City of Orange Beach
ALABAMA
Life is better here

PUBLIC NOTICE

INVITATION TO BID

Sealed bids will be received, opened, and read aloud in public session for the purchase of **SUBMERSIBLE PUMPS** for the **CITY OF ORANGE BEACH, ALABAMA**, at **11:00 A.M. on Thursday, February 1, 2018**, at the City Hall Municipal Complex located at 4099 Orange Beach Blvd., Highway 161, Orange Beach, Alabama.

Bid specifications may be obtained from Orange Beach City Hall, 4099 Orange Beach Blvd., Orange Beach, Alabama, Monday through Friday from 8:00 a.m. until 5:00 p.m., or downloaded from the City's website at www.orangebeachal.gov.

Sealed bids may be mailed or delivered directly to the City of Orange Beach prior to the public opening. All sealed bids must be clearly and legibly marked "SEALED BID," the bidder's name, the name of the bid, and the opening date and time. Contact Renee Eberly at (251) 981-6806 or reberly@cityoforangebeach.com with any questions.

Sealed bids must be mailed to the following address:

City of Orange Beach
Attention: City Clerk
P.O. Box 458
Orange Beach, Alabama 36561

Or hand delivered to:

City of Orange Beach
Attention: City Clerk
4099 Orange Beach Blvd.
Orange Beach, Alabama 36561

Be advised that overnight delivery by express or courier to Orange Beach is not guaranteed. Faxed bids will not be accepted.

The lowest responsive, responsible bid will be accepted with key consideration based upon best value and benefit to the public. The City of Orange Beach reserves the right to reject any and all bids, to waive any irregularity in the bids received, and to accept or reject any items of the bid for the benefit of the public. No conditional bids will be accepted. No bid may be withdrawn for a period of thirty (30) days after the scheduled closing date and time for the receipt of bids.

THE CITY OF ORANGE BEACH, ALABAMA

City of Orange Beach
ALABAMA
Life is better here

INVITATION TO BID
Requisition No. 2018-0201

INVITATION TO BID DATE:	**January 10, 2018**
BID TITLE:	**Submersible Pumps**
PLACE OF BID OPENING:	**City of Orange Beach, City Hall, 4099 Orange Beach Blvd.**
BIDS MUST BE RECEIVED BEFORE:	**February 1, 2018 at 11:00 A.M. (Central)**
BIDS WILL BE PUBLICLY OPENED:	**February 1, 2018 at 11:00 A.M. (Central)**

Sealed bids will be received by the City of Orange Beach at the Office of the City Clerk located at Orange Beach City Hall until the above time and date at which time they will be opened as soon thereafter as practicable.

NOTE: For this bid to be considered responsive, all information in this section should be supplied, as appropriate, or the entire bid may be disqualified. Bid response must be in ink or typed with original signature. No errors will be corrected after bids are opened. No prices shall include State or Federal Exercise Taxes; tax exemption certificates furnished upon request. The City of Orange Beach reserves the right to accept or reject all bids or any portion thereof. The City reserves the right to require a bid bond, in which case specific information shall be provided the bid documents.

ALL BIDS MUST BE RETURNED AS FOLLOWS:
All bidders must use the bid form provided in the bid documents and show on the envelope "SEALED BID," the bid title, the bidder's name, and the opening date and time. Each bid must be in a separate envelope.

U.S. Postal Service
City of Orange Beach
Attention: City Clerk
P.O. Box 458
Orange Beach, Alabama 36561

Courier (UPS, FedEx, etc.)
City of Orange Beach
Attention: City Clerk
4099 Orange Beach Blvd.
Orange Beach, Alabama 36561

1. For the purchase or lease of personal property only, a resident person, firm or corporation, whose bid is no more than five percent (5%) greater than the lowest bid, may be the successful bidder and the contract may be awarded to such resident responsible bidder. A resident bidder is defined by the City Council of Orange Beach as any business located within Baldwin County.

2. Contact Gary McMillan, Engineer at 251-747-0869/gmcmillan@cityoforangebeach.com for questions concerning the technical specifications.

3. Contact Renee Eberly, City Clerk/Procurement Officer at 251-981-6806/reberly@cityoforangebeach.com for questions concerning technical specifications or general bid procedures.

City of Orange Beach
ALABAMA
Life is better here

BID FORM – SUBMERSIBLE PUMPS

Item	Qty	Description	Unit Price	Extended Price
C-1	2	Submersible Pumps, as specified Make/Model: _____	$_____	$_____
C-2	2	4" Cast Iron Discharge Connections	$_____	$_____
C-3	8	¾" Chem Stud Anchor Bolts	$_____	$_____
C-4	8	Chem Stud Capsules	$_____	$_____
C-5	2	2" Stainless Steel Upper Guide Bar Bracket	$_____	$_____
C-6	4	2" Stainless Steel Guide Rails	$_____	$_____
C-7	2	Stainless Steel Lifting Chain	$_____	$_____
C-8	1	Duplex Pump Control Panel, as specified	$_____	$_____
		Delivery: FOB Destination		$_____
		Startup Assistance		$_____
			BID TOTAL	$_____

Warranty
Manufacturer warranties shall be provided in writing and shall specify any and all exclusions, including parts and labor. If such warranties are provided at additional cost, the incremental cost must be so specified. The procedure necessary to notify such warranty must be specified. Any additional charges relating to the utilization of the warranty provided must be specified.

Documentation:
Specifications for the proposed equipment must be attached to the bid.

City of Orange Beach
ALABAMA
Life is better here

The bidder acknowledges receipt of the following addenda covering revisions to the bid documents, and states that the costs, if any, of such revisions have been included in the base bid and other prices quoted herein:

Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____

Note: If no addenda have been received, write in "none."

Company Name	Company Representative
Street Address	Title
City, State, Zip	Phone
Federal Employer ID No. *(if no FEIN, enter SSN)*	Email

I/we agree to furnish at the prices shown and guarantee that each offered will meet or exceed all specifications, terms and conditions, and requirements listed. This is the total price and includes all delivery or freight charges to the City of Orange Beach. Any attachment hereto is made and becomes a part of this inquiry and must be signed by the bidder. I herein affirm that I have not been in any agreement or collusion among bidders in restraint of competition to bid at a fixed price or to refrain from bidding otherwise. By signing this contract, the company represents and agrees that it is not currently engaged in, nor will it engage in, any boycott of a person or entity based in or doing business with a jurisdiction with which the State of Alabama can enjoy open trade.

SWORN TO AND SUBSCRIBED
BEFORE ME THIS DAY OF
_____, 20_____.

	Company Name	Authorized Signature (INK)
	Mail Address	Typed Authorized Name
Notary Public	City, State, Zip	Title
Commission Expires	Phone Including Area Code	Fax Number

PAGES 3 & 4 MUST BE RETURNED IN SEALED BID

BID SPECIFICATIONS

A. Scope of Work

The successful bidder shall provide Submersible Pumps per the following bid specifications to the Orange Beach Utilities Department. Bid total shall be firm, net, delivered pricing, and shall include the cost of all equipment, freight, and startup services. The City of Orange Beach is tax exempt.

B. Use of Brand Names in Bid

The use of any brand name and/or product numbers is to establish industry standards and minimum specifications. Other brands may be considered for review if detailed product information and specifications outlining any and all differences are included in the bid.

C. Minimum Specifications

All equipment shall be new and unused. All equipment shall meet or exceed current industry standards. Item specifications listed below shall be construed as a minimum. Should manufacturer's current published data or specifications exceed these, such standards shall be considered minimum and furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished

C-1 Two (2) Submersible Pumps – Flygt NP3127-487, or Equal

Rated to deliver 100 gpm at 90' tdh driven by a 10hp motor suitable for operation on 230/3/60 service. Each pump shall have a hard iron impeller and insert ring, as shall all of the following accessories.

C-2 Two (2) 4" Cast Iron Discharge Connection

C-3 Eight (8) ¾" Chem Stud Anchor Bolts

C-4 Eight (8) Chem Stud Capsules

C-5 Two (2) 2" Stainless Steel Upper Guide Bar Brackets

C-6 Four (4) 2" Stainless Steel Guide Rails

C-7 Two (2) Stainless Steel Lifting Chains

C-8 One (1) Duplex Pump Control Panel

To control the above referenced pumps in a pump down mode. The panel shall contain inverters to convert 230/1/60 power to 230/3/60 power and shall include the following:

- SC100 duplex controller
- HOA switches, run lights, and elapsed time meter for each pump
- Control circuit breaker
- High level alarm light
- Phase monitor
- Surge arrestor
- Submersible transducer
- Two (2) float back up pump controls

Pumps and control panel are further specified as follows:

Requirements

Furnish two (2) submersible non-clog wastewater pumps as specified herein. The pumps shall be similar to existing 10hp pumps in the wastewater system as to allow these pumps to mate to existing slide rail systems in case needed. Each pump shall be equipped with a 10 HP, submersible electric motor connected for operation on 230 volts, 3 phase, 60 hertz service, with 50 feet of submersible cable (SUBCAB) suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA standards and also meet with P-MSHA Approval.

Pump Design Configuration

The pump shall be supplied with a mating cast iron 4 inch discharge connection and be capable of delivering 100 GPM at 90 FT. TDH. Any additional points on the same curve shall be 250 GPM at 80 feet total head. Shut off head shall be 102 feet (minimum). The pumps shall be automatically and firmly connected to the discharge connection, guided by no less than two guide bars extending from the top of the station to the discharge connection. There shall be no need for personnel to enter the wet-well. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal watertight contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable. No portion of the pump shall bear directly on the sump floor. Each pump shall be fitted with 20 feet of stainless steel lifting chain. The working load of the lifting system shall be 50% greater than the pump unit weight.

Pump Construction

Major pump components shall be of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. The lifting handle shall be of stainless steel. All exposed nuts or bolts shall be AISI type 316 stainless steel construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile or optional Viton rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit.

Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

Cooling System

Motors are sufficiently cooled by the surrounding environment or pumped media. A water cooling jacket is not required.

Cable Entry Seal

The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal. The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the body containing a strain relief function, separate from the function of sealing the cable. The assembly shall provide ease of changing the cable when necessary using the same entry seal.

Motor

The pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95%. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31.The stator shall be heat-shrink fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 40°C (104°F) and capable of no less than 30 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of cast aluminum. Thermal switches set to open at 125°C (260°F) shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel. The motor and the pump shall be produced by the same manufacturer.

The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15. The motor shall have a voltage tolerance of plus or minus 10%. The motor shall be designed for operation

up to 40°C (104°F) ambient and with a temperature rise not to exceed 80°C. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics. The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

The motor shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any splices. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

Bearings

The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable. The minimum L10 bearing life shall be 50,000 hours at any usable portion of the pump curve.

Mechanical Seal

Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydro-dynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating, corrosion and abrasion resistant tungsten-carbide ring. The upper, secondary seal unit, located between the lubricant chamber and the motor housing, shall contain one stationary and one positively driven rotating, corrosion and abrasion resistant tungsten-carbide seal ring.

Each seal interface shall be held in contact by its own spring system. The seals shall require neither maintenance nor adjustment nor depend on direction of rotation for sealing. The position of both mechanical seals shall depend on the shaft. Mounting of the lower mechanical seal on the impeller hub will not be acceptable. For special applications, other seal face materials shall be available.

The following seal types shall not be considered acceptable or equal to the dual independent seal specified: shaft seals without positively driven rotating members, or conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces. No system requiring a pressure differential to offset pressure and to effect sealing shall be used.

Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication. The motor shall be able to operate dry without damage while pumping under load.

Where a seal cavity is present in the seal chamber, the area about the exterior of the lower mechanical seal in the cast iron housing shall have cast in an integral concentric spiral groove. This groove shall protect the seals by causing abrasive particulate entering the seal cavity to be forced out away from the seal due to centrifugal action.

Seal lubricant shall be FDA Approved, nontoxic.

Pump Shaft

Pump and motor shaft shall be the same unit. The pump shaft is an extension of the motor shaft. Couplings shall not be acceptable. The pump shaft shall be stainless steel – ASTM A479 S43100-T.

If a shaft material of lower quality than stainless steel – ASTM A479 S43100-T is used, a shaft sleeve of stainless steel – ASTM A479 S43100-T is used to protect the shaft material. However, shaft sleeves only protect the shaft around the lower mechanical seal. No protection is provided in the lubricant housing and above. Therefore, the use of stainless steel sleeves will not be considered equal to stainless steel shafts.

Impeller

The impeller shall be of Hard-Iron™ (ASTM A-532 (Alloy III A) 25% chrome cast iron), dynamically balanced, semi-open, multi-vane, back swept, screw-shaped, non-clog design. The impeller leading edges shall be mechanically self-cleaned automatically upon each rotation as they pass across a spiral groove located on the volute suction. . The internal volute bottom shall provide effective sealing between the pump volute and the multi-vane, semi-open impeller. The sharp spiral groove(s) shall provide the shearing edge(s) across which each impeller vane leading edge shall cross during its rotation in order to remain unobstructed. The clearance between the internal volute bottom and the impeller leading edges shall be adjustable. The impeller shall move axially upwards to allow larger debris to pass through and immediately return to normal operating position.

Volute / Suction Cover

The pump volute shall be a single piece grey cast iron, ASTM A-48, Class 35B, non-concentric design with smooth passages of sufficient size to pass any solids that may enter the impeller. Minimum inlet and discharge size shall be as specified. The volute shall have a replaceable suction cover insert ring in which are cast spiral-shaped, sharp-edged groove(s). The spiral groove(s) shall provide trash release pathways and sharp edge(s) across which each impeller vane leading edge shall cross during rotation so to remain unobstructed. The insert ring shall be cast of Hard-Iron™ (ASTM A-532 (Alloy III A) 25% chrome cast iron) when used with Hard-Iron™ impellers and provide effective sealing between the multi-vane semi-open impeller and the volute housing.

Protection

All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. The thermal switches shall open at 125°C (260°F), stop the motor and activate an alarm.

A leakage sensor shall be available as an option to detect water in the stator chamber. The Float Leakage Sensor (FLS) is a small float switch used to detect the presence of water in the stator chamber. When activated, the FLS will stop the motor and send an alarm both local and/or remote. USE OF VOLTAGE SENSITIVE SOLID STATE SENSORS AND TRIP TEMPERATURE ABOVE 125°C (260°F) SHALL NOT BE ALLOWED.

The thermal switches and FLS shall be connected to a Mini CAS (Control and Status) monitoring unit. The Mini CAS shall be designed to be mounted in any control panel.

Control Panel

General:

The control system shall be designed to operate the required number of pumps specified on the drawing at the power characteristics shown on the plans.

The control function shall provide for the operation of the pumps under normal conditions, and shall alternate the pumps on each pump down cycle to equalize the run time. In the event the incoming flow exceeds the pumping capacity of the lead pump, subsequent pumps shall automatically start to handle the increased flow. As the flow decreases, the pumps shall cut off at the elevations as shown on the plans.

The control shall function as described below. The equipment listed below is a guide and does not relieve the supplier from supplying a system that will function as required.

Mechanical:

The enclosure shall be a NEMA 4X Stainless steel enclosure. The enclosure shall be a wall mount type with a minimum depth of 10" sized to adequately house all the components. Enclosures larger than 60” high x 36” wide shall be provided with 12” high leg stands. The enclosure door gaskets shall be rubber composition with a retainer or seamless foamed in place to assure a positive weatherproof seal. The gasket material shall not retain memory. The door shall open a minimum of 180 degrees.

A polished aluminum dead front inner door shall be mounted on a continuous aircraft type hinge and shall contain cutouts for mounted equipment and provide protection of personnel from live internal wiring. Cutouts for breaker handles shall be provided to allow operation of breakers without entering the compartment. All control switches, indicator pilot lights, elapsed time meters, and other operational devices shall be mounted on the external surface of the dead front. The dead front shall open a minimum of 150 degrees to allow access to equipment for maintenance. A 3/4" break shall be formed around the perimeter of the dead front to provide rigidity.

The back plate shall be manufactured of 12 gauge sheet steel and be finished with a primer coat and two (2) coats of baked on white enamel. All hardware mounted to the subpanel shall be accomplished with machine thread tapped holes. Sheet metal screws are not acceptable. All devices shall be permanently identified using engraved name plates. Use of DYMO type labels is not acceptable

Electrical:
The panel power distribution shall include all necessary components and be completely wired with tinned, stranded copper conductors rated at 90°C. All conductor terminations shall be as recommended by the device manufacturer.

All circuit breakers shall be heavy duty thermal magnetic or motor circuit protectors similar and equal to SQUARE D type HDL. Each motor breaker shall be adequately sized to meet the pump motor operating characteristics and shall have a minimum of 25,000 amps interrupting capacity for 230 VAC and 18,000 amps at 480 VAC. The control circuit shall individually be controlled by a heavy duty breaker.

Circuit breakers shall be indicating type, providing "on-off-trip" positions of the operating handle. When the breaker is tripped automatically, the handle shall assume a middle position indicating "trip".

Thermal magnetic motor breakers shall be quick-make and quick-break on manual and automatic operation and have inverse time characteristics secured through the use of bimetallic tripping elements supplemented by a magnetic trip.

Breakers shall be designed so that an overload on one pole automatically trips and opens all legs. Field installed handle ties shall not be acceptable.

A phase converter (PC) will be supplied that will convert single phase power into three phase power to operate a pump or motor. The PC is a variable frequency drive (VFD) oversized to run a pump or motor at sixty hertz when the run command is received. The (PC) will be preprogrammed to match the electrical characteristics of each pump.

Control transformers shall be provided to provide the 120 VAC and/or 24 VAC for control circuits when required. Transformers shall be fused on the primary and secondary circuits. The secondary windings shall be grounded.

A lightning-transient protector with tell-tale warning lights on each phase to indicate loss of protection on the individual phases shall be provided. The device shall be solid state with a response time of less than 5 nanoseconds with withstanding surge capacity of 6500 amperes. Unit shall be instant recovery, long life and have no holdover currents.

The Phase Monitor shall be a 12 pin, plug in style unit. The Phase Monitor shall monitor Under Voltage, Phase Reversal, Loss of Power and Phase Imbalance. The motor starter circuits shall be de-energized upon sensing of any of the faults and shall automatically restore service upon return to normal power. The Phase Monitor shall be available to monitor Over Voltage as an option. The output relay shall be DPDT rated at 10A at 240 VAC. The Phase Monitor shall be model 001-230-1212, or model 001-480-1212 as manufactured by Motor Protection Electronics, Apopka, Florida.

Alarm System:
The alarm light shall be a weatherproof, shatterproof, red light fixture with a 40 watt bulb to indicate alarm conditions. The alarm light shall be turned on by the high level alarm and flash until the condition has been corrected. An open contact shall be provided for remote monitoring.

The alarm horn shall be mounted on the exterior of the cabinet. The alarm horn shall provide a signal of not less than 90db at 10 feet. The alarm horn shall not degrade the listing of the enclosure. An alarm silence switch shall deactivate the alarm horn; however, the alarm light will flash until the alarm condition ceases to exist. At that time the alarm reset function will reset for normal operation.

Level Control System:
A duplex pump controller shall be provided with analog input for level control. The controller shall contain four output 10 amp relays for pump call, and for low and high level alarms. A regulated 24VDC power supply shall be provided for powering a pressure transducer circuit. The controller shall include a red LED vertical bar graph to display the level as well as pump call and alarm levels. LED's shall be provided for level setting and simulation. The controller shall include a 10 second power-up and a 5 second lag pump delay to prevent pump operation immediately after a power interruption. The analog input shall be transient protected. The controller shall be UL 508 listed as a control device and be a part number SC100-10 as manufactured by MPE Electronics or equal.

The controller shall contain a Zero adjustment used to make the bar graph display zero feet of water for an input of 4.0mA, and a Span adjustment used to select the point on the bar graph display that corresponds to an input of 20mA.

The controller shall be UL approved, be power by 120VAC, and shall perform both pump down and pump up functions. The unit shall be able to be ordered with an option to use an absolute pressure transducer that does not require an air line to vent to atmosphere.

All electrical connections shall be made by quick disconnect, phoenix style connectors.

A two float backup system will be included with the controls. The backup system shall be completely independent from the primary control system. In the event that the primary control system fails, the high float will start both pumps (stagger start), and allow both pumps to run until the off float drops down.

Ancillary Equipment:
A three position HOA switch shall be provided for each pump. The switch shall be NEMA 4x rated with 10 amp contacts except when provided on a dedicated controller it. A position indicating legend plate shall be provided. The HOA switches shall be mounted on the inner dead front door unless provided in the controller units.

A green run pilot indicator shall be mounted on the dead front door. Level indicator lights or indicators shall be provided.

An elapsed time meter shall be mounted on the dead front door. The meter shall operate on 120 VAC, shall indicate in hours [6 digits] and tenths and shall be non-resetable.

The alternator shall be a plug in, solid state unit with lead-lag-auto selector and test switches except when provided in a dedicated control device. The unit shall operate on 120 VAC and provide DPDT ten amp rated contacts. Two LEDs shall indicate the next position to run as lead pump.

A 50w space heater and thermostat shall be installed to maintain the internal temperature of the enclosure above the dew point.

Control wiring shall be copper, tinned, UL1015, 18ga. minimum.

The PMR2 Pump Monitor Relay shall provide Motor Over Temperature and Seal Leakage alarms in one unit for Xylem Flygt Submersible Pumps equipped with FLS or CLS sensors. The PMR2 shall be capable of being powered by either 120VAC, 24VAC, or 24VDC, and shall provide relay contacts rated for 8 Amps at 120VAC.

The PMR2 shall be able to be mounted on the inner door of the control panel. The front of the PMR2 shall contain an LED indicator for power, an LED indicator for a Seal Leakage condition, and an LED indicator for an Over-Temperature condition.

The front of the PMR2 shall also contain a selector switch to choose between "Auto Reset" and "Manual Reset." There shall be an Over-Temperature Reset pushbutton to reset the Pump Monitor relay once the Over-Temperature condition has cleared.

The PMR2 shall apply 12 VDC to the sensor and measures the current flow through the sensor. The sensor shall control the current in the circuit. If the sensor current is in the normal range, the Temperature Alarm Relay is energized and shall allow normal pump operation. If the sensor circuit becomes shorted, the 12 VDC shall be turned off and all LEDs shall flash.

Upon a High Motor Temperature condition, the sensor shall open so that the sensor circuit current drops to zero. With the sensor current below the Trip Point (≤3.0 mA ±5%), the Overtemp Indication shall be turned on, and the Temperature Alarm Relay shall be de-energized, preventing pump operation.

When the High Motor Temperature condition has cleared, the PMR2 shall reset based upon the position of Alarm Reset Mode Select Switch (Auto or Manual). With the switch in the Auto position, the Overtemp Alarm shall reset automatically. With the switch in the Manual position, the Overtemp Reset Push-button must be pushed to clear the alarm.

Upon a Seal Leakage condition, the sensor current shall increase above the Trip Point (≥22 mA ±5%), the Leakage Indication shall be turned on, and the Leakage Alarm Relay shall be energized.

The Pump Monitor Relay, part number PMR2, shall be manufactured by M. P. Electronics, Apopka, Florida.

A mechanical float switch shall be supplied for level control and be suspended at the desired height from its own cable. The float switch case shall be made of polypropylene and the cable is sheathed with a special PVC compound. The float switch cables shall be supplied with 40' of cable.

A submersible transducer manufactured from 316 stainless steel, containing a piezo resistive sensor with output signals proportional to applied pressure shall be supplied. The electronics shall be padded in a silicon compound for protection and have 316 stainless or plastic composite device protecting the sensing face of the transducer. The transducer shall operate from a power supply voltage of 10-30 VDC and supply a 4-20ma signal proportional to water level into the controller. The control signal shall be transmitted via a vented, molded polyurethane jacketed cable. The cable shall be gripped by a neoprene grommet and potted in place. The transducer shall be protected by a desiccant and surge arrestor. Surge protection shall be provided for the transducer. The suppressor shall be a dual pair [four wire] module implementing three stage hybrid technology to address over voltage transients and fault currents. The surge suppressor shall be supplied with a female connector and be part number PC642 as manufactured by EDCO.

Miscellaneous:
A final as built drawing encapsulated in mylar shall be attached to the inside of the front door. Schematics shall be done in ladder logic with wire numbers and line numbers. Real time cross referencing of relay contact to line numbers shall be given as well as written description of component function on each circuit of the drawings. From/to wire and termination reports shall be shown on the as built drawings. Drawings shall be available in HTML format. Terminal strip layouts shall be provided for ease of connecting external devices.

All component parts in the control panel shall be permanently identified with engraved legend plates as designated on the drawings. A list of all legends shall be available in Excel format and attached with the schematics on the panel door.

All equipment shall be tested to the operational requirements. Each control function shall be activated to check for proper indication.

All equipment shall be guaranteed for a period of one year from the date of installation. The guarantee is effective against all defects in workmanship and/or defective component. The warranty is limited to replacement of or repair of the defective equipment.

The manufacturer shall be a UL508 shop and provide evidence on the end product.

D. Delivery

Delivery terms shall be FOB destination, freight prepaid and allowed. Deliver to Address:

Orange Beach Wastewater Treatment Plant
23908 Canal Road
Orange Beach, Alabama 36561

E. Documentation

The successful bidder shall include all documents, manuals, parts lists, and other printed material relating to the operation and maintenance of the equipment with the delivery of the vehicle. Digital format is acceptable.

F. Business License Requirements

If delivering into City limits, the successful bidder will be required to have an Orange Beach Business License. Contact the Orange Beach Finance Department at 251-981-6096 for a quote or any additional information. A business license for the vendor is not required if third party shipping is used.

GENERAL INSTRUCTIONS FOR BIDDERS

1.0 INTRODUCTION

All bidders will be bound to the general conditions and requirements set forth in these general instructions and such instructions shall form an integral part of each purchase contract awarded by the Orange Beach City Council. Applicability of general conditions as stated below shall be determined by the City of Orange Beach. All bids must be submitted on and in accordance with the instructions provided by the City of Orange Beach.

2.0 BID DOCUMENTS

A complete set of Bid Documents is included herein. The date, time, and place of a bid opening will be given in the Invitation to bidders. Copies of the complete set of Bid Documents may be inspected and/or obtained at the following location:

Orange Beach City Hall
4099 Orange Beach Boulevard
Orange Beach, AL 36561

Or downloaded from the City's website:
www.orangebeachal.gov, see "Bids"

3.0 EXAMINATION OF DOCUMENTS

3.1 Carefully examine the Bid Documents, Specifications, Drawings, and the Work Site.

3.2 Bids shall include all costs required to provide the requested materials and to execute the work under the existing conditions.

3.3 No charge will be allowed for federal, state, or municipal sales and excise taxes since the City is exempt from such taxes.

3.4 Extra payments shall not be made for conditions which can be determined by examining the documents and the site.

4.0 INTERPRETATIONS AND ADDENDA

4.1 Should a bidder find discrepancies, ambiguities, or omissions in the Specifications, or should he/she be in doubt as to their meaning, he/she shall immediately notify the Procurement Officer (Renee Eberly at 251-981-6806 or reberly@cityoforangebeach.com).

4.2 The Procurement Officer will issue Addenda to clarify discrepancies, ambiguities, or omissions in the Specifications.

4.3 Addenda will be posted on the City's website at: www.orangebeachal.gov.

4.4 Addenda shall become part of the bid and all bidders must acknowledge receipt of Addenda on their Bid Form or their bid will be rejected. Bidders shall be bound by all Addenda.

4.5 The City is not responsible for any oral instructions.

5.0 PREPARATION OF BID

5.1 The bid must be submitted on the Bid Form furnished. All information required by the Bid Documents must be given to constitute a complete bid.

5.2 The Bidder must print, in figures, without interlineations, alterations, or erasures, a Unit Price. The Bidder shall then print the total sum on the line designated as "Bid Total." The City will check the total sum printed by the Bidder, and, in case of error or discrepancy, the total sum printed by the Bidder listed in the bid shall prevail and this shall be the Contract Bid Price.

5.3 Prices and all information must be legible. Illegible or vague bids may be rejected.

5.4 All signatures must be written. Facsimile, printed, or typewritten signatures are not acceptable.

5.5 Under penalty of perjury, the Bidder certifies by signature on the Bid Form that:

- The bid has been arrived at by the Bidder independently and has been submitted without collusion with any other vendor of materials, supplies, equipment, or services for the type described in the Invitation to Bid; and
- The contents of the bid have not been communicated by the Bidder; nor to his/her best knowledge and belief by any of his/her employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished herewith prior to the official opening of the bid.

6.0 DELIVERY AND SUBMISSION OF BID

6.1 Each bid shall be placed, together with the Bid Bond, if applicable, in a sealed envelope. Bid envelopes must be clearly marked "SEALED BID," the Bidder's name, the title of the bid, and the opening date and time.

6.2 All bids received after the time stated in the Invitation to Bid will not be considered and will be returned unopened to the Bidder. The Bidder assumes risk of delay in the mail. Whether sent by mail or by means of personal delivery, the bidder assumes responsibility for having bids deposited on time at the place specified.

6.3 The submission of a bid will be construed to mean that the Bidder is fully informed as to the extent and character of the supplies, materials, or equipment required, and as a representation that the bidder can furnish the supplies, materials, or equipment satisfactorily in complete compliance with the specifications.

7.0 MODIFICATIONS AND WITHDRAWALS OF BIDS

7.1 No alteration, erasure, or addition is to be made in the typewritten or printed matter. Deviations from the specifications must be set forth in the space provided in bid or by attached sheets for this purpose.

7.2 Bids may not be modified after submittal.

7.3 Bidder may withdraw his/her bid, either personally or by written request, at any time prior to the scheduled bid opening time.

7.4 No bidder may withdraw his/her bid for a period of thirty (30) days after the bid opening.

8.0 RIGHT TO REJECT BID

Bids may be rejected if they contain any omissions, alterations of form, additions not called for, conditional bids, alternate bids unless requested by the City, incomplete bids, erasures, or irregularities of any kind. Bids in which the Unit or Lump Sum prices are obviously unbalanced may be rejected. The City reserves the right to reject any and all bids for any reason and to waive any informality or irregularity in the bids received.

9.0 BASIS OF AWARD

All purchases which are based on competitive Invitations to Bids are awarded to the lowest, responsive bidder subject to the City's right to reject any or all bids and to waive informality and irregularity in bids and bidding. In addition to price, consideration will be given to the following items when determining the lowest, responsive bidder:

- The best interests of the City of Orange Beach;

- The quality and performance of the goods or services to be supplied;
- Conformity to specifications;
- Delivery time; and
- Other unique requirements outlined in the bid request.

10.0 CONTRACT

10.1 The Bid Form shall constitute a contract with the successful bidder and bind the successful bidder to furnish and deliver at the prices and in accordance with the conditions of the bid.

10.2 The placing in the mail a notice of award or purchase order to a successful bidder, to the address given in the bid, will be considered sufficient notice of acceptance of bid.

10.3 If the successful bidder fails to deliver within the time specified or within reasonable times as interpreted by the City of Orange Beach, or fails to make replacement of rejected articles when so requested immediately or as directed by the City, the City of Orange Beach may purchase from other sources to take the place of the item rejected or not delivered. The City of Orange Beach reserves the right to authorize immediate purchase from other sources against rejections on any contract when necessary.

10.4 A contract may be canceled for non-performance.

10.5 No items are to be shipped or delivered until receipt of an official purchase order from the City of Orange Beach.

10.6 It is mutually understood and agreed that the successful bidder shall not assign, transfer, convey, sublet, or otherwise dispose of the contract of bidders right, title or interest therein, or bidders power to execute such contract to any other person, company, or corporation without the previous written consent of the City of Orange Beach.

11.0 GUARANTEES BY THE SUCCESSFUL BIDDER

The successful bidder guarantees:

- Products against defective material or workmanship and to repair or replace any damages or marring in transit;
- To furnish adequate protection from damage for all work and to repair damages of any kind for which the bidder or bidder's workers are responsible to the building, grounds, or equipment;
- To carry adequate insurance to protect the City of Orange Beach from loss of property and/or life in cases of accident, fire, or theft;
- That all deliveries will be equal to bid samples.

12.0 PAYMENT

The Bidder may submit an Application for Payment for provided materials in accordance with the accepted Unit Prices. Payment shall be made to the Bidder within thirty (30) days of receipt and approval of Application for Payment.

City of Orange Beach
ALABAMA
Life is better here

REQUIREMENTS FOR CONTRACTS AND PURCHASES

Effective January 1, 2012 under the "Beason-Hammon Alabama Taxpayer and Citizen Protection Act," Act No. 2011-535, Alabama Code (1975) Section 31-13-1, Et Seq., before entering into a contract with the City to:

1. Perform a service;
2. Perform work;
3. Provide a product;
4. Accept a grant; and/or
5. Accept an initiative

The State of Alabama requires the business entity to sign a notarized affidavit agreeing:

1. Not to knowingly employ, hire for employment, or continue to employ, any unauthorized aliens in the State of Alabama;
2. To enroll in the E-Verify Program, to verify the immigration status of every employee required to be re-verified through that system and to provide documentation of its enrollment; and
3. To require its subcontractors to comply with the above requirements.

Before any contract can be let, purchase can be made, or payment can be issued by the City of Orange Beach after January 1, 2012, the Affidavit on the reverse side of this document must be completed, notarized, and returned to our offices.

Note: Proof of enrollment in the E-Verify Program must accompany the Affidavit, unless you do not have or hire any employees.

Questions about this process may be directed to Renee Eberly, City Clerk/Procurement Officer, at (251) 981-6806 or via e-mail at reberly@cityoforangebeach.com.

COMPLETED AFFIDAVIT MUST BE RETURNED IN SEALED BID.

City of Orange Beach
ALABAMA
Life is better here

AFFIDAVIT OF CONTRACTOR OR DIRECT VENDOR

State of _____

County of _____

Before me, a notary public, personally appeared _____ (print name) who, being duly sworn, says as follows:

As a condition for the award of any contract, grant, or incentive by the City of Orange Beach, Alabama, I hereby attest that in my capacity as _____ (state position) for _____ (state business entity/employer/contractor name) that said business entity/employer/contractor shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama.

I further attest that said business entity/employer/contractor is enrolled in the E-Verify program.

(Attach documentation establishing that business entity/employer/contractor is enrolled in the E-Verify Program.)

_____
Signature of Affiant

Sworn to and subscribed before me this _____ day of _____, 20_____.

I certify that the affiant is known (or made known) to me to be the identical party he or she claims to be.

_____
Signature and Seal of Notary Public

My Commission Expires: _____