



**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

**Twin City Fan Companies, Ltd.
5959 Trenton Lane North
Minneapolis, MN 55442**

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: Series VC and VCU/VCUB Rooftop and Wall Mounted Aluminum Exhaust Fans

APPROVAL DOCUMENT: Drawing No. **500024054**, titled "VC/VCU/VCUB Summary" sheets 1 through 13 of 13, dated 10/18/2022, with revision E dated 08/23/2023, prepared by Twin City Fan Companies, Ltd., signed and sealed by Wayne K. Helmila, P.E. on 04/17/2024, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

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

LIMITATION: This fan cannot be installed within the ridge area, FBC 1523.6.5.2.13.

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

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

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

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

This NOA **revises** NOA # **23-0918.01** consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

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



04/18/24

NOA No. 24-0314.04
Expiration Date: October 26, 2028
Approval Date: April 25, 2024
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted under NOA # 23-0918.01 and new

A. DRAWINGS

1. Drawing No. **500024054**, titled “VC/VCU/VCUB Summary” sheets 1 through 13 of 13, dated 10/18/2022, with revision E dated 08/23/2023, prepared by Twin City Fan Companies, Ltd., signed and sealed by Wayne K. Helmila, P.E. on 04/17/2024.

B. TESTS “Submitted under NOA # 23-0918.01”

1. Test report on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
along with marked-up drawings and installation diagram of three Series/Model VC-120, VCU-085 and VCUB-197 Aluminum Roof Fans, prepared by Stork UL Laboratory Canada Inc., Test Report No. **IM-00009-A**, dated 09/14/2023, signed and sealed by Alexis Spyrou, P.E.

C. CALCULATIONS “Submitted under NOA # 23-0918.01”

1. Anchor verification calculations, prepared by Rice Engineering, dated 08/07/2023, 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

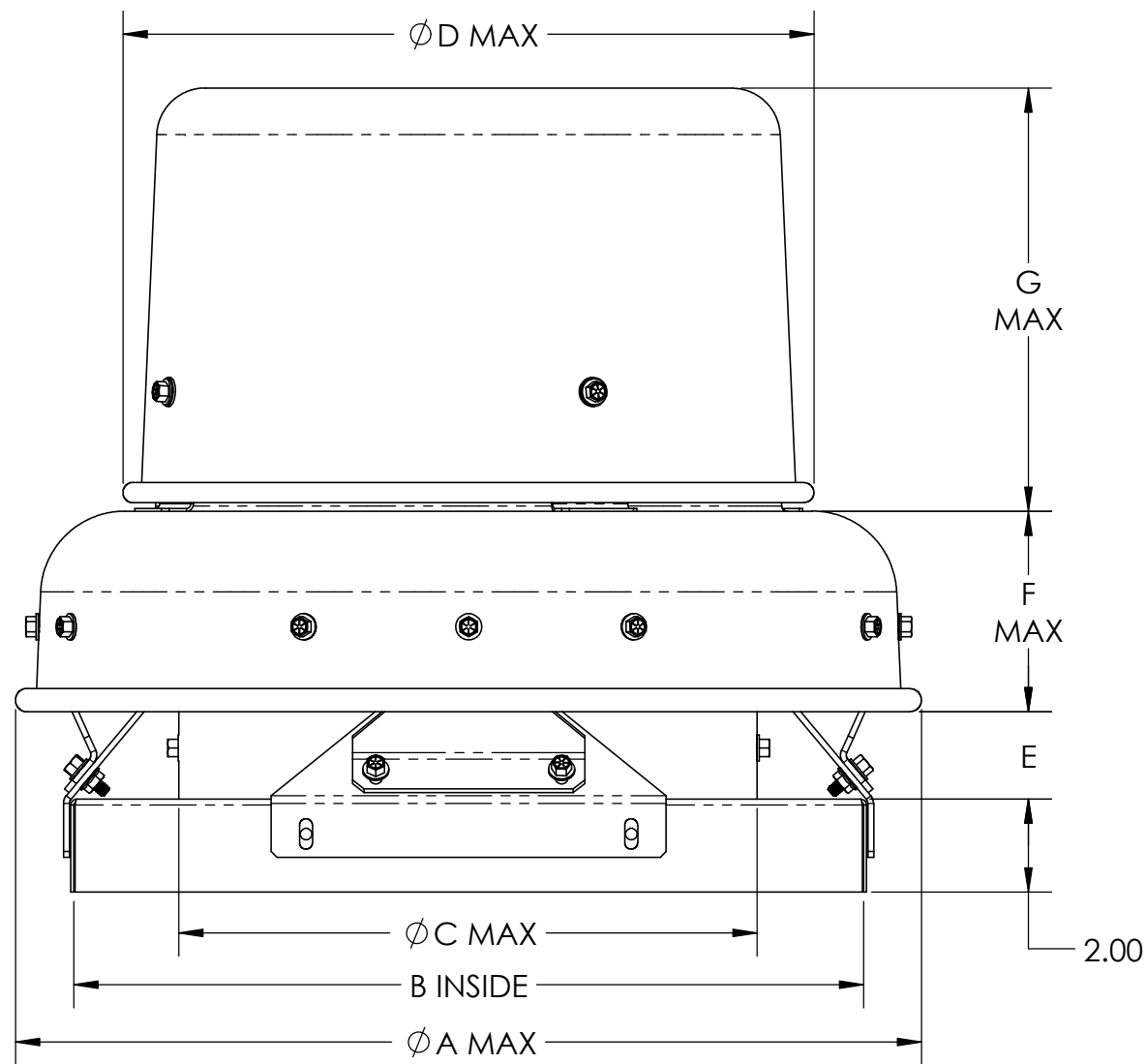
1. 3M Acrylic and Epoxy Adhesive datasheets.

“Submitted under NOA # 23-0918.01”
2. Statement letter of code conformance to the 7th edition (2020) and 8th edition (2023) of the FBC, issued by Rice Engineering, dated 10/24/2023, signed and sealed by Wayne K. Helmila, P.E.
3. Statement letter of no financial interest issued by Rice Engineering, dated 08/24/2023, signed and sealed by Wayne K. Helmila, P.E.



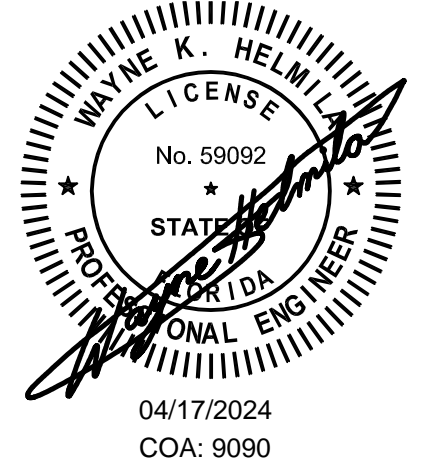
Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 24-0314.04
Expiration Date: October 26, 2028
Approval Date: April 25, 2024

VC SIZE	A	B	C	D	E	F	G	WEIGHT.(LB)
077	19.50	17.00	12.47	14.87	1.88	4.31	9.17	44
083	19.50	17.00	12.47	14.87	1.88	4.31	9.17	40
085	19.50	17.00	12.47	14.87	1.88	4.31	9.17	40
089	22.00	17.00	15.47	17.44	2.67	5.57	9.06	46
098	22.00	17.00	15.47	17.44	2.67	5.57	9.06	46
112	22.00	17.00	15.47	17.44	2.67	5.57	9.06	48
120	22.00	17.00	15.47	17.44	2.67	5.57	9.06	48



For Miami-Dade Product Control

Professional Engineer Seal & License



Florida Firm No & Contact Information

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

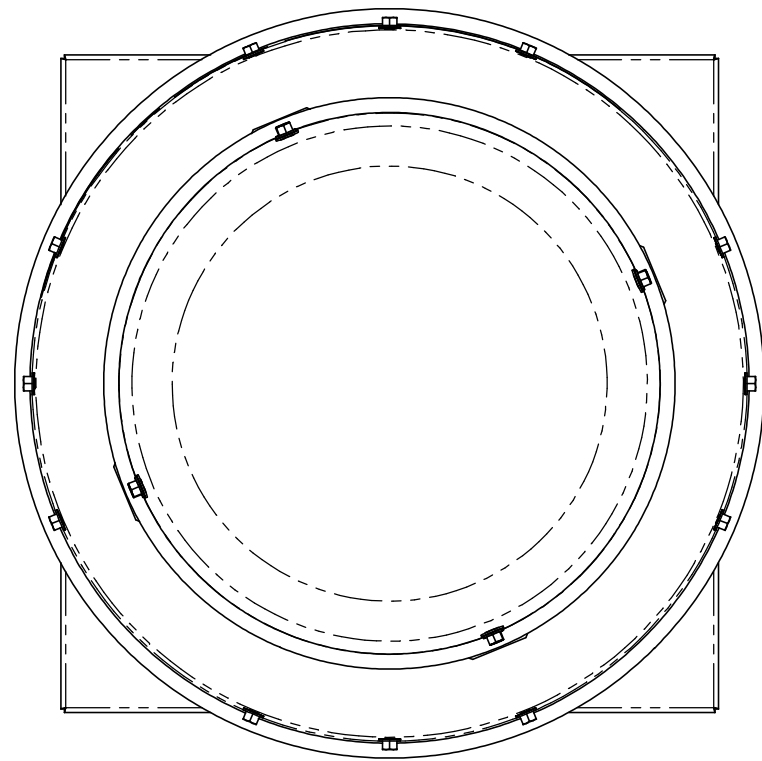
Digital Signature Data

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0314.04
Expiration Date 10/26/2028
By *[Signature]*
Miami-Dade Product Control

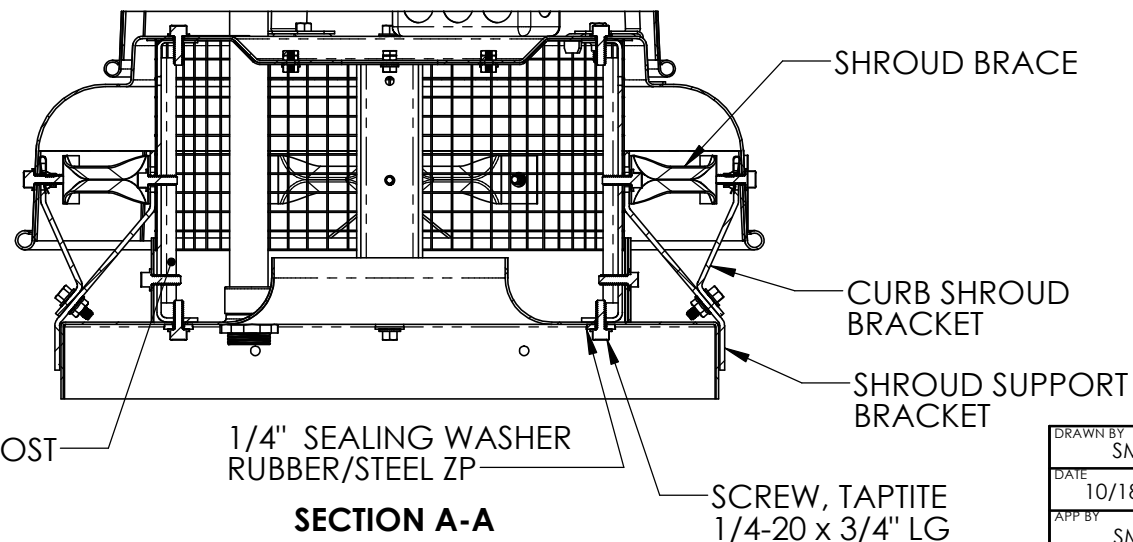
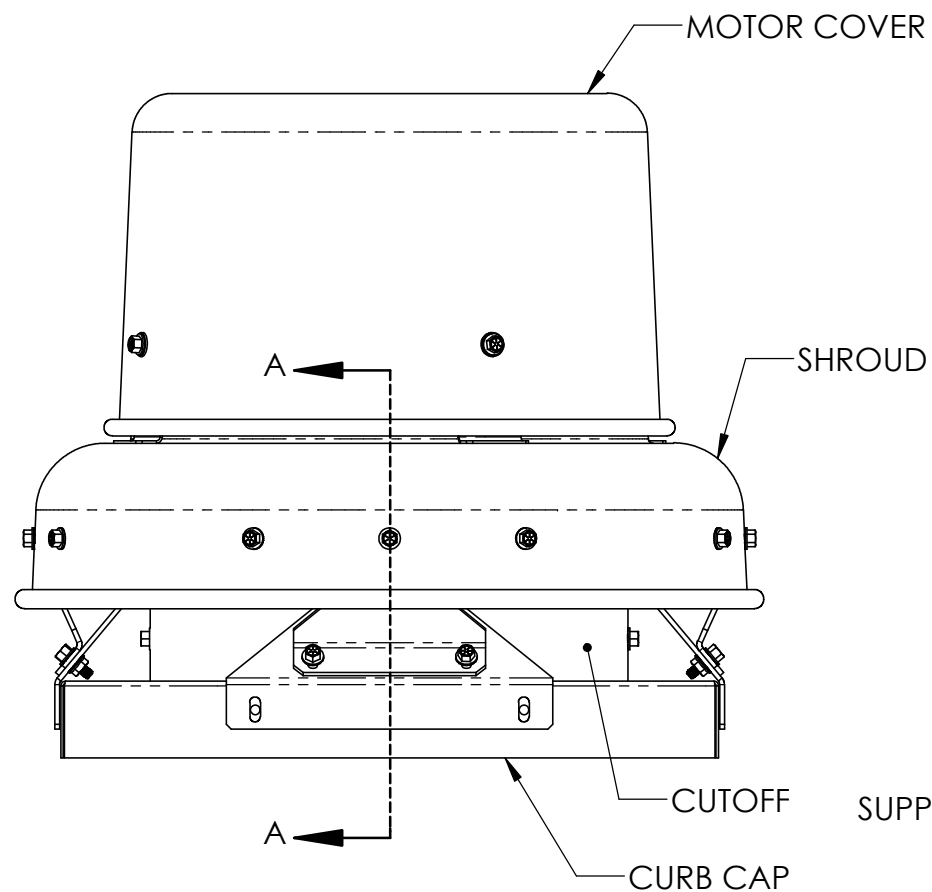
NOTES:

1. MODEL VC HAVE BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH THE MIAMI-DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT) AND TAS-202 (STATIC LOADING).
2. THIS FAN HAS NOT BEEN TESTED FOR WIND DRIVEN RAIN PER FBC, TAS 100(A).
3. THIS APPROVAL IS FOR THE STRUCTURAL PERFORMANCE AND IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL.
4. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY ROOF TOP FANS. FASTENERS SHALL BE AS SPECIFIED AND INSTALLED AS DETAILED.
5. DESIGN TESTING AND INSTALLATION CONFORMS TO THE FLORIDA BUILDING CODE 7TH EDITION (2020) AND FLORIDA BUILDING CODE 8TH EDITION (2023).
6. FAN CURBS MUST BE ANCHORED TO ROOF FRAMING MEMBERS AND NOT TO THE ROOFING SYSTEM.
7. DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL.

DRAWN BY	DATE	APP BY	DATE	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
SM	10/18/22	SM	10/18/22	E	SM	08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCU, VCUB UPDATED
								5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED	
TITLE VC SUMMARY MIAMI-DADE APPROVAL									
DRAWING NO. 500024054				ROW	ITEM	SHEET	REV.		
				-	-	1 OF 13	E		

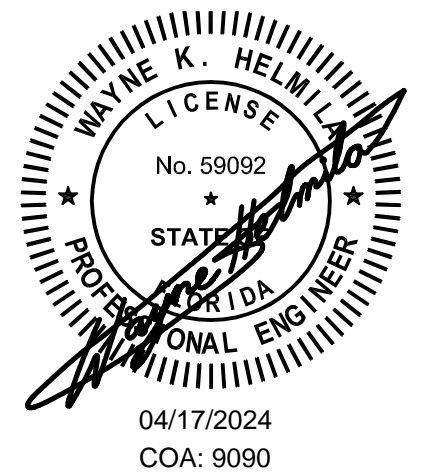


DESIGN LIMITS	
MAX: DESIGN LOAD:	±150 psf (7.18 kPa)
MAX: OVERALL UNIT HEIGHT:	17.30 in (0.44 m)
MAX: ENCLOSURE DIAMETER:	22.00 in (0.56 m)



For Miami-Dade Product Control

Professional Engineer Seal & License



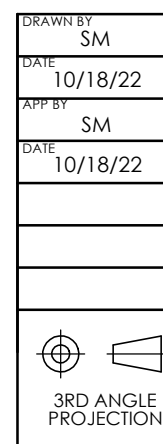
Florida Firm No & Contact Information

RICE
ENGINEERING
 105 School Creek Trail
 Luxemburg, WI 54217
 Phone: (920) 617-1042
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 www.rice-inc.com
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 By
Miami-Dade Product Control

REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
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DRAWING NO. 500024054			ROW -	ITEM -	SHEET 2 OF 13
					REV. E



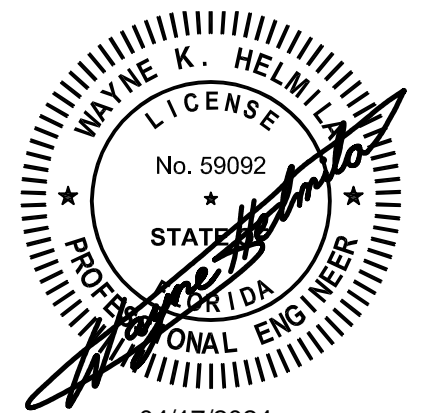
DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL

For Miami-Dade Product Control

Professional Engineer Seal & License

Florida Firm No & Contact Information

Digital Signature Data



04/17/2024
COA: 9090

RICE ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
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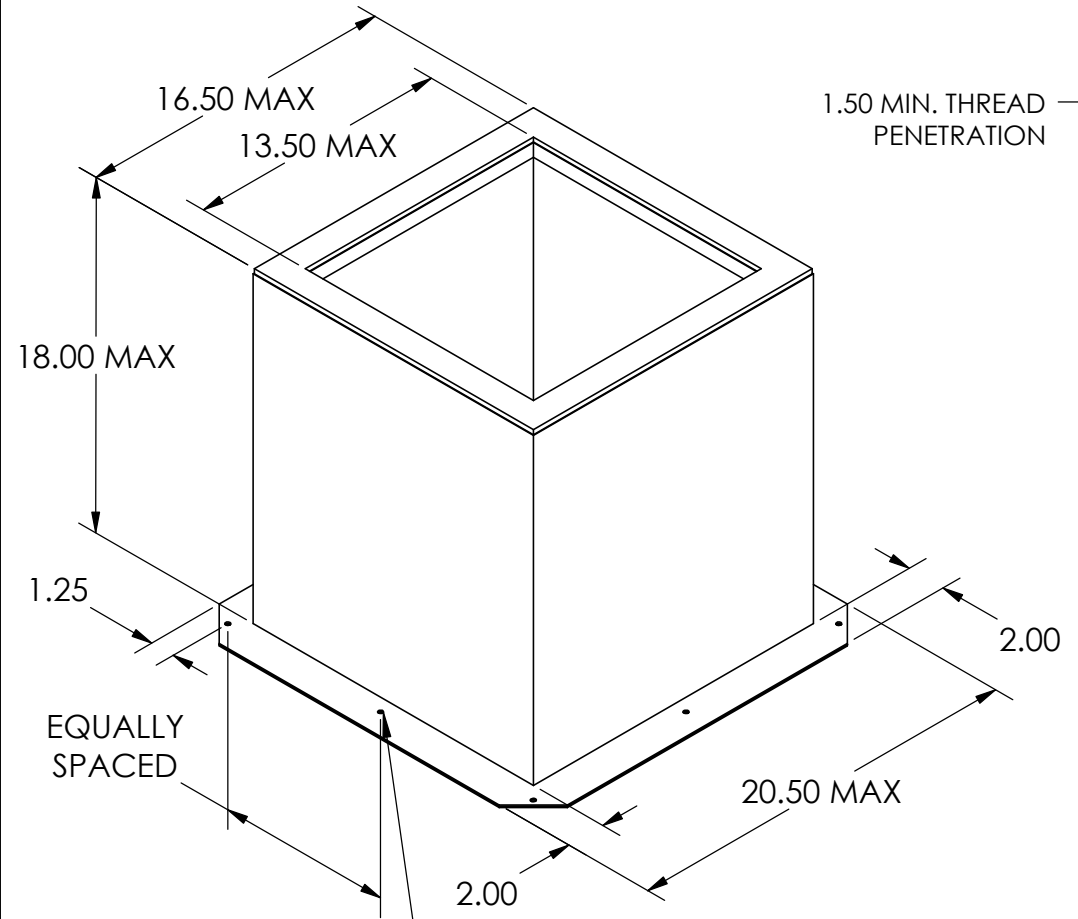
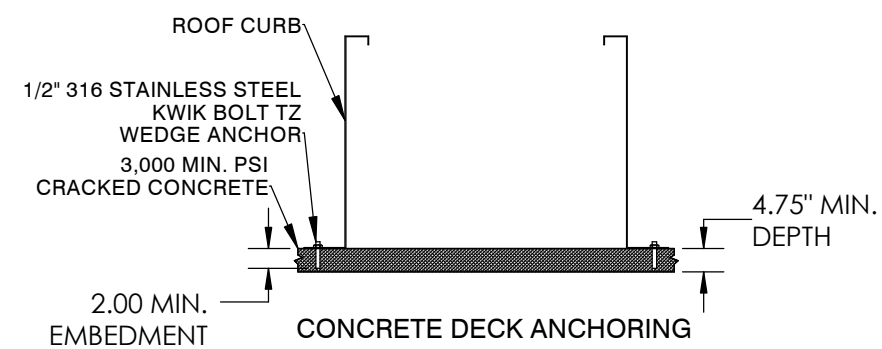
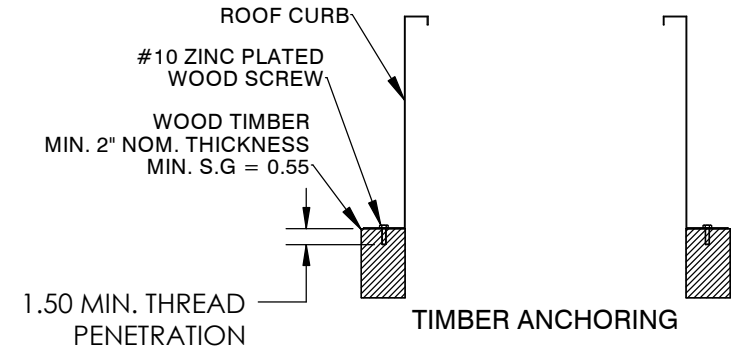
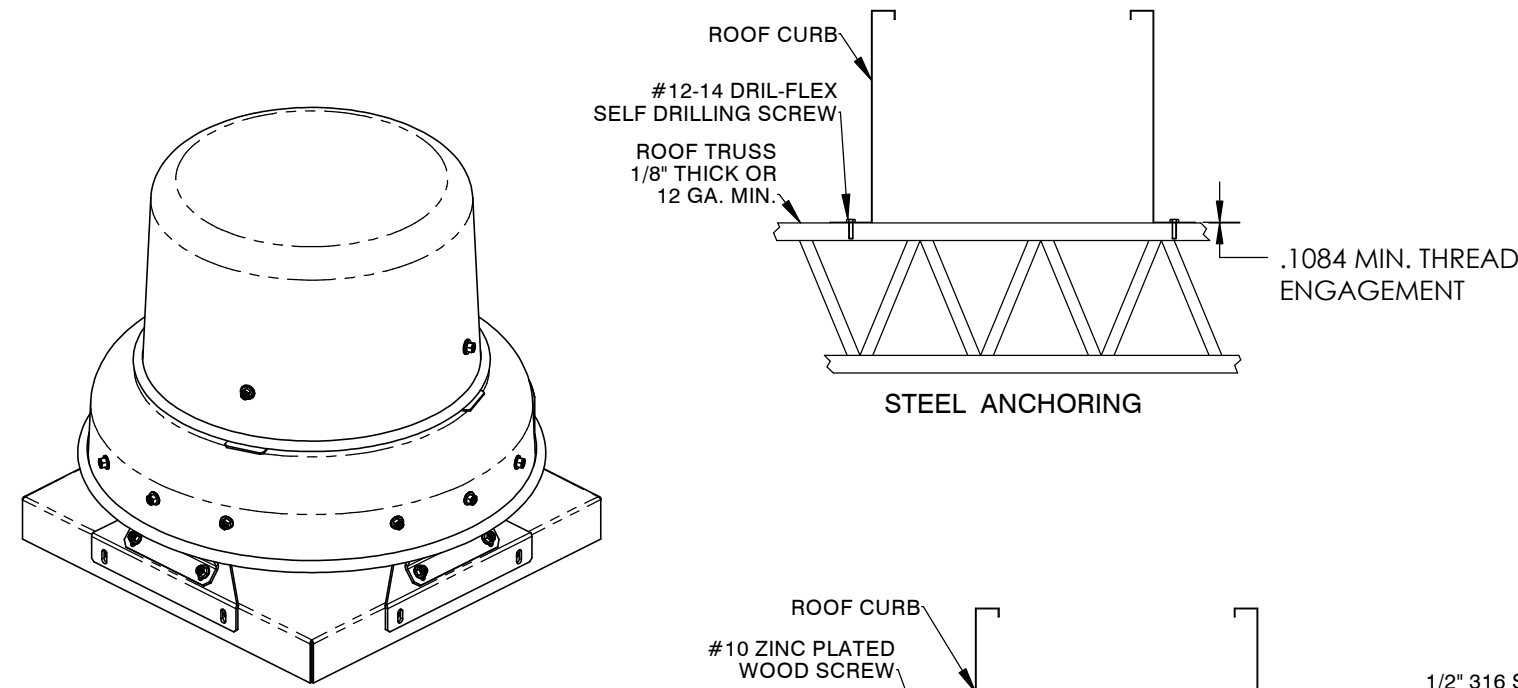
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 24-0314.04
Expiration Date 10/26/2028

By *[Signature]*
Miami-Dade Product Control

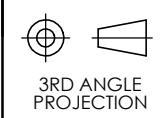
VC SIZE	FASTENER TABLE			MIN. NUMBER OF FASTENERS PER SIDE TO ATTACH UNIT TO CURB
	STEEL ANCHORING	CONCRETE DECK ANCHORING	TIMBER ANCHORING	
077	3	3	3	4
083	3	3	3	4
085	3	3	3	4
089	3	3	3	4
098	3	3	3	4
112	3	3	3	4
120	3	3	3	4

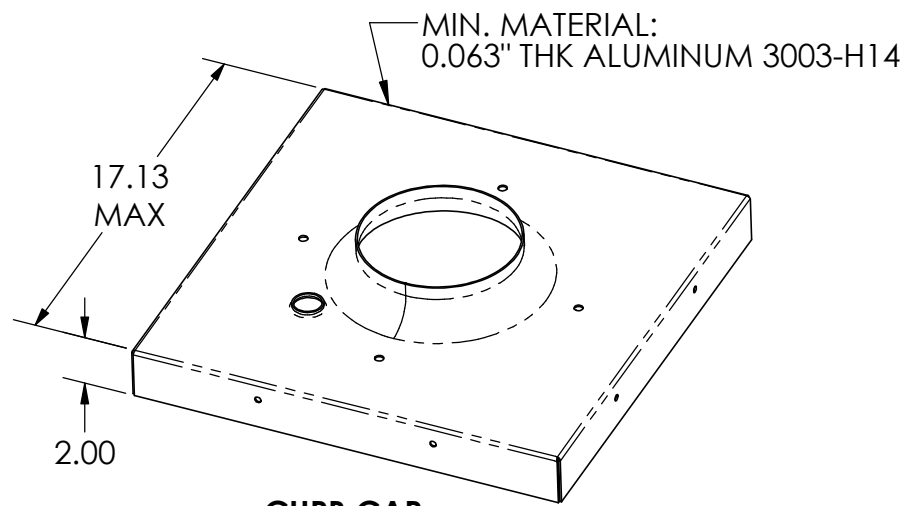


SECURE CURB TO ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGE AT LOCATIONS SHOWN IN THE DIAGRAM. SEE TABLE FOR MINIMUM QUANTITY OF ANCHORS REQUIRED PER CURB SIDE.

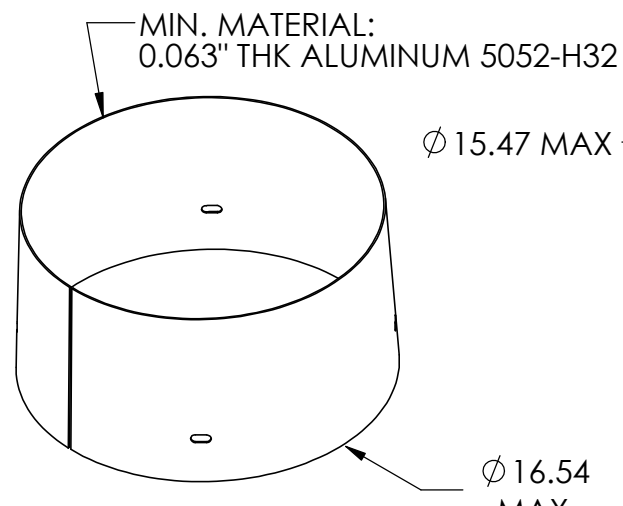
- CURB NOTES:**
- ROOF CURB MODEL RCSF, RCSFV, RCSA OR EQUIVALENT WELDED CONSTRUCTION. NO WOOD NAILER.
 - MATERIAL: 18 GA GALVANIZED STEEL
0.063 ALUMINUM
 - UNIT TO BE ATTACHED TO CURB USING #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. LOCATED 3" FROM EACH CORNER AND THROUGH SUPPORT BRACKET (LOCATED 5" FROM EACH CORNER).
 - ANY GAP BETWEEN THE CURB AND FASTENER SHALL BE FILLED BY THE INSTALLING CONTRACTOR WITH A SUITABLE CORROSION RESISTANT MATERIAL THAT ALLOWS THE FASTENERS TO BE INSTALLED WITHOUT CAUSING EXCESSIVE DISTORTION ON THE UNIT FLANGES.
 - CURB MUST BE ATTACHED TO A STRUCTURAL MEMBER OF THE BUILDING
 - CONCRETE DECK
 - CURB ANCHORAGE SHOULD BE INTO MINIMUM 3000 PSI CRACKED CONCRETE, WITH A MINIMUM SLAB DEPTH OF 4.75".
 - USE 1/2" DIA. STAINLESS STEEL HILTI KWIK BOLT TZ EXPANSION ANCHORS OR EQUIVALENT. ANCHORS SHALL HAVE A MINIMUM 2" EMBEDMENT. FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 10-1/4" WITH 4-1/2" MINIMUM SPACING AND 3-1/2" MINIMUM EDGE DISTANCE.
 - STEEL ROOF STRUCTURE
 - SHOULD BE INTO MINIMUM 12 GA OR 1/8" THICK STEEL MEMBER.
 - USE #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD ENGAGEMENT OF .1084". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 10-1/4" WITH 11/16" MINIMUM SPACING AND 3/8" MINIMUM EDGE DISTANCE.
 - TIMBER ROOF STRUCTURE
 - SHOULD BE MINIMUM S.G. = 0.55
 - USE #10 ZINC PLATED WOOD SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD PENETRATION OF 1-1/2". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 16-3/4" WITH 3/4" MINIMUM SPACING, 3/4" MINIMUM EDGE DISTANCE AND 1.316" MINIMUM END DISTANCE.

DRAWN BY	DATE	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
SM	10/18/22						DESIGN PRESSURE OF VCU, VCUB UPDATED
SM	10/18/22						DESCRIPTION
							5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
							TITLE VC SUMMARY MIAMI-DADE APPROVAL
DRAWING NO. 500024054	ROW -	ITEM -	SHEET 3 OF 13	REV. E			

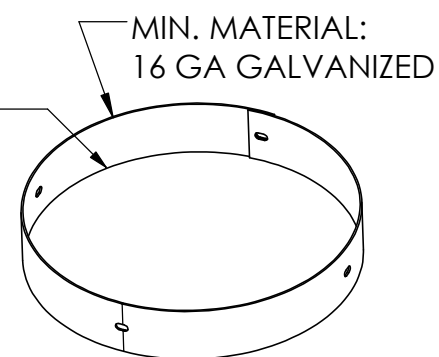




CURB CAP



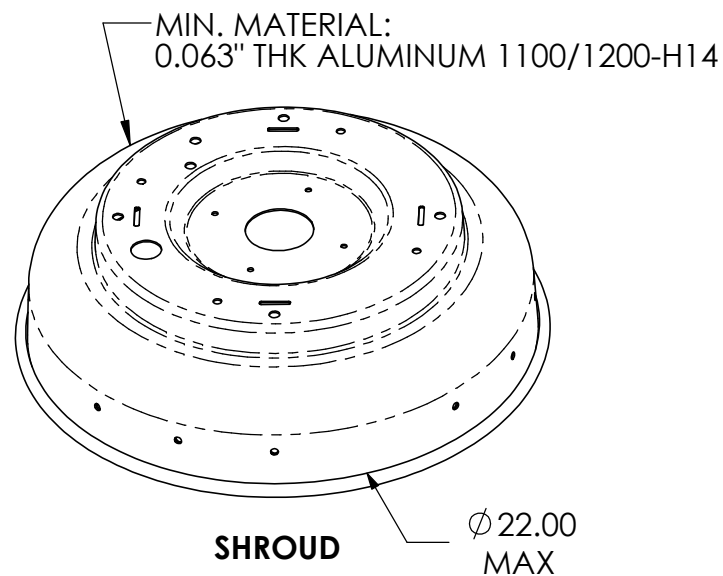
MOTOR COVER LINER



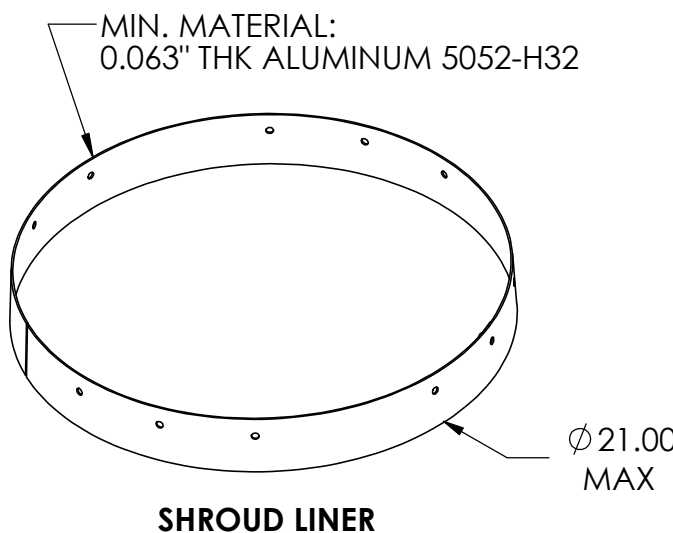
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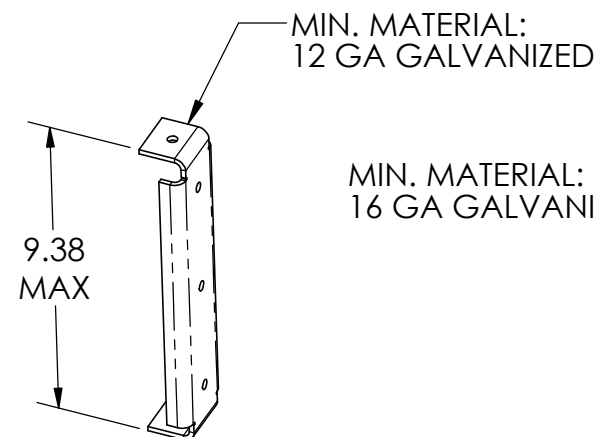
MOTOR COVER SEATING BRACKET



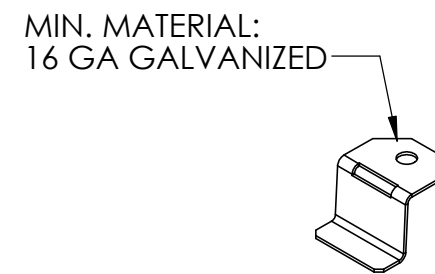
SHROUD



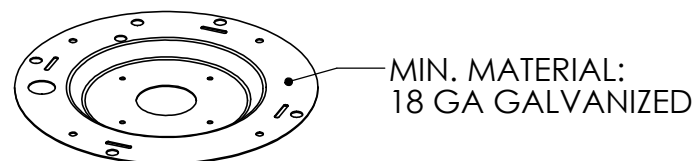
SHROUD LINER



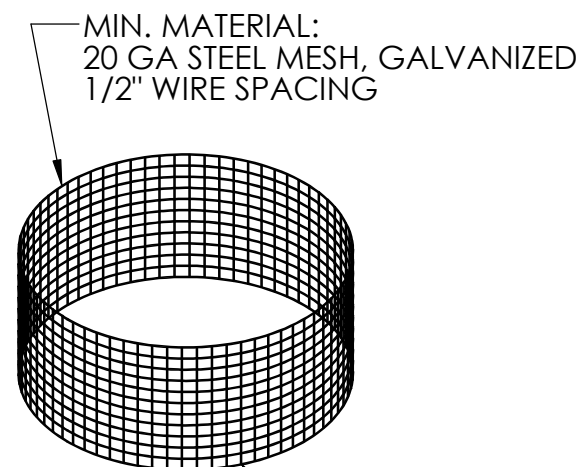
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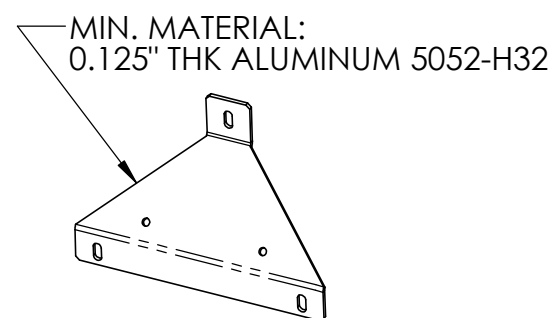
MOTOR COVER BRACKET



MOTOR REINFORCEMENT PLATE



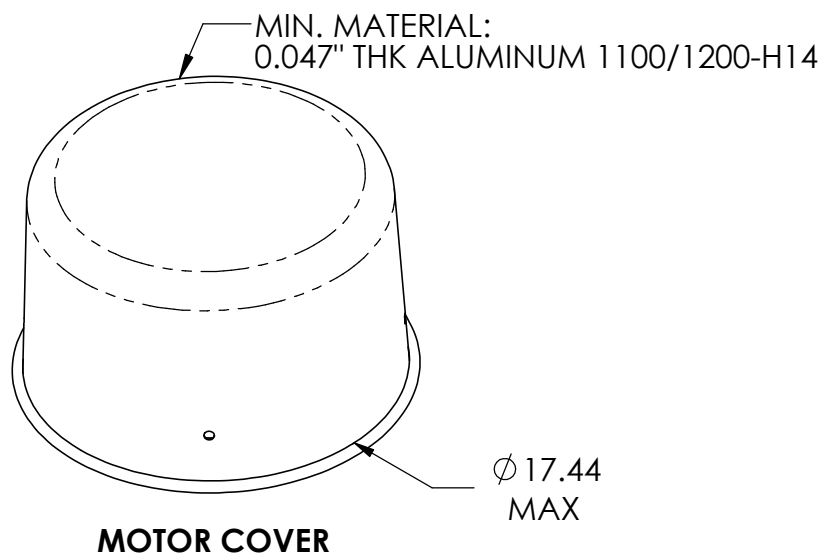
BIRDSCREEN



SUPPORT BRACKET

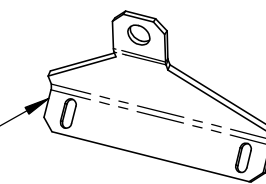


SHROUD BRACE



MOTOR COVER

MIN. MATERIAL:
0.125" THK ALUMINUM 5052-H32



CURB SHROUD SUPPORT BRACKET

For Miami-Dade Product Control

Professional Engineer Seal & License



04/17/2024
COA: 9090

Florida Firm No & Contact Information

RICE ENGINEERING

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

Digital Signature Data

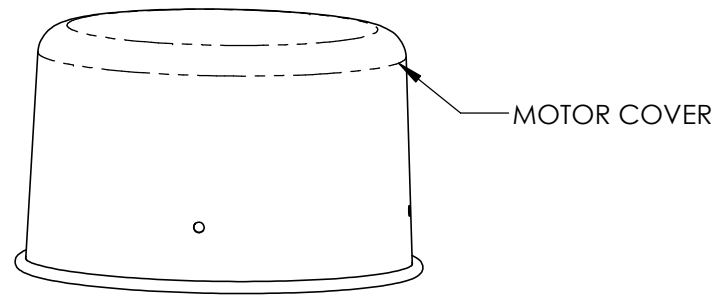
PRODUCT REVISED
as complying with the Florida Building Code

NOA-No. 24-0314.04

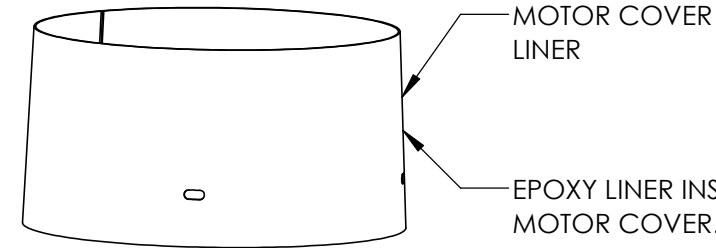
Expiration Date 10/26/2028

By *[Signature]*
Miami-Dade Product Control

DRAWN BY	E	SM	08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCUB UPDATED
DATE	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
10/18/22						
APP BY						5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
DATE						
10/18/22	TITLE					
	VC SUMMARY					
	MIAMI-DADE APPROVAL					
DRAWING NO.	ROW	ITEM	SHEET	REV.		
500024054	-	-	4 OF 13	E		
3RD ANGLE PROJECTION						



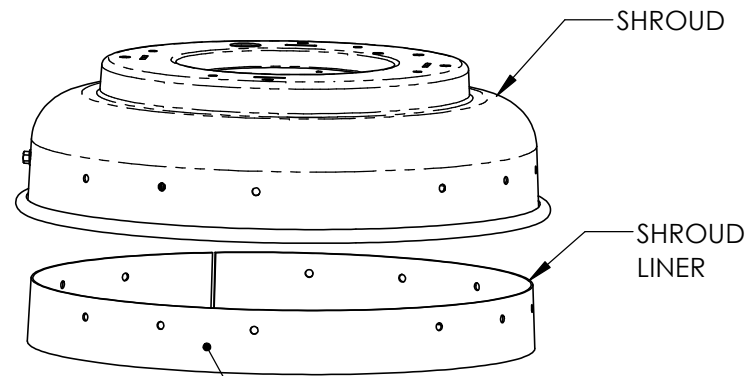
MOTOR COVER



MOTOR COVER LINER

EPOXY LINER INSIDE MOTOR COVER.

MOTOR COVER LINER EPOXY INSIDE MOTOR COVER

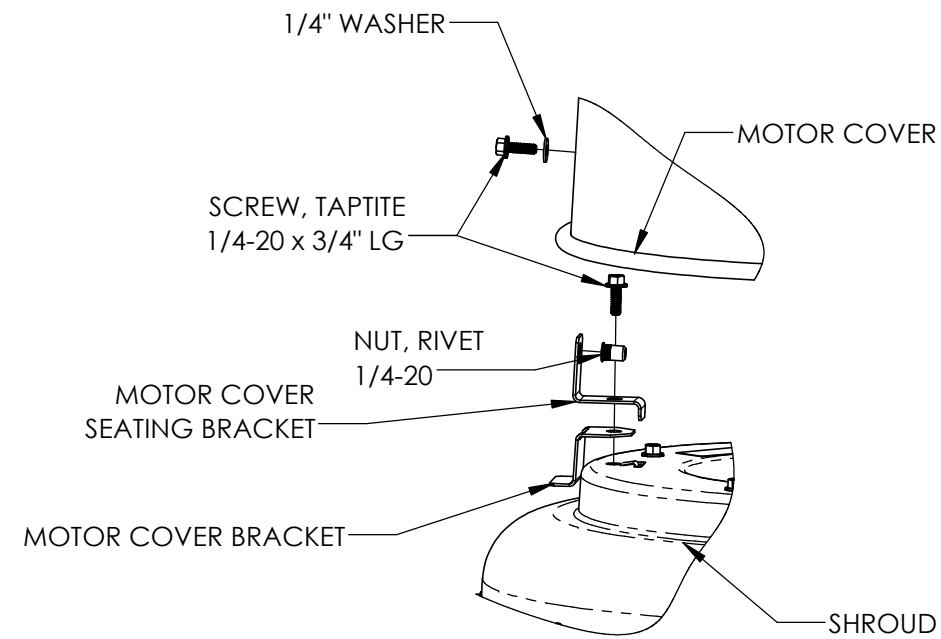


SHROUD

SHROUD LINER

EPOXY LINER INSIDE SHROUD.

SHROUD LINER EPOXY INSIDE SHROUD



1/4" WASHER

SCREW, TAPTITE
1/4-20 x 3/4" LG

MOTOR COVER

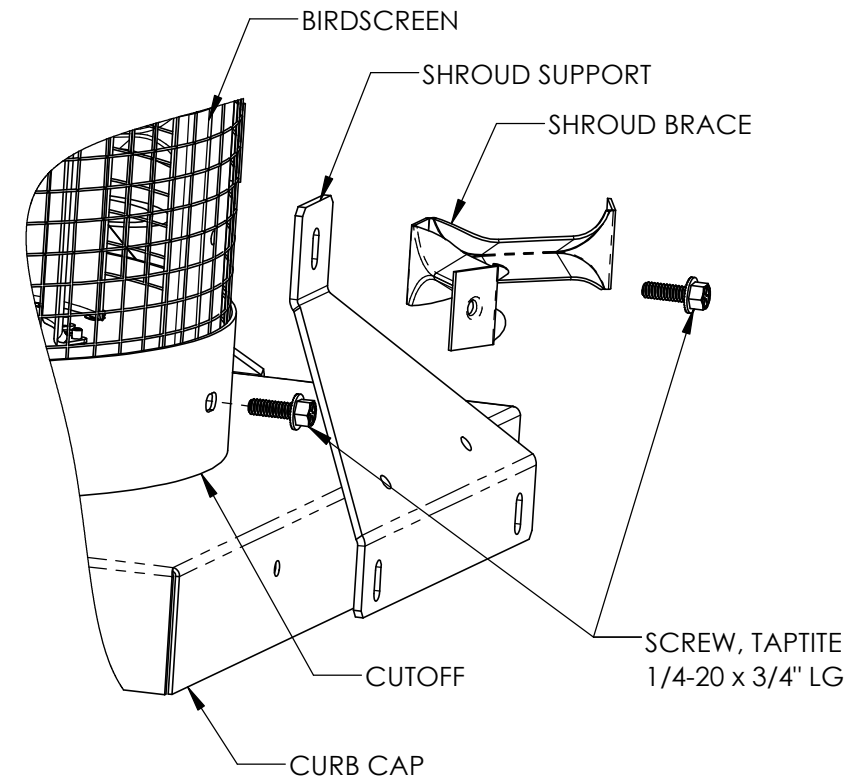
NUT, RIVET
1/4-20

MOTOR COVER SEATING BRACKET

MOTOR COVER BRACKET

SHROUD

MOTOR COVER MOUNTING WITH SHROUD



BIRDSCREEN

SHROUD SUPPORT

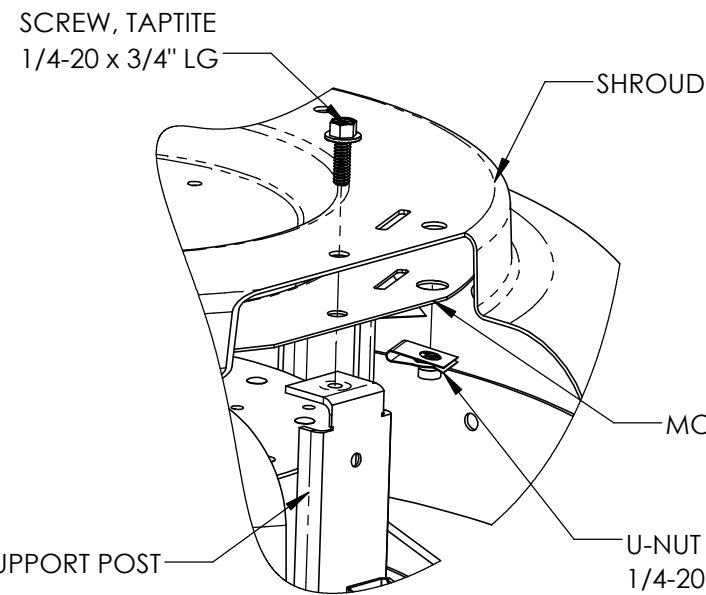
SHROUD BRACE

SCREW, TAPTITE
1/4-20 x 3/4" LG

CUTOFF

CURB CAP

SHROUD SUPPORT MOUNTING WITH BIRDSCREEN, CUTOFF & SUPPORT POST



SCREW, TAPTITE
1/4-20 x 3/4" LG

SHROUD

MOTOR REINFORCING PLATE

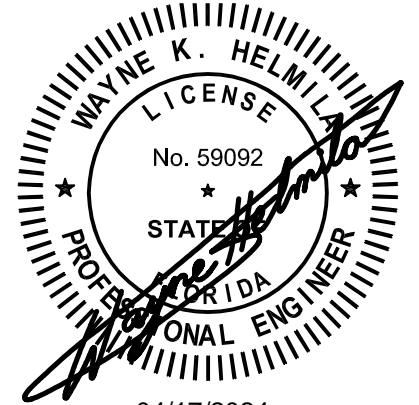
SUPPORT POST

U-NUT
1/4-20

SUPPORT POST MOUNTING WITH SHROUD & DECK PLATE

For Miami-Dade Product Control

Professional Engineer Seal & License



04/17/2024
COA: 9090

Florida Firm No & Contact Information

RICE
ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
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Digital Signature Data

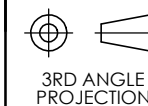
PRODUCT REVISED
as complying with the Florida Building Code

NOA-No. 24-0314.04

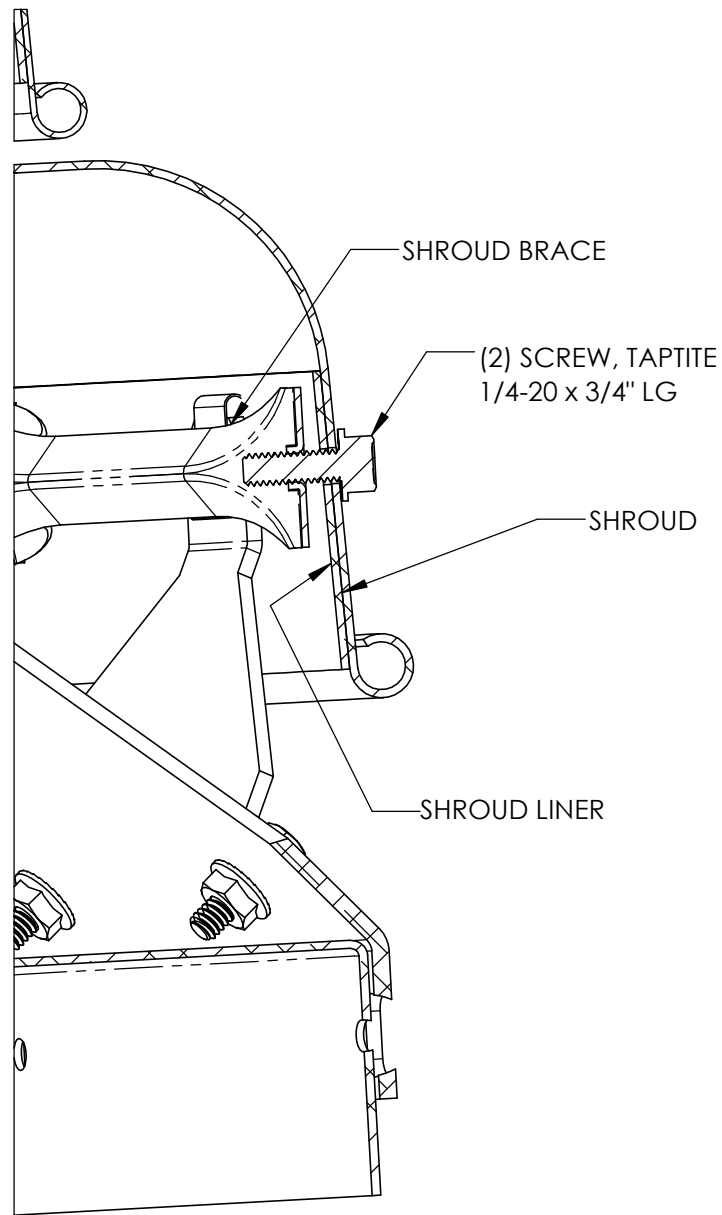
Expiration Date 10/26/2028

By *[Signature]*
Miami-Dade Product Control

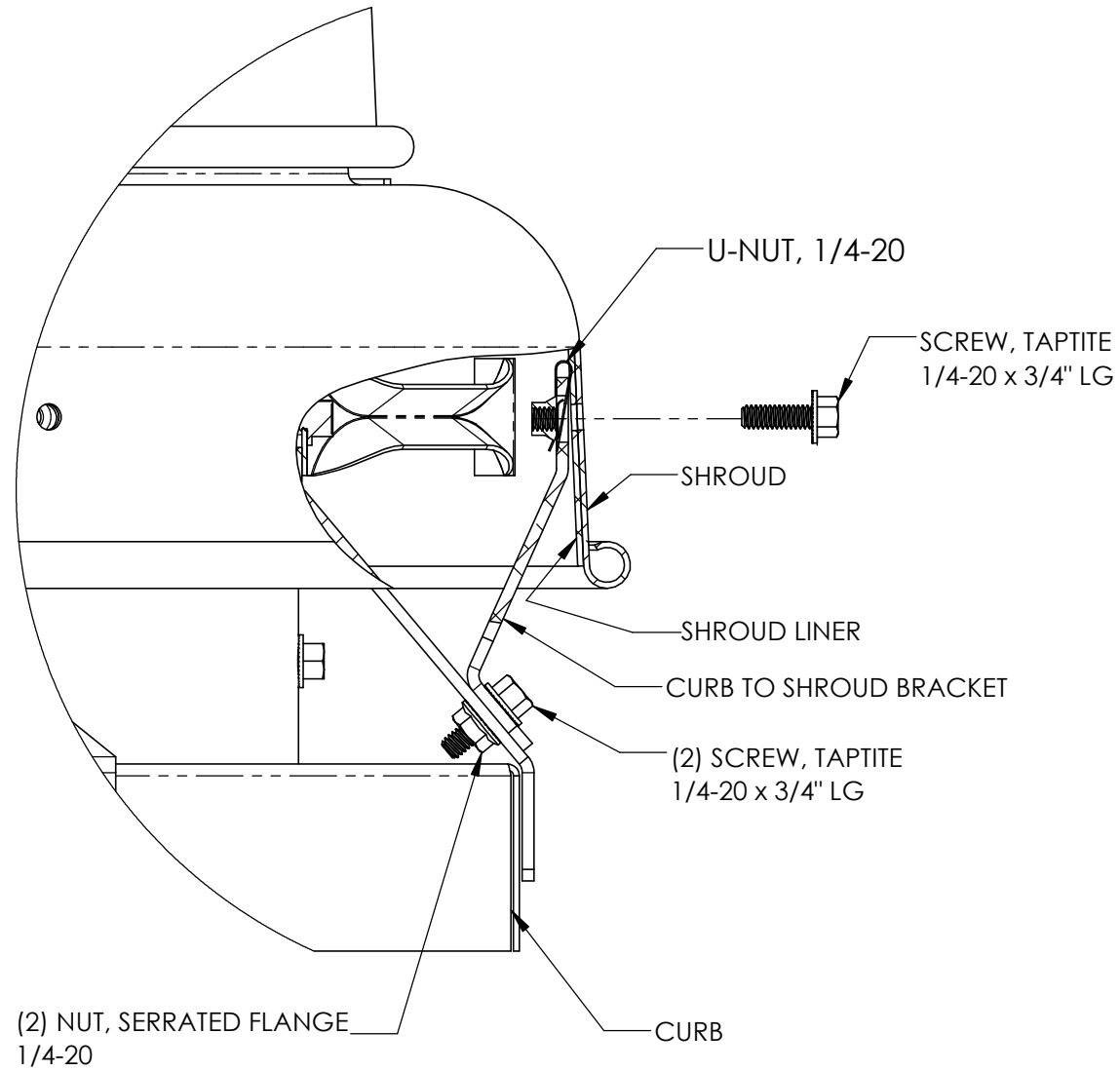
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SM						
DATE						
10/18/22						
APP BY						
SM						
DATE						
10/18/22						
						DESIGN PRESSURE OF VCU, VCUB UPDATED
						DESCRIPTION
						5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
						TITLE
						VC SUMMARY
						MIAMI-DADE APPROVAL
						DRAWING NO.
						500024054
						ROW
						-
						ITEM
						-
						SHEET
						5 OF 13
						REV.
						E



3RD ANGLE PROJECTION



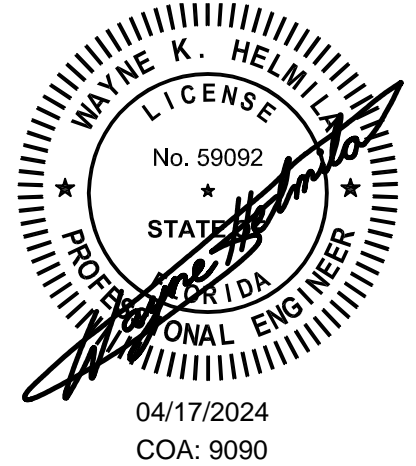
SHROUD MOUNTING WITH SHROUD BRACE



SHROUD MOUNTING WITH CURB SHROUD SUPPORT BRACKET

For Miami-Dade Product Control

Professional Engineer Seal & License




Florida Firm No & Contact Information

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

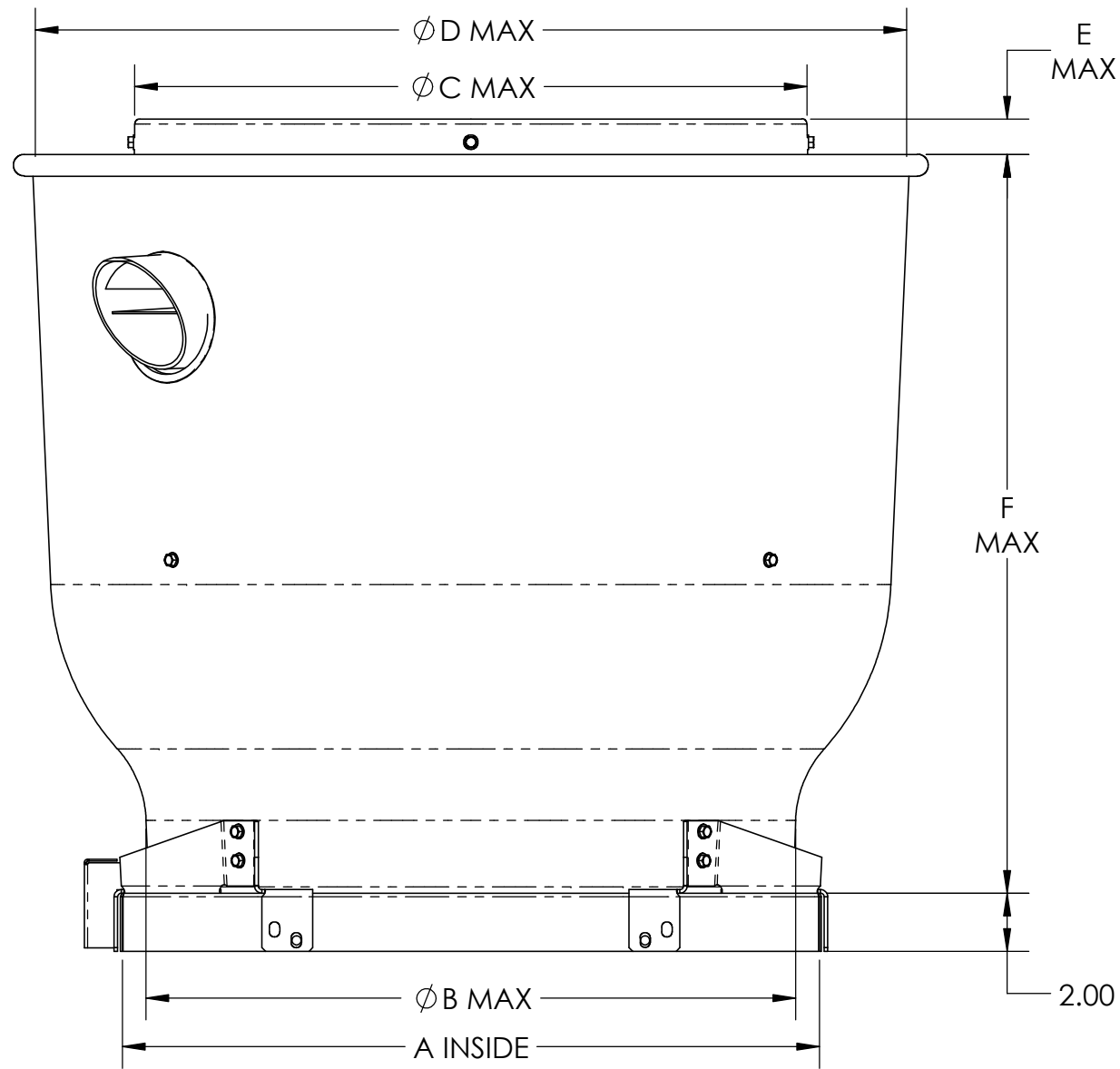
Digital Signature Data

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0314.04
Expiration Date 10/26/2028
By *[Signature]*
Miami-Dade Product Control

DRAWN BY	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
SM			08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCU, VCUB UPDATED
DATE						
10/18/22						
APP BY						
SM						
DATE						
10/18/22						
						
5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED						
TITLE						
VC SUMMARY						
MIAMI-DADE APPROVAL						
DRAWING NO.				ROW	ITEM	SHEET
500024054				-	-	6 OF 13
						REV.
						E



3RD ANGLE PROJECTION



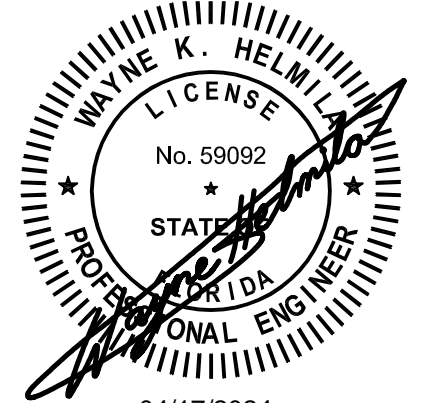
MODEL	SIZE	A	B	C	D	E	F	WEIGHT (LB)
VCU	085	17.00	15.13	15.42	22.00	0.20	18.00	60
VCU	089	20.00	15.13	15.42	22.00	0.20	18.00	65
VCU	098	20.00	15.13	15.42	22.00	0.20	18.00	65
VCU	110	20.00	15.13	15.42	22.00	0.20	18.00	65
VCU	112	20.00	15.13	15.42	22.00	0.20	18.00	65
VCU/VCUB	122	24.00	22.21	23.15	30.00	1.22	25.44	95
VCU/VCUB	124	24.00	22.21	23.15	30.00	1.22	25.44	95
VCU/VCUB	135	24.00	22.21	23.15	30.00	1.22	25.44	95
VCU/VCUB	140	24.00	22.21	23.15	30.00	1.22	25.44	100
VCU/VCUB	150	24.00	22.21	23.15	30.00	1.22	25.44	100
VCU/VCUB	157	24.00	22.21	23.15	30.00	1.22	25.44	100
VCU/VCUB	165	24.00	22.21	23.15	30.00	1.22	25.44	100
VCU/VCUB	177	30.00	26.98	25.63	36.13	3.20	30.00	140
VCU/VCUB	182	30.00	26.98	25.63	36.13	3.20	30.00	140
VCU/VCUB	197	30.00	26.98	25.63	36.13	3.20	30.00	140

NOTES:

1. MODEL VCU/VCUB HAVE BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH THE MIAMI-DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT) AND TAS-202 (STATIC LOADING).
2. THIS FAN HAS NOT BEEN TESTED FOR WIND DRIVEN RAIN PER FBC, TAS 100(A).
3. THIS APPROVAL IS FOR THE STRUCTURAL PERFORMANCE AND IMPACT RESISTANCE ONLY. INTERIOR MECHANISM AND/OR ELECTRICAL CIRCUITRY ARE OUTSIDE THE SCOPE OF THIS APPROVAL.
4. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY ROOF TOP FANS. FASTENERS SHALL BE AS SPECIFIED AND INSTALLED AS DETAILED.
5. DESIGN TESTING AND INSTALLATION CONFORMS TO THE FLORIDA BUILDING CODE 7TH EDITION (2020). AND FLORIDA BUILDING CODE 8TH EDITION (2023).
6. FAN CURBS MUST BE ANCHORED TO ROOF FRAMING MEMBERS AND NOT TO THE ROOFING SYSTEM.
7. DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL.

For Miami-Dade Product Control

Professional Engineer Seal & License




04/17/2024
COA: 9090

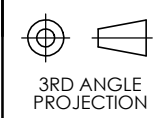
Florida Firm No & Contact Information

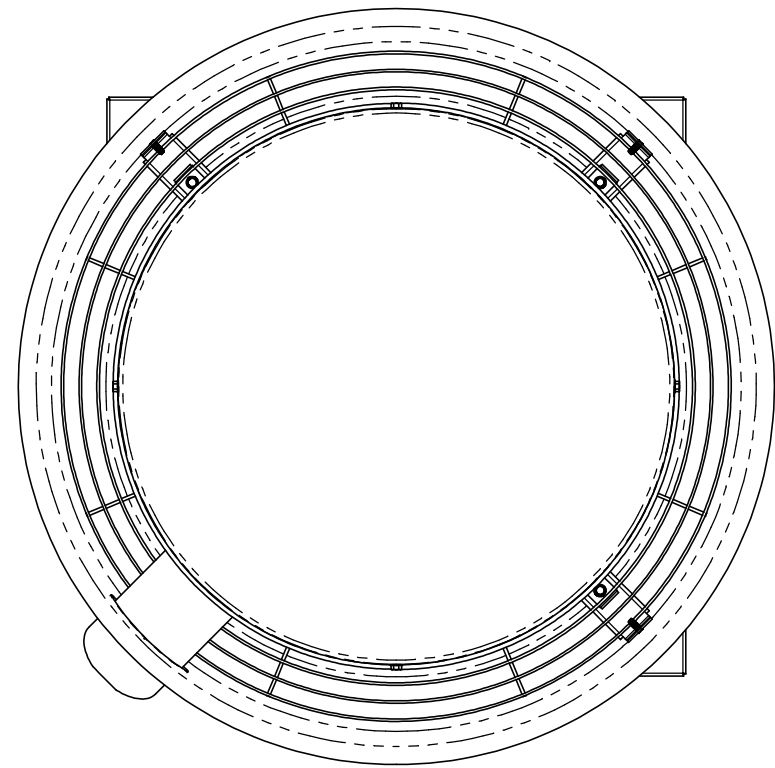
RICE
ENGINEERING
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Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

Digital Signature Data

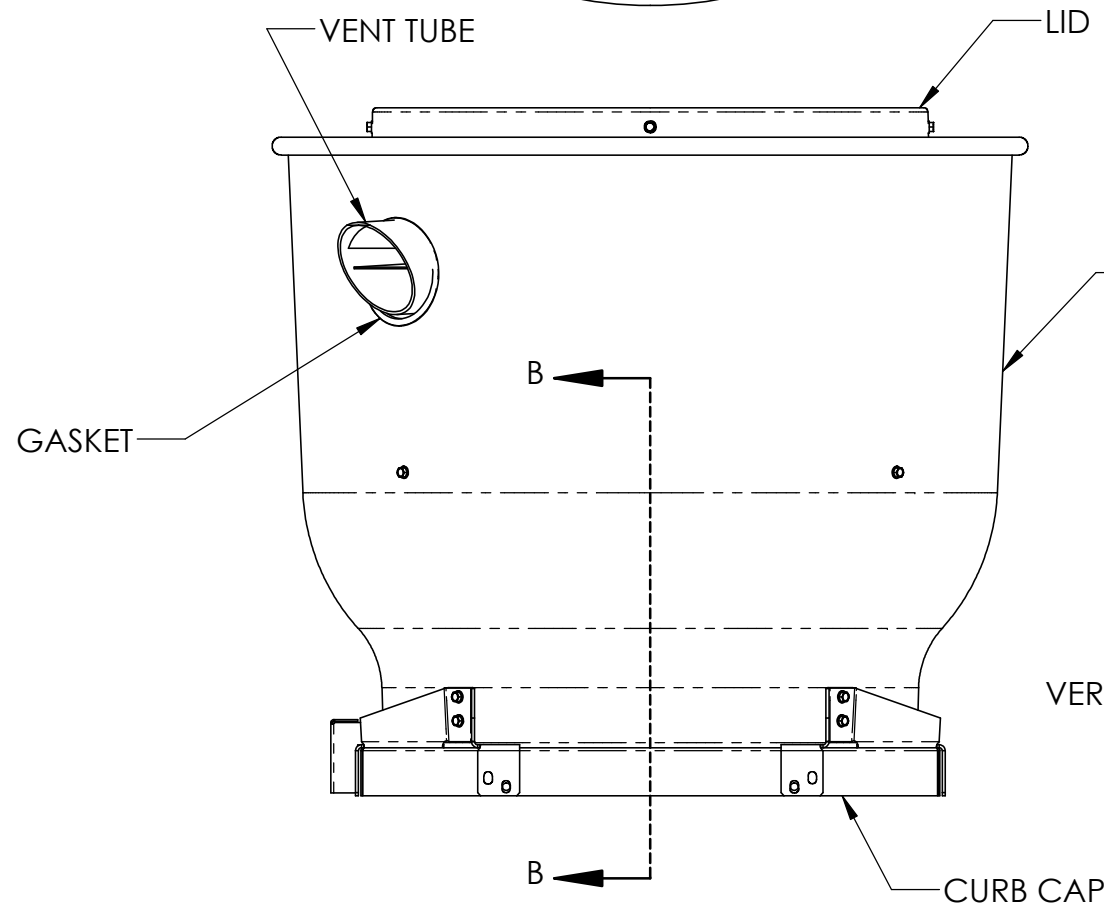
PRODUCT REVISED
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NOA-No. 24-0314.04
Expiration Date 10/26/2028
By *[Signature]*
Miami-Dade Product Control

DRAWN BY	DATE	APP BY	DATE	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
SM	10/18/22	SM	10/18/22						DESIGN PRESSURE OF VCU, VCUB UPDATED
SM	10/18/22								 <p>5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED</p>
<p>TITLE VCU/VCUB SUMMARY MIAMI-DADE APPROVAL</p>									
DRAWING NO. 500024054				ROW	ITEM	SHEET	REV.		
				-	-	7 OF 13	E		





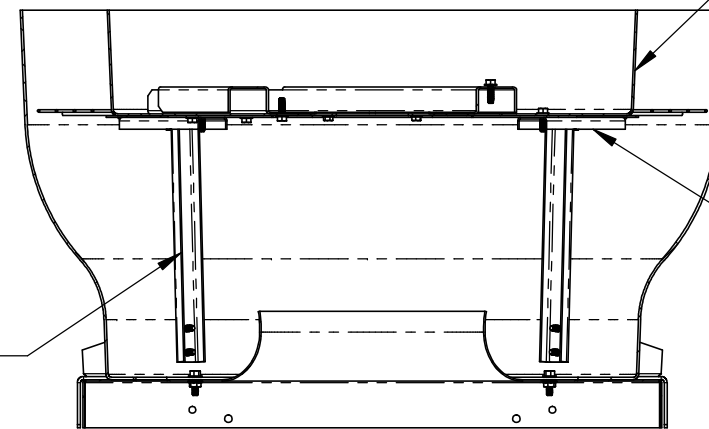
DESIGN LIMITS	
MAX: DESIGN LOAD:	+75 / -125 psf (+3.59 / -5.98 kPa)
MAX: OVERALL UNIT HEIGHT:	30.00 in (0.76 m)
MAX: ENCLOSURE DIAMETER:	30.00 in (0.76 m)



SHROUD

VERTICAL SUPPORT POST

CURB CAP



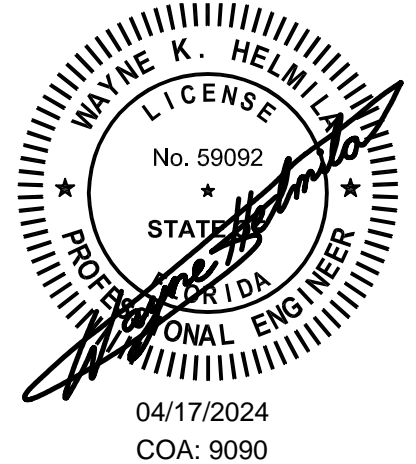
SECTION B-B

MOTOR HOUSING

HORIZONTAL SUPPORT POST

For Miami-Dade Product Control

Professional Engineer Seal & License



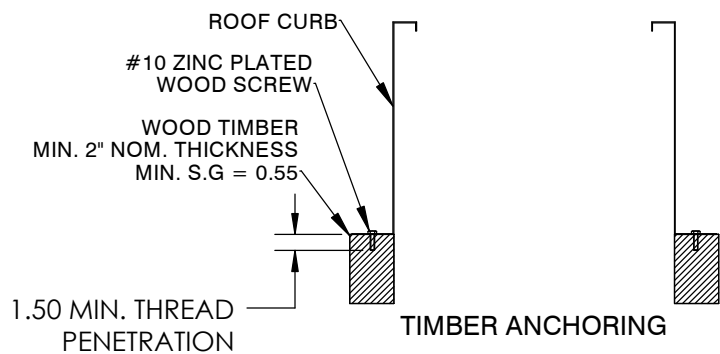
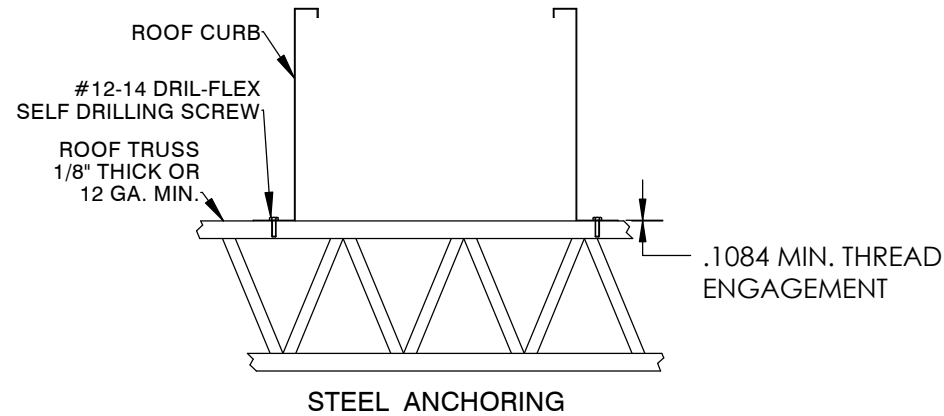
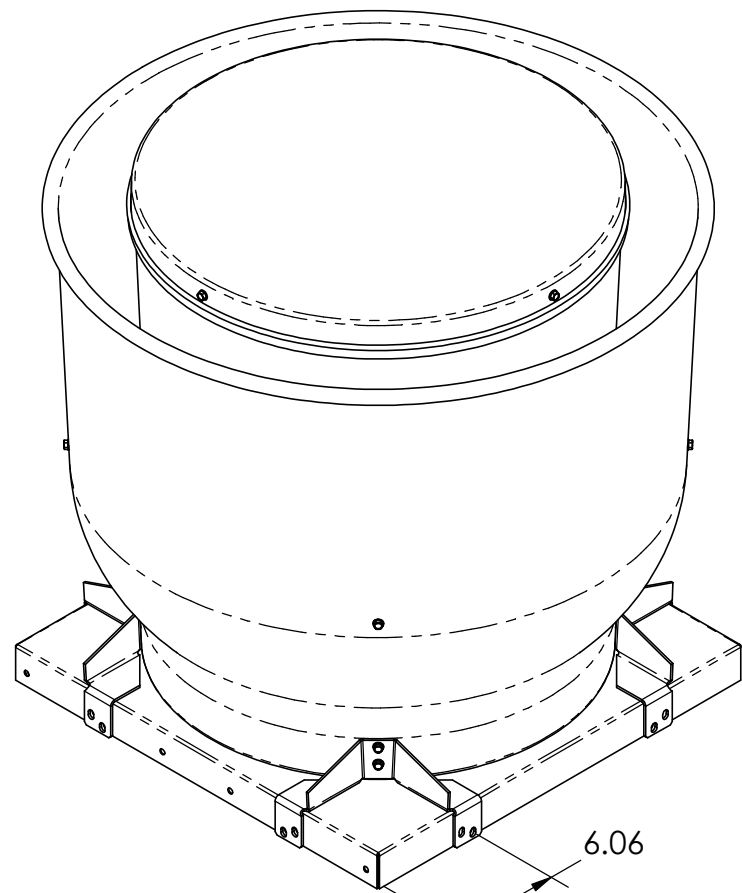
Florida Firm No & Contact Information

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Registration No: 59092

Digital Signature Data

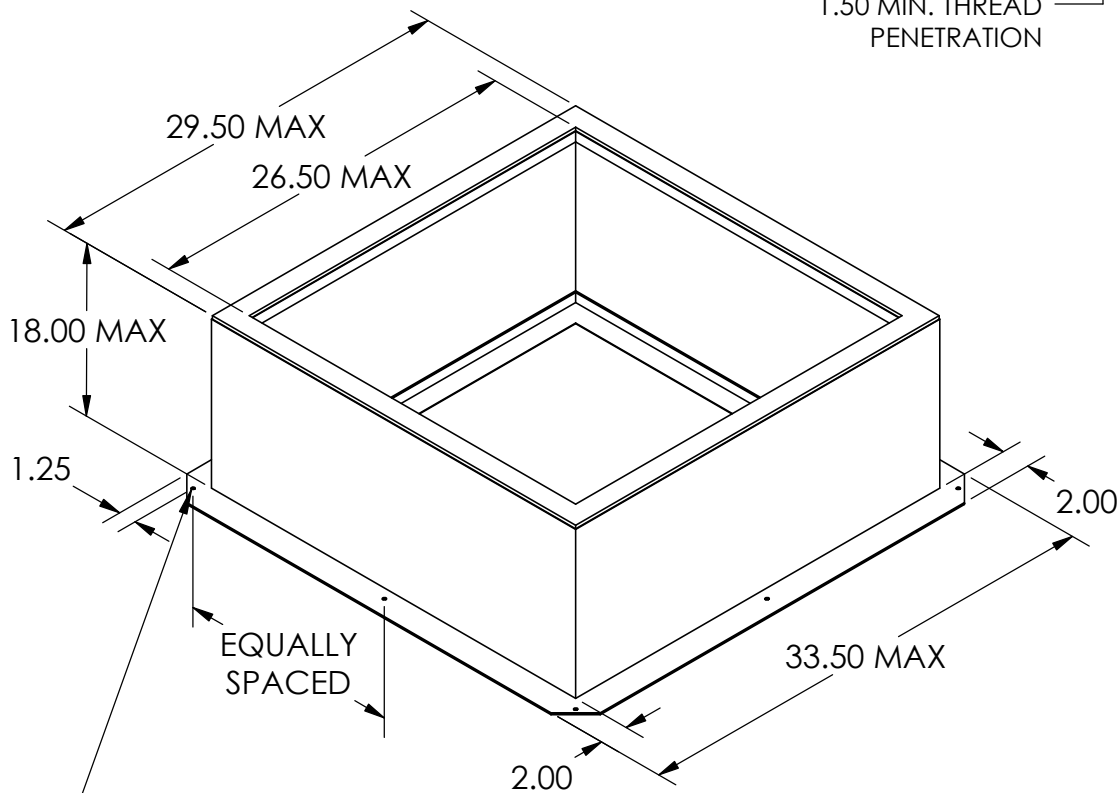
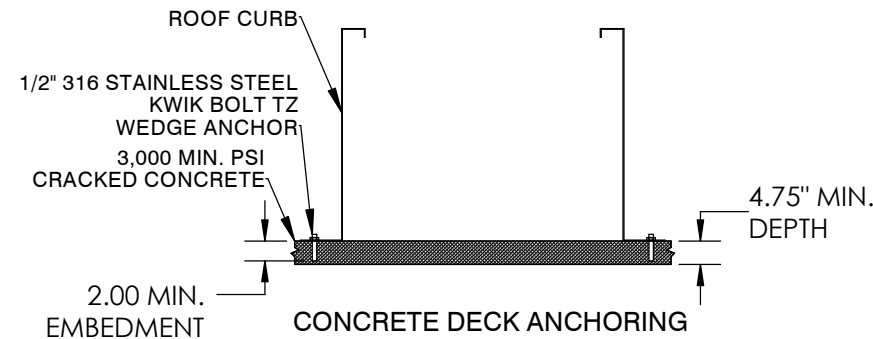
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0314.04
Expiration Date 10/26/2028
By *[Signature]*
Miami-Dade Product Control

DRAWN BY	E	SM	08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCU, VCUB UPDATED					
SM	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION					
DATE							5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED				
10/18/22											
APP BY						TITLE VCU/VCUB SUMMARY MIAMI-DADE APPROVAL	DRAWING NO. 500024054	ROW -	ITEM -	SHEET 8 OF 13	REV. E
SM											
DATE											
10/18/22											



DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL

VCU/VCUB SIZE	MINIMUM NUMBER OF FASTENERS PER SIDE TO ATTACH CURB TO ROOF STRUCTURE			MIN. NUMBER OF FASTENERS PER SIDE TO ATTACH UNIT TO CURB
	STEEL ANCHORING	CONCRETE DECK ANCHORING	TIMBER ANCHORING	
085	3	3	3	5
089	3	3	3	5
098	3	3	3	5
110	3	3	3	5
112	3	3	3	5
122	3	3	3	5
124	3	3	3	5
135	3	3	3	5
140	3	3	3	5
150	3	3	3	5
157	3	3	3	5
165	3	3	3	5
177	3	3	5	5
182	3	3	5	5
197	3	3	5	5



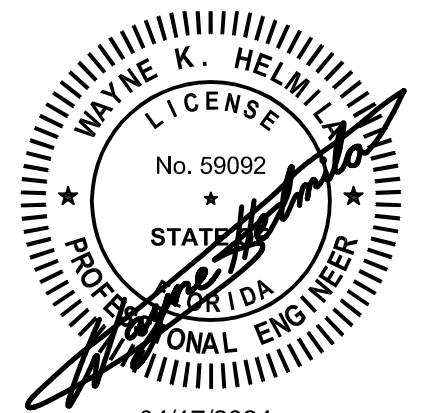
CURB NOTES:

- ROOF CURB MODEL RCSF, RCSFV, RCSA OR EQUIVALENT WELDED CONSTRUCTION. NO WOOD NAILER.
 - MATERIAL: 18 GA GALVANIZED STEEL 0.063 ALUMINUM
- UNIT TO BE ATTACHED TO CURB USING #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. LOCATED 3" FROM EACH CORNER, THROUGH SUPPORT BRACKET (LOCATED 6" FROM EACH CORNER) AND CENTER OF UNIT. ANY GAP BETWEEN THE CURB AND FASTENER SHALL BE FILLED BY THE INSTALLING CONTRACTOR WITH A SUITABLE CORROSION RESISTANT MATERIAL THAT ALLOWS THE FASTENERS TO BE INSTALLED WITHOUT CAUSING EXCESSIVE DISTORTION ON THE UNIT FLANGES.
- CURB MUST BE ATTACHED TO A STRUCTURAL MEMBER OF THE BUILDING
- CONCRETE DECK
 - CURB ANCHORAGE SHOULD BE INTO MINIMUM 3000 PSI CRACKED CONCRETE, WITH A MINIMUM SLAB DEPTH OF 4.75".
 - USE 1/2" DIA. STAINLESS STEEL HILTI KWIK BOLT TZ EXPANSION ANCHORS OR EQUIVALENT. ANCHORS SHALL HAVE A MINIMUM 2" EMBEDMENT. FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 10-1/4" WITH 4-1/2" MINIMUM SPACING AND 3-1/2" MINIMUM EDGE DISTANCE.
- STEEL ROOF STRUCTURE
 - SHOULD BE INTO MINIMUM 12 GA OR 1/8" THICK STEEL MEMBER.
 - USE #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD ENGAGEMENT OF .1084". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 16-3/4" WITH 11/16" MINIMUM SPACING AND 3/8" MINIMUM EDGE DISTANCE.
- TIMBER ROOF STRUCTURE
 - SHOULD BE MINIMUM S.G. = 0.55
 - USE #10 ZINC PLATED WOOD SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD PENETRATION OF 1-1/2". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 16-3/4" WITH 3/4" MINIMUM SPACING, 3/4" MINIMUM EDGE DISTANCE AND 1.316" MINIMUM END DISTANCE.

SECURE CURB TO ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGE AT LOCATIONS SHOWN IN THE DIAGRAM. SEE TABLE FOR MINIMUM QUANTITY OF ANCHORS REQUIRED PER CURB SIDE.

For Miami-Dade Product Control

Professional Engineer Seal & License



04/17/2024
COA: 9090

Florida Firm No & Contact Information

RICE ENGINEERING

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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

Digital Signature Data

PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 24-0314.04

Expiration Date 10/26/2028

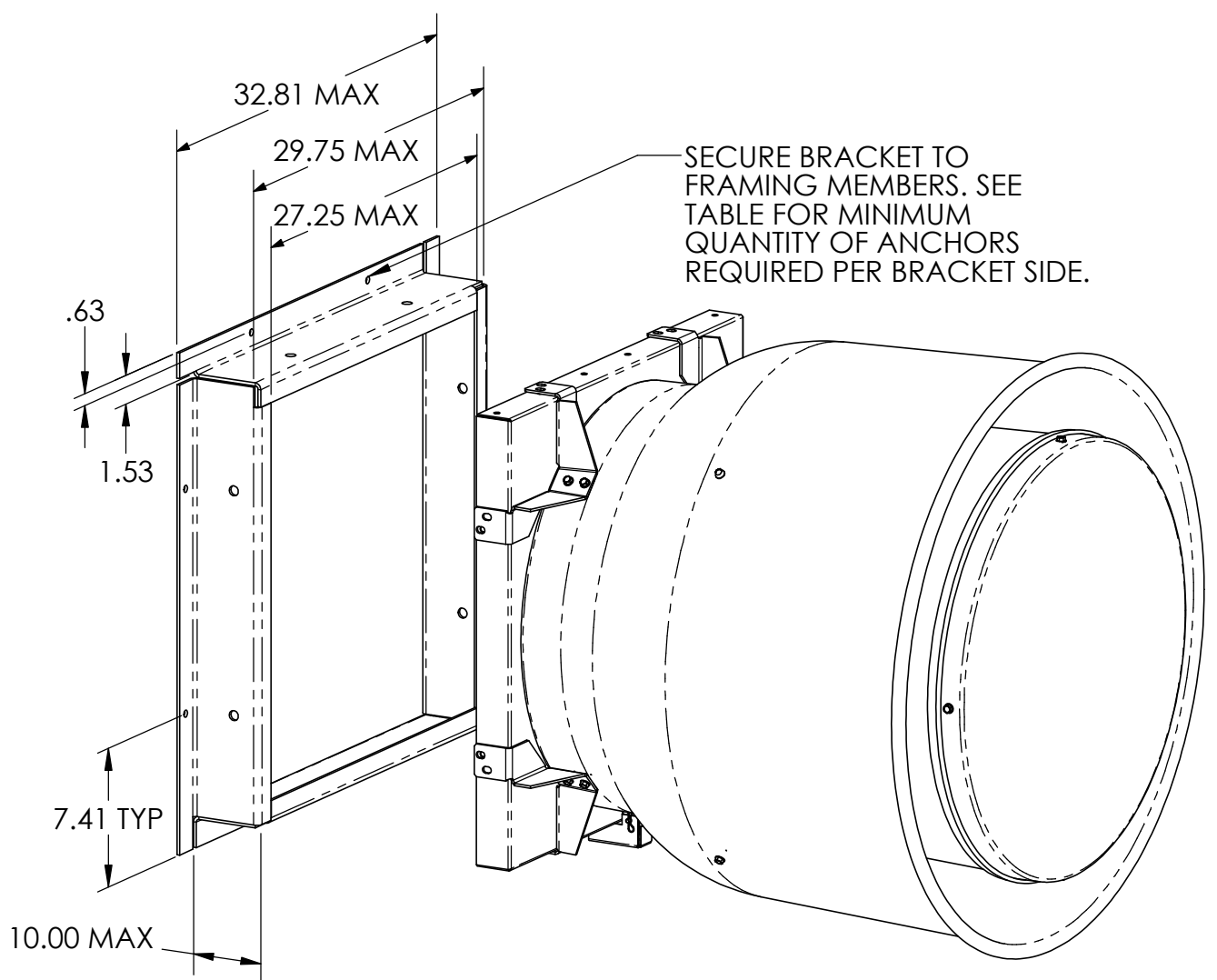
By *[Signature]*
Miami-Dade Product Control

DRAWN BY	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
SM			08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCU, VCUB UPDATED
SM			10/18/22			
SM			10/18/22			
						5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
TITLE VCU/VCUB SUMMARY MIAMI-DADE APPROVAL						
DRAWING NO.		ROW	ITEM	SHEET	REV.	
500024054		-	-	9 OF 13	E	



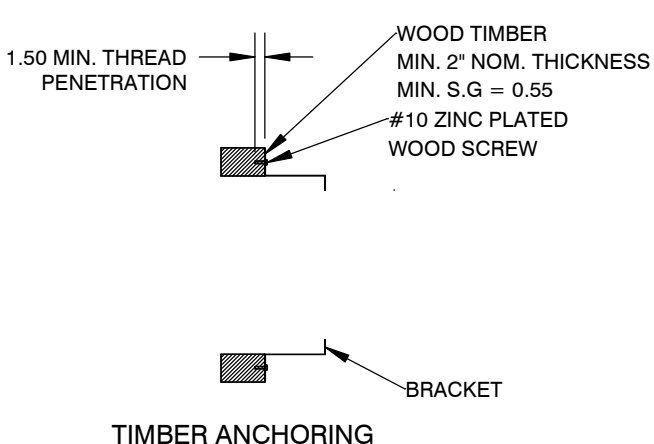
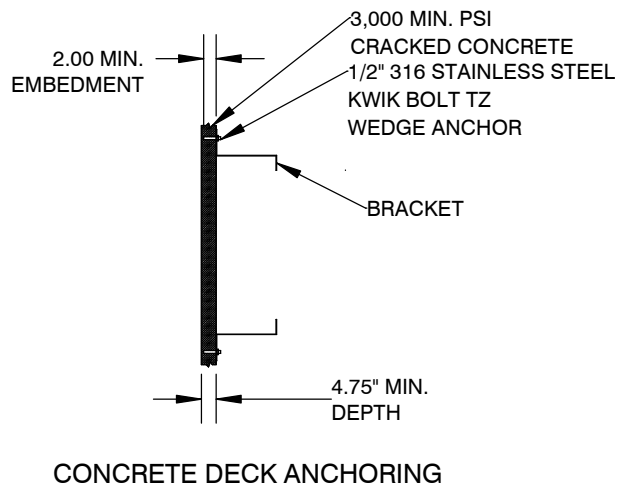
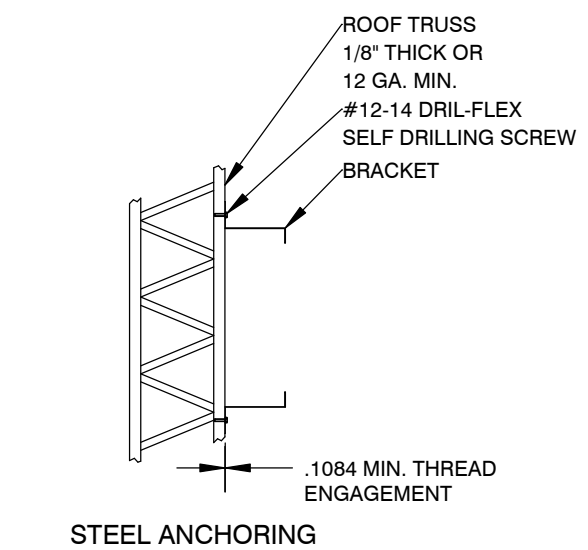
DRIL-FLEX SELF DRILLING SCREWS AND WOOD SCREWS TO BE SEALED WITH PROSOCO LIQUID FLASHING OR EQUAL

VCU/VCUB SIZE	MINIMUM NUMBER OF FASTENERS PER SIDE TO ATTACH BRACKET TO WALL STRUCTURE			MIN. NUMBER OF FASTENERS PER SIDE TO ATTACH UNIT TO BRACKET
	STEEL ANCHORING	CONCRETE DECK ANCHORING	TIMBER ANCHORING	
085	3	3	3	5
089	3	3	3	5
098	3	3	3	5
110	3	3	3	5
112	3	3	3	5
122	3	3	3	5
124	3	3	3	5
135	3	3	3	5
140	3	3	3	5
150	3	3	3	5
157	3	3	3	5
165	3	3	3	5
177	3	3	4	5
182	3	3	4	5
197	3	3	4	5



WALL BRACKET NOTES:

- MATERIAL: 0.160 ALUMINUM 5052-H32
- UNIT TO BE ATTACHED TO WALL BRACKET USING 5/16-18 SCREWS OR EQUIVALENT. LOCATED 3" FROM EACH CORNER, THROUGH SUPPORT BRACKET (LOCATED 6" FROM EACH CORNER) AND CENTER OF UNIT.
- ANY GAP BETWEEN THE CURB AND FASTENER SHALL BE FILLED BY THE INSTALLING CONTRACTOR WITH A SUITABLE CORROSION RESISTANT MATERIAL THAT ALLOWS THE FASTENERS TO BE INSTALLED WITHOUT CAUSING EXCESSIVE DISTORTION ON THE UNIT FLANGES.
- BRACKET MUST BE ATTACHED TO A STRUCTURAL MEMBER OF THE BUILDING
- CONCRETE STRUCTURE
 - BRACKET ANCHORAGE SHOULD BE INTO MINIMUM 3000 PSI CRACKED CONCRETE, WITH A MINIMUM SLAB DEPTH OF 4.75".
 - USE 1/2" DIA. STAINLESS STEEL HILTI KWIK BOLT TZ EXPANSION ANCHORS OR EQUIVALENT. ANCHORS SHALL HAVE A MINIMUM 2" EMBEDMENT. FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 10-1/4" WITH 4-1/2" MINIMUM SPACING AND 3-1/2" MINIMUM EDGE DISTANCE.
- STEEL STRUCTURE
 - SHOULD BE INTO MINIMUM 12 GA OR 1/8" THICK STEEL MEMBER.
 - USE #12-14 DRIL-FLEX SELF DRILLING SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD ENGAGEMENT OF .1084". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 16-3/4" WITH 11/16" MINIMUM SPACING AND 3/8" MINIMUM EDGE DISTANCE.
- TIMBER STRUCTURE
 - SHOULD BE MINIMUM S.G.=0.55
 - USE #10 ZINC PLATED WOOD SCREWS OR EQUIVALENT. SCREWS SHALL HAVE A MINIMUM THREAD PENETRATION OF 1-1/2". FASTENERS TO BE EQUALLY SPACED. MAXIMUM ON CENTER SPACING OF 16-3/4" WITH 3/4" MINIMUM SPACING, 3/4" MINIMUM EDGE DISTANCE AND 1.316" MINIMUM END DISTANCE.

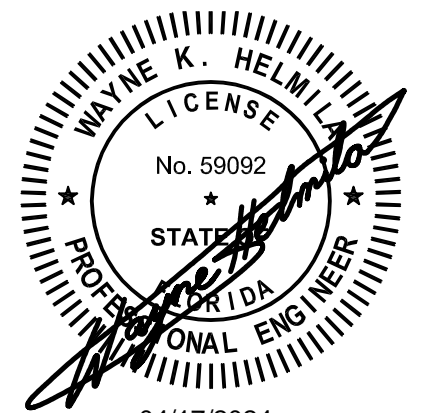


For Miami-Dade Product Control

Professional Engineer Seal & License

Florida Firm No & Contact Information

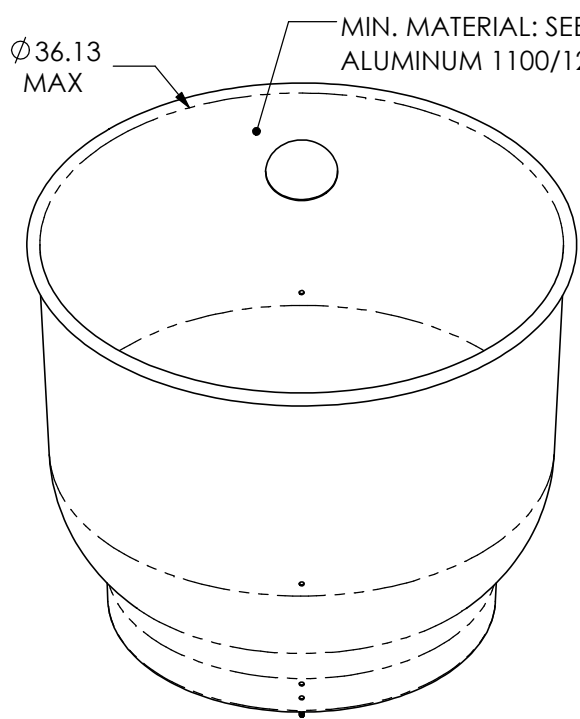
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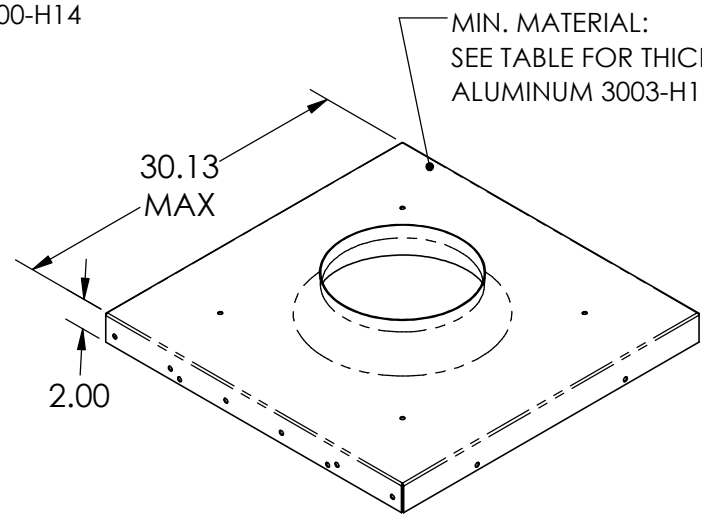
RICE ENGINEERING
 105 School Creek Trail
 Luxemburg, WI 54217
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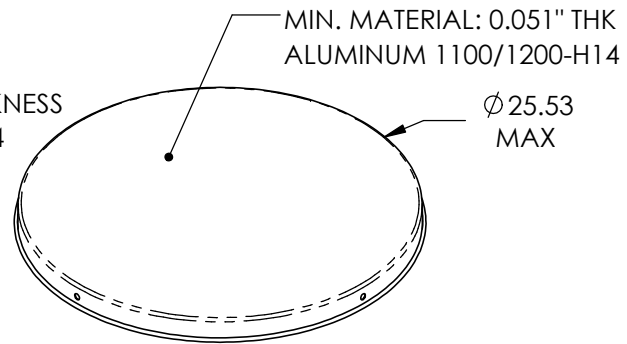
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DATE 10/18/22	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
APP BY SM						5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
DATE 10/18/22						
TITLE VCU/VCUB SUMMARY MIAMI-DADE APPROVAL	DRAWING NO. 500024054	ROW	ITEM	SHEET	REV.	
3RD ANGLE PROJECTION		-	-	10 OF 13	E	



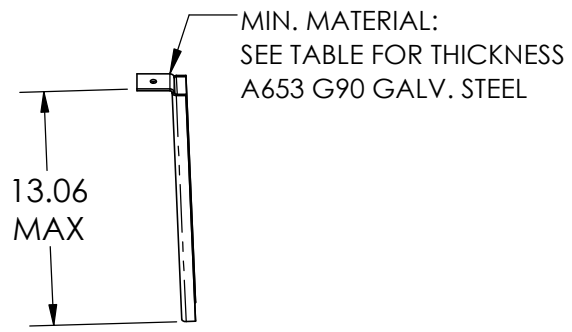
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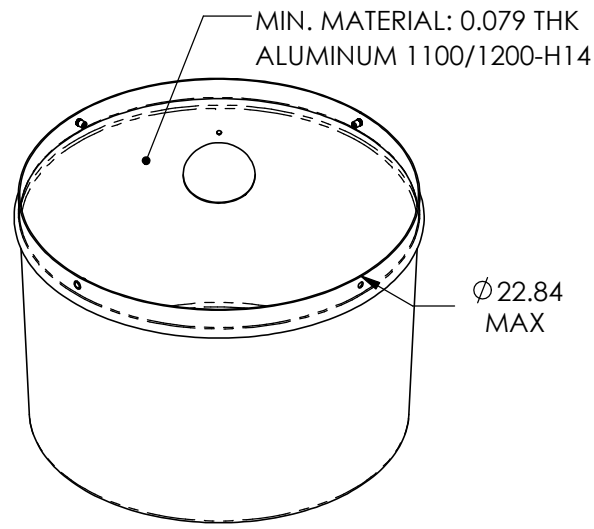
CURB CAP



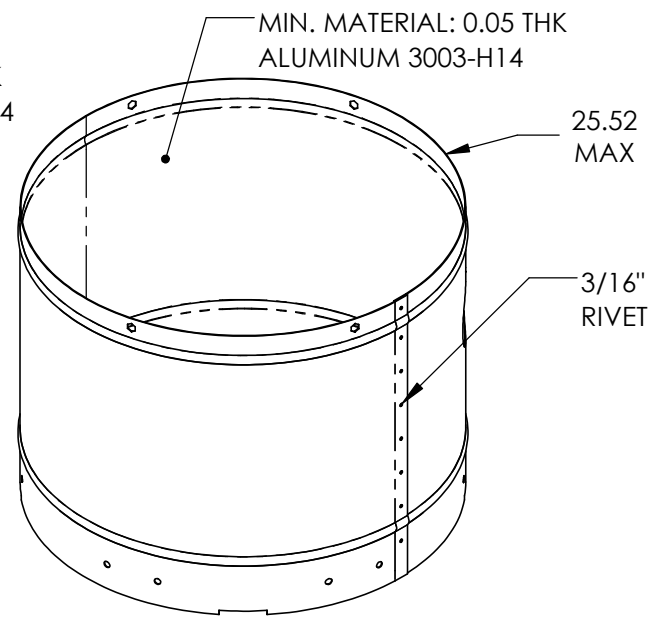
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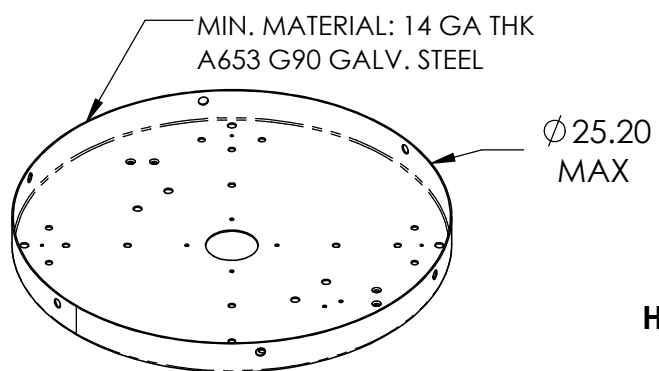
VERTICAL SUPPORT POST



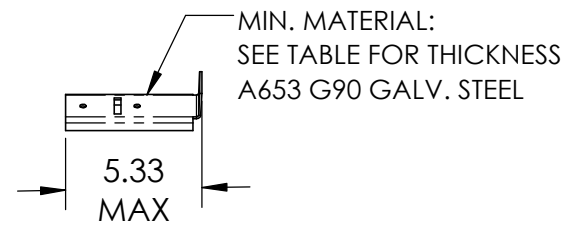
**MOTOR HOUSING
SIZE 085 - 165**



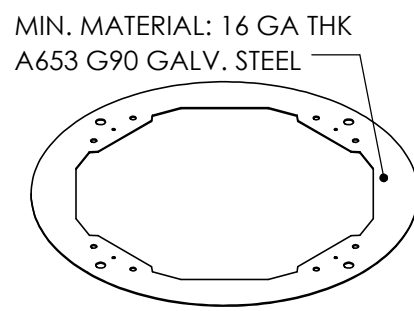
**MOTOR WINDBAND
SIZE 177 - 197**



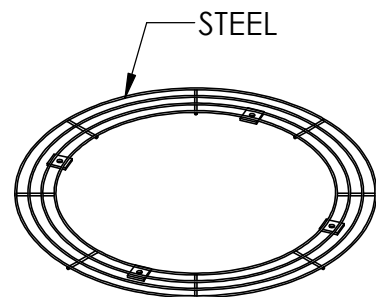
**MOTOR DECK PLATE
SIZE 177 - 197**



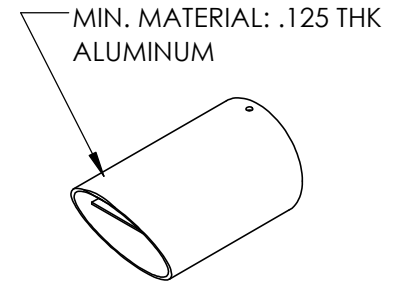
HORIZONTAL SUPPORT POST



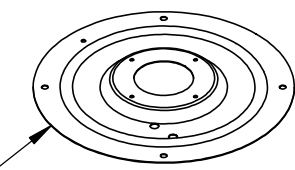
**RAIN GUARD
SIZE 122 - 165**



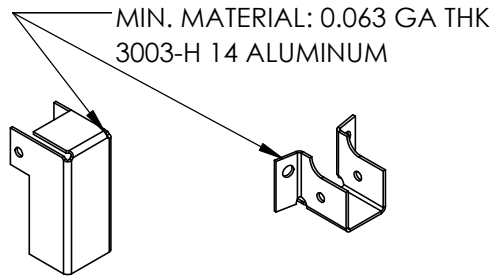
BIRDSCREEN



BREATHER TUBE



**REINFORCING PLATE
SIZE 085 - 112**



DOWNSPOUT

DRAIN



GASKET

THICKNESS TABLE

VCU/VCUB	CURB CAP	SHROUD	SHROUD SUPPORT	HORIZONTAL SUPPORT POST	VERTICAL SUPPORT POST
085	0.118	0.078	0.125	14 GA	14 GA
089	0.063				
098	0.063				
110	0.118				
112	0.118	0.098	0.125	14 GA	14 GA
122	0.063				
124	0.063				
135	0.063				
140	0.063				
150	0.063				
157	0.063	0.098	0.125	14 GA	14 GA
165	0.063				
177	0.063				
182	0.063				
197	0.063	0.19	12 GA	12 GA	

MIN. MATERIAL: 14 GA THK A653 G90 GALV. STEEL

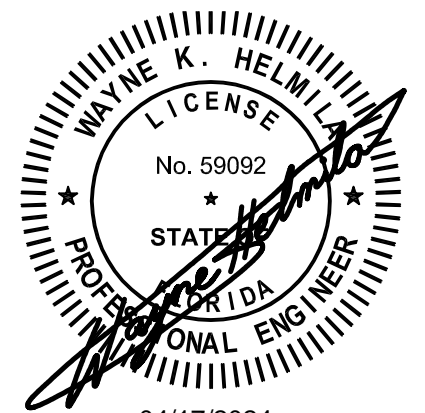
MODEL	6.93 MAX	8.43 MAX	8.43 MAX	6.73 MAX
MATERIAL	MIN. MATERIAL: SEE TABLE FOR THICKNESS, ALUMINUM 5052-H32			
SIZES	085	089 -112	122 - 165	177 - 197
PART NAME	SHROUD SUPPORT			

DRAWN BY	SM
DATE	10/18/22
APP BY	SM
DATE	10/18/22
3RD ANGLE PROJECTION	

E	SM	08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCU, VCUB UPDATED
REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
					5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
					TITLE
DRAWING NO.	500024054	ROW	-	ITEM	-
		SHEET	11 OF 13	REV.	E

For Miami-Dade Product Control

Professional Engineer Seal & License



04/17/2024
COA: 9090

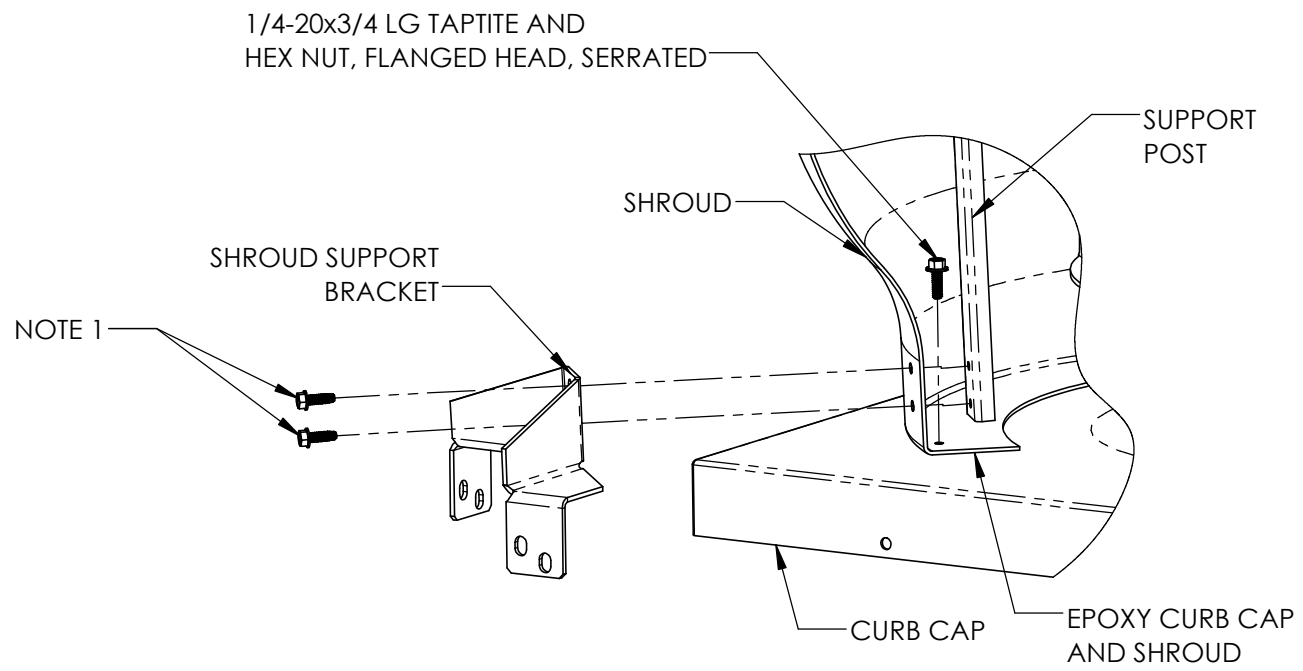
Florida Firm No & Contact Information

RICE ENGINEERING

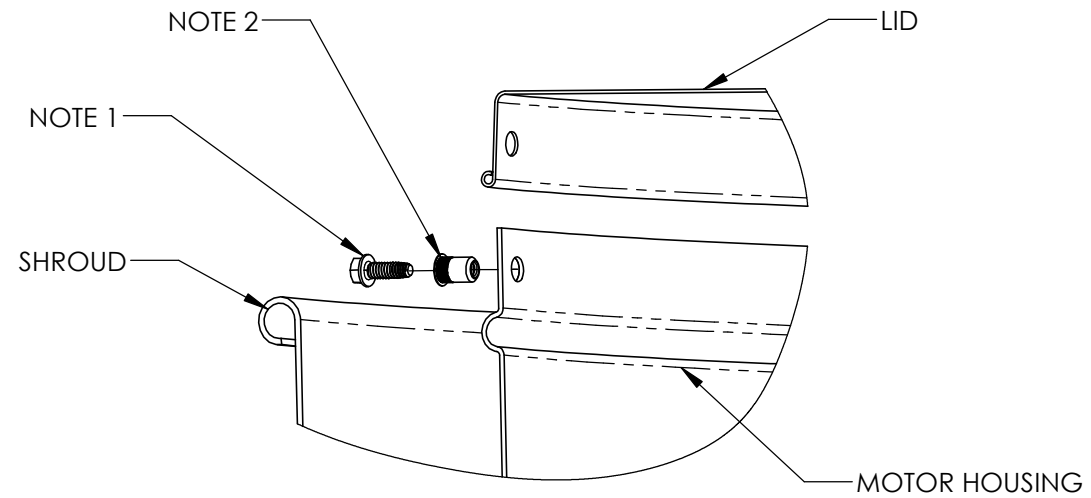
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

Digital Signature Data

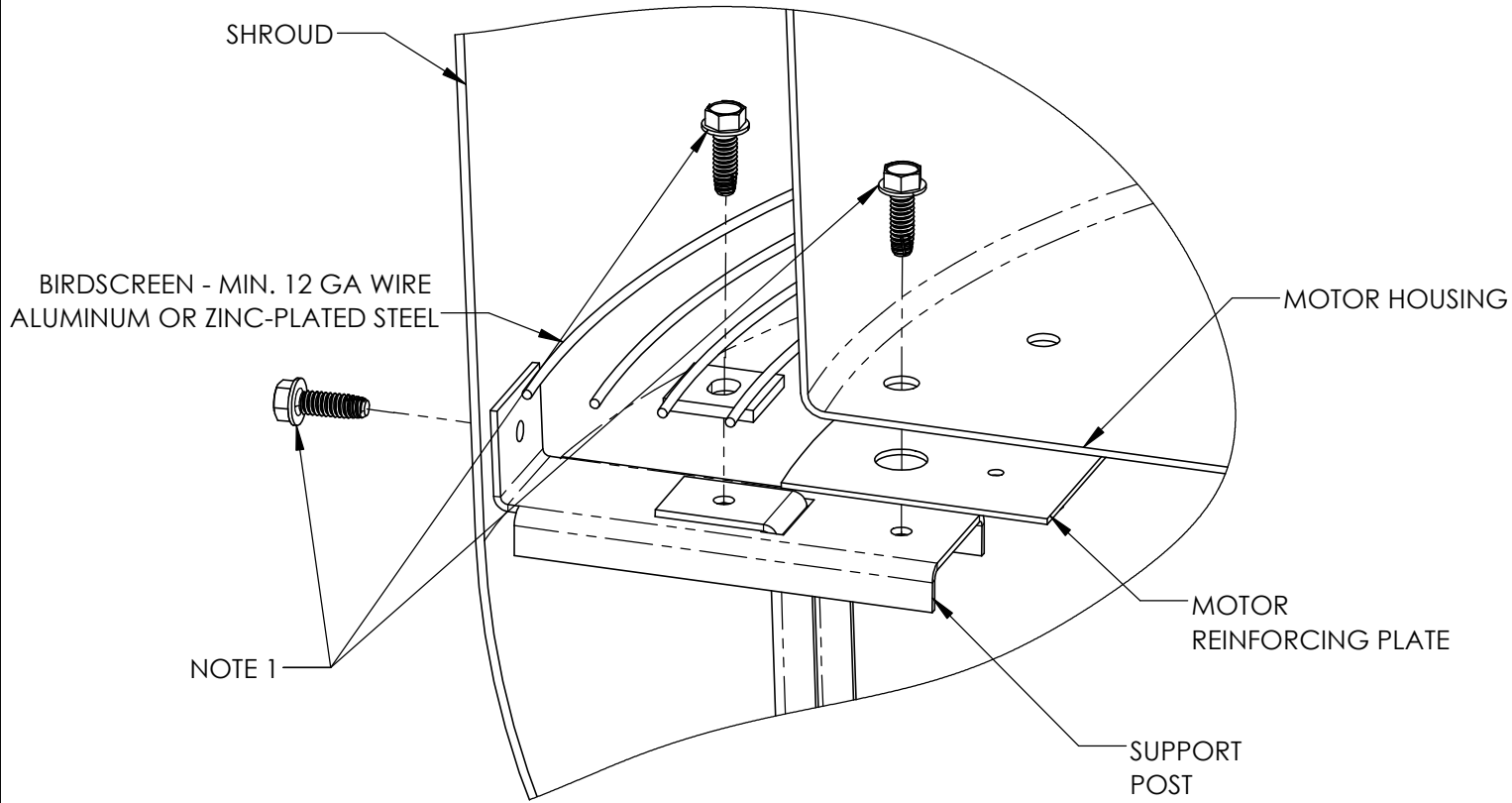
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0314.04
Expiration Date 10/26/2028
By *[Signature]*
Miami-Dade Product Control



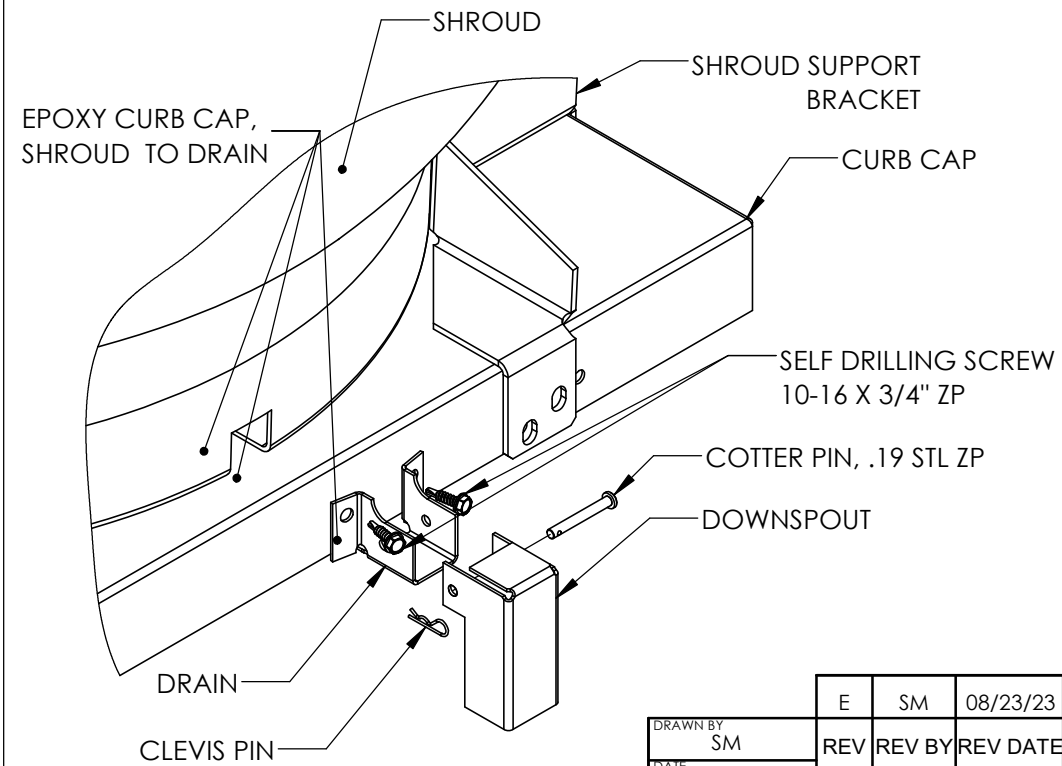
**SHROUD BRACKET MOUNTING WITH SHROUD & SUPPORT POST
SIZE 085 - 165**



**LID MOUNTING ON MOTOR HOUSING
SIZE 085 - 165**



**BIRDSCREEN MOUNTING WITH SUPPORT POST & MOTOR HOUSING
SIZE 085 - 165**

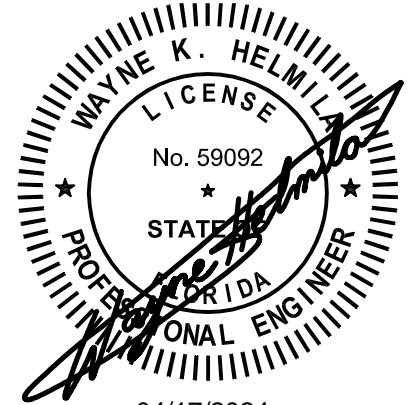


**DRAIN & DOWNSPOUT MOUNTING
SIZE 085 - 165**

NOTES:
01. SIZES 085-165 = 1/4-20 x 3/4" LG, TAPTITE SCREW, FLANGED, SERRATED
02. SIZES 085-165 = 1/4-20 RIVET NUT, KNURLED BODY

For Miami-Dade Product Control

Professional Engineer Seal & License



04/17/2024
COA: 9090

Florida Firm No & Contact Information

**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

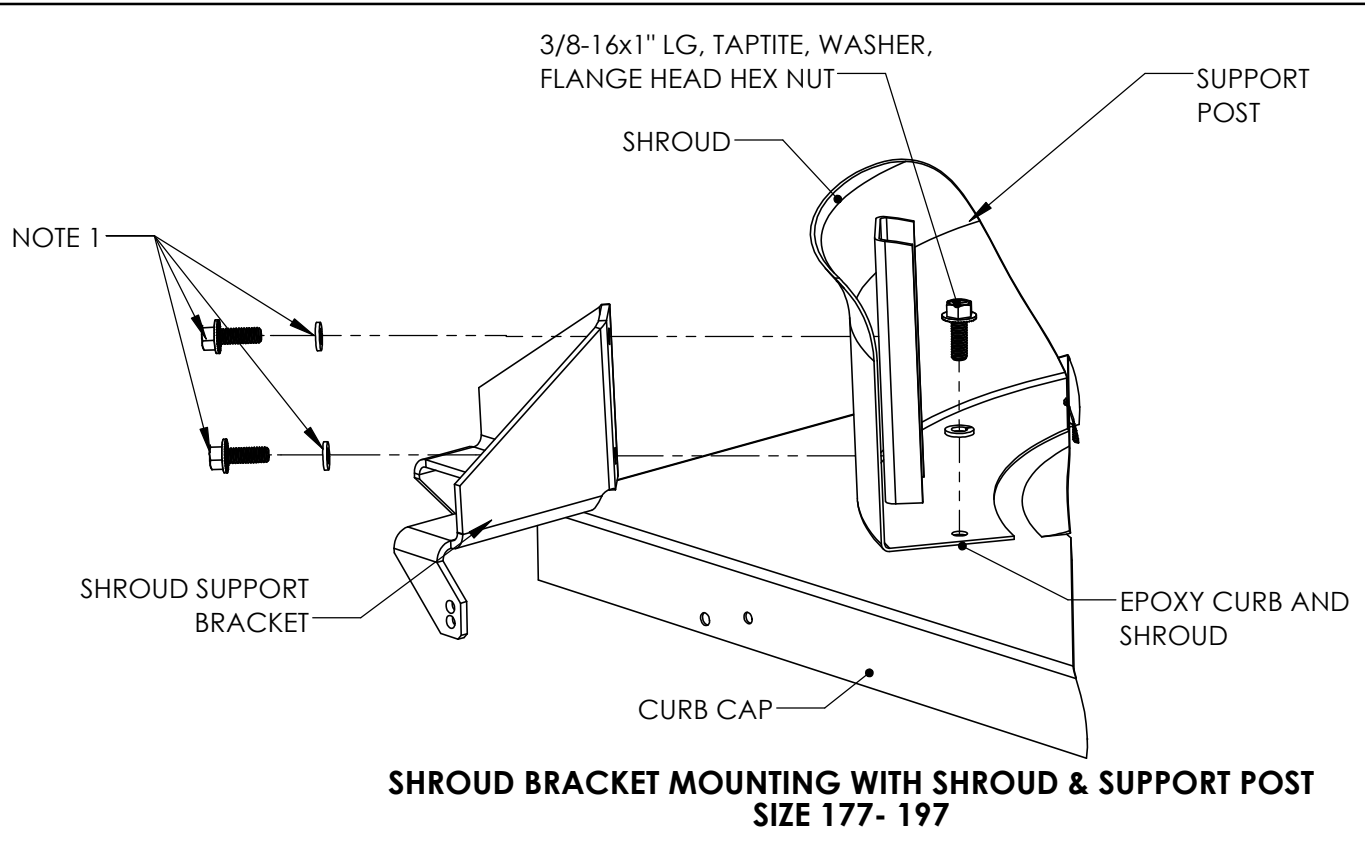
Digital Signature Data

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0314.04

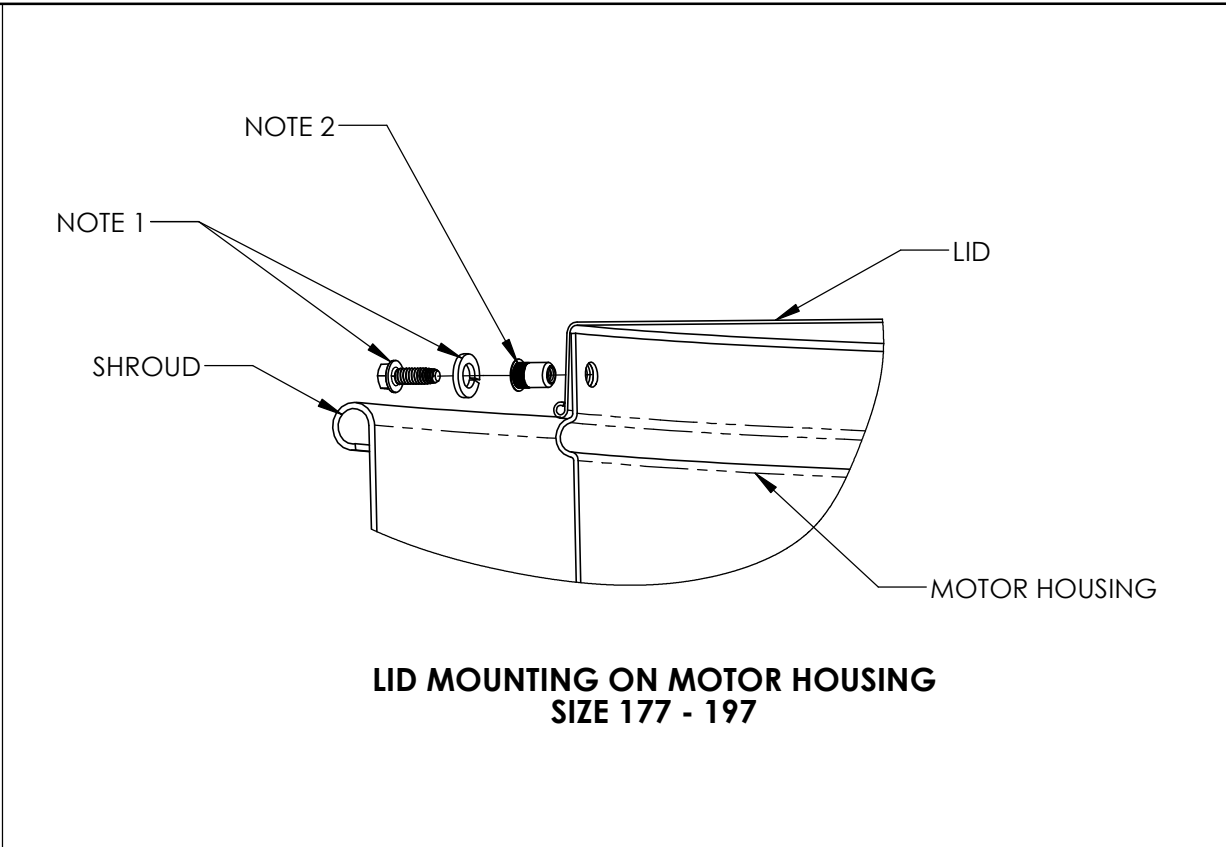
Expiration Date 10/26/2028

By *[Signature]*
Miami-Dade Product Control

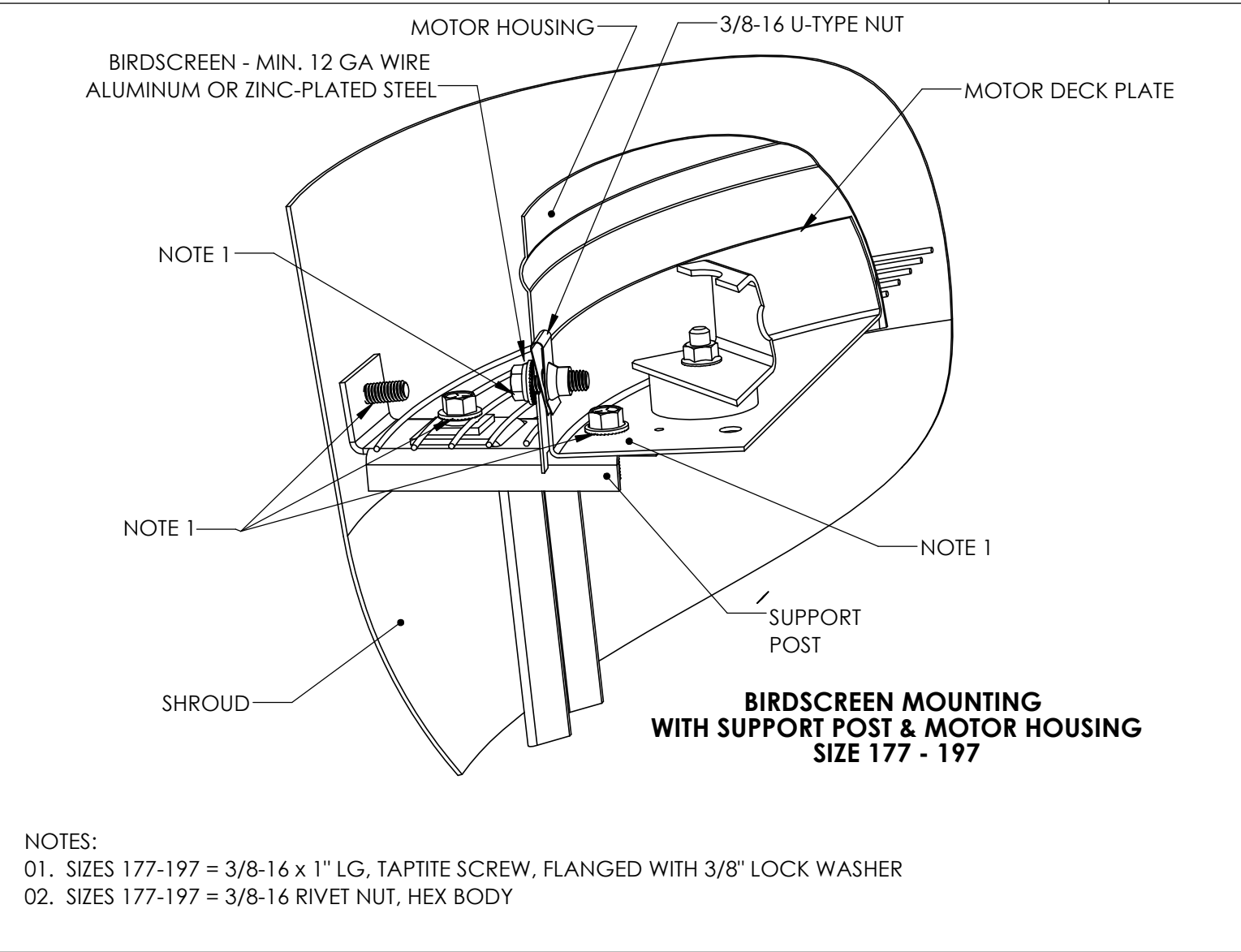
DRAWN BY	E	SM	08/23/23	SM	08/23/23	DESIGN PRESSURE OF VCUB UPDATED
DATE	REV	REV BY	REV DATE	APP BY	APP DATE	DESCRIPTION
10/18/22						
APP BY						
DATE						
10/18/22						5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
TITLE	VCU/VCUB SUMMARY					
	MIAMI-DADE APPROVAL					
DRAWING NO.	ROW	ITEM	SHEET	REV.		
500024054	-	-	12 OF 13	E		
3RD ANGLE PROJECTION						



**SHROUD BRACKET MOUNTING WITH SHROUD & SUPPORT POST
SIZE 177- 197**

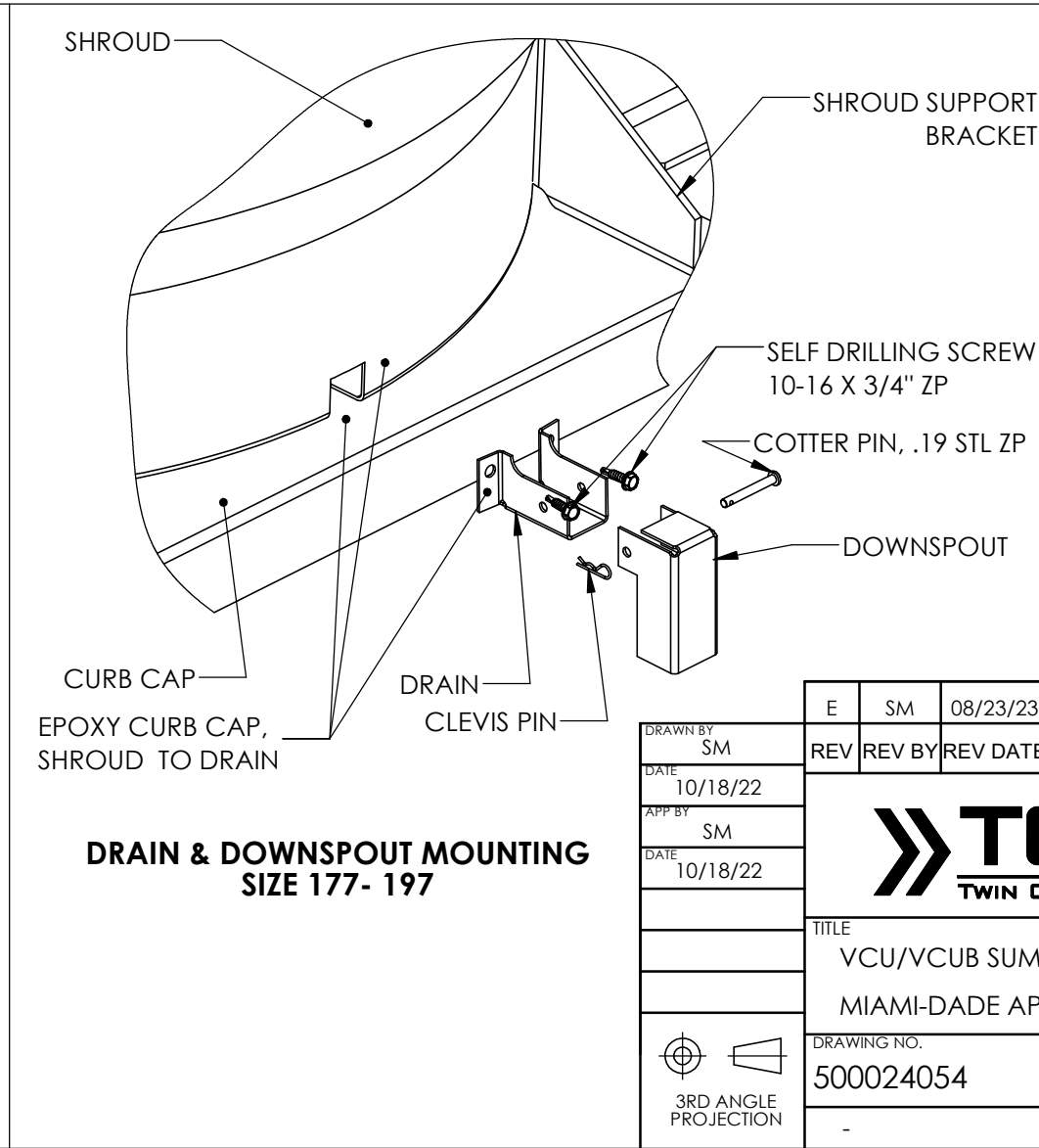


**LID MOUNTING ON MOTOR HOUSING
SIZE 177 - 197**



**BIRDSCREEN MOUNTING
WITH SUPPORT POST & MOTOR HOUSING
SIZE 177 - 197**

NOTES:
01. SIZES 177-197 = 3/8-16 x 1" LG, TAPTITE SCREW, FLANGED WITH 3/8" LOCK WASHER
02. SIZES 177-197 = 3/8-16 RIVET NUT, HEX BODY



**DRAIN & DOWNSPOUT MOUNTING
SIZE 177 - 197**

For Miami-Dade Product Control

Professional Engineer Seal & License

04/17/2024
COA: 9090

Florida Firm No & Contact Information

Digital Signature Data

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

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0314.04
Expiration Date 10/26/2028

By
Miami-Dade Product Control

DRAWN BY	SM	REV	REV BY	REV DATE	APP BY	APP DATE	DESIGN PRESSURE OF VCUB UPDATED
DATE	10/18/22						
APP BY	SM						
DATE	10/18/22						
							5959 Trenton Lane N Minneapolis, MN 55442 ISO-9001:REGISTERED
TITLE							
VCU/VCUB SUMMARY MIAMI-DADE APPROVAL							
DRAWING NO.							ROW
500024054							-
							ITEM
							-
							SHEET
							13 OF 13
							REV.
							E

3RD ANGLE PROJECTION