0/-80.7
	48	-	+70.0/-80.7
	46	-	+70.0/-84.2
	45	-	+70.0/-85.0
	36	+70.0/-74.9	+70.0/-85.0
	32	+70.0/-84.2	+70.0/-85.0
53 1/8	31	+70.0/-85.0	+70.0/-85.0
	54	-	+70.0/-85.0
	36	+70.0/-83.3	+70.0/-85.0
47 1/8	35	+70.0/-85.0	+70.0/-85.0
	54	-	+70.0/-85.0
	36	+70.0/-85.0	+70.0/-85.0

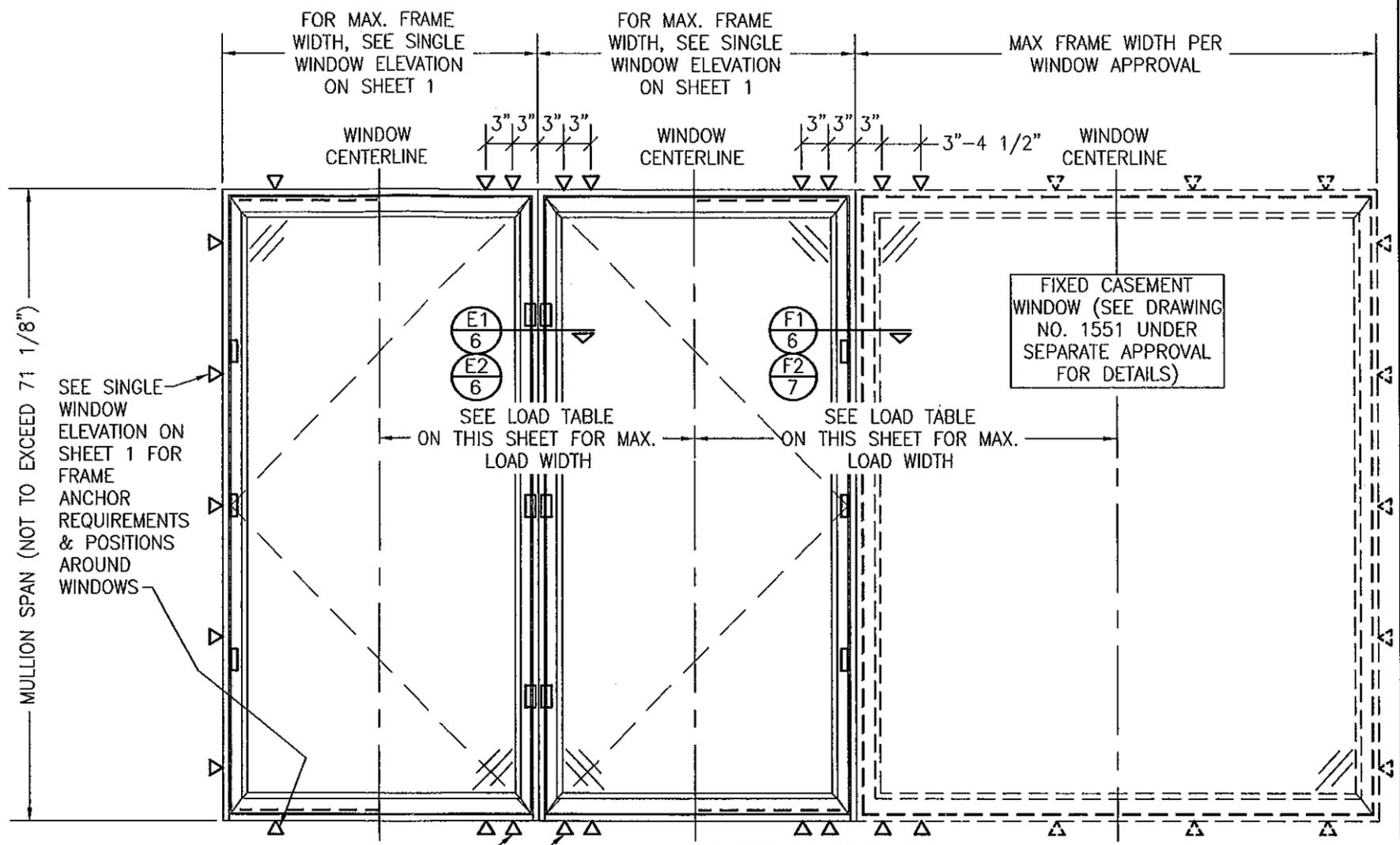
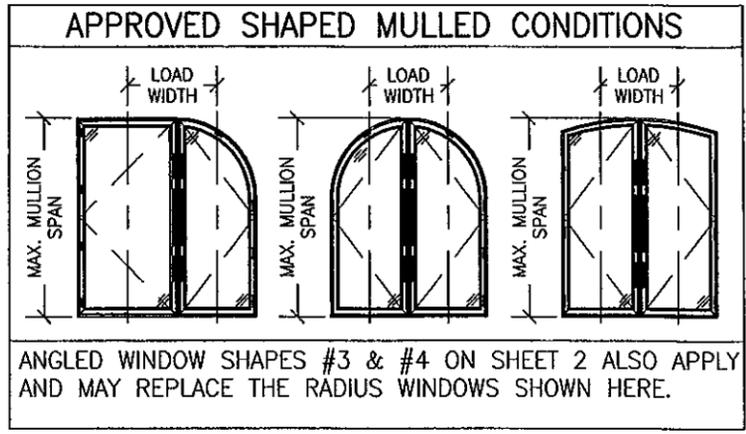
LESSER OF THE PRESSURE SHOWN IN THIS TABLE & THAT ALLOWED FOR THE INDIVIDUAL WINDOW SHALL CONTROL AS ALLOWABLE FOR THE OVERALL UNIT.

THE VALUES IN THIS TABLE APPLY TO BOTH BAR REINFORCED & NON-REINFORCED MULLION CONDITIONS.

ADD 3/8" TO LOAD WIDTH VALUES IN THIS TABLE WHEN 3/8" ALUMINUM REINFORCEMENT PLATE IS USED.

LOAD WIDTH IS THE DISTANCE BETWEEN THE WINDOW CENTERLINES.

"XX" = MULLION BETWEEN 2 OPERABLE WINDOWS.
"XO" = MULLION BETWEEN AN OPERABLE & FIXED WINDOW.



ADDITIONAL FRAME SCREWS OR INSTALLATION CLIPS WHERE SHOWN AT MULLION ENDS. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR FRAME & CLIP SCREW REQUIREMENTS.

**EXTERIOR ELEVATION
MULTIPLE CASEMENT/FIXED WINDOW**

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

(RECTANGULAR WINDOW SHOWN, SHAPED WINDOWS ALSO APPLY. SEE "APPROVED SHAPED MULLION CONDITIONS" TABLE ON THIS SHEET)

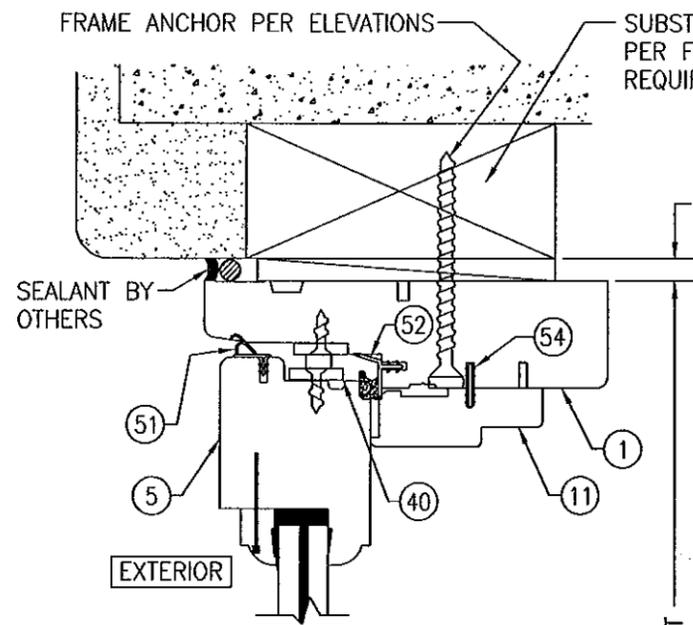
MULTIPLE UNIT NOTES:

1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.

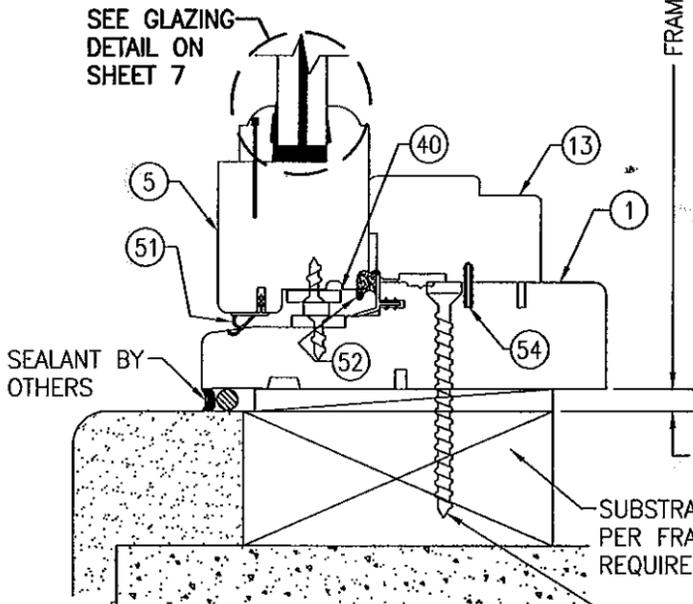
PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 11-102113
Expiration Date 11/04/2014
By *Maurel Perez*
Miami Dade Product Control



DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=16	DATE: 04/03/08
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE WOOD CASEMASTER CASEMENTSTORMPLUS IZ4	
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 33418 PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION OCT 14 2011	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1550	REV. A
SHEET NO. 3	OF 8

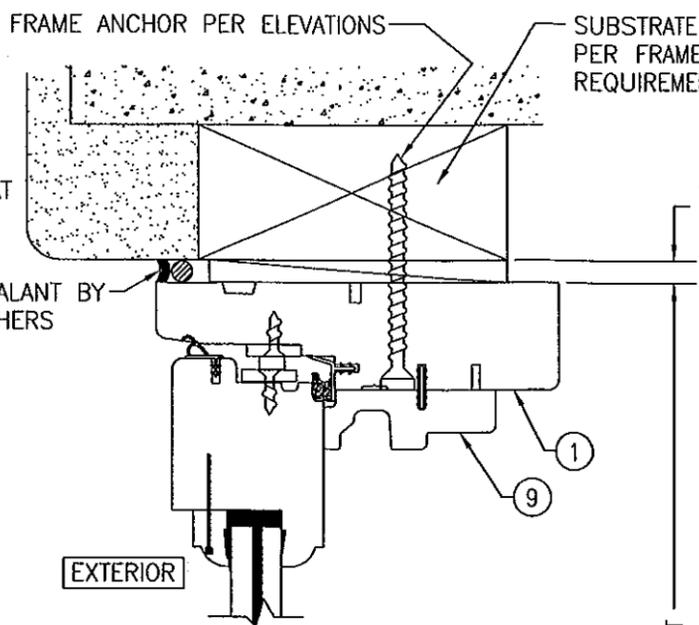


1/4" MAX. SHIM AT EACH ANCHOR

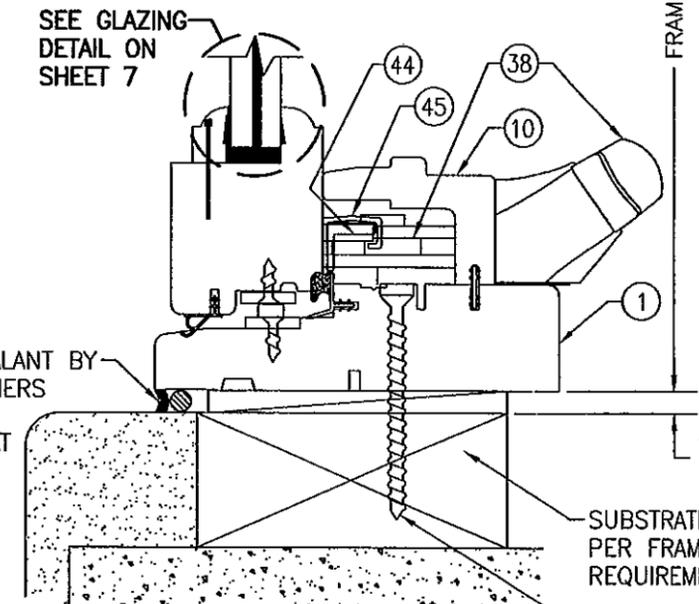


SECTION A1
SCALE: 1/2 FULL
4

(PUSH/PULL OPERATOR HARDWARE CONDITION)

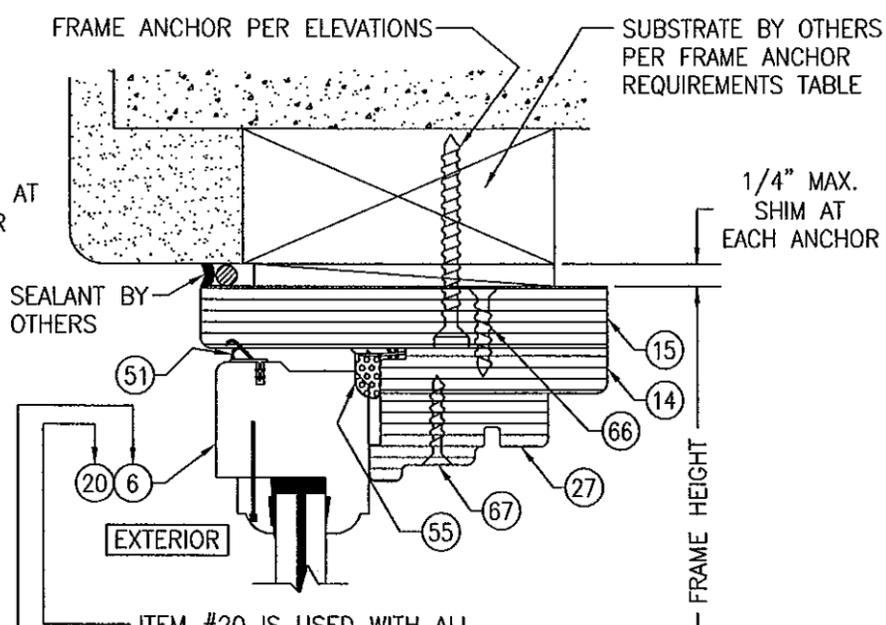


1/4" MAX. SHIM AT EACH ANCHOR



SECTION A2
SCALE: 1/2 FULL
4

FOR DETAILS NOT SHOWN SEE SECTION A1/4 (ROTO OPERATOR HARDWARE CONDITION)



1/4" MAX. SHIM AT EACH ANCHOR

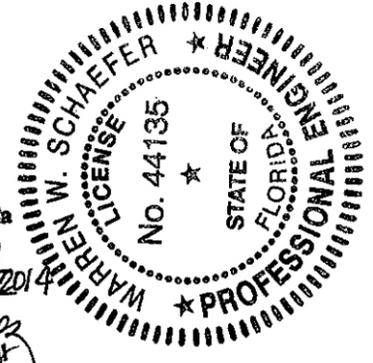
ITEM #20 IS USED WITH ALL CONTINUOUSLY BENT SIDES/HEAD.
ITEM #6 IS USED WHEN SIDES & HEAD ARE CORNERED.

SECTION A3
SCALE: 1/2 FULL
4

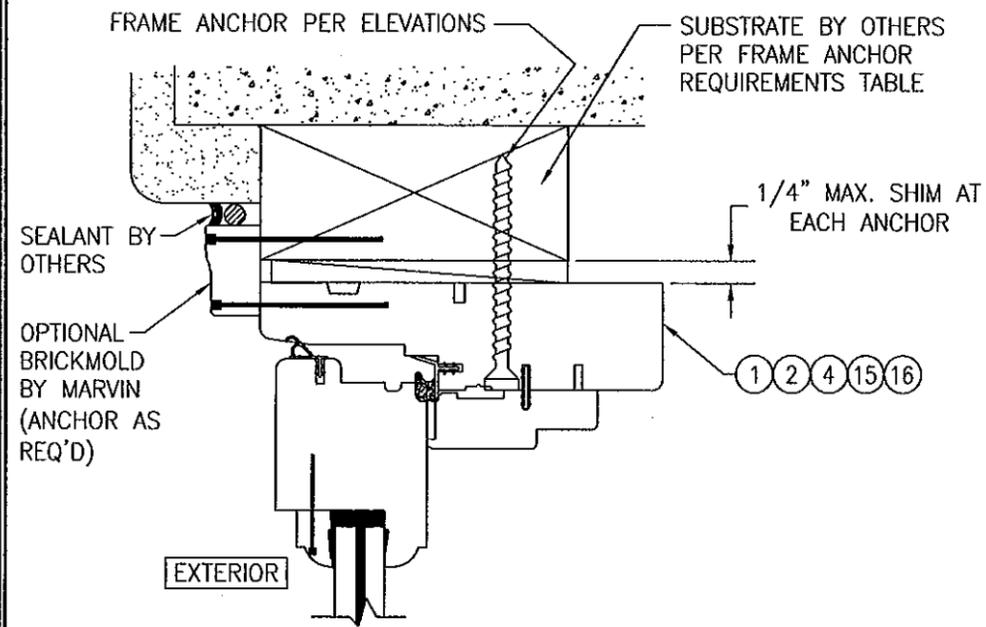
FOR SILL DETAIL NOT SHOWN SEE SECTION A1/4 FOR PUSH/PULL OPERATOR HARDWARE CONDITION OR A2/4 FOR ROTO OPERATOR HARDWARE CONDITION

USE OF BRICKMOLD WITH THESE SECTIONS IS OPTIONAL PER DETAILS ON SHEET 5. IT IS NOT REQUIRED. USE OF THIS BRICKMOLD SHALL BE IN ADDITION TO THE REQUIRED FRAME ANCHORS AND SHALL NOT ACT AS A SUBSTITUTE.

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 11-102113
Expiration Date MARCH 4, 2014
By *Manuel Perez*
Miami Dade Product Control

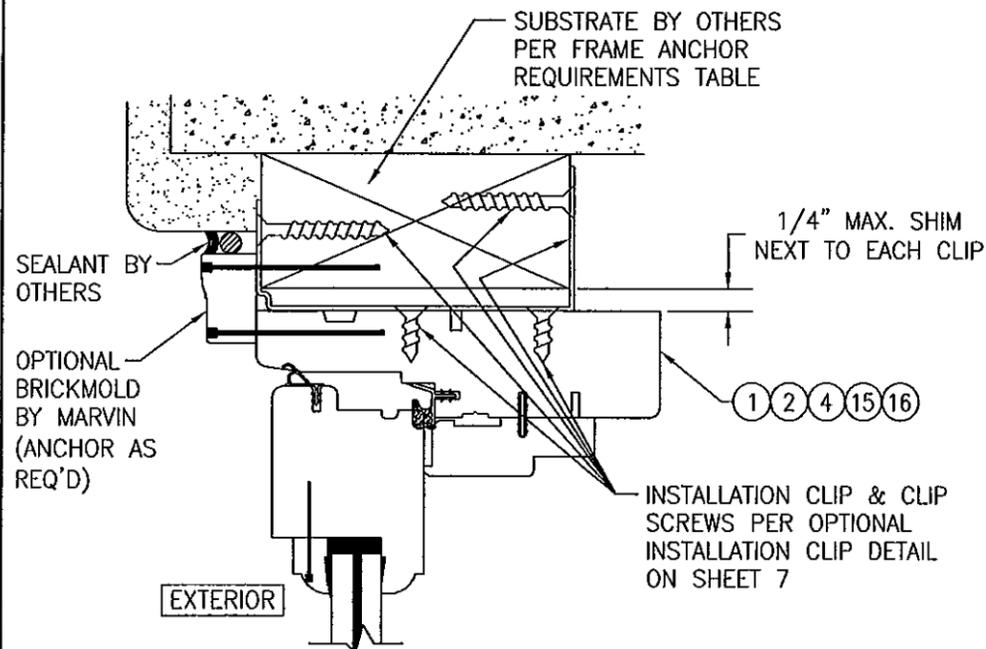


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 04/03/08	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: WOOD CASEMASTER CASEMENT STORMPLUS IZ4			
CONSULTANTS		MANUFACTURER	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MARVIN WINDOWS & DOORS	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CERTIFICATION	OCT 14 2011	WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO.	REV.		
1550	A		
SHEET NO.			
4	OF 8		



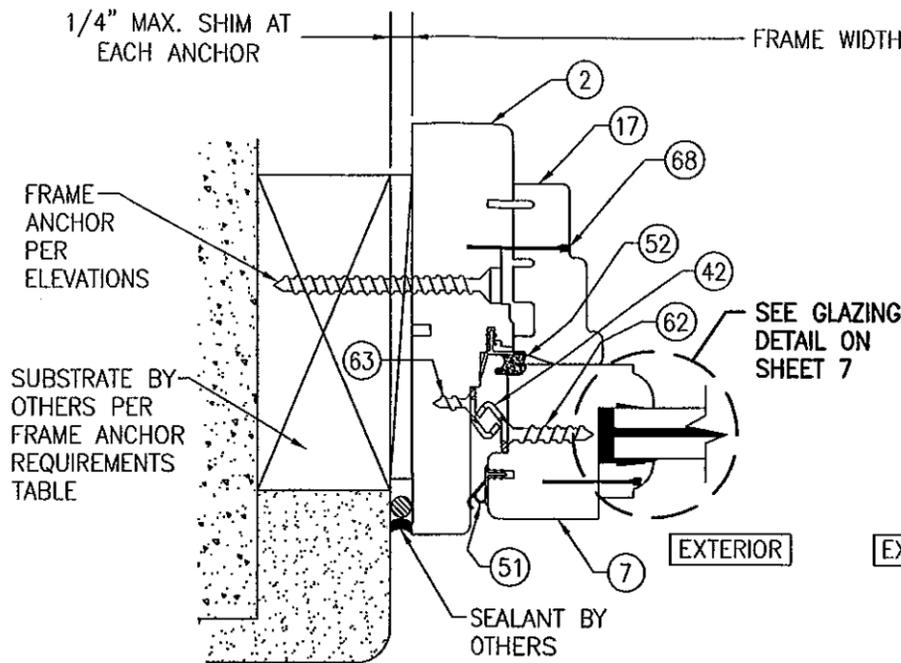
TYPICAL SCREW MOUNT INSTALLATION DETAIL WITH BRICKMOLD

(HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
 (RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE INSTALLED THE SAME)

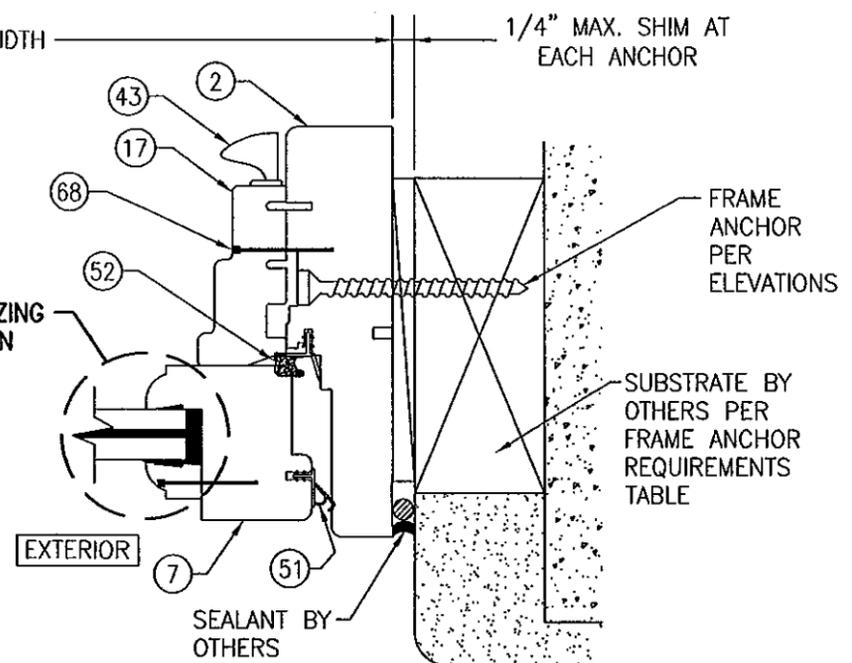


TYPICAL CLIP MOUNT INSTALLATION DETAIL WITH BRICKMOLD

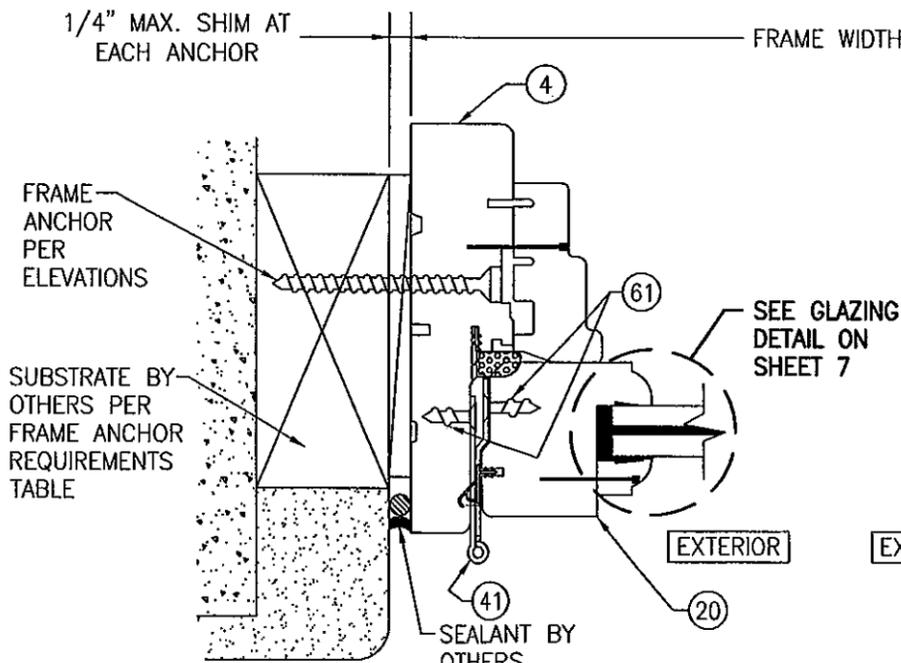
(HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
 (RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE INSTALLED THE SAME)



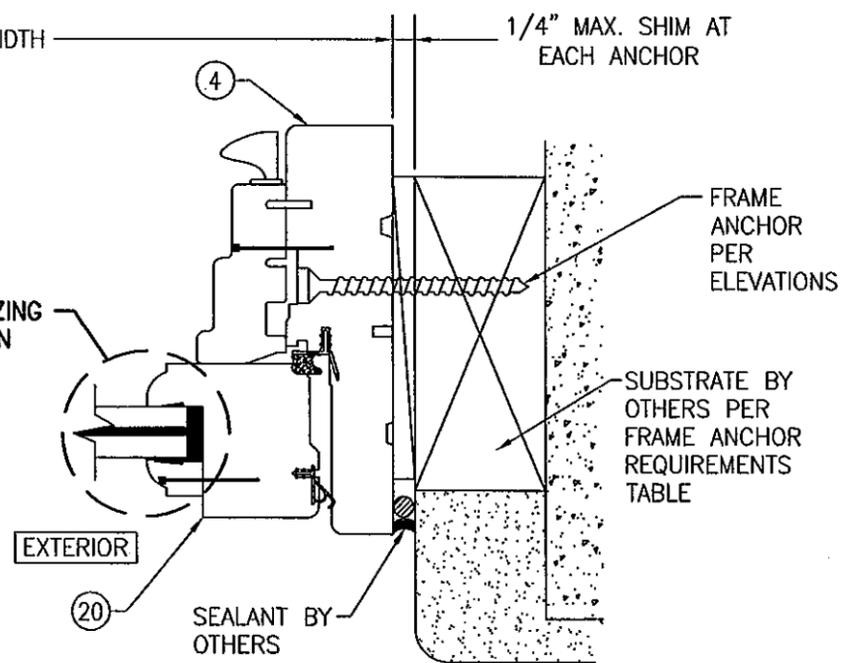
SECTION B1
 SCALE: 1/2 FULL



SECTION C1
 SCALE: 1/2 FULL



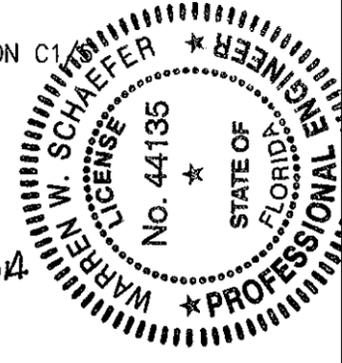
SECTION B2
 SCALE: 1/2 FULL
 FOR DETAILS NOT SHOWN SEE SECTION B1/5



SECTION C2
 SCALE: 1/2 FULL
 FOR DETAILS NOT SHOWN SEE SECTION C1

USE OF BRICKMOLD WITH THESE SECTIONS IS OPTIONAL PER DETAILS ON THIS SHEET. IT IS NOT REQUIRED. USE OF THIS BRICKMOLD SHALL BE IN ADDITION TO THE REQUIRED FRAME ANCHORS AND SHALL NOT ACT AS A SUBSTITUTE.

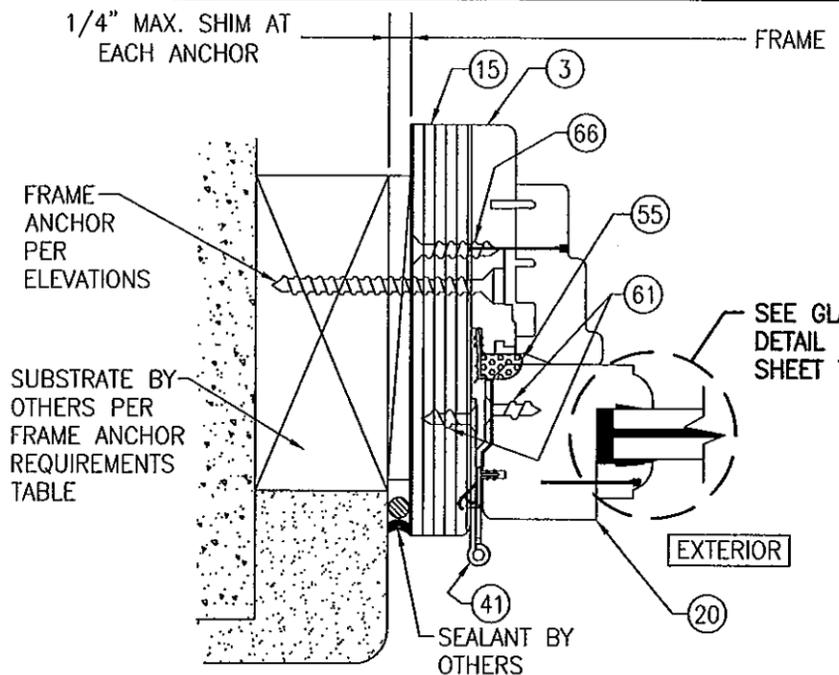
PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 11-102113
 Expiration Date 02/24/2014
 By *Manuel Perez*
 Miami Dade Product Control



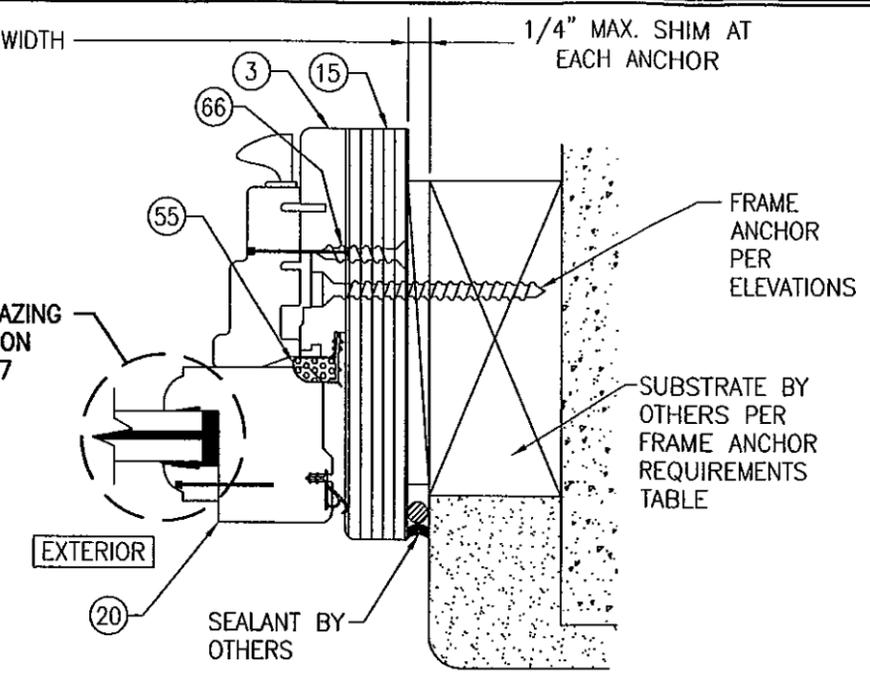
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 04/03/08
DATE	
BY	
REVISION DESCRIPTION	
NO.	

DRAWING TITLE: WOOD CASEMASTER CASEMENT STORMPLUS IZ4
 MANUFACTURER: MARVIN WINDOWS & DOORS
 HIGHWAY 11; P.O. BOX 100
 WARRADOR, 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

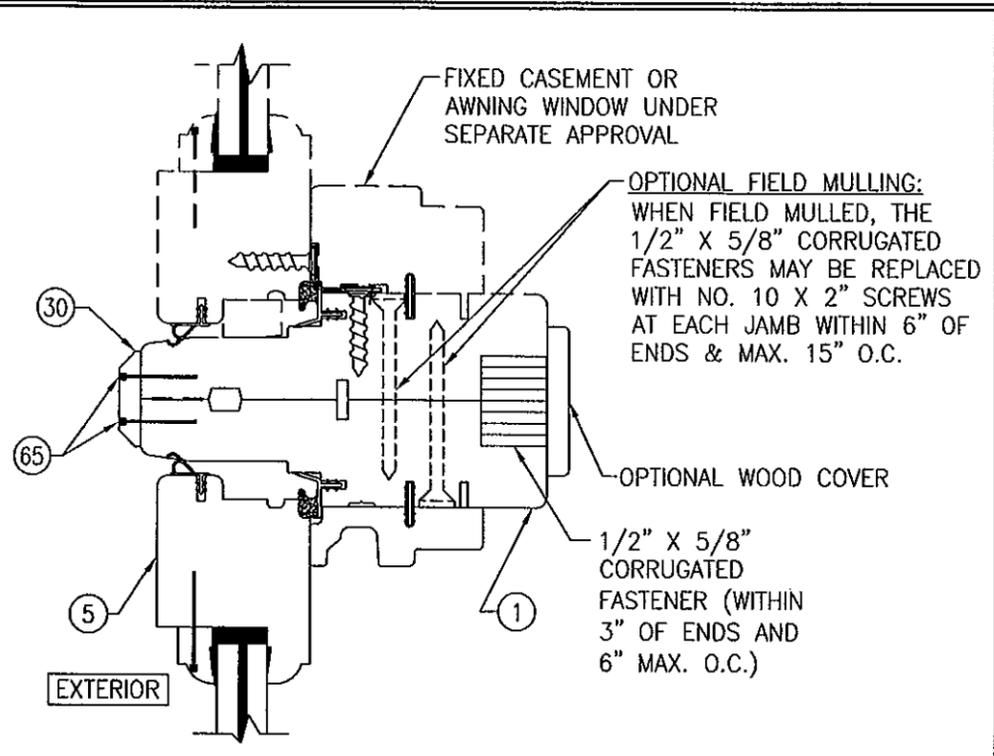
DRAWING NO.	REV.
1550	A
SHEET NO.	
5	OF 8



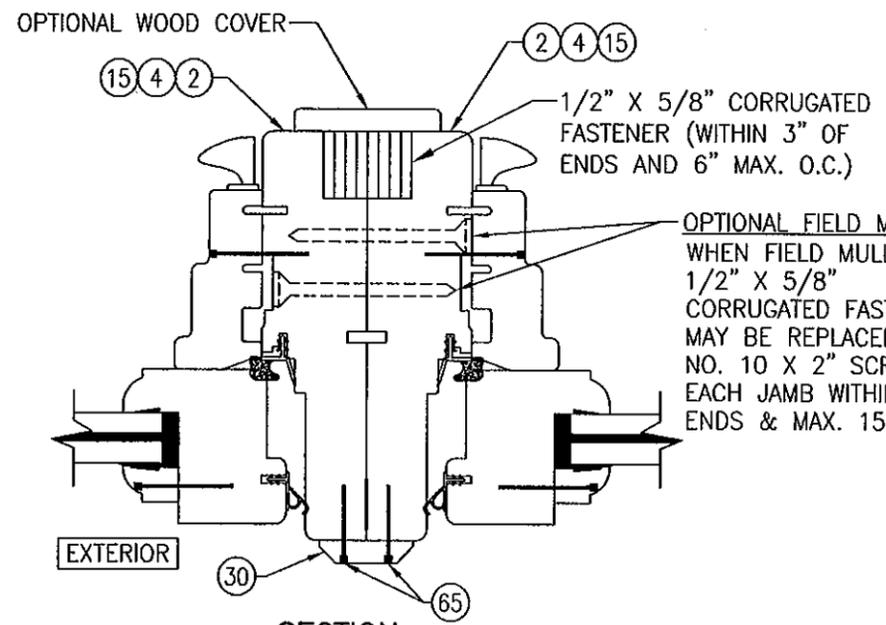
SECTION B3
SCALE: 1/2 FULL
FOR DETAILS NOT SHOWN SEE SECTION B1/5



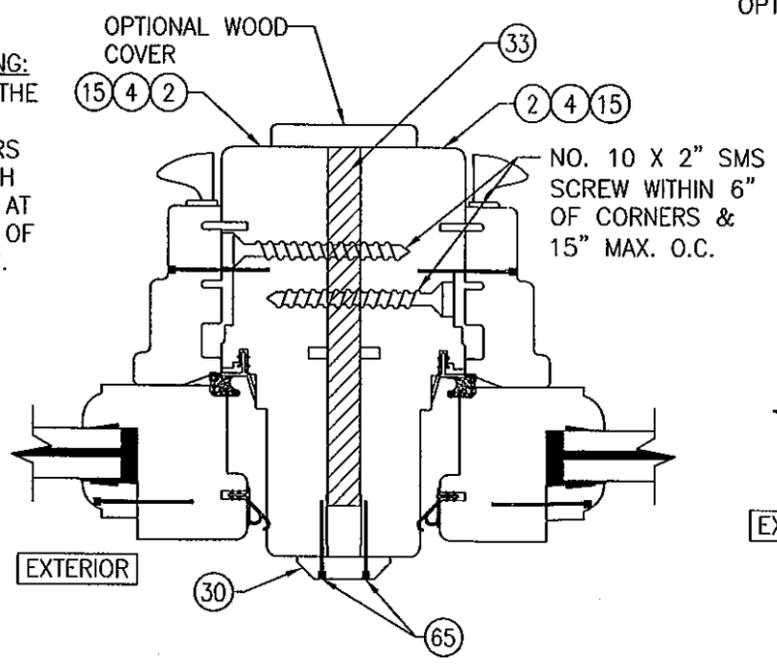
SECTION C3
SCALE: 1/2 FULL
FOR DETAILS NOT SHOWN SEE SECTION C1/5



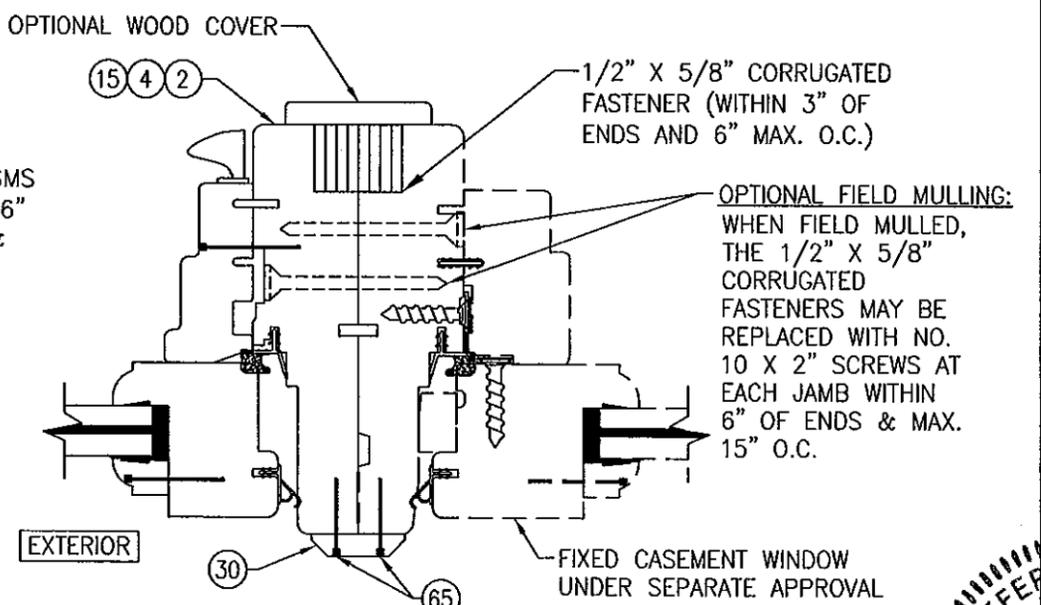
SECTION D
SCALE: 1/2 FULL
FOR DETAILS NOT SHOWN SEE OTHER SECTIONS



SECTION E1
SCALE: 1/2 FULL
(NON-REINFORCED MULLION)
(FOR DETAILS NOT SHOWN SEE OTHER SECTIONS)
(RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE JOINED THE SAME)



SECTION E2
SCALE: 1/2 FULL
(REINFORCED MULLION)
(FOR DETAILS NOT SHOWN SEE OTHER SECTIONS)
(RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE JOINED THE SAME)



SECTION F1
SCALE: 1/2 FULL
(NON-REINFORCED MULLION)
(FOR DETAILS NOT SHOWN SEE OTHER SECTIONS)
(RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE JOINED THE SAME)

USE OF BRICKMOLD WITH THESE SECTIONS IS OPTIONAL PER DETAILS ON SHEET 5. IT IS NOT REQUIRED. USE OF THIS BRICKMOLD SHALL BE IN ADDITION TO THE REQUIRED FRAME ANCHORS AND SHALL NOT ACT AS A SUBSTITUTE.

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 04/03/08
DATE	BY
REVISION DESCRIPTION	
NO.	

DRAWING TITLE: WOOD CASEMASTER CASEMENT STORMPLUS IZ4

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

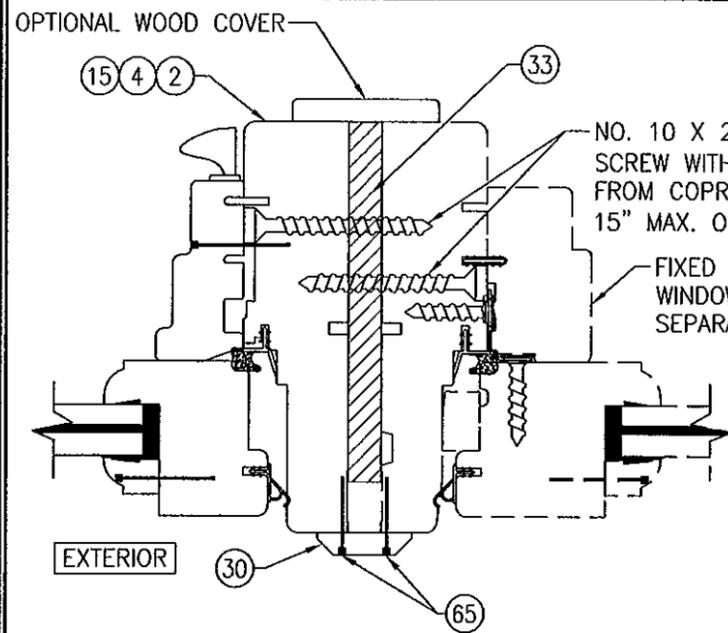
CONSULTANTS: W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

REGISTERED PROFESSIONAL ENGINEER
STATE OF FLORIDA
OCT 14, 2011
WARREN W. SCHAEFER
LICENSE NO. 11550

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 11-1021.13
Expiration Date 4/2014

By: *Warren W. Schaefer*
Miami Dade Product Control

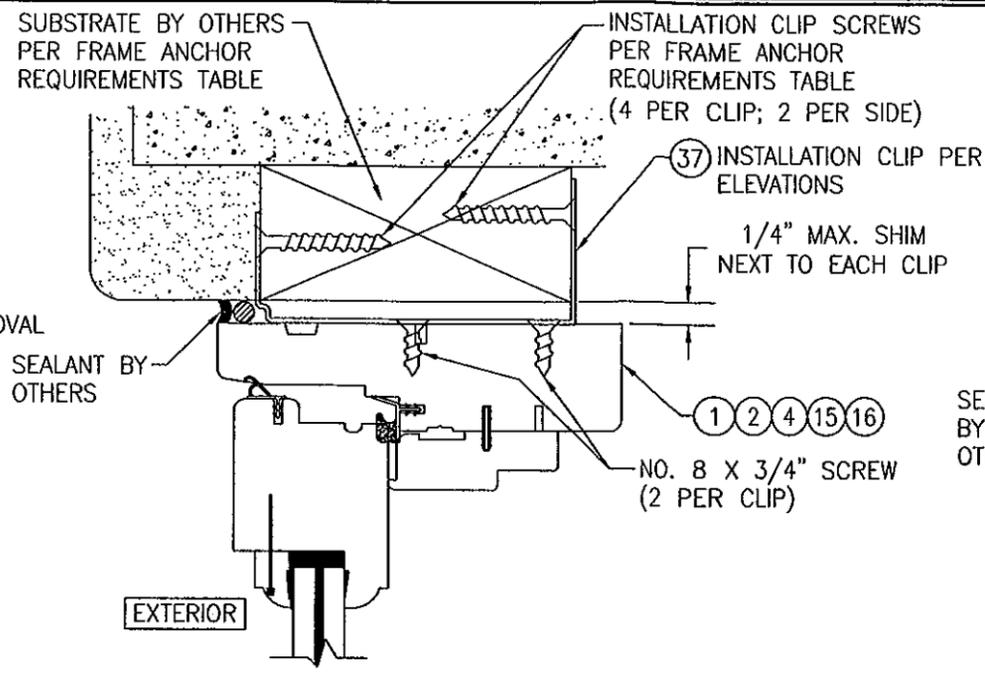
DRAWING NO. 1550
REV. A
SHEET NO. 6 OF 8



SECTION F2
SCALE: 1/2 FULL

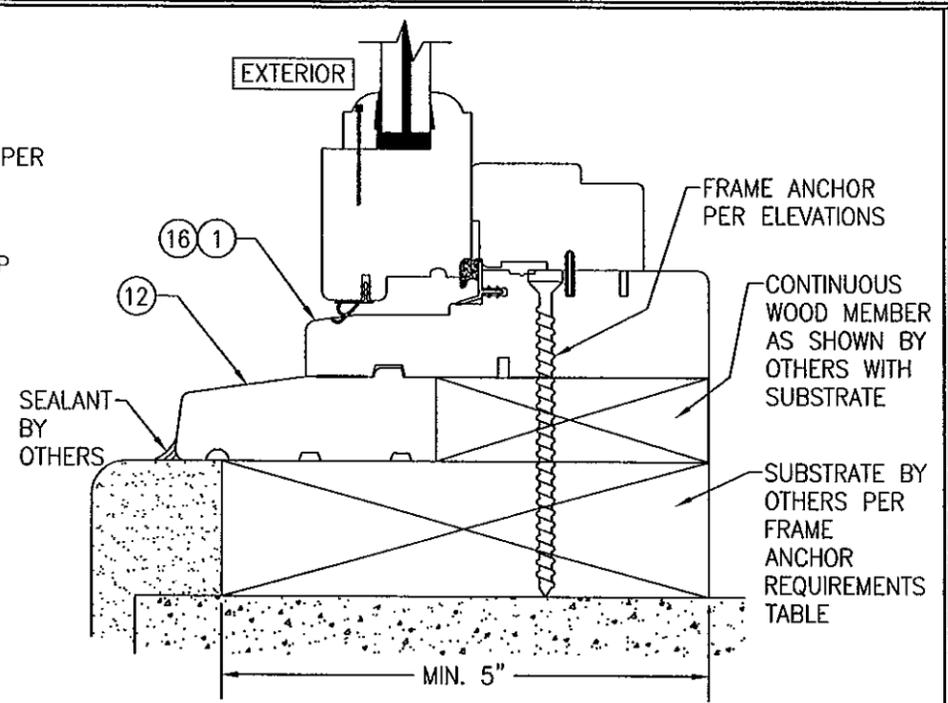
(REINFORCED MULLION)

(FOR DETAILS NOT SHOWN SEE OTHER SECTIONS)
(RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE JOINED THE SAME)



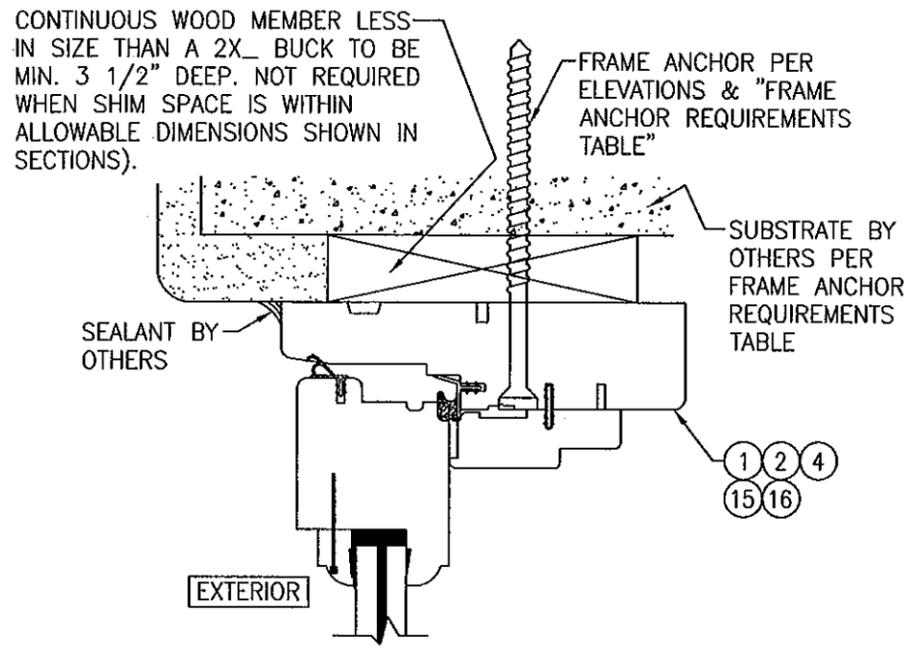
OPTIONAL INSTALLATION CLIP DETAIL

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE INSTALLED THE SAME)



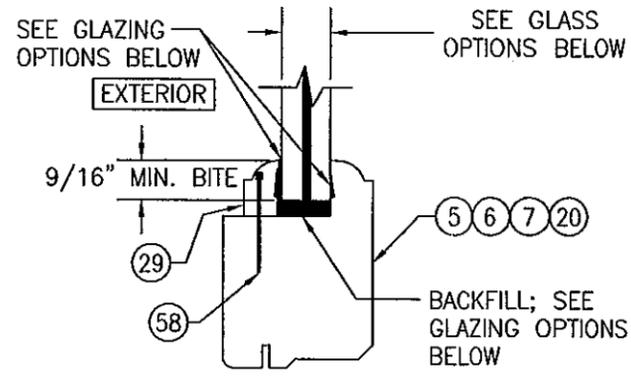
OPTIONAL DIRECT MOUNT DETAIL WITH SUB-SILL

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



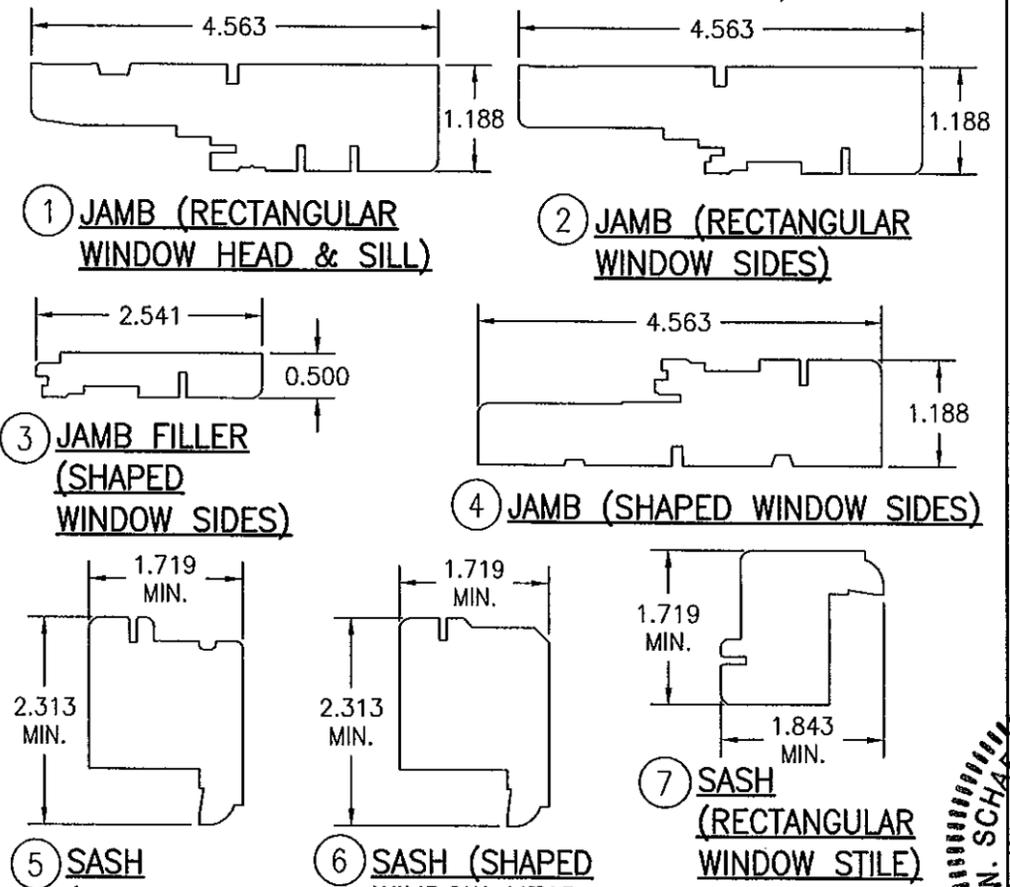
OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(RECTANGULAR WINDOW CONDITION SHOWN; SHAPED WINDOW CONDITIONS ARE INSTALLED THE SAME)



TYPICAL GLAZING DETAIL

GLASS OPTIONS:
GLASS OPTION A: 9/16" THICK LAMINATED GLASS (1/4" AN./0.09" DUPONT SG/1/4" AN.)
GLASS OPTION B: 9/16" THICK LAMINATED GLASS (1/4" HT.ST./0.09" DUPONT SG/1/4" HT.ST.)
GLASS OPTION C: 3/8" THICK LAMINATED GLASS (5/32" AN./0.090" DUPONT SG/5/32" AN.)
GLAZING OPTIONS:
GLAZING OPTION A: DOW 1199 EXTERIOR & INTERIOR WITH DOW 995 BACKFILL
GLAZING OPTION B: GE RAPID STRENGTH EXTERIOR, INTERIOR & BACKFILL



USE OF BRICKMOLD WITH THE OPTIONAL INSTALLATION CLIP DETAIL IS OPTIONAL PER DETAIL ON SHEET 5. IT IS NOT REQUIRED. USE OF THIS BRICKMOLD SHALL BE IN ADDITION TO THE REQUIRED CLIP AND SHALL NOT ACT AS A SUBSTITUTE.

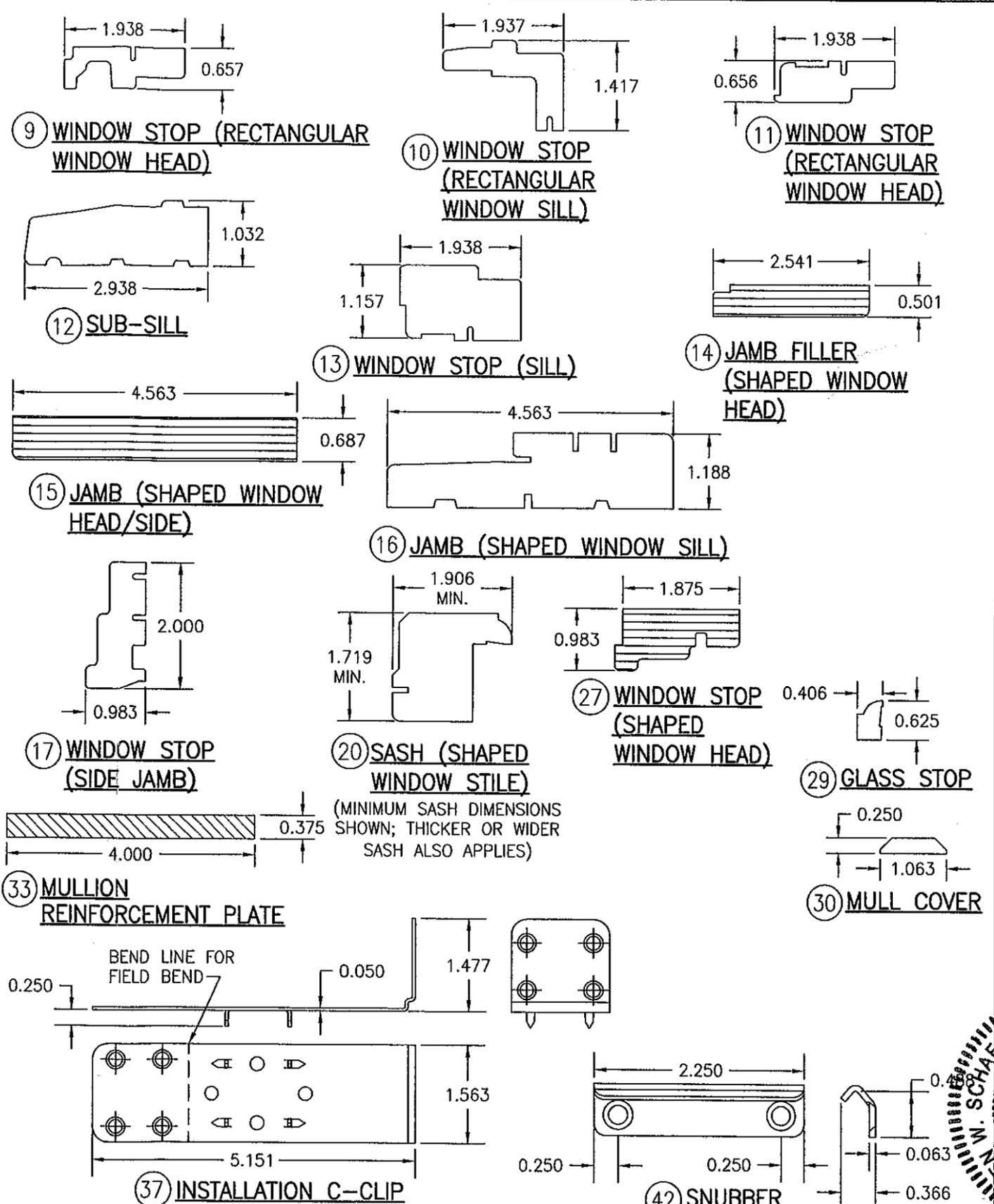
MINIMUM SASH DIMENSIONS SHOWN; THICKER OR WIDER SASH ALSO APPLIES

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 11-1021.13
Expiration Date 11/14/2014
By *Maurel Perez*
Miami Dada Product Control

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 04/03/08
NO.	REVISION DESCRIPTION
DATE	BY
DRAWING TITLE WOOD CASEMASTER CASEMENT STORMPLUS IZ4	
MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CONSULTANTS W. SCHAEFER ENGINEERING CONSULTING, P.A. (CA 6809) 7490 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
DRAWING NO.	REV.
1550	A
SHEET NO.	7 OF 8

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	JAMB (RECTANGULAR WINDOW HEAD & SILL)	* WOOD
2	JAMB (RECTANGULAR WINDOW SIDES)	* WOOD
3	JAMB FILLER (SHAPED WINDOW SIDES)	* WOOD
4	JAMB (SHAPED WINDOW SIDES)	* WOOD
5	SASH (RECTANGULAR WINDOW HEAD & SILL)	* WOOD
6	SASH (SHAPED WINDOW HEAD & SILL)	* WOOD
7	SASH (RECTANGULAR WINDOW STILE)	* WOOD
9	WINDOW STOP (RECTANGULAR WINDOW HEAD)	* WOOD
10	WINDOW STOP (RECTANGULAR WINDOW SILL)	* WOOD
11	WINDOW STOP (RECTANGULAR WINDOW HEAD)	* WOOD
12	SUB-SILL	* WOOD
13	WINDOW STOP (SILL)	* WOOD
14	JAMB FILLER (SHAPED WINDOW HEAD)	* WOOD (LVL AT 1/4 & 1/2 ROUND; FINGER JOINTED AT EYE BROW SHAPES)
15	JAMB (SHAPED WINDOW HEAD/SIDE)	
16	JAMB (SHAPED WINDOW SILL)	PINE
17	WINDOW STOP (SIDE JAMB)	* WOOD
20	SASH (SHAPED WINDOW STILE)	* WOOD
27	WINDOW STOP (SHAPED WINDOW HEAD)	* WOOD (LVL)
29	GLASS STOP	* WOOD
30	MULLION COVER	* WOOD
33	MULLION REINFORCEMENT PLATE	6061-T6 ALUMINUM
37	INSTALLATION C-CLIP	50 KSI GALV. STEEL
HARDWARE		
38	OPERATOR WITH HANDLE	TRUTH--SERIES 15 DUAL ARM OPERATOR MW ZINC HANDLE MW PLASTIC HARDWARE COVER
40	SCISSOR HINGE	10" LONG. S.S. THRU 13-16-00-119 (LEFT) THRU 13-16-00-120 (RIGHT)
41	BUTT HINGE	304 S.S.; MARVIN #10929105
42	SNUBBER	50 KSI STEEL
43	CAMLOCK	TRUTH
44	ROLLER TRACK	TRUTH SERIES 30706
45	SASH LIMITER	MARVIN #15808598
SEALS & SEALANTS		
51	SASH WEATHERSTRIP	RIGID GLASS FILLED POLYPROPYLENE BY INTEK
52	VINYL FRAME WEATHERSTRIP	BY AMSBURY
53	THERMAL BREAK	BY AMSBURY
54	CONNECTING BARB	PVC & GEON C70d0
55	VINYL FRAME WEATHERSTRIP	BY AMSBURY
MISC. FASTENERS		
58	F-18 x 1.125" BRAD NAIL	3" FROM CORNERS & MAX. 8" O.C.
61	NO. 10-32 FH MACHINE SCREW	4 PER HINGE
62	NO. 8 X 1" SMS	2 PER SNUBBER
63	NO. 7 X 1/2" SMS	2 PER SNUBBER
65	18 GA. X 3/4" BRAD NAIL	2" FROM ENDS & 5" TO 8" O.C.
66	NO. 8 X 1" SMS	2" FROM ENDS & 5" TO 8" O.C.
67	NO. 6 X 1" TRIM HEAD WOOD SCREW	2" FROM ENDS & 5" TO 8" O.C.
68	F-14 x 1 3/8" BRAD NAIL	2" FROM ENDS & 4" TO 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.



DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 04/03/08
DATE	BY
REVISION DESCRIPTION	
NO.	

WOOD CASEMASTER CASEMENT STORMPLUS IZ4

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

CONSULTANTS
 M. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
 7480 150TH COURT NORTH
 PALM BEACH GARDENS, FL 33418
 PHONE: 561-744-3424

DRAWING TITLE
 M. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 PROJECT NO. 44135
 DATE: 11/14/2011
 STATE OF FLORIDA
 REGISTERED PROFESSIONAL ENGINEER
 M. W. SCHAEFER, P.E.
 LICENSE NO. 12345

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 11-1021.13
 Expiration Date MARCH 4, 2014
 By *Maurice Perez*
 Miami Dade Product Control

DRAWING NO.	REV.
1550	A
SHEET NO.	8 OF 8