

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

SHEET: 1 OF 7
 DWG NO: 1604DHPF

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

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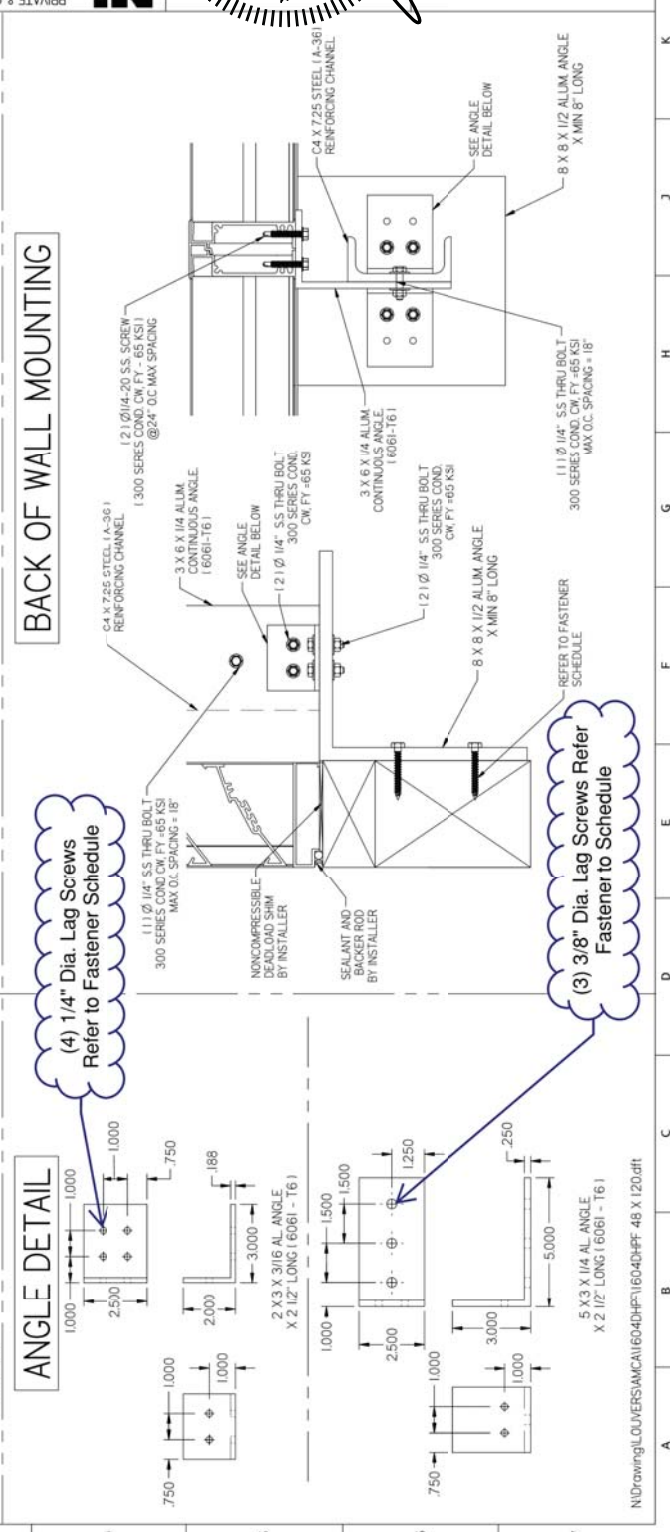
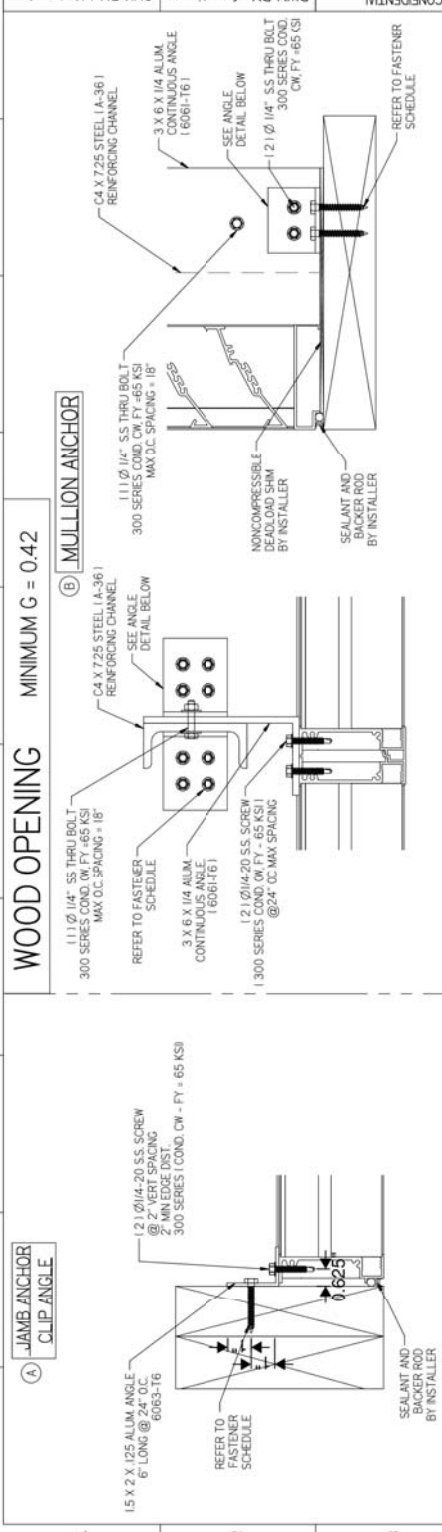
MAINE K. HELM
 LICENSED PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 No. 59092

07/13/2018
 COA: 9090

RICE
 ENGINEERING
 105 School Creek
 Jacksonville, FL 32218
 904-779-1100
 904-779-1101
 904-779-1102
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 904-779-1199
 904-779-1200

Florida Firm No: F-0100005061
 Certificate of Authorization: 99080Wayno K Helms
 Professional Registration No: 59092

N:\Drawing\LOUVERS\MCA\1604DHPF\1604DHPF 48 X 120.dft



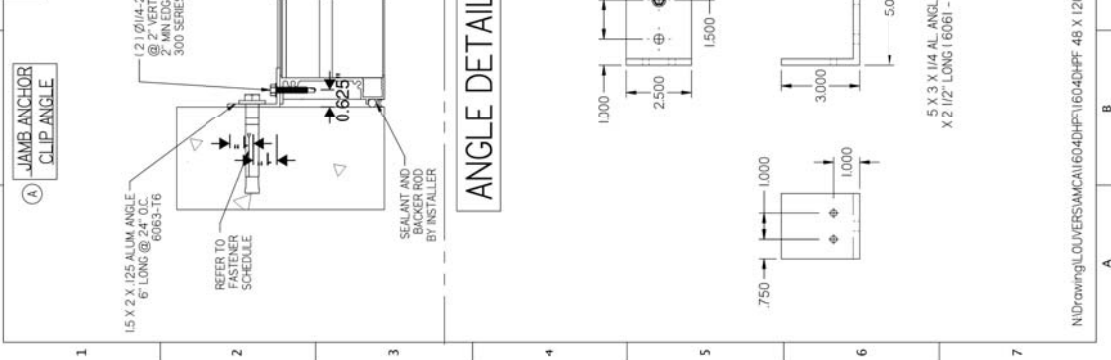
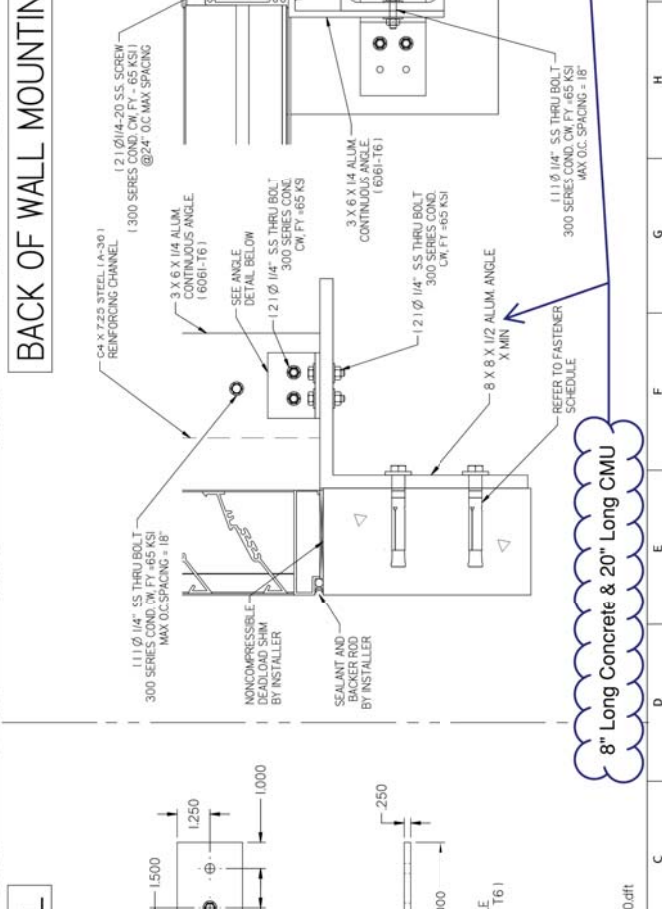
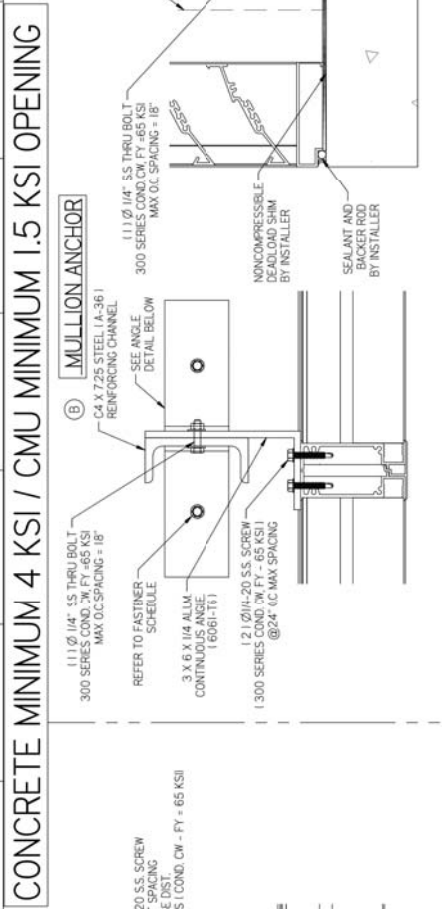
PRIVATE & CONFIDENTIAL
Nalor Industries Inc.
 400 NORTHERN BLVD. WILMINGTON, NC 27709
 4746 MARKET ROAD WILMINGTON, NC 27709
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CMU MOUNTING

WAYNE K. HELM
 LICENSED PROFESSIONAL ENGINEER
 No. 59092
 STATE OF NORTH CAROLINA

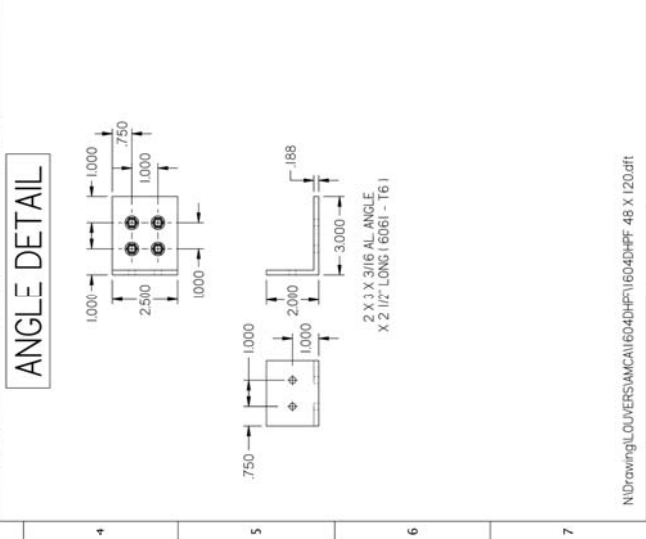
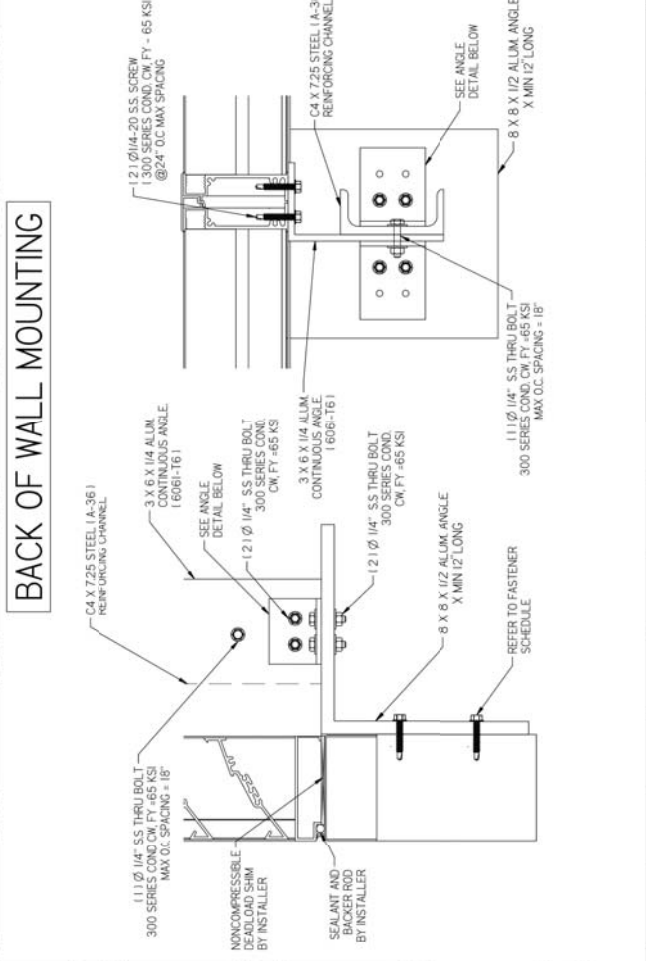
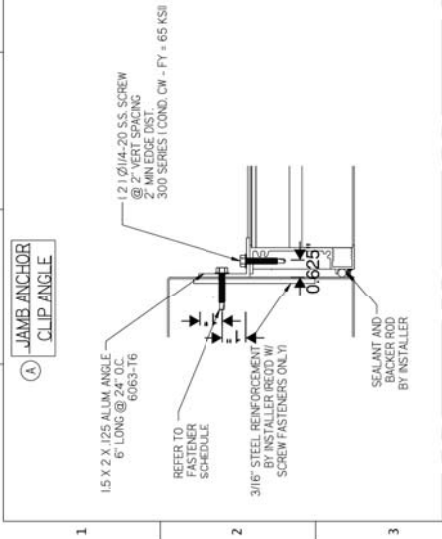
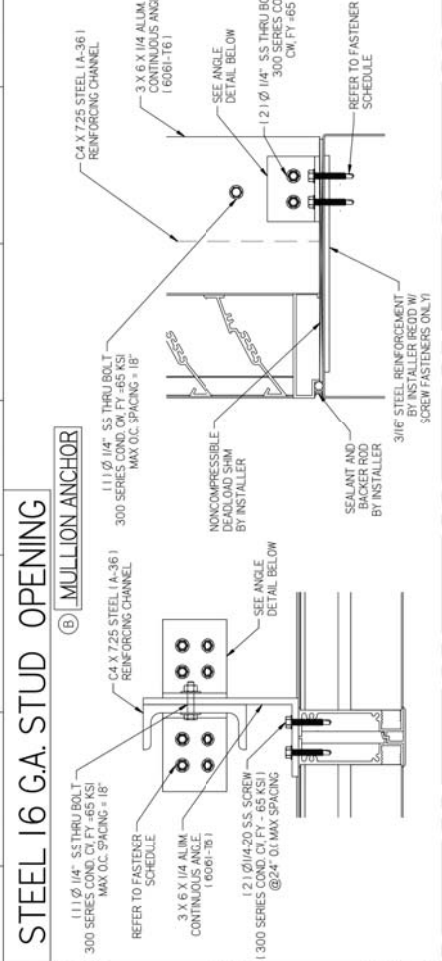
07/13/2018
 COA: 9090

RICE ENGINEERING
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 617-1100 www.rice-
 Florida Firm No:
 F-01000005061 Certificate of
 Authorization: #9080Wayne K.
 Helm Registration No. 59092

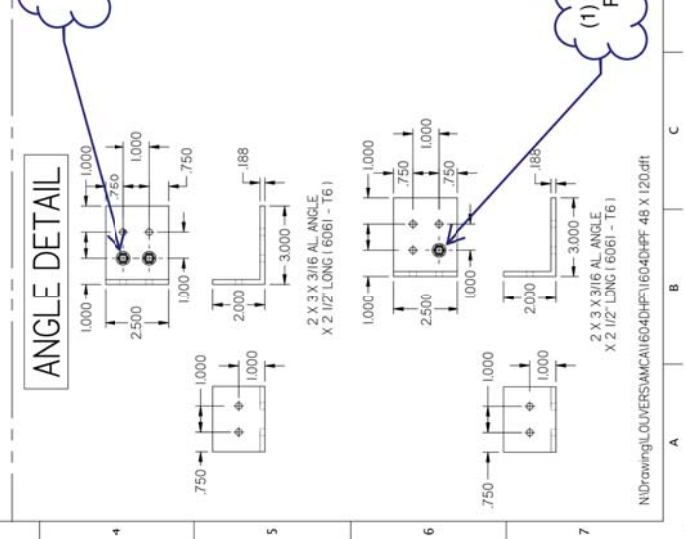
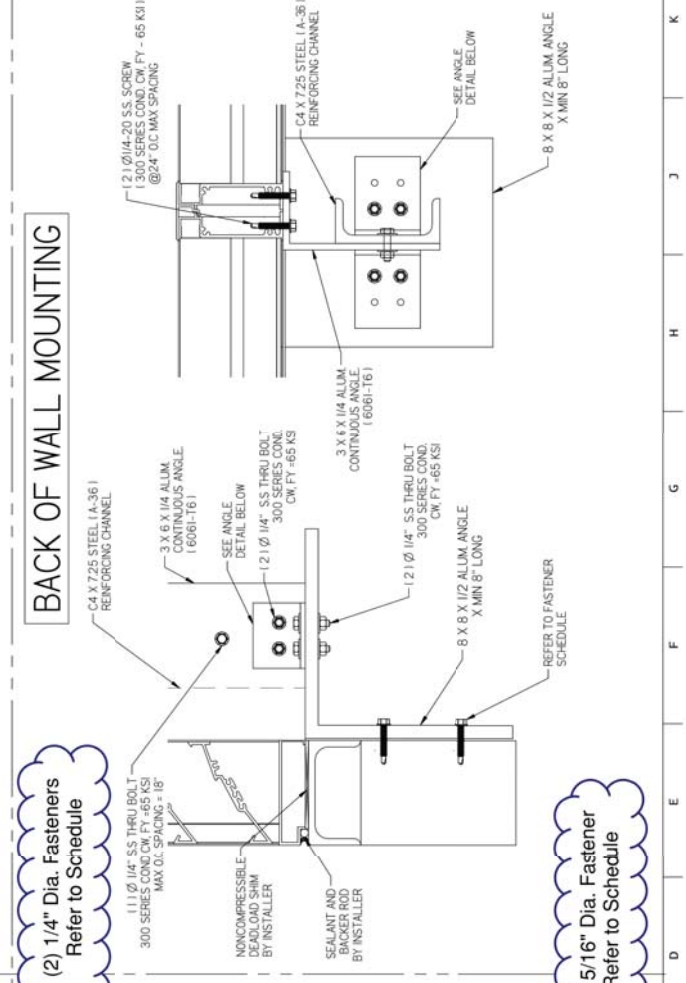
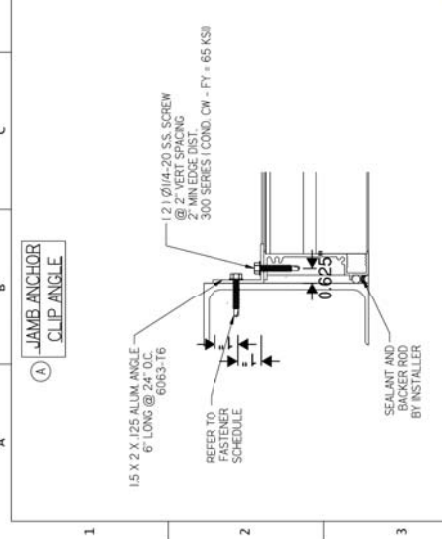
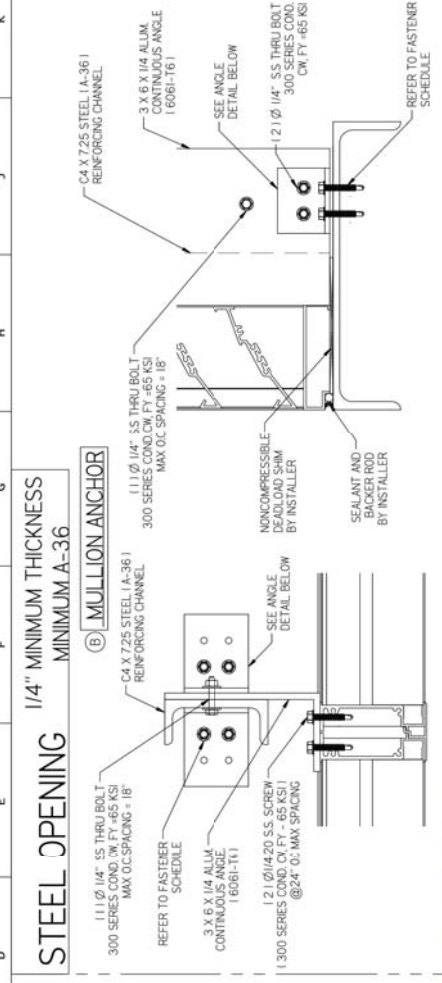


8" Long Concrete & 20" Long CMU

1	2	3	4	5	6	7
<p>STEEL 16 G.A. STUD OPENING</p> <p>(B) MULLION ANCHOR</p>		<p>STEEL 16 G.A.</p> <p>MOUNTING</p>		<p>PROFESSIONAL ENGINEER</p> <p>STATE OF FLORIDA</p> <p>W.A.Y.N.E. HELM, P.E.</p> <p>No. 59092</p> <p>07/13/2018</p> <p>COA: 9090</p>		<p>RICE ENGINEERING</p> <p>105 School Creek Suite 101 5421 W. Wayne 617-1042 Fax: (920) 617-1100 www.rice-</p> <p>Florida Firm No: F-01000005061 Certificate of Authorization: #9080 Wayne K Helm Registration No. 59092</p>
<p>DWG NO. 1604DHPF</p> <p>SHEET: 4 OF 7</p> <p>DATE: 3/6/2018</p> <p>SCALE: NTS</p> <p>CHK BY: Mastourian</p> <p>DWN BY: fortinas</p>		<p>PRIVATE & CONFIDENTIAL</p> <p>DO NOT REPRODUCE WITHOUT THE PERMISSION OF</p> <p>Nalor Industries Inc.</p> <p>4716 W. Highway 102 4716 Highway 102 TEL: 281-590-1172 FAX: 281-590-3086 HOUSTON, TX 77039</p>		<p>07/13/2018</p> <p>COA: 9090</p>		<p>105 School Creek Suite 101 5421 W. Wayne 617-1042 Fax: (920) 617-1100 www.rice-</p> <p>Florida Firm No: F-01000005061 Certificate of Authorization: #9080 Wayne K Helm Registration No. 59092</p>



NIDrawing\LOUVERS\AMCAN\1604DHPF\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 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	3/8"	2	24"	2"	1 9/16"
X					16 GA	ELCO DRILL-LEX DRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	2	24"	2"	FULL PENE.
	X				A-36	ELCO DRILL-LEX DRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	2	24"	2"	FULL PENE.
	X				4ksi	ELCO DRILL-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				4ksi	HLTI KWIK BOLT 3	3/8"	1	24"	4"	1 5/8"
				X	1.5ksi	HLTI KWIK BOLT 3	3/8"	1	24"	4"	2 1/2"
						MULLION ANGLE MOUNT FASTENERS, HEIGHT = 120 INCHES	DIAMETER	# Rqd.	CENTERS	EDGE	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	4	1"	2"	1 7/8"
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	3/8"	3	1 1/2"	2"	1 7/8"
	X				16 GA	ELCO DRILL-LEX DRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	4	1"	2"	FULL PENE.
	X				A-36	ELCO DRILL-LEX DRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	2	1"	2"	FULL PENE.
	X				A-36	ELCO DRILL-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 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	5	VARIABLES	1"	3 11/32"
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	3/8"	4	VARIABLES	1 1/2"	3 9/32"
	X				16 GA	ELCO DRILL-LEX DRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	22	VARIABLES	1"	FULL PENE.
	X				A-36	ELCO DRILL-LEX DRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	5	VARIABLES	1"	FULL PENE.
	X				4ksi	ELCO DRILL-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				4ksi	HLTI KWIK BOLT 1/2"	1/2"	4	VARIABLES	3"	3 5/8"
				X- GROUT FILLED	1.5 ksi	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\1604DHPF_48 X 120.dwg

1604DHPF
DWG NO.

SHEET: 6 OF 7

DATE: 3/6/2018

CHK BY: Mastourian

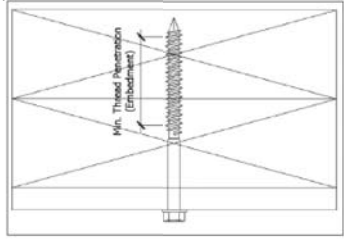
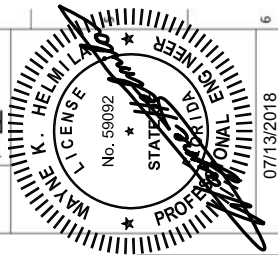
DWN BY: fortinas

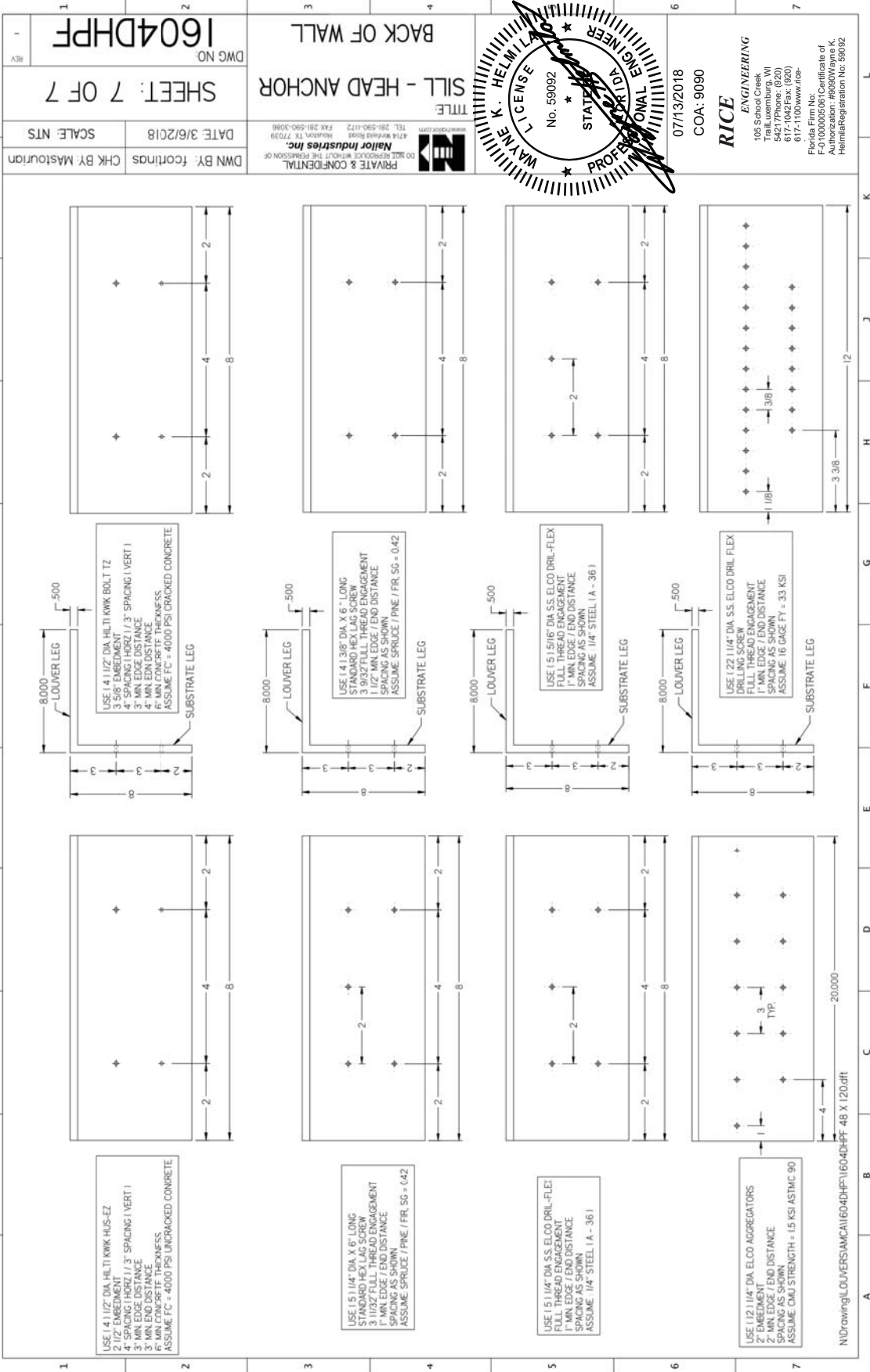
FASTENER SCHEDULE
AND
GENERAL NOTES

PRIVATE & CONFIDENTIAL
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COA: 9090

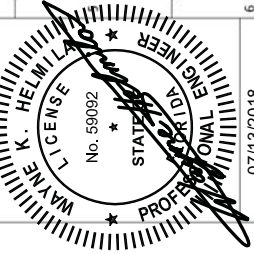
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Helms Registration No: 59092





DWG NO. 1604DHPF
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