



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/economy

Arrow United Industries a division of Mestek, Inc.
450 Riverside Drive
Wyalusing, PA 18853

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: Model EA-52 5" Aluminum Louver System

APPROVAL DOCUMENT: Drawing No. **1685**, titled "EA-52 Impact Louver System", sheets 1 through 10 of 10, dated 07/23/2009, with revision C1 dated 03/14/2019, 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 revision 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 **revises NOA # 19-0401.01** 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 **Carlos M. Utrera, P.E.**



NOA No. 20-0622.16
Expiration Date: January 6, 2025
Approval Date: August 20, 2020
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under previous NOAs

A. DRAWINGS “Submitted under NOA # 11-1117.10”

1. Drawing No. **1685**, titled “EA-52 Impact Louver System”, sheets 1 through 10 of 10, dated 07/23/2009, with revision A1 dated 11/08/2011, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

B. TESTS “Submitted under NOA # 09-1015.09”

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 “EA-52 Aluminum Louver Systems”, prepared by Hurricane Test Laboratory, Inc., Report No. **0198-0305-09**, dated 09/29/2009, signed and sealed by Vinu J. Abraham, P.E.
2. 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 “EA-52 Aluminum Louver Systems”, prepared by Hurricane Test Laboratory, Inc., Report No. **0198-0715-09**, dated 09/30/2009, signed and sealed by Vinu J. Abraham, P.E.

C. CALCULATIONS “Submitted under NOA #14-0513.07”

1. Wood screw calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 04/14/2014, signed and sealed by Warren W. Schaefer, P.E.

“Submitted under NOA # 09-1015.09”
2. Structural calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 10/06/2009, signed and sealed by Warren W. Schaefer, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS “Submitted under NOA #14-0513.07”

1. Statement letter of code conformance to 2010 and 5th edition (2014) FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 04/14/2014, signed and sealed by Warren W. Schaefer, P.E.
2. No financial interest letter issued by W. W. Schaefer Engineering & Consulting, P.A., dated 04/14/2014, signed and sealed by Warren W. Schaefer, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 20-0622.16

Expiration Date: January 6, 2025
Approval Date: August 20, 2020

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. Evidence submitted under NOA # 17-0713.05

A. DRAWINGS

1. Drawing No. **1685**, titled “EA-52 Impact Louver System”, sheets 1 through 10 of 10, dated 07/23/2009, with revision B1 dated 07/05/2017, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

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 code conformance to the 5th Edition (2014) and 6th Edition (2017) FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 07/05/2017, signed and sealed by Warren W. Schaefer, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 20-0622.16
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. New evidence submitted

A. DRAWINGS “Submitted under NOA # 19-0401.01”

1. Drawing No. **1685**, titled “EA-52 Impact Louver System”, sheets 1 through 10 of 10, dated 07/23/2009, with revision C1 dated 03/14/2019, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

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 code conformance to the 6th edition (2017) and 7th edition (2020) of the FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 06/03/2020, signed and sealed by Warren W. Schaefer, P.E.

“Submitted under NOA # 19-0401.01”

2. Statement letter of no financial interest issued by W. W. Schaefer Engineering & Consulting, P.A., dated 03/14/2019, signed and sealed by Warren W. Schaefer, P.E.

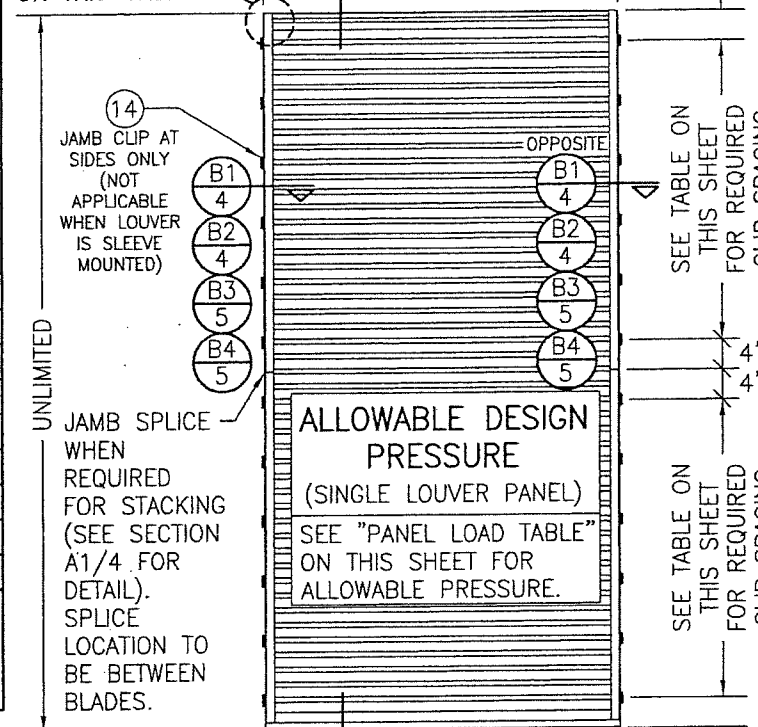


**Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 20-0622.16**

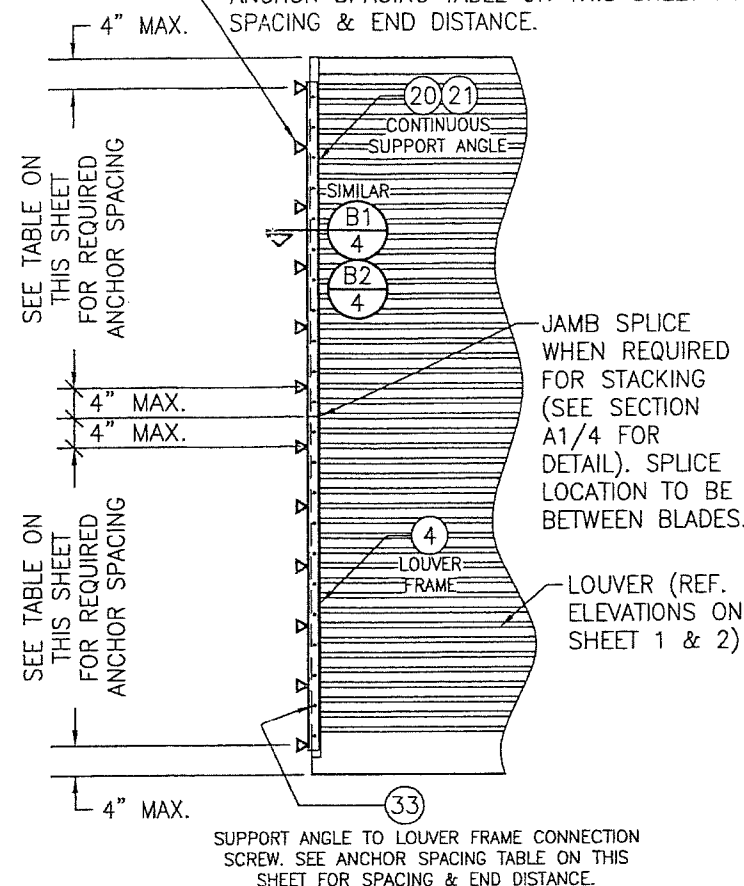
**Expiration Date: January 6, 2025
Approval Date: August 20, 2020**

PANEL WIDTH (IN.)	(1) CLIP SPACING (IN.)	ALLOWABLE PRESSURE (+/- PSF)
36	8	120
	13	104
	18	75
42	8	120
	13	89
	18	64
48	8	120
	13	78
	18	56
54	8	120
	13	69
	18	50
60	8	120
	13	62
	18	45

SEE CORNER
CONSTRUCTION
DESCRIPTIONS
ON THIS SHEET



JAMB ANCHORS TO SUBSTRATE PER ANCHOR REQUIREMENTS TABLE ON SHEET 1. SEE ANCHOR SPACING TABLE ON THIS SHEET FOR SPACING & END DISTANCE.

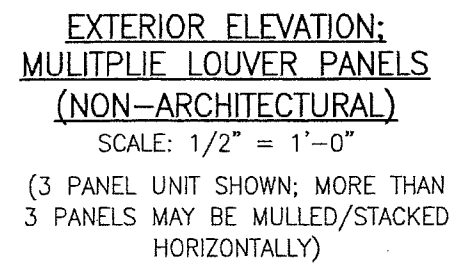



PANEL WIDTH (IN.)	ANGLE TO SUBSTRATE ANCHORS		ANGLE TO LOUVER FRAME SCREWS		ALLOWABLE PRESSURE (+/- PSF)
	SPACING (IN.)	END DIST. (IN.)	SPACING (IN.)	END DIST. (IN.)	
36	8	4	4	2	120
	13	7 1/2	7 1/2	3 3/4	104
	18	9	9	4 1/2	75
42	8	4	4	2	120
	13	7 1/2	7 1/2	3 3/4	89
	18	9	9	4 1/2	64
48	8"	4	4	2	120
	13	7 1/2	7 1/2	3 3/4	78
	18	9	9	4 1/2	56
54	8	4	4	2	120
	13	7 1/2	7 1/2	3 3/4	69
	18	9	9	4 1/2	50
60	8	4	4	2	120
	13	7 1/2	7 1/2	3 3/4	62
	18	9	9	4 1/2	45

DRAWING NO. 1685		REV. C	
SHEET NO. 1 OF 10			
CERTIFICATION STATE OF PA I, WARREN W. SCHAEFER , P.E. P.E. NO. 44135 MAR 14 2019 APPROVED FOR THE PROJECT			
DRAWING TITLE EA-52 IMPACT LOUVER SYSTEM			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
MANUFACTURER ARROW UNITED INDUSTRIES; A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888			
NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE CONSULTANTS &	W.R.M.	11/08/11
	MANUFACTURERS ADDRESS		
B1	MANUFACTURER NAME CHANGE	W.W.S.	07/05/17
C1	REMOVED RED HEAD TAPCONS	W.W.S.	03/14/19

MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)		
		WITH NO TUBE MULLION	WITH 4"x3"x3/16" TUBE MULLION	WITH 4"x3"x1/4" TUBE MULLION
120	60	30.6	46.1	61.4
	54	34.0	51.2	68.3
	48	38.3	57.6	76.8
	42	43.7	65.8	87.8
	36	51.0	76.8	102.4
	30	61.2	92.2	120.0
	24	76.5	115.2	120.0
	18	102.0	120.0	120.0
108	60	42.0	63.2	84.3
	54	46.6	70.2	93.6
	48	52.5	79.0	105.3
	42	60.0	90.3	120.0
	36	70.0	105.3	120.0
	30	84.0	120.0	120.0
	24	104.9	120.0	120.0
	18	120.0	120.0	120.0
96	60	56.3	90.0	120.0
	54	62.5	100.0	120.0
	48	70.3	112.5	120.0
	42	80.4	120.0	120.0
	36	93.8	120.0	120.0
	30	112.5	120.0	120.0
	24	120.0	120.0	120.0
84	60	64.3	120.0	120.0
	54	71.4	120.0	120.0
	48	80.4	120.0	120.0
	42	91.8	120.0	120.0
	36	107.1	120.0	120.0
	30	120.0	120.0	120.0
72	60	75.0	120.0	120.0
	54	83.3	120.0	120.0
	48	93.8	120.0	120.0
	42	107.1	120.0	120.0
	36	120.0	120.0	120.0
60	60	90.0	120.0	120.0
	54	100.0	120.0	120.0
	48	112.5	120.0	120.0
	42	120.0	120.0	120.0
48	60	112.5	120.0	120.0
	54	120.0	120.0	120.0
42	60	120.0	120.0	120.0

FOR LOCATIONS OF—
JAMB CLIPS, SEE
SINGLE PANEL
ELEVATION (NOTE
THAT FRAME SPLICE
DOES NOT APPLY TO
MULLED UNITS)



PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 19-0401.01
Expiration Date 01/06/2025
By 
Miami-Dade Product Control

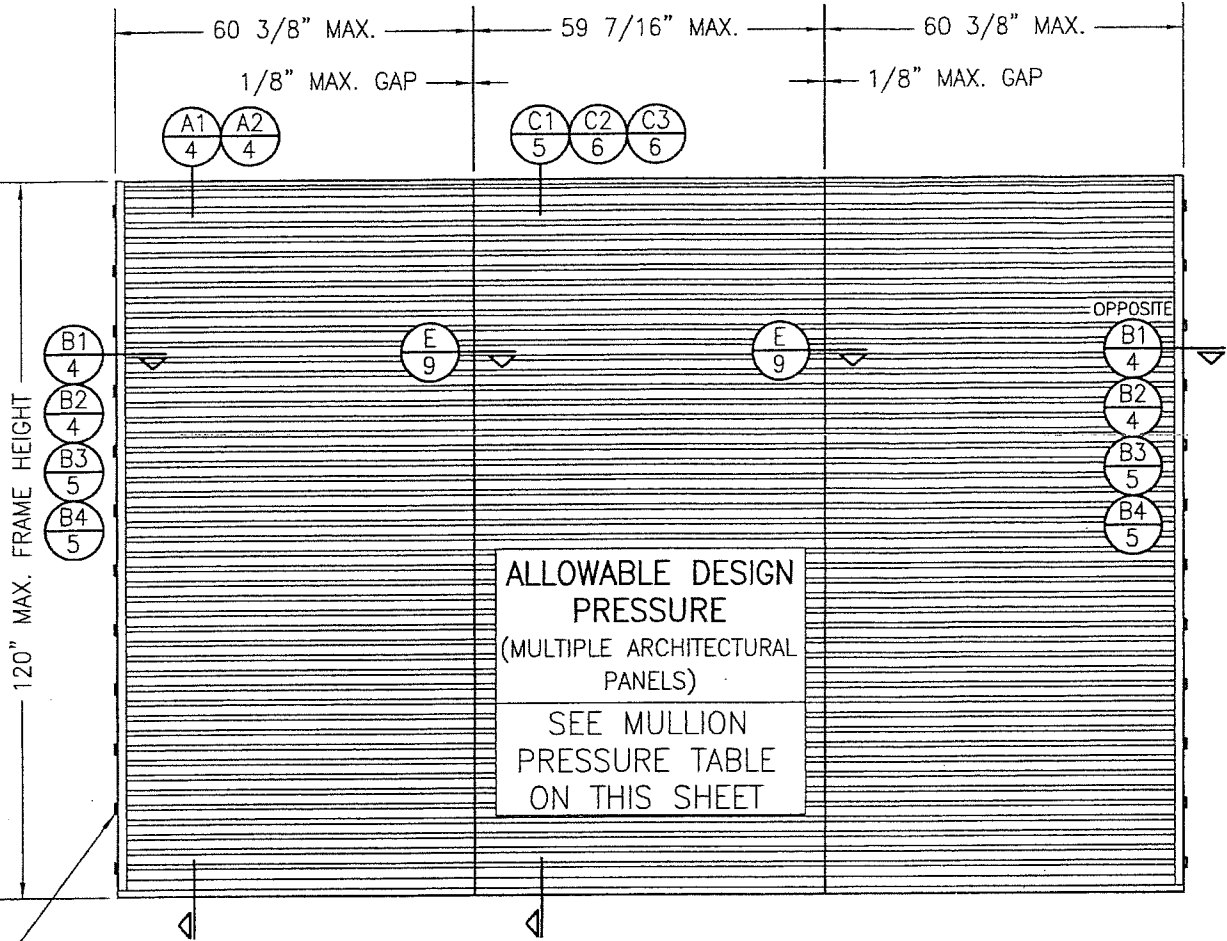
CERTIFICATION						DRAWING NO. 1685		REV. C	
						SHEET NO. 2 OF 10			
WARREN W. SCHAEFER, P.E. P.E. NO. 44135									
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-7444-3424						MANUFACTURER ARROW UNITED INDUSTRIES; A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888			
DRAWING TITLE EA-52 IMPACT LOUVER SYSTEM									
NO. 						REVISION DESCRIPTION 		BY 	
DATE 						DATE: 07/23/09			
PLOT: 1-24						CHECKED BY: W.W.S.			
DRAWN BY: W.R.M.						CHECKED BY: W.W.S.			

MULLION ALLOWABLE
DESIGN PRESSURE
(ARCHITECTURAL
LOUVERS)

MAXIMUM MULLION SPAN (IN.)	MAXIMUM LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)
120	60	61.4
	54	68.3
	48	76.8
	42	87.8
	36	102.4
108	60	84.3
	54	93.6
	48	105.3
	42	120.0
96	60	120.0

NOTES:

1. SEE ELEVATION FOR DIMENSIONING OF LOAD WIDTH.
2. ALLOWABLE UNIT PRESSURE SHALL BE THE LESSER OF THE PRESSURE SHOWN IN THIS TABLE & THAT SPECIFIED FOR THE INDIVIDUAL LOUVER PANEL.



FOR LOCATIONS OF JAMB CLIPS,
SEE SINGLE PANEL ELEVATION
(NOTE THAT FRAME SPLICE
DOES NOT APPLY TO MULLED
UNITS)

EXTERIOR ELEVATION:
MULTIPLE LOUVER PANELS
(ARCHITECTURAL)

SCALE: 1/2" = 1'-0"

(3 PANEL UNIT SHOWN; MORE THAN
3 PANELS MAY BE MULLED/STACKED
HORIZONTALLY)

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0622.16

Expiration Date 01/06/2025

By *[Signature]*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 19-0401.01

Expiration Date 01/06/2025

By *[Signature]*
Miami-Dade Product Control

DRAWN BY: W.R.M. CHECKED BY: W.W.S.
PLOT: 1=24 DATE: 07/23/09

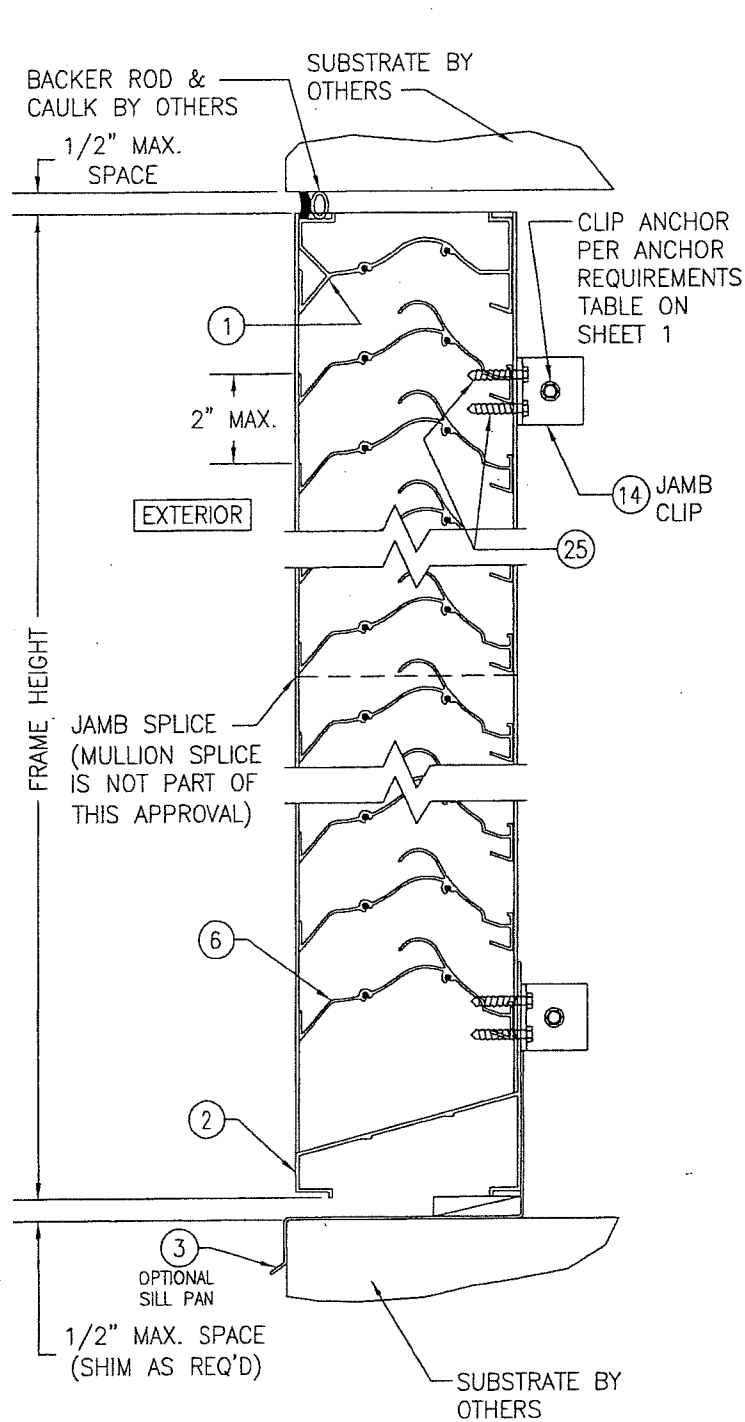
NO.	REVISION DESCRIPTION	BY	DATE

MANUFACTURER
ARROW UNITED INDUSTRIES;
A DIVISION OF MESTEK, INC.
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

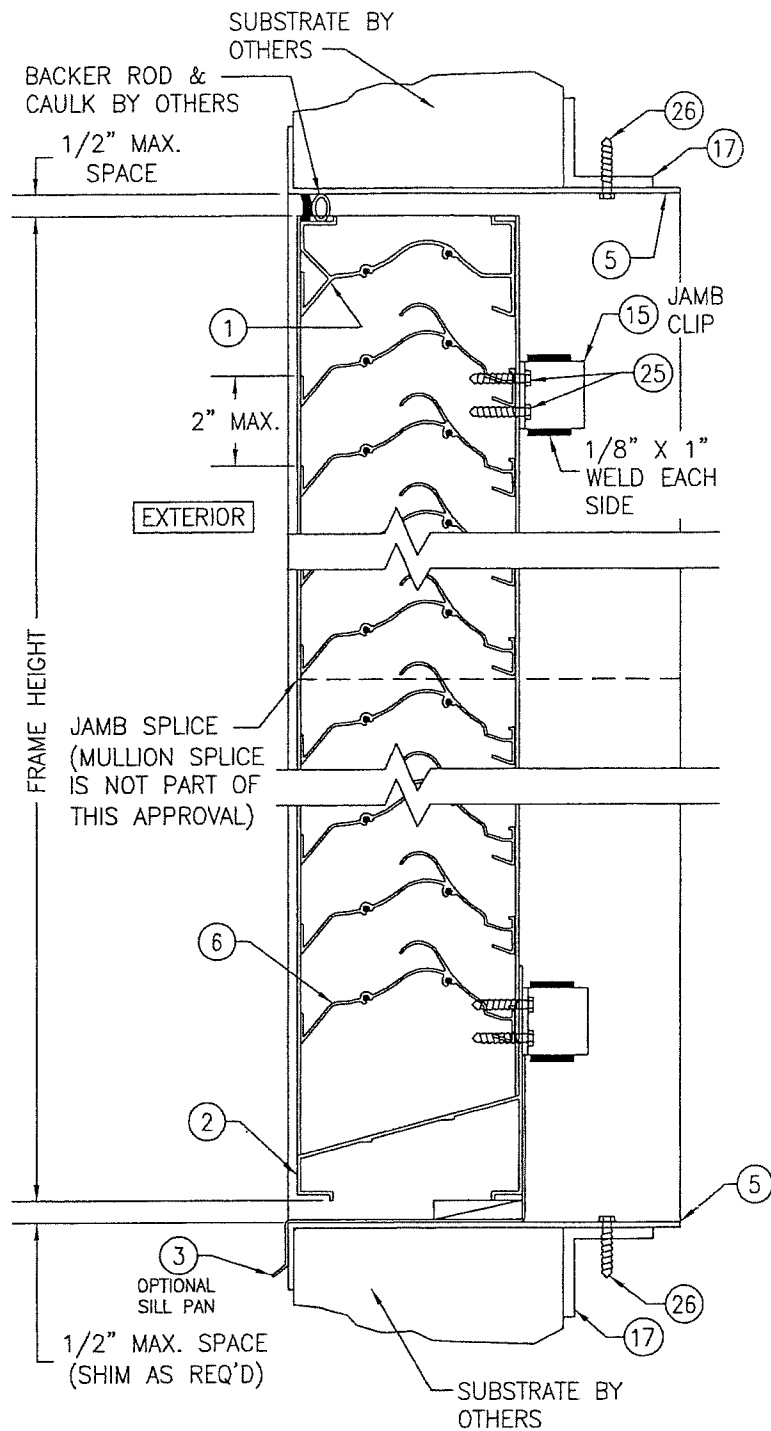
CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION
W. W. SCHAEFER
P.E. NO. 41136
MAR 2 2019

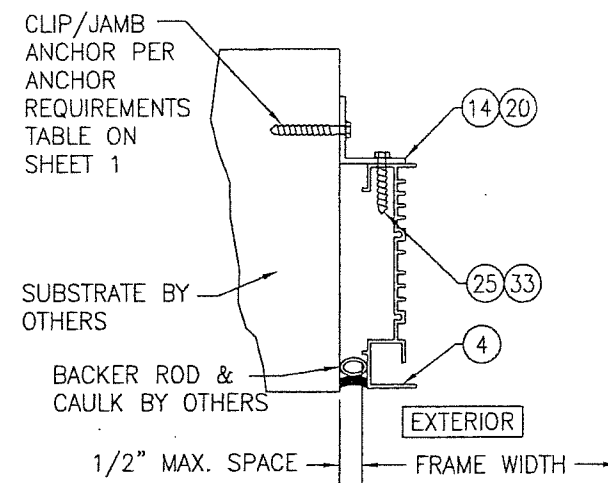
DRAWING NO. 1685
SHEET NO. 3 OF 10
REV. C



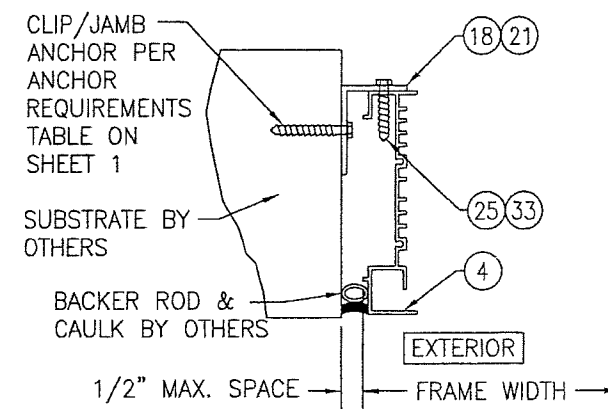
SECTION A1
SCALE: 1/2 FULL



SECTION A2
SCALE: 1/2 FULL
(SLEEVE MOUNT)



SECTION B1
SCALE: 1/2 FULL
(NO SLEEVE & CLIPS TURNED OUT)

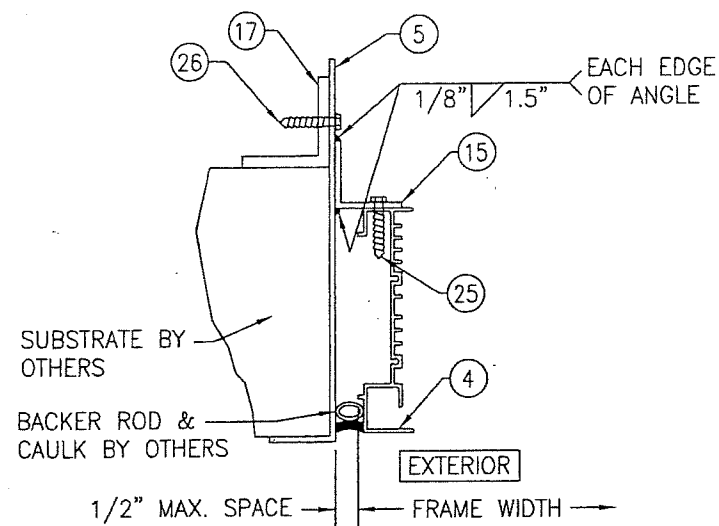


SECTION B2
SCALE: 1/2 FULL
(NO SLEEVE & CLIPS TURNED IN)

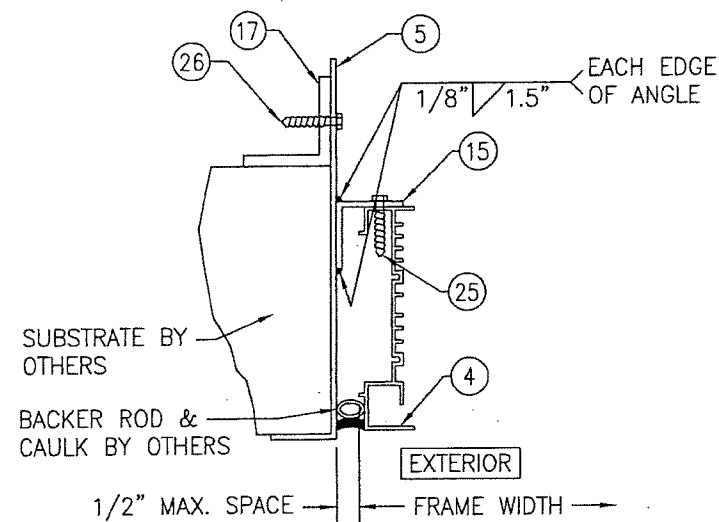
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0622.16
Expiration Date 01/06/2025
By *[Signature]*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 19-0401.01
Expiration Date 01/06/2025
By *[Signature]*
Miami-Dade Product Control

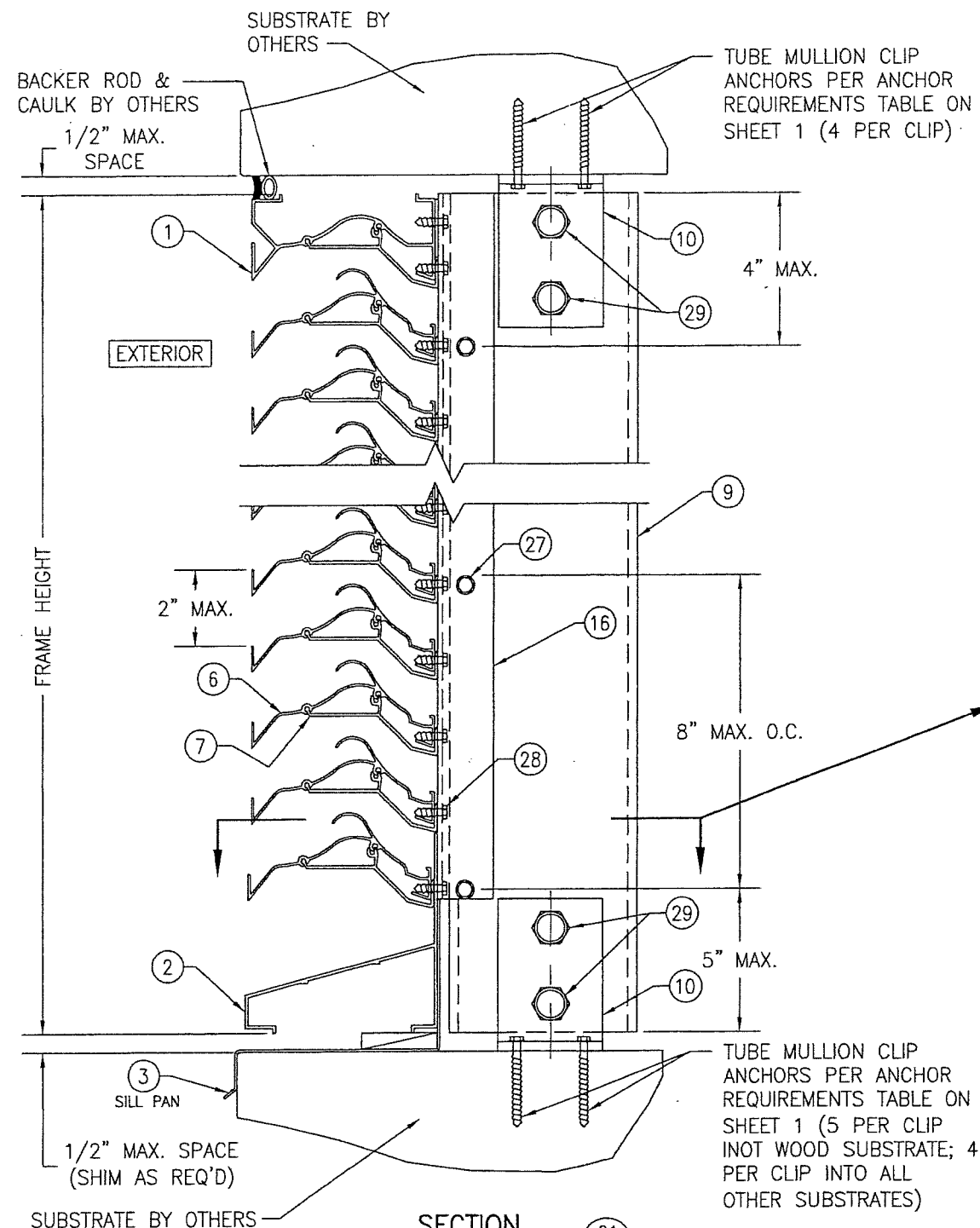
DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-4		DATE: 07/23/09	
NO.	REVISION DESCRIPTION	DATE	BY
<p>DRAWING TITLE: EA-52 IMPACT LOUVER SYSTEM</p> <p>MANUFACTURER: ARROW UNITED INDUSTRIES, INC. A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888</p> <p>CONSULTANTS: W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424</p> <p>CERTIFICATION: MAR 14 2019 WARREN W. SCHAEFER, P.E. P.E. NO. 44135</p>			
DRAWING NO. 1685		REV. C	
SHEET NO. 4 OF 10			



SECTION B3
SCALE: 1/2 FULL
(WITH SLEEVE & CLIPS TURNED OUT)

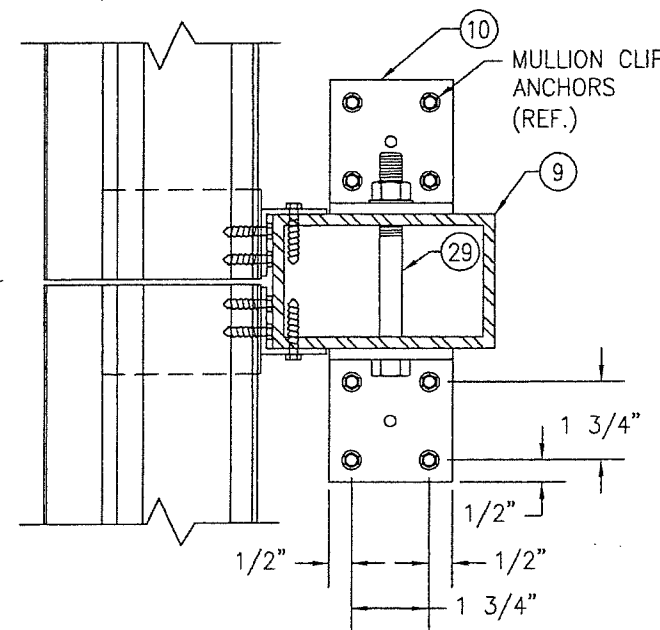


SECTION B4
SCALE: 1/2 FULL
(WITH SLEEVE & CLIPS TURNED IN)



SECTION C1
SCALE: 1/2 FULL

(ARCHITECTURAL LOUVER WITHOUT PERIMETER SLEEVE; INSTALLED INTO WOOD, STEEL, ALUMINUM, OR METAL STUD SUBSTRATE)



(FOR DETAIL NOT SHOWN, SEE SECTION E/9)

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0622.16

Expiration Date 01/06/2025

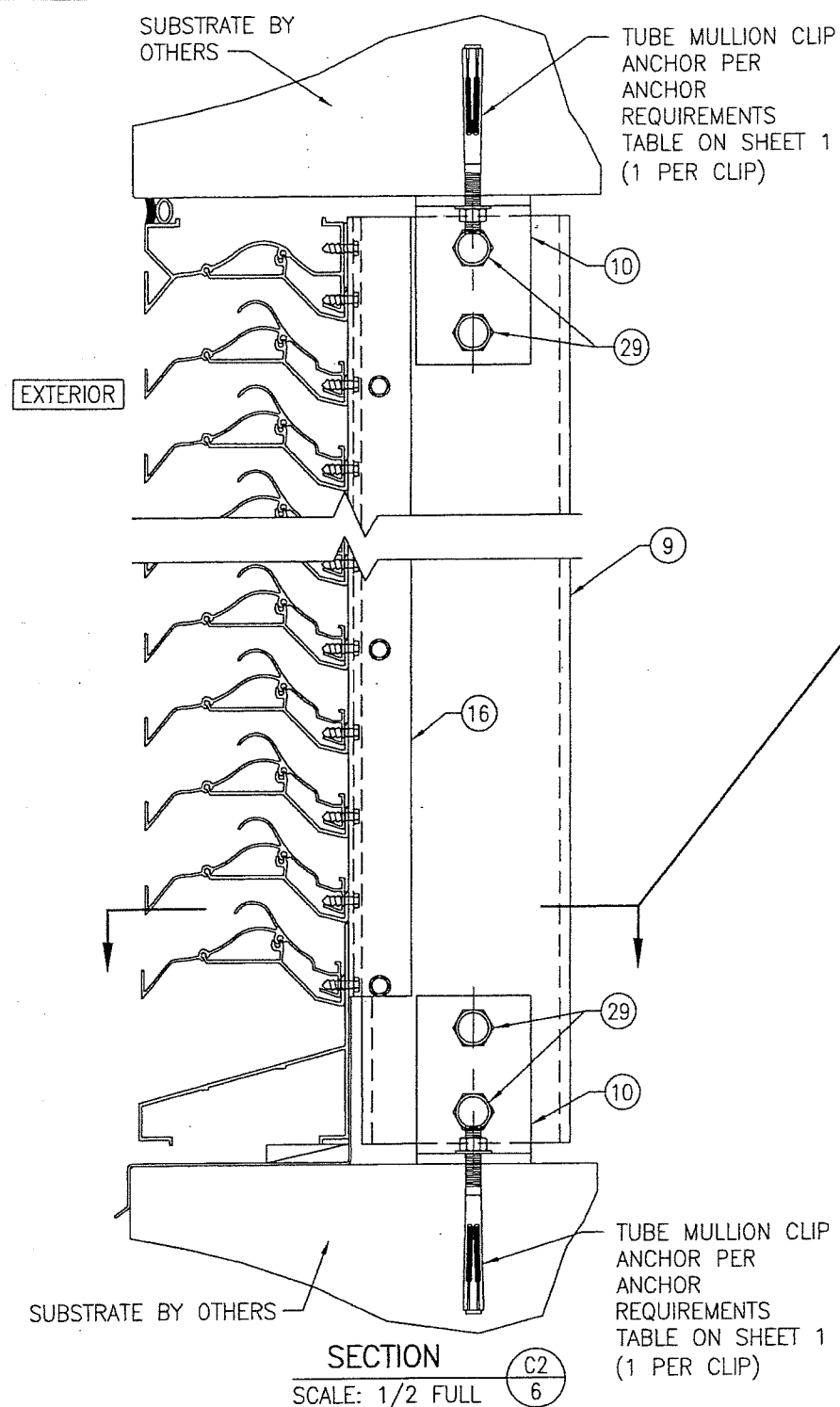
By *[Signature]*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 19-0401.01

Expiration Date 01/06/2025

By *[Signature]*
Miami-Dade Product Control

DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-4		DATE: 07/23/09	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE EA-52 IMPACT LOUVER SYSTEM			
MANUFACTURER ARROW UNITED INDUSTRIES, INC. A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
CERTIFICATION MAR 14 2019 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1685		REV. C	
SHEET NO. 5 OF 10			



(ARCHITECTURAL LOUVER WITHOUT PERIMETER SLEEVE; INSTALLED INTO CONCRETE SUBSTRATE)
(FOR DETAIL NOT SHOWN, SEE SECTION C1/5)

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 20-0622.16

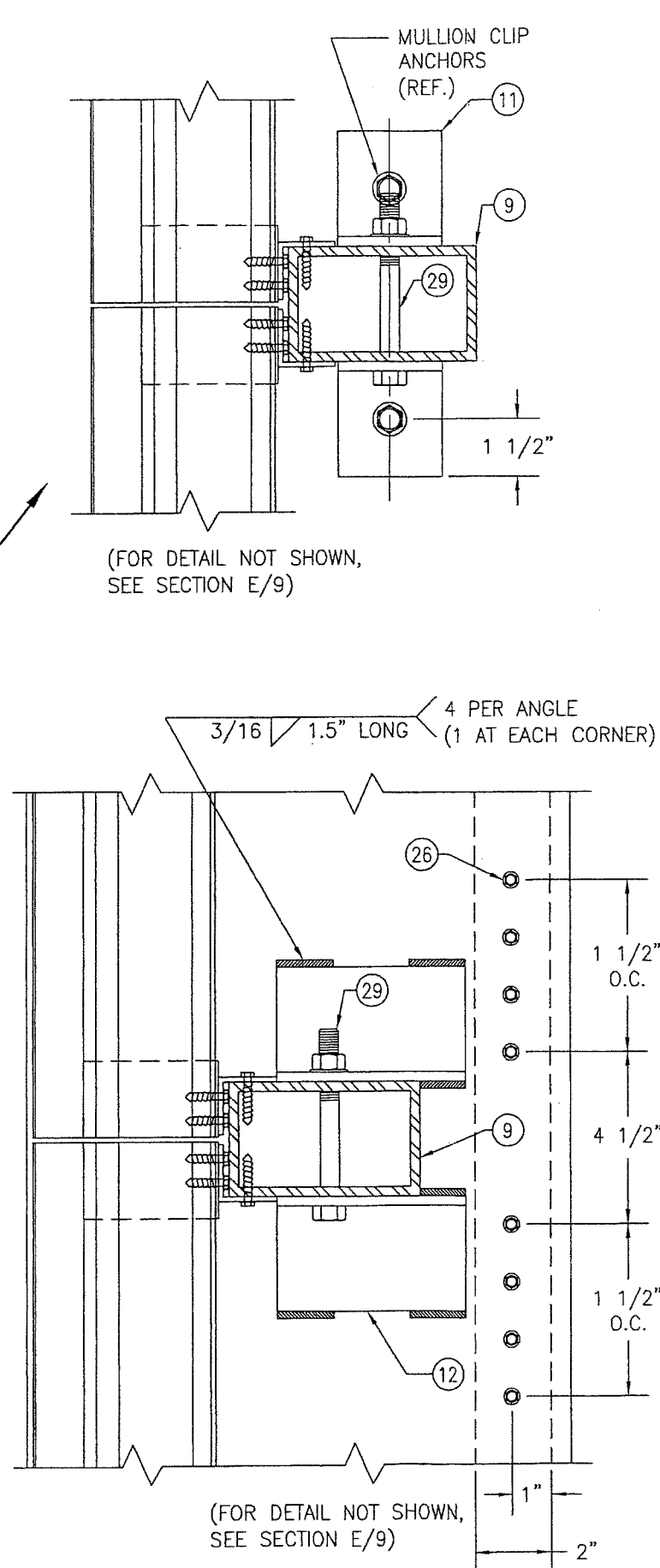
Expiration Date 01/06/2025

By *[Signature]*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 19-0401.01

Expiration Date 01/06/2025

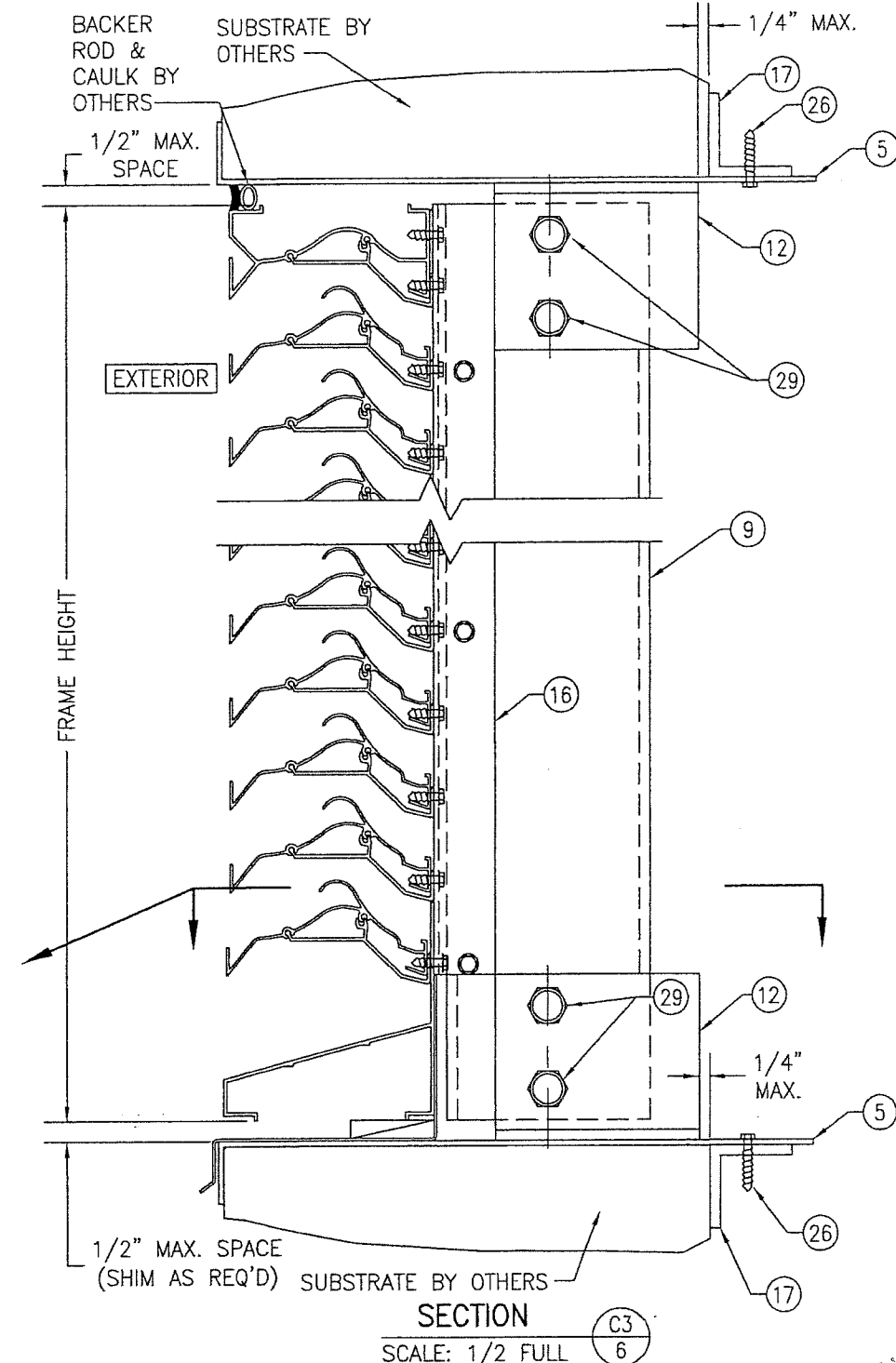
By *[Signature]*
Miami-Dade Product Control



(FOR DETAIL NOT SHOWN, SEE SECTION E/9)

3/16 1.5" LONG 4 PER ANGLE (1 AT EACH CORNER)

(FOR DETAIL NOT SHOWN, SEE SECTION E/9)



(ARCHITECTURAL LOUVER WITH PERIMETER SLEEVE; INSTALLED INTO ALL SUBSTRATES)
(FOR DETAIL NOT SHOWN, SEE SECTION C1/5)

POSITION OF THE SLEEVE PERIMETER SUPPORT ANGLE VARIES WITH SUBSTRATE THICKNESS & MAY BE POSITIONED UNDER THE MULLION END SUPPORT ANGLE. WHEN THIS OCCURS, THE SLEEVE ANGLE ATTACHMENT SCREWS SHALL MOVE WITH THE ANGLE & MAY BE POSITIONED TO RUN THROUGH THE MULLION END ANGLE AND SLEEVE.

DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=4		DATE: 07/23/09	
NO.	REVISION DESCRIPTION	DATE	BY
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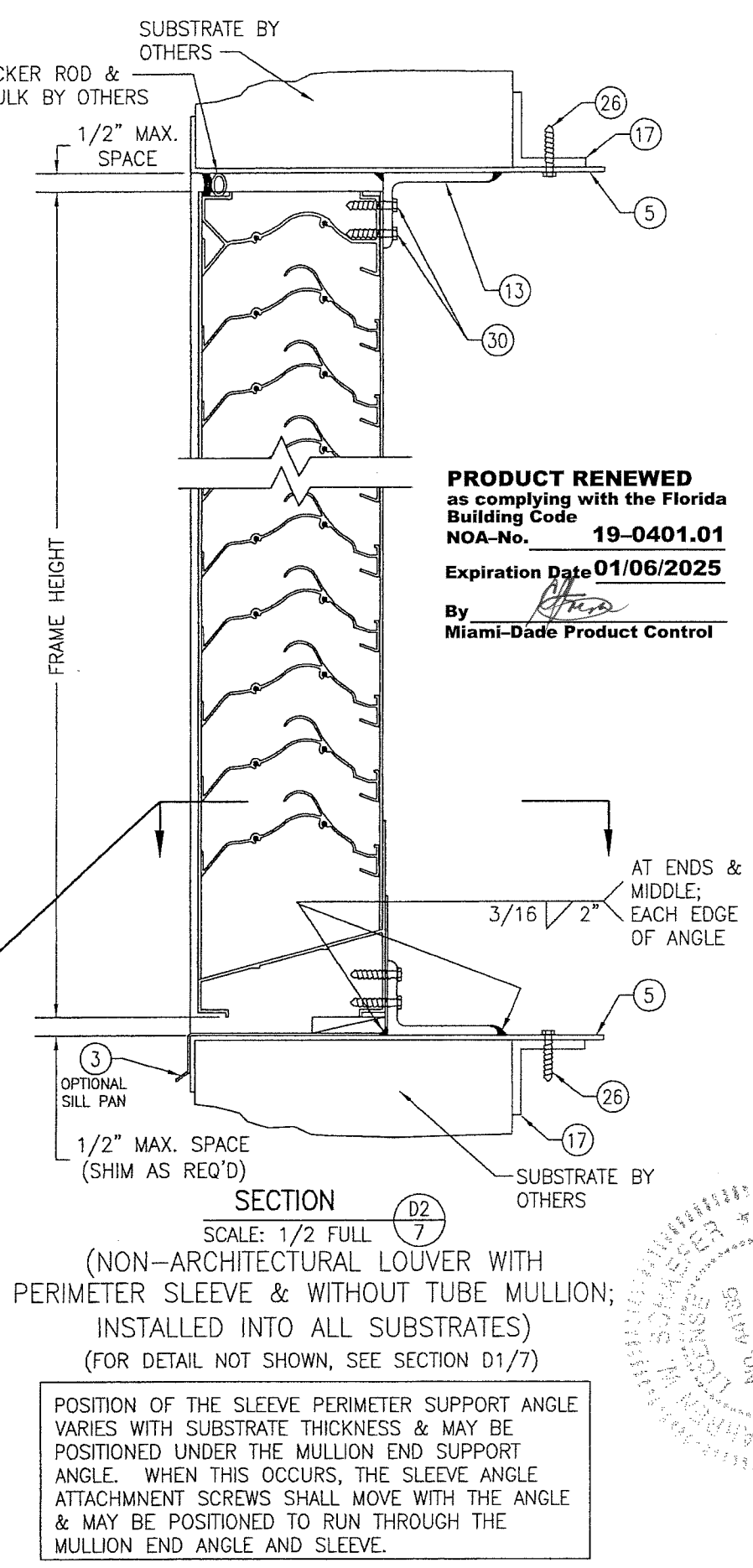
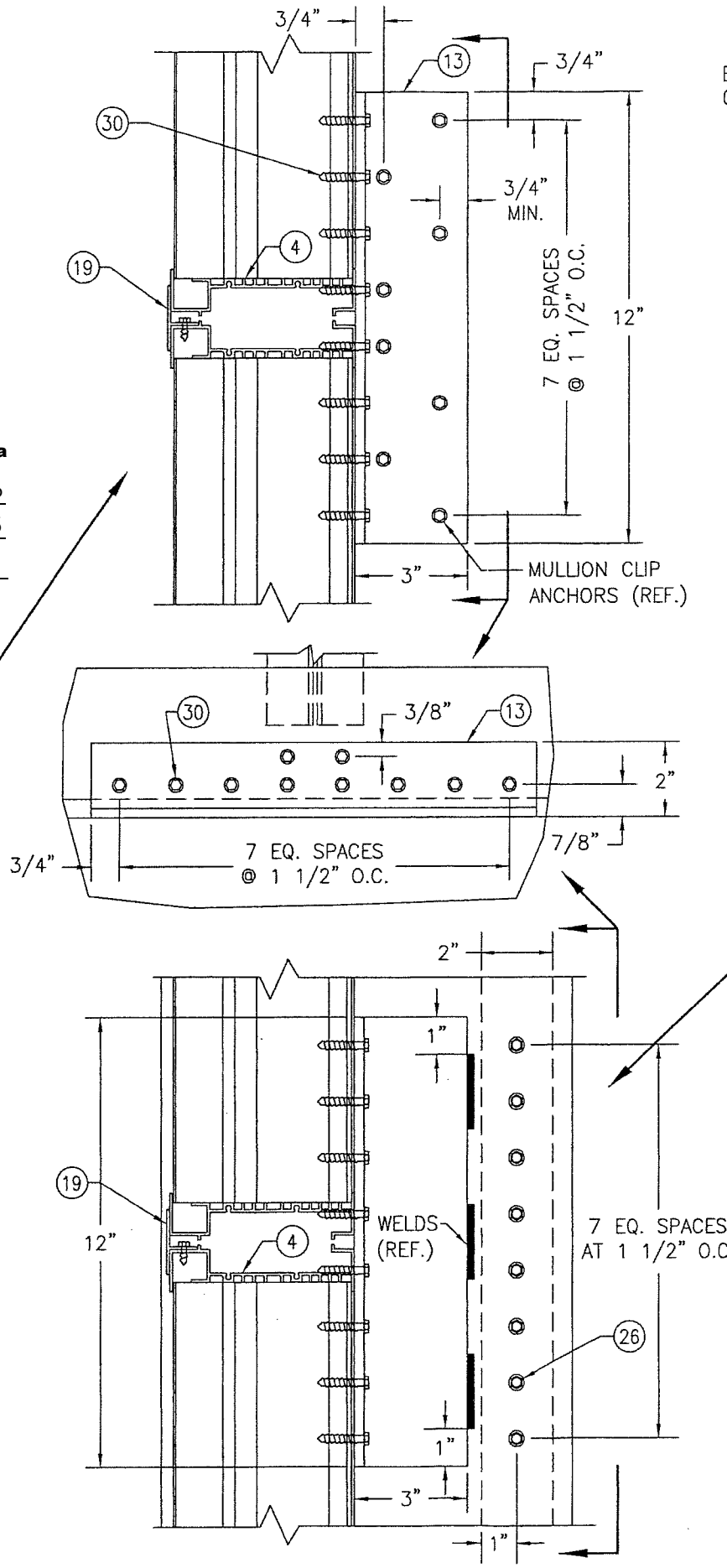
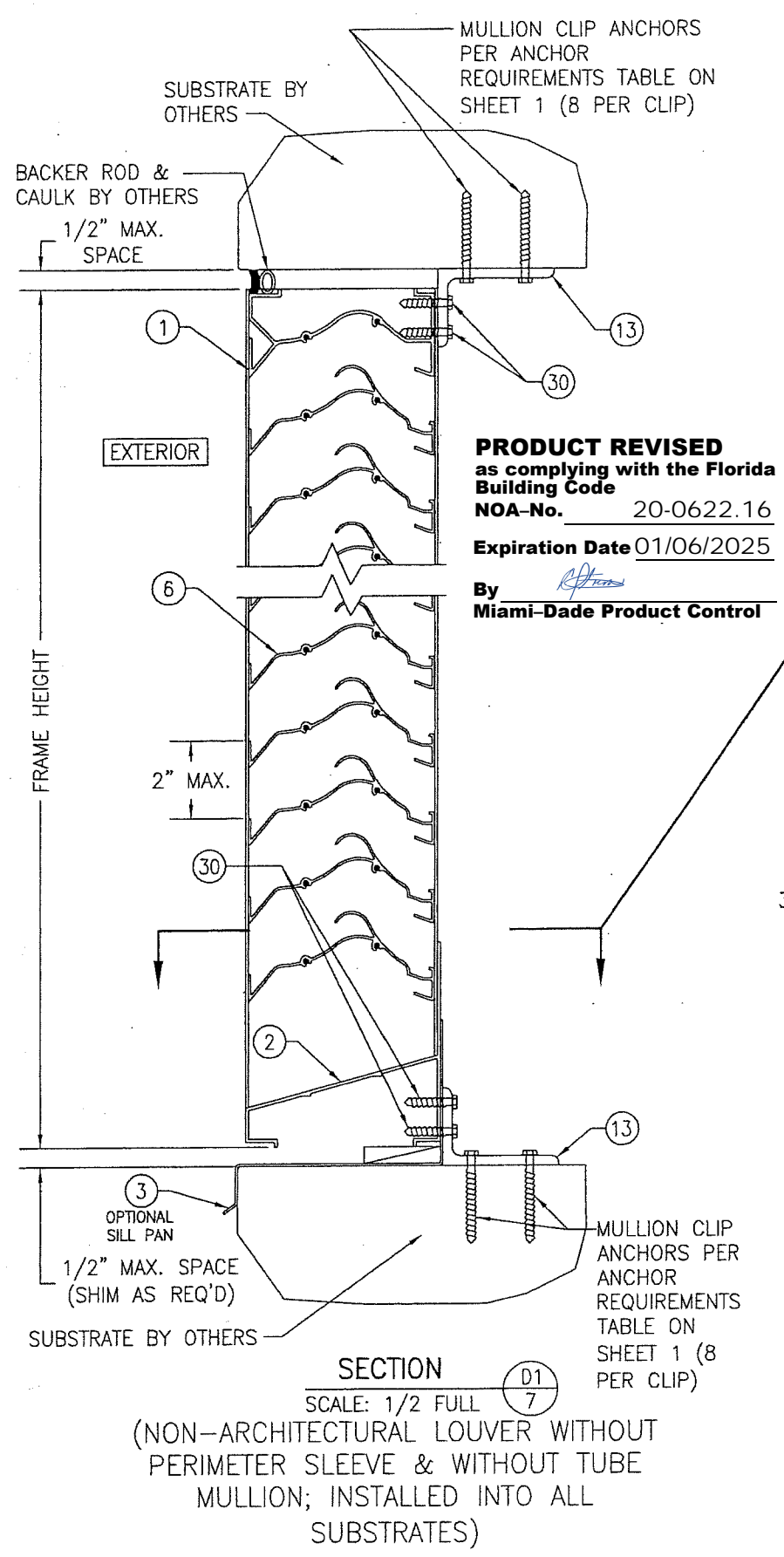
MANUFACTURER
ARROW UNITED INDUSTRIES, INC.
A DIVISION OF MESTEK, INC.
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

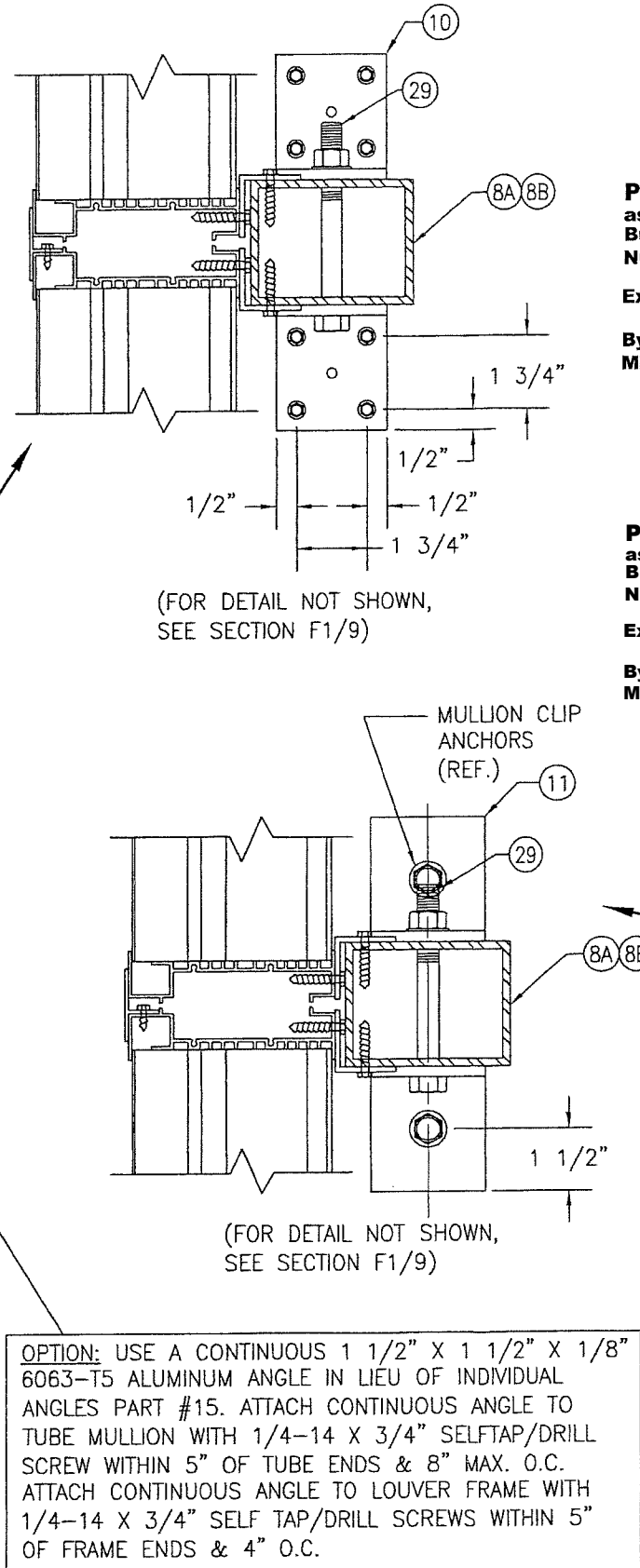
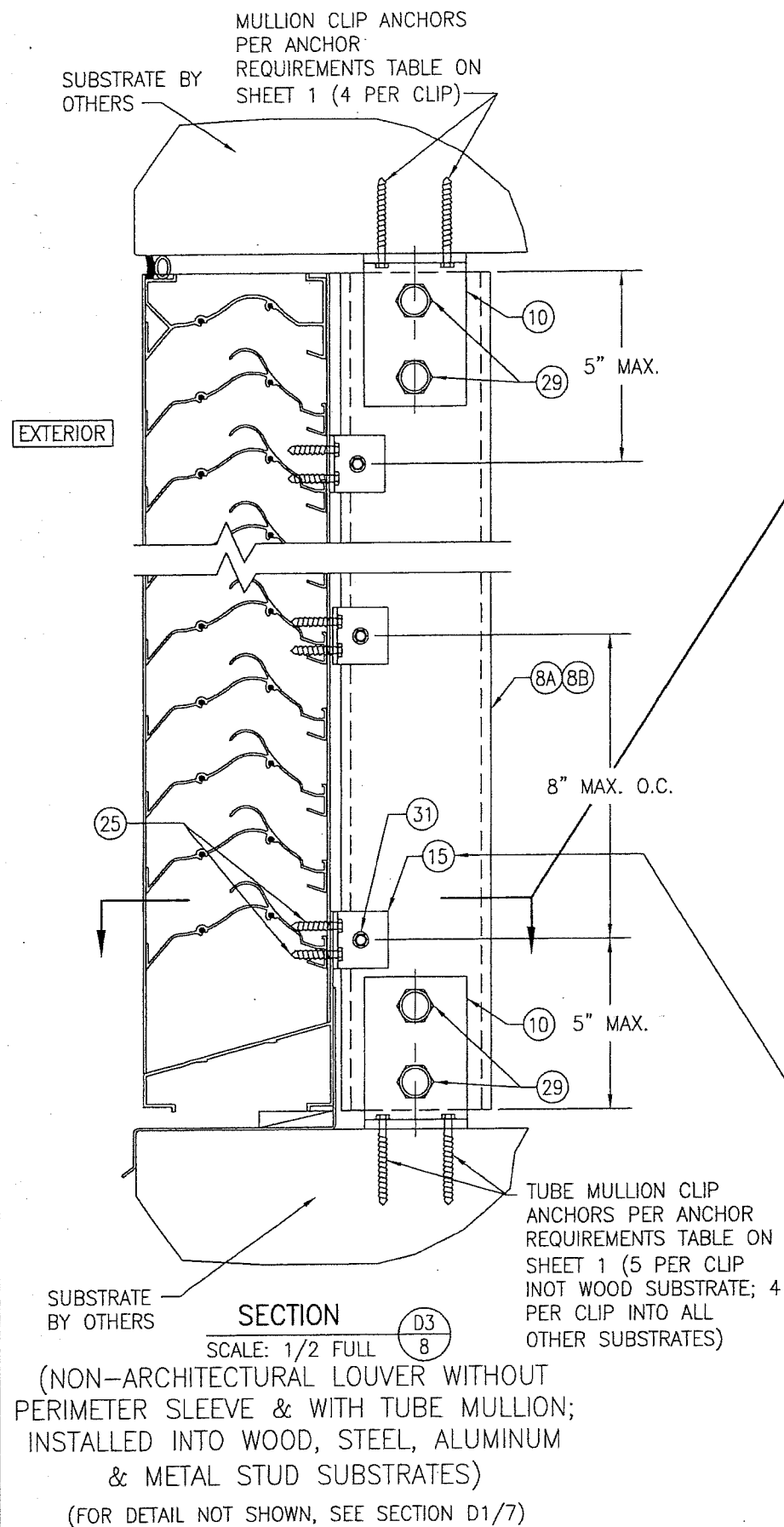
DRAWING TITLE
EA-52 IMPACT LOUVER SYSTEM

CERTIFICATION
STATE OF FLORIDA
MAR 14 2019
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1685
SHEET NO. 6 OF 10

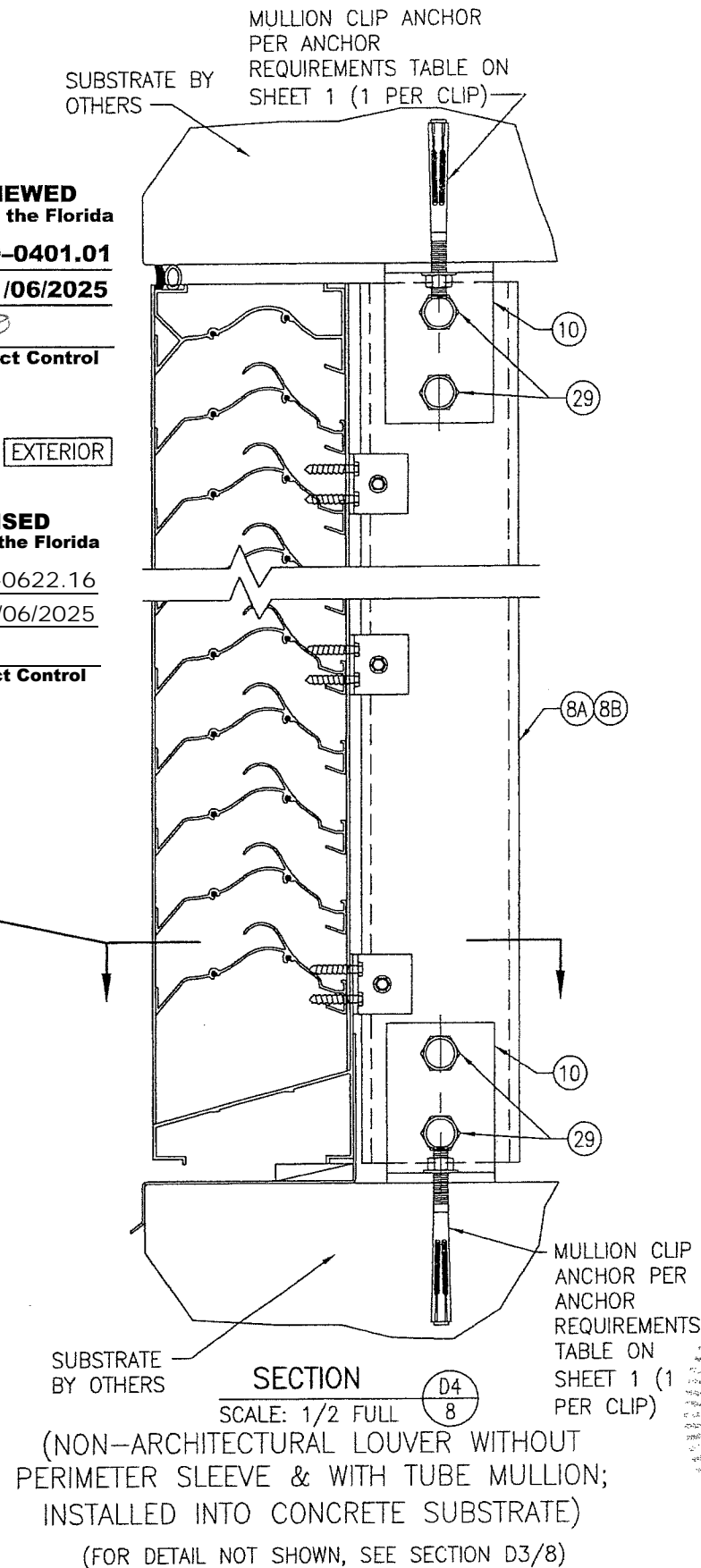


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=4		DATE: 07/23/09	
NO.	REVISION DESCRIPTION	DATE	BY
DRAWING TITLE EA-52 IMPACT LOUVER SYSTEM			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER ARROW UNITED INDUSTRIES, INC. A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888	
CERTIFICATION MAR 14 2019 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1685		REV. C	
SHEET NO. 7 OF 10			

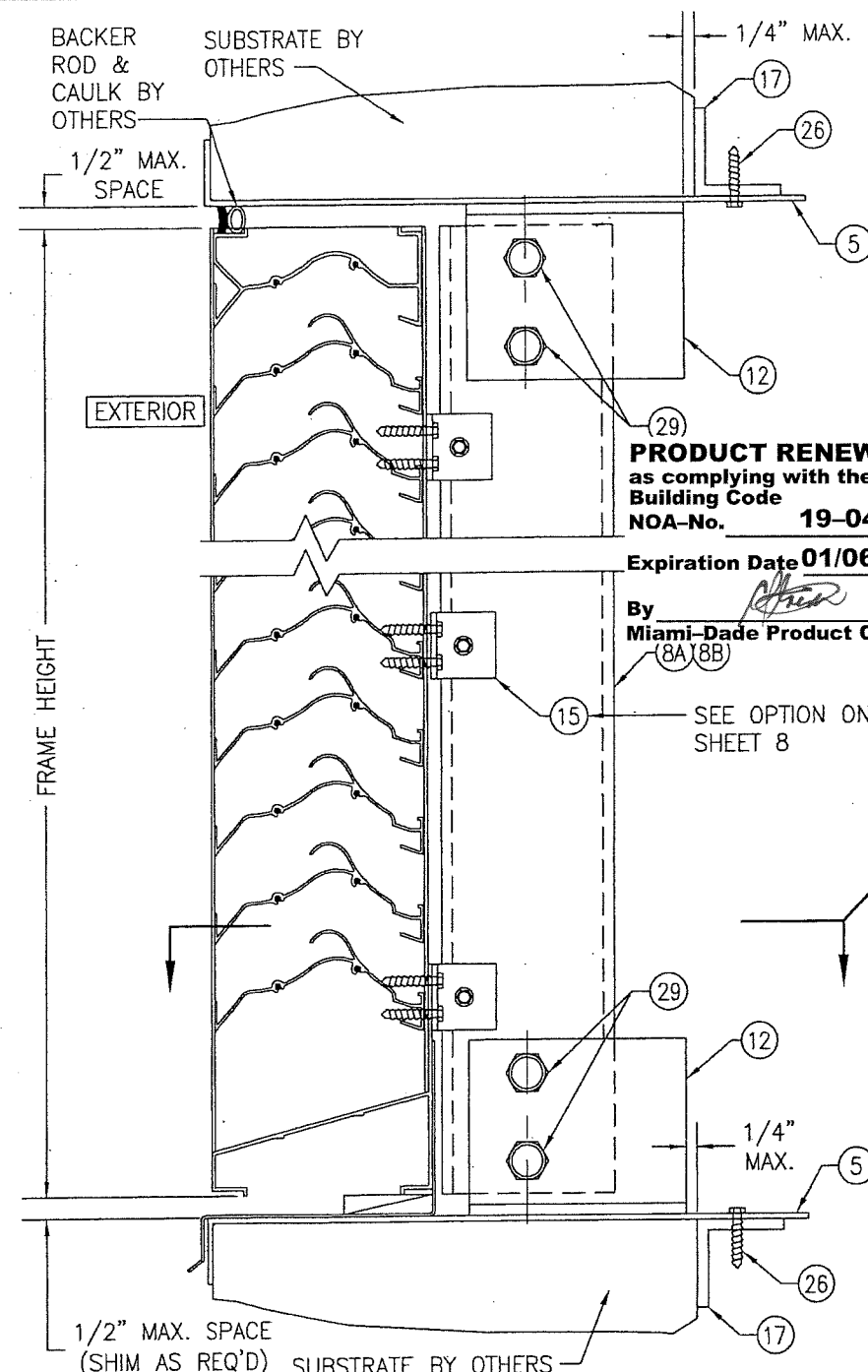


PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **19-0401.01**
Expiration Date **01/06/2025**
By *[Signature]*
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **20-0622.16**
Expiration Date **01/06/2025**
By *[Signature]*
Miami-Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=4		DATE: 07/23/09	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: EA-52 IMPACT LOUVER SYSTEM MANUFACTURER: ARROW UNITED INDUSTRIES; A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480, 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 CERTIFICATION: MAR 14 2019 WARREN W. SCHAEFER, P.E. P.E. NO. 24135 DRAWING NO. 1685 REV. C SHEET NO. 8 OF 10			



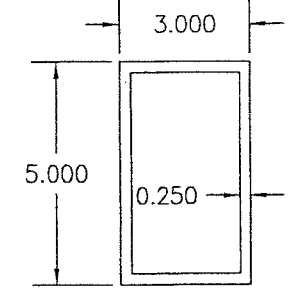
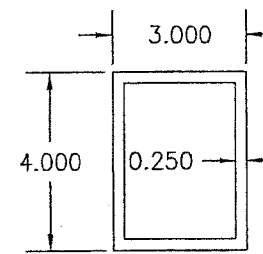
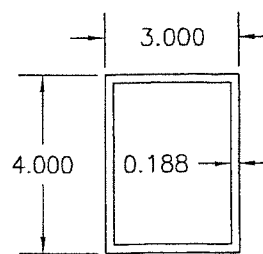
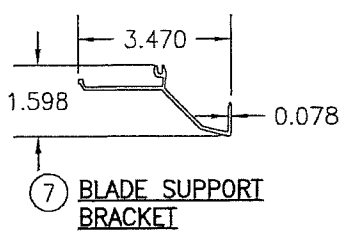
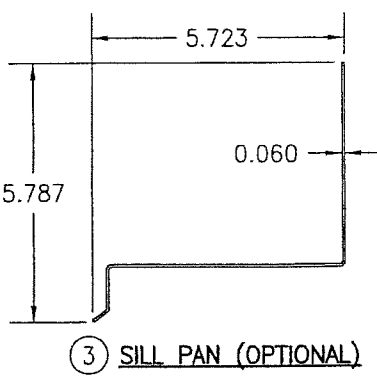
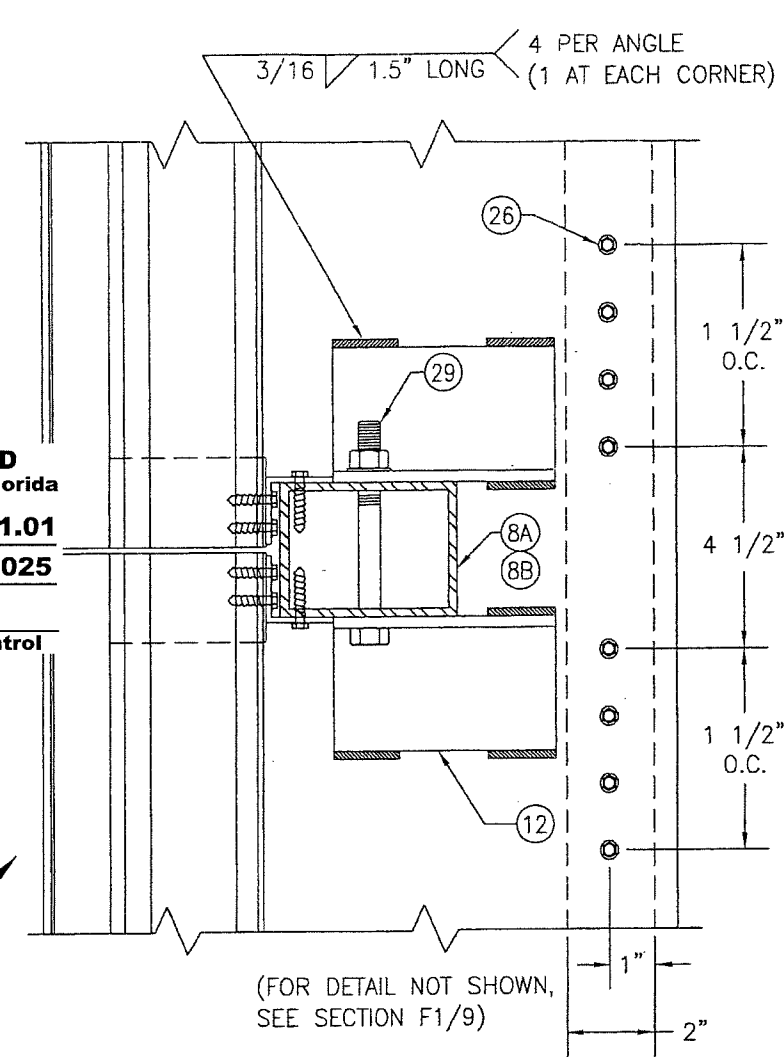
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **19-0401.01**
Expiration Date **01/06/2025**

By **Miami-Dade Product Control**
(8A)(8B)

SEE OPTION ON
SHEET 8

SECTION D5
SCALE: 1/2 FULL
(NON-ARCHITECTURAL LOUVER WITH
PERIMETER SLEEVE & WITH TUBE MULLION;
INSTALLED INTO ALL SUBSTRATES)
(FOR DETAIL NOT SHOWN, SEE SECTION D3/8)

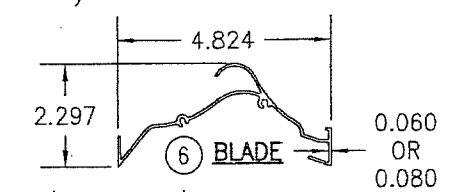
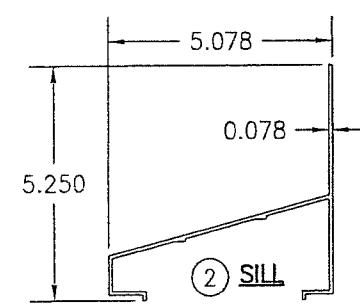
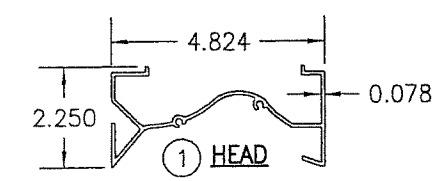
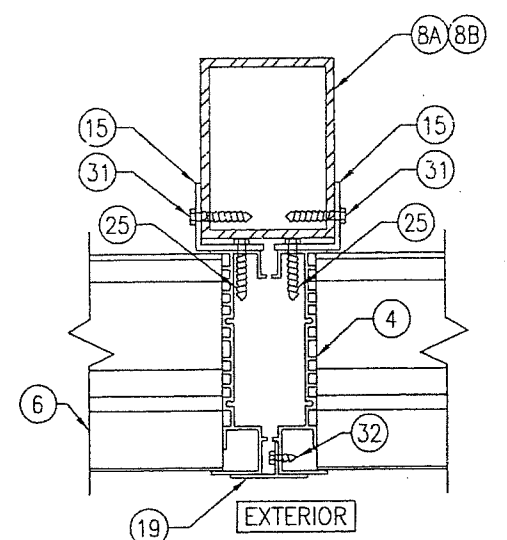
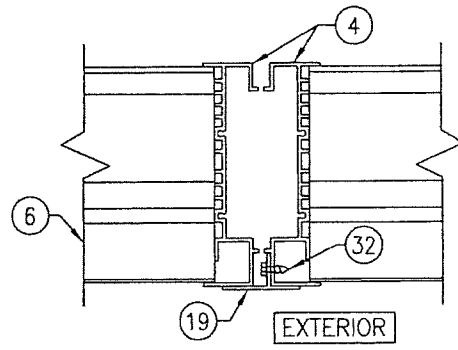
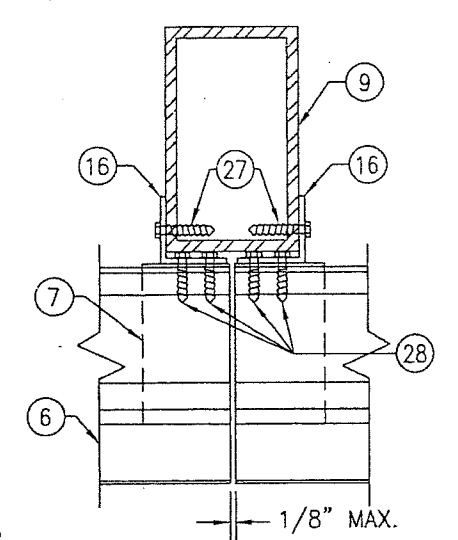
POSITION OF THE SLEEVE PERIMETER SUPPORT ANGLE
VARIES WITH SUBSTRATE THICKNESS & MAY BE
POSITIONED UNDER THE MULLION END SUPPORT
ANGLE. WHEN THIS OCCURS, THE SLEEVE ANGLE
ATTACHMENT SCREWS SHALL MOVE WITH THE ANGLE
& MAY BE POSITIONED TO RUN THROUGH THE
MULLION END ANGLE AND SLEEVE.



8A) TUBE MULLION (USED WITH NON-ARCHITECTURAL LOUVERS)

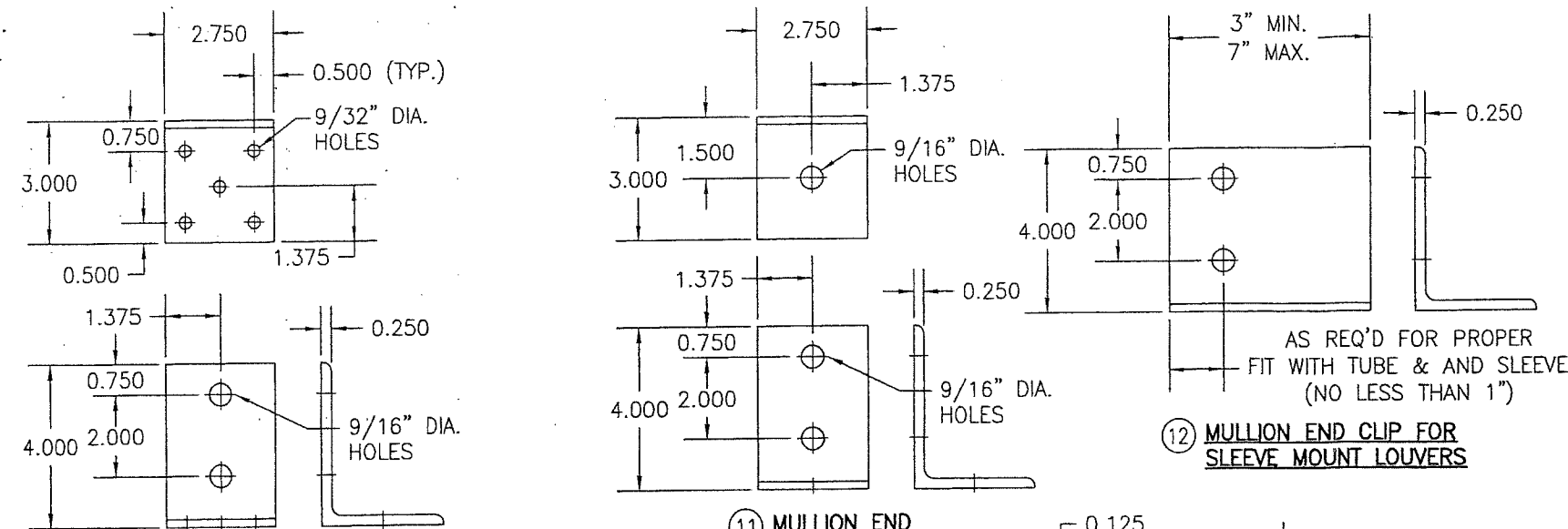
8B) TUBE MULLION (USED WITH NON-ARCHITECTURAL LOUVERS)

9) TUBE MULLION (USED WITH ARCHITECTURAL LOUVERS)



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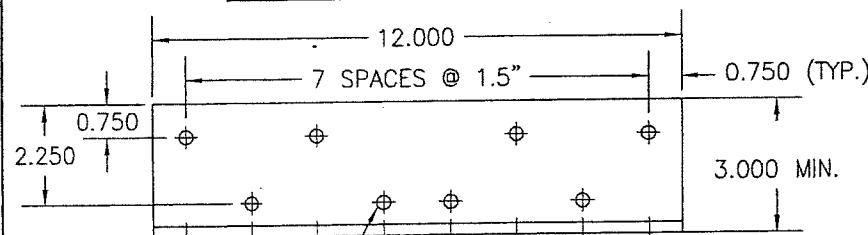
DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=4		DATE: 07/25/09	
NO.	REVISION	DESCRIPTION	DATE
<p>DRAWING TITLE: EA-52 IMPACT LOUVER SYSTEM</p> <p>MANUFACTURER: ARROW UNITED INDUSTRIES, INC. A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888</p> <p>CONSULTANTS: W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424</p> <p>CERTIFICATION: MAR 14 2011</p> <p>WARRICK W. SCHAEFER, P.E. P.E. NO. 44135</p>			
DRAWING NO. 1685		REV. C	
SHEET NO. 9		OF 10	



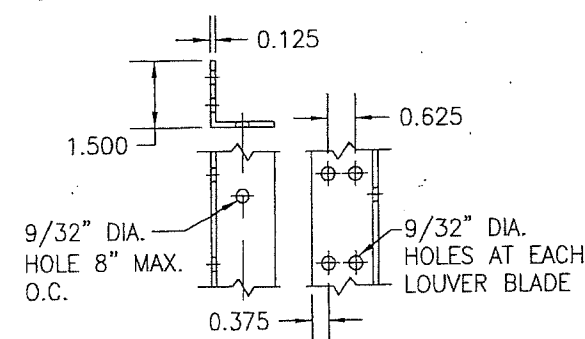
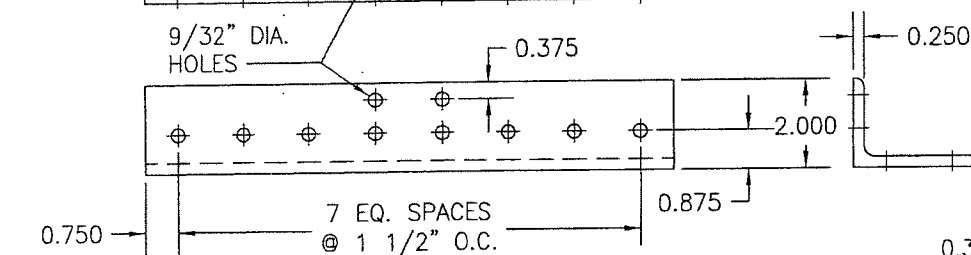
10 MULLION END INSTALLATION CLIP

11 MULLION END INSTALLATION CLIP

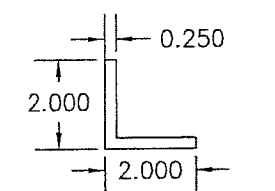
12 MULLION END CLIP FOR SLEEVE MOUNT LOUVERS



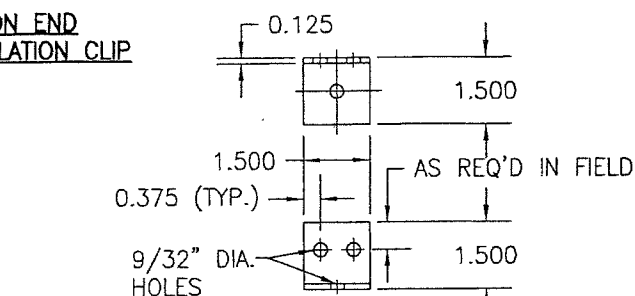
13 MULLION END INSTALLATION CLIP



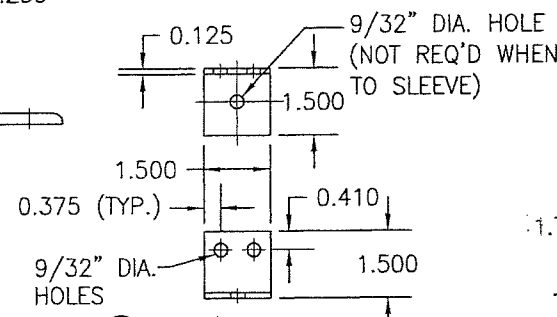
16 TUBE MULLION TO LOUVER BLADE ANGLE (ARCHITECTURAL LOUVER)
(LENGTH = CONTINUOUS)



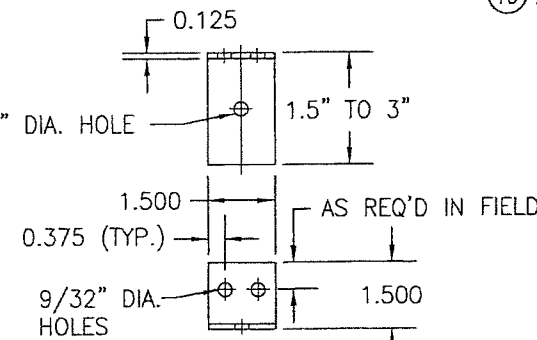
17 SLEEVE SUPPORT ANGLE
(LENGTH = CONTINUOUS)



14 LOUVER JAMB TO SUBSTRATE CLIP

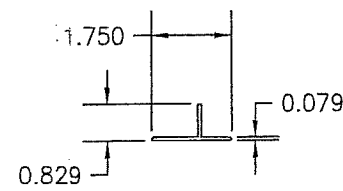


15 SLEEVE OR TUBE MULLION TO LOUVER JAMB CLIP

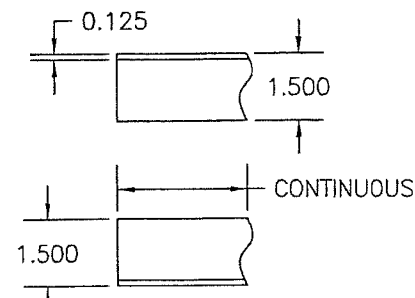


18 LOUVER JAMB TO SUBSTRATE CLIP

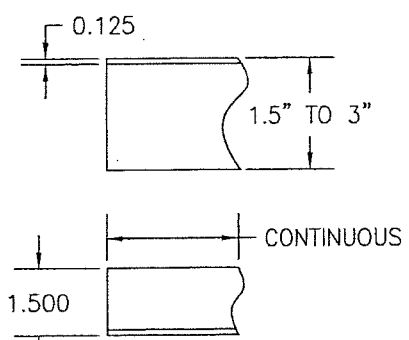
1.5\"/>



19 MULLION COVER



20 CONTINUOUS SUPPORT ANGLE



21 CONTINUOUS SUPPORT ANGLE

1.5\"/>

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	HEAD	6063-T6 ALUMINUM
2	SILL	6063-T6 ALUMINUM
3	SILL PAN	6063-T5 ALUMINUM
4	JAMB	6063-T6 ALUMINUM
5	SLEEVE	5052-H32 ALUMINUM
6	BLADE	6063-T6 ALUMINUM
7	BLADE SUPPORT BRACKET	6063-T6 ALUMINUM
8A	TUBE MULLION (USED WITH NON-ARCHITECTURAL LOUVERS)	6063-T6 OR 6061-T6 ALUMINUM
8B	TUBE MULLION (USED WITH NON-ARCHITECTURAL LOUVERS)	6063-T6 OR 6061-T6 ALUMINUM
9	TUBE MULLION (USED WITH ARCHITECTURAL LOUVERS)	6063-T6 OR 6061-T6 ALUMINUM
10	MULLION END INSTALLATION CLIP	6061-T6 ALUMINUM
11	MULLION END INSTALLATION CLIP	6061-T6 ALUMINUM
12	MULLION END CLIP FOR SLEEVE MOUNT LOUVERS	6061-T6 ALUMINUM
13	MULLION END INSTALLATION CLIP	6061-T6 ALUMINUM
14	LOUVER JAMB TO SUBSTRATE CLIP	6063-T5 ALUMINUM
15	SLEEVE OR TUBE MULLION TO LOUVER JAMB CLIP	6063-T5 ALUMINUM (WITHIN 4\"/>

MISC. FASTENERS		
25	1/4-14 X 3/4" SELF TAP/DRILL SCREW	2 PER CLIP
26	1/4-14 X 3/4" SELF TAP/DRILL SCREW	WITHIN 4" OF CORNERS & SLEEVE SPLICES & MAX. 8" O.C. (CLUSTERED AT MULLION ENDS PER DETAILS)
27	1/4-14 X 3/4" SELF TAP/DRILL SCREW	8" O.C. PER SECTIONS
28	1/4-14 X 3/4" SELF TAP/DRILL SCREW	4 AT HEAD & 2 PER BLADE
29	1/2" X 5" A307 HEX HEAD PLATED STEEL OR S/STL NUT & BOLT	2 PER MULLION END
30	1/4-14 X 3/4" SELF TAP/DRILL SCREW	10 PER CLIP
31	1/4-14 X 3/4" SELF TAP/DRILL SCREW	1 PER CLIP
32	NO. 7 X 1/2" SMS SCREW	WITHIN 6" OF CORNERS & 24" MAX. O.C.
33	1/4-14 X 3/4" SELF TAP/DRILL SCREW	SEE ANCHOR SPACING/PRESSURE TABLE TABLE FOR SPACING REQUIREMENTS

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 20-0622.16
Expiration Date 01/06/2025
By *[Signature]*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 19-0401.01
Expiration Date 01/06/2025
By *[Signature]*
Miami-Dade Product Control

DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=4		DATE: 07/23/09	
DATE	BY	REVISION DESCRIPTION	NO.
<p>DRAWING TITLE EA-52 IMPACT LOUVER SYSTEM</p> <p>MANUFACTURER ARROW UNITED INDUSTRIES, INC. A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888</p> <p>CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424</p> <p>CERTIFICATION MAR 14 2019 WARREN W. SCHAEFER, P.E. P.E. NO. 44135</p>			
DRAWING NO. 1685		REV. C	
SHEET NO. 10		OF 10	