



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

## NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

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

**Reliable Products a div. of Ruskin Company**  
**1300 Enterprise Rd. (PO Box 580)**  
**Geneva, AL 36340**

### 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 3RRDC Aluminum Louver

**APPROVAL DOCUMENT:** Drawing No. **60-022590-00D**, titled "3RRDC / Wind-Driven Rain Resistant Louver", sheets 1 through 9 of 9, dated 10/30/2020, with revision A dated 03/19/2021, prepared by Reliable Products, signed and sealed by Vahe M. Astourian, R.A., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, Geneva, AL or Juarez, Chihuahua C. P., Mexico, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

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

This NOA **revises NOA # 21-0728.04** and 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.**



  
02/06/24

**NOA No. 23-1116.21**  
**Expiration Date: May 13, 2026**  
**Approval Date: February 15, 2024**  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. Evidence submitted under NOA # 20-1201.02, # 21-0728.04 and new**

**A. DRAWINGS “Submitted under NOA # 21-0728.04”**

1. Drawing No. **60-022590-00D**, titled “3RRDC / Wind-Driven Rain Resistant Louver”, sheets 1 through 9 of 9, dated 10/30/2020, with revision A dated 03/19/2021, prepared by Reliable Products, signed and sealed by Vahe M. Astourian, R.A.

**B. TESTS “Submitted under NOA # 20-1201.02”**

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 marked-up drawings and installation diagram of HZ700MD Aluminum Fixed Louvers", prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-4189-01**, dated 09/09/2020, signed and sealed by Douglas J. McDougall, P.E.
2. Test report on Wind Driven Rain Resistance per TAS 100(A)-95 and on High Wind Driven Rain Resistant Louvers per AMCA 550 09-15 of a EME3625MD Vertical Aluminum Louver, prepared by Intertek, Test Report No. **K3092.01-801-44 R0**, dated 02/14/2020, signed and sealed by Tyler Westerling, P.E.

**C. CALCULATIONS “Submitted under NOA # 20-1201.02”**

1. Wind load review prepared by Ruskin Company, dated 04/01/2021, signed and sealed by Vahe M. Astourian, 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 8<sup>th</sup> edition (2023) of the FBC, issued by Reliable Products, dated 11/01/2023, signed and sealed by Jeffrey D. Smith, P.E.

***“Submitted under NOA # 21-0728.04”***

2. Statement letter of code conformance to the 7<sup>th</sup> edition (2020) of the FBC, issued by Reliable Products, dated 08/30/2021, signed and sealed by Vahe M. Astourian, P.E.
3. Statement letter of no financial interest issued by Ruskin Company, dated 08/30/2021, signed and sealed by Vahe M. Astourian, P.E.
4. Distributor agreement dated 09/24/2021.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 23-1116.21**  
**Expiration Date: May 13, 2026**  
**Approval Date: February 15, 2024**

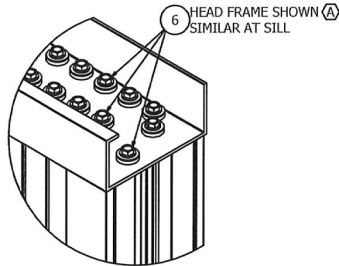
# ABBREVIATIONS:

B.O.	- BLANK OFF
CF	- CHANNEL FRAME
CONT.	- CONTINUOUS
C-C	- CENTER TO CENTER
DIM	- DIMENSION
FLG	- FLANGE
FF	- FLANGED FRAME
HDG	- HOT DIP GALVANIZED
H.V.B.S.	- HIDDEN VERTICAL BLADE SUPPORT
H.H.B.S.	- HIDDEN HORIZONTAL BLADE SUPPORT
HWH	- HEX WASHER HEAD
L.D.	- LOUVER DIMENSION
MAX.	- MAXIMUM
MIN.	- MINIMUM
NOM.	- NOMINAL
N.T.E.	- NOT TO EXCEED
N.T.S.	- NOT TO SCALE
O/C	- ON CENTER
OPP.	- OPPOSITE
N.I.C.	- NOT IN CONTRACT
R.O.	- ROUGH OPENING
REF	- REFERENCE
SHT	- SHEET
S.S.	- SHIP SECTION
S.S.D.	- SHIP SECTION DIMENSION
S.D.S.	- SELF DRILLING SCREW
SIM	- SIMILAR
STL	- STEEL
TYP.	- TYPICAL
U.N.O.	- UNLESS NOTED OTHERWISE

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

By *[Signature]*  
Miami-Dade Product Control



**DETAIL 1**  
LOUVER CONSTRUCTION

## NOTES:

1. THE 3RRDC HAS BEEN TESTED IN ACCORDANCE WITH & QUALIFIED TO FLORIDA PROTOCOLS **TAS-201, 202, & 203** FOR LARGE MISSILE IMPACT, UNIFORM PRESSURE, CYCLIC WIND PRESSURE; **LEVEL D (BASIC PROTECTION)** MISSILE IMPACT; & **AMCA 550** FOR HIGH-VELOCITY WIND DRIVEN RAIN.
2. QUALIFICATIONS TO **AMCA 550** ALLOWS THIS LOUVER TO BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM & THE ROOM DOES NOT HOUSE WATER RESISTANT/PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
3. THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH **DESIGN PRESSURES OF +/- 120 PSF** OR LESS. THIS LOUVER SYSTEM IS NON-BEARING AND IS NOT DESIGNED TO WITHSTAND BUILDING DEAD LOADS.
4. SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL MEMBER, DESIGNED & INSTALLED BY OTHERS, IS BETWEEN EACH STACKED LOUVER TO CARRY THE FULL LOAD OF THE UPPER LOUVER, SO THAT NO LOUVER TAKES THE LOAD OF THE OTHER.
5. THIS LOUVER ATTACHES ONLY AT THE HEAD & SILL TO THE SUBSTRATE. NO ATTACHMENT AT JAMBS. **SEE SHEETS -07 & -08** FOR INSTALLATION PARTS & DETAILS. REQUIREMENTS GIVEN IN "SUBSTRATE FASTENER TABLE" ARE AS NEEDED FOR ANCHORAGE ONLY AND (N.I.C.).
6. MAXIMUM SINGLE SECTION SIZE FOR RECTANGLES ARE **60" WIDE X 96" HIGH**. UNLIMITED WIDTH CAN BE ACCOMPLISHED BY PLACING SINGLE SECTIONS SIDE-BY-SIDE.
7. ALL WELDED ATTACHMENTS REQUIRE A MINIMUM FILLER OF 4043 ALUMINUM ALLOY WITH A MINIMUM TENSILE STRENGTH OF 24KSI.
8. EXTRUDED ALUMINUM H.H.B.S. CHANNEL IS FACTORY CUT TO FIT BETWEEN EACH BLADE. THE H.H.B.S.CHANNEL IS SCREWED TO EVERY 3RD BLADE AND AT BOTH JAMB FRAMES. THE H.H.B.S. CHANNEL IS REQUIRED FOR ANY LOUVER ASSEMBLY EXCEEDING **48" HIGH** & EQUALLY SPACED BETWEEN HEAD & SILL FRAMES.
9. **SQUARE BALLOONS INDICATE SHIP LOOSE PARTS.**

## 3RRDC RECTANGLE LOUVER

N.T.S.  
(CF) 60"W X 96"H SHOWN

## PARTS LIST / CHANNEL FRAME

ITEM	DESCRIPTION	MATERIAL
1	HEAD FRAME	EXT ALUM 6063-T6
2	SILL FRAME	EXT ALUM 6063-T6
3	JAMB FRAME	EXT ALUM 6063-T6
4	LOUVER BLADE	EXT ALUM 6063-T6
5	H.H.B.S.	EXT ALUM 6063-T6
6	SCR 8-18 X .75 HWH SW A/B	410 SS/ZC

## PARTS LIST / FLANGED FRAME

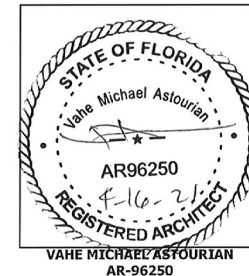
ITEM	DESCRIPTION	MATERIAL
7	FLANGED HEAD FRAME	EXT ALUM 6063-T6
8	FLANGED SILL FRAME	EXT ALUM 6063-T6
9	FLANGED JAMB FRAME	EXT ALUM 6063-T6

## INSTALLATION PARTS

ITEM	DESCRIPTION	MATERIAL
10	CONT. RETAINING ANGLE 2" X 2" X 1/4"	EXT ALUM 6063-T6
11	SUBSTRATE FASTENER	-
12	SCR 1/4"-20 X 1" HWH TEK3	300S
13	UNIVERSAL SLEEVE - MIN 1/8" THK PLT	FORMED ALUM 5005-H34
14	SPL PLT LVR ALUM 2 X 4 X .125	ALUM 3003-H14
15	CONT. RETAINING ZEE - 1/4" THK PLT	FORMED ALUM 5005-H34
16	CONT. RETAINING ANGLE - 1/4" X 2"	FORMED ALUM 3003-H14
17	CONT. RETAINING ANGLE - 1/4" X 3" X 5"	FORMED ALUM 3003-H14
18	CONT. STIFFENER PLT - 1/8" X 5"	ALUM 5005-H34
19	CONT. STIFFENER PLT - 1/8" X 4"	ALUM 5005-H34

## DRAWING SHEET INDEX:

**SHEET 01** - STANDARD LOUVER SPECIFICATIONS  
**SHEET 02** - MULTI-SECTION (CF) ASSEMBLY FRONT VIEW  
**SHEET 03** - MULTI-SECTION (CF) ASSEMBLY BACK VIEW  
**SHEET 04** - MULTI-SECTION (FF) ASSEMBLY FRONT VIEW  
**SHEET 05** - MULTI-SECTION (FF) ASSEMBLY BACK VIEW  
**SHEET 06** - UNIVERSAL SLEEVE ASSEMBLY & INSTALLATION  
**SHEET 07** - LOUVER INSTALL / RETAINING SINGLE ANGLE  
**SHEET 08** - LOUVER INSTALL / RETAINING ZEE & DOUBLE ANGLE  
**SHEET 09** - LOUVER FRAMING & INSTALL PART PROFILES



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

NOA-No. 21-0728.04

Approval Date 11/18/2021

By *[Signature]*  
Miami-Dade Product Control

A	REVISED NOTE 1. ADDED FASTENERS TO PARTS LIST	E-R	JDS	VMA	3/19/21
DESIGNED	DXF 9/25/2020				
CHECKED	E-R 10/28/2020				
APPROVED	TCB 10/29/2020				
APPROVED	MMH 10/30/2020				
TOLERANCES	Unless Stated Otherwise Use W1C-007, W1C-008				
FRACTIONS	4/11/18				
TWO DECIMALS	±0.020				
THREE DECIMALS	±0.010				
ANGLE DIMENSIONS	±2°				
SCALE	NONE				
INVENTOR					
SHEET	1 of 9				

**RELIABLE**  
1300 Enterprise Road,  
Genova, Alabama 36309  
PROPRIETARY AND  
CONFIDENTIAL

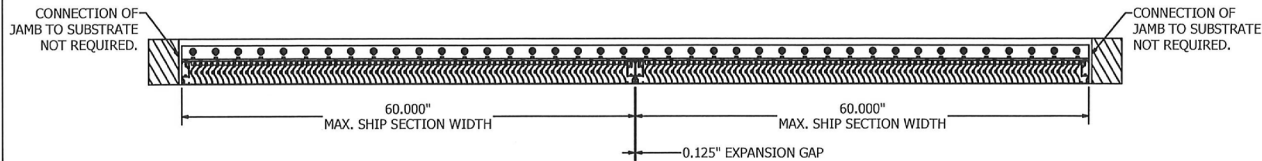
PRODUCT 3RRDC / WIND-DRIVEN RAIN RESISTANT LOUVER

TITLE STANDARD LOUVER SPECIFICATIONS

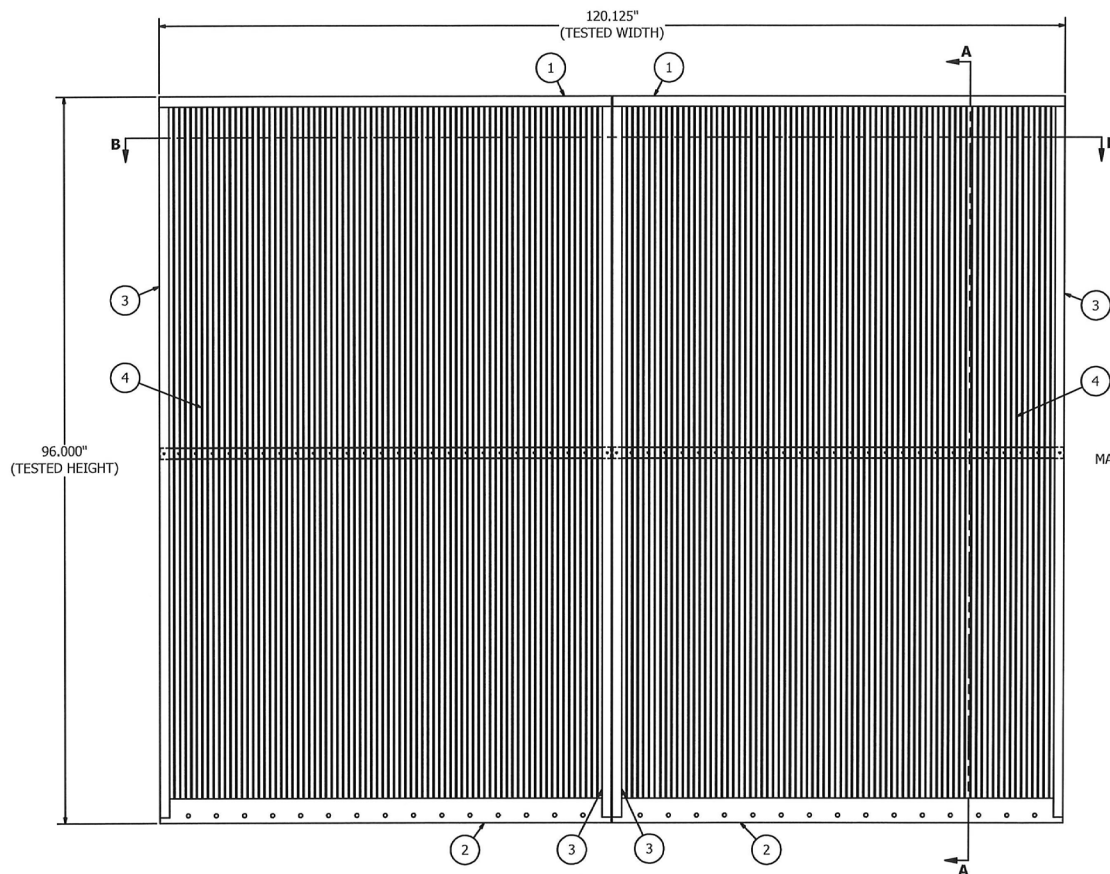
SIZE B

DATE 60-022590-00D

REV A



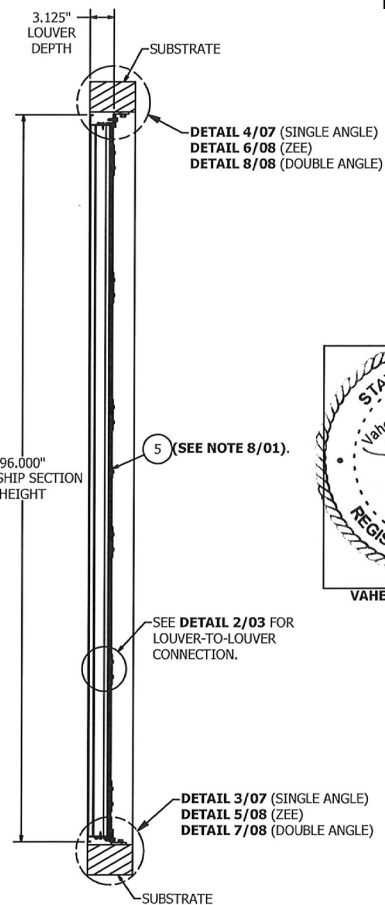
**SECTION B-B**



**MULTI-SECTION ASSEMBLY - CHANNEL FRAME LOUVER**

N.T.S.  
(SUBSTRATE & INSTALL PARTS NOT SHOWN FOR CLARITY)

**FRONT VIEW**

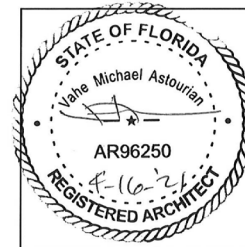


**SECTION A-A**

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

By *[Signature]*  
Miami-Dade Product Control



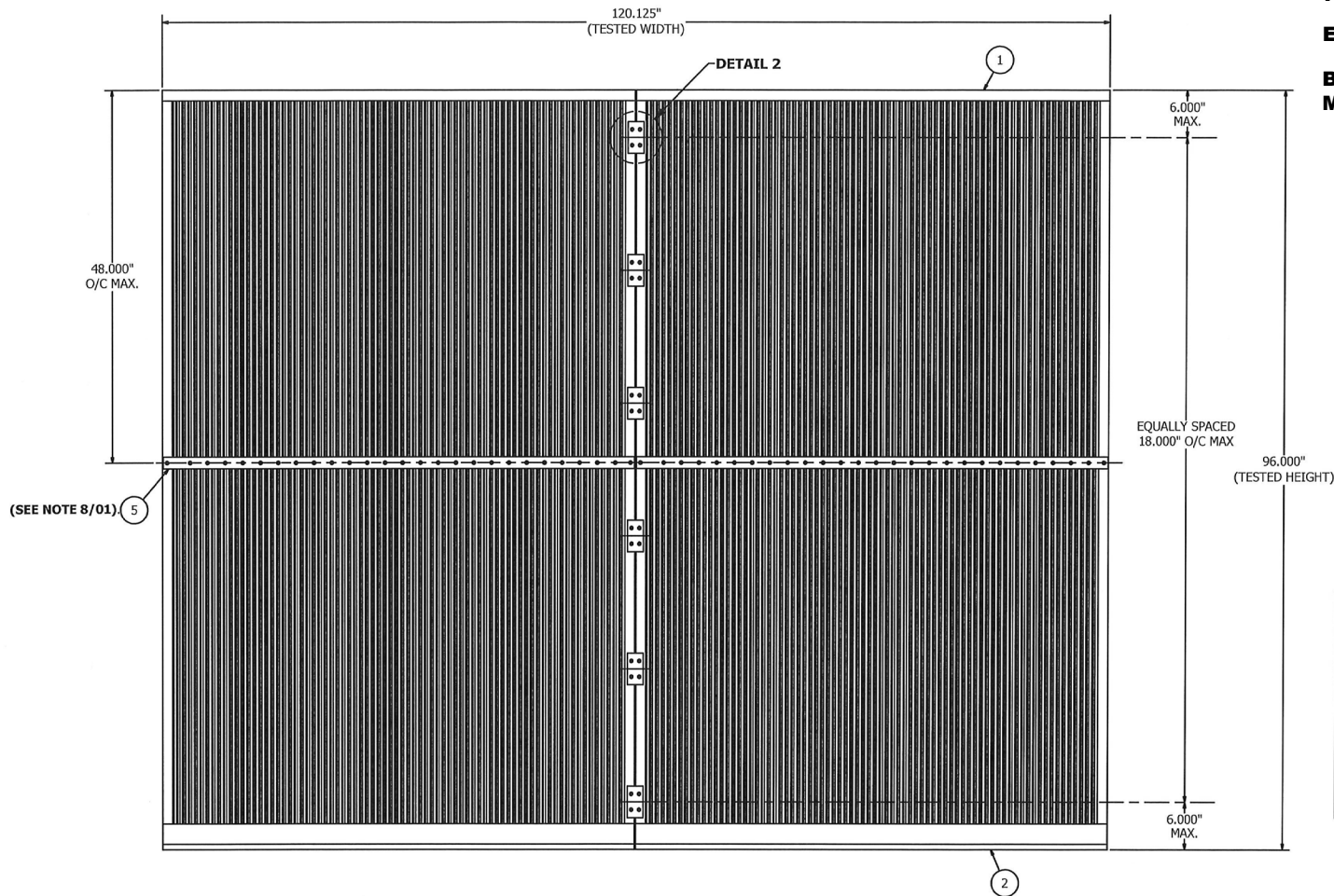
VAHE MICHAEL ASTOURIAN  
AR-96250

**PRODUCT APPROVED**  
as complying with the Florida  
Building Code  
NOA-No. 21-0728.04

Approval Date 11/18/2021

By *[Signature]*  
Miami-Dade Product Control

REVISION	DATE	BY	REVISION	DATE	BY
001	9/25/2020	DKF	002	10/28/2020	E-R
003	10/29/2020	TCB	004	10/30/2020	MMH
<b>RELIABLE</b> <small>EXTRUDED ALUMINUM WINDOW &amp; DOOR SYSTEMS</small> <small>13000 Enterprise Road, Geneva, Alabama 36040</small> <small>PROPRIETARY AND CONFIDENTIAL</small>					
PRODUCT: 388DC / WIND-DRIVEN RAIN RESISTANT LOUVER TITLE: MULTI-SECTION (CF) ASSEMBLY FRONT VIEW SIZE: B DWG NO: 60-022590-00D SCALE: NONE INVENTOR: <i>[Signature]</i> SHEET 2 OF 9			REVISION: <i>[Signature]</i> DATE: 11/18/2021 BY: <i>[Signature]</i> APPROVED: <i>[Signature]</i> DATE: 11/18/2021 BY: <i>[Signature]</i>		



# **MULTI-SECTION ASSEMBLY - CHANNEL FRAME LOUVER**

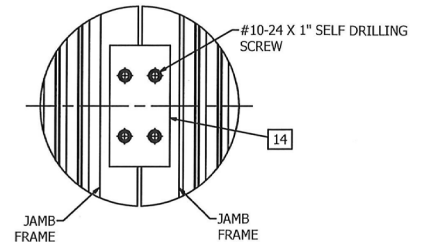
N.T.S.  
(SUBSTRATE & INSTALL PARTS NOT SHOWN FOR CLARITY)

**BACK VIEW**

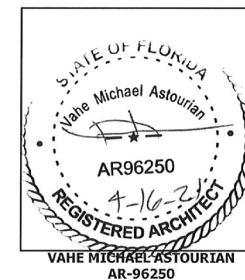
**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

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



**DETAIL 2**  
LOUVER-TO-LOUVER SPLICE

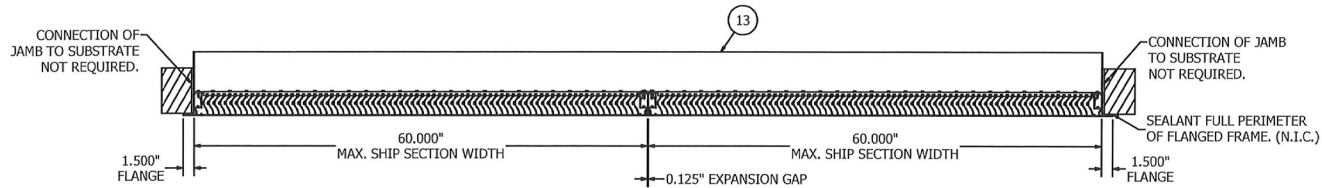


**PRODUCT APPROVED**  
as complying with the Florida  
Building Code  
NOA-No. 21-0728.04

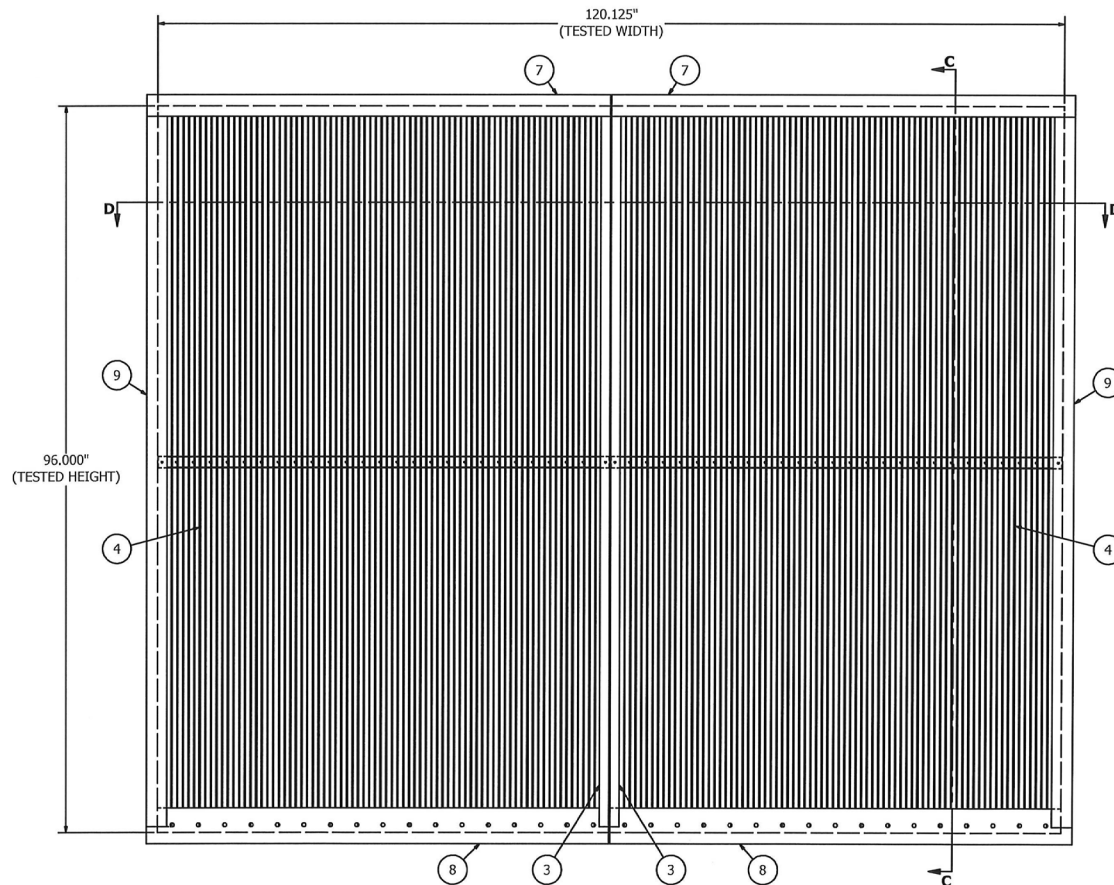
Approval Date 11/18/2021

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

DESIGNED	DKF	9/25/2020	<b>RELIABLE</b> RELIABLE WINDOW & DOOR SYSTEMS, INC. 1300 Enterprise Road, Geneva, Alabama 36540 PROPRIETARY AND CONFIDENTIAL		
CHECKED	E-R	10/28/2020			
APPROVED	TCB	10/29/2020			
APPROVED	MMM	10/30/2020			
MATERIAL	EXTRUDED ALUMINUM		PRODUCT	3RDIC / WIND-DRIVEN RAIN RESISTANT LOUVER	
DESCRIPTION	MULTI-SECTION (CF) ASSEMBLY BACK VIEW		TITLE		
SIZE	B	60-022590-00D	DATE		
SCALE	NONE	INVENTOR	SHEET 3	OF 9	



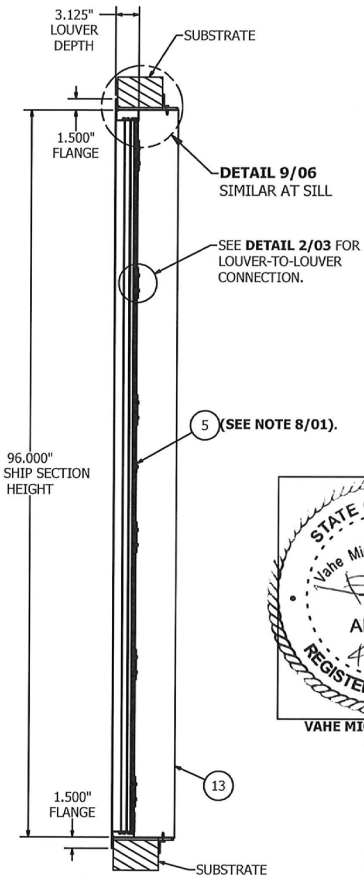
**SECTION D-D**



**MULTI-SECTION ASSEMBLY - FLANGED FRAME LOUVER**

N.T.S.  
(SUBSTRATE & INSTALL PARTS NOT SHOWN FOR CLARITY)

**FRONT VIEW**



**SECTION C-C**

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

By *[Signature]*  
Miami-Dade Product Control

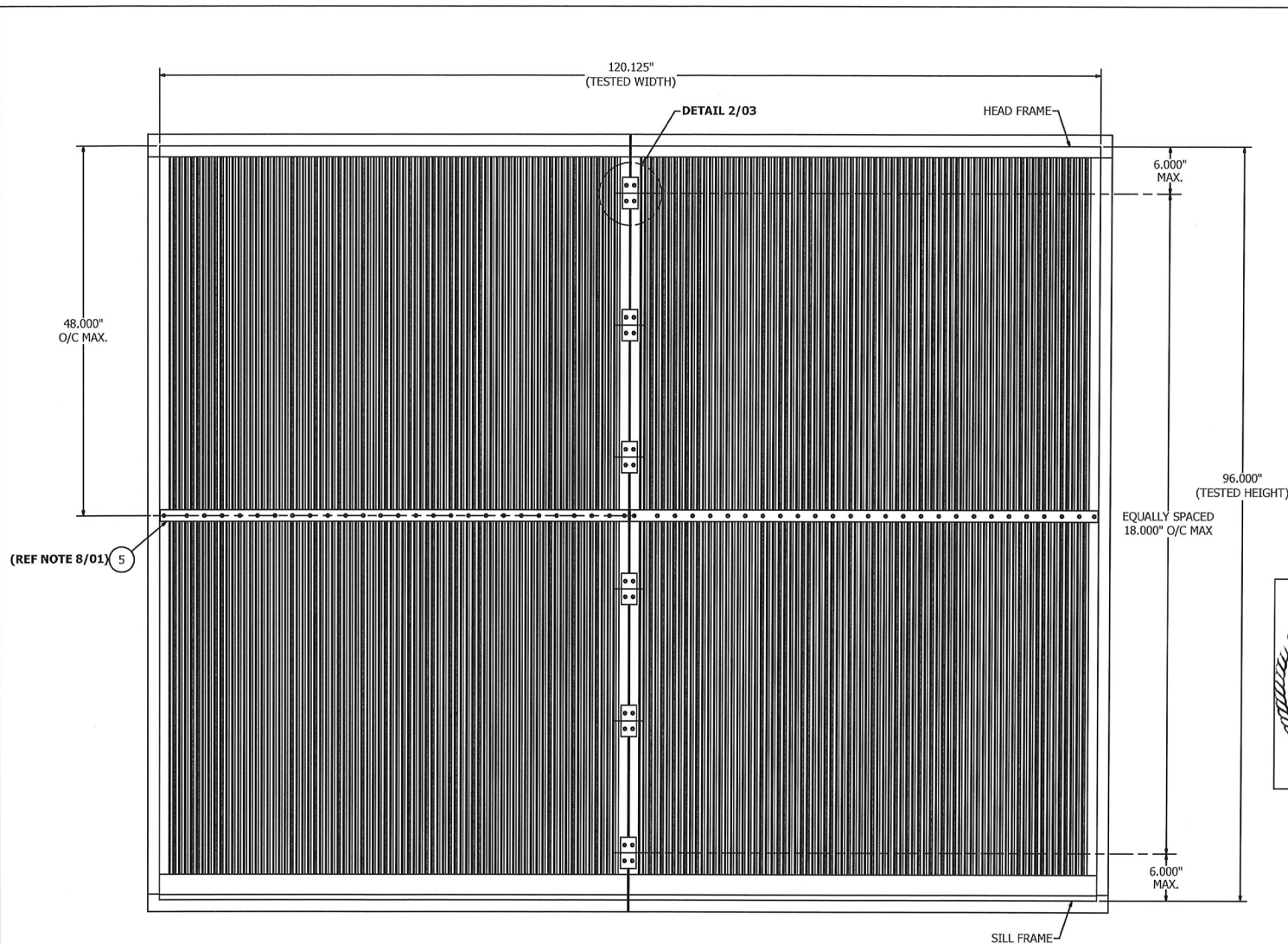


**PRODUCT APPROVED**  
as complying with the Florida  
Building Code  
NOA-No. 21-0728.04

Approval Date 11/18/2021

By *[Signature]*  
Miami-Dade Product Control

AUTHOR	DKF	9/25/2020	<b>RELIABLE</b> EXTRUDED ALUMINUM PRODUCTS 1308 Enterprise Road, Geneva, Alabama 36340 PROPRIETARY AND CONFIDENTIAL		
CHECKED	E-R	10/28/2020			
APPROVED	TCB	10/29/2020			
APPROVED	MMH	10/30/2020			
MATERIAL	EXTRUDED ALUMINUM		PRODUCT	3RD/DC / WIND-DRIVEN RAIN RESISTANT LOUVER	
			TITLE	MULTI-SECTION (FF) ASSEMBLY FRONT VIEW	
SIZE	B		DWG NO	60-022590-00D	
SCALE	NONE		INVENTOR	SHEET 4 of 9	



# **MULTI-SECTION ASSEMBLY - FLANGED FRAME LOUVER**

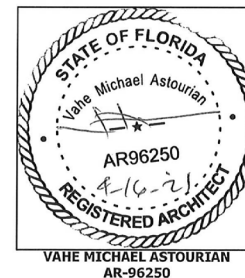
N.T.S.  
(SUBSTRATE & INSTALL PARTS NOT SHOWN FOR CLARITY)

**BACK VIEW**

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

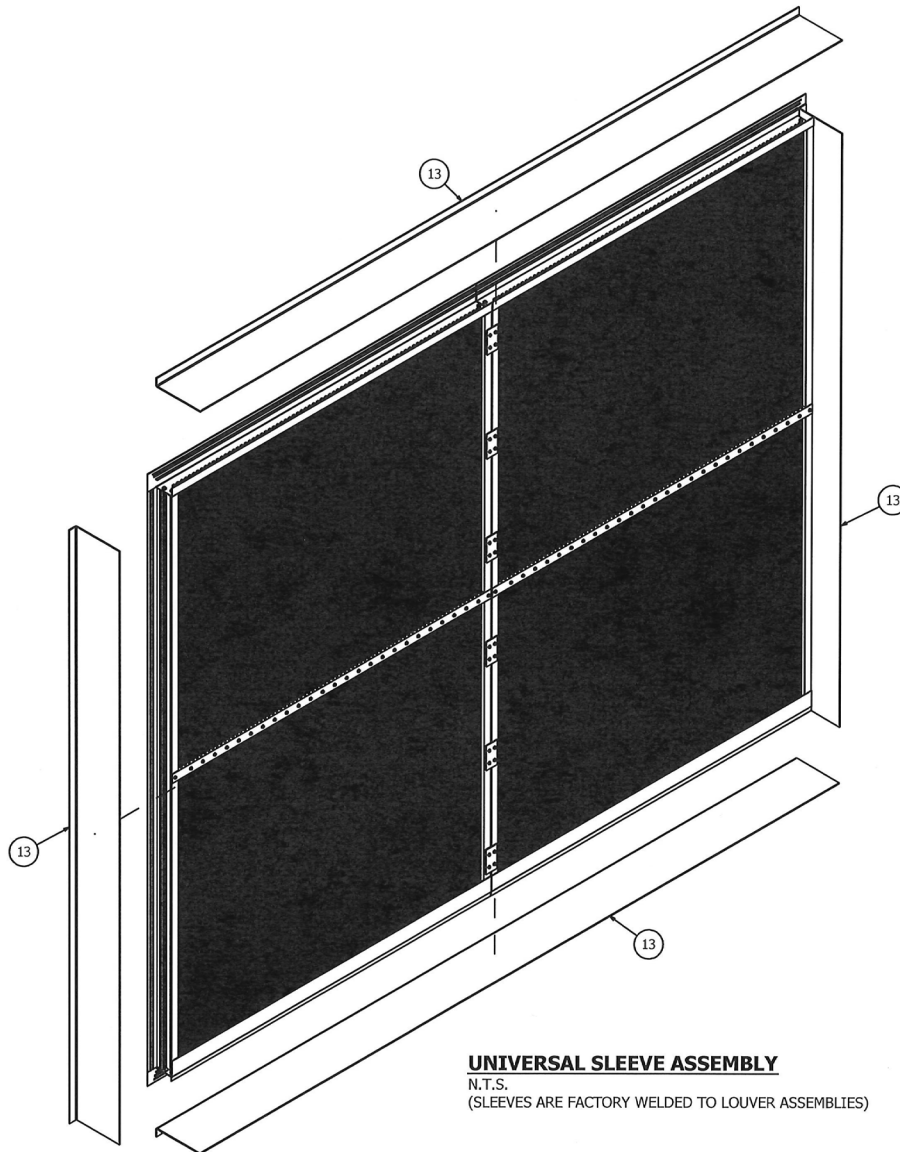
Expiration Date 03/06/2029

By *[Signature]*  
Miami-Dade Product Control



**PRODUCT APPROVED**  
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Approval Date 11/18/2021  
By *[Signature]*  
Miami-Dade Product Control

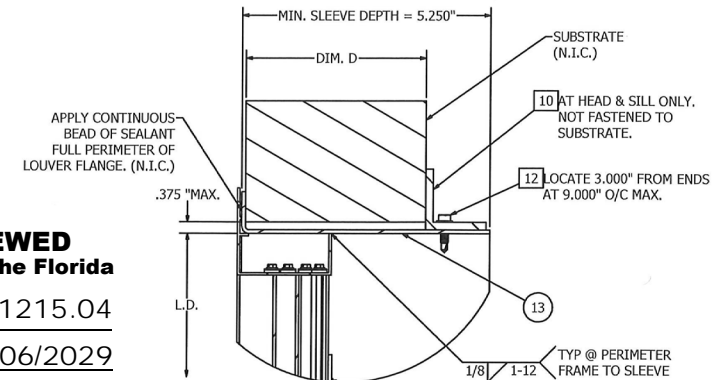
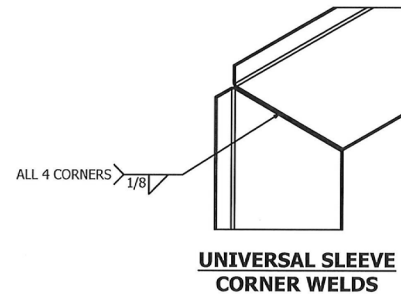
AUTHOR	DKF	9/25/2020	<b>RELIABLE</b> RESISTANCE CORROSION PROTECTANT EXTERIOR • SURFACE WEAR • STAIN RESISTANT	1300 Enterprise Road, Gainesville, Alabama 36340 PROPRIETARY AND CONFIDENTIAL	
CHECKED	E-S	10/28/2020			
APPROVED	TCB	10/29/2020			
APPROVED	MMH	10/30/2020			
MATERIAL	EXTRUDED ALUMINUM		PRODUCT	3880C / WIND-DRIVEN RAIN RESISTANT LOUVER	
			TITLE	MULTI-SECTION (F7) ASSEMBLY BACK VIEW	
			SIZE	B	
			DATE	60-022590-000	
			SCALE	NONE	
			INVENTOR	SHEET 5 of 9	



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Expiration Date 03/06/2029

By *R. P. [Signature]*  
Miami-Dade Product Control



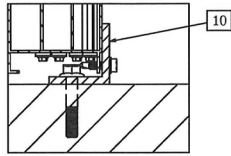
**DETAIL 9**  
RETAINING ANGLE INSTALL  
AT HEAD (SHOWN).  
SIMILAR AT SILL.



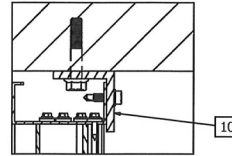
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By *R. P. [Signature]*  
Miami-Dade Product Control

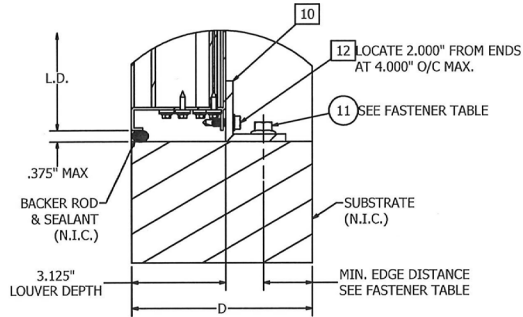
DESIGNED	DKF	9/25/2020	<b>RELIABLE</b> <small>ARCHITECTURAL &amp; ENGINEERING</small> <small>1300 Enterprise Road, Geneva, Alabama 36040</small> <small>PROPRIETARY AND CONFIDENTIAL</small>
CHECKED	E-R	10/28/2020	
APPROVED	TCB	10/29/2020	
APPROVED	NMM	10/30/2020	
MATERIAL	EXTRUDED ALUMINUM		PRODUCT 3RD/OC / WIND-DRIVEN RAIN RESISTANT LOUVER TITLE UNIVERSAL SLEEVE ASSEMBLY & INSTALLATION SIZE B 60-022590-00D SCALE NONE SHEET 6 OF 9



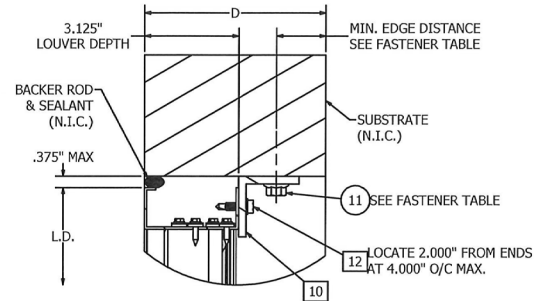
**OPTIONAL  
LEG INSIDE**



**OPTIONAL  
LEG INSIDE**



**DETAIL 3**  
RETAINING ANGLE INSTALL AT SILL



**DETAIL 4**  
RETAINING ANGLE INSTALL AT HEAD

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

By   
Miami-Dade Product Control

**SUBSTRATE FASTENER TABLE (N.I.C.) / 3RRDC 120 PSF / SINGLE ANGLE INSTALL**

SUBSTRATE TYPE	MIN. SUBSTRATE REQUIREMENTS	FASTENER TYPE	MAX. C/C SPACING AT HEAD / SILL	MIN. EMBEDMENT	MIN. EDGE DISTANCE
WOOD	3" THICK, 0.42 SPECIFIC GRAVITY	3/8-16 BOLT W/NUT, MIN A307 GRADE A	8"	3 THREADS BEYOND NUT	1-1/2"
		3/8" DIA. LAG SCREW 2 1/2" LONG MIN. A307 GRADE A	8"	2-1/4"	1-1/2"
STEEL	18 GA, 45 KSI TENSILE STRENGTH, 33KSI YIELD STRENGTH	1/4-20 BOLT W/NUT & WASHER MIN A307 GRADE A	8"	3 THREADS BEYOND NUT	1/2"
	12 GA, 45 KSI TENSILE STRENGTH, 33KSI YIELD STRENGTH	1/4-20 SELF-DRILLING SCREW W/ WASHER CARBON STEEL	4"	3 THREADS BEYOND SUBSTR. THICKNESS	1/2"
ALUMINUM	0.125" THICK, 20 KSI TENSILE STRENGTH, 15 KSI YIELD STRENGTH	1/4-20 BOLT W/NUT & WASHER MIN A307 GRADE A	8"	3 THREADS BEYOND NUT	1/2"
	0.1875" THICK, 20 KSI TENSILE STRENGTH, 15 KSI YIELD STRENGTH	1/4-20 SELF-DRILLING SCREW W/ WASHER CARBON STEEL	4"	3 THREADS BEYOND SUBSTR. THICKNESS	1/2"
CONCRETE	2500 PSI COMPRESSIVE STRENGTH	3/8" DIA. SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR CARBON STEEL	8"	3-1/4"	2"
		3/8" DIA. DEWALT SCREW BOLT + SCREW ANCHOR CARBON STEEL	8"	3-1/4"	4"
		3/8" DIA. HILTI KWIK HUS-EZ SCREW ANCHOR CARBON STEEL	8"	3 1/4"	2"
		1/4" DIA. ELCO AGGRE-GATOR W/ WASHER 300 SERIES SS	4"	1-3/8"	1-1/2"
GROUT FILLED CMU	ASTM C-90 BLOCK, 1500 PSI GROUT COMPRESSIVE STRENGTH	3/8" DIA. SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR CARBON STEEL	4"	2 -3/4"	4"
		3/8" DIA. DEWALT SCREW BOLT + SCREW ANCHOR CARBON STEEL	8"	3 1/4"	2"
		3/8" DIA. HILTI KWIK HUS-EZ SCREW ANCHOR CARBON STEEL	8"	3-1/4"	4"
		1/4" DIA. ELCO AGGRE-GATOR W/ WASHER 300 SERIES SS	4"	2"	2"

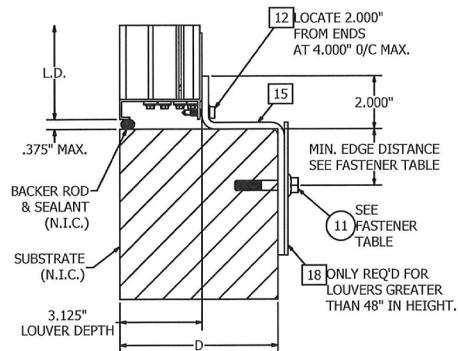


**PRODUCT APPROVED**  
as complying with the Florida  
Building Code  
NOA-No. 21-0728.04

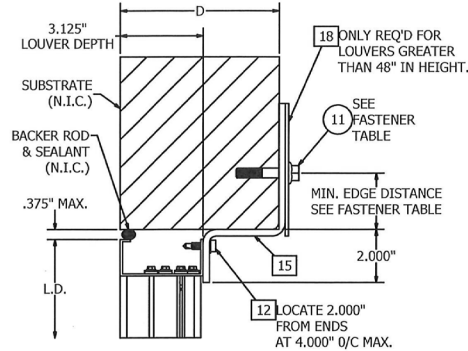
Approval Date 11/18/2021

By   
Miami-Dade Product Control

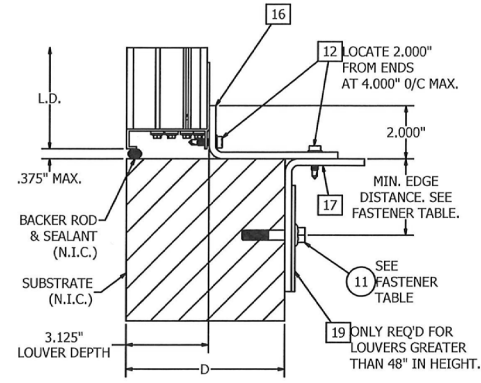
DESIGNED	DKF	9/25/2020		1300 Enterprise Road, Geneva, Alabama 36340 PROPRIETARY AND CONFIDENTIAL	
CHECKED	E-R	10/28/2020			
APPROVED	TCB	10/29/2020			
APPROVED	MMM	10/30/2020			
PRODUCT			3RRDC / WIND-DRIVEN RAIN RESISTANT LOUVER		
SUBSTRATE			EXTRUDED ALUMINUM		
TITLE			LOUVER INSTALL / RETAINING SINGLE ANGLE		
SIZE			800 STD		
SCALE			60-022590-000		
CLN	NONE		INVENTOR	SHEET 7 of 9	
REV			A		



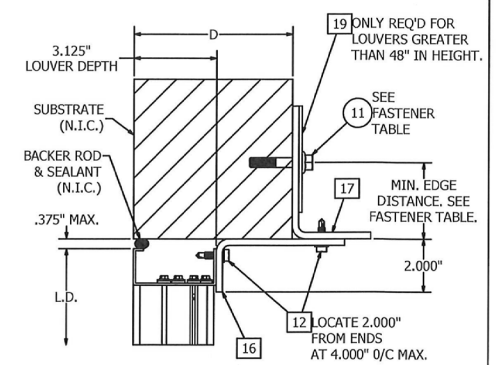
**DETAIL 5**  
RETAINING ZEE INSTALLED AT SILL



**DETAIL 6**  
RETAINING ZEE INSTALLED AT HEAD



**DETAIL 7**  
DOUBLE ANGLE INSTALLED AT SILL



**DETAIL 8**  
DOUBLE ANGLE INSTALLED AT HEAD

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

By   
Miami-Dade Product Control



**PRODUCT APPROVED**  
as complying with the Florida  
Building Code  
NOA-No. 21-0728.04  
Approval Date 11/18/2021

By   
Miami-Dade Product Control

### SUBSTRATE FASTENER TABLE (N.I.C.) / 3RRDC 120 PSF / RETAINING ZEE & DOUBLE ANGLE INSTALL

SUBSTRATE TYPE	MIN. SUBSTRATE REQUIREMENTS	FASTENER TYPE	MAX. C/C SPACING AT HEAD / SILL	MIN. EMBEDMENT	MIN. EDGE DISTANCE
WOOD	3" THICK, 0.42 SPECIFIC GRAVITY	3/8-16 BOLT W/ NUT, MIN A307 GRADE A	Ⓐ 8"	3 THREADS BEYOND NUT	1-1/2"
		3/8" DIA. LAG SCREW, 2 1/2" LONG, MIN. A307 GRADE A	Ⓐ 8"	2-1/4"	1-1/2"
STEEL	18 GA, 45 KSI TENSILE STRENGTH, 33KSI YIELD STRENGTH	1/4-20 BOLT W/ NUT & WASHER, MIN A307 GRADE A	Ⓐ 8"	3 THREADS BEYOND NUT	1/2"
	12 GA, 45 KSI TENSILE STRENGTH, 33KSI YIELD STRENGTH	1/4-14 SELF-DRILLING SCREW W/ WASHER CARBON STEEL	6"	3 THREADS BEYOND SUBSTR. THICKNESS	1/2"
ALUMINUM	0.125" THICK, 20 KSI TENSILE STRENGTH, 15 KSI YIELD STRENGTH	1/4-20 BOLT W/ NUT & WASHER, MIN A307 GRADE A	Ⓐ 8"	3 THREADS BEYOND NUT	1/2"
	0.1875" THICK, 20 KSI TENSILE STRENGTH, 15 KSI YIELD STRENGTH	1/4-14 SELF-DRILLING SCREW W/ WASHER CARBON STEEL	6"	3 THREADS BEYOND SUBSTR. THICKNESS	1/2"
CONCRETE	2500 PSI COMPRESSIVE STRENGTH	3/8" DIA. SIMPSON STRONG-TIE TITAN HD SCREW ANCHOR CARBON STEEL	Ⓐ 8"	3-1/4"	2"
		3/8" DIA. DEWALT SCREW BOLT + SCREW ANCHOR CARBON STEEL	Ⓐ 8"	3-1/4"	4"
		3/8" DIA. HILTI KWIK HUS-EZ SCREW ANCHOR CARBON STEEL	Ⓐ 8"	3 1/4"	2"
		1/4" DIA. ELCO AGGRE-GATOR W/ WASHER 300 SERIES SS	6"	1-3/8"	1-1/2"
GROUT FILLED CMU	ASTM C-90 BLOCK, 1500 PSI GROUT COMPRESSIVE STRENGTH	3/8" DIA. SIMPSON STRONG-TIE TITAN HD SCREW ANCHOR CARBON STEEL	Ⓐ 8"	2-3/4"	4"
		3/8" DIA. DEWALT SCREW BOLT + SCREW ANCHOR CARBON STEEL	Ⓐ 8"	3 1/4"	2"
		3/8" DIA. HILTI KWIK HUS-EZ SCREW ANCHOR CARBON STEEL	Ⓐ 8"	3-1/4"	4"
		1/4" DIA. ELCO AGGRE-GATOR W/ WASHER 300 SERIES SS	6"	2"	2"

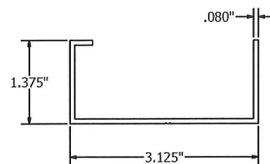
A	REVISED SUBSTRATE FASTENER TABLE	E-R	JDS	VMA	3/19/24
DATE	DKF	9/25/2020			
REVISION	E-R	10/28/2020			
APPROVED	TCB	10/29/2020			
APPROVED	MMH	10/30/2020			
MATERIAL	EXTRUDED ALUMINUM				
SCALE	NONE				
INVENTOR					
SHEET	8	OF 9			

**RELIABLE**  
1300 Enterprise Road,  
Geneva, Alabama 36040  
PROPRIETARY AND  
CONFIDENTIAL

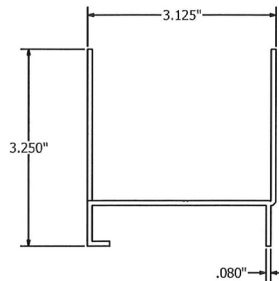
PRODUCT  
3RRDC / WIND-DRIVEN RAIN RESISTANT LOUVER

TITLE  
LOUVER INSTALL / RETAINING ZEE & DOUBLE ANGLE

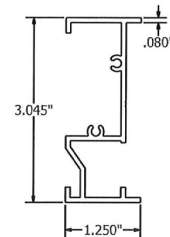
SIZE  
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60-022590-00D  
REV  
A



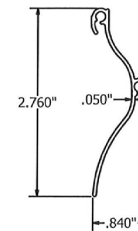
**HEAD FRAME ITEM-1**  
N.T.S.



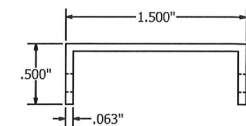
**SILL FRAME ITEM-2**  
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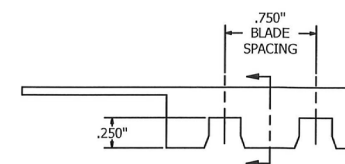
**JAMB FRAME ITEM-3**  
N.T.S.



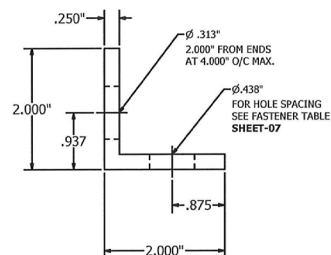
**BLADE ITEM-4**  
N.T.S.



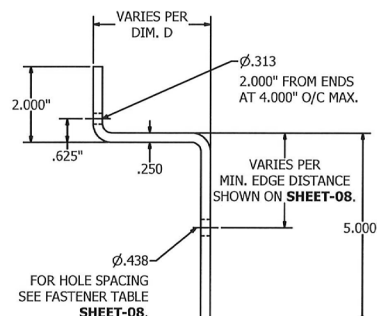
**SECTION**



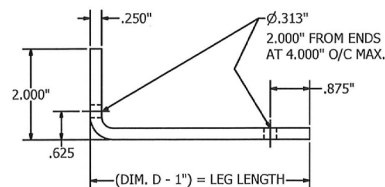
**H.H.B.S. ITEM-5**  
N.T.S.



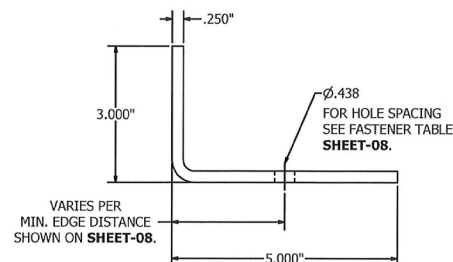
**RETAINING ANGLE ITEM-10**  
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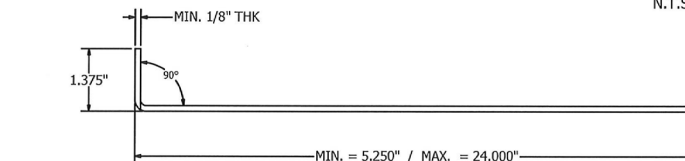
**RETAINING ZEE ITEM-15**  
N.T.S.



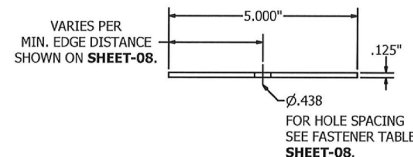
**RETAINING ANGLE ITEM-16**  
N.T.S.



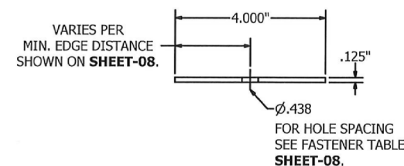
**RETAINING ANGLE ITEM-17**  
N.T.S.



**UNIVERSAL SLEEVE ITEM-13**  
N.T.S.



**STIFFENER PLATE ITEM-18**  
N.T.S.



**STIFFENER PLATE ITEM-19**  
N.T.S.

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 23-1215.04

Expiration Date 03/06/2029

By *[Signature]*  
Miami-Dade Product Control



**PRODUCT APPROVED**  
as complying with the Florida  
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NOA-No. 21-0728.04  
Approval Date 11/18/2021

By *[Signature]*  
Miami-Dade Product Control

DATE	9/25/2020	REVISION	1300 Enterprise Road, Geneva, Alabama 36034
CHECKED	DKF	DATE	10/28/2020
APPROVED	E-R	DATE	10/29/2020
APPROVED	TCB	DATE	10/29/2020
APPROVED	MM	DATE	10/30/2020
PROJECT		3RD/4C / WIND-DRIVEN RAIN RESISTANT LOUVER	
TITLE		LOUVER FRAMING & INSTALL PART PROFILES	
MATERIAL		60-022590-000	
EXTRUDED ALUMINUM		REV A	
SCALE		NONE	
DRAWN		SHEET 9 OF 9	