



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](http://www.miamidade.gov/economy)

**Ruskin Company**  
**3900 Dr. Greaves Road**  
**Grandview, MO 64030**

**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 EME520MD Aluminum Louver**

**APPROVAL DOCUMENT:** Drawing No. **60-022286-00B**, titled "EME520MD", sheets 1 through 19 of 19, dated 08/02/2012, with revision **H** dated 10/11/2022, prepared by Ruskin Company, signed and sealed by Jeffrey D. Smith, 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, Geneva, AL and Juarez, Chihuahua C. P., Mexico, 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 # 23-0406.03** 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 **Sifang Zhao, P.E.**



*S. Zhao*  
02/15/2024

NOA No. 23-1116.16  
Expiration Date: February 23, 2026  
Approval Date: February 15, 2024  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

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

**A. DRAWINGS “Submitted under NOA # 16-0112.02”**

1. Drawing No. **60-022286-00B**, titled “EME520MD”, sheets 1 through 21 of 21, dated 08/02/2012, with revision **E** dated 12/22/2015, prepared by Ruskin Company, signed and sealed by Chelsea GQ. Welch, P.E.

**B. TESTS “Submitted under NOA # 12-0816.01”**

1. Test report 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 203-94along with marked-up drawings and installation diagram of Model EME520MD (Assembly A) Aluminum Louvers, prepared by National Certified Testing Laboratories, Report No. **NCTL 210-3792-2**, dated 05/23/2012, signed and sealed by Gerald J. Ferrara, P.E.
2. Test report 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 203-94along with marked-up drawings and installation diagram of Model EME520MD (Assembly B) Aluminum Louvers, prepared by National Certified Testing Laboratories, Report No. **NCTL 210-3782-2**, dated 05/23/2012, signed and sealed by Gerald J. Ferrara, P.E.
3. Test report 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 203-94along with marked-up drawings and installation diagram of Model EME520MD (Assembly C) Aluminum Louvers, prepared by National Certified Testing Laboratories, Report No. **NCTL 210-3784-2**, dated 05/23/2012, signed and sealed by Gerald J. Ferrara, P.E.
4. Test report 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 203-94along with marked-up drawings and installation diagram of Model EME520MD (Assembly D) Aluminum Louvers, prepared by National Certified Testing Laboratories, Report No. **NCTL 210-3790-2**, dated 05/23/2012, signed and sealed by Gerald J. Ferrara, P.E.
5. Test report 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 203-94along with marked-up drawings and installation diagram of Model EME520MD (Assembly E) Aluminum Louvers, prepared by National Certified Testing Laboratories, Report No. **NCTL 210-3785-2**, dated 05/23/2012, signed and sealed by Gerald J. Ferrara, P.E.



**Sifang Zhao, P.E.**

**Product Control Examiner**

**NOA No. 23-1116.16**

**Expiration Date: February 23, 2026**

**Approval Date: February 15, 2024**

**Ruskin Company**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS (Continued)**

6. Test report 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 Model EME520MD (Assembly F) Aluminum Louvers, prepared by National Certified Testing Laboratories, Report No. **NCTL 210-3784-4**, dated 05/23/2012, signed and sealed by Gerald J. Ferrara, P.E.

***“Submitted under NOA # 05-0812.07”***

7. Test report on 1) Large Missile Impact Test per FBC, TAS 201-94,  
2) Cyclic Wind Pressure Test per FBC, TAS 203-94  
3) Uniform Static Air Pressure Test per FBC, TAS 202-94  
along with marked-up drawings and installation diagram of Series EME520MD aluminum louvers muller together, prepared by Fenestration Testing Laboratory, Inc, Test Report No. **FTL-4525**, dated 04/22/2005, signed and sealed by E. J. Largaespada, P.E.

**C. CALCULATIONS “Submitted under NOA # 16-0112.02”**

1. Louver wind load review prepared by Ruskin Company, dated 12/22/2015, signed and sealed by Chelsea GQ. Welch, P.E.

***“Submitted under NOA # 12-0816.01”***

2. Louver wind load review prepared by Ruskin Company, dated 07/25/2012, signed and sealed by Daniel J. Rau, P.E.

***“Submitted under NOA # 05-0812.07”***

3. Calculations prepared by Ruskin Company, dated 08/10/2005, pages 1 through 13, signed and sealed by E. P. Hutson, 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 # 16-1107.03”**

1. Distributor agreement dated 09/22/2016.

***“Submitted under NOA # 16-0112.02”***

2. Statement letter of code conformance to the 5<sup>th</sup> edition (2014) FBC issued by Ruskin Company, dated 12/22/2015, signed and sealed by Chelsea GQ. Welch, P.E.  
3. No financial interest letter issued by Ruskin Company, dated 12/22/2015, signed and sealed by Chelsea GQ. Welch, P.E.



Sifang Zhao, P.E.

Product Control Examiner

NOA No. 23-1116.16

Expiration Date: February 23, 2026

Approval Date: February 15, 2024

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. EVIDENCE SUBMITTED UNDER NOA # 20-1015.04 AND NEW**

**A. DRAWINGS**

1. Drawing No. **60-022286-00B**, titled “EME520MD”, sheets 1 through 19 of 19, dated 08/02/2012, with revision **H** dated 10/11/2022, prepared by Ruskin Company, signed and sealed by Jeffrey D. Smith, P.E.

**B. TESTS**

1. None.

**C. CALCULATIONS**

1. Louver wind load review prepared by Ruskin Company, dated 10/11/2022, signed and sealed by Jeffrey D. Smith, P.E.
2. Louver wind load review prepared by Ruskin Company, dated 09/04/2020, signed and sealed by Melissa M. Massar, P.E.

**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 8<sup>th</sup> edition (2023) of the FBC, issued by Ruskin Company, dated 10/27/2023, signed and sealed by Jeffrey D. Smith, P.E.
2. Statement letter of code conformance to the 7<sup>th</sup> edition (2020) of the FBC, issued by Ruskin Company, dated 09/14/2020, signed and sealed by Melissa M. Massar, P.E.



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Sifang Zhao, P.E.  
Product Control Examiner  
NOA No. 23-1116.16  
Expiration Date: February 23, 2026  
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PARTS LIST FOR STANDARD CONSTRUCTION			
ITEM #	DESCRIPTION	MATERIAL	ALLOY
1	HEAD FRAME	0.094" THK. EXTRUDED ALUM.	6063-T6
2	SILL FRAME	0.080" THK. EXTRUDED ALUM.	6063-T6
3	JAMB FRAME	0.080" THK. EXTRUDED ALUM.	6063-T6
4	BLADE	0.060" THK. EXTRUDED ALUM.	6063-T6
5	BLADE BRACE	0.070" THK. EXTRUDED ALUM.	6063-T6
6	H.V.B.S STRAP	0.125" THK. EXTRUDED ALUM.	6063-T6
7	SCR 8-18 X 3.00 HWH AB W/SEAL WASHER	410 SS/ZINC COATED	-
8	SCR 10-16 X 3.00 HWH AB W/SEAL WASHER	410 SS/ZINC COATED	-

MULTI SECTION CONNECTION PARTS			
ITEM #	DESCRIPTION	MATERIAL	ALLOY
9	MULLION SUPPORT ANGLE	0.125" THK EXTRUDED ALUM	6063-T6

INSTALLATION PARTS			
ITEM #	DESCRIPTION	MATERIAL	ALLOY
10	ATTACHMENT CLIP ANGLE, 2" LG.	0.250" THK EXTRUDED ALUM.	6063-T6
11	CLIP ANGLE - FORMED, 2" LG.	0.250" THK FORMED ALUM.	3003-H14
12	CLIP ANGLE - FORMED, 4" LG.	0.250" THK FORMED ALUM.	3003-H14
13	ATTACHMENT CLIP ANGLE, CONT.	0.250" THK EXTRUDED ALUM.	6063-T6
14	CLIP ANGLE - FORMED, CONT.	0.250" THK FORMED ALUM.	3003-H14
15	STRUCTURAL ATTACHMENT ANGLE, CONT.	0.500" THK A36 STL	-
16	STRUCTURAL ATTACHMENT ANGLE, 28" LG.	0.625" THK A36 STL	-
17	MULLION SUPPORT ATTACHMENT PLATE	.250" THK A36 STL	-
18	SCREW #10-16 X 1.500" LG. HWH SDS	410SS/ZINC COATED	-
19	3/8-16 X 1.500" LG A307 GRADE A HHB W/ WASHER & LOCKNUT	ZINC PLATED	-
20	3/8-16 X 2.000" LG A307 GRADE A HHB W/ WASHER & LOCKNUT	ZINC PLATED	-
21	3/8-16 X 2.500" LG A307 GRADE A HHB W/ WASHER & LOCKNUT	ZINC PLATED	-
22	5/8-11 X 2.000" LG A307 GRADE A HHB W/ WASHER & LOCKNUT	ZINC PLATED	-
23	SUBSTRATE FASTENER (BY OTHERS)	VARIES (REF TABLE 02/15)	-

UNIVERSAL SLEEVE PARTS			
ITEM #	DESCRIPTION	MATERIAL	ALLOY
24	HEAD FRAME W/INTEGRAL FLANGE	.094" THK EXTRUDED ALUM.	6063-T6
25	SILL FRAME W/INTEGRAL FLANGE	.080" THK EXTRUDED ALUM.	6063-T6
26	JAMB FRAME W/INTEGRAL FLANGE	.080" THK EXTRUDED ALUM.	6063-T6
27	FRONT FLANGE UNIVERSAL SLEEVE	.188" THK FORMED ALUM.	3003-H14
28	CONT. RETAINING ANGLE	.250" THK EXTRUDED ALUM.	6063-T6
29	US MULLION ATTACHMENT ANGLE, 6" LG.	.250" THK EXTRUDED ALUM.	6063-T6
30	1/2-13 X 2.500" LG A307 GRADE 5 HHB W/ WASHER & LOCKNUT	ZINC PLATED	-
31	SCREW 1/4-20 X 1.000" LG. HWH SDS	410SS/ZINC COATED	-

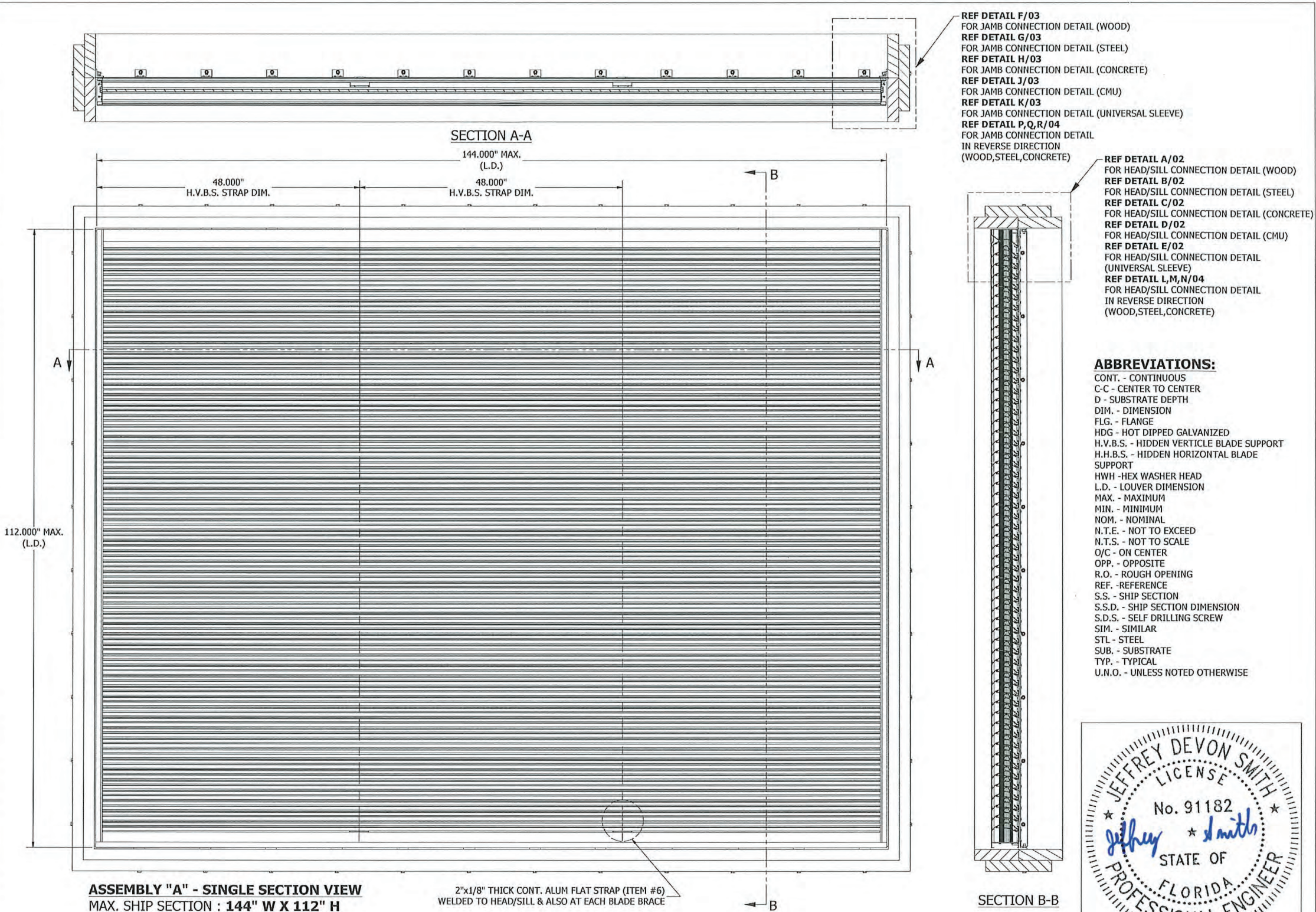
MULLION SUPPORT OPTIONS BASED ON SECTION HEIGHT				
ITEM #	DESCRIPTION	LOUVER HEIGHT RANGE	MATERIAL	ALLOY
32	CHAN C3 X 4.1 X 20'	GREATER THAN 12" TO 103"	A36 CARBON STEEL	-
33	CHAN C4 X 5.4 X 20'	GREATER THAN 103" TO 116"	A36 CARBON STEEL	-
34	CHAN C5 X 6.7 X 20'	GREATER THAN 116" TO 133"	A36 CARBON STEEL	-
35	CHAN C6 X 8.2 X 20'	GREATER THAN 133" TO 144"	A36 CARBON STEEL	-

CIRCULAR SHAPE LOUVER PARTS/INSTALLATIONS			
ITEM #	DESCRIPTION	MATERIAL	ALLOY
36	I SHAPE FRAME	0.080" THK. EXTRUDED ALUMINIUM	6063-T4
37	6" ATTACHMENT ANGLE	0.250" THK. EXTRUDED ALUMINIUM	6063-T6
38	6" REINFORCING ANGLE	0.125" THK FORMED ALUMINIUM	5005-H34
39	2" ATTACHMENT ANGLE	0.250" THK. EXTRUDED ALUMINIUM	6063-T6
40	2" REINFORCING ANGLE	0.125" THK FORMED ALUMINIUM	5005-H34
41	STRAP SPLICE PLATE	0.125" THK FORMED ALUMINIUM	5005-H34

REVERSE ANGLE INSTALLTION OPTIONS			
ITEM#	DESCRIPTION	MATERIAL	ALLOY
42	ATTACHMENT ANGLE,2" LG.,REVERSE DIR.	.250" THK.EXT. ALUM	6063-T6
43	CONTINUOUS ATTACHMENT ANGLE,REVERSE DIR.	.250" THK.EXT. ALUM	6063-T6
44	ATTACHMENT ANGLE 6" LONG,REVERSE DIR.	.250" THK.EXT. ALUM	6063-T6
45	ALTERNATE ATTACHMENT ANGLE 2" LONG,REVERSE DIR.	.250" THK.EXT. ALUM	6063-T6
46	SUBSTRATE FASTENER_REVERSE ANGLE - BY OTHERS	REF TABLE 01/11	-

#### NOTES

- THE EMES20MD HAS BEEN TESTED IN ACCORDANCE WITH FLORIDA PROTOCOLS TAS-201,202 & 203 FOR LARGE MISSILE IMPACT, UNIFORM PRESSURE AND CYCLIC WIND PRESSURE.
- THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH DESIGN PRESSURES OF **± 120 PSF OR LESS**.
- THIS LOUVER SYSTEM IS TO BE INSTALLED IN LOCATIONS WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM AND THE ROOM WILL HOUSE WATER RESISTANT / WATER PROOF EQUIPMENT, COMPONENTS OR SUPPLIES.
- THIS LOUVER SYSTEM IS NON-BEARING AND IS NOT DESIGNED TO WITHSTAND BUILDING DEAD LOADS.
- IT SHALL BE THE RESPONSIBILITY OF PERMIT HOLDER/BUILDING DESIGN ENGINEER OF RECORD TO VERIFY THE STRUCTURAL INTEGRITY OF THE STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THIS LOUVER SYSTEM.
- MAXIMUM SINGLE SECTION SIZE : **87 15/16" WIDE X 144" HIGH** OR **144" WIDE X 112" HIGH**.
- MAXIMUM ASSEMBLED LOUVER SIZE : **UNLIMITED WIDE X 144" HIGH** W/SECTION MULLIONS AT **87 7/8"** (TRAPEZOIDS ALLOWED)
- SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.
- ALL CMU BLOCKS MUST BE GROUT FILLED. MIN. PRISM STRENGTH OF 1500 PSI AT TIME OF INSTALLATION. CMU BLOCKS MUST BE MIN. TYPE 1, GRADE N, LIGHT MEDIUM OR NORMAL WEIGHT PER ASTM C90. GROUT AND MORTAR MUST COMPLY WITH FLORIDA BUILDING CODE.
- PART NUMBERS WITH SQUARE BALLOONS ARE **"SHIPPED LOOSE PARTS"**.
- ALL FASTENERS SHALL BE CORROSION RESISTANT.



ASSEMBLY "A" - SINGLE SECTION VIEW  
MAX. SHIP SECTION : 144" W X 112" H

#### DRAWING SHEET INDEX:

SHEET 01 - NOTES, PARTS LIST, DRAWING INDEX, ASSEMBLY "A"  
SHEET 02 - ASSEMBLY "A" - HEAD/SILL INSTALL (ALL SUBSTRATES)  
SHEET 03 - ASSEMBLY "A", "B" & "C" - JAMB INSTALL (ALL SUBSTRATES)  
SHEET 04 - ASSEMBLY "A", "B" & "C" - REVERSE ANGLE INSTALL (ALL SUBSTRATES)  
SHEET 05 - ASSEMBLY "B" - BASIC ASSEMBLY  
SHEET 06 - ASSEMBLY "C" - BASIC ASSEMBLY  
SHEET 07 - ASSEMBLY "B" & "C" - MULLION SUPPORT CONNECTION @ HEAD/SILL  
SHEET 08 - ASSEMBLY "B" & "C" - VISIBLE MULLION CONNECTION (ALL SUBSTRATES)  
SHEET 09 - ASSEMBLY "D"  
SHEET 10 - ASSEMBLY "D" INSTALL  
SHEET 11 - ASSEMBLY "D" REVERSE ANGLE INSTALL (ALL SUBSTRATES)  
SHEET 12 - ASSEMBLY "E" & "F"  
SHEET 13 - ASSEMBLY "E" & "F" INSTALL  
SHEET 14 - ASSEMBLY "E" & "F" REVERSE ANGLE INSTALL (ALL SUBSTRATES)  
SHEET 15 - SUBSTRATE FASTENER TABLE, PARTS (ITEMS 1 THRU 6)  
SHEET 16 - PARTS (ITEMS 9 THRU 15)  
SHEET 17 - PARTS ITEMS 16 & 17, 24 THRU 28)  
SHEET 18 - PARTS (ITEMS 29, 32 THRU 41)  
SHEET 19 - PARTS (ITEMS 42 THRU 45)

**PRODUCT REVISED**  
**as complying with the Florida Building Code**  
**NOA-No. 23-1116.16**

**Expiration Date 02/23/2026**

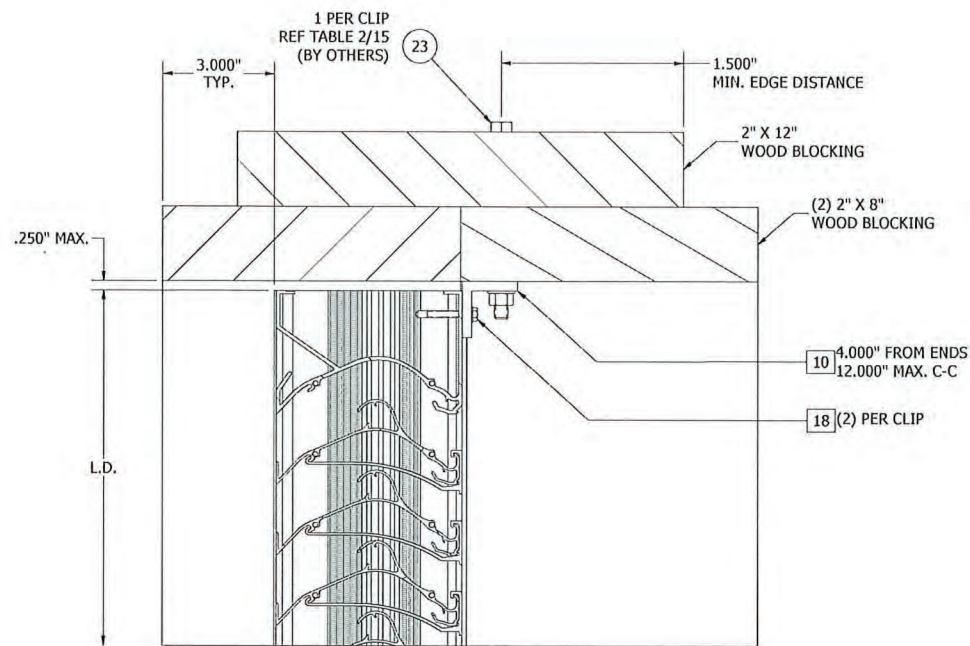
**By**   
**Miami-Dade Product Control**



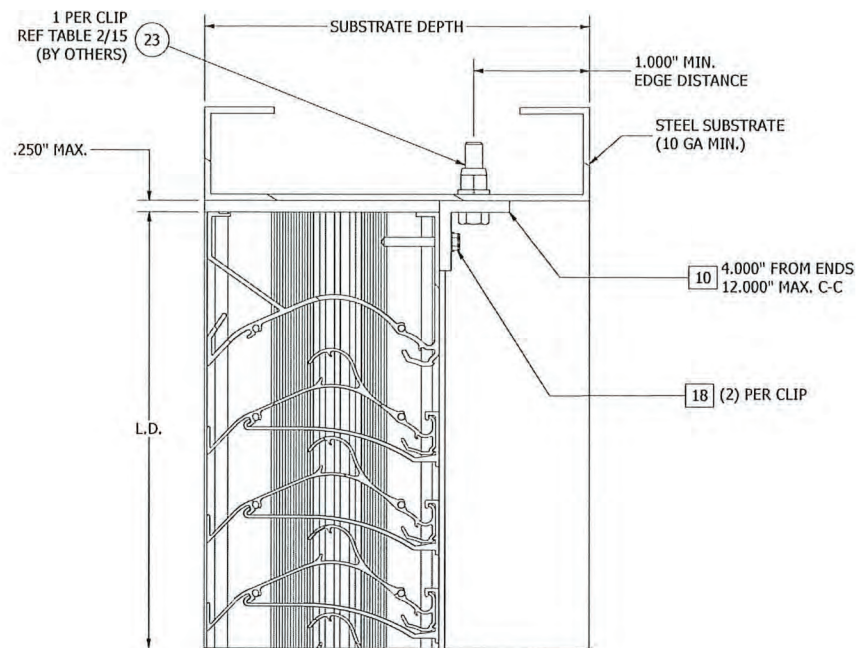
JEFFREY D. SMITH, P.E.  
NO. 91182

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
PRODUCT	EMES20MD					
TITLE	NOTES, PARTS LIST, DRAWING INDEX, ASSEMBLY 'A'					
SIZE D		DWG NO	60-022286-00B		REV	H
ECN	8/28/20	SCALE	NONE	INVENTOR	SHEET 1 OF 19	

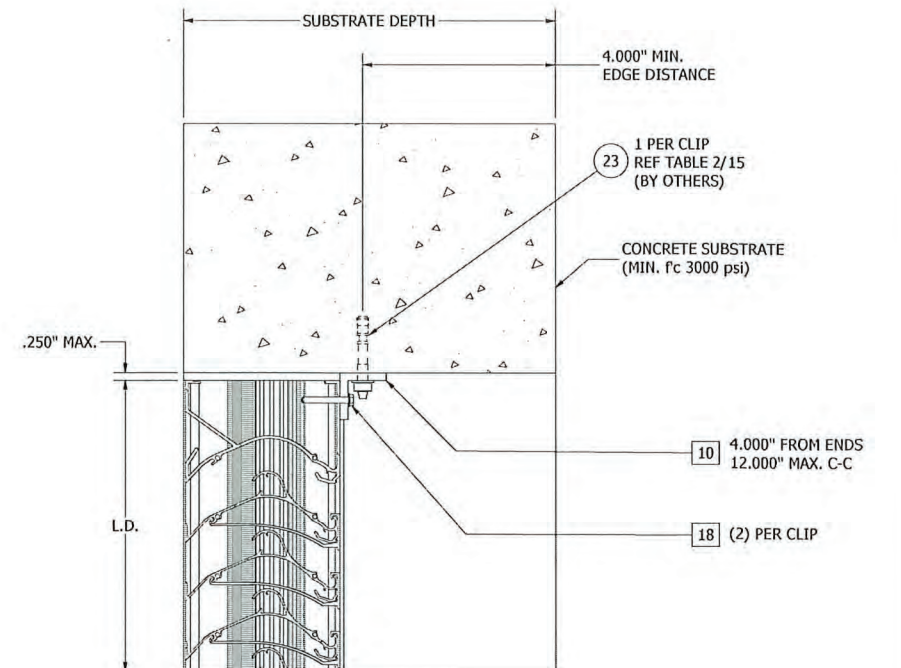




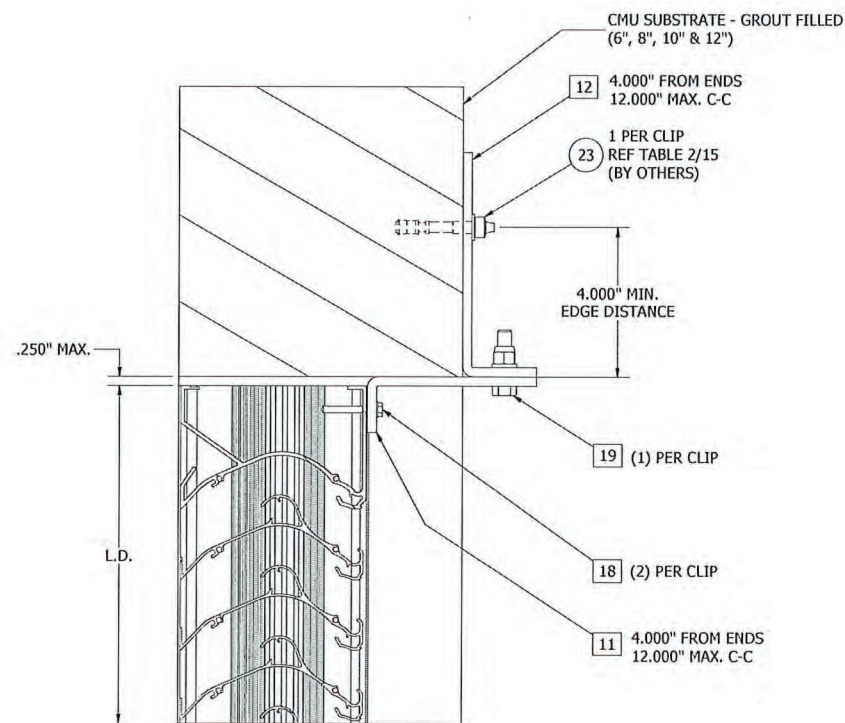
**DETAIL A**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
(WOOD SUBSTRATE)



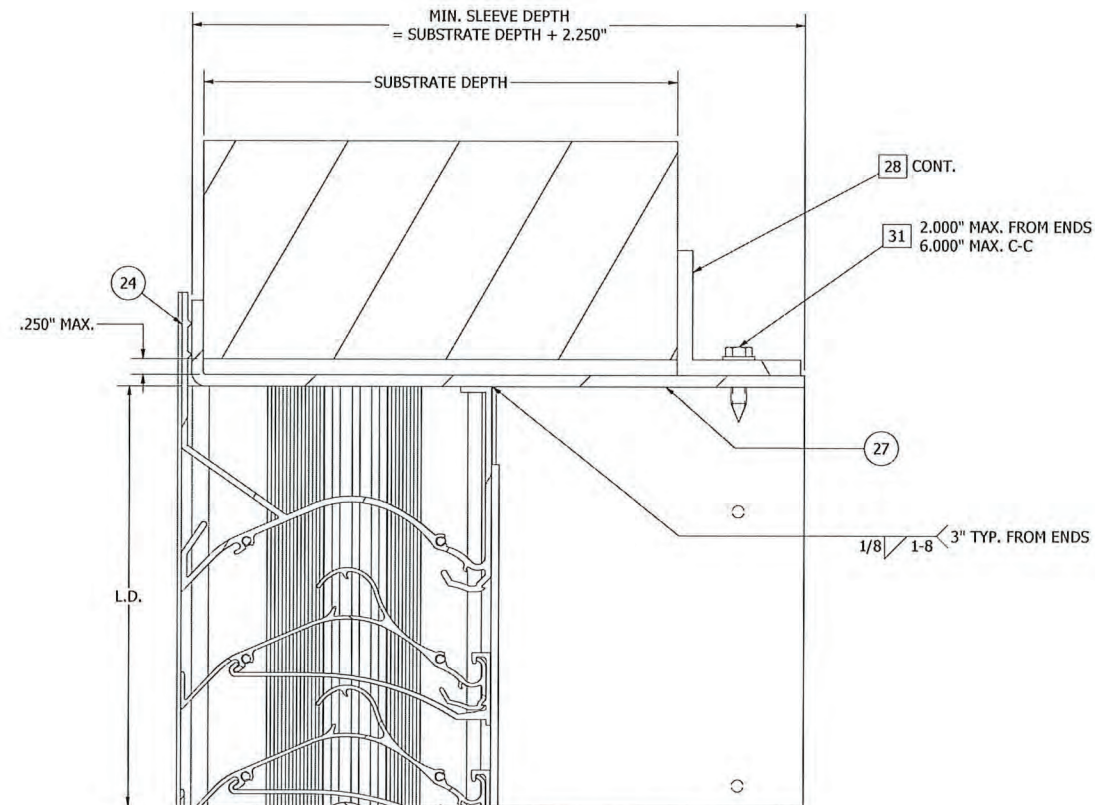
**DETAIL B**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
(STEEL SUBSTRATE)



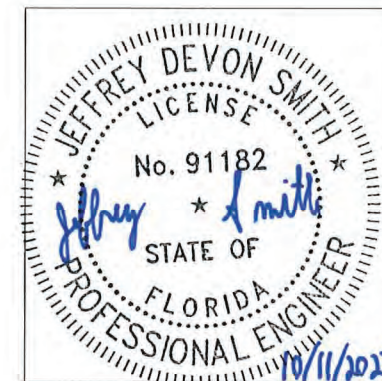
**DETAIL C**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
(CONCRETE SUBSTRATE)



**DETAIL D**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
(CMU SUBSTRATE)




**DETAIL E**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
(UNIVERSAL SLEEVE)

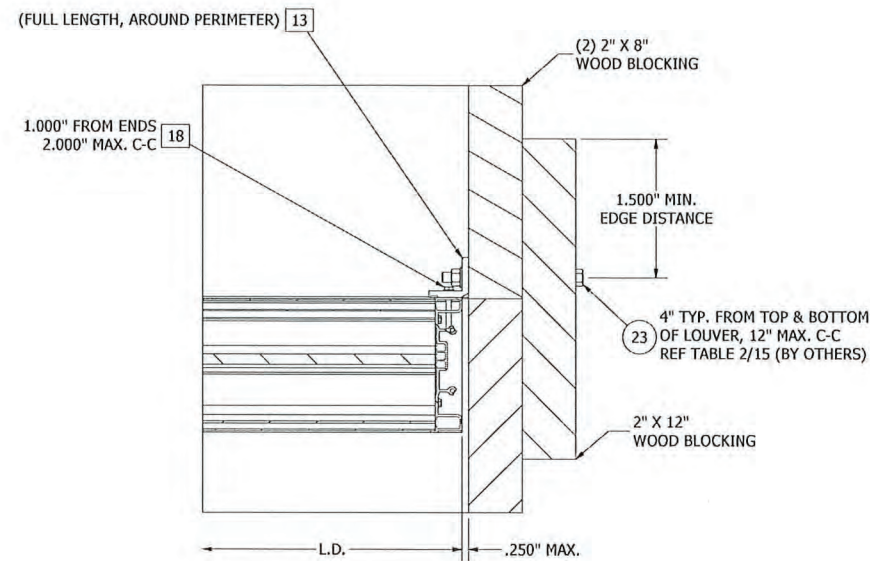


JEFFREY D. SMITH, P.E.  
NO. 91182

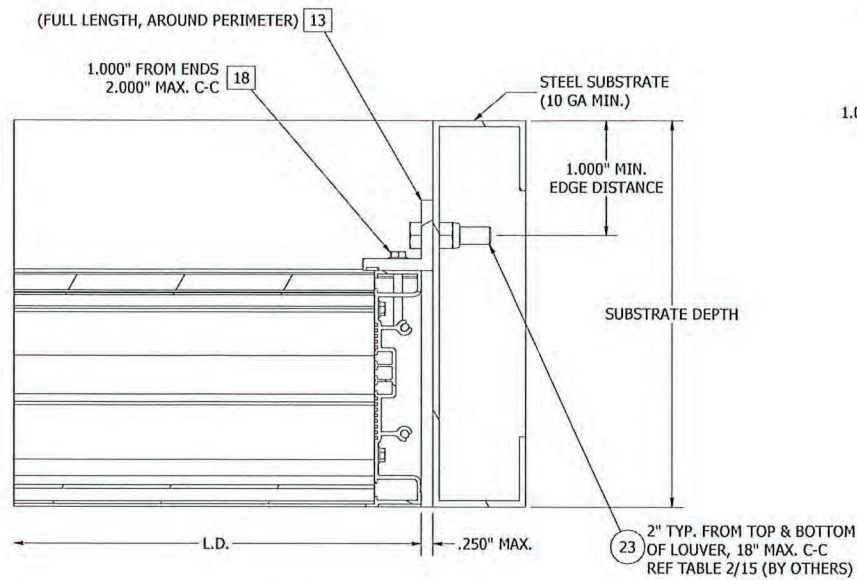
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION		BY	CHK	AP'VD	AP'VD	DATE
AUTHOR	DRP	5/16/12	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL			PRODUCT	EMES20MD			
			TITLE	ASSEMBLY "A" - HEAD/SILL INSTALL DETAILS			
			SIZE D	DVG NO 60-022286-00B			REV H
ECN	8/28/20	SCALE NONE	INVENTOR		SHEET 2 OF 19		

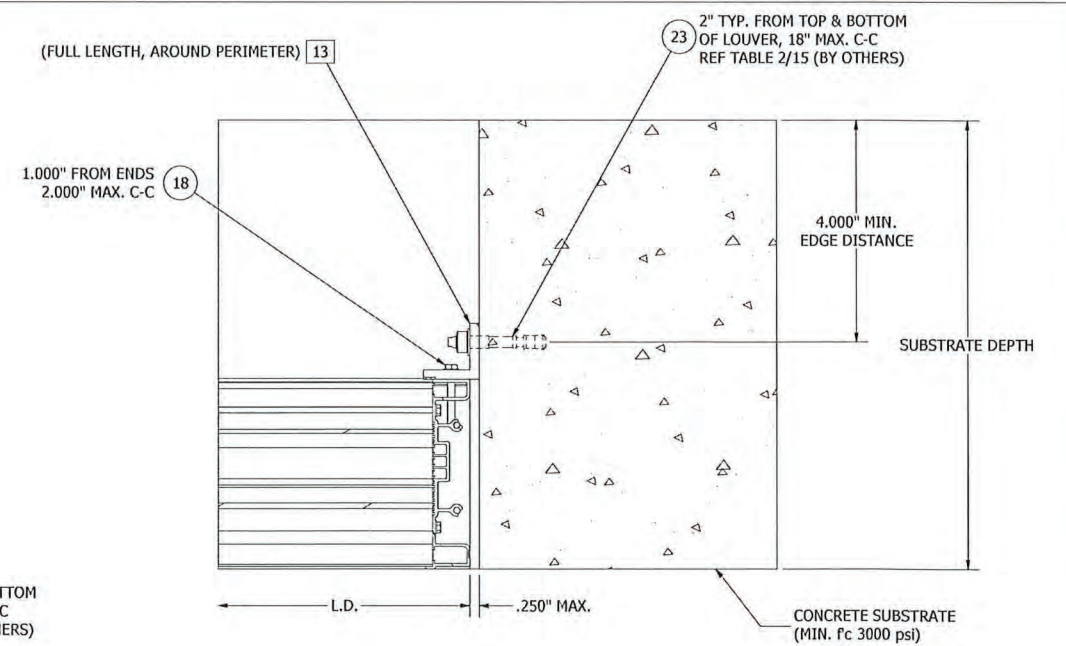




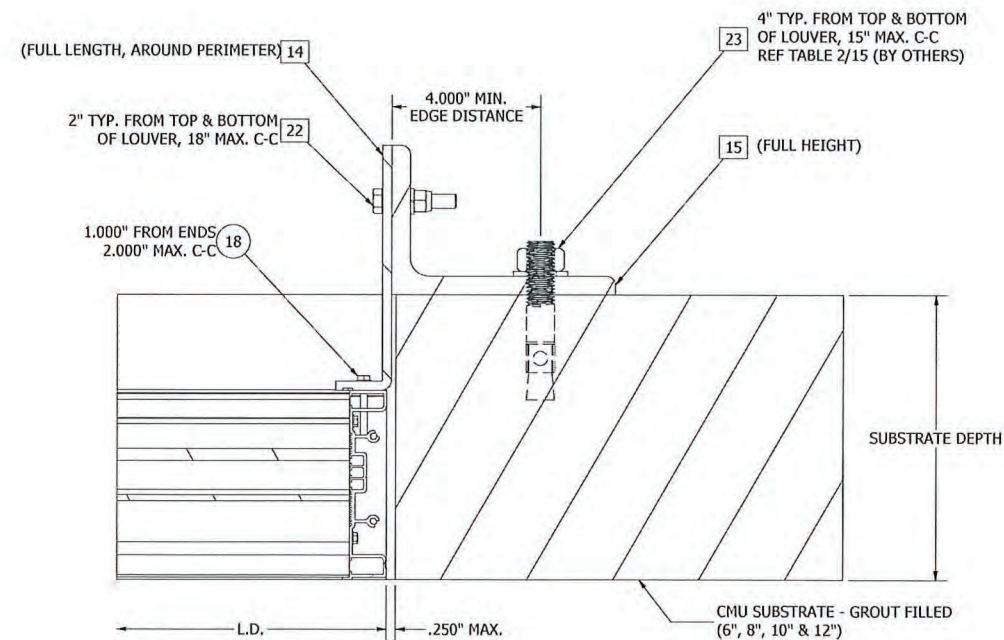
**DETAIL F**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(WOOD SUBSTRATE)



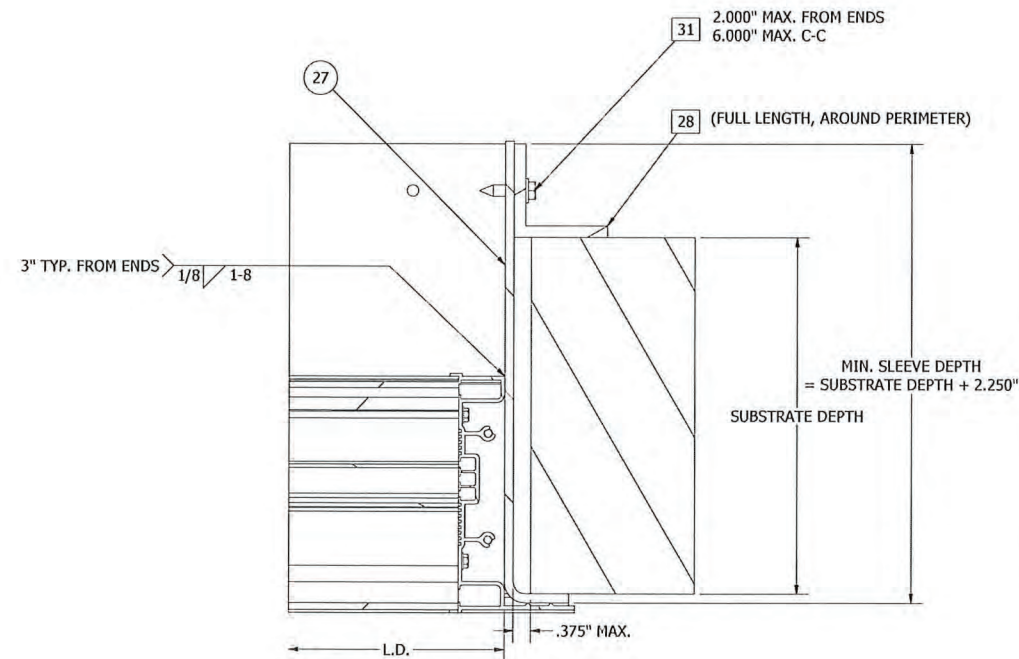
**DETAIL G**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(STEEL SUBSTRATE)



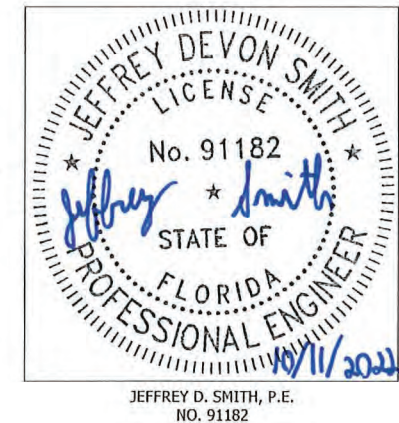
**DETAIL H**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(CONCRETE SUBSTRATE)



**DETAIL J**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(CMU SUBSTRATE)



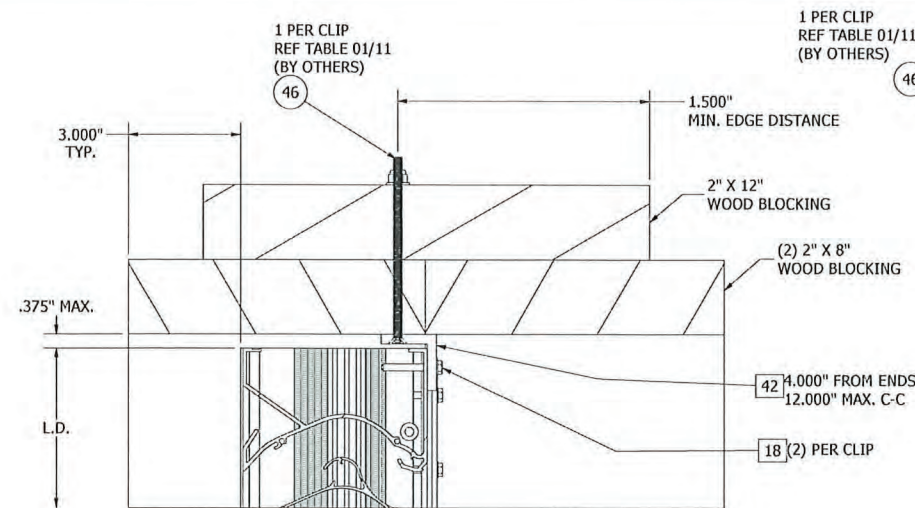
**DETAIL K**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(UNIVERSAL SLEEVE)



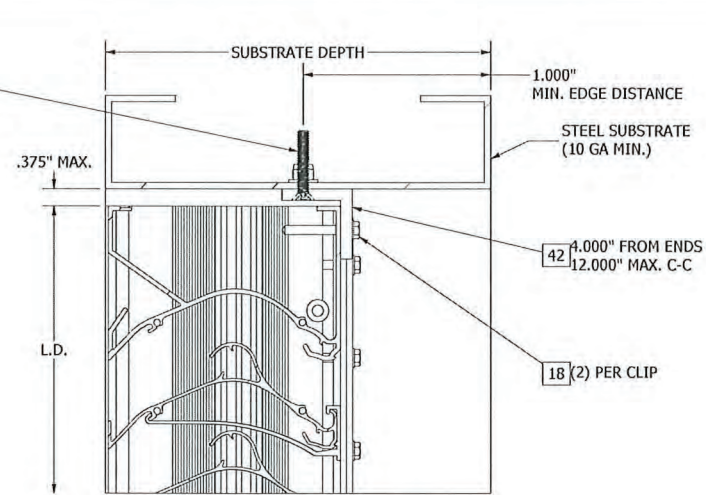
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
<b>RUSKIN</b> AUTHORITY IN AIR CONTROL 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL						
PRODUCT EMES20MD TITLE ASSEMBLY "A", "B" & "C" - JAMB INSTALL DETAILS SIZE D DWG NO 60-022286-00B REV H						
ECN	8/28/20	SCALE NONE	INVENTOR	SHEET 3 OF 19		

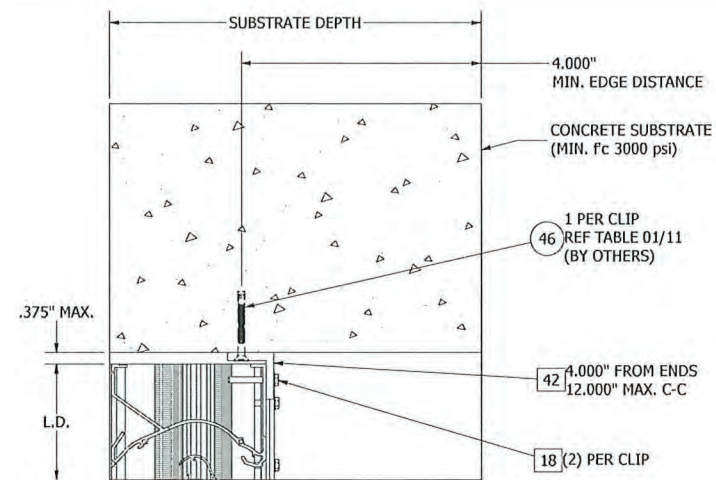




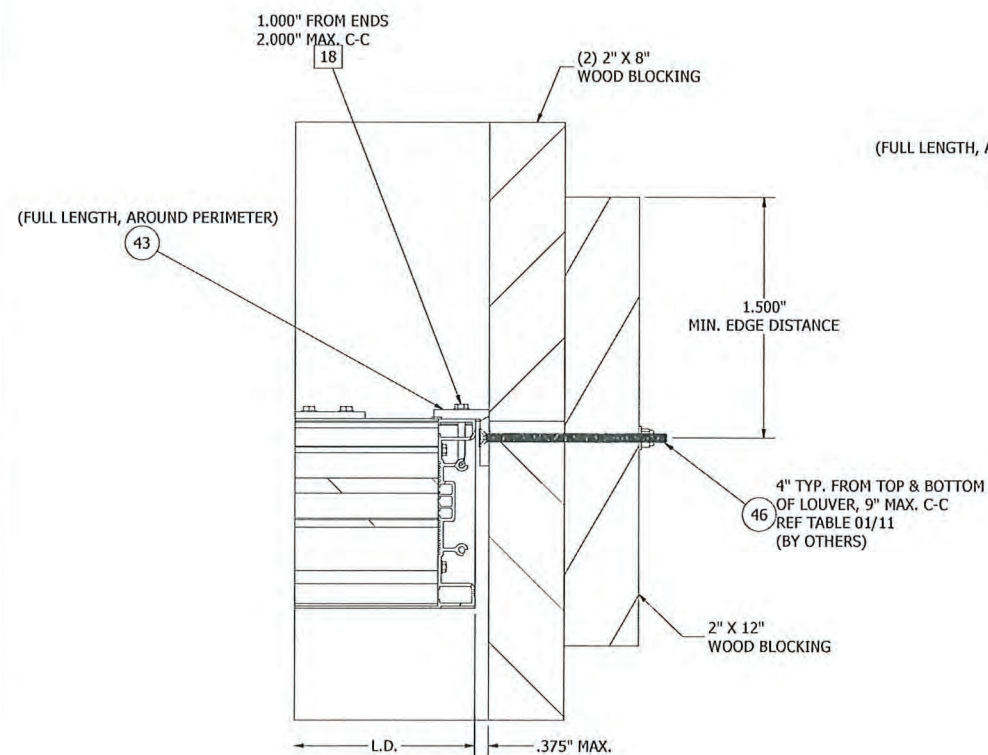
**DETAIL L**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
IN REVERSE DIRECTION  
(WOOD SUBSTRATE)



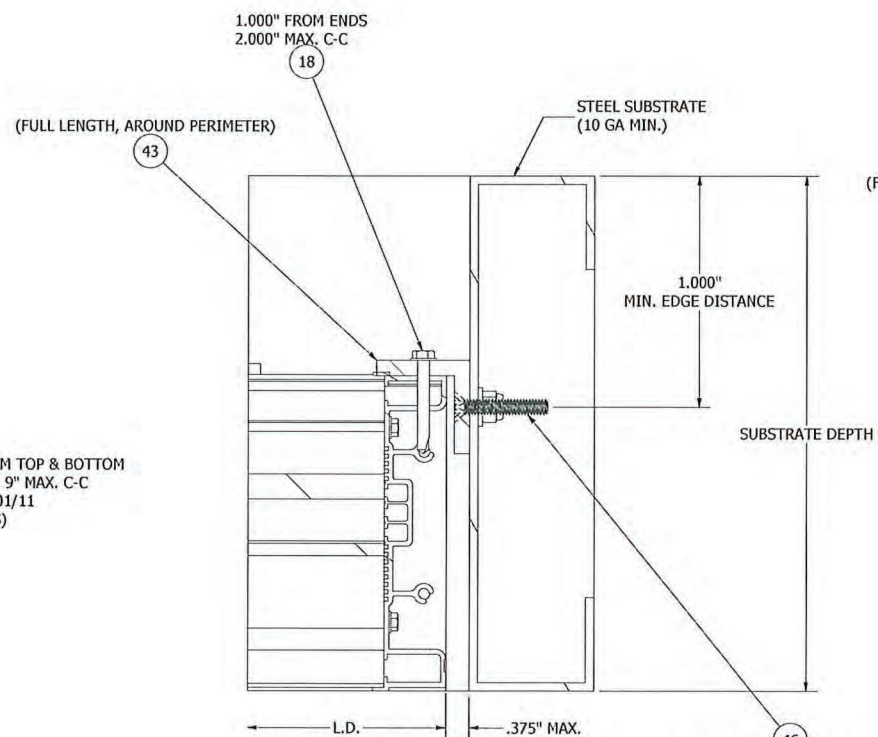
**DETAIL M**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
IN REVERSE DIRECTION  
(STEEL SUBSTRATE)



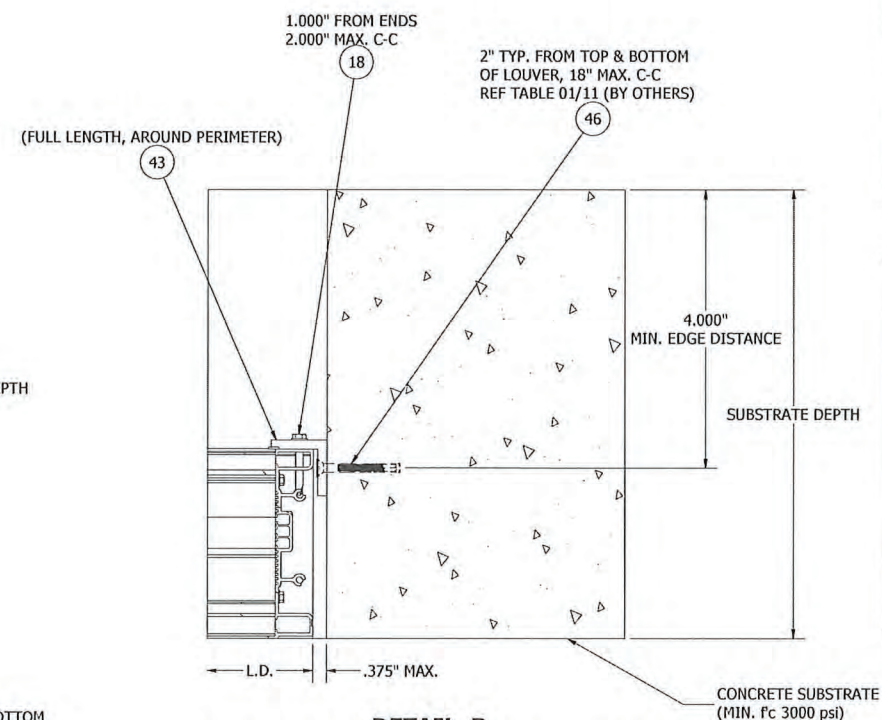
**DETAIL N**  
ASSEMBLY 'A' - HEAD/SILL CONNECTION  
IN REVERSE DIRECTION  
(CONCRETE SUBSTRATE)



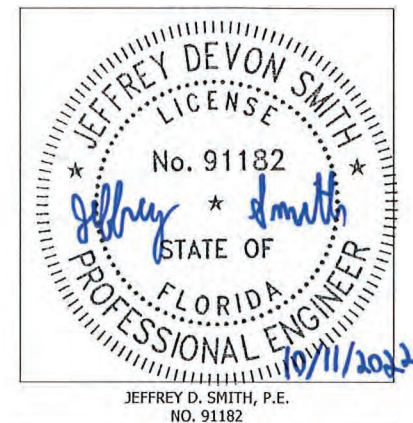
**DETAIL P**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
IN REVERSE DIRECTION  
(WOOD SUBSTRATE)



**DETAIL Q**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
IN REVERSE DIRECTION  
(STEEL SUBSTRATE)




**DETAIL R**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
IN REVERSE DIRECTION  
(CONCRETE SUBSTRATE)



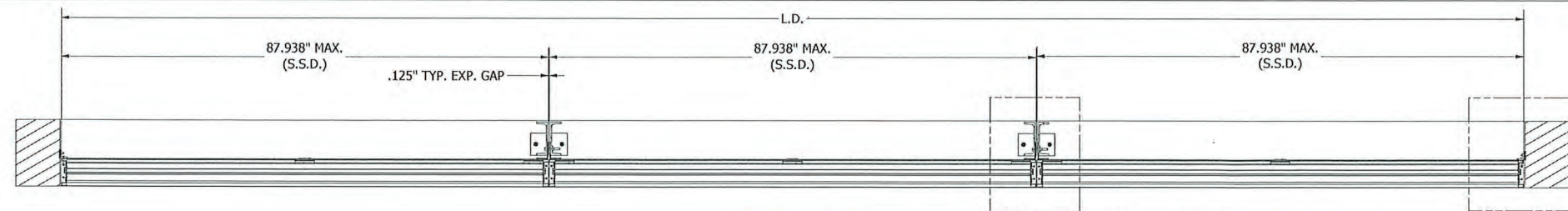
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

By *[Signature]*  
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
AUTHOR	DRP	5/16/12	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL			
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
		PRODUCT		EMES20MD		
		TITLE		ASSEMBLY "A", "B" & "C" - REVERSE ANGLE INSTALL DETAILS		
		SIZE		60-022286-00B		
		SCALE		NONE		
		INVENTOR		SHEET 4 OF 19		





**SECTION D-D**

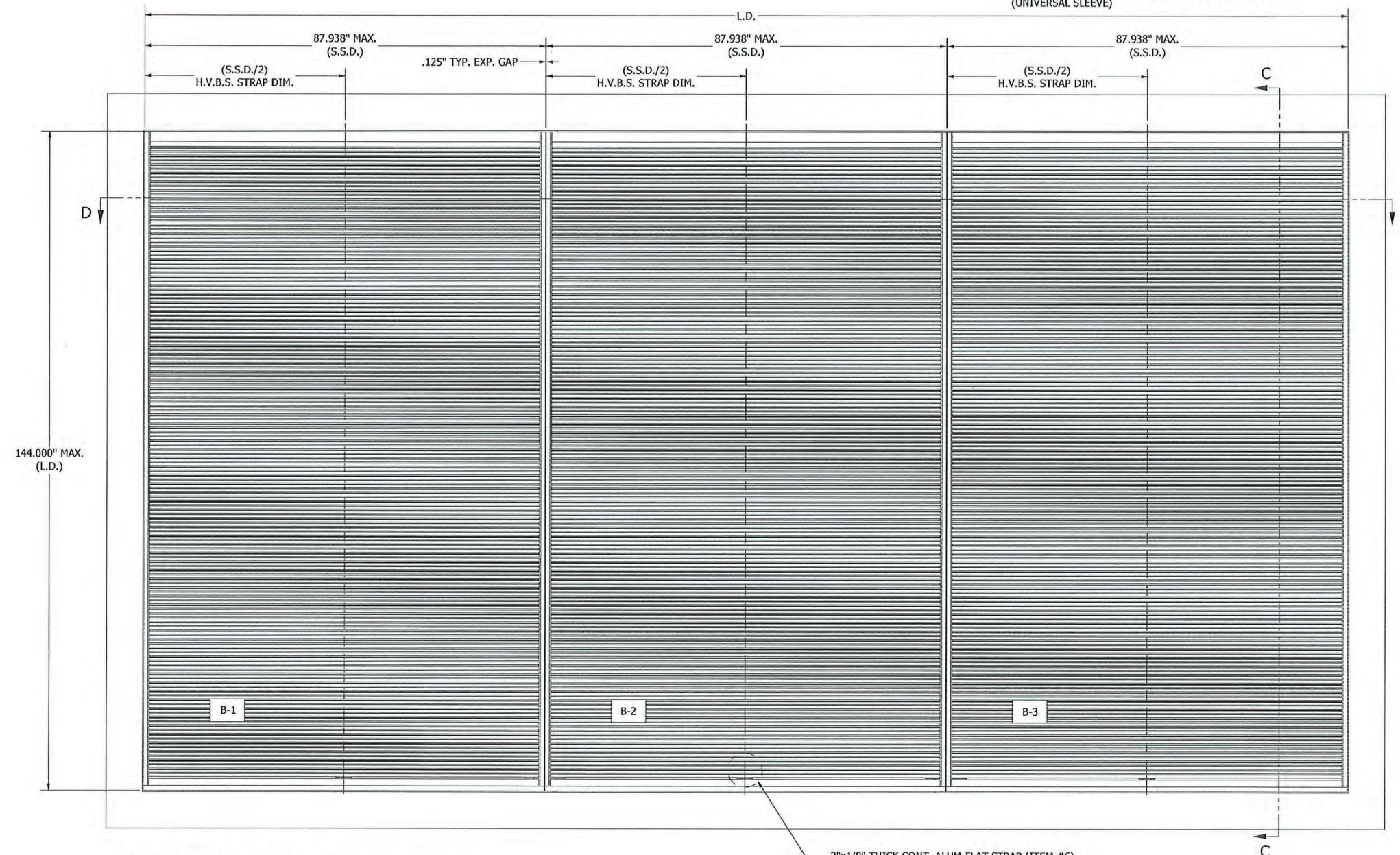
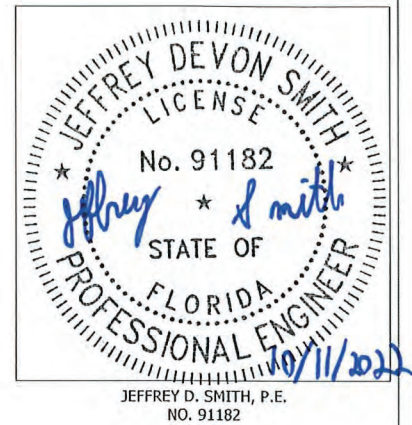
REF DETAIL Y/08  
FOR VISIBLE MULLION SUPPORT CONNECTION  
(WOOD/STEEL/CONCRETE)  
REF DETAIL Z/08, AA/08  
FOR VISIBLE MULLION SUPPORT CONNECTION (CMU)  
REF DETAIL AB/08  
FOR VISIBLE MULLION SUPPORT BRACKET CONNECTION  
(UNIVERSAL SLEEVE)

REF DETAIL F/03  
FOR JAMB CONNECTION DETAIL (WOOD)  
REF DETAIL G/03  
FOR JAMB CONNECTION DETAIL (STEEL)  
REF DETAIL H/03  
FOR JAMB CONNECTION DETAIL (CONCRETE)  
REF DETAIL J/03  
FOR JAMB CONNECTION DETAIL (CMU)  
REF DETAIL K/03  
FOR JAMB CONNECTION DETAIL (UNIVERSAL SLEEVE)

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16

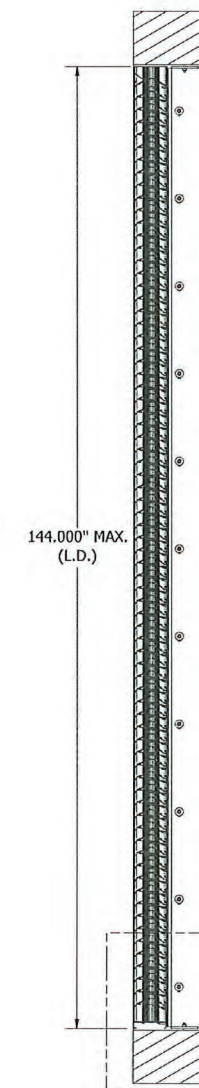
Expiration Date 02/23/2026

By   
Miami-Dade Product Control




**ASSEMBLY "B" - 3X1 MULTI SECTION VIEW**  
MAX. SHIP SECTION : 87.938" W X 144" H

2"x1/8" THICK CONT. ALUM FLAT STRAP (ITEM #6)  
WELDED TO HEAD/SILL & ALSO AT EACH BLADE BRACE



REF DETAIL S/07  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (WOOD)  
REF DETAIL T/07  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (STEEL)  
REF DETAIL U/07  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (CONCRETE)  
REF DETAIL V/07  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (CMU)  
REF DETAIL W/07  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (UNIVERSAL SLEEVE)

**SECTION C-C**

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/ NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL	<div>  <div>           3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL         </div> </div>					
	PRODUCT EMES20MD TITLE EMES20MD ASSEMBLY "B" SIZE D DIVG NO 60-022286-00B SCALE NONE INVENTOR SHEET 5 OF 19					
ECH	8/28/20					



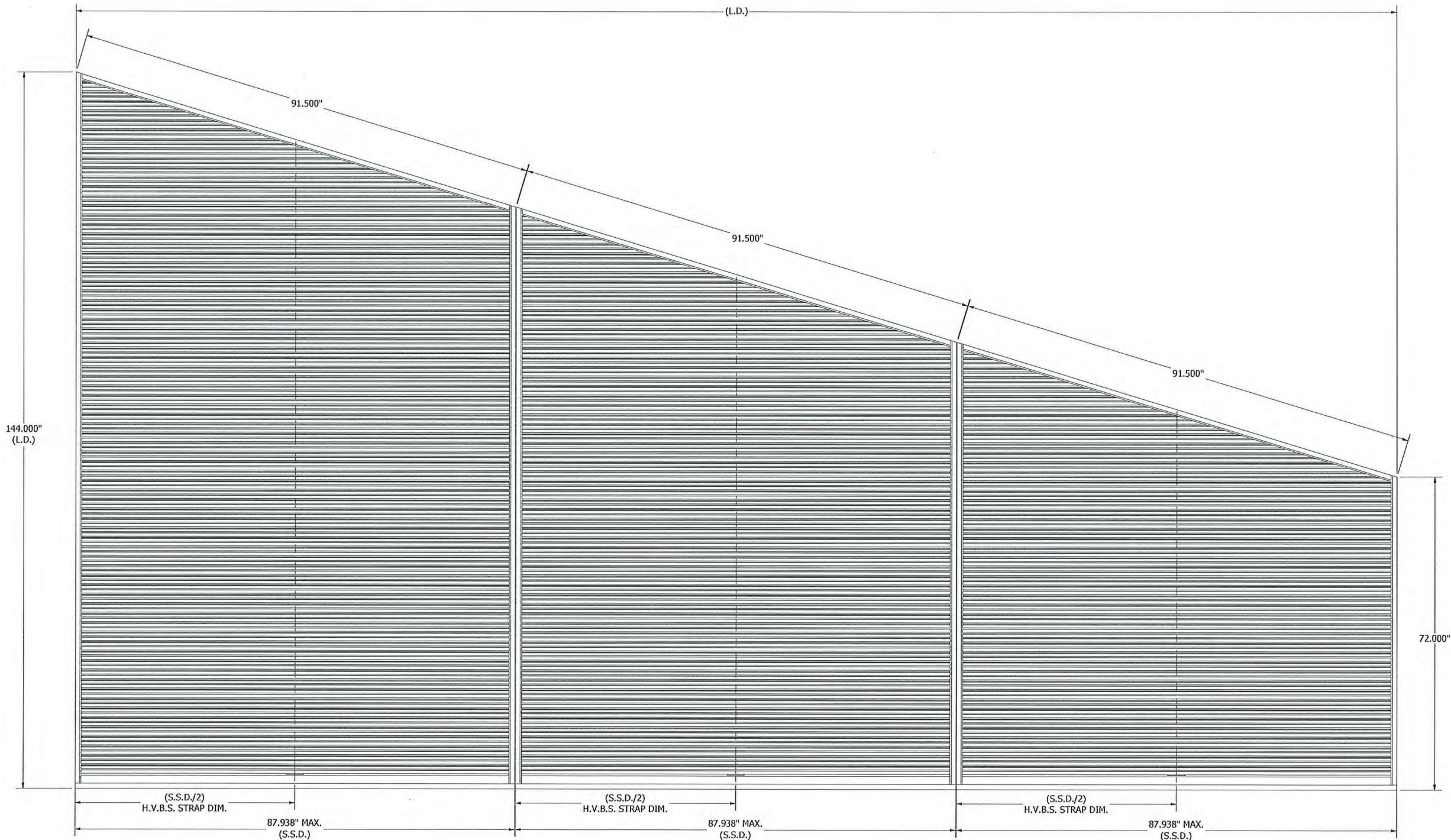
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

By   
Miami-Dade Product Control



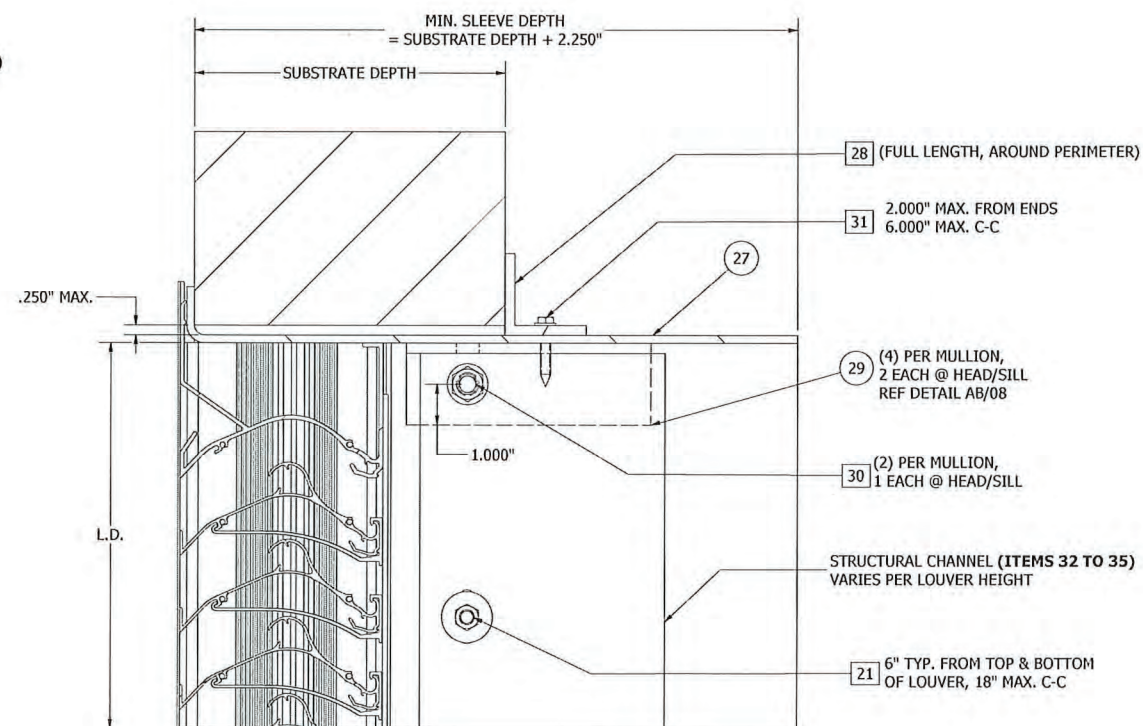
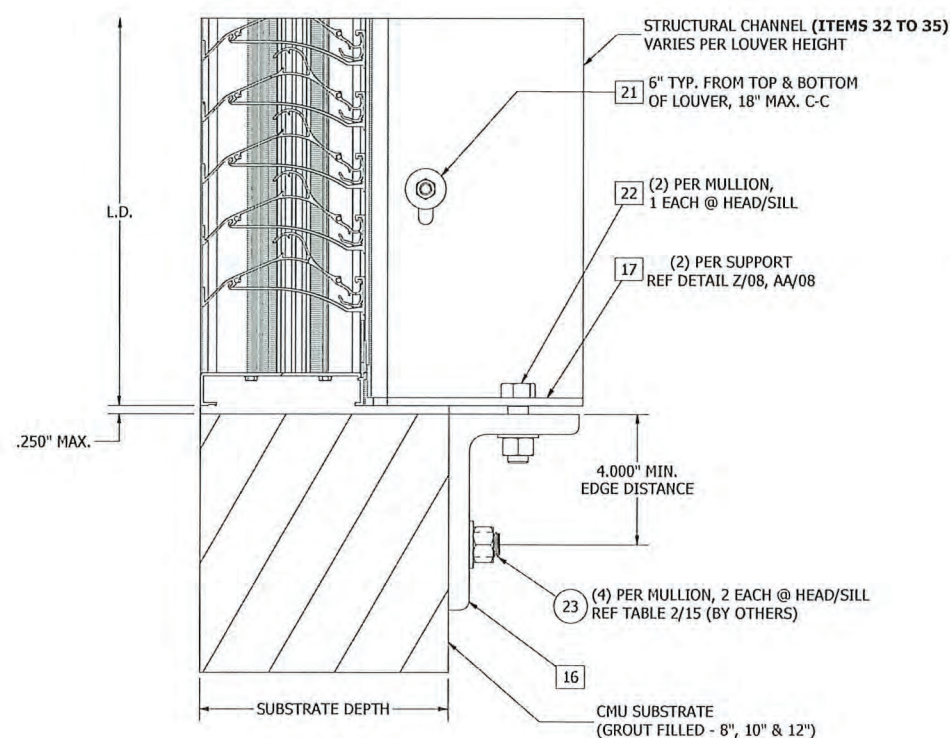
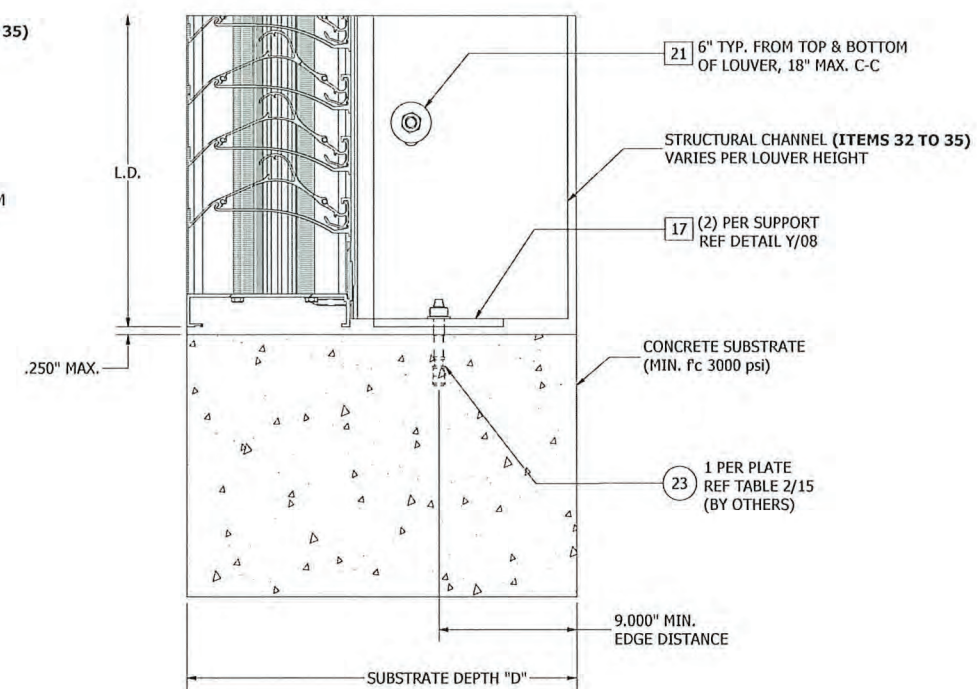
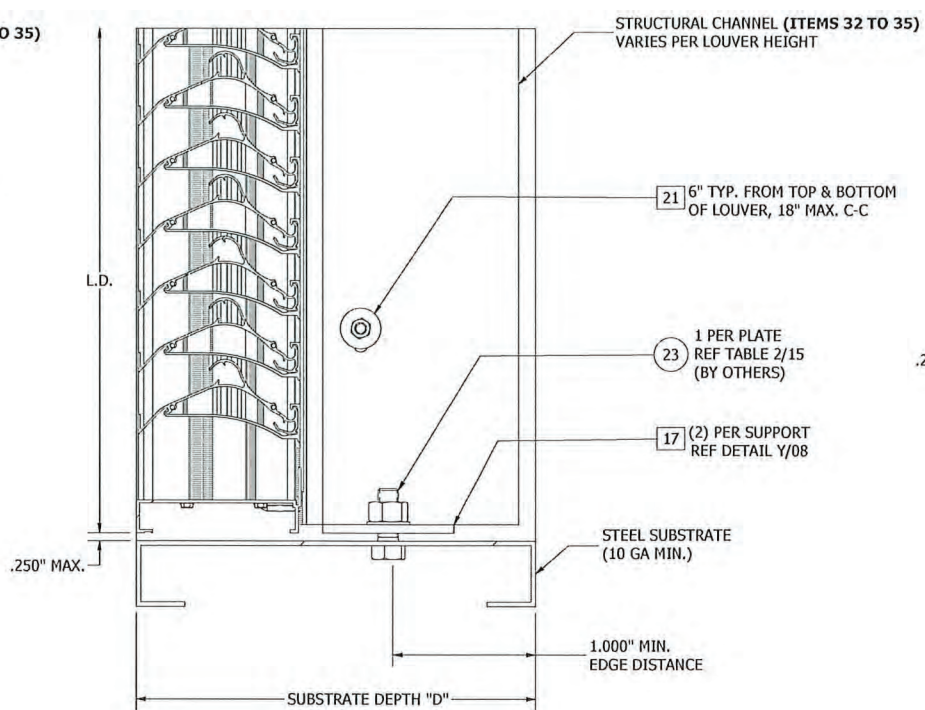
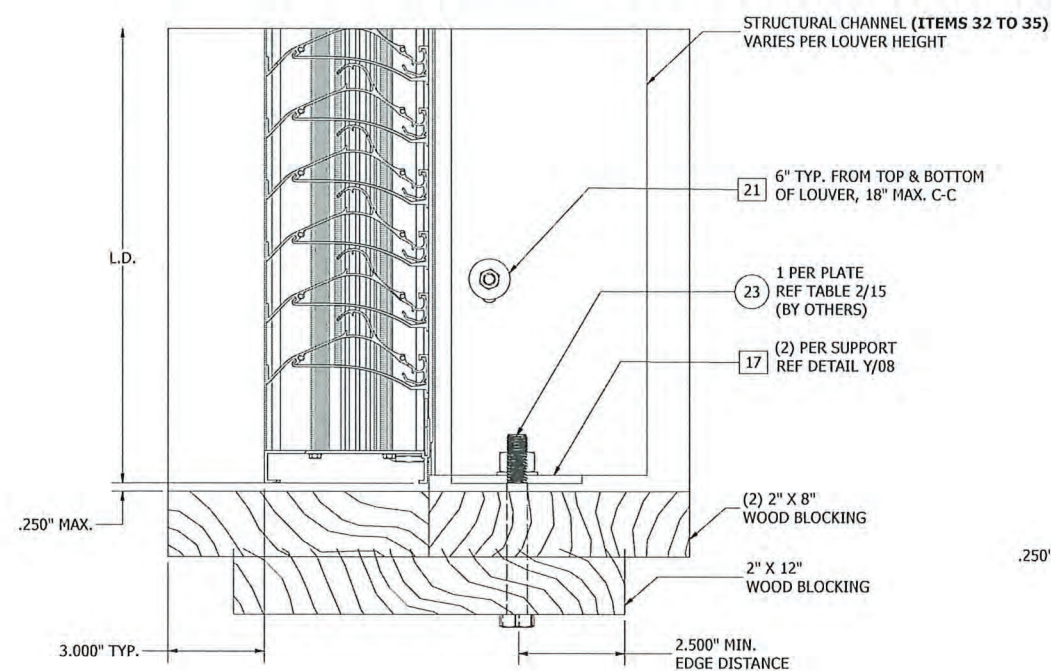
JEFFREY D. SMITH, P.E.  
NO. 91182




**ASSEMBLY "C" - 3X1 MULTI SECTION VIEW**  
MAX. SHIP SECTION : 87.938" W X 144" H

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
PRODUCT EMES20MD						
TITLE EMES20MD ASSEMBLY "C"						
SIZE D		DIVG NO 60-022286-00B		REV H		
ECN	8/28/20	SCALE NONE	INVENTOR	SHEET 6 OF 19		

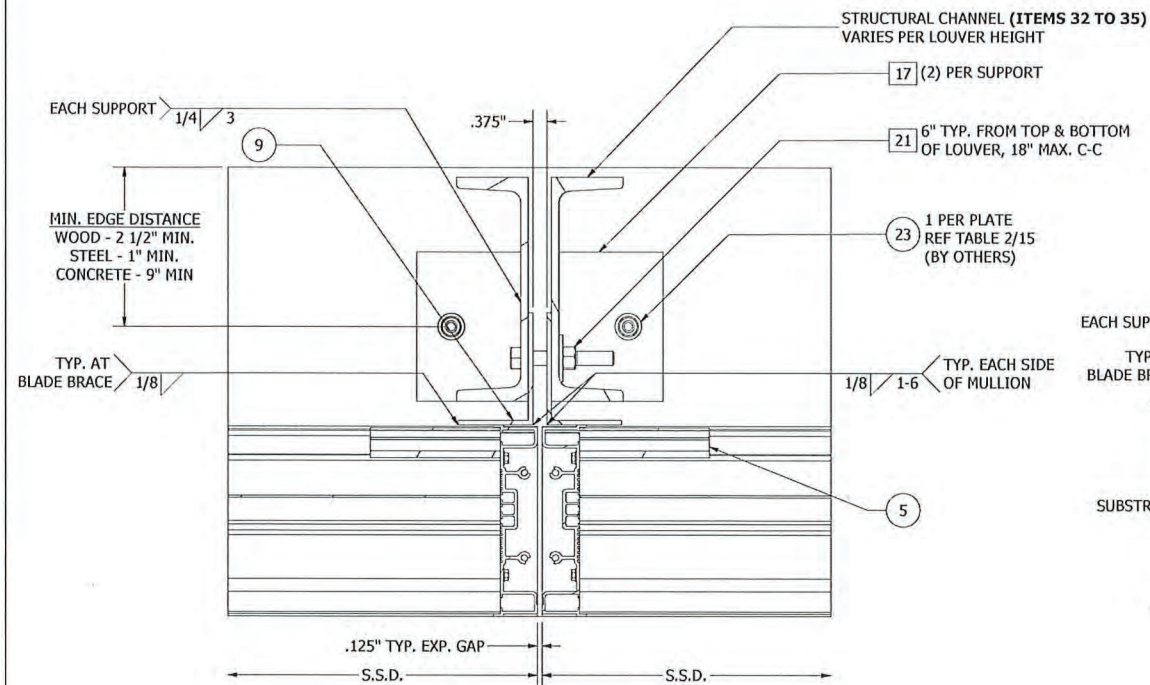




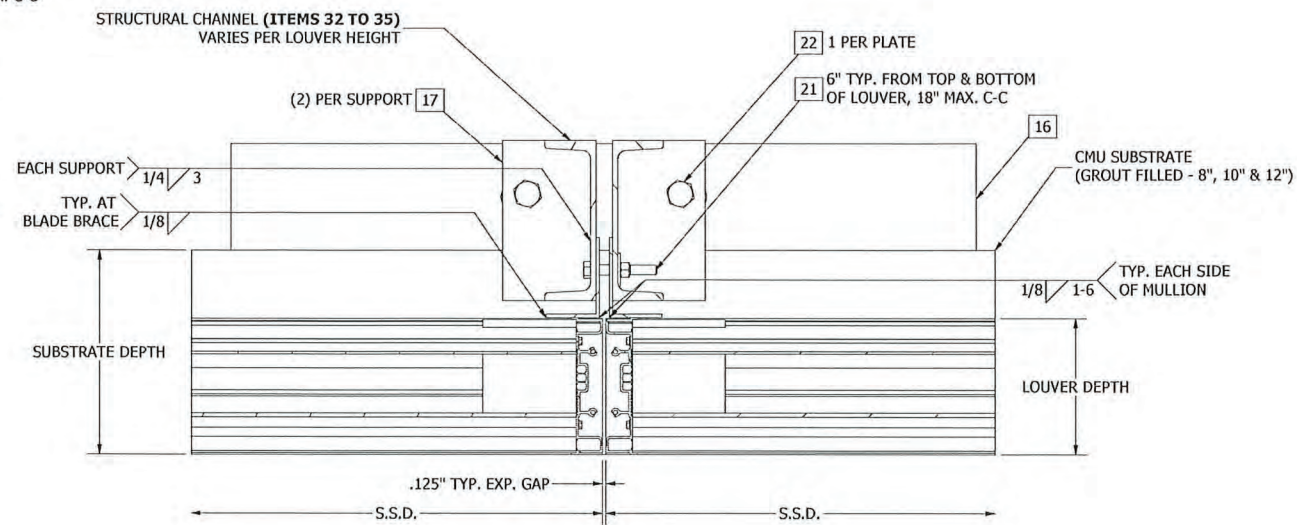
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By CS  
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.			RVT	JDS	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.			SSK/ NS	JDS	WMT	09/10/2014
REV	DESCRIPTION			BY	CHK	APVD	DATE
AUTHOR	DRP	5/16/12	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL	3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL			
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
PRODUCT				EME520MD			
TITLE				ASSEMBLY "B" & "C" - MULLION SUPPORT CONNECTION @ HEAD/SILL DETAILS			
SIZE		D	DWG NO		60-022286-00B		REV
SCALE		NONF		INVENTOR		SHEET 7 OF 19	
ECH		8/28/20					

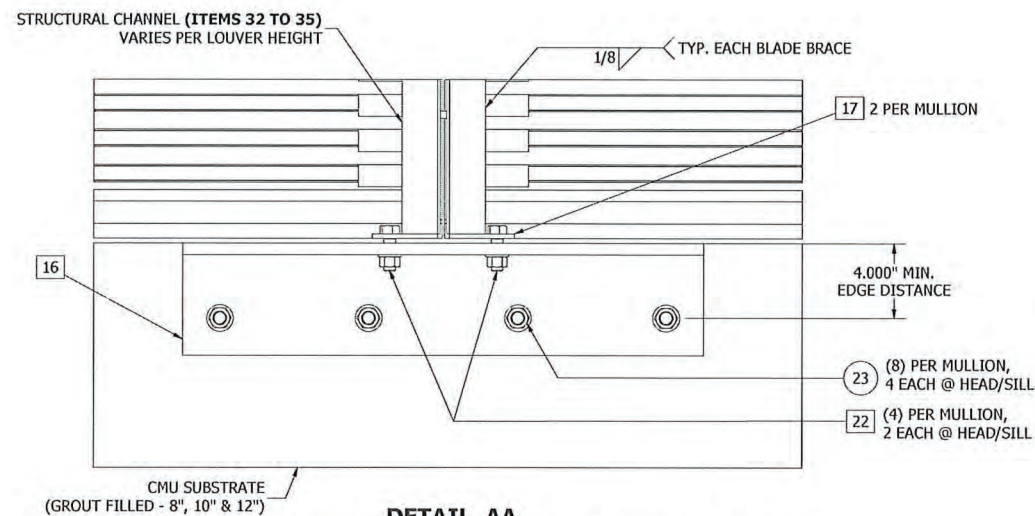




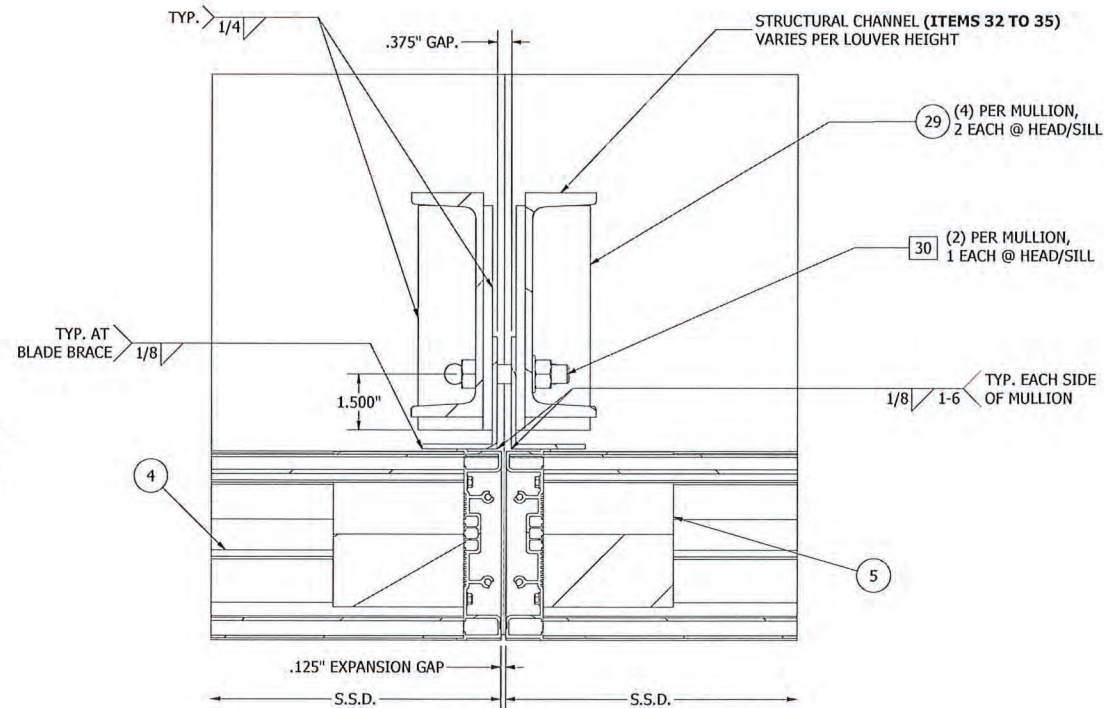
**DETAIL Y**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAIL  
(WOOD, STEEL, CONCRETE SUBSTRATE ONLY)



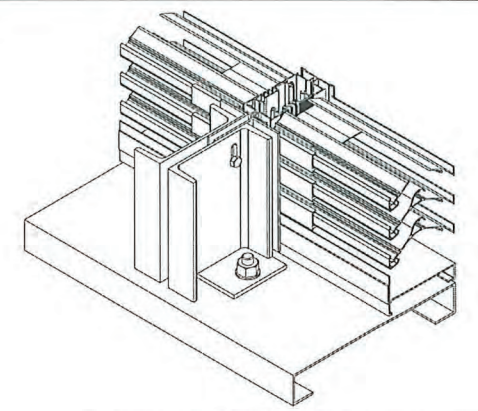
**DETAIL Z**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAIL  
(CMU SUBSTRATE ONLY)



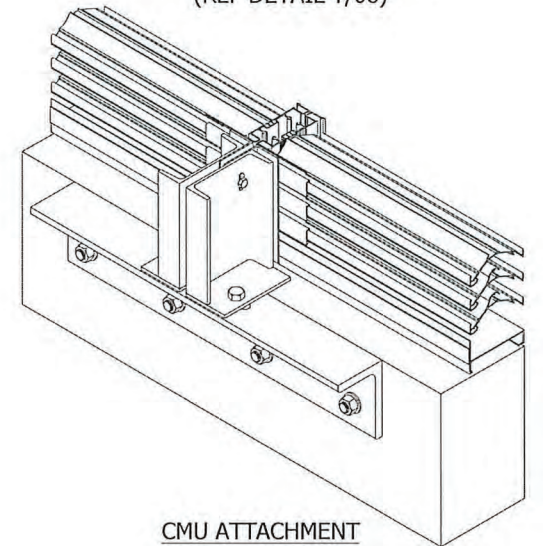
**DETAIL AA**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAIL  
(CMU SUBSTRATE ONLY)



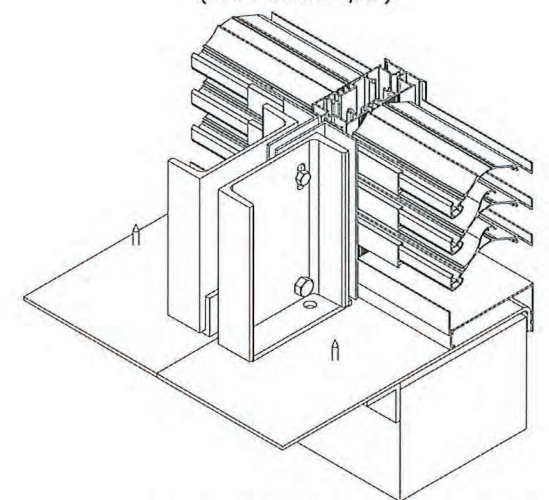
**DETAIL AB**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT BRACKET ATTACHMENT DETAIL  
(UNIVERSAL SLEEVE ONLY)



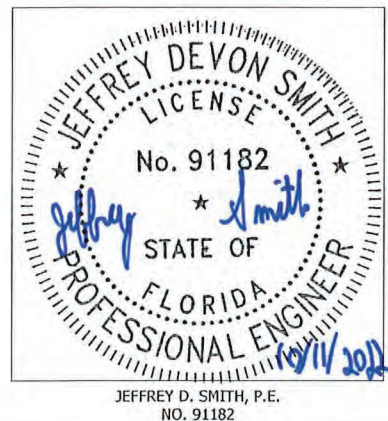
STEEL (SHOWN) ATTACHMENT  
(WOOD, CONCRETE SIM.)  
(REF DETAIL Y/08)



CMU ATTACHMENT  
(REF DETAIL Z/08)



UNIVERSAL SLEEVE ATTACHMENT  
(REF DETAIL AB/08)



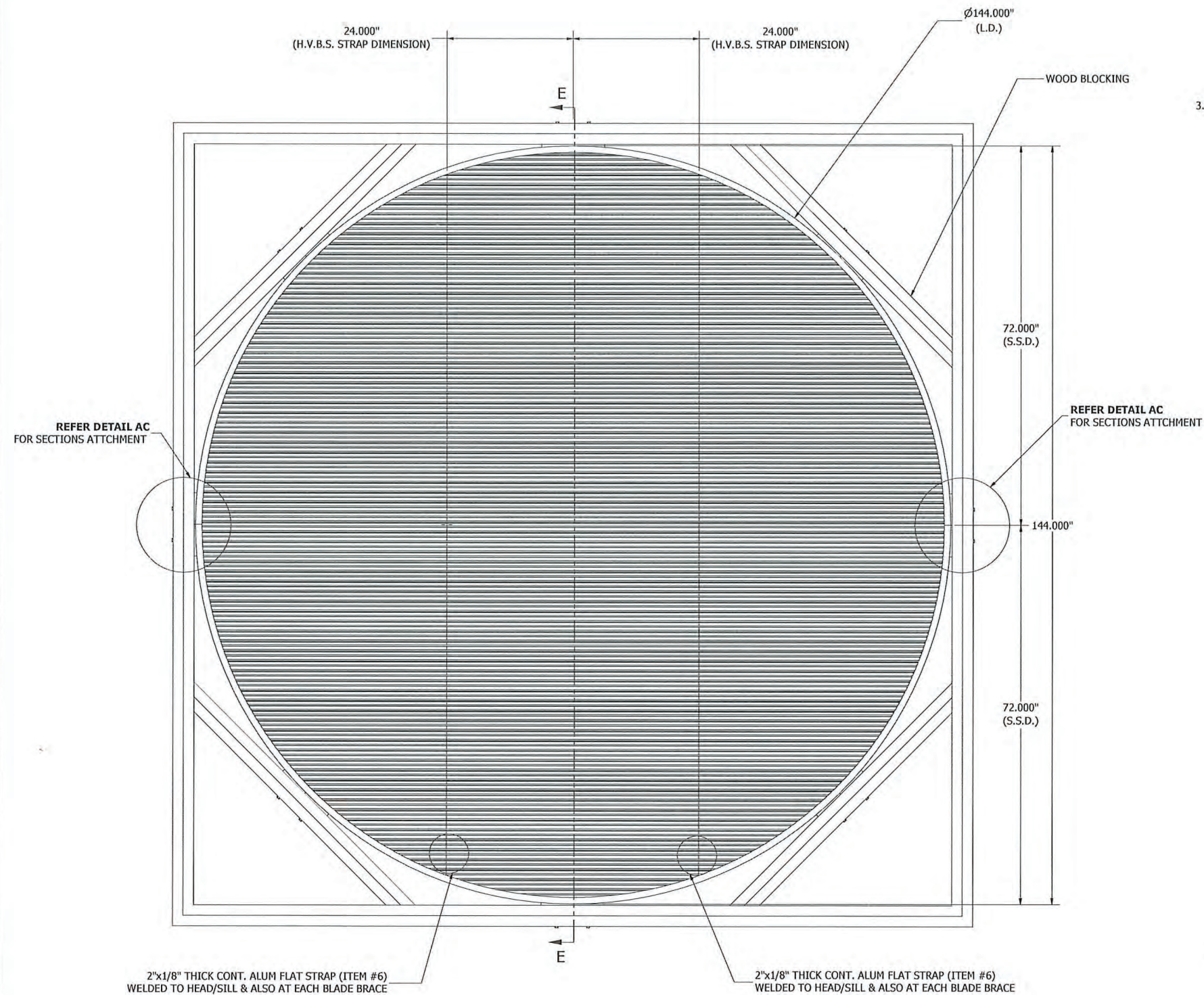
**PRODUCT REVISED**  
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Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

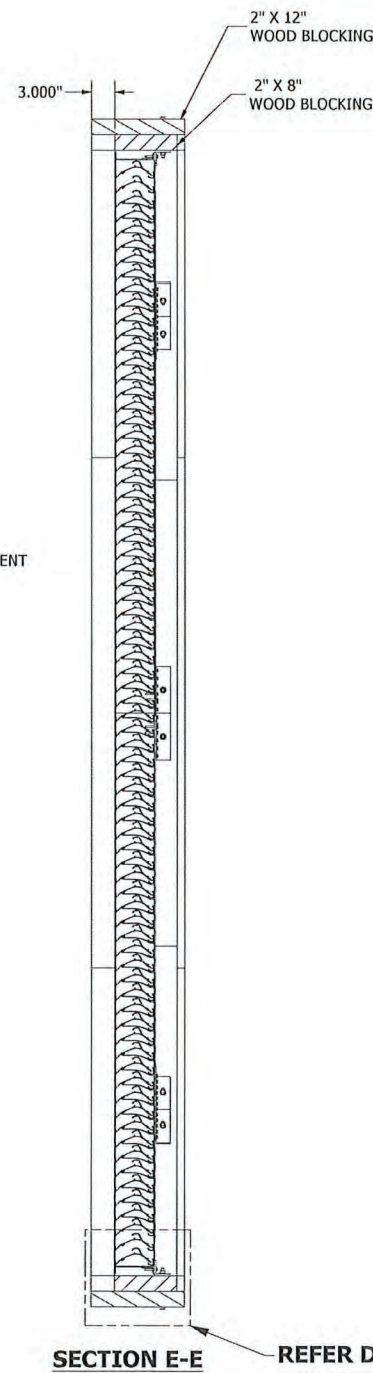
By *[Signature]*  
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMH	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
<b>RUSKIN</b> AUTHORITY IN AIR CONTROL 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL						
PRODUCT EMES20MD TITLE ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAILS SIZE D SCALE NONE INVENTOR SHEET 8 OF 19						
ECN	8/28/20					

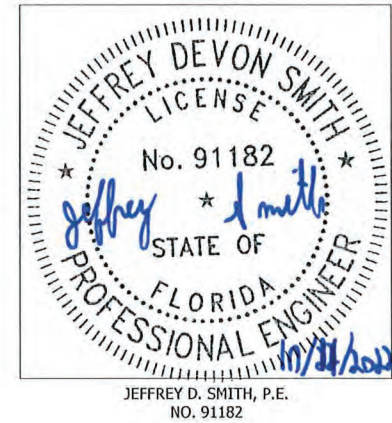
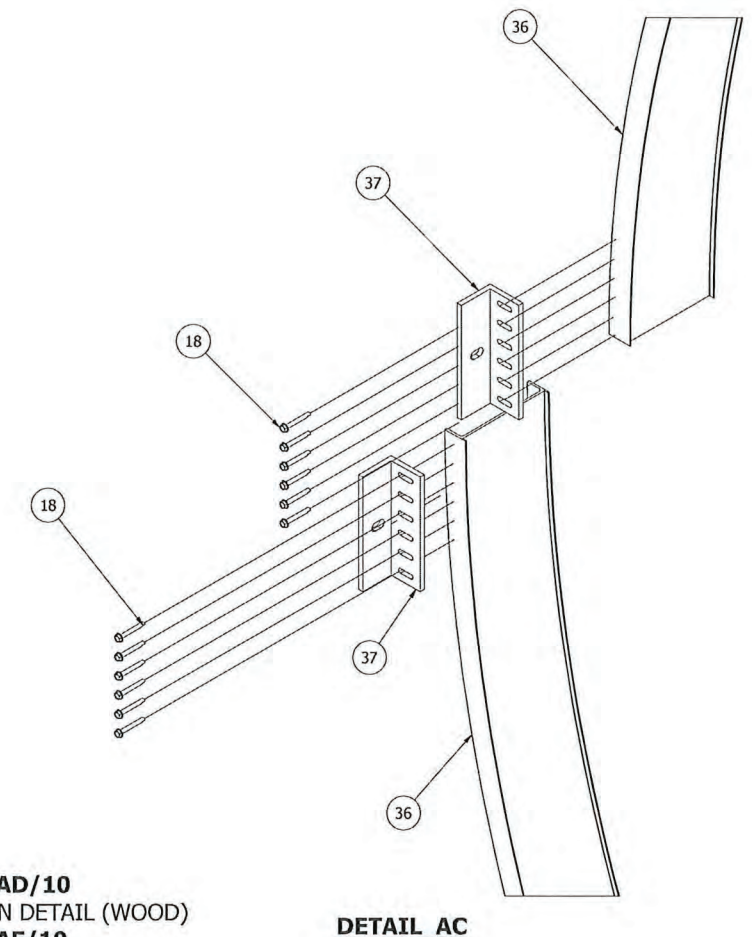




**ASSEMBLY "D" - 1X2 MULTI SECTION VIEW**  
**MAX. SHIP SECTION : 144" W X 72" H**



**REFER DETAIL AD/10**  
 FOR CONNECTION DETAIL (WOOD)  
**REFER DETAIL AE/10**  
 FOR CONNECTION DETAIL (STEEL)  
**REFER DETAIL AF/10**  
 FOR CONNECTION DETAIL (CONCRETE)  
**REFER DETAIL AH,AJ,AK/11**  
 FOR CONNECTION DETAIL  
 IN REVERSE DIRECTION  
 (WOOD,STEEL,CONCRETE)



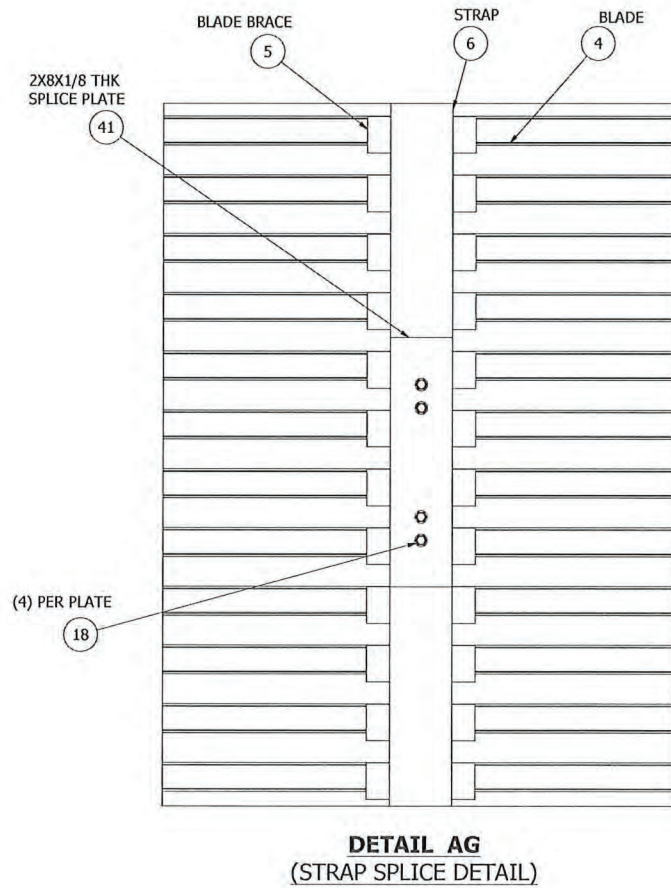
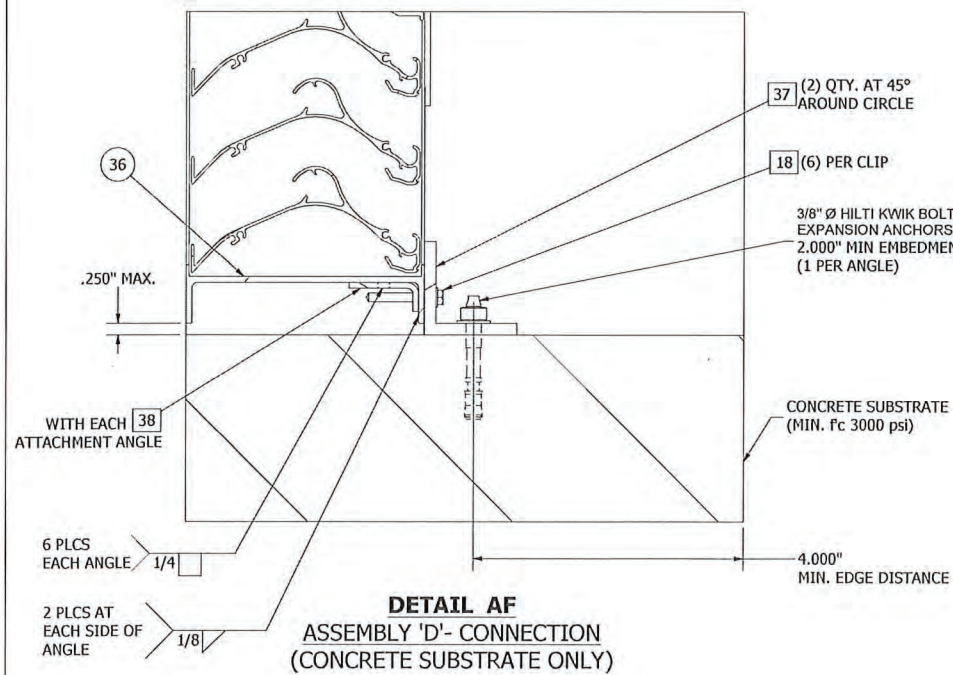
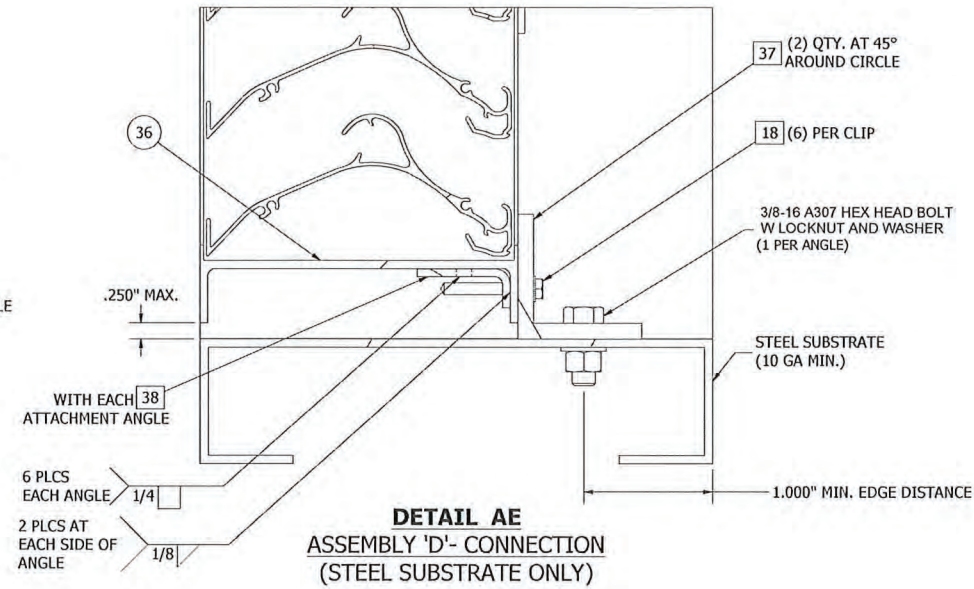
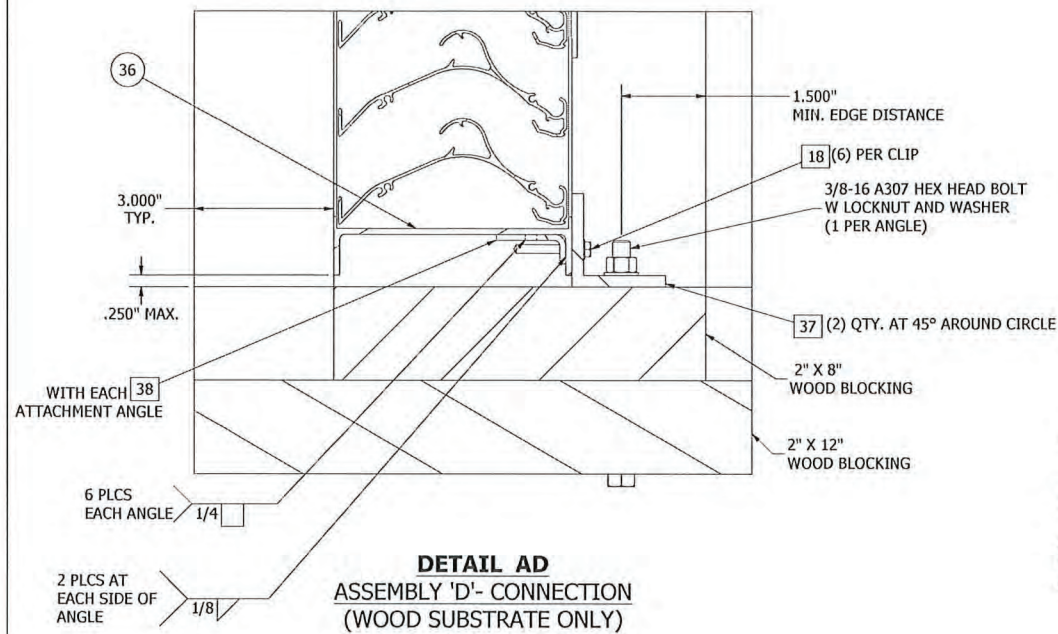
**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
**NOA-No.** 23-1116.16  
**Expiration Date** 02/23/2026  
 By *[Signature]*  
**Miami-Dade Product Control**

**CIRCULAR SHAPE LOUVER ATTACHMENT ANGLE OPTIONS**

DIAMETER	ATTACHMENT ANGLE	ATTACHMENT ANGLE IN REVERSE DIRECTION	QTY.
GREATER THAN 104" TO 144"	ITEM NO. 37 (6" LONG)	ITEM NO. 44 (6" LONG)	2 ANGLES AT EACH 45-DEGREE AROUND CIRCLE
GREATER THAN 60" TO 104"	ITEM NO. 37 (6" LONG)	ITEM NO. 44 (6" LONG)	1 ANGLE AT EACH 45-DEGREE AROUND CIRCLE
12" TO 60"	ITEM NO. 39 (2" LONG)	ITEM NO. 45 (2" LONG)	1 ANGLE AT EACH 45-DEGREE AROUND CIRCLE

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/ NS	JDS	WRT	MMM	09/10/20
AUTHOR	DRP	5/16/12	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL  3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
PRODUCT			EMES20MD				
TITLE			EMES20MD ASSEMBLY "D"				
SIZE D			DWG NO			60-02286-00B	
SCALE			NONE			REV H	
ECN		8/28/20	INVENTOR		SHEET 9 OF 19		



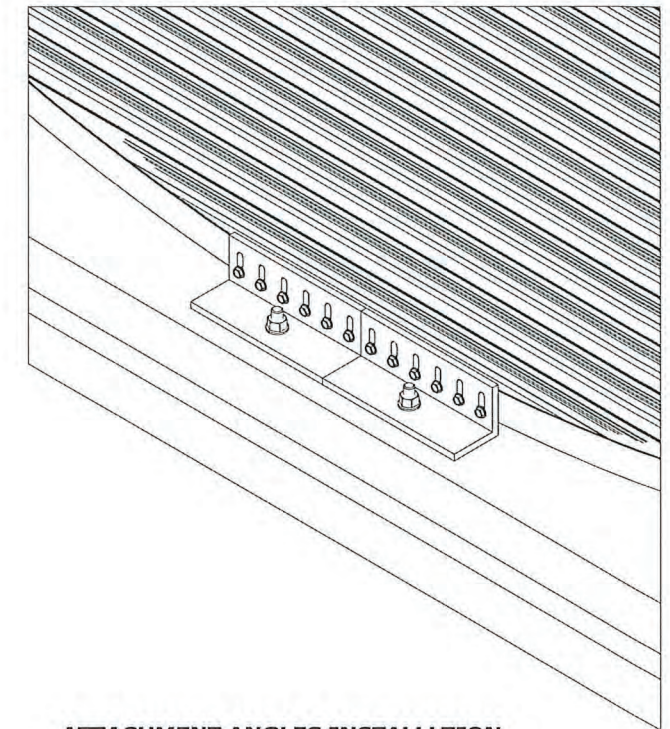


JEFFREY D. SMITH, P.E.  
NO. 91182


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Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

By   
Miami-Dade Product Control



**ATTACHMENT ANGLES INSTALLTION**  
(ASSEMBLY D)

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/ NS	JDS	WRT	MMM	09/10/20
AUTHOR	DRP	5/16/12	<div> <b>RUSKIN</b> AUTHORITY IN AIR CONTROL</div> <div>3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL</div>				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
			PRODUCT EMES20MD				
			TITLE ASSEMBLY "D" INSTALL DETAILS				
			SIZE D		DWG NO	60-022286-00B	REV H
ECN	8/28/20	SCALE NONE	INVENTOR	SHEET 10 OF 19			



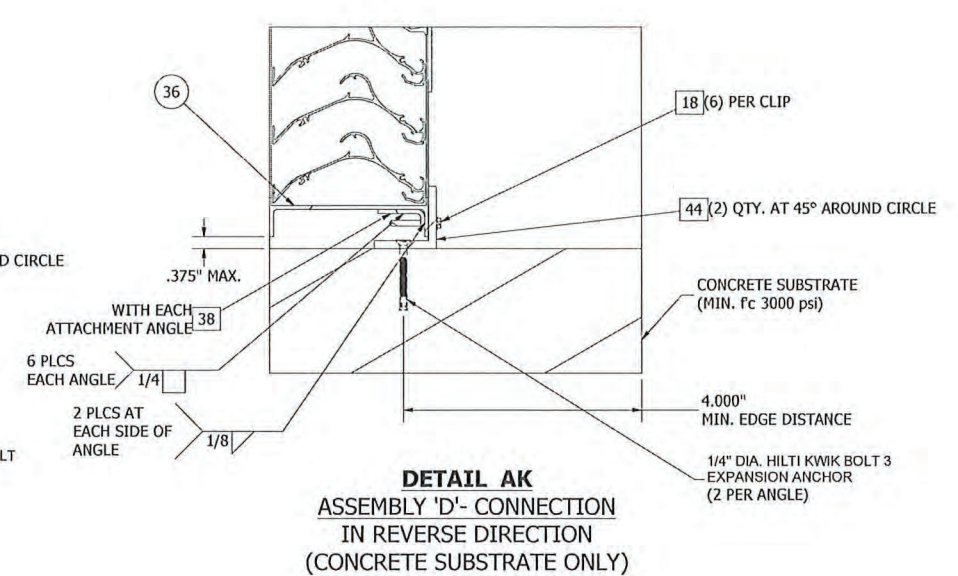
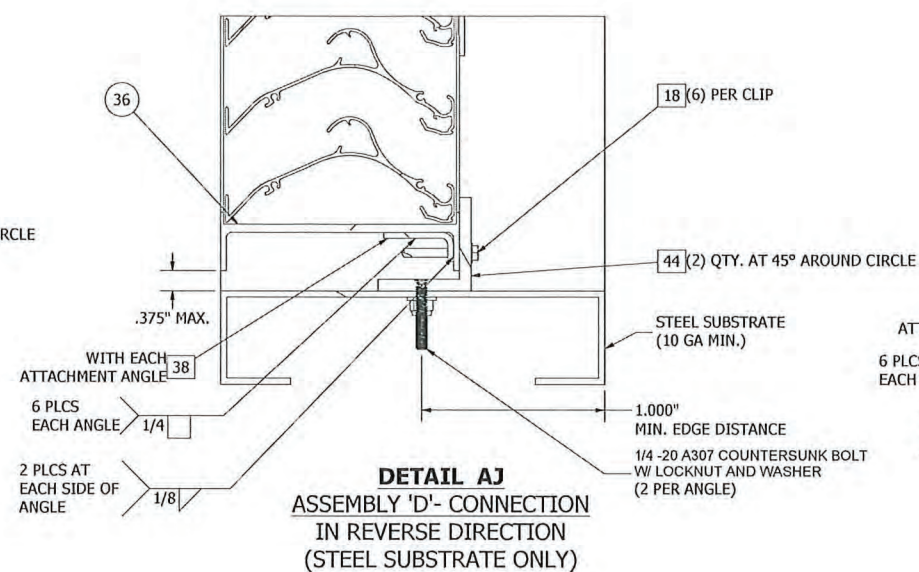
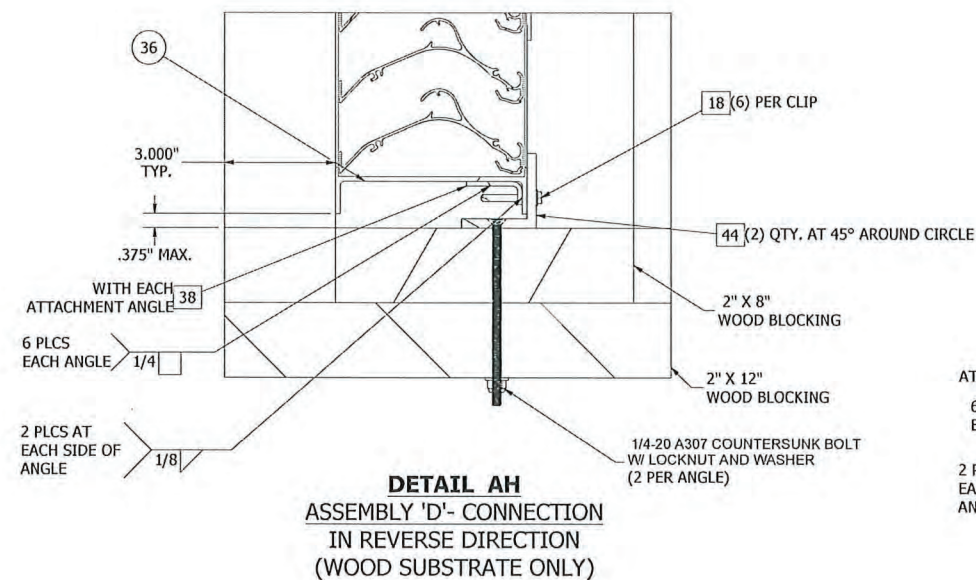
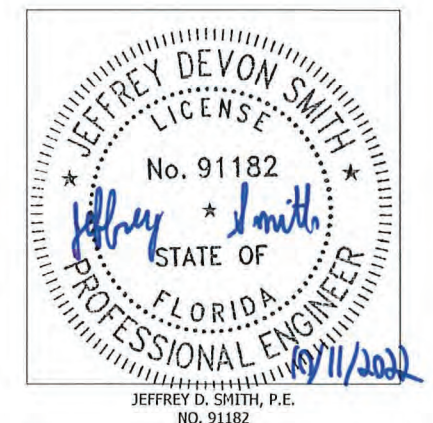




TABLE 01 - EME520MD - COUNTERSUNK WALL FASTENER TABLE (N.I.C.)

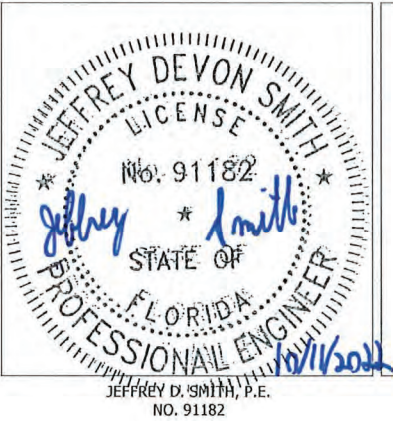
SUBSTRATE TYPE	MIN. SUBSTRATE REQUIREMENTS	LOCATION	FASTENER TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	SPACING
WOOD	SPECIFIC GRAVITY = 0.42	HEAD/SILL	1/4-20 A307 COUNTERSUNK BOLT W/ LOCKNUT AND WASHER	NA	1 1/2"	12" MAX.O.C. (TO MATCH CLIP SPACING)
		JAMBS	1/4 -20 A307 COUNTERSUNK BOLT W/ LOCKNUT AND WASHER	NA	1 1/2"	9" O.C.
STEEL	STEEL - MIN. 10 GA	HEAD/SILL	1/4 -20 A307 COUNTERSUNK BOLT W/ LOCKNUT AND WASHER	NA	1"	12" MAX.O.C. (TO MATCH CLIP SPACING)
		JAMBS	1/4 -20 A307 COUNTERSUNK BOLT W/ LOCKNUT AND WASHER	NA	1"	9" O.C.
CONCRETE	3000 PSI MIN. COMP. STRENGTH	HEAD/SILL	1/4" DIA. HILTI KWIK BOLT 3 EXPANSION ANCHOR	1 1/2 "	4"	12" MAX.O.C. (TO MATCH CLIP SPACING)
		JAMBS	1/4" DIA. HILTI KWIK BOLT 3 EXPANSION ANCHOR	1 1/2 "	4"	18" O.C.



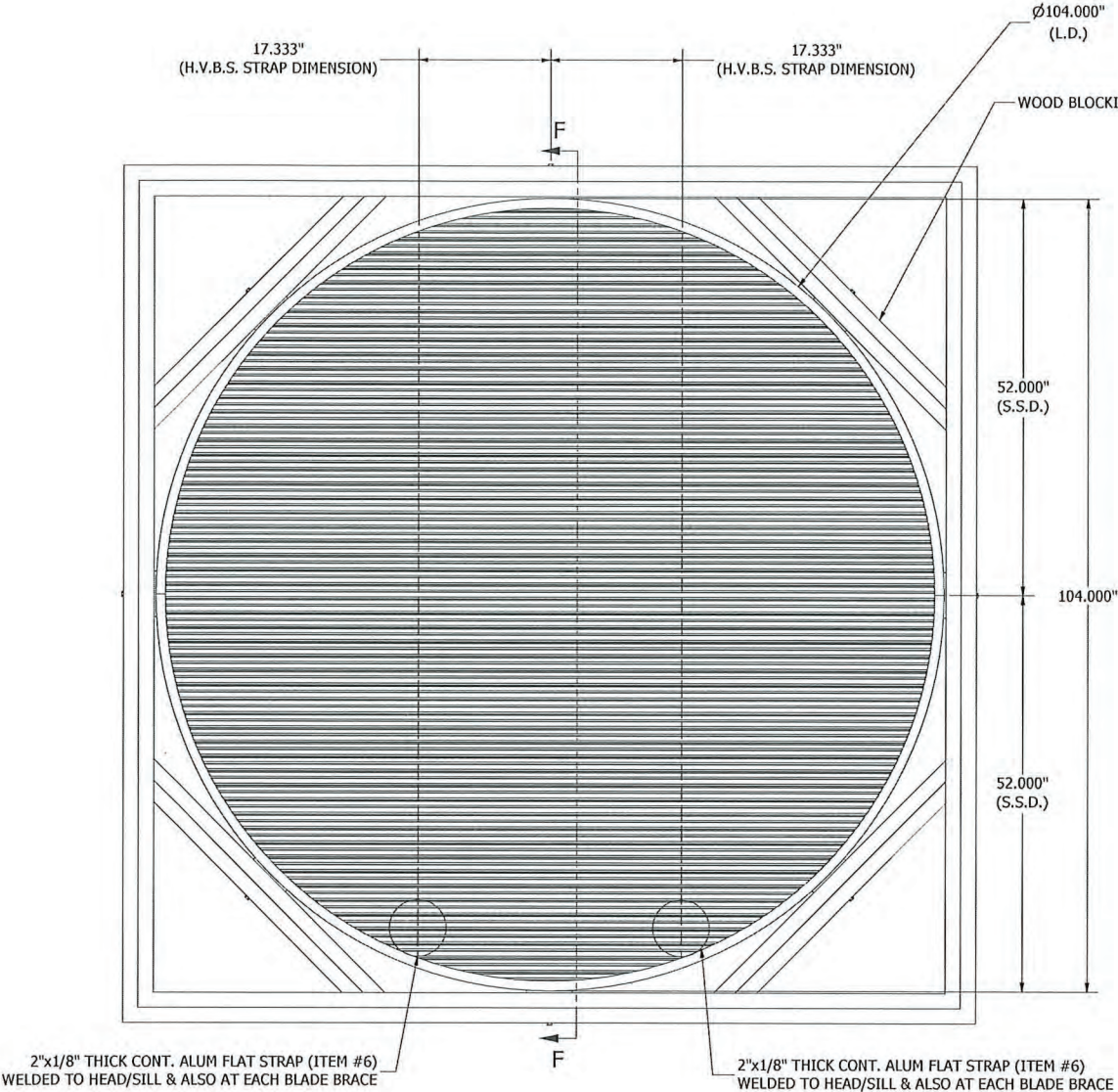
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By   
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/NS	JDS	WRT	MMM	09/10/20
AUTHOR	DRP	5/16/12	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL  3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
			PRODUCT EME520MD				
			TITLE ASSEMBLY "D" REVERSE ANGLE INSTALL DETAILS				
			SIZE D	DWG NO 60-022286-00B			REV H
ECN	8/28/20	SCALE NONE	INVENTOR		SHEET 11 OF 19		



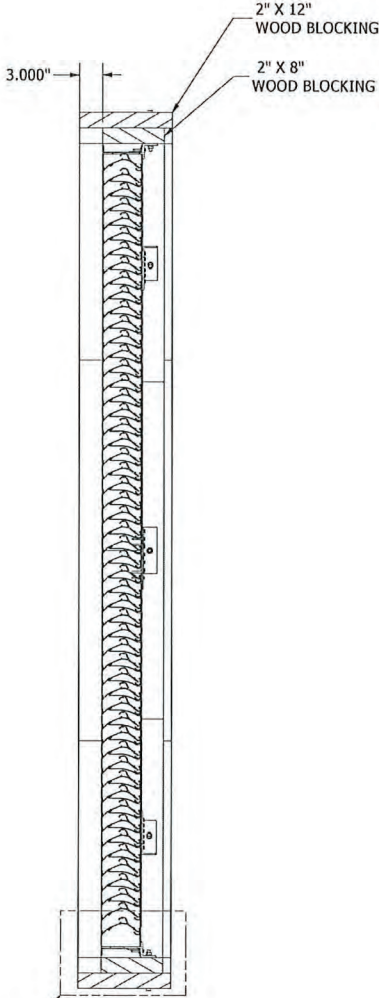


**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control

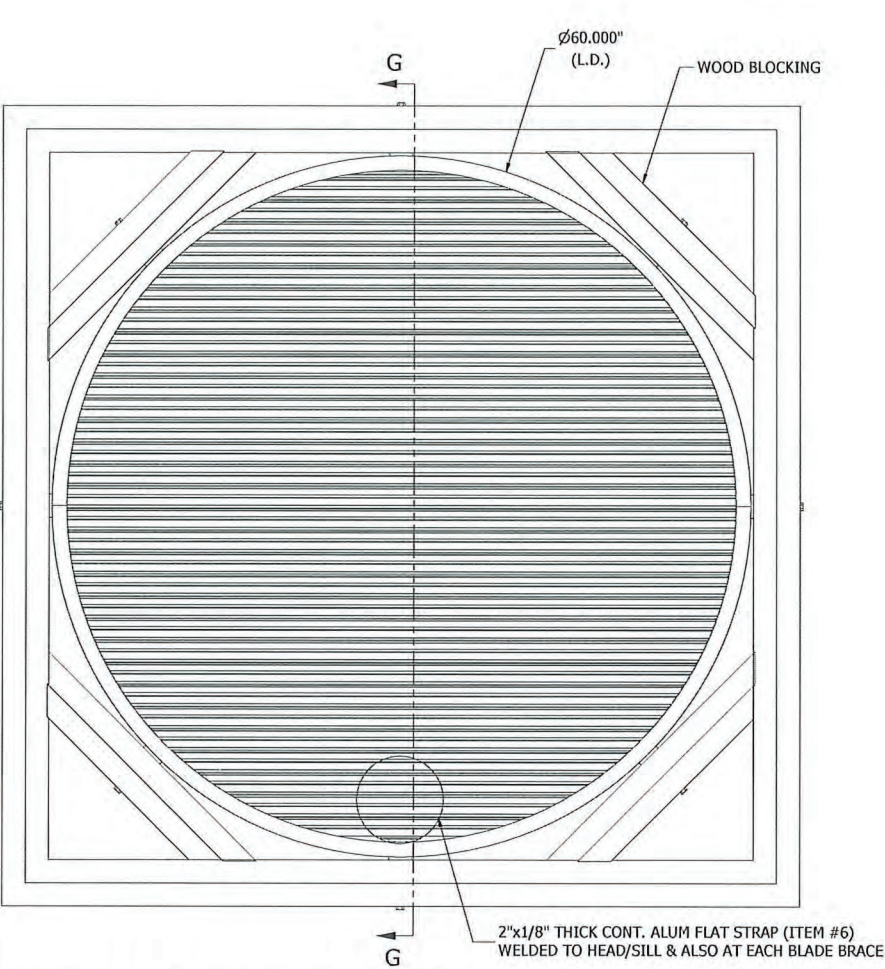


**ASSEMBLY "E" - MULTI SECTION VIEW**  
SIZE - 104" DIAMETER

REFER DETAIL AL/13  
FOR CONNECTION DETAIL (WOOD)  
REFER DETAIL AM/13  
FOR CONNECTION DETAIL (CONCRETE)  
REFER DETAIL AN/13  
FOR CONNECTION DETAIL (STEEL)  
REFER DETAIL AS,AT,AU/14  
FOR CONNECTION DETAIL  
IN REVERSE DIRECTION  
(WOOD,CONCRETE,STEEL)

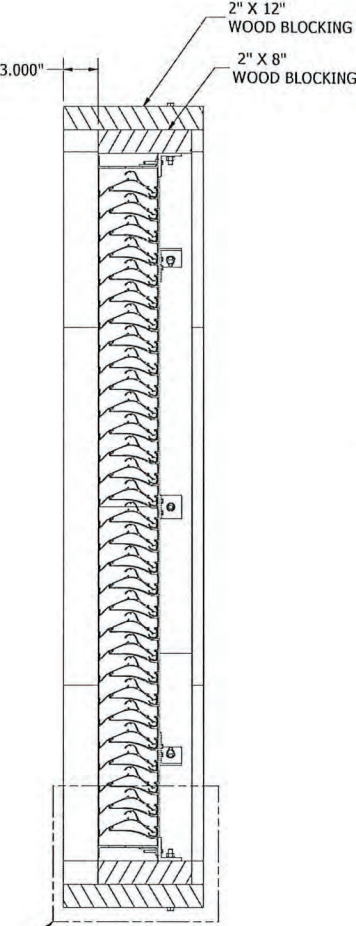


**SECTION F-F**




**ASSEMBLY "F" - SINGLE SECTION VIEW**  
SIZE - 60" DIAMETER

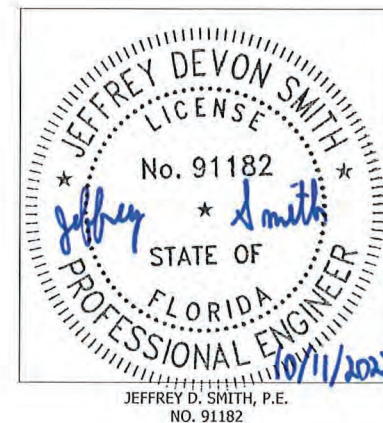
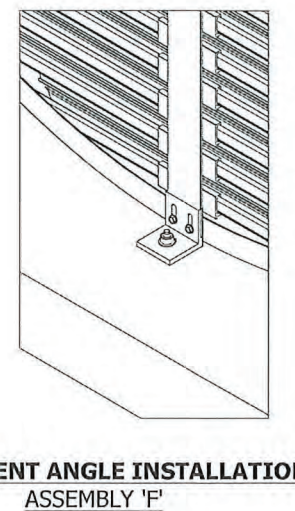
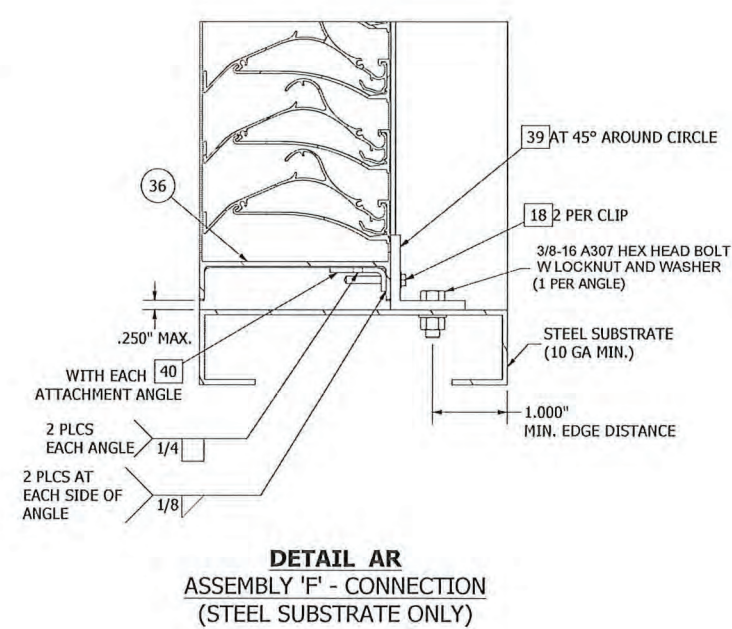
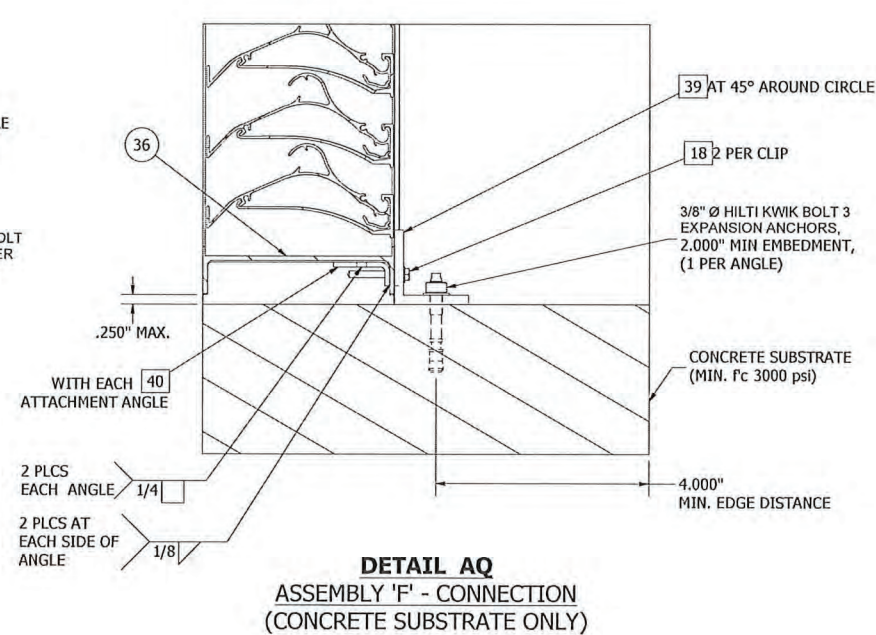
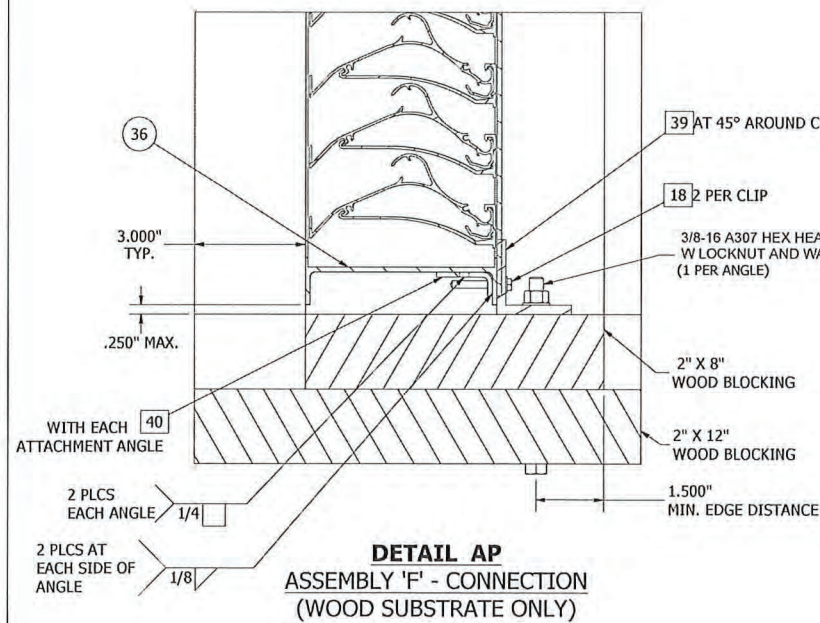
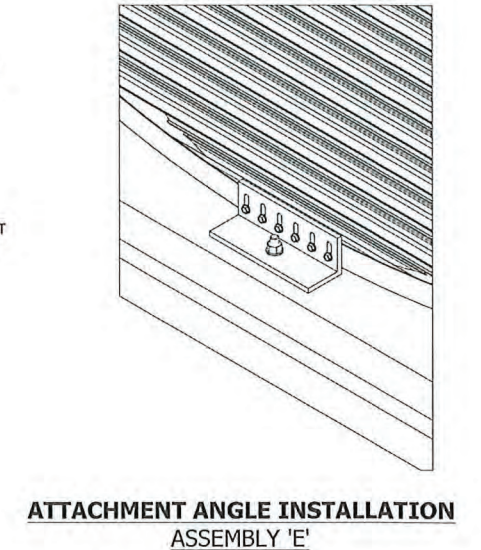
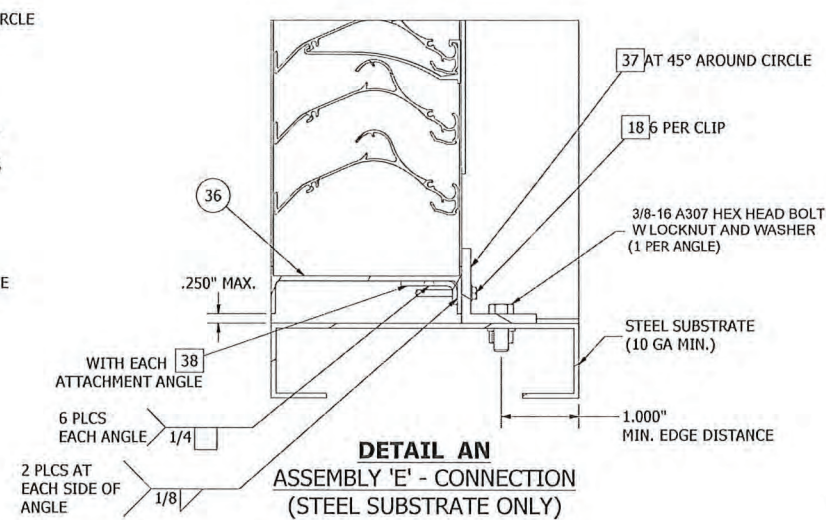
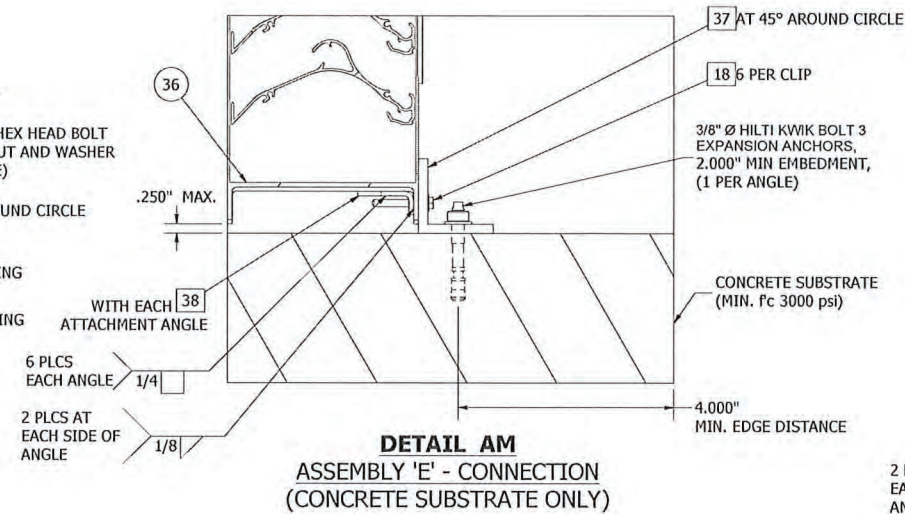
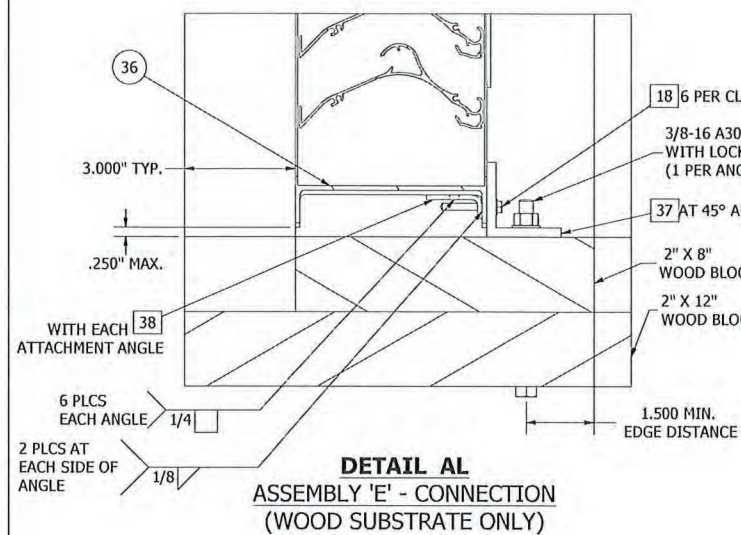
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FOR CONNECTION DETAIL (WOOD)  
REFER DETAIL AQ/13  
FOR CONNECTION DETAIL (CONCRETE)  
REFER DETAIL AR/13  
FOR CONNECTION DETAIL (STEEL)  
REFER DETAIL AV,AW,AY/14  
FOR CONNECTION DETAIL  
IN REVERSE DIRECTION  
(WOOD,CONCRETE,STEEL)



**SECTION G-G**

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/ NS	JDS	WRT	MMM	09/10/20
AUTHOR	DRP	5/16/12	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
			PRODUCT EMES20MD				
			TITLE EMES20MD ASSEMBLY "E" AND "F"				
			SIZE D		DWG NO 60-022286-00B		REV H
ECN	8/28/20	SCALE NONE	INVENTOR		SHEET 12 OF 19		






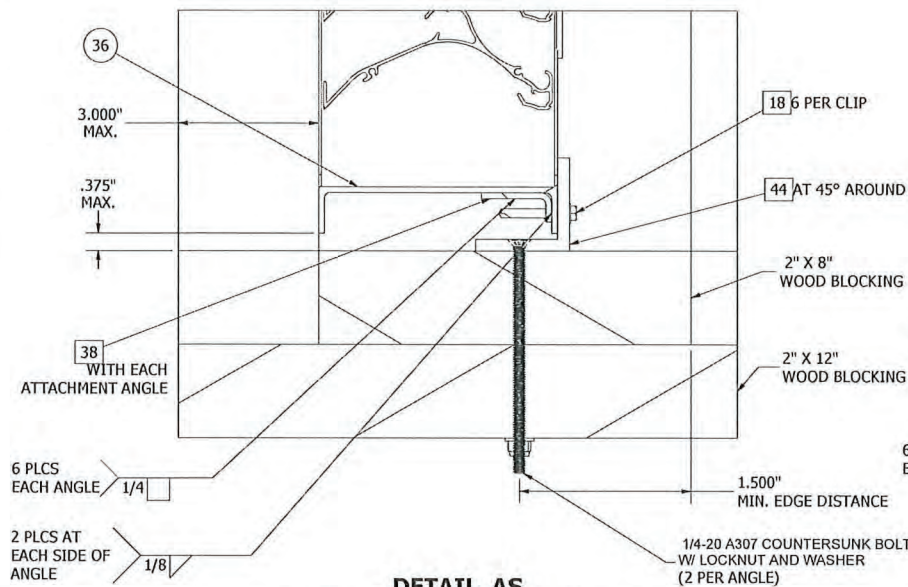
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

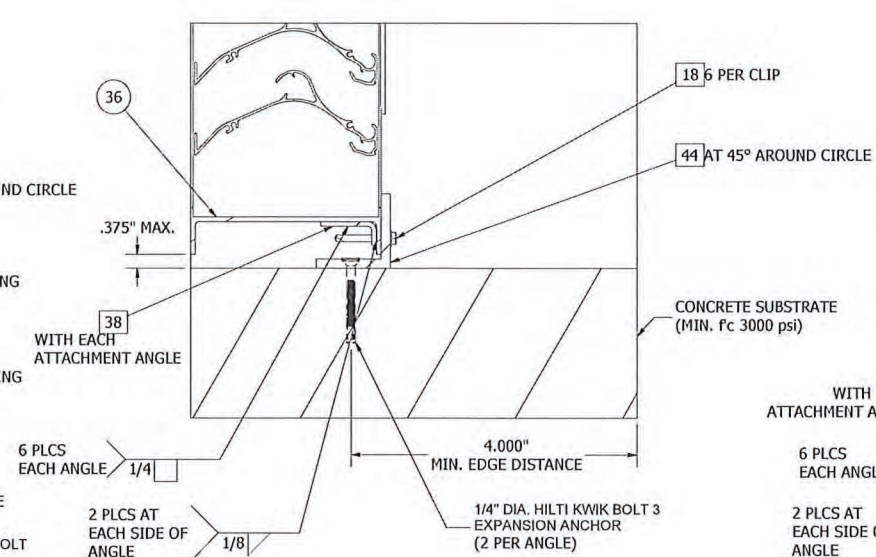
By *[Signature]*  
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/ NS	JDS	WRT	MMM	09/10/20
AUTHOR	DRP	5/16/12	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
PRODUCT			EME520MD				
TITLE			ASSEMBLY "E" AND "F" INSTALL				
SIZE D			DWG NO		60-022286-00B		REV H
ECN	8/28/20	SCALE	NONE		INVENTOR		SHEET 13 OF 19

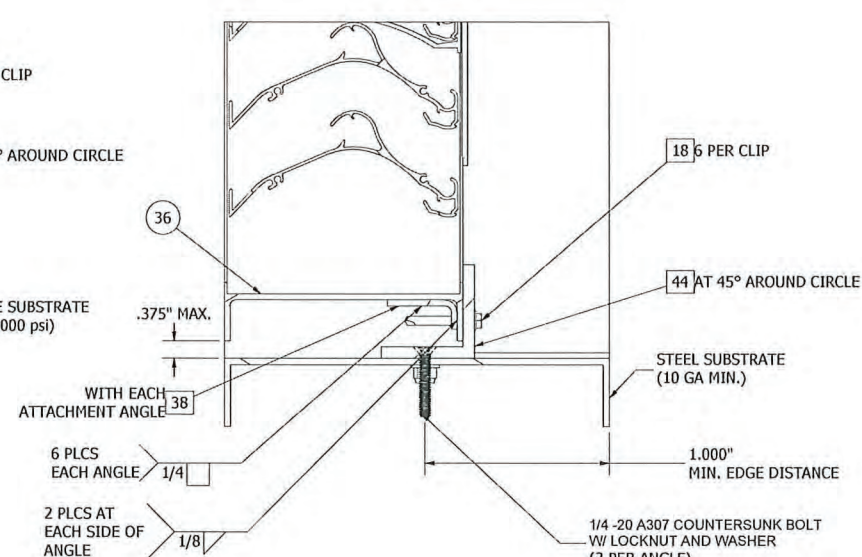




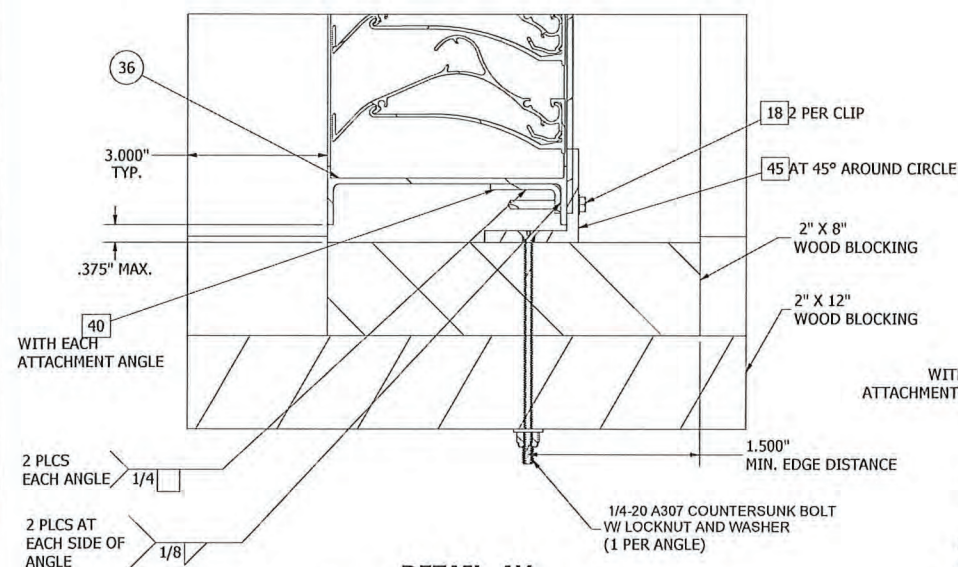
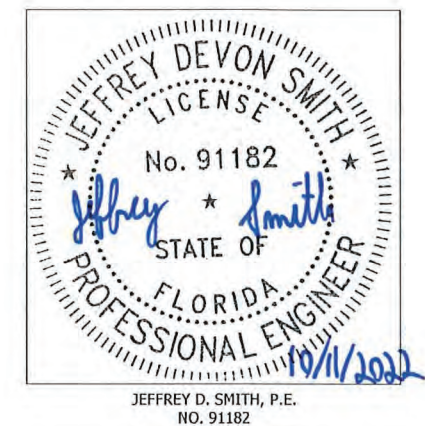
**DETAIL AS**  
ASSEMBLY 'E' - CONNECTION  
IN REVERSE DIRECTION  
(WOOD SUBSTRATE ONLY)



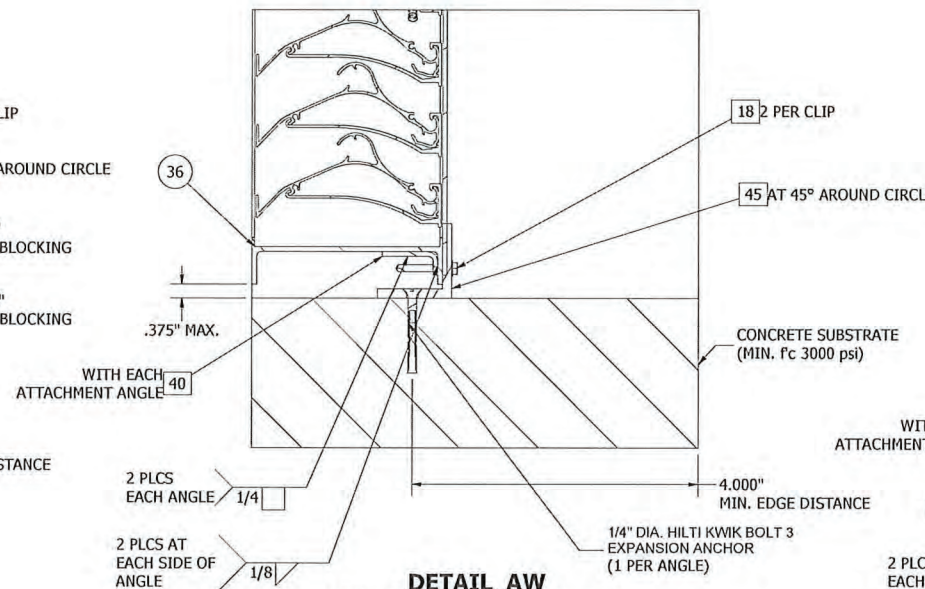
**DETAIL AT**  
ASSEMBLY 'E' - CONNECTION  
IN REVERSE DIRECTION  
(CONCRETE SUBSTRATE ONLY)



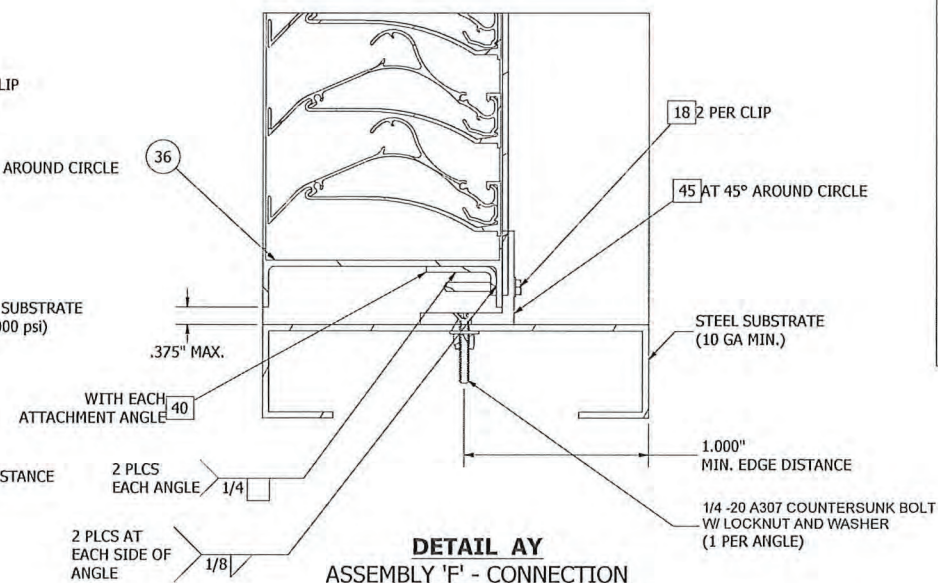
**DETAIL AU**  
ASSEMBLY 'E' - CONNECTION  
IN REVERSE DIRECTION  
(STEEL SUBSTRATE ONLY)



**DETAIL AV**  
ASSEMBLY 'F' - CONNECTION  
IN REVERSE DIRECTION  
(WOOD SUBSTRATE ONLY)



**DETAIL AW**  
ASSEMBLY 'F' - CONNECTION  
IN REVERSE DIRECTION  
(CONCRETE SUBSTRATE ONLY)



**DETAIL AY**  
ASSEMBLY 'F' - CONNECTION  
IN REVERSE DIRECTION  
(STEEL SUBSTRATE ONLY)

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control


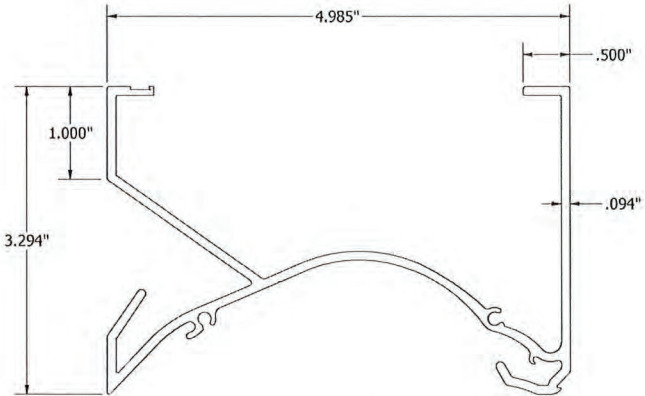
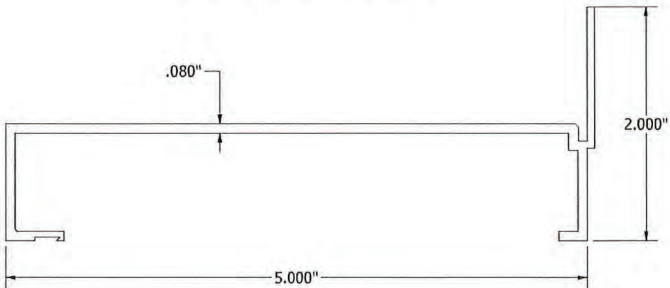
H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/NS	JDS	WRT	MMH	09/10/20
AUTHOR	DRP	5/16/12	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL				
CHECKED	DJR	8/2/12					
APPROVED	DJR	8/2/12					
MATERIAL							
			PRODUCT EMES20MD				
			TITLE ASSEMBLY 'E' AND 'F' REVERSE ANGLE INSTALL				
			SIZE D	DWG NO 60-022286-00B			REV H
ECN	8/28/20	SCALE NONE	INVENTOR		SHEET 14 OF 19		



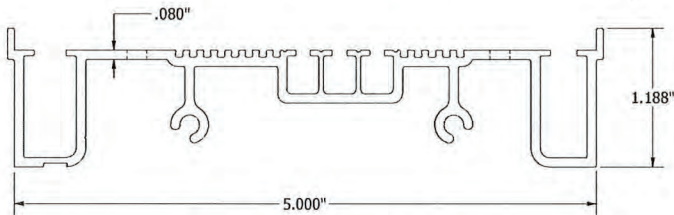
TABLE 02 - EME520MD - WALL FASTENER TABLE (N.I.C.)					
SUBSTRATE TYPE	MIN. SUBSTRATE REQUIREMENTS	LOCATION	FASTENER TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE
WOOD	SPECIFIC GRAVITY = 0.4	HEAD/SILL	3/8-16 A307 HEX HEAD BOLT W LOCKNUT AND WASHER (UNDER BOLT HEAD & LOCKNUT)	NA	1 1/2"
		JAMBS	3/8-16 A307 HEX HEAD BOLT W LOCKNUT AND WASHER (UNDER BOLT HEAD & LOCKNUT)	NA	1 1/2"
		MULLION SUPPORT (END PLATE)	5/8-11 A307 HEX HEAD BOLT W NUT AND WASHER	NA	2 1/2"
STEEL	STEEL - MIN. 10 GA	HEAD/SILL	3/8-16 A307 HEX HEAD BOLT W LOCKNUT AND WASHER	NA	1"
		JAMBS	3/8-16 A307 HEX HEAD BOLT W LOCKNUT AND WASHER	NA	1"
		MULLION SUPPORT (END PLATE)	5/8-11 A307 HEX HEAD BOLT W NUT AND WASHER	NA	1"
CONCRETE	3000 PSI MIN. COMP. STRENGTH	HEAD/SILL	3/8" Ø HILTI KWIK BOLT III EXPANSION ANCHORS	2"	4"
		JAMBS	3/8" Ø HILTI KWIK BOLT III EXPANSION ANCHORS	2"	4"
		MULLION SUPPORT (END PLATE)	5/8" Ø HILTI KWIK BOLT III EXPANSION ANCHORS	4"	9"
GROUT FILLED CMU (6", 8", 10" & 12")	ASTM C-90 BLOCK, 1500 PSI GROUT COMP. STRENGTH	HEAD/SILL	1/4" Ø HILTI KWIK HUS EZ SCREW ANCHOR (1 PER CELL, 1 3/8" MIN. FROM VERTICAL MORTAR JOINT)	1 5/8"	4"
		JAMBS	5/8" Ø HILTI KWIK HUS EZ SCREW ANCHOR (1 PER CELL)	3 1/4"	4"
		MULLION SUPPORT (END PLATE)	3/4" Ø HILTI HIT-HY 270 ANCHOR (1 PER CELL, 1" MIN. FROM VERTICAL MORTAR JOINT)	6 3/4"	4"



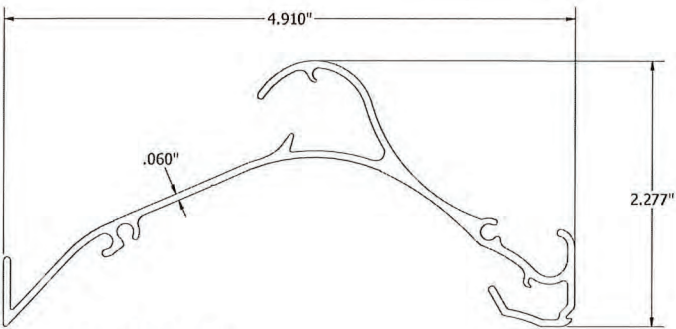
HEAD FRAME ITEM #01  
RUSKIN #70-022497-00B



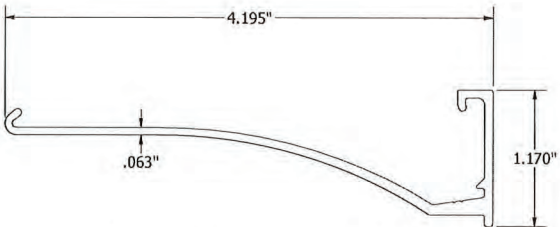
SILL FRAME ITEM #02  
RUSKIN #70-022498-00B



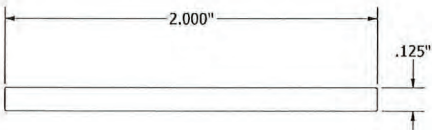
JAMB FRAME ITEM #03  
RUSKIN #70-022508-00B



BLADE ITEM #04  
RUSKIN #70-022496-00B

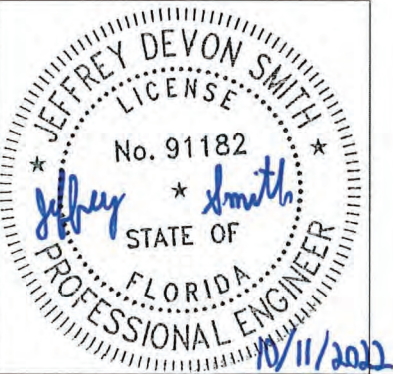


BLADE BRACE ITEM #05  
RUSKIN #70-023870-00B



H.V.B.S STRAP ITEM #06  
RUSKIN #85-021658-00B

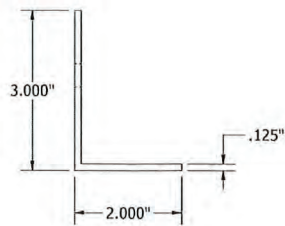
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control



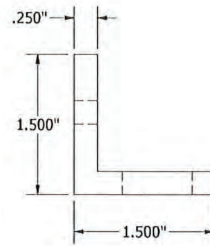
JEFFREY D. SMITH, P.E.  
NO. 91182

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
TITLE		PRODUCT EME520MD				
		SUBSTRATE WALL FASTENER TABLE EME520MD PARTS				
SIZE		DWG NO		REV		
D		60-022286-00B		H		
ECN	8/28/20	SCALE	NONE	INVENTOR	SHEET 15 OF 19	

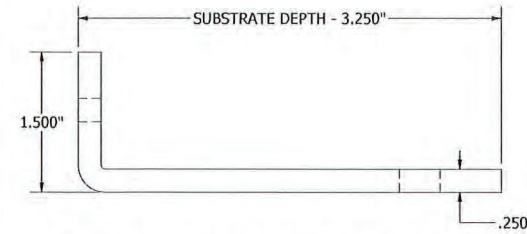
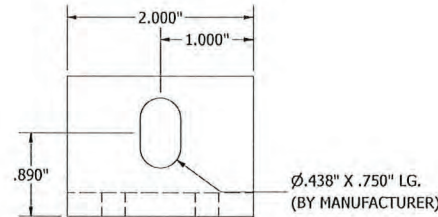
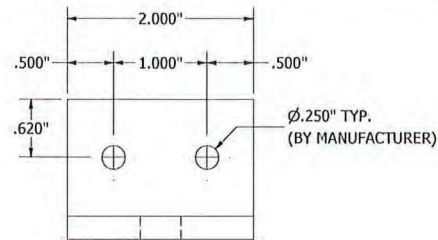




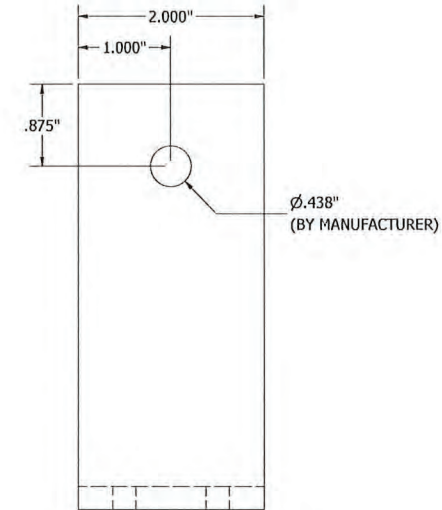
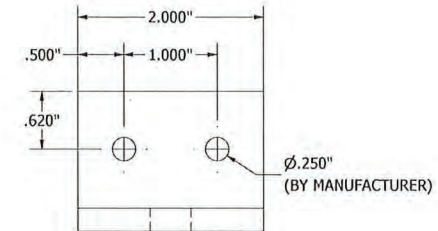
MULLION SUPPORT ANGLE ITEM#09  
RUSKIN #A1139



ATTACHMENT CLIP ANGLE, 2" LG. ITEM#10  
RUSKIN #85-021637-00B



CLIP ANGLE - FORMED, 2" LG. ITEM#11  
RUSKIN #N/A



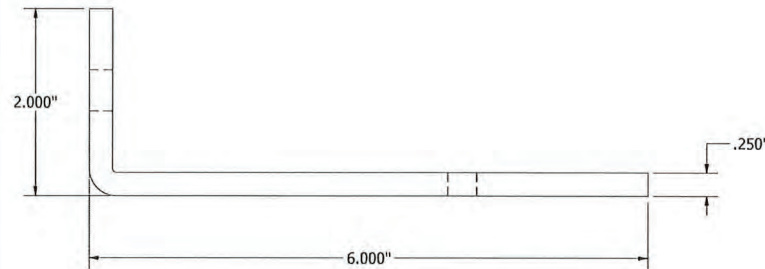
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

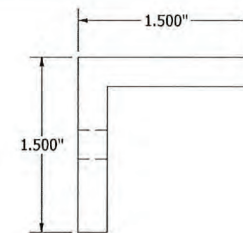
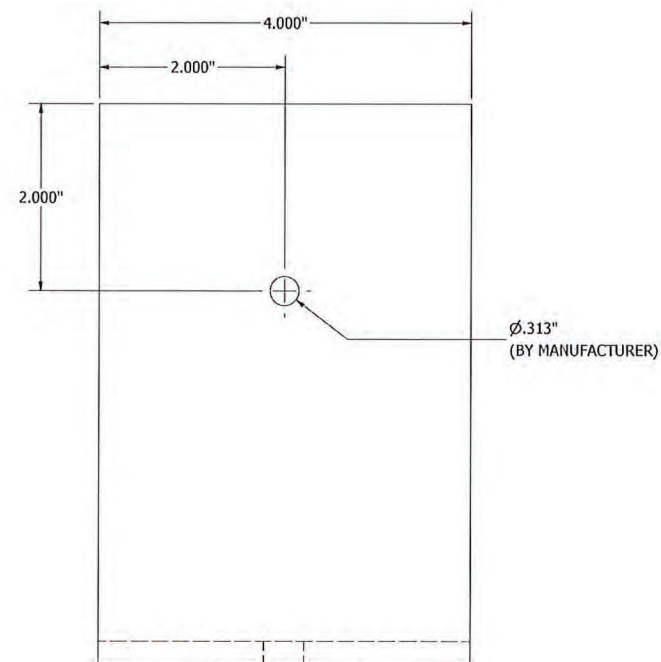
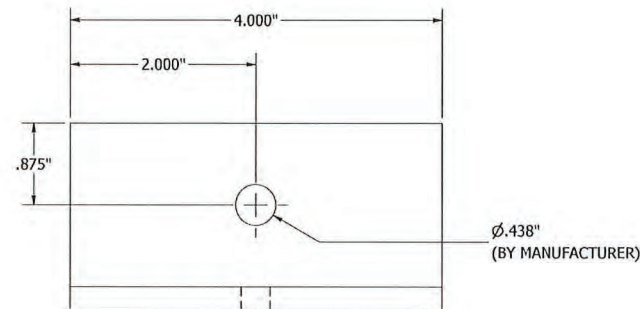
By   
Miami-Dade Product Control



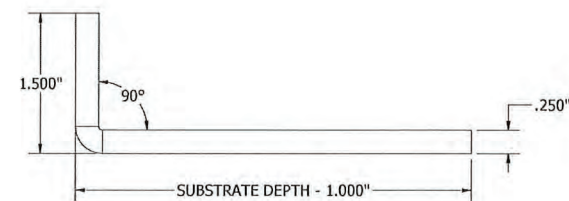
JEFFREY D. SMITH, P.E.  
NO. 91182



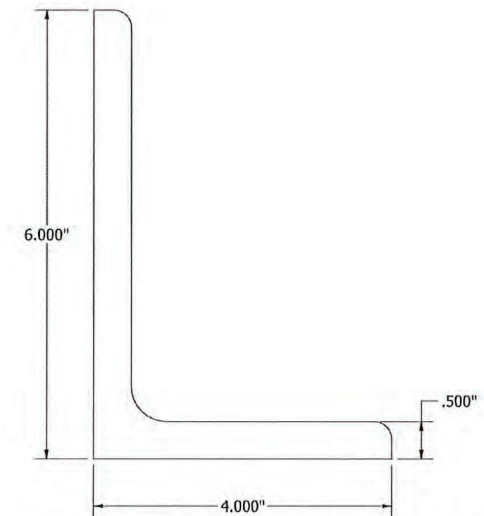
CLIP ANGLE - FORMED, 4" LG. ITEM#12  
RUSKIN #N/A



ATTACHMENT ANGLE, CONT. ITEM #13  
RUSKIN #85-023099-00B



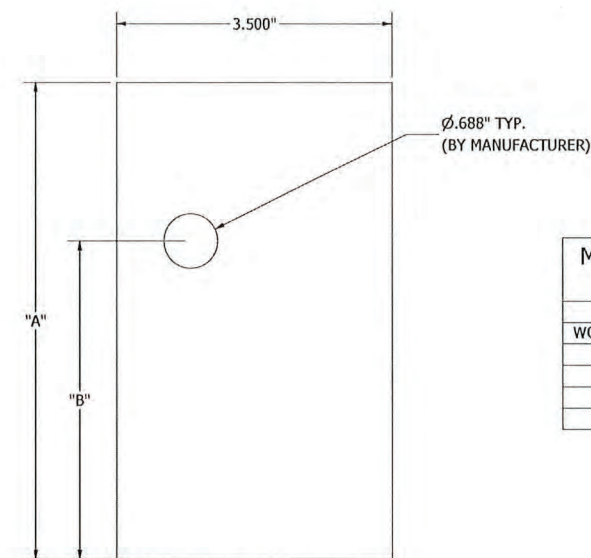
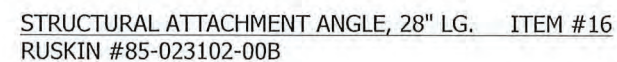
CLIP ANGLE - FORMED, CONT. ITEM #14  
RUSKIN #85-023100-00B



STRUCTURAL ATTACHMENT ANGLE, CONT. ITEM #15  
RUSKIN #85-023122-00B

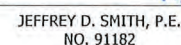
H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/ NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
RUSKIN AUTHORITY IN AIR CONTROL						
3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL						
PRODUCT EMES20MD						
TITLE EMES20MD - PARTS						
SIZE D		DWG NO		REV		H
		60-022286-00B				
ECN	8/28/20	SCALE	NONE	INVENTOR	SHEET 16 OF 19	






WALL TYPE	"A"	"B"
WOOD/STEEL/CONCRETE	3.500	1.750
6" CMU	4.000	2.000
8" CMU	6.000	4.000
10" CMU	8.000	6.000
12" CMU	10.000	8.000

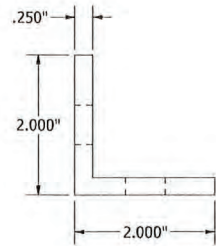
MULLION SUPPORT ATTACHMENT PLATE ITEM #17  
RUSKIN #85-023103-00B



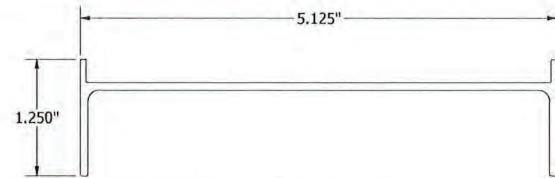
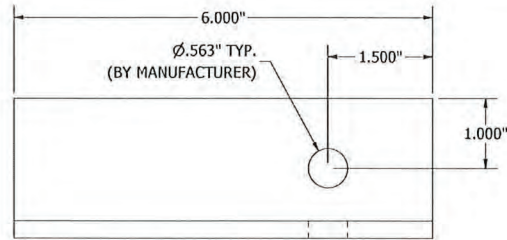
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16  
Expiration Date 02/23/2026  
By CS  
Miami-Dade Product Control

H		ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, JUNI. SLEEVE THK.		RVT		JDS	VMA	JDS	
G		REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/ NS		JDS	WRT	MMM	09/10
REV		DESCRIPTION		BY		CHK	APVD	APVD	DATE
AUTHOR		DRP	5/16/12	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL				3900 Doctor Graves Road Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL	
CHECKED		DJR	8/2/12						
APPROVED		DJR	8/2/12						
MATERIAL									
PRODUCT				EMES20MD					
TITLE				EMES20MD - PARTS					
SIZE D				DVG NO		60-022286-00B			
ECH		8/28/20		SCALE		NONE		INVENTOR	
								SHEET 17 OF 19	

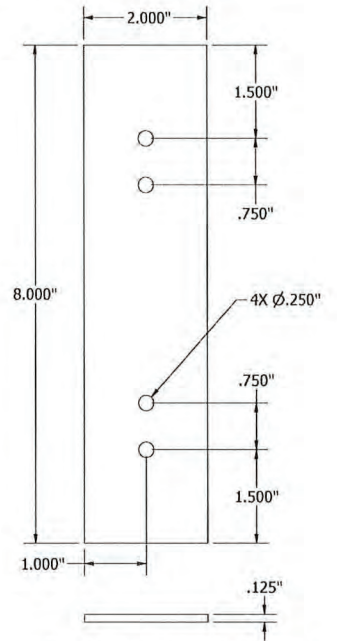
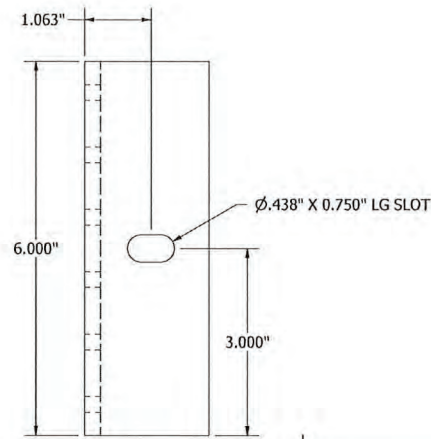
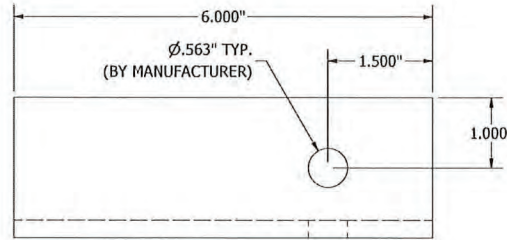




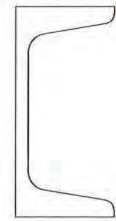
UNIVERSAL SLEEVE - MULLION SUPPORT ATTACHMENT ANGLE    ITEM #29  
RUSKIN #85-023108-00B



I SHAPE FRAME - CIRCULAR SHAPE LOUVER  
ITEM #36  
RUSKIN #70-022492-00B



SPLICE PLATE - CIRCULAR SHAPE LOUVER  
ITEM #41  
RUSKIN # 85-023281-00B



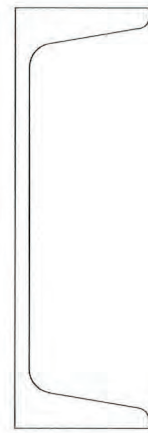
C3X4.1    ITEM #32



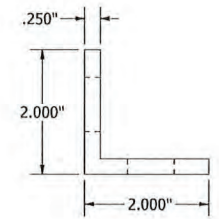
C4X5.4    ITEM #33



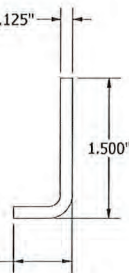
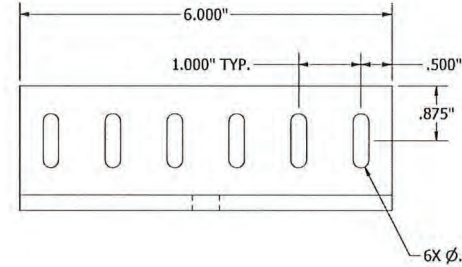
C5X6.7    ITEM #34



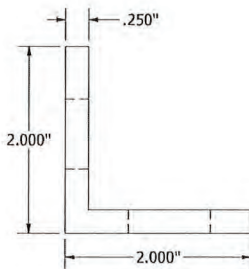
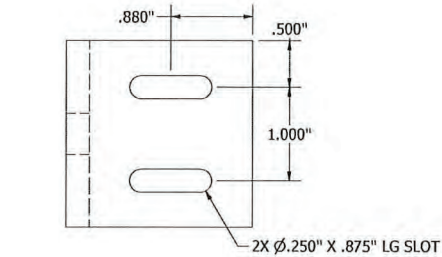
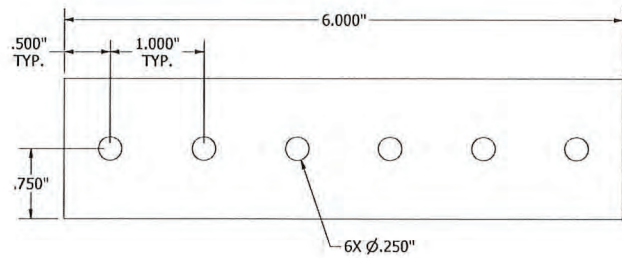
C6X8.7    ITEM #35



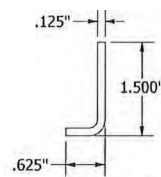
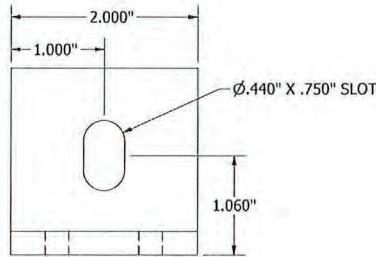
6" ATTACHMENT ANGLE - CIRCULAR SHAPE LOUVER  
ITEM #37  
RUSKIN # 85-023293-00B



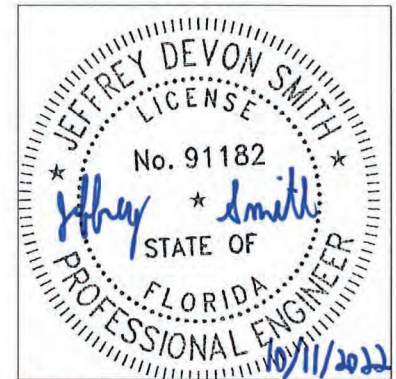
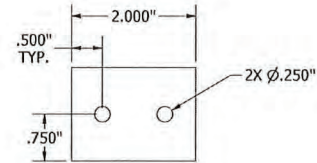
6" REINFORCING ANGLE - CIRCULAR SHAPE LOUVER  
ITEM #38  
RUSKIN # 85-023280-00B



2" ATTACHMENT ANGLE - CIRCULAR SHAPE LOUVER  
ITEM #39  
RUSKIN # 85-022012-00B



2" REINFORCING ANGLE - CIRCULAR SHAPE LOUVER  
ITEM #40  
RUSKIN # 85-023279-00B



JEFFREY D. SMITH, P.E.  
NO. 91182

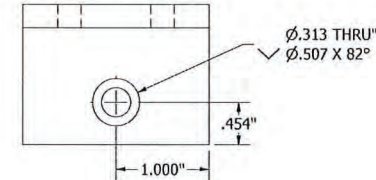
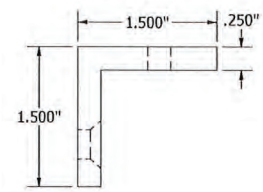
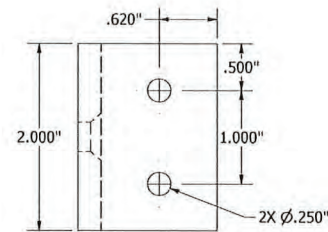
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1116.16

Expiration Date 02/23/2026

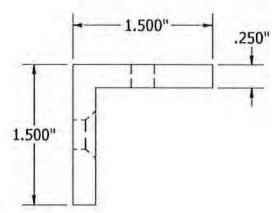
By   
Miami-Dade Product Control

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.	RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/12				
CHECKED	DJR	8/2/12				
APPROVED	DJR	8/2/12				
MATERIAL						
RUSKIN AUTHORITY IN AIR CONTROL						
3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL						
PRODUCT EMES20MD						
TITLE EMES20MD - PARTS						
SIZE D		DWG NO		REV H		
D		60-022286-00B				
SCALE		NONE		INVENTOR		
ECH		8/28/20		SHEET 18 OF 19		

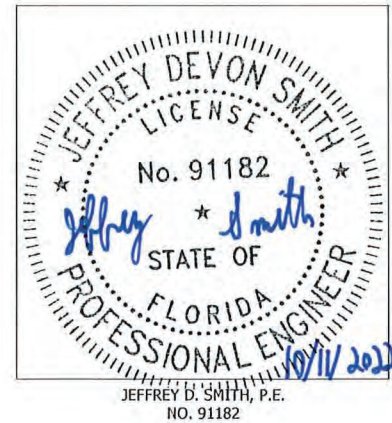




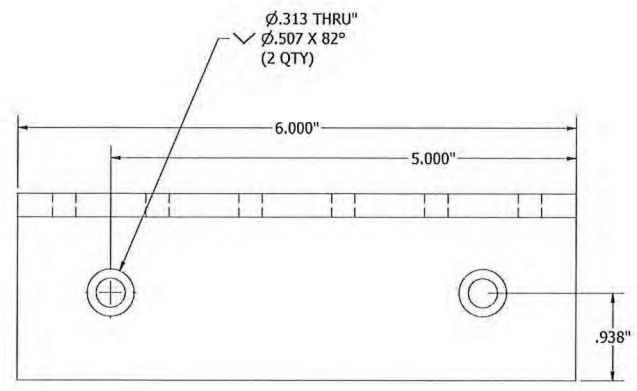
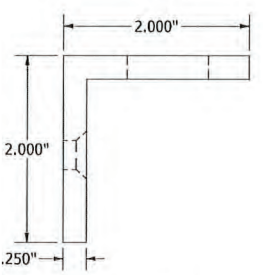
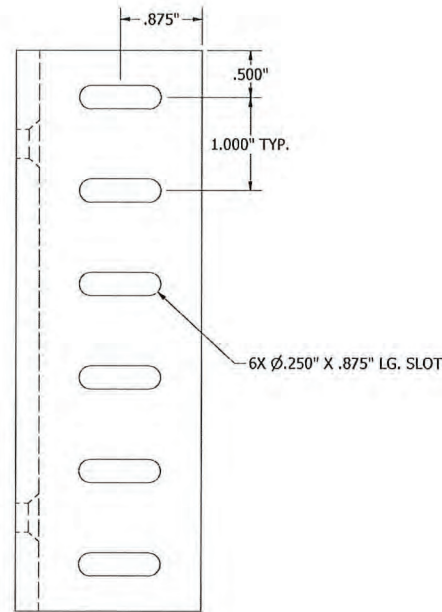
ATTACHMENT ANGLE, 2" LG., REVERSE DIRECTION ITEM #42  
 RUSKIN # 85-023294-00B



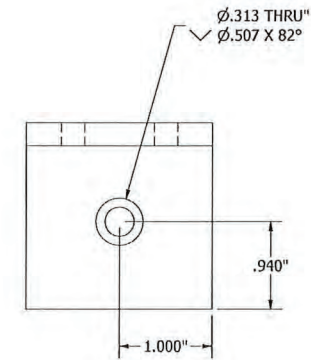
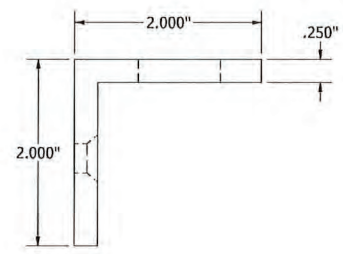
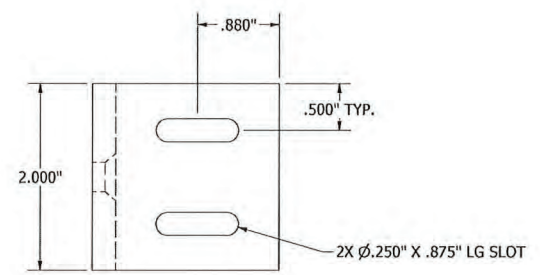
ATTACHMENT ANGLE, CONT. REVERSE DIRECTION ITEM #43  
 RUSKIN # 85-023295-00B




**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 NOA-No. 23-1116.16  
 Expiration Date 02/23/2026  
 By *[Signature]*  
 Miami-Dade Product Control



6" ATTACHMENT ANGLE, REVERSE DIRECTION - CIRCULAR SHAPE LOUVER  
 ITEM #44  
 RUSKIN # 85-023296-00B



2" ATTACHMENT ANGLE, REVERSE DIRECTION - CIRCULAR SHAPE LOUVER  
 ITEM #45  
 RUSKIN # 85-023297-00B

H	ADDED DETAILS OF CIRCULAR SHAPE LVR, REVERSE ANGLE, UNI. SLEEVE THK.		RVT	JDS	VMA	JDS	
G	REV'D ENGINEER OF RECORD, UPDATED INFO.		SSK/ NS	JDS	WRT	MMM	09/10/20
AUTHOR		DRP	5/16/12		 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL		
CHECKED		DJR	8/2/12				
APPROVED		DJR	8/2/12				
MATERIAL							
		PRODUCT		EMES20MD			
		TITLE		EMES20MD - PARTS			
		SIZE	DWG NO		60-022286-00B		REV H
ECN		8/28/20	SCALE		NONE	INVENTOR	SHEET 19 OF 19