

ADVERTISED BID CITY OF ST. LOUIS

OFFICE OF THE SUPPLY COMMISSIONER
1200 MARKET ST RM 324
ST LOUIS MO 63103-2842



REQUEST FOR QUOTE
41516Q1159

PAGE
1

ADDRESS CORRESPONDENCE TO

... We agree to furnish the following articles to the City of St. Louis, free of any extra charges, in the quantity named and at the prices respectively stated:

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PUB UTILITIES/WATER DIVISION
1640 S KINGSHIGHWAY
ST LOUIS MO 63110

SEE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS QUOTATION SHEET.

DATE PRINTED 05/06/16	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
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REPLY DUE BY: 06/02/16 12:00 O'CLOCK NOON

NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
	1	EACH	CITY	415SLPV		
	REQ LINE NUMBER : 0001					
	SLUDGE LINE PUMP AND VALVES					
	SLUDGE LINE PUMP ,WITH 12" PINCH VALVE W/ELECTRIC ACTYATOR, AND 10"X12" CUSHIONED SWING CHECK VALVEL SHALL POSSESS FEATURES AND MEET MINIMUM SPECIFICATIONS AS PER ATTACHED SPECIFICATIONS.					
	ITEM TO BE DELIVEREDD TO CHAIN OF ROCKS WATER TREATMENT PLANT, 10450 RIVERVIEW DR. ST. LOUIS, MO.63137 COMPLETE ORDERS ONLY. DELIVERY TIMES: 7:00AM-3:00PM MON-FRI EXCEPT HOLIDAYS.					
	BRAND -----PRODUCT NO. -----					
	OR ACCEPTABLE EQUAL; UNLESS "NO SUBSTITUTE" ALLOWED MANUFACTURER BRAND AND/OR CATALOG DESCRIPTION IN SPECIFYING ANY ITEM DOES NOT RESTRICT BIDDERS TO THAT MANUFACUTERER, BRAND, OR CATALOG DESC. IDENTIFICATION THE BIDS SUBMITTED MUST BE OF SUCH CHARACTER, QUALITY, AND/OR EQUIVALENCE THAT IT WILL SERVE THE PURPOSE FOR WHICH IT IS TO BE USED EQUALLY WELL AS THAT SPECIFIED, AND BE ACCEPTABLE TO THE USING DEPARTMENT. BIDDER MUST FURNISH COMPLETE DATA AND INFORMATION FOR ITEMS BID THAT DO NOT MEET THE SPECIFICATIONS LISTED IN THE BID.					
					TOTAL →	

NAME OF FIRM	STATE DELIVERY:	COMPTROLLER	Date
ADDRESS	CALENDAR DAYS		
CITY	SIGNED BY:	SUPPLY COMMISSIONER	Date
PHONE			
Area Code ()			

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<p>..... BIDS WILL BE AWARDED BASED ON OFFICIAL SPECIFICATIONS PROVIDED BY SUPPLY DIVISION ONLY & ANY RELATED ADDENDA. ALL INQUIRIES RELATED TO THIS BID MUST BE IN WRITING (LETTER/E-MAIL/FAX) TO STEPHEN GREGALI: GREGALIS@STLOUIS-MO.GOV/P: 314-622-4250/FX: 314-622-4141 CHECK HERE IF YOU WANT A BID TABULATION: ALLOW 30 DAYS FOR RESULTS -----</p> <p>STATE BEST GUARANTEED DELIVERY: A.R.O. -----</p> <p>ALL ITEMS SHALL BE F.O.B. DESTINATION</p> <p>FREIGHT OR DELIVERY CHARGES MUST BE INCLUDED IN QUOTE OR INDICATED BELOW IN ORDER TO RECEIVE PAYMENT!</p> <p>() FREIGHT IS INCLUDED IN THE QUOTE PROVIDED - OR - () WE WILL CHARGE \$ ----- FREIGHT/DELIVERY</p> <p>THE CITY RESERVES THE RIGHT TO SPLIT AWARDS, VENDOR MUST INDICATE (SPLIT) OR (ALL OR NONE) FOR MULTI LINE BIDS.</p> <p>----- BIDDING "ALL OR NONE" ----- SPLIT AWARD ACCEPTABLE</p>						
TOTAL →						

NAME OF FIRM	STATE DELIVERY: CALENDAR DAYS	COMPTRROLLER	Date
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PHONE	Area Code ()		Date

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PLEASE PROVIDE CONTACT INFORMATION FOR THIS BID:						
NAME: _____						
E-MAIL: _____						
PHONE: _____						
ORDINANCE #60643 - A CITY OF ST LOUIS BUSINESS LICENSE IS REQUIRED IF YOUR COMPANY MEETS ANY OF THE FOLLOWING: (CHECK AS APPROPRIATE):						
----- BUSINESS IS LOCATED WITHIN THE CITY LIMITS						
----- DELIVERY WITHIN CITY LIMITS IS BY COMPANY TRUCK						
----- SALES CALLS ARE MADE WITHIN THE CITY LIMITS						
* VENDORS SHOULD NOTE IF THEY ARE MINORITY OR WOMEN OWNED BUSINESS (CHECK)						
MBE ----- WBE-----						
LIST ITEMS MANUFACTURED, ASSEMBLED OR PRODUCED IN A FOREIGN COUNTRY ON THE ENCLOSED (BUY AMERICAN) FORM FOR BIDS TOTALING \$1,000 OR HIGHER						
TOTAL →						

NAME OF FIRM	STATE DELIVERY: CALENDAR DAYS	COMPTROLLER	Date
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NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
	***** WEBSITE INFORMATION *****					
	*				*	
	*	TO DOWNLOAD SUPPLY BIDS GO TO:			*	
	*				*	
	*	HTTP://STLOUIS-MO.GOV/SUPPLY/BID-NOTICES.CFM			*	
	*				*	
	*	CLICK ON BID NOTICES			*	

					TOTAL →	

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Factory-built base mounted sludge pump and associated valves

PART 1 - GENERAL

1.01 Work under this section includes, but is not limited to, furnishing a pump as herein specified, and associated valves as necessary for proper and complete performance.

1.02 REFERENCES

A. Publications listed below form part of this specification to extent referenced in the text by basic designation only. Consult latest edition of publication unless otherwise noted.

1. American National Std. Institute (ANSI) / American Water Works Assoc. (AWWA)
 - a. ANSI B16.1 Cast iron pipe flanges and flanged fittings.
 - b. ANSI/AWWA C115/A21.51 Cast/ductile iron pipe with threaded flanges.
 - c. ANSI 253.1 Safety Color Code for Marking Physical Hazards.
 - d. ANSI B40.1 Gages, Pressure and Vacuum.
2. American Society for Testing and Materials (ASTM)
 - a. ASTM A48 Gray Iron Castings.
 - b. ASTM A126 Valves, Flanges, and Pipe Fittings.
 - c. ASTM A307 Carbon Steel Bolts and Studs.
 - d. ASTM A36 Structural Steel.
3. Institute of Electrical and Electronics Engineers (IEEE)
 - a. ANSI/IEEE Std 100 Standard Dictionary of Electrical Terms.
 - b. ANSI/IEEE Std 112 Test Procedure for Polyphase Induction Motors.
 - c. IEEE Std 242 Protection of Industrial and Control Power Systems.
4. National Electric Code (NEC) / National Electrical Manufacturers Assoc. (NEMA)
 - a. NEC National Electric Code.
 - b. NEC 701 National Electric Code article 701.
 - c. NEMA Std MG1 Motors and Generators.
5. Miscellaneous References
 - a. Ten-State Standards Recommended Standards for Sewage Works.
 - b. Hydraulic Institute Std for Centrifugal, Rotary and Reciprocating Pumps.
 - c. NMTBA and JIC Std National Machine Tool Builders Association and Joint Industrial Council Standards
 - d. ISO 9001 International Organization for Standardization.

1.03 SYSTEM DESCRIPTION

A. Vendor shall furnish one flushing pump. The pump shall be complete with all equipment specified herein, factory assembled on a common steel base.

- B. Principal items of equipment shall include one horizontal centrifugal solids handling pump, flex coupled drives, motor and electrically actuated pinch valve.
- C. The supplied pump design, including materials of construction, pump features, shall be in accordance with requirements listed under PART 2 - PRODUCTS of this section.

1.04 PERFORMANCE CRITERIA

- A. Pumps must be designed to handle raw, unscreened, domestic sanitary sewage. Pumps shall have 10" flanged straight suction connection, and 10" flanged discharge connection. Each pump shall be selected to perform under following operating conditions:
 - 1. Capacity (GPM) 500 / 2500
 - 2. Total Dynamic Head (FT) 50 / 25
 - 3. Minimum TDH (FT) 23
 - 4. Maximum TDH (FT) 58
- A. Site power furnished to pump shall be 3-Phase, 60 hertz, 480VAC, THHN wire, maintained within industry standards. The available fault current provided at the pump control panel is 14 kA rms symmetrical. Voltage tolerance shall be plus or minus 10 percent. Phase-to-phase unbalance shall not exceed 1% average voltage as set forth in NEMA Standard MG-1. Control voltage shall not exceed 132 volts.

1.05 SUBMITTALS

- A. Product Data
 - 1. Prior to fabrication, pump manufacturer shall submit two copies of submittal data for review and approval.
 - 2. Submittal shall include shop drawings, and support data as follows: Catalog cuts sheets reflecting characteristics for major items of equipment, materials of construction, major dimensions, motor and v-belt drive data, pump characteristic curves showing the design duty point capacity (GPM), head (FT), net positive suction head required (NPSHr), and hydraulic brake horsepower (BHP). Electrical components used in the motor branch and liquid level control shall be fully described.
- B. Shop drawings shall provide layout of mechanical equipment and anchor bolt locations. Piping connections and access clearances shall be dimensioned relative to the centerline.
- C. Operations Maintenance Manuals
 - 1. Installation shall be in accordance with written instructions provided by the pump manufacturer. Comprehensive instructions supplied at time of shipment shall enable personnel to properly operate and maintain all equipment supplied. Content

and instructions shall assume operating personnel are familiar with pumps, motors, piping and valves, but lack experience on exact equipment supplied.

2. Documentation shall be specific to the pump supplied and collated in functional sections. Each section shall combine to form a complete system manual covering all aspects of equipment supplied by the manufacturer. Support data for any equipment supplied by others, even if mounted or included in overall design, shall be provided by those supplying the equipment. Instructions shall include the following as a minimum:
 - a. Functional description of each major component, complete with operating instructions.
 - b. Instructions for operating pumps and pump controls in all modes of operation.
 - c. Calibration and adjustment of equipment for initial start-up, replacement of level control components, or as required for routine maintenance.
 - d. Support data for commercially available components not produced by the manufacturer, but supplied in accordance with the specifications, shall be supported by literature from the prime manufacturer and incorporated as appendices.
 - e. Mechanical layout drawing of the pump and components, prepared in accordance with good commercial practice, shall provide installation dimensions.
3. Operation and maintenance instructions which rely on vendor cut-sheets and literature which include general configurations, or require operating personnel to selectively read portions of the manual shall not be acceptable. Operation and maintenance instructions must be specific to equipment supplied in accordance with these specifications.

1.06 QUALITY ASSURANCE

- A. The pumps and pump manufacturer must be ISO 9001:2008 revision certified, with scope of registration including design control and service after sales activities.
- B. The pumps and pump manufacturer must be registered to the ISO 14001 Environmental Management System standard and as such is committed to minimizing the impact of its activities on the environment and promoting environmental sustainability by the use of best management practices, technological advances, promoting environmental awareness and continual improvement.
- C. Upon request from the engineer, the pump manufacturer shall prove financial stability and ability to produce the pump within the specified delivery schedule of June. Evidence of facilities, equipment and expertise shall demonstrate the manufacturer's commitment to long term customer service and product support.

- D. All internal passages, impeller vanes, and recirculation ports shall pass a 3" spherical solid. Smaller internal passages that create a maintenance nuisance or interfere with priming and pump performance shall not be permitted. Upon request from the engineer, manufacturer's certified drawings showing size and location of the recirculation port(s) shall be submitted for approval.
- E. Manufacturer must show proof of original product design and testing. Products violating intellectual property regulations shall not be allowed, as they may violate international law and expose the user or engineer to unintended liabilities. "Reverse-engineered" products fabricated to substantially duplicate the design of original product shall not be allowed, as they may contain substantial differences in tolerances and material applications addressed in the original design, which may contribute to product failure.
- F. The term "pump manufacturer" shall be defined as the entity which designs, machines, assembles, hydraulically tests and warranties the final product. Any entity that does not meet this definition will not be considered a "pump manufacturer" and is not an acceptable supplier. For quality control reasons and future pump and parts availability, all major castings of the pump shall be sourced and machined in North America.
- G. Performance
 - 1. Consideration shall be given to the service anticipated, which includes solids in the fluid being pumped. Provisions shall be made to guard against undue wear from the fluid being pumped. Standard Cast Iron or Ductile Iron wetted parts are not acceptable.
 - a. Repeatability of performance shall be demonstrated by certified pump curves. Submitted pump curves shall be from tests performed by the pump manufacturer at the pump manufacturer's manufacturing facility. All certified pump curves must be submitted under the seal of a professional engineer that is directly employed by the pump manufacturer. Tests performed by third parties or sealed by a professional engineer that is not employed by the pump manufacturer are not acceptable.
 - b. Impeller clearances shall be set as recommended in the pump service manual.
 - c. Liquid to be used for reprime test shall be water.
 - 2. Each received bid shall include the specified certified pump curves included the specified seal of a professional engineer employed by the pump manufacturer. Included with the certified curve the bid shall also include a certified statement confirming the proof of original product design as listed in this specification. All bids that do not include the required certified documents will be deemed non responsive and rejected.
- H. Certified Pump Performance Test
 - 1. Tests shall be conducted in accordance with Hydraulic Institute Standards 14.6.3.4 Acceptance Grade 2B at the specified head, capacity, rated speed and

horsepower. The performance tests will validate the correct performance of the equipment at the design head, capacity and speed.

1.07 MANUFACTURER'S WARRANTY

- A. The pump manufacturer shall warrant all equipment to be of quality construction, free of defects in material and workmanship. A written warranty shall include specific details described below.
1. All other equipment, apparatus, and parts furnished shall be warranted for sixty (60) months, excepting only those items that are normally consumed in service, such as light bulbs, oils, grease, packing, gaskets, O-rings, etc. The pump manufacturer shall be solely responsible for warranty of the pump, base and motor.
- B. Components failing to perform as specified by the engineer, or as represented by the manufacturer, or as proven defective in service during the warranty period, shall be replaced, repaired, or satisfactorily modified by the manufacturer.
- C. It is not intended that the manufacturer assume liability for consequential damages or contingent liabilities arising from failure of any vendor supplied product or part which fails to properly operate, however caused. Consequential damages resulting from defects in design, or delays in delivery are also beyond the manufacturer's scope of liability.
- D. Equipment supplied by others and incorporated with pump or enclosure is not covered by this limited warranty. Any warranty applicable to equipment selected or supplied by others will be limited solely to the warranty, if any, provided by the manufacturer of the equipment.
- E. This limited warranty shall be valid only when installation is made and use and maintenance is performed in accordance with manufacturer recommendations. A start-up report completed by an authorized manufacturer's representative must be received by manufacturer within thirty (30) days of the initial date the unit is placed into service. The warranty shall become effective on the date of acceptance by the purchaser or the purchaser's authorized agent, or sixty (60) days after installation, or ninety (90) days after shipment from the factory, whichever occurs first.
- F. Only manufactures with factory certified repair facilities within 50 miles of the project location shall be considered for supply of the specified equipment. The repair facility must be a registered business entity with the City of St. Louis. Factory Certification shall be defined as follows:
- Factory training shall be a formal classroom education including a formal agenda with a certificate of competence.
 - Formal hydraulic training included but not limited to course studies in system hydraulics, trouble shooting and equipment application. Manufactures that do not have formalized education and certification do not qualify for bidding.
 - Included with the bid a copy of the factory training program shall be provided.

- Training program shall have been submitted and accepted to the state of Missouri for training.

PART 2 – PRODUCT

2.01 UNITARY RESPONSIBILITY

- A. In order to unify responsibility for proper operation of the proposed pump system the complete pump, base, motor, and electrically actuated pinch valve shall be supplied as a complete system, it is the intent of these Specifications that all system components be furnished by a single supplier (unitary source). The pump must be of standard catalog design, totally warranted by the manufacturer. Under no circumstances will a system consisting of parts compiled and assembled by a manufacturer's representative or distributor be accepted.

2.02 MANUFACTURER

- A. The pump must be ISO 9001:2008 revision certified, with scope of registration including design control and service after sales activities.
- B. The pump manufacturer shall be of United States design, manufacture and assembled and tested at the pump manufactures facilities. All manufacturing, included foundries, machining, and assembly shall be completed within the boundaries of the continental United States of America.
- C. The specifications and project drawings depict equipment and materials manufactured by The Gorman-Rupp Company which are deemed most suitable for the service anticipated. It is not intended, however, to eliminate other products of equal quality and performance. The vendor shall prepare his bid based on the specified equipment for purposes of determining low bid. Award of bid shall constitute an obligation to furnish the specified equipment and materials.

2.03 UNIT BASE

- A. The unit base shall be comprised of a base plate, perimeter flange, and reinforcements. Base plate shall be fabricated of steel not less than 1/4" thick. Perimeter flange and reinforcements shall be designed to prevent flexing or warping under operating conditions. Base plate and/or flange shall be drilled for hardware used to secure unit base to concrete mounting pad. Unit base shall contain provisions for lifting the complete pump unit during shipping and installation.

2.04 PUMP DESIGN

- A. Pumps shall be horizontal, self-priming centrifugal type, designed specifically for handling raw, unscreened, domestic sanitary sewage. Pump solids handling capability and performance criteria shall be in accordance with requirements listed under PART 1 - GENERAL of this section.

B. The pump manufacturer must be ISO 9001:2008 revision certified, with scope of registration including design control and service after sales activities.

C. Materials and Construction Features

1. Pump casing: Casing shall be cast iron Class 30 with integral volute scroll. Casing shall incorporate following features:
 - a. Mounting feet sized to prevent tipping or binding when pump is completely disassembled for maintenance.
 - b. Fill port coverplate, 3 1/2" diameter, shall be opened after loosening a hand nut/clamp bar assembly. In consideration for safety, hand nut threads must provide slow release of pressure, and the clamp bar shall be retained by detente lugs. A Teflon gasket shall prevent adhesion of the fill port cover to the casing.
 - c. Casing drain plug shall be at least 1 1/4" NPT to insure complete and rapid draining.
 - d. Liquid volume and recirculation port design shall be consistent with performance criteria listed under PART 1 - GENERAL of this section.
2. Coverplate: Coverplate shall be cast iron Class 30. Design must incorporate following maintenance features:
 - a. Retained by hand nuts for complete access to pump interior. Coverplate removal must provide ample clearance for removal of stoppages, and allow service to the impeller, seal, wearplate or check valve without removing suction or discharge piping.
 - b. A replaceable wearplate secured to the coverplate by weld studs and nuts shall be ADI.
 - c. In consideration for safety, a pressure relief valve shall be supplied in the coverplate. Relief valve shall open at 75-200 PSI.
 - d. Two O-rings of Buna-N material shall seal coverplate to pump casing.
 - e. Pusher bolt capability to assist in removal of coverplate. Pusher bolt threaded holes shall be sized to accept same retaining capscrews as used in rotating assembly.
 - f. Easy-grip handle shall be mounted to face of coverplate.
3. Rotating Assembly: A rotating assembly, which includes impeller, shaft, mechanical shaft seal, lip seals, bearings, sealplate and bearing housing, must be removable as a single unit without disturbing the pump casing or piping. Design shall incorporate following features:

- a. Sealplate and bearing housing shall be ADI. Separate oil filled cavities, vented to atmosphere, shall be provided for shaft seal and bearings. Cavities must be cooled by the liquid pumped. Three lip seals will prevent leakage of oil.
 - 1) The bearing cavity shall have an oil level sight gauge and fill plug check valve. The clear sight gauge shall provide easy monitoring of the bearing cavity oil level and condition of oil without removal of the fill plug check valve. The check valve shall vent the cavity but prevent introduction of moist air to the bearings.
 - 2) The seal cavity shall have an oil level sight gauge and fill/vent plug. The clear sight gauge shall provide easy monitoring of the seal cavity oil level and condition of oil without removal of the fill/vent plug.
 - 3) Double lip seal shall provide an atmospheric path providing positive protection of bearings, with capability for external drainage monitoring.
 - b. Impeller shall be ADI, two-vane, semi-open, non-clog, with integral pump out vanes on the back shroud. Impeller shall thread onto the pump shaft and be secured with a lockscrew and conical washer.
 - c. Shaft shall be AISI 4140 alloy steel unless otherwise specified by the engineer, in which case AISI 17-4 pH stainless steel shall be supplied.
 - d. Bearings shall be anti-friction ball type of proper size and design to withstand all radial and thrust loads expected during normal operation. Bearings shall be oil lubricated from a dedicated reservoir. Pump designs which use the same oil to lubricate the bearings and shaft seal shall not be acceptable.
 - e. Shaft seal shall be oil lubricated mechanical type. The stationary and rotating seal faces shall be tungsten titanium carbide alloy. Each mating surface shall be lapped to within three light bands flatness (35 millionths of an inch), as measured by an optical flat under monochromatic light. The stationary seal seat shall be double floating by virtue of a dual O-ring design; an external O-ring secures the stationary seat to the sealplate, and an internal O-ring holds the faces in alignment during periods of mechanical or hydraulic shock (loads which cause shaft deflection, vibration, and axial/radial movement). Elastomers shall be viton. Cage and spring to be stainless steel. Seal shall be oil lubricated from a dedicated reservoir. The same oil shall not lubricate both shaft seal and shaft bearings. Seal shall be warranted in accordance with requirements listed under PART 1 - GENERAL of this section.
 - f. Pusher bolt capability to assist in removal of rotating assembly. Pusher bolt threaded holes shall be sized to accept same capscrews as used for retaining rotating assembly.
4. Adjustment of the impeller face clearance (distance between impeller and wearplate) shall be accomplished by external means.

- a. Clearances shall be maintained by a four point external shimless coverplate adjustment system, utilizing a four collar and four adjusting screw design allowing for incremental adjustment of clearances by hand as required. Each of the four points shall be lockable to prevent inadvertent clearance increases or decreases due to equipment vibration or accidental operator contact. The four point system also allows for equal clearance gaps at all points between the impeller and wear plate. Requirement of realignment of belts, couplings, etc., shall not be acceptable. Coverplate shall be capable of being removed without disturbing clearance settings. Clearance adjustment systems that utilize less than four points will not be considered.
 - b. There shall be provisions for additional clearance adjustment in the event that adjustment tolerances have been depleted from the coverplate side of the pump. The removal of stainless steel shims from the rotating assembly side of the pump shall allow for further adjustment as described above
 - c. Clearance adjustment which requires movement of the shaft only, thereby adversely affecting seal working length or impeller back clearance, shall not be acceptable.
5. Suction check valve shall be molded Neoprene with integral steel and nylon reinforcement. A blow-out center shall protect pump casing from hydraulic shock or excessive pressure. Removal or installation of the check valve must be accomplished through the coverplate opening, without disturbing the suction piping. Sole function of check valve shall be to save energy by eliminating need to reprime after each pumping cycle. Pumps requiring a suction check valve to assist reprime will not be acceptable.
 6. Spool flanges shall be one-piece cast iron, class 30 fitted to suction and/or discharge ports. Each spool shall have one 1-1/4" NPT and one 1/4" NPT tapped hole with pipe plugs for mounting gauges or other equipment.

D. Serviceability

1. The pump manufacturer shall demonstrate to the engineer's satisfaction that consideration has been given to reducing maintenance costs.
2. No special tools shall be required for replacement of any components within the pump.

Pump and Station Accessory for **PUMP DRAIN KIT**

E. Pumps to be supplied with a drain kit for ease of maintenance. The kit shall contain 10' length of reinforced plastic hose with a female quick connect fitting at one end, and factory installed drain fittings in each pump. Fittings include a stainless steel pipe nipple, stainless steel bushing, stainless steel ball valve and aluminum male quick connect fitting.

F. The following minimum spare parts shall be furnished with the pump:

1. One pump mechanical seal
2. Required cover plate O-Ring(s)
3. One rotating assembly O-Ring(s)
4. One set of impeller clearance adjustment spacers

2.05 VALVES

- A. Each pump shall be equipped with a full flow type check valve, capable of passing a 3" spherical solid, with flanged ends and be fitted with an external lever and spring. 316 stainless steel body ring shall be threaded into the valve port. Valve clapper shall be cast iron, rubber face, and shall swing completely clear of waterway when valve is full open. The seating shall be by a resilient field replaceable ring on the valve disc contacting a bronze or stainless seat ring in the valve body. Hinge pin shall be of 18-8 stainless steel construction and shall be utilized with bronze bushings and packing type seal. Valves shall be equipped with removable cover plate to permit entry or for complete removal of internal components without removing the valve from the line. Valve shall be rated at 175 psi water working pressure, 350 psi hydrostatic test pressure. Valves other than full flow type or valves mounted in such a manner that prevents the passage of a 3" spherical solid shall not be acceptable.
- B. Valves shall be provided for flow control as follows:
- a. Golden Anderson 251-DS 10" x 12", single increasing size, (air) cushioned swing check valve. ANSI B16.1 flange bolt pattern. See 'Specification for Cushioned Swing Check Valve' towards the end of this specification for additional requirements.
 - b. 12" pinch valve (Series 70), with ROTORK electric actuator, designed specifically for throttling, by Red Valve Company, Pinch Cone Type Valve. Standard pinch valves are not acceptable. Actuator electrical supply: 3-Phase, 60 hertz, 480VAC.
 - 1) See 'General Specification for Multi Turn Electric Actuators' at end of this specification for additional requirements.
- C. A gauge kit shall be supplied for each pump. Suction pressure must be monitored by a glycerin-filled compound gauge, and discharge pressure by a glycerin-filled pressure gauge. Gauges to be at least 4 inches in diameter, graduated in feet water column. Rated accuracy shall be 1% of full scale reading. Compound gauge shall be graduated -34 to +34 feet water column minimum. Pressure gauge to be graduated 0 to 140 feet water column minimum.
1. Gauges to be factory mounted on a resilient panel with frame assembly secured to pumps or piping. Gauge installations shall be complete with all hoses and stainless steel fittings, including a shutoff valve for each gauge line at the point of connection to suction and discharge pipes.

2.06 DRIVE UNIT

- A. Pump motors shall be 30 HP, horizontal TEFC, 1800 RPM, NEMA design B with cast iron frame with copper windings, induction type, with normal starting torque and low starting current characteristics, suitable for continuous service. The motors shall not overload at the design condition or at any head in the operating range as specified.
- B. Drive Transmission
1. Power to pumps transmitted V-belt drive assemblies. The sheave/belt combination shall provide the speed ratio needed to achieve the specified pump operating conditions.
 2. Each drive assembly shall utilize at least two V-belts providing minimum a combined safety factor of 1.5. Single belt drives or systems with a safety factor of less than 1.5 are not acceptable. Computation of safety factors shall be based on performance data published by the drive manufacturer.
 3. Precise alignment tolerances of the drive assemblies shall be achieved by means of a belt/sheave laser alignment system resulting in the reduction of vibration, accelerated wear, and premature failure.
 4. The pump manufacturer shall submit power transmission calculations which document the following:
 - a. Ratio of pump/motor speed.
 - b. Pitch diameter of driver and driven sheaves.
 - c. Number of belts required per drive.
 - d. Theoretical horsepower transmitted per belt, based on vendor's data.
 - e. Center distance between pump and motor shafts.
 - f. Arc-length correction factor applied to theoretical horsepower transmitted.
 - g. Service factor applied to established design horsepower.
 - h. Safety factor ratio of power transmitted/brake horsepower required.
 5. Belt guards
 - a. Pump drives to be enclosed on all sides by a guard constructed of fabricated steel or combination of materials including expanded, perforated, or solid sheet metal. No opening to a rotating member shall exceed 1/2 inch.
 - b. Guards must be completely removal without interference from any unit component, and shall be securely fastened and braced to the unit base.
 - c. Metal to be free from burrs and sharp edges. Structural joints shall be continuously welded. Rivet spacing on panels shall not exceed five inches. Tack welds shall not exceed four inch spacing.
 - d. The guard shall be finished with one coat of gray W.R. non-lift primer and one coat of orange acrylic alkyd W.R. enamel in accordance with section 3, Color Definitions of ANSI 253.1; Safety Color Code for Marking Physical Hazards.

2.07 Pumps, piping, and exposed steel framework shall be cleaned prior to coating using

an approved solvent wipe or phosphatizing cleaner. The part must thoroughly dry before paint application. Open joints shall be caulked with an approved polyurethane sealant. Exposed surfaces shall be applied with one coat of Tnemec Series 69 Polyimide Epoxy Primer and one finish coat of Series 73 Aliphatic Acrylic Polyurethane for a total dry film thickness of 4-6 mils. Finish coat shall be semi-gloss white for optimum illumination and enhancement. The coating shall be corrosion, moisture, oil, and solvent resistant when completely dry. The factory finish shall allow for over-coating and touch-up for 6 months after coating. Thereafter, it will generally require sanding to accept a topcoat or touch-up coating. See Product Data Sheet for additional information.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Vendor shall off-load equipment at installation site using equipment of sufficient size and design to prevent injury or damage. Pump manufacturer shall provide written instruction for proper handling. Immediately after off-loading, vendor shall inspect complete pump and appurtenances for shipping damage or missing parts. Any damage or discrepancy shall be noted in written claim with shipper prior to accepting delivery. Validate all serial numbers and parts lists with shipping documentation. Notify the manufacturer's representative of any unacceptable conditions noted with shipper.

3.02 INSTALLATION

- A. Install, level, align, and lubricate pump as indicated by the manufacturer. Installation must be in accordance with written instructions supplied by the manufacturer at time of delivery.
- B. Pipe connections are vacuum tight. Fasteners at all pipe connections must be tight. Install pipe with supports and thrust blocks to prevent strain and vibration on pump piping. Install and secure all service lines (level control, air release valve or pump drain lines) as required in wet well.
- C. Check motor and control data plates for compatibility to site voltage. .
- D. Prior to applying electrical power to any motors or control equipment, check all wiring for tight connection. Verify that protective devices (fuses and circuit breakers) conform to project design documents. Manually operate circuit breakers and switches to ensure operation without binding. Open all circuit breakers and disconnects before connecting utility power. Verify line voltage, phase sequence and ground before actual start-up.

3.03 FIELD QUALITY CONTROL

- A. Operational Test
 - 1. Prior to acceptance by owner, an operational test of all pumps and drives shall be conducted to determine if the installed equipment meets the purpose and intent of the specifications. Tests shall demonstrate that all equipment is electrically,

mechanically, structurally, and otherwise acceptable; it is safe and in optimum working condition; and conforms to the specified operating characteristics.

2. Observe and record operation of pumps, suction and discharge gage readings, ampere draw, pump controls, and liquid level controls. Be alert to any undue noise, vibration or other operational problems.

B. Manufacturer's Start-up Services

1. Coordinate start-up with manufacturer's technical representative. The representative or factory service technician will inspect the completed installation. He will calibrate and adjust instrumentation, correct or supervise correction of defects or malfunctions, and instruct operating personnel in proper operation and maintenance procedures.

3.04 PROTECTION

- A. The pump should be placed into service immediately. If operation is delayed, it is the responsibility of the purchaser to follow all required factory instructions for storage to ensure factory warranty. Pump shall to be stored and maintained per manufacturer's written instructions.

General specification multi-turn electric actuators

1. General

The actuators shall be suitable for use on a nominal 480VAC, 3 phase, 60Hz power supply and are to incorporate motor, integral reversing starter, local control facilities and terminals for remote control and indication connections housed within a self contained, sealed enclosure.

As a minimum the actuators should meet the requirements set out in EN15714-2 and ISA SP96.02

The actuator shall include a device to ensure that the motor runs with the correct rotation for the required direction of valve travel irrespective of the connection sequence of the power supply.

2. Actuator Sizing

The actuator shall be sized to guarantee valve closure at the specified differential pressure and temperature. The safety margin of motor power available for seating and unseating the valve shall be sufficient to ensure torque switch trip at maximum valve torque with the supply voltage 10% below nominal. For linear operating valves, the operating speed shall be such as to give valve closing and opening at approximately 10-12 inches per minute unless otherwise stated in the data sheet. For 90° valve types the operating time will be specified.

3. Environmental

Actuators shall be suitable for indoor and outdoor use. The actuator shall be capable of functioning in an ambient temperature ranging from -33°C (22°F) to 70°C (140°F), up to 100% relative humidity. Actuators for hazardous area applications shall meet the area classification, gas group and surface temperature requirements specified in data sheet.

4. Enclosure

Actuators shall be o-ring sealed, watertight to IP66/IP68 7m for 72hrs, NEMA 4, 6. The motor and all other internal electrical elements of the actuator shall be protected from ingress of moisture and dust when the terminal cover is removed for site for cabling, the terminal compartment having the same ingress protection rating as the actuator with the terminal cover removed.

Enclosure must allow for temporary site storage without the need for electrical supply connection. All external fasteners shall be plated stainless steel. The use of un-plated stainless steel or steel fasteners is not permitted.

5. Motor

The motor shall be an integral part of the actuator, designed specifically for valve actuator applications. It shall be a low inertia high torque design, class F insulated with a class B temperature rise giving a time rating of 15 minutes at 40°C (104°F) at an average load of at least 33% of maximum valve torque. Temperature shall be limited by 2 thermostats embedded in the motor end windings and integrated into its control.

Electrical and mechanical disconnection of the motor should be possible without draining the lubricant from the actuator gearcase.

6. Motor Protection

Protection shall be provided for the motor as follows:

- Stall - the motor shall be de-energized within 8 seconds in the event of a stall when attempting to unseat a jammed valve.
- Over temperature - thermostat will cause tripping of the motor. Auto-reset on cooling
- Single phasing - lost phase protection.
- Direction – phase rotation correction.

7. Gearing

The actuator gearing shall be totally enclosed in a oil-filled gearcase suitable for operation at any angle. Grease lubrication is not permissible. All drive gearing and components must be of metal construction and incorporate a lost-motion hammerblow feature. For rising spindle valves the output shaft shall be hollow to accept a rising stem, and incorporate thrust bearings of the ball or roller type at the base of the actuator. The design should be such as to permit the opening of the gearcase for inspection or disassembled without releasing the stem thrust or taking the valve out of service. For 90° operating type of valves drive gearing shall be self locking to prevent the valve back-driving the actuator.

8. Hand Operation

A handwheel shall be provided for emergency operation, engaged when the motor is declutched by a lever or similar means, the drive being restored to electrical operation automatically by starting the motor. The handwheel or selection lever shall not move on restoration of motor drive. Provision shall be made for the hand/auto selection lever to be locked in both hand and auto positions. It should be possible to select hand operation while the actuator is running or start the actuator motor while the hand/auto selection lever is locked in hand without damage to the drive train.

Clockwise operation of the handwheel shall give closing movement of the valve unless otherwise stated in the data sheet. For linear valve types the actuator handwheel drive must be mechanically independent of the motor drive and should be such as to permit valve operation in a reasonable time with a manual force not exceeding 400N through stroke and 800N for seating/unseating of the valve.

9. Drive Interface

The actuator shall be furnished with a drive bushing easily detachable for machining to suit the valve stem or gearbox input shaft. The drive bush shall be positioned in a detachable base of the actuator. Thrust bearings shall be sealed for life and the base shall be capable of withstanding five times the rated thrust of the actuator.

10. Local Controls

The actuator shall incorporate local controls for Open, Close and Stop and a Local/Stop/Remote mode selector switch lockable in any one of the following three positions: local control only, stop (no electrical operation), remote control plus local stop only. It shall be possible to select maintained or non-maintained local control.

The local controls shall be arranged so that the direction of valve travel can be reversed without the necessity of stopping the actuator.

The local controls and display shall be rotatable through increments of 90 degrees to suit valve and actuator orientation.

11. Torque and Limits

Torque and turns limitation to be adjustable as follows:

- Position setting range – multi-turn: 2.5 to 8,000 turns, with resolution to 7.5 deg. of actuator output.
- Position setting range – direct drive part turn actuators: 90° +/-10°, with resolution to 0.1 deg. of actuator output.
- Torque setting: 40% to 100% rated torque.

Position measurement – Absolute position measurement should be incorporated within the actuator. The technology must be capable of reliably measuring position even in the case of a single fault. The design must be simple with the minimum amount of moving parts (no more than 5). Technologies such as LEDs or potentiometers for position measurement are considered unreliable and therefore not preferred.

Measurement of torque shall be from direct measurement of force at the output of the actuator. Methods of determining torque-using data derived from the motor such as motor speed, current, flux etc are not acceptable

A means for automatic “torque switch bypass” to inhibit torque off during valve unseating and “latching” to prevent torque switch hammer under maintained or repeated control signals shall be provided. The electrical circuit diagram of the actuator should not vary with valve type remaining identical regardless of whether the valve is to open or close on torque or position limit.

12. Remote Valve Position and Status Indication

Four contacts shall be provided which can be selected to indicate any position of the valve; Provision shall be made for the selection of a normally closed or open contact form. Contacts shall maintain and update position indication during handwheel operation when all external power to the actuator is isolated.

The contacts shall be rated for 5mA to 5A, 120V AC, 30V DC.

As an alternative to providing valve position indication any of the four above contacts shall be selectable to signal one of the following:

- Valve opening, closing or moving
- Thermostat tripped, lost phase
- Motor tripped on torque in mid travel, motor stalled
- Remote selected
- Actuator being operated by handwheel
- Actuator fault

Provision shall be made in the design for an additional eight contacts having the same functionality.

A configurable monitor relay shall be provided as standard, which can be used to indicate either Availability or Fault. The relay should be a spring return type with a Normally Open / Normally Closed contact pre-wired to the terminal bung.

The Monitor (availability or fault) relay, being energized from the control transformer will de-energise under any one or more the following conditions:

<u>Available Mode</u>	<u>Fault Mode</u>
<ul style="list-style-type: none">• Loss of main or customer 24V DC power supply• Actuator control selected to local or stop• Motor thermostat tripped• Actuator internal fault	<ul style="list-style-type: none">• Loss of main or customer 24V DC power supply• Motor thermostat tripped• Actuator internal fault

Provision shall be made in the design for the addition of a contactless transmitter to give a 4-20mA analogue signal corresponding to valve travel and / or torque for remote indication when required. The transmitter will auto range to the set limits.

13. Local Position Indication

The actuator display shall include a dedicated numeric/symbol digital position indicator displaying valve position from fully open to fully close in 0.1% increments. Valve closed and open positions shall be indicated by symbols showing valve position in relation to the pipework to ensure that valve status is clearly interpreted. With mains power connected, the display shall be backlit to enhance contrast at all ambient light levels and shall be legible from a distance of at least 5m (16ft).

Red, green, and yellow LEDs corresponding to open, closed and intermediate valve positions shall be included on the actuator display when power is switched on. The yellow LED should also be fully programmable for on/off, blinker and fault indication. The digital display shall be maintained and updated during handwheel operation when mains power to the actuator is isolated.

The actuator display shall include a fully configurable dot-matrix display element with a minimum pixel resolution of 168 x 132 to display operational, alarm, configuration and graphical datalogger information. The text display shall be selectable between English and other languages such as: Spanish, German, French, and Italian. Provision shall be made to upload a different language without removal of any covers or using specialized tools not provided as standard with the actuator.

Datalogger graphical displays should as a minimum be able to display log and trend graphs on the local LCD for the following:

- Torque versus Position
- Number of Starts versus Position
- Number of starts per hour
- Dwell Time
- Average temperature

The main display shall be capable of indicating 4 different home-screens of the following configuration:

- Position and status
- Position and torque (analogue)
- Position and torque (digital)
- Position and demand (positioning)

Provision shall be made for the addition of an optional environmental cover to protect the display from high levels of UV radiation or abrasive materials.

The local controls and display shall be rotatable through increments of 90 degrees to suit valve and actuator orientation.

14. Integral Starter and Transformer

The reversing starter, control transformer and local controls shall be integral with the valve actuator, suitably housed to prevent breathing and condensation. The starter shall be suitable for 60 starts per hour and of rating appropriate to motor size. The controls supply transformer shall be fed from two of the incoming three phases and incorporate overload protection. It shall have the necessary tapping and be adequately rated to provide power for the following functions:

- Energising of the contactor coils.
- 24V DC or 110V AC output for remote controls (maximum 5W/VA)
- Supply for all the internal electrical circuits.

15. Remote Control Facilities

The necessary control, wiring and terminals shall be provided integral to the actuator enclosure. Open and close external interlocks shall be made available to inhibit local and remote valve opening / closing control. It shall be possible to configure the interlocks to be active in remote control only. Remote control signals fed from an internal 24V DC (or 110VAC) supply and/or from an external supply between 20V and 60 VDC or 40V and 120VAC, to be suitable for any one or more of the following methods of control:

- Open, Close and Stop control.
- Open and Close maintained or "push to run" (inching) control.
- Overriding Emergency Shut-down to close (or open) valve from a normally closed or open contact.
- Two-wire control, energise to close (or open), de-energise to open (or close).

Additionally provision shall be made for a separate 'drive enable' input to prevent any unwanted electrical operation.

It shall be possible to reverse valve travel without the necessity of stopping the actuator. The motor starter shall be protected from excessive current surges during rapid travel reversal. The internal circuits associated with the remote control and monitoring functions are to be designed to withstand simulated lightning impulses of up to 2kV.

Provision shall be made for operation by distributed control system utilising the following network systems:

- Profibus
- Modbus
- Foundation Fieldbus
- Pakscan (wired and wireless)

- HART

16. Monitoring Facilities

Facilities shall be provided for monitoring actuator operation and availability as follows:

Actuator text display indication of the following status/alarms:

- Closed Limit, open limit, moving open, moving closed, stopped
- Torque trip closing, torque trip opening, stalled
- ESD active, interlock active
- Thermostat trip, phase lost, 24V supply lost, Local control failure
- Configuration error, Position sensor failure, Torque sensor failure
- Battery low, power loss inhibit

Integral datalogger to record and store the following operational data:

- Opening last /average torque against position
- Closing last /average torque against position
- Opening motor starts against position
- Closing motor starts against position
- Total open/closed operations
- Maximum recorded opening and closing torque values
- Event recorder logging operational conditions (valve, control and actuator)

The datalogger shall record relevant time and date information for stored data.

Datalogger data shall be accessed via non-intrusive *Bluetooth*® communication and data displayed on the local LCD. Sufficient standard intrinsically safe tools shall be provided for downloading datalogger and actuator configuration files from the actuators and subsequent uploading to a PC. The actuator manufacturer shall supply PC software to enable datalogger files to be viewed and analysed.

17. Wiring and Termination

Internal wiring shall be tropical grade PVC insulated stranded cable of appropriate size for the control and 3-phase power. Each wire shall be clearly identified at each end. The terminals shall be embedded in a terminal block of high tracking resistance compound.

The terminal compartment shall be separated from the inner electrical components of the actuator by means of a watertight seal and shall be provided with a minimum of 3 threaded cable entries with provision for an additional 5 extra conduit entries.

All wiring supplied as part of the actuator to be contained within the main enclosure for physical and environmental protection. External conduit connections between components are not acceptable. A durable terminal identification card showing a plan of terminals shall be provided attached to the inside of the terminal box cover indicating:

- Serial number
- External voltage values
- Wiring diagram number
- Terminal layout

The code card shall be suitable for the contractor to inscribe cable core identification alongside terminal numbers.

18. Commissioning Kit

Each actuator shall be supplied with a start-up kit comprising installation instruction manual, electrical wiring diagram and cover seals to make good any site losses during the commissioning period. In addition, sufficient actuator commissioning tools shall be supplied to enable actuator set up and adjustment during valve/actuator testing and site installation commissioning.

19. Performance and Test Certificate

Each actuator must be performance tested and individual test certificates shall be supplied free of charge. The test equipment should simulate a typical valve load, and the following parameters should be recorded.

- Current at maximum torque setting
- Torque at max. torque setting
- Flash test voltage
- Actuator output speed or operating time.

In addition, the test certificate should record details of specification such as gear ratios for both manual and automatic and second stage gearing if provided, drive closing direction, wiring diagram number.

Specification Cushioned Swing Check Valve

DESIGN

A. The check valve shall be designed to smoothly swing open at pump start and close quickly but without hammer upon pump shutdown to prevent flow reversal. When closed, the valve shall seat drop tight.

B. The valve shall conform to the materials of construction, pressure rating and test requirements of AWWA C508.

C. The check valve shall be suitable for installation in a horizontal or vertical flow up pipe.

D. Valves used on drinking water shall be certified lead free in compliance with Public Law 111-380 Reduction of Lead in Drinking Water Act.

CONSTRUCTION

A. The body shall be made of cast iron conforming to ASTM A126 Class B with a bolted steel cover allowing complete access to and removal of all internal components while the valve is in the line.

B. The valve body shall have integral flanges, flat faced and drilled per ANSI B16.1 Class 125 or Class 250 with the same size inlet and outlet, or an outlet that is one or two sizes larger than the inlet, as shown on the plans or schedule.

C. The valve body shall have a removable 316 stainless steel body seat held in place with stainless steel pins.

D. The disc arm shall be ASTM A536 Grade 65-45-12 ductile iron and the disc shall be ASTM A126 Class B cast iron with a replaceable Buna-N (or other suitable resilient material) disc seat held in place by a 316 stainless steel follower ring and stainless steel screws. The disc shall be

secured to the disc arm my means of a single center pin, disc nut and washer providing 360 degree angular articulation without rotation.

E. The disc arm shall be suspended from and keyed to an austenitic stainless steel shaft that is supported at each end by no-lead bronze bushings. The shaft shall rotate freely without the need for external lubrication. The shaft shall be sealed where it passes through the body by means of a stuffing box and adjustable Teflon packing.

F. The valve shall be supplied with an outside lever with counterweight and non-pivoting bronze air-cushion chamber that is rigidly mounted on machined pads on the side of the body without the need for brackets. The counterweight position and the amount of cushioning shall be adjustable.

G. Unless shown otherwise on the plans, the lever, counterweight and cushion chamber shall be on the right hand side of the valve (looking at the inlet) but shall be field convertible to the left hand side without additional parts.

MANUFACTURER

A. The valve shall be Figure 250-DS (Class 125 flange) Cushioned Swing Check Valve as manufactured by GA Industries LLC, Cranberry Township, PA USA

END OF SECTION



CITY OF ST. LOUIS
DEPARTMENT OF FINANCE
OFFICE OF THE SUPPLY COMMISSIONER

CAROL L. SHEPARD, CPA
SUPPLY COMMISSIONER

FRANCIS G. SLAY
MAYOR

1200 MARKET ST RM 324
SAINT LOUIS MO 63103
PHONE 314-622-4580
FAX 314-622-4141

ATTENTION BIDDERS

Please carefully review all information requested in this bid package.

Failure to submit requested samples, literature or any other requested information may result in disqualification of your bid or any portion of your bid.

Also the reasons indicated below may disqualify your bid. If you have any questions, call the buyer indicated in this bid package.

This form must be returned with your bid.

- Two or more bids submitted for one item, unless instructed to do so. (item rejected)
- Signature missing on bid or any required form.
- Buy American Form not completed or returned. (may be rejected)
- M/WBE Form not completed or returned. (may be rejected)
- Altered or erased unit prices must be initialed.
- Faxed bid, unless specifically requested (will be rejected).

- FOR CONTRACTS ONLY: Please provide your DUNS # _____
- FOR CONTRACTS ONLY: Failure to submit required Bond by the date indicated.

I certify that I have read and understand the information above.

Signature

Date

ST. LOUIS DOMESTIC PRODUCTS PROCUREMENT ACT

The City of St. Louis has enacted an ordinance relating to the purchase of domestic products by City government, with penalty provisions. The ordinance amends Section 5.58.010 Revised Code of the City of St. Louis, 1986, as amended by adding thereto new subsections dealing with the requirement that the Supply Commissioner or his designee give preference to goods or commodities manufactured in the United States of America, stating exceptions to said policy. Sections one through six are reprinted below.

Section One. Section 5.58.010 Revised Code of the City of St. Louis is hereby amended by adding the following language: Each solicitation to bid and the method of describing the items to be bid upon of any goods or commodities sought to be purchased by the Office of Supply Commissioner, and any contract entered into by and on behalf of the City of St. Louis and executed by the Mayor and/or the Comptroller of the City of St. Louis wherein the construction, alteration, repair or maintenance of any public works is the subject of the contract so executed, shall contain a provision that the goods or commodities furnished or used in the furtherance of said project by any contractor or subcontractor, manufacturer or supplier as the case may be, shall be manufactured, assembled or produced in the United States, and said requirement as defined above shall be stated in said bid.

Section Two. The provision of Section One of this Ordinance shall not apply in the following instances:

- (i) Where the item purchased as the contract entered into for repairs or renovation is less than One Thousand (\$1,000.00) Dollars.
- (ii) Where no line of a particular good or product is manufactured, assembled or produced in the United States.
- (iii) Where the acquisition of United States manufactured or produced goods would increase the cost by more than (10%) percent.

Section Three. The certificate required by this section shall specify the nature of the contract, the product being purchased or leased, the names and addresses of the United States manufacturers and producers contracted by the Commissioner or the project architect or engineer, and an indication that such manufacturers or producers could not supply sufficient quantities or that the price of the products would increase the cost of the contract by more than ten percent.

Section Four. No public agency may authorize, provide for, or make any payment to any vendor or contractor upon any contract in violation of section 2 of this act. Prior to the awarding of the bid and before any public agency authorizes, provides, or makes payment to any vendor or contractor upon any contract to which section 2 or 6 of this act applies, the vendor or contractor shall provide proof of compliance with section 2, and, if applicable, section 6 of this act. Any vendor or contractor who knowingly misrepresents any material fact to the public agency concerning the origin of any manufactured goods or commodities shall be guilty of a Class A misdemeanor.

Section Five. Sections 1 to 6 of this act shall apply only to contracts and subcontracts entered into after the effective date of this act, and shall not limit the use or supply of manufactured goods or commodities purchased or leased prior to the effective date of this act.

Section Six. Nothing in sections 1 or 6 of this act is intended to contravene any existing treaty, law, agreement, or regulation of the United States. All contracts under section 1 or 6 of this act shall be entered into in accordance with existing treaty, law, agreement, or regulation of the United States including all treaties entered into between foreign countries and the United States regarding export-import restrictions and international trade and shall not be in violation of sections 1 to 6 of this act to the extent of such accordance.

Interpretations and Guidelines

Section One: "Shall be manufactured" is interpreted to mean to make or process a raw material into a finished product or to turn-out in a mechanical manner. "Assembled" is interpreted to mean to fit or to join together the parts, gather, or to congregate in a manufacturing environment. "Produced" is interpreted to mean to create by manual or physical effort, to make or yield to customary product or products.

Section Two (i) This is interpreted to mean less than one thousand dollars in aggregate (total purchases).

(iii) When applying this subsection, multiply the cost of the foreign product by ten percent and compare the cost to the American product. If the American product cost is less than the sum of the cost of the foreign product plus ten percent, the award will be made to the vendor bidding the American product. The price paid by the City of St. Louis will be the actual price bid by the winning bidder.

Section Three: "Could not supply sufficient quantities" is interpreted to mean in order to meet the using agency's delivery schedule and in quantity specified.

Section Four: The vendor's authorized representative must complete a self-certification form, as required by the existing procedures previously indicated. These certification forms will be used to determine whether the manufacturer or producers could, or could not supply sufficient quantities, or the cost of the products would increase the contract by more than ten percent.

Prior to the City awarding the bid, the vendor shall provide certification that the product being bid is manufactured, assembled or produced in the United States or there is an existing treaty, law or regulation whereby the product bid shall be treated the same as product manufactured, assembled or produced in the United States. The procuring agency shall accept the self certification in order to apply the percentage differential that is applicable under this law. Failure to provide certification shall cause the city to presume that such product is not American made and preference shall not be considered for that product.

CERTIFICATION FORM ST. LOUIS DOMESTIC PRODUCTS PROCUREMENT ACT (BUY AMERICAN)

Bidders are advised of legislation enacted by the City of St. Louis which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured, assembled or produced in the United States, unless obtaining American made products would increase the cost of this contract by more than ten percent.

Section Four requires the vendor or contractor to certify his compliance with this legislation and if applicable, Section Six, if preference is claimed.

This legislation does not apply if the total bid is less than one thousand dollars (\$1,000.00).

Bids received will be evaluated on the basis of this legislation. Certificates of compliance must be completed and returned to be considered for preference. Failure to provide certification shall cause the City to presume that such product is not American made.

CERTIFICATION

If all the specified goods or products are manufactured, assembled or produced in the United States, check box at left and complete certification at the bottom of this form.

SECTION SIX CERTIFICATION

If any or all of the specified goods or products are manufactured, assembled or produced in a country other than the "United States", and exemption is requested because such product is Fair Trade Product: (a) list the country, other than the United States, where each good or product you propose to furnish is manufactured, assembled or produced; (b) check box at left of this paragraph and list corresponding commodities and (c) complete Section Six Documentation portion below.

Item Number(s)

Location Where Item Manufactured, Assembled or Produced

SECTION SIX DOCUMENTATION

The specified goods or products are treated as manufactured, assembled or produced in the United States under an existing treaty, law, agreement or regulation of the United States regarding export-import restrictions and international trade. List item Number(s) and Treaties covering item below.

DEFINITIONS

- MANUFACTURED** - to make or process a raw material into a finished product; create, or to produce or to turn-out in a mechanical manner.
- ASSEMBLED** - to fit or join together the parts in a manufacturing environment.
- PRODUCED** - create by manual or physical effort, to make or yield the customary product or products.

MUST BE COMPLETED AND SIGNED

I hereby certify that the above information is true and correct and further certify that this statement complies with all provisions of Section 5.58.010 Revised Code of the City of St. Louis, 1985, as amended.

FIRM NAME: _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

BY: _____

(SIGNATURE and TITLE)

**CITY OF ST. LOUIS/SUPPLY DIVISION
MINORITY/WOMEN BUSINESS ENTERPRISES FORM
(M/WBE FORM)**

A. Mayor's Executive Order #28, Section Six - Supply Contracts

1. The goal of the City of St. Louis is that 25% of the value of all contracts let and purchases made by the Supply Commissioner shall be let or made with Minority Business Enterprises (MBEs) and that 5% of the value of all contracts let and purchases made by the Supply Commissioner shall be let or made with Women's Business Enterprises (WBEs).
2. All contracts let by the Supply Division for the purchase or lease of materials, equipment, supplies, commodities or services, the estimated cost of which exceeds \$500, shall be subject to this goal.
3. The methods by which the Supply Commissioner shall pursue this goal shall include but not be limited to the following:
 - a. The Supply Commissioner shall solicit bids from minority business enterprises and women's business enterprises certified to supply the required materials, equipment, supplies or services;
 - b. St. Louis Airport Authority (SLAA) shall provide the Supply Commissioner with a list of minority business enterprises and women's business enterprises qualified to provide each of those commodities that the Supply Commissioner indicates are required by the City;
 - c. The Supply Commissioner shall notify SLAA prior to solicitation of bids whenever no such qualified businesses are available;
 - d. SLAA shall attempt to identify such qualified businesses, and if successful, shall notify the Supply Commissioner of their availability; and
 - e. The Supply Commissioner shall provide such minority business enterprises and women's business enterprises every practical opportunity to submit bids.
4. Joint ventures or mentor-protégé relationships between prime contractors and subcontractors with local MBE and WBE firms are encouraged.
5. Participation of MBE and WBE firms located outside the St. Louis Metropolitan Statistical Area (SMSA) shall not count toward the goals established in this order.

B. SUPPLY DIVISION POLICY

It is the policy of the Supply Division that all bids/contracts awarded adhere to the Mayor's Executive Order #28. All vendors are encouraged to comply with this policy and all other provisions of Executive Order #28. A copy of Executive Order #28 is available upon request. Each Vendor/Contractor (bidder) must complete, sign and return this M/WBE Form. Failure to complete, sign and return the M/WBE Form will result in the bid being declared non responsive and your bid may be eliminated.

C. OBLIGATION

The bidder agrees to make a good faith effort to ensure that M/WBE businesses have an opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with City funds. The bidder will take all necessary and reasonable steps to ensure that said businesses have an opportunity to compete for and perform under this bid/contract. The bidder shall not discriminate on the basis of race, color, national origin or sex in the award and performance of bids/contracts. The Directory of Disadvantaged, Minority and Women Owned Business Enterprises certified by the City of St. Louis, can be viewed at www.mwdbe.org.

**CITY OF ST. LOUIS/SUPPLY DIVISION
MINORITY/WOMEN BUSINESS ENTERPRISES FORM
(M/WBE FORM)**

D. BID/CONTRACT IDENTIFICATION

Bid #: _____ or Contract Name: _____ Opening Date: _____ Your Bid Total: \$ _____ If your bid is \$500 or higher, please complete Section 'E'. We are NOT requesting information on how your company currently supports M/WBE suppliers. We want to know if there are opportunities you might consider to work with M/WBE suppliers for THIS SPECIFIC bid/contract.

E. ASSURANCE MBE/WBE Goal: 25% MBE and 5% WBE (Minimum Participation)

I, acting in my capacity as an officer of the undersigned bidder(s) if a joint venture, hereby assure the City of St. Louis that on this bid/contract my company will: **(CHECK ONLY ONE)**

Meet or exceed the M/WBE goal with: _____% MBE and _____% WBE Participation

Proposed MBE Vendor Name: _____ Amount \$ _____ Item or materials to be supplied by MBE Vendor: _____ Proposed WBE Vendor Name: _____ Amount \$ _____ Item or materials to be supplied by WBE Vendor: _____
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Fail to meet the M/WBE goal, but made a good faith effort to meet the goals as follows:

_____ % MBE and _____ % WBE Participation (Enter Proposed Vendor information above.)

Not meet the M/WBE goal for the following reasons(s): (Check All That Apply)

	Our Company is an MBE certified by the State of: _____
	Our Company is a WBE certified by the State of: _____
	We have contacted suppliers listed in the SLAA Directory but have received no reply
	There are no subcontracting opportunities for this bid/contract
	We are a Dealer and the order will be drop-shipped from the manufacturer to the user
	We are the manufacturer and the order will be drop-shipped from the factory to the user
	A letter of explanation is attached
	Other reason: _____ _____

FIRM NAME: _____ FEDERAL ID NUMBER: _____

SIGNATURE: _____ FAX NUMBER: _____

PRINTED NAME: _____ DATE: _____

TITLE: _____ E-MAIL: _____

ORDINANCE #69431
Board Bill No. 295
Committee Substitute
As Amended

An Ordinance repealing Section One, part 86.040 of Ordinance 56716, pertaining to the opening of bids, codified as Section 5.58.040 of the Revised Code of the City of St. Louis, and enacting a new provision on the same subject matter which allows a local bidder to match the lowest bid when the lowest bid is from a non-local bidder; enacting a new provision on the same subject matter; containing severability clause.

WHEREAS, local businesses which seek to enter into contracts with the City of St. Louis are at a competitive disadvantage with businesses from other areas because of the higher administrative costs of doing business in the City;

WHEREAS, the City of St. Louis desires to encourage businesses to remain in the City and to relocate to the City;

WHEREAS, by enacting a local preference law that allows a local firm to match the lowest bid when its bid is within 2% percent of the lowest bid, the City hopes to encourage and stimulate local business.

BE IT ORDAINED BY THE CITY OF ST. LOUIS AS FOLLOWS:

SECTION ONE. Section One, part 86.040, Ordinance 56716 is hereby repealed.

SECTION TWO. Enacted in lieu thereof is the following new section.

5.58.040 - Opening of bids.

A. Proposals shall be opened at the time and place fixed by the advertisement, in the presence of such bidders as desire to be present, and shall be open to the inspection of bidders.

B. The bids shall not be materially modified or amended as to price, specification or otherwise, nor substitutions placed thereon, after opening except when the lowest bid is from a non-local bidder. When the lowest bid is from a non-local bidder, any local bidder within two percent of the lowest bid may match the lowest bid. If a local bidder matches the lowest bid, then the Supply Commissioner may select the bid from the local bidder. If more than one local bidder is within two percent of the lowest bid, then only the lowest local bidder may match the bid. In all other circumstances, modification, supplementation or amendment shall cause rejection of the bid. For purposes of this chapter, local bidder means a bidder whose principal place of business is within the City of St. Louis, has had a valid business license for at least one year, and is current in payment of local taxes. Principal place of business shall be defined as the business's physical office, plant, or site where a majority (51%) of the full-time employees, chief officer, and managers of the business regularly work and conduct business, or where the plant or office and equipment required for the furnishing of the goods or performance of the services provided to the City, as required by the contract, are physically located in the City of St. Louis for at least one taxable year immediately prior to the date of the bid.

C. Bids may be for one or more or all the articles advertised for, but there shall be a specific bid on each article. The award may be made to the lowest bidder for any article, or to the lowest bidder for the entire requisition or any part thereof, but the Board of Standardization may reject any or all bids or any part of any bid.

SECTION THREE. Severability.

The provisions of this section are severable. If any provision of this ordinance is declared invalid, that invalidity shall not affect other provisions of the ordinance which can be given effect without the invalid provision.

Approved: April 29, 2013

CITY OF ST LOUIS, MISSOURI
INSTRUCTION TO BIDDERS (for request for quotations - RFQs)

VENDORS SHOULD CAREFULLY READ THE FOLLOWING INSTRUCTIONS AND TERMS AND CONDITIONS, BEFORE SUBMITTING QUOTATION. **CAUTION: THIS IS NOT AN ORDER**

- Quotations will only be accepted on this form which must be returned in a **sealed envelope**. *The upper left corner of the envelope must include the following information: Vendor Name, Quotation Number and the Due By Date.* This information is also required on any mail delivered next day or overnight.
- Quotations should be typewritten or in ink. Altered or erased unit price(s) must be initialed. One copy of Quotation Sheet must be submitted, please retain a copy for your files.
- The Supply Commissioner reserves the right to reject any or all bids.
- The Supply Commissioner reserves the right to make awards on an item basis or on a total basis.
- Bidders must quote Unit Price(s) and Extension on each item. When an error appears on an extension, the Unit Price(s) will govern.
- When Quotation Sheet requests item(s) by brand name and your quote is for an alternate brand – show brand name(s) with model number(s) and attach full specifications.
- When Quotation Sheet has only a general description(s) of item(s) required – show brand name with model number(s) and attach full specifications.
- Suppliers shall not offer more than one bid on each item. Two or more quotations on the same item may cause a rejection of the bid. Suppliers must determine which one of their many styles or types fully meet the specification.
- Freight or delivery charges must be included in quote, or shown separately on quote, so bid can be evaluated.
- **Bids must arrive no later than NOON** on the date stated or will be rejected. Faxed or E-mailed bids are not accepted unless specifically requested.
- Bids will be publicly opened on the date specified beginning at NOON.
- Prices quoted will be considered firm.
- Bids having an acceptance limit of less than 30 days after opening date may be rejected.
- Time of proposed delivery must be stated in definite terms.
- Failure of Bidder to understand the item(s) requested or any part of the specifications will not be a valid reason for bidding on the wrong item(s). Any questions regarding description of item(s) requested should be cleared with the Buyer listed in the bid document.
- **Samples** when requested must be delivered before actual time of bid opening with each sample plainly tagged showing the name of Bidder, Quotation Number, Brand Name and lot number or quality. Submission of samples does not relieve bidder from meeting the specifications as outlined in the Bid Documents unless the bidder specifically states they are bidding on an alternate.
- All samples are to be submitted to the address listed below unless otherwise stated in Bid Documents.
- Deliveries must be accompanied by a packing slip or invoice, listing the Department, Quotation Number, and the exact quantities of each item included in the shipment.
- **ONLY U.S.P., N.F., OR N.N.D. DRUGS ARE ACCEPTABLE. ALL DRUGS MUST COME IN MANUFACTURER'S ORIGINAL PACKAGES, PROPERLY SEALED.**
- In the event the successful bidder fails to make delivery of any item or items that meet the conditions and requirements as outlined in this proposal within 7 days of time stated by bidder on face of this quotation sheet, the City reserves the right to purchase said item or items on the "OPEN MARKET" and charge any costs above the BID PRICE to the bidder.
- The laws of the State of Missouri provide that the City of St. Louis pay no State Sales or Use Tax or Federal Excise Taxes and these taxes should be excluded from your bid price. Federal Excise Tax Exemption Certificates will be furnished to successful bidder.
- Suppliers shall save harmless the City of St. Louis from the payment of any and all claims or demands arising out of any infringement, alleged infringement, or use of any patent or patented device, article, system, arrangement, material or process used by him in the execution of this contract.
- Supply Division hours are Monday through Friday – 8:00 A.M. to 5:00 P.M. Main Number: 314-622-4580.

All bids must be submitted in a SEALED ENVELOPE and mailed to:

SUPPLY COMMISSIONER
1200 MARKET ST RM 324
ST LOUIS MO 63103-2842