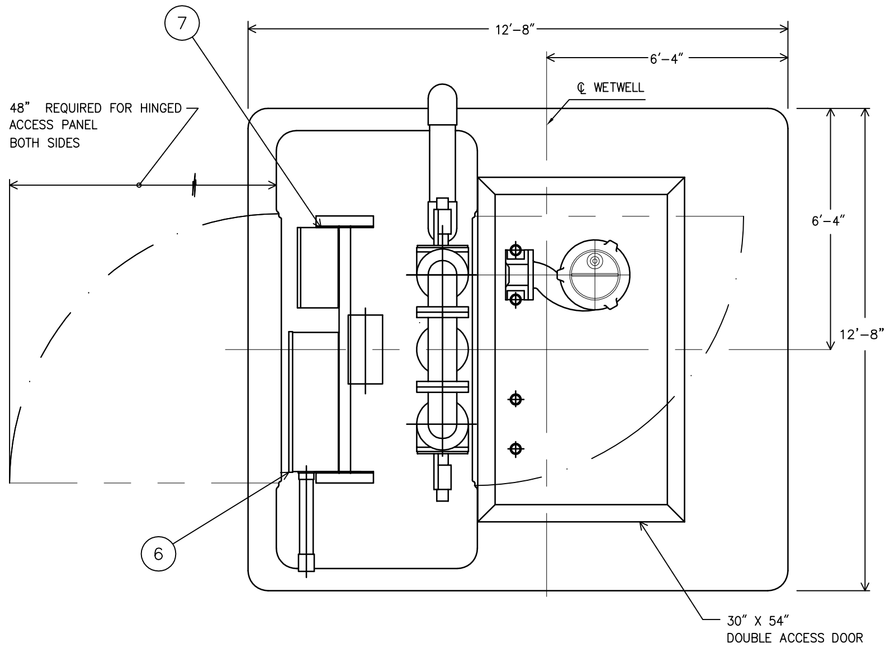
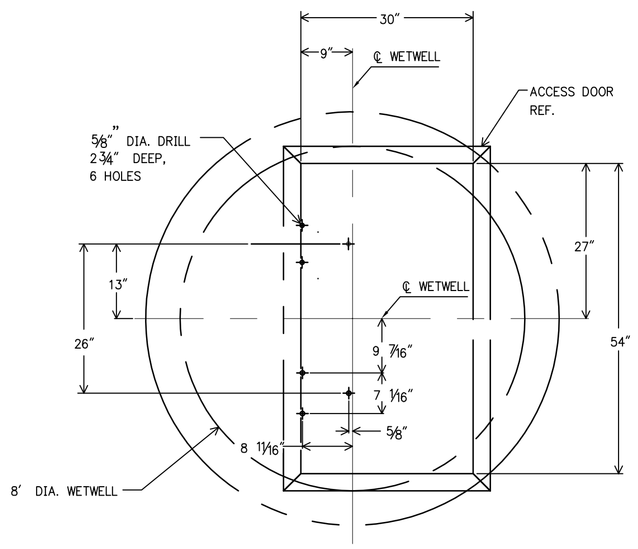
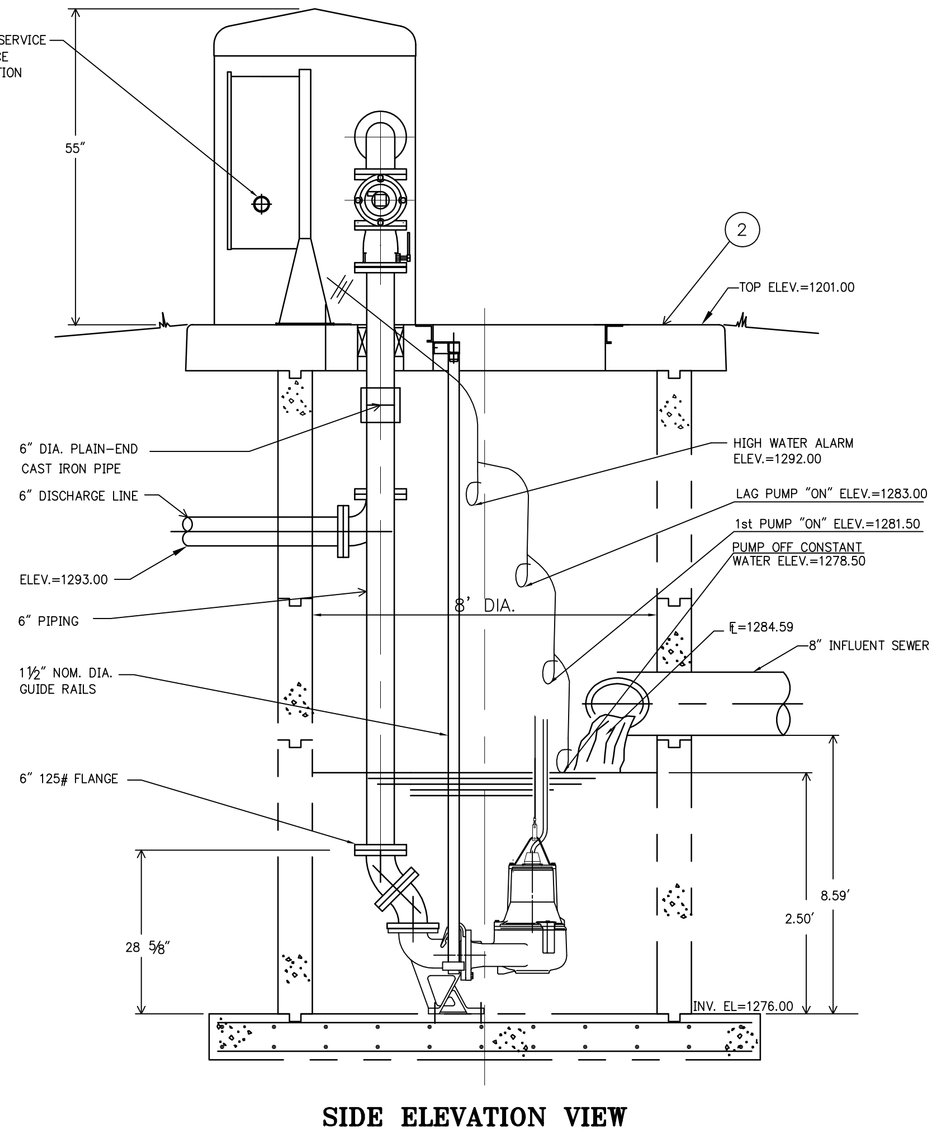
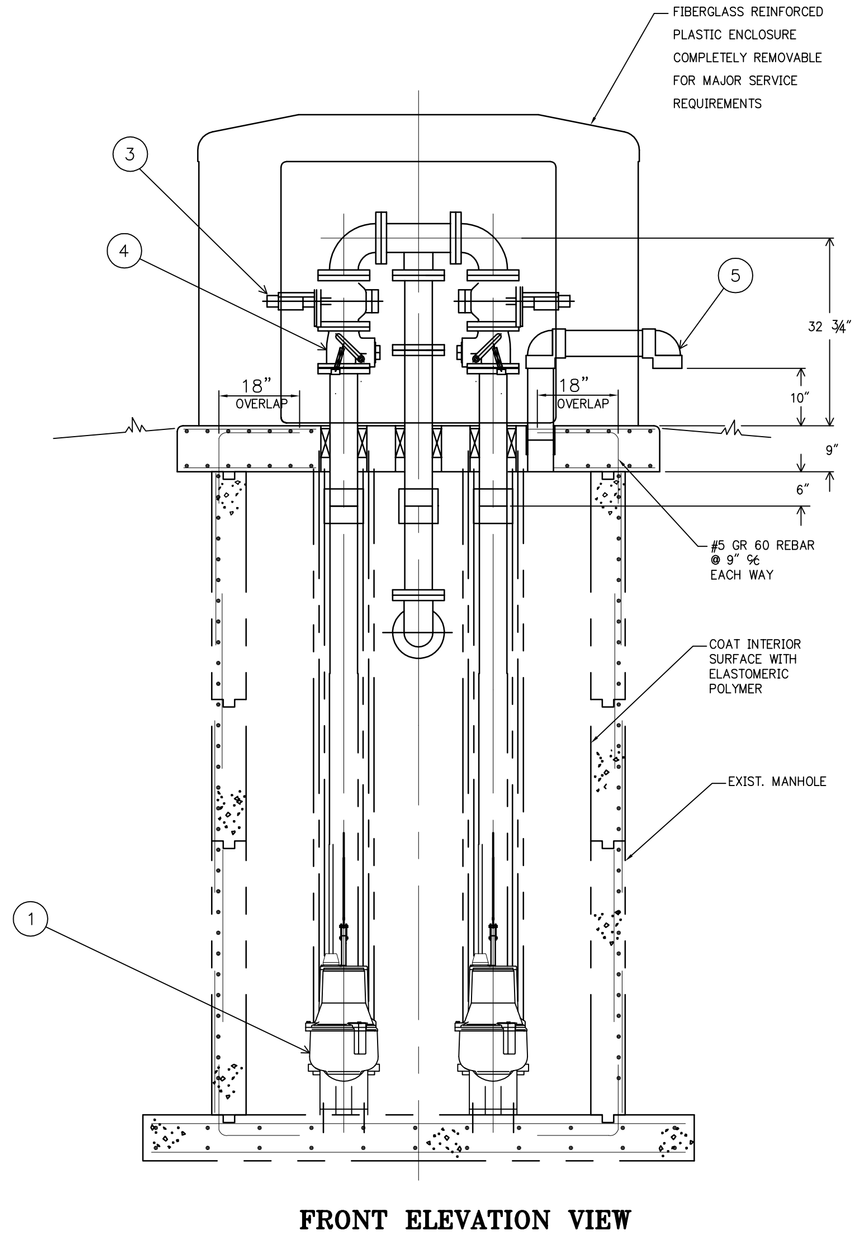




PLAN VIEW
(BASE PLATE ANCHOR LOCATIONS)



SIDE ELEVATION VIEW
(N.T.S.)



FRONT ELEVATION VIEW
(N.T.S.)

LIFT STATION COMPONENT NOTES

1. CONTRACTOR SHALL INSTALL A FACTORY BUILT FIBERGLASS ENCLOSURE CONTAINING PUMP CONTROL PANELS, LIQUID LEVEL CONTROLS AND SYSTEM VALVING; ALL COMPONENTS SHALL BE MOUNTED ON A REINFORCED CONCRETE BASE, PRECAST OR CAST-IN-PLACE, SUITABLE FOR AN EXISTING EIGHT (8) FOOT DIAMETER WET WELL OPENING.
2. CONTRACTOR SHALL INSTALL DUPLEX SUBMERSIBLE PUMPS AND MOTORS PROVIDING MINIMUM DESIGN CAPABILITIES OF: 140 GPM @ XX' TDH; AND MOTORS RATED AT X.0 HP (230 VOLT, 3 PHASE)
3. WET WELL SHALL HAVE A WELL VENT WITH SCREEN.
4. CONTRACTOR SHALL INSTALL A THERMOSTATICALLY CONTROLLED EXHAUST FAN CAPABLE OF EXCHANGING THE COMPLETE VOLUME OF AIR WITHIN THE WET WELL A MINIMUM OF EVERY TWO MINUTES.
5. GUIDE RAIL SYSTEM AND FITTINGS SHALL BE CONSTRUCTED OF STAINLESS STEEL.
6. LOCKABLE ALUMINUM HATCHES SHALL BE INSTALLED.
7. A CHECK VALVE AND A PLUG VALVE SHALL BE INSTALLED FOR EACH PUMP AND ITS PIPING SYSTEM.
8. A CONTROL PANEL FOR THE LIFT STATION SHALL BE PROVIDED AND SHALL CONTAIN THE FOLLOWING EQUIPMENT:
   - A. EXTERIOR MAIN CONNECTION WITH A TERMINAL BLOCK
   - B. MAIN FUSED DISCONNECT (CONTRACTOR SUPPLIED)
   - C. CIRCUIT BREAKERS (EACH PUMP)
   - D. ACROSS THE LINE NEMA RATED STARTERS
   - E. OVERLOAD RELAYS
   - F. MOISTURE AND TEMPERATURE MOTOR PROTECTION
   - G. PHASE PROTECTION
   - H. LIGHTNING PROTECTION
   - I. SECONDARY SURGE PROTECTION
   - J. HIGH WATER ALARM AND LIGHT (MOUNTED ON POLE)
   - K. CONTROL CIRCUITS (BREAKER PROTECTION)
   - L. H.O.A. SWITCHES
   - M. PUMP ALTERNATOR RELAY
   - N. PUMP RUN INDICATORS
   - O. ELAPSED TIME INDICATORS FOR EACH PUMP
   - P. PUMP SEQUENCE SELECTOR SWITCH
   - Q. RECEPTACLE
   - R. PUMP START DELAY (ONE PUMP)
   - S. LIQUID LEVEL CONTROL SYSTEM (ULTRASONIC LEVEL CONTROLLER)
9. ENCLOSURE HEATER (MANUFACTURER SUPPLIED)
10. ALL INTERIOR WET WELL SURFACES SHALL BE COATED WITH AN ELASTOMERIC COATING APPLIED PER THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS. ZEBRON POLYURETHANE, SAUEREISEN SEWERGARD 210S EPOXY OR RAVEN ULTRA HIGH BUILD EPOXY. 90 MIL MINIMUM THICKNESS.
11. PUMP MANUFACTURER SHALL SUPPLY A PORTABLE HOIST SYSTEM AND BRACKET. THE BRACKET SHALL BE FACTORY ATTACHED TO PRECAST CONCRETE BASE.
12. CONTRACTOR SHALL PROVIDE ELECTRICAL POWER TO THE PUMP AS FOLLOWS: 3 PHASE 60 HERTZ, 4 WIRE, 230 VOLTS. THE ELECTRICAL POWER SHALL BE PROVIDED FROM TWO INDEPENDENT SUPPLIERS WITH SWITCHING CONTROL FOR ALTERNATE POWER SUPPLY IF PRIMARY SUPPLY IS INACTIVE.
13. CONTRACTOR SHALL PROVIDE, INSTALL AND CALIBRATE A WET WELL FLOW METER CAPABLE OF MONITORING VOLUMETRIC FLOW FROM THE LIFT STATION – A MARSH-McBIRNEY MODEL 301 FLOW METER OR AND APPROVED EQUAL).
14. AN ALUMINUM PLAQUE SHALL BE FASTENED TO THE LIFT STATION AND SHALL CONTAIN THE FOLLOWING INFORMATION:
    - A. CONTRACTOR'S NAME
    - B. DATE OF CONSTRUCTION
    - C. SIZE OF PUMPS (X.X HP)
    - D. SIZE OF FORCE MAIN. (6" DIA.) (PUMP DISCHARGE= 6" DIA.)
    - E. DESIGN FLOW (140 GPM); TDH (XX FT)
15. CONTRACTOR SHALL INSTALL A 6-FOOT HIGH STOCKADE FENCE WITH STEEL POSTS AROUND INTEGRAL CONCRETE PAD, ENCOMPASSING THE LIFT STATION, AND CONTROL PANELS.
16. CONTRACTOR SHALL PROVIDE, INSTALL AND TEST RADIO TELEMETRY DEVICES MATCHING AND COMPACTIBLE WITH THOSE CURRENTLY USED BY THE CITY OF WICHITA: MOTOROLA INTRACT 2000, MODEL FUEISRAEL 1842A OR MOST CURRENT COMPACTIBLE MODEL; CONTRACTOR SHALL PROVIDE ONE (1) MRTU BASIC MODULE (JC) AND TWO (2) IP-8 INPUT PROTECTORS.
17. CONTRACTOR SHALL PROVIDE 3 COPIES OF OPERATING MANUALS, TECHNICAL SPECIFICATIONS AND WRITTEN DESCRIPTIVE MATERIALS FOR THE SUBMERSIBLE PUMPS PROVIDED AS WELL AS VALVE DESCRIPTIONS, SWITCH SCHEMATICS, ANCHORING REQUIREMENTS. CONTRACTOR SHALL PROVIDE SUCH DOCUMENTATION FOR ALL EQUIPMENT INSTALLED AS PART OF THE LIFT STATION AND ITS AUXILIARY FUNCTIONAL MECHANICAL AND ELECTRONIC PARTS, BACK-UP PUMP(S).

ITEM	DESCRIPTION	MATERIAL AND SIZE
1	PUMPS*	XXXXXXXXXX
2	BASE	CAST CONCRETE
3	PLUG VALVE	CAST IRON
4	CHECK VALVE	CAST IRON
5	WET WELL VENT	PVC
6	CONTROL PANEL	STEEL
7	ACCESSORY PANEL	STEEL

- PUMP SHALL BE A 3" XXXXXXXXXXXX SUBMERSIBLE ELECTRIC MOTOR DRIVEN PUMP (OR AN APPROVED EQUAL).

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Certificate of Authorization #E-1128 EXP. DATE: 12-31-2006

WICHITA WATERWALK

PUBLIC IMPROVEMENTS PHASE 2 PACKAGE 2

Mark	Date:	Description
	04-27-06	FIELD CHECK

LIFT STATION

Job No.
Date 04-27-06
Drawn
Checked

SS3.1
OF
1
Dwg. 74 of 96

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