

57MP EXISTING PANEL WITH EXISTING CIRCUITS SHOWN FOR REFERENCE ONLY											
ROOM MOUNTING SURFACE FED FROM UTILITY			VOLTS 240/120V 3P 4W BUS AMPS 400 NEUTRAL 100%			AIC 22,000 MAIN BKR MLO LUGS STANDARD			NOTE		
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	100/3	EXISTING - SEC SLUDGE TRANSFER PUMPS (1 OP, 1 SP)	2	2	2	2	70/3	EXISTING - DOSING PUMPS CONT. PANEL (1 OP, 1 SP)	3	3	3
3						4					
5						6					
7	30/3	EXISTING - CHLORINE PUMP (UNKNOWN LOAD)	0	0	0	10	150/3	PANEL 57DP (FED W/150A)	10	10	10
9						12					
11						14					
13	30/3	SPARE	0	0	0	16					
15						18					
17						20					
19	100/3	PANEL 57DP1	4	0	0	22	60/3	EXISTING - 15KVA XFMR (INCIN. BLDG)	1	1	1
21						24					
23						26					
25	100/3	EXISTING - SLUDGE PUMPS (UNKNOWN LOAD)	0	0	0	28	20/3	EXISTING - STEAM CLEANER FEEDER - 1 PHASE ONLY	0	0	0
27						30					
29											
TOTAL CONNECTED KVA BY PHASE			20	20	20				20	20	20
CONN KVA			CALC KVA			CONN KVA			CALC KVA		
LIGHTING	4	4	(125%)	CONTINUOUS	3	4	(125%)	LARGEST MOTOR	9	10	(125%)
OTHER MOTORS	30	30	(100%)	COOLING	0	0	(N/A)	RECEPTACLES	0.4	0.4	(50%>10)
KITCHEN EQUIP	0	0	(N/A)	NONCONTINUOUS	0	0	(100%)				
				DIVERSE	0	0	(N/A)				
				METERED DEMAND	0	0	(125%)				
TOTAL KVA			60	70			BALANCED 3-PHASE AMPS			200	

PANEL SUPPLIED WITH STANDBY GENERATOR POWER

57DP1 EXISTING PANEL WITH EXISTING CIRCUITS AND NEW EXTENSION											
ROOM MOUNTING SURFACE FED FROM 57MP			VOLTS 240/120V 2P 3W BUS AMPS 100 NEUTRAL 100%			AIC 10,000 MAIN BKR MLO LUGS STANDARD			NOTE		
CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD			CKT #	CKT BKR	CIRCUIT DESCRIPTION	KVA LOAD		
			A	B	C				A	B	C
1	20/1	EXISTING - LIGHTING	0.4			2	20/1	EXISTING - FIRE ALARM SYSTEM	0.2		
3	20/1	EXISTING - OFFICE LIGHTING	0.1	0.4		4	15/1	EXISTING - CHLORINE ROOM	0.4	0.2	
5	20/1	EXISTING - RED LIGHT				6	20/1	EXISTING - LIGHTING			0.4
7	20/1	EXISTING - WATER TREATMENT				8	20/1	EXISTING - ELECT ROOM LIGHTING			0.2
9	20/1	EXISTING - CHLORINE ROOM RECP.	0.4	0.4		10	20/1	EXISTING - OUTSIDE LIGHTING	0.8	0.2	
11	30/2	EXISTING - CHLORINE ROOM UNIT HTR	2	2		12	20/1	EXISTING - GENERAL LIGHTING			0.4
13						14	20/1	EXISTING - GENERAL LIGHTING			0.4
15	20/1	EXISTING - BOILER (UNKNOWN LOAD)	0.4	0		16	20/1	EXISTING - METHANE BURNER (FLARE)	0	0.5	
17	20/1	EXISTING - GENERAL LIGHTS	0.4			18	20/1	UNKNOWN			0
TOTAL KVA			5	4		TOTAL KVA			5	4	
CONN KVA			CALC KVA			CONN KVA			CALC KVA		
LIGHTING	4	4	(125%)	CONTINUOUS	0.2	0.3	(125%)	LARGEST MOTOR	0.4	0.5	(125%)
OTHER MOTORS	0.2	0.2	(100%)	HEATING	0	0	(100%)	RECEPTACLES	0.4	0.4	(50%>10)
KITCHEN EQUIP	0	0	(N/A)	NONCONTINUOUS	0	0	(100%)				
				DIVERSE	0	0	(N/A)				
				METERED DEMAND	0	0	(N/A)				
TOTAL KVA			9	10			BALANCED PHASE AMPS			40	

PANEL SUPPLIED WITH STANDBY GENERATOR POWER

57DP1 EXISTING PANEL WITH EXISTING AND NEW CIRCUITS											
ROOM MOUNTING SURFACE FED FROM 57MP			VOLTS 240/120V 3P 4W BUS AMPS 200 NEUTRAL 100%			AIC 10,000 MAIN BKR 200 LUGS STANDARD ISO GND BUS			NOTE		
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	50/3	EXISTING	0	0	0	2	50/3	EXCELSIOR BLOWER SYSTEM MODEL 3MR DSL "EXCEL CUBE" OR APPROVED EQUAL	3	3	3
3						4					
5						6					
7	70/3	SPARE	0	0	0	8	50/3	TRICKLING FILTER MOTOR	0.3	0.3	0.3
9						10					
11						12					
13	40/3	SPARE	0	0	0	14					
15						16					
17						18					
19	20/3	EXISTING - CONVEYOR 1	0.3			20	30/3	EXISTING - SLUDGE PUMP 2 (1 SPARE)	0	0	0
21						22					
23						24					
25	30/3	EXISTING - SLUDGE PUMP 1 (1 OPER)	3	3	3	26	30/3	EXISTING - COMMUNICATOR (MUFFIN MONSTER)	1	1	1
27						28					
29						30					
31	20/3	EXISTING - CONVEYOR 2	0.3	0.3	0.3	32	20/3	EXISTING - MAKE UP AIR UNIT MUA-1 (FORMER CIRCULATION PUMP FEEDER)	0.4	0.4	0.4
33						34					
35						36					
37	20/1	BLANK SPARE	0	0	0	38	20/1	BLANK SPARE	0	0	0
39	20/1	BLANK SPARE	0	0	0	40	20/1	BLANK SPARE	0	0	0
41	20/1	BLANK SPARE	0	0	0	42	20/1	BLANK SPARE	0	0	0
TOTAL CONNECTED KVA BY PHASE			10	10	10				10	10	10
CONN KVA			CALC KVA			CONN KVA			CALC KVA		
LIGHTING	0	0	(125%)	CONTINUOUS	0	0	(125%)	LARGEST MOTOR	9	10	(125%)
OTHER MOTORS	20	20	(100%)	HEATING	9	9	(100%)	RECEPTACLES	0	0	(N/A)
KITCHEN EQUIP	0	0	(N/A)	NONCONTINUOUS	0	0	(100%)				
				DIVERSE	0	0	(N/A)				
				METERED DEMAND	0	0	(125%)				
TOTAL KVA			40	40			BALANCED 3-PHASE AMPS			90	

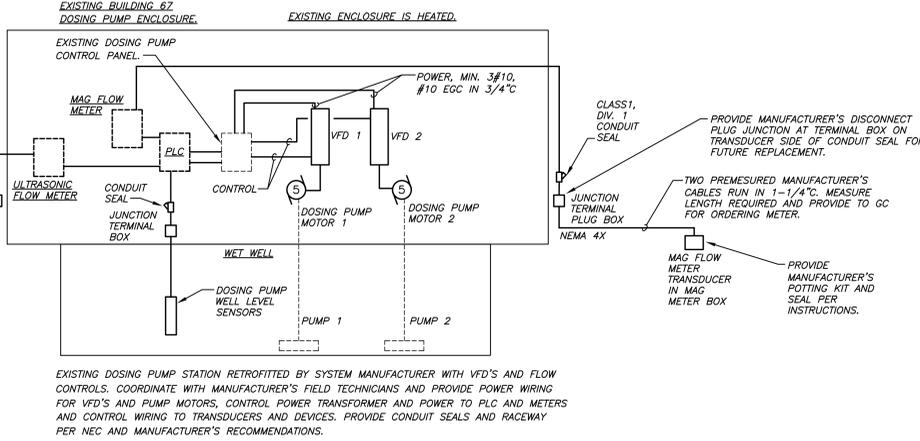
PANEL SUPPLIED WITH STANDBY GENERATOR POWER

BEFORE STARTING WORK AND ORDERING MATERIALS, REMOVE PANEL COVERS AND VERIFY ALL SPARES AND EXISTING BREAKERS AND CIRCUITS TO BE REUSED.

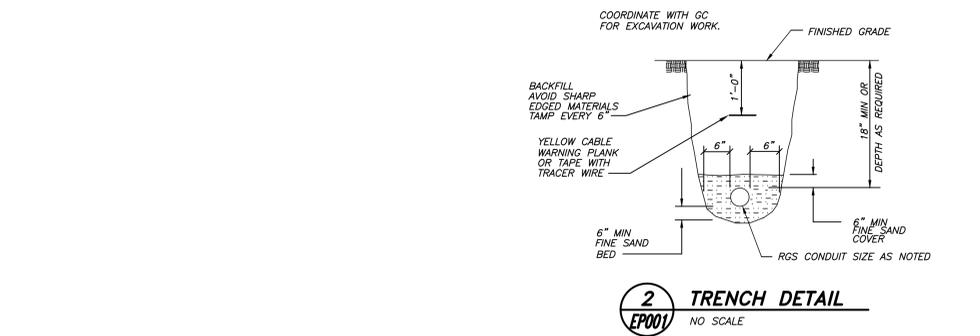
NEW CIRCUITS

COORDINATE WITH GC AND DOSING PUMP STATION RETROFIT TECHNICIAN TO PROVIDE PROGRAMMING PORT AND LAPTOP FOR PLC WITH PROGRAMMER GUI SOFTWARE. ALSO INCLUDE SOFTWARE FOR NEW METERS AND SETUP ACCESS ON LAPTOP. TRAIN OWNER TO ACCESS SYSTEM WITH THREE 2-HOUR TRAINING SESSIONS SPACED ONE MONTH APART AND AS SCHEDULED WITH GC.

NOTE: MAIN 230V POWER SUPPLIED IS FROM STANDBY POWER. ENSURE NEW CONTROL POWER IS BY TRANSFORMERS FROM THE STANDBY POWER SUPPLY AND NOT FROM NEARBY 120V POWER THAT IS NOT SUPPLIED BY GENERATOR.



1 BUILDING 67 DOSING PUMP ELECTRICAL SCHEMATIC NO SCALE

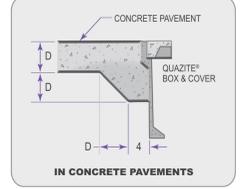
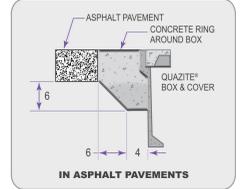
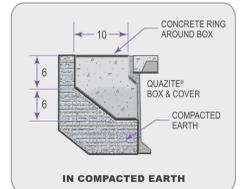
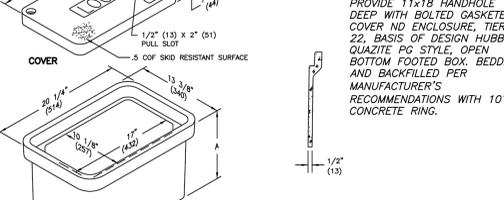


2 TRENCH DETAIL NO SCALE

LUMINAIRE SCHEDULE									
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1
F1		(1) 54W LED, 35K	EXPLOSION PROOF CLASS 1, DIV. 1 LED FIXTURE	LED	SURFACE	INDATECH HXPFL 50 U 35K	54	120V 1P 2W	COORDINATE MOUNTING WITH TRICKLING FILTER SHOP DRAWINGS

SPECIFICATIONS/DATA

Covers (Blank unless logo is specified)				
DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER*
W2 Bots	PG118CA00	27 (12.2 kg)	8,000/12,000	8
Gasketed W2 Bots	PG118C500	27 (12.2 kg)	8,000/12,000	8
No Bots	PG118H400	27 (12.2 kg)	8,000/12,000	8
Heavy Duty W2 Bots	PG118H400	27 (12.2 kg)	15,000/22,500	15
Gasketed Heavy Duty W2 Bots	PG118H500	27 (12.2 kg)	15,000/22,500	15
Extra Heavy Duty W2 Bots	PG118H800	27 (12.2 kg)	22,500/33,750	22



Boxes (Stackable with self-aligning, replaceable EZ-lid)					
DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG118BA12	40 (18 kg)	12" (305 mm)	22,500/33,750	22
Open Bottom w/ Gasket	PG118BA18	53 (24 kg)	18" (457 mm)	22,500/33,750	22
Open Bottom w/ Gasket	PG118BB12	40 (18 kg)	12" (305 mm)	22,500/33,750	22
Open Bottom w/ Gasket	PG118BB18	53 (24 kg)	18" (457 mm)	22,500/33,750	22
Mouseholes	PG118BB18	53 (24 kg)	18" (457 mm)	22,500/33,750	22
Solid Bottom	PG118BA12	43 (19.5 kg)	12" (318 mm)	22,500/33,750	22
Solid Bottom w/ Gasket	PG118BA18	56 (27 kg)	18" (470 mm)	22,500/33,750	22
Solid Bottom w/ Gasket	PG118BA12	43 (19.5 kg)	12" (318 mm)	22,500/33,750	22
Footed Box	PG118BA12	43 (19.5 kg)	12" (318 mm)	22,500/33,750	22
Footed Box	PG118BA18	56 (27 kg)	18" (470 mm)	22,500/33,750	22

3 HAND HOLE DETAIL NO SCALE

FINAL DESIGN (100%)

Revisions:	Date	PROJECT PRIME/ENGINEER: ΣΨ Sigma Psi Consulting MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS, PLLC 4 COLLAMER ROAD MALTA, NY 12020 518-581-9428 http://www.sigmapsi.com	CIVIL ENGINEER: Barton & Loguidice Engineers • Environmental Scientists Planners • Landscape Architects	Drawing Title ELECTRICAL PLANS AND SCHEMATICS	Approved: Project Director	Project Title Renovate Sewage Treatment Plant Trickling Filter VA Hudson Valley Healthcare System at Castle Point, New York	Project Number VA 620A4-14-108	Office of Construction and Facilities Management
						Location 4 Castle Point Road Wappinger Falls, NY 12590	Drawing Number EP001	
Date	Checked PJM	Drawn NM	Department of Veterans Affairs					