

**FIRST AMENDMENT TO
PROFESSIONAL ENGINEERING SERVICES AGREEMENT**

This FIRST AMENDMENT TO PROFESSIONAL ENGINEERING SERVICES AGREEMENT (“First Amendment”) is made and entered into on the date of the last signatory noted below by Barr Engineering Company (“Engineer”) and the City of Columbia, Missouri (“City”). Engineer and City may be collectively referred to herein as the “Parties” and individually as a “Party.”

WHEREAS, the Parties entered into a certain Professional Engineering Services Agreement (“Agreement”) on May 3, 2022; and

WHEREAS, due to circumstances identified during the Project defined in the Agreement, there is a need to expand the original Scope of Basic Services, also referred to as Scope of Services, incorporated into the Agreement as Attachment A (“Original Scope”), so that the Project may be completed; and

WHEREAS, the total payment set out in Section 6.1.1.6 of the Agreement, based on the original Scope, was not to exceed \$119,495.00; and

WHEREAS, in accordance with the terms of the Agreement and this First Amendment as set out herein, the Parties desire to expand the Original Scope to be provided as set out in the Amended Scope of Services and to increase the total payment not to exceed amount in the Agreement by \$40,000.00.

NOW, THEREFORE, for and in consideration of the mutual promises and undertakings set forth herein, the Parties hereby agree as follows:

1. Changes to Agreement. Pursuant to Section 7.5 of the Agreement, the Parties desire to make the following changes and amendments to the Agreement:
 - a. The Parties desire to amend and replace the Scope of Basic Services (also referred to as Scope of Services), set out in attachment A to the Agreement, with the expanded Amended Scope of Services attached hereto and incorporated herein as Attachment A.
 - b. In consideration of the Amended Scope of Services, the Parties further desire to amend Section 6.1.1.6 of the Agreement to change the total payment not to exceed amount of \$119,495.00 by increasing it in the amount of \$40,000.00 for a new total payment not to exceed amount of \$159,495.00. This amended total payment amount shall be paid in accordance with the Agreement, as amended.
2. Remaining Terms Unaffected. All other terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have been duly authorized to execute this First Amendment as of the day and year last written below.

City of Columbia, Missouri

By: _____
De'Carlton Seewood, City Manager *DAS*

Date: _____

ATTESTED BY:

Sheela Amin, City Clerk

APPROVED AS TO FORM:

By: _____
Nancy Thompson, City Counselor/ek

CERTIFICATION: I hereby certify that this contract is within the purpose of the appropriation to which it is to be charged, Account Number 55816688 604990 SS153, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

Matthew Lue, Director of Finance

Barr Engineering Co.

By: *Robert K. Morrison*

Printed: Robert K. Morrison

Title: Vice President

Date: 4/28/2023

ATTEST:

By: *Ed Galbraith*

Printed: Ed Galbraith

Title: Senior Environmental Consultant

Attachment A
Amended Scope of Services
Nebraska Avenue Culvert Replacement
April 10, 2023

The proposed project will replace the existing concrete masonry unit culvert that carries an un-named tributary of Bear Creek under Nebraska Avenue, just east of Providence Road with a reinforced concrete box culvert and/or pipe that accommodates the 100-year flood with a depth of water in Nebraska of 3 inches at the crown of the street.

To be provided by the City:

- A representative to act on the Cities behalf with respect to the project. The Cities representative will render decisions in a timely manner pertaining to documents submitted by the consultant to avoid unreasonable delay in the orderly and sequential progress of the Consultant's services.
- Prompt written notice to the Consultant if the City becomes aware of any fault or defect in the Project, including any errors, omissions or inconsistencies in the Consultant's instruments of service.
- The application and processing for any necessary permits and environmental and cultural clearances.
- Processing of pay applications, change orders and any payroll or labor wage rate certifications necessary for the project.
- A review of the findings of investigations and engineering reporting submittals to provide comments and determine if there will be any major changes in the scope as a result.
- A review of preliminary design submittals to provide comments and determine if the Consultant has approval to proceed forward in each stage of the design.
- Most recent aerial topographic data to cover the extent of the hydrologic model
- Any existing Hydrologic Estimates
- All public input processes
- ~~R/W Acquisition except development of R/W drawings and easement and acquisition descriptions.~~
- A conceptual drawing that outlines features, configurations and suggested parameters for the consultant to base the design. This may include sketches of transition structures and drop inlet style structures. Any major deviation from the conceptual design requires discussion with the Project Manager.
- Preliminary utility information acquired by the time the design contract begins.
- Examples of plans with typical pay items.
- **Easement Descriptions and Displays**
- **Bank Armoring Plan. The city will design and detail a bank armoring plan. The city shall seal this sheet, and Barr will incorporate the sheet into the set of construction documents. This includes referencing details from the bank armoring sheet within Barr's plan set, where applicable & necessary.**

To be provided by Consultant:

- Topographic and Boundary survey, in state plane coordinates, necessary to complete the project including property information necessary for describing easements.
- Title search to find existing easements.
- A geotech report characterizing conditions for design and construction of the culverts based on at least two borings. The report does not need to include coring of competent rock that is found within the investigation zone.
- A hydrologic and hydraulic analysis report.
 - Hydrologic Analysis to use NOAA Atlas 14 rainfall depths with Rainfall Frequency Atlas of the Midwest (Bulletin 71) for time distribution of the rainfall.
 - Hydraulics to use the method and coefficients in the latest edition of FHWA's Urban Drainage Design Manual (HEC-22) to perform energy and hydraulic gradeline calculations.
- A Conceptual Design report, describing the proposed project.
 - Design must provide for the following:
 - Inlet spacing so that one 12' wide clear lane is maintained in 25yr flood.
 - Roadway overtopping in the 100yr flood is limited to 3 inches at the shallowest point in the roadway cross section.
 - Earth side-slopes 4:1 or flatter.
 - 3 concepts for a trash capturing practice at the end of the pipe on the north side of Nebraska. The concepts must include:
 - Size of practice based on semi-annual cleaning and the expected trash load from a watershed of this make-up.
 - Estimated cost of construction and maintenance.
 - Maintenance method and schedule.
 - Sizing of the drainage channel and provide conservatively sized bank stabilizing rip rap along the downstream building footprint that abuts the east bank of the drainage channel.
 - Final design, and plans and specifications will not be started until the City notifies the Engineer to proceed.
 - Progress plans at the 30, 60 and 90 percent completion stages.
- Final Plans and Specifications and an Engineers Estimate for the project.
 - Plans are to provide pay items base on City's Standard Specifications and examples provided by the City.
 - Update property owner information on final signed and sealed plans.
- Design project administration, including utility coordination,
- Attendance at as many as five design/progress meetings with the City and other stakeholders, including a kick-off meeting and a pre-construction meeting when the project is bid.
- Submittal review for structural elements of the design during the bidding process.
- No other construction administration or support is included in this scope of services.
- **A complete set of plans minus easement descriptions and displays and a bank armoring plan; Including addressing comments provided by the City of Columbia and delivered in a document that is professionally sealed and ready for construction.**

- **Sheet set coordination as related to the stream bank armoring plan. The city will design and detail a bank armoring plan. The city shall seal this sheet, and Barr will incorporate the sheet into the set of construction documents. This includes referencing details from the bank armoring sheet within Barr's plan set, where applicable & necessary.**

- **Completed Temporary Traffic Control Plan: completed showing at least two separate phases of construction.**
- **Completed Structural Plan: customized structural sheets that represent sections of the culvert as required with sufficient dimensional and reinforcing detail for field construction.**
- **CAD Deliverables: Any Auto CAD/Civil 3D design files etc., that were used to create the sealed set of plans shall be delivered to the City of Columbia prior to final payment.**