

SPECIFICATIONS FOR IRRIGATION SYSTEMS, FOUNTAIN, AND PUMP HOUSE PREVENTIVE MAINTENANCE, REPAIRS AND SUPPLIES

INTENT

The County of Mercer requests bids for **IRRIGATION SYSTEMS, FOUNTAIN AND PUMP HOUSE PREVENTIVE MAINTENANCE, REPAIRS AND SUPPLIES** for the Mercer County Park Commission for a period of two years.

CONTRACT AWARDS

The County will award contracts based upon:

- The hourly rate for Preventive Maintenance and Repair for Irrigation Systems and Fountains for a period of two years. There are three (3) major irrigation systems: Toro, Rainbird and Hunter.
- The LUMP SUM RATE for Preventive Maintenance and Repair for Pumps and Wells FOR A PERIOD OF TWO YEARS
- Parts and Supplies – NO BIDS- County to Re-bid

Bidders must be licensed as a Landscape Irrigation Contractor for irrigation and fountain work and shall be licensed as a Well Installer and Pump Driller for Well and Pump work. Subcontractors must be referenced on page 33 if the work is not performed in-house. Bidders must provide a copy of the Landscape Irrigation License if bidding on Irrigation and fountain work and Well Installer and Pump Driller license if bidding on pump and well work. Well replacement work must be performed by a New Jersey licensed well driller; repairs to wells or pumps must be performed by a New Jersey licensed well driller or pump installer.

The awarded contractors shall provide Mercer County and its Co-op members, hereafter referred to as owners with a contract for original equipment replacement commercial parts, preventive maintenance and repairs. Mercer County maintains the referenced systems; therefore, for County purposes the contractors will be utilized on an as needed basis. No guarantees are made for or implied for the total value of the contract for County only purposes. Original Equipment Manufactured shall hereafter be referred to as OEM.

EQUIPMENT REPAIR REQUIREMENTS

No service or repairs will be performed without prior approval from Mercer County or the owners. No bill shall be rendered for any repairs or service that has not been performed.

All repairs and service shall be completed within the time frame as defined by the owner. Any extension of this time must have prior approval from Mercer County or the owners. Every effort must be made to meet appointment schedules and promised completion times.

All servicing technicians will be factory certified or trained and certified in the work to be performed. Proof of factory certification or training will be included with this bid specification. No service or repair will be attempted in which personnel are not fully qualified or trained. Contractor to have the equipment and supplies to perform repairs as described in this proposal. A written PM or repair estimate shall be provided before any repairs or service can take place.

All equipment must be protected while in the possession of the vendor. Unless otherwise instructed by the owners, all parts that are removed in the repair of the systems must be returned with the equipment with the exception of warranty parts. All corrective repair service will be performed at no additional charge to the owners.

Any additional repair service and /or parts that the winning contractor deems necessary, beyond the original repair request, must first be approved by Mercer County and its owners. All warranty claims shall be completed within 24 – 48 hours at no additional cost to the owners.

Compliance with all federal, State or local D.E.P. standards or regulations shall be the responsibility of each contractor.

THE IRRIGATION SYSTEMS AND FOUNTAINS PRESENTLY IN PLACE FOLLOW:

The contractor must have all of the equipment, tools, OEM parts and supplies to provide PM and repairs for the systems listed below. The county reserves the right to add sites as necessary.

Mountain View Golf Course

890 Bear Tavern Road

Ewing, NJ 08628

Hunter Legacy Genesis Irrigation System and Toro Commercial Landscape Irrigation System.

Flo-Tronix pump system

Princeton County Club

One Wheeler Way

Princeton, NJ 08550

System installed in the 1950's - Hunter sprinkler heads and centrifugal pump

Mercer Oaks East

725 Village Road

Princeton Jct., NJ 08550

System installed in early 1990's, Rainbird sprinkler heads with Flo-tonic pump.

Mercer Oaks West

725 Village Road

Princeton, NJ 08550

System installed early 2000, Buckner sprinkler heads with Aquaflow pump.

Mercer County Park

334 South Post Road

West Windsor, NJ 08550

Marina and Vietnam Memorial

Hunter Controller and sprinkler heads

Baseball Fields 1 and 2, Softball fields 1 and 2 and Soccer fields 1 and 2

All Systems are installed with Quick valves

Soccer Fields 3 through 9: Sentinel Satellite controller and Oasis booster pump controller and with Toro heads (Model 640 Body with 360 degree drivers)

South Riverwalk Park

One Thunder Road

Trenton, NJ 08611

System installed in 2003 Toro Controller and heads with Techline dripperlines

Watson House – Installed 1960's with Imperial controller with Toro heads

151 Westcott Street

Trenton, NJ 08610

Nature Center - Toro Custom II 8 control and Toro heads
157 Westcott Street
Trenton, NJ 08610

Fountain Locations:

Mill Yard Park installed in 2003 with Waterworks International Controller
635 South Clinton Ave.
Trenton, NJ 08611

Mountainview- installed 2006 with Aquamaster
890 Bear Tavern Road
Ewing, NJ 08628

Mercer Oaks - installed 2007 with Desert Rain
725 Village Road West
Princeton Jct., NJ 08550

ALL DISCOUNT RATES OFFERED MUST BE FIRM FOR THE ENTIRE CONTRACT TWO YEAR TERM.

PREVAILING WAGE ACT AND PUBLIC WORKS CONTRACTOR REGISTRATION ACT

Contractors shall comply and adhere to all requirements of the New Jersey Prevailing Wage Act and Public Works Contractor Registration Act. The awarded contractor shall submit a certified payroll record to the owner within ten (10) days of the payment of wages. The contractor is also responsible for obtaining and submitting all subcontractors' certified payroll records within the aforementioned time period. The contractor shall submit said certified payrolls to the County. It is the contractor's responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the New Jersey Department of Labor and Workforce Development, Division of Workplace Standards. All work to be performed shall be in accordance with the Project Documents, Drawings and Specifications.

MINIMUM ORDERS

There shall be no minimum requirements.

SCOPE OF WORK FOR PREVENTIVE MAINTENANCE AND REPAIR

The County of Mercer requests bids for preventive maintenance and repair and winterization, spring start up, on-call maintenance, and emergency repair support services for existing irrigation systems fountains, pump houses and wells throughout the County. The services provided are intended to supplement and complement the efforts of the County in maintaining the serviceability of the existing systems. The successful Contractors shall be required to perform base services, and related supplemental services at any of the irrigation zones on an as needed basis, as directed by the designee of the County. The Contractor shall provide all equipment required to provide preventive maintenance and repair.

PUMP HOUSE SERVICE AGREEMENT

The awarded vendor shall provide Preventive Maintenance for the County's Pumping Stations. The maintenance services are to be performed over a period of two (2) separate visits during the year. Contractor shall provide for Preventive Maintenance and up to three emergency site visits to diagnose and repair pump problems throughout the season on an as needed basis. Services performed shall include the major maintenance component for rebuilding operations

and the first visit shall occur when the Golf Club is ready to re-start the pump station for pipe filling and seasonal irrigation use. During this visit the contractor will start the station and make all operational adjustments. The contractor will verify that the station is operating at peak performance. The second visit will prepare the station for the winter by draining all wetted components to prevent freezing damage. The contractor shall perform any other necessary work to prepare the pump stations for the winter. The winterization work will only cover components included in the pump system, field components excluded. Bidders shall provide an all inclusive price for the Pump Houses preventive maintenance and three subsequent visits (per year) for the two year period. All additional work shall be performed based upon the hourly rate for Repairs.

TIME AND MATERIAL HOURS

Quotes for any work shall include a cost breakdown submitted by the contractor as follows: labor rate, quantity of hours, materials list, wholesale cost (with evidence of same) and mark up, at applicable contract rates. Each call shall generate a separate invoice detailing the labor charge and the parts/materials as outlined above. All invoices are required to include the proper purchase order number, which can be obtained by calling the requesting department.

HOURLY LABOR RATE

The County does not guarantee any minimum number of hours and will pay only for the actual number of hours authorized and worked at the bid rate. The labor charge should include all travel time. No additional travel will be honored.

EXPERIENCE PERFORMANCE

Contractor will be required to have a minimum of 5 years experience. The Contractor shall furnish all resources (i.e. supervision, labor, transportation, materials, supplies and equipment) necessary to fulfill all the requirements and satisfactorily perform all the services. Bidders shall provide references of three projects of similar type over the past three years.

DESCRIPTION OF SERVICES

The Contractor shall monitor and provide systems adjustment recommendations and physical inspections of the irrigation areas. The Contractor shall provide system adjustment recommendations to the County designee. The Contractor shall flag and mark on a zone map and verify that existing locations of all POCs, valves, and valve boxes, are correctly plotted on the existing zone map. This function shall be performed once at Spring Start-up and once at Fall Winterization for each year of the contract. The Contractor shall document all work and/or inspections performed. Documentation shall include plotting on the map, and maintaining a written list of needed repairs, potential repairs, and breaks.

IRRIGATION WINTERIZATION SERVICES

Winterization shall be performed between October 1st and December 15th, annually, the exact start date will be determined by the County designee.

The Contractor shall provide a minimum of one crew for winterization. The Contractor shall have the capacity to provide a second crew for support and to make any as needed repairs.

The County's Maintenance Personnel may make needed repairs to all irrigation zones and systems prior to winterization. In the event that all repairs are not made, the County may request the Contractor to make the repairs under Supplemental Services. Neither Winterization nor required repairs shall be delayed or postponed due to a lack of Contractor manpower.

Winterization and preventive maintenance shall include the following procedures that shall be performed in accordance with manufactures specifications for each system zone:

Blow out water using appropriate size air compressor. The compressor shall have a capacity range of 185 to 250 CFM, and shall be regulated to an industry acceptable range of 45 to 60 PSI, by use of a pressure regular. Contractor shall take measures to preclude excessive friction and heat build-up, due in part, to the rapid induction of forced pressurized air into the irrigation system during blowout.

Reseal piping to prevent infiltration of ground water.

Provide tag out/lock out of all irrigation main line valves.

SPRING START UP SERVICES

Spring start up shall be performed sometime between March 1st and May 30th, the exact start date will be determined by the County Designee.

The Contractor shall provide a minimum of one crew for Spring Start-up. The Contractor shall provide a second crew to make needed repairs.

Repairs identified during spring start up inspection maybe performed under the Supplemental Services portion of this SOW. Neither Spring Start-up nor shall repairs be delayed or postponed due to lack of Contractor manpower.

Spring Start-Up shall include the following procedures that need to be done in each zone:

- Check the system for obvious external damage and missing heads
- Fill the system and check for breaks/leaks, proper operation and water distribution.
- Remove, clean, and replace clogged heads.
- Recalibrate and adjust all aspects of each system and zone.
- Provide documentation of the conditions found and the work performed.

If broken and/or damaged parts are found during spring start up inspection, a County representative and the Contractor shall determine if breakage is the result of freezing caused by faulty Winterization, or if others cause the breakage or damage to the system. If breakage is the result of freezing, due to improper Contractor Winterization, the Contractor shall make the needed repairs at no cost.

CONTRACTOR'S QUALIFICATIONS

The Contractor shall have at least ten (5) years experience in the business of troubleshooting, diagnosing, repairing and maintaining all types of landscape irrigation systems, pumps and wells. The Contractor shall provide written certification that all Contractor personnel performing work under this contract possess an in-depth working knowledge of all relevant equipment, and computer programs required to operate the systems described herein.

RESPONSE TIME

The Contract Manager shall be available for calls 24 hours a day, seven (7) days a week. The Contractor shall respond to all requests for service within four hours of notification.

WINTERIZATION/SPRING START UP COORDINATION MEETING

Prior to performing irrigation system winterization and spring start up the contractor shall meet with the County Park Commission Maintenance personnel. The purpose of the meeting is to discuss and coordinate the work that is to be performed.

SAFETY AND PROTECTION PLAN

The Contractor and each of its employees shall comply with all applicable OSHA and County rules and practices while on the job site.

The County reserves the right to inspect all areas for safety violations at its discretion, direct the Contractor to make immediate improvement of necessary conditions and/or procedures, and/or stop the work if other hazards are deemed to exist.

In the event that the County should elect to stop work because of any type of existing safety hazards after the Contractor has been notified and provided ample time to correct, the Contractor shall bear all costs for eliminating the hazard(s) and shall not be granted compensation for the work stoppage. The Contractor shall pay all additional expenses.

The operation of the Contractor's vehicles or private vehicles by the Contractor's employees on or about the property shall conform to posted regulations and safe driving practices. Aisles, passageways, alleyways, entrances or exits to fire protection equipment must be kept unobstructed at all times.

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take all necessary precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to persons, properties, equipment and vehicles.

Damage caused by the Contractor to any properties shall be repaired or replaced to the satisfaction of the County at the expense of the Contractor. The County, at its sole direction, may elect to repair or replace the damaged property, and deduct such costs from monies due the Contractor.

The Contractor shall, within ten (10) days of Contract award, submit its own detailed safety and protection plan/program that shall comply with all safety, environmental protection, property protection and health provisions of the Contract.

Prior to use of any products or materials, the Contractor shall provide the following submittals for review and approval by the Park Commission. The Contractor shall furnish three copies of each submittal. The submittal shall provide at a minimum:

- Manufacturer's product data and literature
- Manufacturer's installation guidelines
- Samples, if required
- Material Safety Data Sheets (MSDS)

SYSTEM REPAIR STANDARDS

The Contractor shall repair and maintain all equipment covered under this Contract in compliance with the requirements of all local codes and manufacturers installation specifications and guidelines. The Contractor shall perform all services utilizing, at a minimum, the following guidelines:

1. Monitoring – All underground irrigation zones shall be operated and visually checked for leaks, broken heads, heads out of adjustment and improperly functioning electric valves.
2. Broken Irrigation Lines – Broken underground irrigation lines shall be repaired in accordance with all applicable codes.
3. Broken Heads – Broken heads shall be replaced with new identical heads or repaired with original manufacturer's parts, to function according to the manufacturer's specifications.
4. Faulty Valves – Faulty valves shall be replaced with new identical valves or repaired to original manufacturer's specifications.
5. Clogged Heads – Any head that is not properly functioning shall be examined for material(s) lodged in the head. The head shall be disassembled, cleaned, reassembled, and checked.
6. Wiring Problems - An underground wire tracer shall be used to locate wiring breaks. Breaks shall be repaired in accordance with all applicable local codes and with waterproof connectors.

7. Underground Installation repairs – underground main pipe repairs shall be marked with metallic tape or low voltage wires prior to backfill (if applicable). Underground irrigation repairs shall be performed in accordance with applicable codes.
8. The Contractor shall restore landscape to its original condition, including re-seeding, re-planting shrubs, mulching, and providing straw as needed.
9. The Contractor shall remove all debris resulting from installation and repair of irrigation systems.
10. Trenching and Backfilling - Minimum depths shall be measured from the soil surface to the top of the pipe. Piping shall be buried at the following depth – open areas: Main lines – 24", Lateral lines – 18", and under paving – 36" utilizing a 4" sleeve. All backfilled trenches shall be adequately settled, and/or compacted as per code requirements.
11. Fittings - All PVC pipes shall be cut evenly and wiped clean without any burrs or rough edges before fitting. Primer and solvent shall be applied per manufacturer's specifications. The pipe and fitting shall be assembled and allowed to cure according to manufacturer specifications before lines are charged with water.
12. Threaded Connections – All threaded connections shall be made watertight without leakage. Teflon tape or approved pipe joint compound shall be used where appropriate.
13. Valves – All valves shall be set at least 18" deep (measured from the soil surface to the top of the valve stem) and positioned so that the top of the valve can be easily removed and serviced. The valve(s) shall be supported from the bottom with a clay or concrete standard brick (2 ¼" x 3 ½" x 7 ¾") and at least 2- 3 inches of washed ¾" gravel shall be placed below the valve(s). The valve box shall be set to cover all valves so that there is sufficient space to service the valves and also so that the top of the valve box is even with the surrounding grade. At least, two sides of the bottom of the valve box shall be supported with a clay or concrete standard brick. The bottom of the valve box shall be a minimum of 4" above the top of irrigation pipe.
14. Gate Valves – All gate valves shall be at least 18" deep (measured from the top of the valve casing to the soil surface) and shall have a valve box placed over the valve with the top of the box even with the surrounding grade. The bottom of the valve box shall be a minimum of 4" above the top of the irrigation pipe.
15. Wiring - Wire shall be color-coded so that the common wire is the same color throughout the site, and the individual zone wires shall be a different color from the common wire. The wire shall be run in the pipe trenches and buried a minimum of 18" deep. Loose wire shall be bundled together with plastic "keepers" or electric friction tape every 24". At the Authority's request, the Contractor may have to install wires in metal conduit, or gray PVC electrical conduit. Outdoors from irrigated area to controller, the control wires shall be run through PVC electrical conduit. Two extra wires shall be included in the bundle. Indoors, wiring shall be run through PVC electrical conduit.
16. Electrical Connections – All electrical connections shall be made with waterproof King one-step connectors or approved equivalent. All splices of wiring shall have a valve box installed around the splices. The wiring connections at the valve shall be made so that at least eight (8) extra inches of wire is left for each connection. At least, two sides of the bottom of the valve box shall be supported with a clay or concrete standard brick. The bottom of the valve box shall be a minimum of 4" above the top of the irrigation pipe.
17. Cleaning of Pipes – All main and lateral lines shall be thoroughly blown out with water before connecting any sprinkler heads.
18. Installation of Sprinkler Heads - Heads shall be connected to the lateral lines with flexible pipe and threaded adapters.
19. Setting and Adjustment of Sprinkler Heads – All heads shall be set so that they can adequately properly cover the area. The Rain Bird 1800 series heads shall be set flush with the soil surface. The Hunter G-series shall be set slightly (1/2" to 1") below the soil

surface. Heads next to walks or curbs shall be set 4" to 6" away from paving or concrete, and shall be selected for use, according to manufacturer's recommendations. Heads shall be adjusted to cover the areas according to manufacturer's specifications.

20. Location of in-ground utilities –Prior to making repairs or installation of in-ground irrigation systems, the contractor shall contact New Jersey Utilities and obtain all site inspections and written approval to proceed. The contractor shall provide copies of these documents. The contractor shall also notify and issue a work order to in-house employees, who will locate specific in-ground utilities. The contractor shall proceed only after written approval.

PERMITS AND RESPONSIBILITIES

The Contractor shall be responsible for obtaining all necessary licenses and permits. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's negligence and shall take proper safety and health precautions to protect the work, the workers, the public and the property of others. In addition, the Contractor shall be responsible for all materials delivered and work performed until completion and acceptance of the entire work.

The Contractor shall comply with all applicable revisions, additions, changes and/or upgrades to any Federal, state, and municipal laws, codes, and regulations which are in effect on the date of Contract and which affect the performance of the work. The Contractor shall also obtain and pay the costs of any royalties and licenses for any patented or copyrighted items used in the performance of the work.

It shall be the responsibility of the Contractor to promptly notify the County Designee if an official in charge of compliance with the Occupational Safety and Health Act visits the work site.

VOC REQUIREMENT

The Contractor shall use on the job site only chemicals and cleaning products that do not exceed the national Volatile Organic Chemical (VOC) limitations rule(s) published by the U.S. Environmental Protection Agency (EPA).

ON-SITE PERSONNEL

The Contractor agrees to utilize responsible, capable employees in the performance of all services of this Contract. The Contractor shall provide on the job site all the manpower, labor and supervision required to fulfill the requirements. The awarded contractor shall provide background checks on all employees working on the project.

PROMPT PAYMENT

In compliance with N.J.S.A. 2A:30A-1 et seq., the County of Mercer shall impose the following payment process:

The County of Mercer shall pay the submitted bill not more than 30 calendar days after the receipt of the bill by the Owner's Representative if the contractor has performed in accordance with the contract and the work has been approved and certified by the Owner's Representative. The billing shall be deemed "approved" and "certified" 20 calendar days after the owner's representative receives it, unless the Owner's Representative provides, before the end of the 20-day period, a written statement of the amount withheld and the reason for withholding payment.