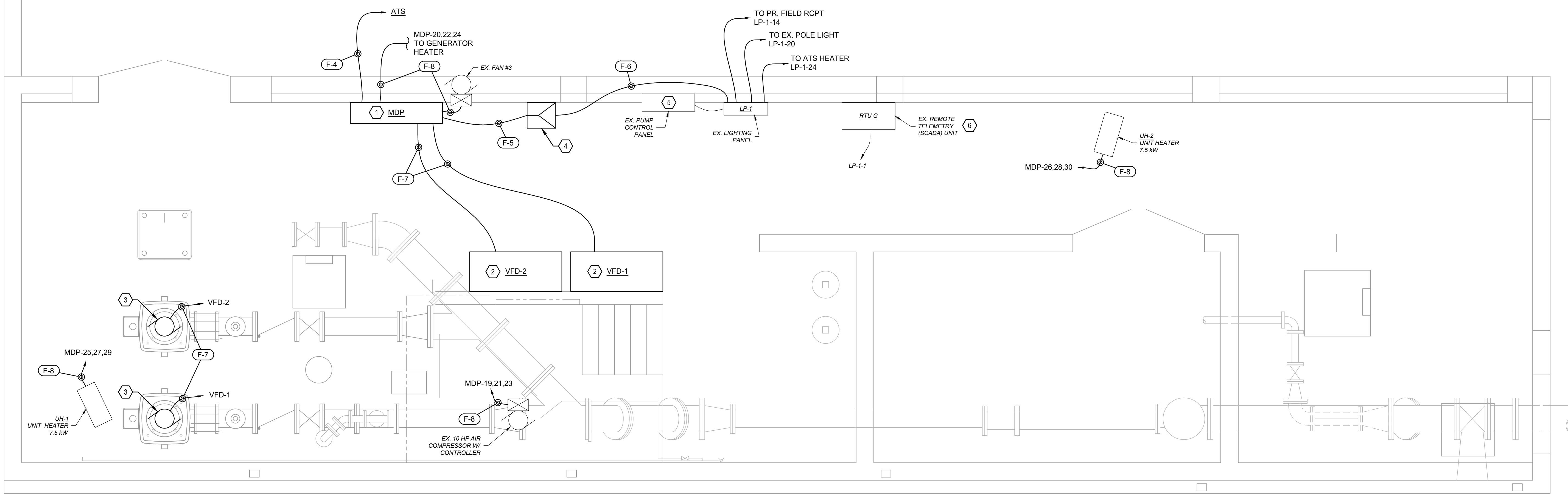


BID



POWER PLAN - PROPOSED
SCALE: 1/2" = 1'-0"

PANELBOARD	MDP								
PANEL TYPE	HCP								
NEMA TYPE	NEMA 12								
VOLTAGE	480V			PHASE		3			
OCPD	600A			WIRE		3			
MOUNTING	FLOOR			BUSS		600A			

LOAD DESCRIPTION	LOAD	BKR.	CKT. NO.	PHASE	CKT. NO.	BKR.	LOAD	LOAD DESCRIPTION
"XF" LIGHTING TRANSFORMER	25,000	65/2	1	A	2	15/3		
			3	B	4			
			5	C	6			
			7	A	8			
			9	B	10			
		15/3	11	C	12	15/3		
			13	A	14			
			15	B	16			
		15/3	17	C	18	15/3	1,865	FAN #3
			19	A	20			
			21	B	22			
"COMP" AIR COMPRESSOR	9,325	15/3	23	C	24	15/3	6,500	GENERATOR BLOCK HEATER
			25	A	26			
			27	B	28			
"UH-1" UNIT HEATER #1	7,500	15/3	29	C	30	15/3	7,500	"UH-2" UNIT HEATER #2
			31	A	32			
			33	B	34			
"VFD-1" RAW WATER PUMP #1	149,200	300/3	35	C	36	300/3	149,200	"VFD-2" RAW WATER PUMP #2

356,090 VA	CONNECTED
393,390 VA	DEMAND
473.17 A @ 480V, 3P, 3W	

PROPOSED MAIN DISTRIBUTION PANEL SCHEDULE

CODED NOTES - PROPOSED:

- REPLACE EXISTING DISTRIBUTION PANEL "HDP" WITH MAIN DISTRIBUTION PANEL "MDP", SQUARE-D CAT# HCP18686M OR APPROVED EQUAL. LOCATE THE EXISTING BUILDING GROUNDING ELECTRODE CONDUCTOR AND EXTEND TO THE NEW PANEL GROUND BUS. REUSE EXISTING CONDUIT AS MUCH AS POSSIBLE. DISCONNECT AND RETERMINATE EXISTING 480V CIRCUITS TO NEW CIRCUIT BREAKERS. RUN NEW CONDUCTORS AS NEEDED. SEE SHEET #38, E-05 FOR ONE-LINE DIAGRAM AND FEEDER SCHEDULE.
- REPLACE EXISTING RAW WATER PUMP SOFT STARTERS WITH VARIABLE FREQUENCY DRIVES. 480V, 3φ, 60 Hz, 200 HP, NEMA 4X ENCLOSURE WITH DISCONNECT AND 14k BTU NEMA 4X AC UNIT. LOCATE NEW ENCLOSURES IN ORDER TO REUSE EXISTING EMBEDDED CONDUIT WHERE POSSIBLE. RUN NEW CONDUIT AS NEEDED FOR NEW CONDUCTORS. COORDINATE WITH SYSTEMS INTEGRATOR TO RUN CONTROL WIRING TO MODIFIED OR NEW REMOTE SCADA PANEL "RTU G".
- RAW WATER PUMP MOTORS, 480V / 3φ / 60 Hz / 200 HP. REUSE EXISTING CONDUIT WHERE POSSIBLE, REAM OR REPLACE AS NEEDED.
- LIGHTING TRANSFORMER, 25 kVA, 480-240/120V, 1φ. RELOCATED FROM PAD NEAR EXISTING TRANSFER SWITCH AND SUSPENDED FROM CEILING NEAR NEW MDP. INSTALL IN SUCH A WAY TO MINIMIZE SHADOWS FROM EXISTING LIGHTING AND AT AN ELEVATION WHERE THE BOTTOM OF THE SUPPORT IS NO LOWER THAN THE TOP OF THE EMERGENCY LIGHTING.
- EXISTING PUMP CONTROL PANEL: REMOVE ALL "PUMP #3" MANUAL OPERATORS AND WIRING FROM DOOR BACK TO TERMINAL BLOCKS. REPLACE WITH PLUGS MATCHING DOOR FINISH. COORDINATE WITH SYSTEMS INTEGRATOR TO ADD DEVICES FOR NEW PUMPS CONTROLS.
- EXISTING REMOTE SCADA PANEL "RTU G". COORDINATE MODIFICATIONS NEEDED TO ACCOMMODATE NEW PUMP CONTROLS WITH SYSTEMS INTEGRATOR. CONTRACTOR TO INSTALL DEVICES AND WIRE, INTEGRATOR TO MODIFY PLC PROGRAMS AS NEEDED TO ACHIEVE PROCESS FUNCTIONS AND INCORPORATE INTO SCADA SYSTEM.

GENERAL NOTES:

- EXISTING EQUIPMENT BASED ON DRAWING SET BY T-K ENGINEERING & DESIGN GROUP, INC. DATED JULY, 2002 AS WELL AS CHANGES NOTED DURING SITE VISITS

ISSUED FOR:	REVISIONS
REVIEW	REV. DESCRIPTION
4/09/2020	ADDENDUM 3
ISSUE DATE:	03/13/2020
SCALE:	1" = 8'
DESIGNED BY:	JPB
DRAWN BY:	JPB
CHECKED BY:	NSS

VILLAGE OF CADIZ, OHIO
 WATER TREATMENT PLANT HAB
 IMPROVEMENTS
 HARRISON COUNTY
 TAPPAN LAKE PUMP STATION
 CADIZ, OHIO
 POWER PLAN - PROPOSED

PROJECT NO.	190599
DISCIPLINE	ELECTRICAL
SHEET NAME	E-04
SHEET	OF
37	46