



**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**

NOTICE OF ACCEPTANCE (NOA)

**Weather Shield Manufacturing, Inc.
1 Weather Shield Plaza (P O Box 309)
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 has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Aluminum Tube Mullion – Impact Resistant

APPROVAL DOCUMENT: Drawing No. 1580, titled “Aluminum Tube Clipped Mullion”, sheet 1 thru 6 of 6, dated 05/16/08, 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 Revised 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 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.

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 and revises** NOA # 03-0327.07 and consists of this page 1 as well as approval document mentioned above.

The submitted documentation was reviewed by **Fitz A. Harris, P.E.**



Fitz A. Harris

**NOA No 08-0512.14
Expiration Date: July 17, 2009
Approval Date: September 18, 2008
Page 1**

Weather Shield Manufacturing, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

(For File ONLY. Not part of NOA)

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **1580**, titled "Aluminum Tube Clipped Mullion", prepared by W.W. Schaefer Engineering & Consulting, P.A., dated May, 16, 2008, signed and sealed by Warren W. Schaefer, P.E.

B. TESTS

(Test report submitted under original file No.98-1110.07)

1. Test reports on 1) Large Missile Impact Test, per PA 201-94
2) Cyclic Wind Pressure Test,, per PA 203-94
prepared by Hurricane Testing Laboratory, Inc., Test report No. **HTL-0037-0304-98**, dated 03/05/98, signed and sealed by Timothy S. Marshall, P.E.

(Test reports submitted under original file No. 96-0725.07)

2. Test reports on 1) Uniform Static Air Pressure Test, Loading per PA 202-94 along with installation diagram of window prepared by Hurricane Engineering & Testing Inc., Test Report No. **ATI-19399-N**, dated February 17, 1997 signed and sealed by Allen N. Reeves, P.E.

C. CALCULATIONS

1. Structural mullion and anchorage calculations prepared by W.W. Schaefer Engineering & Consulting, P.A. dated 05/16/2008, signed and sealed by Warren W. Schaefer, P.E.

D. MATERIAL CERTIFICATIONS

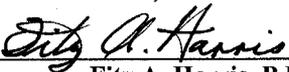
1. None.

E. STATEMENTS

1. **Letter from Weather Shield stating that the product has not changed since it was last approved, dated on July 31, 2008, signed by Pam Stake**
2. **Letter from W.W. Schaefer Engineering and Consulting P.A. dated, signed and sealed on May 16, 2008 stating that he is the new product engineer.**
3. **Letter from Stork Twin City Testing Laboratory stating that they have been contracted to carry out the testing for renewal after this one year renewal.**

F. OTHER

1. This NOA renews and revises Notice of Acceptance No. **03-0327.07**, which was issued on 09/11/03, and expires on 07/17/08.



Fitz A. Harris, P.E.

Product Control Examiner

NOA No 08-0512.14

Expiration Date: July 17, 2009

Approval Date : September 18, 2008

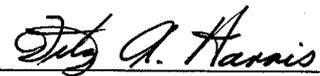
Weather Shield Manufacturing, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED
(For File ONLY. Not part of NOA)

2. The following results were obtained in the original submittal No. 96-0725.07:

TEST	TEST LOADS	DESIGN LOADS
UNIFORM STATIC PRESSURE SFBC PA 202-94 POSITIVE	AT DESIGN LOADS +54.0 PSF ATI-19399-N	+54.0 PSF ATI-19399-N
UNIFORM STATIC PRESSURE ASTM E330 PA 202-94 POSITIVE	AT FULL TEST LOAD +81.0 PSF ATI-19399-N	+81.0 PSF ATI-19399-N

This is a verification test only. For Design Pressure Rating vs. Mullion length, and for Design Pressure Rating vs. Anchor type, see "Load Tables" and "Mullion End Connection Details" on sheets 4,5,6 & 3 of 6 of Drawing No. 1580, bearing the Dade County Product Control approval stamp.



Fitz A. Harris, P.E.

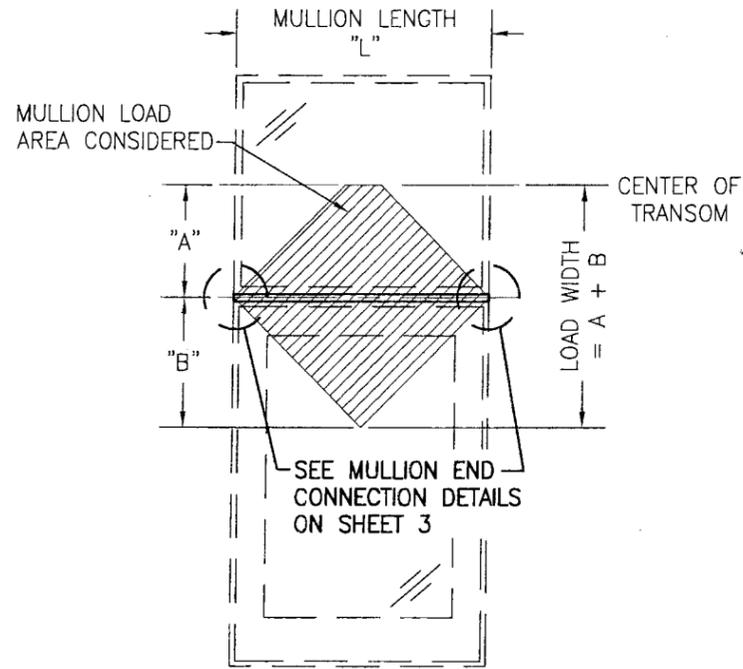
Product Control Examiner

NOA No 08-0512.14

Expiration Date: July 17, 2009

Approval Date: September 18, 2008

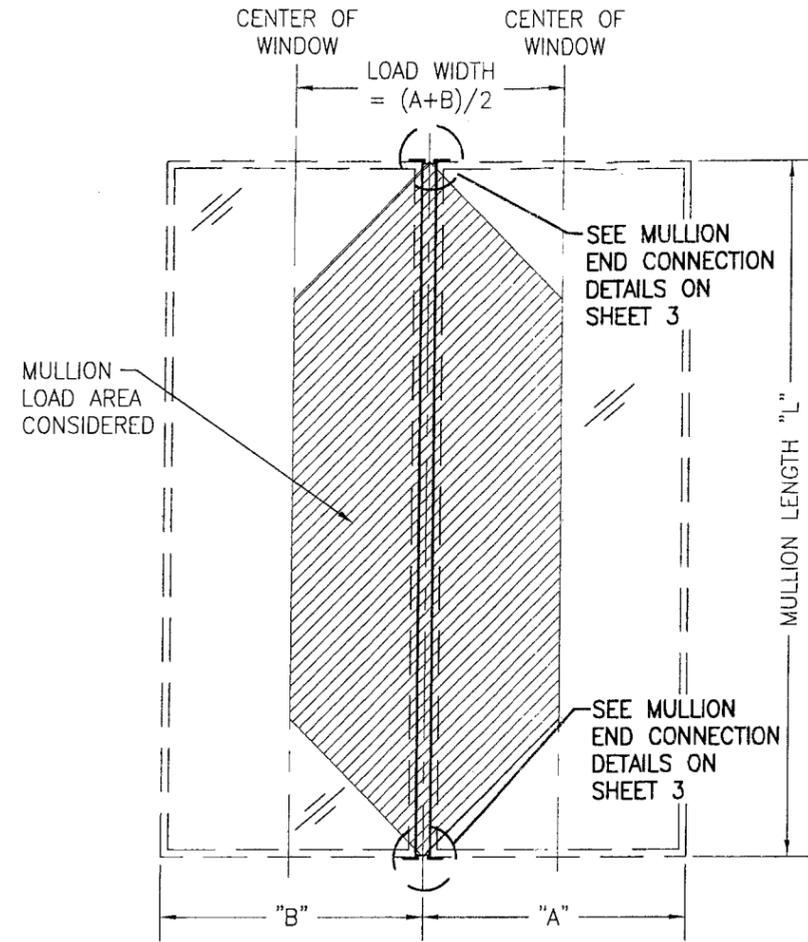
NOTE: THIS MULLION DRAWING IS ACCEPTABLE FOR USE ONLY WITH PRODUCTS SUPPLIED BY THE MANUFACTURER/DISTRIBUTOR LISTED ON THIS DRAWING



"A" = LESSER OF (L/2) OR (TRANSOM HEIGHT/2)
 "B" = L/2

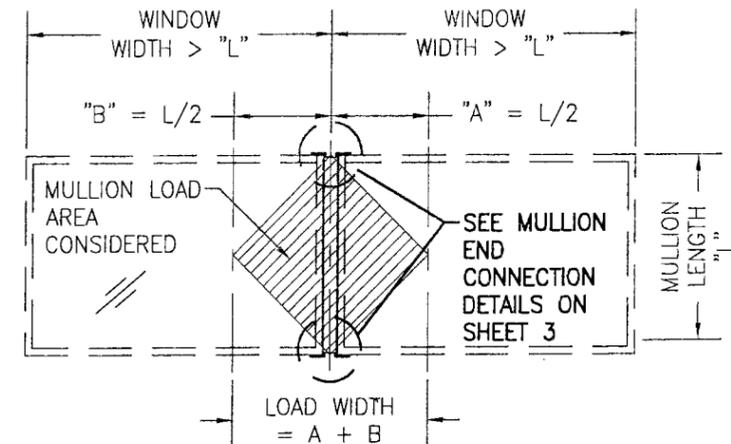
SINGLE WINDOW OR DOOR WITH FIXED TRANSOM
 (SEE LOAD TABLE 1.0)

(WINDOW/DOOR MAY BE ANY FIXED OR OPERABLE UNIT)
 (MULLION MAY BE HORIZONTAL OR VERTICAL)

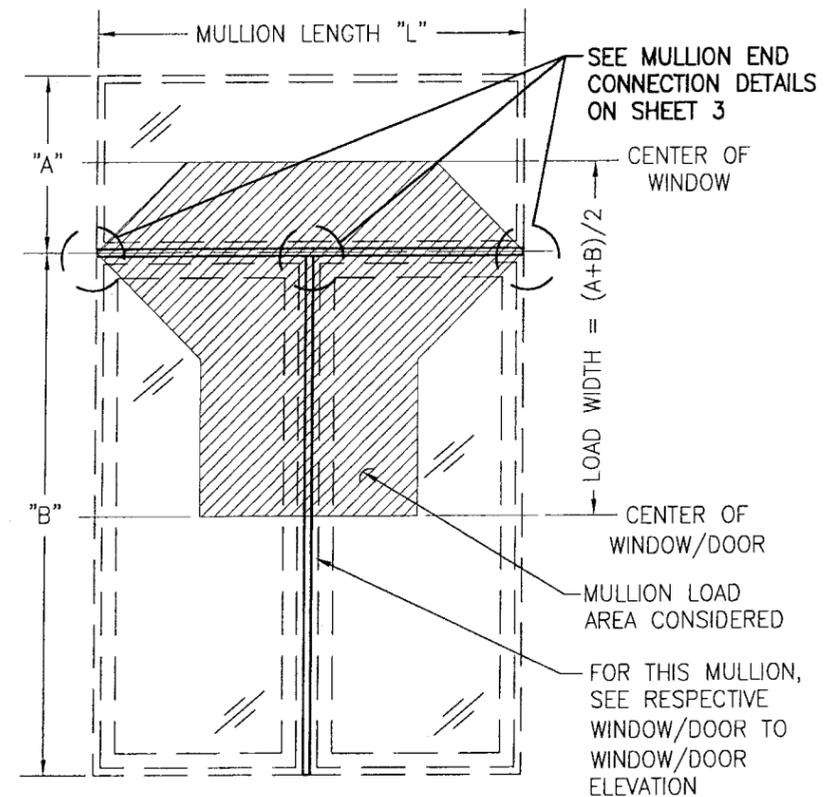


FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE LESS THAN OR EQUAL TO THE MULLION LENGTH
 (SEE LOAD TABLE 1.0)

(MULLION MAY BE HORIZONTAL OR VERTICAL)



FIXED WINDOW TO FIXED WINDOW WHEN WINDOW WIDTHS ARE GREATER THAN THE MULLION LENGTH
 (SEE LOAD TABLE 1.0)



TWO(2) SINGLE DOORS OR WINDOWS WITH A SINGLE FIXED TRANSOM
 (SEE LOAD TABLE 2.0)

(DOORS/WINDOWS MAY BE OPERABLE OR FIXED)

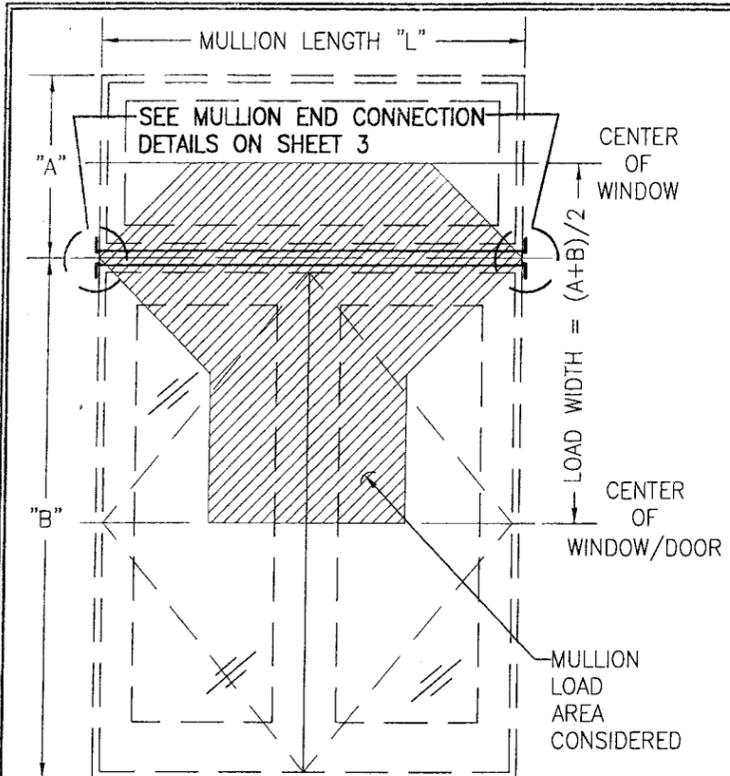
NOTE: ATTACHMENT OF WINDOW/DOOR FRAME TO MULLIONS SHALL BE AS REQUIRED BY THE INDIVIDUAL WINDOW/DOOR N.O.A. FOR ATTACHMENT TO BUCK/OPENING EXCEPT THAT SPECIFIED FRAME SCREWS MUST BE EQUIVALENT SIZE SMS SCREWS PREDILLED INTO TUBE OR SELF TAPPING/DRILLING SCREWS

GENERAL NOTES:

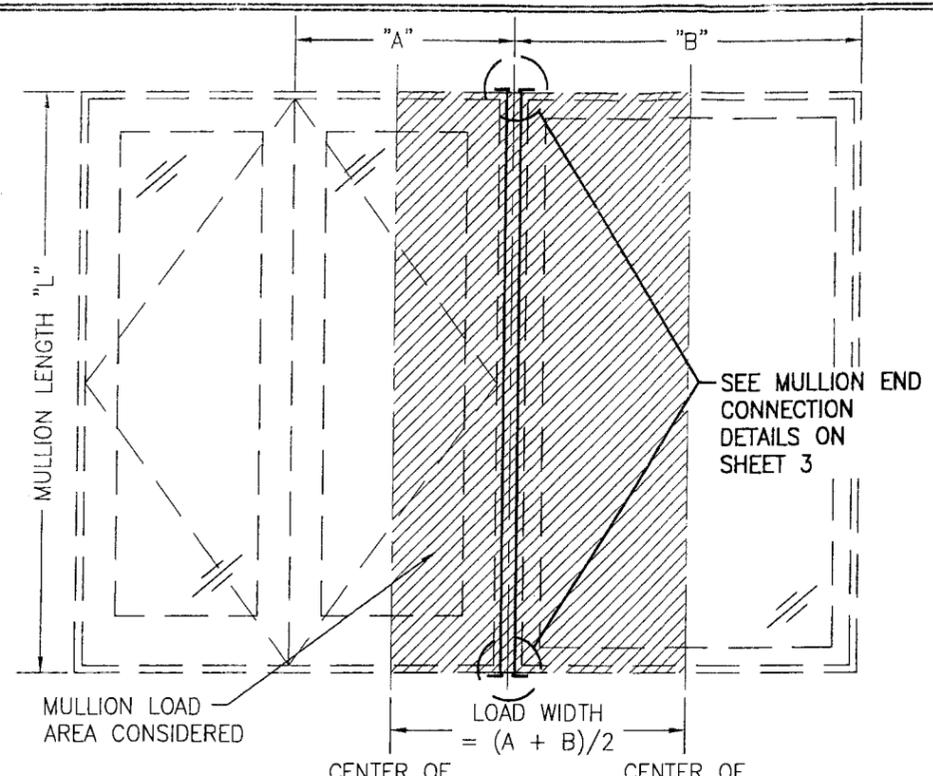
- DOORS & WINDOWS SHALL BE UNDER SEPERATE N.O.A. SEE THE PRODUCTS SPECIFIC N.O.A. FOR THEIR USE.
- THESE MULLION SYSTEMS HAVE BEEN ANALYZED AND CERTIFIED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES.
- OPENINGS, INCLUDING BUCKS (IF USED AS SUPPORT), MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS END REACTIONS & SUPPORTED WINDOWS/DOORS.
- ALL MATERIALS & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
- THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT MULLIONS.
- THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
- ALLOWABLE PRESSURE ON THE MULLED UNIT SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION, THE MULLION END CONNECTION OR THE INDIVIDUAL DOOR/WINDOW UNITS.
- INDIVIDUAL WINDOW/DOOR UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "CERTIFICATION".
- FOR WINDOW OR DOOR FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT N.O.A. DRAWINGS/SPECIFICATIONS FOR THE WINDOW/DOOR.
- MULLION LENGTHS ARE RESTRICTED BY THOSE SHOWN IN THE TABLES.
- THE LOADS IN THESE TABLES CONSIDER WORSE CASE OF MULLION STRESS, DEFLECTION AND END REACTION.
- ANY CONDITIONS NOT COVERED IN THIS CERTIFICATION SHALL BE SUBJECT TO SEPERATE ENGINEERING REVIEW.
- ALL TUBES SHALL BE 6063-T6 ALUMINUM. ALL CONNECTION ANGLES SHALL BE MIN. 6063-T5 ALUMINUM.
- ALL EMBEDMENTS SPECIFIED ARE TO BE BEYOND WALL FINISH.
- MULLION TUBES MUST BE CONTINUOUS FROM END TO END.
- WHEN VERTICALLY STACKED, THE MANUFACTURER/INSTALLER SHALL INSURE THAT THE DEAD WEIGHT OF THE ABOVE WINDOWS WILL NOT CAUSE UNDO STRESS ON THE BELOW WINDOWS. THESE MULLIONS ARE DESIGNED TO SUPPORT WIND LOAD ONLY & ARE NOT CONSIDERED TO SUPPORT DEAD LOAD OF THE WINDOWS/DOORS.
- THESE MULLIONS ARE ACCEPTABLE FOR USE WITH IMPACT & NON-IMPACTED RATED WINDOWS & DOORS.
- ALL ANCHORS SECURING MULLIONS TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
- DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTION 2.0 OF THE ASCE 7 STANDARD.
- NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW ANALYSIS ONLY.
- MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 08-051214
 Expiration Date 7-17-2009
 By *Jill Harris*
 Miami Dade Product Control
 Division

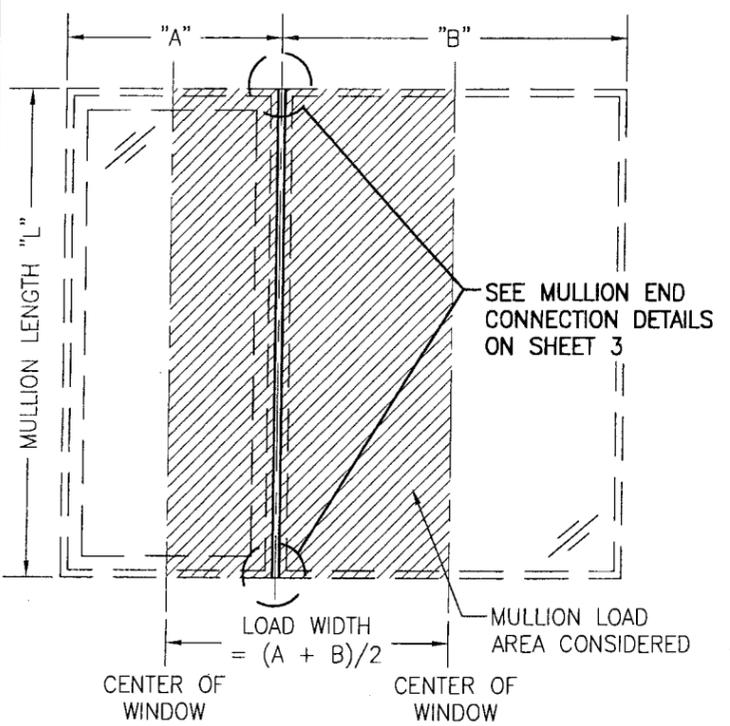
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 05/16/08
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE ALUMINUM TUBE CLIPPED MULLION	
MANUFACTURER WEATHER SHIELD WINDOWS & DOORS ONE WEATHER SHIELD PLAZA MEDFORD, WI 54451 715-748-6555	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING NO. 1580 SHEET NO. 1 OF 6	
CERTIFICATION MAY 22 2008 WARRON W. SCHAEFER, P.E. P.E. NO. 44135	



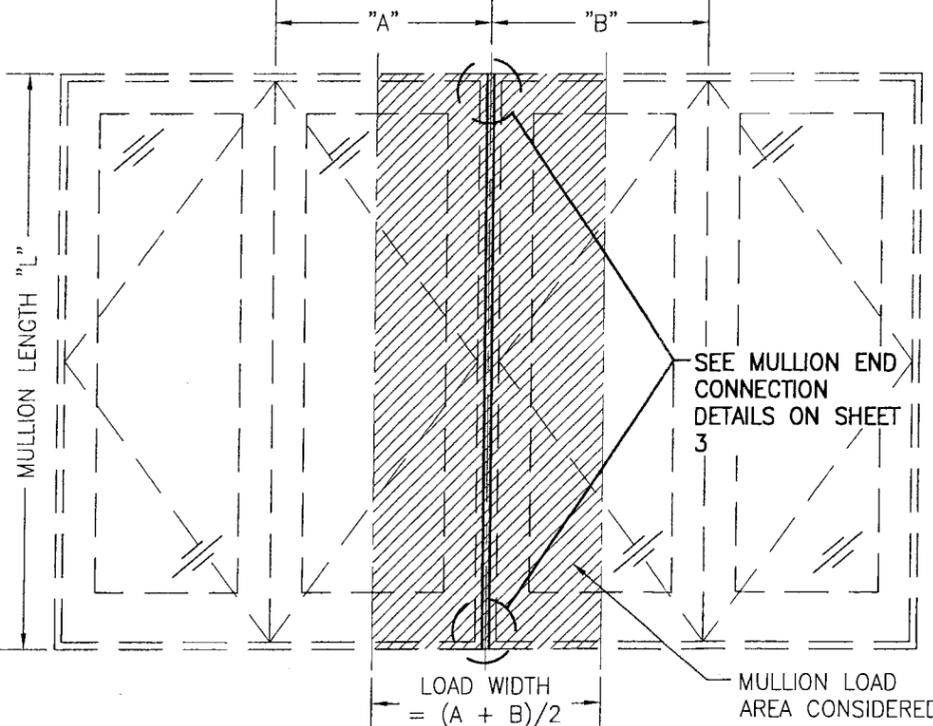
DOUBLE PANEL DOOR OR CASEMENT WINDOW WITH A SINGLE FIXED TRANSOM
(SEE LOAD TABLE 2.0)



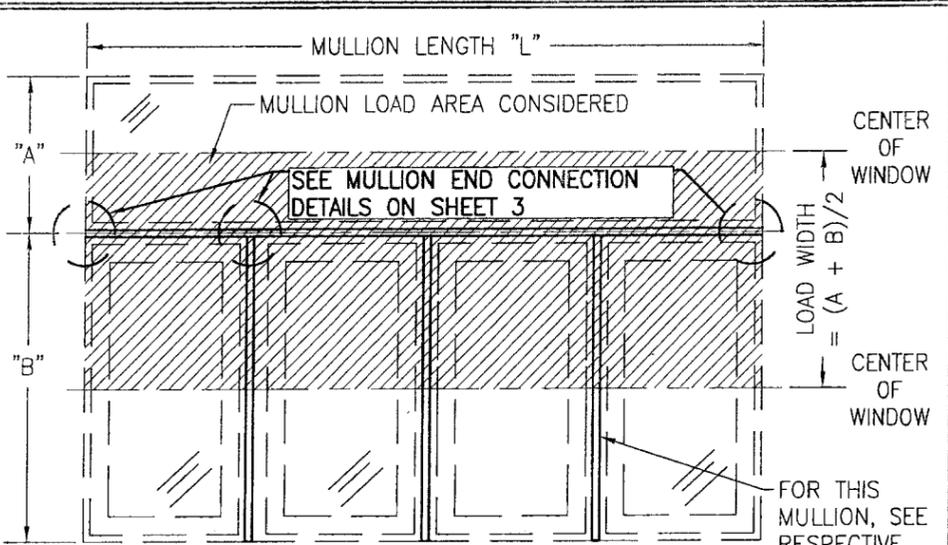
DOUBLE PANEL DOOR/WINDOW TO A SINGLE DOOR OR FIXED SIDELIGHT
(SEE LOAD TABLE 3.0)



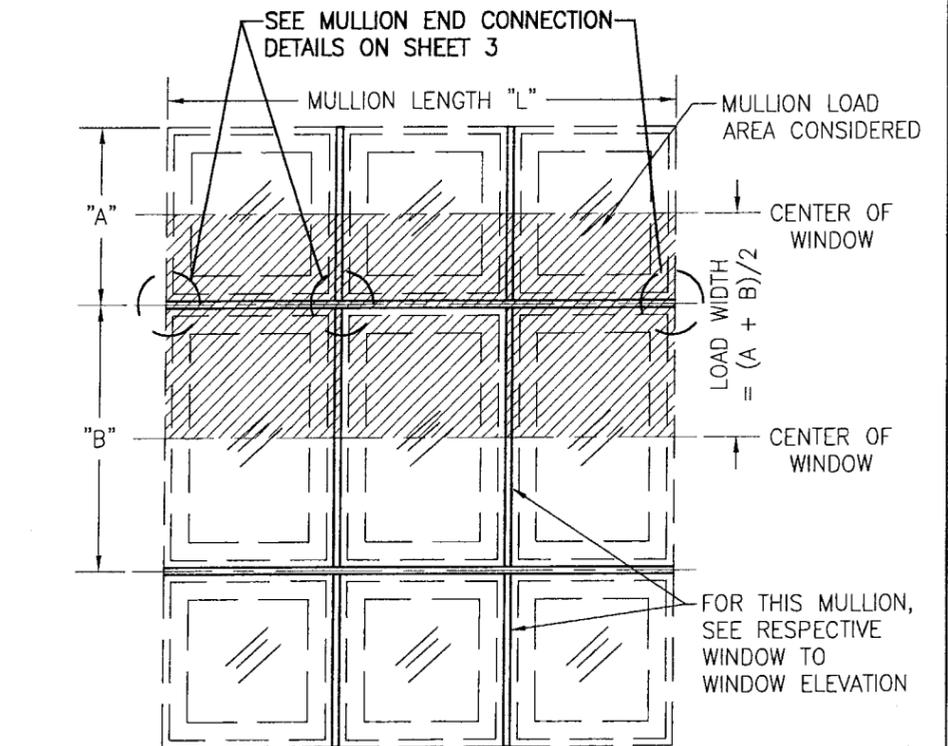
SINGLE OPERABLE DOOR/WINDOW TO A SINGLE OPERABLE OR FIXED DOOR/WINDOW
(SEE LOAD TABLE 3.0)



DOUBLE PANEL DOOR/WINDOW TO A DOUBLE PANEL DOOR/WINDOW
(SEE LOAD TABLE 3.0)



MULTIPLE WINDOWS/DOORS WITH TRANSOM
(SEE LOAD TABLE 3.0)
(TRANSOM MAY BE SINGLE OR MULTIPLE WINDOWS)
(CONTINUOUS MULLION MAY BE HORIZONTAL AS SHOWN, OR VERTICAL)
FOR THIS MULLION, SEE RESPECTIVE WINDOW/DOOR TO WINDOW/DOOR ELEVATION



MULTIPLE WINDOWS
(SEE LOAD TABLE 3.0)
(CONTINUOUS MULLION MAY BE HORIZONTAL AS SHOWN, OR VERTICAL)
FOR THIS MULLION, SEE RESPECTIVE WINDOW TO WINDOW ELEVATION

NOTE: ATTACHMENT OF WINDOW/DOOR FRAME TO MULLIONS SHALL BE AS REQUIRED BY THE INDIVIDUAL WINDOW/DOOR N.O.A. FOR ATTACHMENT TO BUCK/OPENING EXCEPT THAT SPECIFIED FRAME SCREWS MUST BE EQUIVALENT SIZE SMS SCREWS PREDRILLED INTO TUBE OR SELF TAPPING/DRILLING SCREWS

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 08-051214
Expiration Date 7-17-2009
By Chris Harris
Miami Dade Product Control Division

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 05/16/08
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE ALUMINUM TUBE CLIPPED MULLION	
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 WEATHER SHIELD WINDOWS & DOORS ONE WEATHER SHIELD PLAZA MEDFORD, WI 53451 715-748-6555
CERTIFICATION MAY 22 2008	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1580	REV.
SHEET NO. 2	OF 6

LOAD TABLE 1.0									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	5X2X1/8 TUBE	6X2X1/8 TUBE	CONNECTION TYPES			
						"A"	"B"	"C"	"D"
48	48	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
54	42	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	83.8	85.0	85.0	85.0
60	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	80.8	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	74.5	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	70.7	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	68.5	85.0	85.0	85.0
	60	81.5	85.0	85.0	85.0	67.8	85.0	85.0	85.0
66	24	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	30	85.0	85.0	85.0	85.0	79.8	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	70.7	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	64.6	85.0	85.0	85.0
	48	84.2	85.0	85.0	85.0	60.6	85.0	85.0	85.0
	54	74.9	85.0	85.0	85.0	58.0	85.0	85.0	85.0
	60	67.4	85.0	85.0	85.0	56.5	85.0	85.0	85.0
	66	61.2	85.0	85.0	85.0	56.1	85.0	85.0	85.0
72	18	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	24	85.0	85.0	85.0	85.0	84.8	85.0	85.0	85.0
	30	85.0	85.0	85.0	85.0	71.4	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	57.0	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	53.0	85.0	85.0	85.0
	54	62.7	85.0	85.0	85.0	50.3	85.0	85.0	85.0
	60	56.4	82.5	85.0	85.0	48.5	85.0	85.0	85.0
84	66	51.3	75.0	85.0	85.0	47.4	85.0	85.0	85.0
	72	47.0	68.7	85.0	85.0	47.1	85.0	85.0	85.0
	18	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	24	85.0	85.0	85.0	85.0	70.7	85.0	85.0	85.0
	30	71.1	85.0	85.0	85.0	59.0	85.0	85.0	85.0
	36	59.2	85.0	85.0	85.0	51.4	85.0	85.0	85.0
	42	50.8	74.2	85.0	85.0	46.1	85.0	85.0	85.0
	48	44.4	64.9	85.0	85.0	42.4	84.8	85.0	85.0
96	54	39.5	57.7	85.0	85.0	39.7	79.3	85.0	85.0
	60	35.5	51.9	85.0	85.0	37.7	75.4	85.0	85.0
	66	32.3	47.2	77.3	85.0	36.3	72.6	85.0	85.0
	72	29.6	43.3	70.8	85.0	35.3	70.7	85.0	85.0
	18	79.4	85.0	85.0	85.0	78.0	85.0	85.0	85.0
	24	59.5	85.0	85.0	85.0	60.6	85.0	85.0	85.0
	30	47.6	69.6	85.0	85.0	50.3	85.0	85.0	85.0
	36	39.7	58.0	85.0	85.0	43.5	85.0	85.0	85.0
96	42	34.0	49.7	85.0	85.0	38.8	77.5	85.0	85.0
	48	29.8	43.5	76.0	85.0	35.3	70.7	85.0	85.0
	54	26.5	38.7	67.6	85.0	32.8	65.5	83.5	85.0
	60	-	34.8	60.8	85.0	30.8	61.7	78.5	85.0
	66	-	31.6	55.3	78.4	29.4	58.7	74.8	85.0
	72	-	29.0	50.7	71.8	28.3	56.5	72.0	85.0

INSTRUCTIONS FOR TABLE USE:

1. DETERMINE REQUIRED WIND PRESSURE FOR THE OPENING.
2. DETERMINE THE MULLION LENGTH & LOAD WIDTH USING THE APPLICABLE ELEVATION ON SHEETS 1 & 2.
3. CHOOSE A TUBE SIZE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.
4. CHOOSE A CONNECTION TYPE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.

TABLE NOTES:

1. FOR ALL CONNECTION TYPES SEE SHEET 3 FOR DETAIL.
2. IN ORDER TO SIMPLIFY TABLES, TABLE PRESSURES ARE LIMITED TO 85 PSF. USE OF THESE MULLIONS FOR PRESSURES HIGHER THAN 85 PSF SHALL BE REVIEWED UNDER SEPERATE APPROVAL.
3. THESE LOAD TABLES ARE CERTIFIED AS CORRECT IN CONTENT. HOWEVER, CHOOSING OF THE CORRECT MULLION & CONNECTION FROM THESE TABLES FOR ITS SPECIFIC USE IS THE RESPONSIBILITY OF THOSE USING THE TABLES AND SHOULD BE VERIFIED BY THE BUILDING OFFICIAL OR A FLORIDA CERTIFIED ENGINEER.

LOAD TABLE 1.0 (CONTINUED)									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	5X2X1/8 TUBE	6X2X1/8 TUBE	CONNECTION TYPES			
						"A"	"B"	"C"	"D"
108	18	55.7	81.4	85.0	85.0	68.5	85.0	85.0	85.0
	24	41.8	61.1	85.0	85.0	53.0	85.0	85.0	85.0
	30	33.4	48.9	85.0	85.0	43.8	85.0	85.0	85.0
	36	27.9	40.7	71.2	85.0	37.7	75.4	85.0	85.0
	42	-	34.9	61.0	85.0	33.4	66.8	85.0	85.0
	48	-	30.5	53.4	84.9	30.3	60.6	77.1	85.0
	54	-	27.1	47.5	75.5	27.9	55.8	71.1	85.0
	60	-	-	42.7	67.9	26.1	52.2	66.5	85.0
	66	-	-	38.8	61.8	-	49.3	62.8	85.0
	72	-	-	35.6	56.6	-	47.1	60.0	85.0
120	18	40.6	59.4	85.0	85.0	61.1	85.0	85.0	85.0
	24	30.5	44.5	77.9	85.0	47.1	85.0	85.0	85.0
	30	24.4	35.6	62.3	85.0	38.8	77.5	85.0	85.0
	36	-	29.7	51.9	82.6	33.3	66.5	84.7	85.0
	42	-	25.4	44.5	70.8	29.4	58.7	74.8	85.0
	48	-	-	38.9	61.9	26.5	53.0	67.5	85.0
	54	-	-	34.6	55.0	-	48.6	61.9	85.0
	60	-	-	31.1	49.5	-	45.2	57.6	82.2
	66	-	-	28.3	45.0	-	42.5	54.2	77.3
	72	-	-	-	41.3	-	40.4	51.4	73.4
132	18	-	44.6	78.0	85.0	55.2	85.0	85.0	85.0
	24	-	33.5	58.5	85.0	42.4	84.8	85.0	85.0
	30	-	26.8	46.8	74.4	34.8	69.6	85.0	85.0
	36	-	-	39.0	62.0	29.8	59.5	75.8	85.0
	42	-	-	33.4	53.2	26.2	52.4	66.7	85.0
	48	-	-	29.3	46.5	-	47.1	60.0	85.0
	54	-	-	26.0	41.4	-	43.1	54.9	78.3
	60	-	-	-	37.2	-	39.9	50.8	72.6
	66	-	-	-	33.8	-	37.4	47.6	68.0
	72	-	-	-	31.0	-	35.3	45.0	64.3
144	18	-	34.4	60.1	85.0	50.3	85.0	85.0	85.0
	24	-	25.8	45.1	71.7	38.5	77.1	85.0	85.0
	30	-	-	36.0	57.3	31.6	63.1	80.4	85.0
	36	-	-	30.0	47.8	26.9	53.8	68.6	85.0
	42	-	-	25.7	41.0	-	47.3	60.2	85.0
	48	-	-	-	35.8	-	42.4	54.0	77.1
	54	-	-	-	31.9	-	38.7	49.2	70.3
	60	-	-	-	-	-	35.7	45.5	64.9
66	-	-	-	-	-	33.3	42.5	60.6	
72	-	-	-	-	-	31.4	40.0	57.1	

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=3	DATE: 05/15/08
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE: ALUMINUM TUBE CLIPPED MULLIONS MANUFACTURER: WEATHER SHIELD WINDOWS & DOORS ONE WEATHER SHIELD PLAZA MEDFORD, WI 54451 715-748-6555	
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: MAY 22 2008 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1580	REV.
SHEET NO. 4 OF 6	

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No _____
 Expiration Date _____

By **Miami Dade Product Control**
 Division

LOAD TABLE 2.0									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	5X2X1/8 TUBE	6X2X1/8 TUBE	CONNECTION TYPES			
						"A"	"B"	"C"	"D"
42	48	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	76.9	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	69.2	85.0	85.0	85.0
	66	85.0	85.0	85.0	85.0	62.9	85.0	85.0	85.0
	72	85.0	85.0	85.0	85.0	57.7	85.0	85.0	85.0
48	42	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	75.7	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	67.3	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	60.6	85.0	85.0	85.0
	66	85.0	85.0	85.0	85.0	55.1	85.0	85.0	85.0
	72	85.0	85.0	85.0	85.0	50.5	85.0	85.0	85.0
54	36	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	76.9	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	67.3	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	59.8	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	66	85.0	85.0	85.0	85.0	48.9	85.0	85.0	85.0
	72	83.9	85.0	85.0	85.0	44.9	85.0	85.0	85.0
	78	77.4	85.0	85.0	85.0	41.4	82.8	85.0	85.0
	84	71.9	85.0	85.0	85.0	38.5	76.9	85.0	85.0
60	36	85.0	85.0	85.0	85.0	80.8	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	69.2	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	60.6	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	60	81.5	85.0	85.0	85.0	48.5	85.0	85.0	85.0
	66	74.1	85.0	85.0	85.0	44.1	85.0	85.0	85.0
	72	67.9	82.0	85.0	85.0	40.4	85.0	85.0	85.0
	78	62.7	75.7	85.0	85.0	37.3	74.5	85.0	85.0
	84	58.2	70.3	85.0	85.0	34.6	69.2	85.0	85.0
	90	54.3	65.6	85.0	85.0	32.3	64.6	82.3	85.0
	66	36	85.0	85.0	85.0	85.0	73.4	85.0	85.0
42		85.0	85.0	85.0	85.0	62.9	85.0	85.0	85.0
48		84.2	85.0	85.0	85.0	55.1	85.0	85.0	85.0
54		74.9	85.0	85.0	85.0	48.9	85.0	85.0	85.0
60		67.4	85.0	85.0	85.0	44.1	85.0	85.0	85.0
66		61.2	85.0	85.0	85.0	40.0	80.1	85.0	85.0
72		56.1	85.0	85.0	85.0	36.7	73.4	85.0	85.0
78		51.8	85.0	85.0	85.0	33.9	67.8	85.0	85.0
84		48.1	85.0	85.0	85.0	31.5	62.9	80.1	85.0
90		44.9	85.0	85.0	85.0	29.4	58.7	74.8	85.0

LOAD TABLE 2.0 (CONTINUED)									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	5X2X1/8 TUBE	6X2X1/8 TUBE	CONNECTION TYPES			
						"A"	"B"	"C"	"D"
72	36	85.0	85.0	85.0	85.0	67.3	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	57.7	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	50.5	85.0	85.0	85.0
	54	62.7	85.0	85.0	85.0	44.9	85.0	85.0	85.0
	60	56.4	82.5	85.0	85.0	40.4	80.8	85.0	85.0
	66	51.3	75.0	85.0	85.0	36.7	73.4	85.0	85.0
	72	47.0	68.7	85.0	85.0	33.7	67.3	85.0	85.0
	78	43.4	63.4	85.0	85.0	31.1	62.1	79.1	85.0
	84	40.3	58.9	85.0	85.0	28.8	57.7	73.5	85.0
	90	37.6	55.0	77.1	85.0	26.9	53.8	68.6	85.0
84	36	59.2	85.0	85.0	85.0	57.7	85.0	85.0	85.0
	42	50.8	74.2	85.0	85.0	49.4	85.0	85.0	85.0
	48	44.4	64.9	85.0	85.0	43.3	85.0	85.0	85.0
	54	39.5	57.7	85.0	85.0	38.5	76.9	85.0	85.0
	60	35.5	51.9	85.0	85.0	34.6	69.2	85.0	85.0
	66	32.3	47.2	77.3	85.0	31.5	62.9	80.1	85.0
	72	29.6	43.3	70.8	85.0	28.8	57.7	73.5	85.0
	78	27.3	39.9	65.4	85.0	26.6	53.2	67.8	85.0
	84	-	37.1	60.7	80.4	-	49.4	63.0	85.0
	90	-	34.6	56.7	75.1	-	46.1	58.8	83.9
96	36	39.7	58.0	85.0	85.0	50.5	85.0	85.0	85.0
	42	34.0	49.7	85.0	85.0	43.3	85.0	85.0	85.0
	48	29.8	43.5	76.0	85.0	37.9	75.7	85.0	85.0
	54	26.5	38.7	67.6	85.0	33.7	67.3	85.0	85.0
	60	-	34.8	60.8	85.0	30.3	60.6	77.1	85.0
	66	-	31.6	55.3	78.4	27.5	55.1	70.1	85.0
	72	-	29.0	50.7	71.8	-	50.5	64.3	85.0
	78	-	26.8	46.8	66.3	-	46.6	59.3	84.7
	84	-	-	43.5	61.6	-	43.3	55.1	78.7
	90	-	-	40.6	57.5	-	40.4	51.4	73.4
108	36	27.9	40.7	71.2	85.0	44.9	85.0	85.0	85.0
	42	-	34.9	61.0	85.0	38.5	76.9	85.0	85.0
	48	-	30.5	53.4	84.9	33.7	67.3	85.0	85.0
	54	-	27.1	47.5	75.5	29.9	59.8	76.2	85.0
	60	-	-	42.7	67.9	26.9	53.8	68.6	85.0
	66	-	-	38.8	61.8	-	48.9	62.3	85.0
	72	-	-	35.6	56.6	-	44.9	57.1	81.6
	78	-	-	32.9	52.3	-	41.4	52.7	75.3
	84	-	-	30.5	48.5	-	38.5	49.0	69.9
	90	-	-	28.5	45.3	-	35.9	45.7	65.3

INSTRUCTIONS FOR TABLE USE:

1. DETERMINE REQUIRED WIND PRESSURE FOR THE OPENING.
2. DETERMINE THE MULLION LENGTH & LOAD WIDTH USING THE APPLICABLE ELEVATION ON SHEETS 1 & 2.
3. CHOOSE A TUBE SIZE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.
4. CHOOSE A CONNECTION TYPE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.

TABLE NOTES:

1. FOR ALL CONNECTION TYPES SEE SHEET 3 FOR DETAIL.
2. IN ORDER TO SIMPLIFY TABLES, TABLE PRESSURES ARE LIMITED TO 85 PSF. USE OF THESE MULLIONS FOR PRESSURES HIGHER THAN 85 PSF SHALL BE REVIEWED UNDER SEPERATE APPROVAL.
3. THESE LOAD TABLES ARE CERTIFIED AS CORRECT IN CONTENT. HOWEVER, CHOOSING OF THE CORRECT MULLION & CONNECTION FROM THESE TABLES FOR ITS SPECIFIC USE IS THE RESPONSIBILITY OF THOSE USING THE TABLES AND SHOULD BE VERIFIED BY THE BUILDING OFFICIAL OR A FLORIDA CERTIFIED ENGINEER.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 08-05/2-14
Expiration Date 7-17-2009

By *Steve Harris*
Miami Dade Product Control
Division

DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=3		DATE: 05/15/08	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: ALUMINUM TUBE CLIPPED MULLIONS MANUFACTURER: WEATHER SHIELD WINDOWS & DOORS ONE WEATHER SHIELD PLAZA MEDFORD, WI 54451 715-748-6555			
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: <i>Steve Harris</i> MAY 22 2008 P.E. NO. 44135			
DRAWING NO. 1580		REV.	
SHEET NO. 5		OF 6	

LOAD TABLE 3.0									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	5X2X1/8 TUBE	6X2X1/8 TUBE	CONNECTION TYPES			
						"A"	"B"	"C"	"D"
36	36	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	80.8	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	70.7	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	56.5	85.0	85.0	85.0
	66	85.0	85.0	85.0	85.0	51.4	85.0	85.0	85.0
42	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	80.8	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	69.2	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	60.6	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	48.5	85.0	85.0	85.0
48	30	85.0	85.0	85.0	85.0	84.8	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	70.7	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	60.6	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	53.0	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	42.4	84.8	85.0	85.0
54	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	75.4	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	85.0	85.0	85.0	85.0	41.9	83.8	85.0	85.0
60	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	75.4	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	48	85.0	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	54	85.0	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	81.5	85.0	85.0	85.0	33.9	67.8	85.0	85.0
66	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	75.4	85.0	85.0	85.0
	42	85.0	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	48	84.2	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	54	74.9	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	67.4	85.0	85.0	85.0	41.9	83.8	85.0	85.0
72	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	75.4	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	54	62.7	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	56.4	82.5	85.0	85.0	28.3	56.5	72.0	85.0
84	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	75.4	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	54	62.7	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	56.4	82.5	85.0	85.0	28.3	56.5	72.0	85.0
90	30	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
	36	85.0	85.0	85.0	85.0	75.4	85.0	85.0	85.0
	42	80.6	85.0	85.0	85.0	62.8	85.0	85.0	85.0
	48	70.6	85.0	85.0	85.0	53.8	85.0	85.0	85.0
	54	62.7	85.0	85.0	85.0	47.1	85.0	85.0	85.0
	60	56.4	82.5	85.0	85.0	28.3	56.5	72.0	85.0

LOAD TABLE 3.0 (CONTINUED)									
MAXIMUM MULLION LENGTH (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (PSF)							
		4X1X1/8 TUBE	4X2X1/8 TUBE	5X2X1/8 TUBE	6X2X1/8 TUBE	CONNECTION TYPES			
						"A"	"B"	"C"	"D"
96	30	47.6	69.6	85.0	85.0	42.4	84.8	85.0	85.0
	36	39.7	58.0	85.0	85.0	35.3	70.7	85.0	85.0
	42	34.0	49.7	85.0	85.0	30.3	60.6	77.1	85.0
	48	29.8	43.5	76.0	85.0	26.5	53.0	67.5	85.0
	54	26.5	38.7	67.6	85.0	-	47.1	60.0	85.0
	60	-	34.8	60.8	85.0	-	42.4	54.0	77.1
	66	-	31.6	55.3	78.4	-	38.5	49.1	70.1
	72	-	29.0	50.7	71.8	-	35.3	45.0	64.3
	78	-	26.8	46.8	66.3	-	32.6	41.5	59.3
	84	-	-	43.5	61.6	-	30.3	38.6	55.1
108	30	33.4	48.9	85.0	85.0	37.7	75.4	85.0	85.0
	36	27.9	40.7	71.2	85.0	31.4	62.8	80.0	85.0
	42	-	34.9	61.0	85.0	26.9	53.8	68.6	85.0
	48	-	30.5	53.4	84.9	-	47.1	60.0	85.0
	54	-	27.1	47.5	75.5	-	41.9	53.3	76.1
	60	-	-	42.7	67.9	-	37.7	48.0	68.5
	66	-	-	38.8	61.8	-	34.3	43.6	62.3
	72	-	-	35.6	56.6	-	31.4	40.0	57.1
	78	-	-	32.9	52.3	-	29.0	36.9	52.7
	84	-	-	30.5	48.5	-	26.9	34.3	49.0
120	30	24.4	35.6	62.3	85.0	33.9	67.8	85.0	85.0
	36	-	29.7	51.9	82.6	28.3	56.5	72.0	85.0
	42	-	25.4	44.5	70.8	-	48.5	61.7	85.0
	48	-	-	38.9	61.9	-	42.4	54.0	77.1
	54	-	-	34.6	55.0	-	37.7	48.0	68.5
	60	-	-	31.1	49.5	-	33.9	43.2	61.7
	66	-	-	28.3	45.0	-	30.8	39.3	56.1
	72	-	-	-	41.3	-	28.3	36.0	51.4
	78	-	-	-	38.1	-	26.1	33.2	47.4
	84	-	-	-	35.4	-	-	30.9	44.1
132	30	-	26.8	46.8	74.4	30.8	61.7	78.5	85.0
	36	-	-	39.0	62.0	-	51.4	65.5	85.0
	42	-	-	33.4	53.2	-	44.1	56.1	80.1
	48	-	-	29.3	46.5	-	38.5	49.1	70.1
	54	-	-	26.0	41.4	-	34.3	43.6	62.3
	60	-	-	-	37.2	-	30.8	39.3	56.1
	66	-	-	-	33.8	-	28.0	35.7	51.0
	72	-	-	-	31.0	-	-	32.7	46.7
	78	-	-	-	28.6	-	-	30.2	43.1
	84	-	-	-	-	-	-	28.1	40.1
144	30	-	-	36.0	57.3	-	56.5	72.0	85.0
	36	-	-	30.0	47.8	-	47.1	60.0	85.0
	42	-	-	25.7	41.0	-	40.4	51.4	73.4
	48	-	-	-	35.8	-	35.3	45.0	64.3
	54	-	-	-	31.9	-	31.4	40.0	57.1
	60	-	-	-	-	-	28.3	36.0	51.4
	66	-	-	-	-	-	-	32.7	46.7
	72	-	-	-	-	-	-	30.0	42.8
	78	-	-	-	-	-	-	27.7	39.5
	84	-	-	-	-	-	-	-	36.7

INSTRUCTIONS FOR TABLE USE:

1. DETERMINE REQUIRED WIND PRESSURE FOR THE OPENING.
2. DETERMINE THE MULLION LENGTH & LOAD WIDTH USING THE APPLICABLE ELEVATION ON SHEETS 1 & 2.
3. CHOOSE A TUBE SIZE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.
4. CHOOSE A CONNECTION TYPE THAT MEETS OR EXCEEDS THE REQUIRED PRESSURE FOR THE APPLICABLE MULLION LENGTH & LOAD WIDTH CONDITIONS.

TABLE NOTES:

1. FOR ALL CONNECTION TYPES SEE SHEET 3 FOR DETAIL.
2. IN ORDER TO SIMPLIFY TABLES, TABLE PRESSURES ARE LIMITED TO 85 PSF. USE OF THESE MULLIONS FOR PRESSURES HIGHER THAN 85 PSF SHALL BE REVIEWED UNDER SEPERATE APPROVAL.
3. THESE LOAD TABLES ARE CERTIFIED AS CORRECT IN CONTENT. HOWEVER, CHOOSING OF THE CORRECT MULLION & CONNECTION FROM THESE TABLES FOR ITS SPECIFIC USE IS THE RESPONSIBILITY OF THOSE USING THE TABLES AND SHOULD BE VERIFIED BY THE BUILDING OFFICIAL OR A FLORIDA CERTIFIED ENGINEER.

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=3	DATE: 05/15/08
NO.	REVISION DESCRIPTION
DATE	BY
ALUMINUM TUBE CLIPPED MULLIONS MANUFACTURER WEATHER SHIELD WINDOWS & DOORS ONE WEATHER SHIELD PLAZA MEDFORD, WI 54451 715-748-6555	
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 MAY 22 2008 By <i>W. W. Schaefer</i> W. W. SCHAEFER, P.E. P.E. NO. 44135 Division	
DRAWING NO. 1580	REV.
SHEET NO. 6 OF 6	