



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.buildingcodeonline.com

NOTICE OF ACCEPTANCE (NOA)

JELD-WEN Windows & Doors
3737 Lakeport Blvd
Klamath Falls, OR 97601

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: The Jeld-Wen Series "Custom Collection" Single or Double Alum-wood composite Mullion **APPROVAL DOCUMENT:** Drawing No. **JELD0088**, titled "LMI Clipped Mullion" Sheets 1 through 7 of 7, prepared by manufacturer dated 10/10/08 and last revised on 06-10-09, signed and sealed by Robert J. Amoroso, 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

Limitations:

1. Mullion clipped with 2X buck attached to Concrete substrate require min total four (4) ITW ¼" Tapcon with 3" OC, 2" min embedment and 2" edge distance into min 3 ksi Concrete to transfer imposed load.
2. This Clipped Mullion to be used with JELD-WEN Windows having current NOA(s) for tributary load and design pressures per horizontal and vertical mullion charts.

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

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

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

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

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

This NOA consists of this page 1 and evidence pages E-1, as well as approval document mentioned above. The submitted documentation was reviewed by **Ishaq I. Chanda, P. E.**



NOA No 08-1015.07
Expiration Date: August 19, 2014
Approval Date: August 19, 2009
Page 1

7/28/19

JELD-WEN Windows & Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's parts drawings and sections.
2. Drawing No. **JELD0088**, titled "LMI Clipped Mullion" Sheets 1 through 7 of 7, prepared by manufacturer dated 10/10/08 and last revised on 06-10-09, signed and sealed by Robert J. Amoruso, 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 (None)
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
4) Forced Entry Test, per FBC TAS 202-94

Along with marked-up drawings and installation diagram of Single & Double Clipped Alum Mullion, prepared by National Certified Testing Lab, Test Report No. **NCTL-210-3491-2**, originally issued on 12/03/07 and revised and re-issued on 02/27/09, signed and sealed by Jerard J. Ferrara, P.E.

C. CALCULATIONS

1. Anchor verification & structural calculations complying w/ FBC 2007, prepared by PTC, LLC dated 04/27/09 and last revised on 06-10-09, signed & sealed by Robert J. Amoruso, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None

F. STATEMENTS

1. Statement letter of conformance & no financial interest, dated 04/27/09, signed by Robert J. Amoruso, P.E.
2. Addendum letter dated April 08, 2009 and mullion attachment marked-up drawings, issued by National Certified Testing lab, signed & sealed by Jerard J. Ferrara, P.E.
3. Lab compliance statement as part of above test reports.

G. OTHER

1. Test proposal # **07-3760** dated Nov. 20, 2007, approved by BCCO.

Ishaq I. Chanda

Ishaq I. Chanda, P. E.

Product Control Examiner

NOA No 08-1015.07

Expiration Date: August 19, 2014

Approval Date: August 19, 2009

JELD-WEN WINDOWS & DOORS

LARGE MISSILE IMPACT CLIPPED MULLION

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES: (ALL DRAWING SHEETS)

1. JELD-WEN WINDOW CONFIGURATIONS FOR USE WITH THE JELD-WEN TESTED MULLION SHOWN ON SHEET 7, ITEM 2 (SINGLE ALUMINUM MULLION) AND 3 (DOUBLE ALUMINUM MULLION) SHOWN ON SHEET 7, TO BE USED WITH JELD-WEN WINDOWS APPROVED UNDER SEPARATE NOA'S.
2. THESE MULLION SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN ON THESE DRAWINGS.
3. BLOCK AND FRAME OPENINGS MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS & SUPPORTED WINDOWS. 1X AND 2X BUCKS SHOWN SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE AND ARE THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD AS REQUIRED BY JELD-WEN'S MIAMI-DADE APPROVED NOA WINDOW INSTALLATION.
4. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
5. THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ)
6. THE MULLION PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH DADE COUNTY PROTOCOLS TAS-201, TAS-202 & TAS 203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLE TESTING.
7. ALL PRODUCTS TO BE USED WITH THESE MULLIONS MUST BE WOOD PRODUCTS WITH ALUMINUM CLADDING MANUFACTURED BY JELD-WEN AND MUST HOLD A DADE COUNTY IMPACT OR NON-IMPACT NOTICE OF ACCEPTANCE (N.O.A.)
8. ALLOWABLE PRESSURE ON THE MULLED UNIT ASSEMBLY SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW UNIT.
9. FOR WINDOW FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT APPROVAL DRAWINGS FOR THE WINDOW.
10. MULLION LENGTHS, TRIBUTARY LOAD AND DESIGN PRESSURE ARE RESTRICTED BY THOSE SHOWN ON THE TABLES.
11. THE LOADS IN THESE GRAPHS CONSIDER WORSE CASE OF MULLION STRESS, DEFLECTION AND REACTION.
12. ANY CONDITIONS NOT COVERED IN THIS APPROVAL SHALL BE SUBJECT TO SEPARATE ENGINEERING EVALUATION TO BE REVIEWED BY BULDING OFFICIAL.
13. ALL MULLIONS SHALL BE 6063-T6 ALUMINUM. ALL CONNECTION PLATES SHALL BE 14 GAGE GALVANIZED A36 MINIMUM STEEL.
14. ALL EMBEDMENTS SPECIFIED ARE TO BE BEYOND THE WALL FINISH.
15. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2007 FLORIDA BUILDING CODE SECTION 2003.8.4.
16. WOOD MEMBERS IN DIRECT CONTACT WITH CONCRETE MUST COMPLY WITH CHAPTERS 23 & 24 OF FBC.

INSTALLATION NOTES:

1. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR MULLION INSTALLATION.
2. FOR INSTALLATION INTO WOOD FRAMING, USE #10 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1 1/2 INCH MINIMUM EMBEDMENT.
3. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES (INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING).
4. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
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 BY THE ANCHOR MANUFACTURER BELOW.
6. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - A. WOOD PT SOUTHERN YELLOW PINE - MINIMUM SPECIFIC GRAVITY IS 0.55. LUMBER MUST COMPLY WITH FBC SECTIONS 2411.3.3.3 AND 2326.2 AS TO WOOD PROTECTION.
 - B. CONCRETE=3000 PSI MIN. BLOCK = 1500 PSI MIN.
7. INSTALLATION ANCHORS FOR 2X BUCK TO CONCRETE (SEE SECTIONS B, C, E AND F) SHALL BE 1/4" DIAMETER ITW TAPCONS WITH ADVANCED THREADFORM TECHNOLOGY (NOA NO. 07-0315.03, WITH MINIMUM EDGE DISTANCE OF 2" AND EMBEDMENT OF 1-3/4". SUBSTRATE LIMITED TO 3000 PSI CONCRETE, PRECAST SILL OR LINTELS AND GROUT-FILLED CMU'S.

REV	DESCRIPTION	DATE	BY
B	REVISIONS PER MIAMI-DADE 06-02-09	06/10/09	BB
A	REVISIONS PER MIAMI-DADE 11-23-08	12/08/08	BB

JELD-WEN WINDOWS & DOORS
3250 LAKEPORT BLVD.
KLAMATH FALLS, OR 97601

LARGE MISSILE IMPACT CLIPPED MULLION GENERAL AND INSTALLATION NOTES

PREPARED BY:  P.T.C. LLC
Phone 321.690.1788 Fax 321.690.1789

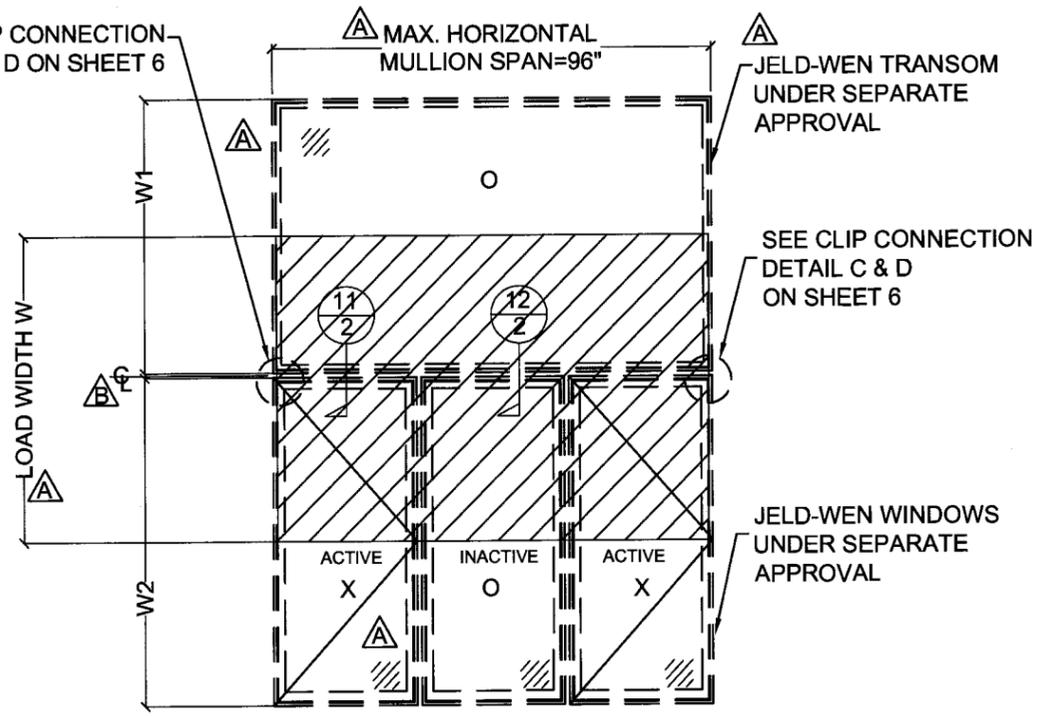
DRAWN BY: BB DATE: 10/10/08
SCALE: N.T.S. DRAWING NO: JELD0088
REV: B SHEET: 1 OF 7

PROJECT # 308-0745.23
Robert J. Amoruso, P.E.
Florida P.E. No. 45752

P.T.C. LLC
1535 N. Cogswell Street, Suite C25
Rockledge, Florida 32955
FBPE Certificate of Authorization N.O. 25805

Approved as complying with the Florida Building Code
Date AUG 19, 2009
NOA# 08-1015.07
Miami Dade Product Control Division
By Isaac L. Lhand

SEE CLIP CONNECTION
DETAIL C & D ON SHEET 6



CASEMENT WINDOW/ DIRECT SET WINDOW/
CASEMENT WINDOW/ WITH TRANSOM

AVERAGE LOAD WIDTH (W) = $\frac{W1 + W2}{2}$

NOTE: TRANSOM MUST BE MULLED TO HORIZONTAL
MULLION WHICH MAY BE A SASH GLAZED FIXED
WINDOW OR A DIRECT GLAZED FIXED WINDOW
UNDER A SEPERATE APPROVAL

HORIZONTAL MULLION CHART MULTIPLE WINDOW WITH TRANSOM (DOUBLE MULLION #SP07-024)					
ALLOWABLE PRESSURES (PSF)					
MULL LENGTH (SPAN) (IN.)	LOAD WIDTH $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT	MULL LENGTH (SPAN) (IN.)	LOAD WIDTH $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT
54	24	+65.0 -65.0	78	24	+65.0 -65.0
	30	+65.0 -65.0		30	+65.0 -65.0
	36	+65.0 -65.0		36	+65.0 -65.0
	42	+65.0 -65.0		42	+65.0 -65.0
	48	+65.0 -65.0		48	+65.0 -65.0
	60	+65.0 -65.0		60	+65.0 -65.0
60	24	+65.0 -65.0	84	24	+65.0 -65.0
	30	+65.0 -65.0		30	+65.0 -65.0
	36	+65.0 -65.0		36	+65.0 -65.0
	42	+65.0 -65.0		42	+65.0 -65.0
	48	+65.0 -65.0		48	+65.0 -65.0
	60	+65.0 -65.0		60	+65.0 -65.0
66	24	+65.0 -65.0	90	24	+65.0 -65.0
	30	+65.0 -65.0		30	+65.0 -65.0
	36	+65.0 -65.0		36	+65.0 -65.0
	42	+65.0 -65.0		42	+65.0 -65.0
	48	+65.0 -65.0		48	+65.0 -65.0
	60	+65.0 -65.0		60	+65.0 -65.0
72	24	+65.0 -65.0	96	24	+65.0 -65.0
	30	+65.0 -65.0		30	+65.0 -65.0
	36	+65.0 -65.0		36	+65.0 -65.0
	42	+65.0 -65.0		42	+65.0 -65.0
	48	+65.0 -65.0		48	+65.0 -65.0
	60	+65.0 -65.0		60	+65.0 -65.0
	65	+65.0 -65.0		65	+65.0 -65.0

- NOTES:
- ALL MULLIONS AND SPLICE MEMBERS SHALL BE 6063-T6 ALUMINUM.
 - INDIVIDUAL UNIT SIZES AND SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL N.O.A.
 - PRODUCTS MAY BE INTERMIXED AND WILL BE LIMITED TO THE WOOD MEMBERS PART OF THE MULLION.

HORIZONTAL DOUBLE MULLION
COMBINED SECTION PROPERTIES

$I_x=6.340 \text{ in}^4$
 $S_x=2.369 \text{ in}^3$
 $A=4.042 \text{ in}^2$

ALUMINUM HORIZONTAL DOUBLE
MULLION SECTION PROPERTIES

$I_x=5.565 \text{ in}^4$
 $S_x=2.079 \text{ in}^3$
 $A=2.460 \text{ in}^2$
 $E_{\text{aluminum}}=1 \times 10^7 \text{ in}^2$

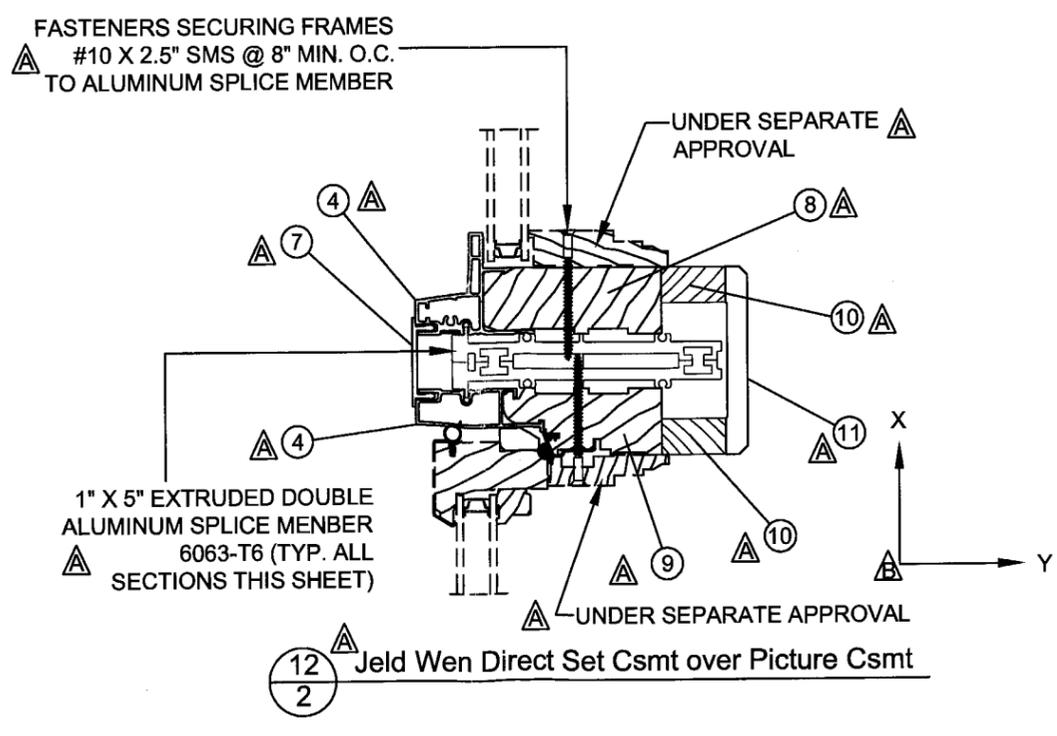
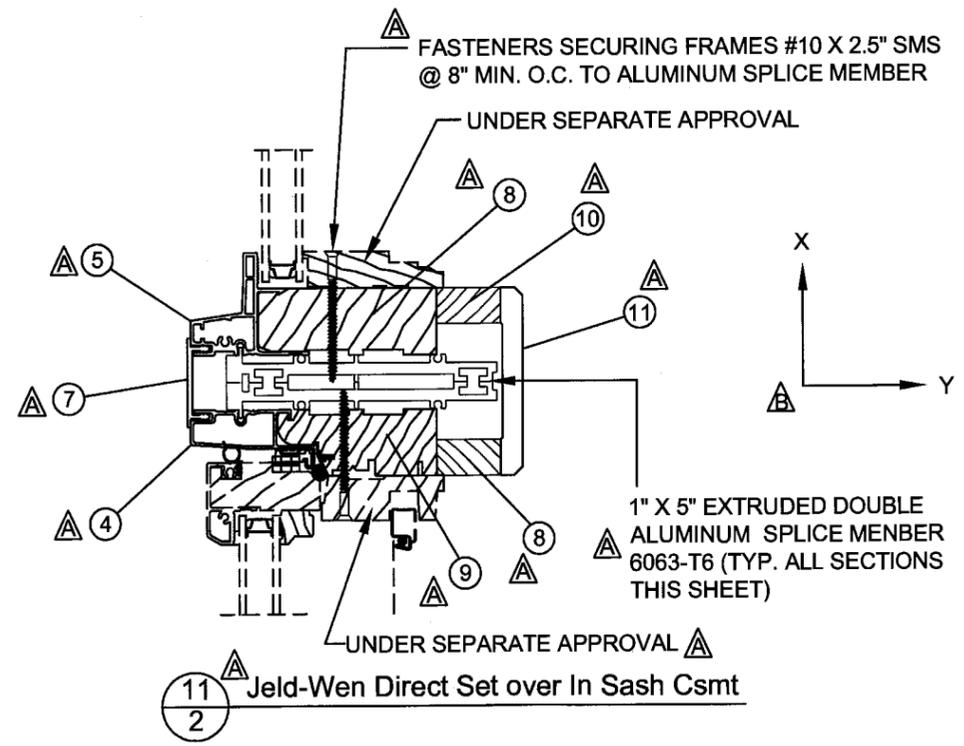
ALUMINUM FRAME
SECTION PROPERTIES

$I_x=0.1507 \text{ in}^4$
 $S_x=0.1095 \text{ in}^3$
 $A=0.3305 \text{ in}^2$
 $E_{\text{aluminum}}=1 \times 10^7 \text{ in}^2$

WOOD CONVERTED TO ALUMINUM
SECTION PROPERTIES

$I_x=0.473 \text{ in}^4$
 $S_x=0.308 \text{ in}^3$
 $A=0.291 \text{ in}^2$
 $E_{\text{wood}}=1.3 \times 10^6 \text{ in}^2$

- BENDING OF THE MULLION ABOUT THE X-AXIS.
- SECTIONS PROPERTIES FOR MOMENT OF INERTIA AND SECTION MODULUS ARE ABOUT X-AXIS.
- COMBINED SECTION PROPERTIES INCLUDE DOUBLE ALUMINUM MULLION, TWO ALUMINUM FRAME SASH CAPS AND TWO WOOD FRAME SASH CAPS AND JAMB EXTENSIONS CONVERTED TO EQUIVALENT ALUMINUM.



REVISIONS PER	MIAMI-DADE 06-02-09	REVISIONS PER	MIAMI-DADE 11-23-08	DESCRIPTION
B		A		
DATE	06/10/09	DATE	12/08/08	BY
	BB		BB	

JELD-WEN WINDOWS & DOORS
3250 LAKEPORT BLVD.
KLAMATH FALLS, OR 97601

LARGE MISSILE IMPACT CLIPPED MULLION
ELEVATION, PRESSURE CHART & SECTIONS

DATE: 10/10/08
DRAWING NO: JELD00088
SHEET: 2 OF 7

DRAWN BY: BB
SCALE: N.T.S.
REV: B

PREPARED BY: PTC, LLC
Phone 321.690.1768
Fax 321.690.1769

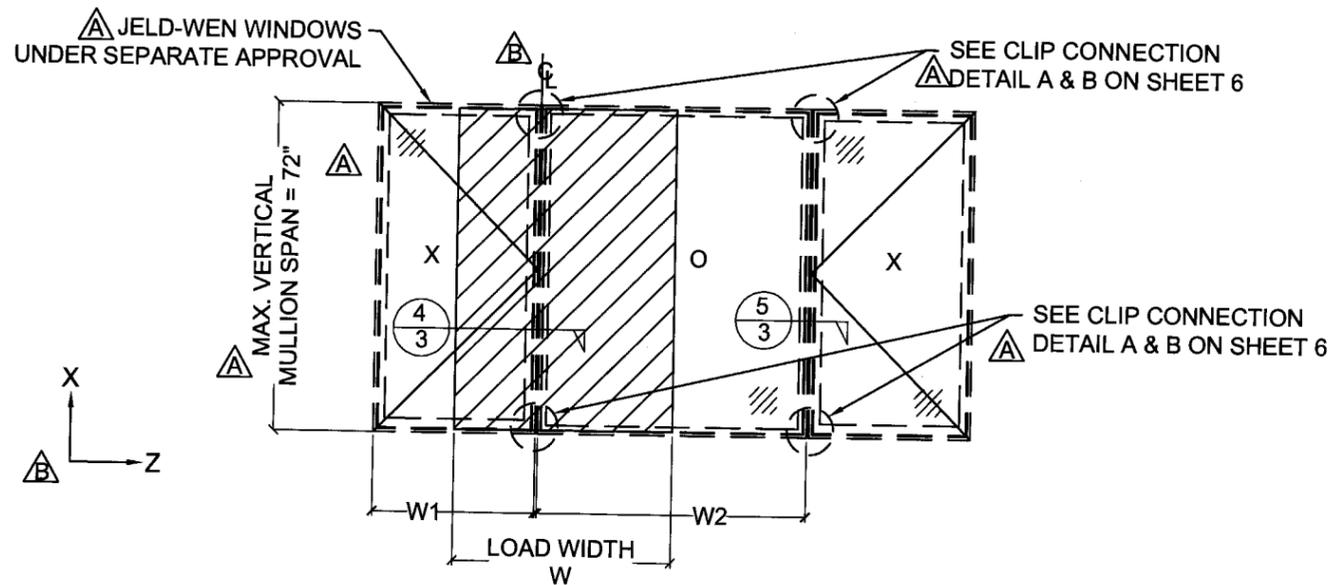
PROJECT #308-0745.23

Robert J. Annunzio, P.E.
Florida P.E. No. 45752

6/10/09

PTC, LLC
1535 N. Coxsack Street, Suite C25
Rockledge, Florida 32955
FBPE Certificate of Authorization NO. 26935

Approved as complying with the
Florida Building Code
Date Aug 19, 2009
NOA# 08-1015-07
Miami Dade Product Control
Division
By Isaac J. Chaudhry



CASEMENT WINDOW/ DIRECT SET FIXED WINDOW/ CASEMENT WINDOW

AVERAGE LOAD WIDTH (W) = $\frac{W1 + W2}{2}$

NOTE: MULLED WINDOW TO THE VERTICAL MULLION MAY BE A SASH GLAZED FIXED WINDOW OR A DIRECT GLAZED FIXED WINDOW UNDER A SEPERATE APPROVAL

VERTICAL MULLION CHART MULTIPLE WINDOWS (SINGLE MULLION SP07-024)					
ALLOWABLE PRESSURES (PSF)					
MULL LENGTH (SPAN) (IN.)	LOAD WIDTH $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT	MULL LENGTH (SPAN) (IN.)	LOAD WIDTH $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT
36	24	+65.0 -75.0	60	24	+65.0 -75.0
	30	+65.0 -75.0		30	+65.0 -75.0
	36	+65.0 -75.0		36	+65.0 -75.0
	42	+65.0 -75.0		42	+65.0 -75.0
	48	+65.0 -75.0		48	+65.0 -75.0
	60	+65.0 -75.0		24	+65.0 -75.0
42	66	+65.0 -75.0	66	30	+65.0 -75.0
	24	+65.0 -75.0		36	+65.0 -75.0
	30	+65.0 -75.0		42	+65.0 -75.0
	36	+65.0 -75.0		48	+65.0 -75.0
	42	+65.0 -75.0		24	+65.0 -75.0
	48	+65.0 -75.0		30	+65.0 -75.0
48	60	+65.0 -75.0	72	36	+65.0 -75.0
	66	+65.0 -75.0		42	+65.0 -75.0
	24	+65.0 -75.0		48	+65.0 -75.0
	30	+65.0 -75.0		60	+65.0 -75.0
	36	+65.0 -75.0		66	+65.0 -75.0
	42	+65.0 -75.0		72	+65.0 -75.0
54	48	+65.0 -75.0			
	60	+65.0 -75.0			
	66	+65.0 -75.0			
	72	+65.0 -75.0			

NOTES:
 1. ALL MULLIONS SHALL BE 6063-T6 ALUMINUM.
 2. INDIVIDUAL UNIT SIZES AND SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL N.O.A.

VERTICAL SINGLE MULLION COMBINED SECTION PROPERTIES

$I_z = 3.601 \text{ in}^4$
 $S_z = 1.346 \text{ in}^3$
 $A = 2.816 \text{ in}^2$

ALUMINUM VERTICAL SINGLE MULLION SECTION PROPERTIES

$I_z = 2.826 \text{ in}^4$
 $S_z = 1.049 \text{ in}^3$
 $A = 1.240 \text{ in}^2$
 $E_{\text{aluminum}} = 1 \times 10^7 \text{ in}^2$

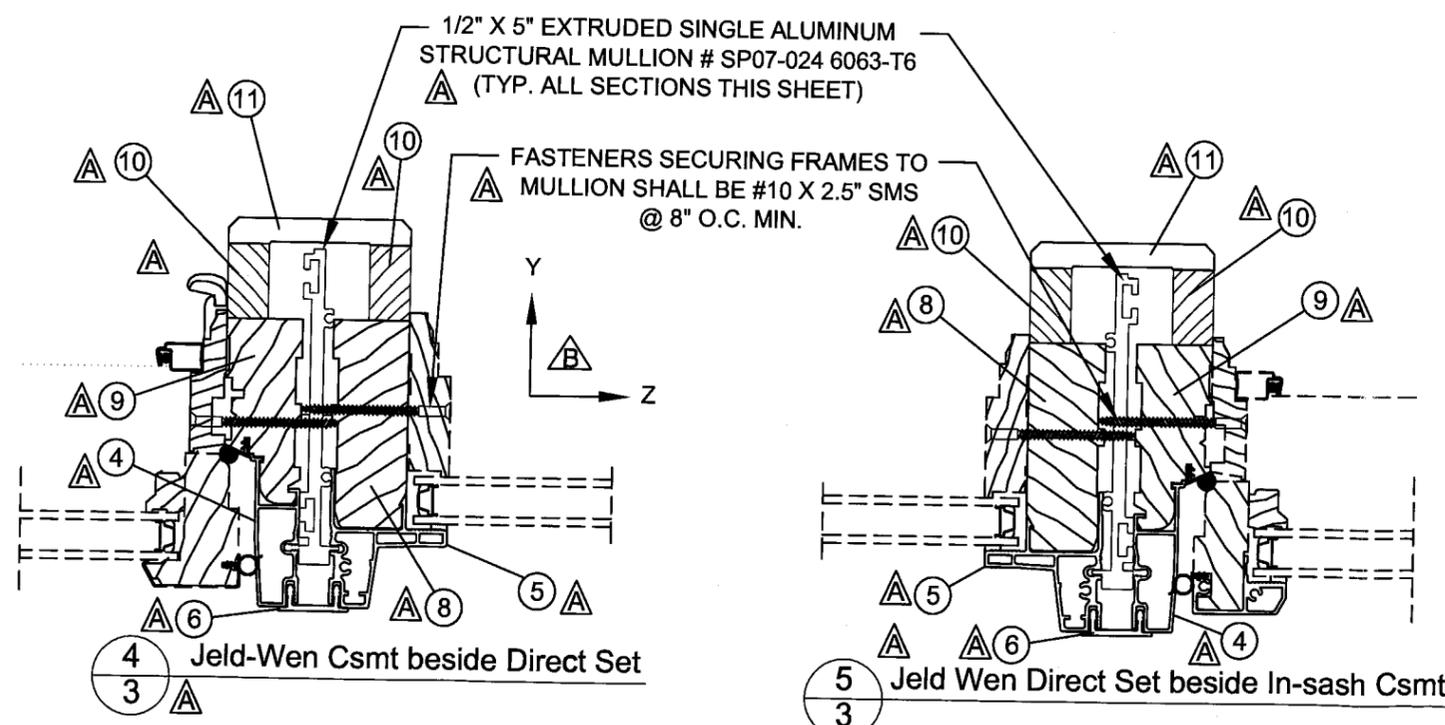
ALUMINUM FRAME SECTION PROPERTIES

$I_z = 0.1507 \text{ in}^4$
 $S_z = 0.1095 \text{ in}^3$
 $A = 0.3305 \text{ in}^2$
 $E_{\text{aluminum}} = 1 \times 10^7 \text{ in}^2$

WOOD CONVERTED TO ALUMINUM SECTION PROPERTIES

$I_z = 0.474 \text{ in}^4$
 $S_z = 0.309 \text{ in}^3$
 $A = 0.915 \text{ in}^2$
 $E_{\text{wood}} = 1.3 \times 10^6 \text{ in}^2$

- 1) BENDING OF THE MULLION ABOUT THE Z-AXIS.
- 2) SECTIONS PROPERTIES FOR MOMENT OF INERTIA AND SECTION MODULUS ARE ABOUT Z-AXIS.
- 3) COMBINED SECTION PROPERTIES INCLUDE DOUBLE ALUMINUM MULLION, TWO ALUMINUM FRAME SASH CAPS AND TWO WOOD FRAME SASH CAPS AND JAMB EXTENSIONS CONVERTED TO EQUIVALENT ALUMINUM.



REVISIONS PER	MIAMI-DADE 06-02-09	BB	06/10/09	BB	
REVISIONS PER	MIAMI-DADE 11-23-08	BB	12/08/08	BB	
DESCRIPTION		REV		DATE	BY

JELD-WEN WINDOWS & DOORS
 3250 LAKEPORT BLVD.
 KLAMATH FALLS, OR 97601

TITLE: LARGE MISSILE IMPACT CLIPPED MULLION ELEVATION, PRESSURE CHART & SECTION

DATE: 10/10/08
 DRAWING NO: JELD00088
 SHEET: 3 OF 7

PREPARED BY: BB
 SCALE: N.T.S.
 REV: B

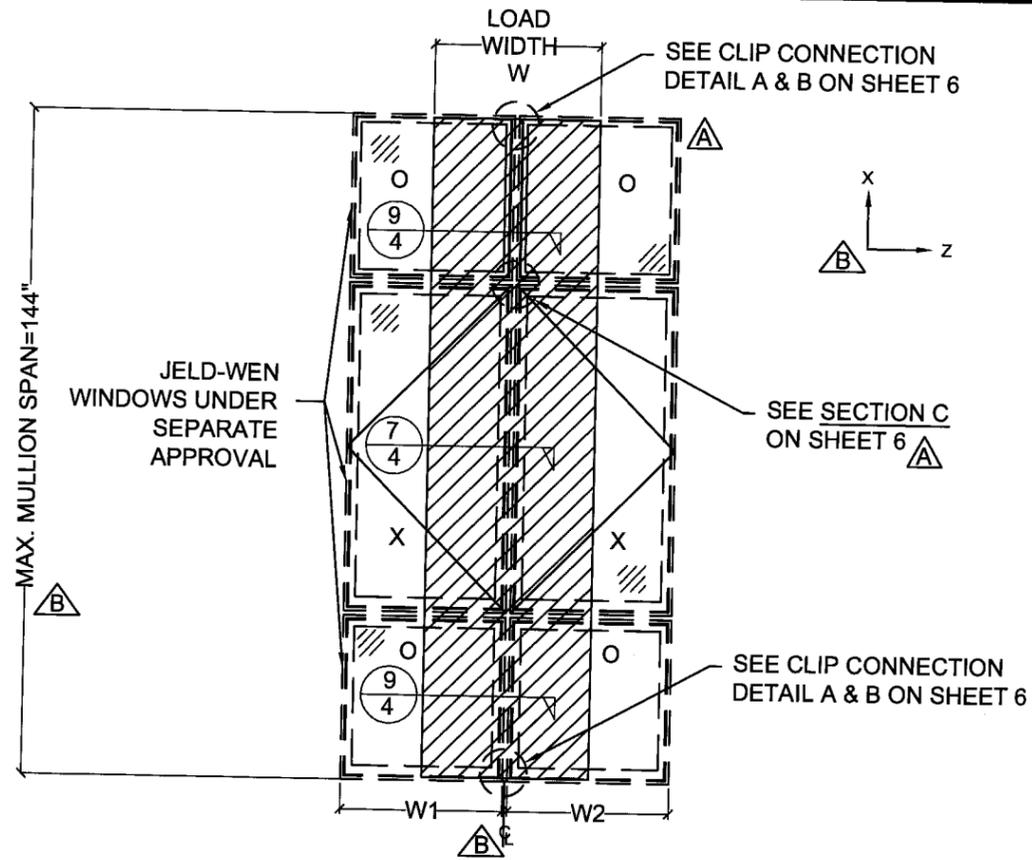
PTC, LLC
 Phone 321.690.1788
 Fax 321.690.1789

PROJECT #308-0745.23
 Robert J. Arneruso, P.E.
 Florida P.E. No. 49752

6/10/09

PTC, LLC
 1535 N. Cogswell Street, Suite C25
 Rockledge, Florida 32955
 FBPE Certificate of Authorization NO. 28935

Approved as complying with the Florida Building Code
 Date: Aug 19, 2009
 NOA# 08-1015-07
 Miami Dade Product Control Division
 By: [Signature]



DIRECT SET WINDOW/DIRECT SET WINDOW
 CASEMENT WINDOW/CASEMENT WINDOW
 DIRECT SET WINDOW/DIRECT SET WINDOW

Δ AVERAGE LOAD WIDTH (W) = $\frac{W1 + W2}{2}$

NOTE: ALL PICTURE WINDOWS MAY BE A SASH GLAZED FIXED WINDOW, A DIRECT GLAZED FIXED WINDOW, SINGLE OR MULTIPLE WINDOWS UNDER A SEPERATE APPROVAL

MULTIPLE WINDOW CHART (DOUBLE MULLION #SP07-024)					
ALLOWABLE DESIGN PRESSURES (PSF)					
MULL LENGTH (SPAN) (IN.)	LOAD WIDTH (IN) $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT	MULL LENGTH (SPAN) (IN.)	LOAD WIDTH (IN) $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT
24	24	±65.0	120	24	±65.0
	30	±65.0		30	±52.0
	36	±65.0		36	±43.0
36	24	±65.0	132	24	±58.9
	30	±65.0		30	±47.0
	36	±65.0		36	±47.0
48	24	±65.0	144	24	±54.0
	30	±65.0		30	±43.0
	36	±65.0		36	±36.0
60	24	±65.0			
	30	±65.0			
	36	±65.0			
72	24	±65.0			
	30	±65.0			
	36	±65.0			
84	24	±65.0			
	30	±65.0			
	36	±65.0			
96	24	±65.0			
	30	±65.0			
	36	±54.0			
108	24	±65.0			
	30	±58.0			
	36	±48.0			

- NOTES:**
- ALL MULLIONS AND SPLICE MEMBERS SHALL BE 6063-T6 ALUMINUM.
 - INDIVIDUAL UNIT SIZES AND SHUTTER REQUIREMENTS AR LIMITED BY THEIR OWN INDIVIDUAL N.O.A.

VERTICAL DOUBLE MULLION COMBINED SECTION PROPERTIES

$I_z = 6.341 \text{ in}^4$
 $S_z = 2.369 \text{ in}^3$
 $A = 4.036 \text{ in}^2$

ALUMINUM VERTICAL DOUBLE MULLION SECTION PROPERTIES

$I_z = 5.565 \text{ in}^4$
 $S_z = 2.079 \text{ in}^3$
 $A = 2.460 \text{ in}^2$
 $E_{\text{aluminum}} = 1 \times 10^7 \text{ in}^2$

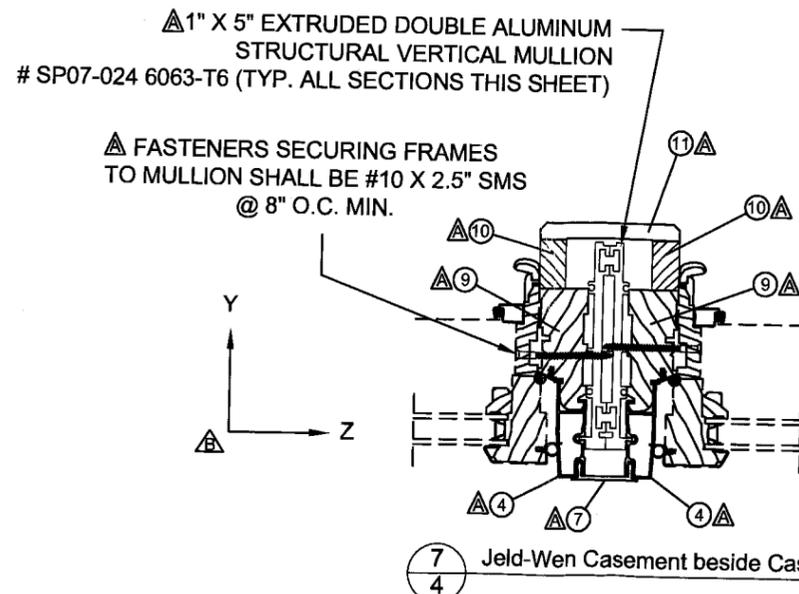
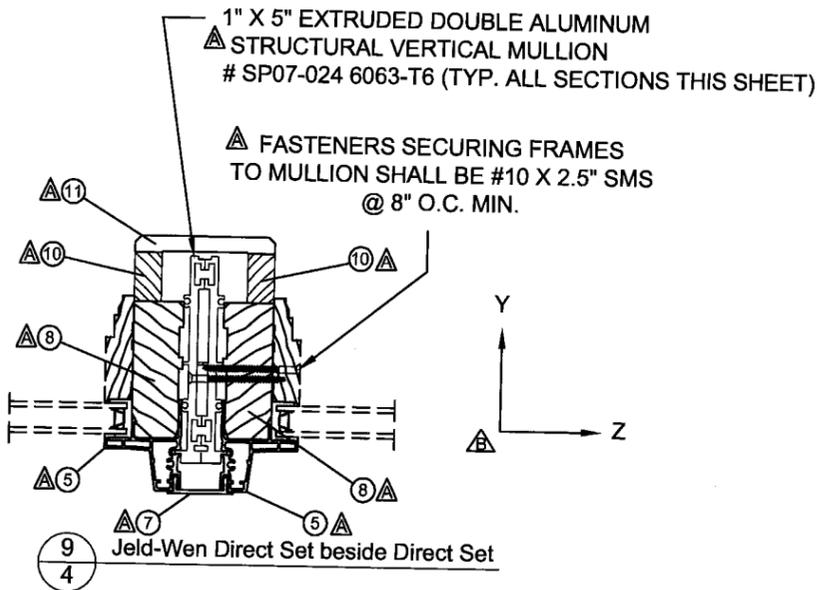
ALUMINUM FRAME SECTION PROPERTIES

$I_z = 0.1507 \text{ in}^4$
 $S_z = 0.1095 \text{ in}^3$
 $A = 0.3305 \text{ in}^2$
 $E_{\text{aluminum}} = 1 \times 10^7 \text{ in}^2$

WOOD CONVERTED TO ALUMINUM SECTION PROPERTIES

$I_z = 0.474 \text{ in}^4$
 $S_z = 0.309 \text{ in}^3$
 $A = 0.915 \text{ in}^2$
 $E_{\text{wood}} = 1.3 \times 10^6 \text{ in}^2$

- BENDING OF THE MULLION ABOUT THE Z-AXIS.
- SECTIONS PROPERTIES FOR MOMENT OF INERTIA AND SECTION MODULUS ARE ABOUT Z-AXIS.
- COMBINED SECTION PROPERTIES INCLUDE DOUBLE ALUMINUM MULLION, TWO ALUMINUM FRAME SASH CAPS AND TWO WOOD FRAME SASH CAPS AND JAMB EXTENSIONS CONVERTED TO EQUIVALENT ALUMINUM.



JELD-WEN WINDOWS & DOORS
 3250 LAKEPORT BLVD.
 KLAMATH FALLS, OR 97601

TITLE: LARGE MISSILE IMPACT CLIPPED MULLION ELEVATION, PRESSURE CHART & SECTION

PREPARED BY: PTC, LLC
 Phone 321.690.1788
 Fax 321.690.1789

PROJECT #308-0745.23
 Robert J. Amortusc, P.E.
 Florida P.E. No. 49752

DATE: 10/10/08
DRAWING NO.: JELD00088
SHEET: 4 OF 7

REVISIONS PER
 MIAMI-DADE 06-02-09
 MIAMI-DADE 11-23-08

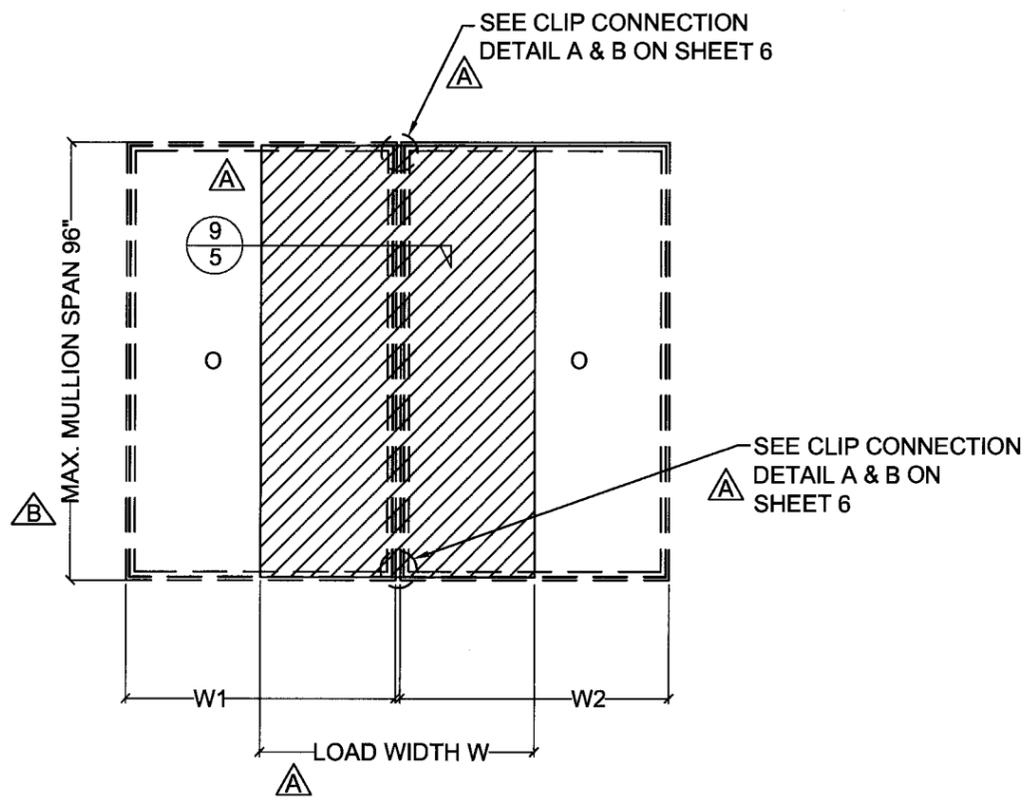
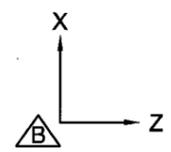
REVISIONS PER
 MIAMI-DADE 11-23-08

DATE
 06/10/09
 12/08/08

BY
 BB
 BB

DESCRIPTION
 REV

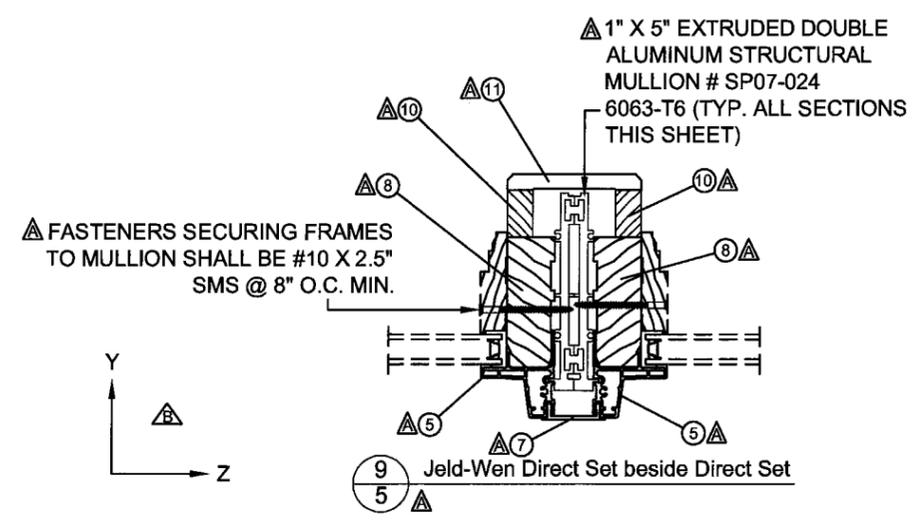
Approved as complying with the Florida Building Code
 Date Aug 19, 2009
 NOA# 08-1015-07
 Miami Dade Product Control Division
 By Shag I. Chaudh



FIXED WINDOW TO FIXED WINDOW

AVERAGE LOAD WIDTH (W) = $\frac{W1 + W2}{2}$

NOTE: JELD-WEN UNITS TO BE MULLED WITH VERTICAL MULL. FIXED WINDOW MAY BE A SASH GLAZED FIXED WINDOW OR A DIRECT GLAZED FIXED WINDOW UNDER A SEPERATE APPROVAL



VERTICAL DOUBLE MULLION CHART (DOUBLE MULLION #SP07-024)

ALLOWABLE PRESSURES (PSF)

MULL LENGTH (SPAN) (IN.)	LOAD WIDTH $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT	MULL LENGTH (SPAN) (IN.)	LOAD WIDTH $\frac{W1+W2}{2}$	DESIGN PRESSURE PSI EXT / INT
36	24	+65.0 -75.0	60	24	+65.0 -75.0
	30	+65.0 -75.0		30	+65.0 -75.0
	36	+65.0 -75.0		36	+65.0 -75.0
	42	+65.0 -75.0		42	+65.0 -75.0
	48	+65.0 -75.0		48	+65.0 -75.0
42	24	+65.0 -75.0	66	24	+65.0 -75.0
	30	+65.0 -75.0		30	+65.0 -75.0
	36	+65.0 -75.0		36	+65.0 -75.0
	42	+65.0 -75.0		42	+65.0 -75.0
	48	+65.0 -75.0		48	+65.0 -75.0
48	24	+65.0 -75.0	72	24	+65.0 -75.0
	30	+65.0 -75.0		30	+65.0 -75.0
	36	+65.0 -75.0		36	+65.0 -75.0
	42	+65.0 -75.0		42	+65.0 -75.0
	48	+65.0 -75.0		48	+65.0 -75.0
54	24	+65.0 -75.0	84	24	+65.0 -75.0
	30	+65.0 -75.0		30	+65.0 -75.0
	36	+65.0 -75.0		36	+65.0 -75.0
	42	+65.0 -75.0		42	+65.0 -75.0
	48	+65.0 -75.0		48	+65.0 -75.0
	24	+65.0 -75.0	96	24	+65.0 -75.0
	30	+65.0 -75.0		30	+65.0 -75.0
	36	+65.0 -75.0		36	+65.0 -75.0
	42	+65.0 -75.0		42	+65.0 -75.0
	48	+65.0 -75.0		48	+65.0 -75.0

VERTICAL DOUBLE MULLION COMBINED SECTION PROPERTIES

$I_z = 6.341 \text{ in}^4$
 $S_z = 2.369 \text{ in}^3$
 $A = 4.306 \text{ in}^2$

ALUMINUM VERTICAL DOUBLE MULLION SECTION PROPERTIES

$I_z = 5.565 \text{ in}^4$
 $S_z = 2.079 \text{ in}^3$
 $A = 2.460 \text{ in}^2$
 $E_{\text{aluminum}} = 1 \times 10^7 \text{ in}^2$

ALUMINUM FRAME SECTION PROPERTIES

$I_z = 0.1507 \text{ in}^4$
 $S_z = 0.1095 \text{ in}^3$
 $A = 0.3305 \text{ in}^2$
 $E_{\text{aluminum}} = 1 \times 10^7 \text{ in}^2$

WOOD CONVERTED TO ALUMINUM SECTION PROPERTIES

$I_z = 0.474 \text{ in}^4$
 $S_z = 0.309 \text{ in}^3$
 $A = 0.915 \text{ in}^2$
 $E_{\text{wood}} = 1.3 \times 10^6 \text{ in}^2$

1) BENDING OF THE MULLION ABOUT THE Z-AXIS.
 2) SECTIONS PROPERTIES FOR MOMENT OF INERTIA AND SECTION MODULUS ARE ABOUT Z-AXIS.
 3) COMBINED SECTION PROPERTIES INCLUDE DOUBLE ALUMINUM MULLION, TWO ALUMINUM FRAME SASH CAPS AND TWO WOOD FRAME SASH CAPS AND JAMB EXTENSIONS CONVERTED TO EQUIVALENT ALUMINUM.

- NOTES:
- ALL MULLIONS SHALL BE 6063-T6 ALUMINUM.
 - INDIVIDUAL UNIT SIZES AND SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL N.O.A.

JELD-WEN WINDOWS & DOORS
 3250 LAKEPORT BLVD.
 KLAMATH FALLS, OR 97601

TITLE: LARGE MISSILE IMPACT CLIPPED MULLION ELEVATION, PRESSURE CHART & SECTION

PREPARED BY: PTC, LLC
 Phone 321.690.1788
 Fax 321.690.1769

PROJECT #308-0745.23
 Robert J. Amcriso, P.E.
 Florida P.E. No. 49752

DATE: 06/10/09
 DRAWING NO.: JELD0088
 SCALE: N.T.S.
 REV: B

1535 N. Cogswell Street, Suite C25
 Rockledge, Florida 32955
 FBPE Certificate of Authorization NO. 25935

Approved as complying with the Florida Building Code
 Date: Aug 19, 2009
 NOA# 08-1015-07
 Miami Dade Product Control Division
 By: [Signature]

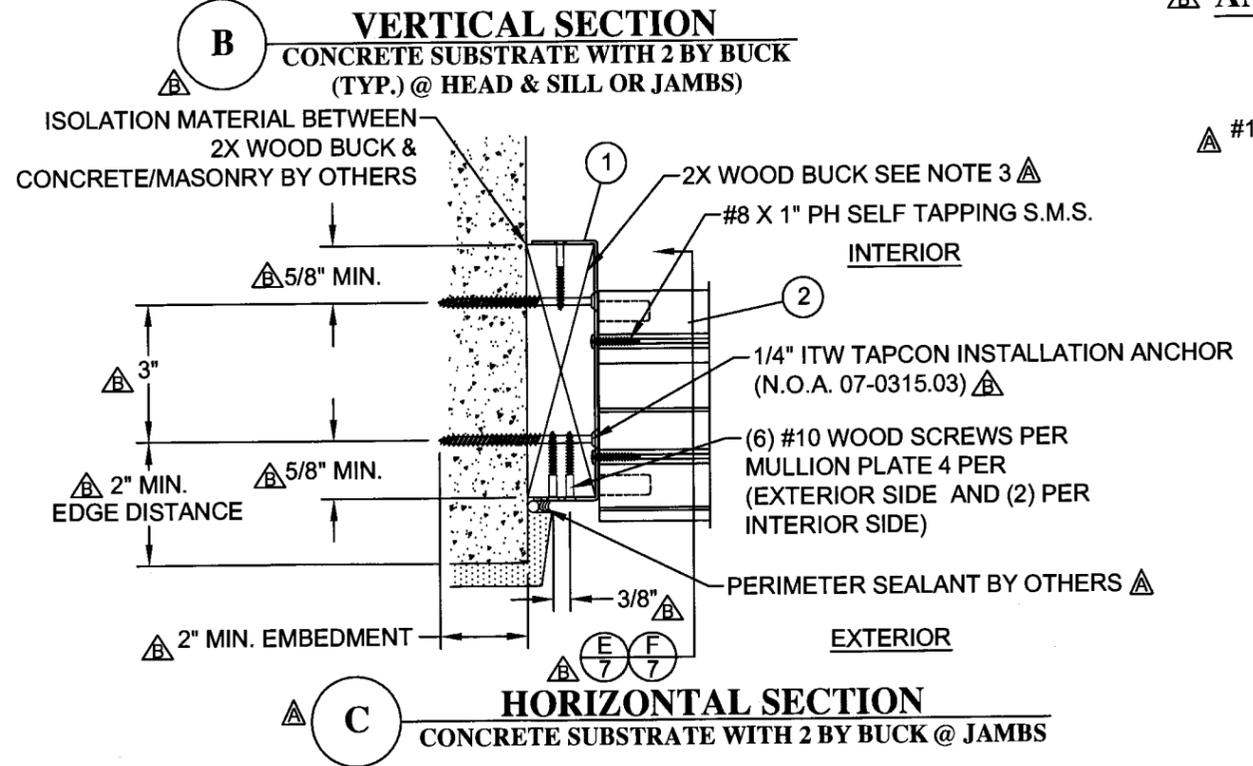
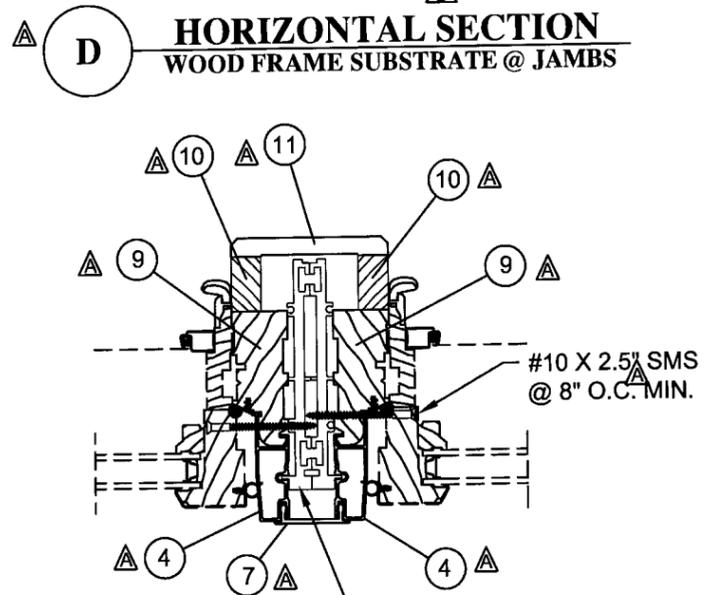
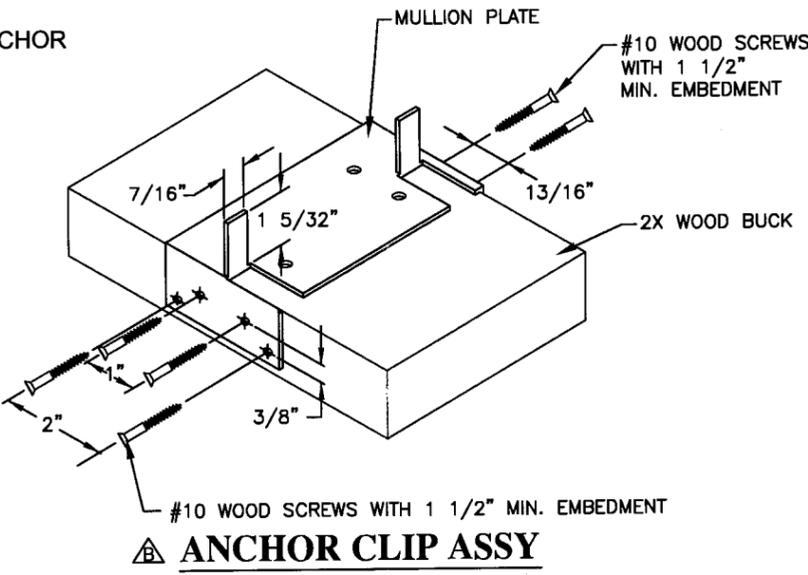
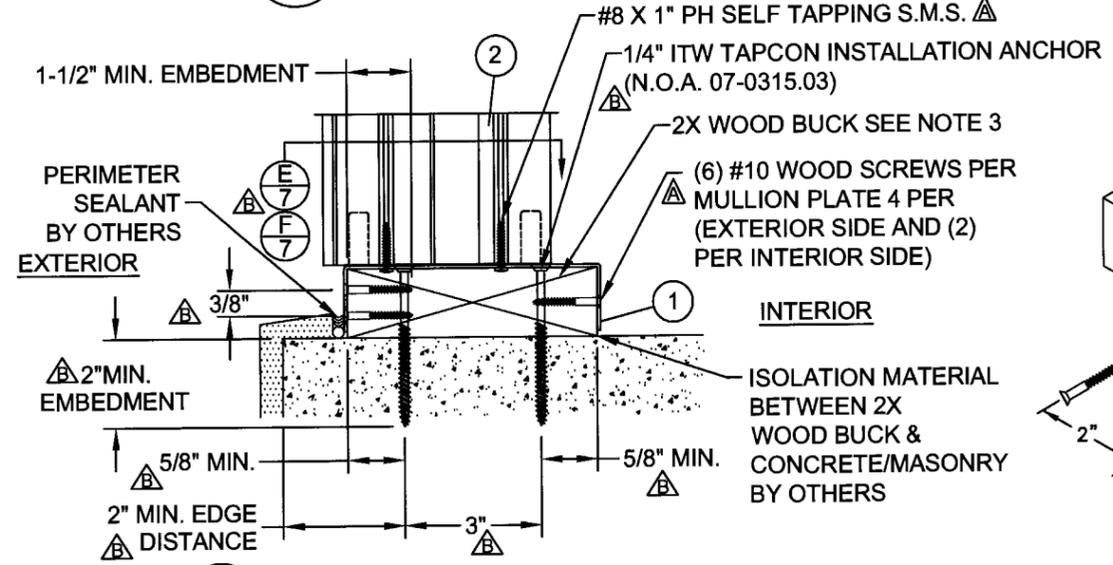
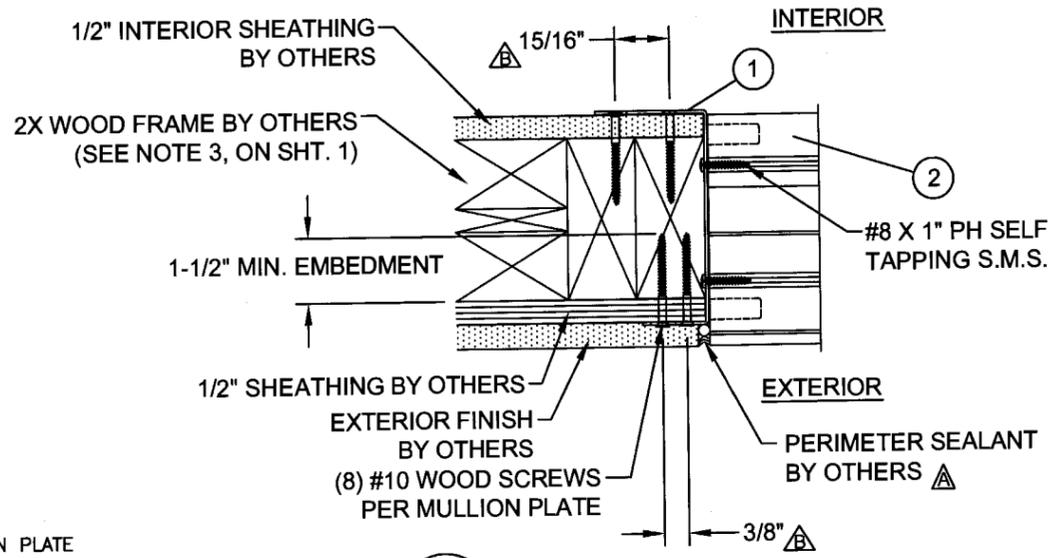
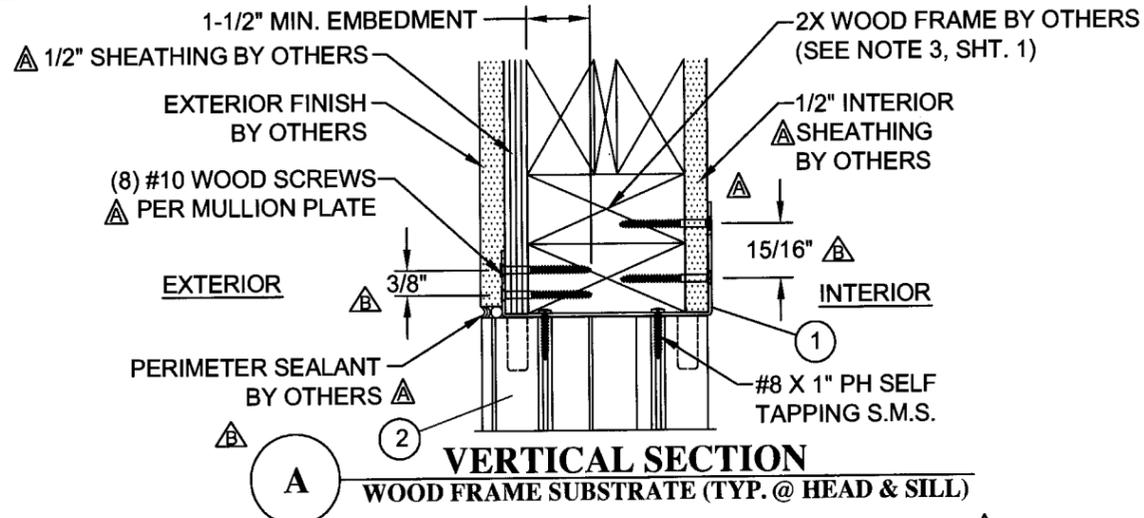
REVISIONS PER MIAMI-DADE 06-02-09
 REVISIONS PER MIAMI-DADE 11-23-08

BB 06/10/09
 BB 12/08/08
 DATE

DESCRIPTION

REV A

5 OF 7



BB	BB	BY
06/10/09	12/08/08	DATE
REVISIONS PER MIAMI-DADE 06-02-09	REVISIONS PER MIAMI-DADE 11-23-08	DESCRIPTION
B	A	REV

JELD-WEN WINDOWS & DOORS
3250 LAKEPORT BLVD.
KLAMATH FALLS, OR 97601

LARGE MISSILE IMPACT CLIPPED MULLION
VERTICAL SECTIONS

DATE: 10/10/08
DRAWING NO: JELD0088
SHEET: 6 OF 7

PREPARED BY: BB
SCALE: N.T.S.
REV: B

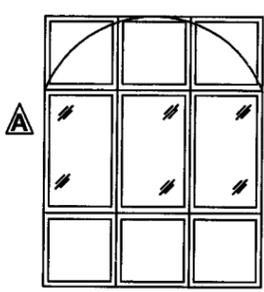
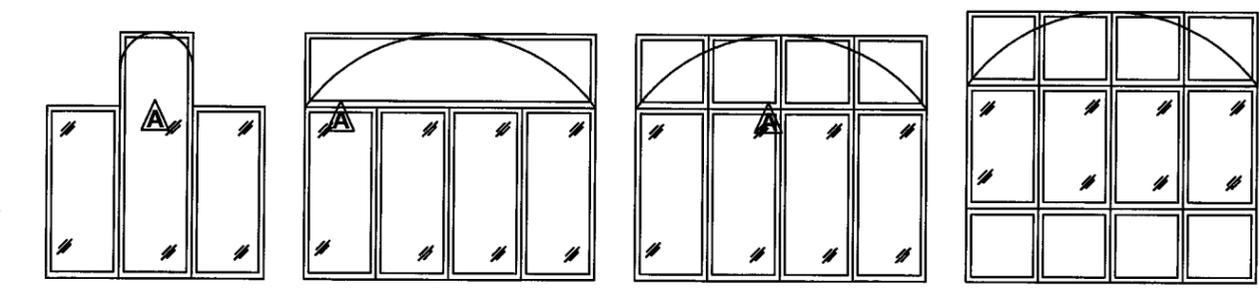
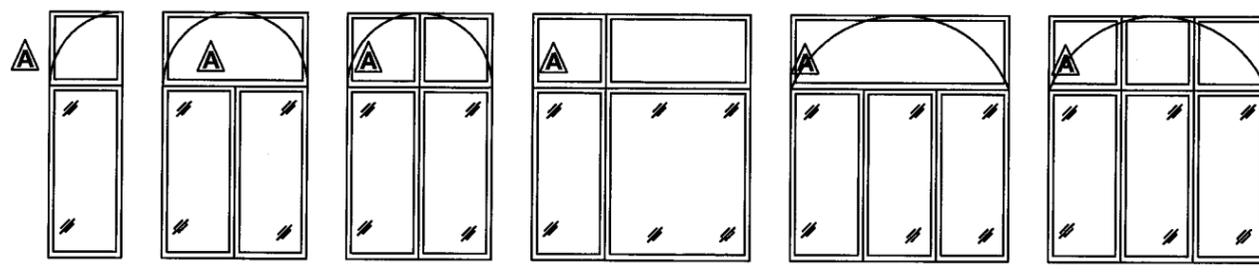
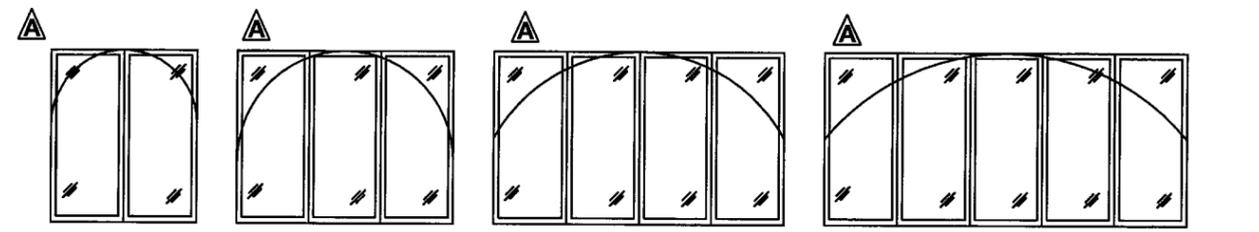
PFC
PFC, LLC
Phone 321.690.1788
Fax 321.690.1789

PROJECT #308-0745.23
Robert J. Amoroso, P.E.
Florida P.E. No. 49752

W. J. Amoroso 6/10/09

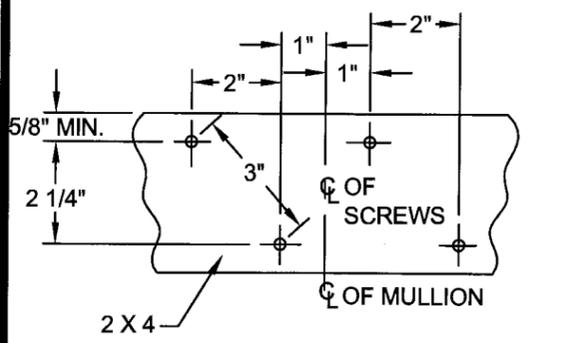
PFC, LLC
1535 N. Cogswell Street, Suite C25
Rockledge, Florida 32955
FBPE Certificate of Authorization No. 25935

Approved as complying with the Florida Building Code
Date Aug 19, 2009
NOA# 08-1015-07
Miami Dade Product Control
Division
By Shaq I. Lumb

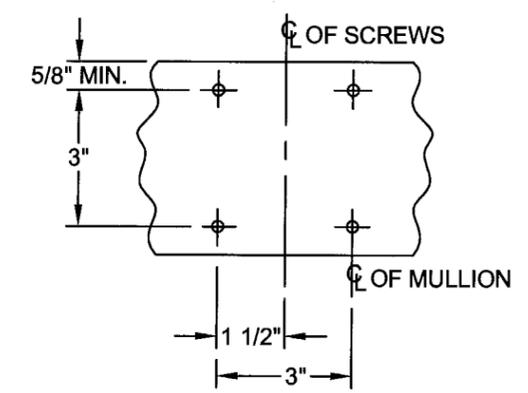


NOTE:
WINDOWS SHOWN AS ILLUSTRATION. FOR
SIZE, SHAPE AND CONFIGURATION, SEE
CORRESPONDING NOA. FOR MULLION SPAN
AND AVERAGE LOAD SEE DESIGN
PRESSURE TABLES.

PART NO. 2 & 3 NOTE:
OTHER MANUFACTURERS MAY BE USED PROVIDED
MATERIAL PROPERTIES AND / OR SECTION
PROPERTIES ARE MET OR EXCEEDED

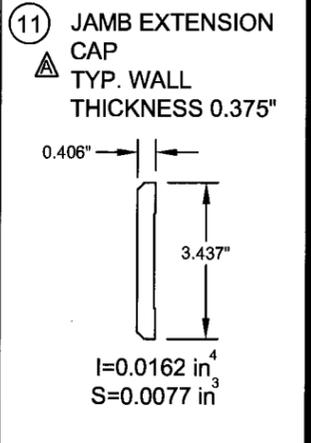
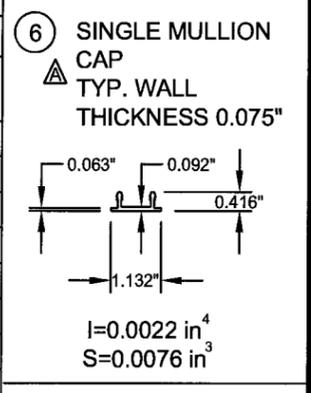
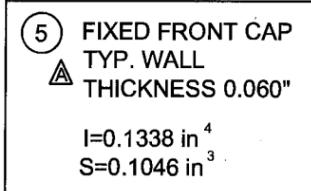
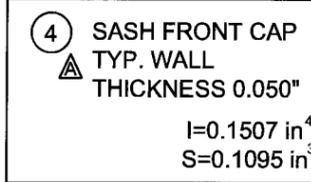
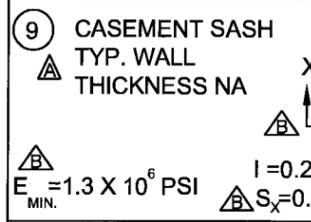
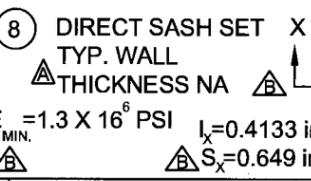
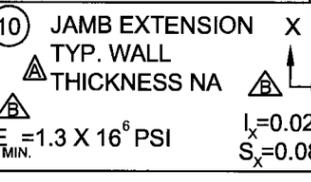
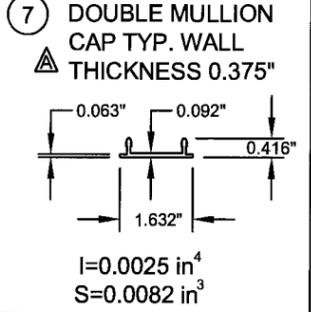
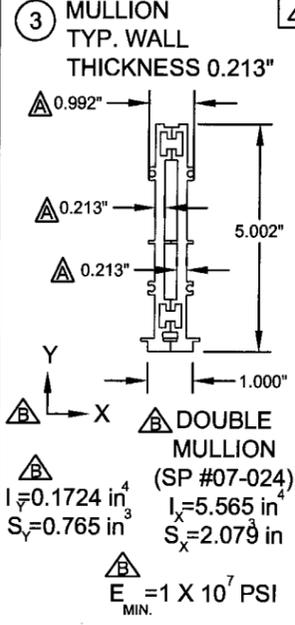
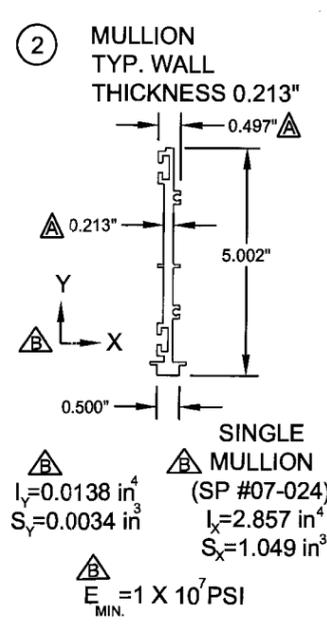
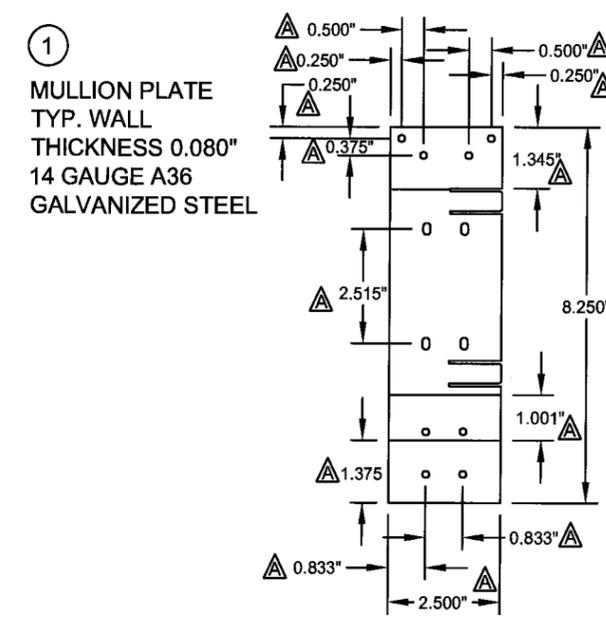


E HORIZONTAL SECTION
MULLION CLIP W / 2 X 4 BUCK



F HORIZONTAL SECTION
MULLION CLIP W / 2 X 5 & 2 X 6 BUCK

BILL OF MATERIALS			
PART NO.	DESCRIPTION	MATERIAL	MANUFACTURER
1	MULLION PLATE	STEEL A36	PURCHASED
2	SINGLE MULLION	ALUMINUM 6063-T6	FRONTIER
3	DOUBLE MULLION	ALUMINUM 6063-T6	FRONTIER
4	SASH FRONT CAP	ALUMINUM 6063-T6	PURCHASED
5	FIXED FRONT CAP	ALUMINUM 6063-T6	PURCHASED
6	SINGLE MULLION CAP	ALUMINUM 6063-T6	PURCHASED
7	DOUBLE MULLION CAP	ALUMINUM 6063-T6	PURCHASED
8	DIRECT SET FRAME	WOOD	JELD-WEN
9	CASEMENT FRAME	WOOD	JELD-WEN
10	JAMB EXTENSION	WOOD	JELD-WEN
11	JAMB EXTENSION CAP	WOOD	JELD-WEN



REV	DESCRIPTION	DATE	BY
B	REVISIONS PER MIAMI-DADE 06-02-09	06/10/09	BB
A	REVISIONS PER MIAMI-DADE 11-23-08	12/09/08	BB

DATE	SCALE	DRAWING NO.	SHEET
10/10/08	N.T.S.	JELD0088	7 OF 7

JELD-WEN WINDOWS & DOORS
3250 LAKEPORT BLVD.
KLAMATH FALLS, OR 97601

TITLE: LARGE MISSILE IMPACT CLIPPED MULLION APPROVED CONFIGURATIONS, BILL OF MATERIALS & COMPONENTS

PREPARED BY: PTC, LLC
Phone 321.690.1788
Fax 321.690.1789

PROJECT #308-0745.23

Robert J. Airoriso, P.E.
Florida P.E. No. 49752

PTC, LLC
1535 N. Cogswell Street, Suite C25
Rockledge, Florida 32955

FBPE Certificate of Authorization NO. 25935

Signature: *Robert J. Airoriso* 6/10/09

Approved as complying with the
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Date Aug 19, 2009
NOA# 09-1015-07
Miami Dade Product Control
Division
By Shag I. Chaudh