STATEMENT OF WORK
MAXWELL PUMPING STATION
FLINT HILLS NATIONAL WILDLIFE REFUGE

I. GENERAL CONDITIONS

A. The Contractor shall provide all material and labor required to install a submersible pump with underground piping to an existing underground plastic pipe. Flint Hills NWR will provide heavy equipment and all dirt work necessary to complete the project as outlined in Section VIII.

B. The Contractor shall be responsible for installing all materials described in Section VIII.

C. The Contractor shall have all certificates and licenses required by law for the execution of the work, and shall comply with all Federal, State, or local laws, ordinances, rules, regulations, and codes relating to performance of the work.

D. Typical working hours are 7:30 am to 4:00 pm Monday through Friday. Any work that deviates from this schedule or during a holiday requires Contracting Officer approval. These times can be negotiable during the pre-construction meeting.

E. Any conflict or overlap of Kansas Department of Environmental Quality, EPA, OSHA, and other applicable Federal, State, and local regulations, the Contractor shall follow the most stringent provision.

F. Safety

1. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to the protection of workers, visitors to the site, and persons occupying areas adjacent to the site, including the provisions of 29CFR1910 and 29CFR1926 of the Code of Federal Regulations. The Contractor shall hold harmless the Government for failure to comply with any applicable safety or health regulations on the part of himself, his employees, or his subcontractors.

2. Every Contractor employee shall be responsible for complying with applicable safety requirements, wearing prescribed safety equipment, and preventing avoidable accidents and property damage.

3. The Contractor shall provide and maintain a basic first aid kit for use of the workers. The kit shall contain first aid supplies in type and quantity

commensurate with type and size of project and the work force, with items necessary for first aid treatment of all injuries. The Contractor shall advise all workers of the location of first aid supplies.

4. The Contractor shall post the telephone numbers of nearest hospital, ambulance service, and fire station in a conspicuous location. The Contractor shall advise all workers of the location of telephone numbers. Communication devices shall be made available and be ready at the work site to alert others in case of emergencies.

5. The Contractor shall provide at least one nonfreezing type fire extinguisher in each field office, workshop, work site, and storage shed at the work site. These fire extinguishers shall be placed in locations readily accessible by workers.

II. WORK SITE CONDITIONS

A. The site of the work is at Flint Hills National Wildlife Refuge and is approximately 2.5 miles North of Hartford, Kansas. See attachments for project location map.

B. Prospective bidders are urged to visit the site and become familiar with existing conditions and ascertain the conditions which affect the work. Failure of the successful bidder to visit the site prior to submitting a bid or proposal on this work will not relieve the successful bidder from completing the project at the bid price. Prospective bidders must make site inspection arrangements with the Refuge Manager, Mike Assenmacher, at Flint Hills National Wildlife Refuge, 530 W Maple Rd, Hartford, KS, Phone: (406) 366-0537.

C. Site includes work in forested area that may impede construction. The Contractor shall visit the site prior to bidding to see obstacles.

D. The Contractor will connect to existing underground plastic pipe.

E. Protection Environmental

1. Pollution Control

a. The Contractor shall abate and control all environmental pollution arising from construction activities by complying with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, as well as the specified requirements in this contract. The Refuge Manager, or his designee, will inspect the site regularly for compliance.

b. Compliance with this requirement by any and all subcontractors shall be the responsibility of the Contractor.

2. Prevention of Water Pollution

   a. During construction the Contractor shall comply with all applicable Federal, State, and local laws and regulations concerning the control and abatement of water pollution.

   b. The Contractor's construction activities shall be performed by methods that will prevent entrance or accidental spillage of solid and/or liquid matter, contaminants, debris, and other objectionable pollutants and wastes into streams, flowing or dry watercourses, lakes, ponds, and underground water sources. Such pollutants and wastes include, but are not limited to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution.

   c. At the completion of construction, the Contractor shall remove and dispose of all pollutants, wastes, and objectionable material at a site located off the Government property.

   d. The Contractor is responsible for the proper disposal of such materials in accordance with applicable local, State, and Federal regulations.

   e. Sanitary facilities, such as chemical toilets, shall be located far enough from wells, live streams, or ponds to prevent water pollution.

3. Noise Pollution

   a. The Contractor shall comply with all applicable Federal, State and local laws, temporary use permit, orders, and regulations concerning the prevention, control, and abatement of excessive noise.

4. Solid Waste

   a. The Contractor shall dispose all non-hazardous waste in an EPA approved landfill.

   b. The Contractor shall remove any dust, dirt, and debris caused during the construction process.

5. Hazardous Waste

   a. The Contractor shall comply with applicable Federal, State, and local laws and regulations concerning the abatement, handling, removal, and disposal of hazardous waste.

b. The Contractor's abatement activities shall be performed by methods that will prevent accidental spillage of solid material, contaminants, debris, and other objectionable pollutants and wastes into streams flowing or dry water-courses, lakes, ponds, and underground water sources.

F. Environmental Litigation

1. Time lost due to work stoppage because of failure of the Contractor to comply with these requirements may not be the subject of a claim for extension of time or for costs or damages.

G. Fossils and Cultural Materials:

1. Should the Contractor discover any fossils or cultural materials during construction operations, such objects shall become the property of the Government. The Contractor shall cease construction operations in the area of the "find," and immediately notify the station manager of such discovery. Construction operations may proceed in other areas not affected by this clause. Care shall be exercised by the Contractor not to damage or collect fossils or cultural materials uncovered during excavation operations.

2. Failure to comply with this requirement may be considered a violation of the Archeological Resources Protection Act of 1979 as amended. Destruction of historic and prehistoric sites and/or unauthorized collection of cultural materials can result in criminal and/or civil penalties. Penalties can include fines, prison sentences, and/or confiscation of equipment.

III. TEMPORARY FACILITIES AND CONTROLS

A. Temporary Utilities

1. The site does not have access to electricity, sanitary sewer, or drinking water.

2. The Contractor shall be responsible for the daily removal and disposal of all debris from demolition and construction activities.

B. Site access and equipment storage areas

1. All Contractor operations (including storage of materials) upon Government premises shall be confined to areas authorized or approved by the Refuge Manager, or his designee.

2. The Contractor shall restore all work and storage areas and areas disturbed by construction to their original condition, or as approved by the Refuge Manager, or his designee, upon completion of the work

3. The Contractor shall observe all laws and regulations of the local, county, and State authorities in the use of all public roads and highways for the transportation of materials and equipment in connection with work on the project.

4. The Contractor shall observe all overhead obstructions such as bridges, cables, ect. The Contractor shall repair damage to roads, highways, overhead obstructions, and similar items, resulting from operations performed in connection with this project.

C. Protection and Restoration:

1. The Contractor shall protect all structures and vegetation during the progress of the work and remove all debris and unused materials from the site.

2. Upon completion of the work, the Contractor shall restore, at their expense, all vegetation to its original condition, including the replacement any facility or landscaping which has been damaged.

D. Traffic Regulation

1. If traffic regulation is required at the jobsite, the Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient flasher lights, flagmen, danger signals and signs, and shall take all necessary precautions for the protection of the work and the safety of the public.

2. Roads closed to traffic shall be protected by effective barricades on which acceptable warning signs shall be placed.

    a. All barricades and obstructions shall be illuminated at night and all lights shall be kept burning from sunset until sunrise.

3. Install appropriate traffic signs at crossroads and approaches to site as needed to direct all affected traffic. Specific sign and barricade requirements are detailed in ANSI D61, "Manual on Uniform Traffic Control Devices."

E. Delivery and Storage: Material shall be delivered to the site in a dry and undamaged condition and stored out of contact with the ground. Materials shall be covered with weather tight covering and kept dry. Storage accommodations shall provide good air circulation and protection from surface staining, when appropriate.

IV. MEANS AND METHODS

A. Means and methods of construction shall be such as the Contractor or subcontractors may choose; subject, however, to the Contracting Officer's right to reject means and methods proposed which:

1. Constitute a hazard to the work, persons, or property.

2. Will not produce finished work according to the terms of the contract.

3. Are contrary to specified means or methods included in the contract.

B. The right to reject means and methods of the Contractor or subcontractor shall not be construed or interpreted as acceptance of control of means and methods by the Contracting Officer.

C. The Contracting Officer's approval of means and methods or failure to exercise right to reject means and methods shall not relieve the Contractor of the obligation to complete the work required by the contract.

D. Total responsibility for control of all means and methods lies with the Contractor for all work.

E. Final Inspection

1. The Contractor shall request a final inspection in writing at least ten (10) days prior to the anticipated date of completion. If, as the anticipated date of completion approaches and it becomes apparent that the date will not be met, the Contractor shall inform the Contracting Officer at the earliest possible moment, but in any case not later than 2 business days prior to the anticipated completion date.

2. Work will not be considered READY FOR FINAL INSPECTION until all the work has been completed and the Contractor has certified that all items are properly operating and in strict compliance with all contract terms and conditions. THIS CERTIFICATION SHALL BE PROVIDED TO THE REFUGE MANAGER, OR HIS DESIGNEE, IN WRITING.

3. The Contractor and/or his project supervisor shall be at the job site during the final inspection.

F. Final Cleanup: The Contractor shall clean the site and remove from the site all construction debris.

G. Final Payment: The Contractor shall submit the following prior to final payment: evidence of completion, guarantees, warranties, O&M manual, certificates, certified payrolls, and as-builts.

V. CONTRACTOR QUALIFICATIONS

A. The Contractor and all subcontractors shall have all Federal, State, and local licenses, and/or certifications, etc., necessary to perform work in Lyon County, Kansas. All licenses and/or certificates must be current from start to finish of the project.

B. A licensed Professional Engineer for the State of Kansas shall approve for appropriate pump start up, as described by the supplier.

VI. SUBMITTALS

A. The Contractor shall provide copies of all required permits, clearance, and licenses obtained to perform this work to the Contracting Office.

B. If alternatives to the means and materials described in these specifications are offered, the submittal must contain a written description of the proposed means and materials comparing all features, options, and codes (if any), in detail. A detailed explanation of why the proposed alternative should be accepted must also be submitted.

D. The Contractor shall submit manufacturer's warranties, guarantees, and certificates for all installed equipment listed on the Project Submittal List.

E. Timing of Submittals/Unapproved Work: As specified above, the Contractor shall submit all deliverables, copies of all required permits, and all product data sheets to the Contracting Officer for review. These submittals must be approved PRIOR to the installation of any purchased or fabricated components. THE PURCHASE AND/OR INSTALLATION OF ANY UNAPPROVED COMPONENTS SHALL BE AT THE CONTRACTOR'S RISK. Contract performance time shall not be extended due to delays caused either directly or indirectly by the purchase and/or installation of unapproved components.

F. All items in Section VIII shall be submitted for approval.

G. The attached submittal form shall be used.

VII. PERFORMANCE

A. The pump, piping , and all other materials shall be installed according to the manufacturer's instructions.

B. The pump shall be protected against freezing conditions during installation.

C. The Contractor shall coordinate the construction start date with the Contracting Officer. The project shall be completed and available for use within 80 calendar days from the date the Notice to Proceed (NTP) is issued. Additional time will be allowed, if needed, to obtain permits and lead times for materials. Construction will not continue on Saturdays, Sundays, or Federal Government holidays without prior permission of the Contracting Officer.

D. During the performance period of the contract, the Contractor shall be available for conference calls as needed with the Contracting Officer, the Contracting Officer's Representative (COR), and the Government On-Site Inspector to discuss project progress and/or problems.

E. The Contractor shall obtain all permits and licenses, pay all fees and taxes, and give the notices necessary to perform the services of the contract. The Contractor shall submit all permits and licenses, and receipts for all fees and taxes paid.

F. The Contractor shall be liable for damages to roads, utilities, structures, and property, due to any act, omission, neglect, or misconduct during the period of performance of the services of this contract.

G. The Contractor is responsible for completing the job to the specifications outlined in this document. The presence of an inspection does not preclude the Contractor from following this document and the specifications outlined.

VIII. PROJECT REQUIREMENTS

A. Any removal of materials not outlined in this project shall be placed in a condition the same, or better, prior to the start of the project.

B. The installer of the pump and piping shall have a minimum of 5 years of experience with similar dewatering/conveying projects.

C. All estimated quantities can be found in the bid schedule.

D. Site preparation

1. Pump shall be placed on an angle on the bank at 35 to 50 degrees, if submerged.

2. Site may need to be leveled, change elevations of ground, or any other work to successfully install all materials.

E. Pump specification minimums

1. Three-phase

2. 5000 gpm

3. 30 feet of head

4. 4-pole
5. Single stage
6. Designed to pump river water with small particulates
7. 10” discharge to 12” and immediately install to 12”
8. Pump must work in recommend operating range
9. Pump will be operated through the VFD (variable frequency device) on the tower located at the site
10. Pump electrical will be ran underground to the onsite tower and connected to the VFD.
11. 5 year parts and labor warranty

F. Pipe conveyance

1. All material shall be able to withstand a velocity of 15 ft^3/s
2. 12” pipe, including adaption from pump. After meter the pipe shall upsize to 15”
3. Connect to drainage ditch at south portion of road. The invert of the pipe shall be highest possible that still meets the bury depth.
4. Corrosion resistant. If a coating is used, the coating shall be repaired in the field and allow for adequate cure time prior to covering the pipe/fittings
5. Flanged pipe and fittings shall be used.
6. The material may be fiberglass, stainless steel, or equal. All pipe and fittings shall be able to withstand pump ramp ups, flow, pressure, and velocity.
7. Pipe from pump shall terminate above ground and connect to flow meter. The pipe will then enter the ground at a maximum 45 degrees to a minimum depth as close to the meter as possible to a top pipe depth of 2.5 feet.
8. Any pipe and fittings above ground shall be installed so that when empty, the pipe and fittings drain to the river to avoid freezing inside pipe.
9. The pipe shall be installed that no high points exist and the highest point shall be the point of discharge.
10. The termination shall have a flap gate installed. The flap gate shall open from the bottom. The flap gate shall remain closed and seal when the pump is not in use. The flab shall be rust proof.

G. Pump casing

1. Casing shall allow ease of removal of pump and protect pump and assembly from debris in the river.
2. Casing shall be corrosion resistant.
3. Casing shall be installed at the same angle as the pump.
4. Casing shall have a tee section at the end with the same diameter and material and shall extend a minimum of 2 feet each way from the centerline of the pipe.
5. The tee shall have 304 stainless steel mesh screens installed over the entire end. The screen shall be installed at the edge of the pipe or 6" inside the pipe. The connection shall not be a pipe clamp or similar. Connection should be semi-permanent and be able to withstand logjams and other obstacles in a flowing river.
6. The tee shall be a suction fitting.
7. Casing shall terminate two feet above ground to avoid siltation blocking the casing.
8. Casing shall have a cap with water tight connections coming through the outlet portion.
9. Casing shall be adequately secured to bank or ground when pump is absent and present.

H. Electric

1. All cords shall adhere to pump casing specifications
2. All cords shall be able to withstand pump ramp up amperage and three-phase voltage
3. Pump electrical will be ran underground to the onsite tower, then connected to the VFD (variable frequency device) on-site.

I. Flow meter

1. Shall be flanged
2. Flow meter shall be encapsulated in a metal clamshell style cover that is lockable. It shall be anchored to the ground. The clamshell shall be coated or painted.
3. Cover shall be able to withstand local weather conditions.

4. Flow meter shall be 12”
5. Shall be able to measure a range of 2000 gpm to 6000 gpm
6. UV resistant
7. Corrosion resistant
8. Non-digital readout shall be able to display and current flow
9. Withstand flow conditions
10. 1% allowable error for mass and volume
11. Withstand local weather conditions

J. Appurtenances

1. All materials shall be stainless steel, unless otherwise noted
2. All materials shall be appropriate for water applications.

SITE PHOTOS

TOWER

IX. POINTS OF CONTACT

A. Flint Hills NWR

B. Contracting Officer Representative / Technical Representative

END OF STATEMENT OF WOR