



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

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

NOTICE OF ACCEPTANCE (NOA)

www.miamidade.gov/economy

WinDoor, Inc.
7500 Amsterdam Drive
Orlando, FL 32832

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 RER - 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. RER 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 "9000 Deep 135° Thermally Broken" Clipped Aluminum Tube Mullion - L.M.I.

APPROVAL DOCUMENT: Drawing No. 08-00922, titled "Series 9000 Deep Thermally Broken 135° Vertical Mullion Impact HVHZ", sheets 1 through 4 of 4, dated 03/05/10, with revision B dated 08/30/13, prepared by manufacturer, signed and sealed by Luis R. Lomas, 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 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 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.**



MP
9/25/13

NOA No. 11-1011.03
Expiration Date: October 03, 2018
Approval Date: October 03, 2013
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **08-00922**, titled "Series 9000 Deep Thermally Broken 135° Vertical Mullion Impact HVHZ", sheets 1 through 4 of 4, dated 03/05/10, with revision B dated 08/30/13, prepared by manufacturer, signed and sealed by Luis R. Lomas, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a 135° thermally broken aluminum mullion, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3884-3**, dated 05/30/13, signed and sealed by Gerard J. Ferrara, P.E.

C. CALCULATIONS:

1. Anchor verification calculations and structural analysis, complying with **FBC-2010**, dated 03/05/10 and 08/13/13, prepared, signed and sealed by Luis R. Lomas, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

- F. Material Data Sheet for "insulating profiles made of PA 66 GF25 – dry impact resistant, to fit into Technoform I-Strut™ Aluminum Standard Reglet.
- G. Test report No. **ATI-61261.01-106-18**, prepared by Architectural Testing, Inc., dated 12/08/05, with revision date 01/04/06, issued to **Technoform**, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D635-03** "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position" and **ASTM D2843-99** "Standard Test Method for the Density of Smoke from the Burning Decomposition of Plastics", signed and sealed by Joseph A. Reed, P.E.
- H. Test report No. **ETC-07-1043-19094.0**, prepared by ETC Laboratories, dated 02/04/08, issued to Technoform Bautech NA, Inc., for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D638-03** "Standard Test Methods for Tensile Properties of Plastics", for exposed & unexposed sample per Xenon Arc after 4500 Hours, signed and sealed by Joseph Labora Doldan, P.E.



Manuel Perez, P.E.

Product Control Examiner

NOA No. 11-1011.02

Expiration Date: October 03, 2018

Approval Date: October 03, 2013

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS (CONTINUED)

1. Test report No. **ETC-08-1043-20974.0**, prepared by ETC Laboratories, dated 07/01/08, issued to Technoform, for their **I-Strut Insulating Strip** comprised of **Polyamide with 25% glass fibers**, per **ASTM D1929-96** "*Standard Test Method for Ignition Properties of Plastics*", signed and sealed by Joseph Doldan, P.E.

F. STATEMENTS

1. Statement letter of conformance, complying with the **FBC-2010** and of no financial interest, dated August 15, 2013, signed and sealed by Luis R. Lomas, P.E.

G. OTHERS

1. None.


Manuel Perez, P.E.

Product Control Examiner
NOA No. 11-1011.03

Expiration Date: October 03, 2018

Approval Date: October 03, 2013

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
2. WOOD FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
4. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
5. DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO MULLION. FENESTRATION UNITS MUST BE APPROVED UNDER SEPARATE APPROVAL.
6. SINGLE FENESTRATION UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. FENESTRATION UNITS MUST BE MANUFACTURED BY WinDoor INC.
7. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL FENESTRATION UNIT.
8. UNITS MAY BE MULLED TOGETHER INDEFINITELY AS LONG AS SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED AND MULLION IS ANCHORED AS SHOWN HEREIN.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	08/13/13	R.L.
B	REVISED BOM AND CLIP	08/30/13	R.L.

ANCHORING NOTES:

1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #14 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 7/16" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
2. FOR ANCHORING INTO CONCRETE USE 1/4" TAPCON WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS.
3. FOR ANCHORING INTO METAL STRUCTURE USE #14 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
4. ALL FASTENERS TO BE CORROSION RESISTANT.
5. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - A. WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3,200 PSI.
 - C. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).
 - D. METAL STRUCTURE: STEEL 16GA, 33KSI OR ALUMINUM 6063-T5 1/8" THICK MINIMUM

SIGNED: 08/30/2013

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2	ELEVATIONS & CHART
3	INSTALLATION DETAILS
4	COMPONENTS

Approved as complying with the
 Florida Building Code
 Date Oct. 3, 2013
 NOA# 11-1011-03
 Miami Dade Product Control

Mmanuel Perez

WinDoor
 INCORPORATED

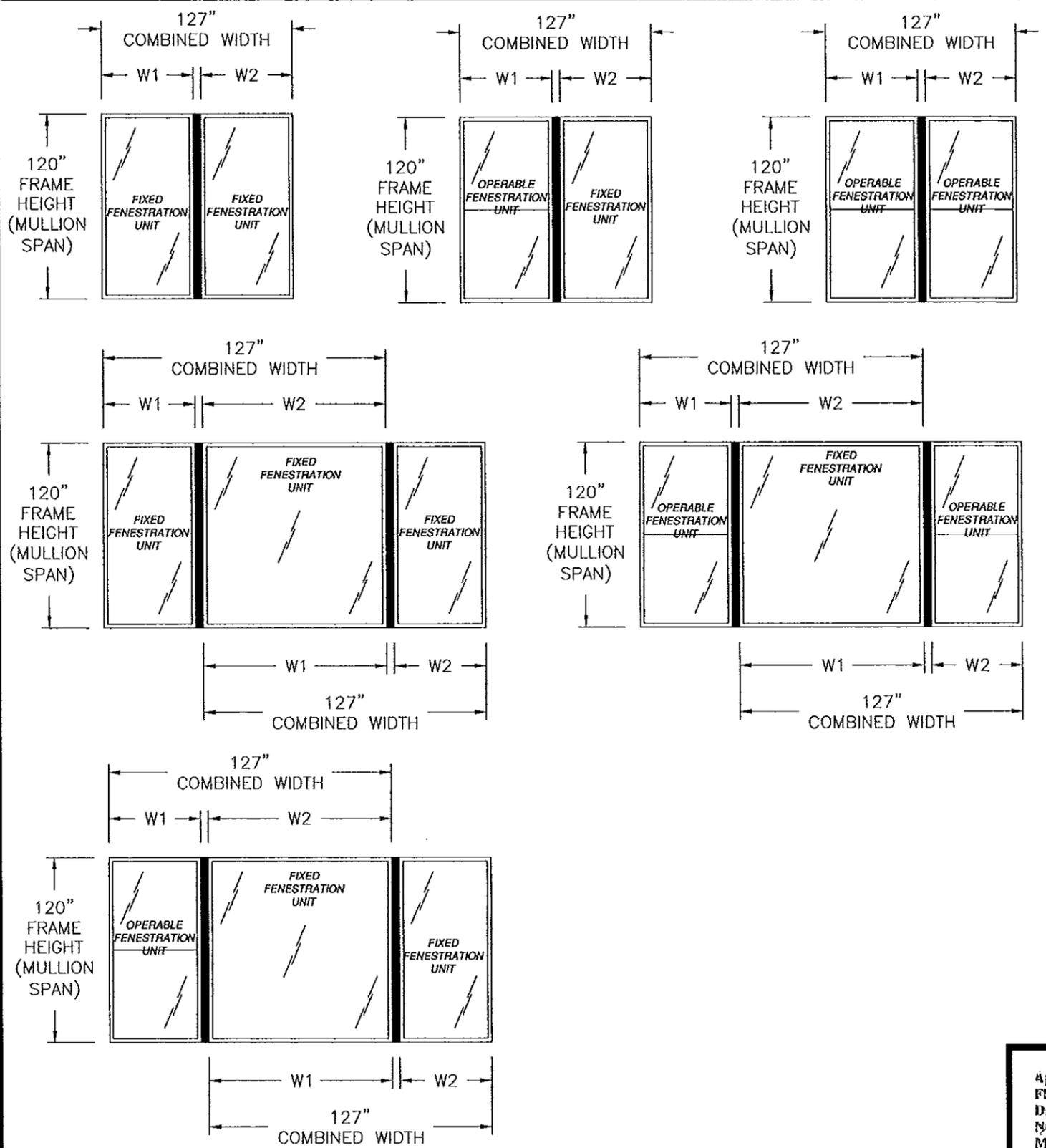
7500 AMSTERDAM DRIVE
 ORLANDO, FL 32832
 Phone: 407.481.8400
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 www.windoorinc.com

SERIES 9000 DEEP THERMALLY BROKEN 135°
 VERTICAL MULLION IMPACT HVHZ
 NOTES

DRAWN: V.L.	DWG NO. 08-00922	REV B
SCALE NTS	DATE 03/05/10	SHEET 1 OF 4



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	08/13/13	R.L.
B	REVISED BOM AND CLIP	08/30/13	R.L.



Mullion span (in)	Design pressure rating (psf)						
	Tributary width (in)						
	24.00	30.00	36.00	42.00	48.00	54.00	60.00
24.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
30.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
36.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
42.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
48.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
54.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
60.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
66.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
72.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
78.00	200.0	200.0	200.0	200.0	200.0	200.0	200.0
84.00	200.0	200.0	200.0	200.0	200.0	200.0	194.7
90.00	200.0	200.0	200.0	200.0	199.1	185.4	175.2
96.00	200.0	200.0	200.0	200.0	182.5	169.3	159.3
102.00	200.0	200.0	200.0	185.4	168.5	154.9	142.9
108.00	200.0	200.0	194.7	169.6	150.8	136.6	125.7
114.00	200.0	200.0	174.4	151.4	134.4	121.5	111.5
120.00	200.0	186.5	156.9	136.0	120.6	108.8	99.6

LARGE AND SMALL MISSILE IMPACT WIND ZONE 4, LEVEL D AND HVHZ

DESIGN PRESSURE TABLE INSTRUCTIONS:

1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
3. LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2}{2}$$

APPROVED CONFIGURATIONS
 TWIN AND TRIPLE UNITS ARE SHOWN. UNLIMITED NUMBER OF UNITS MAY BE MULLED TOGETHER AS LONG AS UNIT SIZES DO NOT EXCEED SIZES SHOWN HEREIN AND MULLION IS ANCHORED AS SHOWN IN INSTALLATION DETAILS
 SEE NOTE 6 SHEET 1

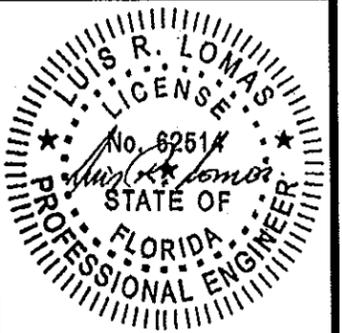
Approved as complying with the Florida Building Code
 Date Oct 3, 2013
 NOAH 11-1011.03
 Miami Dade Product Control
 By Manuel Cruz

WinDoor
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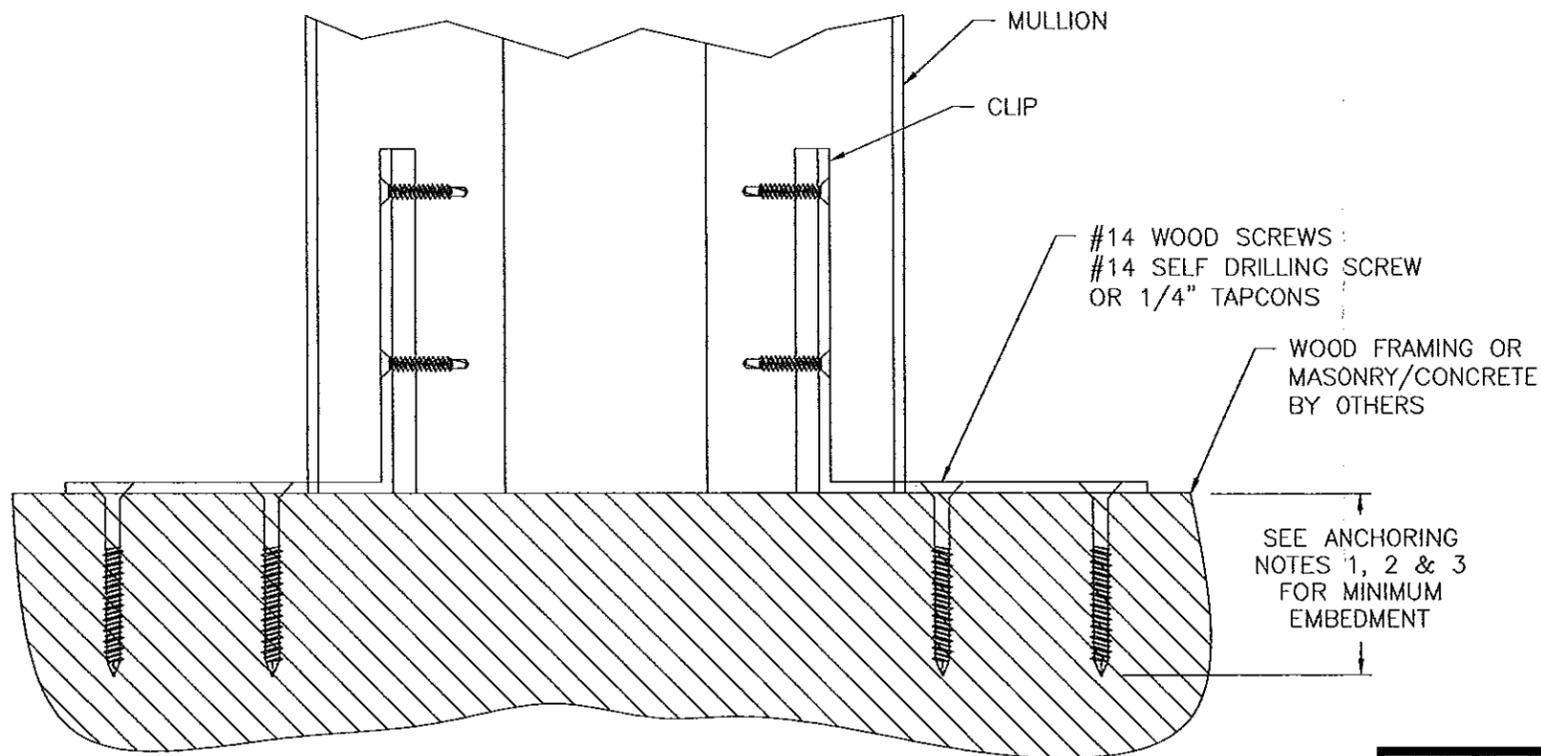
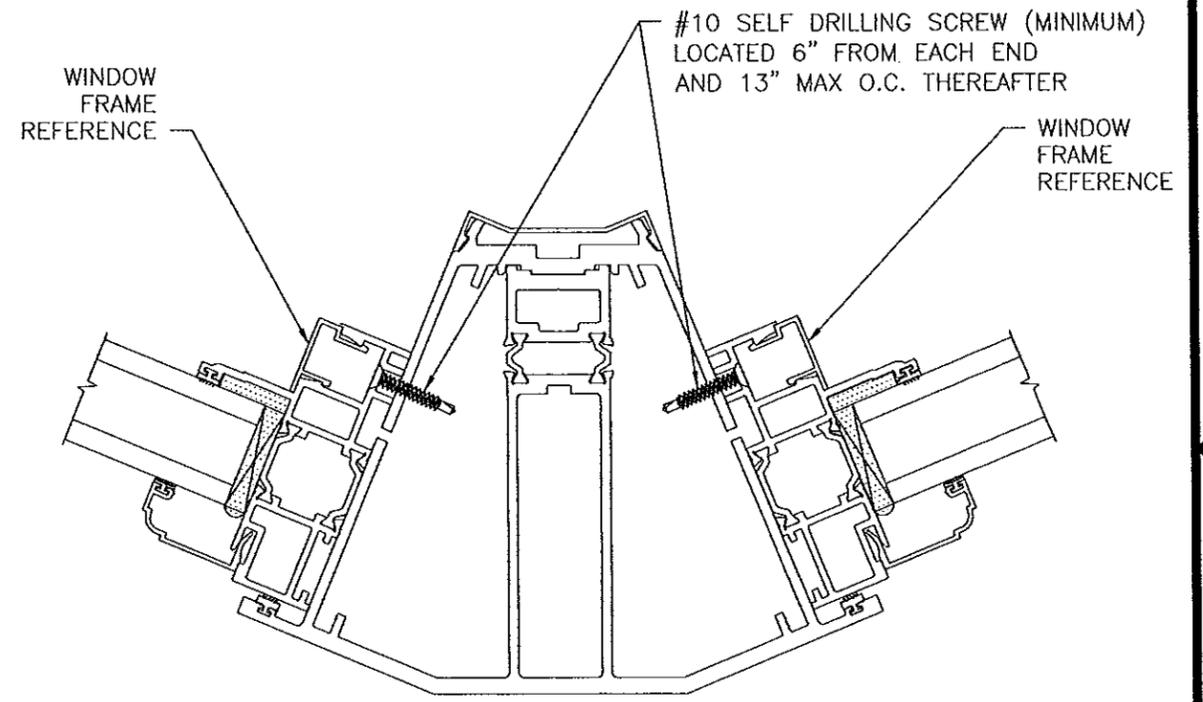
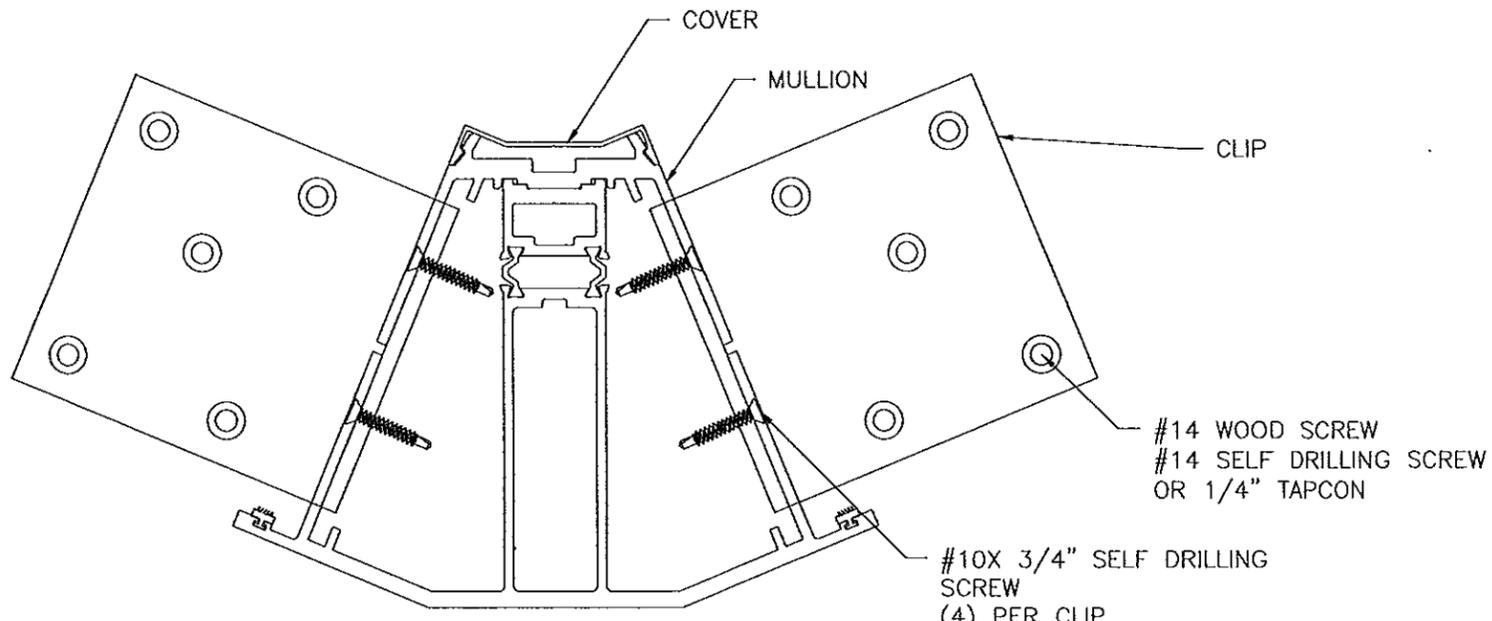
SERIES 9000 DEEP THERMALLY BROKEN 135"
 VERTICAL MULLION IMPACT HVHZ
 CONFIGURATIONS & DP CHART

DRAWN: V.L.	DWG NO. 08-00922	REV B
SCALE NTS	DATE 03/05/10	SHEET 2 OF 4

SIGNED: 08/30/2013



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	08/13/13	R.L.
B	REVISED BOM AND CLIP	08/30/13	R.L.



WINDOW/MULLION CONNECTION

MULLION INSTALLATION DETAIL
BOTTOM SHOWN, TOP SIMILAR

SIGNED: 08/30/2013

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Miami Dade Product Control

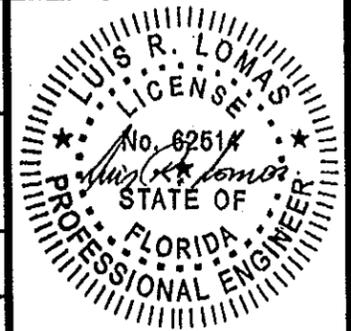
By Manuel Perez

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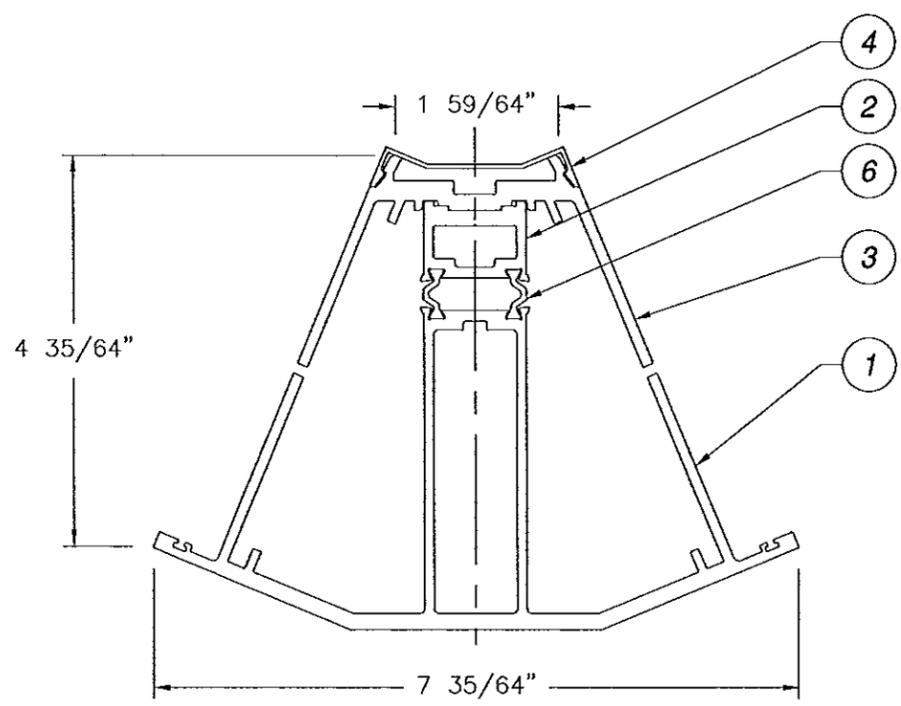
SERIES 9000 DEEP THERMALLY BROKEN 135°
VERTICAL MULLION IMPACT HVHZ
INSTALLATION DETAILS

DRAWN: V.L.	DWG NO. 08-00922	REV B
SCALE NTS	DATE 03/05/10	SHEET 3 OF 4

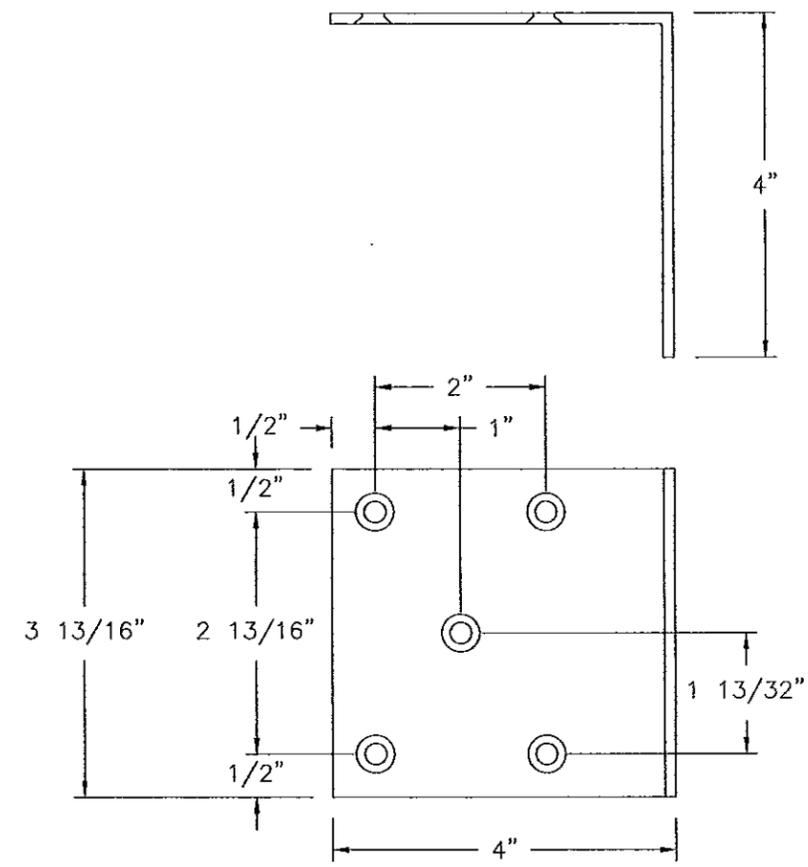


BILL OF MATERIALS				
NO.:	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	H-11095	135° MULLION EXTERIOR EXTRUSION	KEYMARK	ALUMINUM 6105-T5
2	H-11096	135° MULLION INTERIOR EXTRUSION	KEYMARK	ALUMINUM 6105-T5
3	S-46281	135° MULLION INTERIOR BAR	KEYMARK	ALUMINUM 6105-T5
4	S-46282	135° MULLION PUSH BAR COVER	KEYMARK	ALUMINUM 6105-T5
5		4" X 4" MULL L-CLIP	WINDOOR INC	ALUMINUM 6105-T5
6		14.6MM THERMAL I-STRUT	TECHNOFORM	NYLON POLYAMIDE

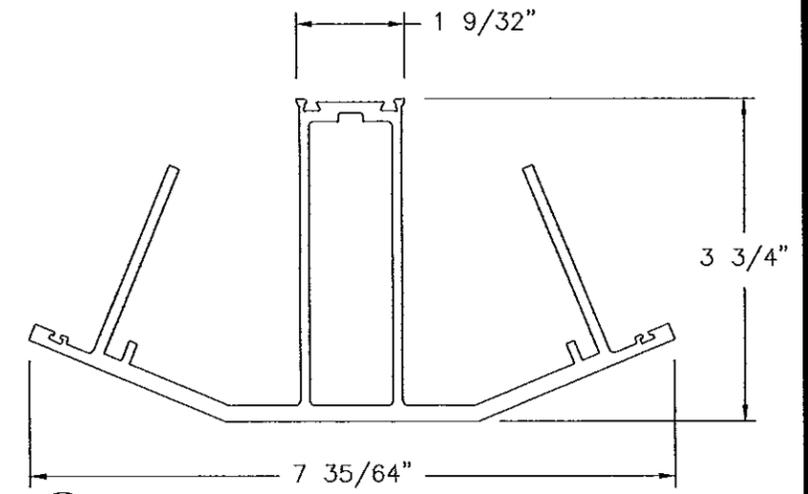
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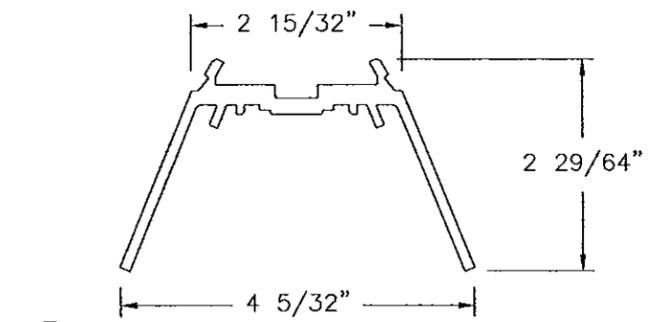
SERIES 9000 DEEP 135° MULLION (90A345-WDI)
 ALUMINUM 6063-T6 .125" THICK
 MOMENT OF INERTIA: 16.86 IN⁴
 SECTION MODULUS: 5.61 IN³
 EFFECTIVE MOMENT OF INERTIA: 15.193 IN⁴
 EFFECTIVE SECTION MODULUS: 4.565 IN³



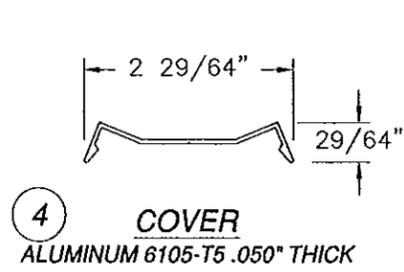
5 CLIP
 ALUMINUM 6105-T5 .125" THICK



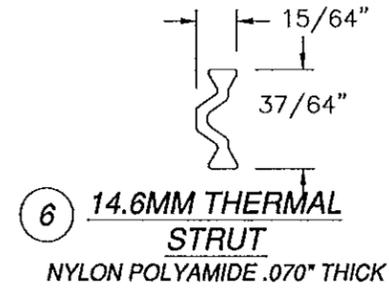
1 135° MULLION EXTERIOR EXTRUSION
 ALUMINUM 6105-T5 .125" THICK



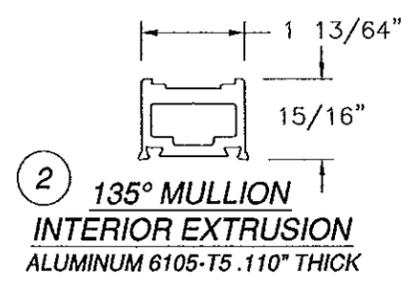
3 135° MULLION INTERIOR BAR
 ALUMINUM 6105-T5 .135" THICK



4 COVER
 ALUMINUM 6105-T5 .050" THICK



6 14.6MM THERMAL STRUT
 NYLON POLYAMIDE .070" THICK



2 135° MULLION INTERIOR EXTRUSION
 ALUMINUM 6105-T5 .110" THICK

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SERIES 9000 DEEP THERMALLY BROKEN 135° VERTICAL MULLION IMPACT HVHZ COMPONENTS

DRAWN: V.L.	DWG NO. 08-00922	REV B
SCALE NTS	DATE 03/05/10	SHEET 4 OF 4

SIGNED: 08/30/2013

