CONTENTS

1 Offerer Responsibility: 2
1.1 General Requirements 2
1.2 Supplemental Requirements 4
2 General Exclusions: 7
3 Scope of Work 8
3.1 Base 8
3.2 Base Drawing Clarifications 8
3.3 Add Alternates 8
3.4 Add Alternate Drawing Clarifications 9

1 OFFERER RESPONSIBILITY:

The following items shall be the responsibility of Offeror:

1.1 General Requirements

1.1.1 Guidance:

In accordance with the stipulations of the herein enclosed RFP documents provide all necessary material, labor, equipment, transportation and supervision as required to perform the work for ESG.

1.1.2 Codes & Regulations:

All work shall be in strict accordance with all local, state and federal codes, regulations and guidelines.

1.1.3 Available Information:

The contract drawings are not 100% complete. The drawings are diagrammatic and intended to show general layout and pipe runs. It is not intended that the drawings show everything accurate or complete that is required for this installation. It is the responsibility of the contractor to determine what is required and provide that. The contractor shall field verify the exact locations of improvements, equipment, and pipe as well as exact dimensions and coordinate with existing structural conditions and other trades prior to the fabrication and installation. Furnish and install additional offsets and transitions as required to install pipe to avoid interference with other trades or existing utilities. Failure to coordinate work with other trades shall not be justification for additional compensation. Relocation of any existing services shall be included as required.

Where there is a discrepancy between documents, the available information referenced in ***Section 00 30 00-1.3*** Available Information governs as the order of precedence.

1.1.3.1 Shop Drawings:

The contractor will be required to submit detailed shop drawings to ESG prior to the release of materials and equipment, for any materials/equipment that are designated for purchase by the contractor, for review by ESG.

1.1.3.1.1 The contractor shall review shop drawings and submittals to confirm installation details, identify conflicts and coordinate with activities that are the responsibility of the contractor.

1.1.3.2 Record Drawings:

The contractor shall maintain on the project site an updated red-line drawing representing as-built conditions. Red-line drawings shall be maintained throughout the construction period, and shall be updated at a minimum on a weekly basis. The contractor is responsible for coordination with ESG for conversion of the red line drawing into a record drawing set. ESG will be responsible for updates to the electronic drawing files.

1.1.4 GPS Recording:

The contractor shall measure and record the GPS coordinates of all new underground piping and shall measure and record the GPS coordinates of all buried valves, manholes and duct-banks. The coordinate file shall be properly annotated and provided to ESG as a Microsoft Excel (.xls) file.

1.1.5 Demolition, Removal and Disposal:

Demolition, removal and disposal of all unused or abandoned equipment or materials associated with this work shall be included. Specific daily cleanup and offsite disposal of all debris shall be incorporated into the daily work routine. It will be the contractor's responsibility to remove from the work site all equipment, appurtenances, or building components removed as part of this contract unless specified to be retained by the owner or ESG. Contractors are not to use owner dumpster or trash cans for disposal of any project related materials.

1.1.6 Smoking:

Smoking is prohibited on site other than the designated location.

1.1.7 Work Area:

All work shall be confined to the areas designated by ESG included lay-down areas. All areas of work shall be cleaned of all debris on a daily basis. This includes bringing any trash to the dumpster, removing all equipment and tools and sweeping up floors.

1.1.8 Occupied Buildings:

This section not applicable.

1.1.9 Facility Operations:

The work will be conducted in a continuously functioning landfill, Monday through Friday from 7 a.m. to 5 p.m. Special care with work schedule and system outages must be included in the contractor's plan of construction. Close coordination with ESG and facility operations will be required. The work shall be closely coordinated with the owner's schedule of operations. Any disruption or shut down shall be scheduled at least two weeks in advance.

1.1.10 Delivery & Storage:

All arrangements for receiving, unloading and properly storing and protecting contractor and ESG purchased equipment and materials shall be the responsibility of the contractor. Utilization of owner's equipment for unloading, installation or storage will not be permitted. Designated storage / lay-down areas will be required to be kept clean.

Contractor to coordinate with ESG Project manager any onsite laydown areas for equipment and materials. Delivery to the project site is to occur only between the hours of 7am and 5:00pm.

1.1.11 Materials:

New materials shall not contain any lead, asbestos or mercury.

1.1.12 O&M:

Contractor shall supply an O&M manual for any equipment that is designated for purchase by the contractor. All operation and maintenance data, warranty information, or special instructions shall be organized in an electronic submission to and transmitted to ESG.

1.1.13 Permits:

Owner shall obtain the ADEM Air Permit to construct. Per direction by Coffee County, no other construction permits are required.

1.1.14 Price:

The quotation shall be a lump sum, all-inclusive FOB jobsite including any and all costs for labor, material, equipment and supervision and miscellaneous fees. The cost for a 100% Payment and Performance Bond shall be itemized and included on the Bid Form. ***00 43 27 Price Break-out Form.xls***.

1.2 Supplemental Requirements

1.2.1 Existing Work:

As required to complete the work, remove or alter existing equipment, materials or systems to remain in such a manner as to prevent injury or damage to any portions of the existing work. Repair or replace portions of existing work that have been damaged, either functionally or physically, during construction operations to match existing or adjoining work, as approved by ESG. At the completion of construction, existing work shall be in a condition equal to or better than that which existed before the work started. All materials removed as part of the work shall be disposed of in accordance with all local, state and federal rules, regulations and guidelines.

1.2.2 Excavation Work:

Any excavation shall be performed in strict compliance with all local, state and federal (OSHA) laws, rules, guidelines and requirements. Alabama 811 shall be notified by the contractor and associated documentation shall be carried out by the contractor. The contractor will also provide safety barriers to protect the general public from any and all excavations. The contractor will saw-cut any pavement being removed in neat straight lines. Excavations must be approved by ESG before any foundations can be constructed.

1.2.3 Construction Schedule:

The contractor shall provide ESG with a construction schedule within 15-days of the award of contract and will update ESG of the progress of this schedule every month or as needed in the case of deviation affecting schedule greater than two weeks. At the beginning of each work week, the contractor will provide the ESG Project Manager with a three week Look-Ahead schedule detailing the projected work for the next three weeks. Contractor is required to attend weekly meetings, during active construction, for coordination and status updates.

1.2.4 Utility Outages:

All utility outages to the buildings, equipment, or systems shall be coordinated through ESG. No system or portions of systems may be turned off without ESG's approval.

1.2.5 Hot Work:

All hot work shall be conducted in accordance with OSHA requirements. The contractor shall maintain a fire watch throughout the hot work procedure as well as for at least 30 minutes after the hot work is completed.

1.2.6 Material Storage and Handling:

Contractor is responsible for unloading and storage of all equipment and materials, including equipment and materials purchased by ESG. All materials shall be stored in accordance with manufacturer's instructions. Any materials that have been exposed to weather or have dirt or are damaged shall not be used on this project. Contractor shall provide all means necessary (including all rigging) to install materials and equipment in designated locations. Damaged materials will not be accepted and will require immediate replacement.

1.2.7 Site Security:

The contractor is responsible for maintaining site security throughout the project to ensure all materials and equipment are secure. Site security shall also include the safe protection of the general public.

1.2.8 Structural:

Contractor shall receive structural approval from a structural engineer for items that are under the control of the contractor. This shall include, but not be limited to excavation supports, scaffolding, rigging, dewatering and temporary structures. Structural approval must be submitted to ESG before the on-site work will be allowed to proceed. Contractor shall provide all structural modifications as required by the ESG furnished design.

1.2.9 Equipment:

1.2.9.1 ESG purchased equipment:

A list of ESG purchased equipment proposals are included in Exhibit 1G. Contractor is responsible to review the equipment submittals and determine any additional equipment, tools, materials or other items necessary for proper installation and operation of the equipment.

1.2.9.2 Site Testing:

All equipment shall receive on-site testing equivalent to manufacturers' instructions and at minimum an operational test witnessed by ESG. Manufacturer startup procedures will be performed by manufacturer's representative or approved substitute.

Contractor to provide piping pressure testing, as required by specifications.

1.2.9.3 Existing Piping:

Any existing piping to which Contractor is connecting new pipe, including currently unused pipe and in-use pipe, shall be pressure tested up to first available point of isolation from existing piping system. Testing pressures and schedule shall be coordinated with ESG.

1.2.9.4 OEM Instructions:

Install all equipment per manufacturer's recommendations. Furnish (Contractor supplied equipment) and install all (Contractor and ESG supplied) equipment for a complete working system.

1.2.9.5 Maintenance & Code Requirements:

All equipment shall be installed with strict adherence to clearances for both maintenance and code requirements. Provisions must be made for maintaining of installed equipment, including but not limited to equipment platforms and clear access and areas for removing and the performance of routine maintenance. The equipment shall be installed with future maintenance considerations allowing access to the equipment without the need to disassemble or remove any portions of the work.

1.2.9.6 Rotary Equipment:

All rotary equipment will be installed in strict adherence to manufacturer's recommendations. All contractor supplied equipment must provide manufacturer installation check-list and inspection at start-up.

1.2.9.7 Existing Utilities:

Furnish and install connections to any existing utilities as defined in the design documents.

1.2.10 Piping:

Furnish & install piping, manual valves, electrically or pneumatically actuated valves, hangers and related components, balancing valves, strainers and accessories. Unions or flanges shall be installed at all control valves, PRVs and equipment connections. Air release valves shall be installed at all high points in piping. All leachate piping shall use 45 degree elbows with spool piece for all turns.

1.2.11 Painting

Contractor to paint any uncovered carbon steel piping; color scheme to be identified by the owner at a later date. Touch up painting shall be completed on any equipment or surfaces scratched, or visually disturbed during construction.

1.2.12 Erosion and Sediment Control:

Contractor is responsible for furnishing, installing and maintaining all necessary erosion and sediment control devices and site preparations.

1.2.13 Rigging and Cranes:

Contractor is responsible for all activities involved in rigging or crane work. Contractor is responsible for confirming actual weight of all items to be handled with a crane or other lifting device and to confirm the suitability of locations for crane or other lifting device placement.

2 GENERAL EXCLUSIONS:

The following are not included in the contract. Any item below that must be implemented during the contract period shall be the sole responsibility of the owner:

1. Lead paint removal or hazardous remediation of contaminated soil or groundwater. In the event that either lead paint or asbestos is identified during the construction or demolition the remediation expenses are excluded from the ESG scope.
2. Special Inspections

3 SCOPE OF WORK

3.1 Base

3.1.1 Equipment Installation

All process equipment and pumps will be provided by others. Contractor shall provide offloading and handling, installation, supply of necessary hardware, and anchoring systems for foundation connections. Contractor to install equipment identified in the P&IDs and Mechanical Drawings. Contractor shall furnish and install piping, valves, fittings, gaskets, hardware, etc. to connect ESG supplied equipment and create a working system. Testing of contractor supplied piping and fittings shall be included. A mechanical 3D model is provided for the contractor's use to assist with coordination between disciplines; see Exhibit 1N.

See Exhibit 1I for valves to be furnished and installed by the contractor. Equipment packages include instruments, valves, fittings, etc. that are shipped loose, and installed by the contractor; these items are identified on P&ID's with an (*). Contractor shall install shipped loose instruments; the Electrical Contractor shall furnish and install conduit and wire to the instruments.

Contractor to furnish and install insulation where indicated on the mechanical drawings, shop drawings, and specifications. If there is a discrepancy between the documents, the more stringent shall apply.

Contractor shall load media provided by ESG into the CO2+ and NRU vessels. See Exhibit 1K for media loading instructions.

3.1.2 Start-up and Commissioning

Contractor to provide startup and commissioning assistance for equipment and materials installed by them Equipment purchased by ESG typically includes onsite startup technicians. Contractor shall provide assistance during startup to troubleshoot installation issues, such as leaks, misalignments, etc. on Contractor installation.

3.2 Base Drawing Clarifications

3.2.1 Electrical Building Size and Location

The Electrical Building, Process Chiller, and Oil Cooler (503-E-100) shall be located as shown on the mechanical drawings. Civil drawings will be updated at a later date.

3.3 Add Alternates

3.3.1 Natural Gas Supply to Gas Cleaning Installation

Furnish and install the four-inch natural gas supply piping from the connection point at the front of the landfill facility to the thermal oxidizer at the gas cleaning installation. Final connections to the gas utility system and thermal oxidizer shall be provided by the contractor. ESG will provide submittal information to coordinate the connection. Furnish and install any necessary piping, valves, fittings and structural elements required for functioning of installed piping. The contractor shall restore all surfaces disturbed by utility installation to as good, or better, condition than before construction following completion of work.

3.3.2 Natural Gas Discharge from Gas Cleaning Installation

Furnish and install the two-inch natural gas discharge piping from the isolation valve after Knockout Tank 501-V-300 to the connection point at the front of the landfill facility. Final connections to gas utility system and isolation valve after the knockout tank shall be provided by the contractor. Contractor to coordinate with cathodic protection contractor as identified on C-304. ESG will provide submittal information to coordinate the connection. Furnish and install any necessary piping, valves, fittings and structural elements required for functioning of installed piping. The contractor shall restore all surfaces disturbed by utility installation to as good, or better, condition than before construction following completion of work.

3.3.3 Install leachate Force Main

Furnish and install the two-inch leachate force main beginning at the "ESG Limits/CCLF Limits" line identified on drawing C-306 to the tie in at the valve vault on drawing C-307. Contractor to coordinate tie in at the Gas Cleaning Installation with the site contractor. Furnish and install any necessary piping, valves, fittings and structural elements required for functioning of installed piping. The contractor shall restore all surfaces disturbed by utility installation to as good, or better, condition than before construction following completion of work.

3.3.4 Underground Piping

Furnish and install underground gas and casing piping to the limits identified in Exhibit 1H-Mechanical Site Plans. HDPE shall be DR 21.

3.4 Add Alternate Drawing Clarifications

3.4.1 Parallel Gas Piping Separation

Drawings C-304 and C-305 show the parallel gas piping to have five feet of separation, from center of pipe to center of pipe. The contractor should install with one foot of separation, from center to center.

3.4.2 Isolation Valves on Gas Piping at the Front of the Landfill

Install a manual isolation valve on the two inch natural gas supply and four inch natural gas discharge piping prior to connecting to the existing natural gas pipes at the front of the landfill. The valves shall be rated for the appropriate pressures.

3.4.3 Install a Purge Connection on the Natural Gas Discharge Piping

Install a purge connection on the Natural Gas Discharge Piping at the front of the landfill. The purge connection shall have a manual isolation valve and a method to connect purge gas.