

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

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

**MIAMI-DADE COUNTY** 

# **NOTICE OF ACCEPTANCE (NOA)**

Curv-A-Tech Corporation 930 West 23<sup>rd</sup> Street Hialeah, FL 33010

#### 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:** Extruded Aluminum Tube Mullion – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **M95-19A**, titled "Aluminum Tube Mullions", sheets 1 through 6 of 6, dated 12/07/95, with revision **H** dated 09/10/20, 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, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

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

This NOA renews NOA No. 20-0915.13 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.

MIAMI-DADE COUNTY
APPROVED

3/13/23

NOA No. 23-0221.04 Expiration Date: March 28, 2024 Approval Date: March 23, 2023 Page 1

# **Curv-A-Tech Corporation**

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA's No. 08-0813.08 and 97-0423.05)
- 2. Drawing No. M95-19A, titled "Aluminum Tube Mullions", sheets 1 through 6 of 6, dated 12/07/95, with revision H dated 09/10/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E. (Submitted under NOA No. 20-0915.13)

#### B. TESTS

- 1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94 along with marked-up drawings and installation diagram of aluminum fixed windows mulled together, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-5636, dated 06/12/08, signed and sealed by Carlos S. Rionda, P.E. (Submitted under NOA No. 08-0813.08)
- 2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per PA 202-94 along with installation diagram of aluminum fixed windows mulled together, prepared by Hurricane Engineering & Testing Inc., Test Report No. **HETI-96-1054**, dated 02/01/96 signed and sealed by Hector Medina, P.E. (Submitted under NOA No. 97-0423.05)

# C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC** 6<sup>th</sup> **Edition (2017)**, dated 01/23/18, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E. (Submitted under NOA No. 18-0129.15)

#### D. QUALITY ASSURANCE

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

Manuel Pérez, P.E.
Product Control Examiner
NOA No. 23-0221.04

Expiration Date: March 28, 2024 Approval Date: March 23, 2023

# **Curv-A-Tech Corporation**

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- E. MATERIAL CERTIFICATIONS
  - 1. None.

# F. STATEMENTS

- 1. Statement letter of conformance, complying with FBC 6<sup>th</sup> Edition (2017), and FBC 7<sup>th</sup> Edition (2020), dated August 24, 2020, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
  - (Submitted under NOA No. 20-0915.13)
- 2. Laboratory compliance letter for Test Report No. FTL-5636 issued by Fenestration Testing Laboratory, Inc., dated 06/12/08, signed and sealed by Carlos S. Rionda, P.E. (Submitted under NOA No. 08-1024.06)
- 3. Laboratory compliance letter for Test Report No. **HETI-96-1054** issued by Hurricane Engineering & Testing, Inc., dated 02/01/96 signed and sealed by Hector Medina, P.E. (Submitted under NOA No. 97-0423.05)

# G. OTHERS

1. Notice of Acceptance No. 18-0129.15, issued to Curv-A-Tech Corporation for their Extruded Aluminum Tube Mullion – L.M.I., approved on 02/22/18 and expiring on 03/28/23.

Manuel Perez, P.E. Product Control Examiner NOA No. 23-0221.04

Expiration Date: March 28, 2024 Approval Date: March 23, 2023

# **Curv-A-Tech Corporation**

# 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

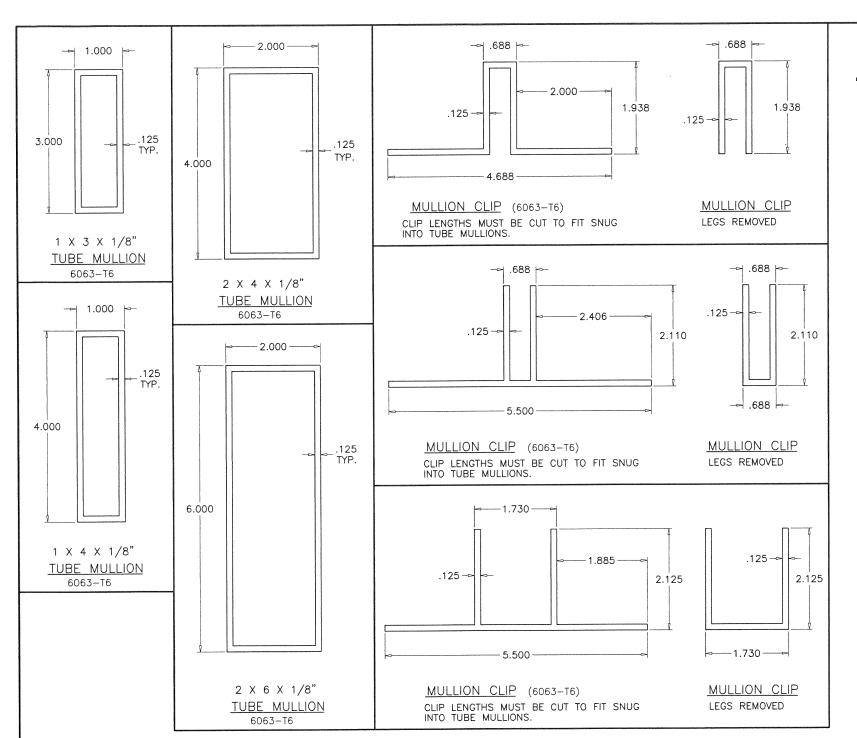
- 1. Statement letter of conformance, complying with **FBC** 7<sup>th</sup> **Edition (2020)**, and of no financial interest, dated February 17, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Letter from consultant Al-Farooq Corporation, on behalf of Curv-A-Tech Corporation, requesting a 1-year extension to allow time to perform verification test, dated 02/17/23, signed and sealed by Jalal Farooq, P.E.
- **3.** Testing agreement letter, dated 02/15/23 between QAI Laboratories and Curv-A-Tech Corporation, issued by QAI Laboratories and signed by Lusinda Delgado, Technical Report Writer.

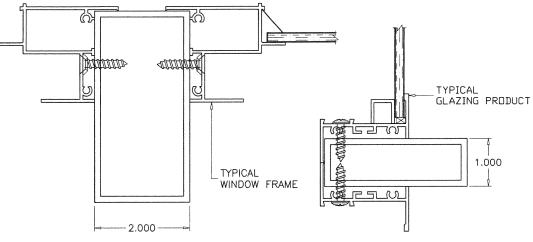
#### G. OTHERS

- 1. Notice of Acceptance No. **20-0915.13**, issued to Curv-A-Tech Corporation for their Extruded Aluminum Tube Mullion L.M.I., approved on 12/31/20 and expiring on 03/28/23.
- 2. This is a one-year approval, subjected to successful verification test, the final approval will be issued for a total of 5 years.

Manuel Perez, P.E. Product Control Examiner NOA No. 23-0221.04

Expiration Date: March 28, 2024 Approval Date: March 23, 2023





# MULLIONS CONTAINING TYPICAL GLAZING PRODUCTS HORIZONTAL OR VERTICAL

SEE WINDOW OR DOOR APPROVAL FOR FASTENERS SIZES AND SPACING

MULLION SYSTEM IS RATED FOR LARGE MISSILE IMPACT. AND CAN BE USED WITH ALL MIAMI-DADE COUNTY APPROVED IMPACT AND NON-IMPACT RESISTANT PRODUCTS.

# RECTANGULAR ALUMINUM TUBE MULLIONS USING MULLION PROPERTIES ONLY

# **NOTES:**

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH EDITION)/2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ALL GLAZING PRODUCTS USED WITH THESE MULLIONS MUST MEET THE APPLICABLE BUILDING CODE REQUIREMENTS I.E: WIND LOAD, WATER INFILTRATION, FORCED ENTRY RESISTANCE, SAFEGUARDS ETC.

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2017/2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'

# **PRODUCT REVISED** as complying with the Florida Building Code

**NOA-No.** 20-0915.13

Expiration Date 03/28/2023

Miami-Dade Product Control

DEC 0 2 2020



V-A-TECH CORPORATION
W. 23rd STREET
AH, FL 33010
305) 888-9631 FAX. (305) 888-996 MULLIONS TUBE ALUMINUM CURV—A-930 W. 2. HIALEAH, 1 TEL. (305) 8

(C.A.N. 3538) . (305) 262-6978

 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

 MIAMI, FLORIDA 33173
 (C.A.N. 3538)

 TEL. (305) 264-8100
 FAX. (305) 262-6978

by description
UPDATED TO 2014 FBC
REV. PER RER COMMENTS
UPDATED TO 2017 FBC
UPDATED TO 2020 FBC date 05.18.15 01.29.16 01.11.18 T G T E O

drawing no.

sheet 1 of 6

M95-19A

**PRODUCT RENEWED** DETERMINE DESIGN LOAD REQUIRED PER ASCE 7 FOR PARTICULAR OPENING.

USE DADE COUNTY APPROVED GLAZING PRODUCTS MEETING ABOVE LOAD REQUIREMENTS.

USE CONNECTION TO MULLION AS PER PRODUCT

USE CHARTS AND GRAPHS AS FOLLOWS.

**INSTRUCTIONS:** 

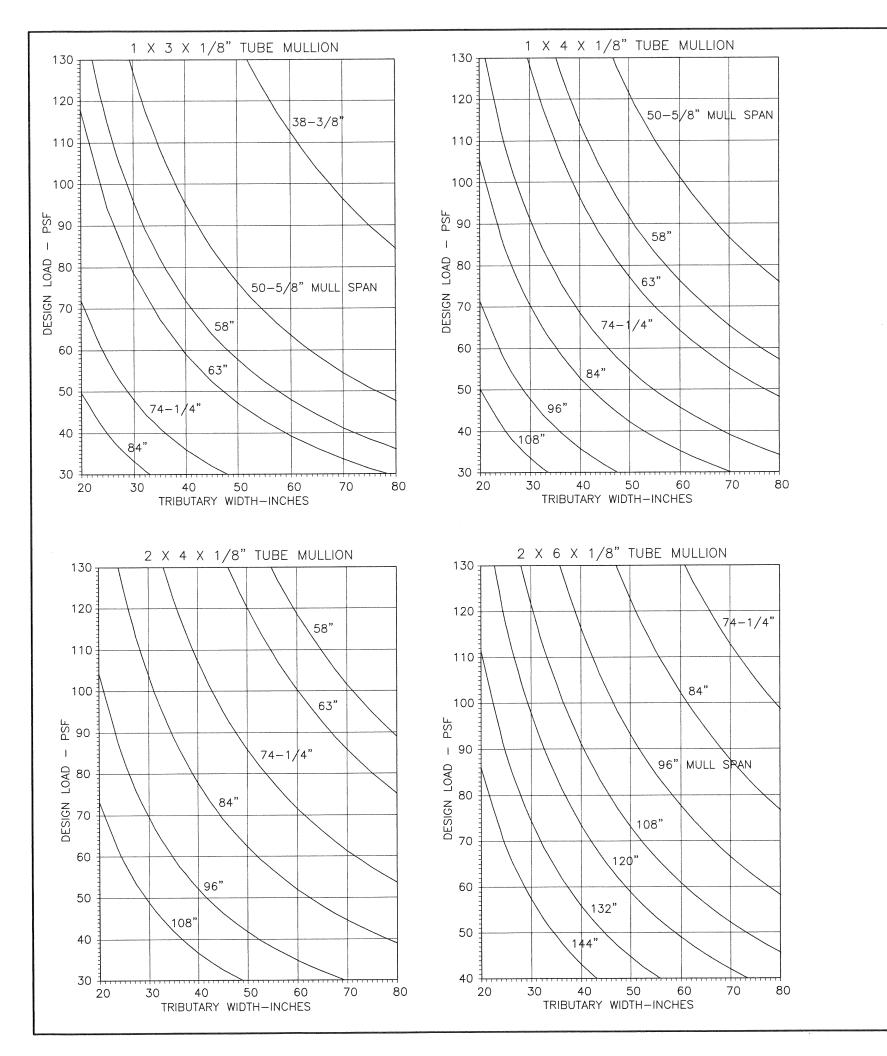
USING GRAPHS ON SHEET 2 SELECT MULLION SIZE WITH STEP 4 DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED

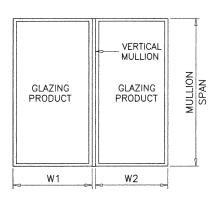
USING ANCHOR TYPES ON SHEETS 4 & 5, AND ANCHOR GRAPHS ON SHEET 3, SELECT ANCHOR TYPE WITH DESIGN RATING MORE THAN THE DESIGN LOADS SPECIFIED IN STEP 1 ABOVE.

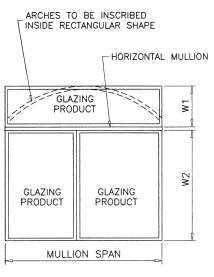
as complying with the Florida Building Code NOA-No. 23-0221.04 **Expiration Date: 03/28/2024** By: Manuel Peres

Miami-Dade Product Control

THIS NOA IS NOT VALID WITHOUT CORPORATE SEAL OF CURV-A-TECH CORPORATION AND A LABEL AFFIXED.







# TYPICAL MULLION ARRANGEMENTS

<u>W1 + W2</u> WIDTH (W) =

NOTE:

DEC 0 2 2020

MULLIONS RATED IN THESE CHARTS MAY BE ORIENTED VERTICALLY OR HORIZONTALLY. (INTERPOLATION BETWEEN WIDTHS ALLOWED)

**PRODUCT RENEWED** as complying with the Florida Building Code

NOA-No.

Expiration Date: 03/28/2024

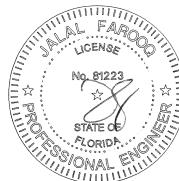
By: Manuel Peres Miami-Dade Product Control

**PRODUCT REVISED** as complying with the Florida Building Code

**NOA-No.** 20-0915.13 Expiration Date 03/28/2023

Miami-Dade Product Control

MULLIONS



|  | revisions: | date | E 05.18.15       | F 01.29.16 | G 01.11.18    | 00 00 |
|--|------------|------|------------------|------------|---------------|-------|
|  | é          | 90   | ш                | Ŀ          | ß             | 3     |
| ////////////////////////////////////// | 7-95       |      | scale: 1/2" = 1" |            | dr. by: TARIQ |       |
| 3                                      |            |      |                  |            |               | _     |

by description
UPDATED TO 2014 F
REV. PER RER COMM
UPDATED TO 2017 F
UPDATED TO 2020 F

 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

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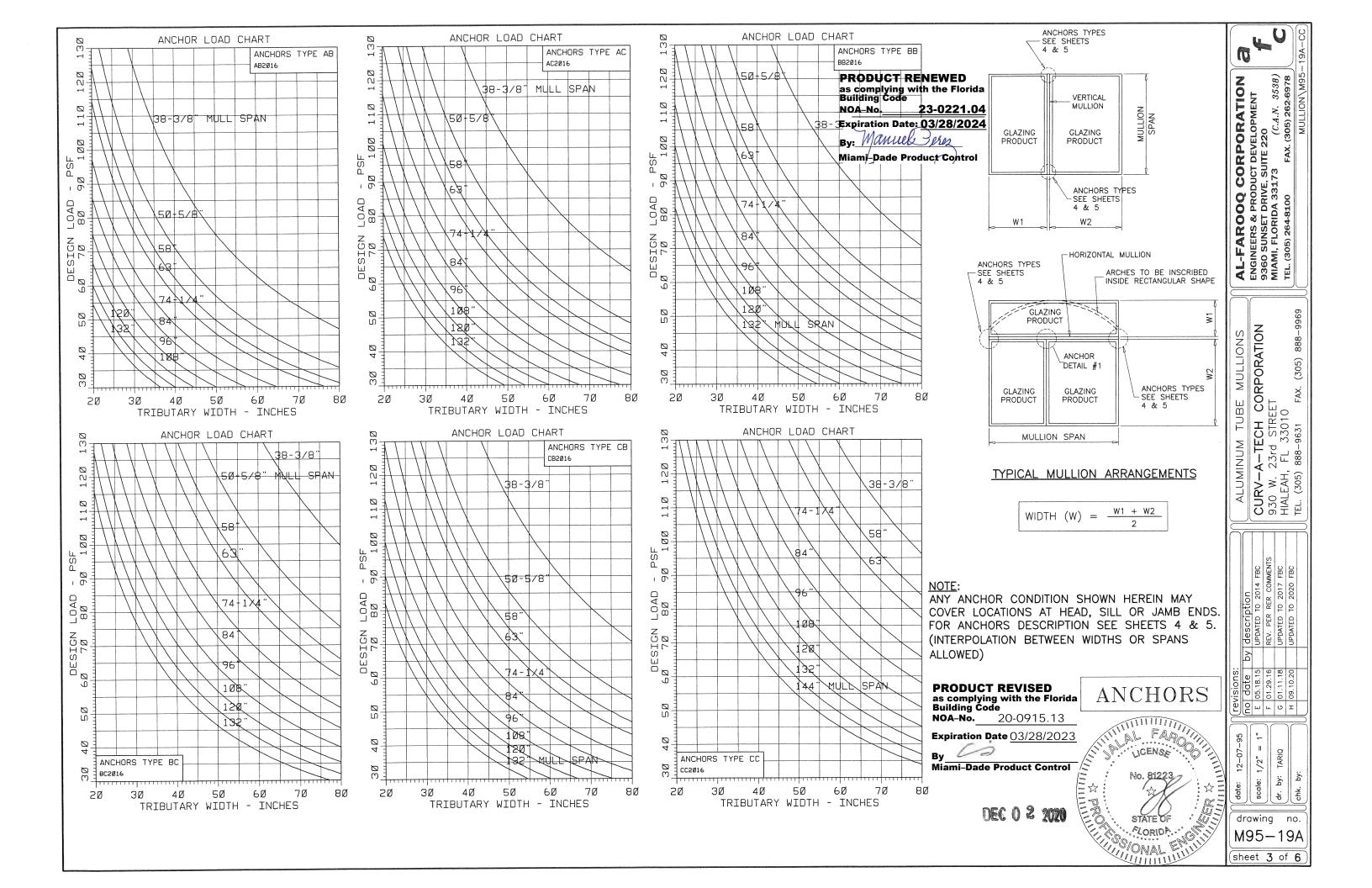
CURV—A—TECH CORPORATION 930 W. 23rd STREET HIALEAH, FL 33010 TEL. (305) 888–9631 FAX. (305) 888–99

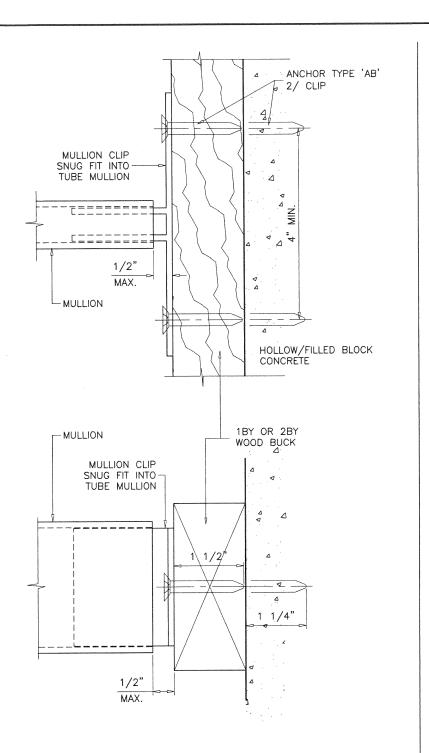
TUBE MULLIONS

ALUMINUM

drawing no. M95 - 19A

sheet 2 of 6





# ANCHORS:

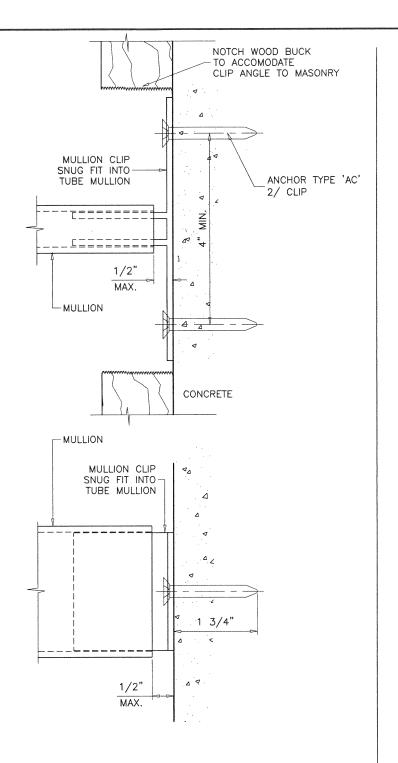
TYPE 'AB'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS) THRU 1BY WOOD BUCKS INTO HOLLOW/FILLED BLOCKS WITH 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS) THRU 1BY WOOD BUCKS INTO CONCRETE

WITH 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

# ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN. INTO WOOD STRUCTURE = 1" MIN.

> WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN. CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN. C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



# ANCHORS:

TYPE 'AC'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE WITH 1-3/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

#### ANCHOR EDGE DISTANCES

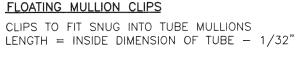
INTO CONCRETE = 2-1/2" MIN.

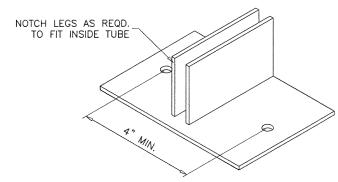
**PRODUCT RENEWED** as complying with the Florida
Building Code

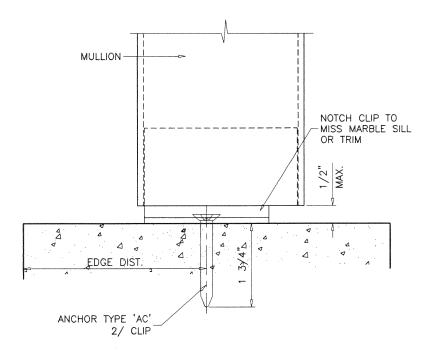
as complying with the Florida
Building Code NOA-No. Expiration Date: 03/28/2024 Expiration Date 03/28/2023 By: Manuel Peres

Miami-Dade Product Control

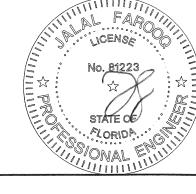
PRODUCT REVISED **23**-**0221.04 NOA**-**No.** 20-0915.13







WOOD BUCKS NOT BY CURVATECH MUST SUSTAIN LOADS IMPOSED.



by description
UPDATED TO 2014 FBC
REV. PER RER COMMENTS
UPDATED TO 2017 FBC
UPDATED TO 2020 FBC revisions:
no date
E 05.18.15
F 01.29.16
G 01.11.18
H 09.10.20

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
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MULLION\M95-

CURV—A—TECH CORPORATION 930 W. 23rd STREET HIALEAH, FL 33010 TEL. (305) 888–9631 FAX. (305) 888–99

MULLIONS

ALUMINUM TUBE

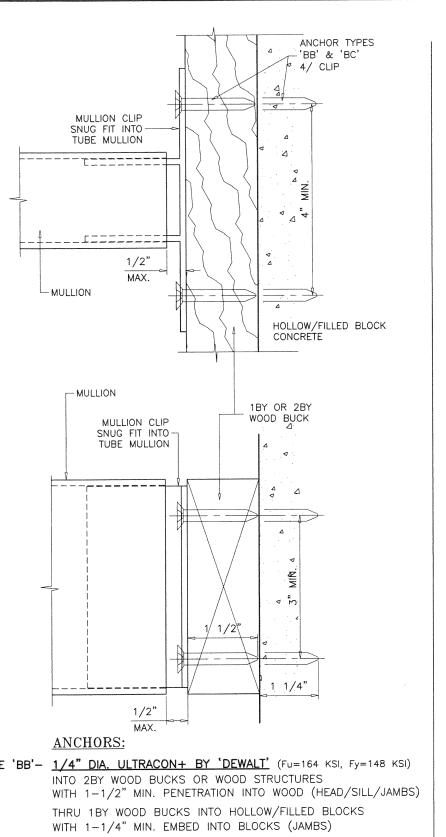
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drawing

M95-19A sheet 4 of 6

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Miami-Dade Product Control

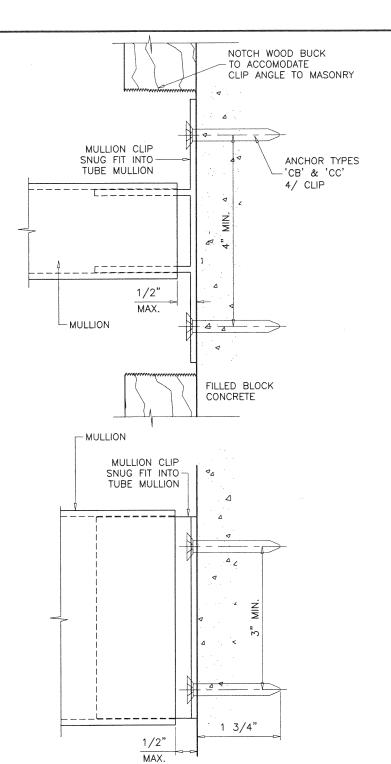


TYPE 'BB'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

TYPE 'BC'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

#### ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN. INTO WOOD STRUCTURE = 1" MIN.



#### ANCHORS:

TYPE 'CB'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO GROUT FILLED BLOCKS

WITH 1-3/4" MIN. EMBED INTO BLOCKS (JAMBS)

TYPE 'CC'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE WITH 1-3/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

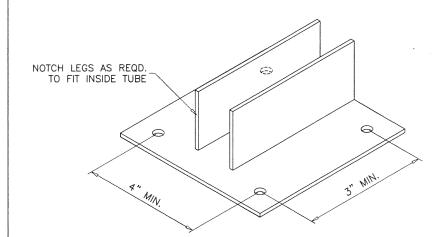
#### ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN. INTO WOOD STRUCTURE = 1" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN. CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN. C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

#### FLOATING MULLION CLIPS

CLIPS TO FIT SNUG INTO TUBE MULLIONS LENGTH = INSIDE DIMENSION OF TUBE - 1/32"



(C.A.N. 3538) FAX. (305) 262-6978 **AL-FAROOQ CORPORATION**ENGINEERS & PRODUCT DEVELOPMENT
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TEL. (305) 264-8100 FAX. (305) 262-6978

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V-A-TECH CORPORATION
W. 23rd STREET
EAH, FL 33010
305) 888-9631 FAX. (305) 888-996 MULLIONS CURV—A 930 W. 2 HIALEAH, TEL. (305)

TUBE ALUMINUM

description
UPDATED TO 2014 FBC
REV. PER RER COMMENTS
UPDATED TO 2017 FBC
UPDATED TO 2020 FBC date 05.18.15 01.29.16 01.11.18 

Expiration Date: 03/28/2024

**PRODUCT REVISED** as complying with the Florida Building Code **NOA-No.** 20-0915.13

Expiration Date 03/28/2023

Miami-Dade Product Control



WOOD BUCKS NOT BY CURVATECH

MUST SUSTAIN LOADS IMPOSED.

1/2" ь ру: 1 <u>₽</u>

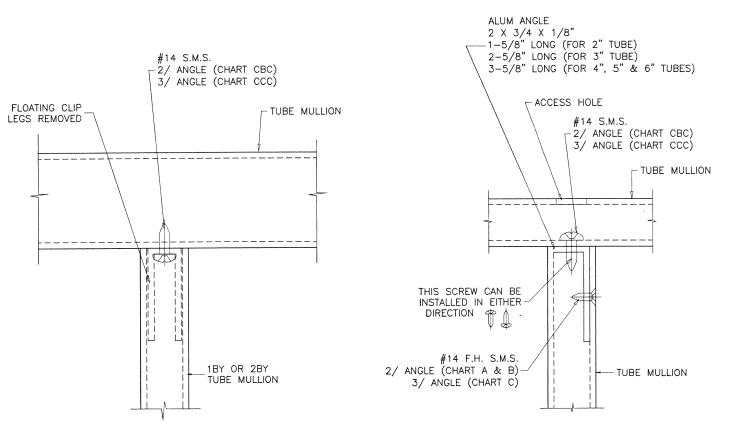
drawing no. M95-19A

sheet 5 of 6

**PRODUCT RENEWED** as complying with the Florida Building Code

NOA-No. 23-0221.04

Miami-Dade Product Control



ANCHORS DETAIL #1 METAL TO METAL CONNECTION

PRODUCT RENEWED
as complying with the Florida
Building Code

NOA-No.

23-0221.04 Expiration Date: 03/28/2024

By: Manuel Pres

Miami-Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code
NOA-No. 20-0915.13

**Expiration Date** <u>03/28</u>/2023

Miami-Dade Product Control

No. 81223

STATE OF

STORIDA

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|-----------|----------|--------------|------------|----|---------------|------|
| 12-07-95  | $\equiv$ | ( <u>e</u> ) | revisions: |    |               |      |
|           |          | 10           | no date    | by | by descriptio | otio |
| 1/2" = 1" |          | ш            | E 05.18.15 |    | UPDATED TO 2  | 10   |
|           |          | LL           | F 01.29.16 |    | NO CHANGE T   | 뜅    |
| TARIQ     |          | ပ            | G 01.11.18 |    | UPDATED TO 2  | 2    |
|           |          | I            | Н 09.10.20 |    | UPDATED TO 2  | 2    |
|           |          |              |            |    |               |      |

 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

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ALUMINUM TUBE MULLIONS

CURV—A—TECH CORPORATION
930 W. 23rd STREET
HIALEAH, FL 33010
TEL. (305) 888–9631 FAX. (305) 888–9969

by: å. drawing no.

M95-19A sheet 6 of 6