



Bid Number 50-00142593

A Purchase of a Pump Package for Improvements to Midway and Soniat (E3-1) Sewerage Lift Station for the Department of Sewerage

BID DUE: August 22, 2023 AT 2:00 P.M.

ATTENTION VENDORS!!!

Please review all pages and respond accordingly, complying with all provisions in the technical specifications and Jefferson Parish Instructions for Bidders and General Terms and Conditions. All bids must be received on the Purchasing Department's eProcurement site, www.jeffparishbids.net, by the bid due date and time. Late bids will not be accepted.

**Jefferson Parish Purchasing Department
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SPECIFICATIONS FOR SUBMERSIBLE SEWAGE PUMPS
FOR JEFFERSON PARISH DEPARTMENT OF SEWERAGE
MIDWAY AND SONIAT (E3-1) PUMP STATION

MAY 2023

PART 1: GENERAL

1.01.1 SCOPE OF WORK

- A. Furnish three (3) 14-inch, 200 horsepower submersible, solids handling, explosion proof sewage pumps, with integral non-sparking guide rail brackets, three (3) 14-inch pump discharge elbows along with a new triplex 200HP weatherproof, free standing back-to-back Stainless Steel MCC pump control panel as specified herein. This bid shall be awarded as a package bid for the pumps, elbows, and control panel. The pumps shall be able to match the design, quality, and hydraulic performance requirements listed in these specifications. These pumps must also be a direct hydraulic and dimensional replacement to the existing Fairbanks Morse submersible pumps in the Meadowbrook and Transcontinental/Veterans pump stations, allowing interchangeability during an emergency. The pump motors shall possess a stainless-steel nametag stating that the pumps are assembled in the U.S.A., and showing UL approval for Class I, Division I explosion proof environments. Any bids submitted for alternate pump manufacturers, other than as specified, must include in their bid all information needed to fully demonstrate complete compliance with requirements of these specifications. All pumps on this bid will require certified Hydraulic Institute pump performance tests, conducted in the same facility that the pumps were assembled and manufactured in. These hydraulic performance tests shall certify at least five (5) separate operating points along its operating curve including the duty point and shut-off, and show GPM, TDH, efficiency, and BHP at each tested point. These certified curves shall be approved by the owner, or the owner's appointed agent before the pumps can be released for shipment. Jefferson Parish reserves the right to reject any bids that do not meet these specifications, or any bid that does not contain enough information to demonstrate that they are equal to all requirements of these specifications. It is the bidder's responsibility to provide adequate information, with their bid, necessary for the complete evaluation of their proposed equipment as it relates to the requirements of these specifications. Jefferson Parish shall be the sole judge as to the equality of any alternate manufacturer's product offering.

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- B. All equipment and auxiliaries shall be new and furnished as required for an installation incorporating the highest standards for this type of service. Also included shall be on-site supervisory services, as needed or requested by Jefferson Parish, during installation. Factory certified technicians shall preform field testing of each pump unit and the entire control system, and instruct operating personnel in the proper care, operation, and maintenance of the equipment.

1.02 QUALITY ASSURANCE

- A. The manufacturer's agent shall supervise the complete installation and operation of the pumping system including the pumps and controls as specified herein.
- B. The equipment covered by these specifications is intended to be standard pumping equipment and shall be furnished by a single manufacturer. The equipment furnished shall operate satisfactorily, to the extent that if the equipment does not preform per these specifications, Jefferson Parish has the right to demand that the faulty equipment be removed and replaced with equipment per these specifications, all at the expense of the bidder.
- C. Pumps shall be manufactured in accordance with the Hydraulic Institute Standards, except where otherwise specified herein.
- D. Pumps furnished under this Section shall be the product of a single manufacture. All pumps shall be designed for 24-hour continuous operation.

The pumps shall be assembled in the USA and manufactured by: **Fairbanks Morse Pump Co. Kansas City, KS. or approved equal.**

- E. The rated horsepower of the drive unit shall be such that the unit will not be overloaded or the service factor reduced when the pump is operated at any point on the pump's recommended capacity curve.
- F. The pump and motor shall be designed and built for 24-hour continuous service at all points within the required range of operation, without overheating, without cavitation, and without excessive vibration or strain. All parts shall be so designed and proportioned as to have liberal strength, stability, and stiffness and to be especially constructed to meet the specified requirements.

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1.03 SYSTEM DESCRIPTION

- A. All of the equipment included herein is intended to be standard for submersible, 24-hour continuous operation and use in municipal wastewater applications.

1. **Midway and Soniat Pump Station**

Number of new pumps: 3

Configuration: Submersible

Design Capacity and Head: 8,475 GPM at 65 feet TDH

Min. Efficiency at Design capacity: 81 percent

Min. Secondary Capacity and Head: 4,800 at 80 feet TDH

Min. Efficiency at Secondary Conditions: 70 percent

Min Run out Capacity: 10,700 GPM at 48 feet TDH

Min. efficiency at run out capacity: 70 percent

Max. NPSHR at design: 31 feet

Drive: VFD

Maximum Pump Speed at Design Capacity: 1185 rpm Max.

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Minimum "Spherical" Solid Size: 5.25 inches

Impeller Type: Solids Handling, 2-Vane

Minimum Shut-Off Head: 103 feet

Minimum Motor Hp: 200 HP

Motor Type: Submersible, UL Explosion-Proof

Minimum Pump Discharge Elbow Size: 14 inch

Number of elbows: 3

Power Cable Length: 75 feet

1.04 MAINTENANCE

- A. Bidder shall furnish all special tools required for the proper servicing of all equipment. All such tools shall be furnished in a suitable steel tool chest complete with lock and duplicate keys.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. All parts shall be properly protected so that no damage or deterioration will occur during a prolonged delay from the time of shipment until installation is completed, and the unit and equipment are ready for operation.
- B. All equipment and parts must be properly protected against any damage during shipment. Equipment shall be stored in accordance with the manufacturer's instruction.

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- C. Factory assembled parts and components shall not be dismantled for shipment unless permission is received in writing from the Owner.
- D. The finished surfaces of all exposed flanges shall be protected by wooden or equivalent blank flanges, strongly built, and securely bolted thereto.
- E. Finished iron or steel surfaces not painted shall be properly protected to prevent rust and corrosion.

1.06 PATENTS AND LICENSES

- A. The manufacturer shall be responsible for all patents or licenses that exist on the equipment to be provided.
- B. The manufacturer shall assume all cost of patent fees or licenses for the equipment or process; and shall safeguard and save harmless the Parish from all damages, judgements, claims and expenses arising from license fees, or claimed infringement of any letter, patents, or patent rights, or fees for the use of equipment or process, structural feature or arrangement of any component parts of the installation; and the bid price shall be deemed to include payment of such patent fees, licenses, or other costs pertaining thereto.

1.07 EQUIPMENT FIELD TESTING

- A. After all the equipment has been installed and the submersible pumps are ready to be placed into operation, the factory representative shall test the pump and control system for proper operating limits. All tested values shall be recorded and provided to the owner for their future reference and use.

1.08 PUMP EQUIPMENT WARRANTY

- A. The pump bidder must be listed as a factory authorized service center, for the brand they are bidding and be capable of completely servicing the proposed pumps within one (1) hour travel time of the project site. The pump bidder must own and operate a direct factory service center and stocking facility capable

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of completely servicing and supplying spare parts for the proposed pumps within one (1) hour travel time of the project site. The bidder's factory service center/stocking facility shall be available for Jefferson Parish inspection on a twenty-four (24) hour prior notice. The bidders service center must have full time, factory trained mechanics capable and certified to service the equipment being offered.

- B. The pump manufacturer shall provide a written prorated warranty against defects in material and workmanship for the units supplied for a period of at least five (5) years or 10,000 operating hours, under the operating conditions specified herein, in accordance with their standard published Municipal Pump Warranty. Pump manufacturer shall demonstrate ability to support claimed warranty coverage by meeting all performance requirements of these specifications.

PART 2: PRODUCTS

2.01 GENERAL

- A. The pumping units shall all be supplied by one manufacturer and shall be complete including pumps, motors and discharge elbows. The pumps and motors shall be assembled in the USA and shall be noted as such on the stainless steel pump manufacturer's tag.
- B. The pump and motor shall be designed and built for 24-hour continuous service at all points within the required range of operation, without overheating, without cavitation, and without excessive vibration or strain. All parts shall be so designed and proportioned as to have liberal strength, stability and stiffness, and to be especially constructed to meet the specifications.
- C. Each major piece of equipment shall be furnished with a stainless-steel nameplate (with embossed data) securely mounted to the body of the equipment. The nameplate for the pump shall include the manufacturer's name and model number, serial number, rated flow capacity, head, speed, and all other pertinent data. Nameplates for motors shall include the manufacturer's name and model number, serial number, horsepower, speed, input voltage, amps, number of cycles, power and service factors, and point of assembly.
- D. All electrical materials and equipment shall be Underwriters Laboratories Inc. listed, and NEMA rated.

2.02 CONDITIONS OF OPERATION

- A. The pump shall be a totally submersible pump, manufactured by **Fairbanks Morse Pump Company**, or approved equal.
- B. Each pump shall be designed for the conditions of service specified. Where total head (TH) is referred to in conjunction with the specified discharge requirements, it shall be understood to consist of the sum of the pressure head plus the velocity head, in feet, at the discharge nozzle of the pump, minus the pressure head and the velocity head at the suction nozzle of the pump. The efficiency of the pump shall be understood to be based upon total head as just defined.

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2.03 PUMP CONSTRUCTION

- A. The impeller shall be balanced non-clogging type made of close-grained cast iron conforming to ASTM A48 Class 30. The impeller shall be of one piece; single suction, enclosed, two (2) blade radial flow design with well-rounded leading vanes and then tapered toward the trailing edge for a circular flow pattern. The waterways through the impeller will have extremely smooth contours, devoid of sharp corners to prevent rags or stringy, fibrous material from catching or clogging. The clearance between the full diameter impeller, outside diameter, and cutwater shall be capable of passing a solid "sphere" as listed in these specifications. The impeller is to be balanced and secured to the shaft by means of a bolt, washer, and key. The arrangement shall be such that the impeller cannot be loosened from torque in either forward or reverse rotation. Wiper vanes on the back impeller shroud will not be accepted.
- B. The volute shall be matched to the impeller and made of close-grained cast iron conforming to ASTM A48 Class 30. The volute is to be of one-piece circular constant flow, equalizing pressure design with smooth fluid passages large enough to pass any size solid that can pass through the impeller. The volute shall be centerline discharge. The pump discharge elbow interface shall be integral to the volute, and not a bolt-on sealing flange.
- C. A separately cast close-grained cast iron back head conforming to ASTM A48 Class 30 shall be provided.
- D. The pump shaft shall be 416 Stainless Steel of sufficient diameter to carry the maximum loads imposed and to prevent vibration and fatigue. The shaft shall be accurately machined along its entire length and precision ground at bearing locations. Radial bearings and thrust bearing shall be grease lubricated designed to carry the hydraulic radial loads encountered in the service conditions. Bearing shall be designed for a nominal L10 life of 100,000 hrs. per AFBMA at best efficiency point.
- E. The pump shall be supplied with a non-sparking slide bracket designed to lower the pump along stainless-steel guide rails and fit directly onto the new 14-inch discharge elbows.
- F. The volute casing, back head, and frame shall be manufactured with concentric shoulder fits to assure accurate alignment. All machine bolts, nuts, and cap screws shall be stainless steel.
- G. Pump shall be provided with impeller and volute axial type 400 series stainless wear rings. Impeller wear ring shall be 300-350 BHN; and the volute wear ring shall be 410-484 BHN.

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2.04 PUMP DRIVE SYSTEM

- A. Each submersible solids handling pump shall be driven by a completely sealed, electric submersible squirrel cage induction motor, inverter duty rated per NEMA MG 1, revision 3 part 31, section 31.40.4, rated for use with VFD's. The motor nameplate horsepower rating shall not be exceeded by the brake horsepower requirements of the specified head and capacity requirements. Motor shall be suitable for operation in the environment specified.

- B. The submersible motor shall be U.L. Listed for Class 1, Division 1, Group C & D explosion proof location, as defined by the National Electric Code. All electrical components shall be housed in an air-filled, cast iron, watertight enclosure that is sealed by the use of O-rings and shall have rabbet joints with an extra overlap. The pump shall be supplied with 75 feet of flexible UL approved electrical motor and sensor cables.

- C. The stator winding and lead shall be insulated for continuous duty in 40-degree Celsius rise liquids. The motor shall be designed for continuous duty capable of minimum of ten (10) starts per hour. The motor shaft shall be 416 stainless steel; the rotor to be dynamically balanced to meet NEMA vibration limits; all hardware to be stainless steel. Cable leads are to allow the connection of a cable to the motor, to be accomplished in the field without soldering cable. All leads are to be sealed and designed to prevent cable wicking to conduit box located on top of the motor. Individual wires shall have the insulation removed and epoxy potted to prevent wicking into the motor area. Grommets or similar compression only systems not using epoxy will not be accepted.

- D. Each pump shall be provided with a tandem mechanical rotation shaft seal system. The upper seal shall be hydraulically balanced incorporating a non-clogging polymeric body acting as a spring mechanism with high grade carbon vs. 99.5 percent ceramic faces lapped to within 3 helium light bands. The seal shall be installed using a snap ring on the polymeric body and a positive locator machined in the ID of the polymeric body. All O-rings shall be high temperature FKM O-rings. The lower seal shall be of similar construction with the faces materials being silicon carbide vs. tungsten carbide lapped to within 3 helium light bands. Seals using conventional metal springs will not be accepted.

2.05 SHOP TESTS

- A. Each pump shall undergo a factory hydraulic performance test prior to shipment. This test shall be conducted in the same facility as the pump's point of manufacture. This hydraulic test may be witnessed at the discretion of the owner, or the owner's representative. A ten (10) day notice shall be given before the date of hydraulic testing.

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1. A complete test report shall be provided for each pump, including certified characteristic curves of the pump, consisting of at least all information required in these specifications. These certified copies of the hydraulic test report, shall be submitted and approved by the owner before the pumps are permitted to be shipped.

- B. Each pump shall be factory tested in accordance with the latest edition of the Hydraulic Institute Standards. Certified copies of the Hydraulic Test Report shall be supplied prior to shipment. Notification of such test and a list of test equipment and procedures shall be furnished to the Owner at least ten working days before the scheduled test date.
 1. Each pump shall be tested and data recorded at its operating conditions of service as listed in these specifications. The pump shall be tested and data recorded for five (5) different operating points, including shut-off head. Sufficient test point readings shall be made to establish complete head flow capacity, efficiency, and brake horsepower curves for each pump.

 2. All gauges and other test instruments shall be calibrated within 30 days of the scheduled test and certified calibration data shall be provided. All Venturi flow meters shall be calibrated within two years of the scheduled test and certified calibration data shall be provided.

2.06 SURFACE PREPARATION AND SHOP PRIME PAINTING

- A. Each piece of equipment in the pumping system including pump, motor and elbow shall be prepared and shop-primed. The shop primer shall be compatible with the finished paint.

PART 3: PREPARATION

3.01 GENERAL

- A. Coordinate with other trades, equipment and systems to the fullest extent possible.

- B. Take all necessary measurements in the field to determine the exact dimensions for all work and the required sizes of all equipment specified. All pertinent data and dimensions shall be verified.

3.02 FIELD TESTS

- A. In the presence of the owner, the supplier shall conduct such tests as necessary to indicate that the pumps and motors generally conform to the efficiencies and operating conditions specified herein. A ten-day operating period of the pumps will be required before acceptance. If the pump performance does not meet these specifications, corrective measures shall be taken within ten (10) days or the pump shall be removed and replaced, at the bidder's expense, with the specified pump which satisfies the conditions of these specifications with no cost to the Owner.

PART 4: FREE STANDING VFD PUMP CONTROL PANEL

4.01 Submittals

Upon request, the Pump Control Panel manufacturer shall provide the following documents to the Owner for review.

- Bills of Material
- Elevation and Base Plan drawings
- Wiring diagrams
- Catalog cut-sheets
- Pump Control Panel heat calculations
- Certified Factory Test results
- Spare parts list
- 10-year Warranty for Programmable Pump Controller and printed circuit boards
- 10-year warranty for Reactive Air™ Level Monitoring System compressor
- 1-year warranty for all electrical components, from date of pump station acceptance
- Certification that all printed circuit boards have conformal coating
- Certification the Programmable Pump Controller and all printed circuit boards have passed a 5-day burn-in test. Testing requirements are as noted in the PPC hardware specification
- CSIA certification

4.02 Pump Control Panel

A. General Requirements

All equipment shall be furnished and installed as specified, in a low profile, U.L. 508 listed, weatherproof (NEMA 3RX), 316 stainless steel (dull finish) panel with rain tight cap, sealed bottom, and 8-inch leg stands (or as indicated on drawings). The pump control panel and pumps shall be furnished together as a single offering to assure proper coordination and complete system responsibility. The Pump Control Panel shall be as manufactured by Tesco Controls Inc., or approved equal. The complete control system and all of the components shall be an exact duplicate of the Transcontinental and Veterans pump station, to allow for component interchangeability in case of an emergency. Along with exterior doors, the Pump Control Panel

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enclosure shall be furnished with hinged interior dead-front doors. Outer enclosure shall be constructed of 12-gauge, 316 stainless steel (dull finish to reduce glare). A custom weather shield shall be provided to protect personnel from rain and other weather-related environments. Doors shall be equipped with 316-stainless steel polished handles with 3-point roller bearing latches and hasps for owner padlocks. Doors shall be hinged on the same side and shall open to greater than 90 degrees. All doors (exterior and interior) shall also be furnished with 316 stainless steel metal doorstops for use in windy conditions. All dead-front latches shall be 1/4 turn adjustable with 1/8-inch thick latching dog and knurled knob. All interior mounting hardware shall be stainless steel. Enclosure exterior shall be unpainted stainless steel, dull finish (to prevent glare from passing car headlights). Interior color including front and back of all hinged dead front doors, separation barriers, and mounting back-pans shall be white. The painting process shall include five stages of metal preparation using dip tanks, as follows: 1) Alkaline cleaner, 2) Clear water rinse, 3) Iron phosphate application, 4) Clear water rinse, and 5) Inhibitive rinse to seal phosphated surfaces. Finish shall be polyester dry powder, electrostatically applied and baked on at 400 degrees Fahrenheit for a minimum of 15 minutes.

The enclosure shall be compartmentalized such that the Programmable Pump Controller/telemetry section shall be isolated from the power sections. The compartments containing the Programmable Pump Controller/telemetry components shall be separated from the power sections by barriers behind the inner dead front doors. If required, space shall be available in the Pump Control Panel for the mounting of existing or new telemetry components (radio/modem, battery, and charger). All openings shall be sealed to prevent entrance of insects and rodents.

The Pump Control Panel shall house the main/utility circuit breaker, and backup generator receptacle circuit breaker with approved mechanical interlock to prevent both breakers from being closed concurrently. The main circuit breaker, generator circuit breaker, and all wiring shall be located behind an interior dead front door. Interlocks and circuit breaker operation shall be possible without opening the dead front door. Elapsed time meters, indicating devices and H.O.A. switches, shall be mounted on the inside dead front door. Breaker cutouts for breaker toggle protrusion shall be supplied, to eliminate exposure to hazardous potentials. A physical lockout device shall be supplied on each motor circuit breaker. The control panel shall be thermostatically controlled by heating and cooling systems - without the use of an air conditioner - to maintain suitable climate conditions within the control panel. Lightning/surge protection and PFR power fail relay shall be furnished to protect the panel equipment from lightning, loss of power, or utility power surges. GFCI receptacle, intrusion switch, and fluorescent light with door activated switch shall be provided in each panel section. Site area light switch with associated circuit breaker protection shall be provided. All bussing and wire shall be copper. All wire shall be stranded with locking spade pressure connectors and labeled with clip-on permanent plastic wire markers. All circuit breakers and dead-front mounted devices (lights and switches) shall be equipped with custom engraved phenolic nameplates.

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B. Generator Connection

The generator cable entrance shall be a 3-inch PVC nipple conduit and 45-degree angled PVC pass through with threaded cover attached by an appropriate stainless-steel chain. The access nipple shall be located on the side of the panel near the Emergency breaker. The nipple location shall meet all NEC clearance requirements. The Emergency breaker shall have lugs for generator wire connection.

C. Terminal and Distribution Blocks

Distribution blocks shall be furnished and installed as required for "fan-out" of control power and other 120V sources within the enclosure. The blocks shall be rated 300V at a minimum of 20 amperes and sized for the conductors served. Distribution blocks shall be Marathon, or approved equal.

D. Circuit Breakers

All 480-volt circuit breakers shall have minimum interrupting capacities at 35,000 amperes. All 120-volt breakers shall be minimally rated at 4,000 amperes interrupting capacity. Circuit breakers shall be of the indicating type, providing ON, OFF, and TRIPPED positions of the operating handle. Circuit breakers shall be quick-make, quick-break, with a thermal-magnetic action, except when protecting motor feeders where motor circuit protector (MCP) breakers may be used. Circuit breakers shall be the bolted-on type. The use of tandem or dual circuit breakers in a normal single-pole space to provide the number of poles or spaces specified will not be accepted. All multiple-pole circuit breakers shall be designed so that an overload on one pole automatically causes all poles to open. Circuit breakers shall meet the requirements of UL and NEMA AB I. Breakers shall be Cutler Hammer HMCP, QC, or approved equal. All circuit breakers shall be heavy duty molded case circuit breakers conforming to Federal specification W-C-375B and shall be UL listed.

E. Motor Control – Variable Frequency Drives

Each motor shall be provided with a suitable controller and devices that will perform the functions as specified for their respective motors. Controllers shall conform to the applicable requirements of NEMA ICS, ANSI C19.1, the NEC, and UL. Anticipated horsepower ratings as specified herein. This information is for guidance only and does not limit the equipment size. When motors furnished differ from the expected ratings indicated, the necessary adjustments must be made to wiring, conduit, disconnect devices, VFDs, branch circuit protection, and other affected material or equipment to accommodate the motors actually installed, at no additional cost.

Each motor control system shall be equipped with a hand-off-auto control switch, indicating lights, elapsed time meter, motor starter, and 3-phase pump current monitoring. Control switches and indicating lights shall be U.L. listed oil-tight devices rated heavy duty; Provided by

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Allen Bradley, or approved equal. Elapsed running time meter for recording total elapsed running time for each motor shall be six-digit, non-reset, recording in hours and tenths. Meters shall be mounted to dead front door with stainless steel machine screws. Sheet metal screws will not be accepted.

A Variable Frequency Drive shall be provided for each pump in the system, sized for the appropriate voltage and power. The VFD unit shall be 6 pulse width modulated (PWM) type. The units(s) shall be supplied by the System Supplier and designed for wastewater pumping.

F. Nameplates

Nameplates shall be black phenolic with custom white lettering. Nameplates shall be stainless steel screw mounted. Sheet metal screws will not be accepted. Glue type will not be accepted.

G. Control Power Transformer

Transformer shall be furnished with primary and secondary fusing. Transformer shall be encapsulated with electrical grade epoxy and silica sand to completely seal the core and coils from moisture and contaminants. Transformer shall be designed for quiet operation, 180 deg. Celsius insulation system standard with 115 deg. Celsius temperature rise for longer, more reliable life. Transformer shall be made in U.S.A. and meet or exceed all applicable NEMA, ANSI, OSHA, UL, and CSA requirements.

H. Panelboard

Panelboard shall be circuit breaker type custom constructed to utilize minimum enclosure space with breakers as specified. Circuit breakers shall be bolted on type. The panelboard shall be furnished with custom phenolic nameplates. The panelboard transformer shall be dry type construction sized as specified, with primary breaker protection. The panelboard transformer shall be a Jefferson 411, or approved equal.

I. Panel Lights

Push-to-test lights shall be furnished and installed, to indicate status and alarm conditions locally, as specified. Custom engraved phenolic nameplates shall specify each light's function. Lights shall be wired as specified. Panel lights shall be full voltage Allen Bradley 800H series, or approved equal.

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J. Push-buttons and Selector Switches

Push-buttons and selector switches shall be furnished and installed as specified. Custom engraved phenolic nameplates shall specify each switch's function. Switches shall be wired as specified. Switches shall be full voltage Allen Bradley 800H series, or approved equal.

K. Receptacles, Duplex

Receptacles shall be of specification grade and of NEMA configuration and rated 2 pole, 3 wire grounding, 20 amperes, 125 volts, such as Hubbell, or approved equal. Bases shall be of ivory phenolic composition. Wire terminals shall be suitable for 10 AWG wire and shall be screw type. Receptacles shall be U.L. listed. The receptacles shall have corrosion resistant conducting parts of nickel-plated brass and other metal parts of stainless steel. All external and dead front receptacles shall be installed on ground fault interrupter circuits "GFCI".

L. Relays, Control

Control relays shall be Idec Type RR, or approved equal. Two form-C contacts (minimum) shall be provided on each relay. Relay energized neon lamp shall be provided (inside relay case).

M. Relays, Power Fail

The power fail relay shall continuously monitor the three phases for power loss, low voltage, phase loss, phase reversal, and have automatic reset. The power fail monitor shall have a drop-out voltage adjustment and a failure indicating LED. Diversified Electronics SLA series, or approved equal shall be provided.

N. Relays, Float Switch Interface (If Required)

Float interface relays shall be provided for functions specified. The units shall be specifically designed for monitoring intrinsically safe circuits. The unit shall utilize low current (120 micro amps maximum) and low voltage (12 volts d-c maximum) limiting the power entering the hazardous area to less than 1.5 milli-watts. Unit sensitivity shall allow pick-up on circuit closures of 100 K ohms or less. The float switch interface relays shall be TESCO 72-144, or approved equal.

O. Relays, Time Delay

Time delay relays shall be solid state relays with a timer adjustable over the range 1 to 60 seconds, unless other ranges are indicated or required. LED relay energized indicator lamp shall be provided. Time delay relays shall be Idec RTE, or approved equal.

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P. Relays, Pump Moisture Sensing

Pump moisture sensing relays shall be provided for submersible pumps. The units shall be specifically designed for monitoring conductive circuits. The unit shall utilize low current (120 micro amps maximum) and low voltage (12 volts d-c maximum). Unit sensitivity shall allow pick-up on circuit closures of 100 K ohms or less. The pump moisture sensing relays shall be TESCO 72-144, or approved equal.

4.03 Programmable Pump Controller (PPC)

A. General Requirements

The Programmable Pump Controller shall have all the characteristics and features listed herein. All sites shall be similar in nature, (operator interface, configuration and options, back pan layout, etc., except for I/O count), so that all RTUs can be interchangeable with one another. The use of any third-party hardware or software add-on products to meet this specification will not be accepted. The controller shall be an L3000™ Programmable Pump Controller from TESCO Controls, Inc., Sacramento, CA, or approved equal.

B. Manufacturer

The Programmable Pump Controller shall be procured from a manufacturer experienced in manufacturing Programmable Pump Controllers designed specifically for the water and wastewater industry. The PPC itself and support for the controller shall be available directly from the manufacturer. Programming services shall be available direct from the manufacturer as a normal practice.

C. Warranty

The manufacturer shall provide a factory-standard 10-year warranty with the unit. The replacement controller shall be available within 24 hours, installed and running at the station, without requiring that the original unit first be removed and returned to the factory.

D. Support

The manufacturer shall provide 24/7/365 support for questions related to any aspect of the controller, including general use, application-specific issues, programming, and use of the programming software. This support shall be available directly from the manufacturer at no extra charge with the purchase of a controller. The manufacturer must also support a Spare in The Air Program™, or approved equal, which will expedite parts or a new controller unit by the next day.

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E. Construction

The Programmable Controller should be constructed using a card cage architecture incorporating a 96 pin 3U DIN VME standard backplane interconnection. The printed circuit cards shall be designed to slide into the card rack and interconnect with the VME backplane. A high density I/O card with a mix of I/O types as well as an I/O card for each individual I/O type shall be available. The system shall operate with a minimum of 2 cards and shall be easily expandable to 20 cards. All field wiring to the I/O cards shall be done at externally mounted terminal blocks with ribbon cable interconnects to the relative I/O card.

1) Operating Conditions

The Programmable Controller shall operate correctly under an ambient temperature range of -40 to +185 degrees Fahrenheit, without requiring forced air or other special cooling measures. Coatings on connectors, component leads, and other materials used in the construction of the Programmable Pump Controller shall be substantially resistant to atmospheres containing significant amounts of Hydrogen Sulfide gas and Chlorine gas.

2) Other

The Programmable Pump Controller shall have a low-power shut-down mode suitable for use in solar or other sites where power consumption is critical. The Programmable Pump Controller shall be provided with a complete operations and maintenance manual. At minimum, each Programmable Pump Controller shall be subjected by the manufacturer to a 5 day burn-in procedure at 165 degrees Fahrenheit.

F. Card Architecture

1) Processor Card

The Programmable Pump Controller shall be microcontroller-based, using a microcontroller that, at minimum, supports the following:

- a. 1GHz clock rate
- b. 512Mbytes RAM
- c. 64Gbytes secure digital Flash
- e. Watchdog timer
- f. 4 configurable timers with interrupt capability
- g. 3 serial ports with separate baud rate generators
- h. 1 10/100Mbs Ethernet port
- i. 4 USB 2.0 ports

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- j. 1 HDMI Video port
- k. Write-protect enable/disable

The Programmable Pump Controller shall use a real-time, preemptive, multitasking operating system, contained in Flash memory. The Flash memory shall also contain all firmware that is not specific to a particular job or application, such as operator interface and communications firmware.

2) Input/Output Characteristics

The Programmable Pump Controller shall provide built-in digital filtering of analog inputs. The filter constants shall be adjustable from the keyboard and through the communications ports.

G. Field Wiring Terminal Blocks

The terminal blocks shall support the following listed characteristics:

- pull-apart two- piece wiring blocks for fast and easy wiring/re-wiring
- separate wiring blocks for each I/O type and each wire point fully labeled
- versatile internal or external analog power source
- digital outputs have LED "ON" indicators and socketed 10A relays
- entire terminal block shall snap on/off standard track mount
- onboard passive circuit protection to protect programmable controller shall be available with a built-in isolated current loop power supply, powered from the 12V DC main power. The current loop power supply shall be capable of producing at least 24V DC and 161 mA.
- three levels of lightning/surge protection

H. Power Supply

The Programmable Pump Controller shall be powered by a 12V/5V DC power supply, with an allowed operating range of at least +/- 10 percent. A 12V battery backup of the 12V DC shall be available such that the 5V DC is also maintained by the 12V battery.

I. Operator Interface Unit

The Programmable Pump Controller shall be available with an operator interface that is an integral part of the unit. The same operator interfaces shall be remotely mountable.

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1) Keyboard

The Programmable Pump Controller shall be available with either a minimal keyboard, containing no more than 4 keys, or a full 32 keyboard with keys for direct access to functions. The keyboard construction shall be sealed membrane type, using a stainless-steel backing plate, and shall be impervious to wash-down environments and atmospheres containing Hydrogen Sulfide and Chlorine gases. The keys shall provide tactile feedback. Both keyboard options shall provide a menu-based operator interface, allowing the operator to perform at least these functions, without process interruption:

- a) Examine and change setpoints
- b) Examine analog input and output registers
- c) Examine and change timers and counters
- d) Examine and change analog input filter constants
- e) Calibrate analog inputs and outputs
- f) Force digital outputs on and off
- g) Override analog inputs and outputs
- h) Examine control program

2) LED Character Display

The Programmable Pump Controller shall be available with an alphanumeric LED display capable of displaying at least 8 characters at a time, using at least 15 segments per character. The LED character display shall be used for showing the values of registers, inputs, outputs, and other data.

3) LED Annunciators

The Programmable Pump Controller shall be available with at least 380 individual LED's arranged in columns, which shall be usable to display the on/off state of digital inputs and outputs (physical or internal). The LED's shall also be usable for bar graph displays.

4) Mode LED's

The Programmable Pump Controller shall be equipped with at least the following mode display LED's:

- SBY - lighted when in standby mode
- CMD - lighted when in command mode
- RUN - lighted when in run mode
- MEM - lighted when write-protected memory is open
- CAL - lighted when in calibration mode
- XMT - lighted when a message is being transmitted via a communications port

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- RCV - lighted when a message is received via a communications port
- ERR - lighted when an error condition is detected by the controller

The XMT/RCV LED's shall be configurable to selectively show activity on any combination of the communications ports.

5) Bar Graph Displays

The Programmable Pump Controller shall have the ability to display at least 4 bar graphs on the LED annunciators. The bar graphs shall be individually configurable. If the value being monitored by the bar graph should go beyond the defined endpoints (under range or over range), the LED at that end of the bar graph shall flash to indicate the condition.

6) Color Touch Screen OIT

The PPC shall have the ability to communicate Modbus to other OIT's through the Ethernet port.

7) HDMI Touch Screen

The PPC shall have the ability to interface to a HDMI OIT using the HDMI port. The HDMI Touch Screen must be rated at least with a NEMA 3 rating or better.

8) Operating Modes

The Programmable Pump Controller shall have two basic modes of operation as described below:

a) RUN:

- Actively controlling, running application-specific control program
- Sensing input signals
- Generating outputs under program control
- Peer-to-peer message initiation is enabled
- Polling is enabled

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- b) STANDBY:
 - Not actively controlling
 - Continues to sense input signals
 - Analog outputs held at current level or set to zero
 - Digital outputs go to off state
 - Initiation of peer-to-peer messages is disabled
 - Polling is disabled

J. Programming

1) Language

The Programmable Pump Controller shall be programmable using the ability to execute a higher-level BASIC-like programming language which is native to the controller. The Programmable Pump Controller must also support IEC 61131-3 for additional programming languages.

2) Registers

The Programmable Pump Controller shall have at least the following preformatted register types arranged in a global system database, with the quantity of each register type selectable to at least the numbers given:

- a) Setpoint (for storing constants, at least 1000)
- b) Analog input (physical or internal, at least 1000 total)
- c) Analog output (physical or internal, at least 1000 total)
- d) Digital input (physical or internal, at least 1000 total)
- e) Digital output (physical, at least 128)
- f) Index (for indirection and general-purpose use, at least 1000)
- g) Timer/counter (at least 1000 total)
- h) Seconds timer (times in seconds with 10 mS or better resolution, up to 497 days)
- i) Hours timer (times in hours with 2 second or better resolution, up to 272 years)
- j) HMS timer (hours, minutes, seconds format, with 0.5 second or better resolution, up to 68 years)
- k) Event counter (integer value register supporting increment/decrement, range 0 - 4,294,967,295)

The Programmable Pump Controller shall support a pulse counting frequency of at least 1 kHz on a single input.

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3) PID Function

The Programmable Pump Controller shall provide built-in PID (Proportional/Integral/Derivative) control without requiring any procedural programming or subroutine writing. The Programmable Pump Controller shall support the ability to simultaneously execute at least 16 independent PID control loops.

K. Configuration

The Programmable Pump Controller shall be configurable via a configuration table, which shall be changeable both by downloading through a communication port and through the full and limited keyboards. The configuration table shall allow the operator to change virtually all significant operating parameters of the system.

L. Web Server

The Programmable Pump Controller shall include an integrated web server for secured remote customized visualization of process data, including a web server disable feature if not desired. The web server must be able to store all types of documentation and values, and all information must be available using a web browser. The web server must have colorful well-designed screens that clearly show data in real time. The web server must also be able to email alarm notifications to operators and facilities.

M. Communications

The Programmable Pump Controller shall have the ability to simultaneously support at least 3 serial communication ports 1 Ethernet/IEEE 802.3 RJ45 port. Any of these serial ports shall be usable for both communications of telemetry data and control program/configuration upload/download and support baud rates of 230,400 bps or higher. The ports shall be configurable to support the following media:

- Full handshake RS-232 (at least 3 ports must be configurable this way)

In addition to the three (3) RS-232 serial ports, the Programmable Pump Controller shall have one (1) Ethernet port, for a total of four (4) communications channels. All four (4) communications channels shall have the capabilities of independent operation. Each channel shall have the following capabilities:

- Poll/Response
- Quiescent (Unsolicited)

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- Master Polling
- Message Store and Forward
- Automatic Port Escalation with Recovery
- Message Retries
- Communication Statistics and Diagnostics

The Programmable Pump Controller design shall incorporate Ethernet design using 100BASE-T interface and TCP/IP industry standard network protocol with the following features:

- Redundant hot-standby Ethernet (Primary Network and Secondary Fail Over Communications)
- Standard 100BaseT Interface (100Mbps data transmission, over twisted-pair cable with RJ45 connectors)
- Complies to IEEE 802.3 Specifications (Local Area Networks or Wide Area Networks)
- Separate LED Line Status Indicators (Each port to confirm Frame Transmit, Receive, Link, Collision, and Interference)
- Individual IP Configuration (Multi Network Configurations)
- Built-in PING Response (Test connectivity and verification of IP Address)
- Multi-Protocol Support (Modbus TCP/Modbus Serial, Data Express, Data Express Plus)
- Telemetry Message Routing (Communicate across all channels, i.e. RS232 to Ethernet and Ethernet to RS232)

The Programmable Pump Controller must also have USB ports to support uploading/downloading of programs, external USB Drives and the ability to configure ports for additional communications channels.

1) Protocols

The Programmable Pump Controller shall implement the Ethernet/IEEE 802.3 protocol. When the PPC wishes to transmit, it will check for activity on the LAN. When the LAN becomes silent for a specified period, the PPC will begin transmission. During transmission, the PPC will continually check for a collision on the LAN. If a collision is detected, the Programmable Controller will cease transmission. The Programmable Pump Controller will then wait a random period of time before attempting to transmit again.

The Programmable Pump Controller shall support serial communications using at least 3 different protocols. The de facto standard Modbus protocol shall be supported. These protocols shall be able to coexist simultaneously on the same port. The Programmable Pump Controller shall support poll/response, polling master, quiescent, report-by-exception

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and message routing communications, as described in the following sections. Any of these communications modes shall be usable alone or simultaneously in any combination.

2) Polled Slave Communications

The Programmable Pump Controller shall respond as a slave unit in response to polling messages from a master SCADA system or other unit. In this mode the Programmable Pump Controller shall only respond to requests for data and not initiate messages on its own.

3) Polling Master Communications

The Programmable Pump Controller shall initiate polls as a master unit and wait for the response from the slave device.

4) Quiescent Communications

Using quiescent (peer-to-peer) communications, the Programmable Pump Controller shall provide the ability to initiate messages transmitting register values under operator definable conditions.

5) Report by Exception Communications

The Programmable Pump Controller shall support a means of report-by-exception communications, where only those registers of interest that have changed since the last reporting are transmitted.

6) Message Routing

The Programmable Pump Controller shall provide the ability to route received messages that are destined for another unit. The routed message can be received and sent in any combination of communication ports and physical media.

7) Failure Recovery

The Programmable Pump Controller shall have the ability to switch to alternate communications paths in the event of failure of the primary path. There shall be no practical limit on the number of different paths that the Programmable Controller may try to deliver the information.

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8) Redundant Message Elimination

The Programmable Pump Controller shall automatically provide redundant message elimination when peer-to-peer and polled communications are used in combination.

9) Other

The Programmable Pump Controller shall provide a means of enabling/disabling quiescent/polling master message initiation from the keyboard.

N. Engineering Unit Representation

The Programmable Pump Controller shall have the capability to represent all analog input and analog output values directly in engineering units. Engineering units are defined to be "real world" IEEE 754 standard floating-point numbers corresponding to physical measurements, such as level, pressure, depth, and flow. Telemetry communications shall use engineering unit representation in all messages.

O. Calibration and Multipoint Calibration

A simple menu-driven procedure shall be provided that allows the operator to calibrate an analog input or output to an engineering unit measurement scale. This procedure shall be usable from both the full and minimal keyboards. The calibration information shall be upload able and downloadable via a communication port.

P. Single and Multi-Point Test Override

The Programmable Pump Controller shall provide the ability to override I/O and register values for test and other purposes. When in override, the operator shall be able to control the register (set any value or on/off state) independent of the control program or physical input. The value seen by the control program shall be the override value. The operator shall also be able to release all override points at once. When any register is in override, there shall be a visible indication to the operator, regardless of what mode the Programmable Pump Controller is in.

Q. Alarms

The Programmable Pump Controller shall provide alarm flags to be used to indicate application-specific alarm conditions. The Programmable Pump Controller shall provide a common alarm digital output, that can be configured to be any digital output and can be displayed anywhere on the LED annunciators.

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R. Fault Tolerance and Reliability Features

1) Event Logging

The Programmable Pump Controller shall provide a mechanism that reports and logs unusual events and items of interest. The Programmable Pump Controller shall also support viewing of the RAM event log data by transmission via the serial port.

2) Fault Relay

The Programmable Pump Controller shall contain a normally closed fault relay that under normal operation shall be energized by the Programmable Controller to indicate a non-fault state. The fault relay shall go to a fault condition (non-energized) under the following circumstances:

- 12 V DC power failure
- Memory error or other internal operating error

3) Power Up Self-Test

The Programmable Pump Controller shall perform a brief self-test upon application of power, including:

- ROM checksum
- RAM write-protection circuit check
- Write-protected RAM CRC check

4) On Going Self-Test

During normal operation (run or standby modes) the Programmable Controller shall run an ongoing self -test process. The frequency with which the ongoing self -test performs these checks shall be configurable by the operator.

5) Diagnostic Functions

The Programmable Pump Controller shall have the capability to perform self-test diagnostic functions under operator control to verify the integrity of the RAM and ROM inside the unit.

6) Activity Monitoring

The Programmable Pump Controller shall provide a mechanism for selectively viewing activity of certain integral subsystems. Text messages indicating activity shall be directable under operator control to the LED or a communication port.

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7) Power Fail/Brownout Detector

The Programmable Pump Controller shall have an integral hardware device that detects a brownout or imminent power fail condition. Upon detection of the 12V DC power supply voltage dropping below an adjustable threshold, this device shall generate an immediate interrupt signal to the microcontroller.

8) Watchdog Timer

The Programmable Pump Controller shall contain a hardware watchdog timer circuit that will reset the microcontroller within 1 second of detecting a firmware failure.

9) Security

The Programmable Pump Controller shall be capable of being configured to require password entry before access to functions that would change the control characteristics or basic operating mode (run/standby) of the Programmable Pump Controller. Multiple passwords shall be supported, with at least 100 allowed. If the operator does not operate the keyboard within a selectable time period, the Programmable Pump Controller shall log him out automatically. The Programmable Controller shall also support uploading and downloading of password configuration information via the communications ports.

10) Data Archiving

The Programmable Pump Controller shall provide a means of archiving I/O and register values into storage arrays. The Programmable Pump Controller shall also provide direct read access through any communications port to the contents of each data archive. Each sample shall consist of a date and time stamp, and the register value. The Programmable Pump Controller shall also provide functions available through the communications port that allow an external SCADA or other system to reset specific archives and obtain other necessary information about the data archives in use.

11) Remote Control

The Programmable Pump Controller shall have the ability to remotely control other controllers of the same make using any of the communication ports. The operator shall be able to perform at least the following functions on the remote unit by using the local keyboard:

- Examine and change setpoints
- Examine analog input and output registers
- Examine and change timers and counters
- Force digital outputs on and off
- Override analog inputs and outputs
- Change operating mode between Run and Standby

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S. Programming Software

1) General

A free copy of the necessary programming software shall be provided with each Programmable Pump Controller purchased. The software shall be produced, provided, and supported directly by the Programmable Pump Controller manufacturer. No third-party tools will be accepted.

2) Quick Load Software

A fast and easy to use software program shall be available free of charge to Upload and Download from a laptop computer to the controller all calibration points, setpoints, and control programming. A complete user's manual shall be provided which describes the use of all programming software. The latest version of TESCO's Win Bench™ programming software shall be used.

3) OPC Communications Server Software

OPC (OLE for Process Control) communications server program shall be available to poll the programmable controller and serve real-time data values to any OPC compliant client, such as spreadsheets, databases, and SCADA systems. This software shall operate on a computer and shall poll the controller through any maintenance port to gather real-time data of any type and number. Also, the program shall operate remotely to poll for any real-time data in the controller. The program shall have the ability to operate in a multipoint controller environment, up to 100 controllers, with full hardware handshaking to the communications media. The program shall have the ability to display all telemetry message transactions for the communications port and shall utilize protocol disciplines such as retries, communication failures, and automatic communication recovery methods.

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T. Pump Controller I/O Configuration

Analog inputs: Inputs shall be provided for wet well level and individual pump current monitoring. A selector switch shall be provided for each pump to indicate pump current for each phase. As a minimum, a total of 6 analog inputs shall be provided. All inputs are 4-20 m ADC.

Analog outputs: 2 outputs shall be furnished for future use.

Digital Inputs: Inputs shall be provided for primary station power (three phase) failure, DC power failure, alarm acknowledge, high head discharge pressure, panel intrusion, pump hand and auto, seal failure, and overtemperature for each pump. As a minimum, a total of 16 digital inputs shall be provided.

Digital Outputs: 115 VAC triac outputs shall be provided for the common alarm flashing beacon, the bubbler purge compressor, the bubbler purge solenoid valve, each pump motor starter call, and each pump fail. As a minimum, 8 - triac outputs shall be furnished. Alarm LED driver outputs shall be furnished for high and low wet well alarm, high ball float alarm, level transducer fail, and communications fail. As a minimum, 8 LED driver outputs shall be furnished.

U. Pump Controller Functions

Pump Level Control and Alarms: Start and stop of the lift station pumps shall be controlled by the level in the wet well. There shall be an individually adjustable starter setpoint for each pump and a single stop setpoint. The pump start sequence shall be automatically alternated, with alternation on a first on/first off, first off/first on basis. If a pump fails to start, the next pump in sequence is started. High and low wet well alarms and transducer out of range alarms shall also be furnished.

Pump Run and Fail: When a pump is called to run, either through the local hand switch or automatic pump control, a pump run signal shall be generated. If flow is not sensed within an adjustable time period, a pump fail alarm shall be generated.

Bubbler Purge: The Controller shall automatically purge the reactive bell at an operator adjustable time and duration intervals. A manual purge push-button shall be installed to provide the operator capability to manually purge the level monitoring system. Bubbler compressor shall be furnished with a written 10-year warranty.

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Common Alarm: The Controller shall activate the common alarm beacon on occurrence of alarms.

4.04 Radio System

A. General: The radio shall be furnished/installed in the pump control panel and connected to the pump controller communications output port. The existing Jefferson Parish SCADA radio system operates on 4 adjacent 12.5 KHz channel splits in the 928-952 MHz band. The central station transceivers operate through antennas at the EOC tower. The radios shall meet all of FCC part 94 out-of-band emission requirements and shall be capable of transmitting data at 9600 baud, operating half duplex. The radio shall also be capable of communicating with the Jefferson Parish VTSCADA system via a cellular connection.

B. Frequency Plan: Jefferson Parish has FCC licenses to operate four point-to-multipoint radio systems on 12.5 KHz channels in the Power Radio Service on the frequencies shown below:

Master Transmitter East Bank Sewerage 952.45625 MHz

Master Transmitter West Bank Sewerage 952.46875 MHz

Master Transmitter Drainage 952.48125 MHz

Master Transmitter Water 952.49375 MHz

Remote Transmitters East Bank Sewerage 928.45625 MHz

Remote Transmitters West Bank Sewerage 928.46875 MHz

Remote Transmitters Drainage 928.48125 MHz

C. The R.F. equipment furnished under these specifications shall meet or exceed all current FCC requirements for point-to- multipoint radio systems and shall also meet or exceed the following minimum specifications. The R.F. equipment shall be capable of operation on the above listed adjacent 12.5 KHz channels without degradation.

D. The R.F. transmitters shall be directly frequency modulated by a built-in digital modem from the digital data stream furnished by the Pump Controller. The R.F. receivers shall provide a digital data stream to the Pump Controller.

Power Output (at duplex output) +39.0

Dbm Frequency Stability 1.5 PPM

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Modulation Deviation +3.0 KHz

Duty Cycle Continuous

E. Receivers:

Receiver Sensitivity (10 to -6 BERT) -106

Dbm Frequency Stability 1.5 PPM

Modulation Acceptance +3.0 KHz

The radio assembly for each site shall consist of a nonprotected transmitter, receiver, power supply, and digital modem capable of operating in the 928 to 952 MHz band. Each assembly shall be capable of transmitting and receiving digital data at a rate of 9600 Baud over a 12.5 KHz FCC assigned channel. These units shall also meet the following requirements:

1. Each R.F. assembly shall be capable of operation at full performance specifications between -30 and +60 degrees centigrade with a relative humidity of 95 percent measured at +40 degrees centigrade.
2. Each R.F. assembly shall operate from a D.C. power system furnished and installed as a part of the overall installation. Battery tapping of 24-volt power systems to obtain 12 volts will not be permitted.
3. Each R.F. assembly shall be enclosed in a sturdy metal housing suitable for mounting on the back plate of the Pump Controller enclosure with stainless steel hardware in such a manner as to permit easy removal of the radio assembly for service and/or replacement

F. Antenna systems shall be furnished and installed in accordance with the following

specifications. The antennas for all sites shall be heavy duty Yagi type, meeting the following minimum specifications:

Frequency Range 928 to 960 MHz

Forward Gain 10Dbd

Front-to-Back Ratio 20Db

VSWR Vertical

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Impedance 50 Ohms

Horizontal Beamwidth 60 Degrees (half power point)

Input Power 50 Watts

Wind Rating 150 MPH Survival (no ice)

Lighting Protection Direct Ground

Input Connector Type "N", Female

Mounting brackets shall be steel and shall be hot-dip galvanized after fabrication. All mounting hardware shall be stainless steel. Antennas at sites with wooden support poles shall be installed so that the 2-inch aluminum mast at the top of the pole extends over the top of the antenna by a minimum of 6 inches.

Note: Antenna mast and pole is not required to be furnished with the telemetry system.

- G. Transmission lines shall be Andrew Corporation Heliac Type LDF4-50A ½ inch diameter foam dielectric coaxial cable, or approved equal. The coaxial cable shall be encased in a black polyethylene outer jacket. Connection shall be Type "N" male. 100 feet of coaxial cable is required with each antenna furnished.

- H. Cellular Connection: The radio system shall be capable of communicating with the Jefferson Parish VTSCADA system via a cellular connection. The Contractor shall be responsible for providing the radio system with a one-year cellular plan, and include setup of the private network that will segregate SCADA data from public interests.

Radio: Radio equipment shall be GE MDS Orbit LN series. The approved radio devices are listed below.

MXNCL9CN4G1N1S2FASUNN Orbit MCR LN9 Licensed Narrowband + 4G LTE North America Verizon with GPS, 1 Ethernet 2 Serial

Contractor shall coordinate the details of the radio system to be provided with Jefferson Parish prior to purchase.

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4.05 Battery Backup

Battery back-up system shall be correctly sized to power the Controller, radio, and I/O system for a minimum of 8 hours. Batteries shall be sealed gel cell type lead acid.

4.06 Primary Reactive Air Level Monitoring System™

The primary level monitoring shall be a Reactive Air System Level Monitoring System™ as manufactured by TESCO Controls, Inc. and shall consist of an air compressor, compression bell, 3-way solenoid valve, and level transducer. The level transducer senses the back pressure of the static air column set up in the compression bell that is periodically replenished by the purge air compressor. The compression bell shall be 316 stainless steel, as specified, and be designed for resistance to buildup of foreign material. The compression bell shall also be designed to travel within a PVC-type stilling well. The stilling well, which is not part of the Reactive Air Level Monitoring System™, and therefore not subject to be supplied by the level monitoring system supplier, shall be 4-inch PVC conduit to match the depth of the wet well. The stilling well shall have several holes in various locations on the PVC. Holes shall be punched to allow flow of liquid into and out of the stilling well. The specially designed programmed multi-cycle cleaning system shall prevent the compression bell from plugging while minimizing compressor run time. The reactive air control shall also provide a means of manually actuating the purging cycle when immediate purging and cleaning is necessary. Compressors shall start against a 250-psi head and shall be furnished with a written 10-year warranty.

4.07 Reactive Air Level Monitoring System™ – Redundant Backup

A control system back up Reactive Air Level Monitoring System™ air bell shall be provided, with stainless steel mounting hardware. The air bell shall be 6 inches in diameter, with ¼ inch parflex tubing run continuously to the Pump Control Panel. The bottom of the bell shall be furnished with a “pointed cone “wire stainless steel mesh to prevent entry of grease or debris into the bell. A pressure switch mounted in the Pump Control Panel shall operate both pumps on high level and stop the pumps on low level (below the bottom of the bell). Back up control system will only operate if the Programmable Pump Controller (PPC) is inoperable. Back-up Reactive Air Level Monitoring System™ air bell shall be mounted as specified.

PART 5: QUALITY ASSURANCE

5.01 Pump Control Panel Supplier Responsibility

In order to assume electrical and control system responsibility, the above specified Pump Control Panel and level monitoring systems shall be furnished and coordinated by the pump supplier to form a single source of responsibility for the entire pumping system.

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5.02 Warranty

Pump Control Panel components shall carry a full one (1) year replacement warranty from date of owner acceptance. Programmable Pump Controller and level control system shall carry a ten (10) year full, non-prorated replacement warranty.

DATE: 8/2/2023

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

BID NO.: 50-00142593

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

BUYER: DABRAHAM@jeffparish.net

BIDS WILL BE RECEIVED ONLINE VIA WWW.JEFFPARISHBIDS.NET UNTIL 2:00 PM, 8/22/2023 AND PUBLICLY OPENED THEREAFTER IN THE WEST BANK PURCHASING DEPT, SUITE 4400, JEFFERSON PARISH GENERAL GOVERNMENT BUILDING, 200 DERBIGNY STREET, GRETNA, LA 70053. At no charge, bidders are to submit via Jefferson Parish's electronic procurement page by visiting www.jeffparishbids.net to register for this free site. Additional instructions are included in the text box highlighting electronic procurement.

LATE BIDS WILL NOT BE ACCEPTED

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION. HOWEVER, ELECTRONIC SIGNATURES AS DEFINED IN LSA - R.S. 9:2620(8) ARE ACCEPTABLE. SIGNATURE MUST BE A SECURED DIGITAL SIGNATURE.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

THE FOLLOWING INSTRUCTIONS APPLY TO ALL BIDS

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647 as amended.

Jefferson Parish adheres to the Louisiana Code of Governmental Ethics, contained in Louisiana Revised Statutes Annotated, R.S. 42:1101, et seq. Vendor/Proposer by this submission, warrants that there are no "conflicts of interest" related to this procurement that would violate applicable Louisiana Law. Violation of the Louisiana Code of Governmental Ethics may result in rescission of contract, permit or licenses, and the imposition of fines and/or penalties, without contractual liability to the public in accordance with applicable law.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Vendors may experience a delay in payment if your company is not a registered vendor with Jefferson Parish.

All quotations shall be based on F.O.B. Agency warehouse or job site, anywhere within the Parish as designated by the Purchasing Department. This provision does not apply to public works projects

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alterations from the specifications must be indicated and/or supporting documentation supplied with bid submission.

Bidders should submit all questions in writing via email to the buyer's email address as indicated above, no later than Five (5) working days prior to the bid opening. Bid numbers should be mentioned in all requests. If submitting online, vendors may send questions via the E-Procurement site no later than Five (5) working days prior to the bid opening.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum. Please note that all official communication will be expressed in the form of an addendum.

Visit our website at [HTTP://PURCHASING.JEFFPARISH.NET](http://PURCHASING.JEFFPARISH.NET)

All formal Addenda require written acknowledgement on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected. JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. Vendors must not alter the bid forms. Doing so will cause the bid to be rejected.

A corporate resolution or written evidence of the individual signing the bid having such authority must be submitted with the bid. Failure to comply will cause bid to be rejected. For corporate entities, such written evidence may be a printout of the Louisiana Secretary of State's website listing the signatory as an officer. Such printout shall be included with the bid submission. Bids submitted by Owners or Sole Proprietorships must include certification that he or she owns the entity for which the bid is signed. This documentation must be submitted with the bid. Failure to do so will result in bid rejection.

NOTE: A sample corporate resolution can be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document. A sample certification of sole proprietorship can also be downloaded from our website <http://purchasing.jeffparish.net> or you may provide your own document.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

A. AWARD OF CONTRACT: JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE. SPLIT AWARDS MADE TO SEVERAL VENDORS WILL ONLY BE GRANTED TO THOSE DEEMED RESPONSIVE AND RESPONSIBLE.

All bid prices shall remain valid for 45 days. Jefferson Parish and the lowest responsive and responsible bidder(s) by mutual written consent may mutually agree to extend the deadline for award by one (1) or more extensions of thirty (30) calendar days.

PROTESTS: Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

PREFERENCE: Unless federal funding is directly spent by Jefferson Parish for this purchase, preference is hereby given to materials, supplies, and provisions produced, manufactured or grown in Louisiana, quality being equal to articles offered by competitors outside the state. "LSA – R.S. 38:2251-2261"

B. USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

C. CANCELLATION OF CONTRACT: JEFFERSON PARISH reserves the right to cancel all or any part if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel any contract at anytime and for any reason by issuing a THIRTY (30) day written notice to the contractor.

For good cause and as consideration for executing a contract with Jefferson Parish, vendor conveys, sells, assigns and transfers to Jefferson Parish or its assigns all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Louisiana, relating to the particular good or services purchased or acquired by Jefferson Parish.

D. PRICES: Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and local taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A17.1-1961).

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

The purpose and intention of this invitation to bid is to afford all suppliers an equal opportunity to bid on all construction, maintenance, repair, operating supplies and/or equipment listed in this bid proposal. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications.

Advertised bids will be tabulated and a copy of the tabulation will be forwarded to each responding bidder.

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Bidders are to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

The general specifications for construction projects and the purchase of materials, services and/or supplies are those adopted by the JEFFERSON PARISH Council by Resolution No. 113646 or 113647 as amended. The general conditions adopted by this resolution shall be considered as much a part of this document as if they were written wholly herein. A copy may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at <http://purchasing.jeffparish.net> and clicking on Online Forms.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

10, 13, 15

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(I), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid electronic envelope. Failure to comply will cause the bid to be rejected. When submitting the bid electronically, the license number must be entered in the appropriate field in the electronic procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precaution must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Failure to comply with this instruction will result in bid rejection.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. All sureties must be in original format (no copies) When submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA – RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.

17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which is permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment."). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owed on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish to contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment, and report to Owner the amount of taxes not incurred.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission: and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to JPCO 2-155.10(19). By signing this document, every corporation, partnership, or person contracting with PARISH, whether by cooperative endeavor, intergovernmental agreement, bid, proposal, application or solicitation for a parish contract, and every application for certification of eligibility for a parish contract or program, attests that it understands and will abide by all provisions of JPCO 2-155.10.

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES _____ NO _____

MAXIMUM ESCALATION PERCENTAGE REQUESTED _____%

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF _____.

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES _____

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: _____

ADDRESS: _____

CITY, STATE: _____ ZIP: _____

TELEPHONE: () _____ FAX: () _____

EMAIL ADDRESS: _____

In the event that addenda are issued with this bid, bidders **MUST** acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form by placing the addendum number as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: _____

NUMBER: _____

NUMBER: _____

NUMBER: _____

TOTAL PRICE OF ALL BID ITEMS: \$ _____

AUTHORIZED

SIGNATURE: _____

Printed Name

TITLE: _____

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00142593

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	1.00	LOT	<p>A Purchase of a Pump Package for Improvements to Midway and Soniat (E3-1) Sewerage Lift Station for the Department of Sewerage</p> <p>0001 - PUMP PACKAGE FOR IMPROVEMENTS TO MIDWAY AND SONIAT (E3-1) SEWERAGE LIFT STATION</p> <p>TO INCLUDE THE FOLLOWING:</p> <p>SUBMERSIBLE SOLIDS HANDLING SEWER PUMPS</p> <p>THREE (3) FAIRBANKS MORSE 14"- D5431MV, 200HP, 1200 RPM HEAVY DUTY SUBMERSIBLE PUMPS, EACH PRODUCING 6,260 GPM AT 58L THD, EACH DRIVEN BY ONE (1) INVERTER DUTY, EXPLOSION PROOF SUBMERSIBLE MOTOR, 75' POWER/SENSOR CORDS AND STANDARD FACTORY FINISH</p> <p>THREE (3) 14" PUMP BASE ELBOWS</p> <p>THREE (3) SETS OF SS UPPER AND LOWER GUIDE RAIL BRACKETS</p> <p>VFD PUMP CONTROL PANEL</p> <p>ONE (1) TESCO TRIPLEX VFD PUMP CONTROL PANEL</p> <p>SEE ATTACHED SPECIFICATIONS **</p> <p>FOR SITE VISITS, PLEASE CONTACT: JASON SMITH 504-736-6680</p>	<p>\$</p> <hr/>	<p>\$</p> <hr/>

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF

INCORPORATED.

AT THE MEETING OF DIRECTORS OF _____
INCORPORATED, DULY NOTICED AND HELD ON _____,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS:

RESOLVED THAT _____, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE ABOVE
DATED MEETING OF THE BOARD OF
DIRECTORS OF SAID CORPORATION, AND
THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.

SECRETARY-TREASURER

DATE

Non-Public Works Bid Affidavit Instructions

- **Affidavit is supplied as a courtesy to Affiants, but it is the responsibility of the affiant to insure the affidavit they submit to Jefferson Parish complies, in both form and content, with federal, state and parish laws.**
- **Affidavit must be signed by an authorized representative of the entity or the affidavit will not be accepted.**
- **Affidavit must be notarized or the affidavit will not be accepted.**
- **Notary must sign name, print name, and include bar/notary number, or the affidavit will not be accepted.**
- **Affiant MUST select either A or B when required or the affidavit will not be accepted.**
- **Affiants who select choice A must include an attachment or the affidavit will not be accepted.**
- **If both choice A and B are selected, the affidavit will not be accepted.**
- **Affidavit marked N/A will not be accepted.**
- **It is the responsibility of the Affiant to submit a new affidavit if any additional campaign contributions are made after the affidavit is executed but prior to the time the council acts on the matter.**

Instruction sheet may be omitted when submitting the affidavit

Non-Public Works Bid

AFFIDAVIT

STATE OF _____

PARISH/COUNTY OF _____

BEFORE ME, the undersigned authority, personally came and appeared: _____
_____, (Affiant) who after being by me duly sworn, deposed and said that
he/she is the fully authorized _____ of _____ (Entity),
the party who submitted a bid in response to Bid Number _____, to the Parish of
Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B _____ there are **NO** campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B _____ There are **NO** debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

[The remainder of this page is intentionally left blank.]

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Signature of Affiant

Printed Name of Affiant

SWORN AND SUBSCRIBED TO BEFORE ME

ON THE _____ DAY OF _____, 20__.

Notary Public

Printed Name of Notary

Notary/Bar Roll Number

My commission expires _____.

STANDARD INSURANCE REQUIREMENTS FOR BIDDING PURPOSES

All required insurance under this bid shall conform to Jefferson Parish Resolution No. 113646 or No. 113647, as applicable. Contractors may not commence any work under any ensuing contract unless and until all required insurance and associated evidentiary requirements thereto have been met, along with any additional specifications contained in the **Invitation to Bid**. Except as where otherwise precluded by law, the Parish Attorney or his designee, with the concurrence of the Director of Risk Management or his designee, may agree on a case-by-case basis, to deviate from Jefferson Parish's standard insurance requirements, as provided in this Section. Vendors requesting deviation therefrom shall submit such requests in writing, along with compelling substantiation, to the Purchasing Department prior to the bid's due date. Any changes to the insurance requirements will be reflected in the bid specifications and addenda. Prior to contract execution and at all times thereafter during the term of such contract, contractors must provide and continuously maintain all coverages as required by the foregoing Resolutions, and the contract documents. Failure to do so shall be grounds for suspension, discontinuation or termination of the contract.

For bidding purposes, bidders must submit with bid submission a current (valid) insurance certificate evidencing the required coverages. Failure to comply will cause bid to be rejected. The current insurance certificate will be used for proof of insurance at time of evaluation. Thereafter, and prior to contract execution, the low bidder will be required to provide final insurance certificates to the Parish which shall name **the Jefferson Parish, its Districts Departments and Agencies under the direction of the Parish President and the Parish Council** as additional insureds regarding negligence by the contractor for the Commercial General Liability and the Comprehensive Automobile Liability policies. Additionally, said certificates should reflect the name of the Parish Department receiving goods and services and reference the respective Jefferson Parish bid number.

JEFFERSON PARISH REQUIRED STANDARD INSURANCE

WORKER'S COMPENSATION INSURANCE

As required by Louisiana State Statute, exception; Employer's Liability, Section B shall be \$1,000,000 per occurrence when Work is to be over water and involves maritime exposures to cover all employees not covered under the State Worker's Compensation Act, otherwise this limit shall be no less than \$500,000 per occurrence.

Note: If your company is not required by law to carry workmen's compensation insurance, i.e. not a Louisiana company, sole employee of the company, then bidders must request a workmen's compensation insurance declaration affidavit prior to the bid opening date. This insurance declaration affidavit must be fully completed, signed, properly notarized and submitted with the bid. A scanned copy may be submitted with the bid; however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being

rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

COMMERCIAL GENERAL LIABILITY

Shall provide limits not less than the following: \$1,000,000.00 Combined Single Limit per Occurrence for bodily injury and property damage.

COMPREHENSIVE AUTOMOBILE LIABILITY

Bodily injury liability \$1,000,000.00 each person; \$1,000,000.00 each occurrence.
Property Damage Liability \$1,000,000.00 each occurrence.

Note: This category may be omitted if bidders do not/will not utilize company vehicles for the project or do not possess company vehicles. Bidder must request an automobile insurance declaration affidavit prior to the bid opening date. This insurance declaration affidavit must be fully completed, signed, properly notarized and submitted with the bid. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid; however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.

DEDUCTIBLES - The Parish Attorney with concurrence of the Director of Risk Management have waived the deductible section of the Terms and Conditions for all Invitations to Bid, until further notice.

UMBRELLA LIABILITY COVERAGE

An umbrella policy or excess may be used to meet minimum requirements.

FOR CONSTRUCTION AND RENOVATION PROJECTS:

The following are required if selected below. Such insurance is due upon contract execution.

OWNER'S PROTECTIVE LIABILITY

To be for the same limits of liability for bodily injury and property damage liability established for commercial general liability.

BUILDER'S RISK INSURANCE

The contractor shall maintain Builder's Risk Insurance at his own expense to insure both the owner (Parish of Jefferson) and contractor as their interest may appear.