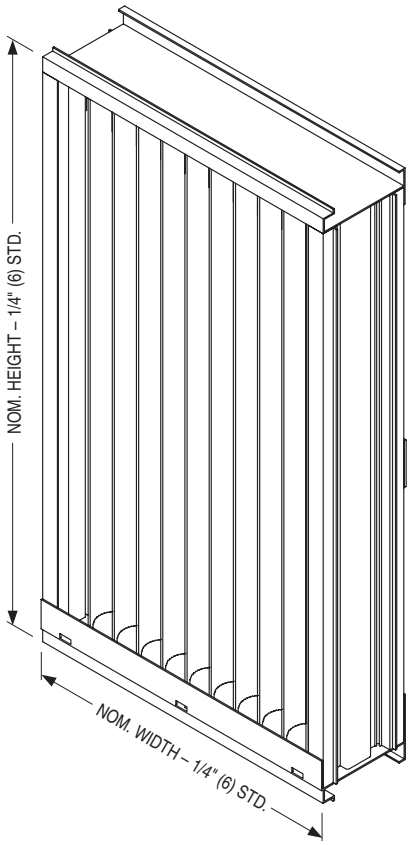
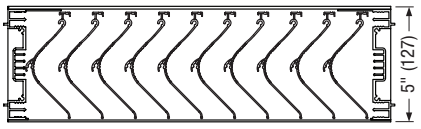
Nailor® Industries Inc.

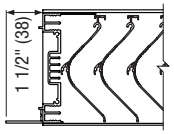
EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • VERTICAL BLADE
MODEL: 1605WDVM

QUALIFICATIONS:

- **Miami-Dade County NOA No. : 24-0516.06**
- **Florida Product Approval No. : 28078.2**
- **Texas Department of Insurance Evaluation ID : LVR-29**
- **Tested in accordance with: TAS-100A (Wind-Driven Rain Test), TAS-201 (Large Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test), TAS-203 (Cyclic Wind Pressure Loading Test).**
- **AMCA 500-L (Wind-Driven Rain, Water Penetration, Air Performance).**
- **AMCA 540 (Wind-Borne Debris Impact Test [Enhanced "Level E" Protection]).**
- **AMCA 550 (High Velocity Wind-Driven Rain Resistance Test).**
- **Wind load rating +/– 130 PSF.**







OPT. FLANGED FRAME
(FL15 STD.)

STANDARD CONSTRUCTION:

FRAME: 5" (127) deep, Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T6 extruded aluminum, .060" (1.52) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approximately 1 1/2" (38) on centers.

BLADE SUPPORT: 2.5" (64) strap every 60" (1524) or less in height.

SCREEN: 3/4" x .050 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 72" W x 120" H (1829 x 3048) or 120" W x 72" H (3048 x 1829). 60 sq. ft. (5.6 m^2). Larger louvers will require field assembly of smaller sections.

MAXIMUM SIZE: Unlimited Width x 120" H (3048).

OPTIONS:

- ❑ **FL15** Flanged Frame, 1 1/2" (38).
- ❑ **FL20** Flanged Frame, 2" (51).
- ❑ **BSSS** Type 304 S.S. Bird Screen.
- ❑ **BSN** No Bird Screen.
- ❑ **ISA** Aluminum Insect Screen.
- ❑ **ISSS** Type 304 S.S. Insect Screen.
- ❑ **ESI** Extended Sill.
- ❑ **PASI** Sill Pan.
- ❑ Other: _____ .

OPTIONAL FINISHES:

- ❑ **PC3** Powder Coat AAMA 2603. Color: ____ .
- ❑ **PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: ____ .
- ❑ **PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: ____ .
- ❑ **PCC** Prime Coat.
- ❑ **AN04** Clear Anodized 204-R1.
- ❑ **AN15** Clear Anodized 215-R1.
- ❑ **ANLB** Light Bronze.
- ❑ **ANMB** Medium Bronze.
- ❑ **ANDB** Dark Bronze.
- ❑ **ANBK** Black.

For Installation Instructions, see approved NOA.

SCHEDULE TYPE:	Page 1 of 3 Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**7 - 24 - 24**	**1600M**	**1 - 30 - 24**	**1605WDVM**

Nailor® Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • VERTICAL BLADE • PERFORMANCE DATA
MODEL: 1605WDVM

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters																		
	12 0.30	**18** 0.46	**24** 0.61	**30** 0.76	**36** 0.91	**42** 1.07	**48** 1.22	**54** 1.37	**60** 1.52	**66** 1.68	**72** 1.83	**78** 1.98	**84** 2.13	**90** 2.29	**96** 2.44	**102** 2.59	**108** 2.74	**114** 2.90	**120** 3.05
12 0.30	**0.28** 0.03	**0.51** 0.05	**0.74** 0.07	**0.96** 0.09	**1.19** 0.11	**1.42** 0.13	**1.65** 0.15	**1.87** 0.17	**2.10** 0.20	**2.33** 0.22	**2.55** 0.24	**2.78** 0.26	**3.01** 0.28	**3.24** 0.30	**3.46** 0.32	**3.69** 0.34	**3.92** 0.36	**4.14** 0.38	**4.37** 0.41
18 0.46	**0.49** 0.05	**0.89** 0.08	**1.28** 0.12	**1.68** 0.16	**2.07** 0.19	**2.47** 0.23	**2.86** 0.27	**3.26** 0.30	**3.65** 0.34	**4.05** 0.38	**4.44** 0.41	**4.83** 0.45	**5.23** 0.49	**5.62** 0.52	**6.02** 0.56	**6.41** 0.60	**6.81** 0.63	**7.20** 0.67	**7.60** 0.71
24 0.61	**0.63** 0.06	**1.14** 0.11	**1.65** 0.15	**2.15** 0.20	**2.66** 0.25	**3.17** 0.29	**3.67** 0.34	**4.18** 0.39	**4.69** 0.44	**5.19** 0.48	**5.70** 0.53	**6.20** 0.58	**6.71** 0.62	**7.22** 0.67	**7.72** 0.72	**8.23** 0.76	**8.74** 0.81	**9.24** 0.86	**9.75** 0.91
30 0.76	**0.84** 0.08	**1.52** 0.14	**2.19** 0.20	**2.87** 0.27	**3.54** 0.33	**4.21** 0.39	**4.89** 0.45	**5.56** 0.52	**6.24** 0.58	**6.91** 0.64	**7.58** 0.70	**8.26** 0.77	**8.93** 0.83	**9.61** 0.89	**10.28** 0.96	**10.96** 1.02	**11.63** 1.08	**12.30** 1.14	**12.98** 1.21
36 0.36	**1.05** 0.10	**1.89** 0.18	**2.74** 0.25	**3.58** 0.33	**4.42** 0.41	**5.26** 0.49	**6.10** 0.57	**6.95** 0.65	**7.79** 0.72	**8.63** 0.80	**9.47** 0.88	**10.31** 0.96	**11.15** 1.04	**12.00** 1.11	**12.84** 1.19	**13.68** 1.27	**14.52** 1.35	**15.36** 1.43	**16.21** 1.51
42 1.07	**1.26** 0.12	**2.27** 0.21	**3.28** 0.30	**4.29** 0.40	**5.30** 0.49	**6.31** 0.59	**7.32** 0.68	**8.33** 0.77	**9.34** 0.87	**10.35** 0.96	**11.36** 1.06	**12.37** 1.15	**13.38** 1.24	**14.39** 1.34	**15.39** 1.43	**16.40** 1.52	**17.41** 1.62	**18.42** 1.71	**19.43** 1.81
48 1.22	**1.47** 0.14	**2.65** 0.25	**3.83** 0.36	**5.00** 0.46	**6.18** 0.57	**7.36** 0.68	**8.53** 0.79	**9.71** 0.90	**10.89** 1.01	**12.07** 1.12	**13.24** 1.23	**14.42** 1.34	**15.60** 1.45	**16.77** 1.56	**17.95** 1.67	**19.13** 1.78	**20.31** 1.89	**21.48** 2.00	**22.66** 2.11
54 1.37	**1.68** 0.16	**3.03** 0.28	**4.37** 0.41	**5.72** 0.53	**7.06** 0.66	**8.41** 0.78	**9.75** 0.91	**11.09** 1.03	**12.44** 1.16	**13.78** 1.28	**15.13** 1.41	**16.47** 1.53	**17.82** 1.66	**19.16** 1.78	**20.51** 1.91	**21.85** 2.03	**23.20** 2.16	**24.54** 2.28	**25.89** 2.40
60 1.52	**1.89** 0.18	**3.40** 0.32	**4.92** 0.46	**6.43** 0.60	**7.94** 0.74	**9.45** 0.88	**10.97** 1.02	**12.48** 1.16	**13.99** 1.30	**15.50** 1.44	**17.02** 1.58	**18.53** 1.72	**20.04** 1.86	**21.55** 2.00	**23.07** 2.14	**24.58** 2.28	**26.09** 2.42	**27.60** 2.56	**29.12** 2.70
66 1.68	**2.10** 0.20	**3.78** 0.35	**5.46** 0.51	**7.14** 0.66	**8.82** 0.82	**10.50** 0.98	**12.18** 1.13	**13.86** 1.29	**15.54** 1.44	**17.22** 1.60	**18.90** 1.76	**20.58** 1.91	**22.26** 2.07	**23.94** 2.22	**25.62** 2.38	**27.30** 2.54	**28.98** 2.69	**30.66** 2.85	**32.34** 3.00
72 1.83	**2.31** 0.21	**4.16** 0.39	**6.01** 0.56	**7.85** 0.73	**9.70** 0.90	**11.55** 1.07	**13.40** 1.24	**15.24** 1.42	**17.09** 1.59	**18.94** 1.76	**20.79** 1.93	**22.64** 2.10	**24.48** 2.27	**26.33** 2.45	**28.18** 2.62	**30.03** 2.79	**31.88** 2.96	**33.72** 3.13	**35.57** 3.30
78 1.98	**2.52** 0.23	**4.53** 0.42	**6.55** 0.61	**8.57** 0.80	**10.58** 0.98	**12.60** 1.17	**14.61** 1.36	**16.63** 1.54	**18.64** 1.73	**20.66** 1.92	**22.67** 2.11								
84 2.13	**2.73** 0.25	**4.91** 0.46	**7.10** 0.66	**9.28** 0.86	**11.46** 1.06	**13.64** 1.27	**15.83** 1.47	**18.01** 1.67	**20.19** 1.88	**22.38** 2.08	**24.56** 2.28								
90 2.29	**2.94** 0.27	**5.29** 0.49	**7.64** 0.71	**9.99** 0.93	**12.34** 1.15	**14.69** 1.36	**17.04** 1.58	**19.39** 1.80	**21.75** 2.02	**24.10** 2.24	**26.45** 2.46								
96 2.44	**3.15** 0.29	**5.67** 0.53	**8.19** 0.76	**10.70** 0.99	**13.22** 1.23	**15.74** 1.46	**18.26** 1.70	**20.78** 1.93	**23.30** 2.16	**25.81** 2.40	**28.33** 2.63								
102 2.59	**3.36** 0.31	**6.04** 0.56	**8.73** 0.81	**11.42** 1.06	**14.10** 1.31	**16.79** 1.56	**19.47** 1.81	**22.16** 2.06	**24.85** 2.31	**27.53** 2.56	**30.22** 2.81								
108 2.74	**3.57** 0.33	**6.42** 0.60	**9.27** 0.86	**12.13** 1.13	**14.98** 1.39	**17.84** 1.66	**20.69** 1.92	**23.54** 2.19	**26.40** 2.45	**29.25** 2.72	**32.11** 2.98								
114 2.90	**3.78** 0.35	**6.80** 0.63	**9.82** 0.91	**12.84** 1.19	**15.86** 1.47	**18.88** 1.75	**21.91** 2.04	**24.93** 2.32	**27.95** 2.60	**30.97** 2.88	**33.99** 3.16								
120 3.05	**3.99** 0.37	**7.18** 0.67	**10.36** 0.96	**13.55** 1.26	**16.74** 1.56	**19.93** 1.85	**23.12** 2.15	**26.31** 2.44	**29.50** 2.74	**32.69** 3.04	**35.88** 3.33								

SCHEDULE TYPE:	Page 2 of 3 Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**7 - 24 - 24**	**1600M**	**1 - 30 - 24**	**1605WDVM**

Nailor® Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • VERTICAL BLADE • PERFORMANCE DATA
MODEL: 1605WDVM

AIRFLOW / WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

	Free Area %	53%
	Free Area sq. ft. (sq. m.)	8.53 (0.79)
INTAKE	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1250 fpm (381 m/min.)*
INTAKE	Air Volume at 1250 fpm Free Area Velocity	10,663 cfm (5032 l/s)
INTAKE	Pressure Drop @ 1250 fpm	.29 in. w.g. (72 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.*Maximum Free Area Velocity tested is 1250 fpm. Beginning point of water penetration for this model is above 1250 fpm.

WIND DRIVEN RAIN PERFORMANCE

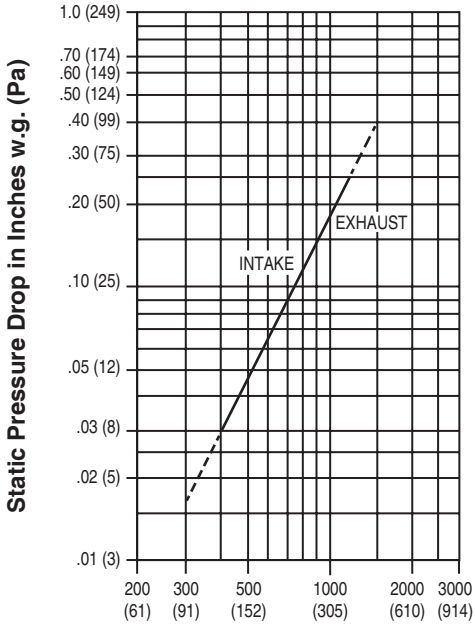
Core Ventilation Rate in fpm (m/s)	0 (0.00)	110 (0.56)	195 (0.99)	279 (1.42)	396 (2.01)	497 (2.52)	588 (2.99)	701 (3.56)	781 (3.97)	891 (4.53)	984 (5.00)
Free Area Ventilation Rate in fpm (m/s)	0 (0.00)	186 (0.95)	330 (1.68)	473 (2.40)	671 (3.41)	842 (4.28)	996 (5.06)	1187 (6.03)	1323 (6.72)	1509 (7.63)	1667 (8.47)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	100
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 3" per hour (76 mm/hour) with a wind velocity of **29 mph (13 m/s).**
DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 2. (Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

Core Ventilation Rate in fpm (m/s)	0 (0.00)	88 (0.45)	199 (1.01)	301 (1.53)	400 (2.03)	485 (2.46)	590 (3.00)	687 (3.49)	787 (4.00)	883 (4.49)	987 (5.01)
Free Area Ventilation Rate in fpm (m/s)	0 (0.00)	149 (0.76)	337 (1.71)	510 (2.59)	678 (3.44)	822 (4.18)	999 (5.07)	1164 (5.91)	1333 (6.77)	1496 (7.60)	1672 (8.49)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	100
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 8" per hour (203 mm/hour) with a wind velocity of **50 mph (22 m/s).**
DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 2. (Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm).
Standard air density @ 0.075 lbs/ft³.
Tested to AMCA Fig. 5.5 – 6.5.

amca WORLDWIDE CERTIFIED RATINGS — WATER PENETRATION, AIR PERFORMANCE, WIND DRIVEN RAIN — AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC. — www.amca.org

Nailor Industries Inc. certifies that the Model 1605WDVM shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program seal applies to Water Penetration, Wind Driven Rain and Air Performance ratings.

Louvers were tested in accordance with AMCA Standard 500-L.

amca INTERNATIONAL LISTED

HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN AND IMPACT RESISTANT LOUVER
Enhanced Protection Level E
See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Nailor Industries Inc. certifies that the 1605WDVM louver shown herein is approved to bear the AMCA International Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA publications and comply with the requirements of the AMCA International Listing Label program. The AMCA International Listing Label applies to pressure cycle tested wind borne debris impact resistant louvers rated for Enhanced Protection and +/- 130PSF with a minimum blade span of less than 12 in. (305mm) and a maximum unsupported blade span of 58 in. (1473 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully open position that permits airflow through a louver.

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**7 - 24 - 24**	**1600M**	**1 - 30 - 24**	**1605WDVM**

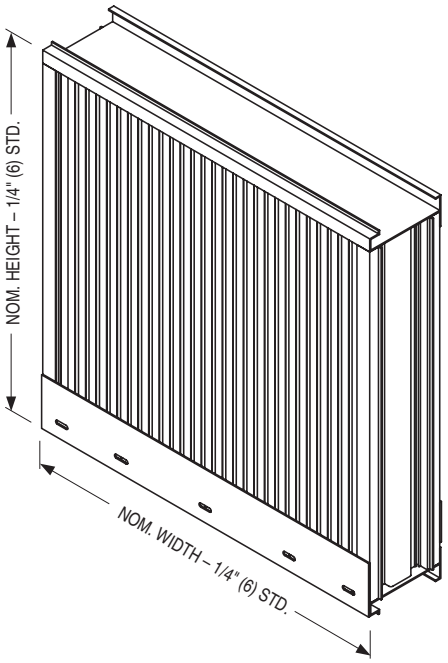
Dimensions are in inches (mm).

Nailor® Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • VERTICAL BLADE
MODEL: 1675WDVM

QUALIFICATIONS:

- **Miami-Dade County NOA No. : 24-0516.03**
- **Florida Product Approval No. : 28078.4**
- **Texas Department of Insurance Evaluation ID: LVR-26**
- **Tested in accordance with: TAS-100A (Wind-Driven Rain Test), TAS-201 (Large Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test), TAS-203 (Cyclic Wind Pressure Loading Test).**
- **AMCA 500-L (Wind-Driven Rain, Water Penetration, Air Performance).**
- **AMCA 540 (Wind-Borne Debris Impact Test [Enhanced "Level E" Protection]).**
- **AMCA 550 (High Velocity Wind-Driven Rain Resistance Test).**
- **Wind load rating +/– 150 PSF.**



STANDARD CONSTRUCTION:

FRAME: 5" (127) deep, Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T6 extruded aluminum, .063" (1.6) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approximately 3/4" (19) on centers.

BLADE SUPPORT: 2.5" (64) strap every 60" (1524) or less in height.

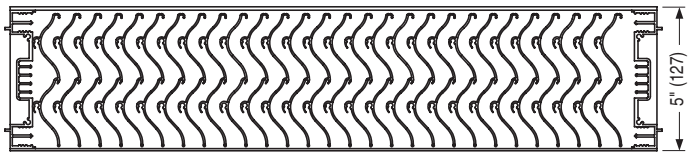
SCREEN: 3/4" x .050 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

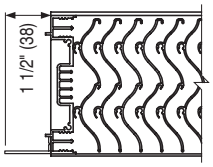
FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 48" W x 120" H (1219 x 3048) or 120" W x 48" H (3048 x 1219). 40 sq. ft. (3.7 m^2). Larger louvers will require field assembly of smaller sections.

MAXIMUM SIZE: Unlimited Width x 120" H (3048).





OPT. FLANGED FRAME (FL15 STD.)

OPTIONS:

- ❑ **FL15** Flanged Frame, 1 1/2" (38).
- ❑ **FL20** Flanged Frame, 2" (51).
- ❑ **BSSS** Type 304 S.S. Bird Screen.
- ❑ **BSN** No Bird Screen.
- ❑ **ISA** Aluminum Insect Screen.
- ❑ **ISSS** Type 304 S.S. Insect Screen.
- ❑ **ESI** Extended Sill.
- ❑ **PASI** Sill Pan.
- ❑ Other: _____ .

OPTIONAL FINISHES:

- ❑ **PC3** Powder Coat AAMA 2603. Color: ____ .
- ❑ **PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: ____ .
- ❑ **PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: ____ .
- ❑ **PCC** Prime Coat.
- ❑ **AN04** Clear Anodized 204-R1.
- ❑ **AN15** Clear Anodized 215-R1.
- ❑ **ANLB** Light Bronze.
- ❑ **ANMB** Medium Bronze.
- ❑ **ANDB** Dark Bronze.
- ❑ **ANBK** Black.

For Installation Instructions, see approved NOA.

SCHEDULE TYPE:	Page 1 of 3 Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**7 - 24 - 24**	**1600M**	**2 - 19 - 24**	**1675WDVM**

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EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • VERTICAL BLADE • PERFORMANCE DATA
MODEL: 1675WDVM

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	**Width in Inches and** Meters																		
	12 0.30	**18** 0.46	**24** 0.61	**30** 0.76	**36** 0.91	**42** 1.07	**48** 1.22	**54** 1.37	**60** 1.52	**66** 1.68	**72** 1.83	**78** 1.98	**84** 2.13	**90** 2.29	**96** 2.44	**102** 2.59	**108** 2.74	**114** 2.90	**120** 3.05
12 0.30	**0.30** 0.03	**0.50** 0.05	**0.70** 0.06	**0.89** 0.08	**1.09** 0.10	**1.29** 0.12	**1.49** 0.14	**1.69** 0.16	**1.89** 0.18	**2.09** 0.19	**2.28** 0.21	**2.48** 0.23	**2.68** 0.25	**2.88** 0.27	**3.08** 0.29	**3.28** 0.30	**3.48** 0.32	**3.67** 0.34	**3.87** 0.36
18 0.46	**0.52** 0.05	**0.86** 0.08	**1.21** 0.11	**1.55** 0.14	**1.90** 0.18	**2.24** 0.21	**2.59** 0.24	**2.93** 0.27	**3.28** 0.30	**3.63** 0.34	**3.97** 0.37	**4.32** 0.40	**4.66** 0.43	**5.01** 0.47	**5.35** 0.50	**5.70** 0.53	**6.04** 0.56	**6.39** 0.59	**6.73** 0.63
24 0.61	**0.63** 0.06	**1.06** 0.10	**1.48** 0.14	**1.90** 0.18	**2.33** 0.22	**2.75** 0.26	**3.17** 0.29	**3.60** 0.33	**4.02** 0.37	**4.44** 0.41	**4.87** 0.45	**5.29** 0.49	**5.71** 0.53	**6.14** 0.57	**6.56** 0.61	**6.98** 0.65	**7.41** 0.69	**7.83** 7.00	**8.25** 0.77
30 0.76	**0.85** 0.08	**1.42** 0.13	**1.99** 0.19	**2.56** 0.24	**3.13** 0.29	**3.70** 0.34	**4.27** 0.40	**4.84** 0.45	**5.41** 0.50	**5.98** 0.56	**6.55** 0.61	**7.12** 0.66	**7.69** 0.71	**8.26** 0.77	**8.83** 0.82	**9.40** 0.87	**9.97** 0.93	**10.54** 0.98	**11.11** 1.03
36 0.36	**1.07** 0.10	**1.79** 0.17	**2.51** 0.23	**3.22** 0.30	**3.94** 0.37	**4.66** 0.43	**5.37** 0.50	**6.09** 0.57	**6.81** 0.63	**7.52** 0.70	**8.24** 0.77	**8.96** 0.83	**9.67** 0.90	**10.39** 0.97	**11.11** 1.03	**11.82** 1.10	**12.54** 1.16	**13.26** 1.23	**13.97** 1.30
42 1.07	**1.29** 0.12	**2.16** 0.20	**3.02** 0.28	**3.88** 0.36	**4.75** 0.44	**5.61** 0.52	**6.47** 0.60	**7.34** 0.68	**8.20** 0.76	**9.06** 0.84	**9.93** 0.92	**10.79** 1.00	**11.65** 1.08	**12.52** 1.16	**13.38** 1.24	**14.24** 1.32	**15.11** 1.40	**15.97** 1.48	**16.83** 1.56
48 1.22	**1.51** 0.14	**2.52** 0.23	**3.53** 0.33	**4.54** 0.42	**5.55** 0.52	**6.56** 0.61	**7.57** 0.70	**8.58** 0.80	**9.59** 0.89	**10.60** 0.99	**11.61** 1.08	**12.62** 1.17	**13.63** 1.27	**14.64** 1.36	**15.65** 1.45	**16.66** 1.55	**17.67** 1.64	**18.68** 1.74	**19.69** 1.83
54 1.37	**1.73** 0.16	**2.89** 0.27	**4.05** 0.38	**5.20** 0.48	**6.36** 0.59	**7.52** 0.70	**8.67** 0.81												
60 1.52	**1.95** 0.18	**3.26** 0.30	**4.56** 0.42	**5.86** 0.54	**7.17** 0.67	**8.47** 0.79	**9.77** 0.91												
66 1.68	**2.17** 0.20	**3.62** 0.34	**5.07** 0.47	**6.52** 0.61	**7.97** 0.74	**9.42** 0.88	**10.87** 1.01												
72 1.83	**2.39** 0.22	**3.99** 0.37	**5.59** 0.52	**7.18** 0.67	**8.78** 0.82	**10.38** 0.96	**11.97** 1.11												
78 1.98	**2.61** 0.24	**4.36** 0.40	**6.10** 0.57	**7.84** 0.73	**9.59** 0.89	**11.33** 1.05	**13.07** 1.21												
84 2.13	**2.83** 0.26	**4.72** 0.44	**6.61** 0.61	**8.50** 0.79	**10.39** 0.97	**12.28** 1.14	**14.17** 1.32												
90 2.29	**3.05** 0.28	**5.09** 0.47	**7.13** 0.66	**9.16** 0.85	**11.20** 1.04	**13.24** 1.23	**15.27** 1.42												
96 2.44	**3.27** 0.30	**5.46** 0.51	**7.64** 0.71	**9.82** 0.91	**12.01** 1.12	**14.19** 1.32	**16.37** 1.52												
102 2.59	**3.49** 0.32	**5.82** 0.54	**8.15** 0.76	**10.48** 0.97	**12.81** 1.19	**15.14** 1.41	**17.47** 1.62												
108 2.74	**3.71** 0.35	**6.19** 0.58	**8.67** 0.81	**11.14** 1.04	**13.62** 1.27	**16.10** 1.50	**18.57** 1.73												
114 2.90	**3.93** 0.37	**6.56** 0.61	**9.18** 0.85	**11.80** 1.10	**14.43** 1.34	**17.05** 1.58	**19.67** 1.83												
120 3.05	**4.15** 0.39	**6.92** 0.64	**9.69** 0.90	**12.46** 1.16	**15.23** 1.42	**18.00** 1.67	**20.77** 1.93												

SCHEDULE TYPE:	Page 2 of 3			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**7 - 24 - 24**	**1600M**	**2 - 19 - 24**	**1675WDVM**

Nailor® Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH VELOCITY WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • VERTICAL BLADE • PERFORMANCE DATA
MODEL: 1675WDVM

AIRFLOW / WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %		47%
Free Area sq. ft. (sq. m.)		7.57 (0.70)
INTAKE	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1250 fpm (381 m/min.)*
INTAKE	Air Volume at 1250 fpm Free Area Velocity	9463 cfm (4466 l/s)
INTAKE	Pressure Drop @ 1250 fpm	.38 in. w.g. (95 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.*Maximum Free Area Velocity tested is 1250 fpm. Beginning point of water penetration for this model is above 1250 fpm.

WIND DRIVEN RAIN PERFORMANCE

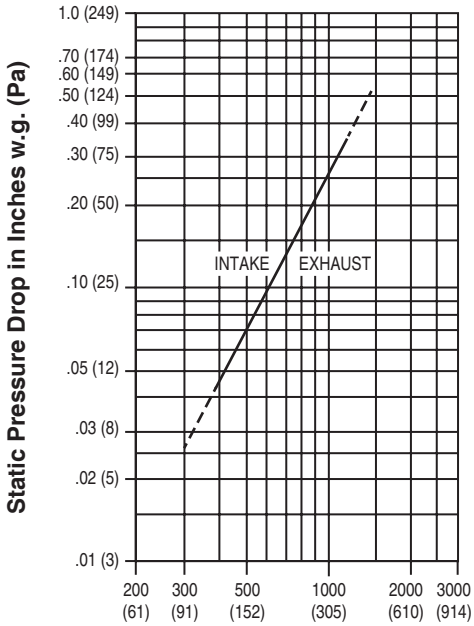
Core Ventilation	0	110	195	279	396	497	588	701	781	891	981
Rate in fpm (m/s)	(0.00)	(0.56)	(0.99)	(1.42)	(2.01)	(2.52)	(2.99)	(3.56)	(3.97)	(4.53)	(4.98)
Free Area Ventilation	0	212	375	537	762	957	1132	1349	1503	1715	1888
Rate in fpm (m/s)	(0.00)	(1.08)	(1.91)	(2.73)	(3,87)	(4.86)	(5.75)	(6.85)	(7.63)	(8.71)	(9.59)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	100
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 3" per hour (76 mm/hour) with a wind velocity of **29 mph (13 m/s).**
DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 3. (Discharge Loss Coefficient Classification is as follows:
1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

Core Ventilation	0	88	199	301	400	485	590	687	787	883	987
Rate in fpm (m/s)	(0.00)	(0.45)	(1.01)	(1.53)	(2.03)	(2.46)	(3.00)	(3.49)	(4.00)	(4.49)	(5.01)
Free Area Ventilation	0	169	383	579	770	934	1136	1322	1515	1700	1900
Rate in fpm (m/s)	(0.00)	(0.86)	(1.95)	(2.94)	(3.91)	(4.74)	(5.77)	(6.72)	(7.70)	(8.64)	(9.65)
Effectiveness Ratio (%)	100	100	100	100	100	100	100	100	100	100	100
Penetration Class	A	A	A	A	A	A	A	A	A	A	A

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 8" per hour (203 mm/hour) with a wind velocity of **50 mph (22 m/s).**
DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 3. (Discharge Loss Coefficient Classification is as follows:
1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm).
Standard air density @ 0.075 lbs/ft³.
Tested to AMCA Fig. 5.5 – 6.5.

amca WORLDWIDE CERTIFIED RATINGS — WATER PENETRATION, AIR PERFORMANCE, WIND DRIVEN RAIN — AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC. — www.amca.org

Nailor Industries Inc. certifies that the Model 1675WDVM shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program seal applies to Water Penetration, Wind Driven Rain and Air Performance ratings.

Louvers were tested in accordance with AMCA Standard 500-L.

amca INTERNATIONAL LISTED

HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN AND IMPACT RESISTANT LOUVER
Enhanced Protection Level E
See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Nailor Industries Inc. certifies that the 1675WDVM louver shown herein is approved to bear the AMCA International Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA publications and comply with the requirements of the AMCA International Listing Label program. The AMCA International Listing Label applies to pressure cycle tested wind borne debris impact resistant louvers rated for Enhanced Protection and +/- 150PSF with a minimum blade span of less than 12 in. (305mm) and a maximum unsupported blade span of 58 in. (1473 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully open position that permits airflow through a louver.

Dimensions are in inches (mm).

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	7 - 24 - 24	1600M	2 - 19 - 24	1675WDVM

Nailor® Industries Inc.

Louver Finishes & Color Guide

Slate Blue **LF01**	Medium Bronze **LF02**	Sandstone **LF03**
Light Gray **LF04**	Charcoal **LF05**	Bone White **LF06**
Western Tan **LF07**	Architectural Bronze **LF08**	Regal Blue **LF09**
Forest Green **LF10**	Surrey Beige **LF11**	Royal Brown **LF12**
Barn Red **LF13**	Burgundy **LF14**	Clay **LF15**
Almond **LF16**	Coastal White **LF17**	Vista Green **LF18**
Black **LF19**	Gloss Black **LF20**	Campus Green **LF21**

Nailor offers 21 standard paint colors selected for architectural exterior use which meet or exceed AAMA specifications and performance requirements for color retention, chalk resistance, gloss retention, erosion, corrosion and chemical resistance as well as dry film thickness and hardness. Our state-of-the-art powder coat system provides an environment friendly finishing solution with more uniform coverage and coating thickness. The result is an exceptional finish that better resists scratching, fading and general wear. Additional liquid coat facilities for special requirements complete our ability to provide unmatched beauty and durability for any application.

Custom color matching is also available upon request. Contact your local Nailor representative.

Available Finishes

FINISH TYPE	DESCRIPTION	STANDARD WARRANTY
Fluoropolymer Powder Coat AAMA 2605-Superior Finish (AKA: Powdura® 5000, Coraflon® Powder, Interpon® D3000-Fluoromax, IFS 500FP)	**"Ultimate"** - A next generation hyper durable powder coating, based on FEVE fluoropolymer resins and ceramic pigmentation that the industry has acknowledged as the foundation for superior performance coatings. They provide a hard surface that is resistant to scratching and scuffing, with superior color and gloss retention, when applied to a variety of exterior architectural applications. This technology represents the "ultimate" in environmentally friendly finishes, with Zero-VOC emissions. A superior alternative to traditional 70% Kynar 500® / Hylar 500® PVDF fluoropolymer liquid coatings.	10 years (Consult Nailor for availability of extended warranty)
High Performance Powder Coat AAMA 2604 - High Performance Finish (AKA: Powdura® 4000, Envirocron® Ultra Durable Powder, Dynadure™ 400, Interpon® D2000, IFS 400SD)	**"Better"** - A high performance polyester powder coating, based on "super durable" resins that utilize infrared reflective pigments, which provides excellent resistance to outdoor weathering. A harder and more environmentally friendly coating than other liquid paint counterparts and with Zero-VOC emissions. A good alternative to 50% Kynar 500® / Hylar 5000® liquid coatings.	5 years
Durable Powder Coat AAMA 2603 - Pigmented Organic Coatings (AKA: Powdura® 3000, Envirocron® Durable Powder, Dynadure™ 300, Interpon® D1000, IFS 300SP)	**"Good"** - A durable powder coat based on thermosetting polyester resin technology. Provides a good economical combination of physical and chemical resistance properties. Environmentally superior to liquid spray paints and Zero – VOC emissions.	1 year
Clear Anodize 215-R1 AA-M10C22A41 (0.7 mil. min.)	Architectural Class I. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for severely corrosive and abrasive atmospheric exposure.	5 years
Clear Anodize 204-R1 AA-M10C22A31 (0.4 - 0.7 mil.)	Architectural Class II. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for normal weather exposure.	1 year
Color Anodize AA-M10C22A44 (0.7 mil. min.)	Architectural Class I. "Two-step" aluminum coating process. Following a standard anodizing procedure, a second electrolytic process deposits colored metallic pigments which penetrate the aluminum oxide pores, producing a corrosion resistant, colorfast finish. Available in light, medium, dark bronze and black.	5 years
Prime Coat	Prime coat provides a stable base for painting of louvers in the field. Surface pretreatment includes degreasing and a chemical cleaning before an epoxy prime coat is applied. Finish coat should be field applied as soon as possible for best adhesion, after a thorough cleaning for dust etc. that can contaminate the final finish and cause premature flaking or peeling.	N/A

Paint finish warranties are not applicable to steel products.

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

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

NOTICE OF ACCEPTANCE (NOA)

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 1675WDVM Aluminum Louver – L.M.I.

APPROVAL DOCUMENT: Drawing No. **1675WDVM**, titled "1675WDVM Louver", sheets 1 through 12 of 12, prepared by manufacturer, dated 09/25/2017, with revision C dated 05/10/2024, 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. 23-0724.22** 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.**

MIAMI-DADE COUNTY APPROVED

07/08/24

NOA No. 24-0516.03
Expiration Date: August 30, 2028
Approval Date: July 18, 2024

Nailor Industries Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA # 18-0117.11

A. DRAWINGS

1. Drawing No. **1675WDVM**, titled "1675WDVM Louver", sheets 1 through 11 of 11, dated 09/25/17, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS *"Submitted under NOA No. 18-0117.11"*

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 1675 WDVM Louver System, prepared by Intertek, Test Report No. **H4890.01-801-18-R3**, dated 09/27/17 and revised on 05/18/18, signed and sealed by Tyler Westerling, P.E.

2. Test Report on Wind Driven Rain Resistance per TAS 100(A)-95 on a Model 1675WDVM Vertical Aluminum Louver, prepared by Intertek, Test Report No. **H0051.02-801-18 R1,** dated 09/28/17, revised on 11/21/17, signed and sealed by Tyler Westerling, P.E

3. Test Report on High Velocity Wind Driven Rain Resistance per AMCA 550-15 on a Model 1675WDVM Vertical Aluminum Louver, prepared by Intertek/ATI, Test Report No. **H0051.01-801-18-R3,** dated 04/20/2017, revised on 11/21/2017, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS

1. Louver structural calculations dated 10/26/17, 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

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. 24-0516.03
Expiration Date: August 30, 2028
Approval Date: July 18, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.09 AND NEW

A. DRAWINGS

1. Drawing No. **1675WDVM**, titled "1675WDVM Louver", sheets 1 through 12 of 12, prepared by manufacturer, dated 09/25/2017, with revision C dated 05/10/2024, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Louver calculations, prepared by Rice Engineering, dated 05/10/2024, 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 05/10/2024, signed and sealed by Wayne K. Helmila, P.E.

"Submitted under NOA # 21-0630.09"

2. Statement letter of code conformance to the **7th edition (2020) FBC**, issued by Rice Engineering, dated 08/16/21, signed and sealed by Wayne K. Helmila, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 24-0516.03
Expiration Date: August 30, 2028
Approval Date: July 18, 2024

DRAWING INDEX

TESTS PREFORMED:
TAS-100 (A) WIND DRIVEN RAIN RESISTANCE
TAS-201 LARGE MISSILE IMPACT
TAS-202 UNIFORM STATIC AIR PRESSURE TEST
TAS-203 CYCLIC WIND PRESUSRE TEST
DESIGN PRESSURE RATING 150 PSF

NOTES:

1. THE 1675WDVM HAS BEEN TESTED IN ACCORDANCE WITH THE MIAMI-DADE COUNTY PROTOCALS: TAS-100 A, TAS-201, TAS-202, & TAS-203 FOR WIND DRIVEN RAIN, LARGE MISSILE IMPACE, 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 STRUCTURE. MINIMUM EDGE DISTANCE AND EMBEDMENT REQUIREMENTS ARE SHOWN. NAILOR IND. DOES NOT DETERMINE THE STRUCTURE INTERGRITY OF THE SUBSTRUCTURE.
5. MAXIMUM SINGLE SECTION SIZE: 48" WIDE X 120" HIGH OR 120" WIDE X 48" HIGH.
6. MAXIMUM ASSEMBLED LOUVER SIZE UNLIMITED WIDE X 120" HIGH MAX. MULLION SPACING IS 48".
7. SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED A SUITIBLE STRUCTURE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FOR THE LOUVER.

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.03
Expiration Date 08/30/2028
By _____
Miami-Dade Product Control

REVISIONS:
REV C: ADDED PAGE 5 AND RENUMBERED PAGES 6-12
- ADDED PAGE 5 SKINNY WALL APPLICATION HEAD AND SILL DETAIL CONT.
- UPDATED ALL PAGES.

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 1 OF 12

DWG. NO. 1675WDVM | REV C

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

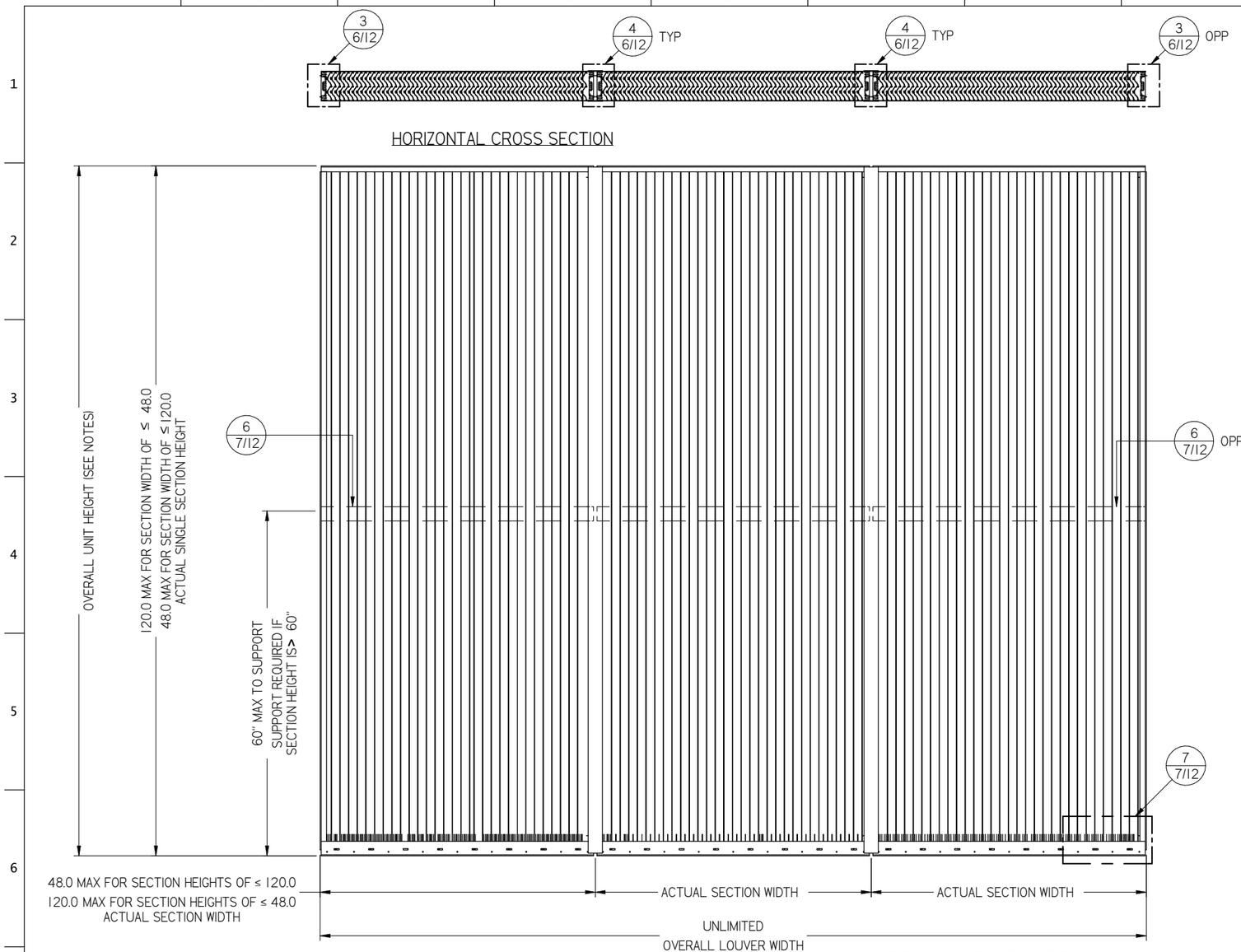
TITLE: 1675WDVM LOUVER
INDEX

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

06/21/2024
COA: 9090

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. 24–0516.03
Expiration Date 08/30/2028
By
Miami–Dade Product Control

REV. C - UPDATED SHEET TO ACCOUNT FOR PAGE 12

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 2 OF 12

DWG. NO. 1675WDVM | REV C

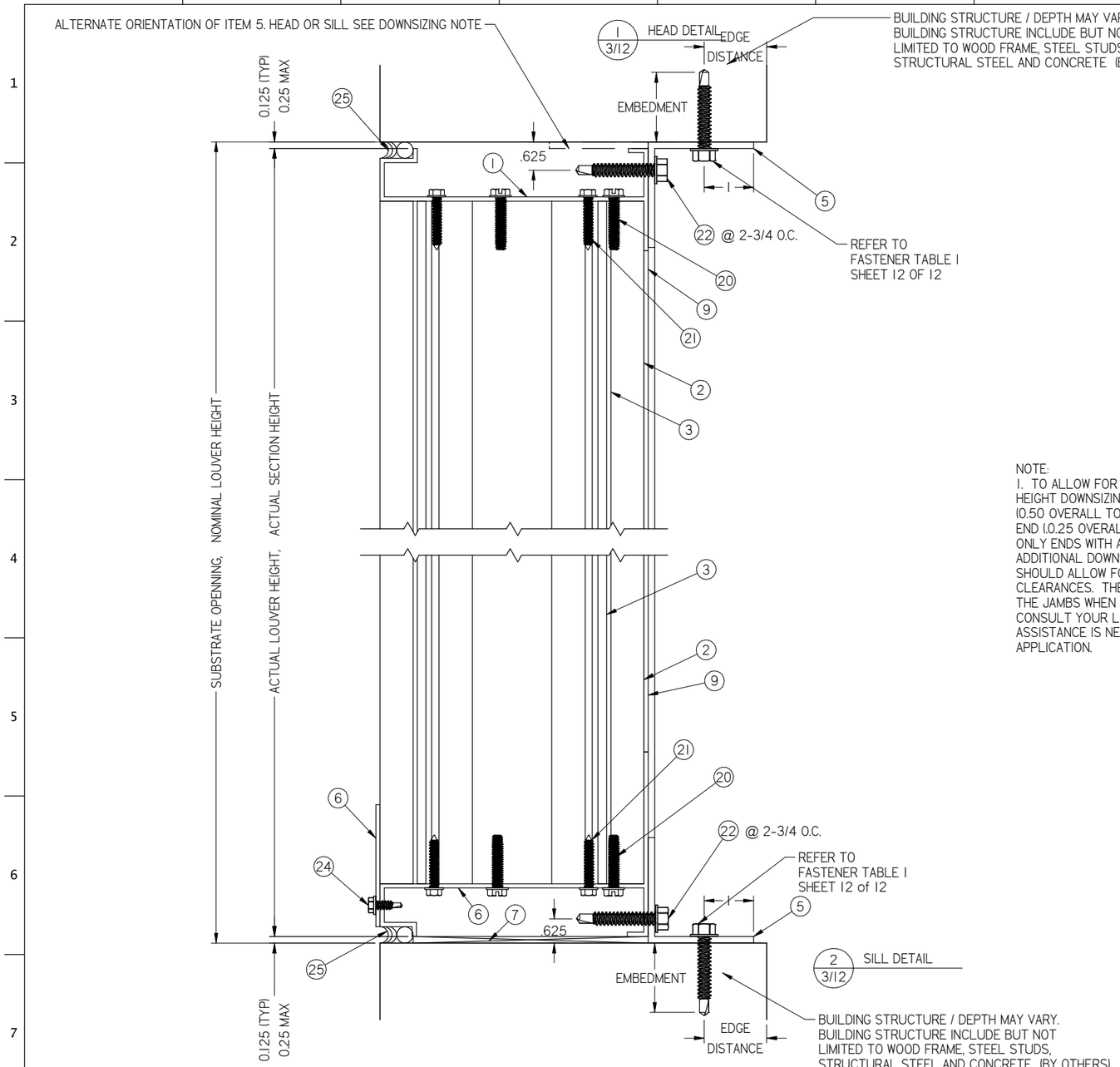
TITLE: 1675WDVM LOUVER
ELEVATION

Nailor Industries Inc.
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

06/21/2024
COA: 9090

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



NOTE:
1. TO ALLOW FOR SUBSTRATE ANCHOR HEAD CLEARANCE, LOUVER HEIGHT DOWNSIZING (UNDERCUT) OF UP TO 0.25 TOTAL PER END (0.50 OVERALL TOTAL) IS ALLOWABLE. DOWNSIZING OF 0.125 PER END (.0.25 OVERALL TOTAL) FROM ACTUAL HEIGHT IS STANDARD. ONLY ENDS WITH ALTERNATE ANCHOR ORIENTATION MAY REQUIRE ADDITIONAL DOWNSIZING, BUT THE 0.125 STANDARD DOWNSIZING SHOULD ALLOW FOR ALTERNATE ANCHOR ORIENTATION SETUP CLEARANCES. THER IS NO NEED FOR ADDITIONAL DOWNSIZING AT THE JAMBS WHEN USING ALTERNATE ONCHOR ORIENTAION. CONSULT YOUR LOCAL REP OR THE MANUFACTURER IF ASSISTANCE IS NEEDED FOR PROPER DOWNSIZING FOR YOUR APPLICATION.

PRODUCT REVISED
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NOA–No. 24–0516.03
Expiration Date 08/30/2028
By
Miami–Dade Product Control

REV. C - UPDATED FASTENER NOTE TO REFLECT CHANGES TO FASTENER TABLES.

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS
SHEET: 3 OF 12
DWG. NO. 1675WDVM
REV C

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

TITLE: 1675WDVM LOUVER HEAD AND SILL DETAIL

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

06/21/2024
COA: 9090

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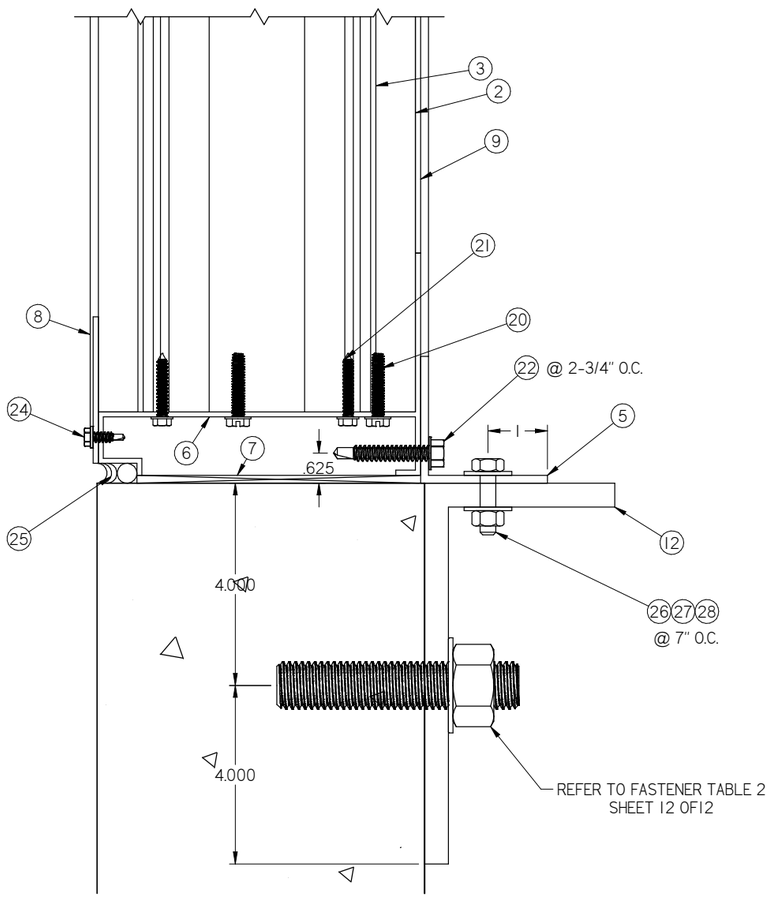
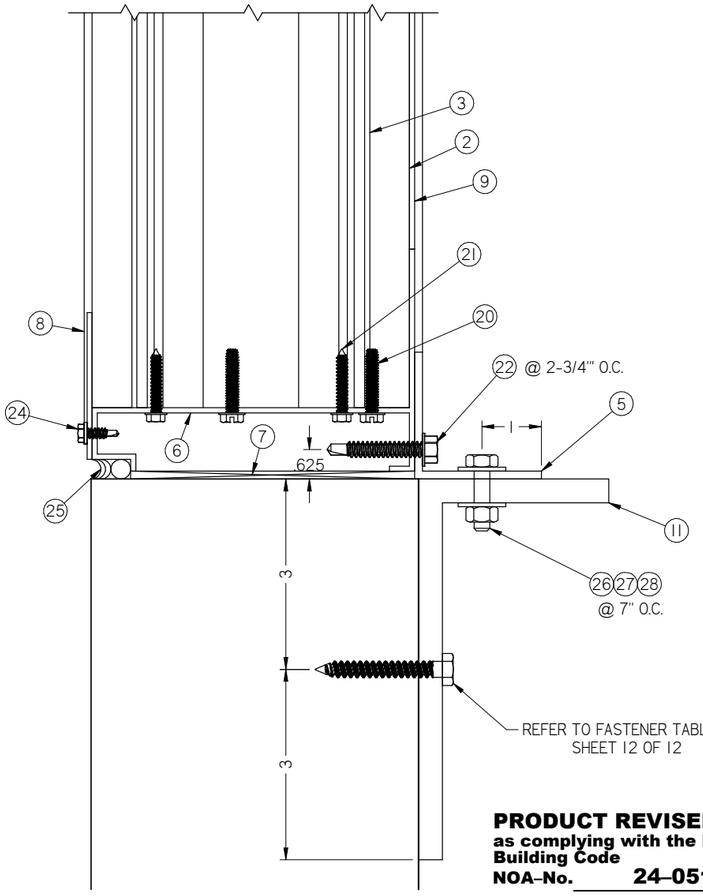
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

GROUT FILLED CMU
(BY OTHERS)



2A SILL DETAIL SKINNY WALL 4/12

WOOD / STEEL 16G.A.
STEEL A-36 / CONCRETE
(BY OTHERS)



2B SILL DETAIL SKINNY WALL 4/12

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.03
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REV. C - UPDATED FASTENER NOTE TO REFLECT CHANGES TO FASTENER TABLES - CMU DETAIL UPDATED PER CALCULATIONS.

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 4 OF 12

DWG. NO. 1675WDVM REV C

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

TITLE:
1675WDVM LOUVER
SKINNY WALL APPLICATION
HEAD AND SILL DETAIL

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

06/21/2024
COA: 9090

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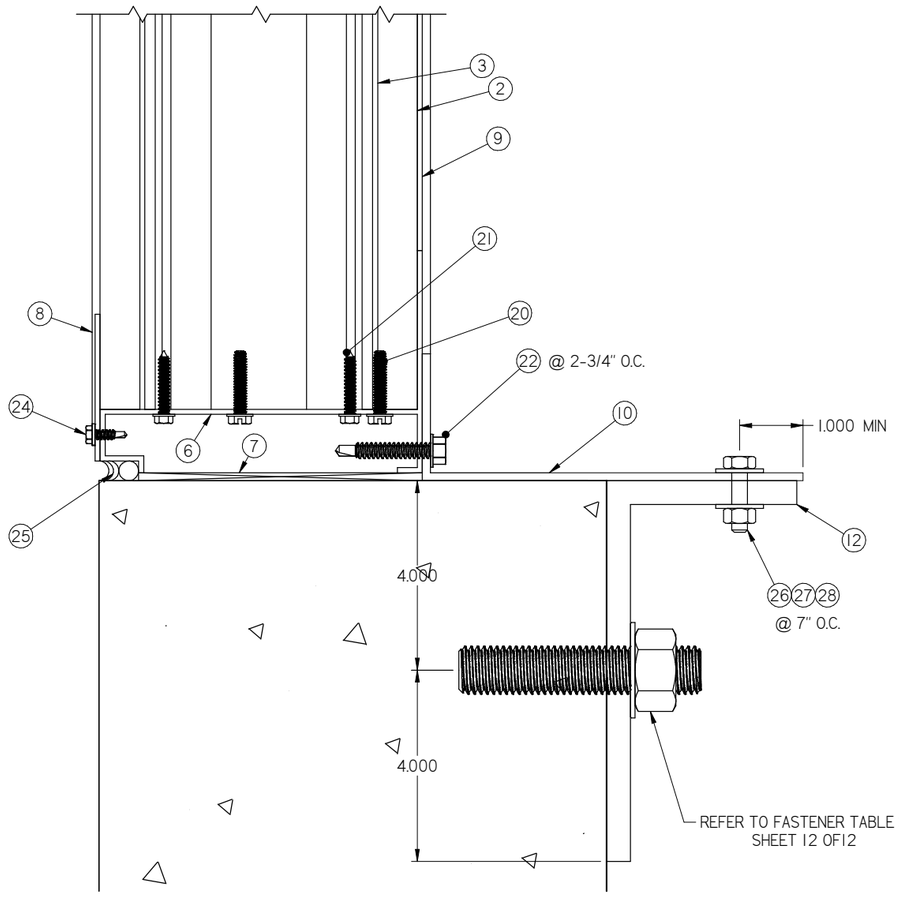
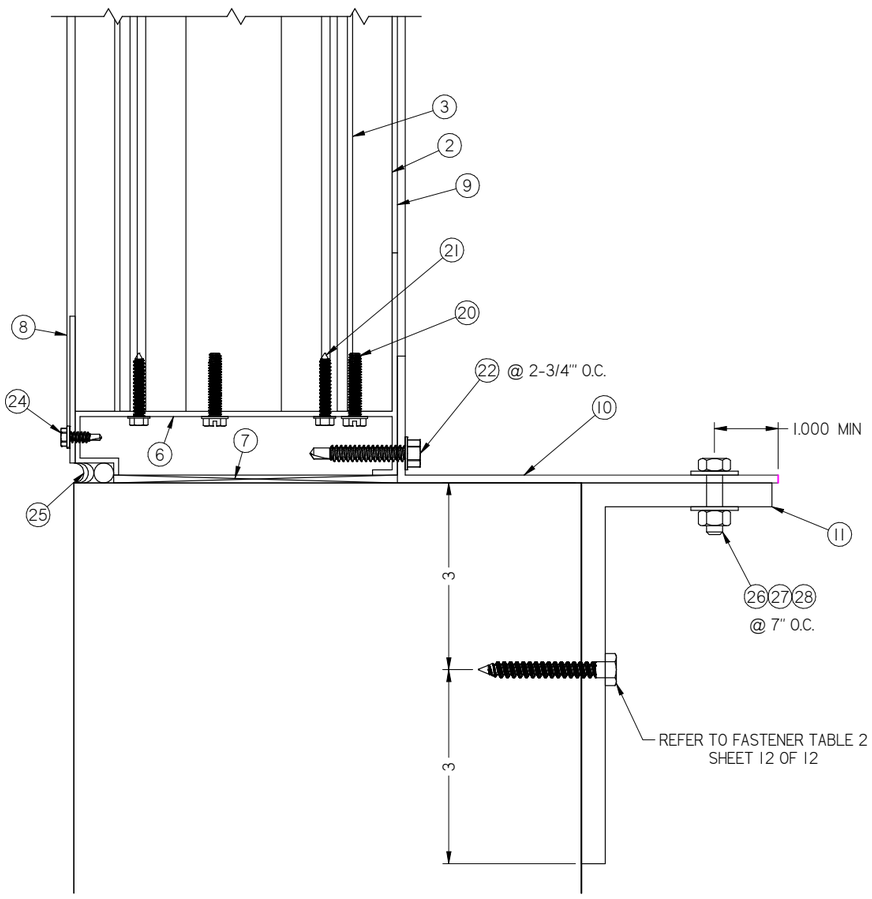
GROUT FILLED CMU
(BY OTHERS)



2A 5/12 SILL DETAIL SKINNY WALL

WOOD / STEEL 16G.A.
STEEL A-36 / CONCRETE
(BY OTHERS)



2B 5/12 SILL DETAIL SKINNY WALL

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.03
Expiration Date 08/30/2028
By
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REV. C - ADDED PAGE TO SHOW ALTERNATE INSTALLATION FOR THICKER SUBSTRATES.

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 5 OF 12

DWG. NO. 1675WDVM REV C

TITLE: 1675WDVM LOUVER
SKINNY WALL APPLICATION
HEAD AND SILL DETAIL
CONT.

Nailor Industries Inc.
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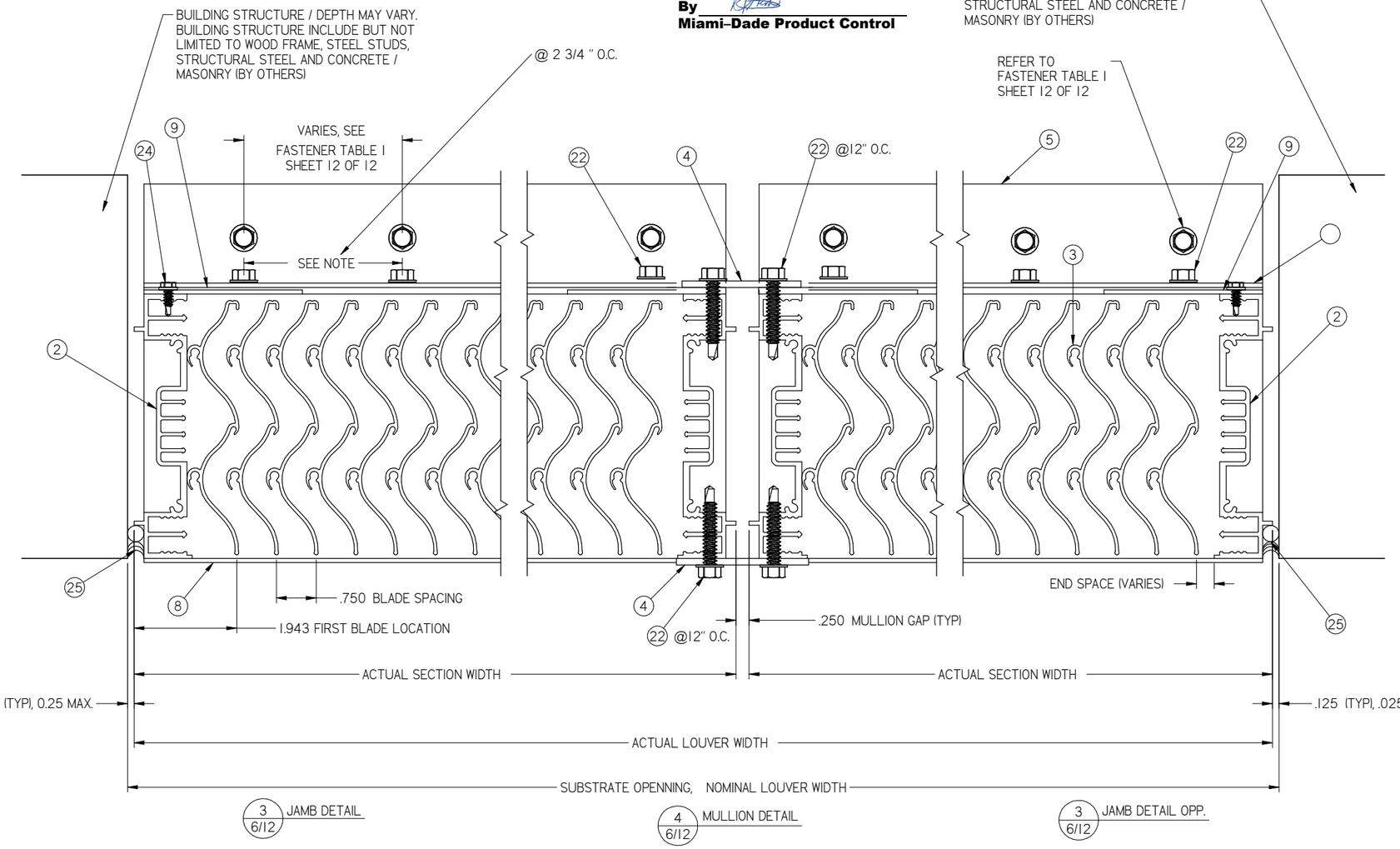

REV C: ADDED NOTE FOR ANGLE INSTALLATION O.C.
- UPDATED PAGE NUMBER

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
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SHEET: 6 OF 12

DWG. NO. 1675WDVM REV C

TITLE: 1675WDVM LOUVER JAMB AND MULLION DETAIL

Nailor Industries Inc.
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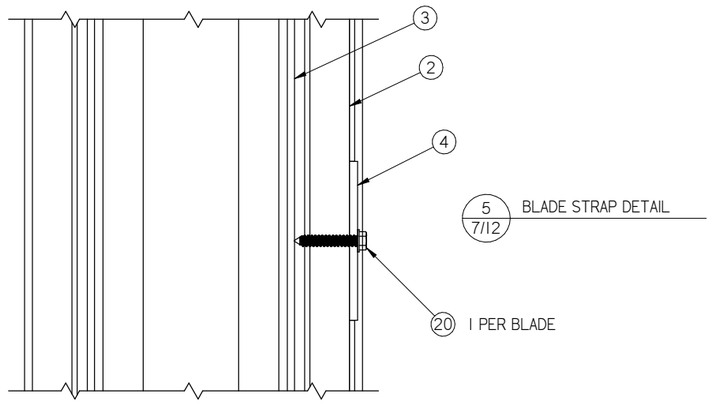
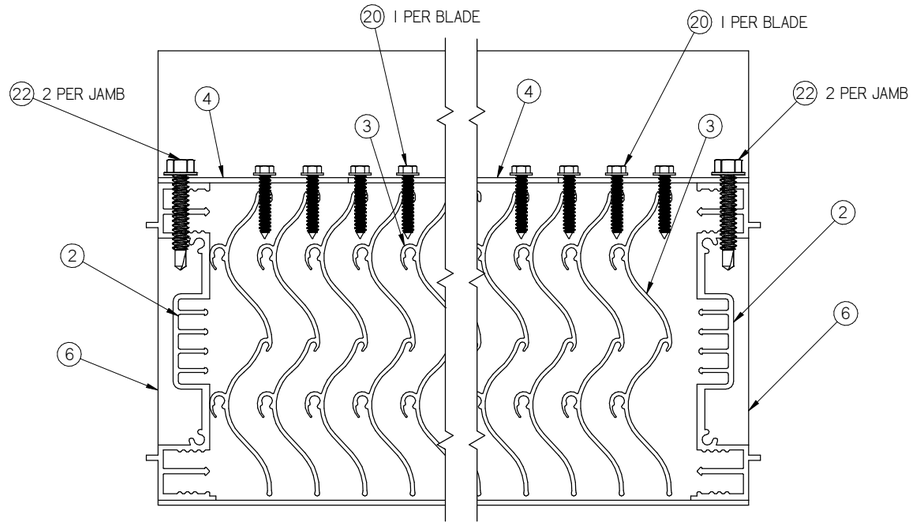


5 / 7/12 BLADE STRAP DETAIL



6 / 7/12 BLADE STRAP AT JAMB DETAIL

6 / 7/12 BLADE STRAP AT JAMB DETAIL OPP.

PRODUCT REVISED
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REV. C - UPDATED PAGE NUMBER

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DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 7 OF 12

DWG. NO. 1675WDVM REV C

TITLE: 1675WDVM LOUVER BLADE STRAP DETAIL

Nailor Industries Inc.
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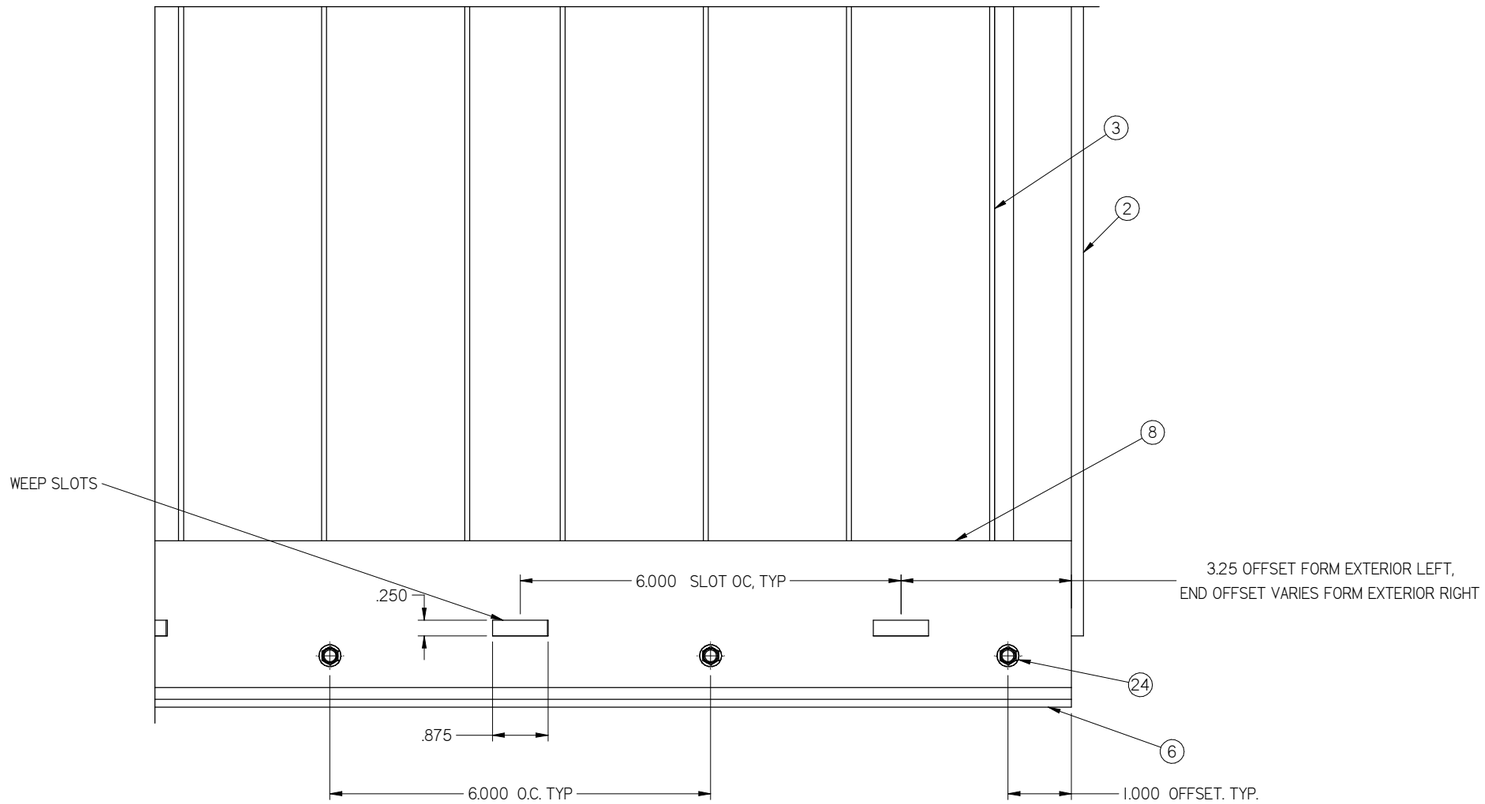

7 / 8/12 BAFFLE/ WEEP DETAIL

PRODUCT REVISED
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NOA–No. 24–0516.03
Expiration Date 08/30/2028
By
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REV. C: UPDATED PAGE NUMBERS
- ADDED SCREWS AND BAFFLE

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas	CHK BY: MAstourian
DATE: 9/25/2017	SCALE: NTS

SHEET: 8 OF 12

DWG. NO. 1675WDVM REV C

TITLE: 1675WDVM LOUVER BAFFLE / WEEP DETAIL

Nailor Industries Inc.
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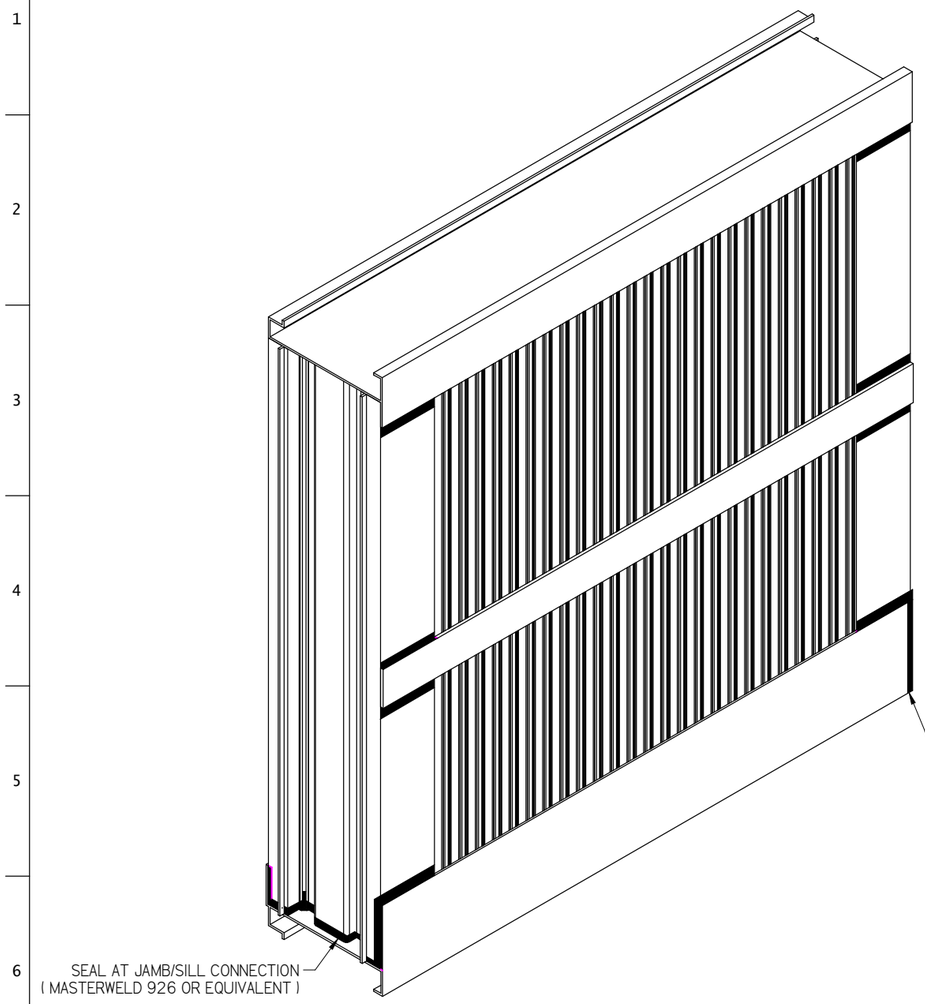

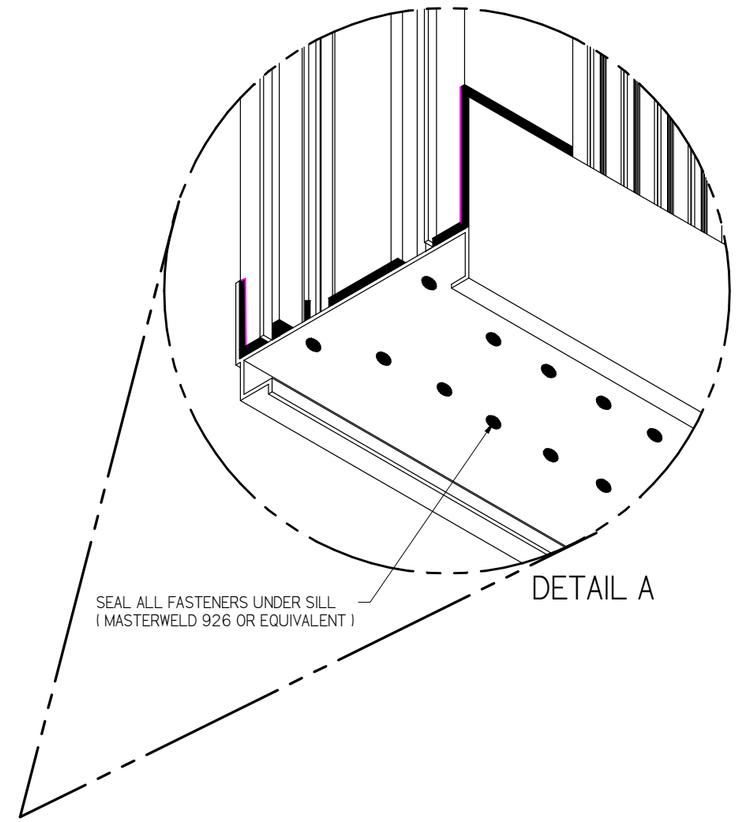

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REV. C: UPDATED PAGE NUMBERS

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas
DATE: 9/25/2017
CHK BY: MAstourian
SCALE: NTS

SHEET: 9 OF 12

DWG. NO. 1675WDVM
REV C

TITLE: 1675WDVM LOUVER
SEALANT DETAIL

Nailor Industries Inc.
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TEL: 281-590-1172 FAX: 281-590-3086
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WAYNE K. HELMILA
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PROFESSIONAL ENGINEER

06/21/2024
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Florida Firm No: F-01000005061
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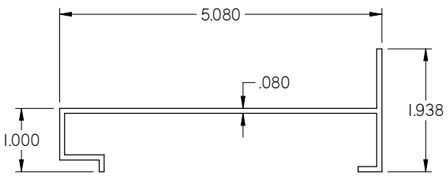
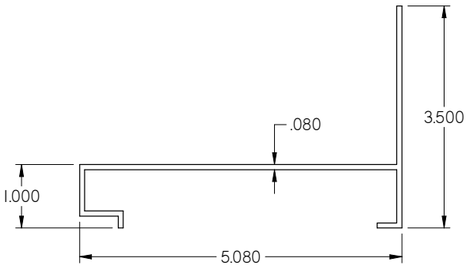
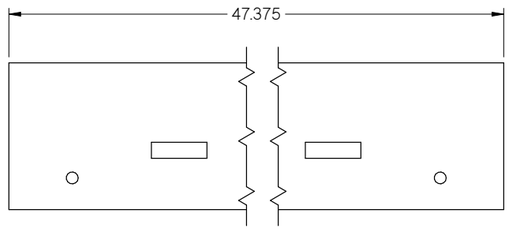


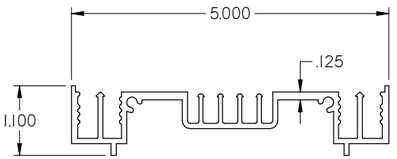
C6-119 HEAD / SILL FRAME
6063-T6 ALUM.
(1)



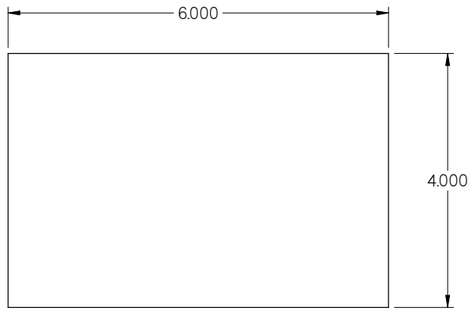
C6-240 SILL FRAME
6063-T6 ALUM.
(6)



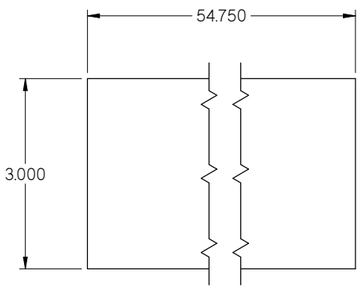
BAFFLE
5052-H53 ALUM.
(8)



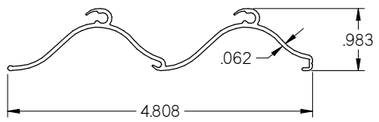
C6-241 JAMB FRAME
6063-T6 ALUM.
(2)



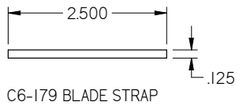
ALUMINUM SUPPORT SHIM
5052-H32 ALUM.
(7)



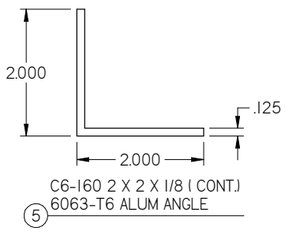
JAMB STOP
5052-H53 ALUM.
(9)



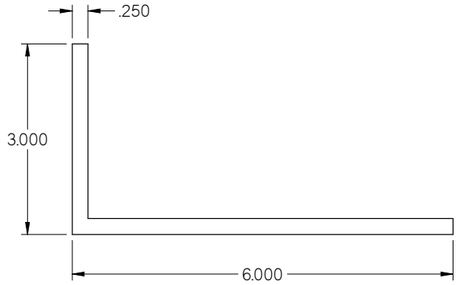
C6-204 BLADE
6063-T6 ALUM.
(3)



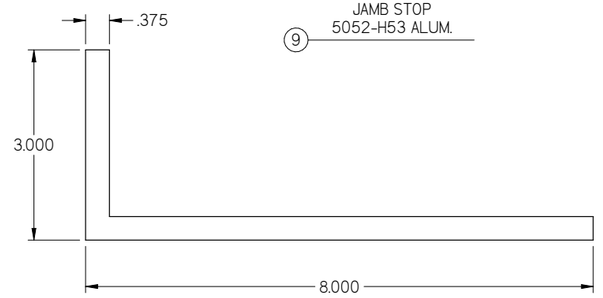
C6-179 BLADE STRAP
& MULLION BAR
6063-T6 ALUM.
(4)

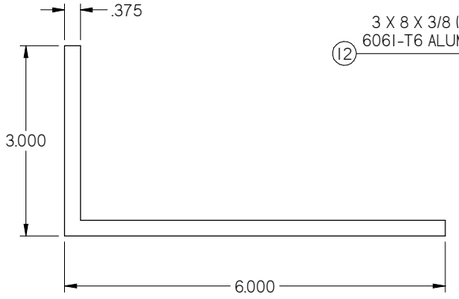


C6-160 2 X 2 X 1/8 (CONT.)
6063-T6 ALUM ANGLE
(5)



6 X 3 X 1/4 (CONT.)
6061-T6 ALUM ANGLE
(10)





6 X 3 X 3/8 (CONT.)
6061-T6 ALUM ANGLE
(10)

3 X 8 X 3/8 (CONT.)
6061-T6 ALUM ANGLE
(12)

PRODUCT REVISED
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NOA-No. 24-0516.03
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By
Miami-Dade Product Control

REV. C - UPDATED PAGE NUMBER
- UPDATED SILL , JAMB
- ADDED BAFFLE, 3 X 8 X 3/8 ANGLE
- ADDED 6 X 3 X 1/4 ANGLE
- ADDED JAMB STOPS

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 10 OF 12

DWG. NO. 1675WDVM | REV C

TITLE: 1675WDVM LOUVER
PART PROFILES

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BILL OF MATERIAL

ITEM	INTERNAL ID	DESCRIPTION	MATERIAL	NOTES
1	C6-119	HEAD / SILL FRAME	6063-T6	ONLY AT HEAD
2	C6-241	JAMB FRAME	6063-T6	
3	C6-204	BLADE	6063-T6	.75" CENTERS/SPACING
4	C6-179	BLADE STRAP / MULLION BAR	6063-T6	REQUIRED IF SECTION HEIGHT IS 60.00" OR GREATER
5	C6-160	2 X 2 X 1/8 ANGLE (CONT.)	6063-T6	AT HEAD AND SILL ONLY
6	C6-240	SILL	6063-T6	ONLY AT SILL
7	-	ALUMINIUM SUPPORT SHIM	5052-H32	BY OTHERS , OPTIONAL, AS NEEDED (1/4" THICK MAX.)
8	-	BAFFLE	5052-H32	FRONT DRAIN
9	-	JAMB STOP	5052-H32	SIZE VARIES AS NEEDED
10	-	6 X3 X 1/4 ANGLE (CONT.)	6061-T6	USED IN SKINNY WALL APPLICATION
11	-	6 X3 X 3/8 ANGLE (CONT.)	6061-T6	USED IN SKINNY WALL APPLICATION
12	-	3 X 8 X 3/8 ANGLE (CONT)	6061-T6	USED IN SKINNY WALL APPLICATION
--				
20	C6-189	SCREW,MACHINE , HW, #10-24 X 1 1/2, ZP	300 SERIES, SS COND CW	2 @ BLADE ENDS, AND BLADE STRAP ONE PER BLADE
21	C6-192	SCREW, MACHINE, MTL, HEX, #10 X 1 1/2, 410SS	300 SERIES, SS COND CW	2 @ FRAME CORNERS
22	C6-193	SCREWM METAL, HEX, #14 X 1 1/2, 410SS	300 SERIES, SS COND CW	@ HEAD AND SILL@ 2-3/4" O.C., AND @ BLADE STRAP 2 PER JAMBS
24	C6-198	SCREW, MTL, HEX, #8 X 3/4, 410SS	300 SERIES, SS COND CW	
25	-	SEALANT & BACKER ROD	VARIOUS	BY OTHERS
26	C6-181	1/4 NYLON INSERT LOCKNUT	STAINLESS	
27	C6-186	1/4 COMM"L FLAT WASHER	STAINLESS	
28	C6-187	1/4-20 X 1 HEX CAP SCREW 18-8 SS	STAINLESS	

GENERAL NOTES:

1. DUE TO PASSING TAS-100A, THE LOUVER IS DESIGNED TO PREVENT WIND DRIVEN RAIN FROM PENETRATING THE SPACE BEHIND THE LOUVER. AS SUCH, THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE SPACE/ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/ PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.

2. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED. ALUMINUM DESIGN MANUAL (CHAPTER F) FOR DETAILS.

3. ALL ALUMINIUM, STAINLESS STEEL (SS), AND PLATED / COATED STEEL PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.

4. STEEL / STAINLESS, STEEL / ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS EQUAL OR GREATER YIELD STRENGTH. PART DIMENSIONS ARE MINIMUMS UNLESS DEFINED OTHER WISE.

5. THE INTERNAL ID# SHOWN ON PAGE 9 IS FOR FACTORY USE AND TRACKING PURPOSES ONLY AND MAY BE UPDATED AT ANY TIME. ANY UPDATES WILL NOT ALTER THE ITEM AS DESCRIBED HEREIN.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.03
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REV. C - UPDATED PAGE NO.
ADDED ITEM #8 - BAFFLE
ADDED ITEM # 9 - JAMB STOP
ADDED ITEM # 10 - 3 X 6 X 1/4 ANGLE (CONT.)
ADDED ITEM # 11 - 3 X 6 X 3/8 ANGLE (CONT.)
ADDED ITEM # 12 - 8 X 3 X 3/8 ANGLE (CONT.)

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas
DATE: 9/25/2017
CHK BY: MAstourian
SCALE: NTS

SHEET: 11 OF 12
REV C
DWG. NO. 1675WDVM

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

TITLE:
1675WDVM LOUVER
BILL OF MATERIAL
GENERAL NOTES

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

06/21/2024
COA: 9090

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

TABLE 1: HEAD & SILL ANCHORS

Wood	Steel Stud	Steel	Concrete	CMU	Skinny Wall	Min.	Fastener Type	Diameter	# Rqd	O.C. Spacing	Edge	End	Embedment
X						SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	1	2-3/4"	2"		2-1/16
X						SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	1	3-3/4"	2"		2-1/16
	X					16 Ga.	Elco Bi-Flex Screws (300 Series SS, FY = 65 ksi)	1/4"	1	2-1/4"	2"		3 THREADS BEYOND SUBSTRATE
		X				A-36	Elco Bi-Flex Screws (300 Series SS, FY = 65 ksi)	1/4"	1	8"	2"		1/4"
		X				A-36	Elco Drill-Flex Drilling Screws (Cond. CW - Fy= 65ksi) Sealed w/ Liquid Prosoco	5/16"	1	10"	2"		1/4"
			X- Cracked 6" Deep			4 ksi	Hilti Kwik HUS-EZ SS 316	3/8	1	10"	4"	4"	2-1/2

TABLE 2: SKINNY WALL ANCHORS

Wood	Steel Stud	Steel	Concrete	CMU	Skinny Wall	Min.	Fastener Type	Diameter	# Rqd	O.C. Spacing	Edge	End	Embedment
X					X	SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	1	3-1/4"	3"		2-3/16"
X					X	SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	1	4-1/4"	3"		2-3/16"
	X				X	16 Ga.	Elco Bi-Flex Drilling Screws (300 Series SS, FY = 65 ksi)	1/4"	1	1"	3"		3 THREADS BEYOND SUBSTRATE
		X			X	A-36	Elco Bi-Flex Drilling Screws (300 Series SS, FY = 65 ksi)	1/4"	1	6"	3"		1/4"
		X			X	A-36	Elco Drill-Flex Drilling Screws (Cond. CW - Fy= 65ksi) Sealed w/ Liquid Prosoco	5/16"	1	6-3/4"	3"		1/4"
			X- Cracked 6" Deep		X	4 ksi	HILTI KWIK BOLT TZ2 SS 304	3/8"	1	8"	3"	3"	2-1/2"
			X- Cracked 6" Deep		X	4 ksi	HILTI KWIK BOLT TZ2 SS 304	1/2"	1	10"	3"	3"	3"
				X-Grout Filled	X	2 ksi	HILTI HIT-Hy 270 Threaded Rod 316/304 SS	3/4"	1	8"	4"		6-3/4"

NOTE 1: CONRETE MASONRY (CMU) SHALL BE > THE FOLLOWING, 6" WIDE, CMU CONFORMINGTO ASTM C-90 FILLED WITH 4,747 KSI GROUT.

NOTE 2: CONRETE MASONRY (CMU) SHALL BE > THE FOLLOWING, 6" WIDE, GRADE N, TYPE II, LIGHT-WEIGHT / MEDIUM-WEIGHT / NORMAL-WEIGHT CMU CONFORMING TO ASTM C-90. MORTAR MUST BE TYPE N. CMU STRENGTH = 2000 psi

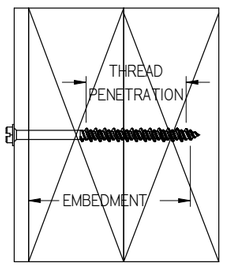
NOTE 3: CONCRETE, STEEL, WOOD, MASONRY, CURTAIN WALL, STOREFRONT, AND ALL OTHER BUILDING SUBSTRATES ARE DESIGNED BY OTHERS.

NOTE 4: ENGINEER OF RECORD TO VERIFY THAT BUILDING SUBSTRATE CAN SUPPORT THE LOUVER REACTIONS.

NOTE 5: THREAD PENETRATION LENGTH SIGNIFIES THE REQUIRED LENGTH OF THE THREADED PORTION OF THE FASTENER INTO THE WOOD SUBSTRATEPROVIDING FULL CONTACT WITH WOOD. LAG SCREW TIP CANNOT BE CONSIDERED PART OF THE TREADED PORTION FO THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS / SPICES WHERE THE LAG SCREW COULD FALL BETWEEN MEMBERS.

NOTE 6: STEEL STUDS TO BE 16 G.A. FY= 33ksi MIN.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.03
Expiration Date 08/30/2028
By
Miami-Dade Product Control



REVISIONS:
REV. C: UPDATED FASTENER SCHEDULE (2 TABLES)

N:\Drawing\LOUVERS\AMCA\1675WDVM\1675WDVM.dft

DWN BY: fcortinas | CHK BY: MAstourian
DATE: 9/25/2017 | SCALE: NTS

SHEET: 12 OF 12

REV C

DWG. NO. 1675WDVM

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

TITLE: 1675WDVM LOUVER FASTENER SCHEDULE

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

06/21/2024
COA: 9090

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

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

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

NOTICE OF ACCEPTANCE (NOA)

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 1605WDVM Aluminum Louver - L.M.I.

APPROVAL DOCUMENT: Drawing No. **1605WDVM**, titled "1605WDVM Louver", sheets 1 through 12 of 12, dated 10/12/2017, with revision B dated 05/28/2024, 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. 23-0724.25** 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.**

MIAMI-DADE COUNTY APPROVED

07/09/24

NOA No. 24-0516.06
Expiration Date: August 30, 2028
Approval Date: July 18, 2024

Nailor Industries Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER NOA # 18-0117.14

A. DRAWINGS

1. Drawing No. **1605WDVM**, titled "1605WDVM Louver", sheets 1 through 11 of 11, dated 10/12/17, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with installation diagram of Model 1605 WDVM Louver System, prepared by Intertek, Test Report No. **H4892.01-801-18-R4**, dated 09/25/17 and revised on 05/18/18, signed and sealed by Tyler Westerling, P.E.

2. Test Report on Wind Driven Rain Resistance per TAS 100(A)-95 on a Model 1605WDVM Vertical Aluminum Louver, prepared by Intertek, Test Report No. **H0211.02-801-18 R1,** dated 09/27/17 and revised on 11/21/17, signed and sealed by Tyler Westerling, P.E.

3. Test Report on High Velocity Wind Driven Rain Resistance per ANSI/AMCA 550-09 on a Model 1605WDVM Vertical Aluminum Louver, prepared by Intertek/ATI, Test Report No. **H0211.01-801-18-R3,** dated 04/20/17 and revised on 11/21/17, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS

1. Louver structural calculations dated 11/03/17, 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

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. 24-0516.06
Expiration Date: August 30, 2028
Approval Date: July 18, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.12 AND NEW

A. DRAWINGS

1. Drawing No. **1605WDVM**, titled "1605WDVM Louver", sheets 1 through 12 of 12, dated 10/12/2017, with revision B dated 05/28/2024, prepared by manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Louver calculations, prepared by Rice Engineering, dated 04/29/2024, 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 04/29/2024, signed and sealed by Wayne K. Helmila, P.E.

2. Statement letter of no financial interest, issued by Rice Engineering, dated 04/29/2024, signed and sealed by Wayne K. Helmila, P.E.

"Submitted under NOA # 21-0630.12"

3. Statement letter of code conformance to the **7th edition (2020) FBC**, issued by Rice Engineering, dated 08/16/21, signed and sealed by Wayne K. Helmila, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 24-0516.06
Expiration Date: August 30, 2028
Approval Date: July 18, 2024

DRAWING INDEX

TESTS PREFORMED:
TAS-100 (A) WIND DRIVEN RAIN RESISTANCE
TAS-201 LARGE MISSILE IMPACT
TAS-202 UNIFORM STATIC AIR PRESSURE TEST
TAS-203 CYCLIC WIND PRESUSRE TEST
DESIGN PRESSURE RATING 130 PSF

NOTES:

1. THE 1605WDVM HAS BEEN TESTED IN ACCORDANCE WITH THE MIAMI-DADE COUNTY PROTOCALS: TAS-100 A, TAS-201, TAS-202, & TAS-203 FOR WIND DRIVEN RAIN, LARGE MISSILE IMPACE, UNIFORM PRESSURE, AND CYCLIC WIND PRESSURE.

2. THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH DESIGN PRESSURES OF +/- 130 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 STRUCTURE. MINIMUM EDGE DISTANCE AND EMBEDMENT REQUIREMENTS ARE SHOWN. NAILOR IND. DOES NOT DETERMINE THE STRUCTURE INTERGRITY OF THE SUBSTRUCTURE.

5. MAXIMUM SINGLE SECTION SIZE: 72" WIDE X 120" HIGH OR 120" WIDE X 72" HIGH.

6. MAXIMUM ASSEMBLED LOUVER SIZE UNLIMITED WIDE X 120" HIGH MAX. MULLION SPACING IS 72".

7. SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED A SUITIBLE STRUCTURE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FOR THE LOUVER.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.06
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: ADDED PAGE 5 AND RENUMBERED PAGES 6-12
- ADDED PAGE 5 SKINNY WALL APPLICATION HEAD AND SILL DETAIL CONT.
-UPDATED ALL PAGES.

N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.dft

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS
SHEET: 1 OF 12
DWG. NO. 1605WDVM | REV B

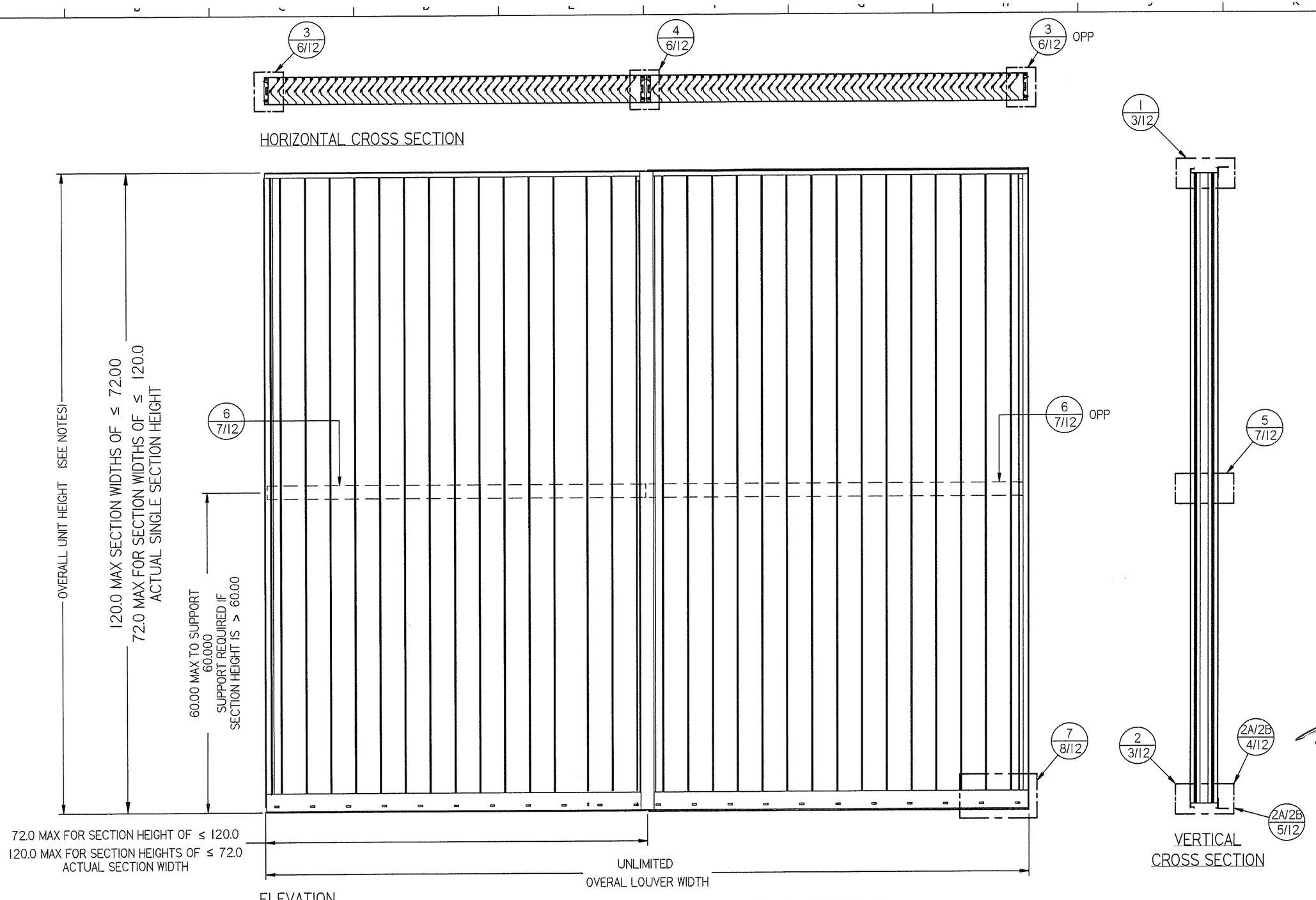
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE: 1605WDVM LOUVER
INDEX

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

MAY 28 2024

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. 24-0516.06
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REV. B- UPDATED SHEET TO ACCOUNT FOR PAGE 12

N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.dft

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 2 OF 12

DWG. NO. 1605WDVM | REV B

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

TITLE: 1605WDVM LOUVER
ELEVATION

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 28 2024

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
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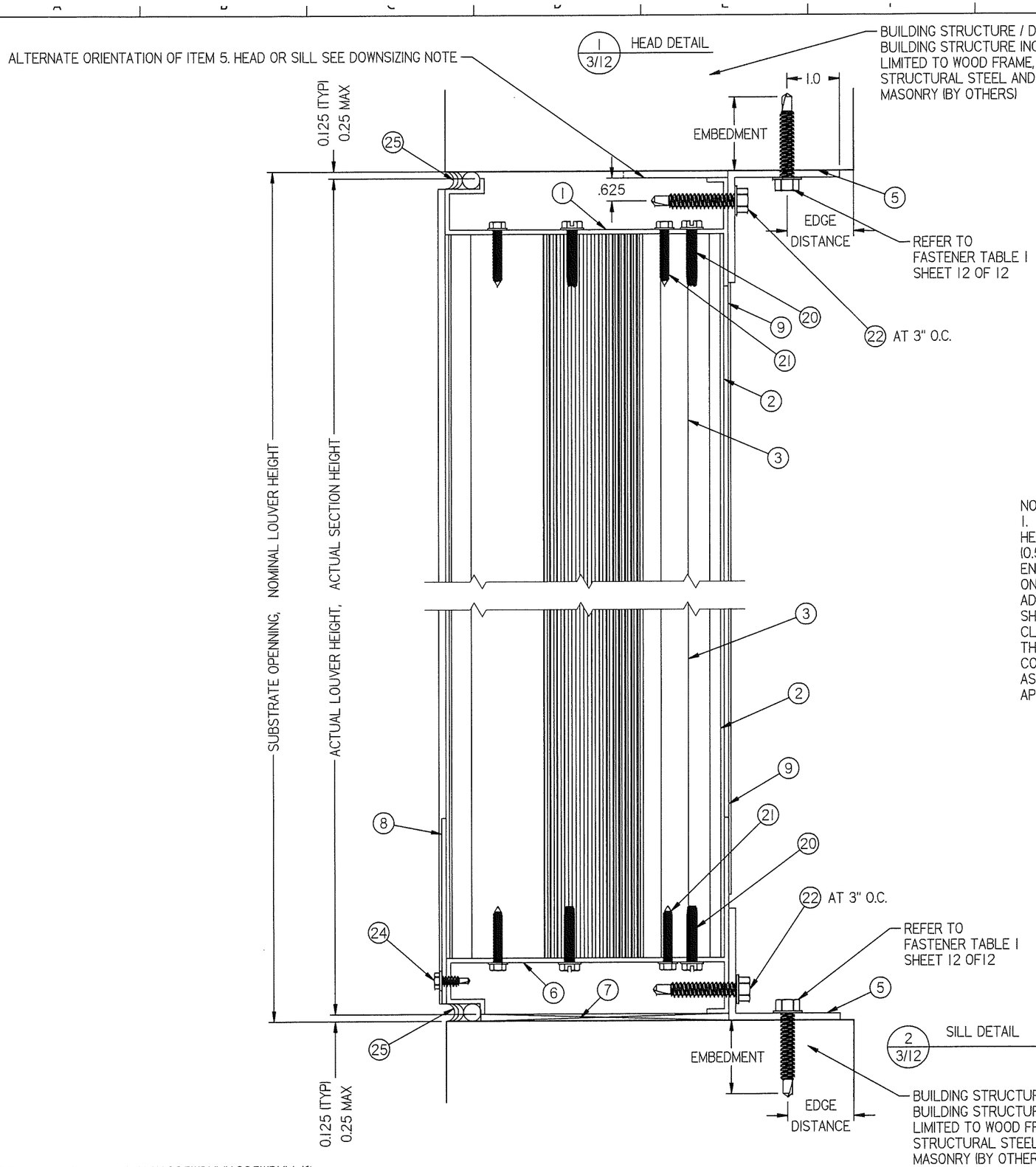

NOTE:
1. TO ALLOW FOR SUBSTRATE ANCHOR HEAD CLEARANCE, LOUVER HEIGHT DOWNSIZING (UNDERCUT) OF UP TO 0.25 TOTAL PER END (0.50 OVERALL TOTAL) IS ALLOWABLE. DOWNSIZING OF 0.125 PER END (.0.25 OVERALL TOTAL) FROM ACTUAL HEIGHT IS STANDARD. ONLY ENDS WITH ALTERNATE ANCHOR ORIENTATION MAY REQUIRE ADDITIONAL DOWNSIZING, BUT THE 0.125 STANDARD DOWNSIZING SHOULD ALLOW FOR ALTERNATE ANCHOR ORIENTATION SETUP CLEARANCES. THERE IS NO NEED FOR ADDITIONAL DOWNSIZING AT THE JAMBS WHEN USING ALTERNATE ANCHOR ORIENTAION. CONSULT YOUR LOCAL REP OR THE MANUFACTURER IF ASSISTANCE IS NEEDED FOR PROPER DOWNSIZING FOR YOUR APPLICATION.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.06
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REV. B- UPDATED ADDED NOTE #2 TO REFLECT CALC.
-UPDATED FASTENER NOTE TO REFLECT CHANGES TO FASTENER TABLES.

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS
SHEET: 3 OF 12
DWG. NO. 1605WDVM
REV B

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

TITLE: 1605WDVM LOUVER HEAD AND SILL DETAIL

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 28 2024

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

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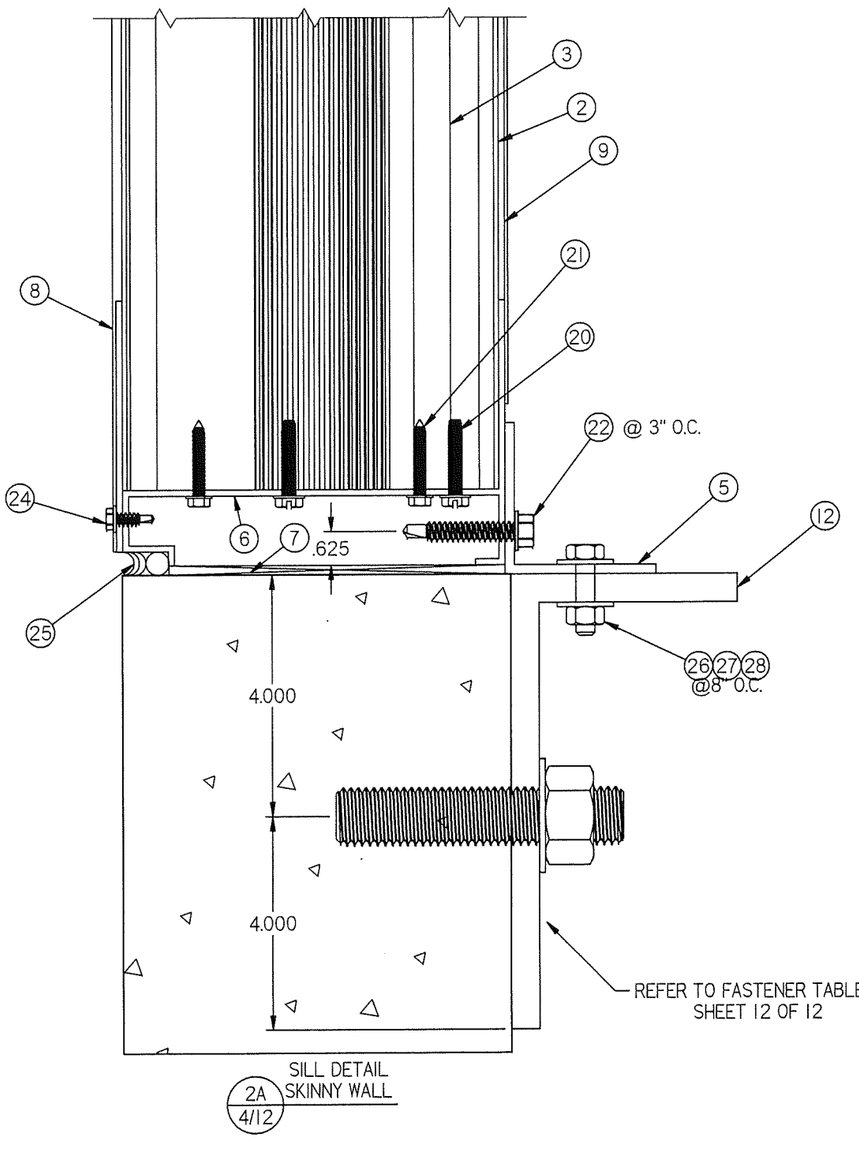
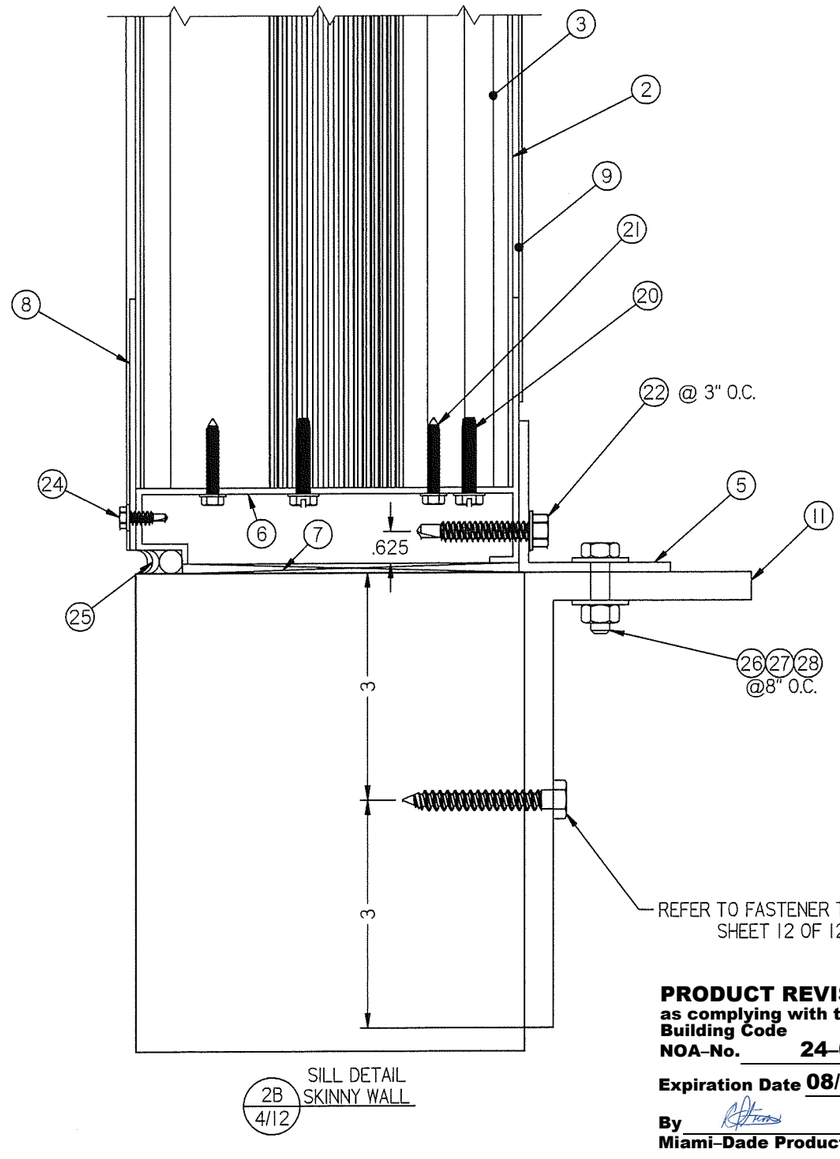
GROUT FILLED CMU
(BY OTHERS)



SILL DETAIL
SKINNY WALL
2A
4/12

WOOD / STEEL 16G.A.
STEEL A-36 / CONCRETE
(BY OTHERS)



SILL DETAIL
SKINNY WALL
2B
4/12

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.06
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REV. B - UPDATED FASTENER NOTE TO REFLECT CHANGES TO FASTENER TABLES - CMU DETAIL UPDATED PER CALCUTATIONS

N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.dft

DWN BY: fcortinas	CHK BY: BDennis	SHEET: 4 OF 12	REV B
DATE: 10/12/2017	SCALE: NTS	DWG. NO. 1605WDVM	

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

TITLE: 1605WDVM LOUVER
SKINNY WALL APPLICATION
HEAD AND SILL DETAIL

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
MAY 28 2024

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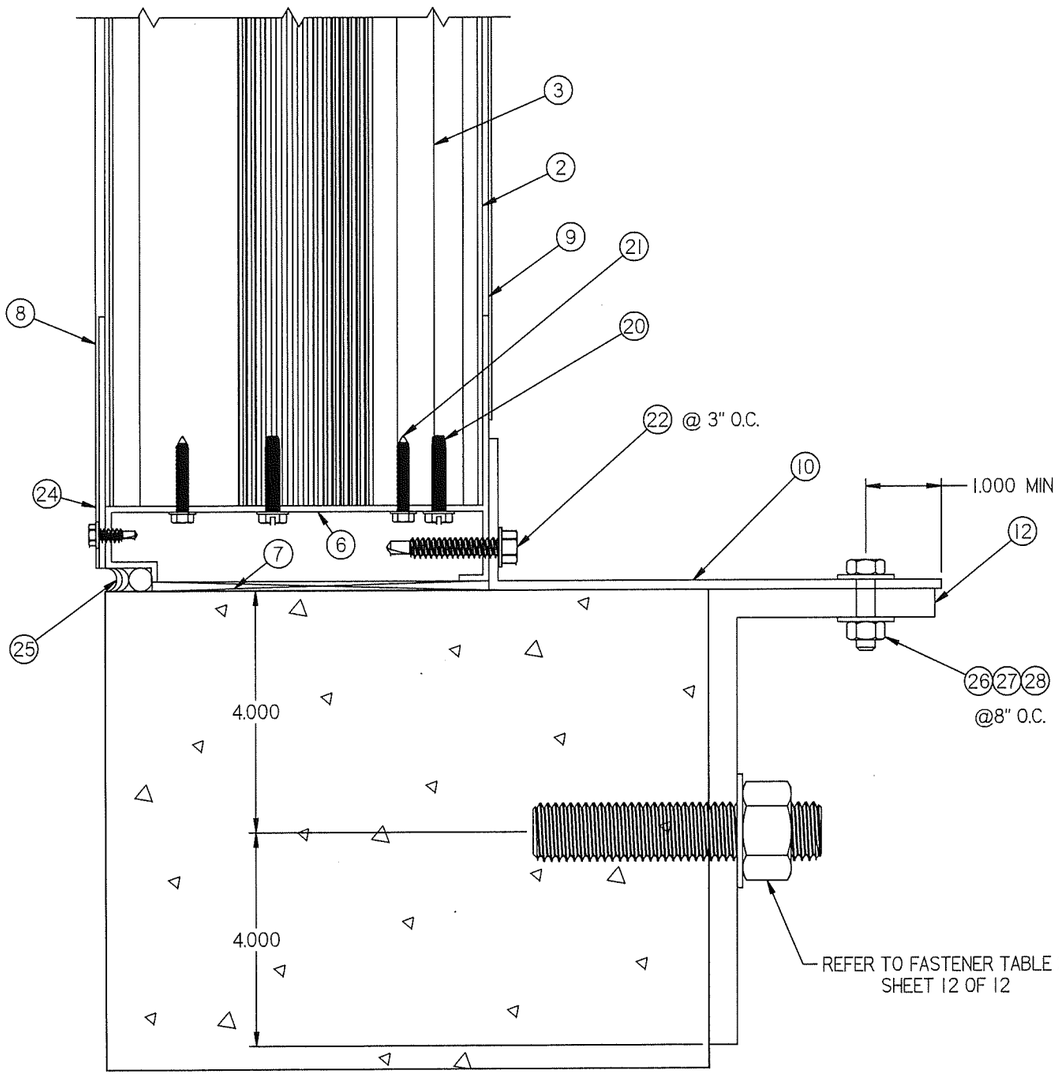
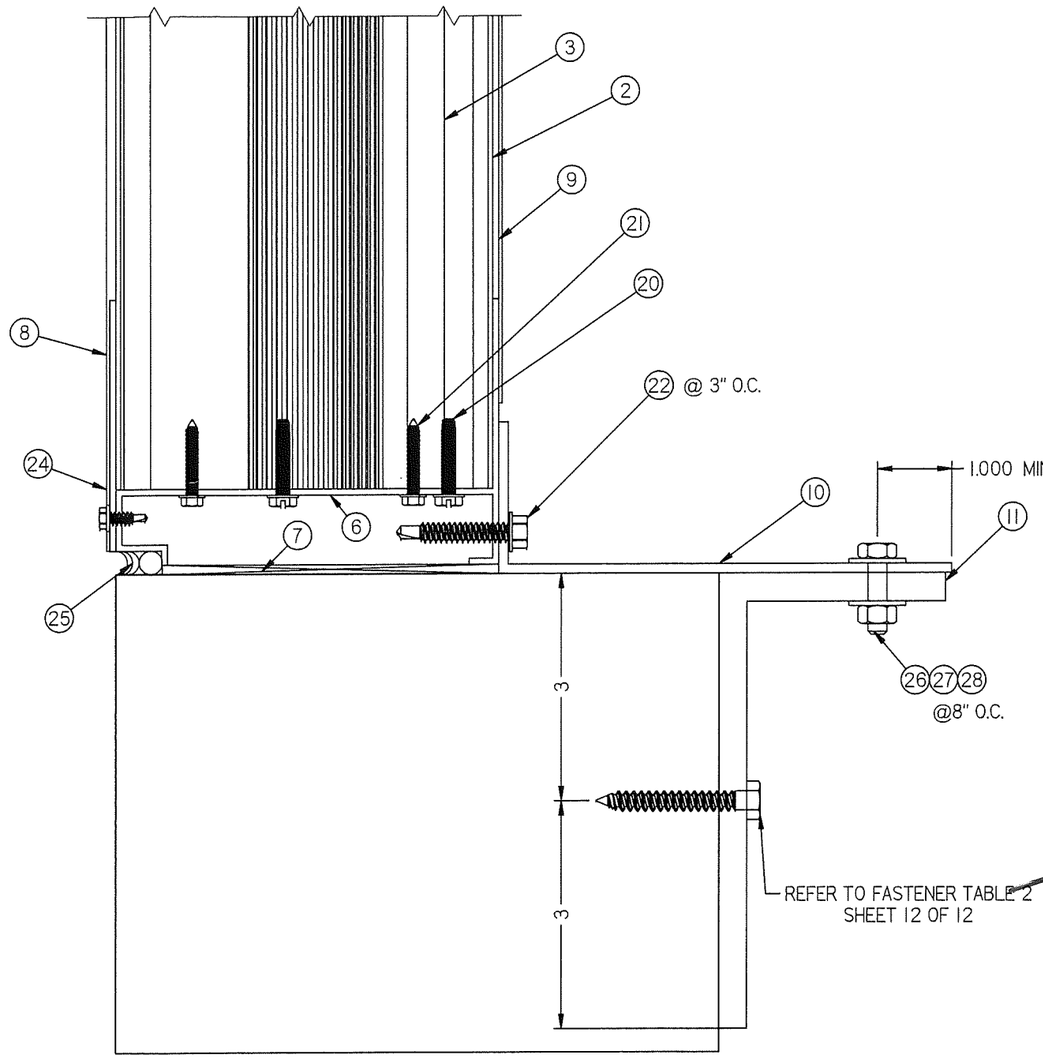
GROUT FILLED CMU
(BY OTHERS)



SILL DETAIL
2A / 5/12
SKINNY WALL

WOOD / STEEL 16G.A.
STEEL A-36 / CONCRETE
(BY OTHERS)



SILL DETAIL
2B / 5/12
SKINNY WALL

PRODUCT REVISED
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Expiration Date 08/30/2028
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Miami-Dade Product Control

REV. B- ADDED PAGE TO SHOW ALTERNATE INSTALLATION FOR THICKER SUBSTRATES.

N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.dft

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 5 OF 12

DWG. NO. 1605WDVM

REV B

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

TITLE:
1605WDVM LOUVER
SKINNY WALL APPLICATION
HEAD AND SILL DETAIL
CONT.

WAYNE K. HELMILA
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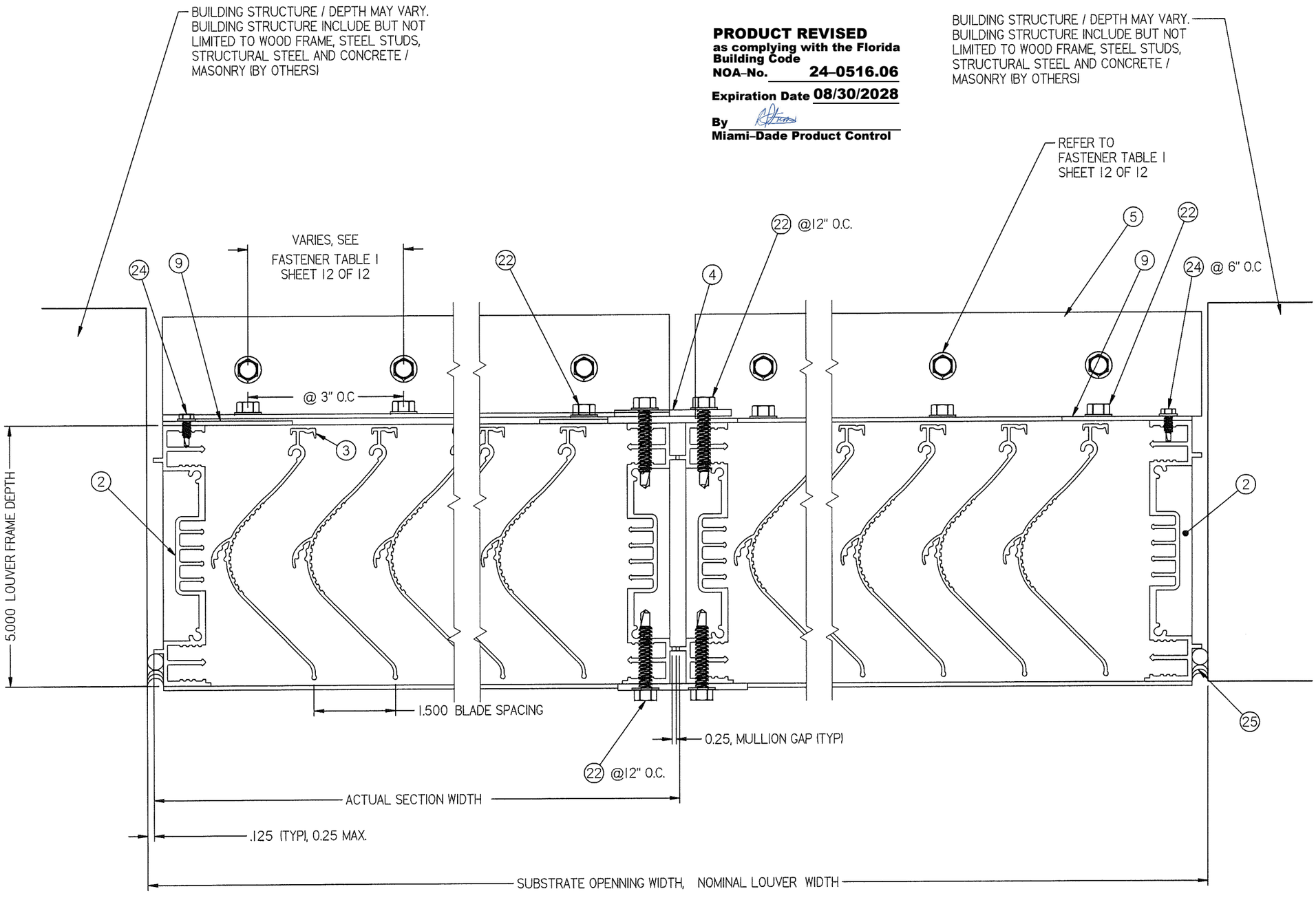

3/6/12 JAMB DETAIL

4/6/12 MULLION DETAIL

3/6/12 JAMB DETAIL OPP.

REVISIONS:
REV B: ADDED NOTE FOR ANGLE INSTALLATION O.C.
- UPDATED PAGE NUMBERS

N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.dft

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 6 OF 12

DWG. NO. 1605WDVM REV B

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TEL: 281-590-1172 FAX 281-590-3086
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TITLE: 1605WDVM LOUVER
JAMB AND MULLION DETAIL

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 28 2024

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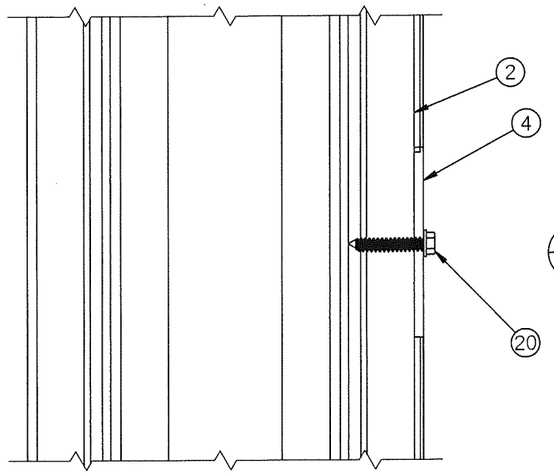
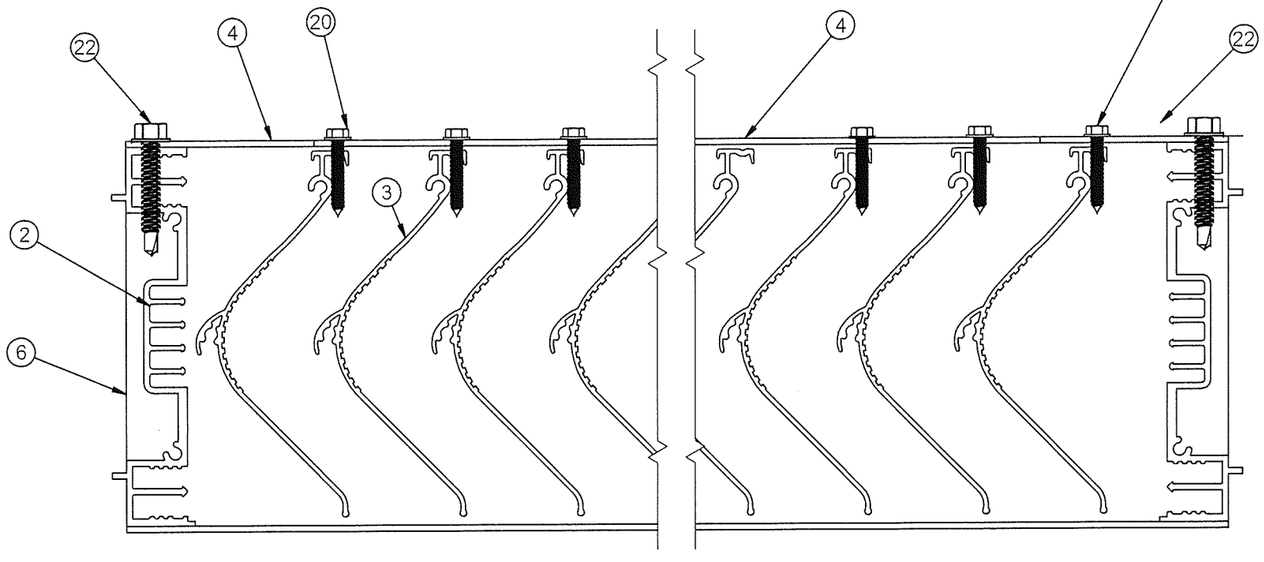
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



5/7|2 BLADE STRAP DETAIL



6/7|2 BLADE STRAP AT JAMB DETAIL

6/7|2 BLADE STRAP AT JAMB DETAIL OPP.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.06
Expiration Date 08/30/2028
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REV. B- UPDATED PAGE NUMBERS

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DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 7 OF 12

DWG. NO. 1605WDVM REV B

TITLE: 1605WDVM LOUVER BLADE STRAP DETAIL

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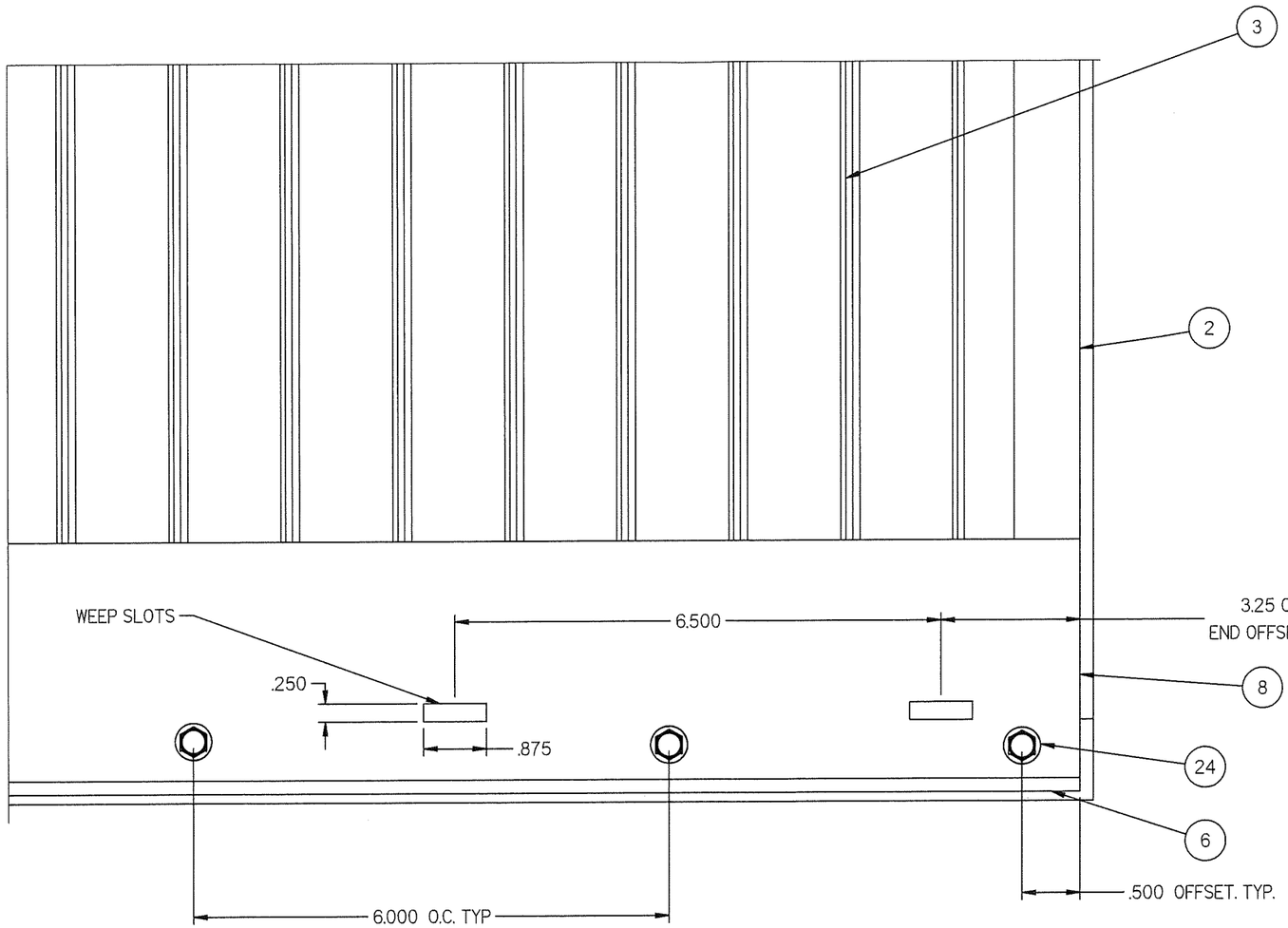

7 / 8/12 BAFFLE/ WEEP DETAIL

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NOA-No. 24-0516.06
Expiration Date 08/30/2028
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REV. B - UPDATED PAGE NUMBERS
- ADDED SCREW AND BAFFLE

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DATE: 10/12/2017 | SCALE: NTS

TITLE:
1605WDVM LOUVER
BAFFLE / WEEP DETAIL

SHEET: 8 OF 12

DWG. NO. 1605WDVM REV B

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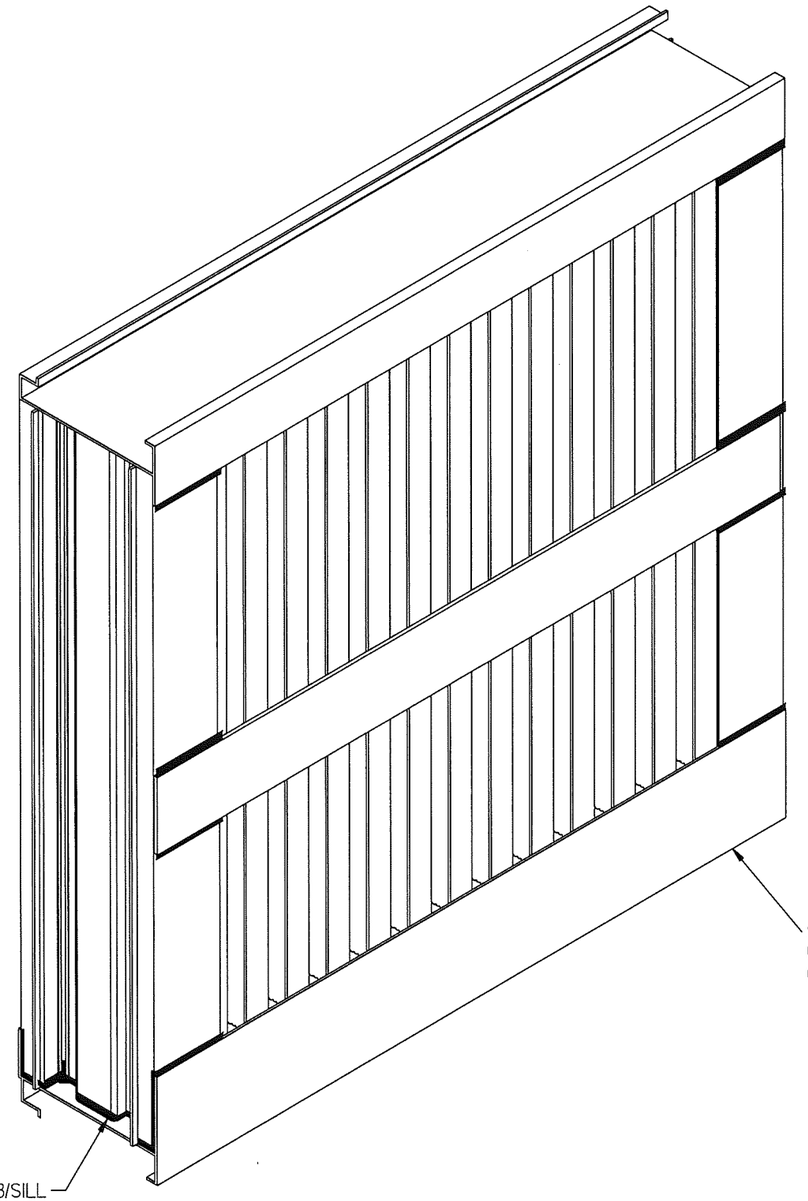
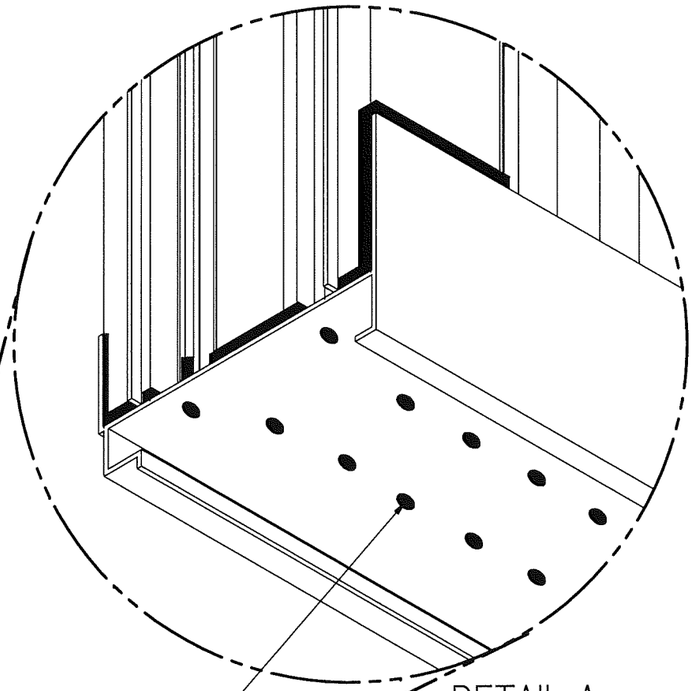


STANDARD SEAL AT JAMB/SILL CONNECTION
(MASTERWELD 626 OR EQUIVALENT)

SEAL ALL FASTENERS
UNDER SILL
(MASTERWELD 626 OR EQUIVALENT)



DETAIL A

SEAL ALL FASTENERS
UNDER SILL
(MASTERWELD 626 OR EQUIVALENT)

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.06
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REV. B - UPDATED PAGE NUMBERS

N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.dft

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 9 OF 12

DWG. NO. 1605WDVM | REV B

TITLE: 1605WDVM LOUVER
SEALANT DETAIL

WAYNE K. HELMILA
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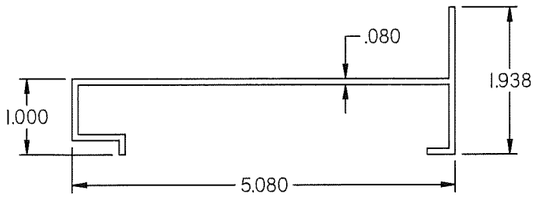
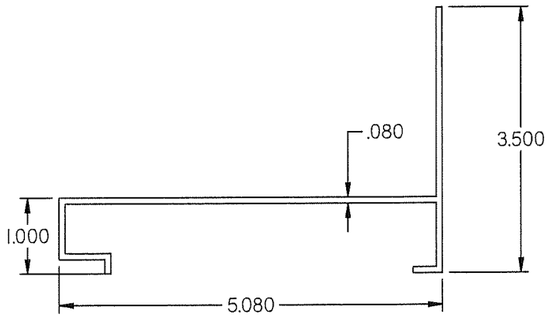
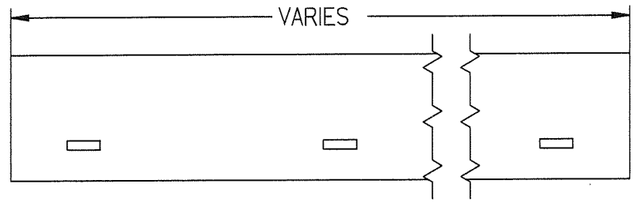


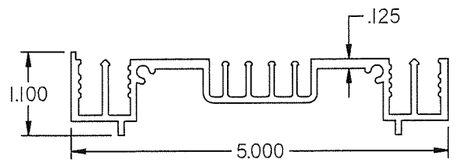
C6-119 HEAD / SILL FRAME
6063-T6 ALUM.
(1)



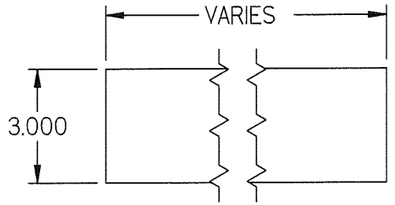
C6-240 SILL
6063-T6 ALUM.
(6)



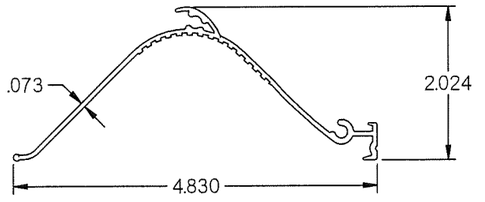
BAFFLE
5052-H53 ALUM.
(8)



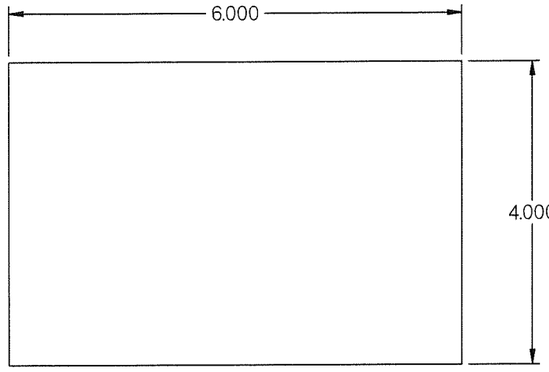
C6-241 JAMB FRAME
6063-T6 ALUM.
(2)



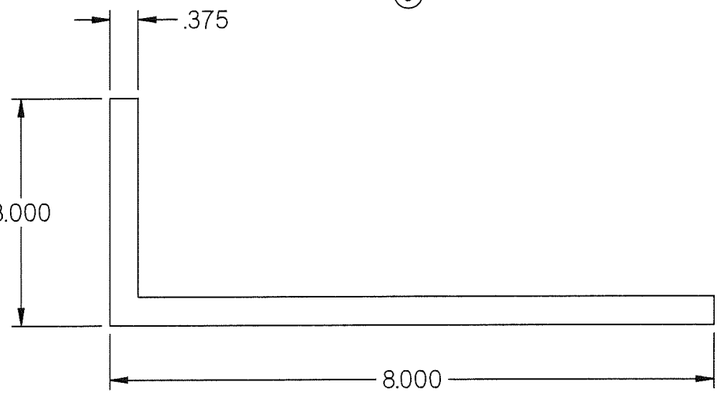
JAMB STOP
5052-H53 ALUM.
(9)



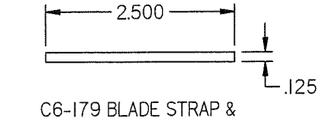
C6-203 BLADE
6063-T6 ALUM.
(3)



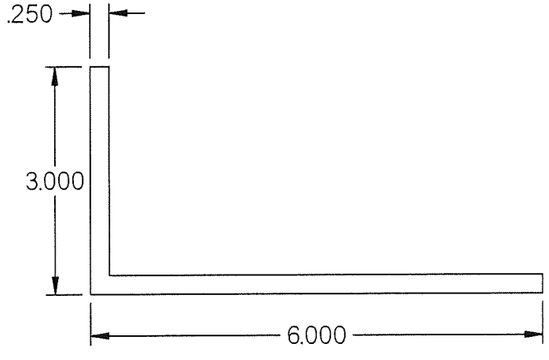
ALUMINUM SUPPORT SHIM
1/4" THICK
5052-H32 ALUM.
(7)



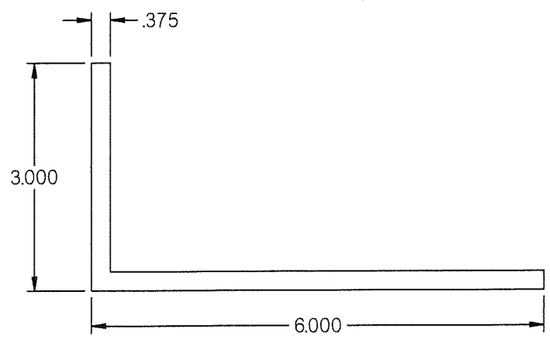
3 X 8 X 3/8 (CONT.)
6061-T6 ALUM ANGLE
(12)



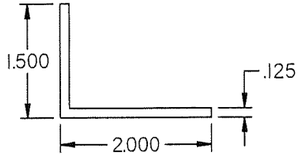
C6-179 BLADE STRAP &
MULLION BAR
6063-T6 ALUM.
(4)



3 X 6 X 1/4 (CONT.)
6061-T6 ALUM ANGLE
(10)



3 X 6 X 3/8 (CONT.)
6061-T6 ALUM ANGLE
(11)



C6-176 2 X 2 X 1/8 (CONT.)
6063-T6 ALUM ANGLE
(5)

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PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.06
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REV. B- UPDATED PAGE NUMBER
- UPDATED SILL, JAMB,
- ADDED BAFFLE, 3 X 8 X 3/8 ANGLE
- ADDED 3 X 6 X 1/4 ANGLE
- ADDED JAMB STOPS

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS
SHEET: 10 OF 12
REV B
DWG. NO. 1605WDVM

TITLE: 1605WDVM LOUVER
PART PROFILES

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
MAY 28 2024

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

BILL OF MATERIALS

ITEM	INTERNAL ID	DESCRIPTION	MATERIAL	NOTES
1	C6-119	HEAD / SILL FRAME	6063-T6	ONLY AT HEAD
2	C6-241	JAMB FRAME	6063-T6	
3	C6-203	BLADE	6063-T6	1.5" CENTERS/SPACING
4	C6-179	BLADE STRAP / MULLION BAR	6063-T6	REQUIRED IF SECTION HFIGHT IS 60.0"
5	C6-160	2 X 2 X 1/8 ANGLE (CONT.)	6063-T6	AT HEAD AND SILL ONLY
6	C6-240	SILL	6063-T6	ONLY AT SILL
7	-	ALUMINIUM SUPPORT SHIM	5052-H32	BY OTHERS , OPTIONAL, AS NEEDED
8	-	BAFFLE	5052-H32	FRONT DRAIN
9	-	JAMB STOP	5052-H32	SIZE VARIES AS NEEDED
10	-	6 x 3 x 1/4 ANGLE (CONT)	6061-T6	USED FOR SKINNY WALL APPLICATIONS
11	-	6 X 3 X 3/8 ANGLE (CONT.)	6061-T6	USED IN SKINNY WALL APPLICATION
12	-	3 X 8 X 3/8 ANGLE (CONT)	6061-T6	USED IN SKINNY WALL APPLICATION FOR CMU
--				
20	C6-189	SCREW, MACHINE, HW, #10-24 X 1 1/2,	300 SERIES, SS CON. CW	2 @ BLADE ENDS, AND BLADE STRAP ONE PER BLADE
21	C6-192	SCREW, MACHINE, HEX, #10 X 1 1/2,	300 SERIES, SS CON. CW	2 @ FRAME CORNERS
22	C6-193	SCREWM METAL, HEX, #14 X 1 1/2,	300 SERIES, SS CON. CW	@ HEAD AND SILL, AND 2 AT BLADE STRAP AT JAMBS
24	C6-198	SCREW, MTL, HEX, #8 X 3/4,	300 SERIES, SS CON. CW	@ SILL AT BAFFLE AND JAMB STOPS @ 6" O.C.
25	-	SEALANT & BACKER ROD	VARIOUS	BY OTHERS
26	C6-181	1/4 NYLON INSERT LOCKNUT	STAINLESS	
27	C6-186	1/4 COMM'L FLAT WASHER	STAINLESS	
28	C6-187	1/4-20 X 1 HEX CAP SCREW 18-8 SS	STAINLESS	

GENERAL NOTES:

1. DUE TO PASSING TAS-100A, THE LOUVER IS DESIGNED TO PREVENT WIND DRIVEN RAIN FROM PENETRATING THE SPACE BEHIND THE LOUVER. AS SUCH, THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE SPACE/ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/ PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.

2. THE MAXIMUM SINGLE SECTION SIZE IS 120 WIDE BY 72 HIGH OR 72 WIDE BY 120 HIGH. THE MAXIMUM OVERALL/ ASSEMBLED SIZE IS UNLIMITED WIDE BY USE OF MULTIPLE SECTIONS. SECTIONS/ ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED THERE IS SUITIBLESTRUCTURAL SUPPORT (DESIGNED AND INSTALLED BY OTHERS) TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER HEAD AND / OR SILL MOUNTING ANGLES TO THE SUBSTRATE.

3. GENERAL LOUVER CONSTRUCTION: HEAD, SILL, JAMBS, AND BLADES ARE EXTRUDED ALUMINIUM. BLADE SPACING IS 1.5 INCHES. BLADES ARE SECURED WITH (2) #10 X 1 1/2" MACHINE SCREWS PER BLADE END. HEAD IS SECURED TO THE JAMB WITH (2) #10 X 1 1/2" MACHINE SCREWS PER HEAD END, SILL IS SECURED TO JAMBS WITH (2) #10 X 1 1/2" MACHINE SCREWS PER SILL END. BLADE SUPPORT STRAP IS SECURED TO BLADES BY (2) SCREW PER BLADE AND SECURED TO JAMB BY (2) SCREWS AT STRAP END. BLADE SUPPORT STRAP IS REQUIRED IF ACTUAL LOUVER HEIGHT IS > 60 INCHES.

4. INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED. SEE ALUMINUM DESIGN MANUAL (CHAPTER F) FOR DETAILS.

5. ALL ALUMINIUM, STAINLESS STEEL (SS), AND PLATED / COATED STEEL PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.

6. STEEL / STAINLESS, STEEL / ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS EQUAL OR GREATER YIELD STRENGTH. PART DIMENSIONS ARE MINIMUMS UNLESS DEFINED OTHER WISE.

7. THE INTERNAL ID# SHOWN ON PAGE 9 IS FOR FACTORY USE AND TRACKING PURPOSES ONLY AND MAY BE UPDATED AT ANY TIME. ANY UPDATES WILL NOT ALTER THE ITEM AS DESCRIBED HEREIN.

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REV B - UPDATED PAGE NO.
ADDED ITEM# 8- BAFFLE
ADDED ITEM# 9- JAMB STOP
ADDED ITEM #10- 6 X 3 X1/4 ANGLE (CONT)
ADDED ITEM#11- 6 X 3 X 3/8 ANGLE (CONT)
ADDED ITEM # 12 -8 X 3 X 3/8 ANGLE (CONT)

DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 11 OF 12

DWG. NO. 1605WDVM | REV B

TITLE: 1605WDVM LOUVER BILL OF MATERIAL GENERAL NOTES

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

MAY 28 2024

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Registration No: 59092

TABLE 1: HEAD & SILL ANCHORS

Wood	Steel Stud	Steel	Concrete	CMU	Skinny Wall	Min.	Fastener Type	Diameter	# Rad	O.C. Spacing	Edge	End	Embedment
X						SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	1	3-1/4"	2"		2-1/16
X						SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	1	3-3/4"	2"		2-1/16
	X					16 Ga.	Elco Bi-Flex Screws (300 Series SS, FY = 65 ksi)	1/4"	1	3"	2"		3 THREADS BEYOND SUBSTRATE
		X				A-36	Elco Bi-Flex Screws (300 Series SS, FY = 65 ksi)	1/4"	1	9"	2"		1/4"
		X				A-36	Elco Drill-Flex Drilling Screws (Cond. CW - Fy= 65ksi) Sealed w/ Liquid Prosoco	5/16"	1	12"	2"		1/4"
			X- Cracked 6" Deep			4 ksi	Hilti Kwik HUS-EZ SS 316	3/8	1	12"	4"	4"	2-1/2

TABLE 2: SKINNY WALL ANCHORS

Wood	Steel Stud	Steel	Concrete	CMU	Skinny Wall	Min.	Fastener Type	Diameter	# Rad	O.C. Spacing	Edge	End	Embedment
X					X	SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	1	3-3/4"	3"		2-3/16"
X					X	SG 0.42	LAG BOLT (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	1	5"	3"		2-3/16"
	X				X	16 Ga.	Elco Bi-Flex Drilling Screws (300 Series SS, FY = 65 ksi)	1/4"	1	1"	3"		3 THREADS BEYOND SUBSTRATE
		X			X	A-36	Elco Bi-Flex Drilling Screws (300 Series SS, FY = 65 ksi)	1/4"	1	7"	3"		1/4"
		X			X	A-36	Elco Drill-Flex Drilling Screws (Cond. CW - Fy= 65ksi) Sealed w/ Liquid Prosoco	5/16"	1	8"	3"		1/4"
			X- Cracked 6" Deep		X	4 ksi	HILTI KWIK BOLT TZ2 SS 304	3/8"	1	8"	3"	3"	2-1/2"
			X- Cracked 6" Deep		X	4 ksi	HILTI KWIK BOLT TZ2 SS 304	1/2"	1	10"	3"	3"	3"
				X-Grout Filled	X	2 ksi	HILTI HIT-Hy 270 Threaded Rod 316/304 SS	3/4"	1	8"	4"		6-3/4"

NOTE 1: CONRETE MASONRY (CMU) SHALL BE > THE FOLLOWING, 6" WIDE, CMU CONFORMINGTO ASTM C-90 FILLED WITH 4,747 KSI GROUT.

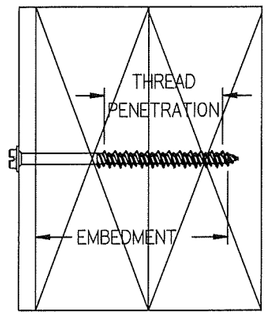
NOTE 2: CONRETE MASONRY (CMU) SHALL BE > THE FOLLOWING, 6" WIDE, GRADE N, TYPE II, LIGHT-WEIGHT / MEDIUM-WEIGHT / NORMAL-WEIGHT CMU CONFORMING TO ASTM C-90. MORTAR MUST BE TYPE N. CMU STRENGTH = 2000 psi

NOTE 3: CONCRETE, STEEL, WOOD, MASONRY, CURTAIN WALL, STOREFRONT, AND ALL OTHER BUILDING SUBSTRATES ARE DESIGNED BY OTHERS.

NOTE 4: ENGINEER OF RECORD TO VERIFY THAT BUILDING SUBSTRATE CAN SUPPORT THE LOUVER REACTIONS.

NOTE 5: THREAD PENETRATION LENGTH SIGNIFIES THE REQUIRED LENGTH OF THE THREADED PORTION OF THE FASTENER INTO THE WOOD SUBSTRATEPROVIDING FULL CONTACT WITH WOOD. LAG SCREW TIP CANNOT BE CONSIDERED PART OF THE TREADED PORTION FO THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS / SPICES WHERE THE LAG SCREW COULD FALL BETWEEN MEMBERS.

NOTE 6: STEEL STUDS TO BE 16 G.A. FY= 33ksi MIN.



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NOA-No. 24-0516.06
Expiration Date 08/30/2028
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REVISIONS:
REV B: UPDATED FASTENER SCHEDULE (2 TABLES).

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DWN BY: fcortinas | CHK BY: BDennis
DATE: 10/12/2017 | SCALE: NTS

SHEET: 12 OF 12

DWG. NO. 1605WDVM REV B

TITLE: 1605WDVM LOUVER FASTENER SCHEDULE

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

MAY 28 2024

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