



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

[www.miamidade.gov/buildingcode](http://www.miamidade.gov/buildingcode)

**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 by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION:**

**Series "French Storm Plus I-24" 8'-0" Aluminum Clad Wood Outswing Glazed Doors – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. 1487, titled Series "8 Ft. Aluminum Clad Out-Swing Wood Impact Doors", sheets 1 through 11 of 11, dated 08/17/06 with the latest revision dated 03/13/07, prepared by W. W. Schafer Engineering & Consulting, P.A., signed and sealed by Warren W. Schafer, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: Large and Small Missile Impact Resistant**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**APPROVAL** of this NOA shall be considered after an approval 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 consists of this page 1 and evidence page E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P.E.**



*J. Gascon*  
*4/13/07*

NOA No. 06-1228.02  
Expiration Date: May 03, 2012  
Approval Date: May 03, 2007  
Page 1

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

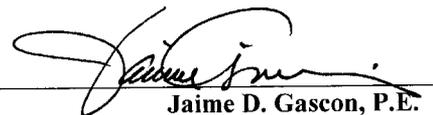
**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **1487**, titled Series "8 Ft. Aluminum Clad Out-Swing Wood Impact Doors", sheets 1 through 11 of 11, dated 08/17/06 with the latest revision dated 03/13/07, prepared by W. W. Schafer Engineering & Consulting, P.A., signed and sealed by Warren W. Schafer, 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 202-94along with marked-up drawings and installation diagram prepared by Architectural Testing, Inc., Test Report No. **ATI-67287.01-201-18**, dated 12 /01/06, signed and sealed by Joseph A. Reed, P.E.
2. Test reports on:
  - 1) Tensile Properties and Xenon-Arc Weathering Tests of Fiberglass Reinforced Plastic Samples, Test Report No. **TCT 18 0-0758**, dated November 29, 2000;
  - 2) Flammability Testing of Fiberglass Reinforced Plastic, per ASTM D-635, Test Report No. **TCT 18 0-0758.1**, dated October 12, 2000;
  - 3) Ignition Temperature, per ASTM D-2843, Density of Smoke Testing of Fiberglass Reinforced Plastic, Test Report No. **TCT 18 0-0758.2**, dated November 08, 2000;
  - 4) Tensile Properties and Xenon-Arc Weathering Tests of Fiberglass Reinforced Plastic Samples, Test Report No. **TCT 18 0-0758.3**, dated April 19, 2001;
  - 5) Flammability Testing of Geon 06935-3490, per ASTM D-635, Test Report No. **TCT 18 0-0796**, dated November 16, 2000;
  - 6) Ignition Temperature Testing of Geon 06935-3490, per ASTM D-2843, Density of Smoke Testing of Fiberglass Reinforced Plastic, Test Report No. **TCT 18 0-0796.2**, dated November 09, 2000, latest revision on November 16, 2000;

along with marked-up drawings and installation diagram prepared by Stork/ Twin City Testing Corporation, signed and sealed by Derrick J. Swanson, P.E.



Jaime D. Gascon, P.E.

Chief, Product Control Division  
NOA No. 06-1228.02

Expiration Date: May 03, 2012

Approval Date: May 03, 2007

**Marvin Windows and Doors**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2004, prepared by W. W. Schafer Engineering & Consulting, P.A., dated 10/10/06, signed and sealed by Warren W. Schafer, P.E.  
**Complies with ASTM E1300-98/ 02**

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS**

1. Statement letter of conformance, dated October 12, 2006, signed and sealed by Warren W. Schafer, P.E.
2. Statement letter of compliance, dated December 01, 2006, signed and sealed by Joseph A. Reed, P.E.

**G. OTHER**

1. Test reports on:
  - 1) Determining Ignition Temperature of Plastic, per ASTM D-1929, Test Report No. **SGS 147520-1**, dated October 27, 2000;
  - 2) Determining Ignition Temperature of Plastic, per ASTM D-1929, Test Report No. **SGS 147520-2**, dated October 27, 2000;
  - 3) Density of Smoke Testing of Fiberglass Reinforced Plastic, per ASTM D-2843, Test Report No. **SGS 147520-3**, dated October 27, 2000;
  - 4) Density of Smoke Testing of Fiberglass Reinforced Plastic, per ASTM D-2843, Test Report No. **SGS 147520-4**, dated October 27, 2000;along with installation diagram prepared by SGS U. S. Testing Company, Inc., signed by Michael S. Elliott.
2. Test reports on:
  - 1) Determining Ignition Temperature of Plastic, per ASTM D-1929; along with installation diagram prepared by Intertek Testing Services NA, Inc., Test Report No. **3119811SAT-001**, dated 03 /28/07, signed by Servando Romo.
3. Test reports on:
  - 1) Determining Ignition Temperature of Plastic, per UL 723 substitute to ASTM E-84; along with installation diagram prepared by Underwriters Laboratories, Inc., Test Report No. **R11183**, dated 01 /09/06, signed by Janet L. Burton.

  
Jaime D. Gascon, P.E.

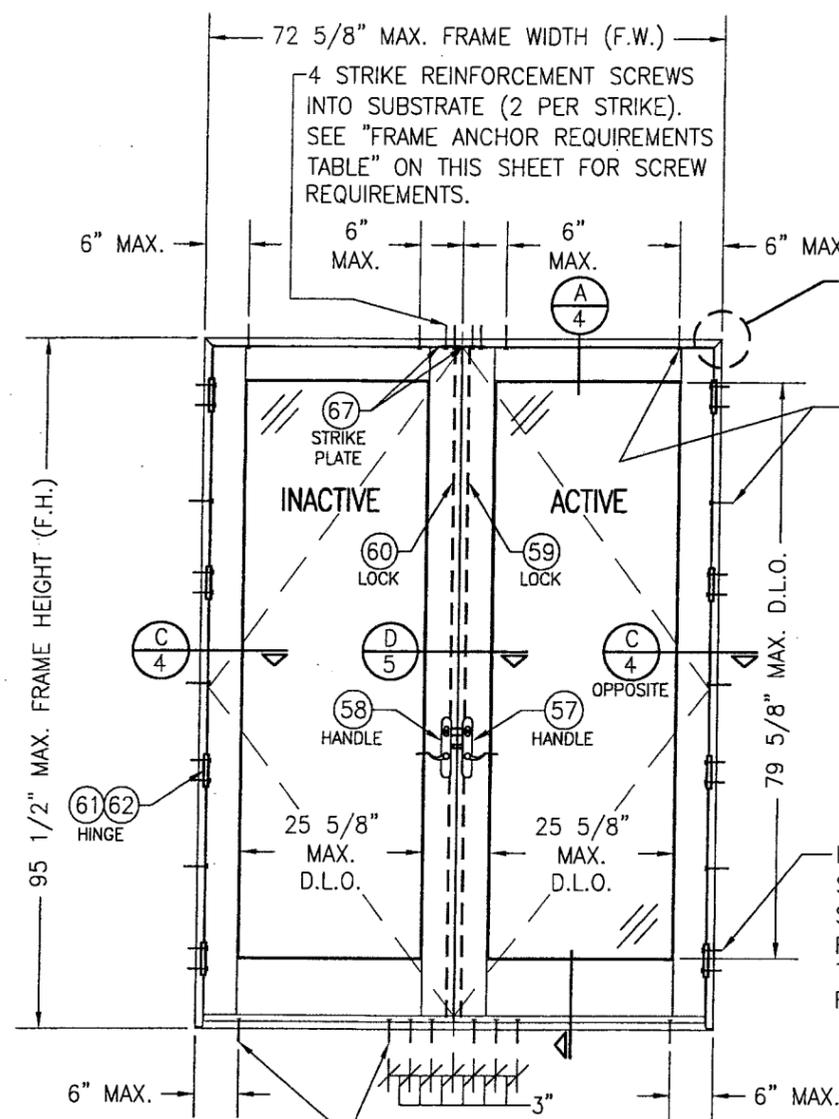
Chief, Product Control Division  
NOA No. 06-1228.02  
Expiration Date: May 03, 2012  
Approval Date: May 03, 2007

NO.	REVISION DESCRIPTION	DATE

**8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS**  
 MANUFACTURER  
**MARVIN WINDOWS & DOORS**  
 HIGHWAY 11; P.O. BOX 100  
 WARROAD, MN 56763  
 800-346-5044

CONSULTANTS  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
 8895 N. MILITARY TRAIL, SUITE C-204  
 PALM BEACH GARDENS, FL 33410  
 PHONE: 561-775-4902 FAX: 561-775-4903

CERTIFICATION  
 MAR 13 2007  
 APPROVED AS COMPLYING WITH THE  
 Florida Building Code  
 Date 05/03/2007  
 NOA# 06-1228.02  
 Miami Dade Product Control  
 Division  
 By *[Signature]*  
 DRAWING NO. 1487  
 SHEET NO. 1 OF 11



4 STRIKE REINFORCEMENT SCREWS INTO SUBSTRATE (2 PER STRIKE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.

SEE CORNER DETAILS ON SHEETS 8 & 9

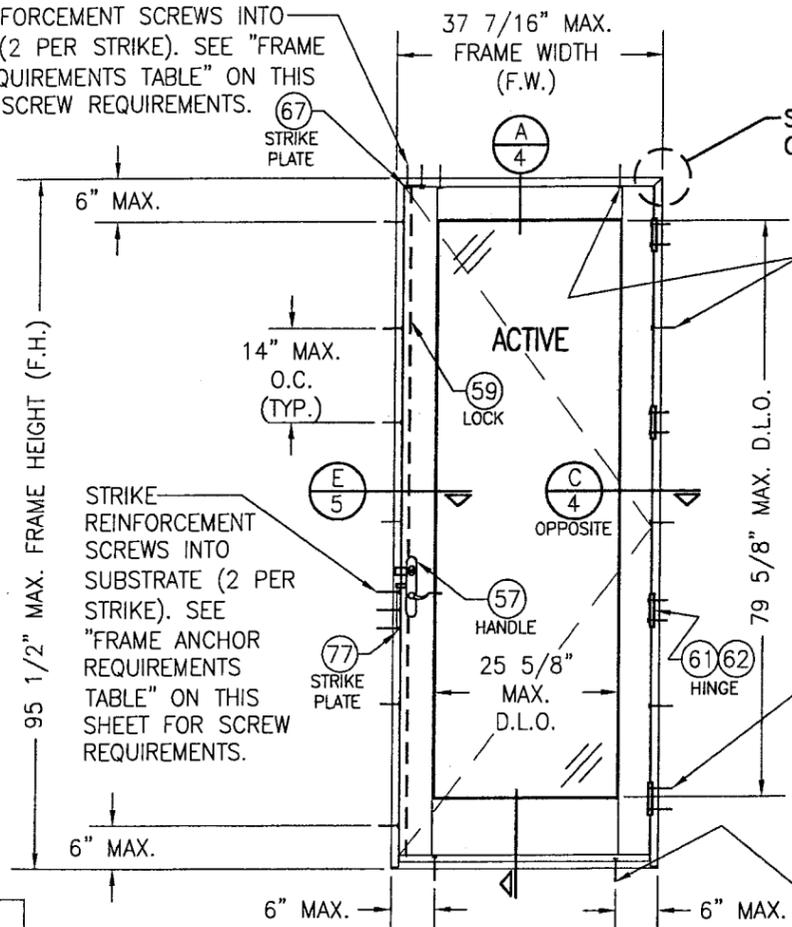
FRAME SCREW OR INSTALLATION CLIP. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS. (CENTERED BETWEEN EACH HINGE & WHERE SHOWN AT OTHER SIDE & 2 AT HEAD WHERE SHOWN)

NOTE: DOORS MAY BE FULLY GLAZED AS SHOWN OR PARTIALLY PANELED. SEE SHEET 3 ELEVATION FOR PARTIAL PANELED DOORS.

HINGE SCREW INTO SUBSTRATE (2 PER HINGE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.

NOTE: ALTHOUGH NOT SHOWN, A NAIL FIN MAY BE APPLIED AROUND THE DOOR FRAMES IN ADDITION TO ANCHOR CONDITIONS SHOWN TO ACT AS A PERIMETER SEAL (NAIL FIN SHALL NOT BE A SUBSTITUTE FOR ANCHOR CONDITIONS SHOWN).

STRIKE REINFORCEMENT SCREWS INTO SUBSTRATE (2 PER STRIKE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.



SEE CORNER DETAILS ON SHEETS 8 & 9

FRAME SCREW OR INSTALLATION CLIP. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS. (CENTERED BETWEEN EACH HINGE & WHERE SHOWN AT OTHER SIDE & 2 AT HEAD WHERE SHOWN)

HINGE SCREW INTO SUBSTRATE (2 PER HINGE). SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.

SILL ANCHORS AT EACH CORNER WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS.

SILL ANCHORS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON THIS SHEET FOR SCREW REQUIREMENTS (1 AT EACH CORNER & 6 AT SILL MID-SPAN AS SHOWN).

**FRAME ANCHOR REQUIREMENTS TABLE**

**FRAME/HINGE/STRIKE SHEAR SCREWS**

OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	NO. 10 SMS SCREW	1 1/4"	3/4"
C90 CMU & MIN. 2500 PSI CONCRETE	(1) 3/16" CONCRETE SCREW	1 1/4"	2"
MIN. 18 GAGE 33 KSI METAL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM OR A36 STEEL	NO. 10 SELF TAP/DRILLING SCREW	FULL	1/2"

**INSTALLATION CLIP SCREWS**

2X_ WOOD FRAME OR BUCK	NO. 8 SMS SCREW	1 3/8"	3/4"
MIN. 18 GAGE 33 KSI METAL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM OR A36 STEEL	NO. 8 SELF TAP/DRILLING SCREW	FULL	1/2"

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

**ALLOWABLE DESIGN PRESSURE**

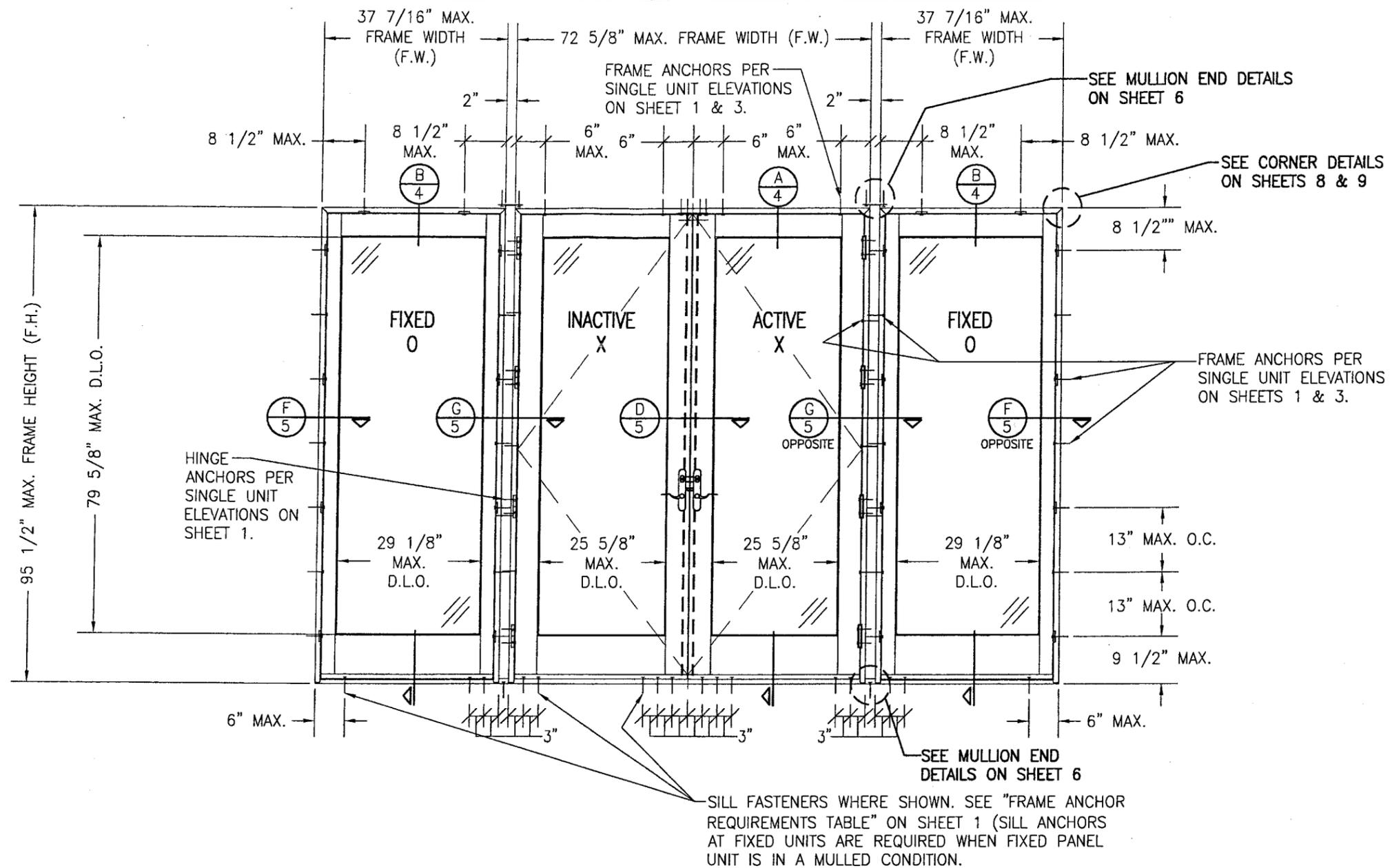
SEE LOAD TABLES ON SHEET 2

**HINGE REQUIREMENTS**

MAX. FRAME HEIGHT	MIN. # OF HINGES
95 1/2"	4
82"	3

**GENERAL NOTES**

1. THESE DOOR SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN LOADS" TABLE(S).
2. BUCKING, OPENINGS & 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.
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 2004 FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT DOORS.
5. THESE DOORS SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE DOORS.
7. ALL ANCHORS SHALL BE INSTALLED AS SPECIFIED ON THESE DRAWINGS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
8. ALL FRAME ANCHORS SECURING WINDOW/DOOR FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
9. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2004 FLORIDA BUILDING CODE SECTION 2003.8.4.



**EXTERIOR ELEVATION  
DOUBLE OUTSWING DOOR WITH SIDELIGHTS**

SCALE: 1/2" = 1'-0"

OXXO DOOR SHOWN. ALL OTHER 4-PANEL CONFIGURATIONS  
NOTE: OF SINGLE/DOUBLE DOORS & SIDELIGHTS ALSO APPLY.  
(FOR ALL DETAIL NOT SHOWN, SEE SINGLE UNIT ELEVATIONS.)

Approved as complying with the  
Florida Building Code  
Date 05/03/2007  
NOA# 06-1228-02  
Miami Dade Product Control  
Division  
By: *[Signature]*

ALLOWABLE DESIGN PRESSURE WITH GLASS OPTION 1 (SINGLE & MULLED UNITS)					
DOOR TYPE	MAX. FRAME HEIGHT	MAX. D.L.O. HEIGHT	D.L.O. WIDTH LESS THAN OR EQUAL TO 23 5/8"	D.L.O. WIDTH BETWEEN 23 5/8" & 25 5/8"	D.L.O. WIDTH = 25 5/8" TO 29 1/8"
SINGLE & DOUBLE OPERABLE	95 1/2"	79 5/8"	+65/-80 PSF	+65/-72 PSF	N/A
SINGLE & DOUBLE OPERABLE	82"	66 1/8"	+65/-85 PSF	+65/-78 PSF	N/A
FIXED PANEL	95 1/2"	79 5/8"	+65/-85 PSF	+65/-72 PSF	+57/-57 PSF

NOTE: SEE GLAZING DETAIL ON SHEET 6 FOR GLASS OPTIONS.

ALLOWABLE DESIGN PRESSURE WITH GLASS OPTION 2 (SINGLE & MULLED UNITS)			
DOOR TYPE	MAX. FRAME HEIGHT	MAX. D.L.O. HEIGHT	ALL D.L.O. WIDTHS
SINGLE & DOUBLE OPERABLE	95 1/2"	79 5/8"	+65/-80 PSF
SINGLE & DOUBLE OPERABLE	82"	66 1/8"	+65/-85 PSF
FIXED PANEL	95 1/2"	79 5/8"	+65/-85 PSF

NOTE: SEE GLAZING DETAIL ON SHEET 6 FOR GLASS OPTIONS.

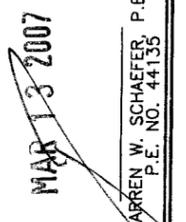
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-24	DATE: 8/17/06
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE <b>8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS</b>	
MANUFACTURER <b>MARVIN WINDOWS &amp; DOORS</b> HIGHWAY 11, P.O. BOX 100 WARROAD, MN 56763 800-346-5044	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4802 FAX: 561-775-4903	
CERTIFICATION <b>MAR 13 2007</b>	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. <b>1487</b>	REV.
SHEET NO. <b>2 OF 11</b>	

NO.	REVISION DESCRIPTION	BY	DATE

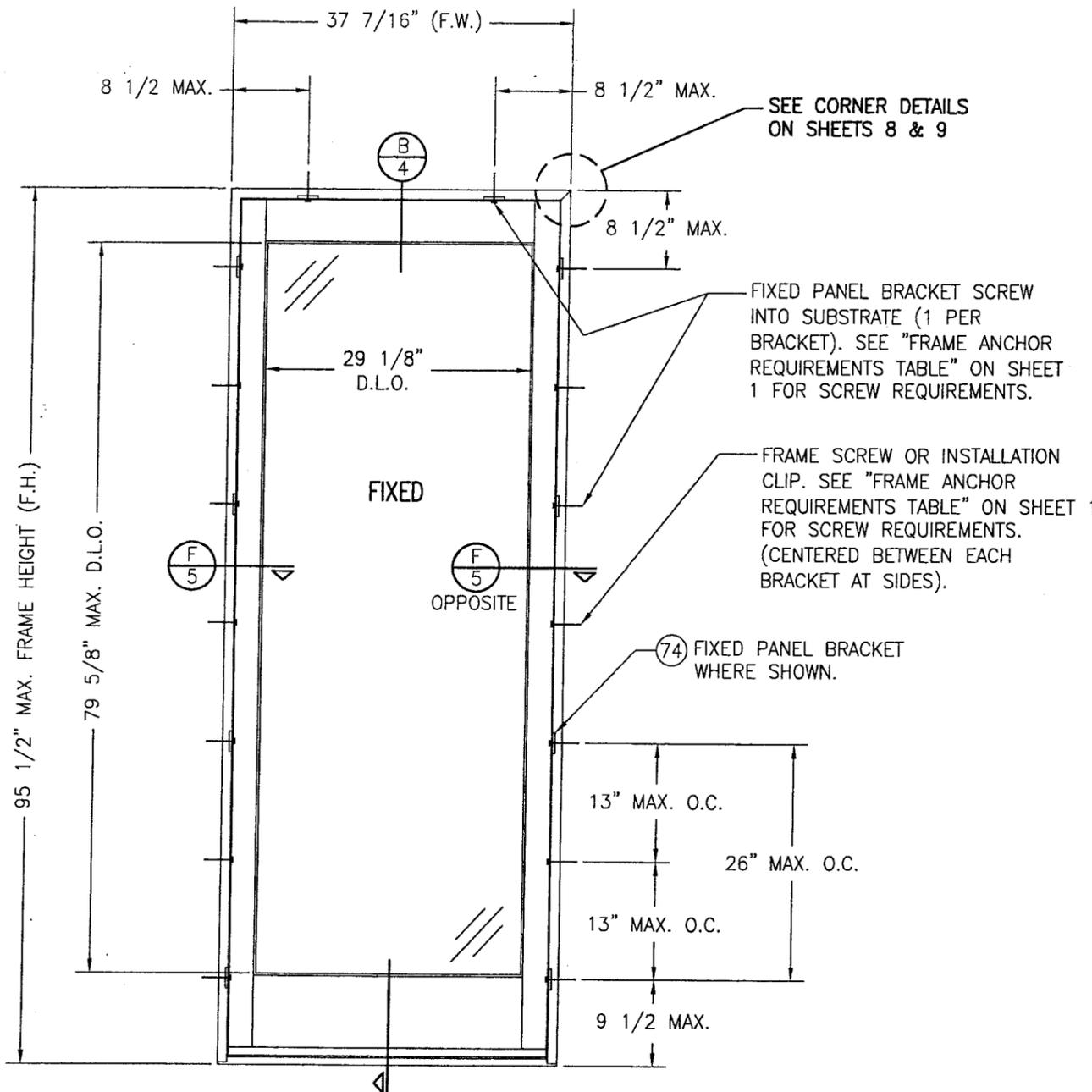
**DRAWING TITLE**  
8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS

**CONSULTANTS**  
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4902 FAX: 561-775-4903

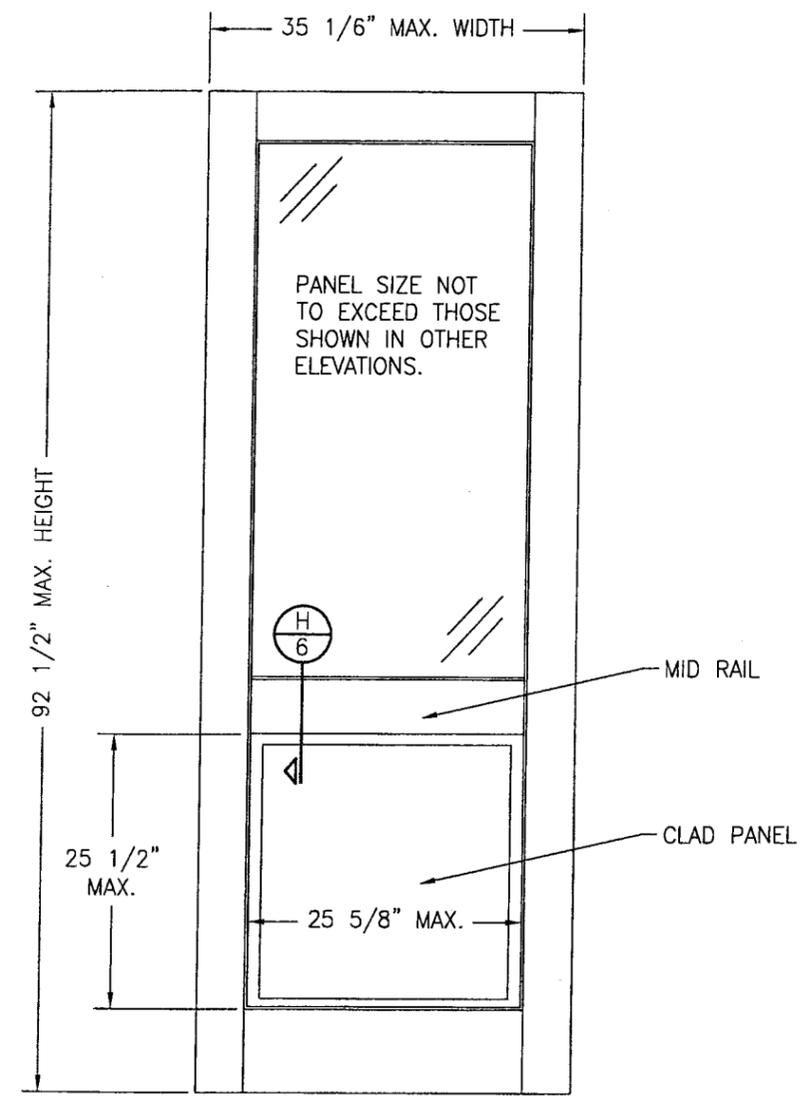
**MANUFACTURER**  
MARVIN WINDOWS & DOORS  
HIGHWAY 11; P.O. BOX 100  
WARROAD, MN 56763  
800-346-5044

<b>CERTIFICATION</b>  MAR 13 2007 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO.	REV.
	1487	
SHEET NO.	3 OF 11	

Approved as complying with the Florida Building Code  
 Date: 05/03/2007  
 NOA# 06-122B.02  
 Miami Dade Product Control  
 Division  
 By: 

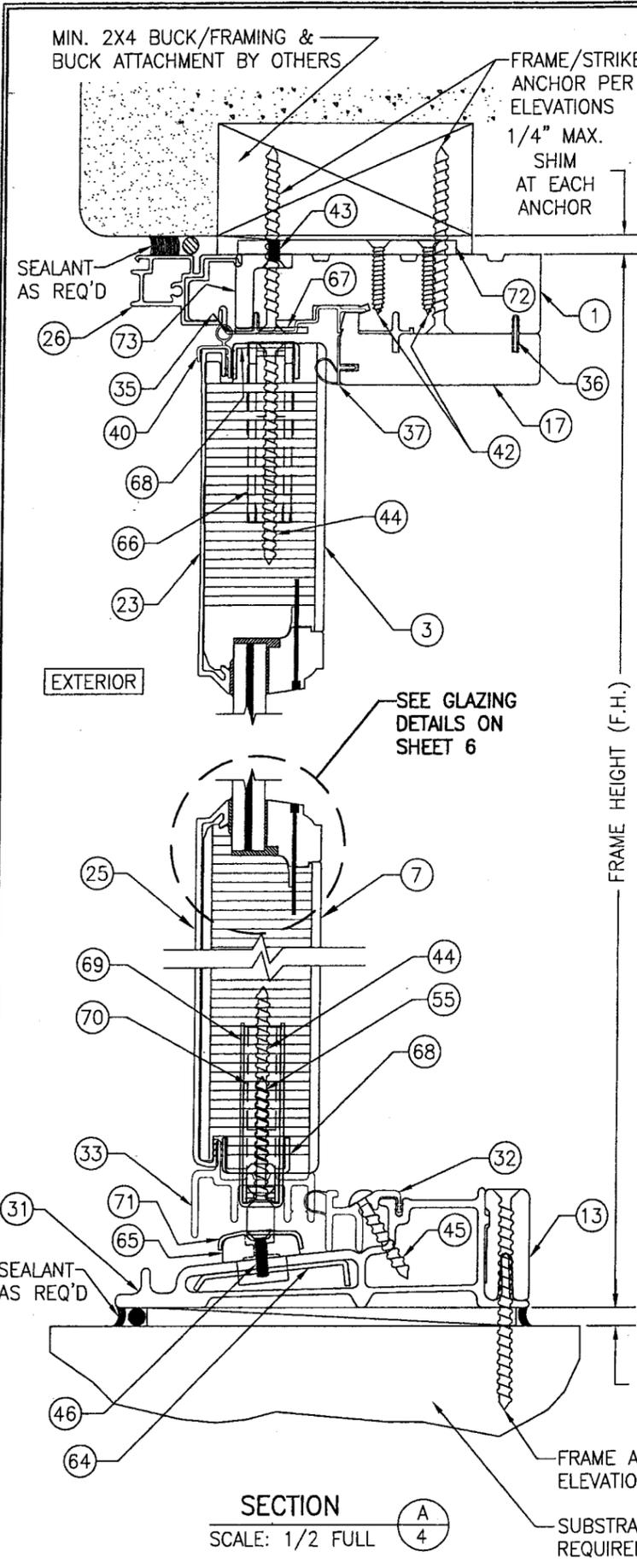


**EXTERIOR ELEVATION  
SINGLE FIXED PANEL**  
SCALE: 3/4"=1'-0"

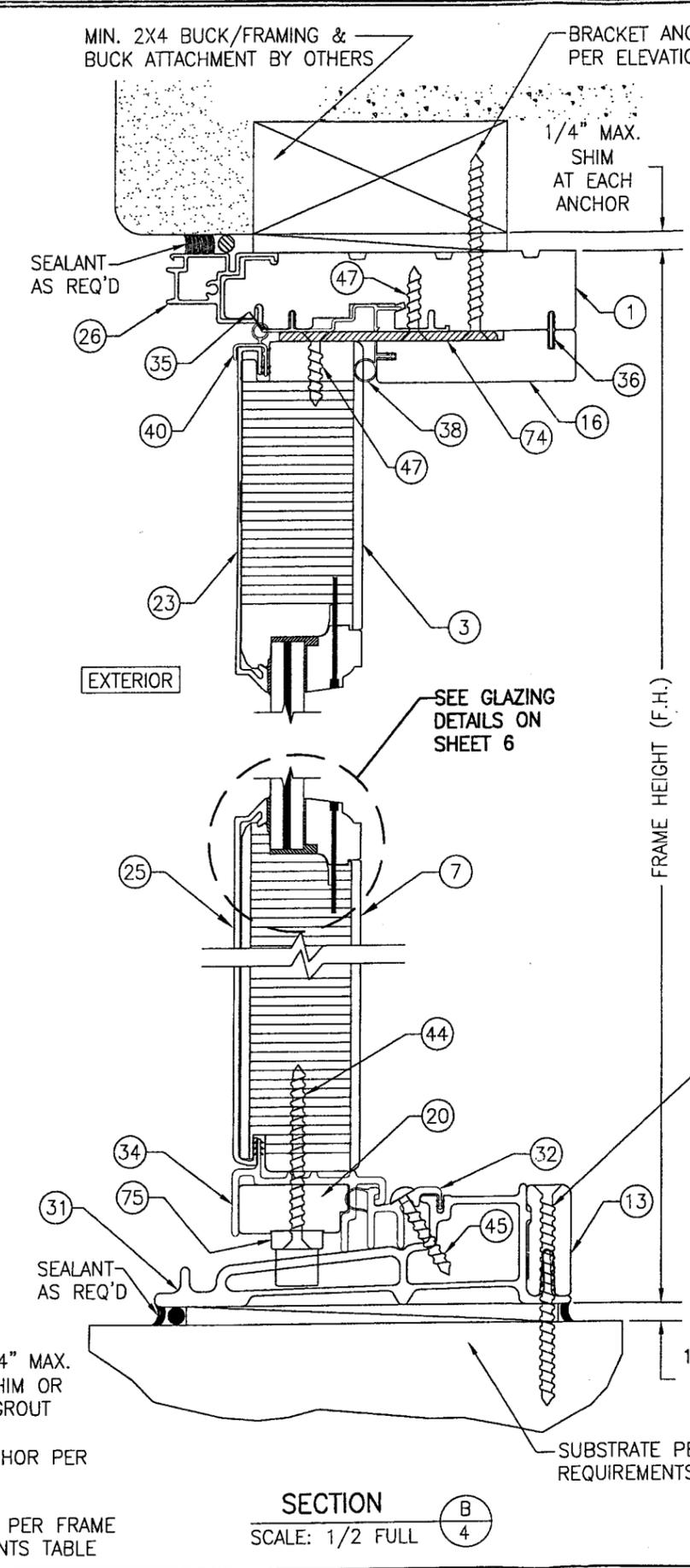


**EXTERIOR ELEVATION  
RAISED PANEL**  
SCALE: 3/4"=1'-0"

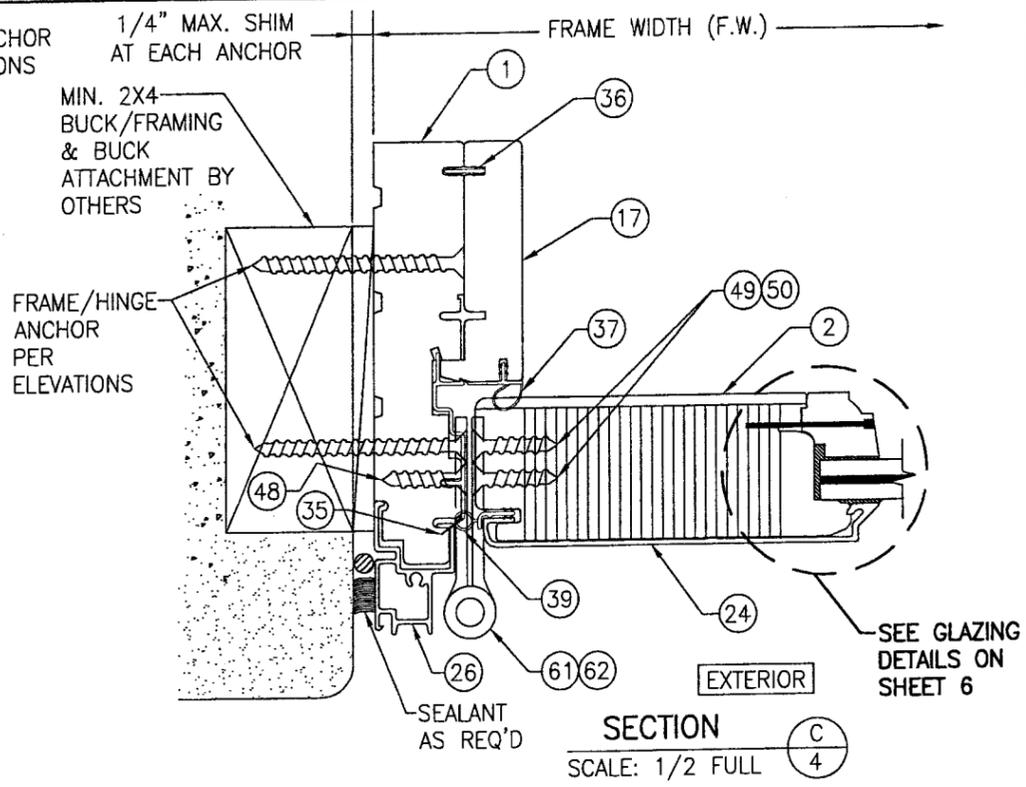
NOTE: PANEL ONLY IS SHOWN.  
FOR INSTALLATION INTO FRAME,  
SEE OTHER ELEVATIONS.



SECTION A  
SCALE: 1/2 FULL

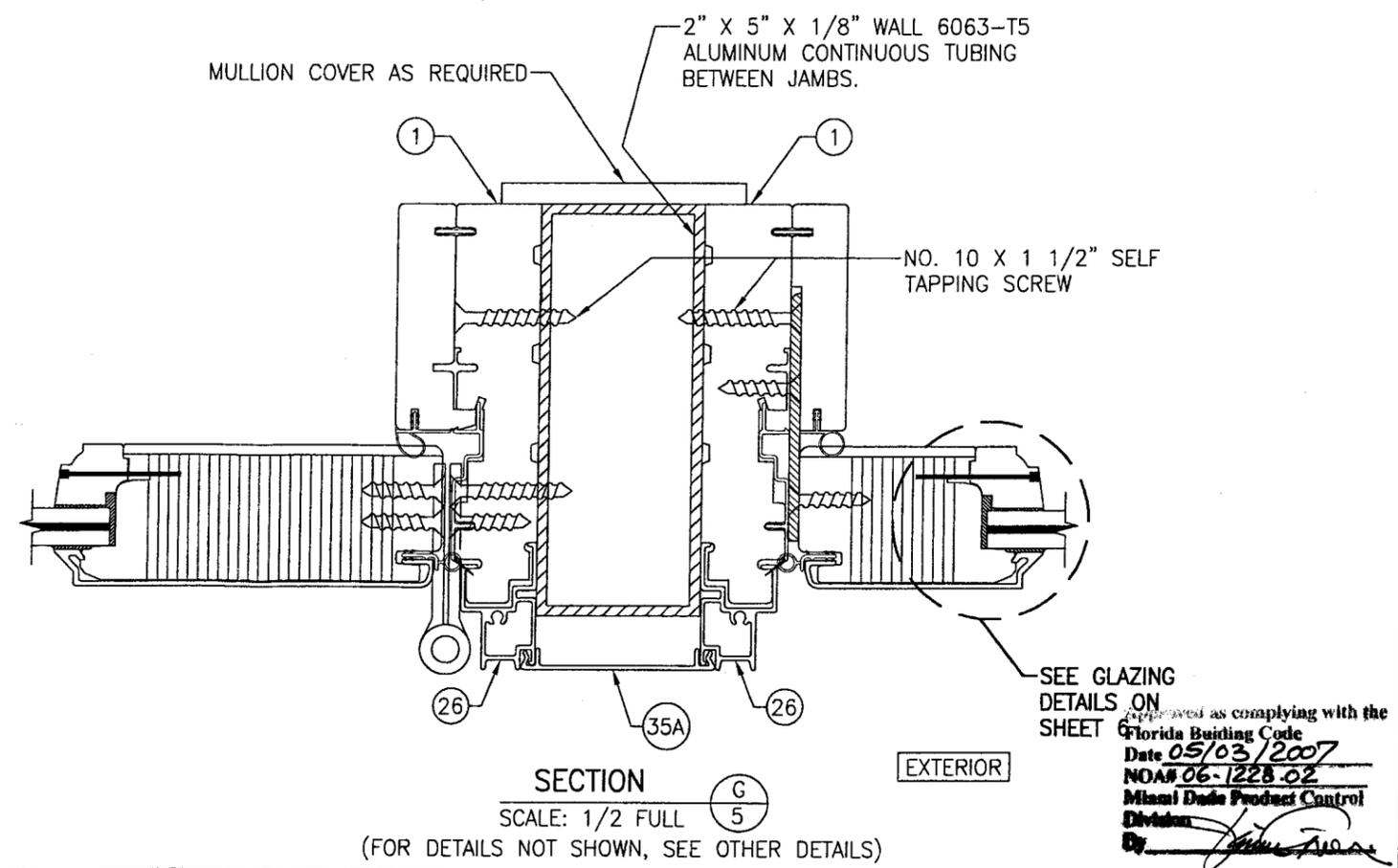
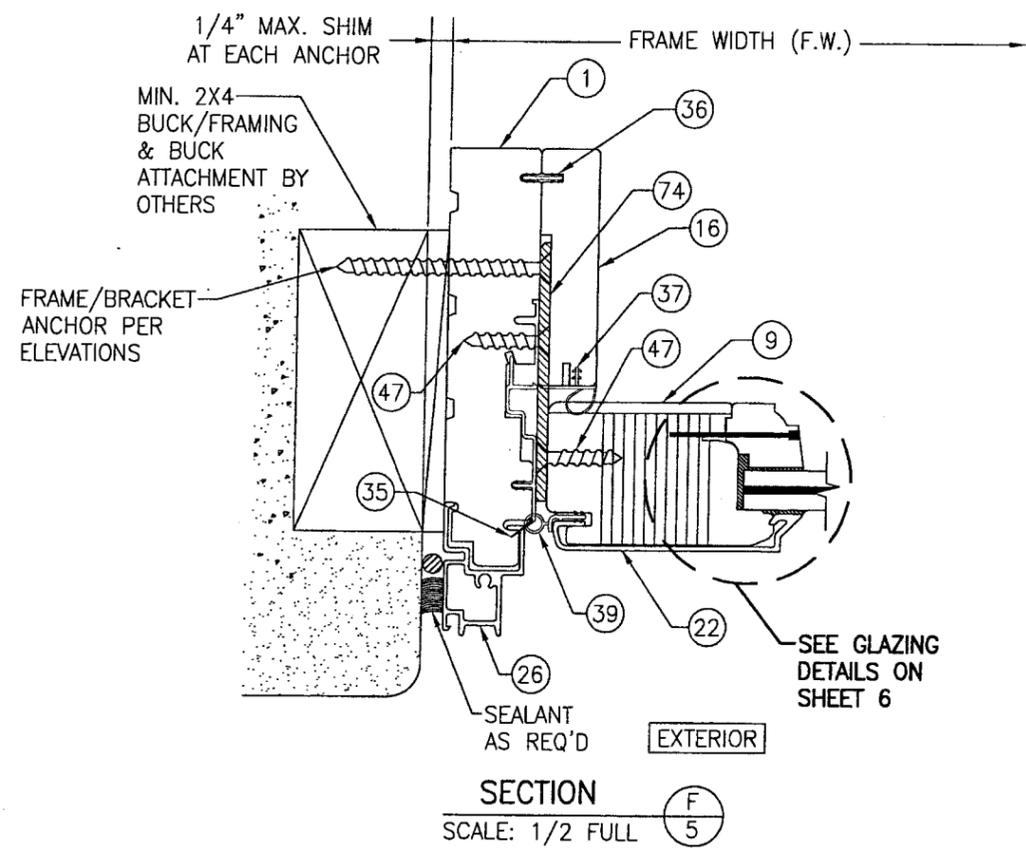
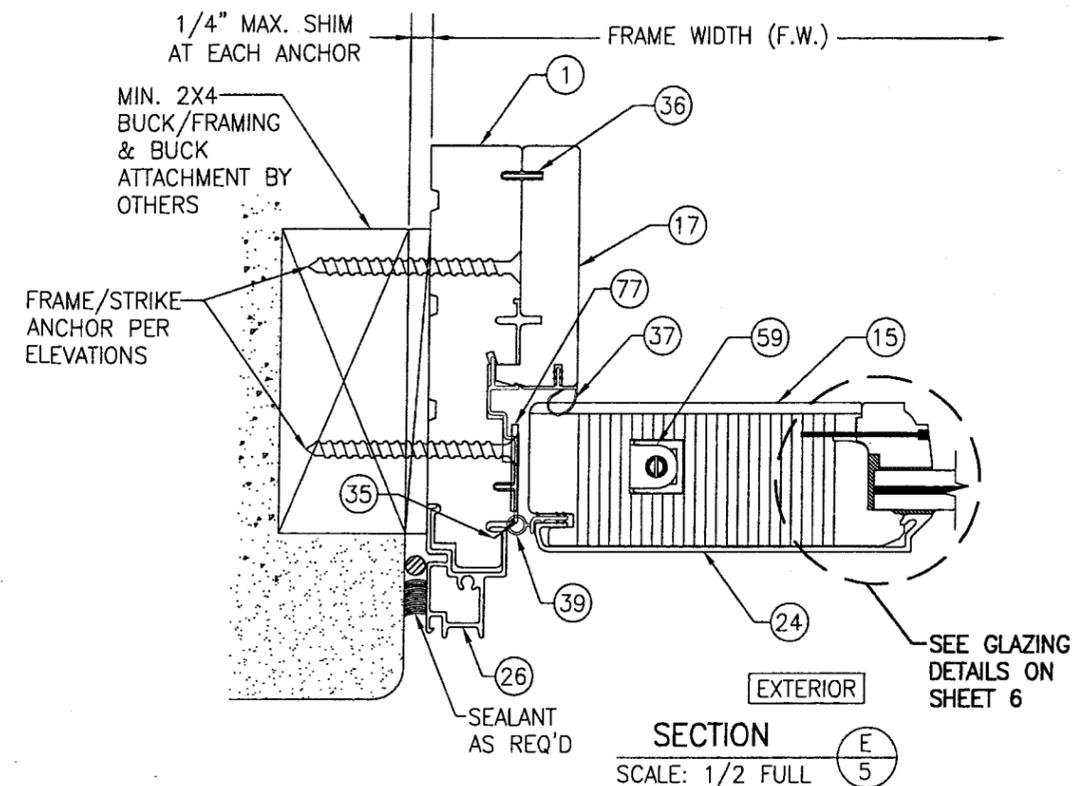
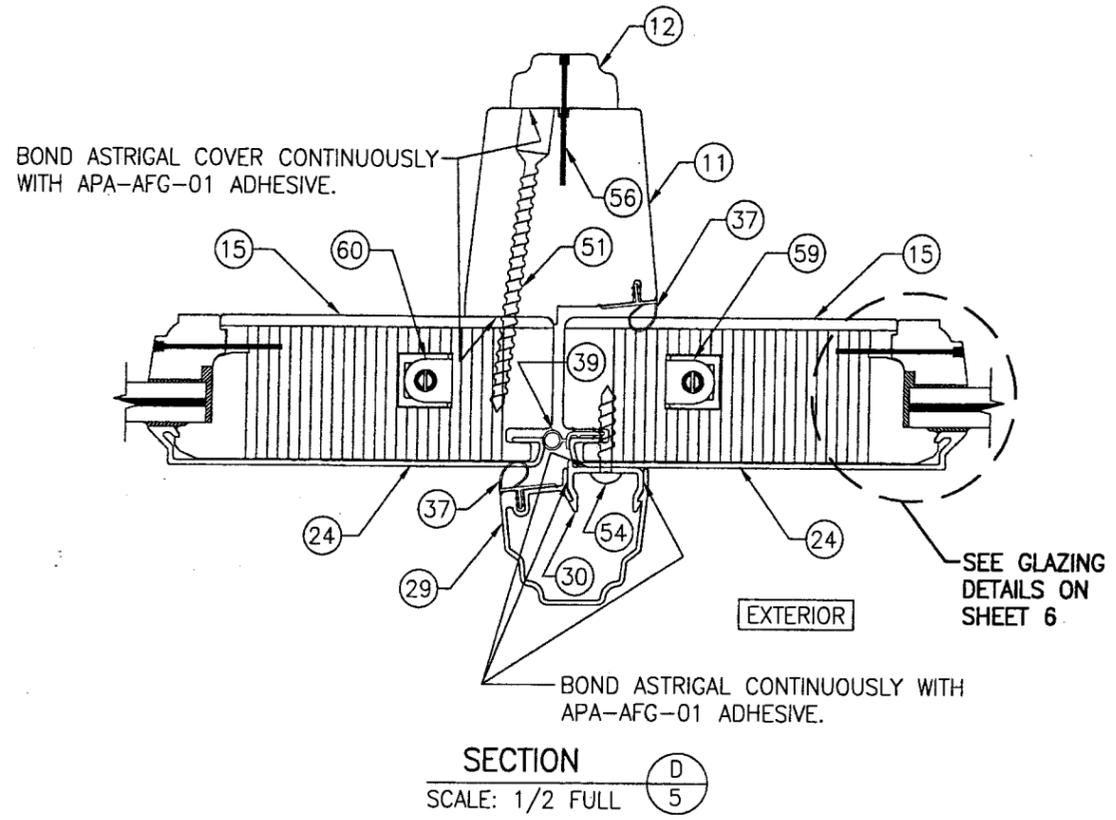


SECTION B  
SCALE: 1/2 FULL



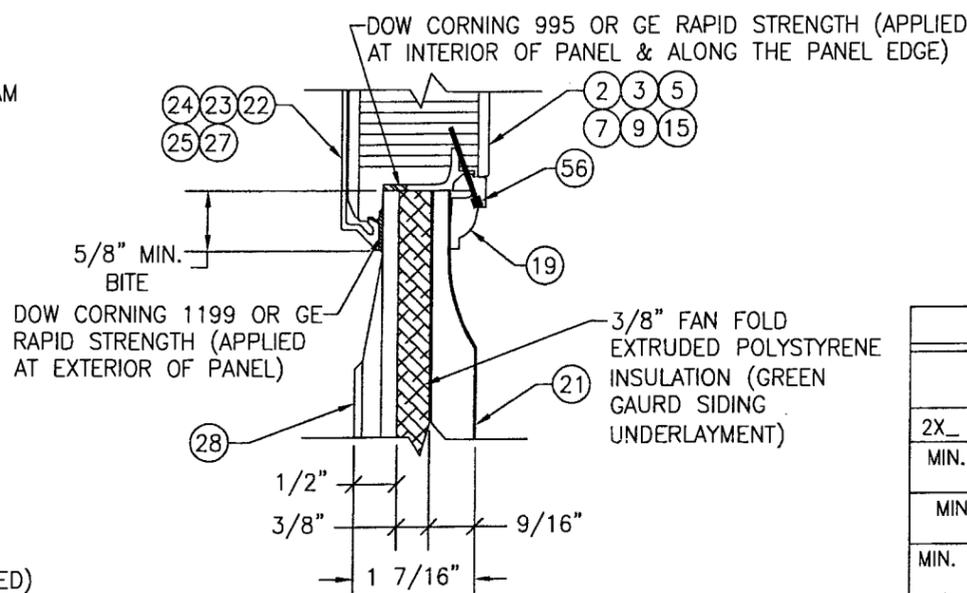
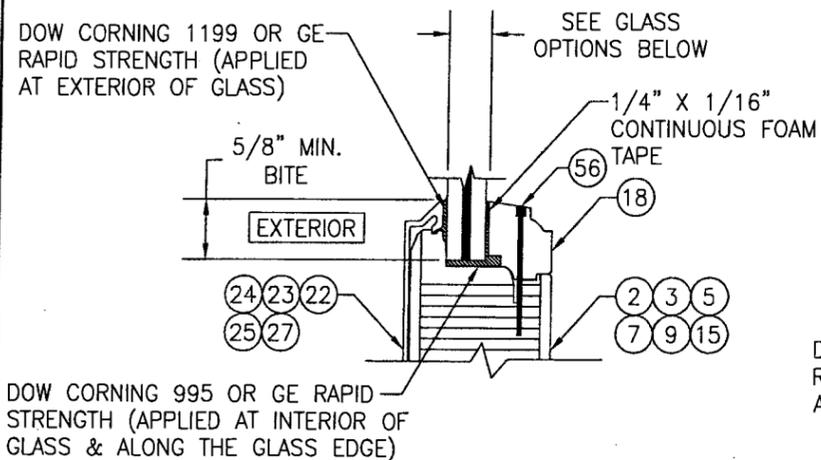
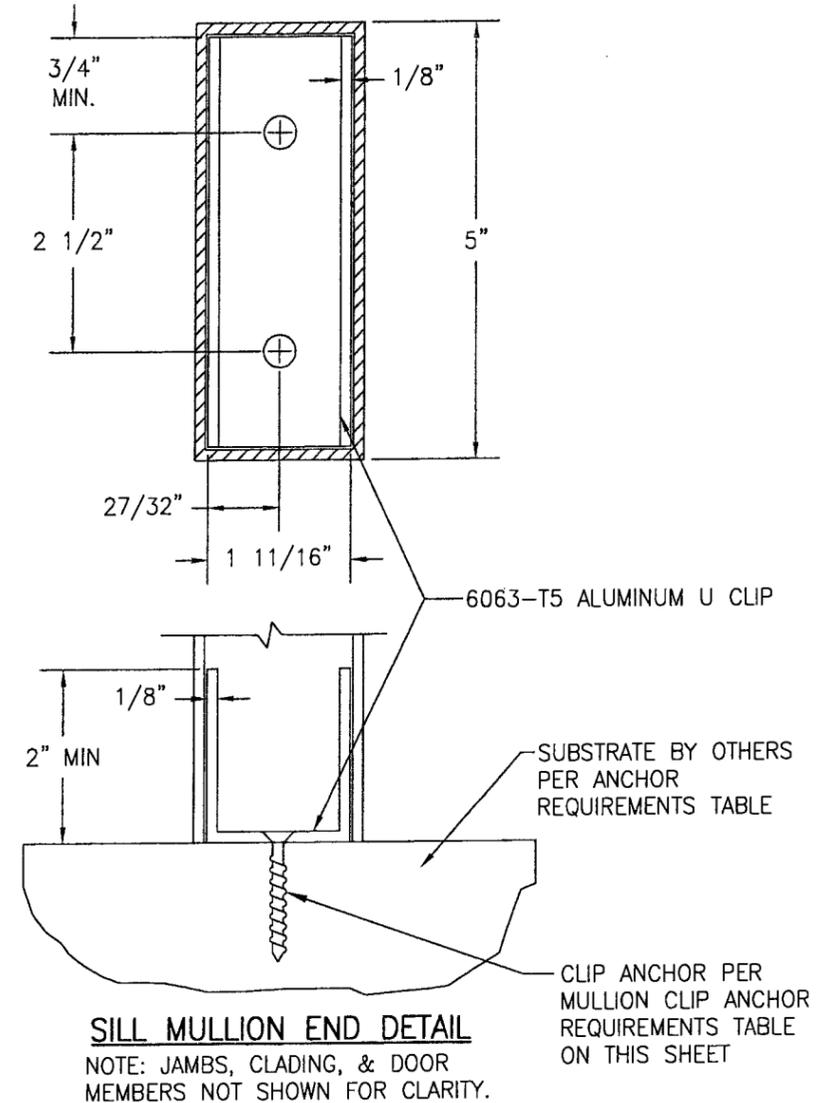
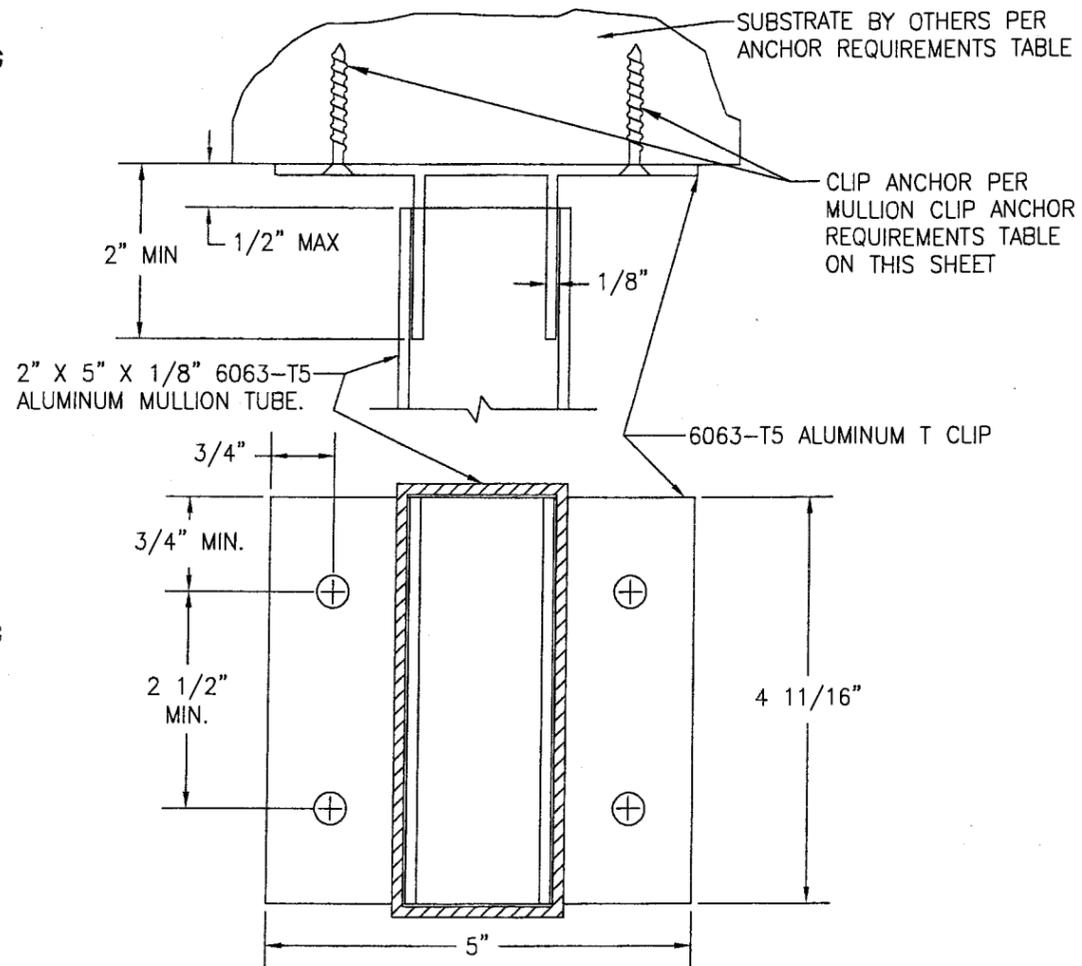
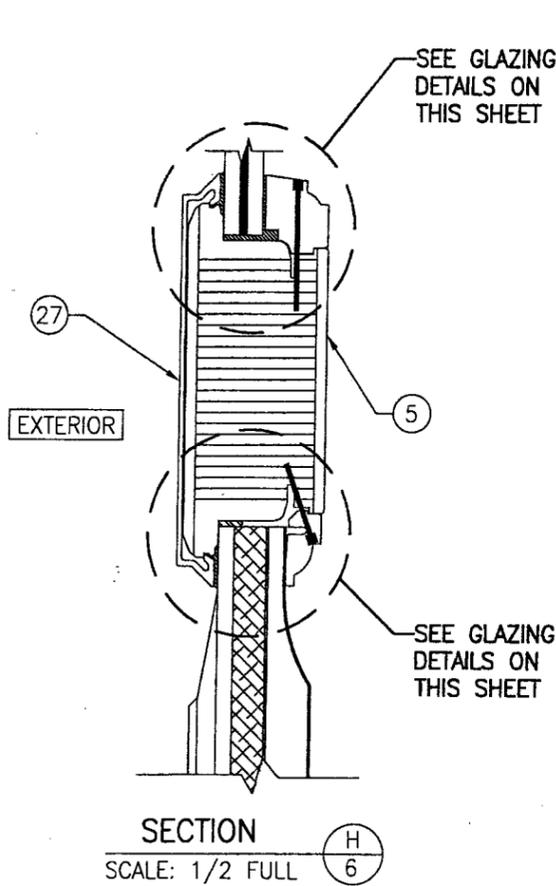
SECTION C  
SCALE: 1/2 FULL

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 8/17/06
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>	MANUFACTURER <b>MARVIN WINDOWS &amp; DOORS</b>
8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903	HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044
CERTIFICATION MAR 13 2007	
As complying with the Florida Building Code Date 05/03/2007 NOA# 06-1228.02 Miami Dade Product Control Division By <i>[Signature]</i>	
DRAWING NO. <b>1487</b>	REV.
SHEET NO. <b>4</b>	OF <b>11</b>



Approved as complying with the Florida Building Code  
 Date 05/03/2007  
 NOAH 06-1228-02  
 Miami Dade Product Control Division  
 By *[Signature]*

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 8/17/06
DATE	BY
REVISION DESCRIPTION	NO.
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CERTIFICATION <b>MAR 13 2007</b>	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. <b>1487</b>	REV.
SHEET NO. <b>5</b>	OF 11



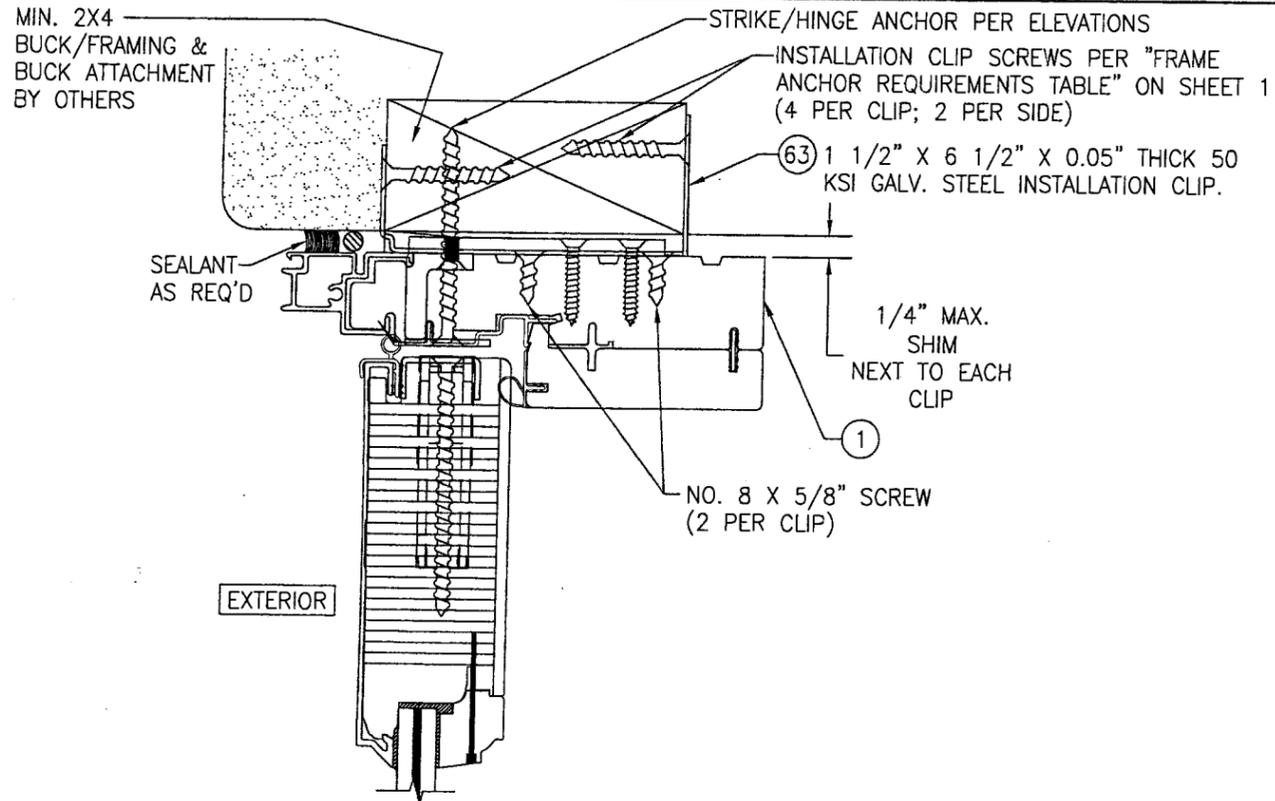
- GLAZING DETAIL 1**  
SCALE: 1/2 FULL
- OPTION 1: 3/8" DUPONT SENTRY GLASS PLUS (SGP) LAMINATED GLASS SUPPLIED BY CARDINAL (5/32" ANNEALED/.090 SGP/ 5/32" ANNEALED)
  - OPTION 2: 1/2" DUPONT SENTRY GLASS PLUS (SGP) LAMINATED GLASS SUPPLIED BY CARDINAL (3/16" ANNEALED/.090 SGP/ 3/16" ANNEALED)

MULLION CLIP ANCHOR REQUIREMENTS TABLE			
OPENING TYPE (SUBSTRATE)	JAMB TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
2X_ WOOD FRAME OR BUCK	NO. 12 SMS SCREW	1 1/4"	3/4"
MIN. 1/8" THK. A36 STEEL	NO. 12 SELF DRILLING/TAPPING GRADE 5 SCREW	FULL	1/2"
MIN. 1/8" THK. 6063-T5 ALUMINUM	NO. 12 SELF DRILLING/TAPPING GRADE 5 SCREW	FULL	1/2"
MIN. 18 GAGE 33 KSI METAL STUD	NO. 12 SELF DRILLING/TAPPING GRADE 5 SCREW	FULL	1/2"
MIN. 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

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

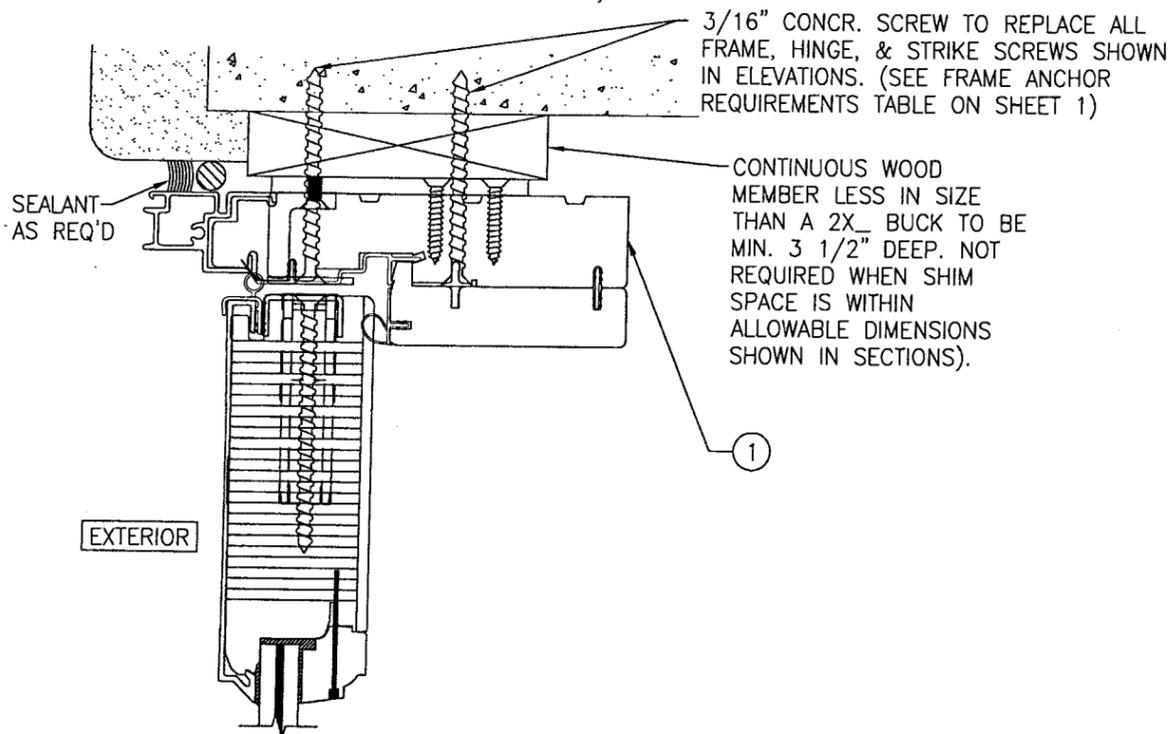
Approved as complying with the Florida Building Code  
Date 05/03/2007  
NOA# 06-1228.06  
Miami Dade Product Control Division  
By *[Signature]*

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 8/17/06
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE <b>8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS</b>	
MANUFACTURER <b>MARVIN WINDOWS &amp; DOORS</b> HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044	CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 8865 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903
CERTIFICATION <b>MAR 13 2007</b>	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. <b>1487</b>	REV.
SHEET NO. <b>6</b>	OF <b>11</b>



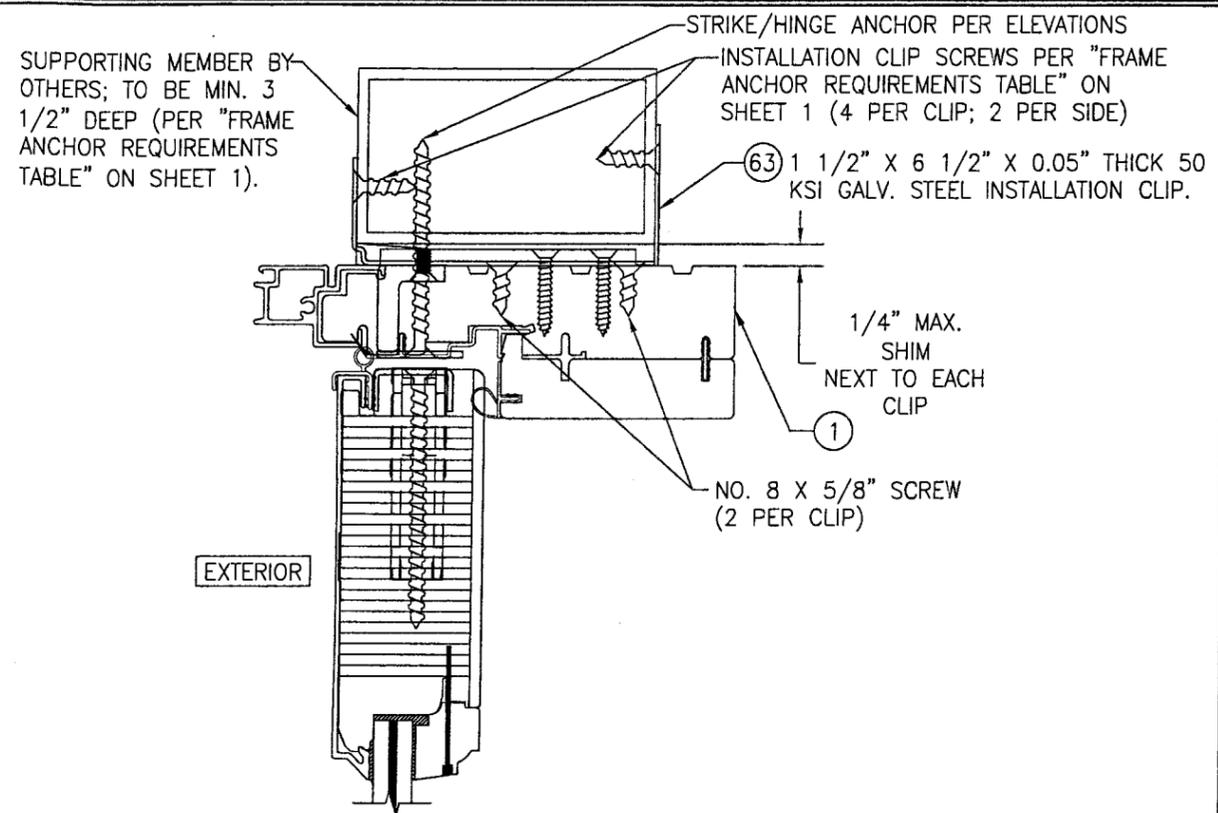
**OPTIONAL INSTALLATION CLIP MOUNT DETAIL**

(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



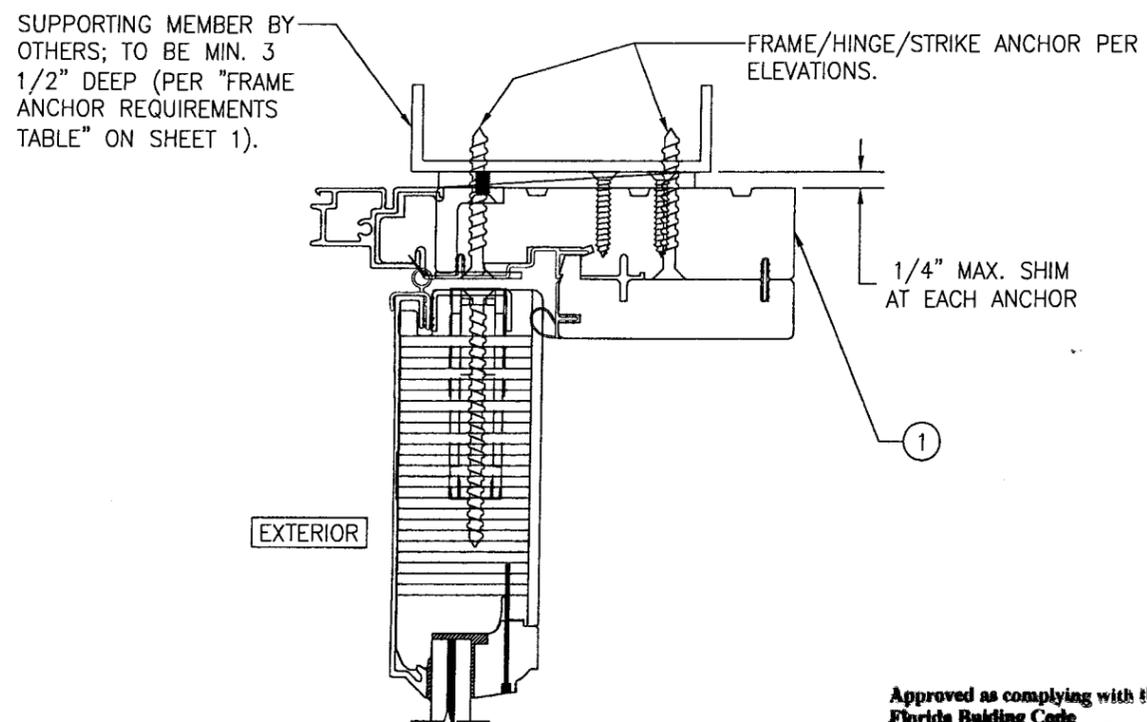
**OPTIONAL DIRECT MOUNT DETAIL TO BLOCK OR CONCRETE WITH SPACER OR SHIM**

(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



**OPTIONAL CLIP MOUNT DETAIL TO ALUMINUM OR STEEL**

(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

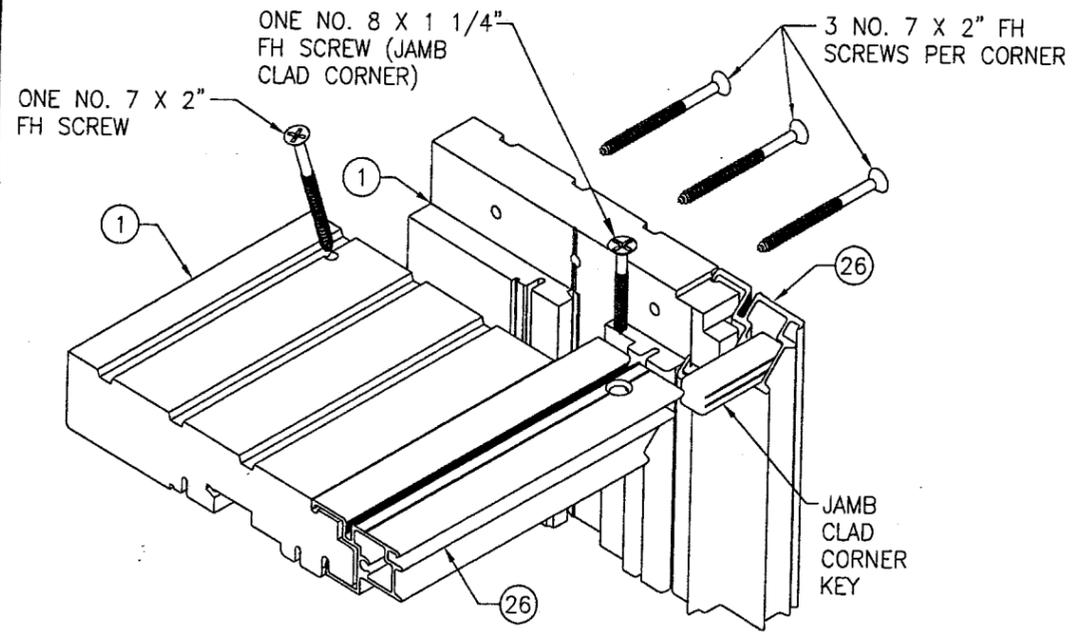


**OPTIONAL DIRECT MOUNT DETAIL TO ALUMINUM, STEEL, OR METAL STUD**

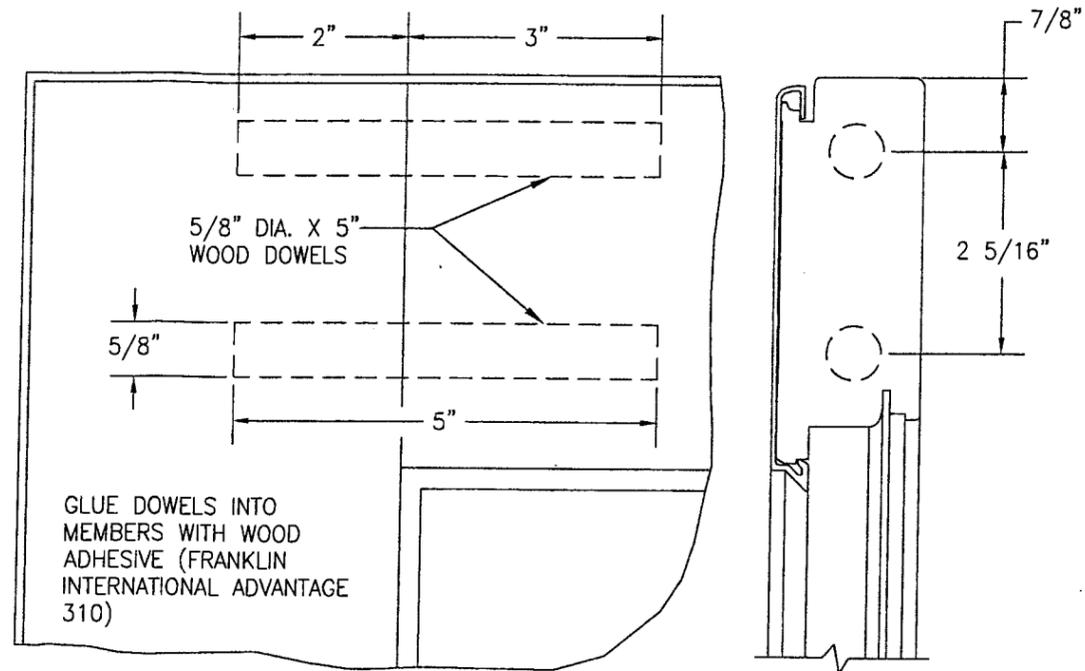
(HEAD SECTION SHOWN, SIDES ARE SIMILIAR)  
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

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Miami Data Product Control  
Division  
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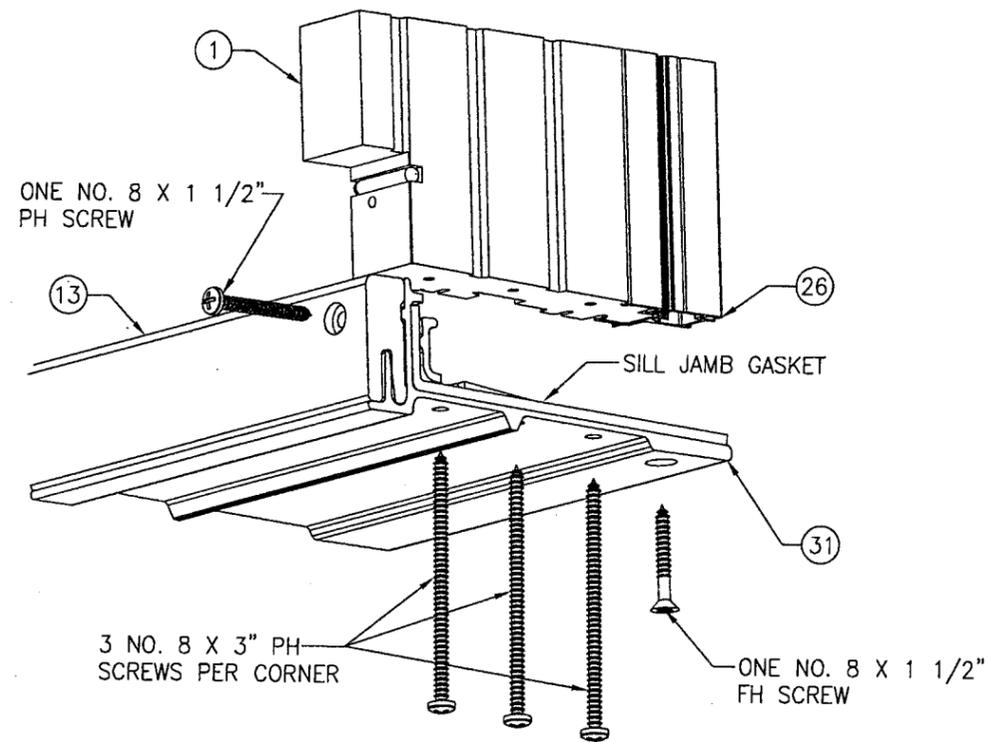
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 8/17/06
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER <b>MARVIN WINDOWS &amp; DOORS</b> HIGHWAY 11; P.O. BOX 100 WARROAD, MN 56763 800-346-5044
CERTIFICATION MAR 13 2007 WARREN W. SCHAEFER P.E. P.E. NO. 44135	DRAWING NO. <b>1487</b>
	REV. SHEET NO. <b>7</b> OF <b>11</b>



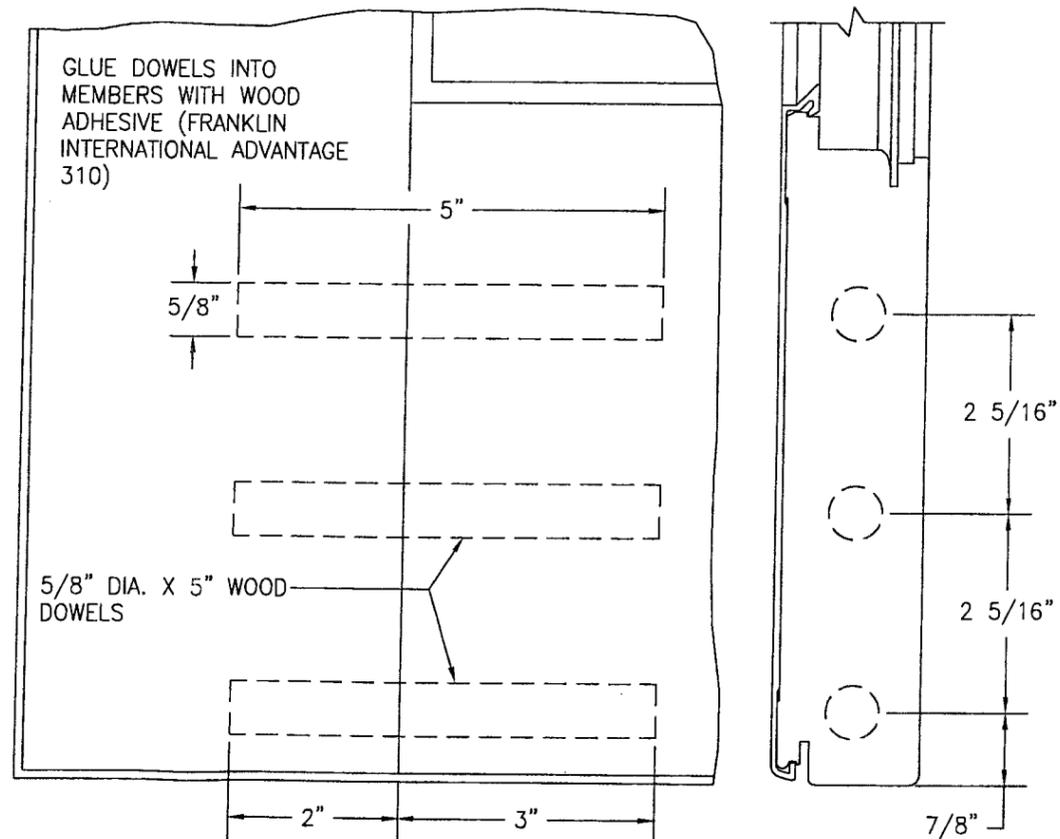
JAMB TO JAMB CORNER DETAIL



STILE TO TOP RAIL CORNER DETAIL



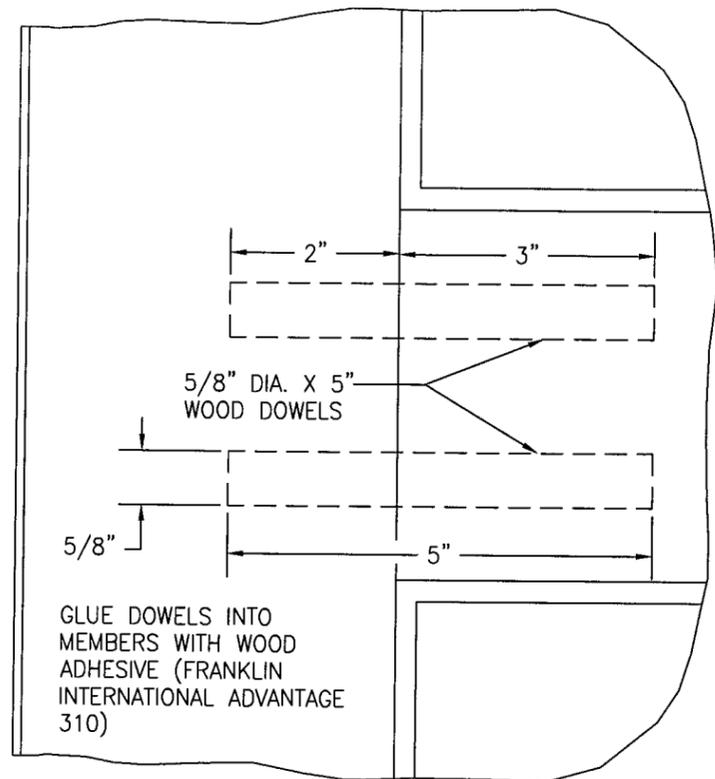
JAMB TO THRESHOLD CORNER DETAIL



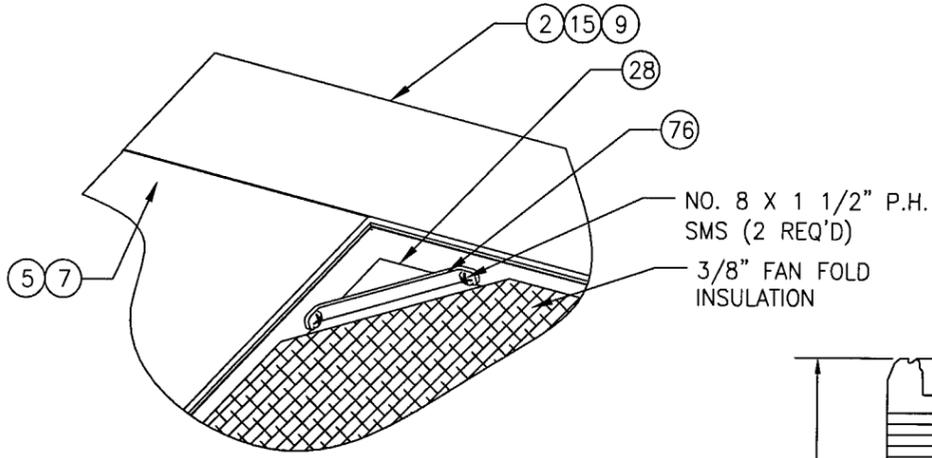
STILE TO BOTTOM RAIL CORNER DETAIL

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 Miami Dade Product Control Division  
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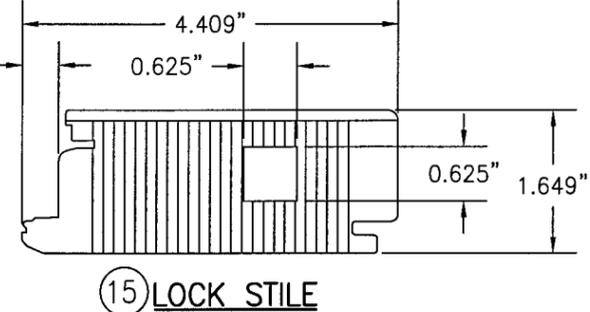
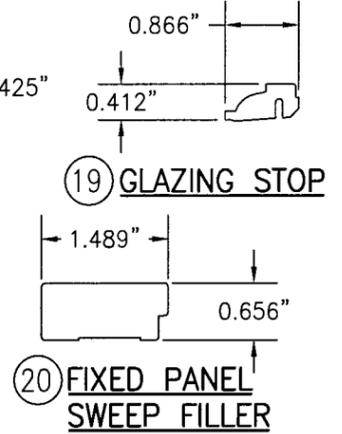
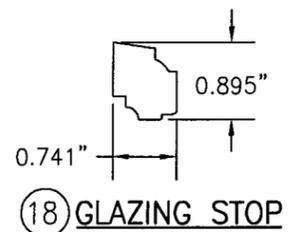
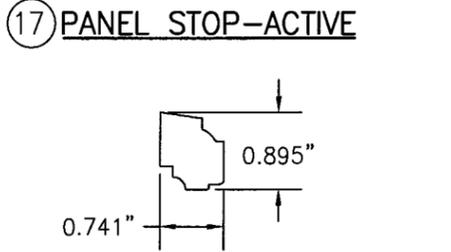
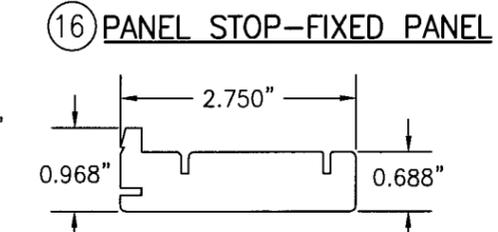
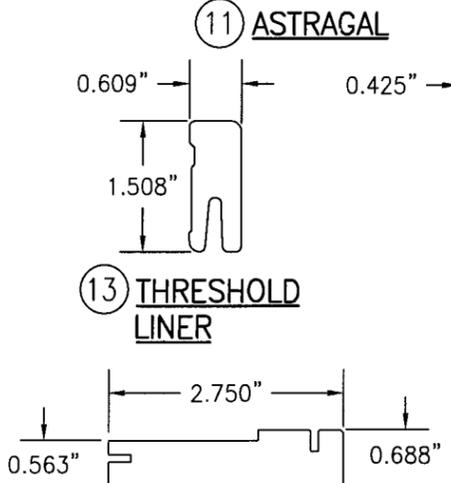
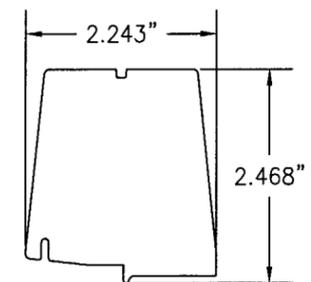
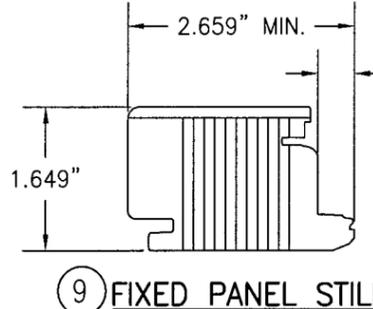
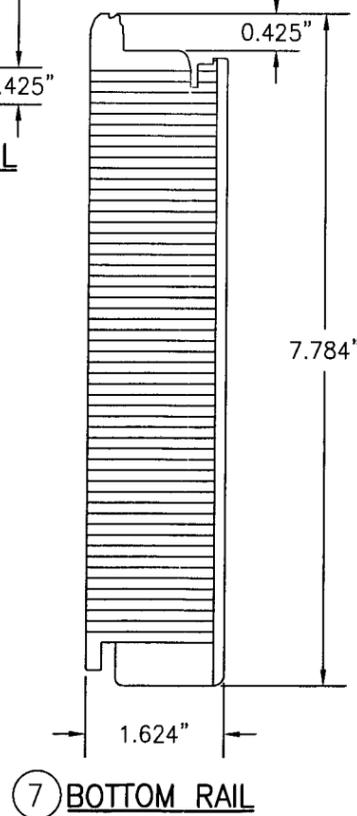
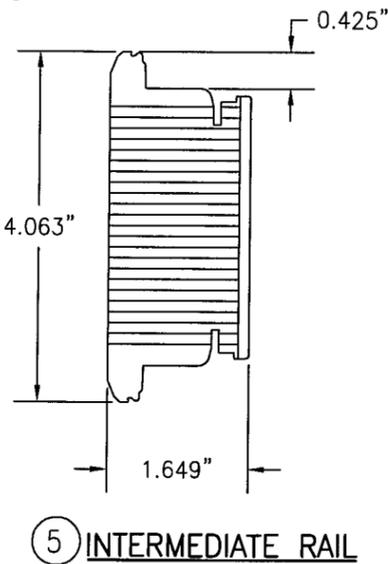
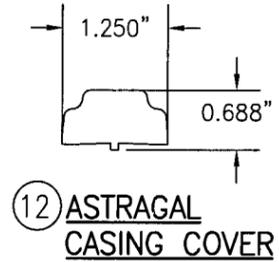
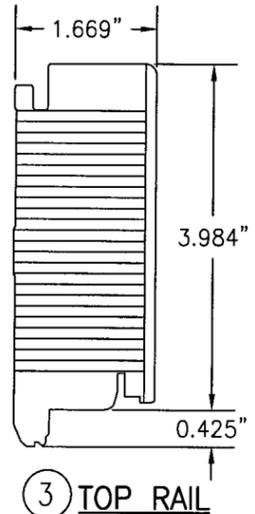
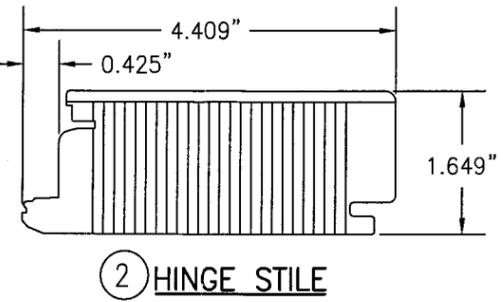
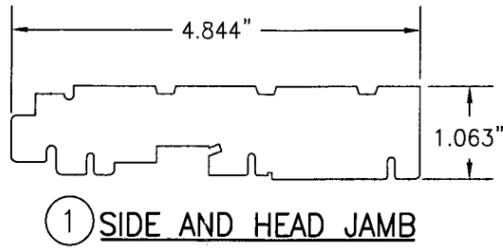
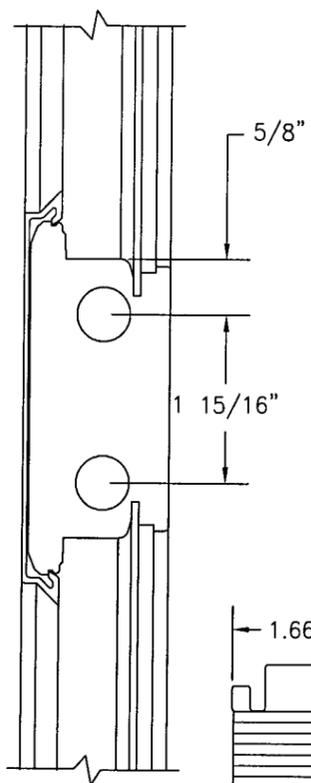
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 3/17/06
NO.	REVISION DESCRIPTION
DATE	BY
DRAWING TITLE 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER MARVIN WINDOWS & DOORS HIGHWAY 11, P.O. BOX 100 WARROAD, MN 56763 800-346-5044
CERTIFICATION MAR 13 2007 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. 1487
	REV. 8 OF 11



STILE TO INTERMEDIATE RAIL DETAIL



RAISED PANEL RETAINER PLACEMENT (ALUM. CLAD DOOR)



DRAWN BY:	W.R.M.	CHECKED BY:	W.W.S.
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NO.		REVISION DESCRIPTION	
DATE		BY	

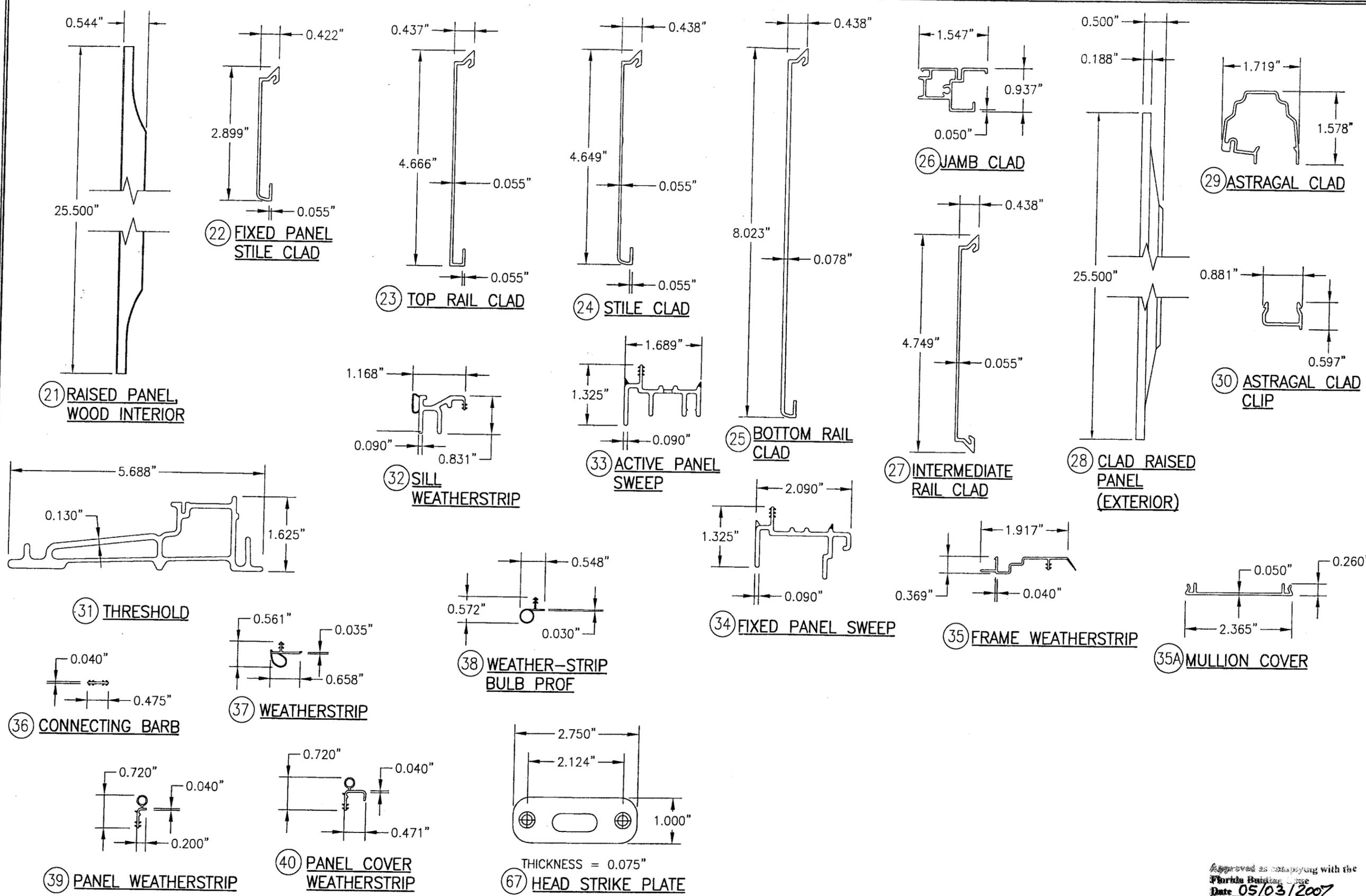
DRAWING TITLE: 8 FT. ALUMINUM CLAD WOOD IMPACT DOORS

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

CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4902 FAX: 561-775-4903

CERTIFICATION	MAR 13 2007
DRAWING NO.	1487
REV.	
SHEET NO.	9 OF 11

Approved as complying with the Florida Building Code  
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NOA# 06-1228.02  
Miami Dade Product Control Division  
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DRAWN BY:	W.R.M.	CHECKED BY:	W.S.
PLOT:	1=2	DATE:	8/17/06
NO.	REVISION DESCRIPTION	BY	DATE

DRAWING TITLE: 8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS  
 MANUFACTURER: MARVIN WINDOWS & DOORS  
 HIGHWAY 11; P.O. BOX 100  
 WARROAD, MN 56763  
 800-346-5044  
 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
 8895 N. MILITARY TRAIL; SUITE C-204  
 PALM BEACH GARDENS, FL 33410  
 PHONE: 561-775-4902 FAX: 561-775-4903

CERTIFICATION: MAR 13 2007  
 W. W. SCHAEFER, P.E.  
 P.E. NO. 44135  
 Approved as complying with the Florida Building Code  
 Date: 05/03/2007  
 MDAM 06-1228.02  
 Miami Dade Product Control Division  
 By: *[Signature]*  
 DRAWING NO. 1487  
 SHEET NO. 10 OF 11

PARTS LIST

PARTS LIST

NO.	REF. NO.	DESCRIPTION	NOTES
<b>PARTS &amp; EXTRUSIONS</b>			
1	00011397	SIDE & HEAD JAMB	*WOOD
2	00014719	HINGE STILE (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER
3	00033833	TOP RAIL - (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER
5	00008674	INTERMEDIATE RAIL (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER
7	00030437	BOTTOM RAIL (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER
9	00014580	FIXED PANEL STILE (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER
10	00016785	MULL CASING BASE	*WOOD
11	00042535	ASRAGAL	*WOOD
12	00008310	ASTRIGAL CASING COVER	*WOOD
13	00011114	THRESHOLD LINER	*WOOD
15	00014719	LOCK STILE (ALUM. CLAD DOOR)	LVL WITH WOOD VENEER
16	00041914	PANEL STOP - FIXED PANEL	*WOOD
17	00016403	PANEL STOP - ACTIVE	*WOOD
18	00016573	GLAZING STOP - GLASS	*WOOD
19	00007090	GLAZING STOP - RAISED PANEL	*WOOD
20	00014943	FIXED PANEL SWEEP FILLER	*WOOD
21	00042412	RAISED PANEL WOOD INTERIOR	MDF WITH WOOD VENEER
22	00015069	FIXED PANEL STILE CLAD	6063-T5 ALUMINUM
23	00028460	TOP RAIL CLAD	6063-T5 ALUMINUM
24	00014631	STILE CLAD	6063-T5 ALUMINUM
25	00018088	BOTTOM RAIL CLAD	6063-T5 ALUMINUM
26	00013503	JAMB CLAD	6063-T5 ALUMINUM
27	00008638	INTERMEDIATE RAIL CLAD	6063-T5 ALUMINUM
28	00041060	CLAD RAISED PANEL (EXTERIOR)	MIC 6 ALUMINUM
29	00002625	ASTRAGAL CLAD	6063-T5 ALUMINUM
30	00002622	ASTRIGAL CLAD CLIP	6063-T5 ALUMINUM
31	00011107	THRESHOLD (PAINTED ULTREX)	FIBERGLASS WITH MIN. Fy = 39 KSI & BEARING STRESS = 26.1 KSI
32	00013508	SILL WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
33	00013510	ACTIVE PANEL SWEEP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
34	00013509	FIXED PANEL SWEEP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
35	00013511	FRAME WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
35A	00002030	MULLION COVER	6063-T5 ALUMINUM
<b>SEALS AND SEALANTS</b>			
36	00005685	CONNECTING BARB	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
37	00005648	WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
38	00005399	WEATHERSTRIP BULB PROFILE	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
39	00013513	PANEL WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)
40	00013512	PANEL COVER WEATHERSTRIP	VINYL PER MARVIN SPECIFICATION (SEE REFERENCE NO.)

NO.	REF. NO.	DESCRIPTION	NOTES
<b>FASTENERS</b>			
41	-	NO. 10 X 3" PH A SMS	2 PER HEAD STRIKE PLATE
42	-	NO. 8 X 1" AB	2 PER HEADER REINFORCEMENT PLATE
43	-	NO. 8 X 3/8" MACHINE SCREW	2 PER HEADER REINFORCEMENT BRACKET
44	-	NO. 8 X 3" SMS	1 PER SHOOT BOLT GUIDE INTO PANELS
45	-	NO. 8 X 1 1/4" P.H. S/STL SMS	2 1/4" FROM ENDS & MAX. 11" O.C.
46	-	NO. 8 X 5/8" MACHINE SCREW	2 PER THRESHOLD STRIKE
47	-	NO. 8 X 1" AB	2 INTO STILE/RAIL; 1 INTO JAMB
48	-	NO. 10 X 1" SMS	2 PER HINGE INTO JAMB
49	-	NO. 9 X 1 1/2" SMS	4 PER ADJ HINGE INTO STILE
50	-	NO. 10 X 1" SMS	4 PER BUTT HINGE INTO STILE
51	-	NO. 8 X 3" SMS	3" FROM ENDS & MAX. 8" O.C. (ASTRAGAL)
52	-	NO. 8 X 1 1/4" SMS	3" FROM ENDS & MAX. 12" O.C. (ASTRAGAL)
53	-	NO. 7 X 2" SMS	3" FROM ENDS & MAX. 12" O.C. (ASTRAGAL)
54	-	NO. 8 X 1" TH SMS	3" FROM ENDS & MAX. 12" O.C. (ASTRAGAL)
55	-	NO. 8 X 1 1/2" P.H. SMS	2 1/2" FROM ENDS & MAX. 9" O.C. WITH ADDITIONAL ONE AT LOCK THROW
56	-	1 1/2" BRAD NAIL	2" FROM ENDS & 10-12" O.C.
<b>HARDWARE</b>			
57	00015469	ACTIVE DOOR HANDLE	AS REQUIRED TO OPERATE LOCK SYSTEM
58	00015824	INACTIVE DOOR HANDLE	AS REQUIRED TO OPERATE LOCK SYSTEM
59	00013771	ACTIVE DOOR 2-POINT LOCK/DEADBOLT	ASHLAND
60	00013966	INACTIVE DOOR 2-POINT LOCK HARDWARE	ASHLAND
61	00003751	4 X 4 BUTT HINGE	LAWRENCE
62	00003749	4 X 4 ADJUSTABLE HINGE	ASHLAND
63	00036080	GALVANIZED STEEL 0.050 C - CLIP MIN. Fy = 50 KSI	1 9/16" WIDE X 6 1/2" LONG X .050" THK. MAY REPLACE FRAME FASTENERS PER ELEVATIONS.
64	00027022	SS BACKER PLATE	1 AT EACH THRESHOLD STRIKE BELOW SILL
65	00014912	GLASS REINFORCED ACETAL SILL STRIKE	1 AT EA. LOCK BAR; 1.07 X 2.82 X 0.3 THK
66	00014905	GLASS FILLED NYLON SHOOT BOLT GUIDE	1 AT EA. OPERATER PANEL (TOP)
67	00004621	S.S. HEAD STRIKE PLATE	1 FOR EA. LOCK BAR (HEADER)
68	00026910	S.S. STILE END PLATE	1 AT EA. OPERATER PANEL (TOP AND BOTTOM)
69	00015312	S.S. SHOOT BOLT GUIDE REINFORCEMENT	1 AT EA. OPERATER PANEL (BOTTOM)
70	00015314	GLASS FILLED NYLON SHOOT BOLT GUIDE	1 AT EA. OPERATER PANEL (BOTTOM)
71	00027702	S.S. SILL STRIKE	1 AT EA. LOCK BAR; .250 X 2.661 X .048 THK 302 S.S.
72	00037647	S.S. HEADER REINFORCEMENT PLATE	1 FOR EA. LOCK BAR (HEADER) 1.500 X 3.000 X .188 THK 304 S.S.
73	00036001	S.S. HEADER REINFORCEMENT BRACKET	1 FOR EA. LOCK BAR (HEADER) .781 x 1 x .75 THK 304 S.S.
74	00042575	FIXED PANEL BRACKET	LOCATED PER ELEVATIONS; 1 X 3 X 1/8 THK 5052 ALUMINUM
75	00011232	FIXED PANEL SILL BOLT	2 PER FIXED PANEL AT THRESHOLD
76	00042421	RAISED PANEL RETAINER	4 PER RAISED PANEL
77	05700044	S.S. STRIKE PLATE	1 FOR EA. LOCK BAR (SIDE JAMB)

\* ALL WOOD USED WITH TESTED UNITS IS MIN. GRADE 2 WESTERN PINE. ALTERNATE WOOD SPECIES TO PINE ARE MIN. GRADE 2 MAHOGANY, OAK, CHERRY, CYPRUS, & DOUGLAS FIR  
 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.
DATE: 1-2	DATE: 8/17/06
BY:	DATE:
REVISION DESCRIPTION:	NO.:

DRAWING TITLE  
**8 FT. ALUMINUM CLAD OUT-SWING WOOD IMPACT DOORS**

CONSULTANTS  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
 8885 N. MILITARY TRAIL, SUITE C-204  
 PALM BEACH GARDENS, FL 33410  
 PHONE: 561-775-4902 FAX: 561-775-4903

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

CERTIFICATION	DATE	BY
MAR 13 2007		
WARREN W. SCHAEFER, P.E.		
P.E. NO. 44135		
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1487		
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11	OF	11

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