



EXTRUDED ALUMINUM STATIONARY LOUVER
FLORIDA PRODUCT APPROVED
 4" (102) DEEP • HIGH PERFORMANCE
 DRAINABLE BLADE
MODEL: 1604DHPF



QUALIFICATIONS:

- Florida Product Approval No. : 19273.1
- Intertek Listed Building Product: Exterior Louvers.
- Tested in accordance with: TAS-202 (Uniform Static Air Pressure Test).
- AMCA 500-L (Water Penetration, Airflow).
- AMCA 540 (Wind-Borne Debris Impact Test [Basic "Level D" Protection]).
- Wind load rating +/- 55 PSF.

STANDARD CONSTRUCTION:

- FRAME:** 4" (102) deep, Type 6063-T6 extruded aluminum, .120" (3.05) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Type 6063-T6 extruded aluminum, .095" (2.41) nominal wall thickness, with reinforcing bosses.
- BLADE ANGLE:** Fixed at 37.5 degrees.
- BLADE SPACING:** Approximately 3" (76) on centers.
- BLADE SUPPORT:** Concealed type, factory installed on rear of louver. Reinforced with 2" x 2" (51 x 51) angle (adds approx. 2" [51] to overall louver depth).
- SCREEN:** 5/8" x .050 (16 x 1.27) 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). Larger louvers will require field assembly of smaller sections.

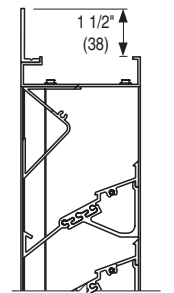
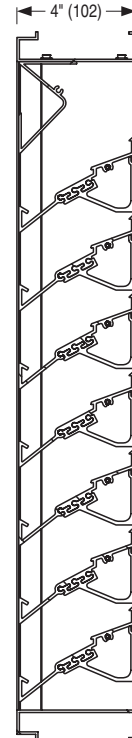
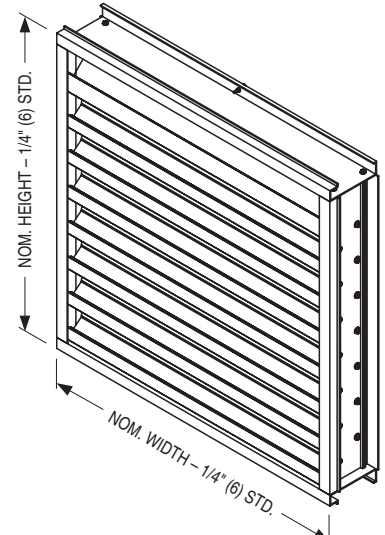
OPTIONS:

- BSSS** Type 304 S.S. Bird Screen. **FL** Flanged Frame.
- BSN** No Bird Screen. **ESI** Extended Sill.
- ISA** Aluminum Insect Screen. **PASI** Sill Pan.
- ISSS** Type 304 S.S. Insect Screen. **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 IOM-LOUVERINSTFPA.



FLANGED FRAME (FL)
(OPTIONAL)



SCHEDULE TYPE:		Page 1 of 3			
PROJECT:		Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	10 - 31 - 18	1600F	1 - 30 - 18	1604DHPF	



EXTRUDED ALUMINUM STATIONARY LOUVER
FLORIDA PRODUCT APPROVED
 4" (102) DEEP • HIGH PERFORMANCE
 DRAINABLE BLADE • PERFORMANCE DATA
MODEL: 1604DHPF



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

Free Area %	57%	
Free Area sq. ft. (sq. m.)	9.11 (0.85)	
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	954 fpm (291 m/min.)
	Air Volume at 954 fpm Free Area Velocity	8,691 cfm (4101 l/s)
	Pressure Drop @ 1000 fpm	.15 in. w.g. (35 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.



Nailor Industries Inc. certifies the Model 1604DHPF shown herein is licensed to bear the AMCA 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. Seal applies to air performance ratings and water penetration ratings.



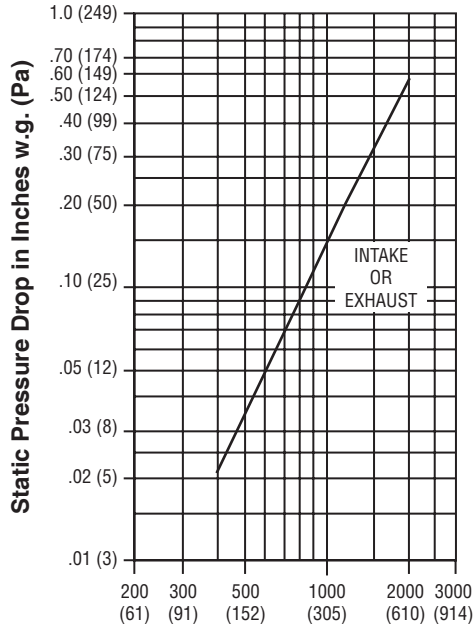
IMPACT RESISTANT LOUVER
Basic Protection

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Nailor Industries Inc. certifies the 1604DHPF louvers shown herein are approved to bear the AMCA 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 Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers.

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.

SCHEDULE TYPE:	Page 2 of 3			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	10 - 31 - 18	1600F	1 - 30 - 18	1604DHPF



EXTRUDED ALUMINUM STATIONARY LOUVER
FLORIDA PRODUCT APPROVED
 4" (102) DEEP • HIGH PERFORMANCE
 DRAINABLE BLADE • PERFORMANCE DATA
MODEL: 1604DHPF



FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters																
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108
Height in Inches and Meters	12	0.32	0.52	0.71	0.91	1.11	1.31	1.51	1.71	1.86	2.06	2.26	2.46	2.65	2.85	3.05	3.25	3.45
	0.30	0.03	0.05	0.07	0.08	0.10	0.12	0.14	0.16	0.17	0.19	0.21	0.23	0.25	0.27	0.28	0.30	0.32
	18	0.59	0.96	1.33	1.70	2.06	2.43	2.80	3.17	3.45	3.82	4.19	4.56	4.93	5.30	5.67	6.03	6.40
	0.46	0.05	0.09	0.12	0.16	0.19	0.23	0.26	0.29	0.32	0.35	0.39	0.42	0.46	0.49	0.53	0.56	0.59
	24	0.86	1.40	1.94	2.48	3.02	3.56	4.10	4.64	5.04	5.58	6.12	6.66	7.20	7.74	8.28	8.82	9.36
	0.61	0.08	0.13	0.18	0.23	0.28	0.33	0.38	0.43	0.47	0.52	0.57	0.62	0.67	0.72	0.77	0.82	0.87
	30	1.40	2.28	3.16	4.04	4.92	5.80	6.68	7.56	8.22	9.10	9.98	10.86	11.74	12.62	13.51	14.39	15.27
	0.76	0.13	0.21	0.29	0.38	0.46	0.54	0.62	0.70	0.76	0.85	0.93	1.01	1.09	1.17	1.25	1.34	1.42
	36	1.94	3.16	4.39	5.61	6.83	8.05	9.27	10.49	11.41	12.63	13.85	15.07	16.29	17.51	18.73	19.95	21.17
	0.36	0.18	0.29	0.41	0.52	0.63	0.75	0.86	0.97	1.06	1.17	1.29	1.40	1.51	1.63	1.74	1.85	1.97
	42	1.67	2.72	3.77	4.82	5.87	6.93	7.98	9.03	9.81	10.87	11.92	12.97	14.02	15.07	16.12	17.17	18.22
	1.07	0.16	0.25	0.35	0.45	0.55	0.64	0.74	0.84	0.91	1.01	1.11	1.20	1.30	1.40	1.50	1.59	1.69
	48	1.94	3.16	4.39	5.61	6.83	8.05	9.11	10.49	11.41	12.63	13.85	15.07	16.29	17.51	18.73	19.95	21.17
	1.22	0.18	0.29	0.41	0.52	0.63	0.75	0.85	0.97	1.06	1.17	1.29	1.40	1.51	1.63	1.74	1.85	1.97
	54	2.21	3.61	5.00	6.39	7.78	9.17	10.56	11.95	13.00	14.39	15.78	17.17	18.56	19.95	21.34	22.74	24.13
	1.37	0.21	0.33	0.46	0.59	0.72	0.85	0.98	1.11	1.21	1.34	1.47	1.60	1.72	1.85	1.98	2.11	2.24
	60	2.49	4.05	5.61	7.17	8.73	10.29	11.86	13.42	14.59	16.15	17.71	19.27	20.83	22.40	23.96	25.52	27.08
	1.52	0.23	0.38	0.52	0.67	0.81	0.96	1.10	1.25	1.36	1.50	1.65	1.79	1.94	2.08	2.23	2.37	2.52
	66	2.76	4.49	6.22	7.95	9.68	11.42	13.15	14.88	16.18	17.91	19.64	21.38	23.11	24.84	26.57	28.30	30.04
	1.68	0.26	0.42	0.58	0.74	0.90	1.06	1.22	1.38	1.50	1.66	1.82	1.99	2.15	2.31	2.47	2.63	2.79
72	3.03	4.93	6.83	8.73	10.64	12.54	14.44	16.34	17.77	19.67	21.58	23.48	25.38	27.28	29.18	31.09	32.99	
1.83	0.28	0.46	0.63	0.81	0.99	1.16	1.34	1.52	1.65	1.83	2.00	2.18	2.36	2.53	2.71	2.89	3.06	
78	3.30	5.37	7.44	9.52	11.59	13.66	15.73	17.81	19.36	21.43	23.51	25.58	27.65	29.72	31.80	33.87	35.94	
1.98	0.31	0.50	0.69	0.88	1.08	1.27	1.46	1.65	1.80	1.99	2.18	2.38	2.57	2.76	2.95	3.15	3.34	
84	3.57	5.81	8.06	10.30	12.54	14.78	17.03	19.27	20.95	23.20	25.44	27.68	29.92	32.17	34.41	36.65	38.90	
2.13	0.33	0.54	0.75	0.96	1.17	1.37	1.58	1.79	1.95	2.15	2.36	2.57	2.78	2.99	3.20	3.41	3.61	
90	3.84	6.25	8.67	11.08	13.49	15.91	18.32	20.73	22.54	24.96	27.37	29.78	32.20					
2.29	0.36	0.58	0.81	1.03	1.25	1.48	1.70	1.93	2.09	2.32	2.54	2.77	2.99					
96	4.11	6.70	9.28	11.86	14.45	17.03	19.61	22.20	24.14	26.72	29.30	31.89	34.47					
2.44	0.38	0.62	0.86	1.10	1.34	1.58	1.82	2.06	2.24	2.48	2.72	2.96	3.20					
102	4.38	7.14	9.89	12.65	15.40	18.15	20.91	23.66	25.73	28.48	31.23	33.99	36.74					
2.59	0.41	0.66	0.92	1.17	1.43	1.69	1.94	2.20	2.39	2.65	2.90	3.16	3.41					
108	4.65	7.58	10.50	13.43	16.35	19.28	22.20	25.12	27.32	30.24	33.17	36.09	39.01					
2.74	0.43	0.70	0.98	1.25	1.52	1.79	2.06	2.33	2.54	2.81	3.08	3.35	3.62					
114	4.93	8.02	11.11	14.21	17.30	20.40	23.49	26.59	28.91	32.00	35.10	38.19	41.29					
2.90	0.46	0.75	1.03	1.32	1.61	1.90	2.18	2.47	2.69	2.97	3.26	3.55	3.84					
120	5.20	8.46	11.73	14.99	18.26	21.52	24.79	28.05	30.50	33.77	37.03	40.30	43.56					
3.05	0.48	0.79	1.09	1.39	1.70	2.00	2.30	2.61	2.83	3.14	3.44	3.74	4.05					



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
 Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

10 - 31 - 18

1600F

1 - 30 - 18

1604DHPF



EXTRUDED ALUMINUM STATIONARY LOUVER
FLORIDA PRODUCT APPROVED
 HIGH PERFORMANCE DRAINABLE BLADE
 6" (152) DEEP • HORIZONTAL BLADE
MODEL: 1606DHPF

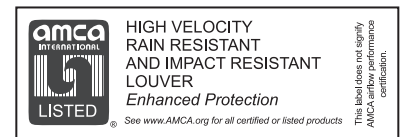
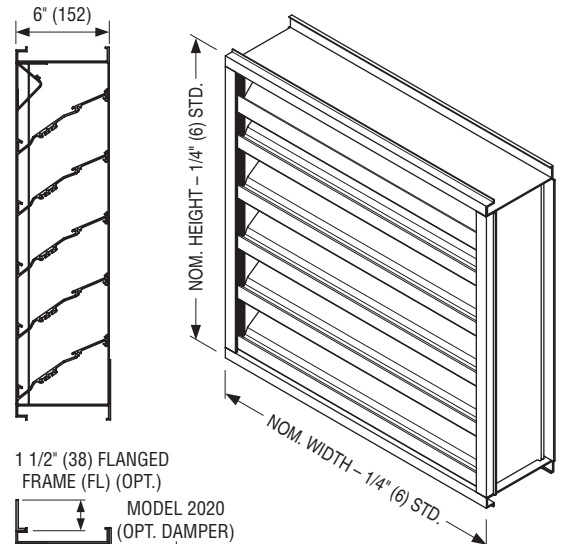


QUALIFICATIONS:

- Florida Product Approval No. : 19273.7
- Intertek Listed Building Product: Exterior Louvers.
- Tested in accordance with: TAS-201 (Large Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test) and TAS-203 (Cyclic Wind Pressure Loading Test).
- AMCA 500-L (Water Penetration, Airflow).
- AMCA 540 (Wind-Borne Debris Impact Test [Enhanced "Level E" Protection]).
- AMCA 550 (High Velocity Wind-Driven Rain Resistance Test [with optional Model 2020 damper in closed position]).
- Wind load rating +/- 50 PSF (standard) (up to +/- 150 PSF dependent on size and configuration).

STANDARD CONSTRUCTION:

- FRAME:** 6" (152) deep, Type 6063-T6 extruded aluminum, .120" (3.05) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Type 6063-T6 extruded aluminum, .100" (2.54) nominal wall thickness, with reinforcing bosses.
- BLADE ANGLE:** Fixed at 37.5 degrees.
- BLADE SPACING:** Approximately 4" (102) on centers.
- BLADE SUPPORT:** Concealed type, factory installed on rear of louver. Size varies based on design pressure, consult Nailor.
- SCREEN:** 5/8" x .050 (15.9 x 1.27) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approx. 3/8" [10] to louver depth).
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 12" H (305 x 305).
- MAX. SINGLE SECTION SIZE:** 108" W x 84" H (2743 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5 m²) (36" W x 120" H [914 x 3048] with optional Model 2020 damper). Larger louvers will require field assembly of smaller sections.
- OVERALL MAX. SIZE:** Unlimited Width x 120" H (3048).



OPTIONS:

- | | | |
|---|---|---|
| <input type="checkbox"/> BSSS Type 304 S.S. Bird Screen. | <input type="checkbox"/> PC4 High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____ . | <input type="checkbox"/> ANDB Dark Bronze. |
| <input type="checkbox"/> BSN No Bird Screen. | <input type="checkbox"/> PC5 Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____ . | <input type="checkbox"/> ANBK Black. |
| <input type="checkbox"/> ISA Aluminum Insect Screen. | <input type="checkbox"/> PCC Prime Coat. | |
| <input type="checkbox"/> ISSS Type 304 S.S. Insect Screen. | <input type="checkbox"/> AN04 Clear Anodized 204-R1. | |
| <input type="checkbox"/> FL Flanged Frame. | <input type="checkbox"/> AN15 Clear Anodized 215-R1. | |
| <input type="checkbox"/> ESI Extended Sill. | <input type="checkbox"/> ANLB Light Bronze. | |
| <input type="checkbox"/> PASI Sill Pan. | <input type="checkbox"/> ANMB Medium Bronze. | |
| <input type="checkbox"/> Other: _____ . | | |
- OPTIONAL FINISHES:**
- PC3** Powder Coat AAMA 2603. Color: _____ .

OPT. FACTORY MOUNTED 2020 CONTROL DAMPER:

- Extruded Aluminum
- Opposed Airfoil Blades
- Concealed Linkage
- Silicone Blade Seal
- Cambered Stainless Steel Jamb Seals
- 1/2" (13) Plated Steel Axles

SCHEDULE TYPE:	For Installation Instructions, see IOM-LOUVERINSTFPA.			
PROJECT:	Page 1 of 3 Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	10 - 31 - 18	1600F	1 - 30 - 18	1606DHPF



EXTRUDED ALUMINUM STATIONARY LOUVER
FLORIDA PRODUCT APPROVED
 HIGH PERFORMANCE DRAINABLE BLADE • 6" (152) DEEP
 HORIZONTAL BLADE • PERFORMANCE DATA
MODEL: 1606DHPF

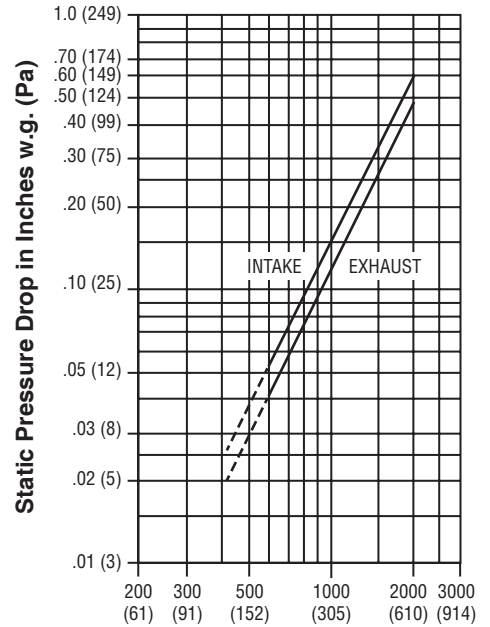


AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	60%	
Free Area sq. ft. (sq. m.)	9.65 (0.90)	
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1186 fpm (361 m/min.)
	Air Volume at 1186 fpm	11,445 cfm (5401 l/s)
	Free Area Velocity	
	Pressure Drop @ 1000 fpm	.15 in. w.g. (37 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.

PRESSURE DROP

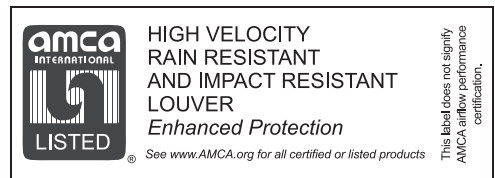


Air Velocity in Feet (Meters) Per Minute Through Free Area

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.



Nailor Industries Inc. certifies the Model 1606DHPF shown herein is licensed to bear the AMCA 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. Seal applies to air performance ratings and water penetration ratings.



Nailor Industries Inc. certifies that the 1606DHPF shown herein is approved to bear the AMCA 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 Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers. The AMCA Listing Label applies to High Velocity Wind Driven Rain Resistant Louvers.

SCHEDULE TYPE:	Page 2 of 3			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	10 - 31 - 18	1600F	1 - 30 - 18	1606DHPF



EXTRUDED ALUMINUM STATIONARY LOUVER
FLORIDA PRODUCT APPROVED
 HIGH PERFORMANCE DRAINABLE BLADE • 6" (152) DEEP
 HORIZONTAL BLADE • PERFORMANCE DATA
MODEL: 1606DHPF



FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters																
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108
Height in Inches and Meters	12	0.31	0.51	0.70	0.89	1.09	1.28	1.48	1.67	1.87	2.06	2.25	2.45	2.64	2.84	3.03	3.22	3.42
	0.30	0.03	0.05	0.07	0.08	0.10	0.12	0.14	0.16	0.17	0.19	0.21	0.23	0.25	0.26	0.28	0.30	0.32
	18	0.60	0.98	1.35	1.73	2.11	2.48	2.86	3.23	3.61	3.99	4.36	4.74	5.11	5.49	5.87	6.24	6.62
	0.46	0.06	0.09	0.13	0.16	0.20	0.23	0.27	0.30	0.34	0.37	0.41	0.44	0.48	0.51	0.54	0.58	0.61
	24	0.90	1.47	2.03	2.60	3.16	3.73	4.29	4.85	5.42	5.98	6.55	7.11	7.67	8.24	8.80	9.37	9.93
	0.61	0.08	0.14	0.19	0.24	0.29	0.35	0.40	0.45	0.50	0.56	0.61	0.66	0.71	0.77	0.82	0.87	0.92
	30	1.19	1.93	2.68	3.42	4.16	4.90	5.64	6.39	7.13	7.87	8.61	9.35	10.10	10.84	11.58	12.32	13.07
	0.76	0.11	0.18	0.25	0.32	0.39	0.46	0.52	0.59	0.66	0.73	0.80	0.87	0.94	1.01	1.08	1.14	1.21
	36	1.33	2.16	3.00	3.83	4.66	5.49	6.32	7.15	7.98	8.81	9.65	10.48	11.31	12.14	12.97	13.80	14.63
	0.36	0.12	0.20	0.28	0.36	0.43	0.51	0.59	0.66	0.74	0.82	0.90	0.97	1.05	1.13	1.20	1.28	1.36
	42	1.77	2.87	3.97	5.07	6.17	7.27	8.37	9.47	10.57	11.67	12.78	13.88	14.98	16.08	17.18	18.28	19.38
	1.07	0.16	0.27	0.37	0.47	0.57	0.68	0.78	0.88	0.98	1.08	1.19	1.29	1.39	1.49	1.60	1.70	1.80
	48	2.05	3.33	4.61	5.89	7.17	8.45	9.73	11.01	12.29	13.57	14.85	16.13	17.41	18.69	19.97	21.24	22.52
	1.22	0.19	0.31	0.43	0.55	0.67	0.79	0.90	1.02	1.14	1.26	1.38	1.50	1.62	1.74	1.85	1.97	2.09
	54	2.34	3.80	5.26	6.73	8.19	9.65	11.11	12.57	14.03	15.49	16.95	18.41	19.87	21.33	22.79	24.25	25.71
	1.37	0.22	0.35	0.49	0.62	0.76	0.90	1.03	1.17	1.30	1.44	1.57	1.71	1.85	1.98	2.12	2.25	2.39
	60	2.64	4.28	5.92	7.57	9.21	10.86	12.50	14.14	15.79	17.43	19.07	20.72	22.36	24.01	25.65	27.29	28.94
	1.52	0.24	0.40	0.55	0.70	0.86	1.01	1.16	1.31	1.47	1.62	1.77	1.92	2.08	2.23	2.38	2.54	2.69
	66	2.92	4.74	6.56	8.39	10.21	12.03	13.85	15.67	17.49	19.31	21.13	22.96	24.78	26.60	28.42	30.24	32.06
	1.68	0.27	0.44	0.61	0.78	0.95	1.12	1.29	1.46	1.63	1.79	1.96	2.13	2.30	2.47	2.64	2.81	2.98
72	3.21	5.22	7.22	9.22	11.23	13.23	15.24	17.24	19.24	21.25	23.25	25.25	27.26	29.26	31.26	33.27	35.27	
1.83	0.30	0.48	0.67	0.86	1.04	1.23	1.42	1.60	1.79	1.97	2.16	2.35	2.53	2.72	2.90	3.09	3.28	
78	3.50	5.68	7.87	10.05	12.23	14.41	16.60	18.78	20.96	23.14	25.33	27.51	29.69	31.87	34.05	36.24	38.42	
1.98	0.33	0.53	0.73	0.93	1.14	1.34	1.54	1.74	1.95	2.15	2.35	2.56	2.76	2.96	3.16	3.37	3.57	
84	3.79	6.16	8.52	10.89	13.25	15.61	17.98	20.34	22.71	25.07	27.43	29.80	32.16	34.53	36.89	39.25	41.62	
2.13	0.35	0.57	0.79	1.01	1.23	1.45	1.67	1.89	2.11	2.33	2.55	2.77	2.99	3.21	3.43	3.65	3.87	
90	4.08	6.63	9.17	11.72	14.26	16.81	19.35	21.89	24.44	26.98	29.53	32.07	34.62					
2.29	0.38	0.62	0.85	1.09	1.32	1.56	1.80	2.03	2.27	2.51	2.74	2.98	3.22					
96	4.37	7.09	9.82	12.54	15.27	17.99	20.71	23.44	26.16	28.89	31.61	34.33	37.06					
2.44	0.41	0.66	0.91	1.17	1.42	1.67	1.92	2.18	2.43	2.68	2.94	3.19	3.44					
102	4.66	7.57	10.47	13.38	16.28	19.19	22.09	25.00	27.90	30.81	33.71	36.62	39.52					
2.59	0.43	0.70	0.97	1.24	1.51	1.78	2.05	2.32	2.59	2.86	3.13	3.40	3.67					
108	4.95	8.04	11.12	14.21	17.29	20.38	23.46	26.55	29.63	32.72	35.80	38.89	41.97					
2.74	0.46	0.75	1.03	1.32	1.61	1.89	2.18	2.47	2.75	3.04	3.33	3.61	3.90					
114	5.24	8.51	11.78	15.04	18.31	21.58	24.84	28.11	31.38	34.65	37.91	41.18	44.45					
2.90	0.49	0.79	1.09	1.40	1.70	2.00	2.31	2.61	2.92	3.22	3.52	3.83	4.13					
120	5.53	8.98	12.42	15.87	19.31	22.76	26.21	29.65	33.10	36.54	39.99	43.44	46.88					
3.05	0.51	0.83	1.15	1.47	1.79	2.11	2.43	2.75	3.07	3.40	3.72	4.04	4.36					



This label does not signify AMCA air flow performance certification.

SCHEDULE TYPE:	Page 3 of 3			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	10 - 31 - 18	1600F	1 - 30 - 18	1606DHPF



Slate Blue **LF01**



Medium Bronze **LF02**



Sandstone **LF03**



Light Gray **LF04**



Charcoal **LF05**



Bone White **LF06**



Western Tan **LF07**



Architectural Bronze **LF08**



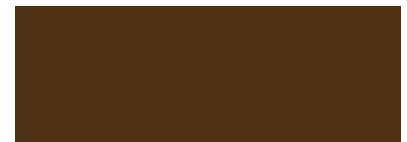
Regal Blue **LF09**



Forest Green **LF10**



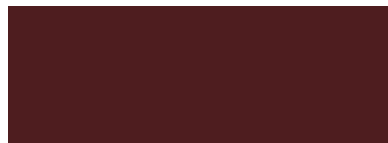
Surrey Beige **LF11**



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**

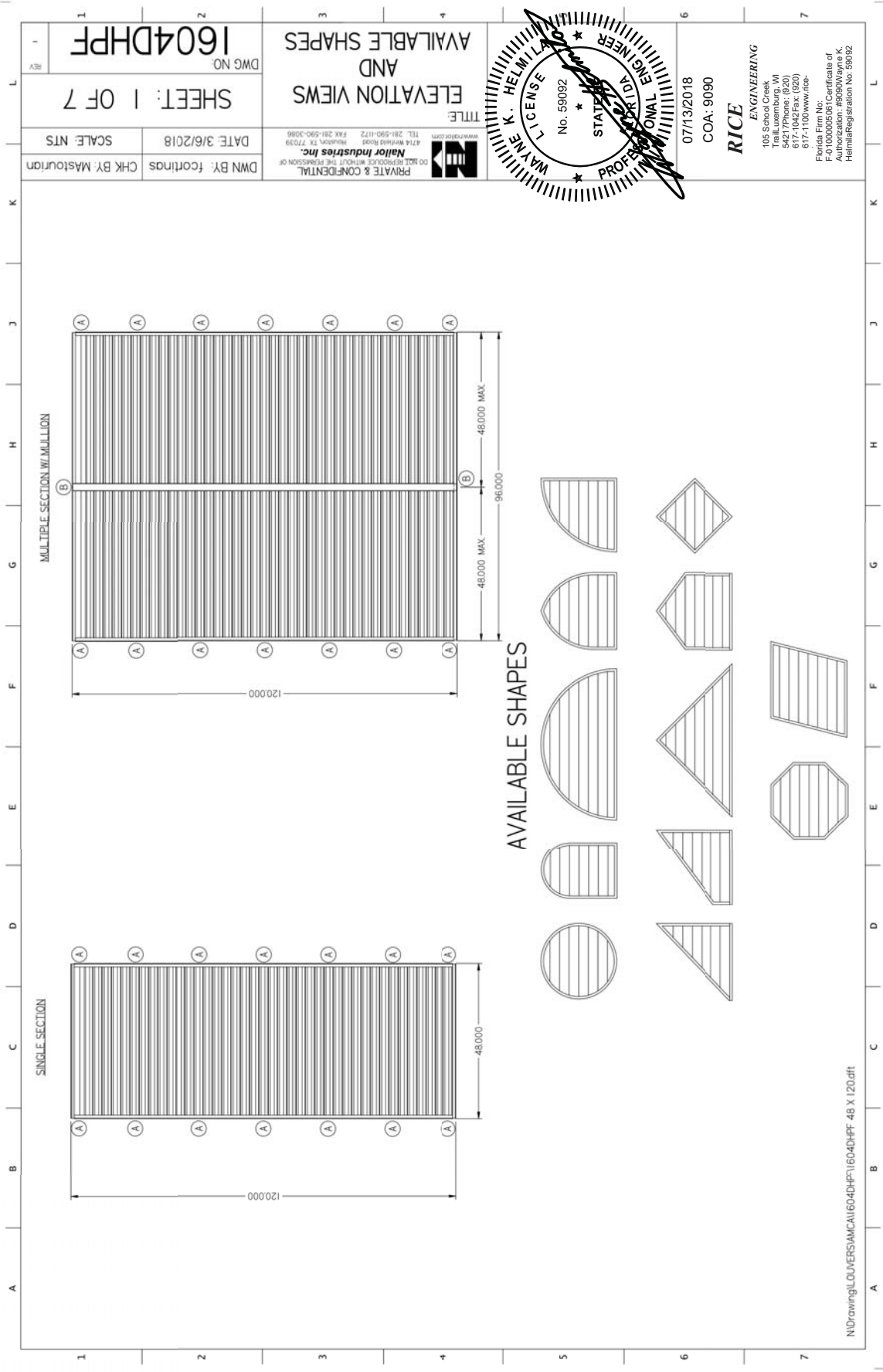
Nailor offers 21 standard paint colors selected for architectural exterior use which meet or exceed AAMA specifications and performance requirements for color retention, chalk resistance, gloss retention, erosion, corrosion and chemical resistance as well as dry film thickness and hardness. Our state-of-the-art 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, Corafon® Powder, Interpon® D3000-Fluoromax)	"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 new 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)	"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)	"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.
 Powdura® is a registered trademark of The Sherwin-Williams Company.
 Corafon® and Envirocron® are registered trademarks of PPG Industries Ohio, Inc.
 Interpon® is a registered trademark of Akzo Nobel Powder Coatings Ltd.
 Kynar 500® is a registered trademark of Arkema, Inc.
 Hylar 5000® is a registered trademark of Solvay Solexis, Inc.*



1 2 3 4 5 6 7

A B C D E F G H J K L

SINGLE SECTION

MULTIPLE SECTION WITH MILLION

120,000

48,000

120,000

48,000 MAX

96,000

48,000 MAX

AVAILABLE SHAPES

1604DHPF

DWG NO

SHEET: 1 OF 7

DATE 3/6/2018

SCALE: NTS

CHK BY: Mastourian

DWN BY: fcortinas

07/13/2018

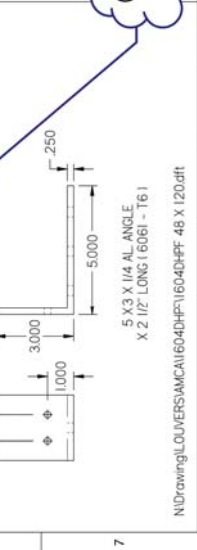
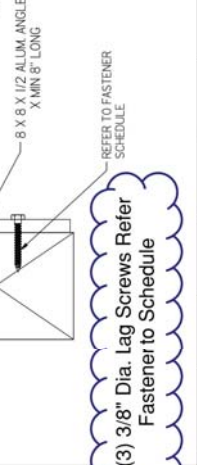
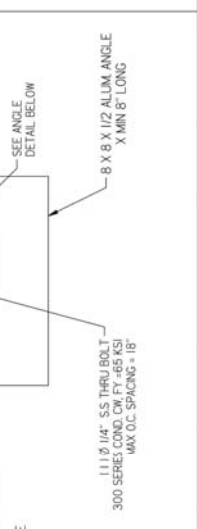
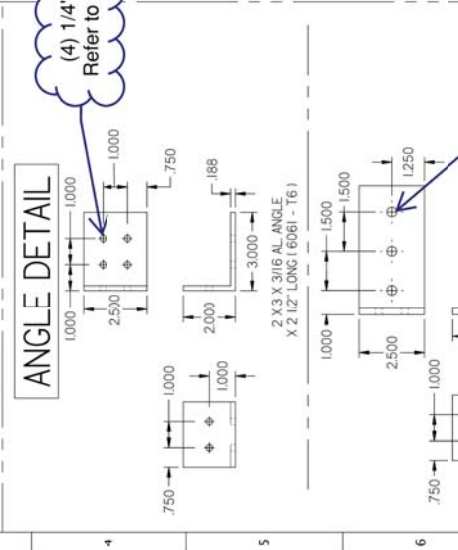
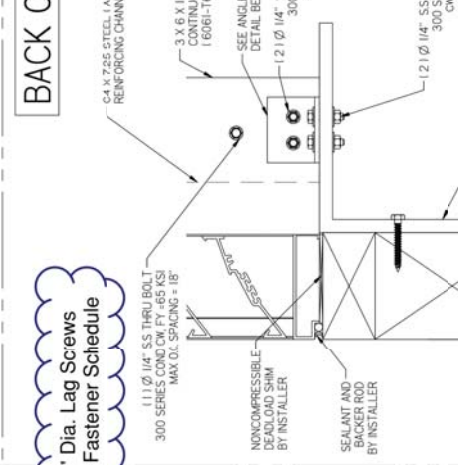
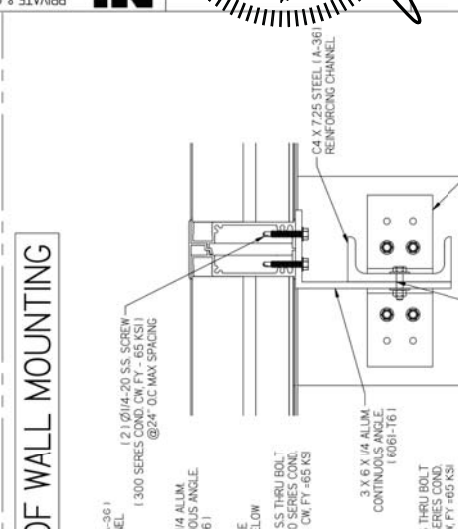
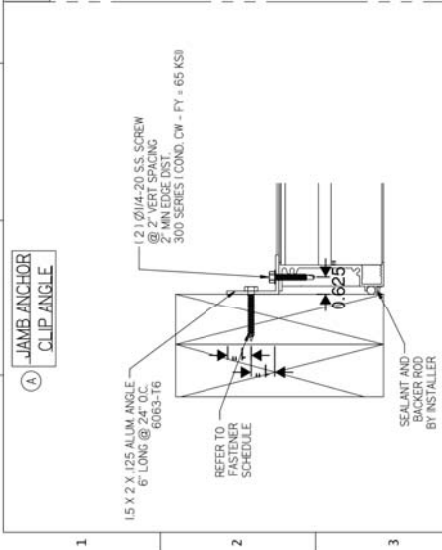
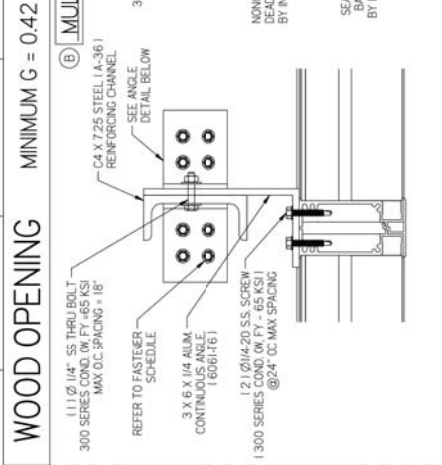
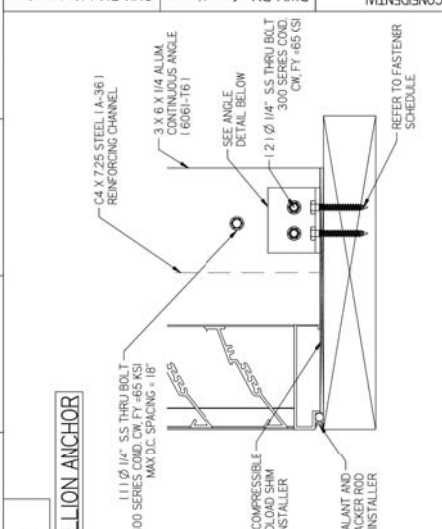
COA: 9090

RICE ENGINEERING

105 School Creek
 Tallahassee, FL 32301
 904-779-0000 (820)
 904-779-0001 (820)
 617-1042-Fax: (920)
 617-1100-www.rice-
 Florida Firm No:
 F-01000005061 Certificate of
 Authorization: 99080 Wayne K.
 Helms Registration No: 59092

PRIVATE & CONFIDENTIAL
 Nalor Industries Inc.
 4716 Wilford Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nalor.com

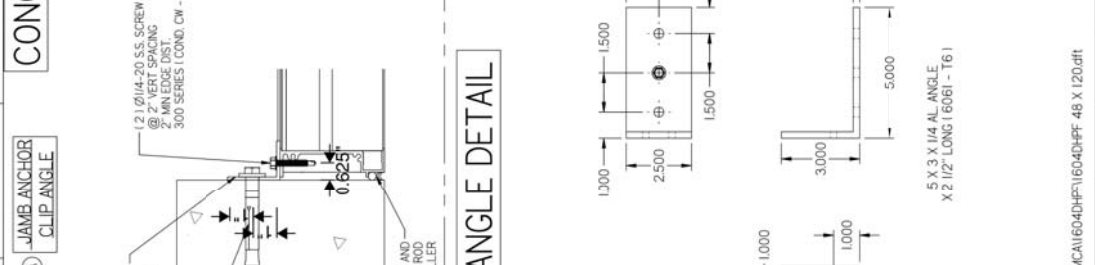
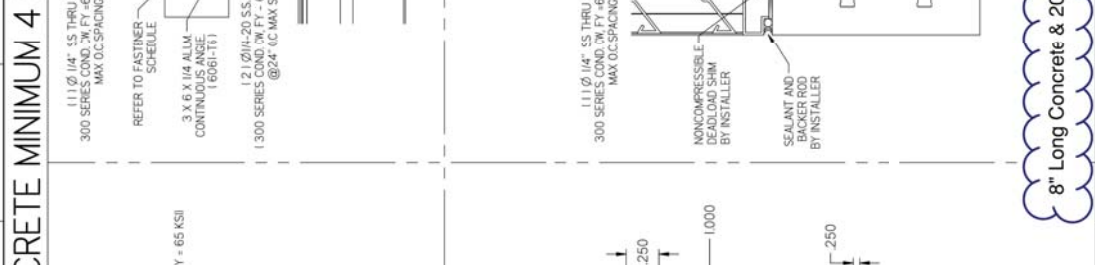
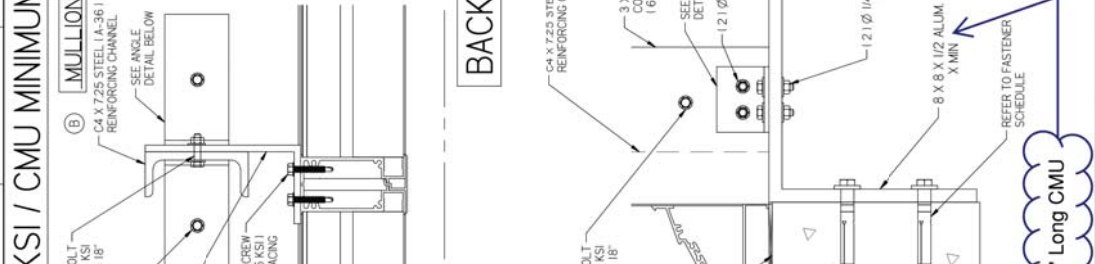
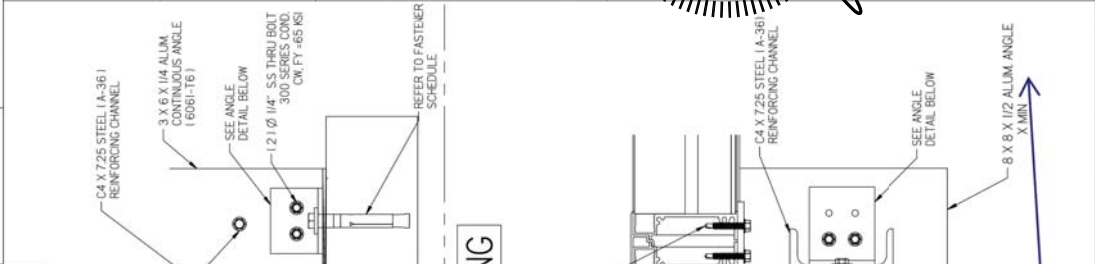
MAINE K. HELMS
 LICENSE
 No. 59092
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER



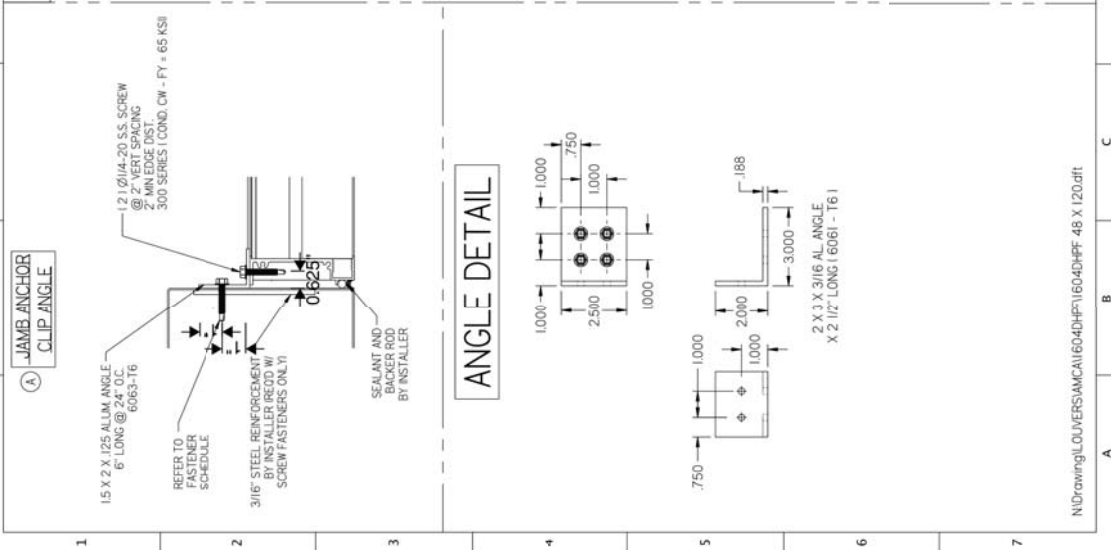
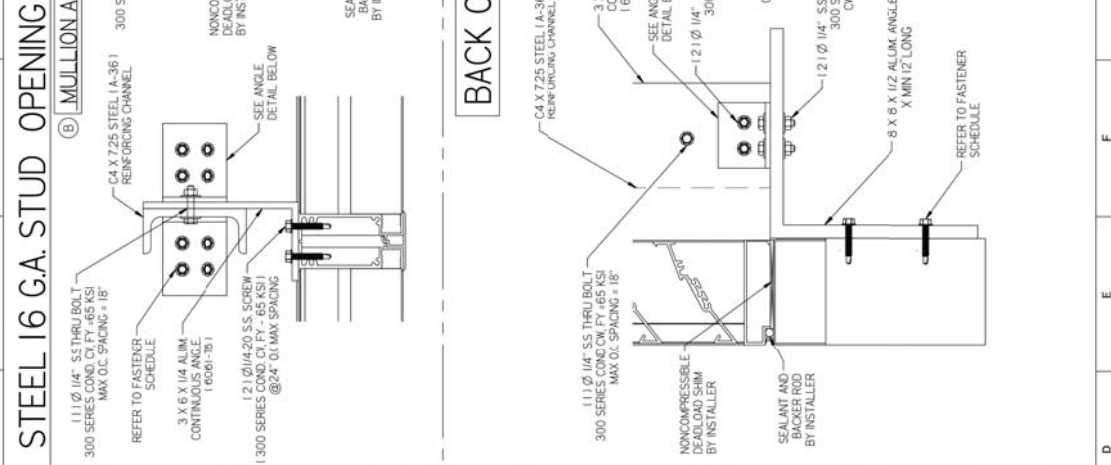
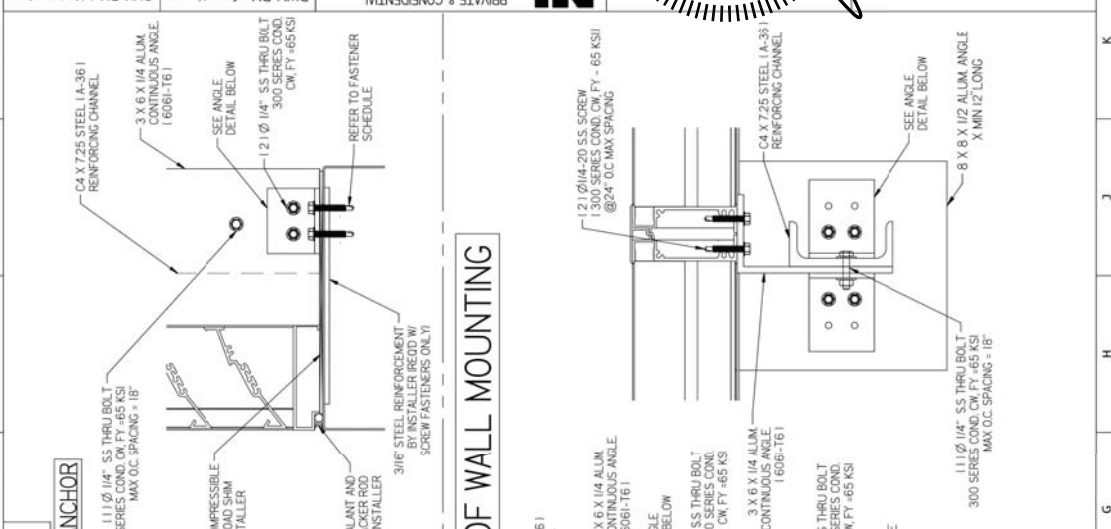
(4) 1/4" Dia. Lag Screws Refer to Fastener Schedule

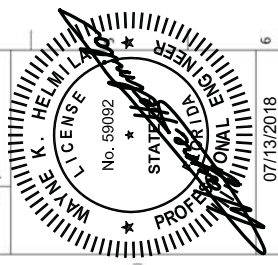
(3) 3/8" Dia. Lag Screws Refer Fastener to Schedule

1	2	3	4	5	6	7	
CONCRETE MINIMUM 4 KSI / CMU MINIMUM 1.5 KSI OPENING (A) JAMB ANCHOR CLIP ANGLE 1.5 X 2 X 1/25 ALUM ANGLE 6" LONG @ 24" O.C. REFER TO FASTENER SCHEDULE SEALANT AND BACKER ROD BY INSTALLER 1.21 Ø 1/4"-20 S.S. SCREW @ 2" VERT SPACING MIN EDGE DIST. 300 SERIES COND. CW - FY - 65 KSI		BACK OF WALL MOUNTING REFER TO FASTENER SCHEDULE 1.11 Ø 1/4" S.S. THRU BOLT 300 SERIES COND. CW - FY - 65 KSI MAX O.C. SPACING = 18" 3 X 6 X 1/4 ALUM CONTINUOUS ANGLE (6061-T6) 1.21 Ø 1/4"-20 S.S. SCREW @ 24" O.C. MAX SPACING 1.21 Ø 1/4" S.S. THRU BOLT 300 SERIES COND. CW - FY - 65 KSI NONCOMPRESSIBLE DEADLOAD SHIM BY INSTALLER SEALANT AND BACKER ROD BY INSTALLER		ANGLE DETAIL 1.5 X 2 X 1/25 ALUM ANGLE 6" LONG @ 24" O.C. 1.21 Ø 1/4"-20 S.S. SCREW @ 2" VERT SPACING MIN EDGE DIST. 300 SERIES COND. CW - FY - 65 KSI SEALANT AND BACKER ROD BY INSTALLER		CONCRETE MINIMUM 4 KSI / CMU MINIMUM 1.5 KSI OPENING (B) MULLION ANCHOR 1.11 Ø 1/4" S.S. THRU BOLT 300 SERIES COND. CW - FY - 65 KSI MAX O.C. SPACING = 18" 3 X 6 X 1/4 ALUM CONTINUOUS ANGLE (6061-T6) 1.21 Ø 1/4"-20 S.S. SCREW @ 24" O.C. MAX SPACING 1.21 Ø 1/4" S.S. THRU BOLT 300 SERIES COND. CW - FY - 65 KSI NONCOMPRESSIBLE DEADLOAD SHIM BY INSTALLER SEALANT AND BACKER ROD BY INSTALLER	
DWG NO. 1604DHPF SHEET 3 OF 7 DATE 3/6/2018 DWN BY: fcorinas CHK BY: Mastourian		PRIVATE & CONFIDENTIAL Nalor Industries Inc. 4716 Reisterstown Road Pikesville, MD 21112 TEL: 281-590-1172 FAX: 281-590-3086 WWW.NALOR.COM		WYOMING ENGINEERING No. 59092 STATE OF WYOMING PROFESSIONAL ENGINEER WAYNE K. HELM LICENSE # 59092		RICE ENGINEERING 109 School Creek P.O. Box 100 5427 Phone: (820) 617-1042 Fax: (820) 617-1100 www.rice- Florida Firm No: F-01000005061 Certificate of Authorization: #9080 Wayne K. Helms Registration No. 59092	

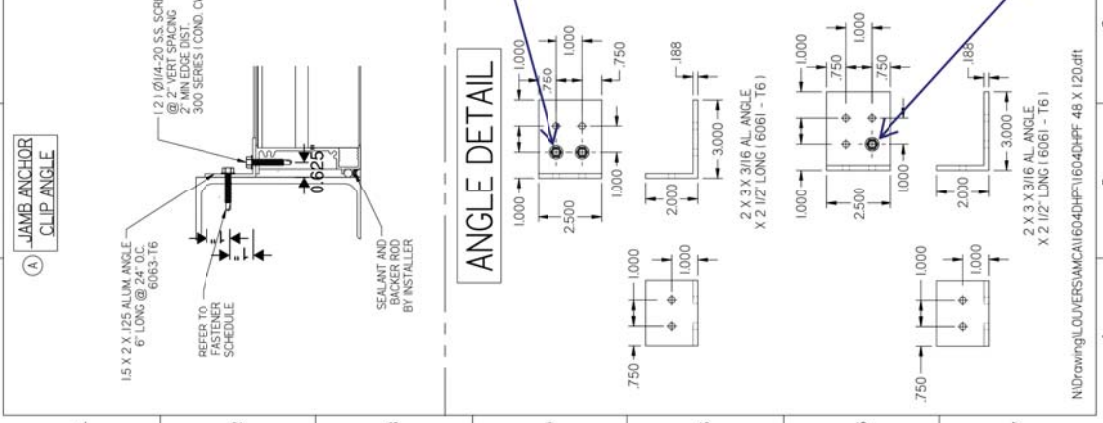
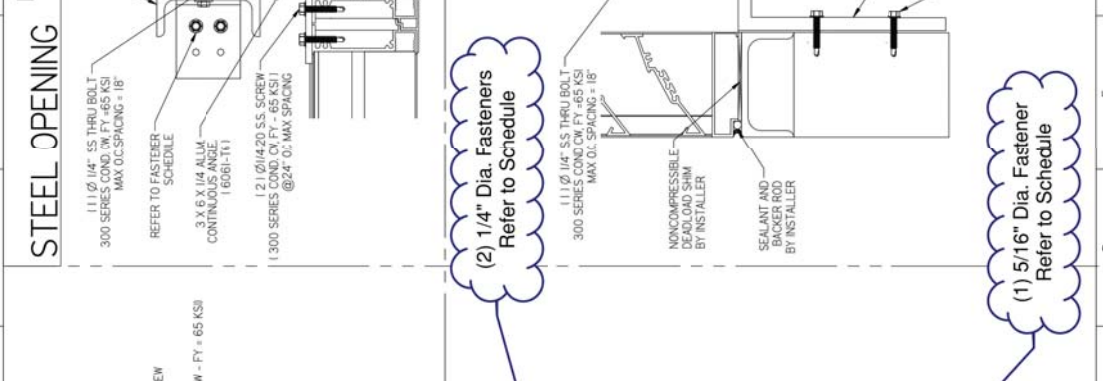
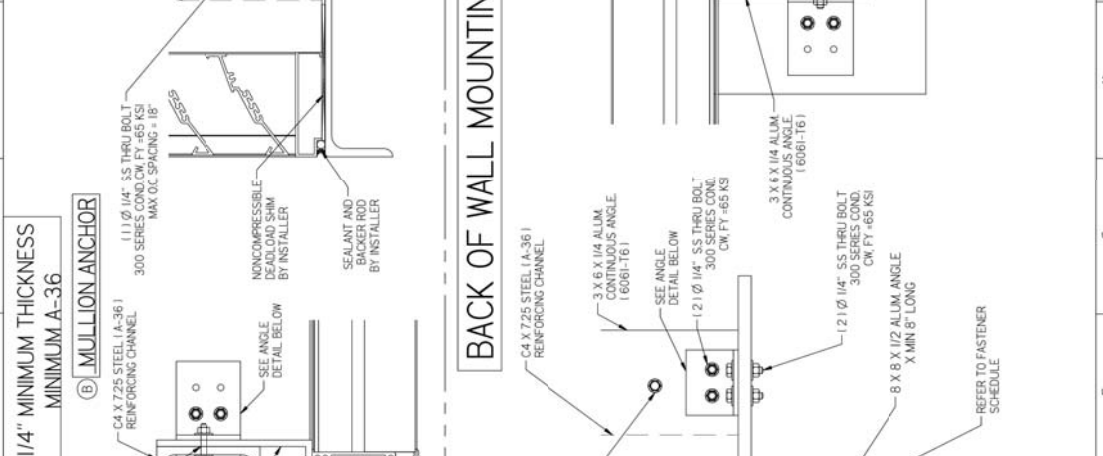


NIDrawing\LOWERS\AMCA\1604DHPF\1604DHPF 48 X 120.dft





RICE
 ENGINEERING
 105 School Creek
 St. Petersburg, FL 34784
 5421 (Phone) (820)
 617-1042 (Fax) (820)
 617-1100 (www.rice-
 eng.com)
 Florida Firm No:
 F-01000005061 Certificate of
 Authorization: #9080Wayno K.
 Helm Registration No: 59092



NIDrawing\L00\VERS\AMCA\1604DHPF 48 X 120.dft

WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTER TYPE	DIAMETER	# Rqd.	CLIP SPACING	EDGE	EMBEDMENT
						LAG SCREW (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	3	24"	2"	1 9/16"
X					SG 042	LAG SCREW (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	2	24"	2"	1 9/16"
X					16 GA	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	2	24"	2"	FULL PENE.
	X				A-36	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	2	24"	2"	FULL PENE.
	X				4ksi	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	5/16"	1	24"	2"	FULL PENE.
	X-CRACKED				4ksi	HLTI KWIK LUG-EZ	1/4"	1	24"	4"	1 5/8"
	X-CRACKED			X	1 5ksi	HLTI KWIK BOLT 3	3/8"	1	24"	4"	1 5/8"
						MULLION ANGLE MOUNT FASTENERS, HEIGHT = 120 INCHES	DIAMETER	# Rqd.	CENTERS	EDGE	EMBEDMENT
X					SG 042	LAG SCREW (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	4	1"	2"	1 7/8"
X					SG 042	LAG SCREW (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	3	1 1/2"	2"	1 7/8"
	X				16 GA	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	4	1"	2"	FULL PENE.
	X				A-36	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	2	1"	2"	FULL PENE.
	X				A-36	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	5/16"	1	N/A	2"	FULL PENE.
	X-UNCRACKED				4ksi	HLTI KWIK BOLT 3 - G.S.	3/8"	1	N/A	3"	2 5/16"
	X-CRACKED				4ksi	HLTI KWIK BOLT 1/2"	3/8"	1	N/A	5"	2 5/16"
						MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT = 120 INCHES	DIAMETER	# Rqd.	CENTERS	EDGE	EMBEDMENT
X					SG 042	LAG SCREW (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	5	VARIABLES	1"	3 11/32"
X					SG 042	LAG SCREW (300 SERIES SS - COND. CW - Fy = 65 ksi)	3/8"	4	VARIABLES	1 1/2"	3 9/32"
	X				16 GA	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	22	VARIABLES	1"	FULL PENE.
	X				A-36	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	1/4"	5	VARIABLES	1"	FULL PENE.
	X				4ksi	ELCO DRL-3 LEX DRILLING SCREWS (300 SERIES SS - COND. CW - Fy = 65 ksi)	5/16"	5	VARIABLES	1"	FULL PENE.
	X-UNCRACKED				4ksi	HLTI KWIK LUG-EZ	1/4"	4	VARIABLES	3"	2 1/2"
	X-CRACKED			X- GROUT FILLED	1.5 ksi	HLTI KWIK BOLT 1/2"	1/2"	4	VARIABLES	3"	3 5/8"
						ELCO AGGRE-GATOR (300 SERIES SS - COND. CW - Fy = 65 KSI)	1/4"	12	VARIABLES	2"	2"

NOTE: THREAD PENETRATION EMBEDMENT LENGTH SIGNIFES THE REQUIRED LENGTH OF THE THREAD PORTION OF THE FASTENER INTO THE WOOD SUBSTRATE PROVIDING FULL CONTACT WITH WOOD. LAG SCREW TP CANNOT BE CONSIDERED PART FO THE THREADED PORTION OF THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS / SPLICES WHERE THE LAG SCREW COULD FAIL BETWEEN MEMBERS.

NOTE: ENGINEER OF RECORD (EOR) IS RESPONSIBLE FOR DETERMINING IF CONCRETE IS TO BE CONSIDERED CRACKED OR UNCRACKED.

- GENERAL NOTES:
- IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE LOUVERS.
 - INSTALLER TO PROVIDE SEPARATION OF THE DISSIMILAR MATERIALS AS REQUIRED.
 - WOOD SUBSTRATE TO ME MINIMUM G = 0.42
 - CONCRETE SUBSTRATE = 4 KSI / GROUT FILLED CMU = 1.5 KSI.
 - STEEL STUD OPENINGS (16 GA MINIMUM THICKNESS) TO BE MIN. Fy=33 ksi.
 - STRUCTURAL STEEL OPENINGS (1/4" MINIMUM THICKNESS) TO BE MINIMUM Fy = 36 ksi.

N:\Drawings\LOUVERS\AMCA\1604DHPF 48 X 120.dft

1604DHPF
DWG NO.

SHEET: 6 OF 7

DATE: 3/6/2018

DWN BY: fcorinas

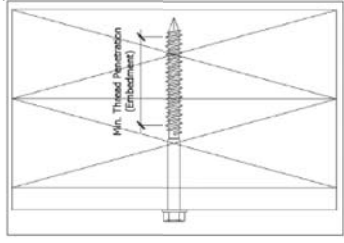
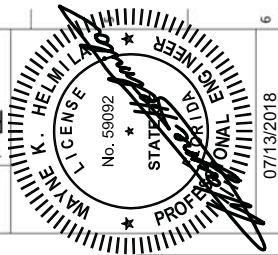
CHK BY: Mastourian

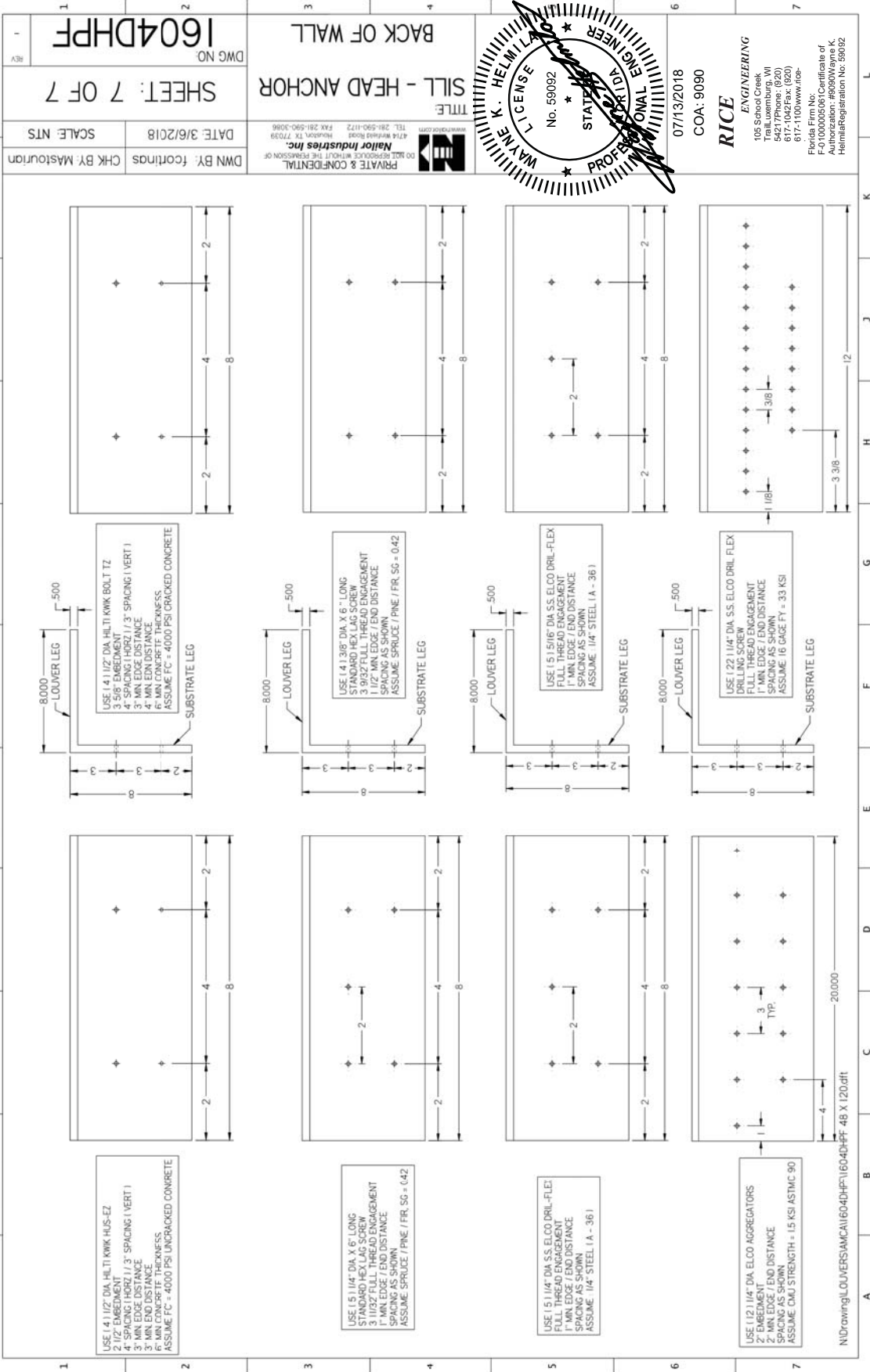
FASTENER SCHEDULE
AND
GENERAL NOTES

PRIVATE & CONFIDENTIAL
Nalco Industries Inc
4716 Parkside Road
Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086

07/13/2018
COA: 9090

RICE
ENGINEERING
105 School Creek
Houston, TX 77036
5427 Phone: (820)
617-1042 Fax: (820)
617-1100 www.rice-
Florida Firm No:
F-0100005061 Certificate of
Authorization: 98080 Wayne K.
Helms Registration No: 59092



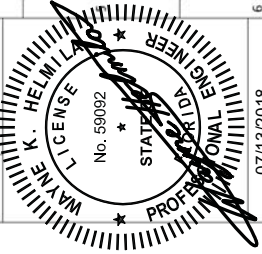


CHK BY: Mastourian
 DATE: 3/6/2018
 SCALE: NTS

DWG NO: 1604DHPF
 SHEET: 7 OF 7

PRIVATE & CONFIDENTIAL
 Nalcor Industries Inc.
 4714 Redwood Road
 Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nalcor.com

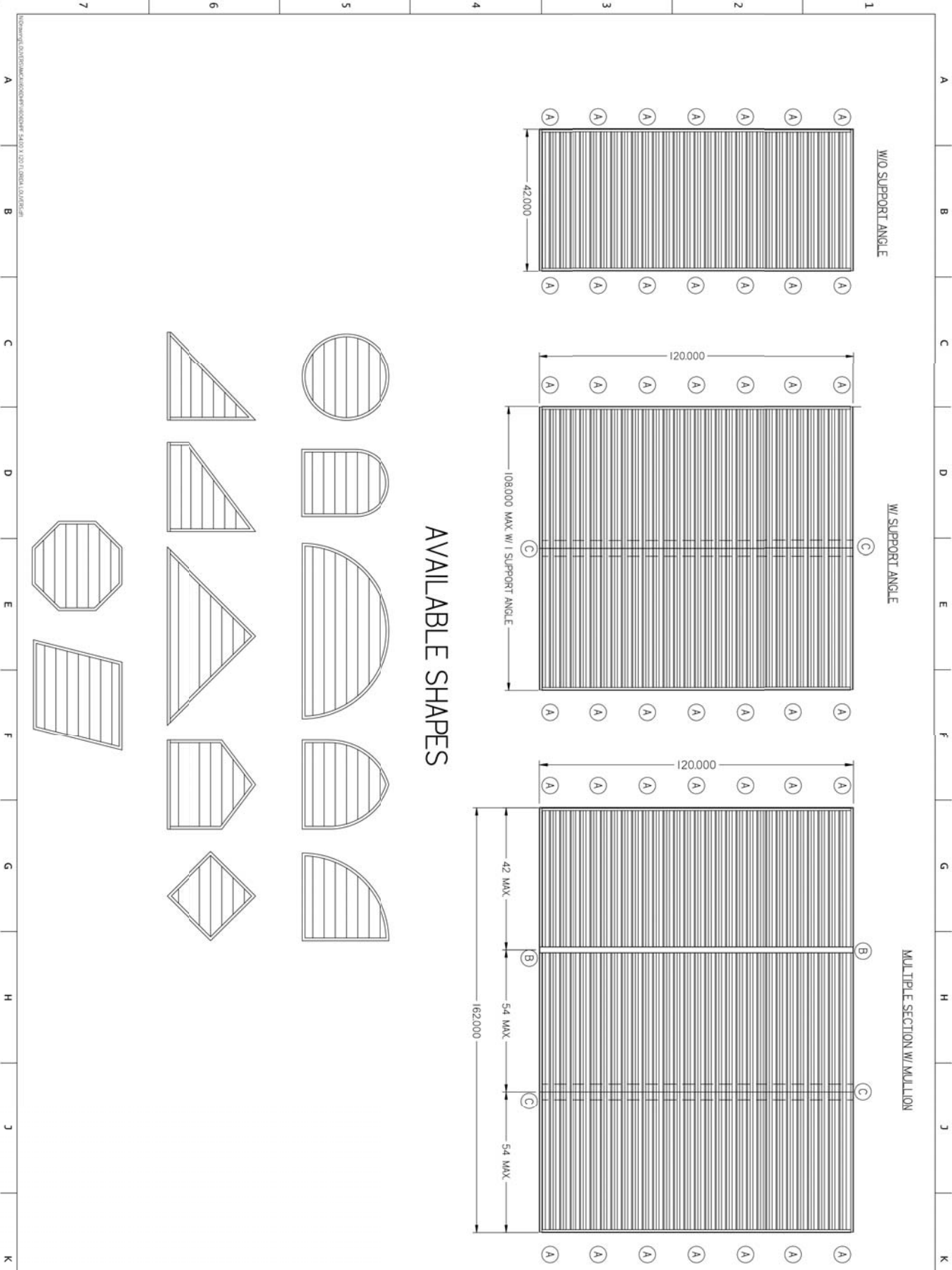
BACK OF WALL
 SILL - HEAD ANCHOR



07/13/2018
 COA: 9090

RICE ENGINEERING
 105 School Creek
 Houston, TX 77039
 5427 Phone: (820)
 617-1042 Fax: (820)
 617-1100 www.rice-
 Florida Firm No:
 F-0100005061 Certificate of
 Authorization: #9080 Wayne K.
 Helm Registration No: 59092

NIDrawing\LOUVERS\AMCAN\1604DHPF\1604DHPF_48 X 120.dft

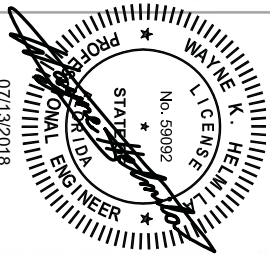


AVAILABLE SHAPES

RICE
ENGINEERING

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

Florida Firm No:
F-07000005061 Certificate of
Authorization: #9090Wayne K.
Helmler Registration No. 59092



COA: 9090
07/13/2018

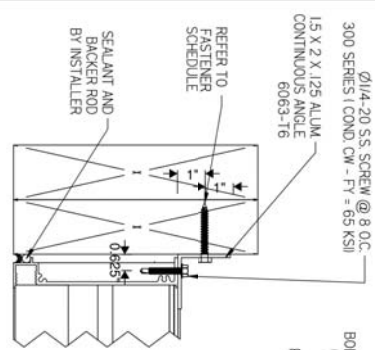
PRIVATE & CONFIDENTIAL
DO NOT REPRODUCE WITHOUT THE PERMISSION OF
Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL 281-590-1172 FAX 281-590-3086
www.nailor.com

TITLE:
**ELEVATION VIEW
AND
AVAILABLE SHAPES**

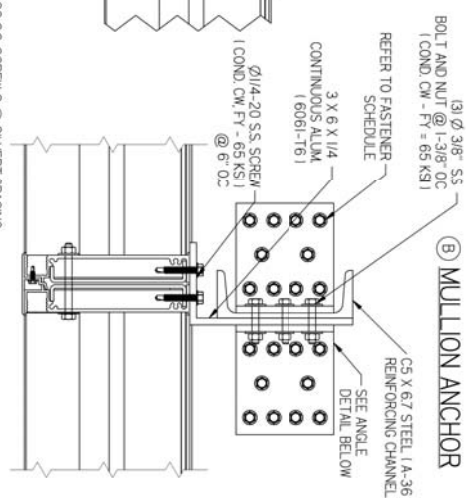
DWN BY: ffortinas CHK BY: MAstourian
DATE: 2/22/2017 SCALE: NTS

SHEET: 1 OF 7
1606DHPF

(A) JAMB ANCHOR CONTINUOUS ANGLE

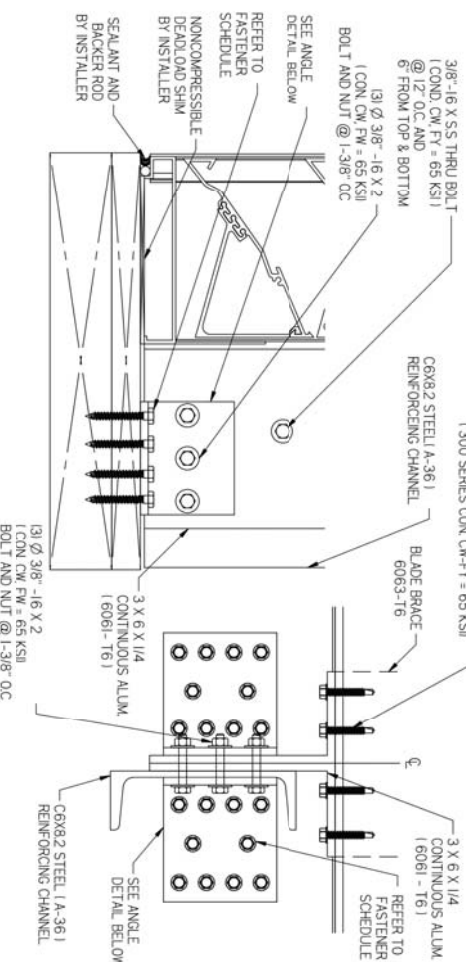


(B) MULLION ANCHOR



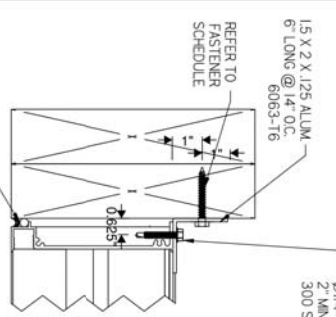
WOOD OPENING MINIMUM G = 0.42

(C) SUPPORT ANCHOR

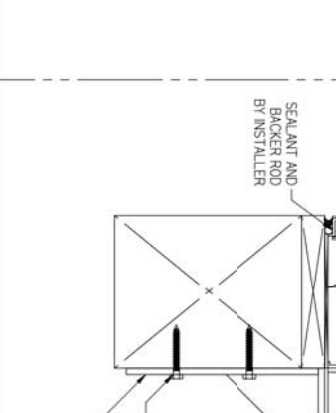
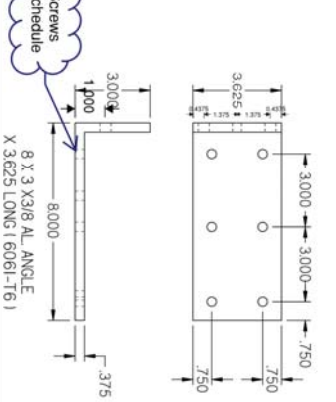
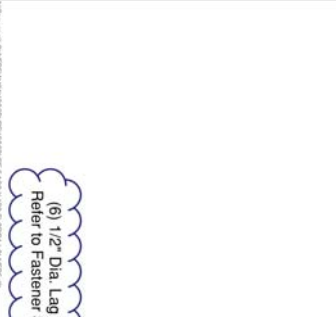


DWN BY: fcartinas	CHK BY: MASTOURIAN
DATE: 2/22/2017	SCALE: NTS
SHEET: 2 OF 7	
1606DHPF	

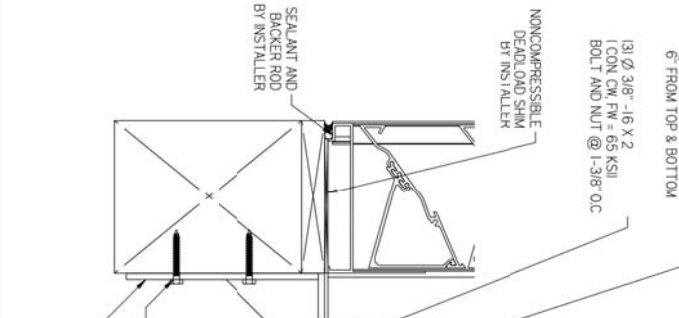
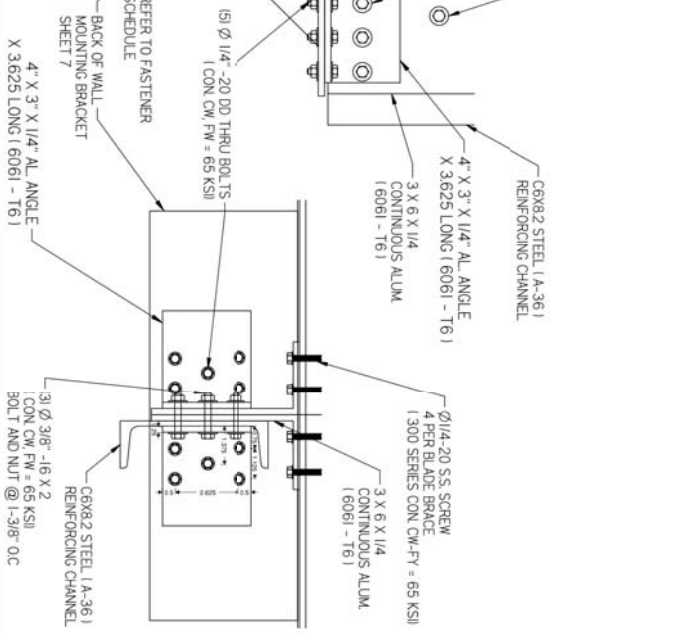
ANGLE DETAIL



(10) 1/4\"/>



BACK OF WALL MOUNTING



WAYNE K. HELM
 LICENSED PROFESSIONAL ENGINEER
 No. 59092
 STATE OF FLORIDA
 07/13/2018
 COA: 9090

RICE ENGINEERING
 105 School Creek Trail
 Lubbock, TX 79427
 Phone: (820) 817-1042
 Fax: (820) 817-1100
 www.riceinc.com
 Florida Firm No. F-01000005061
 Certificate of Authorization: #9090
 Wayne K. Helms
 Registration No. 59092

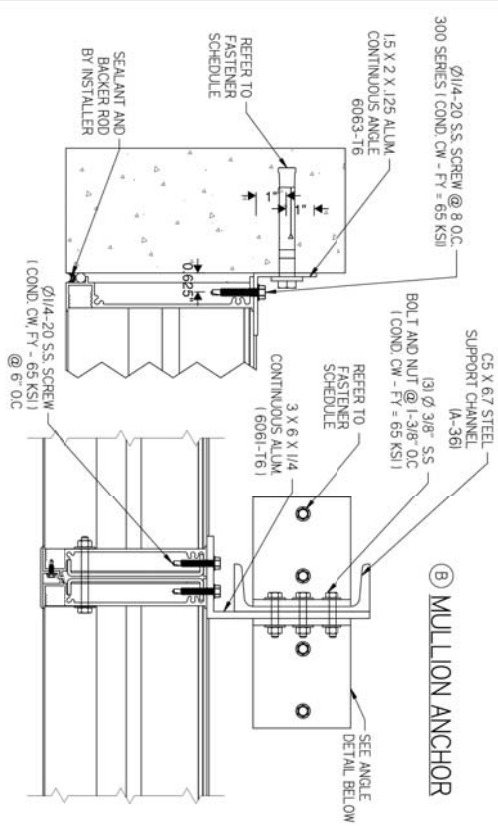
PRIVATE & CONFIDENTIAL
 DO NOT REPRODUCE WITHOUT THE PERMISSION OF
Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com

TITLE: **WOOD MOUNTING**

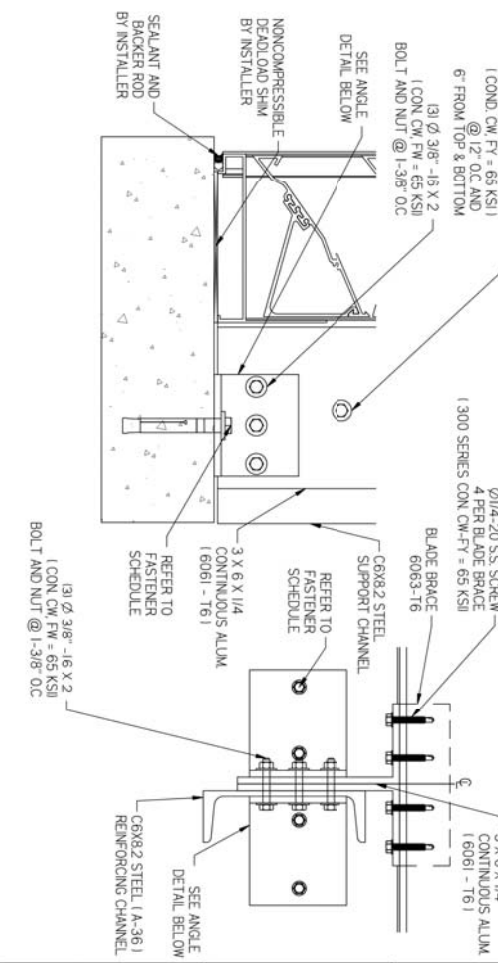
NONREPRODUCIBLE WITHOUT THE PERMISSION OF NAILOR INDUSTRIES INC.

CONCRETE MINIMUM 4 KSI / CMU MINIMUM 1.5 KSI OPENING

(A) JAMB ANCHOR CONTINUOUS ANGLE



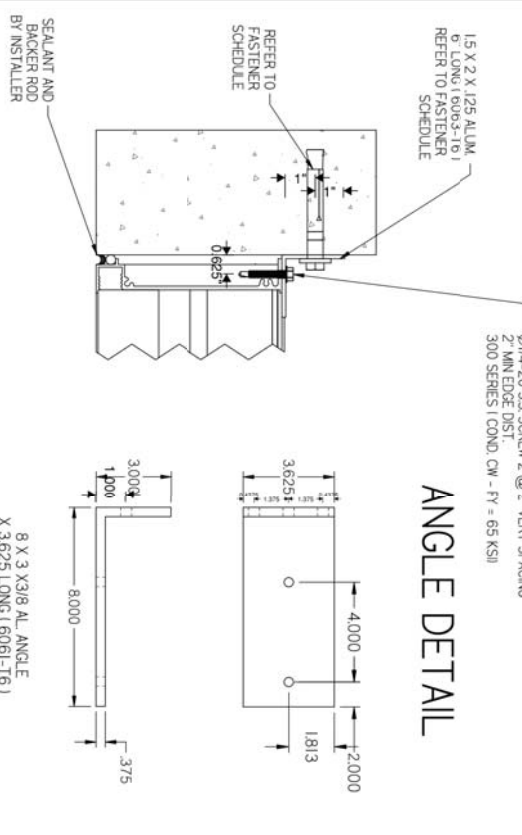
(B) MULLION ANCHOR



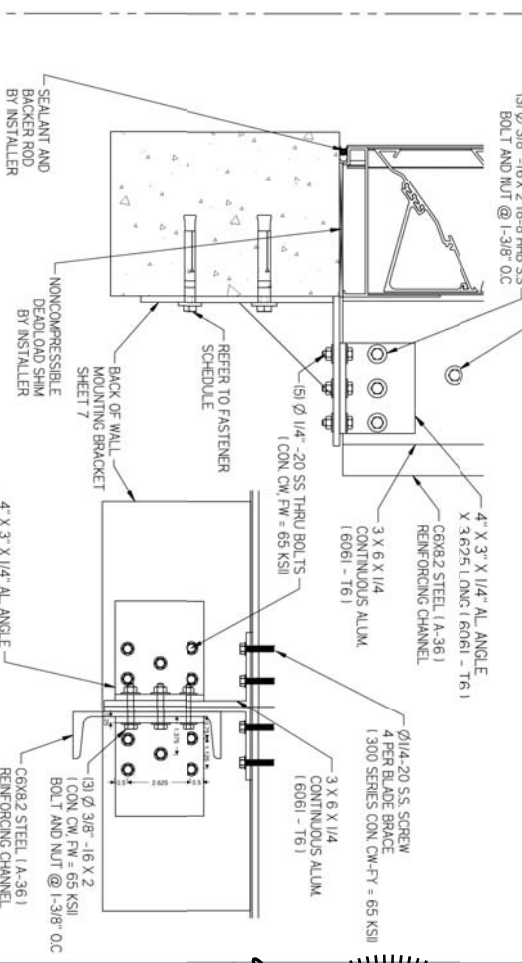
(C) SUPPORT ANCHOR



(A) JAMB ANCHOR CLIP ANGLE



ANGLE DETAIL



BACK OF WALL MOUNTING

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
J
K
L

DWN BY: fcartinas	CHK BY: MAstourian	DATE: 2/22/2017	SCALE: NTS
SHEET: 3 OF 7		1606DHPF	

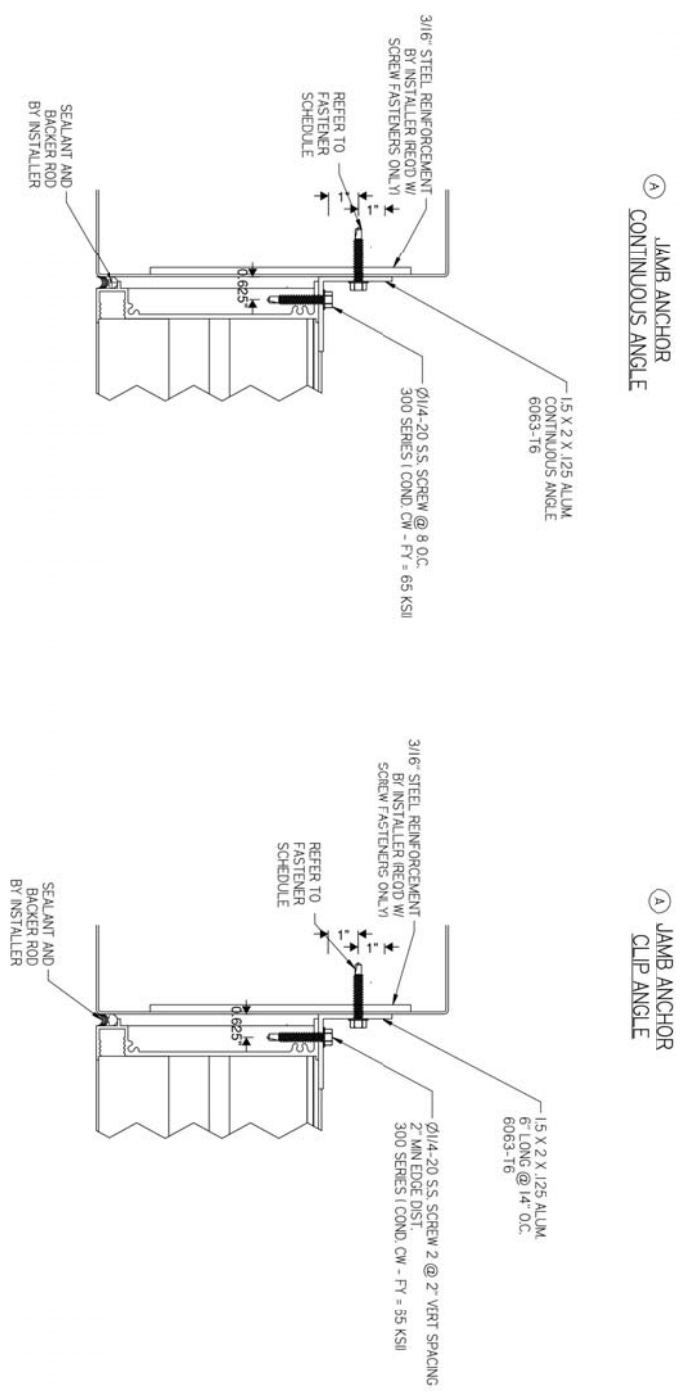
PRIVATE & CONFIDENTIAL
 DO NOT REPRODUCE WITHOUT THE PERMISSION OF
Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL. 281-590-1172 FAX 281-590-3086
 www.nailor.com

TITLE: **CEMENT CMU MOUNTING**

COA: 9090
 07/3/2018

RICE
 ENGINEERING
 105 School Creek Trail
 Luxemburg, WI 54217
 Phone: (920) 817-1042
 Fax: (920) 817-1100
 www.rice-inc.com
 Florida Firm No. F-01000005061
 Certificate of Authorization: #9090
 Wayne K. Helms
 Registration No. 59092

STEEL 16 GA. STUD OPENING

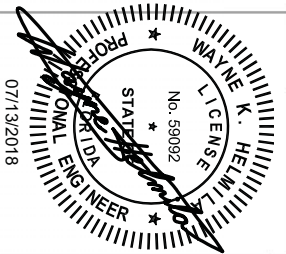


DWN BY: ffortinas CHK BY: MAstourian
 DATE: 2/22/2017 SCALE: NTS

SHEET: 4 OF 7
1606DHPF

PRIVATE & CONFIDENTIAL
 DO NOT REPRODUCE WITHOUT THE PERMISSION OF
Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com

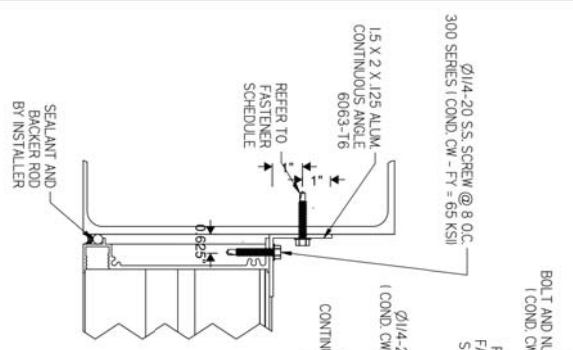
TITLE
STEEL 16 GA
JAMB MOUNTING



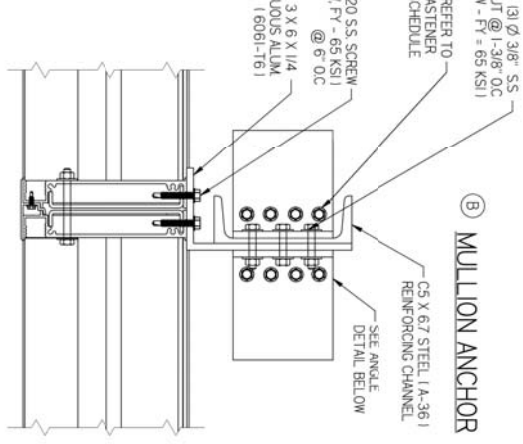
COA: 9090
 07/13/2018

RICE
 ENGINEERING
 105 School Creek Trail
 Luxembourg, WI 54217
 Phone: (920) 817-1042
 Fax: (920) 817-1100
 www.riceinc.com
 Florida Firm No. F-01000005061
 Certificate of Authorization: #9090
 Wayne K. Helms
 Registration No. 59092

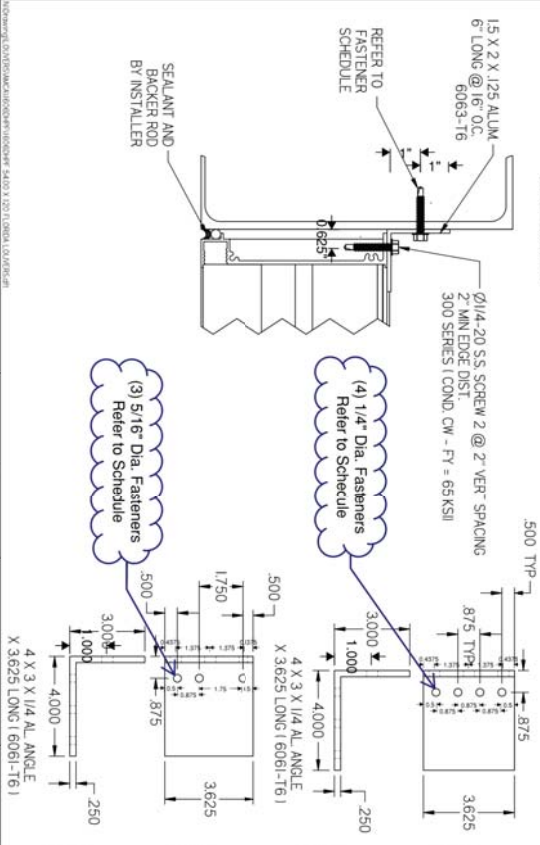
① JAMB ANCHOR CONTINUOUS ANGLE



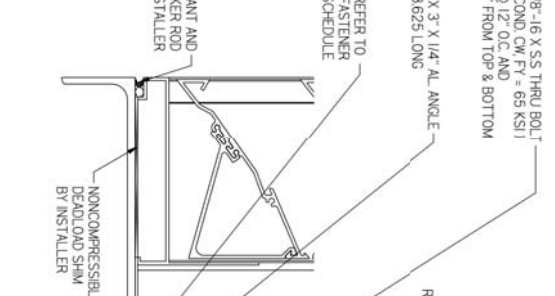
② MULLION ANCHOR



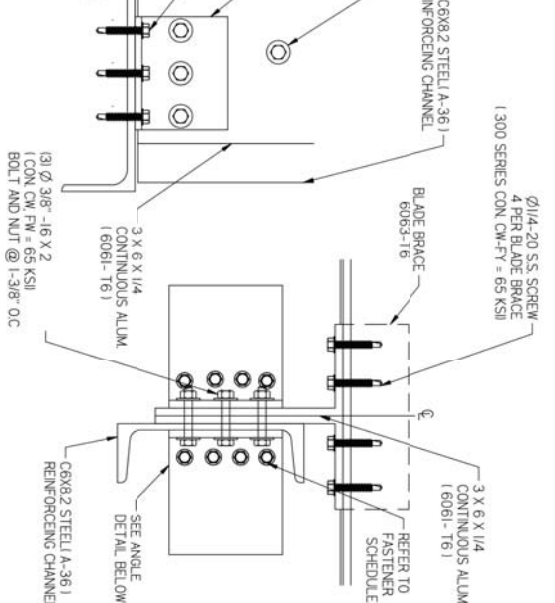
ANGLE DETAIL



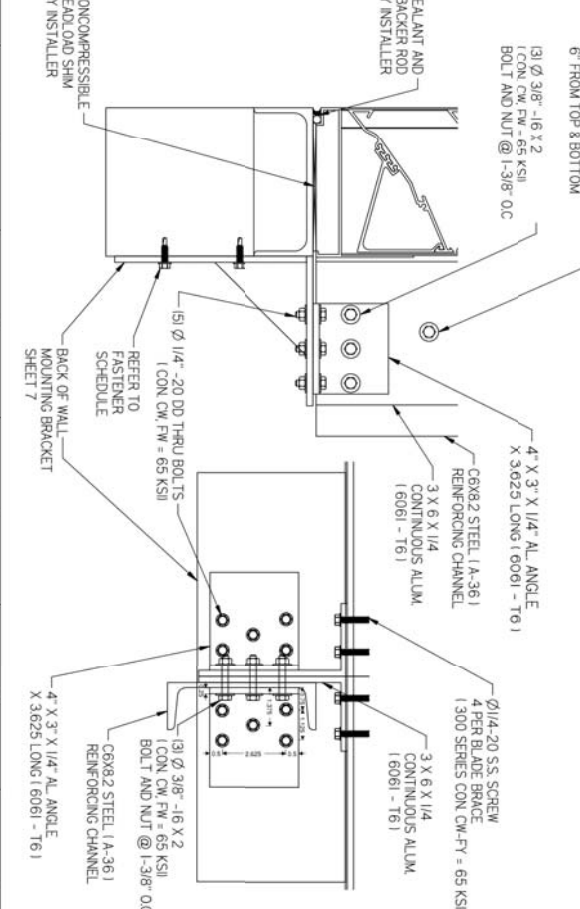
1/4" MINIMUM THICKNESS MINIMUM A-36



③ SUPPORT ANCHOR



BACK OF WALL MOUNTING

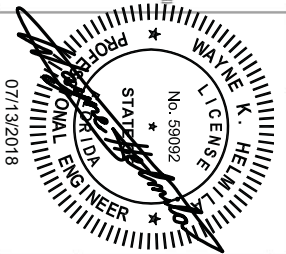


DWN BY: fcartinas CHK BY: MAstourian
 DATE: 2/22/2017 SCALE: NTS

SHEET: 5 OF 7
1606DHPF

PRIVATE & CONFIDENTIAL
 DO NOT REPRODUCE WITHOUT THE PERMISSION OF
Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com

TITLE: **STEEL A-36 MOUNTING**



RICE ENGINEERING
 105 School Creek Trail
 Lubbock, TX 79427
 Phone: (820) 817-1042
 Fax: (820) 817-1100
 www.rice-inc.com
 Florida Firm No. F-01000005061
 Certificate of Authorization: #9090
 Wayne K. Helms
 Registration No. 59092

LOUVER MODEL 1606DHPF

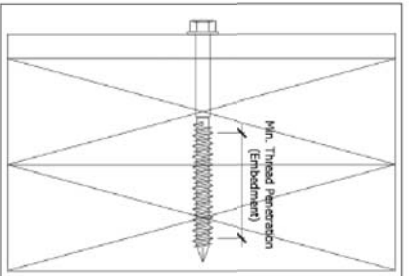
WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN	FASTENER TYPE	DIAMETER	# Rods	CENTERS	EDGE	EMBEDMENT
CONTINUOUS JAMB PERMETER ANGEL FASTENER WIDTH = 54 INCHES											
X	X				SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	1	5"	2"	1 9/16"
					SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	3/8"	1	6"	2"	6"
	X				16 GA.	ELOO DRILL-FLEX FRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	1	8"	2"	FULL PENE.
		X			A-36	ELOO DRILL-FLEX FRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	1	14"	2"	FULL PENE.
			X		A-36	ELOO DRILL-FLEX FRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	5/16"	1	16"	2"	FULL PENE.
			X-CRACKED		4ksi	HL TI KWIK HUS-EZ	1/4"	1	7"	4"	1 5/8"
			X-CRACKED		4ksi	HL TI KWIK HUS-EZ	3/8"	1	10"	4"	1 5/8"
			X		1.5ksi	HL TI KWIK -CON II-	1/4"	1	6"	1-1/2"	1-3/4"
			X		1.5ksi	HL TI KWIK-BOLT 13	3/8"	1	16"	4"	2-1/2"
CLIP JAMB PERMETER ANGEL FASTENER WIDTH = 54 INCHES											
					SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	3	14"	2"	EMBEDMENT
X					SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	3/8"	2	14"	2"	1 9/16"
	X				16 GA.	ELOO DRILL-FLEX FRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	2	14"	2"	FULL PENE.
		X			A-36	ELOO DRILL-FLEX FRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	2	16"	2"	FULL PENE.
			X		A-36	ELOO DRILL-FLEX FRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	5/16"	2	16"	2"	FULL PENE.
			X-CRACKED		4ksi	HL TI KWIK HUS-EZ	1/4"	2	14"	4"	1 5/8"
			X-CRACKED		4ksi	HL TI KWIK HUS-EZ	3/8"	1	16"	4"	2 1/2"
			X		1.5ksi	HL TI KWIK-BOLT 13	3/8"	1	16"	4"	2-1/2"
MULLION ANGLE MOUNT FASTENERS, HEIGHT = 120 INCHES											
	X				SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	10	CENTERS	EDGE	EMBEDMENT
	X				SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	1/2"	6	VARES	2"	1 7/8"
	X				A-36	ELOO DRILL-FLEX DRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	4	7/8"	2"	1 5/8"
		X			A-36	ELOO DRILL-FLEX DRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	5/16"	3	VARES	2"	FULL PENE.
			X-CRACKED		4ksi	HL TI KWIK BOLT 3 - CS**	1/2"	2	4"	6"	3-9/16"
			X-UNCRAKED		4ksi	HL TI KWIK BOLT 17*	3/4"	2	4"	8"	5 - 9/16"
MULLION ANGLE MOUNT BRCK OF WALL FASTENERS, HEIGHT = 120 INCHES											
	X				SG 0.42	LAG SCREW 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	15	VARES	1"	3 11/32"
	X				A-36	ELOO DRILL-FLEX DRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	1/4"	11	VARES	1 - 1/2"	3 9/32"
		X			A-36	ELOO DRILL-FLEX DRILLING SCREWS 1300 SERIES SS - COND. CW - FY = 65 ksi	5/16"	12	VARES	1"	FULL PENE.
			X-CRACKED		4ksi	HL TI KWIK HUS-EZ	1/2"	8	VARES	3"	4 - 1/4"
			X-UNCRAKED		4ksi	HL TI KWIK BOLT 17*	1/2"	12	VARES	3"	3 - 5/8"

* NOTE: THREAD PENETRATION EMBEDMENT LENGTH SIGNIFES THE REQUIRED LENGTH OF THE THREADED PORTION OF THE FASTENER INTO THE WOOD SUBSTRATE PROVIDING FULL CONTACT WITH WOOD. LAG SCREW TP CANNOT BE CONSIDERED PART FO THE THREADED PORTION OF THE SCREW. LAG SCREWS AE 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 F CONCRETE IS TO BE CONSIDERED CRACKED OR UNCRACKED.

GENERAL NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE LOUVERS.
2. INSTALLER TO PROVIDE SEPARATION OF THE DISSIMILAR MATERIALS AS REQUIRED.
3. WOOD SUBSTRATE TO ME MINIMUM G = 0.42
4. CONCRETE SUBSTRATE = 4 KSI / GROUT FILLED CMU = 2 KSI.
5. STEEL STUD OPENINGS (16 GA MINIMUM THICKNESS) TO BE MIN. Fy=33 ksi.
6. STRUCTURAL STEEL OPENINGS (1/4" MINIMUM THICKNESS) TO BE MINIMUM Fy = 36 ksi.

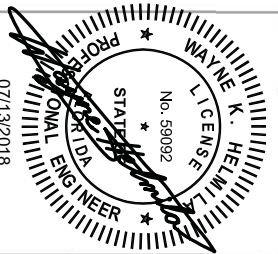


DWN BY: ffortinas
 DATE: 2/22/2017
 CHK BY: MASTOURIAN
 SCALE: NTS

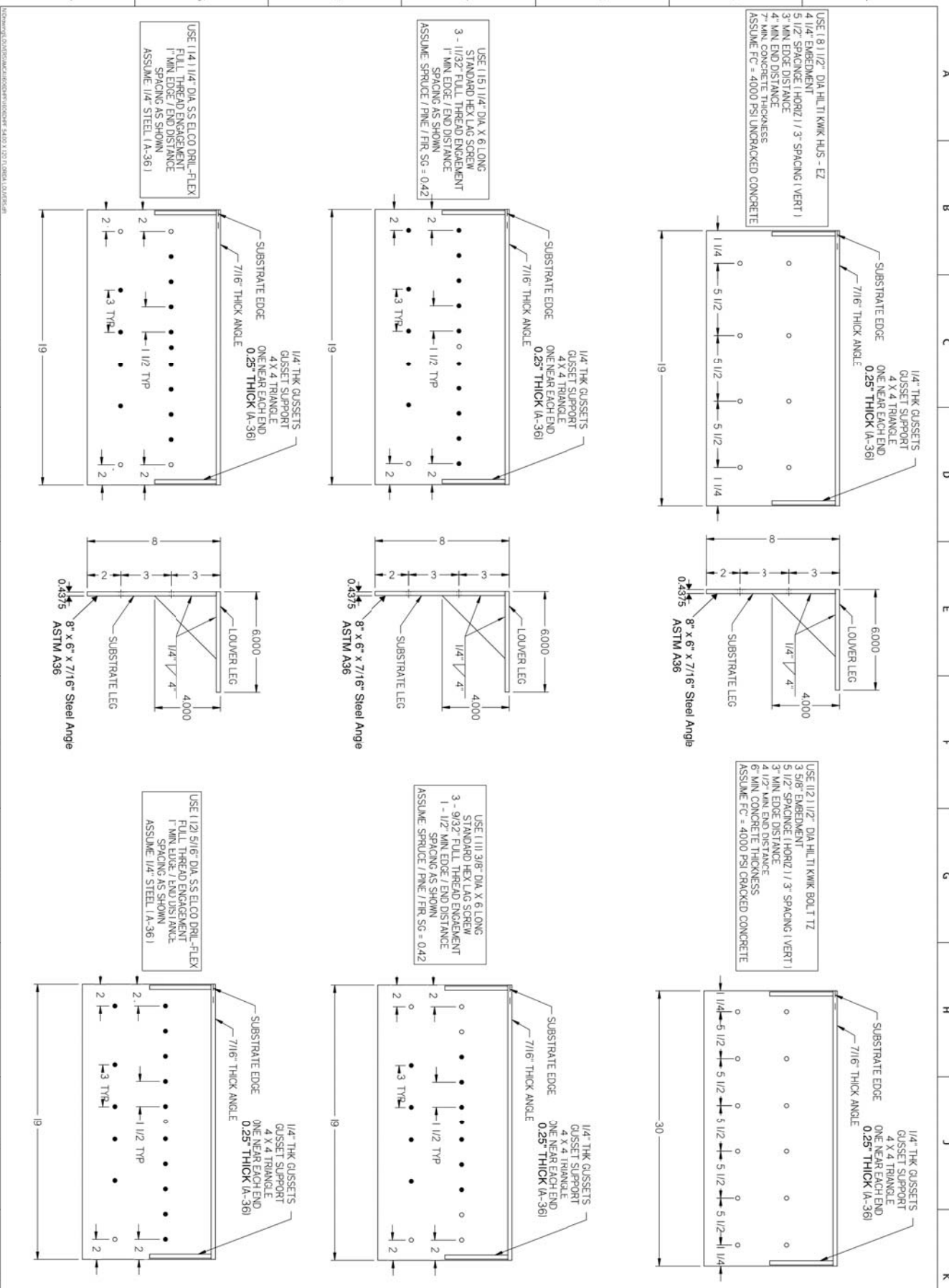
SHEET: 6 OF 7
1606DHPF

PRIVATE & CONFIDENTIAL
 DO NOT REPRODUCE WITHOUT THE PERMISSION OF
Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 TEL: 281-590-1172 FAX: 281-590-3086
 www.nailor.com

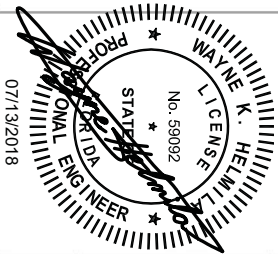
TITLE:
**FASTENER SCHEDULE
 AND
 GENERAL NOTES**



COA: 9090
 07/13/2018
RICE
 ENGINEERING
 105 School Creek Trail
 Lubbock, TX 79427
 Phone: (820) 817-1042
 Fax: (820) 817-1100
 www.riceinc.com
 Florida Firm No. F-01000005061
 Certificate of Authorization: #9090
 Wayne K. Helmlinger
 Registration No. 59092



<p>PRIVATE & CONFIDENTIAL DO NOT REPRODUCE WITHOUT THE PERMISSION OF Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL. 281-590-1172 FAX 281-590-3086 www.nailor.com</p>	<p>DWN BY: ffortinas</p>	<p>CHK BY: MAstourian</p>
	<p>DATE: 2/22/2017</p>	<p>SCALE: NTS</p>
<p>TITLE: SILL - HEAD ANCHOR BACK OF WALL</p>	<p>SHEET: 7 OF 7</p>	
	<p>1606DHPF</p>	



COA: 9090
07/3/2018

RICE
ENGINEERING

105 School Creek Trail
Luxemburg, FL 34217
Phone: (920) 817-1042
Fax: (920) 817-1100
www.riceinc.com

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