



**MIAMI-DADE COUNTY**  
**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](http://www.buildingcodeonline.com)

**NOTICE OF ACCEPTANCE (NOA)**

**Hurd Windows & Doors, Inc.**  
**575 S. Whelen Avenue**  
**Medford, WI 54451**

**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 had been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: Clipped Aluminum Tube Mullion- Impact**

**APPROVAL DOCUMENT:** Drawing No. **1047A**, titled "Clipped Impact & Non-impact Aluminum Tube Mullions" Sheets 1 through 6 of 6, dated 07/24/01 and last revised on Jan 18, 2006, 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 Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

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

1. This mullion can be used with Non-Impacted units, having Hurricane protection devices, complying w/ FBC.

**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 **renews NOA # 05-0822.05** and 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.**



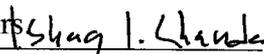
**NOA No 06-1201.04**  
**Expiration Date: February 14, 2012**  
**Approval Date: March 01, 2007**  
**Page 1**

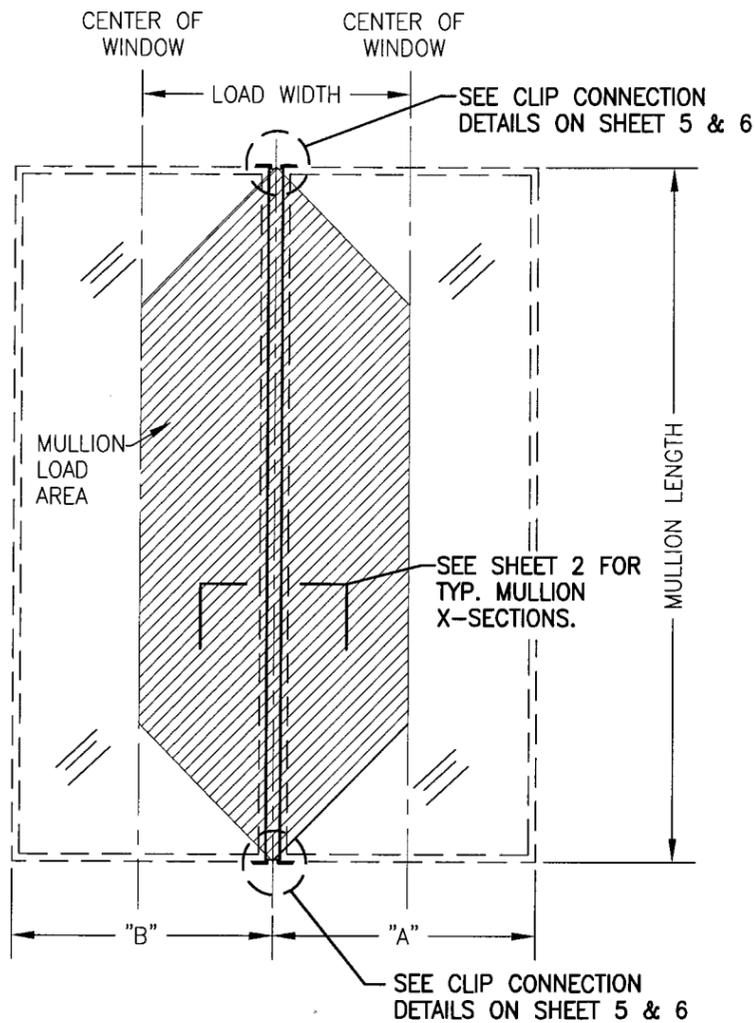
2/16/12

**Hurd Windows & Doors, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

- A. DRAWINGS** (transferred from file # 05-0822.05)
1. Manufacturer's die drawings and sections.
  2. Drawing No. 1047A, titled "Clipped Impact & Non-impact Aluminum Tube Mullions" Sheets 1 through 6 of 6, dated 07/24/01 and last revised on Jan 18, 2006, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P. E.
- B. TESTS** (transferred from file # 05-0822.05) Original test conducted per SFBC, PA 201, 202 & 203-94, now known as FBC, TAS 201, 202 & 203-94
1. Test reports on
    - 1) Air Infiltration Test, per FBC, TAS 202-94
    - 2) Uniform Load Static Air Pressure Test, per FBC, TAS 202-94
    - 3) Water Resistance Test, per FBC, TAS 202-94
    - 4) Forced Entry Resistance Test, per FBC, TAS 202-94
    - 5) Large Missile Impact Test, FBC, TAS 201-94
    - 6) Cyclic Loading Test, per FBC, TAS 203-94Along with installation diagram of clipped aluminum mullion, marked-up by Certified Testing Laboratory, Inc., Test Report No. **CTLA-679WB, & CTLA-679WF**, both dated 10/02/01, signed and sealed by Ramesh Patel, P. E. (This test reports were revised by addendum letter dtd 11-29-2001 & 12-18-2001, signed & sealed by Ramesh Patel P. E.)
- C. CALCULATIONS**
1. Anchor verification calculation dated July 28, 2005, complying w/ FBC 2004, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E. (transferred from file # 05-0822.05)
  2. Revised Anchor verification calculations and structural performance dated 07/20/01, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E (transferred from file # 01-1012.04)
- D. QUALITY ASSURANCE BY:**
1. Miami Dade Building Code Compliance Office (BCCO).
- E. MATERIAL CERTIFICATIONS**
1. None
- F. STATEMENTS** (transferred from file # 05-0822.05)
1. Statement letter of compliance w/ FBC 2004 and Engineer still in business, dated 11/06/06, signed by Warren W. Schaefer, P.E.
  2. Statement letter of conformance and "No financial interest", dated July 19, 2001, signed by Warren W. Schaefer, P.E.
  3. Statement letter of Lab compliance, part of the report, issued by Certified Testing Lab, signed and sealed by Ramesh Patel, P. E.
  4. Addendum letter to test report CTLA-679WB & CTLA-679WF issued by Certified Testing Lab, dated Nov. 29 & Dec. 18, 2001, signed & sealed by Ramesh Patel, P. E.
- G. OTHER**
1. This NOA **renews NOA # 05-0822.05** (01-1012.04), expiring February 14, 2006.
  2. Proposal No. **00-0177**, dated January 11, 2001, approved by BCCO.
  3. Bill of Sale between Hurd Millwork Co & Hurds Windows & Doors

  
Ishaq I. Chanda, P.E.  
Product Control Examiner  
NOA No 06-1201.04  
Expiration Date: February 14, 2012  
Approval Date: March 01, 2007



**FIXED WINDOW TO FIXED WINDOW**

LOAD WIDTH = (A + B)/2

NOTE: "FIXED WINDOW" MAY BE A SASH GLAZED FIXED OR A DIRECT GLAZED FIXED WINDOW UNDER SEPERATE APPROVAL.

NOTE: MULLION MAY BE HORIZONTAL OR VERTICAL

**GENERAL NOTES (ALL DRAWING SHEETS):**

- DOORS ARE APPROVED UNDER SEPERATE N.O.A. WITH AN ALUMINUM PLATE MULLION AS AN UN-CLIPPED MULLION. CASEMENT WINDOWS & SASH GLAZED FIXED WINDOWS ARE APPROVED UNDER SEPERATE N.O.A. WITH AN UNREINFORCED JAMB TO JAMB MULLION. SEE THE PRODUCTS SPECIFIC N.O.A. FOR USE OF THESE MULLIONS WHEN THEY APPLY.
- THESE MULLION SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN ON THESE DRAWINGS.
- BLOCK AND FRAME OPENINGS MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS & SUPPORTED WINDOWS/DOORS.
- ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
- THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
- THIS MULLION PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH DADE COUNTY PROTOCOLS TAS-201, TAS-202 & TAS-203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.

**FIXED WINDOW TO FIXED WINDOW TABLE**

LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
60	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	97.5	97.5	100.0	100.0	100.0	100.0
	66	97.5	97.5	100.0	100.0	100.0	100.0
	72	97.5	97.5	100.0	100.0	100.0	100.0
66	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	91.6	91.6	100.0	100.0	100.0	100.0
	54	81.4	81.4	100.0	100.0	100.0	100.0
	60	73.3	73.3	100.0	100.0	100.0	100.0
72	66	66.6	66.6	97.3	97.3	100.0	100.0
	72	66.6	66.6	100.0	100.0	100.0	100.0
	24	100.0	100.0	100.0	100.0	100.0	100.0
	30	100.0	100.0	100.0	100.0	100.0	100.0
84	36	94.1	94.1	100.0	100.0	100.0	100.0
	42	80.6	80.6	100.0	100.0	100.0	100.0
	48	70.6	70.6	100.0	100.0	100.0	100.0
	54	62.7	62.7	91.6	91.6	100.0	100.0
96	60	56.4	56.4	82.5	82.5	100.0	96.7
	66	51.3	51.3	75.0	75.0	100.0	94.7
	72	47.0	47.0	68.7	68.7	100.0	94.0
	24	88.9	88.9	100.0	100.0	100.0	100.0
108	30	71.1	71.1	100.0	100.0	100.0	100.0
	36	59.2	59.2	86.5	86.5	100.0	100.0
	42	50.8	50.8	74.2	74.2	100.0	100.0
	48	44.4	44.4	64.9	64.9	100.0	95.2
120	54	39.5	39.5	57.7	57.7	100.0	89.1
	60	35.5	35.5	51.9	51.9	90.8	84.6
	66	32.3	32.3	47.2	47.2	82.6	81.5
	72	29.6	29.6	43.3	43.3	75.7	75.7
132	24	59.5	59.5	87.0	87.0	100.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	100.0
	36	39.7	39.7	58.0	58.0	100.0	97.6
	42	34.0	34.0	49.7	49.7	86.9	86.9
144	48	29.8	29.8	43.5	43.5	76.0	76.0
	54	26.5	26.5	38.7	38.7	67.6	67.6
	60	-	-	34.8	34.8	60.8	60.8
	66	-	-	31.6	31.6	55.3	55.3
180	72	-	-	29.0	29.0	50.7	50.7

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

- ALL PRODUCTS TO BE USED WITH THESE MULLIONS MUST BE ALUMINUM CLAD WOOD FRAMED PRODUCTS MANUFACTURED BY HURD MILLWORK CO. AND MUST HOLD A DADE COUNTY IMPACT OR NON-IMPACT NOTICE OF ACCEPTANCE (N.O.A.)
- ALLOWABLE PRESSURE ON THE MULLED UNIT SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW/DOOR UNITS.
- FOR WINDOW OR DOOR FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT APPROVAL DRAWINGS FOR THE WINDOW/DOOR.
- MULLION LENGTHS ARE RESTRICTED BY THOSE SHOWN IN THE TABLES.
- THE LOADS IN THESE GRAPHS CONSIDER WORSE CASE OF MULLION STRESS, DEFLECTION AND END REACTION.
- ANY CONDITIONS NOT COVERED IN THIS APPROVAL SHALL BE SUBJECT TO SEPERATE ENGINEERING REVIEW.
- ALL TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM. ALL CONNECTION ANGLES SHALL BE 6063-T5 ALUMINUM
- ALL EMBEDMENTS SPECIFIED ARE TO BE BEYOND WALL FINISH.
- 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

**FIXED WINDOW TO FIXED WINDOW TABLE**

LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
108	24	41.8	41.8	61.1	61.1	100.0	100.0
	30	33.4	33.4	48.9	48.9	85.5	85.5
	36	27.9	27.9	40.7	40.7	71.2	71.2
	42	-	-	34.9	34.9	61.0	61.0
120	48	-	-	30.5	30.5	53.4	53.4
	54	-	-	27.1	27.1	47.5	47.5
	60	-	-	-	-	42.7	42.7
	66	-	-	-	-	38.8	38.8
132	72	-	-	-	-	35.6	35.6
	24	30.5	30.5	44.5	44.5	77.9	77.9
	30	24.4	24.4	35.6	35.6	62.3	62.3
	36	-	-	29.7	29.7	51.9	51.9
144	42	-	-	25.4	25.4	44.5	44.5
	48	-	-	-	-	38.9	38.9
	54	-	-	-	-	34.6	34.6
	60	-	-	-	-	31.1	31.1
180	66	-	-	-	-	28.3	28.3
	72	-	-	-	-	26.0	26.0
	24	-	-	33.5	33.5	58.5	58.5
	30	-	-	26.8	26.8	46.8	46.8
216	36	-	-	-	-	39.0	39.0
	42	-	-	-	-	33.4	33.4
	48	-	-	-	-	29.3	29.3
	54	-	-	-	-	26.0	26.0
240	60	-	-	25.8	25.8	45.1	45.1
	30	-	-	-	-	36.0	36.0
	36	-	-	-	-	30.0	30.0
	42	-	-	-	-	25.7	25.7

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
 CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.  
 NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

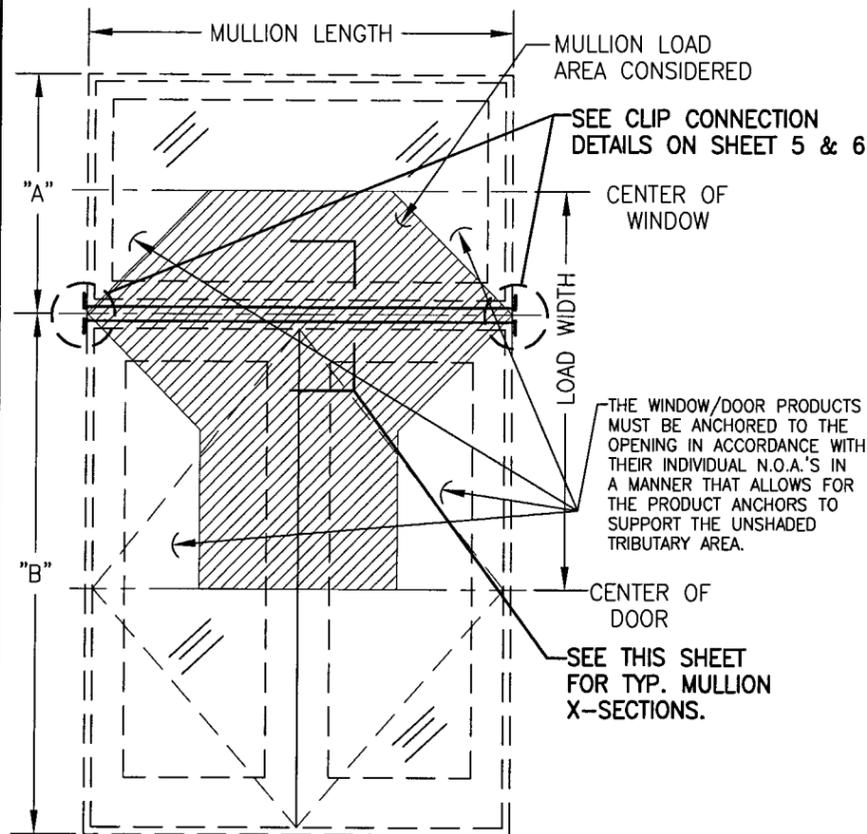
**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No 05-0822-05  
 Expiration Date February 14, 2007

By *[Signature]*  
 Miami Dade Product Control Division

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No 06-1201-04  
 Expiration Date FEB 14, 2012

By *[Signature]*  
 Miami Dade Product Control Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-24	DATE: 07/24/01
DATE 07/28/05	
BY W.W.S.	
NO. REVISION DESCRIPTION	
A1 UPDATE TO 2004 CODE	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>	
MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b>	
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CERTIFICATION JAN 18 2006	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1047A	REV. A
SHEET NO. 1 OF 6	



**DOUBLE DOOR WITH TRANSOM**  
LOAD WIDTH = (A + B)/2

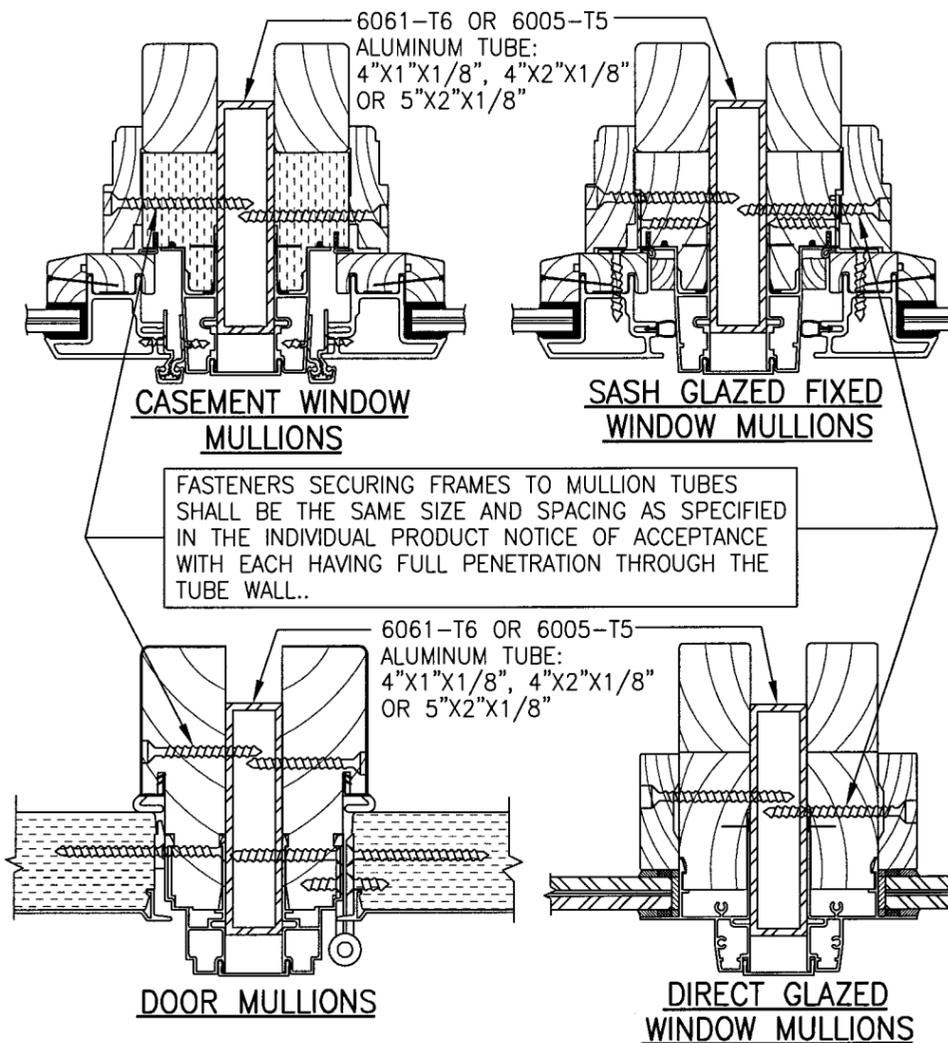
NOTE: "TRANSOM" MAY BE A SASH GLAZED FIXED WINDOW, DIRECT GLAZED FIXED WINDOW OR A FIXED DOOR PANEL UNDER SEPERATE APPROVAL.

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.  
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

DOUBLE DOOR WITH TRANSOM							
LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
48	78	100.0	100.0	100.0	100.0	100.0	100.0
	84	100.0	97.1	100.0	97.1	100.0	97.1
54	72	100.0	100.0	100.0	100.0	100.0	100.0
	84	98.1	93.0	100.0	93.0	100.0	93.0
60	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	97.5	97.5	100.0	100.0	100.0	100.0
	66	88.7	88.7	100.0	98.9	100.0	98.9
	72	81.3	81.3	100.0	90.7	100.0	90.7
66	78	75.0	75.0	100.0	83.7	100.0	83.7
	84	69.7	69.7	100.0	77.7	100.0	77.7
	48	91.6	91.6	100.0	100.0	100.0	100.0
	54	81.4	81.4	100.0	100.0	100.0	100.0
72	60	73.3	73.3	100.0	98.9	100.0	98.9
	66	66.6	66.6	97.3	89.9	100.0	89.9
	72	61.1	61.1	89.2	82.4	100.0	82.4
	78	56.4	56.4	82.4	76.1	100.0	76.1
78	84	52.3	52.3	76.5	70.6	95.0	70.6
	48	70.6	70.6	100.0	100.0	100.0	100.0
	54	62.7	62.7	91.6	91.6	100.0	100.0
	60	56.4	56.4	82.5	82.5	100.0	90.7
84	66	51.3	51.3	75.0	75.0	100.0	82.4
	72	47.0	47.0	68.7	68.7	100.0	75.6
	78	43.4	43.4	63.4	63.4	93.8	69.7
	84	40.3	40.3	58.9	58.9	87.1	64.8
84	48	55.5	55.5	81.1	81.1	100.0	100.0
	54	49.3	49.3	72.1	72.1	100.0	93.0
	60	44.4	44.4	64.9	64.9	100.0	83.7
	66	40.4	40.4	59.0	59.0	100.0	76.1
84	72	37.0	37.0	54.0	54.0	93.8	69.7
	78	34.1	34.1	49.9	49.9	86.6	64.4
	84	31.7	31.7	46.3	46.3	80.4	59.8
	48	44.4	44.4	64.9	64.9	100.0	97.1
84	54	39.5	39.5	57.7	57.7	100.0	86.3
	60	35.5	35.5	51.9	51.9	90.8	77.7
	66	32.3	32.3	47.2	47.2	82.6	70.6
	72	29.6	29.6	43.3	43.3	75.7	64.8
84	78	27.3	27.3	39.9	39.9	69.9	59.8
	84	25.4	25.4	37.1	37.1	64.9	55.5

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"



**TYPICAL MULLION CONDITIONS**

NOTE: PRODUCTS CAN BE INTERMIXED & ARE NOT LIMITED TO THOSE SHOWN. PRODUCTS USED WITH THE MULLIONS MUST BE ALUMINUM CLAD WOOD WINDOW/DOOR PRODUCTS MANUFACTURED BY HURD MILLWORK CO. & MUST HOLD A MIAMI-DADE COUNTY "NOTICE OF ACCEPTANCE"

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
Acceptance No 06-1201-04  
Expiration Date FEB 14, 2012  
By *Isaac J. Llaude*  
Miami Dade Product Control  
Division

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No 05-0822-05  
Expiration Date February 14, 2007  
By *Warren W. Schaeffer*  
Miami Dade Product Control  
Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	BY
REVISION DESCRIPTION	NO.

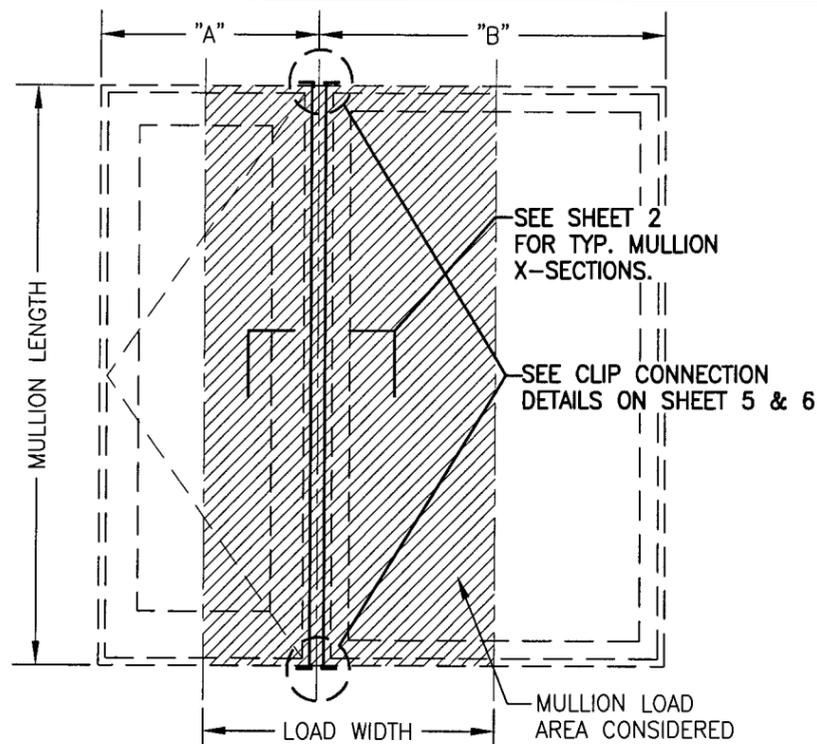
**CLIPPED IMPACT & NON-IMPACT ALUMINUM TUBE MULLIONS**

MANUFACTURER  
**HURD WINDOWS & DOORS, INC.**  
575 S. WHELEN AVE.  
MEDFORD, WI 54451  
800-433-4873

CONSULTANTS  
**W. W. SCHAEFFER ENGINEERING & CONSULTING, P.A.**  
600 SANDTREE DRIVE, SUITE 203B  
PALM BEACH GARDENS, FL 33403  
PHONE: 561-775-4902 FAX: 561-775-4903

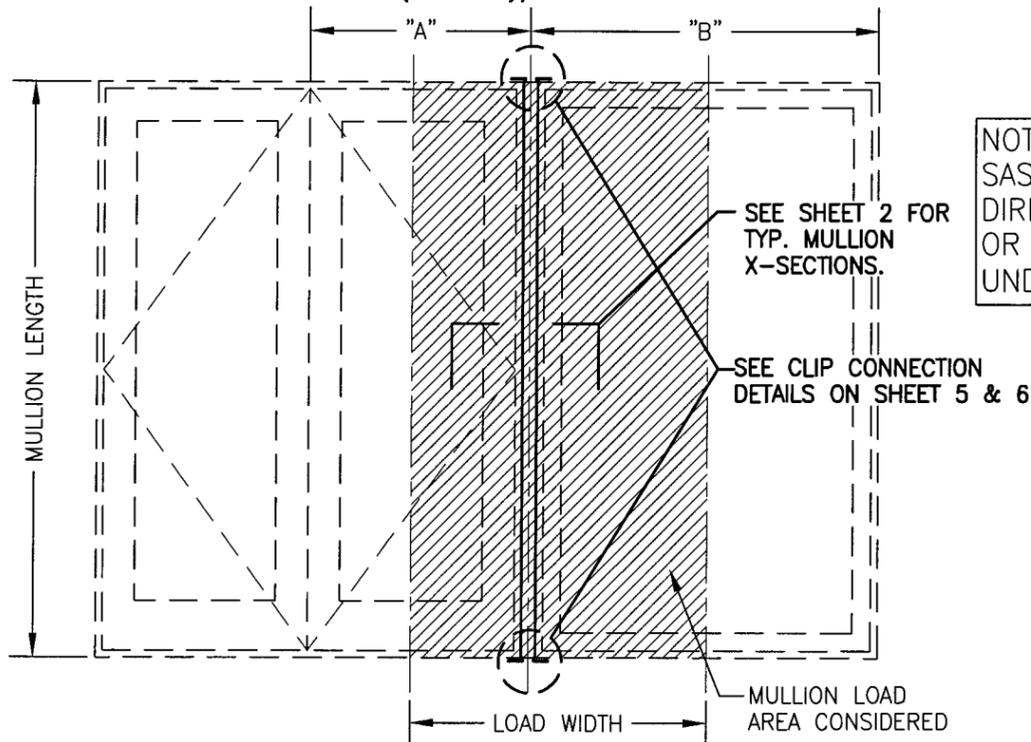
CERTIFICATION  
JAN 18 2006  
WARREN W. SCHAEFFER, P.E.  
P.E. NO. 44135

DRAWING NO. 1047A  
REV. A  
SHEET NO. 2 OF 6



CENTER OF DOOR OR WINDOW      CENTER OF WINDOW  
**SINGLE DOOR OR CASEMENT WITH SIDELIGHT,  
 DOOR TO DOOR OR CASEMENT TO CASEMENT**

$LOAD\ WIDTH = (A + B)/2$



CENTER OF DOOR PANEL      CENTER OF WINDOW  
**DOUBLE DOOR W/SIDELIGHT OR DOUBLE DOOR TO DOOR**

$LOAD\ WIDTH = (A + B)/2$

NOTE: "SIDELIGHT" MAY BE A SASH GLAZED FIXED WINDOW, A DIRECT GLAZED FIXED WINDOW, OR A FIXED DOOR PANEL UNDER SEPERATE APPROVAL.

NOTE: IF DOOR IS MULLED TO DOOR, DIMENSION "B" WILL BE HALF THE WIDTH OF THE DOOR PANEL AS WITH DIMENSION "A".

DOOR OR CASEMENT WITH SIDELIGHT							
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
48	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	95.2	100.0	95.2	100.0	95.2
54	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	94.0	100.0	94.0	100.0	94.0
	60	100.0	84.6	100.0	84.6	100.0	84.6
60	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	95.2	100.0	95.2	100.0	95.2
	54	100.0	84.6	100.0	84.6	100.0	84.6
66	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	98.9	100.0	98.9	100.0	98.9
	48	91.6	86.5	100.0	86.5	100.0	86.5
	54	81.4	76.9	100.0	76.9	100.0	76.9
72	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.1	100.0	100.0	100.0	100.0
	42	80.6	80.6	100.0	90.7	100.0	90.7
	48	70.6	70.6	100.0	79.3	100.0	79.3
72	54	62.7	62.7	91.6	70.5	94.8	70.5
	60	56.4	56.4	82.5	63.5	85.3	63.5

DOOR OR CASEMENT WITH SIDELIGHT							
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
78	24	100.0	100.0	100.0	100.0	100.0	100.0
	30	88.8	88.8	100.0	100.0	100.0	100.0
	36	74.0	74.0	100.0	97.6	100.0	97.6
	42	63.4	63.4	92.7	83.7	100.0	83.7
	48	55.5	55.5	81.1	73.2	98.5	73.2
80	54	49.3	49.3	72.1	65.1	87.5	65.1
	60	44.4	44.4	64.9	58.6	78.8	58.6
	24	100.0	100.0	100.0	100.0	100.0	100.0
	30	82.3	82.3	100.0	100.0	100.0	100.0
	36	68.6	68.6	100.0	95.2	100.0	95.2
84	42	58.8	58.8	85.9	81.6	100.0	81.6
	48	51.4	51.4	75.1	71.4	96.0	71.4
	54	45.7	45.7	66.8	63.5	85.3	63.5
	60	41.1	41.1	60.1	57.1	76.8	57.1
	24	88.9	88.9	100.0	100.0	100.0	100.0
92	30	71.1	71.1	100.0	100.0	100.0	100.0
	36	59.2	59.2	86.5	86.5	100.0	90.7
	42	50.8	50.8	74.2	74.2	100.0	77.7
	48	44.4	44.4	64.9	64.9	91.4	68.0
	54	39.5	39.5	57.7	57.7	81.3	60.4
96	60	35.5	35.5	51.9	51.9	73.1	54.4
	24	67.6	67.6	98.8	98.8	100.0	100.0
	30	54.1	54.1	79.1	79.1	100.0	99.3
	36	45.1	45.1	65.9	65.9	100.0	82.8
	42	38.7	38.7	56.5	56.5	95.4	71.0
96	48	33.8	33.8	49.4	49.4	83.5	62.1
	54	30.1	30.1	43.9	43.9	74.2	55.2
	60	27.1	27.1	39.5	39.5	66.8	49.7
	24	59.5	59.5	87.0	87.0	100.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	95.2
96	36	39.7	39.7	58.0	58.0	100.0	79.3
	42	34.0	34.0	49.7	49.7	86.9	68.0
	48	29.8	29.8	43.5	43.5	76.0	59.5
	54	26.5	26.5	38.7	38.7	67.6	52.9
	60	23.8	23.8	34.8	34.8	60.8	47.6

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

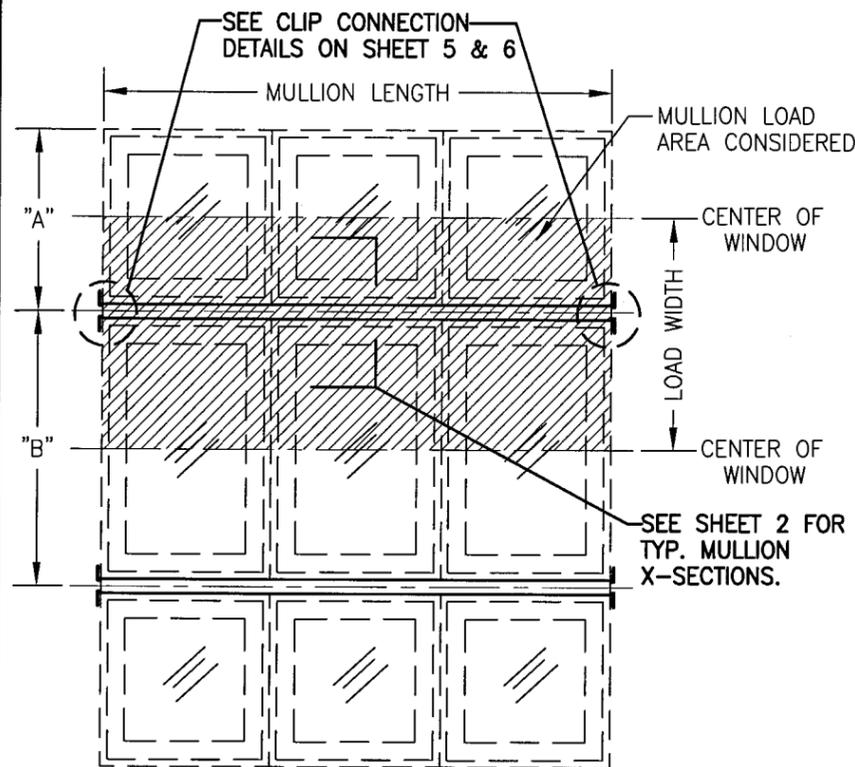
CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
 CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.

NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 06-1201-04  
 Expiration Date FEB 14, 2012  
 By Isling I. Chanda  
 Miami Dade Product Control Division

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No. 05-0822-05  
 Expiration Date February 14, 2007  
 By [Signature]  
 Miami Dade Product Control Division

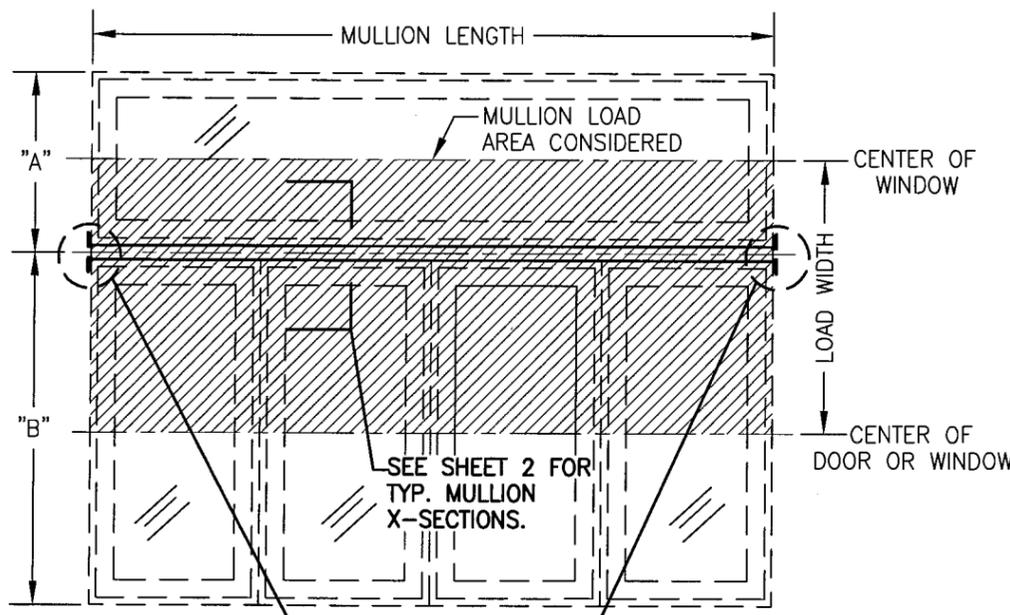
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
CERTIFICATION JAN 18 2006 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. 1047A REV. A SHEET NO. 3 OF 6



**MULTIPLE WINDOWS (HORIZONTAL MULLION)**

LOAD WIDTH = (A + B)/2

MULLIONS MAY BE HORIZONTAL OR VERTICAL



**MULTIPLE WINDOWS/DOORS WITH TRANSOM**

LOAD WIDTH = (A + B)/2

TRANSOM MAY BE SINGLE OR MULTIPLE WINDOWS

MULTIPLE WINDOWS/DOORS							
LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
36	66	100.0	100.0	100.0	100.0	100.0	100.0
	72	100.0	100.0	100.0	100.0	100.0	100.0
	78	100.0	97.6	100.0	97.6	100.0	97.6
42	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	100.0	100.0	100.0	100.0	100.0
	66	100.0	98.9	100.0	98.9	100.0	98.9
	72	100.0	90.7	100.0	90.7	100.0	90.7
48	78	100.0	83.7	100.0	83.7	100.0	83.7
	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	95.2	100.0	95.2	100.0	95.2
54	66	100.0	86.5	100.0	86.5	100.0	86.5
	72	100.0	79.3	100.0	79.3	100.0	79.3
	78	98.5	73.2	98.5	73.2	98.5	73.2
	42	100.0	100.0	100.0	100.0	100.0	100.0
60	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	94.0	100.0	94.0	100.0	94.0
	60	100.0	84.6	100.0	84.6	100.0	84.6
	66	100.0	76.9	100.0	76.9	100.0	76.9
72	72	94.8	70.5	94.8	70.5	94.8	70.5
	78	87.5	65.1	87.5	65.1	87.5	65.1
	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	100.0	100.0	100.0	100.0	100.0
84	48	100.0	95.2	100.0	95.2	100.0	95.2
	54	100.0	84.6	100.0	84.6	100.0	84.6
	60	97.5	76.2	100.0	76.2	100.0	76.2
	66	88.7	69.2	93.1	69.2	93.1	69.2
96	72	81.3	63.5	85.3	63.5	85.3	63.5
	78	75.0	58.6	78.8	58.6	78.8	58.6
	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.1	100.0	100.0	100.0	100.0
108	42	80.6	80.6	100.0	90.7	100.0	90.7
	48	70.6	70.6	100.0	79.3	100.0	79.3
	54	62.7	62.7	91.6	70.5	94.8	70.5
	60	56.4	56.4	82.5	63.5	85.3	63.5
120	66	51.3	51.3	75.0	57.7	77.6	57.7
	72	47.0	47.0	68.7	52.9	71.1	52.9
	78	43.4	43.4	63.4	48.8	65.6	48.8
	24	88.9	88.9	100.0	100.0	100.0	100.0
132	30	66.6	66.6	97.4	97.4	100.0	100.0
	36	59.2	59.2	86.5	86.5	100.0	90.7
	42	50.8	50.8	74.2	74.2	100.0	77.7
	48	44.4	44.4	64.9	64.9	91.4	68.0
144	54	39.5	39.5	57.7	57.7	81.3	60.4
	60	35.5	35.5	51.9	51.9	73.1	54.4
	66	32.3	32.3	47.2	47.2	66.5	49.5
	72	29.6	29.6	43.3	43.3	61.0	45.3
84	78	27.3	27.3	39.9	39.9	56.3	41.8

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

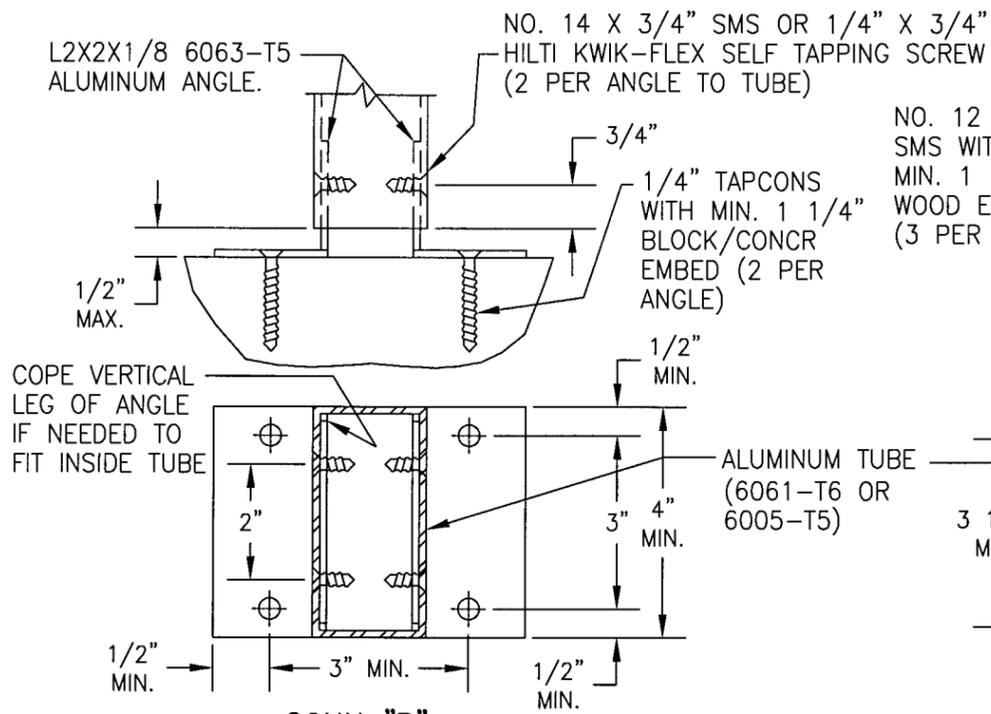
MULTIPLE WINDOWS/DOORS							
LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
96	24	59.5	59.5	87.0	87.0	100.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	95.2
	36	39.7	39.7	58.0	58.0	100.0	79.3
	42	34.0	34.0	49.7	49.7	86.9	68.0
	48	29.8	29.8	43.5	43.5	76.0	59.5
	54	26.5	26.5	38.7	38.7	67.6	52.9
108	60	-	-	34.8	34.8	60.8	47.6
	66	-	-	31.6	31.6	55.3	43.3
	72	-	-	29.0	29.0	50.7	39.7
	78	-	-	26.8	26.8	46.8	36.6
	24	41.8	41.8	61.1	61.1	100.0	100.0
	30	33.4	33.4	48.9	48.9	85.5	84.6
120	36	27.9	27.9	40.7	40.7	71.2	70.5
	42	23.9	23.9	34.9	34.9	61.0	60.4
	48	-	-	30.5	30.5	53.4	52.9
	54	-	-	27.1	27.1	47.5	47.0
	60	-	-	24.4	24.4	42.7	42.3
	66	-	-	-	-	38.8	38.5
132	72	-	-	-	-	35.6	35.3
	78	-	-	-	-	32.9	32.5
	24	30.5	30.5	44.5	44.5	77.9	77.9
	30	24.4	24.4	35.6	35.6	62.3	62.3
	36	-	-	29.7	29.7	51.9	51.9
	42	-	-	25.4	25.4	44.5	44.5
144	48	-	-	-	-	38.9	38.9
	54	-	-	-	-	34.6	34.6
	60	-	-	-	-	31.1	31.1
	66	-	-	-	-	28.3	28.3
	72	-	-	-	-	26.0	26.0
	24	-	-	33.5	33.5	58.5	58.5
84	30	-	-	26.8	26.8	46.8	46.8
	36	-	-	-	-	39.0	39.0
	42	-	-	-	-	33.4	33.4
	48	-	-	-	-	29.3	29.3
96	54	-	-	-	-	26.0	26.0
	24	-	-	25.8	25.8	45.1	45.1
	30	-	-	-	-	36.0	36.0
	36	-	-	-	-	30.0	30.0
108	42	-	-	-	-	25.7	25.7

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
 CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.  
 NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

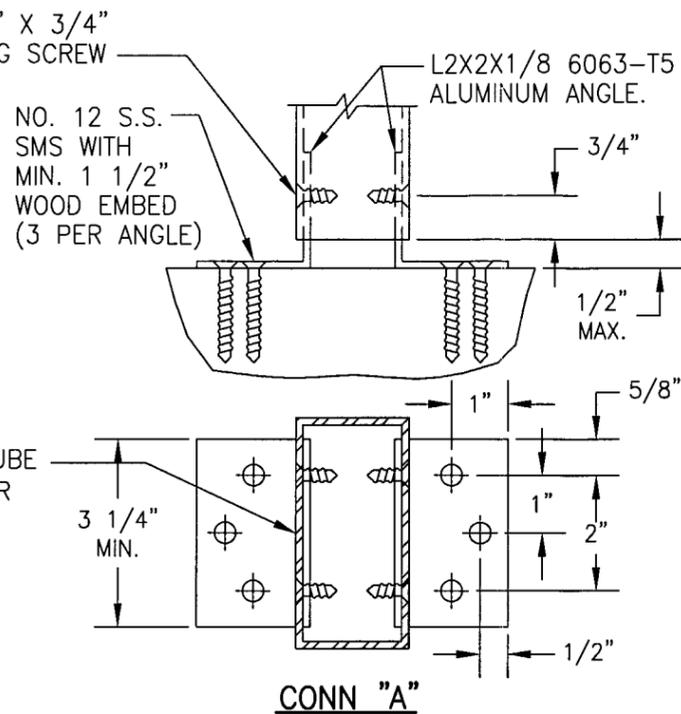
**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 06-1201-04  
 Expiration Date FEB 14, 2012  
 By *Ishaq I. Chanda*  
 Miami Dade Product Control Division

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No. 05-0822-05  
 Expiration Date FEBRUARY 14, 2007  
 By *[Signature]*  
 Miami Dade Product Control Division

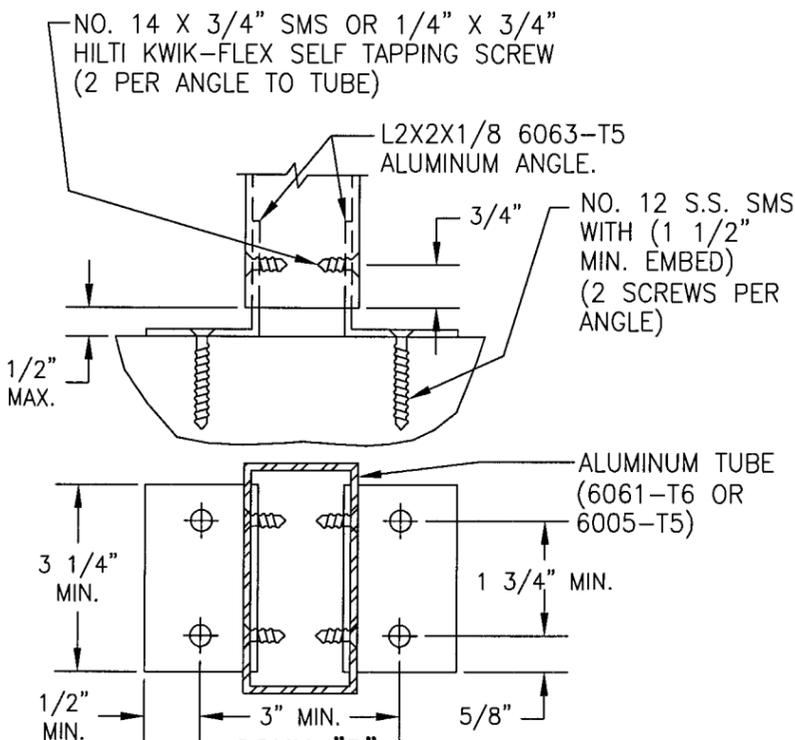
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>	MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b>
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CERTIFICATION JAN 18 2005	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1047A	REV. A
SHEET NO. 4 OF 6	



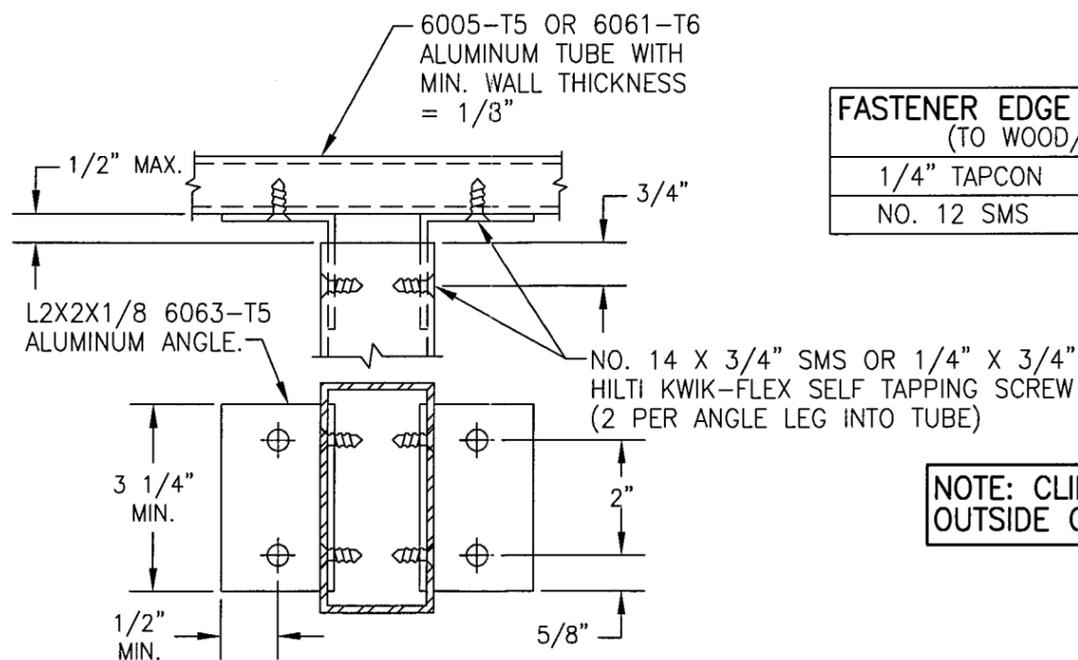
**CONN "B"**  
(INTO BLOCK OR CONCRETE)



**CONN "A"**  
(INTO WOOD)  
MIN. NO. 2 SOUTHERN PINE (G=0.55)



**CONN "B"**  
(INTO WOOD)  
WOOD = MIN. NO. 2 SOUTHERN PINE (G=0.55)



TYP. TUBE TO TUBE CONNECTION

FASTENER EDGE DISTANCE REQUIRED (TO WOOD/CONCR./BLOCK)	
1/4" TAPCON	2 1/4"
NO. 12 SMS	3/4"

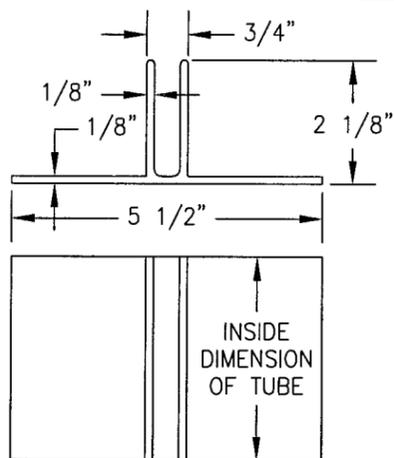
NOTE: CLIPS MAY BE PLACED INSIDE OR OUTSIDE OF THE TUBE.

**MULLION END CONNECTION DETAILS  
USING CLIP ANGLES**

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No 06-1201.04  
Expiration Date FEB 14, 2012  
By Ishag I. Lhanda  
Miami Dade Product Control  
Division

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 05-0822.05  
Expiration Date February 14, 2007  
By Warren W. Schaefer  
Miami Dade Product Control  
Division

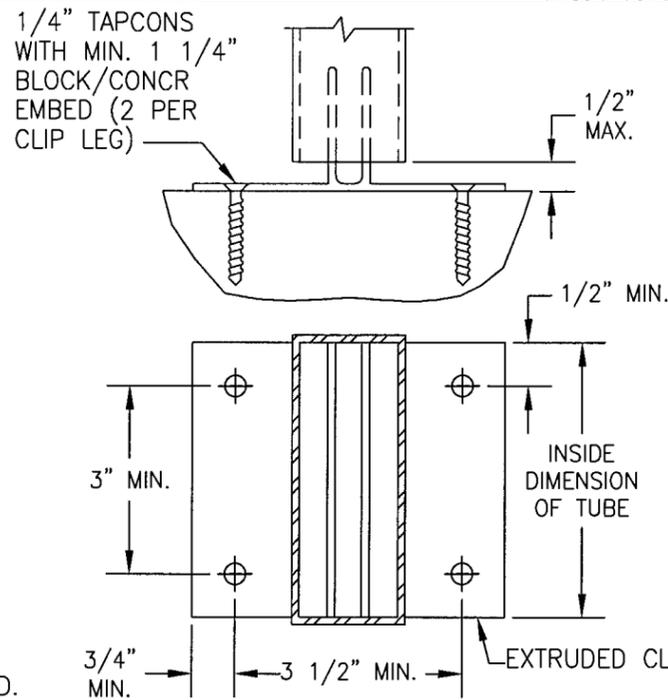
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=3	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
CERTIFICATION JAN 18 2006 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. REV. 1047A A SHEET NO. 5 OF 6



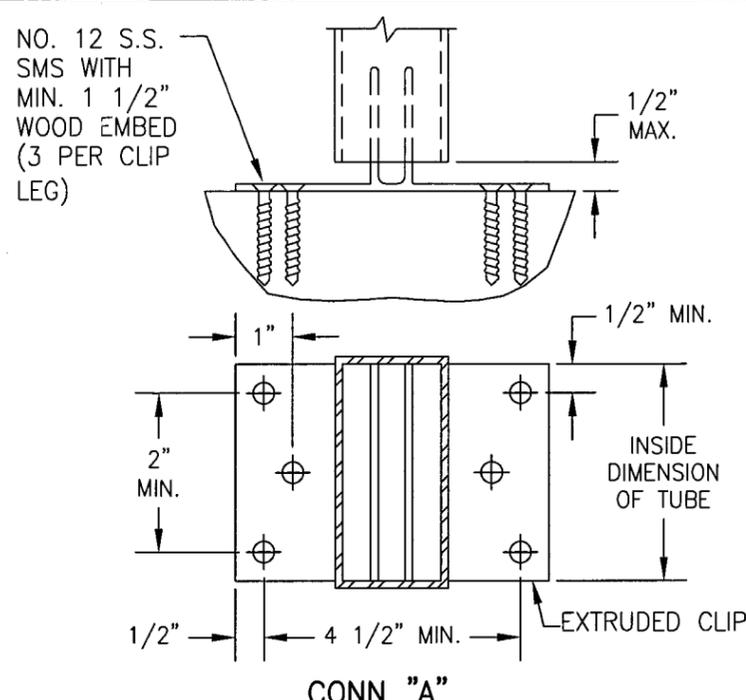
**EXTRUDED CLIP**  
6063-T5 ALUMINUM

**INSTALLATION INSTRUCTION:**

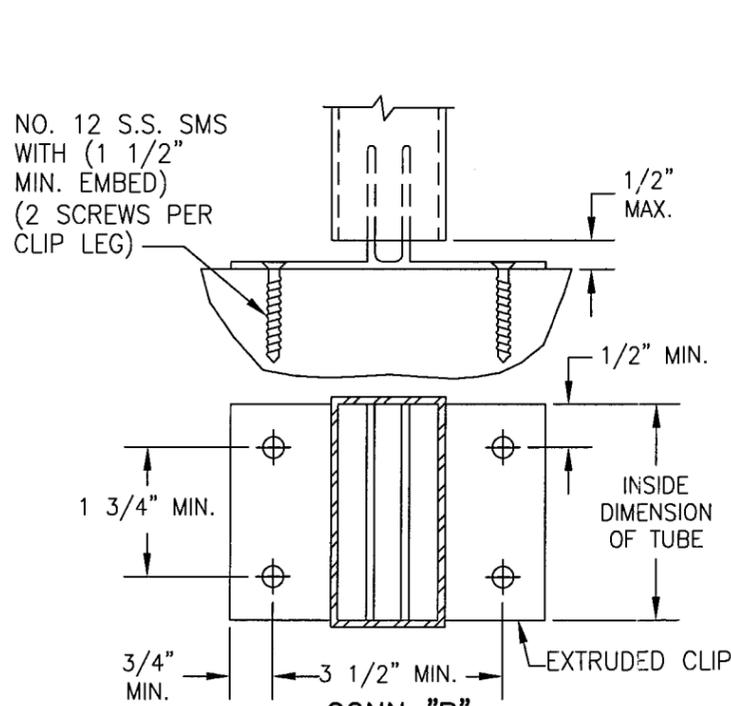
1. SLIP CLIP INTO TUBE (CLIP MUST BE CUT TO THE INSIDE DIMENSION OF THE TUBE & BE CENTERED WITH THE TUBE). NOTE THAT NO SCREWING OF TUBE TO CLIP IS REQUIRED.
2. SECURE CLIP TO STRUCTURE USING FASTENING METHOD DESCRIBED WITH EACH CONNECTION TYPE "A" & "B" AND THE APPLICABLE OPTION CONSIDERING ALL DIMENSION REQUIREMENTS SPECIFIED AS MIN & MAX.



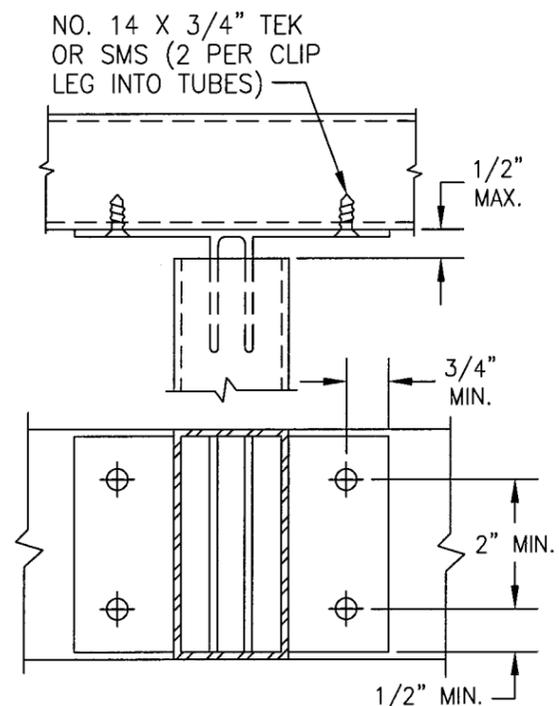
**CONN "B"**  
**(INTO BLOCK OR CONCRETE)**  
IF REQUIRED TO FIT INSIDE A 4" TUBE,  
THE VERTICAL LEGS MAY BE TRIMMED  
TO FIT INSIDE THE TUBE.



**CONN "A"**  
**(INTO WOOD)**  
MIN. NO. 2 SOUTHERN PINE (G=0.55)



**CONN "B"**  
**(INTO WOOD)**  
WOOD = MIN. NO. 2 SOUTHERN PINE (G=0.55)



**TYP. TUBE TO TUBE CONNECTION**

FASTENER EDGE DISTANCE REQUIRED (TO WOOD/CONCR./BLOCK)	
1/4" TAPCON	2 1/4"
NO. 12 SMS	3/4"

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
Acceptance No. 06-1201-04  
Expiration Date FEB 14, 2012

By *Ismael L. Chande*  
Miami Dade Product Control  
Division

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. 05-0822-05  
Expiration Date February 14, 2007

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

**MULLION END CONNECTION DETAILS**  
**USING EXTRUDED CLIP**

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. HELEN AVE. MEDFORD, WI 54451 800-433-4873	CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903
CERTIFICATION JAN 18 2016	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1047A	REV. A
SHEET NO. 6	OF 6