



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

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

**Nailor Industries Inc.
4714 Winfield Road
Houston, TX 77039**

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 1605WDM Aluminum Louver w/ and w/o Damper – L.M.I.

APPROVAL DOCUMENT: Drawing No. **1605WDM**, titled “1605WDM Louver w/ and w/o Damper”, sheets 1 through 21 of 21, dated 09/18/17, with revision A, prepared by manufacturer, signed and sealed by Wayne K. Helmila, P.E. on 06/24/2021, 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, Houston, TX, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

LIMITATION: This system is to be installed in a location where the room behind the louver is designed to drain water penetrating into the room, and the room will house water resistant/waterproof equipment, components, or supplies.

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 No. 21-0630.11** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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



NOA No. 23-0724.24
Expiration Date: August 30, 2028
Approval Date: September 7, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 18-0117.13)
2. Drawing No. **1605WDM**, titled "1605WDM Louver w/ and w/o Damper", sheets 1 through 21 of 21, dated 09/18/17, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E. *(Submitted under NOA No. 18-0117.13)*

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of Model 1605WDM Louver System, prepared by Intertek, Test Report No. **H3539.01-801-18-R2**, dated 09/20/17 and revised on 05/24/18, signed and sealed by Tyler Westerling, P.E.
(Submitted under NOA No. 18-0117.13)
2. Test Report on Wind Driven Rain Resistance Test per TAS 100(A)-95 on a Model 1605 WDM Aluminum Louver with damper, prepared by Intertek, Test Report No. **H0223.04-801-18-R1**, dated 09/28/17 and revised on 11/21/17, signed and sealed by Tyler Westerling, P.E. *(Submitted under NOA No. 18-0117.13)*
3. Test Report on High Velocity Wind Driven Rain Resistance Test per ANSI/AMCA 550-09 on a Model 1605WDM Aluminum Louver with damper, prepared by Intertek, Test Report No. **H0223.03-801-18-R1**, dated 09/28/17 and revised on 11/21/17, signed and sealed by Tyler Westerling, P.E. *(Submitted under NOA No. 18-0117.13)*

C. CALCULATIONS

1. Louver structural calculations dated 11/02/17, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E. *(Submitted under NOA No. 18-0117.13)*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0724.24
Expiration Date: August 30, 2028
Approval Date: September 7, 2023

Nailor Industries Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

F. STATEMENTS

1. Statement letter of code conformance to the **FBC 6th Edition (2017)** issued by Rice Engineering, dated 04/16/18, signed and sealed by Wayne K. Helmila, P.E.
(Submitted under NOA No. 18-0117.13)
2. Statement letter of no financial interest issued by Rice Engineering, dated 04/16/18, signed and sealed by Wayne K. Helmila, P.E.
(Submitted under NOA No. 18-0117.13)

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.11

A. DRAWINGS

1. Drawing No. **1605WDM**, titled "1605WDM Louver w/ and w/o Damper", sheets 1 through 21 of 21, dated 09/18/17, with revision A, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

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. Statement letter of code conformance to the **7th edition (2020) FBC**, issued by Rice Engineering, dated 05/19/21, signed and sealed by Wayne K. Helmila, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0724.24
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Approval Date: September 7, 2023

DRAWING INDEX:



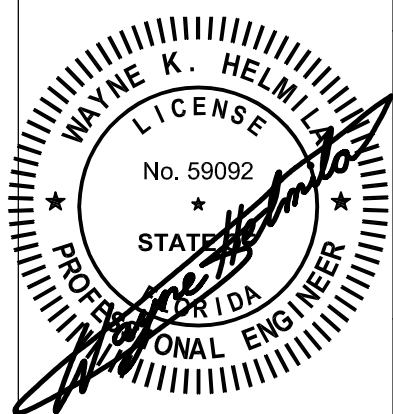


1. INDEX TO DRAWING AND NOTES.
2. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT
3. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT
4. 1605WDM / DAMPER- FLANGE FRAME SLEEVE MOUNT
5. 1605WDM / DAMPER- CONTINUOUS ANGLE MOUNT
6. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT HEAD & SILL DETAIL
7. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT HEAD & SILL DETAIL.
8. 1605WDM LOUVER- BLADE SUPPORT DETAIL.
9. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT JAMB DETAIL
10. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT JAMB DETAIL.
11. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT MULLION DETAIL.
12. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT MULLION DETAIL.
13. 1605WDM LOUVER / DAMPER FLANGE FRAME W/ SLEEVE & CONTINUOUS ANGLE HEAD & SILL DETAIL.
14. 1605WDM / DAMPER- FLANGE FRAME SLEEVE MOUNT JAMB AND MULLION DETAIL
15. 1605WDM LOUVER / DAMPER CONTINUOUS ANGLE MOUNT JAMB AND MULLION DETAIL.
16. 1605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES.
17. 1605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES.
18. MULLION ANGLES BACK OF WALL MOUNT
19. 1605WDM LOUVER W/ AND W/O DAMPER AVAILABLE SHAPES
20. 1605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT BILL OF MATERIAL.
21. 1605WDM LOUVER W/ AND W/O DAMPER NOTES AND FASTENER SCHEDULE.

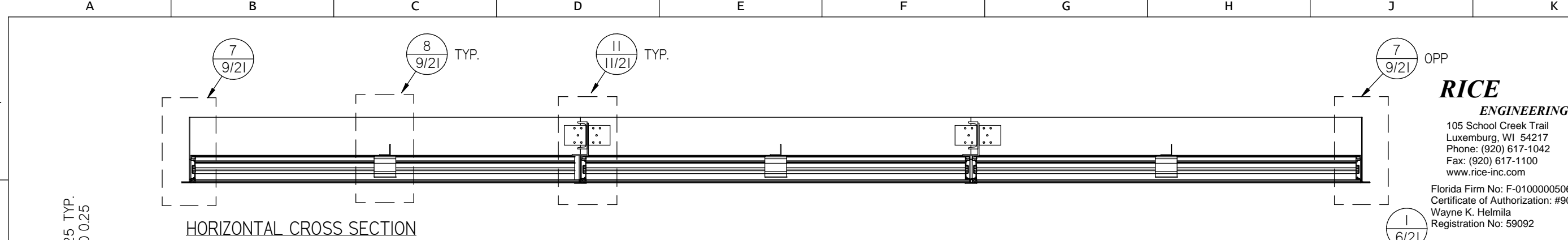
NOTES:

- 1) THE 1605WDM HAS BEEN TESTED IN ACCORDANCE WITH THE MIAMI-DADE COUNTY PROTOCOLS TAS-201, 202, & 203 FOR LARGE MISSILE IMPACT, UNIFORM PRESSURE AND CYCLIC WIND PRESSURE.
- 2) THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH DESIGN PRESSURES OF +/- 150 PSF OR LESS
- 3) THIS LOUVER SYSTEM IS NON-BEARING AND IS NOT DESIGNED TO WITHSTAND BUILDING DEAD LOADS.
- 4) LOUVER ANCHORS ARE REVIEWED FOR ATTACHMENT INTO STEEL, CONCRETE, MASONRY, OR TIMBER SUBSTRUCTURE. MINIMUM EDGE DISTANCE AND EMBEDMENT REQUIREMENTS ARE SHOWN. NAILOR IND. DOES NOT DETERMINE THE STRUCTURE INTEGRITY OF THE SUBSTRUCTURE.
- 5) MAXIMUM SINGLE SECTION SIZE : 72" WIDE X 120" HIGH.
- 6) MAXIMUM ASSEMBLED LOUVER SIZE UNLIMITED WIDE X 120" HIGH. MAX. MULLION SPACING IS 72".
- 7) SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.

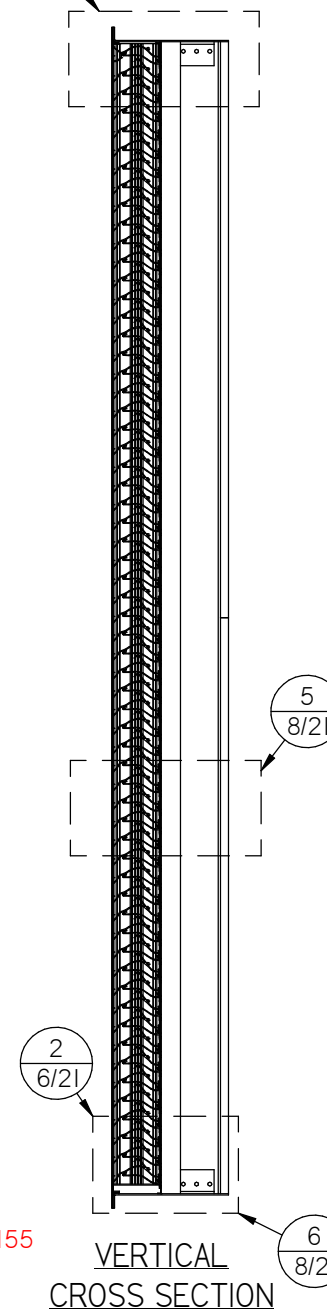
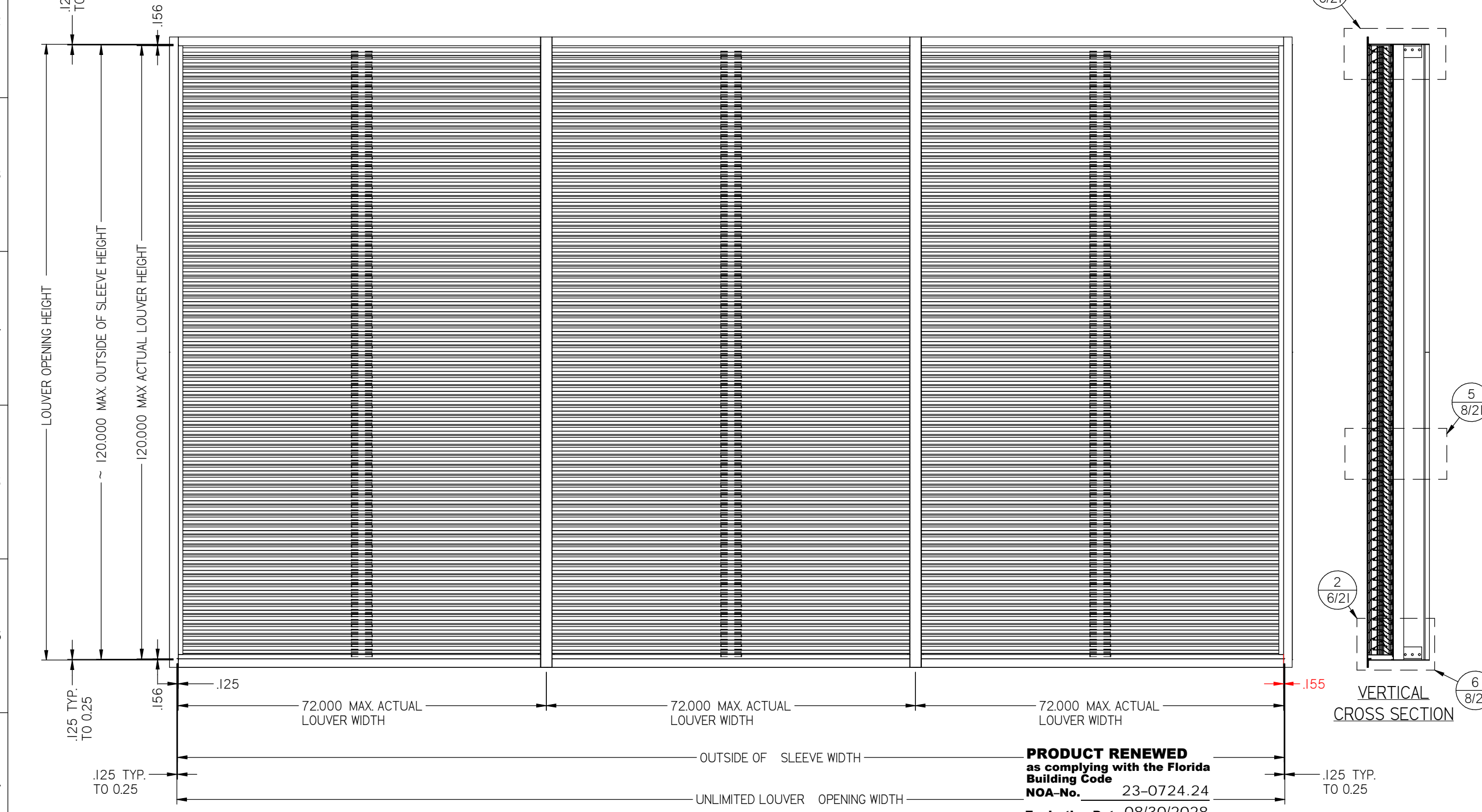
TESTS PERFORMED:

TAS100 A WIND DRIVEN RAIN RESISTANCE W/ DAMPER
 TAS-201 LARGE MISSILE IMPACT
 TAS-202 UNIFORM STATIC AIR PRESSURE TEST
 TAS-203 CYCLIC WIND PRESUSRE TEST
 DESIGN PRESSURE RATING 150 PSF

CHK BY: Mastourian	SCALE: NTS	SHEET: 1 OF 21	REV A
DWN BY: f cortinas	DATE: 9/18/2017		DWG. NO. 1605WDM
 Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		TITLE: 1605WDM LOUVER W/ AND W/O DAMPER INDEX	
 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		 06/24/2021 COA: 9090	
PRODUCT RENEWED as complying with the Florida Building Code NOA-No. <u>23-0724.24</u> Expiration Date <u>08/30/2028</u> By:  Miami-Dade Product Control		PRODUCT REVISED as complying with the Florida Building Code NOA-No. <u>21-0630.11</u> Expiration Date: <u>08/30/2023</u> By:  Miami-Dade Product Control	
REVISIONS: REV A: 16, 17, 20, 21 OF 21			



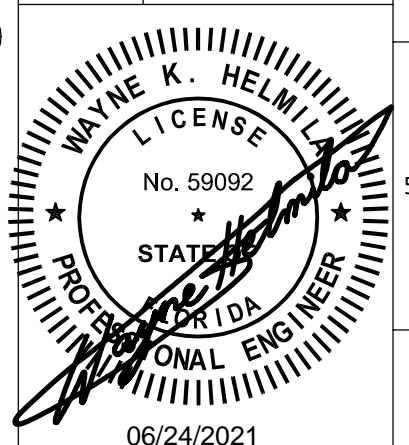
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



CHK BY: Mastourian	SCALE: NTS	SHEET: 2 OF 21	REV A
DWN BY: f cortinas	DATE: 9/18/2017		
DWC. NO. 1605WDM			

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

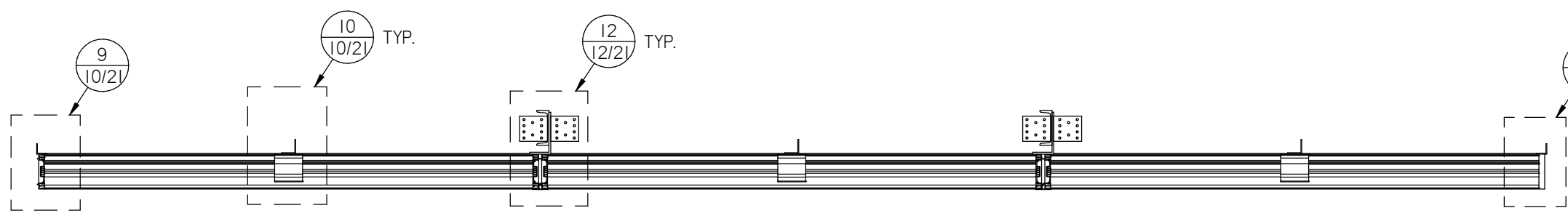
TITLE:
**1605WDM LOUVER
FLANGE FRAME
SLEEVE MOUNT**



06/24/2021
COA: 9090

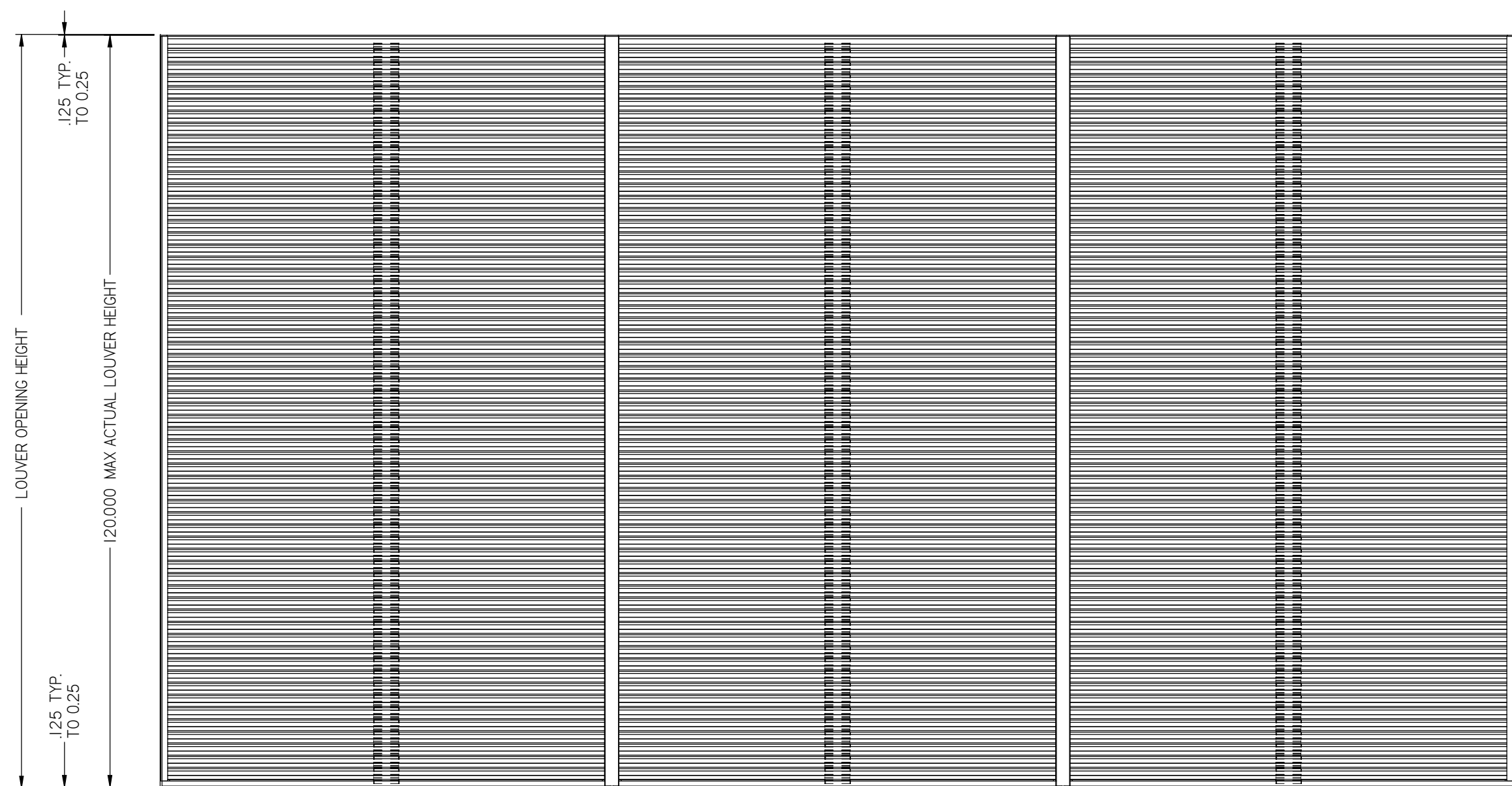
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **21-0630.11**
Expiration Date: **08/30/2023**
By: *Manuel Perez*
Miami-Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

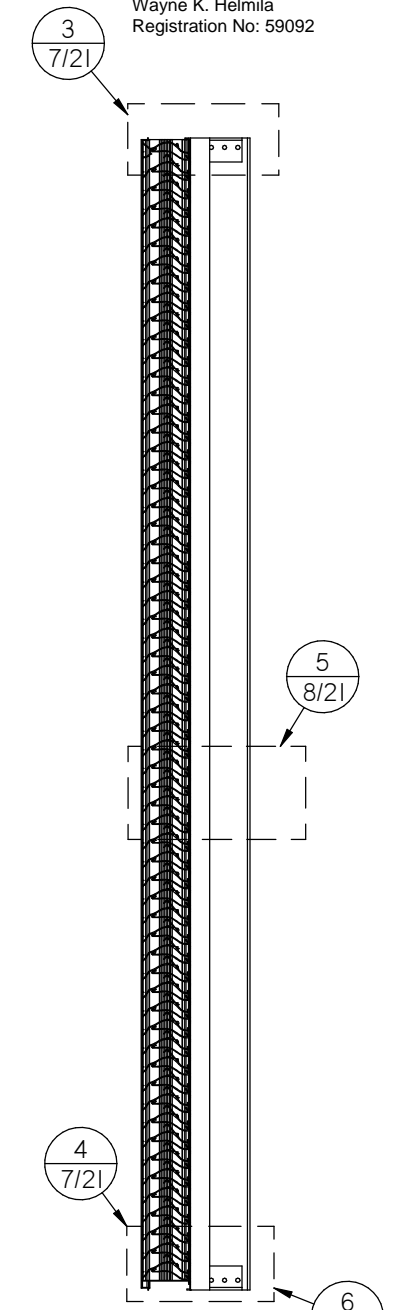


HORIZONTAL CROSS SECTION

RICE ENGINEERING
 105 School Creek Trail
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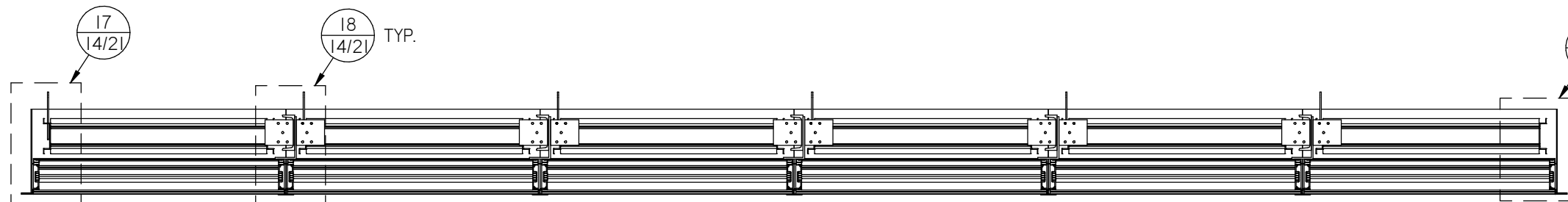
ELEVATION



VERTICAL CROSS SECTION

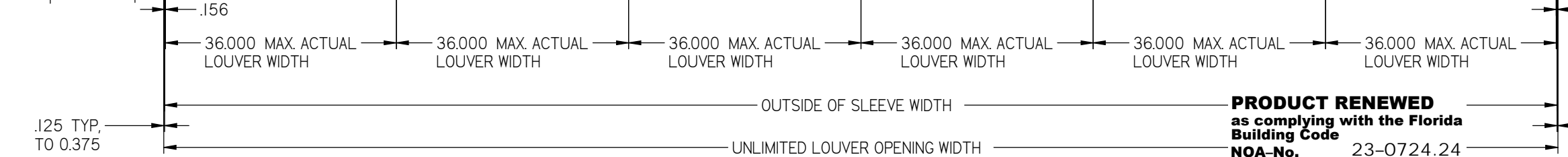
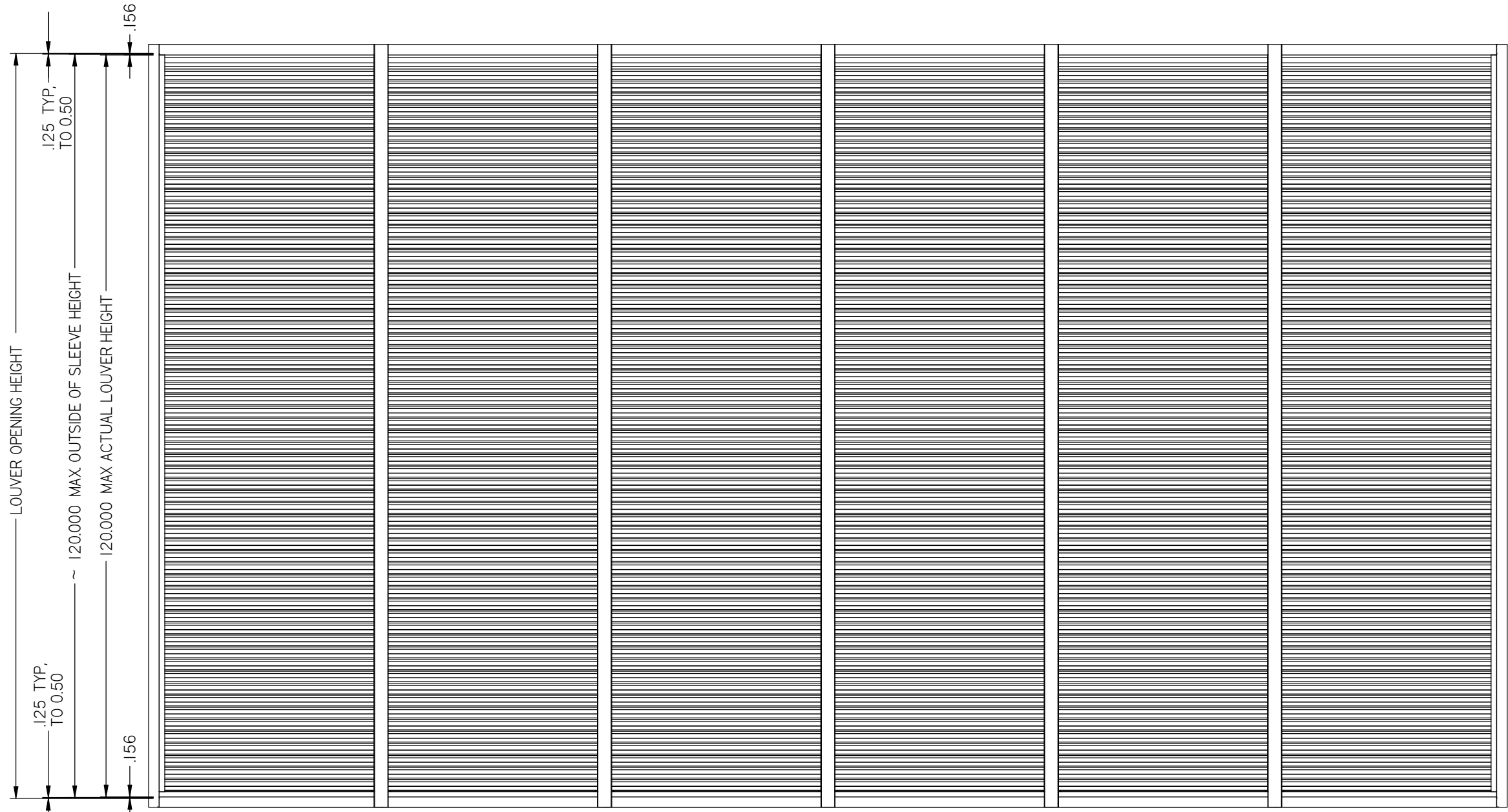
PRODUCT RENEWED
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 NOA-No. 23-0724.24
 Expiration Date 08/30/2028
 By [Signature]
 Miami-Dade Product Control

Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com	CHK BY: Mastourian SCALE: NTS	SHEET: 3 OF 21 DWG. NO. 1605WDM	REV A
	DWN BY: fcoirtinas DATE: 9/18/2017		
		06/24/2021 COA: 9090	
		PRODUCT REVISED as complying with the Florida Building Code NOA-No. 21-0630.11 Expiration Date: 08/30/2023 By: <u>[Signature]</u> Miami-Dade Product Control	



HORIZONTAL CROSS SECTION

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: #9092
 Wayne K. Helmila
 Registration No: 59092



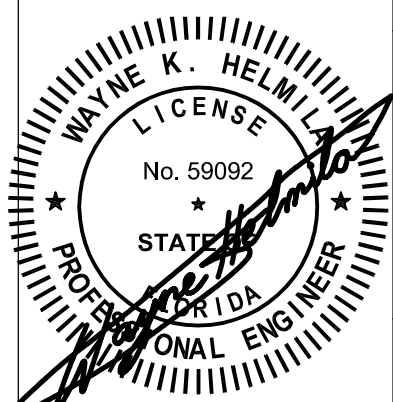
VERTICAL CROSS SECTION

ELEVATION

N:\Drawing\LOUVERS\AMCA\1605WDF\1605WDM\1605WDM 216 X 120 FL Sleeve.dft

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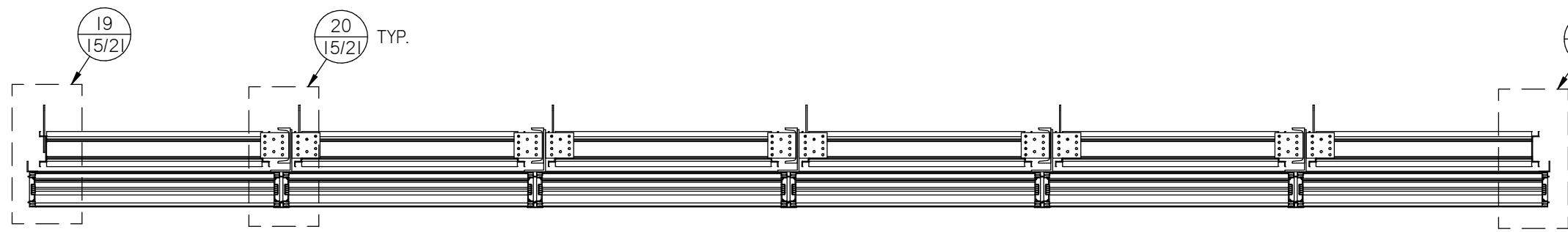
Nailor Industries Inc.
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06/24/2021
 COA: 9090

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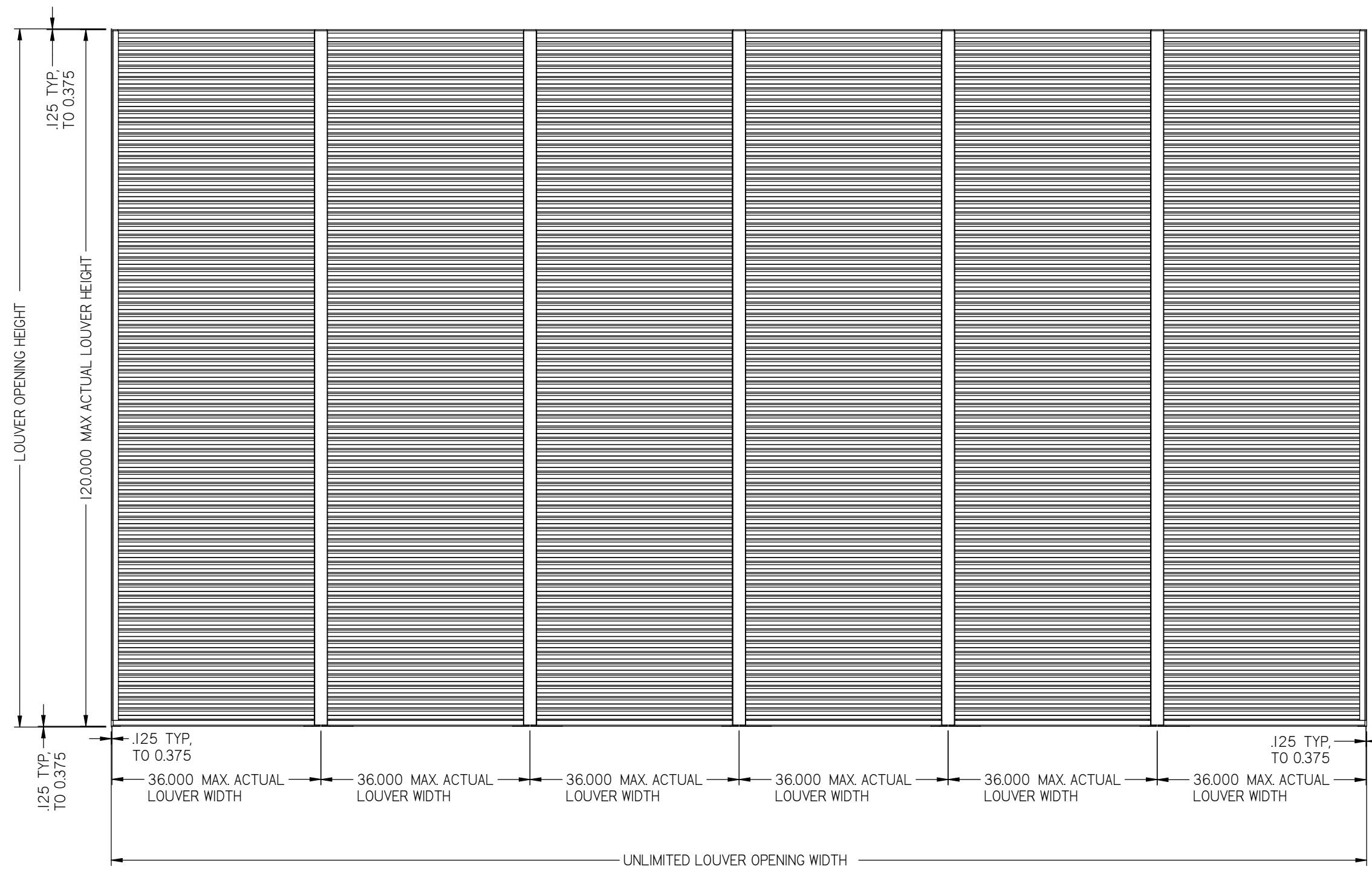
CHK BY: Mastourian
 DWN BY: f cortinas
 DATE: 9/18/2017
 SCALE: NTS
 SHEET: 4 OF 21
 DWG. NO. 1605WDM
 REV A



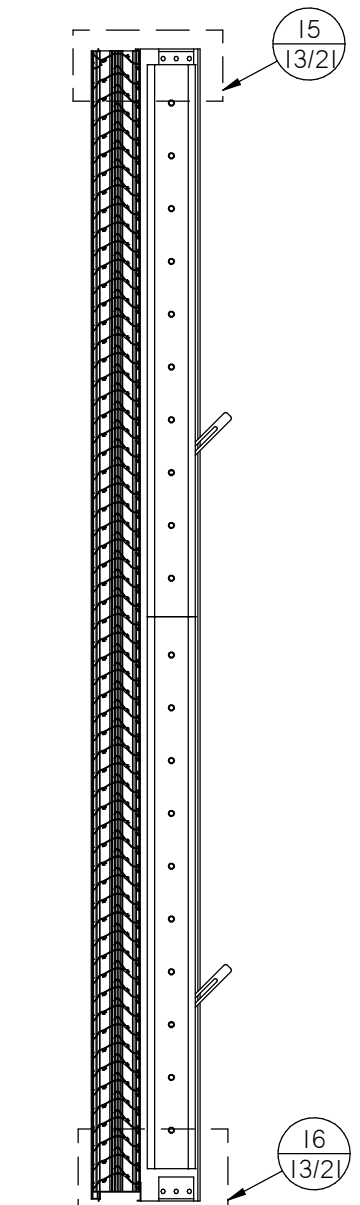
HORIZONTAL CROSS SECTION

PRODUCT RENEWED
 as complying with the Florida
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By *[Signature]*
 Miami-Dade Product Control



ELEVATION



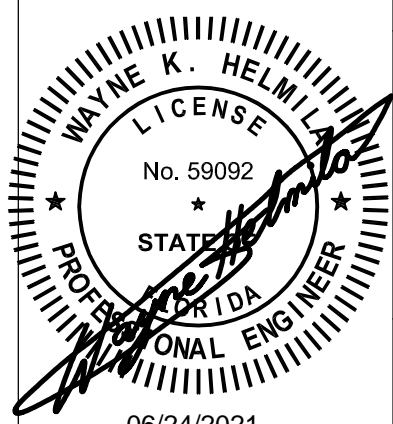
VERTICAL CROSS SECTION

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

CHK BY: Mastourian	SCALE: NTS	SHEET: 5 OF 21	REV A
DWN BY: fcortinas	DATE: 9/18/2017		
DWC. NO. 1605WDM			

Nailor Industries Inc.
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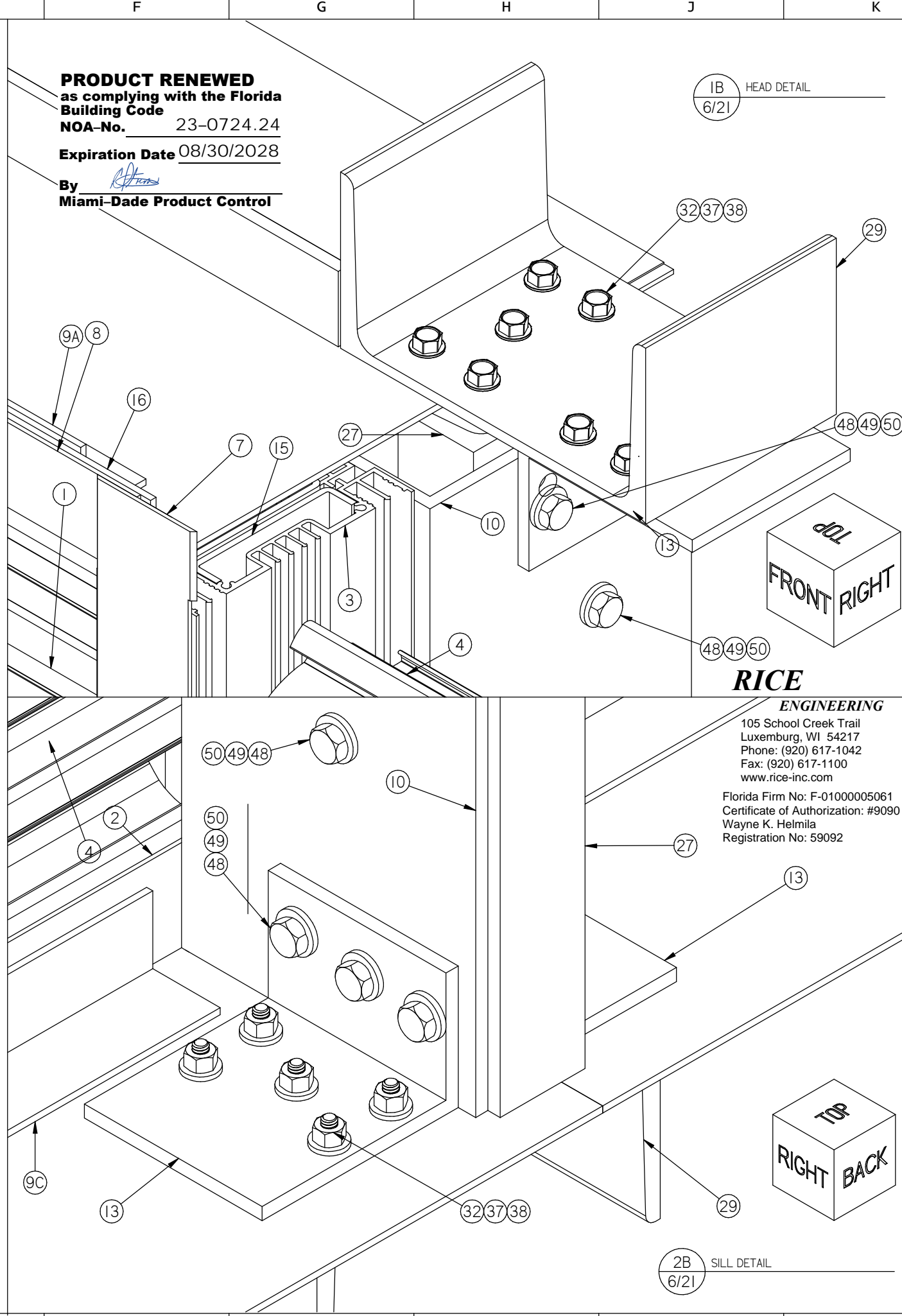
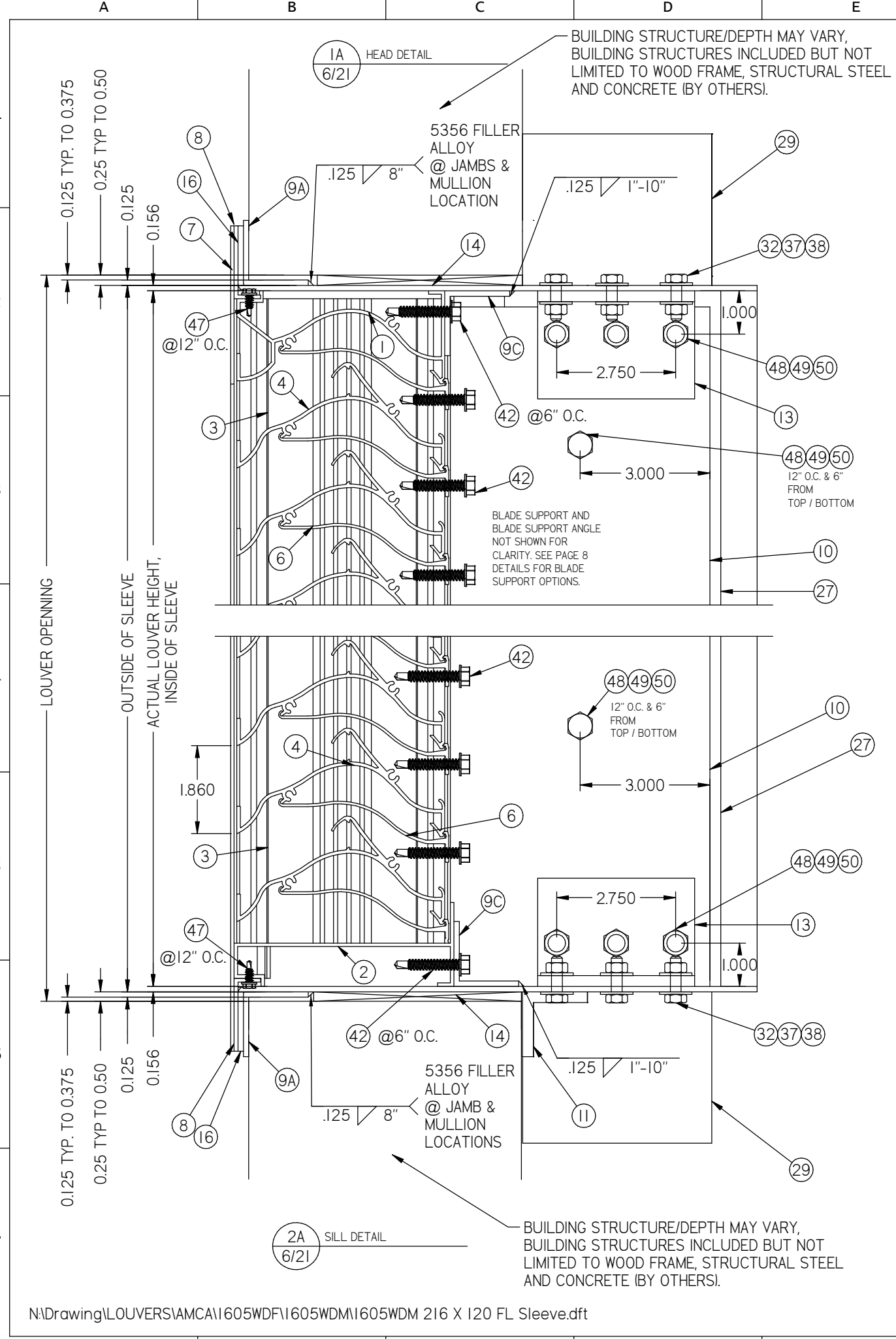
TITLE:
 1605WDM / DAMPER
 CONTINUOUS ANGLE MOUNT



06/24/2021
 COA: 9090

PRODUCT REVISED
 as complying with the Florida
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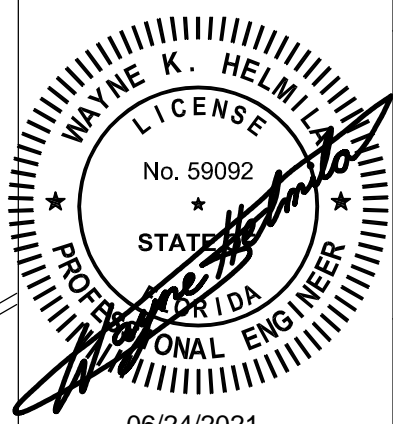
By: *[Signature]*
 Miami-Dade Product Control



PRODUCT RENEWED
 as complying with the Florida
 Building Code
 NOA-No. 23-0724.24
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control

CHK BY: Mastourian
 DWN BY: f cortinas
 DATE: 9/18/2017
 SCALE: NTS
 SHEET: 6 OF 21
 DWG. NO. 1605WDM
 REV A

Nailor Industries Inc.
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06/24/2021
 COA: 9090
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 By *[Signature]*
 Miami-Dade Product Control

MULLION ANGLE DIRECT MOUNT (SHOWN HERE AT HEAD) IS FOR SUBSTRATES WHERE MINIMUM FASTENER EDGE DISTANCE CAN BE ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

3
7/21 HEAD DETAIL

SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE (BY OTHERS).

REFER TO FASTENER SCHEDULE SHEET 21 OF 21

FASTENER EDGE DISTANCE

EMBEDMENT

12A 12B 12C

1.000

2.750

48 49 50

27

10

3.000

48 49 50

12" O.C. & 6" FROM TOP /BOTTOM

BLADE SUPPORT AND BLADE SUPPORT ANGLE NOT SHOWN FOR CLARITY. SEE PAGE 8 DETAILS FOR BLADE SUPPORT OPTIONS.

10

27

48 49 50

12" O.C. & 6" FROM TOP /BOTTOM

3.000

13

48 49 50

32 37 38

1.000

30

EXCESS MATERIAL BEYOND FASTENER EDGE DISTANCE IS ALLOWED TO BE REMOVED (THIS LEG ONLY).

REFER TO FASTENER SCHEDULE SHEET 21 OF 21

MULLION ANGLE BACK OF WALL MOUNT (SHOWN HERE AT SILL) IS FOR SUBSTRATES WHERE MINIMUM FASTENER EDGE DISTANCE CANNOT BE ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

4
7/21 SILL DETAIL

.125 TYP, TO 0.375

LOUVER OPENING

ACTUAL LOUVER HEIGHT

.125 TYP, TO 0.375

SUBSTRATE LIMITED TO CONCRETE

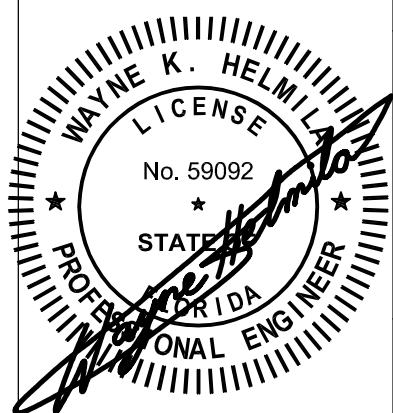
3
3
2

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

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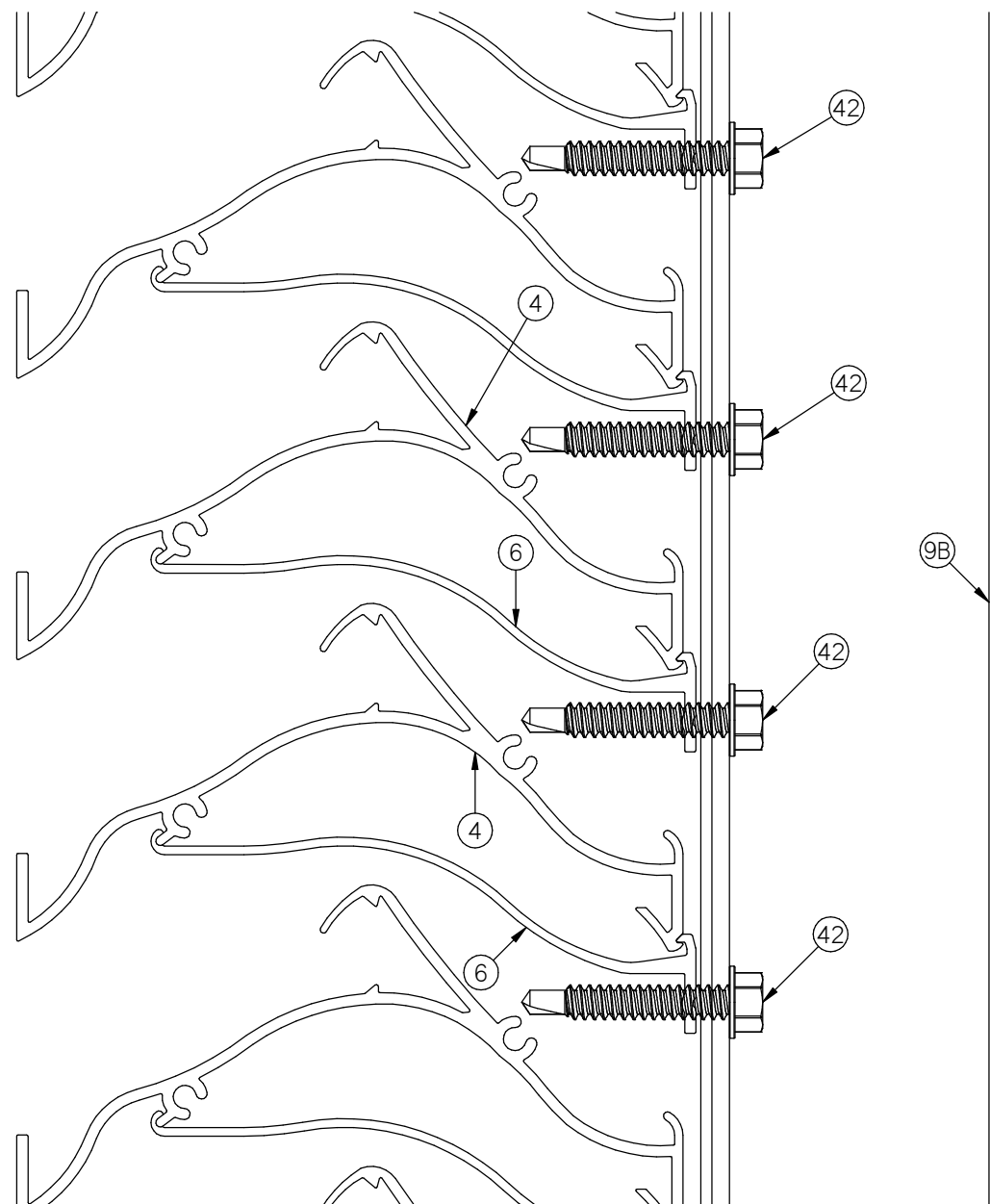
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06/24/2021
COA: 9090

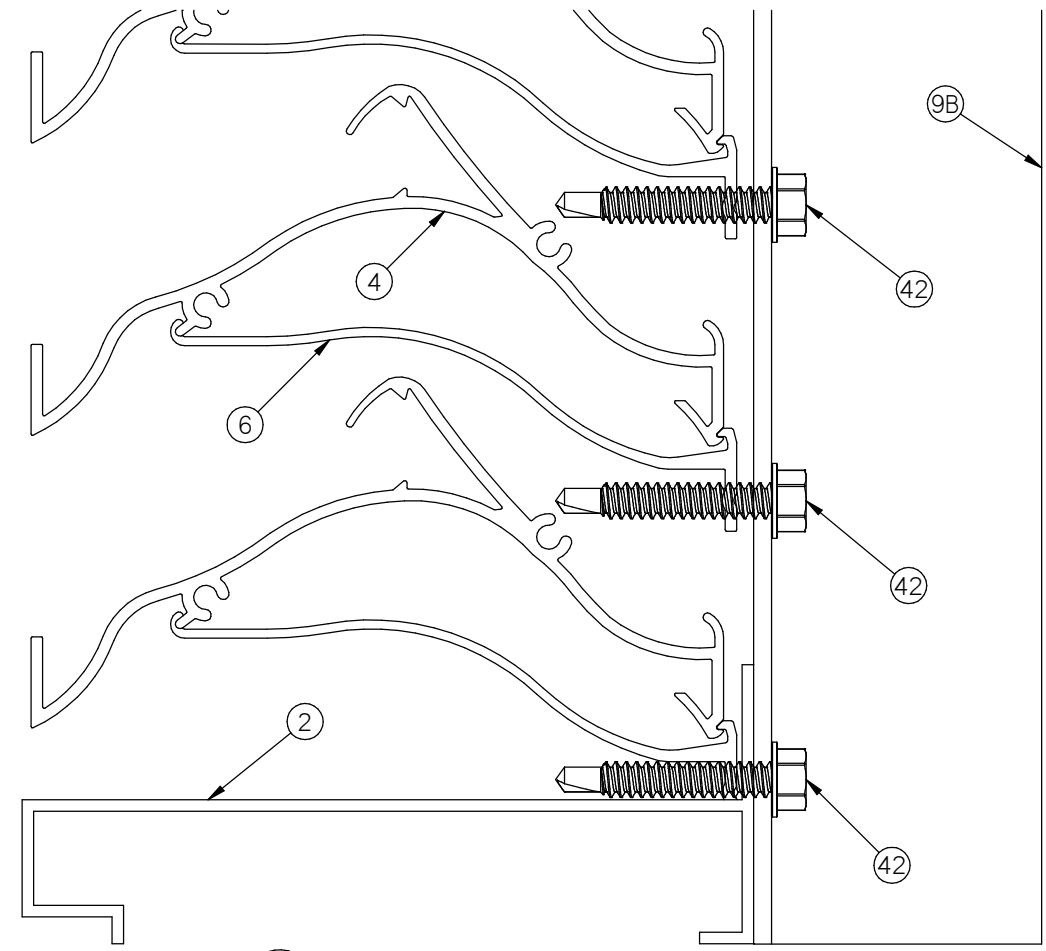
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CHK BY: Mastourian
DWN BY: fcortinas
DATE: 9/18/2017
SCALE: NTS
SHEET: 7 OF 21
DWG. NO. 1605WDM
REV A



5 BLADE SUPPORT DETAIL
8/21

NOTE: THE BLADE SUPPORT ANGLE (ITEM 10 IS NOT SHOWN IN THE DETAILS IN ORDER TO IMPROVE CLARITY. THE BLADE SUPPORT ANGLE IS ATTACHED TO THE BLADE SUPPORT BRACE (ITEM 6). BLADE SUPPORT BRACE 6 (SHOWN) IS ANY OF THE DRAWINGS FOR DETAIL 6.



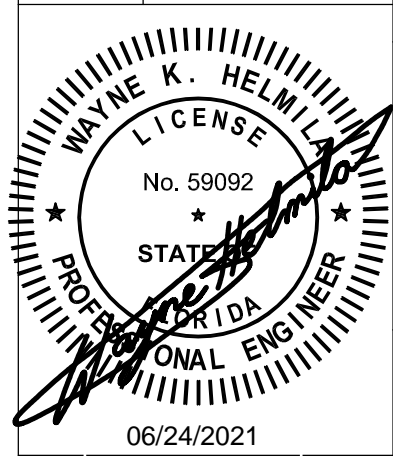
6 BOTTOM BLADE SUPPORT DETAIL
8/21

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By *[Signature]*
Miami-Dade Product Control

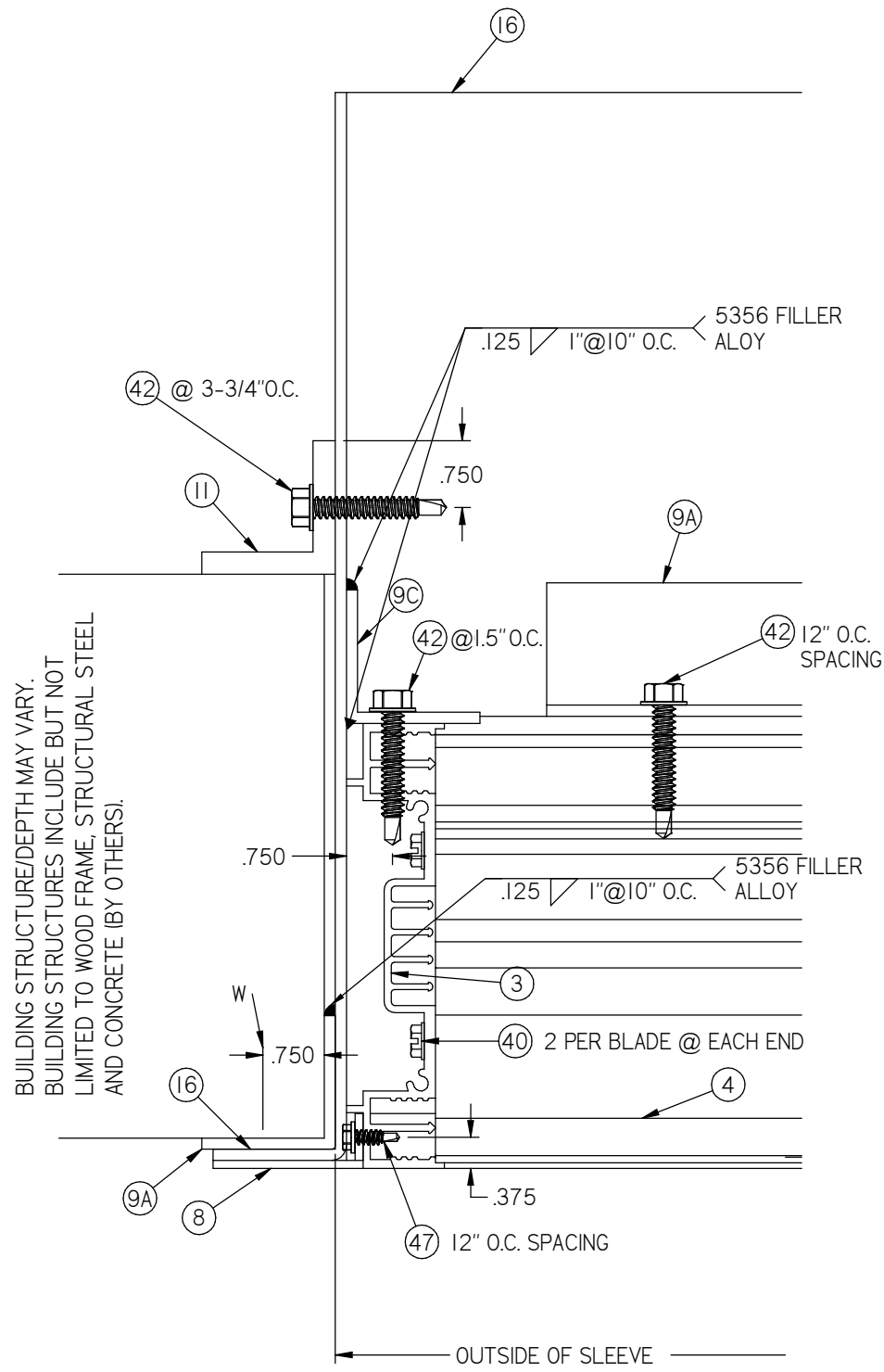
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

DWN BY: fcortinas
CHK BY: MASTourian
DATE: 9/18/2017
SCALE: NTS
SHEET: 8 OF 21
DWG. NO. 1605WDM
REV. A

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com
TITLE: 1605WDM LOUVER
BLADE SUPPORT DETAIL

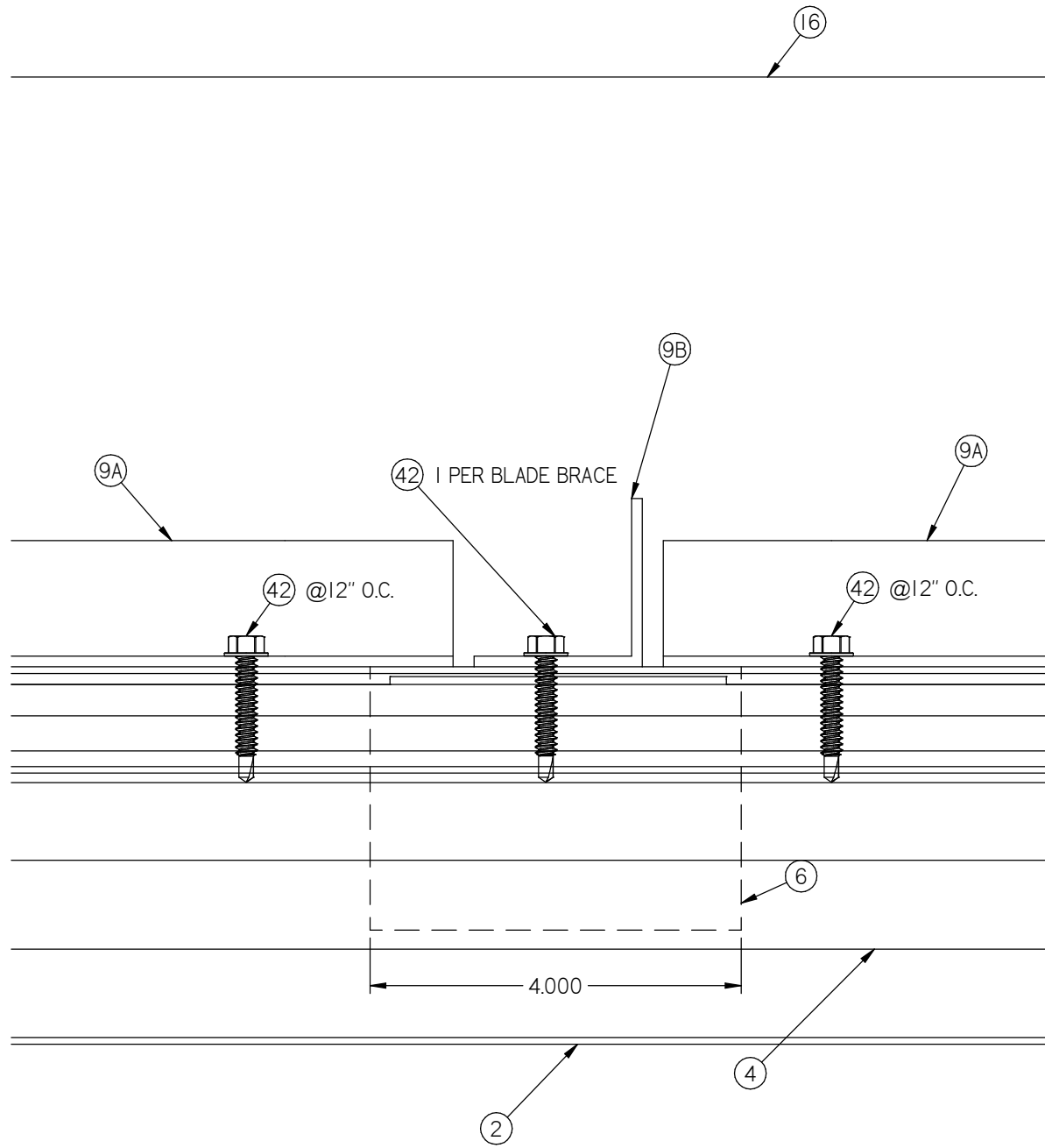


06/24/2021
COA: 9090
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control



BUILDING STRUCTURE/DEPTH MAY VARY.
 BUILDING STRUCTURES INCLUDE BUT NOT
 LIMITED TO WOOD FRAME, STRUCTURAL STEEL
 AND CONCRETE (BY OTHERS).

7 JAMB DETAIL
 9/21



8 SUPPORT DETAIL
 9/21

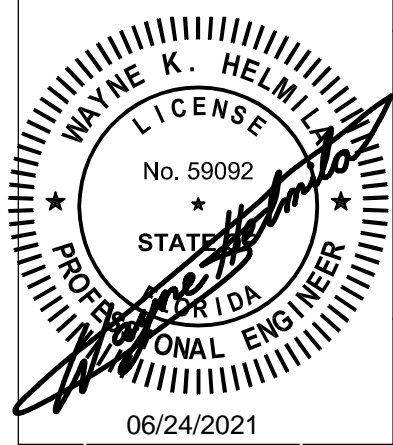
PRODUCT RENEWED
 as complying with the Florida
 Building Code
 NOA-No. 23-0724.24
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control

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

DWN BY: f cortinas	CHK BY: Mastourian
DATE: 9/18/2017	SCALE: NTS
SHEET: 9 OF 21	
DWG. NO.	REV
1605WDM	A

Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com

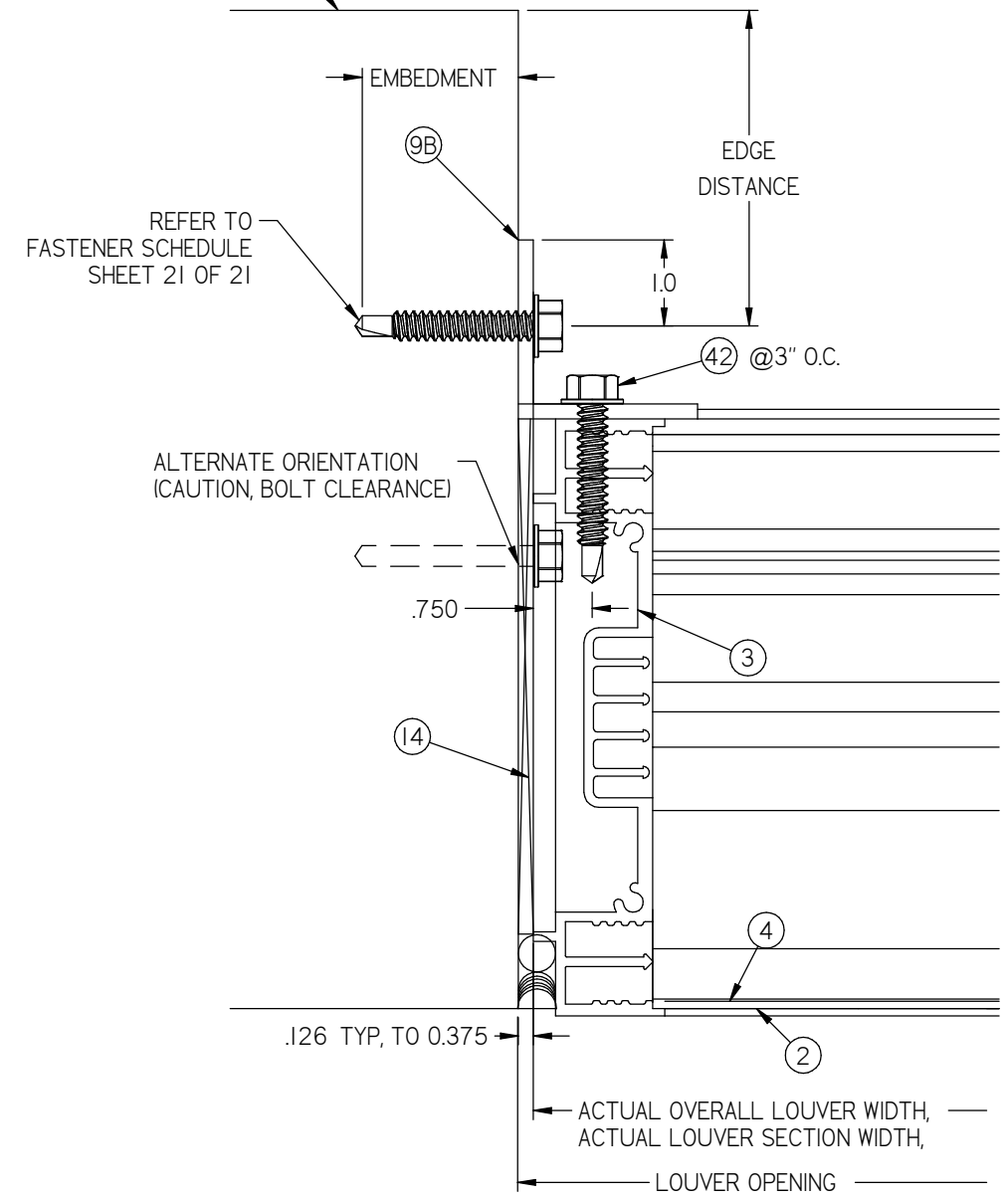
TITLE:
 1605WDM LOUVER
 FLANGE FRAME SLEEVE MOUNT
 JAMB DETAILS



06/24/2021
 COA: 9090

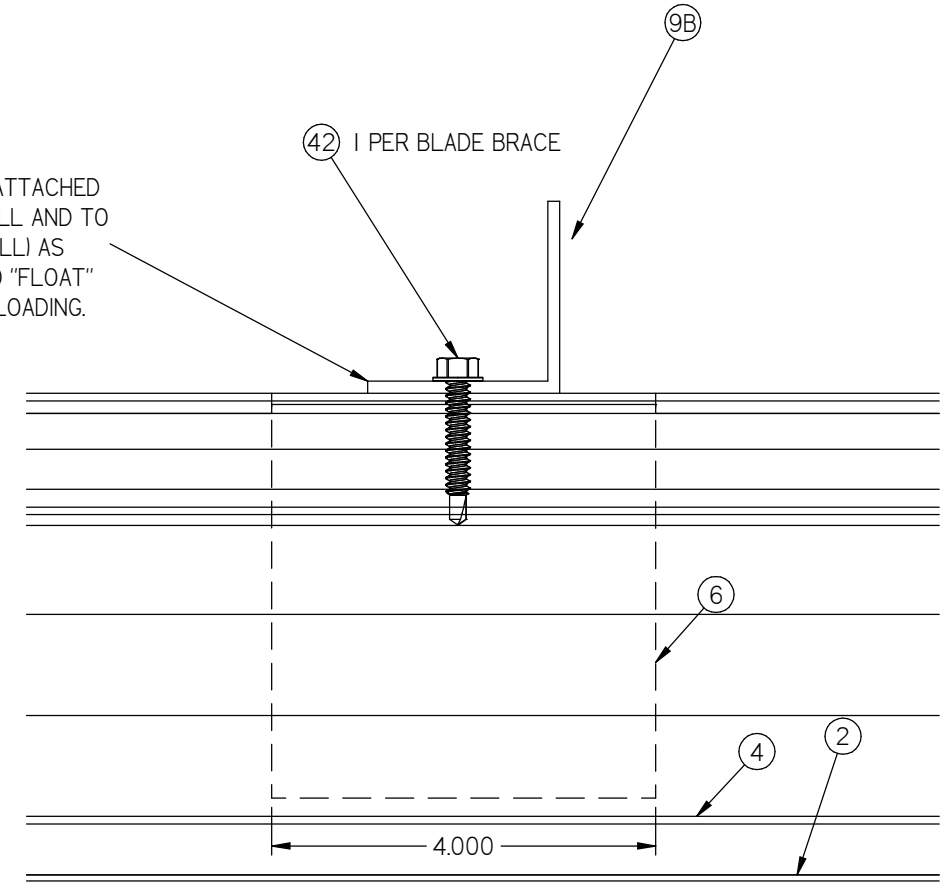
PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 21-0630.11
 Expiration Date: 08/30/2023
 By: *[Signature]*
 Miami-Dade Product Control

SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE (BY OTHERS).



9 JAMB DETAIL
10/21

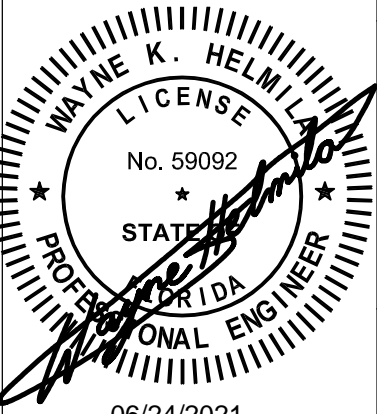
SUPPORT NOT ATTACHED AT HEAD AND SILL AND TO SUBSTRATE (WALL) AS TO ALLOW IT TO "FLOAT" DURING BLADE LOADING.



10 SUPPORT DETAIL
10/21

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
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Fax: (920) 617-1100
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Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



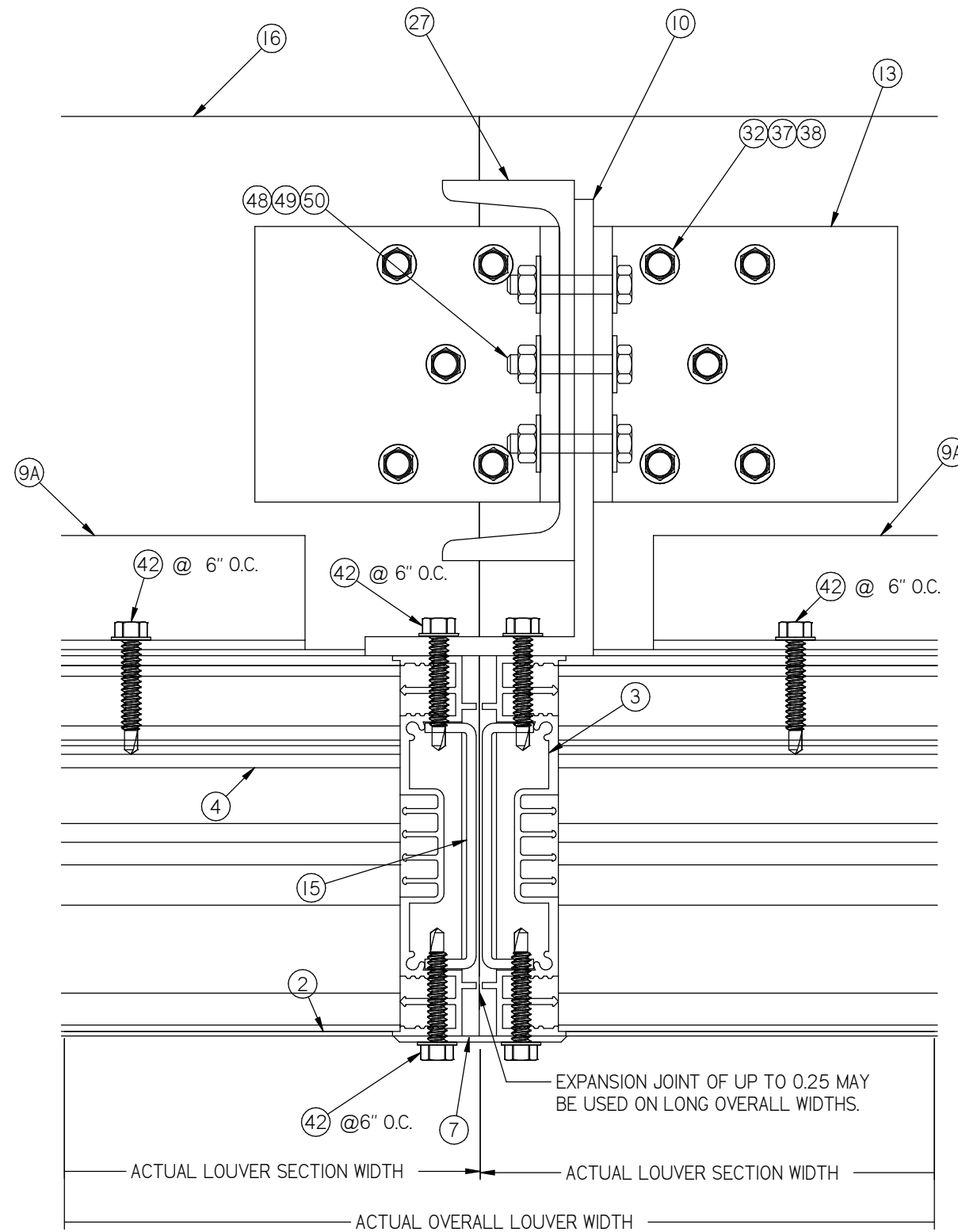
06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE:
1605WDM LOUVER
COUNTINOUS ANGLE MOUNT
JAMB DETAIL

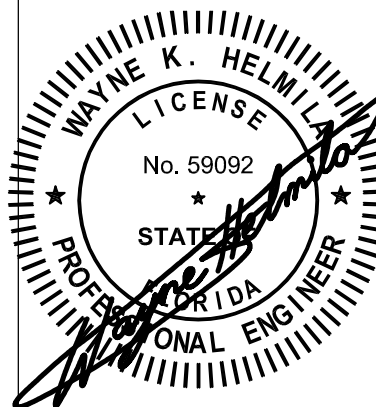
DWN BY: f cortinas
CHK BY: Mastourian
DATE: 9/18/2017
SCALE: NTS
SHEET: 10 OF 21
DWG. NO. 1605WDM
REV A



11 MULLION DETAIL
11/21

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

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



06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE:
1605WDM LOUVER
FLANGE FRAME SLEEVE MOUNT
MULLION DETAIL

DWN BY: fcortinas
CHK BY: Mastourian
DATE: 9/18/2017
SCALE: NTS

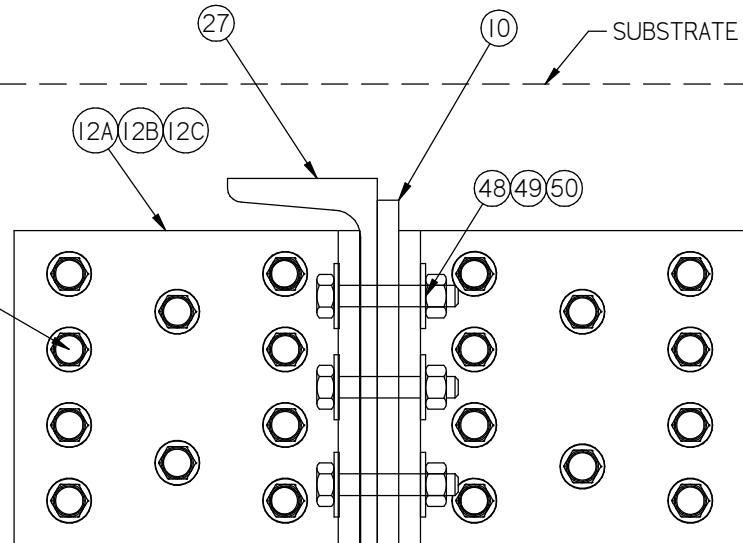
SHEET: 11 OF 21
DWG. NO. 1605WDM
REV A

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

REFER TO
FASTENER SCHEDULE
SHEET 21 OF 21



42 @ 6" O.C.

15

3

4

2

7

EXPANSION JOINT OF UP TO 0.25 MAY
BE USED ON LONG OVERALL WIDTHS

42 @ 6" O.C.

ACTUAL LOUVER SECTION WIDTH

ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

MULLION ANGLE DIRECT MOUNT (SHOWN HERE AT HEAD) IS FOR
SUBSTRATES WHERE MINIMUM FASTENER EDGE DISTANCE CAN BE
ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL
IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

12A MULLION DETAIL
12/21

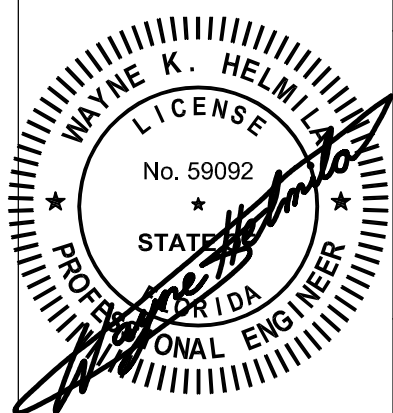
N:\Drawing\LOUVERS\AMCA\1605WDF\1605WDM\1605WDM 216 X 120 FL Sleeve.dft

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

CHK BY: Mastourian
DWN BY: fcoirtinas
DATE: 9/18/2017
SCALE: NTS
SHEET: 12 OF 21
DWG. NO. 1605WDM
REV A

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE:
1605WDM LOUVER
COUNTINOUS ANGLE MOUNT
MULLION DETAIL

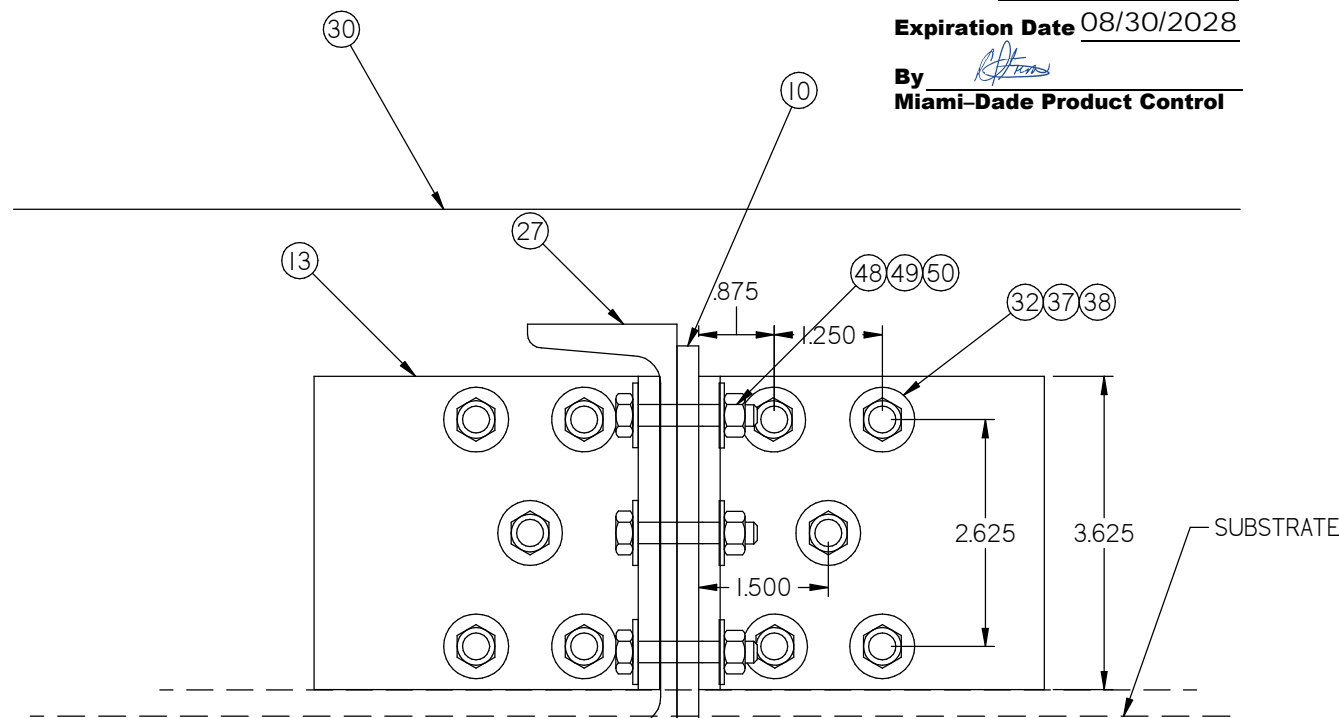


06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

12B MULLION DETAIL
12/21

MULLION ANGLE BACK OF WALL MOUNT (SHOWN HERE AT SILL) IS FOR
SUBSTRATES WHERE MINIMUM FASTENER EDGE DISTANCE CANNOT BE
ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL
IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.



42 @ 6" O.C.

15

3

4

2

7

EXPANSION JOINT OF UP TO 0.25 MAY
BE USED ON LONG OVERALL WIDTHS

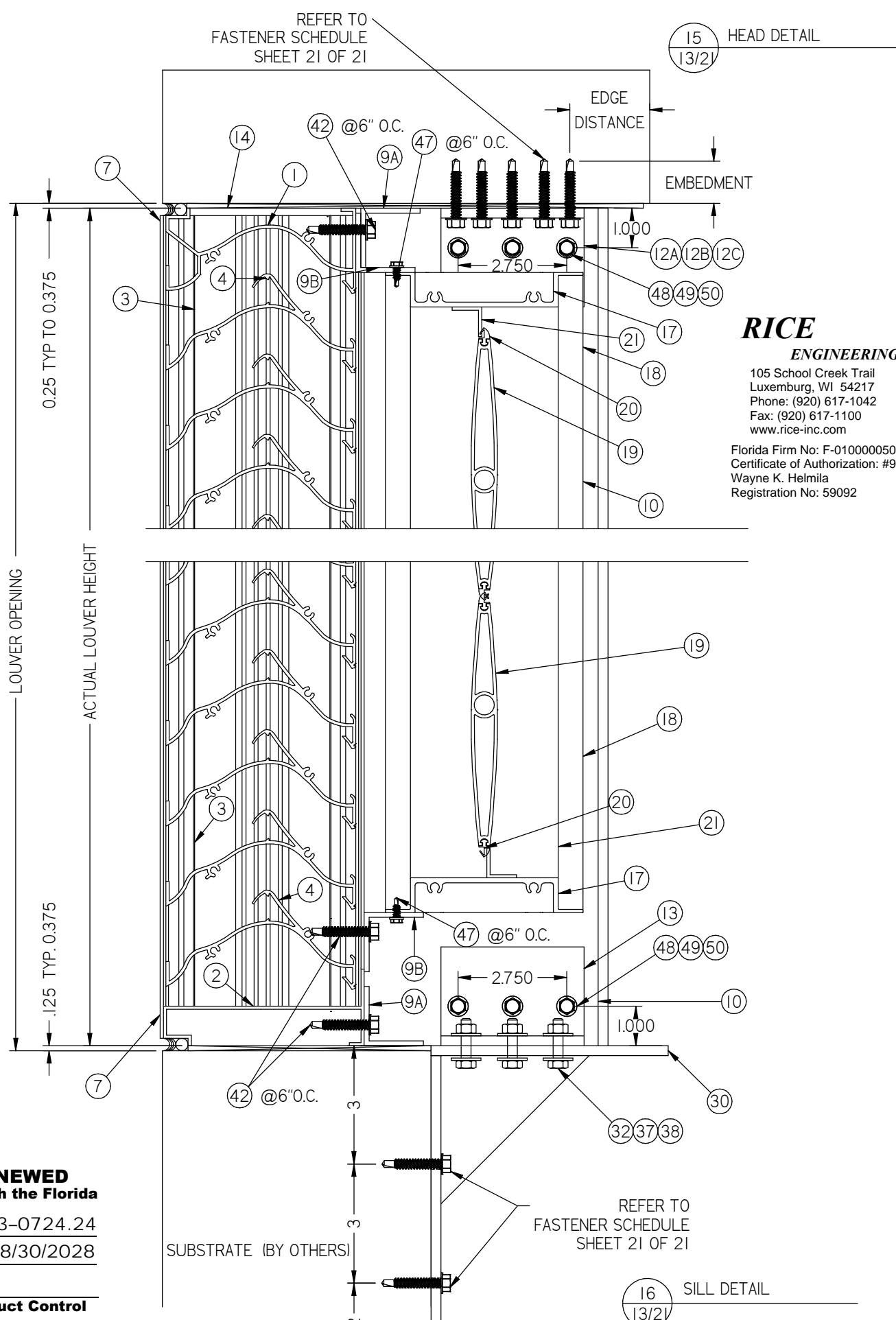
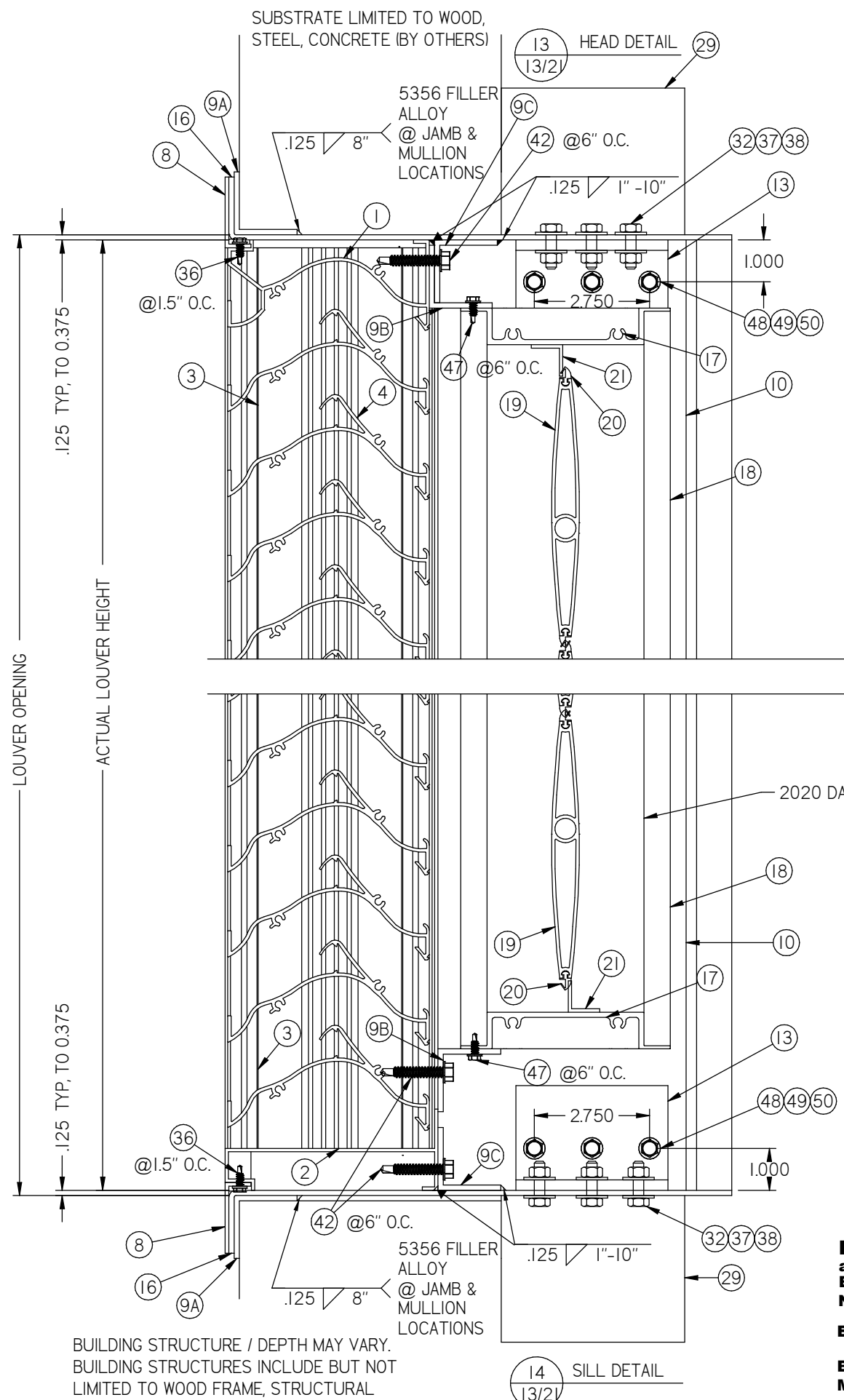
42 @ 6" O.C.

ACTUAL LOUVER SECTION WIDTH

ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

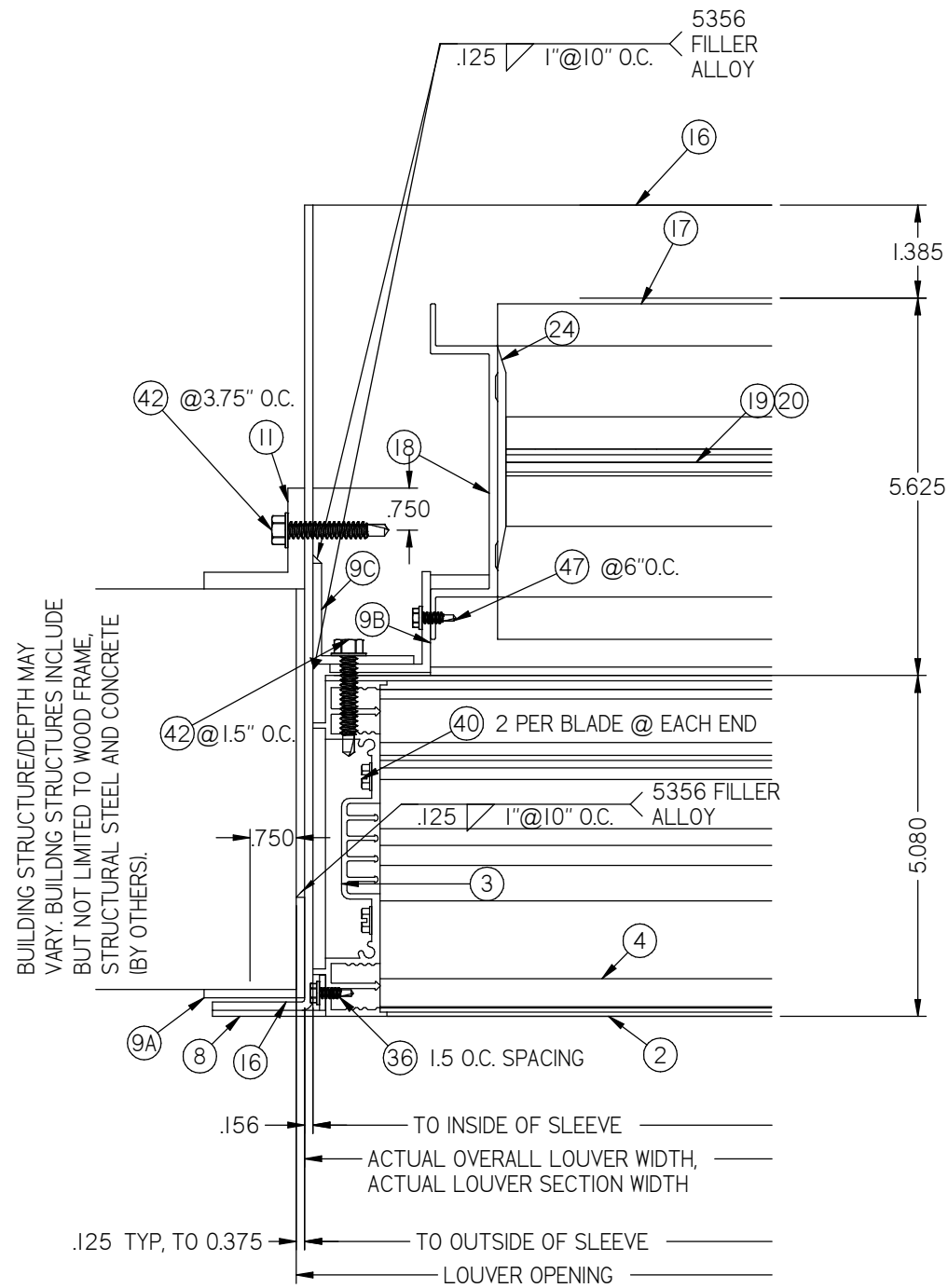
N:\Drawing\LOUVERS\AMCA\1605WDF\1605WDM\1605WDM 216 X 120 FL Sleeve.dft



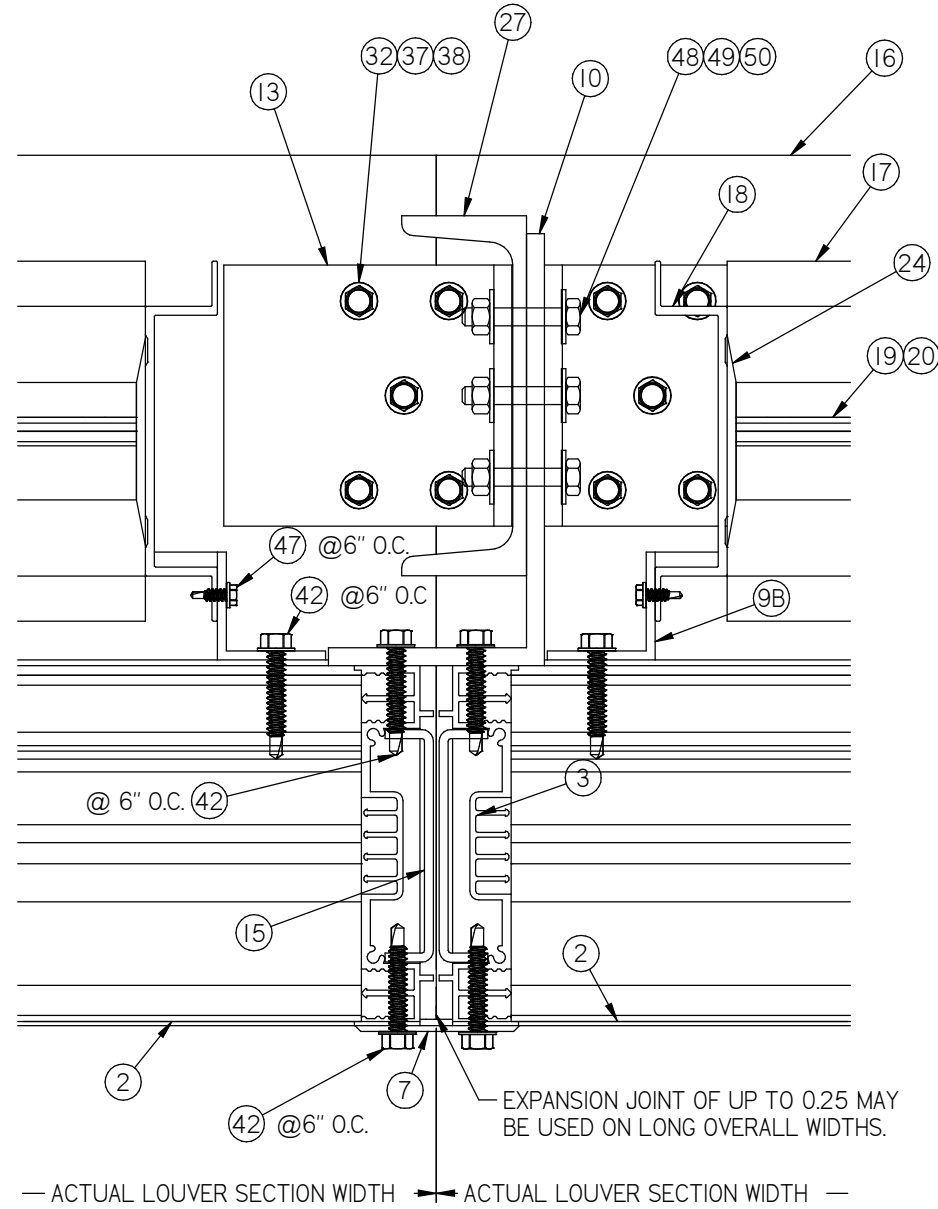
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

CHK BY: Mastourian	SCALE: NTS	SHEET: 13 OF 21	REV A
DWN BY: fcorinas	DATE: 9/18/2017		
		TITLE: 1605WDM LOUVER / DAMPER FLANGE FRAME W/SLEEVE CONTINUOUS ANGLE MOUNT HEAD & SILL DETAIL	
4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		Wayne K. Helmila LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER 06/24/2021 COA: 9090	
PRODUCT REVISED as complying with the Florida Building Code NOA-No. 21-0630.11 Expiration Date: 08/30/2023 By: <i>[Signature]</i> Miami-Dade Product Control			



17 JAMB DETAIL
14/21

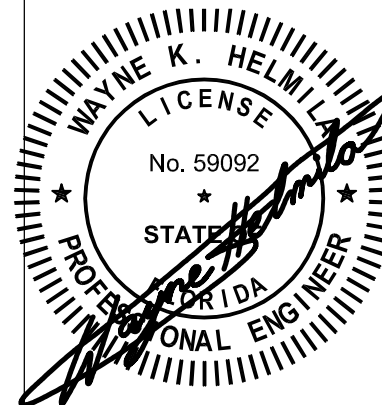


18 MULLION DETAIL
14/21

BUILDING STRUCTURE/DEPTH MAY VARY. BUILDING STRUCTURES INCLUDE BUT NOT LIMITED TO WOOD FRAME, STRUCTURAL STEEL AND CONCRETE (BY OTHERS.)

RICE
ENGINEERING

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



06/24/2021
COA: 9090

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.24

Expiration Date 08/30/2028

By *Manuel Perez*
Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.11

Expiration Date: 08/30/2023

By *Manuel Perez*
Miami-Dade Product Control

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE:
1605WDM LOUVER / DAMPER
FLANGE FRAME SLEEVE MOUNT
JAMB AND MULLION DETAIL

DWN BY: f cortinas
DATE: 9/18/2017

CHK BY: Mastourian
SCALE: NTS

SHEET: 14 OF 21

DWG. NO. 1605WDM
REV A

REFER TO FASTENER SCHEDULE SHEET 21 OF 21

EDGE DISTANCE

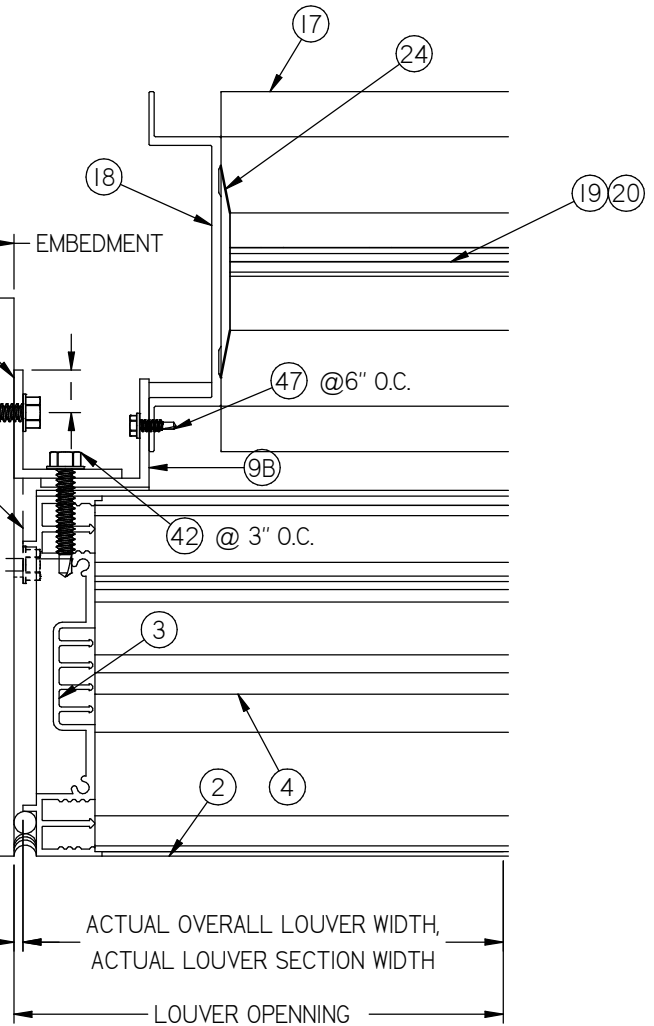
ALTERNATE ORIENTATION (CAUTION, BOLT CLEARANCE)

SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE (BY OTHERS).

.125 (TYP), TO 0.375

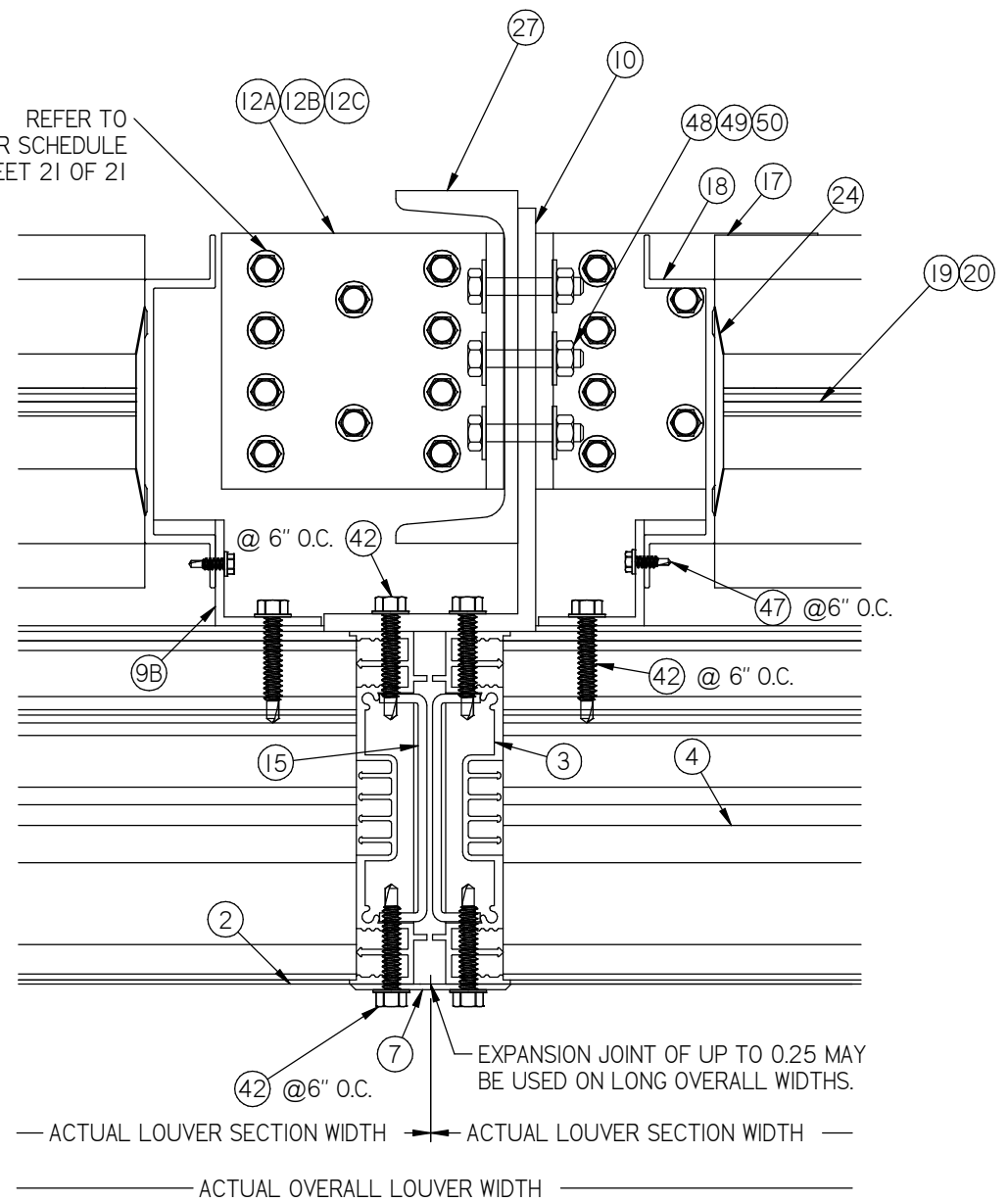
ACTUAL OVERALL LOUVER WIDTH, ACTUAL LOUVER SECTION WIDTH

LOUVER OPENING



19 JAMB DETAIL
15/21

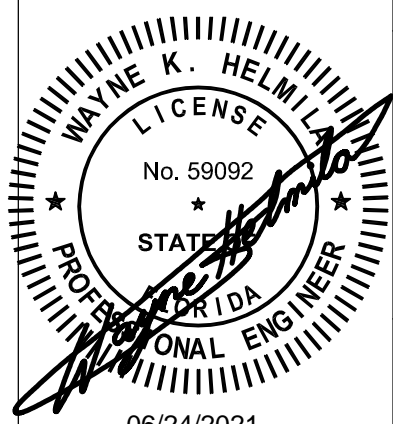
REFER TO FASTENER SCHEDULE SHEET 21 OF 21



20 MULLION ANGLE DIRECT MOUNT DETAIL
15/21

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

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

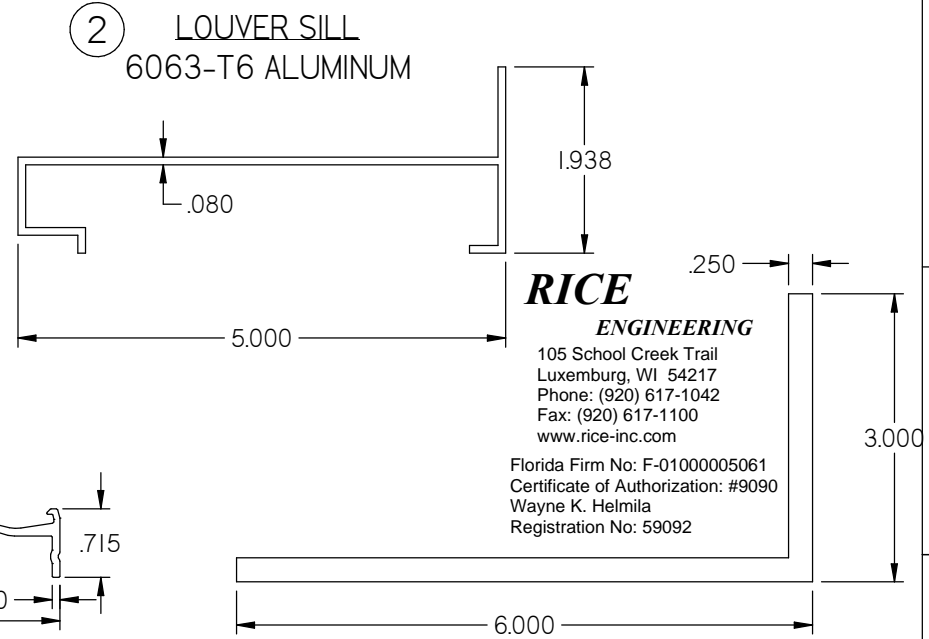
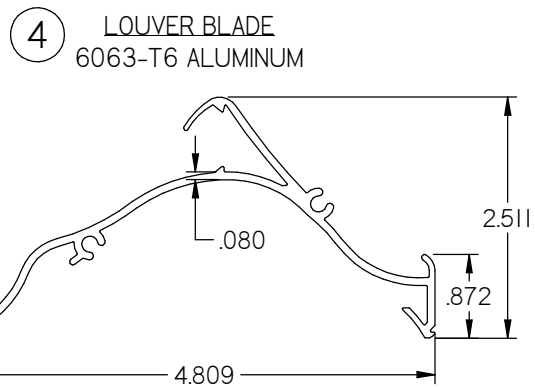
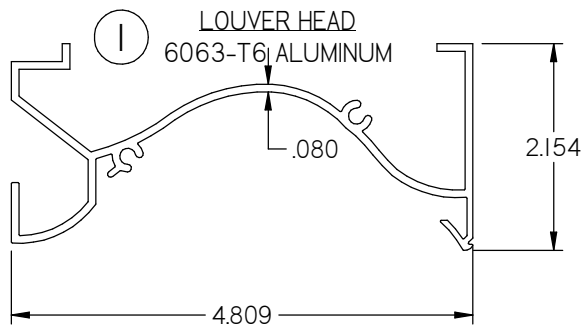


06/24/2021
COA: 9090

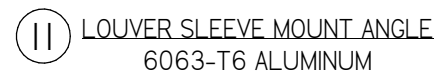
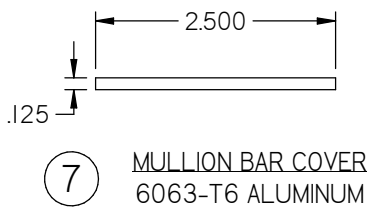
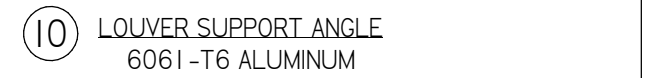
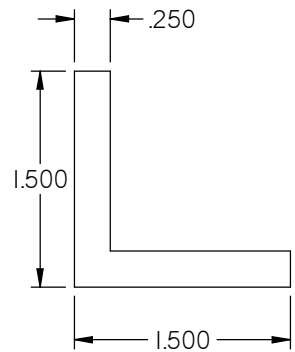
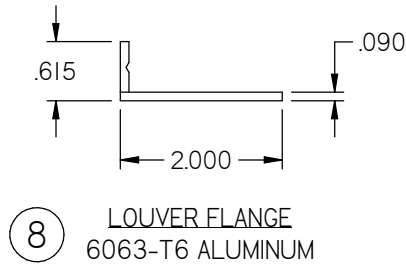
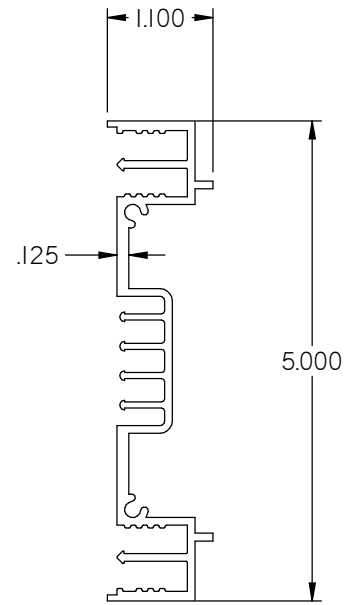
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

DWN BY: fcortinas
DATE: 9/18/2017
CHK BY: Mastourian
SCALE: NTS
SHEET: 15 OF 21
DWG. NO. 1605WDM
REV A

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com
TITLE:
1605WDM LOUVER / DAMPER
CONTINUOUS ANGLE MOUNT
JAMB AND MULLION DETAIL



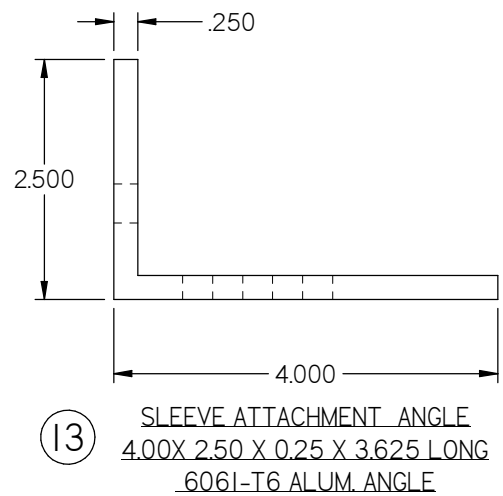
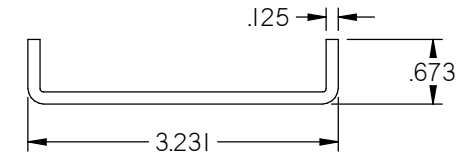
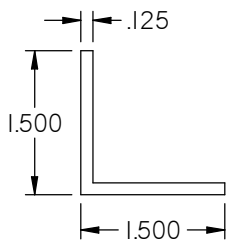
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



③ LOUVER JAMB
6063-T6 ALUMINUM

⑦ MULLION BAR COVER
6063-T6 ALUMINUM

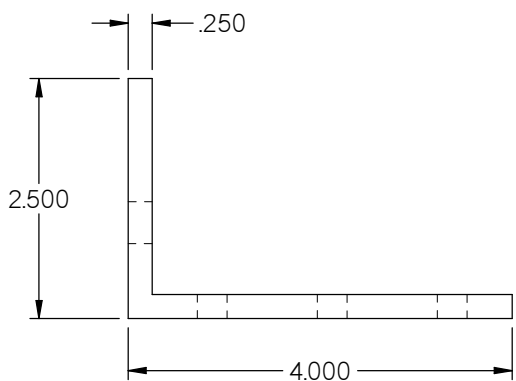
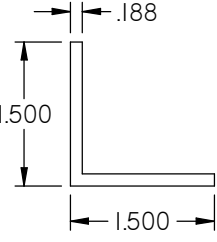
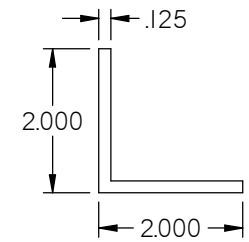
⑪ LOUVER SLEEVE MOUNT ANGLE
6063-T6 ALUMINUM



⑨A LOUVER SLEEVE ATTACHMENT ANGLE (CONT.)
6063-T6 ALUMINUM

⑮ MULLION STIFFNER ALUM.
6063-T6 ALUMINUM

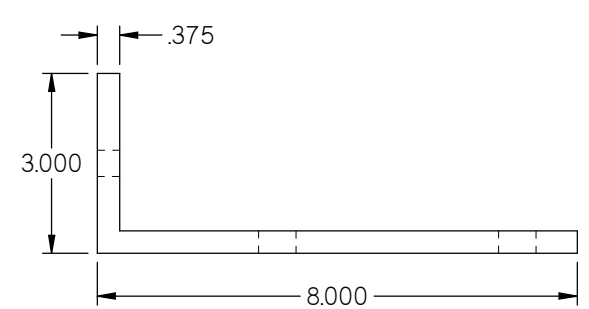
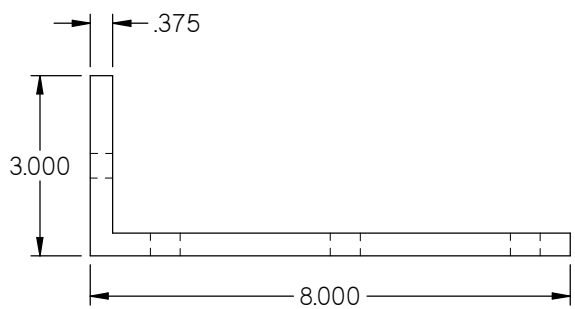
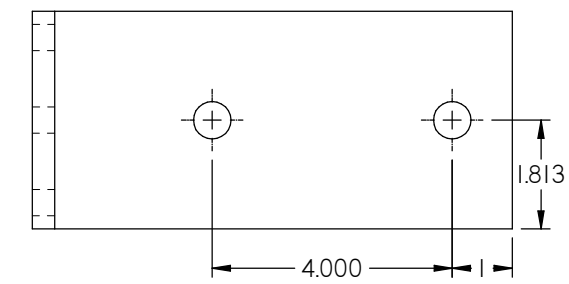
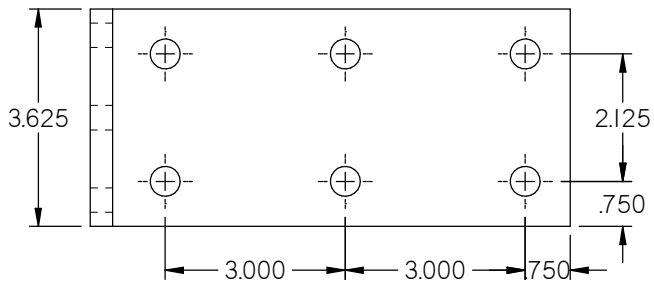
⑬ SLEEVE ATTACHMENT ANGLE
4.00X 2.50 X 0.25 X 3.625 LONG
6061-T6 ALUM. ANGLE



⑨B LOUVER SLEEVE ATTACHMENT ANGLE (CONT.)
6063-T6 ALUMINUM

⑨A LOUVER SLEEVE ATTACHMENT ANGLE (CONT.)
6063-T6 ALUMINUM

⑫A MULLION MOUNTING ANGLE
4.00 X 2.50 X 0.25 X 3.625 LONG 6061-T6 ALUM. ANGLE



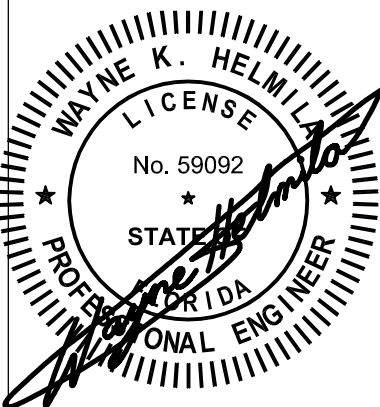
⑫B MULLION MOUNTING ANGLE
3.00 X 8.00X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR 1/2 " DIA SS. LAG SCREW

⑫C MULLION MOUNTING ANGLE
3.00 X 8.00X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR 5/8 " HILTI KWIK BOLT TZ SS 304 ANCHOR

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

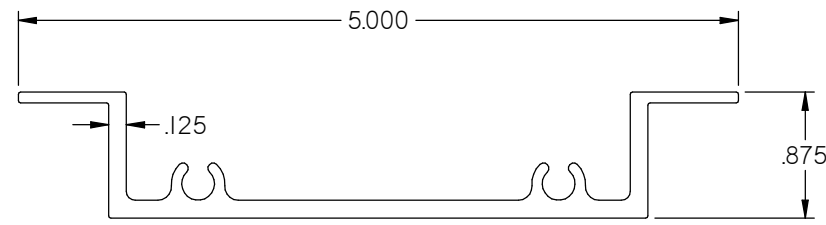
REVISIONS:
REV A: ADDED 12A, 12B, 12C
MOVED 14 AND 16 TO PG 17 OF 21

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

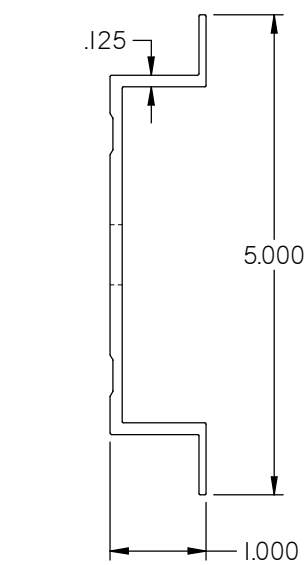


06/24/2021
COA: 9090
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

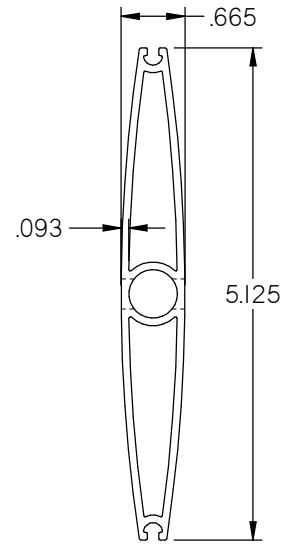
CHK BY: Mastourian
DWN BY: fcortinas
DATE: 9/18/2017
SCALE: NTS
SHEET: 16 OF 21
DWC. NO. 1605WDM
REV A



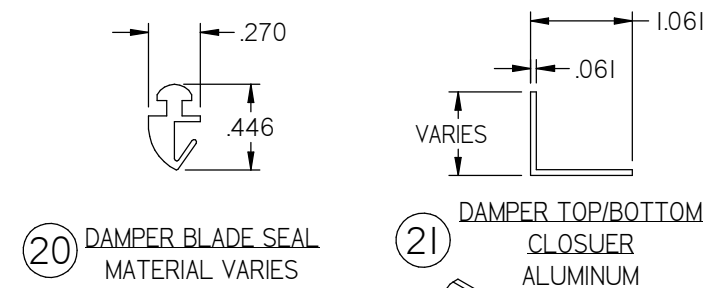
17 DAMPER HEAD/SILL
6063-T6 ALUMINUM



18 DAMPER JAMB
6063-T6 ALUMINUM

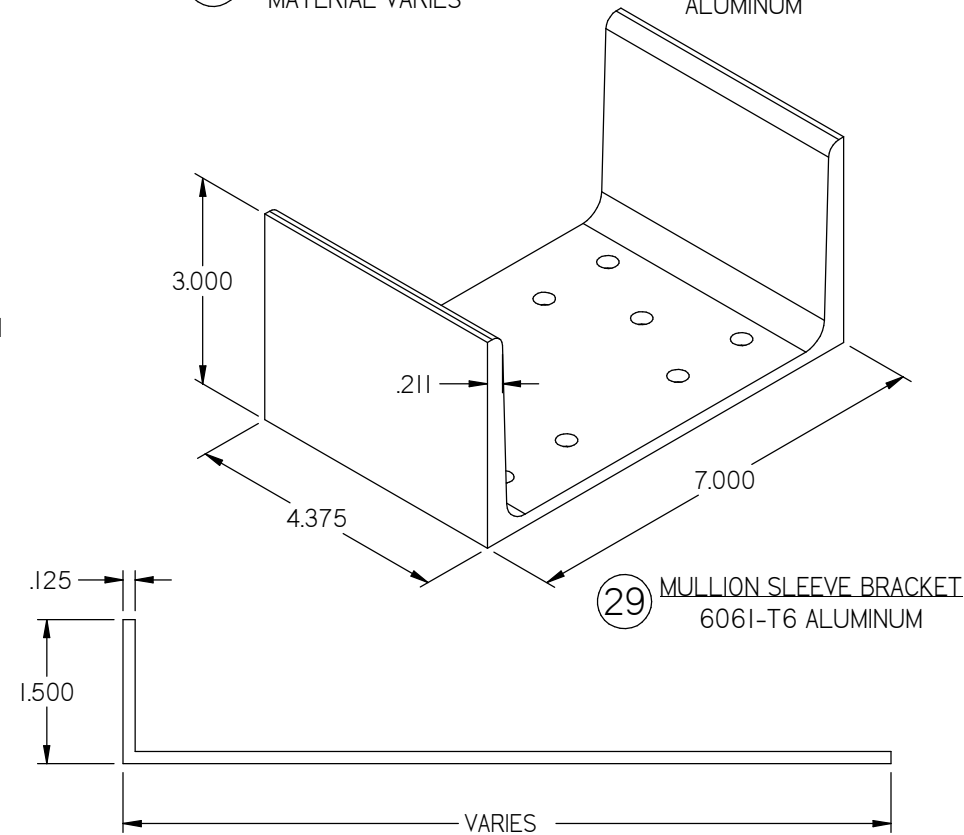


19 DAMPER BLADE
6063-T6 ALUMINUM



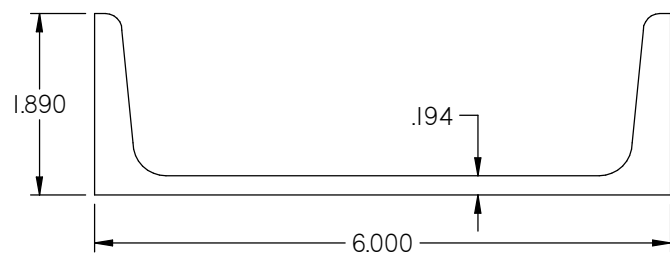
20 DAMPER BLADE SEAL
MATERIAL VARIES

21 DAMPER TOP/BOTTOM
CLOSER
ALUMINUM

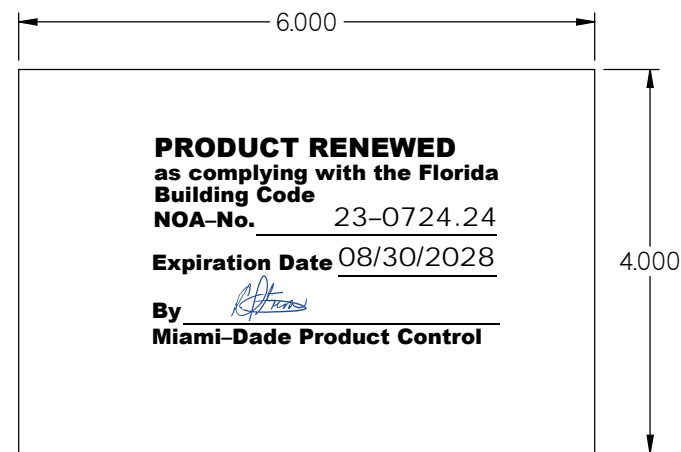


29 MULLION SLEEVE BRACKET
6061-T6 ALUMINUM

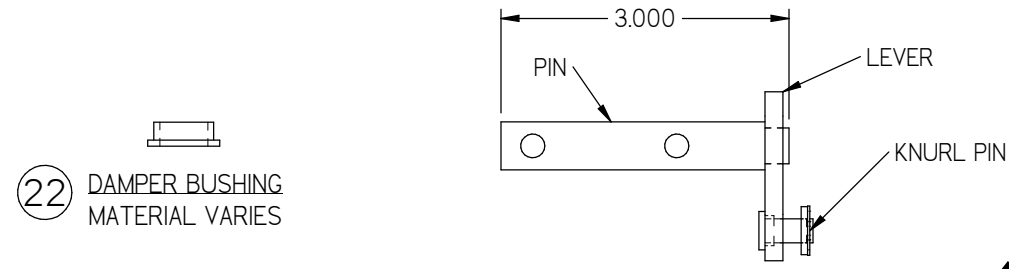
16 FORMED SLEEVE ALUM.
5052-H32 ALUMINUM



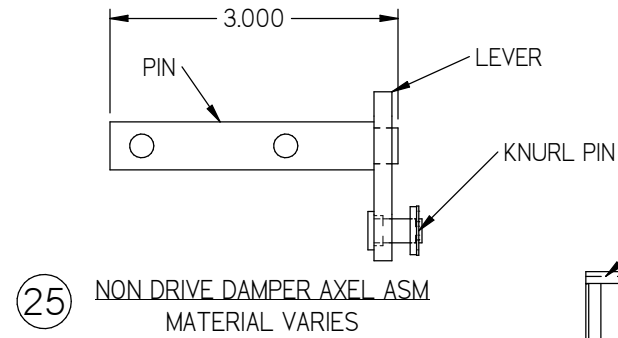
27 LOUVER BRACE
SUPPORT CHANNEL
C6X8.2 ASTM A36 STEEL CHANNEL



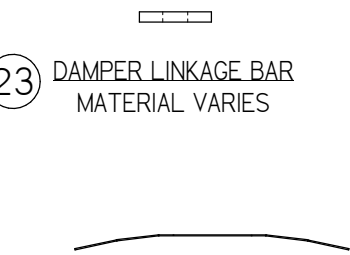
14 ALUMINUM SUPPORT SHIM
1/4" THICK
5052-H32 ALUMINUM



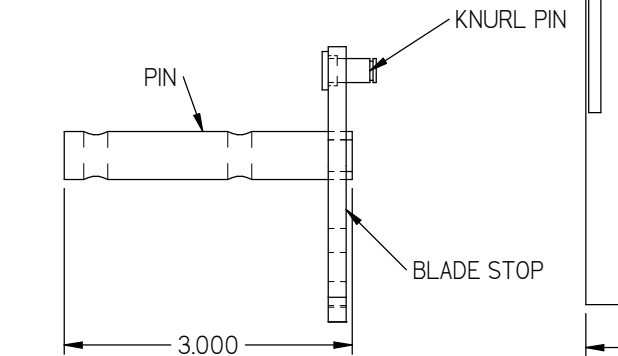
22 DAMPER BUSHING
MATERIAL VARIES



25 NON DRIVE DAMPER AXEL ASM
MATERIAL VARIES

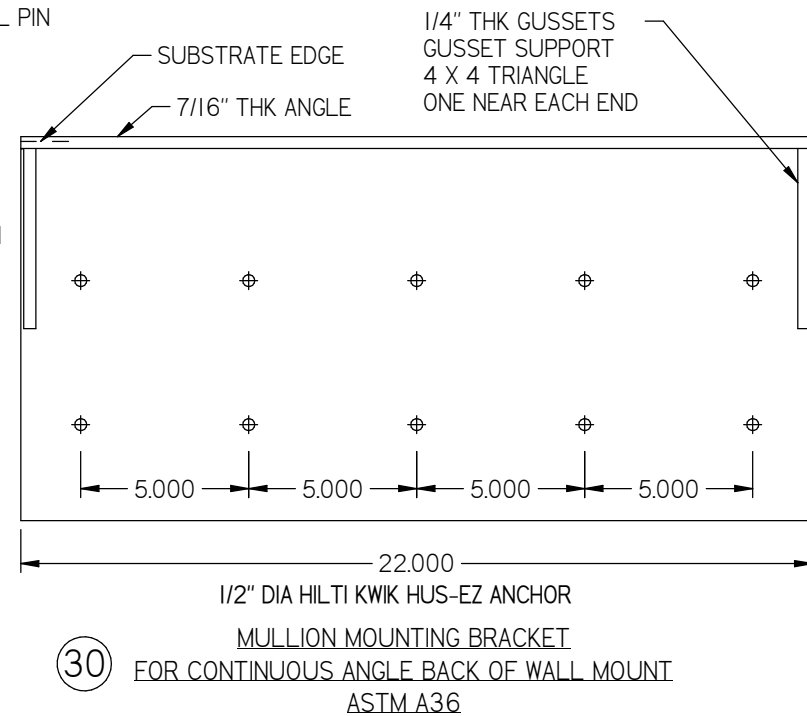


23 DAMPER LINKAGE BAR
MATERIAL VARIES

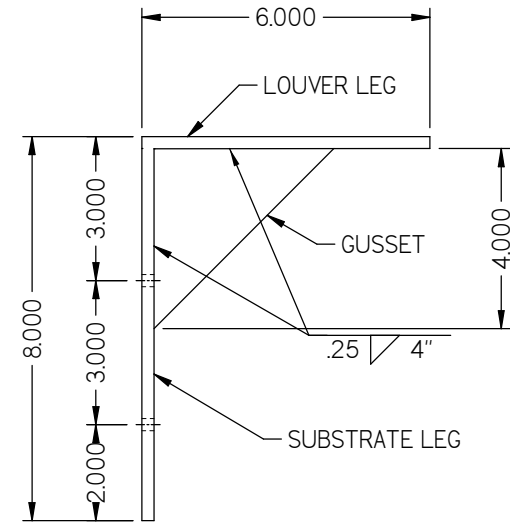


26 DRIVE SIDE DAMPER AXEL ASM
MATERIAL VARIES

24 DAMPER JAMB SEAL
STAINLESS STEEL



30 1/2" DIA HILTI KWIK HUS-EZ ANCHOR
MULLION MOUNTING BRACKET
FOR CONTINUOUS ANGLE BACK OF WALL MOUNT
ASTM A36



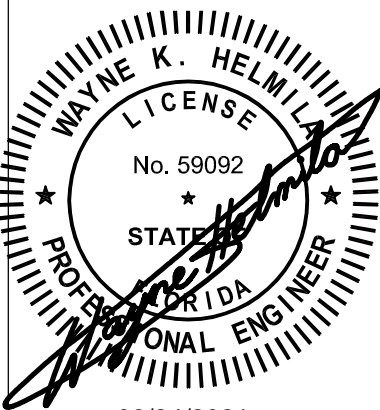
USE (10) 1/2" HILTI KWIK HUS-EZ
4-1/4" EMBEDMENT
5" SPACING (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME: $f'_c = 4000$ PSI UNCRACKED CONCRETE

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

REVISIONS:
REV A: ADDED 14 AND 16
FROM PG 16 OF 21 TO
PG 17 OF 21



06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **21-0630.11**
Expiration Date: **08/30/2023**
By: *Manuel Torres*
Miami-Dade Product Control

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

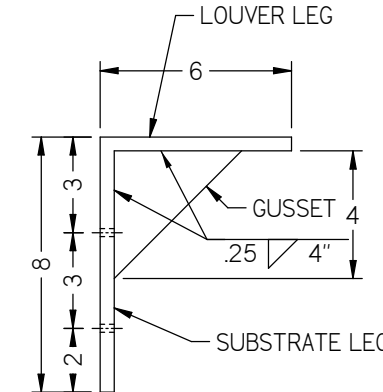
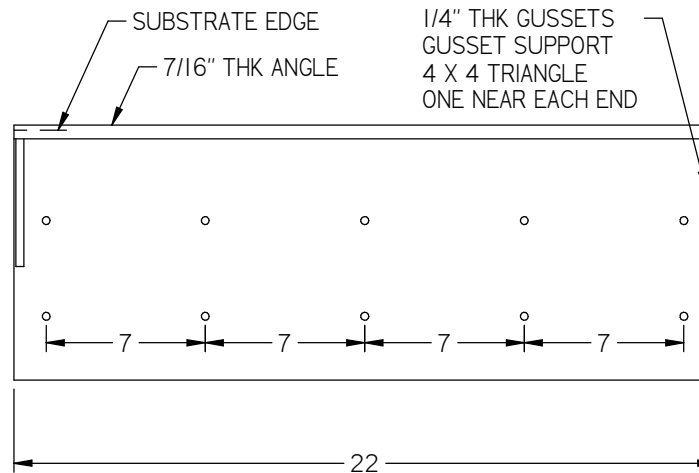
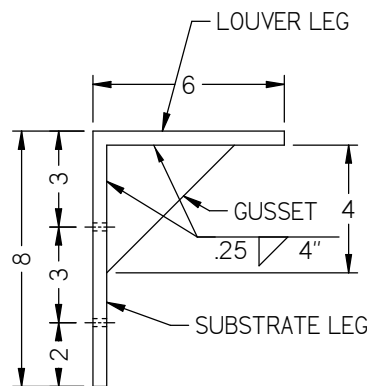
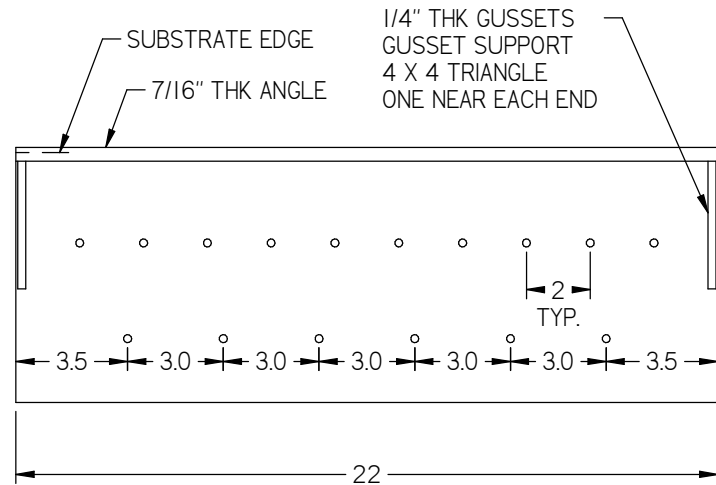
TITLE:
1605WDM LOUVER
W/ AND W/O DAMPER
SLEEVE/CONTINUOUS MOUNT
PART PROFILES

DWN BY: f cortinas
DATE: 9/18/2017
CHK BY: Mastourian
SCALE: NTS

SHEET: 17 OF 21
DWG. NO. **1605WDM**
REV A

1/4" DIA LAG SCREWS ANCHORS:

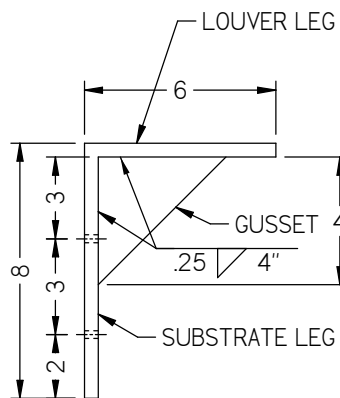
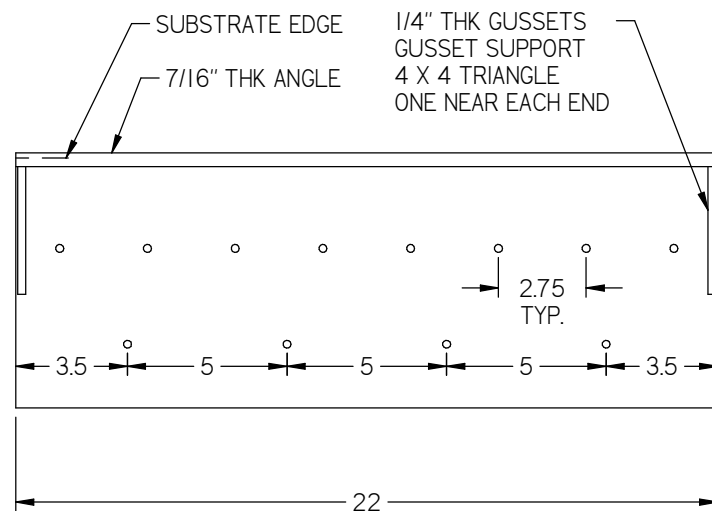
USE (16) 1/4" DIA X 6" LONG STANDARD HEX LAG SCREW 6" FULL THREAD ENGAGEMENT 1" MIN. EDGE/END DISTANCE SPACING AS SHOWN ASSUME: SPRUCE/PINE/FIR, SG=0.42



USE (10) 1/2" DIA. HILTI KWIK BOLT TZ 3-5/8" EMBEDMENT 7" SPACING (HORIZ.) / 3" SPACING (VERT.) 3" MIN. EDGE DISTANCE 4" MIN. END DISTANCE SPACING AS SHOWN ASSUME FC' = 4000 PSI CRACKED CONCRETE

3/8" DIA LAG SCREWS ANCHORS:

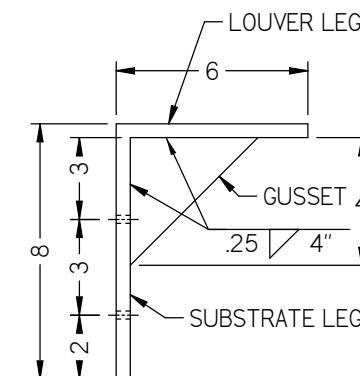
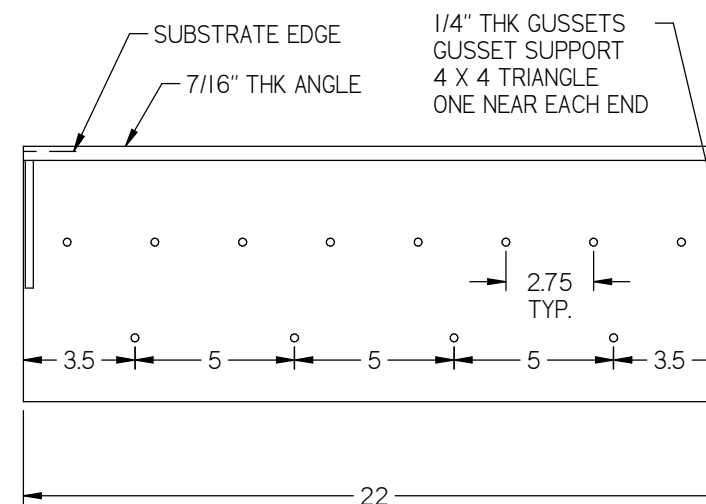
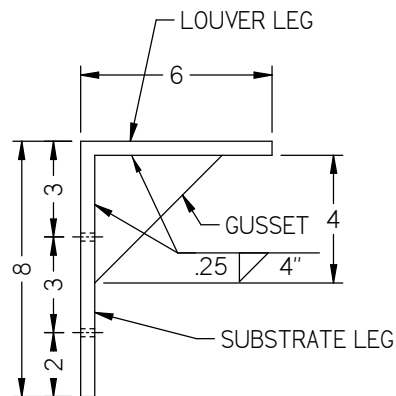
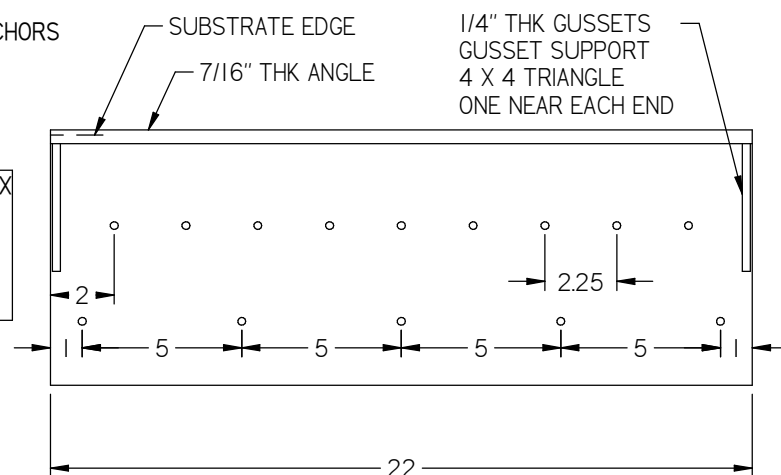
USE (12) 3/8" DIA. X 6 LONG STANDARD HEX LAG SCREW 6" FULL THREAD ENGAGEMENT 1-1/2" MIN. EDGE/END DISTANCE SPACING AS SHOWN ASSUME: SPRUCE/PINE/FIR, SG=0.42



PRODUCT RENEWED as complying with the Florida Building Code NOA-No. 23-0724.24 Expiration Date 08/30/2028 By Miami-Dade Product Control

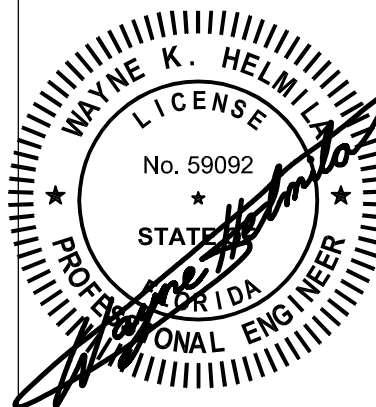
1/4-20 DIA S.S. ELCO DRIL-FLEX ANCHORS

USE (14) 1/4-20 DIA S.S. ELCO DRIL-FLEX FULL THREAD ENGAGEMENT 1" MIN. EDGE/END DISTANCE SPACING AS SHOWN ASSUME: 1/4" STEEL (A-36)



5/16-24 DIA. S.S. ELCO DRIL-FLEX ANCHOR USE (12) 5/16" DIA. S.S. ELCO DRIL-FLEX FULL THREAD ENGAGEMENT 1" MIN. EDGE/END DISTANCE SPACING AS SHOWN ASSUME: 1/4" STEEL (A36)

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

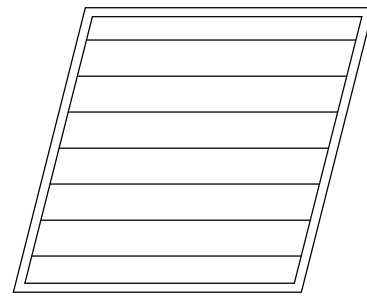
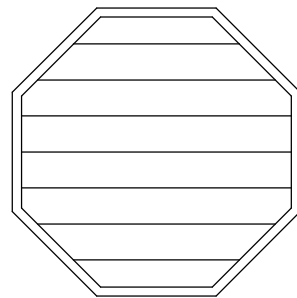
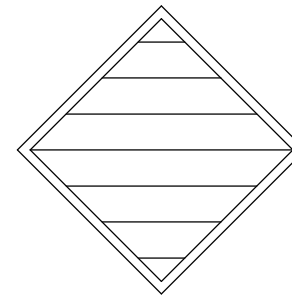
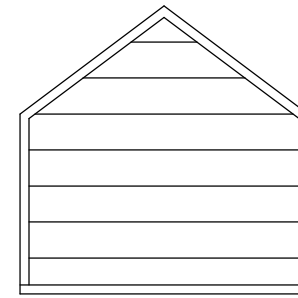
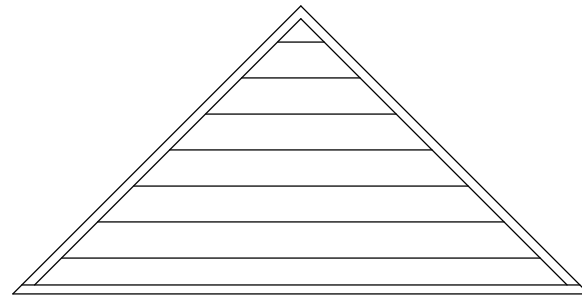
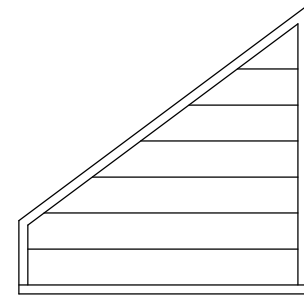
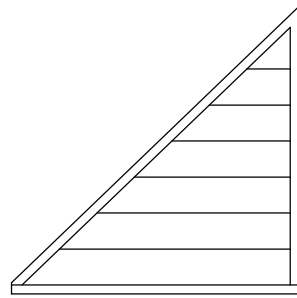
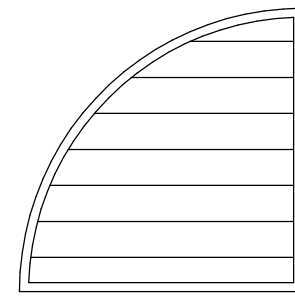
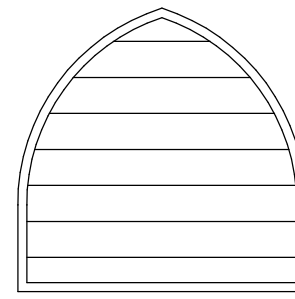
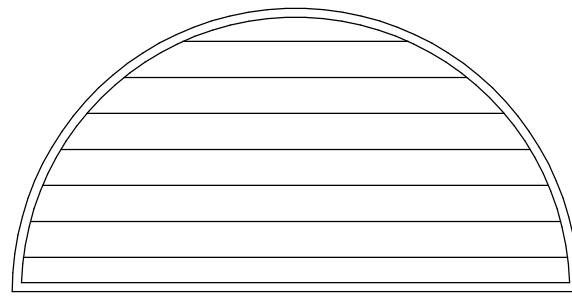
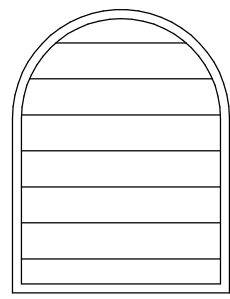
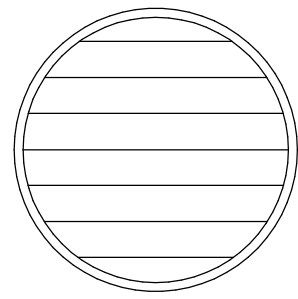


PRODUCT REVISED as complying with the Florida Building Code NOA-No. 21-0630.11 Expiration Date: 08/30/2023 By: Manuel Perez Miami-Dade Product Control

CHK BY: Mastourian DATE: 9/18/2017 SCALE: NTS SHEET: 18 OF 21 DWG. NO. 1605WDM REV. A

Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com

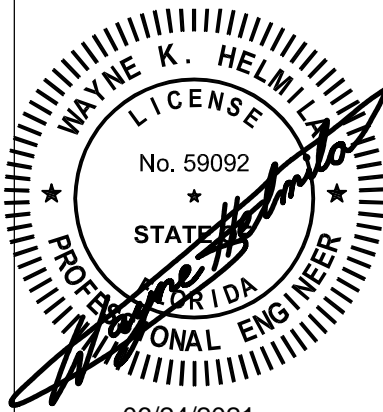
TITLE: MULLION ANGLES BACK OF THE WALL MOUNT



PRODUCT RENEWED
 as complying with the Florida
 Building Code
 NOA-No. 23-0724.24
 Expiration Date 08/30/2028
 By *R. Torres*
 Miami-Dade Product Control

- NOTES:
- OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN AND HAVE CORNER CONSTRUCTION AS DESCRIBED ON ALL SHEETS.
 - ALL SHAPED LOUVER PANELS ARE RESTRICTED TO THE SAME PANEL WIDTH AND PRESSURE AS THE RECTANGULAR LOUVER PANELS AND BE STACKED VERTICALLY AND HORIZONTALLY THE SAME AS THE RECTANGULAR PANELS.
 - WHEN SECTION EXCEED 36" IN LENGTH BLADE SUPPORT ANGLES AND BRACKETS ARE REQUIRED.
 - USE CONTINUOUS ANGLES TO ANCHOR OTHER LOUVER SHAPES TO BUILDING SUBSTRATE. SEE ANCHOR SCHEDULE FOR PROPER ANCHORAGE AND FOR SUBSTRATE-SPECIFIC LIMITATIONS.

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



06/24/2021
 COA: 9090

PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 21-0630.11
 Expiration Date: 08/30/2023
 By: *Manuel Perez*
 Miami-Dade Product Control

Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com

TITLE:
 1605WDM LOUVER
 W/ AND W/O DAMPER
 AVAILABLE SHAPES

DWN BY: fcortinas CHK BY: Mastourian
 DATE: 9/18/2017 SCALE: NTS

SHEET: 19 OF 21
 DWG. NO. 1605WDM
 REV A

BILL OF MATERIAL				
ITEM	INTERNAL ID	DESCRIPTION	MATERIAL	NOTES
1	1	C6-201	LOUVER HEAD	6063-T6 ALUMINIUM
	2	C6-119	LOUVER SILL	6063-T6 ALUMINIUM
	3	C6-199	LOUVER JAMB	6063-T6 ALUMINIUM
	4	C6-200	LOUVER BLADE	6063-T6 ALUMINIUM
	5	-	-	-
	6	C6-202	LOUVER BLADE BRACE	6063-T6 ALUMINIUM
	7	C6-179	MULLION BAR COVER	6063-T6 ALUMINIUM
	8	C6-169	LOUVER FLANGE	6063-T6 ALUMINIUM
2	9A	C6-176	1 1/2 X 1 1/2 X 1/8 ANGLE CONT.	USED AT HEAD/SILL/JAMB, OF LOUVER AND SLEEVE
	9B	C6-160	2 X 2 X 1/8 ANGLE CONT.	USED AS ATTACHMENT ANGLE
	9C		1 1/2 X 1 1/2 X 3/16 ANGLE CONT.	USED AT HEAD/SILL/JAMB, OF LOUVER AND SLEEVE
	10	C6-161B	6 X 3 X 1/4 ANGLE	USED AT BLADE SUPPORT AND JAMB SUPPORT
	11		1 1/2 X 1 1/2 X 1/4 ANGLE	USED AT HEAD/SILL/JAMB OF SLEEVE
	12A		4 X 2 1/2 X 1/4 X 3.625 LONG ANGLE	USED AT HEAD/ SILL OF MULLION ATTACHMENT
	12B		3.00 X 8.00 X .375 X 3.625 LONG	FOR 1/2" DIA SS LAG SCREW
	12C		3.00 X 8.00 X .375 X 3.625 LONG	FOR 5/8" HILTI KWIK BOLT TZ SS 304 ANCHOR
3	13		4 X 2 1/2 X 1/4 X 3.625 LONG ANGLE	USED AT HEAD/ SILL OF LOUVER SLEEVE ATTACHMENT
	14		6 X 4 X 1/4 ALUMINUM SUPPORT SHIM	USED AT SILL FOR SUPPORT ANGLE
	15		MULLION STIFFENER ALUM	1/8 FORMED ALUM CHANNEL USED AT MULLION
	16		FORMED SLEEVE	1/8 FORMED SLEEVE - DEPTH VARIES
	17	B2-610	DAMPER HEAD/SILL	6063-T6 ALUMINIUM
	18	B2-609	DAMPER JAMB	6063-T6 ALUMINIUM
	19	B2-527	DAMPER BLADE	6063-T6 ALUMINIUM
	20		DAMPER BLADE SEAL	SILICONE / RUBBER TYPE
	21		DAMPER TOP/BOTTOM CLOSURE	ALUMINIUM
4	22		DAMPER BUSHING	BRONZE / SS
	23		DAMPER LINKAGE BAR	STAINLESS
	24		DAMPER JAMB SEAL	STAINLESS
	25		NON DRIVE DAMPER AXEL ASM	STAINLESS
	26		DRIVE SIDE DAMPER AXLE ASM	STAINLESS
	27		C6X8.2 STEEL CHANNEL	USED AT BLADE BLACE
	28		NOT USED	USED AT MULLION
5	29		7" X 21" ALUMINIUM SLEEVE BRACKET	6061-T6 MULLION SLEEVE BRACKET
	30		MULLION MOUNTING ANGLE BRACKET	ASTM A-36 MULLION MOUNTING
	31	C6-180	SCREW,MTL,10-24X1,HEX	
	32	C6-181	1/4 NYLON INSERT LOCKNUT	
	33	C6-182	1/4-20x2-1/2 HEX CAP SCREW	STAINLESS
	34	C6-183	WASHER,BONDED,10X1/2	300 SERIES, SS COND. CW FY - 65 KSI
	35	C6-184	SCREW,MTL,12-24-1-1/4,HEX	300 SERIES, SS COND. CW FY - 65 KSI
	36	C6-185	1/4-20x1 HEX SCREW	300 SERIES, SS COND. CW FY - 65 KSI
	37	C6-186	1/4 COMM L FLAT WASHER	300 SERIES, SS COND. CW FY - 65 KSI
	38	C6-187	1/4-20x1 HEX CAP SCREW 18-8	STAINLESS
6	39	C6-188	SCREW, MTL,HEX, 8-32 X 1	300 SERIES, SS COND. CW FY - 65 KSI
	40	C6-189	SCREW, METAL, HW, 10-24 X 1-1/2	300 SERIES, SS COND. CW FY - 65 KSI
	41	C6-192	SCREW, MTL, HEX, 8 X 1-1/2	300 SERIES, SS COND. CW FY - 65 KSI
	42	C6-193	SCREW, METAL, HEX, 14 X 1-1/2	300 SERIES, SS COND. CW FY - 65 KSI
	43	C6-194	SCREW, METAL, HEX, 12 X 1-1/2	300 SERIES, SS COND. CW FY - 65 KSI
	44	C6-195	1/4-20 X 1 1/4 HEX CAP SCREW 18-8	STAINLESS
	45	C6-196	1/4-20 FIN HEX NUT 18-8	STAINLESS
	46	C6-197	1/4 LOCKWASHER 18-8	STAINLESS
	47	C6-198	SCREW, MTL, HEX, 8 X 3/4	300 SERIES, SS COND. CW FY - 65 KSI
7	48		3/8"-16 X 2 18-6 HEX HEAD BOLT	300 SERIES, SS COND. CW FY - 65 KSI
	49		3/8-16 HEX LOCK NUT	300 SERIES, SS COND. CW FY - 65 KSI
	50		3/8-FLAT WASHER	300 SERIES, SS COND. CW FY - 65 KSI

N:\Drawing\LOUVERS\AMCA\1605WDF\1605WDM\1605WDM 216 X 120 FL Sleeve.dft

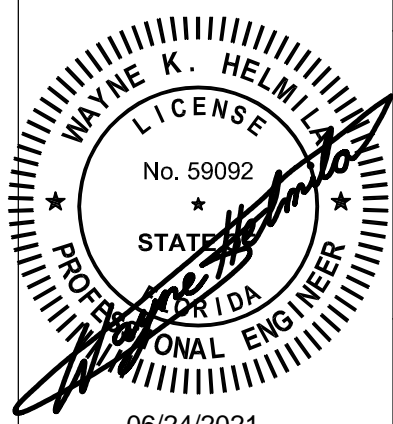
CHK BY: Mastourian
DWN BY: f cortinas
DATE: 9/18/2017
SCALE: NTS
SHEET: 200F 21
DWC. NO. 1605WDM
REV A

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE: 1605WDM LOUVER W/ AND W/O DAMPER SLEEVE / CONTINUOUS MOUNT NOTES / BILL OF MATERIAL

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



PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.24
Expiration Date 08/30/2028
By: *[Signature]*
Miami-Dade Product Control

06/24/2021
COA: 9090

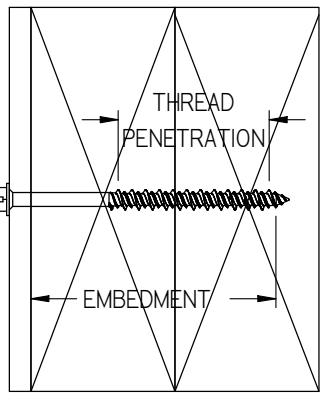
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.11
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

REVISIONS:
REV A: UPDATED BILL OF MATERIAL
ADDED 12A, 12B, 12C

*EMBEDMENT DEPTH IS EQUAL TO OVERALL LENGTH FOR ALL FASTENERS. IF SHIMS ARE USED, FASTENER LENGTH MUST BE INCREASED BY THICKNESS OF SHIMS

LOUVER MODEL 1605WDM FASTENER SCHEDULE														
WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE		DIAMETER	# Rqd	O.C. SPACING	EDGE	END	EMBEDMENT	
						JAMB ANGLE MOUNT FASTENER, WIDTH ≤ 72 INCHES								
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)		1/4"	1	3"	2"		2"	
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)		3/8"	1	5"	2"		2"	
	X				16 Ga.	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		1/4"	1	2-1/2"	2"		3 THREADS BEYOND SUBSTRATE	
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		1/4"	1	13-1/2"	2"		1/4"	
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		5/16"	1	16"	2"		1/4"	
			X-CRACKED 6" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR **		1/4"	1	5-3/4"	4"		2-1/2"	
			X-CRACKED 4" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR **		3/8"	1	8"	4"		2"	
				X	2ksi	DEWALT GALVANIZED SCREW BOLT+ ANCHOR		3/8"	1	4-3/4"	1-1/2"		3-1/4"	
				X	2ksi	HILTI KWIK-HUS-EZ SS316 ANCHOR		3/8"	1	8"	4"		3-1/4"	
MULLION ANGLE DIRECT MOUNT FASTENERS, HEIGHT ≤ 120 INCHES														
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)		1/4"	10	VARIES	2"		4"	
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)		1/2"	6	VARIES	2"		2-1/4"	
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		1/4"	4	VARIES	2"		1/4"	
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		5/16"	2	2-5/8"	2"		1/4"	
			X-CRACKED 10" DEEP		4ksi	HILTI KWIK BOLT TZ SS 304 ANCHOR **		5/8"	2	VARIES	8"	9"	4-7/16"	
MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT ≤ 120 INCHES														
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)		1/4"	16	VARIES	1"		6"	
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)		3/8"	12	VARIES	1-1/2"		6"	
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		1/4"	14	VARIES	1"		1/4"	
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT		5/16"	12	VARIES	1"		1/4"	
			X-CRACKED 8" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR **		1/2"	10	VARIES	3"	4"	4-1/4"	
			X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT TZ SS 304 ANCHOR **		1/2"	10	VARIES	3"	4"	3-5/8"	

- GENERAL NOTES:**
- IT SHALL BE THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER(S).
 - THE 1605WDM WITH AND WITHOUT 2020 DAMPER HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS tas 100 A (WIND DRIVEN RAIN), TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE), AND TAS-203 (CYCLIC FATIGUE).
 - MAXIMUM SINGLE SECTION SIZE IS 72" WIDE X 120" HIGH.
 - MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 120" HIGH.
 - SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.
 - CMU SHALL BE ASTM C90, TYPE II, 2,000 MIN PSI GROUT-FILLED, STEEL STUDS TO BE 16 GA. Fy= 50ksi MIN.
 - THE SLEEVE MOUNT STYLE LOUVER UTILIZES AN ANCHORLESS INSTALLATION METHOD THAT DOES NOT REQUIRE THE USE OF FASTENERS INTO THE SUBSTRATE. IT MAY BE INSTALLED IN ANY SUBSTRATE THAT WILL WITHSTAND THE LOADS TRANSFERRED TO IT BY THE LOUVER. NAILOR IND. DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
 - THE CONTINUOUS ANGLE MOUNT STYLE UTILIZES A CONTINUOUS JAMB ANGLE THAT IS ATTACHED TO THE SUBSTRATE BY FASTENERS. IT MAY BE INSTALLED IN CONCRETE, CMU, STEEL, OR WOOD ACCORDING TO THE FASTENER SCHEDULE. NAILOR IND. DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
 - LOUVER ASSEMBLY IS QUALIFIED FOR A MAXIMUM DESIGN LOAD OF +/- 150 PSF.
 - LOUVER ASSEMBLY WITH AND WITHOUT 2020 DAMPER SHALL ONLY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM AND THE ROOM WILL HOUSE WATER RESISTANT / WATER PROOF EQUIPMENT, COMPONENTS, AND / OR SUPPLIES.
 - INSTALLER TO PROVIDE SEPERATION OF DISSIMILAR MATERIALS AS REQUIRED.
 - THE DAMPER MAY BE OPERATED BY A MANUAL QUADRANT OR BY AN ELECTRIC OR PNEUMATIC ACTUATOR, THE DAMPER'S ACTUATOR IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
 - FRAME CONSTRUCTION, HEAD AND SILL ARE SQUARE CUT, JAMBS ARE SQUARE CUT @ HEAD AND SILL. CORNERS ARE SECURED WITH (2) #10-24 x 1 1/2 HW, BLADES ARE SECURED TO JAMBS WITH (2) #10-24 X 1 1/2 HW, @ EACH END.
 - STEEL / STAINLESS-STEEL/ ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THA HAS EQUAL OR GREATER YIELD STRENGTH.
 - BLADE SUPPORT ANGLE AND BLADE SUPPORT BRACE ONLY REQUIRED WHEN ACTUAL LOUVER SECTION WIDTH IS GREATER THAN 36 INCHES.
 - THREAD PENETRATION LENGTH SIGNIFIES THE REQUIRED LENGTH OF THE THREADED PORTION OF THE FASTENER INTO THE WOOD SUBSTRATE PROVINDING FULL CONTACT WITH WOOD. LAG SCREW TIO CANNOT BE CONSIDERED PART OF THE TREADED PORTION OF THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS / SPLICES WHERE THE LAG SCREW COULD FALL BETWEEN MEMBERS.
- ** NOTE ENGINEER OF RECORD (EOR) IS RESPONSIBLE FOR DETERMINING IF CONCRETE IS TO BE CONSIDERED CRACKED OR UNCRACKED.



PRODUCT RENEWED
 as complying with the Florida Building Code
 NOA-No. 23-0724.24
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control

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 Certificate of Authorization: #9090
 Wayne K. Helmila
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REVISIONS:
 REV A: UPDATED FASTENER SCHEDULE

CHK BY: Mastourian
 DWN BY: fcoirtinas
 DATE: 9/18/2017

SCALE: NTS

SHEET: 21 OF 21

DWG. NO. 1605WDM

Nailor Industries Inc.
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TITLE: 1605WDM LOUVER
 W/ AND W/O DAMPER SLEEVE
 NOTES / FASTENER SCHEDULE

06/24/2021
 COA: 9090

PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 21-0630.11
 Expiration Date: 08/30/2023
 By: *[Signature]*
 Miami-Dade Product Control