



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

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/building

E.S. Windows, LLC
3550 NW 49th Street
Miami, FL 33142

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

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

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

DESCRIPTION: Clipped, Extruded Aluminum Tube Mullion – L.M.I.

APPROVAL DOCUMENT: Drawing No. **M04-04**, titled "Aluminum Tube Mullions", sheets 1 through 9 of 9, dated 04/26/04, with revision **J** dated 06/29/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, 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 Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

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

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

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

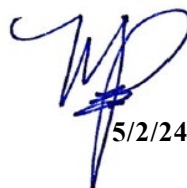
ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

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

This NOA **renews NOA No. 23-0717.20** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**




5/2/24

NOA No. 24-0312.06
Expiration Date: September 16, 2029
Approval Date: May 09, 2024
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 04-0712.01)
2. Drawing No. **M04-04**, titled "Aluminum Tube Mullions", sheets 1 through 9 of 9, dated 04/26/04, with revision **J** dated 06/29/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0717.20)

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, Type "D-A" fixed window, Grade 10, Level LV
1 per ASTM F 588-04, Side-Hinged Door Systems per AAMA 1304-02 and per FBC 2411.3.2.1, TAS 202-94
along with marked-up drawings and installation diagram of windows mulled together, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-3810**, dated 05/16/03; **FTL-3819**, dated 06/09/03 and **FTL-3820**, dated 06/09/03, all signed and sealed by Joseph Chan, P.E.
(Submitted under NOA No. 04-0712.01)

C. CALCULATIONS

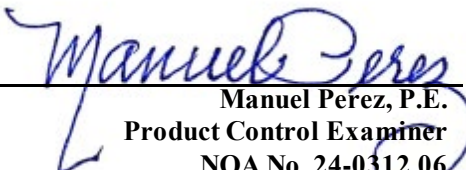
1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, dated 01/12/18, and updated on 11/04/20 to comply with **FBC 7th Edition (2020)**, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 20-1118.13)

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.


Manuel Pérez, P.E.
Product Control Examiner
NOA No. 24-0312.06
Expiration Date: September 16, 2029
Approval Date: May 09, 2024

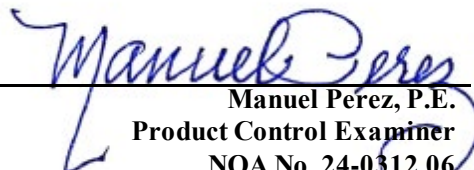
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)
F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020)**, with **FBC 8th Edition (2023)**, and of no financial interest, dated July 14, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0717.20)
2. Laboratory compliance letter for Test Reports No. **FTL-3810**, dated 05/16/03; **FTL-3819**, dated 06/09/03 and **FTL-3820**, dated 06/09/03, all issued by Fenestration Testing Laboratory, Inc. and all signed and sealed by Joseph C. Chan, P.E.
(Submitted under NOA No. 04-0712.01)

G. OTHERS

1. Notice of Acceptance No. **20-1118.13**, issued to E.S. Windows, LLC for their Clipped, Extruded Aluminum Tube Mullion – L.M.I., approved on 02/18/21 and expiring on 09/16/24.



Manuel Pérez, P.E.
Product Control Examiner
NOA No. 24-0312.06
Expiration Date: September 16, 2029
Approval Date: May 09, 2024

E.S. Windows, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. None.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

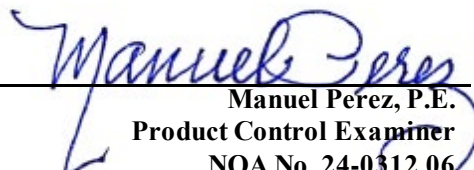
1. None.

F. STATEMENTS

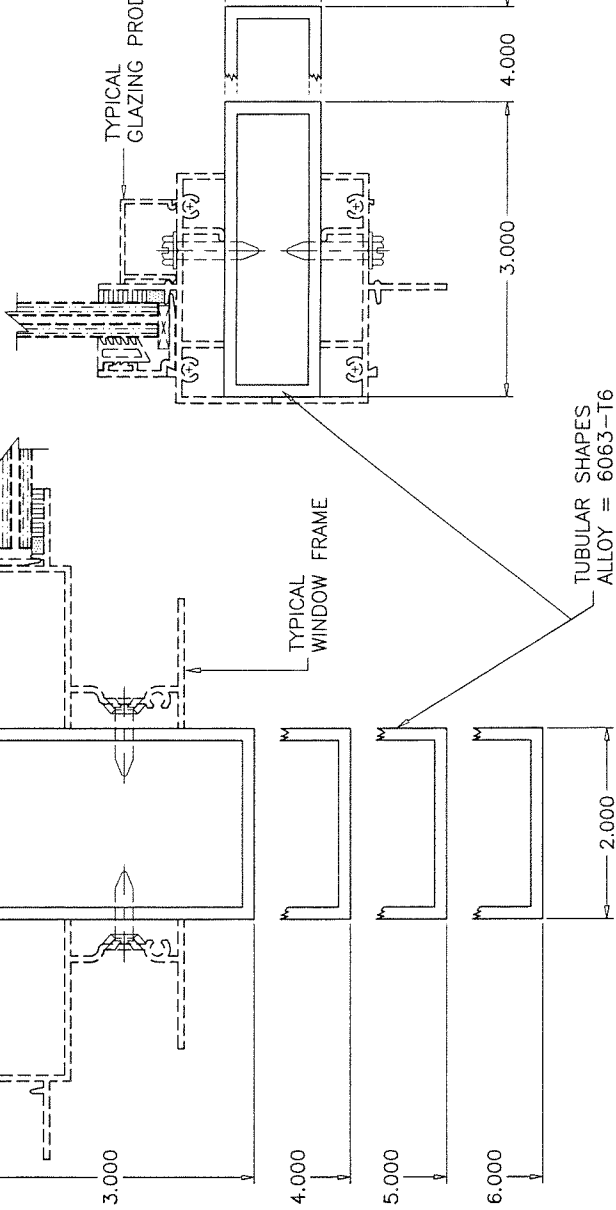
1. Statement letter of conformance, complying with **FBC 8th Edition (2023)** and of no financial interest, dated March 7, 2024, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHERS

1. Notice of Acceptance No. **23-0717.20**, issued to E.S. Windows, LLC for their Clipped, Extruded Aluminum Tube Mullion – L.M.I., approved on 08/24/23 and expiring on 09/16/24.



Manuel Perez, P.E.
Product Control Examiner
NOA No. 24-0312.06
Expiration Date: September 16, 2029
Approval Date: May 09, 2024



MULLIONS CONTAINING TYPICAL GLAZING PRODUCTS HORIZONTAL OR VERTICAL

SEE WINDOW OR DOOR APPROVAL FOR FASTENERS SIZES AND SPACING

DESIGNED FOR LARGE & SMALL MISSILE IMPACT.
ALL MIAMI-DADE COUNTY APPROVED
RESISTANT PRODUCTS.

UM TUBE MULLIONS PERTIES ONLY

DESIGNED AND TESTED TO COMPLY WITH THE
(7TH EDITION)/2023 (8TH EDITION) FLORIDA
HIGH VELOCITY HURRICANE ZONE (HVHZ).

DESIGNED WITH THESE MULLIONS MUST MEET THE
REQUIREMENTS I.E: WIND LOAD, WATER
RESISTANCE, SAFEGUARDS ETC.

BUCK FASTENERS BY OTHERS, MUST BE
ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS

ON RESISTANT, SPACED AS SHOWN ON DETAILS
INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE
WALL DRESSING OR STUCCO.

IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
CT, NON-METALLIC AND NON-COMPRESSIBLE.

NOT LIMITED TO STEEL/METAL SCREWS, THAT
OTHER DISSIMILAR MATERIALS SHALL MEET THE
/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

GENERIC AND DOES NOT PROVIDE INFORMATION
T, I.E. LIFE SAFETY OF THIS PRODUCT, ADEQUACY
IS PRODUCT AND SEALING AROUND OPENING FOR
CE ETC.

THIS DRAWING ARE TO BE ANALYZED SEPARATELY,
BUILDING OFFICIAL.

BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

GRAPHS AS FOLLOWS.

LOAD REQUIRED PER ASCE 7
ENING.

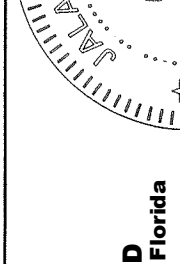
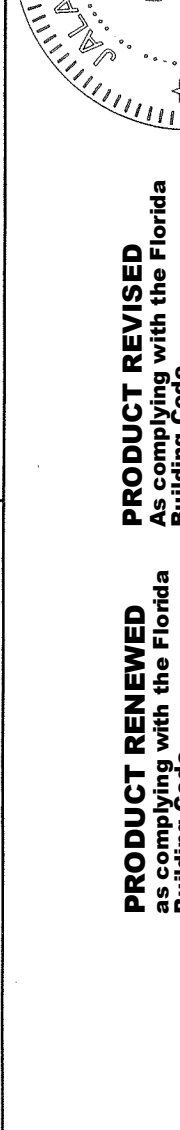
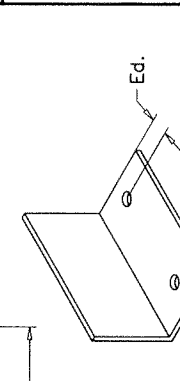
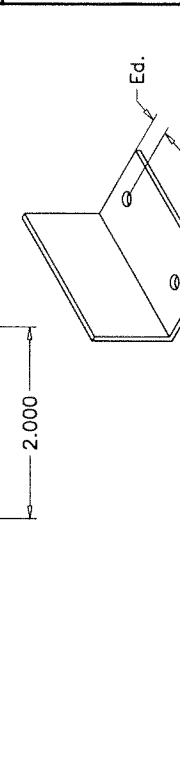
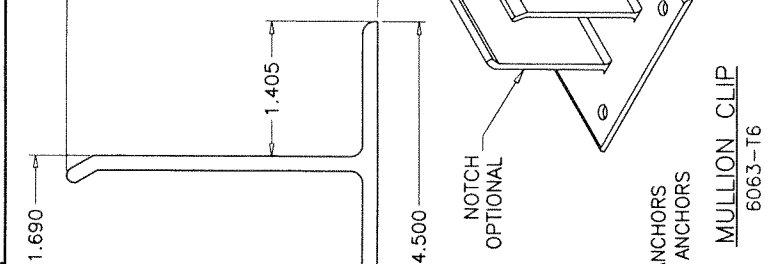
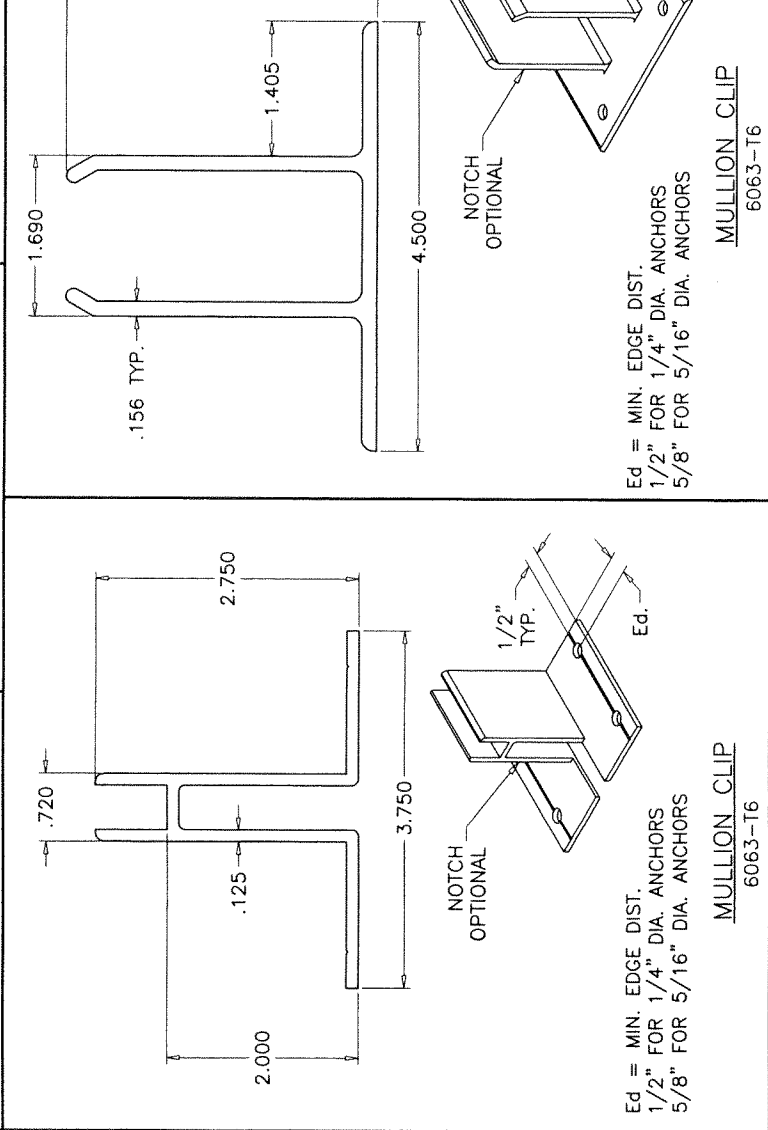
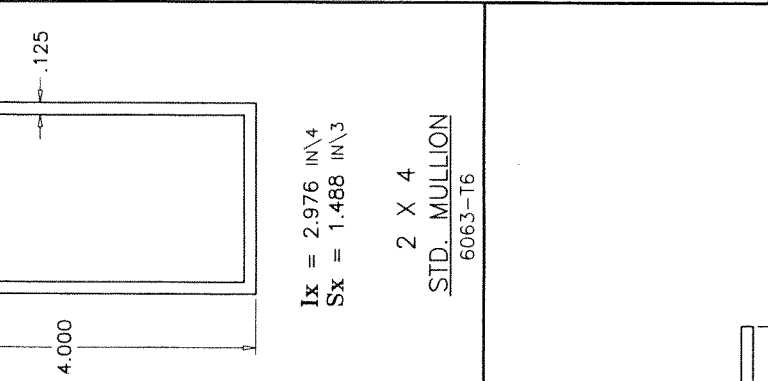
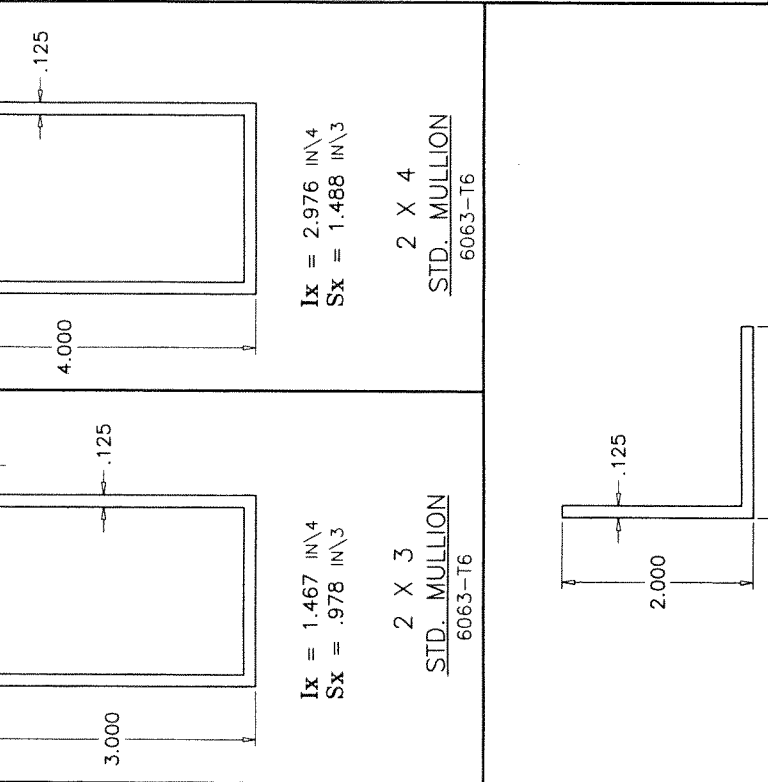
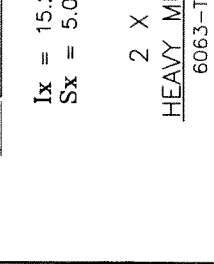
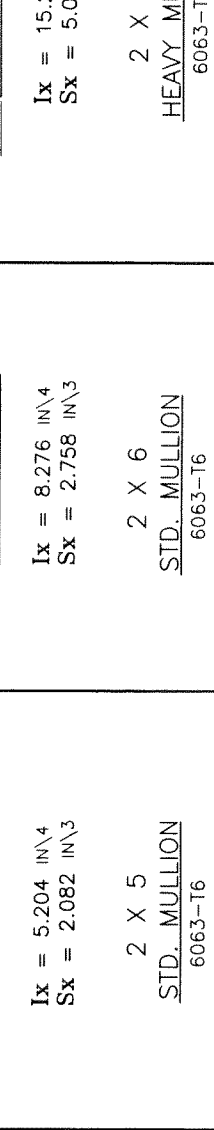
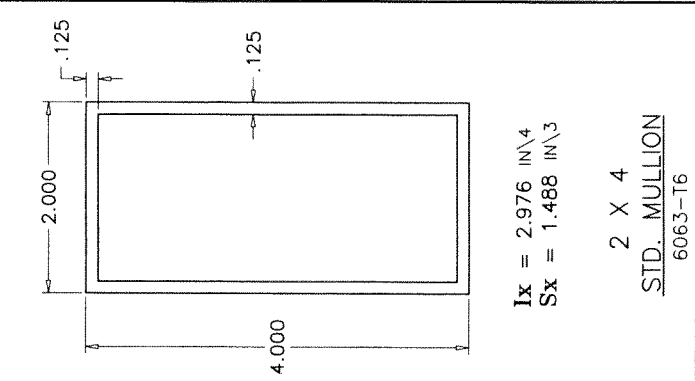
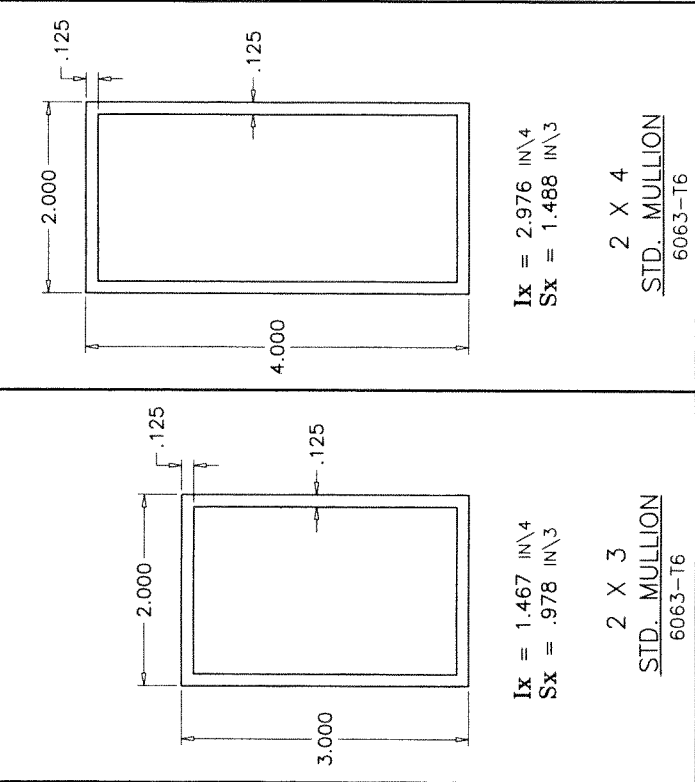
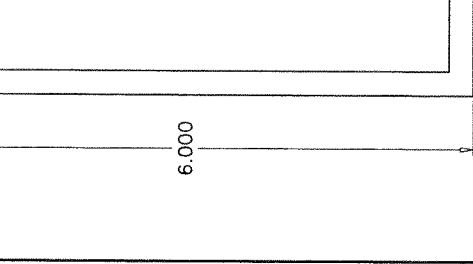
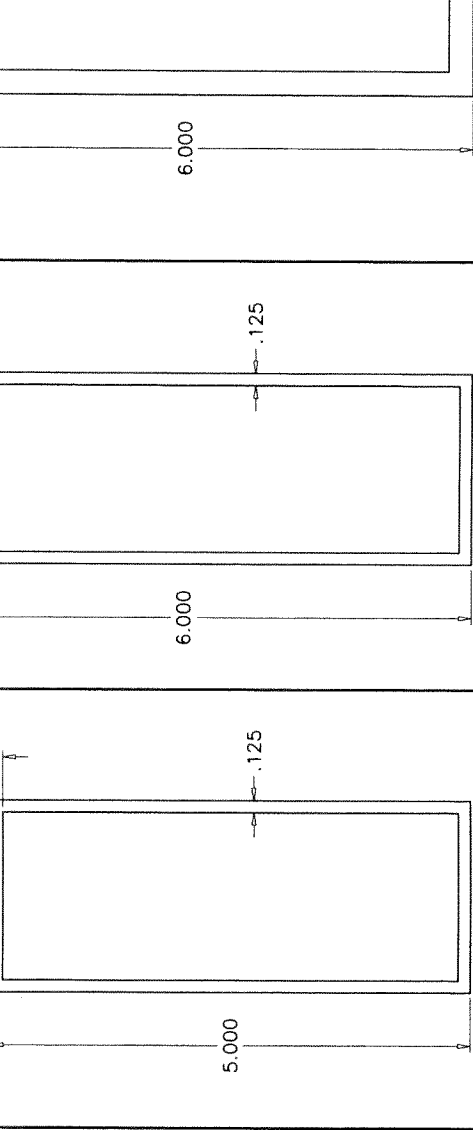
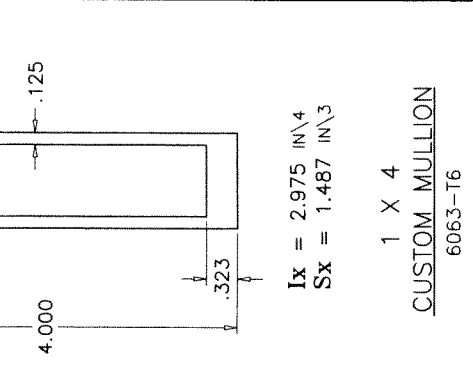
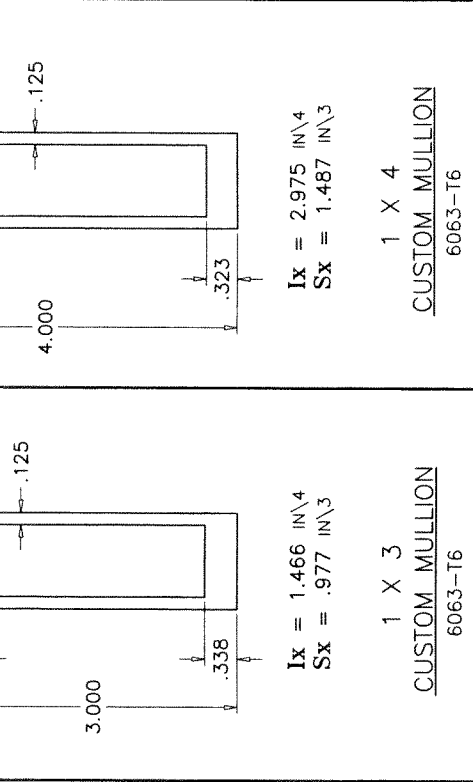
COUNTY APPROVED GLAZING PRODUCTS
D REQUIREMENTS.

3 MULLION AS PER PRODUCT

PRODUCT RENEWED
as complying with the Florida
Building Code

PRODUCT REVISED
As complying with the Florida
Building Code





PRODUCT RENEWED
As complying with the Florida Building Code

PRODUCT REVISED
As complying with the Florida Building Code

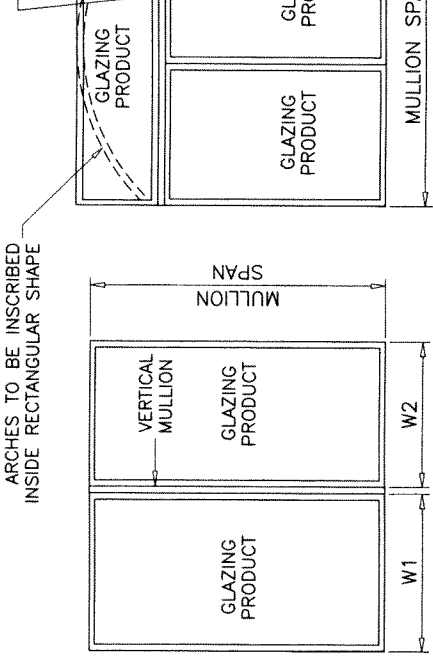
THESE CHARTS MAY BE ORIENTED
ANY MANNER.
(WHEN WIDTHS ALLOWED)

ALL LOADS ARE EXT.(+)/INT.(-).

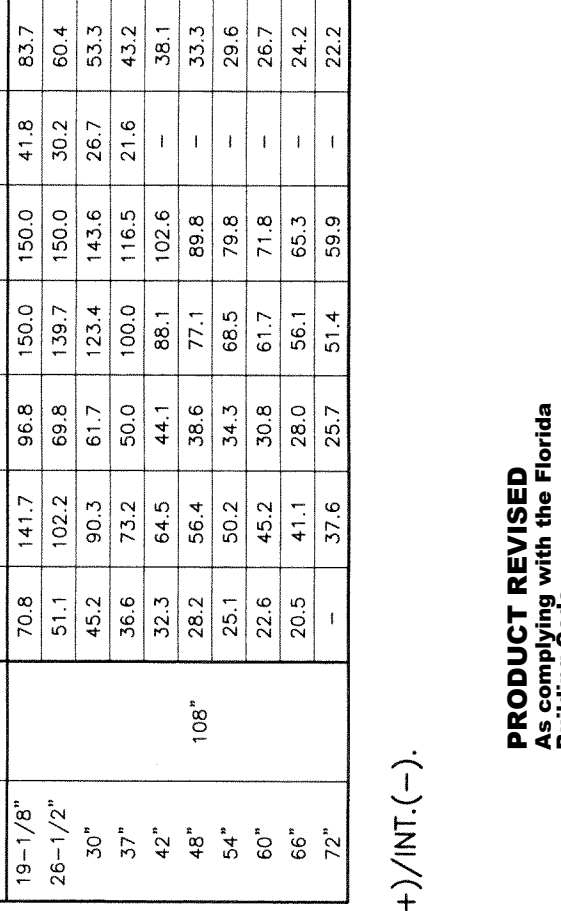
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **24-0312.06**

Expiration Date: 09/10

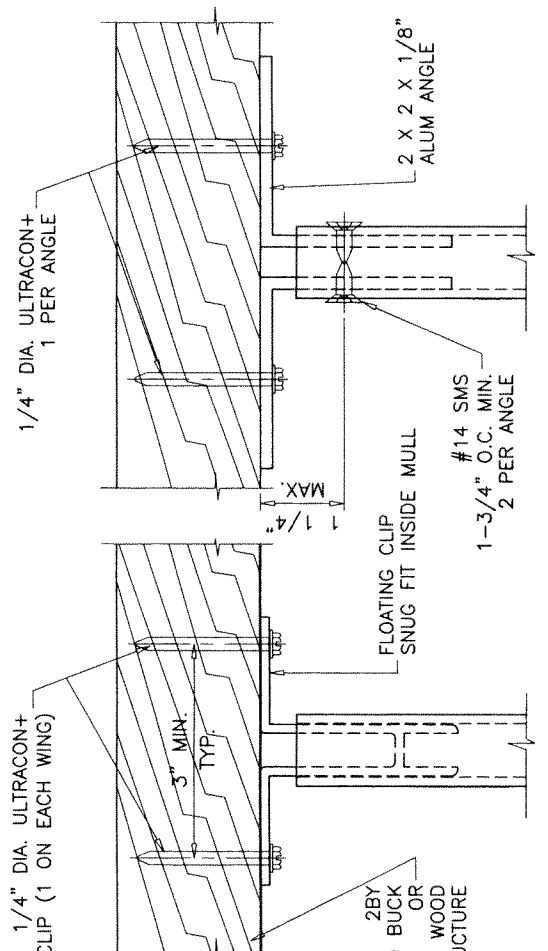
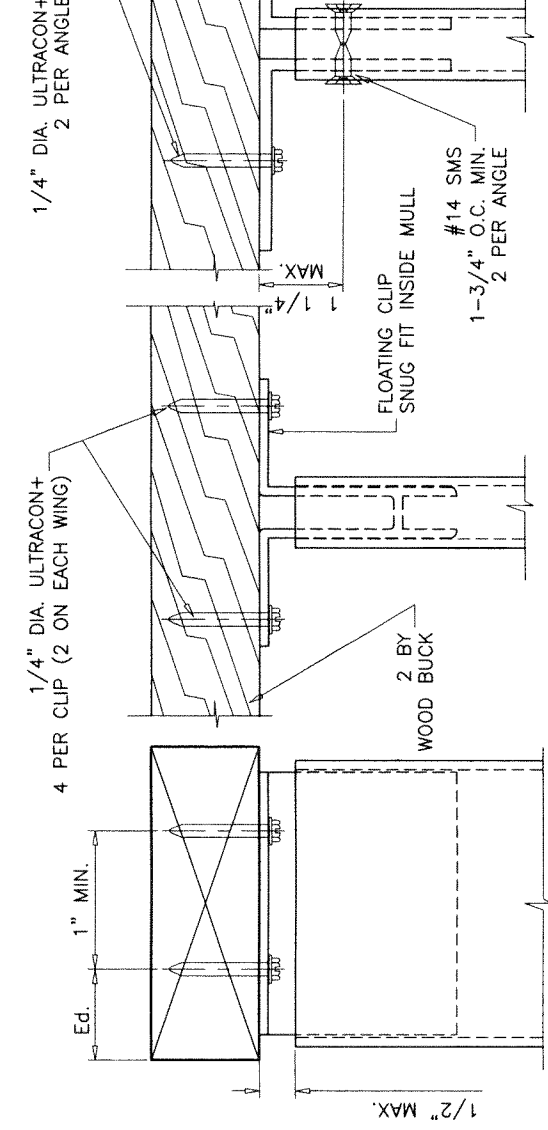
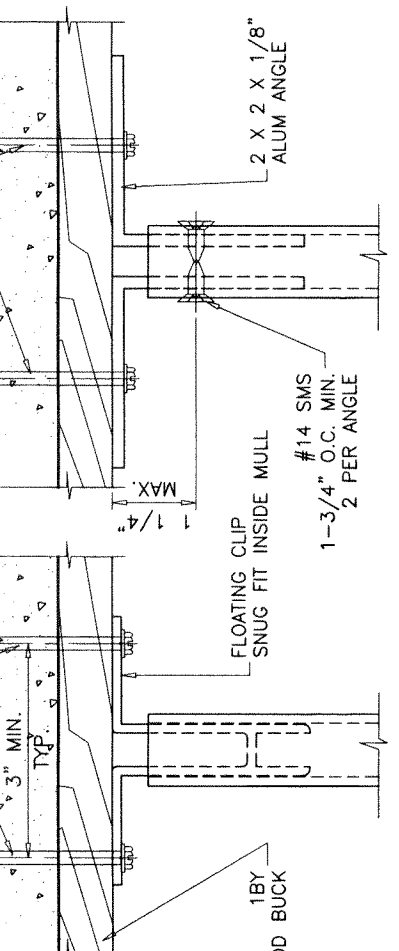
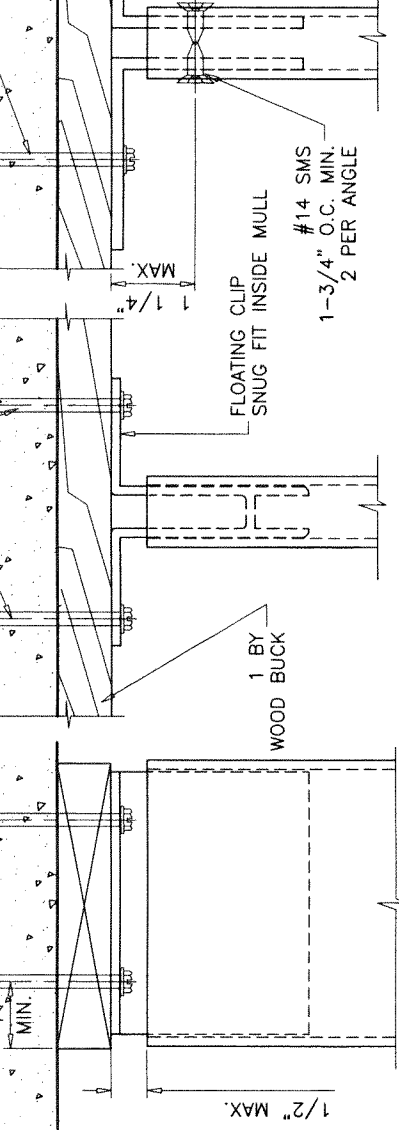
TYPICAL MULLION ARRANGEMENTS

[illegible]

	150.0	150.0	150.0	150.0	150.0	150.0	150.0
	140.8	150.0	150.0	150.0	150.0	60.9	121.7
	124.0	150.0	150.0	150.0	53.6	107.2	
	108.5	150.0	150.0	150.0	46.9	93.8	
	96.5	150.0	150.0	150.0	41.7	83.4	
	86.8	150.0	150.0	150.0	37.5	75.0	
	78.9	150.0	150.0	150.0	34.1	68.2	
	72.3	144.7	150.0	31.3	62.5		
	150.0	150.0	150.0	89.2	150.0	150.0	
	149.0	150.0	150.0	64.4	128.8		
	131.6	150.0	150.0	56.9	113.8		
	106.7	150.0	150.0	46.1	92.3		
	94.0	150.0	150.0	40.6	81.3		
	82.3	150.0	150.0	35.6	71.1		
	73.1	146.2	150.0	31.6	63.2		
	65.8	131.6	150.0	28.4	56.9		
	59.8	119.6	139.3	25.9	51.7		
	54.8	109.7	127.7	23.7	47.4		
	150.0	150.0	150.0	77.9	150.0		
	130.0	150.0	150.0	56.2	112.4		
	114.9	150.0	150.0	49.7	99.3		
	93.1	150.0	150.0	40.3	80.5		
	82.0	150.0	150.0	35.5	70.9		
	71.8	143.6	150.0	31.0	62.1		
	63.8	127.6	148.6	27.6	55.2		
	57.4	114.9	133.7	24.8	49.7		
	52.2	104.4	121.6	22.6	45.1		
	47.9	95.7	111.4	20.7	41.4		


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

Expiration Date: 09/16/2024



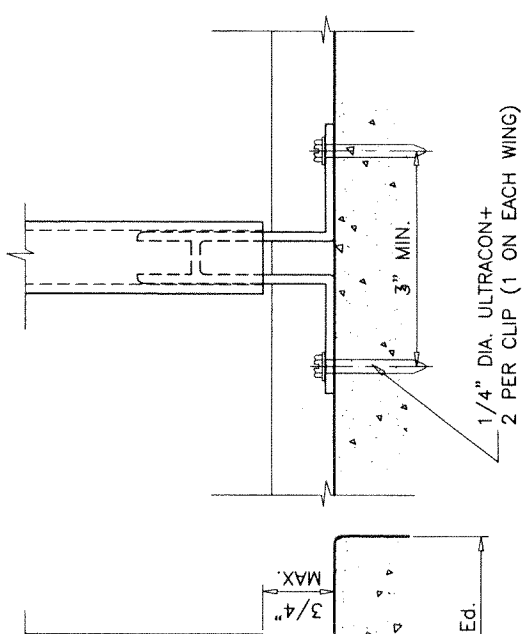
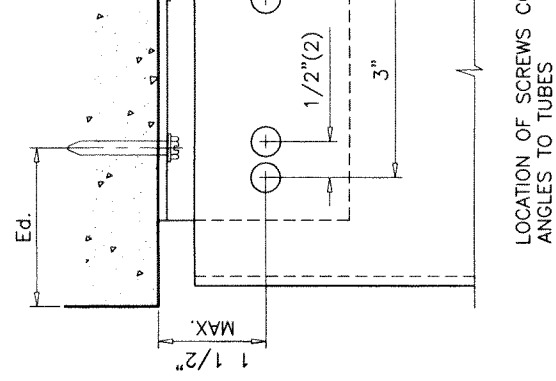
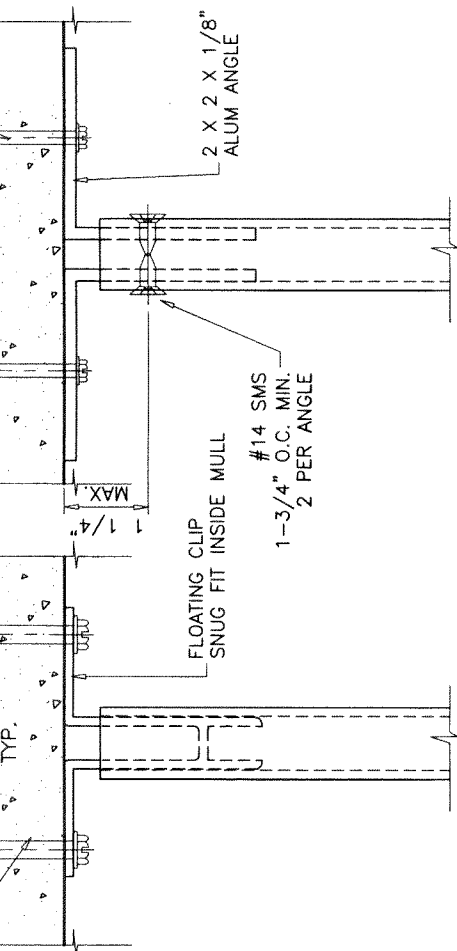
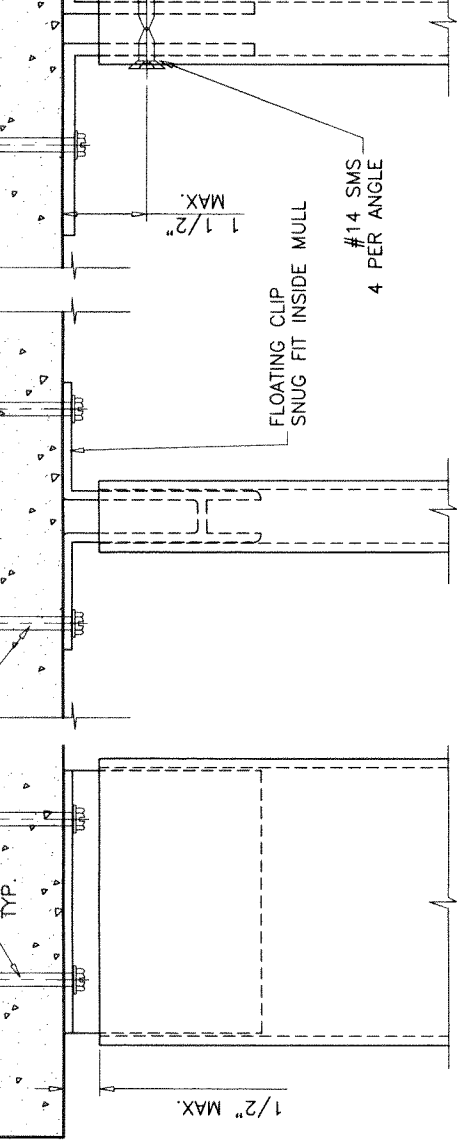
ANCHORS TYPE 'B'

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **24-0312.06**
Expiration Date: **09/16/2029**
By: *Manuel Perez*
Miami-Dade Product Control

PRODUCT
As complying with the Florida
Building Code
NOA-No. **24-0312.06**
Expiration Date: **09/16/2029**
By: *Manuel Perez*
Miami-Dade Product Control

1/4" DIA. ULTRACON+ BY 'DEWALT'			
(F _u =164 KSI, F _y =148 KSI)			
ULTRACON+ MAY BE HEX OR FLAT HEAD			
SUBSTRATE	Ed. = MIN.	EDGE DIST.	MIN. EMBEDMENT
WOOD	1"		1-1/2"
CONCRETE	2-1/2"		1-3/4"

WOOD = 2BY WOOD BUCKS OR WOOD STRUCTURE S.G. = 0.55 MIN.
CONCRETE = f'c = 3000 PSI MIN.



ANCHORS TYPE 'D'

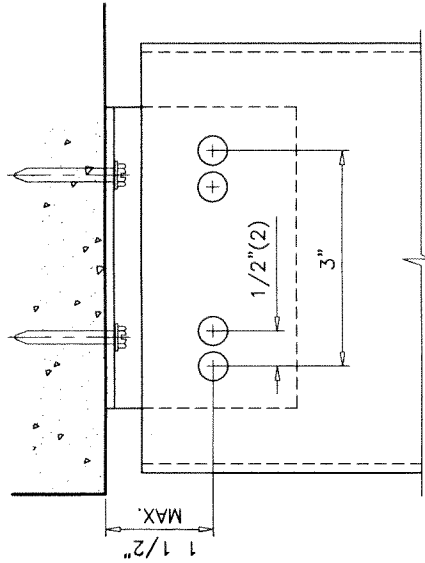
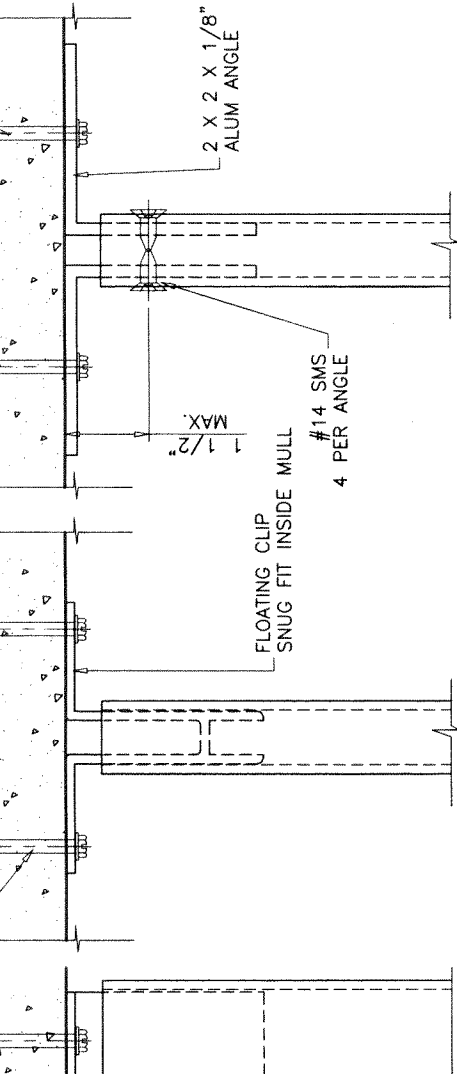
APPLICABLE FOR 4", 5" AND 6" TUBE MULLIONS

PRODUCT
As complying with
Building Code
NOA-No. 24-0312.06
Expiration Date: 09/16/2029
By: Manuel Perez
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 24-0312.06
Expiration Date: 09/16/2029
By: Manuel Perez
Miami-Dade Product Control

1/4" DIA. ULTRACON+ BY 'DEWALT'	
(F _u =164 KSI, F _y =148 KSI)	
ULTRACON+ MAY BE HEX OR FLAT HEAD	
SUBSTRATE	Ed. = MIN. EDGE DIST.
CONCRETE	2-1/2"
MIN. EMBEDMENT	
1-3/4"	

CONCRETE = f'c = 3000 PSI MIN.



LOCATION OF SCREWS CONNECTING
ANGLES TO TUBES

ANCHORS TYPE 'E'

APPLICABLE FOR 4", 5" AND 6" TUBE MULLIONS

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)			
ULTRACON MAY BE HEX OR FLAT HEAD			
SUBSTRATE	Ed. = MIN.	EDGE DIST.	MIN. EMBEDMENT
CONCRETE	3-1/8"	2"	

CONCRETE = f'c = 3000 PSI MIN.

PRODUCT
as complying
Building Code
NOA-No.

Expiration Date

By: *Mann*

Miami-Dade

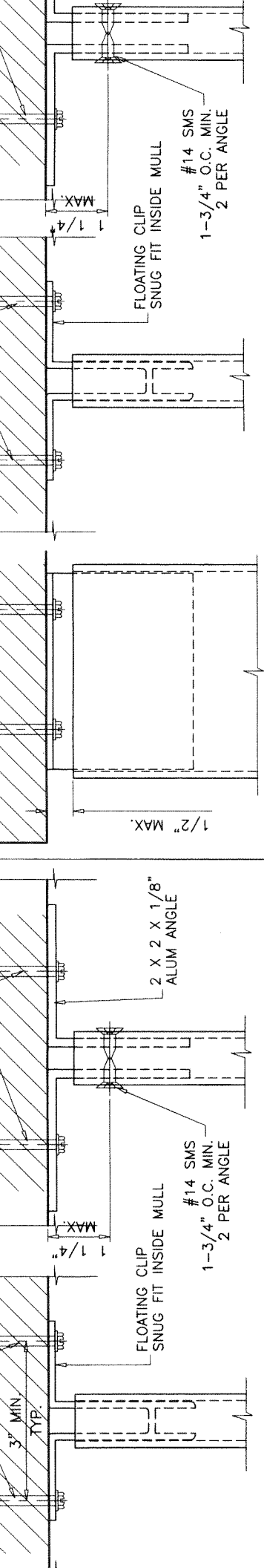
PRODUCT
As complying
Building Code
NOA-No.

Expiration Date

By: *Mann*

Miami-Dade





ANCHORS TYPE 'F'
AT JAMBS ONLY

ANCHORS TYPE 'G'
AT JAMBS ONLY

1/4" DIA. ULTRACON+ BY 'DEWALT'	
(Fu=164 KSI, Fy=148 KSI)	
ULTRACON+ MAY BE HEX OR FLAT HEAD	
SUBSTRATE	Ed. = MIN. EDGE DIST.
MASONRY	2-1/2"
	1-1/4"

MASONRY = C-90 HOLLOW/FILLED BLOCK f'm = 2000 PSI MIN.

PRODUCT
as complyin
Building Cod
NOA-No.

Expiration D

By: *Mammi*

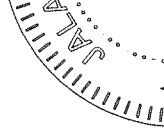
Miami-Dade

PRODUCT
As complyin
Building Cod
NOA-No.

Expiration D

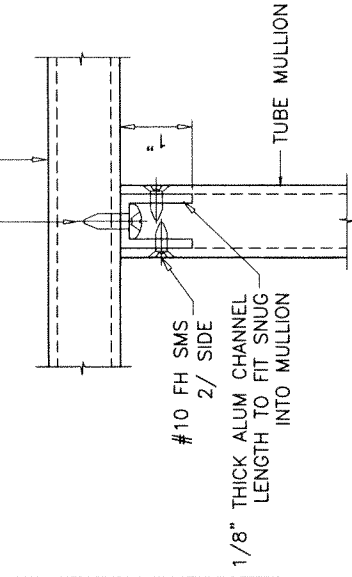
By: *Mammi*

Miami-Dade

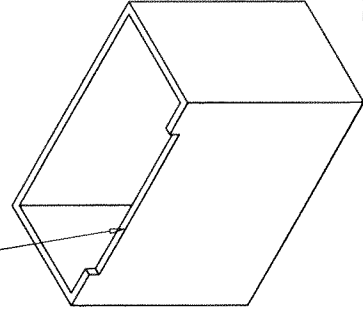


150.0	30"	102.4	150.0	150.0	59.7	89.6	119.5
150.0	37"	83.0	124.5	150.0	48.4	72.6	96.9
150.0	42"	73.1	109.7	146.3	42.7	64.0	85.3
150.0	48"	64.0	96.0	128.0	37.3	56.0	74.7
150.0	54"	56.9	85.3	113.8	33.2	49.8	66.4
150.0	60"	51.2	76.8	102.4	29.9	44.8	59.7
150.0	66"	46.5	69.8	93.1	27.2	40.7	54.3
150.0	72"	42.7	64.0	85.3	24.9	37.3	49.8
150.0	19-1/8"	140.5	150.0	150.0	144"		
150.0	26-1/2"	101.4	150.0	150.0			
150.0	30"	89.6	134.4	150.0			
150.0	37"	72.6	109.0	145.3			
150.0	42"	64.0	96.0	128.0	96"		
150.0	48"	56.0	84.0	112.0			
150.0	54"	49.8	74.7	99.6			
150.0	60"	44.8	67.2	89.6			
150.0	66"	40.7	61.1	81.5	108"		
141.6	72"	37.3	56.0	74.7			
150.0	19-1/8"	124.9	150.0	150.0			
150.0	26-1/2"	90.2	135.2	150.0			
150.0	30"	79.6	119.5	150.0	120"		
150.0	37"	64.6	96.9	129.2			
150.0	42"	56.9	85.3	113.8			
150.0	48"	49.8	74.7	99.6			
150.0	54"	44.2	66.4	88.5	132"		
148.3	60"	39.8	59.7	79.6			
134.8	66"	36.2	54.3	72.4			
123.6	72"	33.2	49.8	66.4			
150.0	19-1/8"	112.4	150.0	150.0	144"		
150.0	26-1/2"	81.1	121.7	150.0			
150.0	30"	71.7	107.5	143.4			
150.0	37"	58.1	87.2	116.2			
150.0	42"	51.2	76.8	102.4	96"		
150.0	48"	44.8	67.2	89.6			
150.0	54"	39.8	59.7	79.6			
136.5	60"	35.8	53.8	71.7			
124.1	66"	32.6	48.9	65.2	108"		
113.8	72"	29.9	44.8	59.7			
150.0	19-1/8"	102.2	150.0	150.0			
150.0	26-1/2"	73.8	110.7	147.5			
150.0	30"	65.2	97.7	130.3	120"		
150.0	37"	52.8	79.3	105.7			
150.0	42"	46.5	69.8	93.1			
144.8	48"	40.7	61.1	81.5			
128.7	54"	36.2	54.3	72.4	132"		
115.8	60"	32.6	48.9	65.2			
105.3	66"	29.6	44.4	59.2			
96.5	72"	27.2	40.7	54.3			

30"	59.7	89.6	119.5
37"	48.4	72.6	96.9
42"	42.7	64.0	85.3
48"	37.3	56.0	74.7
54"	33.2	49.8	66.4
60"	29.9	44.8	59.7
66"	27.2	40.7	54.3
72"	24.9	37.3	49.8



TUBES MAY BE NOTCHED
AS SHOWN TO ALLOW INSTALLATION
OF CLIP ANGLE
CAULK JOINT AFTER ASSEMBLY



#14 FH SMS
1-1/2\" O.C. MIN.
SEE CHART
FOR CAPACITY

ACCESS HOLE

THIS SCREW CAN BE
INSTALLED IN EITHER
DIRECTION

#10 FH SMS
2 PER CLIP
1\" O.C. MIN.

1-3/4\" X 2\" X 1/8\" (FOR 2BY TUBE)
3/4\" X 2\" X 1/8\" FOR (1BY TUBE)
ALUM ANGLE
CUT TO FIT SNUG INSIDE TUBE

ANCHORS DETAIL #1

METAL TO METAL CONNECTION

#14 SMS/TEKS			
SUBSTRATE	Ed. = MIN.	EDGE DIST.	MIN. CL TO CL SPACING
METAL	5/8"	1/2"	

METAL = 1/8\" MIN. THK. STEEL Fy = 36 KSI MIN.
1/8\" MIN. THK. ALUMINUM (6063-T6 MIN.)

PRODUCT
as complying
Building Code
NOA-No.

Expiration Date

By: *Manu*
Miami-Dade

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Miami-Dade

