



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

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

PCI Industries, LLC dba All-Lite Arch. Products
5101 Blue Mound Road
Fort Worth, TX 76106

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 ECD-545-MD Aluminum Louver w/ Optional CD-51 Damper

APPROVAL DOCUMENT: Drawing No. **ECD-545-MD NOA**, titled "ECD-545-MD", sheets 1 through 19 of 19, prepared by the manufacturer, dated 06/09/2025, signed and sealed by Wayne K. Helmila, P.E., bearing the Miami-Dade County Product Control approval 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 (Level E)

LABELING: A permanent label with the manufacturer's name or logo, manufacturing plant's city, state, model/ series, and the statement reading: "Miami-Dade County Product Control Approved", is to be located on each unit.

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 consists of this page 1 and evidence page E-1, as well as the approval document mentioned above.

The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



07/23/25

NOA No. 25-0624.07
Expiration Date: July 31, 2030
Approval Date: July 31, 2025
Page 1

PCI Industries, LLC dba All-Lite Arch. Products

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **ECD-545-MD NOA**, titled “ECD-545-MD”, sheets 1 through 19 of 19, prepared by the manufacturer, dated 06/09/2025, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of a Model ECD-545-MD Aluminum Louvers, prepared by UL LLC, Test Report No. **SV30902-20180808**, dated 09/13/2018, signed and sealed by Alexis Spyrou, P.E.
2. Test report on High Velocity Wind Driven Rain Resistance per FBC, AMCA 550-15 on an ECD-545-MD Aluminum Louver, prepared by Intertek, Test Report No. **I8042.02-801-44 R0**, dated 09/07/20218, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS

1. ECD-545-MD anchorage, dated 06/17/2025, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, 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 with the 8th edition (2023) of the FBC, issued by Rice Engineering, dated 06/17/2025, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letter of no financial interest, dated 06/17/2025, issued by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E.




Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 25-0624.07
Expiration Date: July 31, 2030
Approval Date: July 31, 2025

- NOTES:
1. THIS NOA DRAWING INCLUDES INSTALLATION DETAILS TO ATTAIN MAXIMUM DESIGN PRESSURES OF ±150 PSF AS TESTED IN ACCORDANCE WITH PROTOCOLS TAS 201 (LARGE MISSILE IMPACT - LEVEL 'E', 80 FPS), TAS 202 (STATIC WIND PRESSURE), AND TAS 203 (CYCLIC WIND PRESSURE) FOR USE WITHIN HIGH VELOCITY HURRICANE-AFFECTED ZONES DEFINED BY THE FLORIDA BUILDING CODE. THE INSTALLATION OF AN OPTIONAL CD-51 DAMPER YIELDS WATER INGRESS PROTECTION AS TESTED IN ACCORDANCE WITH AMCA 550.
2. ALL VARIATIONS ARE LARGE MISSILE IMPACT RESISTANT.
3. UNITS OF MEASURE ARE FRACTIONAL INCHES UNLESS OTHERWISE SPECIFIED.
4. IT IS ASSUMED THAT THE LOUVER SYSTEMS DO NOT SUPPORT ANY LOADS TRANSFERRED FROM THE BUILDING CONDITION.
5. IT IS ASSUMED THAT THE BUILDING CONDITIONS ARE ADEQUATELY DESIGNED TO SUPPORT LOADS IMPARTED BY THE LOUVER SYSTEM.
6. TO PREVENT GALVANIC CORROSION, ELECTROCHEMICALLY DISSIMILAR MATERIALS IN CONTACT WITH ONE ANOTHER SHALL BE PROTECTED BY PAINT, GASKETING, OR OTHER MEANS PER THE FLORIDA BUILDING CODE.
7. WATER PENETRATION:

a. WHEN LOUVERS ARE INSTALLED WITHOUT THE OPTIONAL CD-51 DAMPER, THE ROOM BEHIND THE LOUVER MUST BE DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, AND THE ROOM MUST HOUSE WATER-RESISTANT/WATERPROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.

b. ADDITIONAL PROTECTION FROM WATER INGRESS IS NOT NECESSARY WHEN LOUVERS ARE INSTALLED WITH CD-51 DAMPERS AND THE DAMPERS ARE CLOSED.
8. OTHER BUILDING CONDITIONS THAN THOSE DENOTED MAY BE UTILIZED IF ANALYZED AND APPROVED BY A PROFESSIONAL ENGINEER.
9. MULTI-SECTION WIDE AND HIGH LOUVER SYSTEMS ARE ALLOWABLE PROVIDED THE INDIVIDUAL SECTIONS ARE SUPPORTED PER THE DETAILS ON THIS DRAWING AND A SUITABLE SUPPORT STRUCTURE IS ANALYZED AND APPROVED BY A PROFESSIONAL ENGINEER.
10. UNLESS FASTENERS ARE 300 SS, SEAL FASTENERS ATTACHING TO THE SUBSTRATE WITH LIQUID PROSOCO FLASHING OR EQUAL.

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By 
Miami-Dade Product Control

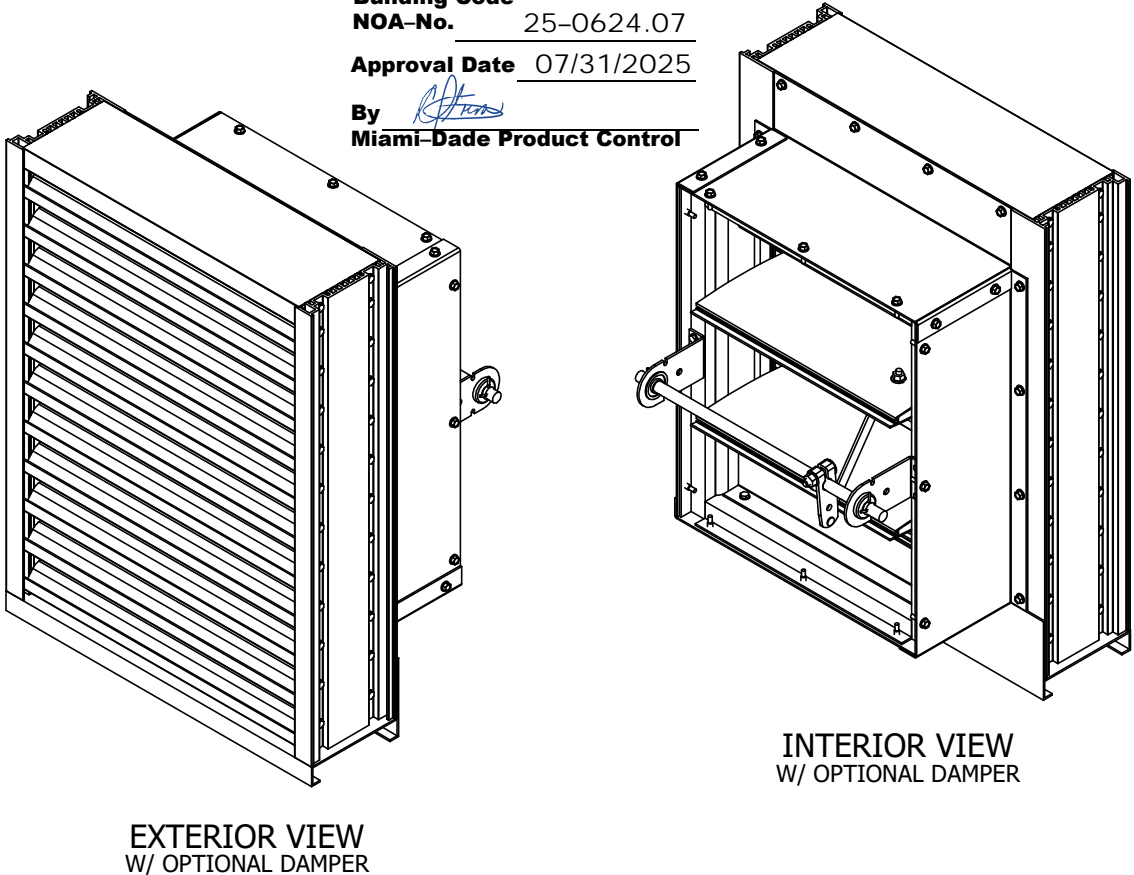


TABLE 1		
SINGLE SECTION SIZE LIMITATIONS		
MAX DESIGN PRESSURE	MIN (W X H)	MAX (W X H)
±150 PSF	6" X 6" STANDARD	60" X 144" OR 72" X 120"
	10" X 14" W/ DAMPER	

TABLE 2	
MULTIPLE SECTION SIZE LIMITATIONS (MAX DESIGN PRESSURE: 150 PSF)	
SINGLE SECTION HIGH - UNLIMITED WIDTH	SEE SHEET #4
SINGLE SECTION WIDE - UNLIMITED HEIGHT	SEE SHEET #12

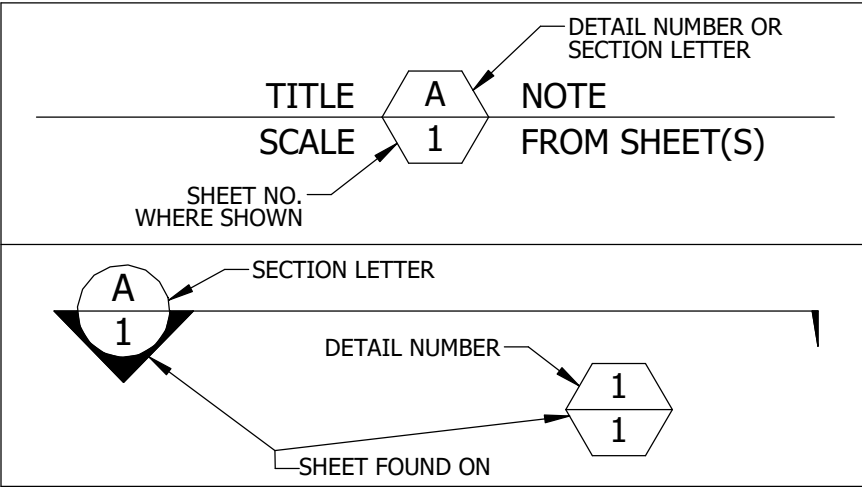


TABLE 3 ANCHOR SCHEDULE							
SUBSTRATE	LOCATION	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	SPACING (W ≤ 60") (STANDARD)	SPACING (W > 60") (STANDARD)	SPACING (SHAPES)
CONCRETE (f'c ≥ 4000 PSI)	JAMBS	3/8" X 4" DEWALT SCREW-BOLT+ (F-7)	3 1/4"	1 5/8"	8"	6 1/2"	8"
	MULLIONS (WALL DEPTH < 12 3/8")	5/8" X 4" DEWALT SCREW-BOLT+ (F-8)	3 1/4"	1 3/4"	7"	7"	--
	MULLIONS (WALL DEPTH ≥ 12 3/8")	5/8" X 6" DEWALT SCREW-BOLT+ (F-9)	5"	5 7/8"	9"	9"	--
GROUT FILLED CMU (f'm ≥ 1500 PSI)	JAMBS	3/8" X 4" DEWALT SCREW-BOLT+ (F-7)	3 1/4"	1 1/2" (1 3/4" FOR SHAPES)	5"	4"	5 1/2"
	MULLIONS	3/8" X 4" DEWALT SCREW-BOLT+ (F-7)	3 1/4"	1 1/2"	4"	4"	--
STRUCTURAL STEEL (MIN. 3/16" THICK, Fy ≥ 36 KSI)	JAMBS	1/4" X 1" SELF-DRILLING SCREW (F-11)	FULL	1/2"	8"	6 1/2"	10"
	MULLIONS	1/4" X 1" SELF-DRILLING SCREW (F-11); TWELVE (12) FASTENERS PER CONNECTION	FULL	1/2"	3/4"	3/4"	--
STEEL STUD (MIN. 12 GA, Fy ≥ 50 KSI)	JAMBS	1/4" X 1" SELF-DRILLING SCREW (F-11)	FULL	1/2"	8"	6 1/2"	10"
	MULLIONS	1/4" X 1" SELF-DRILLING SCREW (F-11); TWELVE (12) FASTENERS PER CONNECTION	FULL	1/2"	3/4"	3/4"	--
WOOD (S.G. ≥ 0.43)	JAMBS	1/2" X 3 1/2" LAG BOLT WITH FLAT WASHER (F-12)	3"	2"	9"	8"	10"
	MULLIONS	1/2" X 3 1/2" LAG BOLT WITH FLAT WASHER (F-12); TWELVE (12) ANCHORS PER CONNECTION	3"	2"	2 1/2"	2 1/2"	--

TABLE 4	
ANGLE FASTENER MAX SPACING (F-4)	
W ≤ 60"	W > 60"
4 1/2"	4"

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

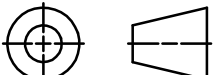
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

TOLERANCE UNLESS NOTED:
X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS


PCI INDUSTRIES DOING BUSINESS AS
ALL-LITE
ARCHITECTURAL PRODUCTS

THIRD ANGLE PROJECTION


5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR: COVER SHEET		
PROJECT: ECD-545-MD		
PROJ. MGR.:		DRAWN BY: LGH
DATE: 6/27/2018	CHK'D BY: NW	DRAWING NUMBER ECD-545-MD NOA
SHEET: 1 of 19	SCALE: NONE	

P.E. STAMP



07/11/2025
COA: 9090

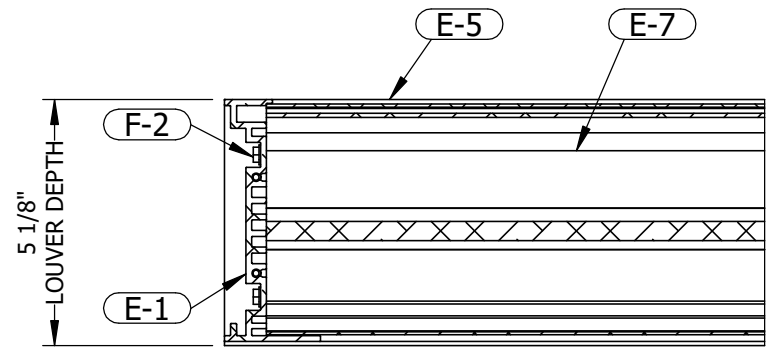
1:10 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA

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GENERAL LOUVER ASSEMBLY

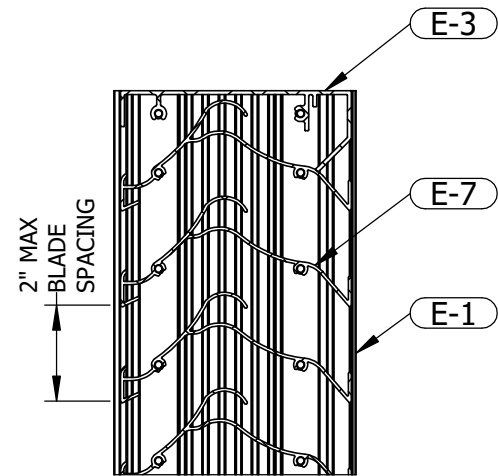


SECTION VIEW B
2 GENERAL ASSEMBLY
SCALE: 3/4" = 1'-0" 2



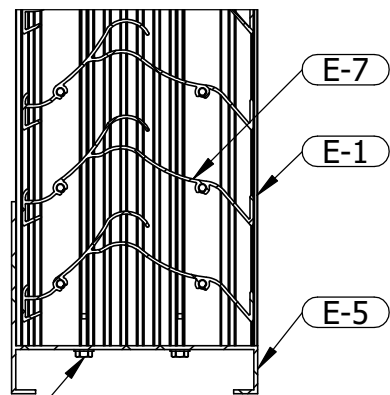
CONSTRUCTION 1
2 DETAIL
3"=1'-0" 2

IN FLANGED CONFIGURATIONS:
E-2 WILL BE USED IN PLACE OF E-1
E-6 WILL BE USED IN PLACE OF E-5



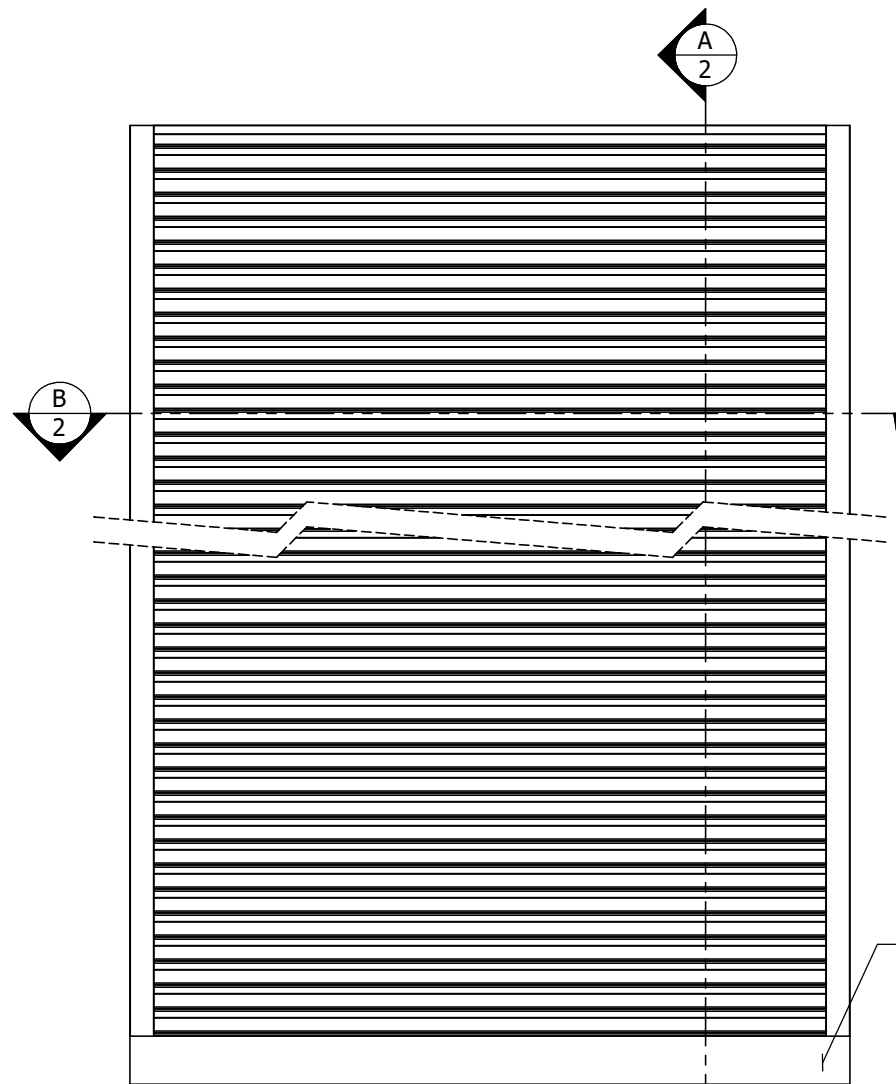
CONSTRUCTION 2
2 DETAIL
3"=1'-0" 2

IN FLANGED CONFIGURATIONS:
E-2 WILL BE USED IN PLACE OF E-1
E-4 WILL BE USED IN PLACE OF E-3

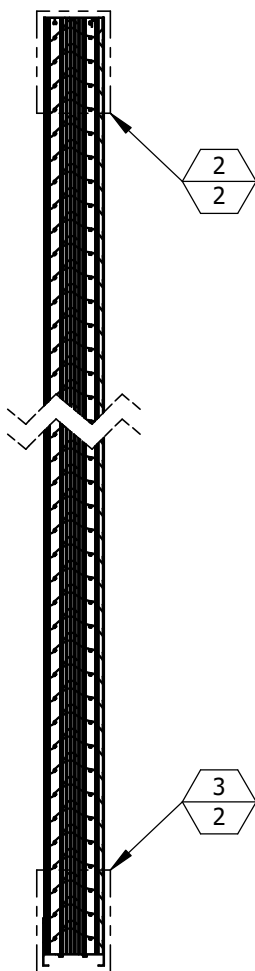


CONSTRUCTION 3
2 DETAIL
3"=1'-0" 2

IN FLANGED CONFIGURATIONS:
E-2 WILL BE USED IN PLACE OF E-1
E-6 WILL BE USED IN PLACE OF E-5




INTERIOR ELEVATION



SECTION VIEW A
2 GENERAL ASSEMBLY
3/4"=1'-0" 2

ENGRAVED LABEL DETAIL
PCI Industries LLC DBA Miami Dade County
ALL-LITE Product Control
Ft Worth TX Approved
SO #123456

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By 
Miami-Dade Product Control

P.E. STAMP



07/11/2025
COA: 9090

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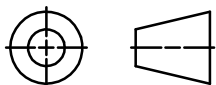
TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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THIRD ANGLE PROJECTION



5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
GENERAL LOUVER ASSEMBLY

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 2 of 19

CHK'D BY: NW

SCALE: 3/4"=1'-0"

DRAWN BY: LGH

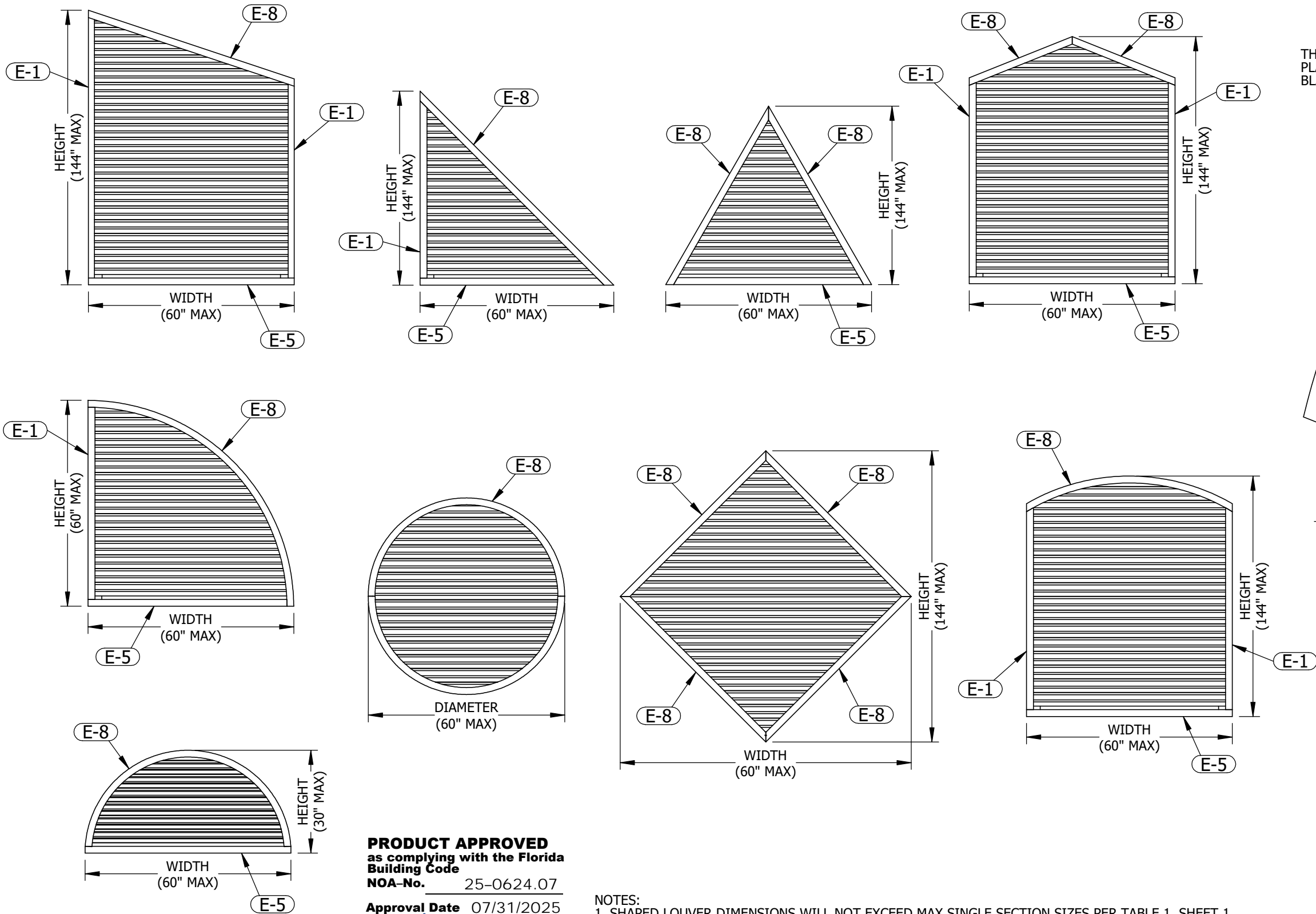
DRAWING NUMBER

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

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SHAPED LOUVER DETAILS



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07/11/2025
COA: 9090

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control

NOTES:
1. SHAPED LOUVER DIMENSIONS WILL NOT EXCEED MAX SINGLE SECTION SIZES PER TABLE 1, SHEET 1.
2. SEE SHEETS 11-13 FOR SHAPED LOUVER INSTALLATION DETAILS

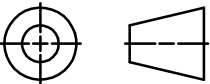
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TOLERANCE UNLESS NOTED:
X.X ±0.060
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THIRD ANGLE PROJECTION



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DRAWING DESCR:
SHAPED LOUVER DETAILS

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 3 of 19

CHK'D BY: NW

SCALE: NONE

DRAWN BY: LGH

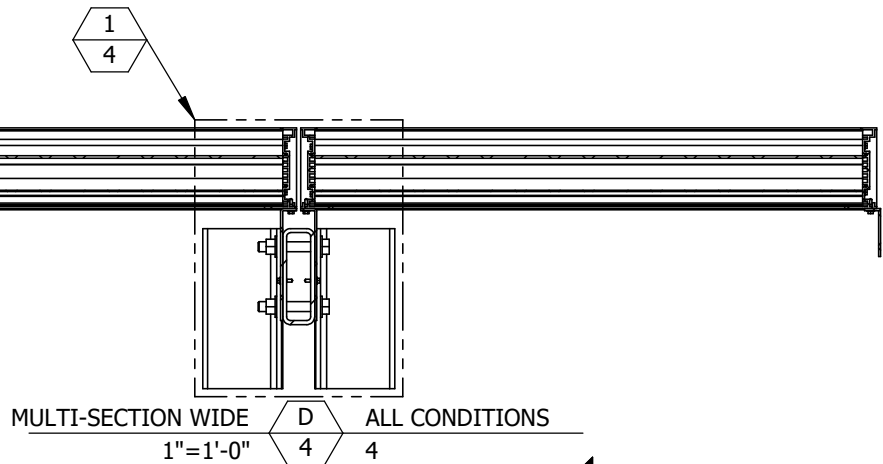
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ECD-545-MD NOA

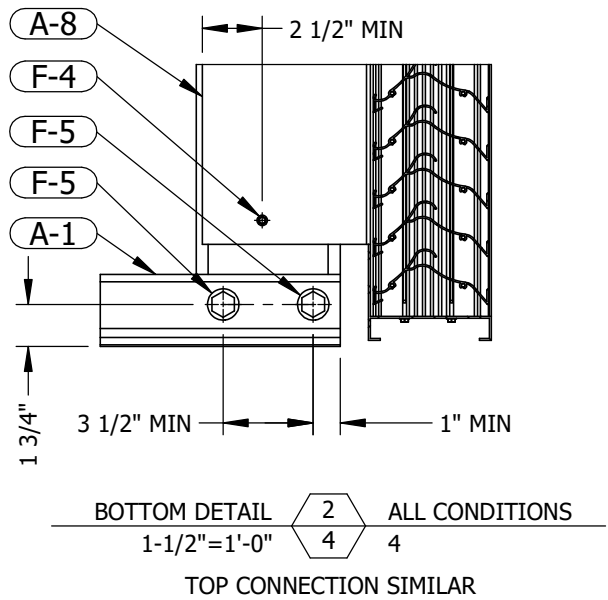
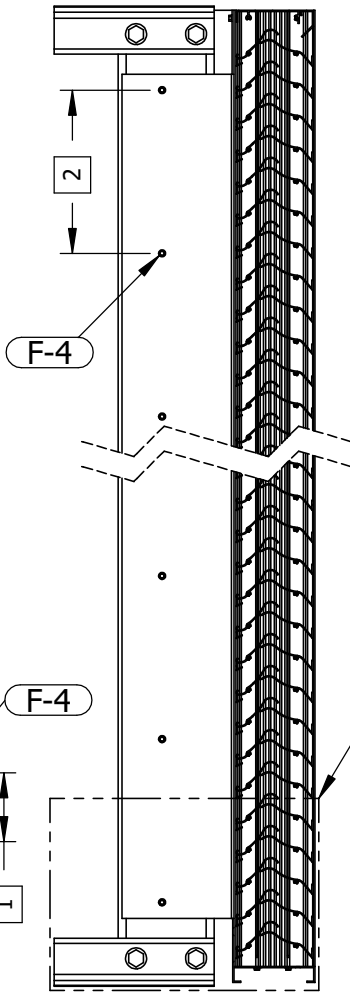
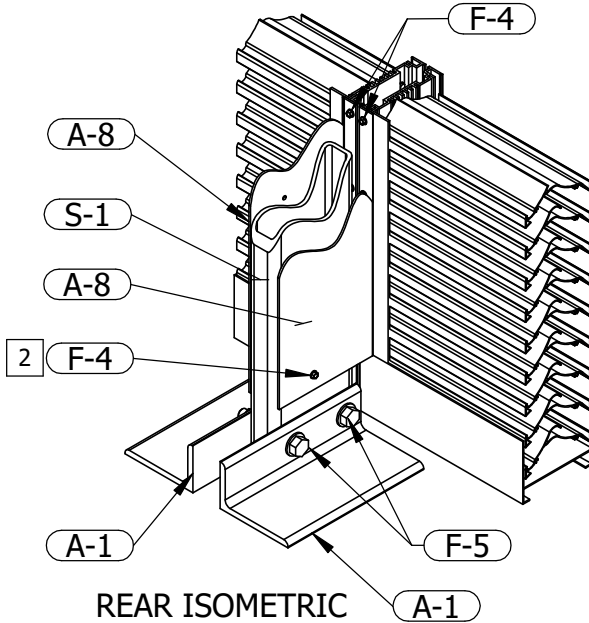
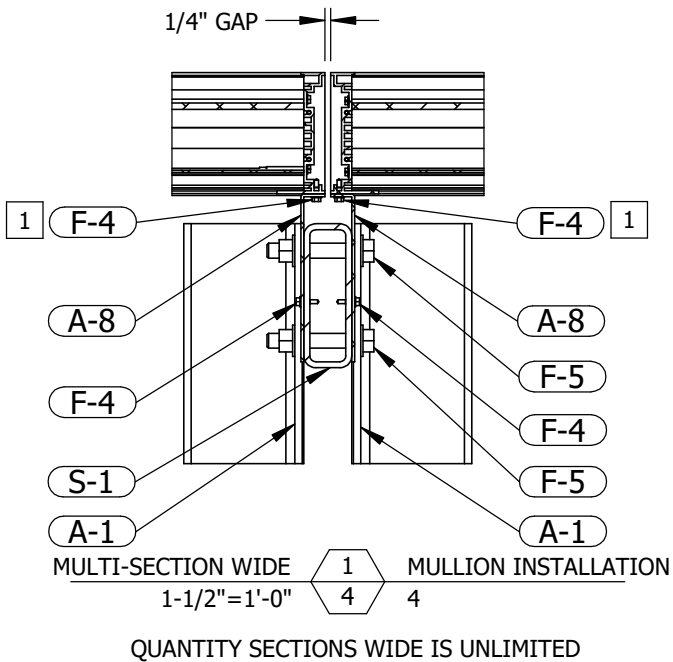
2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

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GENERAL MULLION DETAILS



PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control



- NOTES:
- SEE TABLE 4 ON SHEET 1 FOR MAX FASTENER SPACING.
 - 10" MAX O.C. FOR SECTIONS ≤ 60" WIDE.
9" MAX O.C. FOR SECTIONS > 60" WIDE.

P.E. STAMP



07/11/2025
COA: 9090

RICE

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Wayne K. Helm
Registration No: 59092

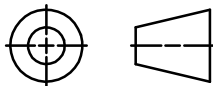
UNLESS OTHERWISE SPECIFIED
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TOLERANCE UNLESS NOTED:
X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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DRAWING DESCR:
GENERAL MULLION DETAILS

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 4 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

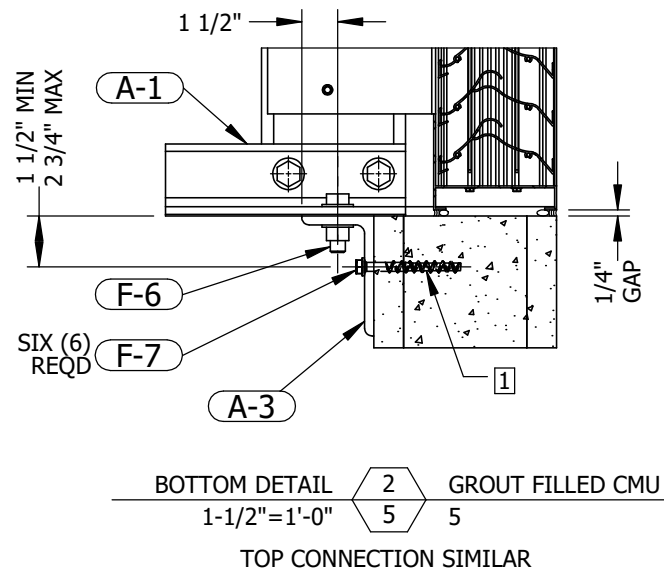
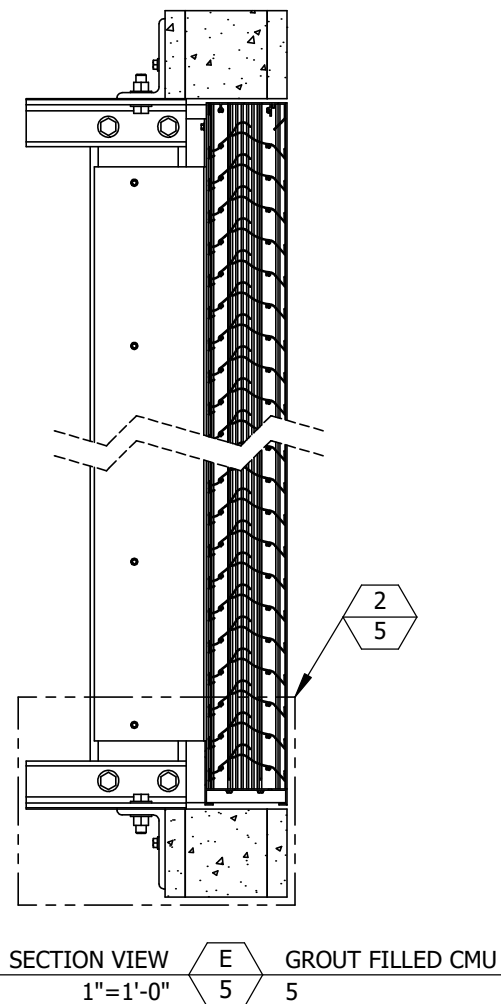
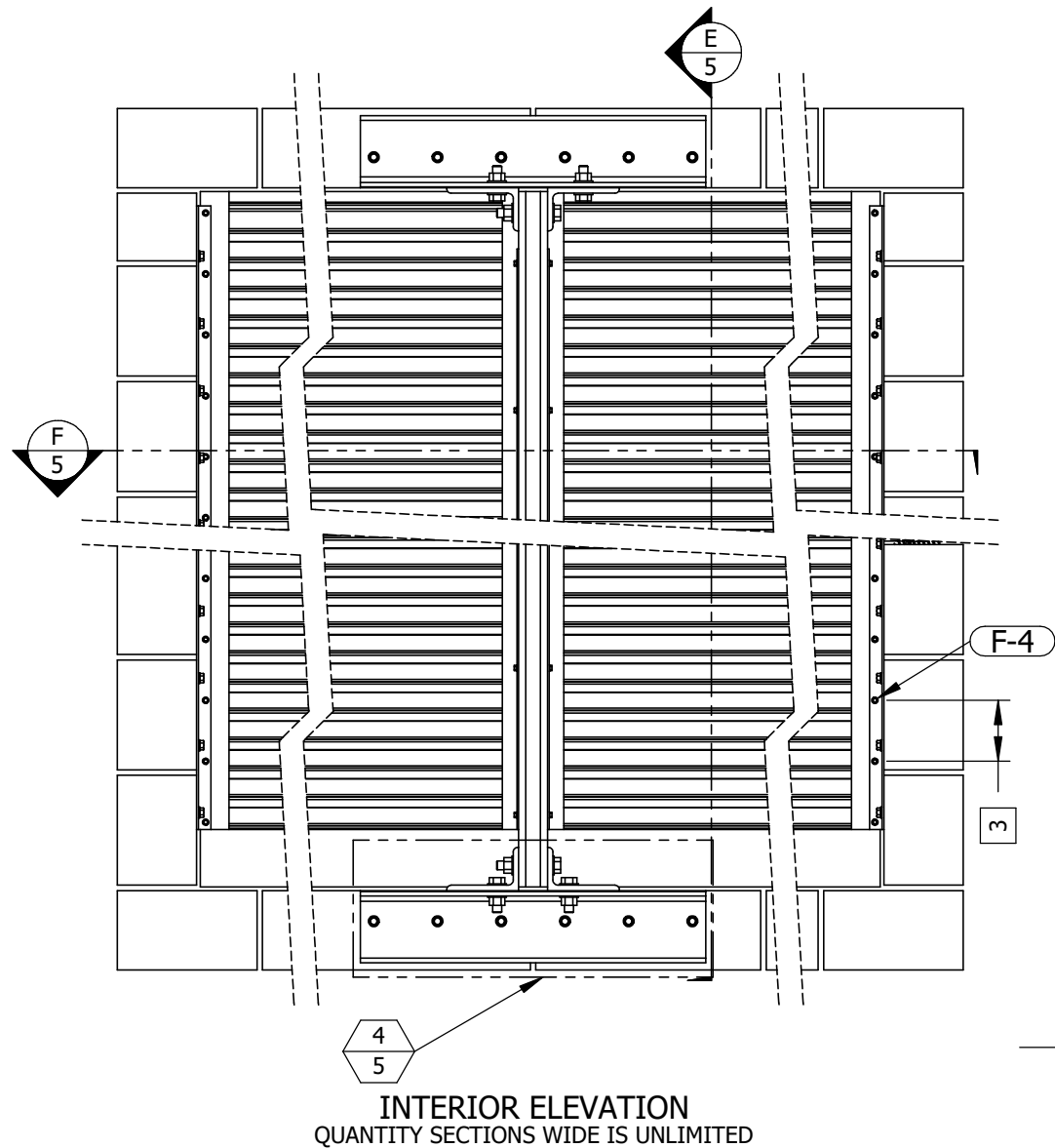
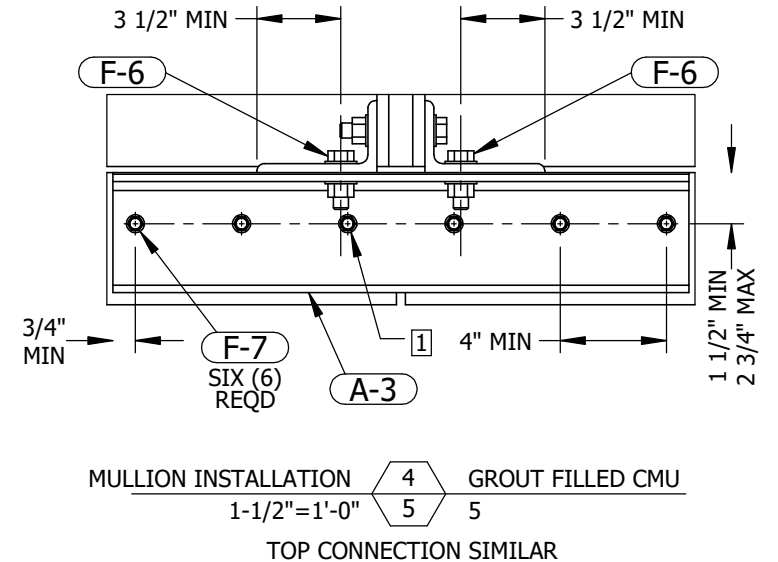
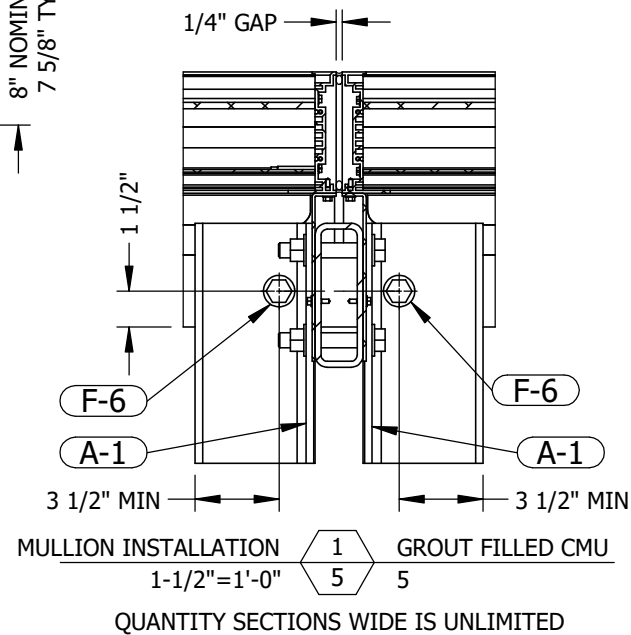
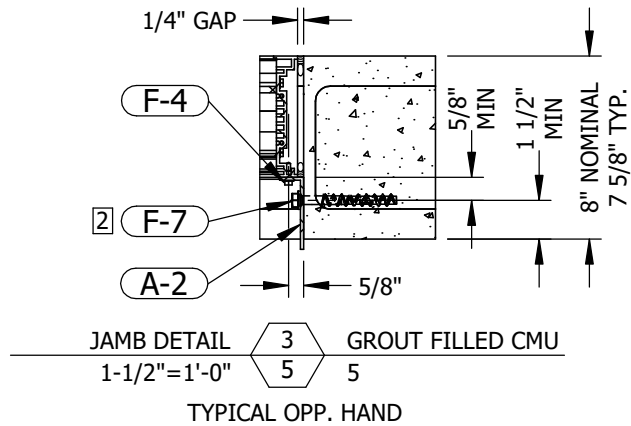
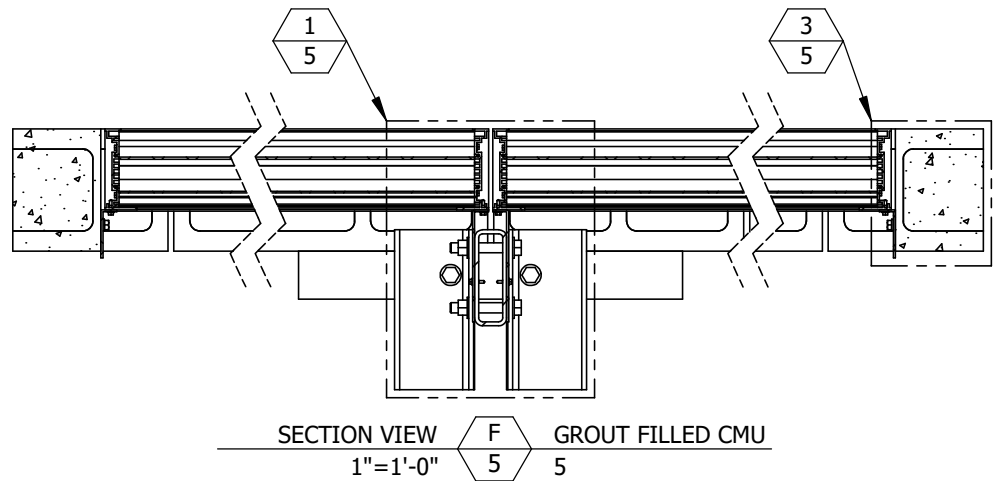
DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\



- NOTES:
- 1 NO ANCHOR MAY BE LOCATED CLOSER THAN 1-1/4" TO A VERTICAL (HEAD) JOINT BETWEEN CMU BLOCKS.
 - 2 SEE TABLE 3 ON SHEET 1 FOR ANCHOR SPACING.
 - 3 SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

GROUT FILLED CMU CONDITION

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control

P.E. STAMP



07/11/2025
COA: 9090

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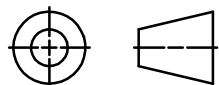
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

TOLERANCE UNLESS NOTED:
X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

PCI INDUSTRIES DOING BUSINESS AS
ALL-LITE
ARCHITECTURAL PRODUCTS

THIRD ANGLE PROJECTION



5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
GROUT FILLED CMU CONDITION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 5 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

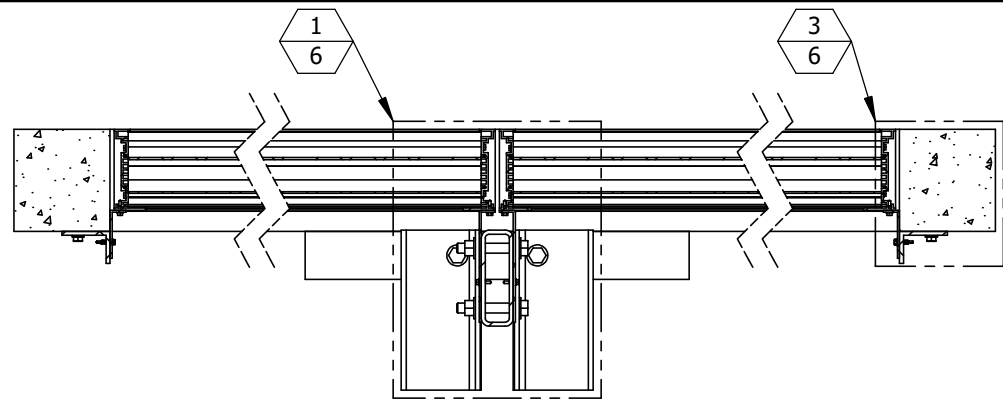
DRAWN BY: LGH

DRAWING NUMBER

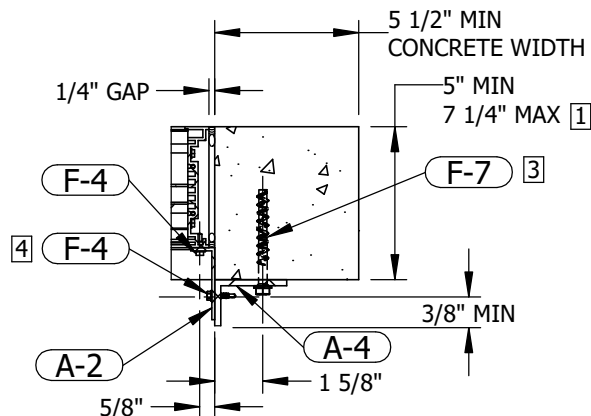
ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

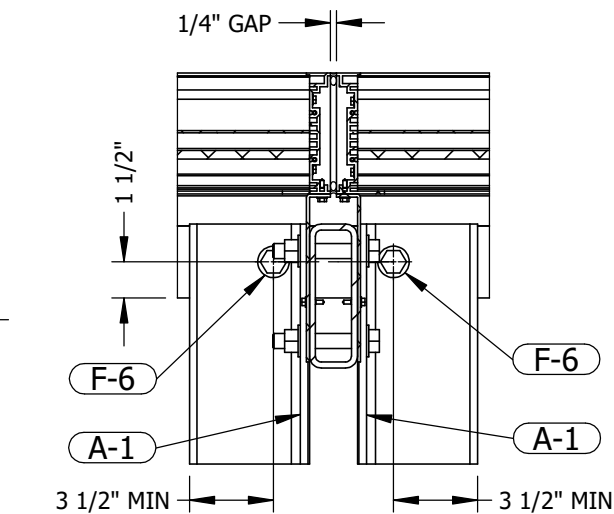
I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\



SECTION VIEW
1"=1'-0" H 6 TENSION 6

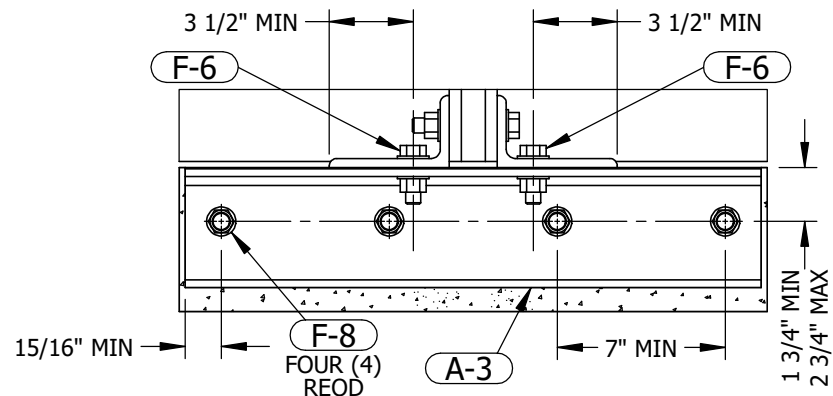


JAMB DETAIL
1-1/2"=1'-0" 3 6 TENSION 6
TYPICAL OPP. HAND



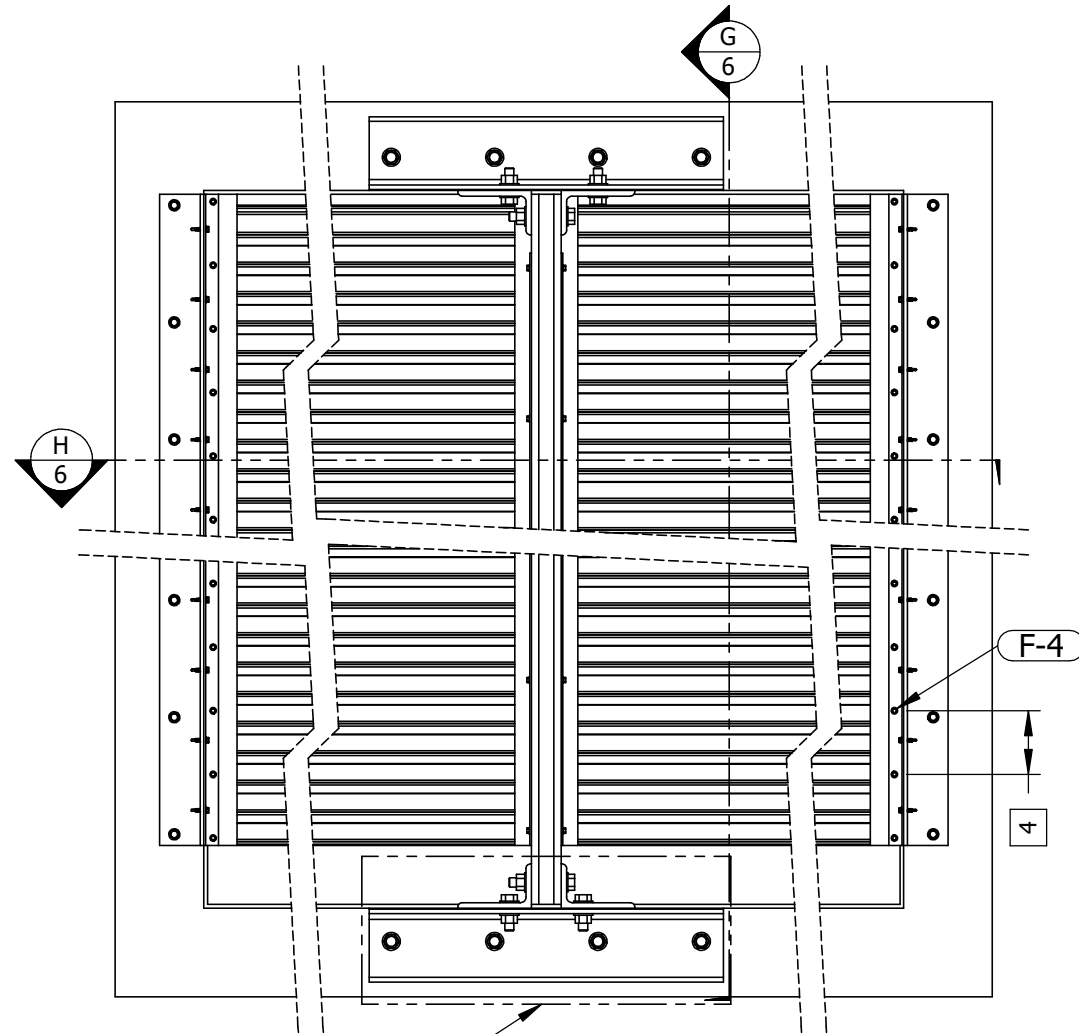
MULLION INSTALLATION
1-1/2"=1'-0" 1 6 TENSION 6

QUANTITY SECTIONS WIDE IS UNLIMITED

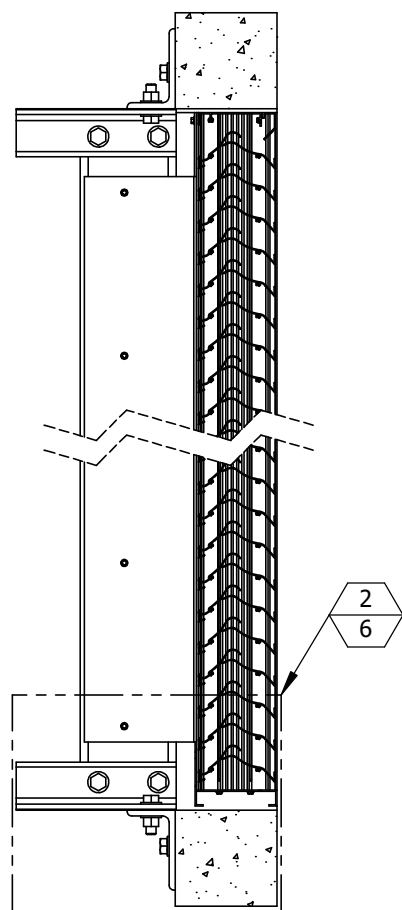


MULLION INSTALLATION
1-1/2"=1'-0" 4 6 TENSION 6

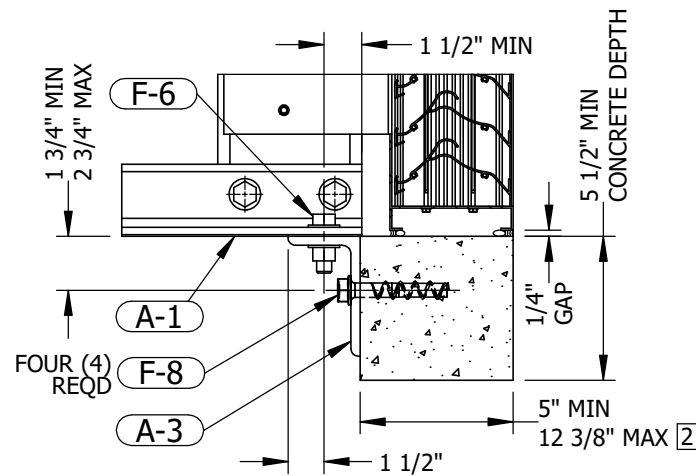
TOP CONNECTION SIMILAR



INTERIOR ELEVATION
QUANTITY SECTIONS WIDE IS UNLIMITED



SECTION VIEW
1"=1'-0" G 6 TENSION 6



BOTTOM DETAIL
1-1/2"=1'-0" 2 6 TENSION 6

TOP CONNECTION SIMILAR

NOTES:

- SEE SHEET 7 FOR SHEAR CONNECTION DETAILS WHEN CONCRETE CONDITION AT JAMB > 7 1/4" THICK.
- SEE SHEET 7 FOR SHEAR CONNECTION DETAILS WHEN CONCRETE CONDITION AT MULLION > 12 3/8" THICK.
- SEE TABLE 3 ON SHEET 1 FOR ANCHOR SPACING.
- SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

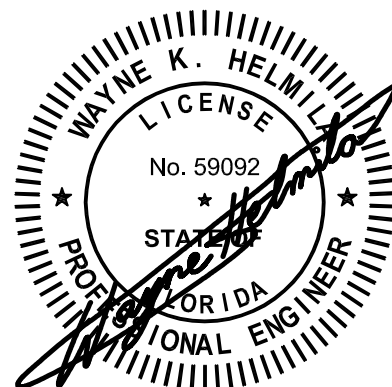
CONCRETE CONDITION TENSION CONNECTION

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07

Approval Date 07/31/2025

By *[Signature]*
Miami-Dade Product Control

P.E. STAMP



07/11/2025
COA: 9090

RICE

ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helm
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

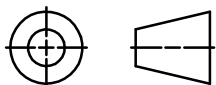
TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

PCI INDUSTRIES DOING BUSINESS AS
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THIRD ANGLE PROJECTION



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Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
CONCRETE CONDITION TENSION CONNECTION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 6 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

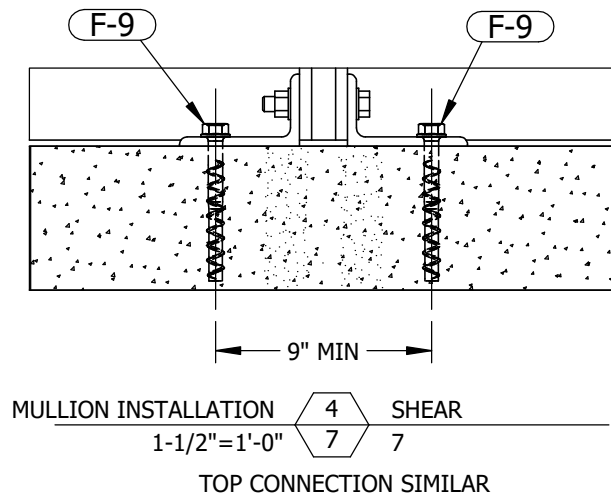
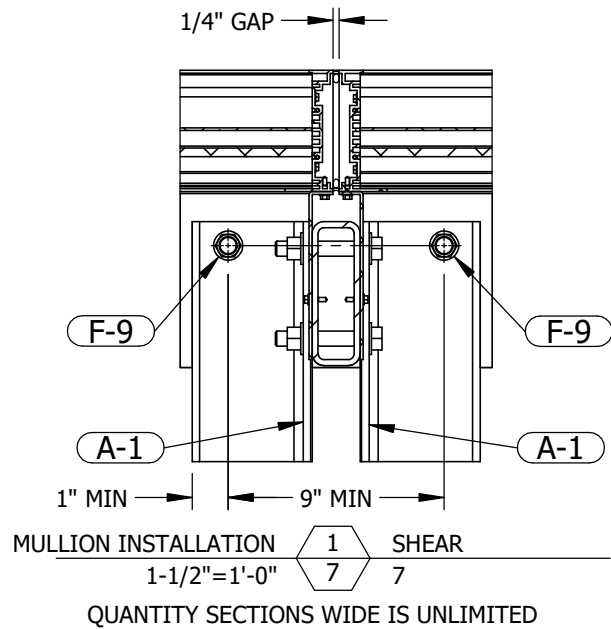
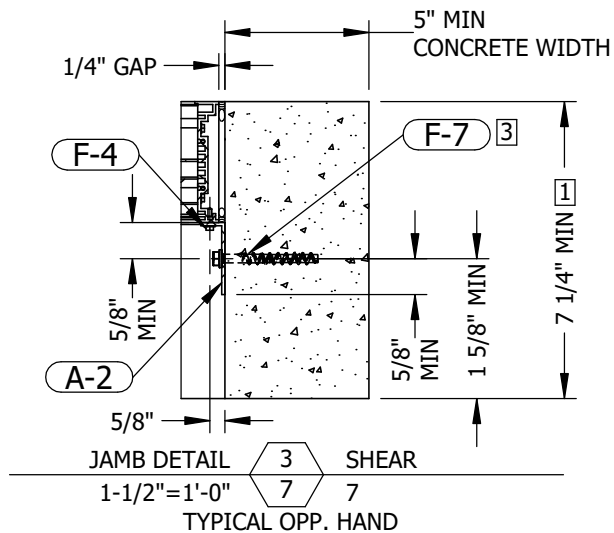
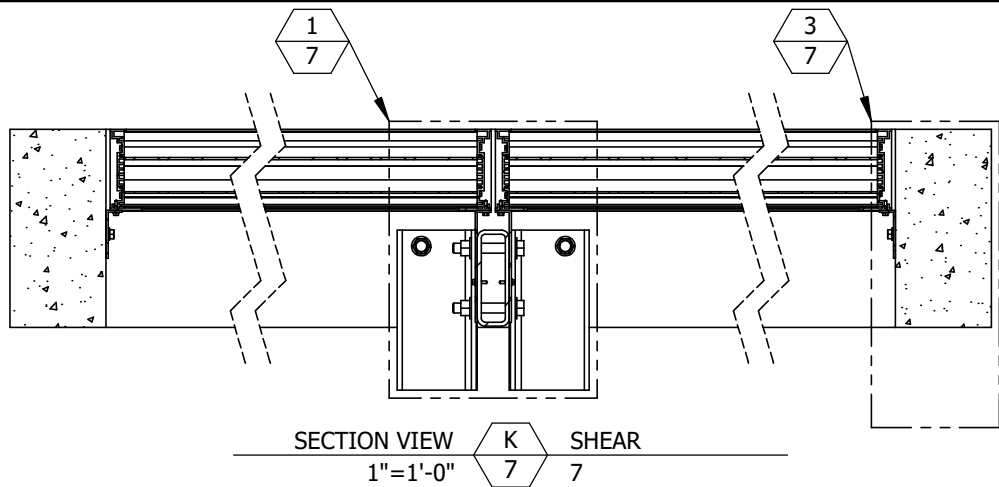
DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

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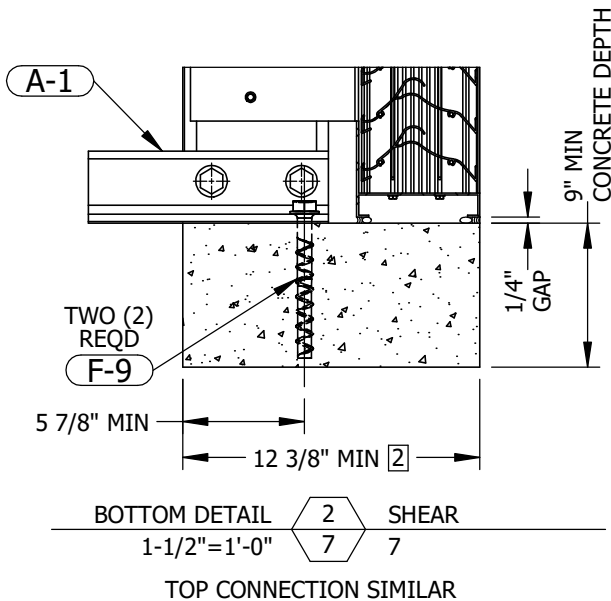


PRODUCT APPROVED
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NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control

P.E. STAMP



07/11/2025
COA: 9090



- NOTES:
- SEE SHEET 6 FOR TENSION CONNECTION DETAILS WHEN CONCRETE CONDITION AT JAMB $\leq 7 \frac{1}{4}$ " THICK.
 - SEE SHEET 6 FOR TENSION CONNECTION DETAILS WHEN CONCRETE CONDITION AT MULLION $\leq 12 \frac{3}{8}$ " THICK.
 - SEE TABLE 3 ON SHEET 1 FOR ANCHOR SPACING.
 - SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

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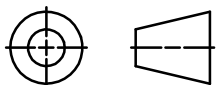
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X.X ± 0.060
X.XX ± 0.030
X.XXX ± 0.010
ANGLE $\pm 1^\circ$
FRACTION $\pm 1/16$

MAX HOLE BREAKOUT:
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DRAWING DESCR:
CONCRETE CONDITION SHEAR CONNECTION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 7 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

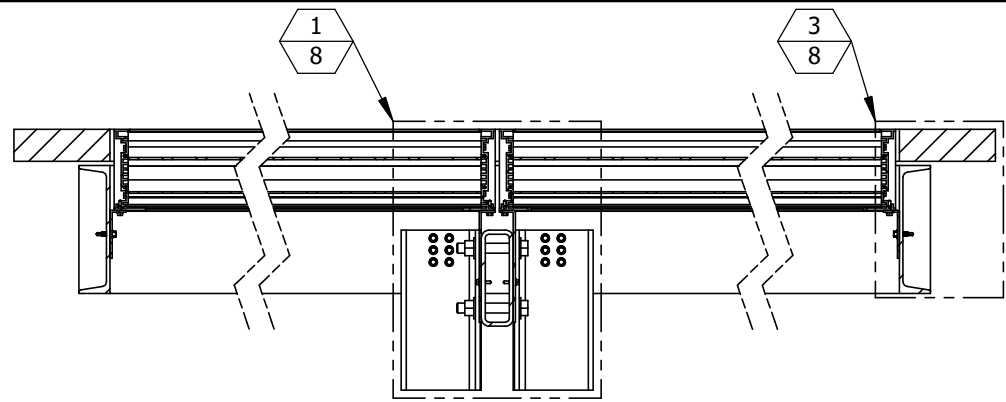
DRAWN BY: LGH

DRAWING NUMBER

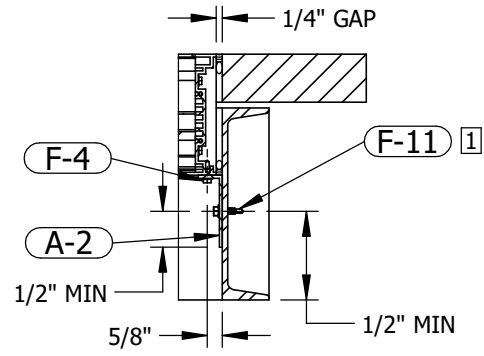
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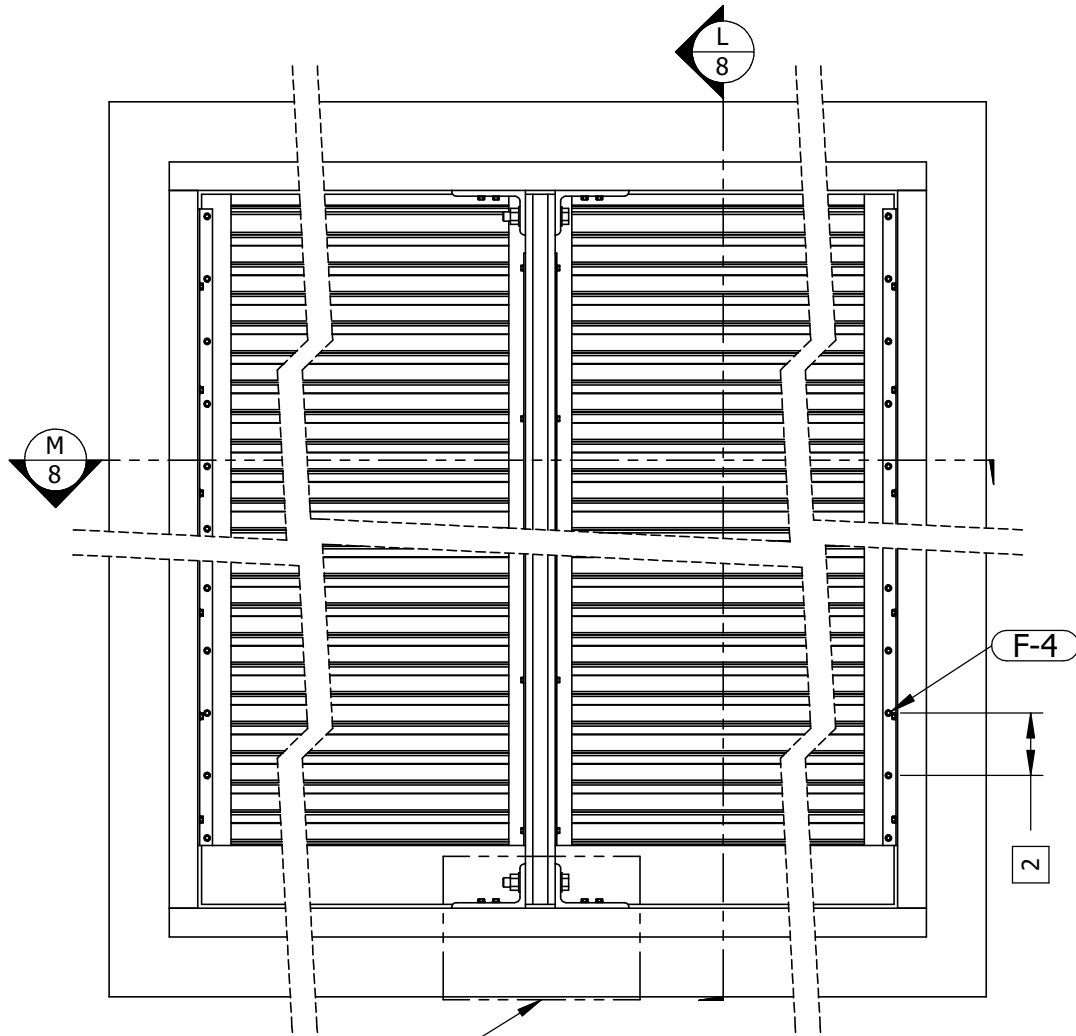
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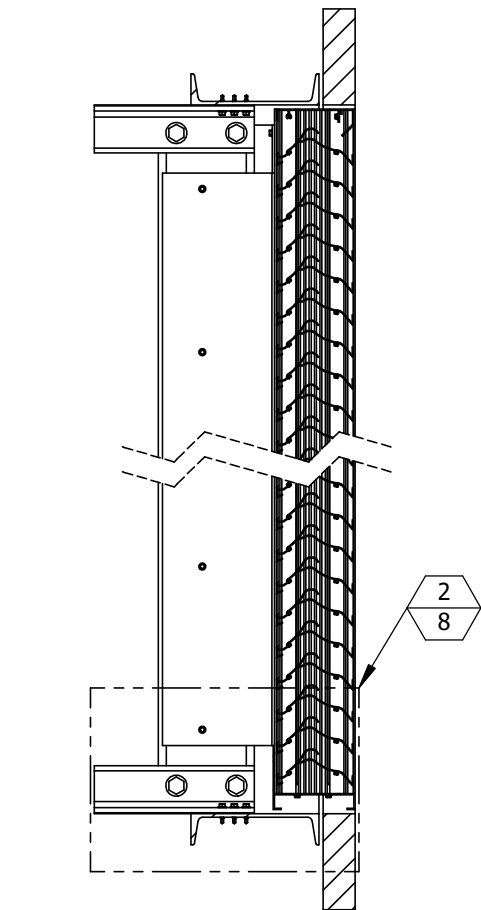
SECTION VIEW M STEEL
1"=1'-0"



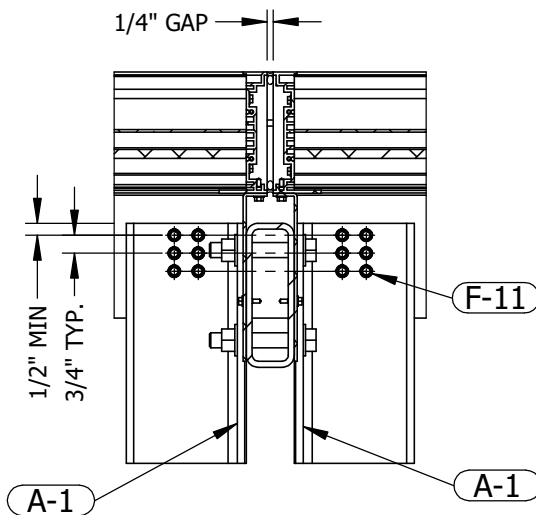
JAMB DETAIL 3 STEEL
1-1/2"=1'-0"
TYPICAL OPP. HAND



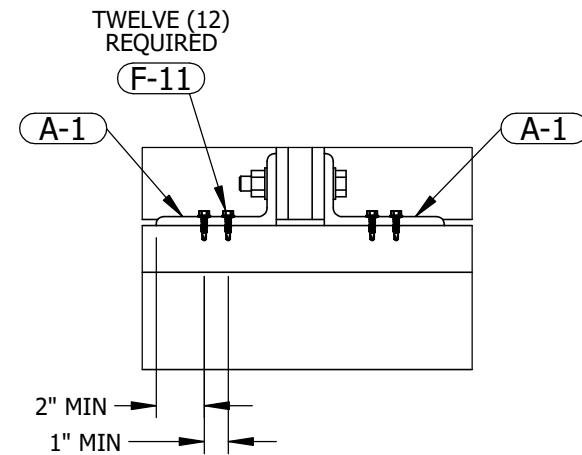
INTERIOR ELEVATION 4 STEEL
QUANTITY SECTIONS WIDE IS UNLIMITED



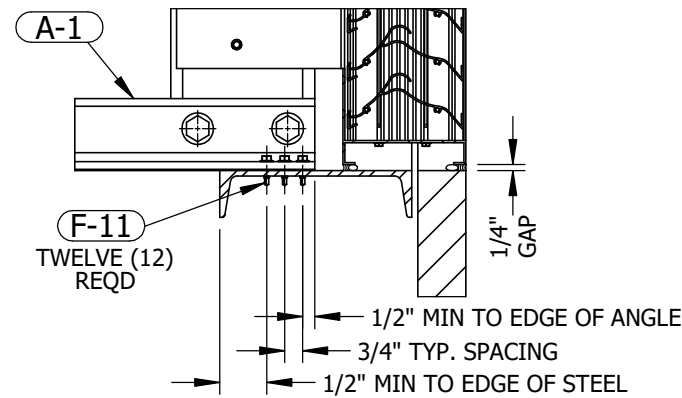
SECTION VIEW L STEEL
1"=1'-0"



MULLION INSTALLATION 1 STEEL
1-1/2"=1'-0"
QUANTITY SECTIONS WIDE IS UNLIMITED




MULLION INSTALLATION 4 STEEL
1-1/2"=1'-0"
TOP CONNECTION SIMILAR



BOTTOM DETAIL 2 STEEL
1-1/2"=1'-0"
TOP CONNECTION SIMILAR

- NOTES:
- SEE TABLE 3 ON SHEET 1 FOR ANCHOR SPACING.
 - SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

STEEL CONDITION

PRODUCT APPROVED
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Building Code
NOA-No. 25-0624.07
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By 
Miami-Dade Product Control

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07/11/2025
COA: 9090

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Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

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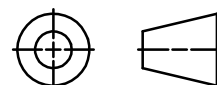
TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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DRAWING DESCR:
STEEL CONDITION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 8 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

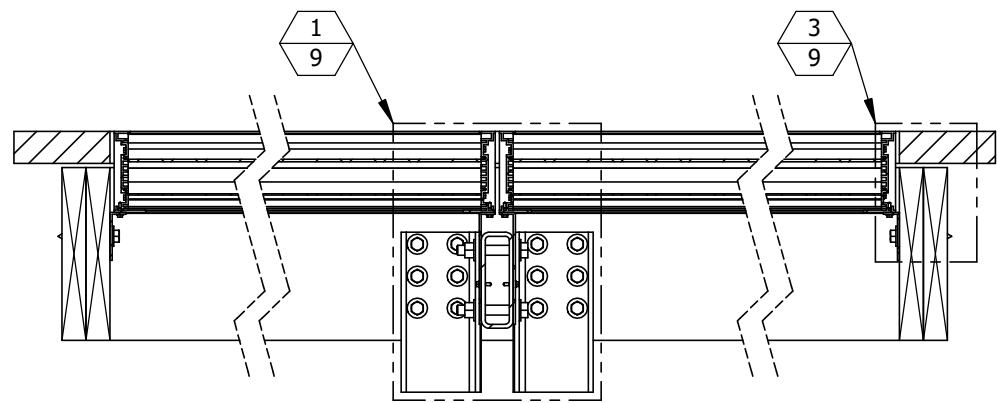
DRAWN BY: LGH

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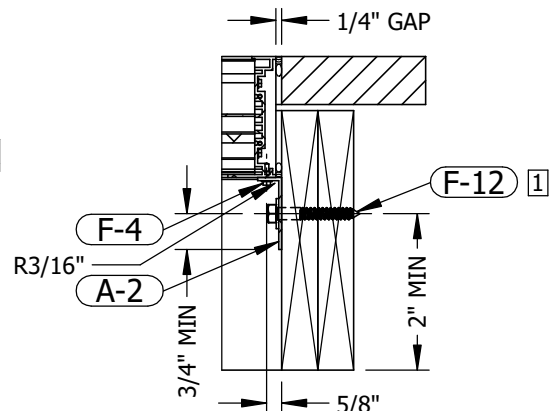
ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
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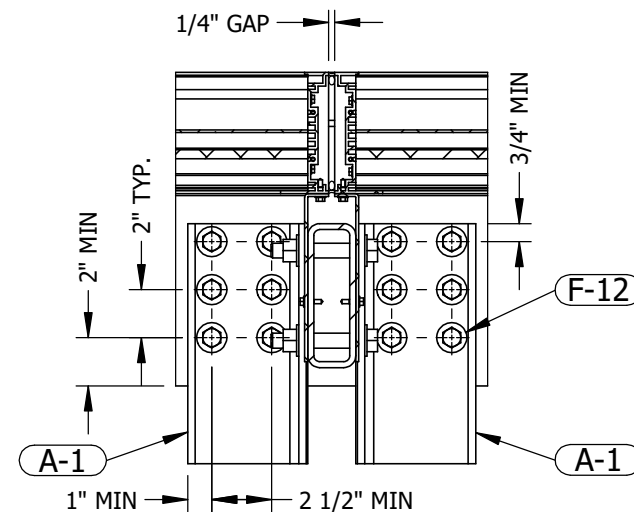
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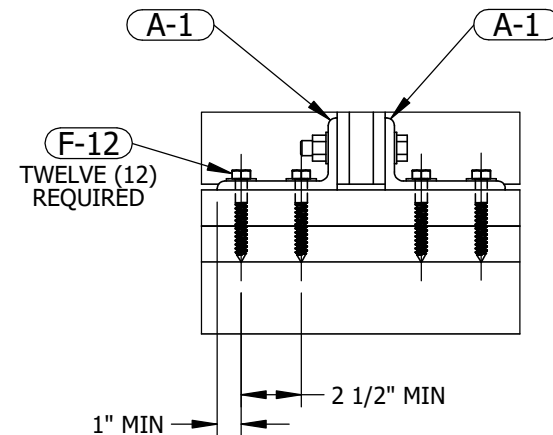
SECTION VIEW P WOOD
1"=1'-0" 9 9



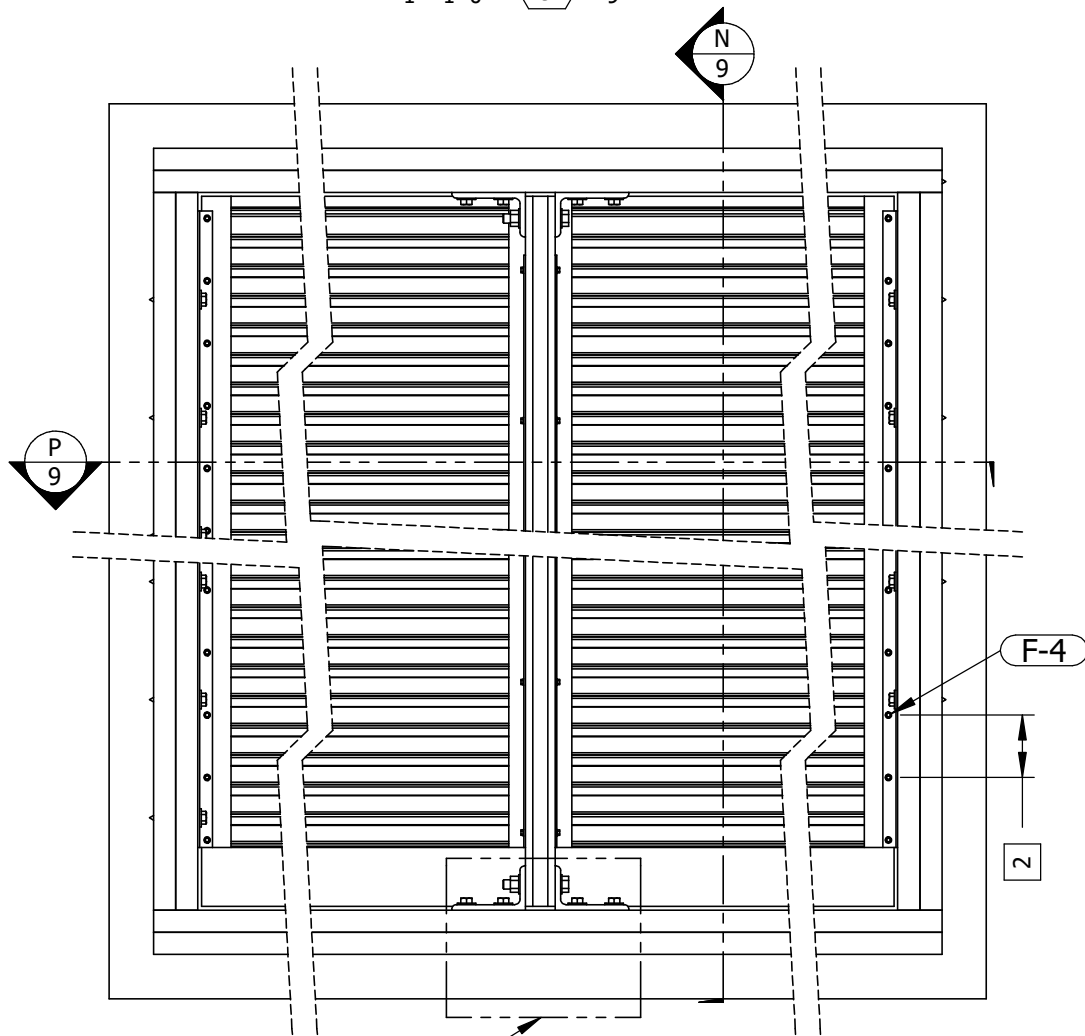
JAMB DETAIL 3 WOOD
1-1/2"=1'-0" 9 9
TYPICAL OPP. HAND



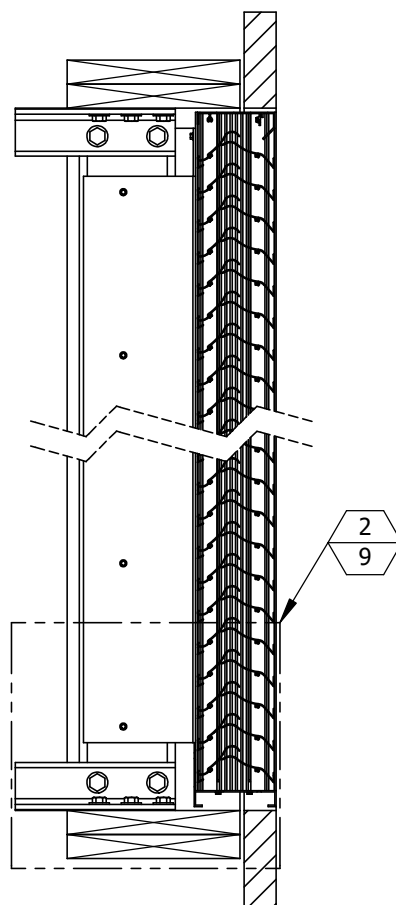
MULLION INSTALLATION 1 WOOD
1-1/2"=1'-0" 9 9
QUANTITY SECTIONS WIDE IS UNLIMITED



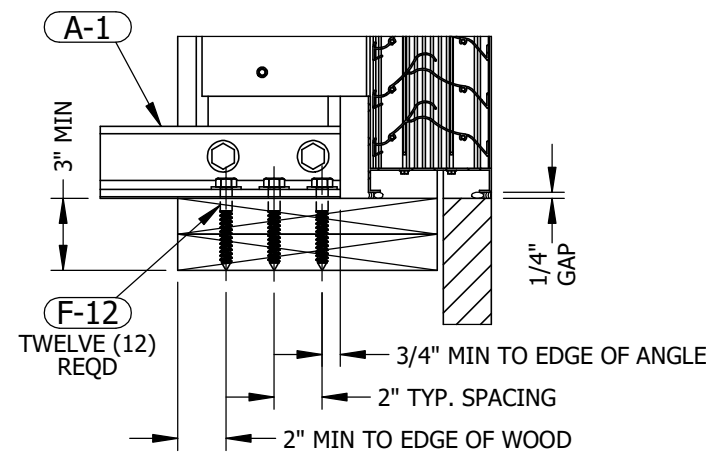
MULLION INSTALLATION 4 WOOD
1-1/2"=1'-0" 9 9
TOP CONNECTION SIMILAR



INTERIOR ELEVATION
QUANTITY SECTIONS WIDE IS UNLIMITED



SECTION VIEW N WOOD
1"=1'-0" 9 9



BOTTOM DETAIL 2 WOOD
1-1/2"=1'-0" 9 9

TOP CONNECTION SIMILAR

- NOTES:
1 SEE TABLE 3 ON SHEET 1 FOR ANCHOR SPACING.
2 SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

WOOD CONDITION

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07

Approval Date 07/31/2025

By 
Miami-Dade Product Control

P.E. STAMP



07/11/2025
COA: 9090

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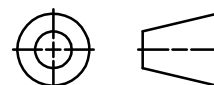
TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
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FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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DRAWING DESCR:
WOOD CONDITION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 9 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

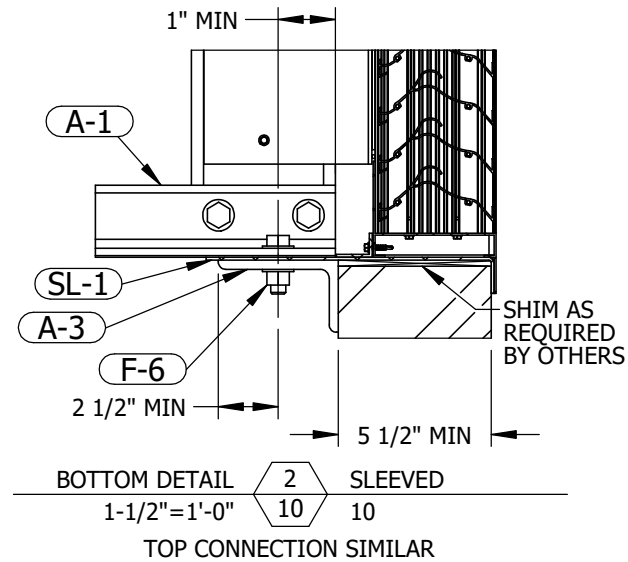
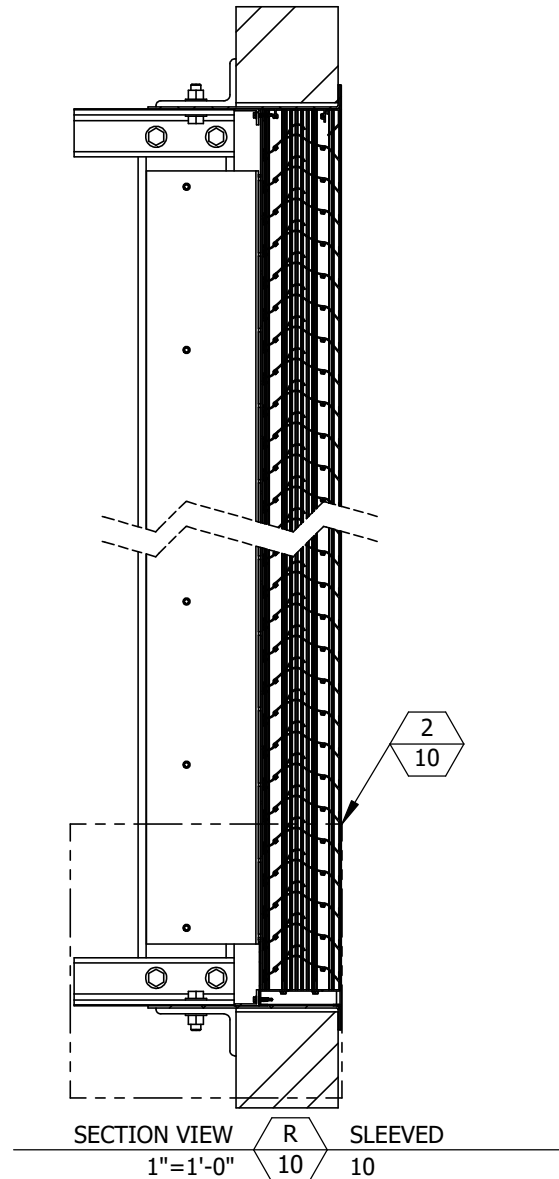
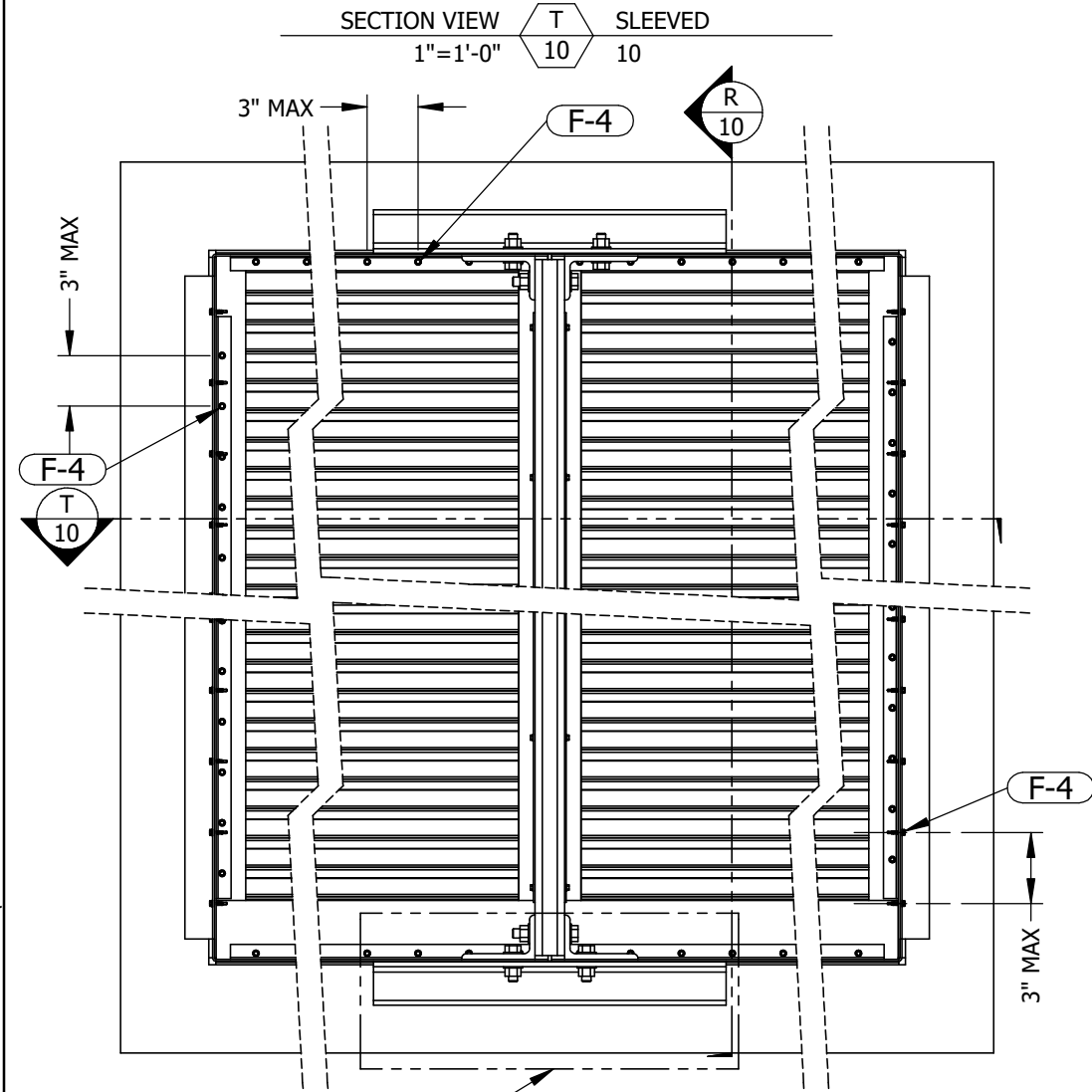
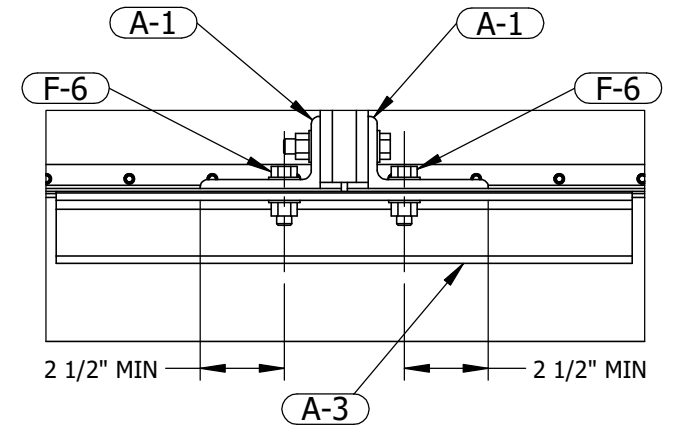
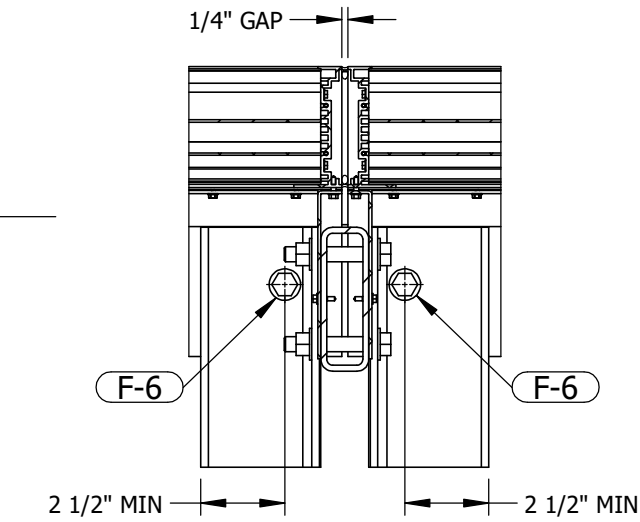
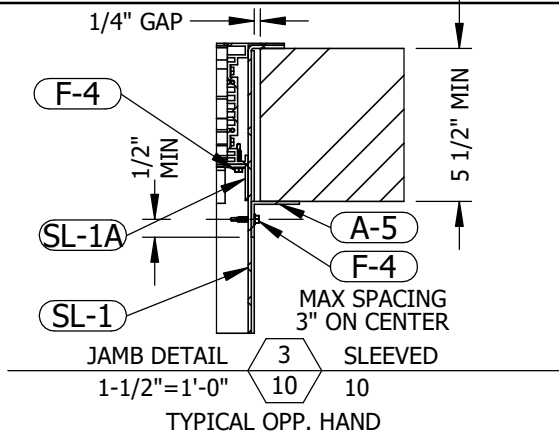
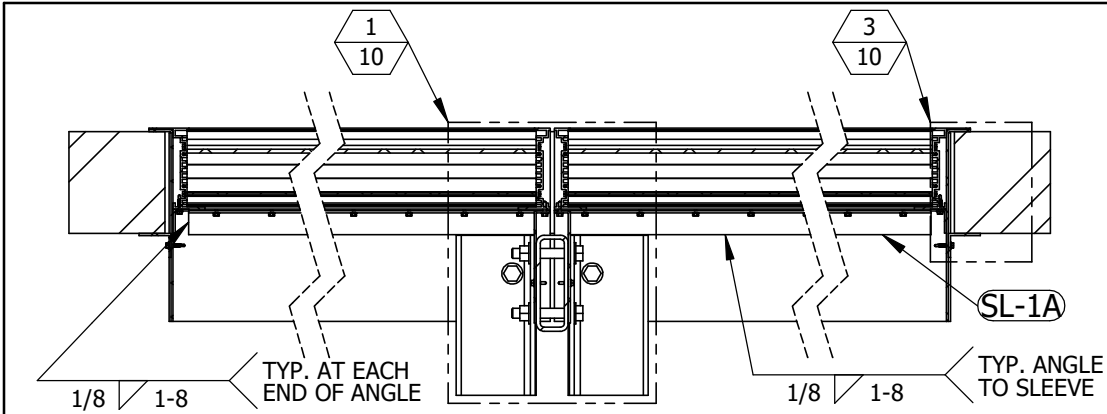
DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

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COA: 9090

INTERIOR ELEVATION
QUANTITY SECTIONS WIDE IS UNLIMITED

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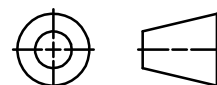
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ANGLE ±1°
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MAX HOLE BREAKOUT:
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DRAWING DESCR:
SLEEVED

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 10 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

DRAWN BY: LGH

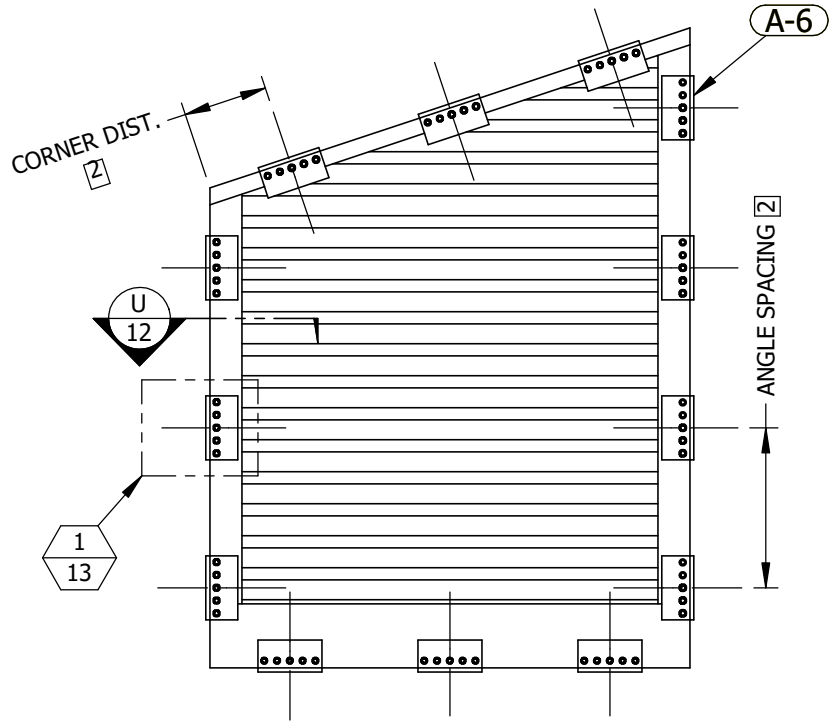
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ECD-545-MD NOA

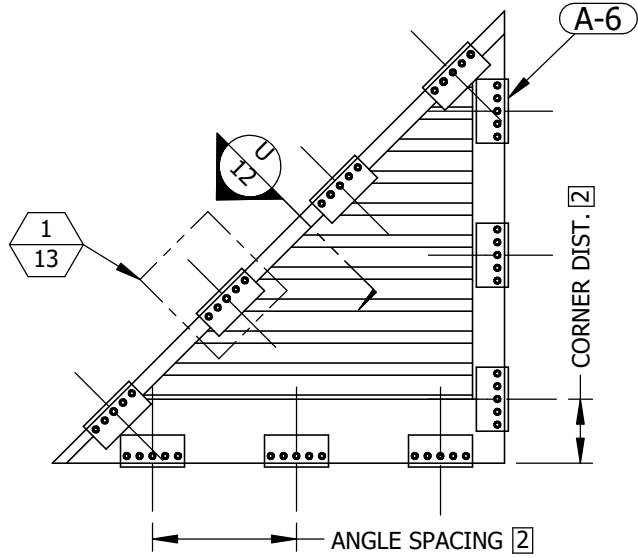
2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
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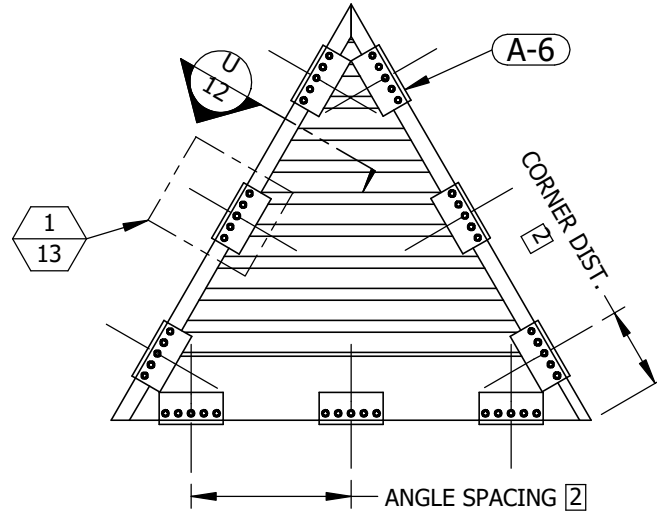
SPECIAL SHAPES INSTALLATION



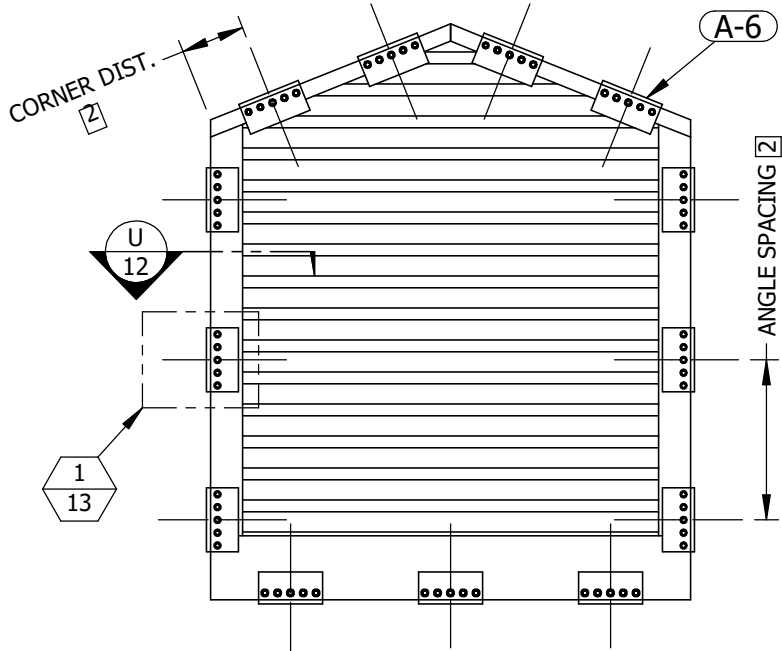
TRAPEZOID 1 REAR/INTERIOR VIEW
1"=1'-0" 11 11



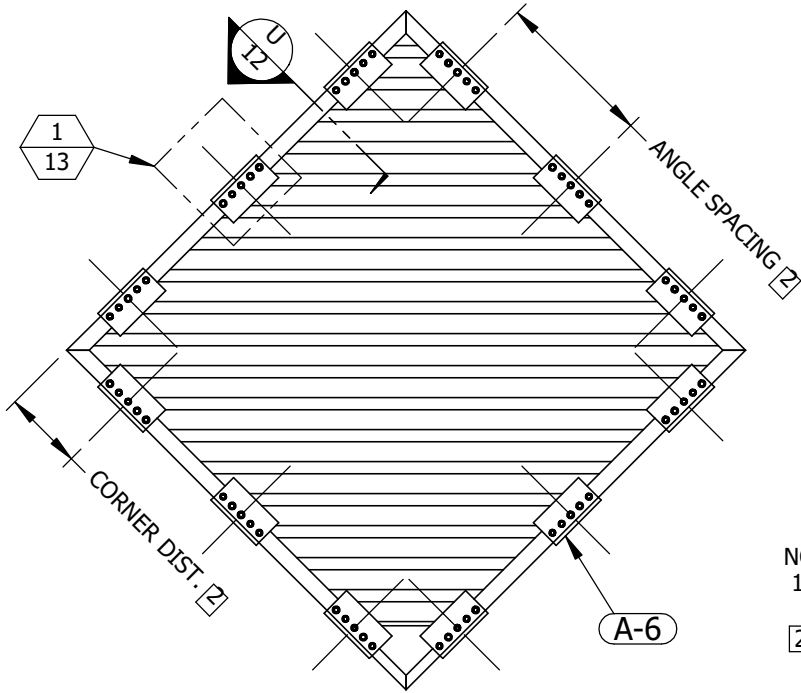
RIGHT TRIANGLE 2 REAR/INTERIOR VIEW
1"=1'-0" 11 11



ISOSCELES TRIANGLE 3 REAR/INTERIOR VIEW
1"=1'-0" 11 11



DOUBLE SLOPE TOP 4 REAR/INTERIOR VIEW
1"=1'-0" 11 11



DIAMOND 5 REAR/INTERIOR VIEW
1"=1'-0" 11 11

TABLE 5		
SHAPE CLIP ANGLE DIMENSIONS		
SUBSTRATE	ANGLE SPACING	CORNER DISTANCE
CONCRETE	8"	4"
GROUT-FILLED CMU	5 1/2"	2 3/4"
STEEL	10"	5"
WOOD	10"	5"

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07/11/2025
COA: 9090

PRODUCT APPROVED
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Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control

- NOTES:
1. SHAPED LOUVER WIDTH AND HEIGHT WILL NOT EXCEED 60" X 144".
 2. ALLOWABLE CLIP ANGLE SPACING AND CORNER DISTANCE VARY BY SUBSTRATE. SEE TABLE 5 FOR ALLOWABLE SPACING AND CORNER DISTANCE DIMENSIONS FOR EACH SUBSTRATE TYPE.
 3. CLIP ANGLES TO BE INSTALLED AROUND ENTIRE PERIMETER OF OPENING.

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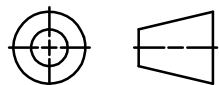
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X.XXX ±0.010
ANGLE ±1°
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THIRD ANGLE PROJECTION



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DRAWING DESCR:
SPECIAL SHAPES INSTALLATION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 11 of 19

CHK'D BY: NW

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

DRAWN BY: LGH

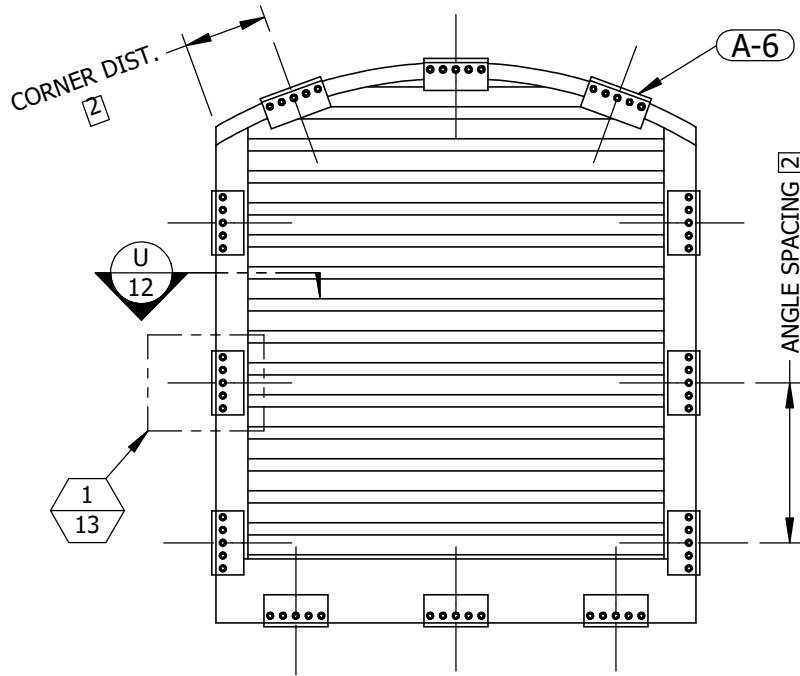
DRAWING NUMBER

ECD-545-MD NOA

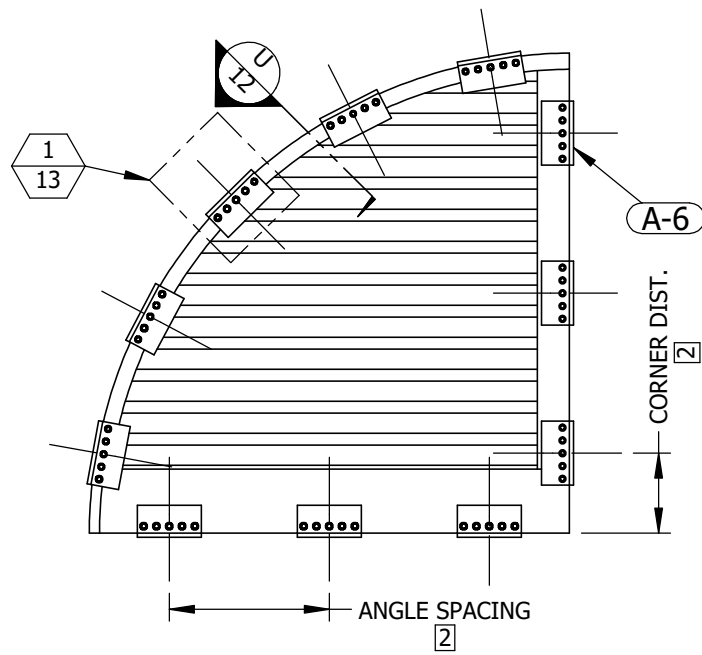
2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\

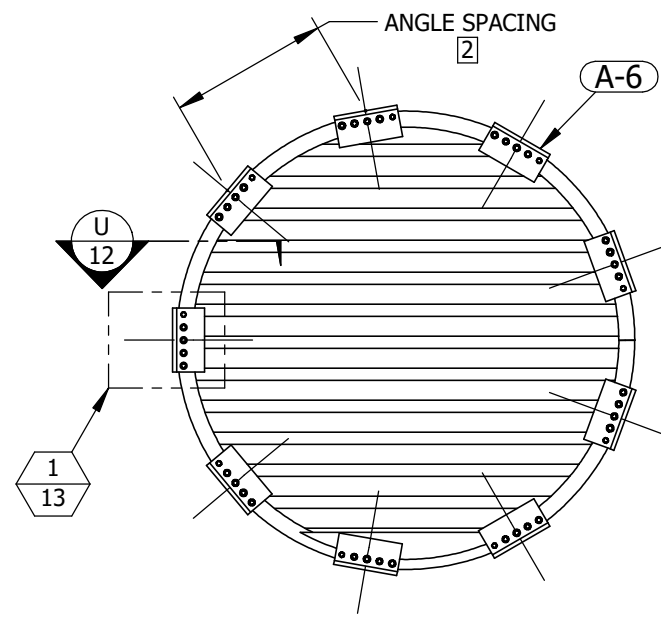
SPECIAL SHAPES INSTALLATION



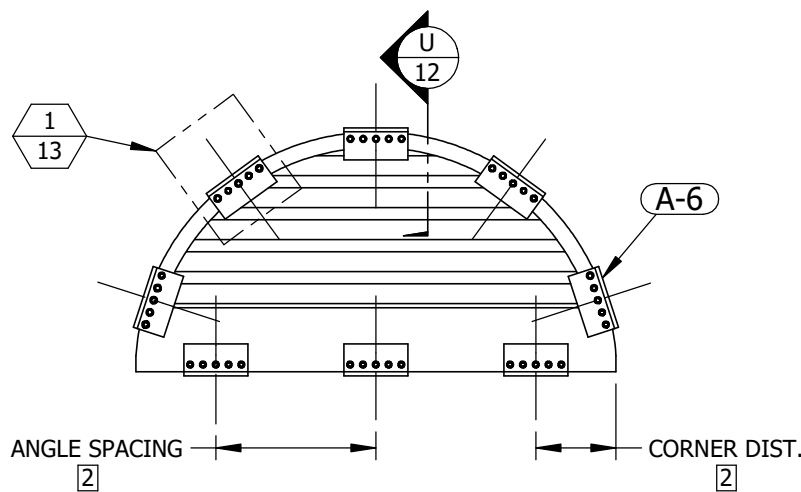
RADIUS TOP 1 12 REAR/INTERIOR VIEW
1"=1'-0"



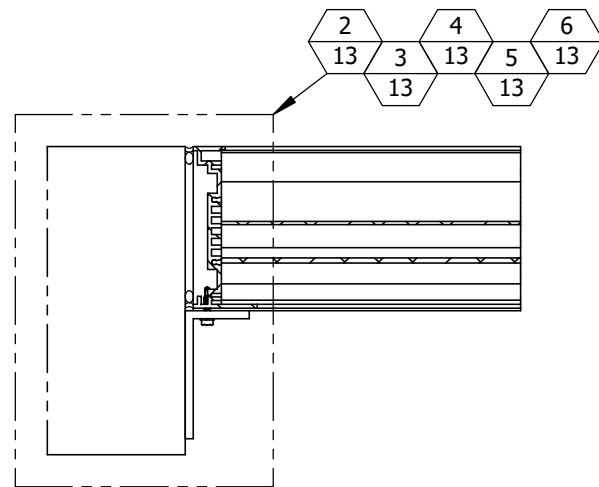
QUARTER ROUND 2 12 REAR/INTERIOR VIEW
1"=1'-0"



ROUND 3 12 REAR/INTERIOR VIEW
1"=1'-0"



HALF ROUND 4 12 REAR/INTERIOR VIEW
1"=1'-0"



SHAPE CLIP ANGLE U 12 SECTION VIEW
2"=1'-0"

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control

- NOTES:
1. SHAPED LOUVER WIDTH AND HEIGHT WILL NOT EXCEED 60" X 144".
 2. ALLOWABLE CLIP ANGLE SPACING AND CORNER DISTANCE VARY BY SUBSTRATE. SEE TABLE 5, SHEET 11 FOR ALLOWABLE SPACING AND CORNER DISTANCE DIMENSIONS FOR EACH SUBSTRATE TYPE.
 3. CLIP ANGLES TO BE INSTALLED AROUND ENTIRE PERIMETER OF OPENING.

P.E. STAMP



07/11/2025
COA: 9090

RICE
ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

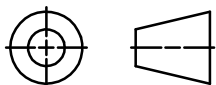
TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

PCI INDUSTRIES DOING BUSINESS AS
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ARCHITECTURAL PRODUCTS

THIRD ANGLE PROJECTION



5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
SPECIAL SHAPES INSTALLATION

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 12 of 19

CHK'D BY: NW

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

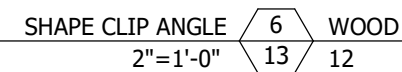
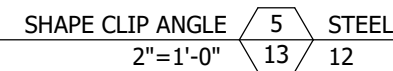
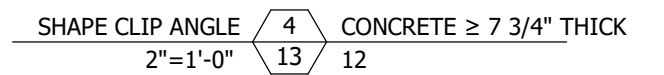
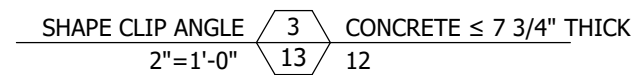
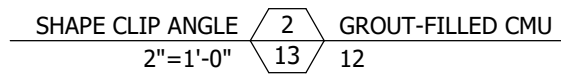
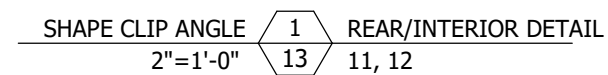
DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\

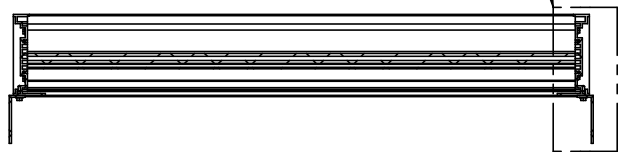
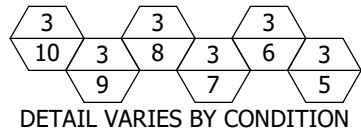


ECD-545-MD NOA

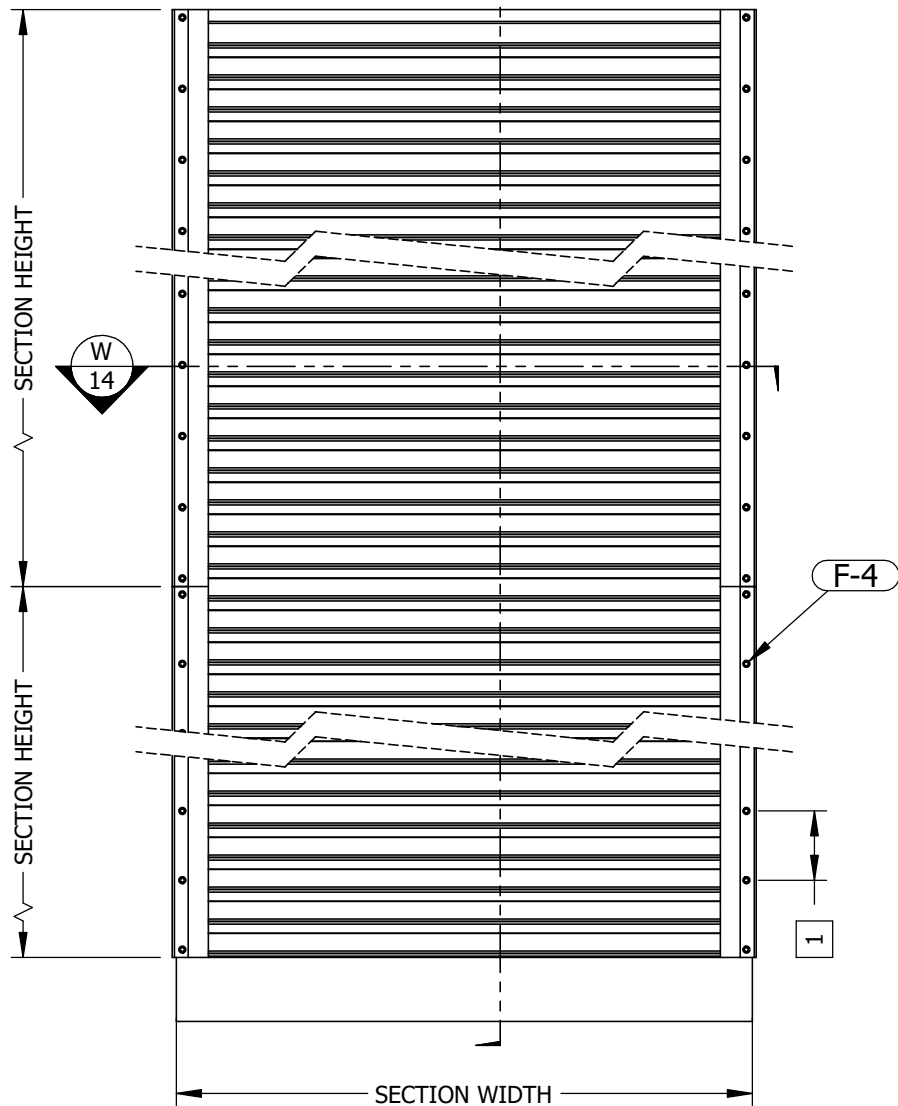
07/11/2025
COA: 9090

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

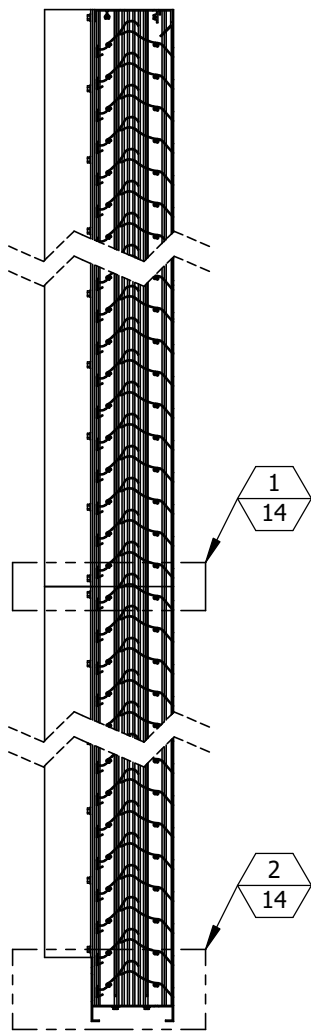
MULTI-SECTION HIGH



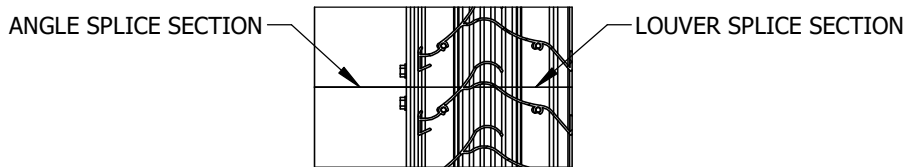
SECTION VIEW 1"=1'-0" MULTI-SECTION HIGH



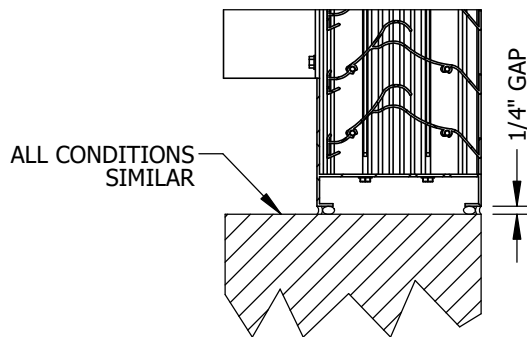
INTERIOR ELEVATION
QUANTITY SECTIONS HIGH IS UNLIMITED



SECTION VIEW 1"=1'-0" MULTI-SECTION HIGH



SPLICE SECTION 2"=1'-0" MULTI-SECTION HIGH



BOTTOM DETAIL 2"=1'-0" MULTI-SECTION HIGH
TOP CONNECTION SIMILAR

NOTES:
1 SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
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07/11/2025
COA: 9090

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Wayne K. Helmilt
Registration No: 59092

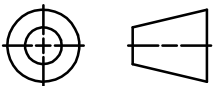
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

TOLERANCE UNLESS NOTED:
X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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Fort Worth, Texas 76106
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Fax: 817-831-3110

DRAWING DESCR:
MULTI-SECTION HIGH

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 14 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

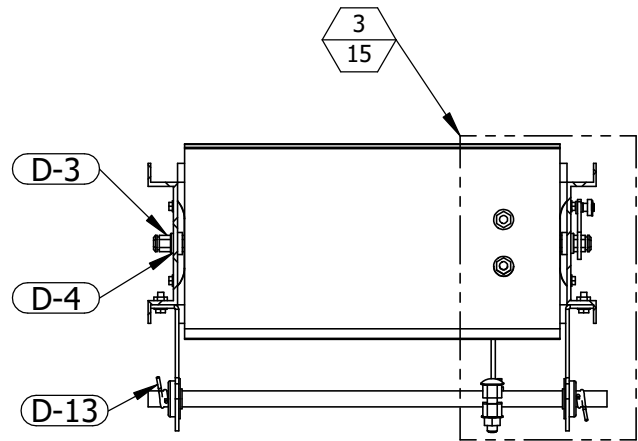
DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

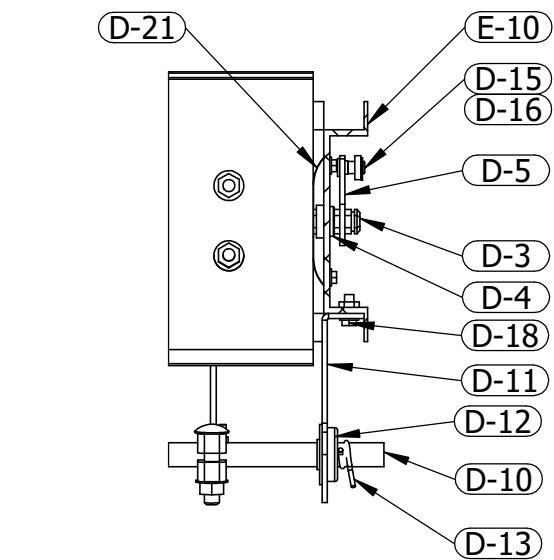
2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\



SECTION VIEW
6"=1'-0"

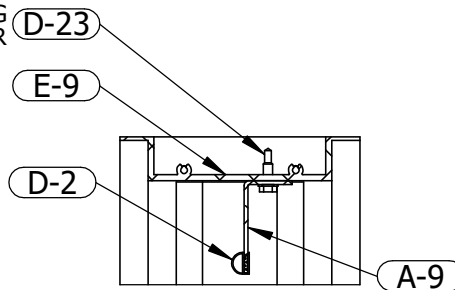
AA
15
CD-51
15



LINKAGE DETAIL
3"=1'-0"

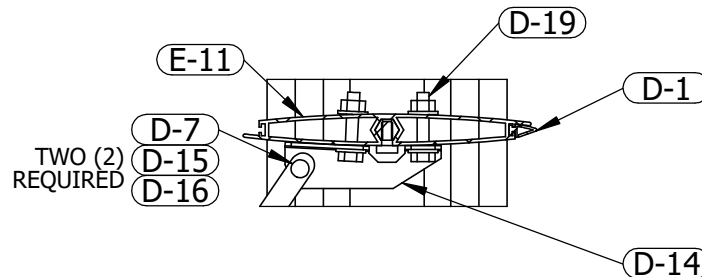
3
15
CD-51
15

MAX SPACING
12" ON CENTER



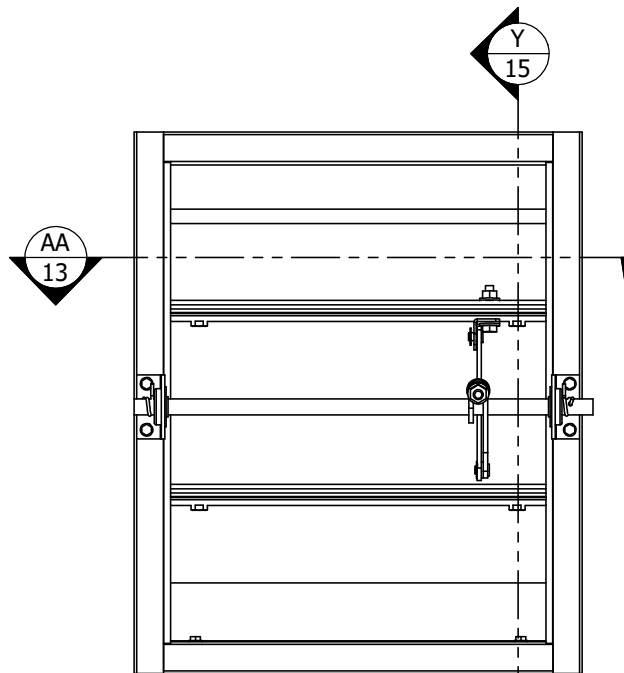
TOP DETAIL
3"=1'-0"

1
15
CD-51
15

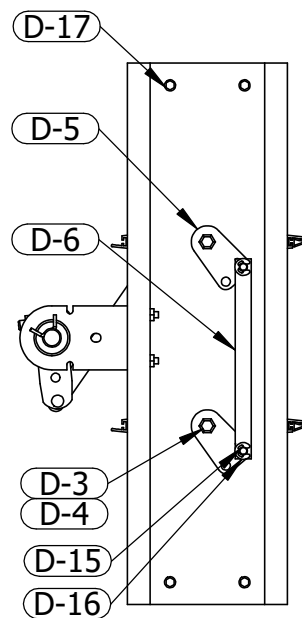


BLADE DETAIL
3"=1'-0"

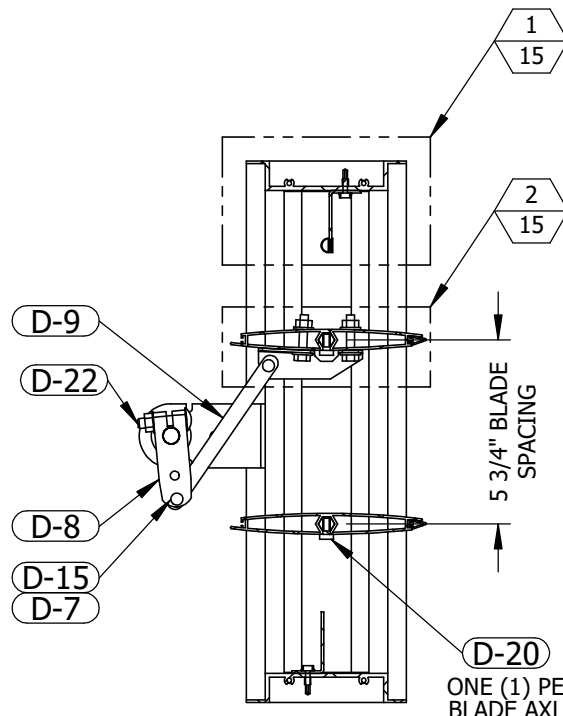
2
15
CD-51
15



INTERIOR ELEVATION



SIDE VIEW

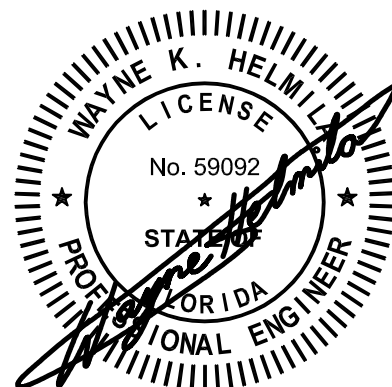


SECTION VIEW
6"=1'-0"

Y
15
CD-51
15

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control

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07/11/2025
COA: 9090

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Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
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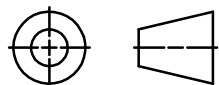
TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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THIRD ANGLE PROJECTION



5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
CD-51 DAMPER

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 15 of 19

CHK'D BY: NW

SCALE: 2"=1'-0"

DRAWN BY: LGH

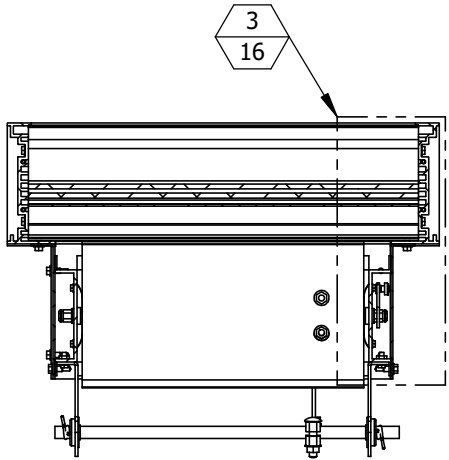
DRAWING NUMBER

ECD-545-MD NOA

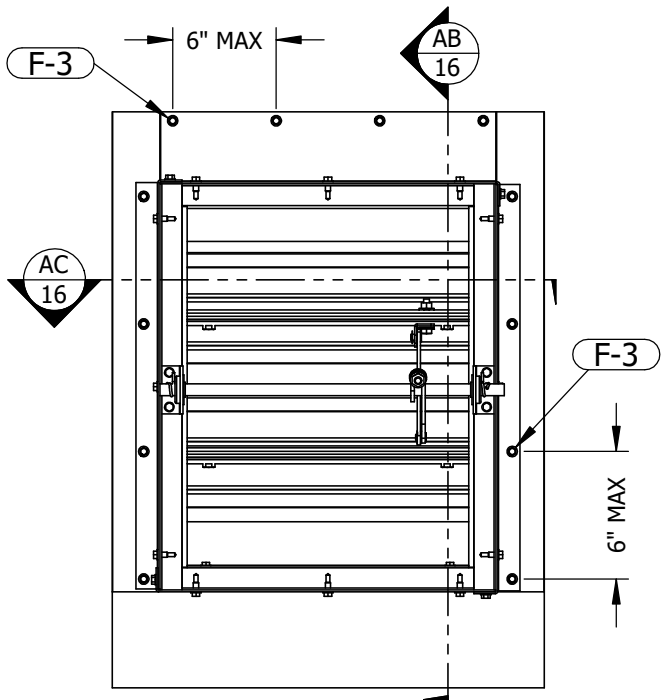
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1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\

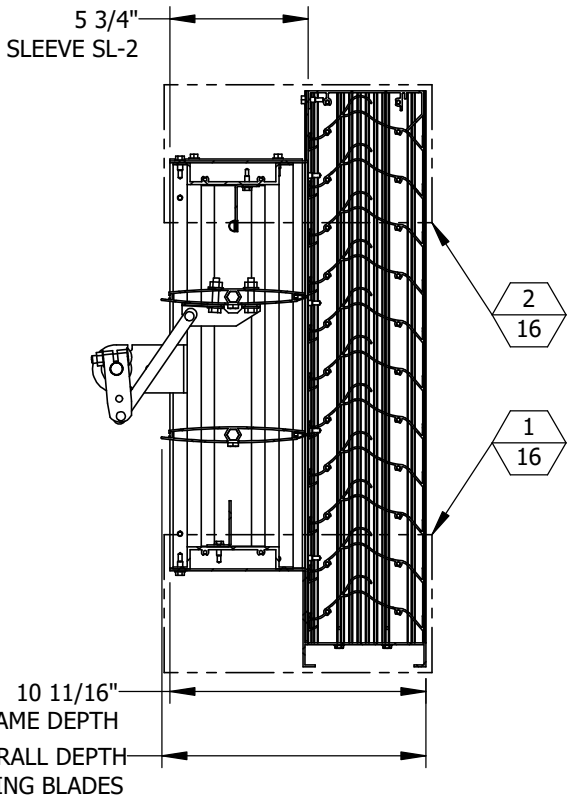
ECD-545-MD WITH CD-51 DAMPER



SECTION VIEW AC 3 16 ECD-545-MD WITH CD-51 16
1-1/2"=1'-0"

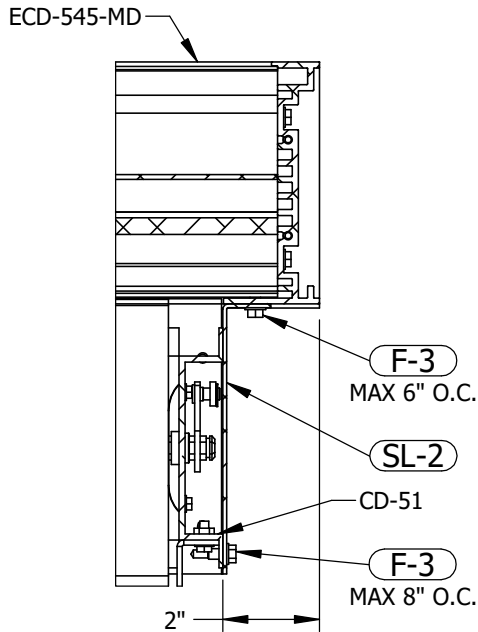


INTERIOR ELEVATION

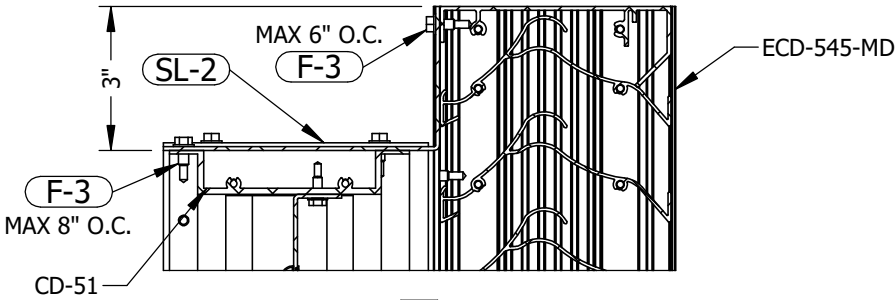


SECTION VIEW AB 16 ECD-545-MD WITH CD-51 16
1-1/2"=1'-0"

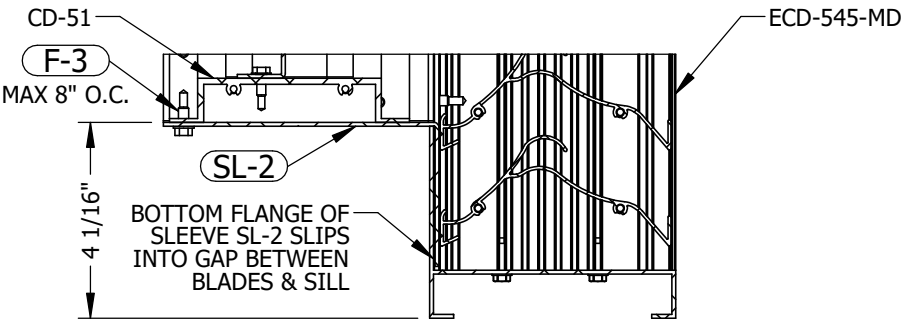
PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By *[Signature]*
Miami-Dade Product Control



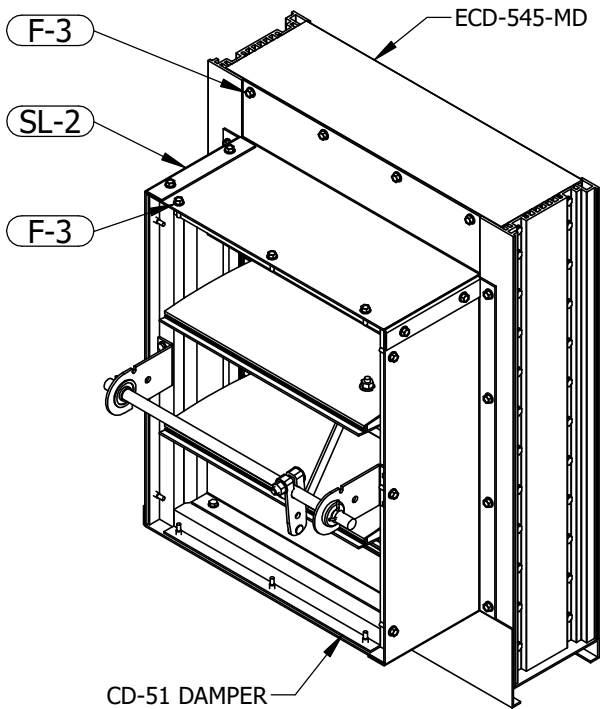
JAMB INTERFACE DETAIL 3 16 ECD-545-MD WITH CD-51 16
3"=1'-0"



TOP INTERFACE DETAIL 2 16 ECD-545-MD WITH CD-51 16
3"=1'-0"



BOTTOM INTERFACE DETAIL 1 16 ECD-545-MD WITH CD-51 16
3"=1'-0"



CD-51 DAMPER
MECHANICALLY
FASTENED TO
SLEEVE SL-2

P.E. STAMP



07/11/2025
COA: 9090

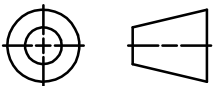
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helm
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCE UNLESS NOTED:
X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16
MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

PCI INDUSTRIES DOING BUSINESS AS
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ARCHITECTURAL PRODUCTS

THIRD ANGLE PROJECTION



5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
ECD-545-MD WITH CD-51 DAMPER

PROJECT: ECD-545-MD

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 16 of 19

CHK'D BY: NW

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

DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

Technical drawing of a Z-profile. The profile has a total height of 1 inch and a total length of 5 1/8 inches. The vertical leg on the right is 4 inches high. The horizontal leg is 1 inch high. The profile is shown in a side view with dimension lines indicating the measurements.

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Technical drawing of a U-shaped metal part. The drawing shows the part from a top-down perspective. The overall width of the part is 5 inches. The two vertical legs are 11/16 inch wide. The horizontal base is 15/16 inch wide. The thickness of the material is 0.078 inches. The part has rounded corners on the base and the legs. The drawing includes dimension lines and arrows indicating the measurements.

Technical drawing of a U-shaped channel section. The drawing shows the profile of the channel with the following dimensions:

- Top flange width: $5 \frac{1}{8}"$
- Top flange thickness: $2 \frac{1}{2}"$
- Web height: $4"$

Technical drawing of a tapered metal rod. The rod is shown in profile, tapering from left to right. It has a hexagonal feature in the center. Dimension lines indicate a length of 6" and a diameter of 11/16" at the right end.

Technical drawing of a metal bracket. The drawing shows a side view of the bracket with the following dimensions:

- Length: $4 \frac{13}{16}$ "
- Height: $1 \frac{11}{16}$ "
- Thickness: $\frac{3}{4}$ "

Technical drawing of a decorative bracket. The drawing shows the bracket's profile with the following dimensions:

- Overall height: $1\frac{11}{16}"$
- Overall width: $4\frac{13}{16}"$
- Height of the base section: $2\frac{5}{16}"$

11/16"

5 3/4" MAX

Technical drawing of a rectangular plate with the following dimensions and features:

- Overall width: $4 \frac{7}{8}"$
- Overall height: $3 \frac{3}{16}"$
- Inner width (between mounting holes): $4 \frac{13}{16}"$
- Mounting holes: Two circular holes, each with a diameter of $\frac{3}{4}"$.
- Mounting flange: A vertical flange on the left side with a height of $\frac{3}{4}"$.
- Mounting tab: A small tab on the right side with a width of $\frac{3}{4}"$.

Technical drawing of a rectangular plate. The vertical dimension is labeled 1" and the horizontal dimension is labeled 5 1/16".

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WAYNE K. HELM
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

07/11/2025
COA: 9090

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\

Technical drawing of a 90-degree elbow. The drawing shows the profile of the elbow with the following dimensions:

- Horizontal leg length: 5 inch
- Vertical leg length: 3 inch
- Wall thickness: $\frac{3}{8}$ inch

0.080

1" ON SIDES
3" TOP & BOTTOM

This technical drawing illustrates a 90-degree corner joint between two plates. The top plate has a thickness of 0.080 inches. The joint is defined by a 1-inch overlap on the sides and a 3-inch overlap on the top and bottom. Dashed lines indicate the internal fit and the offset of the joint lines.

Diagram of a cantilever beam fixed to a wall on the left. The beam has a horizontal section of 3 inches and a vertical section of 2 inches. A downward point load of $\frac{1}{4}$ inch is applied at the free end of the horizontal section.

Technical drawing of a 90-degree corner. The drawing shows a horizontal line on the left, a vertical line on the right, and a curved transition between them. Dimensions are indicated: 3/8" for the top horizontal offset, 3" for the vertical offset, and 5" for the bottom horizontal offset.

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07/11/2025
COA: 9090

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY

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Wayne K. Helmila
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

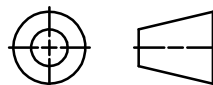
TOLERANCE UNLESS NOTED:

X.X	± 0.060
X.XX	± 0.030
X.XXX	± 0.010
ANGLE	$\pm 1^\circ$
FRACTION	$\pm 1/16$

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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THIRD ANGLE PROJECTION



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Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
BILL OF MATERIALS

PROJECT: ECD-545-MD

PROJ. MGR.:	
-------------	--

DATE: 6/27/2018

SHEET: 18 of 19

DRAWN BY: LGH

DRAWING NUMBER

ECD-545-MD NOA

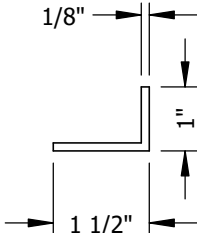
I:\0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA\

PART NO: SL-1A

PART NAME: SLEEVE ATTACHMENT ANGLE

MATERIAL: 1-1/2" X 1" X 1/8" 6063-T5
EXTRUDED ALUMINUM

SCALE: 4"=1'-0"

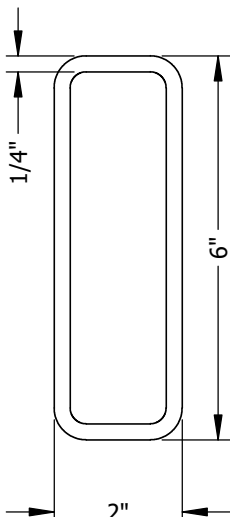


PART NO: S-1

PART NAME: TUBE, MULLION SUPPORT

MATERIAL: 6" X 2" X 1/4" HSS
ASTM A500 Gr. B
Fy= 46 KSI

SCALE: 4"=1'-0"

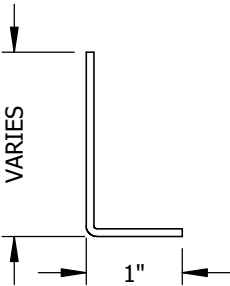


PART NO: A-9

PART NAME: DAMPER STOP

MATERIAL: 0.080" THICK 5052-H32
SHEET ALUMINUM


SCALE: 6"=1'-0"



BILL OF MATERIALS

MISCELLANEOUS FASTENERS	
PART NO.	DESCRIPTION
F-1	#10-24 X 3/4" LONG, HWH, 410 SST, 'F' POINT MACHINE SCREW
F-2	#10-16 X 2" LONG, HWH, 410 SST, TEK SELF-DRILLING SCREW
F-3	#12-14 X 3/4" LONG, HWH, 410 SST, TEK SELF-DRILLING SCREW
F-4	#12-14 X 1" LONG, HWH, TEK SELF-DRILLING SCREW, 300-SERIES SST
F-5	5/8-11 X 4" LONG, 18-8 SST, HEX BOLT, NUT, AND TWO (2) FLAT WASHERS
F-6	5/8-11 X 2" LONG, 18-8 SST, HEX BOLT, NUT, AND TWO (2) FLAT WASHERS
F-7	3/8" X 4" DEWALT SCREW-BOLT+, GALV. FINISH
F-8	5/8" X 4" DEWALT SCREW-BOLT+, GALV. FINISH
F-9	5/8" X 6" DEWALT SCREW-BOLT+, GALV. FINISH
F-11	1/4-14 X 1" LONG, HWH, TEK SELF-DRILLING SCREW, 300-SERIES SST
F-12	1/2" X 3-1/2" LONG HEX LAG BOLT AND FLAT WASHER, 300-SERIES SST

MISCELLANEOUS DAMPER PARTS		
PART NO.	DESCRIPTION	MATERIAL
D-1	BLADE SEAL	PVC
D-2	STOP SEAL	PVC
D-3	HEX AXLE	ZINC-PLATED STEEL
D-4	HEX BUSHING	304 SST
D-5	PARALLEL CAM	ZINC-PLATED STEEL
D-6	LINK BAR, 1/2" WIDE X 1/8" THICK	GALV. STEEL
D-7	WASHER, 1/4" I.D., 1/2" O.D.	NYLON
D-8	SPRING ARM, 10-GA	GALV. STEEL
D-9	DRIVE ROD, 1/2" WIDE X 1/8" THICK	GALV. STEEL
D-10	JACKSHAFT, 1/2" DIA.	ZINC-PLATED STEEL
D-11	JACKSHAFT BRACKET, 12 GA.	GALV. STEEL
D-12	JACKSHAFT BEARING	STEEL
D-13	JACKSHAFT SPRING CLIP	SPRING STEEL
D-14	DRIVE BRACKET, 14 GA.	GALV. STEEL
D-15	LINKAGE PIN, 1/4"	304 SST
D-16	E-RING, 1/4"	ZINC-PLATED STEEL
D-17	#8-18 X 1" LONG, HWH, NEEDLE POINT SCREW	ZINC-PLATED STEEL
D-18	#10-32 X 1/2" LONG HEX BOLT WITH KEPS NUT	ZINC-PLATED STEEL
D-19	1/4-20 X 1-1/4" LONG HEX BOLT WITH KEPS NUT	ZINC-PLATED STEEL
D-20	1/4-20 X 1/2" LONG HEX BOLT	ZINC-PLATED STEEL
D-21	JAMB SEAL, 2-9/16" X 5/16" X 0.007" THICK	302 SST
D-22	5/16-18 X 1-1/2" LONG CARRIAGE BOLT WITH LOCKNUT	ZINC-PLATED STEEL
D-23	#10-16 X 3/4" LONG, HWH, TEK SELF-DRILLING SCREW	ZINC-PLATED STEEL

PRODUCT APPROVED
as complying with the Florida
Building Code
NOA-No. 25-0624.07
Approval Date 07/31/2025
By 
Miami-Dade Product Control

P.E. STAMP

07/11/2025
COA: 9090

NOTE: ALL INSTALLATION FASTENERS AND ANCHORS SHALL BE OF CORROSION-RESISTANT STEEL (300-SERIES STAINLESS OR GALVANIZED)

RICE

ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmilt
Registration No: 59092

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

TOLERANCE UNLESS NOTED:

X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

PCI INDUSTRIES DOING BUSINESS AS
ALL-LITE
ARCHITECTURAL PRODUCTS

THIRD ANGLE PROJECTION

5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

DRAWING DESCR:
BILL OF MATERIALS

PROJECT: ECD-545-MD

PROJ. MGR.:

DRAWN BY: LGH

DATE: 6/27/2018

CHK'D BY: NW

DRAWING NUMBER

SHEET: 19 of 19

SCALE: AS NOTED

ECD-545-MD NOA

2	UPDATED NOTE 1 ON SHEET 1	7/10/2025	NWW
1	INITIAL RELEASE	6/9/2025	NWW
REV. NO.	DESCRIPTION	DATE	DRAWN BY