



**FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT
N 1st Street W. Water Systems Improvements**

This AMENDMENT is made and entered into ___ day of June, 2025, between the **CITY OF MISSOULA, MONTANA**, a municipal corporation organized and existing under the laws of the State of Montana, 435 Ryman St., Missoula, MT 59802- 4297, referred to here as “City,” and Morrison-Maierle, 1055 Mount Ave, Missoula, MT 59801, referred to here as “Consultant.”

RECITALS

1. On May 7, 2024 the above parties entered into an agreement whereby the Consultant agreed to perform work and provide the services in accordance with the requirements of the Scope of Services, as described in Exhibit A for which the City agreed to pay the amount of Sixty-Three Thousand, Eight Hundred Sixty-One Dollars **(\$63,861.00)**.
2. Since the execution of the Agreement, the parties desire to amend it as set forth in this Professional Services Agreement Amendment No. 1 to include additional work, as described in Exhibit A1 not to exceed Forty-Two Thousand, Four Hundred Twelve Dollars and Fifty Cents **(\$95,369.00)** for the additional work. This brings the Agreement total to, One Hundred Fifty Nine Thousand Two Hundred Thirty Dollars **(\$159,230.00)**.
3. Provisions of the original contract dated May 7, 2024, that are not amended herein remain in full force and effect.

AMENDMENT

Now therefore, in consideration of the mutual covenants and agreements contained here, the receipt and sufficiency of the same being acknowledged, the parties agree as follows:

- A. **Scope of Work/Task Deadlines**, is amended to incorporate the following Scope of Services as itemized in the Scope of Services & Cost Estimate, attached hereto as Exhibit A1.

WITNESS, the parties here have executed this instrument the day and year first above written.

CONSULTANT:

MAYOR
City of Missoula, Montana

Andrea Davis

ATTEST:

APPROVED AS TO FORM

Claire Trimble, City Clerk

Ryan Sudbury, City Attorney

(SEAL)

Exhibit A1

NORTH 1ST STREET, WATER SYSTEM IMPROVEMENTS, CITY OF MISSOULA

Scope and Fee Letter - Construction and Post
Construction Administration

Prepared by:

Morrison-Maierle

Missoula Office
1055 Mount Ave
Missoula, MT 59801

May 2, 2025

City of Missoula
Attn: Chris Fuchs, PE
1345 W. Broadway
Missoula, MT 59802

RE: North 1st Street Water System Improvements, City of Missoula

Dear Chris,

Thank you for the opportunity to submit this proposal. We have included our proposed scope of work and fees for the following services:

- Re Bidding Services
- BNSF/MDEQ Coordination on Contaminated Soils
- Construction Administration
- Post Construction Project Closeout
- 3rd Party Quality Assurance Testing

PROJECT UNDERSTANDING

The City of Missoula is in the process of providing water system improvements to aging water mains. As part of this process the City of Missoula has completed design and bidding for the North 1st Street Water System Improvements. The project was bid in February of 2025, rebid in April 2025, and is the process of being awarded to the apparent low bidder. Construction is anticipated to start in the summer of 2025. The project has been awarded for a total construction cost of \$806,067.38 with an additional \$20,000 for miscellaneous work allowance and a total contract duration of 85 calendar days for substantial completion and 100 calendar days for final completion.

SCOPE OF SERVICES

City of Missoula intends to construct new water mains within the project limits total +/- 1800 linear feet of new ductile iron water main replacing existing 6-inch Kalmein and 2-inch steel water mains.

The Engineer shall perform work as outlined within this Scope of Work that includes the completion construction administration and post constructions services for the project.

Assumptions and Clarifications

- Work will be completed under the contract documents for North 1st Street Water System Improvements
 - The total base bid price is \$806,067.38 with a total contract duration of 85 calendar days for substantial completion and 100 calendar days for final completion.

- Construction is to commence on or around July 1, 2025.

Owner Provided Information

To the extent that it is available, OWNER will provide:

- Part time observation and participation in weekly project construction meetings.
- Assistance in locating utilities, valves, curb stops and sewer services
- Operation of existing utilities within the project site
- Funding agency contracts as necessary to ensure compliance with labor and material requirements.

Tasks

Task 100 – Project Management

- The ENGINEER's project manager and technical leader will actively manage the project team, including sub-consultants. The project manager will keep in regular contact with City staff via written and verbal communications. E-mail and telephone will be utilized whenever practical. On a monthly basis, project invoices will be prepared along with a written narrative of project progress and budget tracking.
- Agency and Utility Coordination. The ENGINEER will coordinate with DEQ and any other agencies which may be affected or have comments regarding the OWNER's planning.

Task 200 –Preliminary Design - Complete

This task consists of the following elements:

- No Additional tasks.

Task 300 – Final Design- Complete

This task consists of the following elements:

- BNSF/MDEQ Soil Contamination Coordination – Complete project coordination with Owner, BNSF and Montana DEQ for potential fuel contaminated soils within the project limits. Develop special provision specifications for contractor responsibilities. Identify and coordinate known environmental reports for bidders.

Task 400 – Bidding Services – Re Bid

This task consists of the following elements that are necessary to complete to rebid the project:

- Bidding. ENGINEER will prepare and supply electronic project plans and specifications and bidding documents necessary for bidding and construction. Morrison-Maierle will utilize on-line bidding through QuestCDN unless otherwise directed by the City of Missoula. Bid advertisement text will be provided to the City of Missoula for publication in the locations of their choosing. Costs for publication will be paid by the City.

ENGINEER will review and prepare documentation addressing potential contaminated soils at the project site. Meeting attendance with State regulators and City Staff to outline the possibility of contractor encountering contaminated soils and methods of handling and disposal of such material.

ENGINEER will host an in-person pre-bid conference with an onsite tour for prospective bidders. A pre-bid meeting agenda and minutes will be prepared and distributed to bidders.

ENGINEER will prepare any necessary addenda during the bidding process based on comments or questions received from Contractors. Engineer will attend the bid opening, analyze bids, submit a bid tabulation, and make a construction contract award recommendation to the City. ENGINEER will prepare documents for concurrence review from Montana SRF utilizing Montana DEQ/SRF program standard forms.

Task 500 – Construction Services

This task consists of the following elements:

- Executed Contract Documents. Upon completion of the bidding phase, Morrison-Maierle will prepare digital executable contract documents for the selected Contractor. Field construction documents will be limited to digital sets of executed construction drawings and specific ions for selected Contractor and Owner.
- Construction Layout and Control. ENGINEER will provide personnel, equipment, and supplies for construction layout and control. Construction layout shall include, but not be limited to, measurements, lines, locations, and grades necessary for construction of the water main, valves, fire hydrants and connections to the existing water main. The ENGINEER will reference and preserve all existing survey monuments and benchmarks. All monuments required within the project shall be marked and elevations shown on as-built drawings. Construction staking shall be provided at 50 lineal foot intervals and offsets to pertinent fittings.

Upon completion of field survey, current intersection monuments will be located. Any intersection monuments that are required to be disturbed during construction will be included in the Contract Documents for the CONTRACTOR to reset by a professional land surveyor.

- Resident Project Representative (RPR) Services. The ENGINEER will coordinate appropriate testing of materials intended for incorporation into the project and require documentation of testing results. In addition, the ENGINEER will provide review of construction to check the Contractor's work for compliance with the drawings, specifications, and other applicable documents, codes or standards. A review of the work shall be made on a part-time basis while any major item of work is in progress (max. 4 hours per day). Major items of work shall be water utilities; subgrade preparation; gravel base course preparation; concrete pouring and finishing; paving; signalization, and striping. The ENGINEER shall provide a minimum of 48 hours notice for Missoula Water personnel when specific inspections or testing require their presence on the project. Each daily review shall be documented in permanent reproducible form and kept in consecutive order with the project file. Copies of the daily review reports shall be

furnished to Missoula Water as requested during construction. ENGINEER will notify Missoula Water immediately of contract problems or deviation from approved plans.

The ENGINEER will organize Contractor provided whiteboard photos. The CONTRACTOR will remain responsible for the ultimate collection of whiteboard photos. Documentation will be available on shareable online map and digital image format, final deliverables will be presented in Task 6.

The planned resident project representative budget for this work is based on a construction duration of 86 working days (120 calendar days) to complete water main installation and testing and surface restoration. Also included is a 10% contingency allowance.

RPR Construction Budget

244 hours of base time

24 hours of 10% Contingency

- Testing Services. ENGINEER will provide the services of a qualified materials engineering technician who will observe construction and provide representatives tests. ENGINEER will provide direct coordination of laboratory, field quality assurance testing, and geotechnical engineering between the project engineer, RPR and project construction materials engineer.
- Submittal Review. The ENGINEER will review the construction sequence and the traffic controls for construction prior to the start of work. ENGINEER shall ascertain that the Contractor has all the necessary permits to accomplish his work during construction. ENGINEER will review shop drawings, samples, equipment, asphaltic concrete mix design, concrete mix design, aggregate, and other data submitted by the Contractor for compliance with drawings and specifications.
- Construction Administration. The ENGINEER will review Contractor submitted monthly pay estimates and final pay estimates for construction and prepare contract administration forms on a monthly basis. These will be submitted in Missoula Water's approved format. ENGINEER will complete a pre-construction conference meeting. ENGINEER will issue notice to the Contractor to suspend work in whole or part when, in the opinion of the ENGINEER, and when directed by the Owner, work is not being, or cannot be performed in accordance with the contract documents and specifications. ENGINEER will contact Missoula Water for any proposed plan or specification changes when required due to initial design and engineering deficiencies in order to complete the project in its original concept. Plan and specification changes shall be prepared by the ENGINEER. ENGINEER will prepare and recommend work change directives and change orders when necessary due to conditions encountered during construction. The Engineer is not authorized to order additional work without the approval of Missoula Water. Any work resulting in contract overage will be processed by approved change orders using Missoula's standard format.

Task 600 – Project Closeout

- Record Drawings and Photographs. The ENGINEER shall record the location of all underground utilities (including, but not limited to, conduit for all street lighting, signalization, or flasher assemblies) installed under and on the surface within the public right-of-way and show these facilities, together with a representation of the general corridors in which other underground utilities are located, on the record drawings. ENGINEER will prepare record drawings and furnish Missoula Water with one (1) paper set for review and comments. Following receipt of comments from Missoula Water, ENGINEER will make necessary changes and furnish Missoula Water with one (1) Portable Document Format (PDF) of 22"x34" size and one (1) electronic set in AutoCAD (*.dwg) format.

- Stage 5 Survey Documentation: ENGINEER will complete field data collection and transmittal of .dwg or ArcMap compatible survey points for the following newly constructed features:
 - Valve Boxes
 - Curb Boxes
 - Fire Hydrants
 - Drywell Rim and Pipe Inverts
 - Storm Sewer Catch Basins and Manholes, Rim and Pipe Inverts
 - Sanitary Sewer Manholes, Rim and Pipe Inverts

- Warranty Period. ENGINEER will schedule and make final inspection with Missoula Water and confirm all project items were constructed according to plans and specifications and are acceptable to the ENGINEER and Missoula Water. ENGINEER will schedule and make an inspection with Missoula Water prior to the expiration of construction warranty period and provide a certification of final acceptance. If any problems are found, ENGINEER will send a list of deficiencies to Missoula Water and Contractor and continue coordination until acceptable.

- Project Closeout. The ENGINEER will submit project closeout information to the City Engineer's office in accordance with Stage 6 of the City's Project Development Toolbox

Task 700 – Additional Services

Morrison-Maierle is available to provide additional services that may arise as part of the Work. If the City identifies additional or unknown tasks as necessary for project completion, these services would be completed on a time and materials basis with prior authorization for the City project manager. Possible work tasks that may be necessary include additional construction inspection, or other unknown conditions that may develop during bidding or construction. Additional services budget shall be set at 5% of the total design, bidding and construction administration budgets.

Deliverables

- Monthly Progress Reports and Invoices
- Construction Contract Drawings
- MDEQ Certification
- Record Drawings and Photographs
 - Stage 5 Checklist Submittal
 - Stage 6 Checklist Submittal

Exclusions

- Water distribution system model update
- Grant/loan applications to funding agencies
- Public meetings
- Agency review fees

Schedule

The City of Missoula and the selected contractor intends to start construction in July of 2025. Work will be complete before November 2025.

Compensation

The attached table shows our estimate of fees to perform our proposed scope of services.

We look forward to providing our expertise for the project. Once we receive your approval of this proposal, we will proceed with the development of an Agreement and begin work on the project. This proposal is valid for up to 60 calendar days after the date of this letter. After 60 days, the proposed fees listed may be subject to increases based on changes in our cost of labor and expenses.

Sincerely,



Aaron McConkey, PE

Project Manager

Email: amcconkey@m-m.net

Phone: 406-542-4845

**MORRISON - MAIERLE, INC.
SUMMARY OF PROPOSED COSTS**

North 1st Street Water System Improvements Project

Fee Estimate

MAJOR WORK ITEM	PROJECT MANAGER	SENIOR ENGINEER	SURVEY MANAGER	DESIGN ENGINEER	ENG INTERN	DRAFTER	SURVEY CREW	ADMIN	TOTAL HOURS	TOTAL LABOR	
Task 1 - Project Management											Phase Total
Owner Coordination	6			4					10	\$2,126	
Invoicing	4							2	6	\$1,144	\$3,270
Task 4 - Final Design											
Contaminated Soils Meetings and Document Preparation				7	8				15	\$2,502	\$2,502
Task 5 - Re Bidding Services											
Document Preparation for Re-Bid	1			3				1	5	929	
Pre-Bid Meeting and Follow-Up Questions/Addenda	1			3	1				5	\$950	
Bid Opening	0.5			0.5	0.5				2	\$281	
Bid Review and Recommendation	0.5			1	2				4	\$593	\$2,753
									15		
Task 6 - Construction Administration and Project Closeout											
Facilitate Agreement Execution	1			2	4			2	9	\$1,429	
Pre-Construction Meeting	1			1	6				8	\$1,277	
Submittal Review				4	16				20	\$3,064	
Layout Staking			4						20	\$4,556	
Resident Project Representative (RPR) Services					268		16		268	\$38,381	
Construction Administration	8			24	12				44	\$8,172	
Construction Progress Meetings (16 Total)	6			32					38	\$7,558	\$64,437
Task 7 - Post Construction											
Development Services Stage 5 - Final Construction and Inspec./SRF Requirements	1			2	12	14	8		37	\$6,645	
Development Services Stage 6 - Document, As-Built and Testing	1		2	2	4				9	\$1,527	
MDEQ Certification Letter	0.5				1				2	\$256	
Development Services Stage 7 - Warranty Inspection	2			2					4	\$838	\$9,266
TOTAL	34	0	6	88	335	14	24	5	505	\$82,227	
Task 9 - Additional Services (Only Used with Authorization from City)											
Additional Services											\$4,111
Total Labor											\$82,227
Total Expenses											\$9,030
Additional Services (Owner Account)											\$4,111
TOTAL FEE											\$95,369

DIRECT EXPENSE DESCRIPTION	UNITS	NUMBER UNITS	UNIT COST	MARKUP	TOTAL COST
Geotechnical Testing	lump sum	1	\$7,500	1.1	\$8,250
Vehicle Mileage	miles	273	1.10		\$300
Survey GPS	Day	2	240.00		\$480
TOTAL DIRECT EXPENSES					\$9,030

TETRA TECH - MISSOULA, MONTANA

CONSTRUCTION MATERIALS ENGINEERING AND TESTING SERVICES

REGIONAL MANAGER: BRIAN CRAIL

2525 PALMER ST., SUITE 2

MISSOULA MT, 59808

Preliminary Unit Rate Estimate: N. 1st West Water Main Replacement (2025)

Proposed to: MMI

Proposal by: Brian Crail, Tetra Tech - CME Regional Manager, Project Manager

Contact Tel: 406-327-5230

Contact Email: brian.crail@tetratech.com

March 25, 2024

	<u>Units</u>	<u>Unit Price</u>	<u>Estimated Cost</u>
<u>TASK 100: LAB TESTING</u>			
<i>ASTM/AASHTO Accredited Soils and Aggregate Testing</i>			
1. Moisture Density ASTM D698 (each)	2	\$190.00	\$380.00
2. Moisture Density ASTM D 1557 (each)	0	\$235.00	\$0.00
3. Sieve Analysis C136 (each)	2	\$110.00	\$220.00
4. L.A. Abrasion (each)	0	\$375.00	\$0.00
5. Plasticity Index D4318 (each)	0	\$120.00	\$0.00
6. Aggregate Fractured Face (each)	0	\$150.00	\$0.00
7. Miscellaneous Testing - Lab Technician, per hour	1	\$65.00	\$65.00
<i>Estimate two native soil sample collected and tested for moisture-density and gradation.</i>			
TASK TOTAL:		\$665.00	

TASK 200: EARTHWORK

MDT/WAQTC Certified Embankment Testing

1. Engineering Technician - In-Place Nuclear Density compaction testing compaction testing, per hour	34	\$65.00	\$2,210.00
2. Special Inspector - Field Observations and Oversight (Proof Rolls, Excavation, Method Specification Development and Reporting)	2	\$70.00	\$140.00
3. Troxler Nuclear Density Gauge usage, per day	18	\$25.00	\$450.00

Subgrade and Base Compaction Testing -

Subgrade - Estimated one nuclear density test location per 200 LF of subgrade or subbase to verify compaction requirement met per maximum dry density (ASTM D698) for roads, curbs, and sidewalk. Estimate one proof rolling event of subgrade/subgrade/subbase surface passing nuclear density testing to verify no areas of significant rutting or deflection. Estimate the following site visits:

- up to 2 hours on site for Special Inspector I to complete proof roll inspection of roadway subgrade/subbase previously passing nuclear densometer testing (as required).

Base - Estimated one nuclear density test location per 200 LF of approved base course to verify compaction requirement met per maximum dry density (ASTM D698). Estimate the following site visits:

- up to four, 1.5 hour site visits to complete nuclear densometer testing required by an Engineering Technician I.

Trench Backfill - Estimated one nuclear density test location per 200 LF of approved backfill material to verify compaction requirement met per maximum dry density (ASTM D698), per lift. Assume all testing will be completed in top 5 feet. If testing is required at depths greater than 5 feet from subgrade elevation additional visits/budget and a trench box or other OSHA approved trench access methods will need to be provided. Estimate the following site visits:

- up to fourteen, 2 hour site visits to complete nuclear densometer testing required by an Engineering Technician I. Includes time to develop field maximum density value of oversized material not able to be evaluated by ASTM D698, per method specimen requirements.

Assume sufficient material prepared by contractor to allow all compaction testing required, per project specification, to be completed in the number of site visits and hours listed above. Retesting or additional testing will be billed at respective rates listed above.

TASK TOTAL: \$2,800.00

TASK 500 : ASPHALTASTM/AASHTO accreditedWAQTC/ MDT Certified

1. Sampling and Transport (ASTM D979) - Eng. Technician, per hour	2	\$65.00	\$130.00
2. Asphalt Content by Ignition w/Sieve Analysis (ASTM D6307) - per test	2	\$110.00	\$220.00
3. Theoretical Maxmum Specific Gravity (RICE) (ASTM D2041) - per test	2	\$100.00	\$200.00
4. Marshall Specimens (3) w/ Bulk Specific Gravity (ASTM D6926, D2726) - per sample	2	\$195.00	\$390.00
5. Stability and Flow (3) (ASTM 6927), per sample	2	\$65.00	\$130.00
6. Air Voids (ASTM D3203), per sample	2	\$15.00	\$30.00
7. Core Density - Mat (ASTM D2041, D2726), per specimen	5	\$35.00	\$175.00
8. Thickness, per specimen	5	\$15.00	\$75.00
10. Voids in Mineral Aggregate (VMA), per sample	2	\$10.00	\$20.00
11. Asphalt coring - Engineering Technician (two technicians required), per hour	4	\$65.00	\$260.00
12. Coring Equipment, per day	2	\$45.00	\$90.00
13. In-Place Nuclear Density Mat Testing, per hour (Assume provided by contractor QC)	0	\$70.00	\$0.00

HMA - Marshall Design Verification and Core Analysis

Marshall Testing - Estimate a minimum of one sample collected per day's production. The sample will be tested for standard Marshall properties for comparison to project production specifications.

Core Evaluation - Assume core sampling and minimum density requirement per City of Missoula PW Manual. Assume two cores collected per day's placement up to a maximum of 400 LF of roadway per core sample.

Assume contractor's placement schedule will allow all required asphalt testing, per project specification, to be completed in the number of sampling and testing events listed above.

TASK TOTAL: \$1,720.00

TASK 800: PROJECTTetra Tech Project Management Certified

1. Project Administration - Project set up and accounting, per hour	1.5	\$65.00	\$97.50
2. Project Manager II - project coordination, meetings, scheduling, final review summary reports, and quality control, per hour	3	\$125.00	\$375.00
3. Project Assistant - draft reports, scheduling and quality assistant, per hour	16	\$70.00	\$1,120.00
4. Field Equipment - Vehicles and Data Logging per vehicle per 1/4 day use	20	\$35.00	\$700.00
5. Vehicle Mileage, per mile	0	\$0.55	\$0.00

TASK TOTAL: \$2,292.50

TOTAL ESTIMATED COST OF PROJECT \$7,477.50

PROPOSED TESTING AND INSPECTION PROJECT BUDGET**\$7,500.00**

General Comment (s): Tetra Tech will provide Construction Materials Testing Services on an on-call basis, as defined by the scope of work presented in this proposal, with personnel from our Missoula office and in accordance with the attached unit rates. Tetra Tech requests that our services be scheduled a minimum of one working day in advance and two working days prior to commencement of each scope of inspection. Lesser notifications may not always be able to be accommodated. All testing, inspection and observation service requests should be submitted to our scheduling line (406-345-3045) between 8:00 a.m. and 5:00 p.m., Monday through Friday. Messages left on the scheduling line outside of business hours during the week or on Saturday, Sunday or Holidays will be processed on the following business day. Draft reports will be submitted the week following completion of testing, or sooner at your request. The construction schedule, weather, scheduling by site personnel, construction processes, etc. often determine the actual costs of our services. Costs due to repeat inspection or testing are not included in this proposed scope of work.

Tetra Tech assumes that this proposal will be a basis for a Time-and-Materials and unit rate contract. Tetra Tech's services will not exceed the amount of **\$7,500** without written authorization of the client. It should be understood that this is not a lump sum proposal and we will invoice only for the services that have been performed in accordance with this proposal.

Given our knowledge of the site, significant experience performing CMT services on similar-sized projects in Missoula, and the CME and geotechnical groups working together in the Missoula office, we believe that Tetra Tech can reduce construction-related delays and provide the owner with timely and professional consulting services throughout the duration of the project.

If you have any questions regarding this proposal, or require additional information, please contact me at (406) 327-5230.

Sincerely,

Tetra Tech



Brian A. Crail
Geoscientist,
Construction Materials Engineering Regional Service Manager- Project Manager

Exhibit A

NORTH 1ST ST WEST, WATER SYTEM IMPROVEMENTS, CITY OF MISSOULA

Scope and Fee Letter

Prepared by:

Morrison-Maierle

Missoula Office
1055 Mount Ave
Missoula, MT 59801

April 19, 2024

City of Missoula
Attn: Andy Schultz, PE
1345 W. Broadway
Missoula, MT 59802

RE: North 1st St West Water System Improvements, City of Missoula

Dear Andy,

Thank you for the opportunity to submit this proposal. We have included our proposed scope of work and fees for the following services:

- Water main replacement engineering and design along North 1st Street West from Ryman Street to Worden Street and along Woody Street from North 2nd Street West to North 1st Street West.
- Bid Administration

PROJECT UNDERSTANDING

The City of Missoula is in the process of providing water system improvements to aging water mains. The existing water main in the project include 2-inch steel from 1914 on N. 1st Street West, 6-inch Kalmein from 1924 on North 1st Street West and 6-inch Kalmein from 1914 on Woody Street.

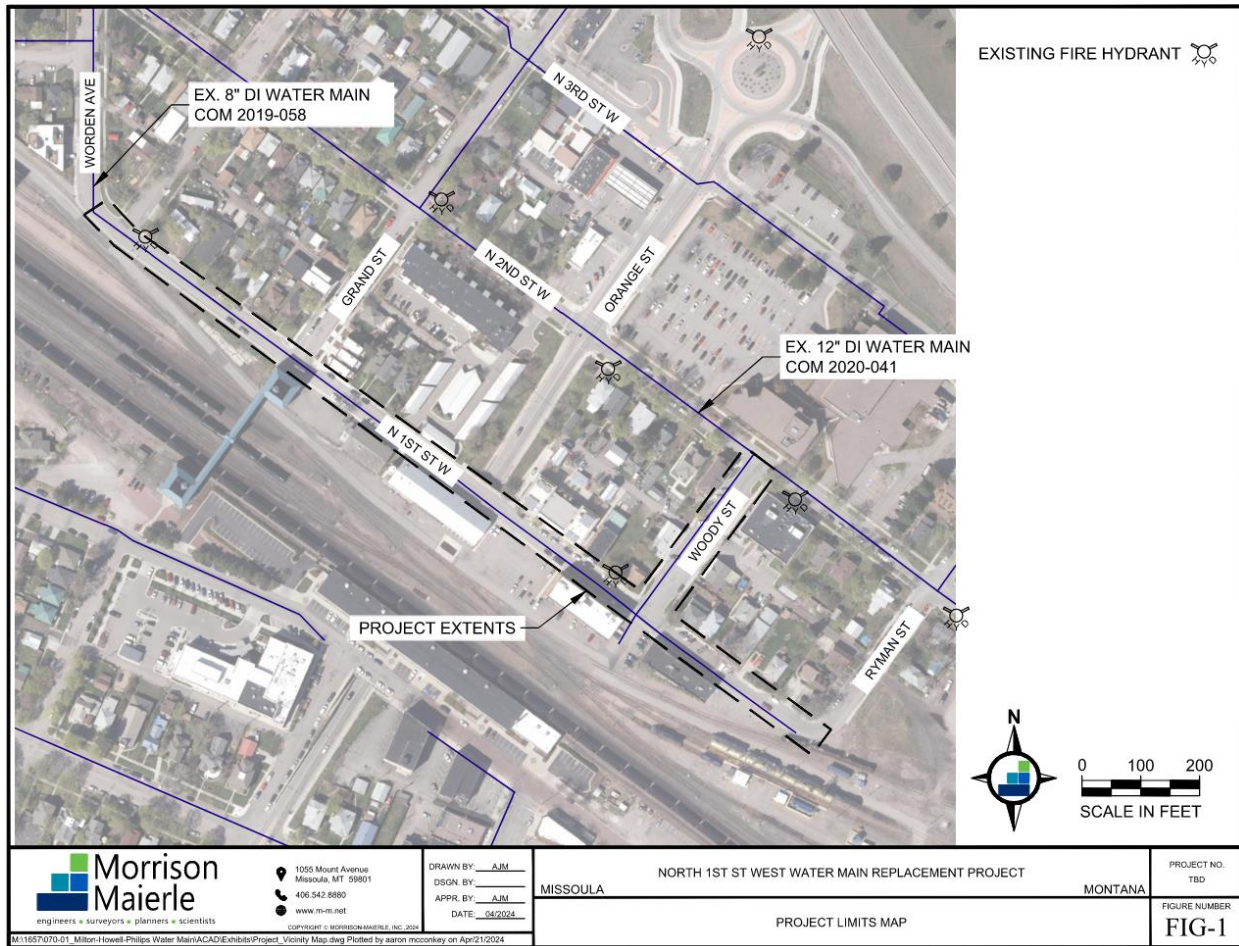
Due to the water main age, potential of additional water main breaks and undersized nature of the water system in the project limits, the City of Missoula (OWNER) is seeking engineering services for the preliminary design, final design, bid administration of water system improvements that would replace existing water main, fire hydrants and service connections within the referenced project corridor. Construction administration services are anticipated to be added to the project scope of services at a later date, then the construction schedule is finalized.

The City of Missoula is seeking Drinking Water SRF funding for improvements to its water system. The North 1st Street West Water System Improvements are part of the water pipeline replacement program.

SCOPE OF SERVICES

City of Missoula intends to replace the existing 6-inch Kalmein and 2-inch steel water mains in the project vicinity west of North 1st Street as shown below. New fire hydrants will be replaced in addition to new service lines from the main to a new curb stop located behind existing sidewalks. The ENGINEER shall perform work as outlined within this Scope of Services that includes the completion of survey, design, and bidding services for the project. ENGINEER shall

assist the OWNER in final sizing of the new water main, points of connection and location of new water main to provide adequate setbacks from existing utilities.



ENGINEER will coordinate work efforts with other related or unrelated improvement projects expected to be completed concurrently in the project area. Engineering design for the Water System Improvement Project is based on +/- 1,750 lf of new ductile 8-inch iron water main, with connections to recently constructed water mains on Worden Ave and North 2nd St West. The new 8-inch water main will not continue below or above the Orange Street underpass, terminal fire hydrants are anticipated along North 1st St West on both sides of the underpass.

Assumptions and Clarifications

- The new water main will be 8-inches in diameter. Final sizing will be determined in final design with hydraulic assistance from the OWNER.
- Connection to the existing 8-inch DI water main on Worden Ave will be as follows:
 - Wolf St: Existing 8-inch DI water main at Sta 0+25 (COM 2019-058)
- Connection to the existing 8-inch DI water main on Woody St will be as follows:
 - N. 1st St West: Existing 8 - inch DI water main at Sta 25+17 (COM 2020-041)

- New fire hydrants will be placed in accordance to City of Missoula Engineering Design Standards and reviewed by City of Missoula Fire Chief. Existing fire hydrants will be removed.
- Water service replacements will include a new service tap, corp stop, service line piping, curb stop and service line connection made behind existing sidewalk. Service line reconnections will be made at existing service line locations. Existing services located in areas of sidewalk will require sidewalk replacement to the nearest concrete curb. over 30 years old
- The design survey will be completed anticipating a trench patch back limited to road base surface restoration and sidewalk restoration for service line and fire hydrant installation. Any ADA improvements for curb ramp replacement as necessary to meet ADA and US Department of Justice requirements will be included in the project.
- Final construction documents (plans and specifications) for contractors use during bidding will consist of electronic format files (PDFs). No hard copies of the plans or specifications will be provided by Morrison-Maierle to contractors during bidding.
- Surface restoration will include landscape restoration utilizing sod to match existing asphalt concrete pavement within trench section and all necessary accessibility (ADA/PROWAG) standard updates.
 - It is anticipated that trench locations will minimum interactions with curb ramps and the need for accessibility improvements.
- Water main connection elevations and alignments will be designed based on available field investigations of valve depths and public utility locates. Pothole excavations at tie in points is not anticipated to be completed by the OWNER or the ENGINEER.
- A deviation request will likely be required for separation of water and sewer along North 1st Street West. Efforts will be made to provide construction clearances for a new water main without the need for temporary water.

Only where we are tearing out ramps or paving against the ramps

Owner Provided Information

To the extent that it is available, OWNER will provide existing, pertinent information needed for the development of the design sheets for the water main replacement. The Engineer shall download and review data as applicable to the project. The information will be available from public access and internal data sets to include, but is not limited to the following, if available:

- Electronic files of the City's GIS or AutoCAD water atlas maps showing water main, valve and fire hydrant locations.
- Records of repairs completed on water main in this area.
- Records of existing water service material.
- Records of location of existing water services.
- Construction project record drawings.
 - Construction field reports for connections from COM Project 2019-058.
- Records of any modifications made that are not part of existing project record drawings.
- Records of known complaints and/or problems.
- Pothole hydro excavation to support design of connection points – as deemed necessary during preliminary engineering.
- Utility locates of water, sewer and storm water infrastructure.
- City of Missoula Standard Drawing Details and Amendments to Montana Public Works Standard Specifications.

- Public hearings or meeting necessary to meet City of Missoula or funding agency requirements.

Tasks

Task 100 – Project Management

- The ENGINEER's project manager and technical leader will actively manage the project team, including sub-consultants. The project manager will keep in regular contact with City staff via written and verbal communications. E-mail and telephone will be utilized whenever practical. On a monthly basis, project invoices will be prepared along with a written narrative of project progress and budget tracking.
- Conduct Project Initiation Meeting. The ENGINEER will conduct a project kick-off meeting to review the project goals, obtain OWNER's staff input, exchange information and discuss overall project administration. Meeting minutes will be prepared by the ENGINEER and distributed to the attendees.
- Agency and Utility Coordination. The ENGINEER will coordinate with DEQ and any other agencies which may be affected or have comments regarding the OWNER's planning. The purpose of the coordination will be to review the OWNER's preliminary ideas regarding current and future facilities and gather comments the agencies or utilities may have. It is anticipated that utility coordination will involve the identification and potential relocation of private utilities including, but not limited to, overhead and underground power, cable TV, underground telephone and communications, petroleum oil, and natural gas. A total of two (2) meetings have been included in the budget for this task. ENGINEER will summarize all findings in a communication with Missoula Water.

Task 200 –Preliminary Design

This task consists of the following elements:

- Field Survey. The ENGINEER will gather existing utility and surface information within the project limits and extending appropriate match lines. Data collection shall include establishment of permanent horizontal and vertical control; existing water main features (valves, fire hydrants and water services) and existing property pins. We will survey at a maximum of 25-foot intervals at the Center line of roadway, flowline of gutter, and edge of sidewalks and at geometric changes. This assumes that the City will locate and mark the curb stops which are currently not all visible on the surface. Any buried underground utilities such as gas, electric, fiber optic or sewer shall be located using the Montana One-Call system and surveyed. No provisions are included for retaining services of a private locator. Measure downs will be completed at existing water valve boxes at the ends of the project extent.
 - Research will be performed to verify existing right-of-way locations utilizing platted information, ownership records and found property pins. Engineer will provide appropriate temporary traffic control measures for all data collection completed in traffic areas. Field survey data will be utilized by the ENGINEER to develop preliminary project base mapping. Completion of the task will be

finalization of an Existing Site Plan, for inclusion in the design drawings, that depicts relative locations of all features discussed above.

- It is assumed that Missoula Water personnel will assist in the location of existing water mains, sewer mains, and service lines and curb boxes. If utility conflicts are found to be of concern during preliminary design, the OWNER will provide pothole services to determine elevations critical utility crossings.

- Preliminary Plans (30% Design). The ENGINEER shall confirm appropriate utility sizing within the project limits and complete the preliminary design for the replacement of the water main. Digital 11"x17" copies of 30% plans will be provided to the City for review.
- Prepare Basis of Design Report. Following compilation of the data and other pertinent water system information, the ENGINEER will draft a brief basis of design report that will be utilized during the Montana Department of Environmental Quality Checklist submittal process in Task 300.

- Design Review Meeting. The ENGINEER will attend one (1) design review meeting to discuss the comments on the 30% preliminary plans by Missoula Water.
- Preliminary Plans and Specifications (90% Design) The ENGINEER will prepare a 90% design package that will incorporate Missoula Water's comments pertaining to the preliminary Basis of Design Report and the 30% preliminary plans. Updated water plan and profile sheets will be presented, where applicable, as well as further development of other recommended improvements. Digital copies of 90% plans and project specifications will be provided to Missoula Water for review. ENGINEER will send 60% design plans to private utilities affected by the project for review and comment and hold a subsequent coordination meeting with the private utilities to assemble and evaluate comments, if necessary. The ENGINEER will also submit the plans to the City Engineer's office per Stage 3 of the Project Development Toolbox.
- Construction Cost Estimate. The ENGINEER will prepare a project construction quantity take offs and complete an engineer's opinion of probable construction cost based on the 90% design plans and specifications and provide it to the OWNER for review.

Task 300 – Final Design

This task consists of the following elements:

- Final Plans and Specifications (100% Design). The 100% design package will incorporate comments received from Missoula Water, after the 90% design package submittal and periodic design review meetings are complete. The plan package will include design of the plan and profile utilities drawings, related traffic control measures, water main, and other recommended improvements. Final plans and specifications will be prepared in accordance with the Montana Public Works Standard Specifications, Seventh Edition and the most current edition of the Missoula Water specifications, if applicable.
- MDEQ/SRF Submittal. ENGINEER will submit three (3) copies of the project specifications, three (3) half-size plan sets, contract-bidding documents, basis of design report and certified water main checklist to Montana Department of Environmental Quality for approval. Upon approval by MDEQ, the ENGINEER will submit the plans to the City Engineer's office per Stage 4 of the Project Development Toolbox.

Can you add a task to update the PER for our 2025 water main projects?

Task 400 – Bidding Services

- Bidding. ENGINEER will prepare and supply electronic project plans and specifications and bidding documents necessary for bidding and construction. Morrison-Maierle will utilize on-line bidding through QuestCDN unless otherwise directed by the City of Missoula. Bid advertisement text will be provided to the City of Missoula for publication in the locations of their choosing. Costs for publication will be paid by the City.

ENGINEER will host a virtual pre-bid conference or attend a pre-bid conference at the OWNER's office. A pre-bid meeting agenda and minutes will be prepared and distributed to bidders.

ENGINEER will prepare any necessary addenda during the bidding process based on comments or questions received from Contractors. Engineer will attend the bid opening, analyze bids, submit a bid tabulation, and make a construction contract award recommendation to the City. ENGINEER will prepare documents for concurrence review from Montana SRF utilizing Montana DEQ/SRF program standard forms. Upon completion of the bidding phase, Morrison-Maierle will prepare digital executable contract documents for the selected Contractor.

Field construction documents will be limited to digital sets of executed construction drawings and specific ions for selected Contractor and Owner.

Task 500 – Construction Services - Reserved

Task 600 – Project Closeout – Reserved

Task 700 – Additional Services

Morrison-Maierle is available to provide additional services that may arise as part of the Work. If the City identifies additional or unknown tasks as necessary for project completion, these services would be completed on a time and materials basis with prior authorization for the City project manager. Possible work tasks that may be necessary include additional construction inspection, or other unknown conditions that may develop during bidding or construction. Additional services budget shall be set at 5% of the total design, bidding and construction administration budgets.

Deliverables

- Monthly Progress Reports and Invoices
- Basis of Design Report for MDEQ Submittal
- 30% Preliminary Design Drawings and Specifications
- 90% Preliminary Design Drawings and Specifications
 - Stage 3 Checklist Submittal
- 100% Final Design Drawings and Specifications – 1 electronic copy
 - Stage 4 Checklist Submittal
- MDEQ Certified Check List Submittal

- Recommendation for Award

Exclusions

- Water distribution system model update
- Grant/loan applications to funding agencies
- Public meetings
- Agency review fees

Schedule

The City of Missoula intends to bid this project in October of 2024, plans and specifications shall be prepared to bid in October of 2024 and shall be submitted to Montana DEQ for review no later than September 1, 2024.

Compensation

The attached table shows our estimate of fees to perform our proposed scope of services.

We look forward to providing our expertise for the project. Once we receive your approval of this proposal, we will proceed with the development of an Agreement and begin work on the project. This proposal is valid for up to 60 calendar days after the date of this letter. After 60 days, the proposed fees listed may be subject to increases based on changes in our cost of labor and expenses.

Sincerely,



Aaron McConkey, PE

Project Manager

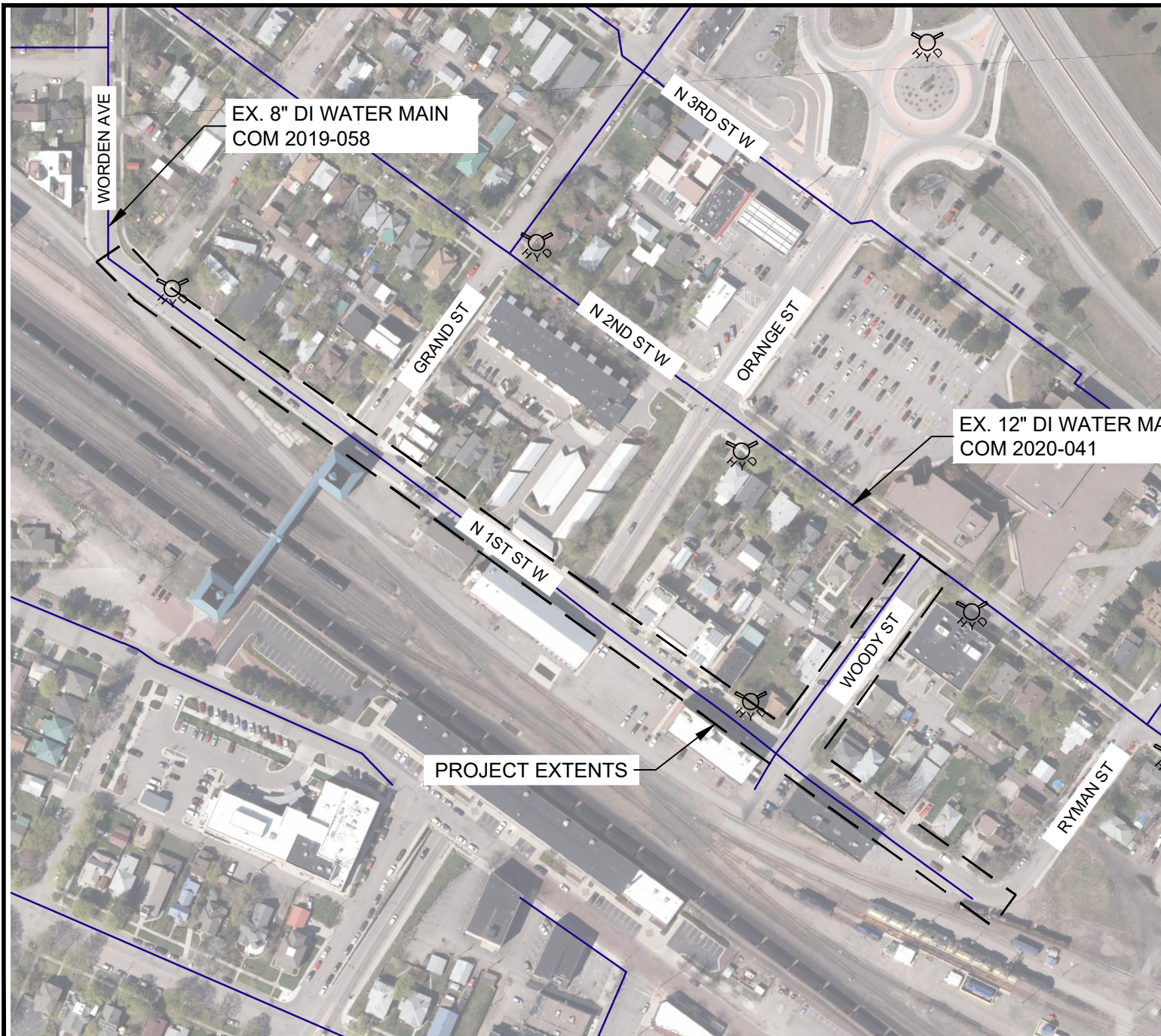
Email: amcconkey@m-m.net

Phone: 406-542-4845

MORRISON - MAIERLE, INC.
EX-B: SUMMARY OF ESTIMATED COSTS

N. 1st St West Water Systems Improvement Project
Replacement of Existing 6-inch Kalmein and 2-inch steel Water Main

	SUPER ENGINEER	SENIOR ENGINEER	DESIGN ENG II	DESIGN ENG I	ENG INTERN II	LAND SURVEYOR	SURVEY CREW	SURVEY TECH	CAD TECH	ADMIN STAFF	VEHICLE MILEAGE	SUPPLIES	SURVEY EQUIP	LABOR HOURS	TOTAL LABOR	TOTAL EXPENSE	TOTAL COST
	HR	HR	HR	HR		HR	HR	HR	HR	HR	MI	LS	DAY	HR	\$	\$	\$
Project Management														21			\$3,879
Project Management		6								4				10	\$1,760		\$1,760
Project Kickoff Meeting		2		2							10			4	\$776	\$7	\$783
Project Coordination Preliminary Design Meeting		2		2										4	\$776		\$776
Project Coordination Construction Notice		1		2										3	\$560		\$560
Existing Site Plan														83			\$14,609
Field Survey						2	24	2			10		3	28	\$6,120	\$727	\$6,847
Drone Flight							4	1					1	5	\$1,046	\$240	\$1,286
Utility/Right of Way Research				2		4		8						14	\$1,728		\$1,728
Existing Site Plan		1		1	4	6		12	12					36	\$4,748		\$4,748
Design Development														172			\$27,011
30% Plans		2		4	14				26					46	\$6,826		\$6,826
Basis of Design Report				6	2									8	\$1,316		\$1,316
Deviation Request		1			2				1					4	\$643		\$643
Design Review Meetings		2		2	2									6	\$1,060		\$1,060
60% Plans		2		4	7				32					45	\$6,690		\$6,690
60% Specifications		4		8	4									16	\$2,808		\$2,808
90% Plans		1		4	6				12					23	\$3,472		\$3,472
90% Project Manual and Specifications		1		12										13	\$2,280		\$2,280
Cost Estimate		1		2										3	\$560		\$560
Stage 3 Checklist					4									4	\$568		\$568
QA Review			4											4	\$788		\$788
Final Design														31			\$4,958
100% Plans		2		2	3				6					13	\$2,060		\$2,060
100% Project Manual		1		4						2				7	\$1,136		\$1,136
MDEQ Submittal				2	2									4	\$628		\$628
Stage 4 Checklist				1	4									5	\$740		\$740
QA Review			2											2	\$394		\$394
Bidding														35			\$5,842
Bid Posting/Gen Admin		1		10	2					4	8			17	\$2,684	\$6	\$2,690
Pre-Bid Meeting		2		4	2									8	\$1,404		\$1,404
Bid Opening		1		2										3	\$560		\$560
Bid Award		1		4	2									7	\$1,188		\$1,188
Additional Services As Approved by Owner																	\$2,815
5% Additional Service																	\$2,814.99
TOTAL		34		6	80	60	12	28	23	89	10	28	4.0	684	\$55,319	\$981	\$59,115



EXISTING FIRE HYDRANT 



0 100 200
SCALE IN FEET



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Missoula, MT 59801
406.542.8880
www.m-m.net

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DRAWN BY: AJM
DSGN. BY: _____
APPR. BY: AJM
DATE: 04/2024

MISSOULA NORTH 1ST ST WEST WATER MAIN REPLACEMENT PROJECT MONTANA

PROJECT NO.
TBD

PROJECT LIMITS MAP

FIGURE NUMBER
FIG-1