

AMENDMENT NO. 2 TO CONTRACT FOR ENGINEERING SERVICES

This amendment is made and entered into this 19TH day of NOVEMBER, 2024, by and between the Oklahoma City Water Utilities Trust, a municipal trust, herein called "Trust", and Freese and Nichols, Inc., herein called "Engineer".

WITNESSETH:

WHEREAS, the Trust and the Engineer entered into an agreement on May 11, 2021 as follows:

Project No. WM-0309
Overholser Dam Structural Stability Improvements; and

WHEREAS, the Trust engaged the Engineer to provide for design and all other engineering services related to Overholser Dam Structural Stability Improvements; and

WHEREAS, the original contract provided for possible future amendment to engage the services of the Engineer to provide preparation of Final Plans and Specifications, Bidding, Construction Administration and other services related to this project; and

WHEREAS, it was determined to be in the best interest of the Trust to direct the Engineer to proceed with preparation of Final Plans and Specifications of Phase I, for hydraulic and stability improvements to the west end of the Dam; and

WHEREAS, services for Bidding, Construction Administration, As-Builts and Inspection Services remained by possible future amendment and may be negotiated upon completion of Final Plans and Specifications services; and

WHEREAS, it was also determined to direct the Engineer to provide for a phasing plan for the remainder of the necessary improvements; and

WHEREAS, in addition, the Engineer provided FEMA High Hazard Potential Dam (HHPD) grant and loan application services; and

WHEREAS, the above work was authorized under the auspices of **Amendment No. 1**; and

WHEREAS, Amendment No. 1 included a phased construction approach for stability and hydraulic improvements; and

WHEREAS, the hydraulic improvements were to consist of replacing various flood gates and permanent abandonment flood gates not required to pass the design flood; and

WHEREAS, subsequent to the execution of the original contract as previously amended, it has been determined that the phased approach approved by Amendment No. 1 would not meet the State's hydraulic requirements, therefore, a revised design concept is required; and

WHEREAS, the revised approach addresses stability improvements for the entire concrete spillway in Phase I, and hydraulic requirements in Phase II, which aligns with potential grant funding sources; and

WHEREAS, the Engineer will provide bidding services, while Construction Administration, As-Builts and Inspection Services will remain by possible future amendment; and

WHEREAS, it has also been determined that multiple permits will be required to complete the project; and

WHEREAS, the Engineer will bear the initial cost of the permit and be reimbursed by the Trust, therefore, it is necessary to add Reimbursable Expenses to Exhibit B – Compensation; and

WHEREAS, the original contract must be amended to incorporate the Engineer's scope of work related to these services; and

WHEREAS, the total compensation to be paid to the Engineer for this Contract and Amendment shall be as follows:

For the original contract:

Not to exceed \$519,550 for engineering services

For Amendment No. 1:

Not to exceed \$2,065,200 for engineering services

For Amendment No. 2:

Not to exceed \$2,226,915 for engineering services

Total Amended Contract:

Not to exceed \$4,811,665 for all services (an increase of \$2,226,915); and

WHEREAS, both parties agree to amend said contract.

NOW, THEREFORE, the parties agree as follows:

- I. Amend **Paragraph 2. Basic Services.** to read as follows:

Basic Services. The Engineer is hereby engaged and employed by the Trust to perform in accordance with good engineering practices and in the best interest of the Trust in accordance with the professional standard of care all of the work as set out herein (including **Amendment No. 1** work related to preparation of Final Plans and Specifications for Phase I, a phasing plan for the remainder of the necessary improvements, and FEMA HHPD grant and loan application services; and **Amendment No. 2** work related to a revised design concept to address stability and hydraulic improvements and incorporating Reimbursable Expenses to Exhibit B – Compensation); and including Exhibit A, and including but not limited to the following:

- II. Amend **Paragraph 2. Basic Services, subparagraph 2.C.** by removing the words “(by possible future amendment)” from the respective subparagraph and paragraph headers.

- III. Amend **Paragraph 5. Compensation.** to read as follows:

Compensation. The aggregate total compensation for all engineering services under this Contract shall not exceed a total fee of \$2,584,750 (an increase of \$2,065,200), which includes: for Basic Services an amount not to exceed \$2,374,750 (an increase of \$1,855,200), and for Reimbursable Expenses, an amount not to exceed \$12,351, as specifically set forth in Exhibit B, attached hereto and incorporated herein; and, for Additional Services an amount not to exceed \$210,000 (an increase of \$210,000), as specifically set forth in Exhibit E attached hereto and incorporated herein.

- IV. Amend **Paragraph 17. Work Orders.** to read as follows:

Work Orders. The Engineer shall proceed with the provision of work and/or services for this Contract upon receipt of work orders from the City Engineer. The Engineer shall complete and submit the Revised Preliminary Report – Task 1 for Phase I within one hundred eighty (180) calendar days, and Preliminary Report – Task 1 for Phase II within two hundred ten (210) calendar days of date of written work order from the City Engineer. The Engineer shall also complete and submit Revised Final Plan Services - Task 2 for Phase I within five hundred (500) calendar days and Final Plan Services - Task 2 for Phase II within five hundred thirty (530) calendar days of date of written work order from the City Engineer.

- V. Amend **EXHIBIT A – SCOPE OF WORK** by addition of the following “**Exhibit A-Scope of Work (added by Amendment No. 2)**”:

**Exhibit A-Scope of Work
(Added by Amendment No. 2)**

PROJECT UNDERSTANDING

Amendment No. 1 was executed on February 28, 2023 and was based on a phased construction approach that included phased stability improvements and hydraulic improvements. The hydraulic improvements were to consist of replacement of a number of flood gates and permanent abandonment of the ones not needed for passing the design flood. Upon progressing the design, it was determined that this approach would not be able to meet the State's hydraulic requirements and a revised design concept was needed. The original concept covered under Amendment No. 1 was structured so that stability and hydraulic requirements were met on a portion of the dam in each of the two phases of the project. The revised approach fully addresses stability improvements for the entire concrete spillway in Phase I and fully addresses hydraulic requirements in Phase II. This approach better lines up with potential grant funding sources. This amendment incorporates the recommended design changes to the project.

The rehabilitation of Overholser Dam may occur in two phases. The scope of Amendment No. 2 covers the engineering design (Task 2) of Phases I and II and modifies the scope and fee for Task 2 from Amendment No. 1 due to changes in project scope. The basic services include preparation of separate construction document packages for each phase. An additional services task is added in this Amendment No. 2 to allow the combination of both packages into a single construction package if directed by the Trust. Task 3, Bid Services are also included in this Amendment No. 2.

The following items will be removed from the scope of work based on the design changes agreed to by the Trust and the Engineer on March 29, 2024:

Hydraulic Improvements:

- a. Flood Gate Replacement: The 23 flood (Tainter) gates are in need of replacement, but only 7 gates are needed to pass the inflow design flood (IDF) per OWRB guidelines. Engineer will provide engineering design, plans, and specifications for the replacement of Gates 2-8 with new gates, trunnion anchors, seals, hoist cable attachments, and buttress modifications if necessary.
- b. Stoplogs: The original timber stop logs are not usable for future gate dewatering for inspections and maintenance. Engineer will design one complete set (for one gate) of steel stoplogs to be fabricated off-site and stored at the existing City maintenance facility near the dam's left abutment. Engineer will complete design calculations and prepare plans and specifications.
- c. Hoists: Engineer will prepare plans and specifications for new electric cable hoists for the 7 new gates. Each of the new gates will have a dedicated electric hoist and control system. Operating/control panels will be located on the bridge deck at each gate and also on a master control panel in the River Gatehouse on the east abutment of the dam.
- d. Bridge Modifications: The bridge section over Gates 1-9 will be replaced with a wider bridge of similar architecture that will allow separation of the gate operating equipment from public walkway access. Engineer will perform design calculations and prepare plans and specifications for the bridge replacement. The new bridge section will include replacement of light fixtures and pedestrian railing similar to existing.

Stability Improvements:

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- a. The section in front of Gates 10-24 will be left in place at the end of Phase I and the area between the cofferdam and the structure will be kept free of water to remove the water load against the dam, and incrementally improve stability in that section until Phase II can be completed. Phase II consists of replacing Gates 10 through 24 with concrete bulkheads and concrete ballast underneath the gates and the section under the gatehouse. Phase II may be completed under separate design amendment and construction may be completed under separate construction contract at a later date.

The following improvements will be included in WM-0309 based on the design changes agreed to by the Trust and the Engineer on March 29, 2024:

Phase I: Stability Improvements

- a. Concrete In-Filling: Stability of the structure will be improved to regulatory requirements by adding concrete ballast inside the concrete structure in all slab and buttress sections of the spillway (including gatehouse section), except the central overflow spillway which has already been modified in similar fashion. Engineer will perform design calculations and prepare plans and specifications.
- b. Impact slab construction and buttress extensions in Gates 10-24 area.
- c. An earthen upstream cofferdam will be installed to facilitate construction structural improvements. A portion of the cofferdam may be left in place after Phase I construction depending on the timing of Phase II.
- d. General concrete repairs on the spillway structure (buttresses, spillway slabs, bridge deck) as applicable to the other Phase I work to address deficiencies noted by past annual dam inspections; limited to crack and spall repairs.
- e. Replacement of bent steel members on bottom left section of pedestrian truss bridge.
- f. Replacement of pedestrian bridge system below gatehouse.
- g. Replacement in-kind of all 42-in steel railing on spillway structure.

Phase II: Hydraulic Improvements

- a. Tainter Gate Removal: All 23 Tainter gates will be removed from the dam.
- b. Labyrinth Weirs: Reinforced concrete labyrinth weirs will be constructed in all 24 gate bays. Note: Bay no. 1 currently is blocked by a concrete bulkhead which will be removed and replaced with a labyrinth weir. Manually operated slide gates will be constructed in one or two (depending on hydraulic requirements) labyrinth cycles to allow lowering of the lake level for maintenance.
- c. N. Morgan Road/S. Overholser Road Raise: The roadway west and north of the concrete spillway will be raised to provide the appropriate top of dam elevation to meet OWRB requirements. The design of the project will include the reconstruction of N Morgan Road/Overholser Road on the west and south sides of Lake Overholser from 2,200 feet north of NW 23rd Street and extending south and east 1.97 miles to County Line Road near the spillway. The project will include raising and reconstructing the roadway to a minimum elevation of 1252.4 while maintaining the existing roadway configuration. It is not anticipated that drainage improvements beyond additional grading, will be needed and hydrologic and hydraulic studies are not included as part of this contract. Utility relocation coordination as needed to accommodate construction of the road is included in the project scope.

- d. General concrete repairs on the spillway structure (buttresses, spillway slabs, bridge deck) as applicable to the other Phase II work to address deficiencies noted by past annual dam inspections; limited to crack and spall repairs.

BASIC SERVICES: WM-0309, PHASES I AND II SCOPE OF WORK

Task 1J: Engineering Report Services

Task 1J is an item added to the scope of Task 1 by mutual agreement to evaluate and develop a phasing plan for the dam rehabilitation alternative. This item was completed under Amendment 1.

Task 2: WM-0309, Final Plan Services

Engineer shall provide Final Plan Services in accordance with Task 2 of the Basic Contract and as supplemented herein.

PRE-DESIGN-PHASE INVESTIGATIONS: *Items 1 through 5 completed in Amendment 1.

- ~~1. Visual inspection inside hollow Gate 1-9 section (confined space entry)~~
- ~~2. Climbing inspection of gate trunnion anchorages in Gate 1-9 section~~
- ~~3. Concrete coring and testing from buttresses in Gate 1-9 section~~
- ~~4. Limited surveys of structural elements in Gate 1-9 section~~
- ~~5. Probabilistic and Deterministic Seismic Hazard Analysis (PSHA/DSHA) and updated seismic stability analysis.~~
6. Topographic Survey:
 - a. Complete a topographic survey along the centerline of N Morgan Road/Overholser Road on the west and south sides of Lake Overholser from 2,300 feet north of NW 23rd Street and extending south and east 2 miles to 100 feet east of County Line Road for width of 120 feet. The topographic survey will be a combination of mobile LIDAR and conventional survey methods and will include the following existing surface features: roads, bridges, curbs, drives, sidewalks, ditches, creeks, signs, fences, walls, decorative trees, flowerbeds, all visible drainage structures, and visible and/or marked utilities. The following additional elements will be completed:
 - b. Survey shall be provided in Microstation format.
 - c. Set a minimum of two (2) control points for horizontal and vertical purposes. The primary control points will be tied to the City of Oklahoma City GIS control network and datum.
 - d. Establish benchmarks at no more than 1,000' intervals throughout the survey limits, including one within 200' of the begin and end of the survey limits.
 - e. All utility companies servicing the project area will be contacted through "OKIE811" 72 hours prior to survey and the locations will be obtained. Private utilities that are not members of "OKIE811" will not be researched and locates will not be requested for those non-members. If utility markers/evidence is found during the survey, those companies will be attempted to be contacted to have them located.
 - f. Storm sewer manholes, sanitary sewer manholes, water valves and their inverts will be measured for depth.

- g. Research sections 23, 25 and 26 in T12N-R5W of the Indian Meridian to accurately plot existing right-of-way, easements, subdivision plats and property deeds within the limits of the survey.
 - h. Calculate a centerline of survey along N. Morgan Road/S. Overholser Road throughout the survey limits.
 - i. Plot the existing right-of-way along the centerline of survey throughout the survey limits.
 - j. Plot any existing easements throughout the survey limits.
 - k. Plot property deeds and subdivision plats for the properties adjoining the survey limits.
 - l. Items not included in the scope of work include: survey data sheets, utility potholing, ALTA/NSPS survey, right-of-way acquisition, plat of survey, and construction staking.
7. Design Team Site Visits – Engineer will perform site visits and field reconnaissance of the Overholser Road project area to determine the general layout for paving improvements, other related appurtenances, and verification of topographic survey information. Site visit will also include a visual inspection and possible drone inspection for cataloging areas for concrete spall and crack repair, and assessment of the maintenance access bridge below the gatehouse.
8. Geotechnical services along N. Morgan Road/S. Overholser Road as follows required for pavement design:
- a. Engineer shall provide, through a subcontract, geotechnical engineering services including exploratory work, laboratory and field testing, and professional guidance on subgrade preparation and pavement design for the roadway raise. The geotechnical investigation will include:
 - Eleven (11) borings to a depth of 5 feet.
 - Pavement thickness will be measured at each location.
 - Borings will be backfilled with auger cutting and/or bentonite pellets.
 - Pavement penetrations will be patched with asphalt.
 - Groundwater observations will be made and recorded at time of drilled and at completion of drilling operations.
 - Two samples per boring will be obtained via split spoon sampler.
 - Lab tests will consist of Atterberg Limits (11), Particle Size Analysis (11), and Moisture content (22).
 - Proctor and resilient modulus testing will not be conducted since 3 to 4 feet of to-be-determined imported fill will be used for pavement subgrade.
 - Soils will be classified in accordance with the Unified Soil Classification System, AASHTO, and Oklahoma Subgrade Index (OSI).
 - b. A comprehensive report will be provided after the completion of the laboratory testing and engineering evaluation. This report will document the field exploration, laboratory testing, engineering evaluation and recommendations. The report will include earthwork recommendations including backfill, general discussion of subsurface soil and groundwater conditions, site geology, pavement subgrade

preparation recommendations, and pavement thickness recommendations based upon provided traffic loading/counts,

30% Design

1. Prepare preliminary drawings for both Phase I and II projects. Drawings at 30% will include enough detail for preliminary discussions with SHPO and OWRB/USACE, and give OCWUT a chance to review the overall concepts and sequence. Approximately 45 and 95 sheets respectively are anticipated for each set at the 30% design. Anticipated drawings include:
 - a. Cover sheet
 - b. Sheet Index
 - c. General Notes
 - d. Structural Notes
 - e. Civil Plans and Sections
 - f. Structural Plans and Sections
 - g. Demolition Plan
 - h. Roadway Typical Sections
 - i. Roadway Horizontal Control
 - j. Roadway Plan and Profile
 - k. Roadway Cross Sections
 - l. Sequence of Construction and Care of Water
2. Specification list of anticipated technical and front-end specifications.
3. Engineer will coordinate with other municipal and private stakeholders defined by the Trust to collect requirements and provide project updates.
4. Submit drawings, specifications, and Construction Contract Documents to the applicable federal and state agency(s) for approval, where required. Engineer will make corrections and resubmit based on the comments received from the agencies at no cost to the Trust.
5. Furnish such information necessary to appropriate utility companies as identified by the Trust, whose facilities may be affected or services may be required for the Project.
6. Prepare preliminary opinion of probable construction cost (OPCC).
 - a. Provide an OPCC following the recommendations of the Association of Advancement of Cost Engineering (AACE) International Recommendation Practice No. 18R with regard to methodology and accuracy.
 - b. The cost opinion level of accuracy presented by the Engineer shall be a Class 3 – Budget Authorization or Control cost opinion in accordance with accepted industry guidelines defined by AACE. The Class 3 estimate is commensurate with development of the design concept to a 10% to 40% level; the expected accuracy on the low end will be -10 to -20 percent and the expected accuracy on the high end will be from +20 to 50 percent.
 - c. Engineer shall provide summary and detail reports of the OPCC. Summary OPCC report shall match the anticipated bid structure of the Project.
7. Engineer shall perform structural, geotechnical, and hydraulic calculations to support the design of the planned stability and hydraulic improvements.

8. Engineer will assist the Trust in developing a funding strategy for construction funding to include coordination with OWRB and ODEMHS regarding funding opportunities. Grant or loan application preparation are included in Additional Services.

60% Design

1. Prepare 60% drawings for both Phase I and II projects. Drawings at 60% will include all anticipated drawings for both sets of plans advanced to the 60% level of design. Approximately 60 and 120 sheets are anticipated for each set, respectively. Anticipated drawings to include:
 - Cover sheet
 - Sheet Index
 - General Notes
 - Structural Notes
 - Civil Plans and Sections
 - Civil Details
 - Structural Plans and Sections
 - Structural Details
 - Demolition Plans and Sections
 - Roadway Typical Sections
 - Roadway Pay Quantities and Notes
 - Roadway Horizontal Control
 - Roadway Plan and Profile Sheets
 - Roadway Cross Sections
 - Roadway Details
 - Right of Way Map (if applicable)
 - Roadway Removal Sheets
 - Roadway Drainage Area Map(s)
 - Roadway Cross Sections
 - Sequence of Construction and Care of Water
 - Mechanical Sections and Details
2. Technical and front-end specifications (2 sets, 1 for each phase)
3. Prepare and submit 60% Design Report which will include design criteria, basis of design, and analyses results for roadway, stability and hydraulic improvements.
4. Submit drawings, specifications, and Construction Contract Documents to the applicable federal and state agency(s) for approval, where required. Engineer will make corrections and resubmit based on the comments received from the agencies at no cost to the Trust.
5. Furnish such information necessary to appropriate utility companies as identified by the Trust, whose facilities may be affected or services may be required for the Project.
6. Prepare updated opinion of probable construction cost (OPCC).
 - a. Provide an OPCC following the recommendations of the Association of Advancement of Cost Engineering (AACE) International Recommendation Practice No. 18R with regard to methodology and accuracy.
 - b. The cost opinion level of accuracy presented by the Engineer shall be a Class 2 – Control or Bid/Tender cost opinion in accordance with accepted industry

- guidelines defined by AACE. The Class 2 estimate is commensurate with developed of the design concept to a 30% to 70% level; the expected accuracy on the low end will be -5 to -15 percent and the expected accuracy on the high end will be from +5 to +15 percent.
- c. Engineer shall provide summary and detail reports of the OPCC. Summary OPCC report shall match the anticipated bid structure of the Project.
7. Engineer shall perform structural, geotechnical, and hydraulic calculations to support the design of the planned stability and hydraulic improvements.
 8. Assumptions:
 - Existing and proposed traffic data on Overholser Road will be provided by the Trust for pavement section development.
 - No right-of-way modifications are anticipated.
 9. Deliverables: Engineer shall provide the following with 60% design deliverable:
 - a. Plans: Provide half-size plans in PDF format.
 - b. Specifications: Provide in PDF format.
 - c. Updated OPCC with variance report: Provide in PDF format.
 - d. Design Report: Provide in PDF format.
 10. Review Meeting: Engineer shall conduct the meeting between Trust's Project Team and Engineer to review the 60% design deliverable.
 - a. Prepare and submit an agenda two (2) business days prior to the review meeting.
 - b. Prepare and submit meeting minutes to the Trust for review and comment within seven (7) calendar days of the meeting.
 - c. Engineer shall incorporate Trust review comments into the 95% design deliverable and submit a response matrix documenting the proposed action to the Trust's comments with the 95% design deliverable.
 11. Utility Coordination:
 - a. After completion of 60% design, Engineer shall complete utility coordination services as outlined in the Item 2.B.4 of the Basic Services of the original WM-0309 contract.
 - b. Engineer will gather a list of franchise utility owners along the roadway corridor and disseminate the plans for advanced coordination. Coordination meetings will not take place until 60% and will be coordinated with the TRUST Utility Coordinator as defined in Task 2.
 - c. Engineer shall coordinate and facilitate a utility coordination meeting.
 - d. Engineer shall provide meeting minutes within five (5) business days of the meeting.
 - e. Engineer shall incorporate utility and facility relocations or modifications as required in the Final Design Documents.

95% Design

1. After written notice from the Trust, Engineer shall advance the design to an approximate 95% design level. It will build upon the Engineering Design Report and 30% and 60% designs. A total of approximately 65 and 170 sheets respectively are anticipated for the two sets.
2. Plans:

- a. Updates to all drawings provided with 60% design. Some structural detail sheets and new roadway sheets to be included at the 95% level include:
 - i. Traffic Control Plan
 - ii. Signing and Striping Plan
 - iii. Erosion Control Plan
 - iv. Utility Location Plan
 - v. Miscellaneous Details
 - vi. Structural Sections and Details
3. Specifications:
 - a. Updates to all specifications provided with the 60% design.
 - b. Trust front-end specifications including draft bid format in .csv file format
4. Opinion of Probable Construction Costs:
 - a. Provide an updated OPCC following the recommendations of the Association of Advancement of Cost Engineering (AACE) International Recommendation Practice No. 18R with regard to methodology and accuracy.
 - b. The cost opinion level of accuracy presented by the Engineer shall be a Class 2 – Control or Bid/Tender cost opinion in accordance with accepted industry guidelines defined by AACE. The Class 2 estimate is commensurate with development of the design concept to a 30% to 70% level; the expected accuracy on the low end will be -5 to -15 percent and the expected accuracy on the high end will be from +5 to +15 percent.
 - c. Engineer shall provide summary and detail reports of the OPCC. Summary OPCC report shall match the anticipated bid structure of the Project.
 - d. Engineer shall provide a variance for the summary and detailed OPCC reports comparing the updated OPCC with previous design milestone OPCCs. Engineer shall provide explanations for work items with significant cost increases. A significant cost increase for a line item shall be any increase of 10% or greater from the original OPCC.
5. Deliverable: Engineer shall provide the following with 95% (Draft Final) design deliverable:
 - a. Plans: Provide full-scale plans in PDF format.
 - b. Specifications: Provide in PDF format.
 - c. Updated OPCC and variance report: Provide in PDF format.
 - d. Updated Quality Control Testing and Inspection Schedule: Provide in PDF format.
 - e. Updated Schedule of Special Inspections: Provide in PDF format.
 - f. 60% Design Comment Response Matrix and Decision Log: Provide in PDF format.
6. OCWUT Review Meeting: Engineer shall conduct the meeting between Trust's Project Team and Engineer to review the 95% design deliverable.
 - a. Prepare and submit an agenda two (2) business days prior to the review meeting.
 - b. Prepare and submit meeting minutes to the Trust for review and comment within seven (7) calendar days of the meeting.

- c. Engineer shall incorporate Trust review comments into the 95% design deliverable and submit a response matrix and decision log documenting the proposed action to the Trust's comments with the 100% design deliverable.
7. OWRB/USACE Dam Safety Review:
- a. Engineer will submit OWRB Dam Safety Alteration permit forms, design report, plans, and specifications to OWRB at 95% design after revisions per OCWUT comments. It is anticipated that OWRB will request USACE Tulsa District to review and provide technical comments.
 - b. Engineer will review and respond to comments by OWRB/USACE and participate in one review meeting with USACE if required to resolve comments.

FINAL PLAN SERVICES

1. After written notice from the Trust, Engineer shall advance the design to an approximate 100% design level. It will build upon the Engineering Design Report and 30%, 60%, 95% designs, and regulatory review comments.
2. Incorporate comments from Engineer's internal Quality Control, Trust, and applicable regulatory agencies into the Final Design Documents.
3. Opinion of Probable Construction Costs:
 - a. Provide an updated OPCC following the recommendations of the Association of Advancement of Cost Engineering (AACE) International Recommendation Practice No. 18R with regard to methodology and accuracy.
 - b. The cost opinion level of accuracy presented by the Engineer shall be a Class 1 – Control or Bid/Tender cost opinion in accordance with accepted industry guidelines defined by AACE. The Class 1 estimate is commensurate with development of the design concept to a 65% to 100% level; the expected accuracy on the low end will be -3 to -10 percent and the expected accuracy on the high end will be from +3 to +15 percent.
 - c. Engineer shall provide summary and detail reports of the OPCC. Summary OPCC report shall match the anticipated bid structure of the Project.
 - d. Engineer shall provide a variance for the summary and detailed OPCC reports comparing the updated OPCC with previous design milestone OPCCs. Engineer shall provide explanations for work items with significant cost increases. A significant cost increase for a line item shall be any increase of 10% or greater from the original OPCC.
4. Deliverable:
 - a. Plans:
 - i. Electronic: Provide half-size plans in PDF format.
 - ii. Hard copy: Provide one set half size drawings.
 - b. Specifications:
 - i. Electronic: Provide in PDF format. PDF format shall be fully indexed using the Table of Contents and bookmarks shall be created in the navigation frame for each major entry in the Table of Contents.
 - ii. Hard copy: Provide up to three (3) double-side sets.
 - c. Updated OPCC and variance report: Provide in PDF format.

- d. Updated Quality Control Testing and Inspection Schedule: Provide in PDF format.
- e. Bid File: Provide in .csv format.
- f. 95% Design Comment Response Matrix and Decision Log: Provide in PDF format

Project Management And Progress Reporting

1. The Engineer shall provide project management and progress reporting functions required to successfully complete Tasks 2 and 3.
2. Monthly Progress Reporting: The Engineer shall prepare and submit to Trust monthly invoice packets including the following:
 - a. A cover letter providing general project status, progress completed during the invoice period for each major subtask, overall percent complete for each major subtask, planned activities for the upcoming month, information requests, action items required to be addressed by the Trust, schedule status with any applicable delays, and a list of potential scope adjustments.
 - b. Monthly invoice.
 - c. Updated project schedule.
3. Progress Meetings:
 - a. Engineer shall conduct regular monthly progress status meetings with the Trust. The meetings shall cover the following items at a minimum:
 - Update the team on project status, progress achieved, budget and schedule status/concerns and potential deviations from the Scope of Services and corrective actions.
 - Discuss project issues, coordinate work activities and review work activities planned for the upcoming period. These progress meetings will be in addition to other work product review meetings or workshops with Trust as identified herein. The Engineer will prepare an agenda for each meeting.
 - Engineer shall distribute meeting minutes within seven (7) calendar days of the meeting.
4. Quality Assurance and Quality Control: The design documents shall be reviewed by Engineer's technical advisors and/or senior technical staff for quality assurance and quality control (QA/QC) purposes prior to delivery to the Trust.
 - a. Engineer QA/QC reviews of each deliverable shall be completed prior to submitting to the Trust for review. A concurrent QA/QC review with the Trust shall not be permitted without prior written approval from the Trust.
 - b. Results of the reviews shall be maintained by the Engineer in its records files until completion of the Project. The results of the QA/QC review shall be incorporated into the Final Contract Documents.
5. Schedule: ENGINEER shall provide an updated detailed schedule for execution of the project prior to the initiation of Task 2.
 - a. Schedule shall be updated monthly based on progress.
6. OKC Public Information Officer (PIO) support. To be limited to assistance with the OKC Utilities – Engineering Project Communications Checklist, and input on project scope and schedule for PIO to use in public notifications about the construction project.

Permitting

1. Engineer shall provide services for the identification of and submittal preparation of applicable permits.
 - a. Provide assistance to Trust in obtaining permits from federal, state, and local agencies.
 - b. Submit the required sets of documents for review and approval.
 - c. Provide formal responses to any comments received and incorporate revisions into the Construction Contract Documents.
 - d. Provide in the Construction Contract Documents a list of permits which must be obtained by the Contractor.
2. The following permits are anticipated:
 - a. ODEQ – Stormwater Permit
 - b. City of Oklahoma City Stormwater Permit
 - c. City of Oklahoma City Work Zone Permit
 - d. OWRB Dam Alteration Permit
 - e. Floodplain Permit
3. Engineer shall pay all applicable permit fees. The actual cost of the permit application fee will be reimbursed under Exhibit B.II – Reimbursable Expenses.
4. If federal funding is used for construction (i.e. FEMA BRIC grant), federal NEPA requirements will need to be met. Initial consultation with FEMA Region 6 indicates that Categorical Exclusions (CATEX) 4N and 7N would likely apply to the work on the spillway and the road raise, respectively. FEMA cannot make a formal decision until an application is filed, so the basic services include the following activities given the CATEX assumption:
 - a. Coordination with FEMA Region 6 staff at the 30% and 60% design levels to assist in the determination of whether CATEX 4N and 7N would still apply to the work on the spillway and road raise.
 - b. Draft Tribal Coordination Letters: FNI will prepare draft initial coordination letters with the intent of the letters being used by the lead federal agency to inform federally recognized Tribes about the project. FNI assumes that Nation-to-Nation coordination, handled by FEMA, may be needed for Tribal Consultation.
 - c. Agency Coordination: FNI shall submit coordination letters to agencies, as directed by FEMA. Agencies may include the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, ODEQ, local managers of the Federal Flood Insurance Program, and other regional agencies that may have jurisdiction. Comments received from the agencies shall be incorporated into the CE document. If necessary, FNI shall work with CLIENT to prepare and submit written responses to address state and/or federal resource agency comments. We assume that this project shall be non-controversial and that agency comments shall be minimal. If an unusual level of agency comments may cause FNI's budget to be exceeded, FNI will notify CLIENT before proceeding.

- d. Prepare Environmental Permitting Technical Memorandum: Information gathered during the site visit, cultural resources review, agency coordination, Tribal coordination, and coordination with the design engineer will be used to prepare an Environmental Memorandum summarizing the environmental permitting requirements. The memorandum will include, if needed, a discussion of how the proposed project could meet the terms and conditions of a nationwide permit.
- e. Prepare Categorical Exclusion Request Form: Information from the Environmental Permitting Technical Memorandum will be used to prepare a request for the Environmental Categorical Exclusion

A full Environmental Assessment (EA) is included in Additional Services in the event that FEMA determines an EA is needed for NEPA compliance.

- 5. The project will require Section 404 permit authorization from the Tulsa District USACE, as the action will involve the discharge of dredged or fill material into waters of the U.S. It has also been assumed that the proposed project can be designed and constructed to meet the terms and conditions of Nationwide Permit 3 (NWP-3), Maintenance, and will require the preparation and submittal of a Pre-Construction Notification (PCN) to the Tulsa District USACE. The following services will be completed to obtain Section 404 permit authorization:
 - a. Gather and Review Existing Information - Engineer will compile readily available existing information and prepare maps of the proposed project site in preparation for a pedestrian survey. The types of information that will be gathered will include, U.S. Geological Survey (USGS) 7.5-minute topographic maps, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps, Natural Resources Conservation Service (NRCS) soils maps, as well as recent and historical aerial photographs of the site. In addition, FNI will establish project limits in digital format for data collection.
 - b. Pre-Application Meeting with USACE - Prior to conducting the pedestrian survey, Engineer will prepare for and attend a Pre-application Meeting with the Tulsa District USACE. The purpose of the meeting will be to describe the proposed project and proposed permitting approach to obtain 404 permit authorization. For this scope of services, it has been assumed that the Pre-application meeting will be conducted by conference call, or virtually via Teams, Webex, or another virtual platform. This task does not include on-site or in-person meetings with Tulsa District USACE staff.
 - c. Pedestrian Survey - Following the Pre-application Meeting, Engineer will conduct a pedestrian survey to make observations within the proposed project limits in order to document existing conditions. The presence and locations of waters of the U.S., including wetlands, and potential threatened/endangered species habitat will be identified within the proposed project limits. This task includes conducting detailed wetland delineations, if necessary, and identification and delineation of ordinary high-water mark(s) (OHWM) within the limits of investigation for the proposed project.
 - d. Cultural Resources/Section 106 Coordination - To satisfy requirements under Section 106 of the National Historic Preservation Act (NHPA), Engineer will subcontract and coordinate with a qualified archeological/cultural resource

consultant to evaluate potential archeological/cultural resources impacts of the proposed project. A report will be prepared describing the results of the survey and will include a recommendation of whether any sites are eligible for listing on the National Register of Historic Places. Engineer will complete a Quality Control (QC) review of the report prepared by the archeological/cultural resource subconsultant. Information from the archeological investigation will be included as an attachment to the PCN.

- e. Preliminary Jurisdictional Determination and Pre-construction Notification (PCN)
- Engineer will prepare a Preliminary Jurisdictional Determination (PJD) report or a Delineation Report (the preparation of a PJD or Delineation Report will be determined by USACE) and PCN for submittal to the Tulsa District USACE based on the findings of the pedestrian survey. The report will follow standard PJD/Delineation report format and will be supported by figures and photographs. The report will also include discussions of methodologies used, site descriptions, hydrologic characterizations, locations of floodplains, descriptions of upland and wetland vegetation, soil characteristics, and riparian areas, as necessary. The draft PCN and PJD/Delineation report will be submitted to Trust for review and comment. After incorporating the Trust's comments, Engineer will submit a final PJD/Delineation report and PCN to the USACE.
 - f. Assist with Environmental Planning and Historic Preservation Checklist - Engineer will assist with the Environmental Planning and Historic Preservation Checklist segment of the Oklahoma Water Resources Board (OWRB) FEMA High Hazard Potential Dams (HHPD) Grant Applications associated with construction of the project for two (2) fiscal years.
6. Engineer will coordinate with Oklahoma State Preservation Office (SHPO) and assist City in preparation of required SHPO submittals.
 7. Floodplain Evaluation:
 - a. Prepare a figure annotating the existing FEMA Flood Insurance Rate Map (FIRM) with the proposed 100-year floodplain limits based on the dam rehabilitation.
 - b. Prepare and submit a Floodplain Development Permit to Oklahoma County.
 - c. Participate in a conference call with the floodplain administrator to discuss the project and address any comments for approval.
 - d. Obtain effective hydraulic model of the North Canadian River from the FEMA Engineering Library or the City.
 - e. Prepare hydraulic analysis, including development of Corrected Effective Model to serve as the baseline of comparison and development of Proposed Conditions Model to analyze impact of proposed design on the 1% annual chance event Base Flood Elevations (and other event Water Surface Elevations).
 - f. CLOMR: Prepare an application for Conditional Letter of Map Revision (CLOMR) to FEMA. Submittal requires design plans and compliance with Endangered Species Act requirements. Coordinate with the City to review and obtain signatures on the required forms, submit LOMR application, and respond to one set of comments from FEMA. Prepare a public notification template for review by FEMA and publication by the City. CLOMR must be approved by

FEMA before construction begins. Note: The application for Letter of Map Revision (LOMR) is required after construction and these fees will be included in Task 4/Task 5 by later amendment.

TASK 3: BIDDING SERVICES

Engineer shall provide Bidding Services in accordance with Task 3 of the Basic Contract and as supplemented herein. Assumption is that two construction packages will be issued for bid and construction.

Bid Review:

Engineer will review bids for completeness, conformance with the Bid Documents, and coordinate as required to resolve any clarifications.

Conformed Drawings And Specifications:

1. Following the bid opening and award of Bid, revise the Drawings and Specifications to incorporate changes made during the Bidding Phase by addendum to present a unified set of documents for use during the construction process. A copy of all addenda shall be placed at the front of the Conformed Specifications.
2. Deliverable:
 - a. Electronic: Provide in PDF format.
 - b. Hard Copy – Trust:
 - i. Provide one (1) full-scale set of Conformed Drawings.
 - ii. Provide two (2) half-scale sets of Conformed Drawings.
 - iii. Provide two (2) copies of the Conformed Specifications.
3. Hard Copy – Contractor:
 - a. Provide two (2) full-size set of Conformed Drawings.
 - b. Provide two (2) copies of the Conformed Specifications.

SRF Support Services

The Engineer shall coordinate with the bidders and regulatory and funding agencies to ensure that required documentation is submitted in accordance with the SRF requirements.

TASK 4: CONSTRUCTION ADMINISTRATION (may be authorized by possible future amendment)

TASK 5: AS-BUILT SERVICES (may be authorized by possible future amendment)

TASK 6: INSPECTION SERVICES (may be authorized by possible future amendment)

SERVICES TO BE PROVIDED BY CITY

Provide public notifications and access control during times of field work;
Provide review comments to project deliverables within 15 business days.

TIME OF COMPLETION

Engineer is authorized to commence work on the Project upon execution of this Agreement and agrees to complete the services in accordance with the Table .

Table 1: Estimated Project Milestone Schedule

| | Phase I | Phase II |
|--------------------------|------------------------|------------------------|
| Preliminary Design (30%) | Within 180 days of NTP | Within 210 days of NTP |
| Final Design (60%) | Within 320 days of NTP | Within 350 days of NTP |
| Final Design (95%) | Within 440 days of NTP | Within 470 days of NTP |
| Final Contract Documents | Within 500 days of NTP | Within 530 days of NTP |

Note: Durations are in calendar days.

If Engineer’s services are delayed through no fault of Engineer, Engineer shall be entitled to adjust contract schedule consistent with the number of days of delay. These delays may include but are not limited to delays in City or regulatory reviews, delays on the flow of information to be provided to Engineer, governmental approvals, etc. Schedule assumes 15-business day review at each milestone by Trust.

VI. Amend **EXHIBIT B – COMPENSATION** to read as follows:

**EXHIBIT B
COMPENSATION
PROJECT NO. WM-0309
OVERHOLSER DAM STRUCTURAL STABILITY IMPROVEMENTS**

Under the terms of this Contract, the Engineer agrees to perform the work and services described in this Contract. The Trust agrees, in accordance with the limitations and conditions set forth in the Contract, to pay an amount not to exceed \$4,811,665 (an increase of \$2,226,915), which includes: for Basic Services an amount not to exceed \$4,344,314 (an increase of \$1,969,564) and for Reimbursable Expenses, an amount not to exceed \$12,351 (an increase of \$12,351, as specifically set forth in this Exhibit B; and, for Additional Services an amount not to exceed \$455,000 (an increase of \$245,000), as specifically set forth in Exhibit E.

B.I. Basic Work and Services

Compensation for basic services may not exceed \$4,344,314 (an increase of \$1,969,564), and in no event may the Engineer receive compensation in excess of the amount listed for each task for performance of its basic services.

The Engineer may receive up to the following amounts of the not to exceed amounts for services rendered upon the completion of the following tasks. Partial payments of the not to exceed amounts for each task may be invoiced for incremental work completed. Not to exceed amounts below are accumulative for successive tasks.

Task 1 an amount not to exceed:

| | |
|--|---|
| \$547,550 | Completion and recommendation by the General Manager for approval by the Trust of the Preliminary Report for the project. Compensation for interim tasks are as follows: |
| Task 1-A: Completion of Data Collection and Review | \$11,900 |
| Task 1-B: Completion of Precision Movement Monitoring | \$43,500 |
| Task 1-C: Completion of Dam Visual/Climbing Inspection | \$78,000 |
| Task 1-D: Completion of Bathymetric Survey | \$14,500 |
| Task 1-E: Completion of Hydraulic Adequacy/Flood Routing | \$55,200 |
| Task 1-F: Completion of Preliminary Stress/Stability Analysis | \$215,400 |
| Task 1-G: Completion of Spillway Alternatives and Dam Alternatives | \$63,250 |
| Task 1-H: Completion and Submittal of Engineering Report | \$21,100 |
| Task 1-I: Project Meetings | \$16,700 |
| Task 1-J: Completion and Submittal of Phasing Plan (Added by Amendment No. 1) | \$28,000 |
| Task 2 an additional amount not to exceed: | |

\$3,644,664 (an increase of \$1,969,564)

Completion and acceptance by the Trust of the final plans and specifications for the project.
Compensation for interim tasks are as follows:

Task 2-A (Added by Amendment No. 1):
Completion of Design Investigations

\$215,700 (an increase of \$81,800)

Task 2-B (Added by Amendment No. 1):
Completion and Submittal of
30% Design

\$1,375,502 (an increase of \$809,002)

Task 2-C (Added by Amendment No. 1):
Completion and Submittal of
60% Design

\$846,200 (an increase of \$373,000)

Task 2-D (Added by Amendment No. 1):
Completion and Submittal of
95% Design

\$694,600 (an increase of \$224,000)

Task 2-E (Added by Amendment No. 1):
Completion and Submittal of
Contract Documents

\$235,500 (an increase of \$149,000)

Task 2-F (Added by Amendment No. 1):
Project Management and Meetings

\$128,613 (an increase \$32,913)

Task 2-G (Added by Amendment No. 2):
Permitting

\$147,749 (an increase \$147,749)

Task 3 an additional amount not to exceed:
\$152,100 (an increase of \$152,100)

Award of the construction contract to the successful Bidder.

Task 4 an additional amount not to exceed:
(by possible future amendment)

Upon completion and final acceptance by the Trust of the completed project. Said amount is to be paid proportionately to the level of completion of project construction. The proportionate amount is to be consistent with the Construction Contractor's percentage of completion.

Task 5 an additional amount not to exceed:

(by possible future amendment)

Upon satisfactory completion and acceptance of the as-built drawings.

Task 6 an additional amount not to exceed:

(by possible future amendment)

Compensation for Inspection Services shall not be greater than the amount and value of the work and services performed by the Engineer.

B.II. Reimbursable Expenses
(Added by Amendment No. 2)

The Trust agrees to pay reimbursable expenses in an amount not to exceed \$12,351. Reimbursable expenses are in addition to the compensation for professional services and include actual expenditures made by Engineer in the interest of the project, with the prior approval of the General Manager, and include the following:

1. Payment of permit fees required by the Project*. \$12,351

The breakdown of Permits is as follows:

1. Oklahoma Department of Environmental Quality Stormwater Permit \$796
2. Oklahoma Water Resources Board Dam Alteration Permit \$5,000
3. Flood plain Permit \$55
4. CLOMR \$6,500

*The Engineer will only be reimbursed for the actual cost of the permit application fee. A valid invoice and/or receipt of payment from the billing agency must be provided for reimbursement. All administrative time or costs are to be included in the Base Services portion of the Contract.

Reimbursable expenses are limited to the actual cost for expenditures and shall not include any anticipated profits, overhead expenses, salaries and/or such other costs.

VII. Amend **EXHIBIT E – ADDITIONAL SERVICES** to read as follows:

EXHIBIT E
ADDITIONAL SERVICES
PROJECT NO. WM-0309
OVERHOLSER DAM STRUCTURAL STABILITY IMPROVEMENTS

Additional Services shall only be provided upon prior written and clearly detailed direction of the General Manager. The Engineer may be directed to perform any, all or none of the following Additional Services that may include, but not be limited to, the following:

1. Geotechnical investigation and services.

2. Utility verification services.
3. Easement preparation, staking and acquisition services.
4. Additional services to allow for design of other project areas.
5. Additional services to allow for additional inspection.
6. Additional Services necessary for completion of the project.
7. Grant Preparation for Construction Funding for Phase I Improvements. \$210,000 **(Added by Amendment No. 1)**
 - a. BRIC application and engineering analysis/backup needed to support application.
 - b. Re-application if project is not selected 1st year.
** The BRIC application requires the most extensive effort of all known grant programs. Other Federal grants (i.e. FEMA HHPD) would be included in this task and covered by the estimated effort.
8. Environmental Assessment (If required by FEMA) \$245,000 **(Added by Amendment No. 2)**

Compensation for Additional Services: Included in the not to exceed total compensation is an allowance for Additional Services in an amount not to exceed \$455,000 (an increase of \$245,000). This allowance is to be used and paid to the Engineer in the manner established in this Contract, unless other compensation means are agreed to in writing by the General Manager. The Additional Services compensation may only be used after the Engineer has performed Additional Services upon prior written authorization by the City Engineer. Invoices submitted for Additional Services shall represent only hours actually worked on this project by the Engineer's employees and the Engineer's consultant's employees and shall be accounted for separately for each Additional Service performed.

[The remainder of this page intentionally left blank]

IT IS UNDERSTOOD AND AGREED BY AND BETWEEN, The Trust and the Engineer that, as amended by this Instrument, all terms and conditions of the original Contract shall remain in full force and effect and the provisions of this Instrument shall become a part of the original Contract as if fully written herein.

IN WITNESS WHEREOF, this amendment was executed and approved by the Engineer this 14th day of October, 2024.

FREESE AND NICHOLS, INC.

Alan C. Hutson

Vice President

ATTEST:

STATE OF Oklahoma)

SS

COUNTY OF Oklahoma)

This instrument was acknowledged before me on this 14 day October, 2024, by Alan C. Hutson, as Vice President of Freese & Nichols, Inc.

My Commission Expires/My Commission Number:

3-21-2026
RICCI REDING
Notary Public
State of Oklahoma
Commission #18002873
Comm. Expires 03-21-2026

[Signature]
Notary Public

IN WITNESS WHEREOF, this amendment was approved and executed by the Oklahoma City Water Utilities Trust this 19TH day of NOVEMBER, 2024.

THE OKLAHOMA CITY WATER UTILITIES TRUST

ATTEST:

Amy K Simpson
Secretary



[Signature]
Chairman

REVIEWED for form and legality.

[Signature]
Assistant Municipal Counselor

CONCURRED by the City of Oklahoma City this 3RD day of DECEMBER,
2024

ATTEST:

Amy K. Simpson
City Clerk



David Holt
Mayor



ADDITIONAL REMARKS SCHEDULE

| | | | |
|------------------------------------|-----------------------------|---|--|
| AGENCY Ames & Gough | | NAMED INSURED Freese and Nichols, Inc. 801 Cherry Street, Suite 2800 Fort Worth, TX 76102 | |
| POLICY NUMBER SEE PAGE 1 | | | |
| CARRIER SEE PAGE 1 | NAIC CODE SEE P 1 | EFFECTIVE DATE: SEE PAGE 1 | |

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Description of Operations/Locations/Vehicles:

General Liability, Auto Liability, Umbrella Liability and Workers Compensation policies include a Waiver of Subrogation in favor of the Additional Insured where permissible by state law and when required by written contract. 30-day Notice of Cancellation will be issued for the General Liability, Auto Liability, Umbrella Liability, Workers Compensation and Professional Liability policies in accordance with policy terms and conditions.

General Liability deductible is \$0.
Automobile Liability deductibles are \$1,000 Comp/\$1,000 Collision.
Umbrella Liability retention is \$10,000.
Workers Compensation deductible is \$0.
Professional Liability deductible is \$25,000.