



Consulting Scope of Services & Cost Estimate

| PROJECT NAME: | | | Missoula Water - 3rd Street Water Main Replacement (TLI #18-5173) | \$70 | \$90 | \$94 | \$102 | \$132 | \$144 | \$144 | \$110 | \$170 | DATE: | September 17, 2019 | | |
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| Budget Amendment #1 - Construction Services | | | | Admin | CAD | Technician | Production | Project Manager | Senior Staff | | Survey Crew | | Consulting Cost Estimate | | | |
| Item No. | Description | Scope | | Lead Drafter | EI/Other | PE/EI | PE | PE | PLS | 1 Man | 2 Man | TLI Services | Direct Expenses | Agency Review Fees | | |
| 800 Series - Construction Administration, Inspections, and Staking | | | | Admin | CAD | Technician | Production | Project Manager | Senior Staff | | Survey Crew | | TLI Services | Direct Expenses | Agency Review Fees | |
| 800 | Project Management | Time included for project meetings and project coordination. | | | | | 12 | | | | | | \$ 1,584.00 | | | |
| 801 | Contract Documents and Specifications | TLI will prepare a Project Manual with Contract Documents and Specifications. The contract documents will be appropriately formatted for the project funding source and will integrate the City of Missoula Project Special Conditions and applicable contract forms. The Contract Documents will include the following sections: Invitation to Bid, Instructions to Bidders, Acknowledgment of Receipt of Addendum, Bid Form and Unit Price Schedule, Bid Bond, Notice of Award, Agreement, Payment and Performance Bonds, Notice to Proceed, Change Order Form, Application for Payment Form, Certificate of Completion Form, General Conditions, Supplementary Conditions, Wage Rates, EEO Requirement Provisions, City of Missoula Special Provisions, and TLI Special Provisions. The contract documents will also include the Final Construction Drawings. Assumes no Federal Funds will be used. Assumes 3rd Street replacement will be bid as its own separate project. | | | 16 | 8 | 2 | | | | | | \$ 2,584.00 | | | |
| 803 | Quantity Estimates | Based on Construction Drawings TLI will finalize quantities of Site work items for an Engineers Cost Estimate. | | | | 8 | 1 | | | | | | \$ 948.00 | | | |
| 805 | Engineer's Cost Estimate | Prepare an engineer's estimate based on the bid item schedule (quantities) in the contract documents. Unit costs will be derived from other recent construction projects and any preliminary unit costs the Client may have obtained. | | | | 8 | 2 | | | | | | \$ 1,080.00 | | | |
| 811 | Bidding Assistance | Coordinate bid solicitation through City of Missoula process. Assumes Missoula Water will pay the bid advertising cost in the Missoulian. Answer bidder's questions. Assist with bid opening, review of bids for compliance with specifications, prepare bid tabulation for review, and provide recommendation to Client for award. Upon approval for award, TLI will issue the Notice of Award. Assumes one addendum will be issued. Assumes addendums will primarily focus on clarifications to bidders, with only minor revisions to plans via exhibits. | | | | 16 | 8 | | | | | | \$ 2,688.00 | | | |
| 813 | Pre-Construction Public Meeting | TLI will attend a public meeting prior to construction to help present the project to the general public. Assumes Missoula Water will set the date/time/place of the meeting and one TLI staff member will be present. Assumes minimal time to assist with a power point presentation on the project if needed. | | | | | 2 | | | | | | \$ 264.00 | | | |
| 815 | Contract Administration | TLI will review Contractor submittals, and coordinate and attend a pre-con meeting with the involved parties and selected Contractor to discuss construction and responsibilities of Client, Contractor, and Engineer. TLI will issue Notice to Proceed, review payment applications and process change orders. Assumes no more than one change order will be processed. | | | | 40 | 10 | | | | | | \$ 5,400.00 | | | |
| 867 | Water Main & Services Computations & Crew Prep | CAD Draftsman will produce calculated design points in accordance with the approved plans for the Water Main alignment including: beginning and end of pipe, connections, horizontal and vertical bends, valves, tees, blow offs, air reliefs, hydrants, and the locations of the water service connection at the main. Draftsman will then compile a list of design points and prepare a survey point's exhibit. Time included for an Engineer to check the calculated points, prepare cut sheets and provide Survey Crew instructions. Once stakes are placed, the Engineer will review Survey Crew field notes and "as-staked" data for accuracy and, if necessary, complete cut sheet for distribution to Contractor. Cut sheets will provide offset and cut/fill information for stakes. | | | | | 4 | | | | | | \$ 528.00 | | | |
| 869 | Water Main & Services Construction Staking | Survey crew will provide stakes for the water main alignment and appurtenances per the approved design plans. Assumes stakes will be needed at 25 foot intervals along station, and at beginning and end of pipe, connections, horizontal or vertical bend, valves, tees, blow offs, air reliefs, hydrants, and the location of the water service connections at the main. Stakes will be provided at offsets and assumes that work can be completed in one visit. Crew will collect "as-staked" information for verification of stake accuracy. Assumes two blocks will be staked at a time, so assumes 2 trips total. | | | | | 4 | | 1 | | 16 | | \$ 3,392.00 | \$ 250.00 | | |

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| 871 | Construction Inspection and Material Testing | TLI will provide construction oversight in order to ensure Contractor is completing project in substantial compliance with the Plans and Specifications. TLI will sub consult with a local geotechnical engineering and material testing firm to complete Client's Quality Assurance testing. Sub consulting fees will be billed under the TLI contract as a reimbursable expense. Assumes proctors, trench backfill, and base course testing will be included on the trench patch back. Assumes no asphalt testing. Inspections will be documented and included in final close-out documents for project. Assumes no more than 10 weeks from start to finish for the main replacement and service connections including testing. Inspections budgeted at two visits per day during the 10 week construction period. Reimbursable expense included for bacteria testing. | | | 200 | 40 | 20 | | | | | \$ 25,520.00 | \$ 8,500.00 | |
| 875 | Certificate of Substantial Completion and Final Walkthrough | TLI will process Substantial Completion form at request of Contractor. TLI will then coordinate a preliminary final walkthrough with Client to establish date of substantial completion. Upon completion of any punch list items a final walkthrough with Client and Contractor will be completed for project acceptance. | | | 6 | | 2 | | | | | \$ 828.00 | | |
| Series 800 Total | | | 0 | 0 | 222 | 120 | 67 | 0 | 1 | 0 | 16 | \$ 44,816.00 | \$ 8,750.00 | \$ - |
| 900 Series - Final Project Documentation | | | | | | | | | | | | | | |
| | | | Admin | CAD | Technician | Production | Project Manager | Senior Staff | | Survey Crew | | TLI Services | Direct Expenses | Agency Review Fees |
| 911 | Construction As-Built - Water | TLI will utilize field notes and photos to prepare as-built plans for certification of the water main replacement. | | 4 | 16 | 4 | 4 | | | | | \$ 2,800.00 | | |
| 914 | Construction Certifications - Water | TLI will assemble the construction plans, photos, testing results, submittals and a short summary report with the construction as-built plans for submittal to DEQ for certification of the project. Copy expenses included as a reimbursable expense. | 1 | | 20 | 4 | 3 | | | | | \$ 2,754.00 | | |
| Series 900 Total | | | 1 | 4 | 36 | 8 | 7 | 0 | 0 | 0 | 0 | \$ 5,554.00 | \$ - | \$ - |

| Project Summary | Admin | | Technician | Production | Project Manager | Senior Staff | | Survey Crew | | TLI Services | Direct Expenses | Agency Review Fees |
|----------------------------------------------------------------------|-------|--------------|------------|------------|-----------------|--------------|-----|-------------|---------------|--------------|-----------------|--------------------|
| Item No. - Description | | Lead Drafter | El/Other | PE/El | PE | PE | PLS | GPS | Total Station | | | |
| 800 Series - Construction Administration, Inspections, and Staking | 0 | 0 | 222 | 120 | 67 | 0 | 1 | 0 | 16 | \$ 44,816.00 | \$ 8,750.00 | \$ - |
| 900 Series - Final Project Documentation | 1 | 4 | 36 | 8 | 7 | 0 | 0 | 0 | 0 | \$ 5,554.00 | \$ - | \$ - |
| 1000 Series - 5% Additional Services - TBD By City's Project Manager | | | | | | | | | | \$ 2,950.00 | | |
| Total Consulting and Reimbursable to Obtain Approvals | 1 | 4 | 258 | 128 | 74 | 0 | 1 | 0 | 16 | \$ 53,320.00 | \$ 8,750.00 | \$ - |
| Total Estimate including Reimbursable | | | | | | | | | | \$62,070.00 | | |