

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT TAG	DESCRIPTION	ROUTING		MIN. CONDUIT		CONDUCTORS (CU) PER C.		VOLTAGE	REMARKS OR REFERENCE DRAWING
		FROM	TO	QTY	SIZE	(QTY) & SIZE	GND		
PLANT OPERATIONS BUILDING									
P1001	UTILITY FEED		UTILITY TRANSFORMER	1	6"			12470	CONDUIT ONLY. CONDUCTOR BY UTILITY. COORDINATE REQUIREMENTS.
P1002	SERVICE ENTRANCE	UTILITY TRANSFORMER	SERVICE ENTRANCE SWITCHBOARD	5	4"	(4) #600 kcmil	#3/0	480	
P1003	UTILITY TO ATS	SERVICE ENTRANCE SWITCHBOARD	ATS-001	5	4"	(4) #600 kcmil	#3/0	480	
P1004	GENERATOR POWER	STANDBY GENERATOR	ATS-001	4	3"	(4) #400 kcmil	#3/0	480	
P1005	SERVICE TO MAIN SWITCHBOARD	ATS-001	SB-001	5	4"	(4) #600 kcmil	#3/0	480	
P1006	FEEDER TO SWITCHBOARD SB-002	SB-001	SB-002	4	2-1/2"	(4) #250 AWG	#2/0	480	SB-002 IN HW BUILDING
P1007	FEEDER TO PANEL HPO	SB-001	PANEL HPO	2	2"	(4) #3/0 AWG	#3	480	
P1008	FEEDER TO TRANSFORMER T1	SB-001	XFMR T1	1	2"	(3) #4/0 AWG	#4	480	
P1009	FEEDER TO PANEL LPO	XFMR T1	PANEL LPO	2	2"	(4) #3/0 AWG	#2	480	
P1010									
P1011	GENERATOR ACCESSORY POWER	LPO-28,30,32	GENERATOR	1	1"	(4) #10 AWG	#10	120	
P1012	POWER TO PLANT RTU-PB	LPO-60,62	PLANT SCADA RTU	1	1"	(4) #10 AWG	#10	120	
P1013	CLARIFIER #1 LIGHTING	LPO-57	CLARIFIER #1 AREA LIGHTING	1	1"	(2) #12 AWG	#12	120	
P1014	CLARIFIER #2 LIGHTING	LPO-59	CLARIFIER #2 AREA LIGHTING	1	1"	(2) #12 AWG	#12	120	
P1015	CLARIFIER #3 LIGHTING (FUTURE)	LPO-61	CLARIFIER #3 AREA LIGHTING	1	1"			120	
P1016	POWER TO CLARIFIER #1 CONTROL PANEL	SB-001	CLARIFIER #1 CONTROL PANEL	1	1"	(3) #12 AWG	#12	480	
P1016A	POWER TO CLARIFIER #1 RAKE DRIVE	CLARIFIER #1 CONTROL PANEL	CLARIFIER #1 RAKE DRIVE	1	1"	(6) #12 AWG	#12	480	POWER, TORQUE SENSORS
P1017	POWER TO CLARIFIER #2 CONTROL PANEL	SB-001	CLARIFIER #2 CONTROL PANEL	1	1"	(3) #12 AWG	#12	480	
P1017A	POWER TO CLARIFIER #1 RAKE DRIVE	CLARIFIER #2 CONTROL PANEL	CLARIFIER #2 RAKE DRIVE	1	1"	(6) #12 AWG	#12	480	POWER, TORQUE SENSORS
P1018	POWER TO CLARIFIER #3 (FUTURE)	SB-001	CLARIFIER #3	1	1"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1018A	POWER TO CLARIFIER #3 RAKE DRIVE	CLARIFIER #3 CONTROL PANEL	CLARIFIER #3 RAKE DRIVE	1	1"	(6) #12 AWG	#12	480	POWER, TORQUE SENSORS
P1019	FEEDER TO FILTER CONTROL PANEL #1	SB-001	FILTER CONTROL PANEL #1	1	1-1/4"	(3) #1 AWG	#6	480	
P1020	POWER TO BACKWASH PUMP 1	FILTER CONTROL PANEL #1	BACKWASH PUMP 1	1	3/4"	(3) #10 AWG	#10	480	
P1021	DRUM MOTOR 1	FILTER CONTROL PANEL #1	DRUM MOTOR 1	1	3/4"	(3) #12 AWG	#12	480	
P1022	ACS PUMP MOTOR 1	FILTER CONTROL PANEL #1	ACS PUMP MOTOR 1	1	3/4"	(3) #12 AWG	#12	480	
P1023	FEEDER TO FILTER CONTROL PANEL #2 (FUTURE)	SB-001	FILTER CONTROL PANEL #2	1	1-1/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1024	POWER TO BACKWASH PUMP 2	FILTER CONTROL PANEL #2	BACKWASH PUMP 2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1025	DRUM MOTOR 2	FILTER CONTROL PANEL #2	DRUM MOTOR 2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1026	ACS PUMP MOTOR 2	FILTER CONTROL PANEL #2	ACS PUMP MOTOR 2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1027	POWER TO UV REACTOR 1 BANK 1	HPO-1,3,5	UV 1 BANK 1 DISCONNECT	1	3/4"	(4) #12 AWG	#12	480	
P1028	POWER TO UV REACTOR 1 BANK 1	UV 1 BANK 1 DISCONNECT	UV 1 BANK 1	1	3/4"	(4) #12 AWG	#12	480	
P1029	POWER TO UV REACTOR 1 BANK 2	HPO-2,4,6	UV 1 BANK 2 DISCONNECT	1	3/4"	(4) #12 AWG	#12	480	
P1030	POWER TO UV REACTOR 1 BANK 2	UV 1 BANK 2 DISCONNECT	UV 1 BANK 2	1	3/4"	(4) #12 AWG	#12	480	
P1031	POWER TO UV REACTOR 1 PUMP	HPO-13,15,17	UV 1 PUMP CONTROL PANEL	1	3/4"	(4) #12 AWG	#12	480	
P1032	POWER TO UV REACTOR 1 PUMP	UV 1 PUMP CONTROL PANEL	UV 1 REACTOR	1	3/4"	(4) #12 AWG	#12	480	
P1033	UV REACTOR 1 BANK 1 CONTROL POWER	LPO-16	UV 1 BANK 1 DISCONNECT	1	3/4"	(2) #12 AWG	#12	120	
P1034	UV REACTOR 1 BANK 1 CONTROL POWER	UV 1 BANK 1 DISCONNECT	UV 1 BANK 1	1	3/4"	(2) #12 AWG	#12	120	
P1035	UV REACTOR 1 BANK 2 CONTROL POWER	LPO-56	UV 1 BANK 2 DISCONNECT	1	3/4"	(2) #12 AWG	#12	120	
P1036	UV REACTOR 1 BANK 2 CONTROL POWER	UV 1 BANK 2 DISCONNECT	UV 1 BANK 2	1	3/4"	(2) #12 AWG	#12	120	
P1037	UV REACTOR 1 HEAT EXCHANGER COOLING POWER	LPO-18	UV 1 PUMP CONTROL PANEL	1	3/4"	(2) #12 AWG	#12	120	
P1038	UV REACTOR 1 HEAT EXCHANGER COOLING POWER	UV 1 PUMP CONTROL PANEL	UV 1 BANK 2 HEAT EXCHANGER	1	3/4"	(2) #12 AWG	#12	120	
P1039	UV REACTOR 1 PUMP CONTROL	UV 1 CONTROL PANEL	UV 1 PUMP CONTROL PANEL	1	3/4"	(4) #12 AWG	#12	120	
P1040	UV REACTOR 1 CONTROL PANEL POWER	LPO-14	UV 1 CONTROL PANEL	1	3/4"	(4) #12 AWG	#12	120	
P1041	UV REACTOR 1 UPS POWER	UV 1 CONTROL PANEL	UV 1 BANK 1	1	3/4"	(2) #12 AWG	#12	120	
P1042	POWER TO UV REACTOR 2 BANK 1 (FUTURE)	HPO-7,9,11	UV 2 BANK 1 DISCONNECT	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1043	POWER TO UV REACTOR 2 BANK 1 (FUTURE)	UV 2 BANK 1 DISCONNECT	UV 2 BANK 1	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1044	POWER TO UV REACTOR 2 BANK 2 (FUTURE)	HPO-8,10,12	UV 2 BANK 2 DISCONNECT	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1045	POWER TO UV REACTOR 2 BANK 2 (FUTURE)	UV 2 BANK 2 DISCONNECT	UV 2 BANK 2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1046	POWER TO UV REACTOR 2 PUMP (FUTURE)	HPO-14,16,18	UV 2 PUMP CONTROL PANEL	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1047	POWER TO UV REACTOR 2 PUMP (FUTURE)	UV 2 PUMP CONTROL PANEL	UV 2 REACTOR	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1048	UV REACTOR 2 BANK 1 CONTROL POWER	LPO-22	UV 2 BANK 1 DISCONNECT	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1049	UV REACTOR 2 BANK 2 CONTROL POWER	UV 2 BANK 1 DISCONNECT	UV 2 BANK 1	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1050	UV REACTOR 2 BANK 2 CONTROL POWER	LPO-58	UV 2 BANK 2 DISCONNECT	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1051	UV REACTOR 2 BANK 2 CONTROL POWER	UV 2 BANK 2 DISCONNECT	UV 2 BANK 2	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1052	UV REACTOR 2 HEAT EXCHANGER COOLING POWER	LPO-24	UV 2 PUMP CONTROL PANEL	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1053	UV REACTOR 2 HEAT EXCHANGER COOLING POWER	UV 2 PUMP CONTROL PANEL	UV 2 BANK 2 HEAT EXCHANGER	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1054	UV REACTOR 2 PUMP CONTROL	UV 2 CONTROL PANEL	UV 2 PUMP CONTROL PANEL	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1055	UV REACTOR 2 CONTROL PANEL POWER	LPO-20	UV 2 CONTROL PANEL	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1056	UV REACTOR 2 UPS POWER	UV 2 CONTROL PANEL	UV 2 BANK 1	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P1057	FEEDER TO PROCESS WATER PUMP CONTROL PANEL	SB-001	PW PUMP CONTROL PANEL	1	3/4"	(3) #8 AWG	#10	480	
P1058	POWER TO PW PUMP #1	PW PUMP CONTROL PANEL	PW PUMP #1 DISCONNECT	1	3/4"	(3) #12 AWG	#12	480	
P1059	POWER TO PW PUMP #1	PW PUMP #1 DISCONNECT	PW PUMP #1	1	3/4"	MANUF. CABLE	#12	480	INSTALL MANUFACTURER SUPPLIED CABLE
P1060	POWER TO PW PUMP #2	PW PUMP CONTROL PANEL	PW PUMP #2 DISCONNECT	1	3/4"	(3) #12 AWG	#12	480	
P1061	POWER TO PW PUMP #2	PW PUMP #2 DISCONNECT	PW PUMP #2	1	3/4"	MANUF. CABLE	#12	480	INSTALL MANUFACTURER SUPPLIED CABLE
P1062	POWER TO PW PUMP #3	PW PUMP CONTROL PANEL	PW PUMP #3 DISCONNECT	1	3/4"	(3) #12 AWG	#12	480	
P1063	POWER TO PW PUMP #3	PW PUMP #3 DISCONNECT	PW PUMP #3	1	3/4"	MANUF. CABLE	#12	480	INSTALL MANUFACTURER SUPPLIED CABLE
P1064	FEEDER TO BNR AERATION PANEL #1	SB-001	BNR AERATION PANEL #1	1	3"	(4) #350 AWG	#4	480	
P1065	POWER TO BIO-P MIXER #1	BNR AERATION PANEL #1	BIO-P MIXER #1 DISCONNECT	1	1"	(3) #12 AWG	#12	480	
P1066	POWER TO BIO-P MIXER #1	BIO-P MIXER #1 DISCONNECT	BIO-P MIXER #1	1	1"	(3) #12 AWG	#12	480	
P1067	POWER TO BIO-P MIXER #2	BNR AERATION PANEL #1	BIO-P MIXER #2 DISCONNECT	1	1"	(3) #12 AWG	#12	480	
P1068	POWER TO BIO-P MIXER #2	BIO-P MIXER #2 DISCONNECT	BIO-P MIXER #2	1	1"	(3) #12 AWG	#12	480	
P1069	POWER TO BIO-P MIXER #3	BNR AERATION PANEL #1	BIO-P MIXER #3 DISCONNECT	1	1"	(3) #12 AWG	#12	480	
P1070	POWER TO BIO-P MIXER #3	BIO-P MIXER #3 DISCONNECT	BIO-P MIXER #3	1	1"	(3) #12 AWG	#12	480	

SHEET NOTES:

1. CONDUIT SHOWN TO EQUIPMENT LOCATION ONLY. CONTRACTOR SHALL PROVIDE FLEXIBLE CONDUIT STUBS TO EQUIPMENT, FITTINGS, MOUNTING HARDWARE AND ALL ACCESSORIES REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
2. ROUTE CONDUIT AS NECESSARY BASED ON FIELD CONDITIONS AND TO AVOID OBSTACLES.
3. LENGTHS SHOWN IN CONDUIT SCHEDULE ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ACTUAL LENGTHS PRIOR TO CONSTRUCTION.

REV NO.	COMMENT	DATE
REGISTERED PROFESSIONAL ENGINEER 23-Dec-2022 No. 362066 J. RANDALL KNAPP STATE OF UTAH  SUNRISE ENGINEERING 6875 SOUTH 900 EAST SALT LAKE CITY, UTAH 84047 TEL 801.523.0100 • FAX 801.523.0990 www.sunrise-eng.com		
MOUNTAIN GREEN SEWER IMPROVEMENT DISTRICT		
BNR WWTP 2022		
CONDUIT AND CONDUCTOR SCHEDULE		
SEI NO. S08242	DESIGNED JRK	DRAWN JRK
CHECKED JRK	SHEET NO. 165 of 249	E-204

CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT TAG	DESCRIPTION	ROUTING		CONDUIT		CONDUCTORS (CU) PER C.		VOLTAGE	REMARKS OR REFERENCE DRAWING
		FROM	TO	QTY	SIZE	(QTY) & SIZE	GND		
HEADWORKS BUILDING									
P2001	FEEDER TO MCC--HB	SB--002	MCC--HB	2	3"	(4) #350 kcmil	1	480	
P2002	FEEDER TO TRANSFORMER T2	SB--002	XFMR T2	1	2"	(3) #4/0 AWG	#4	480	
P2003	FEEDER TO PANEL LP2A	XFMR T2	PANEL LHB	1	2-1/2"	(4) #4/0 AWG	#4	480	
P2004	POWER TO PLANT SCADA PLC--HB	LHB	PLC--HW	1	3/4"	(4) #12 AWG	#12	120	
P2005	POLYMER SKID POWER	LHB	POLYMER SKID	1	3/4"	(2) #12 AWG	#12	120	
P2006	FEEDER TO DEWATERING CONTROL PANEL #1	MCC--HB	DEWATERING PANEL #1	1	3/4"	(3) #6 AWG	#10	480	
P2007	POWER TO FLOC MIXER #1	DEWATERING PANEL #1	FLOC MIXER #1	1	3/4"	(3) #12 AWG	#12	480	
P2008	POWER TO SCREW PRESS #1	DEWATERING PANEL #1	SCREW PRESS #1	1	3/4"	(3) #12 AWG	#12	480	
P2009	POWER TO SLUDGE FEED PUMP #1	DEWATERING PANEL #1	SLUDGE FEED PUMP #1	1	3/4"	(3) #12 AWG	#12	480	
P2010	POWER TO CONVEYOR #1	DEWATERING PANEL #1	CONVEYOR #1	1	3/4"	(3) #12 AWG	#12	480	
P2011	POWER TO CONVEYOR #2	DEWATERING PANEL #1	CONVEYOR #2	1	3/4"	(3) #12 AWG	#12	480	
P2012	FEEDER TO DEWATERING CONTROL PANEL #2 (FUTURE)	MCC--HB	DEWATERING PANEL #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2013	POWER TO FLOC MIXER #2	DEWATERING PANEL #2	FLOC MIXER #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2014	POWER TO SCREW PRESS #2	DEWATERING PANEL #2	SCREW PRESS #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2015	POWER TO SLUDGE FEED PUMP #2	DEWATERING PANEL #2	SLUDGE FEED PUMP #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2016	FEEDER TO DIGESTER BLOWER #1	MCC--HB	DIGESTER BLOWER #1 DISCONNECT	1	1-1/4"	(3) #1 AWG	#6	480	
P2017	FEEDER TO DIGESTER BLOWER #1	DIGESTER BLOWER #1 DISCONNECT	DIGESTER BLOWER #1	1	1-1/4"	(3) #1 AWG	#6	480	
P2018	FEEDER TO DIGESTER BLOWER #2	MCC--HB	DIGESTER BLOWER #2 DISCONNECT	1	1-1/4"	(3) #1 AWG	#6	480	
P2019	FEEDER TO DIGESTER BLOWER #2	DIGESTER BLOWER #2 DISCONNECT	DIGESTER BLOWER #2	1	1-1/4"	(3) #1 AWG	#6	480	
P2020	FEEDER TO DIGESTER BLOWER #3 (FUTURE)	MCC--HB	DIGESTER BLOWER #3 DISCONNECT	1	1-1/4"		#6	480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2021	FEEDER TO DIGESTER BLOWER #3 (FUTURE)	DIGESTER BLOWER #3 DISCONNECT	DIGESTER BLOWER #3 (FUTURE)	1	1-1/4"		#6	480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2022	POWER TO RAS PUMP #1	MCC--HB	RAS PUMP #1	1	3/4"	(3) #12 AWG	#12	480	
P2023	POWER TO RAS PUMP #2	MCC--HB	RAS PUMP #2	1	3/4"	(3) #12 AWG	#12	480	
P2024	POWER TO RAS PUMP #3 (FUTURE)	MCC--HB	RAS PUMP #3 (FUTURE)	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2025	FEEDER TO GRIT REMOVAL CONTROL PANEL #1	MCC--HB	GRIT REMOVAL #1 CONTROL PANEL	1	3/4"	(3) #10 AWG	#10	480	
P2026	POWER TO GRIT COLLECTOR DRIVE MOTOR #1	GRIT REMOVAL #1 CONTROL PANEL	GRIT COLLECTOR DRIVE MOTOR #1	1	3/4"	(3) #10 AWG	#10	480	
P2027	POWER TO GRIT REMOVAL DRIVE PUMP #1	GRIT REMOVAL #1 CONTROL PANEL	GRIT REMOVAL DRIVE PUMP #1	1	3/4"	(3) #10 AWG	#10	480	
P2028	POWER TO BLOWER #1	GRIT REMOVAL #1 CONTROL PANEL	BLOWER #1	1	3/4"	(3) #10 AWG	#10	480	
P2029	POWER TO STIRRER DRIVE #1	GRIT REMOVAL #1 CONTROL PANEL	STIRRER DRIVE #1	1	3/4"	(3) #10 AWG	#10	480	
P2030	POWER TO GRIT SCREW DRIVE #1	GRIT REMOVAL #1 CONTROL PANEL	GRIT SCREW DRIVE #1	1	3/4"	(3) #10 AWG	#10	480	
P2031	FEEDER TO GRIT REMOVAL CONTROL PANEL #2	MCC--HB	GRIT REMOVAL #2 CONTROL PANEL	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2032	POWER TO GRIT COLLECTOR DRIVE MOTOR #2	GRIT REMOVAL #2 CONTROL PANEL	GRIT COLLECTOR DRIVE MOTOR #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2033	POWER TO GRIT REMOVAL DRIVE PUMP #2	GRIT REMOVAL #2 CONTROL PANEL	GRIT REMOVAL DRIVE PUMP #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2034	POWER TO BLOWER #2	GRIT REMOVAL #2 CONTROL PANEL	BLOWER #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2035	POWER TO STIRRER DRIVE #2	GRIT REMOVAL #2 CONTROL PANEL	STIRRER DRIVE #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2036	POWER TO GRIT SCREW DRIVE #2	GRIT REMOVAL #2 CONTROL PANEL	GRIT SCREW DRIVE #2	1	3/4"			480	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2037	DEWATERING FLOW METER #1	DEWATERING PANEL #1	HB--M--DM--001	1	3/4"	(2) #12 AWG	#12	120	
P2038	DEWATERING FLOW METER #2	DEWATERING PANEL #2	DEWATERING FLOW METER #2	1	3/4"				CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2039	14" VALVE POWER	LHB--11	HB--V--APV--101	1	3/4"	(2) #12 AWG	#12	120	
P2040	14" FLOW METER POWER	LHB--10	AB--M--AM--001	1	3/4"	(2) #12 AWG	#12	120	
P2041	18" VALVE POWER	LHB--24	HB--V--BPV--001	1	3/4"	(2) #12 AWG	#12	120	
P2042	18" FLOW METER POWER	LHB--26	HB--M--BM--001	1	3/4"	(2) #12 AWG	#12	120	
P2043	POWER TO POLYMER SKID	LHB--14	POLYMER SKID	1	3/4"	(2) #12 AWG	#12	120	
P2044	CHEMICAL PUMP POWER	LHB	CHEMICAL ROOM JB--1	1	3/4"	(4) #12 AWG	#12	120	COORDINATE LOCATION OF REQUIREMENTS OF CHEMICAL PUMPS
P2045	DIGESTER VALVE #1 POWER	LHB	DIGESTER VALVE 1	1	1"	(2) #12 AWG	#12	240	
P2046	DIGESTER VALVE #2 POWER	LHB	DIGESTER VALVE 2	1	1"	(2) #12 AWG	#12	240	
P2047	EAST ZONE MANHOLE FLOW METER POWER	LHB	EAST ZONE MANHOLE FLOW METER	1	1"	(2) #12 AWG	#12	120	
P2048	MANHOLE #1 FLOW METER POWER	LHB	MANHOLE #1 FLOW METER	1	1"	(2) #12 AWG	#12	120	
P2049	DIGESTER D.O. #1 POWER	LHB	DIGESTER #1 POWER	1	1"	(2) #12 AWG	#12	120	
P2050	DIGESTER D.O. #2 POWER	LHB	DIGESTER #2 POWER	1	1"	(2) #12 AWG	#12	120	
P2051	DIGESTER D.O. #3 POWER (FUTURE)	LHB	DIGESTER #3 POWER	1	1"	(2) #12 AWG	#12	120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2052	DIGESTER D.O. #4 POWER (FUTURE)	LHB	DIGESTER #4 POWER	1	1"	(2) #12 AWG	#12	120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2053	DIGESTER VALVE #3 POWER (FUTURE)	LHB	DIGESTER VALVE 3	1	1"				CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
P2054	DIGESTER VALVE #4 POWER (FUTURE)	LHB	DIGESTER VALVE 4	1	1"				CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE
EXISTING CONDUITS									
P001	POWER TO SCREEN, PRESS, COMPRESSOR	MCC--HB	SCREEN/PRESS CONTROL PANEL	1	1"	(6) #10 AWG	#10	480	POWER TO HW SCREEN / WASH COMPACTOR / COMPRESSOR
P001A	POWER TO SCREEN DRIVE MOTOR	SCREEN/COMPACTOR CTRL PANEL	SCREEN DRIVE MOTOR	1	3/4"	(3) #10 AWG	#10	480	
P001B	POWER TO PRESS DRIVE MOTOR	SCREEN/COMPACTOR CTRL PANEL	PRESS DRIVE MOTOR	1	3/4"	(3) #10 AWG	#10	480	
P001C	POWER TO COMPRESSOR	SCREEN/COMPACTOR CTRL PANEL	COMPRESSOR	1	3/4"	(3) #10 AWG	#10	480	
P001D	SCREEN/PRESS HEAT TRACING	SCREEN/COMPACTOR CTRL PANEL	SCREEN/PRESS HEAT TRACING	1	3/4"	(2) #12 AWG	#12	120	INSTALL PER VENDOR DRAWINGS.
P021	FEEDER TO HW LIFT PUMP #1	MCC--HB	LIFT PUMP #1 DISCONNECT SWITCH DS 021	1	1"	(3) #10 AWG (4) #12 AWG	#10	480	LIFT PUMP POWER MOISTURE/TEMP SENSOR
P021A	POWER TO HW LIFT PUMP #1	DISCONNECT 021	LIFT PUMP #1	1	2"				EXISTING MANUFACTURER SUPPLIED CABLE
P022	FEEDER TO HW LIFT PUMP #2	MCC--HB	LIFT PUMP #2 DISCONNECT SWITCH DS 022	1	1"	(3) #10 AWG (4) #12 AWG	#10	480	LIFT PUMP POWER MOISTURE/TEMP SENSOR
P022A	POWER TO HW LIFT PUMP #2	DISCONNECT 022	LIFT PUMP #2 DISCONNECT SWITCH	1	2"				EXISTING MANUFACTURER SUPPLIED CABLE
P023	FEEDER TO HW LIFT PUMP #3	MCC--HB	LIFT PUMP #3 DISCONNECT SWITCH DS 023	1	1"	(3) #10 AWG (4) #12 AWG	#10	480	LIFT PUMP POWER MOISTURE/TEMP SENSOR
P023A	POWER TO HW LIFT PUMP #3	DISCONNECT 032	LIFT PUMP #3	1	2"				EXISTING MANUFACTURER SUPPLIED CABLE
P024	POWER TO EX. FLOW METER	LP2x	FIT--024	1	1"	(2) #12 AWG	#12	120	INSPECT EXISTING CONDUCTORS. REPLACE AS NEEDED.

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 SUNRISE ENGINEERING 6875 SOUTH 900 EAST SALT LAKE CITY, UTAH 84047 TEL 801.523.0100 • FAX 801.523.0990 www.sunrise-eng.com		
MOUNTAIN GREEN SEWER IMPROVEMENT DISTRICT		
BNR WWTP 2022		
CONDUIT AND CONDUCTOR SCHEDULE		
SEI NO. S08242	DESIGNED JRK	DRAWN JRK
CHECKED JRK	SHEET NO. 167 of 249	E-206

CONDUIT AND CONDUCTOR SCHEDULE										
CONDUIT TAG	DESCRIPTION	ROUTING		MIN. CONDUIT		CONDUCTORS (CU) PER C.		VOLTAGE	REMARKS OR REFERENCE DRAWING	
C2001	DEWATERING CONTROL PANEL #1 STATUS	DEWATERING PANEL 1	PLC–HW	1	3/4"	(2) #14 AWG (1) CAT 6 SHIELDED	#14	CTRL		
C2002	DW1 FLOC TANK LEVEL	DEWATERING PANEL 1	DW1 FLOC TANK LEVEL PROBE	1	3/4"	(2) #14 AWG	#14	CTRL		
C2003	DW1 WASHWATER SOLENOID	DEWATERING PANEL 1	DW1 PRESS	1	3/4"	(6) #14 AWG	#14	CTRL		
C2004	DW1 HEADBOX LEVEL	DEWATERING PANEL 1	DW1 HEADBOX	1	3/4"	(1) #16 TSP		CTRL		
C2005	DW1 SLUDGE FEED FLOW METER POWER	DEWATERING PANEL 1	SLUDGE FEED PUMP #1	1	3/4"	(2) #12 AWG	#12	120		
C2006	DW1 SLUDGE FEED FLOW RATE	DEWATERING PANEL 1	SLUDGE FEED PUMP #1	1	3/4"	(1) #16 TSP		CTRL		
C2007	DW1 SLUDGE FEED DRY RUN PROTECTION	DEWATERING PANEL 1	SLUDGE PUMP #1 TEMP SENSOR	1	3/4"	(1) #16 TSP		CTRL	COORDINATE REQUIREMENTS WITH VENDOR	
C2008	DEWATERING CONVEYOR #1 CONTROL	DEWATERING PANEL 1	DEWATERING CONVEYOR #1	1	3/4"	(6) #14 AWG	#14	CTRL	E–STOP x2, ZERO SPEED	
C2009	DEWATERING CONVEYOR #2 CONTROL	DEWATERING PANEL 1	DEWATERING CONVEYOR #2	1	3/4"	(6) #14 AWG	#14	CTRL	E–STOP x2, ZERO SPEED	
C2010	DEWATERING CONTROL PANEL #2 STATUS	DEWATERING PANEL 2	PLC–HW	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2011	DW2 FLOC TANK LEVEL	DEWATERING PANEL 2	DW2 FLOC TANK LEVEL PROBE	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2012	DW2 WASHWATER SOLENOID	DEWATERING PANEL 2	DW2 PRESS	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2013	DW2 HEADBOX LEVEL	DEWATERING PANEL 2	DW2 HEADBOX	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2014	DW2 SLUDGE FEED FLOW METER POWER	DEWATERING PANEL 2	SLUDGE FEED PUMP #2	1	3/4"			120	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2015	DW2 SLUDGE FEED FLOW RATE	DEWATERING PANEL 2	SLUDGE FEED PUMP #2	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2016	DW2 SLUDGE FEED DRY RUN PROTECTION	DEWATERING PANEL 2	SLUDGE PUMP #2 TEMP SENSOR	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2017	DIGESTER BLOWER #1 STATUS	DIGESTER BLOWER #1 VFD IN MCC–HB	PLC–HW	1	1–1/4"	(10) #12 AWG (2) #16 TSP (1) CAT 6 SHIELDED		CTRL	COORDINATE WITH VENDOR DRAWINGS	
C2018	DIGESTER BLOWER #2 STATUS	DIGESTER BLOWER #2 VFD IN MCC–HB	PLC–HW	1	1–1/4"	(10) #12 AWG (2) #16 TSP (1) CAT 6 SHIELDED		CTRL	COORDINATE WITH VENDOR DRAWINGS	
C2019	DIGESTER BLOWER #3 STATUS (FUTURE)	DIGESTER BLOWER #3	PLC–HW	1	1–1/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2020	GRIT/SCREEN 1 STATUS	GRIT/SCREEN PANEL 1	PLC–HW	1	3/4"	(1) CAT 6		CTRL		
C2021	GRIT COLLECTOR #1 DRIVE MOTOR TEMP	GRIT/SCREEN PANEL 1	COLLECTOR DRIVE MOTOR #1 T–STAT	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE STUB–UP LOCATION WITH VENDOR DRAWINGS	
C2022	GRIT REMOVAL DRIVE PUMP #1 TEMP	GRIT/SCREEN PANEL 1	REMOVAL DRIVE PUMP #1 T–STAT	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE STUB–UP LOCATION WITH VENDOR DRAWINGS	
C2023	GRIT BLOWER #1 TEMP	GRIT/SCREEN PANEL 1	BLOWER #1 T–STAT	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE STUB–UP LOCATION WITH VENDOR DRAWINGS	
C2024	GRIT STIRRER #1 TEMP	GRIT/SCREEN PANEL 1	STIRRER #1 T–STAT	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE STUB–UP LOCATION WITH VENDOR DRAWINGS	
C2025	GRIT SCREW DRIVE #1 TEMP	GRIT/SCREEN PANEL 1	SCREW DRIVE #1 T–STAT	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE STUB–UP LOCATION WITH VENDOR DRAWINGS	
C2026	GRIT CLASSIFIER #1 ORGANICS VALVE CONTROL	GRIT/SCREEN PANEL 1	CLASSIFIER #1 ORGANICS ACTUATOR	1	1"	(12) #12 AWG	#12	CTRL	COORDINATE STUB–UP LOCATION WITH VENDOR DRAWINGS	
C2027	GRIT #1 E–STOP PB–2	GRIT/SCREEN PANEL 1	GRIT #1 E–STOP PB–2	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE E–STOP LOCATION WITH VENDOR	
C2028	GRIT #1 E–STOP PB–3	GRIT/SCREEN PANEL 1	GRIT #1 E–STOP PB–3	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE E–STOP LOCATION WITH VENDOR	
C2029	GRIT #1 E–STOP PB–4	GRIT/SCREEN PANEL 1	GRIT #1 E–STOP PB–4	1	3/4"	(2) #12 AWG	#12	CTRL	COORDINATE E–STOP LOCATION WITH VENDOR	
C2030	GRIT/SCREEN 2 STATUS (FUTURE)	GRIT/SCREEN PANEL 2	PLC–HW	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2031	GRIT COLLECTOR #2 DRIVE MOTOR TEMP (FUTURE)	GRIT/SCREEN PANEL 2	COLLECTOR DRIVE MOTOR #2 T–STAT	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2032	GRIT REMOVAL DRIVE PUMP #2 TEMP (FUTURE)	GRIT/SCREEN PANEL 2	REMOVAL DRIVE PUMP #2 T–STAT	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2033	GRIT BLOWER #2 TEMP (FUTURE)	GRIT/SCREEN PANEL 2	BLOWER #2 T–STAT	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2034	GRIT STIRRER #2 TEMP (FUTURE)	GRIT/SCREEN PANEL 2	STIRRER #2 T–STAT	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2035	GRIT SCREW DRIVE #2 TEMP (FUTURE)	GRIT/SCREEN PANEL 2	SCREW DRIVE #2 T–STAT	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2036	GRIT CLASSIFIER #2 ORGANICS VALVE CONTROL (FUTURE)	GRIT/SCREEN PANEL 2	CLASSIFIER #2 ORGANICS ACTUATOR	1	1"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2037	GRIT #2 E–STOP PB–2 (FUTURE)	GRIT/SCREEN PANEL 2	GRIT #2 E–STOP PB–2	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2038	GRIT #2 E–STOP PB–3 (FUTURE)	GRIT/SCREEN PANEL 2	GRIT #2 E–STOP PB–3	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2039	GRIT #2 E–STOP PB–4 (FUTURE)	GRIT/SCREEN PANEL 2	GRIT #2 E–STOP PB–4	1	3/4"			CTRL	CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2040	14" VALVE CONTROL	HB–V–APV–101	PLC–HW	1	3/4"	(2) #12 AWG (2) #16 TSP	#12	CTRL	COORDINATE WITH SCADA PROVIDER	
C2041	14" FLOW METER CONTROL	HB–M–AM–001	PLC–HW	1	3/4"	(2) #16 TSP		CTRL		
C2042	18" VALVE CONTROL	HB–V–BPV–001	PLC–HW	1	3/4"	(2) #12 AWG (2) #16 TSP	#12	CTRL		
C2043	18" FLOW METER CONTROL	HB–M–BM–001	PLC–HW	1	3/4"	(2) #16 TSP		CTRL		
C2044	POLYMER SKID STATUS	POLYMER SKID	PLC–HW	1	3/4"			CTRL	COORDINATE WITH VENDOR	
C2045	CHEMICAL ROOM CONTROL	CHEMICAL ROOM JB1	PLC–HW	1	2"			CTRL	COORDINATE WITH VENDOR	
C2046	CHEMICAL ROOM CONTROL	CHEMICAL ROOM JB1	PLC–HW	1	2"			CTRL	COORDINATE WITH VENDOR	
C2047	UNASSIGNED CONDUIT									
C2048	RAS PUMP #1 CONTROL	PLC–HB	RAS PUMP #1 VFD, MCC–HB	1	1"	(8) #14 AWG (2) CAT 6 SHIELDED	#14	CTRL		
C2049	RAS PUMP #2 CONTROL	PLC–HB	RAS PUMP #2 VFD, MCC–HB	1	1"	(8) #14 AWG (2) CAT 6 SHIELDED	#14	CTRL		
C2050	RAS PUMP #3 CONTROL	PLC–HB	RAS PUMP #3 VFD, MCC–HB	1	1"	(8) #14 AWG (2) CAT 6 SHIELDED	#14	CTRL		
C2051	LIFT PUMP #1 CONTROL	PLC–HB	LIFT PUMP 1 STARTER, MCC–HB	1	1"	(14) #14 AWG	#14	CTRL		
C2052	LIFT PUMP #2 CONTROL	PLC–HB	LIFT PUMP 2 STARTER, MCC–HB	1	1"	(14) #14 AWG	#14	CTRL		
C2053	LIFT PUMP #3 CONTROL	PLC–HB	LIFT PUMP 3 STARTER, MCC–HB	1	1"	(14) #14 AWG	#14	CTRL		
C2054	DIGESTER VALVE #1 CONTROL	PLC–HB	DIGESTER VALVE #1	1	1"	(10) #14 AWG (2) #16 TSP	#14	CTRL		
C2055	DIGESTER VALVE #2 CONTROL	PLC–HB	DIGESTER VALVE #2	1	1"	(10) #14 AWG (2) #16 TSP	#14	CTRL		
C2056	EAST ZONE MANHOLE FLOW	PLC–HB	EAST ZONE FLOW	1	1"	(1) #16 TSP		CTRL		
C2057	MANHOLE #1 FLOW	PLC–HB	MANHOLE #1 FLOW	1	1"	(1) #16 TSP		CTRL		
C2058	DIGESTER D.O. #1 LEVEL	PLC–HB	DIGESTER D.O. #1	1	1"	(1) CAT 6 SHIELDED		CTRL		
C2059	DIGESTER D.O. #2 LEVEL	PLC–HB	DIGESTER D.O. #2	1	1"	(1) CAT 6 SHIELDED		CTRL		
C2060	DIGESTER D.O. #3 LEVEL	PLC–HB	DIGESTER D.O. #3	1	1"				CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2061	DIGESTER D.O. #4 LEVEL	PLC–HB	DIGESTER D.O. #4	1	1"				CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
C2062	DIGESTER VALVE #3 CONTROL	PLC–HB	DIGESTER VALVE #3	1	1"	(10) #14 AWG (2) #16 TSP	#14	CTRL		
C2063	DIGESTER VALVE #4 CONTROL	PLC–HB	DIGESTER VALVE #4	1	1"				CONDUIT ONLY. STUB WITH PULL STRING AND CAP FOR FUTURE USE.	
EXISTING CONDUITS										
C001	HW SCREEN / PRESS STATUS					(4) #14 AWG				
C011A–F	HW LIFT STATION LEVEL								INTERCEPT AND REROUTE EXISTING STATUS & CONTROL CONDUCTORS FROM EXISTING PLC TO NEW PLC–HB. FIELD LOCATE EXISTING CONDUCTORS AND COORDINATE WITH SCADA SYSTEM PROVIDER TO DETERMINE CONNECTION REQUIREMENTS.	
C021	HW LIFT PUMP STATUS									
C024	HW FLOW METER STATUS					(1) TSP				

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