



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

PCI Industries, LLC d/b/a Pottorff
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/ or w/o CD-51 Damper

APPROVAL DOCUMENT: Drawing No. **ECD-545-MD NOA**, titled "ECD-545-MD", sheets 1 through 19 of 19, dated 06/27/2018, with revision **4** dated 12/03/2021, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E. on 01/27/2022, bearing the Miami-Dade County Product Control renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

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

This NOA **renews NOA # 22-0131.03** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

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



NOA-No. 23-0620.02
Expiration Date: October 23, 2028
Approval Date: July 13, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS “Submitted under NOA # 17-0227.07”

1. Drawing No. **ECD-545-MD NOA**, titled “ECD-545-MD”, sheets 1 through 19 of 19, dated 05/08/2014, with revision 1 dated 01/26/2017, prepared by the manufacturer, signed and sealed by L. David Rice, P.E.

B. TESTS “Submitted under NOA # 14-0714.03”

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 Model ECD-545-MD Aluminum Louvers, prepared by Architectural Testing, Inc, Test Report No. **C8133.01-801-18**, dated 04/10/2014, with revision 2 dated 01/27/2015, signed and sealed by Shawn G. Collins, P.E.
2. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of Model ECD-545-MD Aluminum Louvers, prepared by Architectural Testing, Inc, Test Report No. **C8133.01-801-18**, dated 04/10/2014, signed and sealed by Vinu J. Abraham, P.E.
3. Test report on High Velocity Wind Driven Rain Resistance per AMCA 550-09 of a Model ECD-545-MD Aluminum Louver, prepared by Architectural Testing, Inc, Test Report No. **C3811.01-801-18**, dated 12/18/2012, signed and sealed by Vinu J. Abraham, P.E.

“Submitted under NOA # 11-0429.04”

4. 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 Louver, prepared by Architectural Testing, Inc, Test Report No. **A1620.01-801-18**, dated 10/18/2010, signed and sealed by Joseph A. Reed, P.E.

“Submitted under NOA # 09-1015.08”

5. Test report on Wind Driven Rain Resistance per FBC TAS 100(A)-95 (modified by Checklist # 0240) along with marked-up drawings and installation diagram of Model ECD-545-MD Fixed Aluminum Louver with a CD-55 Damper, prepared by Architectural Testing, Inc, Test Report No. **92027.01-109-18**, dated 09/09/2009, with Revision 1 dated 01/11/2010, signed and sealed by Michael D. Stremmel, P.E.



Carlos M. Utrera, P.E.

Product Control Examiner

NOA-No. 23-0620.02

Expiration Date: October 23, 2028

Approval Date: July 13, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (Cont.)

“Submitted under NOA # 08-0528.04”

6. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of Model ECD-545-MD Aluminum Louver, prepared by Hurricane Test Laboratory, LLC, Test Report No. HTL-0399-0116-07, dated 02/27/2008, signed and sealed by Vinu J. Abraham, P.E.

C. CALCULATIONS *“Submitted under NOA # 14-0714.03”*

1. ECD-545-MD Louver calculations prepared by Rice Engineering, dated 01/21/2015, signed and sealed by L. David Rice, P.E.

“Submitted under NOA # 11-0429.04”
2. ECD-545-MD Louver calculations prepared by Rice Engineering, dated 04/21/2011, signed and sealed by L. David Rice, 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 # 15-0428.02”*

1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Rice Engineering, dated 04/17/2015, signed and sealed by L. David Rice, P.E.

“Submitted under NOA # 14-0714.03”
2. Statement letter of code conformance to 2010 FBC issued by Rice Engineering, dated 11/13/2013, signed and sealed by L. David Rice, P.E.
3. No financial interest letter issued by Rice Engineering, dated 03/30/2011, signed and sealed by L. David Rice, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA-No. 23-0620.02
Expiration Date: October 23, 2028
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 18-1120.06

A. DRAWINGS

1. Drawing No. **ECD-545-MD NOA**, titled “ECD-545-MD”, sheets 1 through 17 of 17, dated 08/30/2018, prepared by the manufacturer, signed and sealed by Theodore Berman, 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 (Missile Level ‘E’)
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of 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 Wind Driven Rain Resistance per FBC TAS 100(A)-95 on an ECD-545-MD Louver with a CD-51 Damper, prepared by Intertek, Test Report No. **I8042.01-801-44 R0**, dated 09/05/2018, signed and sealed by Tyler Westerling, P.E.
3. Test report on Wind Driven Rain Resistance per FBC AMCA 550-15 on an ECD-545-MD Louver with a CD-51 Damper, prepared by Intertek, Test Report No. **I8042.02-801-44 R0**, dated 09/07/2018, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS

1. ECD-545-MD louver structural calculations prepared by the manufacturer, dated 07/17/2018, signed and sealed by Theodore Berman, 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 **the 6th edition (2017) FBC** and of no financial interest, dated 12/19/2018, issued, signed and sealed by Theodore Berman, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA-No. 23-0620.02
Expiration Date: October 23, 2028
Approval Date: July 13, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. EVIDENCE SUBMITTED UNDER NOA # 21-0427.03

A. DRAWINGS

1. Drawing No. **ECD-545-MD NOA**, titled "ECD-545-MD", sheets 1 through 19 of 19, dated 06/27/2018, with revision **2** dated 03/19/2021, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E. on 04/06/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. ECD-545-MD louver structural calculations prepared by the Rice Engineering, dated 01/04/2021, 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 to the **7th edition (2020) of the FBC** issued by Rice Engineering, dated 01/04/2021, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letter of no financial interest issued by Rice Engineering, dated 01/04/2021, signed and sealed by Wayne K. Helmila, P.E.

4. EVIDENCE SUBMITTED UNDER NOA # 21-1122.06

A. DRAWINGS

1. Drawing No. **ECD-545-MD NOA**, titled "ECD-545-MD", sheets 1 through 19 of 19, dated 06/27/2018, with revision **3** dated 11/02/2021, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E. on 11/17/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Asset Purchase Agreement entered among **PCI Industries, Inc.** a California corporation (the Seller) and **PCI Industries, LLC**, a Delaware limited liability company (the Buyer), dated 10/22/2021.
2. Statement letter as an official notification from **PCI Industries, Inc.** that all assets associated with the Pottorff model EFD-637-MD aluminum louver have been legally sold to **PCI Industries, LLC**, dated 11/17/2021 and signed by Nathan Woodworth, Louver Development Manager.
3. Statement letter as a request from **PCI Industries, LLC** to issue a new Notice of Acceptance (NOA) for the Pottorff model EFD-637-MD aluminum louver, dated 11/17/2021 and signed by Nathan Woodworth, Louver Development Manager.



Carlos M. Utrera, P.E.

Product Control Examiner

NOA-No. 23-0620.02

Expiration Date: October 23, 2028

Approval Date: July 13, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. EVIDENCE SUBMITTED UNDER NOA # 22-0131.03 AND NEW

A. DRAWINGS

1. Drawing No. **ECD-545-MD NOA**, titled "ECD-545-MD", sheets 1 through 17 of 17, dated 08/30/2018, with revision **4** dated 12/03/2021, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E. on 01/27/2022.

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 (Missile Level 'E')
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of Model ECD-545-MD Aluminum Louvers, prepared by Intertek, Test Report No. **M7724.01-801-18-R1**, dated 10/26/2021, revised on 11/18/2021, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS

1. ECD-545-MD louver calculations prepared by Rice Engineering, dated 01/19/2022, 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 to the **7th edition (2020) of the FBC**, issued by Rice Engineering, dated 06/14/2023, signed and sealed by Wayne K. Helmila, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA-No. 23-0620.02
Expiration Date: October 23, 2028
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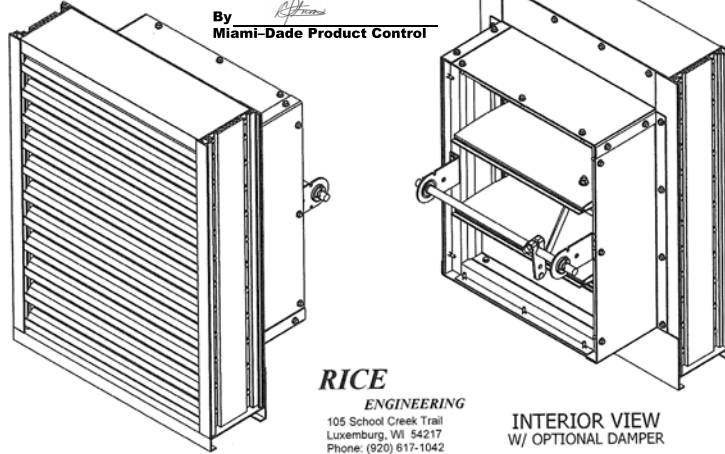
NOTES:

- 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 AND TAS 100(A).
- ALL VARIATIONS ARE LARGE MISSILE IMPACT RESISTANT.
- UNITS OF MEASURE ARE FRACTIONAL INCHES UNLESS OTHERWISE SPECIFIED.
- IT IS ASSUMED THAT THE LOUVER SYSTEMS DO NOT SUPPORT ANY LOADS TRANSFERRED FROM THE BUILDING CONDITION.
- IT IS ASSUMED THAT THE BUILDING CONDITIONS ARE ADEQUATELY DESIGNED TO SUPPORT LOADS IMPARTED BY THE LOUVER SYSTEM.
- 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.
- WATER PENETRATION:
 - 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.
 - ADDITIONAL PROTECTION FROM WATER INGRESS IS NOT NECESSARY WHEN LOUVERS ARE INSTALLED WITH CD-51 DAMPERS AND THE DAMPERS ARE CLOSED.
- 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.
- UNLESS FASTENERS ARE 300 SS, SEAL FASTENERS ATTACHING TO THE SUBSTRATE WITH LIQUID PROSOLO FLASHING OR EQUAL.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **22-0131.03**

Expiration Date **10/23/2023**

By
Miami-Dade Product Control



EXTERIOR VIEW
W/ OPTIONAL DAMPER

INTERIOR VIEW
W/ OPTIONAL DAMPER

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, FL 34217
Phone: (820) 617-1042
Fax: (820) 617-1100
www.rice-inc.com

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

TABLE 3
ANCHOR SCHEDULE

SUBSTRATE	LOCATION	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	SPACING (W ≤ 60") (STANDARD)	SPACING (W > 60") (STANDARD)	SPACING (SHAPES)
CONCRETE ($f_c \geq 4000$ 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 ($f_m \geq 1500$ 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, $F_y \geq 36$ KSI)	JAMBS	1/4" X 1" SELF-DRILLING SCREW (F-11)	FULL	1/2"	3/4"	3/4"	--
	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, $F_y \geq 50$ KSI)	JAMBS	1/4" X 1" SELF-DRILLING SCREW (F-11); TWELVE (12) FASTENERS PER CONNECTION	FULL	1/2"	3/4"	3/4"	--
	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"

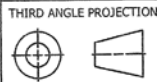
REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

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

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



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: COVER SHEET

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 1 of 19

CHK'D BY: NW

SCALE: NONE

DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

DRAWING NUMBER

ECD-545-MD NOA

TABLE 1

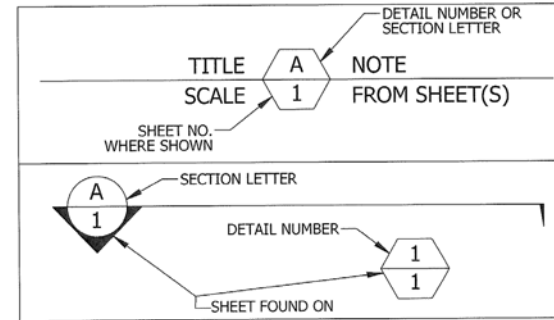
SINGLE SECTION SIZE LIMITATIONS

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

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



P.E. STAMP



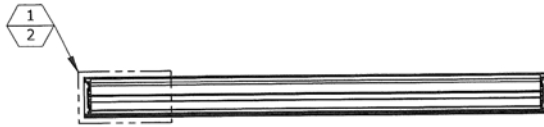
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **23-0620.02**

Expiration Date **10/23/2028**

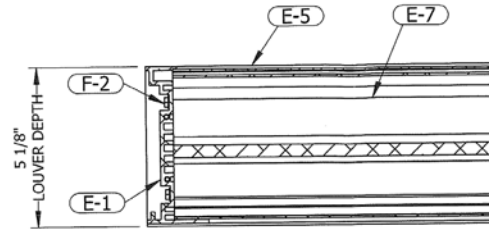
By
Miami-Dade Product Control

01/27/2022
COA: 9090

GENERAL LOUVER ASSEMBLY

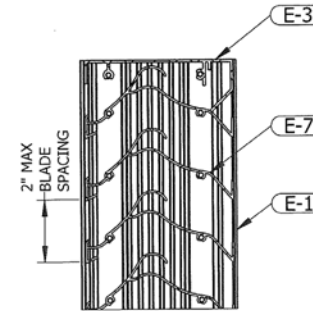


SECTION VIEW **B** GENERAL ASSEMBLY
SCALE: 3/4" = 1'-0" **2**



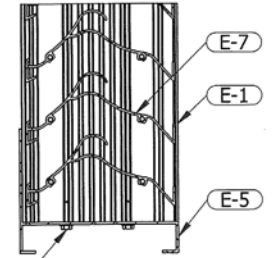
CONSTRUCTION **1** DETAIL **2**
3" = 1'-0"

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



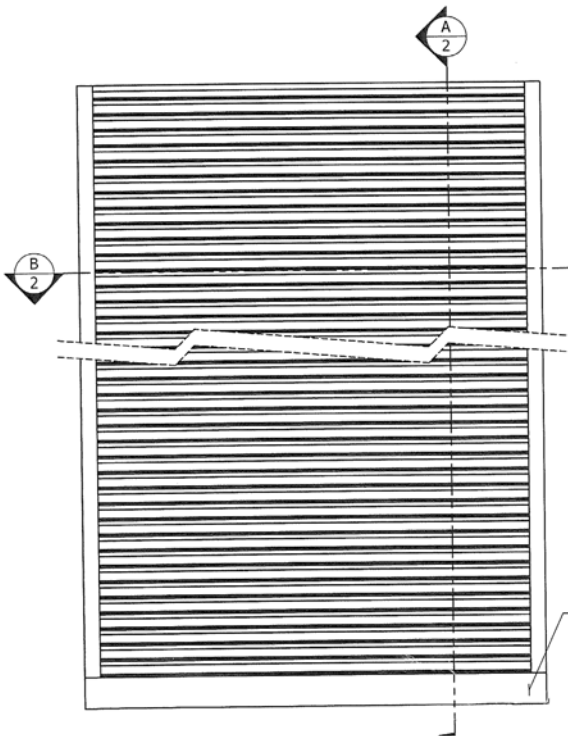
CONSTRUCTION **2** DETAIL **2**
3" = 1'-0"

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

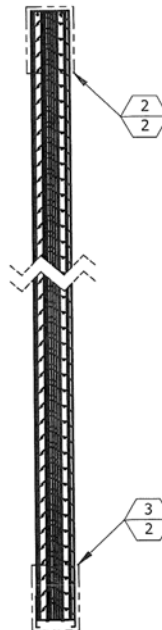
IN FLANGED CONFIGURATIONS:
E-2 WILL BE USED IN PLACE OF E-1
E-6 WILL BE USED IN PLACE OF E-5



INTERIOR ELEVATION

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02
Expiration Date 10/23/2028
By *[Signature]*
Miami-Dade Product Control

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



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

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023
By *[Signature]*
Miami-Dade Product Control

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

P.E. STAMP



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.

TOLERANCE UNLESS NOTED:
X.X ±0.050
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: GENERAL LOUVER ASSEMBLY

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 2 of 19

CHK'D BY: NW

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

DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

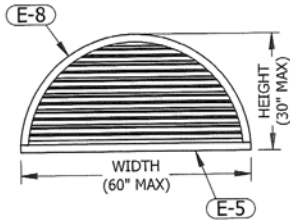
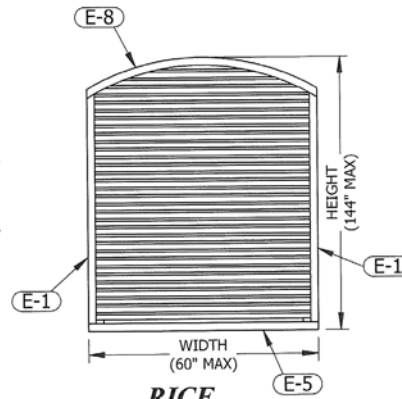
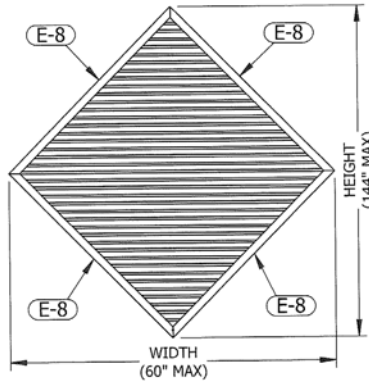
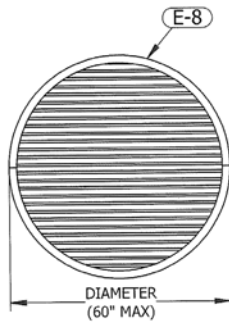
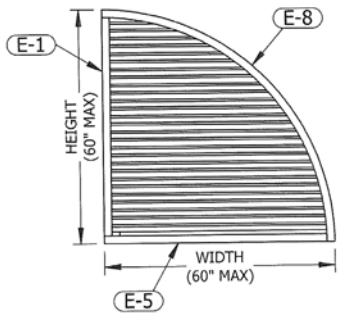
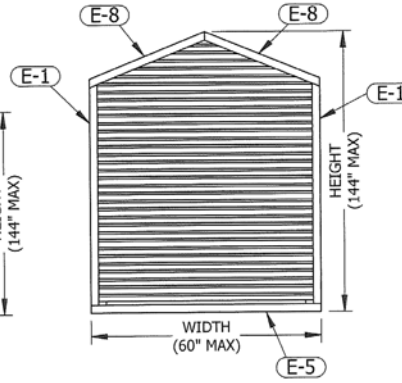
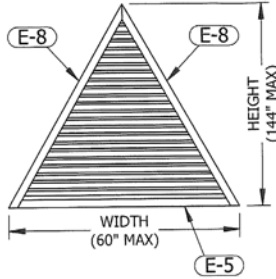
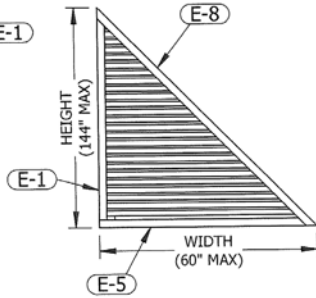
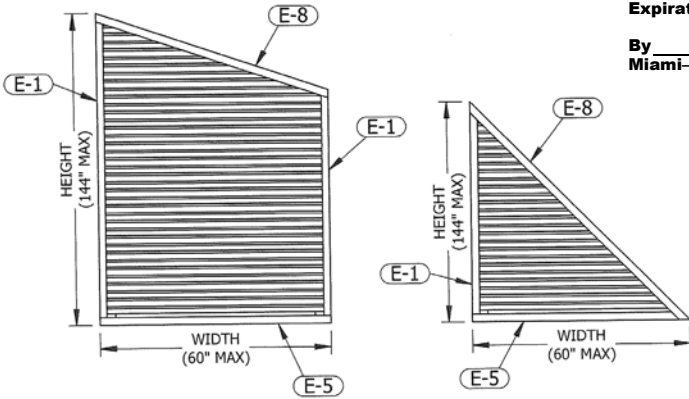
DRAWING NUMBER

ECD-545-MD NOA

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02

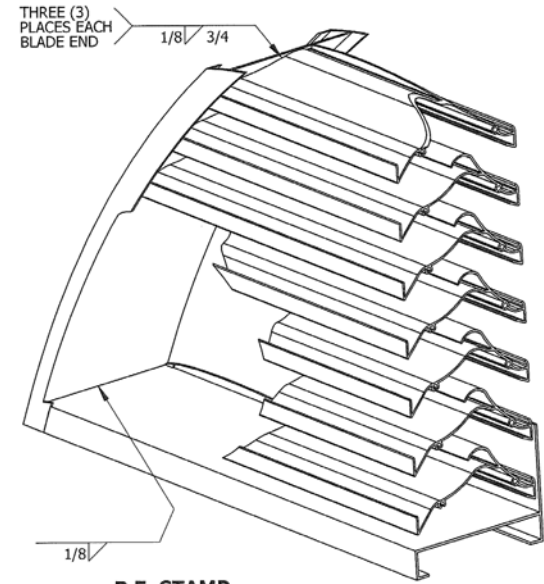
Expiration Date 10/23/2028

By *[Signature]*
Miami-Dade Product Control



PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023
By *[Signature]*
Miami-Dade Product Control

SHAPED LOUVER DETAILS



P.E. STAMP



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

UNLESS OTHERWISE SPECIFIED
DIMENSION 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

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

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: SHAPED LOUVER DETAILS

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 3 of 19

DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

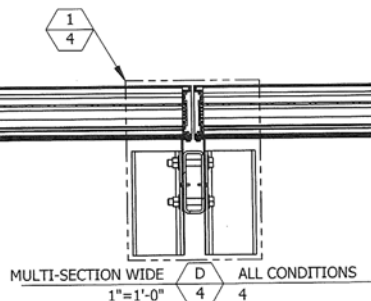
DRAWING NUMBER

ECD-545-MD NOA

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105 School Creek Trail
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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



PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03

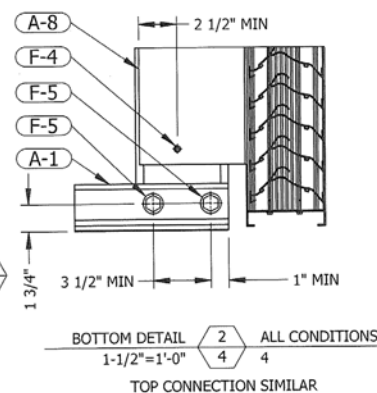
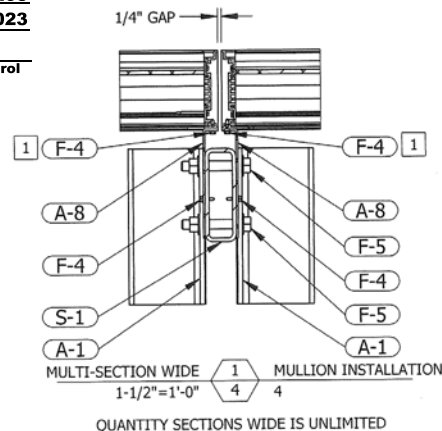
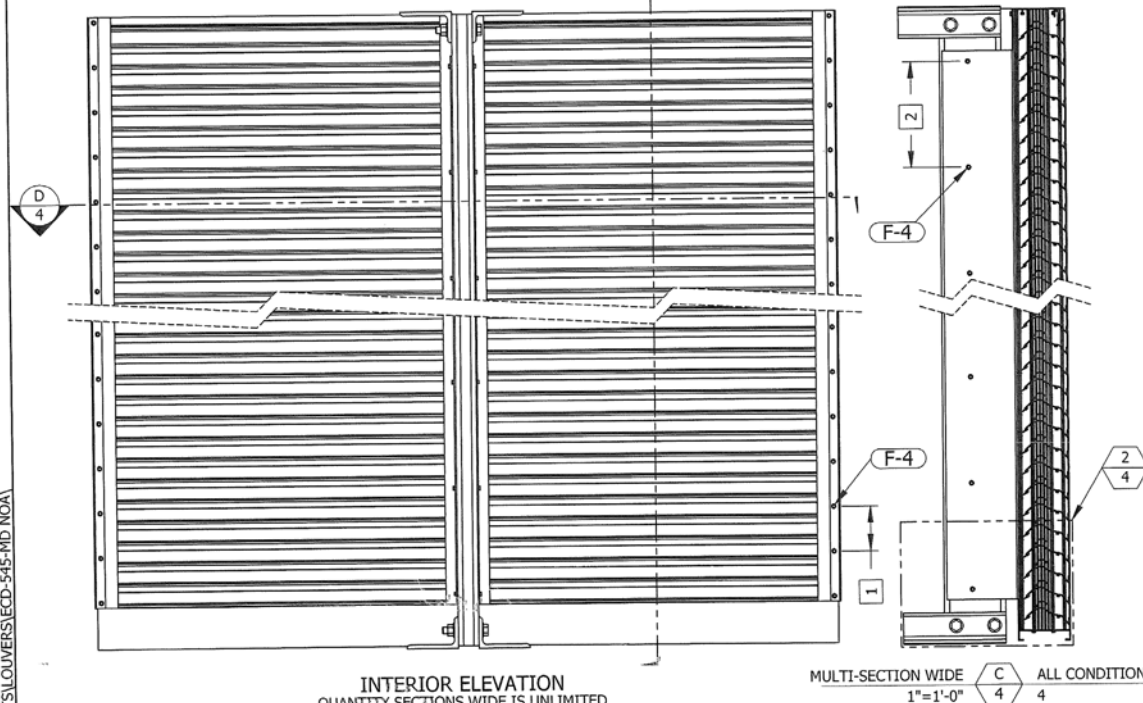
Expiration Date 10/23/2023

By *Wayne K. Helmila*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02

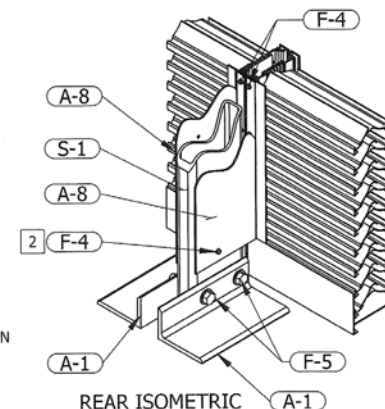
Expiration Date 10/23/2028

By *Wayne K. Helmila*
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.

GENERAL MULLION DETAILS



P.E. STAMP



UNLESS OTHERWISE SPECIFIED
DIMENSION 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
Phone: 817-509-2300
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THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: GENERAL MULLION DETAILS

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 4 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

DRAWN BY: LGH

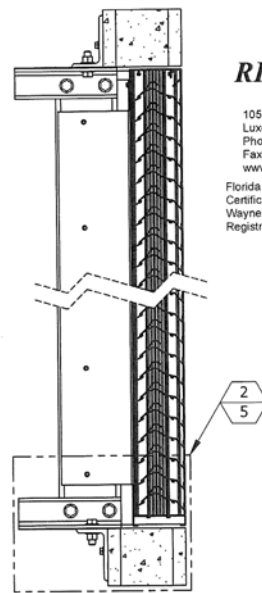
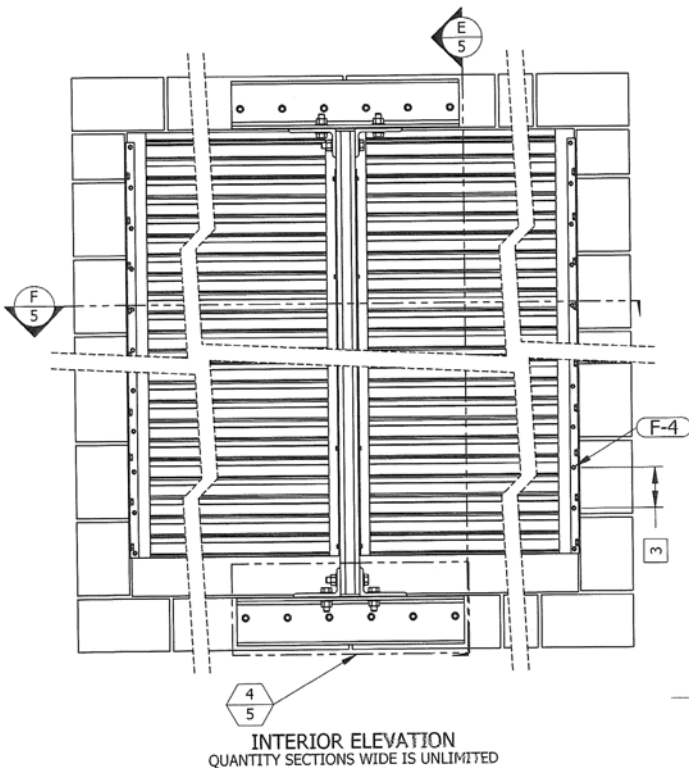
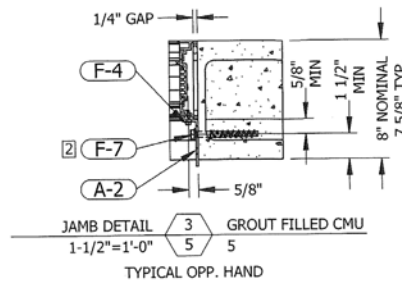
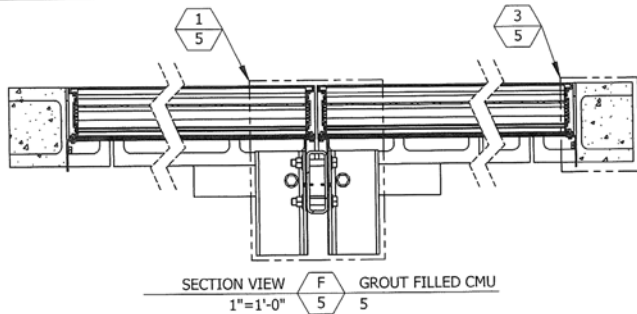
ORDER NUMBER

P.O. NUMBER

DRAWING NUMBER

ECD-545-MD NOA

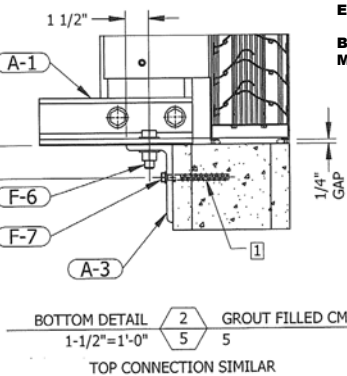
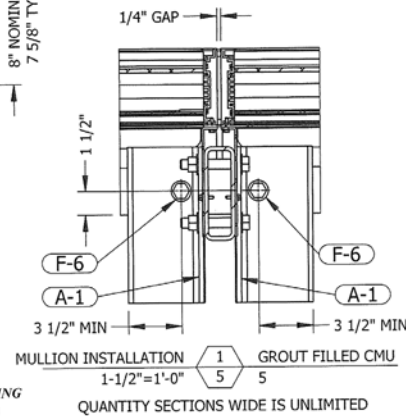
REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH



SECTION VIEW 1"=1'-0" GROUT FILLED CMU

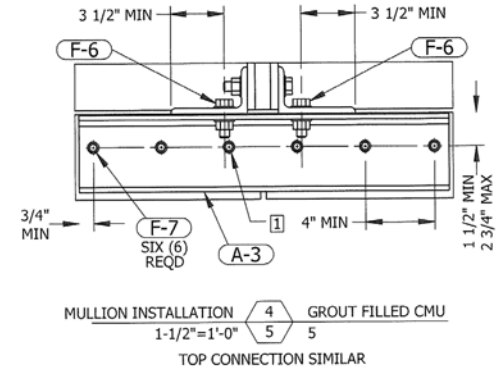
RICE ENGINEERING

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



- 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



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as complying with the Florida
Building Code
NOA-No. 23-0620.02
Expiration Date 10/23/2028
By *[Signature]*
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023
By *[Signature]*
Miami-Dade Product Control



01/27/2022
COA: 9090

UNLESS OTHERWISE SPECIFIED
DIMENSION 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 76156
Phone: 817-509-2300
Fax: 817-831-3110

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: GROUT FILLED CMU CONDITION

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DRAWN BY: LGH

DATE: 6/27/2018

CHK'D BY: NW

ORDER NUMBER

P.O. NUMBER

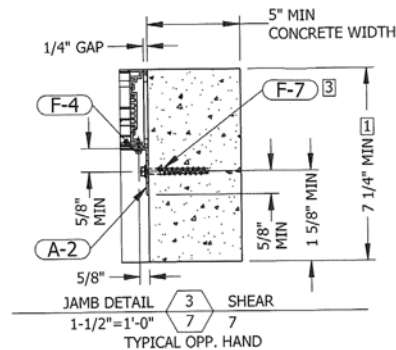
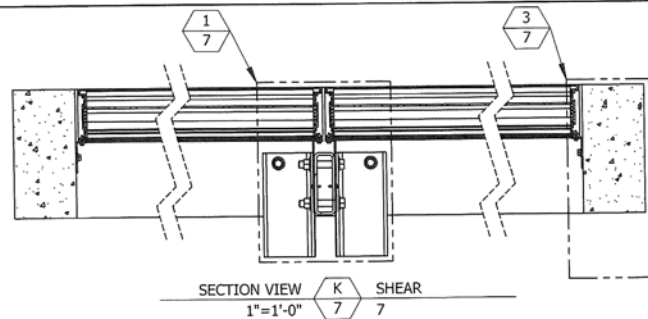
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SHEET: 5 of 19

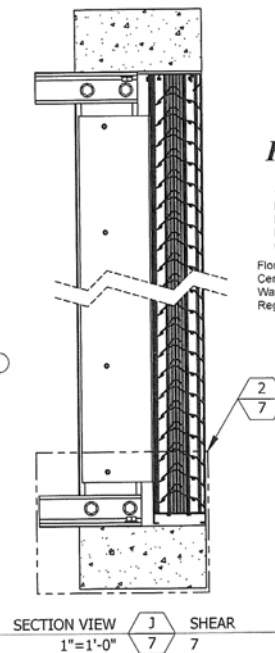
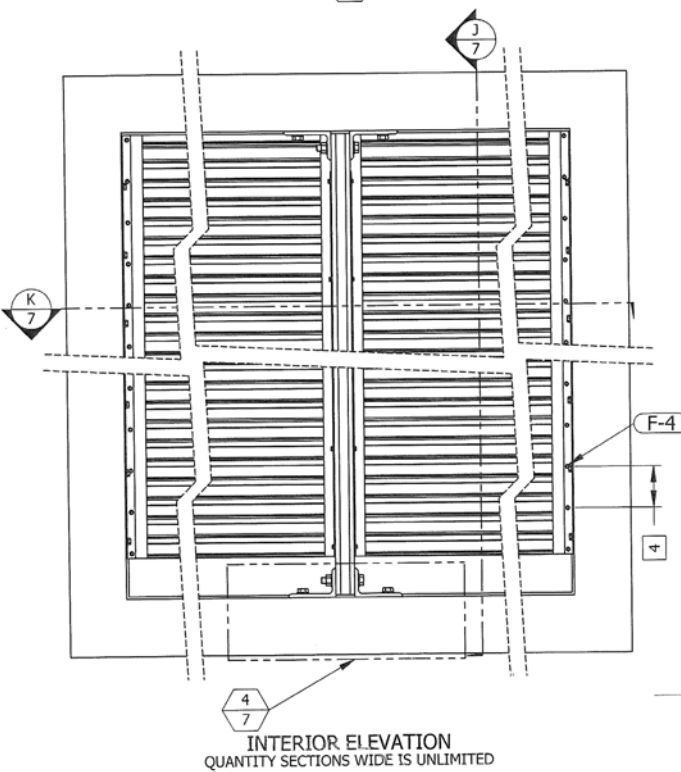
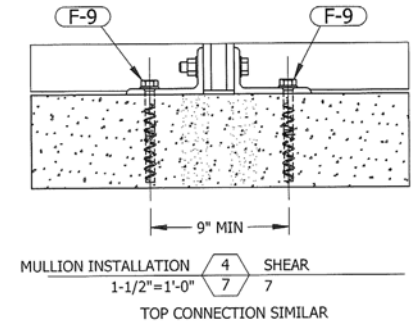
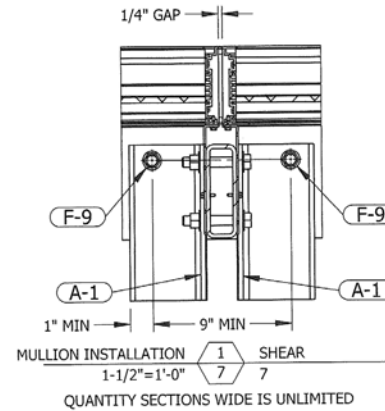
SCALE: 1"=1'-0"

ECD-545-MD NOA

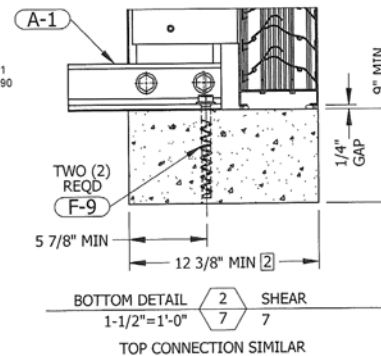
REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH



CONCRETE CONDITION SHEAR CONNECTION



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Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmli
Registration No: 59092



- 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.

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02
Expiration Date 10/23/2028
By *[Signature]*
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023
By *[Signature]*
Miami-Dade Product Control



UNLESS OTHERWISE SPECIFIED
DIMENSION 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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Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: CONCRETE CONDITION SHEAR CONNECTION

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 7 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

DRAWN BY: LGH

ORDER NUMBER

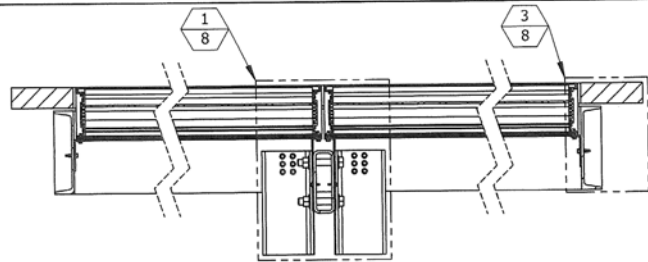
P.O. NUMBER

DRAWING NUMBER

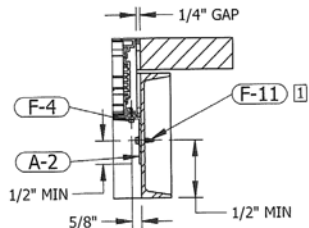
ECD-545-MD NOA

REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

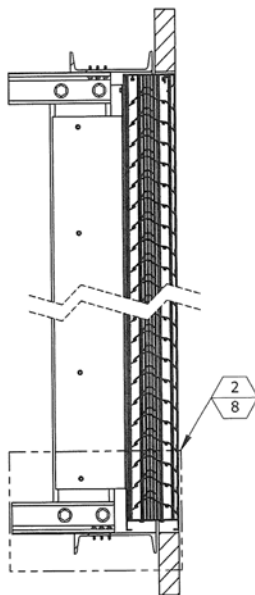
1.0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA1



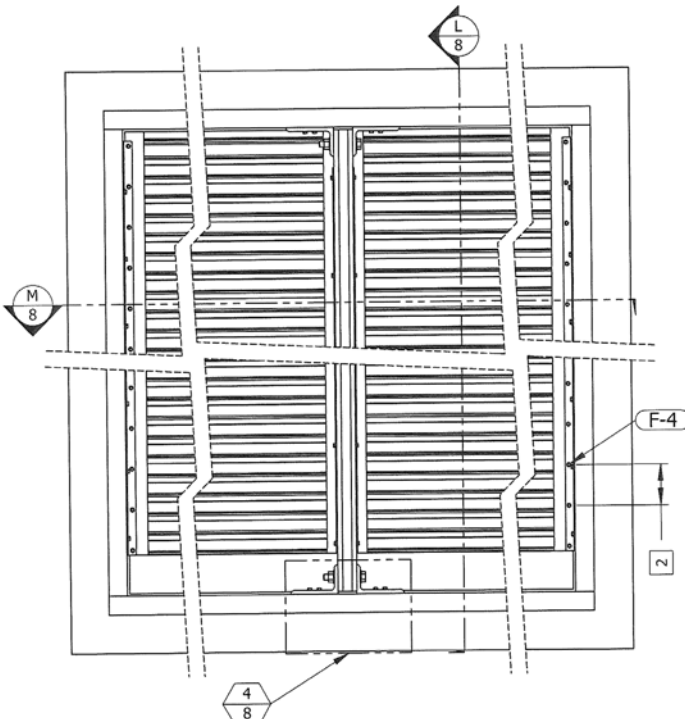
SECTION VIEW M STEEL
1"=1'-0" 8 8



JAMB DETAIL 3 STEEL
1-1/2"=1'-0" 8 8
TYPICAL OPP. HAND



SECTION VIEW L STEEL
1"=1'-0" 8 8



INTERIOR ELEVATION
QUANTITY SECTIONS WIDE IS UNLIMITED

PRODUCT RENEWED
as complying with the Florida
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NOA-No. 23-0620.02

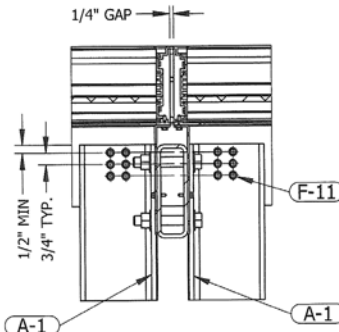
Expiration Date 10/23/2028

By *[Signature]*
Miami-Dade Product Control

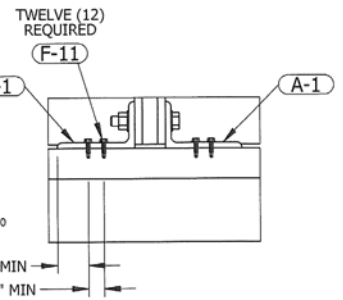
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03

Expiration Date 10/23/2023

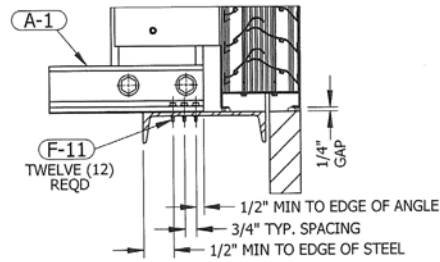
By *[Signature]*
Miami-Dade Product Control



MULLION INSTALLATION 1 STEEL
1-1/2"=1'-0" 8 8
QUANTITY SECTIONS WIDE IS UNLIMITED



MULLION INSTALLATION 4 STEEL
1-1/2"=1'-0" 8 8
TOP CONNECTION SIMILAR

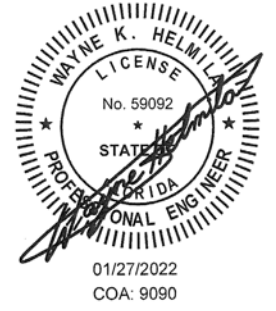


BOTTOM DETAIL 2 STEEL
1-1/2"=1'-0" 8 8
TOP CONNECTION SIMILAR

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

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

P.E. STAMP

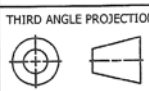


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DIMENSION ARE IN INCHES.

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Fax: 817-831-3110

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

POTTORFF

DRAWING DESCR: STEEL CONDITION

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DRAWN BY: LGH

DATE: 6/27/2018

CHK'D BY: NW

ORDER NUMBER

P.O. NUMBER

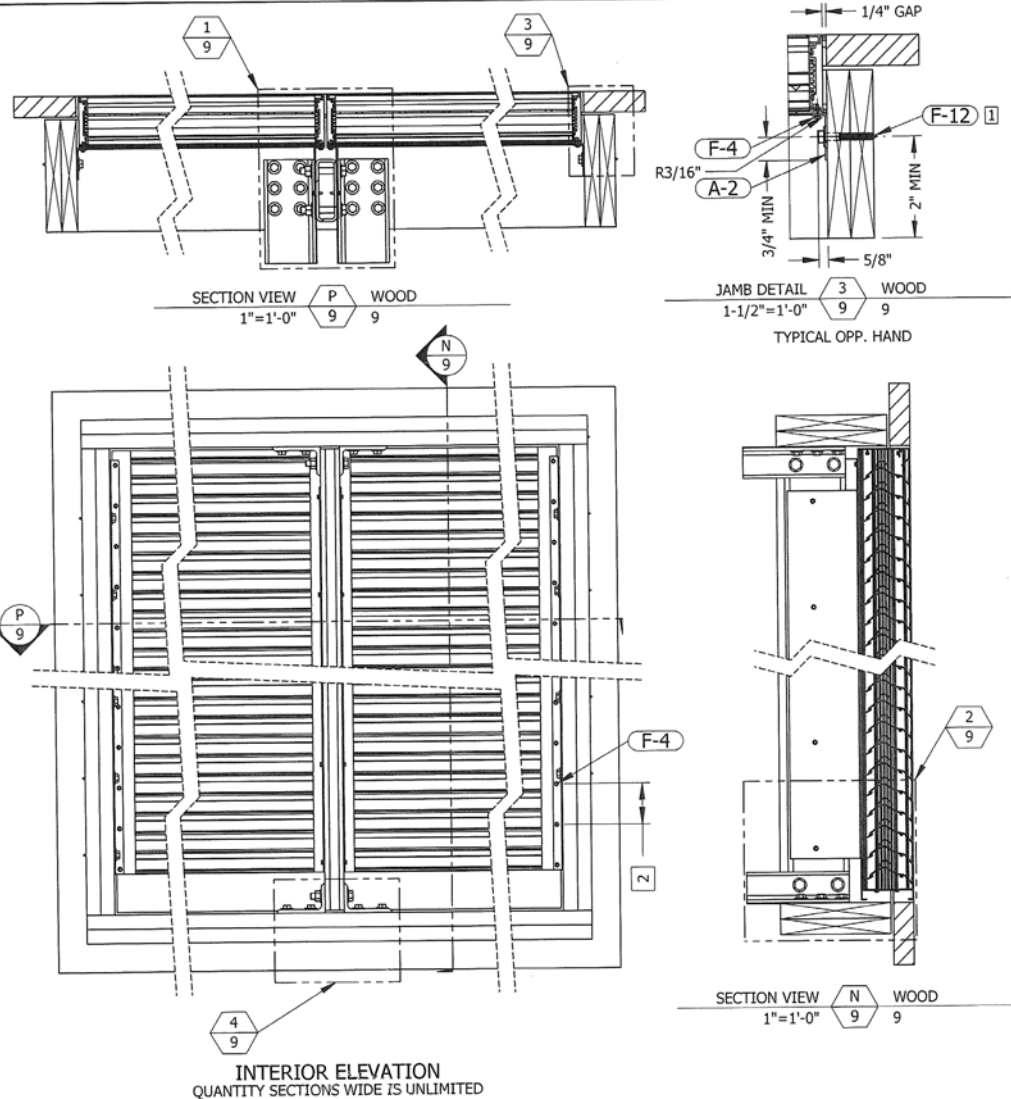
DRAWING NUMBER

SHEET: 8 of 19

SCALE: 1"=1'-0"

ECD-545-MD NOA

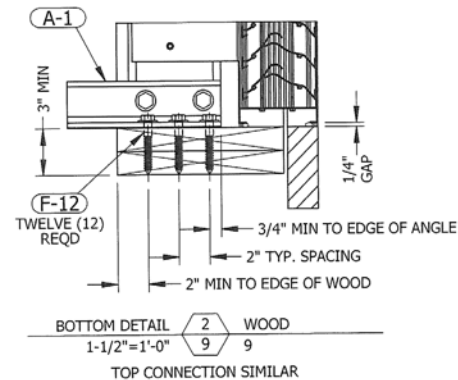
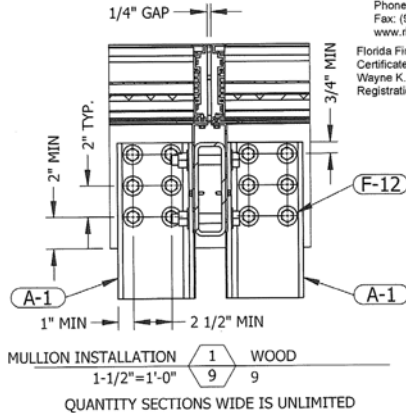
REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH



PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02

Expiration Date 10/23/2028

By *RICE*
Miami-Dade Product Control



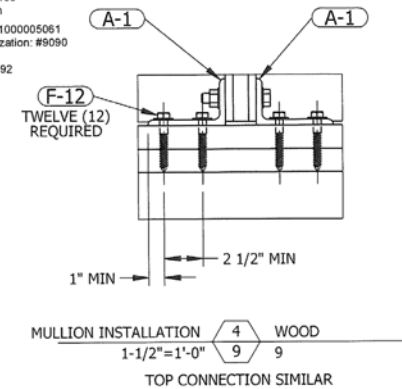
- NOTES:
1 SEE TABLE 3 ON SHEET 1 FOR ANCHOR SPACING.
2 SEE TABLE 4 ON SHEET 1 FOR FASTENER SPACING.

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Certificate of Authorization: #9090
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Registration No: 59092

WOOD CONDITION



PRODUCT REVISED
as complying with the Florida
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NOA-No. 22-0131.03
Expiration Date 10/23/2023

By *RICE*
Miami-Dade Product Control

P.E. STAMP



UNLESS OTHERWISE SPECIFIED
DIMENSION 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
Phone: 817-509-2300
Fax: 817-831-3110

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: WOOD CONDITION

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 9 of 19

CHK'D BY: NW

SCALE: 1"=1'-0"

DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

DRAWING NUMBER

ECD-545-MD NOA

REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

SPECIAL SHAPES INSTALLATION

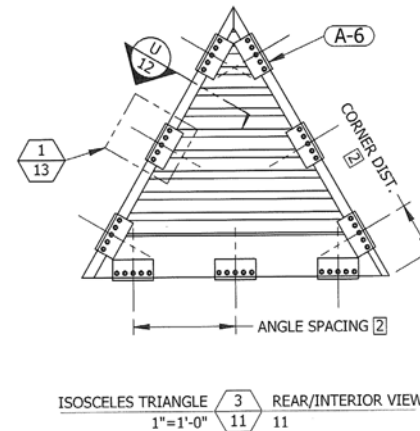
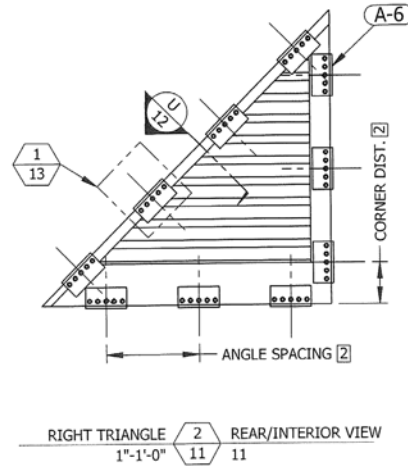
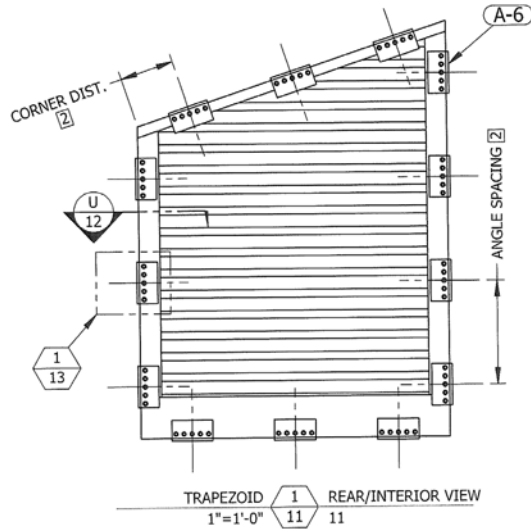
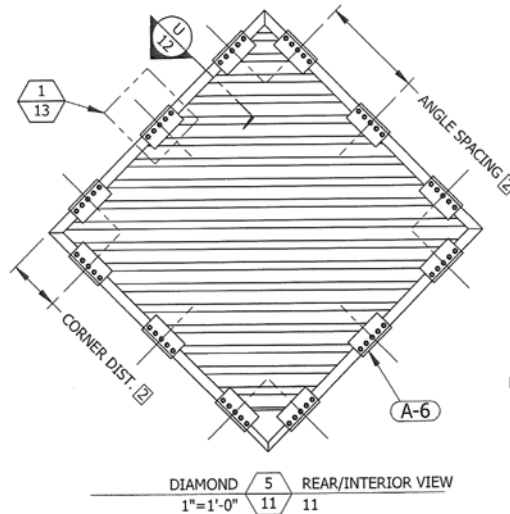
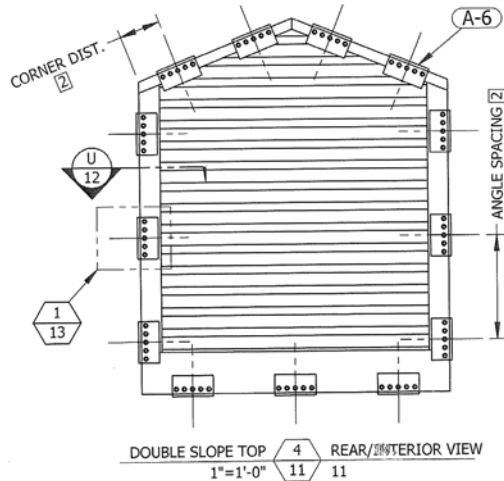


TABLE 5 SHAPE CLIP ANGLE DIMENSIONS		
SUBSTRATE	ANGLE SPACING	CORNER DISTANCE
CONCRETE	8"	4"
GROUT-FILLED CMU	5 1/2"	2 3/4"
STEEL	10"	5"
WOOD	10"	5"



PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02

Expiration Date 10/23/2028

By *[Signature]*
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03

Expiration Date 10/23/2023

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.

RICE
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105 School Creek Trail
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Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

P.E. STAMP



1:0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA1

UNLESS OTHERWISE SPECIFIED
DIMENSION ARE IN INCHES.

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

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

5201 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: SPECIAL SHAPES INSTALLATION

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 11 of 19

CHK'D BY: NW

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

DRAWN BY: LGH

ORDER NUMBER

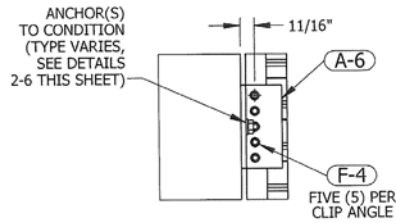
P.O. NUMBER

DRAWING NUMBER

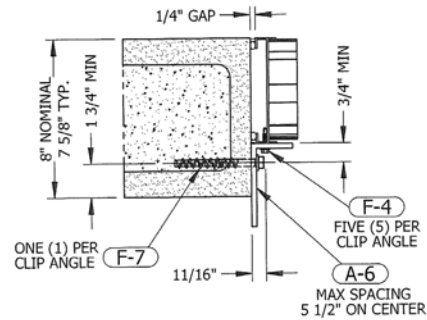
ECD-545-MD NOA

REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTf
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTf
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

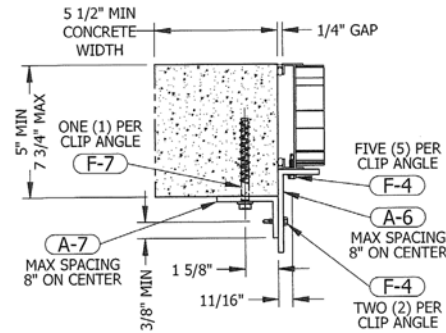
SPECIAL SHAPES INSTALLATION



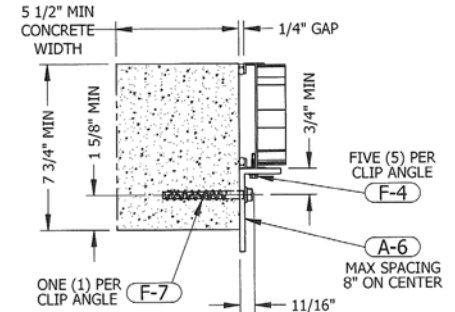
SHAPE CLIP ANGLE **1** REAR/INTERIOR DETAIL
2\"=1'-0\" 13 11, 12



SHAPE CLIP ANGLE **2** GROUT-FILLED CMU
2\"=1'-0\" 13 12



SHAPE CLIP ANGLE **3** CONCRETE ≤ 7 3/4\"/>

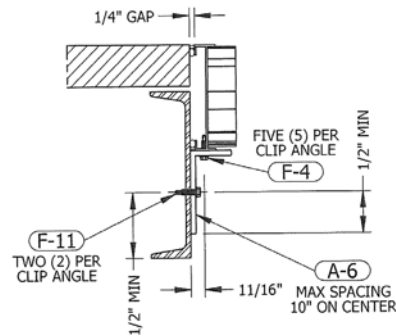


SHAPE CLIP ANGLE **4** CONCRETE ≥ 7 3/4\"/>

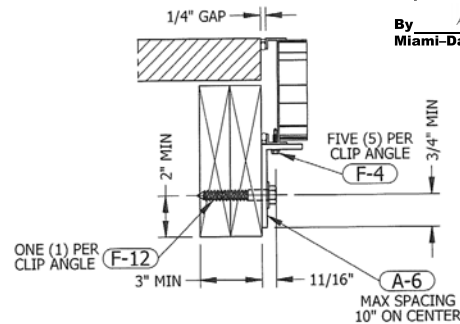
PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **23-0620.02**

Expiration Date **10/23/2028**

By *[Signature]*
Miami-Dade Product Control



SHAPE CLIP ANGLE **5** STEEL
2\"=1'-0\" 13 12



SHAPE CLIP ANGLE **6** WOOD
2\"=1'-0\" 13 12

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **22-0131.03**
Expiration Date **10/23/2023**
By *[Signature]*
Miami-Dade Product Control

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

P.E. STAMP

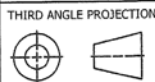


UNLESS OTHERWISE SPECIFIED
DIMENSION ARE IN INCHES.

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

TOLERANCE UNLESS NOTED:
X.X ±0.050
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

POTTORFF

DRAWING DESCR: SPECIAL SHAPES INSTALLATION

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 13 of 19

CHK'D BY: NW

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

DRAWN BY: LGH

ORDER NUMBER

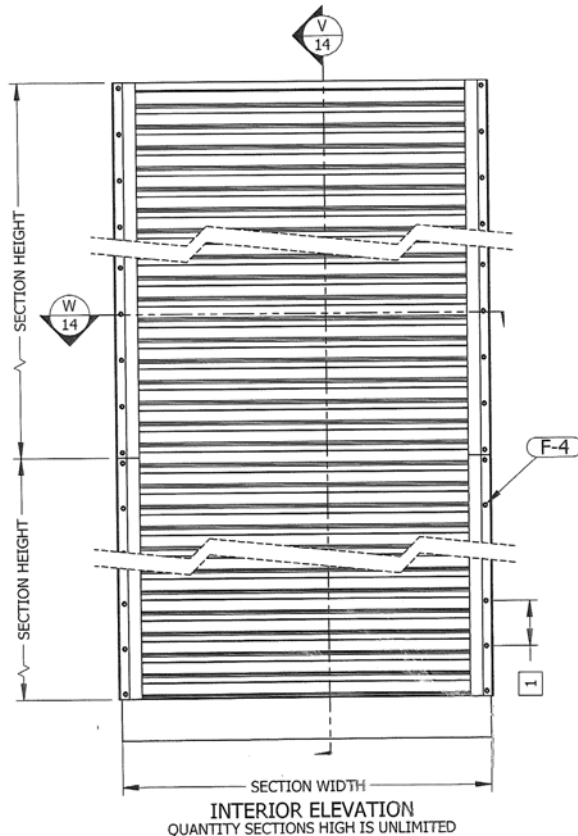
P.O. NUMBER

DRAWING NUMBER

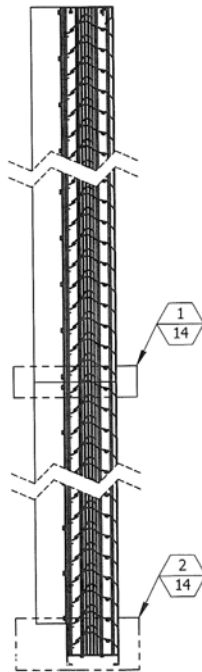
ECD-545-MD NOA



SECTION VIEW $\frac{W}{14}$ MULTI-SECTION HIGH
1"=1'-0" 14



SECTION WIDTH
INTERIOR ELEVATION
QUANTITY SECTIONS HIGH IS UNLIMITED



SECTION VIEW $\frac{V}{14}$ MULTI-SECTION HIGH
1"=1'-0" 14

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02

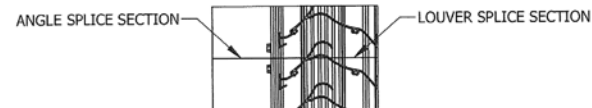
Expiration Date 10/23/2028

By *[Signature]*
Miami-Dade Product Control

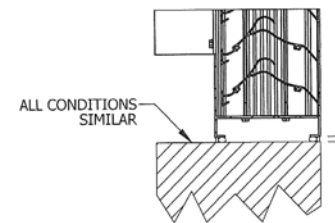
MULTI-SECTION HIGH

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023

By *[Signature]*
Miami-Dade Product Control



SPLICE SECTION $\frac{1}{14}$ MULTI-SECTION HIGH
2"=1'-0" 14



BOTTOM DETAIL $\frac{2}{14}$ MULTI-SECTION HIGH
2"=1'-0" 14
TOP CONNECTION SIMILAR

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

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Wayne K. Helmila
Registration No: 59092

P.E. STAMP



REV. NO.	DESCRIPTION	DATE	DRAWN BY
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3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

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

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-931-3110

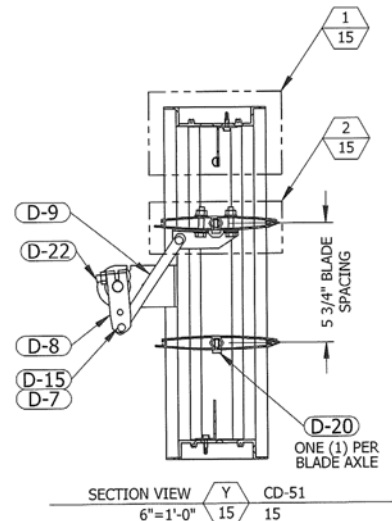
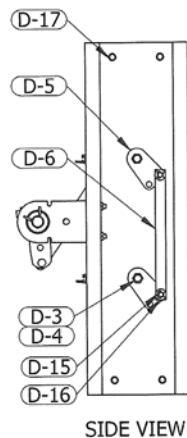
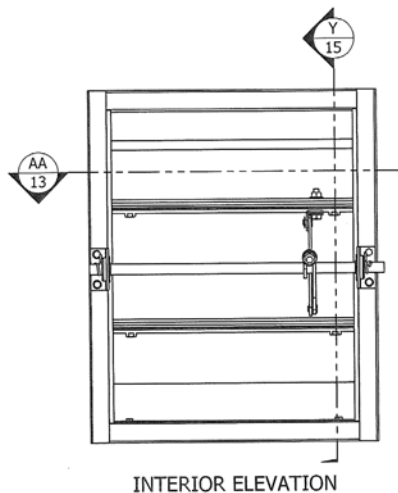
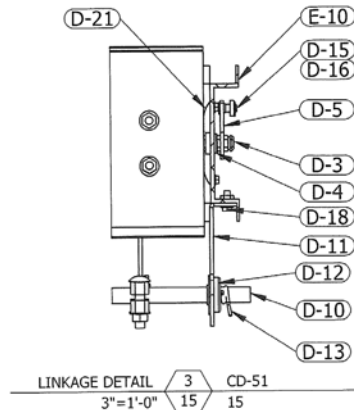
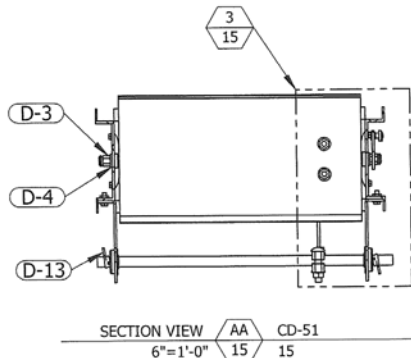
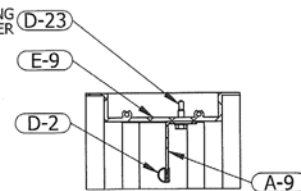
THIRD ANGLE PROJECTION



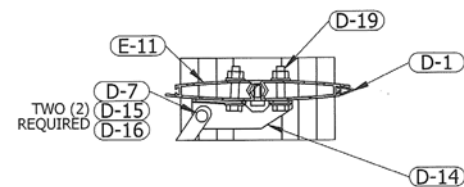
PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: MULTI-SECTION HIGH			
PROJECT: ECD-545-MD			
LOCATION:			
CUSTOMER:			
PROJ. MGR.:		DRAWN BY: LGH	
DATE: 6/27/2018	CHK'D BY: NW	ORDER NUMBER	P.O. NUMBER
SHEET: 14 of 19	SCALE: 1"=1'-0"		DRAWING NUMBER
			ECD-545-MD NOA

MAX SPACING
12" ON CENTER

BOTTOM DETAIL SIMILAR

**CD-51 DAMPER**

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Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmia
Registration No: 59092

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **22-0131.03**
Expiration Date **10/23/2023**

By *[Signature]*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. **23-0620.02**
Expiration Date **10/23/2028**

By *[Signature]*
Miami-Dade Product Control

P.E. STAMP

4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
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1	INITIAL RELEASE	8/30/2018	LGH
REV. NO.	DESCRIPTION	DATE	DRAWN BY

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

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS5101 Blue Mound Road
Fort Worth, Texas 76106
Phone: 817-509-2300
Fax: 817-831-3110

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: CD-51 DAMPER

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DRAWN BY: LGH

DATE: 6/27/2018

CHK'D BY: NW

ORDER NUMBER

P.O. NUMBER

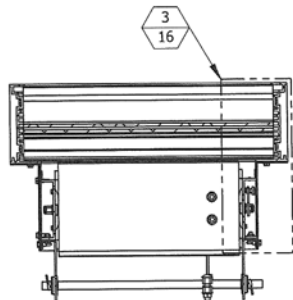
DRAWING NUMBER

SHEET: 15 of 19

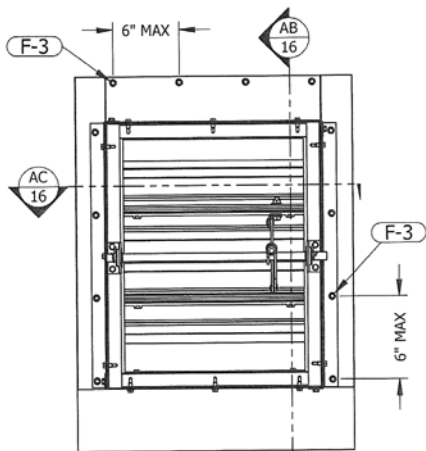
SCALE: 2"=1'-0"

ECD-545-MD NOA

1:0 ENGINEERING PROJECTS\LOUVERS\ECD-545-MD NOA1



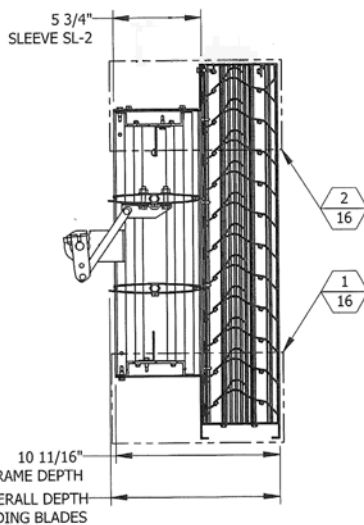
SECTION VIEW AC ECD-545-MD WITH CD-51
1-1/2"=1'-0" 16 16



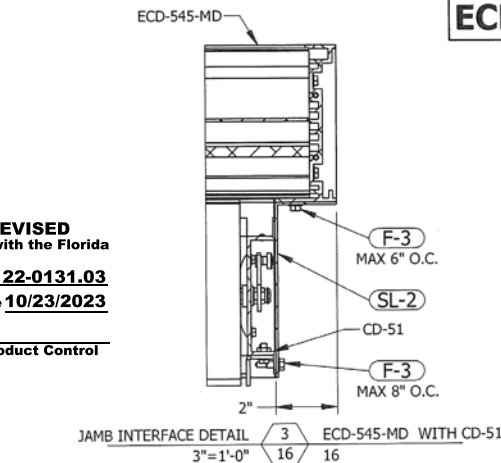
INTERIOR ELEVATION

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02
Expiration Date 10/23/2028
By *[Signature]*
Miami-Dade Product Control

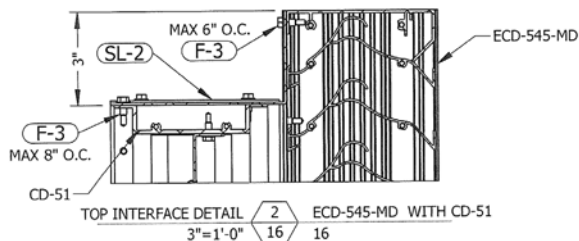
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023
By *[Signature]*
Miami-Dade Product Control



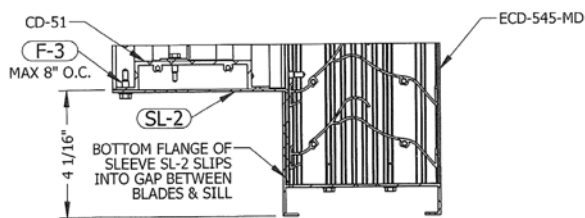
SECTION VIEW AB ECD-545-MD WITH CD-51
1-1/2"=1'-0" 16 16



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

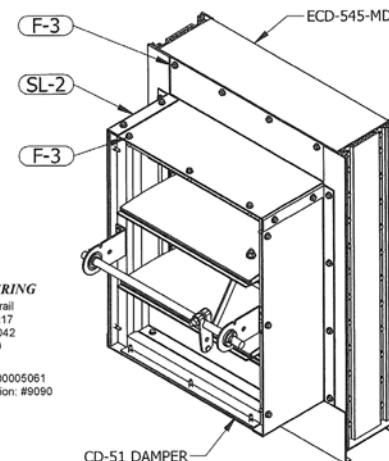


TOP INTERFACE DETAIL 2 ECD-545-MD WITH CD-51
3"=1'-0" 16 16



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

ECD-545-MD WITH CD-51 DAMPER



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

CD-51 DAMPER
MECHANICALLY
FASTENED TO
SLEEVE SL-2

P.E. STAMP



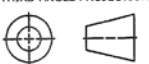
UNLESS OTHERWISE SPECIFIED
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X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
FRACTION ±1/16

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

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

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 16 of 19

CHK'D BY: NW

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

DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

DRAWING NUMBER

ECD-545-MD NOA

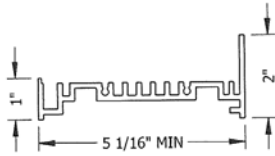
REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0620.02

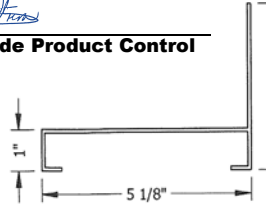
Expiration Date 10/23/2028

By *R. J. Pottorff*
Miami-Dade Product Control

PART NO: E-1
PART NAME: LOUVER JAMB
MATERIAL: 0.125" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"

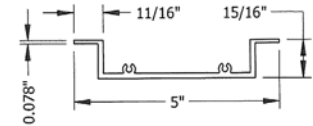


PART NO: E-5
PART NAME: LOUVER SILL
MATERIAL: 0.081" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"

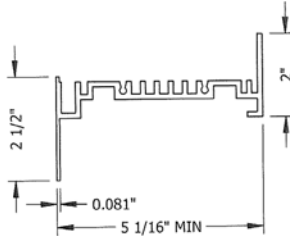


PART NO: E-9
PART NAME: DAMPER HEAD, SILL
MATERIAL: 0.125" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"

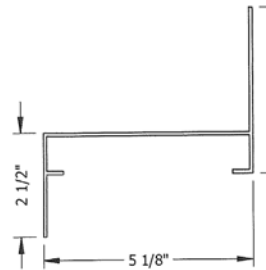
BILL OF MATERIALS



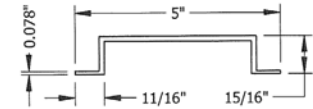
PART NO: E-2
PART NAME: LOUVER JAMB,
FLANGED
MATERIAL: 0.125" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



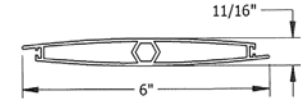
PART NO: E-6
PART NAME: LOUVER SILL,
FLANGED
MATERIAL: 0.081" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



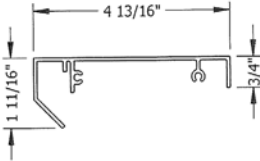
PART NO: E-10
PART NAME: DAMPER JAMB
MATERIAL: 0.125" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



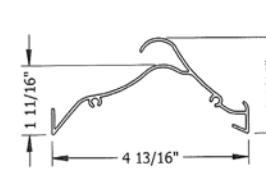
PART NO: E-11
PART NAME: DAMPER BLADE, FULL
MATERIAL: 0.070" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



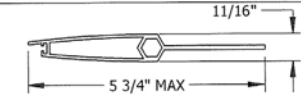
PART NO: E-3
PART NAME: LOUVER HEAD
MATERIAL: 0.081" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



PART NO: E-7
PART NAME: LOUVER BLADE
MATERIAL: 0.063" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



PART NO: E-12
PART NAME: DAMPER BLADE, HALF
MATERIAL: 0.070" THICK
6063-T5 EXTRUDED
ALUMINUM
SCALE: 4"=1'-0"



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Wayne K. Helmila
Registration No: 59092

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03
Expiration Date 10/23/2023
By *R. J. Pottorff*
Miami-Dade Product Control



01/27/2022
COA: 9090

1:0 ENGINEERING PROJECT\LOUVERS\CD-545-MD NOA1

REV. NO.	DESCRIPTION	DATE	DRAWN BY
4	UPDATED LABEL DETAIL	12/03/2021	BTF
3	ADDED ANCHOR SPACING FOR NEW, ALTERNATE 72" X 120" MAX SIZE	10/14/2021	BTF
2	UPDATED ANCHORAGE DESIGN AND SHAPE DETAILS	3/19/2021	NWW
1	INITIAL RELEASE	8/30/2018	LGH

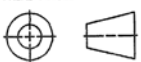
UNLESS OTHERWISE SPECIFIED
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X.X ±0.060
X.XX ±0.030
X.XXX ±0.010
ANGLE ±1°
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MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: BILL OF MATERIALS

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 17 of 19

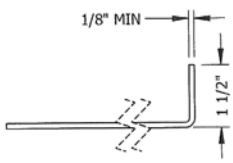
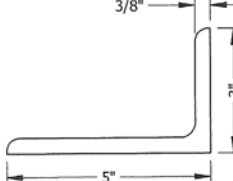
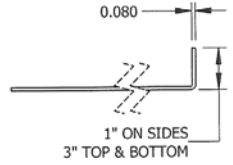
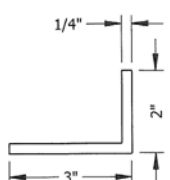
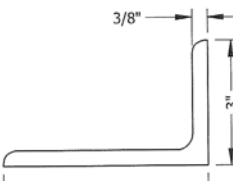
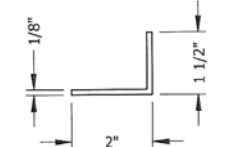
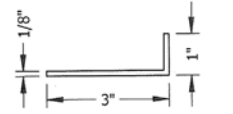
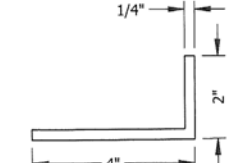
DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

DRAWING NUMBER

ECD-545-MD NOA

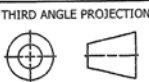
PART NO: SL-1 PART NAME: SLEEVE, LOUVER MATERIAL: MIN 1/8" THICK 5052-H32 SHEET ALUMINUM SCALE: 4"=1'-0"		PART NO: A-3 PART NAME: SHELF ANGLE, MULLION MATERIAL: 5" X 3" X 3/8" X 24" LONG 6061-T6 EXTRUDED ALUMINUM SCALE: 4"=1'-0"		PRODUCT RENEWED as complying with the Florida Building Code NOA-No. 23-0620.02 Expiration Date 10/23/2028 By  Miami-Dade Product Control	BILL OF MATERIALS
PART NO: SL-2 PART NAME: SLEEVE, DAMPER MATERIAL: 0.080 THICK 5052-H32 SHEET ALUMINUM SCALE: 4"=1'-0"		PART NO: A-4 PART NAME: CONTINUOUS SUPPORT ANGLE MATERIAL: 3" X 2" X 1/4" 6063-T5 EXTRUDED ALUMINUM SCALE: 4"=1'-0"		PART NO: A-7 PART NAME: SUPPORT ANGLE, SHAPES MATERIAL: 3" X 2" X 1/4" X 4" LONG 6063-T5 EXTRUDED ALUMINUM SCALE: 4"=1'-0"	
PART NO: A-1 PART NAME: CLIP ANGLE, MULLION MATERIAL: 5" X 3" X 3/8" X 10" LONG 6061-T6 EXTRUDED ALUMINUM SCALE: 4"=1'-0"		PART NO: A-5 PART NAME: RETAINING ANGLE MATERIAL: 2" X 1-1/2" X 1/8" 6063-T5 EXTRUDED ALUMINUM SCALE: 4"=1'-0"		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	P.E. STAMP 
PART NO: A-2 PART NAME: CONTINUOUS ANGLE MATERIAL: 3" X 1" X 1/8" 6063-T5 EXTRUDED ALUMINUM SCALE: 4"=1'-0"		PART NO: A-6 PART NAME: CLIP ANGLE, SHAPES MATERIAL: 4" X 2" X 1/4" X 4" LONG 6063-T5 EXTRUDED ALUMINUM SCALE: 4"=1'-0"		PRODUCT REVISED as complying with the Florida Building Code NOA-No. 22-0131.03 Expiration Date 10/23/2023 By  Miami-Dade Product Control	

UNLESS OTHERWISE SPECIFIED
DIMENSION ARE IN INCHES.

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

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

POTTORFF

DRAWING DESCR: BILL OF MATERIALS

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 18 of 19

CHK'D BY: NW

SCALE: AS NOTED

DRAWN BY: LGH

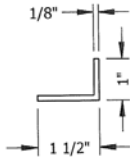
ORDER NUMBER

P.O. NUMBER

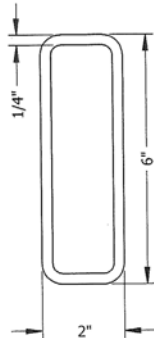
DRAWING NUMBER

ECD-545-MD NOA

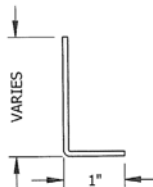
PART NO: SL-1A
PART NAME: SLEEVE ATTACHMENT ANGLE
MATERIAL: 1-1/2" X 1" X 1/8" 6063-T5
EXTRUDED ALUMINUM
SCALE: 4"=1'-0"



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"



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

BILL OF MATERIALS

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 22-0620.02

Expiration Date 10/23/2028

By 
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 22-0131.03

Expiration Date 10/23/2023

By 
Miami-Dade Product Control

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. Helmli
Registration No: 59092

P.E. STAMP



01/27/2022
COA: 9090

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

UNLESS OTHERWISE SPECIFIED
DIMENSION ARE IN INCHES.

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

MAX HOLE BREAKOUT:
15% OF MATERIAL THICKNESS

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

THIRD ANGLE PROJECTION



PCI INDUSTRIES DOING BUSINESS AS

POTTORFF

DRAWING DESCR: BILL OF MATERIALS

PROJECT: ECD-545-MD

LOCATION:

CUSTOMER:

PROJ. MGR.:

DATE: 6/27/2018

SHEET: 19 of 19

CHK'D BY: NW

SCALE: AS NOTED

DRAWN BY: LGH

ORDER NUMBER

P.O. NUMBER

DRAWING NUMBER

ECD-545-MD NOA