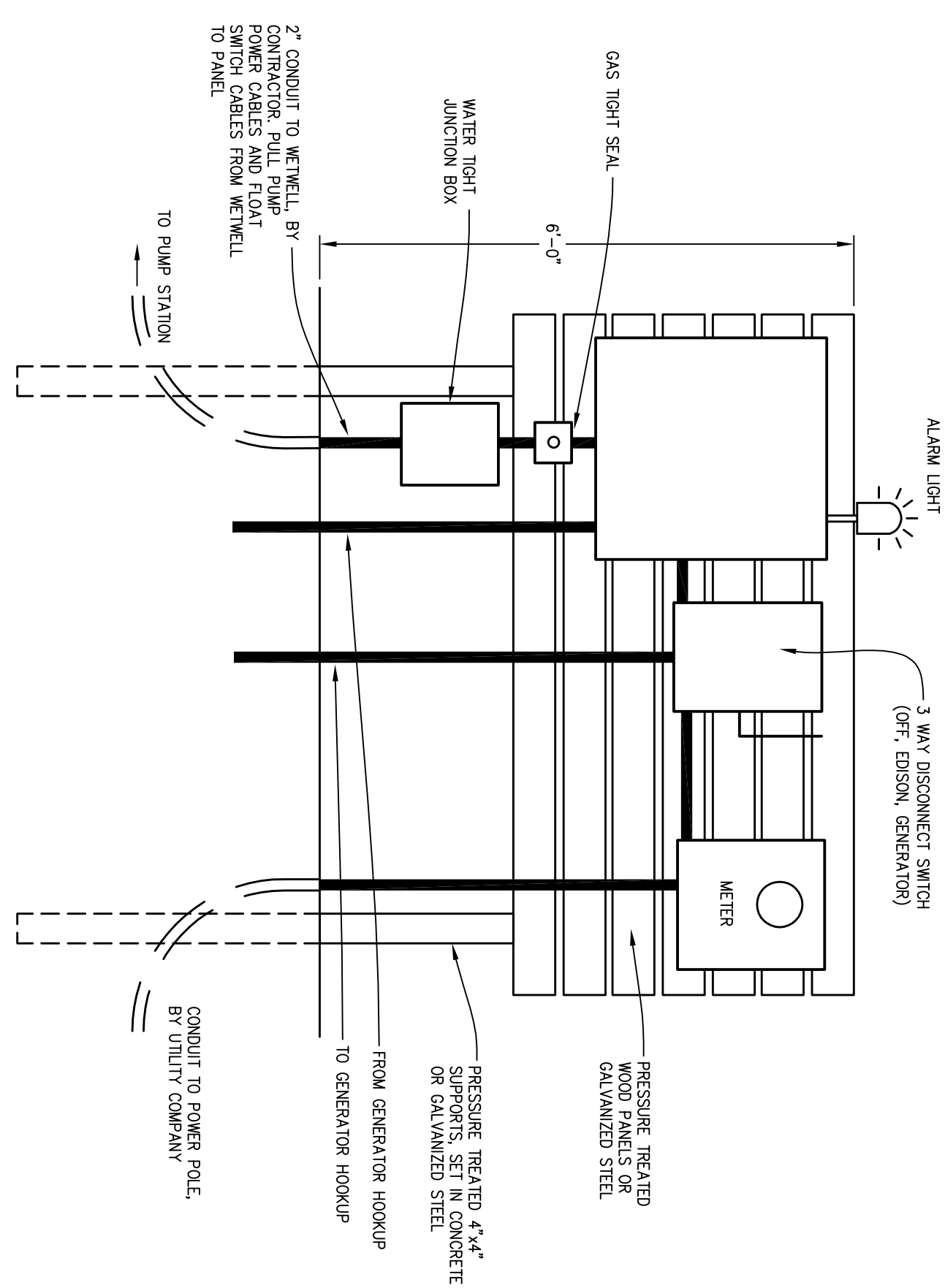
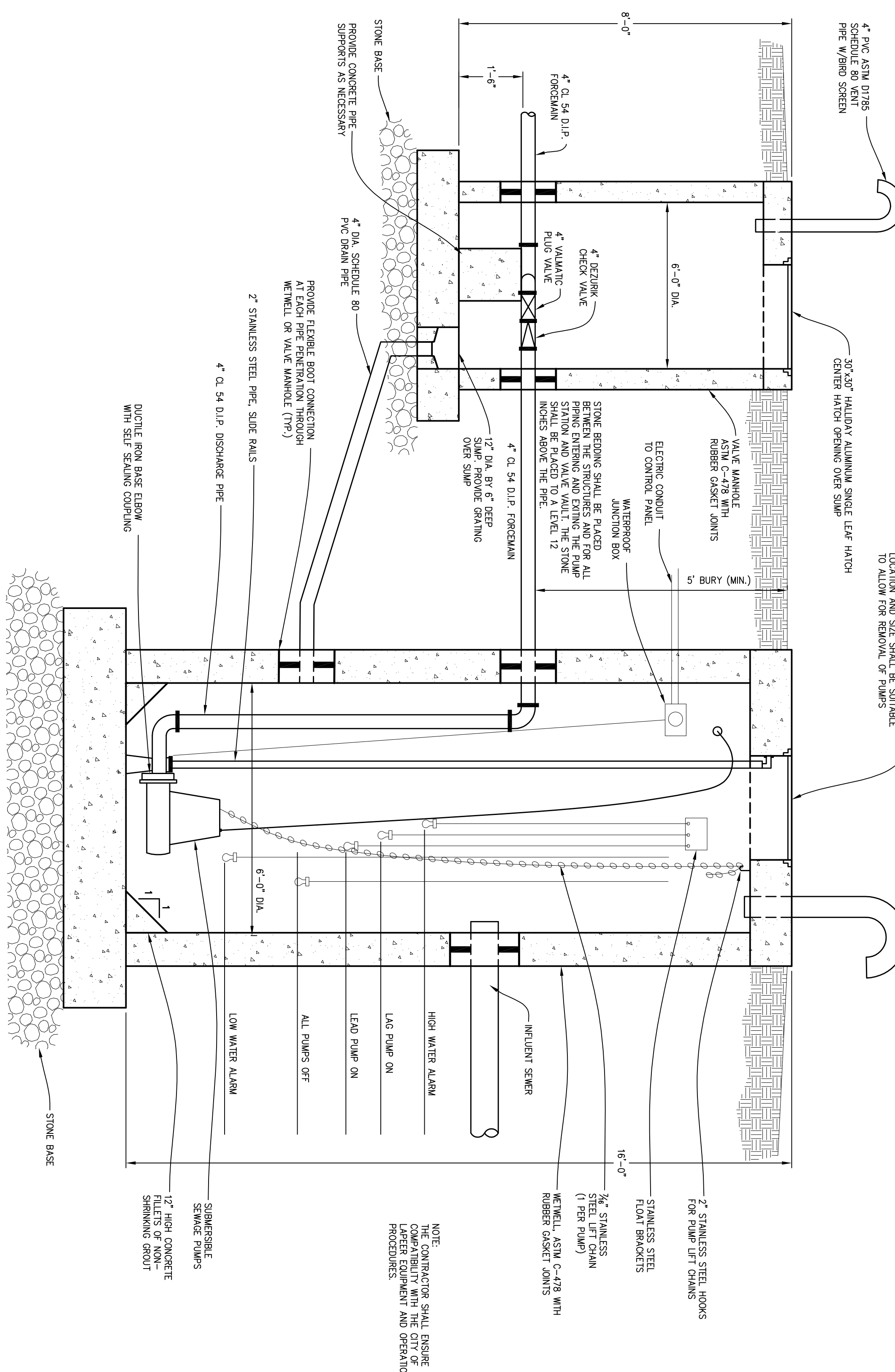


PLAN VIEW - PUMP STATION



CONTROL PANEL DETAIL



CROSS-SECTION - PUMP STATION

NOTE:  
THE CONTRACTOR SHALL ENSURE  
COMPLIANCE WITH THE CITY OF  
LAPEER'S DESIGN AND OPERATIONAL  
PROCEDURES.

- PUMP CONTROL PANEL SCHEDULE**
- ENCLOSURE TYPE: NEMA 4X (WEATHERPROOF) STAINLESS STEEL WITH INNER PANEL AND LOCKING HASP ON EXTERIOR DOOR.
  - MANUAL DISCONNECT (MOTOR PROTECTOR): ONE PER PUMP WITH THREE POLE ADJUSTABLE OVERLOAD PROTECTION AND INSTANTANEOUS MAGNETIC TRIP (SHORT CIRCUIT PROTECTION) WITH DOOR INTERLOCKING HANDLING.
  - MAGNETIC CONTACTOR: ONE PER PUMP, RATED FOR HORSEPOWER OF PUMPS SUPPLIED.
  - HAND-OFF-AUTOMATIC SELECTOR SWITCH: ONE PER PUMP:  
1) ALTERNATE LEAD LEAS  
2) PUMP 1 LEAS  
3) PUMP 2 LEAS
  - AUTOMATIC ELECTRICAL ALTERNATOR: PROVIDE ALTERNATOR AND SWITCH TO ALLOW ANY OF THE FOLLOWING OPERATION SEQUENCES:  
6. TRANSFORMER: 110V FOR CONTROL CIRCUIT AND RECEPTACLE CIRCUIT.  
7. MOTOR THERMAL PROTECTION: ONE PER PUMP, SWITCHES WITH AUTOMATIC RESET TO SHUT DOWN IN EVENT OF HIGH TEMPERATURE.  
8. CONTROL DISCONNECT (2-POLE, THERMAL MAGNETIC): YES  
9. SEAL WARNING SYSTEM: ONE PER PUMP, PROVIDE LOW VOLTAGE, LOW AMPERAGE SIGNAL TO PROBE IN PUMP, PROVIDE WARNING LAMP ON CONTROL PANEL FACE.  
10. EVENT CYCLE COUNTER: ONE PER PUMP  
11. ALARMS: NEMA 4 WEATHERPROOF RED LIGHT MOUNTED ON TOP OF PANEL.  
12. LIGHTING ARRESTER (MOUNTED IN PANEL): YES.  
13. DUPLEX WEATHERPROOF RECEPTACLE: 15 AMP WITH GROUND FAULT PROTECTION LOCATED INSIDE CONTROL PANEL.  
14. FLOAT SYSTEM: INTRINSICALLY SAFE FLOAT SYSTEM WITH SWITCHES FOR OPERATING STRATEGY SHOWN IN PUMP OPERATION SCHEDULE. ALL CONTROLS LOCATED IN THE WELLSHED OR OPEN TO THE WELLSHED SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.  
15. MOTOR STARTERS: ALLEN BRADLEY  
16. PUMPS: ABB  
17. TELEMETRY: COMPATIBLE WITH THE CITY OF LAPEER SPECIFICATIONS, CONTACT DIRECTOR OF WASTEWATER TREATMENT PLANT FOR RECOMMENDATION.  
18. STATIONARY GENERATOR: CUMMINS, POWER SUPPLY - NATURAL GAS SIZE IS DETERMINED BY LIFT STATION REQUIREMENTS AND MUST BE APPROVED BY THE WWP SUPERINTENDENT.  
19. DRAW DOWN TEST IS REQUIRED ONCE CONSTRUCTION IS COMPLETED.  
20. LIGHTING: PROVIDE YARD LIGHTING TO ILLUMINATE AREA - DETAILS TO BE WORKED OUT DURING DESIGN APPROVAL.

REVISIONS				REVISIONS			
No.	DATE	DESCRIPTION	BY	No.	DATE	DESCRIPTION	BY
1	7/05	ADDED NOTES 17-20, RESIZED VALVE CHAMBER					