



**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

APPROVAL DOCUMENT: Drawing No. **1605WDM**, titled “1605WDM Louver w/ and w/o Damper”, sheets 1 through 30 of 30, dated 04/30/2026, prepared by manufacturer, signed and sealed by Wayne K. Helmila, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, 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 **revises NOA No. 24-0516.05** 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.**



06/15/26

**NOA No. 26-0518.08
Expiration Date: August 30, 2028
Approval Date: June 25, 2026**

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS “Submitted under NOA No. 18-0117.13”

1. 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.

B. TESTS “Submitted under NOA No. 18-0117.13”

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.
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.
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.

C. CALCULATIONS “Submitted under NOA No. 18-0117.13”

1. Louver structural calculations dated 11/02/17, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS “Submitted under NOA No. 18-0117.13”

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.
2. Statement letter of no financial interest issued by Rice Engineering, dated 04/16/18, signed and sealed by Wayne K. Helmila, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 26-0518.08
Expiration Date: August 30, 2028
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.11 AND NEW

A. DRAWINGS

1. Drawing No. **1605WDM**, titled “1605WDM Louver w/ and w/o Damper”, sheets 1 through 30 of 30, dated 04/30/2026, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Louver calculations, prepared by Rice Engineering, dated 08/14/2024, signed and sealed by Wayne K. Helmila, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance to the 8th edition (2023) of the FBC, issued by Rice Engineering, dated 08/20/2024, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letter of no financial interest, issued by Rice Engineering, dated 08/20/2024, signed and sealed by Wayne K. Helmila, P.E.

“Submitted under NOA # 21-0630.11”

3. 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
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The following pages in this document were submitted by the manufacturer (third party) to represent the product being approved and establish the limits of use. The pages may include technical drawings, schematics and installation details.

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 & CMU MULLION ANGLE- HEAD & SILL DETAIL.
8. 1605WDM LOUVER- BLADE SUPPORT DETAIL.
9. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT JAMB & BLADE BRACE DETAIL
10. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT JAMB & BLADE BRACE DETAIL
11. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT MULLION DETAIL
12. 1605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT 72" BLADE MULLION DETAIL
13. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT MULLION DETAIL.
14. 1605WDM LOUVER- CONTINUOUS ANGLE MOUNT 72" BLADE MULLION DETAIL
15. 1605WDM LOUVER / DAMPER FLANGE FRAME W/ SLEEVE & CONTINUOUS ANGLE HEAD & SILL DETAIL
16. 1605WDM LOUVER-CONTINUOUS ANGLE MOUNT CMU MULLION ANGLE -HEAD & SILL DETAIL
17. 1605WDM LOUVER / DAMPER- FLANGE FRAME SLEEVE MOUNT JAMB AND MULLION DETAIL
18. 1605WDM LOUVER / DAMPER - FLANGE FRAME SLEEVE MOUNT 36" BLADE MULLION DETAIL
19. 1605WDM LOUVER / DAMPER CONTINUOUS ANGLE MOUNT JAMB AND MULLION DETAIL
20. 1605WDM LOUVER / DAMPER - CONTINUOUS ANGLE MOUNT 36" BLADE MULLION DETAIL
21. 1605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES.
22. 1605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES CONT.
23. 22" MULLION ANGLES BACK OF WALL MOUNT
24. 30" MULLION ANGLE - 22" MULLION ANGLES BACK OF THE WALL MOUNT
25. 16" MULLION ANGLES- BACK OF THE WALL MOUNTS
26. 30" CMU MULLION ANGLE- BACK OF THE WALL
27. 1605WDM LOUVER W/ AND W/O DAMPER AVAILABLE SHAPES
28. 1605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT BILL OF MATERIAL.
29. 1605WDM LOUVER W/ AND W/O DAMPER SLEEVE FASTENER SCHEDULE.
30. 1605WDM LOUVER W/ AND W/O DAMPER SLEEVE GENERAL NOTES

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. NAIL OR INDUSTRIES OF TEXAS 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.

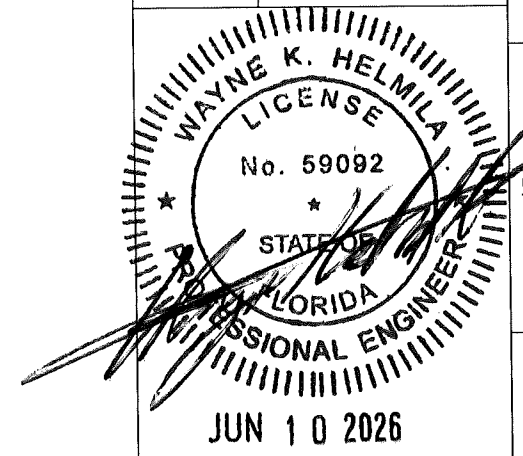
TESTS PERFORMED:

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

CHK BY: Mastourian	SCALE: NTS	SHEET: 1 OF 30	REV B
DWN BY: fcoirtinas	DATE: 4/30/2026		DWG. NO. 1605WDM

Nailor Industries of Texas, Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
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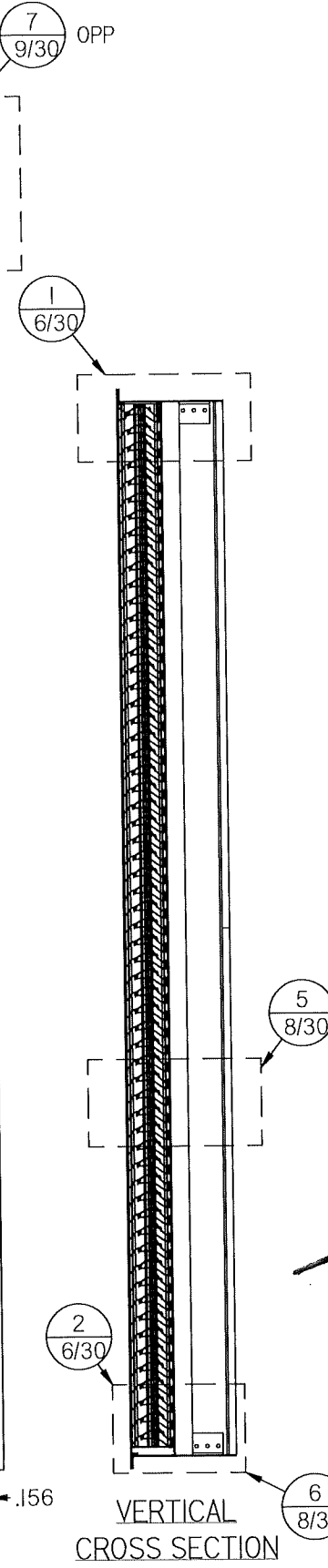
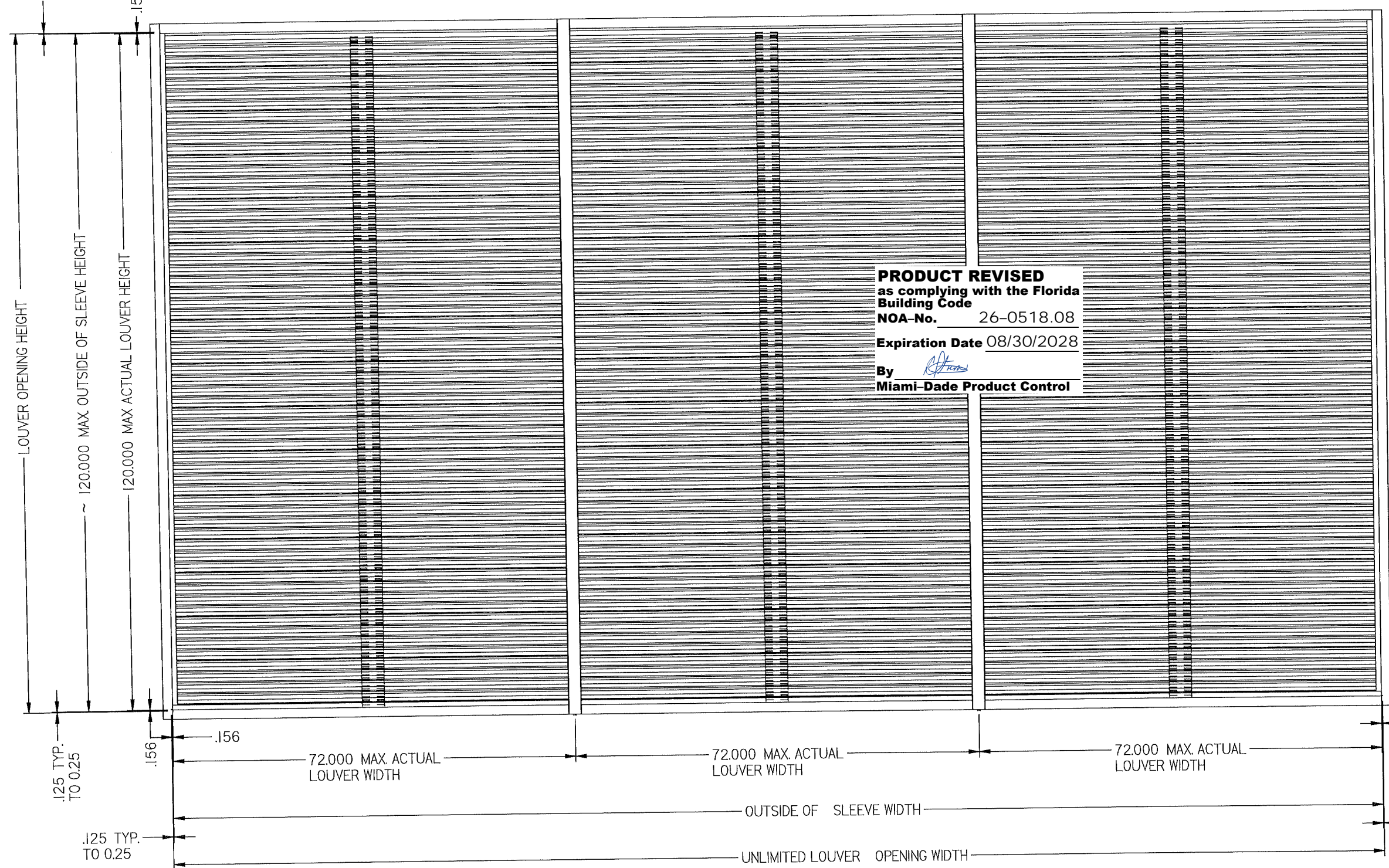
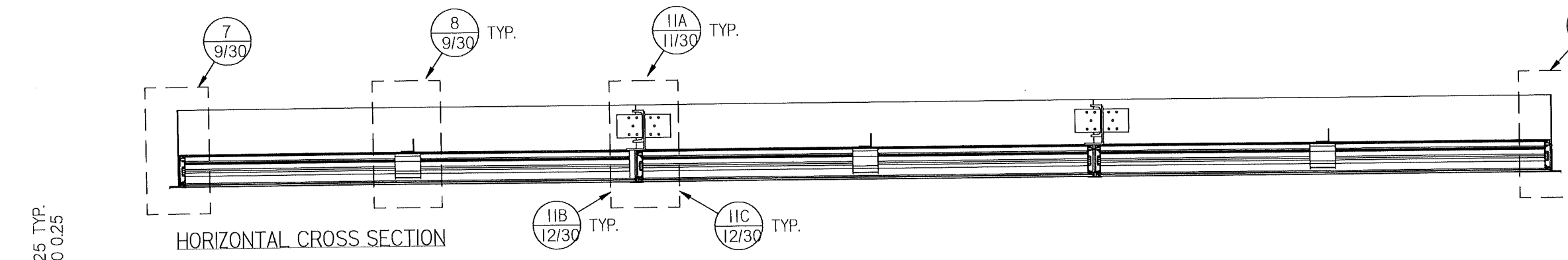
TITLE:
 1605WDM LOUVER
 W/ AND W/O DAMPER
 INDEX



PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 26-0518.08
 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

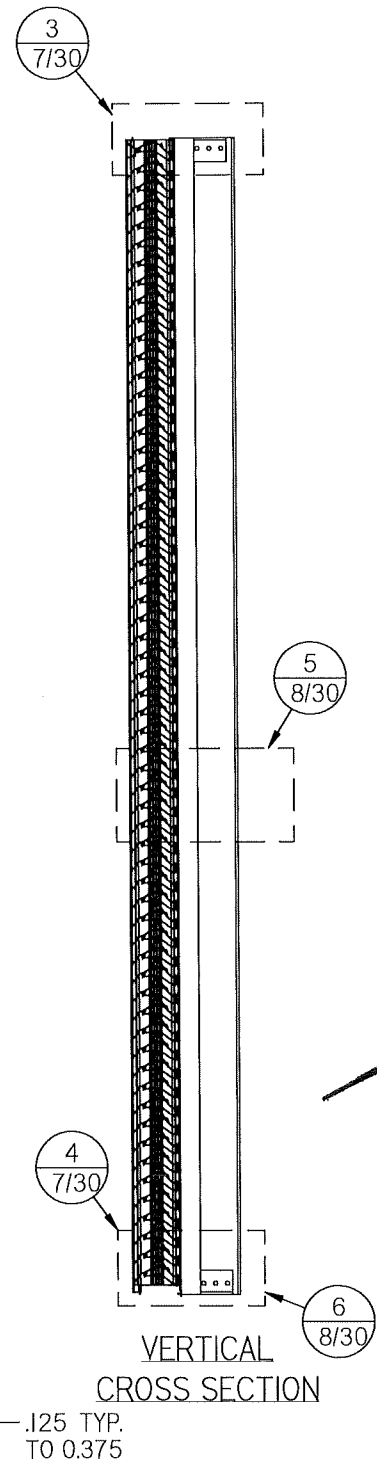
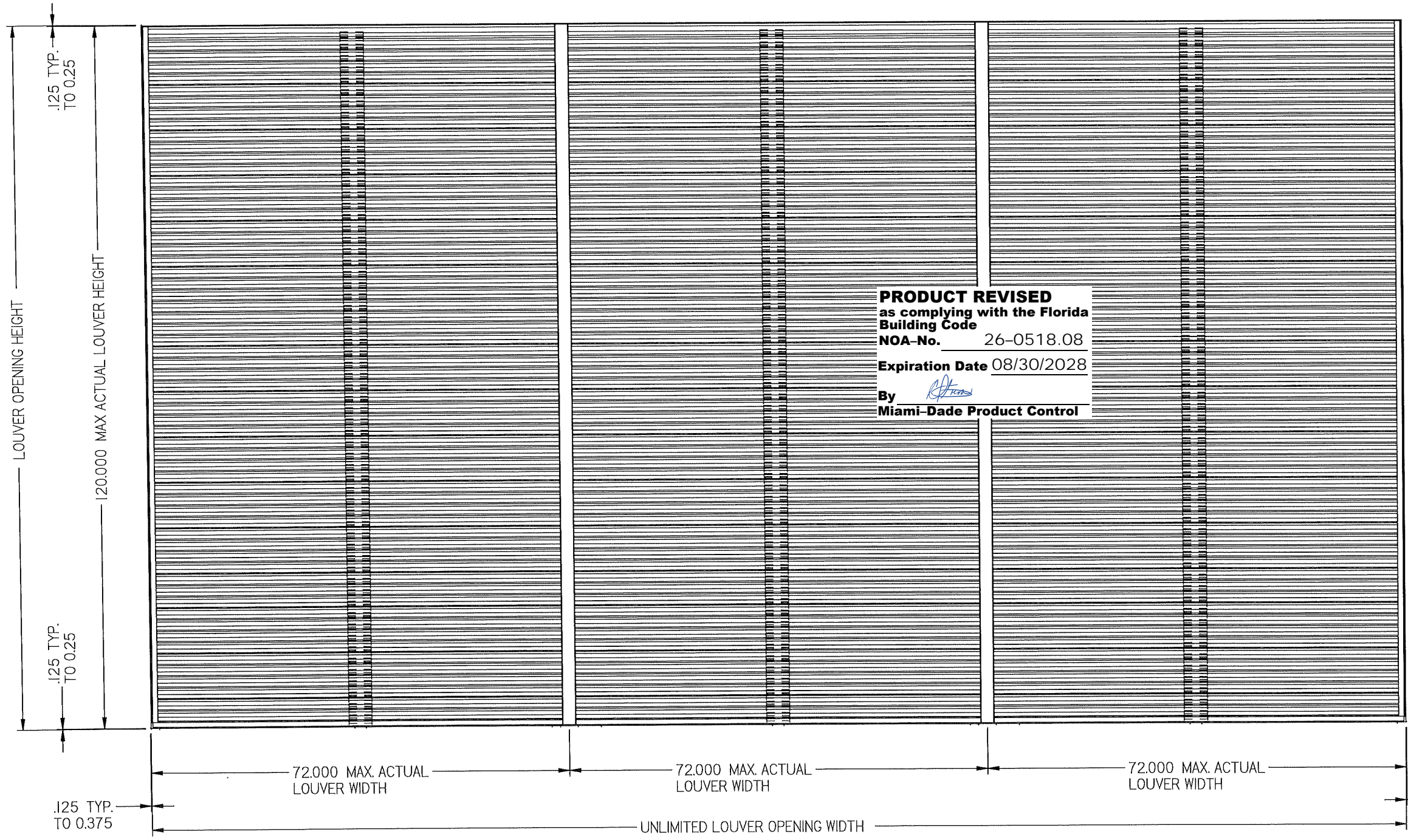
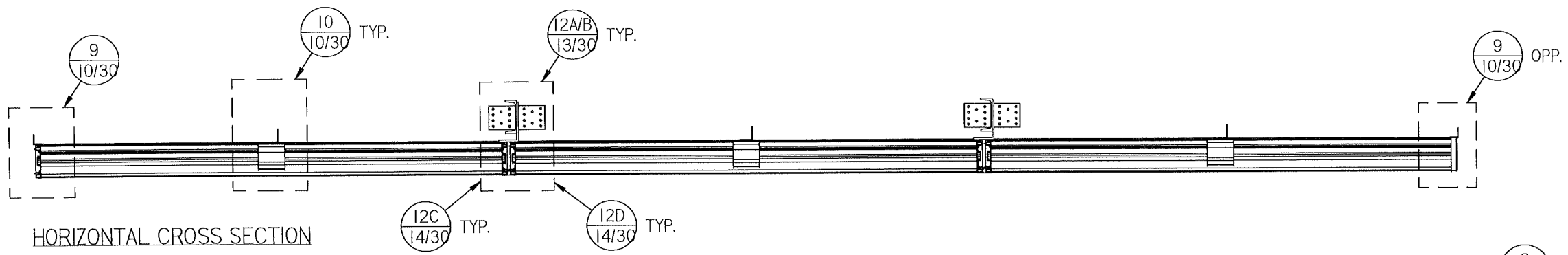
REVISIONS:
 REV B: UPDATED DRAWING INDEX



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 By *[Signature]*
 Miami-Dade Product Control

REVISIONS:
 REV B: ADDED DETAIL BUBBLES IIA, IIB, IIC

DWN BY: fcortinas	CHK BY: Mastourian	DATE: 4/30/2026	SCALE: NTS
<p>Nailor Industries of Texas, Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com</p>		SHEET: 2 OF 30 DWG. NO. 1605WDM REV B	
TITLE: 1605WDM LOUVER FLANGE FRAME SLEEVE MOUNT			
<p>WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER</p>			
JUN 10 2026			
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			

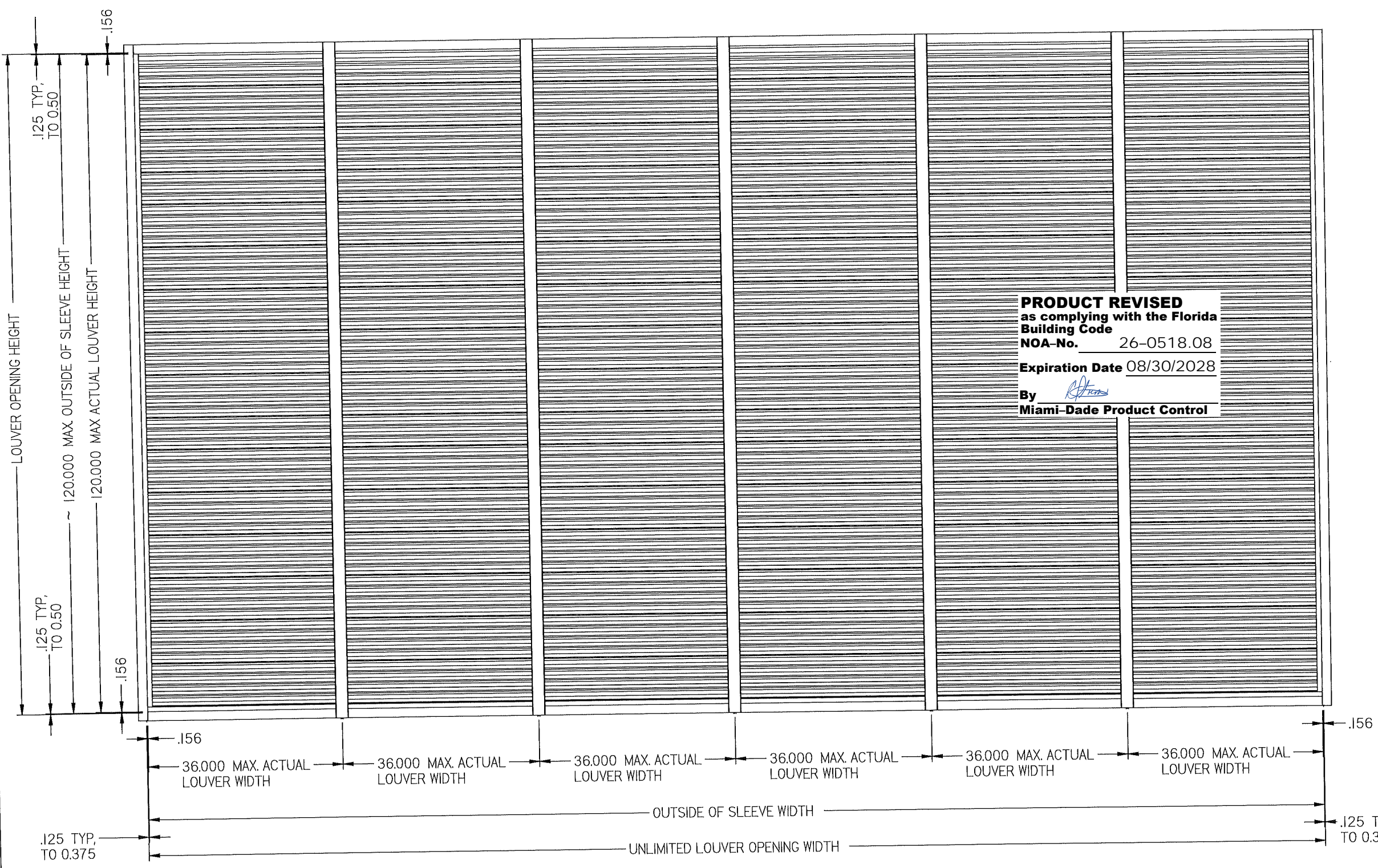
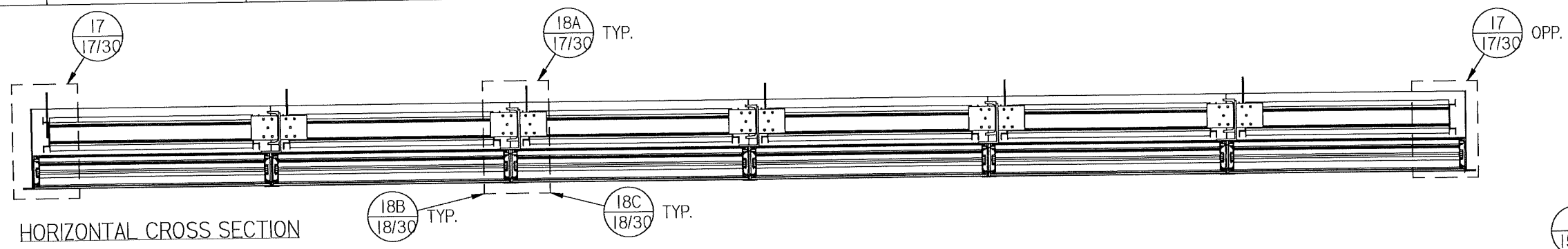


ELEVATION

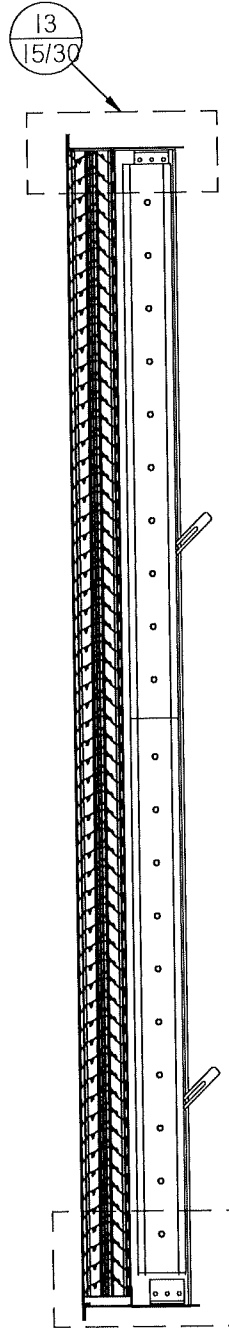
FOR THIS ELEVATION WHERE THE LOUVER BLADES ARE SPANNING 72" THE CMU WALL ANCHORS ARE ADEQUATE FOR A MAXIMUM DESIGN PRESSURE IS +/- 80 PSF. SEE ALSO NOTE ON SHEET 26 OF 30

REVISIONS:
REV B: ADDED DETAIL BUBBLES 12A/B, 12C, 12D

DWN BY: f cortinas	CHK BY: Mastourian	SHEET: 3 OF 30	REV B
DATE: 4/30/2026	SCALE: NTS		
<p>Nailor Industries of Texas, Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com</p>		<p>1605WDM LOUVER COUNTINOUS ANGLE MOUNT</p>	<p>DWG. NO. 1605WDM</p>
<p>Wayne K. Helmila Professional Engineer No. 59092 STATE OF FLORIDA JUN 10 2026</p>			
<p>RICE ENGINEERING 105 School Creek Trail Luxemburg, WI 54217 Phone: (920) 617-1042 Fax: (920) 617-1100 www.rice-inc.com</p>		<p>Florida Firm No: F-01000005061 Certificate of Authorization: #9090 Wayne K. Helmila Registration No: 59092</p>	



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 By *[Signature]*
 Miami-Dade Product Control



DWN BY: fcortinas

CHK BY: Mastourian

DATE: 4/30/2026

SCALE: NTS

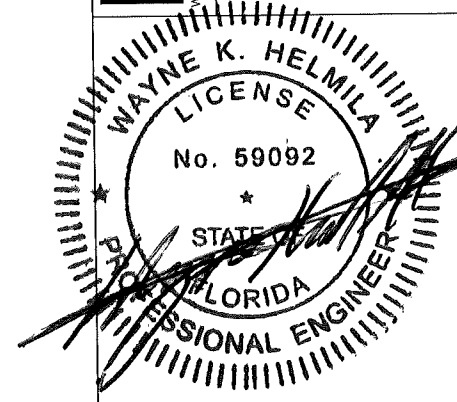
SHEET: 4 OF 30

DWG. NO. 1605WDM

REV B

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

TITLE: 1605WDM / DAMPER
 FLANGE FRAME
 SLEEVE MOUNT



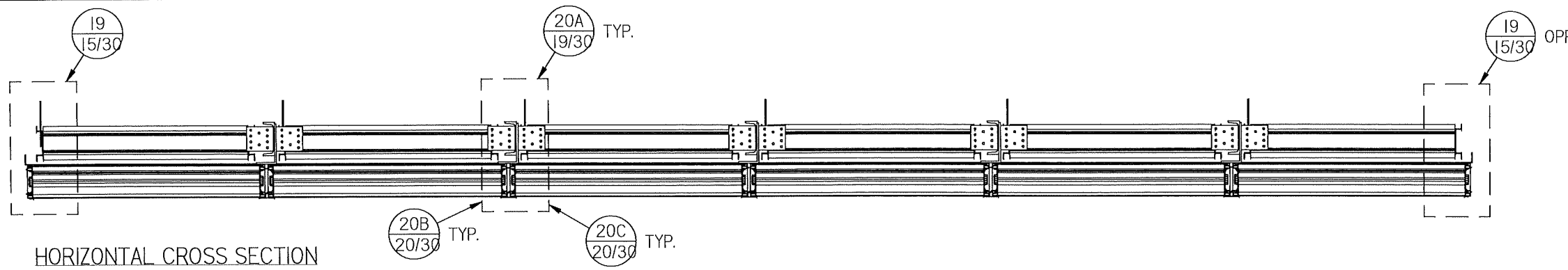
JUN 10 2026

RICE
 ENGINEERING

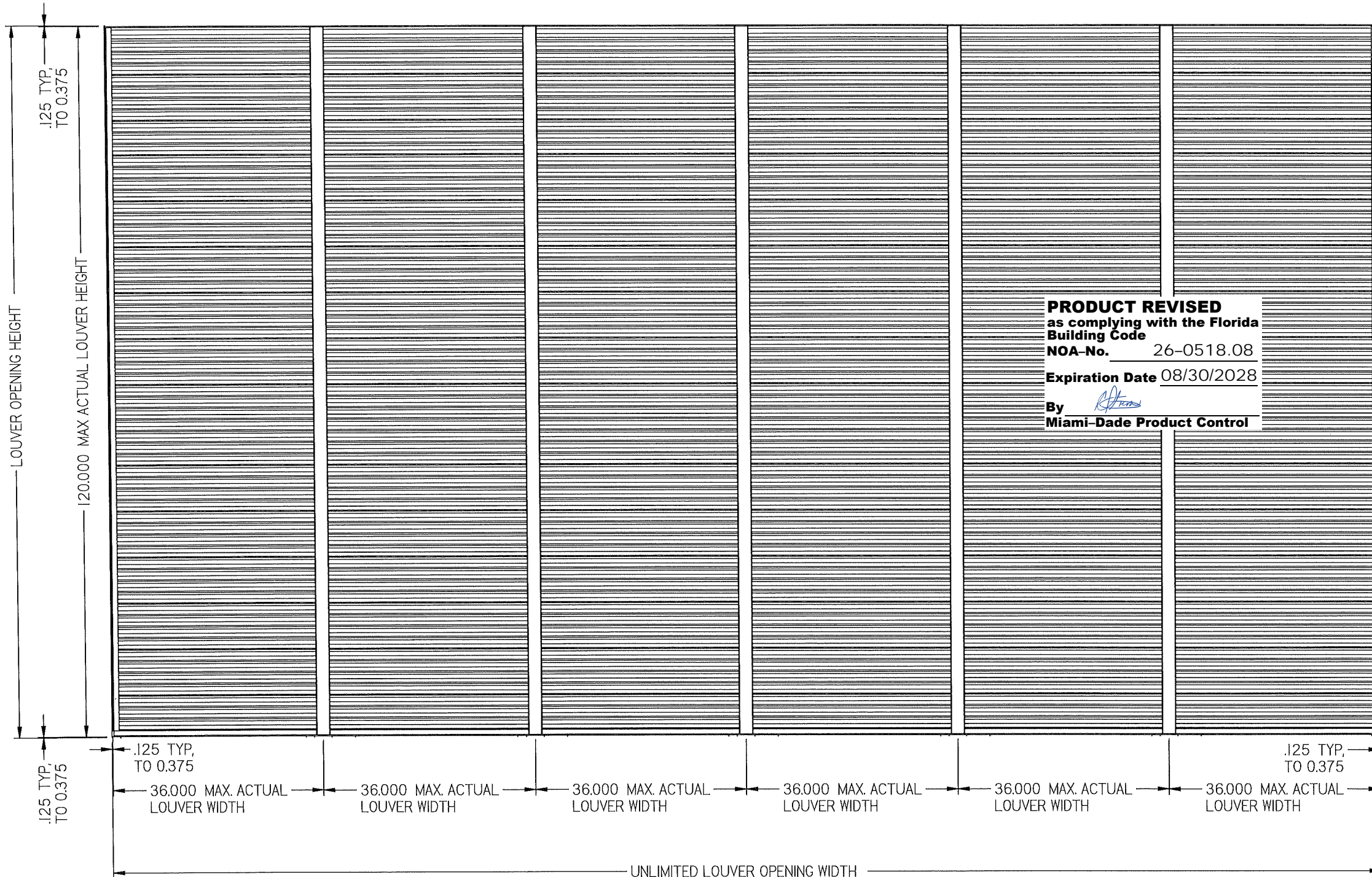
105 School Creek Trail
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 Fax: (920) 617-1100
 www.rice-inc.com

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

REVISIONS:
 REV B: ADDED DETAIL BUBBLES 18A, 18B, 18C

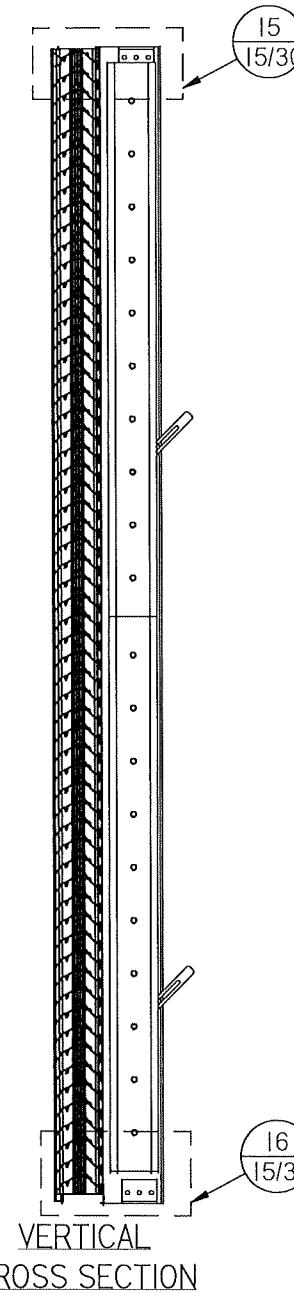


HORIZONTAL CROSS SECTION



ELEVATION

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



VERTICAL CROSS SECTION

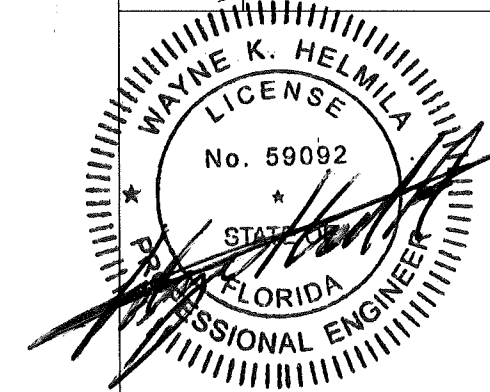
DWN BY: fcoartinas
 CHK BY: Mastourian
 DATE: 4/30/2026
 SCALE: NTS

SHEET: 5 OF 30

DWG. NO. 1605WDM
 REV B

Nailor Industries of Texas, Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
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TITLE:
 1605WDM / DAMPER
 CONTINUOUS ANGLE MOUNT

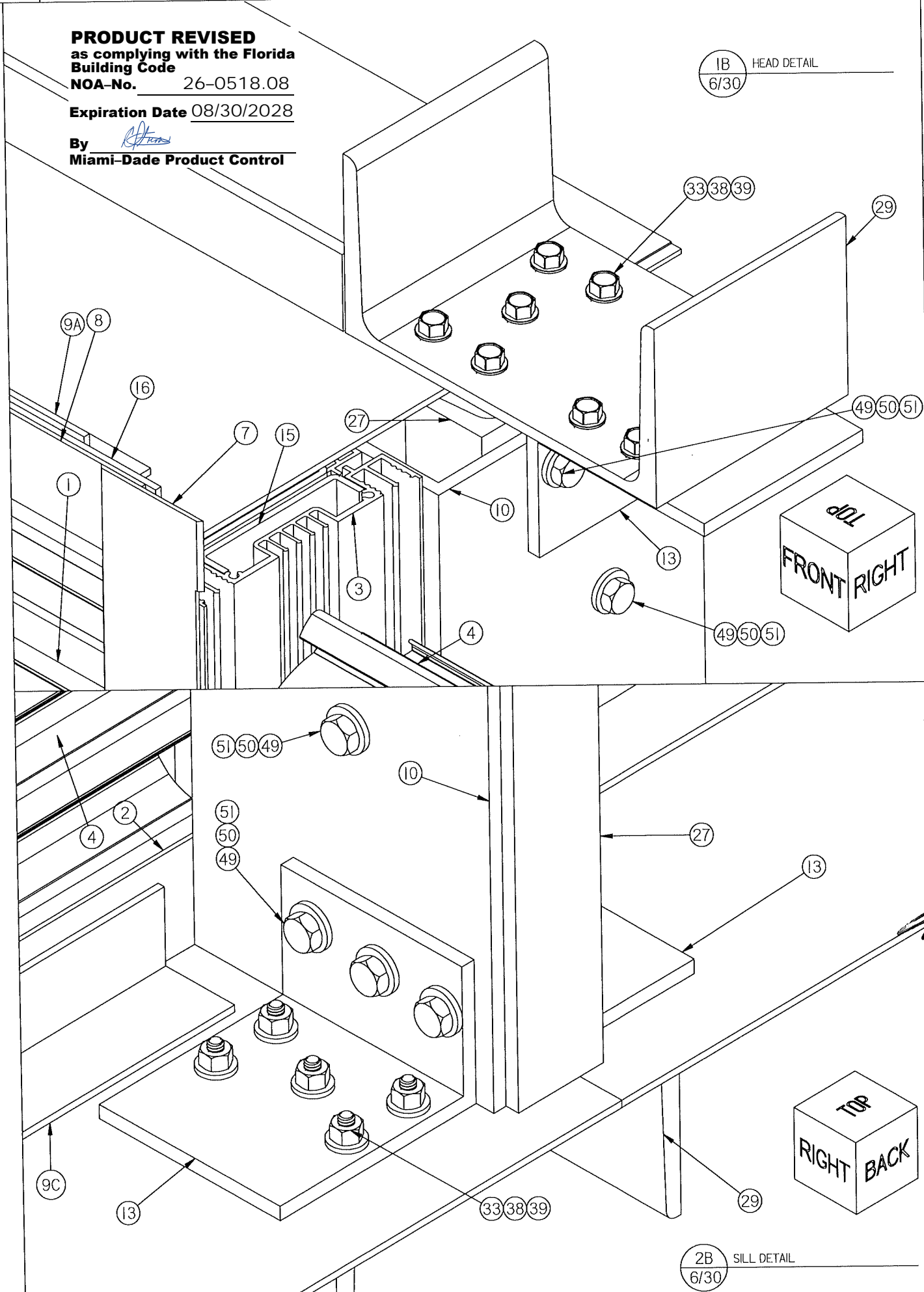
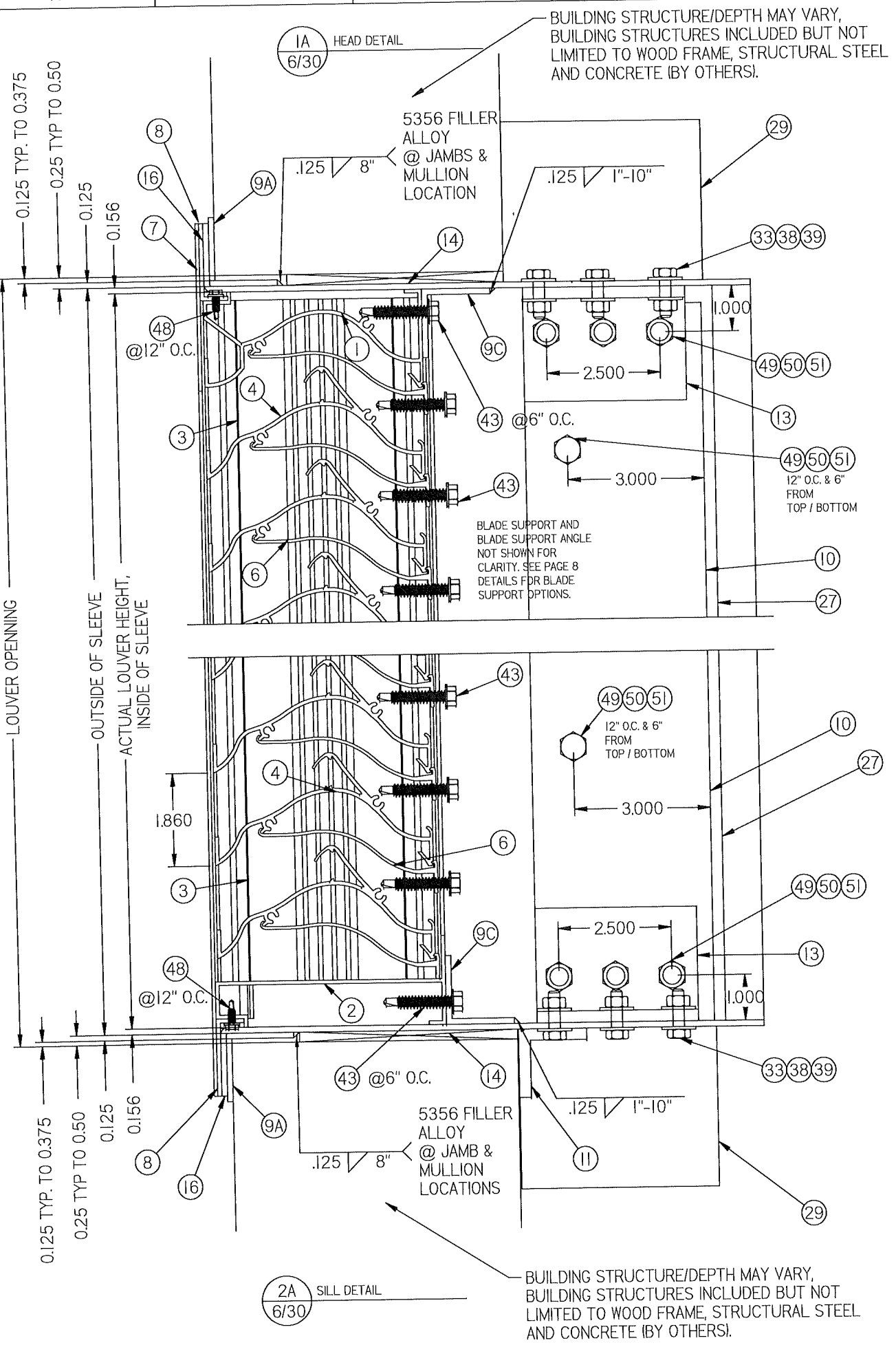


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REVISIONS:
 REV B: ADDED DETAIL BUBBLES 20A, 20B, 20C



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CHK BY: Mastourian
DWN BY: fcortinas
DATE: 4/30/2026
SCALE: NTS
SHEET: 6 OF 30
REV B
DWG. NO. 1605WDM

Nailor Industries of Texas, Inc.
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TITLE 1605WDM LOUVER
FLANGE FRAME
SLEEVE MOUNT
HEAD & SILL DETAIL

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
JUN 10 2026

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
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Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

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 HEAD DETAIL
7/30

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

REFER TO FASTENER TABLE SHEET 29 OF 30

FASTENER EDGE DISTANCE

EMBEDMENT

12A 12B 12C

1.000

2.500

49 50 51

27

10

3.000

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

49 50 51

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

10

27

49 50 51

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

3.000

13

49 50 51

33 38 39

1.000

30A THRU 30E

31A THRU 31C

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

REFER TO FASTENER TABLE 3 SHEET 29 OF 30

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 SILL DETAIL
7/30

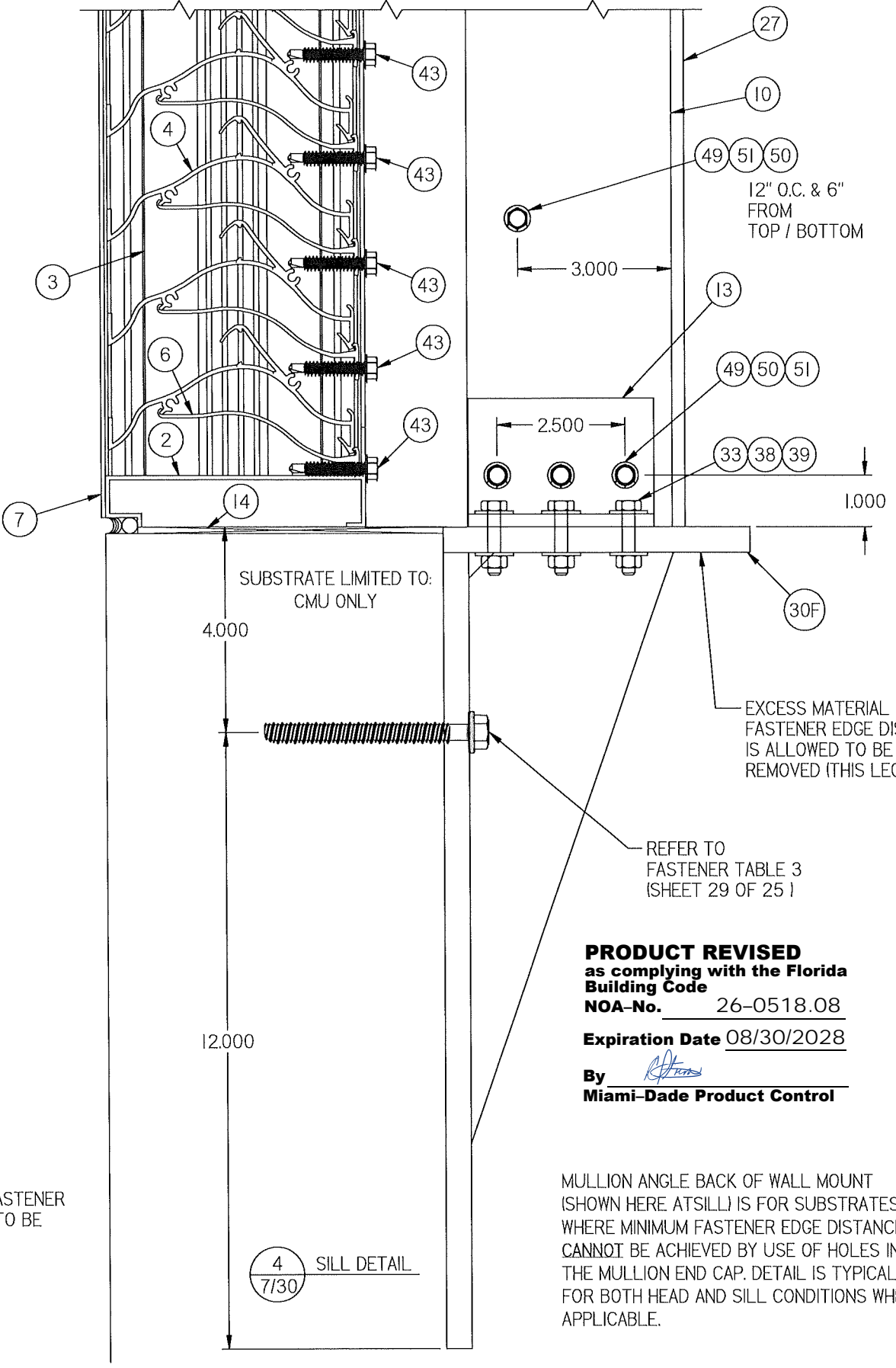
SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE,

.125 TYP, TO 0.375

LOUVER OPENING

ACTUAL LOUVER HEIGHT

.125 TYP, TO 0.375



4 SILL DETAIL
7/30

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

3.000

49 50 51

33 38 39

1.000

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

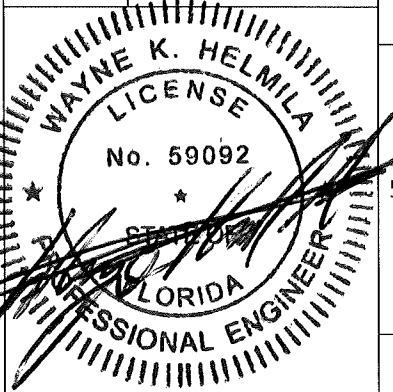
REFER TO FASTENER TABLE 3 (SHEET 29 OF 25)

PRODUCT REVISED
as complying with the Florida Building Code
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Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

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.

REVISIONS:
REV B: ADDED CMU MULLION ANGLE DETAIL

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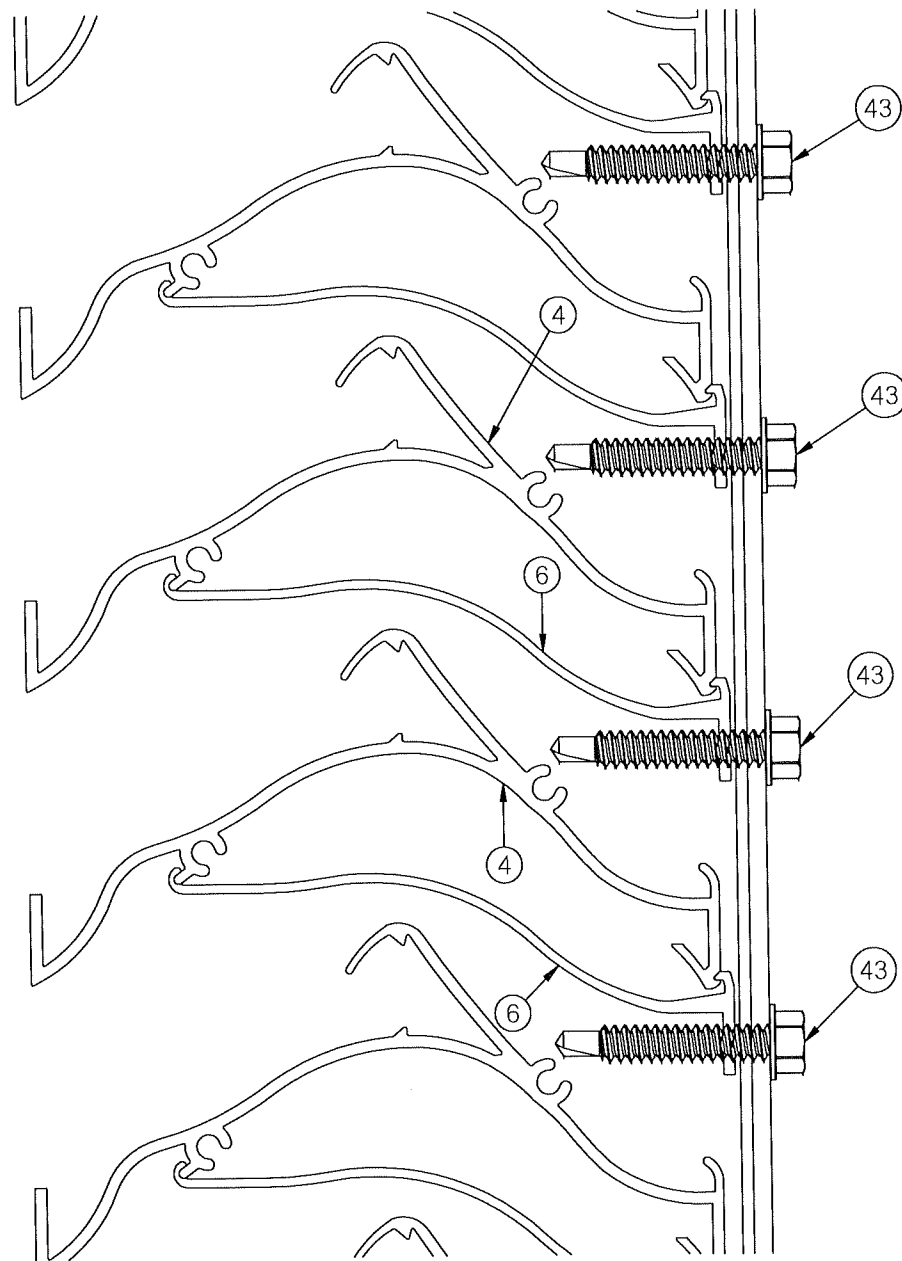
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: MASTOURIAN
SCALE: NTS

TITLE:
1605WDM LOUVER
CONTINUOUS ANGLE MOUNT
AND CMU MULLION ANGLE
HEAD & SILL DETAILS

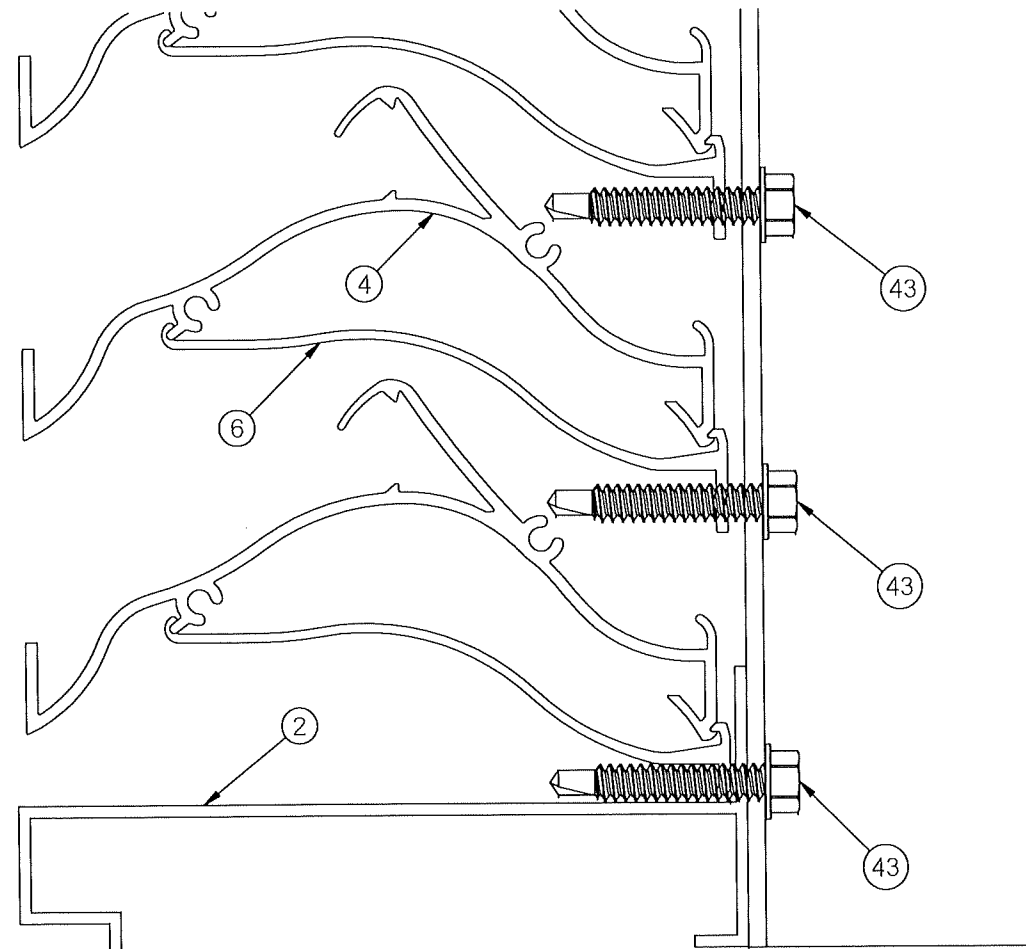
SHEET: 7 OF 30

DWG. NO. 1605WDM
REV B



5 BLADE SUPPORT DETAIL
8/30

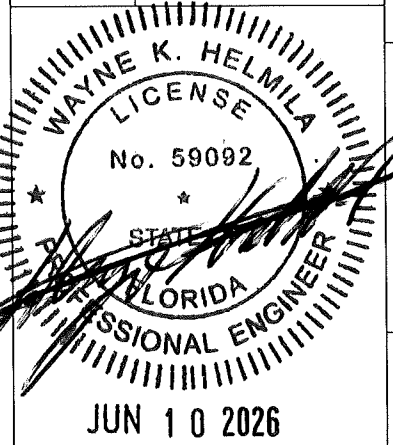
NOTE: THE BLADE SUPPORT ANGLE (ITEM 10) IS NOT SHOWN IN THE DETAILS IN ORDER TO IMPROVE CLARITY. THE BLADE SUPPORT ANGLE IS ATTACHED TO THE BLADE SUPPORT BRACE (ITEM 6).
BLADE SUPPORT BRACE 6 (SHOWN) IS ANY OF THE DRAWINGS FOR DETAIL 6.



6 BOTTOM BLADE SUPPORT DETAIL
8/30

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Expiration Date 08/30/2028
By *[Signature]*
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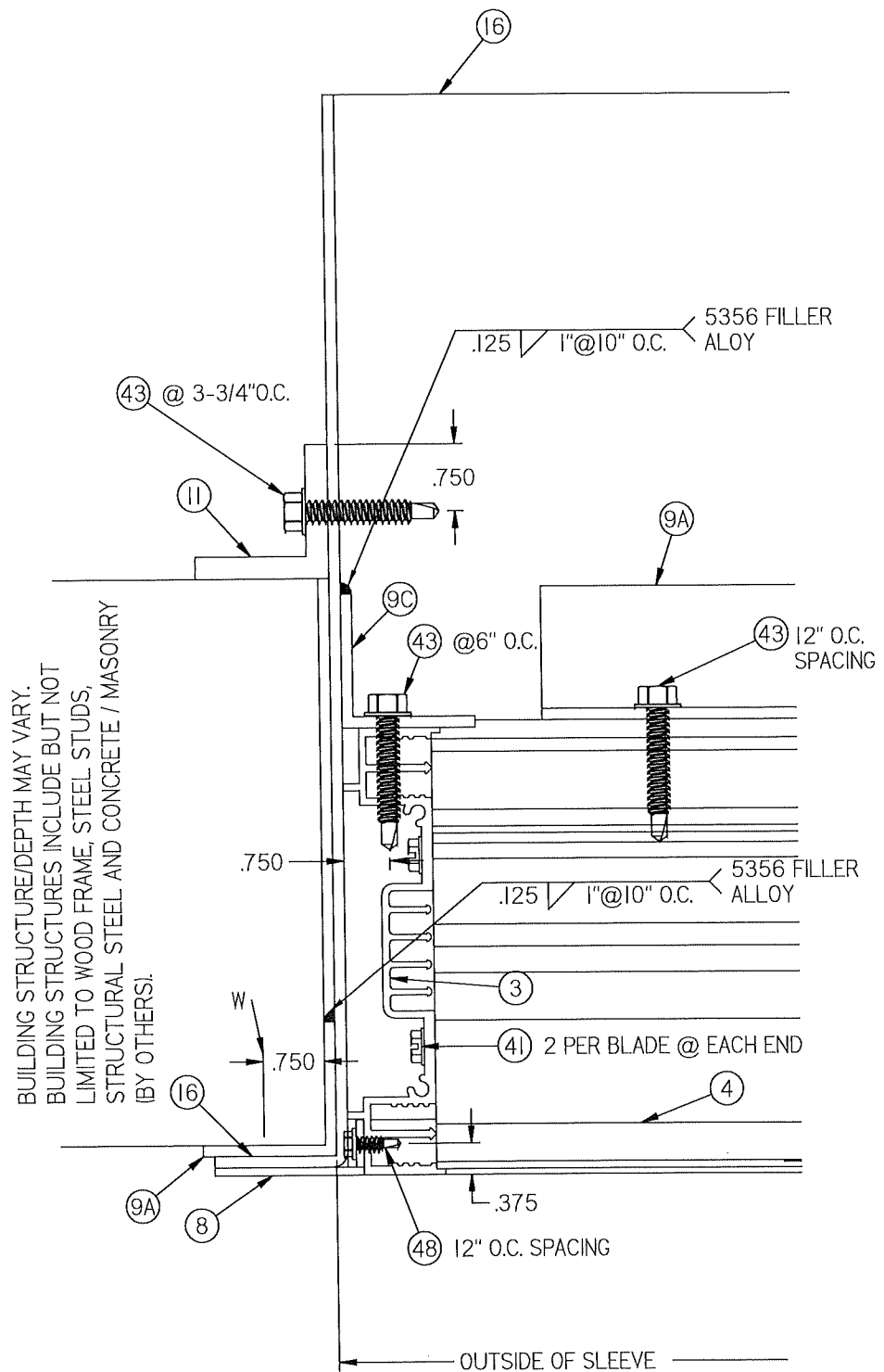
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Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

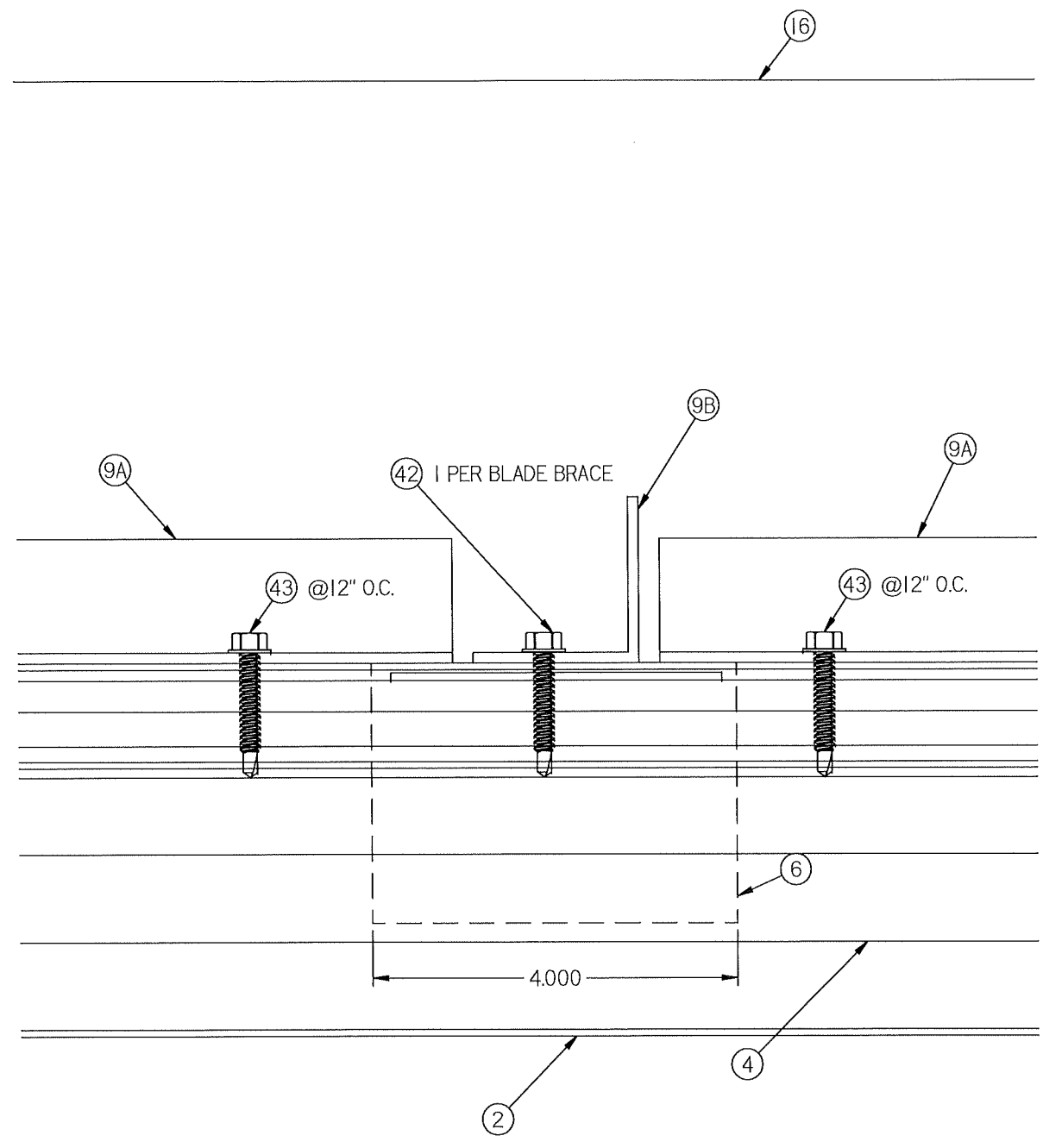
DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS
SHEET: 8 OF 30
DWG. NO. 1605WDM
REV B

TITLE:
1605WDM LOUVER
BLADE SUPPORT DETAIL



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

7 JAMB DETAIL
 9/30



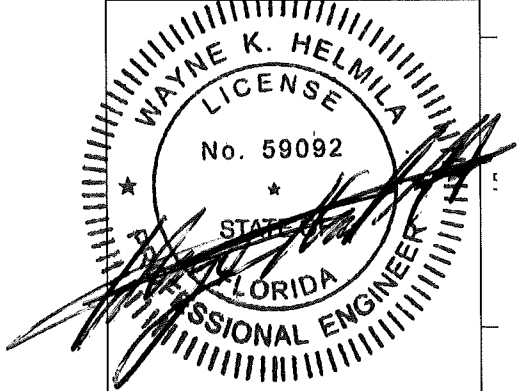
8 SUPPORT DETAIL
 9/30

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 NOA-No. 26-0518.08
 Expiration Date 08/30/2028
 By *[Signature]*
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DWN BY: fcortinas
 DATE: 4/30/2026
 CHK BY: Mastourian
 SCALE: NTS
 SHEET: 9 OF 30
 DWG. NO. 1605WDM
 REV B

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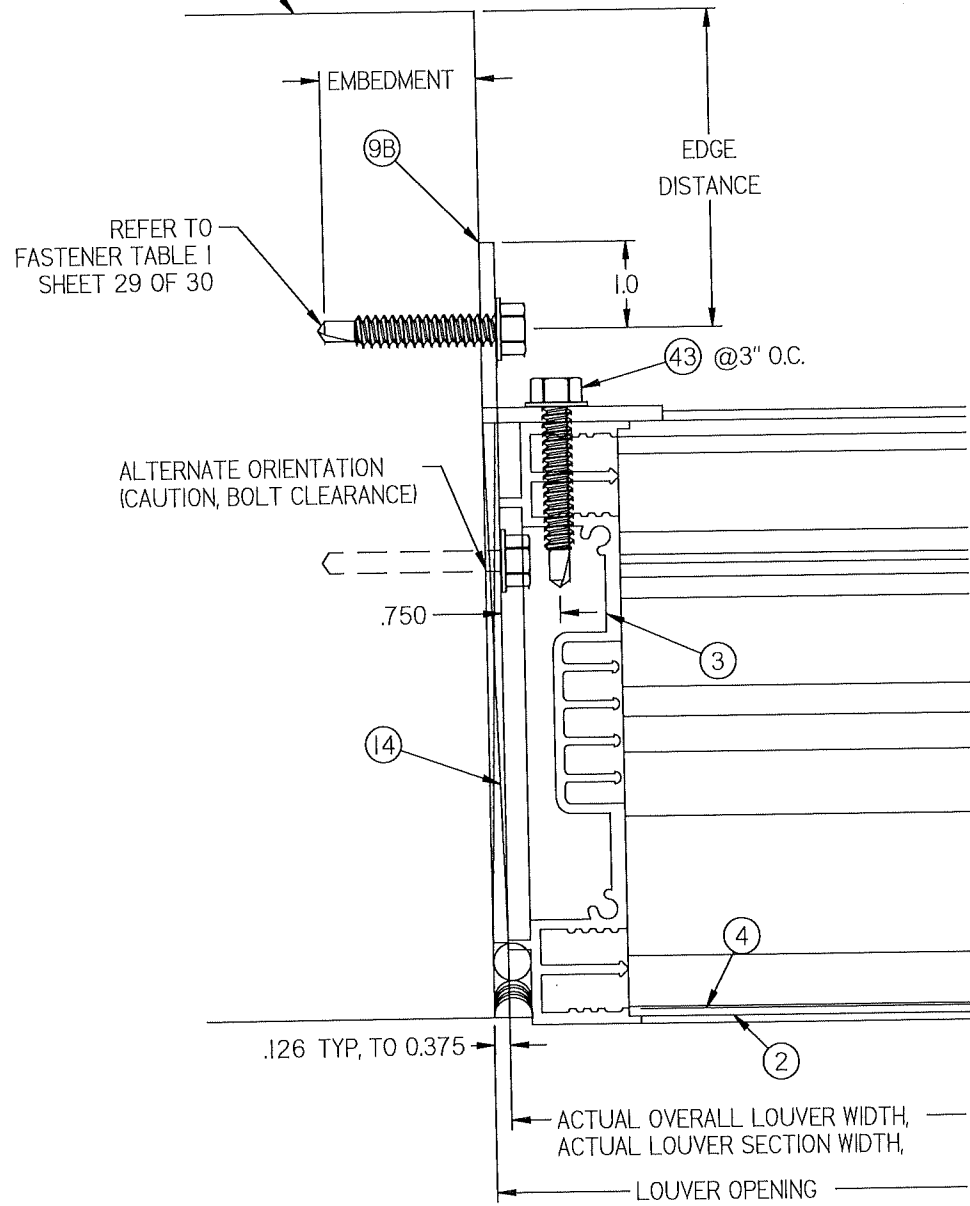
TITLE:
 1605WDM LOUVER
 FLANGE FRAME SLEEVE MOUNT
 JAMB & BLADE BRACE DETAIL



JUN 10 2026

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 Wayne K. Helmila
 Registration No: 59092

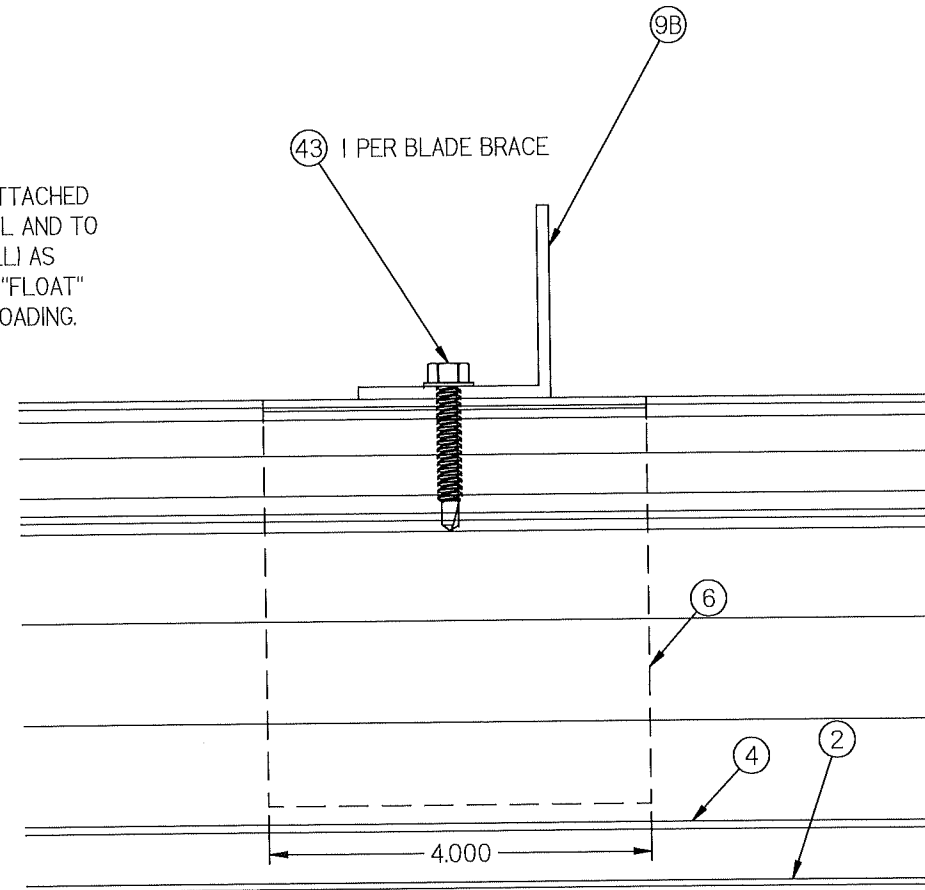
SUBSTRATE LIMITED TO WOOD,
STEEL, CONCRETE (BY OTHERS).



9 JAMB DETAIL
10/30

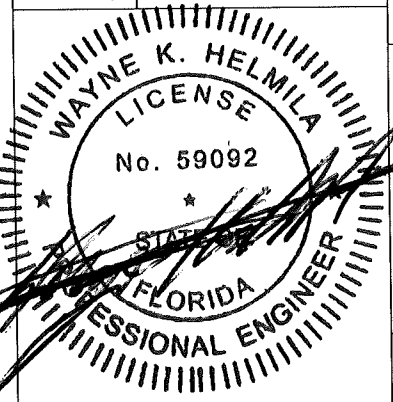
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SUPPORT NOT ATTACHED
AT HEAD AND SILL AND TO
SUBSTRATE (WALL) AS
TO ALLOW IT TO "FLOAT"
DURING BLADE LOADING.



10 SUPPORT DETAIL
10/30

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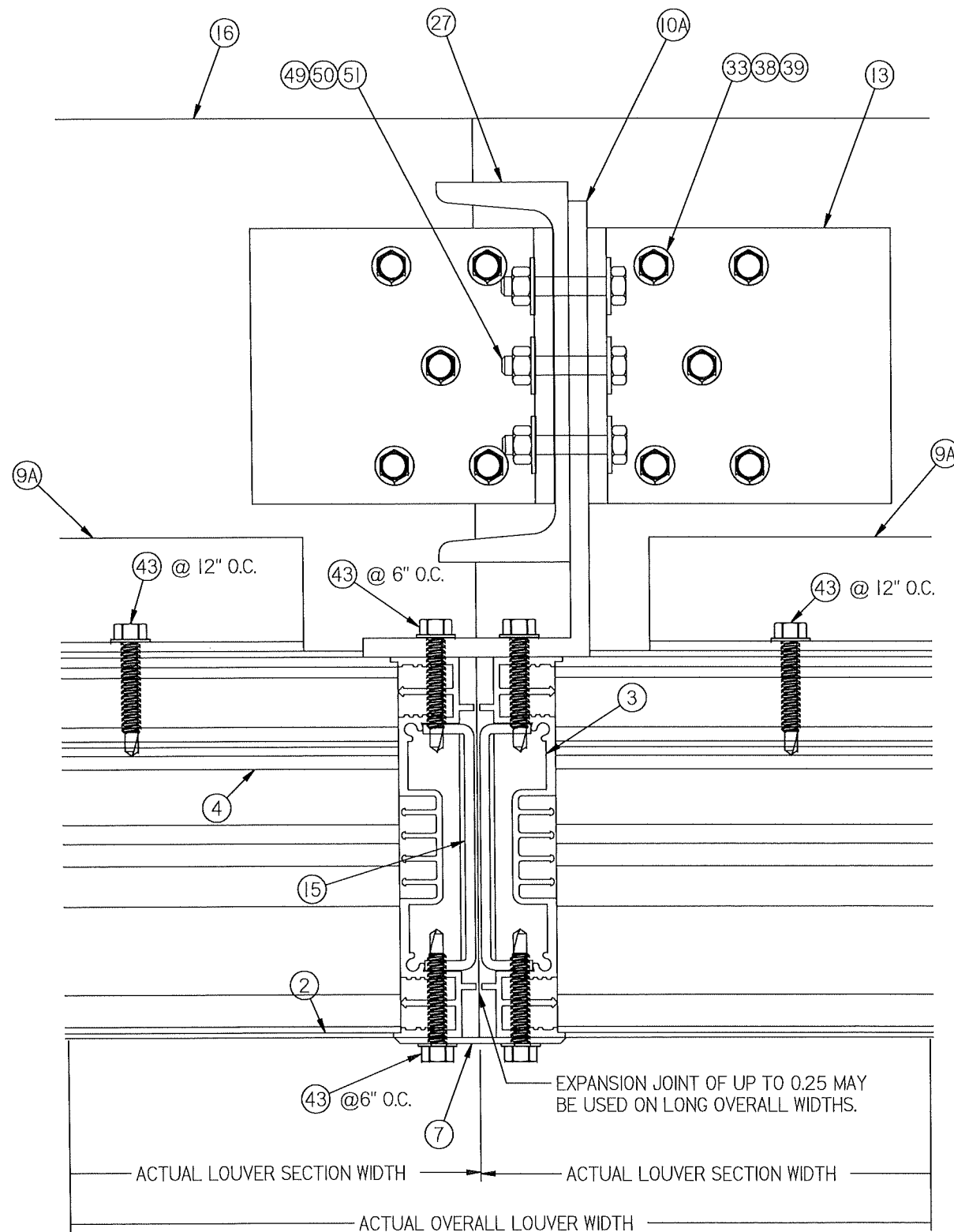


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Registration No: 59092

DWN BY: fcorinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS
SHEET: 10 OF 30
DWG. NO. 1605WDM
REV B

TITLE:
1605WDM LOUVER
COUNTINOUS ANGLE MOUNT
JAMB DETAIL



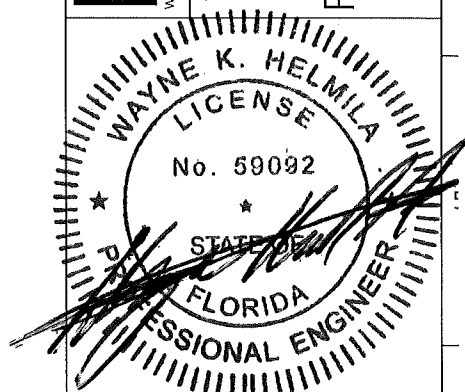
11A MULLION DETAIL
 11/30 72" BLADE SLEEVE MOUNT
 C6X8.2 STEEL CHANNEL
 AND ALUM 6X3X1/4" ANGLE

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

ACTUAL LOUVER SECTION WIDTH ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

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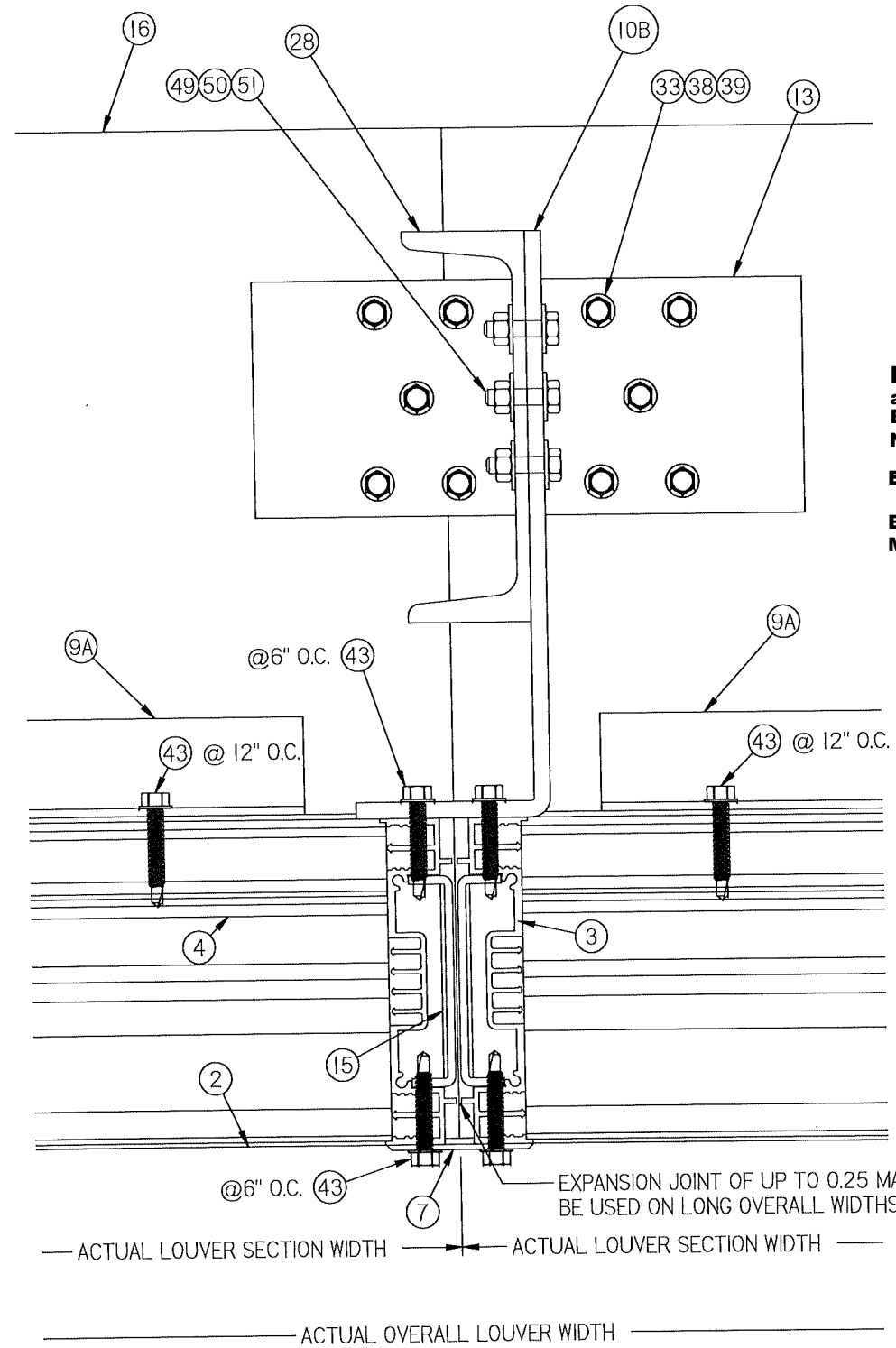
Florida Firm No: F-01000005061
 Certificate of Authorization: #9090
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 Registration No: 59092

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TITLE:
 1605WDM LOUVER
 FLANGE FRAME SLEEVE MOUNT
 72" BLADE MULLION DETAIL

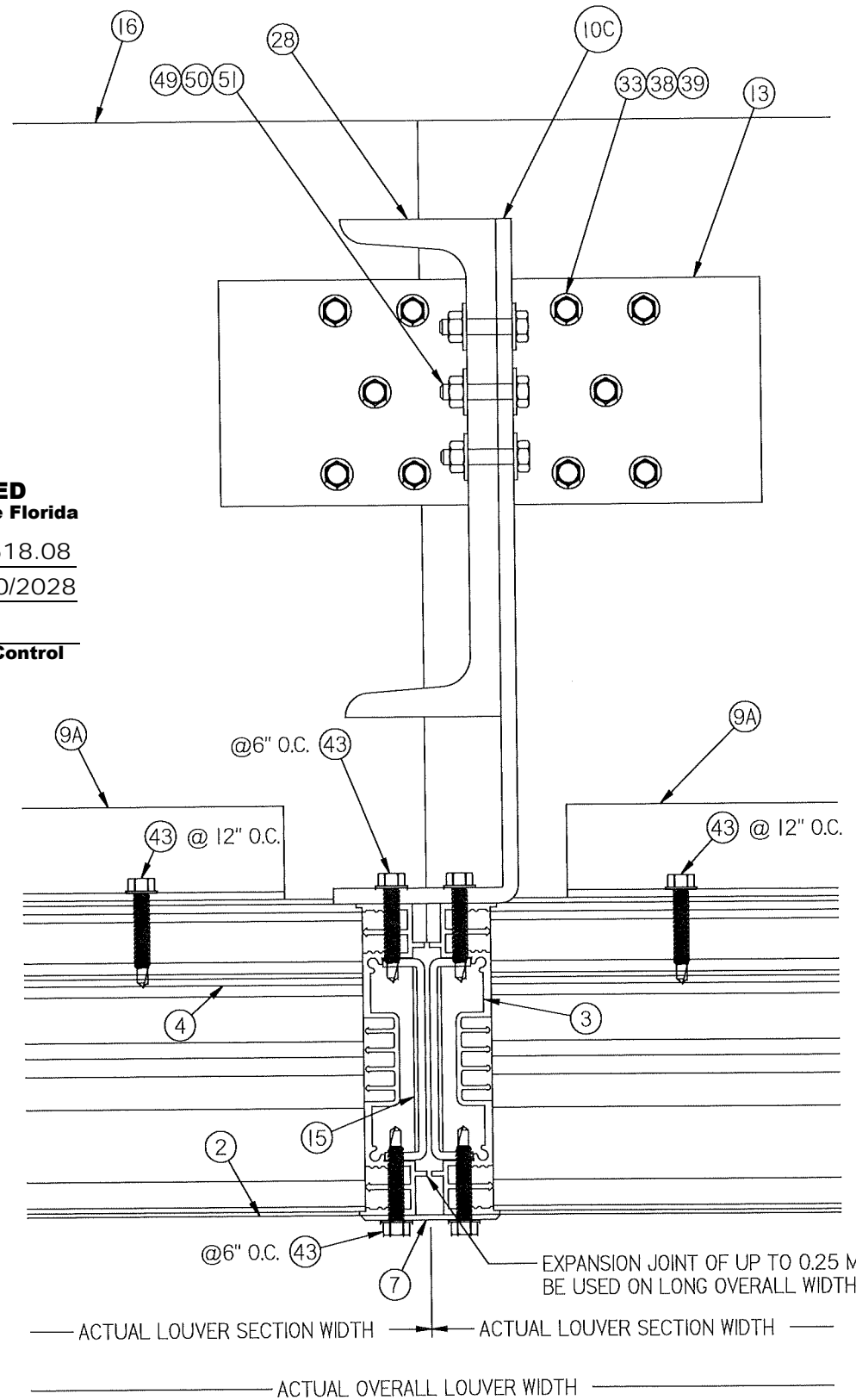
DWN BY: fcortinas CHK BY: Mastourian
 DATE: 4/30/2026 SCALE: NTS

SHEET: 11 OF 30
 DWG. NO. 1605WDM
 REV B



11B MULLION DETAIL
12/30 72" BLADE SLEEVE MOUNT
C8X18.75 STEEL CHANNEL
AND ALUM 9X3X1/4" ANGLE

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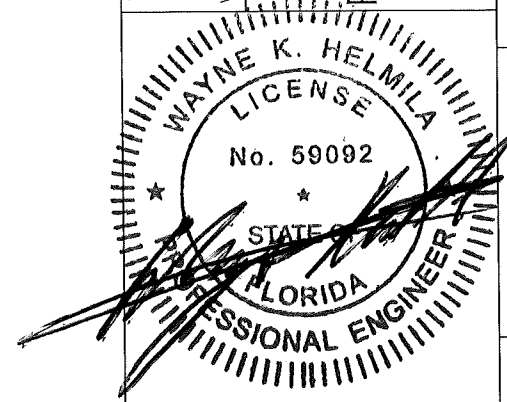
11C MULLION DETAIL
12/30 72" BLADE SLEEVE MOUNT
C8X18.75 STEEL CHANNEL
AND ALUM 11X3X1/4" ANGLE

REVISIONS:
REV B: ADDED PAGE DETAIL 11B, 11C

DWN BY: fcoortinas	CHK BY: Mastourian
DATE: 4/30/2026	SCALE: NTS
SHEET: 12 OF 30	
DWG. NO. 1605WDM	REV B

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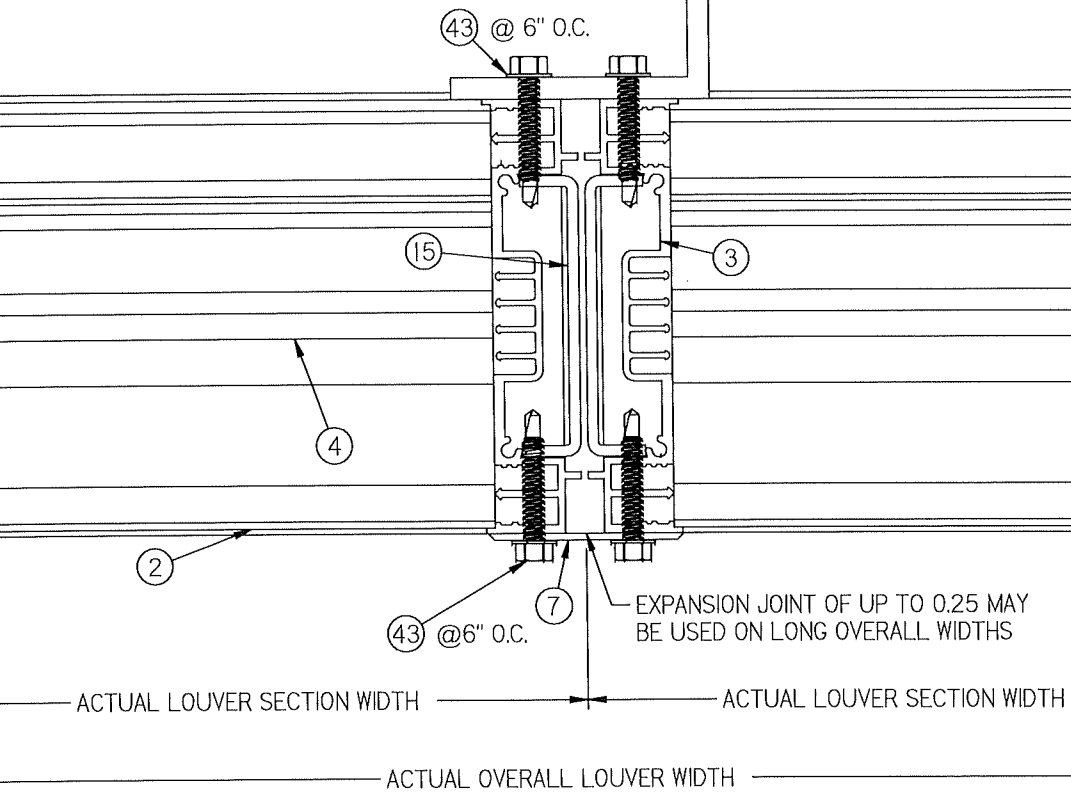
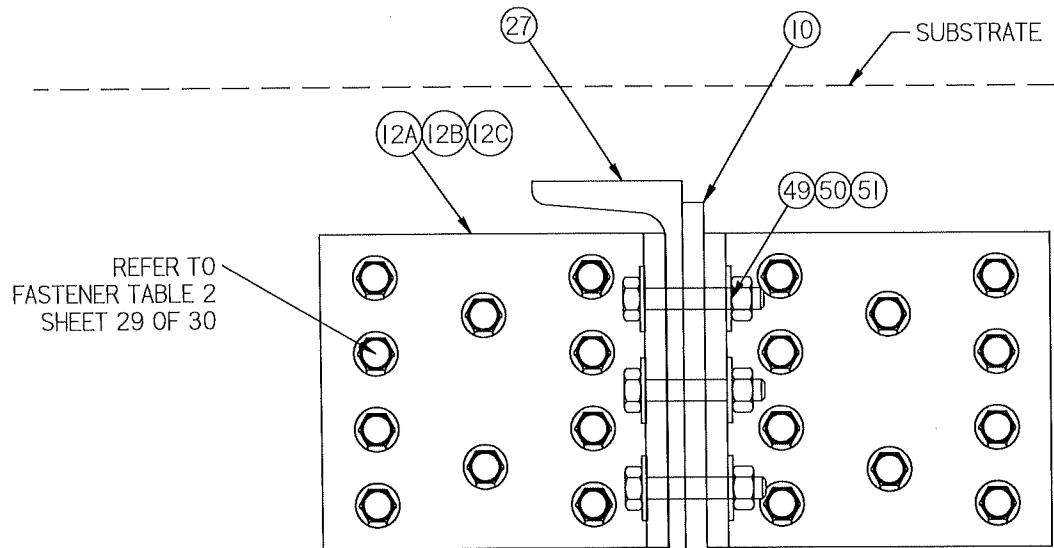
TITLE:
1605WDM LOUVER
FLANGE FRAME SLEEVE MOUNT
72" BLADE MULLION DETAIL



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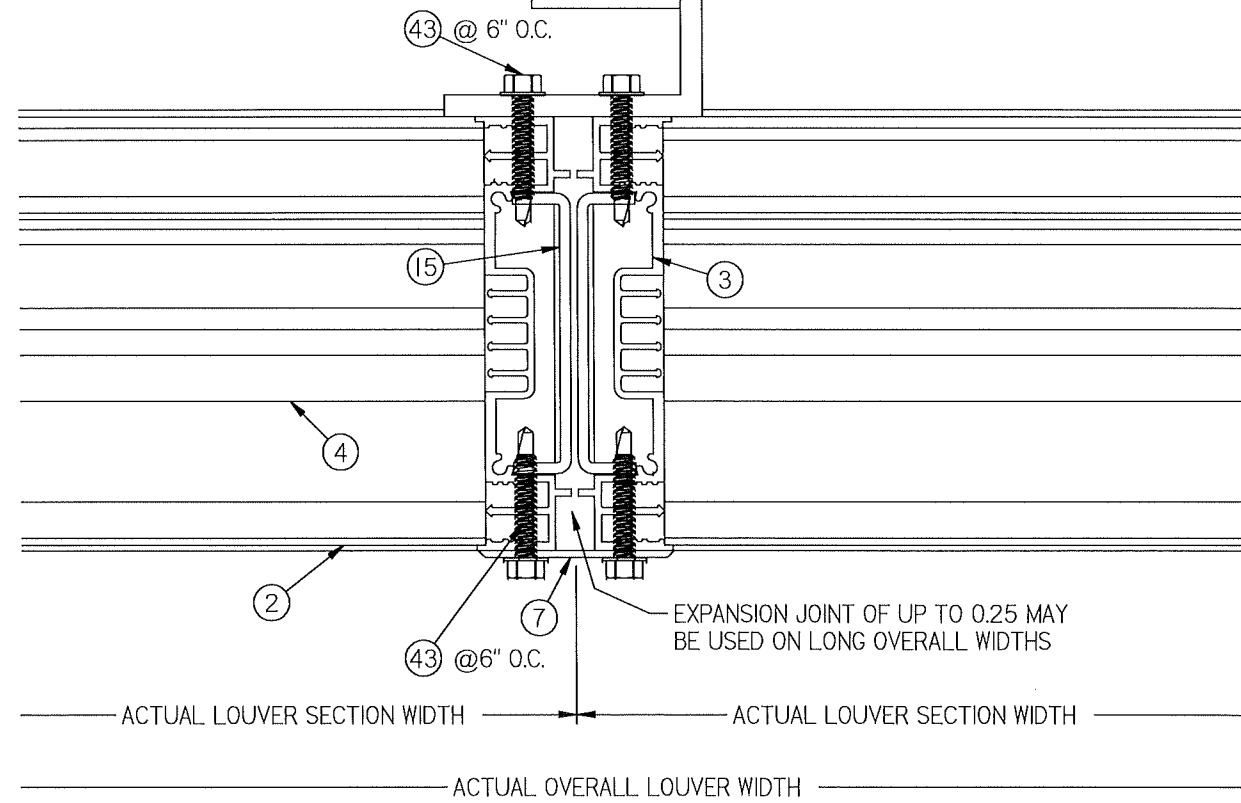
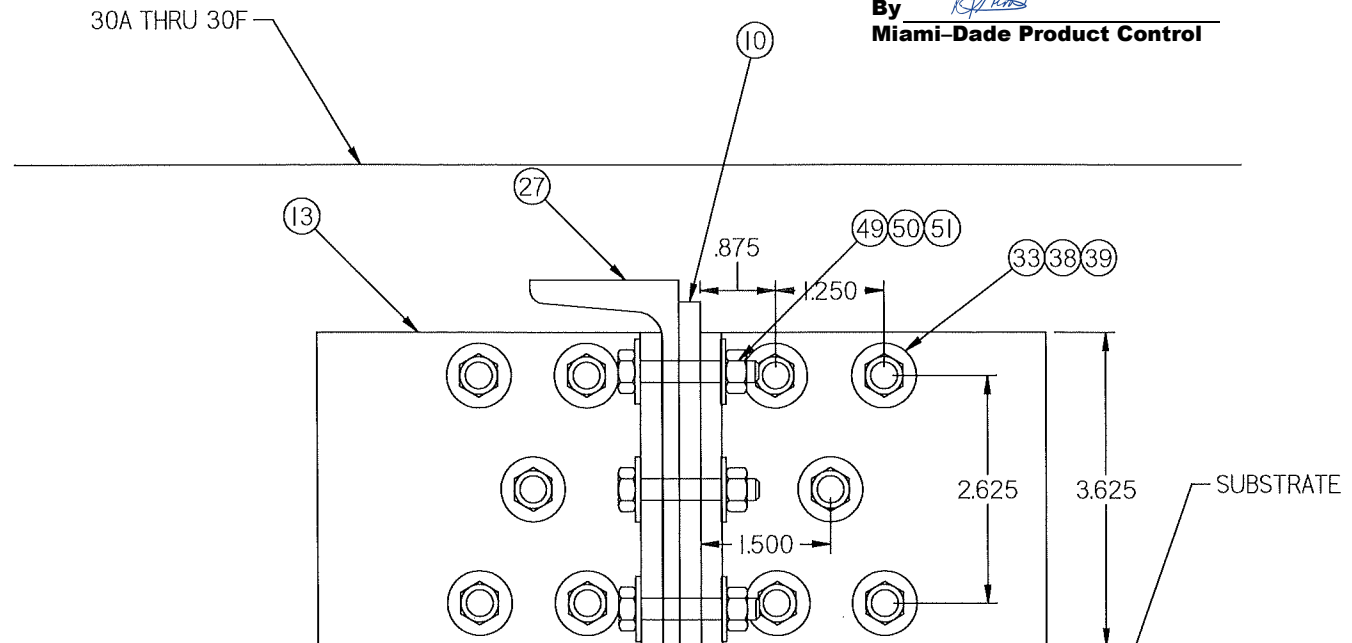
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MULLION ANGLE DIRECT MOUNT (SHOWN HERE AT HEAD) IS FOR SUBSTRATES WHERE MINIMUM FASTENER EDGE DISTANCE CAN BE ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

12A
13/30 MULLION DETAIL
72" BLADE DIRECT CHANNEL
C8 X 18.75 STEEL CHANNEL
ALUM L6 X 3 X 1/4



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.

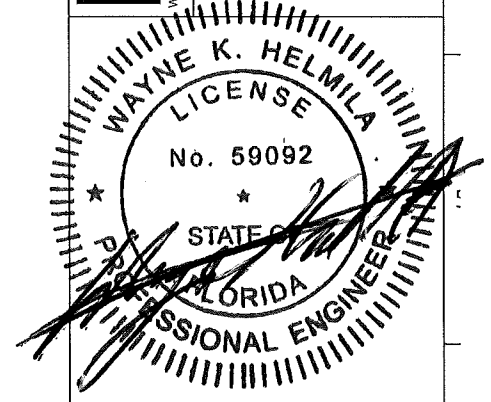
12B
13/30 MULLION DETAIL
72" BLADE BACK OF WALL
MOUNT C8 X 18.75 STEEL
CHANNEL ALUM L6 X 3 X 1/4

REVISIONS:
REV B: RENUMBERED PAGE

CHK BY: MASTOURIAN
 DWN BY: fcortinas
 DATE: 4/30/2026
 SCALE: NTS
 SHEET: 13 OF 30
 DWG. NO. 1605WDM
 REV B

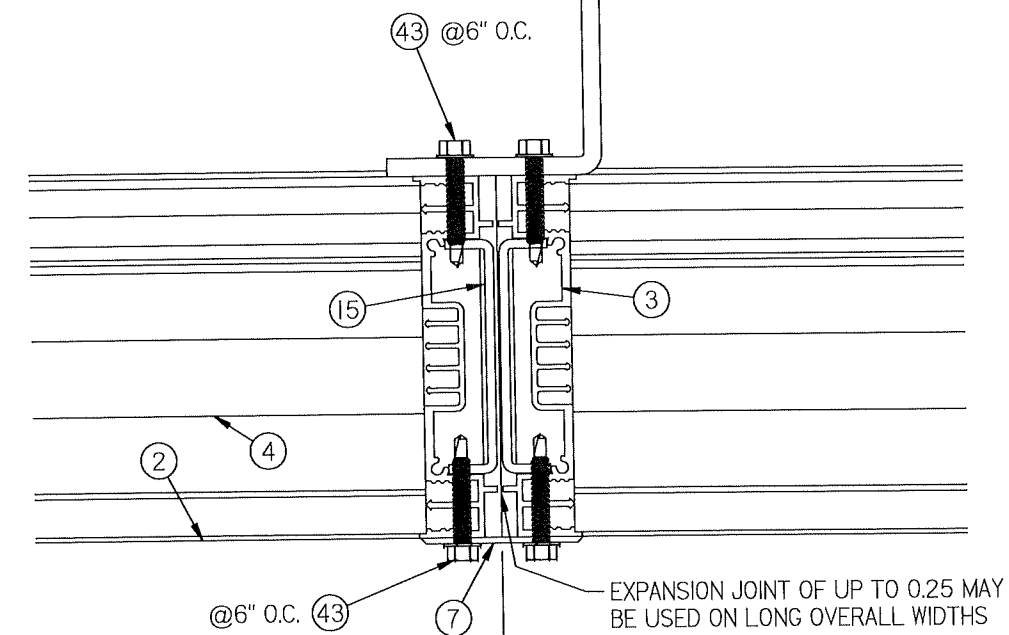
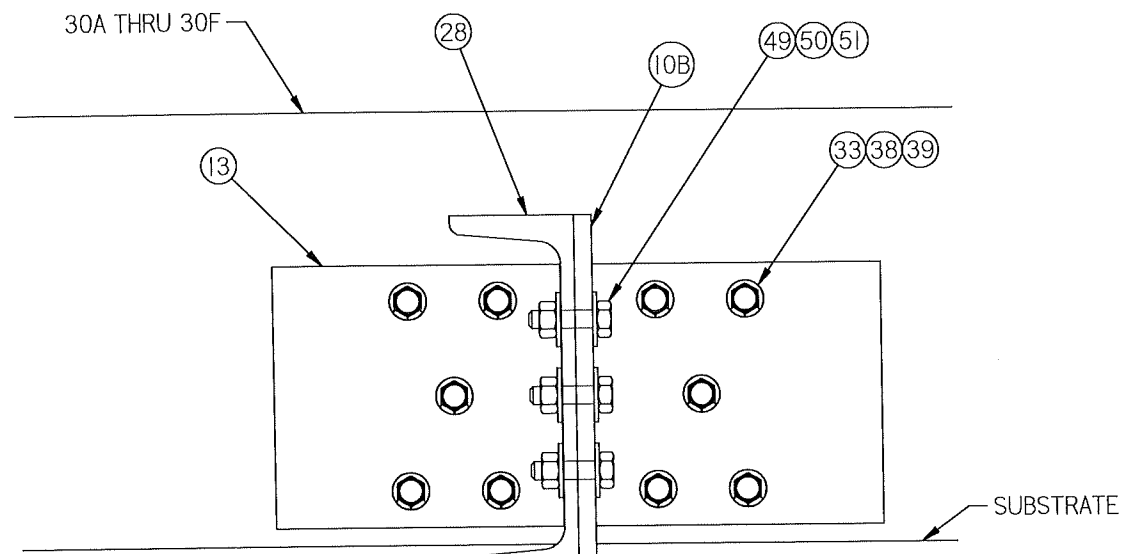
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TITLE:
 1605WDM LOUVER
 COUNTINOUS ANGLE MOUNT
 72" BLADE MULLION DETAIL



JUN 10 2026

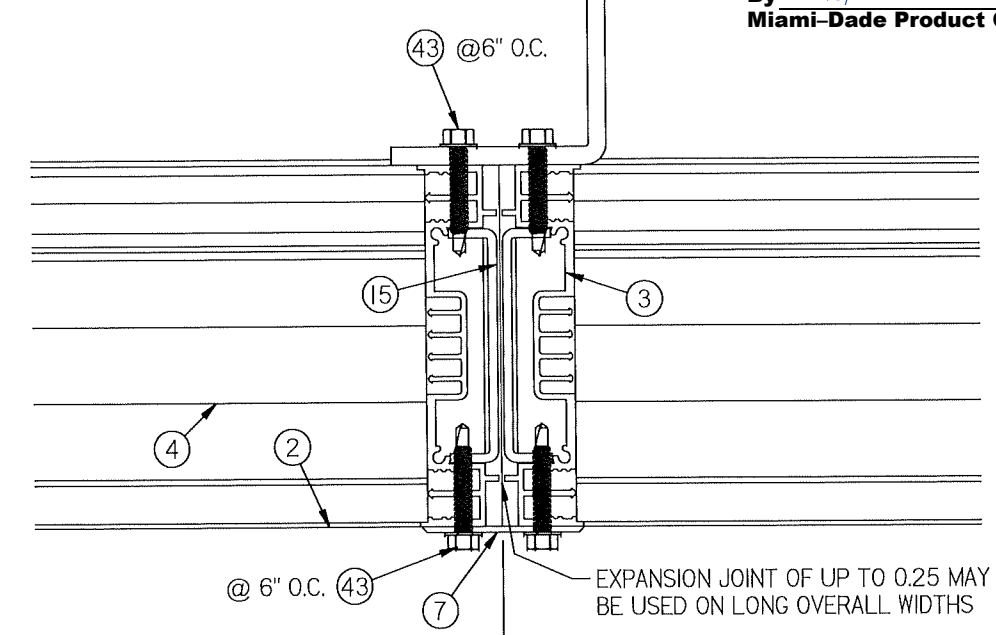
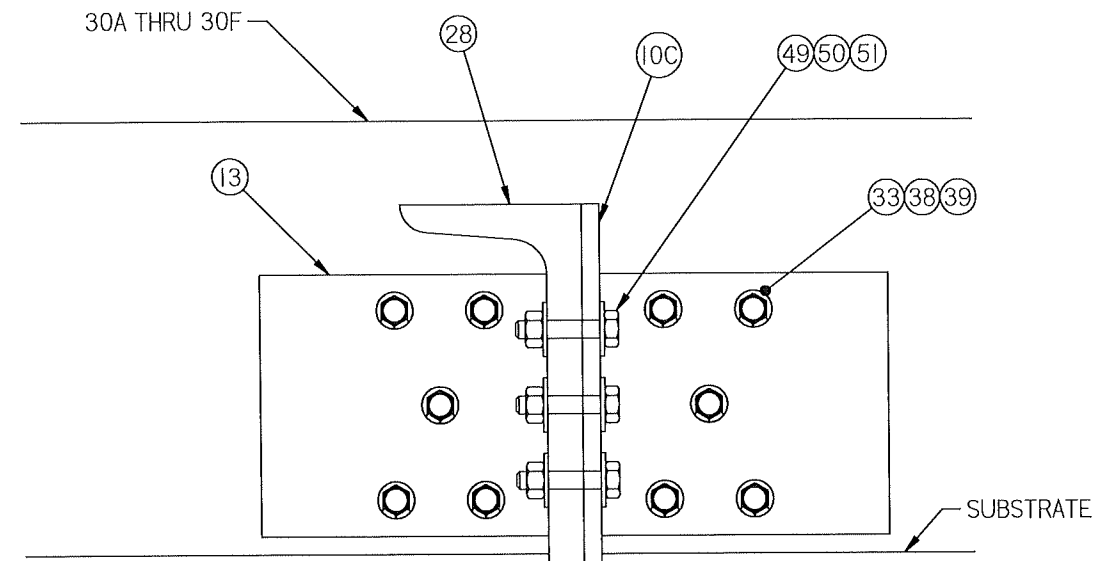
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 Wayne K. Helmila
 Registration No: 59092



ACTUAL LOUVER SECTION WIDTH ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

12C MULLION DETAIL
14/30 72" BLADE BACK OF WALL
C8X18.75 STEEL CHANNEL
AND ALUM 9X3X1/4" ANGLE



ACTUAL LOUVER SECTION WIDTH ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

12D MULLION DETAIL
14/30 72" BLADE BACK OF WALL
C8X18.75 STEEL CHANNEL
AND ALUM 11X3X1/4" ANGLE

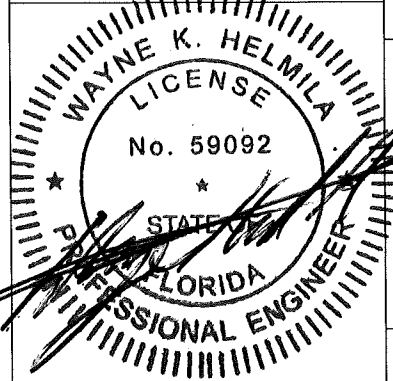
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Expiration Date 08/30/2028
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REVISIONS:
REV B: ADDED PAGE DETAIL 12C, 12D

DWN BY: fcortinas	CHK BY: Mastourian
DATE: 4/30/2026	SCALE: NTS
SHEET: 14 OF 30	
DWG. NO. 1605WDM	REV B

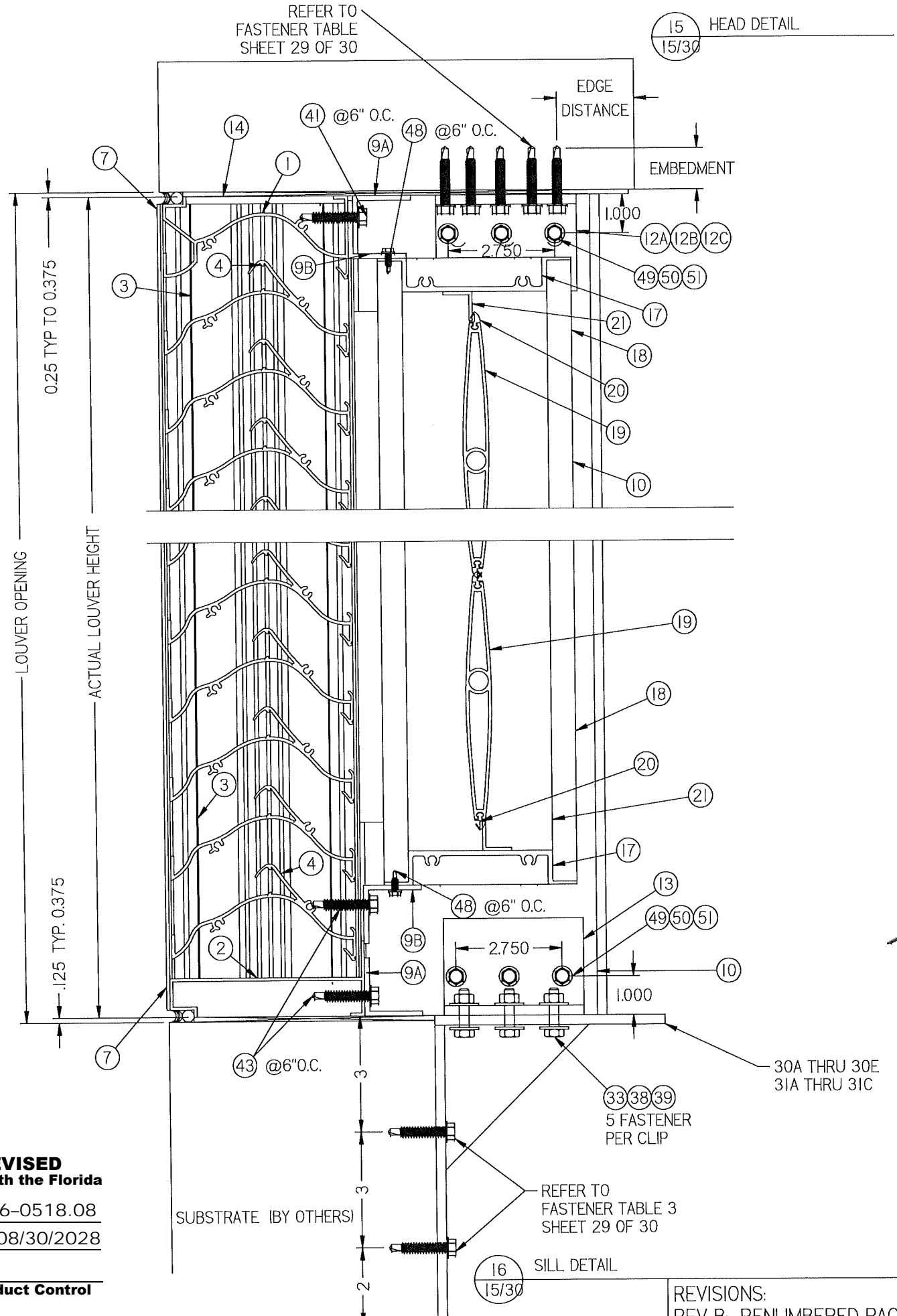
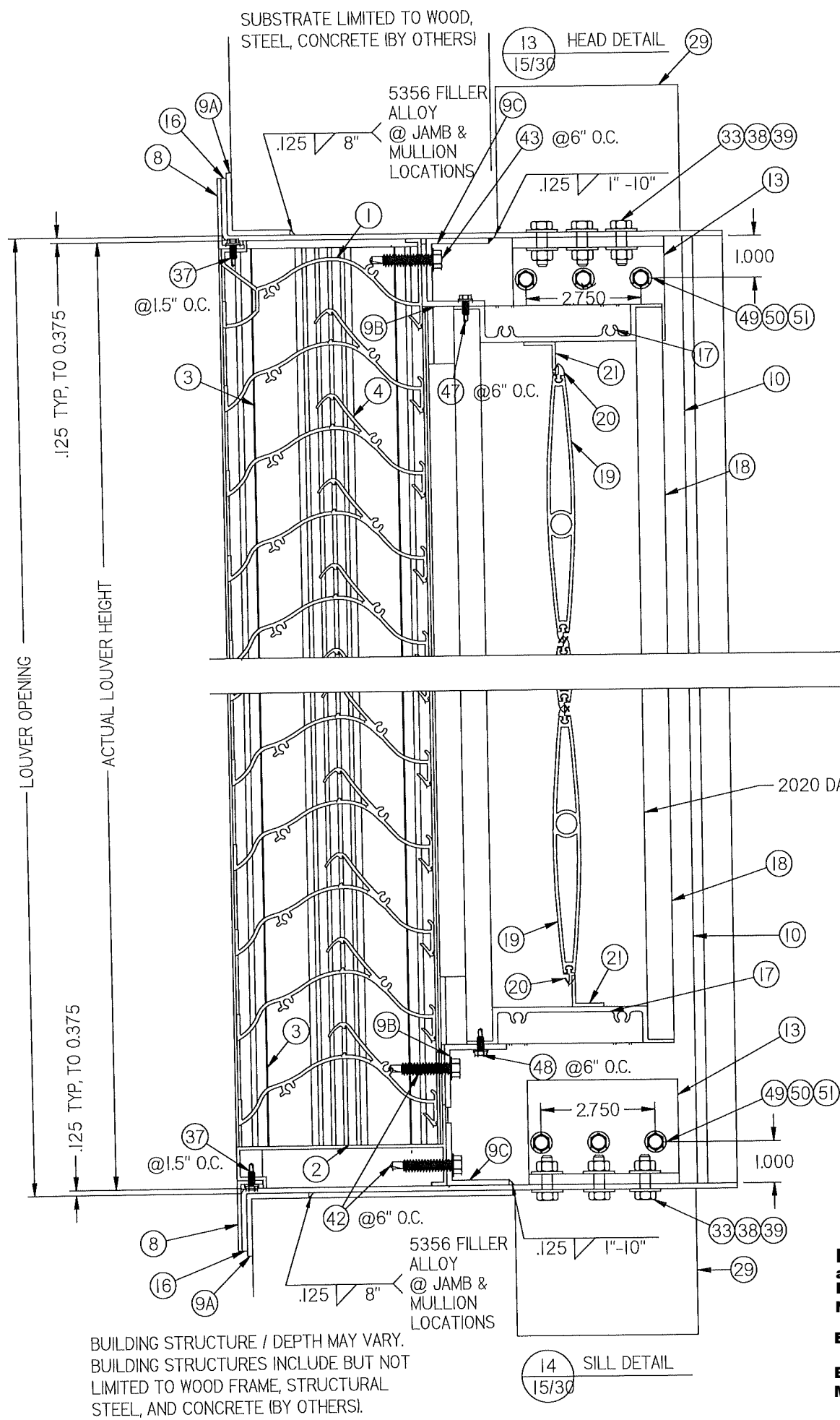
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TITLE:
1605WDM LOUVER
COUNTINOUS ANGLE MOUNT
72" BLADE MULLION DETAIL



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 STEEL, AND CONCRETE (BY OTHERS).

REVISIONS:
 REV B: RENUMBERED PAGE

DWN BY: f cortinas
 DATE: 4/30/2026
 SCALE: NTS

CHK BY: Mastourian

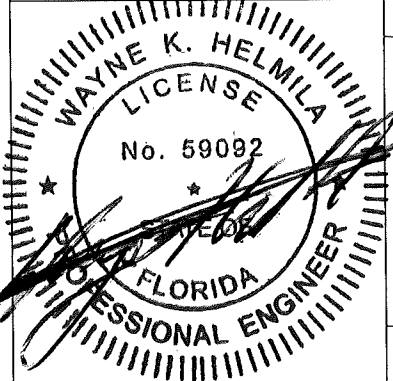
SHEET: 15 OF 30

DWG. NO. 1605WDM

REV B

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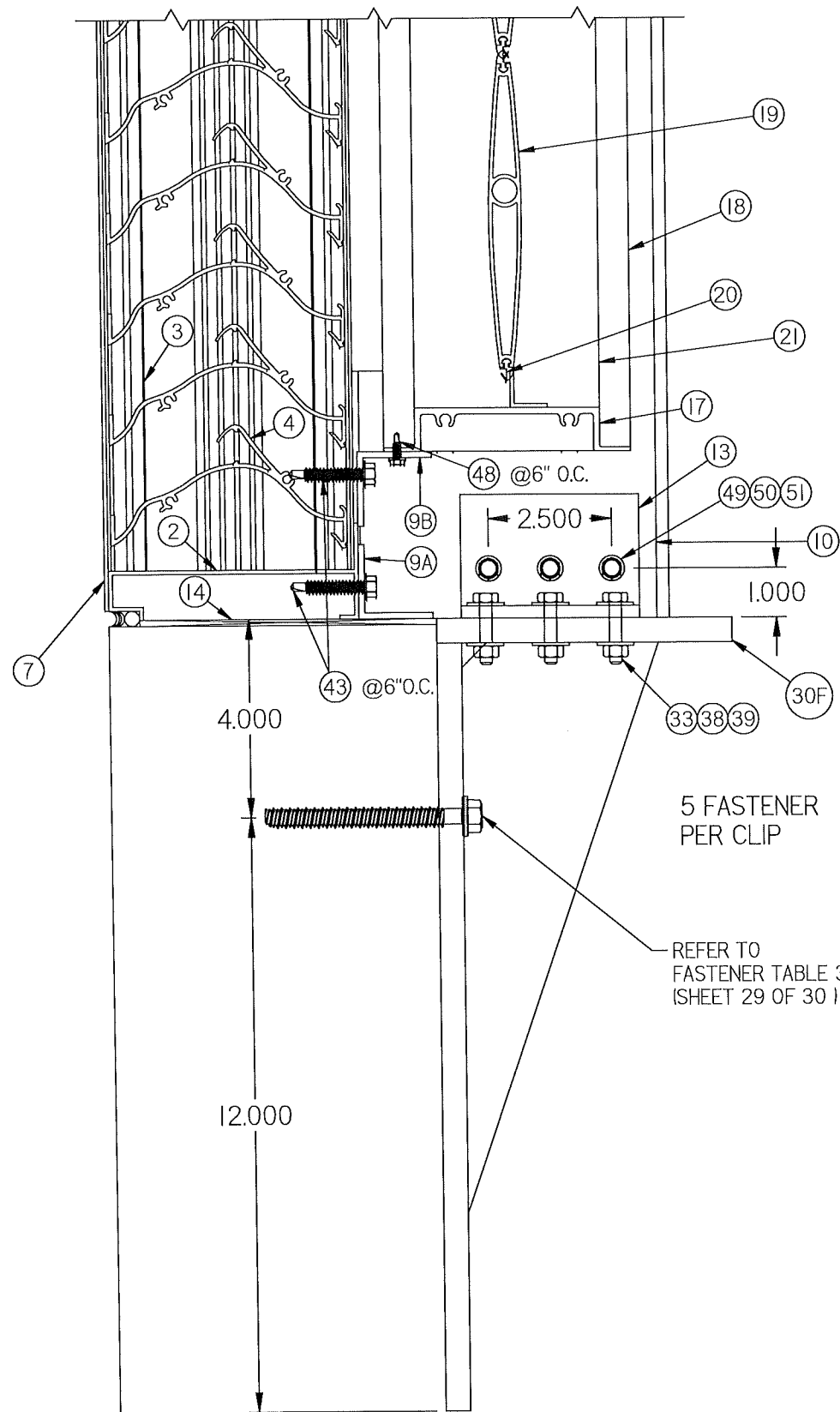
TITLE:
 1605WDM LOUVER / DAMPER
 FLANGE FRAME W/SLEEVE
 CONTINUOUS ANGLE MOUNT
 HEAD & SILL DETAIL



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SUBSTRATE LIMITED TO:
CMU ONLY



5 FASTENER
PER CLIP

REFER TO
FASTENER TABLE 3
(SHEET 29 OF 30)

16 SILL DETAIL
16/30

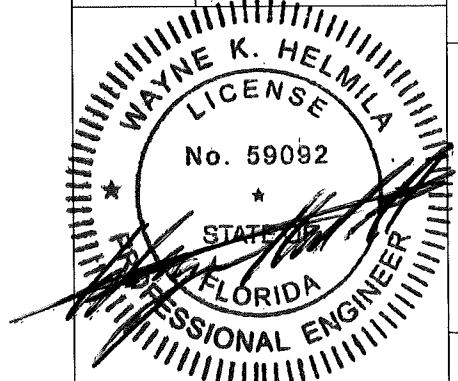
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By *[Signature]*
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REVISIONS:
REV B: ADDED PAGE CMU MULLION ANGLE DETAIL

DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS
SHEET: 16 OF 30
DWG. NO. 1605WDM
REV B

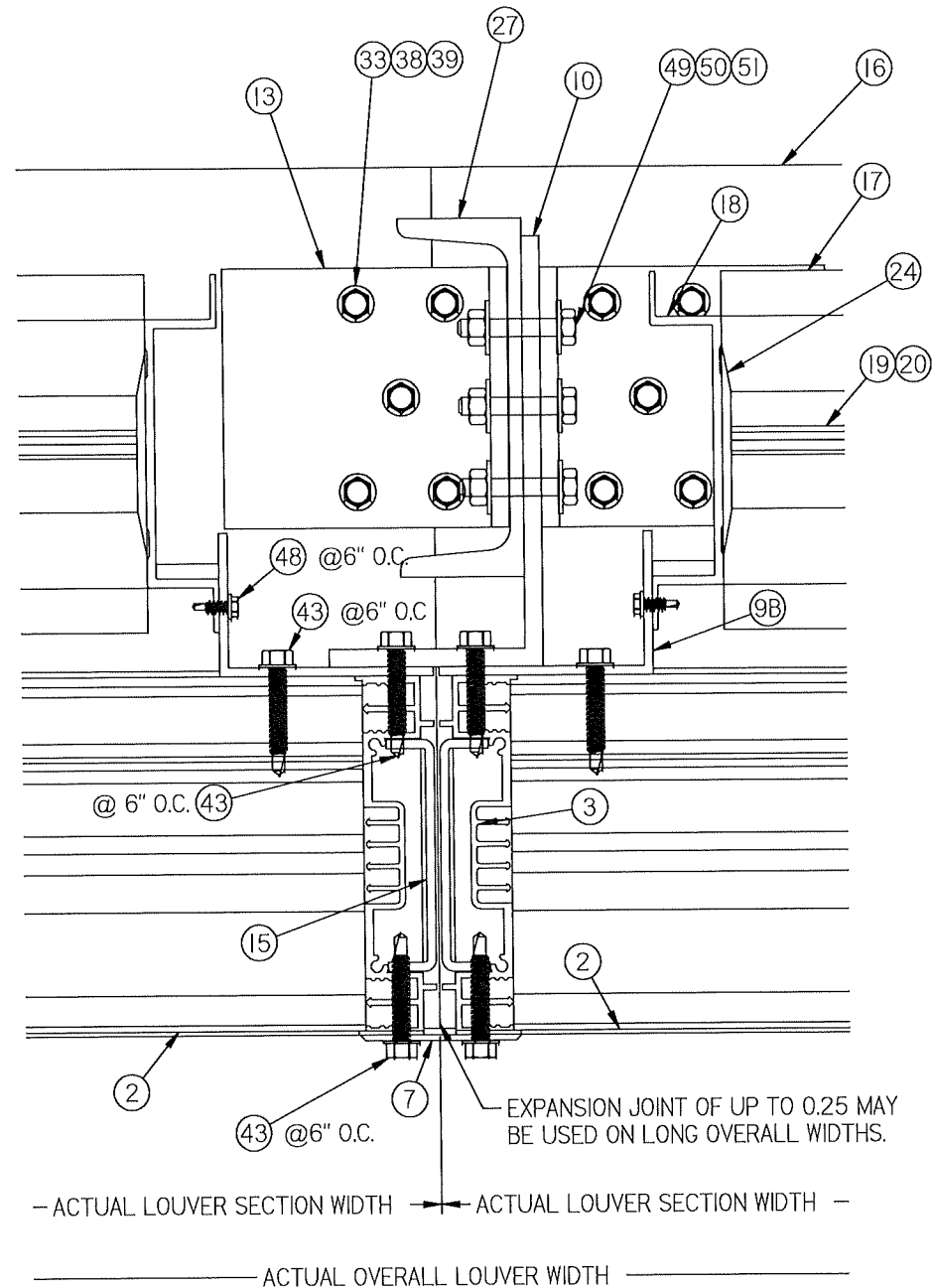
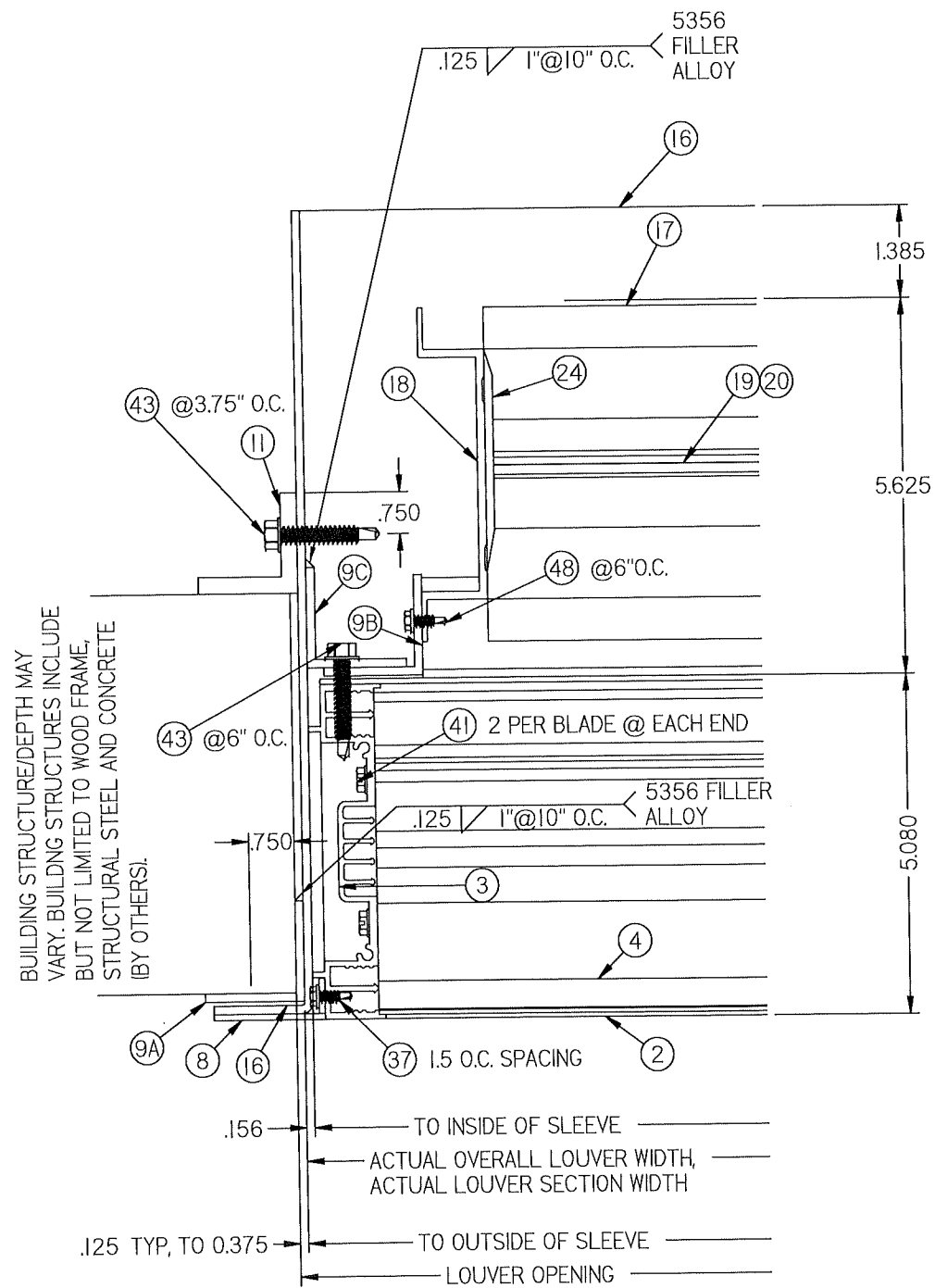
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TITLE: 1605WDM LOUVER
CONTINUOUS ANGLE MOUNT
CMU MULLION ANGLE
HEAD & SILL DETAILS



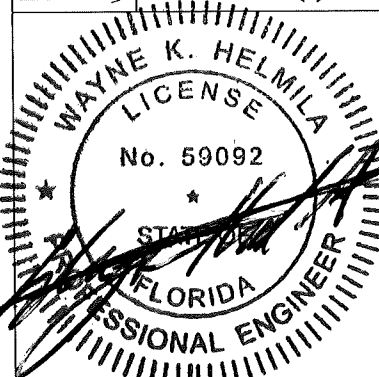
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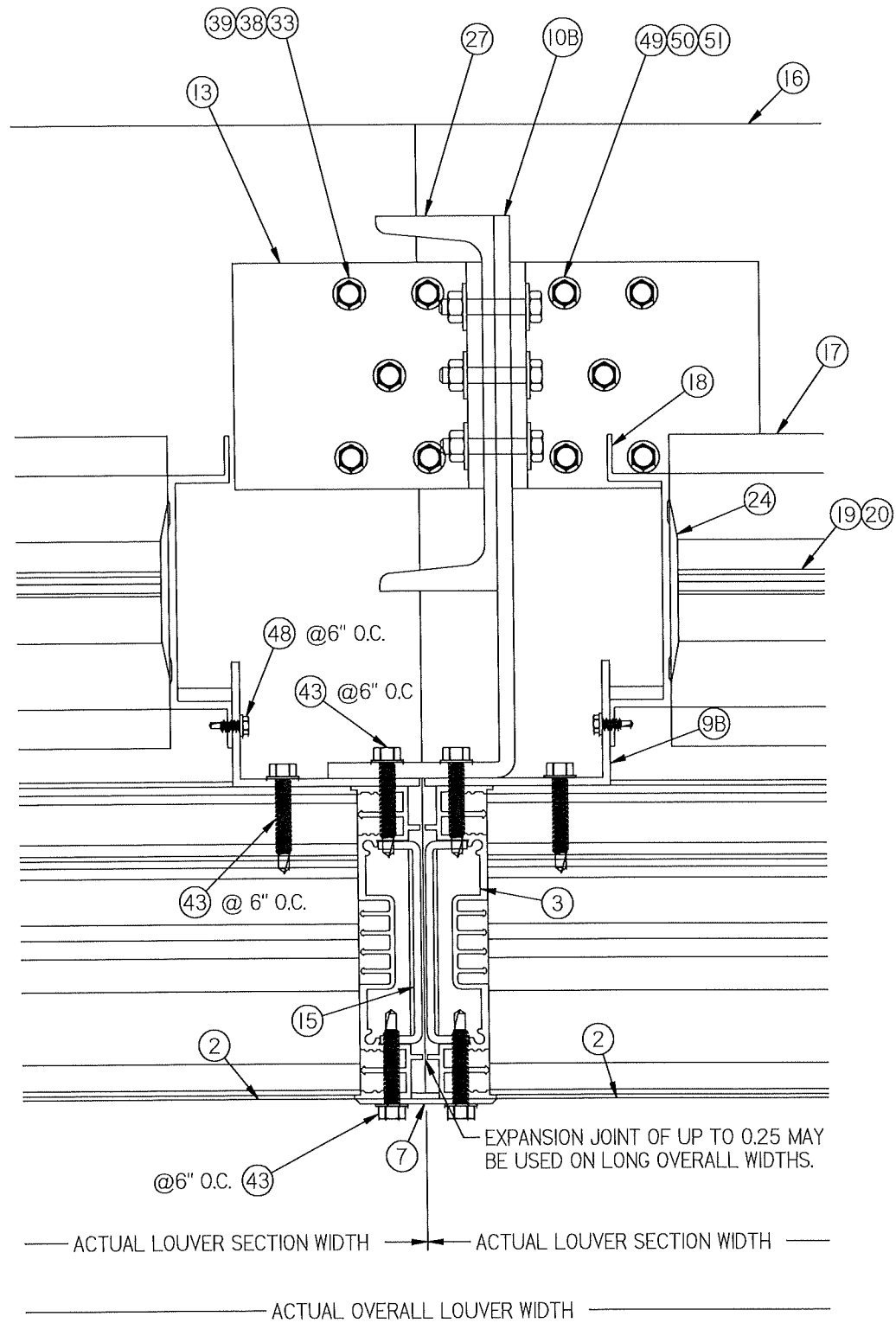
REVISIONS:
REV B: RENUMBERED PAGE

DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS

SHEET: 17 OF 30

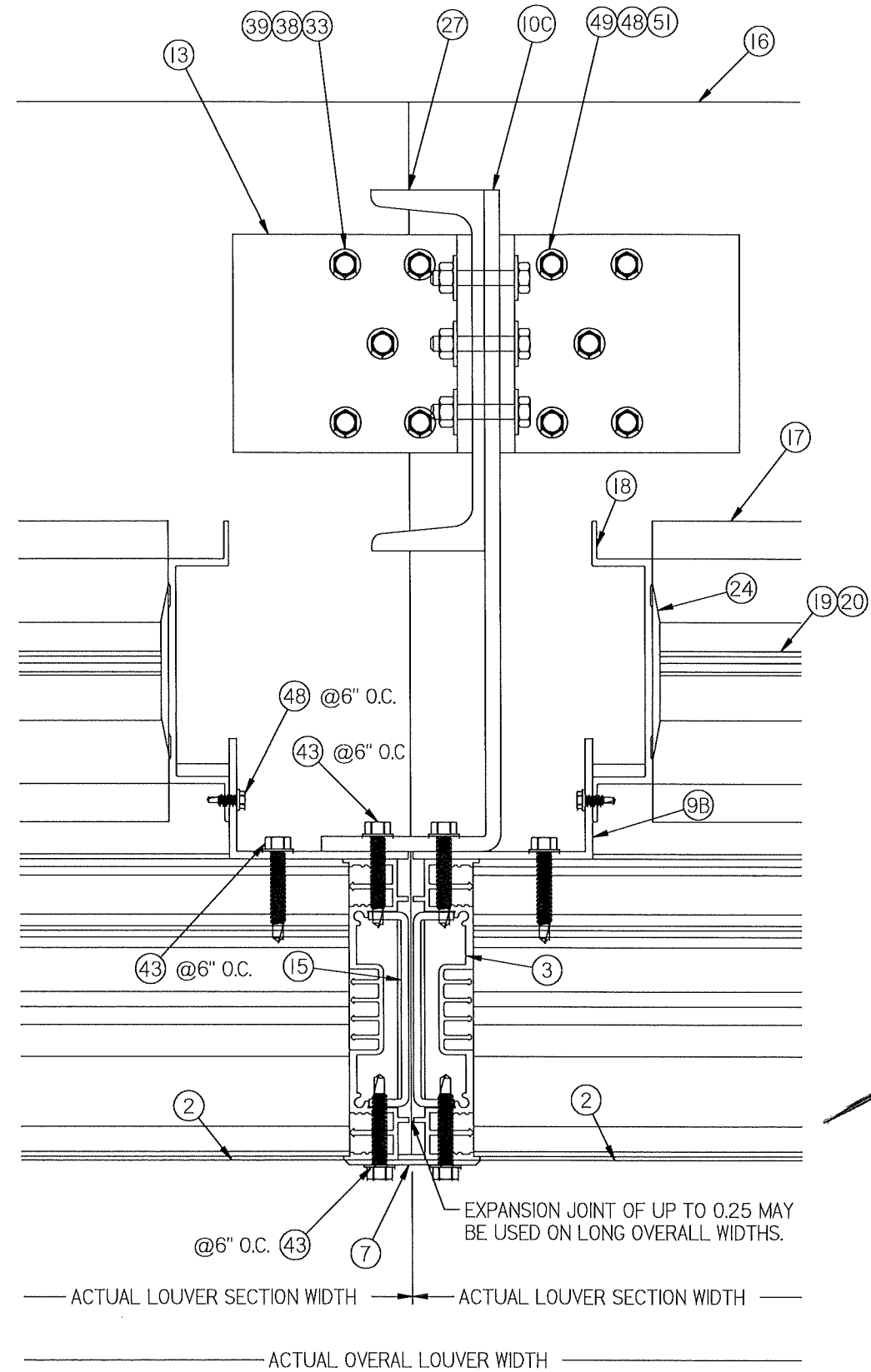
DWG. NO. 1605WDM
REV B

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



18B MULLION DETAIL
18/30 36" BLADE SLEEVE MOUNT
C6X8.2 STEEL CHANNEL
AND ALUM 9X3X1/4" ANGLE

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18C MULLION DETAIL
18/30 36" BLADE SLEEVE MOUNT
C6X8.2 STEEL CHANNEL
AND ALUM 11X3X1/4" ANGLE

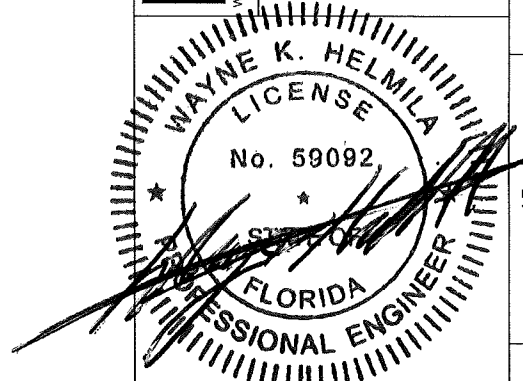
REVISIONS:
REV B: ADDED PAGE MULLION DETAILS

DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS

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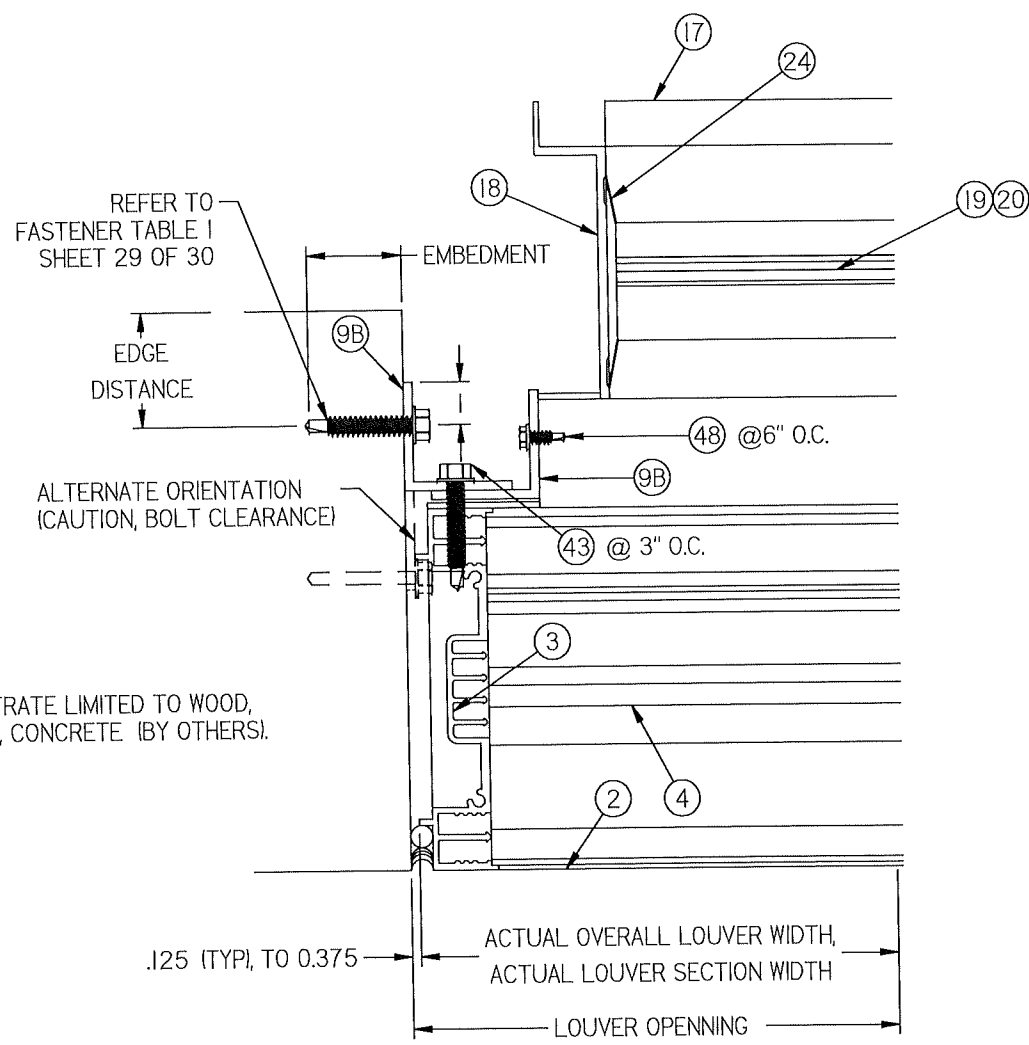
SHEET: 18 OF 30
DWG. NO. 1605WDM
REV B

TITLE:
1605WDM LOUVER / DAMPER
FLANGE FRAME SLEEVE MOUNT
36" BLADE MULLION DETAIL



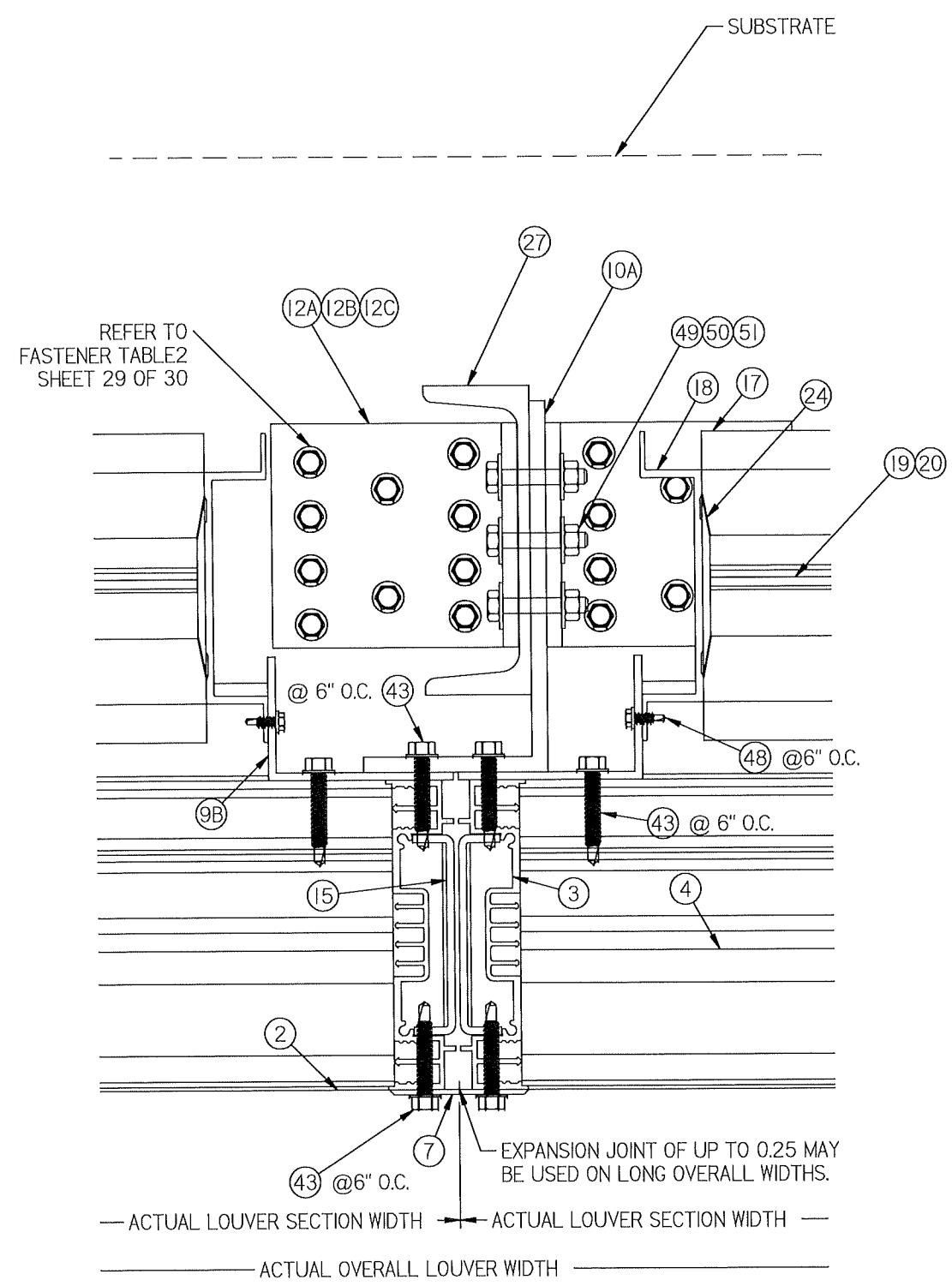
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Registration No: 59092



19 JAMB DETAIL
19/30

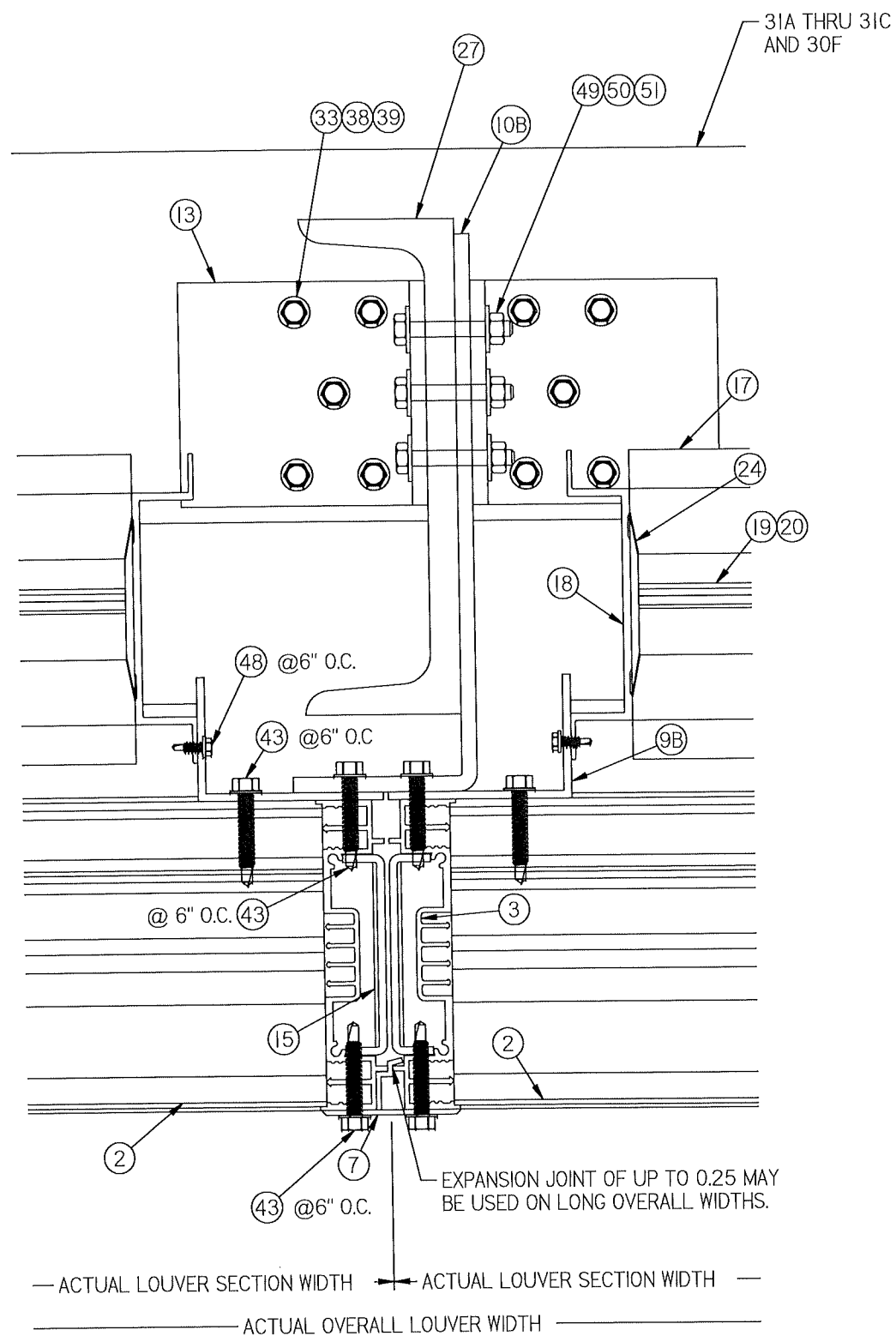
PRODUCT REVISED
 as complying with the Florida
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 Expiration Date 08/30/2028
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20A MULLION ANGLE DIRECT MOUNT DETAIL
19/30

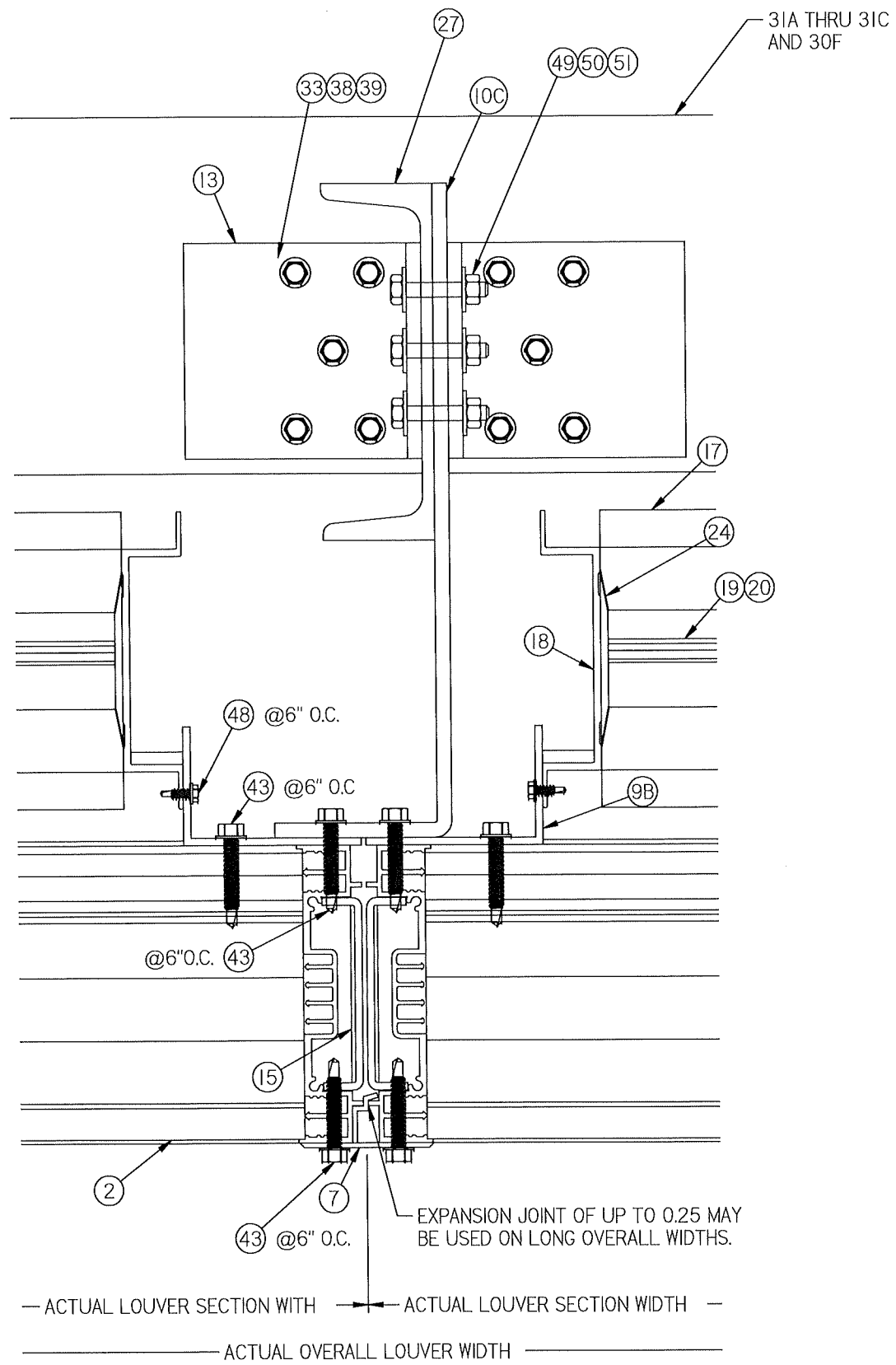
REVISIONS:
 REV B: RENUMBERED PAGE

DWN BY: fcortinas	CHK BY: Mastourian
DATE: 4/30/2026	SCALE: NTS
SHEET: 19 OF 30	
DWG. NO. 1605WDM	REV B
<p>Nailor Industries of Texas, Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com</p>	
<p>TITLE: 1605WDM LOUVER / DAMPER CONTINUOUS ANGLE MOUNT JAMB AND MULLION DETAIL</p>	
<p>JUN 10 2026</p>	
<p>RICE ENGINEERING 105 School Creek Trail Luxemburg, WI 54217 Phone: (920) 617-1042 Fax: (920) 617-1100 www.rice-inc.com</p>	
<p>Florida Firm No: F-01000005061 Certificate of Authorization: #9090 Wayne K. Helmila Registration No: 59092</p>	



20B MULLION DETAIL
20/30 36" BLADE BACK OF WALL MOUNT
C6X8.2 STEEL CHANNEL
AND ALUM 9X3X1/4" ANGLE

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 26-0518.08
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control



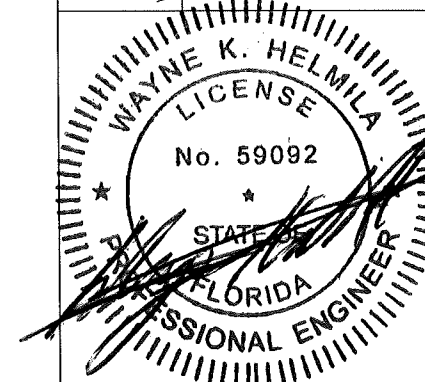
20C MULLION DETAIL
20/30 36" BLADE BACK OF WALL MOUNT
C6X8.2 STEEL CHANNEL
AND ALUM 11X3X1/4" ANGLE

REVISIONS:
REV B: ADDED PAGE MULLION DETAILS

DWN BY: fcortinas	CHK BY: Mastourian
DATE: 4/30/2026	SCALE: NTS
SHEET: 20 OF 30	
DWG. NO.	REV B
1605WDM	

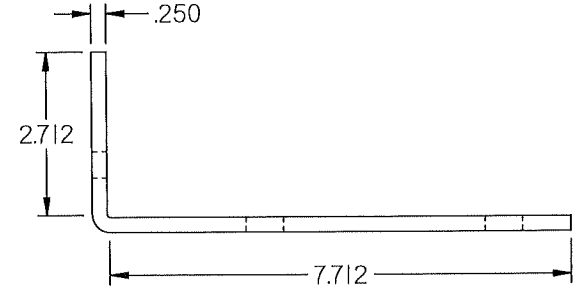
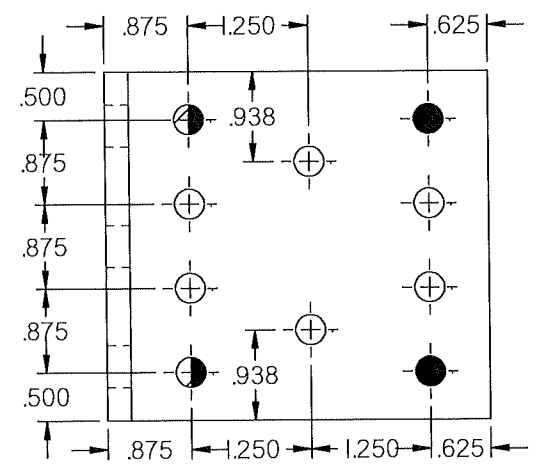
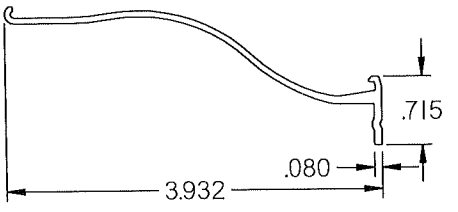
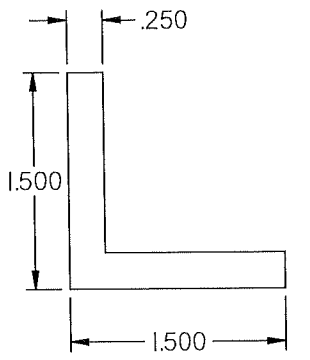
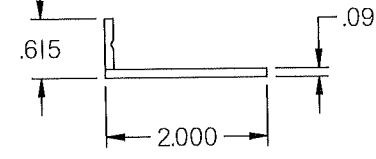
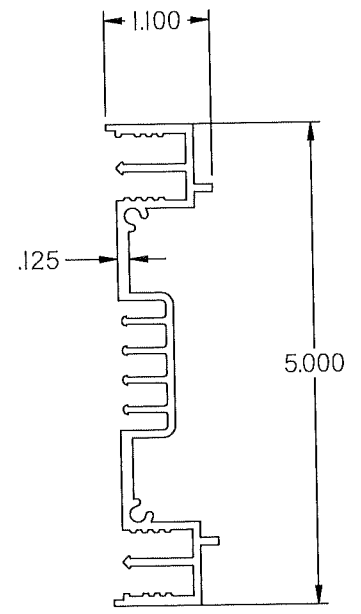
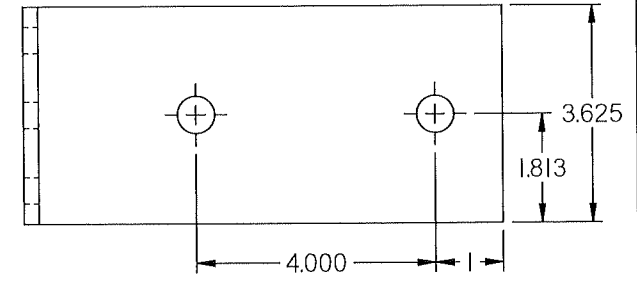
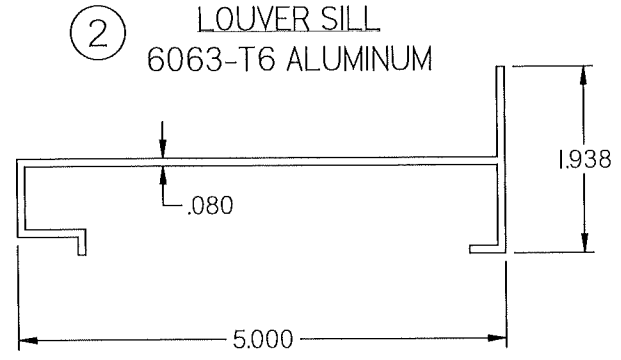
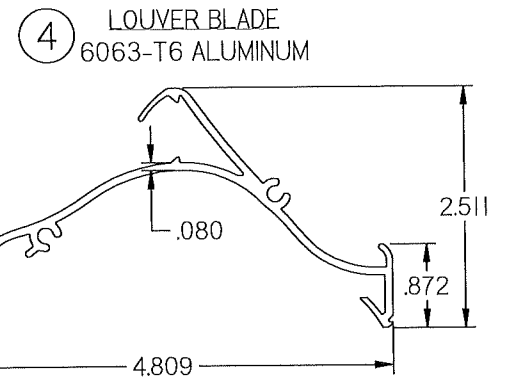
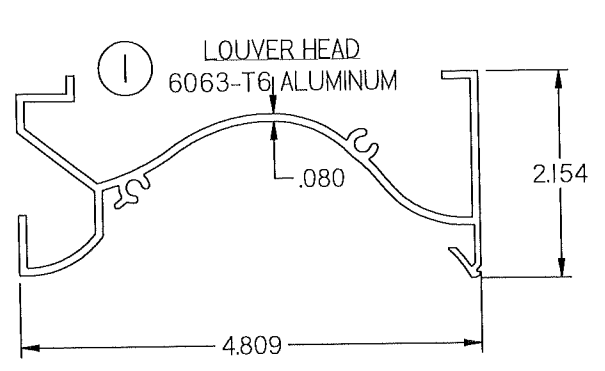
Nailor Industries of Texas, Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE:
1605WDM LOUVER / DAMPER
CONTINUOUS ANGLE MOUNT
36" BLADE MULLION DETAIL

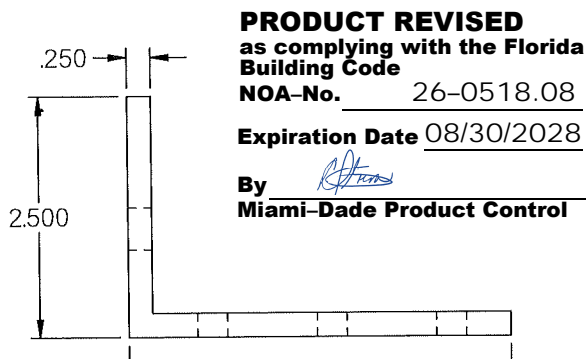
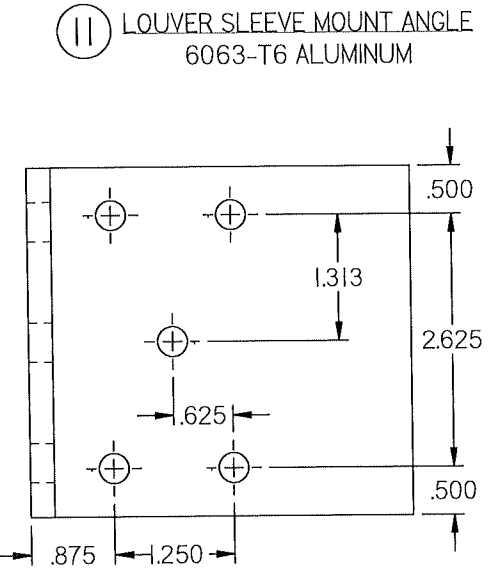
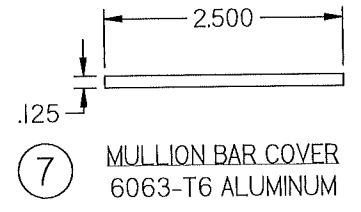
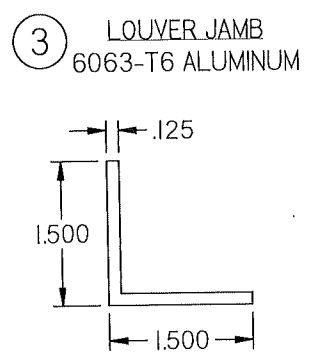


JUN 10 2026

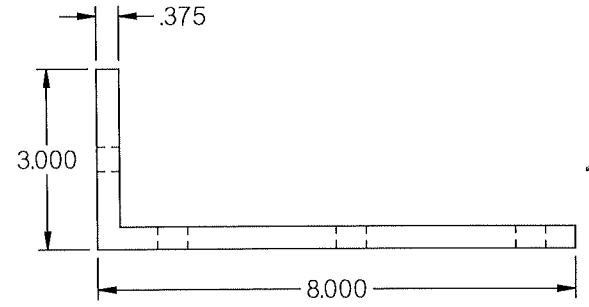
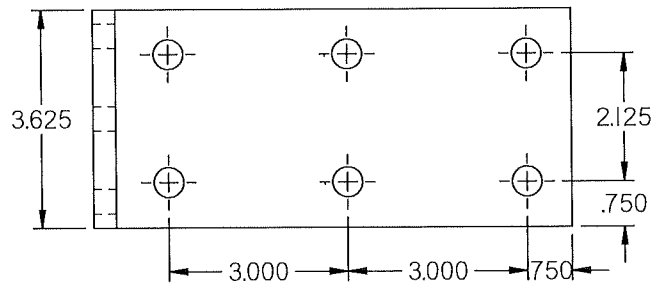
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmla
Registration No: 59092



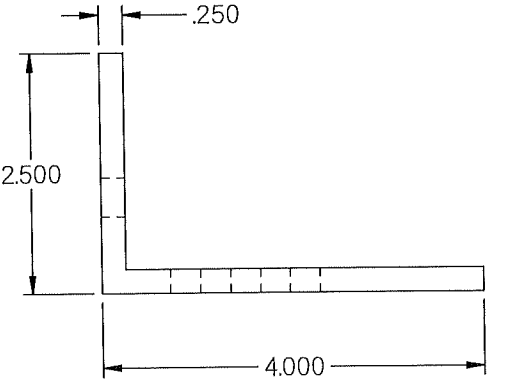
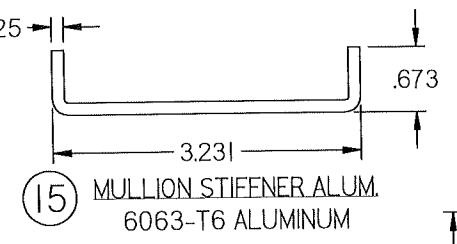
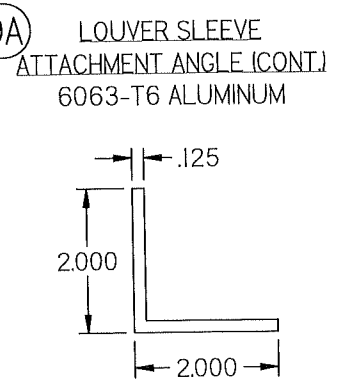
(12C) MULLION MOUNTING ANGLE
3.00 X 8.00 X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR (2) 5/8" HILTI KWIK BOLT TZ2 SS 304 ANCHOR



(12A) MULLION MOUNTING ANGLE
4.00 X 2.50 X 0.25 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR (10) 1/4" DIA SS LAG SCREW

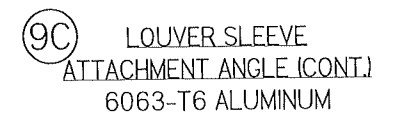
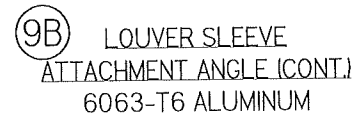


(12B) MULLION MOUNTING ANGLE
3.00 X 8.00 X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR (6) 1/2" DIA SS LAG SCREW



(12A) FOR (4) 1/4" DIA SS BI-FLEX SCREWS
FOR (2) 5/16" DIA DRILL-FLEX SCREWS

(12B) INSTALLATION HOLES
INSTALLATION HOLES



(13) SLEEVE ATTACHMENT ANGLE
4.00 X 2.50 X 0.25 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR (5) 1/4" DIA SS 18-8 CAP SCREW

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 26-0518.08
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

REVISIONS:
REV B: RENUMBERED PAGE
REMOVED ITEM# 10

DWN BY: fcortinas
DATE: 4/30/2026
SCALE: NTS
CHK BY: Mastourian

Nailor Industries of Texas, Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
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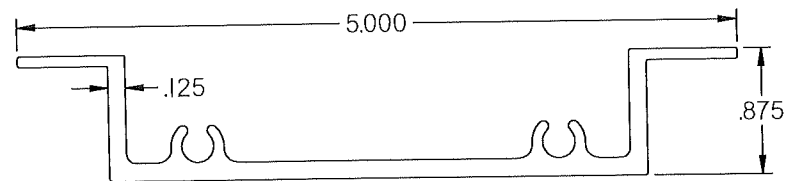
TITLE:
1605WDM LOUVER,
W/ AND W/O DAMPER
SLEEVE/CONTINUOUS MOUNT
PART PROFILES

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
JUN 10 2026

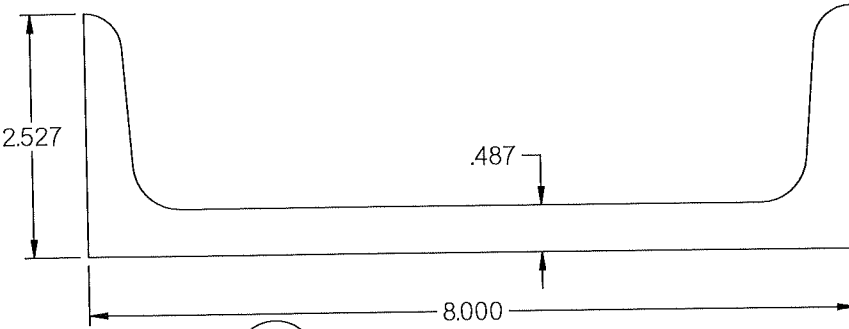
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

SHEET: 21 OF 30

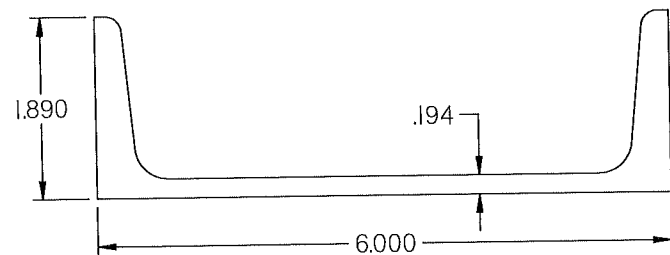
DWG. NO. 1605WDM
REV B



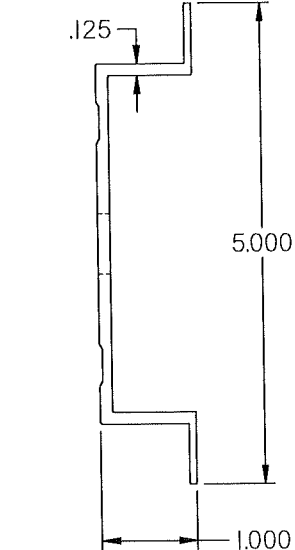
17 DAMPER HEAD/SILL
6063-T6 ALUMINUM



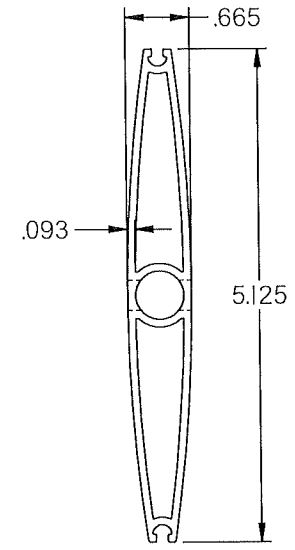
27B LOUVER BRACE
SUPPORT CHANNEL
C8X18.75 ASTM A36 STEEL CHANNEL



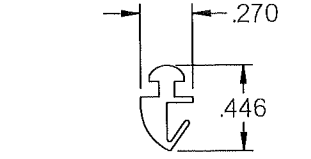
27A LOUVER BRACE
SUPPORT CHANNEL
C6X8.2 ASTM A36 STEEL CHANNEL



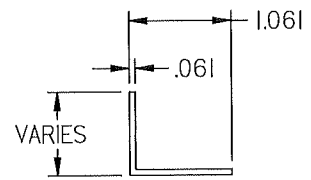
18 DAMPER JAMB
6063-T6 ALUMINUM



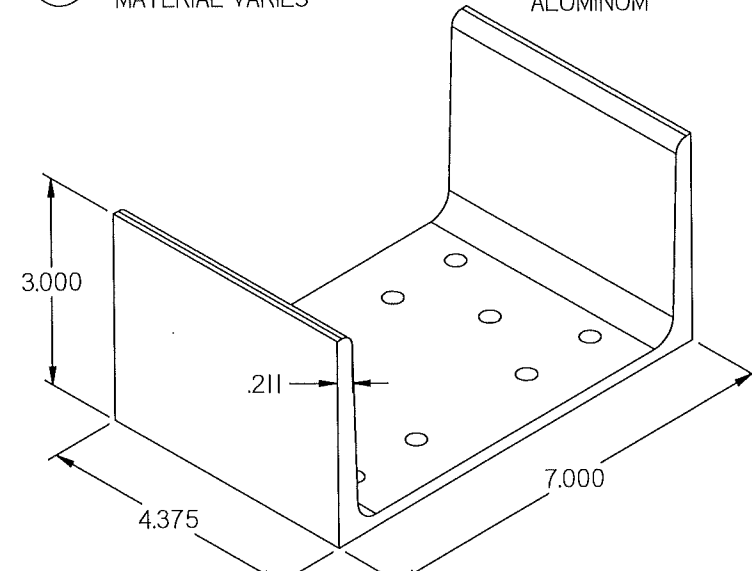
19 DAMPER BLADE
6063-T6 ALUMINUM



20 DAMPER BLADE SEAL
MATERIAL VARIES

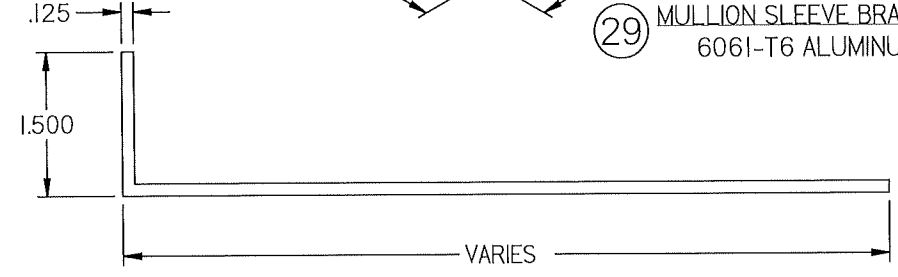


21 DAMPER TOP/BOTTOM
CLOSER
ALUMINUM



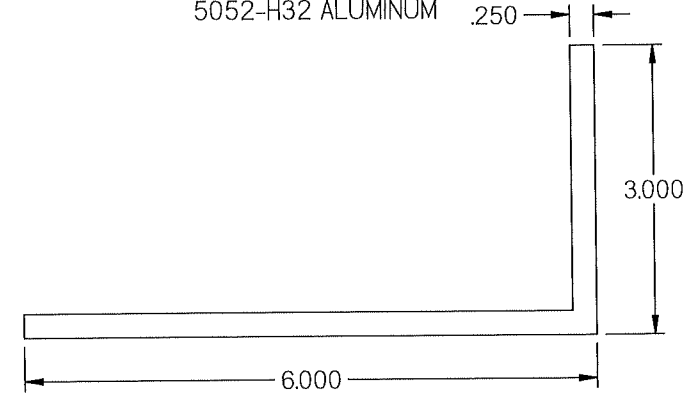
29 MULLION SLEEVE BRACKET
6061-T6 ALUMINUM

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 26-0518.08
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control



16 FORMED SLEEVE ALUM.
5052-H32 ALUMINUM

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

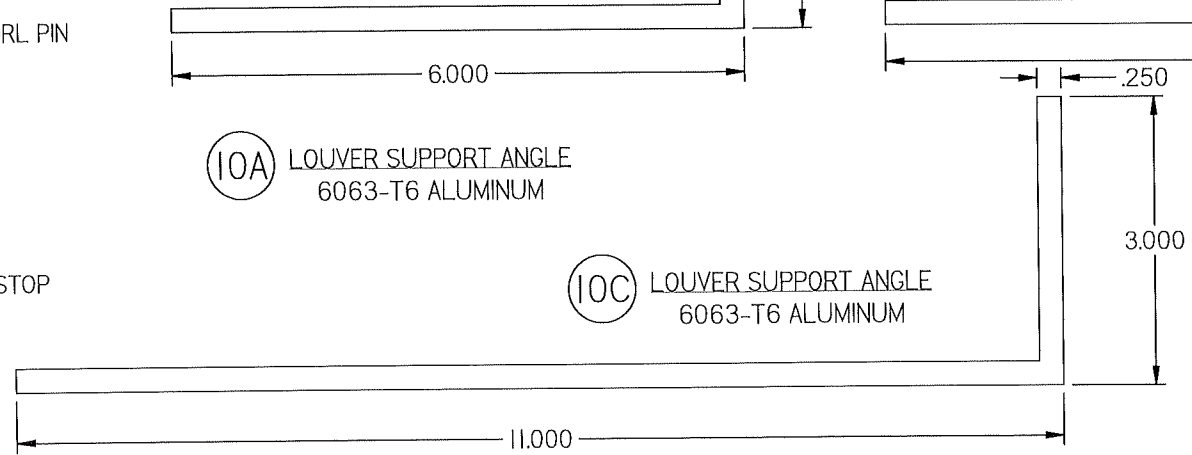


10A LOUVER SUPPORT ANGLE
6063-T6 ALUMINUM

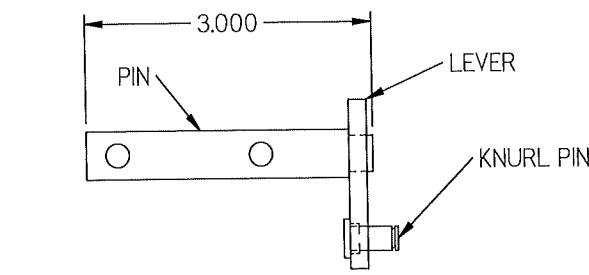
10B LOUVER SUPPORT ANGLE
6063-T6 ALUMINUM



10C LOUVER SUPPORT ANGLE
6063-T6 ALUMINUM

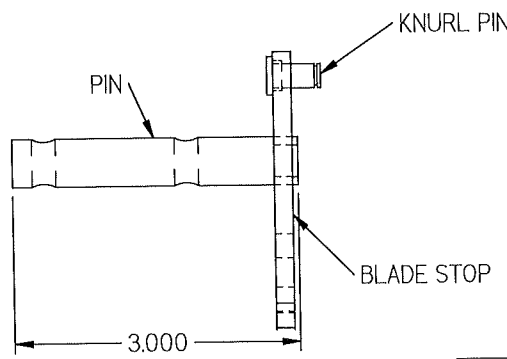


22 DAMPER BUSHING
MATERIAL VARIES



25 NON DRIVE DAMPER AXEL ASM
MATERIAL VARIES

23 DAMPER LINKAGE BAR
MATERIAL VARIES



26 DRIVE SIDE DAMPER AXLE ASM
MATERIAL VARIES

24 DAMPER JAMB SEAL
STAINLESS STEEL

DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS



JUN 10 2026

RICE
ENGINEERING
105 School Creek Trail
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Phone: (920) 617-1042
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Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmla
Registration No: 59092

REVISIONS:
REV B: RENUMBERED PAGE,
ADDED ITEM # 10A, 10B, 10C, 27B
RENUMBERED 27A WAS 27
REMOVED ITEM# 30

SHEET: 22 OF 30
DWC. NO. 1605WDM
REV B
TITLE: 1605WDM LOUVER
W/ AND W/O DAMPER
SLEEVE/CONTINUOUS MOUNT
PART PROFILES CONT.

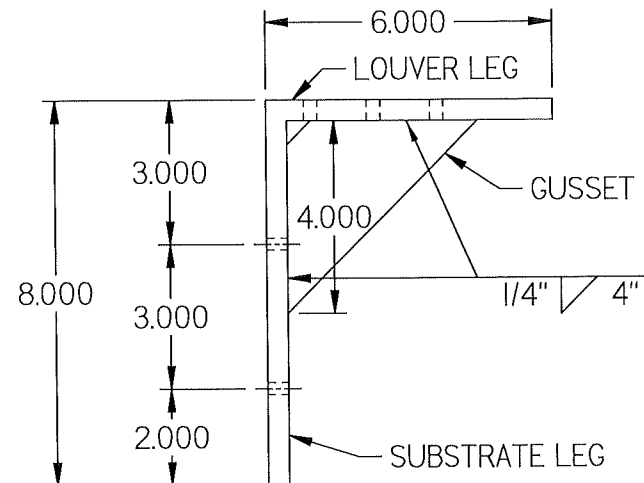
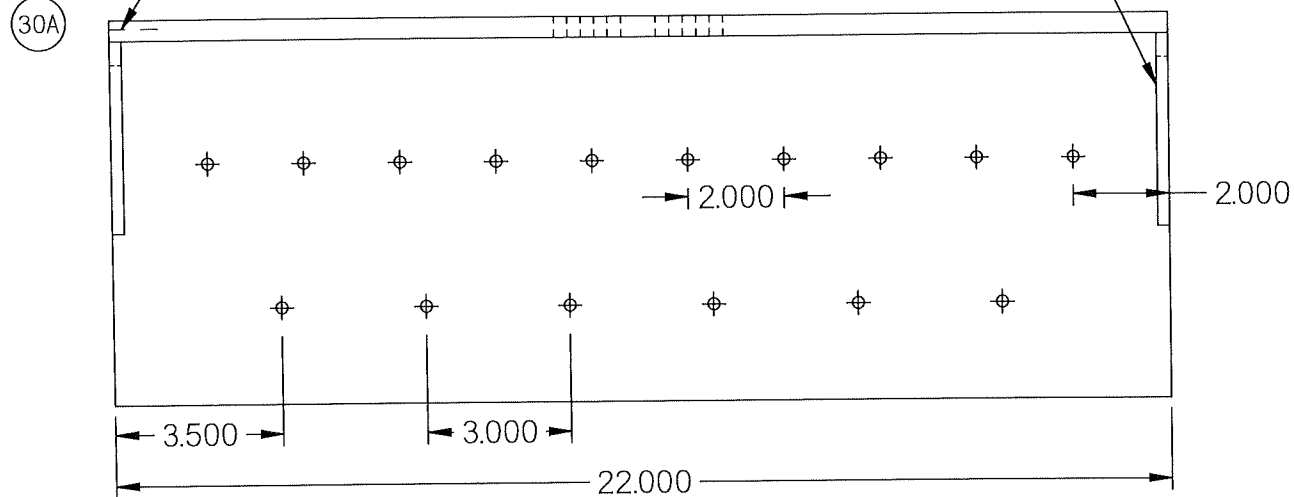
PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 26-0518.08
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control

MULLION MOUNTING BRACKET
 FOR MULLION ANGLE BACK OF WALL MOUNT
 ASTM A36

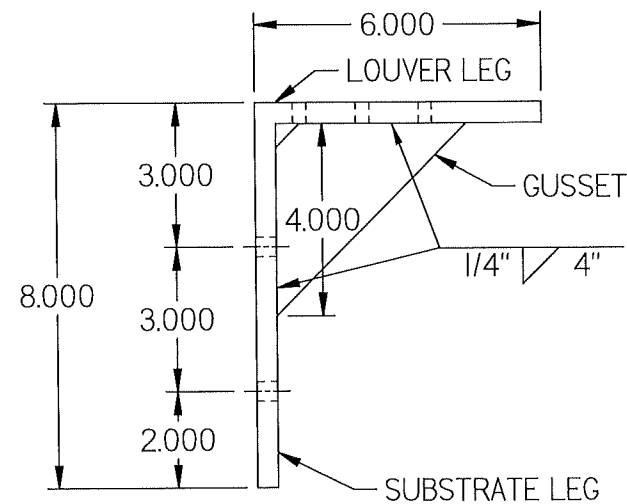
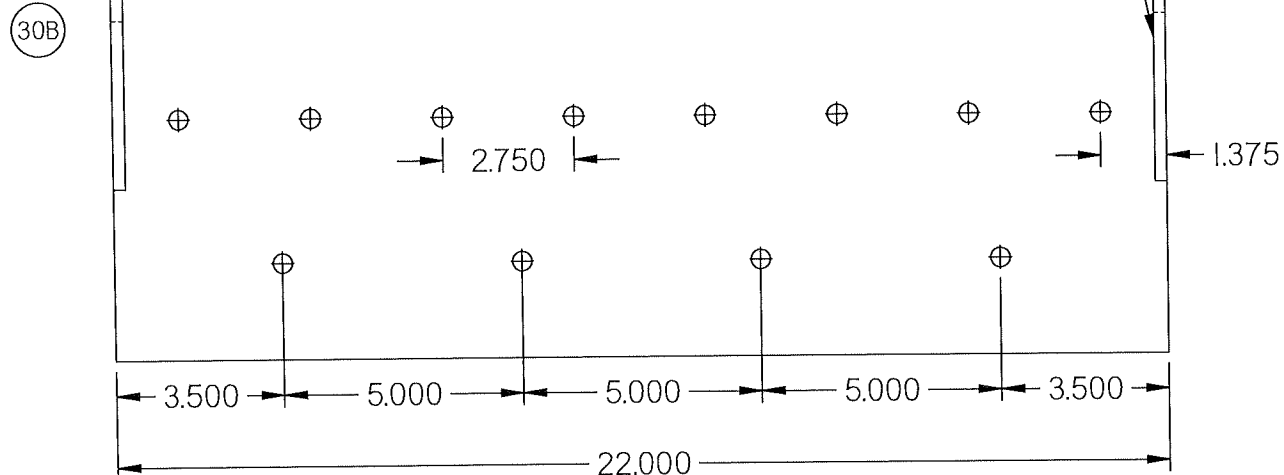
L8X6"X7/16" STEEL ANGLE X 22" LONG
 (A36 OR BETTER) TYPICAL
 w/ (2) 1/4" X4" GUSSET PLATES WELDED TO EACH END

GUSSET SUPPORT
 4 X 4 TRIANGLE
 ONE NEAR EACH END

1/4" DIA LAG SCREWS ANCHORS:
 USE (16) 1/4" DIA X 6" LONG
 STANDARD HEX S.S. SERIES 300
 LAG SCREW
 3-11/32" FULL THREAD ENGAGEMENT
 1" MIN. EDGE/END DISTANCE
 SPACING AS SHOWN
 ASSUME: SPRUCE/PINE/FIR, SG=0.42

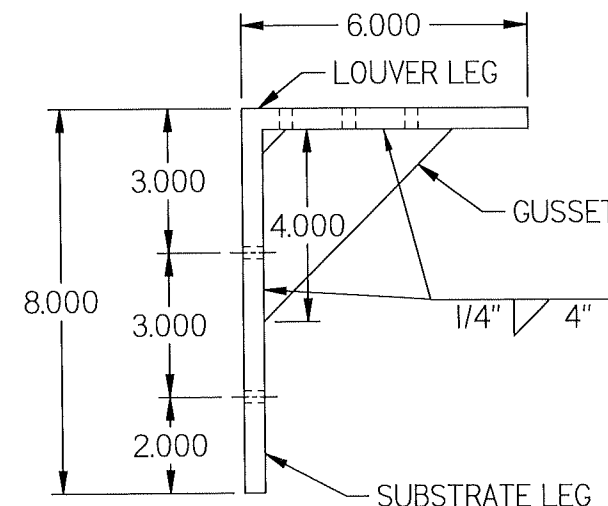
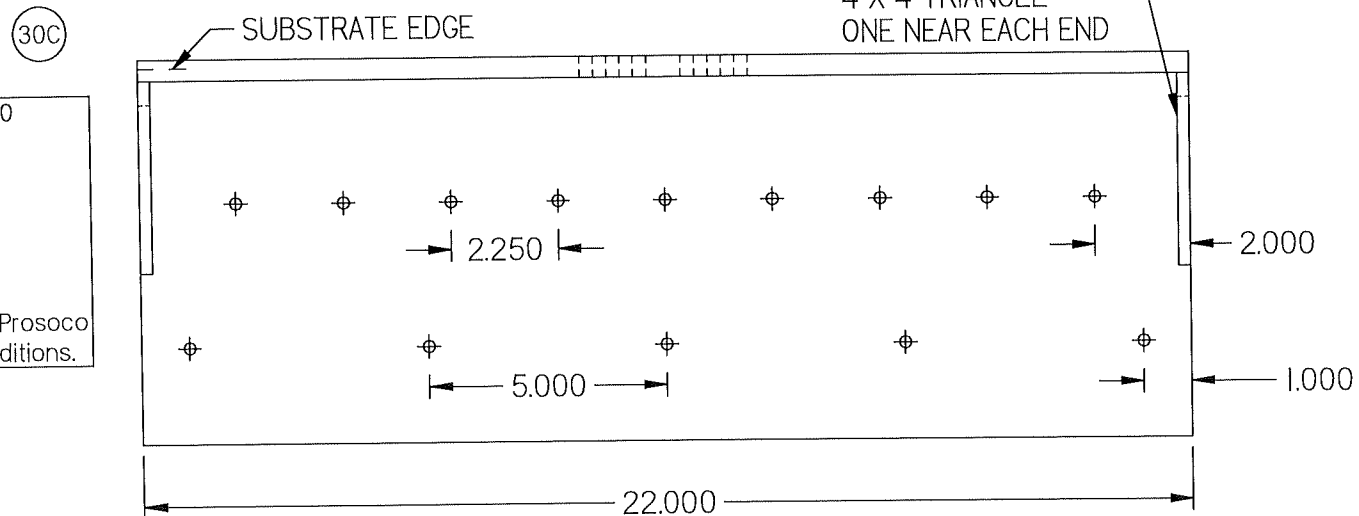


3/8" DIA LAG SCREWS ANCHORS:
 USE (12) 3/8" DIA X 6" LONG
 STANDARD HEX S.S. SERIES 300
 LAG SCREW
 3-9/32" FULL THREAD ENGAGEMENT
 1-1/2" MIN. EDGE/END DISTANCE
 SPACING AS SHOWN
 ASSUME: SPRUCE/PINE/FIR, SG=0.42



1/4"-20 DIA S.S. ELCO BI-FLEX
 AND DRIL FLEX ANCHORS:

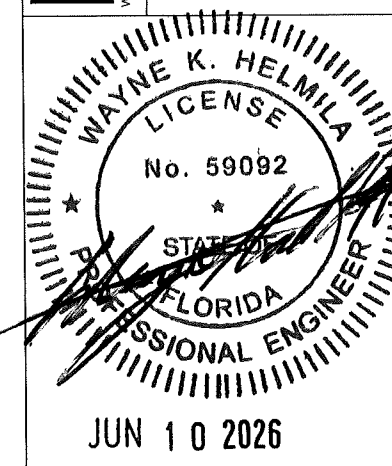
USE (14) 1/4" DIA S.S. SERIES 300
 ELCO DRIL-FLEX OR
 ELCO DRIL-FLEX FASTENERS
 FULL THREAD ENGAGEMENT
 1" MIN. EDGE/END DISTANCE
 SPACING AS SHOWN
 ASSUME: 1/4" STEEL (A-36)
 Seal Drill-Flex Fasteners with Liquid Prosoco
 Flashing if exposed to Exterior Conditions.



REVISIONS:
 REV B: RENUMBERED PAGE, UPDATED BRACKETS

CHK BY: Mastourian
 DWN BY: fcortinas
 DATE: 4/30/2026
 SCALE: NTS
 SHEET: 23 OF 30
 REV B
 DWG. NO. 1605WDM

Nailor Industries of Texas, Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com
 TITLE: 22" MULLION ANGLES
 BACK OF THE WALL MOUNT

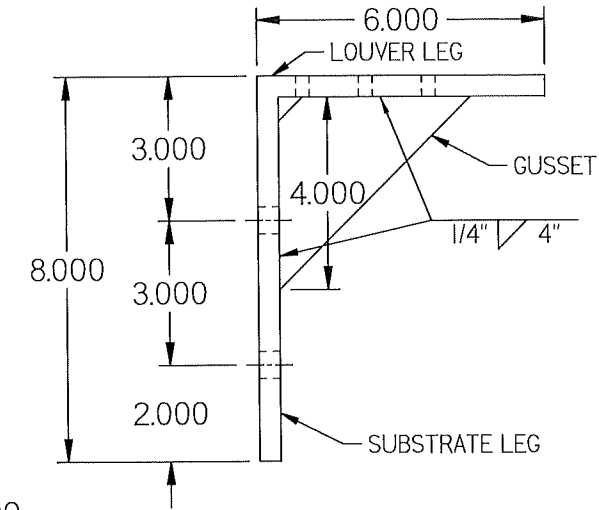
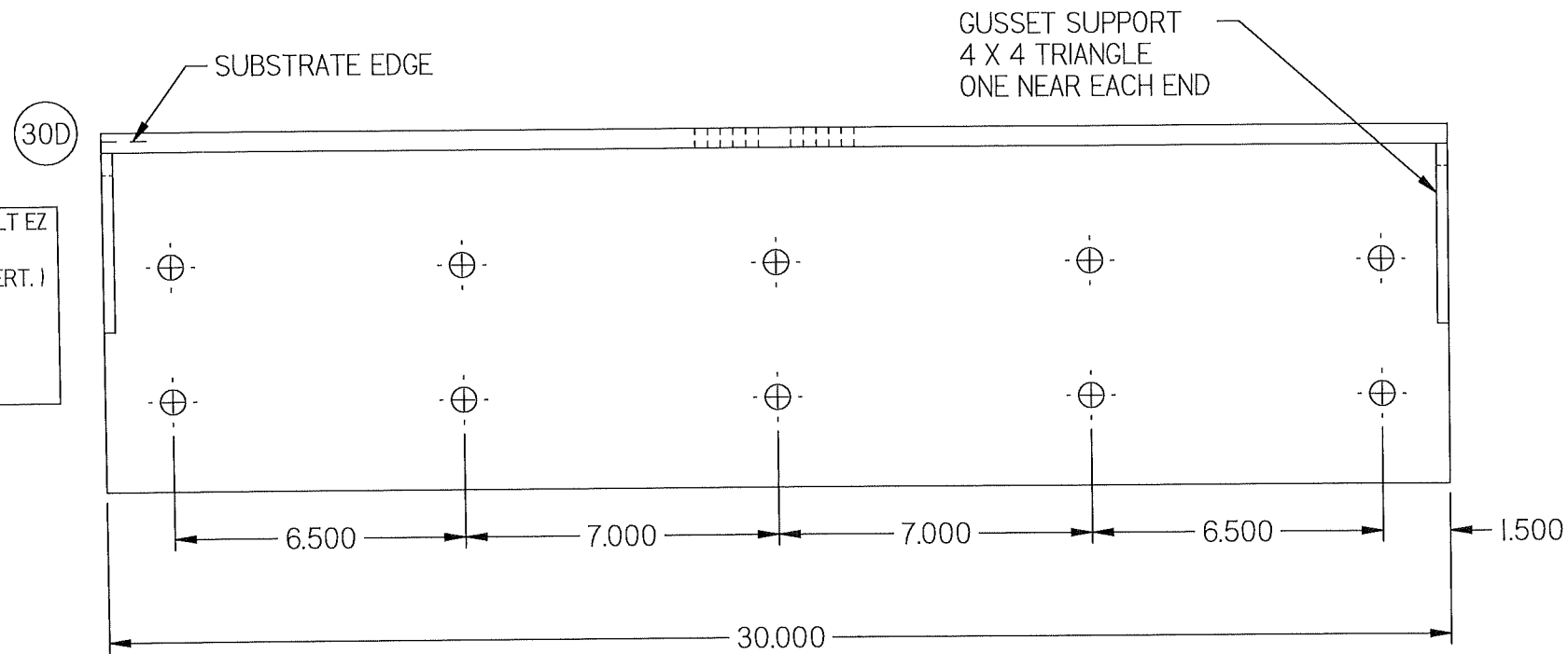


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 Florida Firm No: F-0100005061
 Certificate of Authorization: #9090
 Wayne K. Helmila
 Registration No: 59092

MULLION MOUNTING BRACKET
FOR MULLION ANGLE BACK OF WALL MOUNT
ASTM A36

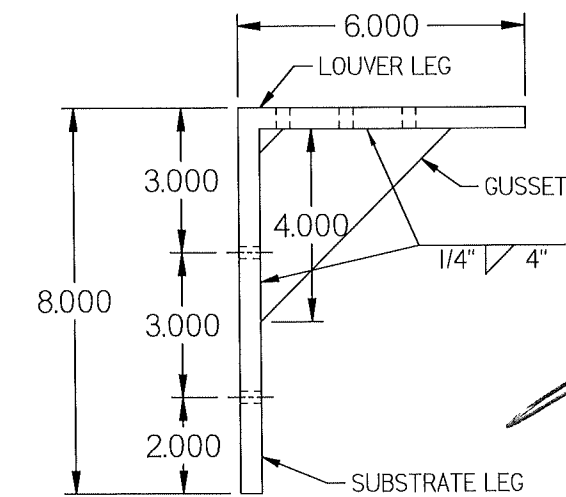
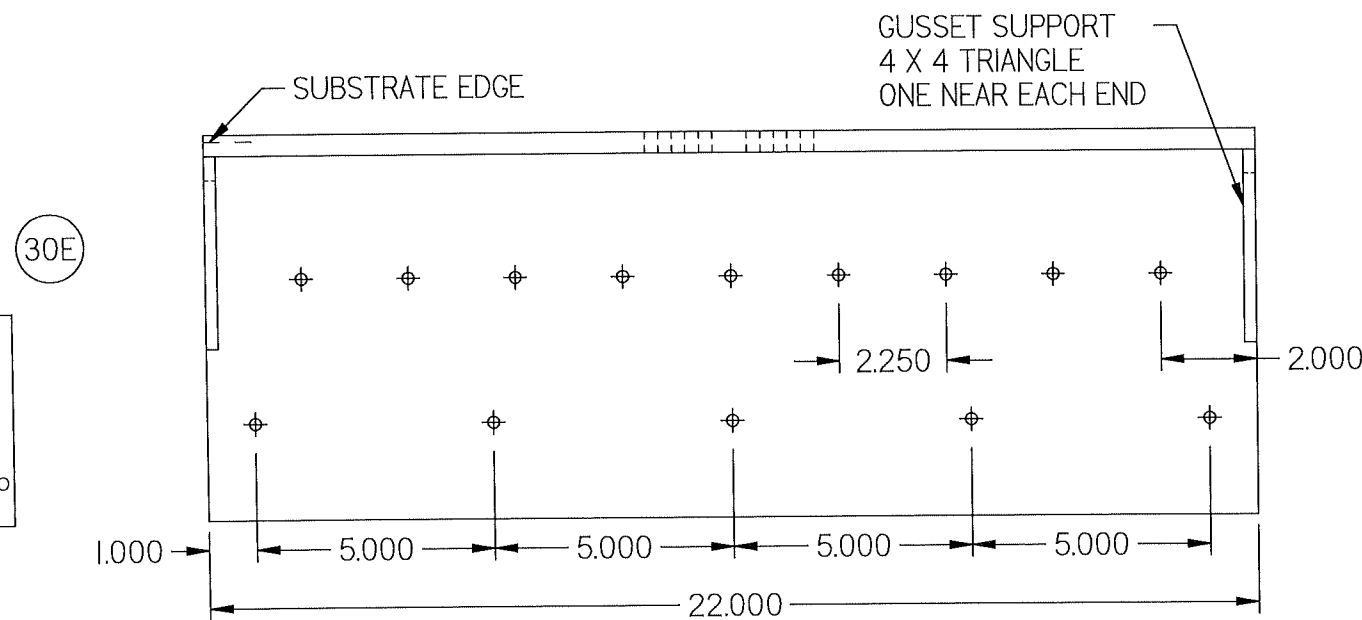
L8X6"X7/16" STEEL ANGLE X MIN 30" LONG
AS SHOWN (A36 OR BETTER) TYPICAL
w/ (2) 1/4" X4" GUSSET PLATES WELDED TO EACH END

1/2" DIA S.S. SERIES 300 HILTI KWIK BOLT EZ
USE (10) 1/2" DIA S.S. SERIES 300 HILTI KWIK BOLT EZ
4-1/4" EMBEDMENT
SPACING AS SHOWN (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE DISTANCE
4" MIN. END DISTANCE
SPACING AS SHOWN
ASSUME FC' = 4000 PSI CRACKED CONCRETE



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)
Seal Drill-Flex Fasteners with Liquid Prosoco
Flashing if exposed to Exterior Conditions.

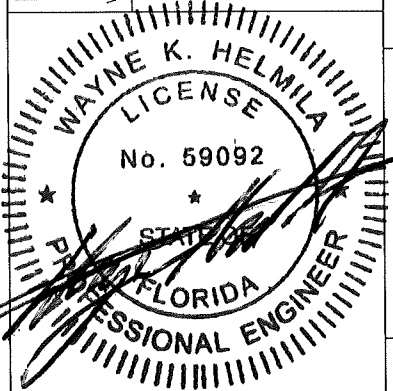


L8X6"X7/16" STEEL ANGLE X 22" LONG
(A36 OR BETTER) TYPICAL
w/ (2) 1/4" X4" GUSSET PLATES WELDED TO EACH END

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 26-0518.08
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

REVISIONS:
REV B: ADDED PAGE,
ADDED 30" BRACKET
ADDED 22" BRACKET

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JUN 10 2026

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

DWN BY: fcortinas
DATE: 4/30/2026
CHK BY: Mastourian
SCALE: NTS

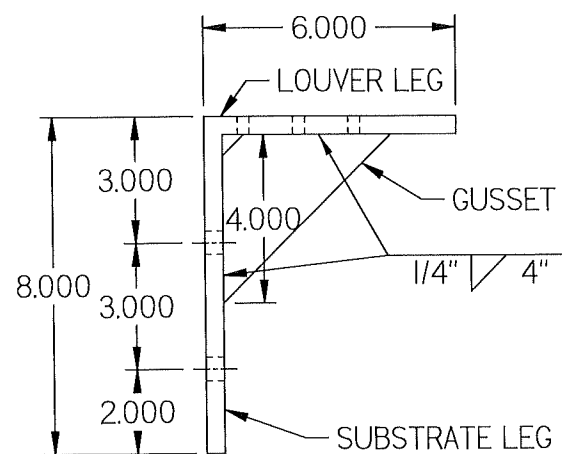
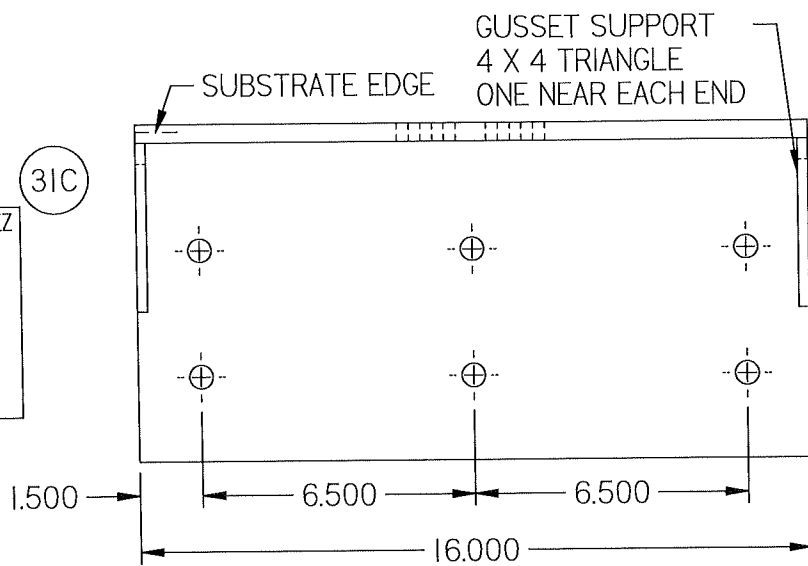
SHEET: 24 OF 30
DWG. NO. 1605WDM
REV B

TITLE:
30" MULLION ANGLE
22" MULLION ANGLE
BACK OF THE WALL MOUNT

MULLION MOUNTING BRACKET
FOR MULLION ANGLE BACK OF WALL MOUNT
ASTM A36

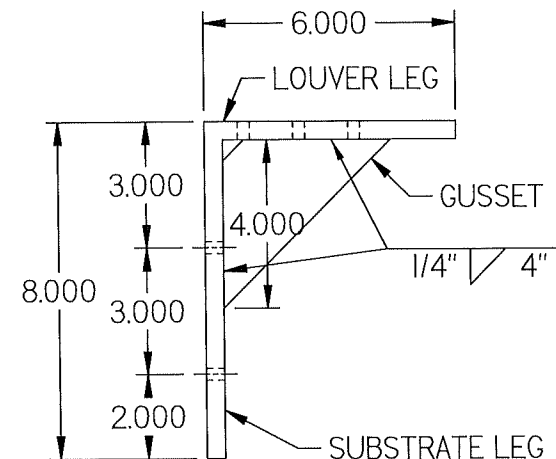
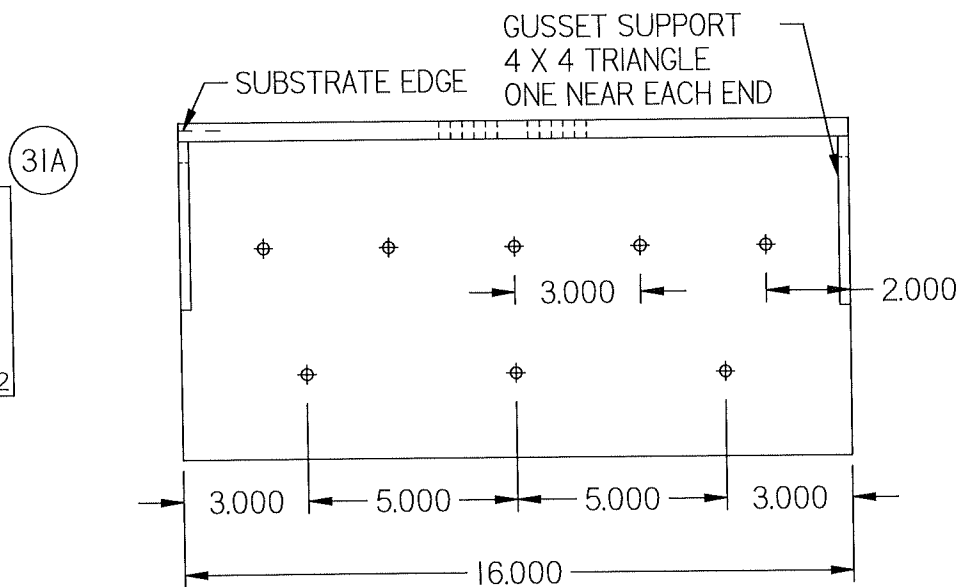
L8X6"X7/16" STEEL ANGLE
X 16" LONG AS SHOWN (A36 OR BETTER)
w/ (2) 1/4" X4" GUSSET PLATES WELDED TO EACH END

1/2" DIA S.S. HILTI KWIK BOLT EZ
USE (6) 1/2" DIA S.S. SERIES 300 HILTI KWIK BOLT EZ
3-5/8" EMBEDMENT
6.5" SPACING (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE DISTANCE
4" MIN. END DISTANCE
SPACING AS SHOWN
ASSUME FC' = 4000 PSI CRACKED CONCRETE



PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 26-0518.08
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

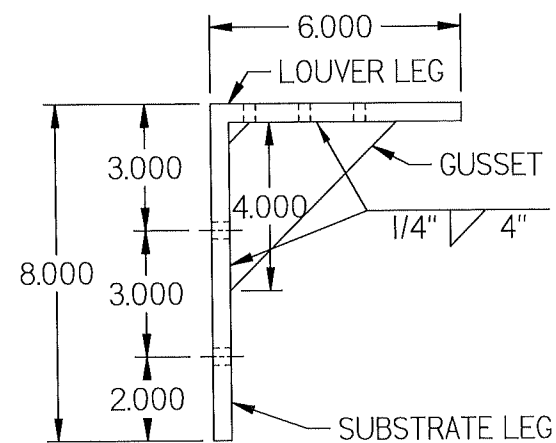
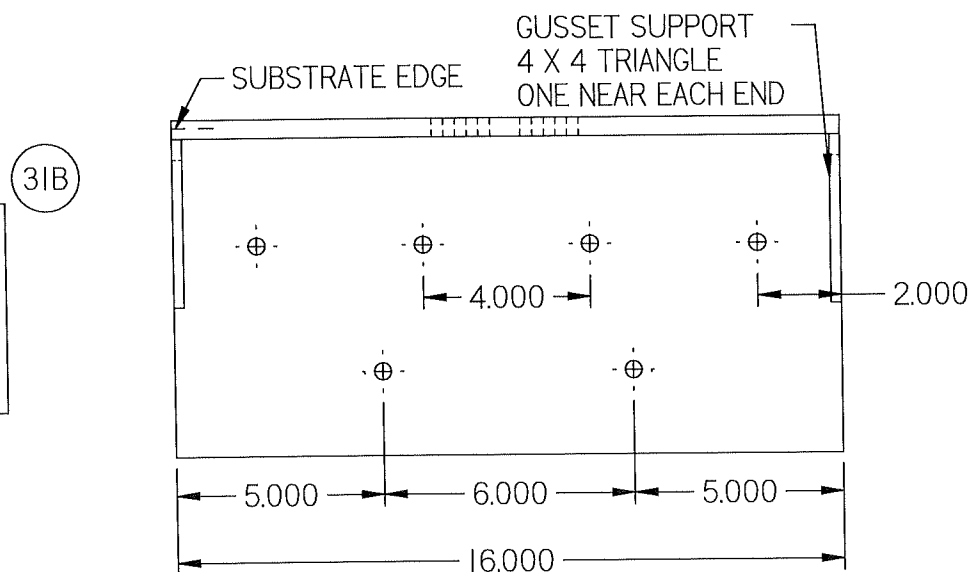
1/4" DIA LAG SCREWS ANCHORS
USE (8) 1/4" DIA X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-11/32" FULL THREAD EMBEDMENT
1" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME= SPRUCE / PINE / FIR, SG= 0.42



31A 1/4-20 DIA S.S. ELCO BI-FLEX AND DRIL FLEX ANCHOR

USE (8) 1/4" DIA S.S. SERIES 300
ELCO BI-FLEX OR
ELCO DRIL-FLEX FASTENERS
FULL THREAD EMBEDMENT
1" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A-36)
Seal Drill-Flex Fasteners with Liquid Prosoco
Flashing if exposed to Exterior Conditions.

3/8" DIA LAG SCREWS ANCHORS
USE (6) 3/8" DIA X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-9/32" FULL THREAD EMBEDMENT
1-1/2" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE / PINE / FIR, SG= 0.42



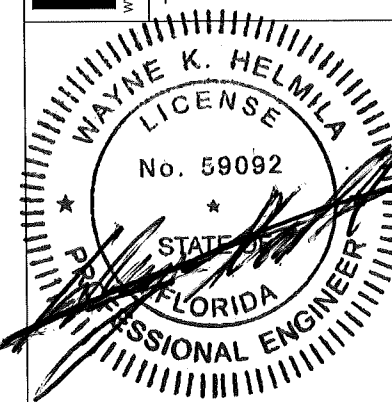
31B 5/16-24 DIA DRIL-FLEX ANCHORS

USE (6) 5/16" DIA
ELCO DRIL-FLEX FASTENERS
FULL THREAD EMBEDMENT
1" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A-36)
Seal Drill-Flex Fasteners with Liquid Prosoco
Flashing if exposed to Exterior Conditions.

REVISIONS:
REV B: ADDED PAGE,
ADDED 16" BRACKET

CHK BY: Mastourian
DWN BY: fcortinas
DATE: 4/30/2026
SCALE: NTS
SHEET: 25 OF 30
REV B
DWG. NO. 1605WDM

Nailor Industries of Texas, Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com
TITLE: 16" MULLION ANGLES
BACK OF THE WALL MOUNT



JUN 10 2026

RICE
ENGINEERING

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

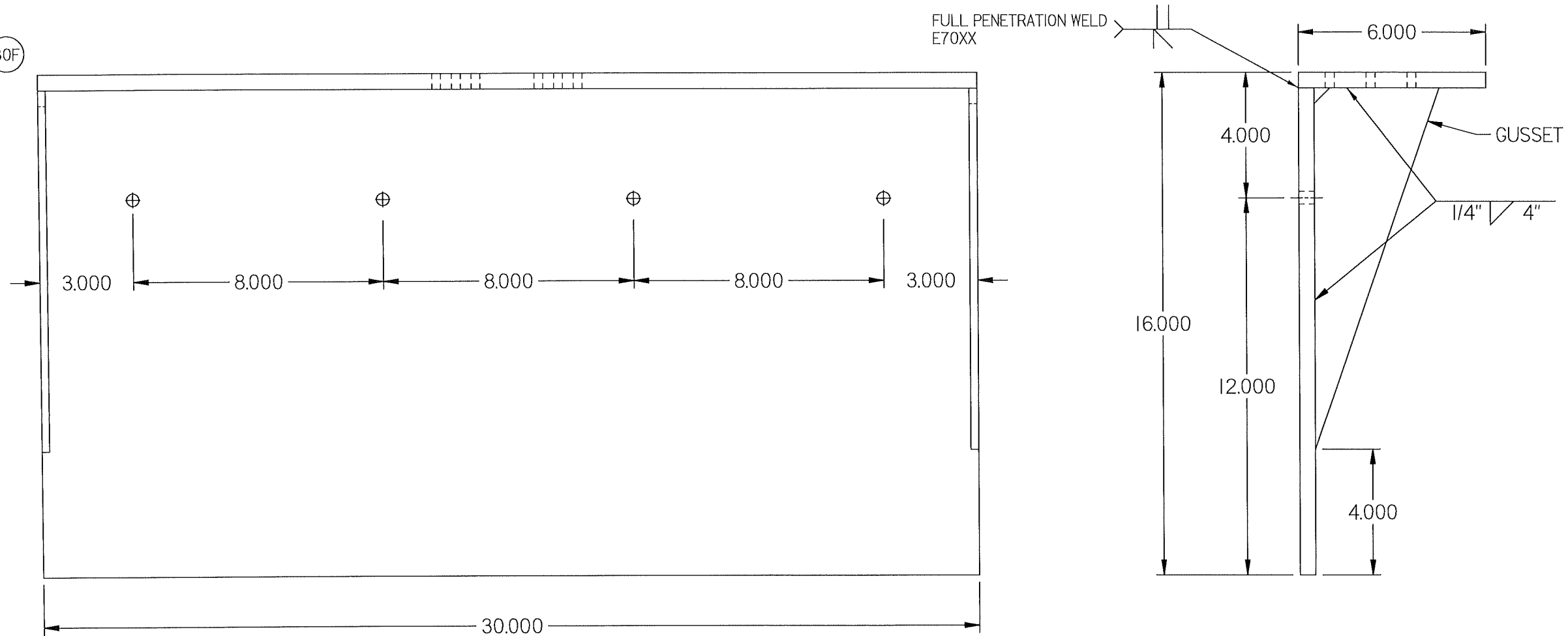
Florida Firm No: F-0100005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

MULLION MOUNTING BRACKET
FOR MULLION ANGLE BACK OF WALL MOUNT
ASTM A36

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 26-0518.08
Expiration Date 08/30/2028
By *R. Helmla*
Miami-Dade Product Control

USE 16" X 6" 1/2" STEEL PLATE ANGLE
AT 30" LONG AS SHOWN (A36 OR BETTER)
WELD 1/2" STEEL PLATE ANGLE TOGETHER WITH FULL
PENETRATION BEVEL GROOVE WELD.
(2) 1/4" X 4" GUSSET PLATES AT 12" LONG WELDED TO
EACH END
WELD 1/4" GUSSET PLATES WITH FILLET WELDS.

30F



NOTE:
THESE 3/8 " DIA HILTI HUS-EZ CMU ANCHORS
ARE ADEQUATE FOR DESIGN PRESSURE UP TO
150 PSF FOR 36" BLADE LOUVERS.

FOR LOUVER BLADES SPANNING 72" (SEE THE
ELEVATION SHOWN ON SHEET 3 OF 30) THE
MAXIMUM DESIGN PRESSURE IS +/- 80 PSF

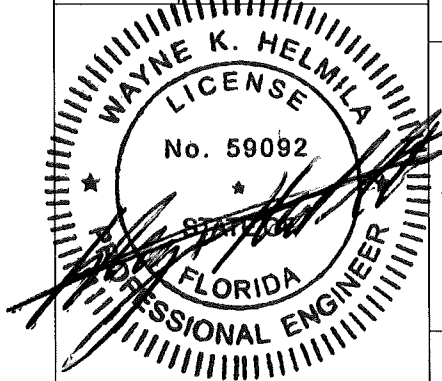
USE (4) 3/8" DIA HILTI KWIK-HUS-EZ SCEW ANCHORS
3-1/4" EMBEDMENT
8" SPACING AS SHOWN. LOCATE (1) FASTENER IN THE CENTER OF EACH
MASONRY CELL. BRACKET CAN BE INSTALLED 4" LEFT OR RIGHT OF MULLION
CENTERLINE SO ANCHORS CAN BE INSTALLED AT CENTER OF MASONRY CELLS.
4" MIN. EDGE DISTANCE
4" MIN END DISTANCE
ASSUME GROUT FILLED MASONRY fm' = 2000 psi (DESIGN BY OTHERS)
SEAL FASTENERS WITH LIQUID PROSOCO FLASHING AT EXTERIOR CONDITIONS.

REVISIONS:
REV B: ADDED PAGE,
ADDED 30" CMU ONLY BRACKET

DWN BY: fcoirtinas	CHK BY: Mastourian
DATE: 4/30/2026	SCALE: NTS
SHEET: 26 OF 30	
DWG. NO.	REV B
1605WDM	

Nailor Industries of Texas, Inc.
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TEL: 281-590-1172 FAX: 281-590-3086
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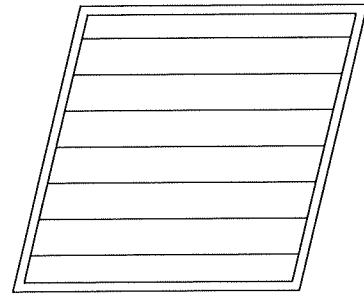
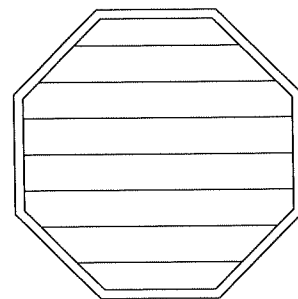
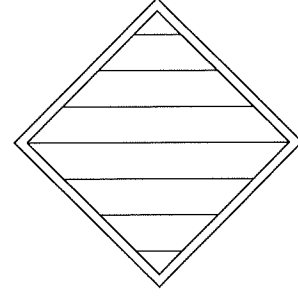
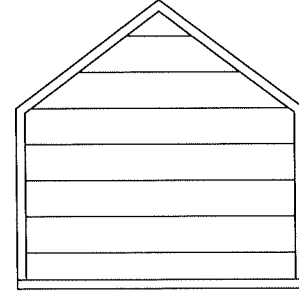
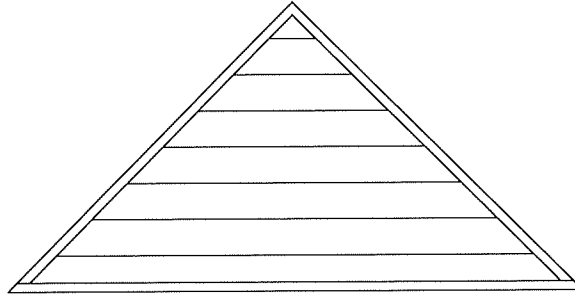
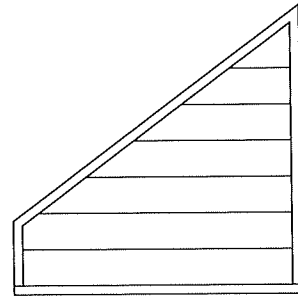
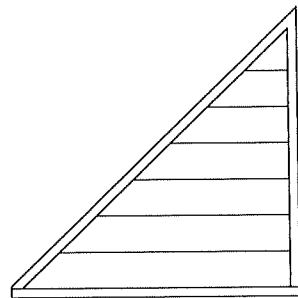
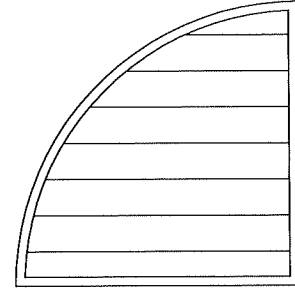
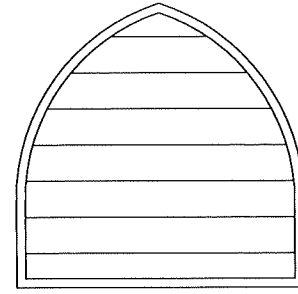
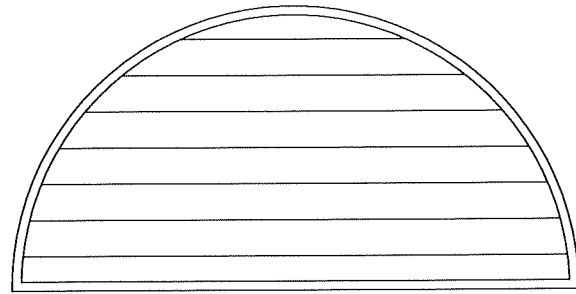
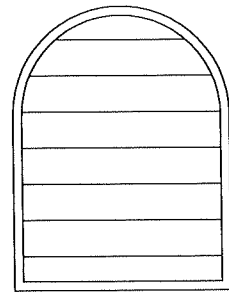
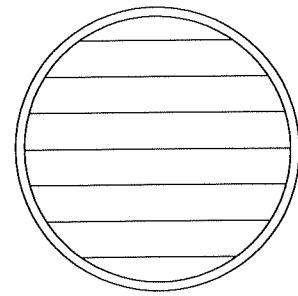
TITLE:
30" CMU MULLION ANGLES
BACK OF THE WALL MOUNT




JUN 10 2026

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. Helmla
Registration No: 59092



PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 26-0518.08
 Expiration Date 08/30/2028
 By 
 Miami-Dade Product Control

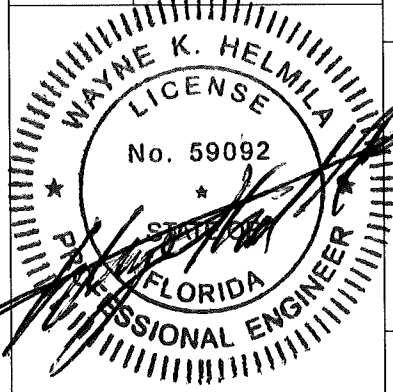
NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN AND HAVE CORNER CONSTRUCTION AS DESCRIBED ON ALL SHEETS.
2. 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.
3. WHEN SECTION EXCEED 36" IN LENGTH BLADE SUPPORT ANGLES AND BRACKETS ARE REQUIRED.
4. USE CONTINUOUS ANGLES TO ANCHOR OTHER LOUVER SHAPES TO BUILDING SUBSTRATE. SEE ANCHOR SCHEDULE FOR SUBSTRATE-SPECIFIC LIMITATIONS.

REVISIONS:
 REV B: RENUMBERED PAGE

DWN BY: fcortinas
 DATE: 4/30/2026
 CHK BY: Mastourian
 SCALE: NTS

Nailor Industries of Texas, Inc.
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 Florida Firm No: F-0100005061
 Certificate of Authorization: #9090
 Wayne K. Helmila
 Registration No: 59092

SHEET: 27 OF 30
 DWG. NO. 1605WDM
 REV B

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

BILL OF MATERIAL

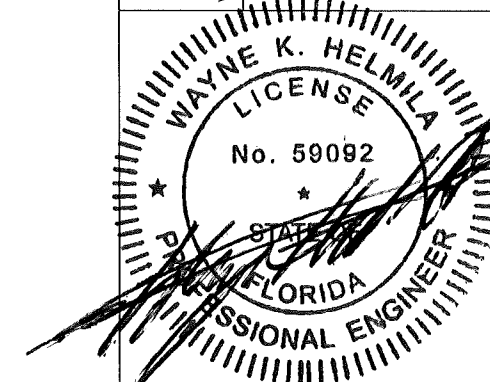
ITEM	INTERNAL ID	DESCRIPTION	MATERIAL	NOTES
1	C6-201	LOUVER HEAD	6063-T6 ALUMINIUM	
2	C6-119	LOUVER SILL	6063-T6 ALUMINIUM	
3	C6-199	LOUVER JAMB	6063-T6 ALUMINIUM	
4	C6-200	LOUVER BLADE	6063-T6 ALUMINIUM	
5				
6	C6-202	LOUVER BLADE BRACE	6063-T6 ALUMINIUM	
7	C6-179	MULLION BAR COVER	6063-T6 ALUMINIUM	
8	C6-169	LOUVER FLANGE	6063-T6 ALUMINIUM	
9A	C6-176	1 1/2 X 1 1/2 X 1/8 ANGLE CONT.	6063-T6 ALUMINIUM	USED AT HEAD/SILL/JAMB, OF LOUVER AND SLEEVE
9B	C6-160	2 X 2 X 1/8 ANGLE CONT.	6063-T6 ALUMINIUM	USED AS ATTACHMENT ANGLE
9C		1 1/2 X 1 1/2 X 3/16 ANGLE CONT.	6063-T6 ALUMINIUM	USED AT HEAD/SILL/JAMB, OF LOUVER AND SLEEVE
10A	C6-161B	6 X 3 X 1/4 ANGLE	6061-T6 ALUMINIUM	USED AT BLADE SUPPORT AND JAMB SUPPORT
10B		9 X 3 X 1/4 ANGLE	6063-T6 ALUMINIUM	USED AT BLADE SUPPORT AND JAMB SUPPORT
10C		11 X 3 X 1/4 ANGLE	6063-T6 ALUMINIUM	USED AT BLADE SUPPORT AND JAMB SUPPORT
11		1 1/2 X 1 1/2 X 1/4 ANGLE	6063-T6 ALUMINIUM	USED AT HEAD/SILL/JAMB OF SLEEVE
12A		4 X 2 1/2 X 1/4 X 3.625 LONG ANGLE	6061-T6 ALUMINIUM	USED AT HEAD/ SILL OF MULLION ATTACHMENT
12B		3.00 X 8.00 X .375 X 3.625 LONG	6061-T6 ALUMINIUM	FOR 1/2" DIA SS LAG SCREW
12C		3.00 X 8.00 X .375 X 3.625 LONG	6061-T6 ALUMINIUM	FOR 5/8" HILTI KWIK BOLT TZ SS 304 ANCHOR
13		4 X 2 1/2 X 1/4 X 3.625 LONG ANGLE	6061-T6 ALUMINIUM	USED AT HEAD/ SILL OF LOUVER SLEEVE ATTACHMENT
14		6 X 4 X 1/4 ALUMINIM SUPPORT SHIM	5052-H3 ALUMINIUM	USED AT SILL FOR SUPPORT ANGLE
15		MULLION STIFFENER ALUM	6063-T6 ALUMINIUM	1/8 FORMED ALUM CHANNEL USED AT MULLION
16		FORMED SLEEVE	5052-H32 ALUMINIUM	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	MATERIAL VARIES
21		DAMPER TOP/BOTTOM CLOSURE	ALUMINIUM	
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 AL MULLION
28		CBX18.75 STEEL CHANNEL		USED AT MULLION
29		7" X 21" ALUMINIUM SLEEVE BRACKET	6061-T6	MULLION SLEEVE BRACKET
30	ABCDEF	MULLION MOUNTING ANGLE BRACKET	ASTM A-36	MULLION MOUNTING
31	ABC	MULLION MOUNTING ANGLE BRACKET	ASTM A-36	16" MOUNTING ANGLE
32	C6-180	SCREW,MTL,10-24X1,HEX		
33	C6-181	1/4 NYLON INSERT LOCKNUT		
34	C6-182	1/4-20x2-1/2 HEX CAP SCREW	STAINLESS	
35	C6-183	WASHER,BONDED,10X1/2	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
36	C6-184	SCREW,MTL,12-24-1-1/4,HEX		300 SERIES, SS COND. CW FY - 65 KSI
37	C6-185	1/4-20x1 HEX SCREW	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
38	C6-186	1/4 COMM.L FLAT WASHER		300 SERIES, SS COND. CW FY - 65 KSI
39	C6-187	1/4-20x1 HEX CAP SCREW 18-8	STAINLESS	
40	C6-188	SCREW, MTL,HEX, 8-32 X 1		300 SERIES, SS COND. CW FY - 65 KSI
41	C6-189	SCREW, METAL, HW, 10-24 X 1-1/2		300 SERIES, SS COND. CW FY - 65 KSI
42	C6-192	SCREW, MTL, HEX, 8 X 1-1/2	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
43	C6-193	SCREW, METAL, HEX, 14 X 1-1/2	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
44	C6-194	SCREW, METAL, HEX, 12 X 1-1/2	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
45	C6-195	1/4-20 X 1 1/4 HEX CAP SCREW 18-8	STAINLESS	
46	C6-196	1/4-20 FIN. HEX NUT 18-8	STAINLESS	
47	C6-197	1/4 LOCKWASHER 18-8	STAINLESS	
48	C6-198	SCREW, MTL, HEX, 8 X 3/4	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
49		3/8"-16 X 2 18-6 HEX HEAD BOLT	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
50		3/8-16 HEX LOCK NUT	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI
51		3/8-FLAT WASHER	STAINLESS	300 SERIES, SS COND. CW FY - 65 KSI

DWN BY: fcortinas
 CHK BY: Mastourian
 DATE: 4/30/2026
 SCALE: NTS

SHEET: 28 OF 30
 DWG. NO. 1605WDM
 REV B

Nailor Industries of Texas, 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
 BILL OF MATERIAL



JUN 10 2026

PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 26-0518.08
 Expiration Date 08/30/2028
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 Miami-Dade Product Control

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

REVISIONS:
 REV B: RENUMBERED PAGE
 ADDED ITEM #: 10A, 10B, 10C, 28

*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
 JAMB ANGLE MOUNT FASTENER, WIDTH <= 72 INCHES (TABLE 1)

WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	O.C. SPACING	EDGE	END	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	1	3"	2"		1-5/8"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	1	5"	2"		1-5/8"
	X				1/6 Ga.	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	1	4-1/2"	2"		3 THREADS BEYOND SUBSTRATE
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	1	13-1/2"	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (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	7"	4"		2"
			X-CRACKED 6" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR*	3/8"	1	12"	4"		2"
				X	2ksi	HILTI KWIK HUS-EZ SS316 ANCHOR	3/8"	1	12"	4"		3-1/4"
				X	2ksi	DEWALT GALANIZED SCREW-BOLT+ ANCHOR	3/8"	1	4-1/2"	1-1/2"	1-1/2"	3-1/4"

MULLION ANGLE DIRECT MOUNT FASTENERS, HEIGHT <= 120 INCHES (TABLE 2)

WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd / CLIP	O.C. SPACING	EDGE	END	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	10	1-1/4" X 7/8"	2"		2-5/8"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/2"	6	2-1/8" X 3"	2"		2"
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	4	2-1/2" X 1-5/16"	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (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 T22 SS 304 ANCHOR*	5/8"	2	4"	7"	8"	4"

MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT <= 120 INCHES (TABLE 3)

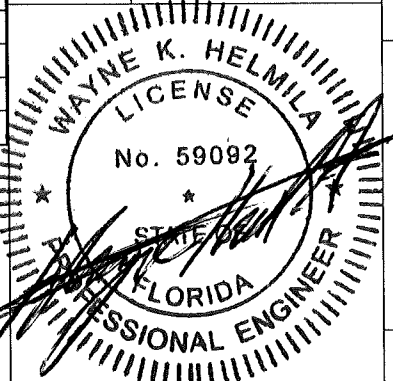
WOOD	BRACKET TYPE	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	O.C. SPACING	EDGE	END	EMBEDMENT
X	30A				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	16	VARIES	1"	1"	3-11/32"
X	31A				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	8	VARIES	1"	1"	3-11/32"
X	30B				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	12	VARIES	1-1/2"	1-1/2"	3-9/32"
X	31B				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	6	VARIES	1-1/2"	1-1/2"	3-9/32"
	30C	X			A-36	ELCO BI-FLEX OR ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS) SEAL DRILL-FLEX w/ PROSOCO SEALANT	1/4"	14	VARIES	1"	1"	1/4"
	31A	X			A-36	ELCO BI-FLEX OR ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS) SEAL DRILL-FLEX w/ PROSOCO SEALANT	1/4"	8	VARIES	1"	1"	1/4"
	30E	X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW - Fy = 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	12	VARIES	1"	1"	1/4"
	31B	X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW - Fy = 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	6	VARIES	1"	1"	1/4"
	30D		X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT EZ SS 316 ANCHOR **	1/2"	10	VARIES	3"	4"	4-1/4"
	31C		X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT EZ SS 304 ANCHOR **	1/2"	6	VARIES	3"	4"	3-5/8"
	30F			X	2ksi	HILTI KWIK-HUS-EZ SCREW ANCHORS	3/8"	4	8	4"	4"	3-1/4"

DWN BY: fcorinas
 DATE: 4/30/2026
 SCALE: NTS

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CHK BY: Mastourian
 SHEET: 29 OF 30
 REV B
 DWG. NO. 1605WDM

TITLE: 1605WDM LOUVER
 W/ AND W/O DAMPER SLEEVE
 FASTENER TABLES

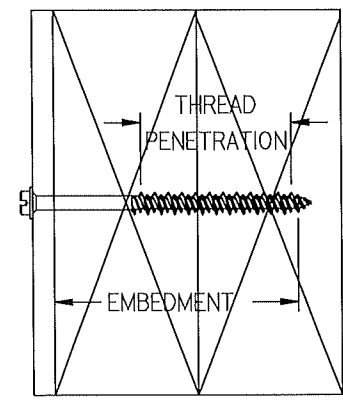


JUN 10 2026

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 Certificate of Authorization: #9090
 Wayne K. Helmila
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PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 26-0518.08
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control



REVISIONS:
 REV B: RENUMBERED PAGE
 UPDATED FASTENER TABLES
 REMOVED GENERAL NOTES

GENERAL NOTES:

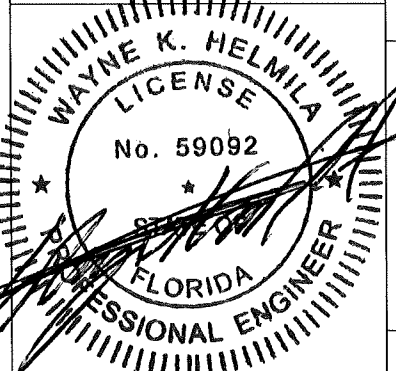
1. IT SHALL BE THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER(S).
 2. THE 1605WDM WITH AND WITHOUT 2020 DAMPER HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS tas 100 A (WIND DRIVEN RAIN), TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE), AND TAS-203 (CYCLIC FATIGUE).
 3. MAXIMUM SINGLE SECTION SIZE IS 72" WIDE X 120" HIGH.
 4. MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 120" HIGH.
 5. 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.
 6. CMU SHALL BE ASTM C90, TYPE II, 2,000 MIN PSI GROUT-FILLED, STEEL STUDS TO BE 16 GA. FY= 50ksi MIN.
 7. 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 INDUSTRIES OF TEXAS DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
 8. 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 INDUSTRIES OF TEXAS DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
 9. LOUVER ASSEMBLY IS QUALIFIED FOR A MAXIMUM DESIGN LOAD OF ± 150 PSF, WITH THE EXCEPTION OF THE GROUT FILLED CMU BACK OF WALL MOUNTING BRACKET ANCHORS FOR THE LOUVER BLADES SPANNING 72" WHERE THE MAXIMUM DESIGN LOAD IS ± 80 PSF.
 10. 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.
 11. INSTALLER TO PROVIDE SEPERATION OF DISSIMILAR MATERIALS AS REQUIRED.
 12. 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.
 13. 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.
 14. STEEL / STAINLESS-STEEL/ ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THA HAS EQUAL OR GREATER YIELD STRENGTH.
 15. BLADE SUPPORT ANGLE AND BLADE SUPPORT BRACE ONLY REQUIRED WHEN ACTUAL LOUVER SECTION WIDTH IS GREATER THAN 36 INCHES.
 16. 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.

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 REV B: ADDED PAGE,
 ADDED GENERAL NOTES

DWN BY: fcortinas
 DATE: 4/30/2026
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TITLE:
 1605WDM LOUVER
 W/ AND W/O DAMPER SLEEVE
 GENERAL NOTES

SHEET: 30 OF 30

DWG. NO. **1605WDM**
 REV B