

**AMENDMENT FOR
ENGINEERING SERVICES WITH BLACK & VEATCH
PROJECT NUMBER ES 2022-04
CONTRACT NO. 135541**

DESCRIPTION OF WORK AND LOCATION Provide preliminary design of selected solution, Alternative LS 1, to generally 65% completion.

Total Budget	\$1,798,000.00
Original Construction Cost	N/A
Original Design (Study)	\$268,813.00
Additional Design Cost (Study Amendment)	\$28,217.00
Preliminary Design Cost (Amendment No. 2)	\$1,500,970.00
Total Design Cost	\$1,798,000.00
Total Raw Labor Cost	\$501,215.00
Overhead	176.62%
Profit	10.00%
Multiplier	3.04
Total Design Cost / Total Construction Cost	N/A
Advertising Date	TBD

ENGINEERING CONSULTING AMENDMENT CHECKLIST

Over all cover sheet (attached)

- ☐ Correct project number and contract number
- ☐ Correct account number
- ☐ New insurance information (Section 11)
- ☐ Summary of original agreement and execution date
- ☐ Summary of previous amendments and execution date
- ☐ Detailed description of the reason for the amendment
- ☐ Signature page separate sheet having "IN WITNESS WHEREOF..." paragraph and signatures
- ☐ New detailed man-hour / task breakdown
- ☐ New schedule
- ☐ Insurance cancellation clause correct (30 days)

Prepared By:

Consulting Engineer



Black & Veatch, Project
Manager

Project Engineer

Lead Engineer

AMENDMENT NO. 2

**TO THE
THE AGREEMENT**

FOR

PROFESSIONAL ENGINEERING SERVICES

THIS AMENDMENT NO. 2, to the Agreement for Professional Engineering Services (Contract No. 135541) is made between the Regional Metropolitan Utility Authority, a Public Trust of the State of Oklahoma, hereinafter referred to as **AUTHORITY**, and **BLACK & VEATCH CORPORATION**, a corporation organized under the laws of the state of Delaware, hereinafter referred to as **ENGINEER**;

WITNESSETH

WHEREAS, **AUTHORITY** intends to expand the capacity of the existing Haikey Creek Lift Station located at 11606 South Garnett, Broken Arrow, Oklahoma 74011, hereinafter referred to as the **PROJECT**; and,

HAIKEY CREEK LIFT STATION, PHASE IV
PROJECT NO. ES 2022-04

WHEREAS, **AUTHORITY** and **ENGINEER** entered into an **AGREEMENT**, dated September 13, 2023, under which the **ENGINEER** was to provide professional services for conceptual planning and design for the Haikey Creek Lift Station Phase IV expansion, hereinafter referred to as the **AGREEMENT**, and

WHEREAS, **AUTHORITY** and **ENGINEER** amended the **AGREEMENT** via **AMENDMENT NO. 1**, dated March 12, 2025, to provide additional conceptual design services, hereinafter referred to as **AMENDMENT NO. 1**,

WHEREAS, **AUTHORITY** requires certain additional professional services in connection with the **PROJECT**, hereinafter referred to as the **SERVICES**, thereby necessitating the amending of the **AGREEMENT**;

WHEREAS, **ENGINEER** is prepared to provide such **SERVICES**;

NOW THEREFORE, in consideration of the promises contained herein, the parties hereto agree as follows:

- 1.0 **SCOPE OF PROJECT**: The scope of this **PROJECT** is described in **ATTACHMENT A**, **SCOPE OF PROJECT**, which is attached hereto and incorporated by reference as part of this **AMENDMENT NO. 2**.
- 2.0 **SERVICES TO BE PERFORMED BY ENGINEER**. **ENGINEER** shall perform the **SERVICES**, described in Attachment B, **SCOPE OF SERVICES**, which is attached hereto and incorporated by reference as part of this **AMENDMENT NO. 2**.
- 3.0 **AUTHORITY'S RESPONSIBILITIES**. **AUTHORITY** shall be responsible for all matters described in **ATTACHMENT C**, **RESPONSIBILITIES OF THE AUTHORITY**, which is attached hereto and incorporated by reference as part of this **AMENDMENT NO. 2**.

- 4.0 COMPENSATION. The AUTHORITY and the ENGINEER agree that the ENGINEER shall be compensated for these additional services on a salary multiplier basis in accordance with ATTACHMENT D, COMPENSATION FOR ADDITIONAL SERVICES, which is attached hereto and incorporated by reference as part of this AMENDMENT NO. 2.
- 5.0 OKLAHOMA FIREARMS ACT COMPLIANCE. If the ENGINEER has 10 or more full-time employees, and this AGREEMENT exceeds \$100,000 in total value, ENGINEER acknowledges and agrees that, in accordance with and pursuant to 21 O.S. § 1289.31, ENGINEER verifies to AUTHORITY that: (i) it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association, and (ii) will not discriminate against a firearm entity or firearm trade association during the term of this AGREEMENT.
- 6.0 All other terms and conditions of the AGREEMENT of, September 13, 2023 as amended, shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties have executed this AMENDMENT NO. 2 in multiple copies on the respective dates herein below reflected to be effective on the date executed by the Chairman of the Regional Metropolitan Utility Authority.

(SEAL)



ATTEST:

Andrea C. Bernica

Andrea Bernica, Assistant Secretary

BLACK & VEATCH CORPORATION (ENGINEER)

Derek L. Cambridge

Derek Cambridge, Vice President

Date 10/30/2025

(SEAL)

APPROVED:

REGIONAL METROPOLITAN UTILITY AUTHORITY

Secretary

Chairman

Date _____

APPROVED AS TO FORM:

RECOMMENDED:

[Signature]

Attorney for Regional Metropolitan
Utility Authority

[Signature]

Director of Water & Sewer

RECOMMENDED:

Broken Arrow Municipal Authority, Chairperson

Broken Arrow Municipal Authority, General Manager

ATTEST:

(SEAL) Secretary

[Signature]

Broken Arrow Municipal Authority, Asst. City Attorney

SCOPE OF PROJECT

ATTACHMENT A

- A. **SCOPE OF PROJECT**. The PROJECT intends to perform development of preliminary design (generally to 65-percent) and associated permitting, project management and administration for the Haikey Creek Lift Station (HCLS), Phase IV expansion. This project is based on the Business Case Evaluation (BCE) Project ID: 21WPC_HC_0002 and ENGINEER's Conceptual Design Report titled "Haikey Creek Lift Station Expansion Alternatives".

The project description is as follows: Increase the firm pumping capacity of the Haikey Creek Lift Station in order to provide improved wet weather performance and allow growth in the basin. The existing firm capacity is approximately 22 MGD. This project will increase the pumping capacity by a minimum 20 MGD to a total capacity of at least 42 MGD. This project scope is described as Alternative LS 1 in the Conceptual Design Report by ENGINEER.

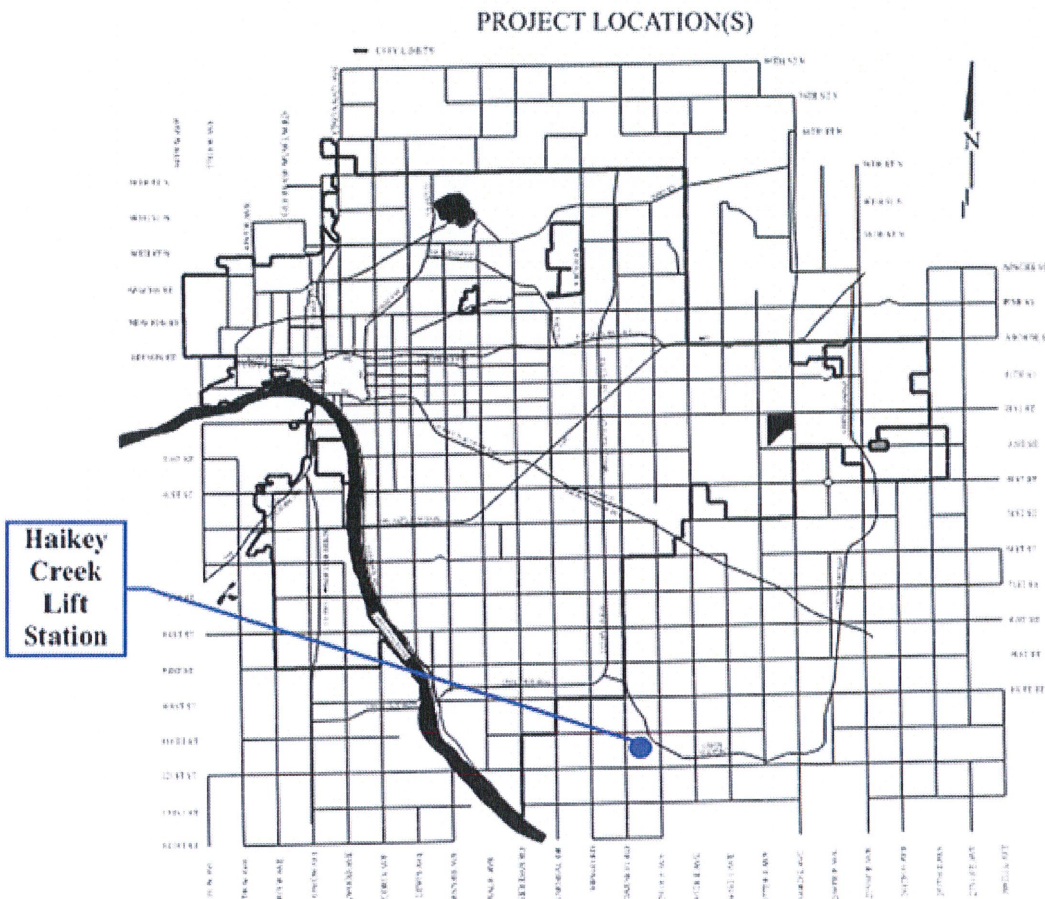
The PROJECT will include preliminary design to a general 65-percent level for a new Supplemental Lift Station on the existing HCLS site to add 20 mgd firm pumping capacity and associated HVAC, piping, sitework to provide a fully functioning system with the existing facilities as well as associated hydrology and hydraulics (H&H) floodplain modeling necessary to meet anticipated permitting requirements. In addition, the preliminary design will include raising existing outdoor electrical equipment within the berm to above the height of the berm as well as raising the access road to the HCLS above the 100-year flood elevation. Completion of preliminary and final design as well as construction phase services will be incorporated through a future Amendment No. 3 as funding is appropriated.

It is hereby understood and agreed by the Parties that upon the AUTHORITY'S determination of the services and materials needed for the PROJECT (See EXHIBIT 1, PROJECT LOCATION), and upon funding of the PROJECT, there will be construction and service contracts which must be entered into in order to consummate the PROJECT, including, but not limited to services and/or construction contracts for engineering, right-of-way acquisition, utility, relocations, construction, equipment, and other services or contracts related to the PROJECT.

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EXHIBIT 1

PROJECT LOCATION



SCOPE OF SERVICES

ATTACHMENT B

- B. **SCOPE OF SERVICES.** The services to be performed by the ENGINEER under this AMENDMENT may consist of four (4) phases, as stated below. Further, it is understood and agreed that the date of commencement, rate of progress, and the time of completion of the work to be done hereunder are essential provisions of this AGREEMENT (See Exhibit 2 - Project Schedule); and it is further understood and agreed that the work which is the subject of this AMENDMENT shall commence upon execution of this AMENDMENT and after receipt of a Notice to Proceed for each project as required by AUTHORITY.

The Basic Services of ENGINEER may include, but are not necessarily limited to, the following tasks:

- (i) Utilizing professional knowledge and experience, identify, consider and evaluate the relevant field data required to perform its SERVICES under this Agreement.
- (ii) Designate in writing to AUTHORITY a representative to coordinate all information between ENGINEER and AUTHORITY.
- (iii) Designate a Quality Assurance / Quality Control (QA/QC) review team to provide QA/QC reviews for this PROJECT at all Design Phases of this PROJECT. Team shall consist of a principal of the firm not associated with day-to-day design work of this PROJECT; exceptions will be granted for single-principal firms.
- (iv) Document all meetings, conferences, coordination, and other activities, and send documentation to AUTHORITY within three (3) working days.
- (v) Attend initial conference with AUTHORITY and other administrative and regulatory agencies, including utility companies, to review PROJECT requirements and discuss scheduling of the PROJECT.
- (vi) Attend all public meetings for the PROJECT. It is anticipated one public meeting will be held during construction due to access and other impacts to the Park.
- (vii) Perform all necessary surveys and investigations for the PROJECT.
- (viii) Furnish engineering data, where necessary, for the coordination of the PROJECT with other local projects or with state or federal authorities.
- (ix) Prepare all drawings in conformance with the drafting standards set forth in the current Design Criteria Manual. Drawings shall be 22" x 34" in size.
- (x) Prepare equipment specifications and use existing drawings to identify demolition and replacement.
- (xi) Engineer shall interview maintenance staff and perform research necessary to identify multiple acceptable equipment vendors wherever possible.

- (xii) Provide AUTHORITY with a budget analysis and cost estimates for all components of the PROJECT and verify that such cost estimates are within the estimates set forth in the PROJECT Budget provided by the AUTHORITY to ENGINEER. ENGINEER cannot guarantee estimate of scoped services will fall within AUTHORITY'S budget. Redesign of facilities to fit within AUTHORITY'S budget may be provided through a future AMENDMENT.

The PROJECT scope (including future Amendment No. 3) generally consists of preliminary and detailed design; bidding and construction phase services for the Haikey Creek Lift Station (HCLS), Phase IV improvements as identified as Alternative LS 1 (Phase 4) in ENGINEER's Conceptual Design Report titled "Haikey Creek Lift Station Expansion Alternatives." Resident Inspector Services are not included in the scope of this PROJECT, but may be added by a future amendment. This AMENDMENT NO. 2 generally covers design activities through preliminary design. Additional final and general construction phase services tasks for the PROJECT are outlined in this scope and will be incorporated through a future Amendment No. 3 as funding is appropriated. Scope language indicates tasks slated for funding by future Amendment No. 3.

The Phase IV scope includes design and construction phase services for the following facilities:

New Supplemental Lift Station

- New 20 mgd firm capacity Supplemental Lift Station (LS) on the existing HCLS site. This station will serve as the primary HCLS (i.e. "dry" weather) following implementation of the project.
- Electrical, Instrumentation and Controls (I&C) to support operations of the Supplemental LS as well as operational coordination with the existing LS. Electrical equipment within the LS will be elevated above the height of the existing site berm.
- New HVAC, piping, sitework, and miscellaneous improvements to provide a fully functioning system with the existing LS, screening structure, and valve vault.

Existing Lift Station/Site Modifications

- Replacement of pumps in the existing HCLS with dry-pit submersible pumps
- Raise existing outdoor electrical equipment within the berm to be above the height of the existing site berm (El. 626.50). Electrical equipment within the existing LS will not be raised as there is not headroom within the building to adequately raise.
- I&C modifications required to modify the existing LS to operate as the wet weather LS for the site as well as modifications required to coordinate the existing LS with the Supplemental LS to operate as a complete system.
- Elevate the site access road above the 100-year flood elevation. It is assumed a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) will be required. It is assumed a US Army Corps of Engineers (USACE) Section 404 permit will not be required. If a Section 404 Permit from USACE is required, it is assumed that Waters of the United States (WOTUS) impacts would be minimal and qualify for a Nationwide Permit.

B.0 Phase No. 0. Project Management and Administration. ENGINEER will perform general administrative duties associated with the work assignment, including project set-up, resource and subconsultant management, progress monitoring, scheduling quality assurance/quality control (QA/QC) plan development and updates, general correspondence, office administration, and invoicing. ENGINEER will maintain accurate project documentation and a cost accounting system, including preparation of monthly invoices in a format acceptable to AUTHORITY. Meeting minutes for the period and current insurance certificates will be provided monthly with each professional services invoice.

B.0.1 Progress Reporting. ENGINEER will prepare monthly status reports and general correspondence during the PROJECT. Progress reports will include the AUTHORITY'S standard schedule report, a discussion of work completed and work anticipated to be underway or finished in the upcoming period, and a discussion of supplementation professional services that may be necessary, if applicable.

B.0.2 Monthly Progress Meetings. ENGINEER will preside over one virtual design progress meeting with ENGINEER'S team members and AUTHORITY monthly during the design/bidding portion of the project (anticipated to be 18 design/bidding monthly progress meetings throughout the project). A portion of these meetings will occur following the initiation of future Amendment No.3. Fee for monthly progress meetings during construction is included under B.3 General Construction Services and will be funded through future Amendment No.3.

B.1 Phase No. 1. Preliminary Design. Prepare a preliminary plan and cost estimate; and submit the preliminary plan and electronic copies of design reports, to the AUTHORITY within the approved schedule after the date specified in the Notice to Proceed. The Preliminary Design services to be performed by ENGINEER shall include, but are not limited to, the following:

Add to the conceptual design scope of AMENDMENT NO. 1 the following:

B.1.3.5.7 Additional Conceptual Design Services. Additional conceptual design services beyond those included in AMENDMENT NO 2 required to evaluate and present the additional alternative for above ground Flow Equalization Basin (FEB) storage is included in this AMENDMENT.

Add the following Preliminary Design scope to the PROJECT:

B.1.1 Kickoff workshop to establish critical design parameters. Meeting is assumed to be in-person by ENGINEER's management team and virtual for relevant discipline leads.

B.1.2 Search of existing plans and records. Review of existing available documentation provided by AUTHORITY. A data request will be developed for any additional relevant background data needed; AUTHORITY will provide available data to ENGINEER electronically in a mutually agreeable format.

B.1.3 Initial contact with other AUTHORITY's Departments, and other administrative and regulatory agencies via conference call. Initial investigation site visits for up to three of ENGINEER's discipline staff are also included in this task.

- B.1.4 Soil investigations, including test borings and geotechnical report. The geotechnical services will include:
- B.1.4.1 Initial geotechnical exploratory work, by a Subcontractor, including up to four borings of up to 140 total linear feet of boring depth, laboratory testing of samples to obtain data deemed necessary by the ENGINEER for the PROJECT.
 - B.1.4.2 Provision, by a Subconsultant, of an initial geotechnical report by a geologist licensed in Oklahoma summarizing and interpreting the collected data from the field investigations and laboratory testing. ENGINEER will provide one electronic copy (PDF format) of the initial geotechnical report to AUTHORITY.
 - B.1.4.3 Once final design has proceeded to the point it can be accomplished, provide, through a Subconsultant, a final geotechnical report evaluating the initial geotechnical investigation, field and laboratory test results, and the initial geotechnical report.
 - a. The final evaluation shall be based on the actual design, including sizes, locations, and loadings of structures; types, and extent of excavations; and shall consider both design parameters and constructability.
 - b. If, in the opinion of the ENGINEER, additional geotechnical data are required for the preparation of the final report, these data shall be provided under a future amendment.
 - B.1.4.4 The final report shall indicate the anticipated performance of the subsurface material to be encountered on the project both during and after construction, under the loading conditions, use, and types of excavations anticipated. ENGINEER will provide one electronic copy (PDF format) of the final geotechnical report to AUTHORITY.
- B.1.5 Ground and aerial surveys. ENGINEER, through a Subcontractor, shall provide survey services as follows:
- B.1.5.1 Determine the horizontal and vertical location of all known utilities within the PROJECT by utilizing OKIE Locates, contacting utility companies, utilizing topographic surveys and information available at the County Clerk's office, and/or land records as needed. Based upon proposed PROJECT improvements, potholing may be required. Locations shall be tied where

possible to survey data and delineated on the construction drawings. Determine relocation requirements for existing utilities.

B.1.5.2 Perform site survey. Site survey shall include a detailed topographic survey of the existing lift station area as well as the access road corridor. Survey will also include portions of S. Garnett Ave approximately 500 linear feet north and south of the existing access road intersection.

B.1.6 Right-of-way and ownership information. ENGINEER, through a Subcontractor, shall provide survey services as follows for the HCLS project site, access road and any additional property (if acquired) for future FEB construction.

B.1.6.1 Employ the services of an abstract company to provide a Property Report. This will require the abstract company to research, document and certify all existing Right of Way within the project limits including Fee Simple (aka Permanent Right of Way), Permanent Easements, Platted Dedications and Deeds of Dedication, whether private or public.

B.1.6.2 Provide one original (signed and sealed) and one copy of the property report to the AUTHORITY along with the initial submittal of construction plans or within 90 days of notice-to-proceed, whichever is earlier.

B.1.6.3 Prepare a Right of Way map showing all existing Right of Way, identified by the abstract company, and including the type of easement or conveyance, the recorded Grantee, Book and Page(s) for all instruments and/or the Plat Number. The Right of Way map shall also show all the proposed additional Right of Way required for the construction of the project.

B.1.6.4 Review all existing Right of Way information and identify any gaps and/or overlaps in the existing Right of Way within the limits of the proposed project including the HCLS site, HCLS access road corridor and any additional property to be acquired for future HCLS site.

B.1.6.5 For all the proposed additional Right-of-Way/Easements required for the construction of the project:

- a. Property acquisition documents shall:
 - i. Use blue ink for certification signatures
 - ii. Be submitted on 8 ½"X 11" paper
 - iii. Comply with Tulsa County Clerk's Office minimum requirements for recording:
 1. Minimum margins of 2 inches at the top of the page and all other margins shall be at least one 1 inch on each side
 2. Minimum 12-point font size
 - iv. Parcels shall be numbered, as follows:
 1. Fee simple & permanent right-of-way shall be identified by whole numbers (i.e. "1.0", "2.0", or "3.0).
 2. Permanent easements shall be identified by number and letter (i.e. "1A", "2A", or "2B")
 3. Temporary construction easements shall be identified by decimal (i.e. "1.1", "1.2", "2.1" or "2.2")
- b. All legal descriptions and Plats of Survey shall include (per parcel):
 - i. Revision Record as shown in Exhibit "A" in the Public Works Real Property Transactions Policy, effective July 1, 2024.

1. Fee simple or permanent right-of-way takes must contain that area (in units of square feet) of the subject property before acquisition or donation, and any change in area resulting from the transfer of property
 2. Certified Legal Description and a Plat of Survey as shown in Exhibit “B.1” or Exhibit “B.2” in the Public Works Real Property Transactions Policy, effective July 1, 2024.
 3. Comply with the minimum standards of practices set forth by the Oklahoma Administrative Code, Title 245, Chapter 15, Subchapter 13, Minimum Standards for Land Surveying, as amended, and any other applicable laws or standards
 4. When the Minimum Standards require monumentation for easements the monuments shall have affixed thereto a durable purple marker or purple cap bearing “ESMT” along with the license number of the land surveyor in responsible charge, or the certificate of Authorization number of the firm performing the survey
 5. Include a general location map and address on the plat of survey.
 6. Clearly identify all existing permanent right-of-way (a/k/a fee simple), permanent easements, temporary easements, right-of-way or easements closing, etc.
 7. Closure Report as shown in Exhibit “C” in the Public Works Real Property Transactions Policy, effective July 1, 2024. Listing points, including coordinates, from a coordinate geometry computerized software program showing mathematical closure of the legal description shall be provided.
- c. Employ the services of an abstract company to provide a certified **Property Report** for each parcel to be acquired.
 - d. Completed legal descriptions and plats of survey shall be submitted to the AUTHORITY along with preliminary construction plans (65% completion)
 - e. Provide a “.kmz” file with submittal of legal descriptions.
 - f. The legal descriptions will be staked in the field as needed during the Right- of-Way acquisition process.

B.1.7 Haikey Creek Lift Station, Phase IV Design Memorandum (Engineering Report). Prepare a design memorandum and preliminary drawings to an approximately 35% completion to establish agreement on scope, parameters, performance requirements and project approach for Phase IV improvements at the Haikey Creek Lift Station (HCLS).

The PROJECT design memorandum will include the following:

- Design criteria
- Preliminary layouts for new facilities (new lift station, pumps and supporting, electrical, I&C and HVAC)
- Preliminary layouts and sections for relocation of existing outdoor electrical facilities to the top of the berm elevation (El. 626.50)
- Preliminary pump selections for new submersible pumps in the new Supplementary Lift Station
- Replacement pump selections for dry-pit submersible pumps for the existing station
- Process and instrumentation diagrams of major systems
- Regulatory and code requirements
- Preliminary modeling, plans and sections of the proposed elevated access road to the facility

- Summary of permit requirements, including those related to elevation of the access road
- Preliminary construction schedule
- Class 4 Opinion of Probable Construction Cost (OPCC) in accordance with the recommendations of the Association for the Advancement of Cost Engineering (AACE).

B.1.7.1 Stormwater/Runoff Modeling for Access Road Design. Develop a 2D hydraulic model of the area using supplied or acquired lidar or other topographic/bathymetric information if available. This model will include sections of the Little Haikey Creek, along with Haikey Creek, and the confluence of the two streams using flows from FEMA Flood Insurance Study (FIS). The purpose of this model is to provide velocities and shear stresses needed to evaluate erosion potential along the access road and design erosion protection measures if needed. This model will also serve an ancillary purpose to understand the hydraulic connections of the two streams and their interaction with the access road as needed for the FEMA No-Rise/CLOMR.

- Construct a 2D hydraulic model of project area and confluence of streams

Hydraulic Modeling for FEMA No-Rise/CLOMR with FEMA Model

- Request FEMA Effective Hydraulic Model from FEMA.
- Pre-Project (Existing) Conditions Hydraulic Modeling - With information gained from the 2D hydraulic model, ENGINEER shall review existing models provided by AUTHORITY to determine modifications to the effective 1D model required using additional cross sections to accurately represent the access road and confluence area under existing conditions. Anticipating changes will need to be made, thereby creating a Corrected Effective model. The Corrected Effective model will be considered the Pre-Project (Existing) Conditions model.
- Revised or Post-Project Conditions Hydraulic Modeling - Utilize existing models provided by AUTHORITY, with modifications performed, to determine Base Flood Elevation (BFE) for setting access road profile and extents. Develop preliminary road plan and profile and confirm permitting requirements based on the analysis. This model will be used for the proposed new FEMA flood mapping.
- Evaluation of Alternatives – The CLOMR process requires an evaluation of alternatives that would not increase the BFE. A simplified HEC-RAS analysis of using a bridge or culverts to convey flow under the access road would be investigated.
- CLOMR Documentation and MT-2 Forms – Prepare the required CLOMR documentation (Narrative, MT-2 Application Forms, Hydraulic Models, Topographic Workmap, Annotated FIRM)

- Technical Study Data Notebook (TSDN) to include the following:
 - Narrative describing the project and methodology of the analysis
 - Provided effective models will be reviewed for their modeling approach used in the confluence site area, developing a corrected effective model for the project area of interest if required.
 - Hydraulic modeling required of the 10-, 50-, 100-, and 500-yr flood frequencies along with a floodway will be modeled. The following conditions models, as applicable, will be submitted:
 - i. Duplicate Effective Model
 - ii. Corrected Effective Model
 - iii. Pre-Project (Existing) Conditions Model
 - iv. Revised or Post-Project Conditions Model
- Support the Community Concurrence process by submitting the MT-2 forms for local floodplain administration approval to the City of Broken Arrow (COBA) and the City of Bixby.
- Support the required public notification process - coordination with COBA and the City of Bixby. Coordinate for the notification letters to be sent to the affected property owner's by COBA; ENGINEER would provide the letter template, and other information that needs included in the letter
 - i. Certification no structures are located in areas that would be affected by the BFE increase
 - ii. Documentation of the individual legal notice sent to all property owners, explaining the impact of the proposed action on their property.

B.1.7.2 Environmental Due Diligence. Review environmental data from federal, state, and local regulatory agency online sources to identify potential site constraints that may impact design, constructability, schedule, and/or permitting. Sources include NAIP aerial photography, National Wetlands Inventory (NWI) data for wetlands and surface waters, the NRCS Web Soil Survey, the Information for Planning and Consultation (IPaC) database for federally protected species and critical habitat, and Oklahoma Department of Wildlife Conservation resources for state-listed species within the PROJECT area. In addition to identifying species concerns for PROJECT execution, IPaC data will also be used to support Endangered Species Act compliance documentation as part of the CLOMR requirements.

Wetland Survey. Conduct a site visit to perform a waters of the U.S. (WOTUS) delineation, per U.S. Army Corps of Engineers (USACE) guidance, to delineate the type, location, and extent of WOTUS features within a defined PROJECT survey area.

- Field verify NWI data from the U.S. Fish and Wildlife Service.
- Document onsite findings in a Surface Waters Delineation Report (delineation report) that meets USACE Regional Supplement standards, for use should it be determined that coordination with USACE may be required.
- It is assumed no WOTUS will be identified; therefore, no permitting under Sections 404 and 401 of the Clean Water Act is included in this SCOPE OF SERVICE; final determination requires final road alignment and field delineation of wetlands as indicated in the following bullet.
- It is assumed that onsite survey work will be completed by ENGINEER in one (1) day.

- If WOTUS are present and cannot be avoided by PROJECT design, ENGINEER can support Section 404 permitting as part of a future additional scope of work.

Conservation Resources Survey. At the time of the wetland survey, ENGINEER will document the potential onsite occurrence for other conservation resources, including federally and state protected species and their habitats, including migratory birds and raptors protected under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act, respectively. The onsite findings and any applicable avoidance measures and time-of-year restrictions will be documented in a formal memo to support the CLOMR application, design documentation, contractor guidance, etc.

Cultural Resources Review. It is assumed the PROJECT has no federal nexus (e.g., no Section 404 Permit) that would trigger consultation with the Oklahoma Historical Society under Section 106 of the National Historic Preservation Act.

Results of the wetland survey findings will be included a delineation report as described above. Findings from the species survey will be documented by a brief technical memorandum.

B.1.7.3 Design Memorandum/Engineering Report Review Workshop. Meet with the AUTHORITY and obtain comments on the design memorandum approximately one week after the draft Design Memorandum has been provided. It is anticipated a half-day in-person review workshop will be required. Key project leadership will attend in person with additional professionals of ENGINEER attending virtually as needed. PROJECT Schedule is based on AUTHORITY providing comments within one week after Review Workshop.

B.1.7.4 Finalize Design Memorandum. Incorporate AUTHORITY comments and issue the Final Design Memorandum/Engineering Report.

B.1.8 Permitting and Regulatory

B.1.8.1 Provide Design Memorandum (Engineering Report). Provide Engineering Report for ODEQ review on behalf of AUTHORITY. Funding Agency Coordinating Team (FACT) format report is not required. Respond to questions from agencies through written and verbal correspondence and document decisions through electronic mail (no meetings are anticipated). Preparation of Environmental Information Document (EID) for the PROJECT and has not been included in the Scope of Services.

B.1.8.2 ODEQ Coordination. Prepare the ODEQ Permit to Construct Application. A placeholder for the ODEQ Construction Permit fee of up to Five Thousand Eight Hundred Twenty-Five Dollars (\$5,825.00) has been included in the fee). Permit fees in excess of the placeholder amount will be the responsibility of the AUTHORITY.

B.1.8.3 Access Road Permitting Coordination. The access road is located within City of Broken Arrow city limits; however, it will also involve coordination with the City of Bixby for the modifications to the intersection, and Tulsa County for modifications of the park roads. FEMA

will require a hydraulic analysis and submittal of proposed drawings for the CLOMR and future modeling with as-built drawings for the LOMR.

- B.1.8.4 Building Permit Coordination. Obtaining the Building Permit will be the responsibility of the Contractor. ENGINEER will support in the submittal of any supporting documentation required for Deferred Submittals as part of the Building Permit process, if needed. The Governing Authority will be the City of Broken Arrow and will include Fire Marshall coordination, as needed.
- B.1.8.5 Floodplain Permit Coordination. ENGINEER will coordinate with the City of Broken Arrow's Floodplain Administrator and if applicable with the City of Bixby's Floodplain Administrator to develop and submit application for the Floodplain Permit. fee. A placeholder for floodplain permitting fee of up to Five Hundred Dollars (\$500.00) has been included in the fee (estimates are \$200 for the City of Broken Arrow, and up to \$150 for the City of Bixby). Permit fees in excess of the placeholder amount will be the responsibility of the AUTHORITY.
- B.1.8.6 Conditional Letter of Map Revision (CLOMR). Following review by AUTHORITY of 65% Design, ENGINEER will develop and submit a CLOMR. Coordination of CLOMR submittal with FEMA and the City. A placeholder for the CLOMR fee of up to Seven Thousand Two Hundred and Fifty Dollars (\$7,250.00) has been included in the fee. Permit fees in excess of the placeholder amount will be the responsibility of the AUTHORITY.
- a) FEMA Submittal (initial 90-day review period)
 - Comment resolution (potential request from FEMA for additional information, another 90-day review period following any resubmittal)
- B.1.9 Develop Preliminary Design. Develop the preliminary design for the PROJECT to an approximate 65% level of completion, including the following documents:
- Preliminary P&IDs of major systems
 - Power distribution functional diagram
 - Major sections showing equipment, structural, and piping modifications
 - Major equipment specifications
 - Electrical plans and sections
 - Instrumentation diagrams
 - Civil/site utility plans
 - Project requirements specification including a draft sequence of construction
 - Commodity specifications
 - Preliminary front-end specifications (does not include AUTHORITY provided front-end specifications and contracts)

Tasks B.1.9.1 to B.1.11 will be executed as part of future Amendment No. 3.

- B.1.9.1 Preliminary Design (65%) Review Workshop. Prepare and present and updated Opinion of Probable Construction Cost (AAACE Class 3) for the PROJECT. Meet with the AUTHORITY

and obtain comments on the preliminary design approximately one week after submittal of the draft. It is anticipated a half-day review workshop will be required for review of PROJECT.

AUTHORITY comments will be incorporated into the Final Design; a revised Preliminary Design (65%) package incorporating comments will not be issued. Key project leadership will attend in-person with additional professionals of ENGINEER attending virtually as needed. PROJECT Schedule is based on AUTHORITY providing comments within one week after Review Workshop.

- B.1.10 ENGINEER shall furnish 10 half-size copies of the Design Documents (Engineering Report and 65% Preliminary Design) and other documents listed in B.1. The 65% submittal will also include a copy of the plans in PDF and all related CAD files in the native CAD file format (e.g. AutoCAD, or equivalent used by ENGINEER). MicroStation files will not be supplied as part of this task.
- B.1.11 Designate a Quality Assurance / Quality Control (QA/QC) review team to provide QA/QC reviews for this PROJECT at the Final Design Phase of this PROJECT. Team shall consist of a principal of the firm not associated with day-to-day design work of this PROJECT; exceptions will be granted for single-principal firms.

Deliverables for Phase B.1: Electronic survey file (CAD format), Draft and Final Geotechnical Report Files (PDF), Draft Design Memorandum (Draft Engineering Report, PDF), Final Design Memorandum (Final Engineering Report, PDF), Surface Waters Delineation Report, brief technical memorandum documenting species survey; ODEQ Documentation, City of Broken Arrow and City of Bixby Floodplain Permit Application, CLOMR, Draft Preliminary Design (65%, PDF and hard copy), 35% and 65% Review Workshops agenda and meeting notes.

- B.2 Phase No. 2. Final Design.** Final design shall include the preparation of final plans for the PROJECT together with all specifications and related contract documents required for the construction of the PROJECT by the AUTHORITY'S construction contractor; Final Design shall be in accordance with AUTHORITY'S Standards, detailed specifications, and approved Preliminary Plans prepared in Phase No. 1, and shall be submitted to the AUTHORITY within the approved schedule after the date specified in the Notice to Proceed for Phase No. 2. All tasks in B.2 will be executed as part of future Amendment No. 3.

The Final design tasks shall include the following:

- B.2.1 Final Field investigations.
- B.2.2 Final detailed design of process, components, structures, and appurtenances.
 - B.2.2.1 Contract Plans shall include as a minimum:
 - a. Cover Sheet including:

- i. Location Map
 - ii. Reference to City of Tulsa/ODOT Standards
- b. Project Site Overview Map/Sheet Index
- c. Pay Quantities and Construction Notes
- d. General Construction Notes
- e. Work Item Tables (as applicable):
 - i. Drainage Area Map
 - ii. Stormwater Calculations
 - iii. Stormsewer Summary Sheet (drainage structures/inlets/pipes/etc.)
- f. Stormwater Management Plan Sheet
- g. Erosion Control Plan
- h. Geometric Data
- i. Survey Control Sheets (Tie to COT/ADS Permanent Benchmark as verified by COT Survey Department.)
- j. Section Corners/Lines
- k. ROW Identification of needs
- l. Property Lines/Right-of-Way/Easements
- m. Certified Property Reports and Legal for ROW
- n. Topographic Survey Sheets
- o. Plan & Profile Sheets (Vertical scale 1" = 10' / 1" = 5', Horizontal scale shall be 1"=20') (Not Required)
- p. Abandonment Plan Sheet (as applicable) (Not Required)
- q. Manhole Plan Sheet (as applicable) (Not Required)
- r. Intersection Details/Blowups (as applicable) (Not Required)
- s. Miscellaneous Details
- t. Updated Opinion of Probable Construction Cost (AACE Class 2)

B.2.2.2 Final Design (95%) Review Workshop. Meet with the AUTHORITY and obtain comments on the final design approximately one week after draft Final Design documents are provided for review. It is anticipated a half-day review workshop will be required for review of PROJECT

and PROGRAM. AUTHORITY comments will be incorporated into the pre-advertisement review set; a revised Final Design (95%) package will not be issued. Key project leadership will attend in person with additional professionals of ENGINEER attending virtually as needed. PROJECT Schedule is based on AUTHORITY providing comments within one week after Review Workshop.

- B.2.3 Designate a Quality Assurance / Quality Control (QA/QC) review team to provide QA/QC reviews for this PROJECT at the Final Design Phase of this PROJECT. Team shall consist of a principal of the firm not associated with day-to-day design work of this PROJECT; exceptions will be granted for single-principal firms.
- B.2.4 ENGINEER shall furnish 10 half-size copies of the Pre-Final Design (95%) and other documents for review listed in B.2. The submittal will also include a copy of the plans in PDF and all related CAD files.
- B.2.5 ENGINEER shall furnish 10 half-size pre-advertisement check sets. ENGINEER shall furnish one (1) original Final Signed, Sealed, Dated Drawing Set. It shall be 22" x 34" in size and also scanned & formatted to half-size to scale (11" x 17"). Provide two sets of final documents to ODEQ as required.
- B.2.6 PROJECT Schedule is based on AUTHORITY providing comments within two weeks of receiving pre-advertisement check sets. Following a one-week turnaround of Final Sealed Drawing Set by ENGINEER, signed mylars will be provided by AUTHORITY within two weeks.
- B.2.7 ENGINEER shall furnish 10 half-size copies and 10 copies of final bound bid books and two USB 2.0 flash memory drives of the proposal for bidding purposes. The submittal will also include a copy of the full and half-size drawings and specifications in PDF and all related CAD files.
 - B.2.7.1 ENGINEER shall furnish 10 half-size plan sets that contain all addendum changes in paper and 2 electronic copies. The submittal will also include a copy of the plans in PDF and all related CAD files.
 - B.2.7.2 ENGINEER shall submit all applicable signed, completed Design Project Checklists with final design review submittal.
- B.2.8 Bidding Assistance. ENGINEER shall attend and lead virtual pre-bid conference(s), prepare addenda, furnish ENGINEER'S estimate(s) in a format acceptable to AUTHORITY, tabulate bids and recommend award of contract(s).
- B.2.9 Provide Conformed to Bid Drawings. Following the bid opening and award of bid by AUTHORITY and prior to the construction pre-work meeting, revise Drawings to incorporate changes made during the Bidding Phase by addendum. Provide AUTHORITY with pdf format files of the conformed drawings and electronic copies of the files in AutoCAD. At AUTHORITY's request, ENGINEER may transmit electronic PDF format conformed drawings

and specifications to the Contractor for their use in making additional sets. Specifications will not be revised for changes made via addenda during bidding.

Deliverables for Phase B.2: Draft Final Design, Pre-advertisement Check Set, One Original set Signed and Sealed of Final Contract Documents (including hard and electronic copies), addenda (if required), Final OPCC (Engineer's Estimate), Bid Tabulation, Recommendation of Award, Conformed to Bid Drawings (PDF and AutoCAD format)

B.3 Phase No. 3. General Services During Construction. All tasks in B.3 will be executed as part of future Amendment No. 3.

B.3.1 Provide assistance to AUTHORITY in awarding construction contract(s).

B.3.2 Pre-construction conference. ENGINEER will lead and attend a pre-construction conference with the selected Contractor. ENGINEER will develop an agenda and provide minutes for the meeting.

B.3.3 Assist in conducting a public construction meeting to facilitate public notification. ENGINEER will lead development of materials and support presentation in one public meeting held following Contractor award, but prior to mobilization. AUTHORITY will be responsible for providing a facility to host the meeting and notifying/inviting attendees.

B.3.4 Provide surveys for horizontal and vertical control.

B.3.4.1 It is mutually agreed that the Construction Contract shall provide that the Contractor be responsible for staking the work site based on the survey control established by the ENGINEER; Contractor shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the AUTHORITY.

B.3.4.2 Construction Contract also shall provide that the Contractor report to the ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary change in grades or locations.

B.3.5 Contractor Coordination. Review documents submitted by the Contractor for general conformance with the design conformity to the Project and compliance with the information given in the Contract Documents

B.3.5.1 Submittal Reviews. Review drawings and other data submitted by the CONTRACTOR as required by the Construction Contract Documents. ENGINEER's review will be for general conformity to the Construction Contract Documents and will not relieve the CONTRACTOR of any of his contractual responsibilities. Such reviews will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.

Review of submittals will be limited to those required by the Construction Contract Documents. Costs for additional reviews will be borne by CONTRACTOR or AUTHORITY, as specified in

the Submittals section of the technical specifications. ENGINEER will review up to Three Hundred (300) submittals (each resubmittal is considered a submittal), under this AGREEMENT.

B.3.5.2 Operation and Maintenance Manual (O&M) Review. ENGINEER will review vendor- or manufacturer-prepared O&M manuals submitted by the CONTRACTOR as required by the Construction Contract Documents. ENGINEER's review will be for general conformity to the Construction Contract Documents and will not relieve the CONTRACTOR of any of his contractual responsibilities. Such reviews will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions and programs incident thereto. ENGINEER will review up to Seven (7) vendor- or manufacturer-supplied O&M manuals under this AGREEMENT following the three-step process of an initial submittal transmittal, a re-submittal transmittal, and the final O&M manual transmittal.

B.3.5.3 Requests for Information. Interpret Construction Contract Documents when requested by AUTHORITY or the CONTRACTOR. ENGINEER will review up to Fifty-five (55) requests for information (RFIs) under this AGREEMENT.

B.3.6 General Construction Services.

B.3.6.1 Periodic Inspections/Monthly Progress Meetings. Monitor construction progress, provide periodic inspection as necessary to confirm contract conformance. Periodic inspections will coincide with Monthly Progress Meetings (24 meetings anticipated). During construction, ENGINEER's out of town professionals will attend Contractor's monthly progress meeting, virtually. If held in-person, ENGINEER's Project Manager or Engineering Manager will attend in person on a quarterly basis with ENGINEER's other key staff joining virtually. It is anticipated there will be 24 monthly construction project meetings).

B.3.6.2 Change Orders. Provide documentation to assist in the processing of change orders, including applications for extension of construction time, as requested. Evaluate the cost and scheduling aspects of change orders as requested and, where necessary, negotiate with the CONTRACTOR to obtain a fair price for the work. Said negotiation will be subject to the approval of AUTHORITY. ENGINEER will assist with up to Eight (8) formal change orders and Fifteen (15) change order requests under this AGREEMENT.

B.3.6.3 Allowance Authorizations (AAs). AUTHORITY will prepare allowance authorizations (AAs) to incorporate changes to the work or new work added into the Construction Contract Documents by

AUTHORITY or Contractor. ENGINEER will review and sign AAs for acceptability of design modifications to the PROJECT.

B.3.6.4 Inspection and Test Report Review. Review certificates of inspection and tests, which are to be assembled by the Contractor in accordance with the Construction Contract Documents and transmit them to AUTHORITY.

B.3.6.5 Performance Tests. Analyze data from equipment performance testing by the Contractor or supplier when the Construction Contract Documents require the equipment to be tested after installation. Submit conclusions to AUTHORITY and advise Contractor of acceptability.

B.3.6.6 Asset Listing and Tagging Worksheet. Under the construction contract, Contractor will be required to provide a listing of assets and their associated tag numbers in the AUTHORITY's standard Excel worksheet. ENGINEER will review Contractor's completion of the worksheet to verify information required by the AUTHORITY has been provided and is in general conformance with asset information submitted. Field verification by ENGINEER of installed assets is not included. It is the Contractor's responsibility to complete a thorough quality control review to ensure installed components fully match those submitted (i.e. same make, model, and serial numbers).

B.3.6.7 Materials Testing. ENGINEER will review test reports provided by Contractor as required by Contract Documents for conformance with Contract Documents and coordinate with Contractor and AUTHORITY to address discrepancies. Materials testing for Quality Assurance (QA) purposes will be provide by the AUTHORITY under a separate agreement.

B.3.7 Provide Inspection Services. NOT USED

B.3.8 Witness testing. NOT USED. ENGINEER will review test reports submitted by CONTRACTOR to confirm satisfactory results of the factory performance test.

B.3.9 Special Inspections. ENGINEER will review deviation reports and remedial actions developed by Others for conformance with the Contract Documents. ENGINEER's personnel will review and seal as Registered Design Professional in Responsible Charge (RDPRC) as required by the Contract Documents. Signing and sealing the of the Final Report of Special Inspections shall be by AUTHORITY (via contract with Others), where required. Materials testing for Quality Assurance and Special Inspection required by the Contract Documents will be coordinated and performed by AUTHORITY or under a separate AMENDMENT.

B.3.10 Punch List Development. Following substantial completion, lead the final inspection and prepare punch list as necessary. ENGINEER's major discipline leads will participate in the punch list development.

B.3.11 Final Punch List Verification. Following completion of the punch list by Contractor, participate in the final punch list verification (participants will include ENGINEER's Project Manager or Engineering Manager)

B.3.12 Start-up Support. ENGINEER has budgeted two days for two professionals to be onsite to support AUTHORITY if requested, for a total of 32 person hours onsite. ENGINEER developed

training or operations narratives outside of vendor supplied training required via Contractor is included in this scope.

B.3.13 Standard Operating Procedures Narrative – ENGINEER will provide a process-oriented narrative for the pumping scenarios, force main systems, and odor control at HCLS. The narrative provided will be best suited for use by a mixture of experienced and inexperienced staff and will cover dry and wet weather pumping functions of the supplemental and existing lift stations as a complete system. The narrative will provide information on pump, and force main combinations available for pump flow scenarios across the system design range.

- The draft narrative will be provided to AUTHORITY in advance of a one-hour virtual review meeting to receive AUTHORITY comments. Comments will be incorporated and the final narrative will be developed using Microsoft Word; the final document will be provided in both pdf and word electronic versions as well as up to 10 hard copies, if desired.
- The narrative will not address non-process equipment such as building HVAC, facility lighting, electrical transformers or other auxiliary equipment and systems. The narratives will not address topics of any other system beyond the pumping and force main system previously described.
- The chapters for the narrative will be Introduction, Pumps, and Odor Control.
- The Pump and Odor Control chapters will have the following subsections:
 - Process Objective and Description. Operator-centric descriptions of the system with the objective of connected the system processes. The section will include a description of the normal operating modes for dry and wet weather scenarios across the design range of flows as in the design memorandum and the P&IDs. The goal is to provide an overview of system; it is assumed staff understands equipment and has access to the vendor equipment O&M manuals. The narrative will not provide equipment operation information or step-by-step instructions, but will provide information on the operation of the whole system.
 - Operational Process Control. Operator-centric description of the system or process with the objective of providing site-specific process control tools and directions.
 - Key Performance Indicators. This will include those items operators will need to monitor that are important to the pump station systems.
 - Process Control Troubleshooting. The troubleshooting guide will generally not address equipment troubleshooting.

B.3.14 Operations Staff Training - ENGINEER will provide operator-centric training on the overall pumping and force main system to staff at a location provided by the AUTHORITY. The training material will be developed to include the overall pumping and force main system during dry and

wet weather scenarios over the range of design flows. The training material will not address non-process equipment such as electrical, HVAC, lighting or other ancillary systems.

A draft PowerPoint presentation will be developed for the training and reviewed in a one-hour virtual review meeting to receive AUTHORITY feedback. AUTHORITY comments will be incorporated and a final training presentation developed. The training slide deck will be provided to the AUTHORITY electronically in both PDF and PowerPoint formats.

The training will be given up to two times either on the same day or sequential days to minimize costs. Each training session will last up to two hours. The schedule for training will be coordinated with AUTHORITY to cover the greatest number of staff.

B.3.15 ENGINEER agrees to provide these services for a period of time estimated to equal the time necessary for construction of the PROJECT, anticipated to be up to 51 months to final completion (42 active months assumed).

B.3.16 Conformed to Construction Drawings. Prepare for the AUTHORITY a set of showing those changes made during the construction process based on marked-up prints, drawings and other data furnished by the Contractor and AUTHORITY to ENGINEER. Information regarding changes made during the construction process as described in the previous sentence will be provided under the terms of the Construction Contract Documents.

B.3.16.1 After contractor redline drawings are provided from AUTHORITY, submit record drawings on mylar and provide a PDF copy of record drawings, and provide the native CAD file format (e.g. AutoCAD, MicroStation, or equivalent) of the record drawings.

B.3.17 Letter of Map Revision (LOMR). Based on conformed to construction drawings, ENGINEER will develop and submit a LOMR. A placeholder for the LOMR fee of up to Eight Thousand Two Hundred and Fifty Dollars (\$8,250.00) has been included in the fee. Permit fees in excess of the placeholder amount will be the responsibility of the AUTHORITY.

- Data Gathering and QA/QC: This includes collecting the CLOMR model for review, all pertinent as-built drawings for incorporation of updated cross sections, and updated terrain information or survey.
- Stormwater Runoff Modeling – Updating terrain and cross sections with as-built information in the HEC-RAS model. Perform hydrologic and hydraulic modeling and updating the CLOMR HEC-RAS model to a LOMR HEC-RAS model.
- MT-2 Forms – Prepare LOMR documentation, maps, models and MT-2 forms for submittal
- Review Agency Coordination – Coordinate with FEMA and the City of Broken Arrow information required to supplement the permit processing.
- FEMA Response and Resubmittal – Address FEMA comments and further data requests for their review of initial submission. Prepare documents for resubmittal.

Deliverables for Phase B.3: Submittal and O&M Responses (in format/system allowable by specification); RFI Responses (in format/system allowable by specification); Punch List; Final Punch List verification; Special Inspections Documentation (providing signature as Registered Design Professional in Responsible Charge (RDPRC) only); Start-up Support Documentation (if needed); Draft and Final Operations Narrative for Pump and Force Main System Operation, Draft and Final Slide Deck for O&M Staff Training (in PDF and PowerPoint formats; Staff Training Logs; Conformed to Construction Drawings (PDF and AutoCAD format), LOMR

EXHIBIT 2
PROJECT SCHEDULE

EXHIBIT 2
PROJECT SCHEDULE

		MONTHS FROM NTP																											
MILESTONE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	51
B.0 Project Management and Administration (portion in future Amend. No. 3)																													
B.1 Preliminary Design Services																													
	Project Initiation, Data Review, and Site Visit																												
	Site Investigation/Survey																												
	Engineering Report Draft																												
	Engineering Report Final																												
	Preliminary Design (65% small amount continues to Amend. No. 3)																												
	Preliminary Design Review (future Amend. No. 3)																												
B.2 Final Design (future Amend. No. 3)																													
	Final Design (future Amend. No. 3)																												
	Bidding (future Amendment No. 3)																												
B.3 General Services During Construction (future Amend. No. 3)																													

RESPONSIBILITIES OF THE AUTHORITY

ATTACHMENT C

C. RESPONSIBILITIES OF THE AUTHORITY. The AUTHORITY agrees:

- C.1. Reports, Records, etc. To furnish, as required by the work, and not at expense to the ENGINEER:
 - C.1.1. Records, reports, studies, plans, drawings, and other data available in the files of the AUTHORITY, which may be useful in the PROJECT.
 - C.1.2. Standard drawings and standard specifications.
- C.2. Access. To provide access to public and private property when required in performance of ENGINEER'S services.
- C.3. Staff Assistance. To furnish the services of at least one of AUTHORITY'S employees or staff who has right of entry to, and who has knowledge of, AUTHORITY'S facilities relating to this PROJECT.
 - C.3.1. To furnish legal assistance as required in the preparation, review and approval of construction documents.
 - C.3.2. To furnish staff assistance in locating existing utilities and in expediting their relocation.
- C.4. Review. To examine all studies, reports, sketches, estimates, specifications, drawings, proposals and other documents presented by ENGINEER and render in writing decisions pertaining thereto within a reasonable time so as not to delay the SERVICES of ENGINEER.
- C.5. Record Drawings. Provide redline markups of completed construction for the ENGINEER to create record drawings.

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COMPENSATION**ATTACHMENT D****D. COMPENSATION.**

ENGINEER shall be paid as compensation for the professional services set forth in this AMENDMENT NO. 2 and itemized in (see EXHIBIT 3, FEE SCHEDULE), an amount not to One Million Five Hundred Thousand Nine Hundred Seventy Dollars and Zero/100 Dollars (\$1,500,970.00).

The ENGINEER acknowledges the following summary of modifications to the Fee Schedule as stated in the original Contract and modified by AMENDMENT Nos. 1 and 2:

D.4. Travel and Subsistence Reimbursement. Travel and subsistence from outside the Tulsa Metropolitan Area shall be reimbursed at actual costs and not exceed current GSA Rates. Local travel will not be reimbursed.

D.7 Special Services Allowance.

At the sole discretion of AUTHORITY, a Special Services Allowance for geotechnical, potholing, abstract (real estate) research, and/or permit/review fees may be provided by AUTHORITY. Any such allowance will be for the direct cost of the Special Services, not to exceed Zero Dollars and Zero Cents (\$0.00) and will not include payment of any markup, profit or overhead to ENGINEER. Use of the Special Services Allowance must be authorized, in writing, by the AUTHORITY. No additional Special Services Allowance is included in this AMENDMENT NO. 2.

Original Contract Amount	\$268,813.00
AMENDMENT NO. 1	\$28,217.00
AMENDMENT NO. 2	<u>\$1,500,970.00</u>
Total Amended Contract Amount	<u>\$1,798,000.00</u>

EXHIBIT 3

PROJECT FEE SCHEDULE

EXHIBIT 3
FEE SCHEDULE

		Client Position	Project Director	Project Manager	Project Controls	Project Administration	Project Accountant	Project Biller	Estimator
		HOURS/COST TOTALS IN USD \$:	46	269	45	66	45	85	34
		CONTRACT TOTALS IN USD \$:	16,731	\$ 86,964	\$ 8,781	\$ 9,603	\$ 6,809	\$ 12,862	\$ 8,749
Task	Description								
Task 1 B.0 Project Management and Administration									
1/01	B.0. PM Admin	9	43		22				
1/02	B.0.1 Progress Reporting		79	45	44		45	85	
1/03	B.0.2 Monthly Progress Meetings (Design/Bid, Monthly Constr Progress in 3.6.1	19	30						
Task 1 Subtotals		28	152	45	66		45	85	
Task 2 B.1 Preliminary Design - Kickoff/site Investigations									
2/01	B.1.1 Kickoff workshop	2	8						
2/02	B.1.2.3 Data Review and Initial Agency outreach (+ disc initial site visit)		2						
2/03	B.1.4 Soil investigations/geotech		1						
2/04	B.1.4.1 Geotechnical borings (sub)								
2/05	B.1.4.2 Initial Geotechnical Report (sub)								
2/06	B.1.4.3 Final Geotechnical Report (sub)								
2/07	B.1.5. Survey (sub)		1						
Task 2 Subtotals		2	12						
Task 3 B.1.7 Design Memo (Eng Report) 35%									
3/01	B.1.7.1 Draft Design Memo	4	22						
3/02	B.1.7.1 H & H HEC-RAS 2D Model for Access Road Design								
3/03	B.1.7.1 H & H Review and Modify Existing Hydraulic Models (CLOMR)								
3/04	B.1.7.1 H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)								
3/05	B.1.7.1 H & H Evaluation of Alternatives (CLOMR)								
3/06	B.1.7.1 H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)	2	8						34
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop								
3/08	B.1.7.4. Final Design Memo/Eng Report		2						
3/09	B.1.7.5. Engine Generator Evaluation								
3/10	B.1.7.2 Environmental Due Diligence Review								
Task 3 Subtotals		6	32						34
Task 4 B.1.8 Permitting and Regulatory									
4/02	B.1.8.2. ODEQ Coordination	4	6						
4/03	B.1.8.3 Access Road Permit Coord (HUB led)	2	4						
4/06	B.1.8.4. Building Permit Coordination		2						
4/07	B.1.8.5 Floodplain Permit Coordination		2						
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City		2						
Task 4 Subtotals		6	16						
Task 5 B.1.9 Preliminary Design (65%)									
5/01	B.1.9 Preliminary Design (65%)	2	40						
Task 5 Subtotals		2	40						
Task 11 B.1.0 - Additional Conceptual Design Support									
11/01	B.1.3.5.7 Additional Conceptual Support	2	17						
Task 11 Subtotals		2	17						

EXHIBIT 3
FEE SCHEDULE

		Client Position	Project Coordinator	Project Controls	Engineering Manager	H&H Lead/QC	H&H Modeler	Permitting QC	Permitting Lead
		HOURS/COST TOTALS IN USD \$:							
		CONTRACT TOTALS IN USD \$:							
Task	Description								
Task 1	B.0 Project Management and Administration								
1/01	B.0.1 PM Admin		21	17	321	138	572	7	66
1/02	B.0.1 Progress Reporting				44				
1/03	B.0.2 Monthly Progress Meetings (Design/Bid, Monthly Constr Progress in 3.6.1				38				
	Task 1 Subtotals		21	17	82				
Task 2	B.1 Preliminary Design - Kickoff/site Investigations								
2/01	B.1.1 Kickoff workshop				8				
2/02	B.1.2.3 Data Review and Initial Agency outreach (+ disc initial site visit)				12				
2/03	B.1.4 Soil Investigations/geotech								
2/04	B.1.4.1 Geotechnical borings (sub)				2				
2/05	B.1.4.2 Initial Geotechnical Report (sub)				2				
2/06	B.1.4.3 Final Geotechnical Report (sub)				2				
2/07	B.1.5. Survey (sub)				2				
	Task 2 Subtotals				28				
Task 3	B.1.7 Design Memo (Eng Report) 35%								
3/01	B.1.7.1 Draft Design Memo				61				
3/02	B.1.7.1.1 H & H HEC-RAS 2D Model for Access Road Design				20		156		
3/03	B.1.7.1.1 H & H Review and Modify Existing Hydraulic Models (CLOMR)				14		130		
3/04	B.1.7.1.1 H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)				14		102		
3/05	B.1.7.1.1 H & H Evaluation of Alternatives (CLOMR)				4		46		
3/06	B.1.7.1.1 H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)				14		102		
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop				13				
3/08	B.1.7.4. Final Design Memo/Eng Report				5				
3/09	B.1.7.5. Engine Generator Evaluation								
3/10	B.1.7.2 Environmental Due Diligence Review							3	66
	Task 3 Subtotals				79	66	536	3	66
Task 4	B.1.8 Permitting and Regulatory								
4/02	B.1.8.2. ODEQ Coordination				7			4	
4/03	B.1.8.3 Access Road Permit Coord (HUB led)				4				
4/06	B.1.8.4. Building Permit Coordination				4				
4/07	B.1.8.5 Floodplain Permit Coordination				2	32	17		
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City				2	40	19		
	Task 4 Subtotals				19	72	36	4	
Task 5	B.1.9 Preliminary Design (65%)								
5/01	B.1.9 Preliminary Design (65%)				87				
	Task 5 Subtotals				87				
Task 11	B.1.0 - Additional Conceptual Design Support								
11/01	B.1.3.5.7 Additional Conceptual Support				26				
	Task 11 Subtotals				26				

EXHIBIT 3
FEE SCHEDULE

		Client Position	Permitting Support	Project Engineer	EIT	Architectural QA/QC	Architectural Lead	Structural QA/QC	Structural Lead
		HOURSCOST TOTALS IN USD \$:							
		CONTRACT TOTALS IN USD \$:							
Task	Description								
Task 1 Project Management and Administration									
1/01	B.0. PM Admin								
1/02	B.0.1 Progress Reporting								
1/03	B.0.2 Monthly Progress Meetings (Design/Bld, Monthly Constr Progress in 3.6.1								
Task 1 Subtotals				38					10
Task 2 Preliminary Design - Kickoff/site investigations									
2/01	B.1.1 Kickoff workshop			4	4		2		2
2/02	B.1.2.3 Data Review and Initial Agency outreach (+ disc initial site visit)				8				13
2/03	B.1.4 Soil investigations/geotech								1
2/04	B.1.4.1 Geotechnical borings (sub)			2	2				1
2/05	B.1.4.2 Initial Geotechnical Report (sub)			2	2				1
2/06	B.1.4.3 Final Geotechnical Report (sub)			1	1				1
2/07	B.1.5. Survey (sub)			4	4				
Task 2 Subtotals				13	21		2		18
Task 3 Design Memo/Eng Report (35%)									
3/01	B.1.7.1 Draft Design Memo			190	190	4	14	4	39
3/02	B.1.7.1. H & H HECS-RAS 2D Model for Access Road Design								
3/03	B.1.7.1. H & H Review and Modify Existing Hydraulic Models (CLOMR)								
3/04	B.1.7.1. H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)								
3/05	B.1.7.1. H & H Evaluation of Alternatives (CLOMR)								
3/06	B.1.7.1. H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)			12	8		4		5
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop			22	22	2	12	2	3
3/08	B.1.7.4. Final Design Memo/Eng Report								
3/09	B.1.7.5. Engine Generator Evaluation								
3/10	B.1.7.2 Environmental Due Diligence Review			17					
Task 3 Subtotals				17	224	220	6	30	47
Task 4 B.1.8 Permitting and Regulatory									
4/02	B.1.8.2. ODEQ Coordination			53					
4/03	B.1.8.3 Access Road Permit Coord (HUB led)								
4/06	B.1.8.4. Building Permit Coordination			8	14				
4/07	B.1.8.5 Floodplain Permit Coordination			4	8				
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City			4	8				
Task 4 Subtotals				53	16	30			
Task 5 B.1.9 Preliminary Design (65%)									
5/01	B.1.9 Preliminary Design (65%)			347	298	17	55	34	85
Task 5 Subtotals				347	298	17	55	34	85
Task 6 B.1.10 Additional Conceptual Design Support									
11/01	B.1.3.5.7 Additional Conceptual Support				43				
Task 11 Subtotals					43				

EXHIBIT 3
FEE SCHEDULE

Task		Client Position	Project Engineer	Engineering Manager	EIT	Mechanical Process Pump Specialist	Mechanical Process Lead	Mechanical Process	Mechanical Process Lead
		HOURS/COST TOTALS IN USD \$:	356	17	36	144	47	328	89
		CONTRACT TOTALS IN USD \$:	69,943	\$ 5,103	\$ 4,963	\$ 43,225	\$ 13,179	\$ 55,864	\$ 24,956
Task		Description							
Task 1	B.0 Project Management and Administration								
1/01	B.0.1 PM Admin								
1/02	B.0.1 Progress Reporting								
1/03	B.0.2 Monthly Progress Meetings (Design/Bld. Monthly Constr Progress in 3.6.1					10			4
Task 1 Subtotals						10			4
Task 2	B.1 Preliminary Design - Kickoff/ Site Investigations								
2/01	B.1.1 Kickoff workshop		2			2		2	
2/02	B.1.2.3 Data Review and Initial Agency outreach (+ disc initial site visit)								
2/03	B.1.4 Soil investigations/geotech			6	13				
2/04	B.1.4.1 Geotechnical borings (sub)								
2/05	B.1.4.2 Initial Geotechnical Report (sub)								
2/06	B.1.4.3 Final Geotechnical Report (sub)								
2/07	B.1.5. Survey (sub)								
Task 2 Subtotals			2	6	13	2		2	
Task 3	B.1.7 Design Memo (Eng Report) 35%								
3/01	B.1.7.1 Draft Design Memo		106	2	2	49	12	103	35
3/02	B.1.7.1.1 H & H HECC-RAS 2D Model for Access Road Design								
3/03	B.1.7.1.1 H & H Review and Modify Existing Hydraulic Models (CLOMR)								
3/04	B.1.7.1.1 H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)								
3/05	B.1.7.1.1 H & H Evaluation of Alternatives (CLOMR)								
3/06	B.1.7.1.1 H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)		8			5			5
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop					25	8	37	9
3/08	B.1.7.4. Final Design Memo/Eng Report		4				4	37	
3/09	B.1.7.5. Engine Generator Evaluation								
3/10	B.1.7.2 Environmental Due Diligence Review								
Task 3 Subtotals			118	2	2	79	24	177	49
Task 4	B.1.8 Permitting and Regulatory								
4/02	B.1.8.2. ODEQ Coordination								
4/03	B.1.8.3 Access Road Permit Coord (HUB led)								
4/06	B.1.8.4. Building Permit Coordination								
4/07	B.1.8.5 Floodplain Permit Coordination								
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City								
Task 4 Subtotals									
Task 5	B.1.9 Preliminary Design (65%)								
5/01	B.1.9 Preliminary Design (65%)		236	9	21	47	21	151	36
Task 5 Subtotals			236	9	21	47	21	151	36
Task 11	B.1.0 - Additional Conceptual Design Support								
11/01	B.1.3.5.7 Additional Conceptual Support					6			
Task 11 Subtotals						6			

EXHIBIT 3
FEE SCHEDULE

Client Position		Mechanical Process Lead	Mechanical Building QA/QC	Mechanical Building Lead	Mechanical Building	Sr. Electrical	Electrical	Sr. I&C/QC
HOURS/COST TOTALS IN USD \$:		65	26	78	54	63	291	17
CONTRACT TOTALS IN USD \$:		18,226	\$ 7,548	\$ 19,556	\$ 9,976	\$ 18,705	\$ 62,398	\$ 5,159
Task	Description							
Task 1	B.0 Project Management and Administration							
1/01	B.0. PM Admin							
1/02	B.0.1 Progress Reporting							
1/03	B.0.2 Monthly Progress Meetings (Design/Bid, Monthly Const Progress in 3.6.1	4					10	
	Task 1 Subtotal	4					10	
Task 2	B.1 Preliminary Design - Kickoff/site investigations							
2/01	B.1.1 Kickoff workshop	2	1	1	1	2		
2/02	B.1.2-.3 Data Review and Initial Agency outreach (+ disc initial site visit)			4		11		
2/03	B.1.4 Soil investigations/geotech							
2/04	B.1.4.1 Geotechnical borings (sub)							
2/05	B.1.4.2 Initial Geotechnical Report (sub)							
2/06	B.1.4.3 Final Geotechnical Report (sub)							
2/07	B.1.5. Survey (sub)							
	Task 2 Subtotal	2	1	5	1	13		
Task 3	B.1.7 Design Memo (Eng Report) 35%							
3/01	B.1.7.1 Draft Design Memo	10	5	16		15	39	4
3/02	B.1.7.1. H & H HEC-RAS 2D Model for Access Road Design							
3/03	B.1.7.1. H & H Review and Modify Existing Hydraulic Models (CLOMR)							
3/04	B.1.7.1. H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)							
3/05	B.1.7.1. H & H Evaluation of Alternatives (CLOMR)							
3/06	B.1.7.1. H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)	4		4		4		
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop	6	1	2		2	16	
3/08	B.1.7.4. Final Design Memo/Eng Report	20				2	13	
3/09	B.1.7.5. Engine Generator Evaluation							
3/10	B.1.7.2 Environmental Due Diligence Review							
	Task 3 Subtotal	40	6	22		23	68	4
Task 4	B.1.8 Permitting and Regulatory							
4/02	B.1.8.2. ODEQ Coordination							
4/03	B.1.8.3 Access Road Permit Coord (HUB led)							
4/06	B.1.8.4. Building Permit Coordination							
4/07	B.1.8.5 Floodplain Permit Coordination							
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City							
	Task 4 Subtotal							
Task 5	B.1.9 Preliminary Design (65%)							
5/01	B.1.9 Preliminary Design (65%)	19	19	51	53	17	223	13
	Task 5 Subtotal	19	19	51	53	17	223	13
Task 11	B.1.0 -Additional Conceptual Design Support							
11/01	B.1.3.5.7 Additional Conceptual Support							
	Task 11 Subtotal							

**EXHIBIT 3
FEE SCHEDULE**

		Client Position	I&C Lead	I&C	O&M Lead	O&M Specialist	CAD Coordinator	Architectural Technician	Structural Technician
		HOURSCOST TOTALS IN USD \$:	83	130	2	2	168	138	539
		CONTRACT TOTALS IN USD \$:	19,262 \$	19,298 \$	600 \$	406 \$	33,253 \$	23,673 \$	71,124
Task	Description								
Task 1	B.0 Project Management and Administration								
1/01	B.0. PM Admin								
1/02	B.0.1 Progress Reporting								
1/03	B.0.2 Monthly Progress Meetings (Design/Bid, Monthly Constr Progress in 3.6.1	10							
	Task 1 Subtotals	10							
Task 2	B.1 Preliminary Design - Kickoff/site investigations								
2/01	B.1.1 Kickoff workshop	2			2	2			
2/02	B.1.2-.3 Data Review and Initial Agency outreach (+ disc initial site visit)	13		4					
2/03	B.1.4 Soil Investigations/geotech								
2/04	B.1.4.1 Geotechnical borings (sub)								
2/05	B.1.4.2 Initial Geotechnical Report (sub)								
2/06	B.1.4.3 Final Geotechnical Report (sub)								
2/07	B.1.5. Survey (sub)								
	Task 2 Subtotals	15		4	2	2			
Task 3	B.1.7 Design Memo (Eng Report) 35%								
3/01	B.1.7.1 Draft Design Memo	19	47				42	39	164
3/02	B.1.7.1. H & H HECC-RAS 2D Model for Access Road Design								
3/03	B.1.7.1. H & H Review and Modify Existing Hydraulic Models (CLOMR)								
3/04	B.1.7.1. H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)								
3/05	B.1.7.1. H & H Evaluation of Alternatives (CLOMR)								
3/06	B.1.7.1. H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)								
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop	4							
3/08	B.1.7.4. Final Design Memo/Eng Report	2	7				42	15	56
3/09	B.1.7.5. Engine Generator Evaluation								
3/10	B.1.7.2 Environmental Due Diligence Review								
	Task 3 Subtotals	25	54				84	54	220
Task 4	B.1.8 Permitting and Regulatory								
4/02	B.1.8.2. ODEQ Coordination								
4/03	B.1.8.3 Access Road Permit Coord (HUB led)								
4/06	B.1.8.4. Building Permit Coordination								
4/07	B.1.8.5 Floodplain Permit Coordination								
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City								
	Task 4 Subtotals								
Task 5	B.1.9 Preliminary Design (65%)								
5/01	B.1.9 Preliminary Design (65%)	33	72				84	84	319
	Task 5 Subtotals	33	72				84	84	319
Task 11	B.1.0 - Additional Conceptual Design Support								
11/01	B.1.3.5.7 Additional Conceptual Support								
	Task 11 Subtotals								

		Client Position	Mechanical Technician 1	Mechanical Technician 2	Electrical Technician	Electrical Technician										
		HOURS/COST TOTALS IN USD: \$					252	137	55	68	6,547					
		CONTRACT TOTALS IN USD: \$					39,903	\$	14,914	\$	7,620	\$	9,422		\$	1,330,218
Task	Description															
Task 1 B.0 Project Management and Administration																
1/01	B.0. PM Admin															
1/02	B.0.1 Progress Reporting															
1/03	B.0.2 Monthly Progress Meetings (Design/Bid, Monthly Const Progress in 3.6.1															
Task 1 Subtotals																
Task 2 B.1 Preliminary Design - Kickoff/site Investigations																
2/01	B.1.1 Kickoff workshop															
2/02	B.1.2-.3 Data Review and Initial Agency outreach (+ disc Initial site visit)															
2/03	B.1.4 Soil Investigations/geotech															
2/04	B.1.4.1 Geotechnical borings (sub)															
2/05	B.1.4.2 Initial Geotechnical Report (sub)															
2/06	B.1.4.3 Final Geotechnical Report (sub)															
2/07	B.1.5. Survey (sub)															
Task 2 Subtotals																
Task 3 B.1.7 Design Memo (Eng Report) 35%																
3/01	B.1.7.1 Draft Design Memo															
3/02	B.1.7.1. H & H HECC-RAS 2D Model for Access Road Design															
3/03	B.1.7.1. H & H Review and Modify Existing Hydraulic Models (CLOMR)															
3/04	B.1.7.1. H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)															
3/05	B.1.7.1. H & H Evaluation of Alternatives (CLOMR)															
3/06	B.1.7.1. H & H Prepares CLOMR Documentation and MT-2 Forms (CLOMR)															
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop															
3/08	B.1.7.4. Final Design Memo/Eng Report															
3/09	B.1.7.5. Engine Generator Evaluation															
3/10	B.1.7.2 Environmental Due Diligence Review															
Task 3 Subtotals																
Task 4 B.1.8 Permitting and Regulatory																
4/02	B.1.8.2. ODEQ Coordination															
4/03	B.1.8.3 Access Road Permit Coord (HUB led)															
4/06	B.1.8.4. Building Permit Coordination															
4/07	B.1.8.5 Floodplain Permit Coordination															
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City															
Task 4 Subtotals																
Task 5 B.1.9 Preliminary Design (65%)																
5/01	B.1.9 Preliminary Design (65%)															
Task 5 Subtotals																
Task 11 B.1.0 - Additional Conceptual Design Support																
11/01	B.1.3.5.7 Additional Conceptual Support															
Task 11 Subtotals																

FEE SCHEDULE

			Subcontract Summary		Subcontracts	Travel Expenses	Field/Misc Expenses	Project Total
			Client Position	HUB	Geotech			
			HOURS/COST TOTALS IN USD \$:		\$ 113,500	\$ 30,000	\$ 143,500	
			CONTRACT TOTALS IN USD \$:		\$ 119,175	\$ 31,500	\$ 150,675	
Task	Description							
Task 1								
B.0 Project Management and Administration								
1/01	B.0. PM Admin		\$ 17,220		\$ 17,220		\$ 140	\$ 44,108
1/02	B.0.1 Progress Reporting							\$ 73,602
1/03	B.0.2 Monthly Progress Meetings (Design/Bid, Monthly Constr Progress in 3.6.1							\$ 48,242
Task 1 Subtotals			\$ 17,220		\$ 17,220		\$ 140	\$ 165,953
Task 2								
B.1 Preliminary Design - Kickoff/site investigations								
2/01	B.1.1 Kickoff workshop					\$ 1,200		\$ 13,959
2/02	B.1.2.3 Data Review and Initial Agency outreach (+ disc Initial site visit)					\$ 3,262		\$ 19,387
2/03	B.1.4 Soil Investigations/geotech			\$ 31,500	\$ 31,500			\$ 35,528
2/04	B.1.4.1 Geotechnical borings (sub)							\$ 1,380
2/05	B.1.4.2 Initial Geotechnical Report (sub)							\$ 1,492
2/06	B.1.4.3 Final Geotechnical Report (sub)							\$ 1,157
2/07	B.1.5 Survey (sub)		\$ 101,955		\$ 101,955			\$ 104,216
Task 2 Subtotals			\$ 101,955	\$ 31,500	\$ 133,455	\$ 4,462		\$ 177,119
Task 3								
B.1.7 Design Memo (Eng Report) 55%								
3/01	B.1.7.1 Draft Design Memo							\$ 260,916
3/02	B.1.7.1.1 H & H HECA-RAS 2D Model for Access Road Design							\$ 42,207
3/03	B.1.7.1.1 H & H Review and Modify Existing Hydraulic Models (CLOMR)							\$ 34,372
3/04	B.1.7.1.1 H & H Revised or Post Project Conditions Hydraulic Models (CLOMR)							\$ 27,874
3/05	B.1.7.1.1 H & H Evaluation of Alternatives (CLOMR)							\$ 11,876
3/06	B.1.7.1.1 H & H Prepare CLOMR Documentation and MT-2 Forms (CLOMR)							\$ 27,874
3/07	B.1.7.3. Draft Design Memo/Eng Report Review Workshop							\$ 31,066
3/08	B.1.7.4. Final Design Memo/Eng Report							\$ 65,872
3/09	B.1.7.5. Engine Generator Evaluation							\$ 16,413
3/10	B.1.7.2 Environmental Due Diligence Review					\$ 800		\$ 17,576
Task 3 Subtotals						\$ 1,900		\$ 536,047
Task 4								
B.1.8 Permitting and Regulatory								
4/02	B.1.8.2. ODEQ Coordination						\$ 5,825	\$ 20,407
4/03	B.1.8.3 Access Road Permit Coord (HUB led)							\$ 3,221
4/06	B.1.8.4. Building Permit Coordination							\$ 5,349
4/07	B.1.8.5 Floodplain Permit Coordination						\$ 500	\$ 17,187
4/08	B.1.8.6 Prepare CLOMR documentation and coordination with FEMA and City						\$ 7,250	\$ 26,802
Task 4 Subtotals							\$ 13,575	\$ 72,966
Task 5								
B.1.9 Preliminary Design (65%)								
5/01	B.1.9 Preliminary Design (65%)							\$ 527,129
Task 5 Subtotals								\$ 527,129
Task 11								
B.1.0 - Additional Conceptual Design Support								
11/01	B.1.3.5.7 Additional Conceptual Support							\$ 21,757
Task 11 Subtotals								\$ 21,757



BLACK & VEATCH

CERTIFICATE OF OFFICER

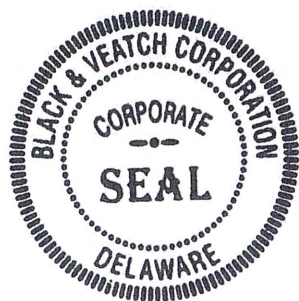
I, Andrea C. Bernica, the Assistant Secretary of BLACK & VEATCH CORPORATION, a corporation duly organized and existing under the laws of the State of Delaware, United States of America, certify that the following is a true excerpt of the by-laws of the Corporation and that said by-laws have not been rescinded or modified, and is still in full force and effect.

RESOLVED, any note, mortgage, evidence of indebtedness, contract, share certificate, conveyance, power of attorney, or other instrument in writing and any assignment or endorsements thereof, or guarantee of any other entity's performance under any such executed document, entered into between this corporation and any other person or company shall be valid and binding on this corporation, when signed by either the Chairman of the Board, the President or any Vice President, and, if attestation is required, by either the Secretary, Assistant Secretary, Chief Financial Officer, Treasurer or any Assistant Treasurer of this corporation. Any such instruments may be signed by any other person or persons in such manner as from time to time shall be determined by the Board.

I further certify that the individual named below is an officer of the company holding the titles indicated and have signature authority to sign, seal, deliver, negotiate, accept and enter into agreements, contracts and other instruments or documents by and on behalf of the Company.

Derek L. Cambridge, Vice President

IN WITNESS WHEREOF, I have hereunto set my hand and attached the corporate seal of BLACK & VEATCH CORPORATION this 29th day of October 2025.



Andrea C. Bernica

Andrea C. Bernica
Assistant Secretary

AFFIDAVIT OF CLAIMANT

STATE OF Texas

COUNTY OF Harris

The undersigned, of lawful age, being first duly sworn, on oath says that this contract is true and correct. Affiant further states that the work, services or materials will be completed or supplied in accordance with the contract, plans, specifications, orders or requests furnished the affiant. Affiant further states that (s)he has made no payment directly or indirectly of money or any other thing of value to any elected official, officer or employee of the City of Tulsa or any public trust of which the City is a beneficiary to obtain or procure the contract or purchase order.

By: Derek L. Cambridge
Signature

Name: Derek L. Cambridge

Company: Black & Veatch Corporation

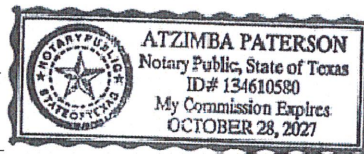
Title: Vice President

Subscribed and sworn to before me this 30th day of October, 2025.

Atzimba Paterson
Notary Public

My Commission Expires: 10/28/2027

Notary Commission Number: 134610580



INTEREST AFFIDAVIT

STATE OF Texas)
) ss.
COUNTY OF Harris)

I, Derek L. Cambridge, of lawful age, being first duly sworn, state that I am the agent authorized by Contractor, Engineer, Architect or provider of professional service ["Services Provider"] to submit the attached Agreement. Affiant further states that no officer or employee of the City of Tulsa either directly or indirectly owns a five percent (5%) interest or more in the Services Provider's business or such a percentage that constitutes a controlling interest. Affiant further states that the following officers and/or employees of the City of Tulsa own an interest in the Services Provider's business which is less than a controlling interest, either direct or indirect.

By *Derek L. Cambridge*
Signature

Title Vice President

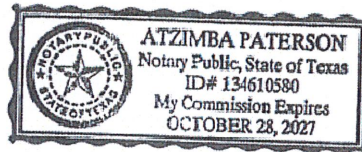
Subscribed and sworn to before me this 30th day of October, 2025

Atzimba Paterson
Notary Public

My Commission Expires: 10/28/2027

Notary Commission Number: 134610580

County & State Where Notarized: Harris, Texas



The Affidavit must be signed by an authorized agent and notarized.

(Required by Oklahoma law, 74 O.S. §85.22-85.25)

STATE OF Texas)
) ss.
COUNTY OF Texas)

I, Derek L. Cambridge, of lawful age, being first duly sworn, state that:
(Authorized Agent)

1. I am the authorized agent of Contractor, Engineer, Architect or provider of professional service ["Services Provider"] herein for the purposes of certifying facts pertaining to the existence of collusion between and among Services Provider and municipal officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to which this statement is attached.
2. I am fully aware of the facts and circumstances surrounding the making of the contract to which this statement is attached, and I have been personally and directly involved in the proceedings leading to the awarding of such contract; and
3. Neither the Services Provider nor anyone subject to the Services Provider's direction or control has been a party:
 - a. to any collusion with any municipal official or employee as to quantity, quality, or price in the prospective contract, or as to any other terms of such prospective contract, nor
 - b. in any discussions between Services Provider and any municipal official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

By: David L. Cambridge
Signature

Title: Vice President

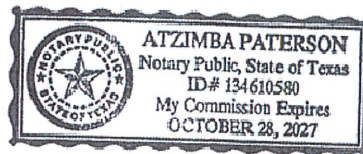
Subscribed and sworn to before me this 30th day of October, 20 25.

Allyson Paterson
Notary Public

My Commission Expires: 10/28/2027

Notary Commission Number: 134610580

County & State Where Notarized: Harris, Texas



The Affidavit must be signed by an authorized agent and notarized.