



Together, Investing in Municipal Excellence

STILLWATER UTILITIES AUTHORITY MEETING AGENDA

OCTOBER 21, 2024

723 S. Lewis Street, Room 1122B

Stillwater, OK 74074

5:30 PM

Chair Will Joyce, Vice Chair Amy Dzialowski, Trustees Christie Hawkins, Kevin Clark,
& Tim Hardin

1. Call Meeting to Order

2. Consent Docket

Items listed on the consent docket are routine administrative matters that may be approved without discussion. The Trustees will take action on these items collectively with a single vote. The requested action is indicated for each item listed. Should a Trustee elect to discuss, amend, revise, or table any item listed on the consent docket, the item will be moved to the section of the agenda titled "Items Removed from the Consent Docket" for consideration and possible action. Additionally, a Trustee or the General Manager may simply ask the Chair to remove an item from the consent docket prior to action by the Trustees and no action will be taken on the removed item at this meeting.

a.	Approve October 7, 2024 regular meeting minutes.		
b.	Consider award of Monticello Project Bid #8-2024 to Ellsworth Construction OKC, LLC for a unit price of \$3,058,797.19, approve Amendment #5 with Kimley-Horn for construction administration services in the amount of \$90,900.00, authorize total construction expenditures of \$3,547,200 to include construction contract, construction administration services, testing and contingency, authorize General Manager to sign related documents, and approve associated budget amendments.	SUA-24-59	Travis Small
c.	Approve a Professional Services Agreement with Carollo for Lake McMurtry Raw Water Storage	SUA-24-60	Chris Humes

	Project in the amount of \$3,719,507; authorize the General Manager to sign related documents; and approve associated budget amendment to include 10% contingency.		
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3. Public Comment on Items not Scheduled for Public Hearings

Stillwater City Code, Section 2-53(a) & (b), provides that taxpayers or residents of the city, or their authorized legal representatives, may address the Trustees at a regularly scheduled meeting on any item of business listed on the meeting agenda provided they have submitted a written request prior to the meeting either online at Request to speak form or via the form found in the lobby outside Council chambers.

4. Items Removed from the Consent Docket

Items removed from the consent docket are placed on this section of the agenda for discussion, revision, amendment and/or tabling prior to action by the Trustees. The Trustees may take action, including a vote or series of votes, on items removed to this section of the agenda after the requested discussion, revision, or amendment.

5. Questions and Inquiries

6. Reports from Officers and Boards

Announcements and remarks of general interest may be made by Trustees, General Manager or General Counsel. Items of City business that may require discussion or action, including a vote or series of votes, are listed below

7. Adjourn

On October 18, 2024 at 8:15 a.m., a true and correct copy of this agenda was posted on the kiosk outside City Hall, 723 S. Lewis Street, Stillwater, OK.

The City of Stillwater encourages participation from all citizens. If participation at any public meeting is not possible due to a disability, please notify the City Manager's office at least 48 hours prior to the meeting by calling 405.742.8243.

- Meetings are televised on AT&T U-verse channel 99 and Optimum channel 14.
- Find meeting agendas and minutes online at [Agendas and Minutes](#)
- Official minutes are archived in the City Clerk's office.

IN ACCORDANCE WITH THE OKLAHOMA OPEN MEETING LAW THE AGENDA
WAS POSTED OCTOBER 4, 2024 AT 11:50 AM. AT THE MUNICIPAL BUILDING,
723 SOUTH LEWIS, STILLWATER, OKLAHOMA

MINUTES
STILLWATER UTILITIES AUTHORITY
REGULAR MEETING
COUNCIL HEARING ROOM
723 S. LEWIS
OCTOBER 7, 2024

PRESENT: CHAIR WILLIAM H. JOYCE, VICE CHAIR AMY DZIALOWSKI
TRUSTEES CHRISTIE HAWKINS, KEVIN CLARK AND TIM HARDIN
ABSENT: NONE

1. CALL MEETING TO ORDER

Chair Joyce called the meeting to order at 7:57 p.m.

2. CONSENT DOCKET

- a. Approve September 23, 2024 regular meeting minutes
- b. Approve a budget amendment in the amount of \$57,000 for the repairs to the Water Treatment Plant ozone generator system.
- c. Authorize the purchase of two new grit pumps for an amount not to exceed \$54,000, which includes a 10% contingency; authorize the General Manager to sign all related documents; and approve the associated budget amendment.
- d. Approve a Professional Services Agreement with CEC Corporation for \$722,700; authorize the General Manager to sign related documents; and approve associated budget amendment for \$51,188.
- e. Approve the attached budget amendment reducing the appropriations in the Water Fund for a portion of Engineering Services for FY2025 Water Projects being funded with Coronavirus Local Fiscal Recovery Funds (ARPA Funds).
- f. Approve budget amendments to reflect receipt and appropriation of insurance proceeds.

MOTION BY TRUSTEE CLARK, SECOND BY VICE CHAIR DZIALOWSKI TO APPROVE THE
CONSENT DOCKET AS PRESENTED.

ROLL CALL VOTE: JOYCE-YEA, DZIALOWSKI-YEA, HAWKINS-YEA, CLARK-YEA, HARDIN-YEA.
NAY-NONE. MOTION CARRIED WITH FIVE YEA VOTES.

3. PUBLIC COMMENT ON AGENDA ITEMS NOT SCHEDULED FOR PUBLIC HEARING

There were no requests to speak on agenda items not scheduled for public hearing.

4. ITEMS REMOVED FROM CONSENT DOCKET

None.

5. RESOLUTIONS

- a. Resolution No. SUA-2024-7: A resolution approving and authorizing execution of an Amended Trust Indenture creating and recreating the Stillwater Utilities Authority; and containing other provisions relating thereto.

MOTION BY VICE CHAIR DZIALOWSKI, SECOND BY TRUSTEE CLARK TO ADOPT RESOLUTION NO. SUA-2024-7 AS PRESENTED.

ROLL CALL VOTE: JOYCE-YEA, DZIALOWSKI-YEA, HAWKINS-YEA, CLARK-YEA, HARDIN-YEA. NAY-NONE. MOTION CARRIED WITH FIVE YEA VOTES.

Trustee Clark left the Council Chambers at 7:58 p.m.

- b. Resolution No. SUA-2024-8: A resolution of the Stillwater Utilities Authority (The "Authority") authorizing the issuance of its Utility System and Sales Tax Revenue Bonds (The "Bonds") In One or More Series in the Aggregate Principal Amount of not to exceed \$51,325,000, and Authorizing A Certificate Of Determination; Approving The Solicitation For And Use Of Bond Insurance and/or A Reserve Surety Or Insurance Policy; Designating Underwriters With Respect To The Sale Of The Bonds; Authorizing The Sale Of The Bonds At Negotiated Sale And Waiving Competitive Bidding; Approving The Form Of Bond Purchase Agreement; Approving A General Bond Indenture And Series Supplemental Bond Indenture Authorizing The Issuance And Securing The Payment Of The Bonds; Providing That The Organizational Document Creating The Authority Is Subject To The Provisions Of The Bond Indenture; Ratifying And Confirming A Lease Agreement, As Amended, Pertaining To The Leasing Of The City's Water, Sanitary Sewer, Solid Waste, And Electric Systems To The Authority, And Authorizing An Amended Lease Agreement And Operation And Maintenance Contract; Approving And Authorizing Execution Of A Sales Tax Agreement By And Between The City And The Authority Pertaining To A Year-To-Year Pledge Of Certain Sales Tax Revenue; Approving The Form Of An Official Statement Pertaining To The Bonds, Authorizing The Chairman Or Vice Chairman To Approve Any Correction To Said Official Statement, And Authorizing Distribution Of The Same; Approving The Forms Of A Continuing Disclosure Agreement And An Official Statement; Ratifying And Confirming A Power Purchase And Sale Agreement And A Capacity Purchase Agreement With Grand River Dam Authority; Authorizing The Directing The Modification Of Collateral Pertaining To Certain Obligation Of The Authority To The Oklahoma Water Resources Board; Authorizing And Directing The Execution Of Bonds And Other Documents Relating To The Transaction Including Bond Insurance and/or Surety Documents, And Professional Services Agreements With Bond Counsel, Financial Advisor, and Disclosure Counsel; and Containing Other Provisions Relating Thereto.

Alan Brooks, Public Finance Law Group, PLLC, Bond Counsel for the City of Stillwater, stated that they talked with City Attorney Carnley this morning and they propose adding six words in Section 1 under indebtedness authorized a provision will be added that says "funding a reserve requirement with respect" to the Bonds.

MOTION BY VICE CHAIR DZIALOWSKI, SECOND BY TRUSTEE HARDIN TO ADOPT RESOLUTION NO. SUA-2024-8 AS AMENDED.

ROLL CALL VOTE: JOYCE-YEA, DZIALOWSKI-YEA, HAWKINS-YEA, HARDIN-YEA. NAY-NONE. MOTION CARRIED WITH FOUR YEA VOTES.

Mayor Joyce stated that Trustee Clark did not participate in this vote.

Trustee Clark returned to Council Chambers at 8:01 p.m.

6. QUESTIONS & INQUIRIES

None.

7. REPORTS FROM OFFICERS & BOARDS

- a. Miscellaneous items from the General Counsel: No report.
- b. Miscellaneous items from the General Manager: No report.
- c. Miscellaneous items from Trustees: No report.
 - i) Discussion about scheduling items for upcoming meetings

8. ADJOURN

MOTION BY TRUSTEE CLARK, SECOND BY TRUSTEE HARDIN TO ADJOURN THE OCTOBER 7, 2024 REGULAR MEETING OF THE STILLWATER UTILITIES AUTHORITY.

ROLL CALL VOTE: JOYCE-YEA, DZIALOWSKI-YEA, HAWKINS-YEA, CLARK-YEA, HARDIN-YEA. NAY-NONE. MOTION CARRIED WITH FIVE YEA VOTES.

The October 7, 2024 regular meeting of the Stillwater Utilities Authority adjourned at 8:02 p.m.

WILLIAM H. JOYCE, CHAIR
STILLWATER UTILITIES AUTHORITY

TERESA KADAVY, SECRETARY
STILLWATER UTILITIES AUTHORITY

REPORT TO: STILLWATER UTILITIES AUTHORITY

MEETING DATE: OCTOBER 21, 2024



Agenda Item:

2.b. SUA-24-59

Previous/Related Action:

- CC-20-129, August 3, 2020: FY20 Pavement Management Plan (PMP)
- SUA-20-31, September 14, 2020: College Gardens water and sewer design agreement with Kimley-Horn and Associates, Inc. (KH)
- CC-22-103, June 6, 2022: Design amendment with KH for design of Monticello Drive reconstruction project

Background/Issue:

- The FY20 PMP included reconstruction of Monticello based upon its condition rating resulting in it being the lowest scoring local street in the City at that time.
- The new IMS Survey conducted in 2022 gave this roadway stretch an average Pavement Condition Index of 25.3 out of 100 points, which categorized the road as poor to very poor.
- Monticello is located in an area needing water and sewer utility replacement. This utility replacement effort has been combined with Monticello's roadway reconstruction work.

Proposal/Solution:

- The Monticello Drive project was advertised for bids on September 7, 2024.
- Bids were opened on October 2, 2024. The bids received are as follows:

	Total Base Bid	Roadway Base Bid	Water Base Bid	Sanitary Sewer Base Bid
Engineer's Estimate	\$2,348,473.00	\$1,630,728.00	\$569,245.00	\$148,500.00
Ellsworth Construction OKC, LLC	\$3,058,797.19	\$1,850,839.62	\$1,026,537.65	\$181,419.92
Rudy Construction	\$3,102,291.00	\$2,199,785.00	\$739,546.00	\$162,960.00
Lopp Construction, LLC	\$4,109,245.56	\$3,054,143.41	\$891,028.63	\$164,073.52

	• Staff and KH reviewed the bid packages and recommend the project be awarded to Ellsworth Construction OKC, LLC at a construction bid price of \$3,058,797.19 (\$1,850,839.62 for roadway, \$1,026,537.65 for water, and \$181,419.92 for sanitary sewer). • Amendment No. 5 has been negotiated with KH, totaling \$90,900.00, to provide construction administration services during the construction phase of the project. • During a Special Meeting of the Transportation Project Advisory Committee (TPAC) on October 14, 2024, the committee took action to approve commencement of the project.
Financial Source/Impact:	Sufficient funds are available in the Transportation Sales Tax, Water, and Wastewater Funds.
Related Strategic Priority:	#4 CONNECTED SPACES
Recommended Action/Motion:	Staff recommends a motion to: • Award a Unit Price Contract to Ellsworth Construction OKC, LLC for \$3,058,797.19; • Approve Amendment No. 5 at \$90,900.00 with KH for total construction administration services; • Authorize the General Manager to execute the Contract, Amendment, and related documents; • Authorize total construction expenditures of \$3,547,200 (\$2,201,930 for roadway, \$1,143,500 for water, and \$201,770 for wastewater) which includes construction contract, construction administration services, testing and contingency; and • Approve Budget Amendments in the amount of \$1,345,270 from the Water and Wastewater Funds (earlier in CC - \$2,201,930 from Transportation Sales Tax Fund).
Prepared By:	Travis Small, Division Manager Transportation & Drainage
Reviewed By:	Candy Staring Brady Moore Teresa Kadavy
Submitted By:	Brady Moore, Interim General Manager

Attachments

1. 20TR06C-Exhibit-K-A5-Rev 10-9-24 KH-exe
2. BA Sewer - Monticello - 10.21.2024 - Expenditure
3. BA Water - Monticello - 10.21.2024 - Expenditure

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated September 21, 2020.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 05

1. *Background Data:*

- September 21, 2020
- a. Effective Date of Owner-Engineer Agreement: _____
- b. Owner: City of Stillwater, Oklahoma/Stillwater Utilities Authority
- c. Engineer: Kimley-Horn and Associates, Inc.
- d. Project: College Gardens Water and Sewer Line Improvements

2. *Description of Modifications:*

- a. Additional Services to be performed by Engineer:

Task 7 – Additional Construction Phase Services

Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:

1. *Project Management Services after Construction Contract Award:* Provide management services after award by Owner's governing body through completion of Work. Services include, but are not limited to, the following:
- a. Conform the Contract Documents to include all addenda and any other changes or updates issued prior to Contract Award.
 - b. Coordinate with the Owner and awarded Contractor to gather all required documents in order to assemble the Conformed Construction Contract Documents.
 - c. Facilitate and oversee execution of Construction Contract through coordination with all parties.
 - d. Coordinate, organize, schedule and conduct the Pre-Construction Conference including agenda, meeting summary and all follow-on services.
 - e. Provide project management services throughout the construction phase including tracking, scheduling, coordination, reporting, correspondence, documentation, and other required services for project management.

- f. Coordinate with Engineering, Water Utilities, Public Works and other City departments (in advance and during the Project) to ensure the Project is constructed in conformance with the Project plans and Contract Documents. This coordination includes, but is not limited to: test shutdowns; traffic, pedestrian, and business access considerations; lane closures; waste management provisions; bus stop considerations; construction sequencing; water and sewer service tie-ins and interruptions; monitoring of all Project ongoing systems (such as construction sequencing, sewer bypasses, traffic control systems, temporary and emergency entry maintenance, etc.); property owner notifications (Work Starts Letters, Shutdown Notices, etc.); and any other Project and/or Contractor required Work items (refer to Contract Documents, City Standards, City SOPs, and all local, county, state and federal rules and regulations).
 - g. Provide coordination with and oversee all private and franchise utility corrective actions upon discovery of any conflicts with the project plans. Ensure all new information is updated on record drawings.
- 2. *Project Meetings and Conferences:* Organize, coordinate, lead and document all Project meetings including the Pre-Construction Conference, regularly scheduled progress meetings, onsite meetings and others, as necessary. Create and distribute minutes from all meetings/conferences within three (3) days of said event(s). Owner's attendance at each meeting is required.
- 3. *Schedules:* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Owner or Engineer including, but not limited to, Progress Schedule, Schedule of Submittals, and Schedule of Values.
- 4. *Baselines and Benchmarks:* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed or to ensure Contractor's compliance with the Contract Documents.
- 5. *Visits to Site and Observation of Construction:* In connection with observations of Contractor's Work while it is in progress:
 - a. Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary and as requested by Owner, to observe as an experienced and qualified design professional the progress and quality of Contractor's executed Work. Such visits and observations by Engineer are not intended to be exhaustive or to extend to every aspect of Contractor's Work in progress or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to Engineer in this Agreement, Task Order and/or the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment. Based on information obtained during such visits and observations, Engineer will determine in general if the Contractor's Work is proceeding in accordance with the Contract Documents, and Engineer shall keep Owner informed, in a timely fashion, of the progress of the Work and immediately advise Owner of any deviation from Contract Documents.

- b. The purpose of Engineer's visits to the Site of the specific Project will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Engineer shall not, during such visits or as a result of such observations of Contractor's Work in progress, supervise, direct, or have control over Contractor's Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to Contractor's Work, or for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work. Accordingly, Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and/or perform the Work in accordance with the Contract Documents.
6. *Defective Work:* Notify the Owner immediately if, on the basis of Engineer's observations, Engineer believes that such Work (a) is defective under the standards set forth in the Contract Documents, (b) will not produce a completed Project that conforms to the Contract Documents, or (c) will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
7. *Clarifications and Interpretations; Field Orders:* Issue necessary clarifications and interpretations of the Contract Documents, including RFIs, as appropriate to the orderly completion of Work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer must have Owner's approval for any field orders authorizing minor variations in the Work from the requirements of the Contract Documents.
8. *Change Orders and Work Change Directives:* Recommend change orders and work change directives to Owner, as appropriate. Identify best solution (considering price, schedule, constructability, state statute, etc.) for required changes to Engineer's plans, prepare all required documents (exhibits, attachments, figures, reports, etc.) to support the Change Order. Prepare Draft and Final Reports and PowerPoint slides to support Owner's Project Manager for presentations to City Council/SUA. Attend City Council/SUA Meetings, as necessary to support the Project, and be prepared to defend Project decisions and progress during the meetings.
9. *Shop Drawings, Samples, Submittals and other Data:* Review and approve or take other appropriate action in respect to Shop Drawings, Samples, Submittals and other Data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.

10. *Substitutes and "or-equal"*: Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor, but subject to the provisions of the Owner/Engineer Agreement.
11. *Applications for Payment*: Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:
- a. Determine the amounts that Engineer recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe Contractor's Work. In the case of unit price work, Engineer's recommendations of payment will include final determinations of quantities and classifications of Contractor's Work (subject to any subsequent adjustments allowed by the Contract Documents).
 - b. By recommending any payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Contract Documents. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment including final payment will impose on Engineer responsibility to supervise, direct, or control Contractor's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or Contractor's compliance with Laws and Regulations applicable to Contractor's furnishing and performing the Work. It will also not impose responsibility on Engineer to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to Owner free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between Owner and Contractor that might affect the amount that should be paid.
 - c. Provide Owner assistance and support in documentation and preparation of Contractor applications for payment.
12. *Contractor's Completion Documents*: Receive, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples, as-builts and other data approved as provided in the Owner/Engineer Agreement, and the annotated record documents which are to be assembled

by Contractor in accordance with the Contract Documents to obtain final payment. The extent of such review by Engineer will be limited as provided in the Owner/Engineer Agreement.

13. *Final Acceptability of the Work:* Conduct a final visit to the Project to determine, in conjunction with the Owner, if the completed Work of Contractor is acceptable. If deficiencies in the Work are found, create and distribute a final punch-list, which has been reviewed and approved by the Owner in advance, to the Contractor.
14. *Limitation of Responsibilities:* Engineer shall not be responsible for the acts or omissions of any Contractor, Subcontractor or Supplier, or other individuals or entities performing or furnishing any of the Work, for safety or security at the Site, or for safety precautions and programs incident to Contractor's Work, during the Construction Phase or otherwise. Engineer shall not be responsible for the failure of any Contractor to perform or furnish the Work in accordance with the Contract Documents.

Task 8 – Additional Post-Construction Phase Services

Engineer shall:

1. Together with Owner, visit the Project to observe any apparent defects in the Work, assist Owner in consultations and discussions with Contractor concerning correction of any such defects, and make recommendations as to replacement or correction of defective Work, if any.
2. Perform or provide the following additional Post-Construction Phase tasks or deliverables:
 - a. Record Drawings.
 - 1) Provide record drawings reflecting all field changes and final quantities. Submittals shall include two full sized reproducible prints, one AutoCAD format file, one full sized PDF file and one true half sized PDF file.
 - 2) Record drawings shall reflect the project as installed, according to information provided by observation by the Engineer, markups by the contractor, markups by the inspector, field orders, change orders, and other sources of information made available to the Engineer.
 - 3) Record drawings shall generally be similar in appearance to design drawings. Drawing elements that do not reflect the project as constructed shall be deleted, not struck through, and replaced with updated elements. Differences between bid docs and record drawings shall be colored red and clouded and annotated for review, but the final record drawings shall not include clouds and be fully understandable in black and white.
 - 4) Provide Owner with a Contractor evaluation report using the Owner's template.

b. Modification of Services of Engineer:

Task 9 – Respond to Additional Comments

The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement and previous amendments, if any, is modified as follows:

1) Engineer shall respond to additional comments from City staff.

c. Modifications to Responsibilities of Owner: N/A

d. Modifications to Payment to Engineer:

Owner shall pay Engineer the following additional or modified compensation:

1) Task 7 - \$83,000.00

2) Task 8 - \$0

3) Task 9 - \$7,900.00

e. Modifications to Time(s) for rendering Services: N/A

f. Modifications to other terms and conditions of the Task Order: N/A

3. *Agreement Summary (Reference only)*

a. Original Agreement amount:	\$ <u>1,642,400.00</u>
b. Net change for prior amendments:	\$ <u>408,200.00</u>
c. This amendment amount:	\$ <u>90,900.00</u>
d. Adjusted Agreement amount:	\$ <u>2,141,500.00</u>

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

(REMAINDER OF PAGE LEFT INTENTIONALLY BLANK)

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this, or previous Amendments remain in effect. The Effective Date of this Amendment is _____, 2024.

OWNER: City of Stillwater, Oklahoma/Stillwater
Utilities Authority

ENGINEER: Kimley-Horn and Associates, Inc.

By: _____

Title: _____

Date Signed: _____



By: _____ Scott R. Arnold, P.E.

Title: _____ Vice President

Date Signed: _____ October 8, 2024

General Project Information

Client:	City of Stillwater
Project:	College Gardens - Amend 5
KHA No.	061311500
PM:	James Bryan

Task Budget Summary

Task Budget Summary			Task 700		Task 888	
No.	Task Name	Hours	Labor	Expenses	Office Exp.	Subtotal
7	Addl Const Phase Srvcs	330	\$ 68,300		\$ 3,200	\$ 71,500
9	Respond to Addl Comm	40	\$ 7,500		\$ 400	\$ 7,900
777	Contingency				\$ -	
	TOTALS:	370	\$ 75,800	\$ -	\$ 3,600	\$ 79,400

Subconsultant Summary

Task No.	Task Name	Cost	Multiplier	Subtotal
7	Survey Baselines, Benchmarks, ROW	\$ 10,000	1.15	\$ 11,500
	TOTALS:	\$ 10,000		\$ 11,500

Project Budget Summary

Labor:	\$	75,800
Expenses:	\$	15,100
TOTAL:	\$	90,900

Task Fee Calculation

Date: October 4, 2024

General Project Information

Client: **City of Stillwater**
Project: **College Gardens - Amend 5**
KHA No: **061311500**
PM: **James Bryan**

Task Effort Summary

Labor:	\$	68,300
Expenses:	\$	-
Allocation:	\$	3,200
TOTAL:	\$	71,500

Task Information

Number: 7
Name: Addl Const Phase Srvcs
Task Mgr:

Task Description and Budgeting

[illegible]

General Project Information

Client: City of Stillwater
Project: College Gardens - Amend 5
KHA No: 061311500
PM: James Bryan

Task Effort Summary

Labor: \$ 7,500
Expenses: \$ -
Allocation: \$ 400
TOTAL: \$ 7,900

Task Information

Number: 9
Name: Respond to Addl Comm
Task Mgr:

Task Description and Budgeting

Budget Amendment Request

For Budget Year _____

Department of Finance
723 S. Lewis Street/P.O. Box 1449
Stillwater, OK 74076-1449

Office: 405.372.0025
Web: stillwater.org

Date: _____

Department: _____

Requested by: _____

Explanation:

Account Name	Account Number (xxxxxxx-xxxxx)	Project Number	Current Budget Amount	Amount of Change	New Budget Amount
Increase:	-				
	-				
	-				
	-				
	-				
Decrease:	-				
	-				
	-				
	-				
	-				

Net Change: (will usually result in a total increase or decrease)

Reviewed by Department Manager: _____

Date: _____

Reviewed by Finance: _____

Date: _____

Approved by CMO: _____

Date: _____

Approved by City Council: ☐ Yes

☐ No

Date: _____

Processed by Finance: _____

Date: _____

Set ID: _____

Date Sent to SA&I: _____

--Print on Yellow Paper--

Budget Amendment Request

For Budget Year _____

Department of Finance
723 S. Lewis Street/P.O. Box 1449
Stillwater, OK 74076-1449

Office: 405.372.0025
Web: stillwater.org

Date: _____

Department: _____

Requested by: _____

Explanation:

Account Name	Account Number (xxxxxxx-xxxxx)	Project Number	Current Budget Amount	Amount of Change	New Budget Amount
Increase:	-				
	-				
	-				
	-				
	-				
Decrease:	-				
	-				
	-				
	-				
	-				

Net Change: (will usually result in a total increase or decrease)

Reviewed by Department Manager: _____

Date: _____

Reviewed by Finance: _____

Date: _____

Approved by CMO: _____

Date: _____

Approved by City Council: ☐ Yes

☐ No

Date: _____

Processed by Finance: _____

Date: _____

Set ID: _____

Date Sent to SA&I: _____

--Print on Yellow Paper--

REPORT TO: STILLWATER UTILITIES AUTHORITY

MEETING DATE: OCTOBER 21, 2024



Agenda Item:	2.c. SUA-24-60
Previous/Related Action:	• SUA 22-11, March 7, 2022: Raw Water Storage Alternatives • CC 22-37: March 21, 2022: ARPA Grant Funding • SUA 23-04: January 23, 2023: Contract Amendment No. 4
Background/Issue:	The City's raw water delivery system has a single pump station and raw waterline for supplying raw water from Kaw Lake to the WTP. The existing raw water storage tank at the WTP has a capacity of 4 million gallons which is approximately half of Stillwater's average daily demand. During the Summer of 2021, Carollo Engineers evaluated alternatives to add redundancy and additional storage to our raw water delivery system. That evaluation identified Lake McMurtry as the best alternative for storing raw water and providing a secondary source of raw water to the WTP. In January 2023, Trustees authorized a detailed study and conceptual design of the Lake McMurtry Raw Water Storage Project. The study and conceptual design phase is now complete and the next step in the process is detailed design of the project.
Proposal/Solution:	Staff has completed scope and fee negotiations with Carollo Engineers for a Professional Services Agreement (PSA) which includes detailed design, easement acquisition, environmental analysis and bidding for a new pump station at Lake McMurtry, seven miles of raw water line, rehabilitation of the intake structure, and additional raw water storage at both the WTP and near the OTOE Missouri WTP. The new pipeline will allow raw water to be conveyed from Kaw Lake to Lake McMurtry for storage and, through use of the proposed Lake McMurtry pump station, will also allow for raw water to be conveyed from Lake McMurtry to the WTP for treatment. Final design, easement acquisition, environmental analysis and permitting will be completed in approximately 12

	months. Construction Administration and Startup services for the project will be added by future amendment.
Financial Source/Impact:	Funding for PSA is from the Water Fund.
Related Strategic Priority:	#4 CONNECTED SPACES
Recommended Action/Motion:	Staff recommends a motion to: • Approve the Professional Services Agreement with Carollo Engineers to include detailed design, easement acquisition, environmental analysis and bidding for the Lake McMurtry Raw Water Storage project; • Authorize the General Manager to sign the PSA; and • Approve the budget amendment appropriating \$4,091,457 for the project, which includes \$3,249,120 for basic services, \$470,387 for additional services, and a 10% contingency.
Prepared By:	Chris Humes
Reviewed By:	Candy Staring Brady Moore Teresa Kadavy
Submitted By:	Brady Moore, Interim General Manager

Attachments

1. 23WT03 McMurtry Raw Wtr Storage Carollo PSA Agreement Conformed
2. Engineering - Lake McMurtry Raw Water Storage - 10.11.2024 - Expenditure - WT Fund

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Laws and Regulations.

Lake McMurtry Raw Water Pump Station and Transmission Main Design

Owner: Stillwater Utilities Authority
Engineer: Carollo Engineers, Inc.
Project #: 23WT03

AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE



and
Issued and Published Jointly

by



This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the other. For guidance on the completion and use of this Agreement, see EJCDC User's Guide to the Owner-Engineer Agreement, EJCDC E-001, 2009 Edition.

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ENGINEERS JOINT CONTRACT
DOCUMENTS COMMITTEE

AGREEMENT BETWEEN OWNER AND ENGINEER FOR PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of _____, 20____ ("Effective Date") between
City of Stillwater, Oklahoma/Stillwater Utilities Authority ("Owner") and
Carollo Engineers, Inc. ("Engineer").

Owner's Project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

Lake McMurtry Raw Water Pump Station and Transmission Main Design, Project 23WT03

Engineer's services under this Agreement are generally identified as follows:

Design of a new raw water pump station, raw water transmission main, intake structure modifications, raw water storage tanks, and other associated improvements to provide additional raw water storage at Lake McMurtry.

Owner and Engineer further agree as follows:

ARTICLE 1 – SERVICES OF ENGINEER

1.01 Scope

- A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

ARTICLE 2 – OWNER'S RESPONSIBILITIES

2.01 General

- A. Owner shall have the responsibilities set forth herein and in Exhibit B.
- B. Owner shall pay Engineer as set forth in Exhibit C.

- C. Owner shall be responsible for, and Engineer may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

ARTICLE 3 – SCHEDULE FOR RENDERING SERVICES

3.01 *Commencement*

- A. Engineer is authorized to begin rendering services as of the ~~Effective Date~~ written Notice to Proceed as provided by the Owner.

3.02 *Time for Completion*

- A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.
- B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, may be adjusted based on the schedules provided in Exhibit C.
- C. If Owner authorizes changes in the scope, extent, or character of the Project, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, may be adjusted based on the schedules provided in Exhibit C.
- D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.
- E. If Engineer fails, through its own fault, to complete the performance of any task required in this Agreement within the time set forth, as duly adjusted, then ~~Engineer shall credit Owner \$100.00/calendar day until said task is completed.~~ shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

ARTICLE 4 – INVOICES AND PAYMENTS

4.01 *Invoices*

- A. *Preparation and Submittal of Invoices:* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer ~~shall~~ may submit its invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt.

4.02 *Payments*

- A. *Application to Interest and Principal:* Payment will be credited first to any interest owed to Engineer and then to principal.

- B. *Failure to Pay:* If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:
- ~~1. amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and~~
 - ~~2. itted by law, if less) from said thirtieth day; and~~
 1. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.
- C. *Disputed Invoices:* If Owner contests an invoice, Owner shall promptly advise Engineer of the specific basis for doing so, may withhold only that portion so contested, and must pay the undisputed portion.
- D. *Legislative Actions:* If after the Effective Date any governmental entity takes a legislative action that imposes taxes, fees, or charges on Engineer's services or compensation under this Agreement, then the Engineer may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall reimburse Engineer for the cost of such invoiced new taxes, fees, and charges; such reimbursement shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

ARTICLE 5 – OPINIONS OF COST

5.01 *Opinions of Probable Construction Cost*

- A. Engineer's opinions of probable Construction Cost are to be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar with the construction industry. However, because Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner requires greater assurance as to probable Construction Cost, Owner must employ an independent cost estimator as provided in Exhibit B.

5.02 *Opinions of Total Project Costs*

- A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in collating the various cost categories which comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

ARTICLE 6 – GENERAL CONSIDERATIONS

6.01 *Standards of Performance*

- A. *Standard of Care:* The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services.
- B. *Technical Accuracy:* Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in Owner-furnished information.
- C. *Consultants:* Engineer may employ such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.
- D. *Reliance on Others:* Subject to the standard of care set forth in Paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.
- E. *Compliance with Laws and Regulations, and Policies and Procedures:*
 - 1. Engineer and Owner shall comply with applicable Laws and regulations.
 - 2. Prior to the Effective Date, Owner provided to Engineer in writing any and all policies and procedures of Owner applicable to Engineer's performance of services under this Agreement provided to Engineer in writing. Engineer shall comply with such policies and procedures, subject to the standard of care set forth in Paragraph 6.01.A, and to the extent compliance is not inconsistent with professional practice requirements.
 - 3. This Agreement is based on Laws and Regulations and Owner-provided written policies and procedures as of the Effective Date. Changes after the Effective Date to these Laws and Regulations, or to Owner-provided written policies and procedures, may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, or compensation.
- F. Engineer shall not be required to sign any documents, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such documents.
- G. The general conditions for any construction contract documents prepared hereunder are to be the "Standard General Conditions of the Construction Contract" as prepared by the Engineers Joint

Contract Documents Committee (EJCDC C-700, 2007 Edition) unless both parties mutually agree to use other general conditions by specific reference in Exhibit J.

- H. Engineer shall not at any time supervise, direct, control, or have authority over any contractor work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of a contractor to comply with Laws and Regulations applicable to such contractor's furnishing and performing of its work.
- I. Engineer neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents.
- J. Engineer shall not provide or have any responsibility for surety bonding or insurance-related advice, recommendations, counseling, or research, or enforcement of construction insurance or surety bonding requirements.
- K. Engineer shall not be responsible for the acts or omissions of any Contractor, Subcontractor, or Supplier, or of any of their agents or employees or of any other persons (except Engineer's own agents, employees, and Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made regarding the Contract Documents, or any application, interpretation, or clarification, of the Contract Documents, other than those made by Engineer.
- L. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's and Owner's safety programs of which Engineer has been informed in writing.
- M. Engineer has no control over the cost of labor, materials, equipment or services furnished by others, over the incoming water quality and/or quantity, or over the way Owner's plant and/or associated processes are operated and/or maintained. Data projections and estimates are based on Engineer's opinion based on experience and judgement. Engineer cannot and does not guarantee that the actual costs and/or quantities realized will not vary from the data projections and estimates prepared by Engineer and Engineer shall not be responsible to Owner and/or any third party for any inconsistencies between Engineer's data projections and estimates and actual costs and/or quantities realized by Owner and/or any third party in the future.
- N. Except as provided in Section 6.10A of this Agreement, Engineer shall have no liability for any decision, action, or inaction by Owner as a result of any recommendations made by Engineer related to PFAS hereunder, including the failure of Owner to comply with the EPA PFAS regulations in effect at any time during the Project, and/or Owner's failure to comply with any other PFAS-related Federal, state or local regulatory requirements.

6.02 *Design Without Construction Phase Services*

- A. Engineer shall be responsible only for those Construction Phase services expressly required of Engineer in Exhibit A, Paragraph A1.05. With the exception of such expressly required services, Engineer shall have no design, Shop Drawing review, or other obligations during construction and Owner assumes all responsibility for the application and interpretation of the Contract Documents, review and response to Contractor claims, contract administration,

processing Change Orders, revisions to the Contract Documents during construction, construction surety bonding and insurance requirements, construction observation and review, review of payment applications, and all other necessary Construction Phase engineering and professional services. Owner waives all claims against the Engineer that may be connected in any way to Construction Phase engineering or professional services except for those services that are expressly required of Engineer in Exhibit A, Paragraph A1.05.

6.03 *Use of Documents*

- A. All drawings, raw data files, tracings, plans, computations, specifications, maps and other documents prepared or obtained under this contract shall become the sole property of Owner and shall be delivered to Owner without restriction on future use. Engineer shall retain in its files all original drawings, specifications and all other pertinent information for the work. Engineer shall have no liability for changes made to the drawings, specifications, and other documents by other engineers after completion of the contract. Owner shall require that any such change be sealed, dated, and signed by the engineer making that change and shall be appropriately marked to reflect what was changed or modified. Engineer shall not release any hardcopies or electronic files, native or pdf, prepared or obtained under this contract to any third party without prior written consent of Owner.
- B. Either party to this Agreement may rely that data or information set forth on paper (also known as hard copies) that the party receives from the other party by mail, hand delivery, or facsimile, are the items that the other party intended to send. Files in electronic media format of text, data, graphics, or other types that are furnished by one party to the other are furnished only for convenience, not reliance by the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern. **If the parties agree to other electronic transmittal procedures, such are set forth in Exhibit J.**
- C. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any transmittal errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files.
- D. When transferring documents in electronic media format, the transferring party makes no representations as to long-term compatibility, usability, or readability of such documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the documents' creator.
- E. Owner may make and retain copies of Documents for information and reference in connection with use on the Project by Owner. ~~Engineer grants Owner a limited license to~~ may use the Documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment for all services relating to preparation of the Documents and subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by Engineer; (2) any such use or reuse,

or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to its officers, directors, members, partners, agents, employees, and Consultants; (3) for the purposes of this Agreement and limited specifically to the relationship between Owner and Engineer, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from be responsible for all claims, damages, losses, ~~and expenses, including attorneys' fees~~, arising out of or resulting from any use, reuse, or modification of the Documents without written verification, completion, or adaptation by Engineer; and (4) such ~~limited license to Owner use~~ shall not create any rights in third parties.

- F. If Engineer at Owner's request verifies the suitability of the Documents, completes them, or adapts them for extensions of the Project or for any other purpose, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

6.04 Insurance

- A. Engineer shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.
- B. Owner shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Owner shall cause Engineer and its Consultants to be listed as additional insureds on any general liability policies and as loss payees on any property insurance policies carried by Owner which are applicable to the Project.
- C. Owner shall require Contractor to purchase and maintain policies of insurance covering workers' compensation, general liability, property damage (including the Work itself), motor vehicle damage and injuries, and other insurance necessary to protect Owner's and Engineer's interests in the Project. Owner shall require Contractor to cause Engineer and its Consultants to be listed as additional insureds with respect to such liability and other insurance purchased and maintained by Contractor for the Project.
- D. ~~Owner and~~ Engineer shall ~~each~~ deliver to the Owner ~~other~~ certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.
- E. All policies of property insurance relating to the Project shall contain provisions to the effect that Engineer's and its Consultants' interests are covered and that in the event of payment of any loss or damage the insurers will have no rights of recovery against Engineer or its Consultants, or any insureds, additional insureds, or loss payees thereunder.
- F. All policies of insurance shall contain a provision or endorsement that the coverage afforded will not be canceled or reduced in limits by endorsement, and that renewal will not be refused, until at least 30 days prior written notice has been given to Owner and Engineer and to each other additional insured (if any) to which a certificate of insurance has been issued.
- G. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more

protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

6.05 *Suspension and Termination*

A. *Suspension:*

1. By Owner: Owner may suspend the Project for up to 90 days upon seven days written notice to Engineer.
2. By Engineer: Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement if Engineer's performance has been substantially delayed through no fault of Engineer.

B. *Termination:* The obligation to provide further services under this Agreement may be terminated:

1. For cause,
 - a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
 - b. By Engineer:
 - 1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.
 - 3) Engineer shall have no liability to Owner on account of such termination.
 - c. Notwithstanding the foregoing, this Agreement will not terminate under Paragraph 6.05.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.
2. For convenience,

- a. By Owner effective upon Engineer's receipt of notice from Owner.
- C. *Effective Date of Termination:* The terminating party under Paragraph 6.05.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.
- D. *Payments Upon Termination:*
 - 1. In the event of any termination under Paragraph 6.05, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of Paragraph 6.03.E.
 - 2. ~~In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in Paragraph 6.05.D.1, to invoice Owner and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Engineer's Consultants, and other related close out costs, using methods and rates for Additional Services as set forth in Exhibit C, not to exceed 5% of the remaining project cost.~~

6.06 *Controlling Law*

- A. This Agreement is to be governed by the law of the state or jurisdiction in which the Project is located, which is the State of Oklahoma for the purposes of this project. Venue for any legal action shall be in Payne County, Oklahoma.

6.07 *Successors, Assigns, and Beneficiaries*

- A. Owner and Engineer are hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer (and to the extent permitted by Paragraph 6.07.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.
- B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise in this Agreement:

1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any Contractor, Subcontractor, Supplier, other individual or entity, or to any surety for or employee of any of them.
2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.
3. Owner agrees that the substance of the provisions of this Paragraph 6.07.C shall appear in the Contract Documents.

6.08 *Dispute Resolution*

- A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to exercising their rights under law.
- B. If the parties fail to resolve a dispute through negotiation under Paragraph 6.08.A, then either or both may exercise their rights under law.

6.09 *Environmental Condition of Site*

- A. Owner has disclosed to Engineer in writing the existence of all known and suspected Asbestos, PCBs, Petroleum, Hazardous Waste, Radioactive Material, hazardous substances, and other Constituents of Concern located at or near the Site, including type, quantity, and location.
- B. Owner represents to Engineer that to the best of its knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at the Site.
- C. If Engineer encounters or learns of an undisclosed Constituent of Concern at the Site, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.
- D. It is acknowledged by both parties that Engineer's scope of services does not include any services related to Constituents of Concern. If Engineer or any other party encounters an undisclosed Constituent of Concern, or if investigative or remedial action, or other professional services, are necessary with respect to disclosed or undisclosed Constituents of Concern, then Engineer may, at its option, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultants or contractors to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.
- E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the Engineer shall have the option of (1) accepting an adjustment in its compensation or in the time of completion, or both; such adjustment shall be based on the schedules provided in Exhibit C, or (2) terminating this Agreement for cause on 30 days notice.
- F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "owner" "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive

Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

6.10 *Indemnification ~~and Mutual Waiver~~*

- A. *Indemnification by Engineer:* To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, members, partners, agents, consultants, and employees from reasonable claims, costs, losses, and damages arising out of or relating to the Project and Agreement, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants. ~~This indemnification provision is subject to and limited by the provisions, if any, agreed to by Owner and Engineer in Exhibit I, "Limitations of Liability."~~
- B. ~~Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants as required by Laws and Regulations and to the extent (if any) required in Exhibit I, Limitations of Liability.~~
- C. ~~To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (1) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (2) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.~~
- D. *Percentage Share of Negligence:* To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.
- E.

6.11 *Miscellaneous Provisions*

- A. *Notices:* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by facsimile, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.
- B. *Survival:* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

- C. *Severability*: Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- D. *Waiver*: A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.
- E. ~~÷ To the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.~~

ARTICLE 7 – DEFINITIONS

7.01 *Defined Terms*

- A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above, in the exhibits, or in the following provisions:
 - 1. *Additional Services* – The services to be performed for or furnished to Owner by Engineer in accordance with Part 2 of Exhibit A of this Agreement.
 - 2. *Agreement* – This written contract for professional services between Owner and Engineer, including all exhibits identified in Paragraph 8.01 and any duly executed amendments.
 - 3. *Asbestos* – Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 - 4. *Basic Services* – The services to be performed for or furnished to Owner by Engineer in accordance with Part 1 of Exhibit A of this Agreement.
 - 5. *Construction Contract* – The entire and integrated written agreement between Owner and Contractor concerning the Work.
 - 6. *Construction Cost* – The cost to Owner of those portions of the entire Project designed or specified by Engineer. Construction Cost does not include costs of services of Engineer or other design professionals and consultants; cost of land or rights-of-way, or compensation for damages to properties; Owner's costs for legal, accounting, insurance counseling or auditing services; interest or financing charges incurred in connection with the Project; or the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.

7. *Constituent of Concern* – Any substance, product, waste, or other material of any nature whatsoever (including, but not limited to, Asbestos, Petroleum, Radioactive Material, and PCBs) which is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; and (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
8. *Consultants* – Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer’s independent professional associates and consultants; subcontractors; or vendors.
9. *Contract Documents* – Those items so designated in the Construction Contract, including the Drawings, Specifications, construction agreement, and general and supplementary conditions. Only printed or hard copies of the items listed in the Construction Contract are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
10. *Contractor* – The entity or individual with which Owner has entered into a Construction Contract.
11. *Documents* – Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.
12. *Drawings* – That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings are not Drawings as so defined.
13. *Effective Date* – The date indicated in this Agreement on which it becomes effective, but if no such date is indicated, the date on which this Agreement is signed and delivered by the last of the parties to sign and deliver.
14. *Engineer* – The individual or entity named as such in this Agreement.
15. *Hazardous Waste* – The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
16. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
17. *Owner* – The individual or entity with which Engineer has entered into this Agreement and for which the Engineer's services are to be performed. Unless indicated otherwise,

this is the same individual or entity that will enter into any Construction Contracts concerning the Project.

18. *PCBs* – Polychlorinated biphenyls.
19. *Petroleum* – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-hazardous waste and crude oils.
20. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
21. *Radioactive Material* – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
22. *Record Drawings* – Drawings depicting the completed Project, prepared by Engineer as an Additional Service and based solely on Contractor's record copy of all Drawings, Specifications, addenda, change orders, work change directives, field orders, and written interpretations and clarifications, as delivered to Engineer and annotated by Contractor to show changes made during construction.
23. *Reimbursable Expenses* – The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.
24. *Resident Project Representative* – The authorized representative of Engineer assigned to assist Engineer at the Site during the Construction Phase. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative agreed to by Owner. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D (Not included).
25. *Samples* – Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
26. *Shop Drawings* – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
27. *Site* – Lands or areas to be indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
28. *Specifications* – That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

29. *Subcontractor* – An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
30. *Substantial Completion* – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
31. *Supplier* – A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
32. *Total Project Costs* – The sum of the Construction Cost, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner’s costs for legal, accounting, insurance counseling and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement.
33. *Work* – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

ARTICLE 8 – EXHIBITS AND SPECIAL PROVISIONS

8.01 *Exhibits and Attachments Included:*

A. Exhibit A, Engineer’s Services.

Appendix 1 to Exhibit A: Project Schedule

Appendix 2 to Exhibit A: Project Area Map

Appendix 3 to Exhibit A: Engineer’s Scope of Services

Appendix 4 to Exhibit A: GIS Digital Data Submission Requirements

B. Exhibit B, Owner’s Responsibilities.

C. Exhibit C, Payments to Engineer for Services and Reimbursable Expenses.

Appendix 1 to Exhibit C- Reimbursable Expenses

Appendix 2 to Exhibit C- Standard Hourly Rates

Appendix 3 to Exhibit C- Basis of Fee

- D. Exhibit D, Duties, Responsibilities and Limitations of Authority of Resident Project Representative. Not Included.
- E.
- F. Exhibit F, Construction Cost Limit. Not Included.
- G. Exhibit G, Insurance.
- H.
- I.
- J.
- K. Exhibit K, Suggested Format for Amendment to Owner-Engineer Agreement. As Issued.

8.02 *Total Agreement:*

- A. This Agreement, (together with the exhibits identified above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument based on the format of Exhibit K to this Agreement.

8.03 *Designated Representatives:*

- A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to the Project on behalf of the respective party whom the individual represents.

8.04 *Engineer's Certifications:*

- A. Engineer certifies that it has not engaged in corrupt, fraudulent, or coercive practices in competing for or in executing the Agreement. For the purposes of this Paragraph 8.04:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the selection process or in the Agreement execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the selection process or the execution of the Agreement to the detriment of Owner, or (b) to deprive Owner of the benefits of free and open competition;
 - 3. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the selection process or affect the execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner:
Stillwater Utilities Authority

By: _____

Title: Brady Moore, Interim General Manager

Date
Signed: _____

Engineer:
Carollo Engineers, Inc.

By:  

Title: Erika K. Cooper, PE Becky J. Luna, PE
Vice President Senior Vice President

Date
Signed: _____

Engineer License or Firm's
Certificate No. Erika K. Cooper
PE 33881
State of: Oklahoma

Address for giving notices:

PO Box 1449

Stillwater, OK 74076-1449

Designated Representative (Paragraph 8.03.A):

Title: _____

Phone Number: _____

Facsimile Number: (405) 742-8324

E-Mail Address: _____

Address for giving notices:

211 N. Robinson Ave, Suite 1300

Oklahoma City, OK 73102

Designated Representative (Paragraph 8.03.A):

Erika K. Cooper

Title: Vice President

Phone Number: 469-387-8956

Facsimile Number: 405-840-7886

E-Mail Address: ecooper@carollo.com

Approved as to form and legality this _____ day of _____, 20____.

Kimberly Carnley, City Attorney

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This is **EXHIBIT A**, consisting of ____ pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2024.

Engineer's Services

Article 1 of the Agreement is supplemented to include the following agreement of the parties.

Engineering services are rendered for Lake McMurtry Raw Water Pump Station and Transmission Main Design.

Engineer shall provide Basic and Additional Services as set forth below.

PART 1 – BASIC SERVICES

As a part of the following basic services the Engineer shall provide minutes of all scheduled meetings associated with the project. All services shall be performed in compliance with City of Stillwater, ODEQ and ODOT standards.

A1.01 Study and Report Phase

A. Engineer shall conduct a pre-design conference with Owner. Engineer shall:

1. Consult with Owner regarding goals, objectives, scope, schedule and budget to define and clarify Owner's requirements for the Project and available data.
2. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B which are not part of Engineer's Basic Services.
3. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Engineer, including but not limited to mitigating measures identified in the environmental assessment.
4. Prepare a draft and final engineering report (the "Report") generally as defined in Appendix 3 to this Exhibit.
5. Perform or provide the following additional Study and Report Phase tasks or deliverables:
 - a. Geotechnical Investigation for the raw water pump station, raw water transmission main, and raw water storage tanks.
 - b. Topographical Survey locating all features necessary to design the proposed improvements.
 - c. Potholing to locate existing utilities along the raw water transmission main alignment, at the proposed pump station site, and at the proposed ground storage tank sites.
 - d. Environmental Assessment of the project area to comply with National Environmental Policy Act (NEPA).

- e. Transient Analysis of the raw water transmission main system.
 - f. Coordination with the Oklahoma Department of Environmental Quality and Oklahoma Water Resources Board.
 - g. Per- and polyfluoroalkyl substances (PFAS) treatment alternatives evaluation generally as defined in Appendix 3 to this Exhibit.
6. Furnish 4 review copies of the Report and any other deliverables to Owner within the calendar days following Notic to Proceed generally established in Appendix 1 to this Exhibit and review it with Owner. ~~Within _____ calendar days of receipt,~~ Owner shall promptly submit to Engineer any comments regarding the Report and any other deliverables.
 7. Revise the Report and any other deliverables in response to Owner's comments, as appropriate, and furnish 2 copies of the revised Report and any other deliverables to the Owner within the calendar days established in Appendix 1 to this Exhibit following receipt of Owner's comments.
- B. Engineer's services under the Study and Report Phase will be considered complete on the date when the revised Report and any other deliverables have ~~been delivered to~~ accepted by the Owner.

A1.02 Preliminary Design Phase

- A. After acceptance by Owner of the Report and any other deliverables, selection by Owner of a recommended solution and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner, and upon ~~written~~ authorization from Owner, Engineer shall:
1. Establish CAD and GIS formatting for the design drawings conforming to the Owner's standard GIS schema so that later as-built record submittals to the Owner allow for Owner's incorporation through native files and straightforward uploads to the Owner's GIS system. Refer to Appendix 4 to Exhibit A for digital data submission requirements.
 2. Prepare Preliminary Design Phase documents consisting of the following:
 - a. 60% Preliminary Design drawings and documents as defined in Appendix 3 to this Exhibit.
 3. Advise Owner if additional reports, data, information, or services of the types described in Exhibit B are necessary and assist Owner in obtaining such reports, data, information, or services.
 4. Coordinate with private utilities (gas, fiber, phone, communication, etc.) through the Owner, ~~identify ensure~~ conflicts with these utilities and the Project ~~are identified and their relocation work is assist in~~ appropriately scheduling relocation work by their owner(s) to be clear of the project ahead of anticipated construction start.

5. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.
 6. Furnish 5 review copies (half sized 11x17's) and one electronic PDF file of the Preliminary Design Phase documents and any other deliverables to Owner within the calendar days established in Appendix 1 to this Exhibit, and review them with Owner. ~~Within — calendar days of receipt,~~ Owner shall promptly submit to Engineer any comments regarding the Preliminary Design Phase documents and any other deliverables.
 7. Revise the Preliminary Design Phase documents and any other deliverables in response to Owner's comments, as appropriate, and furnish to Owner 5 copies of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables within the calendar days established in Appendix 1 to this Exhibit after receipt of Owner's comments-
- B. Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been accepted by the ~~delivered to~~ Owner.

A1.03 *Final Design Phase*

- A. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon ~~written~~ authorization from Owner, Engineer shall:
1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor as defined in Appendix 3 to this Exhibit.
 2. Provide technical criteria, written descriptions, and design data for Engineer's use in completing and filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities.
 3. Using the City's templates, prepare contract's front-end documents including the SWPPP and the Submittal Register for the Contractor's use during construction.
 4. Advise Owner of any adjustments to the opinion of probable Construction Cost known to Engineer.
 5. Perform or provide the following additional Final Design Phase tasks or deliverables:
[None Identified]
 6. Prepare and furnish Five (5) copies of the drawings and 2 copies of the project manual/bidding documents for review by Owner, its legal counsel, and other advisors, and assist Owner in the preparation of other related documents. ~~Within — days of receipt,~~

Owner shall promptly submit to Engineer any comments and, subject to the provisions of Paragraph 6.01.G, instructions for revisions.

7. Revise the bidding documents in accordance with comments and instructions from the Owner, as appropriate, and submit 5 final copies of the bidding documents, including PDF files of both, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 7 calendar days after receipt of Owner's comments and instructions.
- B. Engineer's services under the Final Design Phase will be considered complete on the date when the submittals required by ~~Paragraph A1.03.A.6~~ have been ~~delivered to~~ accepted by the Owner.

A1.04 *Bidding or Negotiating Phase*

- A. After acceptance by Owner of the bidding documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon ~~written~~ authorization by Owner to proceed, Engineer shall:
1. Assist Owner in advertising for and obtaining bids or proposals for the Work~~and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-bid conferences, if any, and receive and process contractor deposits or charges for the bidding documents.~~
 2. Issue addenda as appropriate to clarify, correct, or change the bidding documents.
 3. Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.
 4. Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the bidding documents.
 5. If bidding documents require, the Engineer shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by bidders, but subject to the provisions of paragraph A2.02.A.2 of this Exhibit A.
 6. Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.
 7. Perform or provide the following additional Bidding or Negotiating Phase tasks or deliverables: None Identified.
- B. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors (except as may be required if Exhibit F is a part of this Agreement).

A1.05 *Construction Phase – Not Applicable*

A1.06 *Post-Construction Phase – Not Applicable*

PART 2 – ADDITIONAL SERVICES

A2.01 *Additional Services Requiring Owner’s Written Authorization*

- A. If authorized in writing by Owner, Engineer shall furnish or obtain from others Additional Services of the types listed below and as defined in Appendix 3 to this Exhibit.
1. Services resulting from significant changes in the scope, extent, or character of the portions of the Project designed or specified by Engineer or its design requirements including, but not limited to, changes in size, complexity, Owner’s schedule, character of construction, or method of financing; and revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date or are due to any other causes beyond Engineer’s control.
 2. Services resulting from Owner’s request to evaluate additional Study and Report Phase alternative solutions beyond those identified in Paragraph A1.01.A.4.
 3. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.

This is **APPENDIX 1 TO EXHIBIT A**, consisting of 4 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2024.

Project Schedule

The project schedule is provided below and is based on a Notice to Proceed date of 10/28/2024.

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This is **APPENDIX 2 TO EXHIBIT A**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2024.

Project Map



Page 1

Exhibit A- Appendix 2: Project Map

EJCDC E-500 Agreement Between Owner and Engineer for Professional Services.

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APPENDIX 3 TO EXHIBIT A

ENGINEER'S SCOPE OF SERVICES

(October 1, 2024 Version)

PROJECT TITLE: **Lake McMurtry Raw Water Pump Station and Transmission Main Design**
PROJECT No.: **23WT03**

The following Scope of Services describes the basic and additional services to be performed by Carollo Engineers, Inc. (hereinafter referred to as the "ENGINEER") associated with the **Lake McMurtry Raw Water Pump Station and Transmission Main Design, Project 23WT03** (hereinafter referred to as the "Project"), as approved and executed by City of Stillwater, Oklahoma/Stillwater Utilities Authority (hereinafter referred to as the "OWNER"). It is intended to append the document entitled Exhibit A – Engineer's Services.

The Lake McMurtry Raw Water Pump Station and Transmission Main Design will provide additional raw water storage for the OWNER. The Scope of Services is described below.

PROJECT UNDERSTANDING

The City of Stillwater (OWNER) owns and operates the Stillwater Water Treatment Plant (WTP), raw water delivery system, and finished water distribution system. Constructed in 1985, the WTP was retrofitted in 2001 to its current capacity of 18 million gallons per day (mgd). The raw water delivery system includes a raw water pump station at Kaw Lake (Kaw Pump Station) and a raw water transmission main from Kaw Lake to the WTP. The finished water distribution system includes a finished water pump station and distribution piping to customers.

Kaw Lake is the OWNER's sole source of raw water supply. From Kaw Lake (17,000 acre man-made reservoir), raw water is pumped approximately 36 miles to the WTP via a single 36-inch raw water transmission main. The risk of failure of the Kaw Pump Station and the transmission main continues to increase as these assets, already 40 years old, continue to age. Numerous repairs have been made on the raw water transmission main and leaks are appearing with an increasing frequency. While smaller pumps at the Kaw Pump Station were recently replaced (2016) and an emergency generator was added, the larger pumps and much of the piping system at this pump station are from the original installation. At the WTP, a single 4 million gallon (MG) raw water storage tank acts as both settling and emergency storage. The current average day demand is approximately six (6) million gallons per day (mgd), so this storage tank offers little protection in the event the Kaw Pump Station or the raw water transmission main are out of service for an emergency repair or a planned maintenance or rehabilitation effort.

The addition of raw water terminal storage to the OWNER's raw water delivery system was evaluated and recommended as part of the Project to improve overall system resiliency and redundancy by:

- Providing a backup source of raw water supply to the water treatment plant (WTP) in the event of a failure in the Kaw Lake raw water delivery system;
- Allowing the OWNER to take the Kaw Lake raw water delivery system offline for proactive maintenance or rehabilitation; and
- Potentially providing a secondary source of raw water supply.

Lake McMurtry was the recommended alternative for additional raw water storage based on the evaluation. This lake is owned and maintained by Noble County Conservation District. The OWNER has

water rights in Lake McMurtry totaling 968 acre-feet per year (AFY), which is 0.86 mgd. This is not sufficient for emergency repairs and maintenance work. Lake McMurtry was developed in the 1970s under a joint project by the OWNER and the Soil Conservation Service (SCS) to serve as a flood control reservoir, water supply, and recreational area. The intake is an 8-ft diameter multi-level tower with four 12-inch diameter openings at varying levels. Each opening has an 18-inch slide gate on the inside of the intake tower and a trash guard mounted over the opening on the outside. Located under the dam, a 24-inch reinforced concrete pipe (RCP) supply line with a pipe screen extends from the intake tower. The OWNER has not used this lake as a water supply since the early 1980s when the WTP, Kaw Pump Station, and raw water transmission main were constructed. Currently the City of Perry has water rights for 1,681 AFY in Lake McMurtry. Perry uses the OWNER's intake and 24-inch RCP to supply their pump station and 16-inch transmission main.

In addition to the water rights held by the OWNER, raw water from Kaw Lake would be pumped to Lake McMurtry for storage using the existing Kaw Pump Station. This will allow for longer periods of downtime in the Kaw Lake raw water delivery system for repairs and maintenance. A new 36-inch transmission main needs to be constructed between Lake McMurtry and the WTP. Modifications to the existing intake tower to meet Oklahoma Department of Environmental Quality (ODEQ) requirements for the increased flows. A pump station is required at Lake McMurtry to return flows to the WTP via the new 36-inch transmission main, serving as a bi-directional conveyance line to reduce costs.

This Amendment No. 6 includes the below basic services for the Lake McMurtry Raw Water Pump Station and Transmission Main Design:

1) Project Management

- a. Prepare a project management plan.
- b. Prepare monthly project status reports and invoices.
- c. Conduct monthly coordination meetings.
- d. Develop a project schedule and update at design milestones.
- e. Manage subconsultants.
- f. Maintain a collaborative project website.

2) Prepare a design documents development plan.

Preliminary Engineering and Investigation

- a. Conduct a geotechnical investigation for the raw water pump station (including the access road) and the transmission main alignment (including the intake tower modifications and WTP and Otoe Missouria raw water storage tanks and valves).
- b. Conduct additional survey (in addition to the survey completed as part of Amendment No. 4: Lake McMurtry Additional Raw Water Storage Basis of Design).
- c. Conduct potholing to locate existing utilities.
- d. Conduct an Environmental Assessment (EA) for the raw water transmission main alignment corridor and the pump station site (including the access road).
- e. Complete a transient analysis for the raw water transmission main and prepare a technical memorandum.
- f. Draft and Final Engineering Report for submittal to the Oklahoma Department of Environmental Quality.

g. Coordination with ODEQ and the Oklahoma Water Resources Board (OWRB).

g-h. Per- and polyfluoroalkyl substances (PFAS) treatment alternatives evaluation.

3) Detailed Design

- a. Prepare 60%, 90%, agency review (95%), and final (100%) design packages for the raw water pump station. This includes equipment procurement packages for long-lead time items.
 - b. Prepare 60%, 90%, agency review (95%), and final (100%) design packages for the raw water transmission main (including the intake tower modifications and Otoe Missouri raw water storage tank and valves).
- 4) Bid Phase Services
 - a. Lead the pre-bid conferences for the raw water transmission main and pump station.
 - b. Prepare addenda and answer contractor questions.
 - c. Prepare bid tabulation spreadsheets and provide recommendation of award letters.
 - d. Prepare conformed documents.
- 5) Construction Administration and Inspection – not included in this amendment.
- 6) Startup and Commissioning Services – not included in this amendment.
- 7) Quality Management
 - a. Review the Draft and Final Engineering Reports.
 - b. Complete an operability and constructability review of the raw water transmission main (including intake tower modifications) and pump station at the 60% design level.
 - c. Complete a detailed quality management check at the 90% design level.
- 8) Permitting Assistance
 - a. Develop a permitting assistance plan.
 - b. Prepare and submit required permits.
- 9) Land Acquisition
 - a. Prepare documents necessary to acquire easements for the raw water pump station (including the access road) and transmission main.

These services are described in greater detail below.

PROJECT ASSUMPTIONS, CLARIFICATIONS, AND EXCEPTIONS

1. Project will be done as a design/bid/build with two design/construction packages: raw water pump station and raw water transmission main (including intake modifications Otoe Missouri raw water storage tank and valves).
2. Time of Completion/Schedule: The anticipated schedule for this project is presented in Appendix 1 to Exhibit A – Project Schedule. Based upon this time of completion, the following assumptions have been made regarding the scope of services. Additional compensation through Additional Services may be necessary if, due to no fault of the ENGINEER, the schedule is extended:
 - Project Status Reports/Invoicing: 12 reports
 - Monthly Meetings During Design: 12 meetings
3. Schedule assumes ODEQ statutory limit of 45 calendar days for review and comment on plans and specifications.
4. Construction administration and inspection services are not included in this amendment. These services will be authorized in a future amendment.
5. Startup and commissioning services are not included in this amendment. These services will be authorized in a future amendment.

6. Preparation of applications for Section 404 permits and/or development of mitigation/restoration plans are not included. A pre-construction notification (PCN) is expected to be necessary and is included.
7. The following are excluded from the Environmental Assessment scope of services: tribal review fees, intensive-level archival research, National Register of Historic Places (NRHP) nominations, Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) documentation, archaeological monitoring, testing, or data recovery, artifact collection or curation, human remains evaluation/coordination/removal, a formal public meeting and/or hearing, Section 408 permitting, Individual Permit Application.
8. Any design efforts will be completed in a hybrid 2D/3D environment to enhance visualization and minimize potential conflicts (i.e., clash detection) during design for new facilities but will exclude 3D development of existing facilities that are not significantly impacted as part of this Project. As such, the 3D models will essentially be limited to new facilities only (defined further herein).
9. The design will be based on the applicable codes and standards as adopted by the OWNER and applicable Authorities Having Jurisdiction (AHJ) at the time of the 60% design review submittal. Applicable codes and standards will apply only to new buildings, structures and associated facilities, as well as expansions and major modifications to existing buildings and structures. Existing buildings, structures, and facilities not significantly impacted by the Project shall not be subject to revised codes or standards compliance.
10. The alignment for the raw water transmission main is the alignment in the 30% drawings provided to the OWNER previously under Amendment No. 4.
11. The raw water transmission main and pump station will be designed for an initial capacity of 24 mgd and an ultimate capacity of 30 mgd.
12. A new intake may be necessary for the ultimate capacity of 30 mgd. Design of the new intake is not included in this scope of services. However, the ENGINEER will make provisions in the design of the raw water transmission main and pump station for connection to a future intake located on the southeast side of Lake McMurtry.
13. The existing intake modifications shall include placement of pre-engineered basket type trash racks to reduce approach velocity to the intake assuming all intake ports are open at 30 mgd, minor structural modifications, and replacing the inlet slide gates. Extensive structural modifications of this intake are excluded from this scope of services.
14. It is assumed that transfer periods, transfer rate, and transfer to Lake McMurtry will occur generally as described in TM-01, *Analysis of Lake McMurtry Water Quality Impact after Blending with Raw water from Kaw Lake*.
15. The location of the raw water pump station, transmission main, and Lake McMurtry outfall are outside of the dam critical zone and, as a result, no permitting from OWRB or United States Army Corps of Engineers (USACE) related to dam or construction excavation stability will be required during the design process. It is anticipated that the intake tower modifications and submerged outfall in Lake McMurtry may require USACE permit authorization under Section 404 of the Clean Water Act. This is included under Task 800.
16. The WTP and Otoe Missouri raw water storage tank designs (including the foundation) will be delegated designs by the tank manufacturer with performance specifications. ENGINEER will be responsible for the civil design of the sites and design of piping connections to the tank.

17. Electrical system studies, including short circuit, protective device coordination, and arc flash hazard analysis are not included and shall be provided by the ENGINEER during the Construction & Commissioning Phase (to be authorized in a future amendment), based on the actual equipment being provided. Preliminary short circuit calculations will be completed by ENGINEER during this design phase to size electrical equipment short circuit ratings.
18. ENGINEER shall be entitled to use and reasonably rely upon information and services provided by the OWNER or others in performing ENGINEER's services hereunder.
19. In providing opinions of cost, financial analyses, economic feasibility projections, schedules, and quantity and/or quality estimates for potential projects, Consultant has no control over cost or price of labor and material; unknown or latent conditions of existing equipment or structures that may affect operation and maintenance costs; competitive bidding procedures and market conditions; time or quality of performance of third parties; quality, type, management, or direction of operating personnel; the incoming water quality and/or quantity; the way County's plant(s) and/or associated processes are operated and/or maintained; and other economic and operational factors that may materially affect the ultimate project elements, including, but not limited to, cost or schedule. Therefore, Consultant makes no warranty that County's actual project costs, financial aspects, economic feasibility, schedules, and/or quantities or quality realized will not vary from Consultant's opinions, analyses, projections, or estimates and Consultant will not be liable to and/or indemnify County and/or any third party related to any inconsistencies between Consultant's projections and estimates and actual costs and/or quantities realized by County and/or any third party in the future, except to the extent such inconsistencies are caused by Consultant's negligent performance hereunder.
20. *Project Deliverables.* ENGINEER will produce and submit draft and final reports/memoranda, drawings, and specifications in electronic format for review by the OWNER throughout the design phase of the Project, as identified herein. Electronic copies of the various deliverables will generally be provided in PDF format, with some documents in native file format as appropriate (i.e. MS Word, MS Excel, etc.). OWNER shall agree to review draft Project deliverables and provide comments to ENGINEER in a timely fashion (typically within two weeks of submittal). To the greatest extent possible, review of draft deliverables in a collaborative workshop setting to obtain comments from OWNER will be pursued to reduce overall review time and streamline the Project schedule.
21. *Additional Services.* There may be additional work efforts that the OWNER may desire the ENGINEER to perform in support of the Project which have not been contemplated or identified yet by the OWNER, and as such the extent (and associated costs) of the effort required cannot be fully determined at the time this Contract is executed. It is intended that such categories of work be classified as "Additional Services". ENGINEER will not perform Additional Services without prior written approval by the OWNER.
22. *Document Management.* Document management and document control will occur on the ENGINEER's ProjectWise site. Document access or transfer of files will be through the ENGINEER's SharePoint system, secure FTP transfer, or email for non-confidential information.
23. The services to be performed by ENGINEER are intended solely for the benefit of the OWNER. No person or entity not a signatory to this Services Authorization shall be entitled to rely on ENGINEER's performance of its services hereunder, and no right to assert a claim against ENGINEER by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this Services Authorization or the performance of ENGINEER's services hereunder.

24. Except as provided in Section 6.10A of the subject Agreement between the OWNER and ENGINEER to the extent caused by ENGINEER's negligent performance of the services required hereunder, ENGINEER shall have no liability for any decision, action, or inaction by the OWNER as a result of any recommendations made by ENGINEER related to PFAS hereunder, including the failure of the Owner to comply with the EPA PFAS regulations in effect at any time during the Project, and/or the Owner's failure to comply with any other PFAS-related Federal, state or local regulatory requirements.

SCOPE OF SERVICES – BASIC SERVICES

The Scope of Services for the overall Project is based on the following major Work Breakdown Structure (WBS) elements:

- Task 100 – Project Management
- Task 200 – Preliminary Design
- Task 300 – Detailed Design
- Task 400 – Bid Phase Services
- Task 500 – Construction Administration and Inspection (*to be included in a future amendment*)
- Task 600 – Startup and Commissioning Services (*to be included in a future amendment*)
- Task 700 – Quality Management
- Task 800 – Permitting Assistance
- Task 900 – Land Acquisition

Specific efforts to be completed for the tasks (and subtasks) and the associated deliverables are defined further herein.

TASK 100 - PROJECT MANAGEMENT

ENGINEER will perform various project management and monitoring activities throughout the design phase, as delineated in the following tasks and subtasks.

101 – Project Control and Reporting

Develop monthly progress reports and invoices throughout the Project for submittal to the OWNER's Project Manager that identify the following:

- Work completed since the previous report.
- Work anticipated in the upcoming month.
- Project status, including scheduled and actual percent complete for the major tasks.
- Budget status, including contracted amount, total spent to date, amount remaining, percent spent and actual percent complete.
- Schedule status, including variances in the project schedule by milestone and/or deliverable, and total project.
- Dates of anticipated milestones and/or deliverables in the upcoming month.
- List of coordination and/or information required, including responsible parties.
- List of issues encountered (if any) and proposed resolution, including technical, budgetary and schedule problems.
- List of potential scope changes, including a brief description and reason for change, along with potential impact on budget and schedule.

- List of issues needing resolution, including party(s) involved and date required so as not to impact project schedule.

In addition to monthly status updates, ENGINEER will provide abbreviated weekly email updates to OWNER lead(s) reporting on current and upcoming weekly activities and key issues. ENGINEER will also develop and maintain Project logs documenting key decisions and action items throughout the Project duration (updated bi-weekly).

DELIVERABLES: **Monthly Progress Reports and Invoices (PDF only) – 12 reports**
Weekly Status Email Updates – 48 weeks
Decision Log (electronic format only)
Action Log (electronic format only)

102 – Project Meetings

Facilitate meetings as described below. Prepare and distribute agendas and minutes for each meeting. Agendas will be submitted to the OWNER at least 1 day prior to the meeting. Minutes will be submitted to the OWNER no more than 5 days following each meeting and will summarize decisions and action items. Agendas and minutes will also be posted to the collaborative project website for additional access by interested parties.

102.1 – Monthly Meetings:

Conduct monthly project meetings (1-hour duration each) with OWNER throughout the investigation and study phase to keep the OWNER and key project stakeholders informed of the project progress and obtain input and direction as required. Monthly meeting objectives will include the presentation of alternative evaluations for OWNER review and approval, results from data collection and analysis, and other outstanding project issues. The anticipated number of planned monthly meetings during this design phase is 12. Review workshops associated with the design phase tasks are included in Task 300. Additional project meetings, if required, will be provided as part of the Additional Services.

DELIVERABLES: **Meeting Agendas & Minutes (PDF only)**

103 – Project Schedule

Develop a project schedule for the preliminary engineering and investigation and design phases in Microsoft Project format. Each activity of the scope of services herein, including the various deliverables, meetings and workshops, will be incorporated into the work breakdown structure (WBS) of the schedule. Project timelines, along with identification of task inter-relationships, will be provided in a Gantt format using Microsoft Project. The project schedule will be updated monthly.

DELIVERABLES: **Project Schedule with monthly updates (PDF only)**

104 – Subconsultants Management

Prepare and coordinate necessary subconsultant agreements required for the Project and manage the subconsultants throughout the duration of the Project accordingly.

105 – Collaborative Project Website – Preliminary and Final Design Phase Only

Develop a collaborative project website that will be hosted on the ENGINEER's Sharepoint platform in a password-protected area, maintained throughout the design duration, and will be accessible by internal project stakeholders. The website will have document storage, search and retrieval functions for project information. Specific components to be included are:

- Project calendar identifying meetings, workshops and deliverables
- Meeting agendas, handouts and minutes
- Project Deliverables (PMP, QMP, technical memoranda and reports, etc.)
- Intermediate design submittals (drawings, specifications, details, and cost estimates, etc.)
- Monthly progress reports
- Other items as determined and as approved by the OWNER.

106 – Design Documents Development Plan

Develop a "Design Documents Development Plan" for use by the design team that will consist of the following elements:

- CADD/BIM Standards and Formats. Develop CADD and BIM standards and formats to be followed for all design drawings. It is assumed that drawings will be developed in a "hybrid" combination of 2D and 3D files, in order to utilize the 3D environment to enhance visualization and minimize potential conflicts (i.e. clash detection) during design for new facilities. The 3D models will be developed using AutoCAD MEP / Revit and Microstation platforms, with both platforms capable of producing *.dwg files and 3D PDF files. Refer to Task 300 for further definition and extent of 3D effort.

CADD standards and formats will be based on 22" x 34" standard size and will include title block and borders, drawing file naming, layering guidelines, standard appearance, coordination requirements, standard abbreviations, symbols and legends, and record-keeping requirements, and will incorporate OWNER formats where appropriate. NOTE: All interim submittals of design drawings will be provided in electronic (PDF only) format. Final deliverables will be provided in electronic (PDF and native file) formats.

- Drawing Nomenclature. Develop the nomenclature for design drawings. Nomenclature will include delineation of drawings by specific building and/or plant process area, as well as by discipline, and will identify a sequential numbering scheme, to be updated throughout design progression.
- Tag Numbering Scheme. Develop the tag numbering scheme for equipment, valves, and field instrumentation. Tag numbering will include letter abbreviations and numerical identifiers, anticipated to remain consistent with the existing plant or OWNER tag numbering scheme.

Provide the drawing nomenclature and tag numbering scheme to the OWNER for review and approval. Upon receipt of comments, revise as necessary.

DELIVERABLES: Draft & Final Drawing Nomenclature and Tag Numbering Scheme (PDF only)

TASK 200 -PRELIMINARY ENGINEERING AND INVESTIGATION

The overall focus of this Preliminary Engineering and Investigation phase of the Project is to develop the applicable design criteria and site development requirements to "lock down" key design-related decisions to transition into the subsequent Detailed Design services. This effort builds on the previously completed 30% design efforts completed as part of Amendment No. 4 for the Lake McMurtry raw water pump station, transmission main, and intake tower modifications. The results from the investigation will be incorporated into an engineering report as defined herein that will be an update to the Basis of Design Report completed under Amendment No. 4. The following tasks describe the specifics efforts associated with the Preliminary Engineering and Investigation phase of the Project.

201 – Geotechnical Investigation:

Conduct 2 geotechnical borings for the pump station to a depth of 50 feet, 1 boring for the WTP raw water storage tank to a depth of 50 feet, 1 boring for the Otoe Missouri raw water storage tank to a depth of 50 feet, and 25 borings for the alignment and access road to a depth of 30 feet.

Locations along the raw water transmission main have been selected in areas that can be easily accessed without requiring clearing of trees and do not require entering private properties. The results from the geotechnical investigation will be reviewed and if necessary additional boring locations will be identified to define conditions along the alignment. Additionally, results from the boring along the alignment near the lake shore for the submerged outfall structure at Lake McMurtry will be reviewed. If deemed necessary during detailed design, a boring in the lake will be done using a barge. The additional effort to provide these services will be provided as part of the Additional Services.

If auger refusal material occurs before the planned depth the boring will be extended using NQ2 rock coring techniques. Temporary piezometers will be installed at 15 boring locations and left open overnight for groundwater measurement the next morning. Soil sampling will be performed using split-spoon and Shelby tube techniques at 2.5-foot intervals to 10 feet followed by 5-foot intervals thereafter. Borings and temporary piezometers with groundwater will be backfilled with cement grout. Temporary piezometers without groundwater will be backfilled with auger cuttings. Excess auger cuttings will be evenly spread around the boring location and/or along the side of the road. Borings will be logged by a field geologist/engineer.

Laboratory testing on split-spoon and Shelby tube samples will include determination of moisture content, Atterberg limits, unconfined compressive strength, and dry unit weight. Standard Proctor moisture-density and Atterberg limits testing will be performed on 8 bulk samples. Analytical testing to evaluate corrosive potential on the soil will be performed (15 tests).

Recommendations for design and construction will be included in a geotechnical report prepared by a professional engineer licensed in the State of Oklahoma. The report will include pump station and ground storage tank foundation recommendations, suitability of on-site soils and transmission main alignment soils for pipe and pump station structural and general site backfill, roadway base and roadway design, piping design parameters, site grading recommendations, lateral earth pressures for below grade walls, seismicity coefficients, potential for liquefaction, temporary excavation considerations (including dewatering and slope stability), rock excavation considerations, corrosivity evaluation, boring logs and a boring location plan.

DELIVERABLES: [Draft & Final Geotechnical Report \(PDF only\)](#)

202 –Survey

Perform additional site topographical survey to document the current conditions and surface features. Survey for the raw water transmission main alignment, pump station, and access road was completed under Amendment No. 4. Additional survey for routing electrical service from the Central Rural Electric Cooperative (CREC) service near the Perry Pump Station to the new pump station may be required. The area around the raw water transmission main alignment to the submerged outlet structure may also need additional survey if this location is adjusted and to consider a future intake. Additional survey at the WTP around the raw water storage tank and the east and south of the tank will be needed for the new WTP raw water storage tank and connection of the raw water transmission main to the existing piping and/or storage tank. The

area where the Otoe Missouri raw water storage tank is to be constructed will need to be surveyed.

Site survey and project control will be based on NAD 83 horizontal and NAVD 88 vertical datum, and will include existing spot grades for use in developing new contours and identification of above-ground buildings and structures, tree lines, pavement, curb and gutter, stairs, vaults, manholes, meters and other features on the site within the project area.

Specific tasks include verification of any existing control points and verification of any existing manhole invert elevations. Prepare a topo basemap in AutoCAD Civil 3D format depicting surface features and existing utilities within the project area, along with text file and list of points.

DELIVERABLES: Topographic basemap (*electronic format only*)

203 – Potholing

ENGINEER will develop a potholing plan for hydroexcavation/vacuum excavation to locate existing utilities along the raw water transmission main alignment, in the area of potential routing of this main at the existing WTP site, and at the proposed Otoe Missouri raw water storage tank site. Potholing locations will be surveyed. A representative of the ENGINEER will be present during all potholing activities. For the purposes of this scope the following is assumed:

- Number of Potholes: 20
- Site Visits: 2
- Hours/Visit: 8

DELIVERABLES: Potholing Summary Report (PDF only)

204 – Environmental Assessment

ENGINEER will complete an Environmental Assessment (EA) of the project area to comply with National Environmental Policy Act (NEPA), which is required because federal funding from the Drinking Water State Revolving Fund (DWSRF) is being used for this project. The project area includes areas that will be included/affected in construction of the raw water transmission main, intake tower modifications, and pump station (including the access road) and is approximately 130 acres. The EA services will include:

- Pre-planning, review and/or preparation of environmental documents, and meetings with the OWNER to identify potential constraints early in the planning process and provide solutions to avoid, minimize, or address issues encountered.
- Coordinate with the OWNER, the United States Environmental Protection Agency (EPA), ODEQ, USACE, and other parties.
- Complete a land and water resources evaluation including:
 - Background review of information available for relevant agencies, including United States Fish and Wildlife Services (USFWS), National Resources Conservation Service (NRCS), United States Geological Survey (USGS), and other applicable agency information.
 - Site reconnaissance to delineate water resources in the project area.
 - Analyze soils and soil properties within the project area using NRCS Web Soil Survey (WSS) system.

- Conduct a biological assessment of threatened or endangered species habitats including:
 - Background review of information from the USFWS and other applicable agency information.
 - Use various desktop resources to determine existing ecosystems and biological communities including agricultural users within the project area.
 - Evaluate resources (i.e. timber, agriculture, recreation) within the project area.
 - Check air attainment databases to determine current air quality standings.
 - Conduct site reconnaissance to confirm background information from the desktop survey and to assess the current habitat.
 - If the results of the site evaluation identify suitable habitat and there is likelihood of Threatened and Endangered species, surveys would be done as an additional service.
- Complete a census data analysis to identify any potentially affected populations to present a profile of the community surrounding the proposed project area and analyze the potential effects of the proposed project on the community.
- Prepare and publish a notification of availability for the EA and Finding of No Significant Impact (FONSI) as directed by the lead federal agency. The notification will be posted in a single local newspaper as necessary or posted at the local agency, City Hall, and/or tribal offices for 30-days at the request of the agency. No public outreach, mail outs, meetings or hearings are anticipated in this scope of work.
- A hazardous materials (hazmat) database search will be requested and the results will be analyzed. Any “hits” will be reviewed and summarized with a figure showing the location of “hits” in and near (within a mile or as appropriate). The OWNER will provide any known hazardous areas prior to the field study.
- Cultural resources services subject to Section 106 of the National Historic Preservation Act (NHPA), as amended, including:
 - Conduct a site file review through the Oklahoma Archeological Survey Information System (OASIS) to determine what archeological sites have been identified and/or what cultural resources surveys have been conducted in the project area of potential effect (APE) and within one mile of the APE. The APE for cultural resource studies is defined as a 100-foot buffer surrounding the proposed raw water transmission main alignment. Examine Oklahoma State Historic Preservation Office (SHPO) databases and files to determine what historic properties have been recorded in or near the project footprint. Review soils, geology, General Land Office maps, historic topographic maps, historic aerial imagery, and other pertinent data sources.
 - Perform a cultural resources survey within the APE in compliance with the standards of the Oklahoma SHPO and Oklahoma Archeology Survey (OAS). Shovel tests will be placed on transects no more than 30 meters apart for the linear portion of the survey with shovel tests placed at 100-meter intervals throughout the length of the APE.
 - If field conditions warrant (e.g. if no subsoil is encountered during shovel testing) a portion of the shovel tests will be extended with the use of a bucket auger.
 - A maximum of 114 shovel test units are anticipated. Up to 15 additional shovel test units are assumed to delineate a new site encountered during the survey.
 - Additional shovel testing may be necessary if the APE extends beyond the 100-foot corridor in some areas. An additional 25 shovel tests are included if this is required.
 - Following completion of field work, a draft report summarizing the results of the background research and survey including any recorded cultural resources will be prepared. Recorded resources will be evaluated for listing on the NRHP and

archeological site forms will be completed if necessary. Recommendations for additional work will also be included if necessary. The report will follow the guidelines in the *Oklahoma SHPO Fact Sheet 16: Guidelines for Developing Archaeological Survey Reports in Oklahoma*. The draft report will be submitted to the OWNER for review and coordination with agencies. A final report will be prepared following receipt of comments on the draft submittal.

- It is assumed the APE does not cross Tribal or Federal lands and an Archaeological Resources Protection Act (ARPA) permit is not required.
- It is assumed archeological pedestrian survey is required and mechanical trenching will not be required.
- Historic-age buildings/structures requiring documentation are not anticipated based on preliminary review of the APE. If no more than 2 such resources are present, they will be recorded and reported on in the cultural resources report detailed above. If more than 2 resources are present, a historic-age built environment survey should be completed by an architectural historian.
- Following all background and field visits, compile all information into the appropriate document for environmental clearance. Submit the draft EA to the OWNER for review and finalize once comments have been received. Submit the final EA to the EPA.

DELIVERABLES: Draft & Final Cultural Resources Report (PDF only)
Draft & Final EA (PDF only)

205 – Transient Analysis

ENGINEER will complete the following:

- ENGINEER will create a hydraulic model of the raw water transmission main. This hydraulic model will be constructed to operate in Bentley's WaterCad and Hammer programs. The hydraulic model will contain the data needed to model hydraulic transient events.
- ENGINEER will work with the OWNER to identify the upset conditions that could generate undesirable waterhammer events. These upset conditions could include but are not limited to pump power failure, pump startup, sudden valve operations, and air valve operations.
- The hydraulic model will be used to simulate the upset conditions with no surge protection to determine the potential for undesirable waterhammer conditions. Then surge protection will be added to the model to mitigate undesirable surge pressures. Surge protection measures to be considered include hydropneumatics surge vessels, surge relief valves, air valves, different types of control valves, and control valve operations. Surge protection measures will be sized and refined to provide effective surge protection solutions. Results of the model simulations will be discussed with the OWNER.
- A technical memorandum will be prepared documenting the results of the surge analysis. This technical memorandum will explain waterhammer phenomenon, inputs and assumptions to the analysis, simulation results, and recommendations. The technical memorandum will be finalized after feedback has been received from the OWNER.

DELIVERABLES: Draft & Final Transient Analysis Technical Memorandum (PDF only)

206 – Develop Draft and Final Engineering Report:

ENGINEER will develop a draft and final Engineering Report (ER) for inclusion with the design package as part of the ODEQ review of the project. Engineering Report will conform to OAC 252:626-3-6 and will include the raw water transmission main, modifications to the intake tower, and the pump station. This will include a separate technical memorandum for the intake tower modifications to evaluate the proposed approach, develop design criteria, and present conceptual plans. The draft report will be submitted to the OWNER for review and comment. Upon receipt of written comments, incorporate OWNER comments on the draft ER and finalize report accordingly.

DELIVERABLES: Draft & Final Engineering Report (PDF only)

207 – Coordination with ODEQ and OWRB:

ENGINEER will meet with ODEQ and OWRB to facilitate approval of project elements, including the intake tower modifications, submerged outlet structure, and blending of Kaw Lake raw water in Lake McMurtry. Up to 4 meetings are assumed. Necessary permitting and approvals will be determined and obtained under Task 800.

DELIVERABLES: ODEQ and OWRB Meeting Agendas & Minutes (PDF only)

208 – Interim (30%) Design Review Submittal Package (*completed under Amendment No. 4*)

210 –PFAS Treatment Alternatives Evaluation:

Additional services for PFAS Treatment Alternatives will include the following tasks:

210.01 – Additional PFAS Sampling at Lake McMurtry and Kaw Raw Water Transmission Main

Additional samples will be collected from Lake McMurtry and the Kaw raw water transmission main for PFAS analysis to increase the confidence level of the zero-concentration approach for assessing the blended supply as presented in TM-01 Analysis of Lake McMurtry Water Quality Impact after Blending with Raw Water from Kaw Lake (August 2024). Collected samples will be blended in various ratios generally corresponding to the ratios established by TM-01 and analyzed for PFAS. Samples will be collected quarterly to assess any seasonal variations. A draft technical memorandum summarizing the results will be prepared and submitted to the OWNER for review and comment. Upon receipt of written comments, OWNER comments will be incorporated and the technical memorandum will be finalized.

210.02 – Develop Bench Scale Sampling and Testing Protocol:

Engineer will develop a draft and final bench scale testing protocol to:

- Briefly summarize the background and establish the goals for the bench scale testing.
- Summarize the locations, quantity, and depth of raw water required from Lake McMurtry and Kaw Lake.
- Summarize the laboratory analysis necessary to characterize the raw water prior to testing.
- Summarize the treatment alternatives to be evaluated in the bench scale testing.
- Summarize the materials and equipment necessary for the bench scale testing.
- Summarize the objectives, duration, and laboratory analysis required for each bench scale tests.
- Define the schedule for testing and preparation of a summary memorandum.

210.03 – Bench Scale Testing

210.03.01 – Treatment Alternative – Powdered Activated Carbon Jar Tests (no pretreatment)

The purpose of this bench scale test will be to assess how two different (lignite and wood based) Powdered Activated Carbons (PAC) can be utilized to pretreat the Kaw Lake raw water supply prior to discharge to Lake McMurtry. The bench scale tests will be focused on assessing various concentrations of two different types of PAC with several different treatment technologies. Effluent from these treatment technologies will be taken from Kaw Lake and Lake McMurtry and blended in various ratios generally corresponding to the ratios established by TM-01 Analysis of Lake McMurtry Water Quality Impact after Blending with Raw Water from Kaw Lake (August 2024). These will then be analyzed for the PFAS Compounds.

Table 210.03-1 presents the preliminary test matrix for the treatment alternative 1 which involves the addition and settling of Powdered activated carbon for reduction of PFAS compounds in the Kaw Lake raw water prior to the introduction to the Lake McMurtry supply. The following treatment technologies will be tested on the bench scale:

- Technology #1 – Acticarb – involves the construction of a high rate Actiflo treatment process with coagulation/flocculation and settling of PAC within an Actiflo process with the goal of reducing PFAS compounds to below MCL levels prior to discharge to the McMurtry supply. Aggressive loading rates will be utilized to simulate a turbidity removal goal of 5 NTU.
- Technology #2 – Conventional Floc/Sed and PAC post treatment: Involves the construction of a conventional flocculation sedimentation basin with ferric sulfate with post settling addition of PAC to assess the impact of pre-removal of some TOC using conventional treatment prior to PAC addition with the goal of reducing PFAS compounds to below MCL levels prior to discharge to the McMurtry supply. Aggressive loading rates will be utilized to simulate a turbidity removal goal of 5 NTU.
- Technology #3- PAC Addition: Involves the construction of a large circular clarifier for the addition of PAC to assess the impact of PAC addition with polymer addition for treatment and settling with PAC prior to the discharge to the Lake McMurtry supply. Aggressive loading rates will be utilized to simulate a turbidity removal goal of 5 NTU.

Table 210.03-1 Treatment Alternative – Powdered Activated Carbon			
PAC Dose (Two Types)	Ferric Sulfate/Polymer Dose (Zeta is slightly Negative)		
	Treatment Technology- Acticarb PAC	Treatment Technology 2 – Conventional Floc Sed/PAC	Treatment Technology 3 PAC Settling Basin
10			
20			
30			
40			
60			
100			

210.03.02 Treatment Alternative –Rapid Small Scale Carbon Column Tests

The purpose of this bench scale test will be to assess how Granular Activated Carbon (GAC) can be utilized to pretreat the Kaw Lake raw water supply prior to discharge to Lake McMurtry. The bench scale tests will be focused on assessing different types of pretreatment of the Kaw raw water supply with several different GACs to simulate GAC Absorbers as a means of reducing PFAS compounds in the Kaw Lake raw water prior to blending with the McMurtry supply. Various empty bed contact times will be tested to bracket potential EBCTs. Effluent from these treatment technologies will be taken from Kaw Lake and Lake McMurtry and blended in various ratios generally corresponding to the ratios established by TM-01 Analysis of Lake McMurtry Water Quality Impact after Blending with Raw Water from Kaw Lake (August 2024). These will then be analyzed for the PFAS Compounds.

Table 210.03-2 presents the preliminary test matrix for the treatment alternative which involves the various degrees of pretreatment, EBCT, and GACs utilized. The following treatment technologies will be tested on the bench scale:

- Technology #1 – Conventional Flocculation Pretreatment and GAC Absorbers– Involves the construction of conventional flocculation/settling basins with Ferric Sulfate/Polymer prior to GAC absorbers for removal of some TOC and turbidity prior to GAC absorption. Two different Carbons and two different EBCT's will be analyzed.
- Technology #2– Conventional Flocculation Pretreatment and GAC Absorbers– Involves the construction of conventional flocculation/settling basins with Ferric Sulfate/Polymer for enhanced coagulation to the point of diminishing returns prior to GAC absorbers for removal of maximum TOC with conventional means and turbidity prior to GAC absorption. Two different Carbons and two different EBCT's will be analyzed.
- Technology #3 – No Pretreatment: Involves no pretreatment prior to GAC Absorbers. Two different carbons and two different EBCT's will be analyzed.

Table 210.03-2 Treatment Alternative – Granular Activated Carbon				
Treatment Technology				
	GAC – Carbon 1, EBCT-X	GAC Carbon -2 EBCT - X	GAC Carbon 1- EBCT-Y	GAC Carbon 2- EBCT-Y
Pretreatment with Charge Neutralization				
Pretreatment with Enhanced Coagulation				
No Pretreatment				

210.04 Bench Scale Testing Technical Memorandum

A draft technical memorandum summarizing the results of the bench scale testing will be prepared and submitted to the OWNER for review and comment. Upon receipt of written

comments, OWNER comments will be incorporated and the technical memorandum will be finalized. This technical memorandum will include:

- Executive Summary: An executive summary of the technical memorandum will be provided.
- Introduction: Provide purpose, scope, and background for the bench scale testing of treatment alternatives.
- Methodology: Summarizes the bench scale testing protocol and presents the results of the analysis.
- Treatment Screening/Shortlisting: Based on the results of the analysis up to 3 potential treatment configurations will be presented for further analysis.
- OPCC Development: Will present the OPCC for each of the viable treatment alternatives identified. The OPCC and the anticipated operating costs will be combined in a total life cycle costs for each of the three potential treatment alternatives.
- Non-Economic Evaluation: Up to three potential treatment alternatives will be analyzed for selected non-economic factors and an overall score will be developed for each of the non-economic factors.
- Recommendations: Total OPCC, life cycle, and non-economic factors of the potential recommended PFAS treatment alternatives will be provided.

TASK 300 – DETAILED DESIGN

ENGINEER will prepare detailed construction contract documents for two construction packages: 1) raw water pump station and 2) raw water transmission main (including the intake modifications and the Otoe Missouri raw water storage tank and valves). AutoCAD Civil 3D will be used for the raw water transmission main design. 3D or BIM models will be developed for the raw water pump station. For the intake modifications, drawings will consist of digital extractions made from the existing drawings (confirmed by physical measurements) with new and existing facilities placed on 2D plans and sections. No 4D environments will be created linking the drawings to a construction schedule. ENGINEER will reflect sequencing and timing of project phasing solely as described in Section 01140 – Work Restrictions. The Detailed Design will consist of a multi-discipline design effort generally described by the following elements:

- General / Civil / Site Work – The general / civil design will include hydraulic analysis, plan and profile drawings for the raw water transmission main, development of pump station layout and survey control, site drainage, paving and grading, and location of yard piping. Where necessary to define vertical alignment, yard piping profiles will be included for gravity pipelines and pressure pipes greater than 12 inches in diameter. Civil / site work design will include pump station site interior, pump station site boundary, access road, and off-site screening buffer areas. Include construction phasing delineation showing temporary piping and utilities, as required.
- Architectural Design – The architectural drawings will include general notes; overall site plan (key plan); pump station layout with floor and roof plans and elevations; sections and details; and code review with life safety information identified. ENGINEER will develop schedules and typical details for building construction, walls, doors, windows, and ancillary features required for the facility.
- Structural Design – The structural design will include the development of structural design criteria, selection of structural construction materials, design of foundations and foundation treatment, and design of the structural members for the various required facilities

- Process / Mechanical – The process design will include development of the detailed control and operation schemes for the various processes and process units. The mechanical design will include determination of equipment performance and characteristics required, selection of mechanical equipment, location and arrangement of the equipment (with tag numbers) and associated piping, design of the equipment and the associated piping, and design of the supports for equipment and piping. ENGINEER will develop schedules and typical details for supports of exposed process piping and equipment. Supports will be shown on the design drawings as agreed to by ENGINEER and OWNER. In general, tag numbers for all valves 4 inches or greater will be included on mechanical drawings.
- HVAC / Plumbing – The HVAC design will include the development of heating, ventilation, and air conditioning systems required for the pump station, including equipment, ductwork and ancillary devices. The plumbing design will include the development of potable and non-potable water and drainage systems required for the various buildings and areas. ENGINEER will develop schedules and typical details for supports of exposed utility piping, HVAC ductwork, and equipment. Supports will be shown on the design drawings as agreed to by ENGINEER and OWNER.
- Electrical – The electrical design will include design of power distribution and lighting systems for the pump station, development of motor control schemes, design of MCCs and power conduits, and identification of area classifications, based on OWNER's input and approval of recommended strategies and manufacturers. The electrical design will be coordinated with OWNER's and utility requirements. ENGINEER will develop schedules and typical details for supports of exposed conduit and equipment. Supports will be shown on the design drawings as agreed to by ENGINEER and OWNER.
- Specific items relative to standard electrical drawings and specifications will be as follows:
 - Overall site electrical plan identifying major electrical components (service entrance, primary switchgear, emergency generator connection, duct banks and electrical manholes); load calculations; area power, lighting, grounding and receptacle plans; area classification (class and division); general notes, key notes and detail callouts. ENGINEER will also provide duct bank section cuts showing conduit arrangement. Plan drawings will not include point-to-point conduit routing.
 - MCC design will include MCC front-face elevations (not to scale) and single-line diagrams identifying process equipment, panels and other electrical power requirements.
 - Panel layout design will include front exterior (face) elevation layout with general dimensions only. Description of general panel components, including wiring and color-coding standards, will be included in the technical specifications. Layouts for panels provided by manufacturers to be provided as part of an engineered package with equipment will not be included in ENGINEER's design drawings. Panel layout drawings will not include interior layouts; internal and external wiring/connection diagrams; bill of materials; detailed labeling; or detailed dimensional drawings. Technical specifications will include provisions requiring equipment manufacturers and panel builders to provide this additional level of detail as part of the submittal process, for ENGINEER and OWNER's review and approval.
 - Electrical design will include "typical" electrical schematics supplemented with tables for multiple products. Repetitive and/or redundant equipment items will not be identified with individual schematics. Wire numbers and PLC input/output (I/O) terminal assignments will also not be included.

- Electrical design will include lighting fixture and panel schedules and detailed cable/conduit schedules. Lighting protection will be specified as a delegated design.
- Electrical design will not include; loop diagrams (analog); wiring diagrams (discrete signals); or point-to-point control wiring diagrams. Specific requirements for supplier(s) to submit detailed analog loop diagrams and discrete signal wiring diagrams (in hardcopy and electronic format) as part of the shop drawing submittal process will be included in the technical specifications
- Instrumentation and Controls – The instrumentation and controls (I&C) design will include specification of instrumentation hardware and software required to accomplish the distributed control and operation scheme(s), design of alarm and display systems, functional layout of area control centers, and selection of control and monitoring instruments. Instrumentation design will include only on-site facilities up to the interface point with the OWNER’s SCADA telemetry system. Specific items relative to standard I&C drawings and specifications will be as follows:
 - Provide block diagram(s) and network diagram(s) for the plant control system.
 - Provide process and instrumentation diagram (P&ID) drawings based on a vertical hierarchy of layers (or bands) ordered from top to bottom as follows:
 - SCADA (telemetry interface only)
 - PLC
 - LCP/VCP
 - FIELD (process equipment and field instrumentation)
 - Repetitive and/or redundant process controls will be identified as “typical of (number)” as appropriate. Manufacturer’s packaged equipment will be shown on P&IDs as a “black box” with only the interface monitoring and control signals identified. Tag numbers for all equipment, motorized (i.e., control) valves, and instrumentation will be included on P&IDs. P&IDs will not include PLC I/O addresses, pipe fittings or pipe sizes. Control descriptions will be included in specifications. P&IDs will not be provided for the following systems:
 - Fire detection and alarm systems
 - HVAC systems, including supply and exhaust fans, louvers, ACUs, and AHUs (unless specifically tied to odor control or other process)
 - Bridge cranes and/or monorails
 - Maintenance service equipment
 - Automatic overhead coiling doors (except for truck loading bay area)
 - Storm water drainage
 - Landscape irrigation.
 - NOTE: *Security-related components (i.e. associated EI&C plans and specifications) are not included but can be added as an Additional Service. If added, these plans and specifications will be included in a separate package to protect and maintain confidentiality, unless specifically directed otherwise by the OWNER.*

301 – Interim (60%) Design Review Submittal Packages

The 60% review submittal will include applicable updates from the 30% review submittal provided under Amendment No. 4, including the incorporation of applicable 30% submittal review comments provided by OWNER. ENGINEER will provide a copy of a 30% design submittal comments log with the 60% review submittal.

301.1 – Interim (60%) Design Review Submittal Package – Pump Station

The 60% pump station design review submittal will generally consist of the following:

- General Drawings – The General drawings will include applicable updates from 30% drawing set, plus preliminary construction staging areas, temporary facilities, and site access designations.
- Civil / Site Work Drawings – The Civil / Site Work drawings will include applicable updates from 30% drawing set, plus yard piping and utility profiles showing inverts of facilities and utility crossings; location and size of stormwater inlets and retention areas; grading and paving and yard piping plans with dimensions, contours, horizontal and vertical control, survey control, and construction notes. Dimensional requirements for yard structures will be determined and shown on plans.
- Architectural Drawings – The architectural drawings will include detailed floor and roof plans (with general and key notes, dimensions, section cut and detail callouts with cross-references); pump station layouts with floor and roof plans and elevations; sections and details; code review with life safety information identified, and schedules.
- Structural Drawings – The structural design will include the development of structural design criteria, selection of structural construction materials, design of foundations and foundation treatment, and design of the structural members for the pump station. The Structural drawings will include building and structure foundation, floor and roof plans (with general and key notes, dimensions, section cut and detail callouts with cross-references), construction joints and wall/slab openings; and section cuts (showing dimensions, elevations and reinforcement).
- Process / Mechanical Drawings – The Process / Mechanical drawings will include applicable updates from 30% drawing set, plus plans (with general and key notes, equipment and piping layouts, dimensions, and section cut and detail callouts with cross-references), and updated piping and valve schedules.
- HVAC / Plumbing Drawings – The HVAC / Plumbing drawings will include plans (with general and key notes, equipment and piping/duct layouts, dimensions, and section cut and detail callouts with cross-references); and updated details and schedules.
- Electrical Drawings – Electrical equipment space requirements will be defined to fix building requirements, including layout of corridors for major conduits/duct banks in buildings and on the site, location of electrical manholes and vaults, and locations where conduit/duct bank routing influences floor slab thickness. Area classifications will also be defined and designated. The Electrical drawings will include general notes, legend and abbreviations; preliminary load and short circuit calculation results; switchgear/power single line diagrams; electrical site plans [key plans]; existing and new MCC elevations; preliminary single line diagrams; preliminary area power and control plans; lighting plans and fixture schedules; preliminary lightning protection system plans; and preliminary control schematics for equipment and instrumentation.
- Instrumentation and Controls Drawings – The I&C drawings will include general notes, legend and abbreviations; plant control system architecture and block diagrams; preliminary process and instrumentation diagrams (P&IDs), preliminary control equipment location plans; and preliminary instrumentation mounting details.

- Technical Specifications – The 60% specification set will include markups to the standard technical specifications. ENGINEER will also submit supplemental summary sheets for OWNER review relative to preliminary selection of major products, acceptable manufacturers, and methods. Control descriptions will also be substantially complete and provided to the OWNER as part of the 60% design specifications review submittal. ENGINEER will review and include applicable OWNER front-end (Division 00 and Division 01) specifications.
- Typical Details – ENGINEER will compile and develop the typical details expected for the Project.
- Equipment and Instrumentation List – The Equipment and Instrumentation List will be developed.

Develop a 60% opinion of probable construction cost (OPCC). Facilitate a **60% Design Submittal Review Workshop** with OWNER to solicit comments on interim submittal and identify opportunities to optimize the Project, with focus on improving quality, increasing efficiency and reducing cost.

301.2 – Interim (60%) Design Review Submittal Package – Raw Water Transmission Main

The 60% raw water transmission main design review submittal will generally consist of the following:

- General Drawings – The General drawings will include applicable updates from 30% drawing set, plus preliminary construction staging areas, temporary facilities, and site access designations.
- Plan and Profile Drawings – The Plan and Profile drawings will include applicable updates from the 30% drawing set (which included only plan drawings for the raw water transmission main). The horizontal alignment and easements will be reviewed and finalized. The vertical alignment will be established and shown on the plan and profile drawings. Bends (both horizontal and vertical) for the raw water transmission main will allow for smart pigging of the main and access points for pigging will be provided. Locations for trenchless construction will be identified and shown. Utility crossings and any required relocations will be identified and shown on the drawings.
- Civil / Site Work Drawings – The Civil / Site Work drawings will include site plans for the Otoe Missouri raw water storage tank and addition of isolation valves on the existing Kaw raw water transmission main, grading and paving plans with dimensions, contours, horizontal and vertical control, survey control, and construction notes. Dimensional requirements for any structures will be determined and shown on plans.
- Structural Drawings – The structural design will include the development of structural design criteria, selection of structural construction materials, design of intake tower modifications, design of a submerged outfall structure (including energy dissipation features and erosion protection), and design of miscellaneous structures (such as valve vaults).
- Process / Mechanical Drawings – The Process / Mechanical drawings will design of intake tower modifications.
- Electrical Drawings – The Electrical drawings will be prepared for providing power to the 3 isolation valves near the submerged outfall structure, the flow control valves at the WTP, and the valves at the Otoe Missouri raw water storage tank.

- Instrumentation and Controls Drawings – The I&C drawings will be prepared for providing instruments and communications to the isolation valves near the submerged outfall structure, the flow control valves at the WTP, and the valves at the Otoe Missouri raw water storage tank.
- Technical Specifications – The 60% specification set will include markups to the standard technical specifications. ENGINEER will also submit supplemental summary sheets for OWNER review relative to preliminary selection of major products, acceptable manufacturers, and methods. Control descriptions will also be substantially complete and provided to the OWNER as part of the 60% design specifications review submittal. ENGINEER will review and include applicable OWNER front-end (Division 00 and Division 01) specifications.
- Typical Details – ENGINEER will compile and develop the typical details expected for the Project.
- Equipment and Instrumentation List – The Equipment and Instrumentation List will be developed.

Develop a 60% OPCC. Facilitate a **60% Design Submittal Review Workshop** with OWNER to solicit comments on interim submittal and identify opportunities to optimize the Project, with focus on improving quality, increasing efficiency and reducing cost.

DELIVERABLES: Review Drawings and Technical Specifications (PDF only)
Workshop Agenda & Minutes (PDF only); Submittal Reviews Comments & Responses Logs (electronic format)

302 – Interim (90%) Design Review Submittal Packages

PURPOSE: This interim (90%) submittal is intended as a pre-Agency Review check set for quality management and final coordination ahead of the reviews by regulatory agencies and agencies having jurisdiction.

The 90% submittal will include applicable updates from the 60% review submittal, including the incorporation of applicable 60% submittal review comments provided by OWNER.

302.1 – Interim (90%) Design Review Submittal Package – Pump Station

Prepare and submit the 90% drawings and technical specifications for the pump station. Update the 60% OPCC to develop the 90% OPCC. Facilitate a **90% Design Submittal Review Workshop** with OWNER to solicit comments on interim submittal.

DELIVERABLES: Review Drawings and Technical Specifications (PDF only)
Workshop Agenda & Minutes (PDF only); Submittal Reviews Comments & Responses Logs (electronic format)

302.2 – Interim (90%) Design Review Submittal Package – Raw Water Transmission Main

Prepare and submit the 90% drawings and technical specifications for the raw water transmission main. Update the 60% OPCC to develop the 90% OPCC. Facilitate a **90% Design Submittal Review Workshop** with OWNER to solicit comments on interim submittal.

DELIVERABLES: Review Drawings and Technical Specifications (PDF only)
Workshop Agenda & Minutes (PDF only); Submittal Reviews Comments & Responses Logs (electronic format)

303 – Interim (95%) Agency Review Sets

The 95% Agency Review submittal will include applicable updates from the 90% review submittal, including the incorporation of applicable 90% submittal review comments provided by OWNER. This will include the raw water pump station package and the raw water transmission main package.

Provide electronic plans and specifications for submission to ODEQ and the applicable AHJ (i.e., Civil, Building and Fire Departments) for code compliance and agency review. Agency review sets will be sealed and stamped with “*FOR AGENCY REVIEW ONLY - NOT FOR CONSTRUCTION*” or similar note. All applicable department review fees will be paid for directly by the OWNER.

DELIVERABLES: Review Drawings and Technical Specifications for OWNER, ODEQ, and AHJ (PDF only)

304 – Final (100%) Contract Documents

The 100% (final) Contract Documents will include applicable updates from the Agency Review submittal, including the incorporation of applicable comments provided by OWNER at the 90% submittal review workshop, plus applicable OWNER and agency review comments. ENGINEER will finalize, seal, and submit all design drawings and technical specifications in the appropriate format within thirty (30) days following receipt of all review comments provided by OWNER and other review agencies. ENGINEER will provide a copy of a 90% design submittal comments log to OWNER with the final submittal. ENGINEER will update the 90% OPCC to develop the 100% OPCC. This will include the raw water pump station package and the raw water transmission main package.

Submittals will include drawings and technical specifications (PDF only); plus, one (1) CADD format on CD/DVD.

DELIVERABLES: Final Drawings and Technical Specifications for OWNER (PDF and CADD format)

TASK 400 – BID PHASE SERVICES

The following tasks describe the specific efforts associated with the bid phase of the Project.

401 – Pre-bid Conference:

ENGINEER will conduct a pre-bid conference for the 2 construction packages: 1) raw water transmission main and intake modifications and 2) raw water pump station. The ENGINEER will prepare an agenda for each pre-bid conference.

DELIVERABLES: Pre-bid Conference Agendas (PDF only)

402 – Addenda

ENGINEER will respond to contractor questions during the bidding process and will prepare up to 2 addenda for each of the 2 construction packages (total of 4 addenda). Responses to contractor questions will be provided to the OWNER to post on lonwave (OWNER’s online bidding portal) and will also be included in the addenda.

DELIVERABLES: Pre-bid Conference Agendas (PDF only)

403 – Bid Tabulation/Evaluation and Recommendation of Award

ENGINEER will tabulate and evaluate bids received and will prepare a Recommendation of Award Letter for each of the 2 construction packages.

DELIVERABLES: Bid Tabulations and Recommendation of Award Letters (PDF only)

TASK 500 – CONSTRUCTION ADMINISTRATION AND INSPECTION (Not Used)

TASK 600 – STARTUP AND COMMISSIONING PHASE SERVICES (Not Used)

TASK 700 – QUALITY MANAGEMENT

ENGINEER will perform various quality management activities throughout the design phase, as delineated in the following tasks and sub-tasks.

701 – Develop Quality Management Plan – No Work

The quality management plan developed under the Caustic Storage and Feed System at the Stillwater WTP (Amendment No. 1) will be used for this project.

702 – ER Document Review

Facilitate a detailed quality management review of the draft ER document with the Quality Managers to review content and format, prior to submittal of draft document to the OWNER.

703 – Operability and Constructability Review

Perform an internal operability and constructability review and analysis of the design at the 60% design review submittal stage for the two design packages (raw water transmission main including intake modifications and raw water pump station). This review will be conducted to verify that the preferred operational strategies and control philosophy are being properly implemented. Efforts will include review of the applicable design criteria, conditions, and assumptions; design calculations; preliminary equipment data sheets; and updated equipment and instrumentation list. This will also include a review of the design for the use of practical cost-effective construction measures, procedures and scheduling; required construction activities and their impact on existing equipment, process and operation; and review and coordination of contract provisions and construction details to minimize potential conflicts and claims. Efforts will include review of the updated control descriptions; updated design calculations; updated equipment data sheets (with catalog cuts); and updated equipment and instrumentation lists.

DELIVERABLES: 60% Review Submittal Comments Logs (Electronic format only)

704 – Detailed Quality Management Check

Perform an internal detailed quality management check of the 90% design review submittal plans and specifications (prior to the 95% Agency Review submittal). Efforts will include items identified on ENGINEER's detailed checklist, in accordance with the Quality Management Plan. This check will include a review of the plans, specifications, and typical details for conformity with the local, state and federal guidelines; as well as coordination between the process and mechanical work with all discipline groups (excluding electrical and I&C), including structural, architectural, HVAC, plumbing and fire protection. Following the detailed discipline review check, a subsequent

detailed electrical and I&C check will be conducted for both the review submittal documents and summary of the other discipline detailed check comments.

DELIVERABLES: 90% Review Submittal Comments Log (Electronic format only)

TASK 800 – PERMITTING ASSISTANCE

ENGINEER will perform various permitting coordination and assistance activities throughout the design phase, as delineated in the following tasks and sub-tasks.

801 – Develop Permitting Assistance Plan

Develop a Permitting Assistance Plan (PAP) that will confirm permits and clearances already identified and detail the anticipated regulatory and administrative permits required for the Project (including pertinent civil, building and fire reviews), when and how the various permit applications should be prepared and submitted, agency contacts and timing of agency reviews, who will be responsible, and what supporting information and fees will be required by each permit. It is anticipated that this effort will include, but may not be limited to, the following AHJs:

- Stillwater Departments (e.g. Electric, Building, Fire)
- ODEQ
- OWRB
- USACE
- Agency reviews associated with funding assistance

Prepare and submit a draft Permitting Assistance Plan to the OWNER for review and approval. Upon receipt of comments, submit a final Permitting Assistance Plan to the OWNER for distribution.

DELIVERABLES: Draft & Final Permitting Assistance Plan (PDF only)

802 – Permit Development

In conjunction with the OWNER, develop applicable permit applications and supporting documents in accordance with the Permitting Assistance Plan. Submit preliminary supporting documents as part of a preliminary technical review process (at the 60% design stage). Submit applicable Agency Review documents and associated reports, plans and supporting information to the AHJ for the necessary building, site, civil and fire plan review approvals accordingly. Provide additional information as requested from plan review staff, as appropriate.

It is anticipated that the intake tower modifications and submerged outfall in Lake McMurtry may require permit authorization under Section 404 of the Clean Water Act. This proposed action will likely fall under USACE Nationwide Permit (NWP) 7 – Outfall Structures and Associated Intake Structures. The permit authorization type and documentation requirements will be confirmed with the USACE. A Pre-construction Notification (PCN) will be prepared and submitted to USACE for this work.

DELIVERABLES: Draft & Final Permit Applications

NOTE: Construction-related permits, including but not necessarily limited to SWPPP for stormwater, shall be by the contractor.

TASK 900 – LAND ACQUISITION

ENGINEER will perform land acquisition and relocation services as described below:

- Title research:
 - Provide existing easements.
 - Provide ownership information.
 - Research of the County records to determine ownership. Research to include the last 5-year period immediately preceding the title search or beyond 5 years, until good title is found.
 - Good title is generally defined as warranted and defensible title. Quit Claim Deeds and other non-warranted deeds are not considered good title. If good title cannot be identified, the use of an approved title attorney, abstracting company or other well-qualified individual may be utilized and must be approved by the OWNER.
- Meetings:
 - Attend 2 public meetings.
 - Prepare invitations to landowners, slideshow, sign-in sheets, and handouts for meetings.
- Coordination of appraisals and appraisal reviews:
 - Contract with a State Certified Appraiser and review appraisal to provide an appraisal by a Certified Appraiser. Appraisers must have thorough knowledge and experience in providing analysis for the type of property assigned.
 - Appraisals will consist of several sets of sales data, maps, summary tables and analysis which will outline a range of values for various highest and best uses and property characteristics.
- Waiver preparation
 - Make a physical inspection of each separate parcel.
 - Utilize the Area Analysis prepared by the Appraiser for the land value.
 - Calculate the Fair Market Value (FMV) of the part taken and any minor cost to cure damages.
 - Cost-to-cure damages include compensation for any item that will restore the subject to its before taking function or utility. Cost-to-cure damages will fall into any one of the 3 following categories:
 - Relocate – the cost to physically remove an improvement from the acquired area and place it onto the subject remainder.
 - Replace – the cost to replace the improvement or its functional equivalent onto the subject remainder.
 - Reconfigure – the cost to reconstruct a set of improvements (i.e. parking lot or cattle pens) that will allow the remainder to have the same utility as the subject before the taking.
- Negotiations:
 - Prepare offer documentation to deliver to landowner (in person is first option).
 - Offer documentation includes:
 - Property Rights Brochure or State of Oklahoma Landowners Bill of Rights.
 - Offer Letter.
 - Summary of Just Compensation.
 - Donation Certificate (off the opportunity to donate).
 - Copy of Easement Documents and Exhibits.

- Conduct negotiations with each owner for the acquisition of the property right to be acquired based on the approved Fair Market Value determined in the waiver valuation.
- Discuss and explain the project.
- Document and answer any questions landowners may have.
- Secure all documentation necessary to convey title or easement rights to the OWNER.
- Coordinate with OWNER request for the issuance of all funds necessary to obtain the easements in a timely manner.
- Document in writing all contacts made and documents sent/received during the negotiation process in a parcel log.
- Records management:
 - Maintain a project database program of all project land acquisition activities.
 - Maintain electronic records regarding all land acquisition activities. Upon completion of all parcel activities, the file(s) will be delivered to the OWNER.
- Project management:
 - Conduct overall project administration and coordination of activities with OWNER.
 - Participate in project public meetings and make presentations regarding the land acquisition program as required by the City.
 - Develop project scheduling information and monitor completion of activities in accordance with the overall project schedule and submit monthly status reports on project progression.
 - Provide paperwork audit and quality control.

DELIVERABLES: Title research (PDF and hard copy)
 Invitations to landowners, slideshow, sign-in sheets, and handouts for meetings (PDF and hard copy)
 Offer documentation (PDF and hard copy)
 Electronic records of all land acquisition activities (electronic format)

END OF BASIC SERVICES

ATTACHMENT 1

SUMMARY OF PROJECT DELIVERABLES

PROJECT TITLE: **Lake McMurtry Raw Water Transmission Main and Pump Station Design**
 PROJECT No.: **23WT03**

Task No.	Name / Description	Format	Version	No. of Copies	Submittal Date
101	Monthly Invoices and Progress Reports	PDF	Final	--	Monthly
101	Weekly Status Updates	Electronic	Final	--	Following Tuesday
101	Action Log and Decision Log	Electronic on SharePoint	Working File	--	Bi-weekly
102	Project Meeting Agendas & Minutes	PDF	Final	--	Monthly
103	Project Schedule	PDF	Working File	--	Monthly
104	Drawing Nomenclature	PDF	Draft Final	--	TBD
104	Tag Numbering Scheme	PDF	Draft Final	--	TBD
201	Geotechnical Report	PDF	Draft Final	--	TBD
202	Topographic Basemap	Electronic	Final	--	TBD
203	Potholing Summary Report	PDF	Final	--	TBD
204	Cultural Resources Report	PDF	Draft Final	--	TBD
204	EA	PDF	Draft Final	--	TBD
205	Transient Analysis Technical Memorandum	PDF	Draft Final	--	TBD
206	Intake Tower Modifications Technical Memorandum	PDF	Draft Final	--	TBD
207	Preliminary Engineering Report	PDF	Draft Final	--	TBD
208	ODEQ & OWRB Meeting Agendas & Minutes	PDF	Final	--	TBD
301.1	Pump Station 60% Review Drawings and Technical Specifications	PDF	Final	--	TBD
301.1	Pump Station 60% Review Workshop Agenda & Minutes	PDF	Final	--	TBD

Task No.	Name / Description	Format	Version	No. of Copies	Submittal Date
301.1	Pump Station 60% Response Log	Electronic	Final	--	TBD
301.2	Raw Water Transmission Main 60% Review Drawings and Technical Specifications	PDF	Final	--	TBD
301.2	Raw Water Transmission Main 60% Review Workshop Agenda & Minutes	PDF	Final	--	TBD
301.2	Raw Water Transmission Main 60% Response Log	Electronic	Final	--	TBD
302.1	Pump Station 90% Review Drawings and Technical Specifications	PDF	Final	--	TBD
302.1	Pump Station 90% Review Workshop Agenda & Minutes	PDF	Final	--	TBD
302.1	Pump Station 90% Response Log	Electronic	Final	--	TBD
302.2	Raw Water Transmission Main 90% Review Drawings and Technical Specifications	PDF	Final	--	TBD
302.2	Raw Water Transmission Main 90% Review Workshop Agenda & Minutes	PDF	Final	--	TBD
302.2	Raw Water Transmission Main 90% Response Log	Electronic	Final	--	TBD
303	Pump Station 95% Agency Review Drawings and Technical Specifications	PDF	Final	--	TBD
303	Raw Water Transmission Main 95% Agency Review Drawings and Technical Specifications	PDF	Final	--	TBD
304	Pump Station Final (100%) Drawings and Technical Specifications	PDF	Final	--	TBD
304	Raw Water Transmission Main Final (100%) Drawings and Technical Specifications	PDF and Electronic	Final	--	TBD
401	Pump Station Pre-bid Conference Agenda	PDF	Final	--	TBD
401	Raw Water Transmission Main Pre-bid Conference Agenda	PDF	Final	--	TBD
402	Pump Station Addenda (2)	PDF	Draft Final	--	TBD
402	Raw Water Transmission Main Addenda (2)	PDF	Draft Final	--	TBD
403	Pump Station Bid Tabulation and Recommendation of Award Letter	PDF	Draft Final	--	TBD
403	Raw Water Transmission Main Bid Tabulation and Recommendation of Award Letter	PDF	Draft Final	--	TBD

Task No.	Name / Description	Format	Version	No. of Copies	Submittal Date
703	Pump Station 60% Review Submittal Comments	Electronic	Final	--	TBD
703	Raw Water Transmission Main 60% Review Submittal Comments	Electronic	Final	--	TBD
704	Pump Station 90% Review Submittal Comments	Electronic	Final	--	TBD
704	Raw Water Transmission Main 90% Review Submittal Comments	Electronic	Final	--	TBD
801	Permitting Assistance Plan	PDF	Draft Final	--	TBD
802	Permit Applications	TBD	Draft Final	--	TBD
901	Title Research	PDF and hard copy	Final	--	TBD
901	Invitations to Landowners, Slideshow, Sign-in Sheets, and Handouts for Meetings	PDF and hard copy	Draft Final	TBD	TBD
901	Offer Documentation	PDF and hard copy	Draft and Final	TBD	TBD
901	Records of Land Acquisition Activities	Electronic	Final	--	TBD

ATTACHMENT 2

ADDITIONAL SERVICES

PROJECT TITLE: **Lake McMurtry Raw Water Transmission Main and Pump Station Design**
PROJECT No.: **23WT03**

Additional Services are defined as those services that are not included in the base services in Appendix 3 to Exhibit A, but that may be provided during the Project duration if requested by the OWNER. If directed by OWNER, Additional Services will be provided by ENGINEER for additional compensation as agreed to by ENGINEER and OWNER.

Additional Services may include, but not necessarily limited to, the following:

- 1) Additional water or solids sampling and analysis, if required.
- 2) Process pilot testing or bench scale testing, if desired.
- 3) Facility tours or site visits to facilities outside of the Stillwater metropolitan area, if desired.
- 4) Permit fees, if required.
- 5) Preparation of materials and/or presentations to Stillwater Utilities Authority or City Council as part of any Board meetings, if desired.
- 6) Efforts related to mitigation of any protected species identified on Project site(s), if required.
- 7) Efforts related to mitigation of any hazardous materials (e.g., asbestos, contaminated soil, etc.) beyond typical specification development.

Specific tasks identified as Additional Services are summarized below.

TASK 200 - PRELIMINARY ENGINEERING AND INVESTIGATION

201 – Additional Geotechnical Services:

- Geotechnical borings, cone penetrometer tests (CPTs), or other subsurface investigations will be completed if deemed necessary following completion of the initial investigation and if approved by the OWNER. For the purposes of this additional scope, 20 additional borings completed to a depth of 30 feet is assumed.
- Piezometers: Installation, monitoring, and closure of piezometers to monitor groundwater levels deemed necessary following completion of the initial investigation and if approved by the OWNER. For the purposes of this additional scope, installation, monitoring, and closure of 5 piezometers is assumed.
- Geotechnical boring in Lake McMurtry at the submerged outfall location done using a barge if deemed necessary following completion of the initial investigation and if approved by the OWNER.

202 – Additional Topographic Survey Services:

Additional topographic survey services will be completed if necessary due to changes in the raw water transmission main alignment resulting from issues encountered in land acquisition. For the purposes of this additional scope, a 100-foot corridor over a distance of 2 miles is assumed.

203 – Additional Potholing

Additional pothole locations beyond the 20 identified in the Basic Services will be completed if necessary and approved by the OWNER. For the purposes of this additional scope the following is assumed:

- Number of Potholes: 20
- Site Visits: 2
- Hours/Visit: 8

204 – Additional Environmental Assessment

Additional environmental assessment beyond the activities identified in the Basic Services will be completed if necessary and approved by the OWNER. Specific additional tasks will be defined and a scope and associated fee will be provided to the OWNER if necessary.

TASK 1100 – FUNDING ASSISTANCE

1101 –Develop Funding Matrix

Identify potential funding sources for the PFAS treatment alternatives evaluation (Additional Services Subtask 210) and for the design and construction of PFAS treatment facilities. A matrix presenting the funding sources identified will be provided and will include the program, agency, funding source, the application process and timeline, and assessment of how difficult it would be to obtain the funding.

1101 –Funding Support

Provide the OWNER with support in preparing applications and pursuing funding for the PFAS treatment alternatives evaluation (Additional Services Subtask 210) and for the design and construction of PFAS treatment facilities.

GIS Digital Data Submission Requirements

The Engineer shall produce GIS and CAD files in such a way that allows the Owner to incorporate new or revised field data and information electronically into Owner's geographical record system. The submission requirements by the Engineer to the Owner for all files include the following criteria.

1. Digital Data Submission for GIS and CAD applies to all plan sheets submitted to the Owner including but not limited to site plans, design drawings, alignments, facilities drawings, easements, rights-of-way, as-builts and final plats.
2. Acceptable data formats in order of preference include:
 - a) ESRI Geodatabase (Personal or File)
 - b) ArcView Shapefiles
 - c) DXF (AutoCAD Drawing Exchange Format)
 - d) DWG (CAD drawing file)
3. Standard transfer media will be accepted on flash drives or through upload to cloud.
4. All drawing elements shall be submitted referencing the Oklahoma State Plane Coordinate System and will utilize the North American Datum of 1983 (NAD83) for horizontal control and be measured in US Feet (not meters).
 - a) Projection Name:
"NAD_1983_StatePlane_Oklahoma_North_FIPS_3501_Feet"
5. To expedite the conversion of CAD data, if so provided, into the Owner's GIS, the following requirements shall be met:
 - a) Closure is critical in converting CAD elements to GIS features, all polygon features (i.e. parcel boundaries) shall be 'snapped' closed.
 - b) Submitted files shall contain only complete point, polyline or polygon features.
 - c) The segregation of layering shall allow for each component to be individually isolated in its entirety.
 - d) Proposed and existing entities shall be on separate layers.
 - e) The submittal with its required layers shall not maintain any external references, attachments, or third party layers.
 - f) Drawing features and layers shall include descriptive attributes in a feature linked attribute table. See Table 1.

6. Digital submissions to the Owner shall only include the base and utility system layers listed in Table 1. At the Engineer's request, Owner will provide digital data schema conforming to and expanding Table 1.

Table 1: Digital Data Schema⁽¹⁾

Layer Name	Data Type	Layer Description	Attribute ⁽²⁾
Base			
Street	Polyline	Street Centerline	Streetname
Road_EOP	Polyline	edge of pavement	
Easement	Polyline	Easement	Type, Width
Lot	Polyline	Lot	Lot, Block number
Block	Polyline	Block	
Subdivision	Polyline	Subdivision	Subdivision name
Building	Polyline	Building Footprints	
Driveway	Polyline	Driveway	
Water			
wMain	Polyline	Water main	Size, Material
wSystemValve	Point	Water valve	Size, Type
wHydrant	Point	Fire hydrant	Manufacture
wFitting	Point	Water Fitting	Type, Size
wServiceConnection	Point	Water Meter	
Wastewater			
Sewerline	Polyline	Wastewater Mains	Size, Material
Manhole	Point	Wastewater Manholes	Type, Depth, Size
Stormwater			
swClosedChannels	Polyline	Stormwater Closed Channel	Type, Material ⁽²⁾
swOpenChannel	Polyline	Stormwater Open Channel	Type
swNetworkStructure	Point	Stormwater Structure	Type
swManhole	Point	Stormwater Manhole	Type, Size
swInlet	Point	Stormwater Inlet	Type, Dimension
swOutlet	Point	Stormwater Outlet	Type, Dimension
Electric			
PrimaryConductor	Polyline	Electric Main Line	
SecondaryConductor	Polyline	Electric Secondary Line	
TransformerBank	Point	Electric Transformer	
PowerPole	Point	Power Pole	
LightPole	Point	Light Pole	
(1) At the Engineer's request, Owner will provide digital data schema conforming to and expanding Table 1.			
(2) Additional attributes are available in Owner's digital data schema.			

Owner's Responsibilities

Article 2 of the Agreement is supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense:

- A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which Owner will require to be included in the Drawings and Specifications; and furnish copies of Owner's standard forms, conditions, and related documents for Engineer to include in the Bidding Documents, when applicable.
- B. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, or investigation at or adjacent to the Site.
- C. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, furnish or otherwise make available such additional Project related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:
 - 1. Property descriptions.
 - 2. Zoning, deed, and other land use restrictions.
 - 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 - 4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions relating to existing surface or subsurface structures at the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
 - 5. Environmental assessments, audits, investigations, and impact statements, and other relevant environmental or cultural studies as to the Project, the Site, and adjacent areas.
 - 6. Data or consultations as required for the Project but not otherwise identified in the Agreement or the Exhibits thereto.

- D. Give prompt written notice to Engineer whenever Owner observes or otherwise becomes aware of the presence at the Site of any Constituent of Concern, or of any other development that affects the scope or time of performance of Engineer's services, or any defect or nonconformance in Engineer's services, the Work, or in the performance of any Contractor.
- E. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement as required.
- F. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.
- G. Examine all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (including obtaining advice of an attorney, insurance counselor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.
- I. Recognizing and acknowledging that Engineer's services and expertise do not include the following services, provide, as required for the Project:
 - 1. Accounting, bond and financial advisory, independent cost estimating, and insurance counseling services.
 - 2. Legal services with regard to issues pertaining to the Project as Owner requires. ~~Contractor raises, or Engineer reasonably requests.~~
 - 3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the moneys paid.
- J. Place and pay for advertisement for Bids in appropriate publications.
- K. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, facilitating/partnering, value engineering, and constructability review.
- L. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.
- M. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment

to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.

- N. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.
- O. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Substantial Completion and final payment visits to the Project.
- P. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of samples, materials, and equipment required by the Contract Documents, or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof.
- Q. Provide Engineer with the findings and reports generated by the entities providing services to Owner pursuant to this paragraph.
- R. Inform Engineer in writing of any specific requirements of safety or security programs that are applicable to Engineer, as a visitor to the Site.
- S. Perform or provide the following additional services: *None identified*.

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Payments to Engineer for Services and Reimbursable Expenses

Article 2 of the Agreement is supplemented to include the following agreement of the parties:

ARTICLE 2 – OWNER’S RESPONSIBILITIES

C2.01 Compensation For Basic Services And Additional Services (other than Resident Project Representative) – Standard Hourly Rates Method of Payment

A. Owner shall pay Engineer for Basic Services and Additional Services set forth in Exhibit A, except for services of Engineer’s Resident Project Representative, if any, as follows:

1. An amount equal to the cumulative hours charged to the Project by each class of Engineer’s personnel times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and Engineer’s Consultants' charges, if any.
2. Engineer’s Reimbursable Expenses Schedule and Standard Hourly Rates are attached to this Exhibit C as Appendices 1 and 2.
3. The total compensation for services under Paragraph C2.01 is estimated to be \$ 3,249,120 for Basic Services and \$470,387.00 for Additional Services based on the following estimated distribution of compensation:

a. Project Management	\$142,296.00
b. Preliminary Engineering and Investigation	\$773,179.00
c. Preliminary Design Phase	\$826,547.00
d. Final Design Phase	\$1,007,496.00
e. Bidding or Negotiating Phase	\$105,032.00
f. Quality Management	\$148,314.00
g. Permitting	\$41,624.00
h. Land Acquisition	\$204,632.00
i. Construction Phase	\$0 (Future Amendment)
j. Post-Construction Phase	\$0 (Future Amendment)
k. Additional Services	<u>\$470,387.00 (if authorized by Owner)</u>

4. Engineer may, upon written approval by the Owner, alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by Owner. See also C2.03.C.2 below.
5. The total estimated compensation for Engineer's services included in the breakdown by phases as noted in Paragraph C2.01.A.3 incorporates all labor, overhead, profit, Reimbursable Expenses and Engineer's Consultants' charges.
6. The amounts billed for Engineer's services under Paragraph C2.01 will be based on the cumulative hours charged to the Project during the billing period by each class of Engineer's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and Engineer's Consultants' charges.
- ~~7. The Standard Hourly Rates and Reimbursable Expenses Schedule will be adjusted annually (as of _____) to reflect equitable changes in the compensation payable to Engineer.~~

C2.02 *Compensation For Reimbursable Expenses*

- A. Owner shall pay Engineer for all Reimbursable Expenses at the rates set forth in Appendix 1 to this Exhibit C.
- B. Reimbursable Expenses include the following categories: transportation and subsistence incidental thereto; providing and maintaining field office facilities including furnishings and utilities; toll telephone calls and mobile phone charges; reproduction of reports, Drawings, Specifications, Bidding Documents, and similar Project-related items in addition to those required under Exhibit A. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for the use of highly specialized equipment.
- C. The amounts payable to Engineer for Reimbursable Expenses will be the Project-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to the Project, the latter multiplied by a factor of 1.0.

C2.03 *Other Provisions Concerning Payment*

- A. Whenever Engineer is entitled to compensation for the charges of Engineer's Consultants, those charges shall be the amounts billed by Engineer's Consultants to Engineer times a factor of 1.0.
- B. Factors. The external Reimbursable Expenses and Engineer's Consultants' factors include Engineer's overhead and profit associated with Engineer's responsibility for the administration of such services and costs.
- C. Estimated Compensation Amounts:
 1. Engineer's estimate of the amounts that will become payable for specified services are only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.

2. When estimated compensation amounts have been stated herein and it subsequently becomes apparent to Engineer that the total compensation amount thus estimated will be exceeded, Engineer shall give Owner written notice thereof, allowing Owner to consider its options, including suspension or termination of Engineer's services for Owner's convenience. Upon notice, Owner and Engineer promptly shall review the matter of services remaining to be performed and compensation for such services. Owner shall either exercise its right to suspend or terminate Engineer's services for Owner's convenience, agree to such compensation exceeding said estimated amount, or agree to a reduction in the remaining services to be rendered by Engineer, so that total compensation for such services will not exceed said estimated amount when such services are completed. If Owner decides not to suspend the Engineer's services during the negotiations and Engineer exceeds the estimated amount before Owner and Engineer have agreed to an increase in the compensation due Engineer or a reduction in the remaining services, then Engineer shall be paid for all services rendered hereunder.
- D. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

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This is **Appendix 1 to EXHIBIT C**, consisting of _____ pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2024

Reimbursable Expenses Schedule

Current agreements for engineering services stipulate that the Reimbursable Expenses are subject to review and adjustment per Exhibit C. Reimbursable expenses for services performed on the date of the Agreement are:

No Reimbursable Expenses are anticipated for this project.

This is **Appendix 2 to EXHIBIT C**, consisting of 2 page(s), referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2024.

Standard Hourly Rates Schedule

A. Standard Hourly Rates:

1. Standard Hourly Rates are set forth in this Appendix 2 to this Exhibit C and include salaries and wages paid to personnel in each billing class plus the cost of customary and statutory benefits, general and administrative overhead, non-project operating costs, and operating margin or profit.
2. The Standard Hourly Rates apply only as specified in Article C2.

B. Schedule: see next page.

Appendix 2 to Exhibit C
Fee Schedule through Dec 31, 2024
Lake McMurtry Raw Water Pump Station and Transmission Main Design

Project No. 23WT03
City of Stillwater/Stillwater Utilities Authority

<u>Category</u>		<u>Hourly Rate</u>
Engineers/Scientists		
Engineer I-II (EIT)	\$	185.00
Engineer III- IV (Staff Professional)	\$	208.00
Engineer V-VI (Professional)	\$	262.00
Lead Project Professional	\$	308.00
Senior Professional	\$	324.00
Project Manager/ QC Manager	\$	324.00
Lead Technical Advisor	\$	350.00
Technicians		
Technicians	\$	156.00
Senior Technicians	\$	227.00
Support Staff		
Document Processing / Clerical	\$	133.00
Project Equipment and Communication Expenses		
(PECE) Charge Per Direct Labor Hour	\$	15.00
Other Direct Expenses		
Travel and Subsistence		at cost
Mileage Charge Per Mile	\$	0.670
Subconsultant		At Cost
Other Direct Costs		At Cost
Expert Witness		Rate x 2.0

This fee schedule is revised in January and July of every year.
Invoice for each month will be prepared based on the fee schedule in effect during the month.

This is **Appendix 3 to EXHIBIT C**, consisting of 4 page(s), referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated _____, 2024.

Basis of Fee

See next page.

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Insurance

Paragraph 6.04 of the Agreement is supplemented to include the following agreement of the parties.

G6.04 Insurance

A. The limits of liability for the insurance required by Paragraph 6.04.A and 6.04.B of the Agreement are as follows:

1. By Engineer:

- | | |
|-------------------------------------|-------------------------------------|
| a. Workers' Compensation: | Statutory |
| b. Employer's Liability: | \$1,000,000 Aggregate Comprehensive |
| c. General Liability | |
| 1) Bodily Injury; each occurrence | \$500,000 |
| 2) Property Damage; each occurrence | \$500,000 |
| 3) General Aggregate: | \$1,000,000 |
| d. Professional Liability- | |
| 1) Annual Aggregate | \$1,000,000 |
| e. Automobile liability | |
| 1) Bodily Injury; each person | \$300,000 |
| 2) Property Damage; each occurrence | \$1,000,000 |

The Stillwater Utilities Authority shall be named an additional insured on the Comprehensive General Liability policy in amounts equal to the liability limits for political subdivisions set forth in the Oklahoma Governmental Tort Claims Act, 51 O.S. §151, et seq. Provided, however, this shall not preclude the Insured from carrying insurance in amounts exceeding said liability limits so long as the SUA is not named as an additional insured in any amount in excess of said statutory liability limits.

B. *Additional Insureds:*

1. The Owner shall be listed on Engineer's general liability policy as provided in Paragraph 6.04.A.

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(Exhibit G – Insurance)

EJCDC E-500 Agreement Between Owner and Engineer for Professional Services.

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Budget Amendment Request

For Budget Year _____

Department of Finance
 723 S. Lewis Street/P.O. Box 1449
 Stillwater, OK 74076-1449

Office: 405.372.0025
 Web: stillwater.org

Date: _____

Department: _____

Requested by: _____

Explanation:

Account Name	Account Number (xxxxxxx-xxxxx)	Project Number	Current Budget Amount	Amount of Change	New Budget Amount
Increase:	-				
	-				
	-				
	-				
	-				
Decrease:	-				
	-				
	-				
	-				
	-				

Net Change: (will usually result in a total increase or decrease)

Reviewed by Department Manager: _____

Date: _____

Reviewed by Finance: _____

Date: _____

Approved by CMO: _____

Date: _____

Approved by City Council: ☐ Yes

☐ No

Date: _____

Processed by Finance: _____

Date: _____

Set ID: _____

Date Sent to SA&I: _____

--Print on Yellow Paper--