



November 14, 2023

Hon. Kevin Spraggs – Judge Executive
Marshall County Fiscal Court
1101 Main Street
Benton, KY 42025

**Re: Contract Modification No. 2 – Wadesboro Road & Nance Lane WM Extension
West Marshall / Oak Level Phase 1 Water System Expansion – North of KY 408
Engineering Services Proposal
Benton, Marshall County, KY**

Judge Spraggs:

Rivercrest Engineering's (RIVERCREST) proposal for engineering services is contained in this letter. This proposal includes the scope of services and associated engineering services fees for the modification of our current project in the West Marshall / Oak Level area. Based upon recent meetings and discussions with you and City of Benton staff, it is our understanding that the MCFC is considering the addition of a water main extension to the current project to extend water to existing residents in the Oak Level/West Marshall area. RIVERCREST understands that this new alignment, located just west of Benton, will consist of the installation of approximately 4,400 linear feet of 6" SDR-21 PVC water main, presumably within private utility easements and KYTC/County owned rights of way along Wadesboro Road and Nance Lane (located north of Arant Road and south of Elva Road, intersections). A planning map is included with this letter for your reference to the project area.

The intent of these efforts will be to extend public water service to residents along this corridor, who have expressed interest in tying onto the public system due to their poor quality well water. This extension project will also provide improved water service with fire protection capabilities to customers in the area. RIVERCREST understands that this work will be performed in conjunction with the original project scope of work and is to be completed during fiscal years 2023-25.

The services provided as part of this contract modification will be provided consistent with the previously approved scope of services for the original project, and in accordance with our Engineering Services Agreement with the Fiscal Court.

I. Preliminary Evaluation & Corridor Selection Phase

RIVERCREST understands the importance of proper planning and coordination on the front end of capital improvements projects. As we begin work on these efforts, our team will prepare preliminary corridor mapping for critical field evaluations. These "boots on the

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ground” evaluations many times steer the course of the project and also aid in identifying major conflicts on the front end as opposed to later in the design processes.

Prior to initiating RIVERCREST’s Surveying & Preliminary Design Phase, the RIVERCREST team will make BUD calls, and coordinate completion of a field review of the proposed project corridor. During these field reviews, RIVERCREST will coordinate with County/City staff to evaluate existing, marked utilities, available utility strips, and right-of-way features, for the selection of preliminary alignments/corridors. Following completion of this review, RIVERCREST staff will prepare preliminary alignment GIS mapping and conduct preliminary hydraulic analyses to gauge the limitations of the proposed efforts.

II. Surveying & Preliminary Design Phase

The RIVERCREST team will conduct a field survey of the project limits.

The project’s field survey phase will consist of:

- KY 811 BUD calls and coordination of field utility locates
- Establishment of project survey control
- Capturing of aerial imagery, using guided drone (UAV) technology to obtain up to date background information to aid in plan development
- Collection of survey data including, edges of pavement, visible property/right-of-way corners, existing utility information, and topographic data.
- Collection of large trees and landscape features that may be obscured in aerials
- Collection of identifiable septic tank/field line locations and elevation data for area drainage ways
- GPS or conventional survey techniques will be utilized to set up on the established control monuments. Horizontal datum will be referenced to Kentucky State Plane South Zone coordinates for GIS compatibility and to correlate with survey datum. Vertical control will be referenced to NAVD 88 vertical datum.

The preliminary design process will consist of:

- Development of preliminary water line alignment drawings
- Evaluation of existing utilities – water lines and appurtenances, fiber optic / standard telephone and appurtenances, cable lines, gas main and service lines, and septic / drainage features.
- Evaluate property limits and ownership
- Develop and review existing surface models
- Develop plan/profile sheets associated with the proposed water mains
- Identify tie-in locations
- Conduct on site review with City/County staff
- Complete prelim design based on field locates, engineering judgment, and feedback from stakeholder representatives.
- Prepare preliminary estimate of construction costs.

RIVERCREST proposes to complete the preliminary design & survey phase within approximately 5 weeks following issuance of approval from the Fiscal Court.

III. Final Design & Permitting Phase

Upon receiving the Fiscal Court and City of Benton's approval of the preliminary design, RIVERCREST will prepare design documents and final plans. Design drawings will potentially include the following:

- Cover Sheet
- General Notes & Location Map
- Project Quantities Sheet
- Water Line Plan & Profiles
- Construction Details

Plan sheets shall be developed at minimum 1"=50' scale.

RIVERCREST will utilize standard technical specifications as necessary for completion of KDOW's standard permit package development and submittal. In addition, this phase will include updating our hydraulic model to add the proposed alignment for completion of the Division of Water required demand and flushing analyses.

Due to the nature of this project, we do anticipate the need to secure encroachment permits from Texas Gas (Boardwalk Pipeline), the KY Transportation Cabinet, and the Marshall County Road Department for the work along Wadesboro Road (KY 1949) and Nance Lane.

IV. Environmental Permitting

At this time, it is our understanding that the Marshall County Fiscal Court plans to fund this project through Kentucky Infrastructure Authority – American Recovery Protection Act (ARPA) grant monies. In compliance with funding requirements, RIVERCREST will prepare the required project checklists, contract documents, and permit applications for review and approval by the Division of Water.

Requirements for additional permitting services such as endangered species studies, critical habitat studies, and historical landmark or archaeological studies are not anticipated and have not been included in our proposed scope of work. These studies can be added to our scope later at the Fiscal Court's request, with our service fees being adjusted on an agreed lump sum or hourly T&M basis.

V. Utility Easement Development & Acquisition

RIVERCREST anticipates the need to prepare and secure utility easements for completion of the project's construction phase. Our anticipations are based upon site and available PVA data reviews along the proposed corridors. RIVERCREST proposes to prepare six (6) easement descriptions for review by the City of Benton's attorney as they will ultimately own and maintain the water line infrastructure following construction. RIVERCREST's surveying sub consultant will review and approve each description prior to the City's legal counsel preparing the proper easement acquisition documents. For the purposes of this proposal, RIVERCREST assumes that any required easements will be secured by the RIVERCREST team.

Once the final easement documents are obtained from legal counsel, RIVERCREST will provide three good faith efforts to negotiate the easements on behalf of the City. These efforts will include initial contact through mailing of the easement package, telephone contact (when possible), and up to two on site meetings with the property owner(s). If successful, we will forward the easement documents to the City for recording. If unsuccessful after three attempts, we will deliver the documents to the Fiscal Court, along with our discussion records and await further direction. For the purposes of this proposal, our easement negotiation scope excludes exercises beyond the three good faith attempts. In the event additional easement development and/or negotiations become necessary, the RIVERCREST team can conduct these activities in accordance with our established time & materials service rates.

VI. ARPA/KIA Fund Administration - Covered in Original Proposal

VII. Procurement – Covered in Original Proposal

VIII. Construction Engineering – Added to Original Project Construction Scope

Prior to initiating construction of these additional water mains, survey crews will field stake the centerlines of the proposed water main alignments on approximately 100-foot intervals, and layout the proposed hydrants. We will also stake significant changes in horizontal alignment, bores, encasements, and tie-ins. Our proposal assumes that we will stake the project alignments once. All remedial or additional staking requested by the Contractor or Owner can be provided on a time & materials basis.

RIVERCREST will provide additional construction engineering services including, coordination with MCFC & City of Benton staff, contractor(s), and the inspector on project activities and progress, continued review of construction activities, coordination and attendance at monthly progress meetings, processing of monthly pay requests and coordination of required Contractor submittals, field walkthrough/punchlist inspection, and additional record drawing development services.

IX. Construction Observation – Added to Original Project Construction Scope

RIVERCREST estimates our construction representative will be on site approximately seven (7) hours per day during active construction activity. We have also allocated one (1) hour per day for preparation, travel, document preparation, and photographic logging of daily construction activity. We estimate our field personnel will be actively involved with these additional construction activities, five (5) days per week for a project duration of 7 additional calendar weeks for the scope of work outlined in this modification to our current engineering services contract.

During the construction phase, our project representative will continue to track daily pay item quantities, prepare detailed field book sketches for the water main installations, tie-ins, and service connections, log daily photos of the construction activities, assist with interpretation of the project plans and specifications, and coordinate with City of Benton operations staff and the Contractor for required system shut-downs, line testing, and tie-ins.

X. Proposed Fee

Our proposed lump sum engineering fees are divided into distinct work descriptions as noted below:

• Preliminary Evaluation & Alignment	\$2,100.00
• Prelim Design & Survey Coordination	\$10,100.00
• Final Design & Permitting	\$12,600.00
• Easement Dev. & Acq. (6 add. Easements)	\$4,100.00
• Construction Engineering & Closeout	\$9,400.00
• Construction Observation	\$23,800.00
• <u>Direct Expenses – Topo Survey & Reproduction</u>	<u>\$7,300.00</u>
Total Proposed Lump Sum Fee	\$69,400.00

Engineering scope of work or schedule adjustments requested by the Fiscal Court after the initial scope of work and schedule is approved and contracts are executed can certainly be accommodated, with our fees being adjusted on an agreed upon lump sum or hourly basis.

XI. Schedule

We estimate that the requested engineering services for the project, as described herein, can begin within 1 week of approval, and can be completed on the general timeframe as noted below:

Preliminary Evaluation	1 week
Preliminary Design & Surveying	3 weeks
Final Design/Easement Development	3 weeks
Permitting	4 weeks
Easement Negotiations	3 weeks
Construction Eng. & Observation	7 weeks

This proposal assumes preliminary work will commence during the month of December 2023. In addition, this proposal assumes that the previously stated construction time of 50 calendar weeks will be extended by 7 weeks. Once you and the Fiscal Court have an opportunity to review, and if you are agreeable to starting the engineering work, please sign below and return a copy to us.

We appreciate the opportunity to provide this contract modification and look forward to continuing our services toward benefiting the residents of Marshall County through the successful completion of this project. If you have any questions or if you would like to meet and discuss our proposal, please let us know and we will meet at your convenience.

Sincerely,
RIVERCREST ENGINEERING, INC.



Charles D. McCann II, P.E.
Project Manager

RIVERCREST Proposal File – MCFC

APPROVED BY:

Kevin Spraggs, Judge Executive
Marshall Co. Fiscal Court