Consulting Services Contract City of Waukesha – Strand Associates, Inc. Project Name: Clean Water Plant Biogas Purification and Sludge Drying with Facilities Enhancements-2023

This Contract is by and between the City of Waukesha, a Wisconsin municipal corporation, referred to herein as the City; and Strand Associates, Inc., 910 West Wingra Drive, Madison, WI 53715, referred to herein as the Consultant. Together, the City and Consultant are referred to as the Parties.

Recitals

Strand Associates, Inc. was selected for the Clean Water Plant Biogas Purification and Sludge Drying with Facilities Enhancements – 2023 through the City's Request for Proposals (Schedule A) process.

Now, therefore, the City and the Consultant agree and contract as follows:

- 1. **Scope of Services.** The Consultant shall perform the Services described on Schedule B, according to the terms and conditions of this Contract. Schedule B is incorporated into this Contract by reference.
- 2. Standard of Care. Consultant will perform the Services with the care and skill ordinarily used by members of Consultant's profession practicing under similar circumstance as the same time and in same locality.
- 3. Payment. The City shall pay to Consultant a lump sum of Nine Hundred Eighty-Five Thousand dollars (\$985,000.00) for performance of the Service and an if-authorized amount of Forty Thousand dollars (\$40,000.00) in compliance with the terms and conditions of this Contract. Consultant shall invoice the City, monthly. All invoices shall be payable net 30 days. Nonpayment 30 days after the date of the receipt of invoice may, at Consultant's option, result in assessment of a one percent carrying charge on the unpaid balance of the outstanding invoice(s). Nonpayment 45 days after the date of receipt of invoice may, at Consultant's option, result in suspension of services upon five days' notice to the City. Consultant will have no liability to the City, and the City agrees to make no claim for any delay or damage as a result of such suspension caused by any breach of this agreement by the City. Upon receipt of payment in full of all outstanding sums due from the City, or curing of such other breach which caused Consultant to suspend services, Consultant will resume services and there will be an equitable adjustment to the remaining project schedule and compensation as a result of suspension.
- 4. Time. Consultant shall commence the Services as promptly after execution of this Contract as is possible, and shall complete the Services no later than May 1, 2024, subject only to delays for circumstances beyond Consultant's control, provided Consultant recommences Services promptly in good faith upon the return of normal circumstances.
- 5. Ownership of Work Product. All materials produced in the performance of the Services shall be the sole property of the City, and shall be kept confidential and not disclosed to any third party without the prior written permission of the City. Re-use of any work product by the City for purpose other than intended for this project shall be at City's sole risk and without liability to Consultant.
- 6. Changes. This Contract can only be amended by the written, mutual agreement of the Parties. No change to the scope of the Services, or the total amount to be paid to Consultant, shall be effective unless done by the written mutual agreement of the Parties.
- 7. Indemnification. Consultant shall indemnify and hold the City harmless from any and all third-party claims, demands, causes of action, lawsuits, judgments, penalties, and other liabilities of any kind arising out of any negligent act, error, or omission of Consultant, its agents, or employees, including court costs and reasonable attorney fees.

- 8. Insurance. Consultant shall maintain insurance of the following kinds and for not less than the following limits, at Consultant's sole expense, at all times during the performance of the Services. Policies shall be occurrence, and not claims-made, policies (except policy e. below). Consultant shall obtain an endorsement making the City an additional insured and loss payee except for policies d. and e. below, and Consultant's insurance shall be primary, not excess, and non-contributory. All policies shall be from insurers licensed to issue such policies in Wisconsin. Upon the execution of this Contract, Consultant shall deliver a certificate of insurance to City showing that all requirements of this section are met.
 - **a.** Commercial general liability, including products-completed operations, \$1,000,000 per occurrence, \$2,000,000 aggregate per project.
 - b. Automobile liability, \$1,000,000 bodily injury, \$1,000,000 property damage.
 - c. Excess liability-umbrella, \$5,000,000.
 - d. Worker compensation, statutory requirements.
 - e. Professional liability-errors and omissions, \$2,000,000, with extended-reporting period endorsement.
- 9. Record Keeping. Consultant shall keep all documents and records generated in the performance of the Services for no less than 7 years after completion of the Services, and shall make them available to the City at the City's request. Consultant acknowledges that such documents and records may be subject to Wisconsin's Open Records Law.
- **10.** Cooperation by City. The City shall cooperate with the Consultant in the performance of the Services, and shall respond timely to all reasonable requests for information and access.
- 11. Parties Are Independent Contractors. Nothing in this Contract shall be construed to create any relationship between the Parties other than independent contractors. Unless specifically provided in this Contract, the Parties are not agents for one another, have no authority to bind the other to contracts, and have no vicarious liability for the other's acts or omissions.
- 12. Governmental Immunities and Notice Requirement Preserved. Nothing in this Contract shall be construed to be a waiver or modification of the governmental immunities or notice requirements imposed by Wis. Stats. §893.80 or any other law.
- **13. Permits and Licenses.** Consultant shall be responsible, at Consultant's expense, for obtaining all permits and licenses required for the performance of the Services unless expressly agreed by the City.
- 14. Assignment Prohibited. This Contract, and the Consultant's responsibility to perform the Services under this Contract, may not be assigned by the Consultant without the City's written consent.
- **15.** Notices. All notices required by this Contract, and all other communications between the Parties, shall be addressed as follows:

To the City:	Attention: Jeff Harenda, Clean Water Plant Manager City of Waukesha 201 Delafield Street Waukesha WI 53188
To Consultant:	Attention: Travis Anderson, P.E. Strand Associates, Inc. 910 West Wingra Drive Madison, WI 53715

- 16. Corporate Authorization. The individuals executing this Contract on behalf of the Consultant warrant and represent that they are duly authorized to bind the Consultant to this Contract. Consultant warrants and represents that the execution of this Contract is not prohibited by the Consultant's articles of incorporation, by-laws, operating agreement, or other internal operating orders, or by any applicable law, regulation or court order. Consultant shall provide proof upon request.
- 17. Assistance of Counsel, Voluntary Contract. The Consultant acknowledges that it has either had the assistance of legal counsel in the negotiation, review and execution of this Contract, or has voluntarily waived the opportunity to do so; that it has read and understood each of this Contract's terms, conditions and provisions, and their effects; and that it has executed this Contract freely and not under conditions of duress.
- **18.** Adequacy of Consideration. The Parties acknowledge that the consideration expressed in this Contract is adequate and sufficient to make the obligations contained in this Contract binding upon the Parties.
- 19. Costs of Enforcement. The Parties agree that in the event legal action is necessary to enforce any term or condition of this Contract, then the breaching Party will pay the non-breaching Party's costs incurred in such legal action, including reasonable attorney fees. If a judgment is taken, then costs of enforcement will be added to the judgment.
- 20. Severability. If any term of this Contract is held unenforceable by a court having jurisdiction, then to the extent the unenforceable term can be severed from the remainder of this Contract without affecting the enforceability of the remainder of this Contract or substantially frustrating its purpose, it will be so severed, and the remainder of this Contract will remain in effect and enforceable.
- 21. Survival and Parties Bound. Unless specifically limited in this Contract, any term, condition or provision of this Contract will survive the execution of this Contract or any stated time periods, to the extent necessary for their performance. This Contract is binding upon, and inures to the benefit of, the Parties' successors, assigns, heirs, executors, trustees and personal representatives.
- 22. Governing Law and Jurisdiction. This Contract will be construed and enforced according to the laws of Wisconsin. If a lawsuit arises out of this Contract, it shall be filed in the state Circuit Court for Waukesha County, Wisconsin. The Parties consent to personal and subject-matter jurisdiction in Wisconsin, and waive all jurisdictional defenses.
- 23. Integration. This Contract constitutes the entire agreement of the Parties formed by the City's RFP and the Consultant's responsive proposal; however, if any ambiguity in this Contract requires resolution, or this Contract is silent on a material point, then reference may be made to the RFP and the Consultant's proposal, in that order of priority, to construe this Contract. All other agreements and understandings of the parties with respect to the subject matter expressed in this Contract are unenforceable.
- 24. Termination. Either party may terminate this Contract without cause by giving written notice of termination to the other party, with termination to occur no sooner than 20 days after delivery of the notice. Upon termination, Consultant shall be paid for all Services completed as of the date of termination.

City of Waukesha

By Shawn N. Reilly, Mayor Date:_____

Attested by Gina L. Kozlik, City Clerk Date: To certify that funds are provided for payment:

Joseph P. Ciurro, Director of Finance Date:

Strand Associates, Inc.

By <u>Joseph M. Bunker, Corporate Secretary</u> Date:



Public Works – Clean Water Plant

600 Sentry Drive Waukesha, Wisconsin 53186-5962 Alex Damien, P.E., Interim Director adamien@waukesha-wi.gov 1-262-524-3600

SCHEDULE A

REQUEST FOR PROPOSALS

FOR ENGINEERING SERVICES FOR

Biogas Purification and Sludge Drying with Facilities Enhancement for Clean Water Plant

Proposals must be submitted no later than 3:00 p.m. local time on December 16, 2022

For further information regarding this RFP, contact Jeff Harenda, Plant Manager at (262) 524-3629, jharenda@waukesha.wi.gov or Chris Langemak at (262)-524-3598, clangemak@waukesha-wi.gov

Late proposals will be rejected.

Issued: November 18, 2022

City of Waukesha 201 Delafield Street, Waukesha, WI 53188 WAUKESHA-WI.GOV

GENERAL

The City of Waukesha Department of Public Works is soliciting proposals for the design and construction services for production of pipeline quality biogas for resale and installation of a sludge dryer with other various Facility Plan enhancements for the Clean Water Plant (CWP).

The 20-year Facility Plan prepared in 2011 was broken out into four phases. This project would include phase three improvements which focuses on beneficial use of biogas. A Facility Plan Amendment was recently submitted to WI DNR which included the results of a comprehensive Biogas Beneficial Utilization Study on the best use for the biogas produced at the CWP. In that study, bio-gas use for sludge drying was investigated and it was determined that drying sludge for volume reduction was beneficial in itself while the best use of the gas was to purify to pipeline standards and sell as a renewable fuel on the open market. However, supplemental solar power may also be of interest to offset electrical consumption for a sludge dryer.

This project is planned to be funded from two different sources and bid as two separate projects preferably with a single contractor. This is similar to the last project where two funding sources were used, and two separate schedules of value were developed. However, this project will need to have two separate construction contracts as the biogas component is being self-funded and therefore Build America, Buy America Act (BABA) and prevailing wage rate requirements would not apply. The sludge drying and facilities enhancements are intended to be paid for through a traditional Clean Water Fund Loan (CWFL) which will include those requirements. However, some of the 11–15-year facility enhancements may also end up being self-funded if grant money becomes part of the renewable fuel project.

BACKGROUND INFORMATION

The Department of Public Works recently completed a second major renovation as part of the 20-year facility plan. The second phase of improvements were completed primarily to coincide with the change of drinking water supply for the city, and for the low-level phosphorus requirements as part of a compliance schedule in the current permit. A Lake Michigan Return Flow Pump Station was built and major upgrades to the tertiary treatment process were completed. Prior to that, the first phase of the 20-year facility plan included the updating of mechanical and process equipment throughout the facility with major upgrades to the solids processing including the addition of a new "egg" shaped anaerobic digester.

ANTICIPATED SCOPE OF THE SERVICES TO BE PROVIDED BY DESIGN FIRM

The requested work includes the following:

- 1. Provide at a minimum the following meetings with the City of Waukesha:
 - a. Initial kickoff coordination meeting
 - b. Two utility coordination meetings
 - c. Investigate funding options (grants, CWFL etc.)
 - c. Bi-weekly conference calls through project design phase
 - e. 30% Preliminary Design Report review to include the selection of gas scrubbing technology for Biogas production
 - f. 30% Preliminary Design Report review of facility upgrades including the selection of technology for sludge drying.
 - g. One 60% plan review meeting for biogas production, and one for sludge drying and facility upgrades.
 - h. One 90% plan review meeting for biogas production, and one for sludge drying and facility upgrades.
 - i. One combined Pre-bid meeting for biogas production and sludge drying with facility upgrades
 - j. Pre-Construction meeting for biogas production, and one for sludge drying and facility upgrades.
 - k. Weekly construction meetings, plan time as a separate meeting for each component.

2. Biogas Purification:

Prepare a preliminary design report which evaluates the cost-effectiveness of individual unit technologies proposed (membrane, pressure swing adsorption, water scrubbing) in the Biogas Beneficial Utilization Study and Facility Amendment Plan. Additionally, include an evaluation of any applicable new technology. Final recommendations for equipment selection shall be as a component and shall include equipment for pipeline connection with an alternate for reuse. Include an equipment pre-purchase selection/negotiation process to base the rest of the design on and incorporate equipment pricing into bid documents for construction. The preliminary design report shall include engineering and design of up to 30% of the total project and revised construction cost estimates and funding/grant opportunities for the complete upgrade project. Assist in identifying and contracting with brokerage firms for resale of gas.

The final design must consider:

- a. Existing space considerations
- b. Heating, ventilating, and fire protection design criteria
- c. Structural and foundation design criteria
- d. Instrumentation and control requirements
- e. Energy efficiency
- f. Maintainability
- g. Accessibility
- h. By product disposal
- i. Third party contractual requirements (e.g., utility, broker)
- j. Other necessary and relevant considerations
- 3. Sludge Drying:

Prepare a preliminary design report which evaluates the cost-effectiveness of individual unit technologies proposed in the Biogas Beneficial Utilization Study and Amendment Plan. City staff hopes to narrow unit choices to top three of interest. Additionally, include an evaluation of any applicable new technology, and the potential to supplement electrical consumption with solar power. Final recommendations for equipment selection shall be as a component. Include an equipment pre-purchase selection/negotiation process to base the rest of the design on and incorporate equipment pricing into bid documents for construction. The preliminary design report shall include engineering and design of up to 30% of the total project and revised construction cost estimates and funding/grant opportunities for the complete upgrade project.

The final design must consider:

- a. Existing feed conditions
- b. Existing space considerations
- c. Storage and conveyance
- d. Heating, ventilating, and fire protection design criteria
- e. Structural and foundation design criteria
- f. Instrumentation and control requirements
- g. Energy efficiency
- h. Maintainability
- i. Redundancy
- j. Electrical, standby power, and lighting design criteria
- k. Other necessary and relevant considerations (e.g., air permitting)
- 4. Facility Plan 11-15 Year Upgrades:

In addition to the biogas and sludge drying, the scope of work for this project will also consist of several additional equipment replacements identified and phased in from the 20-year Facility Plan and as budgeted in the Capital Improvement Plan. The general

tasks to be included for each of these would be the design and specification for each item listed below following the same schedule as the sludge dryer improvements.

- a. Replacement of the PVC aeration piping and rubber diffusers in activated sludge aeration bays 1-3.
- b. Replacement of the two Bldg. 110 Primary Influent pump VFDs
- c. Replacement of the two Bldg. 140 Primary Effluent pump VFDs
- d. Replacement of Bldg. 515 generators and associated switchboard, paralleling and transfer switches for Bldgs. 110 and 140.
- e. Replacement of Bldg. 510 generators and associated paralleling and transfer switches.
- f. Replacement of Bldg. 510 MCC
- g. Replacement of Bldg. 250 MCC
- h. Rehabilitation/replacement of Bldg. 440 sludge distribution conveyor
- i. Addition of a generator transfer switch and portable plug in at Bldg. 220.
- j. Valve rebuilds/replacements for Bldg. 240 pumps 1-5

The final design must consider:

- a. Existing head, flow, and space conditions
- b. Energy efficiency
- c. Maintainability
- d. Integration with existing controls, instrumentation, and SCADA
- e. Redundancy
- f. Maintaining operations during construction
- g. Other necessary and relevant considerations

The aeration piping is the original as installed in 1991. The original stone diffusers have been replaced with the rubber type, and there was a recent change to the overall number of diffusers in phase one upgrade with the new blowers. Diffusers and piping in basins 4-6 were replaced in the phase two upgrade. The primary influent and effluent pump VFD's are 15 years old and were retrofitted into the original control cabinets. These will have to be integrated with the current control scheme. The generators and associated electrical gear are also 15 years old. The MCCs in Bldgs. 250 and 510 were installed in 1991 and need to be updated to the current standard. The biosolids distribution conveyor was also installed in 1991 and will need to be evaluated with the addition of the sludge dryer. The plug valves and check valves associated with the Bldg. 240 are original from 1991 and should be replaced or rebuilt as done in phase one for Bldg. 140. There currently is no emergency power supply for secondary treatment. Some of the 11-15-year facility enhancements may be incorporated into the self-funded part of the project depending on cost and financing options identified.

5. Draft Reviews:

Submit 60% draft construction plans and technical specifications for City review. Provide any revised construction cost estimates for the complete upgrade project. Upon City review of the 60% design, refine the design as necessary to produce 90% complete plans and technical specifications.

6. Preparation of Final Plans and Specifications:

Based upon the conclusions and recommendations identified thus far, the consultant will prepare the final contract documents including detailed plans and specifications for the additions and alterations to the Clean Water Plant. There will be two sets of plans required for bidding as two separate contracts: The self-funded Biogas Purification portion, and Sludge Drying with Facilities Enhancement. Contract document review will occur at 60 and 90 percent of their development and incorporate the standard contract documents of the City of Waukesha. This part of the project shall include the development of a preliminary operations manual describing how the proposed additions and alterations will operate and interact with existing Clean Water Plant components. An

evaluation of alternate funding sources is to be included. Assistance to the City's Finance Department in completing and assembling the information required by Wisconsin's Clean Water Fund Low Interest Loan Program and/or any grant program will be necessary for the application and closing process. This portion of the project includes assisting the City with bidding this project and making a recommendation concerning award of the bids.

7. Complete Final Construction Documents:

The plan sets at a minimum shall include, but not be limited to, the following:

- Title page
- General notes
- Standard details and special details
- Erosion control plan
- Grading plan
- Electrical one-line plans
- Instrumentation and control plans
- Location of existing utilities
 - a. DNR review submission.
 - b. Prepare a proposed schedule for the entire project, from Notice-to-Proceed to the completion of construction.
 - c. Prepare digital files with AutoCAD.
 - d. Provide detailed cost estimates for the final design prior to bidding. Submit an electronic copy in Microsoft Excel format.
 - e. Furnish an electronic copy of the final sealed design plans in Adobe Acrobat "PDF" format (11x17 size) to the City. Distribution of the plans and project bidding will be conducted directly by the City.
 - f. Electronic copies of all plans shall also be supplied in the latest version of AutoCAD. Include any special files required to view and/or print the plans.
 - g. Provide six (6) hard copy sets of the final sealed design plans to the City.
 - h. Prepare schedule of prices for the projects. Assemble using City's standard format. Furnish electronic copies of the final schedule to the City in Microsoft Excel and Adobe Acrobat formats. **The schedule of prices for the self-funded component shall be separate from the rest of project for accounting related to funding.**
 - i. Prepare technical specifications for the projects. Assemble using City's standard format. Furnish electronic copies of the final specifications to the City in Microsoft Word and Adobe Acrobat formats.
- 8. Bid Services:

Provide miscellaneous services prior to and during bidding, including: assisting the City in identifying appropriate contractors, contractor pre-qualification reviews, clarification and response of bidder questions, prepare pre-bid conference, preparation of addenda if needed, review bids and review the qualifications of apparent lowest bidder, provide a bid tabulation spreadsheet of all bids, make a recommendation for award of the bid, recommendation letter to funding agency.

9. Construction Management (Construction-related services for the project will require a separate agreement with the City.)

The consultant will provide the construction-related services necessary to ensure that this project is built in a quality fashion and completed in a timely manner.

The construction-related activities will include traditional activities such as construction inspection of all disciplines (e.g., civil, mechanical, HVAC, electrical, instrumentation and controls, and programming), shop drawing review and approval, requests for information, requests for proposals, material and equipment testing, preparation of record drawings, etc. This part of the project will include overall construction management responsibility, review and approval of contractor pay and change order requests (separate for the self-funded component), start-up and training services, and inclusion of all project documents in an electronic operation and maintenance manual. The O&M manual will incorporate a complete update of the current electronic manual. All existing drawings will be updated and will be incorporated into a single master set of drawings. Three hard copies of the O&M manual will also be provided to the City. The City will be the final authority on all financial changes to the project and provide some project oversight through the project management reports. The consultant shall also provide all SCADA HMI programming and be responsible for all onsite inspection including the presence of a resident engineer and construction inspector.

The proposal should include an estimate of level of effort for post-design services and construction inspection. A final scope and fee will be determined by the consultant and City near the end of the design phase.

10. Project Administration:

Invoicing for engineering work done during the project will need clear separation for Biogas component related work versus sludge drying and facility upgrades due to different funding sources.

SCHEDULE

For both project components:

- 30% design documents must be completed by May 15, 2023.
- 60% design documents must be completed by August 15, 2023.
- 90% design documents must be completed by November 15, 2023, and shall be submitted to WI DNR for review.
- 100% design documents must be completed by February 15, 2024.

Bidding documents:

• Bid documents should be prepared and complete no later than March 15, 2024. Four weeks shall be allowed for bidding with the start date of construction anticipated to be no later than May 15, 2024, and the final completion date May 15, 2026.

ITEMS AVAILABLE FROM THE CITY INCLUDE THE FOLLOWING:

- 1. City's current plant plan drawings.
- 2. Specifications for current equipment.
- 3. Current operating parameters.
- 4. Biogas Beneficial Utilization Study.
- 5. Facility Plan Amendment for Biogas Purification and Sludge Drying.

AGENCY AND UTILITY INVOLVEMENT:

The Department of Public Works anticipates that the following organizations (but not limited to) will have some involvement in this project:

City of Waukesha Department of Public Works

- City of Waukesha Board of Public Works
- City of Waukesha Common Council
- Wisconsin DNR
- WE Energies Gas and Electric
- Focus on Energy

PROPOSAL REQUIREMENTS

The City of Waukesha will use a qualification and cost-based selection process to select a consultant for this project. You are asked to submit a written proposal addressing the following items:

- **Project Approach.** Summarize how you will carry out the work. Include your understanding of the project and identify any specific concerns that you may have.
- **Qualifications of Firm.** Summarize your firm's qualifications for this type of work. Note municipal projects of a similar nature (biogas reuse, sludge drying, backup electrical power, and overall plant process improvements) completed by the individuals assigned to this project. Include a list of previous or current projects. Also include reference information detailing:
 - Contract duration, including dates
 - Services performed
 - Name, address, and telephone number of contracting agency that may be contacted for verification of data submitted.
- **Qualifications of Individuals Assigned.** Summarize the qualifications and experience of the specific individuals who will actually be carrying out the work. Attach resumes of proposed personnel as appropriate.
- Ability to Meet Schedule. Summarize your ability to meet the City's anticipated schedule. Provide tentative project schedule showing dates from project commencement to final design completion and start of construction through completion including equipment start-up.
- Pricing.
 - In a separate envelope, provide the number of hours, by position and by task, for the proposed services outlined. This shall include a separate tabular breakdown showing labor rates by position, mark-up, overhead and profit, and a total lump sum price for the project. The lump sum price may be adjusted during contract development based upon a refinement of the level of effort and scope.
 - Pricing for effort required for the Biogas Purification shall be broken out separately from the rest of project for accounting purposes related to funding.
 - Provide an estimate of level of effort for the construction management with a breakdown of the number of hours by position and by task, including all associated fees. A final scope and fee will be determined by the consultant and City near the end of the design phase.

EVALUATION CRITERIA

The criteria to be used for evaluating the Request for Proposals are stated below.

- A. Credentials of Engineering and Design project team
- B. Knowledge of project and experience
- C. Experience with biogas reuse
- D. Experience with sludge drying and solids handling
- E. Experience with electrical backup power systems
- F. Knowledge of split funded and contracted projects.
- G. Price.

SELECTION AND AWARD PROCESS

The City will select a group of staff members and create an evaluation team. Firms will be ranked based on their written proposals. The City is looking for the most qualified engineering and design team. After the Consultant has been recommended by the evaluation team, the following steps will be taken for approval:

- Department of Public Works recommendation to Board of Public Works
- Board of Public Works recommendation to the Common Council
- Common Council approval of Consultant
- A Contract will be prepared using the Standard City of Waukesha Contract.

SUBMISSION OF PROPOSAL

Seven complete copies of the proposal must be received by 3:00 p.m. local time on December 16, 2023, at the address below:

City of Waukesha Clean Water Plant 600 Sentry Drive Waukesha, WI 53186

Packages containing the proposal should be sealed and clearly marked in the following manner, with the additional notation of "Cost Proposal" on the appropriate envelope:

Biogas Purification and Sludge Drying with Facilities Enhancement for Clean Water Plant

Please also submit a copy of your proposal in Adobe Acrobat "PDF" format on CD or flash drive.

Emailed or facsimile transmittals will not be accepted.

The City of Waukesha reserves the right to make all decisions relative to the selection of a Consultant for this project that will be in the best interests of the City of Waukesha.

If you have any questions regarding this proposal, please contact Jeff Harenda, Plant Manager at (262) 524-3629, <u>jharenda@waukesha-wi.gov</u> or Chris Langemak at (262)-524-3598, clangemak<u>@waukesha-wi.gov</u>

Notice

Confidentiality of Proposals, Contracts, and Supporting Materials

Wisconsin's Open Records Law requires that all records kept by the City be available for inspection by the public, with only very limited exceptions. This includes bids, proposals, supporting materials such as plans and specifications, contracts, and other documents submitted in response to the City's Requests for Proposals.

Please be aware that the materials you submit in response to the City's RFP will be public record, and will be available to the public, including other bidders. Marking them "confidential" will have no effect. If you must submit materials that you feel are trade secrets and must be kept confidential, then you must obtain the City Attorney's written approval of the materials as confidential trade secrets before submission. That approval may be denied, according to the requirements of the Open Records Law.

Schedule B

SCOPE OF SERVICES

Consultant will provide the following services to City:

Preliminary Design

- 1. Conduct one project kickoff meeting (Workshop No. 1) with City at the Clean Water Plant (CWP) to discuss the project scope, schedule, budget, and goals. Prepare meeting minutes and distribute to attendees.
- Request CWP operational data related to biosolids and biogas production and related processes from City. Develop a basis of design letter for biosolids production, operating schedules, and design criteria for use in sizing the drying system, renewable natural gas (RNG) system, and associated equipment. Review basis of design with City for concurrence and incorporate appropriate edits.
- 3. Participate in Workshop No. 2 at the CWP to review and refine technologies to be included in the pre-selection process and to review electrical infrastructure considerations associated with the project. Prepare meeting minutes and distribute to attendees.
- 4. Request and evaluate cost proposals from up to three sludge dryer system suppliers and up to three pipeline quality gas treatment system suppliers. Dryer system suppliers are anticipated to include one paddle-style dryer system supplier with a thermal oil system, one electric dehumidification system supplier, and one belt-style dryer system supplier with a hot water system. Pipeline quality gas treatment system suppliers are anticipated to include one membrane system, one pressure swing absorption system, and one wash water system.
- 5. Evaluate the existing electrical infrastructure within Structure 410 and Structure 430 to accommodate the equipment from each sludge dryer and pipeline quality gas treatment supplier based on existing connected loads and existing supervisory control and data acquisition (SCADA) system power usage data obtained from City.
- 6. Develop technical memorandum (TM) No. 1 including present worth analyses and nonmonetary comparisons of up to three dryer alternatives.
- 7. Develop TM No. 2 including present worth analyses and nonmonetary comparisons of up to three pipeline quality gas treatment alternatives.
- 8. Participate in Workshop No. 3 at the CWP to review project funding options. Prepare meeting minutes and distribute to attendees.
- 9. Develop TM No. 3 summarizing funding options and evaluating the separation of the construction contract(s) for the potential upgrades.
- 10. Develop TM No. 4 including present worth analyses for up to two conceptual layouts for solar energy upgrades at the CWP.
- 11. Participate in up to two coordination meetings with City and the natural gas utility.
- 12. Assist City with identifying potential RNG brokers and renewable energy compliance consultants.

- 13. Submit each draft TM for City review and attend TM review meetings via videoconference. (Alternatively, TM review meetings may be held concurrently with in-person workshops at the CWP.) Incorporate City comments, as appropriate.
- 14. Prepare a draft Preliminary Engineering Report incorporating TMs Nos. 1 through 4.
- 15. Participate in Workshop No. 4 at the CWP to review the draft Preliminary Engineering Report. Workshop No. 4 may be separated into one meeting for pipeline quality gas treatment and one meeting for sludge drying. Incorporate City comments, as appropriate, and finalize the report.
- 16. Request underground electrical and natural gas utility locates and conduct a topographic survey of those areas of the potential biosolid production improvements.
- 17. Request proposals on City's behalf from three geotechnical firms to conduct geotechnical investigations for new structures. Geotechnical services shall be contracted directly between City and the geotechnical firm.
- 18. Prepare air emissions calculations related to the sludge dryer system boiler for City's Type A Registration Air Permit.

Final Design

- 1. Prepare draft Bidding Documents using Engineers Joint Contract Documents Committee C-700 Standard General Conditions and Construction Contract, 2018 edition, technical specifications, and engineering drawings for the project components below. The design includes two separate sets of Contract Documents: one for pipeline quality gas treatment and one for the remaining design components. It anticipates all relevant industry standard manufacturer/equipment information selected by City can be provided to Consultant in one submittal prior to the initiation of Final Design.
 - a. Pipeline quality gas treatment system in accordance with utility gas standards consisting of a pressure skid located in the existing gas handling room of Structure 410 and an exterior treatment system located approximately in the area north of Structure 430. The exterior treatment system is anticipated to be located on a new concrete slab. A building structure for this system is not anticipated. Control panel drawings, wiring diagrams, interconnection diagrams, and etc. are anticipated to be provided by the system supplier. The electrical design anticipates that the existing Structure 410 motor control center (MCC) will have adequate ampacity and space available to power the new gas treatment system.
 - b. Biosolids dryer and dried solids conveyor located in the Structure 440 sludge bay adjacent to Structure 430. Structural modifications to the Structure 440 sludge bay include walls and doorways provide a new Dryer Room and Electrical Room. The anticipated location for dried solids storage is in dumpsters in the existing sludge bay adjacent to the proposed Dryer Room. Control panel drawings, wiring diagrams, interconnection diagrams, etc. are anticipated to be provided by manufacturer. The electrical design anticipates that the existing Structure 430 MCC will have adequate ampacity and space available to power a new MCC for the sludge drying equipment using a single, non-redundant power feed.
 - c. Site modifications including site electrical, yard piping, and sidewalk access associated with the exterior pipeline quality gas treatment system. Roadway modifications for access to the dried sludge storage bay in Structure 440.

- d. Power and SCADA controls design. The design anticipates that all existing medium voltage infrastructure is adequately sized to accommodate the new loads and that all SCADA system controls will be through existing supervisory control centers.
- e. Lighting design for the new Dryer Room and Electrical Room in Structure 440.
- f. Fire alarm system design for the Dryer Room. The fire alarm system design anticipates that a new fire alarm control panel compatible with the existing plant fire alarm system will be specified and be designed to communicate with the existing plant fire alarm system through the existing plant fiberoptic network.
- g. Heating, ventilation, and air conditioning (HVAC) and plumbing design for the Dryer Room and Electrical Room in Structure 440.
- h. Replacement of the polyvinyl chloride aeration piping and diffusers in Aeration Basins Nos. 1, 2, and 3.
- i. Replacement of the two Structure 110 primary influent pump variable frequency devices (VFDs). The design anticipates in-kind replacement of the existing VFDs with new ABB VFDs mounted within the existing VFD enclosures, reconnected to the existing power and controls system without any modifications other than evaluation and possible replacement of the individual VFD overcurrent protection within each VFD enclosure.
- j. Replacement of the two Structure 140 primary effluent pump VFDs. The design anticipates in-kind replacement of the existing VFDs with new ABB VFDs mounted within the existing VFD enclosures, reconnected to the existing power and controls system without modifications other than evaluation and possible replacement of the individual VFD overcurrent protection within each VFD enclosure.
- k. Replacement of the Structure 515 generators and associated paralleling switchboard. This includes controls and associated electrical infrastructure.
- I. Replacement of the automatic transfer switches for Structures 110 and 140. This includes controls and associated electrical infrastructure.
- m. Replacement of the Structure 510 MCC. This includes controls and associated electrical infrastructure.
- n. Replacement of the Structure 250 MCC. This includes controls and associated electrical infrastructure.
- o. Replacement of the Structure 440 sludge distribution conveyor.
- p. Addition of a generator transfer switch and portable generator plug at Structure 220.
- q. Replacement of the suction and discharge isolation valves associated with the five return activated sludge pumps in Structure 240.
- 2. Participate in biweekly videoconference meetings with City.
- 3. Meet with City to obtain input and concurrence with the design. Attend review meetings at the CWP at approximately 60 and 90 percent drawing completion. The review meetings may be separated for pipeline quality gas treatment and sludge drying. Provide draft Bidding Documents and updated opinions of probable

construction costs (OPCC) for review prior to each meeting. Incorporate comments, as appropriate, and provide minutes following each meeting.

- 4. Develop Bidding Documents and OPCC and provide to City. Submit the Bidding Documents to the Wisconsin Department of Natural Resources (WDNR) for review and approval. City shall pay all review fees.
- 5. Respond to comments and questions from WDNR and update the final Bidding Documents, as appropriate, in accordance with WDNR's review to assist City in receiving approved Bidding Documents from WDNR. City will be included in all correspondence with WDNR. Contractor shall be responsible for obtaining necessary construction permits during the construction phase.
- 6. Develop a preliminary operation and maintenance manual summarizing the design intent of the pipeline quality gas treatment and biosolids drying systems.
- 7. Provide City with portable document format (PDF) and AutoCAD files of the final Bidding Documents. Reuse, or any modification of the documents, without written verification, completion, or adaptation by ENGINEER, as appropriate for the specific purpose intended, will be at OWNER's sole risk and without liability or legal exposure to ENGINEER.
- 8. Assist City with preparing Clean Water Fund Program loan application for submittal to the WDNR.

If-Authorized Services

Provide up to \$40,000 of on-call engineering support services to City related to medium voltage power distribution system design.

<u>Bidding</u>

- 1. Attend one prebid conference at the CWP.
- 2. Prepare addenda, if required, to clarify the Bidding Documents. Answer prospective bidder questions throughout bidding.
- 3. Tabulate and analyze bid results and assist City in the award of the Construction Contracts.
- 4. Provide City with six hard copies of the final Contract Documents.

SERVICE ELEMENTS NOT INCLUDED

The following services are not included in this Agreement. If such services are required, they will be provided as noted.

- 1. <u>Additional Design Services</u> such as, but not limited to, the below. Any services of this type will be provided through an amendment to this Agreement.
 - a. Design of infrastructure provided by the natural gas utility, such as design of the utility interconnection facilities, utility metering equipment, and utility gas monitoring equipment.
 - b. Design of dried solids storage equipment such as silos or bagging systems.
 - c. Medium voltage power distribution system design modifications.
 - d. Design of site lighting, video surveillance and security system.
 - e. Development of process and instrumentation diagrams.
 - f. Modifications to existing buildings other than the two sludge bays in the existing Structure 440.

- g. New buildings.
- h. Retaining walls or deep foundations for the exterior pipeline quality gas treatment system, or special design to accommodate problematic soil conditions.
- i. Stormwater modifications.
- j. Three-dimensional model of existing or new buildings.
- k. HVAC and plumbing modifications other than those for the new Dryer Room and Electrical Room in Structure 440.
- I. Solar energy design except for the items specifically indicated under the Scope of Services.
- m. Fire alarm system design other than the Structure 440 Dryer Room fire alarm system design.
- 2. <u>Additional Site Visits and/or Meetings</u>: Additional City-required site visits, meetings, or tours of existing facilities with similar equipment will be provided through an amendment to this Agreement or through a separate agreement with City.
- 3. <u>Construction-Related Services</u>: Construction-related services for the project will require a separate agreement with City.
- 4. <u>Geotechnical Engineering</u>: Geotechnical engineering information will be required and provided through City and City's geotechnical consultant. Consultant will assist City with defining initial scope of geotechnical information that is required to allow City to procure geotechnical engineering services.
- 5. <u>Preparation for and/or Appearance in Litigation on Behalf of City</u>: This type of service by Consultant will be provided through a separate agreement with City.
- 6. <u>Revising Designs, Drawings, Specifications, and Documents</u>: Any services required after these items have been previously approved by state or federal regulatory agencies, because of a change in project scope or where such revisions are necessary to comply with changed state and federal regulations that are put in force after Services have been partially completed, will be provided through an amendment to this Agreement.
- 7. <u>Secondary or Additional Reviews of Manufacturer-provided Equipment Data</u>: Services of this type will be provided through an amendment to this Agreement or through a separate agreement with City.
- 8. <u>Services Furnished During Readvertisement for Bids, if Ordered by City</u>: If a Contract is not awarded pursuant to the original bids, any services of this type will be provided through an amendment to this Agreement.
- 9. <u>VFD Harmonic Analysis</u>: Harmonic analysis to confirm compliance with IEEE 519 or evaluation of alternative VFD manufacturers for the primary influent and primary effluent pump VFD replacements will be provided through an amendment to this Agreement or through a separate agreement with City.
- 10. <u>Permit and Plan Review Fees</u>: All permit and plan review fees shall be paid by the City.
- 11. <u>Services Related to Buried Wastes and Contamination</u>: Should buried solid, liquid, or potentially hazardous wastes or subsurface or soil contamination be uncovered at the site, follow up investigations may be required to identify the nature and extent of such wastes or subsurface soil or groundwater contamination and to determine appropriate methods for managing of such wastes or contamination and for follow up monitoring. Investigation, design, or construction related services related to buried solid, liquid, or potentially hazardous wastes or soil or groundwater contamination will be provided through a separate agreement with OWNER.