

VARIABLE FREQUENCY DRIVE SCHEDULE

480 VOLT / 3 PHASE									
MARK	DESCRIPTION	HP	LOAD	OCPD AMPS	POLES	NEMA ENCL.	CONDUCTORS		NOTES
VFD-FP1	FEATURES PUMP 1	3	3,940	20	3	4X	(3) #12 & #12G, IN 1/2" C.		-
VFD-FP2	FEATURES PUMP 2	3	3,940	20	3	4X	(3) #12 & #12G, IN 1/2" C.		-

GENERAL NOTES (APPLIES TO ALL ABOVE):

- VFD SHALL BE DANFOSS, MODEL #VLT OR EQUIVALENT APPROVED BY ENGINEER PRIOR TO BID. CONTRACTOR SHALL VERIFY VFD CLEARANCES PRIOR TO ORDERING. ALTERNATE DRIVE MANUFACTURERS WILL NOT BE ACCEPTED WITHOUT WRITTEN APPROVAL FROM ENGINEER.
- OCPD AMPCAPACITIES ARE LISTED FOR FUSES/CIRCUIT BREAKER.
- VFD SHALL HAVE INTEGRAL FUSED DISCONNECT.

COMBINATION MOTOR STARTER SCHEDULE

480 VOLT / 3 PHASE									
MARK	DESCRIPTION	HP	LOAD	POLES	STARTER CONTROL			CONDUCTORS	NOTES
					SIZE	P.B.	HOA PILOT		
CM5-RP1	REGIRCULATION PUMP 1	3	3,940	3	0	X	X	X	(3) #12 & #12G, IN 1/2" C.
CM5-RP2	REGIRCULATION PUMP 2	3	3,940	3	0	X	X	X	(3) #12 & #12G, IN 1/2" C.

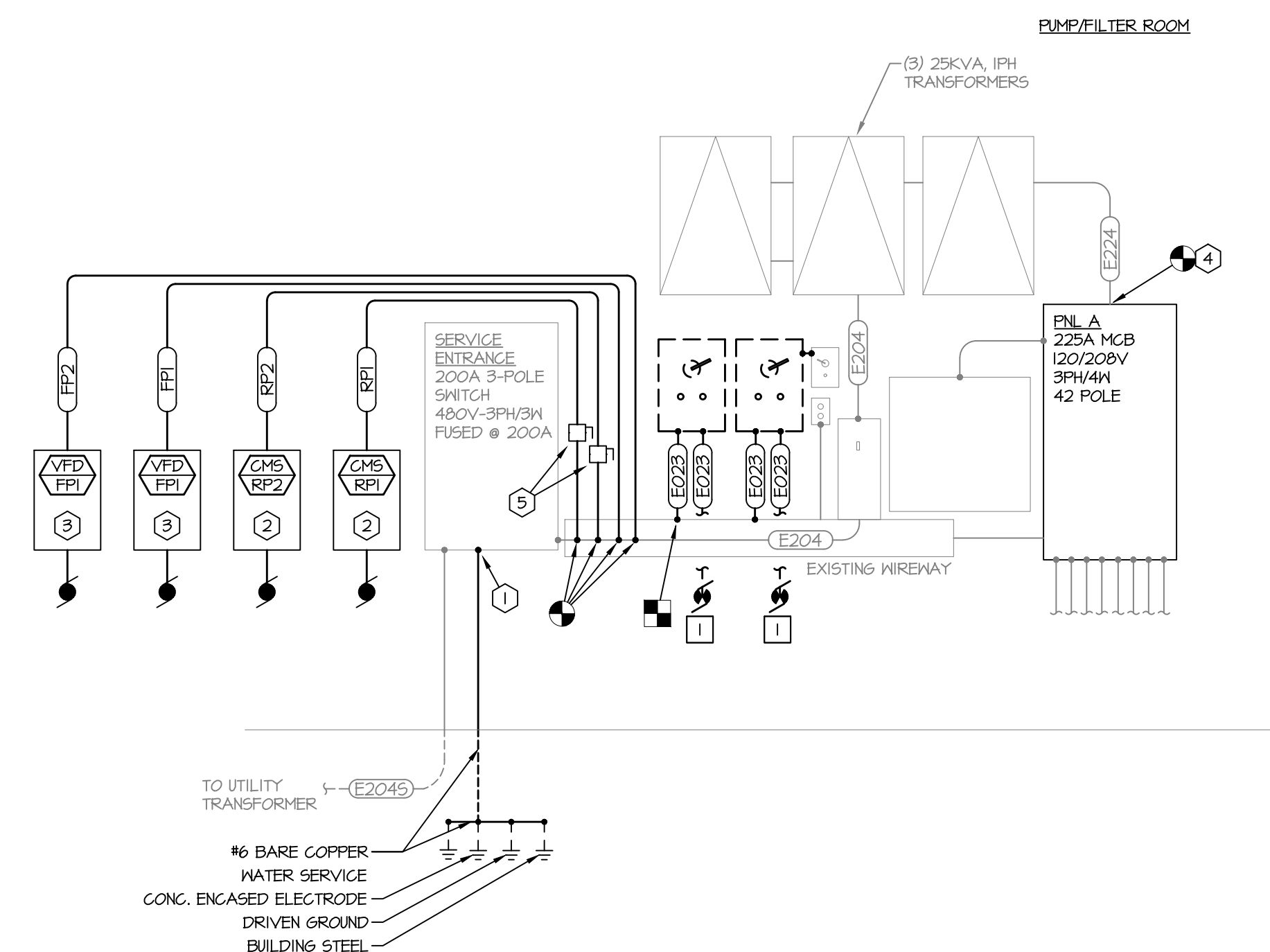
GENERAL NOTES (APPLIES TO ALL ABOVE):

- PROVIDE COMBINATION MOTOR STARTERS AS SCHEDULED. REFERENCE DETAILS ON SHEET SP-E2 FOR ADDITIONAL INFORMATION.
- STARTERS SHALL BE SOFT-START TYPE.
- STARTERS SHALL BE IN NEMA 3R ENCLOSURE.

PANEL A (EXISTING)

DESCRIPTION: 225A MCB		100% Neutral Bus NEMA 3R Enclosure		VOLTAGE: 120/208V, 3PH, 4 WIRE		
10 KAIC RATING				TOTAL CONNECTED LOAD: 47kW* 192A		
				DEMAND LOAD CONTINUOUS: 40kW* 111A		
NO	LOAD (W)	DESCRIPTION	P SIZE	AMP PH SIZE	LOAD (W)	NO
1	1500	LTG - BLDG EXTERIOR	1	20 A	1500	2
3	1500	LTG - MENS LOCKER	1	20 B	1500	4
5	1500	RCPT - FRONT COUNTER	1	20 C	1500	6
7	1500	RCPT - PUMP ROOM	1	20 A	1500	8
9	1500	PAN - CHEMICAL	1	20 B	1500	10
11	1500	LTG - WALL PACKS	1	20 C	1500	12
13	1500	UNKNOWN LOAD	1	20 A	1500	14
15	1500	UNKNOWN LOAD	1	30 B	1500	16
17	1500	UNKNOWN LOAD	1	20 C	1500	18
19	1500	UNKNOWN LOAD	1	20 A	1500	20
21	1500	UNKNOWN LOAD	1	20 B	1500	22
23	1500	UNKNOWN LOAD	1	20 C	1500	24
25	1500	LTG - POOL	1	20 A	1500	26
27	1500	LTG - POOL	1	20 B	1500	28
29	1500	LTG - POOL	1	20 C	1500	30
31	1500	POLE LIGHTS	2	30 A	1500	32
33	1500	POLE LIGHTS	2	30 B	1500	34
35	1500	POLE LIGHTS	2	30 C	1500	36
37	24000	02ZONE SODA CHLORINE	1	30	1500	38
39	1812	RCPT - EXHAUST FANS	1	20 A	1500	40
41	180	RCPT - FLOW METER	1	20 B	1500	42
43	180	RCPT - UV EQUIPMENT	1	20 C	1500	44

* PROVIDE NEW BREAKER AS INDICATED.



1 Electrical Riser Diagram
Scale: None

RISER DEMO WORK NOTES:

- MOTOR, STARTER, WIRING & FEEDERS - DISCONNECT MOTOR, MOTOR STARTER, AND FEEDERS ASSOCIATED WITH EXISTING PUMP. EXISTING WIRING SHALL REMAIN.

RISER NEW WORK NOTES:

- GROUNDING - VERIFY SERVICE ENTRANCE EQUIPMENT IS GROUND PER THE GROUNDING ELECTRODE SYSTEM REQUIREMENTS SET FORTH IN NEC 250.50. ANY BARE GROUNDING ELECTRODE CONDUCTOR THAT IS OXIDIZED SHALL BE REPLACED WITH AN INSULATED GROUNDING ELECTRODE CONDUCTOR IN SCHEDULE 80 PVC CONDUIT.
- COMBINATION MOTOR STARTERS - PROVIDE COMBINATION MOTOR STARTER AND FEEDER AS SHOWN.
- VFD - PROVIDE VFD AND FEEDER AS SHOWN.
- PANEL A - CONTRACTOR SHALL PROVIDE NEW SERVICE ENTRANCE RATED 225A MCB, 120/208V, 22KAIC, 42 POLE REPLACEMENT NEMA 3R PANELBOARD. EXISTING DOWNSTREAM FEEDERS SHALL BE RE-USED.
- DISCONNECT SWITCH - PROVIDE 480V/3PH, 30A, 3P, FUSED DISCONNECT SWITCH FOR REGIRCULATION PUMP. PROVIDE 20A FUSES.

FEEDER SCHEDULE:

- (E023) (3)#12 & #12G, IN 1/2" CONDUIT
- (E204) (4)#3/0 & #4G, IN 2" CONDUIT
- (E204S) (4)#3/0 & #4G, IN 3" CONDUIT
- (E224) (4)#4/0 & #4G, IN 2-1/2" CONDUIT
- (RP1) REFER TO COMBINATION MOTOR STARTER SCHEDULE
- (RP2) REFER TO COMBINATION MOTOR STARTER SCHEDULE
- (FP1) REFER TO VARIABLE FREQUENCY DRIVE SCHEDULE
- (FP2) REFER TO VARIABLE FREQUENCY DRIVE SCHEDULE



WICHITA, KANSAS
Spray Ground
LINWOOD PARK



Seal:



CASEY JOHN STEINER
LICENSE #19423

Date: 8-14-20 Job #: 1820529

Drawn: CDW Checked: MST

Issue: CONSTRUCTION DOCUMENTS

ELECTRICAL
DETAILS AND
RISER DIAGRAM

SP-E3