Ordinance No. 050 **- 2018**

Authorizing The Mayor, Finance Director And Director Of Public Service To Enter Into An Agreement With ARCADIS U.S., Inc., One Seagate, Suite 700, Toledo, Ohio 43604 To Provide Professional Engineering Services For Preliminary Design and Detailed Design For The York Street Trunk Waterline Improvement Project In An Amount Not To Exceed Four Hundred Thirty-Five Thousand And 00/100 ($435,000.00) Plus Easement Description Preparation In An Amount Not To Exceed Seven Hundred And 00/100 Dollars ($700.00) Per Easement; And Declaring An Emergency

Summary And Background

Clean Energy Future-Oregon, LLC (CEF-O) is developing a 955-Megawatt capacity combined cycle power generation facility within Oregon's municipal boundaries ("the Project"), which will require a supply of potable water from the nearby Toledo municipal water treatment plant.

In accordance to Ordinance No. 63-2017, CEF-O has entered into a potable water purchase agreement with the City of Toledo, and Oregon, that will require new water infrastructure to be installed to deliver up to six-million gallons per day to the Project, from the City of Toledo's water plant.

In order for the City of Toledo to be able to provide potable water supply services to the Project, certain infrastructure improvements (mainly along York Street) will have to be designed, permitted, and constructed, by Oregon, which CEF-O will agree to pay for under the terms of a Master Agreement for Reimbursement of Engineering and Construction Costs.

The Director of Public Service advertised and requested qualification statements from qualified professional engineers to provide professional engineering services for a preliminary design and detailed design for the improvements noted above.

Qualification statements were received from ARCADIS, U.S., Inc.; GGJ, Inc.; and Jones & Henry Engineers, Ltd.

ARCADIS, U.S., Inc. has been determined by the Department of Public Service to be most qualified for the request professional engineering services.

The attached "Exhibit A" has been reviewed by the Department of Public Service and is determined to be fair and reasonable for the work required. **Now, Therefore,**

City of Oregon, Ohio, 5330 Seaman Road, Oregon, OH 43616-2633

Be It Ordained By The Council Of The City Of Oregon, Ohio, That:

Section 1. The Mayor, Finance Director and Director of Public Service are hereby authorized to enter into an agreement with ARCADIS, U.S., Inc., One Seagate, Suite 700, Toledo, Ohio 43604 to provide Professional Engineering Services For Preliminary Design and Detailed Design for the York Street Trunk Waterline Improvement Project in an amount not to exceed Four Hundred Thirty-Five Thousand and 00/100 Dollars ($435,000.00) plus Easement Description Preparation in an amount not to exceed Seven Hundred and 00/100 Dollars ($700.00) Per Easement in accordance with "Exhibit A", attached hereto and made a part hereof.

Section 2. Council hereby authorizes the transfer of $250,000.00 from fund 851 to fund 364 and appropriates and approves $250,000.00 into Account 364.7235.57736 for the purpose of preliminary design and detailed design, including bidding services, and easement descriptions for the York Street Trunk Waterline Improvement Project as noted above.

Section 3. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council and that all deliberations of this Council and any of its committees that resulted in such formal actions were in meetings open to the public in compliance with all legal requirements, including Section 121.22 of the Revised Code of Ohio and that the reading and adoption of this Ordinance complies with the provisions of Article III, Section 9 of the city Charter as amended.

Section 4. This Ordinance is hereby declared to be an emergency measure and shall take effect and be in force from and after its passage and signature by the Mayor. The reason for the emergency lies in the fact that this Ordinance is necessary in order to supply potable water to the CEF-O Project in a timely manner.

Vote on passage as an emergency: Yeas 7 Nays 0 Abs 0

Passed as an emergency measure: April 23, 2018

President of Council

Approved:

Mayor

Attest:

Clerk of Council

Ordinance No. 050-2018 Item No. 050-2018

"Exhibit A"

ARCADIS Design & Consultancy for natural and built assets

Mr. Paul Roman, PE
Director of Public Service
5330 Seaman Road
Oregon, OH 43616

Arcadis U.S., Inc.
One SeaGate
Suite 700
Toledo
Ohio 43604
Tel 419 473 1121
Fax 419 473 2108
www.arcadis.com

WATER RESOURCES

Subject:
York Street Trunk Waterline

Date:
April 11, 2018

Contact:
Jeff Swartz

Phone:
419.213.1648

Email:
jeff.swartz@arcadis.com

Our ref:
60021502.0010

Dear Mr. Roman:

Thank you for the opportunity to submit a proposal to provide engineering services for this project. The York Street Trunk Waterline will supply water from the City of Toledo Collins Park Water Treatment Plant (WTP) to Clean Energy Future – Oregon, LLC (CEF-O) on Parkway Road in Oregon. This proposal was developed as a follow-up to our Letter of Interest submitted on April 2, 2018 and our meeting on April 9, 2018.

UNDERSTANDING OF PROJECT

Clean Energy Future – Oregon, LLC (CEF-O) proposes to construct a 955-megawatt natural gas fired combined-cycle electric generating facility on a 30-acre site located on Parkway Road. The facility requires potable water with an estimated average flow of 4.8 mgd and maximum flow of 7 mgd. Since Oregon WTP does not currently have the capacity to meet this demand, the City of Oregon and City of Toledo reached an agreement for Toledo to supply potable water to CEF-O. The proposed waterline will also interconnect with Oregon's trunk water main on Lallendorf Road for emergency use.

The York Street Trunk Waterline will connect to a proposed City of Toledo 36-inch trunk water main at the Collins Park Water Treatment Plant and extend east. The preliminary size of the proposed water main is 36-inch diameter between Collins Park WTP and Otter Creek Road. It will then reduce to a 24-inch and extend east on York Street to Lallendorf Road and interconnect to Oregon's trunk water main for emergency supply purposes. Two possible routes are then being considered. The first route is south on Lallendorf Road and then east on Parkway Road to CEF-O. The second route is to continue east along the south side of the Norfolk-Southern Railroad across Johlin Ditch and then south to CEF-O. The

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overall length of the trunk water main is approximately two miles. We anticipate a master meter chamber at Otter Creek Road, a meter chamber at CEF-O, and a valve vault at Lallendorf Road. We anticipate steel encasement pipe at three railroad crossings, Toledo's 60-inch and 78-inch raw water mains, and at Otter Creek. Based on our current understanding of the project, we estimate a preliminary construction cost of $4,990,000 including a contingency of 25%.

Our project understanding and technical approach are further described in our Letter of Interest submitted on April 2, 2018.

We propose the following scope of services.

SCOPE OF SERVICES

PROJECT MANAGEMENT AND INITIAL MEETINGS

1. Conduct an initial meeting with Oregon and Toledo to discuss status of Toledo's trunk water main design to serve Cliffs hot briquetted iron (HBI) and CEF-O. We request that Toledo share design flow rates, minimum and maximum system pressures, and results of its hydraulic model to serve these companies. For the interconnection to the Lallendorf Road trunk water main, we request that Toledo provide the maximum flow that it could supply to Oregon's water system during an emergency.
2. Conduct a project kick-off meeting with the City of Oregon to review and discuss scope of services, project goals and objectives, and schedule.
3. As part of kick-off meeting or separately, we will meet with Oregon and Toledo to discuss project starting point, master meter chamber location, CEF-O meter chamber location, meter types and data communications, design and construction standards to be followed, pipe materials, general alignment, construction methods, etc. We will also discuss meter chamber design (access, meter bypass, etc.) and access to the Toledo Collins Park WTP during construction of the two water main projects.
4. Conduct a meeting or request following information from CEF-O: design flow rates, pressure requirements, preliminary site plan and meter vault location, project end point, power availability, data communications, etc. We will discuss the possibility of Oregon supplying a portion of the water supply to CEF-O using the existing 12-inch water main on Parkway Road.
5. Conduct a coordination meeting with Ohio EPA to discuss proposed improvements, interconnection with existing Lallendorf Road trunk watermain, potential dual supply pipelines to CEF-O, and preliminary design, permit application process, etc.
6. Prepare detailed project plan for execution and tracking of the project, schedule for deliverables, QA/QC plan, and health and safety plan.
7. Conduct regular monthly progress meetings to keep City staff up-to-date on progress of work, present preliminary findings, solicit input from the City, and make necessary adjustments to the project.
8. Manage budget by monitoring, controlling and communicating project cost performance.
9. Submit monthly invoices.
10. Manage scope of services throughout project and identify changes for prompt notification of the City and request authorization to proceed.

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11. Manage project schedule by planning, executing, monitoring and controlling time management component of the project.

PRELIMINARY DESIGN PHASE

Preliminary design phase services are presented below.

HYDRAULIC MODELING

Arcadis will perform hydraulic modeling as required to support the pipeline design and for understanding the hydraulic grade line of Toledo and Oregon to support the metering and control chamber design for this project. Arcadis developed the water distribution system hydraulic models for both the City of Toledo and the City of Oregon and both will be utilized for this hydraulic evaluation via the following tasks:

1. Participate in the project kickoff meeting and coordinate with Toledo and Oregon to obtain all necessary infrastructure and hydraulic data in the project area which may influence system hydraulics, and that has changed following the previous distribution system model updates. A data request list will be provided prior to the project kickoff meeting.
2. Obtain hydraulic requirements (e.g. minimum pressure, flow variations, peak conditions and proposed demand usage patterns) from CEF-O.
3. Obtain hydraulic requirements (e.g. minimum pressure, flow variations, peak conditions and proposed demand usage patterns) from Cliffs HBI that will be served by Toledo's 36-inch water main on York St.
4. Perform limited model updates only within the project area to represent current system infrastructure and current system hydraulic conditions. It is assumed the models from Toledo and Oregon are calibrated and adequately represent the system with limited updates in the project area.
5. Develop the model to simulate the proposed water mains, interconnection between Toledo and Oregon water distribution systems, and hydraulic control appurtenances (e.g. isolation valves, control valves, backflow prevention (if any), metering losses).
6. In support of design, develop two simulations to evaluate average and peak flow conditions including all appropriate minor losses through the interconnection. Utilize the model simulations to confirm pipe sizing, and to determine the control settings necessary for supplying a limited flow rate from Oregon, supplemented with the remaining demand from Toledo.
7. In support of operations, simulate the systems interconnection to evaluate the proposed infrastructure as an emergency backup supply to Oregon's system. The simulation will evaluate the available flow rate through the connection and appurtenances; and, demonstrate the extents to which the water from the interconnection will flow into the Oregon system.
8. Provide a technical memorandum summarizing the hydraulic model development, assumptions, simulation results and recommendations. This will include the size of the York Street Waterline connection to Lallendorf Road trunk water main (24-inch by 16-inch tapping sleeve and valve or a full diameter 24-inch tee and valve).

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PRELIMINARY DESIGN ACTIVITIES

1. Develop preliminary list of additional equipment signals and alarms that will need to be incorporated in the Oregon WTP SCADA system for remote monitoring and control. If Oregon is to supply a portion of CEF-O water demand, these may include: magnetic flow meter for continuous flow monitoring, rate-of-flow control valve, flood alarm, and communications failure at CEF-O meter vault. Oregon's water meter for billing purposes must be able to be read by Oregon Water Department. The rate of flow control valve would enable WTP operators to remotely position a valve for a target daily flow rate.
2. Review available information along the proposed routes including utility drawings, easements, and property owner information. City will provide available record and utility drawings.
3. Review flow velocity and confirm diameter and material of proposed trunk waterline. City's request for qualifications indicated preliminary water main size of 24-inches. However, we understand the water main between Collins Park WTP and Otter Creek Road will be 36-inches diameter.
4. Send correspondence to the utility companies along proposed route. Attend a meeting scheduled by the City of Oregon with utility company representatives to discuss the proposed trunk water main alignment.
5. Based on the above, a preliminary water main route will be determined and survey work will proceed when authorized by the City.

SURVEY

1. Contact utility owners and request field markings and utility mapping from underground utility owners.
2. Notify City of field survey schedule to allow notification of residents by City.
3. Perform field survey to locate and identify the following:
   a. All existing topography in the right-of-way and in any required permanent or temporary easements.
   b. Existing right-of-way widths with stationing on a field established baseline where possible, to show existing monuments, property markers, property lines;
   c. Edges of pavements and their types, including locations of existing concrete bases, paved or improved berms, curb types;
   d. Existing utilities (horizontal and vertical locations shown in profile, existing valve boxes, etc.). Locations of existing underground utilities to be coordinated in advance of bidding the project with the utility owners;
   e. Slope lines and/or roadside ditches with drive inverts, cross sections of ditches, including flow line, at 100' intervals and obvious grade changes. Cross section information of the existing ditch(es) within the public right-of-way will be provided.
   f. Existing topography at the proposed meter chamber locations.
   g. Existing field tiles and storm discharge pipes.
   h. Existing manholes and catch basins with top and invert elevations and pipe sizes and directions of pipe(s) entering/leaving the structure
   i. All utility poles, identified by line, i.e., telephone, power, light;

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j. Bench marks with a full description and elevation to the nearest 0.01'.

4. Field survey datums (horizontal and vertical) will be coordinated with datums from City of Toledo, City of Oregon, and CEF-O.
5. Proposed soil boring locations will be field staked based on discussions with City.
6. Arrange for soil borings for trunk water main. Soil borings shall be paid for by the City.

PRELIMINARY ALIGNMENT SUBMITTAL

1. Determine proposed alignment for the trunk water main.
2. Prepare preliminary alignment plan and profile sheets using a horizontal scale of 1"=20' and vertical scale of 1"=5'.
3. Plans will include survey information and property description information including property owners, addresses, property frontages and parcel numbers.
4. Submit preliminary water main alignment to the City for review and comment.
5. Meet with City to discuss their comments and water main alignment alternatives.
6. Identify proposed locations of meter chambers and potential easements.
7. Revise preliminary drawings.

DETAILED DESIGN PHASE

1. Assist the City in retaining services of a geotechnical engineer to perform soil borings and analysis for the proposed improvements. The geotechnical consultant firm will perform soil borings, obtain soil samples, perform necessary analyses and summarize testing results and recommendations in a report. No costs for this work are included in the proposal. Services will be performed under direct contract with the City and paid for by the City.

UTILITY NOTIFICATION SUBMITTAL

1. Submit water main plan and profile drawings to utility companies for review of accuracy for their facilities.
2. Send copies of correspondence to and from utility companies to City.
3. Schedule a utility coordination meeting to discuss the project with the utility companies in the area.

FIELD LOCATING OF EXISTING PIPELINES

Due to the number of product pipelines along the route, we anticipate multiple pipeline crossings. Pipeline owners may require the pipeline to be field located during the design phase due to minimum vertical clearance requirements at crossings. This will require the top of the pipeline or utility to be field located and exposed during design. Once exposed, the alignment and top of pipe elevation will be recorded. Arcadis will hire a subcontractor to complete this work. We anticipate the subcontractor will use a non-destructive "soft-dig" method called potholing using a vacuum excavator. Pipeline owner representatives must normally be on-site to witness this work. Since the number of pipeline crossings is unknown, this proposal includes an allowance for a subcontractor to perform this work.

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PIPELINE CROSSING REQUIREMENTS

Certain pipeline owners may issue restrictions, specifications and construction requirements for working near their utilities. Some may require specific pipeline crossing agreements with the City. We currently do not know the number of pipeline crossings, pipeline owner requirements, or the extent to which cathodic protection may be required. Proposed scope of services does not include soil testing or cathodic protection system design. If these requirements or recommendations are identified during design, we will notify the City that additional services are needed to complete the design.

INTERMEDIATE REVIEW SUBMITTAL

1. Revise preliminary alignment per discussions with City and utility companies.
2. Proceed with development of specifications using EJCDC Bidding and Construction Documents and CSI format technical specifications. Specifications are organized into 50 divisions in general conformance with CSI MasterFormat 2004 (50MF).
3. Prepare technical criteria, design data and application forms for the trunk water main for approval of the final drawings and specifications from governmental authorities that have jurisdiction. All plan review or permit fees shall be the responsibility of the City.
4. Furnish copies of the Drawings and Specifications to the City. Review the documents in person with the City, if necessary.
5. Revise drawings and specifications based on city's comments.

PERMITTING

1. Assist the City in obtaining plan approval from Ohio EPA. Arcadis will prepare applications for the city's submission to Ohio EPA. All agency review fees and permit fees will be paid by the City.
2. Assist the City in obtaining permits from Norfolk Southern Railroad for the three railroad crossings. Arcadis will prepare applications for the City's submission. All review and permit fees will be paid by the City.

EASEMENT DESCRIPTION SUBMITTAL (IF NECESSARY)

1. Prepare legal descriptions for temporary and permanent easements.
2. Provide written and electronic file copy of all easement descriptions and figures.
3. Provide copies of deeds and all related documentation used in preparation of the easement descriptions to City upon request.
4. Provide electronic AutoCAD drawing files for use by City.

FINAL PLAN SUBMITTAL

1. Prepare final bidding documents including contract agreement forms, general and supplementary conditions, bid forms, invitations to bidders, instructions to bidders, technical specifications and other related documents.

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2. Submit the following to the City:
   a. Two copies of final drawings and specifications;
   b. Updated, itemized opinion of probable cost (written 8 ½" x 11" and electronic files);
   c. Copy of all survey data collected since initial submittal;
   d. Compact disk with AutoCAD drawing files.
3. Submit final drawings to each utility company with facilities in this project area.

BIDDING SERVICES

1. Assist the City of Oregon in advertising for and obtaining bids for the Project. Maintain record of prospective bidders to whom bidding documents have been issued, and receive and process their respective deposits. The costs of advertising shall be borne by the City of Oregon.
2. Schedule or make arrangements for and conduct pre-bid meeting.
3. Respond to contractors' and suppliers' inquiries regarding the Drawings and Specifications. Issue addenda, as necessary, to clarify or expand the bidding documents.
4. Attend the bid opening, prepare and distribute bid tabulation sheets and assist the City of Oregon in evaluating the bids.
5. Consult with the City of Oregon concerning the acceptability of the low and best bidder and their respective subcontractors and suppliers.
6. Consult with the City of Oregon concerning the acceptability of substitute materials and equipment proposed by the contractor, if such substitution is allowed in the bidding documents.
7. Recommend contract award based on information gathered in Items 1-6 above. Prepare the Contract Documents for approval by the City of Oregon and selected contractor(s).

RESPONSIBILITIES OF CITY OF OREGON

The City of Oregon shall be responsible for the following:

1. Furnishing, without charge, all maps records, reports, drawings, specifications, data sheets, memoranda and other data pertinent to the Project that are in the possession of the City.
2. Arranging for access to and making all provisions for the Engineer to enter upon public and private property as required for the Engineer to perform his services and in accordance with the Ohio Revised Code.
3. Coordinating with utility companies to discuss schedule for field locating underground utilities where required.
4. Securing and bearing the expense of approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from other entities such as railroads as may be necessary for completion of Project.
5. Giving prompt written notice to the Engineer whenever the City of Oregon's representative observes or otherwise become aware of any development that affects the scope or timing of the Engineer's services, or any defect or non-conformance in the work of the contractor.
6. Furnishing test borings, laboratory testing of samples or materials and other special consultation, as required.

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7. Negotiating for and acquiring property and/or easements.
8. Furnishing to Engineer property, boundary, easement, right-of-way, property surveys for transfer of real property, and other special field surveys or data, including establishing relevant reference points or coordinate access to the City of Oregon's data and records.
9. Publishing the legal advertisement for bids and related costs.
10. Attending the pre-bid conference, bid opening, preconstruction conference, construction progress and other job related meetings, substantial completion and final payment inspections, and meeting with representatives of the Engineer as necessary.
11. Furnishing copies of all design and construction standards, which the City of Oregon will require to be included in the Drawings and Specifications within 7 days of authorization for final design services.

SCHEDULE

The City's Request for Qualifications provided the following preliminary project schedule. The schedule is fairly aggressive and will require cooperation, meeting availability, and timely responses and reviews by all parties. We understand that the Consultant authorization to proceed will be given on April 23, 2018. Depending on the final authorization date, the schedule may need to be revised.

Project Activity	Date
Design Contract Award	4/23/2018
Railroad Crossing Permit Submittal	08/1/2018
Start R/W Acquisition	08/1/2018
Ohio EPA PTI Permit Submittal	10/1/2018
Advertise Bid	02/4/2019
Receive Bid	2/27/2019
Council Authorization for Construction	03/11/2019
R/W Acquisition Complete	03/31/2019
Receive All Permit Approvals	03/31/2019
Construction Notice to Proceed	04/1/2019
Construction Substantial Completion	04/30/2020
Construction Final Completion	05/30/2020

FEE

We propose to perform engineering services on a cost reimbursement multiplier fee basis plus other direct costs or reimbursable expenses. Work would be performed in accordance with an Agreement for Engineering Services that will be forwarded upon request. Our proposed fee is summarized below:

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Mr. Paul Roman, PE
April 11, 2018

Engineering Services for Design, Permitting & Bidding Description	Fee
Water System Hydraulic Modeling and Technical Memo	$20,000
Preliminary & Final Design	$355,000
Bidding	$10,000
Subtotal	$385,000
Allowance for Field locating buried underground utilities	$50,000
Total	$435,000
Easement Descriptions	$700 each

We appreciate your trust in Arcadis and will work closely with the City to successfully complete the York Street Trunk Waterline. Please let us know if you have any questions or need additional information.

Sincerely,

Arcadis U.S., Inc.

Jeffry J. Swartz, PE
Project Manager

Copies:
Mr. Doug Wagner

This proposal and its contents shall not be duplicated, used or disclosed — in whole or in part — for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to Arcadis as a result of — or in connection with — the submission of this proposal, Arcadis and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use or disclose the data contained in this proposal only to the extent provided in the resulting contract.