ELECTRICAL SYMBOLS - PLANS

CLG.	WALL	FLOOR	SYMBOLS DESCRIPTION
○	⊢○		INCANDESCENT OR HID FIXTURE
▭	▭		LED FIXTURE - CIRCLE INDICATES J-BOX ABOVE
		●○	AREA LIGHT AND POLE
◕	◕		LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP
			EXIT FIXTURE, ARROWS AS INDICATED, SHADE AREA INDICATES EXIT FACE
	E		EMERGENCY LIGHTING UNIT (BATTERY POWERED)
1b			FIXTURE CONNECTED TO CKT #1, SWITCH "B"
A 2/40			FIXTURE TYPE "A", 2-40 WATT LAMPS TYPICAL FOR ROOM NOTED, UON
CLG			DUPLEX RECEPTACLE
	G		DUPLEX RECEPTACLE GFCI TYPE
CLG			DOUBLE DUPLEX RECEPTACLE
			RECEPTACLE, TYPE AS NOTED ON PLANS
	$		SINGLE POLE SWITCH
	$2		DOUBLE POLE SWITCH
	$3		THREE WAY SWITCH
	$4		FOUR WAY SWITCH
	$b		"b" DENOTES OUTLET CONTROLLED
	$K		KEY OPERATED SWITCH
	$M		MANUAL MOTOR STARTER
			OCCUPANCY SENSOR
			TELEPHONE OUTLET
			DATA OUTLET
			TELEPHONE/DATA OUTLET COMBO
	T		THERMOSTAT OUTLET + 66" UON
J	J	J	JUNCTION BOX FOR WALL MOUNT
	+18"		INDICATES HEIGHT FROM FINISHED FLOOR GRADE TO CENTERLINE OF DEVICE
	*		+ 18" UON
	**		+ 48" UON
			CONTROLLER/STARTER FURNISHED WITH EQUIPMENT
	X Y		DETAIL CALL-OUT: X, DETAIL IDENTIFIER; Y, SHEET WHERE DETAIL IS DRAWN
			POWER DISTRIBUTION SWITCHBOARD
			SURFACE MOUNTED PANELBOARD
			FLUSH MOUNTED PANELBOARD
			SHEET NOTE, SEE NOTE INDICATED
			DEVICE CONNECTION POINT
			INTERCEPTION POINT FROM EXISTING TO NEW

	HAND HOLE, 11"H X 17"L X 12" D, UON
PB	PULLBOX, 36"H X 60"L X 36"D, UON
	PAD MOUNTED TRANSFORMER/ DRY TYPE TRANSFORMER
	NON-FUSIBLE DISCONNECT SWITCH, SIZE AS NOTED ON ONE-LINE DIAGRAM
	FUSIBLE DISCONNECT SWITCH, 3P UON SIZE AS NOTED ON ONE-LINE DIAGRAM
	DISCONNECT WITH EMERGENCY STOP
	FIELD CONTROL STATION SEE SCHEMATIC DIAGRAM
	FEEDER DESIGNATION SEE SCHEDULE FOR SIZE
	EQUIPMENT TAG
	CONDUIT CONCEALED IN WALLS OR CEILING 3/4"C, 2 - #12, 1 - #12G, UON
	CONDUIT UNDER GROUND 3/4" C., 2 - #12; 1 - #12G, UON
	CONDUIT EXPOSED 3/4" C., 2 - #12, 1 - #12G, UON
	QUANTITY #12 WIRE CURVE LINE INDICATES GROUND WIRE
#10	WIRE SIZE OTHER THAN #12 CURVE LINE INDICATES GROUND WIRE
	CONDUIT STUBBED UP INTO EQUIPMENT AND PLUGGED
1-TSP	NUMBER OF 18 AWG TWISTED SHIELDED PAIR CABLE
G	CONNECTION TO GROUND BUS
G	GROUNDING CONDUCTOR 30" BELOW GRADE, #4/0 UON
	GROUND ROD, 3/4" X 10' - 0" GW NEXT TO SYMBOL INDICATES GROUND ROD IN HANDHOLE
G	EXOTHERMIC WELD CONNECTION
E E E	EXISTING UNDERGROUND ELECTRICAL
A-1,3	HOMERUN TO PANEL A, CIRCUIT 1 AND 3
	CONDUIT BENDS TOWARD OBSERVER
	CONDUIT BENDS AWAY FROM OBSERVER
	CONDUIT STUB-OUT AND CAPPED
J	FLEXIBLE CONDUIT CONNECTION
	MOTOR CONNECTION
	MOTOR CONNECTION. DISCONNECT FURNISHED WITH MOTOR
SV	SOLENOID VALVE
	DISCONNECTS OR COMBINATION STARTERS SERVING EQUIPMETN SHOWN. PROVIDE CONNECTING FEEDERS BETWEEN DEVICES, SIZE TO MATCH SERVING FEEDER.

ELECTRICAL SYMBOLS - ONE-LINE DIAGRAM

DM	DIGITAL MULTI-FUNCTION METER
3	CURRENT TRANSFORMER, QUANTITY INDICATED
3	POTENTIAL TRANSFORMER, QUANTITY INDICATED
	POWER TRANSFORMER
	FEEDER DESIGNATION - SEE SCHEDULE OR ONE-LINE DIAGRAM FOR SIZE
30A MCP	CIRCUIT BREAKER, 3 POLE UNLESS NOTED MCP INDICATES MOTOR CIRCUIT PROTECTOR
4 RV	MAGNETIC MOTOR STARTER, NEMA SIZE INDICATED FULL-VOLTAGE NON-REVERSING UNLESS NOTED RV=REDUCED VOLTAGE STARTING 2S, 2W = 2 SPEED, 2 WINDING
	FUSE
	DISCONNECT SWITCH, NON-FUSIBLE, SEE PLANS FOR RATING
F	DISCONNECT SWITCH, FUSIBLE, SEE PLANS FOR RATING
X	MOTOR, X = HORSEPOWER
G	GENERATOR
	SURGE ARRESTER
	GROUND
	DELTA CONNECTION
A	WYE CONNECTION
PFR	POWER FAILURE RELAY
VFD	VARIABLE FREQUENCY DRIVE
	SOLID STATE STARTER
	CONTROLLER/STARTER FURNISHED WITH EQUIPMENT
GFP	GROUND FAULT PROTECTION
	INCOMING ELECTRIC SERVICE
	UNDERGROUND CONDUIT ENTRY TO BOTTOM OF PANEL
	INCOMING CONDUIT ENTRY TO TOP OF PANEL

POWER WIRE COLOR CODE

SYSTEM	PHASE A	PHASE B	PHASE C	NEUTRAL	GROUND
208Y/120V	BLACK	RED	BLUE	WHITE	GREEN
480Y/277V	BROWN	ORANGE	YELLOW	GREY	GREEN

ELECTRICAL SYMBOLS - SCHEMATIC DIAGRAMS

NORMALLY OPEN	NORMALLY CLOSED	DEVICE
		CONTACT
		TIMED CONTACT CONTACT ACTION RETARDED ON ENERGIZATION
		TIMED CONTACT CONTACT ACTION RETARDED ON DE-ENERGIZATION
		PUSH BUTTON SINLGE CIRCUIT MOMENTARY CONTACT
		PUSH BUTTON SINGLE CIRCUIT LOCK-OUT
		LIMIT SWITCH
		LIQUID LEVEL SWITCH
		PRESSURE OR VACUUM SWITCH
		FLOW SWITCH
		TEMPERATURE SWITCH
		SELECTOR SWITCH - CAN BE 2-WAY OR 3-WAY
		MANUAL MOTOR STARTER
	D/I	DOOR INTERLOCK SWITCH
	OL	MOTOR OVERLOAD RELAY CONTACT
		MOTOR OVERLOAD HEATER
A		PILOT LIGHT R=RED, W=WHITE, G=GREEN, A=AMBER, C=CLEAR
R		PILOT LIGHT-PUSH TO TEST
R		RELAY
TD		TIME DELAY RELAY
M		STARTER COIL
S		SOLENOID OPERATED VALVE
		MOTOR
		BELL OR BUZZER
ETM		ELAPSED TIME METER
		FUSE
		CONTROL POWER TRANSFORMER
		GROUND
		WIRING IN MOTOR STARTER OR CONTROL PANEL
		FIELD WIRING
		TERMINAL BLOCK IN FCS
		TERMINAL BLOCK IN MOTOR STARTER OR PANEL
		TERMINAL BLOCK IN PLC
PFR		POWER FAIL RELAY
		SPACE HEATER
		RESISTOR
		CIRCUIT BREAKER
PR		PLC OUTPUT ISOLATION RELAY

GENERAL NOTES

1. FIELD VERIFY EXACT LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.
2. REFERENCE MECHANICAL AND CIVIL DRAWINGS FOR NEW AND EXISITNG PIPING.
3. BELOW GRADE CONDUITS SHALL BE INSTALLED A MINIMUM DEPTH OF 18" BELOW THE FINISHED FLOOR/GRADE OR 18" BELOW ANY PIPE CROSSING THE CONDUIT PATH WHICHEVER IS DEEPER DOWN TO 5 FEET.
4. REFER TO CONDUIT AND WIRING SCHEDULE FOR CONDUIT AND WIRE REQUIREMENTS. ALL C, L & P DESIGNATED CONDUITS SHALL BE ROUTED THROUGH PPB PULL BOXES AND A & D DESIGNATED CONDUITS SHALL BE ROUTED THROUGH SPB PULL BOXES.
5. PROVIDE ELECTRICAL SYSTEM TESTING PER CONTRACT SPECIFICATION SECTION PRIOR TO ENERGIZING ANY ELECTRICAL EQUIPMENT OR SERVICES.

FREQUENTLY USED ABBREVIATIONS

A	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
ALT	ALTERNATE
ARCH	ARCHITECT/ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
BFG	BELOW FINISHED GRADE
BPS	BOLTED PRESSURE SWITCH
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DISC	DISCONNECT
DP	DOUBLE POLE
DT	DOUBLE THROW
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EWC	ELECTRIC WATER COOLER
F	FUSED
FACP	FIRE ALARM CONTROL PANEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR
FDR	FEEDER
FDS	FUSED DISCONNECT SWITCH
FLR	FLOOR
FVNR	FULL VOLTAGE NON REVERSING
G/GND	GROUND
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTOR
GRS	GALVANIZED RIGID STEEL CONDUIT
HH	HANDHOLE
HP	HORSEPOWER
HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
MCM	THOUSAND CIRCULAR MILS
KVA	KILO-VOLT AMPERE
KVAR	KILO-VOLT AMPERE REACTIVE
KW	KILOWATT
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
MCB	MAIN CIRCUIT BREAKER
MCP	MOTOR CIRCUIT PROTECTOR
MH	MANHOLE
MIC	MICROPHONE
ϕ	PHASE OR DIAMETER
MLO	MAIN LUG ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OL	OVERLAY RELAY OR OVERLAY CONTACT
P	POLE OR PHASE
PC	PLUMBING CONTRACTOR
PF	POWER FACTOR
PH	PHASE
PT	POTENTIAL TRANSFORMER
PRI	PRIMARY
PVC	POLYVINLY CHLORIDE
SN	SOLID NEUTRAL
SP	SINGLE POLE
SPKR	SPEAKER
ST	SINGLE THROW SWITCH
SW	SWITCHBOARD
SWBD	SQUARE
SQ	TIME CLOCK
TC	TIME DELAY
TD	TAMPER PROOF
TP	TIMING RELAY
TR	TD CLOSE TO DENERGIZATION
TDCD	TD CLOSE ON ENERGIZATION
TDCE	TD OPEN ON DENERIZATION
TDOD	TD OPEN ON ENERGIZATION
TDOE	TELEPHONE
TEL	TELEPHONE TERMINAL BOARD
TTB	TELEPHONE TERMINAL CABINET
TTC	TRANSIENT VOLTAGE SURGE SUPPRESSION
TVSS	TYPICAL
TYP	VOLT-AMPERE
VA	VARIABLE FREQUENCY DRIVE
VFD	WIRE OR WATTS
W	WIREMOLD (SURFACE MTD)
WM	WEATHERPROOF
WP	EXPLOSION PROOF
XP	

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC & DB

Date: 08/14/2026

DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER

Dustin Barth

ELECTRICAL SYMBOLS AND ABBREVIATIONS

E100

PRINT DATE: 10/16/26
PLOT SCALE: 1:186.91 EDIT DATE: 6/26/26 - 10:24 AM EDITED BY: RPARKER DS DRAWING FILE: P:\400-6314 SWEETSER WW IMPROVEMENTS\S ACAD\PLAN SHEETS & WORKING DRAWINGS\400-6314 - ELECTRICAL SYMBOLS AND ABBREVIATIONS.DWG

KNOW WHAT'S BELOW.

CALL BEFORE YOU DIG.

Call 811 or 800-382-5544 Before you Dig!

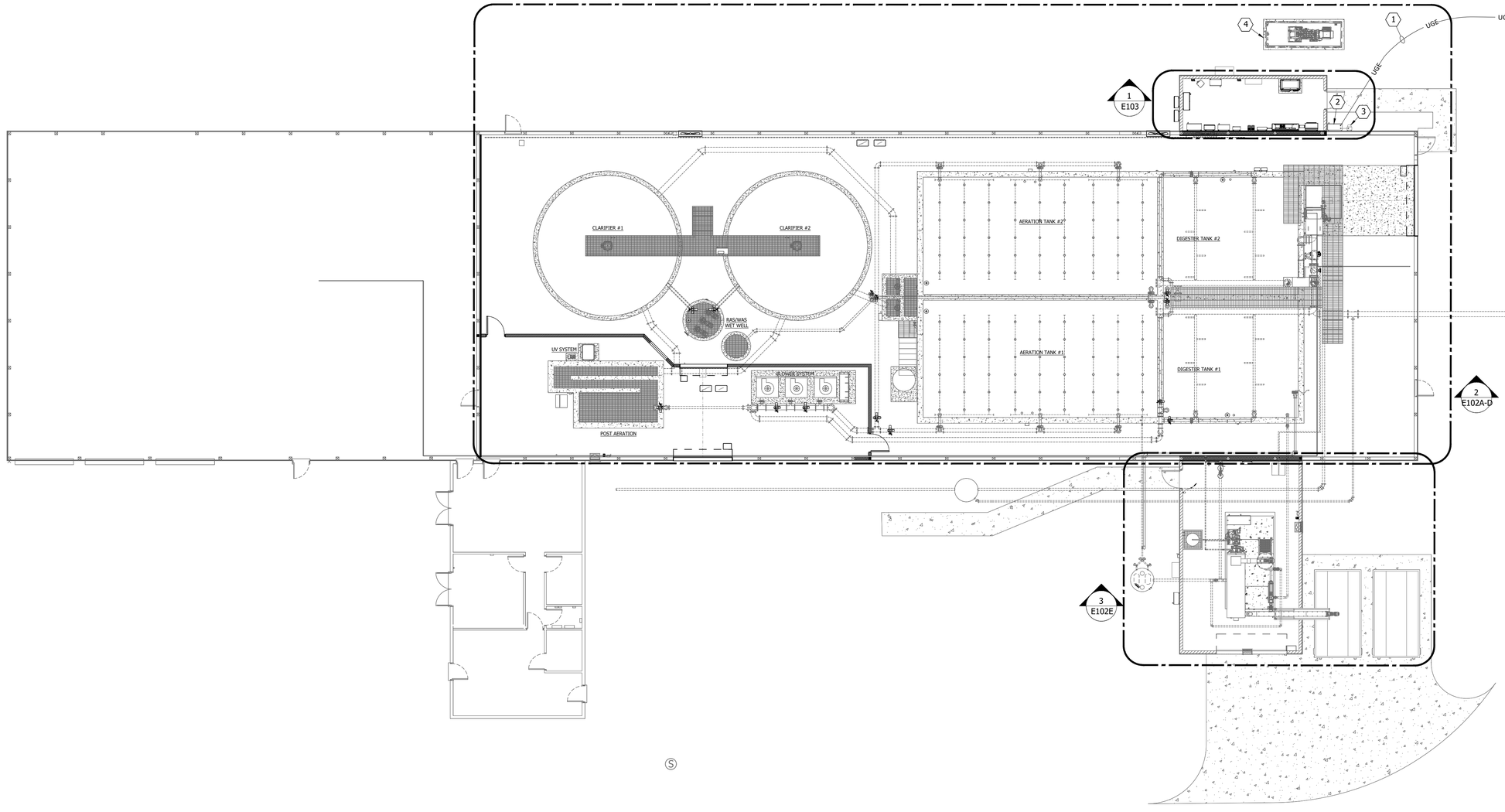
GENERAL STATEMENT APPLICABLE TO ALL SHEETS:

1. THIS WASTEWATER TREATMENT PLANT (WWTP) IS A PRE-EXISTING STRUCTURE WITH PREVIOUSLY DESIGNED AND INSTALLED EQUIPMENT AND PROCESS.
2. THIS WWTP IS A C1D1 ENCLOSED STRUCTURE. THE PROPOSED VENTILATION AND SAFETY EQUIPMENT IN THESE PROPOSED DRAWINGS AND SPECIFICATIONS ARE PREPARED TO DERATE TO C1D2 PER NFPA 820 REQUIREMENTS. ALL EXISTING EQUIPMENT MAY OR MAY NOT MEET THE RATINGS FOR THIS FACILITY. ALL EXISTING EQUIPMENT IS NOT WITHIN THE JURISDICTION OF THIS PROJECT DESIGN SCOPE.
3. ANY EXISTING EQUIPMENT, CONDUIT OR WIRING REPLACED DURING THIS PROJECT SHALL COMPLY WITH C1D2 RATINGS PER NEC AND NFPA 820 REQUIREMENTS.
4. ALL PROPOSED EQUIPMENT, CONDUIT AND WIRING SHALL COMPLY WITH THE C1D2 RATING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH NEC AND NFPA 820 REQUIREMENTS FOR A C1D2 RATED AREA.

ELECTRICAL KEYED NOTES ⬡

1. EXISTING UNDERGROUND ELECTRICAL, 120/208V, 3PH, 1200A SERVICE FROM UTILITY. TO REMAIN.
2. EXISTING UTILITY CT CABINET. TO REMAIN.
3. EXISTING UTILITY METER. TO REMAIN.
4. EXISTING GENERATOR. TO REMAIN.

N



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INDIANA
PROFESSIONAL ENGINEER

Dustin Barth

10' 0 10' 20'
GRAPHIC SCALE

ELECTRICAL SITE PLAN - BUILDING SITE

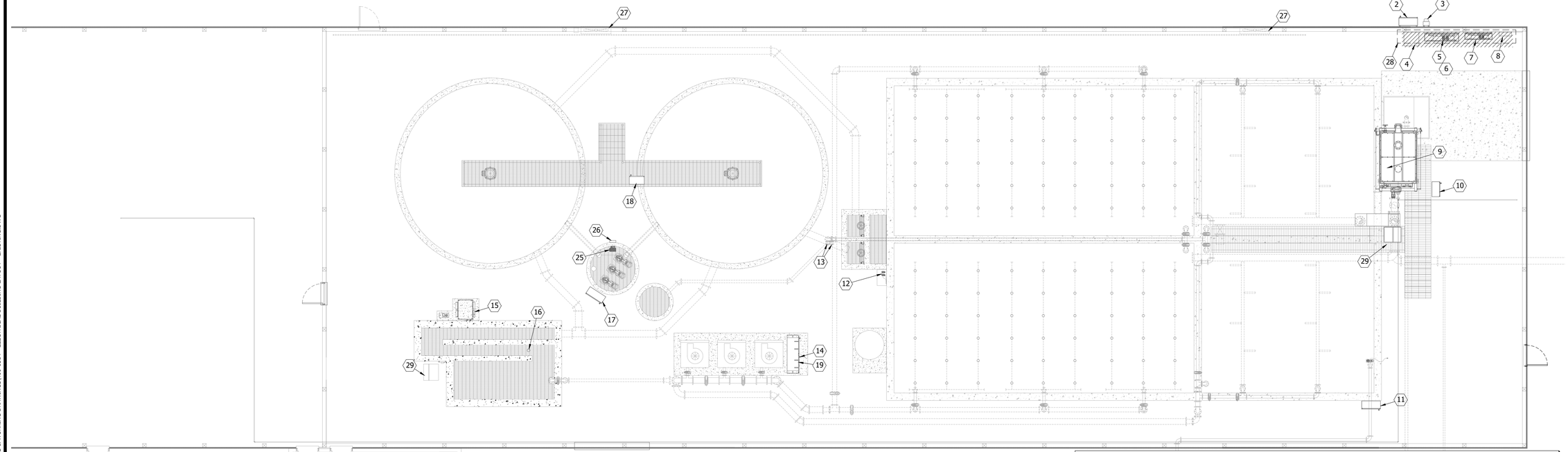
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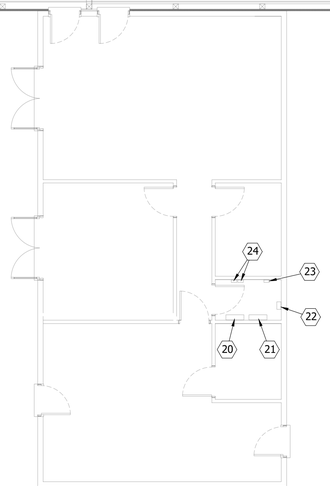
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GENERAL NOTES:

- THE PLANT AREA IS CONSIDERED A C1D1 SPACE DEGRADED TO C1D2 WITH 12 ACH VIA EXHAUST FANS AND SAFETY MEASURES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO NEC C1D2 AND NFPA 820 GUIDELINES FOR EQUIPMENT AND INSTALLATION PRACTICES.
- EXISTING INTERIOR LIGHT SWITCHES AND RECEPTACLES SHALL BE REMOVED AND REPLACED WITH C1D2 RATED SWITCHES AND RECEPTACLES. SWITCHES SHALL BE SIMILAR TO KILLARK XS41C AND RECEPTACLES SHALL BE SIMILAR TO EATON CFSR2023-M15 OR APPROVED EQUALS.
- NOT ALL CONDUIT, WIRING, RECEPTACLES, JUNCTION BOXES, ETC... WITHIN THESE DRAWINGS ARE ABLE TO BE SHOWN. DRAWINGS REFLECT AS MUCH AS POSSIBLE TO PROVIDE A GOOD REFERENCE OF WORK AND RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL WORK.







ELECTRICAL KEYED NOTES

1. EXISTING BACKUP GENERATOR. TO REMAIN.
2. EXISTING UTILITY CT PANEL. TO REMAIN.
3. EXISTING UTILITY METER AND METER BASE. TO REMAIN.
4. EXISTING 1200A AUTOMATIC TRANSFER SWITCH (ATS). TO BE REPLACED AND LOCATED IN NEW ELECTRICAL ROOM.
5. EXISTING MAIN POWER DISCONNECT - 1200A. TO BE REPLACED AND LOCATED IN NEW ELECTRICAL ROOM.
6. EXISTING DISCONNECT PANEL IS SPLIT UNIT, 800A TO PANEL A AND 200A TO PANEL B.
7. EXISTING 120/208V, 3PH, 4W 800A DISTRIBUTION PANEL ('PANEL A'). TO BE REPLACED AND LOCATED IN NEW ELECTRICAL ROOM.
8. EXISTING 120/208V, 3PH LIGHTING PANEL ('PANEL C'). TO BE REPLACED AND LOCATED IN NEW ELECTRICAL ROOM.
9. EXISTING ROTARY SCREEN, TO BE REMOVED AND REPLACED. CONTRACTOR TO DISCONNECT ANY ELECTRICAL CONNECTIONS AND REMOVE CONDUIT AND WIRE.
10. EXISTING ROTARY SCREEN CONTROL PANEL. TO BE REMOVED. REMOVE EXISTING CONDUIT AND WIRE. MAIN POWER FEED CONDUIT AND WIRE TO BE CUT OFF 12" ABOVE GRADE TO BE USED FOR NEW ROTARY SCREEN.
11. EXISTING STAINLESS STEEL ENCLOSURE. REMOVE AND RETURN TO OWNER. DISCONNECT ANY CONDUIT AND WIRING. POWER FEED CONDUIT TO BE REUSED FOR SLUDGE REMOVAL PUMP.
12. EXISTING CHEMICAL FEED PUMPS. TO REMAIN.
13. EXISTING INLINE MAGNETIC FLOW METERS. TO BE REPLACED.
14. EXISTING BLOWER CONTROL PANEL WITH VFDS. TO REMAIN AND BE MODIFIED.
15. EXISTING UV SYSTEM CONTROL PANEL. TO REMAIN.
16. EXISTING EFFLUENT ULTRASONIC FLOW METER - TO REMAIN. CONTRACTOR TO RE-CALIBRATE AND CONFIRM.
17. RAS/WAS PLC CONTROL PANEL. TO REMAIN AND BE MODIFIED.
18. CLARIFIER CONTROL PANEL. TO REMAIN AND BE MODIFIED.
19. CONTRACTOR TO CAREFULLY BLOW OUT DUST AND CLEANUP INTERIOR OF PANEL. ACCUMULATED DUST WILL RUIN VFD DRIVES. REMOVE ANY FILTERS, SCREENS, ETC... AND CLEAN.
20. EXISTING PANEL 'B' TO REMAIN AND BE RECONNECTED TO NEW SERVICE.
21. PANEL 'D' TO REMAIN.
22. SUBDRIVE CONNECT - FRANKLIN ELECTRIC. TO REMAIN.
23. MISSION CONTROLS. TO BE REMOVED ONCE NEW SCADA SYSTEM IS RUNNING PROPERLY.
24. CHART RECORDERS, TO REMAIN.
25. RAS/WAS WET WELL LIGHT. REMOVE AND REPLACE WITH NEW.
26. RECEPTACLE POWER BOX. REMOVE. THIS HAS AN EXTENSION CORD USED FOR POWERING. THIS TO BE REPLACED WITH PERMANENT GFCI DUPLEX RECEPTACLE AND LIGHT SWITCH FOR NEW LIGHT.
27. EXISTING EXHAUST FANS TO BE REMOVED AND REPLACED. FAN NEAREST NEW ELECTRICAL ROOM WILL BE SHIFTED TO THE LEFT.
28. CONTRACTOR TO REMOVE EXISTING WIRING WHERE POSSIBLE. CONTRACTOR MAY CHOOSE TO TRACE WIRING AND REUSED UNDERGROUND CONDUIT. ALL TRANSITIONS FROM BELOW GRADE TO ABOVE GRADE SHALL BE PROPERLY THREADED AND SEALED TO COMPLY WITH NEC C1D2 AREAS.
29. EXISTING SAMPLER. TO REMAIN.

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SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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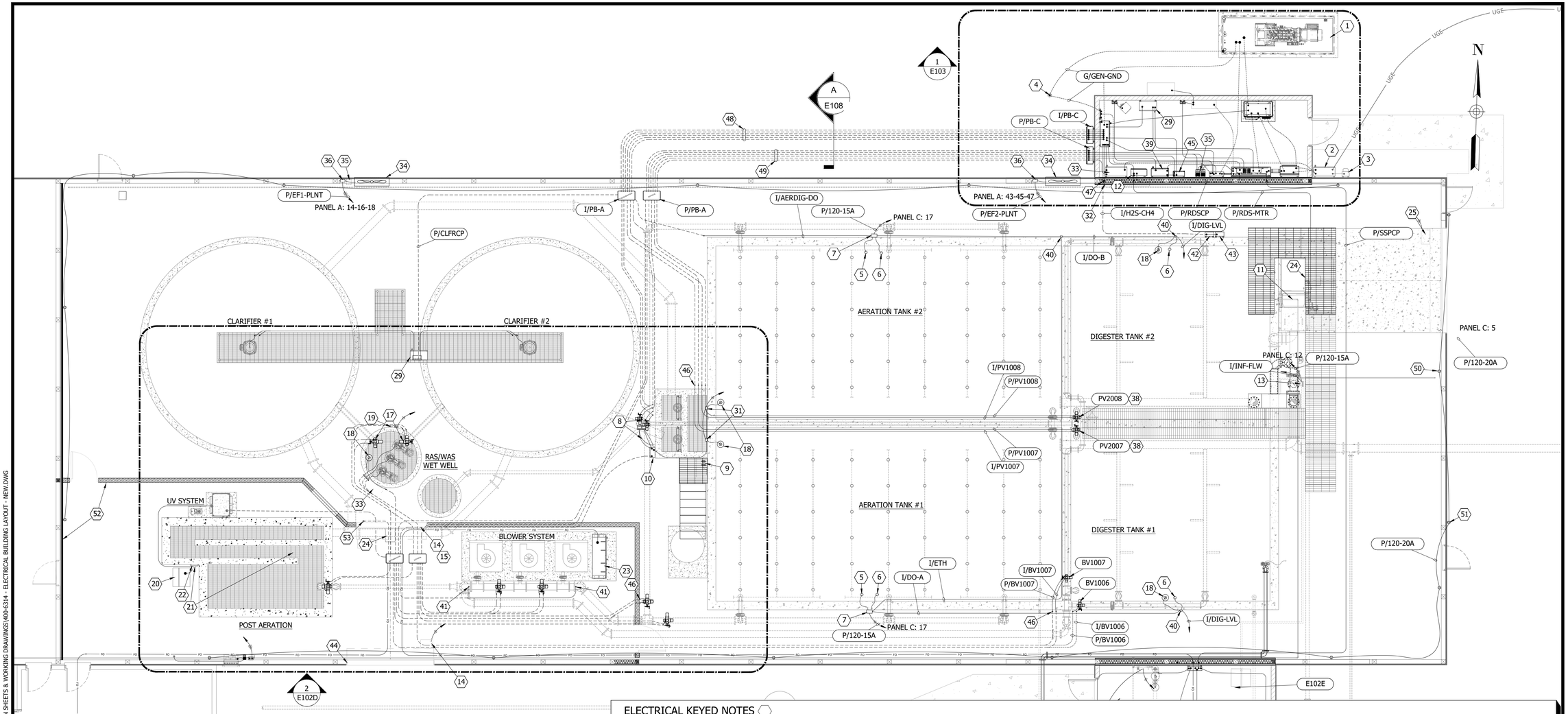
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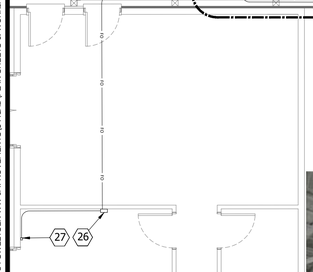
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GRAPHIC SCALE

WWTP BUILDING ELECTRICAL LAYOUT - EXISTING

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REFERENCE NOTE 8



REFERENCE NOTE 9

ELECTRICAL KEYED NOTES

1. EXISTING BACKUP GENERATOR. TO REMAIN.
2. EXISTING UTILITY CT PANEL. TO REMAIN.
3. EXISTING UTILITY METER AND METER BASE. TO REMAIN.
4. NEW GROUND ROD WITH TEST WELL.
5. NEW PH/ORP SENSOR. SIMILAR TO HACH DPC2K2A OR EQUAL.
6. NEW DISSOLVED OXYGEN (DO) SENSOR. SIMILAR TO HACH INTELLICAL LDO101 WITH 16' CABLE OR EQUAL.
7. MULTI-SENSOR CONTROLLER SIMILAR TO HACH SC4500 (C1D2 RATED ENCLOSURE) SERIES OR EQUAL.
8. EXISTING RAS AND WAS INLINE MAGNETIC FLOW METERS. CURRENTLY, THE 120V POWER IS PLUG-IN STYLE. HARD WIRE THESE INTO JUNCTION BOX USING NEMA4X RATED CORD GRIPS AND PROPER SPLICING.
9. EXISTING CHEMICAL FEED PUMPS. DISCONNECT PUMPS AND RETURN TO OWNER.
10. NEW 16" X 14" X 8" STAINLESS STEEL NEMA4X INSTRUMENTATION JUNCTION BOX (JB-1). SIMILAR TO SCE-16148CHNFSS6. NO TERMINATIONS OR SPLICES WITHIN THIS BOX SO AS TO COMPLY WITH C1D2 REQUIREMENTS.
11. NEW ROTARY DRUM SCREEN.
12. NEW ROTARY SCREEN CONTROL PANEL (RDSCP). PROVIDED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.
13. NEW 10" INFLUENT MAGNETIC FLOW METER. SIMILAR TO E&H PROMAG W400 WITH C1D2 RATED INTEGRAL ELECTRONICS AND GROUNDING RINGS. VERTICAL MOUNT.
14. COMMERCIAL GARAGE DOOR OPENER (NON-HAZARDOUS LOCATION), WALL MOUNT WITH 3-BUTTON CONTROL STATION. SIMILAR TO CORNELL OR EQUAL. DISCONNECT EXISTING OPERATOR.
15. THIS COILED 8' X 10' COILING GARAGE DOOR SHALL BE 1 HOUR FIRE RATED.
16. NOT USED.
17. NEW RAS/WAS 208V, 3PH ELECTRIC ACTUATORS FOR TELESCOPING VALVES.
18. NEW RADAR LEVEL TRANSMITTER IN STILLING TUBE. SEE DETAILS.
19. EXISTING RECEPTACLE AND EXISTING LIGHT (THESE ARE PLUG-IN TYPE DEVICES) - TO BE REMOVED. INSTALL NEW, HARDWIRED C1D1 RATED (NEMA7 MIN.) LIGHT WITH SWITCH ON SIDE OF WET WELL WALL. RUN POWER TO NEW NEMA4X RECEPTACLE AND POWER LIGHT SWITCH AND GFCI RECEPTACLE FROM SAME CIRCUIT FROM PANEL 'B'.
20. EXISTING EFFLUENT SAMPLER. PROVIDE CONNECTION TO GET 4-20MA SIGNAL TO NEW MSCP CONTROL PANEL.
21. EXISTING EFFLUENT FLOW METER ELECTRONICS. PROVIDE CONNECTION TO GET 4-20MA SIGNAL TO NEW MSCP CONTROL PANEL.
22. NEW BLOWER AREA TEMPERATURE TRANSMITTER. PROVIDE CONNECTION TO GET 4-20MA SIGNAL TO NEW EF-4 VFD.
23. EXISTING BLOWER CONTROL PANEL.
24. EXISTING OVERHEAD DOOR DRIVE MOTOR. TO BE DISCONNECTED AND REMOVED.
25. NEW C1D2 RATED COMMERCIAL GARAGE DOOR OPENER, WALL MOUNT WITH 3-BUTTON CONTROL STATION. SIMILAR TO CORNELL FIREGUARD SERIES OR EQUAL. DISCONNECT EXISTING OPERATOR.
26. PROVIDE 16" X 16" X 8" NEMA12 BOX FOR FIBER OPTIC TO ETHERNET SWITCH.
27. 2 - CAT6; 3/4" EMT CONDUIT TO JUNCTION BOX WITH ETHERNET PORTS NEAR DESK WHERE SCADA COMPUTER WILL BE PLACED.
28. NOT USED.
29. EXISTING CLARIFIER CONTROL PANEL. TO BE RELOCATED IN PROPOSED ELECTRICAL ROOM.
30. INSTALL A NEW 6" X 6" X 4" STAINLESS STEEL NEMA7 JUNCTION BOX. CLEANUP EXISTING WIRING MESS AND LOCATE ORIGIN OF WIRING.
31. RADAR LEVEL DISPLAY CONTROLLER. DISPLAY TO BE MOUNTED ON HAND RAIL NEAR TRANSMITTER.
32. TEMPERATURE SENSOR TO MONITOR EAST END OF FACILITY. UNIT TO BE C1D2 RATED.
33. EXISTING RAS/WAS CONTROL PANEL. TO BE RELOCATED INTO ELECTRICAL ROOM AND MODIFIED. SEE SHEET I103.
34. NEW EXHAUST FANS. SEE SHEET M100.
35. NEW EXHAUST FAN VARIABLE FREQUENCY DRIVE (VFD). SIMILAR TO ACQ580-01-017A-2.
36. NEW EXHAUST FAN STAINLESS STEEL 30A DISCONNECT.
37. NOT USED.
38. NEW 208V, 3PH ELECTRIC ACTUATORS FOR DIGESTER TANKS WAS FEED LINES.
39. NEW VALVE ACTUATOR POWER CONTROL PANEL (ACMCP).
40. NEMA7 JUNCTION BOX.
41. NEW AERATION AND DIGESTER AIR FEED LINE DISCHARGE PRESSURE TRANSMITTERS.
42. H2S GAS DETECTION ALARM MONITOR. SIMILAR TO CTI GG-H2S-50-EXP.
43. METHANE GAS DETECTION ALARM MONITOR. SIMILAR TO CTI GG-LEL2-CH4.
44. REMOVE EXISTING PUSHBUTTON STATION, CONDUIT AND WIRING FOR GARAGE DOOR OPENER. REPLACE WITH ALL NEW CONDUIT/WIRE. CONDUITS SHALL BE SEALED AND NEW PUSHBUTTON STATION SHALL BE NEMA4X (TYPICAL ALL LOCATIONS). NEW GARAGE DOORS SHALL BE ROLL UP STYLE WITH WALL MOUNT OPENERS.
45. VALVE ACTUATOR NETWORK CONTROL PANEL (ACNCP).
46. TRANSITION FROM BELOW GRADE TO ABOVE GRADE. (TYPICAL)
47. ALL CONDUIT TRANSITIONS FROM C1D2 SPACE TO NON-CLASSIFIED SPACE MUST HAVE SEAL OFF POINTS AND SEAL-TIGHT PENETRATIONS.
48. INSTRUMENTATION CONDUIT DUCT BANK. PROVIDE 6 - 2" CONDUITS BETWEEN JB-A AND JB-C.
49. POWER CONDUIT DUCT BANK. PROVIDE 6 - 2" CONDUITS BETWEEN JB-A AND JB-C.
50. C1D2 RATED GFCI RECEPTACLE. TYPICAL.
51. GFCI RECEPTACLE WITH WEATHERPROOF HOUSING. TYPICAL FOR EXTERIOR.
52. PROPOSED 1 HOUR RATED INTERIOR WALL.
53. NEW WEST AREA TEMPERATURE TRANSMITTER. PROVIDE CONNECTION TO GET 4-20MA SIGNAL TO NEW MSCP CONTROL PANEL.

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314
Designed By: JAR
Drawn By: JAR
Checked By: ALC & DB
Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF
INDIANA
PROFESSIONAL ENGINEER

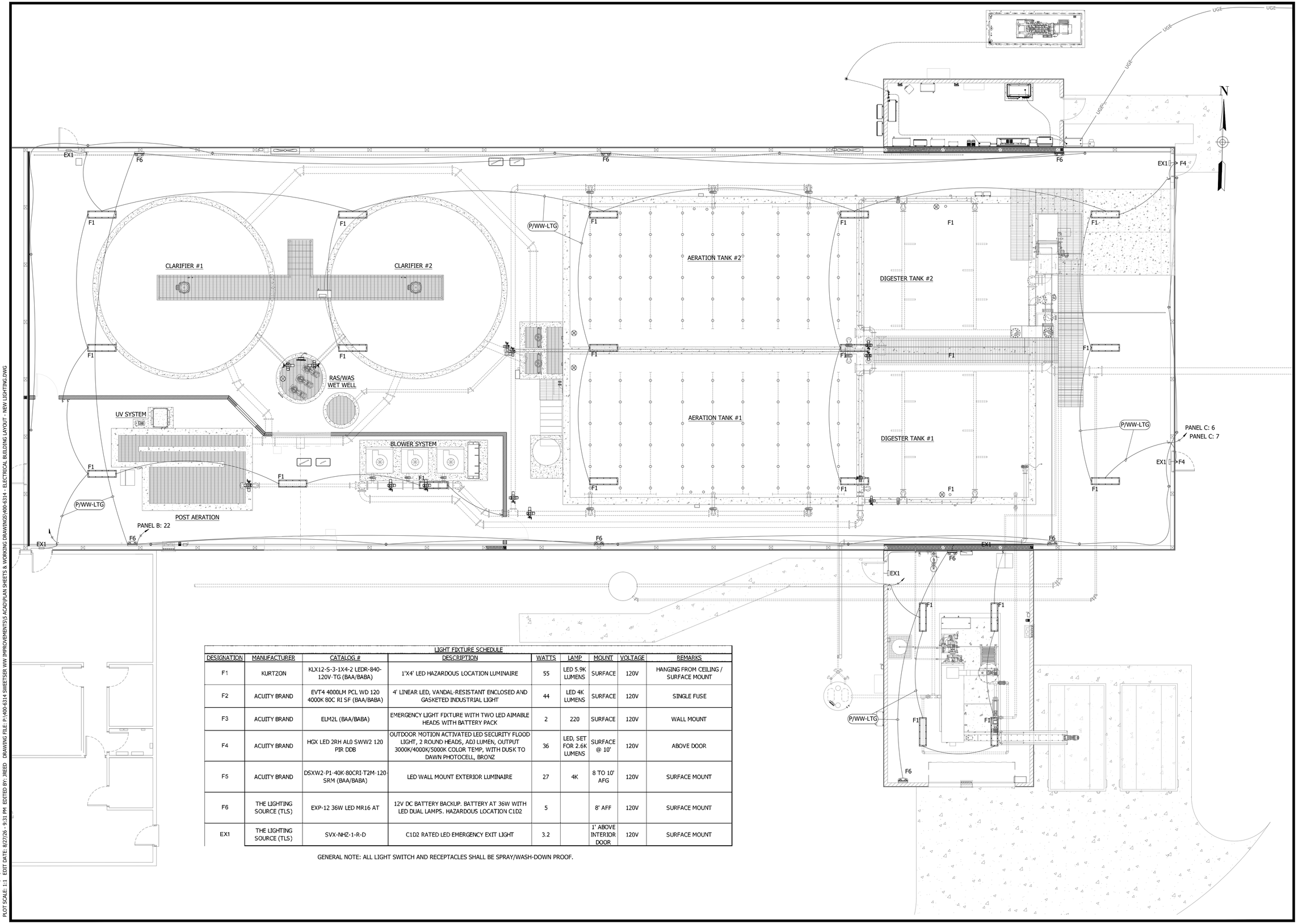
Dustin Barth

6' 0 6' 12'
GRAPHIC SCALE

WWTP BUILDING ELECTRICAL LAYOUT - PROPOSED

E102B

PRINT DATE: 10/16/26
PLOT SCALE: 1:1 EDIT DATE: 8/27/26 - 9:08 PM EDITED BY: JREED DRAWING FILE: P:\400-6314 SWEETSER WW IMPROVEMENTS\15 ACAD\PLAN SHEETS & WORKING DRAWINGS\400-6314 - ELECTRICAL BUILDING LAYOUT - NEW.DWG



LIGHT FIXTURE SCHEDULE

DESIGNATION	MANUFACTURER	CATALOG #	DESCRIPTION	WATTS	LAMP	MOUNT	VOLTAGE	REMARKS
F1	KURTZON	KLX12-S-3-1X4-2 LEDR-840-120V-TG (BAA/BABA)	1'X4' LED HAZARDOUS LOCATION LUMINAIRE	55	LED 5.9K LUMENS	SURFACE	120V	HANGING FROM CEILING / SURFACE MOUNT
F2	ACUITY BRAND	EVT4 4000LM PCL WD 120 4000K 80C RI SF (BAA/BABA)	4' LINEAR LED, VANDAL-RESISTANT ENCLOSED AND GASKETED INDUSTRIAL LIGHT	44	LED 4K LUMENS	SURFACE	120V	SINGLE FUSE
F3	ACUITY BRAND	ELM2L (BAA/BABA)	EMERGENCY LIGHT FIXTURE WITH TWO LED AIMABLE HEADS WITH BATTERY PACK	2	220	SURFACE	120V	WALL MOUNT
F4	ACUITY BRAND	HGX LED 2RH AL0 SWW2 120 PIR DDB	OUTDOOR MOTION ACTIVATED LED SECURITY FLOOD LIGHT, 2 ROUND HEADS, ADJ LUMEN, OUTPUT 3000K/4000K/5000K COLOR TEMP, WITH DUSK TO DAWN PHOTOCELL, BRONZ	36	LED, SET FOR 2.6K LUMENS	SURFACE @ 10'	120V	ABOVE DOOR
F5	ACUITY BRAND	DSXW2-P1-40K-80CRI-T2M-120-SRM (BAA/BABA)	LED WALL MOUNT EXTERIOR LUMINAIRE	27	4K	8 TO 10' AFG	120V	SURFACE MOUNT
F6	THE LIGHTING SOURCE (TLS)	EXP-12 36W LED MR16 AT	12V DC BATTERY BACKUP. BATTERY AT 36W WITH LED DUAL LAMPS. HAZARDOUS LOCATION C1D2	5		8' AFF	120V	SURFACE MOUNT
EX1	THE LIGHTING SOURCE (TLS)	SVX-NHZ-1-R-D	C1D2 RATED LED EMERGENCY EXIT LIGHT	3.2		1' ABOVE INTERIOR DOOR	120V	SURFACE MOUNT

GENERAL NOTE: ALL LIGHT SWITCH AND RECEPTACLES SHALL BE SPRAY/WASH-DOWN PROOF.

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DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314
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Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF
INDIANA
PROFESSIONAL ENGINEER

Dustin Barth

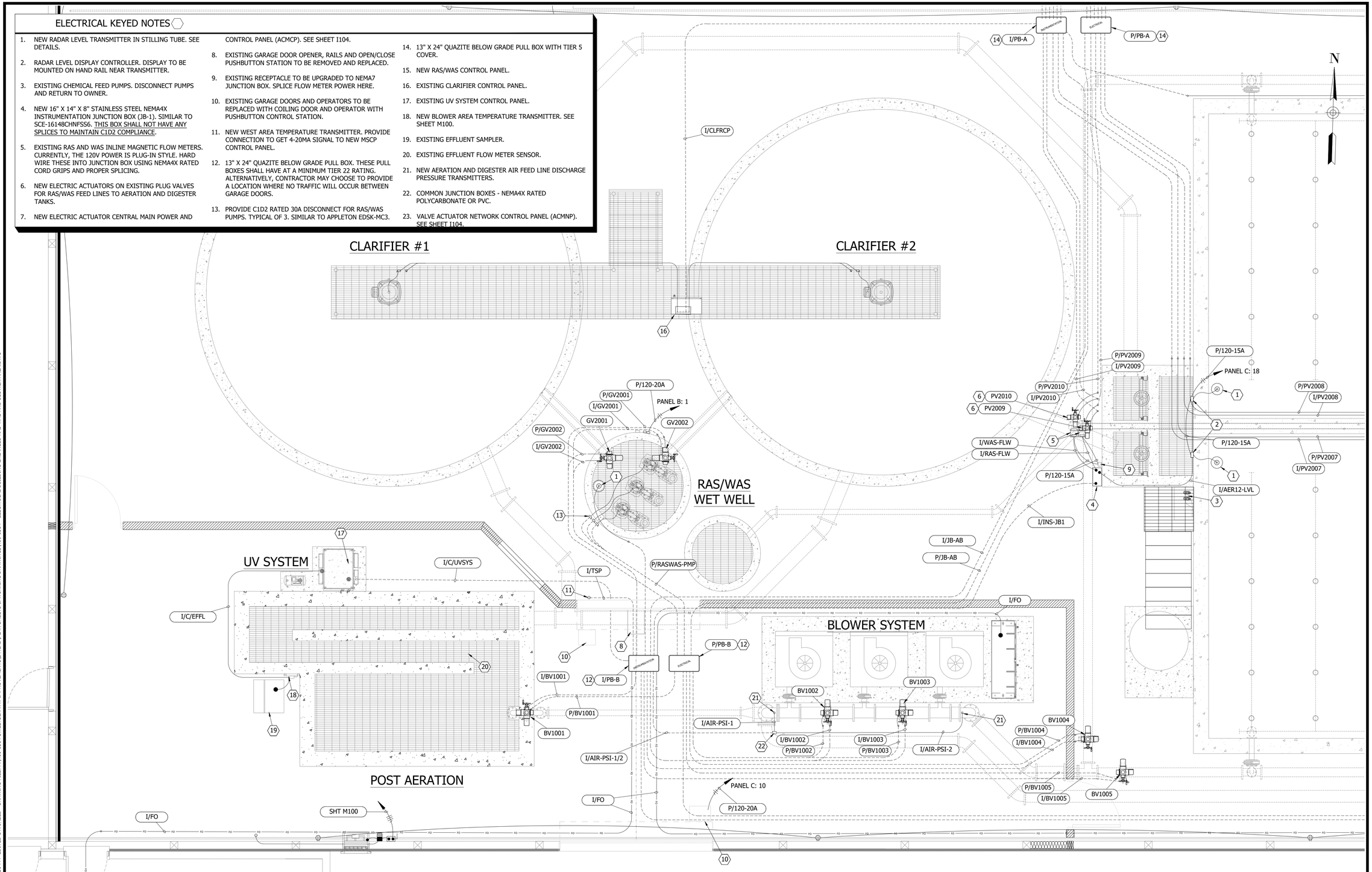
6' 0 6' 12'
GRAPHIC SCALE

WWTP BUILDING ELECTRICAL LAYOUT - PROPOSED LIGHTING

E102C

ELECTRICAL KEYED NOTES

1. NEW RADAR LEVEL TRANSMITTER IN STILLING TUBE. SEE DETAILS.
2. RADAR LEVEL DISPLAY CONTROLLER. DISPLAY TO BE MOUNTED ON HAND RAIL NEAR TRANSMITTER.
3. EXISTING CHEMICAL FEED PUMPS. DISCONNECT PUMPS AND RETURN TO OWNER.
4. NEW 16" X 14" X 8" STAINLESS STEEL NEMA4X INSTRUMENTATION JUNCTION BOX (JB-1). SIMILAR TO SCE-16148CHNFSS6. THIS BOX SHALL NOT HAVE ANY SPLICES TO MAINTAIN C1D2 COMPLIANCE.
5. EXISTING RAS AND WAS INLINE MAGNETIC FLOW METERS. CURRENTLY, THE 120V POWER IS PLUG-IN STYLE. HARD WIRE THESE INTO JUNCTION BOX USING NEMA4X RATED CORD GRIPS AND PROPER SPLICING.
6. NEW ELECTRIC ACTUATORS ON EXISTING PLUG VALVES FOR RAS/WAS FEED LINES TO AERATION AND DIGESTER TANKS.
7. NEW ELECTRIC ACTUATOR CENTRAL MAIN POWER AND CONTROL PANEL (ACMCP). SEE SHEET I104.
8. EXISTING GARAGE DOOR OPENER, RAILS AND OPEN/CLOSE PUSHBUTTON STATION TO BE REMOVED AND REPLACED.
9. EXISTING RECEPTACLE TO BE UPGRADED TO NEMA7 JUNCTION BOX. SPLICE FLOW METER POWER HERE.
10. EXISTING GARAGE DOORS AND OPERATORS TO BE REPLACED WITH COILING DOOR AND OPERATOR WITH PUSHBUTTON CONTROL STATION.
11. NEW WEST AREA TEMPERATURE TRANSMITTER. PROVIDE CONNECTION TO GET 4-20MA SIGNAL TO NEW MSCP CONTROL PANEL.
12. 13" X 24" QUAZITE BELOW GRADE PULL BOX. THESE PULL BOXES SHALL HAVE AT A MINIMUM TIER 22 RATING. ALTERNATIVELY, CONTRACTOR MAY CHOOSE TO PROVIDE A LOCATION WHERE NO TRAFFIC WILL OCCUR BETWEEN GARAGE DOORS.
13. PROVIDE C1D2 RATED 30A DISCONNECT FOR RAS/WAS PUMPS. TYPICAL OF 3. SIMILAR TO APPLETON EDSK-MC3.
14. 13" X 24" QUAZITE BELOW GRADE PULL BOX WITH TIER 5 COVER.
15. NEW RAS/WAS CONTROL PANEL.
16. EXISTING CLARIFIER CONTROL PANEL.
17. EXISTING UV SYSTEM CONTROL PANEL.
18. NEW BLOWER AREA TEMPERATURE TRANSMITTER. SEE SHEET M100.
19. EXISTING EFFLUENT SAMPLER.
20. EXISTING EFFLUENT FLOW METER SENSOR.
21. NEW AERATION AND DIGESTER AIR FEED LINE DISCHARGE PRESSURE TRANSMITTERS.
22. COMMON JUNCTION BOXES - NEMA4X RATED POLYCARBONATE OR PVC.
23. VALVE ACTUATOR NETWORK CONTROL PANEL (ACMNP). SEE SHEET I104.



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DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

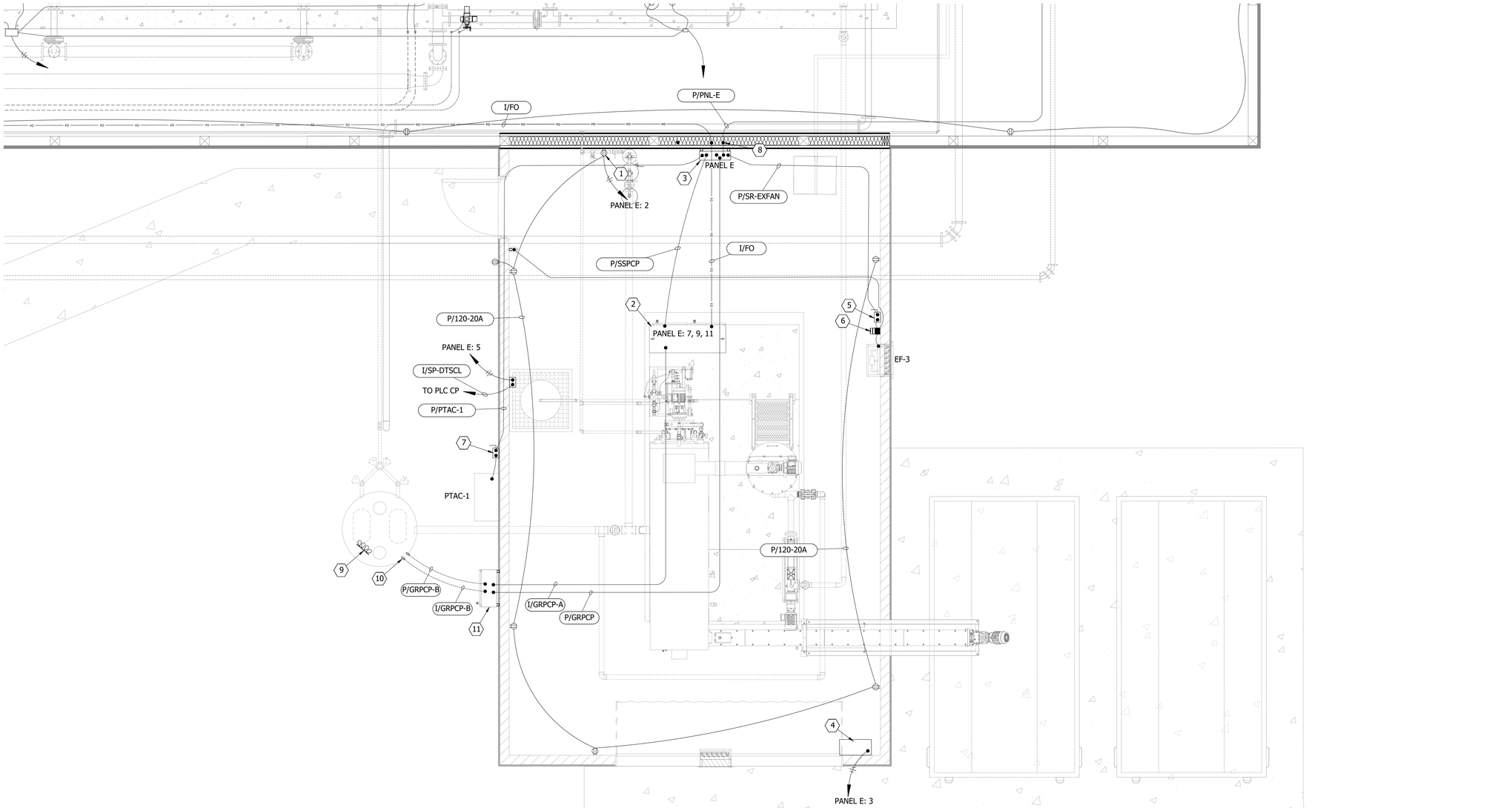
Project #: 400-6314
Designed By: JAR
Drawn By: JAR
Checked By: ALC & DB
Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF INDIANA
PROFESSIONAL ENGINEER

3' 0 3' 6'
GRAPHIC SCALE

WWTP BUILDING ENLARGED RAS-WAS AND BLOWER AREA

E102D



ELECTRICAL KEYED NOTES

1. 20A GFCI RECEPTACLE WITH NEMA4X BOX AND COVER. TYPICALLY FOR THIS ROOM.
2. NEW SCREW PRESS CONTROL PANEL. PROVIDED BY MANUFACTURER ON SCREW PRESS SKID.
3. NEW LIGHTING PANEL E. SEE SCHEDULE.
4. NEW WALL MOUNT GARAGE DOOR OPENER SIMILAR TO AS SHOWN ON WWTP SHEETS. NEMA4X RATING.
5. STAINLESS STEEL 30A DISCONNECT.
6. EXHAUST FAN VFD. SIMILAR TO ACQ580-01-06A6-2.
7. STAINLESS STEEL 60A DISCONNECT.
8. THIS ROOM TO BE DERATED WITH AIR EXHCANGES TO NON-CLASSIFIED AREA. ALL WALL PENETRATIONS FOR CONDUIT SHALL COMPLY WITH NEC AND NFPA 820 REQUIREMENTS.
9. WET WELL FLOAT SWITCHES PROVIDED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.
10. PROVIDE LINK SEALS AT ALL PENETRATIONS.
11. DUPLEX GRINDER PUMP CONTROL PANEL. PROVIDED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.

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DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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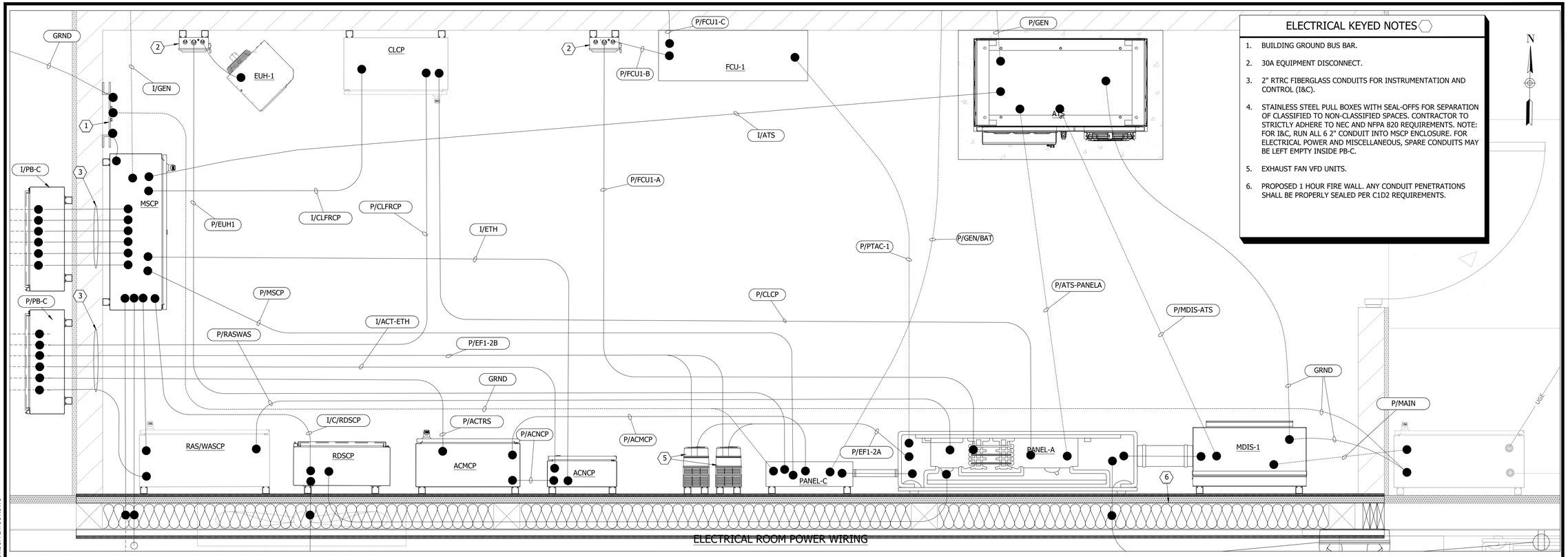
Project #: 400-6314
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Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF INDIANA
PROFESSIONAL ENGINEER

3' 0 3' 6'
GRAPHIC SCALE

WWTP BUILDING ENLARGED SCREW PRESS AREA

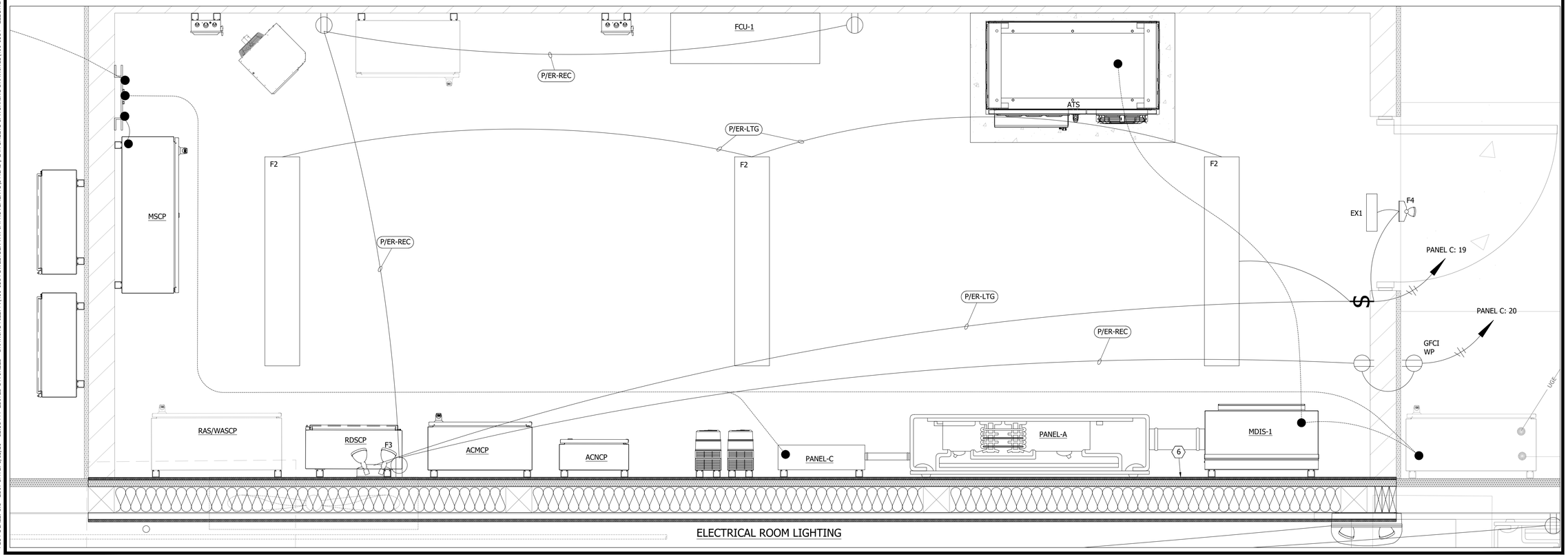
E102E



ELECTRICAL ROOM POWER WIRING

ELECTRICAL KEYED NOTES

1. BUILDING GROUND BUS BAR.
2. 30A EQUIPMENT DISCONNECT.
3. 2" RTRC FIBERGLASS CONDUITS FOR INSTRUMENTATION AND CONTROL (I&C).
4. STAINLESS STEEL PULL BOXES WITH SEAL-OFFS FOR SEPARATION OF CLASSIFIED TO NON-CLASSIFIED SPACES. CONTRACTOR TO STRICTLY ADHERE TO NEC AND NFPA 820 REQUIREMENTS. NOTE: FOR I&C, RUN ALL 6 2" CONDUIT INTO MSCP ENCLOSURE. FOR ELECTRICAL POWER AND MISCELLANEOUS, SPARE CONDUITS MAY BE LEFT EMPTY INSIDE PB-C.
5. EXHAUST FAN VFD UNITS.
6. PROPOSED 1 HOUR FIRE WALL. ANY CONDUIT PENETRATIONS SHALL BE PROPERLY SEALED PER C1D2 REQUIREMENTS.



ELECTRICAL ROOM LIGHTING

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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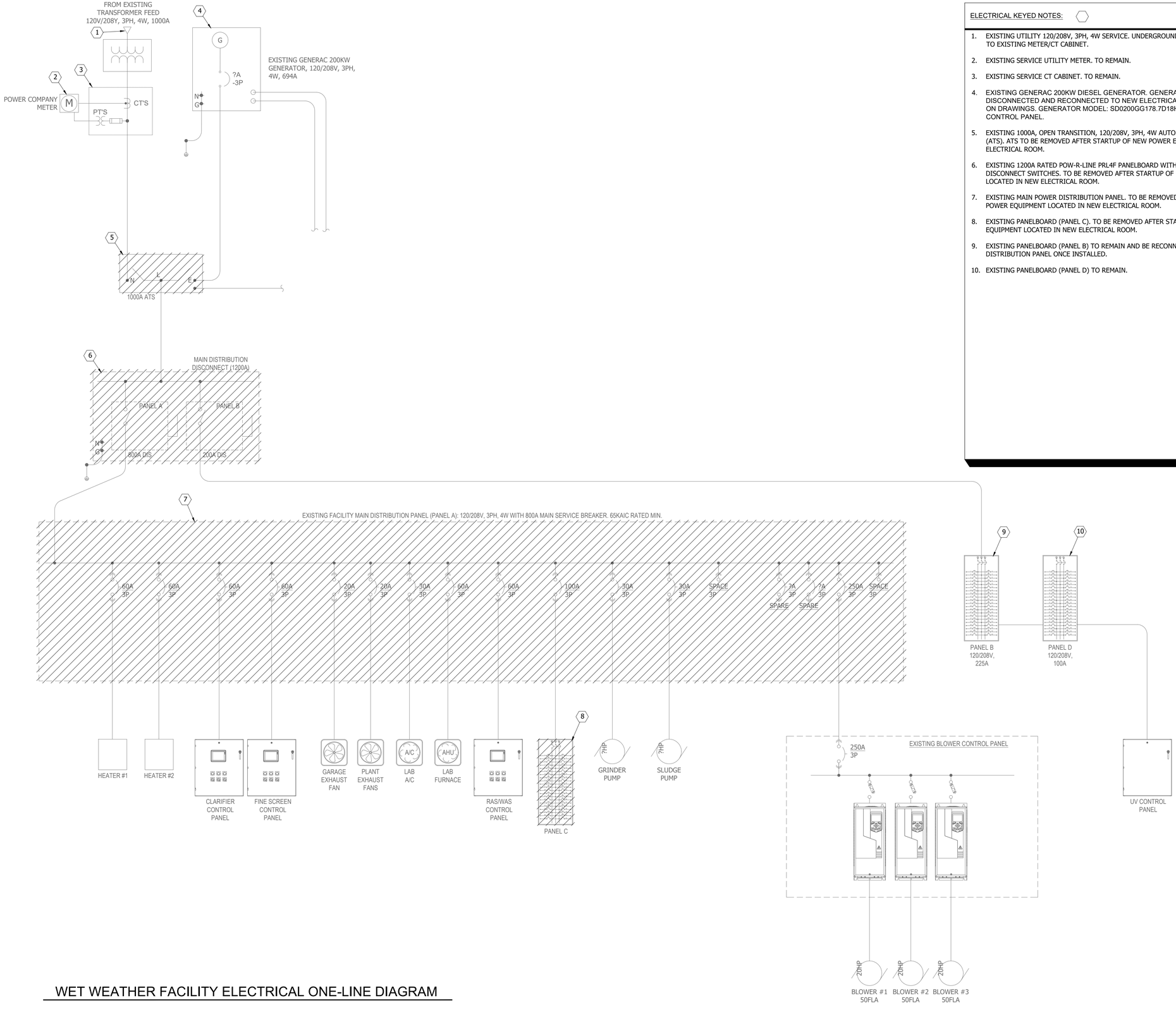
Dustin Barth

1' 0 1' 2'
GRAPHIC SCALE

WWTP ELECTRICAL ROOM LAYOUT

E103

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WET WEATHER FACILITY ELECTRICAL ONE-LINE DIAGRAM

ELECTRICAL KEYED NOTES:

1. EXISTING UTILITY 120/208V, 3PH, 4W SERVICE. UNDERGROUND TO REMAIN CONNECTED TO EXISTING METER/CT CABINET.
2. EXISTING SERVICE UTILITY METER. TO REMAIN.
3. EXISTING SERVICE CT CABINET. TO REMAIN.
4. EXISTING GENERAC 200KW DIESEL GENERATOR. GENERATOR TO BE DISCONNECTED AND RECONNECTED TO NEW ELECTRICAL EQUIPMENT AS SHOWN ON DRAWINGS. GENERATOR MODEL: SD0200GG178.7D18HPYY3 WITH H100 CONTROL PANEL.
5. EXISTING 1000A, OPEN TRANSITION, 120/208V, 3PH, 4W AUTOMATIC TRANSFER SWITCH (ATS). ATS TO BE REMOVED AFTER STARTUP OF NEW POWER EQUIPMENT LOCATED IN NEW ELECTRICAL ROOM.
6. EXISTING 1200A RATED POW-R-LINE PRL4F PANELBOARD WITH DUAL SERVICE DISCONNECT SWITCHES. TO BE REMOVED AFTER STARTUP OF NEW POWER EQUIPMENT LOCATED IN NEW ELECTRICAL ROOM.
7. EXISTING MAIN POWER DISTRIBUTION PANEL. TO BE REMOVED AFTER STARTUP OF NEW POWER EQUIPMENT LOCATED IN NEW ELECTRICAL ROOM.
8. EXISTING PANELBOARD (PANEL C). TO BE REMOVED AFTER STARTUP OF NEW POWER EQUIPMENT LOCATED IN NEW ELECTRICAL ROOM.
9. EXISTING PANELBOARD (PANEL B) TO REMAIN AND BE RECONNECTED TO NEW MAIN DISTRIBUTION PANEL ONCE INSTALLED.
10. EXISTING PANELBOARD (PANEL D) TO REMAIN.

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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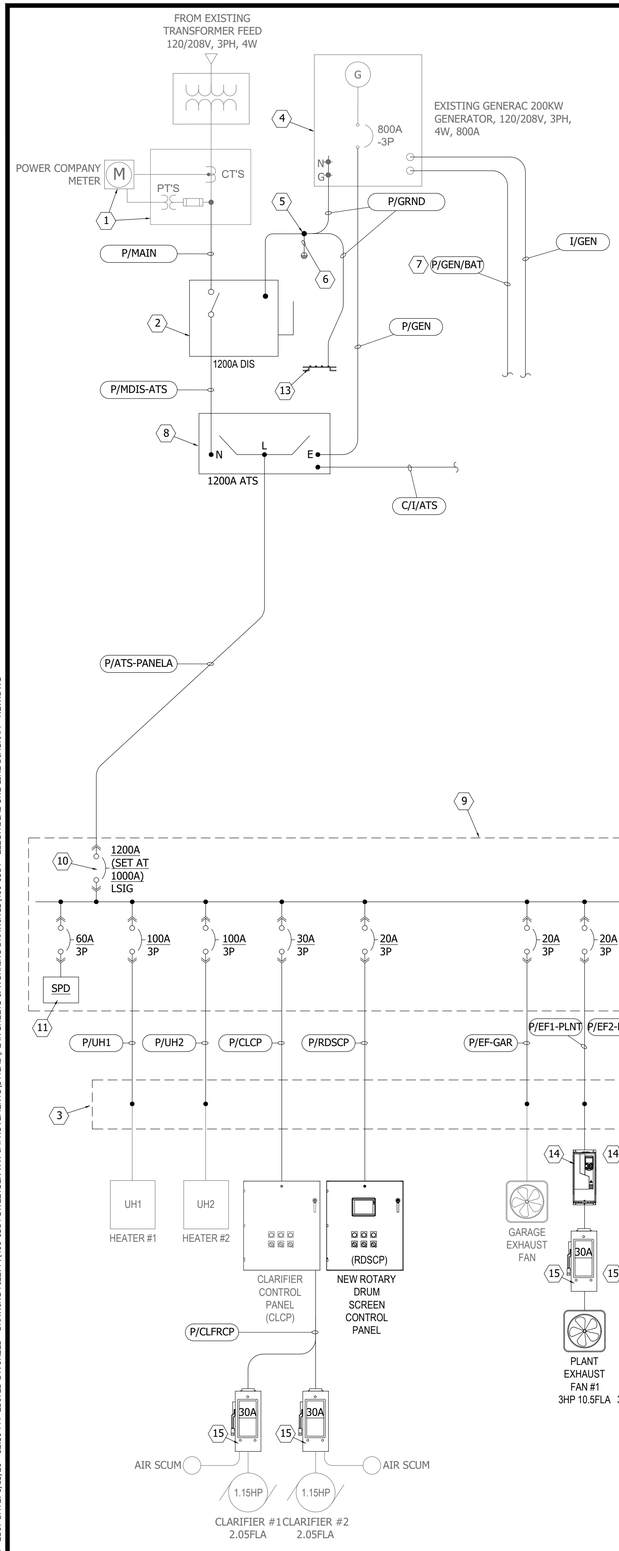
DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER

Dustin Barth

WWTP ELECTRICAL ONE-LINE DIAGRAM - EXISTING

E104

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WASTEWATER TREATMENT FACILITY ELECTRICAL ONE-LINE DIAGRAM - NEW INSTALL

ELECTRICAL KEYED NOTES:

1. EXISTING UTILITY METER AND CT PANEL. TO REMAIN.
2. 1200A SERVICE ENTRANCE RATED WALL MOUNT DISCONNECT - TO BE FUSED WITH NEUTRAL BONDING JUMPER, MOUNTED IN NEW ELECTRICAL ROOM.
3. EXISTING UNDERGROUND CONDUITS MAY BE REUSED BUT REQUIRE C1D2 CONNECTION COMPLIANCY.
4. EXISTING GENERAC GENERATOR.
5. CU GROUNDING ELECTRODE CONDUCTOR IN 1" PVC CONDUIT. EXOTHERMIC WELD, BURY GROUND ROD 12" BELOW GRADE.
6. 3/4" X 10' CU CLAD GROUND ROD AND TEST WELL. SEE LAYOUT DRAWINGS FOR GENERAL LAYOUT.
7. GENERATOR BATTERY CHARGER CIRCUIT. PROVIDE 2 - SPARE #12 CU. FED FROM PANEL C. THIS ALSO INCLUDES WIRING FOR BLOCK HEATER.
8. PROPOSED 1200A AUTOMATIC TRANSFER SWITCH (ATS) WITH SWITCHED NEUTRAL, SIMILAR TO GENERAC 1200A SERIES AS PROVIDED BY GENERATOR MANUFACTURER.
9. MAIN POWER 120/208V, 3PH DISTRIBUTION PANEL. LOCATED IN NEW ELECTRICAL ROOM, WALL MOUNT. ALL CIRCUIT BREAKERS SHALL INCLUDE LOCK-OUT/TAG-OUT FEATURE.
10. PROVIDE MAIN POWER DISTRIBUTION PANEL WITH A 1200A LSI MAIN CIRCUIT BREAKER.
11. PROVIDE MAIN POWER DISTRIBUTION PANEL WITH INTEGRAL SURGE PROTECTOR WITH UP TO 200 kA SCCR RATING.
12. PROVIDE NEW 150A PANELBOARD, WALL MOUNT WITH 150A MAIN CIRCUIT BREAKER TO REPLACE EXISTING PANEL C. MOUNT IN NEW ELECTRICAL ROOM.
13. NEW ELECTRICAL ROOM GROUND BUS BAR.
14. NEW EXHAUST FAN VFD UNITS. MOUNT IN NEW ELECTRICAL ROOM. VFD UNITS TO BE SIMILAR TO ABB ACQ580-01 SERIES.
15. PROVIDE 30A DISCONNECTS, C1D2 RATED.
16. PROPOSED SLUDGE SCREW PRESS CONTROL PANEL. PROVIDED BY MANUFACTURER ON PACKAGED SKID. CONTRACTOR TO COORDINATE FOR CONNECTIVITY.
17. PROPOSED DUPLEX PACKAGE GRINDER STATION CONTROL PANEL. PROVIDED BY MANUFACTURER AND INSTALLED BY CONTRACTOR.

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314
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No. 12200401
STATE OF INDIANA
PROFESSIONAL ENGINEER

WWTP ELECTRICAL ONE-LINE DIAGRAME - PROPOSED

E105

PRINT DATE: 10/16/26
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MAIN DISTRIBUTION PANELBOARD SCHEDULE

PANEL : PANEL A | LOCATION: WWTP | MOUNTING: ■ SURFACE ☐ FLUSH | RATING: 1200A., 208V 3PH, 4W | MAIN: ■ 1000A. M.C.B. ☐ 1000A. M.L.O. | REMARKS: PROVIDE OPTIONS MARKED WITH ■

LOAD DESIGNATION	CKT. BKR.	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKR.	LOAD DESIGNATION
HEATER #1	3P-100	1				2		
		3				4	3P-30	CLARIFIER CONTROL PANEL
		5				6		
HEATER #2	3P-100	7				8		
		9				10	3P-30	FINE SCREEN CONTROL PANEL
		11				12		
GARAGE EXHAUST FAN	3P-20	13				14		
		15				16	3P-30	PLANT EXHAUST FAN EF-1
		17				18		
LAB A/C UNIT	3P-30	19				20		
		21				22	3P-30	LAB FURNACE
		23				24		
RAS/WAS CONTROL PANEL	3P-60	25				26		
		27				28	3P-100	PANEL C
		29				30		
GRINDER	3P-30	31				32		
		33				34	3P-100	? PUMP
		35				36		
SPARE	3P-60	37				32		
		39				34	3P-100	? PUMP
		41				36		
PLANT EXHAUST FAN EF-2	3P-30	43				32		
		45				34	3P-?	? CONTROL CABINET
		47				36		
SPARE	3P-?	37				38		
		39				40		SPACE
		41				42		
		kVA	0.0	0.0	0.0			

☐ 200% NEUTRAL BUSBAR ■ 100% NEUTRAL BUSBAR ■ EQUIPMENT GROUND BUSBAR
■ 65,000 A.I.C. ☐ 30,000 A.I.C. ☐ INTEGRAL SPD
☐ SWITCH-DUTY C.Bs ☐ BOLT-IN C.Bs ■ NEMA 12
■ CU. BUSBARS & LUGS ☐ AL. BUSBARS & LUGS ☐ NEMA 3R ☐ NEMA 4X

BRANCH CIRCUIT PANELBOARD SCHEDULE

PANEL : PANEL C | LOCATION: WWTP | MOUNTING: ■ SURFACE ☐ FLUSH | RATING: 150A., 120/208V 3PH, 4W | MAIN: ☐ 100A. M.C.B. ■ 150A. M.L.O. | REMARKS: PROVIDE OPTIONS MARKED WITH ■

LOAD DESIGNATION	CKT. BKR.	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKR.	LOAD DESIGNATION
PLANT LIGHTING	1P-20	1				2	1P-20	PLANT RECEPTACLES
SPARE	1P-20	3				4	1P-20	PLANT RECEPTACLES
EAST OVERHEAD DOOR	1P-20	5				6	1P-20	PLANT LIGHTING - BANK B
PLANT LIGHTING - BANK A	1P-20	7	****	****		8	1P-30	INFLUENT SAMPLER
NORTH PLANT RECEPTACLES	1P-20	9		****		10	1P-20	SOUTH OVERHEAD DOOR
METER VAULT SUMP PUMP	1P-20	11				12	1P-20	INFLUENT FLOW METER
GENERATOR	1P-20	13				14	1P-20	PLANT RECEPTACLES
GENERATOR	1P-20	15				16	1P-20	PLANT RECEPTACLES
AER TANK #1, #2 DO,PH,ORP CONT	1P-20	17				18	1P-20	AER TANK #1, #2 LEVEL CNTRLS
ELECTRICAL ROOM LIGHTING	1P-20	19				20	1P-20	ELECTRICAL ROOM RECEPTACLES
DIGESTER 1&2 DO CONTROLLERS	1P-20	21				22	1P-20	NEW RAS/WAS CONTROL PANEL
ACMCP VALVE ACTUATOR CP	1P-20	23				24	1P-20	SPACE
SPACE	1P-20	25				26	1P-20	SPACE
SPACE	1P-20	27				28	1P-20	SPACE
SPACE	1P-20	29				30	1P-20	SPACE
		kVA	2160.0	1000.0	0.0			

☐ 200% NEUTRAL BUSBAR ■ 100% NEUTRAL BUSBAR ■ EQUIPMENT GROUND BUSBAR
■ 10,000 A.I.C. ☐ 30,000 A.I.C. ☐ INTEGRAL SPD
☐ SWITCH-DUTY C.Bs ☐ BOLT-IN C.Bs ■ NEMA 12
■ CU. BUSBARS & LUGS ☐ AL. BUSBARS & LUGS ☐ NEMA 3R ☐ NEMA 4X

BRANCH CIRCUIT PANELBOARD SCHEDULE

PANEL : PANEL B (EXISTING) | LOCATION: WWTP | MOUNTING: ■ SURFACE ☐ FLUSH | RATING: 225A., 120/208V 3PH, 4W | MAIN: ☐ 225A. M.C.B. ■ 225A. M.L.O. | REMARKS: PROVIDE OPTIONS MARKED WITH ■

LOAD DESIGNATION	CKT. BKR.	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKR.	LOAD DESIGNATION
RAS/WAS LIGHT/RECEPTACLE	1P-20	1				2	1P-20	PLANT LIGHTING
GARAGE LIGHTING	1P-20	3				4	1P-20	WATER SOFTENER
PLANT LIGHTING	1P-20	5				6	1P-20	GARAGE LIGHTING
UV SAMPLER/FLOW METER	1P-20	7	****	****		8	1P-30	UV COMPRESSOR/HEAT TRACE
EXT. GARAGE LIGHTING	1P-20	9		****		10	1P-20	CHEMICAL PUMKPS
LAB LIGHTING	1P-20	11				12	1P-20	EAST GARAGE WALL RECEPTACLES
LAB LIGHTING	1P-20	13				14	1P-20	SOUTH PLANT RECEPTACLES
NORTH WALL LAB RECEPTACLES	1P-20	15				16	1P-20	SOUTH GARAGE RECEPTACLES
EAST WALL LAB RECEPTACLES	1P-20	17				18	1P-20	WEST GARAGE RECEPTACLES
REFRIGERATER	1P-20	19				20	1P-20	PLANT RECEPTACLES
ISLAND PLUG STRIP	1P-20	21				22	1P-20	EMERGENCY BATTERY LIGHTS
ISLAND PLUG STRIP	1P-20	23				24	1P-20	RANGE HOOD
SPARE	1P-20	25				26	1P-20	DISHWASHER
LAB RECEPTACLES	1P-20	27				28	1P-20	OVERHEAD DOOR
OFFICE RECETPACLES	1P-20	29				30	1P-20	OVERHEAD DOOR
MEETING ROOM RECEPTACLES	1P-20	31				32	1P-20	NORTH GARAGE RECEPTACLES
MECH. ROOM RECEPTACLES	1P-20	33				34	1P-20	WATER HEATER
ELEC. CLOSET/RESTROOM RECEPT.	1P-20	35				36	1P-20	SPARE
SPARE	3P-30	37				38		
		39				40	3P-90	PANEL D
		41				42		
		kVA	2160.0	1000.0	0.0			

☐ 200% NEUTRAL BUSBAR ■ 100% NEUTRAL BUSBAR ■ EQUIPMENT GROUND BUSBAR
■ 10,000 A.I.C. ☐ 30,000 A.I.C. ☐ INTEGRAL SPD
☐ SWITCH-DUTY C.Bs ☐ BOLT-IN C.Bs ■ NEMA 12
■ CU. BUSBARS & LUGS ☐ AL. BUSBARS & LUGS ☐ NEMA 3R ☐ NEMA 4X

BRANCH CIRCUIT PANELBOARD SCHEDULE

PANEL : PANEL D | LOCATION: WWTP | MOUNTING: ■ SURFACE ☐ FLUSH | RATING: 100A., 120/208V 3PH, 4W | MAIN: ☐ 100A. M.C.B. ■ 100A. M.L.O. | REMARKS: PROVIDE OPTIONS MARKED WITH ■

LOAD DESIGNATION	CKT. BKR.	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKR.	LOAD DESIGNATION
CHART RECORDER	1P-20	1	****	****		2	1P-20	BUILDING RECEPTACLES
MISSION CONTROL PANEL	1P-20	3		****	****	4	1P-20	BUILDING LIGHTING
SPARE	1P-20	5			****	6	1P-20	WWSCP (PLC CONTROL PANEL)
UV SYSTEM	3P-30	7	****	****		8	1P-30	GENERATOR BATTERY CHARGER
		9		****		10	1P-20	EXISTING
		11				12	1P-20	EXISTING
IN-LINE WATER HEATER	1P-20	13				14	1P-20	EXISTING
WORK BENCH OUTLETS	1P-20	15				16	2P-20	
WORK BENCH LIGHTS	1P-20	17				18		
SHOP/BATH LIGHTS	1P-20	19				20	1P-20	EXISTING
COMPRESSOR	2P-30	21				22	2P-30	SPARE
		23				24		
WELDER	2P-50	25				26		SPACE
		27				28		SPACE
SPACE		29				30		SPACE
		kVA	4320.0	4480.0	2460.0			

☐ 200% NEUTRAL BUSBAR ■ 100% NEUTRAL BUSBAR ■ EQUIPMENT GROUND BUSBAR
☐ 10,000 A.I.C. ☐ 30,000 A.I.C. ☐ INTEGRAL SPD
☐ SWITCH-DUTY C.Bs ☐ BOLT-IN C.Bs ☐ NEMA 12
■ CU. BUSBARS & LUGS ☐ AL. BUSBARS & LUGS ☐ NEMA 3R ☐ NEMA 4X

BRANCH CIRCUIT PANELBOARD SCHEDULE

PANEL : PANEL E | LOCATION: SCREW PRESS | MOUNTING: ■ SURFACE ☐ FLUSH | RATING: 100A., 120/208V 3PH, 4W | MAIN: ■ 100A. M.C.B. ☐ 100A. M.L.O. | REMARKS: PROVIDE OPTIONS MARKED WITH ■

LOAD DESIGNATION	CKT. BKR.	CKT. NO.	PHASE A	PHASE B	PHASE C	CKT. NO.	CKT. BKR.	LOAD DESIGNATION
SCREW PRESS ROOM LIGHTS	1P-20	1	1080.0	1080.0		2	1P-20	SCREW PRESS ROOM RECEPT.
OVERHEAD DOOR	1P-20	3		1080.0	2400.0	4	1P-20	SCREW PRESS DAY TANK SCALE
SPARE	1P-20	5			1500.0	960.0	6	
SCREW PRESS CONTROL PANEL	3P-80	7	960.0	1200.0		8	1P-15	EXHAUST FAN (EF-3)
		9		1000.0		10		
		11				12	1P-20	SPARE
SPARE	1P-20	13				14		
		15				16	3P-40	PTAC-1
		17				18		
SPARE	1P-20	19				20	1P-20	SPARE
SPARE	1P-20	21				22	2P-30	SPARE
SPARE	1P-20	23				24		
SPACE		25				26		SPACE
SPACE		27				28		SPACE
SPACE		29				30		SPACE
		kVA	4320.0	4480.0	2460.0			

☐ 200% NEUTRAL BUSBAR ■ 100% NEUTRAL BUSBAR ■ EQUIPMENT GROUND BUSBAR
☐ 10,000 A.I.C. ☐ 30,000 A.I.C. ☐ INTEGRAL SPD
☐ SWITCH-DUTY C.Bs ☐ BOLT-IN C.Bs ☐ NEMA 12
■ CU. BUSBARS & LUGS ☐ AL. BUSBARS & LUGS ☐ NEMA 3R ☐ NEMA 4X

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314
Designed By: JAR
Drawn By: JAR
Checked By: ALC & DB
Date: 08/14/2026

DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER
Dustin Barth

WWTP ELECTRICAL SCHEDULES

E106

PRINT DATE: 10/16/26
PLOT SCALE: 1:1 EDIT DATE: 7/22/26 - 12:00 PM EDITED BY: RPAREDES DRAWING FILE: P:\400-6314 SWEETSER WW IMPROVEMENTS\5 ACAD\PLAN SHEETS & WORKING DRAWINGS\400-6314 - ELECTRICAL SCHEDULES.DWG

CONDUIT AND CABLE SCHEDULE

CONDUIT			DESCRIPTION		USE	REMARKS	WIRE OR CABLE		
CONDUIT NO.	SIZE	MATERIAL	FROM	TO			NO. REQ'D/SIZE	INSULATION TYPE	VOLTS
P/MAIN	(4) 4"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY CT CABINET AND METER	NEW 1200A ENTRANCE RATED MAINS DISCONNECT	POWER	120/208V, 3PH, 4W	(4 SETS) 4 - 350 CU; 1 - 3/0 CU GND	THHN/ THWN-2	600
P/GRND	2"	ALUMINUM ABOVE GRADE PVC. BELOW	GROUND ROD	GENERATOR AND 1200A ENTRANCE RATED MAINS DISCONNECT	WHERE RUNNING THROUGH BUILDING OR UNDERGROUND TO BOND POINT - USE PVC	THERMAL WELD AT GROUND ROD	BARE #2/0 CU	THHN/ THWN-2	600
GRND	1"	PVC	EQUIPMENT	ELECTRICAL ROOM GROUND BUS BAR	WHERE RUNNING THROUGH BUILDING OR UNDERGROUND TO BOND POINT - USE PVC		BARE GROUND WIRE SIZED PER EQUIPMENT REQ.	THHN/ THWN-2	600
P/MDIS-ATS	(4) 4"	ALUMINUM ABOVE GRADE PVC. BELOW	NEW 1200A ENTRANCE RATED MAINS DISCONNECT	NEW 1200A AUTOMATIC TRANSFER SWITCH (ATS)	POWER	120/208V, 3PH, 4W	(4 SETS) 4 - 350 CU; 1 - 3/0 CU GND	THHN/ THWN-2	600
P/ATS-PANELA	(4) 4"	ALUMINUM ABOVE GRADE PVC. BELOW	ATS	MAIN 1200A DISTRIBUTION PANEL (PANEL A)	POWER	120/208V, 3PH, 4W	(4 SETS) 4 - 350 CU; 1 - 3/0 CU GND	THHN/ THWN-2	600
C/I/ATS	1"	ALUMINUM ABOVE GRADE PVC. BELOW	ATS	MSCP PLC CONTROL PANEL	SIGNALS	EMERGENCY/NORMAL POWER	6 - #14 CU	THHN/THWN-2	600
I/GEN	1"	ALUMINUM ABOVE GRADE PVC. BELOW	GENERATOR	MSCP PLC CONTROL PANEL	COMMUNICATIONS AND STATUSES		1 - CAT6; 6 - #14 CU	BELDEN 7953A; THHN/THWN-2	600
P/GEN/BAT	1"	ALUMINUM ABOVE GRADE PVC. BELOW	PANEL C	GENERATOR	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/GEN	(3) 4"	ALUMINUM ABOVE GRADE PVC. BELOW	ATS	GENERATOR	208V, 3PH POWER		3 SETS: 4 - 350 CU, 1 - #2/0 CU GND	THHN/ THWN-2	600
G/GEN-GND	1"	PVC TO GROUND ROD	GENERATOR HOUSING	GROUND ROD	GROUND		#2/0 BARE		
P/UH1	1 1/4"	SCH 80 PVC PVC. BELOW	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING UNIT HEATER #1	208V, 3PH POWER		3 - #3 CU, 1 - #8 CU GND	THHN/ THWN-2	600
P/UH2	1 1/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING UNIT HEATER #2	208V, 3PH POWER		3 - #3 CU, 1 - #8 CU GND	THHN/ THWN-2	600
P/CLCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING CLARIFIER CONTROL PANEL	208V, 3PH POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/RDSCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING FINE SCREEN CONTROL PANEL	208V, 3PH POWER		3 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/SSPCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW SLUDGE SCREW PRESS CONTROL PANEL (SSPCP)	208V, 3PH POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/EF-GAR	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING GARAGE EXHAUST FAN	208V, 3PH POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/EF1-PLNT	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	FROM EXHAUST FAN VFD	EXHAUST FAN #1 DISCONNECT	208V, 3PH POWER	REFERENCE TO P/EF1-2A AND P/EF1-2B	3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/EF2-PLNT	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	FROM EXHAUST FAN VFD	EXHAUST FAN #2 DISCONNECT	208V, 3PH POWER	REFERENCE TO P/EF1-2A AND P/EF1-2B	3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/LAB-AC	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING LAB ROOM A/C UNIT	POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/LAB-HTR	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING LAB ROOM FURNACE UNIT	POWER		3 - #6 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/RASWAS	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	RELOCATED RAS/WAS PANEL	POWER		3 - #6 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/PNLC	1 1/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING PANEL C 100A	POWER		3 - #3 CU, 1 - #8 CU GND	THHN/ THWN-2	600
P/GRPMP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING GRINDER PUMP	POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/SLGPMP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING GRINDER PUMP	POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/BLWRCP	3"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING BLOWER CONTROL PANEL	POWER		3 - #250 CU, 1 - #4 CU GND	THHN/ THWN-2	600
P/ACMCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL C	NEW ELECTRIC ACTUATOR CENTRAL MAIN POWER AND CONTROL PANEL (ACMCP)	120V, 1PH POWER		2 - #8 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/BV1001	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1001 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1001	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1001 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/BV1002	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1002 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1002	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1002 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/BV1003	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1003 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1003	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1003 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/BV1004	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1004 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1004	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1004 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/BV1005	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1005 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1005	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1005 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/BV1006	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1006 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1006	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1006 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/BV1007	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1007 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV1007	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV1007 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/GV2001	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	GV2001 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/GV2001	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	GV2001 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/GV2002	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	GV2002 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/GV2002	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	GV2002 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/PV2007	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2007 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/PV2007	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2007 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/PV2008	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2008 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/PV2008	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2008 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/PV2009	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2009 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/PV2009	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2009 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/PV2010	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	PV2010 ACTUATOR	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/BV2010	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP	BV2010 ACTUATOR	COMMUNICATIONS, CONTROL, STATUS AND ALARM SIGNALS		10 - #14 CU, 2 - #16 TSP, 1 - CAT6		
P/FCU1-A	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL-A	FCU-1 SPLIT UNIT DISCONNECT	208V, 3PH POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/FCU1-B	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	FCU-1 SPLIT UNIT DISCONNECT	FCU-1 INSIDE UNIT	208V, 3PH POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/FCU1-C	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	FCU-1 INSIDE UNIT	FCU-1 OUTSIDE UNIT	208V, 3PH POWER		3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/EF1-2A	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL-A	EXHAUST FAN VFD UNITS	208V, 3PH POWER	2 SETS (EF-1 AND EF-2) REFERENCE P/EF1-PLNT	3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/EF1-2B	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	EXHAUST FAN VFD UNITS	EXHAUST FAN DISCONNECT VIA P/PB-C AND P/PB-A	208V, 3PH POWER	2 SETS (EF-1 AND EF-2) REFERENCE P/EF2-PLNT	3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/ACNCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP DISTRIBUTION BLOCK	ACNCP CIRCUIT BREAKER	120V, 1PH POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/ACMCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL-C	ACMCP ACTUATOR POWER DISTRIBUTION PANEL	120V, 1PH POWER	SEE SHEET I104	2 - #8 CU, 1 - #8 CU GND	THHN/ THWN-2	600
P/ACTRS	2"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACMCP ACTUATOR POWER DISTRIBUTION PANEL	13 INDIVIDUAL ACTUATORS	120V, 1PH POWER	13 SETS	2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/ACT-ETH	2"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ACNCP ACTUATOR NETWORK PANEL	13 INDIVIDUAL ACTUATORS	COMMUNICATIONS		13 - CAT6	BELDEN 7953A	
I/ETH	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	CONTROL PANEL/SWITCH	EQUIPMENT	ETHERNET CABLE - COMMUNICATIONS		CAT6	BELDEN 7953A	
P/PNLB	2 1/2"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW PANEL A	NEW NEMA4X WIRE TROUGH - EXISTING PANEL B 200A	POWER		3 - #3/0 CU, 1 - #6 CU GND	THHN/ THWN-2	600
P/MSCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL C	NEW MAIN SCADA CONTROL PANEL 'MSCP'	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/C/FM-MFG	1-1/2"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	FLOW METER VAULT	FLOW METER ELECTRONICS	MANUFACTURER COIL AND ELECTRODE CABLES	DO NOT CUT - ORDER TO LENGTH	MANUFACTURER		
P/ER-LTG	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL C	ELECTRICAL ROOM RECEHVACLES	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/ER-REC	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL C	ELECTRICAL ROOM LIGHTING	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/AERDIG-DO	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	AERATION AND DIGESTER TANKS 1 & 2 DO CONTROLLERS	MSCP PLC CONTROL PANEL	COMMUNICATIONS		2 - CAT6	BELDEN 7953A	
I/DO-A	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	DIGESTER TANK #1 DO SENSOR	SC4500 CONTROLLER	SENSOR CABLE	ORDER TO LENGTH FROM MFR			
I/DO-B	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	DIGESTER TANK #2 DO SENSOR	SC4500 CONTROLLER	SENSOR CABLE	ORDER TO LENGTH FROM MFR			
I/DIG-LVL	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	DIGESTER RADAR LEVEL TRANSMITTER	SCREW PRESS CONTROL PANEL (SSPCP)	4-20MA SIGNAL	JOIN IN ONE CONDUIT TO SSPCP	1 - #16 TSP	BELDEN 9316	
I/FM-RATE	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	MSCP	INFLUENT FLOW METER INTEGRAL ELECTRCONICS	4-20MA SIGNAL		1 - #16 TSP	BELDEN 9316	
P/FM-PWR	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANELC	INFLUENT FLOW METER POWER	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/120-15A	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	DEVICE	LIGHTING PANEL AS SHOWN ON DRAWINGS	120V POWER		2 - #14 CU, 1 - #14 CU GND	THHN/ THWN-2	600
P/120-20A	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	DEVICE	LIGHTING PANEL AS SHOWN ON DRAWINGS	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/JB-AB	2"	SCH 80 PVC	P/PB-A	P/PB-B	MISCELLANEOUS POWER TO EQUIPMENT	4 - 2" CONDUITS			
I/JB-AB	2"	SCH 80 PVC	P/PB-A	P/PB-B	MISCELLANEOUS SIGNALS AND FIBER TO EQUIPMENT	4 - 2" CONDUITS			
P/WW-LTG	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	LIGHTS	PANEL C	120V POWER		2 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
I/C/UVSYS	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	UV SYSTEM CONTROL PANEL	INSTRUMENT JUNCTION BOX JB-1	CONTROL/SIGNALS	UV SIGNALS, FLOW METER, SAMPLER, WEST TEMP	4 - #16 TSP; 1 - CAT6	BELDEN 9316; 7953A	600
I/C/RDSCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ROTARY SCREEN CONTROL PANEL	MSCP PLC CONTROL PANEL	CONTROL AND STATUS SIGNALS		12 - #14 CU	THHN/ THWN-2	600
P/RDS-MTR	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	ROTARY SCREEN CONTROL PANEL	DRUM SCREEN UNIT			3 - #10 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/GRPCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL E	GRINDER PUMP STATION	208V, 3PH POWER		3 - #8 CU, 1 - #10 CU GND	THHN/ THWN-2	600
P/GRPCP	1-1/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	SCREW PRESS PLC CONTROL PANEL (SSPCP)	GRINDER PUMP STATION	208V, 3PH POWER		3 - #8 CU, 1 - #10 CU GND	THHN/ THWN-2	600
I/GRPCP-A	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	SCREW PRESS PLC CONTROL PANEL (SSPCP)	WET WELL PUMPS	MOTOR POWER CABLES		MOTOR MANUFACTURER CABLES		
I/GRPCP-B	1-1/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	WET WELL	SCREW PRESS PLC CONTROL PANEL (SSPCP)	SIGNALS		FLOAT MFR CABLES		
I/WAS-FLW	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	EXISTING WAS MAGNETIC FLOW METER HOUSING	INSTRUMENT JUNCTION BOX JB-1	4-20MA		1 - #16 TSP	BELDEN 9316	
I/RAS-FLW	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	EXISTING RAS MAGNETIC FLOW METER HOUSING	INSTRUMENT JUNCTION BOX JB-1	4-20MA		1 - #16 TSP	BELDEN 9316	
I/INS-JB1	2"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	INSTRUMENT JUNCTION BOX JB-1	MSCP PLC CONTROL PANEL	SIGNALS AND COMMUNICATION		I/WAS-FLW; I/RAS-FLW; I/AER12-LVL; SPARE		
I/INF-FLW	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	FLOW METER ELECTRONICS CONTROL PANEL	MSCP PLC CONTROL PANEL VIA JB-2		INFLUENT FLOW RATE; TEMPERATURE EAST AREA; SPARE	3 - #16 TSP	BELDEN 9316	
I/C/EFFL	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	POST SYSTEM EFFLUENT SAMPLER AND FLOW METER	JB-1 VIA UV SYSTEM CONTROL PANEL	SIGNALS		4 - #16 TSP	BELDEN 9316	
I/FO	1"	HDPE	OFFICE	MSCP PLC CONTROL PANEL; NEW RAS/WAS PLC PANEL; EXISTING BLOWER PANEL	COMMUNICATIONS: FIBER RING NETWORK	OM4: 50µm CORE; AQUA JACKET; SUPPORTS 10G to 550m AND 40G/100G UP TO 150m	4 STRAND, MULTI-MODE	DIRECT BURIAL TYPE IN HDPE	
I/AER12-LVL	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PB-1	MSCP	4-20MA		2 - #16 TSP	BELDEN 9316	
I/AIR-PSI-1/2	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW RAS/WAS CONTROL PANEL	COMMON JUNCTION BOX	4-20MA		2 - #16 TSP	BELDEN 9316	
I/AIR-PSI-1	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW RAS/WAS CONTROL PANEL	COMMON JUNCTION BOX FROM EACH DEVICE	4-20MA		1 - #16 TSP	BELDEN 9316	
I/AIR-PSI-2	3/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	NEW RAS/WAS CONTROL PANEL	COMMON JUNCTION BOX FROM EACH DEVICE	4-20MA		1 - #16 TSP	BELDEN 9316	
I/C1FRCP	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	EXISTING CLARIFIER CONTROL PANEL	NEW RAS/WAS PLC CONTROL PANEL	SIGNALS		20 - #14 CU	THHN/ THWN-2	600

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DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC & DB

Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF
INDIANA
PROFESSIONAL ENGINEER

Dustin Barth

WWTP ELECTRICAL CONDUIT-CABLE SCHEDULE

E107A

I/SP-DTSCL	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	SCREW PRESS DAY TANK SCALE ELECTRONICS	MSCP CONTROL PANEL	SIGNALS		4 - #14 CU; 1 #16 TSP	BELDEN 9316	600
I/H2S-CH4	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	MSCP	GAS DETECTION DEVICES	SIGNALS	2 SETS: 24VDC POWER, 4-20MA SIGNAL	4 - #16 TSP	BELDEN 9316	600
P/SR-EXFAN	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL E	SCREW PRESS ROOM EXHAUST FAN	208V, 3PH POWER		3 - #10 CU, 1 #10 CU GND	THHN/ THWN-2	600
P/PNL-E	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL A	PANEL E IN NEW SCREW PRESS ROOM	208V, 3PH POWER		3 - #3 CU, 1 #8 CU GND	THHN/ THWN-2	600
P/PTAC-1	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL E	SCREW PRESS ROOM PTAC UNIT	208V, 3PH POWER		3 - #8 CU, 1 #10 CU GND	THHN/ THWN-2	600
P/EUH1	1"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	PANEL C	UNIT HEATER EUH-1	208V, 1PH POWER		2 - #12 CU, 1 #12 CU GND	THHN/ THWN-2	600
P/SHRT-LS	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY POLE	UTILITY METER BASE	230V, 3PH		3 - #3 CU, 1 #8 CU GND	THHN/ THWN-2	600
P/SHRT-LSA	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY METER	MAIN DISCONNECT	230V, 3PH		3 - #3 CU, 1 #8 CU GND	THHN/ THWN-2	600
P/SHRT-LSB	2"	ALUMINUM ABOVE GRADE PVC. BELOW	MAIN DISCONNECT	PUMP CONTROL PANEL	230V, 3PH		3 - #3 CU, 1 #8 CU GND	THHN/ THWN-2	600
I/SHRT-LSC	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	PUMP CONTROL PANEL	SIGNALS		1 - #16 TSP; 10 - #14 CU	BELDEN 9316; THHN/ THWN-2	600
P/SHRT-LS-P1	1"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	230V, 3PH		3 - #10 CU, 1- #10 CU GND	THHN/ THWN-2	600
P/SHRT-LS-P2	1"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	230V, 3PH		3 - #10 CU, 1- #10 CU GND	THHN/ THWN-2	600
P/SHRT-LS-P1-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	230V, 3PH		MANUFACTURER		
P/SHRT-LS-P2-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	230V, 3PH		MANUFACTURER		
I/SHRT-LSA	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	FLOAT SWITCHES	FLOAT MFR CABLES	BELDEN 9316; THHN/ THWN-2	600
I/SHRT-LSB	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	RADAR LEVEL	1 - #16 TSP	BELDEN 9316; THHN/ THWN-2	600
P/KLLY-LS	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY POLE	UTILITY METER BASE	230V, 3PH		EXISTING	THHN/ THWN-2	600
P/KLLY-LSA	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY METER	MAIN DISCONNECT	230V, 3PH		EXISTING	THHN/ THWN-2	600
P/KLLY-LSB	2"	ALUMINUM ABOVE GRADE PVC. BELOW	MAIN DISCONNECT	PUMP CONTROL PANEL	230V, 3PH		EXISTING	THHN/ THWN-2	600
P/KLLY-LSC	3"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP CONTROL PANEL	MOTOR POWER VENT BOX	230V, 3PH		(2 SETS) 3 - #2/0 CU; 1 - #6 CU GND	THHN/ THWN-2	600
I/KLLY-LSC	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	PUMP CONTROL PANEL	SIGNALS		1 - #16 TSP; 10 - #14 CU	BELDEN 9316; THHN/ THWN-2	600
P/KLLY-LS-P1	2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	230V, 3PH		3 - #1 CU, 1- #6 CU GND	THHN/ THWN-2	600
P/KLLY-LS-P2	2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	230V, 3PH		3 - #1 CU, 1- #6 CU GND	THHN/ THWN-2	600
P/KLLY-LS-P1-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	230V, 3PH		MANUFACTURER		
P/KLLY-LS-P2-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	230V, 3PH		MANUFACTURER		
I/KLLY-LSA	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	FLOAT SWITCHES	FLOAT MFR CABLES	BELDEN 9316; THHN/ THWN-2	600
I/KLLY-LSB	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	RADAR LEVEL	1 - #16 TSP	BELDEN 9316; THHN/ THWN-2	600
P/KLLY-SP	1"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP CONTROL PANEL	METER VAULT SUMP PUMP			2 - #12 CU; 1 - #12 CU GND	THHN/ THWN-2	600
P/BANK-LS	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY POLE	UTILITY METER BASE	230V, 3PH		EXISTING	THHN/ THWN-2	600
P/BANK-LSA	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY METER	MAIN DISCONNECT	230V, 3PH		EXISTING	THHN/ THWN-2	600
P/BANK-LSB	2"	ALUMINUM ABOVE GRADE PVC. BELOW	MAIN DISCONNECT	PUMP CONTROL PANEL	230V, 3PH		EXISTING	THHN/ THWN-2	600
I/BANK-LSC	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	PUMP CONTROL PANEL	SIGNALS		1 - #16 TSP; 10 - #14 CU	BELDEN 9316; THHN/ THWN-2	600
P/BANK-PCP	1"	ALUMINUM	VFD CONTROL PANEL	PUMP CONTROL PANEL	230V, 3PH		3 - #12 CU, 1 - #12 CU GND	THHN/ THWN-2	600
P/BANK-LS-P1	2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	230V, 3PH		3 - #1 CU, 1- #6 CU GND	THHN/ THWN-2	600
P/BANK-LS-P2	2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	230V, 3PH		3 - #1 CU, 1- #6 CU GND	THHN/ THWN-2	600
P/BANK-LS-P1-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	230V, 3PH		MANUFACTURER		
P/BANK-LS-P2-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	230V, 3PH		MANUFACTURER		
I/BANK-LSA	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	FLOAT SWITCHES	FLOAT MFR CABLES	BELDEN 9316; THHN/ THWN-2	600
I/BANK-LSB	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	RADAR LEVEL	1 - #16 TSP	BELDEN 9316; THHN/ THWN-2	600
I/BANK-FLW	1"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP CONTROL PANEL	DOPPLER CLAMP ON SENSOR		MANUFACTURER CABLE (DO NOT CUT - ORDER TO LENGTH)			
P/EGLE-LSA	2"	ALUMINUM ABOVE GRADE PVC. BELOW	UTILITY METER	RONK MANUAL TRANSFER SWITCH DISCONNECT	240V, 1PH		3 - #3 CU, 1 - #8 CU GND	THHN/ THWN-2	600
P/EGLE-LSB	2"	ALUMINUM ABOVE GRADE PVC. BELOW	RONK MANUAL TRANSFER SWITCH DISCONNECT	PUMP CONTROL PANEL	240V, 1PH		EXISTING	THHN/ THWN-2	600
I/EGLE-LSC	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	PUMP CONTROL PANEL	SIGNALS		1 - #16 TSP; 10 - #14 CU	BELDEN 9316; THHN/ THWN-2	600
P/EGLE-LS-PMP	2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	PUMP CONTROL PANEL	240V, 3PH	PUMP #1 AND PUMP #2 POWER WIRING; PUMP #1 SEAL FAIL/OVERTEMP WIRING	(2 SETS) 3 - #12 CU, 1- #12 CU GND; 4 - #14 CU	THHN/ THWN-2	600
P/EGLE-LS-P1-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	240V, 1PH		MANUFACTURER		
P/EGLE-LS-P2-MFR	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	PUMP VENT BOX	LIFT STATION WET WELL	240V, 1PH		MANUFACTURER		
I/EGLE-LSA	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	FLOAT SWITCHES	FLOAT MFR CABLES	BELDEN 9316; THHN/ THWN-2	600
I/EGLE-LSB	1-1/2"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENTATION VENT BOX	INSTRUMENTS IN WET WELL	SIGNALS	RADAR LEVEL	1 - #16 TSP	BELDEN 9316; THHN/ THWN-2	600
I/TSP	3/4"	ALUMINUM ABOVE GRADE PVC. BELOW	INSTRUMENT	PULL BOX AND MSCP	SIGNALS		1 - #16 TSP	BELDEN 9316; THHN/ THWN-2	600
P/CLFRCP	1-1/4"	SCH 80 PVC PVC. BELOW; RTRC ABOVE	CLARIFIER MOTOR CONTROL PANEL	EQUIPMENT PULL BOX	208V, 3PH POWER; CONTROL STATION WIRING	CLARIFIER #1, CLARIFIER #2, AIR SCUM #1 AND AIR SCUM #2 POWER WIRES	(4 SETS) 3 - #12 CU, 1 - #12 CU GND; 12 - #14 CU	THHN/ THWN-2	600

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DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

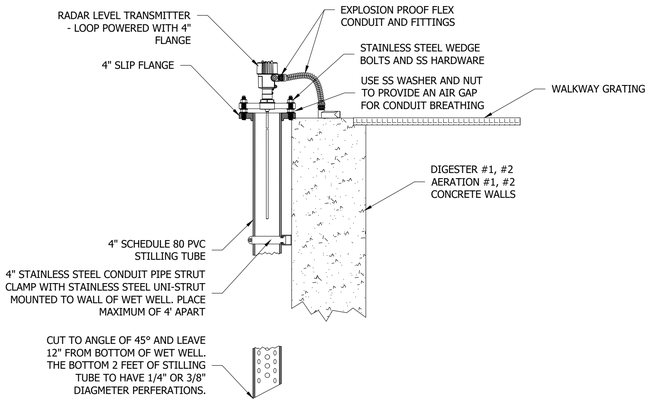
Project #: 400-6314
Designed By: JAR
Drawn By: JAR
Checked By: ALC & DB
Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF
INDIANA
PROFESSIONAL ENGINEER

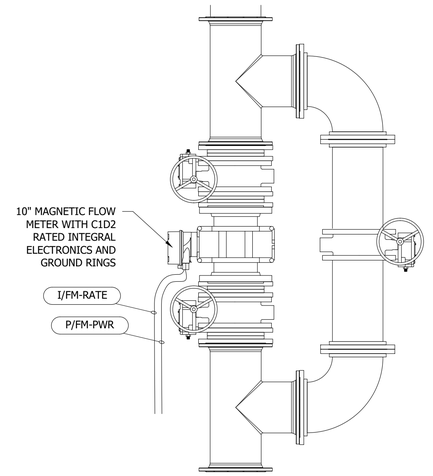
Dustin Barth

WWTP ELECTRICAL CONDUIT-CABLE SCHEDULE

E107B



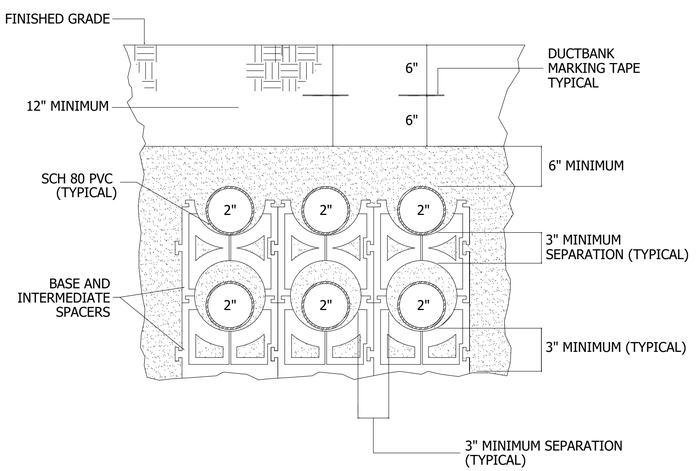
RADAR LEVEL TRANSMITTER WITH STILLING TUBE INSTALLATION DETAIL IN RAS/WAS WET WELL AND LIFT STATIONS
NOT TO SCALE



NEW INFLUENT FLOW METER DETAIL
NOT TO SCALE

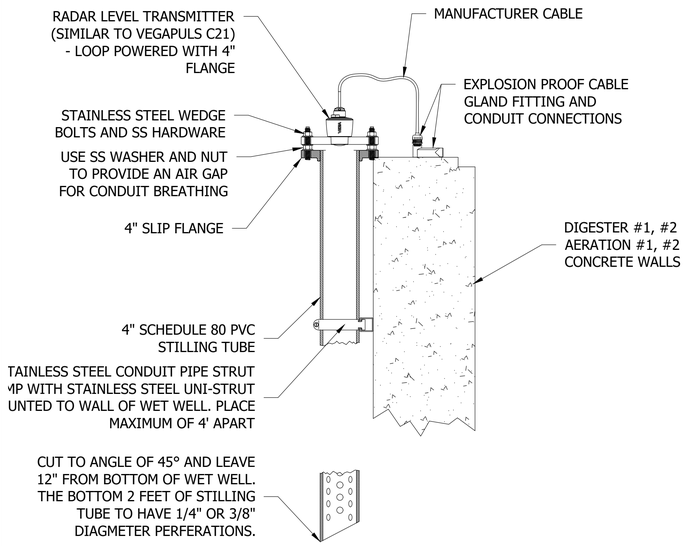


EXISTING POWER EQUIPMENT PHOTO - ALL TO BE REMOVED
NOT TO SCALE



TYPICAL FOR BOTH POWER AND INSTRUMENTATION CONDUITS
MINIMUM 8" BETWEEN POWER AND INSTRUMENTATION CONDUITS.

A SECTION
Scale: NONE
E102B



RADAR LEVEL TRANSMITTER INSTALLATION DETAIL FOR AERATION AND DIGESTER TANKS
NOT TO SCALE

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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Project #: 400-6314
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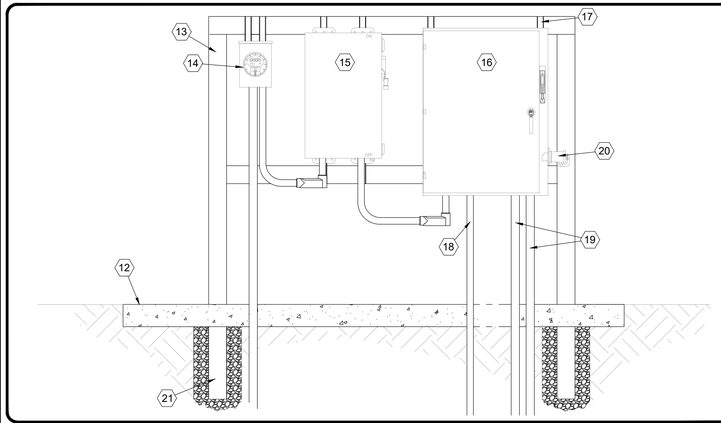
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Dustin Barth

WWTP ELECTRICAL DETAILS

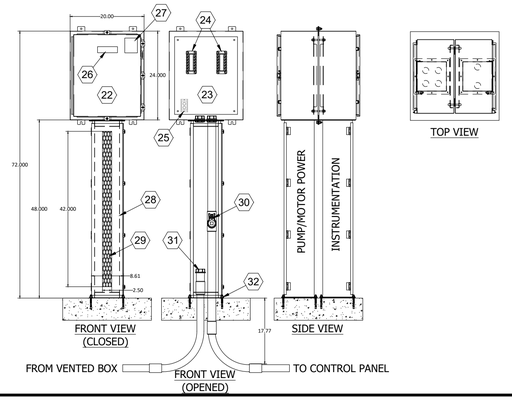
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LIFT STATION ELECTRICAL EQUIPMENT RACK

NO SCALE



LIFT STATION VENT BOX DETAIL

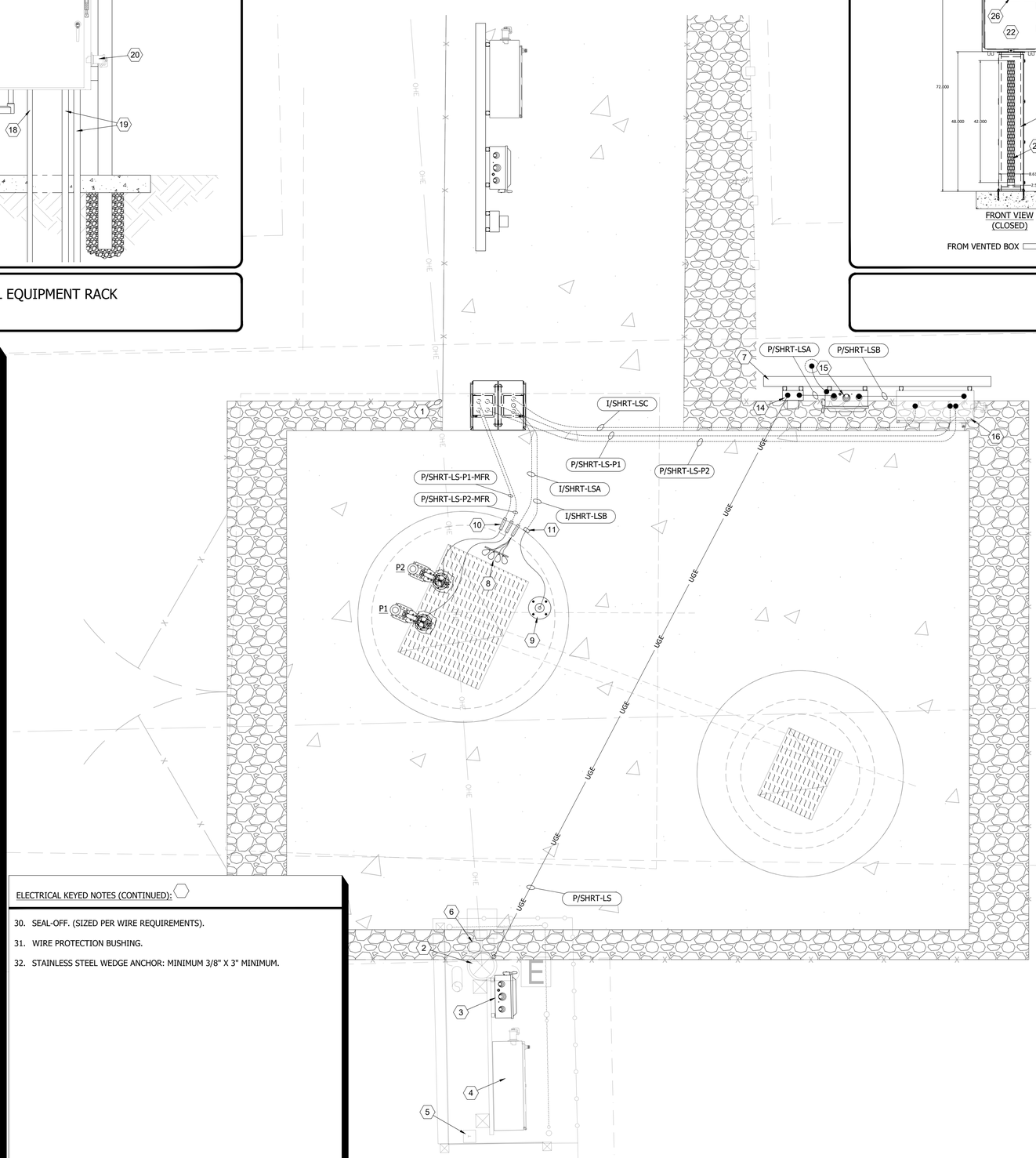
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ELECTRICAL KEYED NOTES:

1. EXISTING UTILITY OVERHEAD SERVICE. 230V, 3PH, 4W.
2. EXISTING UTILITY POLE, TO REMAIN. PROVIDE A NEW DROP UNDERGROUND TO NEW EQUIPMENT RACK AND UTILITY METER.
3. EXISTING 230V, 3PH, 100A STAINLESS STEEL DISCONNECT. TO BE RELOCATED TO NEW RACK.
4. EXISTING PUMP CONTROL PANEL. TO BE REMOVED AND RETURNED TO OWNER. THIS PANEL WILL BE REPLACED BY PUMP CONTROL PANEL FROM CASE LIFT STATION.
5. EXISTING TELEPHONE BOX. TO REMAIN.
6. EXISTING UTILITY METER, TO BE REMOVED. COORDINATE WITH LOCAL UTILITY FOR DISCONNECT AND RECONNECTIONS TO NEW METER.
7. PROPOSED ELECTRICAL EQUIPMENT RACK. SEE DETAIL.
8. EXISTING FLOAT SWITCHES TO BE REMOVED AND REPLACED WITH NEW (4 NON-MERCURY TYPE). PROVIDE STAINLESS STEEL J-HOOK FOR FLOAT CABLES.
9. REMOVE EXISTING LEVEL TRANSMITTER AND PROVIDE A NEW RADAR LEVEL TRANSMITTER IN STILLING TUBE. SEE DETAILS SHEET E110.
10. PROVIDE LINK SEALS FOR ALL WET WELL ENTRIES FOR NEW CABLES. SEAL ALL EXISTING CONDUIT/CABLE ENTRIES.
11. JUNCTION BOX OR LB FOR LEVEL SIGNAL CABLE TRANSITION FROM ABOVE GRADE TO BELOW.
12. LIFT STATION NEW CONCRETE PAD.
13. PROPOSED ALUMINUM EQUIPMENT RACK. 3" X 3" SQUARE ALUMINUM TUBING WELDED OR ALUMINUM ANGLE.
14. PROVIDE 100A UTILITY METER BASE. COORDINATE WITH LOCAL UTILITY.
15. EXISTING LIFT STATION 100A, 230V DISCONNECT. RELOCATE TO NEW RACK.
16. EXISTING PUMP CONTROL PANEL FROM CASE LIFT STATION. PANEL TO BE MODIFIED FOR THIS STATION. SEE SHEET I109.
17. EQUIPMENT SUPPORT: STAINLESS OR ALUMINUM UNI-STRUT.
18. INSTRUMENTATION CONDUIT FROM INSTRUMENTATION VENTED BOX.
19. MOTOR POWER CONDUIT FROM MOTOR POWER VENTED BOX.
20. EXISTING MOBILE GENERATOR PLUG.
21. COAT ALUMINUM TO PROTECT AGAINST CONCRETE AND SOIL EROSION EFFECTS. ALTERNATIVELY, CONTRACTOR MAY USE WEDGE ANCHORS IN POURED CONCRETE GRADE. EQUIPMENT RACK SHALL BE INSTALLED SO THAT THERE IS NO VISIBLE PLAY IN MOVEMENT.
22. 24" X 20" X 8" NEMA4X STAINLESS STEEL ENCLOSURE. TYPICAL FOR BOTH MOTOR VENTED BOX AND INSTRUMENT VENTED BOX.
23. 24"X20" EQUIPMENT PANEL. TYPICAL FOR BOTH.
24. TERMINATION BLOCKS: 1 SET PER BOX FOR WIRE ENTRY FROM WET WELL AND 1 SET FOR WIRE DEPARTURE TO PUMP CONTROL PANEL.
    - 24.1. MOTOR VENT BOX: MOTOR LEADS/SEAL FAIL/OVERTEMP
    - 24.2. I&C VENT BOX: FLOAT SWITCHES/LEVEL TRANSMITTER
25. GROUNDING TERMINAL BLOCK.
26. PHENOLIC IDENTIFICATION NAMEPLATE. BLACK LETTERING ON WHITE.
27. VOLTAGE RATING ON BOX.
28. STAINLESS STEEL WIRE TROUGH SIMILAR TO HAMMOND 1487E48SS. CUT-IN OPENING ON TROUGH DOOR TO APPROXIMATE DIMENSIONS SHOWN. ALL CUT EDGES TO BE CLEAR OF BURRS AND SHARP EDGES.
29. STAINLESS STEEL GRATE. .75" TO 1" HOLE 13GA. MINIMUM. WELDED AND FINISHED TO INSIDE OF TROUGH DOOR CUT-OUT.

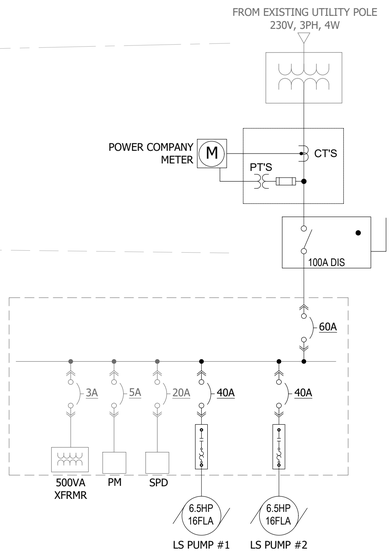
ELECTRICAL KEYED NOTES (CONTINUED):

30. SEAL-OFF. (SIZED PER WIRE REQUIREMENTS).
31. WIRE PROTECTION BUSHING.
32. STAINLESS STEEL WEDGE ANCHOR: MINIMUM 3/8" X 3" MINIMUM.



SHORT STREET LIFT STATION - PLAN VIEW

SCALE: 1" = 2'-0"



BASIC ONE-LINE DIAGRAM

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC & DB

Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF
INDIANA
PROFESSIONAL ENGINEER

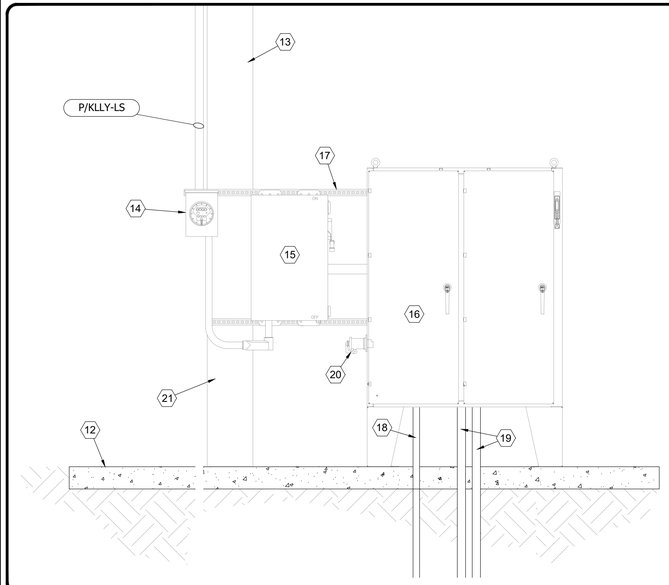
Dustin Barth

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GRAPHIC SCALE

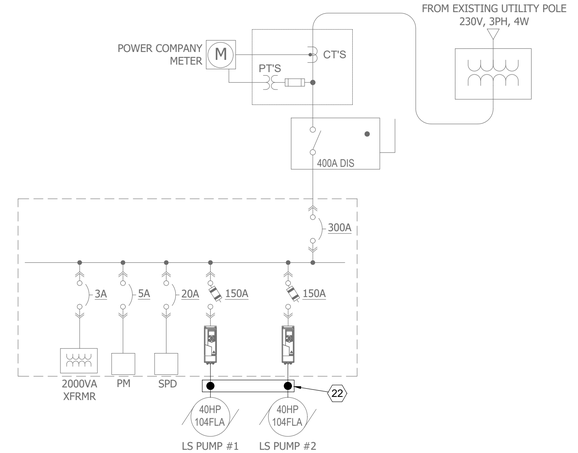
SHORT STREET LS ELECTRICAL DETAILS - PROPOSED

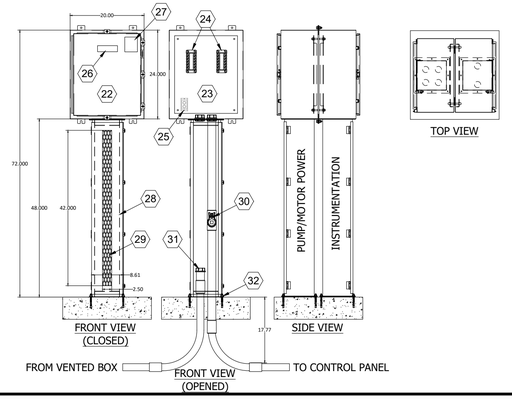
E109

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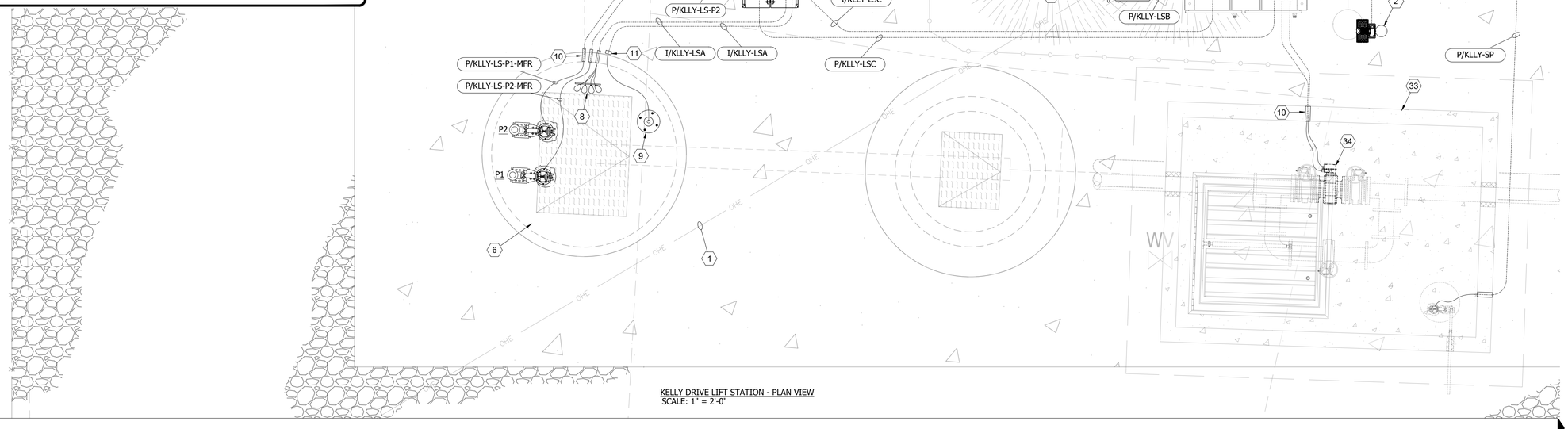
LIFT STATION ELECTRICAL EQUIPMENT RACK
NO SCALE





LIFT STATION VENT BOX DETAIL
NO SCALE

BASIC ONE-LINE DIAGRAM



KELLY DRIVE LIFT STATION - PLAN VIEW
SCALE: 1" = 2'-0"

ELECTRICAL KEYED NOTES:

1. EXISTING UTILITY OVERHEAD SERVICE. 230V, 3PH, 4W.
2. EXISTING 4" X 4" LIGHT POLE AND LIGHT TO BE REMOVED AND REPLACED WITH LED SITE LIGHT WITH PHOTOCELL AND 12' ALUMINUM 4" POLE.
3. EXISTING 230V, 3PH, 100A STAINLESS STEEL DISCONNECT - TO REMAIN.
4. EXISTING PUMP CONTROL PANEL - TO REMAIN.
5. PROPOSED FENCE AROUND LIFT STATION AREA.
6. WET WELL.
7. EXISTING ELECTRICAL EQUIPMENT RACK (UNI-STRUT). CONTRACTOR TO REPAIR AS REQUIRED (MINIMAL).
8. EXISTING FLOAT SWITCHES TO BE REMOVED AND REPLACED WITH NEW (4 NON-MERCURY TYPE). PROVIDE STAINLESS STEEL J-HOOK FOR FLOAT CABLES.
9. REMOVE EXISTING LEVEL TRANSMITTER AND PROVIDE A NEW RADAR LEVEL TRANSMITTER IN STILLING TUBE. SEE DETAILS SHEET E110.
10. PROVIDE LINK SEALS FOR ALL WET WELL ENTRIES FOR NEW CABLES. SEAL ALL EXISTING CONDUIT/CABLE ENTRIES.
11. JUNCTION BOX OR LB FOR LEVEL SIGNAL CABLE TRANSITION FROM ABOVE GRADE TO BELOW.
12. LIFT STATION NEW CONCRETE PAD. THIS COVERS THE WHOLE LIFT STATION AREA.
13. EXISTING UTILITY POLE WITH OVERHEAD AND DROP TO METER - TO REMAIN.
14. EXISTING 100A UTILITY METER BASE - TO REMAIN.
15. EXISTING LIFT STATION 100A, 230V DISCONNECT. RELOCATE TO NEW RACK.
16. EXISTING PUMP CONTROL PANEL FROM CASE LIFT STATION. PANEL TO BE MODIFIED FOR THIS STATION. SEE SHEET I106. PUMP CONTROL PANEL WILL REQUIRE BEING RE-LEVELED AND PLUMMED AFTER CONCRETE PAD HAS BEEN POURED UNDER IT.
17. EQUIPMENT SUPPORT: EXISTING EQUIPMENT UNI-STRUT - TO REMAIN.
18. INSTRUMENTATION CONDUIT FROM INSTRUMENTATION VENTED BOX.
19. MOTOR POWER CONDUIT FROM MOTOR POWER VENTED BOX.
20. EXISTING MOBILE GENERATOR PLUG.
21. COAT ALUMINUM TO PROTECT AGAINST CONCRETE AND SOIL EROSION EFFECTS. ALTERNATIVELY, CONTRACTOR MAY USE WEDGE ANCHORS IN POURED CONCRETE GRADE. EQUIPMENT RACK SHALL BE INSTALLED SO THAT THERE IS NO VISIBLE PLAY IN MOVEMENT.
22. 24" X 20" X 8" NEMA4X STAINLESS STEEL ENCLOSURE. TYPICAL FOR BOTH MOTOR VENTED BOX AND INSTRUMENT VENTED BOX.
23. 24"X20" EQUIPMENT PANEL. TYPICAL FOR BOTH.
24. TERMINATION BLOCKS: 1 SET PER BOX FOR WIRE ENTRY FROM WET WELL AND 1 SET FOR WIRE DEPARTURE TO PUMP CONTROL PANEL.
    24.1. MOTOR VENT BOX: MOTOR LEADS/SEAL FAIL/OVERTEMP
    24.2. I&C VENT BOX: FLOAT SWITCHES/LEVEL TRANSMITTER
25. GROUNDING TERMINAL BLOCK.
26. PHENOLIC IDENTIFICATION NAMEPLATE. BLACK LETTERING ON WHITE.
27. VOLTAGE RATING ON BOX.
28. STAINLESS STEEL WIRE TROUGH SIMILAR TO HAMMOND 1487E48SS. CUT-IN OPENING ON TROUGH DOOR TO APPROXIMATE DIMENSIONS SHOWN. ALL CUT EDGES TO BE CLEAR OF BURRS AND SHARP EDGES.
29. STAINLESS STEEL GRATE. .75" TO 1" HOLE 13GA. MINIMUM. WELDED AND FINISHED TO INSIDE OF TROUGH DOOR CUT-OUT.
30. SEAL-OFF. (SIZED PER WIRE REQUIREMENTS). PROVIDES SEAL BETWEEN VENTED PANELS AND PUMP CONTROL PANEL.
31. WIRE PROTECTION BUSHING.
32. STAINLESS STEEL WEDGE ANCHOR: MINIMUM 3/8" X 3" MINIMUM.
33. PROPOSED METER VAULT.
34. 6" MAGNETIC FLOW METER. SIMILAR TO E&H PROMAG W400 WITH REMOTE ELECTRONICS AND GROUNDING RING. REMOTE ELECTRONICS TO BE MOUNTED WITHIN EXISTING PUMP CONTROL PANEL.

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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REGISTERED
No. 12200401
STATE OF INDIANA
PROFESSIONAL ENGINEER

Dustin Barth

2 0 2 4
GRAPHIC SCALE

KELLY DRIVE LS ELECTRICAL DETAILS - PROPOSED

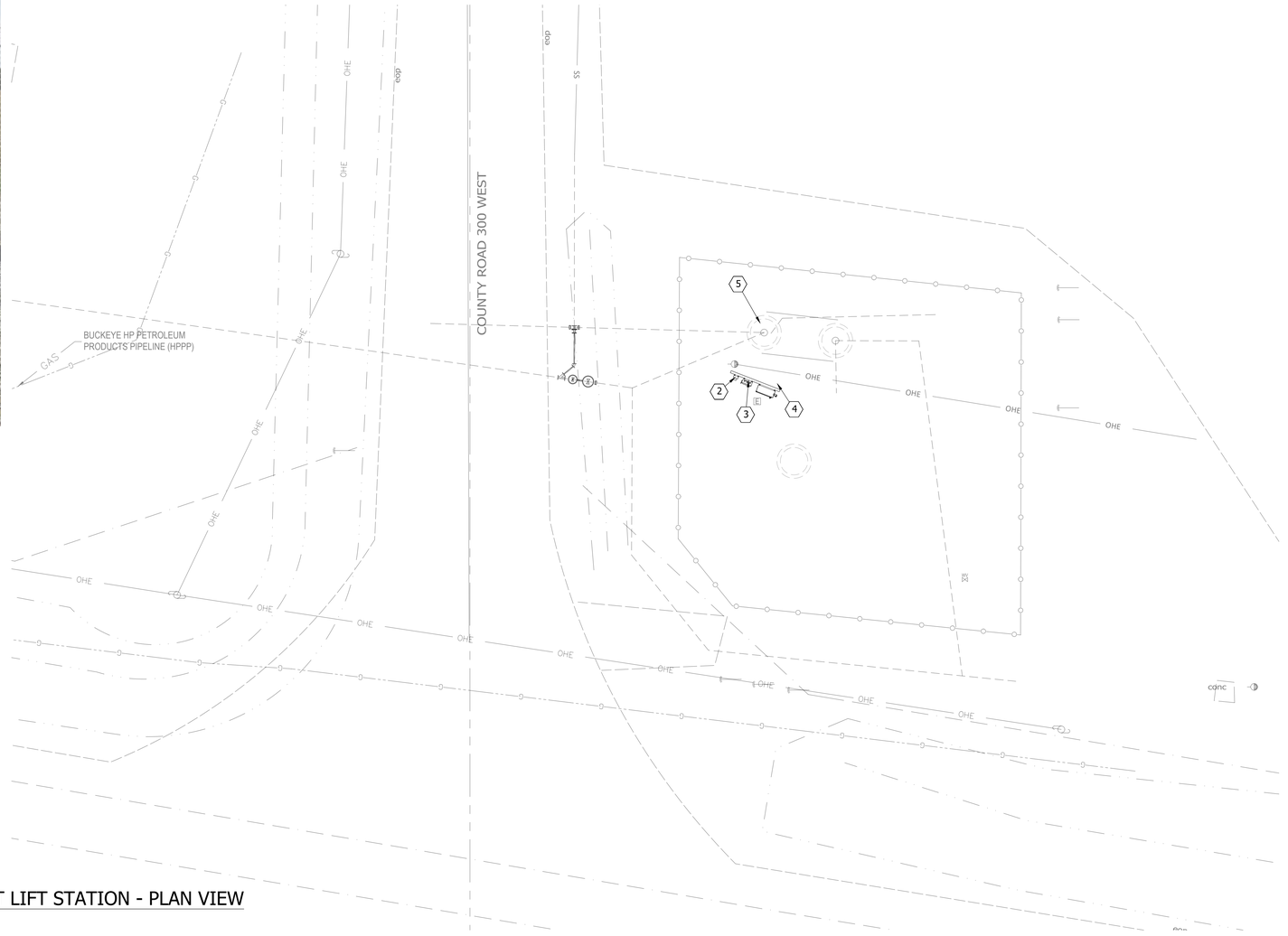
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ELECTRICAL KEYED NOTES

1. REMOVE ELECTRICAL BOX WITH LIGHT AND HORN. DISCONNECT AND REMOVE ANY WIRING AND CONDUIT.
2. COORDINATE WITH UTILITY COMPANY TO DISCONNECT METER AND TURN OFF POWER TO THIS SITE. REMOVE METER BASE AND ASSOCIATED CONDUIT AND WIRE.
3. EXISTING STAINLESS STEEL 200A DISCONNECT. REMOVE AND RETURN TO OWNER. DISCONNECT AND REMOVE EXISTING CONDUIT AND WIRE.
4. EXISTING PUMP CONTROL PANEL. DISCONNECT ANY CONNECTED CONDUIT AND ASSOCIATED EXTERNAL WIRING. REMOVE ENCLOSURE AND RELOCATE TO SHORT STREET LIFT STATION. SEE SHEET E111.
5. EXISTING WET WELL. DISCONNECT AND REMOVE ANY ELECTRICAL CONDUIT, WIRE AND INSTRUMENTS.



CASE STREET LIFT STATION - PLAN VIEW
SCALE: 1" = 2'-0"

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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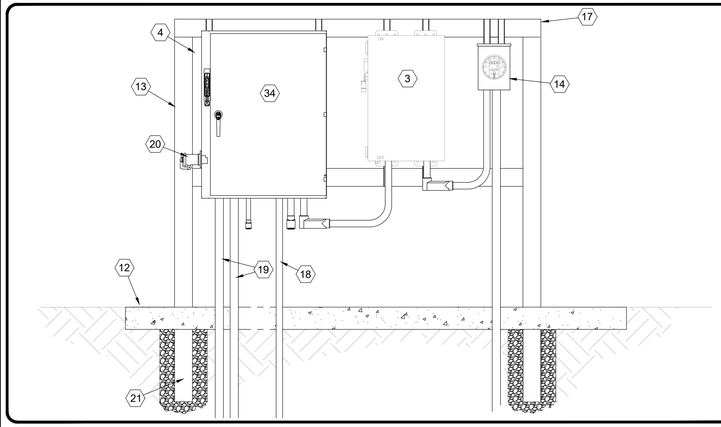
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Dustin Barth

CASE STREET LIFT STATION ELECTRICAL DETAILS

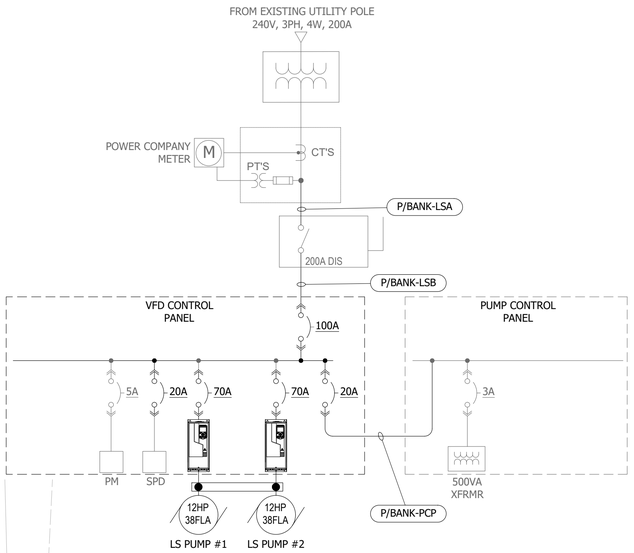
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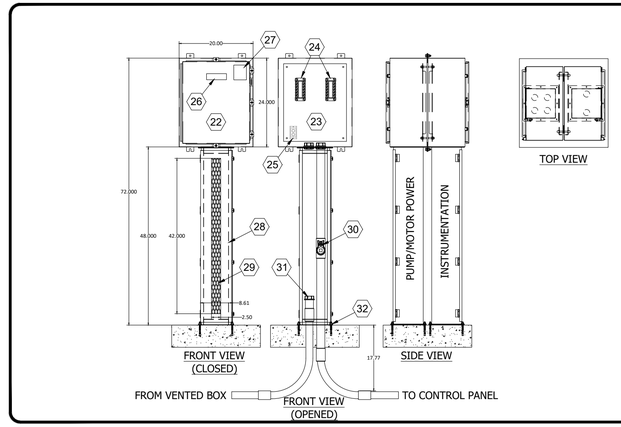


LIFT STATION ELECTRICAL EQUIPMENT RACK

NO SCALE



BASIC ONE-LINE DIAGRAM

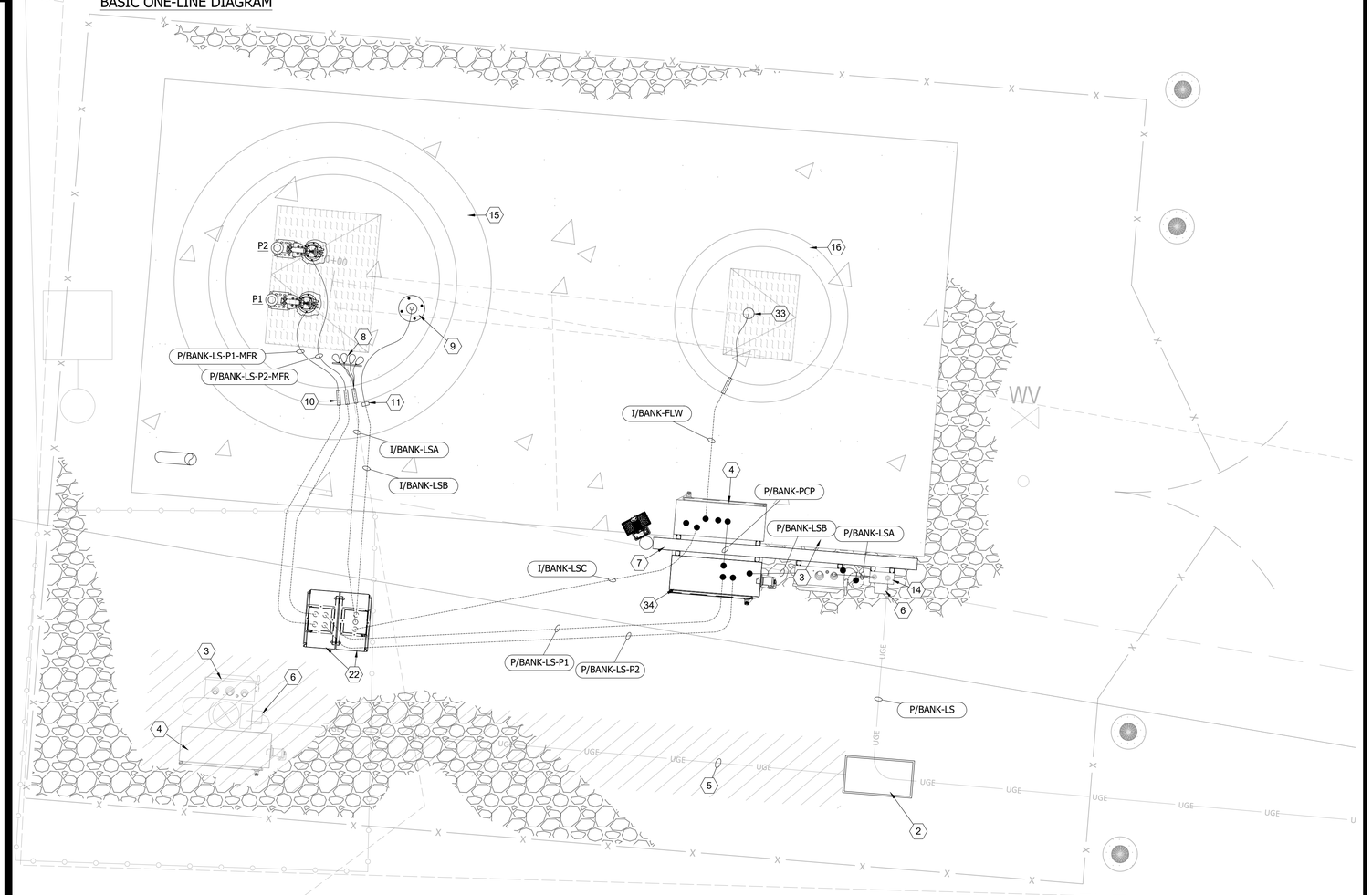


LIFT STATION VENT BOX DETAIL

NO SCALE

ELECTRICAL KEYED NOTES:

1. EXISTING UTILITY UNDERGROUND 200A SERVICE. 240V, 3PH, 4W.
2. PROVIDE QUAZITE PULL BOX (13" X 24" X 18" OR SIMILAR) WITH ELECTRICAL TIER 5 COVER.
3. EXISTING 240V, 3PH, 200A STAINLESS STEEL DISCONNECT. TO BE RELOCATED TO NEW RACK.
4. EXISTING PUMP CONTROL PANEL. TO BE REMOVED AND RELOCATED TO NEW EQUIPMENT RACK. (LOCATED ON OPPOSITE SIDE OF PROPOSED VFD CONTROL PANEL).
5. EXISTING UNDERGROUND SERVICE TO EXISTING UTILITY METER ON POLE SHALL BE PULLED BACK TO NEW QUAZITE ELECTRICAL BOX AND REROUTED TO NEW EQUIPMENT RACK WHERE EXISTING METER WILL BE MOUNTED. COORDINATE WITH LOCAL UTILITY AND OWNER TO SHUT DOWN POWER FOR THIS WORK.
6. EXISTING UTILITY METER, TO BE REMOVED. COORDINATE WITH LOCAL UTILITY FOR DISCONNECT AND RELOCATED TO ELECTRICAL EQUIPMENT RACK.
7. PROPOSED ELECTRICAL EQUIPMENT RACK. SEE DETAIL.
8. EXISTING FLOAT SWITCHES TO BE REMOVED AND REPLACED WITH NEW (4 NON-MERCURY TYPE). PROVIDE STAINLESS STEEL J-HOOK FOR FLOAT CABLES.
9. REMOVE EXISTING LEVEL TRANSMITTER AND PROVIDE A NEW RADAR LEVEL TRANSMITTER IN STILLING TUBE. SEE DETAILS SHEET E110.
10. PROVIDE LINK SEALS FOR ALL WET WELL ENTRIES FOR NEW CABLES. SEAL ALL EXISTING CONDUIT/CABLE ENTRIES.
11. JUNCTION BOX OR LB FOR LEVEL SIGNAL CABLE TRANSITION FROM ABOVE GRADE TO BELOW.
12. LIFT STATION NEW CONCRETE PAD.
13. PROPOSED ALUMINUM EQUIPMENT RACK. 3" X 3" SQUARE ALUMINUM TUBING WELDED OR ALUMINUM ANGLE.
14. PROVIDE 200A UTILITY METER BASE. COORDINATE WITH LOCAL UTILITY.
15. LIFT STATION WET WELL.
16. LIFT STATION VALVE VAULT.
17. EQUIPMENT SUPPORT: STAINLESS OR ALUMINUM UNI-STRUT.
18. INSTRUMENTATION CONDUIT FROM INSTRUMENTATION VENTED BOX.
19. MOTOR POWER CONDUIT FROM MOTOR POWER VENTED BOX.
20. EXISTING MOBILE GENERATOR PLUG.
21. COAT ALUMINUM TO PROTECT AGAINST CONCRETE AND SOIL EROSION EFFECTS. ALTERNATIVELY, CONTRACTOR MAY USE WEDGE ANCHORS IN POURED CONCRETE GRADE. EQUIPMENT RACK SHALL BE INSTALLED SO THAT THERE IS NO VISIBLE PLAY IN MOVEMENT.
22. 24" X 20" X 8" NEMA4X STAINLESS STEEL ENCLOSURE. TYPICAL FOR BOTH MOTOR VENTED BOX AND INSTRUMENT VENTED BOX. CONTRACTOR TO LAND MOTOR CABLES ON TERMINAL BLOCKS IN MOTOR POWER VENT BOX AND TERMINATION OF SEAL FAIL AND OVERTEMP SENSOR WIRES. SEAL FAIL AND OVERTEMP WIRES TO BE CONNECTED TO INSTRUMENT VENT BOX TERMINAL BOX.
23. 24"X20" EQUIPMENT PANEL. TYPICAL FOR BOTH.
24. TERMINATION BLOCKS: 1 SET PER BOX FOR WIRE ENTRY FROM WET WELL AND 1 SET FOR WIRE DEPARTURE TO PUMP CONTROL PANEL.
    - 24.1. MOTOR VENT BOX: MOTOR LEADS/SEAL FAIL/OVERTEMP
    - 24.2. I&C VENT BOX: FLOAT SWITCHES/LEVEL TRANSMITTER
25. GROUNDING TERMINAL BLOCK.
26. PHENOLIC IDENTIFICATION NAMEPLATE. BLACK LETTERING ON WHITE.
27. VOLTAGE RATING ON BOX.
28. STAINLESS STEEL WIRE TROUGH SIMILAR TO HAMMOND 1487E48SS. CUT-IN OPENING ON TROUGH DOOR TO APPROXIMATE DIMENSIONS SHOWN. ALL CUT EDGES TO BE CLEAR OF BURRS AND SHARP EDGES.
29. STAINLESS STEEL GRATE. .75" TO 1" HOLE 13GA. MINIMUM. WELDED AND FINISHED TO INSIDE OF TROUGH DOOR CUT-OUT.
30. SEAL-OFF. (SIZED PER WIRE REQUIREMENTS).
31. WIRE PROTECTION BUSHING.
32. STAINLESS STEEL WEDGE ANCHOR: MINIMUM 3/8" X 3" MINIMUM.
33. PROVIDE CLAMP ON STYLE DOPPLER FLOW METER, PERMANENT MOUNT ON EFFLUENT FLOW PIPE. SIMILAR TO GREYLINE DFM 6.1.
34. PROPOSED VFD CONTROL PANEL. SEE SHEET I106B.



BANK LIFT STATION - PLAN VIEW

SCALE: 1" = 2'-0"

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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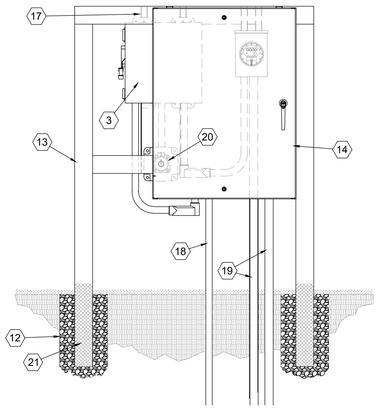
Dustin Barth

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GRAPHIC SCALE

BANK LS ELECTRICAL DETAILS - PROPOSED

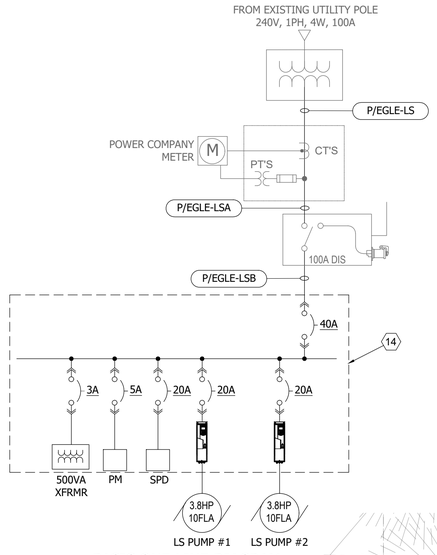
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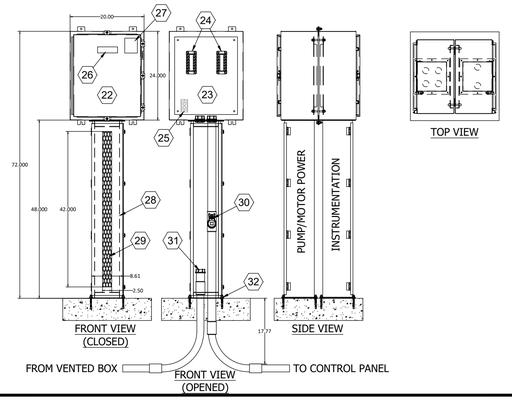


LIFT STATION ELECTRICAL EQUIPMENT RACK

NO SCALE



BASIC ONE-LINE DIAGRAM

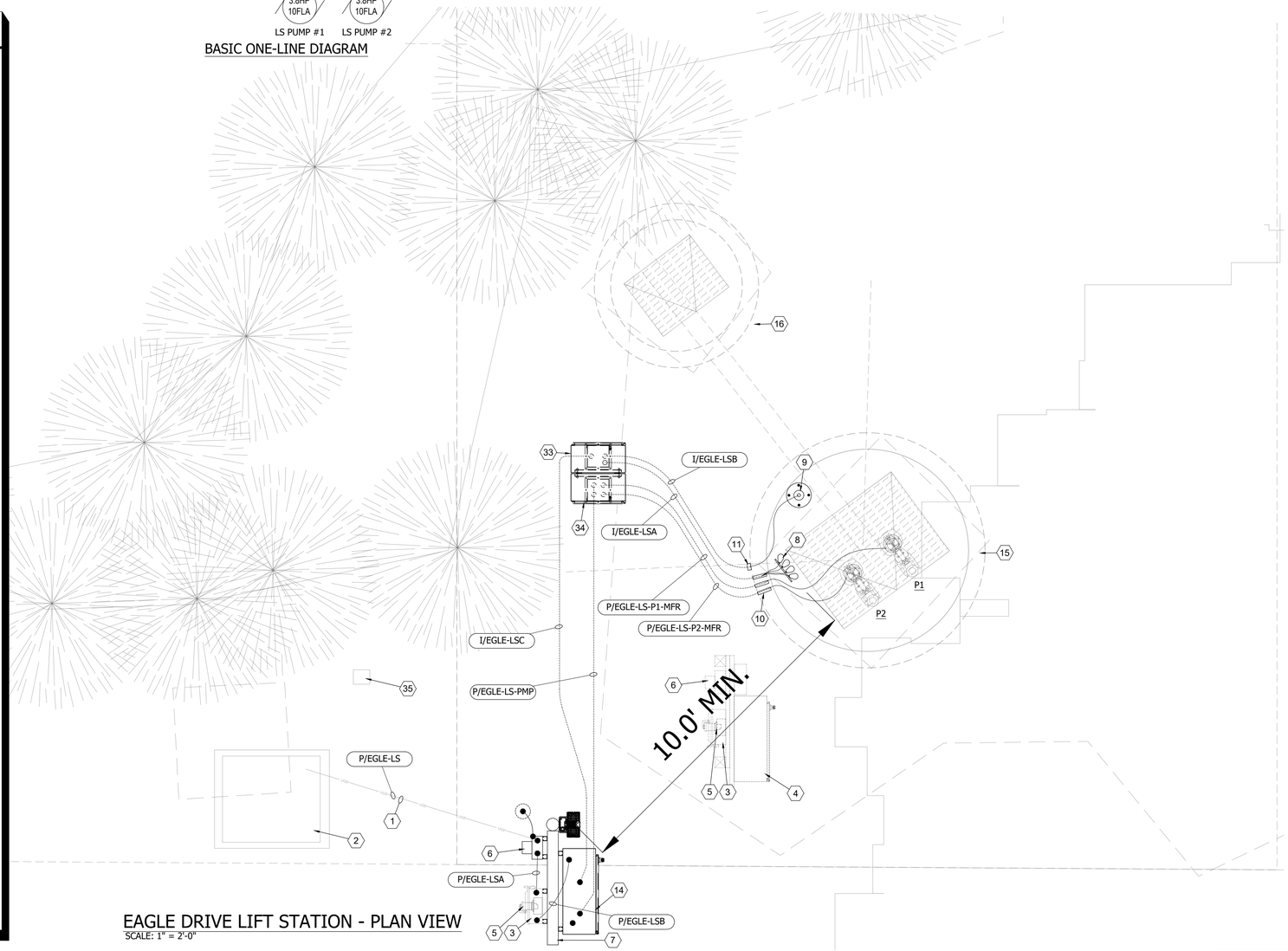


LIFT STATION VENT BOX DETAIL

NO SCALE

ELECTRICAL KEYED NOTES:

1. EXISTING UTILITY UNDERGROUND 100A SERVICE. 240V, 1PH. LIFT STATION UNDERGROUND SERVICE TO BE RELOCATED FROM EXISTING TRANSFORMER TO NEW EQUIPMENT RACK.
2. EXISTING UTILITY TRANSFORMER. TO REMAIN.
3. EXISTING 240V, 1PH, 100A RONK 7103 MAIN DISCONNECT AND MANUAL TRANSFER SWITCH. TO BE RELOCATED TO NEW RACK.
4. EXISTING PUMP CONTROL PANEL. TO BE REMOVED AND RETURNED TO OWNER.
5. EXISTING MOBILE GENERATOR PLUG AND JUNCTION BOX. TO BE RELOCATED TO NEW EQUIPMENT RACK.
6. EXISTING UTILITY METER, TO BE REMOVED. COORDINATE WITH LOCAL UTILITY FOR DISCONNECT AND RELOCATION TO ELECTRICAL EQUIPMENT RACK.
7. PROPOSED ELECTRICAL EQUIPMENT RACK. SEE DETAIL.
8. EXISTING FLOAT SWITCHES TO BE REMOVED AND REPLACED WITH NEW (4 NON-MERCURY TYPE). PROVIDE STAINLESS STEEL J-HOOK FOR FLOAT CABLES.
9. REMOVE EXISTING LEVEL TRANSMITTER AND PROVIDE A NEW RADAR LEVEL TRANSMITTER IN STILLING TUBE. SEE DETAILS SHEET E110.
10. PROVIDE LINK SEALS FOR ALL WET WELL ENTRIES FOR NEW CABLES. SEAL ALL EXISTING CONDUIT/CABLE ENTRIES.
11. JUNCTION BOX OR LB FOR LEVEL SIGNAL CABLE TRANSITION FROM ABOVE GRADE TO BELOW.
12. LIFT STATION EQUIPMENT RACK POURED CONCRETE BASE, 16" X 24" MINIMUM.
13. PROPOSED ALUMINUM EQUIPMENT RACK. 3" X 3" SQUARE ALUMINUM TUBING WELDED OR ALUMINUM ANGLE.
14. PROPOSED PUMP CONTROL PANEL.
15. LIFT STATION WET WELL.
16. LIFT STATION VALVE VAULT.
17. EQUIPMENT SUPPORT: STAINLESS OR ALUMINUM UNI-STRUT.
18. INSTRUMENTATION CONDUIT FROM INSTRUMENTATION VENTED BOX.
19. MOTOR POWER CONDUIT FROM MOTOR POWER VENTED BOX.
20. EXISTING MOBILE GENERATOR PLUG.
21. COAT ALUMINUM TO PROTECT AGAINST CONCRETE AND SOIL EROSION EFFECTS. ALTERNATIVELY, CONTRACTOR MAY USE WEDGE ANCHORS IN POURED CONCRETE GRADE. EQUIPMENT RACK SHALL BE INSTALLED SO THAT THERE IS NO VISIBLE PLAY IN MOVEMENT.
22. 24" X 20" X 8" NEMA4X STAINLESS STEEL ENCLOSURE. TYPICAL FOR BOTH MOTOR VENTED BOX AND INSTRUMENT VENTED BOX.
23. 24"X20" EQUIPMENT PANEL. TYPICAL FOR BOTH.
24. TERMINATION BLOCKS: 1 SET PER BOX FOR WIRE ENTRY FROM WET WELL AND 1 SET FOR WIRE DEPARTURE TO PUMP CONTROL PANEL.
    - 24.1. MOTOR VENT BOX: MOTOR LEADS/SEAL FAIL/OVERTEMP
    - 24.2. I&C VENT BOX: FLOAT SWITCHES/LEVEL TRANSMITTER
25. GROUNDING TERMINAL BLOCK.
26. PHENOLIC IDENTIFICATION NAMEPLATE. BLACK LETTERING ON WHITE.
27. VOLTAGE RATING ON BOX.
28. STAINLESS STEEL WIRE TROUGH SIMILAR TO HAMMOND 1487E48SS. CUT-IN OPENING ON TROUGH DOOR TO APPROXIMATE DIMENSIONS SHOWN. ALL CUT EDGES TO BE CLEAR OF BURRS AND SHARP EDGES.
29. STAINLESS STEEL GRATE. .75" TO 1" HOLE 13GA. MINIMUM. WELDED AND FINISHED TO INSIDE OF TROUGH DOOR CUT-OUT.
30. SEAL-OFF. (SIZED PER WIRE REQUIREMENTS).
31. WIRE PROTECTION BUSHING.
32. STAINLESS STEEL WEDGE ANCHOR: MINIMUM 3/8" X 3" MINIMUM.
33. INSTRUMENTATION VENTED TERMINATION BOX. SEE DETAIL.
34. MOTOR VENTED TERMINATION BOX. SEE DETAIL.
35. EXISTING TELEPHONE JUNCTION BOX. DO NOT DISTURB.



EAGLE DRIVE LIFT STATION - PLAN VIEW

SCALE: 1" = 2'-0"

DCCM

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2 0 2 4
GRAPHIC SCALE

EAGLE DRIVE LS ELECTRICAL DETAILS - PROPOSED

E113

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KELLY STREET LIFT STATION

SHORT STREET LIFT STATION

EAGLE DRIVE LIFT STATION

BANK LIFT STREET

MAIN OFFICE SCADA DESKTOP COMPUTER

NEW SCADA MONITORING COMPUTER

EXISTING RAS/WAS PUMP CONTROL PANEL
(LOCATED IN PROPOSED ELECTRICAL ROOM)

AB 2080-REMLCD

MICRO 820 PLC

RAS PUMP #1

RAS PUMP #2

WAS PUMP #1

NEW MAIN SCADA CONTROL PANEL (MSCP)
(LOCATED IN PROPOSED ELECTRICAL ROOM)

PANELVIEW 7 PLUS 12" HMI

ELECTRIC ACTUATOR NETWORK CONTROL PANEL (ACNCP)
(LOCATED IN PROPOSED ELECTRICAL ROOM)

TO MSCP NETWORK SWITCH

BV1001 BV1002 BV1003 BV1004 BV1005 BV1006

BV1007 GV2001 GV2002 PV2007 PV2008 PV2009

PV2010

EXISTING BLOWER CONTROL PANEL

BLOWER #1

BLOWER #2

BLOWER #3

EXISTING UV SYSTEM CONTROL PANEL

NEW SLUDGE SCREW PRESS PLC CONTROL PANEL (SPCP)

ELECTRICAL KEYED NOTES

1. NEW ETHERNET TO FIBER MANAGED SWITCH. SIMILAR TO MOXA EDS-510E SERIES OR EQUAL. FIBER/ETHERNET SWITCH SHALL BE MANAGED WITH MINIMUM OF 6 PORTS (4 - COPPER 100/1000 Mbps + 2 SFP 100/1000 Mbps SLOTS).
2. NEW SCADA DESKTOP COMPUTER WITH 24" MONITOR, KEYBOARD AND MOUSE. COMPUTER TO HAVE 2 SEPARATE ETHERNET CARDS. ONE FOR LOCAL INTERNET AND ONE FOR DEDICATED SCADA NETWORK. DELL PRECISION SERIES OR EQUAL.
3. FIBER NETWORK TO BE SETUP IN A RING (LOOP) CONFIGURATION. MANAGED SWITCHES ARE TO BE CONFIGURED WITH ERPS SO THAT UNDER NORMAL OPERATION, ONE LINK IN THE RING IS BLOCKED UNLESS A BREAK IN A DOWNSTREAM CONNECTION IS LOST, THEN REROUTED BACK. FIBER OPTIC CABLE TO BE OS2 SINGLEMODE WITH 9µm CORE AND 125 µm CLADDING.
4. APRISA LTE 5G CELL MODEM INCLUDED WITH REQUIRED ANTENNA AND CABLES.
5. MAIN SCADA PLC CONTROL PANEL (MSCP). SEE SHEET I102A.

PRINT DATE: 10/16/26
PLOT SCALE: 1:1 EDIT DATE: 8/10/26 - 7:09 AM EDITED BY: JREED DRAWING FILE: P:\400-6314 SWEETSER WW IMPROVEMENTS\5 ACAD\PLAN SHEETS & WORKING DRAWINGS\400-6314 - SCADA SYSTEM NETWORK LAYOUT.DWG

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC

Date: 08/14/2026

AARON L. CROW REGISTERED No. PE11800762 STATE OF INDIANA PROFESSIONAL ENGINEER

SCADA SYSTEM NETWORK LAYOUT DETAILS

I100

PLC NAME: MSCP

TOTAL SIGNALS:	17	0	10	1	226	53	
DESCRIPTION:	ANALOG IN	ANALOG OUT	DIGITAL IN	DIGITAL OUT	ETHERNET	PLC GENERATED	FROM:
BLOWER CONTROL PANEL PHASE FAILURE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN STATUS					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 SAFETY SHUTDOWN					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 FAILED					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 IN AUTO					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN TIME TOTAL						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN TIME TOTAL FOR DAY						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN TIME TOTAL FOR WEEK						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN TIME TOTAL FOR MONTH						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN TIME TOTAL FOR YEAR						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 SOFT MANUAL/AUTO						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 MANUAL START/STOP						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 MANUAL SPEED SETPOINT						X	EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN COMMAND					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 SPEED REFERENCE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 SPEED FEEDBACK (Hz AND %)					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 FAULT CODE/DESCRIPTION					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 VFD TORQUE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 RPM					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 OUTPUT CURRENT					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 OUTPUT POWER					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 OUTPUT VOLTAGE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 DRIVE TEMPERATURE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #1 RUN TIME					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN STATUS					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 SAFETY SHUTDOWN					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 FAILED					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 IN AUTO					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN TIME TOTAL						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN TIME TOTAL FOR DAY						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN TIME TOTAL FOR WEEK						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN TIME TOTAL FOR MONTH						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN TIME TOTAL FOR YEAR						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 SOFT MANUAL/AUTO						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 MANUAL START/STOP						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 MANUAL SPEED SETPOINT						X	EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN COMMAND					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 SPEED REFERENCE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 SPEED FEEDBACK (Hz AND %)					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 FAULT CODE/DESCRIPTION					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 VFD TORQUE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 RPM					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 OUTPUT CURRENT					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 OUTPUT POWER					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 OUTPUT VOLTAGE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 DRIVE TEMPERATURE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #2 RUN TIME					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN STATUS					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 SAFETY SHUTDOWN					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 FAILED					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 IN AUTO					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN TIME TOTAL						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN TIME TOTAL FOR DAY						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN TIME TOTAL FOR WEEK						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN TIME TOTAL FOR MONTH						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN TIME TOTAL FOR YEAR						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 SOFT MANUAL/AUTO						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 MANUAL START/STOP						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 MANUAL SPEED SETPOINT						X	EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN COMMAND					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 SPEED REFERENCE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 SPEED FEEDBACK (Hz AND %)					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 FAULT CODE/DESCRIPTION					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 VFD TORQUE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 RPM					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 OUTPUT CURRENT					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 OUTPUT POWER					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 OUTPUT VOLTAGE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 DRIVE TEMPERATURE					X		EXISTING BLOWER CONTROL PANEL
BLOWER #3 RUN TIME					X		EXISTING BLOWER CONTROL PANEL
AERATION TANK #1 DO	X						LOCAL
AERATION TANK #1 Ph	X						LOCAL
AERATION TANK #1 ORP	X						LOCAL
AERATION TANK #1 LEVEL	X						LOCAL
AERATION TANK #2 DO	X						LOCAL
AERATION TANK #2 Ph	X						LOCAL
AERATION TANK #2 ORP	X						LOCAL
AERATION TANK #2 LEVEL	X						LOCAL
INFLUENT FLOW RATE	X						LOCAL
INFLUENT FLOW RATE TOTAL MGD						X	LOCAL
INFLUENT FLOW RATE TOTAL CURRENT DAY						X	LOCAL
INFLUENT FLOW RATE TOTAL CURRENT MONTH						X	LOCAL
INFLUENT FLOW RATE TOTAL CURRENT YEAR						X	LOCAL
INFLUENT FLOW RATE TOTAL CURRENT WEEK						X	LOCAL
INFLUENT FLOW RATE TOTAL PREVIOUS DAY						X	LOCAL
INFLUENT FLOW RATE TOTAL PREVIOUS MONTH						X	LOCAL
INFLUENT FLOW RATE TOTAL PREVIOUS YEAR						X	LOCAL
INFLUENT FLOW RATE TOTAL PREVIOUS WEEK						X	LOCAL
RAS FLOW RATE	X						LOCAL
RAS FLOW RATE TOTAL MGD						X	LOCAL
RAS FLOW RATE TOTAL CURRENT DAY						X	LOCAL
RAS FLOW RATE TOTAL CURRENT MONTH						X	LOCAL
RAS FLOW RATE TOTAL CURRENT YEAR						X	LOCAL
RAS FLOW RATE TOTAL CURRENT WEEK						X	LOCAL
RAS FLOW RATE TOTAL PREVIOUS DAY						X	LOCAL
RAS FLOW RATE TOTAL PREVIOUS MONTH						X	LOCAL

(PLC MSCP I/O LIST CONTINUED)

RAS FLOW RATE TOTAL PREVIOUS YEAR						X	LOCAL
RAS FLOW RATE TOTAL PREVIOUS WEEK						X	LOCAL
WAS FLOW RATE	X						LOCAL
WAS FLOW RATE TOTAL MGD						X	LOCAL
WAS FLOW RATE TOTAL CURRENT DAY						X	LOCAL
WAS FLOW RATE TOTAL CURRENT MONTH						X	LOCAL
WAS FLOW RATE TOTAL CURRENT YEAR						X	LOCAL
WAS FLOW RATE TOTAL CURRENT WEEK						X	LOCAL
WAS FLOW RATE TOTAL PREVIOUS DAY						X	LOCAL
WAS FLOW RATE TOTAL PREVIOUS MONTH						X	LOCAL
WAS FLOW RATE TOTAL PREVIOUS YEAR						X	LOCAL
WAS FLOW RATE TOTAL PREVIOUS WEEK						X	LOCAL
EAST AREA TEMPERATURE	X						LOCAL
WEST AREA TEMPERATURE	X						LOCAL
WAS PUMP COMMON ALARM					X		RAS/WAS NEW PLC
RAS PUMP #1 IN LEAD					X		RAS/WAS NEW PLC
RAS PUMP #2 IN LEAD					X		RAS/WAS NEW PLC
WAS PUMP OPERATION SELECTION					X		RAS/WAS NEW PLC
RAS PUMP #2 RUN STATUS					X		RAS/WAS NEW PLC
RAS PUMP #2 COMMON ALARM					X		RAS/WAS NEW PLC
WAS PUMP IN AUTO					X		RAS/WAS NEW PLC
WAS PUMP RUN STATUS					X		RAS/WAS NEW PLC
RAS PUMP #1 IN AUTO					X		RAS/WAS NEW PLC
RAS PUMP #1 RUN STATUS					X		RAS/WAS NEW PLC
RAS PUMP #1 COMMON ALARM					X		RAS/WAS NEW PLC
RAS PUMP #2 IN AUTO					X		RAS/WAS NEW PLC
RAS PUMP #1 START/STOP					X		RAS/WAS NEW PLC
RAS PUMP #2 START/STOP					X		RAS/WAS NEW PLC
WAS PUMP START/STOP					X		RAS/WAS NEW PLC
RAS/WAS PHASE FAIL					X		RAS/WAS NEW PLC
RAS/WAS 120V POWER LOSS					X		RAS/WAS NEW PLC
RAS/WAS WET WELL LEVEL					X		RAS/WAS NEW PLC
CLARIFIER #1 COLLECTOR DRIVE RUN STATUS			X				CLARIFIER CONTROL PANEL
CLARIFIER #1 COLLECTOR DRIVE FAULT			X				CLARIFIER CONTROL PANEL
CLARIFIER #2 COLLECTOR DRIVE RUN STATUS			X				CLARIFIER CONTROL PANEL
CLARIFIER #2 COLLECTOR DRIVE FAULT			X				CLARIFIER CONTROL PANEL
CLARIFIER #1 AIR SCUM IN AUTO			X				CLARIFIER CONTROL PANEL
CLARIFIER #2 AIR SCUM IN AUTO			X				CLARIFIER CONTROL PANEL
UV SYSTEM INENSITY					X		EXISTING UV SYSTEM
UV SYSTEM UV DOSE					X		EXISTING UV SYSTEM
FLOW RATE (IF NOT AVAILABLE VIA HW)					X		EXISTING UV SYSTEM
UV SYSTEM UV TRANSMITTANCE					X		EXISTING UV SYSTEM
UV SYSTEM RUN STATUS					X		EXISTING UV SYSTEM
UV SYSTEM IN LOCAL OR REMOTE					X		EXISTING UV SYSTEM
UV SYSTEM AT LEAST ONE BANK IS ACTIVE					X		EXISTING UV SYSTEM
UV SYSTEM CHANNEL #1 IN MAINTENANCE MODE					X		EXISTING UV SYSTEM
UV SYSTEM BANK A IS ON					X		EXISTING UV SYSTEM
UV SYSTEM BANK B IS ON					X		EXISTING UV SYSTEM
UV SYSTEM 24VDC POWER SUPPLY FAILED					X		EXISTING UV SYSTEM
UV SYSTEM ENCLOSURE TEMPERATURE HIGH					X		EXISTING UV SYSTEM
UV SYSTEM FLOW SIGNAL LOST					X		EXISTING UV SYSTEM
UV SYSTEM MAXIMUM DESIGN FLOW EXCEEDED					X		EXISTING UV SYSTEM
UV SYSTEM BANK A LAMP FAILURE					X		EXISTING UV SYSTEM
UV SYSTEM BANK A INTENSITY LOW WARNING					X		EXISTING UV SYSTEM
UV SYSTEM BANK A CYCLES WARNING					X		EXISTING UV SYSTEM
UV SYSTEM BANK A SAFETY RELAY TRIPPED					X		EXISTING UV SYSTEM
UV SYSTEM BANK A INTENSITY LOW ALARM					X		EXISTING UV SYSTEM
UV SYSTEM BANK B LAMP FAILURE					X		EXISTING UV SYSTEM
UV SYSTEM BANK B INTENSITY LOW WARNING					X		EXISTING UV SYSTEM
UV SYSTEM BANK B CYCLES WARNING					X		EXISTING UV SYSTEM
UV SYSTEM BANK B SAFETY RELAY TRIPPED					X		EXISTING UV SYSTEM
UV SYSTEM BANK B INTENSITY LOW ALARM					X		EXISTING UV SYSTEM
UV SYSTEM CHANNEL #1 BANK A LAMPS 1 - 48					X		EXISTING UV SYSTEM
UV SYSTEM CHANNEL #1 BANK B LAMPS 1 - 24					X		EXISTING UV SYSTEM
UV SYSTEM ECOTOUCH HEARTBEAT					X		EXISTING UV SYSTEM
BV1001 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1001 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 OPEN COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 CLOSE COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1002 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 OPEN COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 CLOSE COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1003 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC

Date: 08/14/2026

AARON L. CROW REGISTERED No. PE11800762 STATE OF INDIANA PROFESSIONAL ENGINEER

SCADA SYSTEM PLC SIGNAL IO LIST

I101A

PRINT DATE: 10/16/26
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(PLC MSCP I/O LIST CONTINUED)

BV1004 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1004 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1005 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1006 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
BV1007 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
GV2001 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
GV1002 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 POSITION FEEDBACK					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 POSITION CONTROL					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
GV2002 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 OPEN COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 CLOSE COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
PV2007 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 OPEN COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 CLOSE COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
PV2008 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 OPEN COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 CLOSE COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
PV2009 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 IN AUTO					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 OPEN COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 CLOSE COMMAND					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 FULLY CLOSED					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 FULLY OPENED					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 FAILED					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 ENABLE/REMOTE PERMISSION TO OPER.					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 TORQUE TRIP					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 ACTUATOR RUNNING					X		ACTUATOR NETWORK CONTROL PANEL
PV2010 LOCAL/REMOTE STATUS					X		ACTUATOR NETWORK CONTROL PANEL
120V POWER LOSS			X				LOCAL
120V SURGE PROTECTION ALERT			X				LOCAL
H2S GAS DETECTION ALARM						X	LOCAL
H2S GAS DETECTION SIGNAL	X						LOCAL

(PLC MSCP I/O LIST CONTINUED)

METHANE GAS DETECTION ALARM						X	LOCAL
METHANE GAS DETECTION SIGNAL	X						LOCAL
REMOTE START/STOP				X			DRUM SCREEN CONTROL PANEL
FAILED STATUS			X				DRUM SCREEN CONTROL PANEL
RUNNING STATUS			X				DRUM SCREEN CONTROL PANEL
UV SYSTEM INENSITY					X		UV SYSTEM CONTROL PANEL
UV SYSTEM UV DOSE					X		UV SYSTEM CONTROL PANEL
FLOW RATE (IF NOT AVAILABLE VIA HW)					X		UV SYSTEM CONTROL PANEL
UV SYSTEM UV TRANSMITTANCE					X		UV SYSTEM CONTROL PANEL
UV SYSTEM RUN STATUS					X		UV SYSTEM CONTROL PANEL
UV SYSTEM ALARMS					X		UV SYSTEM CONTROL PANEL
DIGESTER BLOWER DISCHARGE PRESSURE	X						NEW EQUIPMENT
AERATOR BLOWER DISCHARGE PRESSURE	X						NEW EQUIPMENT

PLC NAME: RAS/WAS (NEW PLC)

TOTAL SIGNALS:	1	0	15	3	0	0	
DESCRIPTION: NEW SIGNALS	ANALOG IN	ANALOG OUT	DIGITAL IN	DIGITAL OUT	ETHERNET	PLC GENERATED	FROM:
RAS/WAS WET WELL LEVEL	X						NEW EQUIPMENT
WAS PUMP COMMON ALARM			X				EXISTING RAS/WAS PANEL
RAS PUMP #1 IN LEAD			X				EXISTING RAS/WAS PANEL
RAS PUMP #2 IN LEAD			X				EXISTING RAS/WAS PANEL
WAS PUMP OPERATION SELECTION			X				EXISTING RAS/WAS PANEL
RAS PUMP #2 RUN STATUS			X				EXISTING RAS/WAS PANEL
RAS PUMP #2 COMMON ALARM			X				EXISTING RAS/WAS PANEL
WAS PUMP IN AUTO			X				EXISTING RAS/WAS PANEL
WAS PUMP RUN STATUS			X				EXISTING RAS/WAS PANEL
RAS PUMP #1 IN AUTO			X				EXISTING RAS/WAS PANEL
RAS PUMP #1 RUN STATUS			X				EXISTING RAS/WAS PANEL
RAS PUMP #1 COMMON ALARM			X				EXISTING RAS/WAS PANEL
RAS PUMP #2 IN AUTO			X				EXISTING RAS/WAS PANEL
RAS PUMP #1 START/STOP				X			EXISTING RAS/WAS PANEL
RAS PUMP #2 START/STOP				X			EXISTING RAS/WAS PANEL
WAS PUMP START/STOP				X			EXISTING RAS/WAS PANEL
RAS/WAS PHASE FAIL			X				EXISTING RAS/WAS PANEL
RAS/WAS 120V POWER LOSS			X				EXISTING RAS/WAS PANEL
LOW CUTOFF FLOAT			X				EXISTING RAS/WAS PANEL

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC

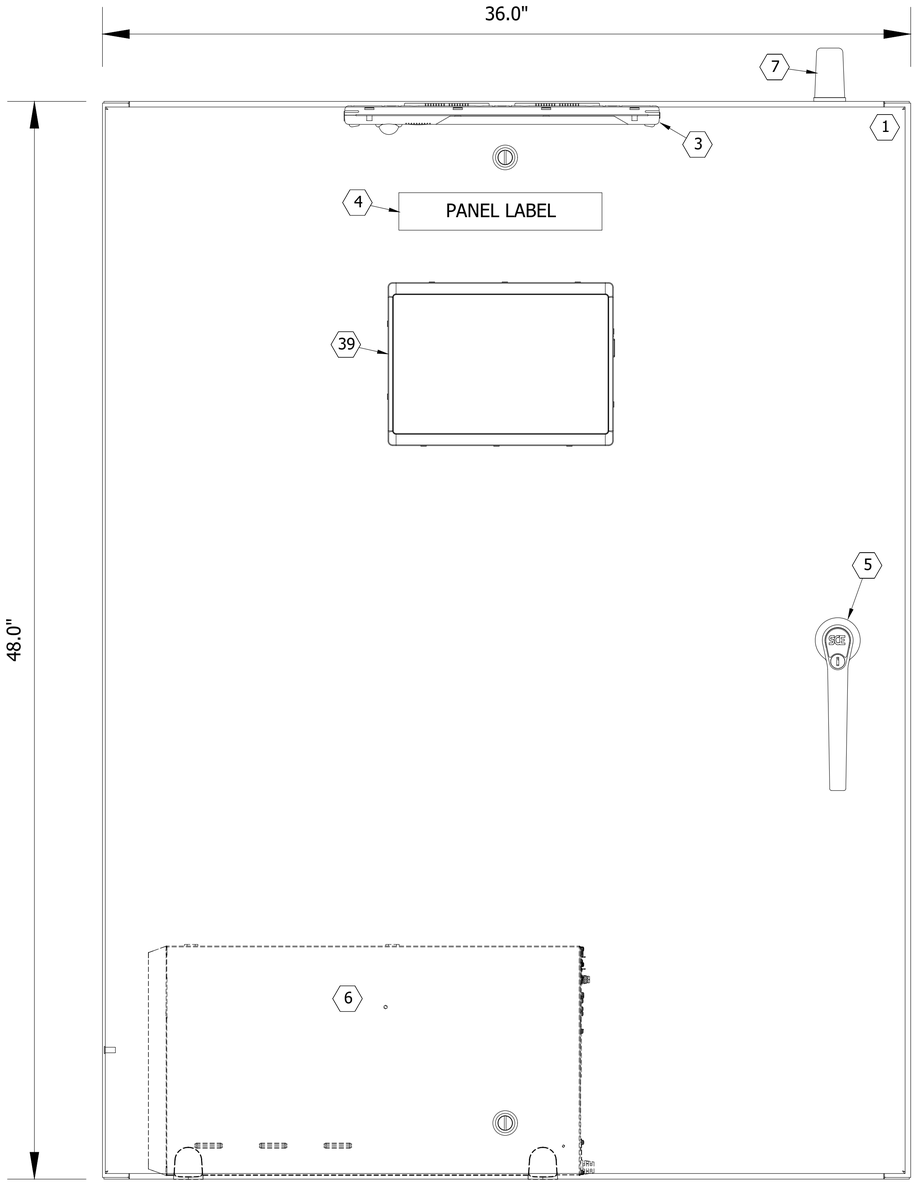
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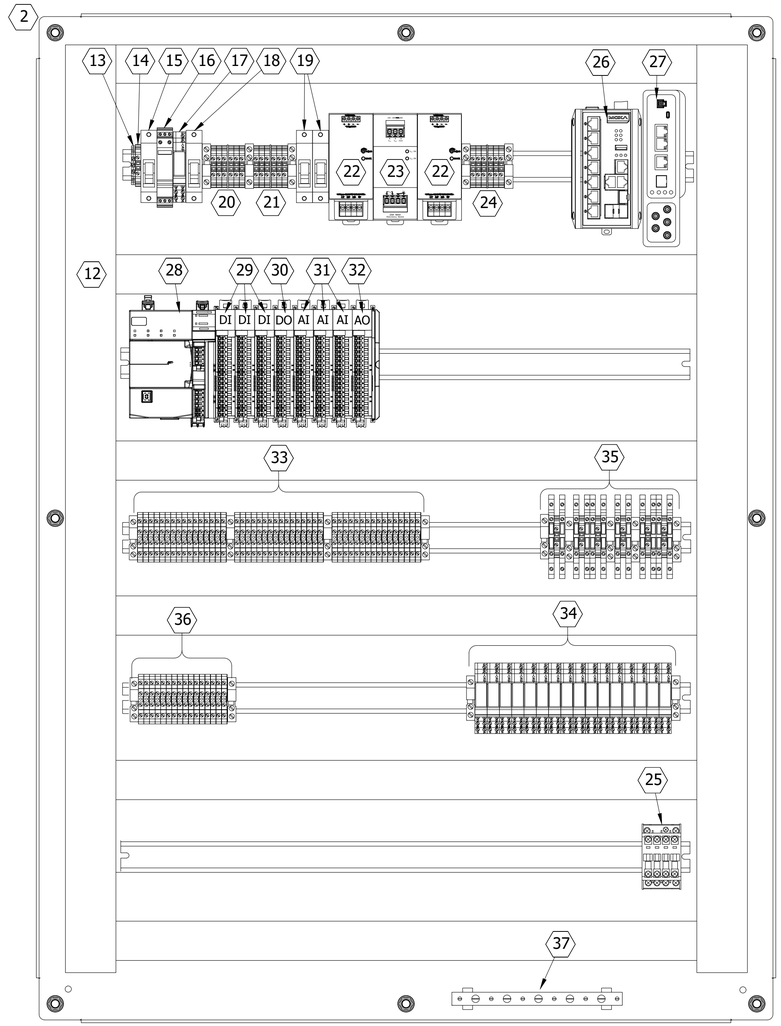
AARON L. CRAW REGISTERED No. PE11800762 STATE OF INDIANA PROFESSIONAL ENGINEER

SCADA SYSTEM PLC SIGNAL IO LIST

I101B

PRINT DATE: 10/16/26
PLOT SCALE: 1:1 EDIT DATE: 8/10/26 - 7:22 AM EDITED BY: JREED DRAWING FILE: P:\400-6314 SWEETSER WW IMPROVEMENTS\5 ACAD\PLAN SHEETS & WORKING DRAWINGS\400-6314 - SCADA SYSTEM PLC SIGNAL IO LIST B.DWG





CONTROL PANEL KEYED NOTES:

1. NEW STAINLESS STEEL NEMA12 ENCLOSURE - 48"X36"X12" MINIMUM. SIMILAR TO SCE-48EL3612LPPL.
2. NEW INTERIOR EQUIPMENT PANEL 48"X36". SIMILAR TO SCE-48P36.
3. ENCLOSURE LED LIGHTING WITH AUTOMATIC DOOR SWITCH ACTIVATION.
4. PHENOLIC TAG, ENGRAVED. BLACK LETTERS ON WHITE/OFF-WHITE SURFACE. SELF-ADHESIVE. TYPICAL.
5. LOCKABLE 3-POINT LATCH HANDLE.
6. TRIPP LITE SMART, DUAL CONVERSION UPS SU1500XL OR APPROVED EQUAL.
7. CELL MODEM ROBUST OUTDOOR STYLE ANTENNA.
8. NOT USED.
9. NOT USED.
10. NOT USED.
11. NOT USED.
12. HIGH DENSITY GRAY WIRE DUCT - AS NEEDED AND SIZED PER WIRING REQUIREMENTS.
13. FIELD POWER GROUND TERMINAL BLOCK.
14. FIELD POWER NEUTRAL TERMINAL BLOCK.
15. FIELD POWER 120V 20A CIRCUIT BREAKER.
16. 120V MAIN POWER SURGE PROTECTION DEVICE.
17. 120V CONTROL POWER LOSS RELAY.
18. UPS FEED POWER 120V 15A CIRCUIT BREAKER.
19. 24 VDC POWER SUPPLY #1 PROTECTION CIRCUIT BREAKERS (120V SIDE).
20. 120VAC POWER DISTRIBUTION TERMINAL BLOCKS.
21. UPS FED 120V DISTRIBUTION TERMINAL BLOCKS.
22. 24 VDC POWER SUPPLIES - MINIMUM 5A.
23. 24VDC POWER 5A SUPPLY REDUNDANCY MODULE.
24. 24VDC POWER DISTRIBUTION BLOCKS.
25. UPS FAIL-OVER CONTACTOR/RELAY. 20A CONTACT RATING MINIMUM.
26. INDUSTRIAL RATED MANAGED ETHERNET SWITCH - 7 PORT MINIMUM WITH FIBER OPTIC PORTS. MOXA EDS510E SERIES OR EQUAL.
27. 4G LTE CELLULAR MODEM. SIMILAR TO APRISA 4RF LTE.
28. ALLEN BRADLEY COMPACTLOGIX COMPACTLOGIX 5069-L306ER.
29. ALLEN BRADLEY COMPACTLOGIX 16 POINT DIGITAL INPUT MODULE 5069-IB16.
30. ALLEN BRADLEY COMPACTLOGIX 16 POINT DIGITAL OUTPUT MODULE 5069-OB16.
31. NEW ALLEN BRADLEY COMPACTLOGIX 8 POINT ANALOG INPUT MODULE, 5069-IF8.
32. NEW ALLEN BRADLEY COMPACTLOGIX 4 POINT ANALOG INPUT MODULE, 5069-OF8.
33. DIGITAL INPUT FIELD TERMINATION BLOCKS.
34. DIGITAL OUTPUT ISOLATION RELAYS.
35. ANALOG INPUT ISOLATOR/TERMINAL BLOCKS.
36. MISCELLANEOUS FIELD TERMINAL BLOCKS - AS NEEDED.
37. EARTH GROUND BLOCK.
38. NOT USED.
39. PANELVIEW PLUS 7 12" HMI. MAIN OFFICE NEW SCADA COMPUTER SHALL BE CONNECTED WITH A REMOTE LICENSE TO ACCESS AND DISPLAY HMI GRAPHICS AND HAVE INTERACTION RIGHTS.

ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.

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SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

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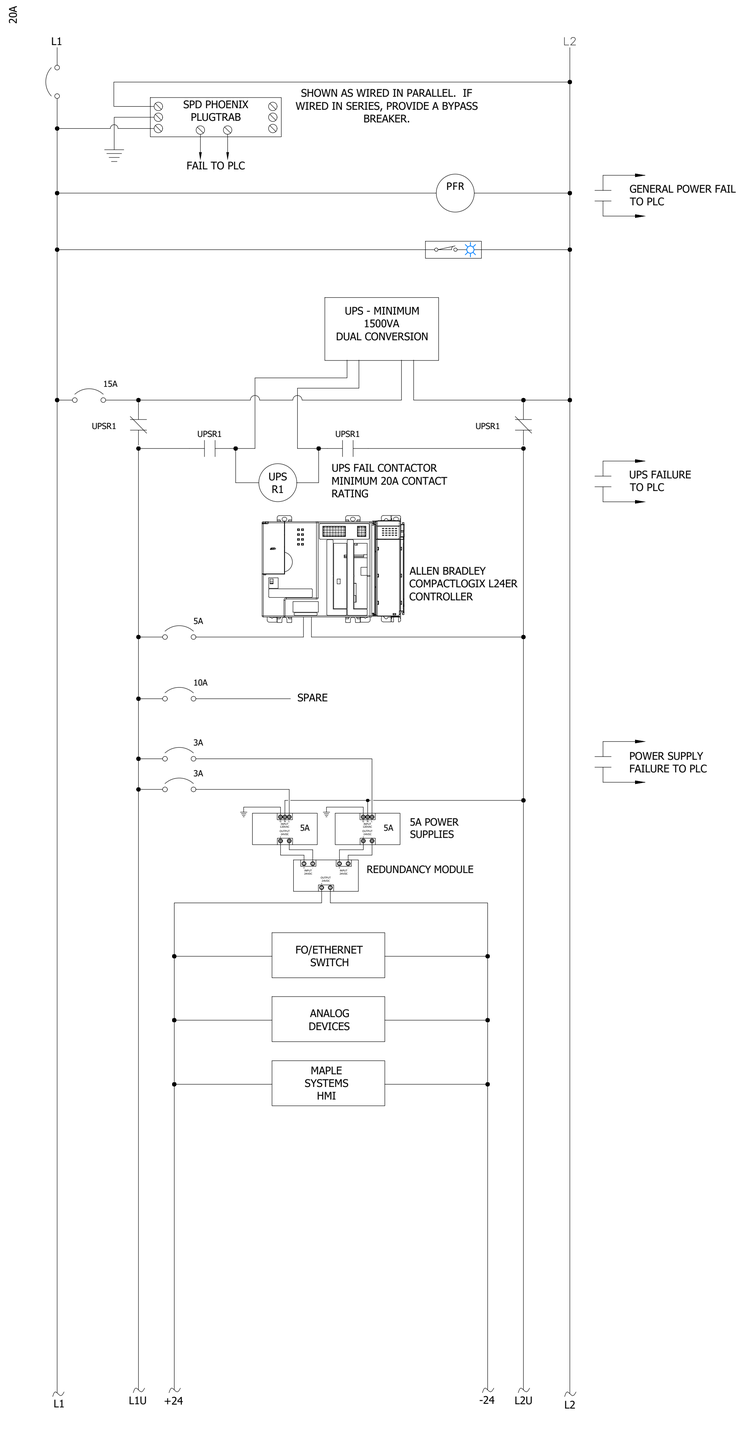
Date: 08/14/2026

AARON L. CRAW REGISTERED No. PE11800762 STATE OF INDIANA PROFESSIONAL ENGINEER

SCADA SYSTEM PLC CONTROL PANEL LAYOUT DETAILS

I102A

ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.



POWER DISTRIBUTION WIRING DIAGRAM

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SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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Aaron Crow

SCADA SYSTEM PLC CONTROL PANEL WIRING DIAGRAM 1

I102B

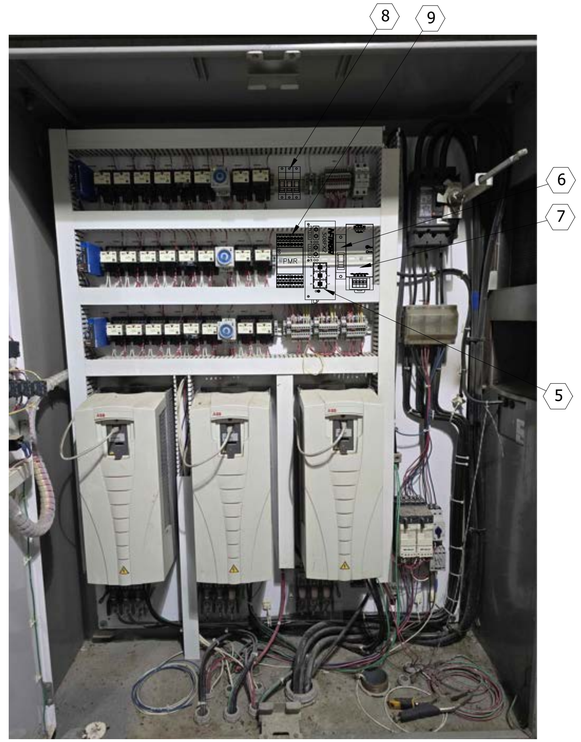
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RAS/WAS SWING OUT PANEL



RAS/WAS EQUIPMENT PANEL



TRIPLEX BLOWER CONTROL PANEL EQUIPMENT PANEL

CONTROL PANEL KEYED NOTES:

1. EXISTING RAS/WAS PUMP CONTROL PANEL. RELOCATE THIS INTO THE ELECTRICAL ROOM. CONNECT TO NEW MSCP PLC WITH ETHERNET CABLE.
2. CONNECT LOCAL HMI TO THE 2080-LC20 VIA RS232/RS485. UTILIZED ETHERNET PORT TO CONNECT TO MSCP VIA ETHERNET I/P PROTOCOL.
3. NOT USED.
4. NOT USED.
5. MINIMUM 4-PORT UNMANAGED INDUSTRIAL GRADE FIBER/ETHERNET SWITCH. PROVIDE PATCH CABLES TO CONNECT EACH DRIVE.
6. PROVIDE NEW 3A CIRCUIT BREAKER FOR 24VDC POWER SUPPLY.
7. PROVIDE 24VDC, 3A POWER SUPPLY.
8. PROVIDE 3P CIRCUIT BREAKER FOR 3 PHASE MONITOR.
9. PROVIDE 3P POWER MONITOR.

ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTORS RESPONSIBILITY FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.

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AARON L. CROW
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No. PE11800762
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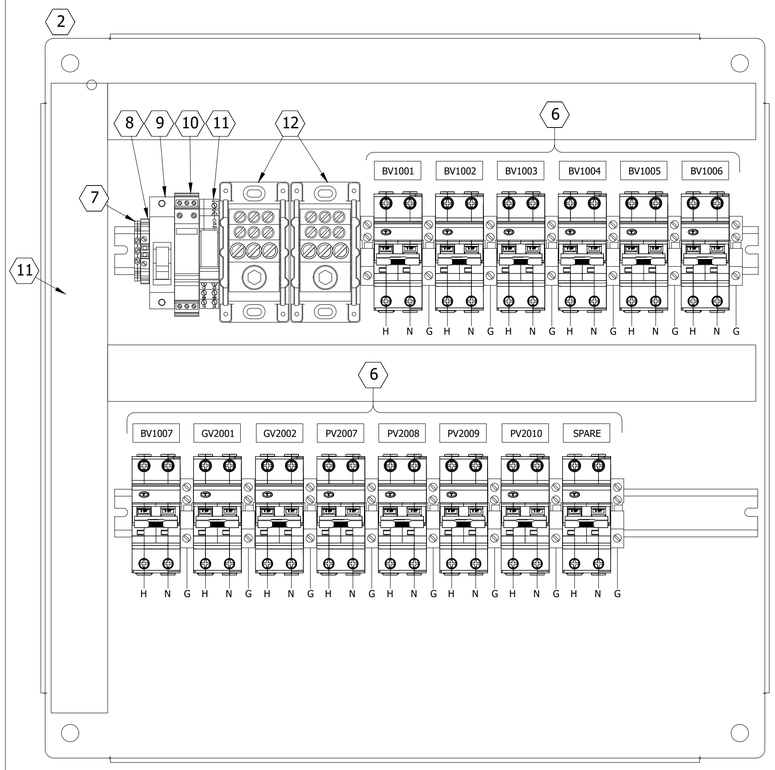
EXISTING CONTROL PANEL MODIFICATIONS

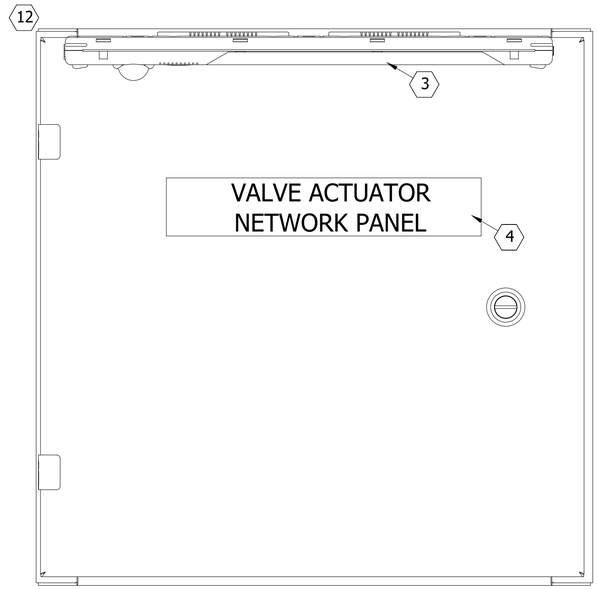
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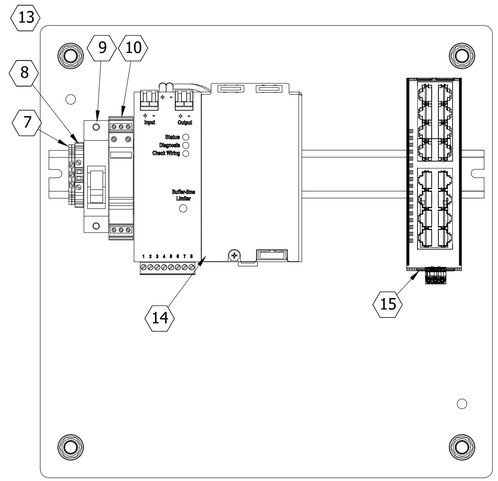
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ALL PANEL LAYOUTS AND WIRING DIAGRAMS ARE SHOWN AS A REPRESENTATION FOR MINIMUM REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE SYSTEMS INTEGRATOR OR CONTRACTOR FOR FINAL DESIGN AND FULLY FUNCTIONAL SYSTEM.



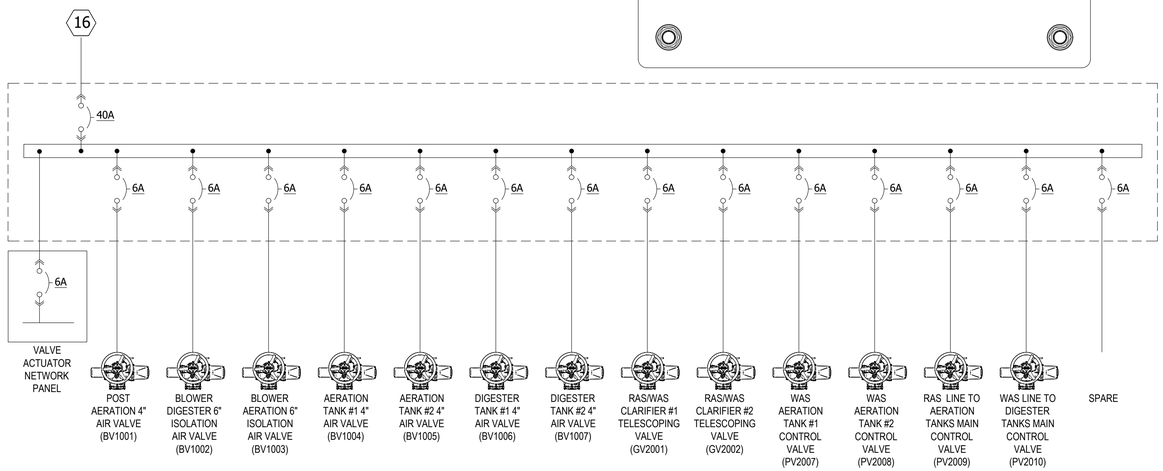






CONTROL PANEL KEYED NOTES:

1. NEW STAINLESS STEEL NEMA4X ENCLOSURE - 24"X24"X8" MINIMUM. SIMILAR TO SCE-24EL2408SSLPPL.
2. NEW INTERIOR EQUIPMENT PANEL 24"X24". SIMILAR TO SCE-24P24.
3. ENCLOSURE LED LIGHTING WITH AUTOMATIC DOOR SWITCH ACTIVATION.
4. PHENOLIC TAG, ENGRAVED. BLACK LETTERS ON WHITE/OFF-WHITE SURFACE. SELF-ADHESIVE.
5. LOCKABLE 3-POINT LATCH HANDLE.
6. ACTUATOR POWER DISTRIBUTION 1P+N CIRCUIT BREAKERS. SIMILAR TO ABB DS201 6A.
7. MAIN 120V, 1PH POWER GROUND TERMINAL BLOCK.
8. MAIN 120V, 1PH POWER NEUTRAL TERMINAL BLOCK.
9. MAIN 120V, 1PH POWER CIRCUIT BREAKER.
10. MAIN 120V, 1PH POWER DISTRIBUTION BLOCKS. 1P TO 9P SHOWN.
11. HIGH DENSITY GRAY WIRE DUCT - AS NEEDED AND SIZED PER WIRING REQUIREMENTS. TYPICAL.
12. NEW STAINLESS STEEL NEMA4X ENCLOSURE - 16" X 16" X 8" MINIMUM. SIMILAR TO SCE-16EL1608SSLP.
13. NEW INTERIOR EQUIPMENT PANEL, 16" X 16". SIMILAR TO SCE-16P16.
14. 24VDC POWER SUPPLY WITH BATTERY BACKUP. SIMILAR TO PULS UBC10.241.
15. 16 PORT UNMANAGED ETHERNET SWITCH. SIMILAR TO PHOENIX 1085219.
16. 120V, 1PH FROM PANEL 'C'.



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SWEETSER WASTE WATER IMPROVEMENTS

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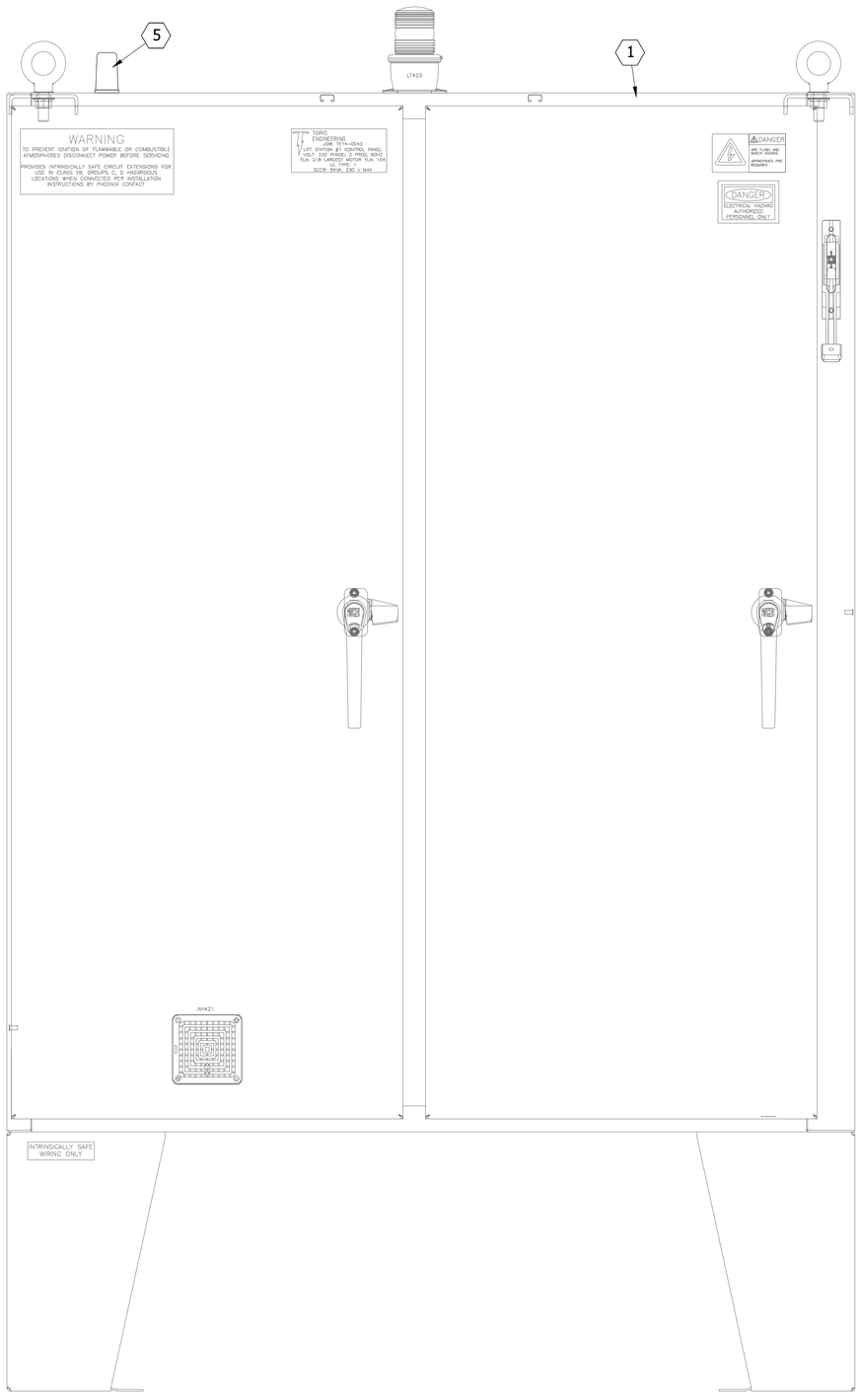
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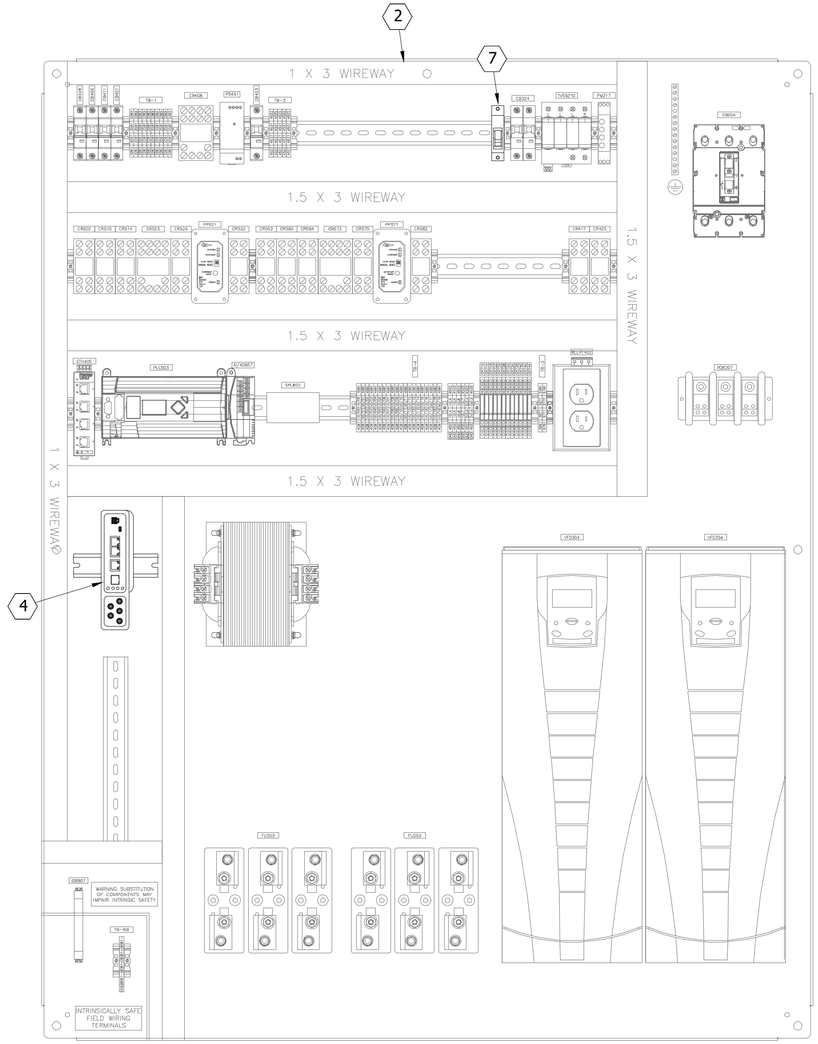
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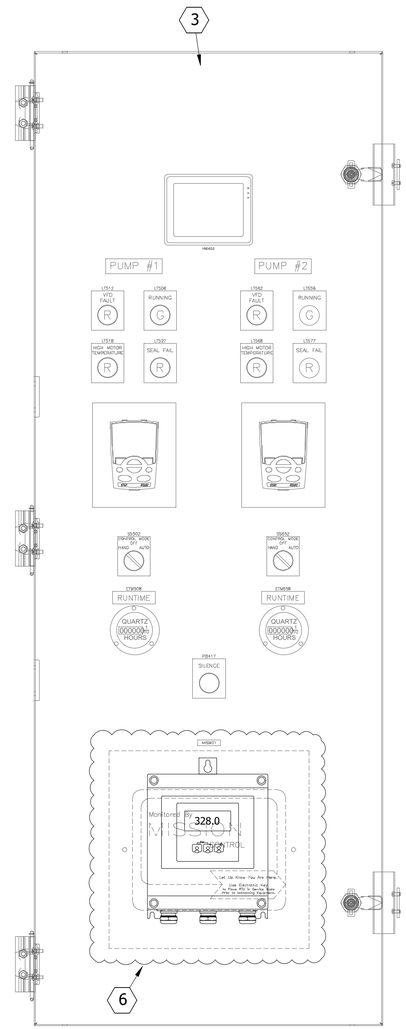
ELECTRIC ACTUATOR CONTROL PANEL LAYOUT DETAILS

I104

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CONTROL PANEL KEYED NOTES:

1. EXISTING LIFT STATION CONTROL PANEL ENCLOSURE. TO REMAIN AND BE MODIFIED.
2. EXISTING EQUIPMENT PANEL. TO REMAIN AND BE MODIFIED.
3. EXISTING SWING-OUT PANEL. TO REMAIN AS IS.
4. PROVIDE NEW CELL MODEM FOR CONNECTIVITY BACK TO PLANT. SIMILAR TO APRISA 4RF LTE. PROVIDE WITH DIN RAIL MOUNT AND CABLES.
5. PROVIDE NEW CELL MODEM ANTENNA.
6. ONCE COMMUNICATIONS TO PLANT ARE FUNCTIONAL, REMOVE MISSIONS SYSTEM AND RETURN TO OWNER. REPLACE OPENING WITH COVER PLATE TO MATCH. INSTALL FLOW METER ELECTRONICS IN THIS SPOT (SUGGESTED).
7. PROVIDE 15A, 1P CIRCUIT BREAKER FOR METER VAULT SUMP PUMP.

KELLY DRIVE LIFT STATION

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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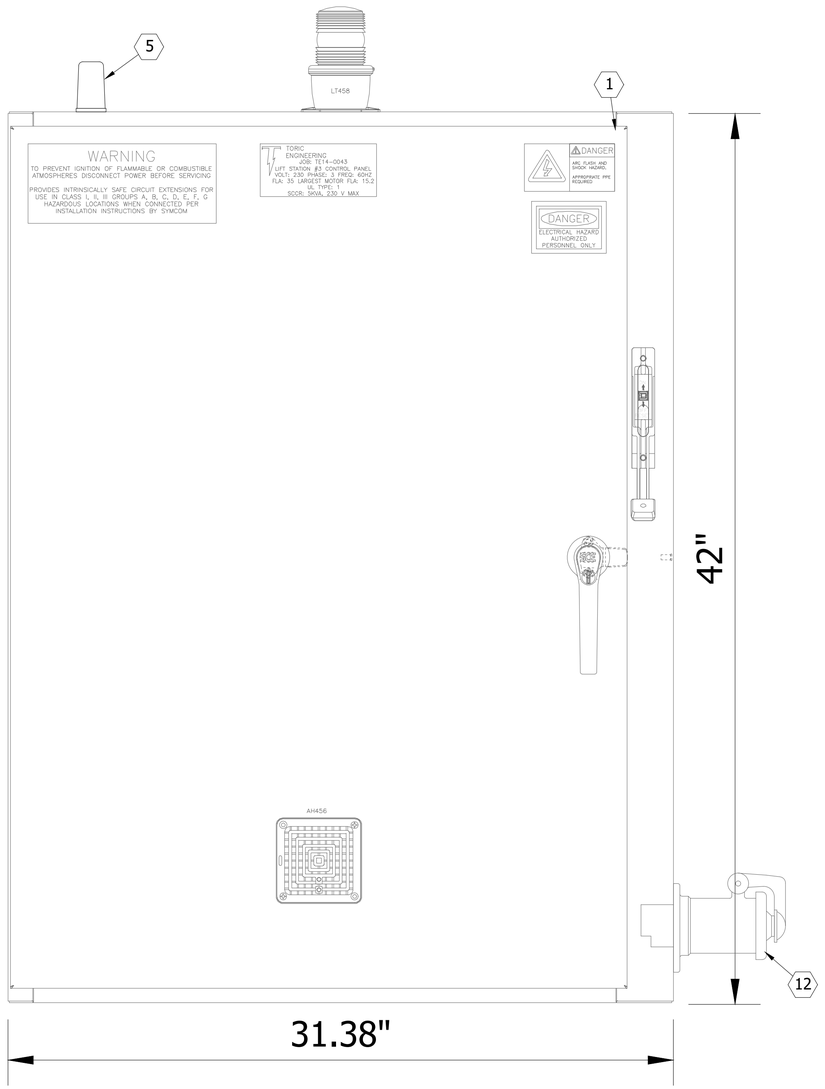
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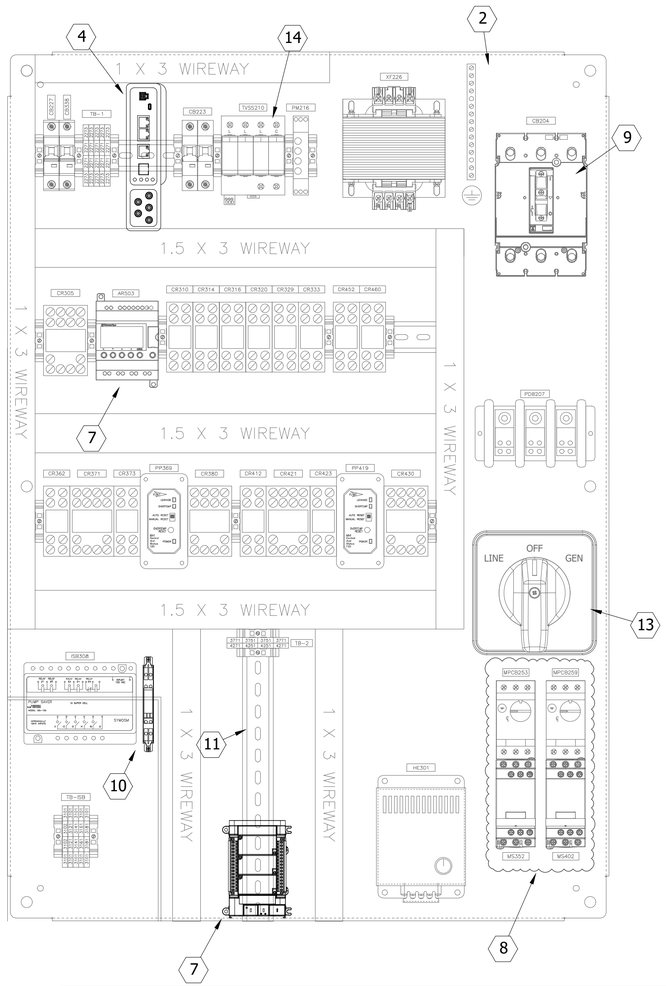
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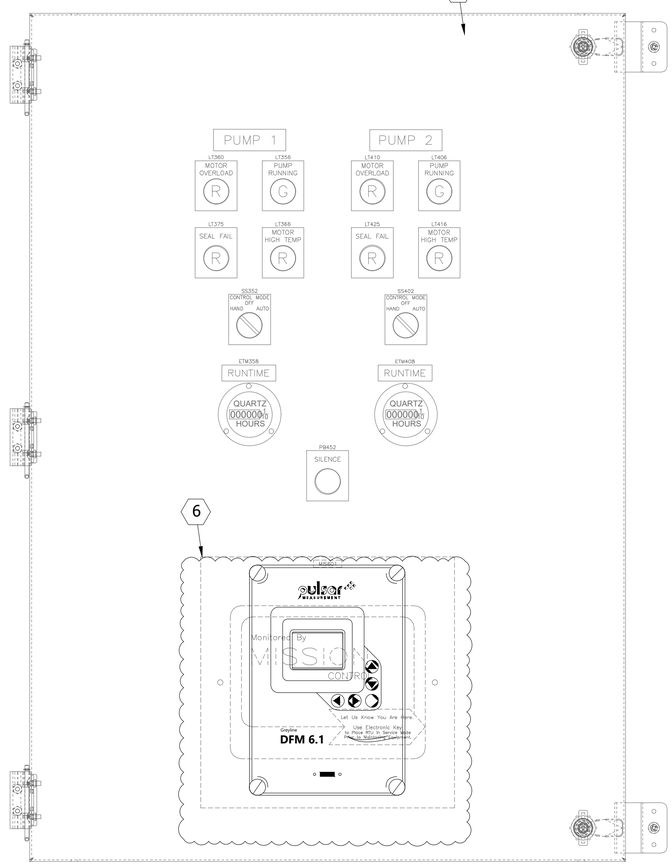
KELLY DRIVE LIFT STATION CONTROL PANEL UPGRADES

I105

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MICRO850 INPUT/OUTPUT:

DIGITAL INPUTS:
1. 120V POWER LOSS.
2. 240V PHASE LOSS.
3. PUMP #1 RUN STATUS.
4. PUMP #1 FAIL STATUS.
5. PUMP #1 SEAL FAIL.
6. PUMP #1 OVERTEMP.
7. PUMP #2 RUN STATUS.
8. PUMP #2 FAIL STATUS.
9. PUMP #2 SEAL FAIL.
10. PUMP #2 OVERTEMP.
11. HIGH LEVEL.
12. LOW LEVEL.
13. SPARE
14. SPARE

DIGITAL OUTPUTS:
1. LEAD PUMP START COMMAND.
2. LAG PUMP START COMMAND.
3. ALARM BEACON.
4. SPARE
5. SPARE
6. SPARE
7. SPARE
8. SPARE
9. SPARE
10. SPARE

ANALOG INPUTS:
1. WET WELL LEVEL.
2. STATION EFFLUENT FLOW.
3. P1 VFD SPEED FEEDBACK.
4. P2 VFD SPEED FEEDBACK.

ANALOG OUTPUTS:
1. P1 VFD SPEED SETPOINT.
2. P2 VFD SPEED SETPOINT.

CONTROL PANEL KEYED NOTES:

1. EXISTING LIFT STATION CONTROL PANEL ENCLOSURE. TO BE RELOCATED AND MODIFIED.
2. EXISTING EQUIPMENT PANEL. TO REMAIN AND BE MODIFIED.
3. EXISTING SWING-OUT PANEL. TO REMAIN AS IS EXCEPT FOR NOTE 6.
4. PROVIDE NEW CELL MODEM FOR CONNECTIVITY BACK TO PLANT. SIMILAR TO APRISA 4RF LTE. PROVIDE WITH DIN RAIL MOUNT AND CABLES.
5. PROVIDE NEW CELL MODEM ANTENNA.
6. MISSIONS PANEL TO BE REMOVED AND RETURNED TO OWNER. PROVIDE COVER PLATE FOR HOLE IN PANEL. PROVIDE FLOW RATE ELECTRONICS SIMILAR TO GREYLINE DFM 6.1.
7. REPLACE EXISTING CONTROLLER WITH A MICROLOGIX 850 PLC. PROVIDE DUPLEX PUMP CONTROL AND MONITORING FOR THIS LIFT STATION.
8. DISCONNECT WIRING AND ABANDON STARTER IN PLACE. WIRING FEEDING EACH STARTER TO BE REMOVED BACK TO DISTRIBUTION BLOCK.
9. EXISTING 50A MAIN CIRCUIT BREAKER TO REMAIN. DISCONNECT INCOMING POWER FEED. POWER FEED TO BE RELOCATED INTO PROPOSED VFD CONTROL PANEL.
10. ANALOG ISB FOR WET WELL LEVEL TRANSMITTER.
11. ADDITIONAL TERMINAL BLOCKS.
12. EXISTING MOBILE GENERATOR PLUG. RELOCATE TO PROPOSED VFD CONTROL PANEL. PROVIDE A SS COVER PLATE WITH GASKET.
13. EXISTING ROTARY MANUAL TRANSFER SWITCH. RELOCATED INTO PROPOSED VFD CONTROL PANEL.
14. RELOCATE EXISTING TVSS MODULE TO PROPOSED VFD CONTROL PANEL.

NOTES:
- BANK LIFT STATION MODIFICATIONS:
  - ADD AND REMOVE COMPONENTS AS SHOWN - ADDITIONAL MODIFICATIONS MAY BE REQUIRED
  - WITH THE EXCEPTION OF WIRING FROM MAIN CB TO DIST. BLOCK, EXISTING PANEL WIRING SHOULD BE OF SUFFICIENT SIZE PER AS-BUILDS. CONTRACTOR TO CONFIRM.

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SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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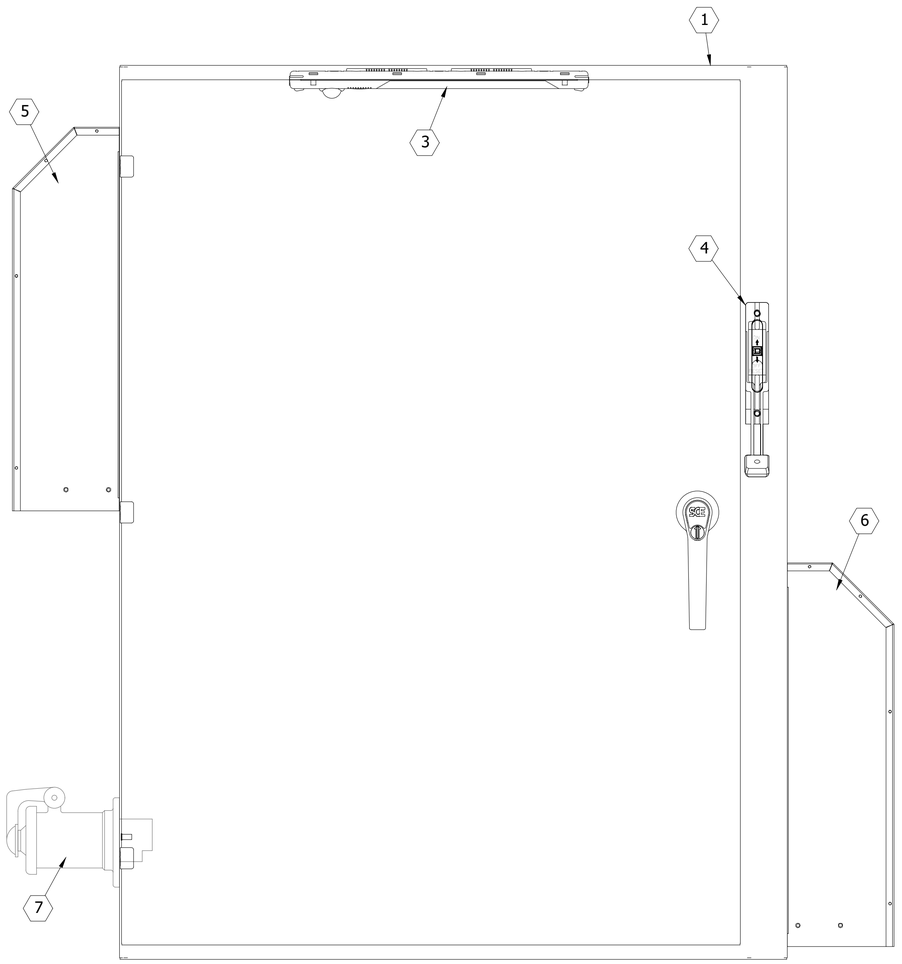
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Drawn By: JAR
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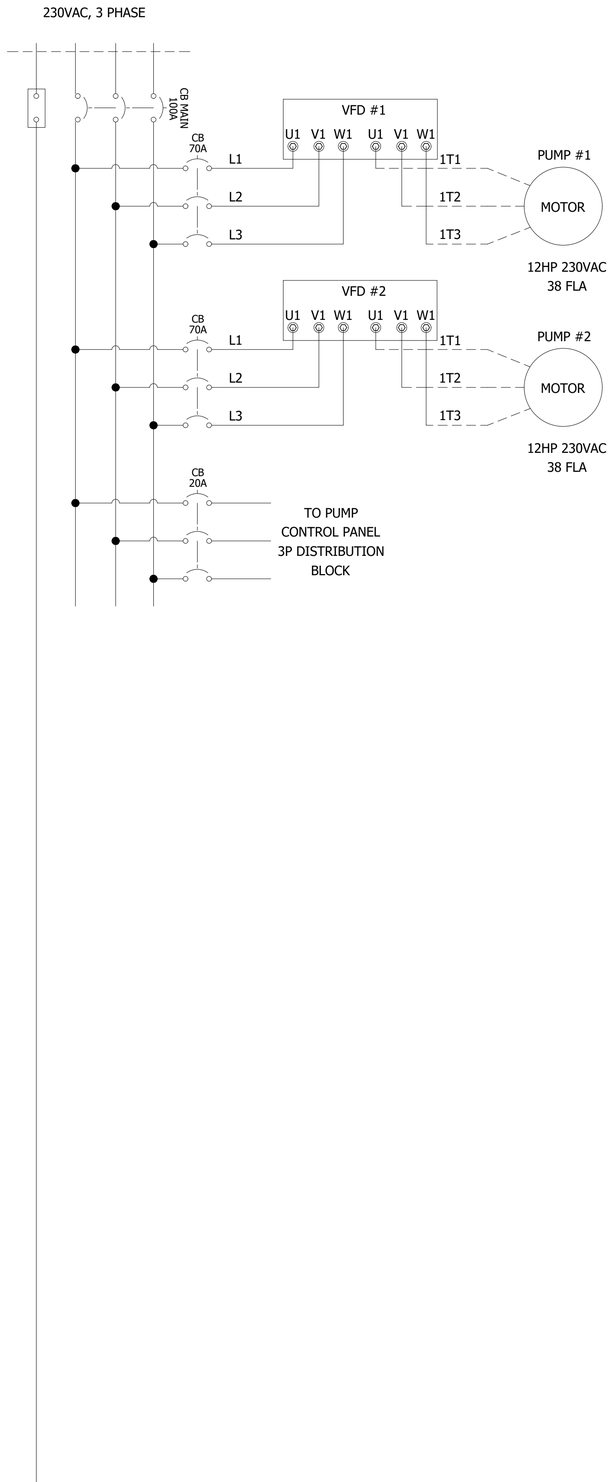
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BANK LIFT STATION CONTROL PANEL UPGRADES

I106A

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CONTROL PANEL KEYED NOTES:

1. 42" X 31" X 12" STAINLESS STEEL DISCONNECT ENCLOSURE. SIMILAR TO SCE-42XEL3112SSLP.
2. EQUIPMENT PANEL. SIMILAR TO SCE-42P30.
3. LED INTERIOR ENCLOSURE LIGHT.
4. SS LOCKABLE DISCONNECT HANDLE.
5. NEMA4X EXHAUST FAN AND SHROUD. SIMILAR TO KOOLTRONICS GUARDIAN SERIES.
6. NEMA4X INTAKE FILTER/SHROUD. SIMILAR TO KOOLTRONICS GUARDIAN SERIES.
7. EXISTING MOBILE GENERATOR PLUG RELOCATED FROM EXISTING PUMP CONTROL PANEL.
8. MAIN POWER DISTRIBUTION BLOCK.
9. EXISTING MANUAL TRANSFER ROTARY SWITCH, RELOCATED FROM EXISTING PUMP CONTROL PANEL.
10. MAIN POWER CIRCUIT BREAKER CABLE DISCONNECT MECHANISM.
11. MAIN POWER CIRCUIT BREAKER.
12. VFD RATED MOTOR PROTECTION CIRCUIT BREAKERS, SIMILAR TO ABB XT2N SERIES.
13. MOTOR VFD UNITS. SIMILAR TO ABB ACQ580-01-046A-2.
14. 3P FEED CIRCUIT BREAKER FOR PUMP CONTROL PANEL.
15. EXISTING 3PH TVSS MODULE, RELOCATED FROM PUMP CONTROL PANEL.

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SWEETSER WASTE WATER IMPROVEMENTS

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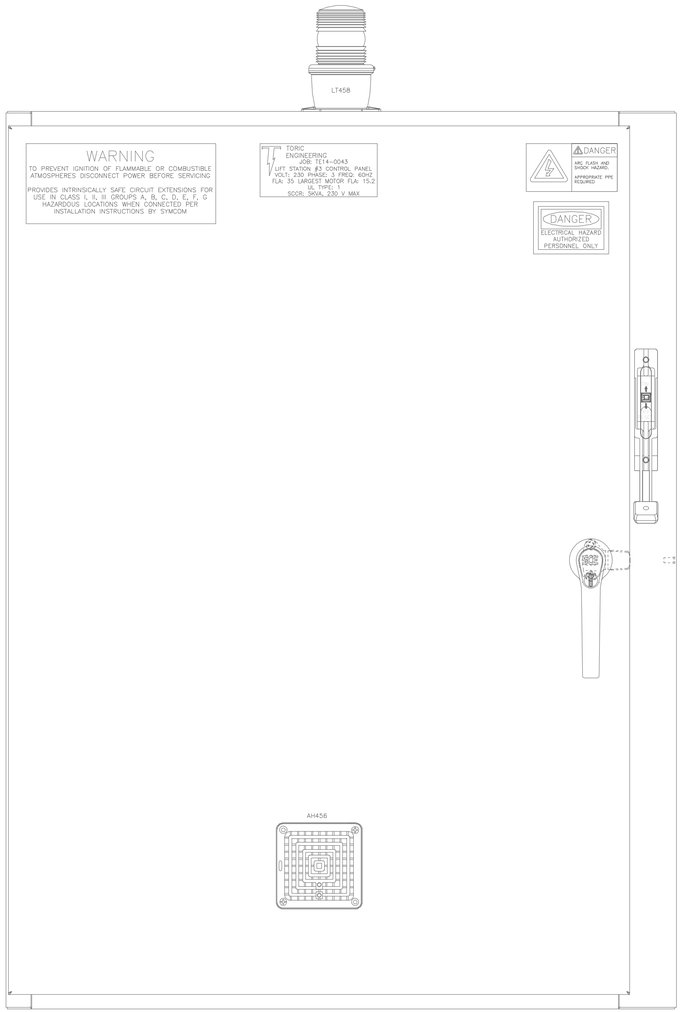
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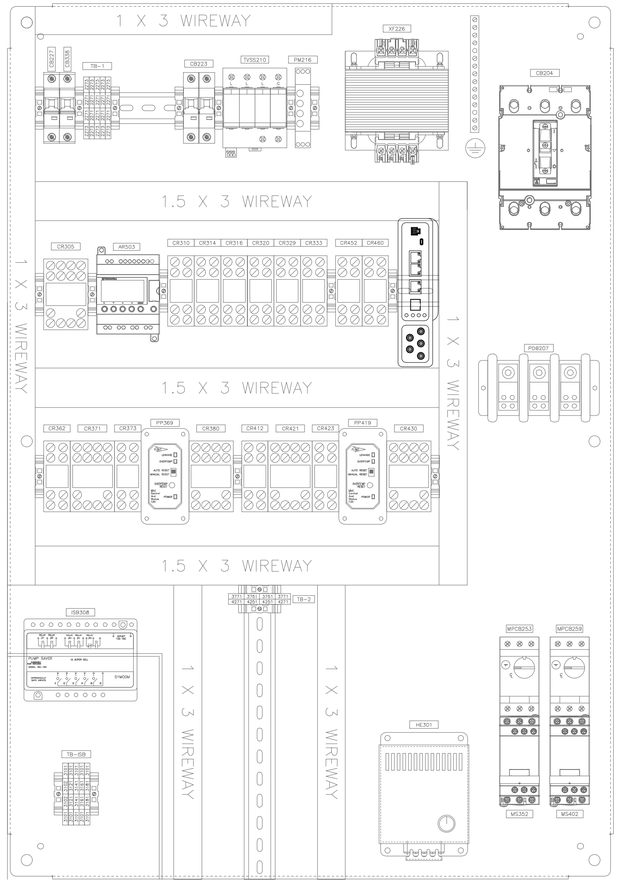


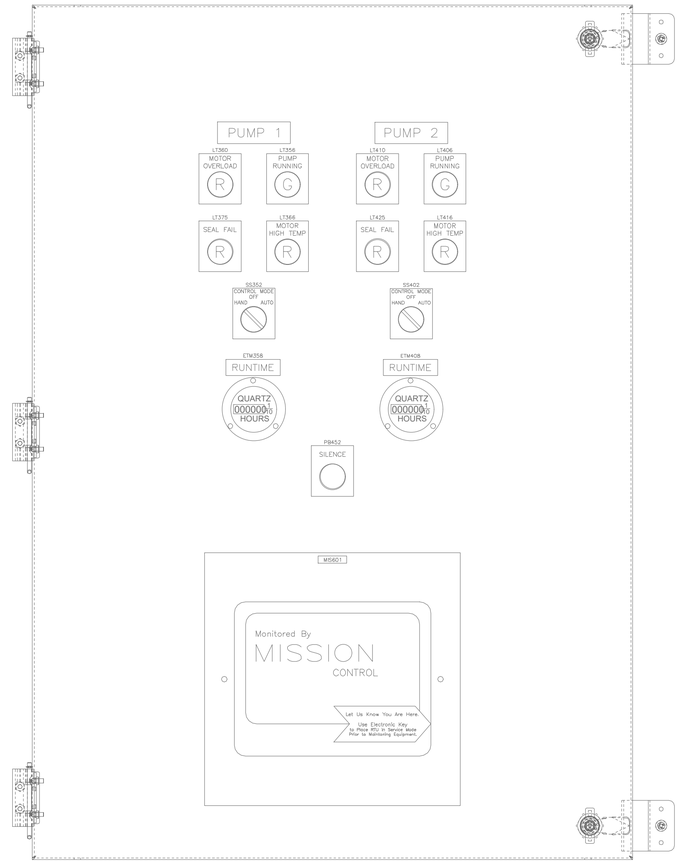
BANK LIFT STATION VFD CONTROL PANEL

I106B

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CONTROL PANEL KEYED NOTES:

1. EXISTING CONTROL PANEL TO BE RELOCATED TO SHORT STREET LIFT STATION LOCATION.
2. CONTRACTOR TO DISCONNECT ALL EXTERNAL POWER AND CONDUIT FROM ENCLOSURE UPON APPROVAL FROM CITY FOR SHUTDOWN.
3. INSURE NO LOSE COMPONENTS INSIDE THE ENCLOSURE ARE TRANSPORTED LOOSE INSIDE THE ENCLOSURE. REMOVE AND HANDLE AS SEPARATE COMPONENTS TO NEW LOCATION.

CASE LIFT STATION

*TO BE DECOMMISSIONED

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SWEETSER WASTE WATER IMPROVEMENTS

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Drawn By: JAR

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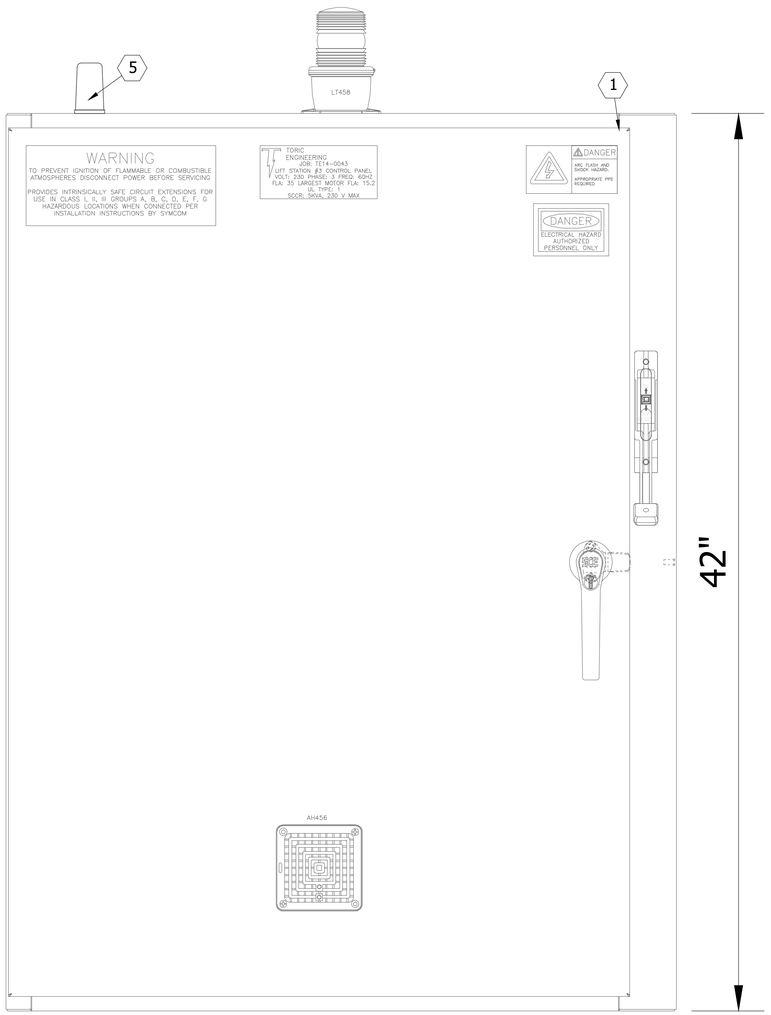
Date: 08/14/2026

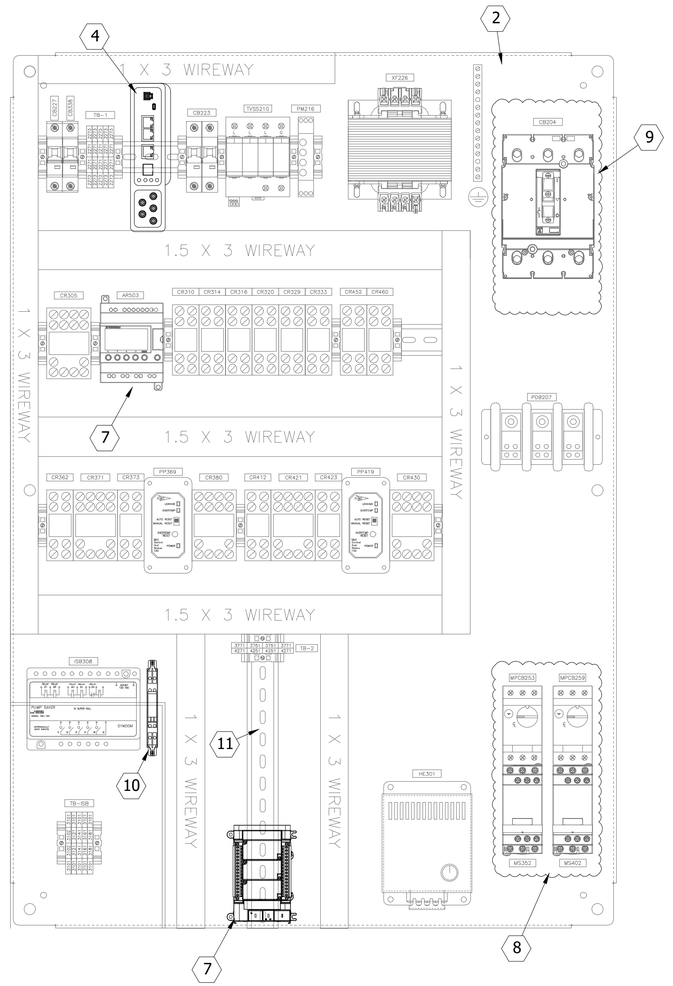
AARON L. CROW
REGISTERED
No.
PE11800762
STATE OF
INDIANA
PROFESSIONAL ENGINEER

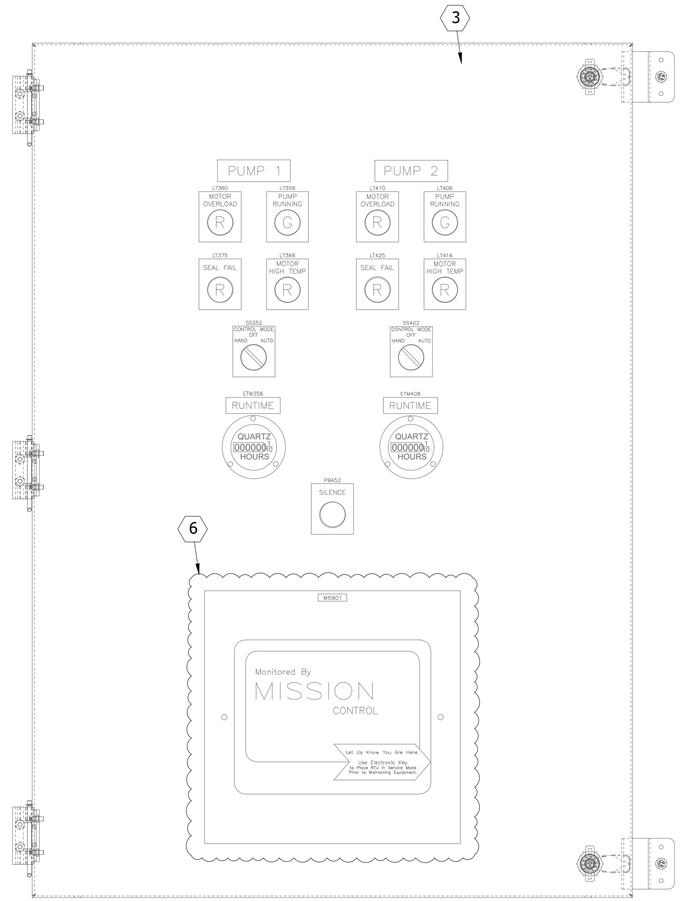
CASE LIFT STATION CONTROL PANEL UPGRADES

I107

PRINT DATE: 10/16/26
PLOT SCALE: 1:1 EDIT DATE: 7/15/26 - 2:32 PM EDITED BY: JREED DRAWING FILE: P:\400-6314 SWEETSER WW IMPROVEMENTS\S ACAD\PLAN SHEETS & WORKING DRAWINGS\400-6314 - LS3 PANEL UPGRADE DETAILS.DWG







MICRO850 INPUT/OUTPUT:

DIGITAL INPUTS:
1. 120V POWER LOSS.
2. 240V PHASE LOSS.
3. PUMP #1 RUN STATUS.
4. PUMP #1 FAIL STATUS.
5. PUMP #1 SEAL FAIL.
6. PUMP #1 OVERTEMP.
7. PUMP #2 RUN STATUS.
8. PUMP #2 FAIL STATUS.
9. PUMP #2 SEAL FAIL.
10. PUMP #2 OVERTEMP.
11. HIGH LEVEL.
12. LOW LEVEL.
13. SPARE
14. SPARE

ANALOG INPUTS:
1. WET WELL LEVEL.

DIGITAL OUTPUTS:
1. LEAD PUMP START COMMAND.
2. LAG PUMP START COMMAND.
3. ALARM BEACON.
4. SPARE
5. SPARE
6. SPARE
7. SPARE
8. SPARE
9. SPARE
10. SPARE

CONTROL PANEL KEYED NOTES:

1. EXISTING LIFT STATION CONTROL PANEL ENCLOSURE. TO BE RELOCATED AND MODIFIED.
2. EXISTING EQUIPMENT PANEL. TO REMAIN AND BE MODIFIED.
3. EXISTING SWING-OUT PANEL. TO REMAIN AS IS.
4. PROVIDE NEW CELL MODEM FOR CONNECTIVITY BACK TO PLANT. SIMILAR TO APRISA 4RF LTE. PROVIDE WITH DIN RAIL MOUNT AND CABLES.
5. PROVIDE NEW CELL MODEM ANTENNA.
6. MISSIONS PANEL TO BE REMOVED AND RETURNED TO OWNER. PROVIDE COVER PLATE FOR HOLE IN PANEL.
7. REPLACE EXISTING CONTROLLER WITH A MICROLOGIX 850 PLC. PROVIDE DUPLEX PUMP CONTROL AND MONITORING FOR THIS LIFT STATION.
8. REPLACE THE EXISTING MOTOR PROTECTION CIRCUIT BREAKER GV2P14 WITH GV2P22. THE EXISTING MOTOR CONTACTOR IS RATED FOR 18A AND SHOULD NOT REQUIRE REPLACING.
9. UPGRADE EXISTING 30A MAIN CIRCUIT BREAKER TO 40A.
10. ANALOG ISB FOR WET WELL LEVEL TRANSMITTER.
11. ADDITIONAL TERMINAL BLOCKS.

NOTES:
- SHORT STREET LIFT STATION MODIFICATIONS:
  - ADD AND REMOVE COMPONENTS AS SHOWN - ADDITIONAL MODIFICATIONS MAY BE REQUIRED
  - WITH THE EXCEPTION OF WIRING FROM MAIN CB TO DIST. BLOCK, EXISTING PANEL WIRING SHOULD BE OF SUFFICIENT SIZE PER AS-BUILDS. CONTRACTOR TO CONFIRM.

*CONTROL PANEL TO BE RELOCATED FROM CASE LOCATION TO SHORT STREET LOCATION

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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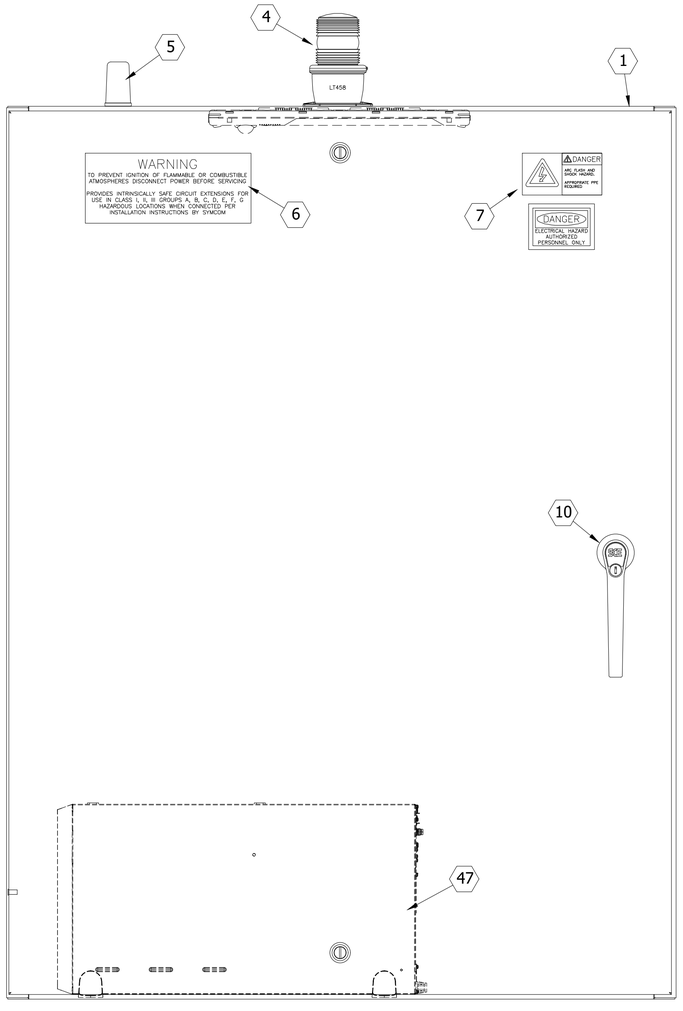
Project #: 400-6314
Designed By: JAR
Drawn By: JAR
Checked By: ALC
Date: 08/14/2026

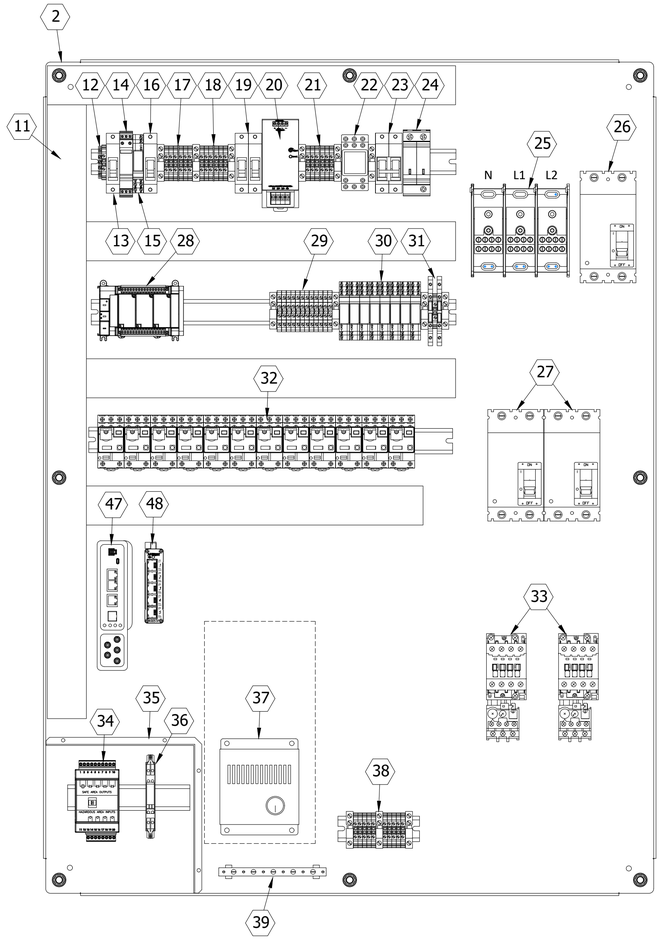
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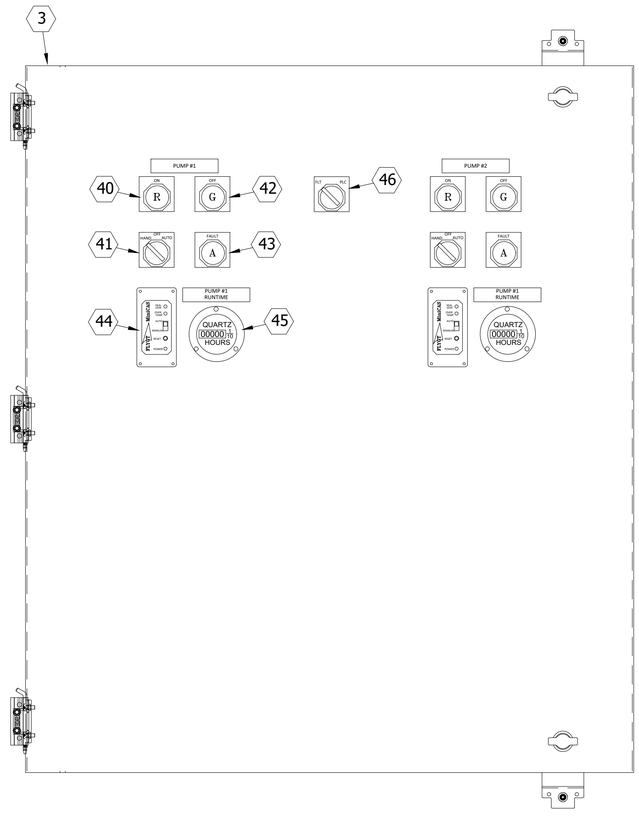
SHORT STREET LIFT STATION CONTROL PANEL UPGRADES

I108

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CONTROL PANEL KEYED NOTES:

1. STAINLESS STEEL NEMA4X PUMP CONTROL PANEL - 48"X36"X16" MINIMUM. SIMILAR TO SCE-48EL3616SSLPPL. (THIS ENCLOSURE MAY UTILIZE VFD UNITS IN THE FUTURE FOR 1PH TO 3PH CONVERSION FOR DIFFERENT STYLE OF PUMPS, MAINTAIN 16" DEPTH).
2. 48"X36" EQUIPMENT PANEL. SIMILAR TO SCE-48P36.
3. 48"X36" DEAD FRONT PANEL. SIMILAR TO SCE-DF48EL36LP.
4. LED FLASHING ALARM BEACON.
5. CELL MODEM ANTENNA.
6. WARNING LABEL.
7. ARC FLASH - VOLTAGE WARNING LABEL.
8. NOT USED.
9. NOT USED.
10. CELL MODEM FOR CONNECTIVITY BACK TO PLANT. SIMILAR TO APRISA 4RF LTE. PROVIDE WITH DIN RAIL MOUNT AND CABLES.
11. HIGH DENSITY GRAY WIRE DUCT.
12. 120V PANEL CONTROL POWER GROUND AND NEUTRAL TERMINAL BLOCK.
13. 120V PANEL CONTROL POWER 15A CIRCUIT BREAKER.
14. 120V CONTROL POWER SURGE PROTECTION DEVICE.
15. 120V CONTROL POWER LOSS RELAY.
16. SUPPLEMENTAL CIRCUIT BREAKER FOR SITE LIGHT.
17. 120V CONTROL POWER DISTRIBUTION TERMINAL BLOCKS.
18. 120V CONTROL POWER NEUTRAL DISTRIBUTION TERMINAL BLOCKS.
19. 120V 3A CIRCUIT BREAKER FOR 24VDC POWER SUPPLY AND 15A CIRCUIT BREAKER FOR LOCAL RECEPTACLE.
20. 24VDC, 5A POWER SUPPLY.
21. 24VDC DISTRIBUTION TERMINAL BLOCKS.
22. UPS FAIL-OVER CONTACTOR/RELAY.
23. 2P CIRCUIT BREAKER FOR 240V, 1PH SURGE PROTECTION DEVICE.
24. 240V, 1PH SURGE PROTECTION DEVICE. SIMILAR TO ABB OVRT2 2L SERIES.
25. MAIN POWER DISTRIBUTION BLOCK.
26. MAIN POWER CIRCUIT BREAKER.
27. MOTOR PROTECTION CIRCUIT BREAKERS. THESE SHALL BE ABB TYPE IN COMPLIANCE WITH ABB STANDARDS FOR VFD PROTECTION.
28. ALLEN BRADLEY MICRO850 2080-LC50-24 PLC WITH REQUIRED I/O.
29. PLC DIGITAL INPUT FIELD TERMINATION BLOCKS.
30. PLC DIGITAL OUTPUT ISOLATION RELAYS.
31. PLC ANALOG INPUT/OUTPUT DISTRIBUTION TERMINATION BLOCKS.
32. 120V CONTROL RELAYS.
33. IEC MOTOR STARTERS WITH SOLID STATE OVERLOADS.
34. ISB FOR FLOAT SWITCHES. SIMILAR TO ISDUR4.
35. INTRINSICALLY SAFE BARRIER.
36. ANALOG ISB.
37. MINIMUM 100W CONDENSATION PANEL HEATER.
38. TERMINAL BLOCKS FOR MOTOR PROTECTION (SEAL FAIL/OVERTEMP) WIRING FROM MOTOR.
39. CONTROL PANEL GROUND BUS BAR.
40. 30MM PUSH-TO-TEST (PTT) MOTOR RUNNING RED LED PILOT LIGHT.
41. 3OMM 3 POSITION HAND-OFF-AUTO SELECTOR SWITCH.
42. 30MM PUSH-TO-TEST (PTT) MOTOR STOPPED GREEN LED PILOT LIGHT.
43. 30MM PUSH-TO-TEST (PTT) MOTOR FAILED AMBER LED PILOT LIGHT.
44. FLUSH MOUNT MINI-CAS SEAL FAIL/OVERTEMP MODULE WITH RESET AND INDICATOR LIGHTS. DIN RAIL MOUNT NOT ACCEPTABLE.
45. RUNTIME METER.
46. 30MM 2-POSITION SELECTOR SWITCH FOR FLOAT/PLC MODE.
47. MINIMUM 700VA UPS DUAL CONVERSION UPS.

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC

Date: 08/14/2026

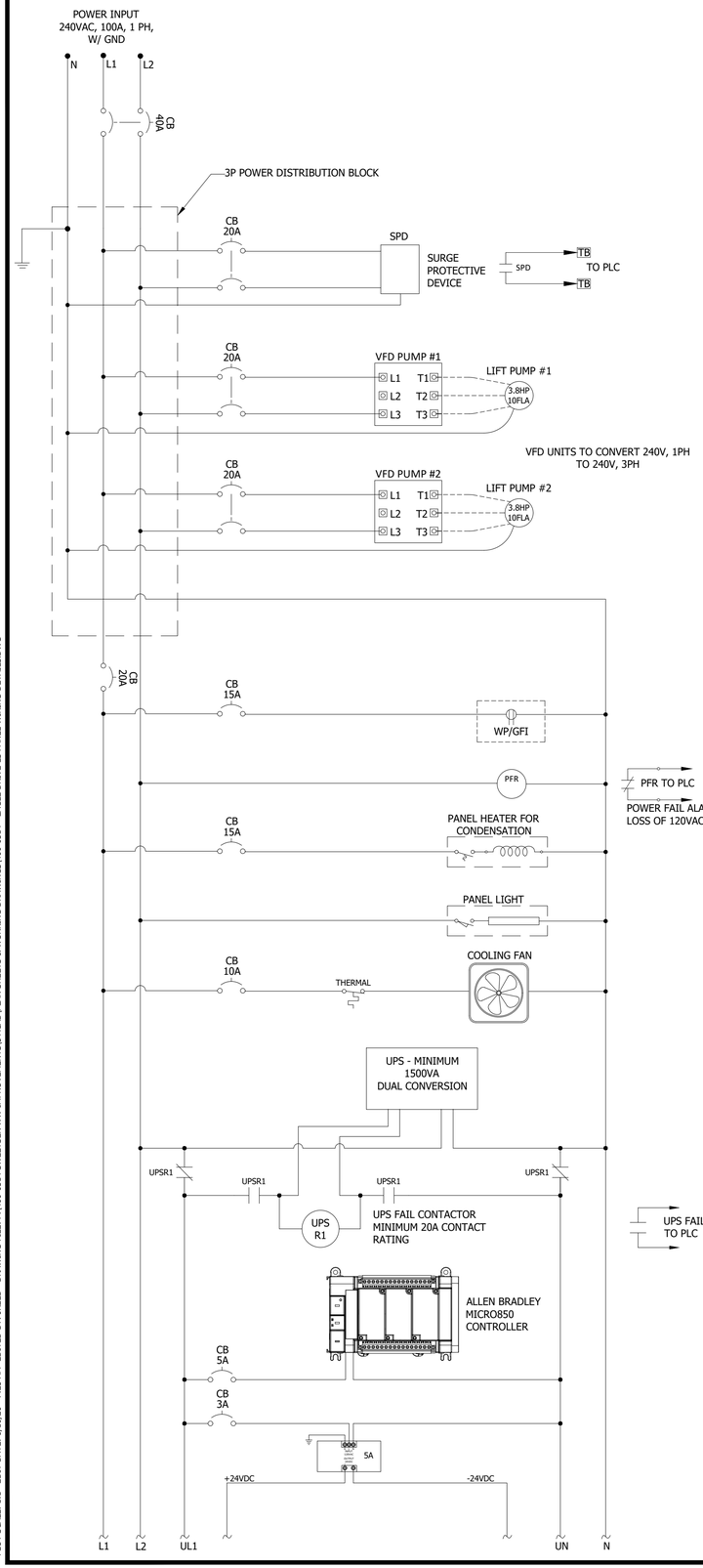
AARON L. CROW REGISTERED No. PE11800762 STATE OF INDIANA PROFESSIONAL ENGINEER

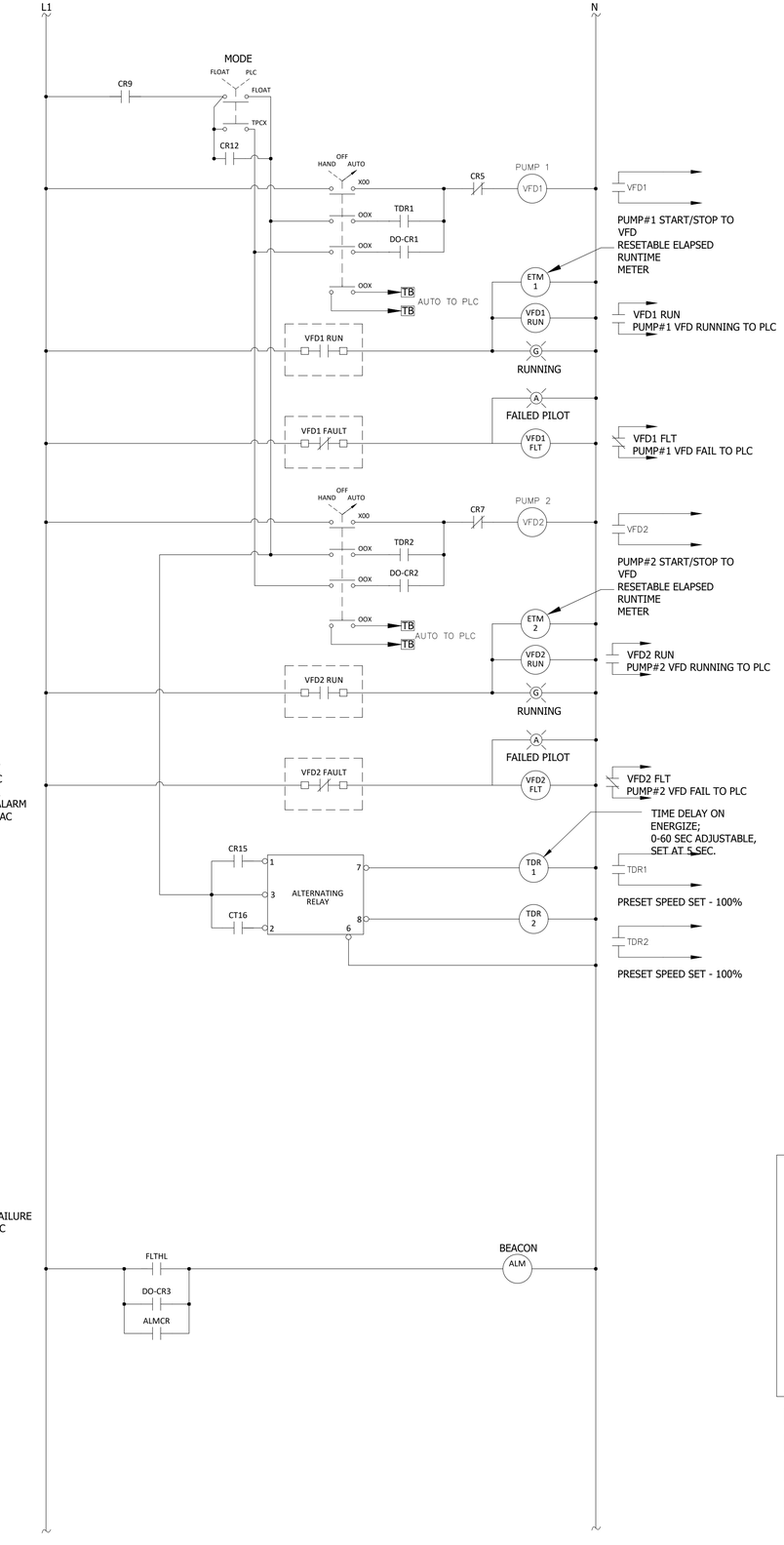
Aaron Crow

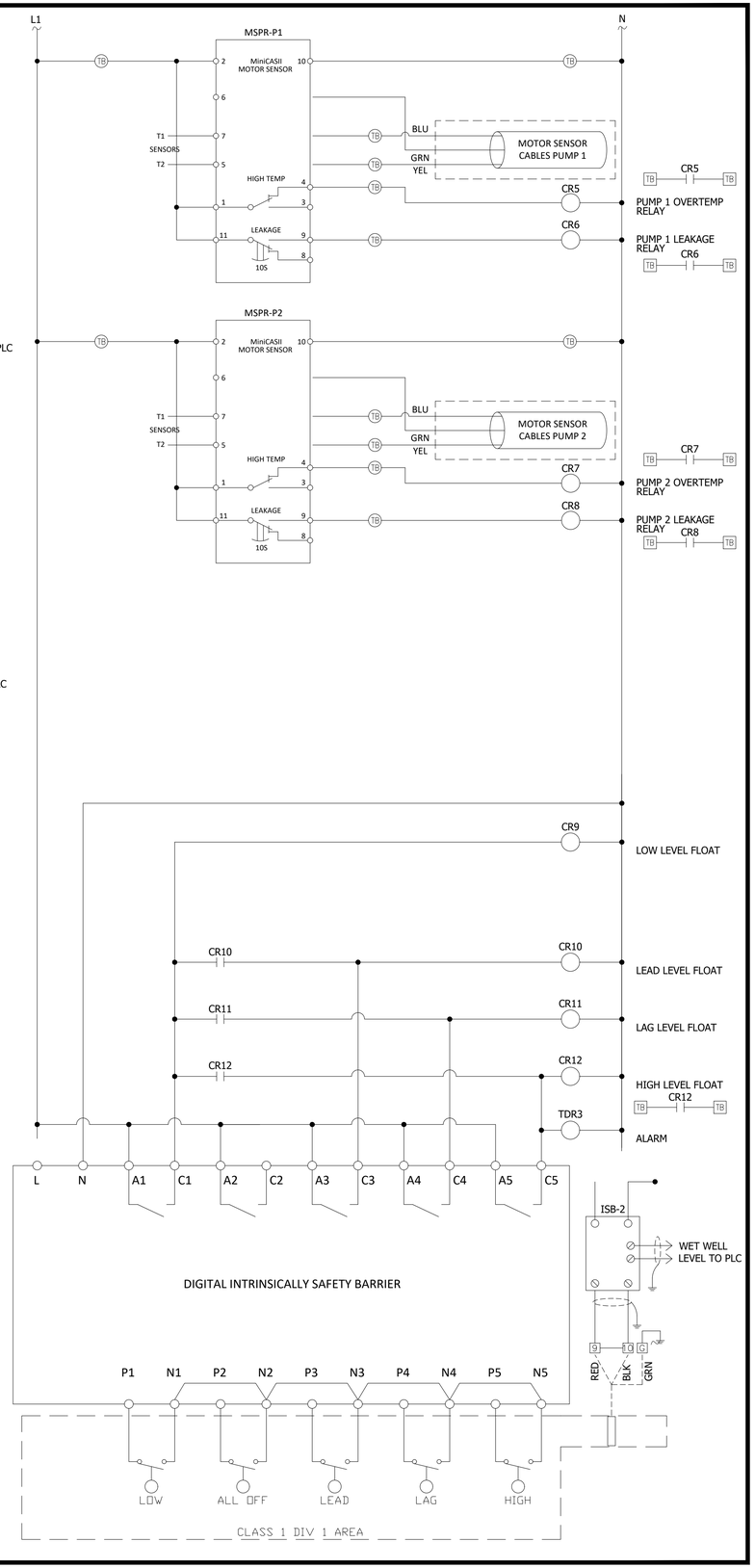
EAGLE DRIVE LIFT STATION CONTROL PANEL UPGRADES

I109A

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SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

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Date: 08/14/2026

AARON L. CROW
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PROFESSIONAL ENGINEER

EAGLE DRIVE LIFT STATION CONTROL PANEL WIRING DETAILS

I109B

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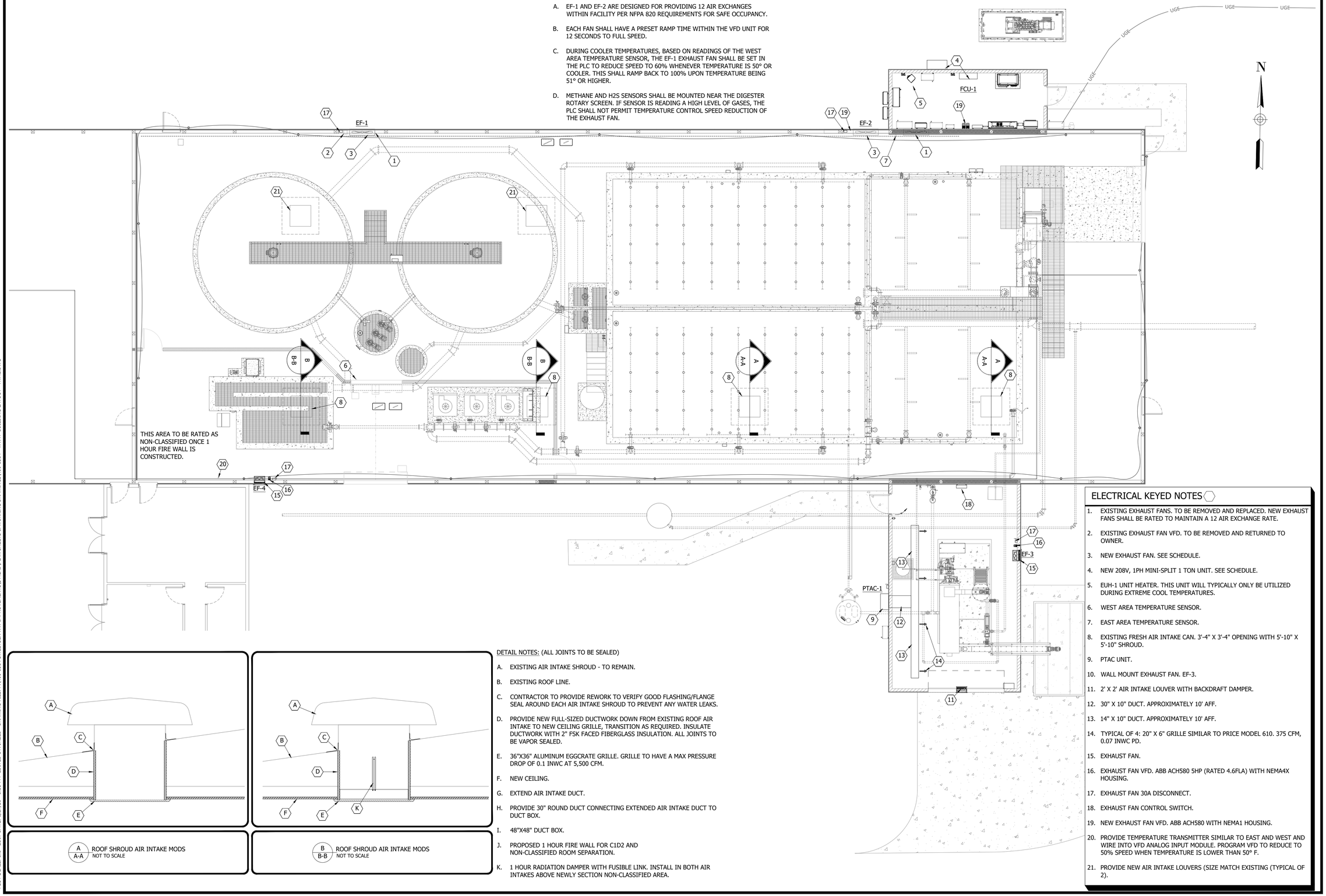
OPERATIONAL NOTES:

A. EF-1 AND EF-2 ARE DESIGNED FOR PROVIDING 12 AIR EXCHANGES WITHIN FACILITY PER NFPA 820 REQUIREMENTS FOR SAFE OCCUPANCY.

B. EACH FAN SHALL HAVE A PRESET RAMP TIME WITHIN THE VFD UNIT FOR 12 SECONDS TO FULL SPEED.

C. DURING COOLER TEMPERATURES, BASED ON READINGS OF THE WEST AREA TEMPERATURE SENSOR, THE EF-1 EXHAUST FAN SHALL BE SET IN THE PLC TO REDUCE SPEED TO 60% WHENEVER TEMPERATURE IS 50° OR COOLER. THIS SHALL RAMP BACK TO 100% UPON TEMPERATURE BEING 51° OR HIGHER.

D. METHANE AND H2S SENSORS SHALL BE MOUNTED NEAR THE DIGESTER ROTARY SCREEN. IF SENSOR IS READING A HIGH LEVEL OF GASES, THE PLC SHALL NOT PERMIT TEMPERATURE CONTROL SPEED REDUCTION OF THE EXHAUST FAN.



A
A-A
ROOF SHROUD AIR INTAKE MODS
NOT TO SCALE

B
B-B
ROOF SHROUD AIR INTAKE MODS
NOT TO SCALE

DETAIL NOTES: (ALL JOINTS TO BE SEALED)

A. EXISTING AIR INTAKE SHROUD - TO REMAIN.

B. EXISTING ROOF LINE.

C. CONTRACTOR TO PROVIDE REWORK TO VERIFY GOOD FLASHING/FLANGE SEAL AROUND EACH AIR INTAKE SHROUD TO PREVENT ANY WATER LEAKS.

D. PROVIDE NEW FULL-SIZED DUCTWORK DOWN FROM EXISTING ROOF AIR INTAKE TO NEW CEILING GRILLE, TRANSITION AS REQUIRED. INSULATE DUCTWORK WITH 2" FSK FACED FIBERGLASS INSULATION. ALL JOINTS TO BE VAPOR SEALED.

E. 36"X36" ALUMINUM EGGCRATE GRILLE. GRILLE TO HAVE A MAX PRESSURE DROP OF 0.1 INWC AT 5,500 CFM.

F. NEW CEILING.

G. EXTEND AIR INTAKE DUCT.

H. PROVIDE 30" ROUND DUCT CONNECTING EXTENDED AIR INTAKE DUCT TO DUCT BOX.

I. 48"X48" DUCT BOX.

J. PROPOSED 1 HOUR FIRE WALL FOR C1D2 AND NON-CLASSIFIED ROOM SEPARATION.

K. 1 HOUR RADIATION DAMPER WITH FUSIBLE LINK. INSTALL IN BOTH AIR INTAKES ABOVE NEWLY SECTION NON-CLASSIFIED AREA.

ELECTRICAL KEYED NOTES

1. EXISTING EXHAUST FANS. TO BE REMOVED AND REPLACED. NEW EXHAUST FANS SHALL BE RATED TO MAINTAIN A 12 AIR EXCHANGE RATE.
2. EXISTING EXHAUST FAN VFD. TO BE REMOVED AND RETURNED TO OWNER.
3. NEW EXHAUST FAN. SEE SCHEDULE.
4. NEW 208V, 1PH MINI-SPLIT 1 TON UNIT. SEE SCHEDULE.
5. EUH-1 UNIT HEATER. THIS UNIT WILL TYPICALLY ONLY BE UTILIZED DURING EXTREME COOL TEMPERATURES.
6. WEST AREA TEMPERATURE SENSOR.
7. EAST AREA TEMPERATURE SENSOR.
8. EXISTING FRESH AIR INTAKE CAN. 3'-4" X 3'-4" OPENING WITH 5'-10" X 5'-10" SHROUD.
9. PTAC UNIT.
10. WALL MOUNT EXHAUST FAN. EF-3.
11. 2' X 2' AIR INTAKE LOUVER WITH BACKDRAFT DAMPER.
12. 30" X 10" DUCT. APPROXIMATELY 10' AFF.
13. 14" X 10" DUCT. APPROXIMATELY 10' AFF.
14. TYPICAL OF 4: 20" X 6" GRILLE SIMILAR TO PRICE MODEL 610. 375 CFM, 0.07 INWC PD.
15. EXHAUST FAN.
16. EXHAUST FAN VFD. ABB ACH580 5HP (RATED 4.6FLA) WITH NEMA4X HOUSING.
17. EXHAUST FAN 30A DISCONNECT.
18. EXHAUST FAN CONTROL SWITCH.
19. NEW EXHAUST FAN VFD. ABB ACH580 WITH NEMA1 HOUSING.
20. PROVIDE TEMPERATURE TRANSMITTER SIMILAR TO EAST AND WEST AND WIRE INTO VFD ANALOG INPUT MODULE. PROGRAM VFD TO REDUCE TO 50% SPEED WHEN TEMPERATURE IS LOWER THAN 50° F.
21. PROVIDE NEW AIR INTAKE LOUVERS (SIZE MATCH EXISTING (TYPICAL OF 2).

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

#	Revision	Date

Project #: 400-6314

Designed By: JAR

Drawn By: JAR

Checked By: ALC & DB

Date: 08/14/2026

DUSTIN E. BARTH
REGISTERED
No. 12200401
STATE OF
INDIANA
PROFESSIONAL ENGINEER

Dustin Barth

7' 0 7" 14'
GRAPHIC SCALE

WWTP BUILDING LAYOUT - MECHANICAL

M100

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ELECTRIC UNIT HEATER SCHEDULE

REMARKS:
1. PROVIDE WALL THERMOSTAT.
2. PROVIDE WALL HANGING KIT.

MARK	MANUFACTURER	MODEL NO	HEATING COIL CAPACITY	POWER	FLA	VOLT	PH	REMARKS
EUH-1	BERKO (OR EQUAL)	HUHAA320	10,000 BTUH	3 KW	14.5	208	1	1

DX SPLIT SYSTEM

REMARKS:
1. PROVIDE WIRELESS REMOTE CONTROLLER KIT FOR EACH INDOOR UNIT.
2. OUTDOOR UNIT BE PROVIDED WITH LOW AMBIENT WIND BAFFLE KIT. UNIT SHALL BE RATED FOR COOLING AND HEATING DOWN TO 5 DEGREES.
3. CONTRACTOR SHALL SIZE ALL REFRIGERANT PIPING SO AS NOT TO REDUCE RATED CAPACITY. SUBMIT REFRIGERANT PIPING DETAIL WITH SUBMITTAL.
4. INDOOR UNITS SHALL BE POWERED THROUGH OUTDOOR UNIT.
5. MOUNT OUTDOOR UNITS ON 16" HIGH STAND FOR GRADE MOUNTED UNITS.

	INDOOR UNIT				OUTDOOR UNIT							
MANUFACTURER	MARK	MODEL	MAX CFM	COOLING/ HEATING MBH	MARK	MODEL	SEER/EER	HSPF	MCA	MOCP	VOLTS/PH	REMARKS
LG (OR EQUAL)	FCU-1	KNSAE121A	400	12.0 / 12.0	HP-1	KUSAE121A	18 / 12	8.5	10	15	208/1	1 THRU 5

EXHAUST FAN SCHEDULE

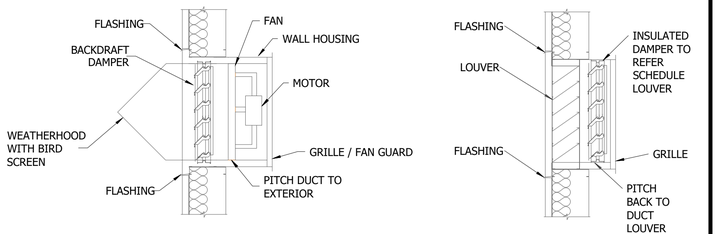
REMARKS:
1. FAN TO BE SPARK RESISTANT TYPE B MINIMUM.
2. PROVIDE EXPLOSION PROOF MOTOR.
3. PROVIDE FAN GUARD
4. PROVIDE WALL SLEEVE WITH EXTERIOR WALL LOUVER W/ BACKDRAFT DAMPER.
5. VFD PROVIDED BY EC.

					MOTOR								DESIGN REFERENCE		
MARK	TYPE	CFM	ESP (IN-WG)	FAN RPM	HP	BHP	PHASE/ HERTZ	FLA	DRIVE TYPE	BIRD SCREEN	GRAVITY BDD	MOTORIZED DAMPER	MANUFACTURER	MODEL NO.	REMARKS
EF-1	WALL AXIAL EXHAUST	11,000	0.46	1800	3	2.1	208 / 3 / 60	10.5	DIRECT	YES	YES	NO	GREENHECK (OR EQUAL)	AER-30-03-0316	1 THRU 5
EF-2	WALL AXIAL EXHAUST	11,000	0.46	1800	3	2.1	208 / 3 / 60	10.5	DIRECT	YES	YES	NO	GREENHECK (OR EQUAL)	AER-30-03-0316	1 THRU 5
EF-3	WALL AXIAL EXHAUST	1,300	0.35	951	0.33	0.28	208 / 3 / 60	2.4	belt	YES	YES	NO	GREENHECK (OR EQUAL)	SBE-1H20	3 THRU 5
EF-4	WALL AXIAL EXHAUST	2,000	0.35	1100	0.5	0.36	208 / 3 / 60	3.8	belt	YES	YES	NO	GREENHECK (OR EQUAL)	SBE-1H20	3 THRU 5

PTAC UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	NOMINAL TONNAGE	# OF STAGES	CFM	OA CFM	EST ESP	COOLING CAPACITY			ELECTRIC HEATING CAPACITY		UNIT ELECTRICAL		
								TOTAL (MBH)	SENS (MBH)	EER	KW @208V 3P	MBH	VOLTS / PHASE	MCA	MOCP
PTAC-1	BARD	W4SAFDB10AWPXXE	4	2	1500	150	0.35	47	36	11.3	9	34	208V / 3P	34	35

REMARKS:
1. PROVIDE WITH WALL MOUNTED THERMOSTAT/HUMIDISTAT.
2. PROVIDE UNIT WITH 2-STAGE COMPRESSOR, HOT GAS REHEAT AND ASSOCIATED DEHUMIDIFICATION MODE CONTROL.
3. PROVIDE WITH MERV-8 FILTER.
4. PROVIDE AIR HANDLING UNIT WITH SINGLE POINT ELECTRICAL CONNECTION WITH FACTORY MOUNTED DISCONNECT.
5. PROVIDE BOTH INTAKE AND EXHAUST BAROMETRIC DAMPERS FOR OUTDOOR AIR INTAKE AND RELIEF PER SCHEDULED VALUES. ADJUST IN FIELD PER TAB.
6. PROVIDE FACTORY MOUNTED AND WIRED ELECTRIC HEATER.
7. PROVIDE UNIT WITH LOW AMBIENT CONTROLS.



EXHAUST FAN AND LOUVER INSTALLATION DETAIL FOR SCREW PRESS ROOM
NOT TO SCALE

DCCM

SWEETSER WASTE WATER IMPROVEMENTS

SWEETSER, INDIANA, 46987

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DUSTIN E. BARTH REGISTERED No. 12200401 STATE OF INDIANA PROFESSIONAL ENGINEER
Dustin Barth

7' 0 7' 14'
GRAPHIC SCALE

WWTP BUILDING LAYOUT MECHANICAL SCHEDULES AND DETAILS

M200

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