

ATTACHMENT A

SCOPE OF SERVICES FOR US HIGHWAY 24 WATER MAIN REPLACEMENT

Owner: City of Independence, Missouri, Municipal Services – Water Division (OWNER)
Design Professional: Burns & McDonnell Engineering Company, Inc. (ENGINEER)
Project Title: US Highway 24 Water Main Replacement

PROJECT DESCRIPTION

The following Scope of Services describes the ENGINEER's services associated with the Project. These services shall be completed within 90 calendar days after the Notice to Proceed.

The Project consists of designing the replacement of an aging water main along United States Highway 24 (US24). Generally, the existing water main to be replaced consists of:

1. Connection of existing 2-inch and 6-inch water mains at the intersection of Cedar Avenue and US24 with an extension of the 6-inch water main.
2. Replacement of existing 6-inch water main between Huttig Avenue and Lake Drive as well as 8-inch water main between Lake Drive and Harris Street on the south side of US24. This alignment includes approximately twelve (12) connections to the existing water distribution system.
3. Replacement of existing 6-inch water main across US24 at Huttig Avenue and a connection to the existing water distribution system.
4. Replacement of existing 8-inch water main between Huttig Avenue and Hardy Avenue on the north side of US24. This alignment includes two (2) connections to the existing water distribution system.
5. Replacement of existing water main includes reconnections of 22 water main services.
6. Replacement of existing water main includes three (3) existing fire hydrant removals and replacements, and six (6) new fire hydrants.

This Project will be issued to authorize the ENGINEER to complete final design, and preparation of construction drawings for construction, including performing quality assurance and quality control (QA/QC) reviews prior to submittal on drawings and other design documents. Drawings will show plans and details for the proposed water main replacements with water main profiles. Drawings will be generated from the OWNER's GIS files provided for this Project and will be adjusted and supplemented by the US24 roadway improvements survey. It is assumed no additional survey will be required to complete the design documents.

This Project will also be issued to authorize the ENGINEER to provide construction support, including a kickoff meeting and weekly progress meetings, periodic construction observation, submittal/shop drawing reviews, answering contractor questions through the written request for information (RFI) process, as well as preparing and submitting record drawings.

Design should consider impacts for design and construction including, but not limited to coordination with:

- City of Independence, Missouri (OWNER)
- Missouri Department of Transportation (MoDOT)

Additional services that are not currently included but may be added by contract amendment include: geotechnical investigations, property surveys, additional water main route survey, permitting, easement acquisition, and traffic control.

MoDOT will prepare the “front-end” bidding documents (other than specific information contained or detailed on the construction drawings) other than MoDOT standard specifications as required.

For General Design Guidelines, see the latest version of Code of Ordinances of Independence, Missouri, which are incorporated herein by reference (available on OWNER’s web page at <https://www.independencemo.gov/government/city-departments/municipal-services/water-division/engineering-details>).

The basic Scope of Services for this Project is organized into five (5) major Task Series:

- Task Series 100 – Meetings and Project Coordination (Design)
- Task Series 200 – Final Design
- Task Series 300 – Meetings and Project Coordination (Construction)
- Task Series 400 – Construction Administration Services
- Task Series 500 – Construction Close-Out

TASK SERIES 100 – MEETINGS AND PROJECT COORDINATION (DESIGN)

- 101. Project Kick-off Meeting.** The ENGINEER will conduct an initial project meeting to clarify the OWNER’s intended scope of work, schedule, budget requirements, and other special requirements for the Project, and to review pertinent available data. It is assumed that this meeting will be attended in-person by the Project Manager, Project Engineer, and Pipeline Engineer.
- 102. Project Management and Administration.** The ENGINEER will provide the management functions required to successfully complete the work, including all project correspondence with the OWNER; consultation with the OWNER’s staff; supervision and coordination of services; and a quality control/quality assurance (QA/QC) plan; scheduling and assignment of personnel resources, continuous monitoring of work progress; and invoicing for the work performed.
- 1.03 Collection and Review of Existing Data.** The ENGINEER will review available information provided by the OWNER including:
- As-built record drawings
 - GIS mapping
 - Utility maps including Key Maps
 - Aerial photography
 - Existing details

It is assumed that this includes one (1) ENGINEER’s site visit for investigation purposes.

TASK SERIES 200 – FINAL DESIGN

- 201. Prepare 80% Design Drawings.** Drawings will be provided by the ENGINEER at the 80% design level. The 80% Design Drawings shall include the following:
- Plan and Profile Drawings
 - Details for valves, vaults, and other appurtenances
 - OWNER Standard details
 - Connection Details
- 80% Design Drawings will be provided to the OWNER electronically, and four (4) physical, half-size (11”x17”) copies of the 80% Design Drawings will be provided as well.
- 202. Prepare 80% Design Technical Specifications.** Technical specifications will be provided by the ENGINEER at the 80% design level. The 80% Design Technical Specifications shall include the following:

- Division 31 – Earthwork
- Division 33 – Utilities

80% Design Technical Specifications will be provided to the OWNER electronically, and four (4) physical copies of the 80% Design Technical Specifications will be provided as well.

203. **Identify, Coordinate, and Provide Technical Information Regarding Project Required Permits and Utility Coordination.** The ENGINEER will meet (in-person or virtually) with representatives of appropriate stakeholders and utility owners to understand requirements and impacts to the water main replacement and relocation. Stakeholders include but are not limited to: MoDOT, Independence Power & Light (IPL), Spire Energy, and the City of Independence, Missouri (OWNER). The ENGINEER will discuss and document all proposed work for the water main replacements within areas impacted by each stakeholder. This fee assumes four (4) in-person meetings at the Lee's Summit office for MoDOT. For the purposes of this fee, the ENGINEER has assumed that the OWNER will pay all permit application and review fees.
204. **Burns & McDonnell Quality Control Reviews.** The ENGINEER will perform quality control (QC) for the contract documents in accordance with the ENGINEER's procedures. ENGINEER has an established, formalized quality control program that is mandatory on all projects. A copy of this formalized (quality assurance/quality control) QA/QC program is available upon request.
205. **80% Design Review Meeting.** The ENGINEER will prepare for, attend (in-person), and conduct a design review meeting to be held with OWNER staff. The 80% design shall be presented by the ENGINEER and reviewed in detail with the OWNER. The OWNER's staff may also provide written comments to be presented at the 80% design meeting. The ENGINEER will provide meeting minutes with a decision log and a list of action items. Meeting minutes will be distributed via e-mail.
206. **Revision and Submittal of Final Design Drawings and Technical Specifications.** 80% Design Documents will be revised according to OWNER comments and submitted for bidding as part of MoDOT's project. Final Design Documents will be provided to the OWNER electronically, and four (4) physical, half-size (11"x17") copies of the Final Design Documents will be provided as well. Includes coordination of the water main replacement design into MoDOT's bid documents.

TASK SERIES 300 – MEETINGS AND PROJECT COORDINATION (CONSTRUCTION)

301. **Pre-Construction Meeting.** The ENGINEER will attend Pre-Construction meeting in-person. It is anticipated that the pre-construction meeting will be attended by the OWNER, the Contractor, and affected jurisdictions (as necessary). Our associated fee assumes attendance by the Project Manager, Project Engineer, and the Pipeline Engineer, and work to prepare responses to any questions presented during the pre-construction meeting regarding the water main replacement project.
302. **Weekly Construction Meetings.** The ENGINEER will attend weekly construction meetings with the OWNER, the Contractor, and affected jurisdictions (as necessary). The associated fee assumes in-person attendance by the Project Engineer and Pipeline Engineer. This fee assumes there will be twelve (12) weekly progress meetings.

TASK SERIES 400 – CONSTRUCTION ADMINISTRATION SERVICES

- 401. Periodic Construction Observation.** This includes six (6) site visits to the site by the Project Engineer. The associated fee assumes bi-weekly site visits by the Project Engineer for four (4) hours each. This fee includes travel time and mileage.
- 402. Submittal/Shop Drawing Reviews.** The ENGINEER will review materials, scheduling, permitting, and traffic control submittals for the Project and provide a response and status for each submittal. The associated fee assumes approximately twenty (20) different submittals from the Contractor. This fee includes review time at approximately two (2) hours per submittal.
- 403. Answer Contractor's Questions through Written RFI Process.** The ENGINEER will provide formal responses to requests for information (RFI's) to the Contractor and the OWNER. The associated fee assumes the Contractor submits eight (8) RFI's with a review, determination, and response time of approximately four (4) total staff hours per RFI.
- 404. Change Order Preparation of Owner Approval and Execution.** The ENGINEER will prepare and distribute change orders for the OWNER and Contractor approval and signature. Change Orders will provide current project accounting based upon contract value and completion time changes from the original agreement. The associated fee assumes that the District and Contractor agree to five (5) change orders that require approximately four (4) total staff hours per change order.

OWNER'S RESPONSIBILITIES

OWNER will furnish, as required by the Basic Scope of Services, and not at the expense of the ENGINEER, the following items:

- A. Assist with coordination required to obtain access to the alignment sites for field investigations by ENGINEER.
- B. Negotiate, sign, and provide access agreements for ENGINEER's use to conduct field investigations on adjacent private property considered for acquisition, if required.
- C. Provide assistance by placing at ENGINEER's disposal available information pertinent to the assignment, including previous reports, drawings, specifications, operation and maintenance records, and any other data relative thereto.
- D. The OWNER hereby commits to review periods for interim deliverables of no more than fifteen (15) calendar days from receipt of deliverables from ENGINEER. OWNER shall provide consolidated written review comments to ENGINEER within that period.
- E. OWNER's Project Manager will coordinate meetings between the OWNER's management, engineering, and operations and maintenance groups, and the ENGINEER.
- F. Operate all existing equipment, valves, or other systems necessary for functional or performance testing required by ENGINEER.
- G. Property and easement acquisition is the responsibility of the OWNER. Submittal of all easements obtained to the Jackson County Court House for recording of sites and along water main corridor is the OWNER's responsibility.

- H. For the purposes of this fee, the ENGINEER has assumed that the OWNER will pay all permit application and review fees.
- I. Preparation and distribution of notification of the OWNER's intent to install a new water main to all affected property owners. Assist with coordination required to obtain permission for CONTRACTOR to perform the work.

END OF ATTACHMENT A