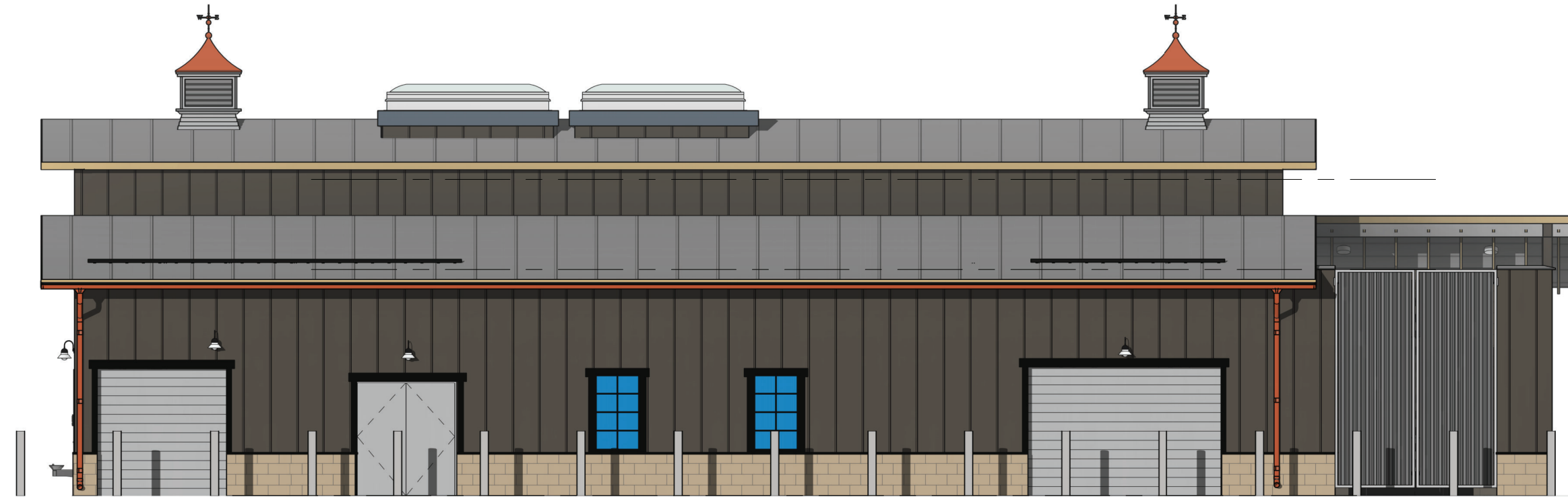


HERITAGE PARK BOOSTER PUMP STATION

425 W 400 S, OREM UT 84058



PROJECT VICINITY MAP
NTS



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C1.4	BOLLARD LAYOUT
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C3.1	TANK PHASE 2 GRADING PLAN
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C6.2	CIVIL DETAILS
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C6.6	HEADER DETAILS
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CODE ANALYSIS

CODE CATEGORY	CODE REFERENCE	CODE REQUIREMENTS	ACTUAL BUILDING DESIGN
APPLICABLE BUILDING CODES		2021 INTERNATIONAL BUILDING CODE 2021 INTERNATIONAL MECHANICAL CODE 2021 INTERNATIONAL FUEL GAS CODE 2021 INTERNATIONAL PLUMBING CODE 2021 INTERNATIONAL FIRE CODE 2021 INTERNATIONAL ENERGY CONSERVATION CODE 2020 NATIONAL ELECTRICAL CODE 2021 UNIFORM CODE FOR BUILDING CONSERVATION 2021 INTERNATIONAL FIRE CODE	2021 INTERNATIONAL BUILDING CODE 2021 INTERNATIONAL MECHANICAL CODE 2021 INTERNATIONAL FUEL GAS CODE 2021 INTERNATIONAL PLUMBING CODE 2021 INTERNATIONAL FIRE CODE 2021 INTERNATIONAL ENERGY CONSERVATION CODE 2020 NATIONAL ELECTRICAL CODE 2021 UNIFORM CODE FOR BUILDING CONSERVATION 2021 INTERNATIONAL FIRE CODE
OCCUPANCY	312.1	U, UTILITY AND MISCELLANEOUS	U WITH ACCESSORY SPACE
OCCUPANCY SEPARATION	TABLE 508.4	SEPARATION NOT REQUIRED	NS
CONSTRUCTION TYPE	CHAPTER 6	TYPE VB	TYPE VB
ALLOWABLE FLOOR AREA	TABLE 506.2	NS 9,000 SF ALLOWABLE	2,747 SF
AREA MODIFICATIONS	SECTION 506 EQUATION 5-3	Aa = (At)(At x If) + (At X Is)	AREA MODIFICATIONS NOT NEEDED
MAXIMUM HEIGHT	TABLE 504.3	U, UTILITY AND MISCELLANEOUS	BUILDING HEIGHT: 30' - 4"
MAXIMUM STORIES	TABLE 504.4	U: 1 STORY MAX (NS)	BUILDING: 1 STORY
OCCUPANT LOAD	TABLE 1004.5	SEE OCCUPANCY SCHEDULE ON SHEET G0.2	SEE OCCUPANCY SCHEDULE ON SHEET G0.2
ROOF COVERING	TABLE 1505.1	CLASS C FIRE-RESISTANCE	CLASS A METAL ROOF
DRAFT STOPS	SECTION 717.4	NOT REQ'D	NOT REQ'D
FIRE-PROTECTION SYSTEMS	SECTION 903.2.11	AUTOMATIC FIRE SPRINKLING SYSTEM NOT REQUIRED	NOT PROVIDED
EXITS	TABLE 1006.2.1	1 MIN REQ. EXITS PER OCCUPANT LOAD 1-500	ONE ACCESSIBLE EXITS PROVIDED
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE	TABLE 1006.2.1	OCCUPANT LOAD LESS THAN 30 WITHOUT SPRINKLERS: 100' MAX	COMMON PATH OF EGRESS TRAVEL DISTANCE = 64'
FACILITY ACCESSIBILITY	SECTION 1104	ACCESSIBILITY NOT REQUIRED	ACCESSIBILITY NOT PROVIDED
PLUMBING FIXTURES	TABLE 2902.1	TO BE CONSIDERED INDIVIDUALLY BY THE CODE OFFICIAL	PROVIDED: 1 W.C. MALE & FEMALE; 1 LAVS M & F; 1 D.F.; 1 S.S.

PROJECT CONTACTS

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JEREMY DYE

MECHANICAL & PLUMBING
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ELECTRICAL
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KYLE CARLSON

DEFERRED SUBMITTALS:

ROOF TRUSS DESIGN, LADDER CAGE AND LANDING DESIGN, STAIR AND RAILING DESIGN, BRIDGE CRANE DESIGN

SCOPE OF WORK:

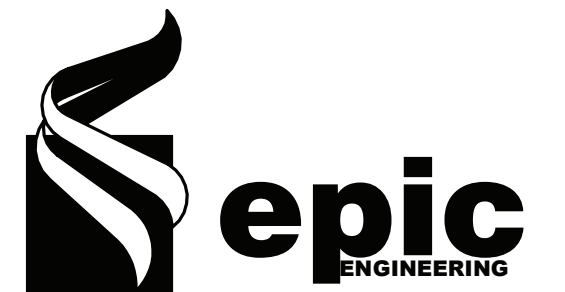
DESIGN FOR THE NEW CONSTRUCTION OF A MASONRY BUILDING, BUILDING TO SERVE AS A PUMP STATION WITH ACCESSORY PUBLIC RESTROOM.

SYMBOL LEGEND

	GRID LINES
	BUILDING SECTION
	ELEVATION
	WALL SECTION
	DETAIL SECTION
	CALLOUT SECTION
	DETAIL NAMING 1/8" = 1'-0"
	WALL TYPES
	WINDOW REFERENCE 1'-0" x 1'-0" SILL Height
	DOOR REFERENCE
	REFERENCE ELEVATION

ABBREVIATIONS

ALUM. APPORX.	ALUMINUM APPROXIMATE	INT. INSUL. MAX.	INTERIOR INSULATION MAXIMUM
B.U.	BUILT UP	MECH. MIN.	MECHANICAL MINIMUM
B.W. BLDG. BLK.	BUILDING BLOCK	MTL.	METAL
C.J.	CONTROL JOINT	N.I.C.	NOT IN CONTRACT
C.M.U.	CONCRETE MASONRY UNIT	N.T.S.	NOT TO SCALE
CLG.	CEILING	O.C.	ON CENTER
COL.	COLUMN	O.D.	OUTSIDE DIAMETER
CONC.	CONCRETE	P	POWER
CONST.	CONSTRUCTION	PLYWD.	PLYWOOD
CONT.	CONTINUOUS	PNTD.	PAINTED
D.F.	DRINKING FOUNTAIN	R.D.	ROOF DRAIN
DIA.	DIAMETER	REG.	REGULAR
DN.	DOWN	R.S.	ROUGH SAWN
DWG.	DRAWING	REQ'D	REQUIRED
DTL.	DETAIL	REV.	REVISED
EA.	EACH	RM.	ROOM
E.F.	EXHAUST FAN	R.O.	ROUGH OPENING
E.I.F.S.	EXT. INSUL. FINISH SYSTEM	S.C.	SOLID CORE
E.J.	EXPANSION JOINT	SCHED.	SCHEDULE
ELEC.	ELECTRIC/ELECTRICAL	SHEET	SHEET
ELEV.	ELEVATION	SIM.	SIMILAR
EQ.	EQUAL	SPEC.	SPECIFICATION
EXIST.	EXISTING	STD.	STANDARD
EXT.	EXTERIOR	STL.	STEEL
F.D.	FLOOR DRAIN	STRUCT.	STRUCTURAL
FDN.	FOUNDATION	SYS.	SYSTEM
FIN.	FINISH	T&B	TOP AND BOTTOM
FLR.	FLOOR	T&G	TONGUE AND GROVE
F.R.	FIRE RATED	T.O.	TOP OF
FTG.	FOOTING	T.O.F.	TOP OF FOOTING
G.	GAS	T.O.P.	TOP OF PIER
G.I.	GALVANIZED IRON	T.O.W.	TOP OF WALL
GA.	GAUZE	TYP.	TYPICAL
GALV.	GALVANIZED	T.S.	TUBULAR STEEL COLUMN
G.W.B.	GYPSON WALL BOARD	U.N.O.	UNLESS NOTED OTHERWISE
G.L.B.	GLU-LAM BEAM	U.P.	UNDER GROUND POWER
H.B.	HOSE BIBB	VERT.	VERTICAL
HD.	HEAD	V.T.R.	VENT THRU ROOF
H.M.	HOLLOW METAL	VCT	VINYL COMPOSITE TILE
HOR.	HORIZONTAL	W	WATER
HW.	HALLWAY	WD.	WOOD
		WC.	WATER CLOSET
		W /	WITH
		WP.	WATERPROOF
		W.R.	WELDED WIRE FABRIC
		W.W.M.	WOVEN WIRE MESH



CONSTRUCTION NOTES

GENERAL NOTES CONSTRUCTION:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE (IBC)...

10. STAIR CONSTRUCTION SHALL MEET THE FOLLOWING REQUIREMENTS PER SECTION 1009 OF THE 2021 IBC.

- A. THE MINIMUM STAIRWAY WIDTH SHALL NOT BE LESS THAN 44 INCHES CLEAR WIDTH...

12. GUARD RAILS SHALL MEET THE FOLLOWING REQUIREMENTS PER SECTION 1013 OF THE 2021 IBC.

- A. GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, INCLUDING MEZZANINES, EQUIPMENT PLATFORMS, STAIRS, RAMPS AND LANDINGS...

3. ALL DRAWINGS INDICATE LOCATIONS AS DIAGRAMMATIC. LOCATIONS SHALL BE PER APPROPRIATE CODES AND OWNER.

- 4. ELECTRICAL SERVICE CAPACITY AND SIZE SHALL BE COMPUTED BY METHOD INDICATED IN THE IBC AND NATIONAL ELECTRICAL CODE...

MECHANICAL NOTES:

- 1. THE MECHANICAL SYSTEM TO BE INSTALLED IN STRICT ACCORDANCE WITH LOCAL, STATE, AND NATIONAL CODES...

PLUMBING NOTES:

- 1. THE PLUMBING SYSTEM TO BE INSTALLED IN STRICT ACCORDANCE WITH LOCAL, STATE AND NATIONAL CODES...

ARCHITECTURAL:

- 1. GRADING SHALL SLOPE A MINIMUM OF 6 INCHES IN THE FIRST 10'-0" AWAY FROM BUILDING.

ELECTRICAL NOTES:

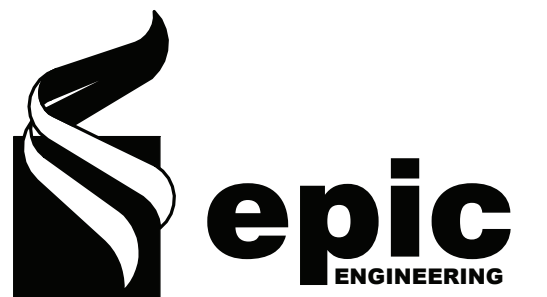
- 1. THE ELECTRICAL SYSTEM TO BE INSTALLED IN STRICT ACCORDANCE WITH LOCAL, STATE, AND NATIONAL CODES...

GENERAL NOTES

- 1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.

DATE

12/2/2024 4:41:18 PM



REVISIONS

Table with columns: MARK, DATE, DESCRIPTION. Includes project details: DRAWN: CRC, DESIGNER: CRC, REVIEWED: JD, PROJECT # 210C001.

SCALES



PROJECT NAME: HERITAGE PARK BOOSTER PUMP STATION

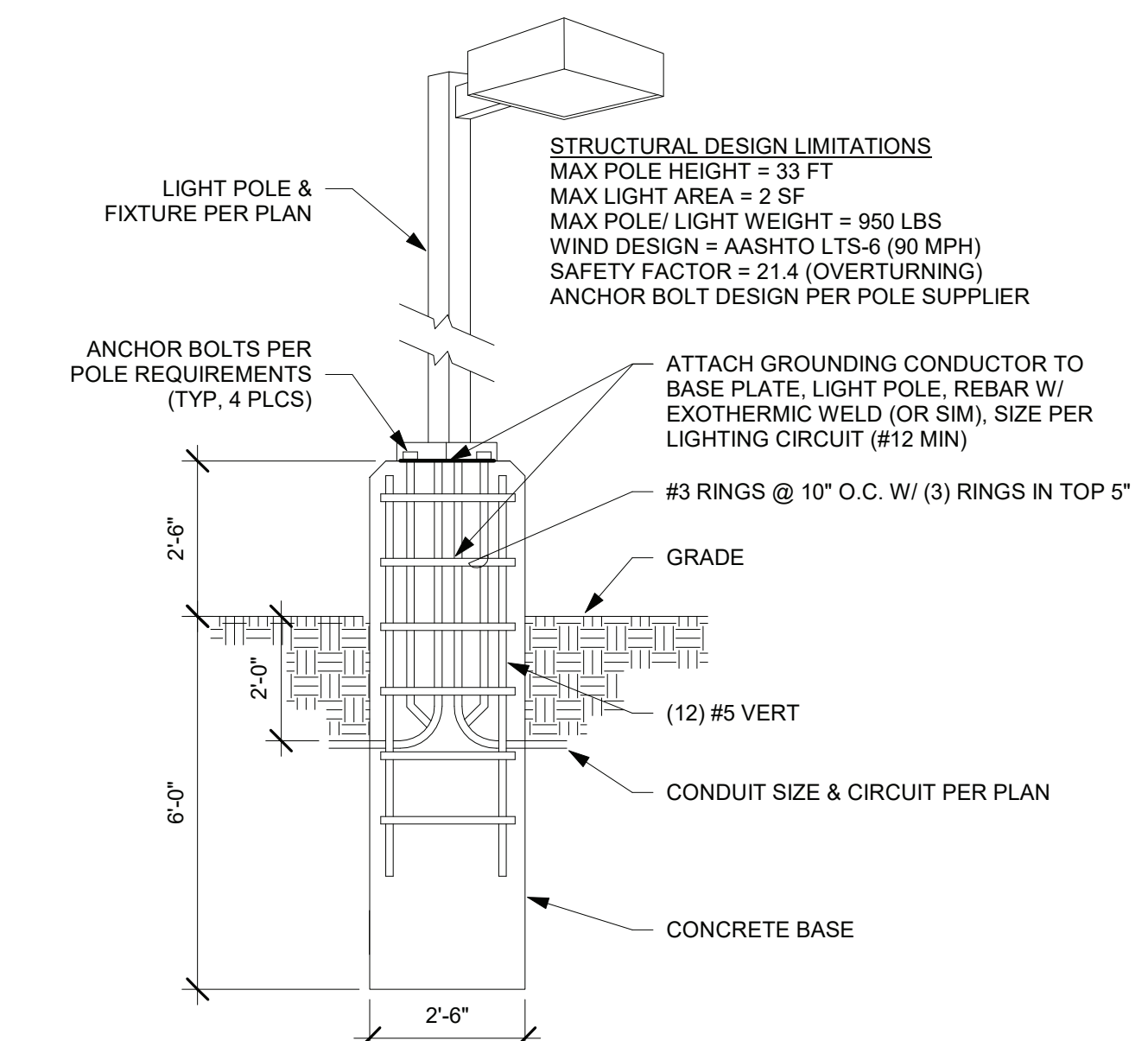
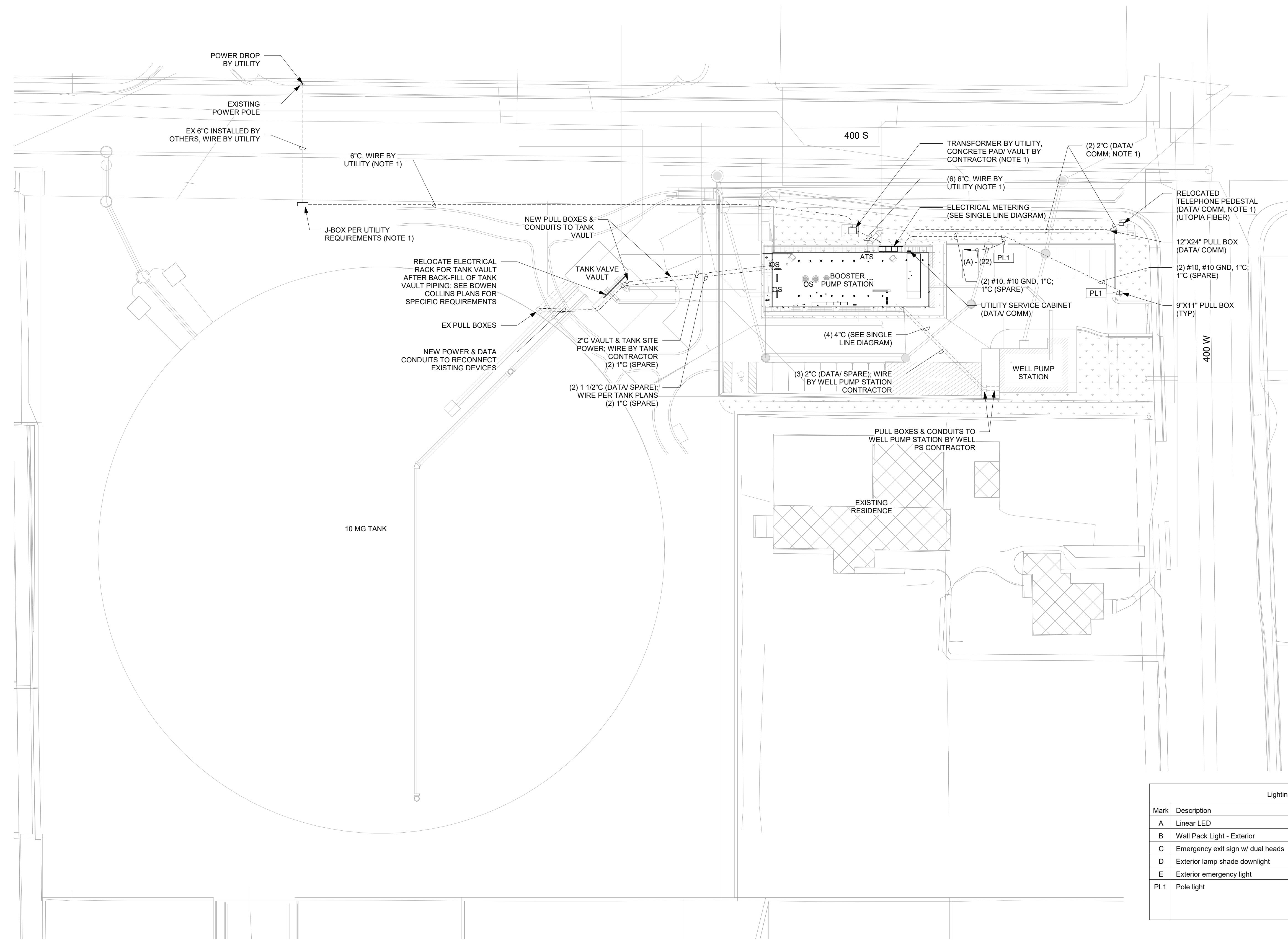
PROJECT LOCATION: 425 W 400 S, OREM UT 84058

SHEET TITLE: BUILDING GENERAL NOTES

PLAN SET: CONST. SHEET: G0.2

CONSTRUCTION NOTES:

- COORDINATE WITH UTILITY COMPANY TO VERIFY SIZES, LOCATIONS, QUANTITIES, AND ALL ADDITIONAL REQUIREMENTS FOR UTILITY OWNED ITEMS REQUIRED FOR SERVICE.
- COORDINATE WITH OWNER AND OTHER CONTRACTORS TO VERIFY SCOPE, CONDUIT SIZES/ QUANTITIES, ETC.



2 LIGHT POLE BASE DETAIL
N.T.S.

Lighting Fixture Schedule				
Mark	Description	Manufacturer/Model	Wattage	Lamp
A	Linear LED	Lithonia STL4-60L-EZ1-LP840	53 W	LED
B	Wall Pack Light - Exterior	Lithonia WST-LED-P2-40K-VW-MVOLT	25 W	LED
C	Emergency exit sign w/ dual heads	Lithonia ECR LED M6	4 W	LED
D	Exterior lamp shade downlight	ANP BB14-M010LDD-N-40K-RTCW-WM54-UNV	10 W	LED
E	Exterior emergency light	Lithonia AFN 120V	3 W	LED
PL1	Pole light	Lithonia RSX1-P2-40K-R4-MVOLT-RPA-NLTAIR2-PIRHN-DBLXD W/ LITHONIA POLE RSS-16-DM19AS/ 45DEG-VD-DBLXD	51 W	LED

1 ELECTRICAL SITE PLAN
1" = 30'-0"



3341 SOUTH 4000 WEST
WEST VALLEY, UTAH 84120
(801) 955-5605

50 EAST 100 SOUTH
HEBER CITY, UTAH 84032
(435) 654-6600

REVISIONS			
NO.	DATE	REV. BY	ISSUE

PROJECT NAME:
HERITAGE PARK BOOSTER PUMP STATION

PROJECT LOCATION:
OREM, UT

SACLES

11"X17":
24"X36":
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST FOR A HALF SIZE SHEET.

DRAWN:
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
210C001

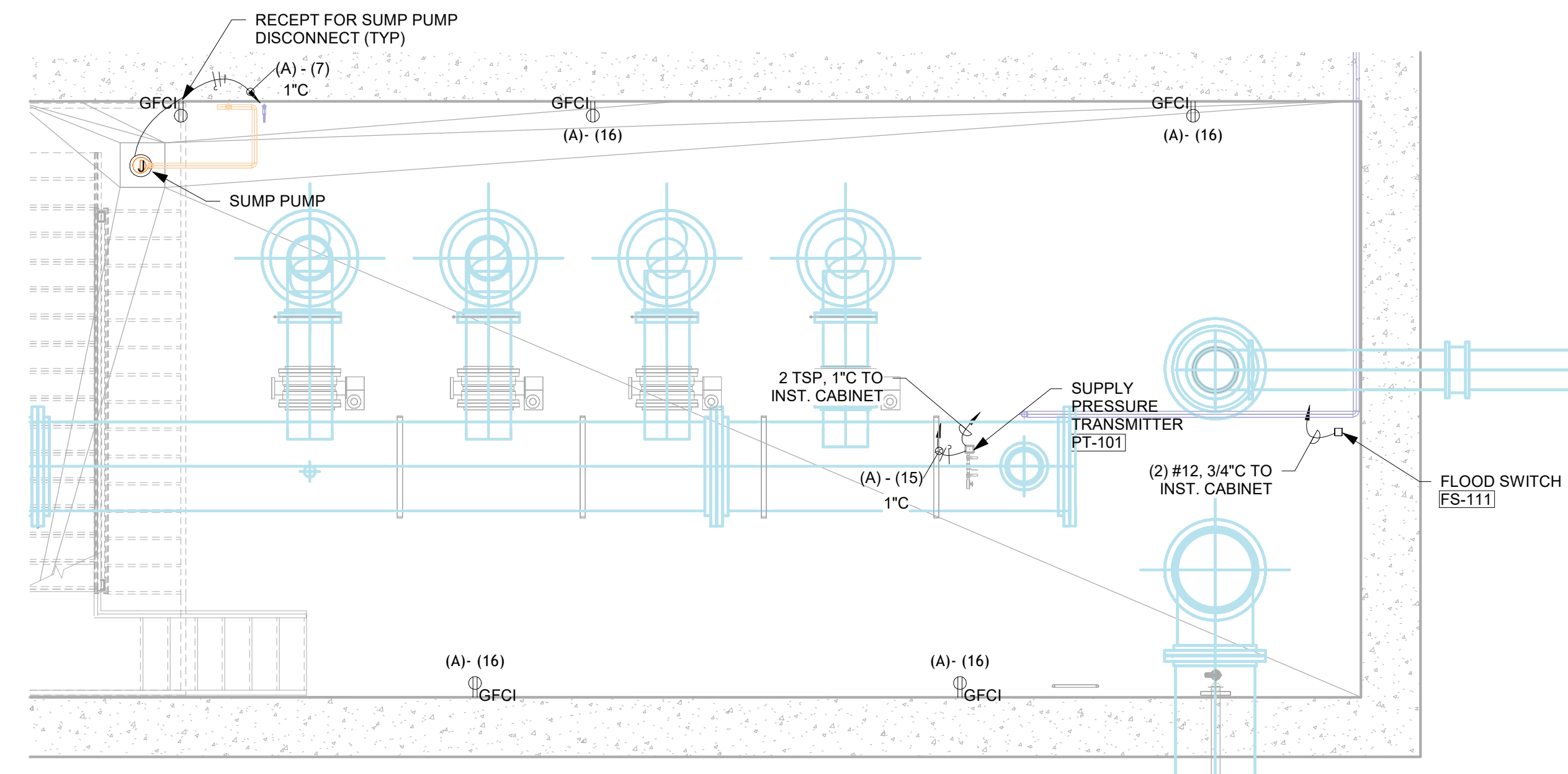
DATE:
NOV 2024

SHEET TITLE:
ELECTRICAL SITE PLAN

DRAWING
E1.1

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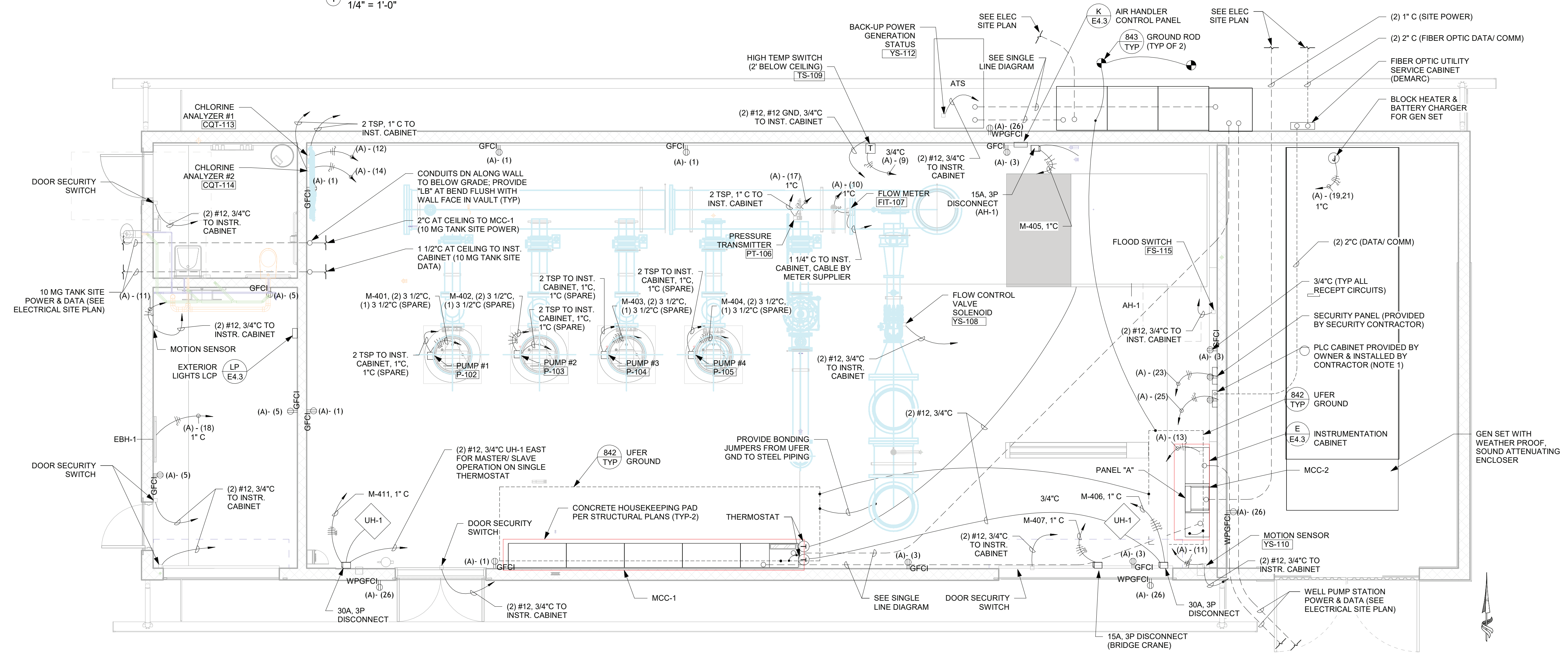
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1 VAULT ELECTRICAL PLAN
1/4" = 1'-0"

NOTES:
1. THE OWNER PROVIDED PLC CABINET SHALL BE INSTALLED BY THE CONTRACTOR WITH ALL OF THE CONDUITS STUBBED INTO THE CABINET AND ADEQUATE WIRE TO REACH ANY POINT IN THE CABINET COILED UP AND LABELED. PROGRAMMING WILL BE DONE BY OWNER.

SYMBOL	DESCRIPTION
	CONDUIT EXPOSED (MIN. 3/4")
	CONDUIT ENCASED IN DUCTBANK OR SLAB (MIN. 1")
	DUPLEX RECEPTACLE 20A, 125V, GROUNDED TYPE, MTD 36" AFF
	HID OR INCANDESCENT LIGHTING FIXTURE LETTER DENOTES TYPE
	FLUORESCENT FIXTURE
	FUSED
	THERMOSTAT
	INDICATES DEVICE LOCATED IN MCC OR LOAD CENTER
	INDICATES DEVICE LOCATED IN INSTR. PANEL
	INDICATES DEVICE LOCATED IN FIELD
	RTM RUNNING TIME METER
	CR CONTROL RELAY
	TDR TIME DELAY RELAY
	SV SOLENOID VALVE
	TM TIMER
	TM LIMIT SWITCH
	TM FLOAT SWITCH
	TM PRESSURE SWITCH
	STOP PUSH BUTTON
	STOP LOCKOUT PUSH BUTTON
	START PUSH BUTTON
	SELECTOR SWITCH
	PC PHOTOCELL
	S MOTOR - NUMBER INDICATES H.P.
	M VALVE MOTOR OPERATOR
	20A 1P CIRCUIT BREAKER WITH TRIP CURRENT & NUMBER OF POLES
	GROUND CONNECTION
	MOTOR SPACE HEATER
	BIMETALLIC OVERLOAD
	SINGLE POLE SWITCH
	MANUAL STARTER W/ OVERLOAD PROTECTION MTD 48" AFF
	WEATHER PROOF
	SURGE ARRESTOR
	GROUND
	CONDUIT
	ABOVE FINISH FLOOR
	SHIELDED PAIR (INSTRUMENTATION CABLE)
	MAINTAIN CONTACT TYPE PUSH BUTTON WITH RING AND PADLOCKABLE
	BATTERY PACK LIGHT
	HEAVY DUTY DISCONNECT SWITCH
	HAND-OFF-AUTO SELECTOR SWITCH



A ELECTRICAL FLOOR PLAN
1/4" = 1'-0"

epic
ENGINEERING

3341 SOUTH 4000 WEST
WEST VALLEY, UTAH 84120
(801) 955-5605

50 EAST 100 SOUTH
HEBER CITY, UTAH 84032
(435) 654-6600

REVISIONS			
NO.	DATE	REV. BY	ISSUE

--	--

PROJECT NAME:
HERITAGE PARK BOOSTER PUMP STATION

PROJECT LOCATION:
OREM, UT

SACLES
11"X17": VARIES
24"X36": VARIES

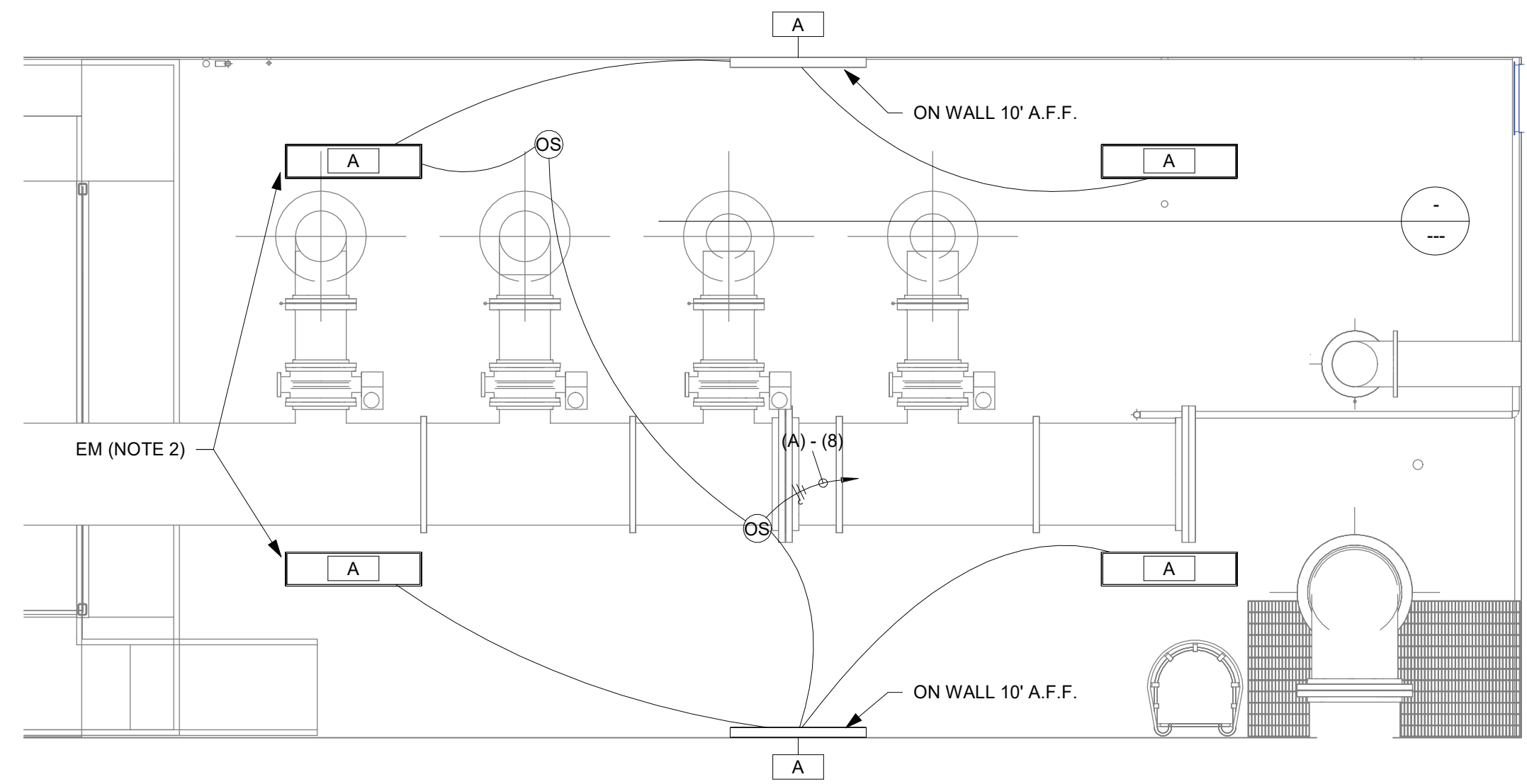
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST FOR A HALF SIZE SHEET.

DRAWN: PROJECT #
DESIGNER: KDC 210C001
REVIEWED: DIO DATE:
NOV 2024

SHEET TITLE:
ELECTRICAL FLOOR PLAN

DRAWING
E2.1

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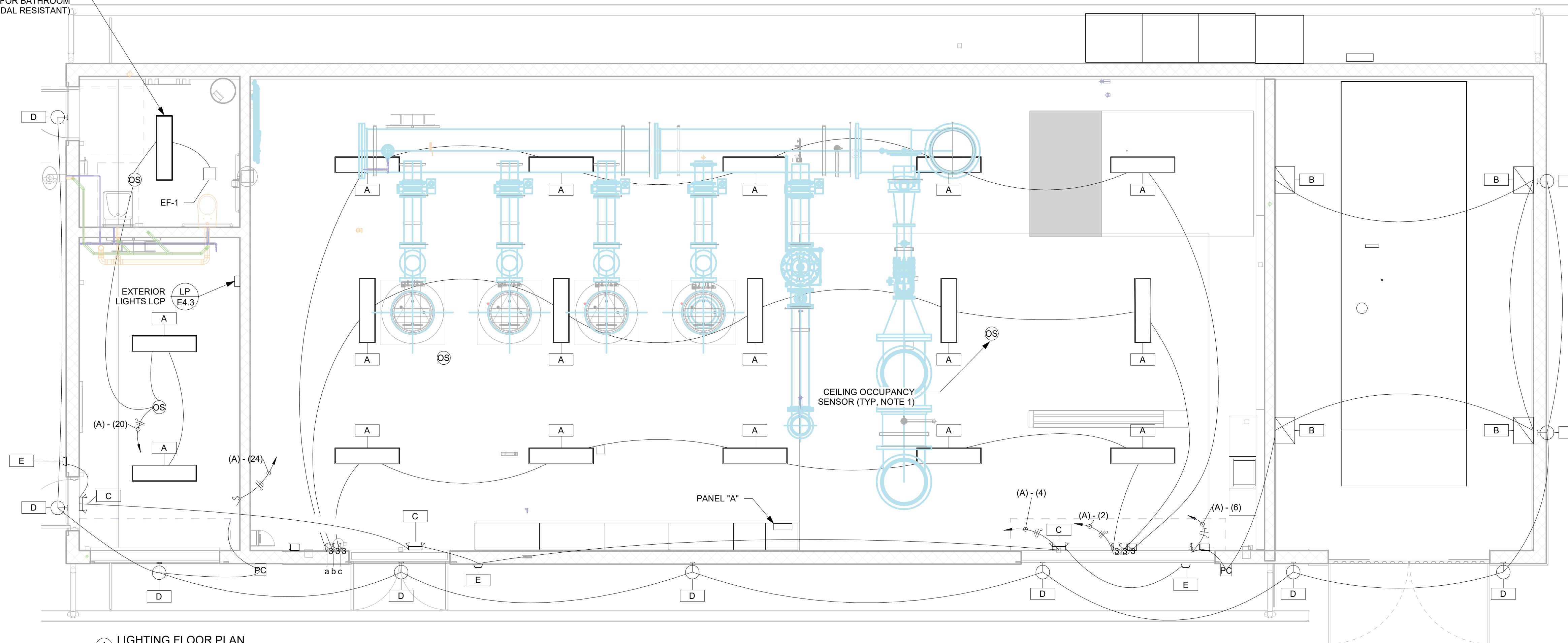


2 VAULT LIGHTING PLAN
1/4" = 1'-0"

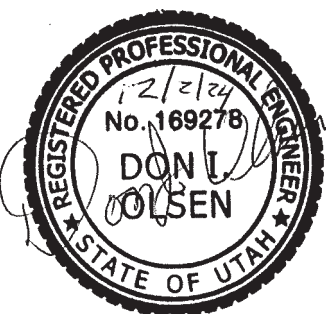
Lighting Fixture Schedule				
Mark	Description	Manufacturer/Model	Wattage	Lamp
A	Linear LED	Lithonia STL4-60L-EZ1-LP840	53 W	LED
B	Wall Pack Light - Exterior	Lithonia WST-LED-P2-40K-VW-MVOLT	25 W	LED
C	Emergency exit sign w/ dual heads	Lithonia ECR LED M6	4 W	LED
D	Exterior lamp shade downlight	ANP BB14-M010LDD-N-40K-RTCW-WM54-UNV	10 W	LED
E	Exterior emergency light	Lithonia AFN 120V	3 W	LED
PL1	Pole light	Lithonia RSX1-P2-40K-R4-MVOLT-RPA-NLTAIR2-PIRHN-DBLXD W/ LITHONIA POLE RSS-16-DM19AS/ 45DEG-VD-DBLXD	51 W	LED

- NOTES:
 1. OCCUPANCY SENSOR SHALL OVERRIDE ALL MANUALLY SWITCHED INTERIOR LIGHTING.
 2. PROVIDE BATTERY BACK-UP FOR A MINIMUM OF 1100 LUMENS FOR 1 HR.

PROVIDE 48" LED TUBE STYLE STRIP LIGHT FOR BATHROOM (VANDAL RESISTANT)



1 LIGHTING FLOOR PLAN
1/4" = 1'-0"



3341 SOUTH 4000 WEST
WEST VALLEY, UTAH 84120
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50 EAST 100 SOUTH
HEBER CITY, UTAH 84032
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REVISIONS			
NO.	DATE	REV. BY	ISSUE

PROJECT NAME:
HERITAGE PARK BOOSTER PUMP STATION

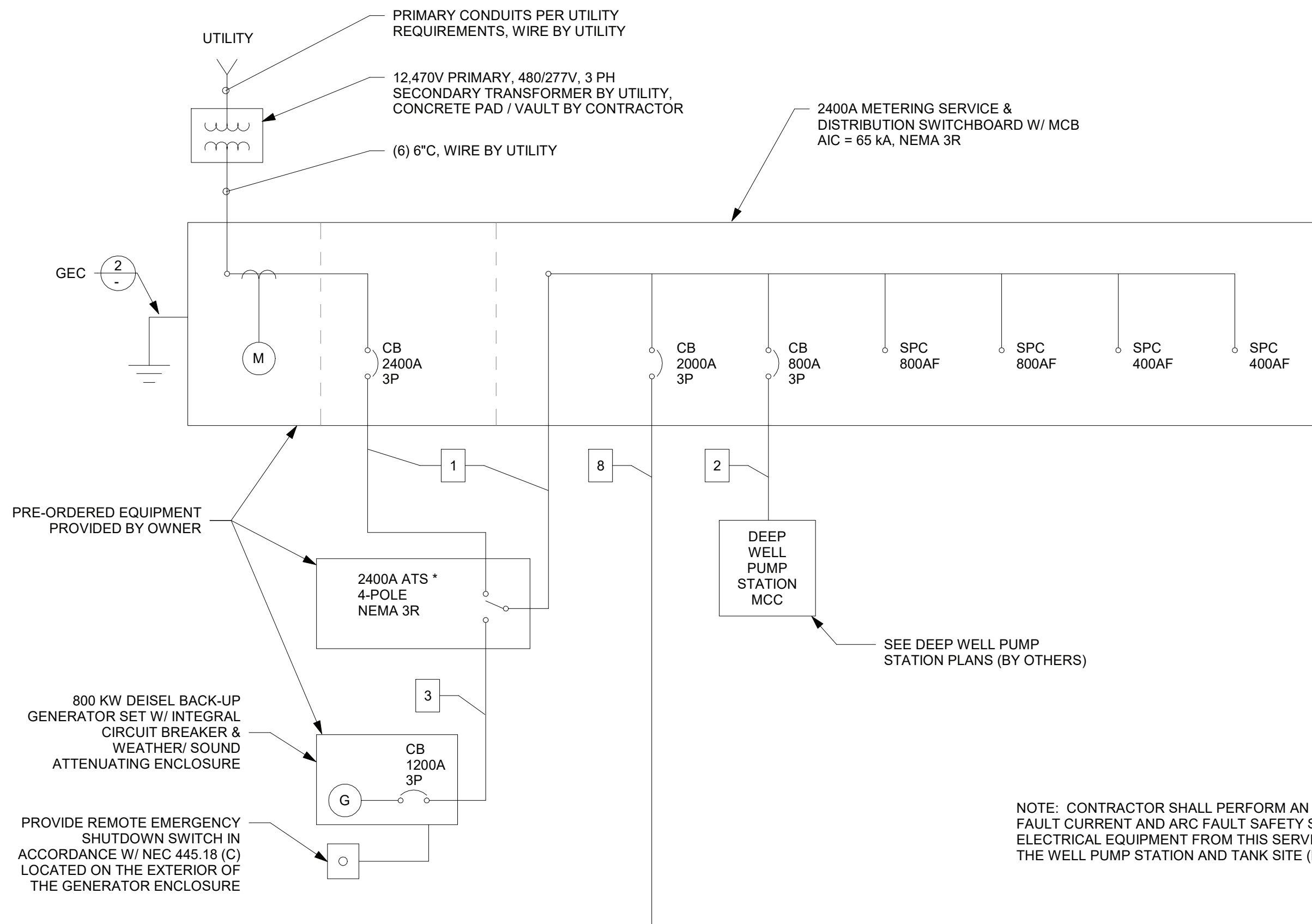
PROJECT LOCATION:
OREM, UT

SCALES
 11"X17": VARIES
 24"X36": VARIES
 BAR SCALE MEASURES 1" ON A FULL SIZE SHEET. ADJUST FOR A HALF SIZE SHEET.

DRAWN: []
 DESIGNER: KDC
 REVIEWED: DIO
 PROJECT # 21OC001
 DATE: NOV 2024
 SHEET TITLE:
LIGHTING FLOOR PLAN
 DRAWING
E2.2

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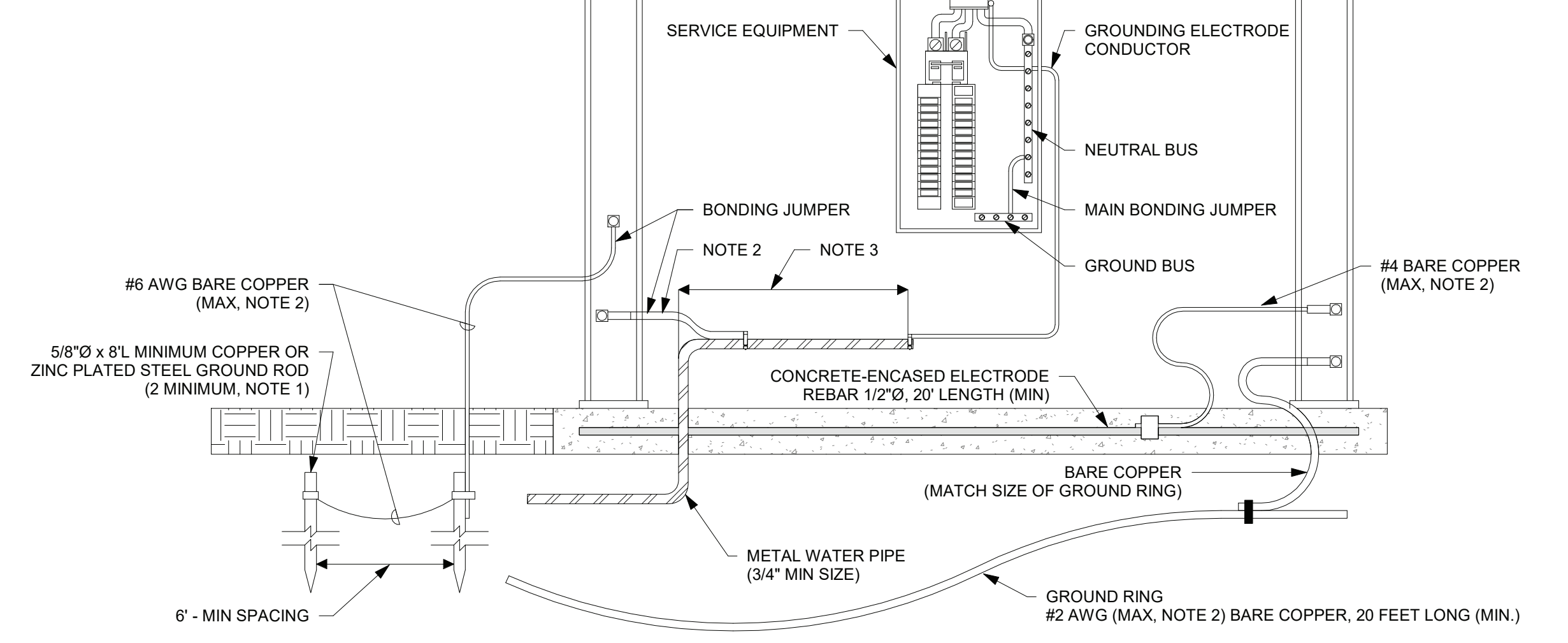


- *A SYSTEM TO LIMIT LOADS AS REQUIRED BY NEC 702.4 (B) (2) (b) SHALL BE IMPLEMENTED AND SHALL LIMIT USAGE DURING GENERATOR OPERATION OF THE FOLLOWING SIMULTANEOUS LOADS:
- DEEP WELL PUMP AND ONE BOOSTER PUMP, OR TWO BOOSTER PUMPS
- FEEDER SCHEDULE**
- (8) 4" C W/ (4) 350 MCM, 350 MCM GND IN EACH CONDUIT
 - (3) 4" C W/ (4) 300 MCM, #1/0 GND IN EACH CONDUIT (NO SPLICES)
 - (4) 4" C W/ (4) 350 MCM, #3/0 GND IN EACH CONDUIT
 - (2) 3 1/2" C W/ (3) 300 MCM, #1/0 GND IN EACH CONDUIT
 - (2) 3" C W/ (3) #3/0, #4 GND IN EACH CONDUIT, (2) 3" C (SPARE)
 - 3" C (FEEDERS BY TANK CONTRACTOR, NO SPLICES), 3" C (SPARE)
 - (3) #12, #12 GND, 1" C
 - (6) 4" C W/ (3) 400 MCM, 250 MCM GND IN EACH CONDUIT
 - (3) #10, #10 GND, 1" C

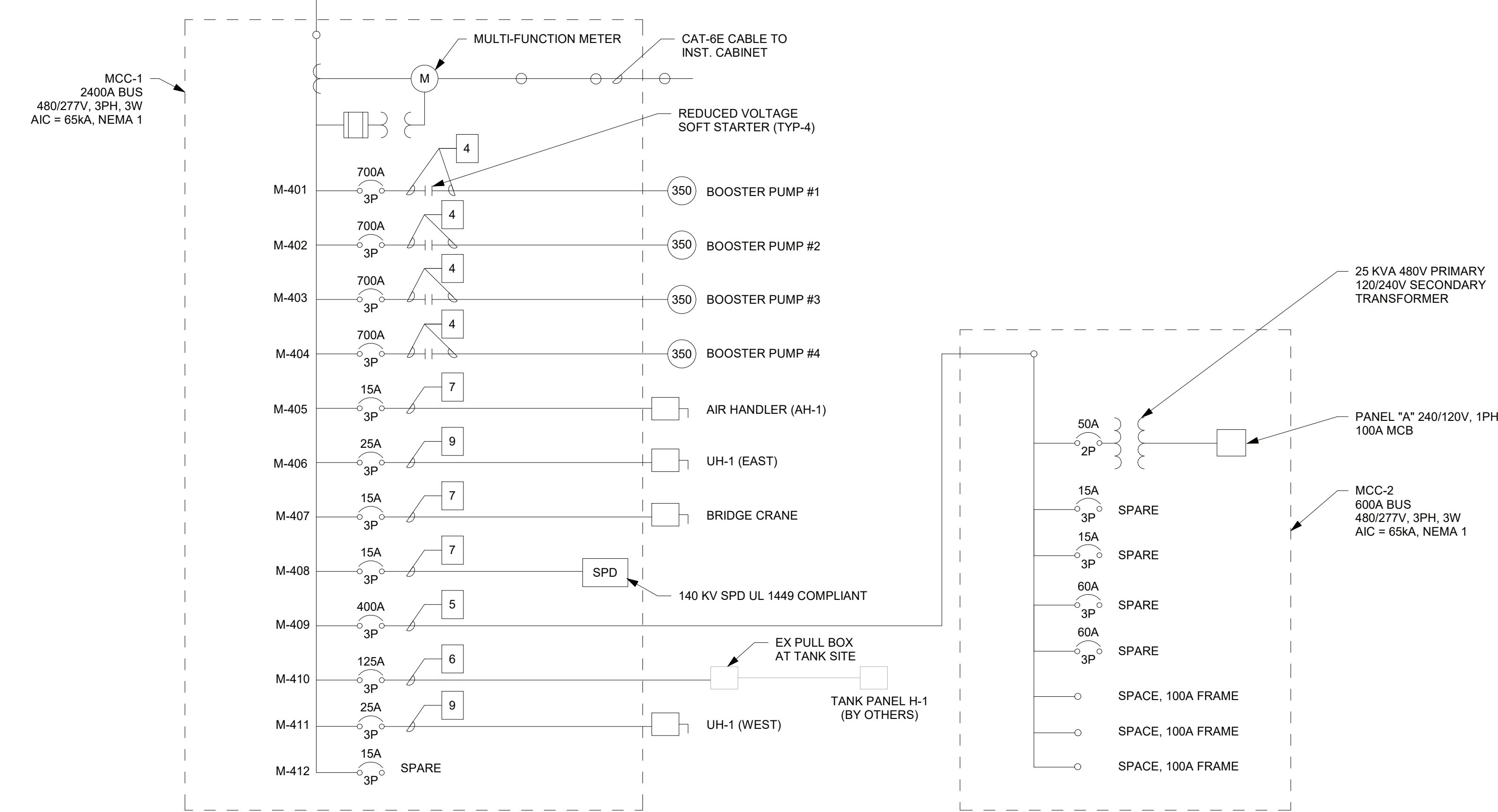
- NOTES:**
- ALL OVERCURRENT PROTECTION DEVICES SHALL HAVE THE SAME FAULT CURRENT RATING AS THAT OF THE PANEL OR SWITCHBOARD THEY ARE LOCATED WITHIN.
 - AVAILABLE FAULT CURRENT SHALL BE FIELD MARKED ON ALL SERVICE EQUIPMENT IN ACCORDANCE WITH NEC 110.24.
 - ALL WIRING SHALL BE 90° RATED CU, SUITABLE FOR THE LOCATION INSTALLED.
 - THE COMPLETED WIRING INSTALLATION SHALL BE FREE FROM SHORT CIRCUITS AND GROUND FAULTS BEFORE ENERGIZING

NOTE: CONTRACTOR SHALL PERFORM AN AVAILABLE FAULT CURRENT AND ARC FAULT SAFETY STUDY FOR ALL ELECTRICAL EQUIPMENT FROM THIS SERVICE INCLUDING THE WELL PUMP STATION AND TANK SITE (NOTE 2).

- NOTE:**
- ALL REQUIREMENTS OF NEC 250.50 AND ARTICLE 250 GENERALLY SHALL BE SATISFIED.
 - SIZE REQUIRED BY NEC TABLE 250.68 SHALL BE USED, UNLESS OTHERWISE SHOWN OR ALLOWED BY NEC ARTICLE 250.
 - CONNECTIONS TO METAL WATER PIPE SHALL BE MADE WITHIN 5 FEET OF PIPE ENTRANCE INTO BUILDING.



2 GROUNDING ELECTRODE CONDUCTOR
N.T.S.



1 SINGLE LINE DIAGRAM
N.T.S.

Branch Panel: A

Location: MCC-2
Supply From: XFRM-A
Mounting: Recessed
Enclosure: NEMA 1

Volts: 120/240 Single
Phases: 1
Wires: 3

A.I.C. Rating: 65,000
Mains Type: MCB
Mains Rating: 100 A
MCB Trip: 100 A

Notes:

CKT	Circuit Description	Trip	Wire Size	Poles	A		B		Poles	Wire Size	Trip	Circuit Description	CKT
					900 VA	795 VA	720 VA	65 VA					
1	Recept- S/W	20 A	1-#12, 1-#12, 1-#12	1	900 VA	795 VA			1	1-#12, 1-#12, 1-#12	20 A	Lighting - interior	2
3	Recept- S/E	20 A	1-#12, 1-#12, 1-#12	1			720 VA	65 VA	1	1-#12, 1-#12, 1-#12	20 A	Lighting EXIT/EM	4
5	Recept- STORAGE, RSTRM	20 A	1-#10, 1-#10, 1-#10	1	720 VA	100 VA			1	1-#12, 1-#12, 1-#12	20 A	Exterior Lighting - generator yard	6
7	Sump Pump	20 A	1-#10, 1-#10, 1-#10	1			1,680 VA	318 VA	1	1-#12, 1-#12, 1-#12	20 A	Lighting - VAULT	8
9	High temperature switch	20 A	1-#12, 1-#12, 1-#12	1	180 VA	30 VA			1	1-#12, 1-#12, 1-#12	20 A	Flow Meter (FIT-106)	10
11	Motion Sensors	20 A	1-#12, 1-#12, 1-#12	1			60 VA	30 VA	1	1-#12, 1-#12, 1-#12	20 A	Chlorine analyzer #1	12
13	Instrumentation Cabinet	20 A	1-#12, 1-#12, 1-#12	1	210 VA	30 VA			1	1-#12, 1-#12, 1-#12	20 A	Chlorine analyzer #2	14
15	Pressure Transmitter (PT-101)	20 A	1-#12, 1-#12, 1-#12	1			30 VA	720 VA	1	1-#12, 1-#12, 1-#12	20 A	Recept- VAULT	16
17	Pressure Transmitter (PT-104)	20 A	1-#12, 1-#12, 1-#12	1	30 VA	750 VA			1	1-#12, 1-#12, 1-#12	20 A	Electric Baseboard Heater	18
19	Genset- charger/ heater	20 A	2-#12, 1-#12, 1-#12	2			1,250 VA	159 VA	1	1-#12, 1-#12, 1-#12	20 A	Lighting - STORAGE, RSTRM	20
21	--	--	--	--	1,250 VA	102 VA			1	1-#12, 1-#12, 1-#12	20 A	POLE LIGHTS	22
23	Security Panel	20 A	1-#12, 1-#12, 1-#12	1			180 VA	100 VA	1	1-#12, 1-#12, 1-#12	20 A	Exterior Lighting	24
25	PLC Cabinet	20 A	1-#12, 1-#12, 1-#12	1	180 VA	720 VA			1	1-#12, 1-#12, 1-#12	20 A	Recept- EXTERIOR	26
27	Spare	20 A	--	1			0 VA	0 VA	1	--	20 A	Spare	28
29	Spare	20 A	--	1			0 VA	0 VA	1	--	20 A	Spare	30
Total Load:					5954 VA		5286 VA						
Total Amps:					50 A		44 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Motor	210 VA	100.00%	210 VA	
Other	0 VA	0.00%	0 VA	
Power	1530 VA	100.00%	1530 VA	Total Conn. Load: 11240 VA
Lighting	1633 VA	100.00%	1633 VA	Total Est. Demand: 11240 VA
HVAC	750 VA	100.00%	750 VA	Total Conn. Current: 47 A
Receptacle	4680 VA	100.00%	4680 VA	Total Est. Demand Current: 47 A
Heating	2500 VA	100.00%	2500 VA	
Lighting - Exterior	0 VA	0.00%	0 VA	

Notes:

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50 EAST 100 SOUTH
HEBER CITY, UTAH 84032
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REVISIONS

NO.	DATE	REV. BY	ISSUE

PROJECT NAME:
HERITAGE PARK BOOSTER PUMP STATION

PROJECT LOCATION:
OREM, UT

SACLES
11"X17":
24"X36":
BAR SCALE MEASURES 1" ON A FULL SIZE SHEET, ADJUST FOR A HALF SIZE SHEET.

SHEET TITLE:
ELECTRICAL DETAILS

DRAWN: KDC
DESIGNER: KDC
REVIEWED: DIO

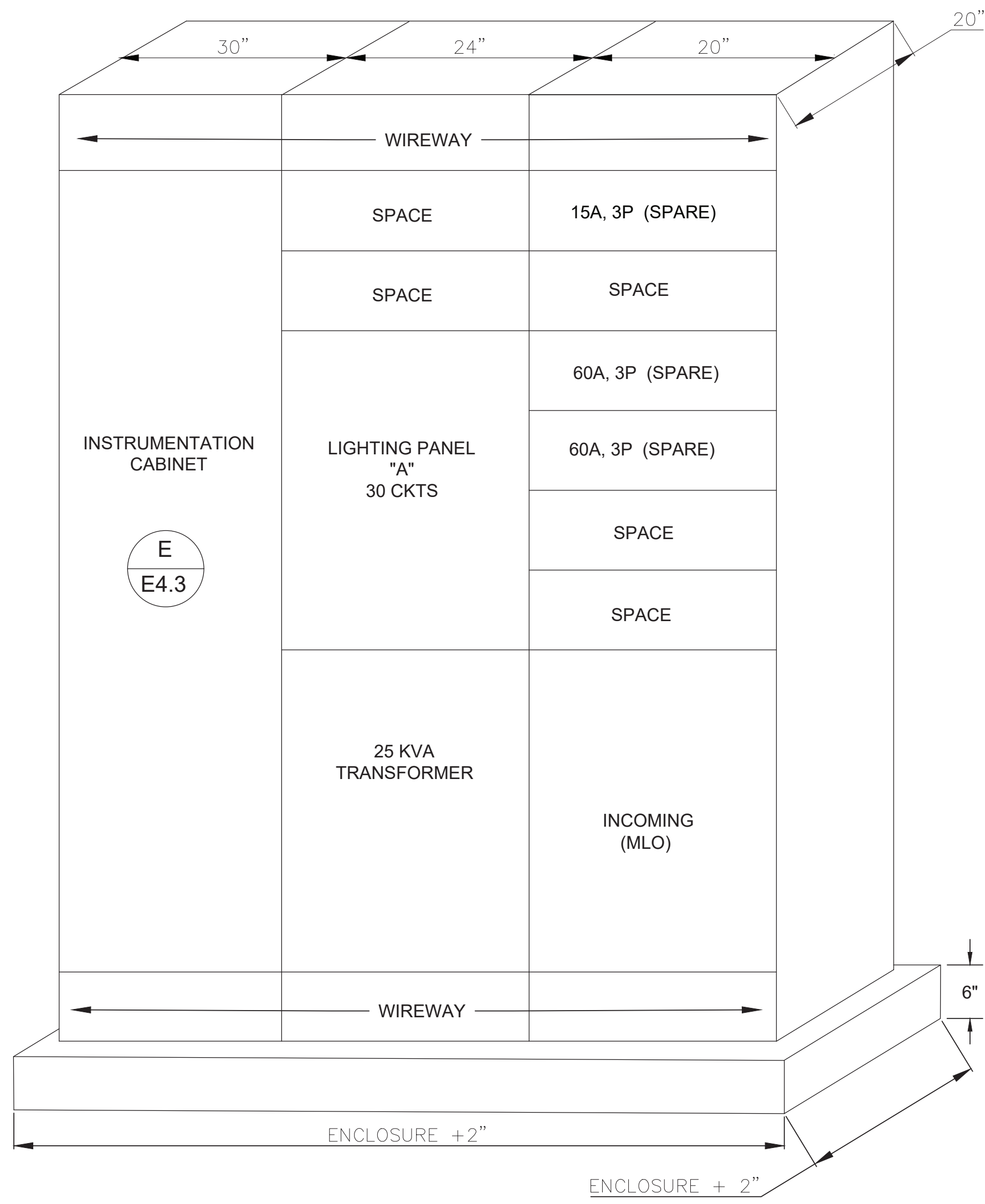
PROJECT #
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DATE:
NOV 2024

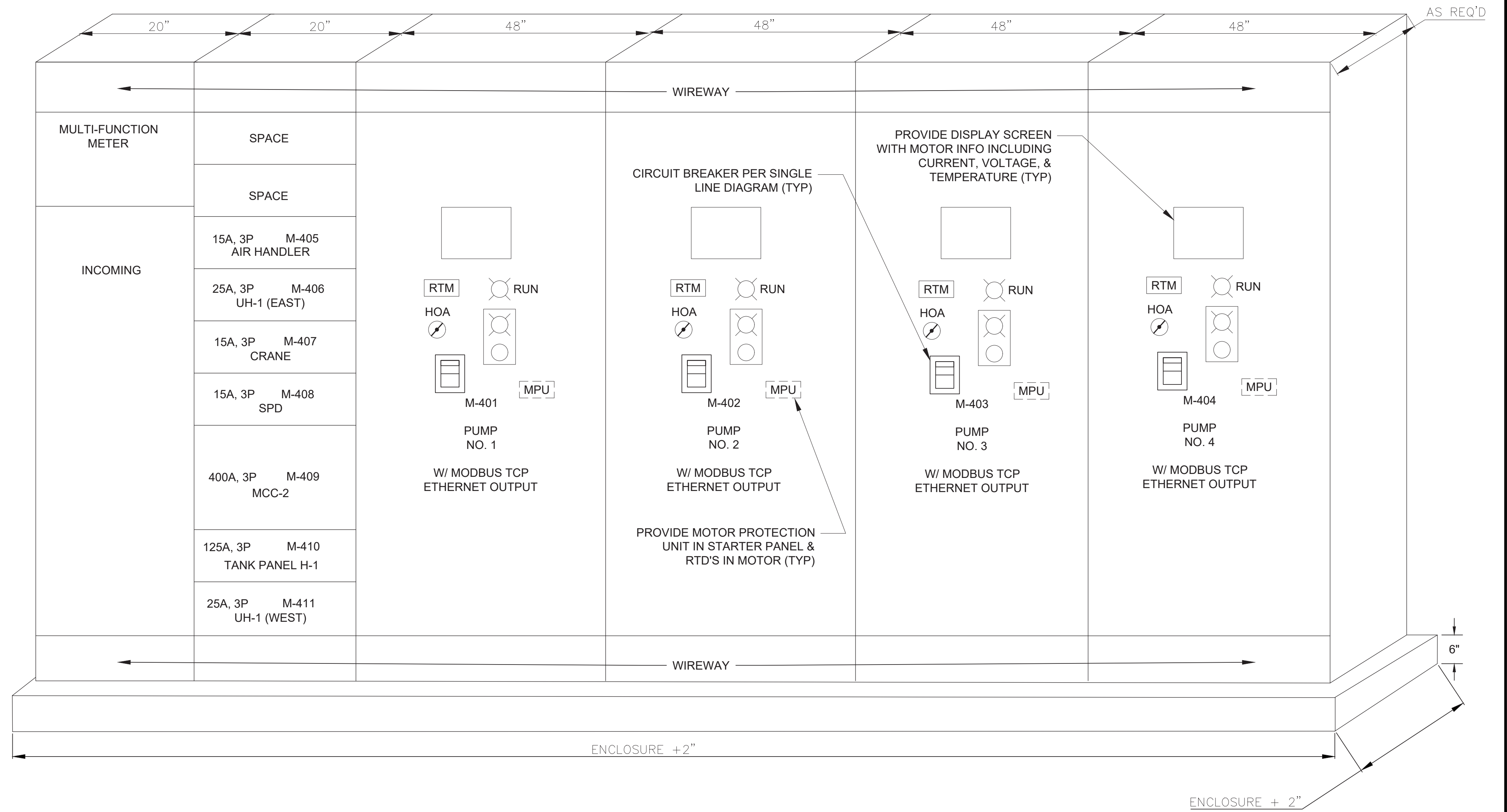
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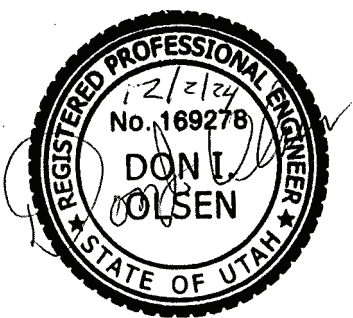
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M2 MOTOR CONTROL CENTER #2 - EAST WALL



M1 MOTOR CONTROL CENTER #1 - SOUTH WALL



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REVISION			
NO	DATE	REV. BY	ISSUE

PROJECT NAME:
HERITAGE PARK BOOSTER PUMP STATION

PROJECT LOCATION:
OREM, UT

SCALES
11"x17": N.T.S.
24"x36": N.T.S.

SHEET TITLE:
MCC ELEVATIONS

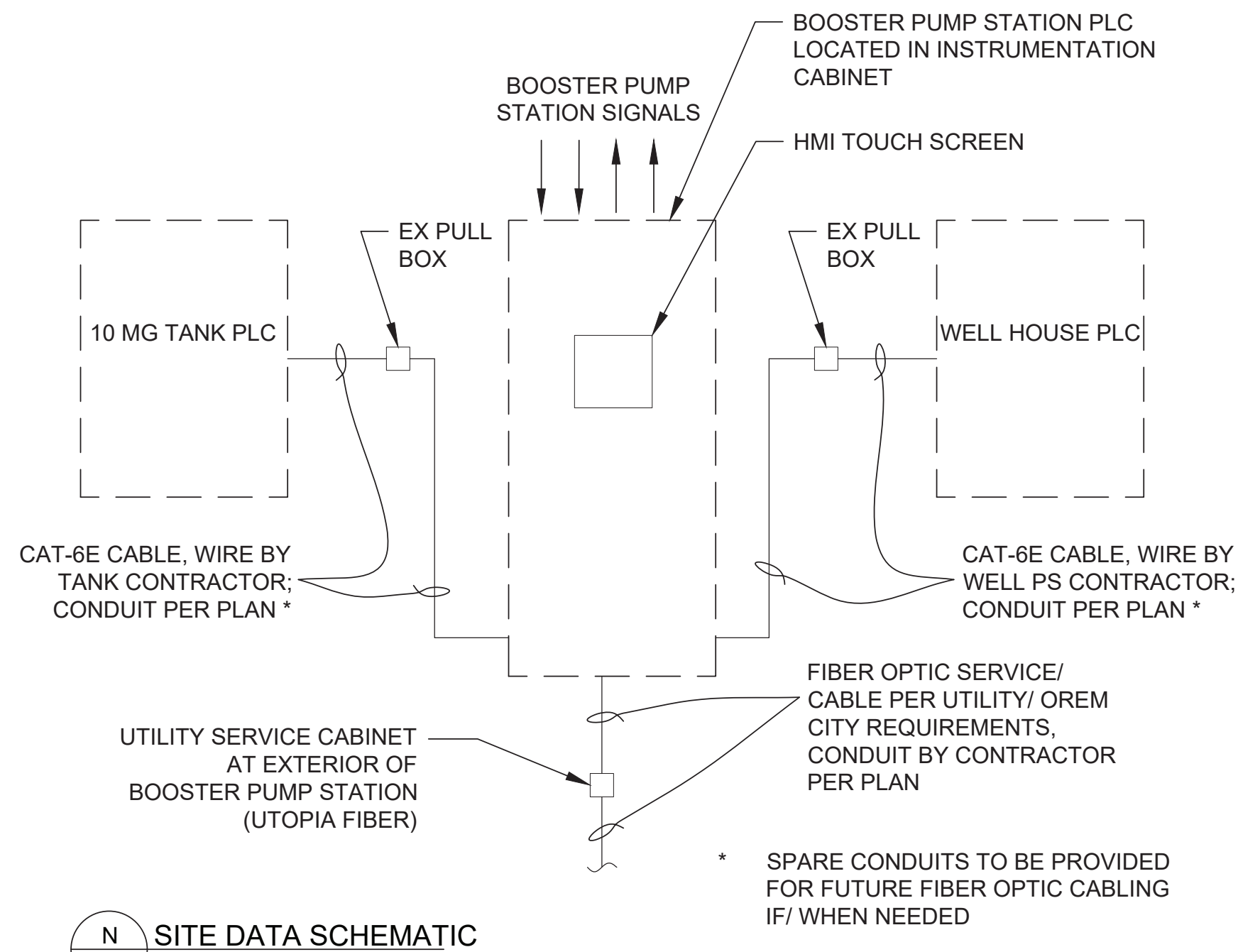
DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
21-CO-001
DATE:
NOV 2024

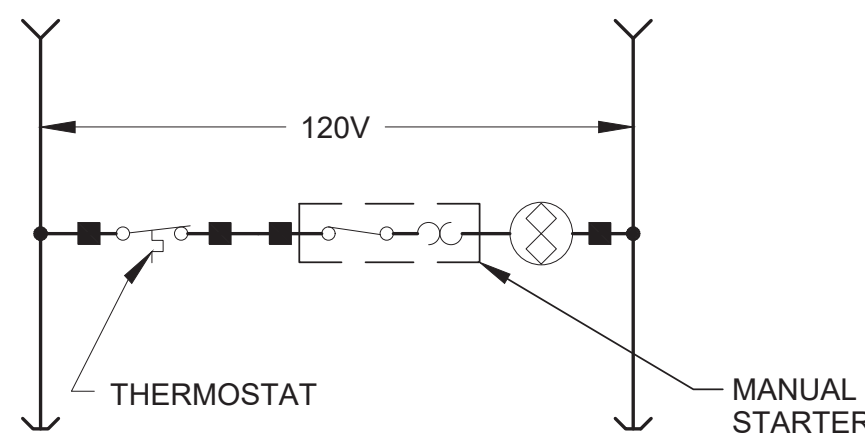
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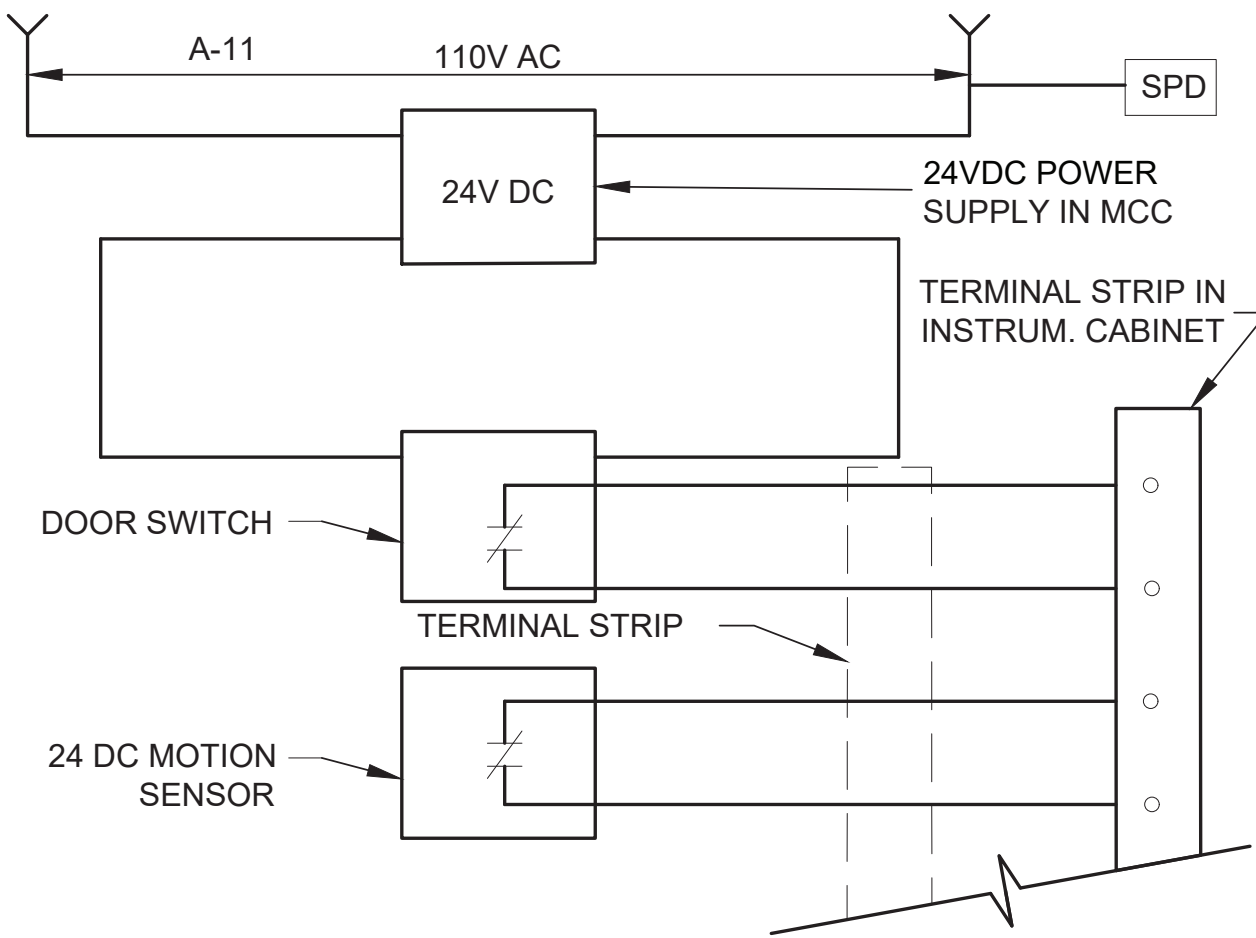
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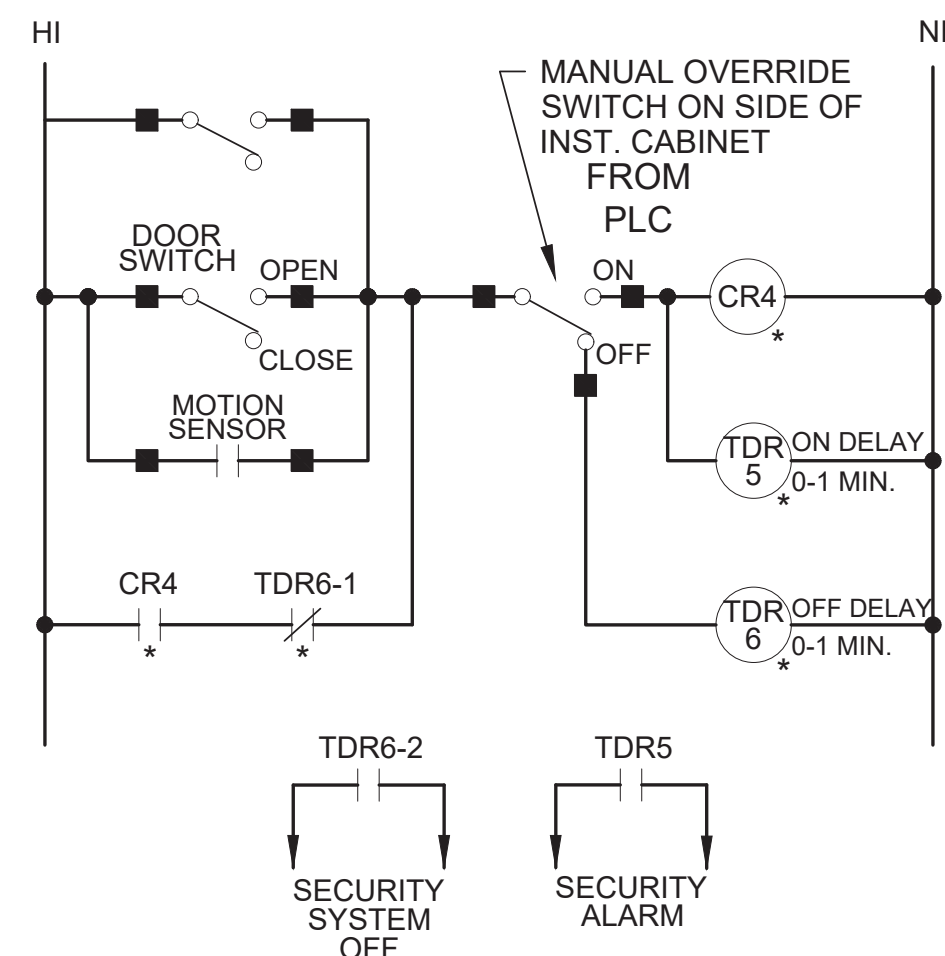
N SITE DATA SCHEMATIC SCALE: NTS



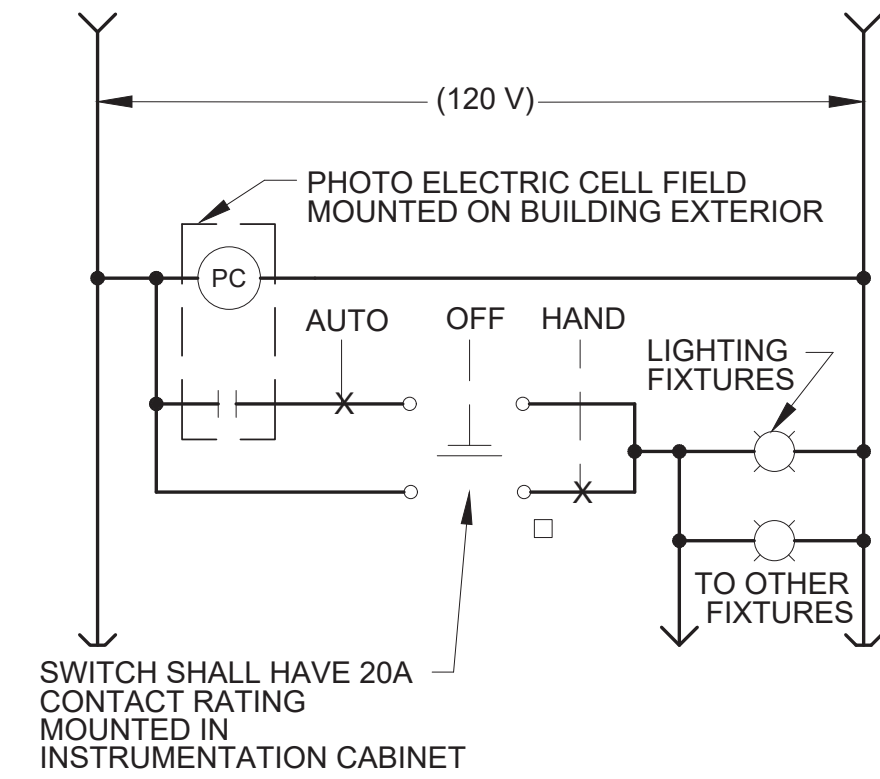
H HEATER SCHEMATIC



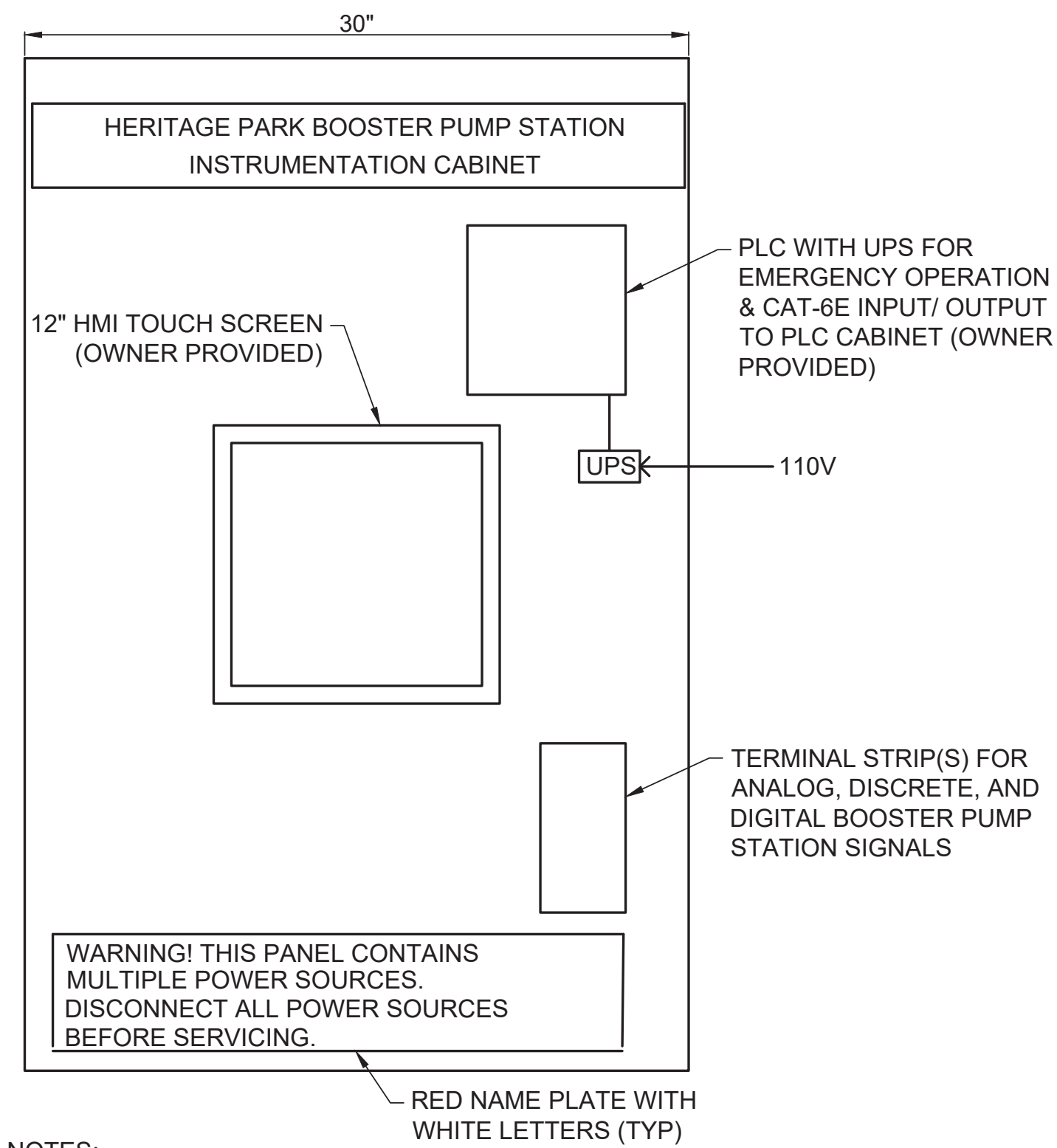
T INTRUSION ALARM CIRCUIT



N ENTRY ALARM SCHEMATIC



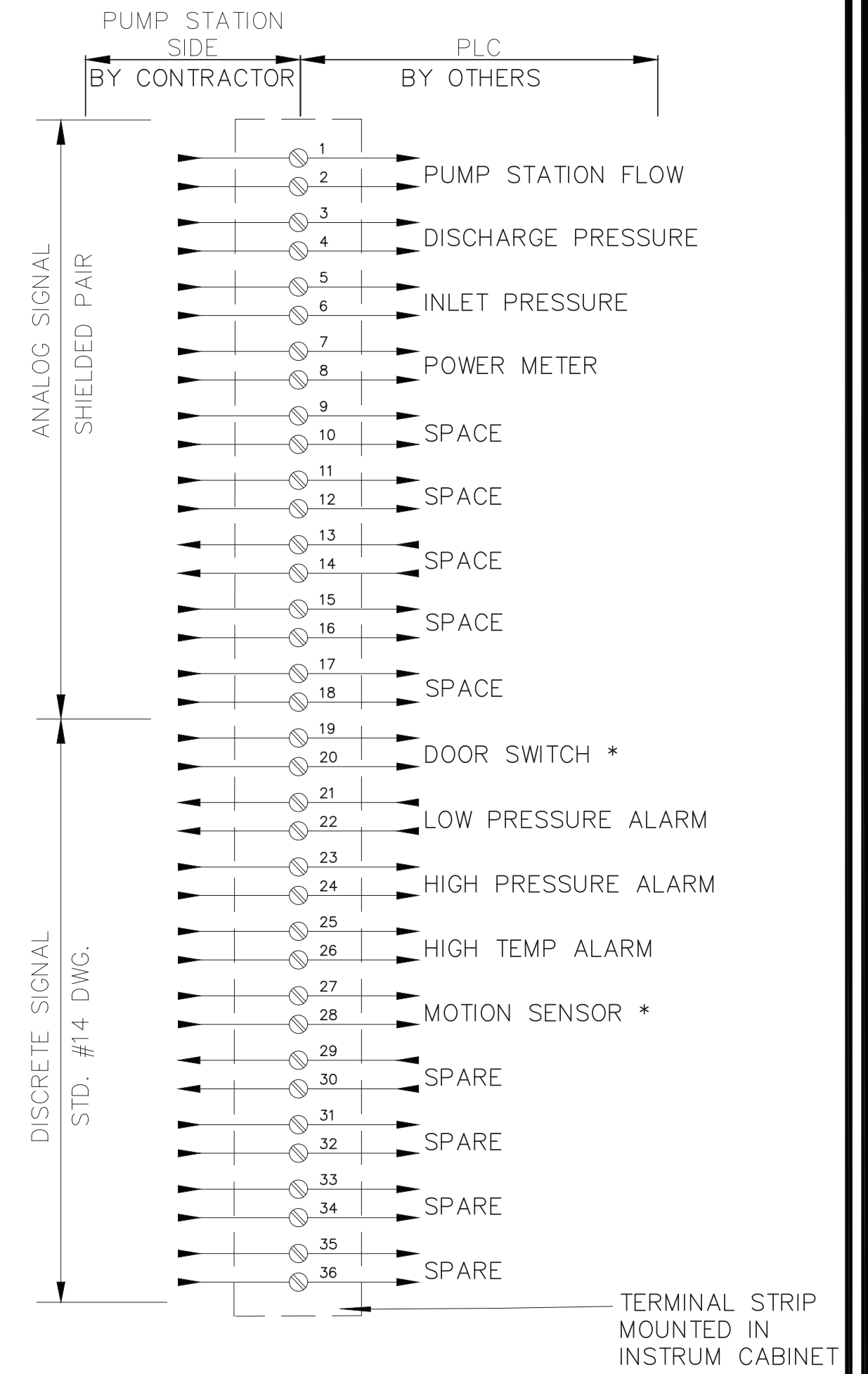
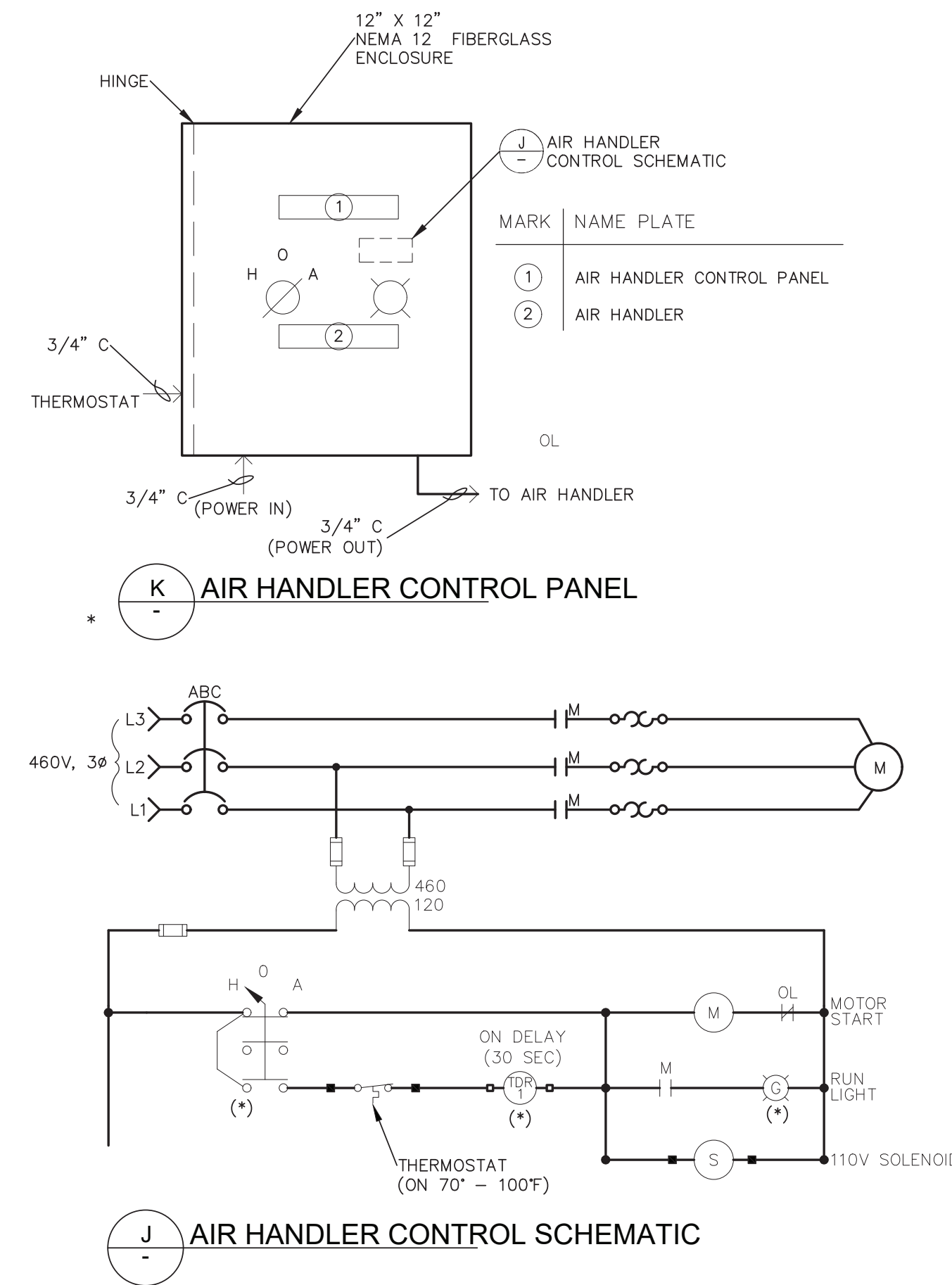
L EXTERIOR LIGHTING CONTROL SCHEMATIC



NOTES:

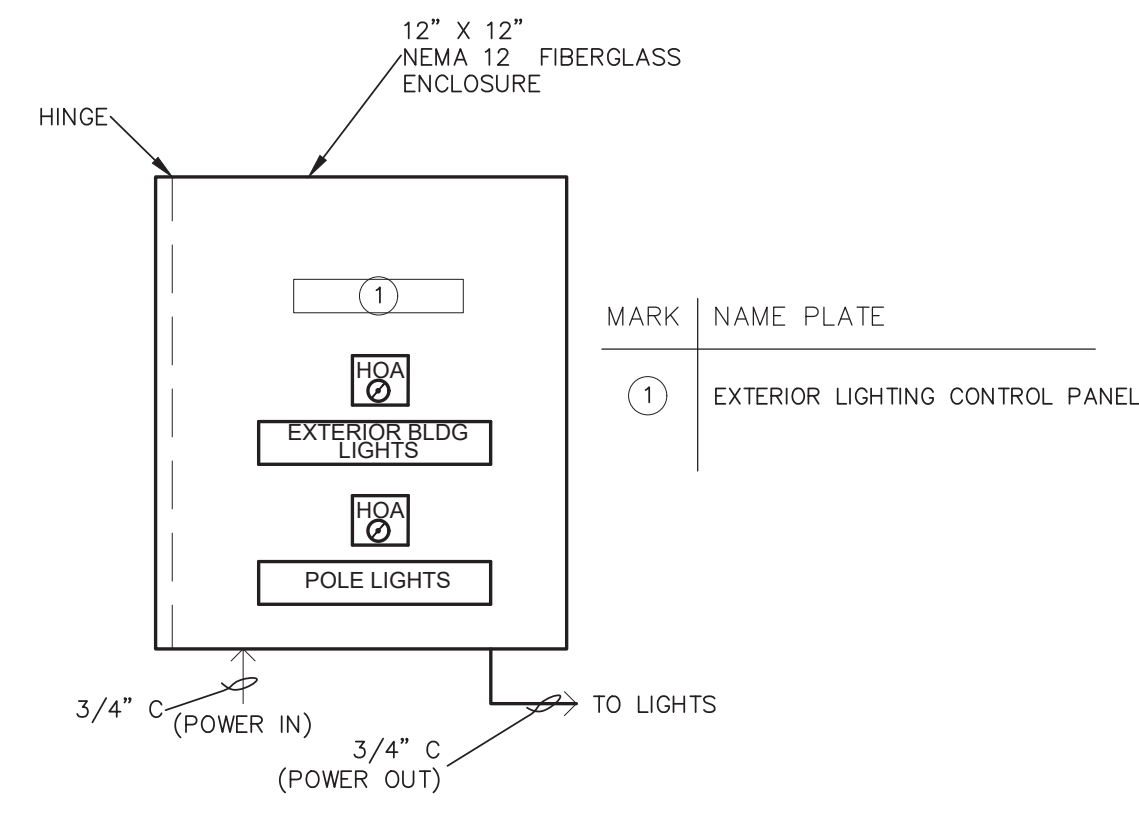
- ENCLOSURE SHALL BE NEMA 12 W / HINGED AND LATCHED DOOR, MIN. SIZE AS INDICATED. PROVIDE REMOVABLE BACK PLATE.
- CONTRACTOR TO INSTALL TERMINAL STRIP NAME PLATES AND PUMP STATION SIDE WIRING PROVIDE 30 PERCENT SPARE TERMINALS.

E INSTRUMENTATION CABINET

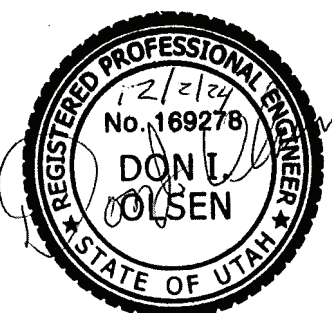
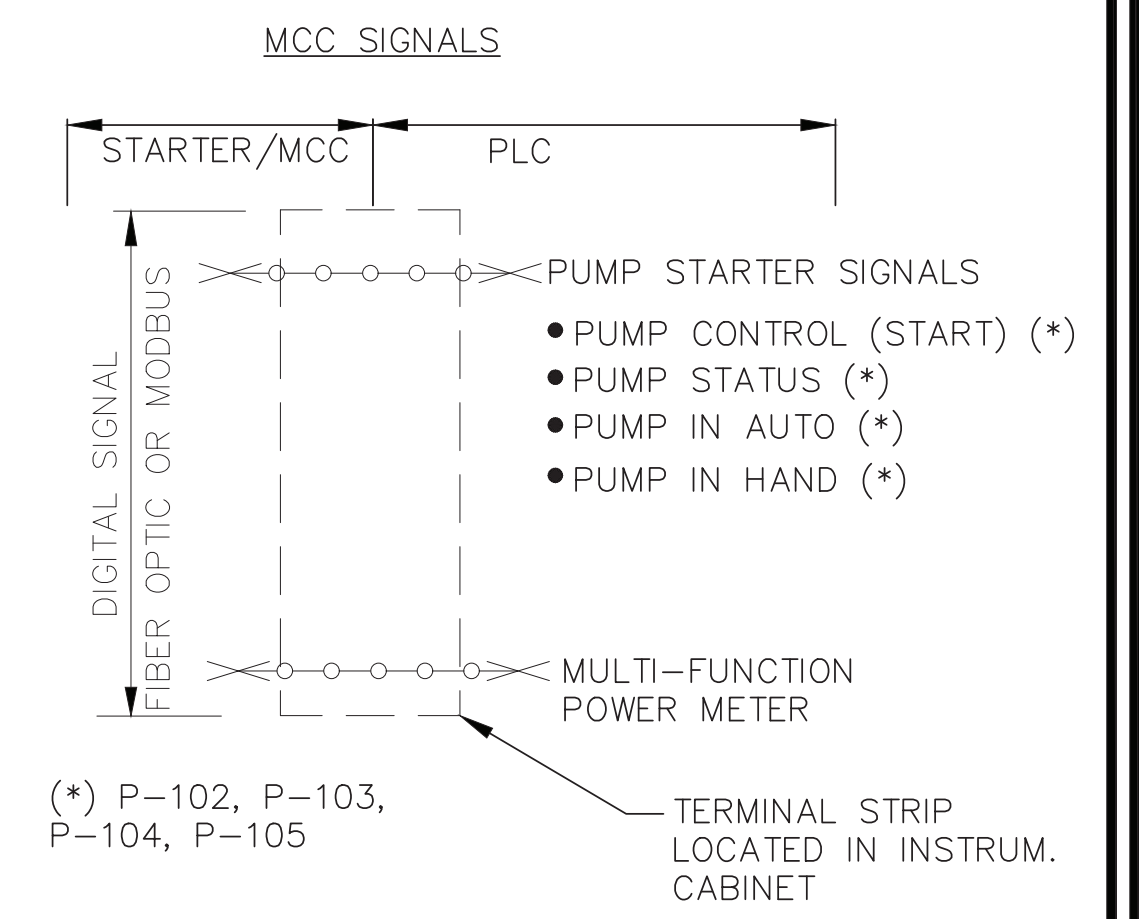


* EXTEND SIGNAL WIRES TO SECURITY PANEL IN 3/4" C

R TERMINAL STRIP



S COMMUNICATIONS BLOCK DIAGRAM



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REVISION				
NO	DATE	REV. BY	ISSUE	

PROJECT NAME:
HERITAGE PARK BOOSTER PUMP STATION

PROJECT LOCATION:
OREM, UT

SCALES:
11"x17": N.T.S.
24"x36": N.T.S.

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

SHEET TITLE:
ELECTRICAL SCHEMATICS & DETAILS

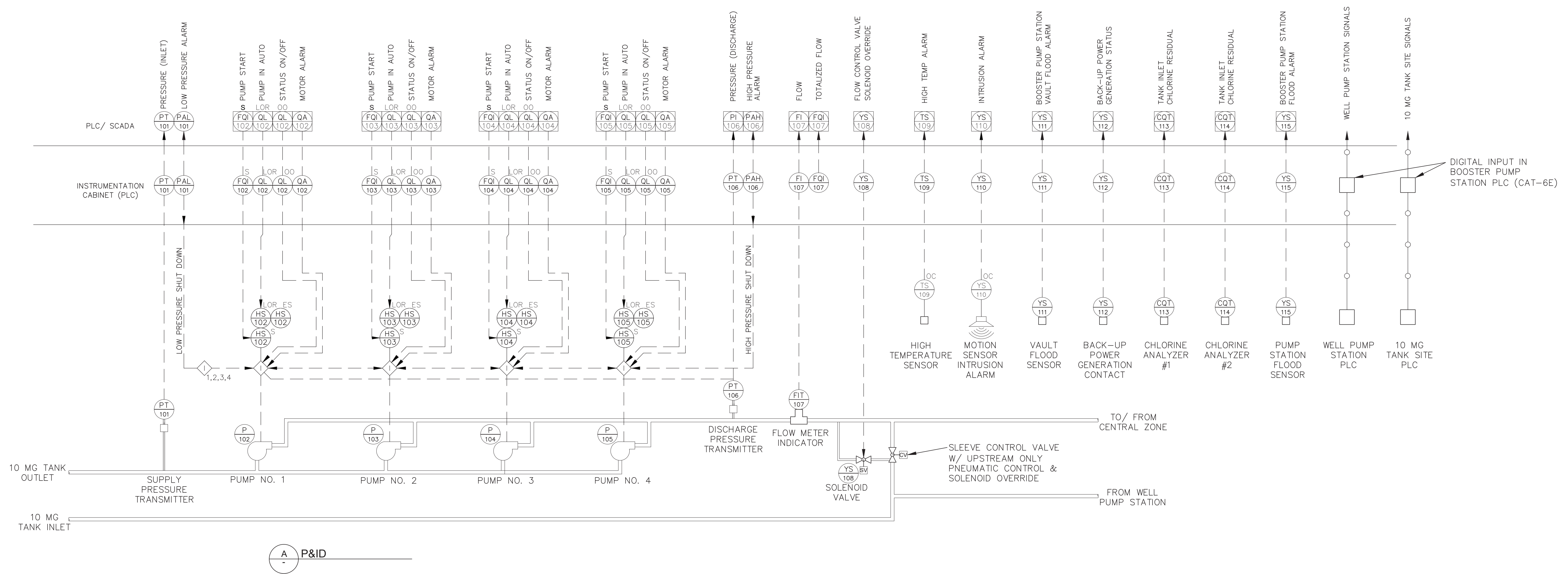
PROJECT #
21-CO-001

DATE:
NOV 2024

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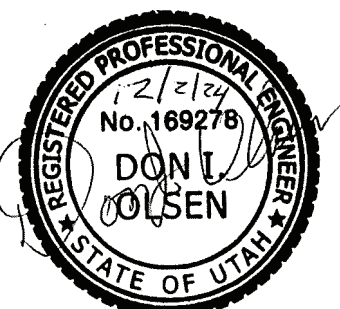
A P&ID

INSTRUMENT TABLE 1 IDENTIFICATION LETTERS

FIRST-LETTER		SUCCEEDING-LETTERS			FIRST-LETTER		SUCCEEDING-LETTERS			FIRST-LETTER		SUCCEEDING-LETTERS		
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS				J	POWER	SCAN			R	RADIATION		RECORD	
B	BURNER, COMBUSTION				K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE			S	SPEED, FREQUENCY	SAFETY	STATUS	SWITCH
C	USER'S CHOICE				L	LEVEL		LIGHT		T	TEMPERATURE			TRANSMIT
D	USER'S CHOICE	DIFFERENTIAL			M	USER'S CHOICE	MOMENTARY			U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION
E	VOLTAGE				N	TORQUE				V	VIBRATION, MECH. ANALYSIS			VALVE, DAMPER LOUVER
F	FLOW RATE	RATIO(FRACTION)			O	USER'S CHOICE		ORIFICE, RESTRICTION		W	WEIGHT, FORCE		WELL	
G	USER'S CHOICE				P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED
H	HAND			HIGH	Q	QUANTITY	INTEGRATE, TOTALIZE			Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT
I	CURRENT (ELEC.)									Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASS. FINAL

INSTRUMENTATION FUNCTION DESIGNATORS

- *I CONVERT FROM/TO, WHERE:
- A= ANALOG
 - B= BINARY
 - D= DIGITAL
 - E= VOLTAGE
 - H= HYDRAULIC
 - I= CURRENT
 - O= ELECTROMAG, SONIC
 - P= PNEUMATIC
 - R= RESISTANCE
- HA HAND-AUTO
 - HOA HAND-OFF-AUTO
 - LOC LOCKOUT CLOSE
 - LOR LOCAL-OFF-REMOTE
 - LOS LOCKOUT STOP
 - LR LOCAL-REMOTE
 - OC OPEN-CLOSE
 - OO ON-OFF
 - OSC OPEN-STOP-CLOSE
 - R RESET
 - SLOS START-LOCKOUT STOP
 - SS START-STOP
 - ST START
 - SC SPEED CONTROL
 - ES EMERGENCY START
 - OL OVERLOAD
 - LL LEAD-LAG
 - LP LOCAL-PLC



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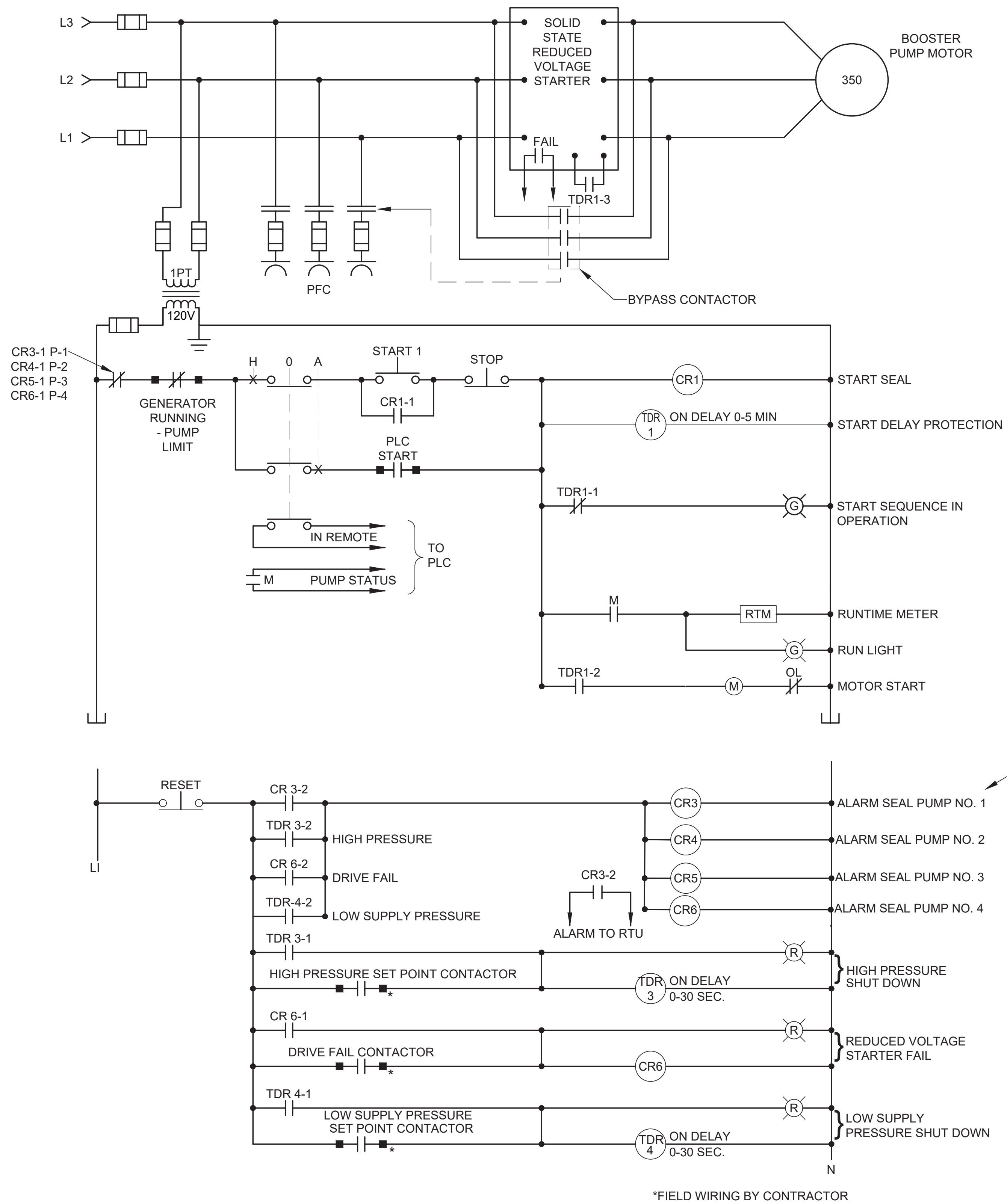
SHEET TITLE:
P&ID

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
21-CO-001
DATE:
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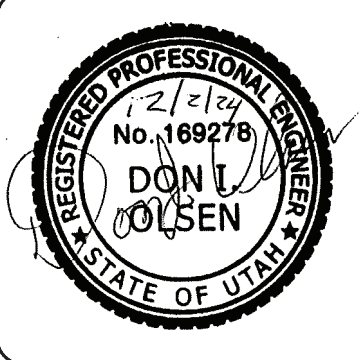
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E PUMP CONTROL SCHEMATIC
SCALE: NTS

*FIELD WIRING BY CONTRACTOR

DEVICES IN PLC PROGRAMMING BY OWNER



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24"x36": N.T.S.

BAR SCALE MEASURES 1" ON A FULL SIZE SHEET ADJUST FOR A HALF SIZE SHEET

SHEET TITLE:
ELECTRICAL SCHEMATICS

DRAWN: EPIC
DESIGNER: KDC
REVIEWED: DIO

PROJECT #
21-CO-001
DATE:
NOV 2024

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E4.5