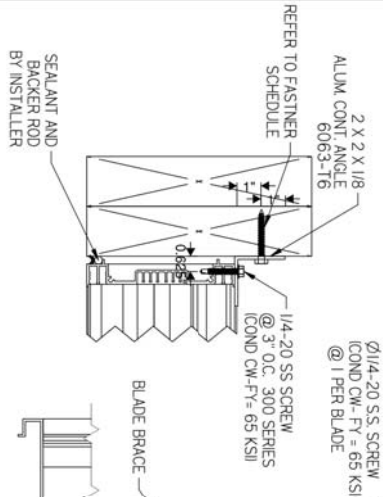
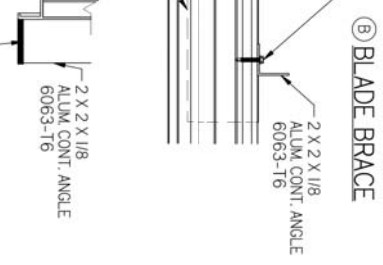


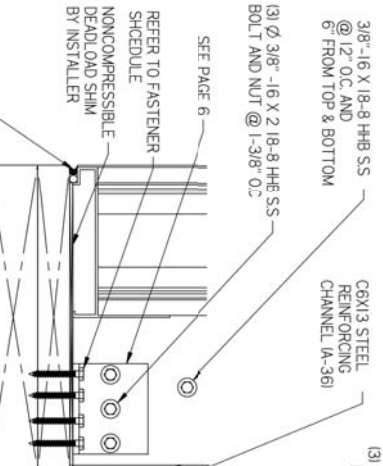
(A) JAMB ANCHOR



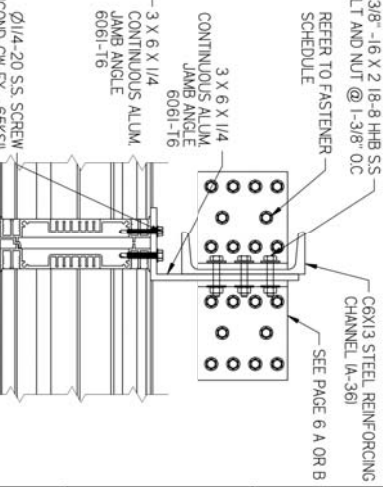
(B) BLADE BRACE



WOOD OPENING MINIMUM G = 0.42

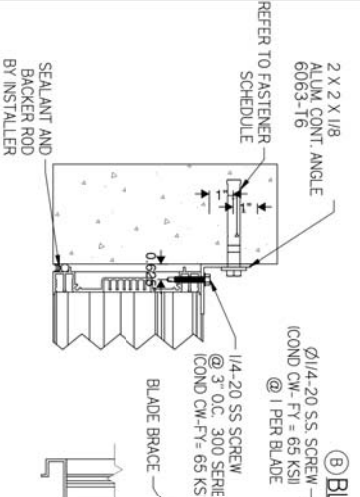


(C) MULLION ANCHOR

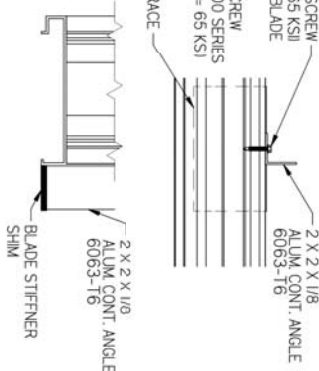


CONCRETE MINIMUM 4 KSI / CMU MINIMUM 1.5 KSI

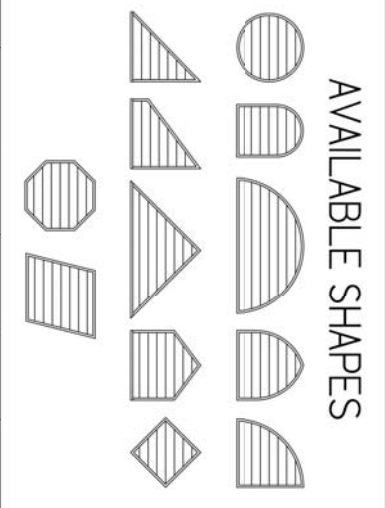
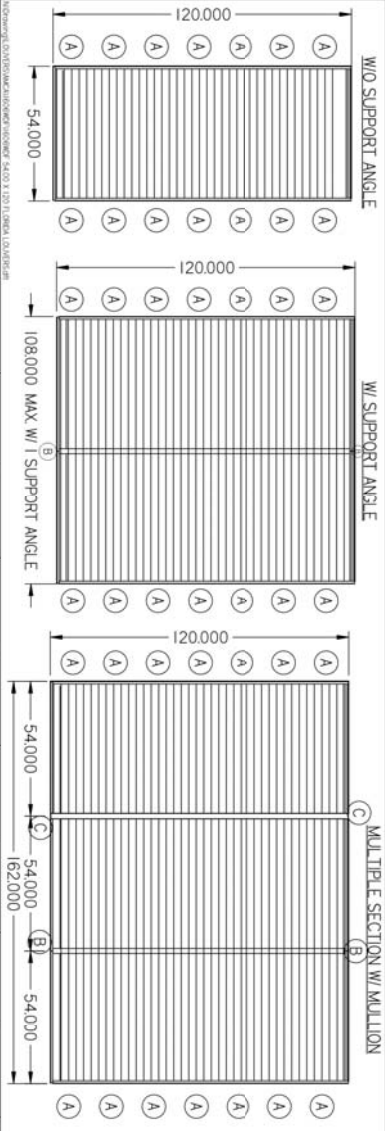
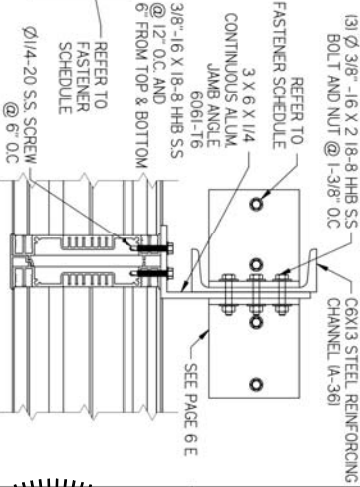
(A) JAMB ANCHOR



(B) BLADE BRACE



(C) MULLION ANCHOR



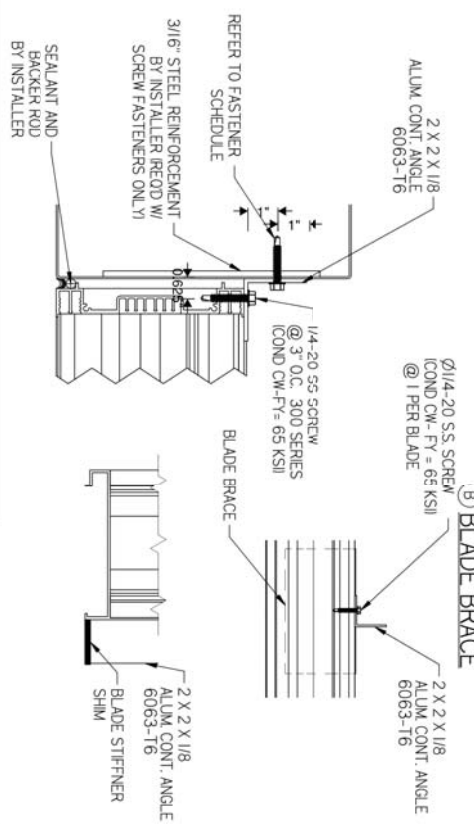
RICE ENGINEERING
 105 School Creek
 Trellixburg, WI 54217
 617-1042P (phone) (920)
 617-1042F (fax) (920)
 617-1100W (www.rice-
 Florida Firm No.: F-0-100005001 Certificate of Authorization: #9090Wayne K. Helmlinger Registration No.: 59092

PROFESSIONAL ENGINEER
 WAYNE K. HELMLINGER
 No. 59092
 STATE OF FLORIDA
 COA: 9090
 07/31/2018

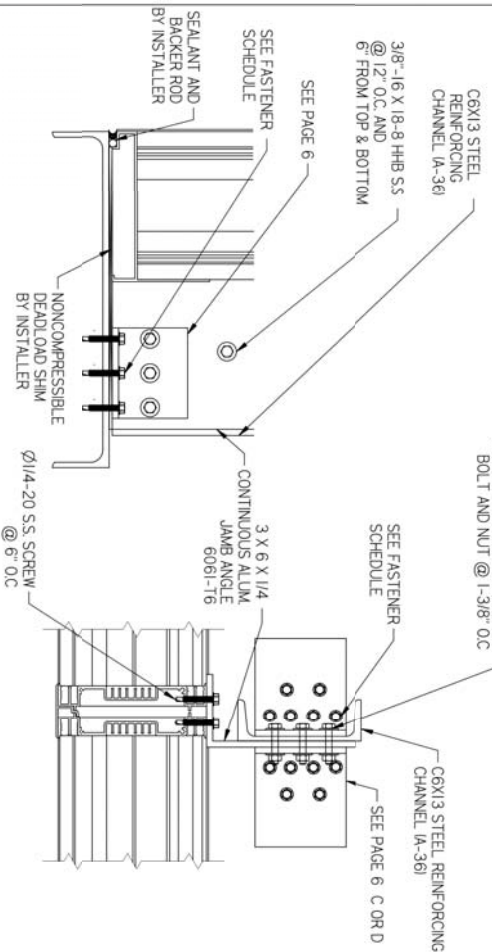
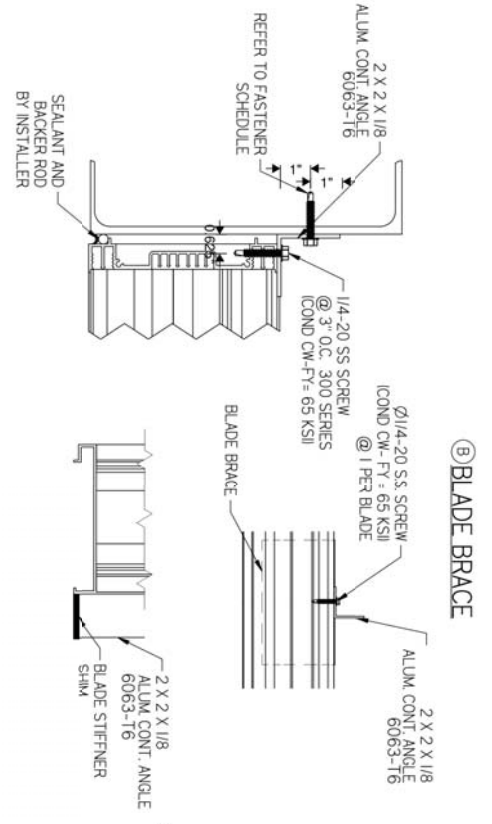
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 TEL: 281-590-1172 FAX: 281-590-3086
 TITLE: WOOD & MASONRY MOUNTING AVAILABLE SHAPES

DWN BY: ffortinas
 DATE: 3/2/2018
 SHEET: 1 OF 6
1606WDF

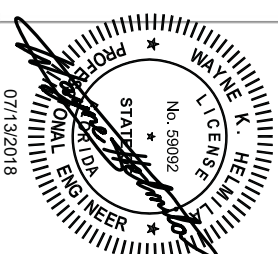
STEEL OPENING
16 GA MINIMUM THICKNESS
MINIMUM Fy = 33 ksi



STEEL OPENING
1/4" MINIMUM THICKNESS
MINIMUM Fy = 36 ksi



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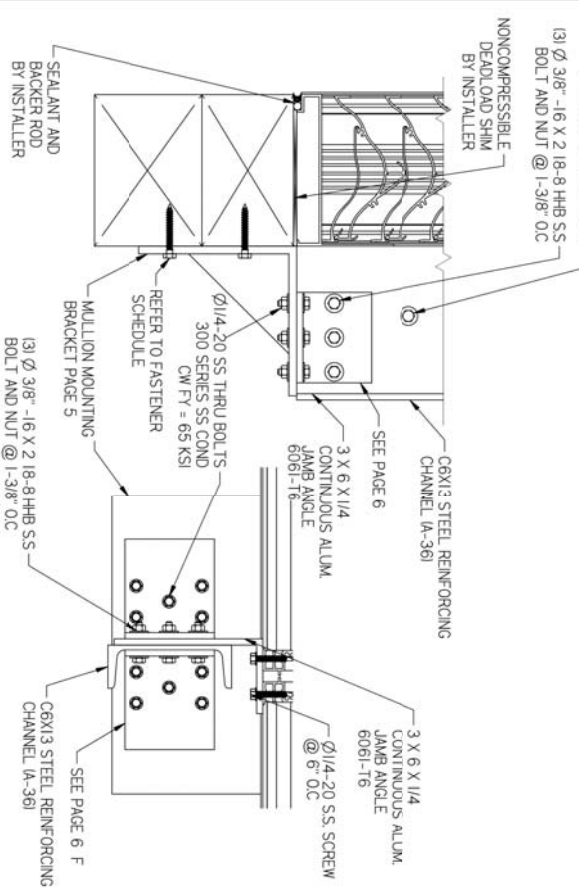
TITLE:
STEEL OPENING

DWN BY: ffortinas
DATE: 3/2/2018
CHK BY: MASTourian
SCALE: NTS

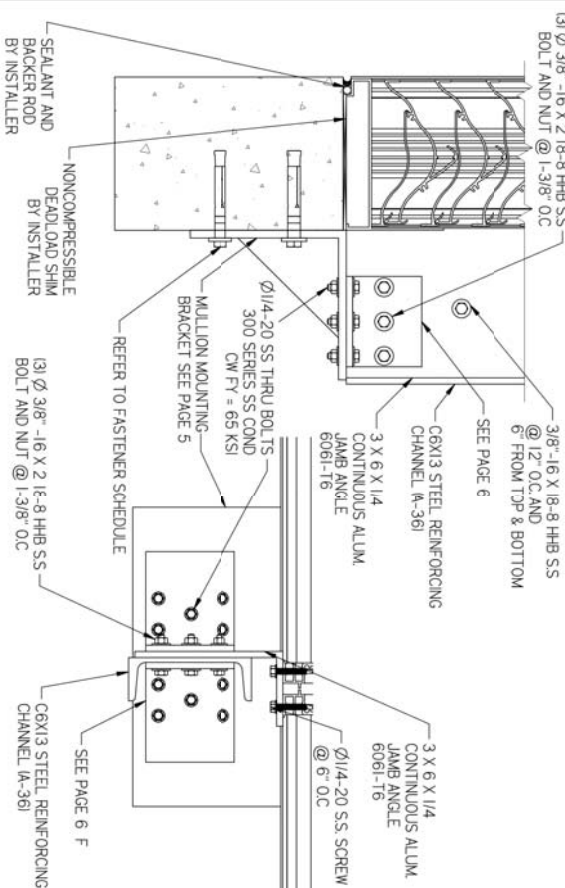
SHEET: 2 OF 6
1606WDF

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

ALTERNATE WOOD OPENING



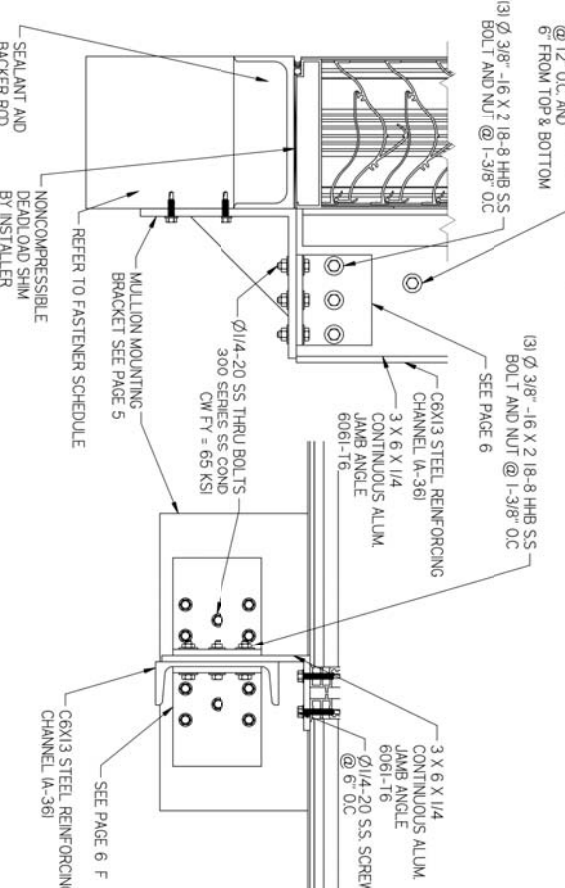
ALTERNATE CONCRETE / CMU OPENING



ALTERNATE STEEL A-36 OPENING



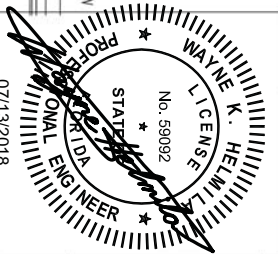
ALTERNATE WOOD OPENING



DWN BY: ffortinas	CHK BY: MASTOURIAN
DATE: 3/2/2018	SCALE: NTS
SHEET: 3 OF 6	
1606WDF	

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TITLE: ALTERNATE OPENING BACK OF WALL



COA: 9090
07/13/2018

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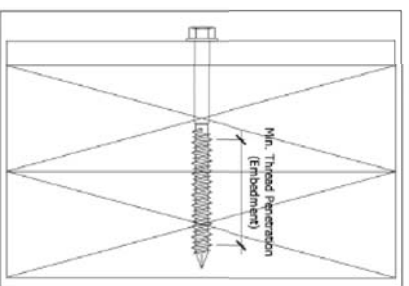
Florida Firm No. F-01000005081
Certificate of Authorization #9090
Wayne K. Helms
Registration No. 59092

WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MN	FASTENER TYPE	DIAMETER	# Rqd	CENTERS	EDGE	EMBEDMENT
CONTINUOUS JAMB PERMETER ANGLE FASTENER WIDTH <= 108 INCHES											
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	1	2-1/2"	2"	2-1/2"
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	3/8"	1	3"	2"	3"
	X				16 GA	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	1	3"	2"	FULL PENE.
		X			A-36	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	1	9"	2"	FULL PENE.
			X		A-36	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	5/16"	1	13"	2"	FULL PENE.
			X-CRACKED		4ksi	HLL TI KWK HUS-EZ	1/4"	1	6"	4"	2-1/2"
			X-CRACKED		4ksi	HLL TI KWK HUS-EZ	3/8"	1	10"	4"	2-1/2"
			X		1.5ksi	HLL TI KWK - CON II +	1/4"	1	3"	1-1/2"	1-3/4"
			X		1.5ksi	HLL TI KWK-BOLT 3	3/8"	1	8"	4"	2-1/2"
MULLION ANGLE MOUNT FASTENERS, HEIGHT <= 120 INCHES											
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	10	VARIES	2"	2-5/8"
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	1/2"	6	VARIES	2"	2-5/8"
	X				A-36	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	6	VARIES	2"	FULL PENE.
		X			A-36	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	5/16"	4	7/8"	2"	FULL PENE.
			X-UNCRAKED		4ksi	HLL TI KWK BOLT 3 - CS "	1/2"	2	4"	7"	3-9/16"
			X-CRACKED		4ksi	HLL TI KWK BOLT 3 - CS "	5/8"	2	4"	10"	4-7/16"
MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT <= 120 INCHES											
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	17	VARIES	1"	3-11/32"
X					SG 0.42	LAG SCREW (300 SERIES SS - COND. CW - FY = 65 ksi)	3/8"	12	VARIES	1-1/2"	3-9/32"
		X			A-36	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	1/4"	15	VARIES	1"	FULL PENE.
			X		A-36	ELCO DRIL-FLEX FRILLING SCREWS (300 SERIES SS - COND. CW - FY = 65 ksi)	5/16"	14	VARIES	1"	FULL PENE.
			X-UNCRAKED		4ksi	HLL TI KWK BOLT 3 - CS "	1/2"	10	VARIES	3"	4-1/4"
			X-CRACKED		4ksi	HLL TI KWK BOLT 3 - CS "	1/2"	12	VARIES	3"	3-5/8"

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

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

- 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 BE MINIMUM G = 0.42.
 4. CONCRETE SUBSTRATE = 4 KSI / GROUT FILLED CMU = 2 KSI
 5. STEEL STUD OPENINGS (1/6 GA MINIMUM THICKNESS) TO BE MIN. Fy=33 ksi.
 6. STRUCTURAL STEEL OPENINGS (1/4" MINIMUM THICKNESS) TO BE MINIMUM Fy = 36 ksi.



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Wayne K. Heinila
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PROFESSIONAL ENGINEER

WAYNE K. HEINILA
STATE OF FLORIDA
No. 59092

COA: 9090
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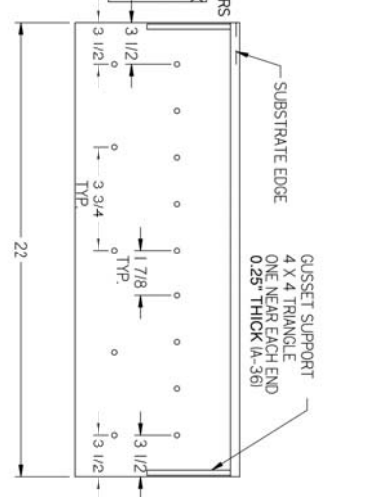
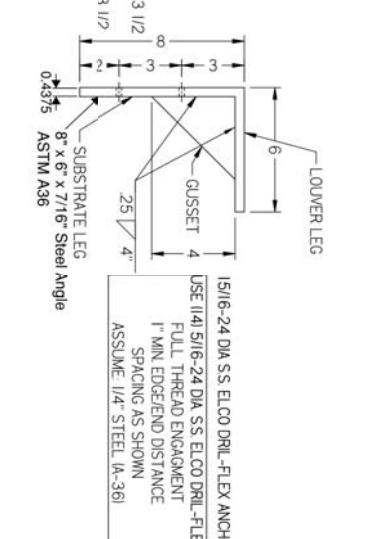
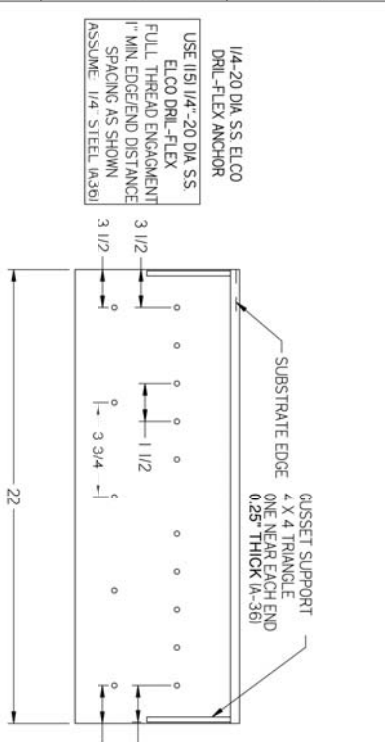
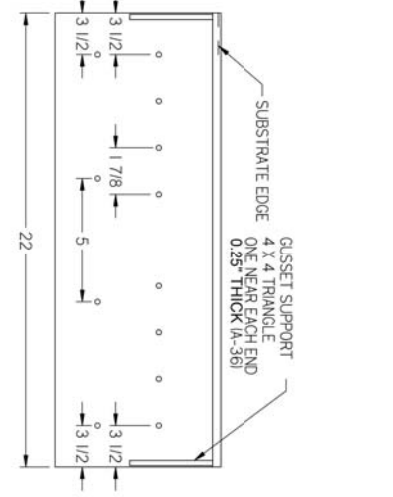
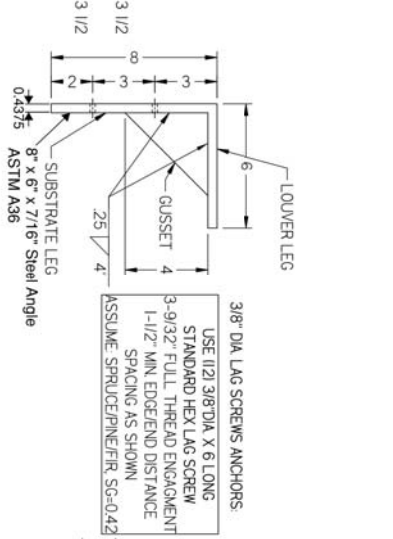
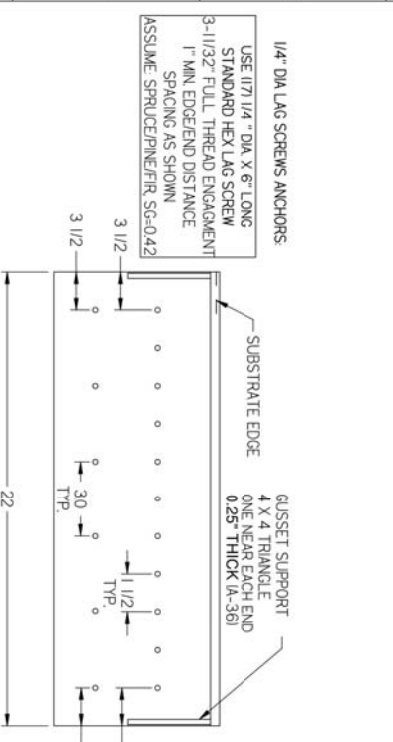
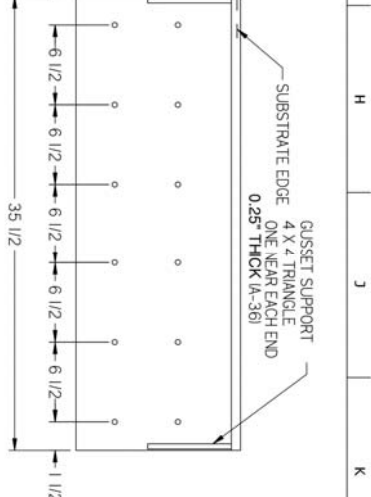
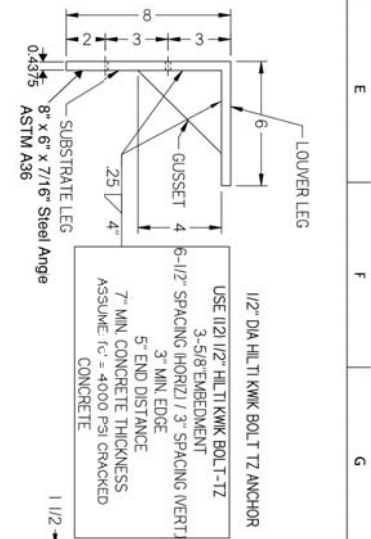
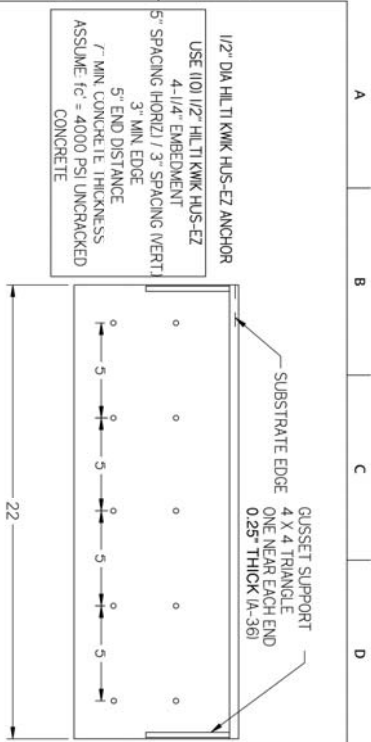
TITLE: FASTENER SCHEDULE AND GENERAL NOTES

DWN BY: ffortinas
DATE: 3/2/2018

CHK BY: MAstourian
SCALE: NTS

SHEET: 4 OF 6
1606WDF

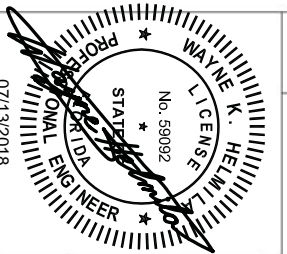
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DWN BY: ffortinas	CHK BY: MAstourian
DATE: 3/2/2018	SCALE: NTS
SHEET: 5 OF 6	
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TITLE:
SILL - HEAD ANCHOR
BACK OF WALL



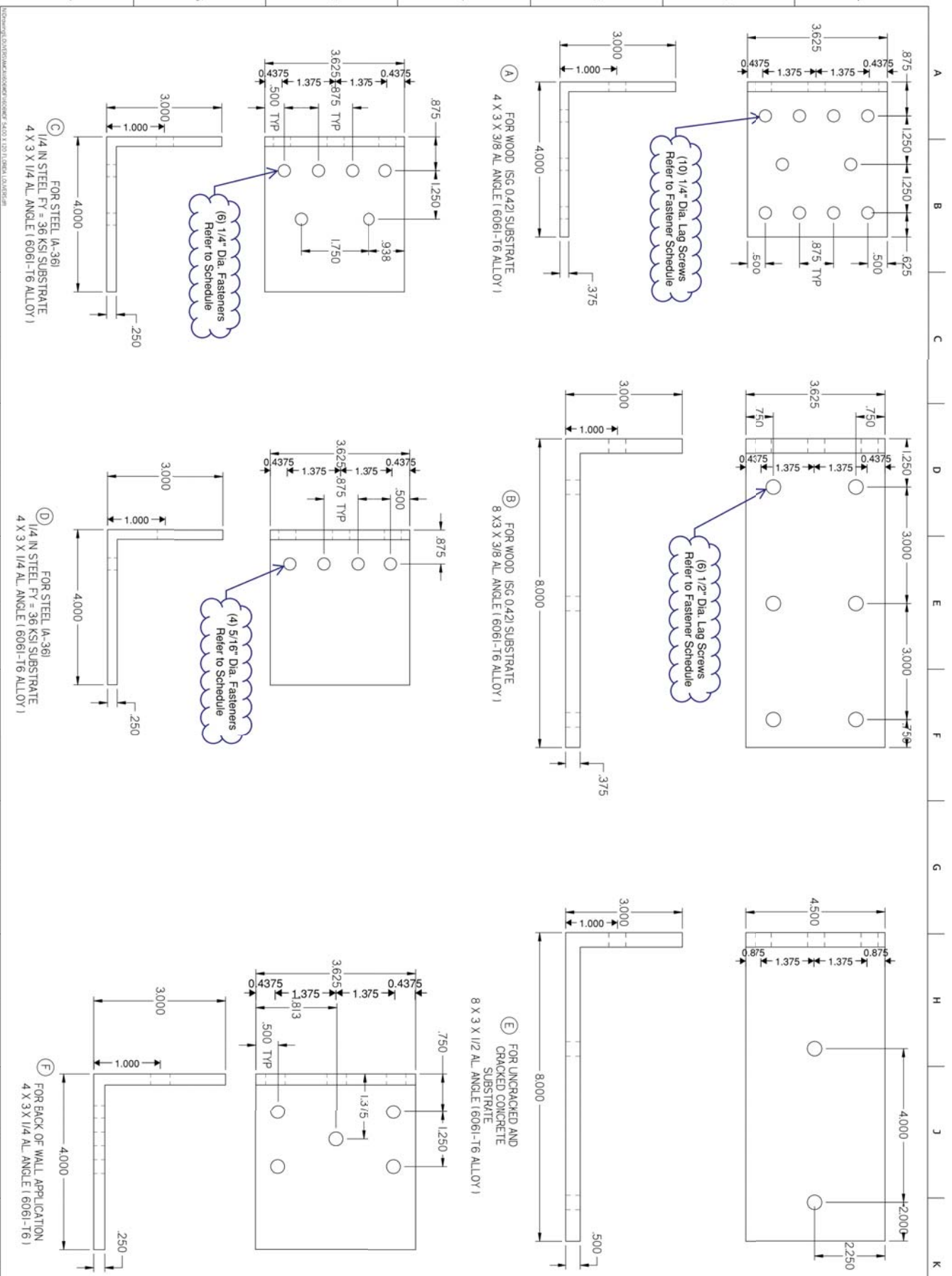
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Registration No. 59092

7 6 5 4 3 2 1

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		DATE: 3/2/2018	SCALE: NTS
<p>TITLE: SILL - HEAD ANCHOR CLIPS</p>		<p>SHEET: 6 OF 6</p>	
		<p>1606WDF</p>	

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