

Exhibit B2 – SCOPE OF SERVICES

LAWTON NUMU CREEK DRAINAGE IMPROVEMENTS

General

The Numu Creek Drainage Improvement Project begins upstream of South Railroad Street and extends approximately 0.35 miles north-northwest to downstream of Lee Boulevard in the City of Lawton in Comanche County, as shown in Appendix 1. The project would consist of widening the channel on the same alignment of the existing stream and stabilizing the banks to reduce erosion. This project was identified in the City of Lawton 2002 Stormwater Master Plan, completed by others, and it is anticipated funding for this project will come from the Oklahoma Clean Water State Revolving Fund (CWSRF) loan program. The tasks included under this scope of services include the following:

1. Task 1 – Project Management, Kickoff, and Coordination
2. Task 2 – Data Collection
3. Task 3 – Conceptual Design
4. Task 4 – Environmental Services
5. Task 5 – Preliminary Design (60%)
6. Task 6 – Easements and Acquisition
7. Task 7 – Final Design (95%)
8. Task 8 – Bidding Assistance Services
9. Task 9 – Construction Phase Services
10. Task 10 – Contingency

Task 1 – Project Management, Kickoff, and Coordination

Task 1 will include the following:

1. Engineer will develop a Project Management Plan (PMP) and Quality Assurance/Quality Control (QA/QC) Plan.
2. Engineer will prepare and provide up to fifteen (15) monthly progress/status reports, sufficient to support monthly billings. Monthly status reports shall be submitted with monthly invoices and project updates.
3. Engineer will attend one in-person kickoff meeting with up to four (4) Engineer team members present to discuss project objectives, internal and external team member roles and responsibilities, communication protocols, document management protocols, and schedule.
4. Engineer will prepare monthly invoicing with percent complete by task and monthly progress reports. Project administration tasks will also include coordination of meetings, site visits, and requests for information and data, as well as developing and distributing meeting minutes. All documents will be delivered electronically unless explicitly stated in the task.

Task 2 –Data Collection

1. Survey

Engineer's subconsultant will complete a field survey of the project site for design of the Numu Creek drainage improvements, with the extent as shown in Appendix 1. Engineer's subconsultant will conduct field surveys, utilizing radial topography methods, at intervals and for distances at and/or along the project site as appropriate for modeling the existing ground, including locations of pertinent features or improvements. Engineer's subconsultant will locate buildings and other structures, streets, drainage features, trees over eight inches in diameter, visible utilities as well as those underground utilities marked

by their owners and/or representatives, and any other pertinent topographic features that may be present at and/or along the project site. Engineer will utilize field survey data provided directly by subconsultant to create base drawings for design of the project.

Engineer's subconsultant will provide field survey data for designing the project. Exact extents are to be determined by Engineer based on the project location determined in the engineering report (ER).

The survey will include the following:

- a. Topographic surveys, Engineer's subconsultant will provide field survey data for designing the project. Engineer will provide the Owner with electronic survey drawings prior to site planning.
- b. Property surveys, Engineer's subconsultant will locate existing monumentation representing property lines, rights of way, and/or easements based on record data that will be collected by Engineer's subconsultant, through public record research.

2. Geotechnical

Engineer will utilize Owner-provided geotechnical report to evaluate groundwater depth, soil properties, including pH and laboratory resistivity, and embankment slope stability parameters. Engineer will assist in coordinating at least four (4) bores location at the project site.

Owner will provide Engineer an electronic format of the geotechnical survey report. Information provided to Engineer is assumed as correct.

Task 3 – Conceptual Design

1. Hydrology and Hydraulic Model

Engineer will conduct a hydrologic and hydraulic model to determine design criteria to develop three (3) alternatives. Design goals will also include stormwater quality considerations as defined by the Clean Water Act.

Hydraulic studies will include data gathering for all parameters required for analysis in the United States Army Corps of Engineers (USACE) software program, Hydraulic Engineering Center – Hydrologic Modeling System (HEC-HMS). Hydraulic analysis will include updating a hydraulic model for Numu Creek provided by the Owner that was originally developed as part of a previous stormwater master plan.

Engineer will provide the Owner the updated hydrology and hydraulic model.

2. Alternatives Analysis Workshop

Engineer will conduct an Alternatives Analysis workshop with the Owner. Engineer will present Owner with three (3) alternatives based on the hydrologic and hydraulic model. The Engineer will generate minutes from the meeting including Owner's goals and design criteria. Owner's comments will be incorporated in preliminary engineering report (ER)

Engineer will proceed with preliminary ER after Owner approval of the three alternatives.

3. Engineering Report

Engineer will prepare a preliminary ER incorporating the three (3) alternatives for this project's stream segment. Conceptual design drawings and quantities, and a summary of hydraulic modeling and

alternative analysis will be provided as part of the preliminary ER.

Engineer will develop a conceptual level opinion of probable construction cost (OPCC) for each alternative. The conceptual design OPCCs will be Class 4 estimates as defined by the Association for the Advancement of Cost Engineering (AACE), which is consistent with cost estimates developed for study or feasibility. The expected accuracy range for the estimates is -30% to +50% of the estimated values. These OPCCs should be considered appropriate for planning purposes and/or budget authorization and control. The OPCCs will be used to further rank and prioritize alternatives for each given challenge area.

Following submission of the draft ER, Engineer will conduct a preliminary ER workshop with the Owner. Engineer will generate minutes from the meeting and collect the Owner's comments. Owner's selected alternative and comments will be incorporated in the conceptual design and engineering report. Engineer will proceed with Preliminary Design after the final ER is approved by the Owner in writing.

Engineer will provide the Owner an electronic format of the final ER.

Task 4 – Environmental Services

1. Environmental Information Document

Engineer will prepare the environmental information document (EID). The EID evaluates potential impacts to the environment, historical, cultural, and biological resources as a result of the project.

Engineer will complete an EID for the project site, including the following:

- a. Preparation of an EID that meets the Funding Agency Coordination Team (FACT) requirements. This will include environmental maps and exhibits. This will be a desktop study; fieldwork is not included in this Task.
- b. Solicitation of input regarding project specifics, document all correspondence and follow-up, and provide copies and summaries for all correspondence to agencies (list to follow)
- c. Coordination and response to up to 30 regulatory agencies
- d. Attend up to one (1) Public Hearing in person to fulfill FACT funding requirements. Meeting minutes will be provided following the meeting.

2. Individual 404 Permit

The following scope of work consists of environmental studies to support the National Environmental Policy Act (NEPA) requirements for anticipated federal funding of the Numu Creek Improvements Project. It is anticipated that a U.S. Army Corps of Engineers (USACE) Section 404 Permit will be required for the project. The required environmental services to apply for this permit will be performed by Engineer and Engineer's subconsultants.

a. Wetland Delineation

Engineer will conduct a wetland and stream delineation of the project and determine if any wetlands and other waters of the U.S. will be impacted. If wetlands and/or other jurisdictional waters are identified, they will be delineated in the field with a sub-meter GPS unit, documented in a report, and ESRI shapefiles of the jurisdictional areas will be provided. The report will be submitted to the USACE with the Section 404 permit application.

b. Threatened and Endangered Species Assessment

Engineer will conduct a review of the project's potential impacts on federally listed threatened and endangered species according to U.S. Fish and Wildlife Service (USFWS) procedures for federal projects. This review will include a field assessment for the presence of habitat for all federally listed species within the project area and documentation of the presence of habitat and the potential effects in a report. The report will be submitted to USFWS via the on-line review portal and the results will be submitted to the USACE with the Section 404 permit application.

c. Bald and Golden Eagle Assessment

Engineer will review the proposed action and determine if the action is in compliance with the Bald and Golden Eagle Protection Act (BGEPA).

d. Migratory Bird Assessment

Engineer will review the proposed action and determine if the action is in compliance with the Migratory Bird Treaty Act (MBTA) and if the action has been planned in such a way to avoid the active nesting season of migratory birds. This is typically achieved through scheduling.

e. Cultural Resources Survey

Engineer will coordinate with the State Historic Preservation Office during the EID process (Task 4.1) and depending on the outcome, a cultural resources studies may or may not be warranted for the project. This scope of service does not include cultural resources studies and will be considered extra work if required.

f. Clean Water Act Section 404 Permit Application Package

Engineer will prepare and submit a Section 404 permit package to the USACE. The permit application will include correspondence with USACE, the items listed under this task, exhibits of impacted features, a table of impacts, and a conceptual mitigation plan if necessary.

Task 5 – Preliminary Design (60%)

Upon receipt of written approval from Owner on final ER, Engineer will begin Preliminary Design. The Preliminary Design phase will represent approximately 60% of final construction plans. Engineer will prepare design documents for one (1) construction contract. The Preliminary Design will include the following:

1. 60% Preliminary Design drawings including cover sheet, general sheets, existing and proposed site plans, demolition plans, drainage maps, and plan and profile sheets.
2. Technical Specification table of contents with draft specifications for pertinent areas of work.
3. 60% level OPCC (AACE Class 2, -15% to +20-%)

Upon submission of the Preliminary Design, Engineer will conduct a Preliminary Design workshop with the Owner. Engineer will generate minutes from the meeting that will include review comments from the Owner. Engineer will incorporate comments from the Owner on the Preliminary Design in the Final Design. Engineer will proceed with Final Design after the Preliminary Design is approved by the Owner in writing.

Task 6 – Easements and Acquisition

Engineer will provide mapping as required for preparing easement acquisition documents for the Owner's use in acquiring the property. Documentation will include a key map showing all affected properties and an individual tract map with a description of proposed temporary and permanent acquisition for each

property. The Owner will provide a standard easement acquisition document or “go-by” example for use by Engineer. The fee for providing property acquisition documentation is based on permanent easement and temporary construction easements for no more than (6) properties. Property acquisition document preparation will begin after receiving the Owner’s comments from the Preliminary Design review.

Engineer will provide Owner with maps and exhibit. This scope of service does not include negotiation and coordination beyond what is outlined under this task.

Task 7 – Final Design (95%)

Upon receipt of written approval from Owner on Preliminary Design, Engineer will begin Final Design. The Final Design phase will represent 95% of the final construction plans, specifications, and contract documents. Engineer will prepare construction documents for one (1) construction contract. The Final Design will include the following:

1. 95% Final Design for final construction plans, specification, contract documents, and Owner’s “front end” specification.
2. Final Design Level OPCC (AACE Class 1, -10% to +15%).
3. Final field review with the Owner, make needed plan changes as a result of the final field review and/or special easement acquisition considerations, and prepare the construction documents as required to advertise for bids.

Upon submission of the Final Design, Engineer will conduct a Final Design workshop with the Owner. Engineer will generate minutes from the meeting that will include review comments from the Owner and notes from the field visit.

Task 8 – Bidding Assistance Services

Engineer will assist with advertisement and bidding for the project as follows:

1. Engineer will prepare advertisement for bids for publication by Owner. Owner will pay advertising costs.
2. Engineer will upload the construction contract documents to Engineer’s planroom for prospective bidders.
3. Engineer will coordinate, facilitate (including agenda), and attend one (1) pre-bid conference.
4. Engineer will support the contract documents by preparing addenda as appropriate to clarify, correct, or change the bidding documents.
5. Engineer will evaluate bids and make a recommendation for award.
6. Engineer will prepare one (1) digital and four (4) bound hard copies of conformed contract documents.

Task 9 – Construction Phase Services

Engineer will assist with the construction phase for the project as follows:

1. The Owner will prepare a Notice to Proceed letter.
2. Engineer will attend one (1) pre-construction meeting with Contractor, Owner, and Owner’s construction observation or inspection representative. It is assumed that the Owner will schedule the meeting, prepare an agenda, and prepare minutes.
3. Engineer will attend up to six (6) progress/coordination meetings with the Owner/Contractor up

to one time per month during construction.

4. Engineer will evaluate and respond to construction material submittals and shop drawings. Corrections or comments made by Engineer on the shop drawings during this review will not relieve the Contractor from compliance with requirements of the drawings and specifications. The check will only be for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor will be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades, and performing his work in a safe and satisfactory manner. Engineer's review shall not constitute approval of safety precautions or constitute approval of construction means, methods, techniques, sequences, procedures, or assembly of various components. When certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, either directly or implied for a complete and workable system, Engineer shall be entitled to rely upon such submittal or implied certification to establish that the materials, systems, or equipment will meet the performance criteria required by the Contract Documents. Engineer will review up to 30 submittals.
5. Engineer will report to Owner any noted deviation from construction industry standards. Under request by Owner, Engineer does not have daily construction observation or site visit requirements during the construction period.
6. Engineer will respond to Request for Information (RFIs) regarding the construction contract documents. Engineer will respond to up to 20 RFIs.
7. Engineer will, when authorized by the Owner, prepare up to three (3) change orders for approved changes in the work from that originally provided for in the construction contract documents. If redesigned or substantial engineering or surveying is required in the preparation of these change order documents, the Owner will pay Engineer an additional fee to be agreed upon by the Owner and Engineer.
8. Engineer will review up to six (6) Contractor's progress payment requests based on the actual quantities of contract items completed and accepted and will make recommendation to the Owner regarding payment. Engineer's recommendation for payment shall not be representation that Engineer has made exhaustive or continuous inspections to (1) check the quality or exact quantities of the work; (2) to review billings from Subcontractors and material suppliers to substantiate the Contractor's right to payment; or (3) to ascertain how the Contractor has used money previously paid to Contractor.
9. Engineer will prepare and furnish record drawings based upon a set of redline marked up construction drawings maintained by the Contractor and verified by the Owner during construction observation. Engineer is not performing construction observation and assumes all information provided by the Owner and Contractor is correct.
10. Engineer will participate in final project inspection, prepare punch list, review final project closing documents, and submit final pay request.

Task 10 – Contingency

At the request of the Owner, Task 10 is set up as an hourly, not-to-exceed task for on-call or minor items that may arise throughout the completion of the work but that are out of this scope of services. This task will be a not-to-exceed \$75,000 dollars. These services will be billed according to the hourly rates and conditions outlined in the Master Services Agreement and only conducted with written approval by Owner and Engineer.

Project Deliverables

Deliverables shall be as follows:

1. Digital copy of the kickoff meeting minutes after kickoff meeting.
2. Digital copy of the Topographic Survey Drawings.
3. Digital Updated Hydrology and Hydraulic Model.
4. Digital Draft Preliminary Engineering Report.
5. Digital copy and Four (4) hard copies of the Final Engineering Report.
6. Digital copies of the Draft and Final EID.
7. Digital copy of EID Public Hearing Meeting Minutes.
8. Digital copy of the 404 Permit Application Package.
9. Digital copies of 60% Design Plans, Specifications Outline, and OPCC.
10. Digital copies of 95% Design Plans, Specifications, and OPCC.
11. Digital copies of the Workshop's Meeting Minutes (up to four (4) workshops) after each Workshop.
12. Digital copies of Bid Plans, Specifications, and OPCC.
13. Digital copy of Pre-bid Meeting Minutes after meeting.
14. Four (4) bound hard copies of Conformed Contract Documents.
15. Digital copy of the pre-construction meeting agenda.
16. Digital copy of the pre-construction meeting minutes after the meeting.
17. Digital copy and (1) hard copy of approved drawings/submittals from the Contractor.
18. Digital copy and (1) hard copy set of Record Drawings

Extra Work

The following items are not included under this agreement, except as agreed to in writing between Owner and Engineer but will be considered as Extra Work. Extra Work will be as directed by the Owner in writing for an additional fee as agreed upon by the Owner and Engineer.

1. Preliminary and/or Final Design Services outside of those identified in Task 5 and 7.
2. Redline markups on Construction drawings.
3. FEMA Map updating.
4. Condition Assessment.
5. Planning and/or City budgeting.
6. Submittals or deliverables in addition to those listed herein.
7. Design of improvements off-site.
8. ODOT coordination.
9. Redesign for the Owner's convenience or due to changed conditions after previous alternate direction and/or approval.
10. Invasive structural evaluation techniques beyond visual observation of existing structures at grade and existing record drawings.
11. Preparation of a Storm Water Pollution Prevention Plan (SWPPP) and OKR-10 Permit.
12. Construction materials testing.
13. Coordination with FEMA for the purpose of preparation/submittal of a CLOMR and/or LOMR.
14. Pavement Design.
15. Design of any utility relocation.
16. Retaining walls or other significant structural design beyond that required for channel widening.
17. Warranty Assistance.
18. Sampling Services.
19. Additional meetings.
20. Construction Observation Services.
21. Additional assistance with regulatory compliance closeout documentation.
22. Sustainability improvements

Extra Work will be as directed by the Owner in writing for an additional fee as agreed upon by the Owner and Engineer.

Schedule

This schedule is not only contingent on Owner review and authorization to proceed for each Task, but also regulatory and funding agencies review and response time. Engineer shall begin work under this Agreement within ten (10) days of a Notice to Proceed and shall complete the work in accordance with the schedule below:

Engineering Report & Project Tasks	Calendar Days
Task 1- Kickoff Meeting	10 days from Notice to Proceed
Task 2- Topographic Survey	30 days from Kickoff Meeting
Task 3- Updated Hydrology and Hydraulic Model	60 days from receipt of Surveys
Task 3- Alternatives Analysis Workshop	30 days from completion of Hydraulic Analysis
Task 3- Preliminary Engineering Report Workshop	45 days from acceptance of Alternatives
Task 3- Final Engineering Report	14 days from Preliminary Engineering Report Workshop
Task 4- Environmental Services	90 days from acceptance of Engineering Report
Task 5- Preliminary Design Workshop (60%)	90 days from acceptance of Engineering Report
Task 6- Easement Acquisition Documents	30 days from acceptance of Preliminary Design
Task 7- Final Design Workshop (95%)	90 days from acceptance of Preliminary Design
Task 8- Bidding Services	45 days from Owners Notice to Proceed
Task 9- Construction Services	Anticipated to be up to 180 days

APPENDIX 1 – Project Site

