

Ord No.

**Information to be included in all Legislation authorizing entering into a Contract:**

1. **The names, contract compliance no. & expiration date, location by City/State and status of all companies (NPO, MAJ, MBE, FBE, HL1, AS1, or MBR) submitting a competitive bid or submitting an RFP or RFSQ.**
  - 1) **Burgess & Niple; CCCN No.: 31-0885550; Exp. Date: 10/04/2014; City/State: Columbus, Ohio; Status: Maj**
  - 2) **Hazen and Sawyer; CCCN No.: 13-2904652; Exp. Date: 5/23/2014; City/State: Columbus/Ohio Status: Maj**
2. **What type of bidding process was used (ITB, RFP, RFSQ, Competitive Bid).**  
**RFP 329.14**
3. **List the ranking and order of all bidders.** **1) Burgess & Niple; 2) Hazen and Sawyer**
4. **Complete address, contact name and phone number for the successful bidder only.**  
**150 E. Campus View Boulevard, Suite 133, Columbus, Oh 43235; 614-781-9655**
5. **A full description of all work to be performed including a full description of work to be performed during any known phasing of the contract.**

**Scope of Services**

The scope of work for the JPWWTP land application process is expected to generally include a new or modified liquid (10%TS) land application load-out facility and the assessment of the solids train to identify potential improvements, additional equipment requirements, and upgrades to meet the City's solids processing needs, e.g. the existing 14 biosolids tanks, pumping-mixing-piping systems, and other solids related ancillary equipment. In general, the preliminary design includes five tasks: task 1 — gather process information and refine project goals; task 2 — process condition assessment of the land application process; task 3 — technical and Business Case Evaluation (BCE) integral to the Preliminary Design Report (PDR); task 4 — Preliminary Design Report with preliminary drawings and equipment specifications; and task 5 — the Final PDR. The Offerer shall propose a number of workshops and meetings envisioned to accomplish the tasks. The selected consultant shall have an Instrumentation & Control (I&C) team capable of working with the City's SCADA/I&C group.

The professional design services are separated into three steps as follows:

- Step 1 - Preliminary Design Report (PDR) preparation;
- Step 2 - Detailed Design (Plans & Specifications preparation) and services to the City during the bidding and contract award process for construction;
- Step 3 - Services during Construction.

All documents, records, procedures and other services shall conform fully to formats and standards as delineated by the City. The City may require changes to such formats and standards from time to time, and the Engineer shall then promptly comply with such changes. The City may engage other entities to provide assistance to the Proposed Team whom shall cooperate fully with such entities, and shall observe all hierarchies, reporting procedures, lines of authority, etc., as are stipulated by the City.

Project Management: The Project Manager for this contract shall be an Ohio Professional Engineer, and demonstrate 10 years experience in the design, construction, and operation of wastewater treatment plants with an emphasis on liquid (10%TS) biosolids land application processes. The Project Manager shall be the principal contact with the Department on all matters relating to this project.

The Scope of Work for this project will consist of the Tasks listed below. Submit a Schedule 3A listing each Task, the team member(s) expected to work on the task and the cost per hour per team member, and the total hours per task. Attached is an example Schedule 3A and a JPWWTP site map identifying the scope of work boundaries.

### **Professional Design Services: Tasks Outline**

#### **1. Award Contract, Step 1 – Business Case Evaluation (BCE) and Preliminary Design Report (PDR)**

The consultant and the City shall work together to refine project goals and to develop alternatives for the BCE and then finalize the PDR that will include drawings, and equipment specifications.

Task 1: Gather Process Information and Refine Project Goals.

The consultant shall collect data such as existing assessment reports, record drawings and reports, operational data, maintenance data, and electrical and I&C data. The consultant shall attend the Department's BCE training class during the early stages of task 1 and the Department's "Business Case Evaluation Guidelines Document" shall be used as a reference source. The consultant shall conduct a workshop to discuss the BCE development plan, data findings, and to refine project goals and direction. The workshop shall include Plant maintenance and operational staff, city engineering staff, and city asset management staff.

Task 2: Process Condition Assessment.

The consultant shall perform a field condition assessment of the land application process and ancillary equipment as refined in task 1 to verify information gathered during task 1 and to ensure all process items are included. The consultant shall ensure that information used in this assessment that is supplied by others is accurate and/or reasonable. The consultant shall document the condition assessment by preparing a short memorandum for each engineering discipline i.e. mechanical, I&C, electrical, ventilation, structural, and architectural and building support systems.

The selected consultant shall have an I&C team capable of working with the City's I&C Programming Team. The consultant's I&C team shall work with the City's I&C group and the City's I&C Consultant during design, construction, programming, and integration. The consultant major role is for the design of I&C work and will assist on a minor role working with the City's I&C Programming Team and I&C consultant during the programming, and integration of the work. All I&C staff shall participate in the physical and functional assessment of the existing I&C system.

Workshop 2 shall present the condition assessment results to Plant maintenance and operational staff, city engineering staff, and city asset management staff.

Task 3 : Technical and Business Case Evaluation

The Department of Public Utilities has instituted an Asset Management policy that requires specific information be provided and analyzed before a project can move forward to

Detailed Design. To meet these policy requirements a distinct problem statement, multiple alternative solutions, and a benefit to cost ratio must be developed for this project during the Preliminary Design Report phase of the project. The consultant shall incorporate all of the required elements of a BCE into the PDR document. The BCE elements include:

- **The Problem Statement:** A thorough characterization of the problem(s) which the project is intended to mitigate. Problems should be expressed in terms of financial, social, and environmental impacts to Department stakeholders, as well as perceived risks, regulatory issues, and effects on Levels of Service. Stakeholders include, but are not limited to, customers/rate payers, regulatory agencies, the general public, and the environment.
- **Status Quo/Alternatives:** A description of all alternatives that are feasible solutions to the issue at hand, including a baseline alternative, or "status quo", that represents the expected outcome of the Department choosing to maintain the current course of action. Each alternative description should indicate how they will impact costs, levels of service (listing available upon request), and risks to assets and overall business stability.
- **Triple-Bottom Line (TBL):** Costs must be accounted for on three separate levels: financial, social, and environmental. Financial costs should include capital, operations, maintenance, and other direct financial costs. Social values should include impacts to the community that do not have market driven values (e.g. inconvenience factors such as traffic delays, noise, odor, dust, pollution, and other costs to stakeholders outside of direct DPU costs). Environmental values may include impacts on water quality (pollutant loading, turbidity), air quality (e.g. greenhouse gas emissions, particulate emissions), and land use. Where it is practical, social and environmental costs should be expressed in terms of dollar value. The Department's Asset Management Office will assist with the derivation of social and environmental values as necessary.
- **Risk:** All significant foreseeable risks to the Department, their stakeholders, and the greater community must be monetized and compared between each alternative and the status quo. For the assets associated with the problem to be addressed by the alternative options, risks of failure should be assigned as appropriate. For alternative solutions that impact the condition and/or criticality of assets, the change in risk should be documented. The Department's Asset Management Office will provide guidance on derivation of risk-costs for assets as necessary.
- **Life-Cycle Cost Analysis:** In general, the present value of each alternative should be assessed over a 20-year life-cycle that includes all of the factors previously mentioned, monetized to current year dollars. The Department's Asset Management Office will provide assistance where necessary for completing the life-cycle cost analysis. Some basic assumptions include: An overall 2% discount rate to address the time value of money; Assets with useful lives extending beyond the analysis period should be assigned a residual value in the final year of the analysis using straight-line depreciation.
- **Benefit/Cost Ratio:** A benefit to cost ratio must be completed for each of the alternatives. This ratio is a direct comparison of the costs and benefits between each individual alternative and the originally established status quo. This simple comparison will yield a result that will indicate which alternative, or the status quo, has the best overall outcome and impact on the City and its stakeholders.

The BCE shall be developed as an integral part of the PDR. The BCE shall be presented to City staff during Workshop 3 for discussion and to identify an approved alternative for the PDR. After the BCE has been completed and a recommendation approved by the City the consultant shall move forward with completing the Draft PDR, final PDR, and then detailed design that is consistent with the selected alternative.

#### Task 4: Draft Preliminary Design Report and Design Drawings.

The PDR and design drawings will be based on the alternative developed in Task 3. The consultant shall summarize all findings, testing, investigations, assessments, and evaluations along with the basis of design into the PDR. The basis of design shall address all requirements for the recommended improvements including I&C. The preliminary design will be complete to the extent that it describes the size and character of the entire project and alternatives. Provide details including the civil, architectural, structural, mechanical, instrumentation, and electrical systems. The PDR will include drawings that will describe the general layout, elevations, routings, equipment sizes and types, materials, alternative selected for design, and any special construction or contract considerations for the project. A preliminary construction cost estimate and a preliminary construction schedule will also be developed. The results of the Preliminary Design shall be summarized and compiled into a PDR document in accordance with the Division's requirements and submitted to the City. The draft PDR Report shall be submitted to the City for review, comment, and concurrence before moving forward to develop the PDR drawings.

#### Task 5: Final Preliminary Design Report and Drawings.

The draft PDR report and drawings shall be updated to reflect changes agreed to by the City. Submit Final PDR to the City for approval before advancing to Detailed Design.

### **2. Contract Modification No. 1, Step 2 - Detailed Design**

Based upon the approved alternative of the PDR prepared under Step 1 Services, prepare construction contract documents, including specifications and drawings, in accordance with City of Columbus Division of Sewerage and Drainage standards, guidelines and direction for construction and implementation of the proposed facility. Contract documents shall be prepared as one construction contract or more as directed by the Division. Assist at Pre-Bid Conferences and bid openings. Tabulate bids and make award recommendation for lowest and best bid. Prepare Conformed to Contract documents.

Conduct at a minimum, plan and specification review meetings at the 30%, 60%, and final completion stages. Assist the City, as requested, in negotiations and other matters concerning permitting requirements with U.S. and Ohio EPA; Assist with other EPA or government agency requests such as Air Permitting requirements, Local Limits requirements, and other typical and atypical government agency requirements as necessary.

### **3. Contract Modification No. 2, Step 3 – Services during Construction**

Conduct at a minimum technical project representation (TPR) duties such as: use the PMIS system for document flow control and management; submittal review; respond to request for information (RFI) submittals; attend construction progress and coordination meetings; participate as a member of the Construction Management Team to solve problems encountered during construction; work with the contractor to clarify plans and specs; work with contractor to develop a thorough and concise scope of work for RFPs; publish the RFP for issue to the contractor; perform a construction estimate for each RFP for CMT use during RFP negotiations; participate in process testing; communicate with government agencies as needed such as OEPA; participate in startup and commissioning of process; participate in staff training; participate in process troubleshooting and solution implementation; document errors in plans and specs and forward to City PM for Master Spec and Plans update; assist with the integration and tuning of the PLC and HMI programs until process is trouble free; book mark and compile electronic M&O manuals for uploading to PMIS; develop electronic SOPs for upload to PMIS; develop electronic SOP courseware for uploading to the City courseware server; develop M&O manual courseware for upload to the City courseware server; and other duties as directed by the City.

6. A narrative timeline for the contract including a beginning date, beginning and ending dates for known phases of the contract and a projected ending date.  
Award Contract Start Date: 2013; annual modifications thereafter for 2014 (Detailed Design), and 2015 (Construction Services); Contract End date is 2017.
7. A narrative discussing the economic impact or economic advantages of the project; community outreach or input in the development of the project; and any environmental factors or advantages of the project.  
No impact in regard to economic, outreach, or environment.
8. A narrative discussing the timeline for the contract including a beginning date, beginning and ending dates for known phases of the contract and a projected ending date.  
Award Contract Start Date: 2013; annual modifications thereafter for 2014, and 2015; Contract End date is 2017.
9. An estimate of the full cost of the Contract including a separate estimate of any and all phases or proposed future contract modifications.  
2013: \$300,000; 2014: \$500,000; 2015: \$500,000.
10. Sub-Consultants identified to work on this contract, their contract compliance no. & expiration date, and their status (NPO, MAJ, MBE, FBE, HL1, AS1, or MBR):
  1. Brown & Caldwell; CCCN No.: 94-1446346; Exp. Date: 5/02/14; Status: MAJ
  2. CAD Concepts, Inc.; CCCN No.: 31-1390280; Exp. Date: 11/08/14; Status: FBE
  3. Dynotec, Inc.; CCCN No.: 31-1319961; Exp Date: 03/04/2015; Status: MBE
11. Scope of work for each subcontractor and their estimate of dollar value to be paid.
  1. Brown & Caldwell; \$65,694; 22.03% of Contract; Scope Tasks 1 thru 5.
  2. CAD Concepts, Inc.; \$43,484; 14.58% of Contract; Scope Tasks 1 thru 5.
  3. Dynotec, Inc.; \$27,500; 9.22%; Scope Tasks 1 thru 5.

Note: The Contract should be considered to include any and all work that is anticipated to be awarded to the company awarded the original contract throughout the contract/project timeline. This includes the original contract and any and all future anticipated modifications to the contract to complete the contract/project.

Updated as of 4-10-10