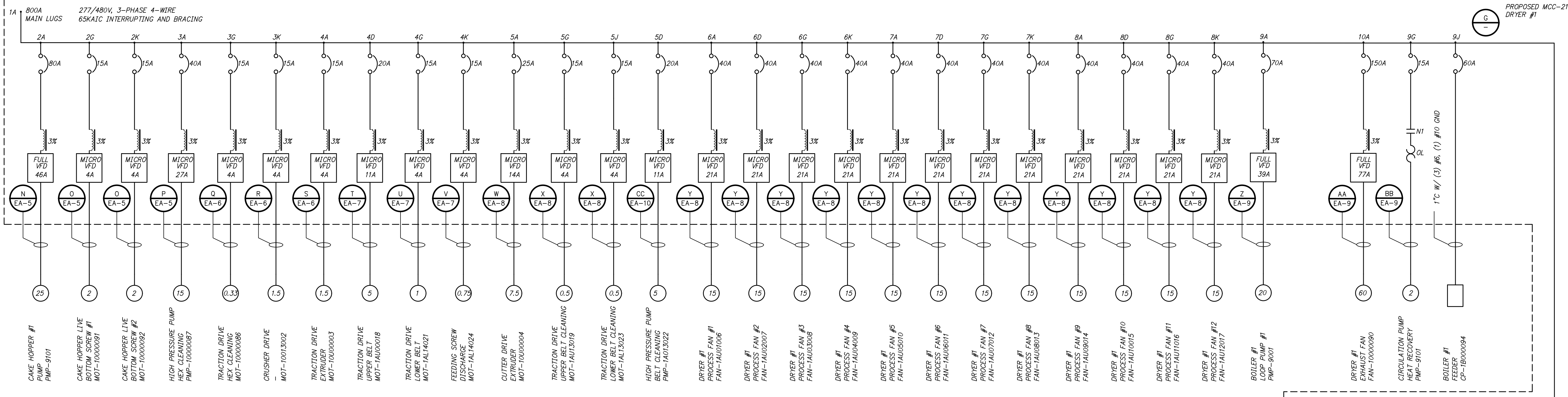


Z:\20\2020043 ROGERS SOLIDS HANDLING IMPROVEMENTS, PH. 2\DRAWINGS\CONSTRUCTION DRAWINGS\WIP\EA-02.DWG, 8/26/2024 11:13 AM, MATT WEIR, LAYOUT



1" ONE INCH AT FULL SIZE IF NOT ONE INCH SCALE ACCORDINGLY

DATE	
REVISION	

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DRYER #1 MCC-21 ONE-LINE DIAGRAM
DETAIL E
 NTS

- GENERAL NOTES**
- VFD RATINGS ARE CONTINUOUS OUTPUT AMPS. DO NOT SIZE BY MOTOR HORSEPOWER. A MICRO VFD IS COMMONLY REFERRED TO AS MACHINE DRIVE. A FULL SIZE VFD IS COMMONLY REFERRED TO AS A PROCESS DRIVE.
 - ALL VFD MCC BUCKETS SHALL INCLUDE CONTROL DIAGRAMS AS INDICATED ON THE RISER DIAGRAM DETAILS REFERENCED IN THE ONE-LINE DIAGRAM. SEVERAL UTILIZE EXTERNAL HOA CONTROL STATIONS, WHILE OTHERS WILL UTILIZE AN MCC BASED HOA SWITCH. IN GENERAL, INCLUDE A CONTROL POWER TRANSFORMER, SPEED POTENTIOMETER, GREEN VFD RUNNING PILOT LIGHT, RED VFD FAULTED PILOT LIGHT, AND ETHERNET IP COMMUNICATION CARD. AUTO OPERATION SHALL BE VIA ETHERNET IP. HAND OPERATION WILL UTILIZE THE VFD DISCRETE AND ANALOG I/O TERMINALS.
 - ALL FVNR MCC BUCKETS SHALL USE NEMA RATED STARTERS, SIZE AS INDICATED, WITH ETHERNET ENABLED OVERLOAD RELAYS, WHICH SHALL PROVIDE I/O AS INDICATED ON THE CONTROL DIAGRAMS FOR OPERATION OF THE STARTER. THE BUCKET SHALL INCLUDE A CONTROL POWER TRANSFORMER, GREEN RUNNING PILOT LIGHT, RED OVERLOAD PILOT LIGHT, AND ELAPSED TIME METER.
 - THE MCC SHALL INCLUDE REDUNDANT 24VDC 10A POWER SUPPLIES, WITH INPUT POWER OF 480VAC THREE PHASE OR 120VAC SINGLE PHASE. THE MCC SHALL INCLUDE TWO (2) 24 PORT ETHERNET SWITCHES WITH DUAL 24VDC POWER INPUT AND AUTOMATIC SWITCHING. PROVIDE ALL ETHERNET CABLING IN THE MCC TO EACH BUCKET.
 - MAINTAIN THE BUCKET LAYOUT AS SHOWN IN THE DRAWINGS TO THE EXTENT POSSIBLE, WITH THE MAIN LUG ENTRY ON THE RIGHT OF THE LINEUP.
 - SEE MCC SPECIFICATION 16480 FOR ALL DETAILS.

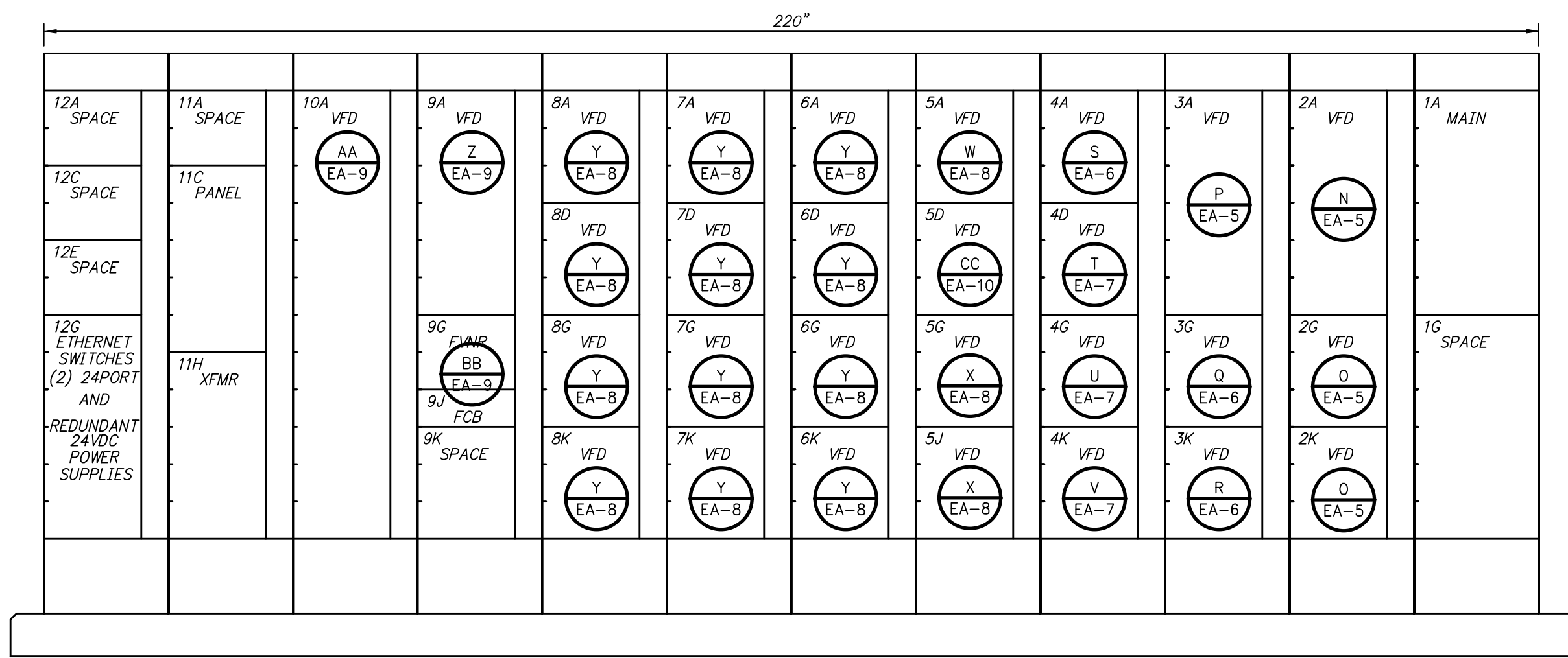
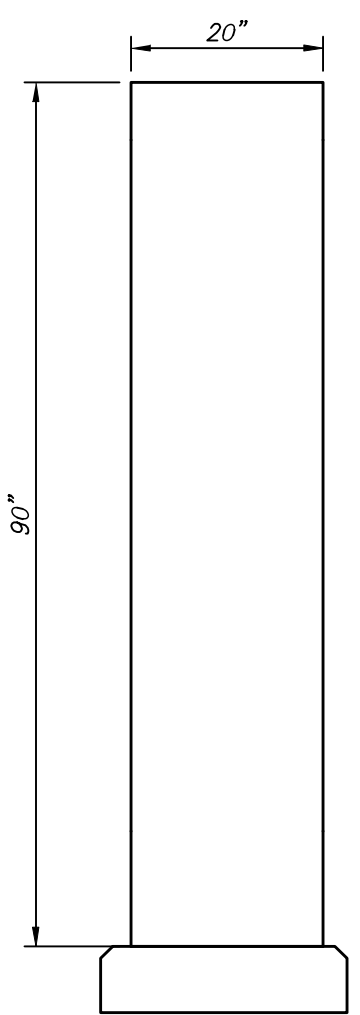
PANEL LP21 - MCC BUCKET 11C

CKT #	DESCRIPTION	WIRE (GND)	CB	CONDUIT	LOAD AMPS PHASE A		LOAD AMPS PHASE B		CONDUIT	CB	WIRE (GND)	DESCRIPTION	CKT #
					CONNECTED	DEMAND	CONNECTED	DEMAND					
1	DRYER 1 PLC15 01 EBH11CP001	#6 (#10)	60	1"	32	32			20			SPARE	2
3	FROST PROT HTR 01 EBMSAH001	#12 (#12)	20	CT, 3/4"			13	13	CT, 3/4"	20	#12 (#12)	CAKE HOPPER CP 01 EBA10CP001	4
5	SPARE		20						20			SPARE	6
7	SPARE		20						20			SPARE	8
9	SPACE											SPACE	10
11	SPACE											SPACE	12
13	SPACE											SPACE	14
15	SPACE											SPACE	16
17	SPACE											SPACE	18
TOTAL CONNECTED					32	32							
TOTAL DEMAND							28	28					

TYPE: LIGHTING AND APPLIANCE
 VOLTS: 120/240, SINGLE PHASE, THREE WIRE
 MAIN: 80A MAIN BREAKER
 BUS: 100 AMP
 RATING: 10 KAIC
 MOUNTING: MCC INTERIOR
 ENCLOSURE RATING: NEMA 1
 BRANCH BREAKERS: BOLT-ON

CONNECTED KVA: 4
 DEMAND KVA: 14
 DESIGN KVA: 15

DRYER #1 MCC-21 PANEL LP21 SCHEDULE
DETAIL F
 NTS



DRYER #1 MCC-21 ELEVATION AND LAYOUT
DETAIL G
 NTS

HAWKINS-WEIR ENGINEERS, INC.
BLACK & VEATCH

ROGERS, ARKANSAS
 ROGERS POLLUTION CONTROL FACILITY (PCF) SOLIDS HANDLING IMPROVEMENTS, PHASE II
 DRYER #1 MCC-21 ONE-LINE DIAGRAM, ELEVATION, AND SCHEDULE
 FOR: ROGERS WATER UTILITIES

DATE: AUGUST 2024
 SCALE: NTS
 DESIGNED BY: LSM
 DRAWN BY: LSM
 HWEI NO.: 2020043
 FILENAME: EA-02
 SHEET NO. EA-2