



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 11 of 11, dated 08/02/2012, with revision **G** dated 09/10/2020, prepared by Ruskin Company, signed and sealed by Melissa M. Massar, P.E. on 02/04/2021, 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 **renews** and **revises** NOA # **17-1214.18** 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. 20-1015.04**  
**Expiration Date: February 23, 2026**  
**Approval Date: April 15, 2021**  
**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.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 20-1015.04**  
**Expiration Date: February 23, 2026**  
**Approval Date: April 15, 2021**

**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 mulled 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.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 20-1015.04**  
**Expiration Date: February 23, 2026**  
**Approval Date: April 15, 2021**

**Ruskin Company**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. **60-022286-00B**, titled “EME520MD”, sheets 1 through 11 of 11, dated 08/02/2012, with revision **G** dated 09/10/2020, prepared by Ruskin Company, signed and sealed by Melissa M. Massar, P.E. on 02/04/2021.

**B. TESTS**

1. None.

**C. CALCULATIONS**

1. 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 7<sup>th</sup> edition (2020) of the FBC, prepared by Ruskin Company, dated 09/14/2020, signed and sealed by Melissa M. Massar, P.E.



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Carlos M. Utrera, P.E.  
Product Control Examiner  
NOA No. 20-1015.04  
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

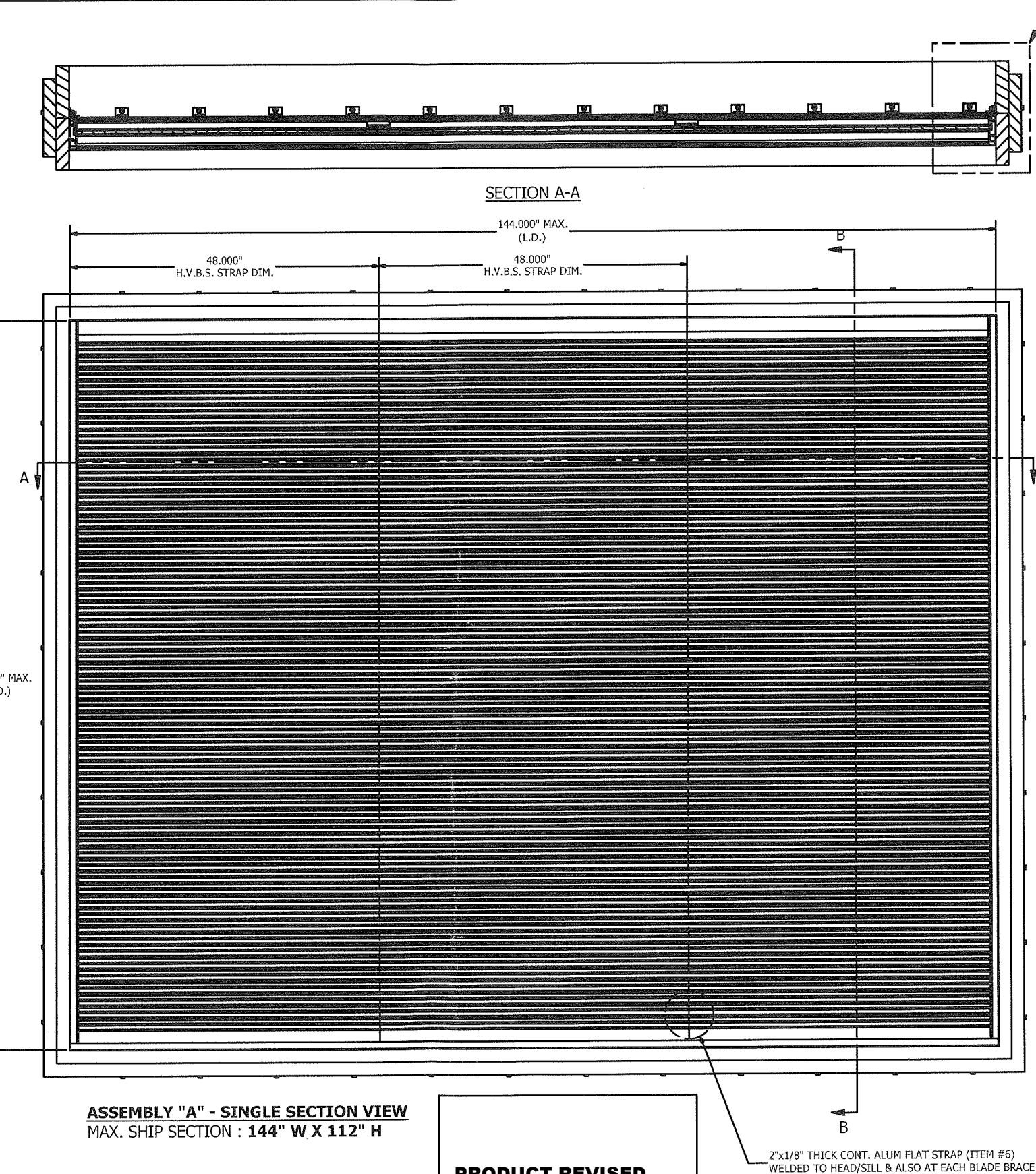
INSTALLATION PARTS			
ITEM #	DESCRIPTION	MATERIAL	ALLOY
10	ATTACHMENT CLIP ANGLE, 2" LG.	0.250" THK EXTRUDED ALUM.	6063-T6
11	CLIP ANGLE - FORMED, 2" LG.	0.250" THK FORMED ALUM.	3003-H14
12	CLIP ANGLE - FORMED, 4" LG.	0.250" THK FORMED ALUM.	3003-H14
13	ATTACHMENT CLIP ANGLE, CONT.	0.250" THK EXTRUDED 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 1/08)	-

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	.250" 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	-

#### NOTES

- THE EME520MD 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 ASSSEMBLIES 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**

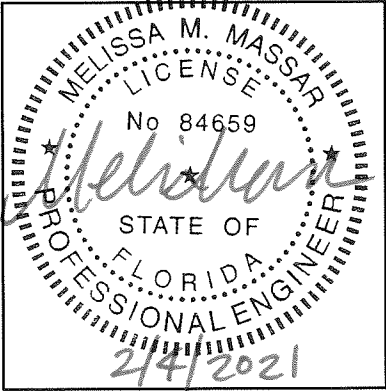
**SECTION B-B**

**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)

**REF DETAIL A/02**  
FOR HEAD/SILL CONNECTION DETAIL (WOOD)  
**REF DETAIL B/02**  
FOR HEAD/SILL CONNECTION DETAIL (STEEL)  
**REF DETAIL C/02**  
FOR HEAD/SILL CONNECTION DETAIL (CONCRETE)  
**REF DETAIL D/02**  
FOR HEAD/SILL CONNECTION DETAIL (CMU)  
**REF DETAIL E/02**  
FOR HEAD/SILL CONNECTION DETAIL (UNIVERSAL SLEEVE)

#### ABBREVIATIONS:

CONT. - CONTINUOUS  
C-C - CENTER TO CENTER  
D - SUBSTRATE DEPTH  
DIM. - DIMENSION  
FLG. - FLANGE  
HDG. - HOT DIPPED GALVANIZED  
H.V.B.S. - HIDDEN VERTICLE BLADE SUPPORT  
H.H.B.S. - HIDDEN HORIZONTAL BLADE SUPPORT  
HWH - HEX WASHER HEAD  
L.D. - LOUVER DIMENSION  
MAX. - MAXIMUM  
MIN. - MINIMUM  
NOM. - NOMINAL  
N.T.E. - NOT TO EXCEED  
N.T.S. - NOT TO SCALE  
O/C - ON CENTER  
OPP. - OPPOSITE  
R.O. - ROUGH OPENING  
REF. - REFERENCE  
S.S. - SHIP SECTION  
S.S.D. - SHIP SECTION DIMENSION  
S.D.S. - SELF DRILLING SCREW  
SIM. - SIMILAR  
STL - STEEL  
SUB. - SUBSTRATE  
TYP. - TYPICAL  
U.N.O. - UNLESS NOTED OTHERWISE



MELISSA M. MASSAR, P.E.  
NO. 84659

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

**NOA-No.** 20-1015.04

**Expiration Date** 02/23/2026

**By** *[Signature]*  
**Miami-Dade Product Control**

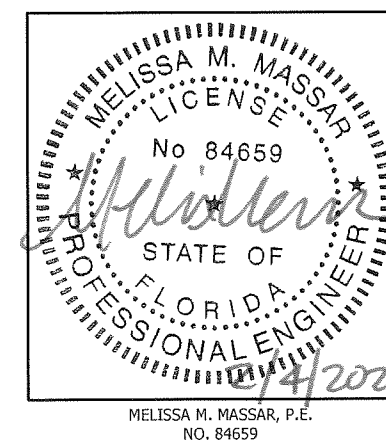
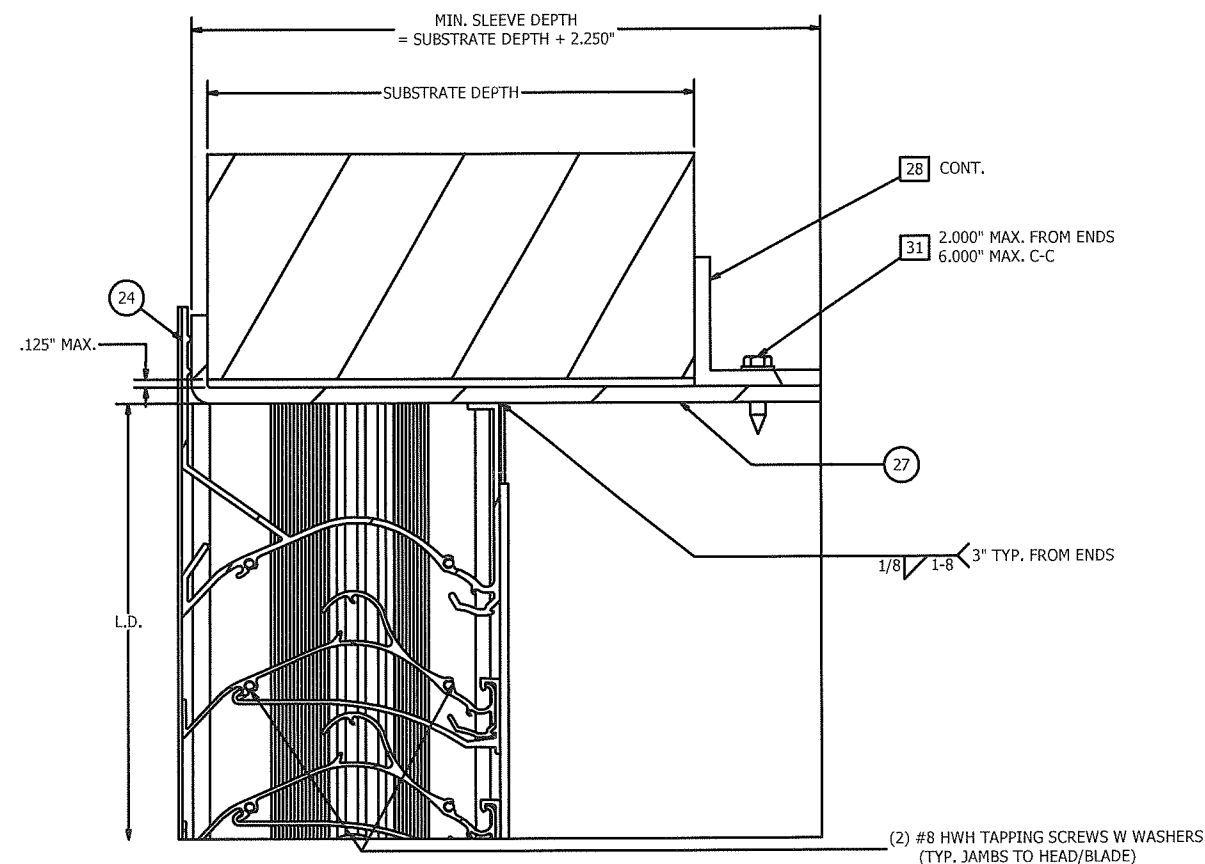
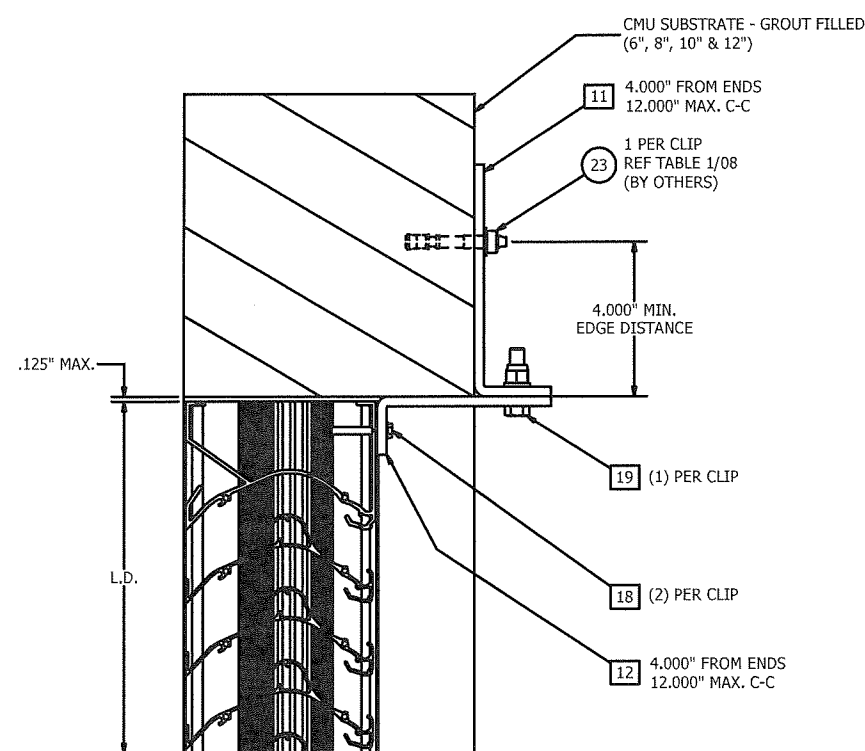
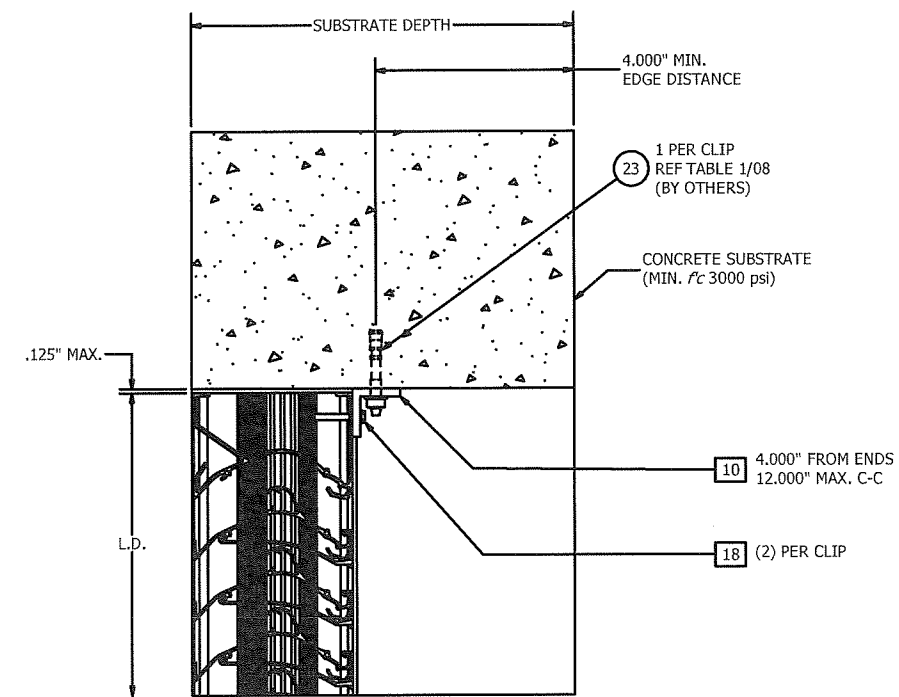
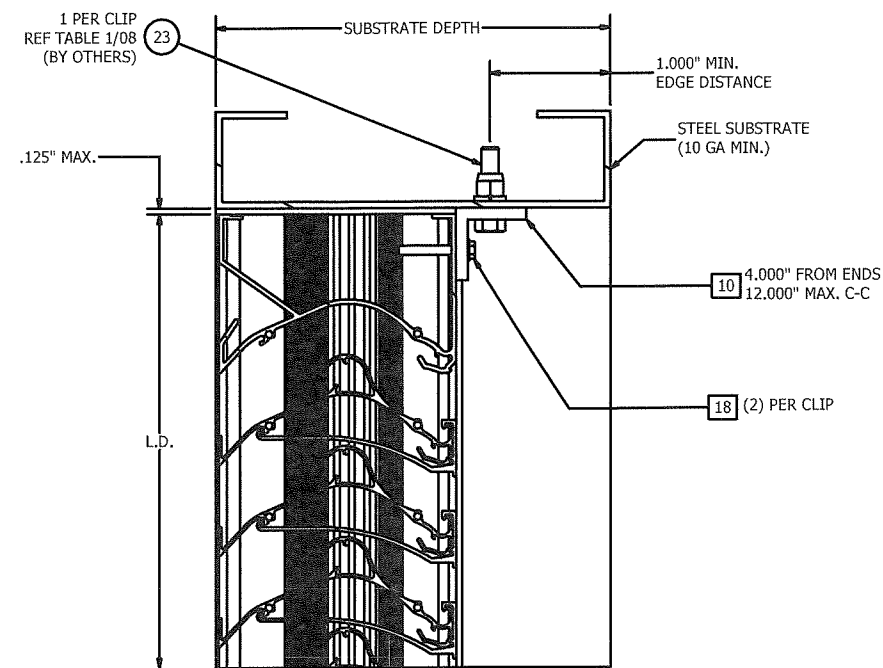
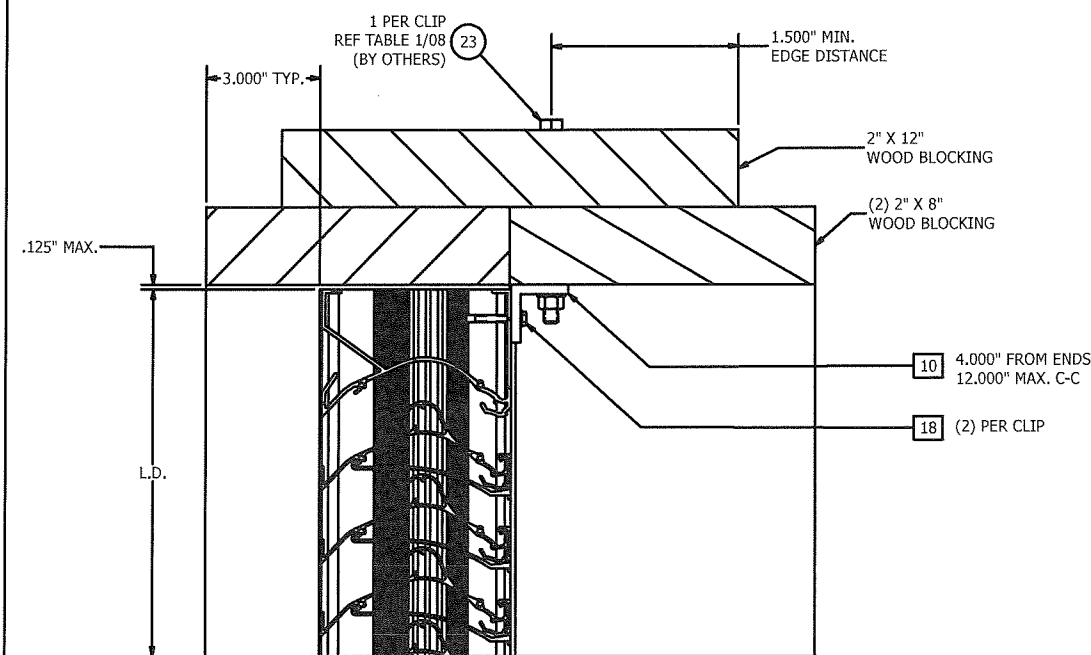
#### DRAWING SHEET INDEX:


**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 "B" - BASIC ASSEMBLY  
**SHEET 05** - ASSEMBLY "C" - BASIC ASSEMBLY  
**SHEET 06** - ASSEMBLY "B" & "C" - MULLION SUPPORT CONNECTION @ HEAD/SILL  
**SHEET 07** - ASSEMBLY "B" & "C" - VISIBLE MULLION CONNECTION (ALL SUBSTRATES)  
**SHEET 08** - SUBSTRATE FASTENER TABLE, PARTS (ITEMS 1 THRU 6)  
**SHEET 09** - PARTS (ITEMS 9 THRU 15)  
**SHEET 10** - PARTS ITEMS 16 & 17, 24 THRU 28)  
**SHEET 11** - PARTS (ITEMS 29, 32 THRU 35)


Tolerances	
Unless Stated Otherwise	
Use WIC-007, WIC-008	
Fractions	±1/16
Two Decimals	±0.020
Three Decimals	±0.010
Angle Dimensions	±2°


G	REV'D ENGINEER OF RECORD, UPDATED	SSK/NS	JDS	WRT	MMM	09/10/20
REV	INFO.	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/2012	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL			
CHECKED	DJR	8/2/2012				
APPROVED	DJR	8/2/2012				
MATERIAL	PRODUCT EME520MD					
		TITLE NOTES, PARTS LIST, DRAWING INDEX, ASSEMBLY 'A'				
		SIZE D	DWG NO	60-022286-00B	REV G	
ECN		SCALE NONE	INVENTOR	SHEET 1 OF 11		

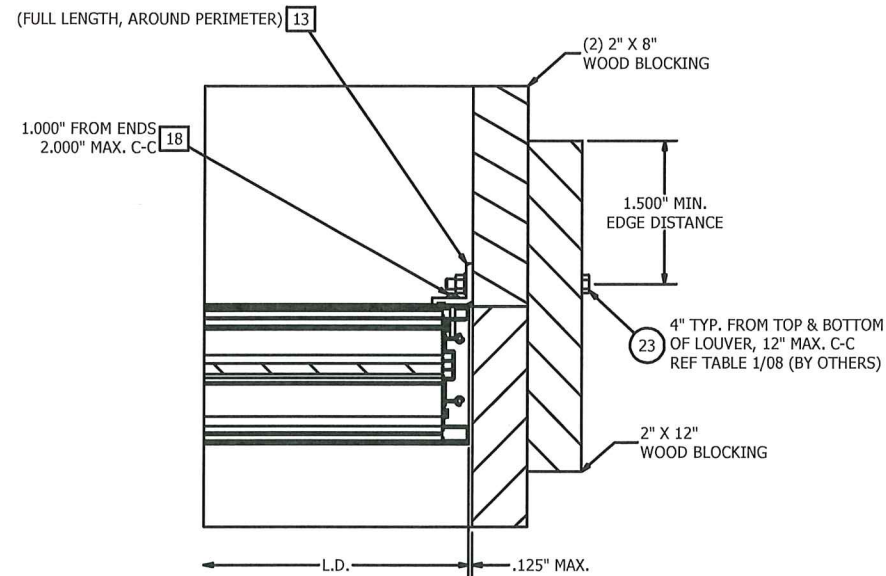




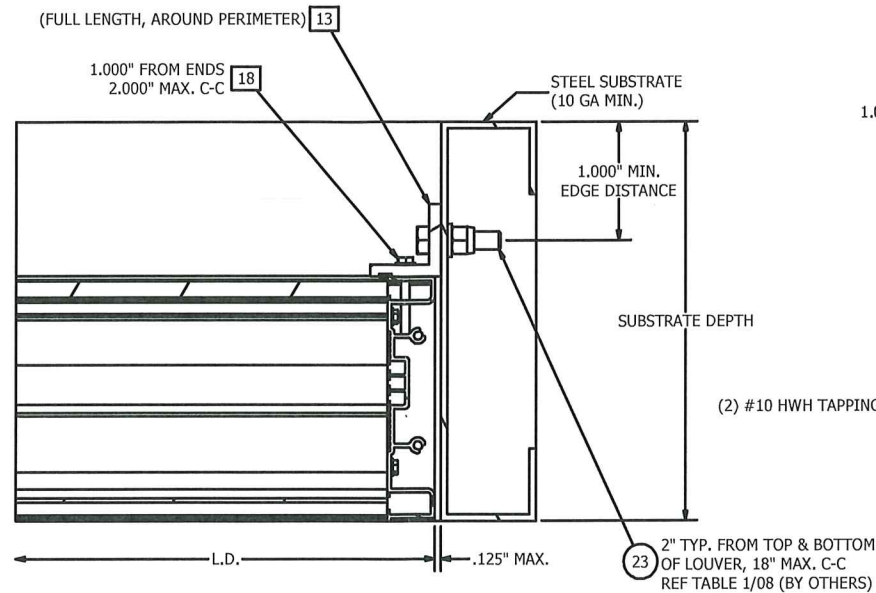
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By   
Miami-Dade Product Control

G	REV'D ENGINEER OF RECORD, UPDATED INFO.				SSK/NS	JDS	WRT	MMM	09/10/2
REV	DESCRIPTION				BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/2012	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL			3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL			
CHECKED	DJR	8/2/2012							
APPROVED	DJR	8/2/2012							
MATERIAL									
			PRODUCT		EMES20MD				
			TITLE		ASSEMBLY "A" - HEAD/SILL INSTALL DETAILS				
			SIZE D		DWG NO		60-022286-00B		REV G
ECN			SCALE		NONE		INVENTOR		SHEET 2 OF 11

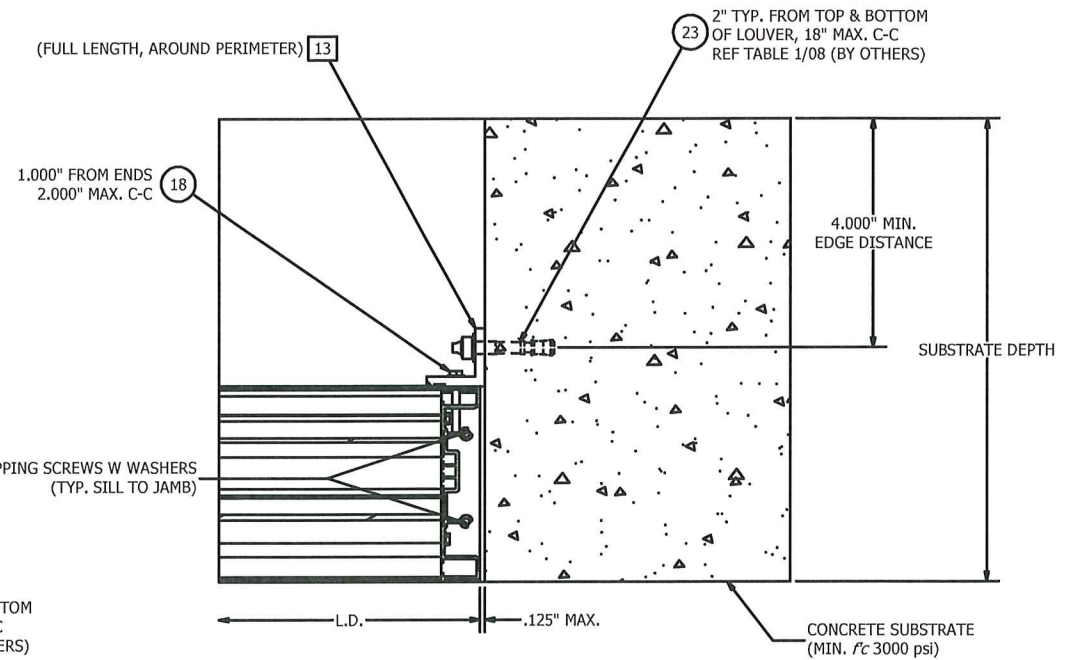
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REV	DESCRIPTION				BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/2012	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL			3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL			
CHECKED	DJR	8/2/2012							
APPROVED	DJR	8/2/2012							
MATERIAL									
			PRODUCT		EMES20MD				
			TITLE		ASSEMBLY "A" - HEAD/SILL INSTALL DETAILS				
			SIZE D		DWG NO		60-022286-00B		REV G
ECN			SCALE		NONE		INVENTOR		SHEET 2 OF 11



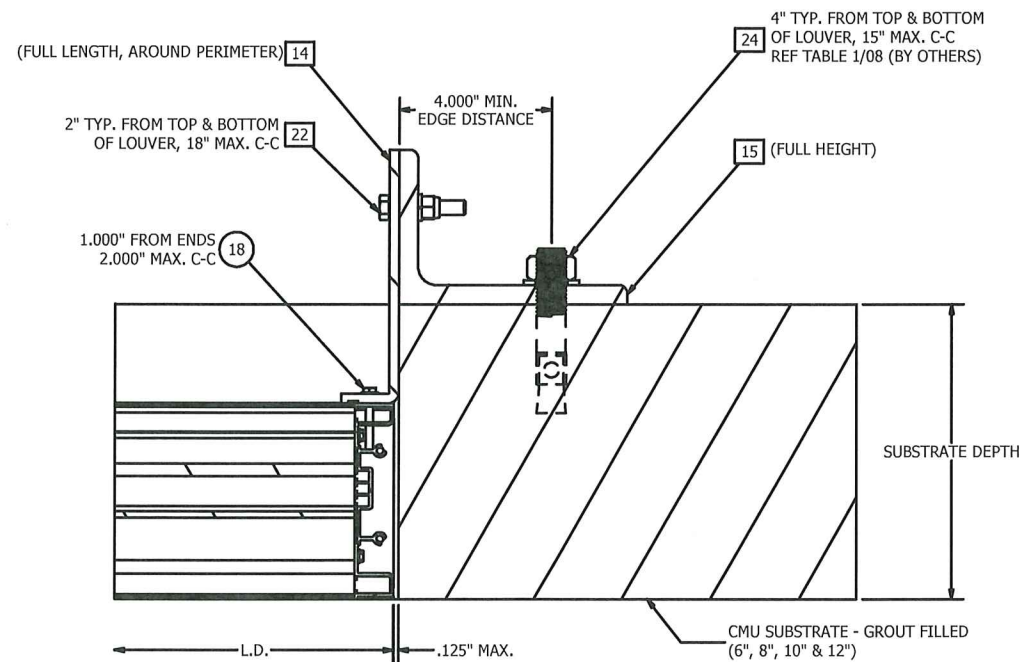
**DETAIL F**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(WOOD SUBSTRATE)



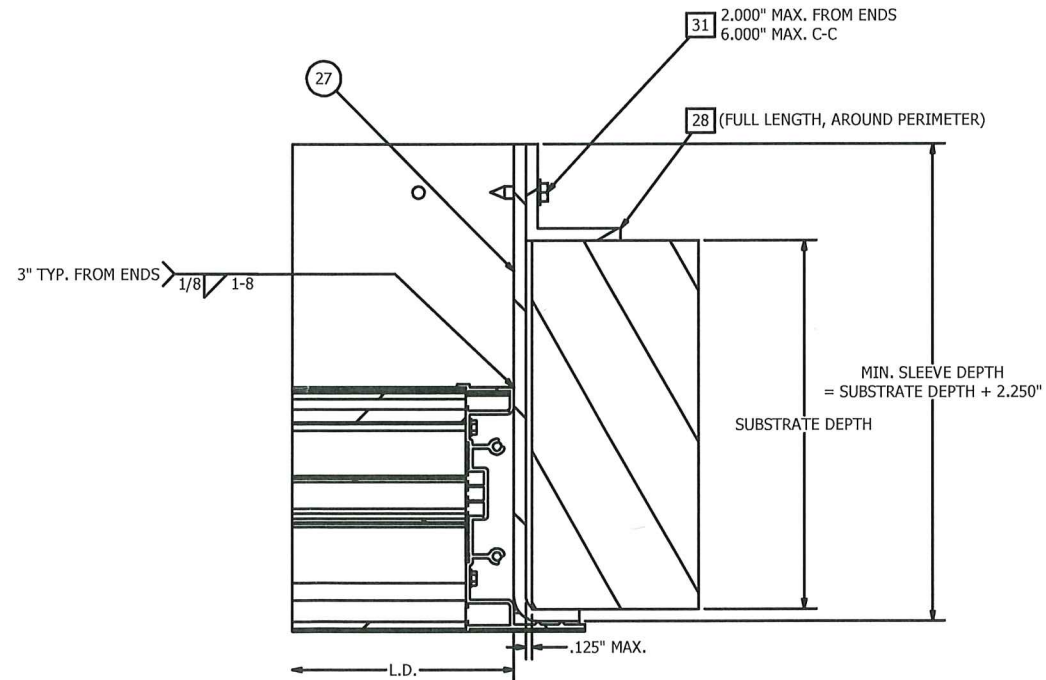
**DETAIL G**  
ASSEMBLY 'A', 'B' & 'C' - JAMB CONNECTION  
(STEEL SUBSTRATE)



**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)

MELISSA M. MASSAR, P.E.  
NO. 84659

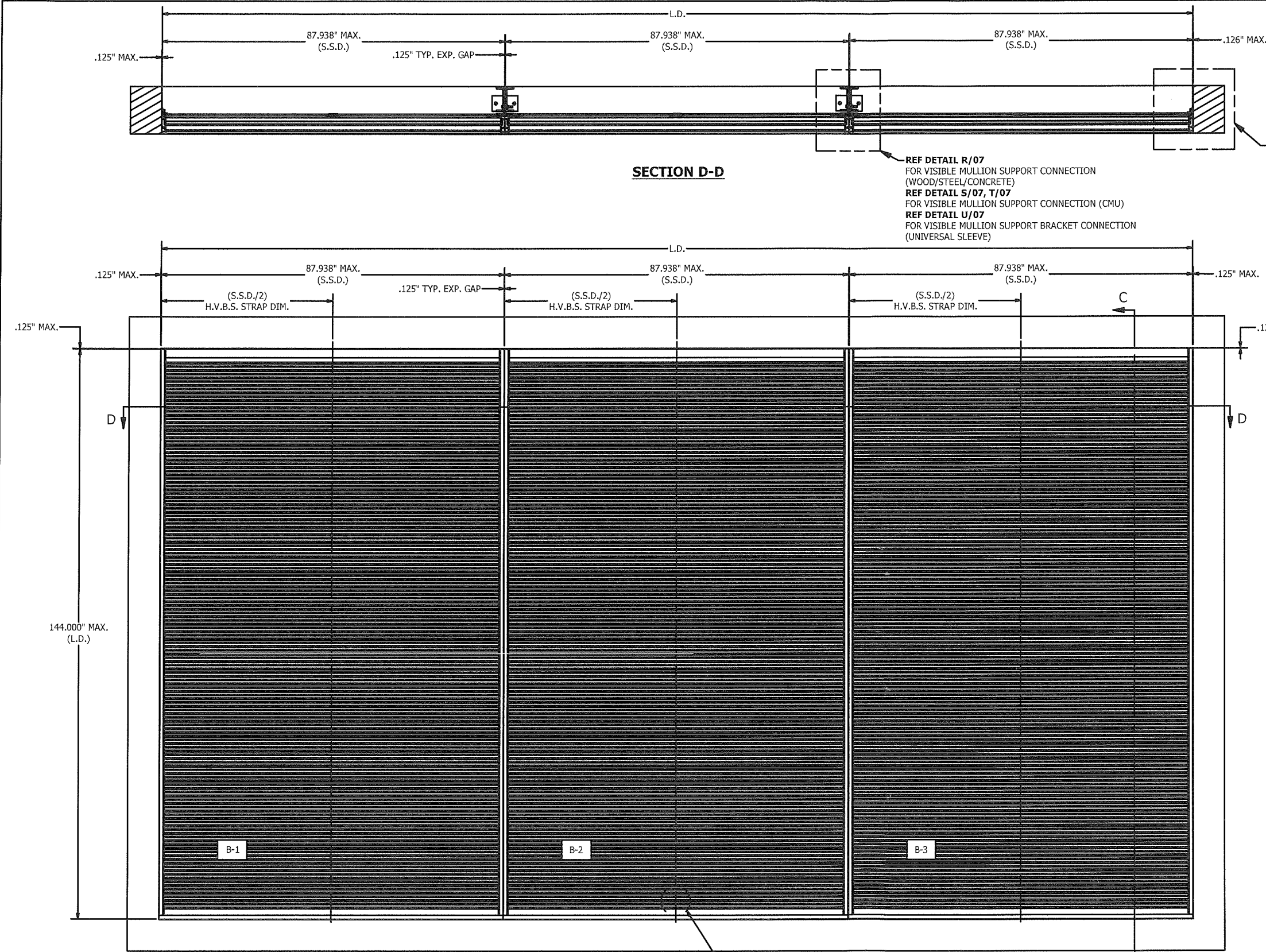
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
**NOA-No.** 20-1015.04  
**Expiration Date** 02/23/2026  
**By** *[Signature]*  
**Miami-Dade Product Control**

**Tolerances**  
Unless Stated Otherwise  
Use WIQ-007, WIQ-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2'

REV	DESCRIPTION	SSK/NS	JDS	WRT	MMM	DATE
G	REV'D ENGINEER OF RECORD, UPDATED INFO.					09/10/20
AUTHOR	DRP	5/16/2012				
CHECKED	DJR	8/2/2012				
APPROVED	DJR	8/2/2012				
MATERIAL						
PRODUCT	EME520MD					
TITLE	ASSEMBLY "A", "B" & "C" - JAMB INSTALL DETAILS					
SIZE	D	DWG NO	60-022286-00B			REV G
SCALE	NONE	INVENTOR				SHEET 3 OF 11

**RUSKIN** 3900 Doctor Greaves Road, Grandview, MO 64030  
PROPRIETARY AND CONFIDENTIAL



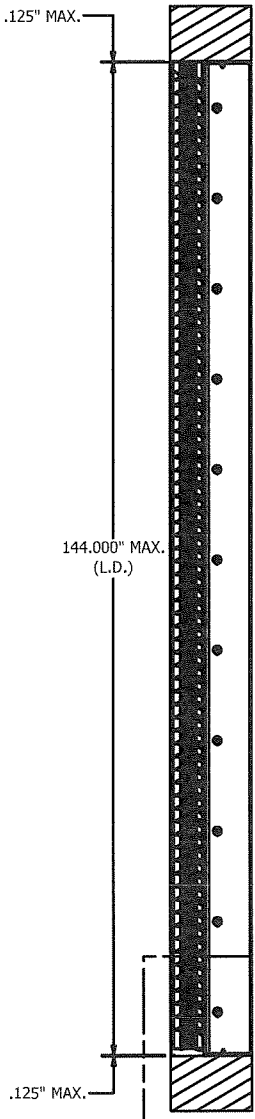


**ASSEMBLY "B" - 3X1 MULTI SECTION VIEW**  
MAX. SHIP SECTION : 87.938" W X 144" H

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

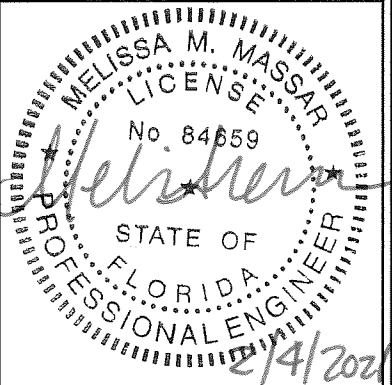
REF DETAIL R/07  
FOR VISIBLE MULLION SUPPORT CONNECTION  
(WOOD/STEEL/CONCRETE)  
REF DETAIL S/07, T/07  
FOR VISIBLE MULLION SUPPORT CONNECTION (CMU)  
REF DETAIL U/07  
FOR VISIBLE MULLION SUPPORT BRACKET CONNECTION  
(UNIVERSAL SLEEVE)

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)




REF DETAIL L/06  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (WOOD)  
REF DETAIL M/06  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (STEEL)  
REF DETAIL N/06  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (CONCRETE)  
REF DETAIL P/06  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (CMU)  
REF DETAIL Q/06  
FOR MULLION SUPPORT ATTACHMENT  
PLATE INSTALLATION DETAIL @ SILL (UNIVERSAL SLEEVE)

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control




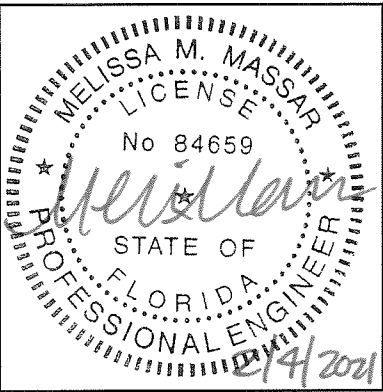
MELISSA M. MASSAR, P.E.  
NO. 84659

Tolerances  
Unless Stated Otherwise  
Use WIQ-007, WIQ-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2'

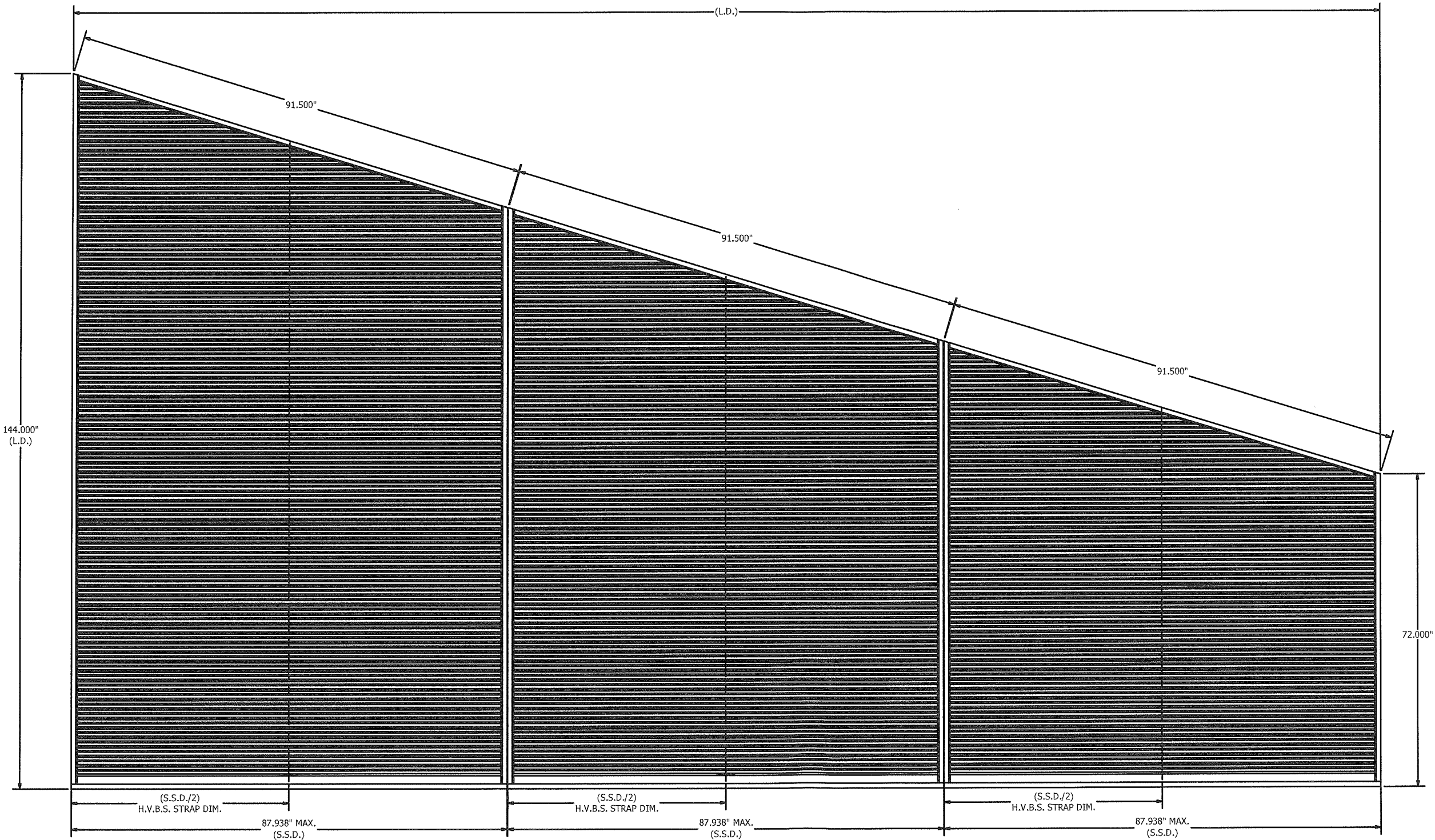
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REV	DESCRIPTION				BY	CHK	APVD	APVD	DATE	
AUTHOR	DRP	5/16/2012	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL							
CHECKED	DJR	8/2/2012								
APPROVED	DJR	8/2/2012								
MATERIAL			PRODUCT		EME520MD					
			TITLE		EME520MD ASSEMBLY "B"					
			SIZE	DWG NO	60-022286-00B				REV	G
			SCALE	NONE	INVENTOR		SHEET 4 OF 11			



**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By   
Miami-Dade Product Control



MELISSA M. MASSAR, P.E.  
NO. 84659

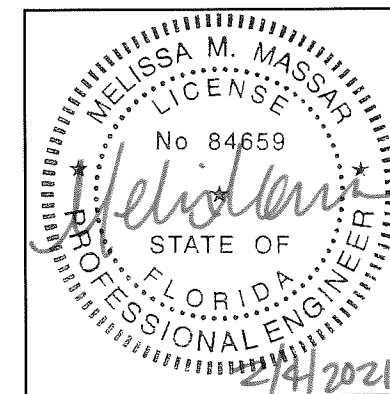
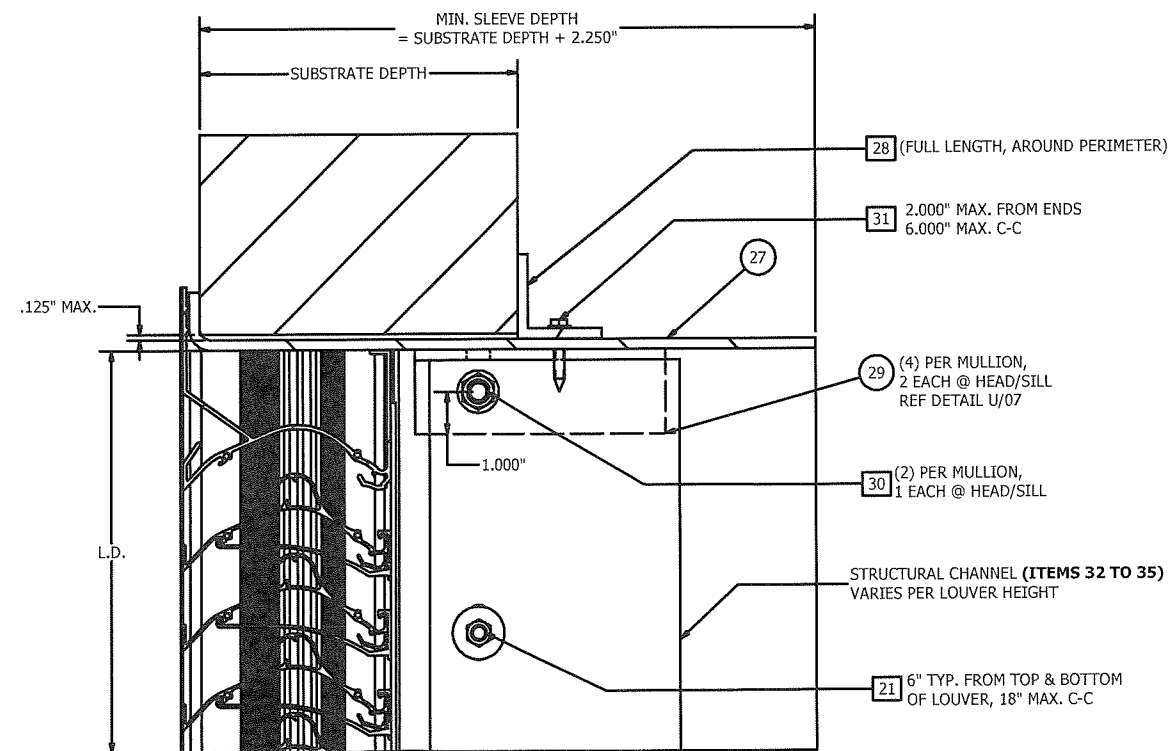
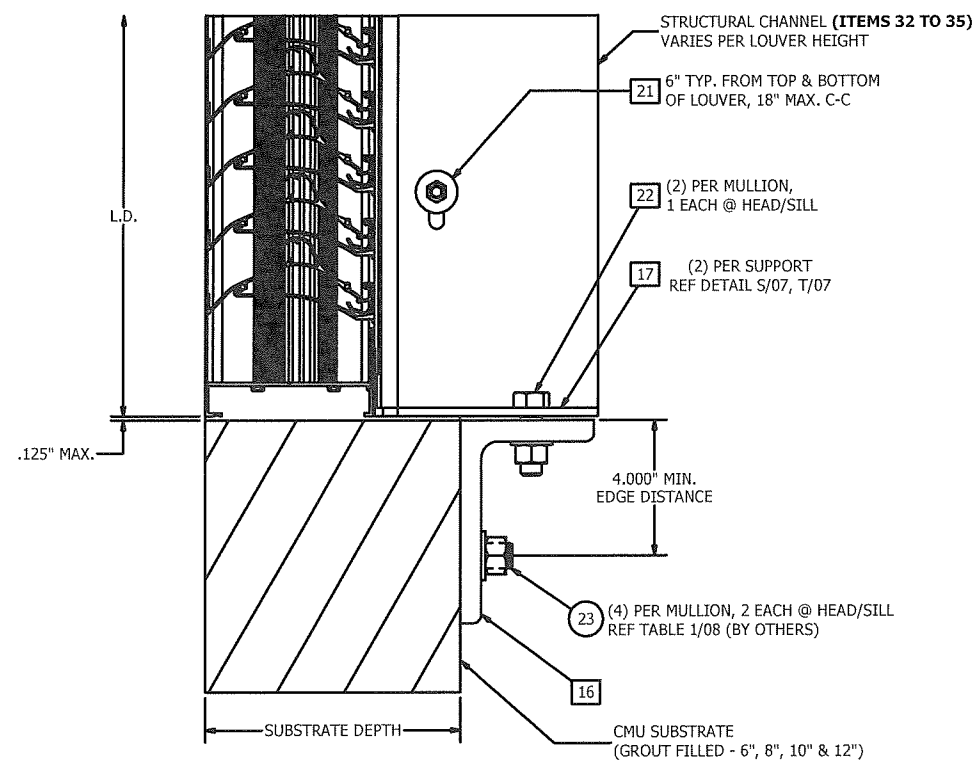
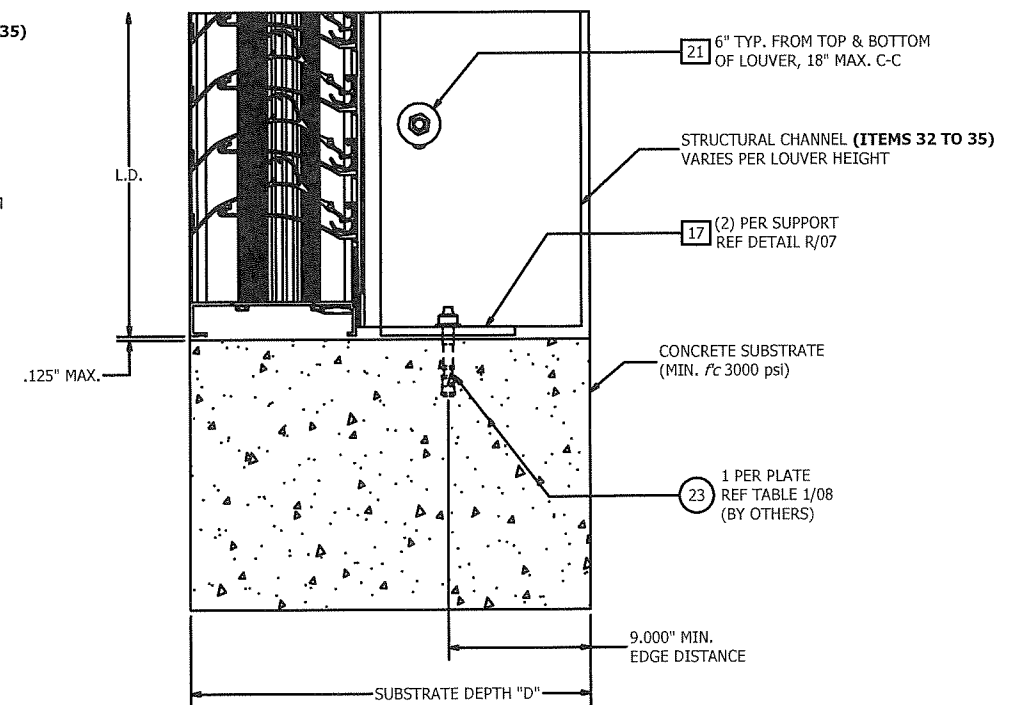
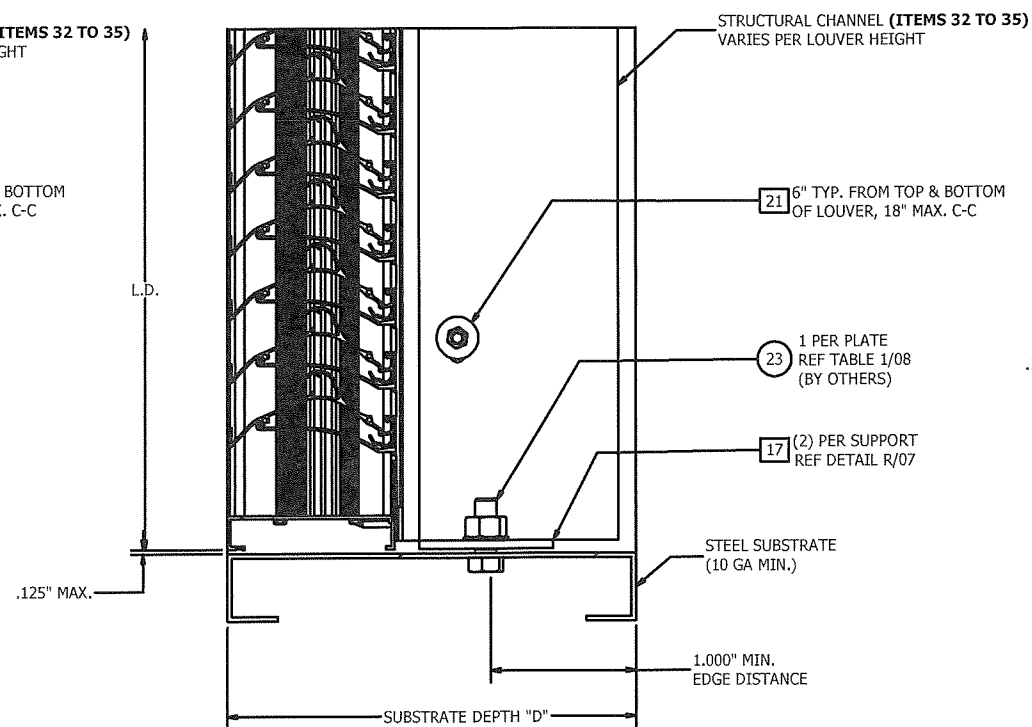
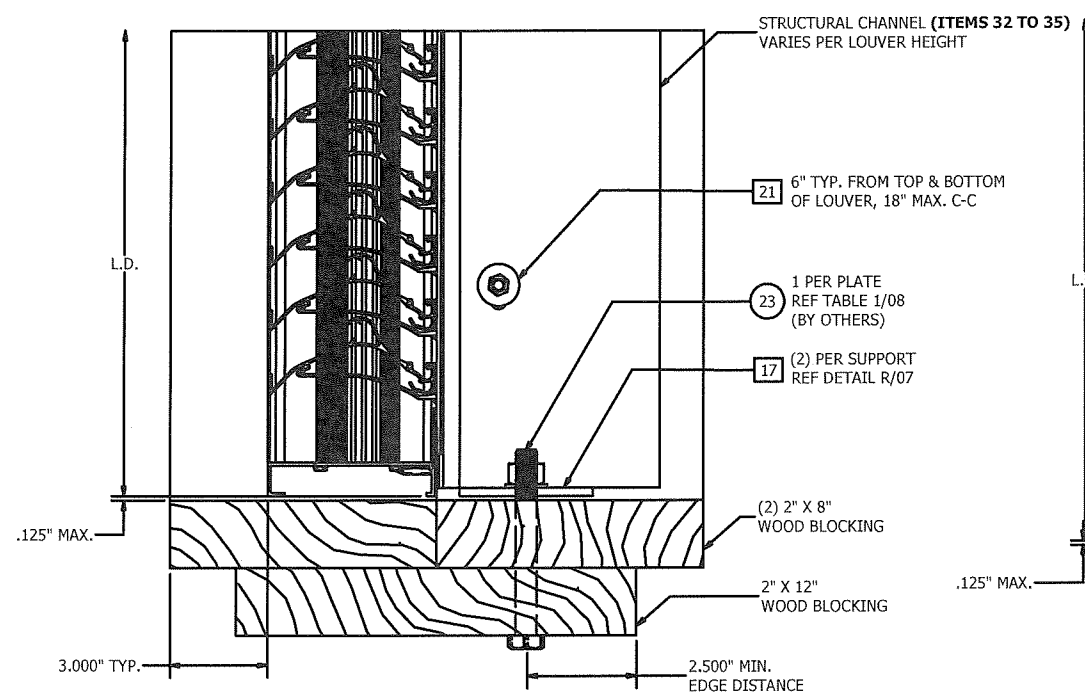



**ASSEMBLY "C" - 3X1 MULTI SECTION VIEW**  
MAX. SHIP SECTION : 87.938" W X 144" H


Tolerances  
Unless Stated Otherwise  
Use WIQ-007, WIQ-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2°

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	5/16/2012				
CHECKED	DIR	8/2/2012				
APPROVED	DIR	8/2/2012				
MATERIAL	PRODUCT	EMES20MD				
	TYPE	EMES20MD ASSEMBLY "C"				
	SIZE	D	DWG NO	60-022286-00B		REV G
ECN	SCALE	NONE	INVENTOR			SHEET 5 OF 11

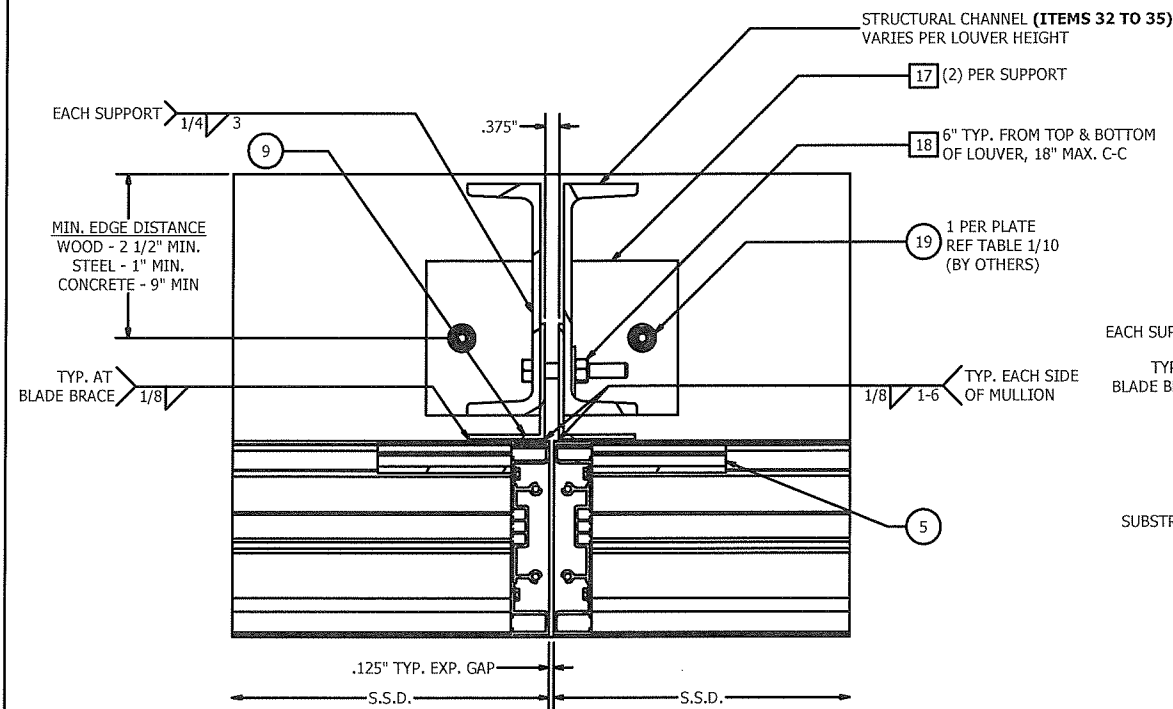




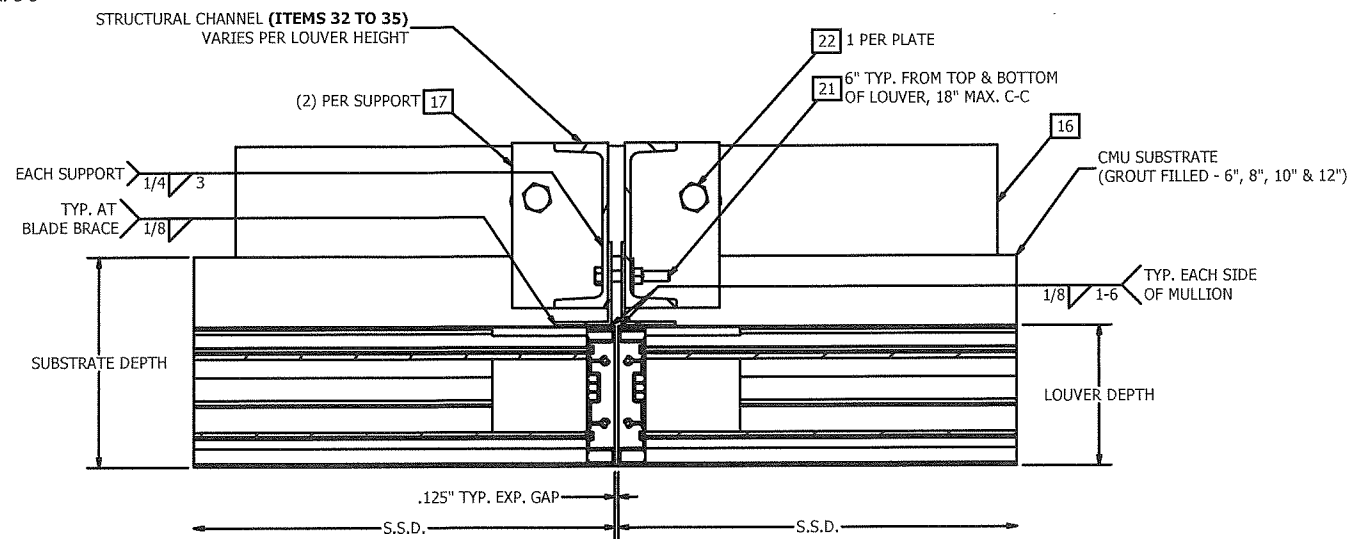
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By   
**Miami-Dade Product Control**

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	5/16/2012	 <b>RUSKIN</b> AUTHORITY IN AIR CONTROL		3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL		
CHECKED	DIR	8/2/2012					
APPROVED	DIR	8/2/2012					
MATERIAL			PRODUCT EMES20MD TITLE ASSEMBLY "B" & "C" - MULLION SUPPORT CONNECTION @ HEAD/SILL DETAILS SIZE D DRAW NO 60-022286-00B REV G				
ECN			SCALE NONE		INVENTOR SHEET 6 OF 11		

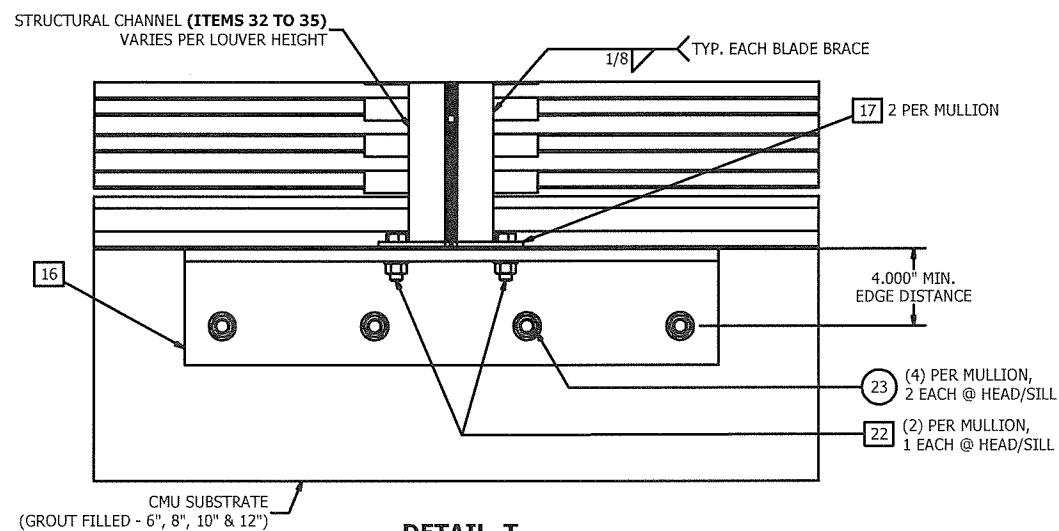




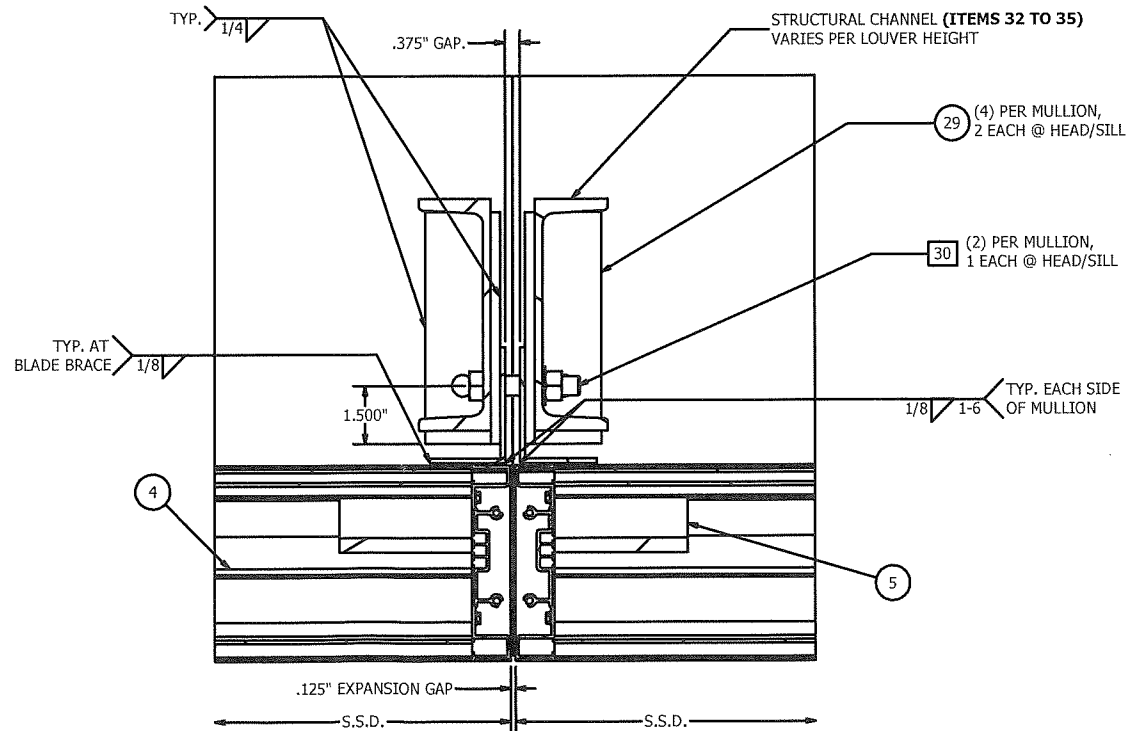
**DETAIL R**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAIL  
(WOOD, METAL, CONCRETE SUBSTRATE ONLY)



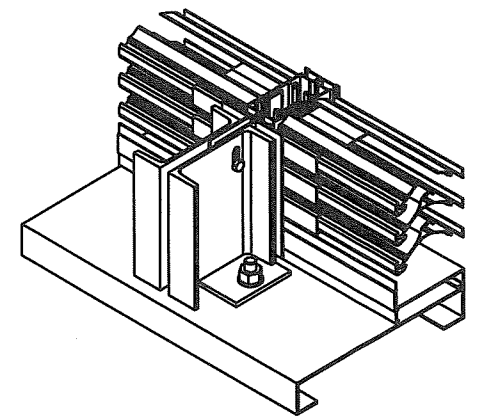
**DETAIL S**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAIL  
(CMU SUBSTRATE ONLY)



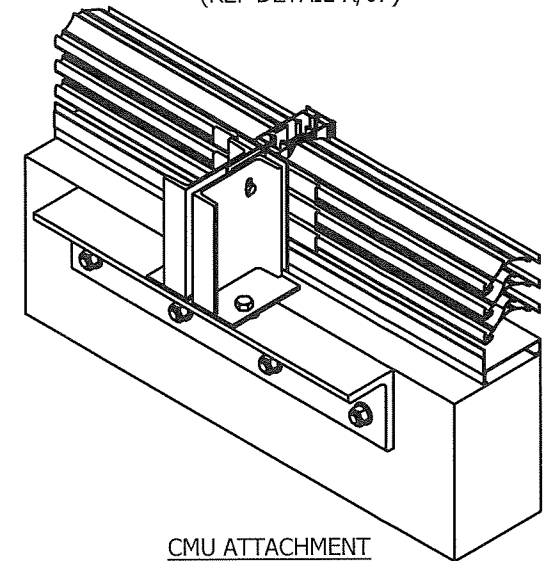
**DETAIL T**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT CONNECTION DETAIL  
(CMU SUBSTRATE ONLY)



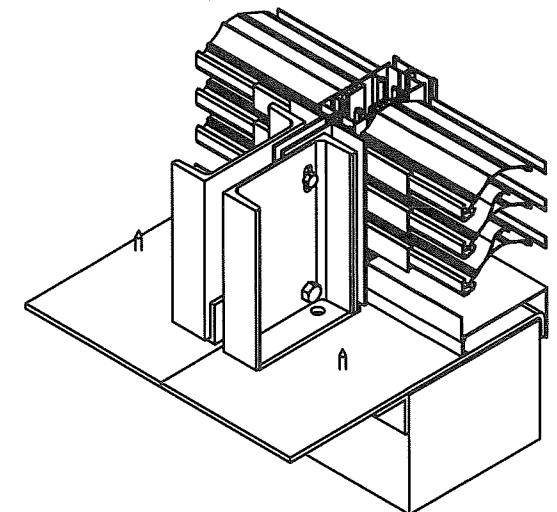
**DETAIL U**  
ASSEMBLY 'B' & 'C' - VISIBLE MULLION SUPPORT BRACKET ATTACHMENT DETAIL  
(UNIVERSAL SLEEVE ONLY)



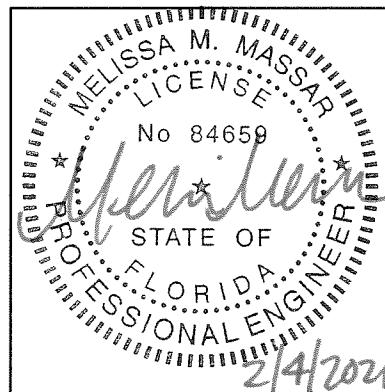
STEEL (SHOWN) ATTACHMENT  
(WOOD, CONCRETE SIM.)  
(REF DETAIL R/07)



CMU ATTACHMENT  
(REF DETAIL S/07)



UNIVERSAL SLEEVE ATTACHMENT  
(REF DETAIL U/07)



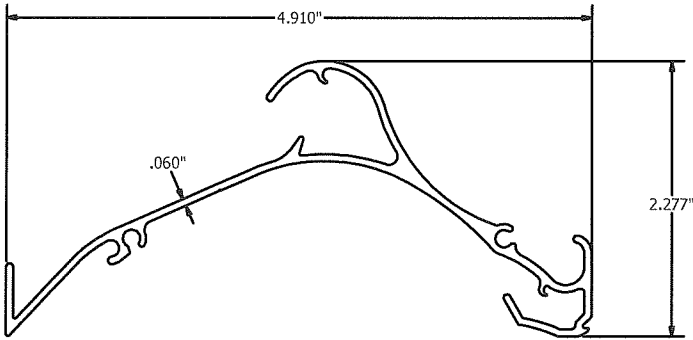
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control

MELISSA M. MASSAR, P.E.  
NO. 84659

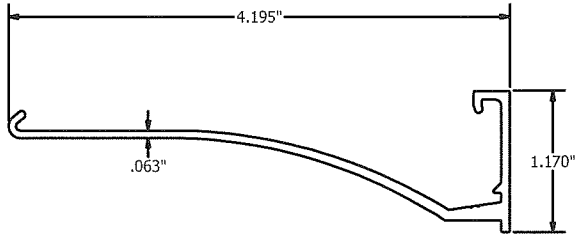
Tolerances  
Unless Stated Otherwise  
Use WIQ-007, WIQ-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2'

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	5/16/2012	 3900 Doctor Greaves Road, Grandview, MO 64030 PROPRIETARY AND CONFIDENTIAL						
CHECKED	DJR	8/2/2012							
APPROVED	DJR	8/2/2012							
MATERIAL									
PRODUCT							EMES20MD		
TITLE							ASSEMBLY "B" & "C" - VISIBLE MULLION SUPPORT CONNECTION DETAILS		
SIZE D			DWG NO 60-022286-00B			REV G			
SCALE NONE			INVENTOR			SHEET 7 OF 11			

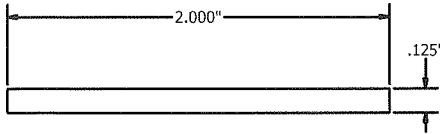
TABLE 01 - EME520MD - WALL FASTENER TABLE (N.I.C.)					
SUBSTRATE TYPE	MIN. SUBSTRATE REQUIREMENTS	LOCATION	FASTENER TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE
WOOD	SPECIFIC GRAVITY = 0.4	HEAD/SILL	3/8-16 GRADE 2 HEX HEAD BOLT W LOCKNUT AND WASHER (UNDER BOLT HEAD & LOCKNUT)	NA	1 1/2"
		JAMBS	3/8-16 GRADE 2 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 GRADE 2 HEX HEAD BOLT W LOCKNUT AND WASHER	NA	1"
		JAMBS	3/8-16 GRADE 2 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 TZ EXPANSION ANCHORS	2"	4"
		JAMBS	3/8" Ø HILTI KWIK BOLT TZ EXPANSION ANCHORS	2"	4"
		MULLION SUPPORT (END PLATE)	5/8" Ø HILTI KWIK BOLT TZ 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 BOLT III EXPANSION ANCHOR (1 PER CELL, 1 3/8" MIN. FROM VERTICAL MORTAR JOINT)	2"	4"
		JAMBS	5/8" Ø HILTI KWIK BOLT III EXPANSION ANCHORS (1 PER CELL)	4"	4"
		MULLION SUPPORT (END PLATE)	3/4" Ø HILTI HIT-HY 270 ANCHOR (1 PER CELL, 1" MIN. FROM VERTICAL MORTAR JOINT)	4 1/4"	4"



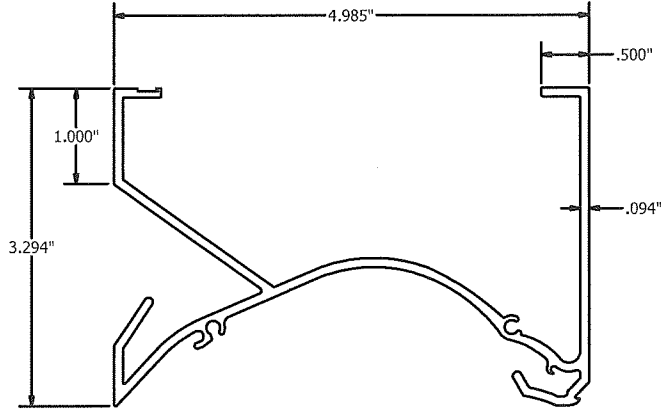
BLADE ITEM #04  
RUSKIN #70-022496-00B



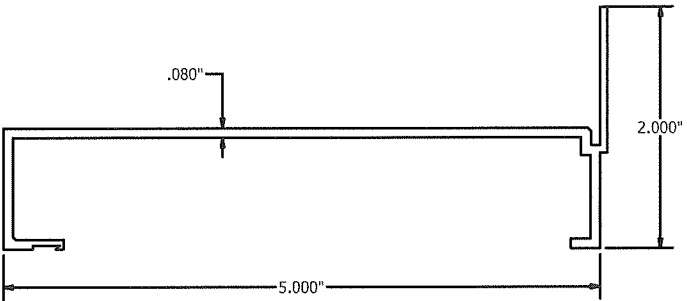
BLADE BRACE ITEM #05  
RUSKIN #70-023870-00B



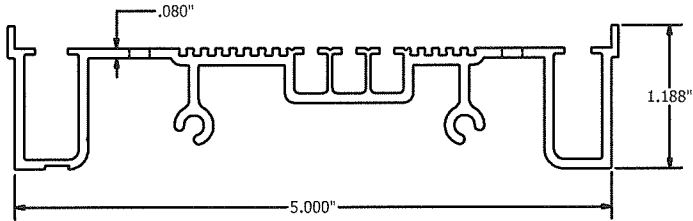
H.V.B.S STRAP ITEM #06  
RUSKIN #85-021658-00B



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



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



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

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By *[Signature]*  
Miami-Dade Product Control



MELISSA M. MASSAR, P.E.  
NO. 84659

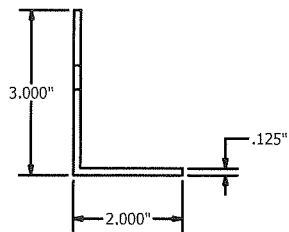
Tolerances  
Unless Stated Otherwise  
Use WQ-007, WQ-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2°

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	5/16/2012				
CHECKED	DJR	8/2/2012				
APPROVED	DJR	8/2/2012				
MATERIAL	PRODUCT	EMES20MD				
	TITLE	SUBSTRATE WALL FASTENER TABLE				
	SIZE	DWG NO	60-022286-00B			
	D					
ECN	SCALE	NONE	INVENTOR			

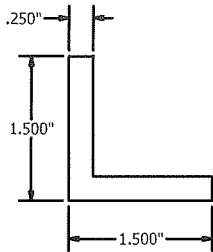


3900 Doctor Greaves Road,  
Grandview, MO 64030  
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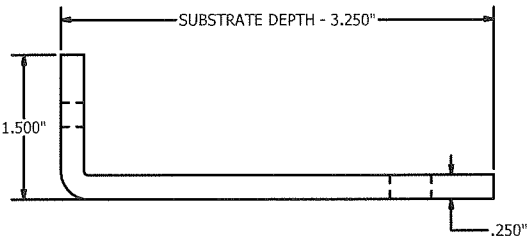
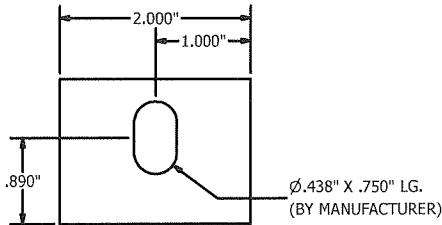
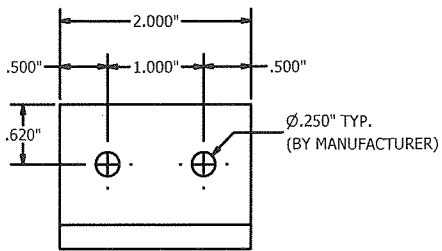




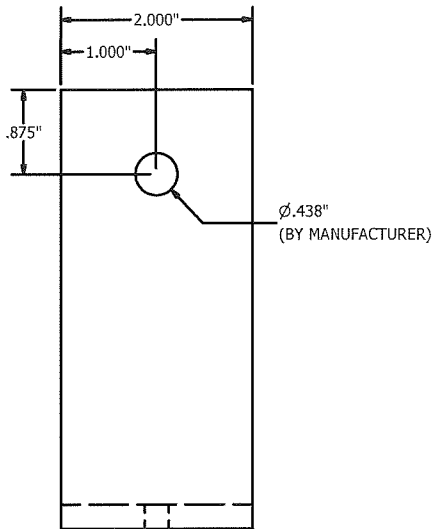
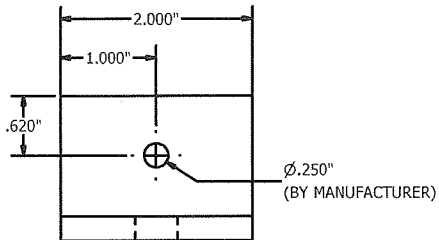
MULLION SUPPORT ANGLE ITEM#09  
RUSKIN #A1139



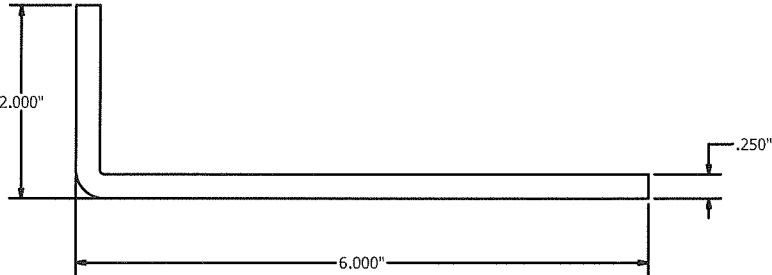
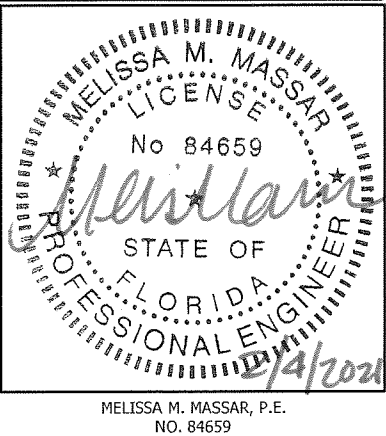
ATTACHMENT CLIP ANGLE, 2" LG. ITEM#10  
RUSKIN #85-021637-00B



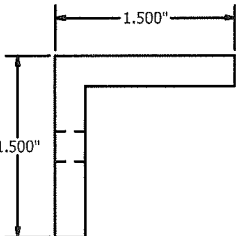
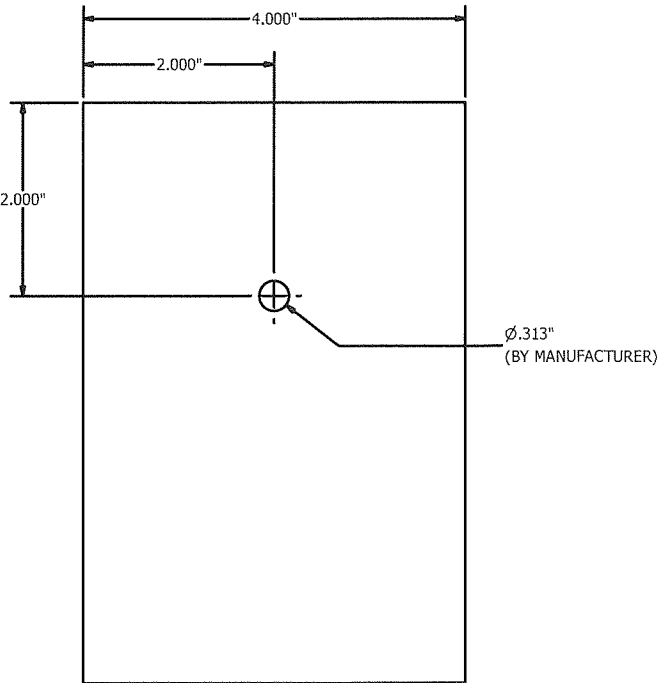
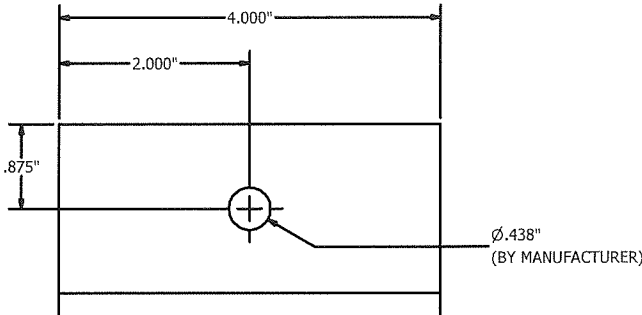
CLIP ANGLE - FORMED, 2" LG. ITEM#11  
RUSKIN #N/A



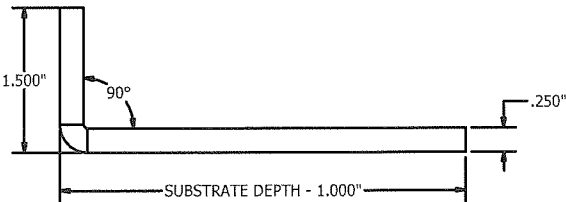
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By *R. J. [Signature]*  
Miami-Dade Product Control



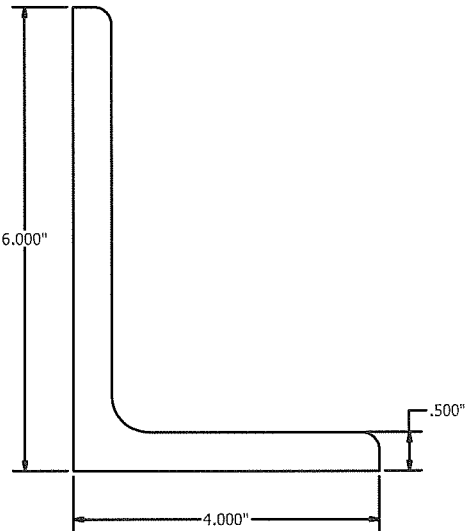
CLIP ANGLE - FORMED, 4" LG. ITEM#12  
RUSKIN #N/A



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



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

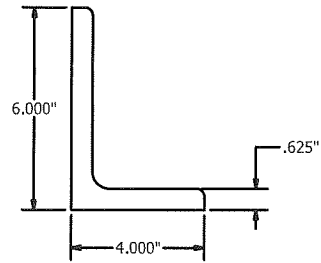


STRUCTURAL ATTACHMENT ANGLE, CONT. ITEM #15  
RUSKIN #85-023122-00B

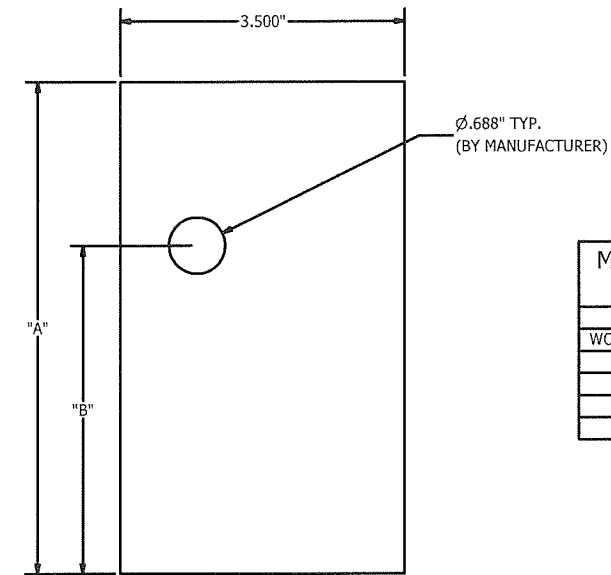
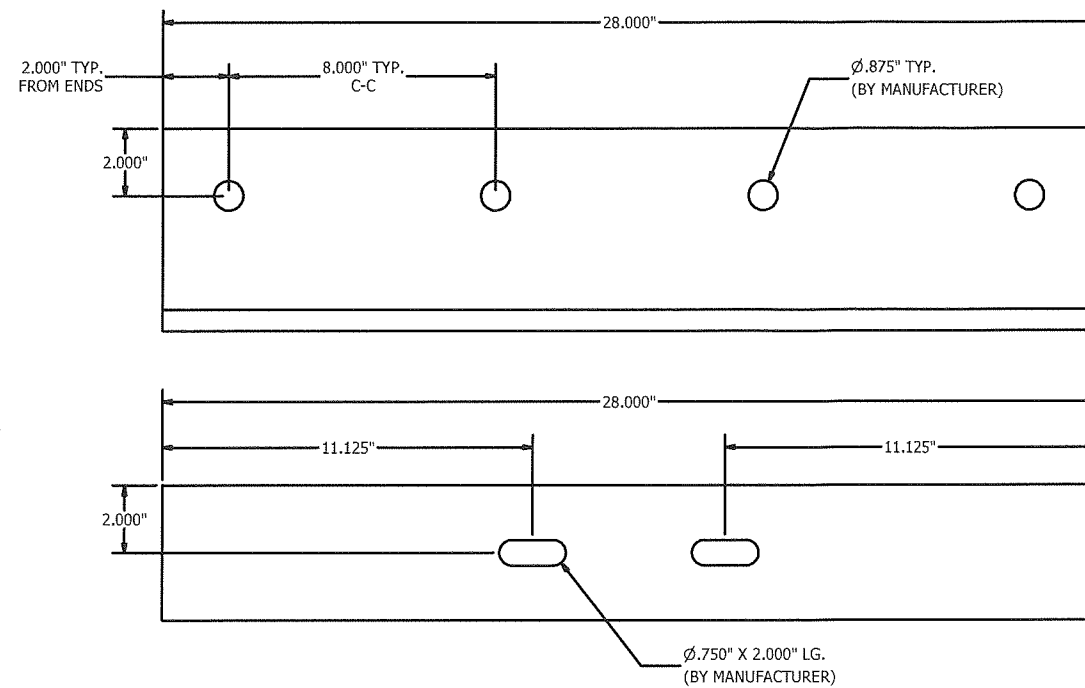
Tolerances  
Unless Stated Otherwise  
Use WIC-007, WIC-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2'

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	5/16/2012				
CHECKED	DIR	8/2/2012				
APPROVED	DIR	8/2/2012				
MATERIAL	PRODUCT	EMES20MD				
	TITLE	EMES20MD - PARTS				
	SIZE	DWG NO	60-022286-00B			
	SCALE	NONE	INVENTOR			
ECN						



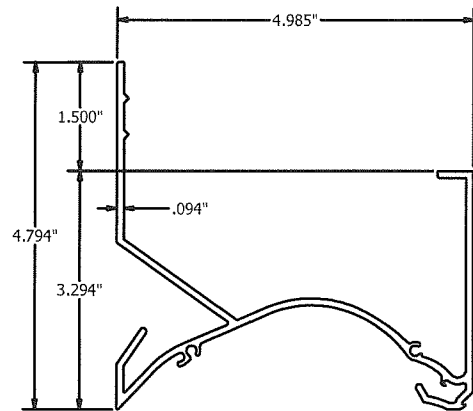


STRUCTURAL ATTACHMENT ANGLE, 28" LG. ITEM #16  
RUSKIN #85-023102-00B

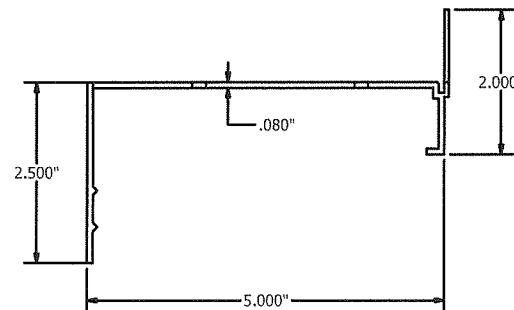


MULLION SUPPORT ATTACHMENT PLATE DIMENSION TABLE		
WALL TYPE	"A"	"B"
WOOD/STEEL/CONCRETE	3.500	1.750
6" CMU	4.000	2.000
8" CMU	6.000	4.000
10" CMU	8.000	6.000
12" CMU	10.000	8.000

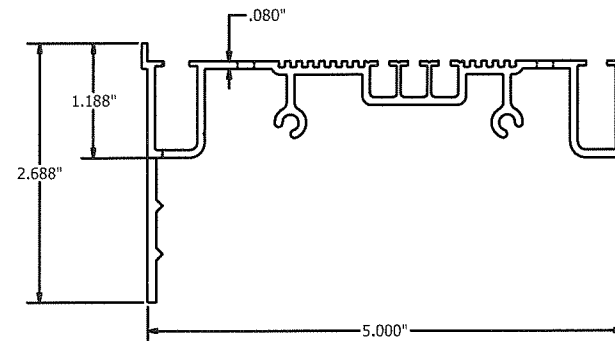
MULLION SUPPORT ATTACHMENT PLATE ITEM #17  
RUSKIN #85-023103-00B



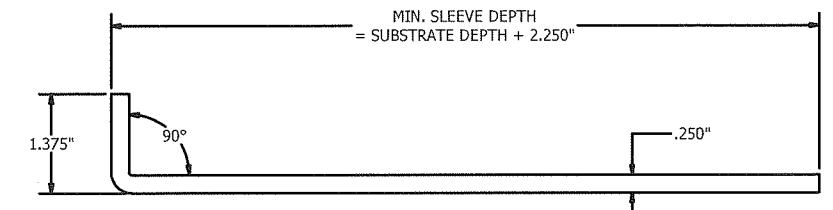
HEAD FRAME W/INTEGRAL FLANGE ITEM #24  
RUSKIN #70-022499-00B



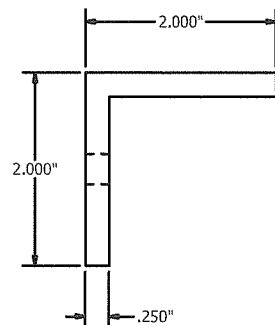
SILL FRAME W/INTEGRAL FLANGE ITEM #25  
RUSKIN #70-020969-00B



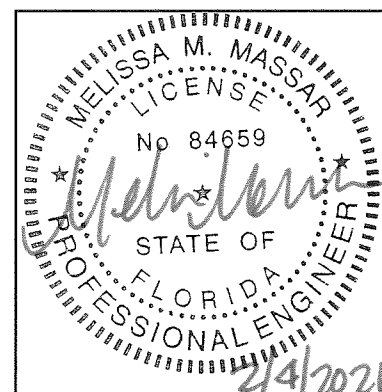
JAMB FRAME W/INTEGRAL FLANGE ITEM #26  
RUSKIN #70-022509-00B



FRONT FLANGE UNIVERSAL SLEEVE ITEM #27



CONT. RETAINING ANGLE ITEM #28  
RUSKIN #85-023107-00B



MELISSA M. MASSAR, P.E.  
NO. 84659

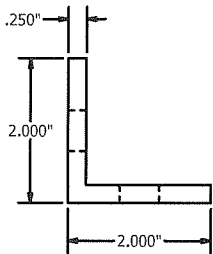
**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
NOA-No. 20-1015.04  
Expiration Date 02/23/2026  
By *[Signature]*  
**Miami-Dade Product Control**

Tolerances  
Unless Stated Otherwise  
Use WIQ-007, WIQ-008  
Fractions ±1/16  
Two Decimals ±0.020  
Three Decimals ±0.010  
Angle Dimensions ±2°

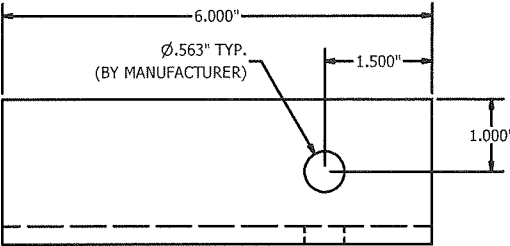
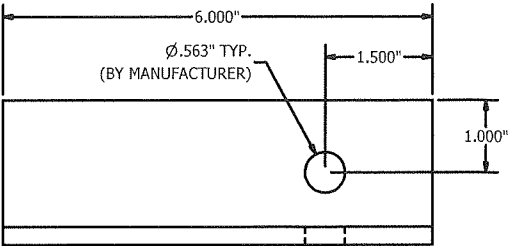
G	REV'D ENGINEER OF RECORD, UPDATED INFO.	SSK/NS	JDS	WRT	MMM	09/10/20
REV	DESCRIPTION	BY	CHK	APVD	APVD	DATE
AUTHOR	DRP	5/16/2012				
CHECKED	DJR	8/2/2012				
APPROVED	DJR	8/2/2012				
MATERIAL	PRODUCT	EMES20MD				
	TITLE	EMES20MD - PARTS				
	SIZE	DWG NO	60-022286-00B			
	D					
	SCALE	NONE	INVENTOR			

**RUSKIN**  
AUTHORITY IN AIR CONTROL  
3900 Doctor Greaves Road,  
Grandview, MO 64030  
PROPRIETARY AND  
CONFIDENTIAL

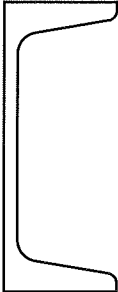




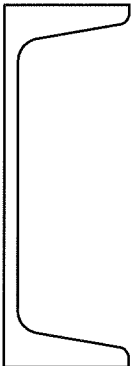
UNIVERSAL SLEEVE - MULLION SUPPORT ATTACHMENT ANGLE    ITEM #29  
RUSKIN #85-023108-00B



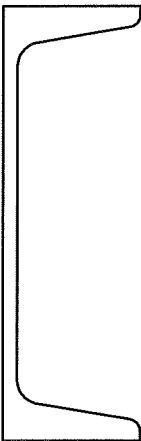
C3X4.1    ITEM #32



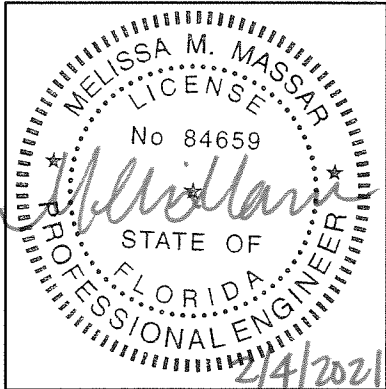
C4X5.4    ITEM #33



C5X6.7    ITEM #34



C6X8.7    ITEM #35



MELISSA M. MASSAR, P.E.  
NO. 84659

**PRODUCT REVISED**  
**as complying with the Florida**  
**Building Code**  
**NOA-No.** 20-1015.04  
**Expiration Date** 02/23/2026  
**By**   
**Miami-Dade Product Control**

**Tolerances**  
Unless Stated Otherwise  
Use WIQ-007, WIQ-008  
Fractions    ± 1/16  
Two Decimals    ± 0.020  
Three Decimals    ± 0.010  
Angle Dimensions    ± 2'

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	5/16/2012				
CHECKED	DJR	8/2/2012				
APPROVED	DJR	8/2/2012				
MATERIAL	PRODUCT EMES20MD					
	TITLE EMES20MD - PARTS					
	SIZE D	DWS NO	60-022286-00B	REV	G	
ECN	SCALE NONE	INVENTOR	SHEET 11 OF 11			