

MEETING DATE: 10/18/2022

DEPARTMENT: Public Works

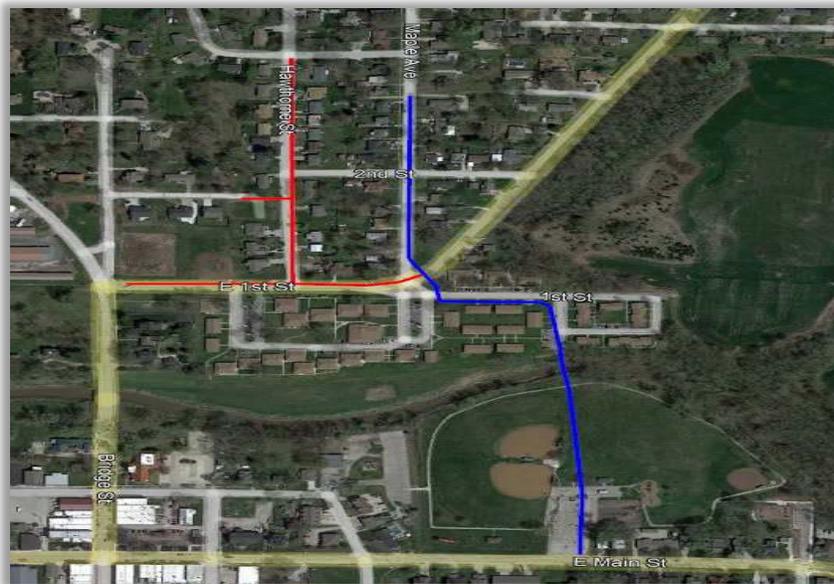
AGENDA ITEM: Resolution 1138 - Authorization No. 97 – design and construction services for Little Platte River Crossing

REQUESTED BOARD ACTION:

A motion to approve Resolution 1138, authorizing and directing the Mayor to execute Authorization No. 97 with HDR Engineering, Inc. for design and construction services for Little Platte River Crossing.

SUMMARY:

The 12" water line will extend from Heritage Park under the Little Platte River to Third Street and Maple Avenue as shown below in blue. The 8" water line will include improvements on First Street and Hawthorne Street connecting to current/pervious water line projects (Streetscape Phase III, Hawthorn Street Improvements, and Main Street Water Improvements) as shown below in red. The FY2023 budget includes \$200,000 for the design of this water line, which is sufficient.



PREVIOUS ACTION:

None

POLICY ISSUE:

Infrastructure Maintenance

FINANCIAL CONSIDERATIONS:

The project is planned to begin late in 2023 and completed in 2024. Funding for the project is sourced from the CWWS Fund (specifically coming from Water Impact Cash).

ATTACHMENTS:

- | | |
|--|--|
| <input type="checkbox"/> Ordinance | <input checked="" type="checkbox"/> Contract |
| <input checked="" type="checkbox"/> Resolution | <input type="checkbox"/> Plans |
| <input type="checkbox"/> Staff Report | <input type="checkbox"/> Minutes |
| <input type="checkbox"/> Other: | |

RESOLUTION 1138

A RESOLUTION AUTHORIZING AND DIRECTING THE MAYOR TO EXECUTE AUTHORIZATION NO. 97 WITH HDR ENGINEERING, INC. FOR ENGINEERING SERVICES FOR DESIGN AND CONSTRUCTION SERVICES FOR LITTLE PLATTE RIVER CROSSING

WHEREAS, the city completed the Water Master Plan, June 1 2018; and

WHEREAS, Project C-1, a 12" water main crossing the Little Platte River from Main Street to Third Street was identified as one of the highest priority projects; and

WHEREAS, HDR has provided a scope of services for the engineering design and construction phase services in an amount of \$167,560.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF SMITHVILLE, MISSOURI:

THAT the Mayor is hereby authorized to execute Authorization No. 97 with HDR Engineering, Inc. in an amount of \$167,560.

PASSED AND ADOPTED by the Board of Aldermen and **APPROVED** by the Mayor of the City of Smithville, Missouri, the 18th day of October, 2022.

Damien Boley, Mayor

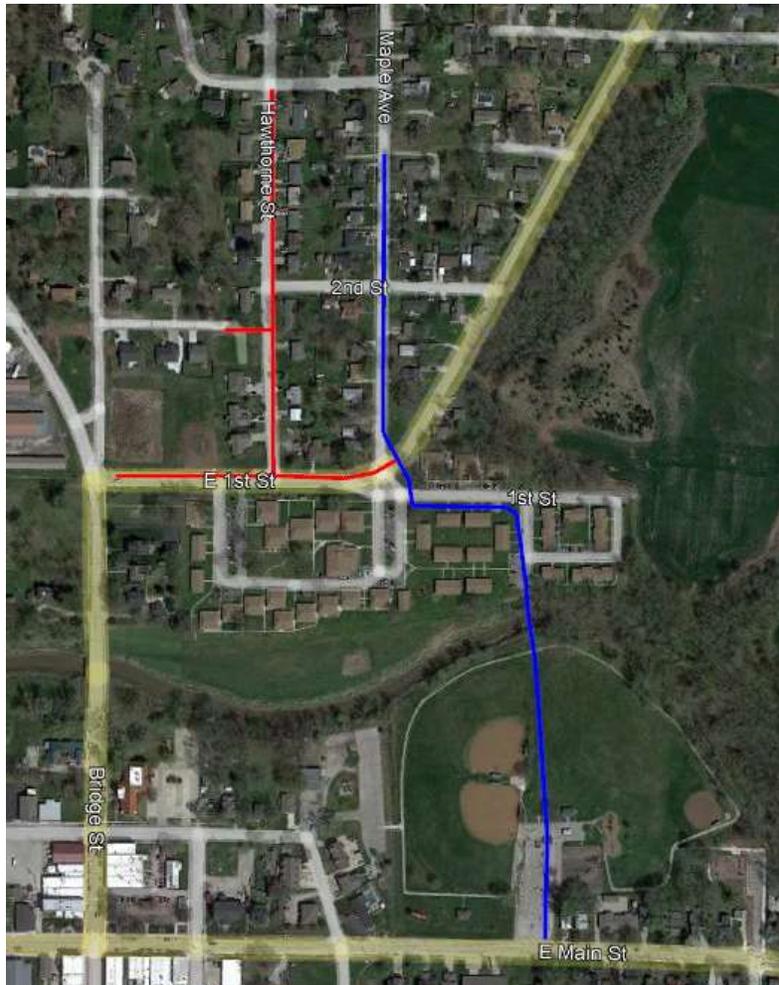
ATTEST:

Linda Drummond, City Clerk

AUTHORIZATION No. 97
TO
AGREEMENT BETWEEN
CITY OF SMITHVILLE, MISSOURI
AND
HDR ENGINEERING, INC. (FORMALLY E.T. ARCHER CORPORATION)
FOR
PROFESSIONAL ENGINEERING SERVICES

LITTLE PLATTE WATER LINE CROSSING

In accordance with Section 1.A. of the December 18, 2003 Agreement, ENGINEER is hereby authorized to assist the City with the topographic survey, design, preparation of construction documents, bidding assistance, and construction administration for approximately 2,400 linear feet of 12" and 2,000 linear feet of 8" domestic water line. The 12" water line will extend from Heritage Park under the Little Platte River to 3rd Street and Maple Avenue as shown below in blue. The 8" water line will include improvements on 1st Street and Hawthorne Street connecting to current/pervious water line projects (Streetscape Phase III, Hawthorn Street Improvements, and Main Street Water Improvements) as shown below in red.



The Scope of Services will more specifically include the following project improvements & tasks.

SCOPE OF SERVICES

Task 1. Topographic Survey

1. Project research, preparation, and management - Research and compile relevant previous topographic surveys and background data and incorporated into this project.
2. Safety plan coordination and review
3. Control and benchmark survey - Establish and/or identify survey control points and project benchmarks.
4. Topographic Survey - Obtain topographic survey within the project boundary including apparent visible features and the Little Platte River bottom utilizing sonar equipment.
5. Utility Coordination/meetings - Coordination with utilities for locates and survey of utilities.
6. Boundary Survey - Develop property boundary survey from right of way to right of way and/or building faces. Research existing property lines based on County deeds and tax mapping.
7. Base mapping – Convert topographic field survey information into AutoCAD Civil 3D format.
8. Easement descriptions and exhibits - Obtain Guaranteed Title Reports (GTR), create easement descriptions and exhibits for up to 6 properties.

Task 1 Deliverables: Easement description and exhibits

Task 2. Preliminary Design

1. Internal Safety Plan and PARR QA/QC Review – Internal Safety Plan and perform project approach and resource review.
2. Conceptual water line alignment – HDR will design conceptual water line alignment with GIS data and existing water line information.
3. Alignment walkthrough - HDR will provide conceptual alignment and conduct a walkthrough of the project with the City. This will confirm the proper alignment for the topographic survey and design.
4. Utility Coordination – HDR will initiate conversations with utilities about the project with the conceptual alignment. HDR will determine if utility improvements are intended in the project vicinity.
5. Hydraulic system modeling – HDR will analyze the
6. Geotechnical investigations - HDR will retain a subconsultant to perform 3 soil bores (15' minimum) at the Little Platte River crossing to determine bed rock and groundwater conditions.
7. Preliminary plans – HDR will develop preliminary design plans for the water line under the direction of City Staff. The Preliminary Design Plans will be based on the topographic survey developed in Task 1. These plans will include title sheet, water line plan and profiles, and standard details.
8. Technical specifications - HDR will prepare preliminary technical specifications for water line construction.

9. Preliminary cost estimate - HDR will prepare a preliminary itemized opinion of probable construction costs.
10. Internal QC review - HDR will perform an internal quality control review on the preliminary plans, project manual, and cost estimate.
11. Client Meeting (1 included) - HDR will attend one meeting with the City to review the preliminary documents.
12. Project Management – Perform project management, scheduling, and cost control for the project.

Task 2 Deliverables: Conceptual water line alignment, Preliminary Plans, and Geotechnical Report.

Task 3. Final Design

1. Utility Coordination – HDR will continue conversations with utilities about the project with the preliminary design plans created. HDR will determine if improvements are intended in the project vicinity.
2. Preliminary plans – HDR will develop final design plans for the water line under the direction of City Staff. These plans will include title sheet, water line plan and profiles, layout and survey control, erosion control, traffic control, restoration plans, and standard details.
3. Technical and project specifications - HDR will finalize the project manual and project specific technical specifications.
4. Cost estimate – HDR will prepare a final itemized opinion of probable construction costs.
5. Internal QC review - HDR will perform an internal quality control review on the final plans, project manual, and cost estimate.
6. Construction permit to MDNR – HDR will submit a water line construction permit to the Missouri Department of Natural Resources (MDNR).
7. Floodplain development permit – HDR will submit a floodplain development permit application to the City’s Floodplain Manager.
8. Client Meeting (1 included) - HDR will attend one meeting with the City to review the final documents.
9. Project Management – Perform project management, scheduling, and cost control for the project.

Task 3 Deliverables: Final plans and specs

Task 4. Bidding Phase

1. Prepare bid package - HDR will assist Owner in advertising by submitting electronic copies of the bidding documents to Drexel Plan Room.
2. Pre-bid conference - HDR will assist the City in conducting a pre-bid conference.
3. Bidder’s questions – HDR will address bidders questions.
4. Prepare addenda – HDR will issue up to two (2) addenda to clarify, correct, or modify the Bidding Documents.
5. Bid Opening – HDR will attend the bid opening, prepare Bid tabulations, and assist Owner in evaluating Bids or proposals and provide a bid award recommendation to the City

6. Bid award – After Acceptance from the City, HDR will notify the contractor of the bid award and notice to proceed and create conformed to bid drawings and specs.

Task 4 Deliverables: Project advertisement, bid tab and recommendation, and conformed to bid drawings/specs

Task 5. Construction Phase

1. Pre-construction conference – HDR shall prepare an agenda and participate in a pre-construction conference prior to commencement of Work at the Site.
2. Submittal Reviews – HDR shall review up to fifteen (15) Shop Drawings and Samples and other data which Contractor is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.
3. Address RFI's - HDR shall issue up to three (3) necessary clarifications and interpretations of the Contract Documents to the orderly completion of Contractor's work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.
4. Issue Change Orders - HDR shall recommend Change Orders and Work Change Directives to Owner, and prepare up to three (3) Change Orders/Work Change Directives.
5. Review payment applications - Based on HDR's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation, HDR will recommend the amount the Contractor be paid on up to five (5) applications.
6. Monthly progress meetings - HDR shall attend up to five (5) construction progress meetings with Owner and Contractor.
7. Engineer site visits - In connection with observations of Contractor's Work while it is in progress and coordination with City Staff, HDR may make up to three (3) visits to the Site to observe as an experienced and qualified design professional the progress and quality of Contractor's executed Work. Such visits and observations by HDR are not intended to be exhaustive or to involve detailed inspections of Contractor's Work in progress beyond the responsibilities specifically assigned to HDR in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on HDR's exercise of professional judgment as assisted by the City's Resident Project Representative. HDR will check with City Staff documentation. Based on information obtained during such visits and observations, HDR will determine in general if the Work is proceeding in accordance with the Contract Documents, and HDR shall keep Owner informed of the progress of the Work.
8. Substantial completion inspection and punch list - HDR shall conduct a substantial completion inspection to determine if the Work of Contractor is acceptable. HDR will

provide a punch list of items needed for the contractor to meet substation completion if necessary.

9. Final inspection and documentation - HDR shall conduct a final inspection to determine if the Work of Contractor is acceptable so that HDR may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, HDR shall also provide a notice that the Work is acceptable to HDR's knowledge, information, and belief and based on the extent of the services provided by HDR under this Agreement.
10. Record drawing completion - HDR shall prepare a set of construction record drawings based upon records kept by Contractor and City's Resident Project Representative during Construction. These drawings will be provided to the Owner in electronic format.
11. Project Management – Perform project management, scheduling, and cost control for the project.

Task 5 Deliverables: Submittal reviews, change orders, pay app reviews, substantial completion punch list, final completion documentation, and record drawings

Project Assumption

1. The City will coordinate with owners of private property to provide access for consultant's and subconsultant's staff.
2. HDR will provide easement conveyance documents to the City. The City will obtain the easements and appraisals as needed.
3. The City will provide construction observation and will review results of testing during construction.
4. The project will only be bid one time.
5. There will be no fee for the City issued floodplain development permit.
6. The disturbed pavement of the parking lot at Heritage park will be replaced in-kind. Alternative parking lot layouts can be designed as added services.

Project Schedule

11/01/22	Anticipated Notice to Proceed
11/15/22	Alignment Walkthrough
01/20/23	Preliminary Plans to the City
02/15/23	Construction permit to MDNR
03/15/23	Final Plans to the City
04/04/23	Issue for Bid
04/25/23	Bid Opening
10/2023	Construction Substantial Completion (150 days for construction)

FEE

The CITY shall compensate ENGINEER for the Little Platte River Water Crossing in an amount not to exceed \$167,560.00.

This AUTHORIZATION shall be binding on the parties hereto only after it has been duly executed and approved by the CITY and ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this AGREEMENT in duplicate on the respective dates indicated below.

(SEAL)

CITY: SMITHVILLE, MISSOURI

By: _____

Type or Print Name

Title _____

Date _____

(SEAL)

ENGINEER: HDR Engineering, Inc. (formally
E.T. ARCHER CORPORATION)

By:  _____
Joseph Drimmel (Oct 3, 2022 09:52 CDT)

Joseph Drimmel, P.E.
Type or Print Name

Title Senior Vice President

Date Oct 3, 2022



**Little Platte Water Line Crossing
Scope and Fee**

Staff Name	Bresette, A Senior Project Manager III	Wiebelhaus, M Engineer IV	English, J Engineer IV	Call, B Engineer I	Carter, M Engineer VI	Ordonez- Castillo, D Cadd/GIS Technician I	Allen, J Cadd/GIS Technician V	Wideman, G Project Assistant I	Campbell, J Project Assistant II	Fuller, T Project Accountant II	Yakle, J Senior Land Surveyor	Jasper, J Survey Technician III	Ly, P Survey Technician III	Lytle, N Survey Technician II	Shields, T Survey Technician II	HDR Expenses	Subconsultant	Total
E. Task 5 - Construction Phase																		
1 Pre-construction meeting		4		4														\$1,180
2 Submittal Reviews	2	16		30														\$6,980
3 Address RFI's		6		6														\$1,770
4 Issue change orders		6		6		8	8											\$4,010
5 Review payment applications		10		10														\$2,950
6 Monthly progress meetings		15		15														\$4,425
7 Engineer site visits		12														\$185		\$2,285
8 Substantial completion inspection and punch list		8		4												\$60		\$1,940
9 Final inspection and documentation		8		4												\$60		\$1,940
10 Record drawing completion		4		4		8	8											\$3,420
11 Project Management		6							6	6								\$2,550
Subtotal Hours	2	95	0	83	0	16	16	0	6	6	0	0	0	0	0			
Subtotal Dollars	\$580	\$16,625	\$0	\$9,960	\$0	\$1,760	\$2,720	\$0	\$750	\$750	\$0	\$0	\$0	\$0	\$0	\$305	\$0	\$33,450
Total Task 5																		\$33,450
Total Hours	24	253	10	83	6	170	158	42	16	12	43	10	101	101	62			1,091
Total Billing Amount	\$6,960	\$44,275	\$2,000	\$9,960	\$1,380	\$18,700	\$26,860	\$4,200	\$2,000	\$1,500	\$7,525	\$1,300	\$13,130	\$9,090	\$5,580	\$5,100	\$8,000	\$167,560

Estimated Project Fee \$167,560