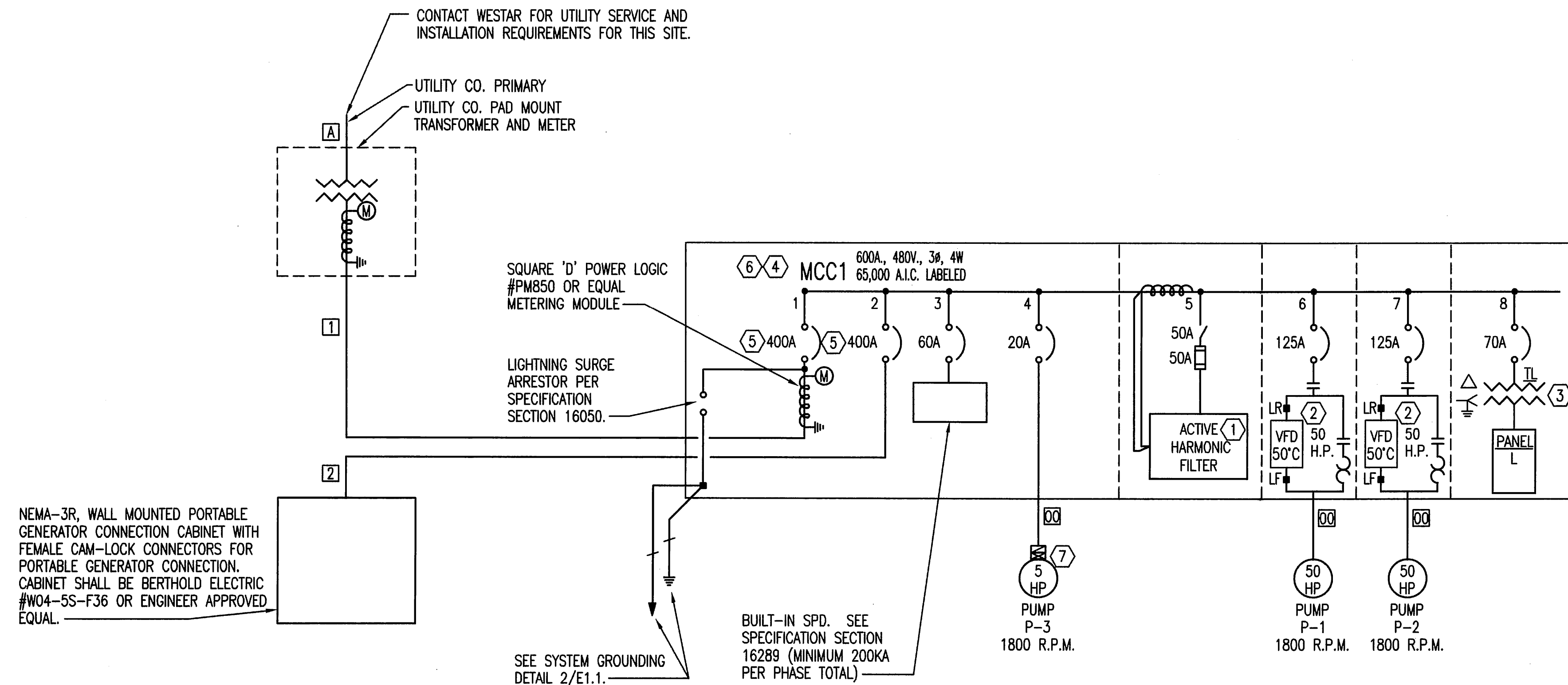


## FEEDER SCHEDULE

DESIG.	EQUIPMENT SERVED	CONDUCTORS			GROUND SIZE PER SET	ISOLATED GROUND SIZE	CONDUIT SIZE PER SET
		SETS	NO.	SIZE			
[0]	MECHANICAL EQUIPMENT - SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE						
[00]	PROCESS EQUIPMENT - SEE PROCESS EQUIPMENT CONNECTION SCHEDULE						
[1]	MAIN CIRCUIT BREAKER	1	4	#500 KCMIL AWGL CU	--	--	3"
[2]	STANDBY SOURCE	1	4	#500 KCMIL AWGL CU	#3	--	2-1/2"
[A]	UTILITY	--	--	--	--	--	4"

## TRANSFORMER SCHEDULE

TRANSF. DESIG.	KVA RATING	PRIMARY VOLTAGE			SECONDARY VOLTAGE			DRY TYPE	PRIMARY FEEDER (SEE FEEDER SCHEDULE)	SECONDARY FEEDER (SEE FEEDER SCHEDULE)	GROUND WIRE TO NEAREST GROUNDING SOURCE PER N.E.C. ARTICLE 250.30(a)(3)
		480 3Ø, 3W.	12470 3Ø, 3W.	120/208 3Ø, 4W.	277/480 3Ø, 4W.						
TL	45	*			*			---	---	1-#6, 1/2" C.	



### KEY NOTES:

- ① ACTIVE HARMONIC FILTER. UNIT SHALL CORRECT THE HARMONICS PRODUCED BY ALL MOTORS CONNECTED TO VARIABLE FREQUENCY DRIVES AND CORRECT THE POWER FACTOR OF THE REMAINDER OF THE MOTORS CONNECTED TO THE MOTOR CONTROL CENTER.
- ② 6-PULSE 50° C VARIABLE FREQUENCY DRIVE WITH RVSS BY-PASS STARTER. EACH UNIT TO BE PROVIDED WITH 3% LINE REACTOR AND LOAD FILTER AS SPECIFIED IN SECTION 16481. ALL DRIVES, AND FILTERS ARE TO BE LOCATED WITHIN THE MOTOR CONTROL CENTER. (TYPICAL). EACH RVSS STARTER SHALL BE SIMILAR TO SQUARE D ALTISTART 48. PROVIDE INDEPENDANT H.O.A. CONTROLLERS FOR VFD AND BY-PASS STARTER.
- ③ SEE TYPICAL TRANSFORMER GROUNDING DETAIL 3/E1.1.
- ④ ALL MOTOR CONTROL CENTER SECTIONS SHALL BE SUPPLIED IN INDIVIDUAL SHIPPING SECTIONS AND SHALL BE CONFIGURED AROUND CORNER AS SHOWN ON FLOOR PLANS.
- ⑤ MAIN BREAKERS SHALL BE PROVIDED WITH KIRK KEY INTERLOCK FOR CONNECTION OF TEMPORARY GENERATOR.
- ⑥ THE MOTOR CONTROL CENTER SUPPLIER IS RESPONSIBLE FOR THE SETUP AND CONFIGURATION OF THE MOTOR CONTROL CENTERS AND THE VARIABLE FREQUENCY DRIVES FOR DEVICENET COMMUNICATION. ALL DEVICENET TRUNK AND DROP CABLING, TERMINATORS, TEES, TAPS, RESISTORS AND OTHER EQUIPMENT NEEDED FOR A COMPLETE SYSTEM SHALL BE PROVIDED AND INSTALLED AT MOTOR CONTROL CENTER SUPPLIERS FACTORY. ALL EQUIPMENT SHALL BE WIRED TO A SINGLE POINT OF CONTACT IN THE MOTOR CONTROL CENTER FOR COMMUNICATION TO THE ALLEN BRADLEY CONTROLOGIX PLC LOCATED IN THE CONTROL PANEL WHERE THEY ARE INDICATED TO BE CONNECTED. THE MOTOR CONTROL CENTER SUPPLIER SHALL VERIFY ALL CABLE LENGTHS AND PROVIDE ALL ADDITIONAL EQUIPMENT AS NEEDED TO MEET THE DEVICENET NETWORK REQUIREMENTS. ADDITIONAL POWER SUPPLIES, UPS, AND SIGNAL BOOSTERS MAY BE NEEDED AND ARE THE RESPONSIBILITY OF THE MOTOR CONTROL CENTER SUPPLIER. THE MOTOR CONTROL CENTER SUPPLIER SHALL PROVIDE A FACTORY TRAINED TECHNICIAN THAT IS EXPERIENCED IN DEVICENET COMMUNICATIONS FOR A MINIMUM OF 3 DAYS ON-SITE PRIOR TO START-UP TO VERIFY START-UP AND DEVICENET REQUIREMENTS WITH SYSTEMS INTEGRATOR. SYSTEMS INTEGRATOR WILL SCHEDULE A FACTORY START-UP COORDINATION TRIP TO THE MOTOR CONTROL CENTER MANUFACTURERS LOCATION FOR COORDINATION PRIOR TO SHIPMENT OF THE EQUIPMENT.
- ⑦ FULL VOLTAGE NON-REVERSING COMBINATION STARTER/DISCONNECT.

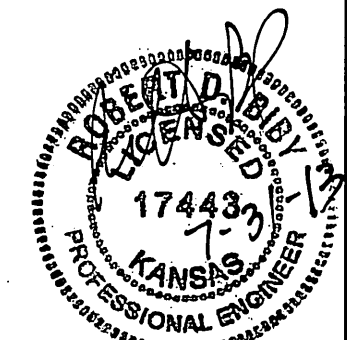

## 1 BOOSTER PUMP STATION ELECTRICAL ONE-LINE DIAGRAM

NO SCALE

### GENERAL ONE-LINE DIAGRAM NOTES:

1. UNLESS OTHERWISE NOTED, ALL CIRCUIT BREAKERS AND/OR SWITCHES ARE THREE POLE.
2. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK LINE, IS NEW WORK UNDER THIS CONTRACT.

### KEYED ONE-LINE DIAGRAM NOTES:

No.	Revision	By	Date
SEDGWICK COUNTY RURAL WATER DISTRICT #1 WATER DISTRIBUTION SYSTEM IMPROVEMENTS <b>ELEC. ONE-LINE AND SCHED.</b> GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 448-90565			
		 PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com	
Designed by	RDB	Job No.	34-11123
Drawn by	ADM	Date	JULY 2013
			Sht. E0.2 of 9