KCWATER
FACILITIES & PLANTS ENGINEERING
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DATE: February 24, 2023

TO: Jeff Martin, P.E., Chief Engineering Officer
Wes Minder P.E., Director

FROM: Kevin White, Project Manager

SUBJECT: Design Professional Services Bid Recommendation for Rocky Branch WWTP Facility Plan – PN: 81001000/1678

1. **PROJECT NUMBER(S):** 81001000

2. **CONTRACT NUMBER:** 1678

3. **PROJECT DESCRIPTION:** This project is consists of providing a Facility Plan, which will include projections of future flows and loads, a current hydraulic and process capacity evaluation, current plant conditions assessments, and recommendations for upgrades, repairs, and process improvements. In addition, modeling may be used to refine rainfall distributions and depth/duration/frequency data based on modeling conducted by City (included in Optional Services).

4. **TASK SERIES LISTING AND COST INFORMATION:**

Task Series 100 – Project Management and Administration	$56,052.00
Task Series 200 – Site Investigation, Review of Existing Work, and Review of Existing Projects	$139,617.00
Task Series 300 – Facility Plan	$198,813.00
Task Series 400 – Envision™ Sustainability Design	$3,010.00
Optional Services	$102,484.00
Grand Total	$499,976.00

5. **SOURCE OF FUNDS:** 8110-B-807778-81001000

6. **ORDINANCE: TBD, Ordinance will be required.**

7. **MBE/WBE GOALS:** 11% MBE / 11% WBE

8. **PROPOSALS RECEIVED:**
    a. Black & Veatch
    b. HDR
    c. Garver
    d. Jacobs
    e. Olsson
9. **DESIGN PROFESSIONAL SERVICES SELECTION COMMITTEE:**

    Committee Meeting Date: September 28, 2022

    a. Selection Type: City-Wide Selection
    b. Selection Method: Proposals and Interviews
    c. City-Wide Selection Committee Members:
        - Wes Minder, P.E., Director of Water Services
        - Mario Vasquez, City Manager's Office
        - Brent Herring, Wastewater Operations Officer

10. **PROPOSAL REVIEW:** A summary of the proposal review is attached to this memo. Based on Staff review of the five proposals received, interviews were extended to three respondents – Black & Veatch, Jacobs, and Olsson.

11. **KEY FACTORS FOR SELECTION:**
    a. Sufficient staffing to support the project.
    b. Previous experience performing similar work to the current project.
    c. Ability to meet CREO goals.
    d. Experience with water reuse projects and an understanding of on-going development projects that will affect the Rocky Branch WWTP.
    e. Experience with representing alternative delivery models including progressive design build and construction manager at risk.

RECOMMENDATIONS:

The City-Wide Selection Committee recommends Jacobs be selected for this project with Black & Veatch as the alternate Design Professional.

Approved: CLH 2/27/2023 (initial/date)
Chris Herrera, P.E., Engineering-Facilities Section Manager

Approved: DocuSigned by: Blake Anderson 26145A5B61E84A6... (initial/date)
Blake Anderson, P.E., Engineering-Facilities Division Manager

Approved: DocuSigned by: Jeff Martin 756D1017BA554BC... 2/28/2023
Jeff Martin, P.E., Chief Engineering Officer Date

Approved: DocuSigned by: Wes Minder 50CCF2C28AE1472...
Wes Minder, P.E., Director Date

cc: Kevin White, Project Manager DS kw
Leona Walton, Contract Administrator
Brent Herring, Deputy Director, Wastewater Operations Officer
Lisa Pleasure, Senior Analyst Finance Administration
Robbi Jackson
Contract File 1678

ENGINEERING AND SMART SEWER QA/QC FORM & CHECKLIST FOR DOCUMENT SUBMITTAL

Project Name: Rocky Branch WWTP Facility Plan	**Document Type: Bid Recommendation Memo**
Project Number: 81001000	**Contract Number: 1678**
Project Manager: Kevin White	**Ordinance Number (If Applicable) : TBD**

The Engineering Leadership Team will establish the Quality Assessors based on the type of deliverable. The Project Manager shall submit their request through e-Builder to their Supervisor for assignment of the Quality Assessors. Supervisors shall consult with their respective Officer for assignments. **QA/QC Form & Checklist will be routed for review utilizing DocuSign.**

Level 1 Review With Checklist	**Quality Assessor 1 Deadline:**
Project Manager: *I have prepared this document for review. I attest to the quality of the content, accuracy of the content and grammatical work contained herein.* Kevin White — 02/14/2023 **Signature** — **Date**	**Quality Assessor:** *I have reviewed this document, indicated my comments and initialed the Checklist* Delia Hefferman — 02/13/2023 **Signature** — **Date**

Level 2 Review With Checklist	**Quality Assessor 2 Deadline:**
Project Manager: *I have reviewed the Level 1 version of this document. All indicated comments and edits have been incorporated or resolved to my satisfaction. I have completed the attached Checklist.* Kevin White — 02/27/2023 **Signature** — **Date**	**Quality Assessor:** *I have reviewed this document, indicated my comments and initialed the Checklist.* Chris L Herrera — 2/27/2023 **Signature** — **Date**

Level 3 Review - Final

Project Manager:

I have completed each of the review steps and initialed the Checklist. I have prepared this document for final approval and routing. I attest to the quality of the content, accuracy of the content and grammatical work contained herein.

Signature — **Date**

***QA/QC Form & Checklist must be transmitted with all documents routed for approval. ***

Engineering and Smart Sewer QA/QC CHECKLIST

REFER TO SIGNATURE MATRIX FOR ROUTING OF DOCUMENTS.
QA/QC FORM & CHECKLIST MUST BE TRANSMITTED WITH ALL DOCUMENTS.

	PM Initials	QA 1 Initials	QA 2 Initials
Is the information presented in a logical order?	KC CW	[illegible]	CLH
Is the document presented in consistent tense?	☑	☑	☑
Is the document written in third person?	☑	☑	☑
Is proper grammar used?	☑	☑	☑
Is proper paragraph and sentence structure used?	☑	☑	☑
Is punctuation properly and consistently applied?	☑	☑	☑
Are abbreviations/acronyms properly defined and consistently used?	☑	☑	☑
Has the content been proofread for typographical/spelling errors?	☑	☑	☑
Would the content make sense to a person unfamiliar with this project/work?	☑	☑	☑
Has the reader's perspective been considered?	☑	☑	☑
Has all supporting documentation/information been included?	☑	☑	☑
Is the correct version of the memo/form being utilized (correct: letterhead and signature lines)?	☑	☑	☑
Has all math been verified as correct?	☑	☑	☑
Are the project and contract numbers correct?	☑	☑	☑
Are the funding strings correct?	☑	☑	☑
Are the descriptions, justifications and reasons accurate and defendable?	☑	☑	☑
Are the details and information for the ordinance and authorization correct?	☑	☑	☑
For change orders: Are the authorized/spent/remaining funds correct?	N/A	N/A	N/A

EXHIBIT B

BASE SCOPE OF SERVICES

Design Professional: Jacobs Engineering Group, Inc.
Owner: City of Kansas City, Missouri
Project: 81001000 Rocky Branch WWTP Facility Plan
Contract No: 1678

I. GENERAL

The following paragraphs provide a general description of the WORK required of this Scope of Services. Subsequent paragraphs describe in detail the professional services to be provided by DESIGN PROFESSIONAL (DP).

The Project. The Water Services Department wishes to contract with a DP to provide a Facility Plan, which will include a projections of future flows and loads, current design capacity evaluation, current plant condition, and recommendations for upgrades, repairs, and process improvements for the Rocky Branch Wastewater Treatment Plant at 500 NE 132nd Street, Kansas City, MO 64165. The Facility Plan should also contemplate the 2017 Wastewater Master Plan's TM7 to determine if additional modifications are required.

A. Background Information and General Description of Activities.

1. The CITY, acting through WSD, is undertaking this project to develop a Facility Plan for its Rocky Branch WWTP to account for changing conditions in the service area and be able to address future regulatory requirements.
2. Previous reports, including the 2017 Wastewater Master Plan's TM7, operations data, lab data, and as-built drawings shall be made available to the DP, as available.
3. DP shall use e-Builder document management system.
4. DP shall use a cost loaded scheduling system such as Microsoft Project or P6.
5. DP shall provide an S curve with invoice.
6. DP shall submit meeting agendas and expected DP attendees at least 3 days prior to each meeting and distribute draft meeting minutes within one business day of the meeting.
7. DP shall review existing geotech reports and indicate if additional borings are necessary.
8. Any I&C work will be performed per WWTD I&C standards.
9. DP shall prepare a recommendation for phasing for proposed work and recommendation on delivery methods based on constructability, risk, funding, uncertainty of projects, and other recommended factors.

B. Follow-On Phases. At the discretion of the CITY and after completion of the Project, the DP may be requested to provide other services, including additional design work,

construction phase services, and providing a resident project representative (RPR) during construction of improvements at the Rocky Branch WWTP and other associated locations.

C. Coordination. The DP shall coordinate as necessary with regulators, Army Corp of Engineers, Department of Planning and Development, other utilities, City vendors, City consultants contracted to complete other projects for the City that could impact the Rocky Branch WWTP, potentially including Regulatory Compliance Assistance, SCADA project, Storm Water Utility/Engineering, Todd Creek WWTP project team, MARC, Planning and Development Department, potential Industrial Users City of Smithville, the Smart Sewer Program, and City contractors.

D. Task Series Listing. This Basic Scope of Services is organized under the following Task Series:

1. Task Series 100 - Project Management and Administration
2. Task Series 200 - Site Investigation, Review of Existing Work, and Review of Previous Projects
3. Task Series 300 - Facility Plan
4. Task Series 400 - Envision™ Sustainability Design

E. Construction Procurement. 100% Design documents developed by DP will be of sufficient detail for the CITY to obtain bids through a conventional bidding process. Preliminary Design Documents (Facility Plan) shall be of sufficient detail for the CITY to obtain bids through the standard CITY fixed fee design-build process.

F. Travel. DP may request pre-approval of non-local travel. The CITY's Project Manager may approve or disprove the travel expense. Any travel request after the fact shall be denied.

G. Explicit Responsibilities. The Scope of Services explicitly sets forth what DP will perform and does not implicitly put any additional responsibilities or duties upon DP. The DP agrees to provide the specific Basic Services as identified herein. Work not specifically discussed herein shall not be performed without an amendment or shall be provided as Optional Services upon written authorization from the CITY.

H. Closeout. Design Professional will provide deliverables and requested backup files. HRD completion forms and other required documents will be submitted before final payment.

I. Capital, Annual, and Total Ownership Cost Opinions. All opinions of probable construction cost developed will generally follow the recommendations of the Association for the Advancement of Cost Engineering (AACE) International Recommended Practice No. 18R-97 with regard to methodology and accuracy. Since DP has no control over the cost of labor, material or equipment furnished by others not under contract to DP, DP's opinion of probable cost for construction, of the Work will be made on the basis of experience and qualifications as a DP. DP does not guarantee that proposals, bids or actual project costs will not vary from DP's opinions of probable cost. The cost opinions' level of accuracy presented by DP will be as noted for in subsequent paragraphs of this Scope of Services. All opinions of probable construction, operations, and maintenance costs will be made on the basis of experience and qualification as a DP. DP does not guarantee that actual operations and maintenance costs will not vary from the DP's opinions of probable

operations and maintenance costs. DP will utilize Parametric Cost Estimating tools along with design-build cost estimators and best practices from the construction community and design community to develop their capital cost model. DP will utilize estimating tools combined with O&M specialists in the development of the O&M model. Resumes for the cost estimators and O&M specialists will be provided to WSD for approval before cost estimating tasks begin. DP shall immediately notify the PM if the estimates are over the construction budget after initial QA. City reserves the right to call a cost estimate review meeting at WSD offices or the DP offices where the cost estimating team is based. Project Workplan include the "below the line factors" for each estimate.

II. PROJECT MILESTONES AND CITY REVIEW REQUIREMENTS

A. Project Milestones and CITY Review Requirements

1. Task Series 100 shall be completed within 270 days following the CITY's issuance of a Notice To Proceed, NTP, to the DP
2. Task Series 200 shall be completed within 90 days following the CITY's issuance of a NTP.
3. Task Series 300 shall be completed within 270 days of the CITY's issuance of a NTP.
4. Task Series 400 shall be completed within 270 days following the CITY's issuance of a NTP.
5. All tasks identified in this Scope of Services, except those identified as Optional Services, shall be performed within 270 calendar days of the written Notice to Proceed. The completion schedule will be extended by the CITY for delays beyond the control of the DP as approved by the CITY.
6. DP may suggest schedule modifications to the scope of work

B. The CITY hereby commits to review deliverables and provide comments within fourteen (14) calendar days after receipt of deliverables from DP. CITY will endeavor to provide consolidated written review comments to DP within a fourteen (14) calendar day period. A review meeting will be scheduled and conducted by DP no more than fourteen (14) calendar days after receipt of written consolidated CITY review comments, unless a mutually agreed upon date outside this schedule window is selected.

III. BASIC SCOPE OF SERVICES

The following Task Series describe the Basic Scope of Services to be provided by the DP under the Project.

TASK SERIES 100 - PROJECT MANAGEMENT AND ADMINISTRATION

The purpose of Project Management and Administration will be to manage, direct and oversee each element of Basic Services identified herein and subcontractors employed by the DP in completion of the Work. The following management activities will be provided by DP.

Task 101 Project Management Services

Provide project administration management services necessary throughout the project to successfully manage and complete the Work, including project correspondence and consultation with CITY Staff; supervision and coordination of services; implementation of a project specific Work Plan; scheduling and assignment of personnel resources; continuous monitoring of work progress; and maintenance of project controls.

Task 102 Monthly Invoicing and Project Status Reports (PSRs)

Prepare and submit monthly invoices (showing, by task, staff name including office location, classification, direct hourly rate, multiplier, and hours worked on each task) on a form acceptable to the CITY and provide a monthly project status report which shall accompany the monthly invoice submittal. If applicable, a list of the tasks in progress or completed shall be attached with each invoice. The monthly progress status reports shall document work progress, the percentage of completed work, earned value, schedule status, and budget status. The monthly project status report shall identify work performed by DP, the work activities anticipated to be performed the next month, action items required by CITY, previous decision items, potential to go over budget along with corrective actions, and potential project scope variances with corrective actions. A short narrative shall be provided to describe the work activity performed for each task within each Task Series. DP shall provide WSD with a narrative description of individuals' work, if requested. PSRs shall include a table containing the date of the most recent invoice from each subcontractor included in this invoice to the City. DP shall obtain reasoning from any subcontractor for invoice being greater than 30 days old.

Task 103 Subconsultant Agreements and Administration

Prepare a scope, budget, schedule, and agreement for its subconsultants involved in the Project. Conduct coordination meetings as required to prepare subconsultant agreements, to review deliverables, and to execute the defined scope of work. Provide administration of subconsultant agreements and subconsultant work including deliverables, subcontractor invoicing, and schedule maintenance. Prepare monthly M/WBE subcontractor utilization reports and submit in the required format to the CITY's Human Relations Department. Workplan should describe the DP's methods for subcontractor management. DP is encouraged to utilize task orders.

Task 104 Quality Control

DP's Quality Control Program will be implemented on all phases of the project to provide an independent review of the work. Quality control reviews will include checks for conformance with regulatory agency requirements, completeness and correctness of evaluations, design accuracy, feasibility of implementing recommendations, and adherence to contract requirements.

Task 105 Project Kickoff Meeting

After Notice to Proceed is given by CITY, DP shall organize and conduct a Project Kickoff Meeting with the CITY to review and establish project goals, lines of communication, project procedures, DP's proposed Work Plan, and other logistics of project execution, including anticipated Project schedule, cost loaded schedule, and expected MBE/WBE utilization schedule, and content of subsequent monthly progress meetings. Prepare and submit an agenda to CITY

Staff 3 business days prior to the meeting and prepare and distribute the meeting minutes within 1 business day of the meeting date.

Task 106 Work Plan

1. **Work Plan Format.** DP shall prepare a written draft Work Plan. The Work Plan for the project includes, at a minimum the following:
   a. A summary of dedicated key team members roles and responsibilities, including all task managers, field crew leaders and their contact information. Any major changes in personal assignments from the RFP should be noted and approved of by the CITY.
   b. A summary of the Project's scope of services.
   c. Detailed cost-loaded schedule for performance of all work.
   d. Sustainable planning and design goals, objective and processes.
   e. Define any issues requiring special coordination with CITY, and/or adjacent projects.
   f. DPs methods for subcontractor management and preventing scope creep.
   g. Section on cost estimating methods including "below the line factors for each planned estimated" and details on the utilization of parametric values.
2. **Submitting Work Plan. S**ubmit the draft Work Plan (a single electronic file in portable document format – PDF) within 7 calendar days of the notice to proceed. CITY will review the draft Work Plan and provide comments within 7 calendar days of receipt of the draft Work Plan. Revise the draft Work Plan as necessary to respond to CITY's comments and submit an electronic PDF file including a Gantt chart in Microsoft Project within 14 calendar days of receipt of CITY's comments. The Work Plan shall be updated and maintained throughout the Project, with updates provided to CITY when requested.

Task 107 Progress Meetings

Participate in up to (TBD) monthly progress meetings with CITY to provide updates of work progress, budget and schedule status, current issues, variances in the potential scope of work, review Action Items, Decision Logs, and potential cost savings proposals. Anticipated future activities and CITY action items will be discussed. DP will prepare and submit an agenda to CITY 3 days prior to each meeting and prepare/distribute meeting minutes within 1 business day of the meeting.

TASK SERIES 200 - SITE INVESTIGATION, REVIEW OF EXISTING WORK, AND REVIEW OF PREVIOUS PROJECTS

Task 201 Flows and Loads Evaluation

DP will review the estimating Wastewater Masterplan projections and compare them to actual data. DP shall utilize population projections as well as utilize expected land use for the near term, medium term, and full build out. DP will coordinate with City Planning and Developing for expected growth rate in the Plant's watersheds and as well as MARC projections. DP will discuss potential commercial and industrial developments in the watershed. DP will review City's internal regulatory timeline and provide commentary. DP will assist in developing

additional plant and receiving stream sampling to meet regulations and anticipated regulations. DP shall finalize the projects in a report.

Task 202 Review Existing Documents and Drawings

Perform a compilation and review of pertinent existing documents including but not limited to: provided schematics, existing site plans, scanned as-built drawings, hard copy as-built drawings, flood plain and flood way data, existing geotech reports, and other sources provided by the CITY. DP will perform field verification of collected data via site walk with CITY staff.

Task 203 Site Investigations

DP will perform a visual inspection and review of existing non-destructive testing and perform additional non-destructive testing where practical. DP will use inspections and testing data to determine the remaining useful life of the fixed and rotating assets previously listed in the 2017 Wastewater Master Plan's TM7. Scope will include updating the condition score from the 2017 Wastewater Master Plan in addition to adding remaining useful life. . DP will then locate on ground surface the best available information on Utility locations within CITY property around Rocky Branch WWTP. The Utility Survey will document the location of existing utilities (gas, electric, water, sanitary sewer, storm sewer both above and below grade. DP will capture the utility location information with survey or drone LIDAR from Task 207 and add process piping as available. No potholing will be conducted. DP will assist the CITY in transferring the site piping data into the City's GIS. DP will identify and document valves, meters, and sensors. DP will use existing as-builts and site sketches/drawings as a baseline to determine what assets exist and their general location. DP will investigate both lagoon areas to determine their availability for removal and land use in any future WWTP expansions.

Task 204 Geotechnical Investigations

DP will review existing geotechnical reports to determine if they are sufficient. DP may make use of previous geotechnical reports as needed for evaluating Facility Plan alternatives, estimating construction costs and assessing implementation plans. It is anticipated that the facility plan will recommend and plan the quantity of additional exploratory field work to occur on the recommended alternative before proceeding to 30% design.

If the DP or CITY recommends and City provides separate authorization, the DP will provide OPTIONAL geotechnical field/lab/engineering services including exploratory field work, laboratory and field testing, and preparation of geotechnical reports. The geotechnical report shall include professional interpretations/opinion of the probable soils to be encountered. The DP will drill test wells at locations at the Rocky Branch WWTP and coordinate with the Army Corp of Engineers at locations within the critical zone of the levy, if applicable. The DP will perform a yield analysis on each test well and other recommended work. The geotechnical investigations will be sufficient to complete detailed design of new assets at Rocky Branch WWTP. The results of the geotechnical investigations shall be prepared in a report.

Report - A geotechnical report shall be prepared and shall discuss the general soil, well information, and ground water conditions underlying the site; present the relevant engineering properties of the existing soils; provide excavation and earthwork recommendations, including

minimum setbacks from adjacent structures, and recommend design criteria and parameters for pipe bedding and other earth supported improvements. The report shall also provide an analysis of existing pavement materials to determine bearing capacities and suitability for long term reliability so that pavement removal/replacement areas can be determined in coordination with existing street and curb conditions and utility impacts. Submit initial geotechnical report to CITY for review and comment.

Task 205 Load Study and Electrical Work

DP will review feeds from Missouri Public Service Commission (PSC) and Platte-Clay Electric Cooperative, switchgear, substations, and MCCs. DP will develop a complete load study on each MCC, substation, transformers, other electrical equipment, switchgear, and feeds. DP will update the Rocky Branch WWTP one-line diagram with existing conditions and create SKM model of electrical system. DP will use this information in developing phasing and recommended improvements in particular requirements to bring existing facilities up to current codes and maintain redundant feeds.

Task 206 BIM Development

DP will develop a BIM shell model of the existing site conditions. BIM development will have a coordination meeting with City staff after Lidar Scans during model development to assist the DP team. Deliverables will provide a base for development of planning alternatives.

Model development will include:

1) Establish survey control and appropriate ground targets for drone LiDAR capture
2) LiDAR drone flights of approx. 23 Ac to produce:
    i) Colorized point cloud
    ii) Colorized mesh model for BIM (REVIT) of structure exteriors only.
    iii) Orthorectified high-resolution imagery (Tiff format, resolution TBD)

Noted assumptions include:

- The City's Standard BIM Protocol will not apply in full at this time. The mesh model will provide a starting point for moving toward that final product for facilities that will be utilized in the recommended improvements.
- Mesh model will include the exterior shell of buildings and structures only.
- LiDAR scan will include only those surface utilities and equipment that are not obscured by heavy tree canopy, roof, or other obscuring cover that would interfere with an airborne laser scan.

TASK SERIES 300 - FACILITY PLAN

Task 301 Existing Assets

DP shall submit an engineering report that evaluates the remaining life of each asset, and the issues that need to be addressed.

Task 302 Hydraulic and Process Capacity

A hydraulic capacity, and organic waste load analysis for the current system will be conducted. DP will develop a BioWin model to be provide to the CITY to evaluate the probability of the plant meeting current and planned water quality limits with current and projected loading with and without Project Diode and other planned industrial developments coming online. DP will develop loading analysis with seasonal variations explored. CITY reserves to right to have DP perform sensitivity analysis on more uncertain parameters. DP shall review the model with City.

Task 303 Alternative Evaluation Review

DP shall submit a report that contains one long-term vision for the facility and develops of short-term solutions for immediate needs, at a 5 % Design evaluation level, for up to 4 asset/process needs. DP and PM will meet to brainstorm and review potential alternatives and will screen down to the retained alternatives before the alternatives are further developed. Each alternative should include, but not be limited to: initial process flow diagrams, an AAEE level 4 total cost of ownership, operation and operability, and a discussion on the ability of the alternative to meet future permitting requirements, and its ability to be cost effectively phased. Alternatives shall be evaluated using the the DP's parametric cost estimating tool(s), the CITY's quadruple bottom line process, and a discussion of the DP's recommended alternative will be included. The immediate needs alternatives selected for implementation will be further developed to 10% design level with implementation costs reviewed by design-build cost estimators and O&M specialists.

Discipline		**10% Conceptual**
	%	**Narrative**
Process	60	Process flow diagrams, integrated liquid and solids model with documentation of model parameters and scenarios.
Site Civil	2	Major piping and earth moving sketched out, updated siting Major buildings/structures
Geotechnical	10	Borings planned
Structural	2	Areas of structural rehabilitation identified and foundation type of new facilities identified
Mechanical (process piping)	10	Major piping draw as 1 lines
HVAC	2	Identify areas to heat and cool, draft NFPA determination
Plumbing	1	Identify plumbing needs
Architectural		-
Electrical and misc I&C	2	Power study of existing equipment and draft load table for equipment, scada connectivity method determine, physical radio path study complete if applicable
P&IDs	30	Draft below the line (process) equipment and instruments.
Sequences of Operation, Control Block Description, Control Description Narrative	0	-
Floor Plans	30	Draft floor plans and Demolition
Asset Management	0	-
Cost Estimate	10	Per AACE

Task 304 Final Report

DP shall submit a Final Report consisting of a Facility Plan and conceptual design report that conforms to all requirements of 10 CSR 20-8.110 Engineering – Reports, Plans and Specifications (Missouri Code of State Regulations) and specifically to all requirements of Section (4) Engineering Reports or Facility Plan. The Final Report must include a phasing plan on when to implement projects based on but not limited to the need for increased capacity, more stringent effluent limits, asset lifecycle, etc. It should also have enough information to develop a Class 4 cost estimate, and recommended project delivery methods to complete the work. The Final Report should also consist of considerations of changes required to update the 2017 Master Plan, and TM7, as applicable to the Rocky Branch WWTP. The data presented in the Facility Plan is the basis for the detailed design of the construction plans and specifications.

TASK SERIES 400 – ENVISION™ SUSTAINABILITY DESIGN

Task 401 Envision™ Credits

The DP shall review the predetermined Envision™ credits based on the appropriate project type as provided in the KC Water Sustainability Playbook. The DP shall evaluate the credits, along with the Project Manager, at each scoped phase of design and construction phase covered by the contract. The DP shall utilize the Conversation Guide and update the Sustainability Tracking Spreadsheet with each evaluation. Following the final evaluation the DP shall provide a memorandum and the Sustainability Tracking Spreadsheet summarizing how the project met the sustainability goals set for the project and how the project increased sustainability using the selected Tier 1 credits. Envision™ certification is not included in this scope, but DP shall review the Envision™ credit support documentation requirements from the Envision Guidance Manual. If the CITY decides to move forward with Envision™ verification, additional DP support services will be provided as Optional Services. However, the DP shall be responsible for the Envision™ credit scores reported during this Project. All Envision™ credit scoring shall be completed by or under supervision of a certified Envision™ Sustainability Professional (ENV SP). After the selection of the design alternative to take to full design, the City shall determine the envision tier for the project.

TASK SERIES 500 – OPTIONAL SERVICES

Scope to be determined

DP shall include budget for a limited quantity of optional services. Authorization of the optional services budget requires separate NTP from the City along with City's selection of final scope for those optional services. For budgeting purposes, scope is assumed to include partial design development/refinement of short-term improvements recommended for implementation. Improvements recommended may, or may not, include:

- Clarifier mechanism replacement
- Blower replacement/upgrades
- Sludge thickening/storage improvements
- Other immediate needs improvements identified by Facility Plan (example: sludge settleability enhancements).

IV. OPTIONAL SERVICES

Any work requested by the CITY that is not specifically stated in one of the Basic Scope of Services listed above will be classified as Optional Services. DP's contract maximum upper limit for compensation includes a total allowance amount of $X for Optional Services not yet authorized by CITY that may be required throughout the course of the WORK. This allowance amount shall not be utilized by DP unless specifically authorized in writing by the CITY to perform Optional Services. Optional Services will not be performed, nor is the DP approved to utilize any of the allowance amount, unless the CITY provides written authorization to DP that includes the scope of work for each Optional Service to be performed and a maximum billing limit for compensation that has been mutually agreed upon. Optional Services will include, but not limited to:

A. Meetings with local, State, or Federal agencies beyond those contemplated under the Basic Scope of Services.

B. Appearances at public hearings or before special boards beyond those contemplated under the Basic Scope of Services.

C. Special Consultants or independent professional associates requested or authorized by CITY.

D. Tagging of existing equipment in the Rocky Branch WWTP.

E. Task 201 – Supplemental Regulatory Services. DP may conduct regulatory agency communications and/or meeting(s) to address anticipated receiving stream assessment requirements and NPDES permit conditions for expanded plant wasteloads. DP may conduct preliminary water quality modeling to assist in estimating treatment requirements. DP will evaluate how the receiving stream characteristics and impairment history may affect the potential for total phosphorus trading and for the treatment and disposal of data center water.

F. Facility Loading Capacity Tool Optional Services - DP will apply to Rocky Branch WWTP the methodology developed for the Todd Creek WWTP that will allow KC Water to compare anticipated loading to actual to allow annual adjustment of the timing of facility improvements within the KC Water CIP. This method will consider loading increase to the Rocky Branch WWTP based on the status of planned developments and other internal and external contributors to be identified by the DP. The method will balance competing objectives, including reduce operational risks, reduce project execution risks, and maximizing the delay of future improvements. DP will then use the same tool for the Fishing River WWTP service area

G. SRF Loan Application and Environmental Permitting - DP shall begin on the relevant environmental permitting for the project to facilitate the City applying for state revolving fund (SRF) funding. DP shall also assist the City in applying for SRF funds. Previous SRF application information will be provided by the City

H. Geotechnical field testing, laboratory analysis and preparation of new geotechnical reports.

I. Development of the transient plan (Startup and Commissioning) and Project Acceptance Methodology

J. Startup and Commissioning assistance such as post final competition operations assistance, development of Standard Operating Procedures (SOPs), collecting new assets for entry into WSD's computerized maintenance management system (CMMS), collection and entry of preventative maintenance (PM) into WSD's CMMS, develop recommended backups for WSD to have on hand, develop failure defense plans (failure modes effects analysis), develop recommended key performance indicators (KPI), development of operations shift sheet, recommended placement of laminated SOPs, process training, training of each of WWTD's maintenance group, duty station training/assistance during handover, electronic O&M consolidating training and other information, and controls programming testing.

K. Creation of AutoCAD or BIM as-builts.

L. Completing an additional Site Survey.

M. Observing factory acceptance tests and/or field retesting of equipment that fails to pass the initial test.

N. Provision, through a subcontract, of laboratory and field testing required during construction and of any special reports or studies on materials and equipment requested by CITY beyond those testing activities identified in the Basic Services.

O. Services for making revisions to drawings and specifications made necessary by the acceptance of substitutions proposed by the CONTRACTOR; and services after the award of the construction contract for evaluating and determining the acceptability of substitutions proposed by the CONTRACTOR.

P. Special reports requested by CITY concerning facilities operation and personnel matters during the operation startup period.

Q. Revision of previously accepted studies, reports, design documents or Construction Contract Documents when such revisions are required by changes in laws, rules, regulations ordinances, codes or orders enacted subsequent to the preparation of such studies, reports, documents or designs; or are required by any other causes beyond DP's control.

R. Evaluation of unusually complex or unreasonably numerous claims submitted by the CONTRACTOR or others in connection with the Work.

S. Acceleration of the progress schedule involving services beyond normal working hours

T. Further development and verification of Envision^{TM} credits through conceptual to final design.

U. Services for making revisions to Construction Contract Documents and project rebidding arising from actual bids prices being greater than CITY's budget.

V. Services resulting from significant delays, changes or price increases caused directly or indirectly by shortages of materials, equipment, or energy.

W. Preparation for litigation, arbitration, or other legal or administrative proceedings; and appearances in court or at arbitration sessions in connection with bid protests, change orders, or construction incidents.

X. Assist the CITY in feasibility analysis and design of water reuse unit process and conveyance. Assist KC Water in setting up a water reuse utility.

Y. Assisting CITY with appraisal and/or acquisition of additional easements or re-zoning.

Z. Revising Contract Documents or assisting with re-bidding the Project due to actual bid prices being greater than the CITY's budget.

AA. Special inspections as dictated by any adopted building code or amendment thereto of the City of Kansas City, Missouri.

BB. Phase 1 and 2 environmental, survey work, and negotiations for property acquisition.

CC. Commissioning and Startup Assistance

DD. Changes in the general scope, extent, design, or character of the Project, including, but not limited to:

1. Changes in size or complexity;
2. Method of financing or availability of funding;

EE. Additional work necessary for WWTD to fulfill its commitments.

FF. Assistance in evaluating and completing Developer RFI, development of project limits, and other development support.

GG. Flood plain mitigation

HH. Evaluation of odor control for equipment protection.

II. Additional DP support services to support Envision^{TM} verification

JJ. 30% Design

KK. Final Design

LL. Bidding Services

MM. Construction Phase Services

V. CITY'S RESPONSIBILITIES

CITY will furnish, as required by Basic Services and not at the expense of the DP, the following items:

A. Provide assistance by placing at DP's disposal available information pertinent to the assignment, including previous reports, drawings, specifications, O&M records and any other data relative thereto. Provide said information within thirty (30) calendar days of receipt of a written request by DP.

B. CITY's Project Manager will provide the services of at least one CITY employee who has the right of entry to and knowledge of the existing facilities. Site visits will be required on multiple occasions over the course of the Project.

C. CITY's Project Manager will coordinate meetings between City staff and the DP.

D. Operate all existing equipment, valves or other systems necessary for functional or performance testing required by DP.

E. Obtain property title searches and title reports, and purchasing property if needed for construction of new facilities.

F. Provide DP will private property access agreements with current property owners to perform field investigations.

G. Bidding Services. CITY will provide the following bidding phase services:

1. Prepare agenda and conduct the pre-bid conference.
2. Advertise project Construction Contract Documents, including addenda.
3. Prepare Bid Tabulation. Provide copies of bids to DP for evaluation.
4. The CITY will reproduce, and submit Construction Contract Documents and construction permit application to MDNR for approval. City shall pay for all permit fees.

(End of Scope of Services)

Exhibit _

Fee Estimate - Rocky Branch WWTP Facility Plan (81001000)

City of Kansas City, MO

			Estell Johnson Proj Mgr	Julie McNiff QC Mgr	Colin Fitzgerald Study Lead	Julian Sandino Tech Director	Jim Lozier Data Center Tech	Keisha Voigt Envision Tech	Leisha Pica Planning Tech	Luke Heyerdahl GIS	Harry Sellers Assets	Adrian Flores Process Lead	Kurt Bettger Geotech Lead	Nick Roth Geotech	Robert Wood Electrical	Brian Lehman BIM/CAD	Thomas Benson LIDAR scan
	Task Series 100 - Project Management		**112**	**8**	**16**	**14**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	101 - PM Services		20														
	102 - Monthly Invoicing and PSRs	10 invoices, 2 hrs ea for PM	20														
	103 - Subconsultant Agreements and Admin		20														
	104 - Quality Control			8		12			12								
	105 - Project Kickoff Meeting		16		16	2			2								
	106 - Work Plan		16														
	107 - Progress Meetings	biweekly	20														
	Task Series 200 - Investigations/Review of Exisiting		**8**	**0**	**10**	**0**	**0**	**0**	**2**	**0**	**80**	**40**	**20**	**50**	**80**	**60**	**40**
	201 - Flows and Loads Evaluation	Reg eval by Geosyntec	2		2				2	0		20					
	202 - Review Existing Documents and Drawing	verify w/site visit	4		8							20					
	203 - Site Investigations	T&B for Utility survey, utility xfer to GIS, etc.									80						
	204 - Geotechnical Records Review	no field investigations or testing											20	50			
	205 - Load Study and Electrical														80		
	206 - BIM Development		2													60	40
	Task Series 300 - Facility Plan		**64**	**0**	**64**	**28**	**40**	**10**	**0**	**0**	**20**	**150**	**0**	**10**	**20**	**40**	**0**
	301 - Existing Assets	Remaining Life	2		2						20						
	302 - Hydraulic and Process Capacity	Model of each	2		2							60					
	303 - Alternative Evaluation Review	1 long term to 5%, up to 4 immediate term to 10% design	40		40	20	40	8				50		10	20	40	
	304 - Final Report		20		20	8		2				40					
	Task Series 400 - Envision		**4**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	401 - Envision Credits	by EAE, Keisha reviewimg	4					8									
	Task Series 500 - Optional Services		**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**60**	**0**	**50**	**50**	**80**	**0**
	Scope TBD - assumed to include partial design development of short term recommendations		40									60		50	50	80	
BASIC SERVICES PROJECT TOTAL			**228**	**8**	**90**	**42**	**40**	**18**	**16**	**0**	**100**	**250**	**20**	**110**	**150**	**180**	**40**
	Subcontractor A																
	T&B	includes utility locates, locates of valves/meters/sensors, survey, xfer to City GIS, CA of fixed assets															
	Subcontractor B																
	EAE - Base Scope	includes service area growth projections & Envision credit assessments															
	EAE - Optional Services	includes Architectural services															
	Subcontractor C																
	TSi - Geotech	withdrew from facility plan phase work															
	Subcontractor D																
	Lynchpin - Optional Services																
	Subcontractor E																
	Geosyntec	includes Reg Review															
SPECIAL SERVICES PROJECT TOTAL																	
		Rates	**254**	**239**	**231**	**413**	**373**	**249**	**348**	**251**	**184**	**212**	**248**	**179**	**222**	**211**	**105**
PROJECT TOTAL			**228**	**8**	**90**	**42**	**40**	**18**	**16**	**0**	**100**	**250**	**20**	**110**	**150**	**180**	**40**

Exhibit _

Ed Meyer Costing	Linda Mohr Implementation	David Green Funding	Shashi EIT	Rajan Vasudevan Collections	Jackson Corley REPLICA	Crystal Brown Document Specialist	Karla Albert Subcontracting	SUBTOTAL HRS	SUBTOTAL EXPENSES	TOTAL
0	**0**	**0**	**44**	**0**	**0**	**8**	**20**	**236**	**$ 2,000**	**$ 56,052**
								20	$ -	$ 5,090
			8					28	$ -	$ 6,121
							20	40	$ -	$ 7,816
								32	$ -	$ 11,045
			8					44	$ 2,000	$ 12,322
			8					24	$ -	$ 5,103
			20			8		48	$ -	$ 8,556
								0		$ -
0	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**406**	**$ 5,800**	**$ 84,617**
			8					34	$ -	$ 6,936
			8					40	$ -	$ 8,136
								80	$ 2,000	$ 16,735
								70	$ -	$ 13,915
								80	$ -	$ 17,725
								102	$ 3,800	$ 21,169
40	**0**	**0**	**118**	**20**	**80**	**60**	**0**	**764**	**$ 4,000**	**$ 162,030**
			16					40	$ -	$ 6,718
			20		60			144	$ -	$ 24,669
40	0		60	20	20			408	$ 4,000	$ 99,158
			22			60		172	$ -	$ 31,486
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**$ -**	**$ 3,010**
								12		$ 3,010
20	**0**	**0**	**0**	**0**	**8**	**20**	**0**	**328**	**$ 500**	**$ 69,340**
20					8	20		328	$ 500	$ 69,340
								0		$ -
60	**0**	**0**	**178**	**20**	**88**	**88**	**20**	**1,746**	**12,300**	**$ 375,049**

								0	**$ 55,000**	**$ 55,000**
								0	$ 55,000	$ 55,000
								0	**$ 45,819**	**$ 45,819**
								0	$ 21,856	$ 21,856
									$ 23,963	
								0	**$ -**	**$ -**
								0	$ -	$ -
								0	**$ 9,181**	**$ 9,181**
								0	$ 9,181	$ 9,181
								0	**$ 14,927**	**$ 14,927**
								0	$ 14,927	$ 14,927
								0	**$ 124,927**	**$ 124,927**
284	**288**	**261**	**129**	**169**	**140**	**111**	**136**			$ -
60	**0**	**0**	**178**	**20**	**88**	**88**	**20**	**1,746**	**$ 137,227**	**$ 499,975**

Rocky Branch WWTP Facility Plan - 81001000/1678
RFQ/P Submittal Breakdown
DPS Estimate $ 500,000

Prime DP	Black and Veatch	Garver	HDR	Jacobs	Olsson
Date RFP/Q Received	**8/12/2022 16:00**	**8/12/2022 16:00**	**8/12/2022 16:00**	**8/12/2022 16:00**	**8/12/2022 16:00**
Addenda (total 3 addenda)	Yes	Yes	Yes	Yes	Yes
TEAM	Black and Veatch, DuBois Consultants, Custom Enigineering, Taliaferro & Browne, Inc., Tsi Geotechnical, TREKK Design Group, Environmental Advisors and Engineers, Inc.	Garver, DuBois Consultants, Custom Enigineering., Tsi Geotechnical, TREKK Design Group, Environmental Advisors and Engineers, Inc.	HDR, Environmental Advisors and Engineers, Inc., Taliaferro & Browne, Inc., Tsi Geotechnical	Jacobs, Geosyntec, Taliaferro & Browne, Tsi Geotechnical, Environmental Advisors and Engineers, Inc., Lynchpin Ideas	Olsson, TREKK Design Group, Dubois Consultants, Environmental Advisors & Engineers, Custom Engineering, Tsi Geotechnical, Canterbury Construction Management, Utility Support Services
PM	Page Burks	Wes Cardwell	Patrick Young	Estell Johnson	Molly Pesce
Experience Summary (up to 10 pages)	**Black and Veatch:** Founded in 1915. Large firm with 120+ offices and 3.3B in 2021 revenue. Has completed mulitple municpal projects involving master plan, design, process and reuse application studies **Dubois:** Founded in 1988, with focus on water infrastructure. Will be structural designer for project **Custom Engineering:** Founded in 1974 with a specialization in design of mechanical, electrical and plumbing systems. Will provide plumbing and HVAC design for project **Taliaferro & Browne:** Will provide site utility mapping, Envision support, Civil/Site Design, RPR and construction services for project **TSi Geotechnical:** Will provide geotechnical boring and recommendations for the project **Trekk Design Group:** Civil engineering firm that will provide LIDAR scanning for BIM modeling and Civil/Site Design/RPR and construction services on the project **EAE:** Professional serrvices firm providng permitting support and architecture design services for the project	**Garver:** KC Office established in 2013. Company wide, have completed 85 Master Plan Projects in the last 10 years. WDC team based in northwest Arkansas **Dubois:** Founded in 1988, with focus on water infrastructure. Will provide civil and structural services for the project **Custom Engineering:** Founded in 1974 with a specialization in design of mechanical, electrical and plumbing systems. Will provide mechanical and electrical services for the project **TSi Geotechnical:** Will provide geotechnical services for the project **Trekk Design Group:** Civil engineering firm that will provide Survey and Site/Civil services for the project **EAE:** Professional serrvices firm providng Envision Sustainability Professiona and permitting services for the project	**HDR:** Founded in 1917, Large firm with 215+ offices having completed muliple water and wastewater facility plans in Missouri and Kansas **Taliaferro & Browne:** Will provide RPR and modeling services for project **EAE:** Professional serrvices firm providng architectural design support for severl of the control rooms for the project **TSi Geotechnical:** Will provide geotechnical services for the project	**Jacobs:** Large firm with $14 billion in revenue. Acquired CH2M Hill in 2017, with 300 staff in Missouri, with numerous projects with KC Water **Geosyntec Consultants:** Will provide regulatory support services for this project **Taliaferro & Browne:** Will provide site investigation services for project **TSi Geotechnical:** Will provide geotechnical site investigation services for the project **EAE:** Professional serrvices firm providng Envision support services for the project **Lynchpin Ideas:** Will provide public stakeholder engagement services for the project	**Olsson:** In business since 1956. Local office opened in 1998. 315+ employees in 3 locations across the KC Metro. Completed over master planning and facility pla services for over 150 wastewater facilities and 130+ projects for KC Water **Dubois:** Founded in 1988, with focus on water infrastructure. Will be structural designer for project **Custom Engineering:** Founded in 1974 with a specialization in design of mechanical, electrical and plumbing systems. Will provide plumbing and HVAC design for project **TSi Geotechnical:** Will provide geotechnical boring and recommendations for the project **Trekk Design Group:** Civil engineering firm that will provide LIDAR scanning for BIM modeling and surveying services on the project **EAE:** Professional serrvices firm providng permitting support, architecture design services, and RPR services for the project **Canterbury:** Non-DBE will provide cost estimating services for the project **Utility:** Will provide O&M services for the project
Statement of Quals Form	1. Water Reclamation Facility, City of Morro Bay, 2022 2. Wastewater Collection and Treatment Master Planning, Oklahoma Ordinance Works Aurthority, 2020 3. Wakarusa River and kansas River Regional WWTP Expansion, City of Lawrence, 2019 4. Water Protection Facility Plan and Improvements, City of St. Joseph, 2021 5. Muliple Facility Planning and Design Projects, Metropolitan St. Louis Sever District, 2018 6. Comprehensive Planning and Lower Bird Creek WWTP Expansion, Tulsa Metropolitan utility Authority, 2017	1. WWTP Improvements, Sulphur Springs, TX, 2020 2. NACA WWTP Expansion Phase 1, NACA, 2024 3. WRF Phase 2 Upgrade & Expansion, Norman, OK, 2019 4. MCRWS Plant Expansion, TRA, 2021 5. Celina WWTP Improvments, Celina, TX 6. Springdale Water Utilities WWTF Peak Flow Study, Springdale, AR 7. SAWS Wastewater Treatment Plant master Plan, San Antonio, TX 8. Helena WWTP Design Improvements, Helena, AL	1. Tomahawk Creek WWTP Facility Planning, Johnson County Wastewater, 2011-2022 2. Nelson Complex WWTF Collection System Wet Weather Plan Development and Optimization, Johnson County Wastewater, 2019-2028 3. Lower Meramec River WWTP Phase II & Facility Plan Update and Comprehensive AMmonia and Nurtirent Removal Master Plan, Metopolitan St. Louis Sewer District, 2012-2024 4. Wolcott Wastewater Treatment Plant Facility Plan and Expansion, Unified Government of Wyandotte Coutny, 2016-2021 5. Middle Big Creek Sewer Sub District, Phases 1 and 2, Little Blue Valley Sewer District Wastewater, 2001-2014 6. Atherton Wastewater Treatment Plant Facility plan, Phase 1 and Phase 2 Capital Imrovements, Little Blue Valley Sewer District Wastewater, 2001-2014	1. Blue River Biosolids WWTP Facility Improvements, KC Water Wastewater Treatment, Combined Sewer overlow, Flood Protection & Master Plan, Omaha Public Works 3. MK Nelson Treatment Complex Asset Renewable and Repair Rehabilitation, Johnson County Wastewater 4. Adaptive master Plan, Upper Occoquan Service Authority 5. Technical Analysis for the Joint Water Pollution COntrol Plan (JWPCP), LA County Sanitation Districts 6. Reclaimed Water System master Plan and Utility Development Services, Oro Valley Water Utility	1. New West Side, WWTP, City Water & Light, City of Jonesboro, AR, 2023 2. Northeast WRRF Solids Dewatering Improvements, City of Lincoln, NE, 2023 3. WWTP Master Paln & Design, City of Oak Grove, MO 2021 4. West Side Wastewater Treatment Plant, Water & Sewer Operations City of Fayetteville, AR 2008 5. WWTP Nutrient Removal Study, Little Blue Valley Sewer District, Independence, MO 2023
# of engineers/architects - KC / total firm	Architects: 14/17 Civil Engineers: 181/765 Mechanical Engineers: 164/340 Electrical Engineers: 145/393 Insturmentation/ Controls Engineers: 35/72 CADD Tech: Included in Others Others: 283/729	Architects: 0/6 Civil Engineers: 9/411 Mechanical Engineers: 0/25 Electrical Engineers: 0/20 Insturmentation/ Controls Engineers: 0/3 CADD Tech: 2/22 Others: 4/130	Architects: 0/712 Civil Engineers: 36/737 Mechanical Engineers: 1/282 Electrical Engineers: 6/371 Insturmentation/ Controls Engineers: 2/25 CADD Tech: 19/733 Others: 108/8,886	Architects: 0/929 Civil Engineers: 6/1662 Mechanical Engineers: 0/1209 Electrical Engineers: 0/1203 Insturmentation/ Controls Engineers: 0/491 CADD Tech: 0/2599 Others: 14/861	Architects: 0/0 Civil Engineers: 30/253 Mechanical Engineers: 9/46 Electrical Engineers: 26/83 Insturmentation/ Controls Engineers: 1/3 CADD Tech: 26/141 Others: 182/1,356

Rocky Branch WWTP Facility Plan - 81001000/1678
RFQ/P Submittal Breakdown
DPS Estimate $ 500,000

Prime DP	Black and Veatch	Garver	HDR	Jacobs	Olsson
Project Approach	-FP will inlude flow and load projections through 2043, an evaluation of current design capacity, condition assessment, recommendations for upgrades, repair and process improvements to meet the long-term plant needs -To include potential water reuse to supplement water supply -Condition assessment completed early in project to result in risk score -Noted to include Fishing River in capacity assessment -Use of MARC data to establish flow projections for next 20-years -Will develop discharge criteria with MDNR -Considering biolgoical treatment including densified activated sludge in a 5-stage Bardenpho S2EBPR (DAS), configuration, aerobic granular sludge (AGS), and membrane bioreactor (MBR) -Recognition of biosolids hauling constraint and operational pain point	-10 step program to develop FP to confirm process selection, layour and to qualify for SRF funding. This program includes stakeholder goals and objectives, review of historical data and field assessments, establishment of planning criteria, model development, needs assessment and gap analysis, technical evaluations, review plant site needts, holistic alternatives evaluation with consideration of quadruple bottom line, and develop recmmended alternative/findings and recommendations -Proposes completing technical evaluations of Secondary Treatment, Wet Weather Management, Solids Management and Industrial Loading -Secondary treamant evaluation will include AGS due to challenges with re-zoning and existing footprint (need to fill in lagoon), expanding capacity by mirroring existing process units, and process intensification with Nuvoda mobile organic biofile process (MOB) -Recognition of biosolids hauling sontraint and operational pain point	-Plan to start with information gathered during 2007 effort '-Completed initial evaluation of AGS for Rocky Branch which indicated plant capacity could be doubled by converting the two existing aeration basins to AGS basins and adding tow new AGS basins mathing the size of the existing basins -AGS would be a preferred approach given the constraints of the existing plant site -Will allow the existing secondary clarifiers to be used for weat weather treatment or converted to biosolids basin -Plan for environmental due dilligence if property aqcuistion is required -Collaboration with climate protection and resilency planning effort	-The construction of new data centers, MDNRs nutrient control program prioritizing phosphorus over nitorgen removal and the potential for water reuse al justify re-considering the 2017 Master Plan -Six step facility planning process to integrate facility palling and process definition deliverables -Plan to complete holistic plan to consider all technology possibilities for nutrient removal and also looking outside the fenceline at the collection system including having dedicated pipeline from data centers to introduce flow downstream of biological treatment to provide a tailored treatement if needed -Plan to maximize use of existing assets given age of plant -Review of 2017 Master Plan and 2022 tech memo, they have identified potential to unlock additional capacity with existing infrastructure -Propose to evaluate selective sludge wasting as a process intensification solution -For long-term compliance, recommending Conventional BNR, MBR, AGS and/or Biofilm -Additional staff to be added to project team for Phase 2 - Optional Services after the completion of the Facility Plan	-Identified challenges of rapid residential and industrial grown and balancing of different flow types from domestic wastewater vs. cooling water or industrial wastewater -Flow and loading projections are the basis for their approach -Short and long term solutions are necessary to optimize plant capacity and to manage dilute data center flows and potential AGS treatment -Population project provided for future build out of service area -Project daily from of 9.8 MGD by 2050 -Data provided represents a downward trend in wastewater concentration and an upward trend in flow -Provide an extensive review of existing data and highlights need for further analysis as part of this project -Potentially re-rate WWTP and to switch existing to two trains on full duty -For short term, aeration basin & RAS pumping could be extended to 3.6 MGD -For long term, AGS could be considered similar to Todd Creek -Data center water should be divided and could be held in the lagoons and then introduced just upstream of UV to keep AGS working properly (needs higher BOD and TSS)
Quality Assurance	-Quality Management System (QMS) based on ISO 9001 and will generate project-specific Quality Management Plan and Project Execution Plan -Project reviews using BlueBeam	-Dedicated QA/QC Manager -Will develop a project-specific Quality Control Plan with KC Water -QA/QC review completed for all technical disciplines	-QMS based on ISO 9001:2008 series and will generate project-specific Quality Management Plan and Project Execution Plan	-Dedicated QA/QC lead with project-specific QMP	-Will have a QMP and PMP -Includes muliply level internal review
HRD Goals **Approved M/WBE Goals: 11/11**	Plans to meet recommended goals	Plans to meet recommended goals	Plans to meet recommended goals	Plans to meet recommended goals	Plans to meet recommended goals
Sustainability	Envision Professional is part of team	Envision Professional is part of team	Envision Professional is part of team	Envision Professional is part of team	Envision Professional is part of team
Project Schedule	-Nine (9) month duration to deliver Final Facility Plan from Project Kickoff Meeting	-42 week project duration (9-10 months)	-Eight (8) months	38 week project duration (9 months)	-Nine (9) month duration
Meets Page Count Requirements (65 Pages not including Covers, TOC, transmittal letter and divider tabs)	Yes	Yes	Yes	Yes	Yes
Understanding Northland Development	-Black and Veatch has already modeled flows and loads to Rocky Branch and has ability to communicate directly with Diode Ventures to understand industrial needs	-Notes need to consider residential and industrial development; no detail provided	-Noted need to model flow using projected land uses into wastewater flows and loadings	-Not involved in any of the ongoing KC North data center development -Aware of developments and their impact on Rocky Branch -Need to develop a local non-potable supply driven by industrial development in the area	-Have a dedicated data center coordination team member -Noted breadth of kowledge of data centers and their drivers -Currently involved with a data center project to upgrade infrastructure to support 6.0 MGD and upgrade of discharge domestic sanitary and cooling water
Modeling/BIM/Biowin	-Dedicated BIM and BioWin Modeling on Staff -Developed Rocky Branch BioWin Model -Currently involved with BIM Model for Blue River Biosolids -Plant hydraulics and capacity modeling with 3D-Computational Fluid Dynamics Modeling	-Team will use BioWin model and has already developed a process model basis for Rocky Branch -Will develop a detailed hydraulic model for project	-Hydraulic model of Rocky Branch completed uing InfoNet, InfoWorks, and ArcGIS, which also includes First Creek PS and the Northland Mobile Home Pump Station -Laser scanning to support BIM modeling	-Dedicated BIM model development on staff -Facility loading tool to determine capacity needs for Rocky Branch and Fishing River -Will conduct hydraulic capcacity modeling	-Dedicated BIM modeling provided by TREKK -Facility loading tool will be used to refine projections -Process modeling using SUMO
Cost Estimators	-Dedicated cost estimator, Chad Barker, resume not provided	-Will use LEAF (leverage existing assests first) to develop cost -Developed using quadruple bottom line process	-Will use quadruple bottom line process and Recommended Practice 18R-97 with enhancments including risks, constructibility, bidding pressure and O&M	-Dedicated cost estimator, Ed Meyer, has 40+ years of experience -Will utilize parametric cost estimating system	-Dedicated cost estimator provided by Canterbury
Innovative Ideas	-Member of/Implemented several innovative technologies including, AGS, BNR and deammonification	-Identified recent phosphorus limit change from MDNR and projected stricter nitrogen limits within 15 years	-Responsible for regions' first AGS wastewater treatment facility for the Unified Government of Wyandotte County	-Appear to have extensive experience with water reuse projects including one in response to a data center development -Expereience with representing alternative delivery models including PDB and CMAR	-Short and long term solutions including extensive preliminary capacity modeling

Rocky Branch WWTP Facility Plan - 81001000/1678
RFQ/P Submittal Breakdown
DPS Estimate $ 500,000

Prime DP	Black and Veatch	Garver	HDR	Jacobs	Olsson
Understanding of State and WSD Planning Requirements	-Final report will meet 10 CSR 20-8.110 and SRF Funding support -Team plans to engage MDNR early and often	-Terry Leeds is on-staff and understands WSD requirements -Final report will meet 10 CSR 20-8.110 requirements	-Designer of Rocky Branch WWTP capacity upgrade in 2007 -Completed NPDES permits for KC Water WWTPs	-Geosyntec has extensive experience with MDNR discharge permitting, regulatory compliance and antidegradation review processess -Understand SRF funding	-Have completed many projects with KC Water and understand requirements
Project Approach Level of Detail	Excellent	Adequate	Good	Excellent	Excellent
Major Holes/Concerns	-NA	-No current projects with KC Water and no project references provided for completed projects with KC Water -Collective team has experience working with KC Water; however Garver does not -Did not note need to provide capacity assessment for fishing river	-Heavily reliant upon recommending AGS	-NA	-Water reuse not mentioned

Design Professional Selection
City Manager Designee Mario Vasquez,
Water Services Director Wes Minder, and
Water Services Operations Officer Brent Herring

Date: September 28, 2022

Project	Selected Consultant
Rocky Branch WWTP Facility Plan	**Jacobs**
	Alternate Consultant
Project Number 81001000 / Contract Number 1678	**Black and Veatch**

DocuSigned by:
Mario Vasquez
C97A8D50F4784D9...
Mario Vasquez, City Manager Designee

DocuSigned by:
BB64E8BC2FE1478...
Wes Minder, Water Services Director

DocuSigned by:
Brent Herring
7E459550546B4BF...
Brent Herring, KC Water Operations Officer

DocuSigned by:
Jeff Martin
31E8ECD407AB411...
Jeff Martin, Chief Engineering Officer (Facilitator)

MBE/WBE/DBE Contract Goals Request

Date June 21, 2022
To: Central Procurement
From: Kevin White, P.E., Project Manager, KC Water

Project Number	Project Name
81001000	**Rocky Branch WWTP Facility Plan**
Contract ID Number	**Solicitation Date:**
1678	7/5/2022
Estimated Project Duration:	**Presenting to Council Date:**[1]
1 year	TBD

Note: Click the box to select

Prevailing Wage	☐ YES	☑ NO	
Contract Category:	☐ Construction ☑ Design Professional ☐ Professional Services ☐ Other (Enter Type):	☐ Design-Build ☐ Other Goods & Services ☐ Facilities Maintenance/Repair	☐ Non-Municipal Agency ☐ Lease ☐ Tenant (MBE/WBE) ☐ Concession
Type:	☑ Original ☐ Amendment No.		
Funding:	☑ City(MBE/WBE) ☐ Other:	☐ Federal (DBE) ☐ Grant#	☐ State (DBE)

Construction Workforce Goals: Are the estimated construction labor hours greater than 800 and the estimated cost greater than $300,000? If yes, complete "Required Crafts" Worksheet and include total number of hours in Description of Work. ☐ Yes ☑ No

☐ Estimated Cost Breakdown attached - Page 2 ☐ List of Required Crafts attached - Page 3

Description of work (Provide details):

Due to increased population in the northland and industrial development in the area, expansions to the Rocky Branch WWTP will be required for appropriate treatment in the future. These developments are anticipated to add an additional 1.6-2 mgd, approximately, that would drain directly to the WWTP once developed, which would require Rocky Branch WWTP capacity to be increased by at least 100% from its current operating capacity.

An additional complication to expansion is the existing plant is situated within a Regulatory Floodway (AE/A) and expansion would be difficult without costly additional flood mitigation and FEMA approval for new structures. There are two existing lagoons within the current plant footprint that would provide the opportunity for plant expansion out of the floodway; however, these lagoons would need to be removed and the soil improved to support construction. If additional space were needed, the City would have to acquire additional property to the north or west to supply more capacity for Rocky Branch WWTP.

Phase 1 of the project will include to complete a Facility Plan per MDNR PUB2418. The Facility Plan must include sufficient detail to demonstrate the proposed project meets applicable criteria and presents the basis for the detailed design of the construction plans and specifications. Elements of the Master Plan (completed in 2017) will also need to be re-evaluated as part of this Phase. Phase 2 of the project would provide the 100% design, and bidding documents from the selected design alternative presented in the Facility Plan.

Project Manager: Kevin White

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☐ No Goals are set for this Project; OR
☒ The following Goals are approved for this Project 11 % MBE 11 % WBE OR _____ % DBE

Civil Rights & Equal Opportunity Department DocuSigned by: 33C4DAA9120C4F0... Date: 7/7/2022

[1] Contractor Utilization Plan (CUP) MUST be submitted to CREO KC prior to being posted on docket for review & approval from Council